GEOLOGIC AND MINERALOGIC INVESTION OF THE NORTHERN KONYA LACUSTRINE UNITS

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ABSTRACT.- Neogene lacustrine sediments of Northern Konya consist of limestone, clayey limestone, claystone, mudstone, marl, sandstone and conglomerate. Widely observed limestones are fine grained, white-beige-cream coloured and contain remnants of the plant root. Brecciation, calcretion, drying cracks and dissolution voids are also common. Laminates are widely seen in claystone and sandstone. Ooid, pellet, intraclast and ostracod are the main components of limestones. Ooids and intraclasts are surrounded by meniscus type cement which represents a vadoze environment. SEM studies indicate that hexagonal and rhombic type calcite and dolomite minerals of meniscus cement are covered by sepiolite and palygorskite clay fibre. XRD analyses show that sepiolite and palygorskite minerals are associated with smectite, chlorite, feldspar, illite and quartz minerals. Carbonate units of Neogene lacustrine of Konya area are alternated and intercalated with conglomerate, sandstone and mudstone lenses. These indicates that, from time to time, the lacustrine area is fed by flowing water. Considering the mineral paragenesis and their textural features of the study area, precipitation was occured due to continuous changes in climate conditions. Climate conditions changes the lacustrine water chemistry and thus facilitating precipitation of carbonate and detrital units. Because of continuous climate changes, sepiolite and palygorskite were formed as a result of calichification of carbanate units.