PREVIEW

ADVERTISERS INDEX

Aarhus Geophysics	121
Absolute Geophysics	2
Alpha Geoscience	31
Archimedes	32
Baigent Geosciences	104
Bartington Instruments	128
Beach Petroleum	47
BHP Billiton (Bronze Sponsor)	16
Borehole Wireline	106
CGGVeritas (Silver Sponsor)	26
Chevron (Silver Sponsor)	106
Daishsat	32
EAGE	50
Elliott Geophysics	48
EMIT	OBC
Fugro Airborne Surveys	IBC
Fugro Instruments	105
Gap Geophysics	18
Geoforce	12
Geoimage	5
Geokinetics	122
Geophysical Software Solutions	3
Geosensor/Scintrex	46
Groundwater Imaging	32
IMT Geophysics	3
Intrepid Geophysics	18
ORE (Bronze Sponsor)	32, 104
PIRSA (Silver Sponsor)	121
Quantec	104
Rio Tinto (Gold Sponsor)	14
Santos (Platinum Sponsor)	98
Southern Geoscience Consultants	4
Stuart Petroleum (Bronze Sponsor)	16
Technic Pty Ltd	96
Thomson Aviation	104
UTS Geophysics	126
Vortex	IFC
WesternGeco (Gold Sponsor)	6
Woodside (Gold Sponsor)	28
Zonge	128

2009 ASEG CORPORATE MEMBERS

CORPORATE PLUS MEMBERS BHP Billiton Minerals Exploration CVRD–Inco Elliott Geophysics International Pty Ltd Velseis Pty Ltd

CORPORATE MEMBERS

Archimedes Financial Planning Pty Ltd Beach Petroleum Ltd CGGVeritas Chevron Australia Pty Ltd Department of Primary Industries Victoria Earth Resource Mapping Encom Technology Pty Ltd Eni Australia Limited Fugro Airborne Surveys Geoscience Australia Geosoft Australia Pty Ltd Haines Surveys Pty Ltd Multiwave Geophysical Company Newmont Australia Pty Ltd Origin Energy Resources Ltd Outer-Rim Exploration Services Pty Ltd Papuan Oil Search Ltd Petrosys Pty Ltd PGS Australia Pty Ltd Primary Industries & Resources South Australia Rio Tinto Exploration Pty Ltd Santos Ltd Seismic Asia Pacific Pty Ltd UTS Geophysics Pty Ltd WesternGeco Woodside Energy Ltd Zonge Engineering & Research Organisation



CONTENTS

From the Premier From the Organising Committee From the Presidents Conference Sponsors Maps and Floor Plans General Information	3 4 5 7 13 15
Section 1. Conference Program Conference Program Business Meetings Social Program	19 26 27
Section 2. Exhibition Exhibition Floor Plan Exhibitors and Stand Number Company Details	30 31 33
Section 3. Oral Abstracts Abstracts from the Oral Presentations	51
Section 4. Poster Abstracts Abstracts from the Poster Presentations	97
Section 5. Biographies About the Speakers and Poster Presenters	108
Section 6. Society Memberships ASEG Membership Application PESA Membership Application	124 127

Editor David Denham Tel. & Fax: (02) 6295 3014 Email: denham@webone.com.au

ASEG Head Office & Secretariat Ron Adams Centre for Association Management Tel.: (08) 9427 0838 Email: secretary@aseg.org.au Website:http://www.aseg.org.au

Publisher CSIRO PUBISHING Production Editors Lauren Webb Tel.: (03) 9662 7559 Email: lauren.webb@csiro.au

Helena Clements Tel.: (03) 9662 7639 Email: helena.clements@csiro.au

Advertising Elspeth Gardner Tel.: (03) 9662 7668 Email: elspeth.gardner@csiro.au

A

SAMSON Total Field EM

A powerful and unique magnetometer system for deep-probing TEM surveys

- Low late-time noise of less than 0.5 pT
- Typically operated at **0.125 Hz** with a 5 minute reading at each station
- Logistically simple no levelling required, unaffected by wind or vibration
- Inbuilt GPS for navigation and transmitter synchronisation

- Moving-loop and fixed-loop configurations
- Exclusive access to HPTX-70 EM transmitter for up to 350 amps
- TFEM response is easily modelled with EMIT's Maxwell software
- Better penetration in conductive terrain and better discrimination of highly conductive targets

Absolute Geophysics Total Field EM Surveys

6/9 The Avenue Midland WA 6056 AUSTRALIA

www.absolutegeo.com.au info@absolutegeo.com.au p: (+61 8) 9250 8100 f: (+61 8) 9250 7100



From the Premier



The South Australian Government has long recognised that the resources sector offers significant opportunities for longterm, sustainable growth. That's why, since coming to office in 2002, we have made a concerted effort to expand our State's resources industries, and to take advantage of its unique resource base.

