

Stratigraphy and Lithologic features of the Borehole Core from the Takamine Observation Well, Asama Volcano

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Stratigraphy and lithologic characteristics of borehole cores from the Takamine observation well, located at the western flank of Asama Volcano, were described. The total depth of the borehole was 201 m from the surface. Based on the lithologic features, the borehole cores can be divided into of four stratigraphic groups. The uppermost part (0 to 2.8 m in depth) is of dacitic pyroclastic-flow deposits. The upper part (2.8-77.6 m in depth) consists mainly of mafic andesite debris-flow (lahar) and pyroclastic-flow deposits. The middle part (77.6-103.6 m in depth) consists mainly of andesite lava flow and debris-flow deposits. The lower part (103.6-201 m in depth) is of felsic andesitic pyroclastic-flow deposits.

The uppermost part can be correlated to pumice-flow deposits of the Hotokeiwa Stage. Pumiceous lumps found in soil at the depth of 72.0 m are similar petrographically to the On-Ot tephra (ca. 90,000 yBP). The upper part can be correlated to the deposits distributed on the mountain flank of Kurofu Volcano. The middle part can be correlated to Kurofu Volcano or Takamine Volcano that is a member of the Eboshi volcano group. The lower part may be correlated to an older felsic member of the Eboshi volcano group like Sampogamine or Mizumoto Volcano.

Keywords: Borehole core, Asama volcano, Eboshi Volcano Group, Eruptive History