3 RESULTS

Three regional composite seismic sections are presented in Enclosures 9-11. These sections trend northeasterly perpendicular to the general basin strike direction, and illustrate the basic structural architecture of the key trough areas to the basin margins.

3.1 Top Eastern View Coal Measures

The Top EVCM time structure map of Enclosure 1 shows a broad basinal shape with a northwesterly strike. As shown by the time interval map of the Top EVCM-Near Top Palaeocene (Enclosure 7), the main depocentre of the Tertiary-aged part of the EVCM is within the Cormorant Trough. The deepest part of the EVCM however, occurs in the Yolla Trough southeast of the Aroo 1 well. This anomaly is caused by the late stage inversion of the Cormorant Trough during the Late Oligocene/Early Miocene period. Faulting is generally minor at this level with the basin-margin related faults predominating.

The Hummock seismic data has matured several key leads and prospects. The Trefoil and Chappell prospects appear to be simple four-way dip closures at this level with 10-15 milliseconds of vertical relief. There is a small fault-bounded structure at Aroo East with 15 milliseconds of relief, and a larger fault-closed feature at Ibis.

In T/25P the Veridian prospect is interpreted to be a low relief anticline updip of the Poonboon 1 well.

Enclosure 2 shows the annotated data points at this level.

3.2 Top Middle *M.diversus*

Structure at this level is dominated by long linear northwesterly trending fault systems, and large areas of igneous intrusive disrupted section particularly along the western margins of the basin (Enclosures 3, 4). The Pelican Trough is clearly separated structurally from the Yolla/Cormorant Trough complex, and the seismic event onlaps older section to the southwest.

The deep fault architecture of the EVCM is well established by this stage, and the prospects are reflecting the structural geometry identified at the deeper mapped reservoir level. The Aroo East and Chappell prospects of T/18P have developed as downthrown side fault closures with between 50 and 90 milliseconds of vertical relief. Trefoil is a larger anticlinal feature at this level, bounded to the east by a northerly trending fault. Ibis is slightly larger areally with 25 milliseconds of vertical closure updip of the Bass 3 well.

The Top Middle *M.diversus*-Top Palaeocene time interval map of Enclosure 8, highlights the Cormorant and Pelican Troughs as being the most active depocentres during this time. Structurally the Middle *M.diversus* event is deepest to the south in the Yolla Trough, due again to the late inversion episode.

In T/25P the Veridian prospect only exists as a small fault-bounded structure coincident with the rollover at the shallower level.