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The silver-tin ore formation types field central of Tajikistan

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In Tajikistan, including the actual silver deposits, allocated silver-polymetallic, silver-antimony, silver-tin and silver-gold ore-formation types. The deposits are characterized by different ore-formation types certain laws related to the geological and structural features of objects, mineral composition, physical and chemical conditions of education, staging of mineral and other factors.

By the silver-tin ore-formation type includes field Taror, Kaznok-Mushiston and Peti-Takfon ore fields (Central Tajikistan), which are part of the Zerafshan-Gissar structural-formational zone. The geological structure of deposits participate clastic and carbonate sediments of the Paleozoic (from the Ordovician to Lower Carboniferous).

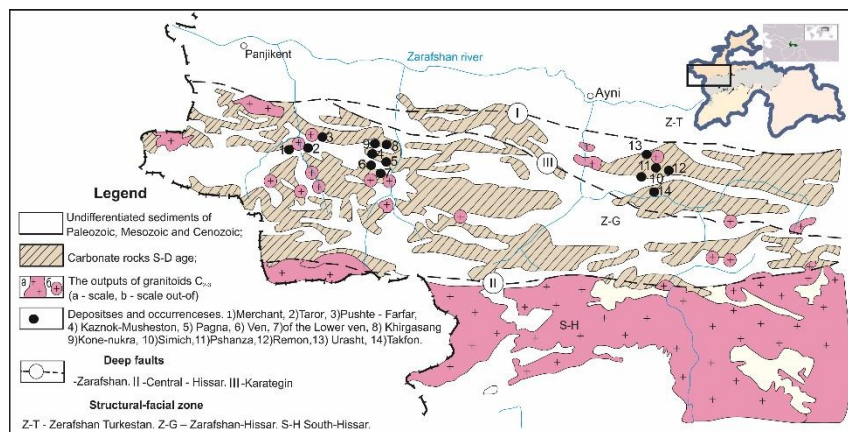


Figure.1: Layout of studied deposits in the western part of the main structure of the Central Tajikistan.

A distinctive feature of silver-tin deposits ore-formation type is present in the ore bodies, along with silver minerals, minerals of tin - stannite, varlamovite, gidrostannat, mushistonite, natanite and vismirnovite. In addition, there cassiterite ore and scheelite. Among sulfide arsenopyrite, pyrrhotite, marcasite, chalcopyrite and pyrite are more prevalent than galena and sphalerite. The ores and minerals are bismuth - bismuthine and native bismuth and native gold. The main minerals are silver - pyrargyrite, andorrite, freybergite, freyeslebenite, polibazit and native silver. Of the more rare minerals established strommeyerite, acantite, sternbergite, matildite, cerargyrite, proustite, miargyrite, ramdorite, gustavite naumannite, bogdanovichite. Silver is also associated with washed-out ore, galena, and others minerals.

Another characteristic of this type is the high temperature of formation of minerals. In mineral deposits of this type occurs in two stages: early and late pneumatolytic skarn-hydrothermal. In the later stages of the process of mineralization took place in 3-4 stages. Education minerals late stage there is a wide temperature range 550-1500C. Mineralizing solutions were chloride-bicarbonate-sulfate character.

Because the cations in order of increasing concentrations mounted potassium, sodium, magnesium and calcium.

In many ways, the silver-tin mineralization in the Central Tajikistan comparable to similar deposits elsewhere in the world, such as Potosí, Porco, Oruro (Bolivia), Pachuca (Mexico), the North-East of Russia, etc.

