SABINA GOLD AND SILVER CORP.

BACK RIVER PROJECT – GOOSE LAKE

2013 ANNUAL REPORT TO THE NUNAVUT WATER BOARD

EXECUTIVE SUMMARY

This report to the Nunavut Water Board (NWB) has been prepared to summarize the project activities and monitoring undertaken by Sabina Gold and Silver during 2013, in accordance with Part B, Item 2 of License 2BE-GOO1015. This license was issued on March 26th, 2010 with Amendment No. 1 issued on October 18th, 2010, Amendment No. 2 issued on January 28th, 2011 and Amendment No.3 issued on May 20th, 2012. The current license will expire on March 31st, 2015.

The water license for Goose Lake includes a sampling program for the recording of the water volume extracted for any purpose and monitoring water quality within specific project areas (water from within the lined fuel containment area and pre and post drilling on ice water sampling requirements).

Key activities associated with the Goose Lake Project in 2013 are summarized as follows:

- Completion of an all weather airstrip
- The upgrade of an all weather road from the airstrip to the Goose Lake camp
- Land based and on ice drilling at the Llama Lake deposit
- Land based drilling at the Umwelt and Goose deposits
- Land based drilling at the Boulder and Boot properties
- Geotechnical drilling to support mine infrastructure at the Goose Lake site
- The development of a quarry to supply approximately 41, 000 m3 of aggregate
- The delivery of 7-75,000 liter fuel tanks
- Delivery of fuel and supplies to support the quarrying and exploration activities
- Shipment of hazardous materials from site to approved disposal facilities
- Improvements to infrastructure to support the exploration program

During 2013, fresh water was utilized for both potable and drilling activities. Drilling operations included exploration drilling and geotechnical drilling to support mine planning.

Potable water for the Goose camp was obtained from Goose Lake using a dedicated pump and transferred to water storage tanks at camp.

Water for exploration drilling was obtained from Goose, Llama and Umwelt Lakes. Water required for regional drilling were obtained from water bodies chosen in advance and monitored to ensure drawdown did not occur. All water utilized was metered as per water license requirements. Calcium chloride was added to water to lower the freezing point and to enable drilling under permafrost conditions.

Waste management included the handling of pacto waste, domestic waste in an incinerator, an open burn pit, hazardous waste and drill waste.

During 2013, a total of 39, 849 m of drilling was completed in a 196 hole program focused on areas of interest in Goose, Umwelt and Llama deposits. A total of 11, 035m of drilling was completed in a 37 hole program on the Boulder property. A total of 6194m of drilling was completed in a 29 hole program on the Boot property.

During the 2013 geotechnical/geomechanical drilling, a total of 53 holes were completed (approximately 5686 m) within the Goose Lake area.

In 2013, fuel supply was provided by aircraft on the ice strip on Goose Lake. Aircraft including 737's and Electras were used to fly fuel in and was transferred into the 13-double walled fuel tanks at the Goose Lake fuel farm.

During 2013, Sabina hosted visits as well as formal site compliance inspections from regulatory authorities including the Kitikmeot Inuit Association Lands Department, Aboriginal Affairs and Northern Development Canada (AANDC) Lands Department, Aboriginal Affairs and Northern Development Canada Water License Inspector and inspectors from WSCC. These inspections provided constructive feedback and Sabina has taken corrective action where required.

Progressive reclamation work completed in 2013 included: remediation of historical exploration drill sites in the Umwelt area, removal of historical drums, consolidation of scrap steel and the removal of hazardous wastes by air to approved disposal facilities.

An annual review of the management plans developed under the water license has been undertaken. Updates to the Spill Contingency Plan has been completed and is included in Appendix D of this report.

Community consultation was undertaken in 2013 and discussions for the current and proposed activities were held. In addition to community consultations, regulatory and technical groups were hosted allowing parties to view activities first hand.

SABINA GOLD AND SILVER CORP.

BACK RIVER PROJECT – GOOSE LAKE

2013 ANNUAL REPORT TO THE

NUNAVUT WATER BOARD

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SECTION 1.0 INTRODUCTION

1.1 GENERAL BACKGROUND

This report to the Nunavut Water Board (NWB) has been prepared to summarize activities and monitoring undertaken at the Sabina Gold and Silver Corp. Back River Project – Goose Lake in accordance with Part B, Item 2 of 2BE-GOO1015. This license was issued on March 26, 2010 with Amendment No. 1 issued on October 18th, 2010, Amendment No.2 issued on January 28th, 2011 and Amendment No. 3 issued on May 20th, 2012.

Goose Lake's water license includes a sampling program that involves monitoring water extracted for any purpose, testing water quality parameters for pre/post on ice drilling activities and testing of water quality parameters of effluent discharged from trenches or fuel farms. This information is summarized on the completed NWB Annual Report Form included in Appendix A, and described in more detail in the following sections.

Figure 1.1 illustrates the locations of the key activities areas associated with the Back River Project which include the Goose Lake, Boulder and Boot Properties.

Key activities associated with the Back River Project in 2013 are summarized as follows:

- Completion of an all weather airstrip
- The upgrade of an all weather road from the airstrip to the Goose Lake camp
- Land based and on ice exploration drilling at the Llama Lake deposit
- Land based exploration drilling at the Umwelt, Echo and Goose Main deposits
- Land based exploration drilling on "brownfields" targets in the Goose area
- Land based exploration drilling at the Boulder and Boot properties
- Geomechanical drilling to determine rock quality at the Goose Main, Umwelt and Llama deposits
- Geotechnical drilling to support mine infrastructure at the Goose Lake site
- Metallurgical drilling at the Goose Main deposit.
- The development of a quarry to supply approximately 41, 000 m3 of aggregate
- The delivery of 7-75,000 liter fuel tanks
- Delivery of fuel and supplies to support the quarrying and exploration activities
- Shipment of hazardous materials from site to approved disposal facilities
- Improvements to infrastructure to support the exploration program

1.2 BRIEF OVERVIEW OF PROJECT ACTIVITIES IN 2013

The year 2013 saw an increase in activities at the Back River Project, with many programs undertaken, including exploration, metallurgical and geotechnical/geomechanical drilling, development of a quarry, operation of a crusher, construction of an all weather airstrip and engineering and environmental studies.

Exploration drilling focused on targets within the Goose, Boulder and Boot leases. The Goose lease campaign focused on infill resource conversion drilling and near surface extensions of the known

mineralized zones in the Goose, Llama and Umwelt deposits, as well as brownfields exploration for as yet unidentified resources. Drilling at Boulder and Boot focused on exploration targets identified by personnel conducting structural surface mapping and prospecting. All drilling at Back River in 2013 was completed using Duralite or AVD drills belonging to and operated by Major Drilling Group International Inc.

Exploration drilling was initiated on February 19th and completed on October 2nd. A total of 259 holes were drilled, of which 12 were abandoned before completion, with the completed drill holes ranging in depth from 26 to 902m. The distribution of exploration drilling among the various properties are as follows:

- 193 drill holes completed at the Goose Site (including Goose Main, Llama, Umwelt and Echo deposits and Goose brownfields targets) for a total of 39,276 meters. This includes 8 holes totaling 613m which were abandoned before completion
- 37 drill holes completed on the Boulder property for a total of 11, 035 meters, including one hole (27m) which was abandoned before completion;
- 29 drill holes complete on the Boot property for a total of 6194 meters, including 3 holes (30m) which were abandoned before completion;

A total of 56,504 meters of exploration drilling was completed (including 671m of in abandoned holes) during the 2013 season. Exploration drill hole locations are found in Figures 1.2 to 1.4.

Geotechnical drilling was undertaken in 2013 to determine underlying ground and rock conditions for project infrastructure. A total of 34 holes were drilled ranging in depth from 5 to 25m for a total of 465 meters, including one hole (10m) which was abandoned before completion.

Geomechanical drilling was undertaken in order to provide detailed information concerning rock quality to assist with mine design. In total 19 holes were completed at the Goose site (8 at Goose Main, 7 at Umwelt and 4 at Llama) for a total of 5221m, including 3 abandoned holes totaling 99m. The completed holes range in depth from 161 to 782m. Geotechnical and geomechanical drill hole locations are included in Figure 1.2.

Three metallurgical holes totaling 573m were completed at the Goose Main deposit. These holes range in depth from 176 to 212m.

Water source locations for all types of drilling were extracted from Goose Lake, Llama Lake, Umwelt Lake and various unnamed water bodies near drilling activities. Water source locations are found on Figure 1.5 and Table 1.1 provides water source location coordinates.

Exploration and geotechnical/geomechanical drilling was conducted during both ice covered and ice free conditions. The focus of the on ice drilling was to further define and extend the known resource. All land based drilling during the open water season was conducted at a minimum of 31 meters from a water body.

Drill core from the 2013 drilling program is stored in a designated area greater than 31 meters away from a water body.

Following key activities were completed to support the activities on site encompassing exploration and geotechnical/geomechanical drilling, construction of the all weather airstrip and environmental and engineering studies:

- Three additional sleeping tents were added to support an increase in camp population;
- A quarry was developed south west of camp to provide aggregate for a crusher;
- A crusher was mobilized to site to produce aggregate of varying sizes;
- Approximately 41,000 m3 of rock was removed and crushed from the Goose Lake quarry;
- Pads were built in camp to allow the construction of a lined hazardous materials containment area;
- 7-75,000 liter double walled sea can style fuel tanks were delivered to site;
- Fuel was delivered to site via aircraft landing on an ice strip;
- Three heli pads were built complete with a lined area for the fuel transfer;
- An impermeable liner was installed underneath the south quonset maintenance and equipment storage facility;
- Upgrades to the incinerator building were completed to ensure efficiencies in the operation of the incinerator; and
- Grey water lines were repaired and realigned to ensure appropriate drainage was occurring.

Consultations with Community members and interested stakeholders was undertaken in 2013 and all communities in the Kitikmeot were visited.

Tours of the Sabina Gold and Silver Corp. sites were undertaken in 2013, where proposed future development areas were visited in addition to current infrastructure and practices. High level government officials as well as technical staff had an opportunity to see “first hand” areas of proposed infrastructure.

SECTION 2.0 WATER USE AND WASTE DISPOSAL ACTIVITIES (PART B, ITEM 2 (A))

2.1 WATER USE

In 2013, fresh water was utilized to serve three purposes: potable water supply for the Goose camp, water supply for drilling operations and storage, discharge and diversion/collection purposes.

2.1.1 Methods of Obtaining Freshwater for Potable Use and Quantities of Water Used

Potable water was extracted from Goose Lake via an electrical submersible pump with a screened intake. This screened intake meets Department of Fisheries and Oceans Freshwater Intake End of Pipe Fish Screen Guidelines requirements. Water was pumped directly from Goose Lake via a pipe into holding tanks within camp. Prior to consumption, potable water is treated with filtration, chlorination and UV disinfection.

On February 25th, potable water use exceeded the water license limit of 30m3 due to the recharge of the fire suppression system at the Goose Lake camp.

Table 2.1 summarizes daily potable water used in 2013.

2.1.2 Methods of Obtaining Freshwater for Drilling Purposes

Water for exploration and geotechnical drilling purposes was extracted from Goose, Llama and Umwelt Lakes as well as various unnamed lakes in close proximity to drilling. Water bodies were chosen in advance and monitored to ensure drawdown did not occur.

Water was removed from sources utilizing a diesel pump located at a minimum distance of 31 meters away from the water body. Screened intakes were used in all instances to meet Department of Fisheries and Oceans Freshwater Intake End-of-pipe Fish Screen Guidelines to prevent entrapment of fish.

Prior to use by drills, calcium chloride was added to the water to lower its freezing temperature to allow for drilling in permafrost. A closed circuit system (poly drill) was used at each drill where return water was captured and re-used within the drilling operations. Concentrations of calcium chloride were monitored by drill staff and where required, additional calcium chloride was added to the system. This enhanced system reduces over all water and calcium chloride consumption.

