



Water Resources Division
Resource Management Directorate
Nunavut Regional Office
918 Nunavut Drive
Iqaluit, NU, X0A 3H0

Your file - Votre référence
2AM-BRP1831
Our file - Notre référence
GCDocs148086692

June 30, 2026

Richard Dwyer
Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU, X0B 1J0
E-mail: licensing@nwb-oen.ca

Re: Crown-Indigenous Relations and Northern Affairs Canada's Review of the 2025 Annual Report for B2 Gold's Back River Project, Type A Water Licence No. 2AM-BRP1831.

Dear Richard,

Thank you for the March 31, 2026 invitation to review the 2025 Annual Report, submitted by B2 Gold, for Type A Water Licence No. 2AM-BRP1831.

Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) examined the application pursuant to its mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Crown-Indigenous Relations and Northern Affairs Act* and provides the following Technical Review Memorandum for the Board's consideration.

The applicant shall provide confirmation from the Nunavut Water Board that all outstanding water license fees have been paid in full prior to approval of this application.

If there are any questions or concerns, please contact me at (873) 800-5240 or Pauline.Firmin@rcaanc-cirnac.gc.ca or Andrew Keim at (867) 975-4550 or Andrew.Keim@rcaanc-cirnac.gc.ca.

Sincerely,

Pauline Firmin

Pauline Firmin, M. Sc,
Regional Coordinator

Technical Review Memorandum

Date: June 30, 2026

To: Richard Dwyer – Manager of Licensing, Nunavut Water Board

From: Pauline Firmin – Regional Coordinator, CIRNAC

Subject: Crown-Indigenous Relations and Northern Affairs Canada’s Review of the 2025 Annual Report for B2 Gold’s Back River Project, Type A Water Licence No. 2AM-BRP1831.

Region: ☒ Kitikmeot ☐ Kivalliq ☐ Qikiqtani

A. BACKGROUND

B2Gold Nunavut operates one active project, the Goose Project (the Project, formerly the Back River Gold Project), located within the Kitikmeot Region of Nunavut.

The Project consists of the continued construction, now operation, and future closure, reclamation, and post-closure monitoring of their gold mine operation in the Kitikmeot Region of Nunavut. The Project is located approximately 400 kilometres (km) southwest of the community of Cambridge Bay, 95 km southeast of the southern end of Bathurst Inlet, and 520 km northeast of Yellowknife, Northwest Territories. The Proponent for the Back River Project was Sabina Gold & Silver Corp., who sold the project to B2Gold Nunavut Corp. on April 19, 2023.

The Goose Property and Marine Laydown Area (MLA) are the two main development areas of the Project, which are interconnected by a winter ice road. The Goose Property has a processing plant, four mineral deposits (Umwelt, Llama, Echo, and Goose Main) that will be mined through open and underground mining methods, an all-weather air strip, a camp facility, and associated mining facilities. The MLA is located approximately 130 km north-northwest of the Goose Property at Bathurst Inlet and is the primary staging area for equipment, material, fuel, and other supplies required for the construction and operation of the Project. The MLA consists of a single barge terminal, laydown areas, a camp facility, and associated storage and maintenance facilities.

The Project is comprised of two primary areas: 1) Marine Laydown Area (MLA) situated along the western shore of southern Bathurst Inlet and 2) 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.

Key activities undertaken in 2025 included, but were not limited to, completing construction of the process plant and mill. The processing of stockpiled ore began in June, and the first gold pour was achieved on June 30, 2025. Commercial production began on October 4, 2025. The tailings slurry generated from production was subsequently deposited in the Echo Tailings Facility (i.e. the mined-out Echo Pit).

Mining of Echo Pit was completed May 12, 2025, with the pit now serving as a Tailings Facility. Freshwater from Goose Lake was used in the mill, process plant, underground, and batch plant; for dust control and other miscellaneous activities (e.g., washing vehicles); and to supply potable water to the Goose Main Accommodations Complex.

Llama, Umwelt, and associated waterbodies (i.e., Round Lake) were dewatered. Water used from Goose Lake and for dewatering were within Licence allotments. Water was also used from various sources proximal to the Winter Ice Road (WIR). WIR water use was less than the cumulative licence allotment per kilometre of road and within calculated withdrawal capacities.

Waste management included the backhaul of hazardous wastes to KBL Environmental in Yellowknife and incineration, open burning, and landfilling of non-hazardous wastes in accordance with approved Project plans. Both the Echo and Umwelt Waste Rock Storage Area (WRSA) landfills were used in 2025. Sewage was discharged from the Goose Sewage Treatment Plant, and greywater was discharged from the Marine Laydown Area (MLA) Accommodations Complex, Goose Forward Camp, and MLA Forward Camp.

