

Jan Juc Formation (1240-1421.5m); Early to Late Oligocene.

The Jan Juc Formation comprises 181.5 meters of generally brownish-grey coloured silty fossiliferous claystone with minor interbedded limestone and dolomitic limestone. The age of the Jan Juc Formation ranges from Early to Late Oligocene (planktonic foraminiferal Zones J2-I1). The rocks represent sediments that were deposited in a shallow (less than 90m) restricted marine environment possibly lagoonal.

Demons Bluff Formation (1421.5-1605m) Late Eocene.

In the Koorkah-1 well the Demons Bluff Formation consists of 183.5 Meters of light to dark greyish brown to reddish brown coloured variously silty claystones interbedded in the lower half of the formation with thin beds of tan coloured limestones and greyish brown coloured quartzose sandstones. Foraminifera and glauconite pellets are abundant from 1421.5-1460m with pyrite nodules and glauconite pellets common below 1535m. The age of the formation is Late Eocene (planktonic foraminiferal Zone K). The environment of deposition was nearshore marine, possibly inner lagoonal.

Eastern View Coal Measures (1605-3148.9m) Late Eocene - Late Cretaceous (Maastrichtian).

The lithology of the E.V.C.M. is dominated by interbedded sandstones and claystones with minor coals, siltstones and cherty limestone/dolomites. The carbonates are very thin bedded and non-porous and are confined to the uppermost 151 meters of the E.V.C.M. The sandstones are generally whiteish grey coloured, variously calcareous, moderately to well sorted, medium-grained with varying amounts of contained clay. From the top of the E.V.C.M. (1605m) to a depth of 2926 meters, clay content of the sandstones varies from 5-15% (locally 30%) and is minimal below 2926 meters. The claystones are generally moderately soft to hard, non-calcareous and variously silty to sandy and pyritic between 1775-2431 meters. From the top of the E.V.C.M. (1605m) to 2027 meters the claystones are medium to dark reddish brown coloured changing to grey to greyish brown below 2027 meters to total depth (3148.9m). The coals which are dark reddish brown to black coloured are confined to the interval 1775-2431 meters. The variously calcareous and generally sandy siltstones are mainly confined to the interval from top E.V.C.M. to 2027 meters and from 3054-3088 meters. However, some of the sandstone and claystone intervals are very silty and often grade to siltstones. The environments of deposition within the E.V.C.M. range from marginally marine (1605-2240m) to non-marine (2240-3148.9m) and possibly represent sediments deposited in upper delta plain to meandering river with associated flood plain environments.