Geophysical Research Abstracts
Vol. 16, EGU2014-203, 2014
EGU General Assembly 2014

Creation of unification RS and geophysical data in Central Kyzylkum-Western Uzbekistan

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In the report describes the state of the art of remote sensing and geophysical studies- seismic, magnetic data on the covered Mz-Kz deposits area of Central Kyzylkum. The complex data interpretation includes three steps: (i) creation geophysical data base in ArcGIS 10.1 software; (ii) processing RS data and Erdas Imagine 9.2 software (indication method, PCA analysis and etc.); (iii) integration geophysical and RS data in to ArcGIS&RS model. Materials of seismic and magnetic studies were used for the identification of anomalous objects and their heterogeneities in deep horizons of the consolidated crust as the basis for further correlation with RS data observed on the Earth's surface. As results of collaboration between GIS and RS data analysis the new prospect areas were extracted from the study areas. Were revealed the geological structures in 3-D model, associated with mineralization, lineaments and ring structures. The complex analysis of model allowed proposing new potential ore areas for statement of prospecting work. As example, we present results of correlation between Tamdy ring structure and high velocity object on the deep 4 km, which in the which also link with large gold deposit Muruntau in Central Kyzylkum.