

Upwelling of deep hot groundwater associated with the 1995 Hyogo-ken Nanbu earthquake

Tameshige Tsukuda[1]

[1] ERI, Univ. Tokyo

Evidence of the upwelling of deep hot groundwater at the time of the 1995 Hyogo-ken Nanbu earthquake, was confirmed by a long-term observation of temperature at a flowing well which is located at 40km northeast of the epicenter of the big shock. The report by the owner of the well stating that heated water was flooded over and was cloudy like milk shortly after the quake. After 25 days from the quake, continuous observation of the groundwater started. Data of more than 6 years period shows the decrease of the temperature during the 2-3 years with a time constant of about 1 year and a stationary trend after that period. The heat source may come from deep underground carried by water and stored within the wide domain around the seismic source area.