



AANDC, Nunavut District Office
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February 28, 2013

Mathew Pickard, Director, Environment and Community Relations
SABINA GOLD & SILVER CORP.
930 W 1st Street, Suite 202
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RE: Water Licence Inspection for Back River Project, July 7 and 8, 2012

Please find attached the report on the Water License Inspection conducted at the Back River Project on July 7 and 8, 2012, including licences 2BE-GEO1015, 2BE-GOO1015 and 2BE-MLL1217. Included at the end of each report is a summary of observations made during the inspection with respect to issues of non-compliance or non-conformity with the issued Water License or the Nunavut Water and Nunavut Surface Rights Tribunals Act, and the actions required of Sabina Gold & Silver Corp. (Sabina) as a result.

The role of Aboriginal Affairs and Northern Development in issues related to the use of water or deposit of waste in Nunavut is one of compliance monitoring and enforcement. AANDC's preferred option is to work with clients to address instances of non-compliance with their authorizations or the Act and risks to the environment.

Should you require more information or clarification on any aspect of the enclosed report please contact the undersigned at the coordinates listed below. I look forward to continuing to work with you and your staff. If you have any questions please do not hesitate to contact our office here in Iqaluit.

Sincerely,

Eva Paul
Water Resources Officer
Aboriginal Affairs and Northern Development Canada
Nunavut Regional Office
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Attachments:

Cc: Phyllis Beaulieu – Manager licensing – Nunavut Water Board
Fred Penner – Superintendent of Operations, Sabina Gold & Silver Corp.



License #: **2BE-GEO1015**

Inspector: **Eva Paul**

Inspection Date: **July 7, 2012**

CIDMS # **620103**

Client	SABINA GOLD & SILVER CORP.		
Mailing Address	930 W 1st Street, Suite 202 North Vancouver BC V7P 3N4		
Inspection site location	George Lake Camp		
Contact name	Matthew Pickard	Title	Director, Environment and Community Relations
Last inspection date	July 9, 2011	July 3 and Aug 14, 2007	
Region	Kitikmeot		



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RE: Inspection of Water Licence 2BE-GEO1015, July 7 2012

The George Lake Camp, a part of the Back River Project, is located at Latitude 65°55'13"N and Longitude 107°27'35"W in the Kitikmeot Region of Nunavut. This project was assigned to Sabina Gold & Silver Corp. in 2009. Sabina holds a type 'B' water licence for camp operations and exploration activities. One amendment has been issued for this licence:

- Amendment 1 (April 16, 2012): authorizes change of project extents, increases licensed quantity of water to 175 m³, and allows for two temporary camps and the expansion of George Lake camp.

On July 7, 2012 a compliance inspection was carried out at the George Lake Camp. AANDC Inspectors Eva Paul and Andrew Keim were accompanied by Fred Penner, Superintendent of Operations. An Inspection Report Form was left on-site following the inspection and signed by Mr. Penner. This form outlined the following compliance issues to be addressed:

- Water usage logs were not up-to-date.
- Greywater discharge should not be near the water intake.
- Collapsed or incompleated berms for drummed fuel.
- Bulk fuel area liner exposed and at risk with debris lying on top.
- Staining under empty barrels (in berm).
- Barrels stands at tents: hoses, valves and filters should be over containment.
- Weeping of water and cuttings from core shack. Cuttings spread on ground by old core shack.
- No liner in garage.
- Waste oil containers should be closed and in a drip tray.

On August 17, Sabina provided notification that the greywater discharge was moved to the west side of the runway and away from the lake.

This report includes a detailed administrative review (of documents in AANDC possession and those found on the NWB FTP site), a review of all notes and photographs taken during the July inspection, and reflects those compliance issues which have been addressed and reported on since the inspection.

Part A: Scope, Definitions and Enforcement

At the time of the inspection and of this writing, the Licensee holds a current Water Licence.

Part B: General Conditions

Annual reports have been submitted as required, and can be found on the NWB FTP site. Coordinates were given for water usage in the 2011 report, and waste from drills was deposited in the trench near camp.

Part C: Conditions Applying to Water Use

The licensee has provided GPS locations water use in the annual report. No exceedences were noted. Water usage at camp is tracked by tank-fills, and camp water is UV and chlorine treated. At the time of the inspection, the daily log was incomplete and the digital log provided up to June 6. Drill water usage was provided following the inspection. No erosion or siltation was noted along the lake due to camp activities.

Daily log of water usage must be kept up-to-date.

Part D: Conditions Applying to Waste Disposal

The licensee has provided a description of disposal activities in the annual report. Waste that cannot be incinerated at George Camp is taken back to Goose Camp for consolidation and backhaul out. Drill sludge is hauled in mega bags to the trench near camp, as previously described. At the time of the inspection, mega bags were piled on the side of the trench and should be emptied.



A new building was under construction to enclose the incinerator. The incinerator log was being used by the operator; although only inputs were being recorded. The '% burned' and 'ash weight' columns were not consistently filled out.

Waste is generally being consolidated near the incinerator. Barrels of hazardous waste were clearly labelled, however, hazardous waste was not consistently stored in containment or covered. Some barrels of hazardous waste were noted in front of the shop and without containment.

Barrels containing hazardous waste are to be kept within secondary containment and covered.

