MINE WATER NOTES

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A Word from the Secretary General

Dear colleagues and friends,

While I am writing those lines, the world metal market seems to have collapsed—or would it better to say consolidated? Due to concerns about how the economic crisis would affect the world's economy and all of the industrial growth that was occurring all over the world, during the last couple of months, copper fell from 9,000 to 4,500 \$US/ tonne and lead fell from 4,000 a year ago to 1,500 \$US/ tonne. Though the end users might be happy at the moment, mining and consulting companies will probably be less satisfied with this development. During the last 3 years, nothing could be predicted about the price of metals—but they were at a high level. Now we are back at the 2005/2006 metal price indices—with the exception of some metals, like gold, which still is twice as expensive as 2-3 years ago. I heard some colleagues rumouring that they will get less consulting contracts for mining related projects—but since environmental issues are still important in most parts of the developed world, I would not be that pessimistic.

Another issue concerning mine water is becoming more significant: geothermal power. Although the Dutch/German "mine water project" claims to be the "world's first mine water power station", mine water has been used as a geothermal resource long before 2008. Canadian Springhill in Nova Scotia (Fig. 1), just a 4 h drive away from where I am sitting, started to produce geothermal power back in 1989 nearly 20 years before the "mine water project". And that's not all: Park Hills/USA, Follda/Norway, Shettleston/Scotland, Ochil View/Scotland, and Ehrenfriedersdorf/Germany are already using mine water for heating purposes. Cities that may use geothermal energy from mine water in the future include Aachen and Bad Ems in Germany and Sydney, Canada. Obviously, mine water has a huge potential as a geothermal resource, yet there are still many questions to be addressed if flooded and abandoned mine pools are to become an energy resource for heat pumps. Some of the many questions to be answered include: can highly mineralized water be used in heat pumps or heat exchangers or will we always be forced to use closed loop systems that isolate the mine water form such components (ref Watzlaf and Ackman, this journal 2006(1), p. 1–14), how can short cuts between the production and injection wells be avoided, how can the interests of different end users be addressed, how long does it take to cool down the mine water pool to uneconomic temperatures, and how can the concerns of clean mine water discharges and potential interferences due to the disturbance of a geothermal use be harmonized.

If you are working on geothermal use of mine water, please let me know. I am going to organize a special issue for this journal on mine water and geothermal energy. Given the ever increasing need for clean, carbon-neutral ways to produce energy costs, the time appears right for the application and a special issue on this topic should prove to be a very valuable resource in its own right in the future. Please, let me know if you would like to be involved, send us your manuscripts, and we will be happy to review and publish them.

My last issue today: our new membership fee structure. At IMWA's last General Assembly meeting, it was decided to switch from US dollars-based accounts to EURO-based accounts. Our largest cost is the printing of our journal, and since that has to be paid to Springer in Euros, it makes sense to keep our accounts in the same fashion. Furthermore, we decided to raise the membership fee to cover our increased printing costs. We have kept our dues the same for over two decades, despite greatly increasing the number of papers published each year but everyone agrees that at some point, the increased costs have to be passed on to our members. For the next year, you will therefore be charged the equivalent of EURO 32 as an individual member, EURO 16 as a student member and EURO 160 as a corporate member (below 5 members). All non-European members will still get an invoice in US dollars, and because our bank is in the USA, credit cards will be charged in US dollars for all members. For those of you not in the EU, your dues will go up an equivalent amount, but the exact amount will depend on the relative value of the US dollar to the EURO at the time that the bills are sent out by our treasurer.

Glückauf

Chris Wolkersdorfer





Fig. 1 The location of Canada's Springhill, N.S. geothermal mine water project

Water in Mining 2009. From Concentrator to Community—Protecting Our License to Operate

Water access, management, and security are now firmly established on the risk management agenda of most mining companies. Since the First International Conference on Water in Mining 2003 (WIM 03), there has been an explosion of conferences, workshops, and symposia addressing issues surrounding water and mining, minerals processing, and refining. The papers from WIM 03, and its successor WIM 06, are widely cited and used. There has been a considerable increase in knowledge of the importance of water in managing risks and opportunities associated with production, environment, and communities, and some new tools to help decision makers and operators have become available.

Water in Mining 2009 (WIM 09) will be held from the 15–17 September 2009 in Perth, Western Australia. The aims for WIM 09 are to update progress in areas previously identified as important in WIM 03 and WIM 06 (and other national and international forums) and to raise emerging issues that require attention for research, management and policy formulation.

The Organising Committee of WIM 09 now invites interested parties to submit abstracts for consideration for publication and presentation at WIM 09. Papers will be considered on any aspect of water management in mining, minerals processing, and refining. Focus areas for priority selection of papers are provided below

 Minerals processing and refining generally serve as the major consumer of water on site as well as the facility most likely to alter water quality. Water management within the plant can dictate operating performance, reagent consumption, water recovery, and waste water discharge qualities. Effective process water management through implementation of continuously

- improving technologies and processes ensures an ongoing license to operate.
- 2. Community and stakeholder expectations for/on water systems design, implementation, operation, and closure. Increasingly, managers and operators are coming to terms with the fact that physical access to water is only one of many aspects of water that need to be managed well to protect the license to operate. Interestingly, community expectations may be more challenging to meet than merely complying with environmental regulations that have traditionally dominated license to operate considerations.
- 3. Cumulative impacts/effects—methods and case studies that explore the understanding, definition, measurement, communication, and management of cumulative effects of mining, minerals processing, and refining on water. As the Australian minerals industry is more reliant on groundwater than any other source and produces more wealth than any other user, understanding and managing groundwater impacts will be emphasised. Equally, build-up of contaminants in water systems over time requires production and environmental management that are more onerous than 'once through' use of fresh water, which is increasingly becoming an unacceptable practice. Many of the issues that must be considered in assessing whether water is well managed occur beyond the limits of individual operations. There are many water issues that cross boundaries in space and time.

