

Sample: TSC47116; Location: Sidewall Core 12, 3928.5 m

Rock Name:

Ferruginous siltstone with lithic sandstone

Thin Section:

Most of the thin section consists of a homogeneous dark siltstone which contains about 50% of quartz grains up to 0.1 mm in size in a homogeneous matrix of dark material which has been obscured by abundant secondary ferruginous staining. This material is, needless to say, apparently totally impervious.

The adjacent sandstone is a rather broken remnant but it contains quartz grains commonly up to 0.3 mm in size. There is some evidence of the development of long contacts between the grains but in rare instances there are examples of what appear to be smoothly curved detrital outlines. The material between the quartz grains partly consists of broken fragments of quartz (which were not integral to the original sandstone) and indeterminate heterogeneous fine-grained material thought to have been derived from lithic fragments. This probably comprises of the order of 20 to 35% of the volume of the rock. The sample also contains a little authigenic carbonate and some, at least, of this is calcite. Authigenic kaolinite was not specifically identified in this sandstone.