



May 31, 2024

Kelli Bergh
Vice President, Environment and Permitting
BMC Minerals Ltd.

By Email: kelli.bergh@bmcm minerals.com

Re: Information Request 6 – Reclamation and Closure Plan

Dear Mrs. Bergh,

On November 15, 2023, BMC Minerals Ltd. (BMC) sent a revised Reclamation and Closure Plan (the “RCP”) to support the Kudz Ze Kayah Quartz Mining License Application (the “application”). The revised RCP took into consideration all previous information requests issued by the Mineral Resources Branch throughout the review of the application and was submitted to replace previous versions of the plan. In a letter dated October 20, 2023, Mineral Resources Branch (MRB) agreed to a completeness review of the RCP prior to receipt of the previous information responses issued on the remainder of the application.

Mineral Resources engaged Yukon government interdepartmental working groups and an external consultant, GRIT Engineering, to review the Plan for completeness. The Completeness Review ensures that the application has been prepared in accordance with relevant Yukon legislation, policies and guidelines and has integrated Decision Document terms and conditions and Proponent Commitments relevant to the quartz mining license.

Yukon Government has reviewed the Plan and determined that additional information is required to support a detailed review of the Plan. The information required attached to this letter.

The requests made in the attached information request are pertinent to our ability to complete the review of the application. If the information requested is not available or deemed unnecessary by BMC, a response with expected timelines or rationale for its exclusion is required.

BMC Minerals Ltd

May 31, 2024

Page 2 of 2

Once you have taken the time to consider the contents of this letter and its attachments, please confirm your estimated timeline for response. Should you have any questions please do not hesitate to reach out.

Sincerely,

A handwritten signature in black ink, appearing to read 'ED', with a stylized flourish extending from the end.

Erin Dowd

Manager, Major Mine Licensing

CC: Allan Nixon, VP External Affairs, BMC Minerals Ltd.
Kelly Constable, Director, Mineral Resources Branch
Keith Maguire, Director, Major Projects Yukon
Chief Charlie, Liard First Nation
Travis Stewart, Director, Lands Department, Liard First Nation
Chief Loblaw, Ross River Dena Council
Josh Barichello, Lands Department, Ross River Dena Council
Chief McCook, Kwadacha Nation
Chief Manygreghorses, Dease River First Nation

Enclosed: Information Request 6: Reclamation and Closure Plan

Information Request 6 – Reclamation and Closure Plan

This information request is issued to BMC Minerals Ltd with respect to their Reclamation and Closure Plan Revision 04 (the “RCP” or “Plan”) for the Kudz Ze Kayah project. This information requests pertains to the Completion Review of the RCP; the closure cost estimate in the RCP has not been reviewed at this time and does not form a part of this information request.

Several updates to the RCP are required in this information request and have been identified as necessary for the Completion Review phase. An updated plan must include a concordance table that indicates how and where information requirements have been addressed and demonstrates that Decision Document terms and conditions and proponent commitments have been met.

1. Editorial

A number of editorial items have been identified that would improve the clarity and consistency of the plan.

1.1. Definitions and terminology

A number of terms are used throughout the plan that are not defined in the plan and could have different meanings or interpretations depending on the party reviewing this plan. Definitions or more detailed explanations for these terms will provide clarity to reviewers.

IR6-1: Provide definitions or explanations for the following terms used throughout the plan:

- a. Passive water treatment technology
- b. Semi-passive water treatment technology
- c. Reclamation
- d. Restoration
- e. Inert materials
- f. Non-inert materials
- g. Landform

IR6-2: Clarify the means and use of “*wherever practicable*” in terms of achieving closure goals.

- a. If there are areas where closure goals cannot be achieved these should be clearly identified.
- b. If closure goals cannot be achieved, alternative goals should be established, or additional measures and mitigations identified that meet the same intent.

IR6-3: Clarify, and maintain consistent use, of “performance objectives” and “performance criteria” throughout the plan.

IR6-4: Clarify the meaning of, or provide definitions for, “*viable*” and “*self-sustaining*” in the context of closure goals and objectives.

IR6-5: The definition for Permanent Closure should not include “*and all other activities as authorized*” as reclamation and closure of the site is an activity that is authorized.

