

## **The Size and Volume of the Remaining Hydrocarbon Potential are the Key of Future Exploration Drilling in Libya's Sedimentary Basins**

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### **ABSTRACT**

The early stage of exploration process in Libya is now over 60 years old. This exploration resulted in the discovery of about 58 billion barrels of recoverable oil and more than 60 trillion cubic feet of non-associated recoverable gas, which ranks Libya's sedimentary Basins among the most prolific oil-bearing basins in the world. Libya's first oil discovery was made in 1957 in the western Ghadames Basin. The first commercial oil discovery was made in 1958 In Sirt basin and by the end of the year 1961 eleven of the giant fields were already found. Giant fields were progressively brought on stream and exporting oil started in 1961. Production gradually increased to 3.38 million barrels per day in 1970, placing Libya amongst the top ten oil-producing countries. To date more than 142 billion barrels of oil in-place have been discovered in the onshore and offshore Sirt Basin of which 100 billion barrels (70%) are contained in the giant fields. Does Exploration drilling level back to early stage again? Clearly this question has a wide range of answers as it depends on geosciences and investment on the technical side. It also depends on the size and volume of the reaming potential in the Libya's basins. An intelligent approach to answering this question needs to consider all these elements. The remaining potential will play significant role in the future of exploration drilling. To assess the goal of this research the available data combined with new drilling result provide a background information for the volume, distribution of remaining potential. The reserves of the giant fields in the Sirt Basin may be used statistically to assess the total hydrocarbon potential of the Sirt Basin and the remaining hydrocarbons to be discovered in the future. Although giant fields are generally discovered during the early stage of exploration because of their huge structural size, recent exploration and drillings in the deep area to the north of Gialo Field indicate a major discovery. This recent discovery together with the large discoveries made in the deep Mar Trough area, show that the Sirt Basin has still a significant future potential, particularly deep trough areas. In general Libya's onshore and offshore areas still prospective for future Exploration drilling still containing remaining potential. Libya is looking forward to international companies coming back because they are in general more aggressive in their exploration.