BACK RIVER PROJECT

2021 Annual Report for

Water Licence 2AM-BRP1831

Prepared by
Sabina Gold and Silver Corp.

Prepared for
Nunavut Water Board

March 2022

BACK RIVER PROJECT
2021 2AM-BRP1831 Annual Report

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Acronyms

CIRNAC	Crown-Indigenous Relations and Northern Affairs Canada
Inspector	CIRNAC Inspector
KIA	Kitikmeot Inuit Association
The Licence	Water Licence 2AM-BRP1831
MLA	Marine Laydown Area
NIRB	Nunavut Impact Review Board
NU	Nunavut
NWB	Nunavut Water Board
The Project	Back River Project
Sabina	Sabina Gold & Silver Corp.

Executive Summary - English

Sabina Gold & Silver Corp. (Sabina) has filed its Annual Report on its activities during 2021 under Water Licence No. 2AM-BRP1831 (the Licence) issued by the Nunavut Water Board. As set out in Part B Item 2 and Schedule B of the Licence, the report includes information on the following topics:

- Information related to the dikes, dams and structures constructed to withhold water or waste;
- A summary report of Water use, Winter Ice Road activities, dewatering activities, and any updates to the Water and Load Balance results;
- Summaries of geochemical monitoring results, ore stockpile quantities, seepage and runoff monitoring, and waste disposal;
- A list of unauthorized discharges and a summary of follow-up actions taken;
- A summary of Modifications and/or major maintenance work carried out on all Water and Waste-related structures and facilities;
- Monitoring program results and interpretation;
- A summary of any progressive Closure and Reclamation work undertaken;
- An updated estimate of the current restoration liability;
- A summary of any studies requested by the Board that relate to Water use, Waste disposal or Reclamation, and a brief description of any future studies planned
- Any revisions to Management Plans, reports or manuals;
- A summary of actions taken to address concerns or deficiencies listed in the inspection reports and/or compliance reports filed by an Inspector;
- A summary of public consultation/participation, describing consultation with local organizations and residents of the nearby communities, if any were conducted;
- Any other details on Water use requested by the Board by the 1st November of the year being reported.

ᓇᐃᓈᖅᓯᒪᔪᖅ – ᐃᓄᒃᑎᑐᑦ

ᓴᐲᓇ ᒎᓗ ᐊᒻᒪᓗ ᓴᕕᓕᕆᔨᒃᑯᑦ (ᓴᐲᓇ) ᐊᕐᕌᒍᑕᒫᖅ ᐅᓂᑉᑳᖓᓐᓂᒃ ᑐᓂᓯᓚᐅᖅᑐᑦ ᖃᓄᐃᓕᐅᕐᓂᕆᔭᖏᑦᑕ ᒥᒃᓵᓄᑦ 2021-ᒥᑦ ᒪᓕᒃᓱᒍ ᐃᒪᕐᒧᑦ ᓚᐃᓴᓐᓯ ᓈᓴᐅᑎᖓ 2AM-BRP1831 (ᓚᐃᓴᓐᓯ) ᑐᓂᔭᐅᔪᖅ ᓄᓇᕗᒻᒥ ᐃᒪᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᑦ. ᐅᖃᖅᓯᒪᓂᖓᑐᑦ ᐃᓚᖓᓂᑦ B-ᒥᑦ ᑎᑎᖅᑲᖅ 2 ᐊᒻᒪ ᐃᓚᖓᓂ B–ᒥ ᓚᐃᓴᓐᓯᒥᑦ, ᐅᓂᑉᑳᒥᑦ ᐃᓚᐅᔪᑦ ᑐᑭᓯᐅᒪᔾᔪᑏᑦ ᐱᔾᔪᑎᖃᖅᑐᑦ ᐅᑯᓂᙵᑦ:

- ᑐᑭᓯᒋᐊᕈᑎᒃᓴᑦ ᐅᑯᓄᖓ ᓯᒥᒃᑐᖅᓯᒪᔪᑦ, ᐊᕙᓗᓕᐊᖑᓯᒪᔪᑦ ᐊᒻᒪ ᓴᓇᓯᒪᔪᑦ ᐃᒪᕐᒥᑦ ᐅᕙᓗᓐᓂᑦ ᑯᕕᖅᑕᑯᒥᑦ ᐊᑐᖅᑕᐅᔪᒃᓴᑦ;
- ᑐᑭᓯᒋᐊᕈᑎᒃᓴᑦ ᑐᓴᕈᑎᒃᓴᓕᐊᖅ ᐃᒪᕐᒥᑦ ᐊᑐᓚᐅᕐᓂᕐᒧᑦ, ᐅᑭᐅᒃᑯᑦ ᓯᑯᒃᑯᑦ ᐊᑉᖁᑎᓴᖅ ᐱᓕᕆᐊᑦ, ᐃᒪᐃᔭᐃᓂᕐᒧᑦ ᐱᓕᕆᐊᑦ, ᐊᒻᒪ ᑐᓴᕈᑎᒃᓴᑦ ᐃᒪᕐᒧᑦᓗ ᐅᓯᖃᑦᑕᕐᓂᕐᒧᑦᓗ ᐱᐊᓂᒃᑐᑦ;
- ᓇᐃᓇᖅᓯᒪᔪᑦ ᐅᔭᕋᕐᓂᐊᓂᕐᒧᑦ, ᐅᔭᕋᕐᓂᐊᒐᒃᓴᖅ ᓇᕕᑕᐅᓯᒪᔪᖅ; ᓯᒥᒃᑐᖅᓯᒪᔪᖅ ᓯᒥᒃᑐᖅᓯᒪᑦᑎᐊᕋᓗᐊᒪᖓᑦ ᖃᐅᔨᖅᐸᖕᓂᖅ ᐊᒻᒪ ᖁᕕᖅᑕᖅᕕᒃ;
- ᑎᑎᕋᖅᓯᒪᔪᑦ ᐱᔪᖕᓇᖅᑎᑕᐅᓯᒪᙱᕐᓗᑎᒃ ᑯᕕᓯᓃᑦ ᐊᒻᒪᓗ ᓇᐃᓈᖅᓯᒪᔪᖅ ᖃᐅᔨᒋᐊᒃᑲᓐᓂᕐᓂᐅᔪᑦ;
- ᓇᐃᓇᖅᓯᒪᔪᑦ ᐊᓯᐊᖑᐊᖅᔪᒃᓱᒍ ᐊᒻᒪ/ᐅᕝᕙᓘᓐᓃᑦ ᐊᖏᔪᒻᒪᕆᒃ ᐱᓕᕆᐊᖅ ᑲᒪᒋᔭᐅᔭᕆᐊᖃᓚᐅᖅᑐᖅ ᐃᒪᕐᒧᑦ ᐊᒻᒪ ᑯᕕᖅᑕᖅᕕᒧᑦ ᐱᑉᓗᒍ ᐊᒻᒪ ᐃᓂᖅᑲᖅᕕᐅᔪᑦ;
- ᖃᐅᔨᒋᐊᖃᑦᑕᕐᓂᕐᒥᑦ ᖃᓄᐃᓕᖓᓕᕐᓂᖓ ᐊᒻᒪ ᑐᑭᓕᐅᖅᓯᒪᔪᑦ;
- ᓇᐃᓴᖅᓯᒪᔪᖅ ᖃᓄᐃᓕᐅᕐᓂᐅᔪᖅ ᕿᒪᐃᓂᐊᕐᓂᕐᒧᑦ ᐊᒻᒪ ᓄᓇᒥᒃ ᓴᓗᒻᒪᖅᓴᐃᓂᖅ;
- ᖃᓂᖁᓯᒪᑉᓗᒍ ᐅᒃᑐᕋᐅᓯᖅ ᒫᓇᐅᔪᖅ ᐊᑭᓕᒃᓴᐅᓇᔭᖅᑐᖅ ᓱᕈᖅᓯᒪᔪᒧᑦ;
- ᓇᐃᓇᖅᓯᒪᔪᑦ ᑐᑭᓯᒋᐊᕈᑎᒃᓴᑦ ᑲᑎᒪᔨᑦ ᑐᒃᓯᕋᖅᓯᒪᔭᖏᑦ ᐃᒪᖅ ᐊᑐᖅᑕᐅᕙᓂᖓᓄᑦ; ᐊᒃᑕᑯᕈᓯᖅ ᐅᕝᕙᓘᓐᓃᑦ ᓄᓇᒥᒃ ᓴᓗᒻᒪᖅᓴᐃᓂᖅ ᓇᐃᓇᖅᓯᒪᓗᒍ ᖃᐅᔨᓴᕐᓂᐊᕐᓂᖅ ᓯᕗᓂᒃᓴᒥ ᖃᓄᐃᓕᐅᕈᑕᐅᓂᐊᕐᓂᖓ
- ᐊᓯᐊᖑᐃᓂᖅ ᐊᐅᓚᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑏᑦ, ᐅᕙᓗᓐᓂᑦ ᒪᓕᒃᑕᐅᔪᒃᓴᑦ;
- ᑎᑎᕋᖅᓯᒪᔪᑦ ᖃᓄᐃᓕᐅᕐᓂᑯᑦ ᑲᒪᒋᖁᔭᐅᔪᑦ ᐱᑉᓗᒋᑦ ᐅᕝᕙᓘᓐᓃᑦ ᐱᐊᓂᒃᓯᒪᖏᑦᑐᑦ ᖃᐅᔨᓴᐃᓂᒃᑯᑦ ᑐᓴᕈᑎᒥ ᐊᒻᒪ/ᐅᕝᕙᓘᓐᓃᑦ ᖃᐅᔨᓴᖅᑎᐅᑉ ᐱᐊᓂᒃᓯᒪᓂᕋᖅᑕᖏᑦ;
- ᓇᐃᓈᖅᓯᒪᔪᑦ ᐃᓄᓗᒃᑖᓂᒃ ᐅᖃᖃᑎᖃᖅᓃᑦ/ᐃᓚᐅᖃᑕᐅᑎᑦᑎᓃᑦ, ᐅᖃᐅᓯᖃᖅᓗᓂ ᐅᖃᖃᑎᖃᖅᓂᐅᓚᐅᖅᑐᓂᒃ ᓄᓇᓕᖕᒥᑦ ᑲᑐᔾᔨᖃᑎᒌᓂᒃ ᐊᒻᒪᓗ ᐃᓄᖏᓐᓂᒃ ᖃᓂᑦᑐᓂᒃ ᓄᓇᓕᖕᒥᐅᓂᑦ, ᐅᖃᖃᑎᖃᓚᐅᖅᐸᑕᔭ;
- ᓱᓇᑐᐃᓐᓇᐃᑦ ᐊᓯᖏᑦ ᓇᓗᓇᐃᔭᖅᓯᒪᔪᑦ ᐃᒪᕐᒥᒃ ᐊᑐᕐᓂᕐᒧᑦ ᑐᒃᓯᕋᖅᑕᐅᔪᖅ ᑲᑎᒪᔨᓄᑦ ᓄᕕᐱᕆ 1-ᒥᑦ ᐅᑭᐅᕐᒥᑦ ᐅᓂᑉᑳᓕᐊᖑᖕᒪᑦ.

