

THE DISSEMINATION OF GOLD IN THE BENTONITES OF THE UKRAINIAN CARPATHIANS

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The geochemical anomalies of gold connected with bentonites were studied in Transcarpathian region. Two of them are characterized by the gold content ranging from 0.3 ppm to 1.0 ppm. They are located among the Vyshkovo ore field Au-Hg deposits connected with Pliocene andesite formation (Kyshta occurrence) and within the Smerekhov Kamin volcanic structure (Ilnitske occurrence). In the both occurrences, bentonites replace tuffs and have an alkaline formulation in one case (Kyshta) and an alkaline-earth one in the other (Ilnitske). Bentonites enter into the Dorobratov suite composition together with clay strata with sandstone interlayer and overlay the andesite-basalt rocks. Platinum group elements have not been found. The bentonites of Ilnitske occurrence are characterized by uranium and thorium increasing contents (0.004% and 0.023% respectively) that have a high positive factor of correlation. Gold in both occurrences is invisible. As we suggest, the bentonites were formed as a result of hydrothermal and metasomatic solutions influence on tuff strata along fault zones. Taking into account that the increase of gold contents have occurred only in bentonites (not in the unreplaced tuffs), we can consider bentonites in this region as the search gold indication.