Petrochemistry-2013

World Congress on
Petrochemistry and Chemical Engineering

November 18-20, 2013 Hilton San Antonio Airport, USA

Evolution of the Ordovician top and its relationship to reservoirs development, Ordos basin

Ran Xinquan

PetroChina Changqing Oilfield Company, Xi'an 710018, China

Abstract

The control of structural evolution on the development of different types of Ordovician reservoirs in Ordos Basin is discussed by studying the evolution of the Ordovician top in geological times, and the mechanisms of formation and evolution of carbonate reservoirs are examined. The top of Ordovician is an important sequence boundary in Ordos Basin. It represents not only the depositional change between lower marine carbonate rocks and upper clastic rocks, but also a depositional break caused by weathering and corrosion long from the Late Caledonian to the Early Hercynian. It experienced three great structural changes in the geologic history, which influenced the formation and conservation of the Ordovician reservoirs. Difference of lithology of the Ordovician top between the east and west of the basin controlled the type of reservoir space and caused the formation of different reservoirs of corrosive pores. However, the later reversal of the sequence boundary caused the filling of early formed pore space in the eastern basin, which affects the space distribution of effective reservoirs.