

Investigating the Sediments of the Pabdeh Formation in the Ramp Influenced by Storm Events, Zagros Basin, Iran

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Abstract

In this research, we investigated the environment of Pabdeh formation from the age of Paleocene to the end of the Oligocene, which a part of carbonate reservoirs in the Zagros basin. Four lithofacies were identified based on core and cutting observations, as well as petrographic and facies analysis of the Pabdeh Formation in the Karanj oil field: (i) Plagic Foraminifera Packstone with Phosphate and Glauconite (Microfacies A1) (ii) Plagic Foraminifera Wackestone_Mudstone with Phosphate and/or Glauconite (microfacies A2) (iii) Bioclast, Ooid, Intraclast Packstone-Wackstone (Microfacies A3), and (iv) Mudstone with interlayer wackestone-packstone with silt fossils (microfacies B). Therefore, it is concluded that the sedimentation environment of Pabdeh Formation was a deep outer-ramp environment that gradually changed from an outer ramp to a middle ramp with storm-influenced.