



The International Network for Acid Prevention

An organization of international mining companies dedicated to a reduction in the liability associated with sulphide mine materials

March 2007

NEWSLETTER

www.inap.com.au

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1. We are in business now!

Denis Kemp, INAP Operating Committee Chair

The last part of 2006 was a joyous relief for me as OpCom Chair because October marked the end of an almost seven month search to find a replacement INAP Technical Manager following the departure of Anne-Marie Fleury to ICMM.

Our new Manager, Terrence (Terry) Chatwin joined INAP on October 15th, and I do not think we could have found a better person to fill the role. Terry comes to INAP with 40+ years experience in the mining and metallurgical fields of operations, technology, consulting and research. What better combination could we want than that to run an organisation that is squarely focussed on the practical issues of ARD prevention and management?

Terry met most of the Operating Committee at the time of the BC-ARD Workshop in Vancouver, in December 2006. Most of us will not forget that meeting for many reasons, the most notable being the cold and miserable weather in Vancouver that almost made our Australian colleagues pack up and go home! The meeting was very successful, and the Board made a significant decision, which I believe will be a milestone in the activities of INAP. Funds were committed to develop a world-wide best-practice guide on ARD prevention and management. See item 3 below.

A special thank-you goes to the Operating Committee members for their support in 2006. Without the commitment of members, INAP would soon fade into an insignificant organisation. The past year has proved that is not the case!

2. The Global Acid Rock Drainage Guide (GARD Guide) leaps ahead

Many of you will recall from previous newsletters that INAP has been leading an effort to begin a collaborative project with the Global Alliance to establish a global guide on acid drainage. The GARD Guide aims to be a world-wide, interactive reference for acid prevention and to identify Best Practice in the field of ARD, but will not be an easy undertaking. In order to create a truly global guide, experts from around the globe are being sought for involvement in the research and development of the Guide. Funding and sponsorship is also crucial to ensure research and development of the Guide continues on a level that is on par with our goals and expectations.

3. Implementation of the GARD Guide

Terrence Chatwin, INAP Technical Manager

For those who have caught a great wave and ridden it all the way to the beach, you can understand my feelings when I joined INAP as the Technical Manager in October 2006 and got involved in the GARD Guide activity. The momentum of this project is awesome, thanks to our project leader, Keith Ferguson.

At the Operating Committee meeting in Vancouver B.C. at the end of November we received the presentation on the Phase 1 activity, which included the Phase 2 implementation plan through the Beta version of the GARD Guide. Phase I for the project involved developing the Table of Contents, structure and overall plan for the Guide. The next day the INAP Board met and approved initial funding for the GARD Guide through to the Beta version. Following this approval, Denis Kemp, the INAP OpCom Chairman stated, "INAP has been looking forward to developing a GARD Guide that will be the world-wide reference for acid prevention. I am confident this Guide will meet our high expectations."

Since the approval, the Phase 1 Report and the Phase 2 Implementation Plan were finalized. The Phase I Report was very much a team effort. Keith said, "Without the tremendous support and work of the Phase 1 Steering Committee, this activity would have been impossible to complete in the scheduled time frame. I would like to personally thank each of the 21 members of the Phase 1 Steering Committee for their work." (See below)

During January 2007, a smaller Steering Committee was formed, which will help direct the detailed implementation of the Phase 2 activity. Members of the Phase 2 Steering Committee include: Keith Ferguson, Terrence Chatwin, Clive Bell, Charles Bucknam, Adam Jarvis, and Dave Salmon. Gilles Tremblay and Charlene Hogan will act as the Secretariat for the Steering Committee.

The Steering Committee is in the process of selecting an Advisory Committee that would act in a similar manner as the Phase 1 Steering Committee. We are also screening a "short list" of consultants that would be asked to present a proposal to form a collaborative team to compile the Beta version of the GARD Guide. We are anticipating that the Beta version will be completed by the end of 2007.

