

County: Lancashire **Site Name:** Light Clough

District: Ribble Valley

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

Local Planning Authority: Ribble Valley Borough Council

National Grid Reference: SD 752376 **Area:** 1.08 (ha) 2.66 (ac)

Ordnance Survey Sheet 1:50 000 103 **1:10 000** SD 73 NE

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

Date Notified (Under 1981 Act): 1984 **Date of Last Revision:** –

Other Information:

1. This site has been identified as being of international importance in a national review of geological sites carried out by the NCC.
2. This is a new site.

Reasons for Notification:

Light Clough is a small stream on the valley side about 2 km north-east of Whalley which has cut through and revealed the rock strata below. The geological interest of the site, in technical terms, may be defined as follows:

This section has been proposed as the boundary stratotype for the base of the Namurian Series (and thus also for the base of the Silesian Subsystem). It is the most complete sequence known in the Pennine Trough for this part of the stratigraphical column, showing about 150 m of shales between the *Lyrogoniatites georgiensis* Marine Band and the Pendle Grit. Clearly exposed is the *Cravenoceras leion* Marine Band, which was chosen as the horizon marking the boundary between the Viséan and Namurian by the 1935 Heerlen conference on Carboniferous stratigraphy. Since Light Clough is also the type locality for *C. leion*, the index goniatite for the marine band, it is a site of considerable international importance.

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 Nature Conservancy Council.

Light Clough provides excellent exposures of a series of rock layers originally formed at the onset of the Namurian period of geological history, about 325 million years ago. The rock sequence includes

layers of marine shale containing the fossilised remains of sea creatures known as goniatites which are used by geologists to determine the precise age of rocks formed at this time; in fact Light Clough is the type-locality for one particular goniatite species. The rock sequence that is exposed includes the base of the Namurian Series and Light Clough is recognised as a particularly valuable locality for geological study. For the reasons outlined above Light Clough has been proposed as the standard for the base of the Namurian Series, which would make it an internationally accepted reference section for this interval of geological time.