

An Estimation of Q-values of Deep Soil Deposits as revealed by the Crustal Activity Observation Well VSP (Part 2)

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Seismic wave attenuation, Q-value, in deep sediments down to 1~2km in depth are directly and systematically estimated at 12 observation wells in Kanto area. Under an assumption of frequency-independent Q, apparent attenuation factor in some depth range are determined by the spectral ratio method. The Q-values are graphically obtained by using the attenuation factor vs. travel time plot.

Here, one example at Nishinohara(NSHH) well is shown. Q-value for P-wave is about 20, and those for S is 15. Although P and S velocities show a clear boundary at about 0.5km in depth, there seems to be no Q-value change in the same depth range. The Q-values at NSHH are rather small in comparison with the other wells.