

# GIANT MINE Oversight Board



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## **Review of 2023-24 Annual Report Giant Mine Remediation Project**

The Giant Mine Oversight Board (GMOB) has completed its review of the 2023-24 Annual Report (Report) of the Giant Mine Remediation Project (GMRP). The final report was received by GMOB on November 7, 2024.

The document was reviewed by GMOB against the requirements set out in Section 5.1 and Section 5.2 of the Giant Mine Remediation Project Environmental Agreement.

Please find attached the table of GMOB's comments. Unless otherwise stated, the recommendations should be addressed in updates or amendments to the Report.

This review is focused on the report itself and does not include an assessment of the overall progress of the Project.

If you have any questions regarding the GMOB comments, please do not hesitate to contact me through the GMOB office.

Sincerely,

David Livingstone  
Chair, Giant Mine Oversight Board

attachment

cc. Parties to the Environmental Agreement

<u>TOPIC</u>	<u>COMMENT</u>	<u>RECOMMENDATION</u>
<b>Giant Mine Working Group Membership - Pg 22</b>	GMOB is not identified as an observer on the GMWG; GMOB participates in GMWG meetings and should be identified in the list of participants.	Update the participant list for the GMWG to include GMOB.
<b>Northern Contracting and Procurement - Pg 67, 72</b>	There seems to have been limited effort to support northern non-indigenous contractors.	Include reporting on efforts to support northern non-indigenous contractors.
<b>Training and Capacity Building - Section 8.3.5</b>	A significant number of training hours (76,741) are reported for 2023-24. The mechanism or process for confirming the effectiveness of this training e.g. linkage between hours of training and increased northern employment is not clear.	Describe how the effectiveness of the reported training is to be determined. How many persons have employment on the site as a result of the training?
<b>Summary of Remediation Progress Table</b>	Several items planned for 2023/24 did not occur or were not completed, including: <ul style="list-style-type: none"> <li>- Submission of the Contaminated Soils Design Plan to the MVLWB;</li> <li>- Completion of the powerline implementation;</li> <li>- Completion of site wide geotechnical drilling;</li> <li>- Implementation of corrective measures at the NWPS and an independent review of the WTP pumping system design;</li> <li>- Submission of a revised Wildlife and Wildlife Habitat MMP.</li> </ul> The table does not include information on why these items are delayed, and whether there may be implications for overall project schedule or budget.	A brief description of the reasons why planned activities were not completed should be included in the Progress column. Any of these items could have implications on the overall project schedule or budget and should be described more fully in a subsequent section of the report, (Section 2).
<b>Labour Resource Estimate graph - Figure 3, Pg 26</b>	Figure 3 reportedly shows the approximate schedule and duration of the work packages, but it appears over the labour resources estimate graph. As a result, the labour resources estimate graph is not visible in Figure 3.	Update the Figure or preceding text for accuracy.
<b>Table 5, Pg 48 - SNP Locations</b>	The first paragraph in the results column references SNP station 43-1 and includes the location of this station. The fourth paragraph, in the results column, references two SNP locations (SNP43-23 and 43-5), but does not provide their locations. GMOB notes that, while figures exist showing the location of all the SNP sites, it is helpful for the reader when brief descriptions for the sampling locations are included in the text.	Include brief descriptions of the physical sampling location along with the location identifier when discussing monitoring results.
<b>Phase 7 EEM Report, Pg 49</b>	2023-2024 activities related to the Environmental Effects Monitoring Program include submission of the Phase 7 EEM report to ECCC in June 2023. This report is currently not available on the MVLWB Public Registry. GMOB acknowledges that the EEM program is administered by ECCC and not the MVLWB, however it would be useful for Parties to have ready access to the EEM reports as part of the overall understanding of the aquatic effects monitoring on the site.	Provide a copy of the Phase 7 EEM Report for posting to the MVLWB Public Registry.
<b>6.4.1 Waste Management - Audits</b>	This section makes no mention of any waste audits conducted in 2023-24. Per the Environmental Agreement (5.2 g) the Annual Report should include a summary of any environmental audits. This information should be included in Section 6.4.1.	Include a summary of the waste audits conducted in 2023-2024.
<b>6.4.1 Bullet List - errata, Pg 51</b>	The second bullet in the bullet list on Pg 51 is missing some text. This bullet should be corrected.	Make the editorial correction.

