NWB Annual Report **Year being reported:** Select

License No: 2BE-MLL1217 **Issued Date:** March 27, 2012
Expiry Date: March 26, 2017

Project Name: Wishbone-Malley Project

Licensee: SABINA GOLD AND SILVER CORP

Mailing Address: #375 - 555 Burrard Street, Box 220, Vancouver, BC, V7X 1M7

Name of Company filing Annual Report (if different from Name of Licensee please clarify relationship between the two entities, if applicable):

SABINA GOLD AND SILVER CORP

General Background Information on the Project (*optional):

Located approximately 50 km west of Sabina's Back River Project.

Licence Requirements: the licensee must provide the following information in accodance with

Part B Item 2

A summary report of water use and waste disposal activities, including, but not limited to: methods of obtaining water; sewage and greywater management; drill waste management; solid and hazardous waste management.

Water Source(s): N/A

Water Quantity:

70	Quantity Allowable Domestic (cu.m)
	Actual Quantity Used Domestic (cu.m)
130	Quantity Allowable Drilling (cu.m)
	Total Quantity Used Drilling (cu.m)

Waste Management and/or Disposal

- ☐ Solid Waste Disposal
- ☐ Sewage
- ☐ Drill Waste
- ☐ Greywater
- ☐ Hazardous
- ☐ Other:

Additional Details:

Wishbone-Malley was not operational in 2016. No water use or waste disposal occured.

A list of unauthorized discharges and a summary of follow-up actions taken.

Spill No.: (as reported to the Spill Hot-line)
Date of Spill:
Date of Notification to an Inspector:
Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

N/A

Revisions to the Spill Contingency Plan

SCP addendum attached for Board consideration

Additional Details:

Attachment 1

Revisions to the Abandonment and Restoration Plan

AR addendum attached for Board consideration

Additional Details:

Attachment 2

Progressive Reclamation Work Undertaken

Additional Details (i.e., work completed and future works proposed)

Progressive reclamation were not undertaken.

Results of the Monitoring Program including:

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where sources of water are utilized;

Not Applicable (N/A)

Additional Details:

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of each location where wastes associated with the licence are deposited;

Not Applicable (N/A)

Additional Details:

Results of any additional sampling and/or analysis that was requested by an Inspector

No additional sampling requested by an Inspector or the Board

Additional Details: (date of request, analysis of results, data attached, etc)

Any other details on water use or waste disposal requested by the Board by November 1 of the year being reported.

No additional sampling requested by an Inspector or the Board

Additional Details: (Attached or provided below)

Any responses or follow-up actions on inspection/compliance reports

Inspection and Compliance Report received by the Licensee (Date):

Additional Details: (Dates of Report, Follow-up by the Licensee)

INAC Land Use Inspector inspected Wishbone-Malley on August 9-10, 2016. A bag of white powder was found which Sabina plans to clean up and remove in 2017.

Any additional comments or information for the Board to consider

Date Submitted:	March 22, 2017	
Submitted/Prepared by:	Merle Keefe	
Contact Information:	**Tel:**	
	Fax:	
	email:	mkeefe@sabinagoldsilver.com

Attachment 1:

Comprehensive Spill Contingency Plan

Comprehensive Spill Contingency Plan

January, 2017

Table of Contents

1. INTRODUCTION AND BACKGROUND

1.1. Background

Sabina Gold & Silver Corp. (Sabina) is actively exploring the Back River property mineral rights Including the Goose Property (and primary exploration camp at Goose Lake), as well as George Property (and a satellite exploration camp at George Lake), and unoccupied claim groups referred to as Boot Property, Boulder Property, Wishbone Property, Malley/Needle Property and Del Property (Figure 1).

1.2. Purpose

This spill emergency plan has been implemented to ensure that Sabina respects all applicable laws, regulations and requirements from federal and territorial authorities. Sabina has obtained and complies with all required permits, approvals and authorizations required for the operations. The following regulations and documents constitute an integral part of the Plan:

- The Canadian Environmental Protection Act controls hazardous substances from their production and/or import, their consumption, storage and/or disposal.
- The federal Fisheries Act protects fish and their habitat from pollution and disturbances. Fisheries and Oceans Canada reviews permit applications and restoration plans submitted by other agencies.
- The federal Transportation of Dangerous Goods Act and Regulations ensure the protection of public health and safety, and the environment during the handling and transport of dangerous goods. The Regulations apply to all modes of transportation, by road, by sea, and by air.
- The federal Territorial Land Use Regulations define regulatory measures to maintain appropriate environmental practices for any land use activities on territorial lands that are under the control, management and administration of the Crown. These regulations require that land use permits be issued for operations such as mineral exploration and mining.
- The Guidelines for Preparation of Hazardous Material Spill Contingency Plans describe parameters that should be considered in the development of hazardous material spill emergency plans. It also defines the information that should be incorporated into a comprehensive contingency plan.
- The CCME Code of Practice for Used Oil Management defines appropriate environmental options for handling, storage, collection, recycling, transport, reuse and/or disposal of used oils in Canada. It helps regulatory authorities formulate provincial and/or regional strategies for used oil management.
- The Nunavut Environmental Protection Act governs the protection of the environment from contaminants. The act defines offences and penalties as well as the powers of government inspectors.
- The Nunavut Spill Contingency Planning and Reporting Regulations describe requirements for spill reporting and emergency planning.

- The Field Guide for Oil Spill Response in Arctic Waters developed for the Emergency Prevention, Preparedness and Response Working Group, describes precise response methods and strategies for emergency response operations and provides technical support documentation.
- The Land Transportation Emergency Response Guideline for Petroleum Spills developed by the Canadian Petroleum Products Institute outlines scope, emergency response code of practice, response time guidelines, response equipment and personnel capability requirements.
- The Canada Shipping Act (CSA), as amended by Chapter 36, stipulates that operators of designated Oil Handling Facilities must have an on-site Oil Pollution Emergency Plan.
- The Canada Shipping Act Response Organizations and Oil Handling Facilities Regulations (sor/95-405) apply.

This document is a review and analysis of the preparedness for events which may occur due to unforeseen circumstances. The plan details response actions to be taken in the event of unintentional materials release during the ongoing exploration program and associated support such as camps and overland transport. The plan is dynamic and will be updated at least annually to address any significant changes in operating plans, should they occur.

A copy of the plan will be available at the exploration camps and headquarter offices.

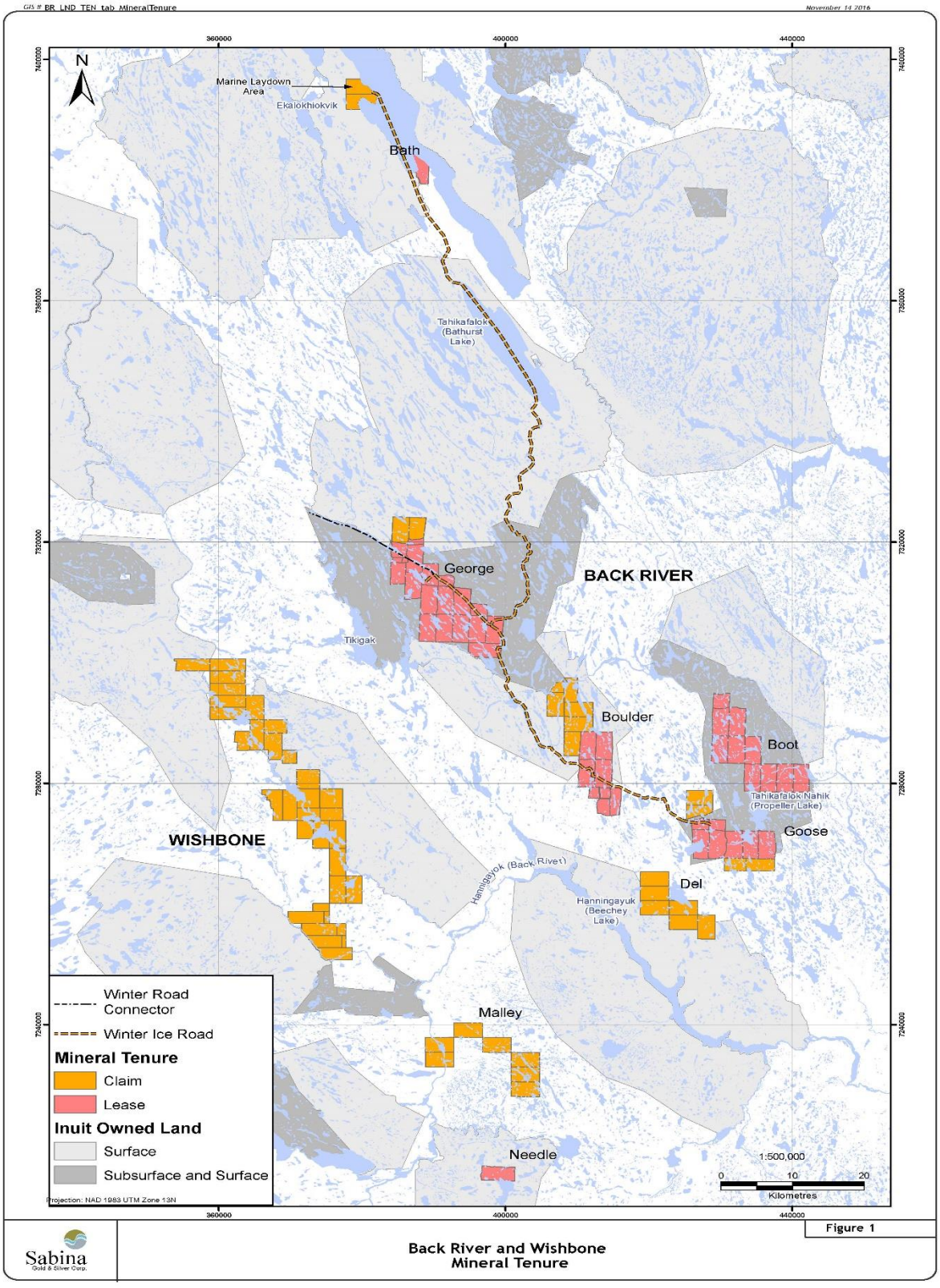


Figure 1. Location Map of Sabina Exploration Properties within western Nunavut.

1.3. Sabina Social and Environmental Policy

Sabina Gold and Silver Corp. is committed to environmentally responsible and socially acceptable exploration and mining practices. We are dedicated to creating and maintaining a safe environment for both the land we occupy and the people that drive its success. The company's philosophy is to conduct its operations to protect not only the environment, but the health and safety of its employees and the public as well.

Sabina also subscribes to the principles of sustainable development in mining. While exploration and mining cannot occur without an impact on the surrounding natural environment and communities, our responsibility is to limit negative environmental and social impacts and to enhance positive impacts.

To achieve these goals, Sabina is committed to:

- Seeking to be environmental leaders in the mining community by integrating responsible environmental management as an essential component of all business decisions;
- Comply with all applicable laws, regulations and standards; uphold the spirit of the law and where laws do not adequately protect the environment, apply standards that minimize any adverse environmental impacts resulting from its operations;
- Communicate openly with employees, the regulatory community and the public on environmental issues and address concerns pertaining to potential hazards and impacts;
- Assess the potential affects of operations and integrate protective measures into the planning process to prevent or reduce impacts to the environment and on public health and safety;
- Take appropriate corrective actions should unexpected environmental impacts occur. This will also include taking appropriate action to prevent reoccurrence of these impacts.
- Provide adequate resources, personnel and training so that all employees are aware of and able to support implementation of the environmental and social policy;
- Conduct and support research and programs that improve understanding of the local environment, conserve resources, minimize waste, improve processes, and protect the environment.
- Working with the appropriate local regulators and agencies, maximize benefits to the affected communities and residents;
- Balance all decisions with best management practices, scientific principles and traditional knowledge.

