

## Synthesis on the metallogeny of Tlemcen Mounts

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The Tlemcenian domain forms the north-western margin of the Algerian highlands. They are characterized by a horst and grabens structure, delimited in the North and South by large faults almost parallel of EW direction. It includes a Paleozoic basement of schists and quartzites, folded and metamorphosed during the Hercynian movements, and then injected by the Viséan granites of the Tairét and Bou Abdous outcropping to the NE of Ghar Roubane. On the unconformity, lies partially Triassic conglomerates and Jurassic limestones and dolomites, the former hosted a vein mineralization of barite (Pb-Zn) and stratabound of Pb-Zn.

Late Hercynian deformation generated NE-SW and NW-SE fractures, most of them form gold-bearing quartz or greisen and tourmaline veins.

The deposits of barite are mainly hosted in the lower Jurassic marine limestones but also in the schist-quartzites and granites of the Paleozoic basement.

Veins are the most common type of infill. In the Beni Snouss the veins are hosted in the basement, partly overlapping the Jurassic of Ghar Roubane. The Pb veins (incidentally Zn) of Ghar Roubane and Beni Abir are hosted in Paleozoic schists. Those of Menchar and Beni Bahdel extend for several kilometers and fill NS to NE-SW fractures. They are hosted in limestone and are dominant barite with incidentally Pb and Zn. The coexistence of barite pebbles at the base of the supposed Triassic (non or poorly cemented conglomerates covering the basement and at the base of the Liassic limestones) makes it possible to assume the emplacement of a post-Hercynian and ante-Triassic barite. In the stratabound mineralization of Deglen and El Abed, the dominant textures are open space filling and disseminations of sphalerite and galena hosted in the Aaleno-Bajocian dolomites. In addition, there is a karstic mineralization at El Abed ore deposit, probably resulting from the reworking of the previous one.

The microthermometric study of fluid inclusions trapped in barite, quartz, calcite, fluorite and sphalerite from the basement and the cover is carried out to identify the number of mineralizing stages which contributed to the deposition of these concentrations and finally to characterize the mineralizing fluids.

In the mounts of Tlemcen, the existence of various concentrations of contents and natures, characterized by distinct parageneses and geochemistry, leads to propose several metallogenic events. These events are related to the geodynamic evolution of the region.

**Keywords:** Tlemcen Mounts, Ghar Roubane, Barite veins, Pb-Zn stratabound, microthermometry.