Waste rock was used for construction or placed in the Echo and Umwelt WRSA. Only rock classified as non-acid generating and non-metal leaching was used for construction. All other rock was managed in a manner that minimized potential environmental effects and aligns with Project authorizations.

There were 14 reportable spills in 2025. Thirteen of the 14 spills were cleaned up, with contaminated materials incinerated, backhauled offsite, or temporarily stored in containment for treatment. One diesel spill was located in a planned blast pattern in Umwelt Pit; the spilled diesel was considered unrecoverable and is anticipated to be combusted during planned blasting activities.

Water quality monitoring included monitoring of site runoff to Goose Lake, seeps, dewatering, sewage discharge, containment ponds (Primary Pond, Ore Stockpile Pond), non-contact water, Bathurst Inlet desalination intake and discharge, water in the MLA Fuel Tank Farm containment, and discharge from the MLA Temporary Fuel Storage Facility. Some exceedances of effluent quality limits were observed in site runoff, namely low pH and one instance of elevated total suspended solids (TSS) during freshet.

In response to the elevated TSS, spring berms were installed and TSS concentrations were confirmed to be well below the effluent quality limit when next sampled, approximately a week later. Large rain events combined with snowmelt likely contributed to the low pHs. Water quality at the dewatering discharge point to Goose Lake (BRP-01)

was within discharge criteria during dewatering. Discharge from the MLA Temporary Fuel Storage Facility also met discharge criteria.

Goose sewage treatment plant discharge was largely compliant, with one exceedance of the effluent quality limit for pH, as well as a potential exceedance for fecal coliform (total coliforms exceeded the fecal coliform effluent quality limit and is a conservative comparison). Fecal coliforms were measured beginning in August and were lower than the effluent quality limit.

CIRNAC provides the following comments and recommendations pertaining to the application package. A summary of the subjects of recommendations can be found in Table 1. Documents reviewed as part of this submission can be found in Table 2 of Section B. Detailed technical review comments can be found in Section C.

Table 1: Summary of Recommendations

Recommendation Number	Subject
R-01	Stream/Lake Water Quality – Increasing Site Water Quality Exceedances
R-02	Infrastructure & Engineering – Goose Airstrip South Drainage Improvements
R-03	Infrastructure & Engineering – Echo Haul Road Culverts
R-04	Infrastructure & Engineering – Goose Tank Farm Phase 2 Liner Damage
R-05	Infrastructure & Engineering – MLA Quarry Tank Farm Liner Damage
R-06	Landfill & Waste Management – General
R-07	Landfill & Waste Management – Incinerator Testing
R-08	Landfill & Waste Management – Waste & Waste Chemical Storage
R-09	Acid Rock Drainage & Metal Leaching – Test Method for Determining Neutralization Potential
R-10	Acid Rock Drainage & Metal Leaching – Testing of Tailings and Treatment Sludges
R-11	Acid Rock Drainage & Metal Leaching – WRSA Water Management and Monitoring
R-12	Acid Rock Drainage & Metal Leaching – SFE Testing
R-13	Acid Rock Drainage & Metal Leaching – Monitoring of Seepage and Run-off from Waste
R-14	Hazardous Materials Management and Monitoring – Hazardous Materials Tracking System
R-15	Hazardous Materials Management and Monitoring – Post Remediation Sampling

B. DOCUMENTS REVIEWED AND REFERENCED

The following table (Table 2) provides a list of the documents reviewed under the submission and reference during the review.

