



South Wales RIGS Group Site Record

RIGS Description

SECTION A

General	South Wales
Site Name: Cwm Lluest	File Number: Site_RCT_48
RIGS Number: 720	Surveyed by: Andrew Haycock
Grid Reference: SS 9180 9970	Date of Visit: 15 th December 2003 & 28 th February 2004
RIGS Category: Scientific, educational, aesthetic	Date Registered: Owner: Unknown Planning Authority: Rhondda Cynon Taff County Borough Council
Earth Science Category: Stratigraphic	
Site Nature: Gully, waterfall and crags	Documentation prepared by: Rhian Kendall
Unitary Authority: Rhondda Cynon Taff County Borough Council	Documentation last revised: 29 th March 2012
OS 1:50,000 Sheet: 170	Photographic Record: Attached
OS 1:25,000 Sheet: 166	
BGS 1:50,000 Sheet: E248	
RIGS Statement of Interest:	
<p>The Cwm Lluest RIGS contains a spectacular waterfall cascading over rocks of the Rhondda Member of the Pennant Sandstone. There are also number of small coals exposed . The site also has some small stream bed exposures of the South Wales Upper Coal Measures Formation. Rocks of this age are very poorly exposed making this an important site to examine this formation.</p>	

Geological setting/context:

The Cwm Llest RIGS is to the north of Blaencwm and west of Blaenrhondda. There is parking in picnic area at grid SS 9230 9905. Follow path up through forestry. The site contains excellent outcrops of Rhondda measures coupled with spectacular scenery of waterfalls and extensive crags of Pen-tych butress.

At grid SS 9187 9965 - The Cwm Llest water fall drops down a 25 m face of Rhondda Member rocks. These comprise massive, well cross bedded sandstone measures and are exposed in naturally outcropping crags to the immediate east and west of the falls. These beds have been back cut by the waterfall, this has resulted in the face becoming quite unstable, and several large blocks having fallen. Several large rocks were observed dangling perilously some way up the face in the vicinity of the falls. Fallen material in scree deposits was found to be locally quite rich in plants material.

Two particularly large fallen blocks (one being 3m x 3m x 6m) at the base of the falls were found to be crammed with fossil material (result of log jams).

Lepidodendron, Calamites and Sigillaria were identified.

To the east of the waterfall, coarse clasts can be observed within lag deposits at base of bedding - quartz pebbles, rolled ironstones, reworked nodules and coal pebbles (base of lag deposit is erosional)

The crags to the west side of the falls are steeply overhanging, this has been the result of the undercutting and erosion of softer mudrocks at the base of the sandstone (1.5 - 2m of mudstones are exposed). The mudstones are thought to be closely associated with the No.2 Rhondda seam.

Base of sandstones carry up to 3 ft of conglomeratic grit containing quartz pebbles, coal and rolled ironstones.

At SS 9196 9947 - Thin rider coal above No.2 Rhondda seam can be seen - comprising two thin leaves, each a few inches thick separated by about a foot of sandstone. At SS 9144 0006 - poorly exposed shale (10 ft) as found in middle of 100 - 150 ft sandstones above No.1 Rhondda seen. Observed at SS 9195 9940:

Sandstone - 20 ft

Coal - 7 inches

Sandstone - 1 ft

Coal 0 6 inches

Conglomerate - 2.5 ft

Mudstone - 0.5 ft

Coal - 2 ft

Fault fracturing relating to the Neath Disturbance, northern downthrow of some 50 to 75 feet can be seen at SS 9187 9975 -

Below the waterfall, the Rhondda No2 coal seam marks the junction between the Pennant Formation and the South Wales Upper Coal Measures Formation. This latter formation is not widely seen in outcrop but is seen here, very poorly seen in outcrop in the bed of the stream. Regionally, the South Wales Upper Coal Measures are: "Grey (productive) coal-bearing mudstones/siltstones with seatearths and minor grey,







quartz-rich sandstones, coals
and ironstones.” Waters et al 2009)

References:

WATERS, C N, WATERS, R A, BARCLAY, W J, and DAVIES, J R. [2009]. A lithostratigraphical framework for the Carboniferous successions of southern Great Britain (Onshore). British Geological Survey Research Report, RR/09/01.

WOODLAND, A W. and EVANS ,W B. [1964]. South Geology of the South Wales Coalfield Part IV. The country around Pontypridd and Maesteg (Sheet 248). 3rd Edition,

SECTION B

PRACTICAL CONSIDERATIONS: Please score Accessibility and Safety Red Amber or Green			
Accessibility:			X 
Comment:			
Safety:			X 
Comment:			
Conservation status: None known of			

OWNERSHIP/PLANNING CONTROL:
Owner/tenant: Unknown
Planning Authority: Rhondda Cynon Taff County Borough Council
Planning status/constraints/opportunities:

CONDITION, USE & MANAGEMENT:
Present use: Country side and forestly
Site condition: Very good
Potential threats: none
Site Management: maintain as at present

SITE DEVELOPMENT:
Potential use (general):
Potential use (educational): educationally useful to study the South Wales Upper Coal Measures Formation and the Rhondda Member as well as the formation of waterfalls

Other comments:

Photographic Record



Waterfall and crags observed from distance (Photograph by Andrew Haycock)



Detail of east crag with person for scale (Photograph by Andrew Haycock)



Coal rafts in sandstone (person for scale) (Photograph by Andrew Haycock)



Large fallen block with “log jam material” (Photograph by Andrew Haycock)