Aulapkaiyini Naittuq – Inuinnaqtun

Sabina Guulit Silverlu Kuapurisan (Sabina) tuniyat Ukiumun Tuhaqhitaut huliniqnut atuqtitlugu 2021 malikhugu Imaqmun Laisa Nappaa 2AM-BRP1831 (tamna Laisa) tuniyat tapkuat Nunavut Imaligiyit Katimayit. Taima ihuaqhihimaniagut talvani Ilanga B Titiraq 2 tamnalu Atugakhaliaq B talvani Laisami, tamna tuhaqhitaut ilalik tuhagakhat tahapkununga pityutinut:

- Tuhagakhat turangayut haputinut, hapuhiugaqnut hanahimayutlu hanaugat imaqaqviuyukhat uvaluniit iqakunut;
- Nainaqhimayuq tuhaqhitaut Immap atuqnianut, Ukiumi Hikukkuk Apqutit huliniit, imaiyainiqmun huliniit, kitutluliqak nutanguqnit tapkununga Immap Hunaqaqninutlu Ihuaqhihimani qanuritnit;
- Nainaqhimani nunaliqutit qanuritnit munarini, havikhat qaliriktitaqnit aktilangit, maqinit kuukviunitlu munarinit, tapkuatlu iqakut iqaqnit;
- Titiqat pilaqtitauhimaittut kuvititnit nainaqhimayutlu kinguagut huliniit piyauni;
- Nainaqhimayut Ihuaqhigiarutit tamnalu/uvaluniit angiyut hanayauni havariyaunit tamaitnut Immap Iqakutlu-turangayut hanahimayut havagutailu;
- Munarini havagutt qanuritnit tukiliurutailu;
- Nainaqhimayut kitutliqak pivalianit Umiktirnianut Halumaqtiqnianutlu havariyauyut;
- Nutanguqhimayut mikhautnit tatya ilitquhiraluanganut utiqtitnahuaqni akiliqtutaulat;
- Nainaqhimayut kitutliqak naunaiyautit atuquyai tapkuat Katimayit turangayut Immap atuqnianut, Iqakut iqaqni uvaluniit Halumaqtiqninut, nainaqhimayuqlu unniqtut kitunutliqak hivunikhami naunaiyaqni parnaktauyut
- Kitutliqak nutanguqni tapkuat Aulatauni Parnautit, tuhaqhitautit makpiraliugatlu;
- Nainaqhimani hulinit atuqtauyut hugiaqninut ihumaalutit uvaluniit iniqhimaittut titiqni qauyihainiqmun tuhaqhitautit tamnalu/uvaluniit malikhaqni tuhaqhitautit tuniya taphuma Qauyihaiyip;
- Nainaqhimayuq inungnut uqaqaqtigiknit/piqataunit, unnirtuqni uqaqatigikni nunalikni timiuyut nunaliuyutlu haniani nunaliuyut, atuqtauhimaniqata;
- Kitutluliqak ahii unniqtuttiaqni Immap atuqni pitquyauyut Katimayinit qangiqtitnagu Nuvipa 1 ukiunganut tuhaqhitautauyumun.

1. Introduction

This report to the Nunavut Water Board (NWB) summarizes activities and monitoring undertaken at the Sabina Gold and Silver Corp. (Sabina) Back River Project (BRP; the Project) Marine Laydown Area (MLA) and Goose Lake project areas in accordance with Part B, Item 2 of 2AM-BRP1831 (the Licence). This License was issued on September 21, 2018 and will expire on December 31, 2031. The NWB Annual Report Form can be found in Appendix A of this report.

Sabina's Back River Project is located within the West Kitikmeot region of southwestern Nunavut. It is situated approximately 400 km southwest of Cambridge Bay, 95 km southeast of the southern end of Bathurst Inlet (Kingaok), and 520 km northeast of Yellowknife, Northwest Territories. The Project is located predominantly within the Queen Maud Gulf Watershed.

The Project is comprised of two main areas; the MLA situated along the western shore of southern Bathurst Inlet and the Goose Lake Area south of the MLA where the gold deposits are located. These areas are connected seasonally by an approximately 160 km long winter ice road (WIR). The majority of annual resupply is brought in by water to the MLA and necessary materials are transferred via winter ice road to the Goose Lake property.

Project initial development works began in 2018 and have included the development of pads, all-weather access roads and an airstrip at the MLA, as well as the erection of a tent camp, bulk fuel tank, and barge off-loading area for the receipt, storage and transfer of materials necessary to support construction activities via sealift and WIR (see the 2018 and 2019 Annual Report for Water Licence 2BC-BRP1819 and 2020 Annual Report for Water Licence 2AM-BRP1831).

Despite another COVID-related restricted season in 2021, Sabina managed to complete several key initial construction activities at the site focused on advancing and de-risking future development. To do this, Sabina developed and implemented a rigorous COVID site safety protocols and a staff screening program with input from the KIA, Federal Government, the Government of Nunavut including the Chief Medical Health Officer, Public Health, Economic Development & Transportation, and many others.

The following activities were completed in 2021, in support of future Project construction:

- Major progress in Project funding.
- Sampling, discharge, and maintenance of fuel storage areas at the MLA and Goose.
- Extending the Goose all-weather airstrip to allow aircraft of different sizes to land year-round with an increased degree of success.
- Goose site road network expansion, including watercourse crossings towards the Llama deposit.
- Initial construction of process plant pad and fuel farm pad.
- Initial construction of a 10M litre fuel tank and containment at Goose, and final construction of a 10M liter fuel tank and containment at the MLA.
- Additions to Goose site infrastructure including laydown areas, such as:
    - Process Plant Pad Area Construction
    - Exploration Decline Portal Ramp Construction and Advancement, completed bolting and screening of portal entrance, and constructed supporting laydown pads and shops

- Geotechnical drilling at Goose.
- Environmental monitoring and baseline programs including: atmospheric, archaeology, water quality, fisheries, wildlife, geochemical/ geotechnical, and vegetation programs.

At this time, no mine waste and water management infrastructure has yet been developed at Goose. As these facilities are developed additional information will be included in this Annual Report. In the interim, use of exploration waste and water use facilities are reported in the Annual Report for Water Licence 2BE-GOO2028.

2. Annual Report per Part B, Item 2

This section of the report has been constructed to address the requirements Part B, Item 2 and Schedule B of the Licence. For ease of comparison, each subheading within this section corresponds directly with the identically numbered subheading of Schedule B of Water Licence 2AM-BRP1831.

CONSTRUCTION

2.1 FOR THE DIKES, DAMS AND STRUCTURES CONSTRUCTED TO WITHHOLD WATER OR WASTE

At this time, no dikes, dams or structures to withhold water or waste have been commissioned under this Licence.

WATER

2.2 MONTHLY AND ANNUAL VOLUME OF FRESH WATER OBTAINED FROM ALL SOURCES

No fresh water was withdrawn under this Licence in 2021. Water use for the MLA was sourced from Bathurst Inlet, no Winter Ice Road (WIR) was developed during the winter of 2020/2021 and the 2021/2022 WIR construction did not commence until 2022, and water use related to operation of the Goose Exploration Camp is reported in the 2BE-GOO2028 annual report.

2.3 SUMMARY OF INTERCONNECTION WINTER ICE ROAD PLANS IMPLEMENTED IN ACCORDANCE WITH PART E, ITEM 13

Sabina did not operate an Interconnection Winter Ice Road (WIR) in the winter of 2020/2021. A summary of the 2021/2022 WIR will be provided in the 2022 Annual Report.

2.4 SUMMARY OF DEWATERING PLANS IMPLEMENTED IN ACCORDANCE WITH PART E, ITEM 14

No dewatering activities have occurred to date. A dewatering Plan will be provided to the NWB 60 days prior to initiation of dewatering in accordance with Part E Item 14 of the Licence.

2.5 SUMMARY UPDATE TO THE WATER AND LOAD BALANCE RESULTS, IF ANY INCLUDING AN ANNUAL COMPARISON OF MEASURED GROUNDWATER INFLOW RATES TO MODEL PREDICTIONS.

Sabina is currently updating the Water and Load balance, and has submitted notification to the NWB in regard to this update and a submission timeline (August 2022).

WASTE

2.6 GEOCHEMICAL MONITORING RESULTS

a. Operational acid/base accounting and associated test work used for Waste Rock designation (PAG and NPAG rock);

No waste rock has been generated to date.

b. As-built volumes of Waste Rock used in construction and placed in the Waste Rock Storage Areas with estimated balance of acid generation to acid neutralization capacity in a given sample as well as metal toxicity;

No waste rock has been generated to date.

c. All monitoring data with respect to geochemical analyses on site and related to roads and quarries;

Sixty-one samples of potential construction material were collected during 5 sampling events at the Back River project site between May and November 2021. The ML/ARD potential of the samples were assessed using total sulphur and total carbon content. The analyses were performed at Global ARD in Burnaby, BC.

The acid potential (AP) for each sample was calculated using total sulphur concentration according to the following equation:

$$\text{Total Sulphur (wt. \%)} * 31.25 = \text{Acid Potential (kg } CaCO_3/t)$$

The use of total sulphur to determine the AP assumes that all the sulphur is present as pyrite and can generate acid. The neutralization potential was calculated using the total carbon concentration according to the following equation:

$$\text{Total Carbon (wt. \%)} * 83.34 = \text{Neutralization Potential (kg } CaCO_3/t)$$

The use of total carbon to determine the NP assumes that all carbon is present as calcite and can neutralize acid. This determination of NP can be considered conservative as it discounts the contribution from silicate minerals. Table 2.6-1 presents the AP, NP and neutralization potential ratio (NPR) results for the 61 samples. Neutralization potential ratio is calculated as the ratio of NP to AP. The ARD classification of samples results uses the following criteria:

NPAG = NP/AP > 3

NPAG – Low Sulphur = NP/AP < 3 and Total Sulphur < 0.16 wt. %

PAG – Uncertain = 1 < NP/AP < 3

PAG = NP/AP < 1

Using the NPR, 6 samples were classified as potentially acid generating (PAG) and 11 as PAG – Uncertain. Twenty-seven samples were classified as non-potentially acid generating (NPAG), and 21 samples were classified as NPAG – Low Sulphur based on having and NPR less than 3 and a total sulfur content less than 0.16 wt. %.

These data indicated that the materials with low ARD potential (NPAG and NPAG – Low Sulphur) are suitable for use in construction based on the material classification criteria outlined in the Quarry Management Plan. The PAG and PAG – Uncertain material are not suitable for use in construction.

All samples were submitted for static leach testing using the shake flask extraction (SFE) methodology as an assessment of metal leaching potential the Quarry Management Plan requires SFE on only a subset of samples, however all samples were tested. None of the samples had SFE results that exceeded ten times the Canadian Council of Ministers of the Environment (CCME) guidelines for the protection of freshwater aquatic life.

