

## **Reservoir Characteristics and Evaluation Study of Shale Oil of the Continental Sedimentary Formations in China**

**Huang Fuxi, Yan Weipeng, and Li Xin**

PetroChina

### **Abstract**

Compared with the shale oil reservoirs of the marine facies and transitional facies in North American, the China shale oil reservoirs were mainly formed in the continental sedimentary environment during the late Paleozoic-Cenozoic period, which have the characteristics of poor physical property, quickly changing in the horizontal distribution, strong heterogeneity, etc. There are widely distributed three types of shale oil reservoir of sandstone, carbonate rock and mix of sedimentite in the depositional environment of freshwater lake and saline lacustrine basin of china. Although three types of reservoirs have the obviously different characteristics of the scale distribution and property, can they obtain the industrial production capacity of shale oil. The comprehensive classification evaluation scheme was proposed that the China shale oil reservoirs are divided into three grades of I, II, III by multi parameter classification, such as reservoir properties, oil and gas shows level, test oil yields, and so on. Among them the reservoir of class I has the characteristics of the porosity more than 8%, permeability greater than 0.2mD, thickness more than 10 meters and oil saturation greater than 60%,etc. The scheme can effectively guide the evaluation and selection of shale oil dessert in the continental sedimentary basin of China.