

INAP OpCom and Regional Organizations Meeting

Friday July 18, 2003

Participants:

Anne-Marie Fleury (INAP)	Les Hulett (Inco)
Bruce Kelley (Rio Tinto) CHAIR	Leslie Smith (UBC)
Charles Bucknam (ADTI)	Mandy Agnew (Rio Tinto Contractor)
Clive Bell (ACMER)	Nick Currey (Placer Dome)
David Jones (Rio Tinto)	Peter Waters (BHP Billiton)
David Blowes (UWaterloo)	Rich Borden (Rio Tinto)
Denis Kemp (Falconbridge)	Ross Gallinger (BHP Billiton)
Gilles Tremblay (MEND)	Steve Slater (Rio Tinto)
Jim Roberston (Placer Dome)	Tammy Vandivort (ADTI)
John Bennett (ANSTO)	Christian Wolkersdorfer (IMWA)
Kim Lapakko (ADTI)	Paul Younger (Uni Newcastle)

Update on Activities

The INAP Operating Committee is delighted to have officially announced the partnership with ACMER, ADTI, and MEND.

ACMER

AngloGold Australia Limited has recently applied to become a new member of ACMER.

A workshop on Water Quality Issues in Final Voids and Ephemeral Streams will be held in Brisbane on 21-22 July 2003. At the end of September 2003, a mine closure workshop will be held and, in November 2003, a workshop on abandoned mines will be held at the Minerals Council of Australia Conference. Information from MEND and ADTI on abandoned mines has been used in planning for that workshop. ACMER also plans to participate in a short course in Johannesburg in November 2003 at the request of the Chamber of Mines of South Africa.

ACMER is part of the global consortium which successfully tendered to undertake a review of good rehabilitation practice worldwide as part of the UK Eden Project's exploration of the need for a global centre for "post-mining regeneration".

The first draft of the critical review on Deep Sea Tailings Placement (DSTP) by CANMET and CSIRO has been completed. The Interim Steering Committee for this project is currently assessing criteria for membership of the proposed International Steering Committee to oversee future DSTP research.

ACMER is about to commence a research project on cyanide and wildlife, which will involve a site in Africa in addition to a number in Australia.

ADTI

The ADTI metal mining initiative are involved in planning the Symposium in Denver at the moment.

It is likely that Dirk VanZyl will be getting funds for the technology database from the army corps or engineers. ADTI will be seeking to have the database structure reviewed at the University of Reno at the end of October.

Two ADTI booklets from the coal mining division are ready and available on the web site. The status on the other booklets is:

- Prediction booklet - funded by EPA
- Mitigation booklet - partly funded
- Sampling and monitoring unfunded – EPA may fund
- Pita lakes booklet - still unfunded though EPA interested in mine waste programme
- Modelling booklet – Mining Association partially funding but 10000 still needed.

MEND

The new web site address is;

www.nrcan.gc.ca/mms/canmet-mtb/mmsl-lmsm/mend

A Newsletter was recently sent out – MEND invites interested parties to sign up. The next newsletter (distributed in Sept) will have a summary of the 6th ICARD and information on how to order the proceedings written by Clive Bell and Gilles Tremblay.

Projects currently underway in MEND include:

- Underground Paste Backfill
- Case Studies of British Columbia Mines
- Dry Covers Manual
- Covers for permafrost regions

Other projects that have recently been approved include:

- Review of Sludge Disposal
- Neutral Drainage

A \$75K project on the verification of technologies will be put out to bid shortly aiming to start fieldwork before early October.

The 10th Annual MEND/BC workshop is planned for 2-3 December in Vancouver focussing on characterization of wastes, changes in AD generating wastes, and recent MEND projects.

Gilles Tremblay briefed the group on a Diamond Workshop that was sponsored by Environment Canada (EC) and held in Ottawa on June 5-6. At present, diamond mine activity in Canada occurs North of 60 and falls under Indian and Northern Affairs Canada's area of responsibility. However, EC is laying the groundwork for future policy for potential diamond mines located outside the Department of Indian Affairs and Northern Development jurisdiction. Golder was contracted and presented their findings at a workshop attended by 85 people. The Golder report and the Workshop proceedings will be available on CD for distribution through EC and Golder will post the report on their website (www.golder.com).

MEND members are also working on the National Orphaned and Abandoned Mines Initiative (NOAMI). It involves federal and provincial governments, the Mining Association of Canada, industry, First Nations representatives, and non-governmental organizations. NAOMI will focus on building a national inventory by establishing a definition of an abandoned mine (AM), identifying barriers to collaboration on the AM issue, outlining community involvement aspects as well as funding models for AMs. More information is available on the web site (<http://www.gov.mb.ca/itm/mrd> - soon to be moved to a Natural Resources Canada site). Annual budget for the program is about \$100k – \$110k. Several provinces have also recently announced funding for remediation of abandoned mines.

