A Big Earth Data Platform for Three Poles

**Geophysical logging data of 3km borehole in Jiama (2021)**

1、Description

Carry out geophysical logging for scientific research deep drilling jmkz-1 in Jiama mining area, find out the physical properties of the main geological bodies in the mining area, divide the lithologic interface according to the logging curve, determine the depth and thickness of the ore (chemical) body, and interpret the distribution characteristics of the strata, rock bodies, ore (chemical) bodies and structures closely related to mineralization in depth in combination with the ground geophysical exploration data. The variation law of formation temperature in the whole hole section is statistically analyzed by using well temperature logging data.Geophysical logging is carried out below 1080m without casing in scientific research deep drilling jmkz-1. The logging parameters include three lateral resistivity, polarizability, magnetic susceptibility, natural gamma, natural potential and well temperature. Through the combination of various parameters, the physical properties of the main geological bodies in the mining area are basically found out, the depth and thickness of the ore (chemical) body are determined, and the variation law of formation temperature in the whole hole section is statistically analyzed by using well temperature logging data. From the whole hole section, the lithology changes from bottom to top from granite porphyry skarn silicified breccia, and the ore bearing property changes from local weak mineralization of granite porphyry in the lower part to giant thick skarn type ore body to local breccia type ore body in the upper part. This change characteristic reflects that in the process of emplacement of ore bearing porphyry from deep to upward, porphyry ore body or mineralized body is formed in deep porphyry mineralization, and skarn type extremely thick rich ore body is formed on the contact surface with hornrock. In the process of emplacement, squeezing rock stratum leads to fracture development in hornrock, and ore bearing hydrothermal fluid moves along the fracture to form local hornrock type ore body in hornrock.

2、Keywords

Theme：Others,Jiama,geophysical logging,3km depth  
Discipline：Others,Solid earth  
Places：Jiama， Tibet  
Time：2021

3、Data details

1.Scale：None

2.Projection：

3.Filesize：9.5MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：29.6 | - |
| west：92.2 | - | east：92.2 |
| - | south：29.6 | - |

5、Time frame:None--None

6、Reference method

References to data:

HE Rizheng . Geophysical logging data of 3km borehole in Jiama (2021). A Big Earth Data Platform for Three Poles, doi:10.11888/SolidEar.tpdc.2720662022

References to articles:

Yu, P.L., Qu, T., He, R.Z., Liu, J.L., Wang, S.F., & Chen, X.L. (2021). Application of tensor  
CSAMT with high-power orthogonal signal sources in Jiama porphyry copper deposit in Tibet, China Geology, 4, 1-13. DOI:10.31035/cg2021065.

7、Supporting project information

Deep Probe of Geophysical Techniques for typical ore concentration area

8、Data resource provider

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