



The International Network for Acid Prevention

drives leading practice in acid and metalliferous drainage risk management so that mining companies can operate sustainably in their respective environments across the life of asset cycle. This is achieved through mining industry-led collaboration, knowledge development and sharing.

1. SUMMARY

Welcome to the second INAP Newsletter of 2021. We are still faced with a challenge but as vaccines get rolled out across the globe, hope for something closer to normalcy is on the horizon.

INAP recently welcomed Boliden as a new member and plans are under way for a Virtual ICARD 2021 in September. The update to Chapter 7 – Treatment of the GARD Guide is now available and work is progressing on the new Mine Closure and Sustainability chapter. Plans are to continue with more updates this year.

This issue also features articles on a collaborative project between INAP and MEND, ICARD 2022 and the Australian AMD 2021 workshop. As we plan our recovery, the feature of up-coming events is back.

And lastly, I invite the readers to visit the new INAP website launched in late March.

Happy reading to all. Comments and suggestions are welcomed! And don't forget to be safe and responsible.

Our coronavirus heroes
To all those working on the front lines of this pandemic, thank you for being there for us.



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2. Boliden Mineral Joins INAP

INAP is happy to announce that Boliden Mineral has joined INAP in the tiered membership category.

The INAP Operating Committee and Board welcomes the expertise that Boliden brings to INAP and looks forward to working together on acid and metalliferous drainage issues. Boliden will be represented by Seth Muller, Senior Development Engineer and Erik Ronne, Research Manager Sustainability.



3. Virtual ICARD in 2021

Mark your calendars and plan to attend the “Virtual ICARD 2021” event planned for September 21-23, 2021. Plans include a mix of invited speakers, virtual site visits, and panel discussions from global experts.



As a result of the COVID-19 global pandemic, the face-to-face 2021 ICARD conference scheduled to be held in Brisbane in September 2021 has been postponed until 2022. The time gap between gatherings was considered by INAP’s Board and

Operating Committee to be significant in terms of losing connections with industry and maintaining momentum for advancing the state of practice. To address this gap, INAP is proud to host a virtual conference in September. The theme of the 2021 ICARD is “Meeting Challenge Through Innovation”. Note that this event is supplementary to “ICARD 2022” in Brisbane.

For more information, please visit www.icard2021.com.

4. INAP Launches New Website

The “NEW” website is now live at <https://www.inap.com.au>. A special thank you to our webmaster for his help and making this possible. In addition to the web version, the site is coded for mobile users.

A reminder to follow our INAP Group page on LinkedIn to keep up on the latest developments within INAP. Please search “INAP: International Network for Acid Prevention” to join or click the LinkedIn icon on the homepage.



5. Update to Chapter 7 – Treatment (GARD Guide) now available

The Global Acid Rock Drainage Guide (GARD Guide) is intended as a state-of-practice summary of the leading practices and technology to assist mine operators and regulators to address issues related to sulphide mineral oxidation. It is a living document and requires periodic updating. Chapter 7, Treatment, was the first of the chapters to be selected and this work, a collaboration between Klohn Crippen Berger and Golder, was recently completed and available from the INAP homepage at <https://www.inap.com.au>.

6. New Chapter to be added to GARD Guide

One of the suggestions made in a meeting of the ICMM Mine Closure Working Group, that includes INAP member companies, was the integration of recent developments in mine closure and sustainability in the GARD Guide. “Mine Closure” has become much more visible since the creation of the GARD Guide in 2009, and is seen as a strategic issue, risk topic, business reality, and commercial practice area all of its own. Golder Associates, in partnership with Robertson Geoconsultants and Dirk Van Zyl, was awarded a contract in early 2021 to develop a dedicated chapter on “Mine Closure and Sustainability” that will significantly raise the profile of this area and provide a more focussed and holistic view for stakeholders and users of the Guide.