Table 2.6-1. Geochemical Characterization Results

Sample ID	Total Carbon (wt. %)	Total Sulphur (wt. %)	NP (kg $CaCO_3$/t)	AP (kg $CaCO_3$/t)	NPR (NP/AP)	Classification
Jaw Run 1 of 6	0.12	0.16	13.80	5.00	2.8	PAG - Uncertain
Jaw Run 2 of 6	0.09	0.15	18.80	4.69	4.0	NPAG
Jaw Run 3 of 6	0.10	0.08	14.80	2.50	5.9	NPAG
Jaw Run 4 of 6	0.05	0.10	11.60	3.13	3.7	NPAG
Jaw Run 5 of 6	0.09	0.15	13.30	4.69	2.8	NPAG - Low Sulphur
Jaw Run 6 of 6	0.07	0.08	14.10	2.50	5.6	NPAG
2 1/2" 1 of 6	0.15	0.18	22.60	5.63	4.0	NPAG
2 1/2" 2 of 6	0.20	0.11	32.70	3.44	9.5	NPAG
2 1/2" 3 of 6	0.08	0.14	12.80	4.38	2.9	NPAG - Low Sulphur
2 1/2" 4 of 6	0.25	0.14	34.20	4.38	7.8	NPAG
2 1/2" 5 of 6	0.14	0.11	23.10	3.44	6.7	NPAG
2 1/2" 6 of 6	0.18	0.14	26.10	4.38	6.0	NPAG
1/2" 1 of 6	0.06	0.17	10.30	5.31	1.9	PAG - Uncertain
1/2" 2 of 6	0.09	0.12	11.10	3.75	3.0	NPAG - Low Sulphur
1/2" 3 of 6	0.07	0.16	11.10	5.00	2.2	PAG - Uncertain
1/2" 4 of 6	0.09	0.14	10.60	4.38	2.4	NPAG - Low Sulphur
1/2" 5 of 6	0.07	0.14	11.80	4.38	2.7	NPAG - Low Sulphur
1/2" 6 of 6	0.06	0.14	13.30	4.38	3.0	NPAG - Low Sulphur
UG Sample 30m face 1of6	0.07	0.05	5.0	1.1	4.7	NPAG
UG Sample 30m face 2of6	0.10	0.08	8.5	1.7	5.0	NPAG
UG Sample 30m face 3of6	0.11	0.06	7.0	1.3	5.5	NPAG
UG Sample 30m face 4of6	0.13	0.03	7.5	0.6	11.7	NPAG
UG Sample 30m face 5of6	0.10	0.04	7.0	0.9	8.2	NPAG
UG Sample 30m face 6of6	0.05	0.09	7.3	1.9	3.8	NPAG
PS Blast Pattern #9 1of6	0.06	0.15	8.5	3.2	2.7	NPAG - Low Sulphur
PS Blast Pattern #9 2of6	0.08	0.13	6.5	2.8	2.3	NPAG - Low Sulphur
PS Blast Pattern #9 3of6	0.10	0.10	7.5	2.1	3.5	NPAG
PS Blast Pattern #9 4of6	0.06	0.19	9.8	4.1	2.4	PAG - Uncertain
PS Blast Pattern #9 5of6	0.04	0.28	8.3	6.0	1.4	PAG - Uncertain
PS Blast Pattern #9 6of6	0.04	0.10	8.5	2.1	4.0	NPAG
8211052	0.09	0.07	6.0	2.2	2.7	NPAG - Low Sulphur
8211053	0.13	0.17	6.00	5.31	1.1	PAG - Uncertain
8211054	0.02	0.01	7.5	0.3	24.0	NPAG
8211055	0.08	0.08	4.8	2.5	1.9	NPAG - Low Sulphur
U/G Sample	0.01	0.11	3.00	3.44	0.9	PAG
U/G Sample Duplicate	0.01	0.08	5.2	2.5	2.1	NPAG - Low Sulphur
U/G Sample Triplicate	0.02	0.1	5.0	3.1	1.6	NPAG - Low Sulphur
UG Sample 202.7m face (1of6)	0.05	0.21	6.56	5.70	0.9	PAG
UG Sample 202.7m face (2of6)	0.11	0.37	11.56	1.60	0.1	PAG

UG Sample 202.7m face (3of6)	0.25	0.14	4.4	10.7	2.4	NPAG - Low Sulphur
UG Sample 202.7m face (4of6)	0.32	0.20	6.25	12.20	2.0	PAG - Uncertain
UG Sample 202.7m face (5of6)	0.09	0.68	21.25	6.20	0.3	PAG
UG Sample 202.7m face (6of6)	0.03	0.19	5.94	9.20	1.5	PAG - Uncertain
PS Blast Pattern #63 (1of6)	0.12	0.09	2.8	4.9	1.7	NPAG - Low Sulphur
PS Blast Pattern #63 (2of6)	0.07	0.08	2.5	7.7	3.1	NPAG
PS Blast Pattern #63 (3of6)	0.07	0.38	11.88	5.90	0.5	PAG
PS Blast Pattern #63 (4of6)	0.11	0.14	4.4	4.7	1.1	NPAG - Low Sulphur
PS Blast Pattern #63 (5of6)	0.07	0.11	3.4	8.9	2.6	NPAG - Low Sulphur
PS Blast Pattern #63 (6of6)	0.10	0.19	5.94	5.70	1.0	PAG - Uncertain
Surface Sample 77-1	0.09	0.09	11.7	2.8	4.2	NPAG
Surface Sample 77-2	0.13	0.15	8.2	4.7	1.7	NPAG - Low Sulphur
Surface Sample 77-3	0.11	0.12	9.0	3.8	2.4	NPAG - Low Sulphur
Surface Sample 78-1	0.03	0.08	8.7	2.5	3.5	NPAG
Surface Sample 78-2	0.03	0.24	8.00	7.50	1.1	PAG - Uncertain
Surface Sample 78-3	0.06	0.06	7.7	1.9	4.1	NPAG
Surface Sample 80-1	0.15	0.07	6.1	2.2	2.8	NPAG - Low Sulphur
Surface Sample 80-2	0.09	0.04	7.6	1.3	6.1	NPAG
Surface Sample 80-3	0.13	0.08	7.6	2.5	3.0	NPAG - Low Sulphur
Surface Sample 83-1	0.16	0.01	7.2	0.3	23.0	NPAG
Surface Sample 83-2	0.03	0.05	6.1	1.6	3.9	NPAG
Surface Sample 83-3	0.03	0.05	7.2	1.6	4.6	NPAG

d. Any Leaching observations and tests collected on pit slope and dike exposure;

This infrastructure has not yet been constructed.

e. Any geochemical outcomes or observations that could imply or lead to environmental impact.

Geochemical outcomes and observations were as anticipated based on the geochemical characterization baseline studies completed during the Project assessment.

2.7 VOLUMES OF ORE STOCKPILED.

No ore has been mined at the Project to date.

2.8 SUMMARY OF QUANTITIES AND ANALYSIS OF SEEPAGE AND RUNOFF MONITORING FROM THE TAILINGS STORAGE FACILITY, WASTE ROCK STORAGE AREAS, LANDFILL(S) AND ASSOCIATED DIKES/BERMS.

The Tailings Storage Facility, Waste Rock Storage Areas, Landfills and associated dikes/berms have not yet been constructed.

2.9 A SUMMARY REPORT OF ALL GENERAL WASTE DISPOSAL ACTIVITIES INCLUDING MONTHLY AND ANNUAL QUANTITIES IN CUBIC METRES OF WASTE GENERATED AND LOCATION OF DISPOSAL.

Information on waste disposal is provided in Appendix B and includes quantities and types of wastes backhauled to KBL Environmental in Yellowknife (Appendix B Table 1) as well as wastes incinerated and open burned (Appendix B Table 2). Note that wastes incinerated at the MLA were not tracked in 2021 due to a record keeping oversight; quantities will be tracked and reported in the 2022 Annual Report. Wastes backhauled included incinerator ash as well as wastes from the Goose and George Properties. KBL Environmental provides waste management services, including transfer of Project wastes to approved disposal facilities outside of Nunavut. No waste is currently landfilled on site, landfills will be developed in the WRSAs when they are developed.

2.10 REPORTING OF INCINERATOR TEST RESULTS INCLUDING THE MATERIALS BURNED AND THE EFFICIENCY OF THE INCINERATOR IN RELATION TO EFFECTS ON WATER AND THE POTENTIAL DEPOSIT OF WASTE INTO WATER.

No incinerator testing was conducted in 2021.

SPILLS

2.11 A LIST AND DESCRIPTION OF ALL UNAUTHORIZED DISCHARGES INCLUDING VOLUMES, SPILL REPORT LINE IDENTIFICATION NUMBER AND SUMMARIES OF FOLLOW-UP ACTION TAKEN

All spills, regardless of size are recorded for adaptive management purposes at the Back River Project.

No spills requiring reporting to the NT-NU 24 Hour Spill Report Line occurred in 2021.

MODIFICATIONS

2.12 A SUMMARY OF MODIFICATIONS AND/OR MAJOR MAINTENANCE WORK CARRIED OUT ON ALL WATER AND WASTE-RELATED STRUCTURES AND FACILITIES.

Sabina submitted an application for amendment to Type A Water Licence 2AM-BRP1831 outlining Project modifications requiring Licence Amendment. All information on these modifications can be found on the NWB registry. An amended water licence was issued on August 31, 2021. No modifications or major maintenance work was carried out on water or waste structures in 2021. Information on facility construction is provided in Sabina's Construction Summary Report required under Part D, Item 11, and Schedule D, Item 1 of the Licence.

MONITORING

2.13 THE RESULTS AND INTERPRETATION OF THE MONITORING PROGRAM IN ACCORDANCE WITH PART I AND SCHEDULE I.

A monitoring summary outlining activity related to each monitoring station indicated in Part I and Schedule I of the Licence is provided in Appendix C. Approximately 16 m^3 of water was discharged from the temporary MLA berms in 2021. Berm water quality results and discharge criteria are summarized in Table 2.13-1 and discharge locations and quantities are summarized in Table 2.13-2. Construction runoff accumulating in the MLA bulk tank berm was also tested and discharged prior to prior to first filling of the bulk fuel tank. Results of this testing is provided in Table 2.13-3. All water was discharged >31 m from any waterbodies and in a manner so as to prevent erosion and direct connectivity with waterbodies. It is also noted that MLA is upslope of Bathurst Inlet, and discharges never intercept any freshwater waterbodies.

Table 2.13-1 Berm Discharge Water Quality Results

	Benzene (mg/L)	Ethylbenzene (mg/L)	Toluene (mg/L)	Lead (mg/L)	Oil and Grease (mg/L)	TSS (mg/L)	pH*
Max Grab Concentration	**0.37**	**0.09**	**0.002**	**0.1**	**5 and no visible sheen**	**30**	**Between 6.0 and 9.5**
Max Avg. Concentration	**0.37**	**0.09**	**0.002**	**0.1**	**5 and no visible sheen**	**15**	**Between 6.0 and 9.5**
MLA Temporary Fuel Berm	<0.00050	<0.00050	<0.00050	0.00000411	<5.0 no	<3.0	7.1

**field readings*

Table 2.13-2 Discharge Locations and Quantities

Berm	Discharge Location	Discharge Quantity (m3)
MLA Berm	UTM NAD83 ZONE 13 N; N 7394413 E 381001	16

Table 2.13-3 Runoff Water Quality Results

	Oil and Grease (mg/L)	TSS (mg/L)	pH
Max Grab Concentration	**no visible sheen**	**100**	**Between 6.0 and 9.5**
Max Avg. Concentration	**no visible sheen**	**50**	**Between 6.0 and 9.5**
MLA Temporary Fuel Berm	<5.0 no	97.1	6.67

Personnel were continuously on site at the Goose Property starting from March 2, 2021 and at the ML since July 1, 2021. No site seepage or runoff with the potential to enter a freshwater waterbody was observed at either site.

6 m^3 of greywater discharge at the MLA. No water was available for sampling downstream of the discharge point (BRP-42) due to the limited discharge quantities and distance to the nearest waterbody (Bathurst Inlet).

Water use and waste deposition related to operation of the Goose camp exploration infrastructure is reported in the 2BE-GOO2028 annual report.

Full laboratory results of all water quality samples collected are provided in Appendix D.

2.14 THE RESULTS OF MONITORING RELATED TO THE GENERAL AND AQUATIC EFFECTS MONITORING PROGRAM IN ACCORDANCE WITH PART I ITEM 1.

Aquatic effects monitoring has not yet commenced at the Back River Project. However, baseline data continues to be collected in support of the AEMP program and once complied this information will be submitted to the NWB. The Back River Project Aquatic Baseline Synthesis Report (Golder 2019) is available on the NWB registry and includes baseline data collected through 2018.

