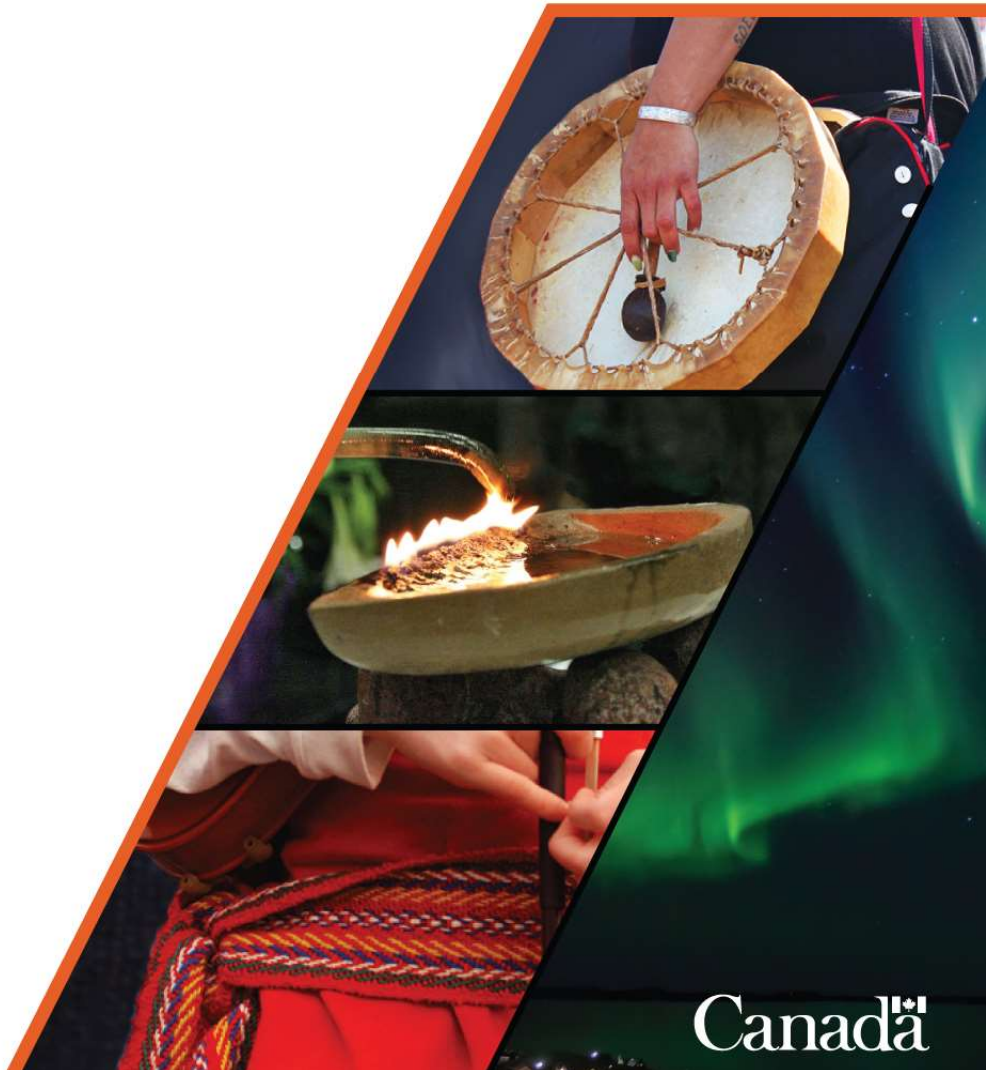




CIRNAC Comments to NIRB

Re: Comment Request for B2Gold Corporation's Back River
Project 2025 Annual Report



Nunavut Regional Office
918 Sivumugiaq Street
Iqaluit, Nunavut, X0A 3H0

Your file - Votre référence
12MN036
Our file - Notre référence
GCdocs#146880626

May 28, 2026

Keith Morrison
Manager, Project Monitoring
Nunavut Impact Review Board
29 Mitik Street, P.O. Box 1360
Cambridge Bay, Nunavut, X0B 0C0
via email at info@nirb.ca

Re: Comment Request for B2Gold Corporation's Back River Project 2025 Annual Report

Dear Keith Morrison,

On April 13, 2026, the Nunavut Impact Review Board (NIRB) requested parties to review and provide comments on B2Gold Corporation's (B2Gold) Back River Project 2025 Annual Report for effects and compliance monitoring, pursuant to Section 12.7.3 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada* (Nunavut Agreement), s. 135(4) of the *Nunavut Planning and Project Assessment Act*, S.C. 2013, c. 14, s. 2 (NuPPAA), and the Back River Gold Mine Project Certificate No. 007 (Amendment No. 001).

Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) reviewed the 2025 Annual Report and related documents for effects and compliance monitoring, according to its mandated responsibilities and jurisdiction, and provides comments for NIRB's consideration.

CIRNAC appreciates the opportunity to review B2Gold's Back River Project 2025 Annual Report and looks forward to working with the NIRB and B2Gold through any future reviews for this project. Should you have any questions, please contact Saba Qazi or David Abernethy by email at saba.qazi@rcaanc-cirnac.gc.ca or david.abernethy@rcaanc-cirnac.gc.ca.