1.2. Interactions with Management Plans

The reclamation and closure plan is implemented only in closure scenarios and is not intended to be a management plan for development and operation activities, nor are the management plans meant to describe reclamation and closure measures. The management plans for waste rock and tailings include reclamation and closure measures that are not contained in the RCP and the RCP contains management practices that are not contained in the management plans. It is important that these details are clearly described in the appropriate plans.

IR6-6: Commitments made in the RCP regarding topsoil salvage have not been included in the waste rock and overburden management plan. As these commitments describe activities that should occur throughout development and operation of the project, they are to be included in the waste rock and overburden management plan.

IR6-7: Commitments made in response to IR1-19 and IR1-20 with respect to collection ditches, slope configuration, and erosion control measures must all be incorporated into the RCP.

2. Closure Planning

The Reclamation and Closure Plan is a fundamental component of an application for quartz mining projects and is integral in the regulatory review process. It is understood that a plan in the early stages of mine planning and development, such as Kudz Ze Kayah, will be preliminary in nature and will require additional research and development as the project understanding is advanced. While it is understood that the RCP will advance and develop over time it is important to understand the history in the plan development, the commitments and timelines for research and development of the plan, and the commitments made and expectations of different parties. Understanding the foundation of the plan, and how BMC intends to advance the plan throughout the project life, is required for Completeness Review of the Application.

2.1. Existing Conditions

Pre-impact conditions of the overall site is important in these early stage plans to guide the effective reclamation and closure of the site and ensure all parties understand the proposed changes to the landscape post-closure.

IR6-8: Table 7-2 provides post-mining land use conditions, provide a similar table that describes pre-impact conditions of the site. This table should be added to Section 4 of the RCP.

IR6-9: Incorporate pre-impact, baseline, or reference conditions into the RCP to aid in future analysis of effectiveness of reclamation and closure.

2.2. Climate Change Considerations

The RCP does not appear to have considered the impacts of climate change in closure planning or the long-term success of the proposed closure measures. The requirement to consider climate change impacts is outlined in the Reclamation and Closure Planning for Quartz Mining Projects guidance document (YG and YWB, 2013); the importance of climate change considerations in the planning and design of mine infrastructure for operational and closure periods is also highlighted in the Guidelines for Mine Waste Management Facilities (Yukon Government, 2023), and the Guide on Climate Change Adaptation for the Mining Sector (Mining Association of Canada, 2021).

In addition to these guidance documents, Yukon Government also identified the need to consider climate change in closure scenarios in recommendation 29 of Intervention on QZ20-068. This recommendation does not appear to have been addressed in the revised RCP.

IR6-10: Provide additional detail on how impacts of climate change were considered in the development of the RCP and the selection of closure measures.

IR6-11: Provide additional information on how climate change has been considered in temporary and permanent closure scenarios. This should include, but is not limited to,

- a. The location, sizing, and construction of water management infrastructure
- b. The long-term physical and chemical stability of mine waste management infrastructure

2.3. Closure Alternatives Assessment

Section 2.4 of the RCP provides a summary of the closure alternatives that were considered throughout the development of the plan. This section is high-level and does not provide a complete understanding of how the process was undertaken, the weighting of performance criteria, nor the rationale for chosen closure methodologies. Based upon the information

provided it appears that the alternatives assessment was focused on development alternatives rather than the closure alternatives of the chosen development strategy.

The alternatives presented in this section are also limited to mine waste management facilities and do not appear to have considered closure alternatives for other aspects of the mine (e.g. open pit, underground, water management, infrastructure).

IR6-12: Provide the alternatives assessment report as an appendix to the RCP.

IR6-13: Provide a rationale as to why the alternatives were limited to mine waste management infrastructure. If closure alternatives were considered for other aspects of the project, provide the alternatives evaluated and rationale for chosen methods.

IR6-14: The performance criteria “amenability to reclamation” does not explain what was included in this evaluation. Provide additional details on, or a definition of, the criteria and how it was used in the evaluation.

IR6-15: Provide information on how the weighting of performance criteria impacted the selection of preferred options.

