Natural analogue study on retardation in underground water-mediated nuclides transport: An example in Kanamaru, Japan.

Yoji Seki[1]; Kazuki Naito[2]; Atsushi Kamei[3]; Yoshio Watanabe[4]

[1] Research Center for Deep Geologigal Environments, AIST; [2] AIST, Research Center for Deep Geological Environments; [3] AIST/Geological Survey of Japan; [4] Research Center for Deep Geological Environments, AIST

Concentrations of U, Th and other elements in underground waters were measured in Kanamaru area, Yamagata prefecture, northeast Honshu, Japan as a natural analogue study in underground-mediated radioactive nuclides transport.

Water samples wwere collected from 4 wells of which bottom hole depths are 30 to 50 m. PVC pipe screens were installed for 3 wells (Br1, Br1W and Br2) and multi-level ground water monitoring system (Westbay, MP system) for 1 well (Br3-3). Seasonal change in profiles of major water parameters (T,pH,EC,DO,Eh) andconcentrations of U, Th and other elements are reported.