

## **Efforts, Results and Future Perspectives of the Petroleum Exploration in Brazil, seismic examples**

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The Brazilian sedimentary areas cover about 6,430,000 km<sup>2</sup> of onshore and offshore basins up to water depths of 3,000 meters. Around 1,550,000 km<sup>2</sup> correspond to offshore basins in which 50% represent deep-water regions (water depths greater than 400 meters). To date, near 5,100 exploration wells were drilled, 1,615 of them offshore, including 190 wells drilled in isobaths greater than 400 meters (85% located in the Campos Basin). Regarding to the seismic, more than 2,200,000 km of 2-D and 3-D data were acquired and processed to date.

The exploratory efforts resulted in the discovery of about 23 billion barrels of total reserves of equivalent oil. So far, near 6 billion barrels were produced, and the remaining reserves reach 17,02 billion barrels. Today, 87% of the oil reserves are offshore (75% in water depths greater than 400 meters). Most of these reserves are accumulated in stratigraphic traps, in Upper Cretaceous and Tertiary giant deep-water turbidite systems. The natural gas reserves, by contrast, are concentrated onshore, mainly in Paleozoic sandstones of the Solimões basin.

Concerning the Brazilian petroleum potential, the deep-water basins account for 60% of the total, most of them located in the Campos, Santos, Espírito Santo and Southern Bahia basins. It is important to mention that expressive potential for natural gas occurs in the Miocene/Eocene turbidites (Foz do Amazonas and Espírito Santo basins) and in deeper and older targets within other producing offshore basins. Onshore basins contribute with 25% of the total Brazilian potential (mainly natural gas) and most of this is expected to be in the Solimões basin.

The discrete exploratory efforts performed in the areas referred above, as well as their high hydrocarbon potential, led us to the conclusion that those areas are in their early exploratory stage and expressive amounts of oil and gas are expected to be discovered.