

Carbonaceous matter is pervasive, but is largely mobilised into a pervasive network of closely spaced, irregular microfractures. These postdate the incipient slaty cleavage, which is deformed semi-plastically and locally brecciated. More intensely deformed areas are veined and partly replaced by pale green, near-isotropic Mg-chlorite with minor associated sideritic carbonate. These features deform an earlier (?diagenetic) phase of discontinuous cherty quartz veining.

This rock carries minor traces of "syngenetic" pyrite. Small clots (mean 30 $\mu$ ) of isotropic, argillaceous material, thoroughly stained with carbonaceous matter, are present in places and have the appearance of microfossils, although rather featureless and indeterminate.

98079

MBD 44  
127.4m

(T.S. 32132)

This thoroughly deformed carbonaceous pelite is very similar to 98078, to the extent that general features (e.g. clastic components) require no special comment.

Much of the area sectioned comprises a strongly carbonaceous shale, lenticularly laminated on a microscale. This zone is flanked by relatively incipiently carbonaceous shale and silty shale.

An incipient, but penetrative, slaty cleavage is evident, parallels bedding, and is thoroughly deformed. The relatively carbonaceous zone is complexly disharmonically microfolded, whereas the more competent, weakly carbonaceous pelite is pervaded by carbonaceous microfractures. Later, crosscutting fractures are healed with films (to 300 $\mu$ ) of sideritic carbonate. Deformation, overall, is semi-plastic to semi-brittle, reflecting varying degrees of competence, and is of distinctly tectonic character. Minor, post-siderite deformation is evident in localised segmentation of the veinlets.

This rock includes a minor carbonaceous quartzose fine sandstone component. Minor traces of "syngenetic" pyrite are present, and traces of pyritised pyrrhotite are associated with the siderite veining.

98080

MBD 41  
118.2m

(T.S. 32133)

This closely fractured carbonaceous pelite can be categorised as a relatively massive silty shale with minor intercalated argillaceous siltstone. Recognisable clastic components are typical, with splintery to subangular quartz, (chloritised) feldspar and accessory mica flakes. Silty bands include sporadic felsic intermediate lava clasts and these enhance the weakly volcanomict nature of this pelitic sequence.