

Apache set to put Gippsland to the test

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Monday, December 10, 2007

APACHE Energy's activity in the west has made plenty of headlines, with major gas discoveries at Julimar and decisions to develop oil projects such as Van Gogh and Pyrenees.

These successes have diverted attention from an 11-well offshore exploration campaign in the Gippsland Basin that is set to begin drilling as early as next month.

The Gippsland program is part of a total of about 50 wells planned by Apache for its Australian acreage in 2008.

Apache's main focus remains on the Carnarvon Basin, where it has achieved high success rates.

But the Houston-based company is keen to diversify in Australia, and sees Gippsland as having great potential. Since 2004, the company has assembled the largest portfolio of exploration acreage in the basin and has been quietly preparing a major oil exploration campaign.

Deputy managing director and exploration manager in Australia, John Bedingfield, said Apache believes Gippsland, Australia's richest hydrocarbon province, still has plenty to give, and the company was drawn by the opportunity to apply 3D seismic technology to the region.

While the BHP Billiton-ExxonMobil Bass Strait joint venture had made extensive use of 3D seismic to rework and extend the life of producing areas, there had been little application of modern seismic to exploration in the area.

The other key attraction for Apache was the opportunity to look for targets that might not have been priorities for BHP and Exxon, which until recently had dominated all exploration activity in the Gippsland basin, according to Bedingfield.

"We believe because of the size of the constituent companies, there's a class of prospects and fields yet to be found in the Gippsland that would be material to companies like Apache," he said.

"We're looking for discoveries in the range of 20 to 100 million barrels in the southern part of the Gippsland Basin, which we view as being more oil-prone than the north."

Apache is backing its judgement on Australia by investing almost \$1 billion in exploration and development in 2008, up from \$300 million in 2007.

If its record of exploration success in the Carnarvon Basin can be carried over to Gippsland, this figure could quickly climb higher.

Bedingfield said Gippsland development options would naturally depend on the size of any discoveries, but he favours an FPSO, even though there is spare capacity in Bass Strait's oil field infrastructure.

An FPSO would give Apache the flexibility to tie in smaller fields through a production hub. It could also be a pointer to the scale of Apache's expectations for oil in Gippsland.

The Apache-operated Van Gogh oil field on the Northwest Shelf is being developed using a floating production, storage and offloading vessel – the first time Apache has used this development option anywhere in its worldwide operations.

Apache's new offshore Gippsland drilling campaign follows a false start in 2004 and 2005, when it failed to make a commercial discovery from its first two exploration wells in the basin – Grayling-1 and Fur Seal-1 – and badly misread the Longtom-2 appraisal well, bailing out and leaving it for erstwhile partner Nexus Energy to develop on its own.

Since 2005, Apache has been working hard at acquiring and interpreting 3D seismic and understanding Gippsland's geology.

Bedingfield is quietly confident that Apache's exploration team has overcome the region's seismic challenges, which have proved treacherous for a number of operators in recent times.

"The challenge in the Gippsland Basin has always been depth conversion," he said.

"There's an extensive set of Miocene canyons that have cut through much of the overburden and contain a variable lithology, some of which is fairly high velocity, so you get very significant distortions in the time image of the subsurface. We understand the science and we have developed some fairly sophisticated workflows to address these challenges."

The proof will be in the drilling.

"If we have got it 100 percent right I will be very surprised," he said.

"But we have gone through a number of iterations of depth conversion. When we go back and do blind tests against existing wells we find we have a fairly accurate predictive tool.

"It's not just acquiring 3D, it's what you do with the 3D afterwards and how you apply geoscience concepts during your analysis of the data. That's where we think we have a competitive edge over others who are rediscovering the Gippsland."

The 11-well campaign begins as soon as the West Triton jack-up rig, under construction in Singapore, arrives in Bass Strait. This is expected in February, although there's a chance it could arrive as early as next month. The rig will complete three wells in shallow water for Apache before being released to other operators.

Apache will then use the Ocean Patriot semi-submersible when it arrives mid-year to drill another eight wells, mostly in VIC-P59 on the basin's southeastern margin.

The first of the West Triton wells will target the Wasabi prospect in 35m of water in Apache's 100%-owned VIC-P58, a large permit adjacent to the Gippsland coast on the basin's southwestern edge.

The well has dual objectives – structural closures in the Top Latrobe formation and at the Golden Beach level. Apache sees the potential for stacked pay zones such as these as one of the basin's main attractions.

Apache is not disclosing details on Wasabi's oil potential, but says it fits in the 20- 100 million barrel range of its Gippsland oil plays.

The second well in the program will be at the Coelacanth prospect in VIC-P45, again on the basin's southern edge. Apache is earning a 67% interest in the permit from Moby Oil & Gas and Exoil by funding two wells.

VIC-P45 northern portion lies just 2km east of the major Kingfish oil field and the permit was previously held by BHP Billiton, which drilled the Megamouth well, one of several uncommercial hydrocarbon discoveries in the permit, including Petrofina's Archer and Anemone finds. Coelacanth will target the Top Latrobe horizons.

Apache's third well is yet to be finalised, but the leading candidate is Tarra Southeast in VIC-P42, which lies immediately west of VIC-P45 and forms a contiguous section of Apache acreage (along with VIC-P58 in the west and VIC-P59 in the east) on the basin's southern margin.

Apache is earning a 60% interest in VIC-P42 from Bass Strait Oil Company, which will retain a 20% interest. Inpex also retains a 20% interest.

Apache's Ocean Patriot wells in 2008 will be focused on VIC-P59. The company has a 100% working interest in the permit, which it acquired from a Houston-based explorer in return for a small royalty.

VIC-P59 is immediately south of Exxon-BHP Billiton's Blackback-Terakihi producing oil field close to the centre of the basin. On the lease's southern edge, water is more than 1000m deep, but Apache's campaign will be on the northern and western edges of the permit in water depths of 200-500m.

Bedingfield said VIC-P59 offers a variety of play types and objectives, and Apache's concerted efforts to produce accurate depth conversion from its seismic data had revealed several structures that had not previously been recognised.

"We're very keen on a series of prospects targeting the Top Latrobe, which has been the primary producing interval in the basin," he said.

"We see some very interesting structural features that may not have been fully appreciated by previous operators."

Apache's efforts in offshore Gippsland will certainly be watched closely in 2008. An aggressive program by a company with Apache's enviable success rate could well show there's plenty of life left in Australia's most mature offshore hydrocarbon province.



The Ocean Patriot drill rig