In particular, the Plan for Accelerated Exploration (PACE) program that we implemented in 2004 has delivered significant benefits through its partnership with industry. Our efforts to expand and diversify the sector through initiatives such as the PACE scheme have won international recognition. The *ResourceStocks* 2008 World Risk Survey ranked South Australia as the number one jurisdiction in Australia – and number two in the world – for investment in mining and exploration. As a result of this concerted investment and partnership, the number of operating mines in South Australia has risen from four in 2002 to 10 in 2009, with around 20 more in the planning or development stage.

Mineral exploration expenditure reached a new record of \$355.2 million in the most recent financial year – representing a 10-fold increase in the past five years. There have also been a number of new oil and gas explorers drilling in the State's Cooper, Otway and Officer Basins, as well as developments in coal to liquid fuels in the Arckaringa Basin.

In addition to a sound outlook in the mining sector, South Australia has significant advantages in the development of emissions-free geothermal energy. Our comparative advantages in this naturally occurring "hot rock" resource, combined with our supportive investment framework have – to date – attracted more than 95 per cent of the nation's investment in geothermal exploration, appraisal and pilot development.

The first wave of mineral exploration generated by the PACE scheme has undoubtedly cemented South Australia's status as a mining investment destination, and created significant new activity in South Australia's resource sector. However, the recent global economic turmoil and dramatic falls in some key commodity prices contain significant ramifications for the resources industry worldwide. In South Australia, it is likely that it will result in some weakening of exploration activity in the short term. Despite this, the outlook for the South Australian resources sector remains positive as our known resources are long life and very competitive. The diversity of our resource base, coupled with the multitude of recent discoveries of world-class ore bodies and South Australia's global reputation as a secure place for investment in mining all bode well for the future of the resources sector in this State.

On behalf of the South Australian Government, I welcome you all to Adelaide for the 2009 International Geophysical Conference and Exhibition. I hope that you are able to enjoy some of the sights, tastes and experiences that our city and our State have to offer, and I wish all delegates a productive, enjoyable and successful Conference.

-: / ((

Mike Rann Premier of South Australia Minister for Economic Development

IMT Geophysics

GRAVITY & GPS SURVEYING SPECIALISTS

LaCoste & Romberg Gravity Meters Sokkia 72 Channel Triple Frequency GPS-GLONASS Receivers Data Processing, Network Adjustment & Image Processing Geoscience Australia Gravity Deed Signatory

Integrated Mapping Technologies Pty Ltd

PO Box 262	Phone	61 2 9680 4499
Round Corner, NSW, 2158	Fax	61 2 9659 3863
inmatec@bigpond.net.au	Mobile	0428 170 353

Geophysical Software Solutions Pty. Ltd.

Software services for the geosciences

Developers of ...

 Potent
 - Versatile potential field modelling in a 3D environment

 PotentQ
 - Rapid interpretation of magnetic and gravity anomalies

 EmQ
 - Ultra-fast interactive EM modelling using moments

Richard Almond

Tel:	+61 (2) 6241 2407
Fax:	+61 (2) 6241 2420
E-mail	ralmond@geoss.com.au
Web:	www.geoss.com.au

PO Box 31, Gungahlin, ACT 2912, Australia 18 Bungaree Crescent, Ngunnawal, ACT 2913



From the Organising Committee

Dear Convention Delegates, Sponsors and Exhibitors

Welcome to Adelaide and the 20th ASEG/PESA International Conference and Exhibition. On behalf of the Conference Organising Committee, the Australian Society for Exploration Geophysicists and the Petroleum Exploration Society of Australia we are proud to bring you one of the premier geophysical forums on the world stage.

As Co-Chairs we wish to thank the Organising Committee for their hard work and enthusiasm throughout the long lead up to the conference. We would like to thank the staff and principals of SAPRO, our Conference Organiser, for their valuable experience and guidance. The efforts of David Denham in editing Preview for not only this conference but also a number of years should also not go by unacknowledged. Also without the crucial support of the many presenters, sponsors and exhibitors the conference could not succeed.

The technical program will feature presentations from the minerals, petroleum and environmental fields. To complement the technical papers a series of workshops and field trips have been organised, also the SEG Distinguished Instructor Short Course (DISC) will be held in conjunction with the Conference.

In addition to enjoying the Conference we invite you to venture beyond the Convention Centre and sample many of the delights that Adelaide has to offer. Including the world leading wines and restaurants, all presented within the stunning backdrop of the Adelaide Hills or amazing beaches and to be enjoyed in a sophisticated cosmopolitan lifestyle that retains the big country town charm. In these trying financial times the Conference Platinum Sponsor, Santos, is to be thanked for its support. In addition, we would like to express our appreciation for Gold Sponsors: RioTinto, Beach Petroleum, WesternGeco, Shell and Woodside Energy; the Silver Sponsors: Chevron Australia, CGGVeritas, Barrick and the Government of South Australia. The many Bronze Sponsors are also thanked for their support.

We look forward to enjoying the company of old friends and making new ones during your stay in Adelaide.

