

Site Name: Nantycreiau Mine

Grid Ref: SN 790803

RIGS Category: Scientific

Earth Science Category: Mineralogy

1:50,000 Geological: BGS Sheet 163, Aberystwyth

RIGS Statement of Interest:

This remote site is of regional geological importance because it is one of the finest localities in the Central Wales Orefield for the study of the later primary mineralisation of the area. The Nant y Creuau Lode strikes in an ENE direction and cuts a sequence of grey mudstones, siltstones and sandstones belonging to the Lower Silurian (Llandovery Series) Devil's Bridge Formation. The lode is exposed at the top of the site, but the chief interest lies in the minerals present in the tips.

The primary mineralization consists of two distinct assemblages. Abundant sphalerite, galena and quartz provided most of the ore at the mine but are overgrown by common calcite with included bands of sphalerite, which in turn are directly overgrown by pyrite, marcasite and quartz. The site thus offers scope for further interpretation of the sequence of events within the later period of mineralisation (described in full below).

Although not selected as a RIGS for its secondary mineralization, the secondary mineral assemblage at Nant y Creuau Mine consists of several phases. Abundant hydrozincite coats rock fragments and was formed in situ within the dumps whilst massive goethite replaces sphalerite where the lode crops out at surface. Hemimorphite forms porous "dry-bone" masses, and rare cerussite occurs as acicular crystals.

Surveyed by: J.S. Mason