1.4. Sabina Policy on Initiation for Cleanup Activities

Sabina initiates clean up activity when, in the opinion of management, Sabina is clearly associated, or likely associated with the spilled product. The guiding principles of Sabina’s Comprehensive Spill Contingency Plan is to comply or exceed existing regulations to ensure protection of the environment, and to keep employees, government officials and the public aware of our plans.

1.5. Risk Management

The likelihood of a significant spill event occurring at Back River at either the Goose or George tank farms is very low, due to the double-walled tanks contained in the lined, bermed area, and the prescribed procedures for fuel transfer and anti-siphon devices in the tanks.

The greatest likelihood of an incident is associated with drummed fuel including the rupture of drums during movement or leaks during storage. The first risk can be mitigated through proper operator training of equipment operation, clear marking and segregation of fuel supplies and heightened operator awareness when working near fuel supplies. The second risk is mitigated with secondary containment and frequent inspection of the drums (carried out during regular yard duties). Additional hazards are present during refueling operations (mitigated with drip trays and absorbent mat), and during local drum movement (e.g. from storage to helipads), which is mitigated by using experienced operators, carefully securing the drums to the loader during movement, and safe driving practices.

As salt is delivered in pelletized form, any spill is easily cleaned up. Regular inspection of this storage area will allow for rapid detection of any spill.

Explosives will be delivered in designated compartments approved for transport of explosives and stored within the original packaging in the magazines. Strict housekeeping and tracking standards will be kept. Any spill of explosive material would be easily cleaned up and regular inspection will allow for rapid detection of any spill.

Frequent inspections of the greywater line will turn up any leaks in the system which can be quickly repaired. Any issues would likely be noticed by most people in camp as either moisture and/or an odour would be present.

The likelihood of drill additives entering a water body is extremely small. With the exception of on-ice drilling, drills are located at least 31 m above the high water mark of lakes, ponds and streams, with vegetation and overburden material providing an effective mechanical barrier to the transport of materials to the water body. As an added mitigation measure, geo-textile cloth fences are constructed on the downhill side of all new drill setups. For on-ice drilling, excess return water is pumped to a point on shore more than 31 m from the estimated high water mark (difficult to determine conclusively due to snow cover). Snow and lake ice also create an effective barrier and containment mechanism for spills of material at the drill site, allowing for easy cleanup. Drill sites are inspected for cleanliness upon completion of the hole.

Despite the mitigation measures taken, should any incident arise as a result of human error or unforeseen circumstances, the operating procedures outlined in this document will be implemented.

1.6. Existing Facilities

The Sabina mineral exploration camps are located in the Kitikmeot Region approximately 525 kilometers northeast of Yellowknife, NWT and 400 kilometers south of Cambridge Bay, NU.

1.6.1. Goose Camp

The Goose camp is the primary camp for the Back River Project and is located on the slope of the western shore of Goose Lake (Figure 2). It has the capacity to support up to 120 people (as of June 2012) and is accessible by air only using Goose Lake (ice and open water), a gravel airstrip north of Goose Lake and an all-weather airstrip and road west of the camp. The lakeshore is approximately 50 m toward the north and the regional topographical gradient surrounding the camp ranges from 2% to 6% towards the north. The camp is approximately 300 m in length from east to west and 100 m wide from north to south, covering an area of 30,000 m^2. The camp facilities are located on natural tundra underlain by a 10 cm organic layer overlying silt-sand parent material.

- Latitude: 65º 32'N, Longitude: 106º 25'W
- UTM Coordinates 569405 E, 7265007N on NTS Map Sheet 76G/09

Figure 2. Aerial image of Goose camp looking west. Photograph taken August 2013.

1.6.2. Temporary Camps for Resupply and Exploration

Temporary camps for up to 20 people are established for a season in target areas located 20 km or more from the main camps and would be established for safety, environmental and economic reasons. The intent is not to establish a network of camps across the exploration area, but to have the opportunity and flexibility to establish these temporary camps as needed. Possible locations are included in Figure 4. No sewage system will be installed in the camp as no water is needed for Pacto toilets. All solid waste will be carried to the existing camps (Goose and/or George) and disposed as outlined in the approved waste management plan.

Greywater generated in the kitchen, showers and laundry facilities is collected in 500 litres, plastic holding tanks. All cleaning agents are biodegradable and phosphate free. On an as-needed basis the grey-water would be pumped to a suitable disposal sump located well back from the local waterways and would be allowed to naturally percolate into the underlying ground.

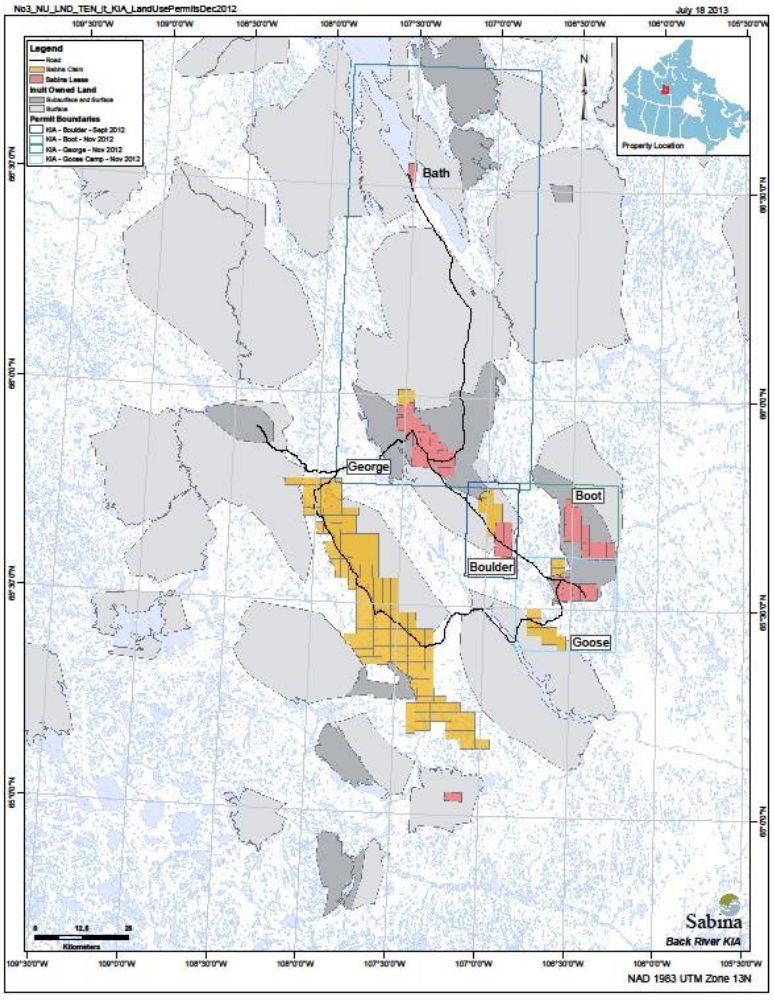


Figure 3. Location of exploration camps, temporary camps and winter corridors

1.6.3. Overland Corridors

A winter road links the two camps (Goose and George) and extends to Bathurst Inlet. Temporary camp facilities and fuel and chemical storage areas may also be accessed as needed to support exploration activities.

Overland transportation occurs during mid-February to mid-May depending on environmental conditions and operational requirements. Environmental conditions that will determine the route include:

- Ice thickness of a sufficient thickness to support heavy equipment so that pumping and using water to build up will be unnecessary.
- Snow thickness will be a minimum of 15 cm on land to prevent damage to soil and vegetation.
- Weather conditions permit safe transport of equipment and materials.

Diesel fuels and lubricants will be used during the construction and operation of the winter road. Other fuel and materials to be transported along the corridor include diesel fuel, aviation gas, drilling additives such as calcium chloride and construction materials.

Storage of these products and wastes will be in compliance with legislation and the National Fire Code that ensures the hazardous materials are stored safely, in a dry manner with clear labeling and secondary containment. All storage areas will be clearly identified with proper labeling and signage. All storage areas will be regularly inspected and stored at least 100m from the high water mark of any water body within secondary containment.

MSDS information for the potential contaminants and products to be transported along the winter road are available on-site.

2. MATERIALS TRANSPORT AND STORAGE

2.1. Fuel Storage

Diesel fuel is required to generate power on-site, heat buildings and to fuel mobile equipment. The diesel fuel storage at the camps consists of 205L drums as well as double walled tanks (up to 75,000L ULC-approved) and bladders (up to 50,000L) situated within a lined secondary berm. Secondary containment (Instaberms) is used for all of the drummed fuel on site.

Supplies will be replenished with quantities dependent on the scope of the program. Inventories of fuel at each site are dynamic and dependent on exploration activities and personnel in camp.

Drummed fuel is required to support drilling and helicopter activities outside of camp and strategically relocated as required. All drums are located at least 30 metres above the high water mark of any water body to a maximum volume of 10,000 L (approximately 50 drums) in each cache. Specialized oils and greases used by the drilling contractors are stored in sheds or sea-cans designated for that purpose. Propane tanks are stored on pallets, strapped together and area marked with pylons.

2.2. Domestic Greywater, Sewage and Contact Water

Greywater from the kitchen and shower facilities is screened for coarse particles (e.g. food), and released to a sump for settling, after which it is released to the environment. Sewage is dealt with using a Pacto toilet system with incineration of the waste generated.

Contact water is water that collects within the fuel secondary containment berms. This water is transferred out of each containment once the depth of water is equal, or greater, than 10cm and treated using oil/water separator. Post treatment, the contact water is contained within a dedicated berm/tank system and tested for compliance with current water license thresholds. If in compliance with current thresholds of the water license it is released to the environment.

2.3. Solid Waste

Combustible solid wastes generated from the camp activities are incinerated. Products such as putrescible domestic and office waste are burned. Noncombustible wastes such as scrap metal, non-reusable barrels, incinerator ash, etc., are placed in megabags and are removed from site using back-haul flights to Yellowknife. Hazardous solid waste for backhaul is sealed in drums for transport to Yellowknife.

Although the potential for waste rock (including drill core) currently stored to be acid producing is unlikely, any such waste would be disposed of in an approved location and under acceptable practices.

Drill cuttings are collected and returned from the drill location to Goose camp for disposal in the trench. Sludge from the core saws is also collected and disposed in the exploration trench south of camp.

2.4. Chemicals

Sabina is committed to the safe and proper handling of waste materials to ensure minimal environmental impact and land disturbance. Waste chemicals that require special attention and handling include waste oil, hydraulic oil, lubricating oil, calcium chloride, grease, and ethylene glycol.

Waste oil is used to either, heat the warehouse, maintenance and core logging facilities, or to fuel the incinerator at Goose camp. If not used to fuel heaters or incinerator, waste oil and oil from filters are backhauled for appropriate disposal. Drained spent oil filters will be stored in drums for removal from the site for disposal at an authorized disposal facility.

There are minimal quantities of reagents such as dilute HCl (<5L), concentrated HNO_3 (vials of <10mL), and other materials on site for geological testing and environmental sample preservation.

Calcium chloride is added to the fresh water to form a brine solution that acts as antifreeze when drilling in permafrost conditions. The drilling return water is reheated and reused using a mega-bag system which catches the drill cuttings as well. Salt is stored in bags, with 28 sealed in a megabag and placed on a pallet.

