South Wales RIGS Group Site Record
RIGS Description

SECTION A

General	South Wales
Site Name: Craig yr Hesg and the Berw Falls	**File Number:** Site_GL_1
RIGS Number: 586	**Surveyed by:** Graham Lott and David Roberts
Grid Reference: ST 0785 9110	**Date of Visit:** 18th October 2010
RIGS Category: Scientific, Educational, Historical, Aesthetic	**Date Registered:** **Owner:** Unknown
Earth Science Category: Sedimentological, stratigraphical, historical	**Planning Authority:** Rhondda Cynnon Taff County Borough Council
Site Nature: Crags and River	**Documentation prepared by:** Rhian Kendall
Unitary Authority: Rhondda Cynnon Taff County Borough Council	**Documentation last revised:** 24th March 2012
OS 1:50,000 Sheet: 170	**Photographic Record:** Attached
OS 1:25,000 Explorer Sheet: 166	
BGS 1:50,000 Sheet: E248	

RIGS Statement of Interest:
The site is important as one of the most picturesque and accessible areas to examine both the stratigraphy and sandstone sedimentology of the Brithdir and Hughes bed units of the Pennant Sandstone Formation. The old workings still recognisable below the craggy escarpments are testament to the determination to exploit even the smallest coal seams. Historically, Pontypridd lies at the heart of the industrial development of the South Wales Coalfield. The narrowing of the valley at Berw Falls was the meeting place of road, rail and canal systems creating in the 19th Century to service both the coal and the iron industries.

Geological setting/context:

From Pontypridd town centre follow the B4273 northwards along the river heading for Ynysybwl. A short distance out of the town the White Bridge crosses the river eastwards above the Berw Falls from which access along the river bank track under the bridge and viaduct leads to the falls (Note: this locality can be dangerous during flood events). Having completed examination of this lower sandstone section in the Brithdir Beds return to the bridge and head back south towards the town for short distance. Turn right at the nearby playing field (Cocks Field) into Darren Park Road. Park and proceed on foot up to the road alongside the culvert to locate the sign-posted footpath that will take you to the top of the crags.

The high crags at Graig yr Hesg cap 90m of sandstones from Brithdir Beds (Pennant Sandstone Formation). The base of the section is exposed in the Berw Falls on the River Taff at the eastern foot of the escarpment. Here the lowest of several blue-grey, sandstone beds are exposed in the waterfalls that have been formed in the narrow gorge which restricts the river at this point.

The Berw falls were once famed not only for their geological significance but as one of its pre-eminent salmon leaps in pre-coalfield days. The river at this point forms a narrow gorge and has gradually eroded through the massive Pennant sandstone beds to form a series of spectacular potholes and turbulent rapids. Lithologically, the sandstones are typical of the Pennant-type range from coarse pebbly conglomeratic beds to massive lithic-sandstones, interbedded with finer grained laminated sandstones with darker organic rich layers. Overhead is the massive iron viaduct of the railway spur from the main Taff Vale Railway line leading over the river to the site of the former Albion Colliery at Cilfynydd. Less obvious but still standing are the Pennant clad rubblestone remnants that once supported an iron aqueduct that supplied clean water from the river Clydach to the Brown & Lennox Chainworks in Pontypridd – once the centre of production of anchor chains for a significant proportion of Britain's steamships.

Craig yr Hesg and Lanwood Crags – The access path from Darren Park follows the approximate line of the NNW to SSW trending Daren Ddu Fault which downthrows the overlying Hughes Beds, forming crags on the west side of the faulted valley, against the sandstone crags of the Brithdir Bids of Craig yr Hesg to the east of the fault. The path in part, follows one of several old tramway routes to the old coal workings along the Cefn Glas Seam, which marks the base of the Hughes Beds and the Darren Du seam higher in the succession which was also extensively worked in numerous adits along the escarpment. Remnants of the old Darren Du Colliery still survive in the form of a number of now overgrown adits and small coal strewn tips. In wet weather water still gushes from these old workings and were once contaminated by iron from the decomposition of the pyritic shales associated with the coal seams and tips, occasionally turning the then still black, coal-dust laden waters of the River Taff bright orange-brown.