Members of the Phase 1 Steering Committee

- Clive Bell - ACMER
- Rich Borden - Rio Tinto/INAP
- Linda Broughton - BHP/INAP
- Charles Bucknam - Newmont/ADTI
- Meiring du Plessis - WRC, South Africa
- Linda Figueroa - CSM/ADTI

- Anne-Marie Fleury - ICMM
- Ross Gallinger - IAMGOLD/INAP
- Elizabeth Gardiner - MAC/MEND
- Adam Jarvis - University of Newcastle/PADRE
- Bruce Kelley - Rio Tinto/INAP
- Denis Kemp - Xstrata/INAP/MEND
- Bill Price - NRCan/MEND
- Dave Salmon - Anglo American
- Jos Schaekers - South Africa Consultant
- Steve Slater - Rio Tinto/INAP
- Gilles Tremblay - NRCan/MEND
- Amber Turner - INAP
- David Williams - US BLM, ADTI
- Chris Wolkersdorfer - PADRE/IMWA/TU Bergakademie Freiberg
- Paul Ziemkiewicz - University of West Virginia/ ADTI

4. Marketing the GARD Guide

On January 31, Jim Robertson, Denis Kemp and Terrence Chatwin met with Alex Indorf, Chris Frankel and John Middleton of the International Finance Corporation (IFC) in Washington D.C. to update them with activities of INAP, particularly the GARD Guide. The meeting was quite timely since IFC is in the process of finalizing their guidelines for financing international mining projects. The IFC Guidelines are also one of the bases for the Equator Principles used by the banking industry for assessing project risk. We agreed to provide an extensive constructive review of the document when it is issued. Overall the presentation was very fruitful, as we developed excellent contacts for future involvement of IFC in the review of the GARD Guide by the IFC team that is producing the guidelines.

Following this meeting, Denis and Terrence met with Karen Bennett, Tawny Bridgeford, Brad Frisby and Katie Sweeney at the National Mining Association (NMA) to acquaint them with our recent activities on the GARD Guide. Recently, NMA has been focused on the impacts of mining on water quality due to a recent “white paper” on mining impacts by Earthworks. This “white paper” was based on two reports on modelling and impacts of mining on water quality by Ann Maest and Jim Kuipers. We presented how the GARD Guide is a partial answer to critics of mining like Earthworks. We believe that INAP could be a valuable resource to assist NMA in understanding the issues of ARD and how we might support them in the future with workshops and publications.

On February 2, Jim Robertson and Terrence Chatwin met with Barrick’s Environmental Vice President, Managers and Directors for North America. We discussed the GARD Guide, the proposed environmental workshop and how Barrick might take greater advantage of their membership in INAP.

5. Global Alliance member news

ACMER NEWS

Leading Practice Sustainable Development in Mining

In 2006, the Australian Government Department of Industry, Tourism and Resources (DITR) commenced the Leading Practice Sustainable Development Management Program for the Mining Industry. The Leading Practice Program replaces the Best Practice Environmental Management series. This program is an initiative that focuses on key issues affecting sustainable development, and demonstrates leading practice on a range of issues, through the production of a series of handbooks by expert working groups. The first four handbooks were launched recently at the 2006 Minerals Council of Australia Sustainable Development Conference and include: Stewardship, Mine Closure and Completion, Mine Rehabilitation, and, Community Engagement and Development. Copies of these handbooks, which have also been translated into Spanish, Vietnamese, Indonesian (Bahasa) and Chinese, are available by contacting sdmining@industry.gov.au or from www.industry.gov.au/sdmining. Three additional handbooks will be available in mid-February 2007, viz. Managing Acid and Metalliferous Drainage, Tailings Management, and Biodiversity Management.

ACMER's Activities in 2007

In the first half of 2007, ACMER will be conducting a workshop on Sustainable Mine Closure (May), and a short course on Practical Environmental Monitoring for the Minerals Industry (late May). Advice on courses for the second half of 2007 will be provided in future newsletters. In February 2008, ACMER will conduct the 6th Australian Workshop on Acid Drainage, and an associated short course, details of which will be provided subsequently.

