

Jurassic coal measure hydrocarbon source rock geochemical behavior in Junggar Basin

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In Junggar basin,the coal is a very important part in Jurassic strata.The Jurassic is a coal bearing sedimentary formation of braided river-delta-limnetic facies,hydrocarbon source rock types.The coal measures hydrocarbon source rocks are mainly developed in Badaowan and Xishanyao group top.This study combined with new processing seismic datum and drilling datum,mainly to fine evaluate coal measures hydrocarbon source rocks.Research thinks,because the organic matter of Jurassic hydrocarbon source rocks mainly derived from terrestrial higher plants,therefore carbon hydrogen ratio is generally low of kerogen,the carbon hydrogen ratio is less than 12,most of the samples of 0.5~1.0,carbon oxygen ratio is mainly 0.05~0.25,shows the characteristics of the type of organic matter mainly is type III and type II₂ as a supplement.Badaowan group in organic carbon content is higher,the general content more than 40%,around the center of deposition,forming several high organic carbon enrichment zone.However,different layers pyrolysis hydrocarbon generation potential of coal is obvious differences.In Junggar basin,chloroform bitumen "A" content is 1.323‰~65.833‰ of coal in middle lower Jurassic,the average was 16.464‰,total hydroncarbon content of 0.590‰~15.575‰ ,the average was 4.007‰.Oil source correlation shows that coal measure mudstone are the main hydrocarbon source rocks,coals and carbonaceous mudstone are secondary hydrocarbon source rock.