

INAP Global Alliance Meeting

Tuesday, December 1, 2009. Vancouver, B.C.

Chair: Elizabeth Gardiner, MAC

Participants: Jim Robertson (Barrick), Tom Claridge (FMI), Lisa Lanteigne (Vale Inco), Pieter Frandsen (Newmont), Rich Borden (Rio Tinto), Charles Bucknam (Newmont and ADTI), Rens Verburg (ADTI), Gilles Tremblay (MEND), Elizabeth Gardiner (MAC), Juan Carlos Salas (Antofagasta Minerals), Oscar Leal (Antofagasta Minerals), Stephen Foot (Antofagasta Minerals) Flavio Vasconcelos (AECOM), Charlene Hogan (MEND Secretariat), Christian Wolkersdorfer (PADRE/IMWA) Thomas Baumgartl (U of Queensland), David Mulligan (U of Queensland), Dirk Van Zyl (UBC), Terry Chatwin (INAP), Andrea Chatwin (INAP)

Attending via conference call: Dave Williams (ADTI), Linda Figueroa (ADTI), Tom Wildeman (ADTI)

Item 1 – Update on OpCom Meeting

- GARD Guide Roll out Plan – Rens Verburg
 - Completed on time and within budget
 - Over 2500 man-hours (paid and volunteered) and 30 key contributors from throughout the global mining community
 - Roll out – Skelleftea, Sweden – June 2009
 - Activities since June of 2009
 - Discussion Workshop – Perth, Australia- Dave Salmon
 - Training Workshop – Pretoria, South Africa-Nico Bezuidenhout and Meiring du Plessis
 - Two articles in professional journals
 - GARD Guide on the Wiki – over 10,000 hits on the first page, with hits ranging from less than 1000 to over 2500 for various chapters
 - Feedback
 - Mainly positive – “pro-active and sincere”
 - Some negative – “self-serving and justification” – GARD Guide envy
 - FAQ’s
 - Is there a “hard copy”?
 - Do you really look at our comments?
 - How often will you update?
 - Why aren’t there more case studies?
 - Is the GARD Guide available in Spanish? Other languages?
 - What’s next?
 - Action Items
 - Accept GARD Guide as the Standard for ARD management
 - Use the GARD Guide as BMP
 - Get acceptance from other Stakeholders
 - ICMM

- NMA
 - IFC
 - UNEP
 - National & State/Provincial Regulators
- Fix Technical Deficiencies
- Add Case Studies
 - Use template provided in the GARD Guide
 - Each group to determine what they can submit
 - Links to ICARD and other papers
 - Executive summaries
- Periodic Updates to the GARD Guide
 - Annually on the anniversary of the roll-out
 - Unlikely to be accomplished on a volunteer basis
- Develop promotional materials that can be used at various workshops and conferences so that the information is consistent
 - Terry Chatwin has a library of current presentations
- Develop training courses (especially for developing countries)
- Path Forward
 - Establish key milestones to be accomplished by ICARD 9
 - International community will expect progress
 - Develop schedule with interim milestones
 - Measure progress
 - Assign responsibilities
 - Allocate funds
 - Discussions with Stakeholders
 - Involve universities – mining students will be aware of the Guide
 - Involve regulators – mining companies will incorporate what the regulators require
 - Banks are an issue – they need to know about the GARD Guide because they want the least risk for their funding
- Presentations/Workshops
 - Revise the Power Point Presentation
 - Promote the GARD Guide
 - Educate – Hands-on Case Studies – SME short course with Tom Wildman, Dirk Van Zyl and Terry Chatwin
- Global Alliance support to date has been great
 - Desire to expand support to the GA
 - Global Alliance to suggest or develop ways to incorporate and promote the GARD Guide
- Workshops
 - Perth and Pretoria workshops
 - Lake Superior “Webinar – Jim Gusek
 - Requested GARD Guide Presentations
 - Paste Workshop
 - Hatch Workshop

