

FORMATION EVALUATION OF WELLS SAWAN-08 AND SAWAN-09, LOWER INDUS BASIN, PAKISTAN



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of the requirement for the degree of BS in Geology

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DEDICATION

We dedicate this research work to our parents who always loved and appreciated us. We thank them for providing us support and encouragement. We are also grateful to our teachers and class fellows who assisted, cooperated and guides us throughout our research work.

ABSTRACT

- The purpose of study is to find the hydrocarbon potential of Sawan-08 and Sawan-09, Lower Indus Basin, Pakistan and to correlate the lithology by using basis concepts of sequence stratigraphy. Sawan Gas Field is situated at a distance of around 77 km from Khairpur district. The coordinates of Sawan-08 are 27°00'32.96"N, 68°56'00"E and that of Sawan-09 are 27°01'41.98"N, 68°57'05.32"E. Tectonically, area lies in extensional regime. In Sawan-08 and Sawan-09 drilling has been done from Alluvium-Siwalik Formation of Eocene age upto Lower Goru Formation of Late Cretaceous age. For this purpose GR log, resistivity log, density log, neutron log, caliper log is required. Sand of Lower Goru age is acting as reservoir. On the basis of petrophysical parameters, one prospect zone has been marked within Lower Goru Formation in both wells. In Sawan-08 the Lower Goru Formation has, 4% volume of shale, 16% average porosity and 67% hydrocarbon saturation while Sawan-09 has 15% volume of shale, 16% average porosity and 44% hydrocarbon saturation. On the basis of calculated parameters, both the zone marked within Lower Goru Formation in Sawan-08 and sawan-09 having fair hydrocarbon potential. Gamma ray log confirms several funnel trends (progradational parasequence) at the level of Lower Goru Formation

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