Table 2: Documents Reviewed and Referenced

Document Title	Author, File No., Rev., Date
Water Licence 2AM-BRP1831 (Amendment No.1)	Nunavut Water Board, August 31, 2021
Goose Mine - 2025 Annual Report for Water Licence 2AM-BRP1831	RainCoast Environmental Services Ltd. March 23, 2026.
2025 Annual Report for Water Licence 2AM-BRP1831 - Appendix A Annual Geotechnical Inspection Report	SRK Consulting (Canada) Inc, March 26, 2026
2025 Annual Report for Water Licence 2AM-BRP1831 - Appendix B Ground Thermal Monitoring Memorandum	SRK Consulting (Canada) Inc, March 26, 2026
2025 Annual Report for Water Licence 2AM-BRP1831 - Appendix C Winter Ice Road Water Use	B2Gold Back River Corp
2025 Annual Report for Water Licence 2AM-BRP1831 - Appendix C Winter Ice Road Water Use	B2Gold Back River Corp
2025 Annual Report for Water Licence 2AM-BRP1831 - Appendix D Geochemical Monitoring Results	B2Gold Back River Corp
2025 Annual Report for Water Licence 2AM-BRP1831 - Appendix E Water Quality Analytical Results	SRK Consulting (Canada) Inc, March 26, 2026
2025 Annual Report for Water Licence 2AM-BRP1831 - Appendix F Waste Disposal	B2Gold Back River Corp
2025 Annual Report for Water Licence 2AM-BRP1831 - Appendix G Reportable Spills Record	B2Gold Back River Corp
2025 Annual Report for Water Licence 2AM-BRP1831 - Appendix H Monitoring Program Activity Overview by Station	B2Gold Back River Corp
2025 Annual Report for Water Licence 2AM-BRP1831 - Appendix I Aquatic Effects Monitoring Report	WSP Canada Inc., March 16, 2026.
2025 Annual Report for Water Licence 2AM-BRP1831 - Appendix J Ground Thermal Monitoring Plan.	SRK Consulting (Canada) Inc, March 2026
Environmental Guideline for the Burning and Incineration of Solid Waste	Nunavut Department of Environment, January 2012
Mine Waste Rock Management Plan (WRMP)	Sabina, 2022
Tailings Management Plan	B2Gold Nunavut Back River Corp, April 30, 2025

Document Title	Author, File No., Rev., Date
Water Management Plan	B2Gold Nunavut Back River Corp., May 2024
Water Management Plan Addendum No.1.	B2Gold Nunavut Back River Corp April 2022, Version 4.0.
Water Management Plan Version 5 Addendum 01	B2Gold Nunavut Back River Corp. May 2024.
2AM-BRP1831 / B12. Letter from the NWB to B2Gold Nunavut Re Type A Water Licence No: 2AM-BRP1831; Water Management Plan for the Back River Project	Nunavut Water Board, August 14, 2024
CIRNAC Comments to NIRB, Comment Request for B2Gold Corporation's Back River Project 2024 Annual Report	CIRNAC, July 28, 2025
Crown Indigenous Relations and Northern Affairs Canada Water Licence Inspection Report– March 18-20, 2025	James Bolt, April 24, 2025
Crown Indigenous Relations and Northern Affairs Canada Water Licence Inspection Report - July 1, 2025	James Bolt, July 28, 2025
Crown Indigenous Relations and Northern Affairs Canada Water Licence Inspection Report– October 21 and 22, 2025	Kyle Amsel, November 13, 2025

C. RESULTS OF REVIEW

1. Stream/Lake Water Quality – Increasing Site Water Quality Exceedances

Reference:

260331-Goose Project 2025 Annual Report for Water Licence 2AM-BRP1831. Appendix I: Aquatic Effects Monitoring Report, Executive Summary; Goose Project 2025 Annual Rep, Table TC6-1.

Comment:

CIRNAC notes that as indicated in the Executive summary of Appendix I (pages iii and iv), *“In 2025, four water quality sampling programs were conducted for the Project: one during under-ice conditions (April) and three in open-water conditions (July, August, and September). Water samples and field measurements were collected from two areas in Goose Lake (West Bay and Central Basin) and one area in Reference B Lake. The dewatering discharge to Goose Lake West Bay occurred from mid-July to late-August.*

An investigation was initiated in June 2025 in response to the observed changes in Goose Lake water quality that were reported in the 2024 annual report (WSP 2025b). The results of the water quality investigation were analyzed as part of this AEMP report to identify factors from the Project that may have contributed to the increase in nitrate, nitrite, and total and dissolved cobalt concentrations in Goose Lake. This investigation used parameter concentrations as an indicator of potential sources.

The results suggest that the inflow from Llama and Umwelt Lakes and the inflow from Echo Lake contributed large concentrations of nitrate and cobalt parameters after September 2023. Other sources or processes at play are also likely, especially for nitrites. Contact water, seepage, and/or runoff flowing into these streams appear to be the source of increased parameter concentrations in Goose Lake in 2024 and 2025. Recommended mitigation options are to improve water management, dust control at site, and increase monitoring in 2026. These actions have the objective of mitigating future inputs into Goose Lake with the potential to reverse the changes to water quality identified in Goose Lake in 2024 and 2025”.

CIRNAC appreciates B2Gold Nunavut's efforts to determine the possible source(s) of lake and stream contamination in the mine footprint area and implement further mitigation measures as may be required to address this developing concern.

