

Site Name: Vyrnwy Dam

Grid Reference: SJ 021191

RIGS Category: Scientific

Earth Science Category: Structural and Ordovician (Caradoc) Igneous and Stratigraphy

Geology 1:50,000: Sheet 136 Bala

RIGS Statement of Interest:

The RIGS is a cutting along the B 4393, about 500 m in length and extending southeast from the northeast end of the dam on Lake Vyrnwy. The rocks comprise part of the Swch Gorge Tuff, a product of mid to late Ordovician violent volcanic activity, overlain by marine sedimentary deposits. The volcanic ash, erupted from an island volcano, was reworked in part by the sea and re-deposited as a volcanogenic sandstone known as tuffite. The igneous rocks closely resemble those of Snowdonia to the NW, are of similar age and products of the same plate-tectonic processes. They provide important information about the extension of the Snowdonia province into more southerly parts of Wales.

A particularly important feature of this RIGS is that the cutting provides an unusually well-exposed and short transect through the hinge of the southwest part of the Berwyn Anticline. This major NE-trending Caledonian fold dominates the geological structure of northern Powys and southwest Denbighshire.

Surveyed by: W.R. Fitches