<p><b>6.4.3 - Reportable Spills, Summary</b></p>	<p>This section notes that there were 3 reportable spills during the reporting period; additional information is not provided. 5.2 h of the Environmental Agreement indicates the Annual Report should include a summary of any reportable spills, accidents or significant malfunctions, and a summary of the Co-Proponents responses. A summary of the spills and the response should be included in the Annual Report.</p>	<p>Update the Annual Report with the required information.</p>
<p><b>7.1.2 Monitoring of Arsenic Levels in Workers</b></p>	<p>This section indicates that the percentage of samples above the action level is significantly lower than in 2022-2023. The report suggests that this could be due to the evacuation order and subsequent site closure in response to the wildfire.</p> <p>While this is a positive outcome, GMOB notes that the evacuation was about 3 weeks long; and even with the evacuation the total number of samples collected in 2023-24 was greater than the number in 2022-23 (Table 8). It seems unlikely that the evacuation was entirely responsible for the improvement in the blood arsenic levels. Understanding the major factors that affect blood arsenic concentrations in workers will help the project proactively reduce future exposures and elevated blood arsenic test results.</p>	<p>Review the potential causes for the change in blood arsenic concentrations and identify the primary factors influencing the test results.</p>
<p><b>8.4.1 Engagement Events</b></p>	<p>There were only 31 engagement activities reported by the GMRP for 2023-24. The number of events ranged between 78 and 87 for the previous three reporting periods. The reduction was attributed to the wildfire evacuation.</p> <p>GMOB notes that the wildfire evacuation extended over three weeks. Even allowing for a two or three week reduction in activity as the project ramped back up at the end of the evacuation, it seems unlikely that there were 50 meetings/activities planned over the three to five week period affected by the evacuation. While the evacuation undoubtedly had an impact, other factors likely had a significant influence as well.</p>	<p>Review the reasons for the reduced number of engagement activities and identify other factors that may also have had a strong influence on the number of meetings and include them in the report.</p>
<p><b>Appendix C - Project Risks and Mitigation</b></p>	<p>Figure 33 identifies "Total Active Risks", "Total Closed Risks" and "Total Issues". It is not clear what "issues" refer to.</p>	<p>Include a definition of "Issue" in the preceding text.</p>
<p><b>Section 8.2.4 - General Comment - Employment Reporting</b></p>	<p>Employment Reporting has improved over the past few years. However the way economic data is reported seems to differ from one topic to the next, and In some cases important data is missed. This could be addressed by including the data that corresponds with the figures.</p> <p>Including the dataset as an appendix will provide the space needed to show the statistical details that are important to understanding the results, but aren't always required to be included in the text. For example, a single Indigenous female employee could be reported in numerous categories – IOC, resident, Indigenous, female. It is helpful to see how all the categories of employees add up to the total without double counting.</p> <p>Detailed data tables will remove any guess work.</p>	<p>Include a complete employment record dataset as an appendix to the annual report where all the employment reporting details can be seen together</p>

<p><b>Northern Employment - Pg 74</b></p>	<p>The term “Northern” is defined as “resident of the North for a minimum of six months” in the text box at the top of page 74.</p> <p>However, it appears that Northern is given a different definition when applied to IOC employees, who reside outside the territory. This labour is being reported as Northern Indigenous and then included in Total Northern Employment.</p> <p>The residency status of labour is important to understanding the flow of economic benefits, and the ethnicity of that labour doesn’t change this fact. The Project may wish to differentiate IOC non-residents from other Indigenous non-residents and non-Indigenous non-residents, but in all cases, they are non-resident, which means they are earning money in the NWT, but are spending that money and paying taxes in another jurisdiction and potentially supporting a family that does not reside in the territory.</p> <p>The current practice is inflating the perception of economic benefits flowing to northerners. For 2023-24, there were approximately 34,100 hours assigned to the Northern Labour category that were actually non-residents.</p>	<p>The definition of "Northern" should be applied consistently to all labour.</p>
<p><b>Figure 18: Employment by Skill Level (% of # person hours) - Clarification - Pg 80</b></p>	<p>The figure does not appear to capture person hours. The number of people looks to be the number of individuals who have recorded employment on the project, but it is not clear. Nor is it clear how individuals are being counted ... for example, is this the number of people who registered at least one hour on the project? One day" Or who stepped onto the worksite at least once?</p> <p>When including the number of people, it would be beneficial to also include hours or FTEs to determine the average length of employment.</p>	<p>Include additional information to clarify the data being presented.</p>
<p><b>Section 8.3.4.5 - IOC Bonuses and Deductions - Pg 85</b></p>	<p>At the most recent GMOB Public Meeting (May 30, 2024), it was clear that this policy is not well understood. While the text does state that penalties/bonuses are assessed based on performance against the IOC <u>commitments</u>, it was a point that the public did not appreciate. A simple example would clear up any confusion.</p>	<p>Include a more detailed explanation of this policy, perhaps with a few examples.</p>

