

In the western area the south flank closes in toward the north flank, causing a constriction or bottle neck of the basin. Here the flank slope measured at Top Basement (Fig. 10) is steeper ( $7^{\circ}$ ) than at other localities along the south edge and basement should be at sea floor within a few miles south of SS-28 (Fig. 1).

Part of this western uplift has been affected by Tertiary rejuvenation, as suggested by line SS-28 which shows a well-formed arch of about 1,500 feet relief and about 35 miles width, in from 1,500 to 3,000 feet of water. Thin Tertiary is involved in the arching, but is absent from the crest. The contour map Base Tertiary (Fig. 11) and from lines SS-3, SS-18 and SS-19 (Fig. 9) show that the northeast component of the arch, as reflected within the Tertiary, extends only a short distance from SS-28. The Mesozoic beds in the arch are not noticeably eroded.

Thus, a late Tertiary uplift is superimposed upon the large pre-Tertiary uplift, its culmination being situated southwest of SS-28. In view of the offshore Beachport anomalies (Magnetic Map Fig. 21) and Tertiary igneous activity within the region, it is possible that a large-scale intrusion could have caused the arching.

The displacement of the eastern extremity of the south flank is well marked on its western and northern edges by Mesozoic pinching out with dips of about 3 to  $5^{\circ}$ . (Figs. 1 and 10). There was no subsequent uplift and a mantle of Tertiary spreads over basement.

Between the two areas of major uplift the south flank was not greatly displaced. It is found at a relatively low position and has a thick section, as seen from the cross sections on map Top Basement (Fig. 10). In fact, the thickness of the Mesozoic is anomalous under the deep water of the outer margin between continent and ocean basin. The explanation is briefly as follows: During the hiatus between Mesozoic and Tertiary, this portion of the Mesozoic basin edge remained low relative to the adjacent areas of