Why we are pleased to be serving you!

David Calcagni, president EAGE, writes: I’m delighted to introduce the first edition of our newsletter focusing specifically on the Asia Pacific region, which I consider to be an excellent example of EAGE's commitment to meeting the needs of its members worldwide.

I was of course very recently in Malaysia to officiate at the official opening of our Regional Office in the Asia Pacific region. I am very proud to have been associated with this event reported upon in this issue. It represented the conclusion of three years work aimed at bringing EAGE’s services closer to our members in a specific area in order to better understand their needs and accordingly serve them in a more tailored and efficient way.

I have to say that I was really impressed by the number and importance of our guests at the ceremony, a vibrant witness of how right we were to bring our capability to support the professional geoscience community in this region. EAGE is steadily progressing in its mission to offer a global association with a European touch, dedicated to ensuring that the specific needs of professionals working in different regions are met.

In this newsletter I hope you will find not only the latest information on all EAGE activities but also a helpful resource to identify key personnel and organizations dedicated to our goal of strengthening cooperation and shared knowledge in the geoscience and engineering community.

As you will see, we are already very active with a growing calendar of EAGE organized and supported events. Meetings you might like to check out include the one day lecture course on ‘Seismic Imaging’ being presented by Etienne Robein in Beijing (7 March), Kuala Lumpur (9 March), Jakarta (14 March), and Perth (21 March); the first EAGE Southeast Asia Regional Geology Workshop on ‘Paleozoic Limestone of Southeast Asia and South China’, being held in Ipoh, Malaysia, 5–7 December 2011; and the International Petroleum Technology Conference (IPTC 2011), on 15–17 November, 2011 in Bangkok, Thailand.

As an increasingly active player in the region EAGE intends to become a reference point for geoscientists in the region with our trademark

Trivia Question

What is the name given to the notorious area around the Pacific plate associated with considerable tectonic activity?

A - Zone of Death
B - Ring of Fire
C - Circle of Volcanoes
D - Earthquake Central

Answer on p. 4

We are open for business!

You could say that we rose to the occasion – the 42nd floor of the Petronas Tower in Kuala Lumpur in the Malaysian Petroleum Club. That’s where 130 invited guests from 40 different companies and organizations, plus local EAGE members, joined with EAGE officials on 27 January to celebrate the official opening of the EAGE’s Asia Pacific Regional Office.

Guests listen to opening addresses.

It was a memorable occasion marking the Association’s dedication to bringing its benefits and services closer to its members around the world. EAGE president Davide Calcagni was on hand to personally greet our distinguished guests.

Read more on p. 2

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Later he offered some welcoming words to the party emphasizing EAGE’s commitment to serving the geoscience community in Asia Pacific by providing a local organization to which members could easily relate. He said that EAGE believed it could complement existing geoscience-related activities in the region with its worldwide experience in organizing meetings, education and training courses, and special programmes to support the upcoming generation of young geoscientists who are students or early in their careers. Having an Asia Pacific office, he said, would also facilitate the strengthening of existing ties with professional bodies in countries such as China, Japan, Indonesia and Australia.

We were honoured by some brief remarks in response to the EAGE president from Dato’ Wee Yiaw Hin, executive vice president of E&P at Petronas. He congratulated EAGE on the move to Kuala Lumpur and thanked the Association for choosing Malaysia as the location to host the office. He also expressed his appreciation of EAGE as a professional association that is not only offering services for specific subsurface disciplines, but also strives to bring together geoscientists and engineers.

With speeches over, EAGE officials from HQ in The Netherlands, along with new regional manager Gerard Wieggerink and his staff, mingled with guests enjoying good food, drinks and a spectacular view. It was a chance to meet many local industry representatives and get the word out about the office and its plans, which include the setting up of departments to deal with membership, events, publications, and other initiatives. But, as one EAGE insider reviewing the large and animated attendance, observed: ‘This was a great start, but now we have to prove that we can deliver!’

EAGE is not only offering services for specific subsurface disciplines, but also strives to bring together geoscientists and engineers.

Left to right: EAGE regional manager Asia Pacific Gerard Wieggerink and EAGE president Davide Calcagni with Dato’ Wee Yiaw Hin, executive vice president of E&P (Petronas) and, Effendy Cheng, vice president and CEO of exploration (Petronas).

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It’s all smiles at our Opening celebration!

