Nunavut Impact Review Board

2024 Site Visit Report

Back River Project

B2Gold Back River Corp.

NIRB File No. 12MN036

October

2024

Full Report Title:	*2024 Site Visit Report for the Nunavut Impact Review Board's Monitoring of the Back River Gold Mine Project (NIRB File No. 12MN036)*
Project:	Back River Gold Mine Project
Project Location:	Kitikmeot Region, Nunavut
NIRB File No.:	12MN036 Back River Gold Mine Project Certificate No. 007
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Site visit date:	August 5-6, 2024
Report prepared by:	Cory Barker, Manager, Project Monitoring
Pictures by:	NIRB Staff
Cover Photo:	Marine Laydown Area – Bathurst Inlet

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1.0 Objective & Purpose of a Community Information Session

Pursuant to the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada* (*Nunavut Agreement*), the *Nunavut Project Planning and Assessment Act (NuPPAA)*, and the Back River Project Certificate No. 007 issued for the Back River Gold Mine Project (Back River or the Project), the NIRB provides periodic updates regarding its Monitoring Program for the communities most affected by B2Gold Back River Corp.'s (B2Gold Nunavut) Back River Project. These meetings ensure ongoing awareness of Project-specific Terms and Conditions and encourage effective participation throughout the Board's monitoring process for both files.

The Board held a Community Information Session in Cambridge Bay on August 29, 2024 to discuss updates to the Boards monitoring of the Back River Project and to collect community comments, questions, and concerns to form an important part of the NIRB's monitoring program.

2.0 Introduction & Objectives

The Nunavut Impact Review Board (NIRB or Board) was established through Articles 10 and 12 of the *Nunavut Agreement* and is responsible for post environmental assessment monitoring of a Project in accordance with Part 7 of Article 12 of the *Nunavut Agreement*.

In accordance with sections 12.7.1 and 12.7.2 of the *Nunavut Agreement* as well as the Project Certificate No. 007, the NIRB is responsible for the establishment of a monitoring program for the Project, which includes conducting periodic site visits. The objective of the NIRB's site visits is to determine whether, and to what extent, the land or resource use in question is being carried out within the predetermined terms and conditions of the NIRB's Project Certificate, in accordance with *Nunavut Agreement*, Subsection 12.7.2(b) and as outlined in the NIRB Project Certificate.

This report provides the findings that resulted from the NIRB's site visit to the Back River Gold Mine Project site on August 5-6, 2024, and as such forms a part of the NIRB's monitoring program. The last on-site visit conducted by the NIRB was in June 2022.

2.1 Back River Gold Mine Project

The Back River Gold Mine Project (NIRB File No. 12MN036; the Back River Project or the Project), 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 and is owned and operated by B2Gold Back River Corp. (the Proponent or B2Gold Nunavut). Back River consists of the proposed mobilization, construction, operation, closure, reclamation, and post-closure monitoring of a gold mine operation in the Kitikmeot region of Nunavut. There are two (2) main development areas with a winter ice road connecting the Goose Property and the Marine Laydown Area (MLA) at Bathurst Inlet.

