



South Wales RIGS Group Site Record RIGS Description

SECTION A

General	South Wales
Site Name: Llan-Uchaf	File Number: Site_249_433
RIGS Number: 602	Surveyed by: Leanne Hughes
Grid Reference: SO 1033 0110	Date of Visit: 14 th September 2010
RIGS Category: Educational	Date Registered:
Earth Science Category: Stratagraphical, Palaeontological, Educational	Owner: Unknown Planning Authority: Merthyr Tydfil County Borough Council
Site Nature: Exposed section by track	Documentation prepared by: Leanne Hughes
Unitary Authority: Merthyr Tydfil County Borough Council	Documentation last revised: 14 th September 2010
OS 1:50,000 Sheet: 171	Photographic Record:
OS 1:25,000 Explorer Sheet: 166	
BGS 1:50,000 Sheet: E249	
RIGS Statement of Interest:	
<p>This section has been nominated as a RIGS due to the high number of plant fossils found in the mudstones and siltstones of the Birthdir beds. This portion of the coal measures is usually fossil poor. The location is also a good place to observe the overlying coal rich muds on top of the Pennant Sandstones.</p>	

Geological setting/context:

This section along the side of a track cuts through mudstones in the Brithdir beds and Pennant formation. The Brithdir Beds outcrop extensively in this region of Wales as a belt around 100m wide, extending from the south-west corner of the district to Pontypool. The group, extends from the base of the Brithdir to the base of the Cefn Glas and is about 60m thick in the North East. The sequence is mainly comprised of pennant sandstones with some mudstones, siltstones and coal. The younger sections are mainly silty mudstones which can yield abundant plant remains. Pennant sandstones usually overlie the deposits though thin mudstones with plants intervene locally.

The section exposed here comprises of layers of carbon rich clay and coal fragments underlain by highly weathered laminated mudstones, siltstones and sandstones. The laminated layers pinch out to wards the East of the section as seen in the sketch below. A homogeneous, fine grained, brittle grey brown sandstone forms the base of the exposed section up to 60cm thick.

Plant fossils which have been identified in the mudstones including *Stigmaraia*, *Neuropteris sp*, cordaites. There are also several imprint type fossils of woody type material. They proliferate in the loose material along the section and also on the side of the track. During heavy rain ochreous orange drainage could be seen leeching out from the base of the more permeable sandstones. This has stained much of the loose material.

The whole sequence is of Westphalian age of the Lower Coal Measures group. The coal measures were formed in a large deltaic environment which experienced cycles of sudden subsidence causing marine flooding. Followed by a gradual 'muddying up' of the basin . These repeated cycles form the different units present such as the fluvial sandstones and swamp coal measures.

References:

SQUIRRELL, H C, DOWNING, R A. 1969. Geology of the South Wales Coalfield, Part I, the country around Newport, Memoir BGS sheet 249 (third edition)

SECTION B

PRACTICAL CONSIDERATIONS:

Please score Accessibility and Safety Red Amber or Green

Accessibility:



Comment: Walking access along public footpath/track for 1km.

Safety:



Comment: Low section although some loose material underfoot

Conservation status:

There are no known conservation designations of this RIGS

OWNERSHIP/PLANNING CONTROL:

Owner/tenant: Unknown

Planning Authority: Merthyr Tydfil County Borough Council

Planning status/constraints/opportunities:

There are no known planning constraints or opportunities

CONDITION, USE & MANAGEMENT:

Present use: Track and drainage ditch for farm access.

Site condition: Fairly well exposed with some vegetation encroaching at the upper limit.

Potential threats: Vegetation encroaching and degrading the coal/mudstones

Site Management: Vegetation clearance

SITE DEVELOPMENT:

Potential use (general):

Potential use (educational): This site would be good for teaching due to the ease of access and the volume of plant fossils which are not as abundantly found in this part of Wales

Other comments:

Photographic Record



Clearest part of section by track



Selection of fossils in loose material



More fossils in loose material.

Annotated Sketch