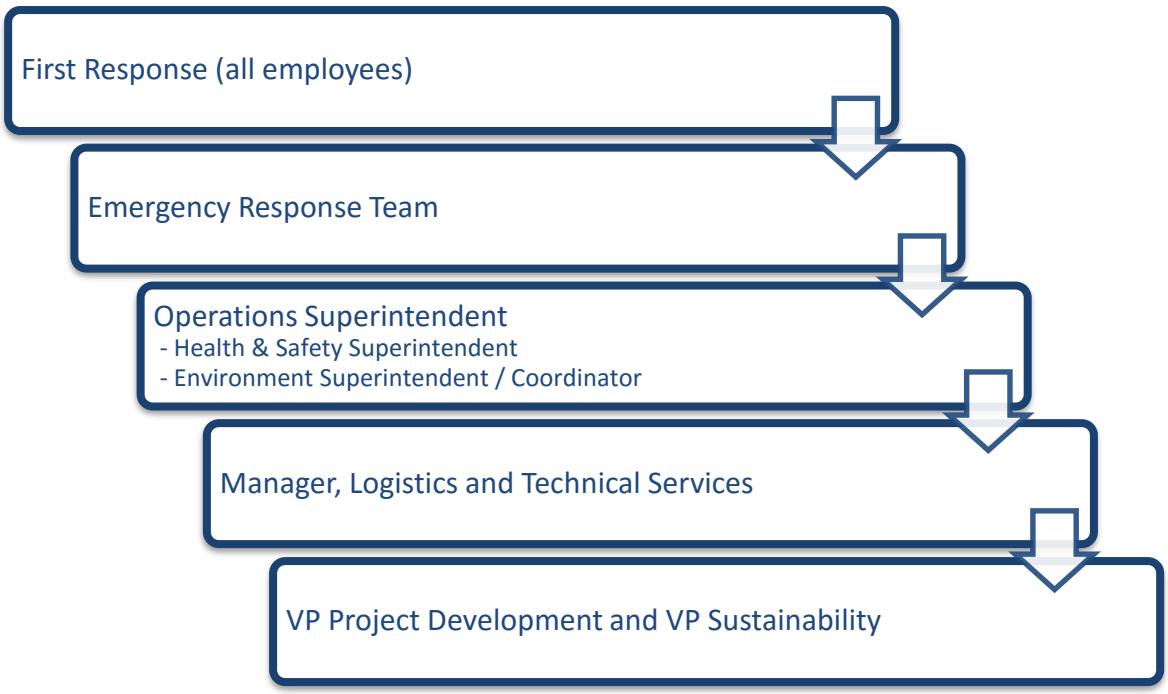
Explosive products, when/if on-site, will be stored in appropriate facilities at designated explosives storage site(s).

Fire extinguishers and dust suppression is also used on site as needed and is stored in appropriate facilities. Small quantities of various household chemicals are on site for domestic use.

Material Safety Data Sheets (MSDS) will be collected and kept at the site for all chemicals and fuel products. Appropriate storage and handling of these products will be undertaken.

3. ROLES AND RESPONSIBILITIES

The general response and notification chart is presented in the following:



3.1. All Employees (First Responders)

- Immediately warn other personnel working near the spill area.
- Evacuate the area if the health and safety of personnel is threatened.
- Notify direct supervisor or site superintendent, who will initiate the spill response operations.
- In the absence of danger, take any safe and reasonable measure to stop, contain and identify the nature of the spill.
- Participate in spill response as directed by the Site Superintendent.

3.2. Emergency Response Team (Spill Cleanup Crew)

- Members determined by Operations Superintendent based on response needs.
- Conduct cleanup of significant spills under direction of Site Superintendent.

3.3. Operations Superintendent

- Assemble and manage the Emergency Response Team, as required.

- Ensures cleanup is completed to Sabina standards in line with direction from the Manager, Logistics and TS, Health & Safety Superintendent, Environmental Superintendent and Environmental Coordinator.
- Notify Manager, Logistics and TS, Health & Safety Superintendent, and Environmental Superintendent/Coordinator of incident.
- Provides update within Sabina in camp and headquarters.
- Record date, location (GPS), material spilled, volume, reason for release, any negative impact, status of cleanup, and corrective actions taken.
- Keep and maintain database of all reportable and non-reportable spills as identified in the Plan.
- Conducts ongoing monitoring of cleanup operations leading to close-out.
- Notify HQ staff including VP Project Development and VP Sustainability for any reportable spills as identified in this Plan
- Classify spill level as minor, moderate or major and ensure appropriate response initiated
- Assists in developing effective spill management and prevention practices.
- As directed by the VP Project Development and Manager, Logistics and TS report spill to 24-hour Spill Reporting Line.
- Liaise with NWT/NU applicable agencies regarding on-going cleanup activities.
- Co-ordinate inspections and spill closure by applicable agencies.
- Assist in spill response training and exercises.

3.4. Manager Logistics and Technical Services

- Provides advice and ensures cleanup is completed to Sabina standards in line with direction from the Operations Superintendent and VP Sustainability.
- Ensures Emergency Response Team is adequately trained in spill response.
- Ensures Emergency response and/or monitoring equipment and supplies are regularly inspected and maintained
- Organize with Operations Superintendent spill response training and exercises.
- Lead investigation and identify measure and/or training to prevent similar spills.

3.5. Environmental Superintendent and Coordinator

- Provides advice and ensures spill is documented appropriately as per this plan and regulatory requirements.
- Record date, location (GPS), material spilled, volume, reason for release, any negative impact, status of cleanup, and corrective actions taken; confirm these details with Operations Superintendent.
- Obtain photographs of spill site before clean up starts if possible and after the cleanup has been completed. Take pictures of undisturbed area beside the spill area for a comparison. If spill occurs on snow, stake or otherwise identify the affected area so that it can be evaluated once the snow melts.
- As directed by the VP Sustainability and Site Superintendent liaise with NWT/NU applicable agencies regarding on-going cleanup activities, inspections and incident closure

- Assist in initial and ongoing response efforts.
- Provide advice to assist with cleanup.
- Co-ordinate inspections and spill closure by applicable agencies.
- Assist with investigation and identify measure and/or training to prevent similar spills.

3.6. Health & Safety Superintendent

- Assist in initial and ongoing response efforts.
- Provide advice to assist with cleanup.
- Assist with investigation and identify measure and/or training to prevent similar spills.

3.7. VP Project Development and VP Sustainability

- Engage Legal Counsel and Sabina Senior Management and Board of Directors as required.
- Notify and update Senior Management and Board members as required.

4. TRAINING AND TESTING

4.1. Training

4.1.1 Site Orientation

On site orientation will be provided to all onsite personnel to ensure employees are aware of:

- What First Responders are to do in case of a Spill.
- The location of MSDS sheets and Spill Report Forms.
- The location of the Spill Response Kits.
- The general locations of fire extinguishers and firefighting equipment.
- The location of the Spill Action Plan and the Fire Action Plan.

4.1.2. Role Specific

Specific on-site training will be provided to all employees, whose job function may have a higher probability of experiencing a spill, to ensure they are aware of:

- WHMIS and Transportation of Dangerous Goods.
- Identify and avoid the conditions which may lead to a spill.
- Develop an understanding of the potential environmental impacts of a spill.
- Develop and understanding of the financial costs of a spill.
- Recognize the hazards associated with sources of ignition (smoking, electrical sparks) near a fuel source.
- Spill kit contents and use of them.
- Turn off valves to stop the flow of fuel.

For employees involved in fuel handling, additional training would be provided regarding appropriate refueling techniques and drum handling procedures.

4.1.3. Emergency Response Team

Members of the Emergency Response Team will be provided a higher level of training to allow for safe and adequate response. This includes:

- All information given as part of the Role Specific Training.
- Fire extinguishers and water pump locations and use.
- Details of the Spill Action Plan and the Fire Action Plan.
- Identify, evaluate and mitigate the hazards posed by any spilled product by using appropriate PPE (personal protective equipment).

4.2. Testing

A spills drill is to be held twice annually, approximately 6 months apart, at each field operation. This drill must include a familiarization of all onsite personnel on their responsibilities including what to do in case of a spill. The drill must also include a hands-on scenario where the Emergency Response Team utilizes equipment to deal with the spill scenario. The drill may be broken down into two or more sessions to ensure adequate coverage. Records of this testing are to be kept on file and posted to provide access for those who were unable to attend.

5. SPILL RESPONSE EQUIPMENT

5.1. General Equipment

Heavy equipment and aircraft may be used in the area for emergency use to respond to spill incidents. Spill kits and spill response equipment are to be located in key locations and are to be accessible to responders.

5.2. Spill Kits

Table 1. Location of Spill Kits.

Goose Camp	Temporary Camp
Tank Farm	Fuel storage
Drummed Fuel Storage	Generator shed
Generator Buildings	Each Diamond Drill
Coreshack	
Drum Crusher	
Incinerator	
Helipad Area	
Dock	
Each Diamond Drill	
South Quonset	
Shop North Quonset	

Table 2. Spill Kit Contents.

Quantity	Item(s)
1	45 gal, 16 Gauge Open Top Drum, c/w Bolting Ring & Gasket
20	Short Putty Epoxy Sticks
1	48” x 48” x 1/16” Neoprene Pad (Drain Stop)
1	Splash Protective Goggles
1	Pkg. - Polyethylene Disposable Bags (5 ml) 10 per Package
1	Shovel (Spark Proof)
1	Case T-123” x 10’ Absorbent Boom, 4-Booms/Case;
1	Pkg. – Universal absorbent Mats, 16 ½” x 20”, 100 Mats per Package
1	Roll – Oil only absorbent mats 150’ x 33”

** Drill rigs are equipped with a roll of absorbent mat for minor spills. Other appropriate equipment for spill response (PPE, shovel, bags) is typically already located at the drill for general use.*

5.3. Mobile Response Unit

A mobile Environmental Response Unit is available to Sabina from a major fuel supplier (Shell) in Yellowknife or Cambridge Bay. This unit can be transported to the site from Cambridge Bay in less than three hours weather permitting.

6. SPILL RESPONSE PROCEDURE

A spill is defined as the discharge of a hazardous product out of its containment and into the environment. Potential hazards to humans, vegetation, water resources, fish and wildlife vary in severity, depending on several factors including nature of the material, quantity spilled, location and season. Fuel is the main product that may be spilled and therefore spill response procedures focus on this hazardous material. Other chemicals that may be spilled include sewage water, and small quantities of lubricants and oils.

All site personnel are briefed on the procedures to be followed to report a spill and initiate spill response. The first person to notice a spill must take the following steps:

- Immediately warn other personnel working near the spill area.
- Evacuate the area if the health and safety of personnel is threatened.
- Notify their supervisor or onsite management, who will initiate the spill response operations.
- In the absence of danger, and before the spill response team arrives at the scene, take any safe and reasonable measure to stop, contain and identify the nature of the spill.

The following details the steps to be taken in the event of a spill. Steps are listed in order of importance; however, circumstances and conditions may alter the order of these steps to meet a specific situation.

6.1. Source Control

Reduce or stop the flow of product without endangering anyone. This may involve very simple actions such as turning off a pump, closing a valve, sealing a puncture hole with almost anything handy (e.g., a rag, a piece of wood, tape, etc.), raising a leaky or discharging hose at a level higher than the product level inside the tank, or transferring fuel from leaking containers.

6.2. Control of Free Product

Prevent or limit the spread of the spilled material. Accumulate/concentrate spilled product in an area to facilitate recovery. Barriers positioned down-gradient of the spill will slow or stop the progression of the spill. Barriers can consist of absorbent booms, dykes, berms, or trenches (dug in the ground or in ice).