- SME 2010
 - IMWA Conference Sept 2010 – Nova Scotia
 - Mine Closure Nov 2010 - Chile
- Support Engagement Program (Looking for Additional Funding & Engaging Stakeholders)
 - Mining Associations (CMA, NMA, NWMA, SA Chamber of Mines, Euromines, etc.)
 - Commodity Associations (Gold, Copper, Nickel, etc.)
 - None are involved as yet – Terry will pursue this
 - Industry Stakeholders (ICMM)
 - Jim has dialoged with Tony Hodge and Ann Marie Fleury of ICMM and will pursue this
 - Closure conference in Chile in 2010. ICMM will be there – INAP should participate and present a GARD Guide Workshop
 - Regulators (US EPA, Environment Canada, Australia, South Africa, South America, China, etc.)
 - Terry spoke with Pattie McGrath, EPA last week about EPA participation. (She and Shahid Mahmud are leading the Mining Task Force Meeting which is meeting this week and will discuss the GARD Guide.)
 - Financiers/World Bank (IFC) – Jim Robertson
 - Banks have revised mining guidelines for lending
 - Jim, Terry and Tom will meet with IFC and others the 2nd week of January to introduce/promote GARD Guide
 - If accepted, this will serve global communities by reducing risks
- GARD Guide Communications – Build systems internally (top level, then filter down). Use companies’ PR groups
- Small group setting/conference call – “How do you use the GARD Guide?” (Terry will circulate an e-mail to determine interest in this type of interaction with the OpCom and GA)
- Articles in professional publications
 - Association Journals
 - Mining Magazines
 - Internet Magazines
- INAP Webpage Update
 - Expand, then add papers and reports
 - Photos need updating and must be pertinent
 - Pro-active in linking to up-coming events
 - Links to other sites – GARD Guide has 2-way links
- Update GARD Guide
- Andy Robertson from Edu-Mine wants to develop an on-line course for the GARD Guide
 - Pros – the GARD is promoted and taught

- Cautions – make certain that INAP is not certifying the course; that Edu-Mine specify that the GARD Guide was written by international experts and coordinated by INAP
 - Terry will get more information to clarify this
 - Should INAP create its own course? Who would do it? When?
 - Who is in control of the GARD Guide since it free for all to use on the wiki?
 - Schedule – updated annually on anniversary (make note of this on the GARD Guide site)
 - The GARD Guide is a fluid document and will be on--going
 - Input dates will be included
 - Budget – \$25,000 specified by the OpCom to continue the roll out. Budget may be increased
- Water Treatment Workshop, October 2009 – Tom Claridge
 - Moved from Tucson to Thatcher, Arizona which saved INAP nearly \$20,000 and brought the conference to the heart of the Arizona mining industry
 - Approximate 70 people attended including attendees from six of our nine member companies.
 - International attendees from Canada, Peru and South Africa
 - Finances - Because of economy, charged \$100 registration – broke even
 - Presentations – wide range of topics
 - 60-70% were given by representatives from INAP companies
 - Dave Riesman from EPA also presented
 - Locked CD's of the conference proceedings are available – contact Terry
 - Webinar – available at conference but did not work because of connection problems
 - We will do a “dry run” of the webinar before our next conference
 - We will use “Go to Meeting” so that power points and slides are up on attendees computer screens
 - Future Workshops – Need an INAP or GA champion
 - Lisa Lanteigne, Vale Inco will host the next workshop in Sudbury, Ontario – early fall 2010
 - Lisa will engage Xstrata and other smaller mining companies.
 - Need to “advertise” or talk it up within the local mining communities.
 - People from regions must take ownership of the workshop
 - Invite and involve regulators
 - Registration will be more (possibly \$150 for INAP members and & \$250 for others) with the profits going to support the ongoing GARD Guide roll out
 - Elko, Nevada to follow Sudbury, Ontario
 - Mine sites for Barrick, Kinross and Newmont

- Take workshops to where the practitioners are
 - Workshop themes and topics to be decided by the hosts/champions
- The 9th ICARD – Gilles Tremblay
 - The 9th ICARD will be hosted by MEND in Ottawa, Canada as a “stand alone” conference
 - Westin Hotel – May 21-26, 2012
 - Lovely venue with all events on one floor
 - Committee in place
 - Possible logos presented
 - Budget
 - Proposed budgets shown indicate a profit-making proposition
 - Groups and Associations are already requesting to be sponsors
 - INAP will pay \$20,000 to assist ICARD 9 – individual member companies may donate more on their own, but not through INAP.
 - Terry affirmed the OpCom’s support to Gilles Tremblay, MEND and the 9th ICARD committee. Gilles will determine how the Op com can assist.
- Collaborative Research – Terry Chatwin
 - What should be our next research focus to follow the GARD Guide?
 - Terry requested the GA to send him e-mails with possible topics
 - Look at chapter 11 in the GARD Guide for follow-up research
 - Potential Research Topics
 - Sulfate removal
 - Pit Lakes
 - Saline or neutral drainage issues
 - INAP should try to leveraged INAP industry dollars with government sponsorship to yield high returns for funds
 - Is it possible for other groups and companies to follow the Diavik model?
 - Will this work in other countries besides Canada?
 - Australia
 - Brazil
 - South Africa
- South Africa Water Conference – Tom Claridge
 - Tom met with Andrew Copeland from Anglo American
 - Positive to have a face-to-face interaction
 - Tom and Andrew met with Meiring du Plessis and Jo Burgess who is replacing Meiring, who is retiring, on the WRC.
 - Water is an over-arching concern world-wide – availability, pollution, etc.
 - Entities are willing to fund research on water issues
 - Specific South African concerns
 - Saline and Neutral Drainage Issues

