

技术应用

新疆境内穆龙套型金矿的找矿方向

张瑞江

中国国土资源航空物探遥感中心, 北京 100083

摘要:

穆龙套型金矿找矿区位于南天山构造带西段东阿赖褶皱带费尔干纳断裂西侧的乌恰县吉根乡一带。该区为萨瓦亚尔顿金矿的南延部分, 出露的地层为泥盆系灰黑色浊积岩系, 碎屑岩系中普遍含炭质, 岩石硅化较强。通过新疆与西侧毗邻国家成矿环境遥感影像的对比解译, 认为境外已知矿床的成矿带经过天山, 可以延伸进入我国新疆境内, 并根据境外已知典型矿床穆龙套金矿和境内萨瓦亚尔顿金矿的矿床地质特征对比, 认为二矿床具有相似性, 可以进行类比找矿。根据解译结果, 确立了4个找矿预测区, 在其中的一找矿预测区内发现了5条金、铜矿体, 金最高品位达27.62 g/T, 铜最高含量达15.85%, 并总结出了新疆境内穆龙套型金矿的找矿标志和在深部进一步找矿的方向。

关键词: 金矿床 穆龙套型 找矿方向

THE PROSPECTING OBJECTIVES FOR MURUNTAU TYPE GOLD DEPOSITS IN XINJIANG

ZHANG Rui-Jiang

China Aero Geophysical Survey and Remote Sensing Center for Land and Resources, Beijing 100083, China

Abstract:

The identified prospecting region of Muruntau type gold deposits is located in Jigen District, Wujia County, Xinjiang, lying in the South Tianshan Mountains tectonic belt which is the southern extension of the Sawaya'erdun gold deposit. Its outcropping rock is Devonian grayish black charcoal-bearing turbidite. Based on a comparative interpretation of remote sensing images for metallogenic environments of Xinjiang and its west neighboring countries, it is considered that the known metallogenic belts in Xinjiang stretch along the Tianshan Mountains. A comparison of the geological features between the Muruntau gold deposit and the Sawaya'erdun gold deposit shows that the two deposits are quite similar to each other, and hence the prospecting work can be done in similar ways. According to the results of interpretation of the remote sensing image, four prognostic areas were identified in Jigen District, and five gold and copper ore bodies were discovered in one of these areas. The maximum gold content reaches 27.62 g/T, and the maximum copper content reaches 15.85%. This paper also summarizes the prospecting criteria for Muruntau type gold deposits in Xinjiang, and the method for prospecting work at depths.

Keywords: Gold deposit Muruntau type prospecting objective

收稿日期 2007-08-20 修回日期 网络版发布日期

DOI:

基金项目:

新疆周边地区境内外遥感对比解译与成矿预测(中勘院勘任[1998]25号)。

通讯作者: 张瑞江(1966-), 男, 高级工程师, 主要从事遥感地质研究。

作者简介:

作者Email:

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