

## Seismic reflection imaging of the Morimoto fault, Kanazawa, central Japan

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To estimate seismic hazards, understanding the relationship between active fault and seismic source fault is crucial. To estimate seismic hazards, more detailed survey to identify source faults is needed. A research project funded by MEXT named "the integrated research project on seismic and tsunami hazards around the Sea of Japan" began in FY 2013. To obtain the information of a seismogenic source fault, we performed seismic reflection profiling across the Morimoto fault, north eastern boundary fault of the Kanazawa plain. This fault is northern part of the Morimoto-Togashi fault zone, extend for 26-km along the eastern boundary of the Kanazawa plain (Active fault Research Group, 1991; Togo et al., 1998). The length of seismic line is approximately 9 km. We used a medium size vibrator truck (IVI Envirovib). We deployed 10 Hz geophones at 10 m interval covering whole seismic line. The sweep signals (8-100Hz for high resolution reflection profiling, 8-40Hz for refraction profiling) were recorded by fixed 885 channels. The seismic data were processed using conventional CMP-reflection methods and refraction tomography (Zelt & Barton, 1998). Seismic section portrays the image down to 1.5 seconds (TWT). The resultant depth converted seismic section show a simple monocline produced by an east-dipping reverse fault. A vertical separation by this fault is about 700 m. Judging from the horizontal reflectors on the hanging wall, fault geometry shows simple plane with constant dip angle.

Keywords: Morimoto fault, seismic reflection profiling, active fault