- OpCom Leadership Succession
 - Jim Robertson (Barrick) completed his 2 year term as OpCom chair
 - Tom Claridge (Freeport MacMoRan) is the new chair with Scott Miller (Newmont) as the new vice chair.

Item 2 - Store and Release Covers – Thomas Baumgartl, University of Queensland

- Background
 - Three universities in Australia, the University of Queensland, the University of Western Australia and the University of Technology – Sydney,
 - Four sites were selected – two in eastern and two in western Australia for the study which have varying amounts of annual precipitation.
 - August of 2004 – Literature search and review
 - October of 2004 – Stage One
 - March of 2006 – Stage Two
 - On-site research started in 2007
 - 4 major sponsors and 7 other sponsors
 - Three PhD projects and one Post Doctoral project
- Objectives – Role of Vegetation in Release of Ground water
 - Four objectives
 - Progress
 - Schedule
 - Budget
 - Discussion

Item 3 - Global Alliance Expansion

- INAP extended invitations to Brazilian, Chinese and Indonesian groups to join the Global Alliance. Flavio Vasconcelos from Brazil was in attendance at the Global Alliance meeting in Vancouver. INAP's profile is growing internationally and the Global Alliance is an important part of this growth
 - Terry Chatwin will contact Clive Bell in regard to the Chinese and Indonesian Global Alliance groups.
 - The next OpCom meeting will be held in Belo Horizonte, Brazil the week of May 24, 2010, in conjunction with a conference spearheaded by Flavio Vasconcelos.

Item 4 - Global Alliance Support for the GARD Guide Roll Out – Terry Chatwin

- The success of the GARD Guide is dependent on it being used on the local level.
 - The Global Alliance is key to having the GARD Guide known and used in their areas.
 - The challenge is to make the GARD Guide come “alive”
 - Determine if there are any case studies you can submit – the template is in the GARD Guide or Terry will send it to you if need be.
- Global Alliance Efforts
 - MEND – Gilles Tremblay

- Mentioned in all newsletters
- Need a 20 minute presentation at a MEND workshop
- Included at Mine Closure conference in Santiago, Chile. Spring, 2010
- ICARD 9 Short Course. Ottawa, Canada. May 2012
- ADTI – Charles Bucknam
 - Workshop and Short Course at SME in Phoenix, AZ. Feb 2010
 - Tom Wildeman, Dirk Van Zyl and Terry Chatwin are planning a hands-on session using the GARD Guide to develop a mine site
 - Take GARD Guide to educators
 - Use membership to review GARD Guide comments posted on the web
- IMWA – Christian Wolkersdorfer
 - Short Course at the Sydney, N.S. workshop. April 2010
 - Article published in the Journal of International Mine Water Space for presentation at the IMWA Symposium in Sydney, NS. September, 2010
 - Mention in IMWA newsletter (circulation 13.000)
 - IMWA and WISA joint effort to create a “Certified Water Expert” Certification.

Item 5 - Global Alliance Reports

- MEND
 - Forming committees in preparation for ICARD 9
 - Prediction Manual by Bill Price is nearly ready for publication
- ADTI
 - Sponsored several workshops
 - Pit Lake workbooks out
 - Finishing up Prediction Modeling workbook
 - Finished up work on the Molycorp Project – hoping to submit a paper
 - Coal Mining Sector active in coal issues in the eastern United States
- ACMER
 - David Mulligan will send information from Ron McLean
- PADRE
 - New chair is Adam Jarvis. Will restructure this summer
- WRC
 - Jo Burgess is the new contact since Meiring du Plessis has retired