Co-Chairs

Andrew Shearer (*Taylor Collison*) and Tony Hill (*PIRSA*)

The Committee

Danny Burns (Beach Petroleum) Sponsorship Sean O'Brien (Beach Petroleum) Sponsorship Luke Gardiner (Beach Petroleum) Finance, Publicity David Cockshell (PIRSA) Finance, Awards Philip Heath (PIRSA) Workshops Dennis Cooke (Santos) Technical Papers Michael Hatch (Adelaide University) Technical Papers, Awards Graham Heinson (Adelaide University) Technical Papers, Students Rod Lovibond (Isis Petroleum Consultants) Technical Papers Doug Roberts (Beach Petroleum) Exhibition Dave Spence (Beach Petroleum) Exhibition, Publicity Kelly Keates (Zonge Engineering) Exhibition Jenni Clifford (Santos) Social Program Terry Barr (Santos) Social Program, Publicity

Additional Support from

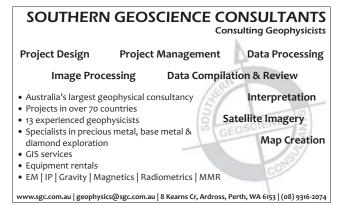
Mark Tingay (University of Adelaide) Malcolm Horton (Santos) Jasi Watson (Santos) David McInnes (Montana GIS) Technical Papers John Paine (Scientific Computing Applications) Technical Papers Andrew Thompson (Minotaur Exploration) Technical Papers John Joseph (Adelaide University) Tania Dhu (PIRSA) Said Amiri-Beshli (Santos)



Andrew Shearer



Tony Hill





From the Presidents

'Geophysics in a Changing Environment' is the theme of this 20th International Geophysical Conference and Exhibition. 'Brighter - Deeper - Greener' is a slogan that emphasises the changing environment, not only of our global community, but also the environment in which we work as geoscientists. Geoscience is one of the most important disciplines for sustainable development and conferences like this one are an opportunity to show that we can tackle many environmental challenges by thinking differently about the application of geology and geophysics. One of our challenges is to ensure that we have an adequate supply of geoscientists to be able to tackle resource and environmental issues. We should be looking for as many meanings as possible in the Brighter -Deeper – Greener slogan!

The ASEG and PESA are again collaborating to produce a world class conference and exhibition, during which 'Brighter' ideas will be presented to highlight better ways of applying our discipline. The 'resource boom' is now recent history as prices of most commodities have dropped over the last 12 months. However, we should now be focusing on the next boom, which is just around the corner. Now is the time to share ideas on how we can be more effective in finding new resources and at the same time preserve our environment. No doubt we will need to go 'Deeper' with our exploration to find new world class deposits of metals, coal, and oil and we will need to consider 'Greener' ways of doing this to protect the natural

environment in which we work. We also need to go further and demonstrate the importance of geoscience and geophysics during both 'booms' and 'busts'.

This Conference, through the technical sessions, keynote addresses, exhibitions and informal gatherings, is going to provide an important forum to discuss philosophies, technologies and practices that will contribute to exploration and production success. It will not only offer a stimulating and enjoyable week to learn and to hear some new ideas, but provide an opportunity to catch up with old friends and to make new ones.

The Conference is being held in the Adelaide Convention Centre, which nestles on the edge of the Torrens River in one of Australia's famous cities. The City of Adelaide offers many delights. Beside the many attractions within the city itself, within one hour's drive are rolling hills covered in vineyards stretching from McLaren Vale in the south to the Barossa and Clare Valleys in the north. These are the production centres of the South Australian wine industry. Not to mention the charming town of Handorf situated in the Adelaide Hills, which is a historical German settlement. There are many attractions for delegates and their partners, when not engrossed in the excellent presentations at the conference and exhibition.

We sincerely thank the Convenors, Mike Hatch and Andrew Shearer, along with the Conference Organising Committee for their wonderful work in bringing this Conference to realisation. It gives us great pleasure to welcome you all to the 20th International Geophysical Conference and particularly those delegates from overseas, our colleagues from ASEG and PESA, and representatives from our affiliated societies the SEG, EAGE, SEGJ, KSEG, HAGI and SAGA.

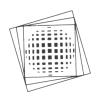
Enjoy your week.



Peter Elliott President of the Australian Society of Exploration Geophysicists



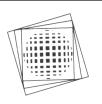
Tom Loutit President of the Petroleum Exploration Society of Australia



GEOIMAGE SPECIALISTS IN IMAGE PROCESSING REMOTE SENSING AND GEOPHYSICAL APPLICATIONS

Max Bye

27A Townshend Road Subiaco, WA 6008 Email: max@geoimage.com.au WWW: www.geoimage.com.au Int Tel: +618 9381 7099 Int Fax: +618 9381 7399



GEOIMAGE SPECIALISTS IN IMAGE PROCESSING REMOTE SENSING APPLICATIONS AND AIRBORNE GEOPHYSICS

Sylvia Michael Director

Unit 13/180 Moggill Road, Taringa, QLD 4068 Australia PO Box 789, Indooroopilly, QLD 4068 Australia Email: sylvia@geoimage.com.au Tel: (07) 3871 0088 Fax: (07) 3871 0042 Int Tel: +617 3871 0088 Int Fax: +617 3871 0042

Take geophysics further with The Power of Q



Powered by Q*, WesternGeco seismic-to-simulation technology and expertise allow you the freedom to deploy tailor-made solutions for your reservoir identification, exploration, development, and management projects. We listen to your challenges, understand your needs, and deliver value.

