



The Queensland Geologist

Bi-monthly Newsletter of the Geological Society of Australia Inc. Queensland Division
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UPCOMING SEMINARS:

Wednesday 25th March: **GSAQ-AIG Seminar**

Topic: “Gold mining in the Charters Towers Fields – CitiGold”
Speaker: Chris Towsey (CitiGold)
Where: The Theodore Club, 333 Adelaide St, Brisbane
Time: 5:15 for 6pm; finger food and drinks
Cost: Free

Abstract: **GOLDMINING IN THE CHARTERS TOWERS FIELDS - CITIGOLD**

Chris Towsey is the Chief Operating Officer of Citigold Corporation Ltd, joining them in 2002 as General Manager Mining. He was formerly General Manager Australia for the National Occupational Safety Association Ltd (2000-2002), General Manager Minerals for Century Resources Ltd (1998) and Chief Geologist and Executive Manager Exploration for Emperor Mines Ltd (1994-1998).

Citigold controls the 10 million ounce Charters Towers gold field in north Qld and operates the Warrior Gold Mine 5 km SE of the city. Warrior commenced production in Nov 2006 and is ramping up to 100,000 ounces per year, having increased gold production by 15% to Dec 2008 over the previous year.

The talk will cover the geology and mining methods of the field, the challenges of mechanised mining of narrow-vein, variable-grade gold deposits by longhole open stoping and operating a gold processing plant and mine close to a major population centre.

Wednesday 15th April: **GSAQ-AIG-BEDG Seminar**

Topic: “Australian Proterozoic Mafic – Ultramafic Magmatic Events map”
Speaker: Jon Claoue-Long (Geoscience Australia)
Where: The Theodore Club, 333 Adelaide St, Brisbane
Time: 5:15 for 6pm; finger food and drinks, **please take drinks (from the bar) straight up to 13th floor – 1st floor is not available for us tonight!**
Cost: Free

Abstract: **PROTEROZOIC NI-PGE EXPLORATION: MAFIC-ULTRAMAFIC MAGMATIC EVENTS**
Jon Claoué-Long, Dean Hoatson and Subhash Jaireth, Geoscience Australia

Worldwide, the discovered very large Nickel and Platinum Group Element (PGE) sulphide deposits are strongly concentrated in mafic igneous rocks of Proterozoic age. The rich Proterozoic Ni-PGE endowment of other countries – Canada, Africa, China, Russia – contrasts with the record of discovery in Australia, where only one world-class example has been found so far (Nebo-Babel in the Musgrave Province, ca 1080 Ma, ca 1.2 Mt Ni)..

The deficit of discoveries in Australia, relative to other continents, is unlikely to reflect real geological differences. Rather, it points to the difficulty of identifying settings for mineralisation in intrusions that are under cover. This presents a major opportunity for exploration that can use the knowledge gained from other continents to predict which magmatic events and intrusions may be most prospective

To guide this targeting, Geoscience Australia has produced a new '**Map of Australian Proterozoic Mafic-Ultramafic Magmatic Events**'. The event chronology of Proterozoic mafic-ultramafic rocks resolves into thirty newly-defined Magmatic Events from ca 2455 Ma to 510 Ma. Nine of the thirty Magmatic Events are mineralised in Australia and six are coeval with major Ni-Cu ± PGE deposits in other continents. There are important correlations of these mineralised systems under shallow cover and in under-explored provinces. The full extent of the mafic-ultramafic magmatic systems is shown and significant extensions to some igneous provinces are evident.

Relative to other parts of Australia, Queensland stands out with some uncertainty in the ages of mafic magmatic systems in Mount Isa, Georgetown and Cape York. Available data define nine Proterozoic Magmatic Events in Queensland; they can now be seen to link with continent-scale systems, and to mineralisation or ultramafic components in other terranes. A prominent example is the Mount Isa Eastern Creek Volcanics, whose metal depletion implies removal of PGE sulphides in the feeder plumbing. The new map highlights coeval PGE-Au-V mineralised intrusions as far away as the Arunta and Kimberley regions. The search for major Ni-PGE systems requires assessment of magmatism at the continent scale.

OTHER DATES:

Friday afternoon 20th March 2009 (starting at 1.00pm): AIG Professional Development Workshop

Handheld XRF Instruments Users Workshop and Forum:

Where: The Theodore Club, Conference room – 13th floor, 333 Adelaide St, Brisbane

Cost: AIG members: \$40.00; Non-members: \$65.00.

Contact: michele@emenem.com.au

Wednesday 13th May: AGM GSAQ

Topic: Advances in Enhanced Geothermal Systems in non-volcanic environments

Speaker: Doone Wyborn, Chief Scientist, Geodynamics Limited

Where: The Theodore Club, 333 Adelaide St, Brisbane

Time: 5:15 for 6pm; finger food and drinks

Cost: Free

4th and 5th June 2009: North Queensland Exploration Conference NQEM 2009

Where: Jupiters Hotel Townsville

Contact: Kaylene Camuti at lantana@beyond.net.au

For information on sponsorship, exhibition booths or advertising contact Doug Young at d.young@findex.net.au

6th, 7th and 8th June 2009 (Queens Birthday Weekend): GSAQ – AIG Field Conference 2009 (starts from Townsville after NQEM)

Where: Charters Towers District – Charters Towers, Pajingo site visits

Contact: d.young@findex.net.au for further information.

