

## Geophysical modeling of a part of Potwar (Missa Keswal) area by using seismic and well data

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Geophysical modeling of a part of Potwar at Missa Keswal (Qazian Anticline) has been carried out in the present work (Fig. 1) The 2-D seismic data consisting of ten seismic lines (GNA-09, GNA-10, GNA-11, GNA-13, GNA-14, GNA-15, GNA-16, GNA-19, MN-20 and GNA-21) were re-interpreted for the purpose. The well data of Missa Keswal-01 was used for the confirmation of the reflector identified through synthetic seismogram and also to confirm the depth of the interpreted reflectors. Structural interpretation depicts two broad types of fault sets namely, thrust and back thrust faults. These faults together give rise to pop up structures in the study area, and are also considered responsible for many structural traps. Structural interpretation includes time and depth contour maps of Chorgali Formation, velocity modeling, fault modeling and kinematic analysis of faults. The results show that the fractured carbonates of Chorgali Formation and Sakesar Formation are the major producing reservoirs in Missa Keswa area. It is hoped that the present work would help in better understanding of the variations in the subsurface structure and stratigraphy of the Missa Keswal area.

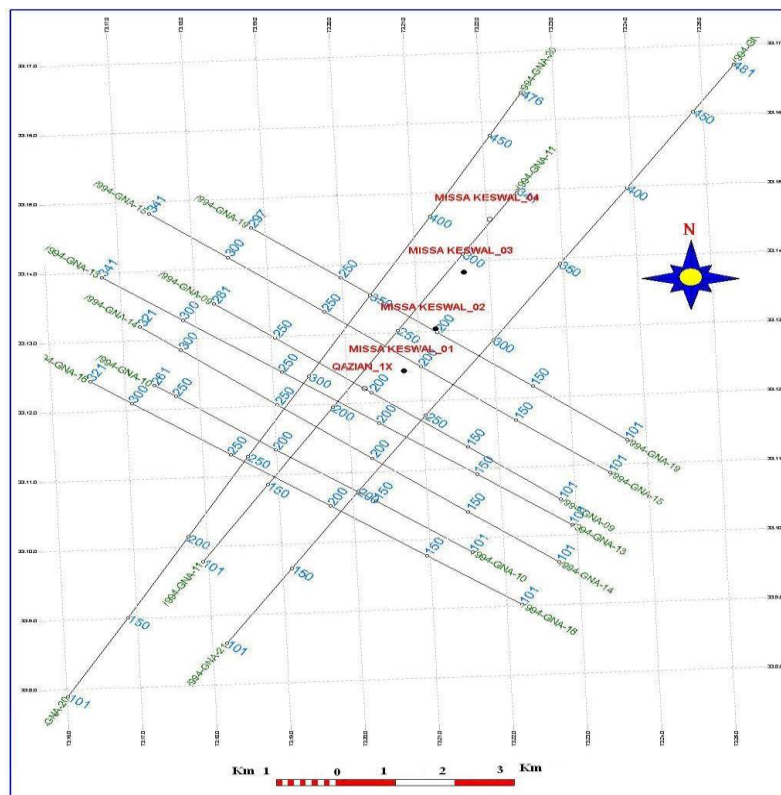


Fig. 1. Base map of the study area.