

Site Name: Geufron Mine

Grid Reference: SN 884 856

RIGS Category: Scientific

Earth Science Category: Mineralogy

Geology 1:50,000: BGS Sheet 164, Llanidloes

RIGS Statement of Interest:

Geufron Mine has long been known to mineral collectors, being given prominence in the 1977 publication "The Mines & Minerals of Mid-Wales". The interest to mineral collectors lies in the abundance of secondary copper minerals on the tips. A chalcopyrite-rich vein, thought to belong to the Van Lode, has been deeply oxidised with the development of unusually massive malachite and cuprite. Minor minerals include native copper, wulfenite, anglesite, cerussite and connellite. The association of wulfenite with malachite is unique in Central Wales. Further interest is provided by the occurrence, in the main tip, of post-mining secondary mineralisation, formed by percolation of copper-rich waters from the flooded adit, through the shaly dump material. This has resulted in the shaly debris being cemented together, chiefly by malachite but also by brochantite and linarite. This is a classic and highly educational example of intense post-mining supergene mineral deposition.

The abundance of chalcopyrite here, in a lode hosted by dark mudstones of the Cwmere Formation, gave weight to the supposition, now disproved, that significant copper mineralisation in Central Wales is restricted to this formation (e.g., Jones, 1922). It is not. Significant copper mineralisation is in fact limited in its occurrence to just two of the twelve regional mineral assemblages identified across the Central Wales Orefield. Where fractures have dilated at the right time, one or both of these assemblages have been deposited, as at Geufron.

Surveyed by: J.S. Mason