However, it is understood that B2Gold Nunavut is currently using ANFO (Ammonium Nitrate Fuel Oil) for approximately two thirds of its annual explosives needs (1,745,501 kg), compared with 801,924 kg of emulsion explosives. Air emissions from the use of ANFO are known to be a significant source of nitrates, nitrites, and other waste products.

These are likely contributors to the progressively increasing concentrations of these contaminants found in the mine area streams and lakes.

Recommendation:

(R-01) CIRNAC recommends that additional mitigation measures be implemented to further improve water management during extreme precipitation events, improve dust control at site, and increase water quality monitoring in 2026. Efforts to ensure complete and full combustion of explosives used on site to prevent the transport of waste nitrates and nitrites from the blast should be undertaken and a report prepared for within 90 days to detail what has been done and what monitoring will be put in place to address the issue.

CIRNAC also recommends that B2Gold Nunavut consider reducing its use of ANFO and increasing its use of emulsion explosives, which offer enhanced performance in wet conditions, greater stability, more complete combustion, and reductions in the release of contaminants to the receiving environment.

2. Infrastructure & Engineering – Goose Airstrip South Drainage Improvements

Reference:

- Nunavut Water Board – Water Licence No: 2AM-BRP1831 (Amendment No. 1) – Part D (Conditions Applying to Construction and Operation), Condition 17.
- Goose & MLA Project Sites – 2025 Annual Geotechnical Inspection (SRK 2026) – Section 6.1 (Goose Property Primary Observations), Table 3, Page 16

Comment:

CIRNAC notes that from the 2025 Annual Geotechnical Inspection (Table 3, Page 16), the Goose Airstrip was observed to have drainage issues along the south end of the Airstrip:

“Similar to the 2023 and 2024 inspections, water was observed flowing along the south end of the airstrip and ponding at the toe of the embankment, at the northeast corner and the south-southwest end near the new airstrip lighting locations. Ponded water and areas of anticipated ice-rich ground were noted adjacent to, and in some locations intersecting, both site airstrips. The new apron constructed on the southeast side of the airstrip (new observation for the 2025 AGI) appears to be impeding surface water flow between the airstrip embankment and the apron pad, resulting in increased water accumulation in this area.”

Additionally, drainage issues have been repeatedly noted for the south-southwest end of the Goose Airstrip:

“Southern end of the airstrip (operated since November 2023). As it was outlined in the 2024 inspection, airstrip extends to the south intersects some more notable surface water flow pathways / ephemeral streams. The South end of the extended

Goose Airstrip is an area that should be closely monitored and more permanent long-term water conveyance through portions of the airstrip is expected to be required.

Both issues have been previously identified in the 2023 and 2024 Annual Geotechnical Inspections and the recommendations include:

“Consideration should be given to redirecting or attempting to move any ponded water away from the toes of the airstrip. Pumping out or removing ponded water at the toes of the airstrip in the fall, before winter freeze-up, would enhance the transfer of cold ambient air and ground heat. This could help mitigate permafrost degradation by reducing thawing rates and slowing the deepening of the active layer. Improved water management of this nature may contribute to a decrease in both short and long-term maintenance activities.”

“Special attention should be given to the SSW end of the airstrip. Softer shoulder conditions continue to be noted during walk-around inspections of the airstrip perimeter. Additional and ongoing settlement is anticipated, particularly at the southern end. As outlined in the 2024 inspection report, the design of the Rascal Diversion Berm should be updated to reflect current site conditions, including the presence of fish species in the stream, the existing airstrip lighting system, and associated pads. It should be noted that the initial Rascal Diversion design focused solely on fish passage and did not consider the southern airstrip extension or the diversion of all water flows originating from the Rascal Lake catchment area.”

Recommendation:

(R-02) CIRNAC recommends that B2Gold Nunavut undertake drainage improvements at the south end of the Goose Airstrip, including the Rascal Diversion Berm, to prevent further impacts to surface drainage and resulting permafrost degradation. Corrective measures to surface drainage are a requirement per the Project's Water Licence (Part D, Condition 17). Activities and works undertaken to address these issues should form part of the 2026 Annual Report in addition to any required construction or modification requests that are required under the current Type A license.

