

Richard Dwyer <richard.dwyer@nwb-oen.ca>

## Goose Property Tank Farm Modification (Phase 2: Addition of Tank 5) for water licence 2AM-BRP1831

**Richard Dwyer** <richard.dwyer@nwb-oen.ca> Draft To: John Roesch <JRoesch@lands.kitia.ca>

Wed, Nov 13, 2024 at 9:11 AM

	Hello Richard, our geotechnical engineer had only one comment on the Goose Property Tank Farm Modification which you can read below.
-	Гhank you.
	John

From: Lukas Arenson < larenson@bgcengineering.ca>

Sent: November 12, 2024 2:14 PM

To: John Roesch < JRoesch@lands.kitia.ca>

Subject: RE: Goose Property Tank Farm Modification (Phase 2: Addition of Tank 5) for water licence 2AM-BRP1831

Hi John,

I reviewed the Tank 5 addition, and I do have a minor comment as the tank is founded on inclined bedrock. I'm not sure if B2Gold has a good understanding of the bedrock and how much they need to excavate to create a competent surface. You can see on drawing SBR6SDE-53-C-DET-0005 that the bedrock is slightly inclined towards the south on Section H. I've also tried to compare bedrock elevation 313 m on this drawing with the Bedrock Elevation 313 m isoline shown on drawing SBR6SDE-53-C-PLN-0005, and they do not seem to match. In the plan the bedrock conditions appear more favourable compared to the cross section and with the risk of the tank to settle unevenly, I'd like to have a better understanding of the foundation preparation approach. I'm not really concerned about the general approach, and I don't think that there is the risk of a slope instability, but it would be good to have some clarification.

On page 6 of the Application, B2Gold writes: "Phase 2 expansion of the Goose Tank farm (addition of Tank 5, an 18.6 ML tank) into the tank farm is planned to be constructed on competent bedrock/ blasted surface on the south-east side of the exiting tank farm (east of tank 1). Based on the investigation completed by SRK Consulting Ltd. (SRK) in 2023-2024 the foundation of proposed Tank 5 requires approximately 1.5-2m of excavation/ blasting to remove loose blasted material."

According to cross section H (SBR6SDE-53-C-DET-0005) it looks like there might be more than 1.5 - 2 m of excavation and blasting required.

I think we should ask B2Gold to provide a realistic estimate of their extent of the excavation / blasting needed for the foundation of Tank 5. Also, I would request the results of the SRK Investigations completed in 2023-2024. Based on the construction of the other tanks B2Gold has a good understanding about the condition of the bedrock and how much they need to blast to create a competent surface for the tank.

Best regards,

Lukas

Lukas Arenson, Dr.Sc.Techn.ETH, P.Eng. (BC, YT, NT/NU) (he/him)

Principal Geotechnical Engineer, Cryology Discipline Team Co-Lead

**BGC Engineering** 

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From: John Roesch < JRoesch@lands.kitia.ca>

Sent: Friday, October 25, 2024 9:21 AM

To: Lukas Arenson < larenson@bgcengineering.ca>

Subject: FW: Goose Property Tank Farm Modification (Phase 2: Addition of Tank 5) for water licence 2AM-BRP1831

## [External Email]

Hello Lukas, can you also look at this modification of Tank 5 at the Goose Lake mine site. I have read it and looked at the diagrams and I have no issues or concerns about. Take a look at it an let me know if you have any comments or not.

Thank you.

John

From: Richard Dwyer < richard.dwyer@nwb-oen.ca>

Sent: October 21, 2024 10:13 AM

To: Kristina Benoit <kbenoit@b2gold.com>; Merle Keefe <mkeefe@b2gold.com>

Subject: Goose Property Tank Farm Modification (Phase 2: Addition of Tank 5) for water licence 2AM-BRP1831

Good morning,

The Nunavut Water Board acknowledges receipt October 18, 2024 of the attached Goose Property Tank Farm Modification (Phase 2: Addition of Tank 5) for 2AM-BRP1831 water licence.

It is also at the link below:

ftp://ftp.nwb-oen.ca/registry/2%20MINING%20MILLING/2A/2AM%20-%20Mining/2AM-BRP1831% 20B2Gold/3%20TECH/G%20MODIFICATIONS

Parties are invited to submit comments by November 8, 2024.

The Nunavut Water board is aware that a number of web browsers are no longer supporting File Transfer Protocol (ftp). If you are having difficulty accessing our FTP site you may need to download an FTP application. We have been recommending the FileZilla Client below to access the files, which is a free and open source application. A link can be found below:

https://filezilla-project.org/

Regards,

## Richard



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