

Gold and Antimony deposits in the Hercynian belt of Central Brittany (France)

It is well known that Central Brittany is rich in potential ore resources, especially gold and antimony. The last exploitation closed in the early 1930th, but new exploration projects have started in the last months. Ore deposits are concentrated within quartz vein arrays intruding late Precambrian and Paleozoic sediments and emplaced during the Hercynian orogeny.

There are many geological and geophysical data available on the subject, but these have never been properly analysed and no synthesis exists to date. In addition, the geometry, the age, and the emplacement processes of ore-bearing veins remain unknown. It is actually just known that veins are associated with regional-scale upper Carboniferous deformations.

The aim of the thesis will be a synthesis of existing data, a characterisation of the vein arrays in the field, and laboratory analyses of samples (metallogeny, petrology, geochemistry, dating), in order to understand relationships between fluid transfers, ore deposits, and regional tectonics.

Key words: Ore deposits, Fluid transfers, Tectonics, Hercynian belt of Brittany

Financement : BRGM (acquis), Région Bretagne (en cours d'évaluation)

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