

LIGNITE COAL DEPOSITS OF THE WESTERN TÜRKIYE

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Lignite coal deposits of the Western Türkiye, which are generally Miocene in age, are very widespread in the region. These deposits have very high reserve capacities with limnic characteristics. These lignite coal formations come unconformably over the basement rocks of Paleozoic and Mesozoic. Coal seams are underlain by the arenaceous rocks of conglomerates, sandstones, sands and silts, and are overlain by the cyclic sedimentation of marls, limestones, tuffites and also alluvium. There is a big variation in coal qualities in the region, but the Miocene coals are generally good quality. Coal seams are very few, usually one or two and rarely three in number, but they are thickish, at the range of 5-10 meters. Tectonism is very effective in some of these deposits from place to place. Although these deposits are generally worked as open-pit mines, there are also underground mines in the region. Slope stabilities are very important for the open-pit mines.

The lignite coal potential of Türkiye hasn't been evaluated full yet, but the existence of 226 lignite deposits has been known with the total reserve approaching to 8,143 Million tons. However, 84% of this reserve (6,803 Million tons) is concentrated within 70 important deposits. Lignite deposits are present all over Türkiye. The distribution of lignite deposits in the country is such that the Eocene lignites which are economical not important, are in the north; the Oligocene lignites in the northwest; the Miocene lignites in the west; and the Pliocene-Pleistocene lignites in the east. Most of these lignites have high water and ash contents, and low calorific values.

The most important deposits of the Western Türkiye, are situated in regions of Manisa, Mugla, Kütahya, Bursa, Çanakkale, Balıkesir, Aydın. The total reserve is around 2,551 Million tons by considering only the deposits having more than 10 Million tons reserves otherwise the reserve is 2,673. The lignite coal reserves of the Western Türkiye, make up 33% of the total Turkish reserves. The bad quality lignites are used in the thermic power plants in the Western Türkiye whereas the good quality ones are used domestically and by industry.