

## Field Meeting Report: Site visit to the Ironbridge Bypass, led by A. Gledhill 5<sup>th</sup> April 1987

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BEALE, S. (1988). Field Meeting Report: Site visit to the Ironbridge Bypass, led by A. Gledhill 5<sup>th</sup> April 1987. *Proceedings of the Shropshire Geological Society*, 7, 4–5. The purpose of the field meeting was to visit the igneous and sedimentary strata exposed by excavations for the new Ironbridge Bypass, including Silurian Wenlock Shales, Carboniferous Limestone, the Little Wenlock basalt, and the Coal Measures. Extensive landslides were also seen.

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The group assembled at the site offices at Stoney Hill and were conducted to the site by Mr A Gledhill of Telford Development Corporation.

We set off westwards onto the track of the new road which led directly down to the Lydbrook Dingle crossing. The works access to the crossing has been cut through Lower Coal Measures, with a thin coal seam outcropping. This overlies the Little Wenlock basalt which here is about 10 m thick and is very weathered, and altered to a purple colour. About halfway down the bed there is a 400 mm thick blocky layer with vertical jointing, the remainder is without any structure and breaks up very easily into a pebble sized rubble.

The basalt overlies Carboniferous Limestone but due to the extremely wet conditions it was difficult to see any structure. The bed was about 2 m thick and was grey/yellow in colour with nodules of calcite. The matrix was very soft and rubbly.

The lowermost bed visible was the Lydbrook Sandstone which here is exposed about 4 m above the stream bed. It is a competent, well-bedded orange/yellow sandstone with conglomerate lenses and the foundations for the bridge are being constructed onto this sandstone.

Conditions in the cutting were extremely unstable and unsuitable for fossil hunting but both the Coal Measures and the Carboniferous Limestone sections should yield interesting fossils when the area dries out. [Note: 50 mm of rain fell on 4<sup>th</sup> April 1987].

Returning to the site offices, we moved in convoy northwards on the B4169 to Doseley, turned through Coalmoor towards Little Wenlock and then turned left again and ran on for about a

mile to The Moors and some more site huts. On foot we squelched through a wide and deep cutting southwestwards through Holbrook Coppice. The cutting, nearly 20 m deep, is mainly through Lydbrook Sandstone with some Lower Coal Measures overlying. Fossil plant remains were found in the Lower Coal Measures. The Lydbrook Sandstone had conglomerate layers with pea-sized pebbles.

South of the outcrop of Lydbrook Sandstone there were extensive landslips which had been levelled off, but drainage in this area was causing the contractors some problems. An embankment about 20 m high was in the course of construction. The party crossed this area, appreciating some of the engineering problems involved, and reached a cut in Silurian Wenlock Shales which were very weak and clayey. The shales yielded a variety of fossils including trilobite heads, shields and tails, brachiopods, worm tubes, cephalopods, corals, and crinoid stems.

The Wenlock Shales also have bentonite layers, of which one was clearly exposed. This was pink/grey in colour, about 30 mm thick, on the north side of the cutting, the same area where most of the fossils were found. Some time was spent studying the Wenlock Shales and then everyone climbed up the hill back to the cars.

### ACKNOWLEDGEMENTS

The Shropshire Geological Society was very grateful to Telford Development Corporation for allowing this visit and to Mr Gledhill for spending a Sunday afternoon showing us round. Mr Gledhill was extremely helpful and members had a most enjoyable and interesting time looking at the variety of rocks which this bypass will cross.

*Disclaimer - The information contained in this account has been prepared from notes taken during the field meeting. Its sole aim is to provide a record of what was seen and provide an insight into the diversity of Carboniferous geology exposed by the excavations for the new bypass. It should not be used for any other purpose or construed as permission or an invitation to visit the sites or localities mentioned.*

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