

Historie dolování, ložisková geologie a mineralogie některých lokalit v novoknínské zlatonosné oblasti (střední Čechy)

Mining history, economic geology and mineralogy of some localities in the Nový Knín gold-bearing area (central Bohemia, Czech Republic)

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Abstract

The Nový Knín area represents besides the Jílové gold-bearing district the second very significant gold-bearing region in the central Bohemia (Czech Republic). This paper summarizes hitherto knowledge about mining history, economic geology and mineralogy of some localities in the Nový Knín gold-bearing area and presents the results of a new mineralogical research. Gold mineralization in the Nový Knín, Kozí Hory and Libčice gold-bearing districts is represented by the veins or stockworks in sedimentary and volcanosedimentary Neoproterozoic rocks of the Barrandian block (bohemicum). The primary gold-bearing occurrences are often accompanied by alluvial and deluvial gold-bearing placers with visible gold.

In this ore area, the following types of mineralization occurs: *classic quartz-base-metals* (arsenopyrite, Fe-rich sphalerite, galena, chalcopyrite, pyrite), *quartz-Au-Ag-base-metals* (arsenopyrite, Fe-rich sphalerite, löllingite, galena, chalcopyrite, Fe and Sb dominant freibergite, hessite, acanthite, miargyrite, Au-Ag phases - gold (fineness 0.340 - 0.515) to Au-rich silver and accessory sulphosalts (Pb-Cu-Bi,Sb-S and Pb-Ag-Sb-S), *quartz-gold-bearing* (arsenopyrite, pyrite, pyrrhotite, chalcopyrite, locally molybdenite, gold (fineness >0.860), Bi-Te±S phases - tsumoite, pilsenite, sulphotsumoite, joséite B, tetradymite) and *antimony mineralization* (gudmundite, berthierite in quartz or calcite veins or disseminated in rocks). The dominant primary quartz-gold-bearing mineralization were formed in course Variscan hydrothermal, locally in conditions contact metamorphism processes (the Libčice gold deposit).

Key words: *mining history, geology, mineralogy, paragenesis, gold, tellurides, sulphotellurides, freibergite, base-metal sulphides, chemical composition, the Nový Knín gold-bearing area, central Bohemia*