REPORT - MEETING No. 5

INDEPENDENT GEOTECHNICAL REVIEW BOARD (IGRB)
NOVEMBER 5 AND 6, 2019

Review of Water Dam, Water Management and Tailings Storage Systems, KSM Project

British Columbia, Canada

KSM MINING ULC
A SUBSIDIARY OF SEABRIDGE GOLD INC.

REPORT – MEETING NO. 5, INDEPENDENT GEOTECHNICAL REVIEW BOARD

REVIEW OF WATER DAM, WATER MANAGEMENT AND TAILINGS STORAGE SYSTEMS, KSM PROJECT

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1. Introduction

The fifth meeting of the KSM Independent Geotechnical Review Board (IGRB or Board) was convened by KSM Mining ULC (KSM). The meeting was held on November 5th and 6th, 2019. The Board is comprised of Dr. Andrew Robertson (Chairman), Mr. Anthony Rattue (Vice Chairman), Mr. Terry Eldridge, Dr. Gabriel Fernandez, Dr. Ian Hutchison, Mr. Jim Obermeyer, Dr. Leslie Smith, and Dr. Jean-Pierre Tournier, though only Messrs. Robertson, Rattue, Eldridge and Obermeyer attended the fifth meeting. The meeting was conducted at the offices of Blake, Cassels and Graydon in Vancouver. The Agenda of the meeting is attached as Appendix A, and the list of attendees is in Appendix B.

KSM provided a Project update for the information of the IGRB. Presentations were also provided on specific subjects which KSM requested the Board consider and provide comments and recommendations. These included the following:

- Updates on site investigation work envisaged in moving forward to Feasibility Study (FS) level design;
- The current thinking on the development of water management tools;
- Testing results on the P8 monzonite encountered in Mitchell pit; and
- Field work involving a ground penetrating radar (GPR) survey and hot water drilling on the Mitchell glacier.

In addition, a presentation on the available treatment technology options being considered was intended as an update, and no Board comments or recommendations were required on this subject.

The Board's review scope includes the Water Storage Dam (WSD) and the associated Seepage Collection Dam (SCD), the Waste Rock Storage Facility (RSF), Surface Water Management, and the Tailings Management Facility (TMF) including its seepage control facilities.

As for prior meetings, the Board's review was carried out at "Discussion Level", in which the Board relies principally on information provided during meeting presentations, with support of KSM study reports where these have been provided.

A range of topics were discussed during the meeting. These are listed below together with the section numbers of this report which contain the comments and recommendations of the Board.

- Project general update (Section 3);
- Water quantity and quality management (Section 4);
- Proposed field investigation programs for the WSD (Section 5);
- Proposed field investigation programs for the TMF (Section 6);
- Results of the P8 monzonite testing (Section 7);
- Mitchell Glacier investigations (Section 8); and
- Closure (Section 9).

In this report, the Board provides: observations made during the meeting, presents the outcomes of the discussions and gives recommendations for future work. *The recommendations are given in the body of the report in italics. <u>The more significant recommendations are underlined</u>.* The Board considers comments and recommendations provided in this report to be applicable to the proposed future Feasibility Study (FS).

2. Documentation Provided

Information provided to the Board, both prior to, and during the meetings were:

- Klohn Crippen Berger Report: KSM Project WSD and TMF Site Investigation Plan, Draft, Rev.1, October 2018;
- Klohn Crippen Berger Report: KSM 2018 Services. September 2018 Site Visit TMF West Till Borrow Area Sampling and Geotechnical Laboratory Testing, Rev. 1, January 2019;
- Klohn Crippen Berger Report: KSM 2018 Services Evaluation of Results of Batch 1 and Batch 2 Monzonite Geochemical and Geotechnical Laboratory Testing Programs, March 2019; and
- Klohn Crippen Berger Proposal: KSM Project Long Term Monzonite Rockfill Geochemical/ Geotechnical Test Program, June 26, 2019.

