

## **MINERALOGY AND GEOCHEMISTRY OF NOBLE METALS IN ORES AND BED-ROCKS OF KOSTOMUKSHA FERRUGINOUS QUARTZITES DEPOSIT (KARELIA)**

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Bed-rocks of Kostomuksha iron ore deposit contain increased gold concentration (up to 30 g/t). Results of the study of bed-rocks from east parts of South open-pit are present. Mineral forms of gold from these rocks were studied and minerals of PGE were discovered for the first time. Observing the mineral intergrowths has shown existence of two main associations of noble metals. Early associations are connect with metamorphism of mafic rocks and contains platinum group metals mineralization (sperrylite, moncheite, merenskyite) and temperature of there formation was 500-550°C. Late association has pronounced gold specific, connect with gold-tellur-bismuth paragenesis (native gold and bismuth, tsumoite, hedleyite, matildite, aurostibite) and there formation began of 380-260°C and finished to 110-120°C.