3. Infrastructure & Engineering – Echo Haul Road Culverts

Reference:

- Nunavut Water Board – Water Licence No: 2AM-BRP1831 (Amendment No. 1) – Part D (Conditions Applying to Construction and Operation), Condition 17.
- Goose & MLA Project Sites – 2025 Annual Geotechnical Inspection (SRK 2026) – Section 6.1 (Goose Property Primary Observations), Table 3, Page 24

Comment:

CIRNAC notes that from Table 2, Page 24, the 2025 Annual Geotechnical Inspection, the Echo Haul Road was observed to have several blocked or damaged culverts:

“Culvert inlets on the east side of Echo haul road are blocked with the rock material used for the road construction. Culvert inlets on the eastern side of Echo Pit haul road

are partly blocked. Two culverts on the eastern side are elevated by approx. 0.5 m from the toe of the road embankment. No fine material around the culvert was observed.”

These culvert issues were identified previously in the 2024 Annual Geotechnical Inspection and the recommendations include:

“Unblock the existing inlets. Culverts that appear to be damaged or elevated from the toe of the road embankment are required to be replaced (site to determine after visual inspections before and around freshet).”

Recommendation:

(R-03) CIRNAC recommends that B2Gold Nunavut unblock or replace all of the impacted culverts along the Echo Haul Road to prevent impacts to surface drainage. Corrective measures to surface drainage are a requirement per the Project’s Water Licence (Part D, Condition 17). These activities should be reported on within 180 days following receipt of CIRNAC’s comments.

4. Infrastructure & Engineering – Goose Tank Farm Phase 2 Liner Damage

Reference:

- Nunavut Water Board – Water Licence No: 2AM-BRP1831 (Amendment No. 1) – Part D (Conditions Applying to Construction and Operation), Condition 20.
- Goose & MLA Project Sites – 2025 Annual Geotechnical Inspection (SRK 2026) – Section 6.1 (Goose Property Primary Observations), Table 3, Page 19

Comment:

CIRNAC notes that the 2025 Annual Geotechnical Inspection (Table 3, Page 19) identifies that the liner system in Phase 2 of the Goose Tank Farm was observed to be damaged:

“During a walkover inspection of the containment area, a damaged HDPE liner was observed at the toe of the northern berm of Phase 2 containment area.”

The damaged liner is recommended to be exposed, inspected, and repaired:

“The damaged liner should be exposed and inspected to assess the full extent of the tear. Repairs should be completed in accordance with project specifications and applicable liner repair procedures. Following repair, the area should be protected with the engineering fill material for protection.”

Recommendation:

(R-04) CIRNAC recommends that B2Gold Nunavut expose, inspect, and repair the damaged liner system within the Phase 2 Containment Area of the Goose Tank Farm, per the operational requirements outlined in the Project’s Water Licence (Part D,

Condition 20). This activity should be reported on/or within 180 days following the receipt of CIRNAC's comments.

5. Infrastructure & Engineering – MLA Quarry Tank Farm Liner Damage

Reference:

- Nunavut Water Board – Water Licence No: 2AM-BRP1831 (Amendment No. 1) – Part D (Conditions Applying to Construction and Operation), Condition 20.
- Goose & MLA Project Sites – 2025 Annual Geotechnical Inspection (SRK 2026) – Section 6.1 (Goose Property Primary Observations), Table 4, Page 34.

Comment:

CIRNAC notes that the 2025 Annual Geotechnical Inspection (Table 4, Page 34), reports that the liner system in Phase 3 of the MLA Quarry Tank Farm was observed to be damaged (eastern berm) and folded (western berm):

“Damaged HDPE liner was observed at the toe of the Phase 3 eastern berm.”

“Folded HDPE liner was observed at the toe of the western berm in the area where the fuel offload pad (Fireball) ties in. The folds may have resulted from pushing fill material downslope from the crest during placement.”

The damaged/folded liner system is recommended to be exposed, inspected, and repaired:

“A detailed liner inspection should be conducted to assess the extent of folding and confirm overall liner integrity. The affected area should be carefully exposed, and the liner evaluated for stress, stretching, or damage. If the liner integrity has been compromised, the impacted section should be repaired. Following repair, the liner should be properly anchored as required, surveyed if applicable, and backfilled with fill material using placement methods that prevent further displacement or damage.”

Recommendation:

(R-05) CIRNAC recommends that B2Gold Nunavut expose, inspect, and repair the damaged liner system within the Phase 3 Containment Area of the MLA Quarry Tank Farm, per the operational requirements outlined in the Project's Water Licence (Part D, Condition 20). This activity should be reported on/or within 180 days following the receipt of CIRNAC's comments.

