Japan Geoscience Union Meeting 2014
(28 April - 02 May 2014 at Pacifico YOKOHAMA, Kanagawa, Japan)

SSS34-P11 Room:Poster Time:April 29 18:15-19:30

Geological structure interpreted from two boring cores beside the Tachikawa Fault Zone, Tokyo, NE Japan

SUZUKI, Takehiko[1*]

[1]Tokyo Metropolitan University

In order to clarify the accurate position and activity of the Tachikawa Fault Zone, which possibly cause an earthquake under Tokyo in future, survey on the Quaternary sediments with tephrochronological method is effective. We conducted an all-core boring (TC-12-1) survey at Enoki in Musashi-Murayama City in 2012, where a relative subsidence will be occurred at its activity. By this result, we pointed out the evidence of deformation in altitudes of Middle Pleistocene gravel bed base, and also found a tephra layers estimated its age to be at 1.63 Ma. In this study, an additional all-core boring (TC-13-1) survey in relative uplifting side was carried out. The following are preliminary report of TC-13-1 core survey. Site of all-core boring (TC-13-1) with the length of 90 m is ca. 300 m northwest of Tachikawa Fault Zone of which the altitude is 109.50 m. Sediment with a depth 0 to 28.65 m is composed of coarse gravels with diameters 3 to 10 cm (max. 20 cm). Upper part of this gravel bed is equivalent to the fluvial terrace deposits of Tachikawa 2 Surface, and lower one is most likely to be the gravel bed identified as Middle Pleistocene sediment in the survey of TC-12-1 in 2012. Altitude of the base of this gravel bed (80.85 m) is higher than that of TC-12-1 (71.97 m), suggesting the evidence of fault activity with uplifting of east side. Sediment with a depth 28.65 to 90.00 m is composed of the alternation of silt (mudstone), sands, and gravels, and is correlative to the Kazusa Group of Lower Pleistocene. Five cycles of sedimentation composed of upper consolidated silt to mudstone and lower gravel bed were recognized. Also. shell in mudstone of 67.15-68.00m in depth and tuffaceous mudstone layers were found. We will examine theses sediments in detail. This survey was financially supported by Ministry of Education, Science, Sports, and Culture (Intensive Survey and Observation on the Tachikawa Fault Zone).

Keywords: Tachikawa Fault Zone, Underground geology, Boring core, Musashi-murayama