Sincerely,



Richard Bingley
Manager, Impact Assessment



1. Effects Monitoring

CIRNAC reviewed the 2025 Annual Report to assess measurable effects to valued components under its mandate against the potential effects that were predicted from the proposed development of the Back River Project, considering the Final Environmental Impact Statement (FEIS), previous years' monitoring reports, and the requirements included in the Project Certificate. This assessment considered the following:

- a. **Whether the conclusions reached by B2Gold in the 2025 Annual Report are valid; and,**
- b. **Any areas of significance requiring further supporting information or any changes to the monitoring program which may be required.**

CIRNAC did not identify information under its mandate and jurisdiction that would invalidate the conclusions reached by B2Gold in the 2025 Annual Report but has identified areas requiring clarification. Comment #4 Water Quality Trends and Project Effects Predictions and Comment #7 Geochemical Properties of Overburden Materials from CIRNAC review of 2024 Annual Report have been addressed by B2Gold. CIRNAC provides the NIRB and B2Gold with the following ongoing and new comments for consideration.

Comment Number:	CIRNAC #1 (Ongoing)
Subject:	Permafrost Mapping
Reference:	<ul style="list-style-type: none"> NIRB Project Certificate No. 007 (Amendment No. 001), Term and Condition 11: Terrestrial Environment – Permafrost Mapping and Monitoring Goose Project 2025 Annual Report, Section 4.5.4, Pages 4-69 to 4-70 Goose Project 2025 Annual Report, Appendix F-1. 2025 Site-wide Ground Thermal Monitoring – Annual Reporting Goose Project 2025 Annual Report, Appendix F-2. Site-wide Ground Thermal Monitoring Plan Back River Project 2024 Annual Report, Section 4.5.4, Pages 4-42 to 4-43 Back River Project 2023 Annual Report, Section 4.5.4, Pages 4-34 to 4-35 Back River Gold Mine Project 2023 Annual Report: Comment Response, Pages 44-45 Back River Project Responses to 2022 Annual Report Comments, Pages 84-85 Back River Project 2022 Annual Report, Page 3-1, 4-30 to 4-31
Issue/Rationale:	In response to the 2023 Annual Report, CIRNAC recommended that B2Gold provide background thermal monitoring data and compare to previous results in future Annual Reports. B2Gold stated that it will include a comparison of recent readings to background readings as part of the 2024 annual reporting. CIRNAC notes that B2Gold did not provide this comparison in the 2024 Annual Report. B2Gold also stated that it plans to update the Thermal Monitoring Plan annually and will include any new data, or any data from historic locations that are able to be re-established as part of those annual updates.



	<p>B2Gold has developed an initial revision of a site-specific thermal monitoring plan to monitor ground temperature and changes to permafrost site-wide. Ground ice content based on visual estimate from frozen core has been provided in 2025 Site-wide Ground Thermal Monitoring report. However, no comparisons with previous years data and impacts to FEIS predictions have been conducted.</p> <p>The absence of this information limits CIRNAC’s ability to evaluate whether B2Gold has collected sufficient information to inform the detailed design of project infrastructure and account for changing permafrost conditions in the project area. Upon review of the 2025 Site-wide Ground Thermal Monitoring Memo, no permafrost mapping was provided for the site.</p> <p>Aerial mapping is a valuable and standard tool which informs project development in areas of permafrost and ground ice. Mapping should be undertaken or updated for any new areas of development. Although B2Gold made progress in preparing a thermal monitoring plan and reporting data, CIRNAC’s view is that B2Gold needs more efforts in fulfilling the requirements of Term and Condition 11 of the Project Certificate and therefore this recommendation is ongoing.</p>
<p>Recommendation:</p>	<p>CIRNAC recommends that in future Annual Report submissions B2Gold:</p> <ol style="list-style-type: none"> a) Provide permafrost mapping for background sites and make comparisons to FEIS predictions in future Annual Report submissions. b) Provide background thermal monitoring data and compare it to any thermal monitoring data that has been collected in the project area. c) Include any new data, or any data from historic locations that are re-established, in the updated Thermal Monitoring Plan . d) Provide permafrost mapping (for example by aerial mapping identifying permafrost terrain and ground ice features) for areas of Project development, and reviewing and refining permafrost maps based on results from the site-wide ground thermal monitoring conducted each year.

<p>Comment Number:</p>	<p>CIRNAC #2 (Ongoing)</p>
<p>Subject:</p>	<p>Permafrost Monitoring</p>
<p>Reference:</p>	<ul style="list-style-type: none"> • NIRB Project Certificate No. 007 (Amendment No. 001), Term and Condition 12: Terrestrial Environment – Permafrost Monitoring • Goose Project 2025 Annual Report, Section 4.5.4, Pages 4-71 to 4-73 • Goose Project 2025 Annual Report, Appendix G. Geotechnical Inspection Report • Goose & MLA Project Sites – 2024 Annual Geotechnical Inspection Report, Pages 7, 30, 43 • Goose & MLA Project Sites – 2023 Annual Geotechnical Inspection Report, Pages 6, 39 • Back River Project 2024 Annual Report, Section 4.5.4, Page 4-43 to 4-44