6. Landfill & Waste Management – General

Reference:

260331-Goose Project 2025 Annual Report for Water Licence 2AM-BRP1831; – Section 2.3 Schedule – Waste; Appendix A - 2025 Annual Geotechnical Inspection Report

Comment:

CIRNAC notes that the Annual report refers to compliance with Schedule B, Condition 9 of the Water Licence. It is stated that wastes that are categorized as dangerous good or non-regulated goods are backhauled to KBL. KBL provides services to transfer these wastes to approved facilities outside Nunavut. Records are included in Appendix F, Tables F-1, and F-2.

It is also stated that non-hazardous waste is identified as being suitable for landfill according to the Project Landfill and Waste Management Plan. These wastes were disposed at the Echo and Umwelt WRSA landfills (Figure G-420). Records are provided in Appendix F – Table F-5). Quantities disposed are estimated to be 7,412 m³ at the Echo site and 3,071 m³ at Umwelt site.

B2Gold Nunavut reports that a “Landfill and Waste Management Plan” was submitted and approved in 2025.

The 2025 Annual Geotechnical report identifies the following:

- A Tote containment facility was completed in August 2025 – no concerns were identified in the report.
- The Report emphasizes that landfilled waste at Echo occurs within the central portion of the WRSA and any waste outside the approved WRSA footprint is removed.

Former temporary fuel storage Depot – a landfill has been established at this location. There is evidence of permafrost degradation and ponded water increasing the risk of soil contamination.

Recommendation:

(R-06) CIRNAC recommends that periodic compaction and cover be undertaken on landfilled waste and at the Echo and Umwelt WRSA locations.

CIRNAC also recommends that the waste disposed at the temporary storage Depot be collected and disposed of in accordance with the Landfill and Waste Management Plan. It is noted that Waste records have improved over the previous year, and CIRNAC recommends that B2Gold Nunavut continue with the current record keeping and reporting format in the 2026 Annual report.

7. Landfill & Waste Management – Incinerator Testing

Reference:

- 260331-Goose Project 2025 Annual Report for Water Licence 2AM-BRP1831; – 2.3 Schedule B – Waste (item 10)
- NWB – Licence No. 2AM-BRP1831 (Amendment No.1) - Schedule B: 6-10
- Environment Canada - Technical Document for Batch Waste Incineration
- Nunavut Department of Environment - Environmental Guideline for the Burning and Incineration of Solid Waste

Comment:

CIRNAC notes that dual chamber force air incinerators are located at the Goose Mine and the MLA. B2Gold Nunavut reports that no testing has been conducted at the Goose Project. The Water Licence requires reporting of test results including materials burned and efficiency of the incinerator.

Incinerator ash is backhauled to KBL – Backhaul records are included in Appendix F-1. Incinerated and open burning of waste records are shown in Appendix F. Table F-3 Goose Incinerator and Open Burn Log, 2025, and Table F-4 MLA Incinerator and Open Burn Log, 2025.

The B2Gold Incinerator Management Plan (IMP) was last updated in 2020. The IMP was not available to Tetra Tech at the time of preparing this response. The proper operation and maintenance of Batch Incinerators is necessary to control air emissions.

Recommendation:

(R-07) CIRNAC recommends that B2Gold record and maintain the following operational data including temperature, carbon monoxide and oxygen levels, auxiliary burner time, and differential pressures.

CIRNAC also recommends that B2Gold Nunavut should provide records of staff training for operation of the incinerators and any maintenance undertaken.

CIRNAC recommends that B2Gold undertake stack sampling for Dioxins and Furans that can result due to incomplete combustion. These contaminants may be transported in air to surrounding land and water.

8. Landfill & Waste Management – Waste & Waste Chemical Storage

Reference:

- 260331-Goose Project 2025 Annual Report for Water Licence 2AM-BRP1831.
- Water Licence Inspection Report – March 18-20, 2025; Water Licence inspection Report – July 1, 2025; Water Licence inspection Report – October 21 and 22, 2025

Comment:

CIRNAC notes that the March 18-20, 2025, CIRNAC inspection identified non-compliance for secondary containment. An action item required immediate placement and use of adequate secondary containment, hazardous materials storage, and refueling areas.

The July 1, 2025, inspection report had no non-compliance items or action items listed.

The October 21 and 22, 2025 inspection report listed 5 items including a requirement to provide secondary containment for all small waste management areas throughout the site, a requirement to submit a document for secondary containment for refueling areas, a requirement for B2Gold to discuss management of surface contact water with regulators, and discussions with regulators regarding storage of hazardous materials inside marine shipping containers and continued use of waste oil furnaces. The report also required appropriate signage at water supply and waste disposal facilities as per the licence.

