PETROPHYSICAL ANALYSIS AND STRATIGRAPHIC CORRELATION OF MIANO 04 AND MIANO 05 WELLS, LOWER INDUS BASIN, PAKISTAN



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ABSTRACT

The main resolution of the study is to evaluate hydrocarbon potential and stratigraphical correlation of Miano well 04 and 05. The area is located in Taluka Saleh Pat, District Sukkur of Sindh Province, Pakistan bounded by 27° 24" 42.4' N and 69°19"15.82' E. Miano is a natural gas reservoir which covers the Thar Desert having a total area of 814.02 km². Tectonically the block lies on PannoAqilgraben and in between two highs i.e. on the eastern flank of Khairpur-Jacobabad High and west of Mari Kandkot High. The hydrocarbon potential of the two study wells were evaluated by petrophysical parameters and it has been interpreted that Goru Formation was having good potential to be reservoir based on volume of shale, average porosity, saturation of water and hydrocarbon saturation for Miano well 04 and 05. Stratigraphic correlation is used to determine the lateral continuity and thickness variation of lower Goru formation by considering a top of lower Goru formation as datum line.It has been observed that both the strata (sand and shale) are thickening in NE direction towards well 05.

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