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The Relationship between the Epithermal Mineralization, Thermalism, and Basement Faults in the Region of Guelma: NE of Algeria

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Abstract : The Guelma region constitutes a vast geothermal field whose local geothermal gradient is very high. Indeed, various thermal and thermo sources emerging in the region, including some at relatively high temperatures. In the mio Pliocene Hammam N'bails, basin emerges a hot spring that leaves develop a thick series of thermal travertine linked to it. Near the thermal emergences has settled a very special mineralization antimony and zinc and lead. The results of analyses of the thermal waters of the source of Hammam N'bails and the associated travertine, show abnormal values in Pb, Sb, Zn, As, and other metals, demonstrating the genetic link between those waters and mineralization. Hammam N'bails mineralizations by their mineral assembling represented and their association with the hot springs, are very similar to epithermal deposits with precious metals (gold and silver) like Senator mine in Turkey or 'Carlin-type' in Nevada (USA).

Keywords : hot springs, mineralization; basement faults, Guelma, NE Algeria
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