More pictures at www.eage.org
Regional geology workshop series begins with Palaeozoic limestone

Palaeozoic limestone of Southeast Asia and South China is to be the topic for the first in a series of Southeast Asia regional geology workshops being launched by EAGE. This first workshop, organized in collaboration with Universiti Teknologi Petronas (UTP) in Malaysia, will be held from 5–7 December 2011 at UTP, close to a cluster of spectacular outcrops of Palaeozoic limestone.

The idea of the series is to hold a workshop every year at different locations in the South-East Asia in conjunction with local universities, professional geoscience organizations, and the E&P industry, a formula that has already been successfully applied in the Middle East. These 3–4 day workshops, including an optional field trip, will have well defined objectives of interest to regional industry and academia, such as the generation of regional paleogeographic maps, the homogenization of stratigraphic nomenclature, progress on the maturation of a play fairway, etc. Oral presentations and posters will be given equal weight to stimulate discussions, and a panel of facilitators/session chairmen will guide daily group discussions to insure that the objectives are reached by the final panel discussion. It is envisaged that a large proportion of the speakers will be invited but contributions will also be sought from industry and the scientific community. Proceedings and results of the workshop will, if appropriate, be published as EAGE special publications, sponsored by regional geological societies and industry.

Aim of the newly announced first workshop is to gather data from Southeast Asian countries where Palaeozoic limestones occur, including Malaysia, Thailand, Cambodia, Laos, Vietnam, and South China. The purpose is to integrate current knowledge, generate regional occurrence maps, establish a stratigraphic framework, set the basis for a palaeogeographic reconstruction of the Palaeozoic carbonate system in the region, identify exploration challenges, and give an impetus to further research on the prospectivity of Palaeozoic limestones as future exploration targets.

Paleozoic limestone hills of the Kinta Valley, Perak, Malaysia.

Food for thought

Exchanging knowledge is essential in a fast evolving industry. EAGE gives its members an opportunity to stay up to date with the latest technologies and innovations through the EAGE Bookshop and EarthDoc.

The EAGE online bookshop offers over 500 titles in various geoscience disciplines and showcases and sells its own publications and those of reputable publishing houses such as Cambridge University Press, Editions Technip, Springer, and Elsevier. Members of the EAGE receive a discount on the full range of publications available, along with monthly updates that provide information about the latest bookshop offers and additions. Visit the EAGE Online Bookshop at www.eage.org/bookshop

Another tool available to members is EarthDoc. This is EAGE’s online and searchable geoscience database giving access to thousands of event papers and journal articles. The database currently contains well over 35,000 papers and is a source of information well respected by everyone active in the geoscience industry. The number of papers increases rapidly as new material is frequently added. Please have a look at www.earthdoc.org and browse through our archives!

Trivia answer

B - Ring of Fire (or sometimes just the Pacific Ring of Fire) is an area where large numbers of earthquakes and volcanic eruptions occur in the basin of the Pacific Ocean.

About 90% of the world’s earthquakes and 80% of the world’s largest earthquakes occur along the Ring of Fire. The next most seismic region (5–6% of earthquakes and 17% of the world’s largest earthquakes) is the Alpide belt, which extends from Java to Sumatra through the Himalayas, the Mediterranean, and out into the Atlantic.
The Executive Plenary Session features a stellar line-up of distinguished speakers...

The Executive Plenary Session on Tuesday 15 November has a stellar line-up of distinguished speakers including His Excellency Dr Mohammed Hamed Al-Rumhy, Minister of Oil and Gas, Oman; His Excellency Dr Shukri Ghanem, chairman of the National Oil Company of Libya; Zhou Jiping, vice president, China National Petroleum Corporation and vice chairman and president of PetroChina; Yves-Louis Darricarrere, president, exploration and production, Total; and Dato’ Wee Yiaw Hin, executive vice president, exploration and production, Petronas.


In addition to the conference and exhibition, there will be a Young Professionals Workshop; Education Week; Education Days; and for the first time at IPTC, Teachers Day. Topical luncheons and an active programme of social activities and technical field trips will also be part of the programme.

Last but not least, the prestigious IPTC Excellence in Project Integration Award will be awarded at 2011 IPTC. This award recognizes the distinguished achievements of a company or companies in the integration of multiple disciplines and execution of major industry projects, from discovery to delivery. Award nominations can be submitted to iptc@iptcnet.org.

