



There are few exhibitions on the oil and gas calendar that are as focussed as GEO. This year's gathering of geoscience professionals, seismic imaging specialists and exploration experts saw the latest innovations on display and new products launched as well as some major announcements made, Ian Roullier was in attendance

A seismic shift in the geoscience sector?

SINCE IT'S INCEPTION in 1994, the GEO series has played a significant role in the development and transfer of exploration and development technology in the Middle East.

Key issues surrounding the current global energy climate fell under the spotlight at the conference opening session of the 9th Middle East Geosciences Conference and Exhibition – GEO 2010 – on 7th March at the Bahrain International Exhibition and Convention Centre.

Well over 2,000 oil and gas professionals met to hear a panel of senior industry figures deliver their perspective on this year's conference theme 'Innovative Geoscience Solutions – Meeting Hydrocarbon Demand In Changing Times'.

Addressing the need for an inventive approach to new technology and partnerships between industry, governments and communities to leverage opportunities in today's high-stakes environment created by recent changes in financial markets, the conference session began with welcome speeches by Bahrain's Minister of Oil & Gas Affairs and chairman of the National Oil & Gas Authority (NOGA), His Excellency Dr. Abdul Hussain bin Ali Mirza, and the GEO 2010 chairman and CEO of Bapco, Faisal Al Mahroos, as well as other VIPs.

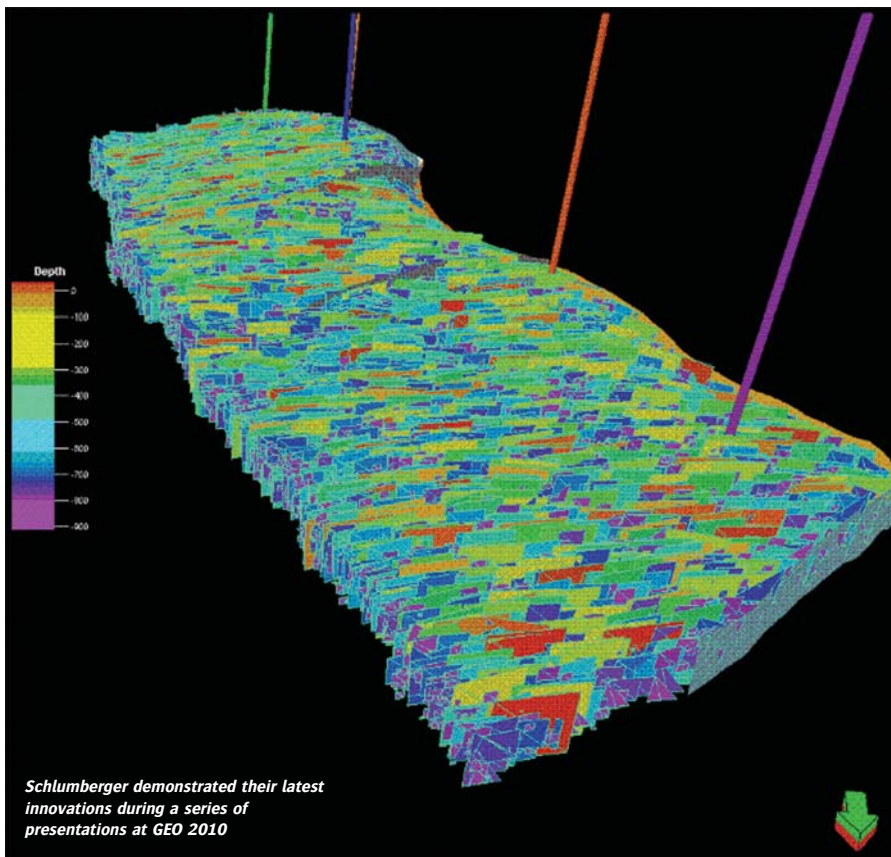
Over 460 oral and poster sessions were held and served to allow delegates to share knowledge and experience of managing, operating and supplying companies during the conference. The GEO 2010 conference also incorporated four pre-event technical short courses and four field trips to sites of geological interest in the region.

