

CONTRIBUTIONS TO GEOLOGICAL CONCEPTS AS RESULTING FROM DRILLING

Stratigraphic and paleontological studies have lead to several conclusions regarding the environmental conditions and the prospect of hydrocarbons occurring in the geological sequence penetrated in the Bass-3 well.

The basement consisting of dark, weathered metamorphics and volcanics was encountered at 7830 feet. Above this the non-marine sandstone-quartzite-shale-siltstone series, extending to approximately 7060 feet, attains a generally more lithic character than that observed in either Bass-1 or Bass-2. In all other respects this series remains consistent with equivalent intervals thus far encountered in the Bass Basin.

The deltaic sandstones and shales of the Upper Paleocene and Lower Eocene between 5336 and 7060 feet are also similar to those of the Bass-1 and Bass-2. They contain however, little or no coal. The wireline test at 6740 feet, recovering 29+ cubic feet of gas and 800 cc of condensate, indicates the capability of the shales of this interval to generate hydrocarbons. This is also the first valid hydrocarbon show in the basin.

The earliest traces of marine influence occurring in the uppermost middle Eocene is indicative of a marine encroachment in the non-marine environment of corresponding age observed in the other Bass wells. The dominance of arenaceous fossil assemblages during Upper Eocene give evidence of a 'barred basin'. Mixed fossil assemblages occurring sporadically at the close of the Eocene and in the lowermost Oligocene indicate periodic inundation from the open seas.

From the Oligocene through the Lower Miocene generally more open marine conditions prevailed than rurther to the east. The equivalent interval in the Bass-1 and Bass-2 reveals a restricted marine environment.