For more information about the event, conference programme, exhibition, and sponsorship opportunities, please visit: www.iptcnet.org/2011

Update:
IPTC 2012 has just been confirmed by the IPTC Board. It will be held in Beijing, China on 5-7 December 2012.
Catch up with our education courses for all

Etienne Robein, EET 4 lecturer.

One of EAGE’s most successful educators is coming to town! Etienne Robein, former EAGE president and Total R&D manager, will be visiting the Asian Pacific region in March 2011 with the EAGE Education Tour (EET). His EET 4 course on ‘Seismic Imaging: a Review of Techniques, their Principles, Merits and Limitations’ has been very well received and has so far been presented in 20 locations around the world. Now there is a chance to catch up with his course.

The course provides an overview of today’s most popular seismic imaging techniques used in the oil and gas industry. Etienne’s tour schedule includes stops at Beijing (7 March), Kuala Lumpur (9 March), Jakarta (14 March), and Perth (21 March).

There is more in the pipeline. Our highly successful Education Days is scheduled to be held in Kuala Lumpur on 31 October-4 November 2011. This event offers a programme of one and two day training courses on current geophysical and geological topics provided by experts in their fields.

EAGE Student Programme launched at PGCE

As soon as we started to make plans for a permanent presence in Southeast Asia, we realized that the Petroleum Geoscience Conference & Exhibition (PGCE), held annually in Kuala Lumpur, was one of the main geoscience events in region. So we have been particularly pleased that the organizers, the Geological Society of Malaysia (GSM) and Petronas, have accepted EAGE as an official associated society of the event and welcomed our support in looking for ways to enhance what is already an excellent meeting.

EAGE’s Asia Pacific manager Gerard Wieggerink recognized that there were a number of good conferences in the region, so it didn’t make sense for a professional society like the EAGE to come in and add another one to the calendar. ‘Instead,’ he says, ‘we have looked at ways how to work with PGCE and see where our society can add value to an already well regarded event’.

One result of the cooperation will be the first PGCE Student Programme to be launched at PGCE 2011 (7–8 March 2011). EAGE has a strong background in organizing special student activities during its own conferences, so has been able to bring its experience in catering for the special needs of this important group. Principal event sponsor Petronas is fully supporting this initiative and together with Petroleum Geo-Services (PGS), Student Programme sponsor, a stimulating series of talks based on the theme of ‘Career Awareness’ has been put together targeting those future geoscientists attending PGCE 2011.

EAGE is also expanding its support and benefits offered to students in the region. Beginning in the fall of 2011, the first Asia Pacific student lecture tour (SLT AP) will take place offering a hot topic lecture by Prof. Bernard Pierson (UTP) on ‘Distinctive Limestone Formations in the Asia Pacific Region’ scheduled to visit Malaysia, Indonesia, Australia, Thailand, Cambodia, Vietnam, and China throughout 2011–2012. All universities with active geoscience academic programmes are welcome to contact students@eage.org to be involved in this tour. Students anywhere in the Asia Pacific region also have the option to apply for a free EAGE student membership. Finally any company which has an interest in supporting the next generation of geoscientist, may like to consider contributing to the EAGE Student Fund, which has the mission to providing a range of opportunities for students worldwide. Please contact us at asiapacific@eage.org for more details on the Student Fund.

Events programme is hotting up

We are starting to put our activities on the Asia Pacific geoscience calendar, but we want to make sure that we are meeting the wishes of EAGE members and others in the region.

EAGE’s regional manager Gerard Wieggerink said: ‘We have received a very positive response since opening our regional office with several requests from members to stage events on various geoscience topics and we hope to address as many as we can via lectures, courses, field trips or workshops. Of course, if anyone has a topic to propose, or if you would like to be active in one of the technical committees of EAGE events, please do not hesitate to contact us. Our e-mail is asiapacific@eage.org.

At time of publication, final dates for some events are still to be confirmed. Please refer to the EAGE website for the latest update, but this is what we have got planned so far.

Calling for regional lecturers

EAGE is aiming to expand its educational courses in the Asia Pacific region and is therefore looking for lecturers from the region. If you have a quality course that you would like to present at an EAGE organized meeting, please contact us at asiapacific@eage.org.
Time to sign up for EAGE membership benefits!

Wondering why you should join the EAGE? Here are just a few reasons.