B2Gold Nunavut reported that:

- Secondary containment was added and improvements continue to be made;
- Options are being examined for secondary containment at refueling stations, and an engineering firm is addressing the need for further mitigation;
- B2Gold has confirmed the ability to continue the use of the waste oil furnaces; and,
- Signs for water supply and waste disposal sites have been ordered.

It was noted in the inspection reports that equipment and metals are stored in the bone yard and may be landfilled.

Recommendation:

(R-08) CIRNAC recommends that continued inspections are conducted in 2026 to confirm if the required actions have been adequately completed and that B2Gold Nunavut maintains compliance with disposal and storage of wastes.

It is also recommended that scrap equipment and end-of-life vehicles be decontaminated prior to being placed in the bone yard and before they are landfilled or backhauled.

9. Acid Rock Drainage & Metal Leaching – Test Method for Determining Neutralization Potential

Reference:

- 260331-Goose Project 2025 Annual Report for Water Licence 2AM-BRP1831, Section 2.3
- Mine Waste Rock Management Plan (WRMP), Sabina 2022, Section 7.1.4

Comment:

CIRNAC notes that the 2025 Annual Report for Water Licence indicates the Neutralization Potential (NP) in Section 2.3 and in results tables is calculated based on the Modified Sobek analysis. The NP value is subsequently used in the calculation of the Neutralization Potential Ratio (NPR) value which is used to classify the samples as either NAG or PAG using the site-specific criteria.

Section 7.1.4 of the WRMP specifies that “total inorganic carbon (TIC) will be used to calculate the neutralization potential (NP)”.

Recommendation:

(R-09) CIRNAC recommends that B2Gold Nunavut clarify if testing of total inorganic carbon is completed and justify the change in the method of calculating the NP value from what is presented in the WRMP. If B2 Gold Nunavut would like to modify the existing condition for total inorganic carbon analysis on all samples and use of TIC to calculate neutralization potential, as presented in Section 7.1.4 of the approved WRMP, then a new WRMP should be submitted for approval by the board.

10. Acid Rock Drainage & Metal Leaching – Testing of Tailings and Treatment Sludges

Reference:

- 260331-Goose Project 2025 Annual Report for Water Licence 2AM-BRP1831, Section 2.3 and Table F-7
- Tailings Management Plan V. 3.0 (TMP), Section 6

Comment:

CIRNAC notes that TMP Section 6 indicates that as part of the Monitoring Program, B2Gold Nunavut will conduct “*Grab sampling of tailings and treatment sludges as they are produced to evaluate the potential for remobilization of arsenic of these materials remains within predicted levels*”

The Annual Report Table F-7 shows tailings being placed in the Echo Tailings Storage Facility (ETSF) from June-December 2025.

CIRNAC could not locate the results of the grab sampling or confirmation that the grab sampling was conducted as outlined in the Tailings Management Plan Version. 3.0 (TMP), Section 6.

Recommendation:

(R-10) CIRNAC recommends that B2Gold Nunavut clarify if testing of the tailings product produced and placed in the ETSF was subjected to tests to evaluate the potential for

remobilization of arsenic from these materials. If results are available, please provide them as per the Annual Reporting requirements. If not available, please advise what measures will be put in place to ensure that this sampling will be done as outlined in Section 6.0 of the TMP.

11. Acid Rock Drainage & Metal Leaching – WRSA Water Management and Monitoring

Reference:

260331-Goose Project 2025 Annual Report for Water Licence 2AM-BRP1831, Appendix H, Table H-1

Comment:

CIRNAC notes that In Appendix H, Table H-1, Item BRP-09 is for the Umwelt WRSA Pond. Under the “Monitoring Activity” column indicates that this is “N/A – facility not commissioned”. The Umwelt Pit WRSA received PAG waste rock in 2025, and therefore the Umwelt WRSA Pond should be constructed and operational for water management and water monitoring, as per the Waste Rock Management Plan and Water Management Plan.

In Appendix H, Table H-1, Item BRP-22 is for the Echo WRSA Pond. Under the “Monitoring Activity” column indicates that this is “N/A mine phase”. The Echo Pit WRSA received PAG waste rock in 2025, and therefore the Echo WRSA Pond should be constructed and operational for water management and water monitoring, as per the Waste Rock Management Plan and Water Management Plan.

Recommendation:

(R-11) CIRNAC recommends that B2Gold Nunavut describe the process for water management and monitoring from the Echo WRSA and the Umwelt WRSA.

CIRNAC recommends that B2Gold Nunavut address the question of whether the Umwelt WRSA Pond has been constructed to capture water originating from the Umwelt WRSA. If the Pond is active, it is recommended that this line item in Table H-1 be updated. If the Pond is not constructed, it is recommended that B2Gold Nunavut provide information on managing leachate from the Umwelt WRSA.