Presentations given to the Board during the meetings included:

- Permit Transfer and EA Certificate Extension Application Processes – KSM;
- Tahltan Nation Co-operation and Benefits Agreement – KSM;
- 2019 Transboundary Update – KSM;
- Iron Cap Exploration Adit – KSM;
- Iron Cap Exploration Update – KSM;
- Mitchel Glacier GPR Program – KCB;
- Mitchel Glacier Hot Water Drilling – ERM;
- Results from P8 Monzonite Test Program – KCB;
- TMF West Till Borrow Investigation – KCB;
- WSD and TMF – Revisions to Site Investigation Plans – KCB;
- Water Quality and Quantity Framework – Golder;
- Acid Rock Drainage and Metal Leaching Potential – Golder; and
- Water Treatment Design – BQE Water.

3. Project General Update

As the Project enters the Feasibility Study (FS) design stage, the IGRB offers the following definition of what constitutes a FS level design in order to invite comment and discussion from KSM and to establish a common understanding of the scope of a FS.

A FS for a mine's water dams (WSDs) and tailings management facilities (TMFs) is performed to evaluate the technical, economic and scheduling aspects of constructing and operating the facilities as part of the overall mine FS. A FS is used to identify the preferred Project configuration and to understand the advantages, disadvantages and risks before a commitment is made to implement the Project.

The FS should document the Project design criteria and basis of design and should include sufficient detail to define the Project configuration that will be carried forward to basic engineering and detailed design. The FS should include evaluations of all technical and economic factors that are critical to the success of the Project, identify the associated risks and mitigation/prevention measures, and evaluate implementation and operational costs with a sufficient level of accuracy to inform on whether investment in the Project is technically and economically viable.

Typically, estimated costs to construct and operate WSDs and TMFs are required to be in the range of ±15% to ±25% depending on the risk tolerance of the Owner. This requires levels of site investigation and engineering analyses and design that will provide reasonable assurance that the Project is technically feasible and can be constructed within the range of costs and within the schedule identified in the FS. Accordingly, the FS should provide a high level of confidence that the quality and quantity of materials needed to construct the Project at a cost within the specified range of accuracy are available for construction. It is also essential to establish with confidence, that the technology and designs will result in performance that meets design objectives, or that adaptive management options exist that will correct variations from the design objectives that may occur during construction or operations. Durability of the structures for the long-term after mine closure, and time dependent changes in contaminant releases requiring management during operations and after closure are examples of items of significance to KSM and need to be considered in the FS design.

4. Water Quantity and Quality Management

4.1 WATER MANAGEMENT FRAMEWORK

The Board was provided with a presentation describing an approach to advancing development of the water management strategy and plan for the KSM Project. The approach involves developing a framework document for water management which will characterize how both water quantity and water quality may change over the Project life. The approach is to develop a watershed scale tool considering the catchment of the Unuk River system to the US border and the Bell Irving River downstream of the TMF.

The tools to be developed and incorporated in the framework are required to:

- Meet the compliance requirements of the regulatory agencies;
- Meet the requirements for mine and water management planning; and
- Provide support for engineering design and decision making.

Flexibility is to be incorporated into the water management framework to simplify assessment of potential revisions of the mine plan and alternative methods of water management. The framework is to include other existing and potential industrial water users within the defined river systems that could affect water quality, so that potential cumulative effects can be identified by KSM and considered during Project development and operation.

The water management framework document is to be completed during the first quarter of 2020 and development of the water quality and quantity tools will follow. The existing water quantity and quality models will be refined and calibrated using the baseline data collected onsite since 2007. This will require a significant effort in the short-term and following that, ongoing refinements as the Project advances through permitting, detailed design, construction and operations.

The Board supports the development of an overarching water quantity and quality management framework that also considers cumulative impacts of other water users and natural changes related to glacial retreat. The consideration of cumulative effects is consistent with stated Government of Canada objectives regarding these effects. The Board considers the tools that are developed will be most useful for scenario assessment and planning. The ability for KSM to independently assess potential cumulative effects will improve decision making related to protecting the quality of waters downstream of the Project.

