

it is in very deep water. The basement is mapped at -22,000 ft, and the faulted western flank is thought to mark the beginning of the western edge of the western basin.

"S" in relatively shallow water at $41^{\circ}30'/144^{\circ}30'$ represents the incursion of the offshore basin, probably along a strike graben which is similar to the "Q" area.

"T" at $41^{\circ}17'/144^{\circ}05'$ is on a good strike anticline on the 100 fathom line. Basement is at -5,100 ft.

Finally, "U" at $41^{\circ}00'/144^{\circ}30'$ is within a northward plunging syncline just off Cape Gri where the section increases from zero to 8,000 ft and is still open to the north. This is an internal basin because there is a large platform west of it.

In general, contouring the magnetic basement at 1,000 ft illustrates that the Jurassic dolerite terrane of eastern Tasmania is terminated abruptly, probably by faulting along its eastern face. This is another way of saying that it is responsible for the land form of Tasmania in the east. The shelf is narrow on the east; and, when this is combined with the fact that the Jurassic terrane extends offshore, there is little room for well-developed basins along the eastern coast. Many of these contain shallow magnetic materials which make the definition of basement somewhat unreliable. The western shore has a more definable basement as far as magnetics are concerned; but, unfortunately, the field clearly demonstrates that good sedimentary section is only found in very restricted areas with most occurring in deep water. Probably some area like "N" affords the best possibility for further exploration along this generally nonprospective coast.

Conclusion

This reconnaissance aeromagnetic survey with flight lines spaced at two miles, flown approximately perpendicular to the coast, is quite adequate for the purpose of defining the prospectiveness of the coastal areas of Tasmania for oil and gas. Ties to land show that the variable geology of the shore is irrelevant because most of the land area is magnetic basement. Unfortunately, the magnetic studies extrapolated these various types of base-