CIRNAC also recommends that B2Gold Nunavut clarify whether monitoring is completed in the Echo WRSA Pond.

12. Acid Rock Drainage & Metal Leaching – SFE Testing

Reference:

- 260331-Goose Project 2025 Annual Report for Water Licence 2AM-BRP1831.
- Mine Waste Rock Management Plan (WRMP), Sabina 2022, Section 7.1.4

Comment:

CIRNAC notes that the WRMP specifies that “*Short-term leach testing following the shake flask extraction (SFE) method will be conducted on [a] subset [of the samples] to confirm the metal leaching potential of NPAG material, this testing is not required for PAG samples, as PAG waste rock will not be used in construction*”.

The WRMP indicates that “NPAG samples analyzed for SFE will be compared to 10x CCME guidelines for aquatic life to confirm metal leaching potential. Material with a high metal leaching potential will also not be used for WRSA cover material.

As per Water Licence 2AM-BRP1831 Part D, Item 5, only waste rock to be confirmed to be NPAG and non-metal leaching may be used as construction material.

The annual report does not indicate that SFE testing was completed on any samples in 2025.

Recommendation:

(R-12) CIRNAC recommends that B2Gold Nunavut confirm if any SFE testing has been completed during 2025, and to provide a summary of the results or justification for the testing not having been completed as described in Section 7.1.4 of the WRMP (2022).

13. Acid Rock Drainage & Metal Leaching – Monitoring of Seepage and Run-off from Waste and Tailings Storage Areas

Reference:

260331-Goose Project 2025 Annual Report for Water Licence 2AM-BRP1831, Section 2.3 Condition 8.

Comment:

CIRNAC notes that Section 2.3, Schedule B - Waste, Condition 8 requires a “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 Compliance Status item for this condition indicates only that the three seeps were observed at the Goose Mine in 2025.

Recommendation:

(R-13) CIRNAC recommends that B2Gold Nunavut confirm that there was no seepage and runoff from the active Echo WRA, Umwelt WRSA, and Echo Tailings Facility which could be quantified and monitored in 2025.

14. Hazardous Materials Management and Monitoring - Hazardous Materials Tracking System

Reference:

- Goose Project 2025 Annual Report for Water Licence 2AM-BRP1831, Section 2.4 Schedule B – Spills, Appendix F and Appendix G
- Section 13e of Water Licence No: 2AM-BRP1831 (Amendment No. 1).

Comment:

CIRNAC notes that the Goose Project 2025 Annual Report for Water Licence 2AM-BRP1831, Section 2.4 Schedule B – Spills and Appendix G indicated that some material from cleanup activities was transported for storage pending future treatment at the new Waste Management Facility, scheduled to be constructed with a soil treatment facility. Appendix F Table F1 Goose Waste Backhauled, 2025 included entries for “Soil contaminated with hydrocarbons”.

The report does not identify which contaminated soil is being stored pending treatment, nor confirm that a tracking system has been implemented to prevent potential handling errors.

There is a potential for handling errors or incorrect disposal associated with the longer-term storage, pending acceptance of the updated Landfill and Waste Management Plan (LWMP) and commissioning of the proposed soil treatment facility.

Recommendation:

(R-14) CIRNAC recommends that a hazardous materials tracking system be implemented pending the formal acceptance of the updated LWMP. Hazardous materials should be tracked until they meet the requirements of the updated LWMP delisting protocol.

It is also recommended that details regarding the implementation of a hazardous materials tracking system be incorporated into a future version of the Hazardous Materials Management Plan (October 2017).

15. Hazardous Materials Management and Monitoring - Post Remediation Sampling

Reference:

Goose Project 2025 Annual Report for Water Licence 2AM-BRP1831, Section 2.4 Schedule B – Spills and Appendix G.

Comment:

CIRNAC notes that the Goose Project 2025 Annual Report for Water Licence 2AM-BRP1831, Section 2.4 Schedule B – Spills indicated that 13 of 14 spills were cleaned up.

Appendix G indicated that contaminated soil was removed following four spills. No information was provided on post-excavation confirmatory soil sampling to verify that all contaminated soil had been removed.

Recommendation:

(R-15) CIRNAC recommends that post-remediation sampling should be considered for spills that have impacted underlying soils if the spilled substance represents a potential longer-term risk to environmental receptors. If conducted, the results of post-remediation sampling should be included in Appendix G.