In 2013, digital meters were added to each drill and daily consumption volumes were recorded. On 11 days, water for drilling purposes exceeded the water license limit of 240 m3 per day. These exceedences are attributed to drills increasing their demand on water consumption. Discussions with drilling personnel occurred and demand on water were reduced by scaling back pump demand. On four days (4) in September incorrect water meter readings were recorded by staff.

Table 2.2 summarizes daily water consumption for exploration and geotechnical drilling purposes.

2.1.3 Methods of Obtaining Water for Storage, Discharge and Diversion/Collection Purposes

Water for storage, discharge and diversion/collection purposes were obtained from Goose Lake. Water was removed from Goose Lake utilizing a water truck complete with a screened in hose to meet

regulatory requirements. Water extracted for this purpose was for ice road construction requirements, dust suppression near camp facilities, and compaction requirements on the all weather airstrip.

In 2013, water license requirements of 12m3 per day were met. Table 2.3 summarizes daily water consumption for storage, discharge and diversion/collection purposes.

2.2 GREY WATER, LATRINE AND WASTE MANAGEMENT

2.2.1 Grey water and Latrine Wastes

Grey water generated at the Goose Lake camp consists of waste streams collected from the kitchen and camp washing facilities (showers and laundry). Grease traps are installed within the kitchen which removes solid particles prior to discharge.

Grey water is discharged at the Goose Lake camp located at a site away from surface water.

At the Goose Lake camp, latrine toilets (pacto toilets) are used from which human waste is collected and disposed of in camp incinerators.

Table 2.4 contains coordinates for the grey water discharge land latrine waste locations and Figure 2.1 illustrates those locations.

2.2.2 Non-hazardous and Hazardous Waste Management

Non-hazardous waste streams consist of kitchen refuse, paper, recyclable food containers, cardboard and inert wood.

Kitchen refuse and paper are disposed of in two-stage commercial incinerators on a daily basis.

Plastic and metal food containers which were deemed appropriate for recycling are shipped off of site to an approved disposal facility in Yellowknife.

In 2013, approval from the Water Board was obtained to conduct open burning activities at the Goose Lake property. Materials suitable for open burning include cardboard and inert wood. An open burn area is designated and located on bare rock which is enclosed within a cage. Open burning is conducted when environmental conditions are suitable such as dry and calm days.

Volumes and a photo catalogue of open burning activities are included in Appendix B.

In 2013, Sabina Gold and Silver Corp. expended great effort in consolidating hazardous wastes from previous years. A lined storage area was constructed where materials could be sorted and packaged to be shipped to Yellowknife. Once received in Yellowknife, KBL Environmental was retained to manage and properly dispose of hazardous wastes generated at the Goose Lake Camp.

Hazardous wastes generated at the Goose Lake site included waste hydrocarbon liquids, used batteries and contaminated soil. Empty fuel drums are either stored on site for further use or shipped back to the supplier for recycling purposes.

Remaining hazardous materials are stored within a lined containment area for future shipment from site.

Appendix C summarizes types and volumes of hazardous materials shipped off of site.

Figure 2.1 show the following as it relates to solid and hazardous wastes:

- Location of lined waste storage area
- Location of camp incinerator
- Location of burn pit

Table 2.4 provides coordinates for solid and hazardous wastes locations.

2.2.3 Drill Waste

For exploration activities, sumps consisted of either utilizing the main excavated trench at the Goose camp or boulder fields in areas adjacent to the drill holes. Boulder fields were located and approved of by Environmental staff prior to use. These boulder fields were located at a minimum of 31 meters away from a water body. Coordinates of all cutting disposal sites are found in Table 2. 5. Continual inspections were conducted of these locations to ensure stability of areas.

The drilling program in 2013 consisted of utilizing a poly drill system where brine was recirculated and cuttings were deposited within a mega bag. The mega bags sat in full impermeable containment so that brine was collected and pumped back into the system. Once a mega bag was full, a helicopter was utilized to sling it to the approved location for disposal.

SECTION 3.0 – UNAUTHORIZED DISCHARGES (PART B, ITEM 2 (B))

In 2013, spill contingency training was delivered to site employees through classroom and tool box meetings.

In 2013, 1 (one) spill was reported to the Nunavut Spill Line. 10 liters of hydraulic oil was lost from a Challenger while clearing snow for an ice runway strip on Goose Lake. Materials were scraped off of the snow and ice and placed in drums for disposal off of site at an approved disposal facility.

Details of the unauthorized discharge which occurred in 2013 is provided on Table 3.1.

SECTION 4.0 UPDATES TO PLANS (PART B, ITEM 2(C))

In accordance with Part B, Item 2 (c) of the water license, an annual review of the management plans developed under the water license has been undertaken. Updates to the Spill Contingency Plan were required to reflect current personnel positions on site. The updated Spill Contingency Plan is attached in Appendix D.

The remaining plans did not require updates therefore are not included in the Appendix of this report.

SECTION 5.0 PROGRESSIVE RECLAMATION WORK (PART B, ITEM 2(D))

A summary of progressive reclamation work completed in 2013 is provided below.

- Hazardous wastes were consolidated and packaged for removal in 2013 in accordance with permits and regulatory requirements. Shipments were continuous throughout 2013 and aircraft were utilized to ship hazardous wastes to Yellowknife where KBL Environmental was contracted to package, manifest and ship wastes to approved disposal facilities. Appendix C provides details on materials shipped off of site in 2013.
- Empty drums were sent back to fuel supplier for recycling via aircraft.
- During the 2013 season, reclamation activities were focused on historical drill sites in the Umwelt area. Eighty-seven historical drill sites from 2009-2012 have been reclaimed. Materials removed include garbage, metal and timbers. Casings and anchors were cut as close to the ground as safely possible. Details and photographs of the progressive reclamation work undertaken in 2013 are included in Appendix E.

SECTION 6.0 ARTESIAN FLOW OCCURRENCES (PART B, ITEM 2(E))

No artesian flow occurrences were reported during 2013.

SECTION 7.0 WATER QUALITY OF WATER LICENSE MONITORING PROGRAM (PART B, ITEM 2(F); PART D, ITEM 10; PART J, ITEM 6; AMENDMENT 3 PART E, ITEM 16; AMENDMENT 3 PART J: ITEM 10.

In 2013, monitoring stations for GOO-1 (raw water supply intake at Goose Lake) and GOO-2 (final discharge point from the bulk fuel storage facility) were active. Quantity data for GOO-1 is found in Table 2.1 and discharge volumes for GOO-2 in Table 7.1.

Treated effluent from the Goose Lake bulk fuel storage facility (GOO-2) first met water license discharge requirements on May 27th and as such was directed to the approved discharge location near the gray water line. Water quality results were forwarded to the AANDC Water License Inspector prior to discharge. Water quality results for GOO-2 are found in Table 7.2.

Water quality samples were collected prior to and upon completion of drilling on Llama Lake as per Water License Part J, Item 6 and results are found in Table 7.3. Results did not exceed 10mg/L Total Suspended Solids as stipulated by the Canadian Council of Ministers for the Environment Guidelines for the Protection of Freshwater Aquatic Life.

In 2013, eleven (11) surveys were conducted of the quarry, airstrip and connecting road to determine whether or not any flow existed and subsequent sampling was required as per Amendment 3, Part J, Item 10. Surveys were conducted on the following dates:

- May 22nd, June 4th, June 12th, June 16th, June 25th, July 28th, August 8th, August 23rd, September 5th, September 15th and September 20th.

SECTION 8.0 OTHER INFORMATION REQUESTED (PART B, ITEM 2 (G))

In 2013, no details on water use or waste disposal was requested by the Board.

SECTION 9.0 INSPECTION AND COMPLIANCE REPORT CONCERNS

Inspections that occurred during the 2013 exploration program include:

- April 25-28, AANDC Water Resources inspector Eva Paul completed an inspection of the Back River Project. Deficiencies of note:
    - The lack of inclusion of water quality and quantity data with the 2012 NWB Annual Report. Information was provided on June 28th, 2013 as an Addendum to the Inspector and NWB;
    - A Quarry Development Plan required submission. This Plan was submitted on June 28th, 2013.
- July 12-13, AANDC Lands Inspector Baba Pedersen, completed an inspection of the Back River Project. Additional work was needed to address drillhole reclamation. Work requested was completed and follow up report submitted to Lands Inspector on August 5th, 2013.
- July 16-17, KIA Inspectors Wynter Kuliktana, Luigi Toretti and Sam Arnakalak completed an inspection of the George camp and it was found to be in compliance with permits.
- August 18, WSCC inspection, Martin Van Rooy and Jeff Fuller focused on electrical systems at the Goose Lake Project. All deficiencies were corrected at that time

TABLES

TABLE 1.1

SABINA GOLD & SILVER CORP.
BACK RIVER PROJECT

2013 ANNUAL REPORT TO THE NUNAVUT WATER BOARD

WATER SOURCE LOCATIONS

Description	UTM Coordinates (NAD83)		Latitude	Longitude
	Easting (m)	Northing (m)		
Goose Lake				
Goose Camp Intake	434,129	7,269,996	65° 32' 43.7"N	106° 25' 34.0"W
Goose Lake	433,999	7,270,164	65° 32' 49.1"N	106° 25' 44.4"W
Goose Neck	431,321	7,269,954	65° 32' 40.3"N	106° 29' 12.6"W
Goose Lake	434,326	7,269,935	65° 32' 41.9"N	106° 25' 18.5"W
Goose Lake	433,781	7,270,364	65° 32' 55.4"N	106° 26' 1.7"W
Goose Lake	434,320	7,269,934	65° 32' 41.9"N	106° 25' 19.0"W
Llama Lake	428,602	7,271,994	65° 33' 44.0"N	106° 32' 48.4"W
Llama Lake	428,705	7,272,285	65° 33' 53.5"N	106° 32' 40.9"W
Unnamed	434,107	7,267,359	65° 31' 18.6"N	106° 25' 31.0"W
Unnamed	431,212	7,267,057	65° 31' 6.6"N	106° 29' 15.8"W
Twist Lake	409,843	7,286,869	65° 41' 27.3"N	106° 57' 46.6"W
Dove Lake	432,640	7,287,600	65° 42' 11.0"N	106° 28' 1.9"W
Bowtie Lake	435,600	7,282,600	65° 39' 31.8'N	106° 24' 1.2"W
Jigsaw Lake	432,725	7,286,520	65° 41' 36.3"N	106° 27' 53.3"W
Raven Lake	435,900	7,281,100	65° 38' 43.6"N	106° 23' 35.1"W
Opener Lake	412,222	7,284,250	65° 40' 5.2"N	106° 54' 34.1"W
Peace Lake	411,700	7,285,500	65° 40' 45.0"N	106° 55' 17.9"W
Unnamed	438,000	7,280,400	65° 38' 22.4"N	106° 20' 49.7"W
Humpback Lake	413,799	7,281,180	65° 38' 27.6"N	106° 52' 23.5"W
Umwelt Lake	428,945	7,270,895	65° 33' 8.8"N	106° 32' 19.5"W
Vega Lake	413,850	7,279,400	65° 37' 30.2"N	106° 52' 15.4"W
Lake 484639869	434,990	7,287,870	65° 42' 21.5"N	106° 24' 58.2"W
Lake 73788	409,843	7,286,869	65° 41' 27.3"N	106° 57' 46.6"W
?	434,107	7,267,359	65° 31' 18.6"N	106° 25' 31.0"W
Fox Lake	431,212	7,267,057	65° 31' 6.6"N	106° 29' 15.8"W
Lake 73490	411,710	7,285,420	65° 40' 42.4"N	106° 55' 16.9"W

TABLE 2.1

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DAILY QUANTITIES OF WATER FOR CAMP