IR6-16: Where an alternative was listed as being preferred for “amenability to reclamation” was not chosen as the closure method, provide additional rationale for why an alternative was chosen. (Table 2-4)

IR6-17: If in-pit storage of waste rock is being considered, as referenced in Section 2.4.3, this should be included in the reclamation research section of the plan.

IR6-18: The alternatives considered for waste covers do not show how each alternative was rated and screened against the stated criteria. Provide more detail on how each alternative was assessed based on the stated criteria and the rationale for the chosen method.

IR6-19: Provide additional detail and rationale for the criteria chosen for assessing alternatives for waste covers and how these criteria were weighted during the alternatives assessment.

2.4. Failure modes and effects analysis

Appendix A provides a summary of the failure mode and effects analysis (FMEA) that was completed in 2018 during the environmental assessment of the project. The report includes a summary of the participants, methodology and results and identifies mitigation measures that should be included in the RCP to reduce the overall risk of the Project post-closure.

Risk Assessments are required not only to establish what the risks are, but also to put in place suitable risk treatment or management processes. Risk Assessments are conducted early in the mine planning stage and must be updated as a project proceeds through the assessment and regulatory processes. The Guidelines for Mine Waste Management Facilities (GMWMF) define requirements for Risk Assessments and Appendix E provides additional details about how they should be conducted.

While not required to finalize the Completeness Review, an updated FMEA will be required as a part of the licensing process with updates throughout the life of the project. All future FMEA's will be required to follow the methodology set out in the GMWMF and invite participation from affected First Nations, regulators, and other key stakeholders. For the Completeness Review MRB requires additional information and clarification to understand how the FMEA was undertaken, how the mitigations have been applied to the RCP, and the rationale for exclusion of potential failure modes as identified in Appendix A.

IR6-20: It appears that the likelihood descriptions identified in Table 3-1, are based upon a frequency of events. In the closure scenario, when an event may occur while the site is not being frequently monitored, there is an argument that likelihood should be assessed based upon an event occurring in the design life or closure phase. Appendix E, Section 4.3, of the Guidelines for Mine Waste Management Facilities includes a likelihood scale, and how to interpret probability for the closure phases.

- a. Provide comment on how the likelihood scale in the MWMF guide differs from the approach taken in the 2018 assessment.
- b. Provide comment on how these differences would this impact the risk register created for the project.

IR6-21: It appears that potential failure modes that were addressed by closure measures or commitments in the RCP were eliminated from the analysis. The analyses should be undertaken prior to the consideration of commitments, mitigations, or controls in place. Where failure modes have been excluded or identified as “no risk” due to mitigations, provide additional information as to how these would be rated without the mitigations in place.

IR6-22: Provide clarification on how the additional mitigations measures identified in the FMEA were incorporated into the RCP.

- a. If recommended mitigations were not carried forward provide a rationale for their exclusion.

IR6-23: Provide clarification or rationale for the following potential failure modes identified in Table A-1 of the Failure Modes and Effects Analysis report.

- a. Risk No 2.2: The potential failure modes identified for the AMB Open Pit did not consider chemical stability in the context of pit wall failure. It is important to consider the impacts of exposed pit walls in the event of a failure and the potential impacts to pit water quality in each closure phase.
- b. Risk No 4.1: This failure mode is identified as low risk, and it is noted that the water treatment plant would be in place along with the collection pond. It is unclear why the failure mode was assessed with the treatment plant and collection pond when both facilities are removed during closure.
- c. Risk No 4.6 and 5.5: This failure modes lists no consequences due to design measures. It is unclear if loss of cover material or uncontrolled seepage were considered when looking at 'higher than anticipated weather events'.
- d. Risk No 4.7: This failure mode appears to consider the active and transition periods of closure when a water treatment plant is in place and does not consider the long-term trend in the post-closure period.
- e. Risk No. 7.1 to 7.6: The risk register notes that all ponds and ditches are decommissioned. No failure modes are identified for the risks to facilities in the closure period where water management infrastructure is not in place (e.g. impacts to cover systems)
- f. Risk No 8.3: The mitigations identified are inconsistent with those presented in the RCP. RCP states that concrete pads and foundations would be broken and closed in place.
- g. Risk No 9.1 to 9.6: The risk register notes that the access road will be decommissioned. No failure mode has been identified regarding the post-closure period where the access road is decommissioned, and an on-site failure occurs.
- h. Risk No 10.1: This scenario seems to rely upon mitigation measures that require further research and development (e.g. in-pit treatment, constructed wetlands).
- i. Risk No 10.3: Given that socio-economic impacts of mine closure was identified as concern during assessment, reliance on project economics to eliminate likelihood and risks overly minimizes the concerns identified.
- j. Risk No 10.4: This failure mode indicates that BMC is responsible for the site and mitigates the risk of having an insufficient bond to cover closure costs. It is important to recognize the risks of a scenario where BMC is unable to implement the closure plan.
- k. Risk No 10.5: The financial impacts to other parties in the event of an early closure are important to recognize, especially in the context of socio-economic impacts. The risk register seems to overly minimize these considerations.
- l. Risk No 11.1: The mitigation identified is inconsistent with what is presented in the RCP. RCP states that placement of a 0.25m to 0.50m isolation cover would be an appropriate practice but it is not clear that there is a commitment to do this.