The Board cautions that KSM and other stakeholders recognize that the model(s) themselves only provide the tools to evaluate the impacts of various internal and external inputs and water management decisions that are made. The models themselves do not establish management procedures but will facilitate the evaluation of “what-if” scenarios. It should also be noted that the predictive capabilities will be limited by whatever assumptions are included in the models.

4.2 GEOCHEMISTRY AND WATER QUALITY MANAGEMENT

The effect of geochemistry on water quality was addressed or referenced in several presentations made during meeting No. 5 as well as during previous meetings. Comments and recommendations from the IGRB related to geochemistry are as follows:

An understanding of the geochemical effects is required for each of the following elements of the Project:

1. Undisturbed areas in the catchments likely to include Project elements;
2. Areas disturbed by mining, waste disposal and infrastructure development by the Project;
3. Areas disturbed by non-KSM mining or other development within the catchment areas containing Project elements; and
4. Evolution of contaminant sources over mine life and post-closure (effectively in-perpetuity).

From this understanding, a water management system is being developed to achieve water quality objectives at key locations and over time.

The IGRB supports establishment of the water management modelling framework as the basis for developing an appropriate water quality management plan (WQMP). The methodology and tools being used to develop the WQMP include:

a. Investigations and monitoring to define the current background contaminant sources and water quality in all catchments containing Project elements;
b. Investigation programs to sample and geochemically characterize all mining related materials;
c. Predictions of water quality from all KSM mining activity sources;
d. Predictions of water quality from all non-KSM mining and other activity sources;
e. Development of the KSM water management system that achieves site and catchment water quality objectives;
f. Development and implementation of a modeling framework to model geochemical source variation with time, together with a WQMP that achieves water quality objectives over time; and
g. Model runs to demonstrate that the WQMP will meet water quality objectives in catchments containing Project elements over time, including Project implementation, operations, closure and post-closure.

The IGRB comments on the above are as follows:

- The WQMP will be designed to address the predictive requirements of geochemical modelling listed above in items 4, c, d and g;
- Source characterization and modeling will determine the design of the WQMP and its associated effectiveness and cost;
- The characterization of parameters obtained from humidity cell testing is not representative of field behavior and can result in erroneous conclusions and design. In the field, the increased geochemical heterogeneity, particle size, and air and water availability are major effects not addressed by humidity cell and laboratory scale tests. In the presentation made to the IGRB it was indicated that modeling would be based on humidity cell testing because this is what authorities expect.

Nonetheless, the IGRB recommends that humidity cell results be used with due awareness of the limits of such models to simulate real processes and that much greater use be made of more appropriate testing such as field barrel tests;

- The WQMP should be strongly influenced by the need to be conservative and significant consideration should be given to incorporating precedent and observed behaviour of geologically similar rock and waste exposures at other mine sites;
- Geochemical kinetic testing takes time and the schedule for advancing the FS design means that it will not be possible to get much additional kinetic characteristic results prior to completing the FS design, further limiting its usefulness; and
- Modeling of the temporal effects of geochemical processes using laboratory scale tests of geologically variable source materials placed in heterogeneous deposits with variable water and air flow is extraordinarily difficult. As a result, the modeling framework tool being developed for KSM will initially mainly be useful for investigating comparative performance of different scenarios of water management during design. During operations, these models could become more useful as a basis for evaluating and modifying the WQMP since more comprehensive calibration will be possible. The IGRB is however concerned that publication and use of predictive results too early may result in the predictions being incorrect or inaccurate and that this would result in inappropriate design decisions by KSM and loss of credibility in the modeling by authorities.

While the IGRB supports the development of a modeling framework and models for water management, it recommends that for the FS design these be relatively simple and that the lack of accuracy in any predictive values be clearly stated, and the uncertainty of the predictions be appropriately considered in establishing the WQMP. This can be accomplished, for example, by performing a range of model sensitivity runs using a reasonable range of input parameters.

