

shale and coal typical of the rest of the EVCM. These sediments were mainly sourced from the south (Tasmania) but subsidiary provenance areas were the "Bassian Rise" (Wilson's Promontory to Flinders I Island) as well as the Australian Continent to the north (Brown, 1976).

The Palaeocene provenance was still to the south as evidenced by coarse sandstone development at Durroon 1. The Palaeocene basin was a land locked deltaic plain which collected a minimum of 600m of fine sediments in the centre and 500m of coarse sediments on the margins. Structurally the Palaeocene was quiescent with relatively uniform thicknesses of sediments observed away from the Basin margins. Thick coals developed in the Eocene, particularly in the Pelican area, but by the end of the Early Eocene structural movements were intensified with extensive normal faulting aligned with and reactivating the basin forming NW-SE Cretaceous faults. Relief at any one time was not great so depositional patterns of environment remained generally constant.

Extensive erosion occurred at the end of middle *M.diversus* time peneplaning the faulted topography and marking an end to the "Lower EVCM" (Brown, 1987; Nicholas *et al* 1981; Baillie & Bacon, 1989). Up to 2000m of Lower EVCM may have been deposited. The basin depocentres became independent from the Cretaceous synrift basins at this time and the basin axis is longitudinally focussed in the Poonboon 1 area and trending NW-SE until the present day. The "Upper EVCM" commenced deposition in this new sag basin with the coaly upper *M.diversus*. Sometime after deposition of the upper *M.diversus* and possibly as late as middle *P.asperopolus* time, another regional unconformity occurred. This did not result in any change in the basin framework and probably is more accurately described as a sequence boundary resulting from a relative eustatic lowstand. The effect of this is minor subcrop of the upper *M.diversus* sediments over many of the older highs and at the basin margins. Some growth faulting persisted after this time but almost all fault movement had ceased by the time of the Demon's Bluff flooding event. The upper EVCM below the Demon's Bluff may be up to 1000m thick in parts.