2.5. Reclamation Research

Reclamation research is an important aspect of early stage closure plans and is fundamental to the development of project-specific closure measures that will meet the closure expectations of all parties. The Decision Document for the Project included a number of terms and conditions that relate to the need for reclamation research programs to inform the development of the reclamation and closure plan. Additional information with respect to the design, timing and implementation of the identified programs is required for the Completeness Review stage.

IR6-24: Aspects of the closure plan that require further research or development to demonstrate effectiveness require timelines for the implementation of the relevant research/development and, where applicable, expected completion. Timelines should include expectations of when results would become available and how these results will be incorporated into future iterations of the plan.

IR6-25: The program and considerations for waste management areas is limited to the application of the cover systems and does not seem to consider deviations from expected liner performance as is required in Decision Document term 7. Include additional detail on how the ongoing investigations, as required in Decision Document term 7, will be considered in the reclamation research program.

IR6-26: Section 7.1.2, and Table 7-2, describe how waste management facilities will be revegetated to promote conditions similar to baseline conditions, with varying vegetation across facilities. Provide a description of how the research program will be tailored to understand the how the proposed cover systems will support the vegetation species proposed and identify additional closure measures to achieve objectives.

IR6-27: Section 2.5.1 describes the revegetation research program and identifies that ‘an area of unaffected surface disturbance’ will be selected as a control and indicates that soil and tissue samples from trial and control sites will be ‘periodically collected’.

- a. Provide additional information on the selection of control sites including existing or potential locations, timeframes for establishment, rationale for site selection, and methodology for ensuring control site remains unimpacted.
- b. Provide additional information on the monitoring program including frequency of sampling.

IR6-28: In situ treatment of the ABM pit lake is identified as a manner of source control for the project. Did BMC consider other methods of control such as isolation or removal of the source?

IR6-29: Section 2.5.3 and Appendix C of the RCP describe the studies that have been completed in relation to in-pit water treatment. Details are not provided for ongoing research and pilot studies to confirm the expected performance, optimize designs, and ensure timely implementation as is required in Decision Document term 3. Provide additional detail with respect to program design and timing for the ongoing research of in-pit treatment.

IR6-30: Decision Document term and condition 31 requires that types of treatment alternatives and their implementation timelines be provided an Adaptive Management Plan. This is required to include a modelling and monitoring approach including trigger values for when alternatives must be implemented and, if monitoring shows exceedances and alternative treatment is implemented, how discharges will be addressed until new water treatment becomes operational. Provide details on how the AMP will inform the reclamation research program and future revisions of the RCP.

IR6-31: Section 2.5.4 and Appendix D of the RCP describe the studies that have been completed in relation to Constructed Wetland Treatment System (CWTS). Decision Document term 3 requires that pilot studies occur during operations to confirm the expected performance, optimize designs, and ensure timely implementation. The RCP refers to the Phase 2 and 3 test work 'completed to date' while Appendix D indicates that Phases 2 and 3 are complete and the next phase is on-site demonstration scale design and monitoring.