<p>Issue/Rationale:</p>	<p>The 2024 Annual Geotechnical Inspection Report (AGI) noted the presence of underbuilt roads, pads and other infrastructure and ponded water across the site. The presence of underbuilt roads, embankments and pads has been identified as a threat to permafrost integrity in the AGI reports since 2022.</p> <p>Term and Condition 12 describes requirements for B2Gold to report on measures implemented to restore and promote permafrost integrity, if degradation is observed. CIRNAC noted that evidence of permafrost degradation has been identified across the site (e.g., roads and camp pads), but B2Gold did not provide any timelines for increasing the thickness of underbuilt roads, embankments, and pads, or descriptions of any other measures have been implemented to restore and promote permafrost integrity in the project area. The presence of underbuilt roads will continue to exacerbate permafrost degradation until an adequate fill thickness is placed and permafrost begins to aggrade into the fill.</p> <p>In their response to CIRNAC’s comment for 2024 Annual report, B2Gold confirmed that this information is provided in the annual geotechnical inspection report. B2Gold had started to build up some of the all-season road alignments (specifically in the Umwelt area) with additional fill thickness post the 2024 AGI site inspection. The 2025 AGI provides for partial information about underbuilt roads, embankments, and pads, however the previous recommendations were not fulfilled and are ongoing.</p>
<p>Recommendation:</p>	<p>CIRNAC recommends that in future annual report submissions B2Gold:</p> <ol style="list-style-type: none"> a) Provide information and mapping relating to the locations of underbuilt roads, pads, and embankments. b) Provide a timeline for increasing the thickness of underbuilt roads, embankments, and pads. c) Identify any measures that have been implemented to restore and promote permafrost integrity in the project area.

<p>Comment Number:</p>	<p>CIRNAC #3 (Ongoing)</p>
<p>Subject:</p>	<p>Sensitive Landform Mitigation and Monitoring</p>
<p>Reference:</p>	<ul style="list-style-type: none"> • NIRB Project Certificate No. 007 (Amendment No. 001), Term and Condition 13: Terrestrial Environment - Sensitive Landform Mitigation and Monitoring • Goose Project 2025 Annual Report, Section 4.5.4, Pages 4-74 to 4-75 • Goose & MLA Project Sites – 2025 Annual Geotechnical Inspection Report, Pages 30 • Goose & MLA Project Sites – 2024 Annual Geotechnical Inspection Report, Pages 6, 39 • Back River Project 2024 Annual Report, Section 4.5.4, Page 4-45 • Goose & MLA Project Sites – 2024 Annual Geotechnical Inspection Report, Pages 8
<p>Issue/Rationale:</p>	<p>It is unclear to CIRNAC if there are sensitive landforms or associated mitigation and monitoring measures in the information provided on the</p>



	<p>Primary Pond, Umwelt Dam, or the 2023 and 2024 geotechnical investigations. The provision of this information is necessary to understand the potential impacts on any sensitive landforms that may be present in the project area. CIRNAC had commented on the 2023 annual report, requesting further information.</p> <p>In response to CIRNAC’s comments, B2Gold indicated that it would “...provide a more concise overview of the geotechnical investigations, including sensitive landforms, that were undertaken in 2023 and 2024 in the 2024 Annual Report”. This information was not provided with the 2024 Annual Report.</p> <p>B2Gold provided a summary of the geotechnical investigation work completed in the 2025 Annual Report but the provided information did not include the project's impact on the sensitive landforms and associated mitigation and monitoring measures. This recommendation is ongoing.</p>
Recommendation:	<p>CIRNAC recommends that B2Gold:</p> <ul style="list-style-type: none"> a) Confirm if sensitive landforms were identified b) Provide any mitigation and monitoring measures associated with the Primary Pond, Umwelt Dam, and the geotechnical investigations in future Annual Report submissions. c) Provide summaries of any geotechnical investigations undertaken each year in future Annual Report submissions.

Comment Number:	CIRNAC #4 (Ongoing)
Subject:	Vegetation – Mine Closure and Reclamation Plan
Reference:	<ul style="list-style-type: none"> • NIRB Project Certificate No. 007 (Amendment No. 001), Term and Condition 36:Vegetation – Mine Closure and Reclamation Plan • Goose Project 2025 Annual Report, Section 4.5.4, Pages 4-128-129 • Back River Project 2024 Annual Report, Section 4.5.9, Pages 4-95 to 4-96, Appendix H • Back River Project FEIS Addendum, Volume 5, Page 5-20
Issue/Rationale:	<p>Term and Condition 36 describes that B2Gold is required to develop revegetation strategies within its Mine Closure and Reclamation Plan that support progressive reclamation, which should include exploration of the feasibility and practicality of topsoil/organic matter salvage through Project development. Revegetation strategies are to be provided within 3 years of the start of construction in the Annual Report and will include reclamation strategies for the Energy Centre Project.</p> <p>In response to CIRNAC’s comments on the 2022 Annual Report, B2Gold stated that research of revegetation strategies will be provided to the NIRB in 2023. This information was not provided with the 2023 Annual Report. Furthermore the 2024 Annual Report provided no information regarding any revegetation strategies developed and implemented by B2Gold. It is unclear to CIRNAC if any revegetation strategies, including topsoil/organic matter salvage strategies have been proposed.</p> <p>In the 2024 Annual Report, B2Gold stated that the progressive revegetation program in the Interim Closure and Reclamation Plan (ICRP) was not fully</p>



	developed as the project was in an early phase of construction, and that it would provide initial details in the 2025 Annual Report”, but the updated Closure and Reclamation Plan has not been provided for the review.
Recommendation:	<p>CIRNAC recommends that B2Gold:</p> <ul style="list-style-type: none"> a) Provide revegetation strategies that have been developed and implemented in future Annual Report submissions. b) Provide results on the feasibility and practicality of topsoil/organic matter salvage.