Collaboration with INAP

No barriers or problems with the collaboration at the moment were raised. INAP should send out an official announcement of the alliance.

All parties agreed that keeping information flowing is most important. It was agreed teleconferences will be held on a quarterly basis with the INAP Technical Manager to coordinate and Bruce Kelley to outline the agenda.

Action Items:

Official announcement of alliance to be sent to INAP distribution list.	A-M Fleury
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Reg Orgs in other regions

Efforts will now focus on engaging with Reg Orgs in Southern Africa and Europe. An organisation with strength and contacts to represent the whole region is needed. No timeline on engaging with any new groups is set at the moment.

William Pulles from South Africa has expressed an interest and is speaking to groups in the region. Clive Bell is also happy to take INAP material on his proposed upcoming trip to Africa in November 2003.

In Europe many groups exist as highlighted by Manfred Lindvall's presentation at the ICARD. IMWA is one of the few groups with longevity in Europe.

INAP may also get links through ICMM, the OpCom is in the process of defining a strategy to engage with ICMM to get their endorsement and ensure duplication is avoided. It will be circulated to the Reg Orgs who can circulate it to their advisory committees.

Asia should also be a possibility. ACMER has links to the Indonesian Centre for Mining Environmental Research (ICMER) and has contacts with China and India. ACMER to explore possibilities and Clive Bell to send contacts for the newsletter to Anne-Marie Fleury. The Metal Mining Agency of Japan is a candidate group as they deal with many mining issues, particularly abandoned mines with AD generation. They also have office in Vancouver and London.

In South America AD is not on the radar screen at the moment. The Mining Association of Chile is perhaps the best possibility but they cover lots of topics. Possibilities through APEC GEMEED (Mine Ministers of the Americas) group.

Action Items:

Strategy to engage with ICMM to be sent to Regional Organisations	A-M Fleury
Contacts from China, India, and Indonesia for INAP newsletter distribution to be sent to INAP Tech Manager	Clive Bell

Research Proposals

Over 50 proposals were sent in response to the INAP Call for Proposals. Responses have been sent to all proponents, and most responses have been positive.

INAP has selected the following projects to fund in some way:

#	Title	Author
17	Designing Effective Store-release Covers for the Long-term Containment of Mine Waste	ACMER
30	Waste Rick Model Benchmarking	P Younger U Newcastle
31	Diavik - <i>precursor to Scale-up</i>	RT Diavik
37	10 th BCMEND ML/ARD Workshop	MEND
45	Workbooks on Predicting Acid Rock Drainage using Geochemical Mathematical Models	E Trujillo ADTI

#	Title	Author
53	Workbook on Pit Lake Characterization, Modeling, and Remediation Approaches	J Jonas ADTI
	Add South African experience to Sulphate Reduction report	Pulles, Howard & deLange

There are also several strategic projects INAP wants to go forward with:

#	Title	Author
21	Kinetic Development of Oxidation Zones of Tailings Dam - Witwatersrand Gold Tailings Dams	Pulles, Howard & de Lange
29	Scale-up	ANSTO,
48	Mitigation of Metal Levels in Pit Lakes through Whole Lake Manipulation	Lorax

The OpCom members also agreed to assist ACMER find funding from the companies for the shortfall for the DSTP project.

The Diavik project is a first stage to Scale-up. The OpCom also sees value in having the project design and business plan accessible to members on the web site. This material should be available for members to use for any scale-up work they may do. The proposal will not be circulated outside the members.

For the next Call for Proposals it was suggested that INAP consider:

- Being clearer on how much money is available and provide guidance on support and money INAP can provide
- Send all the letters of response on the same day with the same date indicated on the letter

As money was not the top criteria for INAP selecting projects (extra funding is provided for projects of special interest to company members), it was difficult to be clear on how much funding was available.

The Proposals should be archived on the web site for future reference. The projects INAP is going forth with should also be announced in the newsletter.

The next call for proposals will be discussed in more detail in Vancouver.

Symposium on Mine Pit Lakes

Hosted by the Geological Society of America on November 2-5 2003 in Seattle. Rens Verburg to attend and report back to ADTI and INAP.

Engaging Regulatory Bodies

Some regulatory bodies are interested in being part of INAP. ACMER has Commonwealth and State Government departments on its Board, and MEND and ADTI also engage regulatory bodies.

The OpCom would encourage regulatory bodies to engage with INAP through the Reg Orgs.