CLOSURE

2.15 A SUMMARY OF ANY PROGRESSIVE CLOSURE AND RECLAMATION WORK UNDERTAKEN, INCLUDING PHOTOGRAPHIC RECORDS OF SITE CONDITIONS BEFORE AND AFTER COMPLETION OF OPERATIONS, AND AN OUTLINE OF ANY WORK ANTICIPATED FOR THE NEXT YEAR, INCLUDING ANY CHANGES TO IMPLEMENTATION AND SCHEDULING

No progressive reclamation activities have been undertaken to date. Sabina anticipates that these activities will commence once areas are determined to be no longer in use and subject to further impact. Photographic records of pre-construction site conditions have been taken and are maintained by Sabina for comparison with photos to be taken after completion of Operations.

2.16 PROVISION OF A STATUS REPORT WITHIN 30 DAYS OF NOTIFYING THE BOARD OF A SHORT TERM CLOSURE OR PERIOD OF CARE AND MAINTENANCE REFERRED TO IN PART J, ITEM 3

Per Schedule B, Item 16, should Sabina provide a notice of a short term closure or period of care and maintenance, a Status Report on “all planned Progressive Reclamation activities undertaken to date” will be submitted within 30 days. “The Report will identify those activities that remain incomplete due to the closure. The Status Report is to be filed in addition to the Care and Maintenance Plan referred to in Part J, Item 4 and will include details on site conditions at the cessation of operations as outlined in Schedule J.”

No short term closure or period of care and maintenance is currently planned.

2.17 AN UPDATED ESTIMATE OF THE CURRENT RECLAMATION LIABILITY BASED ON PROJECT DEVELOPMENT MONITORING, RESULTS OF RESTORATION RESEARCH AND ANY CHANGES OR MODIFICATIONS TO THE APPURTENANT UNDERTAKING

As part of the amendment process, Sabina provided a revised closure cost estimate reflective of the amended Project to the NWB. This cost estimate was ultimately accepted with the issuance of the amended licence.

2.18 PROGRESSIVE RECLAMATION WORK PLAN (PRWP), ONE (1) YEAR FOLLOWING THE COMMENCEMENT OF OPERATIONS. THE PRWP WILL PROVIDE A BREAKDOWN OF THE PROGRESSIVE RECLAMATION ACTIVITIES PLANNED TO BE COMPLETED THAT YEAR IN ACCORDANCE WITH THE CRITERIA SET IN SCHEDULE J.

Not yet applicable.

PLANS/REPORTS/STUDIES

2.19 A SUMMARY OF ANY STUDIES REQUESTED BY THE BOARD THAT RELATE TO WATER USE, WASTE DISPOSAL OR RECLAMATION, AND A BRIEF DESCRIPTION OF ANY FUTURE STUDIES PLANNED

No studies have been requested by the Board and no studies have been identified as necessary for 2021.

2.20 WHERE APPLICABLE, REVISIONS AS ADDENDA, WITH AN INDICATION OF WHERE CHANGES HAVE BEEN MADE, FOR PLANS, REPORTS, AND MANUALS

With the issuance of the amended Water Licence on August 31, 2021, the NWB approved all plans submitted by Sabina during the amendment process. These plans are available on the NWB Registry.

In the amended Licence, the NWB also requested the Water Management Plan, Tailings Management Plan, Waste Rock Management Plan and Aquatic Effects Management Plan be updated to address comments received during the amendment process. Sabina is currently updating these plans is submitting a communication to the NWB on their delivery.

2.21 AN EXECUTIVE SUMMARY IN ENGLISH, INUKTITUT, AND INUINNAQTUN OF ALL PLANS, REPORTS, OR STUDIES CONDUCTED UNDER THIS LICENCE.

An executive summary of this report is provided in both English and Inuktitut at the start of this report. Translated executive summaries are also included in each of the plans submitted under this Licence.

GENERAL

2.22 A SUMMARY OF ACTIONS TAKEN TO ADDRESS CONCERNS OR DEFICIENCIES LISTED IN THE INSPECTION REPORTS AND/OR COMPLIANCE REPORTS FILED BY AN INSPECTOR

During 2021 a CIRNAC Inspection of site was conducted on Sept 4th. The only action ultimately identified by the inspector as necessary was that Sabina "Instruct employees to use provided cigarette butts containers to dispose used cigarettes as opposed to dispose same directly onto the ground". Sabina has reminded employees about proper disposal of cigarette butts.

OTHER

2.23 A SUMMARY OF PUBLIC CONSULTATION AND PARTICIPATION WITH LOCAL ORGANIZATIONS AND THE RESIDENTS OF THE NEARBY COMMUNITIES, INCLUDING A SCHEDULE OF UPCOMING COMMUNITY EVENTS AND INFORMATION SESSIONS

Sabina's Back River Project engagement record is provided in Appendix E.

2.24 ANY OTHER DETAILS ON WATER USE OR WASTE DISPOSAL REQUESTED BY THE BOARD BY NOVEMBER 1ST OF THE YEAR BEING REPORTED.

No additional sampling or details on water use or waste disposal activities related to this Licence was requested by the Board or Inspector in 2021.

Appendix A NWB Annual Report Form

NWB Annual Report **Year being reported:** Select 2021

License No: 2AM-BRP1831 **Issued Date:** September 21, 2018
Expiry Date: December 31, 2031

Project Name: BACK RIVER PROJECT

Licensee: SABINA GOLD AND SILVER CORP

Mailing Address: #1800-555 Burrard St, Box 220, Vancouver, BC, V7X 1M9

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):

See Section 1 of attached report

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

Part B Select **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, MLA Pond S1, MLA Pond S2

Water Quantity:	Allowed:		Actually Used:
	578,000 cu.m.	Annually	0 cu.m.
	1,400,000 cu.m.	Annually for dewatering	0 cu.m.
	675 cu.m./km	for the WIR	0 cu.m./km WIR

Waste Management and/or Disposal

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

Additional Details:

See Section 2.9 of this report for wastes disposed of in 2020.

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 2.11 of Annual Report.

Revisions to the Spill Contingency Plan

SCP submitted and approved - no revision required or proposed

Additional Details:

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 2.15 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 Section 2.2 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:

See Section 2.9 of this report for wastes disposed of in 2020.
Waste water discharge infomation (including discharge locations) are provided in Section 2.13 of the 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)

See Section 2.22 of this report

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)

See Section 2.24 of this report

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 2.22 of Annual Report.

Any additional comments or information for the Board to consider

Date Submitted:	April 1 2021	
Submitted/Prepared by:	Merle Keefe/Katsky Venter	
Contact Information:	**Tel:**	
	Fax:	
	email:	mkeefe@sabinagoldsilver.com

Appendix B Waste Disposal

Waste Managment Tracking

Date: March 2021

Incinerator					LBS	Open Burn (Volume)	Waste Oil to Furnace (Litres)
Date:	Food (lbs)	Human Waste (lbs)	Misc. (lbs)	Waste Water (Lit)	Ash Out (lbs)		
2021-03-01							
2021-03-02							
2021-03-03	40		80				
2021-03-04	20		130				
2021-03-05							
Weekly	60	0	210	0	0	0	0
2021-03-06	450	30	160				
2021-03-07	270	40	270				
2021-03-08	100	20			90		
2021-03-09	110		220		120		
2021-03-10	107	75	80		80		
2021-03-11	105	20	60				
2021-03-12	85	45	80		55	1/4	
Weekly	1227	230	870	0	345	0.25	0
2021-03-13	80	65			30		
2021-03-14	85	40	110				
2021-03-15							
2021-03-16	180	85	150				
2021-03-17	140	90	240				
2021-03-18	95	62	60		90		
2021-03-19	115	75	130				
Weekly	695	417	690	0	120	0	0
2021-03-20	90		50		90		
2021-03-21	105	85	35				205
2021-03-22	90	30	30				140
2021-03-23							
2021-03-24	105	50	130	40			
2021-03-25	100	20	85				
2021-03-26	120	150	70		110		40
Weekly	610	335	400	40	200	0	385
2021-03-27	165	88	122			1/4	
2021-03-28	160	85	165		60		
2021-03-29	170	120	90				
2021-03-30	132	88	108				
2021-03-31	130	80	80		60		

Waste Managment Tracking

Date: April 2021

Incinerator					LBS	Open Burn (Volume)	Waste Oil to Furnace (Litres)
Date:	Food (lbs)	Human Waste (lbs)	Misc. (lbs)	Waste Water (Lit)	Ash Out (lbs)		
2021-04-01	220	80	270			1/4	
2021-04-02							
2021-04-03	200	140	180				
2021-04-04							
2021-04-05							
Weekly	420	220	450	0	0	1/4	0
2021-04-06	400	200	245				
2021-04-07	200	160	210		40		
2021-04-08	120	80	220				
2021-04-09	140	90	220		80	1/4	
2021-04-10	310	70	240		60		
2021-04-11	170	80	46		60	1/4	
2021-04-12	245	244	140		35		
Weekly	1585	924	1321	0	275	0.5	0
2021-04-13	158	186	278				
2021-04-14	269	180	162				
2021-04-15	241	345	413		86		
2021-04-16	126	88	97		36		
2021-04-17	370	358	870		45		
2021-04-18	341	313	278		93		
2021-04-19	69	83	138		36		
Weekly	1574	1553	2236	0	296	0	0
2021-04-20	118	96	594		37		
2021-04-21	220	136	726		46		
2021-04-22	461	182	412		86		
2021-04-23	53	93	269		67		
2021-04-24	112	119	597		93	1	
2021-04-25	199	76	457		36		
2021-04-26	147	145	534		31		
Weekly	1310	847	3589	0	396	1	0
2021-04-27					86		
2021-04-28	163	96	255		93		
2021-04-29	119	188	212		81		
2021-04-30	150	120	160				

Waste Managment Tracking

Date: May 2021							
Incinerator					LBS	Open Burn (Volume)	Waste Oil to Furnace (Litres)
Date:	Food (lbs)	Human Waste (lbs)	Misc. (lbs)	Waste Water (Lit)	Ash Out (lbs)		
2021-05-01	340	200	430		130	1/2	
2021-05-02	260	70	235		110		80
2021-05-03	170	80	120				225
2021-05-04	110	85	30				
2021-05-05	130	80	70		40		
Weekly	1010	515	885	0	280	1/2	305
2021-05-06	40	80	360	600	40		20
2021-05-07	130	80	5		70		
2021-05-08	150	80	90		100		
2021-05-09	70	60	20	100			
2021-05-10	130	75	140		60		
2021-05-11	80	120	55		35		
2021-05-12	110	70	120		5		60
Weekly	710	565	790	700	310	0	80
2021-05-13	100	75	85		15		40
2021-05-14	140	55	125		60		40
2021-05-15	225	60	130		35		20
2021-05-16	110	70	170		30		40
2021-05-17	145	55			20		20
2021-05-18	90	80	105		35		40
2021-05-19	150	85	95		10		20
Weekly	960	480	710	0	205	0	220
2021-05-20	150	70	365		20		20
2021-05-21	60	10	60		20		
2021-05-22	200	130	90				
2021-05-23							
2021-05-24							
2021-05-25						1/2	
2021-05-26							
Weekly	410	210	515	0	40	0.5	20
2021-05-27							
2021-05-28							
2021-05-29	100		100				
2021-05-30	320	160	600		40		
2021-05-31	350	320	590		230		

