

Underground Water Observation with the earthquakes in Wari-ishi Hot Spring, Gifu Prefecture

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The continuation observation of water flow rate was carried out at the Gifu Hida Kamioka, Wari-ishi Hot spring. Water flow from 850m below ground was measured in the 10 minute interval from 1998 to 2004, and at intervals of 1 second from 2004 by using the electromagnetic flux meter. The observation results of underground water are related to the crustal distortion accompanying the earth tide or the occurrence of earthquakes through change of the pore pressure of the aquifer. The purpose of this research is to clarify the relations of water changes and crust distortion. Analysis of discharge water were performed in the following five viewpoints; 1)Observation site and method, 2)Hydro-seismic Oscillation in 1Hz sampling, 3)Earth tide analysis, 4) FFT analysis of discharge water and local strain by using data of broadband observation with Laser Strain Meters in Kamioka Mine.