



In this issue we bring you several reports on the progress of Geoscience Australia's 'Big New Oil' program, which provides pre-competitive information to support industry's search for new offshore oil provinces. Data and comprehensive interpretations from the first of the major new seismic acquisition programs—the Southwest Frontiers Survey—has recently been released and is available to explorers at the cost of transfer. This includes full coverage of the Bremer Sub-basin blocks included in 2005 acreage release areas. A recently completed sampling survey off southwest Australia also collected data which will assist in identifying the petroleum potential of the Mentelle Basin.

There is also a report on the northern Arafura Basin, a promising shallow-water frontier basin. The recently completed regional geological framework study and seepage study of the basin, in combination with previous results and data, provides strong evidence of an active Palaeozoic petroleum system.

This issue also reports on our work on Australia's coastal waterways. One article describes the role of diatoms small but dense phytoplankton in helping maintain good water quality. The second article uses our knowledge of nutrient dynamics (particularly nitrogen) to identify nitrogen inputs to various temperate estuaries, which will lead to nutrient enrichment and ecological change.

I am pleased to announce that Geoscience Australia will be installing a new sensitive high resolution ion microprobe (SHRIMP) in our headquarters next year. This in-house facility will revitalise our geochronology capability which provides the crucial time dimension of geological processes that form mineral deposits.

There are also reports on our contributions to research to protect Australia from natural disasters and mitigate their future impacts. The major cause of damage to residential buildings in Australia, as well as loss of life, is severe-winds such as cyclones, tornadoes and thunderstorms. Through analyses of the historical and geological record of severe-wind events in Australia, it will be possible to estimate the damage such winds are likely to cause and their impact on critical infrastructure. The potential of Geoscience Australia's tsunami impact modelling as the basis for emergency management response plans was successfully demonstrated at a workshop held in Perth in November. The workshop was part of the inaugural meeting of a committee set up by the Australian Emergency Management Committee to develop the emergency management elements of the Australian Tsunami Warning System.

New products reported on include: new gravity data covering the Paterson province of Western Australia, geology data covering the states of eastern Australia at 1:1 million scale as one dataset and the 1:250 000 scale national topographic raster maps which are the foundation for NATMAP Raster products.

Finally I am pleased to welcome Dr James Johnson as the new Chief of our Minerals Division. James brings to the position a wealth of experience in mineral exploration, mine geology, research management and leadership. His appointment will further strengthen the capabilities of Geoscience Australia's executive team.

Comment

Neil Williams

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