Ag-Sb-Pb MINERALIZATION OF THE VEIN H14F3, SHAFT 21, PŘÍBRAM URANUM AND BASE-METAL ORE DISTRICT (CZECH REPUBLIC)

ŠKÁCH, P.1,2*, SEJKORA, J.3, KNÍŽEK, F.4, SLEPÍČKA, V.5, LITOCHLEB, J.3 & JEBÁVÁ, I.3
1 Mining Museum Příbram, Hynka Klíčky Place 293, CZ-261 01 Příbram VI - Březové Hory, Czech Republic
2 Institute of Geochemistry, Mineralogy and Mineral Resources, Charles University, Faculty of Science, Albertov 6, CZ-128 43 Prague 2, Czech Republic
3 Department of Mineralogy and Petrology, National Museum, Cirkusová 1740, CZ-193 00 Prague 9, Czech Republic
4 CZ-261 02 Příbram VII/127, Czech Republic
5 CZ-261 02 Příbram VII/405, Czech Republic
* E-mail: skacha-p@muzeum-pribram.cz

There are two significant ore districts in the Příbram ore region (Czech Republic, Central Bohemia) – the Březové Hory base-metal ore district and the Příbram uranium and base-metal ore district. Ore veins of the Příbram uranium and base-metal district are mostly concentrated in exocontact of the Central Bohemian Plutonic Complex in the Neoproterozoic and Cambrian volcanosedimentary formations. Příbram ore area is the most important Ag-Pb-Zn-Sb-U deposit in Czech Republic, and one of the most important hydrothermal vein deposits of this type on the world. In Příbram area was mined about 3450 tons of Ag, 42 000 tons of Pb and about 48 000 tons of U (AUTHORS COLLECTIVE, 2003). Shaft 21 is located in the central part of the Příbram uranium and base-metal ore district in the “ore node” called Háje (after Háje village). The ore vein H14F3 (mined from the shaft 21) is known because of the occurrence of the interesting silver – antimony mineralization, especially rich dyscrasite accumulations (KNÍŽEK et al., 1990).

By the revision of the specimens from this vein, interesting association of Ag-Sb-Pb minerals, Hg-silver and pyrrhotite were found in deeper parts of the vein (8th level of the shaft, ~400 m). Both minerals are common as pseudomorphosis after dyscrasite; the Sb-rich arsenic was usually hydrothermally leached in this place. The most common ore mineral near the 7th level of the shaft (~350 m) is Sb-rich arsenic, which forms at least two generations, at some places also common sphalerite, galena and löttingite occur. Dyscrasite forms there large morphological scale of varieties from thin needles, thin plates to thick columnar crystals covered by younger Sb-ar senic. The younger type of dyscrasite is similar to the well known dyscrasite occurrence on the vein H14F (6th level, shaft 21) in the same area (KOLESÁR, 1990). The main difference is in the chemistry of the late hydrothermal solutions and in the variability of mineral phases. Whereas on the H14F ore vein, the only known mineral phases originated from the hydrothermal alteration of dyscrasite are Hg-silver and allargentum, on the H14F ore vein was found interesting association comprised of Hg-silver, allargentum, miargyrite, andorite, semseyite and freieslebenite.

This described occurrence of Ag-Sb-Pb mineralization is similar to the well-known dyscrasite occurrence on the vein H14F (6th level, shaft 21) in the same area (KOLESÁR, 1990). The main difference is in the chemistry of the late hydrothermal solutions and in the variability of mineral phases. Whereas on the H14F ore vein, the only known mineral phases originated from the hydrothermal alteration of dyscrasite are Hg-silver and allargentum, on the H14F ore vein was found interesting association comprised of Hg-silver, allargentum, miargyrite, andorite, semseyite and freieslebenite.

References