Litho-stratigraphy on reclaimed land in northern Tokyo bay and liquefaction-fluidization horizon at the 2011 off the Pacific coast of Tohoku Earthquake: from the geological survey by continuous boring cores

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Liquefaction-fluidization phenomena caused widely on reclaimed land along northern Tokyo bay at The 2011 off the Pacific coast of Tohoku Earthquake. Stratigraphy of this site is composed of the middle- upper Pleistocene Shimousa group, the Holocene formation and Man-made formation in ascending over. Shimousa group, under 41.7m depth, consists of mainly very dence sand bed with thin silt bed and tephra beds. Holocene formation, from 41.7m depth to 5.53m depth, consists of bioturbated soft silt beds, bioturbated very fine sand beds, coarse silt beds and fine –medium sand beds with pebble from Kanto Loam formation. Man-made formation, over 5.53m depth, consists of clean fine - medium sand beds, shelly coarse - very coarse sand bed, clayey fine silt bed and coarse silt bed.
Primary sedimentary structure, lamination deformed or lost partially on sand bed in 2.65-3.75 and 5.00-5.53m depth. It is presumed that these horizons were liquefied and fluidized on the 2011 off the Pacific coast of Tohoku Earthquake.

Keywords: Liquefaction-fluidization, the 2011 off the Pacific coast of Tohoku Earthquake, continuous boring core, Man-made strata, reclaimed land