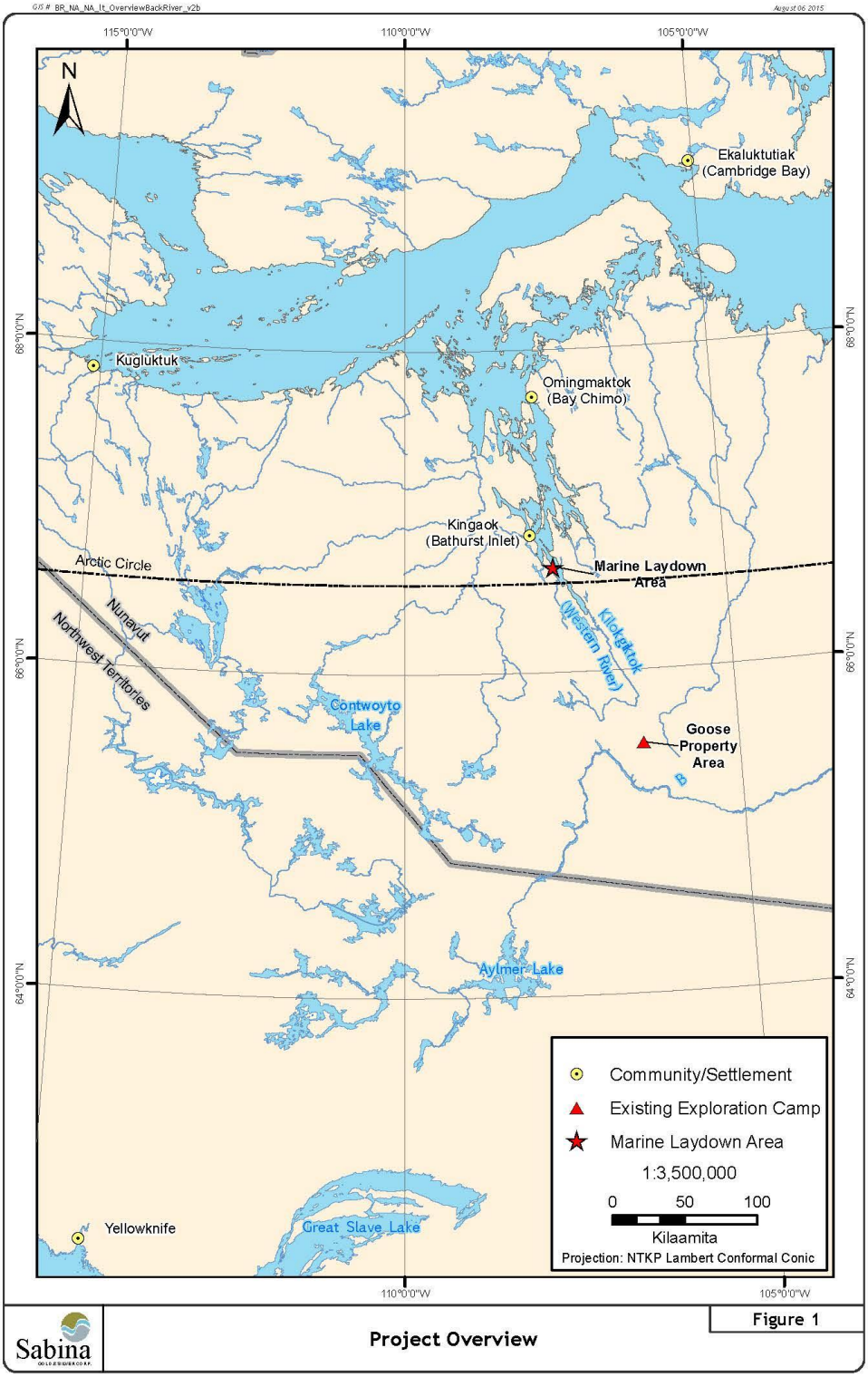

Figure 1: Project Overview Map[1]

[1] Source: Sabina Gold and Silver Corp.

The Goose Property once developed will comprise of:

- An ore processing plant,
- Four (4) deposits (Umwelt, Llama, Echo, and Goose Main) to be mined through open pit and underground mining methods;
- An all-weather airstrip;
- A camp facility; and
- Associated mining facilities.

Ore mined at the Goose Property would be hauled to ore stockpiles located at the Goose Site where the ore would be processed within an ore processing plant (mill) using conventional gravity concentration and cyanidation techniques at approximately 6,000 tonnes of ore per day. A tailings storage facility is being built south-southeast of the Goose Main open pit for tailings deposition during the first two (2) years of production, with tailings then to be directly deposited into the mined-out Umwelt open pit and then into the mined-out Goose Main open pit for the remainder of the mine life. The gold produced at the processing plant would be stored on-site and then transported off-site by aircraft.