At the time of the inspection, greywater was not appropriately managed. Water from the dries was not collected in a sump, but rather flowed down a shallow ditch and over a marshy patch of vegetation and back to the lake near the water intake. Sabina was in the process of addressing this deficiency at the time of the inspection, and later provided an update with photos to show the greywater outlet moved to a properly-constructed sump on the west side of the runway and away from the lake.

There appears to be some leakage of cuttings from the new cutting shack, although it's a marked improvement from the old cutting shack. The old cutting shack appeared to be still in use, but the bucket intended to catch the drips from the cuttings had been knocked over or overflowed and the cuttings were pooling on the ground.

Part E: Conditions for Camps, Access Infrastructures and Operations

No issues were noted under this Part.

Parts F: Conditions Applying to Drilling Operations

Drilling operations for Back River Project were inspected out of the Goose Lake Camp.

Part G: Conditions Applying to Modifications

Modifications to the greywater disposal system are consistent with the terms of this licence. Please provide documentation of modifications to the Board as per item 2 of this Part.

Part H: Conditions Applying to Spill Contingency Planning

At the time of the inspection, some collapsed or incomplete insta-berms were noted containing drummed fuel. At the bulk fuel berm, the liner was exposed and debris (with nails) was piled in the berm, putting the liner at risk. A secondary liner was provided under the fuel bladder; however, that liner is collapsed and stained. Mr. Penner indicated at the time of the inspection that Sabina is working to empty the bladders and discontinue use of them. One engineered berm contained empty drums, but staining was noted under the drums where barrels may not have been drained.

The barrel-crusher sits on a raised platform, on a tray with absorbent pads. Barrels are drained into a waste barrel; absorbent pads are visible but no drip tray. Day tanks are situated in a berm in proximity to the bulk fuel tanks for re-fuelling.

At the helicopter refueling area, insta-berms had been put in place under the barrels, however, the berms didn't stay in place, and more barrels were present than would fit over the berms. Barrels in use had no containment.

All fuel transfers are to occur over a drip tray or secondary containment.

The shop/quonset appeared to be unlined; staining evident on the ground. Pails of oil were noted in the shop with no drip trays present. All lubricants that are not marked as non-toxic should remain in secondary containment at all times.

At the time of the inspection, barrel stands attached to each building had inconsistent secondary containment. Hoses, valves, and filters often surpassed the small berm placed underneath. Others were well constructed with absorbent padding in use to catch any small drips that may ensue. Mr. Penner indicated that Sabina would be replacing the existing barrel stands with better containment.

There are two spills currently on-file with the NT-NU Spill Line: 12-204 (24/5/2012) and 12-334 (16/08/2012). Follow-up reports with photos were submitted as required for both spills. These spills were not inspected for file closure during this inspection, but an attempt will be made to inspect and close these files during the next summer inspection.



Part I: Conditions Applying to Abandonment and Restoration or Temporary Closing

Reclamation work conducted in 2011 was reported in the 2011 Annual Report as required.

It was not discussed at the time of the inspection, but aerial photos taken during the inspection show the core racks stored quite close to the lake's edge. According to item 12 of this Part, drill core must be stored at least 31m above the ordinary high water mark of any water body. Any of the core closer than 31m must be moved away from the water.

Part J: Conditions Applying to the Monitoring Program

As per item 1 of this part, all water usage should be measured and recorded daily. In the 2011 report, no mention is made of meters used in association with drilling, and little explanation is given how the figure of 36m³ is derived. As per item 7, all data required under this Part is to be included in the Annual Report. Please include the daily water usage in table form as an appendix.

Please provide the GPS location for the trench and any other locations where drill waste is deposited in the next annual report.

General Comments:

Most issues noted on-site are a matter of house-keeping practices. Ensuring that berms are intact and free of water, that waste is being consolidated and stored properly, and that drip trays and berms are used consistently. Daily logs also must be kept up and made available upon request. I feel this site is in good hands and I look forward to my next visit.

Non-Compliance:

Issues where there is/was a known or suspected violation of a requirement of the Water Licence or Act:

Part D (8). Failure to contain greywater in a sump.

Part H (2). Failure to maintain fuel caches to the satisfaction of the Inspector.

Part H (3). Spills evident in the shop; a liner should be installed if not present.

Part I (12). Drill core stored within 31m of the high water mark of a water body.

Part J (1). Failure to record daily water usage.

Summary of Action Required:

- Daily log of water usage must be kept up-to-date.
- Water meters are recommended for accuracy.
- Water usage for drills to be submitted to the inspector.
- Hazardous waste is to be stored in containment and covered.
- Provide documentation of modifications to the greywater system to the Board.
- Regular inspections of all fuel storage and secondary containment. Inspection records to be provided to the Inspector upon request.
- All fuel transfers are to occur over a drip tray or secondary containment.
- Helicopter area to be provided with adequate secondary containment for barrels in use and those lying down.
- All lubricants, drill products, and salts that are not marked as non-toxic should remain in secondary containment at all times.
- A liner is to be installed in the shop/Quonset, if not already present.
- Any of the core racks closer than 31m must be moved away from the lake.
- GPS coordinates for the trench and any other locations where drill waste is deposited are to be included in the next annual report.

Failure to undertake the actions required as described in this inspection report, and to the satisfaction of the Inspector, may result in enforcement action(s) being undertaken pursuant to the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*.

Eva Paul
Inspector's Name


Inspector's Signature

Cc: Phyllis Beaulieu – Manager of Licensing, Nunavut Water Board
Fred Penner – Superintendent of Operations, Sabina Gold & Silver Corp.