

Neotectonic Features of the Fethiye-Burdur Fault Zone between Kozluca and Burdur, SW Anatolia, Turkey

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Abstract : The aim of this study is to present some preliminary stratigraphic and structural evidence for the Fethiye-Burdur fault zone between Kozluca and Burdur. The Fethiye-Burdur fault zone, the easternmost extension of the west Anatolian extensional province, extends from the Gulf of Fethiye northeastward through Burdur, a distance of about 300 km. The research area is located in the Burdur segment of the fault zone. Here, the fault zone includes several parallel to subparallel fault branching and en-echelon faults that lie within a linear belt, as much as 20 km in width. The direction of movement in the fault zone has been oblique-slip in the left lateral sense. The basement of the study area consists of the Triassic-Eocene Lycian Nappes, the Eocene-Oligocene molasse sediments and the lower Miocene marine rocks. The Burdur basin contains two basin infills. The ancient and deformed basin fill is composed of lacustrine sediments of the upper Miocene-lower Pliocene age. The younger and undeformed basin fill comprises Plio-Quaternary alluvial fan and recent basin-floor deposits and unconformably overlies the ancient basin infill. The Burdur basin is bounded by the NE-SW trending, left lateral oblique-slip normal faults, the Karakent fault on the northwest and the Burdur fault on the southeast. These faults played a key role in the development of the Burdur basin as a pull-apart basin.

Keywords : Burdur basin, Fethiye-Burdur fault zone, left lateral oblique-slip fault, Western Anatolia

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