Waste Managment Tracking

Date: June 2021							
Incinerator					LBS	Open Burn (Volume)	Waste Oil to Furnace (Litres)
Date:	Food (lbs)	Human Waste (lbs)	Misc. (lbs)	Waste Water (Lit)	Ash Out (lbs)		
2021-06-01	580	140	420		130	1/2	
2021-06-02	580	160	385		90		
2021-06-03	290	65	420		140		
2021-06-04	120	80	480		100		
2021-06-05	130	100	400	800	160		200
Weekly	1700	545	2105	800	620	1/2	200
2021-06-06	175	190	440		110		20
2021-06-07	130	100	440	200	240	1/2	20
2021-06-08	110	85	510	200	110		200
2021-06-09	130	80	600	400	120		
2021-06-10	216	93	100				
2021-06-11	849	134	567		266		
2021-06-12	479	395	1003				
Weekly	2089	1077	3660	800	846	0.5	240
2021-06-13	116	200	739				
2021-06-14	306	199	1420		90		
2021-06-15	282	133	760				
2021-06-16	252	93	621		110		
2021-06-17	205	215	566				
2021-06-18	371	119	629		41		
2021-06-19	425	248	1258		73		
Weekly	1957	1207	5993	0	314	0	0
2021-06-20	306	46	620		41		
2021-06-21	116	23	467				

2021-06-22	188	93	446		26		
2021-06-23	228	129	700				
2021-06-24	216	162	407		126		
2021-06-25							
2021-06-26	488	212	813				
Weekly	1542	665	3453	0	193	0	0
2021-06-27	604	143	1359		76		
2021-06-28	196	67	222		48		
2021-06-29					100		
2021-06-30	193	188	200				

Waste Managment Tracking

Date: July 2021							
Incinerator					LBS	Open Burn (Volume)	Waste Oil to Furnace (Litres)
Date:	Food (lbs)	Human Waste (lbs)	Misc. (lbs)	Waste Water (Lit)	Ash Out (lbs)		
2021-07-01	296	119	368		47		
2021-07-02	350	280	220	700	80	1/2	
2021-07-03	168	92	340	1000	160		
2021-07-04	110	90	340	200	240		
2021-07-05	130	90	485		180		
Weekly	1054	671	1753	1900	707	1/2	0
2021-07-06	250	110	40		180	1/2	
2021-07-07	158	330	220	200	60		200
2021-07-08	194	100	560	200	130		
2021-07-09	160	100	500	200	60	1/2	
2021-07-10	207	110	120	200	60		
2021-07-11	150	110	540	100	130		
2021-07-12	180	100	200	300	280		20
Weekly	1299	960	2180	1200	900	1	220
2021-07-13	151	100	180		60		
2021-07-14	170	120	190	200	60		
2021-07-15	200	108	85		60		
2021-07-16	260	100	110		60		
2021-07-17	240	75	230		40		20
2021-07-18	110	85	135		50		
2021-07-19	198	100	160	5	61		200
Weekly	1329	688	1090	205	391	0	220
2021-07-20	200	100	490	20	40		
2021-07-21	240	100	310	400	60		

2021-07-22	200	80	250		80		
2021-07-23	105	165	30		140		20
2021-07-24	318	161	50		30		
2021-07-25	212						
2021-07-26		300			20		
Weekly	1275	906	1130	420	370	0	20
2021-07-27	212	103	40		40		
2021-07-28	210	80	540		40		
2021-07-29	140	95	140	200	90		
2021-07-30	160	111	100	300	90		
2021-07-31	192	109	50		50		

Waste Managment Tracking

Date: August 2021							
Incinerator					LBS	Open Burn (Volume)	Waste Oil to Furnace (Litres)
Date:	Food (lbs)	Human Waste (lbs)	Misc. (lbs)	Waste Water (Lit)	Ash Out (lbs)		
2021-08-01	127	78	40	200	30		200
2021-08-02	240	80	120	60			
2021-08-03	160	70	70		70		
2021-08-04	135	60	100		20		
2021-08-05	250	60	120		60		
Weekly	912	348	450	260	180	0	200
2021-08-06	87	62	150		70		
2021-08-07	120	85	80		10		
2021-08-08	120	65	100	100	30		
2021-08-09	145	85	175	200			
2021-08-10	140	65	50	200	70		
2021-08-11	230	45	220	200	40		
2021-08-12							
Weekly	842	407	775	700	220	0	0
2021-08-13	296	119	316				
2021-08-14	700	402	660				
2021-08-15	509	130	611		96		
2021-08-16	367	226	694		110		
2021-08-17	396	245	300		115		
2021-08-18	400	160	286		26		
2021-08-19	616	340	737		60		
Weekly	3284	1622	3604	0	407	0	0
2021-08-20	793	319	848		0		
2021-08-21							

2021-08-22	771	260	1066		83		
2021-08-23	179	47	296		65		
2021-08-24	180	127	597		97		
2021-08-25	704	293	1419		126		
2021-08-26	643	182	1385		129		
Weekly	3270	1228	5611	0	500	0	0
2021-08-27	683	186	1795		96		
2021-08-28	402	93	561		106		
2021-08-29	379	179	783		26		
2021-08-30	119	86	245		85		
2021-08-31	26	103			15		

Waste Managment Tracking

Date: September 2021							
Incinerator					LBS	Open Burn (Volume)	Waste Oil to Furnace (Litres)
Date:	Food (lbs)	Human Waste (lbs)	Misc. (lbs)	Waste Water (Lit)	Ash Out (lbs)		
2021-09-01							
2021-09-02							
2021-09-03	130	75	100		65		
2021-09-04	245	160	350		60		
2021-09-05	300	260	330		80		
2021-09-06	200	150	300		90		
2021-09-06	875	645	1080	0	295	0	0
2021-09-07	315	150	90		60		
2021-09-08	242	185	105		10		
2021-09-09	360	150	95	2000	50		
2021-09-10	360	165	100		20		
2021-09-11	270	150	140		10		40
2021-09-12	190	175	265		0		
2021-09-13	460	150	150	600	80		
2021-09-14	230	148	110		40		
2021-09-14	2427	1273	1055	2600	270	0	40
2021-09-15	310	110	140		40		
2021-09-16	220	180	145		60		
2021-09-17	340	120	105		40		
2021-09-18	225	135	130		60		
2021-09-19	180	130	60		80		
2021-09-20	300	150	80		0	1/2	
2021-09-21	200	130	110		0		
2021-09-22	200	240	150		60		
2021-09-22	1975	1195	920	0	340	0.5	0
2021-09-23	185	130	350		50		
2021-09-24	270	120	30		40		20
2021-09-25	270	120	200		40		
2021-09-26	190	110	210		0		

2021-09-27	190	120	520		100	1/2	
2021-09-28	215	110	125				
2021-09-29	260	130	280		100		
2021-09-30	150	150	80				
2021-09-30	1730	990	1795	0	330	0.5	20

Waste Managment Tracking

Date: September 2021							
Incinerator					LBS	Open Burn (Volume)	Waste Oil to Furnace (Litres)
Date:	Food (lbs)	Human Waste (lbs)	Misc. (lbs)	Waste Water (Lit)	Ash Out (lbs)		
2021-10-01	190	110	240		100		
2021-10-02	230	120	170		50		
2021-10-03	190	140	190			1/2	
2021-10-04	205	105	300		80		
2021-10-05	240	120	135		110		
2021-10-06	120	160	320	200		1/2	
2021-10-07	140	85	160		100		
2021-10-08	400	135	250		0		
2021-10-09	120	90	290				100
2021-10-10	310	100	184		110		200
2021-10-11	250	110	180		70	1/2	
2021-10-12	150	80	260		30		1040
2021-10-13	100	140	220		40		
2021-10-14	65	90	83		8		10
2021-10-15	158	132	22		53		
2021-10-16	183	118	129		34		
2021-10-17	243	56	82		37		
2021-10-18	165	55	34		21		
2021-10-19	176	212	114		47		
2021-10-20	107	48	40		47		
2021-10-21	88	90	54		39		
2021-10-22	126	108	44		44		
2021-10-23	129	129	39		49		
2021-10-24	164	81	42		46		
2021-10-25	150	144	71		41		
2021-10-26	184	107	63		41		
2021-10-27	229	142	63		46		
2021-10-28	184	168	136		48		
2021-10-29	150	82	75		87		
2021-10-30	174	88	96		54		
2021-10-31	187	196	115		73		

Waste Managment Tracking

Date: November 2021							
Incinerator					LBS	Open Burn (Volume)	Waste Oil to Furnace (Litres)
Date:	Food (lbs)	Human Waste (lbs)	Misc. (lbs)	Waste Water (Lit)	Ash Out (lbs)		
2021-11-01	97	92	47		79		
2021-11-02	178	73	149		46		
2021-11-03	347	112	160		53		
2021-11-04	100	126	87		0		
2021-11-05	269	79	584		300		
2021-11-06	168	118	265		40		
2021-11-07	237	166	190		60	1/2	
2021-11-08	140	126	380		80		
2021-11-09	250	77	285		40		
2021-11-10	374	182	250		20		
2021-11-11	80	80	290		45	1/2	
2021-11-12	302	162	328		40		
2021-11-13	237	136	286		20		
2021-11-14	166	110	140		30	1/2	
2021-11-15	132	122	104		40		
2021-11-16	190	145	340		30		
2021-11-17	208	86	110		0		
2021-11-18	284	184	290		100		
2021-11-19	238	100	120		30		
2021-11-20	186	104	350				
2021-11-21	34		80		30		
2021-11-22	140	90	100		20		
2021-11-23	140	90	100		20		
2021-11-24	154	56	104		20		200
2021-11-25	147	60	131		60		
2021-11-26	208	120	195		50		
2021-11-27	278	144	276		20		
2021-11-28	148	64	80		0		
2021-11-29	164	60	120		60	1/2	
2021-11-30	162	64	134		30	1/2	

Waste Managment Tracking

Date: December 2021							
Incinerator					LBS	Open Burn (Volume)	Waste Oil to Furnace (Litres)
Date:	Food (lbs)	Human Waste (lbs)	Misc. (lbs)	Waste Water (Lit)	Ash Out (lbs)		
2021-12-01	178	86	140				
2021-12-02	136	58	210				
2021-12-03	148	56			40		
2021-12-04	180	72					
2021-12-05	174	80	40		30		
2021-12-06	188	82	101		25		
2021-12-07	149	13	110		30		
2021-12-08	135	109	84		31		
2021-12-09	59		47		33		
2021-12-10	93	147			29		
2021-12-11	87	82	152		41		
2021-12-12	108	89	83		39		
2021-12-13	90	80	117		39		
2021-12-14	146	96	67		42		
2021-12-15	92	49	88		36		
2021-12-16	108	80			37		
2021-12-17	57	41	43		43	1/2	
2021-12-18	58	49	43		33	1/2	
2021-12-19	51	35					
2021-12-20	0	0	0		0	1/2	
2021-12-21	440	150			300		
2021-12-22	622	220	280		80		
2021-12-23	145	70	220		65		
2021-12-24	188		150		50		
2021-12-25	108	56	85		50		
2021-12-26	NO BURN						
2021-12-27	NO BURN						
2021-12-28	350	160	230		30		
2021-12-29	106	30				1/2	
2021-12-30	no burn						
2021-12-31	126	88	52		40		

Table 1. Waste Quantities Shipped Off Site to KBL Environmental

Date Received	Waste Stream	Qty
05-14-2021 NT19833-2	BATTERIES - LEAD ACID - EACH	13
	COMPRESSED GAS - FIRE EXTINGUISHER - EACH	2
05-14-2021 NT19835-7	BATTERIES - LEAD ACID - EACH	16
	BATTERIES - NON SPILLABLE- EACH	1
07-31-2021 NT23519-1	FLAMMABLE LIQUID - FUEL - DRUM	7
	WASTE LEACHATE OIL - DRUM	2
	INCINERATOR ASH - DRUM	36
	SCRAP METAL - DRUM	3
08-17-2021 No manifest listed	BATTERIES - LEAD ACID - EACH	16
	BATTERIES - NON SPILLABLE - EACH	1