7. Collaborative Project on the Geochemical Degradation of Tailings and Fills

INAP, in partnership with MEND, are funding a literature review and gap analysis with Klohn Crippen Berger (KCB) to improve the mining industry’s practice and awareness on how geochemical processes influence physical (geotechnical) stability of tailings storage facilities (TSFs). This review will draw upon information in the public domain and information volunteered by mining companies. The review will identify:

- Geochemical alteration and degradation processes occurring across a variety of TSFs as a function of their environment and commodity type; and, how these processes can influence physical stability and drainage.
- The state of industry best practices.
- Gaps with respect to currently identified mine waste management options including the identification of important geochemical processes to consider, and, testing and evaluation methods to understand potential stability risks over the near and long term.



The study will outline key processes related to geochemical weathering, alteration, and, material degradation, of structural fill, tailings, and, rockfill used in TSF construction. Key processes outlined will focus on those that result in a change in material type, geo-mechanical strength, and grain size, leading to a change in material compressibility, consolidation, cohesion, porosity, and permeability.

If your company has experienced similar issues and are interested in participating in this study, please contact Jennifer Durocher at jdurocher@klohn.com.



8. ICARD 2022 Brisbane, Australia

The Twelfth International Conference on Acid Rock Drainage (12th ICARD), is planned for September 2022 in Brisbane, Australia. Please visit <https://www.icard2022.com.au/> for more information and looking forward to seeing you in Brisbane in 2022.



9. AMD 2021 Virtual Australian Workshop

The 10th Australian Workshop on Acid and Metalliferous Drainage (AMD) 2021 will be held as a virtual event from June 22-25, 2021. This event was initially planned as a physical workshop in Dubbo, New South Wales in March 2020 but was postponed due to the pandemic.



Australian Workshop on Acid
and Metalliferous Drainage

The organizing committee invites you to visit the website at <https://amdworkshop.com.au/> to view the list of papers, speakers and registration details. You will also find information on the AMD short course titled - "AMD Management: Risk and Opportunity" that will be facilitated by Okane Consultants.

10. Symposium on Mines and the Environment 2021

The Université du Québec en Abitibi-Témiscamingue (UQAT) and the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), invite you to attend the virtual Symposium 2021 on Mines and the Environment, from June 14 to 16, 2021. The objectives of the virtual Symposium are to share recent knowledge and research developments and to discuss common practices to find solutions that reconcile resource exploitation and environmental protection.

Keynote speakers include TERRE-NET professors David Blowes, Ward Wilson, Uli Mayer, Arn Keeling, and Bruno Bussière. English-French translation is provided. A virtual poster session will showcase graduate student projects. Presentations and posters are pre-recorded and will remain available to view for up to a month after the event. Short courses on several topics are also offered (in French). Details can be found at: <https://rouyn-noranda2021.cim.org/>



11. Up-Coming Events

Don't miss the following upcoming events:

- **Virtual Mines and the Environment 2021**
June 14-16, 2021
<https://rouyn-noranda2021.cim.org/>
- **Australian AMD 2021 Virtual Workshop (AMD 2021)**
June 22-25, 2021.
<https://amdworkshop.com.au/>

- **14th IMWA Virtual Congress**
July 12-16, 2021
<http://www.imwa2021.info/>
- **Virtual ICARD 2021**
September 21-23, 2021
www.icard2021.com
- **Tailings and Mine Waste 2021**
November 7-10, 2021. Banff, AB, Canada
<https://tailingsandminewaste.com/>
- **1st Latin American Virtual Congress of Acid Mine Drainage**
November 24-25, 2021
- **28th Annual BC/MEND ML/ARD Workshop**
December 8-9, 2021. Vancouver, BC, Canada
- **Mine Water Solutions 2022**
June 13-15, 2022. Vancouver, BC, Canada.
<https://www.mineconferences.com/>
- **12th International Conference on Acid Rock Drainage (ICARD2022)**
September 2022. Brisbane, Australia
<https://www.icard2022.com.au>

Please let us know of other events that would be of interest to INAP and GA members.

INAP MEMBERS

