

Geomodels of interpreted seismic data and overlaying attributes on the seismic sections give new way to analyze structure

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The present study pertains the modeling of the productive zones using petrophysical and seismic tools. In this regard, Dhodak area is considered important for its hydrocarbon structural traps and geological complexities and is highly disturbed from structural point of view. Weathering and erosion caused the deep strata to be visible on the surface throughout the Sulaiman ranges. One prominent example is the exposure of the Zindapir anticline. An attempt has been made to interpret the surface structure using high resolution satellite imagery. Despite the surface structural interpretation, underground variation also need equal attention. In order to know the trend and orientation of the dipping strata, a 57.45 km long cross section has been prepared which reflects the underground variations with reference to the surface geomorphology. Various formations have been picked and mapped but the main focus of the study was on the geomodeling and 3D visualization of Pab sand stone and the Chiltan limestone. Currently there is no well in this field which has TD upto the Chiltan formation. This might be attributed to the fact that Chiltan formation is highly fractured and it does not give a good seismic response. Some of the petrophysical properties have direct relation with the structure and vary accordingly. Keeping in vew this fact, a new technique has been used to estimate and overlay various petrophysical properties along the longest strike line of the field. Most of the well logs have been computed from the available logs using standard equations. The computed logs provided useful lithological information on log cross plots which in turn helped in interpretation.