Appendix C Monitoring Activity Overview by Station

2020 Monitoring Activity Overview by Station

Monitoring Program Station	Monitoring Type	Description	Mine Phase	Group Code*	Frequency	Monitoring Activity
BRP-G-01 to BRP-G-TBD	Regulated Monitoring	**General Site Runoff** Surficial runoff anywhere at both Goose Property and MLA, including quarries; monitoring for erosion and sedimentation.	Construction	C	Weekly if flow enters a waterbody	No flow entering a waterbody was observed in 2021. However, ponded runoff was sampled and removed from the newly compeleted MLA berm prioro to first fill
BRP-S-01 to BRP-S-TBD	General Monitoring	**General Seeps** Seepage or runoff from excavated and/or stockpiled material anywhere at both Goose Property and MLA, including quarries, that does not gather into a collection system or the site is reclaimed.	Construction and Operations	A, D	Monthly during flow, or as found	No seepage was observed in 2021
BRP-01	Regulated Monitoring	**Goose Lake Discharge** (discharge point for release of dewatering effluent with or without treatment)	Construction	A, B, G	Weekly during dewatering	N/A – dewatering activities have not been initiated
				D	Four times during dewatering, at the same time as the weekly samples	
				H	Once per month during dewatering, at the same time as Group D	
				I	One time during dewatering, at the same time as Group D	
BRP-02	General Monitoring	**Llama Lake** (intake point for dewatering, triggers need for treatment prior to discharge at BRP-01)	Construction	C (TSS only)	Weekly if treatment is required; no sample if treatment is not required	N/A – dewatering activities have not been initiated
BRP-03	Verification Monitoring	**Llama Pit** (representative of collected pit water prior to transfer to tailings management facility)	Operations Stage 1 to Operations Stage 2	A, G	At Licensee's discretion	N/A – facility construction has not been initiated/ n/a mine phase
BRP-04	General Monitoring	**Llama Pit Lake** (representative of flooded pit during flooding and before overflow to the downstream environment)	Closure* to Post-Closure	A, D	Twice per year	N/A – facility construction has not been initiated/ n/a mine phase
BRP-05	Verification Monitoring	**Llama WRSA Pond** (representative of collected water quality)	Operations Stage 1 to Closure	A, G	At Licensee's discretion	N/A – facility construction has not been initiated/ n/a mine phase

BRP-06	General Monitoring	**Umwelt Lake** (intake point for dewatering, triggers need for treatment prior to discharge at BRP-01)	Construction	C (TSS only)	Weekly if treatment is required; no sample if treatment is not required	N/A – dewatering activities have not been initiated
BRP-07	Verification Monitoring	**Umwelt Pit** (representative of collected pit water prior to transfer to tailings management facility)	Construction to Operations Stage 2	A, G	At Licensee's discretion	N/A – facility construction has not been initiated
BRP-08	General Monitoring	**Umwelt Pit Lake** (representative of flooded pit during flooding and before overflow to the downstream environment)	Closure to Post-Closure	A, D	Twice per year	N/A – facility construction has not been initiated/ n/a mine phase
BRP-09	Verification Monitoring	**Umwelt WRSA Pond** (representative of collected water quality, including landfill seepage/runoff)	Construction to Closure (early)*	A, G	At Licensee's discretion	N/A – facility construction has not been initiated
BRP-10	Verification Monitoring	**Primary Water Pond** (representative of collected water quality)	Construction to Closure (early)	A, D	At Licensee's discretion	N/A – facility construction has not been initiated
BRP-11	Verification Monitoring	**Saline Water Pond** (representative of stored water quality)	Construction (late) to Closure (early)	A, D	At Licensee's discretion	N/A – facility construction has not been initiated
BRP-12	General Monitoring	**Big Lake Intake** (intake point for potable and industrial water withdrawal)	Construction to Closure	A, D	Four times per year	N/A – facility construction has not been initiated
				B	Weekly	
BRP-13	Verification Monitoring	**Ore Stockpile Pond** (representative of collected water quality)	Construction to Closure (early)	A, D	At Licensee's discretion	N/A – facility construction has not been initiated
BRP-14	Verification Monitoring	**ANFO Plant** (representative of collected water quality)	Construction to Closure	A, E	At Licensee's discretion	N/A – facility construction has not been initiated
BRP-15	Regulated Monitoring	**Goose Fuel Tank Farm** (representative of collected water quality)	Construction to Closure	A, E	Prior to discharge or transfer of water	N/A – facility construction has not been initiated
BRP-16	Regulated Monitoring	**Goose Hazardous Waste Management Area** (representative of collected water quality)	Construction to Closure	A, E	Prior to discharge or transfer of water	N/A – facility construction has not been initiated
BRP-17	Regulated Monitoring	**Goose Property Sewage Treatment Plant** (discharge point for treated sewage onto land)	Construction to Closure	A, F	Prior to discharge	N/A – facility construction has not been initiated
BRP-17A	Regulated Monitoring	**Goose Property Sewage Treatment Plant** (discharge point for treated sewage into Tailings Storage Facility or Tailing Facility)	Construction to Closure*	A, F	Prior to discharge	N/A – facility construction has not been initiated
BRP-18	General Monitoring	**Llama Watershed Outflow** (representative of non-contact water, PN04 from Water and Load Balance)	Operations Stage 1 to Closure	A, D	Once during freshet	N/A mine phase
BRP-19	General Monitoring	**Echo Outflow** (representative of non-contact water). PN09 from water and load balance	Operations Stage 1 to Closure	A, D	Once during freshet	N/A mine phase

BRP-20	Verification Monitoring	**Echo Pit** (representative of collected pit water prior to transfer to tailings management facility)	Operations Stage 2	A, G	At Licensee's discretion	N/A – facility construction has not been initiated/ n/a mine phase
BRP-21	General Monitoring	**Echo Pit Lake** (representative of flooded pit during flooding and before overflow to the downstream environment)	Closure to Post-Closure	A, D	Twice per year	N/A – facility construction has not been initiated/ n/a mine phase
BRP-22	Verification Monitoring	**Echo WRSA Pond** (representative of collected water quality)	Operations Stage 2 to Closure (early)	A, G	At Licensee's discretion	N/A – facility construction has not been initiated/ n/a mine phase
BRP-23	General Monitoring	**Gander Pond Outflow** (representative of non-contact water, PN07 from Water and Load Balance)	Operations Stage 1 to Closure	A, D	Once during freshet	N/A mine phase
BRP-24	General Monitoring	**Goose Lake Intake** (intake point for potable and industrial water withdrawal)	Operations Stage 1 to Closure (early)	B	Weekly	N/A- no water withdrawn under this Licence in 2021
BRP-25	Verification Monitoring	**Goose Pit** (representative of collected pit water prior to transfer to tailings management facility)	Operations Stage 1 to Operations Stage 2	A, G	At Licensee's discretion	N/A – facility construction has not been initiated/ n/a mine phase
BRP-26	General Monitoring	**Goose Pit Lake** (representative of flooded pit during flooding and before overflow to the downstream environment)	Closure* to Post-Closure	A, D	Twice per year	N/A – facility construction has not been initiated/ n/a mine phase
BRP-27	Verification Monitoring	**Goose Main Tailings Facility** (intake point for water treatment, represents pre-treatment water quality)	Operations Stage 3 to Closure	A, G	At Licensee's discretion	N/A – facility construction has not been initiated/ n/a mine phase
BRP-28	Verification Monitoring	**Goose Main Tailings Facility** (discharge point for water treatment, represents post-treatment water quality)	Operations Stage 3 to Closure	A, G	At Licensee's discretion	N/A – facility construction has not been initiated/ n/a mine phase
BRP-29	Verification Monitoring	**TSF WRSA Pond** (representative of collected water quality, including landfill seepage/runoff)	Operations Stage 1 to Closure	A, G	At Licensee's discretion	N/A – facility construction has not been initiated/ n/a mine phase
BRP-30	General Monitoring	**Goose Southeast Inflow** (representative of non-contact water, PN06 from Water and Load Balance)	Operations Stage 1 to Closure	A, D	Once during freshet	N/A mine phase
BRP-40	General Monitoring	**Bathurst Inlet Intake** (intake point in marine environment for potable and industrial water withdrawal)	Construction to Closure	A, D, B	At Licensee's discretion	Water was withdrawn from this Location in 2021

BRP-41	General Monitoring	**Bathurst Inlet Discharge** (discharge point in marine environment for effluent from desalinization plant)	Construction to Closure	A, J	At Licensee's discretion	Water was discharge at this location in 2021
BRP-42	Regulated Monitoring	**MLA Greywater** (discharge point for treated greywater onto land)	Construction to Closure	A, F	Prior to discharge or transfer of water	Greywater was discharged at the MLA in 2021 but no water was available for sampling
BRP-43	Regulated Monitoring	**MLA Fuel Tank Farm** (representative of collected water quality)	Construction to Closure	A, E	Prior to discharge or transfer of water	N/A – berm completed in September 2021, prior to first filling.
BRP-44	Regulated Monitoring	**MLA Landfarm** (representative of collected water quality)	Construction to Closure	A, E	Prior to discharge or transfer of water	N/A – facility construction has not been initiated
BRP-45	Regulated Monitoring	**MLA Hazardous Waste Management Area** (representative of collected water quality)	Construction to Closure	A, E	Prior to discharge or transfer of water	N/A – facility construction has not been initiated
BRP-49	Regulated Monitoring	**MLA Temporary Fuel Storage Facility** (representative of collected water quality)	Construction	A, E	Prior to discharge or transfer of water	Water was sampled prior to discharge. See Annual report
BRP-51	Regulated Monitoring	**Goose Landfarm** (representative of collected water quality)	Construction to Closure	A, E	Prior to discharge or transfer of water	N/A - no water was discharged from this facility
BRP-52	General Monitoring	**MLA Pond S1** (intake point for potable and industrial water withdrawal)	Construction to Closure	A, D	Once per quarter when in use	No water was withdrawn from this location in 2021
				B	Weekly when in use	
BRP-53	General Monitoring	**MLA Pond S2** (intake point for potable and industrial water withdrawal)	Construction to Closure	A, D	Once per quarter when in use	No water was withdrawn from this location in 2021
				B	Weekly when in use	
BRP-54	General Monitoring	**MLA Lake 3** (intake point for potable and industrial water withdrawal)	Construction to Closure	A, D	Once per quarter when in use	No water was withdrawn from this location in 2021
				B	Weekly when in use	
BRP-55	General Monitoring	**MLA Lake 4** (intake point for potable and industrial water withdrawal)	Construction to Closure	A, D	Once per quarter when in use	No water was withdrawn from this location in 2021
				B	Weekly when in use	
BRP-I-01 to BRP-I-TBD	General Monitoring	**Interconnection Winter Ice Road Proximal Water Bodies** (intake points for fresh water used in the construction of the Interconnection Winter Ice Road)	Construction to Closure	B	Weekly when in use	No water was withdrawn from this location in 2021

* Refers to Group Code from Water Licence 2AM-BRP1831 Schedule I Table 1

Appendix D Water Quality Analytical Results

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **YL2100576**	Page	: 1 of 3
Client	: **Sabina Gold & Silver Corporation**	Laboratory	: Yellowknife - Environmental
Contact	: Merle Keefe	Account Manager	: Oliver Gregg
Address	: 375 - 555 Burrard St. Box 220, Bentall 2 Vancouver BC Canada V7X 1M7	Address	: 314 Old Airport Road, Unit 116 Yellowknife NT Canada X1A 3T3
Telephone	: 604 240 6619	Telephone	: 1 867 446 5593
Project	: ----	Date Samples Received	: 18-Jun-2021 15:00
PO	: ----	Date Analysis Commenced	: 23-Jun-2021
C-O-C number	: ----	Issue Date	: 28-Jun-2021 19:07
Sampler	: ----		
Site	: ----		
Quote number	: 2021 Under-Ice Field Program		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Janice Leung	Supervisor - Organics Extractions	Organics, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
Lindsay Gung	Supervisor - Water Chemistry	Inorganics, Burnaby, British Columbia

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
LOR: Limit of Reporting (detection limit).

