

GEOLOGICAL SETTING, DISTRIBUTION AND FORMATION OF KIRKA (SEYİTGAZİ-ESKİŞEHİR) BORATE DEPOSITS

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ABSTRACT.- Middle-Upper Miocene aged borate deposits in the Kırka basin having volcano sedimentary lacustrine rocks are found within the dolomitic claystone/marls as lense shaped. The most lower and upper parts of the deposit are surrounded by carbonaceous rocks. Borate deposits situated in the two parts of the region were separated by paleotopographic threshold consisting of basement rocks and/or vertical blocking movements. Borate minerals show vertical and lateral mineralogical zonation such as Na, NaCa and Ca-borate in the southeastern area of the basin (Sarıkaya), whereas Ca-borate is represented only in the northwestern area (Göcenoluk). Borate minerals were formed by different processes such as symsedimentary, authigenesis and diagenetic transformation, according to their shapes/forms and kinds.