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Facies, Palaeogeography And Their Controlling For Gas Enrighment Of The Cretaceous in Kuqa Depression, Tarim Basin

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Hydrocarbon exploration in Kuqa depression of the Tarim Basin has come into the deep and ultra-deep field which is more than 5000m, In order to clarify its lithofacies, microfacies, paleogeography and natural gas enrichment factors. Based on the observation of outcrops microfacies, sand body modeling, imaging logging facies characterization, tectonic thrusting recovery, deposition of single factor overlay analysis, system study consider：The deep zone is mainly controlled by three sedimentary source area which is Kapushaliang River, Kelasu River and the Kuqa River，developing composite sand body of main river area in braided (or fan) delta front subaqueous distributary channel.The climate of Bashijiqike formation sedimentary period in generally is hot and dry. The sedimentary water is low - medium salinous condition ,but Keshen area relatively is more seasonal precipitation, Dabei-Bozi area is the erosion of residual paleouplift background, developing powder and fine sandstone in Braided (or fan) delta front subaqueous distributary channel. The gas enrichment in deep zone is obviously controlled by lithofacies palaeogeography, where in medium - fine sandstone facies of Palaeoslope gas is the most enrichment，where in powder-fine sandstone facies of Palaeoslope is lower enrichment, and where in pink sandstone facies of Palaeoslope gas is poverty. The knowledge will play an important reference for accelerating the deep hydrocarbon exploration and development, and proving one trillion reserves in deep area.

Key words: Natural gas, Cretaceous, Facies and palaeogeography，Kuqa depression, Tarim basin

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