Chair's Report

The year is progressing rapidly and we are already approaching the one-quarter way mark for 2009. Please be aware of the many upcoming talks and events scheduled, which are outlined in this issue. In particular, please note most of our next **evening seminars** will run as joint events with AIG, including: 1) March 25 Chris Towsey will speak on "Gold mining in the

Charters Towers Fields – Citigold” (this talk is a teaser for the AIG North Queensland Exploration & Mining Conference in June and following joint GSA-AIG Charters Towers Field excursion); 2) 15 April Jon Claoue-Long will speak on the “Australian Proterozoic Mafic – Ultramafic magmatic events map”; and 3) 13 May Doone Wyborn will speak on “Advances in enhanced geothermal systems in non-volcanic environments.” As you can see the state’s Executive committees of AIG and GSA are working well together and may presage the merger of the two bodies. I requested feedback from you regarding the proposed merger in the last newsletter, so please keep the feedback coming and I will pass along your concerns and comments to the Federal GSA Executive.

The final event mentioned above (13 May) also will serve as the **2009 AGM** for GSA Qld, so please be sure to attend! It is a good time to consider taking a greater role in the running of your society and consider becoming a member of the Executive Committee. Applications will be available in a forthcoming newsletter.

On other news, the Queensland Studies Authority (QSA) is conducting a **revision of the Senior Earth Sciences Syllabus** this year. This syllabus will be used by the twenty or so Queensland high schools that have Geology programs at Senior level. The QSA has requested feedback from the Geological Society of Australia regarding the syllabus and in particular from members from Queensland. If you would like to provide some feedback, the QSA has developed a short survey and I will be happy to send it to you for your response. Please feel free to contact me at the following email address: ge.webb@qut.edu.au.

Finally, please remember that it is time to nominate your deserving colleagues for the state division’s prestigious **Dorothy Hill and Neville Stevens Medals**. The medals are a great way to honour those who have contributed to understanding the state’s geology and educating the public. More information about the medals and nomination process can be found on the Division’s website (<http://www.qld.gsa.org.au>). Please take the time to consider nominating those who have helped us the most!

Well that’s all from the chair at the moment. Please come along to the evening GSA-AIG seminar by Chris Towsey on Wednesday 25th March, and I’ll see you there!

Gregory E. Webb

Chair, Executive Committee Queensland Division GSA

NQEM 2009 3rd, 4th & 5th June 2009 and GSAQ Field Conference 6-8th June 2009:

*******SPONSORS AND EXHIBITORS NEEDED*******

See attached flyer

3rd June - a 1 day workshop by Geoscience Australia in Townsville

4-5th June - a 2 day AIG Symposium in Townsville

6-8th June - a 3 day GSAQ Field Conference in north-east Queensland

New discoveries, mineralisation styles & advances in understanding ore deposits will be the theme for six days in June in north Queensland.

During the six days, the AIG, GSA and GA are collaborating to offer a symposium, field conference and workshop that will provide opportunities for geoscientists to get together and discuss the geology and resource potential of northern Queensland.

The two-day symposium organised by the AIG Queensland Branch will run from Thursday 4th June to Friday 5th June, with the symposium dinner on the Thursday night. The preliminary symposium program includes presentations on recent north Queensland mineral discoveries and advances in the understanding of mineralisation styles, including Mt Wright breccia-hosted Au, Cu +/- Au mineralisation in the Cloncurry region, Anastasia porphyry-related epithermal Au, porphyry-related Au-base metals in the Chillagoe region, Drummond Basin porphyry-Mo, and VHMS base metal mineralisation.

On Wednesday 3rd June, Geoscience Australia will be offering a one-day pre-symposium workshop in Townsville. The workshop will discuss the results of the Mt Isa-Georgetown-Charter Towers seismic transects, and will include the release of new data.

Immediately following the symposium the GSA (Queensland Branch) in conjunction with the AIG will again run its popular field conference.

This year the field conference will be held over the three days of the Queen's Birthday long weekend, from the 6th to 8th June, in the Charter Towers area. The field conference will focus on gold mineralisation styles of the region, and will include visits to Conquest Mining NL's Mt Carlton deposit near Collinsville, a high level epithermal gold/silver/copper project deposit; Resolute Mining Ltd's Ravenswood and Mt Wright breccia pipe deposit, and to Citigold Corporation Ltd's deep high grade gold deposits at Charter Towers. Features of the regional geology will be seen during the excursion along with historic features of the Charter Towers field. Recent releases by Geoscience Australia and the GSQ of seismic data in the area will also be reviewed.

