

The study included an examination of potential source rock and the relationship of those source rock(s) to the oil characteristics in the basin. Before the study, only one Paleocene section had been examined with relation to its source-rock to oil-type characteristics. The samples for source-rock analysis were collected from the Bass Basin cores examined during the facies study.

The study also evaluated the basin subsidence history and hydrocarbon expulsion timing. The re-evaluation took into account the new configuration of the basin and examined the geothermal gradient and its variation across the basin. Additional vitrinite reflectance data were collected to solidify the geothermal gradient interpretation by correlating the theoretical vitrinite reflectance values to actual vitrinite reflectance data.

The factors that control hydrocarbon production in the basin were determined by relating the various aspects of the study.