

Late Cretaceous (Top Campanian)

Paleogeography as inferred from the subject wells penetrating the Top Campanian (intra-Latrobe) surface suggest an east/southeast-trending depositional basin including several progradational deltaic lobes oriented transversely to the basin axis.

The central portion of the Late Cretaceous basin was characterized by pro-deltaic deposition, with sand percentages ranging from 40 to 60%. A zone of continental deposits flanking the basin is represented in the area of Pisces-1 and Helios-1.

Of greatest interest with regard to exploratory potential are the inferred progradational lobes which include delta-front and proximal pro-delta sands (sand percentages greater than 60). One such lobe can be inferred in the northeastern portion of the basin, where recent oil discoveries have reportedly been made in the Campanian section (Basker-1 and Manta-1).

An item of interest is the appearance of relatively high sand percentage in the pro-deltaic Late Cretaceous sediments along the oil-prolific north/south-trending zone between Kingfish and Tuna Fields. This suggests the presence of a relatively proximal (shallow-water) environment of Late Cretaceous pro-deltaic deposition along a trend normal to the basin axis. This in turn implies the persistent influence of a north/south-trending basement high, perhaps inherited from the Paleozoic structural grain of the region.

Latest Cretaceous (Top Maastrichtian)

Regional well control indicates a Latest Cretaceous east/west-trending basin of deposition of Latrobe Group clastics, the east/southeastern basin margin having been emergent and subject to continental sedimentation.

Progradational lobes represented by delta-front deposits (sand percentage greater than 60) and proximal pro-delta sands (sand percentage greater than 40) surround the basin, as best documented along its east/southeast flank.