Day	January	February	March	April	May	June	July	August	September	October	November	December
	GOO-1 (m^3)	GOO-1 (m^3)	GOO-1 (m^3)	GOO-1 (m^3)	GOO-1 (m^3)	GOO-1 (m^3)	GOO-1 (m^3)	GOO-1 (m^3)	GOO-1 (m^3)	GOO-1 (m^3)	GOO-1 (m^3)	GOO-1 (m^3)
1	0.0	3.6	11.9	10.9	12.9	15.6	19.4	10.0	14.5	14.2	N/A	N/A
2	0.0	3.0	12.3	11.2	19.9	12.2	9.4	9.6	14.7	14.3	N/A	N/A
3	0.0	2.1	11.7	13.9	15.2	23.5	10.8	10.7	14.5	14.3	N/A	N/A
4	0.0	4.5	10.8	13.9	14.5	15.7	15.9	9.5	14.5	10.1	N/A	N/A
5	0.0	2.9	8.4	5.2	23.8	11.0	14.3	9.6	14.0	9.6	N/A	N/A
6	0.0	2.9	10.7	11.7	15.6	11.5	25.9	10.7	15.4	9.3	N/A	N/A
7	0.0	3.5	6.9	11.8	15.7	11.2	13.5	10.0	13.2	4.2	N/A	N/A
8	0.0	3.2	12.7	13.4	15.5	11.1	14.6	10.1	13.5	3.5	N/A	N/A
9	0.0	4.2	10.3	13.2	20.7	10.3	15.5	10.7	14.7	3.0	N/A	N/A
10	0.0	0.0	13.3	13.1	17.3	0.1	8.5	14.8	14.5	Camp Closed	N/A	N/A
11	0.0	10.3	10.6	12.6	16.5	0.0	8.6	14.6	14.2	N/A	N/A	N/A
12	0.0	24.7	9.6	6.5	18.2	2.4	9.5	16.1	14.6	N/A	N/A	N/A
13	0.0	8.7	12.1	11.6	16.3	12.9	8.4	14.9	14.5	N/A	N/A	N/A
14	0.0	9.0	19.2	22.0	17.2	13.1	14.1	13.7	14.6	N/A	N/A	N/A
15	0.0	6.3	2.7	11.1	15.5	13.0	15.2	15.5	18.6	N/A	N/A	N/A
16	0.0	7.2	10.2	10.2	18.5	13.3	14.9	14.7	14.5	N/A	N/A	N/A
17	0.0	7.9	15.5	14.9	17.2	12.7	14.5	15.3	14.2	N/A	N/A	N/A
18	0.0	8.3	10.3	9.0	16.3	13.2	14.1	15.5	13.7	N/A	N/A	N/A
19	0.0	1.3	9.1	8.6	17.8	13.0	13.8	14.4	14.0	N/A	N/A	N/A
20	0.0	22.5	16.8	14.2	14.8	13.5	15.9	15.0	14.2	N/A	N/A	N/A
21	0.0	0.8	13.3	10.6	22.0	15.0	7.2	14.8	14.8	N/A	N/A	N/A
22	0.0	0.2	12.9	3.0	15.4	14.3	9.0	15.1	15.0	N/A	N/A	N/A
23	0.0	1.5	18.1	19.2	18.0	14.5	14.5	14.4	15.0	N/A	N/A	N/A
24	0.0	2.0	9.1	8.0	15.7	18.8	7.2	12.8	15.4	N/A	N/A	N/A
25	0.0	**48.3**	9.1	13.0	28.8	15.4	12.5	14.5	15.4	N/A	N/A	N/A
26	0.0	3.5	10.4	13.2	19.7	12.2	18.6	14.8	17.2	N/A	N/A	N/A
27	0.0	10.5	10.4	14.4	21.2	12.1	9.6	14.5	14.2	N/A	N/A	N/A
28	11.6	11.4	11.5	17.3	13.2	13.1	7.8	14.4	14.3	N/A	N/A	N/A
29	1.7	N/A	11.5	17.4	13.2	10.5	10.6	14.3	14.3	N/A	N/A	N/A
30	2.5	N/A	13.9	15.3	13.9	21.7	9.6	15.1	15.1	N/A	N/A	N/A
31	2.9	N/A	13.9	N/A	13.7	N/A	10.8	14.7	N/A	N/A	N/A	N/A
Total	**18.7**	**214.3**	**359.1**	**370.3**	**534.1**	**376.9**	**394.3**	**414.8**	**441.0**	**82.5**	**0.0**	**0.0**

Notes:

TABLE 2.2

SABINA GOLD & SILVER CORP.
BACK RIVER PROJECT

2013 ANNUAL REPORT TO THE NUNAVUT WATER BOARD

DAILY QUANTITIES OF WATER FOR DRILLING PURPOSES

Day	January	February	March	April	May	June	July	August	September	October	November	December
	(m^3)	(m^3)	(m^3)	(m^3)	(m^3)	(m^3)	(m^3)	(m^3)	(m^3)	(m^3)	(m^3)	(m^3)
1	0.0	0.0	25.5	29.0	10.5	18.5	43.5	12.3	111.2	145.0	N/A	N/A
2	0.0	0.0	21.1	12.2	14.8	8.4	34.9	15.0	**273.3**	Drill Completed	N/A	N/A
3	0.0	0.0	16.4	29.0	13.3	91.2	52.9	210.1	**285.0**	N/A	N/A	N/A
4	0.0	0.0	29.0	12.2	19.4	84.0	47.0	108.3	**281.1**	N/A	N/A	N/A
5	0.0	0.0	19.5	32.7	15.0	88.7	39.1	37.2	*	N/A	N/A	N/A
6	0.0	0.0	20.6	29.2	23.3	84.4	24.3	181.8	223.7	N/A	N/A	N/A
7	0.0	0.0	16.6	23.0	14.0	140.7	32.6	240.8	*	N/A	N/A	N/A
8	0.0	0.0	23.4	33.5	29.2	97.1	24.4	198.0	**284.5**	N/A	N/A	N/A
9	0.0	0.0	23.9	33.7	17.3	76.0	18.2	200.0	**268.5**	N/A	N/A	N/A
10	0.0	0.0	25.4	5.1	22.6	38.0	47.7	181.9	125.7	N/A	N/A	N/A
11	0.0	0.0	34.0	21.2	16.4	18.5	41.0	203.0	304.5	N/A	N/A	N/A
12	0.0	0.0	26.2	14.3	22.1	17.1	52.8	**270.2**	121.9	N/A	N/A	N/A
13	0.0	0.0	21.0	14.6	23.5	23.3	45.3	224.4	74.3	N/A	N/A	N/A
14	0.0	0.0	24.7	25.3	25.7	78.2	62.4	**277.5**	141.3	N/A	N/A	N/A
15	0.0	0.0	24.2	18.2	15.0	18.1	91.6	**247.5**	178.2	N/A	N/A	N/A
16	0.0	0.0	28.1	19.3	25.2	17.4	69.9	227.3	67.6	N/A	N/A	N/A
17	0.0	0.0	28.0	18.2	20.7	79.0	91.1	218.9	32.0	N/A	N/A	N/A
18	0.0	0.0	27.0	25.8	19.7	73.7	37.9	207.6	88.2	N/A	N/A	N/A
19	0.0	4.0	23.8	23.3	28.9	85.1	48.7	216.4	118.7	N/A	N/A	N/A
20	0.0	5.9	23.8	20.4	31.4	80.6	29.6	**252.6**	124.0	N/A	N/A	N/A
21	0.0	14.0	15.8	18.3	29.8	74.5	42.4	211.0	126.7	N/A	N/A	N/A
22	0.0	5.2	29.4	16.9	20.1	83.1	105.2	183.2	149.2	N/A	N/A	N/A
23	0.0	21.2	21.2	18.8	17.3	15.4	45.6	218.8	161.2	N/A	N/A	N/A
24	0.0	9.3	20.1	22.9	10.4	65.6	59.2	177.7	*	N/A	N/A	N/A
25	0.0	16.3	13.0	23.8	13.6	74.7	40.6	234.6	*	N/A	N/A	N/A
26	0.0	20.5	25.0	22.9	16.7	77.1	105.7	**298.9**	164.0	N/A	N/A	N/A
27	0.0	26.5	25.4	22.8	13.1	90.9	83.3	208.3	153.9	N/A	N/A	N/A
28	0.0	25.9	28.9	21.9	16.9	87.6	120.1	223.6	157.9	N/A	N/A	N/A
29	0.0	N/A	27.1	23.8	16.9	97.6	30.4	194.6	154.0	N/A	N/A	N/A
30	0.0	N/A	27.9	24.5	14.1	107.0	30.1	183.1	145.2	N/A	N/A	N/A
31	0.0	N/A	28.5	N/A	20.1	N/A	41.6	**304.4**	N/A	N/A	N/A	N/A
Total	**0.0**	**148.9**	**744.4**	**656.6**	**596.8**	**1991.5**	**1639.0**	**6168.9**	**4315.5**	**145.0**	**0.0**	**0.0**

Notes:

* Incorrect readings recorded.

TABLE 2.3

SABINA GOLD & SILVER CORP.
BACK RIVER PROJECT

2013 ANNUAL REPORT TO THE NUNAVUT WATER BOARD

DAILY QUANTITIES OF WATER FOR STORAGE, DIVERSION AND COLLECTION

Day	January	February	March	April	May	June	July	August	September	October	November	December
	(m^3)	(m^3)	(m^3)	(m^3)	(m^3)	(m^3)	(m^3)	(m^3)	(m^3)	(m^3)	(m^3)	(m^3)
1	0.0	0.0	12.0	12.0	12.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A
2	0.0	0.0	12.0	12.0	12.0	0.0	0.3	0.0	0.0	0.0	N/A	N/A
3	0.0	0.0	12.0	12.0	12.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A
4	0.0	0.0	12.0	12.0	12.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A
5	0.0	0.0	12.0	12.0	12.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A
6	0.0	0.0	12.0	12.0	12.0	0.0	12.0	10.0	0.0	0.0	N/A	N/A
7	0.0	0.0	12.0	12.0	12.0	0.0	0.0	5.0	0.0	0.0	N/A	N/A
8	0.0	7.5	12.0	12.0	12.0	0.0	0.0	10.0	0.0	0.0	N/A	N/A
9	0.0	10.0	12.0	12.0	12.0	0.0	10.0	5.0	0.0	0.0	N/A	N/A
10	0.0	10.0	12.0	12.0	12.0	0.0	0.0	10.0	0.0	0.0	N/A	N/A
11	0.0	12.0	12.0	12.0	12.0	12.0	0.0	10.0	0.0	Camp closed	N/A	N/A
12	0.0	12.0	12.0	12.0	12.0	12.0	10.0	0.0	0.0	N/A	N/A	N/A
13	0.0	12.0	12.0	12.0	12.0	12.0	0.0	0.0	0.0	N/A	N/A	N/A
14	0.0	12.0	12.0	12.0	12.0	12.0	0.0	0.0	0.0	N/A	N/A	N/A
15	0.0	12.0	12.0	12.0	12.0	0.0	0.0	0.0	0.0	N/A	N/A	N/A
16	0.0	12.0	12.0	12.0	0.0	12.0	0.0	0.0	0.0	N/A	N/A	N/A
17	0.0	12.0	12.0	12.0	0.0	12.0	0.0	0.0	0.0	N/A	N/A	N/A
18	0.0	12.0	12.0	12.0	0.0	12.0	0.0	0.0	0.0	N/A	N/A	N/A
19	0.0	12.0	12.0	12.0	0.0	0.0	5.0	0.0	0.0	N/A	N/A	N/A
20	0.0	12.0	12.0	12.0	0.0	12.0	0.0	0.0	0.0	N/A	N/A	N/A
21	0.0	12.0	12.0	12.0	0.0	12.0	10.0	0.0	0.0	N/A	N/A	N/A
22	0.0	12.0	12.0	12.0	0.0	12.0	7.5	0.0	0.0	N/A	N/A	N/A
23	0.0	12.0	12.0	12.0	0.0	12.0	10.0	0.0	0.0	N/A	N/A	N/A
24	0.0	12.0	12.0	12.0	0.0	12.0	0.0	0.0	0.0	N/A	N/A	N/A
25	0.0	12.0	12.0	12.0	0.0	0.0	5.0	0.0	0.0	N/A	N/A	N/A
26	0.0	12.0	12.0	12.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A	N/A
27	0.0	12.0	12.0	12.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A	N/A
28	0.0	12.0	12.0	12.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A	N/A
29	0.0	N/A	12.0	12.0	0.0	3.0	0.0	0.0	0.0	N/A	N/A	N/A
30	0.0	N/A	12.0	12.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A	N/A
31	0.0	N/A	12.0	N/A	0.0	N/A	0.0	0.0	N/A	N/A	N/A	N/A
Total	**0.0**	**243.5**	**372.0**	**360.0**	**180.0**	**147.0**	**69.8**	**50.0**	**0.0**	**0.0**	**0.0**	0.0

