



**GIANT MINE**  
**Oversight Board**

Box 1602 . 5014-50th Avenue . Yellowknife, NT X1A 2P2  
**Phone** 867.675.0788 . **Fax** 867.675.0789 . **Web** [www.gmob.ca](http://www.gmob.ca)

April 12, 2017

**Online Submission to the Mackenzie Land and Water Board**

GMOB Review comments for the:

Giant Mine - Stage 4 Underground Site Stabilization Plan - MV2012L8-0010 (MVLWB)

<p><i>Be as specific as you think is appropriate; for example a section or page of the document, a recommendation #, general comment, etc.</i></p>	<p><i>Comments should contain all the information needed for the proponent and the Board to understand the rationale for the accompanying recommendation.</i></p>	<p><i>Recommendations can be for the proponent or for the Board. Recommendations should be as specific as possible, relating the issues raised in the "comment" column to an action that you believe is necessary.</i></p>
<p>Version Control</p>	<p>The document link provided is not a final version of the workplan. Sections of the report appear to be in draft and/or from a prior version of the workplan. GMOB has therefore reviewed the MSWord version which was posted to the on-line registry on February 6th, 2017.</p>	<p>MVLWB or the proponent to confirm which document version is to undergo review.</p>
<p>Level of Detail</p>	<p>The workplan generally complies with the requirements as specified in Part H, Item 3 of t MV2012L8-0010. However, as stated in Item 3, the workplan is to present a <b>detailed plan</b> for review, consistent with the items as listed under Schedule 2, item 2. GMOB considers the workplan to be conceptual only as it presents minimal engineering design details.</p>	<p>Prior to initiating construction, the proponent should submit detailed engineering designs / specifications for approval.</p>
<p>Project Rationale</p>	<p>With regard to C5-09, INAC's request for extension of water licence MV2012L8-0010 (January 29, 2016) states: "<i>Project engineers were convinced at that time that stabilization of the stope complex could still be monitored and it was reprioritized for backfilling during the overall remediation plan and could be removed from the SSP.</i>". The Project Team accepted this recommendation until the Independent Peer Review Panel (IPRP) challenged the appropriateness of deferring the backfilling of C5-09. GMOB has not been given an opportunity to review the different rationales presented by the Project engineers or the IPRP.</p>	<p>The proponent should present the rationale for proceeding with the backfilling of C5-09 during the SSP (i.e., as opposed to deferring implementation until the overall remediation plan). The rationale should clearly address the differing perspectives of the Project engineers and the IPRP.</p>

Compressive Strength of Backfill	Section 4.6.2 indicates that the cemented paste backfill must have a minimum 28-day compressive strength of 100 KPa, and contain a minimum 1% binder by weight. In contrast, in a follow-up to the March 6, 2017 Meeting with Interested Parties, the Project indicated there is a 3.5 MPa compressive strength specification specific to this stope complex. The rationale for the significant increase in required compressive strength has not been presented in the workplan.	The proponent should present the rationale for the required compressive strength of the backfill for C5-09. The rationale should present the justification for any differences between the required backfill compressive strength for C5-09 as compared to the backfill placed in other chambers/stopes that have been filled through the SSP.
Schedule	INAC's request for extension of water licence MV2012L8-0010 (January 29, 2016) states that backfilling was scheduled to begin in October, 2016. However, in a follow-up to the March 6, 2017 Meeting with Interested Parties, the proponent indicated its intention to have a backfilling contract in place by late summer 2017. On this basis, GMOB has concluded that the backfilling of C5-09 has already "slipped" by approximately nine months relative to the schedule that was included in the water licence extension application. Further, GMOB notes that the extended licence is 3-years longer than the original licence. The schedule performance of the SSP to date is inconsistent with the designation of the SSP as an emergency per Section 119 of the Mackenzie Valley Resource Management Act.	The proponent should present a detailed analysis of factors that have contributed to the duration of the SSP being significantly longer than anticipated. The analysis should also identify and proactively mitigate potential additional delays.

<p>Section 5 - Closure Objectives and Criteria</p>	<p>GMOB has assumed that all backfilling included in the SSP is permanent and that no further remedial measures will be required to stabilize the backfilled voids. However, the workplan states: "<i>The goal of the proposed work outlined in this USWP – Stage 4 is to reduce the risks of possible mine instability in the short term. When long-term closure objectives for the underground portion of the overall project are set, additional enhancements or backfilling of the areas may be required.</i>". The Project Team has not yet developed final closure objectives and criteria for the site, nor have plans been developed to conduct all required underground stabilization / closure.</p>	<p>The proponent should indicate future potential changes / enhancements that may be required to fully stabilize / close the voids that will be filled during the SSP program.</p> <p>The Proponent should indicate when the full underground remediation plan will be available for review.</p>
<p>Risk Profile</p>	<p>The SSP was initiated to urgently mitigate risks that were deemed unacceptable. While GMOB agrees that the work completed to date has reduced the risks associated with the site, the risk reductions achieved through the implementation of the SSP have yet to be quantified.</p>	<p>The proponent should provide an updated risk profile for the site to demonstrate the risk reductions achieved by the implementation of the SSP program.</p>