<p><b>2023-24 Training Results - Total Training - Pg 87</b></p>	<p>GMOB encourages a more detailed explanation of what is being reported as training hours. GMOB observes that approximately 50% of the 76,700 reported hours is made up of Dechjita Naowo. These are individuals who are not working at the GMRP (no recorded hours worked).</p> <p>Within the Dechjita Naowo hours, we understand there are several courses being offered, not all of which would necessarily result in employment at the Project. (This is not a bad thing on its own, but should be reported as such to avoid confusion).</p> <p>Currently, all of the training data are being biased by the inclusion of, what are essentially, postsecondary classroom hours which is overreporting training or, at the very least, leads the reader to an incorrect interpretations of the results.</p> <p>Information, other than hours, that would provide a better understanding of the linkage between training and employment/employability includes:</p> <ul style="list-style-type: none"> <li>• Employment outcomes of recipients of training, especially those that are being reported but with no work hours.</li> <li>• Courses completed (e.g. 'X' number of NWT residents have completed a 1-day first aid training; 'Y' have completed a 4-hour worksite safety course)</li> <li>• Certifications (HEO certification, etc.)</li> </ul>	<p>Recommendations:</p> <ul style="list-style-type: none"> <li>• Define what constitutes training.</li> <li>• Distinguish between training that results in something that might appear on an employee's resume vs time in a classroom.</li> <li>• Report number of certifications &amp; course completions rather than hours.</li> <li>• Where the GMRP is one of many financial supporters of education or training organisations, be clear on what portion of training outcomes can be assigned to the project vs other supporters.</li> </ul>
<p><b>Report Focus - Pg 8</b></p>	<p>The first bullet indicates that "From 2005 to March 2024, \$466 million out of approximately \$1.4 billion (or 34%) of contract values awarded went to Indigenous contractors." Providing this total spending summary is fine, but the current report is an "annual" report, so priority should be placed on providing values from the 2023-24 reporting year.</p>	<p>Ensure priority is placed on information relevant to the 2023-24 reporting year.</p>
<p><b>Progress Summary Table, Freeze related</b></p>	<p>Activities conducted in 2023 included the continuing decommissioning of the Freeze Optimization Study; this activity is not mentioned in the table in the Freeze related section.</p>	<p>Update the table to include decommissioning of the Freeze Optimization Study.</p>
<p><b>Figure 1 - GMRP Timeline - Underground Arsenic Remediation</b></p>	<p>The timeline does not include the future remediation of the underground arsenic trioxide. Post Closure and Perpetual Care does not take into account the future remediation of the underground arsenic trioxide. This will occur as a full operational phase, followed by a subsequent remediation.</p>	<p>Include remediation of the underground arsenic trioxide as part of the timeline.</p>
<p><b>Figure 2 - GMRP Governance Structure - GMOB's role</b></p>	<p>GMOB is identified as an "Other Governance Body". GMOB oversees all aspects of the GMRP and reports directly to the Ministers (Federal and GNWT). It is noted that the responsible Ministers are not indicated in the diagram.</p>	<p>Update the figure to recognize GMOB's oversight role and also include the Ministers.</p>
<p><b>Figure 2 - GMRP Governance Structure - Flow between Project Team and Management Board</b></p>	<p>The diagram indicates a one way flow of information from the Project Team to the Management Board. Is this accurate?</p>	<p>The diagram may need to be updated if information flows in both directions between the Project Team and Management Board.</p>
<p><b>Wildfire Evacuation - Highlight Box, Pg 25</b></p>	<p>This section indicates that "While the Project operations were suspended, the site was secured, with the gates closed, for the duration of the evacuation." This statement is not entirely accurate, as contractors had access to the site.</p>	<p>Update this statement to reflect that some parties had access to the site during the evacuation.</p>

