Sample: ISC47098; Location: Sidewall Core 52, 3109 m

Rock Name:

Coarse grained compact lithic sandstone

Thin Section:

This sandstone, also, is distinctly coarse grained and appears to be well sorted. Most of the grains range in size from 0.2 mm to 0.5 mm. The rock has been extensively damaged during collection but more compact areas of the thin section show abundant development of long and concavo-convex boundaries between the quartz grain and as much as 20 to 30% of fine-grained material derived from lithic clasts. The latter generally fill the spaces between the quartz grains as a result of deformation during squeezing and only rare chert grains retain their original rounded outline. One or two exceptionally large detrital flakes of mica also show the effects of distortion during compaction between the lithic quartz grains. All these features have contributed to the impervious nature of the sample and most of the more coherent parts of the thin section contain no visible porosity.

The sample does not appear to contain any authigenic kaolinite but there are isolated patches of what appears to be authigenic ?dolomite and some of the larger patches of this material could be derived from the localised recrystallisation of original limestone or dolomite fragments.

In places in the thin section there are incipient microstylolites and some fine-grained carbonate tends to be present in the sutures of insoluble material in the microstylolites.