Please submit your 300 word abstract (in English) and full contact details to: Olivia Tet Fong, Coordinator, Publications, AusIMM; E-mail: otetfong@ausimm.com.au; closing date for submission of abstracts is 14 November 2008.

For all enquiries, including Sponsorship and Exhibition opportunities, please contact: Stephanie Finlay, Coordinator, Conferences and Events; E-mail: sfinlay@ausimm.com.au.

New Members

We welcome our following new members Delf Baacke, Chemnitz, Germany Jacquie Dealtry, Adelaide, Australia Ben Jeuken, Adelaide, Australia Chris Johnson, Rapid City, USA Raj Kurup, West Perth, Australia Jürgen Meyer, Chemnitz, Germany Michael Paul, Chemnitz, Germany Leo Van Sambeek, Rapid City, USA

We hope that our new colleagues will benefit from and contribute to the extensive mine water knowledge and



expertise gathered within our group of international experts. Please use your membership number in any correspondence, especially money transfers with IMWA. You can find it easily on your journal's address label, in front of the word "GES".

Lee C. Atkinson, Treasurer, Lakewood, Colorado, USA; Chris Wolkersdorfer, Secretary General, Cape Breton, Canada.

Back Issues

Members who recently joined IMWA can find a complete index (issues 1–26) of the *International Mine Water Association Journal* and *Mine Water and the Environment* at our web-page: www.IMWA.info. Volumes 17(1), 18(1), 19(2), 20(1), and 21(1), as well as proceedings of the 7th and 8th IMWA Congresses are still available for \$15.00 (US) a copy. Some other back issues are available on request—copies of single pages at \$0.60 (US) each. Please add \$5.00 (US) for shipping/handling. You can also access the journal on line, using http://www.imwa.info/springer. You can download an overview of European mine water issues from IMWA's web page or use the following Digital Object Identifier: http://dx.doi.org/10.1007/s10230-005-0081-3.

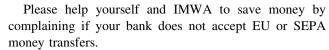
Past IMWA issues, published before the year 2000, can be accessed with your private login and password that you received with your last membership status or by E-mail.

Chris Wolkersdorfer, Sydney, Cape Breton, Canada.

EU Money Transfers

According to European law, EU money transfers (in EU-ROs) must not cost more than national money transfers if you use IMWA's IBAN and BIC numbers (they must also be printed on your bank's money transfer statements). The banks are not allowed to charge extra costs. If they do so, please contact your national Complaint Body (see below). Your bank might tell you that those regulations will only be valid in 2008. In fact, this is not true! In 2008, the SEPA system will come into force. This system will harmonize EU and international money transfers but the law has been in force since 2004. Please keep in mind: EU money transfers are not international money transfers! This law does not apply to these European countries: Andorra, Monaco, Switzerland, San Marino, and the Holy See.

Here is the link to the EU payment legislation: http://www.imwa.info/eu_payment. If you have problems with your bank (and they often cause problems in this matter), your country has a national Complaint Body: http://ec.europa.eu/internal_market/payments/crossborder/complaintbodies_en.htm.



Lee C. Atkinson, Treasurer, Lakewood, Colorado, USA; Chris Wolkersdorfer, Secretary General, Sydney, Cape Breton, Canada.

Forthcoming Events

12–13 March 2009, Pattaya Park Beach Resort, Thailand

2nd Thailand Rock Mechanics Symposium ThaiRock 2009: gmr@sut.ac.th; http://www.geomechsut.com

23-26 June 2009, Skellefteå, Sweden

ICARD 2009—"Securing The Future": With the organisation of Securing the Future 2009 and the 8th ICARD in Skellefteå, the organizing committee wishes to bring together international experts on environmental and social aspects of mining and metals from the scientific community, from government agencies, from the mining and metal industries and from other stakeholders to share knowledge and experience and to discuss industry practices, challenges and research needs; http://www.securing.skelleftea.se; the deadline for abstracts is 15 September 15 2008

June 28-July 1 2009, Innsbruck, Austria

E^{mc}2009—European Metallurgical Conference: Global Growth of Nonferrous Metals Production; www.EMC. gdmb.de

15-17 September 2009, Pert, Western Australia

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13-17 September 2009, Bariloche, Argentina

18th International Biohydrometallurgy Symposium; www.ibs2009.org.ar; info@ibs2009.org.ar



19-23 October 2009, Pretoria, South Africa

IMWA 2009 Symposium.

http://www.IMWA.info; imwa2009@IMWA.info

5-12 September 2010, Sydney, Nova Scotia, Canada

IMWA 2010 Symposium.

http://www.IMWA.info; imwa2010@IMWA.info

4-11 September 2011, Aachen, Germany

11th IMWA Congress.

http://www.IMWA.info; imwa2011@IMWA.info

2012, Denpasar, Bali, Indonesia

IMWA 2012 Symposium.

http://www.IMWA.info; imwa2012@IMWA.info

