

SABINA RESOURCES LIMITED

HACKETT RIVER CAMP

ABANDONMENT AND RESTORATION PLAN

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INTRODUCTION

The Hackett River Abandonment and Restoration (A&R) plan was revised to provide greater detail about Sabina Resources' plans to address the restoration of existing camp infrastructure and debris as well as the associated exploration drill sites. This abandonment and restoration plan incorporates on site information not available when the initial plan was prepared. This A & R plan was prepared as partial fulfillment of the terms and conditions requested in Nunavut Water Board License **NWB2HAK0406 – Type “B”**.

The Hackett River exploration project consists of a single exploration camp which supports two diamond drill rigs that test proposed exploration targets. The exploration camp is located on Surface Lease 76F 16-1-4 which permits the presence of mineral exploration camp structures subject to certain terms and conditions.

The existing camp was established in about 1970 and was occupied at various times since by Cominco or Etruscan Resources. The last time the camp was in active use was 1998. The camp is subject to a new regulatory environment as a result of the creation of Nunavut in 1999. The previous 35+ years of exploration work resulted in an accumulation of various waste products at the camp site, minor quantities of debris at or near several drill sites and at an esker airstrip located south of camp. The bulk of the waste is located at the historic camp and at the esker airstrip.

Project related waste products can be classified into 4 types:

1. Old petroleum fuel products
2. Drill additives
3. Scrap metal and equipment
4. Burnable trash

The 4 types of waste are ranked in order of priority for clean-up and severity of possible future environmental impact.

This A & R plan describes the work done to date and the proposed work designed to clean up the historic waste accumulation and mitigate any impacts caused by the present exploration program.

EXISTING CONDITIONS AND RESTORATION PLANS

Old Petroleum Fuel

As the snow melted from the camp area it revealed a 100 drum fuel cache of heating oil labeled HRR (after Hackett River Resources) from the 1998 exploration program. The heating oil was found to be suitable for use in the oil stoves in camp. Approximately 40 drums have been moved from the old HRR fuel cache and have been used for heating.

One drum was found to have leaked a small (about 1 litre) amount of heating oil onto the ground. The oil contaminated soil was dug down to the frost line and placed in a plastic bag and flown out to Yellowknife for disposal. The fuel from the defective drum was transferred to another drum and was later used for heating. It is expected that the remaining HRR heating oil will be used when the weather is colder.

Also found in camp were 9 partially full drums of old high octane gasoline, probably last used for piston powered helicopters in the 1970s. The old fuel was shipped out to Yellowknife for recycling in early June.

Also in camp were 16 old drums of diesel, some marked NUNA, some containing water and rust. Ten drums containing a mixture of water, fuel and rust were shipped out to Yellowknife for recycling in June. At present 6 drums of these drums are still in camp. Plans are to recover the diesel from these 6 drums or ship the drums to Yellowknife for recycling. Several of the old diesel drums had small oil stained zones near them indicating minor leakage. The oil stained soil has been dug up and placed in plastic sample bags and has been shipped to Yellowknife for disposal. Three of the drums are shown in the following photo along with the remaining rusty drill rods from a much larger pile.



Also in camp is one partial drum of old gasoline and a full drum of old Jet B. The gasoline and Jet B are expected to be used in camp or will be shipped out to Yellowknife for recycling.

Also found near camp and recovered by helicopter from the shore of Camp Lake is a drum of some kind of petroleum product. The rusty drum is currently located within one of the camp fuel berms. The contents will be transferred to a drum in good condition and will be used in camp or will be shipped out to Yellowknife for recovery.

At the esker airstrip located south of camp are located 3 drums of old Jet-B fuel. If tests show the contents in good condition the fuel will be used, otherwise the intact drums will be shipped out to Yellowknife for recycling.

Drill Additives

As the snow melted back it showed approximately 3 partial pallets of 50 lb bags of calcium chloride salt totaling about 1.5 tons. Crows had pecked holes in the plastic bags allowing water to enter which hardened the salt. Most of the hardened bags of salt have already been used in the current drill program. The remaining bags have been put in a Megabag for transport and use at a drill.

Also found in the generator shed was a pallet containing approximately 20 bags of Gel-X in good condition. No use is expected to be made of the X-TRA Gel colloid (an old style polymer) and it will be flown out to Yellowknife for disposal.