Comment Number:	CIRNAC #5 (New)
Subject:	Stream/Lake Water Quality – Increasing Site Water Quality Exceedances
Reference:	NIRB Project Certificate No. 007 (Amendment No. 001), Term and Condition 21 260409-12MN036 Goose Project 2025 Annual Monitoring Report; Table TC6-2; Appendix H, Aquatic Effects Monitoring Report, Executive Summary;
Issue/Rationale:	<p><i>“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).</i></p> <p><i>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.</i></p> <p><i>Contact water, seepage, and/or runoff flowing into these streams appear to be the likely 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”. ((Appendix H Executive Summary)</i></p> <p>CIRNAC appreciates B2Gold’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 the developing concern of nitrates, nitrites and dissolved cobalt.</p> <p>However, it is understood that B2Gold is currently using Ammonium Nitrate Fuel Oil (ANFO) for approximately two thirds of its annual explosives needs (1,745,501 kg), compared with 801,924 kg of emulsion explosives. Air</p>



	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:	CIRNAC recommends that B2Gold describe any considerations it may have in decreasing its use of ANFO and increasing its use of emulsion explosives, or a rationale for why it is not being considered.

Comment Number:	CIRNAC #6 (New)
Subject:	2025 Annual Geotechnical Inspection Report Authentication
Reference:	<i>Goose Project 2025 Annual Report (B2Gold 2026) – Section 4.5.4 (NIRB Project Certificate No. 007 (Amendment No. 001), Term and Condition 13) Goose & MLA Project Sites – 2025 Annual Geotechnical Inspection (SRK 2025)</i>
	Reporting Requirements for Project Certificate Condition No. 13 specify the following: Upon review of the 2025 Annual Geotechnical Inspection Report, the document is not stamped by a Professional Engineer (P.Eng.) registered with the Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists (NAPEG). This is a concern because it is a standard best practice in Canada for Engineers to sign and stamp such documents.
Recommendation:	CIRNAC recommends that B2Gold ensure that a NAPEG-registered Professional Engineer review, stamp, and sign the Annual Geotechnical Inspection Reports.

Comment Number:	CIRNAC #7 (New)
Subject:	Vegetation – Revegetation and Reclamation Vegetation – Mine Closure and Reclamation Plan
Reference:	260409-12MN036 Goose Project 2025 Annual Monitoring Report 211213-12MN036-ICRP July 2021 260409-12MN036-2025 Annual Report App L Reclamation and Revegetation Literature Review NIRB Project Certificate No. 007 (Amendment No. 001), Term and Condition 35 and 36
Issue/Rationale:	Section 4.5.9 of the 2025 Annual Monitoring Report presents the requirement that the Proponent develop a progressive revegetation program as part of the ICRP. Section 6.3 of the ICRP contains information on progressive revegetation studies and suggests a revegetation research program has been initiated; however, no details have been provided and the ICRP is incomplete, in that Appendix E appears to be missing. Appendix L (Reclamation and Revegetation Literature Review) from the 2025 Annual Report provides a fairly comprehensive review of revegetation and reclamation approaches in Arctic environments. According to the memo, the purpose of Appendix L is “to meet Nunavut Impact Review Board



	<p><i>(NIRB) Project Certificate No. 007 Amendment No. 001 (NIRB 2024) Term and Condition 36, by providing potential options for B2Gold to consider and progress closure”.</i></p> <p>It is unclear; however, how Appendix L relates to the ICRP seeing it is presented as an appendix to the 2025 Annual Report. Given the general description of (missing) ICRP Appendix E as being “a review of revegetation programs and studies completed at other northern mine sites”, it is possible Appendix L could be a suitable replacement for missing ICRP Appendix E. In the 2025 Annual report the Proponent also refers to a July 2022 version of the ICRP; however, this document has not been provided for review.</p>
Recommendation:	<p>CIRNAC recommends that B2Gold</p> <ul style="list-style-type: none"> a) Provide details on the vegetation research program implied to in Section 6.3 of the 2021 ICRP and provide Appendix E (Reclamation Studies) for review. b) Confirm the most current version of the ICRP (i.e., 2021 or 2022).

Comment Number:	CIRNAC #8 (New)
Subject:	Geochemical Properties of Overburden Material and Monitoring
Reference:	<p>260409-12MN036 Goose Project 2025 Annual Monitoring Report, Section 4.5.5</p> <p>NIRB Project Certificate No. 007 (Amendment No. 001), Term and Condition 16</p> <p>Borrow Pits and Quarry Management Plan (Sabina, November 2020)</p>
Issue/Rationale:	<p>The Annual Monitoring report summarizes that <i>“The ABA program initiated in 2024, is capturing all material being removed from the pit used for construction material at site. B2Gold has limited the use of Quarry material, as the pit development is providing sufficient material for construction use. As the pattern is drilled, samples are taken, coded to the pattern and approved for use as NAG or PAG”</i>; and <i>“B2Gold will provide any further updates to the Borrow Pits and Quarry Management Plan to the NIRB once approved by the NWB.</i></p> <p><i>B2Gold will continue to provide site-specific quarry operation and management plans to the NIRB and the KIA at least 30 days prior to the use of borrow or quarry sites for review. No new quarry or borrow sites were accessed in 2025. Any amendments to existing site-specific quarry operation and management plans shall be provided in B2Gold’s annual report to the NIRB.</i></p> <p>As per Section 10 of the Borrow Pits and Quarry Management Plan: <i>A summary of quarrying activities will be reported to the NWB, NIRB and the KIA as part of the annual reports in accordance with requirements of the Project Certificate, Licence, and Commercial Leases. Reporting will include a summary of results of the geochemical inventory and monitoring programs outlined in Section 8, including the amount of rock used from each quarry.</i></p> <p>CIRNAC notes that the summary of quarrying activities, geochemical inventory and monitoring programs were not provided in 2025 Annual report.</p>
Recommendation:	<p>CIRNAC recommends that B2Gold provide a summary of quarrying activities, including the geochemical inventory and monitoring programs, as well as the amount of rock quarried during the year in future annual reports.</p>