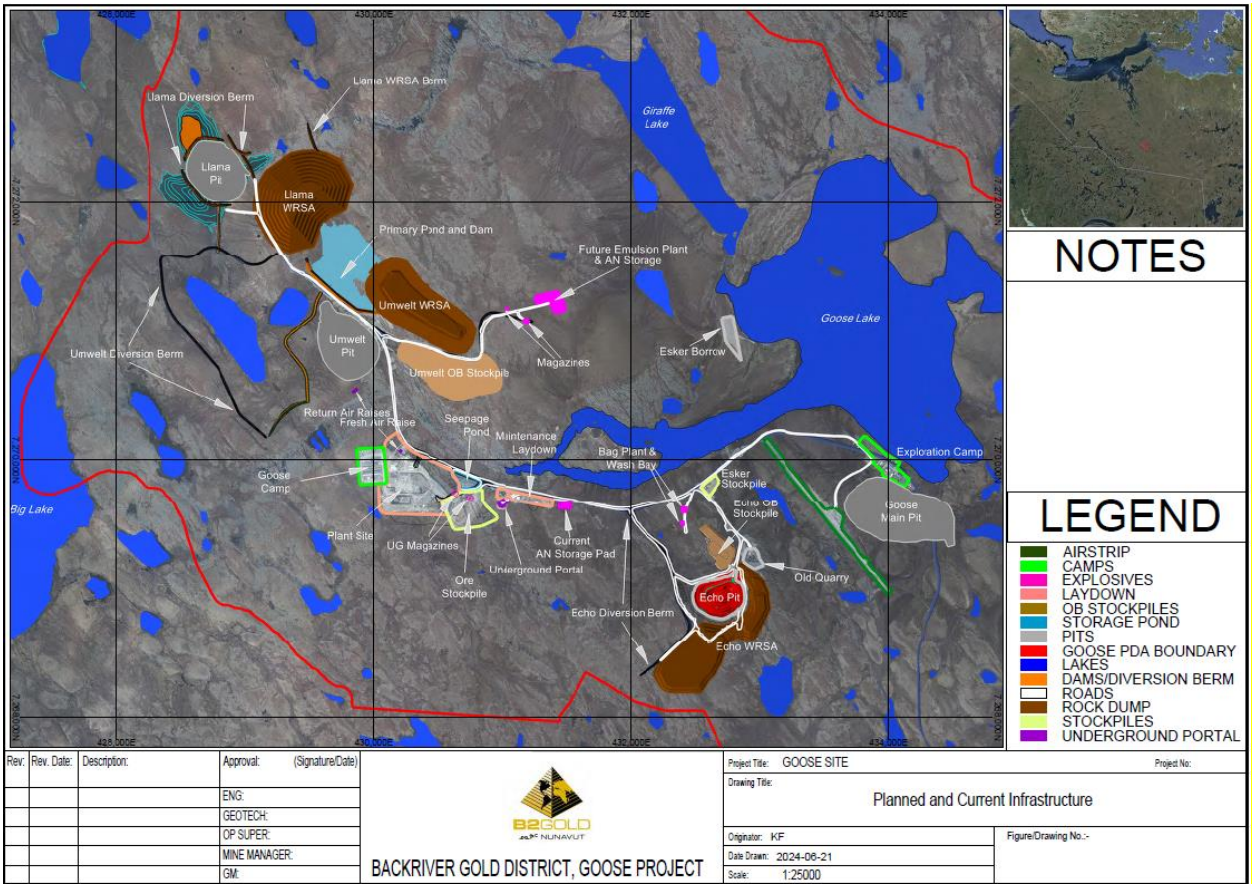

Figure 2: Development of Goose Property Area[2]

[2] Source: B2Gold Corporation

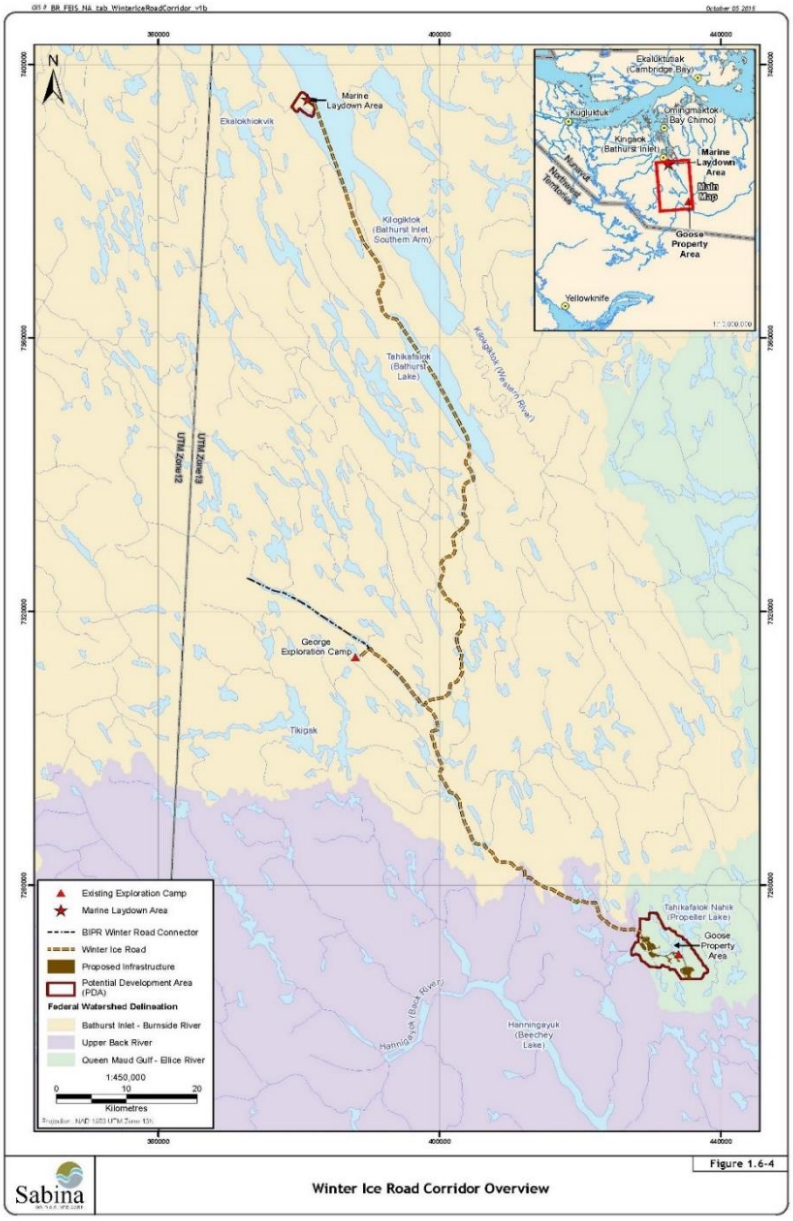

Figure 3: Winter Ice Road Corridor Between MLA and Goose Property

The MLA is located approximately 130 km north-northwest of the Goose Property 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 resupplied annually from southern Canada by barge during the open water season. Project materials are then transported annually from the MLA to the Goose Property using a winter ice road from mid-January to April (Figure 3). [3]

The George Property is an advanced exploration camp located approximately 50 km northwest of Goose Property and currently has four (4) mineral deposits identified for potential future development. The continuation of a diamond drilling based mineral exploration program for the George Property and the Wishbone claim of mineral leases was included within the scope of the Board's assessment for the Back River Project.

