South Wales RIGS Group Site Record
RIGS Description

SECTION A

General	South Wales
Site Name: Allt-yr-yn Quarry	**File Number:** DS_249_113
RIGS Number: 773	**Surveyed by:** Tom Sharpe and Janet Hiscott
Grid Reference: ST 29004 88576	**Date of Visit:** 3rd May 2009
RIGS Category: Scientific	**Date Registered:**
Earth Science Category: Stratigraphic, Palaeontological	Owner: Unknown Planning Authority: Newport City Council
Site Nature: Disused Quarry	**Documentation prepared by:** Tom Sharpe
Unitary Authority: Newport City Council	**Documentation last revised:** June 2012
OS 1:50,000: 171	**Photographic Record:** Attached
OS 1:25,000: 152	
BGS 1:50,000: 249	

RIGS Statement of Interest:

This RIGS is a disused quarry on the south side of the Brecon and Monmouth Canal northwest of Newport close to M4 between junctions 27 and 26.

Allt-yr-yn quarry now exposes 37m of the Raglan Marl formation, approximately 140m below the Bishops Frome Limestone Member Limestone markers. The rocks are silty marls with common nodules of calcretes with sandstone horizons. These sandstones are known to yielded many fish fossil fragments. These include acanthodian denticles, cephalaspid and heterostracan fragments.

Also of interest at this site are the grey-green reduction tubes in mudstones representing plant roots in a fossil soil.

Geological setting/context:

This RIGS is a disused quarry on the south side of the Brecon and Monmouth Canal northwest of Newport close to M4 between junctions 27 and 26. Site is accessible by descending the right of way from the Ridgeway to the SE of the site and turning right along the canal, or by walking 1100 m along a track leading NE from Glasllwch Crescent (B4591) immediately to the E of the M4 J27 roundabout. An open area near the canal has steps leading uphill. Crossing the fence leads to the lower part of the quarry.

Publications from the late 1906's and 1970's state that Allt-yr-yn Quarry exposes 37m of the Raglan Marl formation, approximately 140m below the Bishops Frome Limestone Member Limestone markers. The rocks are silty marls with common nodules of calcretes. The section shows a few thin beds of sandstones. One such bed is 0.76m thick, 12m above the base and has yielded many fish fossil fragments. These include acanthodian denticles, cephalaspid and heterostracan fragments. Another of the sandstone layers contain acanthodian and cephalaspid frangments. One such cephalaspid; *Traquairaspis pococki*, is known from this quarry where it is at the lowest limit of its age range (Squirrell 1971).

At the present time, the eastern part of this outcrop is a high quarry face, partly overgrown, of red mudstones with several prominent sandstones. The lowermost sandstone is a massive, 1.5 m thick, purple micaceous sandstone resting on red mudstone. Above this more red mudstone is overlain by a more flaggy sandstone which overhangs at the top of the cliff.

The lower part of the sequence near the steps comprises about 6m of red micaceous blocky mudstone with some sandstones. Grey-green reduction tubes in mudstones represent plant roots in a palaeosol. This exposure is 20m in length.

The beds dip 12° towards the SE.

References:

Squirrell H.C. 1971. Old Red Sandstone, Carboniferous Limestone and Coal Measures Section around Newport and Risca, Monmouthshire. In Eds Bassett D.A., Bassett M.G. 1971. Geological Excursions in South Wales and the Forest of Dean. South Wales Geologists' Association, South Wales Group.

Squirrell, H.C. and Downing, R.A. [1969]. Geology of the South Wales Coalfield, Part I, the country around Newport (Mon), British Geological Survey, Sheet 249 (third edition)

SECTION B

PRACTICAL CONSIDERATIONS:
Please score Accessibility and Safety Red Amber or Green

Accessibility:			X
Comment:			
Safety:		X	
Comment: Access to upper face of quarry very difficult due to loose scree and the steep slope.			
Conservation status: Unknown			

OWNERSHIP/PLANNING CONTROL:

Owner/tenant: unknown

Planning Authority: Newport City Council

Planning status/constraints/opportunities: Unknown

CONDITION, USE & MANAGEMENT:

Present use: None

Site condition: The quarry is partly overgrown although some outcrop is present.

Potential threats: Becoming overgrown by vegitation

Site Management: Site would benefit from being cleared of vegitation

SITE DEVELOPMENT:

Potential use (general): This is a good site to look at the Raglan Mudstone formation and is also of potential research interest for its fossil fish fragments.

Potential use (educational):

Other comments:

Photographic Record

Ally-yr-yn main quarry face (photograph Tom Sharpe)

Palaeosols near base of the section (photograph Tom Sharpe)

Reduction pipe – palaeosol features near base of section (photograph Tom Sharpe)

Annotated Sketch