

Hydrocarbon Prospects Of Western Iraq

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ABSTRACT

The proven reserves of Iraq are estimated at 113 billion barrels of oil and 100 trillion cubic feet of gas. The oil reserves represent 11% of the world total and places Iraq's oil reserves second only to Saudi Arabia. Reserves are contained in 79 fields, which are located in eastern Iraq in the Zagros Foothill and Mesopotamian Zones of the Unstable Shelf. Tertiary and Cretaceous reservoirs contain approximately 25% and 75% respectively of known reserves. Less than 1% of known reserves are contained in reservoirs of Jurassic or older age. In contrast, almost 66% of the oil reserves in Saudi Arabia are contained in Jurassic reservoirs and significant new light oil reserves have been established in Paleozoic sandstone reservoirs.

Iraq is the least explored of the major Middle Eastern producing countries and significant undrilled potential is recognized. Only 44 wells in Iraq have been drilled into Jurassic Formations and only 6 wells have penetrated Paleozoic Formations. The USGS 2000 World Petroleum Assessment estimates the mean undiscovered potential to be 45.1 billion barrels of oil and 120 trillion cubic feet of gas. The Iraq Ministry of Oil has designated 9 exploration blocks in the Western Desert of Iraq. The average block size is 12,500 km² with the individual blocks ranging from 10,500 to 17,700 km². Few exploration wells have been drilled in western Iraq; however, there is regional seismic and gravity data. The Tertiary petroleum plays do not extend into the area and known Cretaceous plays have only limited potential. The main exploration targets are Paleozoic sandstones, which may be charged from a source bed interval in the Silurian Akkass Formation. Equivalent formations in Saudi Arabia have been charged by the Qusaiba Member of the Silurian Qalibah Formation and contain reserves of Arabian Super Light oil, which has gravities between 43° and 53° API and has low sulfur content. The Lower Paleozoic Petroleum System appears to extend across western Iraq and will be the main target on most of the exploration blocks. Prospects in Triassic, Jurassic and Lower Cretaceous targets are less extensive, but may have significant potential on certain blocks in both stratigraphic and structural traps.

Canadian companies are not restricted from negotiating terms for the award of an exploration block in Iraq; however, at present execution of upstream exploration and development agreements is prevented by Canadian Government policy.