Comment Number:	CIRNAC #9 (New)
Subject:	Testing of Tailings and Treatment Sludges
Reference:	260409-12MN036 Goose Project 2025 Annual Monitoring Report, Sections 4.5.5, 4.5.10 NIRB Project Certificate No. 007 (Amendment No. 001), Term and Condition 17 Tailings Management Plan (Sabina, April 2022)
Issue/Rationale:	The Annual Monitoring Report Section 4.5.5 indicates that as part of the Tailings Management Plan, B2Gold will conduct “ <i>tests of the tailings and treatment sludges as they are produced to evaluate the potential for remobilization of arsenic of these materials.</i> ” The section appears to suggest that tailings have not been produced. Section 4.5.10 identifies that “ <i>On June 15, 2025, the Echo Tailings Storage Facility (ETSF) began receiving tailings...</i> ” CIRNAC notes that the results of testing were not supplied to validate the tested parameters.
Recommendation:	CIRNAC recommends that B2Gold 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. CIRNAC also recommends that the Proponent provide available results in the Annual reports to NIRB.

Comment Number:	CIRNAC #10 (New)
Subject:	Hazardous Materials Management and Monitoring
Reference:	Goose Project 2025 Annual Report, Year Ahead page iii and Section 4.4.2 NIRB Project Certificate No. 007 (Amendment No. 001), Term and Condition 14 Terrestrial Environment – Waste Management Plan
Issue/Rationale:	The Goose Project 2025 Annual Report Section 4.4.2 - Unauthorized Discharges and Spills, Table 4.4.1 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. The report does not identify where the contaminated material 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. The non-compliance was identified during the CIRNAC inspection in March 2025. As reported by B2Gold, all identified items were proactively addressed, with corrections completed prior to the formal receipt of the inspection reports.



Recommendation:	CIRNAC requests confirmation that a hazardous material tracking system has been implemented.
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Comment Number:	CIRNAC #11 (New)
Subject:	Terrestrial Environment – Progressive Reclamation Plan
Reference:	260409-12MN036 Goose Project 2025 Annual Monitoring Report, Sections 4.5.4-4.5.7 Waste Rock Management Plan (Sabina, April 2022) 260409-12MN036 Goose Project 2025 Annual Monitoring Report 211213-12MN036-ICRP July 2021 NIRB Project Certificate No. 007 (Amendment No. 001), Term and Condition 15, 22
Issue/Rationale:	<p>Section 4.5.4 of the 2025 Annual Monitoring Report presents the requirement that the Proponent develop a Progressive Reclamation Plan. Section 6.0 of the ICRP presents an approach to progressive reclamation; however, the details and specifics on implementation seem contradictory and vague.</p> <p>Section 6.4 (Completed Progressive Reclamation) of the ICRP indicates “progressive reclamation has not been carried out”; however, this statement seems to contradict the summary from page 4-78 of the 2025 Annual Monitoring Report that indicates progressive reclamation activities have been initiated in November 2025 with the capping of the Umwelt Waste Rock Storage Area.</p> <p>Section 6.3 of the ICRP presents information on Progressive Revegetation Studies and indicates that a revegetation research program “has been initiated;” however, no details of the research program are provided. Reference is made to an Interim Closure and Reclamation Plan dated 2022; however, this version of the ICRP was not provided for review.</p> <p>Section 4.5.7 identifies that the Site Water Monitoring and Management Plan includes “monitoring that demonstrates contact water (runoff and shallow groundwater) from the ore storage and waste rock areas is adequately captured and managed, as per the Mine Waste Rock Management Plan”. The section concludes that “B2Gold executed the Water Management Plan throughout 2025”, however no details or results are provided to document what monitoring and management were completed.</p> <p>Section 9 of the Waste Rock Management Plan indicates that a minimum 5-m thick NAG waste rock cover is created on the tops and sides of each WRSA and that Closure and Post-Closure water quality monitoring will be conducted in the WRSA areas, under the ICRP, to confirm that runoff meets applicable receiving water quality objectives</p>
Recommendation:	CIRNAC requests that B2Gold reconcile the inconsistency between ICRP Section 6.4 and the 2025 Annual Monitoring Report to do with progressive reclamation activities.



	CIRNAC recommends that B2Gold provide, on ongoing basis, additional details on the progressive reclamation of the Umwelt WRSA with respect to thickness of the non-acid generating (NAG) cover, the water quality monitoring, and results of confirmation testing showing that the material used in reclamation is NAG.
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Comment Number:	CIRNAC #12 (New)
Subject:	Apprenticeship training program
Reference:	Project Certificate No. 007, Amendment 1, Condition No. 72
Issue/Rationale:	<p>Pursuant to Condition No. 72 of its Project Certificate, B2Gold “is encouraged to identify and register all trades occupations, journeypersons, and apprentices working with the Project, as well as to provide the Government of Nunavut with information regarding the number of registered apprentices and journeypersons from other jurisdictions employed at the project.”</p> <p>In its 2025 Annual Report (page 4-200), B2Gold shares that “<i>While no opportunities for dedicated apprenticeship training program opportunities were identified in 2025, these programs continue to be researched and developed for introduction at the Mine in the future.</i>” B2Gold goes on to state that updated information will be reported on in future annual report submissions.</p> <p>The implementation of an apprenticeship training program has the potential to contribute meaningfully to the development of B2Gold’s workforce and to enhance the skills and capacity of Nunavut residents, as well as Nunavut Inuit who reside in other Canadian jurisdictions. Continued efforts by B2Gold to identify and integrate apprenticeship opportunities within the Project, and descriptions of measures being taken to support a successful program, would bring value to understanding project-related actions that advance education and training in the Kitikmeot Region and for Nunavut Inuit who reside outside of the territory.</p>
Recommendation:	CIRNAC recommends that B2Gold communicate what measures it is taking to research and develop its dedicated apprenticeship training program.