The NIRB Project Certificate No. 007 was issued for the Back River Gold Mine Project on December 19, 2017. On March 13, 2018, Sabina received Type "B" Water License No. 2BCBRP1819 from the Nunavut Water Board (NWB) which allowed for identified Initial Development Works to start at both the Goose Property and Marine Laydown Area. On April 23, 2018, Sabina finalized the required agreements (including, but not limited to, the Inuit Impact Benefit Agreement (IIBA) and Land Tenure Agreements) with the Kitikmeot Inuit Association (KIA). In September 2018 Sabina acquired Type "A" Water Licence No. 2AM-BRP1831 from the NWB and in 2021 applied to amend the licence for finalization of project

[3] Source: Sabina Gold and Silver Corp.

construction. B2Gold Nunavut took over as the Project Proponent in 2023 and continued construction of camp facilities and infrastructure as well as submitted an amendment application for the "Back River Energy Center". On August 7, 2024, the Proponent was issued amended Project Certificate No. 007, amendment No. 001 which now governs the Project.

3.0 Setup of NIRB Community Information Sessions

On August 29th 2024, the NIRB hosted a joint Community Information Session in Cambridge Bay for B2Gold Nunavut's Back River Project and Agnico Eagle Limited's (Agnico Eagle) Doris North and Phase 2 Hope Bay Belt Projects. These information sessions were held together owing to the Projects all being located in the Kitikmeot Region and Cambridge Bay being the closest neighbouring community. The meetings were open to all members of the public and a presentation was designed to accommodate an information session update for all three projects. Refreshments and snacks were provided for both sessions. The open house took place from 2:00 pm to 4:00 pm and the information session took place from 7:00 pm to 9:00 pm with the doors opening at 6:30 pm. All in attendance were asked to sign in and identify the community or organization they represented[4].

As part of the open house, the NIRB Monitoring Officer for the Project provided an update on the NIRB's 2024 visit to the Project site in a PowerPoint presentation in both English and Inuinnaqtun[5]. The public was encouraged to comment and ask questions relating to the NIRB's process, activities undertaken, project effects, and any concerns related to the Project throughout the afternoon. Both written and verbal comments were accepted at the open house and public information meeting, and verbal comments were recorded by the NIRB staff members. The community information session was well advertised in the community through public posters, Facebook postings and announcements; however, attendance at the meeting was low. Through discussions at the meetings, NIRB heard of various traditional hunting ground that were used in the Project area, but no specific community concerns or comments were brought forward regarding the Project and its activities.

3.2 Meeting Materials

At the public meeting, the following materials were provided by the NIRB:

- The NIRB's PowerPoint presentation (in English and Inuinnaqtun);
- The Nunavut Land Claims Agreement (in English);
- The NIRB's 2022-2023 Annual Monitoring Report for B2Gold Nunavut's Back River Project (in English);
- The Back River Project's Project Certificate (in English);
- The Back River Project's 2023 Annual Report (in English);
- Comment Forms (in English & Inuinnaqtun); and
- Maps of Project Areas.

[4] NIRB Doc ID No. 351412
[5] NIRB Doc ID No. 351411

3.3 Advertisements

Public notification is an essential tool used to engage the public in effective consultation. The NIRB utilized a number of notification methods to advertise the public information meeting held in Cambridge Bay including:

Posters

Prior to August 29, 2024, NIRB staff members posted flyers around Cambridge Bay in English, Inuktitut and Inuinnaqtun, which outlined the dates, times, and purpose of the NIRB meeting[6].

Facebook

The community meeting in Cambridge Bay was also posted in English, Inuktitut and Inuinnaqtun on the NIRB's Facebook page and on the Cambridge Bay News Facebook page.

4.0 2024 Site Visit

The NIRB site visit was conducted on August 5-6, 2022, by Cory Barker and Tundra Kuliktana (NIRB Staff). On Monday, August 5, 2024, NIRB staff flew from Cambridge Bay to the Back River site via charter aircraft. The NIRB Staff were greeted and escorted by Mr. Thomas Bolt, Environmental Supervisor. NIRB staff were able to visit the Goose Lake Property, the Marine Laydown Area (MLA) along with flyovers of both the MLA and Goose Lake forward Camps, and the George Exploration Property. The site visit started with Goose Property on August 5th, 2024 then flew to the George Exploration site, the forward camps and the MLA on August 6th, 2024. During the tour, NIRB staff, Mr. Bolt and other B2Gold Nunavut Management continued an open and frank dialogue regarding the observations along with discussing solutions and options for any areas of concern.

The NIRB's assessment of the site focused on general site conditions and observations related to compliance with the NIRB Project Certificate No. 007 (2017) and included visual observation of the following features either by vehicle or on foot.