Notes:

TABLE 2.4

SABINA GOLD & SILVER CORP.
BACK RIVER PROJECT

2013 ANNUAL REPORT TO THE NUNAVUT WATER BOARD

LOCATION OF STORAGE AREAS FOR WASTES AND WASTE STREAMS

Description	UTM Coordinates (NAD83)		Latitude	Longitude
	Easting (m)	Northing (m)		
Goose Lake				
Grey Water Line	434,069	7,269,849	65°32'38.94"	106°25'38.35"
Incinerator	434,155	7,269,817	65°32'38.0"	106°25'31.6"
Hazardous Waste Backhaul Storage Area	433,840	7,270,021	65°32'44.3"	106°25'56.5"
Cuttings Trench	434,122	7,269,616	65°32'31.5"	106°25'33.8"
Open Burn Pit	434,105	7,269,787	65°32'37.0"	106°25'35.4"
Hazardous Materials Storage Area	433,815	7,270,008	65°32'43.9"	106°25'58.4"
Goose Lake Fuel Farm	433,959	7,269,975	65°32'42.9"	106°25'47.2"
Major Drilling Oils/ Additives Location #1	434,079	7,269,648	65°32'32.5"	106°25'37.2"
Major Drilling Oils/ Additives Location #2	434,061	7,269,636	65°32'32.1"	106°25'38.6"

TABLE 2.5

SABINA GOLD & SILVER CORP.
BACK RIVER PROJECT

2013 ANNUAL REPORT TO THE NUNAVUT WATER BOARD

DRILLING WASTE (CUTTINGS) DEPOSIT LOCATIONS

Description	UTM Coordinates (NAD83)		Latitude	Longitude
	Easting (m)	Northing (m)		
Goose Lake				
Goose Lake Cuttings Trench	434,122	7,269,616	65° 32' 31.5"N	106° 25' 33.8"W
Boulder	410,744	7,286,633	65° 41' 20.6" N	106° 56' 35.5"W
Boulder	413,039	7,285,335	65° 40' 40.0"N	106° 53' 32.7"W
Umwelt	429,719	7,270,874	65° 33' 8.7"N	106° 31' 19.2"W
Boulder	412,713	7,284,630	65° 40' 17.9"N	106° 53' 56.5"W
Boot	437,915	7,281,249	65° 38' 49.8"N	106° 20' 57.8"W
Boot	437,510	7,281,040	65° 38' 42.8"N	106° 21' 29.1"W
Bowtie	437,478	7,281,063	65° 38' 43.5"N	106° 21' 31.6"W
Bowtie	436,877	7,283,048	65° 39' 47.1"N	106° 22' 22.0"W
Bowtie	434,597	7,284,676	65° 40' 38.1"N	106° 25' 23.4"W
Bowtie	433,729	7,282,926	65° 39' 40.9"N	106° 26' 28.2"W
Echo	433,000	7,268,917	65° 32' 8.1"N	106° 26' 60.0"W
Echo	433,044	7,268,837	65° 32' 5.5"N	106° 26' 56.4"W
Llama	429,932	7,271,941	65° 33' 43.4"N	106° 31' 4.6"W
Echo	433,010	7,269,004	65° 32' 10.9"N	106° 26' 59.3"W
Echo	433,013	7,268,998	65° 32' 10.7"N	106° 26' 59.1"W
Echo	433,012	7,268,965	65° 32' 9.6"N	106° 26' 59.1"W
Echo	433,001	7,268,915	65° 32' 8.0"N	106° 26' 59.9"W
Echo	433,039	7,268,886	65° 32' 7.1"N	106° 26' 56.9"W
Echo	433,048	7,268,838	65° 32' 5.5"N	106° 26' 56.1"W
Echo	433,065	7,268,767	65° 32' 3.3"N	106° 26' 54.6"W
Boot	436,872	7,283,038	65° 39' 46.8"N	106° 22' 22.4"W
Boot	436,883	7,283,059	65° 39' 47.5"N	106° 22' 21.6"W
Boot	436,904	7,283,075	65° 39' 48.0"N	106° 22' 20.0"W
Boot	436,907	7,283,140	65° 39' 50.1"N	106° 22' 19.8"W
Boot	436,889	7,283,132	65° 39' 49.9"N	106° 22' 21.2"W
Boot	436,869	7,283,118	65° 39' 49.4"N	106° 22' 22.8"W
Boot	436,844	7,283,130	65° 39' 49.8"N	106° 22' 24.8"W
Boulder	410,753	7,286,606	65° 41' 29.8"N	106° 56' 34.7"W
Boulder	413,014	7,285,373	65° 40' 42.2"N	106° 53' 34.7"W
Boulder	413,007	7,285,441	65° 40' 44.4"N	106° 53' 35.4"W
Boulder	412,734	7,284,616	65° 40' 17.5"N	106° 53' 54.9"W
Boot	431,196	7,286,352	65° 41' 29.6"N	106° 29' 52.8"W
Boot	431,725	7,286,325	65° 41' 29.2"N	106° 29' 11.3"W
Boot	431,735	7,286,305	65° 41' 28.5"N	106° 29' 10.5"W
Boot	431,734	7,286,287	65° 41' 28.0"N	106° 29' 10.5"W
Boot	431,819	7,286,412	65° 41' 32.1"N	106° 29' 4.1"W
Boot	410,734	7,286,591	65° 41' 19.3"N	106° 56' 36.2"W
Boot	429,889	7,272,000	65° 33' 45.2"N	106° 31' 8.0"W
Boot	429,935	7,271,916	65° 33' 42.6"N	106° 31' 4.3"W
Boot	429,977	7,271,933	65° 33' 43.1"N	106° 31' 1.1"W
Boot	431,852	7,286,419	65° 41' 32.3"N	106° 29' 1.5"W
Boot	430,085	7,271,835	65° 33' 40.1"N	106° 30' 52.4"W
Boulder	413,063	7,285,366	65° 40' 42.0"N	106° 53' 30.9"W
Boulder	413,122	7,285,269	65° 40' 38.9"N	106° 53' 26.0"W
Boulder	413,115	7,285,282	65° 40' 39.3"N	106° 53' 26.6"W
Boulder	413,058	7,285,411	65° 40' 43.5"N	106° 53' 31.4"W
Boot	431,838	7,286,423	65° 41' 32.4"N	106° 29' 2.6"W
Boot	431,817	7,286,417	65° 41' 32.2"N	106° 29' 4.3"W
Boot	431,727	7,286,290	65° 41' 28.0"N	106° 29' 11.1"W
Boot	431,724	7,286,314	65° 41' 28.8"N	106° 29' 11.4"W
Boot	431,717	7,286,327	65° 41' 29.2"N	106° 29' 11.9"W
Boot	431,691	7,286,352	65° 41' 30.0"N	106° 29' 14.0"W

TABLE 3.1

SABINA GOLD AND SILVER CORP.
BACK RIVER PROJECT

2013 ANNUAL REPORT TO THE NUNAVUT WATER BOARD

SUMMARY OF UNAUTHORIZED DISCHARGES

Date of Occurrence	Quantity	Product Spilled	Cause of Spill	Approximate Location	Proximity to any Water body?	Actions Taken (Summarized)	Spill no.
Jan. 31, 2013	10L	Hydraulic Oil	While working on constructing the ice strip on Goose Lake, a fitting came loose on the Challenger resulting in a loss of fluid.	Goose Lake	On Ice	Contaminated snow was excavated and placed into drums until proper disposal during sea lift season.	2013-001

TABLE 7.1

SABINA GOLD AND SILVER CORP.
BACK RIVER PROJECT

2013 ANNUAL REPORT TO THE NUNAVUT WATER BOARD

GOOSE LAKE FUEL FARM TREATED EFFLUENT (GOO-2) DISCHARGE VOLUMES

Date	Monitoring Station	Discharge Volumes (m3)
July 3	GOO-2	110.2
September 22	GOO-2	33.2
September 23	GOO-2	2.6

TABLE 7.2

SABINA GOLD & SILVER CORP.
BACK RIVER PROJECT

2013 ANNUAL REPORT TO THE NUNAVUT WATER BOARD

WATER QUALITY RESULTS FOR WATER LICENCE MONITORING LOCATION GOO-2

Sample Location	Date Sampled	pH (pH units)	Phenols (mg/L)	Oil and Grease (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Comments
GOO-2	27-May-13	6.62	0.0127	1.9	<0.00050	<0.00050	<0.00050	
GOO-2	8-Sep-13	7.17	0.0065	1.1	<0.00050	<0.00050	<0.00050	
GOO-2	19-Sep-13	7.58	0.0115	1.4	<0.00050	<0.00050	<0.00050	

