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STRUCTURAL AND DECODING COMPLEXES AND SIGNS OF THEIR IDENTIFICATION IN THE MALGUZAR AREA (MALGUZAR MOUNTAINS)

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ANNOTATION
During the work, it was found that the main role in the distribution of mineralization belongs to structures of II-III and higher orders relative to the deep fault. The identified potentially promising zones were identified based on the results of integration, available information on the ratios of the KS channels, as well as the spectral signature of minerals and rocks.
KEYWORDS: *interpretation, remote sensing, ring structures, structurally decoded complexes, intrusive complexes, criteria, prospective areas, tectonics, interpretation, digital processing, color anomalies.*

DISCUSSION

Regional gold-ore zones of the Nurata region with industrial gold mineralization (the Charmitan, Guzhumsay, Marjanbulak deposits) continue in the ore-bearing structures of the Malguzar mountains, where no gold ore objects that are profitable for mining have yet been identified.

The systematization and generalization of materials on the gold content of the Malguzar mountains makes it possible to recommend the continuation of prospecting works aimed at revealing hidden gold ore objects. The highest probability of discovering industrial gold mineralization is associated with regional ore-bearing structures, first of all, with the Kattasay mineralized zone. The Kattasay mineralized zone is an extended ore-controlling structure of the type of crumple zones, continuing in the Marjanbulak elevation.

The Malguzar mountains are located at the north-western end of the Turkestan ridge (South Tien Shan), north-north-western orientation, 120 km long and 30-45 km wide. From the Chumkurtau ridge, located to the south, they are separated by a narrow river valley Sanzar [1, 2].

The concept of a structural-deciphering complex defines a set of certain types of rocks, characterized by homogeneous bedding conditions, the degree of metamorphism, the appearance of the photographic image, which on a given scale of a satellite image remain constant for an area or a separate large part of it.

When decoding, direct and indirect (landscape-indication) signs were used. Direct deciphering signs of faults are identical in space survey materials of all types and scales, and in exposed areas they are manifested both in particular signs of a fault, and in their combination. Faults and structural-deciphering complexes (SDC) are clearly deciphered in a situation when rocks of different types in composition, structure, color, genesis of rocks and SDC

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are brought into contact along the fault, or there is a sharp change in the picture of the photographic image of contacting objects, and in layered rocks the sign of a fault is a packs. Landscape indication signs serve as indicators of faults within the areas of development of the Mesozoic-Cenozoic SDC.

Generalized structural-material complexes are distinguished according to the materials of interpretation. The name and age of the complex was given on the basis of comparison with a geological map at a scale of 1:50,000, according to its predominant component part. As a matter of fact, the combined structural-material complexes identified in the legend of the distance basis, distinguished due to the properties of Cosmo photographs (generalization, generalization), represent tectonically crowded geological bodies of various volumes. This is the difficulty in mapping SDC within the area. According to the development of structural-material complexes within its limits, the leaf area is divided into blocks, in each of which specific complexes are identified according to the prevailing area of distribution of rocks of a certain composition and age.

Among the rocks of the Paleozoic age, structural-material complexes of the carbonate composition of the Upper Silurian and Devonian, volcanoterrigenous, metamorphosed and carbonate-terrigenous complexes of the Carboniferous were distinguished. The rocks of the Paleozoic age, as already noted, are overlain (especially in the grabens and in the south-west of the sheet) by sediments of the Mesozoic-Cenozoic structural-material complex, represented by continental, carbonate-terrigenous deposits of the Jurassic, Upper Cretaceous, Paleogene.

Eolo-proluvial SDC. Q III-IV is developed along river valleys and their large tributaries, forms channels (white phototone), the first and second terraces above the floodplain. The dark phototone in the panchromatic images emphasizes the water content of the SDC, and the green one in the composite images - the development of vegetation. Sandy-clayey SDC. (N-QII). It is composed of lagoon deposits of the Miocene and continental molasses of the Pliocene. Widely developed within the southwestern part of the territory.

Volcanic-carbonate complex of tectonic clustering of plates composed of S_2ld, S1w, C_1t rocks. Combined. Developed along the Zarafshan ridge, in the northeastern part of the leaf, up to the meridian.

From the analysis of distance bases on a scale of 1:100,000, 1:50,000, it follows that the area is dissected by disturbances in the continuity of rocks - faults of various strikes and zones of regional fracturing, which are the consequences of different dynamic conditions, repeatedly changing during the geological history of the area. Tectonic structures are deciphered into space images by direct and indirect deciphering signs. The most widely manifested on the map is the distance basis of the faults of latitudinal, meridional, northeastern, and northwestern strikes.

As a result, the final processing of the identified territories is carried out in software using the processing of vector information such as ArcGIS, where, using the functions of statistical processing, the final generalization of polygonal objects (selected territories) takes place. In addition, structural elements and faults were found that did not appear on the original RS.

Thus, in the course of the work, it was established that the main role in the distribution of mineralization belongs to structures of II-III and higher orders relative to the deep fault. The identified potentially promising zones were identified based on the results of integration, available information on the ratios of the RS channels, as well as the spectral signature of minerals and rocks. In addition, as a result of the research, two potentially promising areas were identified, which are recommended for further conducting more detailed geological prospecting works.

LITERATURE

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