5.0 General Observations

The following sections briefly describe the major facilities visited during the tour. Where applicable, NIRB Staff noted compliance with specific terms and conditions of the Project Certificate.

5.1 Goose Property

The Goose Lake Camp consists of office buildings, sleeping accommodations, a kitchen, medical facility, drill core tent, maintenance facilities, storage facilities, laydown areas, and other associated infrastructure. The Monitoring Officers were pleased with the tidiness of the site and care and attention made to ensure there was minimal impact to the environment.

[6] NIRB Doc ID No. 351408-351410

5.1.1 Camp and Accommodations

Photo 1: Goose Lake Exploration Camp

Photo 2: Goose Lake Weather Haven Accommodations

Photo 3: Goose Lake Main Camp

5.1.2 Water Intake

Photo 4: Water Intake line at the Exploration Camp

Photo 5: Water Truck filling up Potable water for the Main Accommodations Camp

Photo 6: Lake Barge to be installed in Goose Lake for the New Water Intake Line

5.1.3 Drilling Laydown Area

The exploration laydown area is located south of the exploration camp and is composed of maintenance shops, storage buildings, incinerator facilities, drill core storage, the core shack and bulk fuel storage. NIRB staff noted some concerns with contaminated water storage inside the lined fuel storage facility. B2Gold Nunavut indicated that this water has been tested and they are currently waiting for an oily water separator to arrive for proper treatment. At the close out meeting, it was discussed that this water shouldn't be stored in open containment, even if temporarily and that B2Gold Nuanvut should prioritize resolving this matter and storing the contaminated water in a covered container in the interim.

Photo 7: Exploration Area Core Shack

Photo 8: Drill Core Storage

Photo 9: Hazardous Waste Storage

Photo 10: Laydown Storage

Photo 11: Contaminated Water Storage Inside the lined Bulk Fuel Storage Area

5.1.4 Waste Management

Within the camp, waste is segregated as shown below with combustible and non-hazardous waste sent to the incinerator, and clean wood and cardboard to the open burn box both at Goose Lake and the MLA. These open burn pits are burnt on an as-needed basis and planned burns are targeted around rain events to reduce potential fire risks. Outside the incinerator, other waste segregation containers were placed for non-combustible waste and later removal from site.

Photo 12: Waste Segregation at Goose Camp

Photo 13: Incinerator at Goose Camp

5.1.5 Fuel and Hazardous Material Storage

Overall, the bulk diesel fuel and hazardous materials were well managed at Goose Camp. Bulk diesel fuel was contained in double walled tanks within a containment. There were some occurrences of fuel barrels being stored outside of secondary containment which was discussed at the close out meeting. B2 Gold Staff committed to correcting this immediately.

Photo 14: Tank Farm and Berm

Photo 15: Hazardous Materials Stored inside the Tank Farm Berm

Photo 16: Hazardous Materials Stored outside of lined containment

5.1.6 Laydown and Storage Areas

Laydown and storage areas at the Goose Lake Camp were generally tidy; however, there was some minor debris (plastic, wood, metal) on the ground in some laydown areas. This was noted at several different

laydown areas, B2Gold Nunavut noted that this was an ongoing challenge with the mix of staff and contractors on site but that they would continue to work on the practice. NIRB staff also noted a seacan that appeared nearly tipped over onto the tundra at a Goose Lake Laydown area and B2Gold Nunavut staff agreed to correct this immediately.

Photo 17: Seacan tipping over

Photo 18: Plastic Debris on the ground in laydown Area

5.1.7 Echo Pit and Water Management

B2Gold has constructed storage ponds where water from the pits is stored and treated until effluent discharge criteria can be met. There has also been the installation of two culverts near rascal stream to maintain water flow during freshet as well as allow for fish migration.

