Queenstown NZ provided a magnificent backdrop for 2011’s Eighth Mining Geology Conference (8IMGC) held 22-24 August. Around 265 delegates attended and maintained an exceptional level of attendance throughout the event from the opening Haka to the final closeout and farewells! The conference ran for a full three days and included optional pre and post conference site tours as well as an array of commercial training courses and workshops flanking the main event.

This conference represents the latest in the successful series dating back to the inaugural event held at Mount Isa in 1990 and has been heralded as the ‘best yet’. Such is the appeal of the series as the premier international event for mining and resource geologists that the number of overseas delegates was at an all-time high.

Through the feedback survey delegates recorded the stand-out strengths of the conference to be the networking opportunity the event afforded followed very closely by the technical program and its associated presentation/published paper content. On the technical side, the array of keynote papers made significant contributions to the technical depth and breadth of the meeting. The blend of practical information and applied theory in the range of keynotes was well received by conference delegates.

The blend of practical information and applied theory in the range of keynotes was well received by conference delegates.

So too were 40 additional papers presented in the bulk of the technical program – again the focus on practical examples and case studies that has become the trademark of the event – were widely appreciated and indeed earmarked for expansion. Particularly positive comment was made regarding the high number of young professional presenters who delivered a strong array of papers from a range of operations and projects. Two presenters were recognised at the event for outstanding presentations with awards but it was very hard to pick the winners such was the high standards of presentation in evidence from young geoscientists.

In conclusion, there was universal praise for the organising group and in particular The AusIMM Conference and Events Department and the efforts of Miriam Way, Alison McKenzie, Lucy Brown, Jennifer Maninin, Ashley Van Krieken and Jenni Stiffe. My sincere thanks go to the Organising Committee for their input and enthusiasm over the past two years of planning – we have chalked up another strong success, team! The next event will be held in around two and a half years’ time at an Australian venue – watch this space for details.

Dale Sims, 8IMGC Conference Chair

Notes from the Chair

Paul Forman

Hello Everyone

With Europe in an economic and political spin with banks over extending to various countries in the ECU, a weak US economy stabilising at best and China predicted to grow at over nine per cent for the remainder of the year, the Australian mining sector continues to grow keeping many people gainfully employed. Given this backdrop, the voluntary and hard-working members of the committee of the Geoscience Society continue to meet, plan and deliver.

Since the last newsletter, a number of key milestones have been reached including:

- The 8th International Mining Geology (IMG) conference held in Queenstown NZ
- Second Field Course Successfully completed in the Pilbara of WA
- Geological Presentations given in Bendigo and Cobar by distinguished Geologists

The International Mining Geology Conference held from the 22-24 August was very successful and was attended by over 260 delegates who provided very positive feedback.

The second field course completed from 11-17 September was attended by seven candidates who examined various outcrops between Newman and Paraburdoo. This course was successfully led by Mal Kneeshaw (who has many years’ experience working in the Pilbara) and Dale Sims, both of whom contributed to very interesting and lively geological discussions. From an outsider looking in, who happened to catch up with the group
8IMGC pre-conference workshop: professional ethics and you

As part of the 8IMGC program, a free workshop was held for AIG/ AusIMM members on the issues of professional ethics prior to the conference. The Code of Ethics of both Institutes were reviewed and discussions were held on the role of ethics in our profession as well as reviewing case studies from recent ethics breaches. The workshop was attended by around 20 professionals from a mix of AusIMM, AIG and non-members.

In general it was concluded that the Code of Ethics is not widely read or appreciated and the level of awareness in the detail is low. This could reflect the low level of reporting which occurs in general (apart from JORC related issues) although it was considered likely that members may not report Code of Ethics breaches for fear of employer reprisal (even though the process is undertaken in confidence by either Institute). Younger members feel particularly vulnerable in this regard.

As a list of outcomes from the workshop include the following:

- consider making the Code more prominent in member applications through an online awareness program/quiz as part of annual membership renewal;
- consider running joint AIG and AusIMM half day workshops around Australia for a minimal charge; and
- investigate the potential to have an ethics hotline established to allow members to discuss issues with an independent person; and
- develop a toolbox and support system particularly for younger members.

These suggestions will be taken to the Ethics Committee for further consideration. Please contribute your thoughts via the discussion forum on this topic under the Geoscience Society web page.

