

The same report showed a line depicting Basement Sub-crop on the Base Tertiary horizon extending into Magellan's area. However, both Base Tertiary and Basement events are recognisable over most of the permit area within that line, but converge in the shallow water area.

The extension of basement features such as the anticline passing through approximately SP 05, line M-28-0 provide the best chance for entrapment of hydrocarbons within the 100 fathom line both in drape structures over them and stratigraphic traps along their flanks. The quality of current data is such that the only Basement feature recognisable as extending into this shallow water area is the one on line M-28-0. Further work will have to be undertaken to determine the presence of others. The existence of reverberations and the precision required for the location of stratigraphic traps necessitates the use of a refined method employing multiple coverage and digital processing for exploration of this area of the permit. As possible traps are likely to extend into adjacent leases a complete review of data from these leases should be undertaken, however these data have poor quality and sparse coverage exists along most of the common boundary. Therefore, future exploration should extend into the adjacent lease.

Also of interest as a potential trap is the thick sequence of Pre-Tertiary sediment onlapping the western Basement plunge. Events A and B from this sequence are overlapped by Tertiary rocks principally on the western side, and show thickening to the east. This suggests that a small sub-basin existed between the basement ridge mentioned above and the western margins of the area, at least in immediate pre-Tertiary time. The former anticlinal axis postulated for Event A would have been close to the western edge of this sub-basin. Event C however is more in keeping with the westward synclinal axis indicated by the general basement structure. The principal problem associated with delineation of this sequence is the lack of reflection from it requiring refined methods of exploration. It should be pointed out that the region of rapidly increasing thickness in these rocks lies in water deeper than 3,500 ft.