

**CYNGOR CEFN GWLAD CYMRU
COUNTRYSIDE COUNCIL FOR WALES**

SITE OF SPECIAL SCIENTIFIC INTEREST CITATION

POWYS

PENSTROWED QUARRY

Date of notification: 1986

National grid reference: SO 068910

O.S. Maps: 1:50,000 Sheet number: 136
1:25,000 Sheet number: SO 09 SE

Site area: 2.6 ha

Description:

A sequence is here exposed in the basinal turbidite facies of the Wenlock Denbigh Grits (Sheinwoodian in age). The site is outstanding for the sedimentary structure it displays, particularly bottom structures such as flute and load casts, groove, prod and skip marks etc. Excellent examples of the Bouma sequence of turbidity current structures may be seen. The section here contrasts with the shallow marine, shelf carbonates and shales of the Welsh Borderland to the east. This superb example of deepwater, graptolitic sediments is essential to our understanding of the palaeogeography and facies of the Wenlock in Wales and the Borders.

In layman's terms, the interest of this site may be expressed more simply, and such a statement is provided below. This should not be taken as definitive and further information as to details of the interest can be obtained from the Countryside Council for Wales.

For much of the Lower Palaeozoic portion of geological time (400-500 million years ago), the area which became mid and north Wales was covered by a deep area of open sea, known as the Welsh Basin. Thick deposits of mud and sand accumulated on the bed of this sea and became consolidated into the shales and sandstones which appear in the landscape today. The rocks exposed at Penstrowed were laid down in the deep water part of the Welsh Basin and contain a number of small-scale structures preserved within the sedimentary sequence which indicate the exact mode of formation of these rocks. In other parts of Wales and the Welsh Borders, the water was much shallower at this time (late in Silurian times, about 410 million years ago) and these continental shelf-type conditions gave rise to rocks which contrast sharply with those seen at Penstrowed.

*This document is **NOT** a definitive legal version and has been formatted, updated and partially edited for use on the CCW Web site. This document should not be used in any legal proceedings, public enquiry or any other hearing or appeal. If you require a full legal copy of the document please contact CCW in writing.*