Notes from the Chair, continued

in Newman, I was able to observe and partake in some of the talks that ranged from the formation of iron ore deposits from the bottom upwards to the genesis and understanding of nuggety gold deposits.

After much hard work and discussions with various stakeholders, the first of our planned geology presentations by a distinguished lecturer was undertaken by Tom Blenkinsop from James Cook University giving a geological talk in Bendigo on the 14 October. The presentation went very well. Thirty people attended and asked dozens of questions, resulting in extensive conversations. The organisers are keen to repeat this event with other speakers.

A second geology lecture on the Formation of Gold Deposits was presented by Neil Phillips of the University of Melbourne in Cobar on 19 October. This presentation was well attended and many travelled some distance to attend.

Planning for another presentation before the end of the year is well advanced. We have also started planning for geological presentations in 2012 given that the 34th International Geology Congress (to be held in Brisbane next year) will provide an influx of well-known high profile geologists, one of whom has already flagged his willingness to be part of a geology road show.

One issue that is causing some concern is that of the external reporting of resources. The ramifications have not been totally understood but the project is being led by Peter Onley who will keep us updated with developments.

Some other projects that are moving forward include:

- The Australasian Mining and Metallurgical Operating Practices (AMMOP) which composes of a small working group led by Amanda Clements to review papers for the next volume.
- Teacher Earth Science Education Program (TESEP) involving Dale Sims who is assisting in the integration of teachers with the mining industry.
- Industry and University Vacation programs led by Bob Smith who is helping to provide undergraduate geologists with industry experience.

We also welcomed a new member to the committee of the Geoscience Society, Dr Aslam Awan who is keen to encourage the mining industry to adjust to the notion that a significant number of experienced geologists will retire in the next five to ten years.

We also say farewell to Ashley Van Krieken who has served us well and welcome Miriam Way as the new Director of Member Services.

Regards,

Paul Forman (Chair)
The secondary field skills course was run over the course of a week in September in the Pilbara region, building on the foundation laid by the inaugural event last year. This year we had seven delegates join us, mainly from Western Australia but also with representation from South Australia and Victoria. As with last year, attendees were young professional geoscientists in the early stages of their career and keen to be involved in the practical approach to fieldwork the course delivers.

The primary aim of the course is to enhance the skills of observation and recording of geological features and field relationships as part of exploration and mining data collection / analysis. We focus on sketch mapping observable meso and macro features in rapid-delivery exercises then ask the attendees to explain the significance of what they have observed and mapped to their peers standing beside them on the outcrop.

The course commenced with on Sunday evening with presentations followed by dinner. The next day involved familiarisation fieldwork at Cathedral Gorge just outside of Newman to get a handle on the Brockman Iron Formation stratigraphy then a solid half-day site tour of BHP Billiton’s Mt Whaleback operation which was mind blowing in scale and beautifully delivered by BHPB’s Steve Loach – a natural on the minibus microphone!

Tuesday was spent undertaking mapping exercises around Newman before heading to Tom Price on Wednesday morning via Karrijini National Park to inspect the type section of the Dales Gorge Member (and have a quick dip as well). Wednesday afternoon involved a ‘talk and chalk’ session on professional ethics, the JORC Code and field sampling practices and theory. Our second round of site visits occurred Thursday morning with a half day tour of Rio Tinto’s Tom Price operation under the jovial and authoritative leadership of RTIO’s Jim Gordon followed by mapping exercises around the Tom Price environs.

The final day included a half day visit to API’s Hardey project in the morning with a geology review from Stuart Tuckey’s enthusiastic site geos and a series of mapping traverses around the syncline. This was followed after lunch in a dry river bed by the final site visit and mapping exercise at Rio Tinto’s Paraburadoo operation under the warm guidance of Lyndall Johnson and her capable crew.

The feedback from attendees strongly supported the positive experience of the course and the benefit gained from attendance at the event:

‘The course was brilliant. The combination of the course leaders, a mixed bag of participants, spectacular sites and field locations all contributed to the success of the course.’

‘Well balanced with appropriate theory and practical field-work. A good focus on rudimentary geological skills.’

‘Really enjoyed the course, found it to be well organised and planned out and really informative.’

‘The course was great, it helped refresh things we learned at University but don’t always get to use in our workplaces. It was a good ratio of teachers to students... It is also a great chance to network with people from various areas and experience levels.’

