

Sample: 9496' : TS C7868

Rock Name:

Dolomitised sandstone

Thin Section:

An optical estimate of the constituents gives the following:

| | <u>%</u> |
|------------------------------|----------|
| Dolomite | 65 |
| Quartz | 25 |
| Mica | Trace-1 |
| Argillaceous lithic material | 5 |
| Opaques | Trace |
| Feldspar | Trace |
| Tourmaline | Trace |

This rock is entirely different from others in this collection in that much of it has been replaced by dolomite. Sand-grade quartz fragments and patches of clay-quartz lithic material exist as isolated patches which have survived alteration.

Dolomite forms a mosaic of anhedral with a grain-size of 0.2-0.3 mm. Against quartz crystals the dolomite has boundaries which, in detail, are very irregular and dentate and clearly indicate that dolomite has replaced the quartz. Dolomite is also present in a form seen in other samples in this collection, as clusters of brown granules about 0.005 mm across.

Fine-grained clay and quartz mats are probably remnants of lithic fragments and deformed flakes of muscovite are also part of the detritus of the sandstone.

This is a sandstone, the detailed texture of which has been obliterated by a period of extensive dolomitisation. During this process, any voids in the sandstone have been filled and now the rock appears, in thin section, to be completely 'tight' and impermeable.