

Salt Deformation and Salt-Sediment Interaction in Forelimb of the Forbulge, Kuqa Forland Basin Systems in Tarim

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The hydrocarbon resources are abundant in the forebulge of Kuqa foreland basin system, Tarim, in which the salt structures and related sedimentation are rather complex. In order to study the salt deformation and the interaction with sediment, we interpreted the geological data, conducted the balanced cross-sections, investigated outcrops, and conclude that : (1) The types of salt structures mainly include salt pillow, salt anticline, salt-weld and salt-fish; (2) The structural deformation and shorting rate were more intensive and higher in the salt-overlying beds than that in the salt-underlying beds ; (3) The normal faults, which were caused by oblique compaction stress during Paleogene, controlled the originate deposition thickness of salt; (4)As the compression enhanced in the late Cenozoic, salt accumulated and growth strata formed in the limb of salt pillow, and salt-withdrawal sags also developed.