

Draïssa barite deposit (Ougarta chain, SW of Algeria): geology and geology

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The Draïssa region is the most famous barite extraction area in southwest Algeria and the entire Ougarta chain. The latter forms a large anticline bulge with a central outcrop of the Neoproterozoic basement namely an inlier, topped unconformably by a folded Paleozoic sedimentary cover. In the West, it marks the continuity of the Moroccan Anti-Atlas chain with an ENE-WSW orientation.

The outcrops of the Draïssa anticlinal structure are marked by a volcanic (rhyolite, ignimbrite) and volcano-sedimentary nucleus discordantly covered by Cambrian, Cretaceous, Neogene, and Quaternary sedimentary terrains. Mafic rocks are injected after Neoproterozoic conglomerates. This region is known for its commercial barite veins of up to 4 m thick and 7 km long. The overall direction of these veins is NE-SW and EW with a sub-vertical dip.

It appears that the barite-quartz deposits were formed in two stages. Endogenous fluids deposited the primary vein materials, consisting of quartz associated with copper sulfides. Exogenous fluids (cold seawater) became heated during ascendant fluid movement. Mineralization was governed by convective motions and the barite and galena fillings were deposited in openings created by normal faulting.

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