ACMER's New Home

In September 2006, three of ACMER Limited's staff transferred across to the Sustainable Minerals Institute (SMI) at the University of Queensland, and will continue to conduct ACMER's Technology Transfer Program. In addition, a number of existing research projects including the Covers project (sponsored by INAP) will be managed by Dr Owen Nichols (former ACMER Research Program Manager) and by Dr David Mulligan (Centre for Mined Land Rehabilitation, a Centre within SMI). Emeritus Professor Clive Bell and Dr Owen Nichols will continue to assist ACMER on a part-time basis in the conduct of several courses; Emeritus Professor Bell will continue to represent ACMER in relation to INAP matters. For information on ACMER's activities, contact Ron McLean at info@acmer.uq.edu.au or visit www.acmer@uq.edu.au.

WRC of South Africa News

The Mine Water Division of the Water Institute of Southern Africa held its annual Conference on 19 and 20 October 2006 at the Randfontein Estates Gold Mine. The conference theme was Mine Water Drainage (South African Perspective).

South Africa has a long history of mining and mine water drainage. Acid Mine Drainage is one of the primary sources of water pollution emanating from mining activities and arguably causes the largest impact on receiving water resources. During the past number of years several successful research projects culminated into the implementation of numerous mine water drainage impact management measures unique to the South African situation. This Conference was designed to present an overview of the current status of mine water drainage in South Africa, the impacts that may be associated therewith and the possible management thereof.

The keynote addresses were delivered by Dave Salmon (Anglo American INAP representative) and Meiring du Plessis (Water Research Commission representative on INAP's Global Alliance). The topics covered were, respectively *Developments in local and international sustainable mine water management practices* and *INAP's global initiatives to deal with acid mine drainage*.

The first day of the conference was further divided into four sessions during which invited speakers covered the topics:

- Mine water drainage in South Africa
- Practical applications
- Legislative requirements
- Integrated water use licence applications

The second day was devoted to a facilitated workshop which debated the success, failure, difficulties and achievements of the Integrated Water Use Licence Application process under the South African National Water Act. The outcome of this workshop was documented and the Department of Water Affairs and Forestry provided with a list of issues for consideration.

MEND News

For the latest MEND news, you can view the [MEND Monitor](#) newsletter at the Natural Resources Canada Website. You can also contact MEND by e-mail: mend_nedem@nrcan.gc.ca.

ADTI News

For the latest ADTI news, please visit ADTI members at the event or visit their website www.unr.edu/mines/adti .

PADRE News

For the latest PADRE news or symposium information, visit PADRE's website at <http://www.padre.imwa.info/index.html> or <http://www.geo.tu-freiberg.de/bht>

6. Forthcoming Events

Don't miss the following meetings and events related to acid drainage.

* Potential INAP and Regional Organization meetings are indicated with an asterisk.

- [2007 SME Annual Meeting and Exhibit](#)
February 25-28 2007, in Denver, Colorado, USA
- [Northern Ontario Mines & Minerals Symposium “Mineral Exploration: Information for Decision Making”](#)
February 27-28 2007, in Ontario, Canada
- [TMS 2007: Linking Science and Technology for Global Solutions](#)
February 25 - March 1 2007, in Orlando, Florida
- [GRC - Implementation of Remediation](#)
(Short Course) March 1-2 2007, Cardiff University, Wales, UK
- [CRC Contamination CleanUp 2007](#)
(Short Course) March 4-8 2007, Adelaide, South Australia
- [Rehabilitation by Design](#)
(Short Course) March 8-9 2007, Singleton, New South Wales, Australia
- [Soils, Sediments, and Water](#)
March 19-22 2007, San Diego, California, USA
- *INAP Annual General Meeting (TBA)
May 2007, London, UK (and via teleconference)
- [IMWA Symposium 2007 - Water in Mining Environments](#)
May 27-31 2007, Cagliari, Sardinia, Italy
- [4th M-WINE Workshop on Hardpan Formation and Waste Rock Geochemistry and Hydrology](#)
July 2-5 2007, Kjeøy, Norway
- [ERTEP 2007 - 1st Intl Conference on Environmental Research, Technology and Policy](#)
July 17-19 2007, Accra, Ghana, Africa
- [ACG - International Seminar on Mine Closure - “Mine Closure 2007”](#)
October 16-19 2007, Santiago, Chile
- [SWEMP 2007 - 9th International Symposium on Environmental Issues and Waste Management in Energy and Mineral Production](#)
Dec 11-13 2007, Bangkok, Thailand