South Wales RIGS Group Site Record
RIGS Description

SECTION A

General	South Wales
Site Name: Tarren Felen Uchaf track cutting	**File Number:** Site_RCT_304
RIGS Number: 719	**Surveyed by:** Andrew Haycock
Grid Reference: SS 9505 9495	**Date of Visit:** 23rd September 2003
RIGS Category: Scientific, educational	**Date Registered:** **Owner:** None
Earth Science Category: Structural, stratigraphic	**Planning Authority:** Rhondda Cynon Taff County Borough Council
Site Nature: Track cutting	**Documentation prepared by:** Rhian Kendall
Unitary Authority: Rhondda Cynon Taff County Borough Council	**Documentation last revised:** 29th 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:

The Tarren Felen Uchaf track cutting RIGS exposes a rare, within the region, example of Variscan faulting and folding which is very accessible. It also affords the opportunity to examine the Llynfi and Rhondda members of the Pennant Sandstone Formation, some thin coal seams and the probably position of the No2 Rhondda coal seam.

This is a good teaching site with the potential for coalfield geology, folding and faulting studies in one small area

Geological setting/context:

The Tarren Felen Uchaf track cutting RIGS exposes a rare, within the region, example of Variscan faulting and folding which is very accessible. Between NGR SS 9505 9495 to 9485 9470). It also affords the opportunity to examine the Llynfi and Rhondda members of the Pennant Sandstone Formation, some thin coal seams and the probably position of the No2 Rhondda coal seam.

Follow path up stream section from Ton Pentre, at small waterfall follow path to north of stream that winds up hillside. Exposures are on the right hand side of the tack.

The section is approx 5 - 8 m high by 200 metre long track cutting and exposes the Llynfi and further west, the Rhondda Members. Regionally, the Llynfi Member is “Green-grey and blue-grey, feldspathic, micaceous lithic arenites with thin mudstone/siltstone and seatearth interbeds and mainly thin coals” (Waters et al 2009). The Rhondda Member is “Green-grey lithic arenites with thin mudstone/siltstone and seatearth interbeds and mainly thin coals” (Waters et al 2009). The BGS field slips (Glam 27 NNW) for this area also shows the Rhondda No 2 Coal Seam is predicted to run through this site. It was observed in the NE facing slopes of the Taren-felen-uchaf hillside when it was mapped by Strahan in the 1895.

At Tarren Felen Uchaf track cutting siltstones and sandstones and thin coals of the above Members are exposed but of particular interest are the structures.

A Variscan fault transects the RIGS and as a result, the beds of rock have been dragged into folds around the fault.

At the northern end of the track cutting folding can be seen, associated with a NW – SE trending fault which is downthrown to the NE)

Examples of the folding observed at this locality are attached. They include a tightly folded angular, recumbent anticline and vertically bedded sections.

Observation of tight folding of competent sandstone units towards apex of fold, while more rounded folding of siltstone beds and coal bands are found towards edge of fold.

Further to the along the path, there are exposures of undisturbed siltstone measures- dark grey to black in colour - some heavily iron stained. The siltstone are very mica rich and found to contain no plant material. Siltstones beds pass up into four thin coal horizons (5 - 15 cm thick).

These coal horizons are overlain by thick Pennant sandstone measures, which break into clean slabs, a sharp erosional contact was observed between the two units.

The sandstones were themselves interbedded with siltstones containing thin coal horizons.

This is a good teaching site with the potential for coalfield geology, folding and faulting studies in one small area.

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			

OWNERSHIP/PLANNING CONTROL:

Owner/tenant: Unknown

Planning Authority: Rhondda Cynon Taff County Borough Council

Planning status/constraints/opportunities:

CONDITION, USE & MANAGEMENT:

Present use: none - countryside

Site condition: Good

Potential threats: None

Site Management: As present

SITE DEVELOPMENT:

Potential use (general):

Potential use (educational): This is a good teaching site with the potential for coalfield geology, folding and faulting studies in one small area.

Other comments:

Photographic Record

General view of track cutting (Photograph by Andrew Haycock)

Coal rich siltstones overlain by sandstones (Photograph by Andrew Haycock)

Folding in coal and siltstones (Photograph by Andrew Haycock)

Vertical bedding (Photograph by Andrew Haycock)

Recumbent, angular fold (Photograph by Andrew Haycock)