

## A 2.2 Lithostratigraphic Units Recognised in Chat No. 1

All depths are in metres and related to the Kelly Bushing (mKB).

### Recent; seabed to 570.0m; thickness 544.7m

As the riser was not connected until after the 26" hole had been drilled to 268.0m and the 20" casing had been set at 256.0m no samples were returned to the surface. Once cased, this section was not logged. It is assumed that the lithology is not very different from that of the samples collected after 268.0m.

The monotonous character of the electric log below 256.0m to the base of this section reflects the generally uniform lithologies seen while drilling.

This is essentially a carbonate section consisting of white, light grey, unconsolidated, bioclastic limestones above 480.0m and light to medium grey calcarenites below this to 570.0m. The bioclastic limestones are made up of coarse to very coarse fragments of shells, corals, bryozoans, echinoids, sponge spicules and foraminifera. These fragments are occasionally poorly cemented with a calcareous cement and there is probably a clay matrix in parts of this interval which was seen only rarely as it was mostly washing out of the sample during circulation. Although the bioclastic material persists after 480.0m it is subordinate to the light to medium grey, firm, predominantly fine-grained calcarenite. As well as varying amounts of pyrite, quartz grains, glauconite and sparry calcite, the calcarenite also contains abundant fossil fragments.

### Oligocene to Pliocene Torquay Group; 570.0m to 1071.0m; thickness 501.0m

The electric log curves show little variation at the top of the Torquay Group, which was picked as a change in lithology from the essentially carbonate sequence of the Recent sediments to a predominantly argillaceous lithology.

The lithology to a depth of 820.0m consists mainly of light to dark greenish grey, soft to very soft and dispersive, claystones. Throughout the interval 570.0m to 820.0m the clays are so dispersive that they were washing out of the sample. However where they firmed up enough they were seen to be predominantly amorphous, occasionally sub-fissile and very calcareous. Light buff, very thin, very hard, limestone interbeds are occasionally present. Below 820.0m the claystones become less dispersive and are light to medium grey, soft to firm, mainly amorphous but occasionally sub-fissile and variably calcareous. Throughout they are silty or fine sandy and occasionally grade to argillaceous, light grey, siltstones and fine sandstones. Discrete olive grey, firm, very fine moderately sorted sandstones are also present towards the base of this section.