- a. Provide clarification on the current status of the CWTS research and design program.
- b. Provide clarification if Phases 2 or 3 will be repeated with updated site characterization information for water quality and balance models, climate change predictions, or water quality objectives established in regulatory instruments.
- c. Provide additional information on the next steps, including timing, of the program.

3. Socio-economic

Throughout the assessment, the socio-economic impacts of mine closure, whether temporary or permanent, were raised by affected First Nations and other parties as a concern. The impact of mine closure on employees and communities is important to recognize and plan for; this importance was recognized by Decision Bodies and reflected in Decision Document terms and conditions 12, 16, 17 and 18 in relation to Economy and Sustainable Livelihood, Human Health and Wellbeing, and Community Vitality.

Section 6 of the RCP references the YESAB project proposal but does not provide details in the plan itself. The project proposal does not form a part of the Application and BMC is required to provide these details in the RCP.

The RCP does not provide details of the socio-economic indicators and criteria that will be used to define successful closure of the site and does not provide details on the planned actions or timelines to further discussions or find solutions for concerns raised by First Nations.

IR6-32: Outline the socio-economic implications of, and management tools for, closure scenarios. This should include temporary closure and permanent closure and address the relevant Decision Document terms and conditions.

IR6-33: Provide the socio-economic criteria that will be used define the effectiveness and success of closure.

IR6-34: Provide a timeline and planned actions to further conversations on final closure access road closure in relation to traditional land use purposes by First Nations.

4. Closure Measures

The closure measures described for the temporary and permanent closure of the mine site have been described in Section 6 and 7 of the RCP. These sections require more detail to fully understand how the site will be closed in a manner that will achieve closure goals and objectives.

Information requests have been identified where clarification of proposed measures are required, where additional information is required to understand if the proposed measures are appropriate, and to provide additional clarification of the timing and implementation of several aspects of the RCP.

Recommendations made in the Yukon Government Intervention on QZ20-068 are not repeated in this section but may be expanded upon where additional information or context is required.

4.1. General

IR6-35: Provide a copy of, or additional information regarding, the preliminary investigation that was completed for borrow material availability and material requirements for closure purposes.

IR6-36: Progressive placement of covers on Class A and Class B facilities is referenced throughout the RCP. Provide additional information on the sequencing of progressive reclamation, and how the progressive reclamation fits within the timing and implementation reclamation research programs.

IR6-37: Several sections of the RCP refer to wetlands and the restoration of riparian vegetation. Provide additional information on the closure objectives and measures for restoration of wetlands and riparian areas.

4.2. Temporary closure

IR6-38: A temporary isolation cover is identified as ‘the most appropriate practice’ to minimize risks from Class A and B material in a temporary closure scenario. Additional information is required to understand the proposed actions in a temporary closure scenario.

- a. Provide clarification whether this is a commitment BMC is making in any temporary closure scenario.
- b. Provide additional information on when this would occur in a temporary scenario (i.e. immediately upon closure, within a specified timeframe etc.)
- c. If there are specific thresholds that must be met to warrant the placement of an isolation cover, provide details of these thresholds and how they were developed.

IR6-39: Provide a timeframe for the removal of explosives and other hazardous materials in the event of a temporary closure. Include the decision-making thresholds that will be used to determine if materials will be secured and stored in place or removed from site.

IR6-40: The temporary closure plan indicates that the run of mine pad and low grade ore stockpiles will be left in place in the event of a temporary closure scenario and the permanent closure measures note that these materials do not ‘necessarily require relocation’. Provide additional information on the sampling protocols in place for material present on pads and whether the management and monitoring measures are sufficient for extended temporary closure periods.

IR6-41: Describe the adaptive management measures that are available in an extended temporary closure scenario where ore stockpiles may require relocation.

4.3. Roads and Trails

IR6-42: Reclamation and closure measures for roads and trails are not specified in the RCP. Provide information on the removal and reclamation of roads and trails. This should include the sequence of removal to illustrate which roads will be required for the closure of the site itself and the timing for removal of roads based upon closure phases.

IR6-43: If long-term monitoring and maintenance of the site requires roads or trails to remain on site, identify the infrastructure on a map and provide information on how access will be managed.

