

## Fluid Inclusions Analysis of Fluorite from the Hammam Jedidi District, North-Eastern Tunisia

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**Abstract :** Hydrothermal vein-type deposits of the Hammam Jedidi F-Ba(Pb-Zn-Cu) are hosted in Lower Jurassic, Cretaceous and Tertiary series, and located near a very important structural lineament (NE-SW) corresponding to the Hammam Jedidi Fault in the Tunisian Dorsale. The circulation of the ore forming fluid is triggered by a regional tectonic compressive phase which occurred during the Miocene time. Mineralization occurs as stratabound and vein-type orebodies adjacent to the Triassic salt diapirs and within fault in Jurassic limestone. Fluid inclusions data show that two distinct fluids were involved in the mineralisation deposition: a warmer saline fluid (180°C, 20 wt % NaCl equivalent) and cooler less saline fluid (126°C, 5wt%NaCl equivalent). The contrasting salinities and halogen ratios suggest that this two fluid derived from one of the brine originated after the dissolution of halite as suggested by its high salinity. The other end member, as indicated by the low Cl/Br ratios, acquired its low salinity by dilution of Br enriched evaporated seawater. These results are compatible with Mississippi-Valley- type mineralization.

**Keywords :** Jebel Oust, fluid inclusions, North Eastern Tunisia, mineralization

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