

Geo-soundings

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CENTRE OF EXCELLENCE

The following is reprinted from the Curtin R&D News, Vol. 10, No. 08, Week Ending 1 October 1999.

The research and development capabilities of the WA oil and gas industry will be enhanced by the announcement of a strategic research alliance between Curtin and the CSIRO, and the launch of the Centre of Excellence for Exploration and Production Geophysics.

The Hon Hendy Cowan, Deputy Premier, joined Dr Ron Sandland, Deputy Chief Executive of the CSIRO, and over 80 academic and industry representatives for the launch held at Curtin.

The University is promoting a very extensive and significant R&D capability for the oil and gas industry in WA, both through development of its own research strengths, and the development of partnerships with other WA universities, and the CSIRO.

This capability is being enhanced through two initiatives. Firstly, substantial funding support has been received under the *Centres of Excellence in Industry-Focussed Research and Development Programme*, administered by the Department of Commerce and Trade, for the Centre of Excellence in Exploration and Production Geophysics (CEEPG), THE Centre of Excellence in Petroleum Geology (CEPG), and the Western Australian Petroleum Research Centre (WAPRC).

Secondly, the development of the CSIRO National Centre for Petroleum and Minerals Resource Research on Technology Park and, in particular, the planned co-location of the Curtin Department of Exploration Geophysics, CEEPG, the Curtin node of the WAPRC and CEPG with the National Centre. This represents a \$6 million investment by Curtin to complement the substantial State and CSIRO investment in the National Centre.

Furthermore Curtin and CSIRO have finalised negotiations for several joint Professorial appointments under the strategic research alliance. The senior appointments will undertake R&D activities in areas including Production Geophysics, Isotope Geoscience and Reactor Engineering. This represents a major investment by the State Government, CSIRO and Curtin in industry-focussed research infrastructure to benefit the oil and gas sector.

1999 VICE-CHANCELLOR'S AWARD

Congratulations to **Brian Evans** who was awarded the *1999 Vice-Chancellor's Award for Excellence* for his outstanding contribution to the University.

CONFERENCES

A very successful SEG meeting was held in Houston from 31 October to 4 November 1999. About 11,000 people attended. Curtin presented four papers as follows:

Leslie, D.M., and Evans, B.J., 1999, *The effects of high-velocity layering on seismic wave propagation*: 69th Ann. Internat. Mtg., Soc. Explor. Geophys., Expanded Extracts, Vol II, 1809-1812.

Sherlock, D.H., and Evans, B.J., 1999, *Time-lapse 3-D seismic with analogue sandbox models*: 69th Ann. Internat. Mtg., Soc. Explor. Geophys., Expanded Extracts, Vol II, 1683-1685.

Thompson, T.A., and Evans, B.J., 1999, *A study of stress induced anisotropy using the "relaxation" method on synthetic core*: 69th Ann. Internat. Mtg., Soc. Explor. Geophys., Expanded Extracts, Vol I, 45-48.

Walton, C.H., and Evans, B.J., 1999, *Seismic methods for delineating complex structures in coal seams*: 69th Ann. Internat. Mtg., Soc. Explor. Geophys., Expanded Extracts, Vol II, 1422-1425.

There were approximately 360 exhibitors in the main exhibition. Curtin was again represented in the Consortium Showcase in which there were 16 other universities

exhibiting. As usual Curtin had a drawing for some item of Australiana; this year a decorated emu egg. The winner was Dr Naide Pan, President of PGS China. The winning card was drawn by Sara Summers of the Colorado School of Mines.

DONATION

We would like to acknowledge the generous endowment contribution set up by Fred and Kathi Hilterman known as the *Fred and Kathi Hilterman Student Section Book Program*. This program provides for SEG Student Sections to receive \$1,000 in SEG books of their choice, based on the member price, as well as a copy of all future SEG publications, at no cost to the Department.

SCHOLARSHIP SCHEME

CSIRO-University Postgraduate Scholarship Scheme

A fund for prestigious postgraduate scholarships for Doctoral or Masters degrees has been set up to enhance research into minerals and energy exploration, extraction and processing in Western Australia.

The fund, worth up to \$400,000 per year, has been established under an agreement between CSIRO involving CSIRO Exploration and Mining, CSIRO Minerals and CSIRO Petroleum Resources and Curtin University of Technology, Edith Cowan University, Murdoch University and the University of Western Australia.

The scheme was launched on November 23rd by The Hon C J Barnett, WA Minister for Education, Resources Development and Energy.

The first recipient of a PhD Scholarship is **Damian Leslie** of Curtin's Department of Exploration Geophysics.

RESEARCH CENTRE

Construction is due to start this month on the \$37 million National Centre for Petroleum and Mineral Resources Research.

The WA Government hopes its million-dollar investment in the new centre will bring improvements in the State's huge mineral industry as well as about 300 new jobs and \$13 million a year in associated spending.

WA Commerce and Trade Minister Hendy Cowan said construction should be completed by early 2001.

The State Government provided most of the funding after failing to get Federal aid, despite WA producing two-thirds of Australia's non-fuel mineral production and half its petroleum. However, CSIRO has agreed to refund over the next 25 years a third of total State investment in the new centre, at Bentley Technology Park.

Curtin's Departments of Exploration Geophysics, Petroleum Engineering and Petroleum Geology will be co-located there in a wing funded by Curtin University.

FIELD TRIPS

Third Year field trip – Project 390

This year's field trip can be summed up as being very successful for all involved. The project sponsor, Gutnick Resources - GKR, is most pleased with the efforts of Curtin

students and staff to help explore for base metal deposits in the Melita area (between Menzies and Leonora). The third year trip/project is our main trial-by-fire event. It was held from Sept 12 (Sun) to Sept 18 (Sat).

After a long drive up on the Sunday, Paul Messenger (GKR-geologist) and Paul MacMillan (GKR-geophysist) debriefed our saddle-sore group and plans were made for an exhausting week of geophysics. A number of standard geophysical techniques were deployed: gravity, ground magnetics, TEM, Resistivity/IP, plus some levelling and PROTEM work. From the students' perspective the magnetics and gravity were mostly enjoyable experiences and the failure of the IP gear the most frustrating, especially after spending a day digging holes in the ground for electrodes. No one envied the SIROTEM crews as they generally spent very late nights extracting the data after a tiring day. Luckily, the camp was great and beds OK. Food was pretty good too; especially as we didn't have to cook it.

The weather was perfect for geophysics, although a little too cool to use the pool at the camp. The scrub and the terrain were very amenable to ground geophysics. However, the many spiders and webs in the creek-bed areas were not appreciated by some. Overall, our students found the field trip a very enjoyable and interesting experience.

Several airborne EM anomalies were mapped in detail, with a 1km x 1km area singled out for extra gravity and magnetic surveys. By the end of the trip most were convinced we had found a very prospective target for follow-up drilling. Further analysis and modelling of the gravity and TEM data back at Curtin strengthened the conviction that a massive sulphide orebody was in the survey area. Alas, drilling so far has not supported such conviction.

From the staff's perspective - **Paul Wilkes, Vern Wilson, Anton Kepic and Dom Howman**- the trip was very successful as we brought back our students, equipment, and vehicles in a slightly worn, but quite serviceable condition. Did we mention the camp was pretty good too?



During the Field Trip



After the Field Trip!!

We extend seasons greetings to
all our readers and wish you all a
Happy New Millenium