As with last year the course would not have been possible without the strong support of local mining companies, their management and staff, and the supreme organisational skills of Donna Edwards from AusIMM Services. Thanks to Australian Premium Iron, BHP Billiton and Rio Tinto for their assistance through site visits and personnel time. Most of all, our thanks are extended to Mal Kneeshaw, who again gave his time to guide the course with the benefit of his extensive experience in the Pilbara.

The course will run again next year and it is intended to hold a similar event in Eastern Australia during winter – watch for advertising through the AusIMM Geoscience Society and The AusIMM News and Week In Review.

Should you wish to register an early expression of interest in these events for 2012 please notify Donna Edwards (dedwards@ausimm.com.au) to get onto our communications list.
Economic considerations are key to all mining industry projects and estimating the capital and operating costs of a project is an important part of the evaluation and decision-making process. Being able to prepare accurate estimates is essential to ensuring successful funding, development and management of mining and metallurgical projects.

Nearly 20 years since its initial release, the *Cost Estimation Handbook* remains one of The AusIMM's most sought-after publications. Over the past few years a team of expert AusIMM members have been working together to redevelop and update this volume to produce a second edition. This revised volume sets out useful techniques and guidance for capital and operating cost estimation for the Australian minerals industry and is an invaluable reference for industry professionals. This project is more than just a revision of the earlier edition; it includes substantially new material of relevance to the mining and metallurgical industries in the 21st Century.

**The project**

The revised volume is currently in the final stages of editing and review and is due for release next year. The Project Committee has restructured the volume to provide the basis of studies and an outline of capital and operating cost estimation in the introductory chapters with more specific information on areas of practice detailed in subsequent chapters.

The volume will update the guidance on cost estimation to reflect technology changes; improvements in project development; new approaches to mining and processing; and an increased awareness of the need to provide for social and environmental costs associated with mining projects and operations.

The Cost Estimation Handbook Project Committee is comprised of a number of experts drawn from all areas of minerals industry cost estimation. Lead by Richard Flanagan FAusIMM(CP) committee members include Neil Cusworth FAusIMM, Richard Dewhirst FAusIMM(CP), Greg Lane FAusIMM, Roger Jackman MAusIMM and Peter McCarthy FAusIMM(CP).

**The opportunity**

AusIMM Services is currently seeking expressions of interest from potential sponsors for this world-class publication. As with the previous edition, it is anticipated that this volume will have a very long shelf-life, providing exposure to mining, geology and metallurgical students, professionals, investors and managers throughout the world.

A sponsorship package outlining the options offered to potential supporters is available upon request from the Coordinator, Publication Projects, Stephanie Omizzolo via email: somizzolo@ausimm.com.au or phone: +61 3 9658 6166. There are limited places for major sponsors so interested parties are encouraged to contact The AusIMM as soon as possible.

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**James Cook University School of Earth and Environmental Science Placement Programme**

The School of Earth and Environmental Science at James Cook University (JCU) has a Placement Programme which encourages geoscience students to seek work experience, especially during the summer vacation. The students are expected to complete a minimum of 210 hours during the placement and they are credited with three points (equivalent to 1/4 semester load) towards their degree. The students should work on a defined project with a specific objective and produce a report on completion.

Ideally the project should be beneficial to both the student and the employer and it could be carried out at a site, in an office or even in the JCU, wherever adequate supervision can be provided. Students are seeking this opportunity at the completion of second year, third year or post graduate. The discipline breadth includes geology, earth sciences and environmental sciences. The JCU earth sciences and geology programmes have been officially recognised by The AusIMM.

We are currently seeking mining companies who could accommodate our students; if you have a project suitable for a vacation student or just an interest in encouraging students please contact Dr Sue Bandaranaike at suniti.bandaranaike@jcu.edu.au
AMMOP update – landmark publication gathering momentum

by Stephanie Omizzolo, Project Coordinator, The AusIMM

The Australasian Mining and Metallurgical Operating Practices (AMMOP) publishing project is and will continue to be a key focus of The AusIMM as we head towards 2012. Over the past few months, the AMMOP Project Team and Committee has been working closely with all targeted companies in bringing together site submissions and ensuring key companies are on board with the publication.

AMMOP is progressing well, with approximately 150 sites across Australasia currently writing their submissions and many already received. We expect to receive most submissions by the end of 2011. The papers are of a high standard and the quality of work that has been provided is impressive. Furthermore, AusIMM Society and Committee groups, along with other key industry representatives, have been invited to contribute to the development of introductory chapters one to four of AMMOP – particularly chapter three, which will focus on developments in mining and processing.