Scrap Metal and Equipment

As the snow melted back from the camp site it revealed large quantities of scrap metal and abandoned equipment. Most of the scrap metal was in the form of rusty drill rods, abandoned heavy equipment, empty fuel drums containing metal scrap, abandoned kitchen appliances and oil stoves.

Four Twin Otter loads of old rusty drill steel have already been shipped out to Yellowknife for disposal or recycling. Another 2 Twin Otter loads of rusty drill steel remain at camp and another several loads remain at the esker airstrip. Old drill steel that considered salvageable at the esker airstrip will be moved to camp for use during the current drill program.

Two abandoned small bulldozers and a wheeled drill rod wagon are located in camp. One of the bulldozer units has been partially dismantled and awaits transport back to Yellowknife for salvage or disposal at the Yellowknife dump. One of the old crawler units might be of interest to the Yellowknife airport as a historic mining relic from the 1930's or 40's. Plans are to dismantle the equipment this year and transport it to Yellowknife in 2005 from a proposed ice airstrip on Camp Lake. A Bombardier track mounted sled located at the esker airstrip south of camp will be serviced this summer and will be available for use during an anticipated early spring drill program on Camp Lake. The following photo shows the 2 small bulldozers and a rod wagon.



Several Twin Otter loads of old scrap metal in steel drums await transport to Yellowknife for disposal. Another load of abandoned kitchen appliances, (refrigerators, stoves) remain to be transported to Yellowknife for disposal. Other assorted scrap metal consisting of old rusty coil stove elements, worn out metal skimmers and a damaged aluminum boat will also be shipped out as space becomes available on flights to Yellowknife. To date 4 Twin Otter loads of scrap metal, mostly old rusty oil stoves, stove pipe and two refrigerators have been shipped out to Yellowknife for disposal. The following photo shows the pile of scrap metal filled drums and kitchen appliances awaiting transport to Yellowknife.



Burnable Trash

As the snow melted back from the camp site it revealed considerable burnable trash blown off buildings or tents and strewn among the buildings. The trash consisted of small pieces of plywood ripped from buildings by bears, small pieces of plastic and tarp, pieces of paper or cardboard and small pieces of lath and lumber. The burnable trash found around camp has been cleaned up and incinerated. There remain some pieces of plastic tarp and other litter along the edges of Camp Lake that will be cleaned up before freeze-up in 2004.

Buildings

Upon arrival in camp in 2004 most of the historic structures at the Hackett River camp were found to be in need of refurbishment to make them useable again. Refurbishment of buildings to date has consisted mostly of cleaning, roof tarp replacement, insulation replacement and painting. The metal roof of the core storage building has been repaired this year. At present all the buildings are in good condition. Several more of the buildings will be painted to help preserve the plywood exterior sheeting.

Old Drill Sites

Minor quantities of scrap metal and plastic have been found at some of the old drill sites. An old engine block and an old engine battery have been recovered from the old drill sites and await transport to Yellowknife for disposal or reclamation. As other old waste is found in the field it will be noted and when possible it will be recovered for appropriate disposal in Yellowknife.

CAMP AND EXPLORATION SITE ABANDONMENT AND RESTORATION PLAN

The following steps and procedures will be followed to allow proper abandonment and reclamation of the camp and drill site areas.

In Camp

1. The grey water tank will be wiped clean and removed from camp. The grey water drainage sump will be backfilled upon closure of camp.
2. All fuel will be consumed on site or will be flown back to Yellowknife for appropriate recovery. Empty fuel containers will be flown back to Yellowknife for recycling or disposal.
3. All combustible waste will be incinerated in the camp incinerator before closure of the camp.
4. All metal waste will be flown out of camp before camp closure.
5. All drilling related equipment will be flown back to the contractor's base in Yellowknife.
6. The dock will be pulled up from the water for protection from lake ice.
7. Rented tents and equipment will be removed from camp and flown back to Yellowknife upon camp closure. All buildings will be secured against animal entry and wind and left in a good condition consistent with the conditions of Surface Lease 76F 16-1-4.

At Drill Sites

1. All drilling and related equipment and fuel drums will be removed from the site.
2. The drill site will be inspected to ensure that all garbage is removed from the area.
3. All drill sumps will be backfilled covering the cuttings and re-contoured to the adjacent land surface.
4. Drill casing will be pulled where no significant mineralization is encountered. Drill casing will be left at holes where significant mineralization was encountered. Any casing left will be capped.
5. A final inspection will be made of the drill sites to ensure that no waste is left at the site and that there is minimal evidence of land use activity.