The sandstone succession of both Brithdir and Hughes beds can be examined in some detail in the outcrops, crags and associated quarries of Craig yr Hesg and Lanwood respectively (approach with care as the crags rise vertically for tens of metres in places). The sandstones show considerable lithological variation ranging

from massive bedded and coarse pebbly sandstones (up to 12m thick) to finer grained, strongly cross bedded and channelled beds. Some of the sandstones are characterised by “rafts” of carbonaceous plant debris others are packed with comminuted, coaly, organic debris. At various levels below the sandstone crags thin discontinuous coal seams were locally worked from surface adits, some of which are still visible.

The massive crags of Craig yr Hesg today hide one of the largest Pennant Sandstone quarries of the coalfield. Craig yr Hesg Quarry has, for more than 150 years taken thousands of tonnes of block stone and crushed rock aggregate to me used at first for building the thousands of terraced houses but more recently for major road and construction projects throughout the coalfield. A railway spur once linked the quarry directly to the main Taff Vale line carrying massive sandstone blocks for sea defence and dock construction projects along the coast. From the top of the crags the view down the Taff valley across Pontypridd to its confluence with River Rhondda at the mouth of the Rhondda valley is unsurpassed.

References:

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

SECTION B

PRACTICAL CONSIDERATIONS: Please score Accessibility and Safety Red Amber or Green			
Accessibility:		X	
Comment: Poor paths and some scrambling required to get close to some of the crags			
Safety:		X	
Comment: Some of the crags are over hanging. Care needs to be taking on steep slopes			
Conservation status: There are no known conservation designations of this RIGS			

OWNERSHIP/PLANNING CONTROL:

Owner/tenant: Unknown

Planning Authority: Rhondda Cynnon Taff County Borough Council

Planning status/constraints/opportunities:

There are no known planning constraints or opportunities

CONDITION, USE & MANAGEMENT:

Present use: none – countryside

Site condition: Crags are weathered but the crags are visible, surrounded by woodland

Potential threats: Site development

Site Management: Access paths to some of the crags could be improved

SITE DEVELOPMENT:

Potential use (general): Walking paths to the very picturesque and academically interesting river side would be an excellent communitee resource

Potential use (educational): Good potential for studying the Brithdir and Hughes bed units of the Pennant Sandstone Formation and appreciation of the industrial heritage of the area.

Other comments:

Photographic Record

Crags at NW of exposures showing fine bedding. Photo by David Roberts

Crags at NW of exposures showing fine bedding. Photograph by David Roberts

Overgrown access to crags which can just be detected through the undergrowth. Photograph by David Roberts

Brithdir Beds well bedded at base and overlain by massive lithic sandstones. Photograph by David Roberts

Downstream of falls: gorge crossed by White Bridge. Photo by David Roberts

Sandstone base for viaduct pillar, clad with well dressed sandstone: remains of aqueduct pillar are visible on opposite side of river. Photo by David Roberts

West side of gorge showing well bedded sandstone overlain by massive sandstone which forms the base for the clad support for the aqueduct. Photo by David Roberts

Bedded sandstone dipping 8 degrees at 035. Hence on N side of Pontypridd Anticline. Photo by David Roberts

Massive and cross bedded lithic sandstones with joint planes. Photo by David Roberts

Pot hole in massive sandstone. Photo by David Roberts

View upstream of falls. Zoom in and a heron can be seen in centre of photograph: in the River Taff!!! Maybe the falls will return to being a pre-eminent salmon leap. Photo by David Roberts

Remains of aqueduct, Albion Colliery Viaduct and White Bridge. Photo by David Roberts

Falls and viaduct from White Bridge. Photo by David Roberts