TABLE 7.3

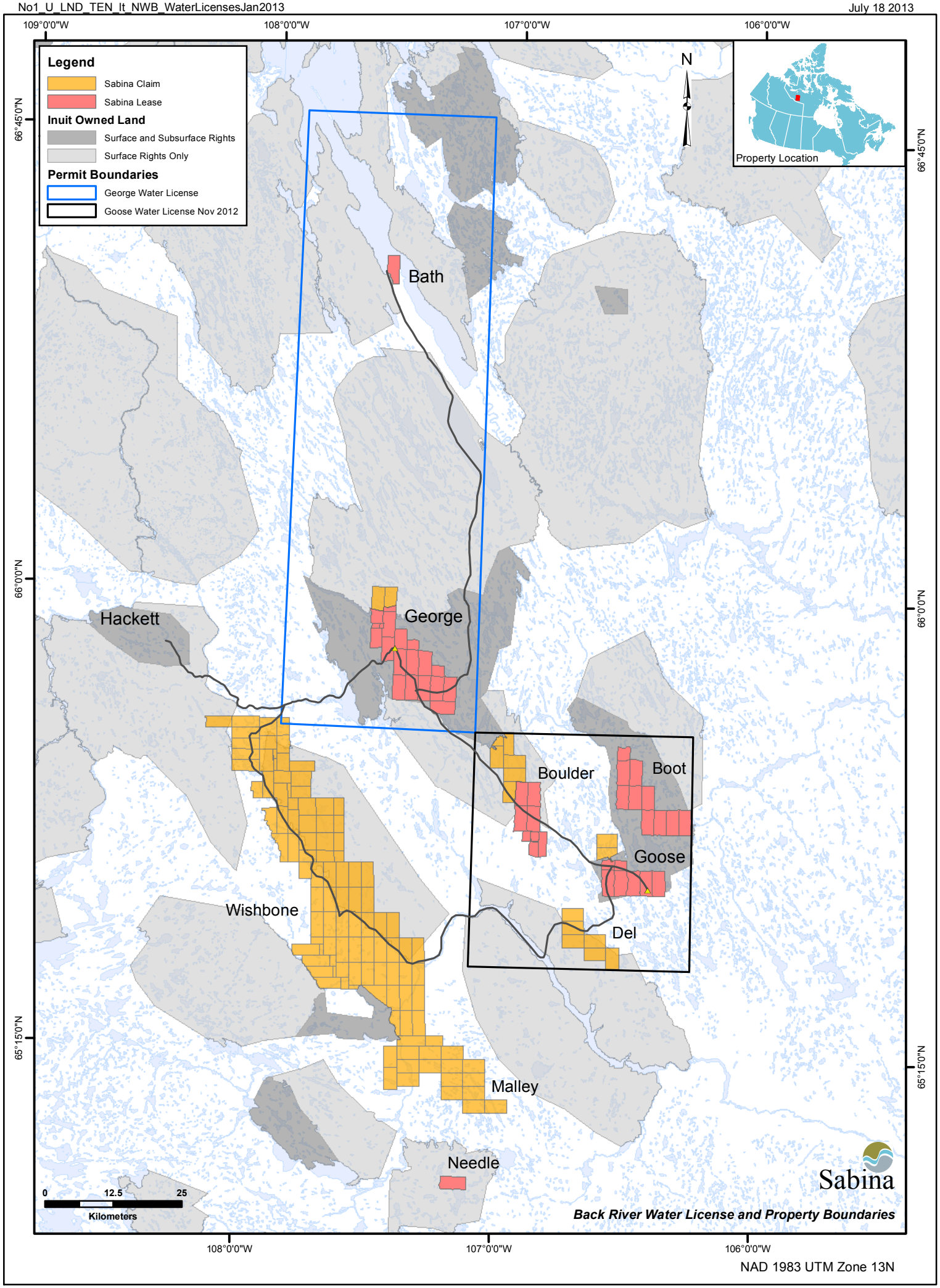
SABINA GOLD & SILVER CORP.
BACK RIVER PROJECT

2013 ANNUAL REPORT TO THE NUNAVUT WATER BOARD

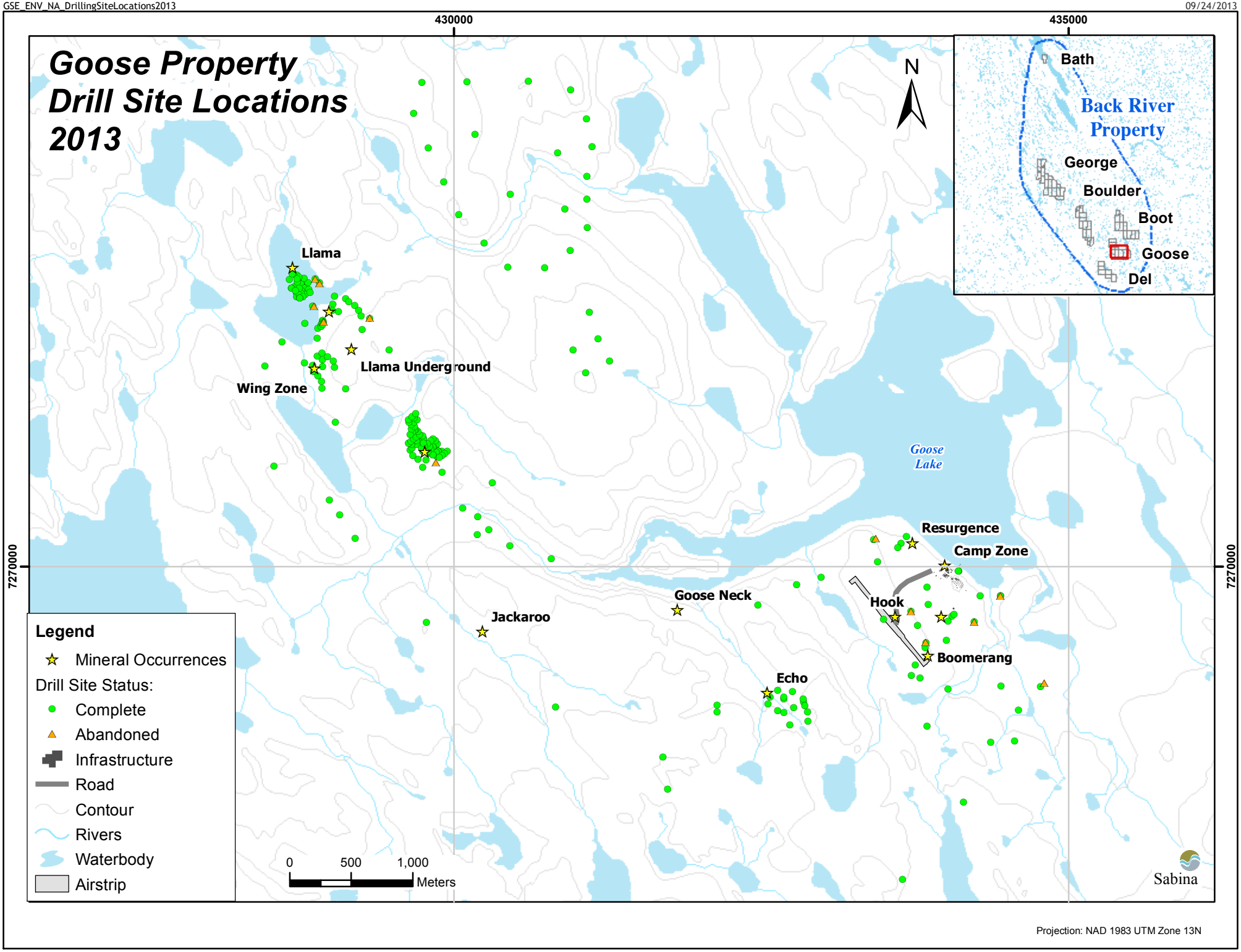
WATER QUALITY RESULTS FOR ON ICE DRILLING

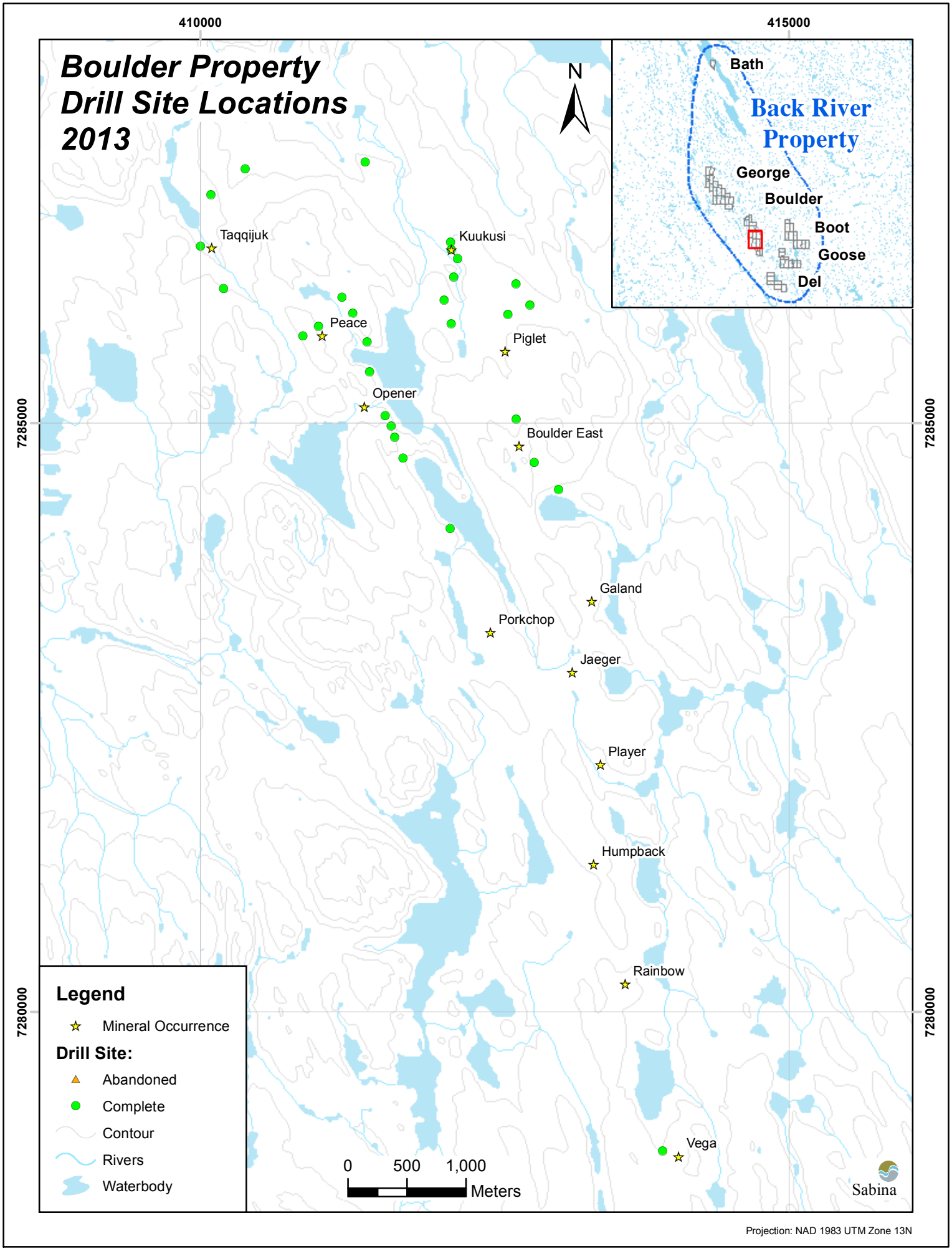
Parameter	Units	Llama Lake - Pre On Ice Drilling August 20, 2010	Llama Lake - Pre On Ice Drilling April 12, 2011	Llama Lake - Post On Ice Drilling (13GSE304) May 26, 2013	Llama Lake - Post On Ice Drilling (13GSE304) May 26, 2013	Llama Lake - Post On Ice Drilling (13GSE304) May 26, 2013
Conductivity (EC)	uS/cm	37.9	65.3	119	112	116
Mercury (Hg)-Total	mg/L	<0.000010	<0.000010	<0.000020	<0.000020	<0.000020
Aluminum (Al)-Total	mg/L	0.015	0.0068	0.0426	0.0476	0.00620
Antimony (Sb)-Total	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	0.000026
Arsenic (As)-Total	mg/L	<0.00030	0.000305	0.00026	0.00035	0.000339
Barium (Ba)-Total	mg/L	0.00669	0.0119	0.0148	0.0187	0.0245
Beryllium (Be)-Total	mg/L	<0.00020	<0.00020	<0.00050	<0.00050	<0.000010
Bismuth (Bi)-Total	mg/L	<0.00050	<0.00050	<0.000050	<0.000050	<0.000010
Boron (B)-Total	mg/L	0.0095	0.0084	<0.010	<0.010	0.0041
Cadmium (Cd)-Total	mg/L			0.000031	0.000035	0.0000104
Calcium (Ca)-Total	mg/L	3.69	6.12	15.4	13.8	11.4
Chromium (Cr)-Total	mg/L	0.00072	<0.00010	0.00143	0.00054	0.000558
Cobalt (Co)-Total	mg/L	<0.00010	<0.00010	0.00068	0.00146	0.000026
Copper (Cu)-Total	mg/L	0.00286	0.00176	0.00192	0.00451	0.00136
Iron (Fe)-Total	mg/L	0.033	<0.010	0.075	0.077	0.0338
Lead (Pb)-Total	mg/L	0.000088	<0.000050	0.000648	0.00416	0.000082
Lithium (Li)-Total	mg/L	<0.0050	<0.0050	0.0085	0.0067	0.00286
Magnesium (Mg)-Total	mg/L	1.41	2.78	1.35	1.85	3.54
Manganese (Mn)-Total	mg/L	0.00237	0.00148	0.0366	0.0685	0.00220
Molybdenum (Mo)-Total	mg/L	<0.000050	0.000059	0.000088	0.000075	<0.000050
Nickel (Ni)-Total	mg/L	0.00502	0.00240	0.00277	0.00392	0.00243
Potassium (K)-Total	mg/L	0.58	0.929	0.963	1.08	1.06
Selenium (Se)-Total	mg/L	<0.00020	<0.00010	<0.00010	<0.00010	<0.000040
Silver (Ag)-Total	mg/L	<0.000010	<0.000010	<0.000010	0.000013	<0.0000050
Silicon (Si) - Total	mg/L	0.258	0.577	0.252	0.334	
Sodium (Na)-Total	mg/L	0.816	1.28	0.832	0.978	1.62
Strontium (Sr)-Total	mg/L	0.0281	0.0462	0.199	0.160	0.0688
Thallium (Tl)-Total	mg/L	<0.00010	<0.00010	<0.000050	<0.000050	<0.000010
Tin (Sn)-Total	mg/L	<0.00010		<0.00010	<0.00010	<0.000050
Titanium (Ti)-Total	mg/L	<0.010	<0.010	0.00116	0.00059	0.00017
Uranium (U)-Total	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Vanadium (V)-Total	mg/L	<0.00050	<0.000050	0.00014	0.00015	<0.000050
Zinc (Zn)-Total	mg/L	0.0013	<0.0030	0.0076	0.0107	0.00705
pH	pH Units	6.69	7.09	6.63	6.64	6.87
Total Suspended Solids	mg/L	<3.0	<3.0	3	4	<3.0

