



Depositional Characteristics of River's Transition from Meander to Braided Belt

Shengli Li

China University of Geosciences, Beijing, China (slli@cugb.edu.cn)

We describe characteristics of meander–braided transition belt and its sedimentary sequences. We classify abandoned channels into three types: avulsion, chute cut-off and neck cut-off based on the correlation between sinuosity and channel abandonment. Our study on the sedimentary characteristics and river's transitions from proximal to distal zones in Permian fluvial outcrops of the Beijing suburbs leads us to understand the main factor that causes the meander to braided transitions; that is the change in sediment supply, which itself is caused by changes in climate conditions. Three abandoned channels have been distinguished in this outcrop study. Furthermore, we have studied a typical fluvial Permian gas field in the Ordos Basin as an application to subsurface formation. We analyze the distribution of fluvial deposition using meander–braided transition and abandoned channel patterns. Our study has revealed that fluvial changes occurs from braided to meander–braided transition and then to high-sinuosity meandering channel from the northern to the southern part of the study area. Three abandoned channels were identified in the transitional and meandering belts of the gas field.

Keywords: Characteristics of Meander–braided Transition; Fluvial Sedimentary Sequence; Abandoned Channel; Permian Fluvial Environment; The Ordos Basin