

LITHOFACIES PROPERTIES OF ANTALYA TUFAS

Erdal KOŞUN*. Ayşe SARIGÜL* and Baki VAROL**

Abstract.- The tufa term is described as secondary calcium carbonate deposits which are deposited by biologic and/ or physicochemical processes under cool water conditions and contain macro and micro scales plant, animal remains and bacteria (especially cyanobacteria). Tufas have especially deposited at Quaternary and recent time. The study area, located in Antalya city borders, constituted by primary three main terraces, Döşemealtı Plateau (Upper Terraces), Düden Plateau (Lower Terraces) and the third terraces under the sea level. These terraces contain nine second and the third order small terraces which determined by using GIS. As a result of this study, ten lithofacies which have deposited in fluvial, paludal, lacustrine and cascade-barrage environments are described. These are; 1. phytoherm framestone facies, 2. phytoherm boundstone fades, 3. micritic tufa fades, 4. phytoclastic tufa facies, 5. oncoidal tufa facies, 6. intraclastic tufa facies, 7. microdetrital tufa facies, 8. palaeosols, 9. pisolitic tufa facies (channel and pool types) and 10. intraformational tufa facies. These different types have formed in low regime surface flows/ streams, marshes, lake- pool and cascade- barrage environments that developed from springs and have different hydrologic conditions.

* Akdeniz University, Engineering Faculty, Department of Geological Engineering Topçular, Antalya

** Ankara University, Engineering Faculty, Department of Geological Engineering Tandoğan, Ankara

*** Osmangazi University, Department of Geological Engineering, Eskişehir