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SUMMARYA. Drilling

Esso Bass-3 was spudded on February 11, 1967 in Tasmanian waters of the offshore Bass Basin, and after drilling to a total depth of 7978 feet was plugged and abandoned on April 2, 1967.

B. Geological

The well was drilled on the crest of a well-defined northwest-southeast closed anticlinal feature as mapped by seismic. Vertical closure on the mid-Eocene unconformity is 300+ feet and covers an area of 22 square miles.

The sedimentary section penetrated by Bass-3 was essentially as predicted. The section from 721 feet (-690) to 5304 feet (-5273) consisted of marine Tertiary sediments - principally limestone, calcareous mudstones and shales and minor sandstone. The Delta Complex from 5304 feet (-5273) to 7830 feet (-7799) consisted essentially of sandstone with interbedded shale and siltstone with rare coal seams. The top 300 feet of the Delta Complex, lying above the mid-Eocene unconformity, is partly marine sequence forming a transitional zone between the fine marine clastics of the Demons Bluff Formation and the underlying continental beds of the Delta Complex. Basement, extending from 7830 feet (-7799) to 7978 feet (-7947) total depth, consisted of metamorphics.

With the exception of basement, the various formations ran consistently low to those predicted by seismic. This was due entirely to the fact that the velocities of the various rock units were slightly greater than originally predicted.

Basement was actually some 270 feet higher than the seismic prediction of 8200 feet. This was due to the original basement top being picked one cycle too low on the seismic section.

Despite slight errors in the assumed rock velocities, the original structural picture of a closed anticline, having 300 feet of vertical closure on the mid-Eocene unconformity, remains valid.