4.4. Infrastructure

IR6-44: Table 7-20 is missing Chemical Stability as a value; this is an important value in the context of contaminated soils and foundations in the industrial area and areas where mobile equipment and fuel are stored. Include chemical stability as a value in this table.

IR6-45: Section 7.7.2.1 includes burial of waste in the Class A facility, this is not included in the Waste Management Plan or Tailings Management Plans provided with the application. Provide clarification of this statement.

- a. If waste material will be placed in the Class A facility provide additional detail on how this will occur with the progressive placement of covers, potential impacts to physical stability, and what types of waste would be disposed of.

IR6-46: Section 7.7.2.2 describes the closure of concrete footings, foundations, and slabs indicating that these will be broken and closed in place. The FMEA in Appendix A indicates that the material will be excavated and disposed in the pit with contaminated material being trucked off-site. Provide clarification of the intended closure measures.

IR6-47: If concrete footings, foundations, and slabs will be closed in place, provide additional information on the confirmatory sampling that will occur prior to closure to ensure migration of contaminants beneath the infrastructure has not occurred.

IR6-48: Disposal methods for tires are not included in the RCP. Provide clarification on how and where tires will be disposed of.

IR6-49: Provide clarification of how and where ammonia or nitrate contaminated soils from explosive facilities would be disposed of if emulsion facilities are used on site.

4.5. Mine Waste Management Facilities

IR6-50: The RCP notes that material remaining on the run of mine pad and in low grade ore stockpiles do not 'necessarily require relocation' and would be encapsulated within the Class B facility at closure. It is not clear if there are thresholds, whether based on volumes present at closure or the grade and geochemistry of material, that would indicate if relocation to other facilities such as the Class A facility or the open pit would be warranted.

IR6-51: The waste rock and overburden management plan indicated that the Class C material may be used as capping material for reclamation of the Class A and Class B Storage Facilities, while the RCP notes that a cover layer will be installed on the Class C facility “once the appropriate volume of waste has been stored in the facility as per the Mine Development and Operations Plan.” Provide clarification on when the cover would be placed on the Class C facility and the thresholds or triggers established that would indicate that a cover be placed rather than keeping it open for future cover materials.

IR6-52: Provide additional information about the placement of the progressive reclamation cover proposed in section 2.4.4 of the RCP including:

- a. The construction of slope features (benches, drainage breaks, key trenches for liner, etc.)
- b. How the liner will remain accessible for the welding to next stage of cover system.
- c. How remedial measures of the facility itself would be addressed if cover and growth media were already in place.

4.6. Water Management

IR6-53: Water management infrastructure sizing, capacity and reasoning for selection should be clearly outlined for each structure that is required to be constructed and/or relied upon during the closure period.

IR6-54: The post-closure water management infrastructure is not clearly outlined in the RCP, Table 7-8 indicates that there will be “*appropriately sized drainage diversions around the facility to reduce up slope run-on waters*” while Table 7-16 indicates that all infrastructure will be removed. Provide clarification on the water management infrastructure that will be in place post-closure, particularly around the Class A and Class B facilities.

IR6-55: For water management structures required in the post-closure period, provide details with respect to the design event diversion channels will be sized to, water capacity requirements for ponds, and areas where armouring or lining would be required.

IR6-56: Provide a figure with the water management infrastructure required for each phase of closure.

IR6-57: The physical stability rows of Table 7-16 indicate that all ponds, collection ditches and diversion channels are removed in post-closure. Provide clarification if the

ponds associated with the constructed wetland system would be considered a pond if constructed, and if so, provide comment on the physical stability value for these ponds.

IR6-58: The ‘Health and Safety’ row of Table 7-16 indicates that runoff patterns and channels would be returned where possible/practical. Provide additional detail on how this value will be addressed if returning to pre-mining patterns is not possible.

IR6-59: Section 7.6.2.2 indicates that the collection ponds for the Class A and Class B facilities will be removed once the covers are determined to have been design criteria. Provide clarification of the design criteria being referenced, if this is an immediate action following achievement of design criteria or if there is a period of time over which BMC will demonstrate that the criteria are consistently met.

IR6-60: Provide clarification of contingency measures if water is not suitable for release to Geona Creek following the removal of the collection ponds for the Class A and Class B facilities.