5. Proposed Field Investigation Programme for the WSD

5.1 GENERAL

A early programme for field investigations leading to the FS was presented to the Board during the previous meeting No. 4. This programme has now been revised and updated to take into account the IGRB comments and other subsequent Project developments. The new proposed programme was presented to the Board and is discussed below.

5.2 WATER STORAGE DAM INVESTIGATIONS

5.2.1 Drone Survey including Lidar

Lidar drone surveys have the potential for significantly enhancing the knowledge of topography and surface exposures of geologic formations. From the brief acquaintance with the site during 2016 visit, the Board appreciates the access difficulties which limit effectiveness of the more traditional investigation methods, and concurs with use of this new tool.

5.2.2 Soil Sampling

Light, hand portable, equipment is proposed for overburden sampling in the WSD footprint. The Board suspects that this may be of limited use. The nature and continuity of the natural overburden blanket beneath and upstream of the upstream dam shell needs to be properly characterized to establish its potential benefit as part of the overall engineered seepage control measures. However, the valley bottom alluvium is likely to contain a high proportion of boulders which limits the use of hand portable equipment.

The Board recommends that since other investigation methods such as drilling with a sonic rig may be more effective, these also be considered.

5.2.3 Seismic Survey

Seismic refraction surveys are usually useful for initial reconnaissance and to facilitate locating drill holes. An extension of the study area to the upstream is envisaged and seismic surveys are included in the programme for this area. The limitations of the technique in steep terrain are well known. Nonetheless, the Board agrees with the planned use of seismic refraction and *recommends very careful interpretation and calibration (using boring data, for example) of the survey results.*

5.2.4 Drill Holes

The Board was presented with a plan for conducting additional borings in the general area of the WSD. The location and orientation of several of the proposed drillholes are clearly intended to gain a better knowledge of lithological boundaries and the Board concurs with this objective. Other drill holes are intended to improve understanding of water levels and hydrogeology. Pump tests and piezometer/thermistor installations are also proposed. The Board agrees that these tests are necessary for establishing a realistic hydrogeological model. A good understanding of the geology and hydrogeology in the vicinity of the WSD and the Seepage Collection Dam (SCD) is paramount.

5.2.5 Board Comments on Proposed Scope

The changes and additions made to the scope of work when compared to the 2018 version of the programme are appropriate. The possibility of moving the dam axis upstream to avoid calcareous siltstone and sandstone, may require a review of the location of the upstream portal of the diversion tunnel. *Additional investigation of the portal area may, therefore, also be warranted, and should be considered.*

The need for grouting beneath the central plinth of the ESD is not in doubt, but better knowledge of the scope of the grouting programme and a confirmation of groutability of the rock will be beneficial. As suggested previously, test grouting, rather than water pressure testing alone, would provide substantially better information for the design of the grout curtains.

The Board believes that the scope of the programme should be flexible and that details of the location and orientation of drill holes should be confirmed or adjusted according to the results of the early phases of the programme in an iterative process to maximize the information obtained.

The Board questions whether the long-term (post-closure) operation of the WSD facility has been adequately considered to ensure that the investigations also include information needs for designing a structure that is sufficiently robust in the long-term. For example, considering the potential long-term degradation of the rockfill comprising the upstream dam shell, the Board questions whether the upstream slope of 1V:2.25H covers all slopes that may have to be considered in the FS design, and whether flatter slopes requiring further field investigation in an expanded footprint should be considered? For closure, will a revised spillway geometry, e.g. lower sill elevation, be advantageous and is current knowledge of geology adequate to design such a spillway, or to design an operational spillway that can be modified on closure?

The Board recommends that consideration be given to further investigative work using both vertical and orientated drill holes at specific locations, such as the diversion tunnel portals for a revised dam location, the areas under a shallower upstream dam shell slope and in the spillway area discussed above. The Board also recommends that grout take tests be conducted in select boreholes.

