County:	Lancashire	**Site Name:**	**Lee Quarry**

District: Rossendale

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act, 1981, as amended.

Local Planning Authority: Rossendale District Council

National Grid Reference: SD 867209   **Area:**   49.18 (ha)   (ac)

Ordnance Survey Sheet 1:50 000   103   **1:10 000**   SD 82 SE

Date Notified (Under 1949 Act):   –   **Date of Last Revision:**   –

Date Notified (Under 1981 Act):   6 February 1997   **Date of Last Revision:**   –

Other Information:

1.   This is a new site.

2.   This is a Geological Conservation Review site.

Description and Reasons for Notification:

This site consists of a large disused quarry on the south side of the Rossendale Valley, just south of Bacup.

Lee Quarry shows one of the best available exposures in the Upper Carboniferous Haslingden Flags Formation, a unique development within the Millstone Grit of central England, probably of Yeadonian age. The formation consists mainly of fine-grained sandstones, siltstones and shales. Sedimentary structures including large-scale cross-bedding, ripple lamination and a variety of bed forms are visible in the sandstones. Through the overall form of the sedimentary units and their internal sedimentary structures, this formation has been interpreted as having been deposited in a 'Mississippi type' birdfoot delta. Such deltas are otherwise unknown in the Upper Carboniferous of Britain. Also of great importance are the suite of trace fossils described from the area. These include the escape shafts and resting traces of bivalves *Pelecypodichnus*, sinuous worm trails *Cochlichnus*, and limulid (i.e. King Crab) walking traces *Kouphichnus* and resting traces *Limnulicubichnus*. This assemblage indicates shallow non-marine conditions, possibly with periodic intervals of emergence.

The combination of rich trace-fossil assemblages and good sedimentary features marks Lee Quarry as being of great importance to studies of late Carboniferous environments and palaeogeography.