

The Eocene Gir Formation of the Ghani and Ed Dib Fields, Eastern Libya - an example of "Virtual Core Study"

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Abstract

The Gir Formation of Eocene (Ypresian) age comprises a 500-1000m sequence of carbonates and evaporites deposited in a shallow shelf to lagoonal setting along the North African Tethys margin. Depositional setting and lithology vary both laterally and vertically. In the eastern Sirt Basin the Gir is composed almost entirely of shallow marine, fine-grained limestones of the Mesdar Member. In the central and western Sirt Basin, however, it is divided into three members; here the top Mesdar Member overlies a thick, predominantly evaporitic Hon Member which includes subordinate but widespread dolomite interbeds. The basal Gir interval includes coarser grained carbonates assigned to the Facha Member.