2. Compliance Monitoring

CIRNAC has a broad mandate for the co-management of water resources and the management of Crown land in Nunavut under the following applicable acts and regulations:

- The *Department of Crown-Indigenous Relations and Northern Affairs Act*;
- The *Nunavut Land Claims Agreement Act* and the Nunavut Agreement;
- The *Arctic Waters Pollution Prevention Act* and Regulations;
- The *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and Regulations; and
- The *Territorial Lands Act* and Regulations.

CIRNAC's monitoring responsibilities are fulfilled by reviewing and providing expert advice and comments to the NIRB and the Nunavut Water Board on Annual Reports and conducting site inspections. CIRNAC Inspectors conduct site inspections to ensure Project activities are compliant with terms and conditions in any water licence(s), land use authorization(s), such as land use permits and leases, and the Project Certificate. Inspectors prepare site inspection reports with observations and recommendations, and they have the authority to issue and enforce directions with a timeline for implementing corrective measures.

The NIRB requested that regulatory authorities provide a compliance update on the following:

- a. ***Provide a summary of any compliance monitoring and/or site inspections undertaken in association with the Project, including specifically:***
 - i. ***Identify the terms and conditions from the Project Certificate which have been incorporated into any permits, certificates, licences or other approvals issued for the Project, where applicable, and report annually to the NIRB on the status of those incorporated terms and conditions.***

A concordance table is presented in Appendix A outlining terms and conditions from Project Certificate No. 007 (Amendment No. 001) that have been incorporated into applicable permits and licences issued for the Back River Project.

- ii. ***A summary of any inspections conducted during the 2025 reporting period, and the results of these inspections.***

In 2025, inspections were conducted under the Type A Water Licence No. [2AM-BRP1831](#) as well as Crown Lease 076J12-7-2. An overview of the inspections is presented below, and a detailed summary can be accessed using the hyperlink above.

Inspection 1	Licence No. 2AM-BRP1831
Areas:	Goose Main Camp, Ice Road, Marine Laydown Area, Marine Laydown Area Forward Camp, Good Forward Camp
Other Authorizations	N2024C0024, N2024F0027, 2BE-GOO2028, 2BE-GEO2025, 2BE-MLL2328
Inspection Date:	March 18, 2025
Observations:	<p>The Water Resource Officer identified several issues of non-compliance during the inspection:</p> <ul style="list-style-type: none"> • Hazardous materials and hydrocarbons stored outside of secondary containment. - Part D, item 12 of Amendment No.1 of 2AM-BRP1831 states "The licensee shall prevent any chemicals, petroleum products,



	<p>fuel, or wastes associated with the Undertaking from entering any Water body.” -Part H item 3 of Amendment No.1 of 2AM-BRP1831 states: “The licensee shall provide secondary containment for fuel and chemical storage as required by applicable standards and acceptable industry practice.”</p> <ul style="list-style-type: none"> • Heating fuel drum/stands outside of containment. -Part E Item 9 of Amendment No.1 of 2AM-BRP1831 states: “The Licensee shall undertake appropriate corrective measures to prevent and/or mitigate impacts to surface Water resulting from the Undertaking.” • Metals in the open burn area. -Part F, Item 8 of Amendment No.1 of 2AM-BRP1831 states: “The Licensee shall, for all Project-related non-hazardous solid Wastes, backhaul to a licenced facility, dispose of and contain at the Landfill, or dispose of as otherwise approved by the Board in writing.” • Contaminated soils/gravel - Part F, Item 11 of Amendment No. 1 of 2AM-BRP1831 states: “The Licensee shall contain and remediate all Project-related petroleum hydrocarbon contaminated soils at the Goose Property Landfarm and/or MLA Landfarm, or as otherwise approved by the Board in writing.” • Lack of signage at effluent discharge locations (Forward camps). -Part I Item #7 of Amendment No.1 of 2AM-BRP1831 states: “The Licensee shall install signs that identify Monitoring Program Stations. All signs must be in English, Inuktitut, Inuinnaqtun, and French, and shall be located and maintained to the satisfaction of an Inspector.”
<p>Result/Action:</p>	<p>The Water Resource Officer requested that the Licensee:</p> <ul style="list-style-type: none"> • Ensure all fuel and oil vessels are placed in secondary containment. • Ensure heating fuel on stands is placed in appropriate secondary containment. • Ensure segregation of metals from open burn material and place in landfill or haul off-site if required. • Clean up and store contaminated soils from truck shops/garages to ensure contaminants/hydrocarbons are not making their way into the environment. • Ensure all contaminated snow around the site is consolidated and stored appropriately for treatment. • Ensure signage is present on all discharge locations/sampling sites/monitoring stations.

