



Bahria University, Karachi Campus

SEISMIC ACQUISITION

AND DATA PROCESSING (Tajjal Area)

A thesis

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ABSTRACT

The area of research is Tadjal (Sindh province) Pakistan. The Tadjal area is located at khairpur high area which is about 27.774 (sq.kms). Stratigraphically it is located in middle indus basin. It is actually a basement high and mostly the eastern part that extends to the indian border obscured by desert sands except in the areas near khairpur and sukkur where eocene carbonates are cropped out, the main intent behind this research was to explore the procedures/ techniques involve in acquisition and understanding the processing phenomenon in order to assess the quality of data. I have collected the data from different literatures to know about geological structures of the area. The key fields in the area are kadanwari, sawan and miano gas fields which have been producing high quality sweet gas from lower goru formation sandstone reservoirs. There are several other gas fields as well producing from eocene carbonates (with poor to medium combustibility with large inert gases) as well. The area is known for the existence of stratigraphic, structural and combination of structural-stratigraphic trap. After completing this dissertation i came up on the following results :as the study area lies in extensional regime, regional scale normal faults are observed making horst and graben geometries favorable for the accumulation of hydrocarbon. Ranikot shale, shales of upper goru are the source rock in this area, chaltan and lower goru are reservoirs in the area. fault throw is very low because of the small lateral displacement of the wrench fault system. The area has been subject to structural highs and lows.

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