Exploration of coal in Raghni area, Tehsil Sharigh, District Harnai, Balochistan, Pakistan

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Abstract

The study area is situated in the northwestern part of the Sulaiman Fold–Thrust Belt and has been influenced by the thrust tectonics of the region. The area is bounded by the Quetta Syntaxis and Khalafat Range in the southwest and north, respectively.

The rocks exposed in the study area are of Paleocene to Quaternary, comprising of shale, sandstone, limestone and conglomerates, which makes low topographic relief and rugged mountainous landscape. The Dungan Formation of Paleocene exists in the northern part, whereas, the ShaheedGhat, Toi and Kirther formations of Eocene lie in the central part. The Urak Group of Oligocene to Late-Pleistocene is exposed in the southern flank of project area.The coal-bearing, lower Eocene Toi Formation is exposed sporadically over a distance of about 50 Sq. kilometres along the project area. Jurassic to Paleocene carbonates in the area were deposited on a marine shelf along northern margin of the Indian subcontinent.

The fold geometry in the study area indicates that the folds are northwest or southeast trending, asymmetrical, open to tight and plunging with their limbs verging towards northeast or southwest. The faults are not exposed on the surface, whereas, the project area is influenced by the thrust tectonics with minor strike slip movement.

There are a number of coal seams mined from Shahrig to Harnai. All the coal seams have regular east to west extension with rare pinching behaviour. The coal is generally hard, light bright and having low specific gravity and ranking lignite to sub-bituminous associated with sandstone. It was observed that most of the coal seams are exposed in the upper part of the formation near to the Kirthar Formation.