Contact us now to learn about The Power of Q. **Visit www.westerngeco.com**







Platinum Sponsor

SANTOS

Santos

Santos Ltd is a major Australian oil and gas exploration and production company with interests and operations in every major Australian petroleum province and in Indonesia, Papua New Guinea, Vietnam, India, Bangladesh, Kyrgyzstan and Egypt.

We are one of Australia's largest producers of gas to the domestic market, supplying sales gas to all mainland Australian states and territories, ethane to Sydney, and oil and liquids to domestic and international customers. We also have the largest Australian exploration portfolio by area of any company – 192 000 square kilometres.

Santos is positioning itself to become the leading energy company for Australia and Asia. The Cooper Basin, which Santos and its joint venture partners have developed, is Australia's largest onshore resources project. Through our interest in the Darwin LNG project, we are a producer of LNG which is exported to customers in Japan. Santos has announced a \$7.7 billion project to build an LNG facility in Gladstone, Queensland, that will process coal seam gas from eastern Queensland.

Santos has more than 1750 employees and produced 59.1 million barrels of oil equivalent in 2007.

Ground Floor Santos Centre 60 Flinders Street Adelaide, South Australia Web: www.santos.com Contact: Annamarie van Riet Email: annamarie.van.riet@santos.com Tel: +61 8 8116 5000

Gold Sponsors

BEACH PETROLEUM



Beach Petroleum Ltd, founded in the early 1960s, is a publicly listed oil and gas Exploration and Production Company based in Adelaide, South Australia. The Company holds interests in more than 300 exploration and production tenements in Australia and overseas.

Beach has petroleum exploration interests in the Bass, Browse, Carnarvon, Cooper/Eromanga, Gippsland and Otway basins in Australia, the Canterbury and Taranaki basins in New Zealand, the Gulf of Suez in Egypt, the Ebro Basin in Spain and the Gulf of Papua, PNG (Pandora Project). The Company is also a participant in coal seam gas exploration in the Surat Basin and a geothermal energy project being conducted in the Arrowie Basin. Beach holds interests in production joint ventures in the Cooper/Eromanga Basin, the Basker-Manta-Gummy Joint Venture in the offshore Gippsland Basin and the Tipton West CSG Joint Venture in the Surat Basin. As at June 2008, Beach's Proved plus Probable recoverable reserves were 145 million barrels of oil equivalent. During the financial year 2007/08, its share of production was 9.3 million barrels of oil equivalent.

25 Conyngham Street Glenside, South Australia Web: www.beachpetroleum.com.au Tel: +61 8 8338 2833

RIOTINTO EXPLORATION

RioTinto

Rio Tinto is a leading international mining group headquartered in the UK, combining Rio Tinto plc, a London and NYSE listed company, and Rio Tinto Limited, which is listed on the Australian Securities Exchange.

Rio Tinto's business is finding, mining and processing mineral resources. Major products are aluminium, copper, diamonds, energy (coal and uranium), gold, industrial minerals (borax, titanium dioxide, salt, talc) and iron ore. Activities span the world but are strongly represented in Australia and North America with significant businesses in South America, Asia, Europe and southern Africa.

37 Belmont Ave Belmont, Western Australia Web: www.riotinto.com Tel: +61 8 9270 9222 Contact: Mike Haederle Email: mike.haederle@riotinto.com

SHELL DEVELOPMENT AUSTRALIA Pty Ltd



Shell Development Australia (SDA) is the exploration, production and gas commercialisation part of Shell's Australian business, holding an interest in about 20% of an estimated 136 trillion cubic feet of the gas resources in Australian waters.

As a gas growth centre for the Shell Group, SDA holds large reserves in the North West Shelf Venture (NWSV), Gorgon, Browse Basin and Timor Sea fields around Australia. SDA also maintains a substantial exploration portfolio in Australia with major representation in permits and reserves offshore Western Australia and the Northern Territory.

This is a business of very long-term plans and substantial investment. It involves acquiring and developing new exploration areas, making oil and gas discoveries and bringing them to market.



In Australia, SDA does this primarily through joint venture partnerships with other oil and gas businesses.

Shell Development Australia is also a founding member of the Australia LNG marketing consortium.

Level 28, QV1 Building 250 St George's Terrace Perth, Western Australia Web: www.shell.com Tel: +61 8 9338 6854 Contact: Kara Sloper Email: kara.sloper@shell.com

WESTERNGECO



WesternGeco, a business unit of Schlumberger, is the world's leading geophysical services company, providing comprehensive worldwide reservoir imaging, monitoring, and development services, with the most extensive geophysical survey crews and data processing centres in the industry, as well as the world's largest multiclient data library. Services range from 3D and 4D (time-lapse) seismic surveys to multicomponent and electromagnetic surveys, supplying our clients with accurate measurements of subsurface geology.

