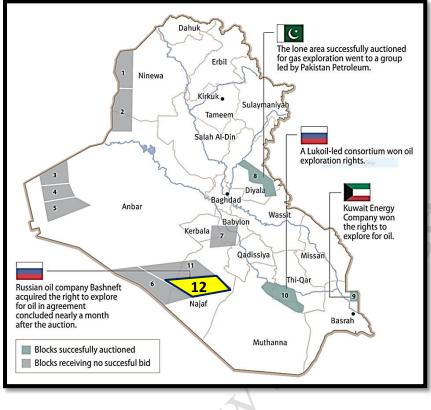
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# Target Exploration

Energy Geosciences Research & Development



# Geology and Hydrocarbon Prospectivity of Block 12, Western Desert; IRAQ

**Target Exploration Report Tar37** 

# **The Report**

This study is an assessment of the prospectivity and hydrocarbon potential of Blocks 1 (2001) which covers the whole of new <u>Block 12</u> (2012) and some adjacent areas in Western Desert of Iraq.

MOO data package of Block-1, published and unpublished data on the geology of the Western Desert of Iraq, and data on previous exploration activities in Block-1 and surrounding areas (including well data in neighbouring areas) were analysed leading to conclusions and precise recommendations regarding Exploration and Production agreement of the Block.

This review of the hydrocarbon potential of the area used the following data and information:

- 1. A brief general information note on Block-1 prepared by the Oil Exploration Company in the Republic of Iraq, which includes Gravity and Magnetic interpretation maps.
- 2. Paper copies of ten seismic lines totalling 500 km. representing different parts of the Block and different vintages of survey.
- 3. Several geological reports and symposium papers, both in Arabic and in English published between 1986 and 1997, plus other published and unpublished reports and studies on the geology of the area.

Through this review, the stratigraphic succession from surface to the Upper Jurassic was correlated in the wells within and around the studied block. This correlation provided good control on the stratigraphy of the upper 6,000 feet of the geological column. Below that depth, stratigraphic data in the area of Block-1 were extrapolated from the study of the Jurassic and the Triassic outcrops in the Rutbah-Ga'ara uplift, and from a few wells located further to the north and east, which penetrated the Paleozoic sequences.

Ten seismic sections were examined; key formations corresponding to the reflective horizons were identified. These horizons were marked on the seismic sections to determine their continuity and to look for any structural anomalies such as faulting or folding that may be of interest to the interpreter. Form few shot points, depth conversion of the velocity readings was made in an attempt to interpret the depth in meters of certain reflective horizons. In this review, each of the ten seismic sections is described and interpreted qualitatively under the subtitle of "Seismic Sections".

In conclusion, the positive elements of Blocks 12 and 6 are highlighted, and the data needed for a further and more reliable technical evaluation are included in the recommendations. The study revealed the presence of some interesting leads and plays which are worthy of further investigations.

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