



## South Wales RIGS Group Site Record

### RIGS Description

**SECTION A**

General	South Wales
<b>Site Name: Mynydd Sylen</b>	<b>File Number: AH_74</b>
<b>RIGS Number: 800</b>	<b>Surveyed by: A Humpage</b>
<b>Grid Reference: SN 51530 08000</b>	<b>Date of Visit: October 2011</b>
<b>RIGS Category: Scientific/ Educational</b>	<b>Date Registered:</b>
<b>Earth Science Category: Geomorphological</b>	
<b>Site Nature: Mid elevation plateau surface</b>	<b>Documentation prepared by: AJH</b>
<b>Unitary Authority: Carmarthenshire</b>	<b>Documentation last revised: 19 March 2012</b>
<b>OS 1:50,000 Sheet 159</b>	<b>Photographic Record:</b> See images attached to this report
<b>OS 1:25,000 Explorer Sheet 178</b>	
<b>BGS 1:50,000 Sheet 230 Ammanford</b>	

**RIGS Statement of Interest:**

Mynydd Sylen, rising over 280m OD to form a small plateau, shows evidence of the passage of ice over its summit. Lying to the south of the Gwendraeth Fawr valley, the plateau is covered by a mass of Devonian age Old Red Sandstone erratics derived from the north, whereas the local bedrock forming the plateau is a sandstone of the Rhondda Member of the Carboniferous age Pennant Sandstone formation. Glacial striae in the Rhondda Member sandstone on Mynydd Sylen show the ice direction was generally south-westwards towards Carmarthen Bay. Of particular note is that the Old Red Sandstone erratics only occur in abundance on the plateau itself and not in the surrounding region.

Of particular historical note is that the largest meeting of the Rebecca Riots was held on Mynydd Sylen in the daytime of 25th August 1843. The Rebecca Riots took place between 1839 and 1843 in South and Mid Wales. They were a series of protests undertaken by local farmers and agricultural workers in response to perceived unfair taxation. The rioters, often men dressed as women, took their actions against toll-gates, as they were tangible representations of high taxes and tolls. The riots ceased prior to 1844 due to several factors, including increased troop levels, a desire by the protestors to avoid violence and the appearance of criminal groups using the guise of Rebecca for their own purposes. In 1844 a Parliamentary Act to consolidate and amend the laws relating to turnpike trusts in Wales was passed.

**Geological setting/context:**

Mynydd Sylen is an important site for understanding the glacier dynamics of this area. The lack of Old Red Sandstone erratics away from this plateau area may be indicative of layering of ice within the Late Devensian ice sheet, a hypothesis first proposed by Cantrill in 1907 (Strahan *et al* 1907) who considered that the upper layers of the ice were relatively abundant in Old Red erratics, unlike the lower parts of the glacier which flowed in the lower ground of the Gwendraeth valleys. Cantrill suggested that this Old Red rich ice may even have overridden ice in the Gwendraeth Fawr valley which was dominated by material derived from the local Coal Measures bedrock, thus making Mynydd Sylen an important basal ice shed location, recognised also by Bowen (1970).

Another possibility is that a stream of ice, possibly faster moving, within the ice cap was issuing south-westwards from the gap of Foel Gastell and which contained a high concentration of Old Red sandstone clasts.

**References:**

Bowen, D.Q. (1970). South-east and Central South Wales. In: CA Lewis (Ed). *The Glaciations of Wales and Adjacent Regions*. Longman, London.

Strahan, A., Cantrill, T.C. and Thomas, H.H. (1907). The Geology of the South Wales Coalfield. Part VII. The Country around Ammanford. *Memoir of the Geological Survey of England and Wales, Sheet 230*. HMSO, London. 246pp.

## SECTION B

<b>PRACTICAL CONSIDERATIONS:</b> Please score Accessibility and Safety Red Amber or Green			
<b>Accessibility:</b>			X
Comment: The site is accessible along the minor roads and the plateau is crossed by a public footpath.			
<b>Safety:</b>			X
Comment: The site is mainly on agricultural land.			
<b>Conservation status:</b> There are no other known designations on this site.			

<b>OWNERSHIP/PLANNING CONTROL:</b> <b>Owner/tenant:</b> Unknown/ various <b>Planning Authority:</b> Carmarthenshire County Council <b>Planning status/constraints/opportunities:</b> There are no known planning constraints or opportunities
---

<b>CONDITION, USE &amp; MANAGEMENT:</b> <b>Present use:</b> Mainly agricultural arable land and rough grazing. <b>Site condition:</b> The site is predominantly divided into fields and is generally good. <b>Potential threats:</b> Enlargement of area for transmission towers. <b>Site Management:</b> Maintain current management practices.
--

<b>SITE DEVELOPMENT:</b> <b>Potential use (general):</b> This site is of some interest to the general public, but it probably does not warrant any on-site interpretation initiative. Its importance lies in its possible origin with its significance of ice movement dynamics in this area. It is of particular interest to Quaternary scientists and geomorphologists at the national level. <b>Potential use (educational):</b> An accessible site that may provide options for interpretation allied to other sites in the area.
---

<b>Other comments:</b>
------------------------

## Photographic Record



The trig point and plateau top of Mynydd Sylen. Erratics are not easily visible in the areas of rough grazing (as here) or in the farmed fields but are present.