

PETROLOGICAL INVESTIGATION OF LOWER TERTIARY AGED DETRITAL SEQUENCE AROUND BURDUR

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ABSTRACT.— In the study area, starting with Triassic-Jurassic series and including Upper Pliocene-Quaternary series as well, Lower Tertiary series show the characteristics of turbidite fans. It has been determined through quantitative analyses of light, heavy and clay minerals of this detrital sequence, that the sandstones in the region are of moderately and poorly sorted greywacke characters, and that the principal constituents consist of mono and polycrystalline quartz, plagioclase, igneous and metamorphic rock fragments. The most abundant group of heavy minerals is the group of amphiboles. Pyroxene, epidote, garnet and mica, apatite, zircon and tourmaline are found in lesser amounts. Smectite is the most important clay mineral in the clay fraction in the region. Apart from dioctahedral smectite, illite and chlorite occur sparsely. Under the light of the present information, it is seen that the detrital material in the region is derived principally from a source consisting of igneous and metamorphic rocks.