6.3. Protection

Evaluate the potential dangers of the spill in order to protect sensitive ecosystems and natural resources. Block or divert the spilled material away from sensitive receptors. This can also be achieved by using various types of barriers.

6.4. Clean up the Spill

Recover and containerize as much free product as possible. Recover and containerize/treat contaminated soil, water, and snow. Pressure-wash contaminated bedrock surfaces, shorelines, ice and recover as much as possible oily water for containerization and/or treatment.

Report the Spill

Provide basic information such as date and time of the spill, type and amount of product discharged, photographic records, location and approximate size of the spill, actions already taken to stop and contain the spill, meteorological conditions and any perceived threat to human health or the environment.

6.5. Response by Spill Location

6.5.1. Spills on Land

Response to spills on land will include the general procedures previously detailed. The main spill control techniques involve the use of two types of barriers: dykes and trenches. Barriers should be placed down-gradient (down-slope) from the source of the spill, and as close as possible to the source of the spill. Barriers slow the progression of the fuel and also serve as containment to allow for recovery.

Depending on the volume spilled, the site of the spill as well as available material, a dyke may be built with soil, booms, lumber, snow, etc. A plastic liner should be placed at the foot of and over the dykes to protect the underlying soil or other material and to facilitate recovery of the fuel. Construct dykes in such a way as to accumulate a thick layer of free product in a single area (V shaped or U shaped).

Trenches are useful in the presence of permeable soil and when the spilled fuel is migrating below the ground surface. A plastic liner should be placed on the down-gradient edge of the trench to protect the underlying soil. Liners should not be placed at the bottom of the trench to allow water to continue flowing underneath the layer of floating oil.

The use of large quantities of absorbent materials to recover important volumes of fuel should be avoided. Large volumes of free-product should be recovered, as much as possible, by using vacuums and pumps, and containerized. Mixtures of water and fuel may be processed through an oil-water separator. Absorbent sheets should be used to soak up residual fuel on water, on the ground (soil and rock), and on vegetation

6.5.2. Spills on Water

Response to spills on water includes the general procedures previously detailed. Various containment, diversion and recovery techniques are discussed in the following sections. The following elements must be taken into consideration when conducting response operations:

- Type of water body or water course (lake, ocean, stream, river).
- Water depth and surface area.

- Wind speed and direction.
- Resonance and range of tides.
- Type of shoreline.
- Seasonal considerations (open-water, freeze-up, break-up, frozen).

Containment of an oil slick on the ocean requires the deployment of mobile floating booms to intercept, control, contain and concentrate (i.e., increase thickness) the floating oil. One end of the boom is anchored to shore while the other is towed by a boat or other means and used to circle the oil slick and return it close to shore for recovery using a skimmer. Reducing the surface area of the slick increases its thickness and thereby improves recovery. Mechanical recovery equipment (i.e., skimmers and oil/water separators) will be mobilized to site if required.

If oil is spilled in a lake it may not be possible to deploy booms using a boat. In this case, measures are taken to protect sensitive and accessible shoreline. The oil slick is monitored to determine the direction of migration. In the absence of strong winds the oil will likely flow towards the discharge of the lake. Measures are taken to block and concentrate the oil slick at the lake discharge using booms where it will subsequently be recovered using a portable skimmer, a vacuum, or sorbent materials.

In small slowly-flowing rivers, streams, channels, inlets or ditches, inverted weirs (i.e., siphon dams) is used to stop and concentrate moving oil for collection while allowing water to continue to flow unimpeded. In the case of floating oil, in a stream, heading for a culvert (i.e., at a road crossing) a culvert block is used to stop and concentrate moving oil for collection while allowing water to continue to flow unimpeded. In both cases oil will then be recovered using a portable skimmer or sorbent materials.

In the case of spills in larger rivers, with fast moving currents, diversion booming is used to direct the oil slick ashore for recovery. Single or multiple booms (i.e., cascading) may be used for diversion. Typically, the booms are anchored across the river at an angle. The angle will depend on the current velocity. Choosing a section of a river that is both wider and shallower makes boom deployment easier. Diversion booming may also be used to direct an oil slick away from a sensitive area to be protected.

6.5.3. Spills on Snow and Ice

In general, snow and ice will slow the movement of hydrocarbons. The presence of snow may also hide the oil slick and make it more difficult to follow its progression. Snow is generally a good natural sorbent, as hydrocarbons have a tendency to be soaked up by snow through capillary action. However, the use of snow as a sorbent material is to be limited as much as possible. Snow and frozen ground also prevent hydrocarbons from migrating down into soil or at least slow the migration process. Ice prevents seepage of fuel into the water.

Response to spills on snow and ice includes the general procedures previously detailed. Most response procedures for spills on land may be used for spills on snow and ice. The use of dykes (i.e., compacted snow berms lined with plastic sheeting) or trenches (dug in ice) slow the progression of the fuel and also serve as containment to allow recovery of the fuel. Free-product is recovered by using a vacuum, a pump, or sorbent materials. Contaminated snow and ice is scraped up manually or using heavy

equipment depending on volumes. The contaminated snow and ice is placed in containers or within plastic lined berms on land. If required, a contaminated snow storage site is to be located in close proximity to one of the four (4) main work sites to facilitate inspection and monitoring, in an area which is still easily accessible once it is time to remove the snow (i.e., spring or summer), and at least 30 m away from any body of water or ditch. Once enough snow has melted, the oily water is removed from the storage and processed through an oil-water separator that would be mobilized to site. Hydrocarbons recovered will be burned in the camp incinerator or shipped off-site for processing.

6.6. Response by Material Spilled

6.6.1. Fuel

Detection of leaks will be using two methods - a fuel inventory reconciliation and inspection. A weekly reconciliation of storage volumes will be completed and a spill response will be initiated in the event of any unexplained loss over five or more weeks.

Weekly inspections will be conducted to ensure either there has not been a leak or that the conditions of the area could result in a leak. These inspections will include the fuel drums and storage containers, secondary containment sumps and associated spill containment devices, any pumps and product-handling equipment, and an overfill protection devices. These inspections will be recorded to include who completed the inspections, areas included in the visual inspection and any deficiencies noted.

Fuel spills, leaks at storage facilities or vehicle accidents will be handled by following these steps:

- Identify the source of the leak or spill.
- Contact the Environmental Coordinator/Site Superintendent.
- Stop leaks from tank or barrel by.
- Turning off valves.
- Utilizing patching kits to seal leaks.
- Placing plastic sheeting at the foot of the tank or barrel to prevent seepage into the ground.
- Contain the spill and the source if possible.
- Take photographs of the spill site before and after the clean-up.

Small spills will be cleaned up by removing the contaminated soil and storing it in empty 205 L drums for backhaul and disposal at an approved hazardous waste disposal site. Should a large spill occur, cleanup and disposal efforts will be coordinated as necessary with the appropriate authorities and agencies.

Further information on the handling of fuel spills is detailed in Appendix 2.

6.6.2. Domestic Sewage, Solid Waste and Contact Water

Any problems with the sewage disposal system, incinerator or other waste disposal mechanism will be immediately reported to the Operations Superintendent.

In the event of a power failure, the stand by generator will be put into operation as soon as possible. Similarly, in the case of a pump failure, the backup pump will be put on-line. Any greywater drainage problems will be addressed as quickly as possible to minimize the chance of a spill. As necessary appropriate safety equipment and personal protective clothing will be available to site personnel.

6.6.3. Chemical

Assess the hazard of the spilled material by referring to the relevant MSDS sheet. Each response will vary based on the material. If the chemical is hazardous, ensure personnel protective equipment is utilized (latex gloves, eye protection, etc.) before approaching the spill. As chemicals are only used in extremely small quantities on site use absorbent mats to soak up spilled liquids and place in appropriate container for treatment and/or disposal.

6.7. Response to a Fire

Various products, including fuel, may be flammable under certain circumstances. It is important to ensure that the spill does not present a risk of fire prior to commencing the cleanup. If a fire does break out refer to relevant site fire fighting procedures.

6.8. Disposal

Appropriate disposal, as directed by the Environmental Manager, for any recovered product and contaminated soil, water or absorbent clean up material is regulated and must be authorized by the agency investigating the incident. Obtain approval from all appropriate government agencies before disposal. A hazardous waste generator number has been acquired and used by the expeditor when disposing of camp waste.

Fuel contaminated soil can be remediated at camp through incineration or alternatively, the contaminated soil can be flown out to Yellowknife for disposal in an approved disposal/treatment site.

Any non-reusable recovered product, contaminated soil and clean up material, which cannot be incinerated, will be stored in containers and returned to camp prior to disposal.

7. Spill Potential Analysis

7.1. Camps

7.1.1. Fuel

Fuel spills could potentially occur from:

- Fuel storage containment (tanks, barrels) leaks.
- Spills during drum transport from aircraft to fuel storage area.
- Spills from vehicles or equipment as a result of accidents.
- Spills during fuel transfer from barrels to equipment or heaters.

Spills occurring during fuel handling, transfer or storage operations will be minimized by:

- Secondary containment.
- Proper storage of barrels.
- Inspections of the storage facilities and barrels.
- Inventory tracking.
- Staff training in proper fuel handling procedures.
- Spill response training for personnel associated with fuel handling.
- Immediate cleanup of minor spills.
- Enclosing spigots on fuel containers with absorbent mat to collect any slow drips.
- Fuel line walkers will be used to monitor the fittings etc during fuel transfers

The potential for spills affecting surface waters is low, as fuel storage and transfer points are located away from watercourses and lakes. Close inspection of fuel transfer activities will be undertaken during all times while fuel is being pumped/transferred to equipment. Secondary containment will be used at all refueling points and storage areas.

7.1.2. Domestic Sewage and Solid Waste

Waste from the kitchen and Pacto systems are carried to the incinerator in a small trailer, with virtually no risk of spillage. The greywater lines are routinely inspected for leaks and repaired as necessary. The screens at the greywater sump are cleaned of debris daily.

7.1.3. Solid Waste

Failures may occur in the handling of solid waste through the following situations:

- Incinerator at Goose camp fails.
- Accidental damage to the incinerator and it components, or the heaters and/or their fuel supplies.
- Mechanical breakdown.
- Improper maintenance.

Visual inspection of the incinerator and its combustion products will be carried out frequently, typically in the normal course of operation. The incinerator will be operated according to the manufacturer's instructions.

7.1.4. Chemicals

Any chemicals brought on site are stored in manufacturers' approved packaging. Although unlikely, leaks may occur resulting in minor spills of chemical product in storage. It is more likely a leak will occur during the transfer of chemicals or from accidental failure of containers.

Sabina provides training to its staff in product handling and inspection procedures, which we feel, will result in reduced occurrences of chemical spills.

7.2. Overland Transport

The following table identifies possible incidents which may occur along the winter and all-weather road, the consequences of that incident and the preventative measures to be implemented.

