



GIANT MINE Oversight Board

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Giant Mine Oversight Board - Surface Design Engagement Feedback

The Giant Mine Oversight Board observed the Surface Design Engagement by attending a number of sessions including the final meeting in Dettah last month. The Board feels that it was important to share its evaluation of the process with the Project Team and the Parties.

Please find attached a table listing GMOB's observations and recommendations related to the SDE. You will note that there are a number recommendations that cross over with both the GMOB's "Establishment Report 2015-2016" and the GMOB's "Review of the 2015-2016 Annual Report Giant Mine Remediation Project".

If the Project Team desires to go over the observations and recommendations in detail with the Board, we would be happy to accommodate that request.

Sincerely,



Dr. Kathleen Racher
Chair, Giant Mine Oversight Board

cc. Parties to the Environmental Agreement

| ID | Subject | Discussion | Recommendation / Request |
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| A | Quality of Engagement & Consultation | <ol style="list-style-type: none"> 1. It is the opinion of GMOB that the SDE process provided an effective and respectful forum for engagement on the remediation of the Giant site. The participants echoed this sentiment and, in particular, emphasized their appreciation for the external contractor that lead the process (Daryl Hockley of SRK). 2. The target audience of the SDE process was primarily the indigenous residents that are affected by the Giant Mine (i.e., the Yellowknives Dene First Nation and the North Slave Metis Alliance). Given their past, current and future connection to the land, the emphasis placed on engaging with these parties was appropriate. 3. However, GMOB notes that similar processes to obtain input from other local interests such as the residents of Yellowknife have yet to be performed. As a consequence, major project decisions have been made without seeking input from a large portion of the potentially affected local population. | <ol style="list-style-type: none"> 1. The Project Team should indicate the approach it will take to ensure all potentially affected residents are appropriately engaged in the surface design decision-making process. |
| B | Timelines and Uncertainties | <ol style="list-style-type: none"> 1. INAC's Ministerial decision on the GMRP Environmental Assessment was issued in August, 2014. 2. Without diminishing the importance of progress that was achieved through the SDE process, multiple key decisions have yet to be made. These include: the material that will be used to fill pits, remediation of undisturbed contaminated soils, management of surface tailings, presence of fish in Baker Creek and future site access. These unresolved issues are connected to all aspects of the remedial strategy and, depending on the final decisions that are made, will have a major influence on the project. In this regard, there continues to be significant uncertainty regarding the remedial approach that will be used. 3. Prior to the February, 2017 SDE workshop, it was GMOB's understanding that the SDE | <ol style="list-style-type: none"> 1. The Project Team should provide a description of factors that contributed to the longer than anticipated remedial planning timeline (post Ministerial decision). 2. The Project Team should provide a clearly-defined process and timeline for the finalization of the remediation plan and associated CPD. |

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| | | <p>process would yield a fully integrated, conceptual remediation plan.</p> <p>4. The Project Team has indicated it intends to release a fully integrated conceptual plan in the form of a Consolidated Project Description (CPD) by spring, 2018, at the earliest. The CPD will subsequently undergo review, consultation and modification prior to being finalized in the spring of 2019. Based on this timeline, approximately five years will have passed between the issuance of the EA decision and finalization of the CPD. GMOB notes that the process has been significantly longer than the Project Team originally anticipated and is concerned that further delays may occur.</p> | |
| C | Documentation of Decisions | <p>1. During the final SDE session (February, 2017), the Project Team indicated they had made a number of significant decisions based on input received from the SDE process. These include but are not limited to: filling the pits, keeping Baker Creek on site, covering tailings with rock (without vegetation) and remediation of a spill from the North Tailings Pond.</p> <p>2. Some of the decisions made by the Project Team are technically complex. GMOB therefore assumes that the decisions were based on detailed analyses that considered not just community preferences but also a wide range of technical evidence. Documentation describing these analyses has yet to be given to GMOB. Until such documentation is available, GMOB will not be in a position to comment on the appropriateness of the Project Team's decisions. To avoid delays and/or future design changes, it would be preferable that this information be made available for review as soon as possible.</p> <p>3. It is GMOB's understanding that all project decisions will be documented in the CPD which will be submitted in support of regulatory applications. It is also our understanding that the Project Team will prepare the CPD such that it is fully compliant with the objectives-based approach described in <i>the Guidelines for</i></p> | <p>1. The Project Team should provide detailed analyses to support major Project commitments and decisions as soon as possible. Sufficient time should be provided to allow the parties to review and provide feedback on the analyses.</p> |