IR6-61: Provide clarification of the water management measures in place that would enable to unsuitable water to be collected and re-routed to the water treatment plant following the removal of collection pond.

IR6-62: Provide additional information regarding the design and construction of the spillway from Fault Creek into the ABM open pit, and the outflow spillway from the pit to Geona Creek.

IR6-63: Provide additional information about the removal of the upper and lower water management ponds and re-establishment of Geona Creek.

IR6-64: Section 7.9.2 states that “Adaptive management strategies may need to be implemented to reduce the effects from the reduction of flows and water levels in the receiving environment of South Lakes once Fault Creek is diverted back to Geona Creek. BMC has committed to developing these strategies (if required) in collaboration with Kaska.” This is further discussed in Table 2-1 where it’s noted that “management options may include a partial diversion of Fault Creek both to the ABM open pit and to the South Lakes”. Provide clarification of the objectives for flow in the South Lakes and how it will be determined if additional measures are required.

4.7. Water Quality

IR6-65: As indicated in IR6-59, it is not clear what design criteria are being used to indicate when the collection ponds for the Class A and Class B facilities can be removed. Table 7-8 states “*active water treatment systems (WTP) maintained until*

performance objectives are achieved” and “passive treatment systems to yield water quality acceptable for discharge in long-term” while Table 7-11 for the Class B facility only states the later. Provide clarification of the indicators used to determine closure success of these facilities in terms of water quality.

IR6-66: Provide clarification of the indicators that will be used to determine if additional mitigation measures will be required for exposed pit walls that are not Class C material (e.g. application of shotcrete).

IR6-67: Provide clarification of the indicators that will be used to determine if contingency water treatment measures are required in the ABM pit lake (e.g. ferric iron addition, CWTS construction).

IR6-68: Sludge produced from the water treatment plant will be disposed of in the ABM pit during all closure phases. Provide information on the anticipated impacts of sludge to pit water chemistry and whether there are concerns regarding long-term impacts to water quality.

5. Closure Monitoring and Maintenance

Section 7.9 of the RCP includes the monitoring and maintenance requirements and frequency for the project in the different closure phases. It is important to note that regulatory agencies will determine the monitoring, maintenance and reporting requirements and that the closure plan will require an update to reflect these requirements.

IR6-69: During Active Closure the requirement for annual physical monitoring will remain unchanged. Update Table 7-24 to reflect an annual requirement for physical monitoring.

IR6-70: The Transition Closure phase will be the first stage to monitor physical stability following the implementation of the closure plan. Annual physical monitoring will remain a requirement in this phase until continued physical stability is demonstrated. Update Table 7-24 to include an annual requirement for physical monitoring for this stage.

IR6-71: Section 7.9.2 describes a commitment to *“compare the surface and groundwater to the Guidelines for Canadian Drinking Water Quality.”* It is unclear if the commitment is to only compare values or if there are adaptive management measures associated with the comparison. Provide clarification if actions will be taken if the water quality does not meet all or some of the parameters.

IR6-72: Table 7-25 shows surface water monitoring of the ABM lake reducing from monthly monitoring to quarterly monitoring after 2 years in the transition phase.

Provide clarification if the reduction in monitoring will also be linked to water quality indicators in the lake.

IR6-73: Brushing of deep rooting vegetation species is identified as a maintenance measure to protect covers placed. Provide clarification of the species being planted on site that may have rooting depths that would negatively impact cover systems and describe the revegetation practices that will be implemented to reduce the likelihood of this occurring.

IR6-74: Section 7.9.3 notes that reclaimed wetlands will be monitored for biodiversity. Provide clarification on where the wetlands referred to are located in the project area and provide additional information on the type of wetlands that are present and how the appropriate biodiversity will be identified and monitored.

IR6-75: Provide additional information on the reasoning and methodologies of monitoring of vegetation growth that may impact the ground thermal regime.

IR6-76: Update the monitoring and maintenance activities associated with wildlife to reflect the caribou effects monitoring and mitigation program (Decision Document term 38) and the late-winter moose monitoring survey (Section 110E).

IR6-77: Provide clarification on Table 7-2 with respect to revegetation objectives and the potential for wildlife use and how these uses will be monitored to inform the success of the closure measures.