

SUMMARY

The aim of the T/25P Permit Assessment Project was to study and define the prospectivity and hydrocarbon habitat of the Permit incorporating existing and new interpretations of the geological and geophysical data from within and around the Permit.

The study involved a major review of the overall structure, the stratigraphy of the Eastern View Coal Measures (EVCN), reservoir development in the EVCN, source rock, and source rock maturity within the Permit. The structure was assessed by reinterpreting all modern vintage seismic data, using for the first time an interactive geophysical workstation. A total of 13 seismic horizons were picked and mapped regionally, including 8 defining the structure of the prospective EVCN. Stratigraphic correlations have been compiled into a single regional correlation incorporating the most recent well data and palynology. In particular, an attempt has been made to subdivide the EVCN into smaller correlatable units to assist in the description of reservoir properties and the identification of reservoir, source rock and sealing units. Six correlatable units were identified within the EVCN in the Pelican Trough.

Previous studies have identified reservoir quality and distribution as significant risk factors in the Bass Basin, and therefore a detailed review of existing reservoir studies was conducted together with new studies designed to examine the controls on the distribution and quality of the reservoirs.

Source rock data were compiled and reviewed from T/25P and other parts of the Bass Basin and used in the calculation of new kinetic maturity models for the Pelican Trough. Isoreflectance maps using well-control and the new regional structural maps were created to identify mature source area.

Based on these new studies six major play types were identified in T/25P. The play types identified are:

- High side fault closures against NW-SE trending faults
- High side fault closures bounded by NW-SE trending faults and relay ramp faulting in the strike direction