

Virtual INAP Op Com Meeting

March 10 - 11, 2021

Microsoft Team

Participants: Paul Brown – Rio Tinto/Chair of Op Com, Rosalind (Ros) Green – Rio Tinto, Jean Cayouette – Agnico Eagle Mines, Richard Marton – Anglo American, Marilena Stimpfl – BHP, Suzanne Davis-Hall – Kinross, Blair Sands – Newcrest, Rynhard Kok - Newmont, Michael Davies, Troy Jones, Louiza Bell – Teck, Scott Davidson – New Gold, Seth Muller – Boliden, Bruce Kelley – INAP Australia, Gilles Tremblay – INAP

Welcome

Paul (Brown) welcomed all participants to the meeting. Special welcome was extended to new member Boliden and to Anglo who are now back officially as members of INAP. He then read the following anti-trust statement.

“As a reminder, it is the responsibility of our members to comply in all respects with Federal and State antitrust laws. As such, discussion for the purpose of bringing about any understanding or agreement among members to (a) raise, lower, or stabilize prices; (b) regulate production; (c) allocate markets; (d) encourage boycotts; (e) foster unfair trade practices; (f) assist monopolization, or (g) in any way violate Federal or State antitrust laws is unacceptable and will not be tolerated.

Any questions regarding the meaning or applicability of this policy, as well as any concerns regarding activities or discussions at INAP meetings, should be promptly brought to the attention of the INAP Chair.”

Building Better Waste Rock Piles (MRS) – Phase II

Mike O’Kane and Joe Huelin from O’Kane Consulting and Jeff Taylor from Earth System joined the meeting to discuss the Phase II comments received from INAP members and the path forward. Prior to the meeting, Gilles had sent to members the responses that Mike had provided to the INAP comments. A brief summary on the project was provided by Gilles and this was followed by a discussion on the next steps.

The discussions were focused on how much historical data were available from the Equity site and the block model. Both Jeff and Mike came independently to the same conclusion that Equity would be the perfect site for Phase II. The project would balance the environmental performance and wealth of monitoring data against how the pit was developed and mine rock placement on the piles. In discussing the base case, it was mentioned that using aerial photos for sequencing information on pit development and rock placement could be used to build the site base case. Such information could also come from discussions with personnel that have worked at the site. All agreed that Equity was ahead of its time with regards to the wealth of monitoring data and that if any mine would have the historical data, it is Equity.

There was still concern about obtaining sufficient data for the base case and a suggestion was made to have an exploratory phase, termed Phase 0. This phase would determine if there is enough data from Equity to proceed with the project.

Mike mentioned that the project team was not tied to Equity but that Equity was an opportunity because of the wealth of monitoring data and the modelling work carried out at the site by the National Research Council of Canada. Other sites mentioned were Argyle, Whaleback, Kidston, Rum Jungle and Brukunga but several had other issues of concern (e.g., low sulphides, lack of water, general lack of information) that would not make them good candidate sites. Members were asked to keep thinking about other possible sites that could be used for Phase II should Equity not be selected.

Members agreed to go forward with Phase 0 which will result in a better understanding of what data exists and is readily available from the Equity site. A go/no go decision for Phase II would be made based on the findings of Phase 0. **ACTION:** Proponent to determine what information exists and is readily available for the Equity site.

ICARD “Lite” **Virtual-ICARD 2021.**

Chris Kennedy (SRK), Conference Chair joined the meeting and presented an update on the virtual “ICARD Lite” conference to be held this coming September. The presentation and the terms of references (TOR) for the organizing committee to develop, plan, and execute the virtual event in 2021 will be distributed to members following the meeting. **ACTION:** Gilles to distribute the TOR and the Virtual ICARD 2021 presentation to members.

At the end of the presentation Chris provided the results of the vote for the name of the conference. It will be officially known as **Virtual-ICARD 2021.**

Several key points were raised and discussed after the presentation:

- Proposed dates are September 21 to 23, 2021. Dates to be confirmed following selection of professional conference organizing (PCO) group. Also need to verify whether other conferences are planned for same dates.
- Speakers will be by invitation only. Once dates selected, speakers will be contacted to ensure that they are interested and available to participate.
- Hold the date note to be sent out as soon as date is selected.
 - Various options discussed re advertisement (e.g., INAP website, LinkedIn, Newsletter, various Global Alliance member mailings lists).
- Request for Proposals for PCO is top priority for the organizing committee. Planned for later this March. Details being worked out. Some of the requirements will include that the presentations would be live and recorded, and uploaded to a portal for future access. Start times would need to take into account the various time zones.
- In response to a question about costs of holding such an event – Chris mentioned the example from ICMS in Australia. This information had been provided to Gilles in late 2020. They had quoted a rough budget of ~AUD\$30,000 +/- 5% To break even this

would require a minimum registration fee of AUD\$100, with AUD\$20,000 sponsorship and 150 registrants.