Level 5, 256 St Georges Terrace Perth, Western Australia Web: www.westerngeco.com Tel: +61 8 9420 4801 Contact: Elizabeth McFerran Email: emcferran@perth.westerngeco.slb.com

WOODSIDE ENERGY PTY LTD



Woodside is Australia's leading independent energy company, with a 55-year history backed by one of the world's premier resource developments, the A\$27 billion North West Shelf.

We produce natural gas, liquefied natural gas, liquid petroleum gas, condensate and oil for customers around the world. We pride ourselves as a stable and reliable supplier with a focus on delivering on our commitments.

Our position in the global energy market is growing, with an impressive portfolio of oil and gas developments including our Pluto liquefied natural gas project. With first sales by the end of 2010, the A\$12 billion Pluto project will help triple our current equity production of liquefied natural gas.

With our large natural gas resource base, Woodside is a sought-after provider of cleaner energy. We seek excellence in environmental performance, and ensure that wherever we operate, the local community benefits from our presence. 240 St Georges Terrace Perth, Western Australia Web: www.woodside.com.au Tel: +61 8 9348 4000 Contact: Lesley Johnson Email: lesley.johnson@woodside.com.au

Silver Sponsors

BARRICK



Barrick is the world's pre-eminent gold producer, with a portfolio of 27 operating mines, many advanced exploration and development projects located across five continents, and large land positions on the most prolific and prospective mineral trends.

Barrick's Australia Pacific region is headquartered in Perth, Western Australia and comprises 10 operating mines: its 50% interest in the Kalgoorlie mine; the Kanowna, Granny Smith, Plutonic, Darlot and Lawlers gold mines in Western Australia; the Cowal gold mine in New South Wales; the Henty gold mine in Tasmania; the Osborne copper-gold mine in Queensland; and the Porgera gold mine in Papua New Guinea.

Level 10, 2 Mill Street Perth, Western Australia Web: www.barrick.com Tel: +61 8 9212 5777 Email: aarbu@barrick.com

CGGVERITAS



CGGVeritas is a leading international pure-play geophysical company delivering a wide range of technologies, services and equipment to the oil and gas industry. Geophysical services cover offshore and onshore seismic acquisition, seismic data processing and imaging, as well as reservoir management. We offer an advanced suite of seabed seismic services. CGGVeritas also owns a recent vintage, well positioned library of multi-client land and marine seismic data. Hampson-Russell (A CGGVeritas company) provides its renowned geophysical software, training and technical services throughout the Asia-Pacific region.

38 Ord Street West Perth, Western Australia Web: www.cggveritas.com Tel: +61 8 9214 6200 Contact: Suzanne Del Rosso Email: suzanne.delrosso@cggveritas.com



CHEVRON AUSTRALIA



Chevron is one of the world's largest integrated energy companies, conducting business in more than 100 countries with a diverse and highly skilled workforce consisting of more than 59 000 employees. Chevron has been present in Australia for more than 50 years and is a significant investor in offshore north-western Australia exploration. The company is leading the development of the Gorgon Project, an LNG and domestic gas joint venture, and the wholly owned Wheatstone Project. Chevron operates the Barrow Island and Thevenard Island oil fields and is a participant in the North West Shelf Venture and Browse LNG development.

250 St Georges Terrace Perth, Western Australia Web: www.chevron.com Tel: +61 8 9216 4000 Contact: Erin May Email: erin.may@chevron.com

GOVERNMENT OF SOUTH AUSTRALIA, PIRSA



Government of South Australia

Primary Industries and Resources SA

Primary Industries and Resources SA (PIRSA) is a dynamic Government of South Australia agency committed to the economic development of the State and the sustainable use of the State's food, fibre and minerals industries.

The Division of Minerals and Energy Resources of PIRSA manages the state's mineral, petroleum and geothermal resources on behalf of the people of South Australia. It provides South Australian geoscientific information for resource industries to encourage minerals, petroleum and geothermal exploration. PIRSA also provides information for teachers, students, community groups and the general public.

Minerals and Energy Resources Division Primary Industries and Resources South Australia (PIRSA) 7th Floor, 101 Grenfell Street Adelaide, South Australia Web: www.pir.sa.gov.au Tel: +61 8 8463 3000 Email: pirsa.minerals@saugov.sa.gov.au **Bronze Sponsors**

ANGLOGOLD ASHANTI LTD



AngloGold Ashanti Ltd is one of the world's leading gold producers, with a varied portfolio of assets and orebody types in key gold-producing regions around the world. The company has 21 operations located in 10 countries (South Africa, Argentina, Australia, Brazil, Ghana, the Republic of Guinea, Mali, Namibia, Tanzania and the United States) on four continents, together with a substantial project pipeline and a focused, global exploration program. AngloGold Ashanti's in-house greenfields exploration is concentrated on advanced projects in Western Australia, Colombia and the Democratic Republic of Congo (DRC). The company also has exploration partnerships and joint ventures in Russia, China, Colombia, the Philippines and Laos. For future opportunities to join an organisation that will foster your career, and provide training, log on to: www.anglogold.com.au

44 St Georges Terrace Perth, Western Australia Web: www.anglogold.com.au Tel: +61 8 9425 4600

BHPBILLITON PETROLEUM PTY LTD



BHP Billiton is the world's largest diversified natural resources company. The company has approximately 41 000 employees working in more than 100 locations in 25 countries across the world. BHP Billiton Petroleum is a significant oil and gas exploration and production business with major producing assets in Australia, Algeria, Pakistan, Trinidad and Tobago, United Kingdom and the United States. BHP Billiton Petroleum conducts an international exploration and development program as well as marketing crude oil, condensate, liquefied petroleum gases, natural gas and liquefied natural gas to customers worldwide.