Comprehensive

The conference covered topics such as reservoir characterisation, fractured plays, sequence stratigraphy, basin modelling and hydrocarbon potential, prospectivity case studies – to name just a small selection from a comprehensive programme.

The exhibition saw major players demonstrating the latest seismic technology including Schlumberger, Weatherford, CGG Veritas and ExxonMobil, with regular in-depth technical presentations drawing the crowds to different stands.

One exhibitor, Ingrain, is on the verge of



opening its new digital rock physics laboratory in Abu Dhabi. The laboratory will compute the physical properties and fluid flow characteristics of oil and gas reservoir rocks and then provides advanced rock properties analysis for elastic, shales, carbonates (including micritic), tight gas sands and oil sands.

The laboratory is set to open in Abu Dhabi in April/May of this year and Ingrain's chief marketing officer, John Elmer, said at the show that it would be the first digital rock imaging lab in the region.

The lab can analyse rock all the way down to three nanometres, allowing geophysicists to model how oil would flow through it.

The digital rock physics workflow includes three major steps:

- ◆ Sample selection, preparation and 3-D imaging of a rock fragment
- ◆ Image processing (segmentation) to dis-

criminate pores from solid matrix and identify minerals within this matrix

- ◆ Accurate simulation of physical processes under precise experimental conditions.

Using core plugs or even drill cuttings, Ingrain says it can deliver accurate results as fast as 14 days and can even provide accurate results using samples from core repositories that have been altered by drilling fluids.

The process begins with a team of trained geologists evaluating rock samples and preparing them for imaging with industrial-grade CT scanners that produce a 3-D reconstruction from hundreds of tomographic slices.

Ingrain's multiphase flow simulations provide relative permeability and capillary pressure. These algorithms handle fluid phases of drastically different viscosity and surface tension.





Large delegation

Another exhibitor was Petroleum Development Oman (PDO), which sent a large delegation of geologists and geophysicists to GEO 2010 to present a significant number of papers during a series of sessions scheduled during the conference. In all, PDO staff members gave 21 talks as well as presenting several technical posters.

These presentations highlighted the complex geological make-up of Oman's reservoirs while showcasing PDO's work in seismic exploration, reservoir modelling and other technical areas. Several presentations focussed on cutting-edge new generation seismic operations that are currently underway in PDO's concession area.

"Held every two years, GEO is the region's premier geosciences event, and the scale of PDO's presence reflects its leading role in the Middle East oil industry," said Suleiman Al-Mantheri, PDO's external affairs and communications manager. "Our exhibition stand played an important role in showcasing PDO as an employer of choice and a company with which contractors can do business."

ION, the largest geoseismic company in the world, were also exhibiting at GEO 2010, further strengthening the exhibition as a must-

attend show. ION's Vice President – Marketing and Business Development, Glenn Hauer, told *Oil Review Middle East* that the company was about to make a major announcement, but had to remain tight-lipped about the specific details.

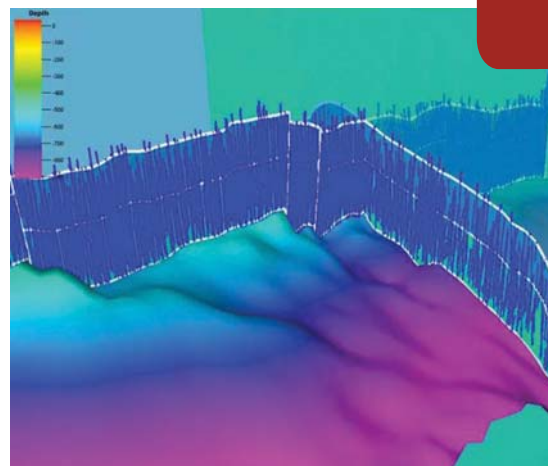
Instead he just explained that a new venture was going to be entered into by ION and major Chinese geophysical service contractor, BGP.