Table 3. Summary of Potential Incidents and Preventative Measures along Transportation corridors

Incident	Description	Consequences	Preventative measures
Refueling of vehicles	Refueling hose could break, spring a leak, overfilling of equipment tank, spillage from gas storage tank	Puddles of fuel over limited area Hose breaks at equipment and sprays a large amount of fuel over a larger area "slick" flows steadily from equipment	All refueling will occur in area 30m from waterways in designated areas Personnel will be aware of emergency shut-off valves and trained in spills response Spill Kit available Refueling occur within containment and/or absorbent material in place
Vehicle storage and operation	Vehicles could leak fuel while in operation or during a stop along route.	Puddles of fuel over limited area to the entire contents of a tank being discharged.	Vehicles will stop 31m from waterways Vehicles parked on ice will have absorbent material placed underneath Personnel will be trained in spills response Spill Kit available
Fuel containers leaking	Fuel being brought to the vehicles could leak fuel while in operation or during a stop along route.	Puddles of fuel over limited area to the entire contents of a tank being discharged.	Regular visual inspection will occur to ensure tanks are not leaking Personnel will be trained in spills response Spill Kit available

Summary of Potential Incidents and Preventative Measures along Transportation corridors (Table 4 continued)

Incident	Description	Consequences	Preventative measures
Vehicle accident	Accident on road that involves equipment going off road/overturning	This worst case scenario could result in a tank of fuel and any materials being transported spilling entire contents over a large area.	Safe road corridor will flagged Speed limits will be in effect Transportation of Dangerous Goods manifest if necessary Coordination and communication between the cat-haul and camps will be maintained Camp personnel will be ready to mobilize in case of accident Spill kit available with cat-haul and on-site
Temporary fuel storage leakage and/or spill	Fuel caches leak fuel or due to accident contents are spilled	Puddles of fuel over limited area Storage container breaks and fuel spreads over a larger area	All storage will occur in area 30m from waterways Secondary containment berms will be used for fuel caches Personnel will be aware of emergency shut-off valves and trained in spills response Spill Kit available Regular monitoring and inventory tracking will occur at these remote/temporary fuel storage areas
Calcium Chloride spill	Bags of salt could be torn and spilled in temporary storage area or in transport	Tears and bag breakages could lead to salt spread over limited area Bags could break in a manner that salt is spread over a larger area	Personnel will be trained in proper material handling and transport methods Salt will be stored and transported in 50lb bags on pallets wrapped in plastic Secondary containment will be used at temporary storage locations Spill kits and equipment available.

7.3. Fire Prevention

The most serious spill incident would involve fire and a hydrocarbon-based fuel source. In order to minimize the risk of fire, **No Smoking** and **Flammable** signs will be posted as needed at storage areas and with the cat-haul train along with a dry chemical fire extinguisher. Workers will be trained in the

use of the fire extinguisher and be instructed of the risk caused by electrical and open flame fire hazards near fuel.

8. Reporting Procedures

All spills are to be reported to the Operations Superintendent or their designated representative. It is their responsibility to notify headquarters staff and external parties as outlined in the roles and responsibilities of this Plan.

An internal log of spills, no matter how small, is to be kept and maintained by the Operations Superintendent. Each record will include date, location, material spilled, volume, reason for release, any negative impact, status of cleanup, and corrective actions taken. Photo's (before, during and after cleanup) shall also be taken of all significant spills. To assist with internal tracking a Sabina Spill Form is included in Appendix C.

Reportable spills, as identified in this Plan, are to be externally reported to the NWT/Nunavut Spill Response Line. The Operations Superintendent will ensure spills are reported externally as required. The Spill response form (Appendix C) is to be completed for all externally reported spills and forwarded to the NWT/Nunavut Spill Response Centre within the required 24 hour reporting period. The Manager, Logistics and TS, or their designate, will notify Sabina Headquarter senior management of any reportable spills as listed below.

Any spill, or incident that may likely result in a spill, of an amount equal to or greater than the amount listed in the table below shall be promptly externally reported. Spills adjacent to or into a surface water or ground water access shall be externally reported regardless of quantity.

Spills within secondary containment will be reported and included in the internal log. In the situation that the spill within the containment is above the thresholds noted below, an external report to the NWT/Nunavut Spills will be submitted if the spill exceeds 40% capacity of the secondary containment.

Table 4. External Reporting Volumes

TDGA Class	Description of Contaminant	Amount Spilled
1	Explosives	Any amount
2.1	Compressed gas (flammable)	Any amount of gas from containers with a capacity greater than 100 litres
2.2	Compressed gas (non-corrosive, non-flammable)	Any amount of gas from containers with a capacity greater than 100 litres
2.3	Compressed gas (toxic)	Any amount
2.4	Compressed gas (corrosive)	Any amount
3.1, 3.2, 3.3	Flammable liquid	100 litres
4.1	Flammable solid	25 kg
4.2	Spontaneously combustible solids	25 kg
4.3	Water reactant solids	25 kg
5.1	Oxidizing substances	50 litres or 50 kg
5.2	Organic Peroxides	1 litre or 1 kg
6.1	Poisonous substances	5 litres or 5 kg
6.2	Infectious substances	Any amount
7	Radioactive	Any amount
8	Corrosive substances	5 litres or 5 kg
9.1 (in part)	Miscellaneous products or substances,	50 litres or 50 kg
9.2	Environmentally hazardous	1 litre or 1 kg
9.3	Dangerous wastes	5 litres or 5 kg
9.1 (in part)	PCB mixtures of 5 or more parts per million	0.5 litres or 0.5 kg
None	Other contaminants	100 litres or 100 kg

Appendix A. Sabina Spill Response Team

(will be reviewed and updated on an as-needed basis)

Sabi**na Contacts:**

Environmental Superintendent	Cheryl Wray	TBD
Environmental Coordinator	Merle Keefe	TBD
Operations Superintendent	Rick Peters	TBD
Manager Logistics and TS	John Laitin	(604) 998-4187
VP Sustainability	Matthew Pickard	(604) 998-4175
VP Project Development	Wes Carson	(604) 998-4175

Additional assistance may be obtained, as necessary, from the following organizations:

Det'on Cho Logistics		(867) 873-6970
Shell Canada, Mobile Environmental Response		(867) 874-2562
Kitnuna		(867) 983-7500
Nuna Logistics Ltd.		(866) 817-0924
Dupont (Fuel Dye)		(905) 821-5660
Frontier Mining (Sorbents)		(867) 920-7617
Acklands (sorbents)		(867) 873-4100 (867) 920-5359

Key Government Contacts:

NWT/NU 24hr Spill Report Line		Fax: 867-873-6924 Email: spills@gov.nt.ca
Nunavut Water Board	Damien Cote, Exec. Director Phyllis Beaulieu, Manager of Licensing	(867) 360-6338
Environment Canada	Craig Broome, Manager of Enforcement Wade Romanko, Env. Emergencies Officer	(867) 669-4730 (867) 669-4736
Aboriginal Affairs and Northern Development Canada	Eva Paul, Water Resources Officer Baba Pederson, Resource Management Officer Andrew Keim, A/Manager of Field Operations	(867) 982-4308 (867) 975-4296 (867) 975-4295
Government of Nunavut Environmental Protection	Robert Eno, Director Environmental Protection	(867) 975-7729
Department of Fisheries and Oceans	Suzanne Erkidjuk, Area Admin Clerk	(867) 979-8000
RCMP (Yellowknife)		(867) 669-1111
RCMP (Cambridge Bay)		(867) 983-2111

Appendix B. Procedure In The Event Of A Spill

Priority 1 – Identify spill source and assess hazard

- Ensure safety of all people in the area.
- Find the source, type and extent of spill
- Assess hazards from the spill
- Check for fire and explosion risk:
    - Extinguish all ignition sources in the area
    - Move machinery only if safe to do so or shut down if necessary
    - Isolate all live equipment to prevent sparks and enforce no smoking by site personnel
- Raise alarm and close off affected area

Priority 2 – Stop flow of spill

- Ensure that any necessary safety equipment (PPE) is worn prior to prior to working at the spill site.
- Stop flow at source of spill
- Leak containment requires the planned use of absorbent pads, drip buckets, drip pans, or impermeable geomembrane secondary containment berms to catch any slow or unexpected leaks.
- Larger spills require attempts to limit the spread of the spill. Prevent movement using sorbent material, berms to form a barrier
- If the spill occurs on ice, attempts should be made to stop the spill from reaching ice-free ground.

Priority 3 – Notify Operations Superintendent (OS)

- Notify the OS as soon as possible after ensuring the safety of all personnel and attempting to stop the flow and limit spread. Provide as much information as possible about the source, material, amount, fire risk, injuries etc.
- OS will report spill to Nu/NWT Spill Reporting Line, notify Sabina headquarters contacts and ensure any further notifications are made depending on the type and extent of spill.

Priority 4 – Spill Containment

- For all spills, use absorbents to contain and soak up the fuel
- Prevent spread of fuel by using booms and berms
- It may be possible to contain the fuel using absorbent materials or by building small berms and dams
- Response operations should not be commenced in the affected area until it is safe.

Priority 5 – Spill Recovery and Cleanup

If the spill has been successfully been contained then spill clean-up can start

The OS is to monitor spill clean-up and coordinate clean-up operations

The OS is to complete the Spill Report form and submit to authorities and Sabina headquarter contacts (using Spill Report Form)

- Recover as much fuel as possible
- If possible pump directly into 205L drums. Ensure that the drums are in good shape and available near the spill site
- Absorbent pads should be spread on any remaining fuel that cannot be pumped or manually removed
- Fuel soaked absorbents must be picked up and placed in plastic bags or 205L empty drums
- Contaminated snow can be stored in 205L drums with tops removed. Allow snow to melt and decant off fuel.
- Any drums containing a mixture of fuel and snow or water are likely to freeze. To prevent drums from splitting use only drums in good condition and do not fill to top.
- Drums containing recovered fuel or water, used absorbents should be stored in secondary containment areas.
- Disposal should be by approved methods and facilities as per OS instructions.

Notes:

- As much fuel as possible should be removed immediately after the spill. The use of dispersants and burning at the site is not allowed, and a large scale cleanup operation may cause more environmental damage that the fuel itself.
- The health and safety of personnel is the first priority in the case of a fuel spill. Emergency spill response actions should not be undertaken in extreme weather conditions or during periods of darkness, unless the situation has been fully assessed by the CM and PM
- Personnel should ensure they are aware of the location and content of the spill kits
- Spill Response Classification:
    - Minor spills – less than 10L – easily contained
    - Moderate spills – less than 500 L – contain and clean-up by on-site personnel
    - Major spills – more than 500L – cannot be contained on-site and will require external assistance to clean-up.

Appendix C. NWT/NU Spill Report and Sabina Internal Spill Report

SABINA INTERNAL SPILL REPORT FORM

This form is to be used for internal documentation of spills of any petroleum product, chemical, ethylene glycol (antifreeze), or other hazardous material. See recent Spill Contingency Plan for reporting thresholds and structure. Once complete file with the Operations Superintendent.

***Report Date and Time*:**	***Spill Date and Time*:** ☐ Spill occurred ☐ Spill observed
***Spill Location*:** ☐ Goose ☐ Other (e.g. Drill, Boulder Pond) ☐ George	***Describe Location*:**
***Coordinates (Lat/Long or UTM)*:**	

***Product(s) Spilled*:**	Jet fuel	Diesel (P50)	Gasoline	AvGas	Oil (type)	Antifreeze	Other (describe)
***Quantity (L or kg)*:**							

Personnel Involved:	☐ Sabina ☐ Contractor ☐ Visitor ☐ Other

***Cause of Spill*:**
***Containment/Cleanup Measures Taken*:**
***Factors Affecting Spill or Recovery (weather, snow, ground conditions, etc.)*:**
***Additional Action Required*:**
***Additional Comments*:**

	Name	***Employer***	***Signature***
***Reported by*:**			
***Reported to*:**			

Attachment 2:

Abandonment and Restoration Plan

Back River Project

Abandonment and Restoration Plan

Wishbone – Malley Exploration Area

JANUARY 2017

Table of Contents

1.0 INTRODUCTION

1.1 General

Sabina Gold & Silver Corp. (Sabina) is actively exploring the Back River property mineral rights (encompassing the primary exploration camp at Goose Lake, as well as a satellite camp at George Lake and unoccupied claim groups at Boot Lake, Boulder Pond, Wishbone, and Del Lake). Advanced exploration programs have been carried out in previous years with similar activities anticipated as Sabina continues to advance the project.

