

**2D SEISMIC INTERPRETATION OF KOHAT BLOCK AND
PETROPHYSICAL ANALYSIS OF SUMARI-01, KOHAT
SUB-BASIN, USING SEISMIC AND WIRELINE LOG DATA**



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ABSTRACT

The migrated lines T05-KH-02, T05-KH-04, T05-KH-09 and T05-KH-10 of Kohat area were obtained from Directorate General of petroleum concessions (DGPC) for seismic interpretation and Well Logs of SUMARI-01 were obtained for petrophysical analysis. The information required was given within the time section, which was helpful in conversion of the time section into depth section. These calculations helped in subsurface interpretation of the area.

Two reflectors were marked Kohat Formation and Lockhart Formation. Faults were marked, and then time contour maps were generated. The major cause has been the thrust faults in the area that form pop up structure.

Petrophysical evaluation of SUMARI-01 was carried out to highlight the reservoir area which includes the selection of zone of interest followed by Log interpretation. The volume of shale, sand, porosities like sonic total and effective were interpreted.

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LIST OF ABBREVIATIONS

ABBREVIATION USED	ABBREVIATION OF
UIB	Upper Indus Basin
AVO	Amplitude Vs. Offset
Vs	Velocity of Secondary Waves
Vp	Velocity of Primary Waves
RhoB	Bulk Density
Rc	Reflection Coefficient
Dt	Sonic Log (Delta Time)
Rw	Resistivity of Water
Rt	True Resistivity (Resistivity of Un-invaded Zone)
Rweq	Resistivity of Water Equivalent
Rmf	Resistivity of Mud Filtrate
Rmf_{eq}	Resistivity of Mud Filtrate Equivalent
Vshl	Volume of Shale
Vs_{nd}	Volume of Sand
PhiA	Average Porosity
PhiD	Density Porosity
PhiE	Effective Porosity
Sw	Water Saturation
Shc	Hydrocarbon Saturation

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