As a member of EAGE, you will join over 15,000 geoscientists and engineers around the world who have similar interests to you. It's EAGE's mission to ensure that your needs from a professional association are met through all sorts of benefits and services, from specialist publications, discounted event prices, training courses, and much more. Above all, you will be able to network amongst your professional peers wherever you are in the world through EAGE activities. Let’s take a closer look at what's on offer.

As a member you will receive the EAGE flagship magazine *First Break* every month, filled with technical articles, special topics, industry news, reports on EAGE past and upcoming events, and more. In addition, you can choose an online subscription to one of EAGE's scientific journals (*Geophysical Prospecting*, *Near Surface Geophysics*, *Petroleum Geoscience* or *Basin Research*) and receive free access to EarthDoc.

In addition, EAGE offers a wide variety of conferences, exhibitions, workshops, and professional courses held in different locations worldwide which EAGE members can attend at discounted prices. For example, our workshops cover a broad range of topics, such as: seismic imaging, reservoirs in deep carbonate formations and fractured reservoirs, tight gas, borehole seismic, electromagnetics, micro-seisms, etc. Workshops have limited attendance and provide an excellent opportunity for interactive discussions about a specialized topic.

Highlight of the year is the EAGE’s Annual Conference & Exhibition which attracts some 6000 geoscientists and engineers from all over the world and in 2011 will be held in Vienna, Austria from 23–26 May. For our Near Surface Division, there is a separate annual event, this year in Leicester, UK from 12–14 September, to serve those geoscientists with interests in such issues as geological, hydrogeological, geotechnical, environmental, engineering, mining, archaeological, agricultural and other applications of geophysics as well as physical soil and rock properties.

For those looking for educational courses to learn or update knowledge, EAGE offers an outstanding programme. In October EAGE will be presenting for the first time its Education Days in Kuala Lumpur, which offers a number of courses over several days taught by industry and academic authorities in their fields of expertise.

Joining EAGE is easy, and a growing number of geoscientists and engineers are taking advantage of the professional benefits and services offered. So, why not go to the EAGE website at www.eage.org and find out how to sign up or contact the EAGE Head Office at eage@eage.org. With the opening of the EAGE regional office in Kuala Lumpur, you can now pay your membership fee locally. Contact the office for payment instructions.

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- One day lecture course on Seismic Imaging by Etienne Robein
  - Beijing (7 March), Kuala Lumpur (9 March), Jakarta (14 March), and Perth (21 March)
- EAGE Breakfast talk on The Cocktail Party Effect, Simultaneous Sources and Compresive Sensing by Craig Beasley
  - 1 April 2011, Kuala Lumpur, Malaysia
- Workshop on Controlled Source Electromagnetics (CSEM)
- Fourth quarter 2011, Kuala Lumpur, Malaysia
- Workshop on Fractured Reservoirs
  - Fourth quarter 2011, Vietnam or Indonesia
- EAGE Education Days
  - Several short courses on a wide range of geoscience topics
  - 31 Oct-4 Nov, Kuala Lumpur, Malaysia
- IPTC 2011
  - 15–17 November 2011, Bangkok, Thailand
- First EAGE Workshop on Paleozoic Limestone of Southeast Asia and South China
  - 5–7 December 2011, Ipoh, Malaysia
- Workshop on Seismic Imaging
  - First quarter 2012, location to be announced
- Workshop on Karst Reservoirs in Deep Carbonate Formations in the Tarim basin
  - First quarter 2012, West China
Toshihiro Uchida, president, Society of Exploration Geophysicists of Japan (SEGJ) writes: On behalf of SEGJ, I would like to express our sincere congratulations on the opening of the EAGE Asia Pacific Office in Kuala Lumpur. I believe the new office will work as an important hub in promoting collaboration among geophysicists and accelerating geophysical activities in the Asia and Pacific regions. SEGJ, as an Associated Society of EAGE, would like to support those activities in the region.

SEGJ currently has bilateral association agreements with seven overseas geophysical societies, including EAGE as well as those in the USA, Vietnam, China, South Korea, and Australia in order to deepen mutual collaboration and to promote international activities worldwide. Numerous SEGJ members have participated in annual meetings and international conferences organized by these societies for a decade. Our members have presented new technologies and research results developed in Japan both at the technical sessions and the exhibition booths. SEGJ has a strong collaboration with Korean SEG and Australian SEG.

The three societies have been jointly publishing one issue of their respective journals every year since 2004.