Sabina is also responsible for maintaining all permits and claims required for the project in good standing. The Back River Project is covered by the following land use licenses:

Table 1. List of licenses and permits applicable to the Back River Project

Permit No.	Permit Name	Type	Expiry	Agency
N2011F0029	Winter Road Beechy Area	Class A	13-Dec-2016	INAC
N2010F0017	Winter road Bathurst Inlet to Back River	Class A	16-Sep-2017	INAC
KTL304F049 - Amended	Winter Road Bathurst Inlet to Goose Lake and George Lake	Level 3	13-Dec-2016	KIA
N2016C0011	Back River Mineral Exploration	Class A	26-Oct-2021	INAC
N2012C0003	Wishbone Malley Mineral Exploration	Class A	6-Feb-2016	INAC
KTL304C017 - Amended	Goose Camp	Level 3	12-Dec-2017	KIA
KTL204C012 - Amended	Boulder	Level 2	12-Dec-2017	KIA
KTL304C018 - Amended	George Camp	Level 3	12-Dec-2017	KIA
KTL204C020 - Amended	Boot	Level 2	12-Dec-2017	KIA
KTP11Q001	Goose Rock Quarry	n/a	12-Dec-2017	KIA
KTP12Q001	Goose Airstrip Borrow Area	n/a	12-Dec-2017	KIA
KTP12Q002	George Borrow Quarry	n/a	12-Dec-2017	KIA
2BE-GEO1520	George Water	Type B	29-May-2020	NWB
2BE-GOO1520	Goose Water	Type B	18-Feb-2020	NWB
2BE-MLL1217	Wishbone Malley Water	Type B	26-Mar-2017	NWB

Operating and managing an exploration project on tundra requires a lot of effort from all parties involved. The area is environmentally sensitive and all aspects of exploration because of our activities, products, and services will be risk assessed with management protocols developed, implemented, and

communicated to our employees, interested parties, and suppliers to eliminate or minimize any negative impacts to the receiving environment.

Annual exploration activities typically start in February or March, and end by October. Crew, equipment, and supplies are flown from Yellowknife to the Goose Lake exploration camp (Goose camp) or the George Lake exploration camp (George camp); from there crews can be deployed to Wishbone-Malley exploration area and other claim groups. Aircraft from Yellowknife can utilize the 915-m all-weather airstrip at Goose camp, the 750-m all-weather airstrip at George camp, or temporary ice airstrips constructed on either Goose or George lakes. Typically, equipment, personnel, and supplies are moved between Goose camp and George camp by helicopter.

In 2016, the Goose camp was operational from March 15th to April 22nd, June 14th to June 29th, and August 16th to August 31st; the George camp was not open this year. In addition to the 2016 work programs, two, one-day tours were based out of Goose Camp: one community tour on April 12th, and one engineering tour on August 24th. For the Wishbone-Malley exploration area, no exploration activities took place in 2016.

During the 2016 season, crew, equipment, and supplies were flown to Goose camp utilizing the 915-m all-weather airstrip, as well as the temporary ice airstrip constructed on Goose Lake. At the end of the season, the crew was demobilized back to Yellowknife. Drill equipment and supplies may remain at the project area for use during subsequent exploration seasons.

Sabina will implement this Abandonment and Restoration Plan (ARP or the Plan) when scheduled and will continue to look for ways to minimize or eliminate negative impacts to the environment as a result of its activities, products, and services at Sabina's Back River properties.

1.2 Sabina Sustainable Development Policy

Sabina Gold & Silver Corp. regards itself as a responsible explorer and mineral developer. We are committed to fostering sustainable development throughout all stages of our activities. We constantly strive to conduct our operations in a manner that balances the social, economic, cultural and environmental needs of the communities in which we operate.

To build on this commitment, Sabina will:

- Meet or strive to exceed all relevant legislated sustainable development requirements in the regions where we work.
- Ensure appropriate personnel, resources and training is made available to implement our sustainable development objectives.
- Establish clear lines of responsibility and accountability throughout the company to meet these objectives.
- Implement proven management systems and procedures to facilitate our sustainable development objectives. A Priority will be placed on developing and implementing management structures related to the environment, health and safety, emergency response and stakeholder engagement.

- Act as responsible stewards of the environment for both current and future generations. We will make use of appropriate assessment methodologies, technologies and controls to minimize environmental risks throughout all stages of mineral development.
- Work closely with local communities and project stakeholders to understand their needs, address their concerns and provide project-related benefits to create win-win relationships. Our goal is to earn and maintain a social licence to operate at all our operations while building partnerships.
- Pursue economically feasible projects in order to generate shareholder profitability and support long-term positive socio-economic development in the regions where we work.
- Utilize a precautionary approach as it applies to potential effects from our activities. Work with employees, contractors and stakeholders to promote a culture of open and meaningful dialogue to ensure that any known or suspected departures from established protocols are reported to management in a timely manner.
- Regularly review this policy to ensure it is consistent with Sabina's current activities and the most recent legislation.
- Continually improve our performance and contributions to sustainable development including pollution prevention, waste minimization and resource consumption.
- Implement programs at each of our operations to monitor and report compliance and proactively address potential deficiencies in our policies and procedures.

The objectives of our Sustainable Development Policy cannot be accomplished without the active involvement and commitment of many dedicated individuals. As such, we will regularly communicate this policy and its outcomes to our employees, contractors and relevant stakeholders. Together, we can foster a culture of sustainable development at Sabina.

1.3 Legal Requirement

Under the terms of the Kitikmeot Inuit Association (KIA) Land Use Licenses and the Nunavut Water Board (NWB) Water Use Licenses, Sabina is obligated to rehabilitate the areas used to its previous standard of human utilization and natural productivity.

1.4 Site Location and Description

The Back River exploration project is located in the Kitikmeot, south of Bathurst Inlet within the Slave Structural Province. It is approximately 525 kilometres northeast of Yellowknife and 400 kilometres south of Cambridge Bay, NU. The project area is within the zone of continuous permafrost, and is represented on National Topographic System 1:250,000 scale map sheets 76F, 76G, 76J, and 76K. The primary base of operations is at Goose camp located near Goose Lake (Figure 1), supported by a satellite camp near George Lake (Figure 1) used for resupply, staging, drill support, and emergencies. Coordinates for the camps are as follows:

Goose Camp: 65°32' north 106°25' west
George Camp: 65°55' north 107°27' west

The Wishbone-Malley exploration area currently has no permanent infrastructure with the only previous activities to date being exploration drilling; a list of potential future infrastructure is outline in Section 3.1.

1.5 Scope of Reporting

This Abandonment and Restoration Plan has been written to meet the requirements of the Nunavut Water Board (NWB) licenses listed in Table 1 and applies to the Goose camp and all unoccupied claim groups referenced in Section 1.1. Subject to annual review and revision, it will remain applicable throughout the duration of the NWB licenses or until a material change in the scope of the project occurs.

The current revision of the ARP has been prepared for a potential future Wishbone-Malley camp and on-going exploration activities. The Plan also takes into consideration the likelihood of premature camp closure due to:

- Sudden drop in gold prices which could make the project uneconomical;
- Drop in resource grade to a value lower than anticipated;
- Non-compliance to legislative requirements;
- Natural disasters;
- Force majeure;
- Change of ownership/operator.

In situations as such mentioned above, this plan provides the base strategy for anticipated tasks of restoring the area in an event where exploration activity has ceased, either on a short term or a long term basis. The plan will be reviewed annually and updated with current information.

Section 1 of the Plan gives a brief account of the ownership of the property, the Sustainable Development Policy, legal requirements, and a brief description of the potential future camp. Section 2 outlines responsibilities for execution of the Plan. Section 3 outlines a brief time schedule for restoration activities after completion of each exploration program. A list of potential future infrastructure and a brief summary on the progressive restoration program is provided. Sections 4 and 5 of the Plan provide details of how each exploration aspect will be addressed, while the final section (Section 6) outlines when the next review of the Plan would be conducted.

2.0 RESPONSIBILITIES FOR THE PLAN

Senior personnel at the Back River Project (at the main camp at Goose Lake) and future Wishbone-Malley camp management are responsible for the implementation of this plan. However, every employee, contractor, and visitor arriving on the Back River Project site has a responsibility to ensure that they adhere to the Sabina Sustainable Development Policy. The policy will be communicated to all employees, contractors, and visitors during their stay at Project in a formal site orientation program given by the Site Superintendent.

Contact information for key personnel is as follows, and will be updated on an as-needed basis. Currently, camp-based phone numbers are not available at this time:

- Vice President, Environment & Sustainability – Matthew Pickard
- Exploration Manager – James Maxwell
- Environmental Engineer – Merle Keefe

3.0 SCHEDULE FOR ABANDONMENT AND RESTORATION

For each exploration season, the closure of the Back River Project sites should take approximately 14-21 days to complete, allowing for variable weather conditions. As exploration activities vary from year to year and the end of the field season is difficult to predict months in advance, the restoration program will likely commence in the late summer and extend into the 4th quarter of the year. Since Goose camp is the main camp servicing outlying exploration areas, it would take the longest to shut down.

Outlying drill sites will take minimal time as their shut down requirements are much less. Other sites in the Back River Project area include the George camp and diamond drill sites. These would close down simultaneously with exploration as there is the proper support at this time (personnel, aircraft).

3.1 Potential Future Infrastructure at the Wishbone-Malley Exploration Area

There is currently no infrastructure at the Wishbone-Malley exploration area with the only previous activities to date being exploration drilling; the below list details potential future infrastructure that Sabina could consider constructing. Before construction of any infrastructure at the Wishbone-Malley exploration area, Sabina would provide the appropriate financial assurance to complete the reclamation. The projected future reclamation cost associated with this future infrastructure is outlined in Appendix B.

The proposed future Malley-Wishbone camp would be located adjacent to a lake and would be a 60-person camp used primarily to support exploration activities across the Malley and Wishbone properties. The general camp facilities may include:

- 15 sleeper tents (20’ x 20’ weather havens);
- 1 kitchen/dining facility;
- 2 drys/ablution;
- 2 office tents;
- 1 storage tent/shed;
- 1 mechanic shed;
- Core cutting/core logging facilities;
- Generator;
- Fuel storage areas (up to 500,000L drummed fuel within secondary containment);
- Laydown area;
- Ice strip;
- Terrain airstrip (if the existing terrain in the camp area is conducive to such use, the area would be reconditioned to meet operational needs);

- Communication towers and repeater stations as needed; and
- Equipment such as loaders, skidsteers, bulldozers, ATVs, snowmachines.

When in operation, the camp would be serviced with a Pacto toilet system for blackwater, and sumps would be located a minimum of 31 m away from the usual watermark for greywater. Any kitchen waste would be transported to Goose or George camps for incineration. Wood and metal wastes would be stored for subsequent backhaul (when space permits) and disposed at an approved facility, either in Yellowknife or elsewhere.

Potable water may be obtained from the local lake with the freshwater intake screened to reduce fish uptake; bottled water may be used as an alternative source.

3.2 Progressive Reclamation

Sabina has embarked on a program of progressive reclamation over the entire Back River project area. Progressive restoration will be ongoing throughout the exploration programs thereby reducing the need for a full-scale restoration program at the closure of each exploration phase. Possible ongoing significant restoration activities are described below.

3.2.1 Contaminated Area Reclamation

3.2.1.1 Recycle of Water Contaminated Fuel

Contaminated fuels are recycled primarily as fuel for the garbage incinerator or as fuel for the water heaters used in the drilling program. If present in sufficient quantities, contaminated fuel may be recycled for camp heating purposes. For water with minor amounts of hydrocarbons, an oil-water separator may be used and/or activated charcoal filters. As a last resort, it may be transported off the property for disposal at an appropriate facility.

