MAY MEETINGS

WA BRANCH (May 20th)

A PROSPECTIVITY REVIEW OF THE SOUTH EASTERN DAMPIER SUB-BASIN AND RANKIN TREND

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The Rankin Platform represents a major hydrocarbon province of world standing with proven recoverable reserves exceeding 8252 BCF of gas and 320 million barrels of condensate, mainly reservoired in the Triassic Mungaroo Formation. Proven and probable recoverable oil reserves in the Dampier Sub-basin reservoired in Upper Jurassic turbidite sandstones are calculated to be in excess of 230 million barrels. Substantial potential exists in both areas for significant large reserves of oil and gas.

The Rankin Platform is bounded by rift faults of various ages, commonly with significant growth in the Early Jurassic, in several periods in the Late Jurassic and in some cases in the Early Cretaceous. Analysis of fault trends has allowed the delineation of Upper Jurassic depocentres on the Rankin Platform and in the Dampier Sub-basin. Application of sequence stratigraphic techniques, utilizing a standard biostratigraphic data base and the application of the developed tectonic model for the area, has resulted in the subdivision of the potentially prospective Upper Jurassic section into six unconformity bound sequences.

Large Upper Jurassic deep water systems have been identified in the northern part of the Dampier Sub-basin. A second major system has been interpreted in the Barrow Sub-basin, Turbidites and major deep water depositional systems emanated from various parts of the Rankin Platform into failed Upper Jurassic rift basins and into areas proximal to the major Upper Jurassic rift faults bounding the Rankin Platform and Dampier Sub-basin.

Three successful play types are recognized on the Rankin Platform and in the southern Dampier Sub-basin. These include typical horst plays with Upper Jurassic and Triassic reservoir objectives, Lower Jurassic structural and stratigraphic traps similar to the North Rankin-4 intersection and Upper Jurassic structural and stratigraphic traps as typified by the Dixon accumulation

PESA News No. 3 (1993)