152–158 St Georges Terrace Perth, Western Australia Web: www.bhpbilliton.com Tel: +61 8 9338 4888



NEWMONT ASIA PACIFIC PTY LTD



Newmont Mining Corporation is a leading gold producer with operations on five continents and is also engaged in the exploration for and acquisition of gold properties in some of the world's best gold districts. It employs approximately 34 000 employees and contractors worldwide.

Newmont owns or has an interest in three Australian gold mining operations and is nearly finished with constructing the expanded Boddington gold mine 130 km southeast of Perth. The Kalgoorlie Consolidated Gold Mines (KCGM) Super-Pit at Kalgoorlie is 50 percent owned by Newmont, as part of a joint venture with Barrick Gold Corporation; Kalgoorlie Consolidated Gold Mines (KCGM) operates the mine. The Super Pit is the biggest gold open pit mine in the country and produces more than 25 tonnes of gold every year, far outweighing any other gold mining centre in Australia.

Level 1, 388 Hay Street Subiaco, Western Australia Web: www.newmont.com Tel: +61 8 9423 6162

OUTER-RIM EXPLORATION SERVICES PTY LTD



Outer-Rim Exploration Services has been providing reliable, professional, cost effective surface, underground and downhole EM surveys to the exploration and mining industry throughout Australia for more than thirteen years. ORE was the first to provide dependable three component DHEM surveys to Australia and the first to provide the new SQUID technology (using high temperature superconductors) to surface EM surveys, with the introduction of the CSIRO developed LANDTEM system. The LANDTEM now has an enviable record of exploration success in a relatively short time. For excellence in EM surveys, contact one of the ORE team at booth #52.

42 Vivian Street Boulder, Western Australia Tel: +61 8 9093 4400 (John More) 3 Katherine Street Norman Park, Queensland Tel: +61 7 3843 2922 (David Lemcke) Web: www.outer-rim.com.au Email: mail@outer-rim.com.au

STUART PETROLEUM



Established in 1993 as a mineral exploration company, Stuart disposed of its mineral assets in 1999 and commenced activity as an oil and gas explorer in 2000 with its focus on the Cooper and Eromanga Basins in northern South Australia. Since then Stuart Petroleum has discovered and brought into production eight oilfields, reported profits in each year from 2003 to 2007, and in 2007 paid its third consecutive dividend.

The company has produced over 2.5 million barrels of oil and continues to add reserves through successful drilling. Production has generated cash for re-investment and payment of dividends while maintaining appropriate levels of liquidity. At present, apart from the Cooper and Eromanga Basins, it is exploring in the offshore Gippsland Basin in Victoria and the Vulcan Sub-Basin in the Timor Sea.

Level 7, 22 King William Street Adelaide, South Australia Tel: +61 8 8410 0611 Web: www.stuartpetroleum.com.au

VELSEIS PTY LTD



Integrated Seismic Technologies

Velseis Pty Ltd is a highly experienced Australian seismic contractor, whose reputation is based upon 30 years of diverse operations throughout the Asia-Pacific region. Velseis offers fully integrated seismic services to the petroleum, coal and mineral industries.

The company's operations encompass seismic design, surveying, shot-hole drilling, data acquisition, processing and interpretation. The extensive experience of Velseis' key personnel ensures reliable and technically innovative solutions tailored to meet the needs of individual clients.

Velseis provides comprehensive seismic acquisition services, designed to accommodate geophysical, logistical, climatic, environmental and safety objectives. The company provides conventional 3D and 2D crews, utilising multi-component, heliportable, and shallow marine recording.

In keeping with its full-service approach, Velseis provides a specialised shot-hole drilling service through its Seisdrill division and has recently purchased new Envirovibe units (light-weight Vibroseis buggies) which offer an alternative energy source for CSG and shallow petroleum targets. In addition, PT Velseis Indonesia provides comprehensive geophysical logging services in South East Asia.

Velseis is an industry leader in the processing of high-resolution seismic data, and is at the forefront of 3D seismic mine-planning imagery. Velseis also has an experienced oil and gas processing

Sponsors D

division, delivering high-quality 3D and 2D onshore, transition and marine seismic data processing services.

Velseis maintains its competitiveness with a proactive commitment to research and development. The R&D division engages in focussed research projects and provides technical support to production divisions.

Rob Wiens, Commercial Manager 83 Jijaws Street Sumner Park, Queensland Tel: +61 7 3376 5544 Web: www.velseis.com.au Email: enquiries@velseis.com.au

Other Sponsors

GEOFORCE



Geoforce Division of GroundProbe® provides high resolution subsurface information to reduce risk and maximise profit for our customers in the mining, infrastructure and environmental sectors.