Periodic updates will be provided to the members by Chris and his team.

MEND/INAP Project with Klohn Crippen Berger (KCB) - Geochemical Degradation of Tailings and Fills

Scott (Davidson), as INAP lead for this project, briefed the members on the collaborative INAP/MEND project with KCB on the effects of geotechnical implications of geochemical reactions in tailings dam materials. The KCB presentation from the February 18th project kick-off meeting was distributed to members prior to this meeting and the key discussion points were presented by Scott.

This project is to complete a literature review on the current state of industry practices and to identify gaps. A literature review will be followed by a request to industry partners (e.g., INAP, ICMM, MAC, CDA) to share any relevant information around their experiences, observations, data, or information relating to geochemical processes that could affect the physical stability or drainage of a Tailings Storage Facility (TSF). An engagement letter will be prepared and sent to potential contributors. The letter to INAP members will be sent via Gilles. **ACTION:** Gilles to distribute the KCB engagement letter to members.

This project has a total budget of CDN\$50K of which KCB is providing 50% in kind. The remaining CDN\$25K is split between INAP and MEND. He also mentioned that monthly meetings at key milestones are planned. Delivery of the final report is planned for August 1, 2021.

Other Business

Brief Project Updates

GARD Guide – Update to Chapter 7

The final version of the update to Chapter 7 was received and the pdf will be made available for download on the public homepage of the new website. Copies will be distributed to members prior to the launch. **ACTION:** Distribute Final Chapter 7 Update to members.

GARD Guide – New chapter on Mine Closure and Sustainability

The draft outline for the new chapter is expected shortly. This will be distributed to members for their input. **ACTION:** Distribute draft outline of Mine Closure and Sustainability chapter to members for their input.

Gilles also mentioned a recent discussion with Rens Verburg of Golder regarding this new chapter and how it would be inserted in the GARD Guide. At first there was thought that it would be a separate chapter but following an internal discussion with the project team, replacing the existing Chapter 11 is now being recommended.

Further discussions are planned regarding the GARD Guide website now that updates to chapters are either completed and/or ongoing. The site now uses the Wiki format. After receiving numerous requests for a hard copy of the GARD Guide, a pdf version was made available. Gilles has had several discussions with Rens Verburg at Golder on possible options for updating the GARD Guide website and more are planned. **ACTION:** Gilles to report back to members with regards to options for updating the GARD Guide website.

Next Webinar – Mining in the North

Gilles confirmed that the next webinar, Mining in the North by Alexandre Lavallee of Agnico Eagle, is planned for April 8/9. Registration details and the flyer will be distributed in the coming weeks.

New Website

Gilles thanked the members for the comments he received on the new website. Great progress has been made. Many pictures have been added, links have been checked and updated and/or removed, and AMD was adopted throughout for terminology (other than for the GARD Guide). The research pages have been updated with ongoing and completed reports. As an example, members will only find the Diavik and Pit Lake information in the members section as these two projects are restricted to members. Mobile users will see an improvement as the site has been recoded to adopt to various user interfaces.

A suggestion to align the members site headings with the Strategic Plan was adopted. Now members will find the four main themes as headings.

Gilles mentioned the need for additional photos. He thanked Agnico Eagle who have provided photos and Teck, who are currently in the approval process before releasing some. The plan is to build a library to periodically change the photos who now appear on each of the pages.

The plan is to launch the site before the end of the month. A few pages remain in the members site that have little or no information. Some gathering of information for these pages has begun and more is planned.

Next set of INAP Meeting

May was suggested for the next set of INAP meetings. Gilles to contact both Chairs regarding availability the Op Com (4 h) and Board/AGM (2 h) meetings. A Monday/Tuesday Op/Com followed later that same week on Thursday/Friday for the Board/AGM is a possibility. Rotating

the start times for the Op Com will need to be considered now that Boliden has joined. **ACTION:** Gilles to contact Chairs with regards to the next set of meetings.

Meeting adjourned.

ACTION ITEMS

1. O’Kane and Earth Systems to prepare a brief proposal (Phase 0) to determine what information exists and is readily available for the Equity site.
2. Gilles to distribute the TOR and the Virtual ICARD 2021 presentation to members.
3. Gilles to distribute the KCB engagement letter to members.
4. Gilles to distribute Final Chapter 7 Update to members.
5. Gilles to distribute draft outline of Mine Closure and Sustainability chapter to members for their input.
6. Gilles to report back to members with regards to options for updating the GARD Guide website.
7. Gilles to contact Chairs with regards to the next set of meetings.