

Large reserves in aborted rifts are generally found in sediments of the first stage. The boundary between the rift and sag stage in the Bass Basin is not clearly understood and is tentatively placed at the base Tertiary.

Exploration to date in the Bass Basin has concentrated on sediments of the second stage (Tertiary sag stage). Results have been disappointing. Continued exploration must be directed towards understanding the Pre-Tertiary rift stage.

The Bass Basin developed in the Early Cretaceous and the environment of deposition for this section is interpreted to be upper alluvial plain including lacustrine. The distribution of late Cretaceous sediments in the Bass Basin is interpreted to be much more widespread than during Early Cretaceous times as individual trough broadened and merged into a more continuous basin.

During the Paleocene, the basin was structurally quiescent but continued sag along the old major fault systems resulting in over 70 meters of coarse sediments being deposited near the basin margin and possibly over 900 meters of fine sediments in the basin center. Coal deposition throughout the section was limited. The basin appears to have been landlocked with braided streams flowing from the edge of the highlands to the southwest and eastward merging basinward into a broad meandering stream pattern building out into a lacustrine delta plain in the northwest.

Increased tectonic activity during the Lower Eocene resulting in renewed movement which gave rise to a slightly smaller basin configuration than that which existed during the Paleocene. The structural movements were intensified towards the end of the Early Eocene and were accompanied by faulting, folding and local igneous intrusions of the older sediments. Local erosion of the early part of the section produced the unconformity which is seen at the Lower M. diversus zone level.

During the Middle Eocene, stream activity increased. A pattern of braided streams flowed out from the edge of the rugged basin margin, merging into a cut-and-fill secondary stream channel system which built out over extensively developed coal swamps. This section is characterized as having both the highest sand content and the highest coal percentage within the Eastern View Coal Measures sequence. Provenance areas were located on the Tasmanian mainland in the south, the "Bassian Rise" in the northeast and for the first time, along the basin margin in the north and northwest.

The Late Eocene is dominated by the widespread deposition of the Upper Eocene Shale. This shale unit was deposited as a result of a marine transgression which started in the northwest and moved very rapid to the southeast.