6. Proposed Field Investigation Programme for the TMF

KSM proposes to conduct further site investigations of the TMF and potential borrow sources as discussed below.

The September 2018 TMF West Till Borrow Area report by KCB identified that:

- Existing identified till borrow areas were primarily within the TMF footprint and were sufficient only for the starter dams; and
- Additional till sources located outside the TMF footprint are required to provide life of mine construction materials for dam cores.

The September 2018 KCB report also identifies a potential West Till Borrow Area and speculates, based on laboratory test results on five near surface samples and visual field observations, that there is an estimated 14 Mm^3 of till in this area. The report comments that:

- If the till in the West Till Borrow area is suitable for dam core construction, the till located within the TMF footprint and within the West Till Borrow area would be sufficient to satisfy dam core construction for the life of mine, and
- Future investigations for assessing the potential West Till Borrow Area deposit should focus on proving suitable gradation, natural moisture content and Atterberg limits of the borrow volume required for the Project.

The Board was provided with a site investigation plan dated October 31, 2018 to support FS design of the TMF. This plan is being updated to include revisions presented to the Board by KCB at the current IGRB meeting. The Board agrees with the plan and the included revisions and is of the opinion that it will provide sufficient subsurface characterization for FS design, however, with two exceptions:

- The Board recommends that test pits or test trenches be added to the site investigation to better characterize the borrow materials and to provide opportunities to obtain large, more representative, bulk samples for laboratory testing; and
- Filter and drain borrow sources also need to be confirmed, as discussed further below.

As acknowledged in the site investigation plan, additional site investigation work can be accomplished as needed to fill information gaps during the detailed design phase following the FS design.

Investigations to date have not identified or confirmed sufficient sources of borrow materials suitable for use as filter and drain materials needed to construct the TMF dams. *Intrusive investigations (test holes and test pits) and appropriate laboratory testing to identify borrow materials for use as filter and drain materials are needed as part of the FS design process.*

It was mentioned during the current meeting that sandstone talus is being considered for use as filter and drain materials, but its suitability would need to be investigated. *The Board recommends the investigations include LA Abrasion and Sodium Sulfate Soundness testing to assess the durability of the sandstone talus. Since it is possible that the sandstone will not provide materials that are sufficiently durable for this use, the*

Board recommends that alternative sources be explored in parallel including alluvial deposits which are typically more durable.

The Board further recommends that borrow investigations for dam core, filter and drain materials focus on the engineering characteristics and quantities of materials available for construction. The characterization should identify processing that will be required to produce materials meeting the design specifications and estimate quantities of waste material that will be generated as a part of the processing.

As previously recommended by the Board, borrow investigations should be conducted at the FS stage with the objective of identifying no less than 1.5 times the required volumes of each construction material, excluding estimated quantities of waste. The borrow characterization should be adequate to identify the amount of waste material generated and to understand material processing and moisture conditioning that will be required for construction. When assessing borrow availability within the footprint of the TMF, the sequence of construction and operation of the TMF must be considered in order to identify which material needs to be harvested before it becomes inundated by the TMF. This assessment may indicate the need to stockpile some of the material for use in future stages of construction.

The Board notes that, given the significant loading that will be exerted on the foundation by the TMF facility, undisturbed sampling with oedometer and triaxial tests should be included in the programme to ensure that pre-consolidation pressures and other material parameters controlling foundation deformation are adequately determined for the foundation assessments for the TMF. Settlement, and in particular differential settlement, could have a negative impact on the integrity of the liner and underdrainage system of the central TMF cell.

7. Results of P8 Monzonite Testing

The objective of the testing of the P8 monzonite was primarily to demonstrate the similarities between this material encountered in a potential quarry at the Mitchell Mine Pit and that encountered in the Sulphurets mine pit area. Testing included geotechnical, petrographic and geochemical aspects.

