



geoconvention

Calgary • Canada • May 7-11

2018

Investigation of sedimentary and stratigraphy from Upper Cretaceous (Maastrichtian) from Gurpi formation, Ilam area, North West of Iran

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Summary

Iran is one of the chief oil producing country having large area covered with sedimentary rocks than Igneous and metamorphic rocks in Asia and it stands 4th rank in the world. In this country the stratigraphy only from Cretaceous and Cenozoic Era.

This land have good amount of the geological formations particularly of Mesozoic and Cenozoic age. The proposed research work pertaining to Masstrichtian and Danian age. The Gurpi Formation consists of 50 mtrs. thick succession of olive marl, which over lane by Pabdeh Formation. Gurpi Formation is one of the important lithostratigraphic unit which points out the major stratigraphic boundary which belongs to Masstrichtian and Danian age in Zagros basin which trends North West and South East. Which covers about 10,000 meters of Mesozoic and Cenozoic data in northwest southeast trend The type section of Gurpi Formation lies between N 32^o 26' 50" and E 49^o 13' 47". The Gurpi Formation (Fm.) consists of fossiliferous, alternating marls and marly limestones, spanning the Late Cretaceous to Paleocene in the NW to central part of the Zagros Basin. This formation was deposited in deep shelf to basin margin settings.

In this case, the purple shale (between the Gurpi and Pabdeh Formations) could be considered equivalent to the upper part of the Sachun Formation. From the point of Paleogeography, the plat-form sedimentary environment covered almost the whole area during the Oligo-Miocene age, so that the Asmari Formation would have been deposited, which is marked by sharp contact as disconformity on Jahrum Formation in the East of the basin and with continuous contact (C.C) on the Pabdeh Formation in the west and southwest.

Many species are index forms supporting the age as Maastrichtian. Gurpi Formation of Iran is one of the important Lithostratigraphic unit with more petroleum deposits from this Sedimentary basin. The Lithological unit of Gurpi Formation measures almost more than 320 meters of major rock types like purple shale and limestone. The Paleoenvironmental factors which supports the diversified and abundant foraminiferal fauna certainly gives scope of understanding diversified foraminiferal assemblage.