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PTE317 ASSIGNMENT

**Crude Oil Proven Reserves Definition:**

Oil reserves are the amount of technically and economically recoverable oil. Reserves may be for a well, for a reservoir, for a field, for a nation, or for the world. Different classifications of reserves are related to their degree of certainty. The total estimated amount of oil in an oil reservoir, including both producible and non-producible oil, is called oil in place. However, because of reservoir characteristics and limitations in petroleum extraction technologies, only a fraction of this oil can be brought to the surface, and it is only this producible fraction that is considered to be reserves. The ratio of producible oil reserves to total oil in place for a given field is often referred to as the recovery factor. Recovery factors vary greatly among oil fields. The recovery factor of any particular field may change over time based on operating history and in response to changes in technology and economics. The recovery factor may also rise over time if additional investment is made in enhanced oil recovery techniques such as gas injection, surfactants injection, water-flooding, or microbial enhanced oil recovery. Proven reserves are those reserves claimed to have a reasonable certainty (normally at least 90% confidence) of being recoverable under existing economic and political conditions, with existing technology. Industry specialists refer to this as P90 (i.e., having a 90% certainty of being produced). Proven reserves are also known in the industry as 1P.

**What is Nigeria’s proven crude oil reserve?**

The data from the Organisation of the Petroleum Exporting Countries (OPEC’s), annual statistical bulletin 2017, shows that Nigeria with over 177 million population in 2016, had 37.139 billion barrels (bbl) of crude oil reserves as at the end of that year.

**What is Ghana’s proven crude oil reserve?**

According to U.S EIA (start of 2015), Ghana ranked 47th with its proven reserves of oil to be 660 million barrels in the world and 11th largest manufacturer in Africa. The Kosmos Energy team discovered the Jubilee oil field following the drilling of the Mahogany-1 exploration well in Ghana’s deep waters. A string of discoveries in the Jubilee offshore oil field from 2007 onwards has resulted in Ghana’s confidence in a reserve of around 1.5 billion barrels, with a potential upside of 2 billion barrels from adjacent sites.

**What is West Africa’s proven crude oil reserve of Nigeria?**

Africa is a resource rich continent than many other continents in the world. Presently Africa is the fastest growing source of energy, accounting for 117.481 billion barrels of crude oil or 9.49 % of the world's reserves at the end of 2007. Also in 2007 Africa produced an average of 10317.6 thousand barrels of crude oil per day or 12.5% of the world total production. On the continent, West Africa remains the beehive of exploration activities due to the Gulf of Guinea been endowed with billions of barrels of oil reserves.   
The Jubilee field is considered to be the largest field offshore West Africa in the last decade. The rate of new oil reserves in Africa has been the fastest in the world in the past five years according to the U.S Corporate Council on Africa. Most of these new proven reserves have been found around the Gulf of Guinea.

**West Africa’s Ranking of Crude Oil Reserves**

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| --- | --- | --- |
| **RANK** | **COUNTRY** | **BBL** |
| 2 | Nigeria | 37,070,000,000 |
| 11 | Ghana | 660,000,000 |
| 17 | Niger | 150,000,000 |
| 9 | Benin | 8,000,000 |
| 13 | Liberia | 0 |
|  | CapeVerde | 0 |
|  | Gambia | 0 |
| 15 | Senegal | 0 |
| 18 | Mauritania | 600,000,000 |
| 15 | Cote D’Ivoire | 100,000,000 |
|  | Sierra Leone | 0 |
|  | Guinea Bissau | 0 |
|  | Mali | 0 |
|  | Togo | 0 |
|  | Equatorial Guinea | 0 |