<p>Inspection 1</p>	<p>Crown Leases 076G/9-1-2 & 076J/12-7-2</p>
<p>Area:</p>	<p>Marine Laydown Area</p>
<p>Other Authorizations</p>	<p>2AM-BRP18, N2024F0027, 2BE-GEO2025,2BE-GOO2028,2BE-MLL2328</p>
<p>Inspection Date:</p>	<p>March 20, 2025</p>
<p>Observations:</p>	<p>The Inspector identified two issues of non-compliance:</p> <ul style="list-style-type: none"> • Environmental: #30 of 76J-12-7-2: The Lessee shall at all times keep the Land in a condition satisfactory to the minister.



	<ul style="list-style-type: none"> Fuel and hazardous chemicals: #41 of 76J-12-7-2: The Lessee shall handle, store, dispose of, and keep records of all hazardous and toxic chemicals in a manner satisfactory to the Minister.
Result/Action:	<p>The Inspector requested that the Licensee:</p> <ul style="list-style-type: none"> Ensure all fuel and oil vessels are placed in secondary containment. Contaminated soils need to be removed and treated or hauled off-site. Excess waste oil shall be placed into waste oil totes/drums and hauled off-site. Ensure all contaminated snow around the site is consolidated and stored appropriately for treatment.

Inspection 2	Licence No. 2AM-BRP1831
Areas:	Tote Storage Facility, Primary Pond, Ore Stockpile Pond, Gander Culvert Crossing, Gander Culvert Crossing, corresponding Construction Summary Report as per the NWB Type A Water License is being generated. MLA Bulk Tank, Goose Bulk Tank
Other Authorizations	N2024F0027,076J712-7-2, 2BE-GEO2025,2BE-GOO2028,2BE-MLL2328, 076G/9-1-2
Inspection Date:	July 1, 2025
Observations:	No non-compliance issues were noted by the Water Resource Officer during this inspection
Result/Action:	N/A

Inspection 3	Licence No. 2AM-BRP1831
Areas:	Goose Property (main camp, mill and mining activities)
Other Authorizations	N/A
Inspection Date:	October 21, 2025
Observations:	<p>The Water Resource Officer identified several issues of non-compliance during the inspection:</p> <ul style="list-style-type: none"> Part H item 3, failure to provide secondary containment Part I Item 18, failure to submit monthly reports Part I Item 7, failure to sign sample station for volumetric monitoring component of BRP-24 Part I Item 17, failure to post signs notifying public of water supply and waste disposal facilities Part F Item 17, failure to manage effluent from ore stockpiles Part H Item 2, failure to prevent un-authorized wastes from entering water including contact water
Result/Action:	<p>The Water Resource Officer requested that the Licensee:</p> <ul style="list-style-type: none"> immediately place adequate secondary containment for all small waste. management areas which are located throughout the site. submit to the NWB with the 2025 annual report a document outlining the installation and management of secondary containment for refueling



	<p>areas. The report will meet licence obligations and provide a timeframe for the installation.</p> <ul style="list-style-type: none"> • Enter into discussions with regulatory agencies regarding: <ul style="list-style-type: none"> ○ Management of surface contact water generated by mining operations, specifically runoff from the main site of operations including ore stockpiles and mill area; and ○ Storage of hazardous materials inside marine shipping containers not inside secondary containment. <p>A report will be submitted to the NWB with the 2025 annual report of these discussions, and a timeframe for any required construction.</p> <ul style="list-style-type: none"> • enter into discussions with regulatory agencies regarding the continued use of waste oil furnaces. • install signs notifying public of water supply and waste disposal facilities.
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iii. A summary of B2Gold's compliance status with regard to authorizations that have been issued for the Project.

B2Gold addressed the majority of non-compliance issues related to Type A Water Licence No. 2AM-BRP1831 and Lease 076J12-7-2 in 2025. The primary outstanding issue of non-compliance was regarding installation, management and placement of secondary containment of hazardous materials, small waste management, and refueling areas. B2Gold has committed to addressing these issues and CIRNAC Inspectors will continue working with B2Gold to ensure compliance with all applicable water licence conditions associated with the Back River Project.



Appendix A. Project Certificate Terms and Conditions incorporated into licenses or other approvals issued for the Project.

Project Certificate No. 007 (Amendment No. 001) Term & Condition		Licence No. 2AM-BRP1831
4	The Proponent shall develop and implement an Incineration Management Plan that demonstrates consideration for the recommendations provided in Environment and Climate Change Canada's Technical Document for Batch Waste Incineration (2010).	Part B, Item 13 (f)
7	The Proponent shall maintain a Mine Closure and Reclamation Plan designed to: identify the processes that may act upon the mine components after closure and reclamation so that they can be factored within the design and operation of the mine; ensure physical and chemical stability of mine components that remain after closure; ensure mine components that remain after closure will not require long-term active care; and consider future use and aesthetics of the area with the surrounding lands. This plan should include: <ul style="list-style-type: none"> a. An adaptive management component that documents monitoring and mitigation measures to ensure long-term containment of the Tailings Storage Facility and Waste Rock Storage Areas; b. Details for monitoring the thermal condition and stability of storage facilities; c. Details on the triggers for implementing alternative mitigation options; d. Details pertaining to ongoing monitoring and research being conducted to supplement the adaptive management protocols; e. Details on the plans to maintain the integrity of the groundwater quality within and adjacent to the Project; and f. Details on how the Proponent will carry out continued analyses over time to confirm or update the approximate fill time for the mine pits. 	Part B, Item 13 (g)
12	The Proponent shall monitor the effects of the Project on permafrost conditions relative to project infrastructure, including associated roads, waste rock stockpiles, trails, quarries, wind turbine generators, solar panel array, Battery Energy Storage System, transmission lines, and service roads. Should permafrost degradation be observed, the Proponent shall report on measures implemented to restore and promote permafrost integrity.	Part I, Item 10
13	The Proponent shall undertake additional geotechnical investigations as required to identify sensitive landforms, modify engineering design for project infrastructure (e.g., tailings storage facilities, waste rock piles, and landfill), and develop and implement mitigation and monitoring measures to prevent or minimize the impacts of the Project's activities and infrastructure on sensitive landforms. Plans for the investigations, mitigation, and monitoring measures are to be included within appropriate management plans.	Part I, Item 10