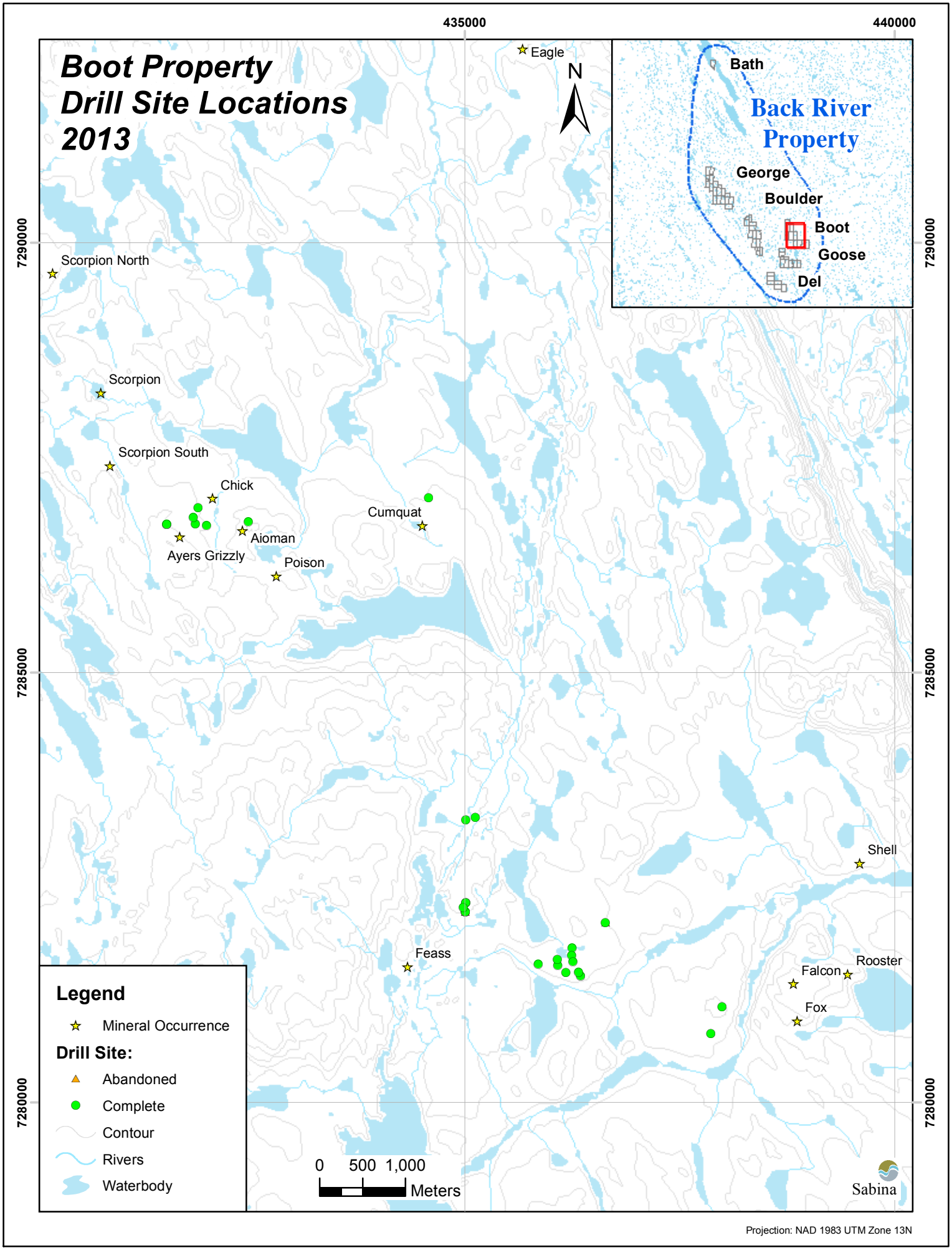
FIGURES

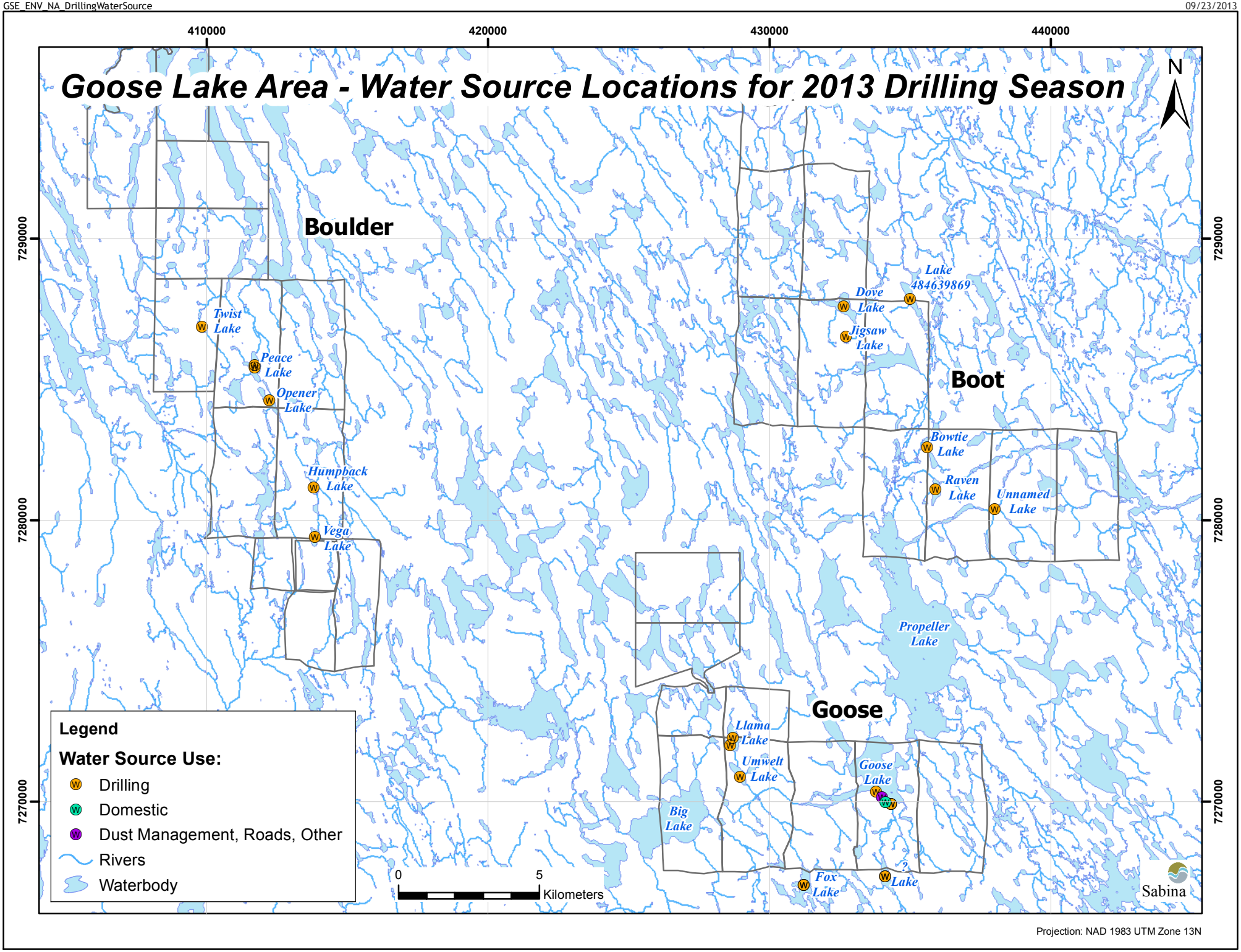

109°0'0"W
108°0'0"W
107°0'0"W
106°0'0"W
66°45'0"N
66°0'0"N
65°15'0"N
Legend
Sabina Claim
Sabina Lease
Inuit Owned Land
Surface and Subsurface Rights
Surface Rights Only
Permit Boundaries
George Water License
Goose Water License Nov 2012
N
Property Location
Bath
George
Hackett
Boulder
Boot
Goose
Del
Wishbone
Malley
Needle
0
12.5
25
Kilometers
Sabina
Back River Water License and Property Boundaries
NAD 1983 UTM Zone 13N