The demonstration of the similarity of the monzonite from the two sources was stated to have been achieved. Only a slightly greater calcite content is noted in the Mitchell Mine Pit area, but KSM concluded that quarry development could be planned to avoid this calcite veining. A similar conclusion has been drawn concerning the locally higher sulphide content in a potential Mitchell area quarry. KSM described the significant logistical advantages of exploiting the Mitchell quarry as compared to the Sulphurets quarry for construction of the WSD. The location of the P8 monzonite bands in the northern highwall of the Mitchell pit require excavation as part of the early pit development in any event. Excavation of these bands can, therefore, be readily synchronized with the WSD construction.

The downstream shell of the WSD is an ideal location for the use of the P8 monzonite. The Project has yet to confirm the source of suitable material for the upstream shell, given it needs to be resistant to the anticipated low pH of the stored water. *More work is required in this aspect for the FS design. The potential for long-term degradation of the rockfill has not been emphasized to date and the Board stresses the need to consider this aspect fully in the WSD FS design, including the essentially "in perpetuity" durability requirements for the dam.*

The Board recommendations contained in the March 2019, KCB report included additional testing on the P8 monzonite as well as accelerated weathering and triaxial testing to evaluate geotechnical properties in the long term. Moreover, recognizing that other rock types may be preferred for the upstream shell, sampling and testing of locally available diorite is also recommended by KCB. P2 diorite is expected to be found in the same upper pit wall as the P8 monzonite and, where beds are sufficiently massive, may offer a suitable alternative for the upstream shell of the WSD. *The Board encourages exploration of this avenue as the identification of suitable rock is paramount in the FS design for the WSD*.

8. Mitchell Glacier Investigations

8.1 GROUND PENETRATING RADAR

A programme of GPR survey was carried out in 2019 on the Mitchell glacier. Frontier Geosciences made use of a radar system employing a 1 to 200 MHz bandwidth which is deemed to be the most appropriate for wet temperate glacier ice. The survey lines were located further upstream from previous GPR work and were situated in the vicinity of the Brucejack fault, which is considered to be the boundary between clean and contaminated sub-glacial flow, and thus in the general area envisaged for the sub-glacial water capture system.

Preliminary results were presented to the Board and reasonable agreement with bedrock profiles, as obtained from the hot-water drilling programme, was noted. Additional calibration and survey data processing is expected to further improve the interpretations. The results indicate the ice above bedrock is up to 150 m thick. As a result, the elevation of the thalweg may require a lower invert for the inlet tunnel than presumed in the 2016 designs.

8.2 ICE DRILLING

An ice drilling programme was carried out in June and September of 2019 to complement the work done in August 2014 and to meet a condition of the EA certificate related to water quality. The hot water drilling technique permitted holes to be advanced at a rate of around 250 m in 4 to 5 hours. Ice sampling for sediment content, camera validation of bed contact, instrument installation and tracer studies for channel connectivity were also part of the programme.

The objectives were to establish bed elevations and to gain knowledge of the spatial distribution of water flow within the glacier, the water pressures at the instrument locations, and the temporal variation of these parameters. All of this is to support the engineering design of the sub-glacial inlets for the capture of clean (non-contact) water that is then diverted into the Mitchell Diversion Tunnels.

The average pH value of the water encountered was 8.4 thus confirming the locations drilled are upstream of the contact with mineralized rock. However, the highly variable water pressures encountered and the difficulty in identifying channel connections, highlights the potential complexity in achieving capture, at least during specific stages of the annual cycle of flow channel formation within the ice.

The existing examples of sub-glacial water capture, for example beneath the Engebreen Glacier at the Svartisen hydro plant in Norway, are operated to partially capture the subglacial flow each year in order to replenish the reservoir of the hydroelectric scheme. At KSM, maximizing capture throughout the year would be desirable. However, plastic ice flow closes deep crevasses and intrudes into the inlet during the winter period. Spring thaw and rainfall run-off will likely by-pass the inlets, at least initially, and water will report to the toe of the glacier. As the internal channels develop, possibly aided by active ice melting in the vicinity of the sub-glacial inlets, a greater volume of the water will be captured and diverted.