Recent research activities of SEGJ members cover a wide span. We have challenged reservoir characterization using high-resolution 3D seismic surveys and applied the method to new resources such as oil sands and methane hydrate. Our newly developed technologies for environmental issues include CO\textsubscript{2} geo-sequestration, geological disposal of radioactive wastes, and monitoring leakage of pollutants and water contamination at disposal sites. In addition, new technologies are used for disaster prevention problems, including surveys at potential landslide sites and in strong motion evaluation for earthquake hazard mitigation. Overcoming these issues is now very important to achieve a safe society and sustainable development.

Since 1990, SEGJ has held an international symposium every two to three years. The 10\textsuperscript{th} SEGJ International Symposium is planned for 20–22 November 2011 in Kyoto. The theme of the symposium is ‘Imaging and Interpretation’, which we believe is an important subject dealing with how geophysics can contribute to solving various problems in natural resource exploration, environmental preservation, etc. The call for papers is now open, and the organizing committee hopes to receive many abstracts from all over the world. Contributions from colleagues in the Asia Pacific region are particularly welcome. Please visit the website: www.segj.org/is/10th/

SEGJ is supporting another international symposium: the 5\textsuperscript{th} International Symposium on Three-Dimensional Electromagnetics (3DEM-5), scheduled for 7–9 October 2011 in Sapporo. This symposium is organized by the Gerald Hohmann Memorial Trust, USA, together with the local organizing committee of the researchers of electromagnetic methods in Japan. This is one of the most important symposia in the electromagnetic community, where up-to-date electromagnetic research and applications are presented. For more information, please visit the website: www.segj.org/3dem5/

We wish a successful operation for the EAGE Asia Pacific office, and look forward to working together to foster a strong tie among geophysical communities in the region to meet our common objective of the advancement of geophysical technologies.
University launches new MSc programme in petroleum geology

University of Malaya Geology Department in Kuala Lumpur is making its mark with courses in petroleum geology. Its one-year, all coursework MSc programme which has now been running for six years was the first of its kind in Malaysia. Now another course is being added.

The additional MSc programme is being introduced to meet the needs of Malaysian and foreign students aiming for a domestic or international career in petroleum geology and industry employers wanting to upgrade young staff members to international MSc level. The new programme, which entails both course work and a dissertation, will be initiated in the 2011 academic year, starting in September. In addition to the coursework and the coursework plus dissertation MSc petroleum geology programmes, traditional MSc and PhD programmes by research also are available.

The new MSc in Petroleum Geology (course work and dissertation) is designed to attract students with some industry experience and can be completed on a part-time basis. The programme has flexibility in scheduling, as well as in courses, and may be completed in one and a half to four years. Coursework represents 30% of the programme. In addition to standard classroom courses, field work is an integral part of the programme. Students are also encouraged to participate in the activities of local professional societies, and a student chapter of EAGE is in the process of being formed.

The scope of the student research project (70% of the new programme) may be part of an ongoing industry project, with management approval. In addition to industry-supported projects, research can be carried out as part of the Borneo Project, an international, multi-institutional programme, coordinated by the University of Malaya Department of Geology or under the Department’s SEARCh (Source Evaluation and Reservoir Characterization) unit.

External examiners from recognized petroleum geology programmes in international universities provide quality assurance. An industry advisory board is being formed to provide vision, focus, and support for the programmes.

The programme faculty consists of national and international experts, many of whom have extensive industry experience. Faculty from the Free University of Amsterdam and the University of Aberdeen participate in the instructional programme. The faculty maintains close ties with the local petroleum industry and is active in regional professional organizations. Visiting industry specialists frequently provide lectures and practical workshops on current and emerging methodologies and tools.

The Department of Geology maintains state-of-the-art computing and analytical facilities. A variety of petroleum-related software packages are available for instruction and student project work, including Roxar RMS, Petrel, PetroMod, Seisworks, Norsar 2D/3D and SeisRox, Interactive Petrophysics, MOVE, OFM, and Petrosys. Analytical laboratories for reservoir characterization and quality, source-rock characterization, and organic geochemistry are available in the department and university. Instrumentation includes a field emission scanning electron microscope (SEM), X-ray diffractometer (XRD), electron probe microanalyser (EPMA), X-ray fluorescence units (standard and micro), induction-coupled plasma spectrometry (ICP), source-rock analyser, vitrinite reflectance, gas chromatography (GC, GCMS, and PyGC), and micro gravimeter.

