STATISTICAL ESTIMATION OF THE CONFORMITY OF ORE BIOGEOCHEMICAL ANOMALIES AND VEINED SILVERORE BODIES

KOVALEVSKII A.L. Geological Institute, Siberian Branch of the Russian Academy of Sciences, Ulan-Ude, 670047, Russia.

Results of complex lithobiogeochemical researches (1984-1999) in the Gil'bera zone of a deep fault in Transbaikalia (East Siberia) have allowed to establish high (92 %) reliability of revealing veined silverore bodies with concentrations of Ag from 20 up to 6200 ppm on a local background 0,04 ppm under supposed ore biogeochemical anomalies of Ag 1-8 m wide with concentration of Ag in ash of the main non-barrier bioobject – the wood of pine (*Pinus silvestris*) rotten stumps from 70 up to 3000 ppm on a background 0,7 ppm. 24 silver ore bodies were found under 26 biogeochemical anomalies of Ag in the ditches. The statistical parameters of the investigated biogeochemical field of Ag with unique concentration in 6 plant samples from 1000 up to 3000 ppm in ash of the old pine stumps wood are characterized in the following parameters: 1) On the best investigated area of about 3 sq. km 180 supposed ore biogeochemical anomalies of Ag were revealed. 150 of them form 6 contoured thickenings with 51, 35, 23, 17, 12 and 9 anomalies of Ag in scale 1:5000-1:1000. 2) On the area of about 5 sq. km 230 anomalies of Ag, forming 11 thickenings were revealed. 5 of them have not contoured yet. 3) These 11 thickenings are situated within two biogeochemical anomalies among 36 biogeochemical ones Ag in the pine revealed by the "Buryatgeologiya" in scale 1:50 000 on the area of 300 sq. km. 4) In this area, it is possible to predict from 920 up to 1200 ore biogeochemical anomalies of Ag in nonbarrier, quantitatively-informative bioobjects of plants. It corresponds approximately to a quantity of veined silverore bodies in the Nerchinsk-Zavodskoy silverore region, being the main supply of Ag in Russia for approximately 200 years in 18-19-s centuries.