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HRE031-17

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Data analysis of time-lapse well logging results for the monitoring of stored CO₂ at the Nagaoka pilot site

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Monitoring of the CO₂ in the underground is one of the essential technologies to carry out CO₂ geological sequestration safely. At the first Japanese pilot CO₂ injection site (Nagaoka), well loggings which consist of sonic, neutron, and induction loggings have been continued for more than 6 years. The time-lapse well logging at Nagaoka provides the CO₂ behavior around the observation log. To improve understanding of the trap mechanism of CO₂, rock physics models which relate the physical parameters (modulus etc.) and reservoir parameters (permeability, saturation etc.) would be important. We study the rock physics model at Nagaoka using the well logging data with an estimation of measurement errors.

Keywords: CO₂ geological storage, Well logging, monitoring, Nagaoka