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| | | <p><i>the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories.</i> GMOB is of the view that lengthy regulatory delays could occur if this approach is not followed.</p> | |
| D | Spatial Scope | <ol style="list-style-type: none"> 1. Consistent with prior consultations, participants during the SDE process requested that the spatial scope of the project be extended to include off-lease impacts. The Project Team made some concessions in this regard, including commitments to remediate isolated pockets of contamination from a historic tailings spill and near-shore impacts to Great Slave Lake aquatic impacts in the vicinity of the Town Site. 2. Despite these new commitments, the Project Team has indicated that it lacks a mandate to remediate other off-lease contamination. As a consequence, the Project does not include the majority of contaminated sediments in Great Slave Lake and contaminated soils that are beyond the lease boundary. 3. The decision of the co-proponents to limit the scope of the Remediation Project to the former lease area does not diminish the responsibility of the same co-proponents to address all contamination caused by the historic operation of the Giant Mine. Further, GMOB is of the view that remediation of the lands within the lease area should occur in a fashion that is fully consistent and integrated with efforts to address broader contaminant concerns. 4. Based on past experience, GMOB anticipates that lack of clarity regarding the approach that will be taken to manage off-lease impacts will hinder efforts to advance the Remediation Project. | <ol style="list-style-type: none"> 1. The co-proponents should lead/facilitate the creation of a working group to clarify responsibility and actions that will be taken to address off-lease impacts. This will help to ensure effective integration between the GMRP and any off-lease remedial initiatives. |
| E | Baker Creek | <ol style="list-style-type: none"> 1. During the final SDE session (February, 2017), the Project Team indicated they have made a decision to leave Baker Creek on site. | <ol style="list-style-type: none"> 1. The Project Team should provide a detailed analysis documenting their assessment of |

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| | | <ol style="list-style-type: none"> 2. Measure 11 from the Environmental Assessment requires that the Developer thoroughly assess alternative alignments for Baker Creek, with “....<i>meaningful participation of the Oversight Body and other parties</i>”. 3. Thus far, GMOB and other parties have had very limited involvement in the process used by the Project Team to assess alternatives for the management of the creek. Specifically, GMOB was invited and participated in only one meeting related to alternatives for the re-alignment and remediation of the creek (October 26th, 2016). Further, with the exception of summary information presented in that meeting, GMOB has received limited written documentation concerning the Project Team’s assessment of Baker Creek alternatives. 4. GMOB acknowledges that management of Baker Creek was an important topic that was considered during the SDE sessions and that it served as an opportunity to collect insights regarding community preferences. However, thus far, the participation of GMOB and other parties in the Baker Creek decision-making process has not been “meaningful”. On this basis, GMOB believes it is premature to make decisions regarding the management of the creek. | <p>alternative alignments for Baker Creek. Consistent with the intent of Measure 11, this analysis should be informed by meaningful involvement of GMOB and other parties. Decisions regarding the remediation of Baker Creek should be deferred until this occurs.</p> |
| F | Contaminated Surface Materials | <ol style="list-style-type: none"> 1. During the final SDE session (February, 2017), the Project Team committed to remediate off-lease terrestrial impacts associated with a historic tailings breach from the North Tailings Pond. While the tailings breach was recently brought to the attention of the Project Team by a member of the YKDFN, GMOB notes that the historic breach was the subject of significant regulatory attention when it occurred in the 1970s. As a consequence, background information concerning the release and mitigations that were put in place is likely available in regulatory and/or operational files from the mine. GMOB has not received any documentation | <ol style="list-style-type: none"> 1. The Project Team should provide all available documentation regarding undisturbed contaminated soils and the historic tailings breach from the North Tailings Pond. 2. GMOB and other parties should be given an opportunity to actively contribute to the decision-making process for |