Photo 19: Blasting preparation in Echo Pit

Photo 20: Sedimentation and Treatment Ponds

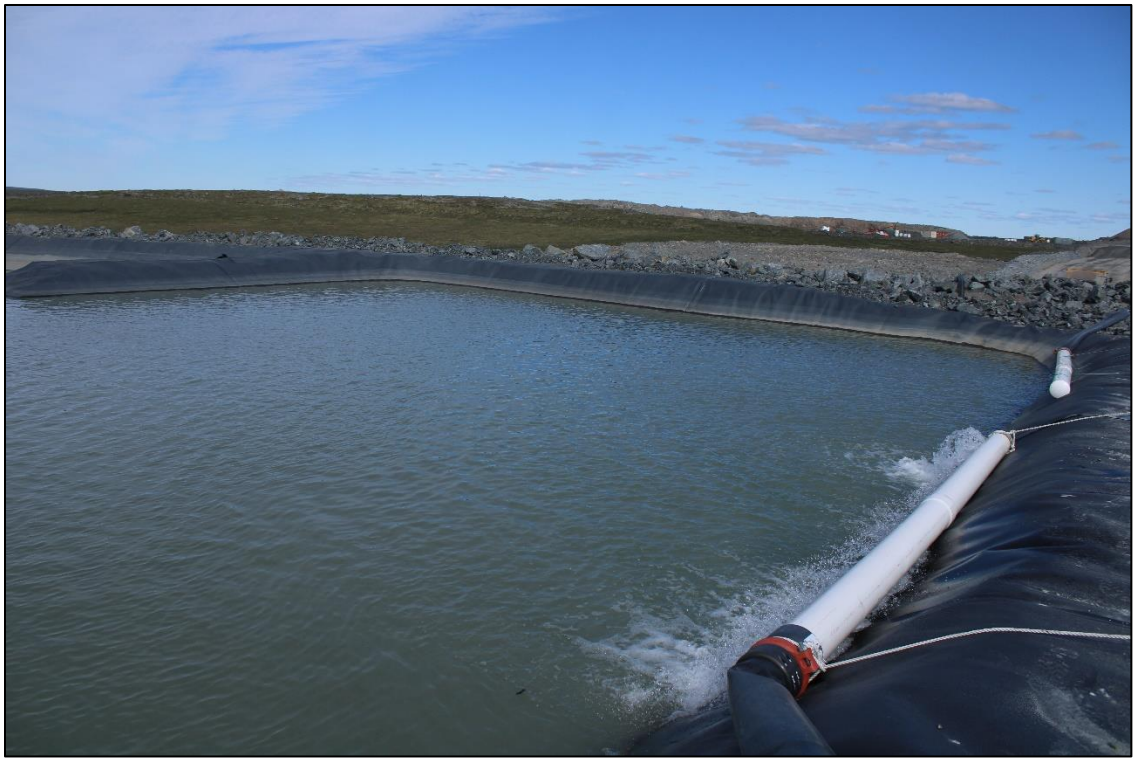

Photo 21: Lime Treatment being applied to sedimentation Ponds

Photo 22: Culverts installed at Rascal Stream Crossing

5.1.7 Goose Camp Construction

B2Gold Nunavut continues to expand its infrastructure at Goose Lake through the ongoing construction of the Mill Facility, Tank Farm, upgrades to the accommodations camp as well as several other laydowns, warehouses and maintenance shops.

Photo 23: Expanded tank Farm at Goose Lake

Photo 24: Mill Facility Under Construction

Photo 25: Cranes in the Mill Facility

Photo 26: Newly Completed Emergency Response Facility

Photo 27: Spill Response Trailer Equipment on Site

Photo 28: Umwelt Pit Entrance under Construction

5.1.8 Environmental Monitoring

On site, the Monitoring Officers had the opportunity to observe different environmental monitoring activities including dust fall monitoring, active air quality sampling and tag monitoring of Grayling in Rascal creek.