Unit 1/288 Victoria Road Malaga, Western Australia Web: www.geoforce.com.au Contact: Rolanda Kruit Email: rolanda@geoforce.com.au Tel: +61 8 9209 3070

ORIGIN



Origin Energy is a major Australasian integrated energy company involved in gas and oil exploration and production, energy retailing and power generation. It holds significant producing assets, operates onshore processing facilities, and holds a portfolio of onshore and offshore exploration permits. Today Origin provides gas and electricity to more than 3 million homes and businesses across Australia, New Zealand and the Pacific.

John Oxley Centre 339 Coronation Drive Milton, Queensland Tel: +61 7 3858 0600 Web: www.originenergy.com.au

PETROSYS



Petrosys oil and gas mapping software gives you the power to create extraordinarily precise and meaningful maps by providing a unique combination of quality output, comprehensive mapping, 3D visualisation and surface modelling calculations so that you can effectively integrate data from the entire realm of seismic, well, engineering and economic systems involved in oil and gas exploration. There's simply nothing like it for speed, flexibility and accuracy.

Level 7, 216 St Georges Terrace Perth, Western Australia Web: www.petrosys.com.au Tel: +61 8 9321 9299 Email: info@petrosys.com.au Contact: Michael John Silva











Geoforce: industry leading consultants and field teams for the design and implementation of solutions for a wide range of applications, including:

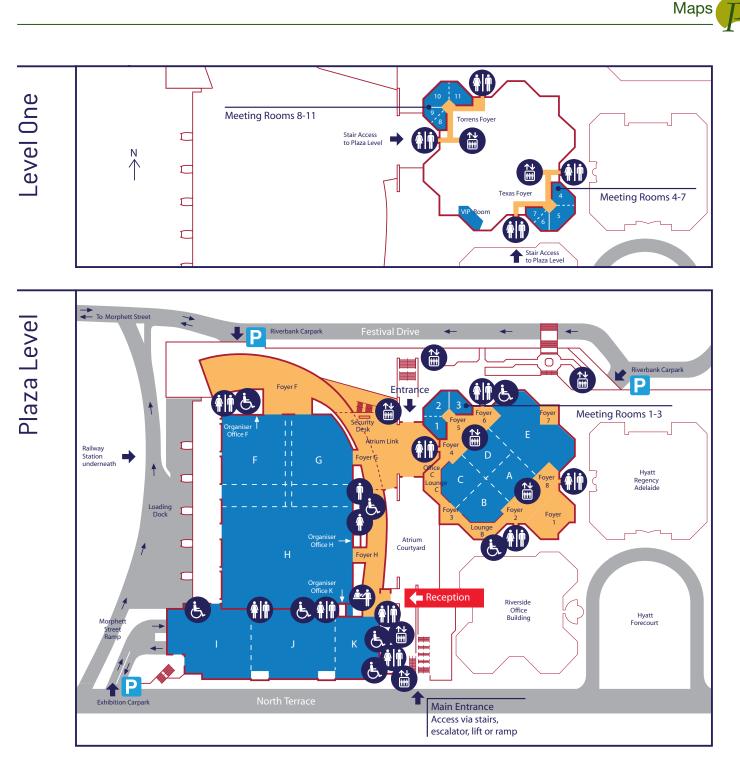
- Cavity detection and delineation
- Groundwater evaluation
- Orebody mapping and delineation
- Palaeochannel mapping
- Soil characterisation
- Geotechnical evaluation
- Environment monitoring
- Radar Ballast Scanning

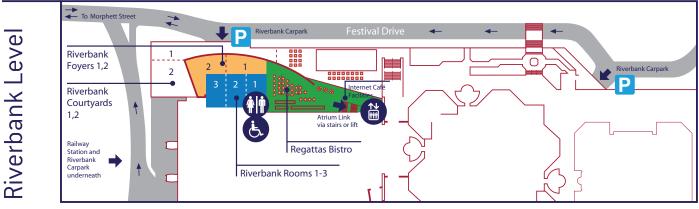
From airbourne, ground and marine platforms



West Coast Perth: (08) 9209 3070 East Coast Brisbane: (07) 3010 8999

www.geoforce.com.au





ASEG 09 Conference Handbook

RIO TINTO

PATH OPPORTUNITIES RIO TINTO CA

EDENING ISSUED TINTO CAREER PATH OPPORTUNITIES BID TINTO CAREER PATI

ATH OPPORTUNITIES RIO TINTO CASEE PATH OPPORTUNITIES RIO TINTO CAREER PATH OPPORTUNITIES RIO TINTOCAREER PA

BE PARTOE OUR EUTURE

NITIES RIO

Rio Tinto is a world leader in discovering, mining and processing minerals, with a commitment to health, safety, environment and the enhancement of the skills and capabilities of its employees.

Our major products include aluminium, copper, diamonds, energy products, gold, industrial minerals, and iron ore.

With operations around the world we can offer talented students the opportunity to pursue challenging and diverse careers. Our graduate programme aims to develop future leaders in both management and technical streams by providing a range of experiences in addition to structured learning and development.

