

Angola Offers Ultra-Deep Water Blocks

Sonangol EP, the national oil company of Angola, recently announced a new licensing round for 2007-2008.

This covers 10 blocks, three onshore and seven offshore, including three blocks (19, 20 and 21) in the deepwater Kwanza Basin, and three (46, 47 and 48) in the newly designated ultra-deepwater in the Lower Congo Basin, in water depths approaching 3,000m.

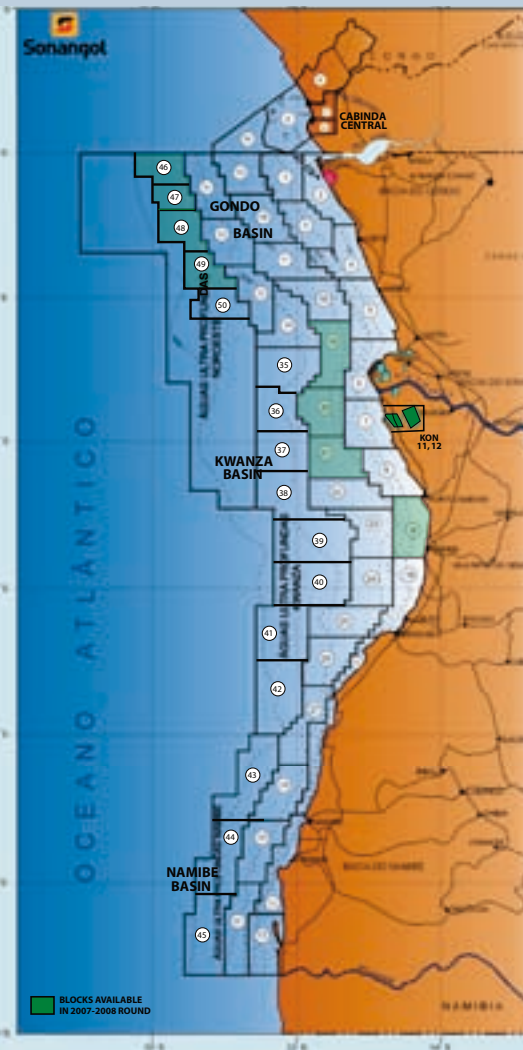
Hydrocarbon exploration in Angola commenced in 1910, with the first well drilled in 1915. Successful production was not achieved, however, until the 1950's, when oil was discovered initially in the onshore Kwanza Basin and then in Cabinda, with the first offshore discovery being made in 1962. Exploration and production progressed rapidly and by 1973 oil was Angola's principal export. Exploration in deep water began in 1991 and there have been over 50 deepwater discoveries to date. The country has been in the forefront of the use of deep water exploration and production technology, routinely drilling in water depths up to 2,500m.

Angola comprises the Kwanza, Congo and Namibe sedimentary basins, which form part of a wider province of South Atlantic rift and passive margin basins initiated during the Early Cretaceous. Mesozoic and Cenozoic petroleum systems are thought to exist in all three basins, although to date only the Congo and Kwanza Basins have yielded oil in commercial quantities. Significant to the prospectivity of offshore Angola is the distribution of the extensive Aptian

salt layer. In shallow waters up to about 100km from the coast the salt layer is generally thin to absent, while the area further west in deeper water is characterised by the presence of salt and its associated movement.

Until the late 90's almost all of Angola's production was obtained from Albian shallow water carbonates and from pre-salt Neocomian age lacustrine clastics and carbonates. Salt rafting and gravity sliding of carbonate "rafts" has resulted in numerous oil fields which consist of separate blocks of carbonate, each with distinctive hydrocarbon contacts. In 1996, however, Elf discovered the Girassol Field in Oligocene turbidite clastics in the Kwanza Basin, at a water depth of 1,400m. Production of up to 30,000 bo/d has been achieved from single wells on this field. Since then, recoverable reserves of about 14 billion barrels have been discovered in Miocene and Oligocene turbidites associated with the ancestral Congo River drainage system.

Angola currently produces more than 1.7 million barrels of oil per day, and by 2008 daily oil production is expected to reach 2 million barrels. Oil represents 90% of Angola's exports and about 50% of its GDP.



Sonangol have included blocks onshore and in shallow, deep and ultra-deep waters in their latest licensing round.



The Greater Plutonio Field in Block 18 in the southern offshore Congo basin requires the use of an FPSO (Floating Production, Storage & Offloading). The first FPSO rig in Angola's offshore came on stream on December 1999, and was used for project Kuito on Block 14.

Sonangol announced a 'road show' of presentations in October in Luanda, Houston and London, facilitated by IHS Inc., details of which are obtainable from the Sonangol and IHS web sites.

Continuing investment in successful exploration and production will ensure that Angola will play a major role in Africa's oil industry for some time to come.

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