Photo 29: Dust Fall Monitoring Station at Goose Lake

Photo 30: Trap Camera set up for Wildlife Observations

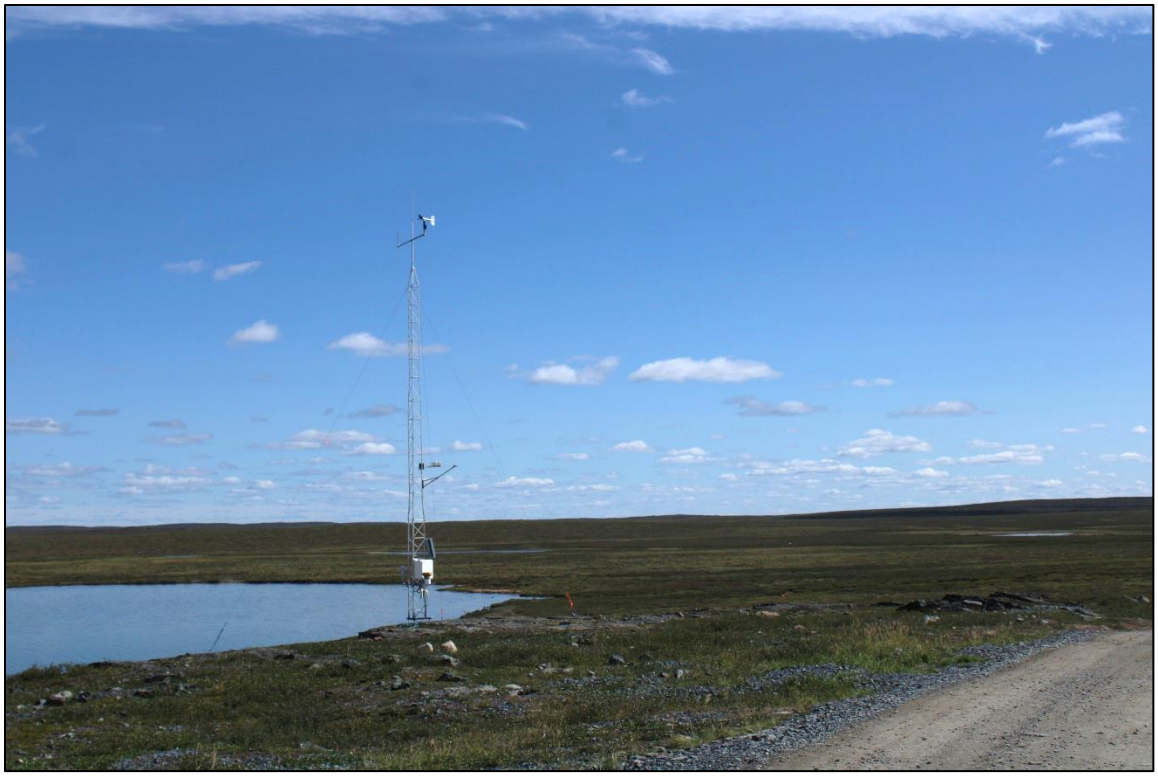

Photo 31: Weather Station at Goose Lake

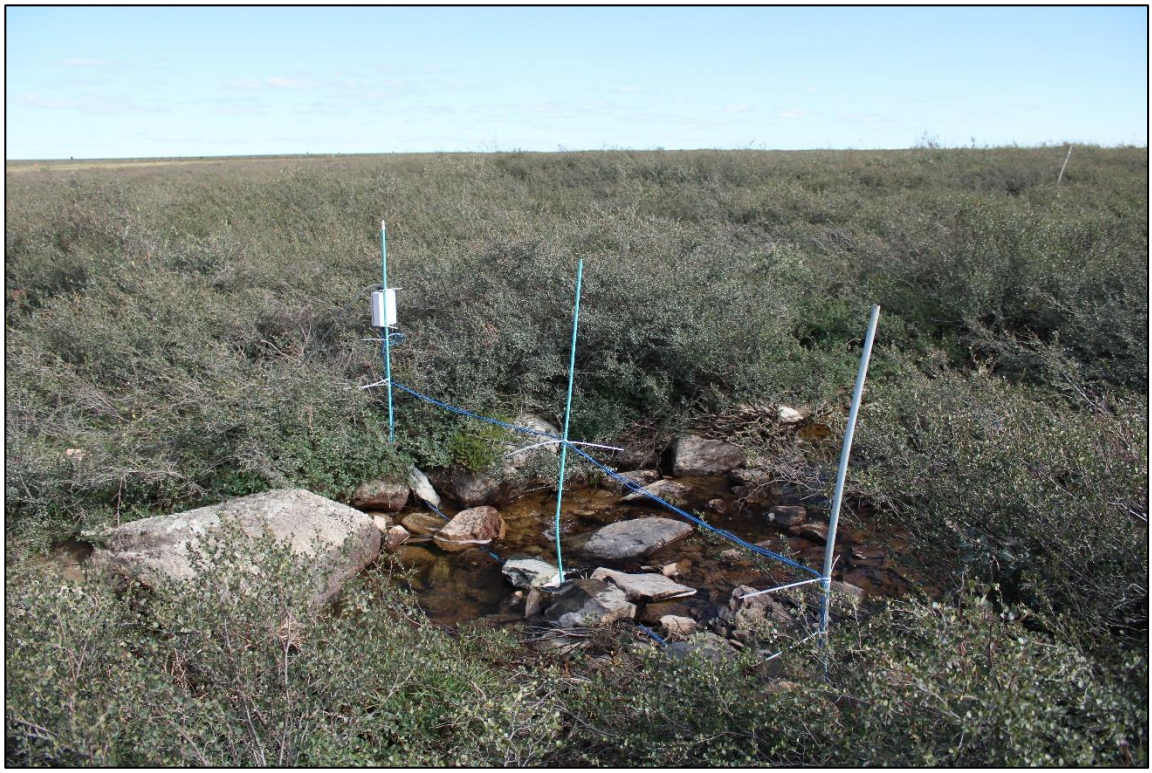

Photo 32: Grayling Monitoring at Rascal Creek

Photo 33: Passive Air Sampling at Goose Lake

5.2 Marine Laydown Area

The Marine Laydown Area (MLA) is located approximately 130 km north-northwest of the Goose Property and is the primary laydown area for equipment, material, fuel, and other supplies required for the construction and operation of the Project where materials arrive during the Open Water season. The MLA consists of a grounded terminal barge, laydown areas, a camp facility, fuel storage and associated storage and maintenance facilities. Once the winter ice road is operational, the equipment and fuel stored at the MLA is moved to the Goose camp.

5.2.1 MLA Camp

Overall, the camp appears to be well organized and clean. The Monitoring Officers observed the incinerator with waste segregation on its side. To supply the Camp with water, B2Gold Nunavut pumps water directly from the inlet and uses a desalination process which is tested on a regular basis and results are posted at Camp as they are received.

Photo 34: Aerial View of the Marine Laydown Area

5.2.2 Bulk Fuel Storage

B2Gold Nunavut is in the process of constructing a Bulk Fuel Tank Facility at the MLA where larger quantities of fuel can be stored after sealift and before the Winter Ice Road is operational. The tank farm was under construction but appeared to be well maintained and a clean worksite with adequate secondary containment.

