# Attachment 8: Abandonment and Restoration Plan



# **Back River Project**

Abandonment and Restoration Plan

Wishbone - Malley Exploration Area

JANUARY 2017

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#### 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	Туре	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 -	Winter Road Bathurst Inlet to Goose Lake and	Level 3	13-Dec-2016	KIA
Amended	George Lake	Levers	15 DCC 2010	NIA
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 -	George Camp	Level 3	12-Dec-2017	KIA
Amended	George Camp	Level 3	12-Dec-2017	NIA
KTL204C020 -	Boot	Level 2	12-Dec-2017	KIA
Amended				
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	Туре В	29-May-2020	NWB
2BE-GOO1520	Goose Water	Туре В	18-Feb-2020	NWB
2BE-MLL1217	Wishbone Malley Water	Туре В	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 15<sup>th</sup> to April 22<sup>nd</sup>, June 14<sup>th</sup> to June 29<sup>th</sup>, and August 16<sup>th</sup> to August 31<sup>st</sup>; 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 12<sup>th</sup>, and one engineering tour on August 24<sup>th</sup>. 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 4<sup>th</sup> 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. Environat 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.

ParameterMaximum concentration of<br/>any Grab Sample (μg/L)Benzene370Toluene2Ethylbenzene90Phenols20Oil and Grease5000pH6 to 9 (pH units)

Table 2. Regulatory guidelines for hydrocarbons in soils

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 environmat 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:

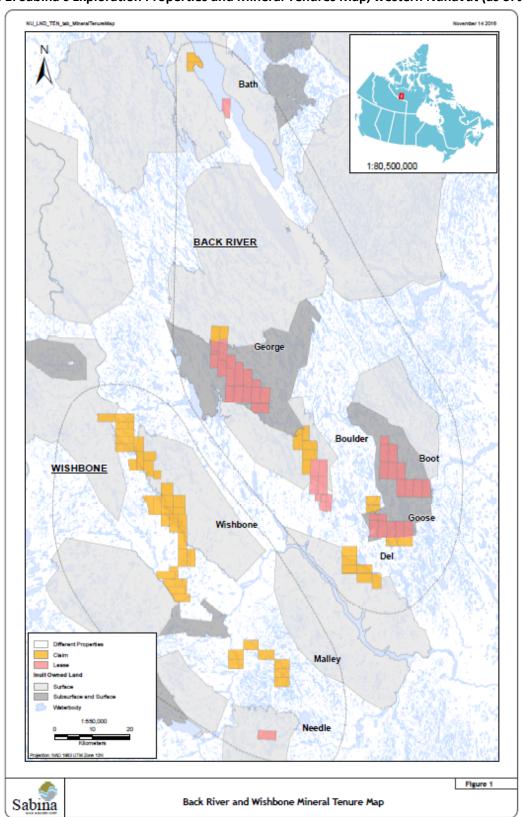
- Infrastructure Demolition Cost;
- Transportation (Labour, equipment, recycle, relocation of waste, etc.);
- Labour Cost;
  - Offsite Administrative Cost;
  - o Contractor;
- Rehabilitation Cost;
  - Site Supervision (Sabina);
  - Remedial supplies;
  - Native species supplies;
  - o Contractor;
- Environmental 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			r January UNIT	2017	
ACTIVITY/MATERIAL	UNITS	QUANTITY	COST	COST	
Exploration Activities					
DRILLHOLE RECLAMATION					
Cement (30kg)	Bags	-	\$16	\$0	
Helicopter support  Personnel - cut casing and cement	Hours Staff Days	7 14	\$1,360 \$446	\$9,520 \$6,248	
TRENCH	Stall Days	14	Ψ440	φ0,240	
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  SPECIALIZED ITEMS	Staff Days	105	\$446	\$46,863	
Helicopter support	Hours	5	\$1,360	\$6,800	
Subtotal Buildings and Equipment				\$97,402	\$97,402
Chemicals and Contaminated Soils					
FUEL STREET					
Disposal once off-site: diesel, Jet A/B, aviation gas	Litres	1,000	\$0.43	\$430	
WASTE OIL Oils/lubricants - disposal once off-site OTHER	Litres	-	\$0.43	\$0	
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 REGIONA	L CENTRE				
Personnel - Overland Transport	Staff Days	50	\$446	\$22,316	
Barge Helicopter support	lump sum Hours	-	\$0 \$1,360	\$0 \$0	
Herc Flight	Flights	-	\$30,000	\$0 \$0	
CAMP OPERATION	_				
Personnel - Site Support (cook, first aid, super) Camp Man-days	Staff Days Staff Days	150 427	\$0 \$384	\$0 \$163,824	
Subtotal Mobilization	Otali Days	721	ΨΟΟ-Ι	\$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		\$500	\$6,000 \$4,000	
Helicopter Support POST CLOSURE INSPECTIONS	hours	3	\$1,360	\$4,080	
Annual Inspection	each	2	\$12,500	\$25,000	
PERMITTING & CLOSE OUT REPORT	lump sum			\$15,000	¢50.000
Subtotal Post Closure Monitoring and Maintena	ince			\$50,080	\$50,080
		Subt	otal Capital C	osts to Close _	\$357,003
PROJECT MANAGEMEN	IT (Assumes Thi	ird Party Costs)	5	% of subtotal	\$17,850
	C	ONTINGENCY	10	% of subtotal	\$35,700

#### 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.