

dome with the basement at -6000 ft just east of it.

Finally, "I" farther south at $44^{\circ}05'/147^{\circ}45'$ calls attention to small noses on the western flank of the southeastern basin with the basement at -6000 ft. This is also in deep water.

Area "J" is a syncline or graben at $43^{\circ}55'/147^{\circ}20'$ where the basement is at -7500 ft in a very narrow area between areas of essentially no section to the north and south. It is not highly recommended at all.

"K" at $44^{\circ}05'/146^{\circ}45'$ calls attention to a north-south graben situated between the dolerite terrane in the east and the undifferentiated Paleozoics in the west. This is marked onshore by an outcrop of a small segment of Paleozoic geosynclinal material which apparently is nonmagnetic in this area, making the area probably not very prospective.

In general, contouring the magnetic basement at 1000 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. These contain shallow magnetic materials which make the definition of basement somewhat unreliable.

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. The relatively non-magnetic areas which are found are small although quite numerous.

GRAVITY METER EXPLORATION COMPANY

Nelson C. Steenland

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