Photo 35: New Fuel Tank Farm Aerial View

Photo 36: New Fuel Tank Farm Construction Underway

Photo 37: Secondary Containment of Contact Water prior to treatment

5.2.3 Laydown Areas

The MLA has several laydown areas around the site, a freight storage area, and a storage area at the shoreline for the receipt of sealift barges. During the site visit the Monitoring Officers noted the Laydowns are well organized and clean. B2Gold Nunavut also stores spill response equipment near the shoreline in several sea cans where the fuel barges begin offloading.

Photo 38: Storage of Concrete Powder at the MLA Laydown

Photo 39: Fuel Barge Transfer Line prepared to Receive the 2024 Fuel Barge

Photo 40: Spill at Sea Response Equipment at the MLA

Photo 41: Boom Line for Spill at Sea Response Equipment

5.3 George Lake Property

The George Lake Property is an advanced exploration camp located approximately 50 km northwest of Goose Property, and currently has four (4) mineral deposits identified for potential future development. During the site visit, NIRB staff were able to fly over the site to obtain an aerial view.

Photo 42: George Exploration Camp Aerial View

6.0 Findings and Summary

During the site visit, the Monitoring Officers observed that facilities in operation at the Goose Lake Property, Marine Laydown Area, and George Lake Property were generally well managed with adequate environmental protection measures in place and that there was minimal impact to the environment. NIRB staff held a close out meeting with B2Gold Nunavut staff and discussed some minor concerns such as:

- Limited translation of signage around site and in the accommodations facility;
- Site was overall well organized and clean; however, several laydown areas contained small plastic and wood debris that posed a hazard and needed to be cleaned up;
- Some barrels and totes were stored outside of secondary containment;
- Secondary Containment of the diesel tank farm at the Exploration Camp contained diesel from a spill. B2Gold Nunavut noted that they were in contact with a contractor and working on testing this water and getting an oily water separated to properly dispose of it. NIRB staff recommended prioritizing this to ensure that it has minimal impact on the environment; and
- A seacan at one of the Goose Lake laydowns was stored unsafely and at risk of falling over.

Prepared by: Cory Barker, M.Sc.
Title: Manager, Project Monitoring
Date: October 1, 2024
Signature:

Appendix I August 2024 Site Visit Observations for Select Terms and Conditions for the Back River Project

T&C No.	Topic	Site Observation
Ecosystemic		
	Air Quality	
1	Air Quality Monitoring and Management Plan	-Observed dust monitoring stations
4	Incineration Management Plan	-Discussed that stack testing would occur
8	Weather Monitoring and Adaptive Management	-Observed the meteorological station
	Terrestrial Environment	
14	Waste Management Plan	- Observed waste segregation and storage for back haul.
16	Aggregate Sources	-Observed one (1) quarry and landfill
	Hydrology and Hydrogeology	
22	Site Water Monitoring and Management Pan	-Observed wastewater and contact water treatment and settling ponds.
	Freshwater Aquatic Environment	
23	Setbacks	-Observed proper placement of quarry visited
24	Watercourses	-Observed all Project infrastructure viewed allowed movement of fish in fish bearing streams and rivers.
26	Fish Passage	-Observed the culverts installed at rascal stream and monitoring efforts to tag and track fish movement.
29	Water Crossings	-Observed culverts at rascal stream.
30	Monitoring Program for Culverts	-Observed all culverts were open and free of debris
	Vegetation	
33	Invasive Species	-Discussed the inspections that occur on equipment and/or materials prior to barging to site and vegetation programs at site.
	Terrestrial Wildlife and Wildlife Habitat	
37	Wildlife Mitigation and Monitoring Program	-Observed Wildlife Log and discussed wildlife and site interactions.
38	Wildlife Monitoring	-discussed camera program for monitoring wildlife near site.
	Terrestrial Wildlife and Wildlife Habitat Cont.	
40	Caribou Monitoring	-Discussed caribou collar data and information is primarily received through the NWT.
45	Wildlife Mitigation Measures	-Observed roads and areas under construction allow safe passage of caribou and other terrestrial wildlife
	Marine Environment	
62	General	-Observed records of monitoring water intake from Inlet and these appeared to be collected, tested, and posted on a regular basis.

T&C No.	Topic	Site Observation
Socio-Economic Terms and Conditions		
Economic Development Opportunities		
Education and Training		
76	Inuktitut/Inuinnaqtun Training	-Discussed that as Nunavummiut are returning to site more of these programs would be offered. -Observed translation on signs at both Goose and the Marine Laydown Area.
Health and Well-being		
Other Terms and Conditions		
Accidents and Malfunctions		
89	Spills	-Observed spill kits at refueling stations at all sites and the Spill Equipment Seacans at the Marine Laydown Area
92	Marine Shipping	-Discussed that training happens prior to each year prior to refueling.
94	Fuel Transportation	-Discussed fuel transfer practices from sealift to MLA storage and spill at sea response training. Staff also detailed plans to transport fuel from the MLA to Goose Lake via winter ice road.

NOTES: ***PC** = NIRB Project Certificate No. 007 (December 19, 2017)