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| | | <p>describing the Project Team's recent efforts to characterize this spill.</p> <ol style="list-style-type: none"> Similar to the historic tailings release, GMOB has not been given recent documentation that describes the extent/magnitude of contamination and risks that are associated with soils in "undisturbed" areas. However, based on publicly available information, it is our understanding that arsenic concentrations in some areas are up to 10 X higher than the industrial clean up criterion established under YSARC. The Project Team indicated they have yet to make decisions regarding the management of undisturbed soils. GMOB notes, however, that the Project Team previously committed to the following: <i>"The areas identified as having arsenic concentrations exceeding the industrial land use criterion will be excavated or covered with clean material."</i> (DAR Section 6.10). Importantly, this commitment does not distinguish between disturbed and undisturbed soils. While GMOB is of the view that different remedial approaches for disturbed and undisturbed soils may be justified, the Project Team has yet to provide a detailed rationale for using different approaches. GMOB looks forward to reviewing the Project Team's documentation regarding the historic tailings spill and undisturbed contaminated soils. We also believe there is merit in having GMOB and other interested parties actively involved in the decision-making process for these impacted areas of the site. | <p>contaminated surface materials.</p> |
| G | <p>Risk Assessment and Communication</p> | <ol style="list-style-type: none"> The EA decision and associated measures require that various forms of risk assessment be conducted, including: a) a Human Health Risk Assessment (HHRA) (Measure 10); and b) a Failure Modes Assessment (Measure 5). The EA Reasons for Decision stipulate that these assessments should inform decision-making and project designs. However, GMOB notes that the HHRA is ongoing and | <ol style="list-style-type: none"> The Project Team should indicate the timelines and approach for integrating the findings of risk assessments into the decision-making process. |

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| | | <p>that the Failure Modes Assessment has not been initiated. It is therefore unclear if/how the findings of these assessments will be incorporated into the decision-making process (particularly decisions that have already been made).</p> <p>2. During the SDE engagement sessions and other meetings, interested parties regularly expressed concerns regarding perceived risks (e.g., fish are unsafe to eat, the water is too contaminated to drink, dust is causing health effects). To address community concerns, GMOB is of the opinion that the Project Team should have the capacity to address these concerns when they are raised. This would require the presence of individuals with appropriate professional credentials (e.g., toxicology) and, of equal importance, an ability to communicate risks to lay audiences. Because this hasn't always been the approach, the Project Team has been unable to respond to perceived risks in a proactive fashion, thereby creating misperceptions and unwarranted anxiety for some individuals.</p> | <p>2. The Project Team should ensure appropriately qualified professionals are present during all public meetings to ensure community concerns regarding environmental risks are managed proactively and respectfully.</p> |
| H | Access to Information | <p>1. As noted above, GMOB has received limited information regarding a range of important topics. To illustrate, we have not received documentation describing recent baseline characterization studies (e.g., contaminated undisturbed soils, historic tailings spills) and/or reports presenting the rationale for major project decisions (e.g., Baker Creek remaining on site, the filling of pits).</p> <p>2. While GMOB appreciates that the Project Team prefers to finalize all documents and analysis prior to issuing them for external review, we are concerned that this approach will hinder our ability to provide useful oversight of the Project in a timely fashion. Specifically, the approach may result in GMOB having insufficient time to evaluate information and assess the appropriateness of Project decisions without causing delays.</p> | <p>1. The Project Team should provide GMOB an opportunity to review all site characterization studies and analysis that supports Project decisions, well in advance of such decisions being made.</p> |