For further information, visit the University of Malaya Petroleum Geoscience programmes website: www.geology.um.edu.my and the Institute of Graduate Studies at www.ips.um.edu.my for an online application form and for additional information.
BP wins Australian frontier permits

The Australian Government has awarded seven offshore exploration permits from the 2009 Offshore Petroleum Acreage Release off Western Australia and South Australia in which BP is the big winner. The company picked up four permits in the frontier area of the Ceduna Sub-basin within the Bight Basin off South Australia.

The exploration work programmes proposed by BP Exploration include over 11,400 km$^2$ of 3D seismic surveying within the first two operational years along with the drilling of four exploration wells in the third operational year (anticipated to occur in 2013 or 14). This represents the most comprehensive geological analysis ever undertaken in the Bight Basin.

The permits awarded to BP followed an extensive assessment and due diligence process that examined the technical and financial competence of BP to undertake the proposed work programme in accordance with the stringent requirements of Australian legislation. Exploration permits were last granted in this frontier area in 2000. Additional conditions were attached to the permits, emphasizing the need for oil field best practice behaviour by the operator. This is said to reinforce BP’s undertaking, given as part of the assessment process, to fully integrate lessons learned from the Deepwater Horizon Gulf of Mexico incident into its systems and processes.

Three other permits went to Finder, Woodside Energy, and Riverina Energy and are located in the highly prospective Carnarvon Basin which remains Australia’s leading offshore petroleum-producing area.

The proposed work programmes across the seven permits will result in guaranteed offshore petroleum exploration investment of $682 million over the next three years, according to the Australian government. Resources and Energy Minister Martin Ferguson, said: ‘Increasing exploration levels in our unexplored and under-explored frontier basins is essential to finding Australia’s next offshore petroleum province. Australia has a $16 billion trade deficit in crude oil, refined products, and LPG which is expected to rise, possibly as high as $30 billion by 2015. Our energy security will be greatly enhanced by opening up new geological frontiers and reducing our dependence on imports.’

First 3D seismic survey for TGS offshore Indonesia

TGS is in the process of acquiring a multi-client 3D survey in the Tarakan Basin, offshore East Kalimantan, Indonesia in the Celebes Sea. The survey, TBN10, is the first ever multi-client 3D survey for TGS in Indonesia waters and will cover in excess of 1600 km$^2$. The data will be acquired by the Seisquest with survey completion expected in the first quarter.

The TBN10 survey will be conducted over the highly prospective and extensive play fairway which includes a recent gas discovery. It is intended to provide improved stratigraphic and structural resolution of the Tarakan sub-basin, leading to a better understanding of its petroleum system and a much clearer definition of the numerous leads and prospects already identified on existing 2D seismic in the area.

TGS has already been busy on a second 2D seismic survey offshore Indonesia Southwest Sumatra (SMi10) in the forearc basin along the Sundaland Margin. The survey was expected to add 2700 km of 2D data to infill the 6900 km of multi-client data acquired by the company in 2009. Acquisition was carried out by the SeaBird Exploration Northern Explorer seismic vessel. Previous seismic in the area revealed a thick sequence of potential reservoir and source rock in the Mentawai-Bengkulu forearc basins, confirmed by a large gravity anomaly. The newest SMi10 project will aid in mapping three unique seismically defined plays along this trend.

The resulting grid of modern 2D data should enable companies to evaluate blocks recently announced by Migas in the 2010 Second Bid Round, with additional blocks in southwest Sumatra expected to be announced during 2011.
## Calendar of events in your region

### March 2011

- **7 March 2011**
  - **EAGE • EET 4:** Seismic Imaging
  - Beijing, China | www.eage.org

- **7-8 March 2011**
  - **GSM / Petronas • PGCE 2011**
  - Kuala Lumpur, Malaysia | www.pgcem.com/

- **9 March 2011**
  - **EAGE • EET 4:** Seismic Imaging
  - Kuala Lumpur, Malaysia | www.eage.org

- **14 March 2011**
  - **EAGE • EET 4:** Seismic Imaging
  - Jakarta, Indonesia | www.eage.org

- **21 March 2011**
  - **EAGE • EET 4:** Seismic Imaging
  - Perth, Australia | www.eage.org

### May 2011

- **18-20 May 2011**
  - **IPA • 35th Annual IPA Convention & Exhibition**
  - Jakarta, Indonesia | www.ipa.or.id