3.2.1.2 Contaminated Top Soil

Spills are handled as per the Comprehensive Spill Contingency Plan. Enviromat is immediately applied to absorb spills of hydrocarbons, minimizing the amount of soil required to be removed. Remaining contaminated soils are removed and stored in barrels for transportation to permitted disposal sites.

3.2.2 Non-combustible Solid Waste

Solid waste including metal scraps, drill rods, household items, etc. are stored in an appropriate marshalling area for backhaul. The material is arranged in such a way that it can be easily removed from the property, and disposal will be appropriate to the material being removed, either to an approved disposal facility, metal recycler, or an approved designated landfill.

Ash from the incinerator is stored in empty 205-L drums for backhaul and disposal.

4.0 WINTER RESTORATION PLAN

The winter restoration plan is intended to cover short-term (seasonal) closure of the Back River Project. The tasks involved are important to the success of future exploration programs but require significantly less effort than the full restoration plan. Currently no infrastructure exists at the Wishbone-Malley exploration area; should any infrastructure be constructed in the future, these components would be reclaimed as described below.

4.1 Buildings and Contents

All tents and building complexes will be secured for the winter. All the office equipment, household furniture, kitchen equipment, recreational equipment, and other mobile heavy equipment will be winterized and left secured on site. Any equipment not capable of withstanding the harsh winter conditions will be removed from site and stored in either Yellowknife or Vancouver.

4.2 Water Supply System

Water pumps, filtering systems, water lines, and any other equipment associated with the water supply system will be drained and winterized. The water pump shed will be secured.

4.3 Sewage System

The sewage system will be drained with no graywater remaining in the discharge pipe. Solid waste will be moved to Goose or George camps for incineration.

4.4 Electrical System

The generator and surrounding area will be inspected for signs of spills and remaining wastes such as oil and grease. If topsoil is contaminated, an attempt will be made to remove as much of the spill as possible with enviromat; remaining contaminated soil will be stored in empty drums for disposal at an approved hazardous waste facility. The generator will be drained of its fuel. Remaining waste fuel, oil, and grease will be stored in approved storage containers which are labelled for that usage and reused during summer operations. The generator will be winterized and the shed will be secured for winter. Electrical wires, plugs, and sockets will remain in their installed locations. All electrical cords temporarily connected to a building or machinery during summer work program will be unplugged, rolled, and stored in the workshop.

4.5 Camp Heating Systems

Any 205-L fuel barrel attached to respective tent or building will be secured within the secondary containment container. The remaining fuel in the line will be allowed to burn out. The lid of the containment container will be secured to prevent snow from filling up the designated containment area. All empty propane cylinders will be transported to Yellowknife for recycling.

4.6 Petroleum Products and Storage Facilities

An on-site fuel cache is of great importance during camp start-up. Diesel fuel will be stored in the 205 L drums within secondary containment. Minimal quantities of diesel and jet fuel in barrels will be stored within self-supporting artificial berms; these locations will be clearly marked to facilitate snow clearing activities during the following camp opening. The Site Superintendent will be responsible for determining the possible access to these fuel resources prior to the start of the next exploration program.

Empty drums at remote drill sites will be transported to the Goose camp, crushed, banded to pallets and either stored for future backhaul or transported to Yellowknife for disposal/recycling. This work is typically done progressively as fuel caches are no longer required or as drill setups are dismantled.

Secondary containment areas will be cleared of any debris. In the springtime, meltwater within the containment area will be tested for the parameters listed in Table 2. If the analytical data confirms that the water meets regulatory criteria (Table 2), the water will then be released onto the tundra in such a manner as to avoid direct entry to a surface water body. Residual water remaining after pump out as well as collected rainwater are allowed to evaporate over the summer and are unlikely to present a volume issue at camp shutdown in the fall.

Table 2. Regulatory guidelines for hydrocarbons in soils

Parameter	Maximum concentration of any Grab Sample (µg/L)
Benzene	370
Toluene	2
Ethylbenzene	90
Phenols	20
Oil and Grease	5000
pH	6 to 9 (pH units)

The spill response team and camp management will be notified immediately of any spill based on actions outlined in the Comprehensive Spill Contingency Plan. The Environmental Coordinator, Site Superintendent or designate will ensure spills are reported as required and that the relevant form is filled out as completely as possible. Sabina will externally report all spills that meet type and volume criteria to the NWT/Nunavut Spill line. Sabina will internally track all spills which take place onsite regardless of the volume spilled.

4.7 Chemicals

Chemicals stored on site will consist of drill additives, oil, grease, drill salt, and household biodegradable cleaners. Chlorine is necessary and is used to treat our drinking water system. All drill additives are

stored in poly-lined seacans and the remaining salt will be tarped and stored in designated areas on the property. Drill salt is in impermeable bags and stored on pallets. Empty bags will be disposed with combustible garbage. Sabina will inspect the storage area for possible spills and contamination.

4.8 Spill Response Kits

Sabina will carry out an inventory of the spill kits located on the property. Over the winter months, all spill kits will be relocated into a secured building, except for kits designated for the remaining petroleum storage areas.

4.9 Transportation

All transport areas will be inspected for contamination. Areas will be remediated using enviromat and removal of contaminated soil should any contamination be found.

4.10 Drill Sites

The diamond drills will be dismantled into the main components as per the drilling contractor procedure and secured along with ancillary equipment and drill rods. The drills will be moved by helicopter over the tundra and left at designated storage areas on the property and will undergo a drill close-out inspection. All drill sites will be inspected for contamination. Any remaining waste will be removed and disposed of accordingly. Diamond drill site restoration will commence as soon as practical after completion of the hole. Site clean-up of litter, debris, and drill fluids will commence immediately. Drill core and core boxes will be properly secured and stored at the designated core storage area. Photographs will be taken before and after the drilling has been completed.

4.11 General Camp Area

A general inspection of the camp area will be carried out. Waste items will be picked up, and areas contaminated by petroleum products unnoticed from the previous year will be reclaimed.

4.12 Final Documentation

A year-end inventory of all equipment and buildings remaining on site will be carried out prior to leaving site. Photos will be taken of the camp and drill laydown storage areas. Once the site is secured for winter, it will be documented with photos.

5.0 FINAL ABANDONMENT AND RESTORATION PLAN

5.1 Administration

5.1.1 Building Structures

All the reusable tents, frames, tarpaulins, and wooden structures will be dismantled and where possible be recycled for use at another exploration site.

Other combustible, non-recyclable building structures will be incinerated or burned onsite. Non-combustible structures or materials such as nails, screws, or metal frames will be recovered, packed, and transported off site for proper disposal.

5.1.2 Office and Household Furniture

All reusable office, household, kitchen, and recreational equipment will be packed and transported for use at other exploration camps. Some equipment, depending on what level of liability is accepted by Sabina, may be donated to local communities or schools. The equipment that is not reusable will be recycled or disposed of at an approved disposal facility, appropriate to the type of material.

5.1.3 Water Supply System

Water pumps, filtering systems, water lines, and any other equipment associated with the water supply system will be drained, disassembled, packed, and transported off site for use at other exploration camps.

Water lines that are not reusable will be disposed of at an approved facility.

5.1.4 Sewage System

The Pactos will be dismantled and relocated to another exploration camp or transported to Yellowknife for disposal. All lines from showers, washing machines, and sinks will be drained, disconnected, securely packed, and transported off site to an approved landfill site.

5.1.5 Waste Incinerator

Not applicable as there would be no incinerator present at the potential future Wishbone-Malley camp.

5.1.6 Electrical System

All electrical wires will be removed from the buildings and any other installations at site. Extension cords and other fittings will be transported to other exploration camps for reuse. Used electrical wires will be packed and transported to Yellowknife for recycling. Unused bulbs and fluorescent tubes will be packed and relocated to other camps.

The generator shed and surrounding area will be inspected for signs of spills and remaining wastes such as oil and grease. The area will be cleaned as necessary.

The generator will be drained of fuel. Remaining waste fuel, oil, and grease will be stored in approved storage containers, labelled, and transported off site. The generator will be dismantled and transported

off site to another exploration camp or to Yellowknife for sale.

5.1.7 Camp Heating Systems

Each 205-L fuel barrel attached to tents or buildings will be disconnected with the remaining fuel in the line allowed to burn out. The drums will be appropriately labelled and stored with other petroleum products. The secondary containment container will be closed, secured, and stored ready for transportation off site. The fuel burner will be dismantled and remaining fuel will be allowed to drain off into waste oil collecting system. All fuel lines will be drained, disconnected, and packed for use in other camps or transported to an approved disposal facility. The area around each installation will be inspected for contamination and reclaimed as per the Comprehensive Spill Contingency Plan. All empty propane cylinders will be transported to Yellowknife for recycling.

5.1.8 Petroleum Products and Storage Facilities

5.1.8.1 205-Litre drums

The fuel storage area will consist of segregated groups of drums with empties stored separately from the full drums. An inventory of remaining fuel will be completed and all full drums will be inspected. Transportation of Dangerous Goods (TDG) labels will be attached to the drums before transportation off site. Remaining waste fuel will be labelled with TDG labels and transported to other camps for heating purposes or transported to Yellowknife for disposal in an approved facility.

In 2006 a drum crusher was purchased and located at Goose camp; one is also located at George camp. Empty drums will be crushed and palletized for backhaul and disposal. Some drums will be retained for waste containment and subsequent backhaul.

All unused jet fuel will be relocated to other exploration camps for use in further exploration programs, or returned to Yellowknife. The areas around the drums will be inspected for contamination.

5.1.8.2 Tidy Tanks

All Tidy tanks will be disconnected from any tents or buildings. All installations will be disconnected and drained. An inventory of the remaining fuel in each tank will be recorded. The tanks will be secured and transported to other camps or to Yellowknife for sale or disposal. The area around the tanks will be inspected for contamination.

5.1.8.3 Aboveground Storage Tanks and Bladders

All installations on respective tanks and bladders will be disconnected and various hatches inspected and locked. An inventory of the remaining fuel in each tank will be recorded and all fuel tanks will be drained prior to transportation. The AST tanks will only be moved during winter months to either another camp or using winter road to a designated area on the coast and loaded onto a barge for

transportation to Hay River or to Yellowknife during summer months.

5.1.9 Household Chemicals

Household cleaners will mainly be stored in the kitchen and mine dry/change room area. Upon camp closure, any unused products will either be transported to other camps or disposed of at an appropriate facility. Half-empty containers will be taken off site to be properly disposed in an approved discharge facility. Empty containers will either be recycled or disposed of with regular garbage, if appropriate.

5.1.10 Transportation

5.1.10.1 Airstrip

No new prepared airstrip is proposed for the potential future Wishbone-Malley camp.

5.1.10.2 Helipad

Helipads within the camp area would be dismantled, inspected for fuel spills, and original ground or gravel pad will be scarified and allowed to revegetate naturally.

5.2 Exploration

5.2.1 Drill Sites Management

The diamond drills will be dismantled into their main components as per the drilling contractor procedure, packaged, and secured along with its ancillary equipment and rods. The drills will be moved by helicopter over the tundra, inspected, and left at designated storage areas on the property before transporting off site.

All drill sites will be inspected for contamination. All wastes will be taken back to the camp by the drillers and disposed of as appropriate. As part of Sabina's progressive reclamation activities, diamond drill sites will be restored as soon as practical after the drill has been moved to the next site. Photos are taken prior to and after the drill work is completed and an inspection sheet is in place for the geologist to verify the site was left in good condition.