<b>Status of EA Measures and Suggestions - Table 1, Measure 6 - Pg 28</b>	Measure 6 is included in the "Completed" status row. GLOB notes that Measure 6 has not been completed to the satisfaction of the Parties.	Include a note to indicate that not all Parties agree that Measure 6 has been completed adequately.
<b>Section 5.2 - Inspections and Audits - Additional Information</b>	In 2023-24, the MCM and its subcontractors conducted a total of 171 internal inspections, which identified 19 non-conformances with Project requirements. Additional information should be provided to give context to this statistic.	Include a formal list of the non-conformances with a red, yellow and green designation showing the seriousness of each.
<b>Section 6.3.1 - Annual Water Monitoring - Mine water Sources and Quality</b>	Recent research by the University of Waterloo is showing that there is a substantial volume of water from the NW Tailing Pond returning to the underground. The mine water being pumped to surface is showing high levels of arsenic trioxide that can be traced to the chambers. Limited information is available regarding how the sources of water to the underground and arsenic to the underground mine water are evolving as the remediation progresses (i.e. covering tailings ponds and freezing chambers). Providing this information will provide confidence to the parties that the remediation is having the expected effects on underground mine water.	Include information on the sources and volumes of water reporting to the underground, and on the loading of arsenic from the different areas of the mine.
<b>Constraints Map Text Box - Pg 52</b>	The constraints map should be included in the annual report as it was a product of the work done by the GMRP.	Include a copy of the Constraints Map in the Annual Report.
<b>Section 6.4.3 - Spills, Accidents and Malfunctions - Additional Context</b>	A formal list of the 28 environmental spills should be provided with a red, yellow and green designation showing the seriousness of each. This information will help provide context for readers.	Include a list of the environmental spills.
<b>Section 6.4.3 - Spills, Accidents and Malfunctions - Additional Context</b>	Question – were any arsenic spills reported on the site either above ground or underground?	No recommendation.
<b>Section 6.5.1 - Greenhouse Gas Emissions</b>	GLOB supports the continued reporting and monitoring of GHG emissions and will ask for the raw data for 2024-2025 to have this independently reviewed.	No recommendation.
<b>Section 6.5.3 - Incorporation of Climate into Project Design</b>	The climate data used by the Project is limited to a one-hundred-year scope. The Project has not done any climate modelling beyond this time-period which is problematic for a site which will be under perpetual care.	Climate change analyses should acknowledge that the project will extend beyond one hundred years, and designs should consider climate change impacts beyond the one hundred year time frame.
<b>Section 6.5.3 - Incorporation of Climate into Project Design</b>	The climate change analyses completed by the GMRP do not consider how climate change may effect the movment of arsenic within the ecosystem. For example - how will changes in precipitation and temperature effect the movement of arsenic off the site?	Analyses should consider how climate change will effect the environmental behaviour of arsenic and whether this will impact movement of arsenic off the site.
<b>Section 7.1 - Occupational Health and Safety - Pg 57 and Remediation Outcomes - Minimize public and worker health and safety risks - Pg 19</b>	It is important for the public to understand how issues regarding working conditions on the site are addressed, including complaints regarding unsafe working conditions, harassment and abuse, and onsite fatal accidents are handled. The Annual Report should describe the process from the initial incident/complaint to the final outcome/decision. A format such as a flowchart would provide information in a clearly understandable manner for each of these scenarios.	Include flowcharts describing the process by which workplace complaints/incidents are addressed.

<b>Section 8.1.1 - Key Stakeholder and Rights Holder Concerns - Mine Water Elevation</b>	The Parties to the Environmental Agreement have expressed time and again their concern that the mine water elevation be maintained at the 750 ft level and that no water is to be allowed to touch the chambers. This has been acknowledged and guaranteed by the Project leads verbally but must be included in this section in the report as a written commitment.	Include the commitment to maintain the minewater level below the 750L.
<b>Section 8.2.1 - Socio-Economic Governance</b>	GMOB has made a number of recommendations regarding economic reporting in 2023-24. These have been raised in the SEWG, the SEAB and with the Project itself. None of the recommendations have been taken up by the GMRP. The recommendations and outcomes from the SEWG and SEAB meetings should be summarized in the annual report.	Include a summary of the recommendations from the SEAB and SEWG meetings, and how these recommendations have been implemented.
<b>Project Overview - Bullet List - Pg 19</b>	The GMRP provides a bullet list outlining successful outcomes of the remediation. What is not mentioned in this list, and needs to be, is the Co-Proponent commitment to support GMOB research into a permanent management solution for the underground arsenic trioxide and to assist in all ways possible, during remediation design and construction, to plan for future requirements for necessary infrastructure to access, process and store the remediated material.	Include support for the GMOB research program as a component of the remediation program.
<b>Section 5.1.2.2 - Maintaining the Mine Water Pool</b>	The second paragraph in this section regarding installation of the backup pump includes the phrase "...installation of the redundant pumping system back into mine pool near the end of 2023-24 or as weather permits." Since this period has passed, the wording should be updated to reflect what actually occurred.	Update the wording to clarify when the backup pump was re-installed.
<b>Errata - Pg 49</b>	The last sentence in the first paragraph of Sect 6.3.3 states "...the Yellowknife Bay special study will be presented in the YK bay baseline report in 2024. This study was presented, so the wording should be updated to indicate this has occurred.	Update the wording to clarify.
<b>Wording Clarity - Pg 15</b>	Second row in the Water Section, first column includes the statements "Construction of the WTP in Spring 2023...". This wording implies that the WTP was constructed in 2023; for clarity, this statement should be reworded as "Start construction in Spring 2023...".	Consider alternate wording for clarity.
<b>Errata - Pg 24</b>	There is a misprint in the digital version.	Confirm appropriate formatting before printing.