Goose Property Drill Site Locations 2013

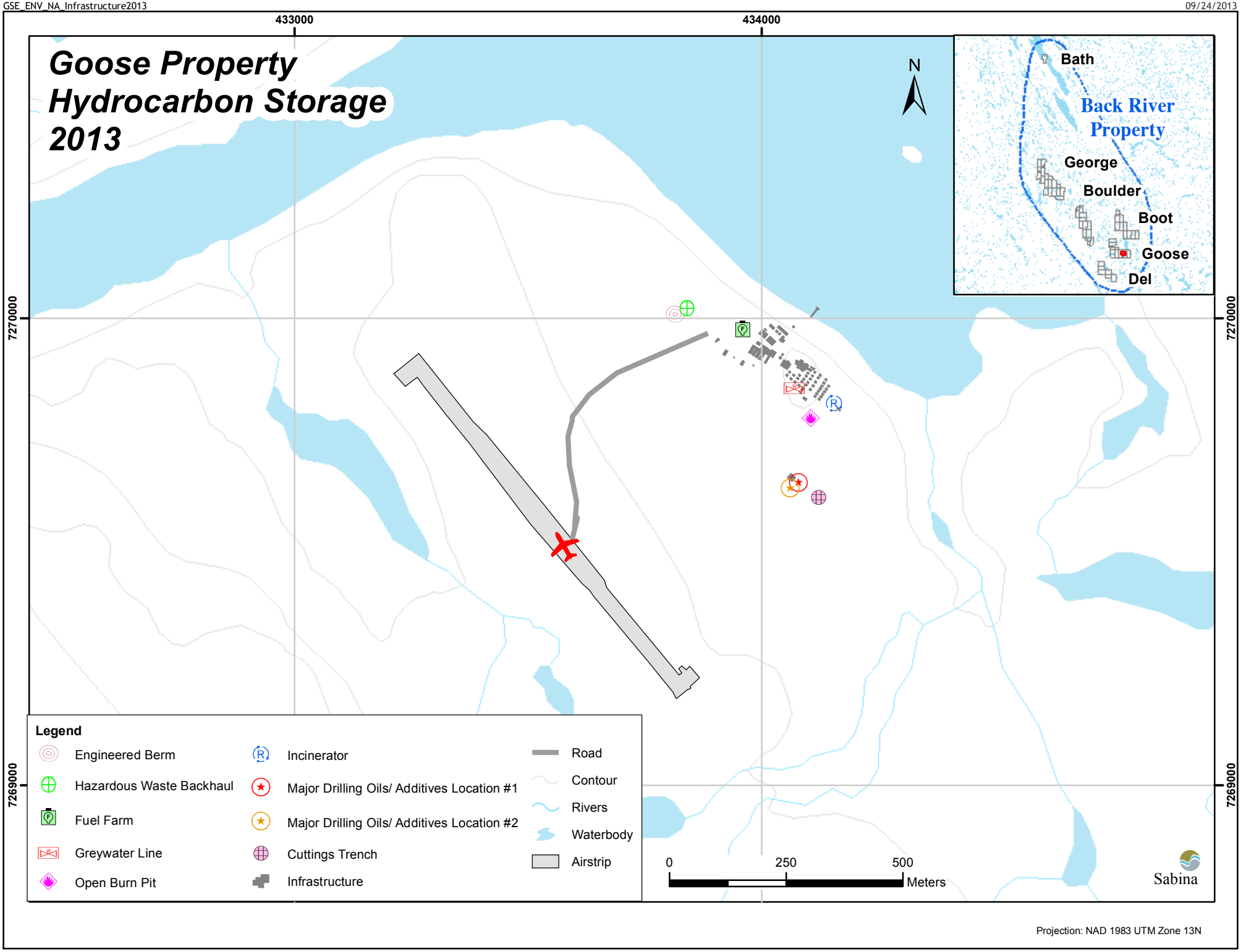



Boulder Property
Drill Site Locations
2013
N
410000
415000
7285000
7280000
Bath
Back River
Property
George
Boulder
Boot
Goose
Del
Taqqijuk
Kuukusi
Peace
Piglet
Opener
Boulder East
Galand
Porkchop
Jaeger
Player
Humpback
Rainbow
Vega
Legend
Mineral Occurrence
Drill Site:
Abandoned
Complete
Contour
Rivers
Waterbody
0 500 1,000
Meters
Sabina
Projection: NAD 1983 UTM Zone 13N


Boot Property
Drill Site Locations
2013
435000
440000
7290000
7285000
7280000
N
Eagle
Bath
Back River
Property
George
Boulder
Boot
Goose
Del
Scorpion North
Scorpion
Scorpion South
Chick
Cumquat
Aioman
Ayers Grizzly
Poison
Shell
Feass
Falcon
Rooster
Fox
Legend
Mineral Occurrence
Drill Site:
Abandoned
Complete
Contour
Rivers
Waterbody
0 500 1,000
Meters
Sabina
Projection: NAD 1983 UTM Zone 13N


Goose Lake Area - Water Source Locations for 2013 Drilling Season
N
410000
420000
430000
440000
7290000
7280000
7270000
Boulder
Boot
Goose
Twist Lake
Peace Lake
Opener Lake
Humpback Lake
Vega Lake
Dove Lake
Lake 484639869
Jigsaw Lake
Bowtie Lake
Raven Lake
Unnamed Lake
Propeller Lake
Llama Lake
Umwelt Lake
Goose Lake
Big Lake
Fox Lake
? Lake
Legend
Water Source Use:
Drilling
Domestic
Dust Management, Roads, Other
Rivers
Waterbody
0
5
Kilometers
Sabina
Projection: NAD 1983 UTM Zone 13N

Goose Property Hydrocarbon Storage 2013



Projection: NAD 1983 UTM Zone 13N

APPENDIX A

NWB ANNUAL REPORT FORM

NWB Annual Report **Year being reported:** 2013

License No: 2BE-GOO1015 **Issued Date:** March 26, 2010
Expiry Date: March 31, 2015

Project Name: GOOSE LAKE, BACK RIVER PROJECT

Licensee: SABINA GOLD AND SILVER CORP

Mailing Address:
930 WEST 1ST STREET
SUITE 202
NORTH VANCOUVER, BC V7P 3N4

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):

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): Goose lake for domestic, lakes proximal to drilling

Water Quantity:

45	Quantity Allowable Domestic (cu.m)
	Actual Quantity Used Domestic (cu.m)
240	Quantity Allowable Drilling (cu.m)
	Total Quantity Used Drilling (cu.m)

Waste Management and/or Disposal

- [x] Solid Waste Disposal
- [x] Sewage
- [x] Drill Waste
- [x] Greywater
- [x] Hazardous
- [ ] Other:

Additional Details:

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)

Please see Section 3.0 of Annual Report.

Revisions to the Spill Contingency Plan

Other: (see additional details)

Additional Details:

See Updated Spill Contigency Plan.

Revisions to the Abandonment and Restoration Plan

AR plan submitted and approved - no revision required or proposed

Additional Details:

Progressive Reclamation Work Undertaken

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

Please see Section 5.0 of Annual Report.

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;

Details attached

Additional Details:

Please see Table 1.1 of Annual Report.

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

Details attached

Additional Details:

Please see Table 2.5 of Annual Report.

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 Report received by the Licensee (Date):

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

Please see Section 9.0 of Annual Report.

Any additional comments or information for the Board to consider

Date Submitted:	March 31, 2014	
Submitted/Prepared by:	Cheryl Wray	
Contact Information:	**Tel:**	
	Fax:	
	email:	cwray@sabinagoldsilver.com

APPENDIX B

OPEN BURNING LOG AND PHOTOGRAPH CATALOGUE

OPEN BURNING LOG - Goose Lake Camp 2013

Date	Volume	Material Burned	Pictures # Before and After	
July 5, 2013	6.25m3	Wood	1	2
July 6, 2013	6.25m3	Wood / Cardboard	3	4
July 8, 2013	6.25m3	Wood	5	6
July 10, 2013	6.25m3	Wood/Cardboard	7	8
August 1, 2013	6.25m3	Wood/Cardboard	9	10
August 7, 2013	6.25m3	Wood / Cardboard	11	12
August 11, 2013	8.33m3	Wood / Cardboard	13	14
August 12, 2013	6.25m3	Wood / Cardboard	n/a	n/a
August 13, 2013	6.25m3	Wood / Cardboard	15	16
August 22, 2013	6.25m3	Wood	n/a	n/a
September 1, 2013	6.25m3	Wood / Cardboard	17	18
September 3, 2013	8.33m3	Wood	19	20
September 7, 2013	6.25m3	Wood	21	22
September 9, 2013	6.25m3	Wood	23	24
September 15, 2013	8.33m3	Wood	25	26
September 17, 2013	8.33m3	Wood	27	28
September 18, 2013	8.33m3	Wood	29	30
September 22, 2013	8.33m3	Wood	31	32
September 25, 2013	8.33m3	Wood	33	34
September 28, 2013	6.25m3	Wood	35	36
October 1, 2013	6.25m3	Wood	37	38

GOOSE OPEN BURNING LOG - Pictures

		Before	After
			
July 5, 2013	Picture #	1	2
			
July 6, 2013	Picture #	3	4
			
July 8, 2013	Picture #	5	6
			

July 10, 2013	Picture #	7	8
			
August 1, 2013	Picture #	9	10
			
August 7, 2013	Picture #	11	12
			
August 11, 2013	Picture #	13	14

		Before	After
		N/A	N/A
August 12, 2013	Picture #		
August 13, 2013	Picture #	15	16
		N/A	N/A
August 22, 2013	Picture #		

September 1, 2013	Picture #	17	18
			
September 3, 2013	Picture #	19	20
			
September 7, 2013	Picture #	21	22
			
September 9, 2013	Picture #	23	24

		Before	After
			
September 15, 2013	Picture #	25	26
			
September 17, 2013	Picture #	27	28
			
September 18, 2013	Picture #	29	30
			

September 22, 2013	Picture #	31	32
			
September 25, 2013	Picture #	33	34
			
September 28, 2013	Picture #	35	36
			
October 1, 2013	Picture #	37	38

APPENDIX C

WASTE SHIPMENT SUMMARY

2013 Sabina Waste Backhaul Manifest
Goose Camp

Sabina
GOLD & SILVER CORP.

Waste Generator	TDG Description	Waste Description	HAZ NON	Class	UN #	Qty	Cont Type	End Disposal Method
Sabina - Goose	Non Regulated Solids	General Debris	Non Haz	N/R	N/R	236	drums	Landfill
Sabina - Goose	Non Regulated Solids	General Debris	Non Haz	N/R	N/R	142	Megabags	Landfill
Sabina - Goose	Non Regulated Solids	Plastics	Non Haz	N/R	N/R	21	Megabags	Recycling
Sabina - Goose	Non Regulated Solids	Plastics	Non Haz	N/R	N/R	7	Megabags	Landfill
Sabina - Goose	Non Regulated Solids	Plastics	Non Haz	N/R	N/R	2	drums	Landfill
Sabina - Goose	Non Regulated Solids	E- Waste	Non Haz	N/R	N/R	1	drum	Recycling
Sabina - Goose	Non Regulated Solids	Incinerator Ash	Non Haz	N/R	N/R	282	drums	Landfill
Sabina - Goose	Non Regulated Solids	Hoses	Non Haz	N/R	N/R	14	drum	Landfill
Sabina - Goose	Non Regulated Solids	Hoses	Non Haz	N/R	N/R	4	Megabags	Landfill
Sabina - Goose	Aerosols	Non Processable	Haz	2.1	1950	42	each	Processing
Sabina - Goose	Aerosols	Processable	Haz	2.1	1950	7	drums	Processing
Sabina - Goose	Non Regulated Solids	Scrap Metal	Non Haz	N/R	N/R	4	Megabags	Recycling
Sabina - Goose	Non Regulated Solids	Scrap Metal	Non Haz	N/R	N/R	356	drums	Recycling
Sabina - Goose	Non Regulated Solids	Scrap Metal	Non Haz	N/R	N/R	10	each	Recycling
Sabina - Goose	Non Regulated Solids	Scrap Metal	Non Haz	N/R	N/R	23	drums	Landfill
Sabina - Goose	Non Regulated Solids	Oil/Fuel Filters	Non Haz	N/R	N/R	10	drum	Processing
Sabina - Goose	Soil	Contaminated with hydrocarbons	Non Haz	N/R	N/R	71	drums	Treatment
Sabina - Goose	Water	Contaminated with hydrocarbons	Non Haz	N/R	N/R	115	drums	Treatment
Sabina - Goose	Non Regulated Solids	Rags and Absorbents	Non Haz	N/R	N/R	43	drums	Landfill
Sabina - Goose	Flammable Liquids	Fuel	Haz	3	1993	100	drums	Recycling
Sabina - Goose	Waste Leachate	Oil	Non Haz	N/R	N/R	51	drums	Recycling
Sabina - Goose	Non Regulated Solids	Empty Drums	Non Haz	N/R	N/R	55	drums	Processing
Sabina - Goose	Non Regulated Solids	Calcium Chloride	Non Haz	N/R	N/R	5	Megabags	Landfill
Sabina - Goose	Non Regulated Solids	Calcium Chloride	Non Haz	N/R	N/R	42	drums	Landfill
Sabina - Goose	Non Regulated Solids	Empty Calcium Chloride Bags	Non Haz	N/R	N/R	48	Megabags	Landfill
Sabina - Goose	Non Regulated Solids	Empty Calcium Chloride Bags	Non Haz	N/R	N/R	1	drum	Landfill
Sabina - Goose	Non Regulated Solids	Glass	Non Haz	N/R	N/R	1	drum	Landfill
Sabina - Goose	Compressed Gas	Propane	Haz	2.1	1978	1	20lb	Processing
Sabina - Goose	Non Regulated Solids	Recyclables	Non Haz	N/R	N/R	21	Megabags	Recycling
Sabina - Goose	Non Regulated Solids	Recyclables	Non Haz	N/R	N/R	4	Megabags	Landfill
Sabina - Goose	Non Regulated Solids	Recyclables	Non Haz	N/R	N/R	3	drum	Recycling
Sabina - Goose	Batteries	Lead Acid	Haz	8	2794	65	each	Recycling
Sabina - Goose	Batteries	Alkaline	Non Haz	N/R	N/R	1	drum	Landfill
Sabina - Goose	Non Regulated Solids	White Goods	Non Haz	N/R	N/R	10	each	Processing
Sabina - Goose	Non Regulated Solids	Cement	Non Haz	N/R	N/R	8	drums	Landfill
Sabina - Goose	Non Regulated Liquids	Petroleum Grease	Non Haz	N/R	N/R	1	drum	Landfill
Sabina - Goose	Lab Packs	waste corrosive liquis	Haz	8	1760	1	pail	Incineration
Sabina - Goose	Lab Packs	Non Regulated Liquid	Non Haz	N/R	N/R	1	pail	Bulking
Sabina - Goose	Lab Packs	Oxidizing Solid	Haz	5.1	2208	1	pail	Incineration
Sabina - Goose	Non Regulated Solids	Floor Dry	Non Haz	N/R	N/R	2	pails	Bulking

NWT Waste Generator # NTG000018

NU Hazardous Waste Generator # NUG100028

APPENDIX D

REVISED PLANS

Comprehensive Spill Contingency Plan

GOOSE CAMP

March 2014

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.

