Accessory minerals in the framework fraction are sodic plagioclase which is angular, highly distorted sheaves of muscovite and rare, broken grains of yellow-green tourmaline. Some composite quartzite grains have internal crystal boundaries which clearly indicate that they are of metamorphic origin.

As implied above, the rock has been lithified by compaction during which original argillaceous lithic fragments have been squeezed in order to fit between more rigid quartz grains. It is unlikely that much intercrystalline matrix was ever present since separate patches of 'pseudo-matrix' have slightly differing mineralogy and grain size. Some of these fragments have been deformed so that they form thin seams more than 1 mm long but commonly only 0.1 mm wide. Many more equant patches of 'pseudo-matrix' are less than 0.1 mm across but a few more quartzose - and hence more rigid - grains are 0.2-0.25 mm in diameter.

Most of the void space has been eliminated and that not filled with deformed lithic material has been filled with coarse-grained kaolinite. This has probably recrystallized from pre-existing clays rather than having crystallized directly from porewater; however, it is certainly too coarse to have been part of the detrital load.

Voids are rarely as much as 0.15 mm across and are unlikely to be interconnected over large distances.

An X-ray diffractogram of the rock has revealed kaolinite as the only detectable clay mineral present. Both the argillaceous lithic fragments and the authigenic material are therefore composed essentially of kaolinite.

Sample: No 2: TS 29203: Sample from 9397 - 9410' APW

Rock Name:
Argillaceous sandstone

Hand Specimen:
A pale grey sandstone. The cut surface shows thin, black, discontinuous seams (microstylolites).

Thin Section:
An optical estimate of the constituents gives the following:

	%
Quartz	85
Plagioclase	Trace
Argillaceous lithic fragments	10
Authigenic kaolinite	1
?Siderite	Trace
Zircon	Rare
Tourmaline	Trace
Opaques	Trace
Voids	Trace