Unit	*Description*
µg/L	micrograms per litre
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	----	----	----	----
					Client sampling date / time	18-Jun-2021	----	----	----	----
					YL2100576-001	--------	--------	--------	--------
					Result	----	----	----	----
Physical Tests									
pH	----	E108	0.10	pH units	5.57	----	----	----	----
solids, total suspended [TSS]	----	E160-H	3.0	mg/L	<3.0	----	----	----	----
Total Metals (Undigested)									
lead, total	7439-92-1	E466	0.0000050	mg/L	0.0000411	----	----	----	----
Aggregate Organics									
oil & grease (gravimetric)	----	E567	5.0	mg/L	<5.0	----	----	----	----
Volatile Organic Compounds [Fuels]									
benzene	71-43-2	E611A	0.50	µg/L	<0.50	----	----	----	----
ethylbenzene	100-41-4	E611A	0.50	µg/L	<0.50	----	----	----	----
toluene	108-88-3	E611A	0.50	µg/L	<0.50	----	----	----	----
Volatile Organic Compounds Surrogates									
bromofluorobenzene, 4-	460-00-4	E611A	1.0	%	90.1	----	----	----	----
difluorobenzene, 1,4-	540-36-3	E611A	1.0	%	94.5	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **YL2100576**	Page	: 1 of 4
Client	: **Sabina Gold & Silver Corporation**	Laboratory	: Yellowknife - Environmental
Contact	: Merle Keefe	Account Manager	: Oliver Gregg
Address	: 375 - 555 Burrard St. Box 220, Bentall 2 Vancouver BC Canada V7X 1M7	Address	: 314 Old Airport Road, Unit 116 Yellowknife, Northwest Territories Canada X1A 3T3
Telephone	: 604 240 6619	Telephone	: 1 867 446 5593
Project	: ----	Date Samples Received	: 18-Jun-2021 15:00
PO	: ----	Issue Date	: 28-Jun-2021 19:07
C-O-C number	: ----		
Sampler	: ----		
Site	: ----		
Quote number	: 2021 Under-Ice Field Program		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Oil & Grease by Gravimetry										
Amber glass (hydrochloric acid)	E567	18-Jun-2021	24-Jun-2021	28 days	7 days	✓	24-Jun-2021	40 days	1 days	✓
Physical Tests : pH by Meter										
HDPE	E108	18-Jun-2021	----	----	----		24-Jun-2021	0.25 hrs	162 hrs	× EHTR-FM
Physical Tests : TSS by Gravimetry										
HDPE	E160-H	18-Jun-2021	----	----	----		23-Jun-2021	7 days	6 days	✓
Total Metals (Undigested) : Total Metals (undigested) in Water by Triple Quad ICPMS (Pristine										
Pre-cleaned HDPE - total (lab preserved)	E466	18-Jun-2021	----	----	----		27-Jun-2021	180 days	10 days	✓
Volatile Organic Compounds [Fuels] : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)	E611A	18-Jun-2021	25-Jun-2021	----	8 days	✓	26-Jun-2021	14 days	1 days	✓

Legend & Qualifier Definitions

EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
BTEX by Headspace GC-MS	E611A	230480	1	19	5.2	5.0	✓
pH by Meter	E108	229139	1	14	7.1	5.0	✓
Total Metals (undigested) in Water by Triple Quad ICPMS (Pristine Samples)	E466	231315	1	7	14.2	5.0	✓
TSS by Gravimetry	E160-H	228449	1	11	9.0	5.0	✓
Laboratory Control Samples (LCS)							
BTEX by Headspace GC-MS	E611A	230480	1	19	5.2	5.0	✓
Oil & Grease by Gravimetry	E567	228906	1	4	25.0	5.0	✓
pH by Meter	E108	229139	1	14	7.1	5.0	✓
Total Metals (undigested) in Water by Triple Quad ICPMS (Pristine Samples)	E466	231315	1	7	14.2	5.0	✓
TSS by Gravimetry	E160-H	228449	1	11	9.0	5.0	✓
Method Blanks (MB)							
BTEX by Headspace GC-MS	E611A	230480	1	19	5.2	5.0	✓
Oil & Grease by Gravimetry	E567	228906	1	4	25.0	5.0	✓
Total Metals (undigested) in Water by Triple Quad ICPMS (Pristine Samples)	E466	231315	1	7	14.2	5.0	✓
TSS by Gravimetry	E160-H	228449	1	11	9.0	5.0	✓
Matrix Spikes (MS)							
BTEX by Headspace GC-MS	E611A	230480	1	19	5.2	5.0	✓
Total Metals (undigested) in Water by Triple Quad ICPMS (Pristine Samples)	E466	231315	1	7	14.2	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
pH by Meter	E108 Vancouver - Environmental	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry	E160-H Vancouver - Environmental	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
Total Metals (undigested) in Water by Triple Quad ICPMS (Pristine Samples)	E466 Vancouver - Environmental	Water	EPA 6020B (mod)	Ultra trace metals in water are analyzed by CRC ICPMS, based on US EPA Method 6020B (July 2014). The detection limits provided can only be met for undigested samples. This procedure is intended for colorless, non-turbid, acid-preserved water samples (i.e. pristine water samples), having turbidity < 1 NTU and no odor. Where turbidity exceeds 1 NTU, and/or the sample is colored and has an odor, results may be biased low compared to true Total Metals concentrations. ALS recommends that turbidity analysis be requested on samples submitted for this test to aid with interpretation of results. Where turbidity is <1NTU, undigested metals are equivalent to total metals concentrations.
Oil & Grease by Gravimetry	E567 Vancouver - Environmental	Water	BC MOE Lab Manual (Oil & Grease) (mod)	The entire water sample is extracted with hexane and the extract is evaporated to dryness. The residue is then weighed to determine Oil and Grease.
BTEX by Headspace GC-MS	E611A Vancouver - Environmental	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Oil & Grease Extraction for Gravimetry	EP567 Vancouver - Environmental	Water	BC MOE Lab Manual (Oil & Grease) (mod)	The entire water sample is extracted with hexane by liquid-liquid extraction.
VOCs Preparation for Headspace Analysis	EP581 Vancouver - Environmental	Water	EPA 5021A (mod)	Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler. An aliquot of the headspace is then injected into the GC/MS-FID system.

QUALITY CONTROL REPORT

Work Order	: **YL2100576**	Page	: 1 of 4
Client	: Sabina Gold & Silver Corporation	Laboratory	: Yellowknife - Environmental
Contact	: Merle Keefe	Account Manager	: Oliver Gregg
Address	: 375 - 555 Burrard St. Box 220, Bentall 2 Vancouver BC Canada V7X 1M7	Address	: 314 Old Airport Road, Unit 116 Yellowknife, Northwest Territories Canada X1A 3T3
Telephone	: 604 240 6619	Telephone	: 1 867 446 5593
Project	: ----	Date Samples Received	: 18-Jun-2021 15:00
PO	: ----	Date Analysis Commenced	: 23-Jun-2021
C-O-C number	: ----	Issue Date	: 28-Jun-2021 19:07
Sampler	: ----		
Site	: ----		
Quote number	: 2021 Under-Ice Field Program		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits
- Reference Material (RM) Report; Recovery and Acceptance Limits
- Method Blank (MB) Report; Recovery and Acceptance Limits
- Laboratory Control Sample (LCS) Report; Recovery and Acceptance Limits

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Janice Leung	Supervisor - Organics Extractions	Organics, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
Lindsay Gung	Supervisor - Water Chemistry	Inorganics, Burnaby, British Columbia

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percentage Difference
# = Indicates a QC result that did not meet the ALS DQO.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 228449)											
WR2100643-010	Anonymous	solids, total suspended [TSS]	----	E160-H	3.0	mg/L	6.5	9.5	3.0	Diff <2x LOR	----
Physical Tests (QC Lot: 229139)											
WR2100672-021	Anonymous	pH	----	E108	0.10	pH units	8.20	8.20	0.00%	4%	----
Total Metals (Undigested) (QC Lot: 231315)											
YL2100576-001		lead, total	7439-92-1	E466	0.0000050	mg/L	0.0000411	0.0000407	0.0000004	Diff <2x LOR	----
Volatile Organic Compounds (QC Lot: 230480)											
VA21B2564-003	Anonymous	benzene	71-43-2	E611A	5.00	µg/L	5890	5520	6.49%	30%	----
		ethylbenzene	100-41-4	E611A	0.50	µg/L	177	183	3.52%	30%	----
		toluene	108-88-3	E611A	0.50	µg/L	35.6	36.8	3.21%	30%	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 228449)						
solids, total suspended [TSS]	----	E160-H	3	mg/L	<3.0	----
Total Metals (Undigested) (QCLot: 231315)						
lead, total	7439-92-1	E466	0.000005	mg/L	<0.0000050	----
Aggregate Organics (QCLot: 228906)						
oil & grease (gravimetric)	----	E567	5	mg/L	<5.0	----
Volatile Organic Compounds (QCLot: 230480)						
benzene	71-43-2	E611A	0.5	µg/L	<0.50	----
ethylbenzene	100-41-4	E611A	0.5	µg/L	<0.50	----
toluene	108-88-3	E611A	0.5	µg/L	<0.50	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 228449)									
solids, total suspended [TSS]	----	E160-H	3	mg/L	150 mg/L	103	85.0	115	----
Physical Tests (QCLot: 229139)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Total Metals (Undigested) (QCLot: 231315)									
lead, total	7439-92-1	E466	0.000005	mg/L	0.5 mg/L	103	80.0	120	----
Aggregate Organics (QCLot: 228906)									
oil & grease (gravimetric)	----	E567	5	mg/L	100 mg/L	93.9	70.0	130	----
Volatile Organic Compounds (QCLot: 230480)									
benzene	71-43-2	E611A	0.5	µg/L	100 µg/L	106	70.0	130	----
ethylbenzene	100-41-4	E611A	0.5	µg/L	100 µg/L	103	70.0	130	----
toluene	108-88-3	E611A	0.5	µg/L	100 µg/L	108	70.0	130	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (Undigested) (QCLot: 231315)										
YL2100576-001		lead, total	7439-92-1	E466	0.0209 mg/L	0.02 mg/L	104	70.0	130	----
Volatile Organic Compounds (QCLot: 230480)										
VA21B2564-004	Anonymous	benzene	71-43-2	E611A	ND µg/L	2500 µg/L	ND	60.0	140	----
		ethylbenzene	100-41-4	E611A	2100 µg/L	2500 µg/L	84.0	60.0	140	----
		toluene	108-88-3	E611A	98.6 µg/L	100 µg/L	98.6	60.0	140	----

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **YL2100898**	Page	: 1 of 3
Client	: **Sabina Gold & Silver Corporation**	Laboratory	: Yellowknife - Environmental
Contact	: Merle Keefe	Account Manager	: Oliver Gregg
Address	: 375 - 555 Burrard St. Box 220, Bentall 2 Vancouver BC Canada V7X 1M7	Address	: 314 Old Airport Road, Unit 116 Yellowknife NT Canada X1A 3T3
Telephone	: 604 240 6619	Telephone	: 1 867 446 5593
Project	: BR 40 & 41	Date Samples Received	: 30-Jul-2021 16:10
PO	: ----	Date Analysis Commenced	: 04-Aug-2021
C-O-C number	: ----	Issue Date	: 09-Dec-2021 16:13
Sampler	: ----		
Site	: ----		
Quote number	: Q45187		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Angelo Salandanan	Lab Assistant	Metals, Burnaby, British Columbia
Janice Leung	Supervisor - Organics Instrumentation	Organics, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
Robin Weeks	Team Leader - Metals	Metals, Burnaby, British Columbia
Tracy Harley	Supervisor - Water Quality Instrumentation	Inorganics, Burnaby, British Columbia

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	No Unit
mg/L	milligrams per litre
psu	practical salinity units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Workorder Comments

Samples received without CoC, logged in via email from client.