Project Certificate No. 007 (Amendment No. 001) Term & Condition		Licence No. 2AM-BRP1831
15	<p>The Proponent shall have in place a plan for the progressive reclamation of project components, areas, and infrastructure throughout the life of the Project. The plan shall detail:</p> <ul style="list-style-type: none"> a. Projected timelines for the reclamation of project features, methodologies for undertaking such activities, and monitoring measures to ensure the effectiveness of reclamation methods employed; b. Specific measures for adaptive management and triggers for their application, should monitoring results reveal trends that could affect the reclamation and closure objectives; and, c. How Inuit Qaujimajatuqangit and Traditional Knowledge was collected and used to inform closure plans and the design of project components. 	Part B, Item 13 (g)
17	The Proponent shall conduct tests of the tailings and treatment sludges as they are produced to evaluate the potential for remobilization of arsenic from these materials.	Part B, Item 13 (o)
18	The Proponent shall undertake an infill geotechnical characterization program to determine the extent of the fractured bedrock contact zone and apply proposed mitigation measures as necessary. The program should include permeability testing, seepage analysis and planning for thermal monitoring of the western ridge, where appropriate.	Part D, Item 4
19	The Proponent shall, reflecting any direction from the Nunavut Water Board, maintain a saline water management plan which includes monitoring of thermal conditions, monitoring of saline water at the Goose site, and mitigation measures designed to address the potential for higher-than-predicted volumes of saline water inflows into the open pits and the underground mine, treatment and disposal methods. The plan should include accurate characterization of saline water inflows into the underground mine workings.	Part E, Item 2



Project Certificate No. 007 (Amendment No. 001) Term & Condition		Licence No. 2AM-BRP1831
21	<p>The Proponent shall, reflecting any direction from the Nunavut Water Board, maintain an Aquatic Effects Monitoring Plan (AEMP) designed to:</p> <ul style="list-style-type: none"> • Determine the short and long-term effects in the aquatic environment resulting from the Project; • Evaluate the accuracy of Project effect predictions; • Assess the effectiveness of mitigation and management measures on Project effects; • Identify additional mitigation measures to avert or reduce environmental effects due to Project activities; and • Comply with Metal Mining Effluent Regulations requirements, should an Environmental Effects Monitoring program be triggered. <p>The AEMP should include sufficient sampling and monitoring programs to appropriately characterize the receiving environment to ensure that adequate data is available to assess impact predictions made within the Final Environmental Impact Statement.</p>	Part E, Item 15 Part I, Item 2
22	<p>The Proponent shall, reflecting any direction from the Nunavut Water Board, maintain a Site Water Monitoring and Management Plan designed to: minimize the amount of water that contacts mine ore and wastes; appropriately manage all contact water and discharges to protect local aquatic resources; and implement water conservation and recycling to maximize water reuse and minimize the use of natural waters. The plan should include monitoring that demonstrates contact water (runoff and shallow groundwater) from the ore storage and waste rock storage areas is adequately captured and managed, as per the Mine Waste Rock Management Plan.</p>	Part B, Item 13 (q)
23	<p>The Proponent shall maintain an appropriate setback distance between project quarries and fish-bearing or permanent waterbodies, or implement appropriate mitigation measures, as required to prevent acid rock drainage or metal leaching into such waterbodies.</p>	Part B, Item 13 (b) Part D, Item 1
27	<p>The Proponent shall provide bathymetry, depth, and location of proposed water withdrawal sites, volumes to be extracted, anticipated water level decreases, and fish habitat features within each waterbody proposed to be used for winter water withdrawal in support of the annual construction of the winter ice roads. If additional waterbodies are required, the Proponent shall provide all required information on the additional proposed lakes prior to the use of the waterbodies.</p>	Part E, Item 5



Project Certificate No. 007 (Amendment No. 001) Term & Condition		Licence No. 2AM-BRP1831
28	The Proponent shall implement all applicable Fisheries and Oceans Canada best management practices to avoid and mitigate serious harm to fish as a result of the construction, operation, and decommissioning of winter ice roads, and from under ice water withdrawals. This includes adequately screening the water intakes pipes to prevent impingement and entrainment of fish.	Part E, Item 7
62	The Proponent shall maintain a marine monitoring program at the Marine Laydown Area to enable identification of potential impacts of the Project on the marine environment and to inform adaptive management actions. The monitoring program shall be in line with the proposed monitoring in the Aquatic Effects Monitoring Program, or as required by applicable regulatory authorities. At a minimum, water sampling should include end of pipe and control area samples, collected on a regular basis to confirm salinity levels of the discharge and the receiving environment.	Part B, Item 13 (q)

