

Geoscientific Studies in the Mizunami Underground Research Laboratory -hydrogeological characterizations-

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The one of main goals of the Mizunami Underground Research Laboratory Project is to establish comprehensive techniques for investigation, analysis, and assessment of the deep geological environment.

The importance of characterizing the hydraulic properties of faults is well known, however, details from surface and borehole investigations are often limited.

In this study, hydrogeological modeling and groundwater flow analyses have been carried out using an iterative approach in order to synthesize the investigation results, to understand the influence of the uncertainty of hydraulic properties of faults, and to identify areas for further investigation.

This study has shown that knowledge of the hydraulic properties of faults oriented normal to the major groundwater flow direction is essential for characterization of the hydrogeological environment.