As a result of the above considerations, the water control system upstream of the Mitchell Pit may have to be designed to accommodate the full flow at the toe for the early spring period and divert this water to the water storage and treatment facilities. Flow rates above and beyond a given design inflow value such as a low probability flood rate, could be allowed to overtop the control weir and enter the mine pit to be later pumped out. This would not constitute a safety issue for the pit as flow monitoring would permit timely evacuation of personnel and equipment. Note, however, that no access ramp could be located on the upstream pit wall. Not withstanding the improved later summer season capture, extreme rainfall events will still require appropriate management.

9. Closure

The IGRB appreciates the update on the KSM Project and the opportunity to review the information provided. The important recommendations of the Board emphasize that the FS design should be conducted in a manner to accomplish the objectives outlined in Section 3 of this report. Borrow investigations for dam core, filter and drain materials should focus on confirming enough materials (including contingencies) with the required engineering characteristics for construction of the TMF. Also importantly, more work is required to establish a suitable source of durable rockfill for the upstream shell of the WSD which will be exposed to low pH waters and to consider “in perpetuity” durability requirements for this dam.

Appendix A

Agenda

Agenda

IGRB Board Meeting - 5th Meeting
KSM Project
November 5 (and 6 if required), 2019

Location: Blake, Cassels & Graydon LLP
26th Floor Board Room
595 Burrard Street, Suite 2600, Vancouver BC V7X 1L3
Tel: 604-631-3300 Fax: 604-631-3309
blakes.com

1. **Project Update (8:30-10:00 AM)**
   - 1.1 Introductions and Safety Share ..... *Brent Murphy*
   - 1.2 Environmental Updates
     - 1.2.1 Environmental Assessment Certificate Renewal ..... *Brent Murphy*
     - 1.2.2 Tahltan IBA ..... *Brent Murphy*
     - 1.2.3 Development of a New Predictive Water Quality Model Framework ..... *Dan Walker*
     - 1.2.4 Waste Characterization -..... *Brent Murphy*
     - 1.2.5 Iron Cap Exploration Adit NoW Application ..... *Brent Murphy*
   - 1.3 Exploration update
     - 1.3.1 Recent Iron Cap Drilling Success ..... *Mike Skurski/Brent Murphy*

Coffee Break (10:00- 10:15 AM)

2. **IGRB Items for Consideration** (for each of these items we would appreciate the Board's comment on Status; where we are headed; and a summary of your thoughts) **(10:15AM-2:00PM)**
   - 2.1 Update on WSD Investigation ..... *Mike Skurski/Graham Parkinson*
   - 2.2 Results of the P8 Testing ..... *Mike Skurski/Graham Parkinson*
   - 2.3 TMF West Till Borrow Investigation ..... *Mike Skurski/Graham Parkinson*

Lunch (12:00-12:30 PM)

   - 2.4 Mitchell Glacier Work
     - 2.4.1 GPR ..... *Graham Parkinson*
     - 2.4.2 Ice Drilling..... *Kelsey Norlund*
   - 2.5 TMF Fact Sheet ..... *Brent Murphy/Mike Skurski*

Coffee Break (2:00-2:15PM)

3. **Discussion between IGRB and Seabridge (2:15-3:15 PM)**
4. **Board Deliberations (3:15-6:00PM)**

Note: The boardroom will also be available the morning of November 6 if required.

Appendix B

Attendees

Attendees

KSM

- Peter Williams
- Brent Murphy
- Mike Skurski
- Jessy Chaplin

IGRB

- Andy Robertson
- Jim Obermeyer
- Terry Eldridge
- Anthony Rattue

Golder Associates:

- Dan Walker
- Kristen Salzsauler

Klohn Crippen Berger (KCB)

- Graham Parkinson

ERM

- Kelsey Norlund

BQE Water

- David Wilims