Potential Venues for next meetings

A number of possible venues exist :

- BC ML/ARD Vancouver 2-3 Dec 2003
Info on meeting available on MEND web site. Any further MEND meetings in 2004 to be signalled to INAP.
- SME Denver Colorado Feb 2004
- SWEMP 17-20 May 2004 Turkey
- IMWA Newcastle, UK 20-24 Sept 2004
- 2004 ACMER national workshop on AD
- Reno meeting ADTI in Autumn 2004

2004 meeting venues will be discussed in Vancouver.

World wide Guide

The World-wide Guide (WWG) project is based on the idea of developing a guide that reflects best science on AD and risk based approach. The WWG would require participation of the Reg Orgs and global organisations such as the World Bank and the UN. It would also involve a multi-stakeholder component including NGOs and industry.

ADTI support getting best practice guidelines. MEND also support and have participated in the drafting of a guidelines document by Environment Canada as part of the Metal Mining Effluent Regulations. As ACMER may well be involved with the Australian best practice guides, they would also be well placed to participate.

ICMM is presently looking to get web-based guide on tailings management. They could be approached. This should be considered for the strategy to put to ICMM for engagement with INAP. A teleconference could be planned to discuss this.

Action Items:

Strategy to engage with ICMM through tailings management guidelines to be developed. Possible teleconference	R Gallinger
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Other

The INAP marketing package (including a brochure and an informational paper) will be sent to the Reg Orgs as well as the electronic version of the abstract from ICARD proceedings.

The electronic version of the bid for ICARD7 presented by ADTI is available through the Technical Manager. INAP supports the bid though there is concern of the choice of St Louis. This city is not much of a draw. As attendance was somewhat lower at ICARD 6 it is not strategic to have ICARD7 in city with little tourist attraction.

INAP could help getting management engaged in ICARDs through a focus on risk assessment during future ICARDs.

ICARDs will remain an agenda item for INAP and Reg Org talks.

The Mining Association of Canada has published two documents on tailings facilities:

- A Guide to the Management of Tailings Facilities (1998)
- Developing an Operation, Maintenance and Surveillance Manual for Tailings and Water Management Facilities (2003)

Both documents are available in English, French and Spanish and can be downloaded from the MAC Web site at www.mining.ca. An informational brochure was distributed at the meeting.

Action Items:

INAP promotional material to be sent to the Reg Orgs.	A-M Fleury
ICARD7 bid on web.	A-M Fleury

Presentation by David Blowes on Diavik / Scale-up

Diavik has a regulatory commitment to do scale up work. Test pile research is planned in 2004 with construction of test piles in the northern summer.

There is the possibility of matching funds from government agencies. The work does not include provisions for workshops or reports.

Rich Borden will be the contact with Diavik.

The project presentation will be made available on the INAP web site.

Action Items:

Diavik project presentation to be made available on INAP web site.	A-M Fleury
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Teleconference with IMWA

Christian Wolkersdorfer from the Technische Universität Bergakademie Freiberg
Paul Younger from the University of Newcastle upon Tyne.

Background on IMWA and European Projects

The International Mine Water Association (IMWA) was founded in 1979 to link local groups including academics and industry and transfer knowledge from western to Eastern Europe. The focus today is environmental, acid drainage (AD) and hydrogeochemical modelling. IMWA is basically a forum for information exchange on AD and other mine water issues and does not undertake research

The IMWA journal – Mine Water and the Environment, which is published in Germany – has more information. Membership distribution is 200 people from 28 diff countries including Germany, UK, Poland, US, etc.

The president is Peter Nell from South Africa and Christian is the general secretary. Treasurer is Adrian Brown (USA). A formal annual conference is held, this year the 20-25 Oct in Johannesburg.

Paul Younger discussed EU commission funded projects. PIRAMID (Passive In-situ Remediation of Acidic Mine / Industrial Drainage) and ERMITE (Environmental Regulation of Mine Waters in the European Union - bridging technical research with policy) are both coordinated by Paul.

Another project is ASURE with 50-50 government/private sector participation on bioremediation of AD flow. Rio Tinto are involved.

IMWA and INAP

IMWA are looking to create a subgroup, which would focus on AD and would be willing to engage with INAP. The timing for such a group in Europe is good as PIRAMID and MIMI are finishing and ERMITE will be winding down next year. As ERMITE involves 7 national level stakeholder networks it is important to keep its momentum going after the project ends. There is likely to be more funding from member states than at the EU level in the future therefore coordination between regions will become more important – IMWA can play a role here for AD.

Both Christian and Paul would be free to go to Vancouver in December 2003 to meet with INAP and discuss further and work through a timeframe for engagement.

IMWA may want to canvas with Euromines further on an AD sub-group.

Action Items:

Statement of Mutual Intent between INAP and Reg Orgs to be sent to IMWA.	A-M Fleury
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