5.2.2 Drill Holes Management

5.2.2.1 Drill sump

All drill sumps (if constructed) will be recontoured and allowed to naturally revegetate. Natural sumps (if used) will simply be allowed to revegetate.

5.2.2.2 Iron Casing Management

Casing protruding above ground will be cut off to a level that will not pose a hazard and capped. The cut

portion will be disposed of in an approved landfill in Yellowknife or recycled as scrap metal. Drill holes which encounter artesian water flow will be plugged with cement and capped. The collar locations of all holes will be surveyed in and will be recorded in the exploration reports.

5.2.3 Chemicals associated with Drilling Operations

5.2.3.1 Drill Additives, Cement, and Salt Management

All remaining drill additives and salt will be inventoried, packed, and transported to other projects or transported to Yellowknife or Hay River for re-sale or disposal at an appropriate facility. Empty containers and pallets will be incinerated (pallets), recycled if possible or disposed of with regular garbage.

5.2.4 Drill Core

Drill core will be properly secured and stored at a designated core storage area on the property for long-term storage. A site reference plan will be maintained to catalogue the core.

5.3 Environmental

5.3.1 Long-term Monitoring

Ongoing monitoring will be conducted during the summer months to ensure the area has been cleared of any hazards that may cause a significant adverse impact to the receiving environment. The monitoring will continue on a set schedule after the final abandonment until the land is relinquished and accepted by the owner. Weather collection data (Goose/George weather stations) and environmental baseline data (e.g. water sampling data) will be turned over to whoever takes over the property.

5.3.2 Documentation and Final Inspection

A detailed project site reclamation and remediation report will be created by Sabina which will specifically document and catalogue project reclamation activities. This report will be generated for distribution to specific governing agencies. This report will identify all reclamation efforts undertaken at the project site and will be supported with information pertaining to contractors used, methodology, costs, and findings. Digital photographs will be taken which will support the reclamation activities. These will be appended to the report.

5.3.3 Land Relinquishment

Once the reclamation plan is accepted and approved by Sabina, the permit holder will invite and organize a final site inspection visit with community representatives, Land Inspectors, Nunavut Water Board and the KIA. Other government organizations such as Environment Canada and Department of Fisheries and Oceans will be invited to visit the area. A written submission will be sent to the regulatory

authorities asking to relinquish the land.

5.4 Abandonment & Restoration Cost Estimates

The total cost estimation for the Abandonment and Restoration Plan for the Project is presented in Appendix B. The approximate costing will be reviewed annually relative to the long-term exploration strategy for the Project and may include the following items:

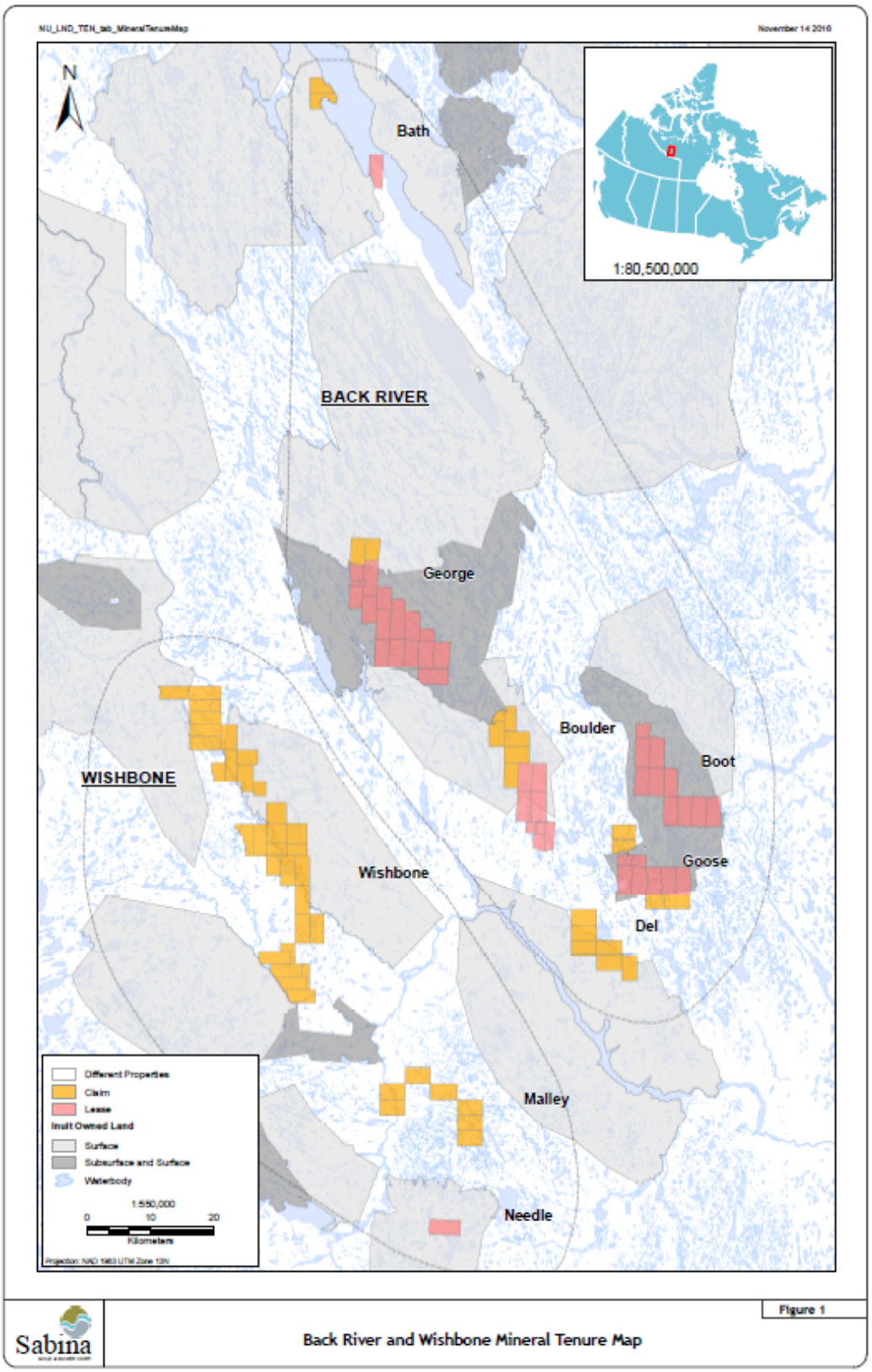
- Infrastructure Demolition Cost;
- Transportation – (Labour, equipment, recycle, relocation of waste, etc.);
- Labour Cost;
    - Offsite Administrative Cost;
    - Contractor;
- Rehabilitation Cost;
    - Site Supervision – (Sabina);
    - Remedial supplies;
    - Native species supplies;
    - Contractor;
- Environmental Monitoring Cost;
    - Labour - (Sabina or Contractor);
    - Transportation – (Field sampling);
    - Analytical Cost – (External Lab);
    - Reporting – (Sabina or Contractor);
    - Consultant Costs;
- Final Documentation – (Labour Cost – Sabina or Contractor); and
- Land Relinquishment – (Travel, Reports, Site Visits, Meetings, etc.).

6.0 REVIEW OF THE ABANDONMENT AND RESTORATION PLAN

The Back River Abandonment & Restoration Plan will be reviewed on an annual basis. The next planned internal review is scheduled to take place in 2019.

APPENDIX A – FIGURES OF BACK RIVER PROPERTY INCLUDING WISHBONE – MALLEY EXPLORATION AREA

Figure 1. Sabina's Exploration Properties and Mineral Tenures Map, western Nunavut (as of Jan 2017).



APPENDIX B – ABANDONMENT & RECLAMATION COST ESTIMATE

BACK RIVER RECLAMATION ESTIMATE - WISHBONE-MALLEY January 2017

ACTIVITY/MATERIAL	UNITS	QUANTITY	UNIT COST	COST	
Exploration Activities					
DRILLHOLE RECLAMATION					
Cement (30kg)	Bags	-	$16	$0	
Helicopter support	Hours	7	$1,360	$9,520	
Personnel - cut casing and cement	Staff Days	14	$446	$6,248	
TRENCH					
Personnel - Backfill trenches/recontour	Staff Days	-	$446	$ -	
Subtotal Exploration Activities				**$15,768**	**$15,768**
Building and Equipment					
EQUIPMENT					
Personnel - Disassemble and packup	Staff Days	63	$446	$28,118	
Personnel - Other (unused drilling steel/material)	Staff Days	35	$446	$15,621	
BUILDINGS					
Personnel - Disassemble Buildings & Burn Wood	Staff Days	105	$446	$46,863	
SPECIALIZED ITEMS					
Helicopter support	Hours	5	$1,360	$6,800	
Subtotal Buildings and Equipment				**$97,402**	**$97,402**
Chemicals and Contaminated Soils					
FUEL					
Disposal once off-site: diesel, Jet A/B, aviation gas	Litres	1,000	$0.43	$430	
WASTE OIL					
Oils/lubricants - disposal once off-site	Litres	-	$0.43	$0	
OTHER					
Helicopter support	Hours	2	$1,360	$2,720	
Subtotal Chemicals and Contaminated Soils				**$3,150**	**$3,150**
Mobilization and Camp Operation					
MOBILIZE HEAVY EQUIPMENT FROM SITE TO REGIONAL CENTRE					
Personnel - Overland Transport	Staff Days	50	$446	$22,316	
Barge	lump sum	-	$0	$0	
Helicopter support	Hours	-	$1,360	$0	
Herc Flight	Flights	-	$30,000	$0	
CAMP OPERATION					
Personnel - Site Support (cook, first aid, super)	Staff Days	150	$0	$0	
Camp Man-days	Staff Days	427	$384	$163,824	
Subtotal Mobilization				**$186,139**	**$186,139**
Clean up and Reclamation					
RECLAIM CAMP, ROADS & AIRSTRIP					
Personnel - Scarify and install water breaks	Staff Days	10	$446	$4,463	
Revegetation (fertilizer & peat)	Bulk	-	$12,000	$0	
Subtotal Reclamation				**$4,463**	**$4,463**
Post Closure Monitoring					
MONITORING DURING RECLAMATION					
Water Sampling	Each	12	$500	$6,000	
Helicopter Support	hours	3	$1,360	$4,080	
POST CLOSURE INSPECTIONS					
Annual Inspection	each	2	$12,500	$25,000	
PERMITTING & CLOSE OUT REPORT	lump sum			$15,000	
Subtotal Post Closure Monitoring and Maintenance				**$50,080**	**$50,080**

Subtotal Capital Costs to Close			$357,003
PROJECT MANAGEMENT (Assumes Third Party Costs)	5	% of subtotal	$17,850
CONTINGENCY	10	% of subtotal	$35,700
GRAND TOTAL - CAPITAL COSTS			**$410,553**

NOTES: 2017 Assumptions

- Assumes Wishbone-Malley camp is closed and reclaimed as part of progressive reclamation during exploration.
- That leaving the site will be "controlled" exit with more than one season available to complete.
- That all improvements and assets will be removed and site returned to stable conditions.
- Every effort will be taken to minimize time to complete.
- Unit cost sources are outlined in spreadsheet and where available recent and appropriate site-specific data is used.
- Mobilization off-site will be principally via Cat-Haul to Bathurst inlet and then barge.
- Demobilization of drill rigs and drill equipment/supplies/material to be completed under contractual agreement.
- Post closure monitoring and inspection will occur at end of final reclamation work, and for 1 year post closure.
- Barge costs are accounted for in the Goose and George reclamation costs.