

Characterization and Distribution of fractures in Granite, Ningyo-Toge, Okayama Pref., Japan

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Ground-water flow in granitic rock is controlled by characterization and distribution of fractures and fault, have been analyzed using the distribution of fracture zone and the mean value of hydraulic conductivity. Modelling ground-water flow tend to be uncertainty by heterogeneous structures such as well-developed fractures and fault. Understanding heterogeneity and decreasing uncertainty is key to identify the ground-water flow.

We detected 2 sections (juxtaposing high-permeability and low-permeability) through boring research in granite around Ningyo-Toge. Upper high-permeability section is accompanied by distribution of parallel fractures. Fractures in lower low-permeability sections are poorly developed. These suggest that simplified structures are widely distributed around Ningyo-Toge.

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