The Back River exploration project is located in western Nunavut, south of Bathurst Inlet within the Slave Structural Province. It lies approximately 525 kilometers northeast of Yellowknife, NWT and 400 kilometers south of Cambridge Bay, NU (Figure 1). 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.

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:

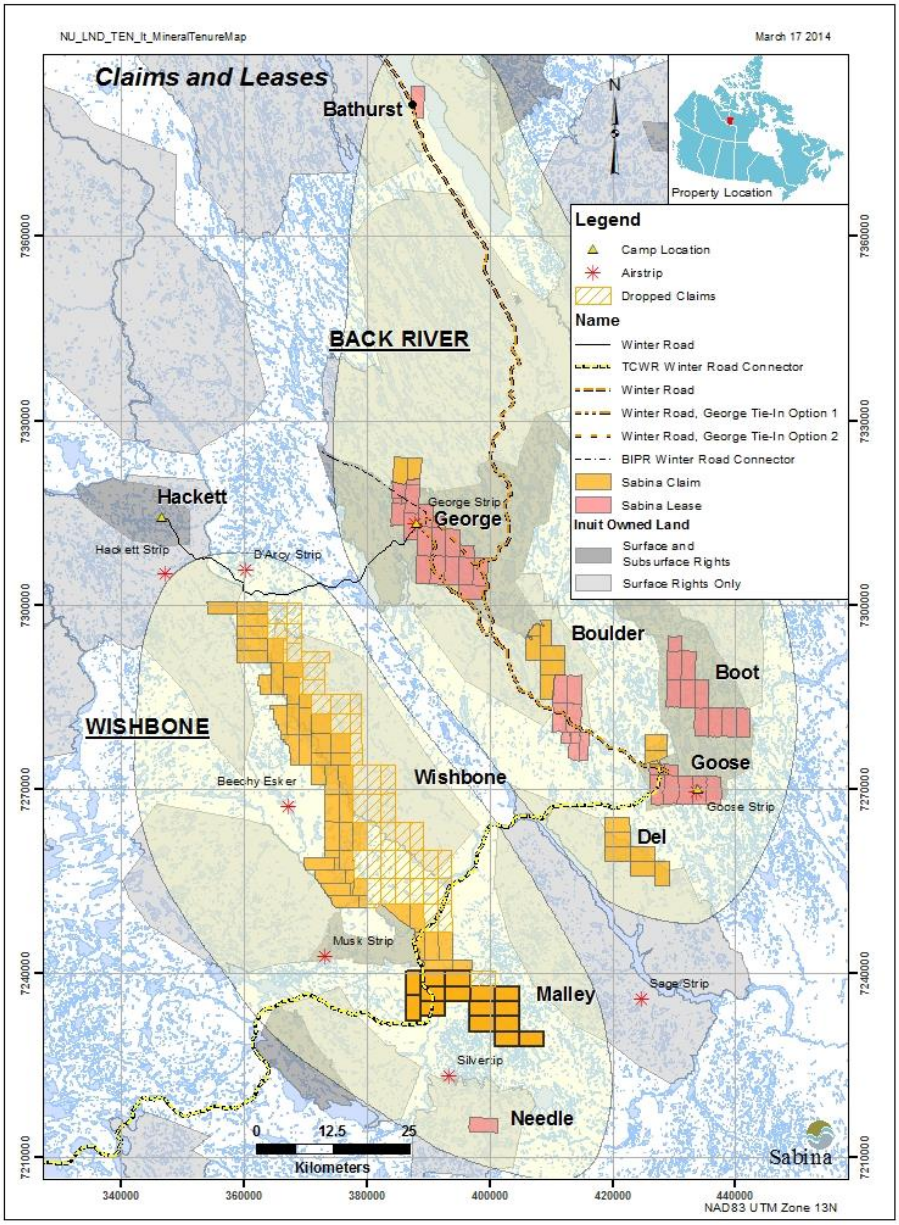
- The Canadian Environmental Protection Act controls hazardous substances from their production and/or import, their consumption, storage and/or disposal.
- The federal Fisheries Act protects fish and their habitat from pollution and disturbances. Fisheries and Oceans Canada reviews permit applications 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 the Sabina's 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

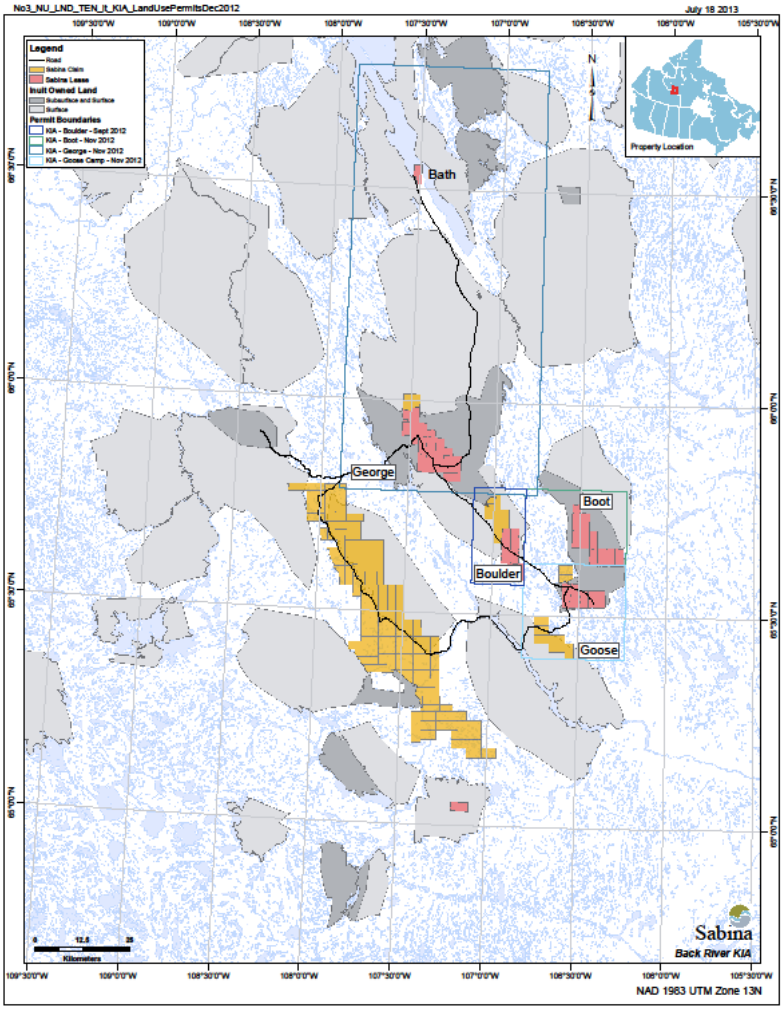
Figure 2. Aerial image of Goose camp looking west. Photograph taken August 2013.

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. Anticipated maximum fuel supplies for 2014 are as follows:

Table 1. Estimate of Bulk Supplies for 2014 Exploration Program

Fuel	Goose	Temporary camp*
Diesel – Envirotanks	400,000L	n/a
Diesel – 205 L drums	1,000 drums	500 drums
Jet fuel – 205 L drums	100 drums	50 drums
Gasoline	50 drums	25 drums
AvGas – 205 L drums	15 drums	1 drum
Propane – 100 lb cylinders	11	5
Propane – 250 lb cylinders	12	n/a

*Note if temporary camps are not needed, fuel will be stored in camp

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.

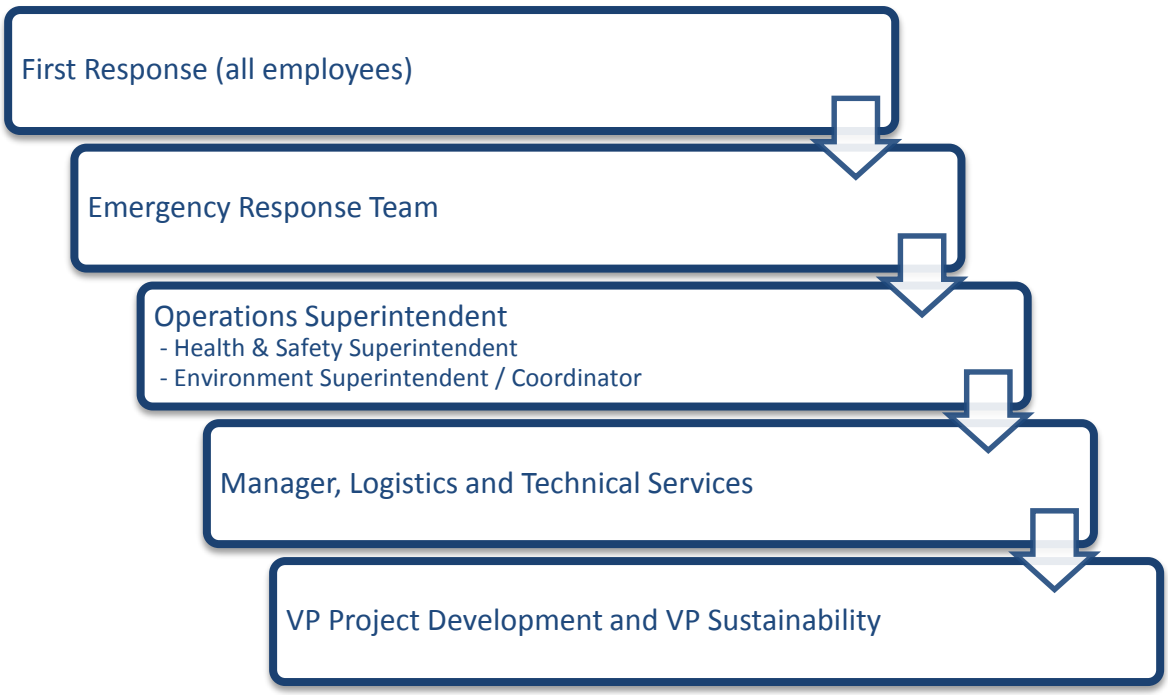
Explosive products, when/if on-site, will be stored in appropriate facilities at designated explosives storage site(s).

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 2. 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 3. 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 4. 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	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

	during a stop along route.		

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 5. 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 - GOOSE

(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:			