$698,000 worth of sponsorship has been received to date and the AMMOP Committee is anticipating that more offers of sponsorship will be received as the publication begins to generate more awareness across industry networks. An AMMOP flyer has been prepared, and has been included in several AusIMM conference satchels this year and also featured as an insert in the October edition of The AusIMM Bulletin. This flyer can be viewed at: http://www.ausimm.com.au/content/docs/ammop_overview.pdf. Additionally, an article updating members on the status of AMMOP was included/will be included in both the October and December editions of the Bulletin.

AusIMM members have been invited to volunteer as reviewers and/or sub-authors for papers as they begin to be received. We have many members who have responded to this invitation and further invite interested members to please fill out the form at: http://www.ausimm.com.au/content/docs/reviewer_sub-author_nomination_formv2.pdf and send it to the Project Coordinator, Stephanie Omizzolo via: somizzolo@ausimm.com.au.

If you have any questions about AMMOP or would like to be involved, please contact somizzolo@ausimm.com.au, or by phone: +61 3 9658 6166 for further information.

Narrow Vein Mining Conference 2012

26-27 March 2012

On behalf of the Narrow Vein Mining Conference 2012 Organising Committee, we take this opportunity to invite you to register and attend the forthcoming International Conference and Exhibition, to be held 26-27 March 2012 in Perth, Western Australia. This is an excellent opportunity for overseas mining industry professionals to attend a premier International Conference on a highly specialised part of the global mining industry – and one you should not miss.

The Provisional Technical Program is now available and can be viewed via the Narrow Vein Mining 2012 Conference website. This impressive program will centre around exciting specialist topics such as:

- technical collaboration;
- the challenges of narrow vein deposits;
- high nugget effect;
- ore/waste misclassification; and
- complex geology.

In addition to important challenges facing the industry, given the overarching need these days for lower costs, mechanisation and zero harm environment.

Keynote speakers include:

- Andrew Bamber, CEO, MineSense Technologies Ltd;
- Garth Earls, Managing Director, Dalradian Limited;
- John Hadjigeorgiou, Director, Lassonde Mineral Engineering Program, University of Toronto; and
- Steve Hall, Director, WA School of Mines, Curtin University.

All overseas delegates and participants will have the opportunity to discuss important issues whilst meeting and networking with leading professionals in the gold, silver and tin based industry sectors.

Sponsorship and exhibition opportunities are also available and offer the chance to showcase your organisation along with other major companies currently represented, these include: Snowden, AECOM, AMC Consultants, Gekko Systems, Mancala, New Concept Mining, Steinert and R & V Australia.


To register today visit the Narrow Vein Mining website via http://www.ausimm.com.au/narrowveinmining2012/registration.asp
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**The Bulletin**

**The AusIMM Bulletin — call for contributions**

Authors should email editor@ausimm.com.au with an article synopsis of between 2-5 sentences giving an outline of the article proposed, highlighting the feature the article is intended for.

The editorial team will follow this up directly with the author.

For all other queries, please email us at editor@ausimm.com.au

**April 2012** (editorial deadline 17 Feb 2012)
- Regional Feature: NSW
- Mine Site Automation
- Coal Seam Gas
- Women in Mining
- Iron Ore

**June 2012** (editorial deadline 20 April 2012)
- Regional Feature: Western Australia
- International Focus: Indonesia
- Mining Geology

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**Social Media**

Connect with The AusIMM on social media

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**The AusIMM events, conferences and workshops**

Full calendar:  

**Narrow Vein Mining 2012**
26–27 March
Perth, Western Australia

**VALMIN Seminar Series**
17 April
Brisbane, Queensland

**AusIMM Congress & AGM 2012**
27–29 April
Auckland, New Zealand

**AusIMM International Uranium Conference 2012**
13–14 June
Adelaide, South Australia

**AusIMM Awards Dinner 2012**
16 June
Adelaide, South Australia

**Life–of–Mine 2012**
10–12 July
Brisbane, Queensland

**34th International Geological Congress (IGC) Australia 2012**
5–10 August
Brisbane, Queensland

**Sampling 2012**
21–22 August
Perth, Western Australia

**AusIMM New Leaders' Conference 2012**
2–3 October
Ballarat, Victoria

**International Mine Management 2012**
20–21 November
Melbourne, Victoria

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