Analytical Results

Sub-Matrix: **Seawater**
(Matrix: **Water**)

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	DESAL IN	DESAL OUT	----	----	----
					Client sampling date / time	[30-Jul-2021]	[30-Jul-2021]	----	----	----
						YL2100898-001	YL2100898-002	--------	--------	--------
						Result	Result	----	----	----
Physical Tests										
salinity	----	EC100S	1.0	psu		7.5	8.6	----	----	----
Anions and Nutrients										
ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L		<0.0050	<0.0050	----	----	----
chloride	16887-00-6	E235S.Cl	50	mg/L		4430	4310	----	----	----
fluoride	16984-48-8	E235S.F	1.0	mg/L		<1.0	<1.0	----	----	----
nitrate (as N)	14797-55-8	E235S.NO3-L	0.050	mg/L		<0.050	<0.050	----	----	----
nitrite (as N)	14797-65-0	E235S.NO2-L	0.010	mg/L		<0.010	<0.010	----	----	----
phosphorus, total	7723-14-0	E372S	0.0020	mg/L		0.0132	0.0333	----	----	----
sulfate (as SO4)	14808-79-8	E235S.SO4-L	3.0	mg/L		537	598	----	----	----
Cyanides										
cyanide, free	----	E339S	0.0030	mg/L		<0.0030	<0.0030	----	----	----
cyanide, strong acid dissociable (total)	----	E333S	0.0030	mg/L		<0.0030	<0.0030	----	----	----
Organic / Inorganic Carbon										
carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L		2.94	2.98	----	----	----
Total Metals										
calcium, total	7440-70-2	E420S	1.0	mg/L		93.5	105	----	----	----
magnesium, total	7439-95-4	E420S	0.25	mg/L		288	328	----	----	----
potassium, total	7440-09-7	E420S	2.5	mg/L		94.0	108	----	----	----
sodium, total	17341-25-2	E420S	2.5	mg/L		2360	2730	----	----	----
Dissolved Metals										
calcium, dissolved	7440-70-2	E421S	1.0	mg/L		91.9	104	----	----	----
magnesium, dissolved	7439-95-4	E421S	0.25	mg/L		305	350	----	----	----
potassium, dissolved	7440-09-7	E421S	2.5	mg/L		88.6	103	----	----	----
sodium, dissolved	17341-25-2	E421S	2.5	mg/L		2370	2750	----	----	----
dissolved metals filtration location	----	EP421	-	-		Field	Field	----	----	----
Aggregate Organics										
oil & grease (gravimetric)	----	E567-L	1.0	mg/L		<1.0	<1.0	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **YL2101206**	Page	: 1 of 3
Client	: **Sabina Gold & Silver Corporation**	Laboratory	: Yellowknife - Environmental
Contact	: Merle Keefe	Account Manager	: Oliver Gregg
Address	: 375 - 555 Burrard St. Box 220, Bentall 2 Vancouver BC Canada V7X 1M7	Address	: 314 Old Airport Road, Unit 116 Yellowknife NT Canada X1A 3T3
Telephone	: 604 240 6619	Telephone	: 1 867 446 5593
Project	: ----	Date Samples Received	: 07-Sep-2021 09:15
PO	: ----	Date Analysis Commenced	: 10-Sep-2021
C-O-C number	: ----	Issue Date	: 09-Dec-2021 16:14
Sampler	: ----		
Site	: ----		
Quote number	: Q45187		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Jay Jang	Lab Assistant	Metals, Burnaby, British Columbia
Kevin Duarte	Supervisor - Metals ICP Instrumentation	Metals, Burnaby, British Columbia
Lindsay Gung	Supervisor - Water Chemistry	Inorganics, Burnaby, British Columbia
Ophelia Chiu	Department Manager - Organics	Organics, Burnaby, British Columbia
Robin Weeks	Team Leader - Metals	Metals, Burnaby, British Columbia

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	No Unit
mg/L	milligrams per litre
psu	practical salinity units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	DESAL IN	DESAL OUT	----	----	----
					Client sampling date / time	[07-Sep-2021]	[07-Sep-2021]	----	----	----
						YL2101206-001	YL2101206-002	--------	--------	--------
						Result	Result	----	----	----
Physical Tests										
salinity	----	EC100S	1.0	psu		13.9	13.6	----	----	----
Anions and Nutrients										
ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L		<0.0050	<0.0050	----	----	----
chloride	16887-00-6	E235S.Cl	50	mg/L		7680	7540	----	----	----
fluoride	16984-48-8	E235S.F	1.0	mg/L		<1.0	<1.0	----	----	----
nitrate (as N)	14797-55-8	E235S.NO3-L	0.050	mg/L		<0.050	<0.050	----	----	----
nitrite (as N)	14797-65-0	E235S.NO2-L	0.010	mg/L		<0.010	<0.010	----	----	----
phosphorus, total	7723-14-0	E372S	0.0020	mg/L		0.0137	0.0122	----	----	----
sulfate (as SO4)	14808-79-8	E235S.SO4-L	3.0	mg/L		1060	1070	----	----	----
Cyanides										
cyanide, free	----	E339S	0.0030	mg/L		<0.0030	<0.0030	----	----	----
cyanide, strong acid dissociable (total)	----	E333S	0.0030	mg/L		<0.0030	0.0041	----	----	----
Organic / Inorganic Carbon										
carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L		1.74	1.55	----	----	----
Total Metals										
calcium, total	7440-70-2	E420S	1.0	mg/L		171	173	----	----	----
magnesium, total	7439-95-4	E420S	0.25	mg/L		549	534	----	----	----
potassium, total	7440-09-7	E420S	2.5	mg/L		158	158	----	----	----
sodium, total	17341-25-2	E420S	2.5	mg/L		4470	4380	----	----	----
Dissolved Metals										
calcium, dissolved	7440-70-2	E421S	1.0	mg/L		162	168	----	----	----
magnesium, dissolved	7439-95-4	E421S	0.25	mg/L		495	508	----	----	----
potassium, dissolved	7440-09-7	E421S	2.5	mg/L		150	154	----	----	----
sodium, dissolved	17341-25-2	E421S	2.5	mg/L		4180	4280	----	----	----
dissolved metals filtration location	----	EP421	-	-		Field	Field	----	----	----
Aggregate Organics										
oil & grease (gravimetric)	----	E567	5.0	mg/L		<5.0	<5.0	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **YL2101331**	Page	: 1 of 2
Client	: **Sabina Gold & Silver Corporation**	Laboratory	: Yellowknife - Environmental
Contact	: Merle Keefe	Account Manager	: Oliver Gregg
Address	: 375 - 555 Burrard St. Box 220, Bentall 2 Vancouver BC Canada V7X 1M7	Address	: 314 Old Airport Road, Unit 116 Yellowknife NT Canada X1A 3T3
Telephone	: 604 240 6619	Telephone	: 1 867 446 5593
Project	: ----	Date Samples Received	: 17-Sep-2021 16:45
PO	: ----	Date Analysis Commenced	: 23-Sep-2021
C-O-C number	: ----	Issue Date	: 09-Dec-2021 16:14
Sampler	: IE		
Site	: ----		
Quote number	: Q45187		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Janice Leung	Supervisor - Organics Instrumentation	Organics, Burnaby, British Columbia
Lindsay Gung	Supervisor - Water Chemistry	Inorganics, Burnaby, British Columbia
Tracy Harley	Supervisor - Water Quality Instrumentation	Inorganics, Burnaby, British Columbia

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	No Unit
mg/L	milligrams per litre
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	*CAS Number*	*Method*	*LOR*	*Unit*	*Client sample ID*	**MLA PONDING RUNOFF**	**----**	**----**	**----**	**----**
					Client sampling date / time	17-Sep-2021	----	----	----	----
						YL2101331-001	--------	--------	--------	--------
						Result	----	----	----	----
Physical Tests										
pH	----	E108	0.10	pH units		6.67	----	----	----	----
solids, total suspended [TSS]	----	E160-H	3.0	mg/L		97.1	----	----	----	----
Aggregate Organics										
oil & grease (gravimetric)	----	E567	5.0	mg/L		<5.0	----	----	----	----
oil & grease (visible sheen)	----	E566	-	-		Absent	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Appendix E Back River Project Engagement Record

2021 Engagement Log				
Date	**Community**	**Organization / Individual(s)**	**Type of Engagement**	**Description**
January 27, 2021	Other (see 'Description')	Kitikmeot Qualified Businesses listed on KQBR	Stakeholder meeting	Sabina hosted a virtual Project update presentation via Zoom, inviting all businesses listed on the current KQBR (May 2020). 43 Participants. No in-person meetings due to COVID-19 restrictions.
January 28, 2021	Other (see 'Description')	Kitikmeot Inuit Association	Stakeholder meeting	Project update with KIA via Microsoft Teams. No in-person meeting due to COVID-19 restrictions.
May 21, 2021	Other (see 'Description')	Back River Socio-Economic Monitoring Working Group	Stakeholder meeting	Sabina virtually met with the Back River Socio-Economic Monitoring Working Group (members include Sabina, KIA, GN, and CIRNAC)
July 12-14, 2021	Cambridge Bay	Nunavut Water Board	Stakeholder meeting	Sabina participated in the Nunavut Water Board's Water Licence Public Hearing in Cambridge Bay
July 20, 2021	Multi-Community (see 'Description')	Various stakeholders	Correspondence	Letter informing Kitikmeot communities of the names and positions of two Sabina staff members in the Kitikmeot Region: John Kaiyogana in Cambridge Bay (Community Liaison Officer), and Janet Kadlun in Kugluktuk (Senior Indigenous Affairs Coordinator)
July 22-24, 2021	Other (see 'Description')	Kitikmeot Inuit Association	Stakeholder meeting	Sabina hosted KIA representatives for a site inspection of the Back River Project
August 4, 2021	Multi-Community (see 'Description')	Various stakeholders	Correspondence	Letter informing Kitikmeot communities and organizations of August/September 2021 sealift schedule
September 28-29, 2021	Cambridge Bay	Various stakeholders	Stakeholder meeting	Sabina participated in the Kitikmeot Inuit Workforce Readiness and Success Strategy Workshop hosted by the Kitikmeot Corporation. Various Kitikmeot employers and organizations attended.
November 26, 2021	Other (see 'Description')	Various community, government, and industry stakeholders	Other (see 'Description')	Sabina presented a Project update at the Annual Yellowknife Geoscience Forum in Yellowknife, Northwest Territories
December 6, 2021	Other (see 'Description')	Caribou Technical Advisory Group (CTAG)	Stakeholder meeting	Meeting with the CTAG (members consisting of Sabina, Kitikmeot Inuit Association, Government of Nunavut, and the Government of the Northwest Territories)