

Trench Excavation Study and Drilling Survey on the Eastern Segment of Tokamachi Fault Zone, Central Japan

*Kaoru Taniguchi¹, Takashi AZUMA², Yoshiki Shirahama², Daisuke Hirouchi³, yorihide koriya¹, Masashi Omata¹

1.PASCO CORPORATION, 2.GSJ, AIST, 3.Shinshu Univ.

The eastern segment of Tokamachi fault zone is an active fault with 19 km length, located in the southern part of Niigata prefecture, in central Japan. It extends in NNE-SSW direction along the eastern margin of Tokamachi basin with east-side-up vertical displacement.

The Earthquake Research Committee evaluated that the probability of the earthquake occurrence in the future of this segment was uncertain because of lack of paleoseismological data, although Ota et al. (2010) had reported the timing of the last fault events of this segment as 3,800-3,200 yrs.BP based on results of several trench surveys.

We carried out trench excavation study and drilling surveys at Otajima, Tokamachi city, for estimating activity of the eastern segment of Tokamachi fault zone. The trench was excavated at the foot of a fault scarp with 4 m high on the Holocene fluvial terrace along the Shinano river.

Details of our results will be reported in the presentation.

This project is supported by the Ministry of Education, Culture, Sports, Science and Technology of Japan.

Keywords: active fault, trench excavation study, drilling survey, Tokamachi Basin, Tokamachi fault zone