Further information on registration, accommodation, sponsorship and exhibitor opportunities will be available soon from Doug Young at d.young@findex.net.au and Kaylene Camuti at lantana@beyond.net.au.

GSAQ - AIG at the EKKA (August 2009):

Thanks for the feedback received so far. I hope I can call a meeting for the EKKA Sub-Committee in mid-April to discuss a de-brief and possible changes/improvements to the booth next year. I have submitted an "Expression of interest" to return to the EKKA to the organising committee but there has not been an official response yet. This year we have the advantage of already having the booth materials, posters and brochures and expertise ready and can prepare early for an even greater experience. Both committees have agreed to form a joint EKKA Subcommittee again and I have agreed to chair this committee again. In support Mark Berry (AIG), Gregg Webb, Ben Cohen and Len Cranfield have also volunteered to join me.

We will be seeking support from volunteers for the booth and will also offer students the opportunity to earn some money while manning the booth. This event will also include this year's GSAQ student medal presentations, hopefully on people's day at the EKKA.

For any feedback, queries or suggestion please feel free to contact myself at friedrich.vongnielinski@dme.qld.gov.au or Gregg Webb.

Friedrich von Gnielinski (EKKA Subcommittee coordinator)

Education sub-committee special report:

The medals and certificates for outstanding performance in year 12 Earth Science have been decided. The gold medal this year went to Frances Potter from Spinifex State College in Mount Isa. Frances achieved a VHA 7 which is the highest possible result and only the second in the last 10 years. Congratulations to Frances on her remarkable achievement, and congratulations to Spinifex College and staff for their part in Frances' result. Spinifex College also provided several student winners last year and it is good to see a regional school providing such quality results.

The Silver medal went to Michael Cruickshank at Brisbane Boys College. Congratulations also to Michael who achieved a VHA5 which would have earned the gold medal in past years. BBC has been a consistent performer over the years and has often provided medal winners, attesting to the quality of their courses.

Six bronze medals were awarded this year. They are: Teagan Walsh (Pioneer State High School), Alexander Turton and Nicholas Davison (Brisbane Grammar School), Simon Mahler (Brisbane Boys College), Kendall

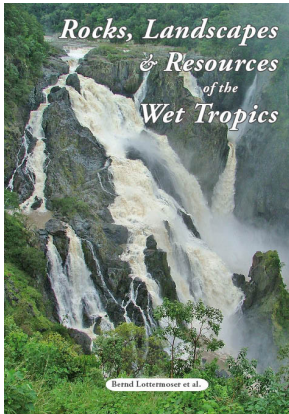
Messer (Townsville Grammar School), and Peter Deagon (Redlands College). Congratulations to each of these students and schools.

Eight students were awarded Certificates of Excellence. They are Rhys Volant (Townsville Grammar), Rachel Ford (Pioneer State High School), Will Baskerville, Jack Murday, Benson Poon, Fred Croker and Michael McConnachie (Brisbane Grammar School) and Elizabeth Kippen (Redlands College). Congratulations to each of these students and schools.

Laurie Hutton (Education Subcommittee)

New GSAQ publication

Rocks, Landscapes & Resources of the Wet Tropics by Bernd Lottermoser et al.



This book explains how the Wet Tropics region has formed over many millions of years, and the results of this geological history. It describes the relatively young volcanic activity on the Atherton Tableland, how the landscapes and scenery have developed, and how and where mineral deposits formed. It includes chapters on the development and habitats of the Great Barrier Reef, the region's soil types and erosion potential, and its water resources.

The authors are from the School of Earth and Environmental Sciences of James Cook University in Townsville and Cairns, and are distinguished in their respective fields.

The cost is \$10 + \$3p/h.

New Members

#101448	Norbert Chris TIMOFTE	Ordinary Member
#101449	Karolina CENTKOWSKI	Ordinary Member
#101164	Stephen JENSEN	Associate Member
#6718	Todd SERCOMBE	Ordinary Member (re-joined)



THE INTERNATIONALLY RENOWNED INFORMAL WEEKLY GET-TOGETHER FOR EXPLORERS AND MINERS UNION JACK'S ALE HOUSE –

English, Irish, Scottish & Welsh Pub - 127 Charlotte St, Brisbane CBD 5.30pm
on every Wednesday evening if your work/spouse/budget/health allows

Queensland Committee 2008-2009

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Advertising and Sponsorship Rates:

Our newsletter is circulated to about 500 members across Queensland, as well as being posted on our web page. It represents an ideal opportunity to advertise your company and services.

Size	width x height	1 issue	12 months (5 issues)
Full page	17.2 x 24.1 cm	\$120	\$300
Half page	17.2 x 11.9 cm or 8.4 x 24.1 cm	\$75	\$375
Quarter Page	17.2 x 5.8 cm or 8.4 x 11.9 cm	\$40	\$200
Business card	8.4 x 5.8 cm	\$20	\$100
Pamphlets and Flyers (as inserts)		~ \$100	