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Radon and Discharge Water Observations in Wari-ishi Hot Spring, Gifu Prefecture

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The continuation observation of Radon and water flow rate was carried out at the Gifu Hida Kamioka, Wari-ishi hot spring, in Gifu University. The amount of 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 Radon detector and electromagnetic flux meter with the accuracy of 0.25%.

The observation result of water change is related to the crust distortion accompanying the earth tide or the occurrence of an earthquake through change of the pore pressure of a stagnant water layer.

The purpose of this research is to clarify relation of water change, and seismic waves and crust distortion, and to clarify the relation of the occurrence of groundwater and an earthquake from a viewpoint of earthquake prediction. Analysis of water flow was performed in the following four viewpoints, 1) hypocentral distance of the earthquake and magnitude, 2) earth tide, 3) seismic waves, 4) crust distortion at the time of the occurrence of earthquakes.

Keywords: Radon, Hot Spring, Earth Quake Prediction, Discharge Underground Water, Tidal Response