

Site Name: Llawrcwmbach Mine

Grid Reference: SN 707854

RIGS Category: Scientific

Earth Science Category: Mineralogy

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

RIGS Statement of Interest:

Llawrcwmbach Mine is of regional geological importance because in situ exposures and material on the spoil tips display the relationship between pre-tectonic veins (i.e. those which preceded the Caledonian earth movements in late Silurian - early Devonian times) and the later, post-tectonic veins of the metalliferous suite. The mine is located on the Camdwr Lode, a major ENE-trending anastomosing fault system with a wide composite structure. At this locality, the lode downthrows the Devil's Bridge and Derwenlas formations against the dark pyritic mudstones of the Cwmere Formation, all of Lower Silurian (Llandovery Series) age.

The pre-tectonic veins are irregular, massive flat-lying bodies that consist of milky quartz with chlorite and locally abundant cubic pyrite. They are seen to be cut by strings of galena both at outcrop and, more commonly, in material on the spoil tips, thereby providing a clear age relationship. The metalliferous mineralisation belongs to the early phase of the development of the Central Wales Orefield, and comprises major galena enclosing minor chalcopyrite, bournonite and ullmannite with quartz. Spoil in areas away from the mine shaft dump should be treated with caution as ore was imported to Llawrcwmbach for processing from other mines in the area, and lumps of this foreign material are distributed around the mill site.

Surveyed by: J.S. Mason