

Sample: ISC4/120; Location: Sidewall Core 58, 3692.5 m

Rock Name:

Compact lithic sandstone

Thin Section:

The better preserved parts of this thin section contain about 15 to 20% of lithic material and there are patches where quartz grains are relatively abundant and show curved boundaries and some overgrowths. In these parts of the rock the lithic fragments tend to be isolated as discrete patches similar in size to adjacent quartz grains. As well as distinctly deformed and squashed fragments of phyllosilicates the rock contains more compact lithic fragments which contain a higher proportion of quartz.

This sample appears to be somewhat more feldspathic than many in this collection and there are feldspar grains as much as 0.4 mm in size. Most of the feldspar appears to be a potassic variety but a little plagioclase was identified also. All of the feldspars are fresh and there is no evidence that, for example, the authigenic kaolinite has been derived from dissolution of feldspar grains.

The best-preserved parts of the thin section show no porosity whatsoever but there are somewhat more damaged areas with small pores and fractures; however, these are thought to have been derived from the collection of the sidewall core and the thin sectioning process.

The rock does contain a siltstone fragment which is about 1 cm in size overall. This contains a minor amount of detrital siltgrade quartz in an abundant dark matrix which presumably consists of clays extensively stained by ferruginous material.