It all became clear shortly after the show on March 25th when ION and BGP, which is wholly owned by China National Petroleum Corporation (CNPC), announced the launch of INOVA Geophysical Equipment Limited. The new, independent company is owned 51 per cent by BGP and 49 per cent by ION Geophysical Corporation.

Combining the acknowledged strengths of its parent companies, INOVA aspires to engineer and deliver innovative land seismic technologies that can stand up to the rigours of acquisition in any operating environment.

INOVA's portfolio includes energy source and source control systems, land seismic recording systems, and digital fullwave sensors through products such as Aries II, FireFly, VectorSeis, and the AHV-IV Commander vibroseis vehicle.

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Over 2,000 oil and gas professionals attended the GEO 2010 opening ceremony

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John Ruskin (1819-1900) English art critic

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The GEO India conference is organised by two leading geosciences societies: the AAPG and the APG

The company was unveiled at a high-profile launch event held in Beijing, China. The launch event was held to celebrate the signing of the definitive INOVA joint venture agreements by BGP and ION.

Key milestone

"The formation of INOVA is a key milestone within the storied history of the seismic industry," said Steve Bate, president and CEO of INOVA. "We are bringing together a truly global team of experienced innovators whose mindset will be shaped by their close association with BGP, the world's largest land seismic acquisition company.

Our comprehensive portfolio of seismic technologies will be put to the test every day, in every conceivable acquisition environment, which we believe will allow INOVA to offer the most effective and durable geophysical instrumentation available in the marketplace. We are launching INOVA with a true focus on the seismic acquisition contractor.

We intend to develop technologies that meet the demanding performance criteria of our customers, enabling them to successfully tender for and execute projects in an efficient manner while meeting or exceeding all of the health, safety and environmental expectations of the E&P operators who award seismic contracts.

It truly is an honour to be the first chief executive of INOVA and to have the opportunity to work with our nearly 400 employees to build a company 100% committed to getting the job done for its global customer base."

Overall GEO 2010 provided a lively, focussed and positive setting for the global geoscience community to gather to do business, launch new products, demonstrate current innovations and network.

In spite of the still somewhat fragile economic backdrop, GEO 2010 showed that confidence is returning to the oil and gas sector with many companies looking forward to where fast-evolving oil exploration and seismic technology continually changes the landscape of the industry. It all bodes well for when the bi-annual show returns for GEO 2012. ■

GEO India 2010 – the 2nd South Asian Geosciences Conference and Exhibition

INDIA IS OPENING up as one of the most exciting regions for oil and gas exploration in the world. With an increasing number of E&P projects currently either underway or planned to increase domestic oil and gas production in India, GEO India 2010 will provide an ideal platform for geoscientists and experts from all over the world, to interact and deliberate on the extraordinary potential India has to offer, and in shaping India's future.

The GEO India conference is organised by two leading geosciences societies: the American Association of Petroleum Geologists (AAPG) and the Association of Petroleum Geologists (APG). Highly technical, the programme will also incorporate workshops and field trips. Senior industry figures will address topics that are relevant to the current energy climate in India, ranging from issues related to regulatory policy, advances in technology, reservoir characterisation, new play concepts, environmental concerns and frontier explorations areas in the Indian subcontinent.

The exhibition, which runs concurrently, is set to be the largest showcase of geoscience products and services in India, attracting NOCs, IOCs and major operating companies. Previous high profile exhibitors include ONGC, the government's directorate general of Hydrocarbons; Fugro, Cairn, Schlumberger, Halliburton, Wavefield and CGG Veritas.

The exhibition and conference are set to take place from 7th-10th December 2010, and will be held at Expo XXI, Greater Noida, New Delhi, India.

For more information please go to www.aeminfo.com.bh/geoindia2010

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