

Mineralogical and genetic features of a gold disseminated ore deposit Oleninscoe of a Archean Kolmozero-Voroninsky greenstone belt, (Baltic Shield, Russia).

VOLKOV A.V., NOVICOV I.A. Institute of Ore Deposits, Petrography, Mineralogy and Geochemistry (IGEM), Russian Academy of Sciences, Moscow, Russia.

In a Central part of a Kola peninsula between of Murmansk and central-kola blocks, place a Kolmozero-Voroninsky Archean greenstone belt (stretch more than 150 kms from west on east and average width of 8 kms). In the belt three gold deposits Oleninscoe, Nialm 1 and 2, more than 300 gold manifestations and 60 secondary haloes of dispersion of gold, common square $23,6 \text{ kms}^2$ was reveal. Besides the gold is the important component in ores of a unique Mo-Cu deposit Pellapahk. The deposit Oleninscoe is located on east flank of a Pellapahk ore field. A ore zone was trace on stretch on 1,5 kms. The gold – sulphide disseminated ore of a deposit is localised in amphibolite. The amount of the sulphide disseminated ore reaches in ores 25-30%. In composition of ore body are selected: pyrrhotite-chalcopyrite, gold - arsenopyrite and gold - silver mineral types. Main gold the second mineral type is. In result of the microzonde analyses is detected increased of the gold disseminated sylphides, which makes on the average for arsenopyrite - 340 ppm, and for pyrite - 170 ppm. Metasomatal arsenopyrite in the disseminated gold ore meet in close accretions large transparent crystals of a diopside (size up to 5 mm), in which the numerous gas-fluids inclusions were detected. The morphology of inclusions varies according to zones of growth of crystals from prismatic in central parts up to isomeric on periphery. The change of morphology of inclusions is connected to sequential lowering of growth rate of crystals. The gas phase makes 30-32%. The kriometric data are specified rather low concentration mother fluid with 0,3-0,6 % NaCl and on presence at solutions of Na salts HCO_3 and SiO_2 . The temperatures of homogenisation are in an interval $345\text{-}350^\circ \text{C}$.