

P and S wave velocity structures in the Shimofusa deep well

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A distinct downgoing wave mode which seems to be a shear wave was identified in the horizontal components of VSP data acquired in the Shimofusa deep well,

although the seismic source was a P wave vibrator (vertical vibration).

From the P and S wave velocities estimated from the VSP data, it is realized that the P and S wave velocities have good linear relationship on the cross-plot of them. In addition, the results of the preliminary analysis show that the S wave velocity of the basement rock derived from the VSP data is about 3.0 km/s and it is higher than the velocity estimated from the previous borehole measurement by means of the SH wave generator on the ground surface.

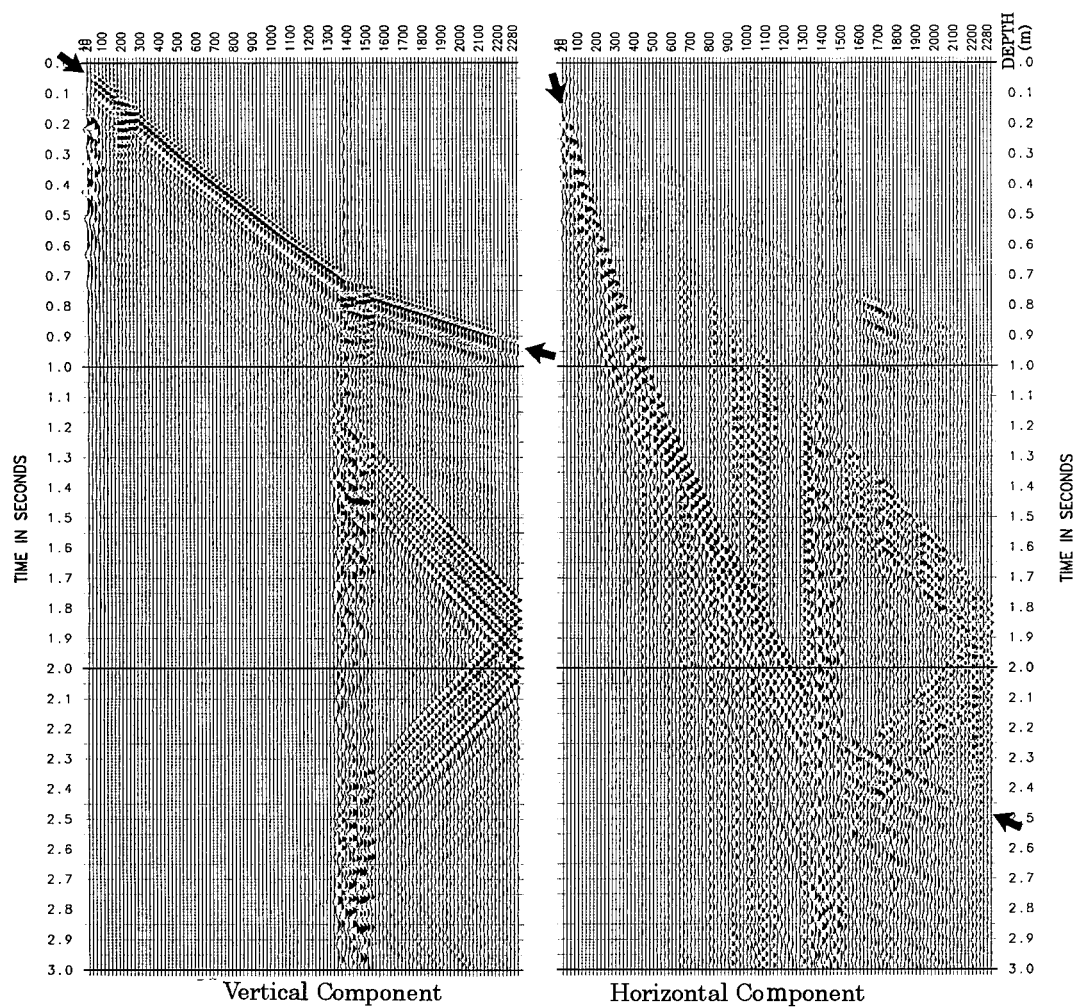


Fig. 1. P and S wave modes in the VSP records obtained with a P wave vibrator.