Rio Tinto believes by participating in the ASEG student sponsorship programme we can help develop the next generation of geophysicists.

For further information on graduate opportunities with Rio Tinto visit www.graduates.riotinto.com

J16975

Conference Venue

Adelaide Convention Centre North Terrace Adelaide 5000 Australia Tel: +61 (8) 8212 4099 Fax: +61 (8) 8212 5101 Email: sales@adelaidecc.com.au Website: http://www.adelaidecc.com.au/

Conference Secretariat

Sapro Conference Management PO Box 187, Torrensville South Australia 5031 Tel: +61 (8) 8352 7099 Fax: +61 (8) 8352 7088 Email: admin@sapro.com.au Website: www.sapro.com.au

Registration Desk

The registration desk will be located in the foyer of the Adelaide Convention Centre. The desk will open on Sunday 22 February 2009 from 2:30 pm to 6:30 pm. The desk will be open each day of the Conference from 8:15 am to 4:30 pm.

Conference Satchel

The Conference will offer a choice of two satchels for delegates. A quality vinyl bag suitable for laptops will be offered as standard. Delegates will have the option of upgrading to a larger satchel with wheels. It would be ideal as a "carry on" airline overnight case. The cost will be \$25 per satchel. Please check out both options on the conference website in the 'Registration' section. Order your upgrade on the registration form.

Name Badges

Name badges must be worn at all times and will be required to gain admission to lunches, morning and afternoon teas and the trade exhibition. If you misplace your badge, please see the registration staff for a replacement.

Admission Tickets

Attendance at the welcome reception and the dinner are by ticket only. These tickets are in your registration envelope. If these tickets are misplaced or missing, or you wish to attend, please see the registration staff.

Messages

Messages can be collected and left at the Conference Registration Desk. All messages will be posted on the message board adjacent to the desk. Please check the board regularly. No guarantee can be given to deliver messages personally. Please ensure your personal mail is sent to your accommodation address.

Speaker's Support Room

The speaker support room will be located in Meeting Rooms 8 and 9, located on the 1st floor of the Adelaide Convention Centre. The room will contain a full range of the equipment available in the meeting rooms. All electronic presentations must be downloaded onto the Centre's server. Individual laptops cannot be used in the rooms. Opening hours are:

Sunday 22 February 2009: 3:00 pm to 6:00 pm Monday 23 February 2009: 7:30 am to 4:30 pm Tuesday 24 February 2009: 7:30 am to 4:30 pm Wednesday 25 February 2009: 8:00 am to 1:00 pm

Program Changes Board

All changes to the program will be displayed on the program changes board daily. The program changes board will be located near the conference registration desk.

Posters

Posters will be on display in the Exhibition Hall throughout Monday, Tuesday and Wednesday. The roster for poster presentations will be provided at the conference.

The Exhibition

The exhibition will be housed in Hall H. It will be open during the following times:

Sunday 22 February 2009: 6:00 pm to 7:30 pm Monday 23 February 2009: 8:30 am to 6:00 pm Tuesday 24 February 2009: 8:00 am to 6:00 pm Wednesday 25 February 2009: 8:00 am to 3:00 pm

Delegates will be able to meet with exhibitors during the refreshment breaks provided.

Internet Café

A free Internet café for the convenience of delegates – proudly sponsored by Newmont – will be located in the Trade Exhibition Hall.

Catering

Morning & afternoon teas and lunches are included in the registration fees will be served in Hall G. Access is via the main entrance of the Trade Exhibition. Delegates with special dietary needs must advise the Conference Secretariat in writing via the registration form.

Car Parking

A number of car parks are located at or near the Adelaide Convention Centre. Earlybird fees are available although delegates should contact the individual car parks to confirm times and conditions.

Disclaimer

The 2009 International Geophysical Conference and Exhibition committee, including the conference organisers, accept no liability for injury of any nature sustained by delegates or partners, or for loss/ damage to personal property as a result of the conference or associated events. The conference program is correct at the time of printing, though conference organisers hold the right to make necessary changes to programming. Receipt of delegate and partner registration acts as an acceptance of this disclaimer. Some scheduled events are subject to minimum numbers enrolling by a preset date, and we otherwise reserve the right to amend or cancel the proposed event.

Privacy Statement

In addition to administering the event, unless you advise otherwise in writing, the personal information you provide to us may be disclosed in the event delegate list made available to sponsors, speakers, exhibitors and delegates.

Dress Code

Conference Sessions: Smart casual Evening Functions: Smart casual Conference Dinner: Lounge suit/Cocktail dress

Climate

February is summer in Adelaide and daytime temperatures could reach mid-high 30° Cs with evening temperatures ranging between 14° C and 20° C.

Airport

The Adelaide Airport is approximately 6 km from the Adelaide city centre. International and domestic passengers arrive and depart from the same terminal (T1). Skylink Airport shuttle provides a regular scheduled service between the Airport and the Adelaide CBD. The cost is A\$8 each way: www.skylinkadelaide.com. Taxis and hire cars are also available.

