Seismic stratigraphic interpretation and sedimentary history of neogene-quaternary offshore subsurface sediments, Northwest of Sinai, Egypt

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The Neogene-Quaternary offshore sediments northwest of Sinai are composed of five rock units namely from base to top; Waker (Upper Miocene), Rosetta (Messinian, Kafer El-Sheikh (Pliocene), Wastani (Upper Pliocene) and Mit-Ghamr (Plio-Pleistocene) Formations. The subsurface findings obtained from 34 seismic reflection profiles of about 1600 km long and 9 composite lithologic logs were used together to delineate the different seismic facies forming the above succession. Detailed analyses of these data have enabled to determine six seismic facies forming the whole succession representing the progressive cyclic evolution of the examined succession. Two seismic facies found constituting the Upper Miocene sediments related to a marked fall in the Mediterranean Sea level whereas the Pliocene rocks are represented by three seismic facies related to one complete sea level cycle. The Pleistocene sediments are represented by one laterally continuous seismic facies related to the eastward progradation of the Nile Delta into the study area.

The depositional history suggests that the development of the offshore Neogene-Quaternary succession was accomplished two major depositional cycles related to the Mediterranean sea level fall and rise.

Biography

Dr. Adel ELHABAB has done his Doctoral Research on Petroleum Geology at Niigata University, Japan in 1992. Now he is an Assistant Professor at Faculty of Technological Studies –Petroleum Engineering Department- PEEAT – Kuwait. He has more than 15 publications in the field of Geology.

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