- **23-26 May 2011**
  - **EAGE • Vienna 2011 - 73rd Annual Conference & Exhibition incorporation SPE / EUROPEC**
  - Vienna, Austria | www.eage.org

### September 2011

- **26-29 September 2011**
  - **HAGI / IAGI • Joint Convention 2011**
  - Makassar, Indonesia | www.jcm2011.com/

- **31 Oct - 4 Nov 2011**
  - **EAGE Education Days**
  - Kuala Lumpur, Malaysia | www.eage.org

### October 2011

- **31 Oct - 4 Nov 2011**
  - **EAGE Education Days**
  - Kuala Lumpur, Malaysia | www.eage.org

- **7-9 October 2011**
  - **SEGJ • 3DEM-5 - 5th International Symposium on Three-Dimensional Electromagnetics**
  - Sapporo, Japan | www.segj.org

### November 2011

- **15-17 November 2011**
  - **EAGE / AAPG / SEG / SPE • IPTC 2011**
  - Bangkok, Thailand | www.iptcnet.org/2011/

- **20-22 November 2011**
  - **SEGJ • The 10th SEGJ International Symposium**
  - Kyoto, Japan | www.segj.org

### December 2011

- **5-7 December**
  - **EAGE • First Workshop on Paleozoic Limestone of Southeast Asia and South China**
  - Ipoh, Malaysia | www.eage.org

## CNOOC sets 2011 targets

Chinese National Offshore Oil Company (CNOOC) this year will focus on oil and gas exploration in core areas, while strengthening exploration in new areas and frontiers, especially in the deepwater South China Sea. According to its 2011 business strategy and development plan, the company plans to drill 96 exploration wells and acquire 19,967 km of 2D and 17,129 km² of 3D seismic data. The company aims to achieve a reserve replacement ratio (RRR) of over 100% in 2011.

During the year, the company says capital expenditure will continue to provide strong support to a sustainable growth as well as deepwater exploration and development. Total capital expenditure is expected to reach $8.77 billion, of which $1.56 billion is earmarked for exploration, $5.05 billion for development, and $2.02 billion for production. The total net production for the company in 2011 is targeted at 355–365 million barrels of oil equivalent (boe) which compares with an estimated 327–329 million boe in 2010.

Yang Hua, vice chairman and CEO of CNOOC, said: ‘In the past five years we have greatly enhanced our corporate value through sticking to our established strategies and delivering the production growth rate of 7–11% from 2006 to 2010. The Company will see a year of steady growth in 2011, laying a more solid base for our future development in the next five years.’
Petronas excited by hydrocarbons discoveries offshore Sarawak

Petronas says it has made major oil and gas discoveries through the drilling of its NC3 and Spaoh-1 wells in Blocks SK316 and SK306 offshore Sarawak.

In March 2010, successful drilling of the NC3 wildcat well and a subsequent appraisal well revealed a significant discovery for Petronas in Block SK316 with early estimation of 2.6 trillion standard cubic feet (tscf) of net gas in place. The wells were each drilled to a depth of almost 4000 m below sea level. Production flow test results of the wells also demonstrated that the field was technically producible.

The latest Spaoh-1 well, drilled to a depth of 3000 m in Block SK306, shows similar promise. It was drilled in December 2010 and found both oil and gas. The preliminary evaluation indicates around 100 million barrels (mmstb) of oil and 0.2 tscf of gas in place, respectively. The well was due to be prepared for production testing.

According to Petronas, the discoveries support the company’s strategy of intensifying exploration activities in Malaysia and are expected to further enhance the perceived exploration potential offshore Sarawak.

In the next three years, over 50 exploration wells are expected to be drilled offshore Malaysia by Petronas and its production sharing contractors. These activities, especially if they result in discoveries, will spur business opportunities in the oil and gas industry and promote upstream investment in the country.

Ikon Science sees Asia Pacific expansion

UK-based geoscience services company Ikon Science says Asia Pacific is the company’s fastest growing area. During 2010 the Ikon Science office in the Etiqa Towers (KLCC) more than doubled its staff numbers, including the arrival of Dr Michael Kemper, the group technical director from Europe.

The company attributes its expansion in the region to an increasing recognition of rock physics related modelling and a quantitative approach to exploration and development. What was a niche area of exploration is moving more mainstream.

As a result Ikon Science intends to develop and recruit local skills through public and internal training courses as well as collaborating with local universities.