

Petroleum:



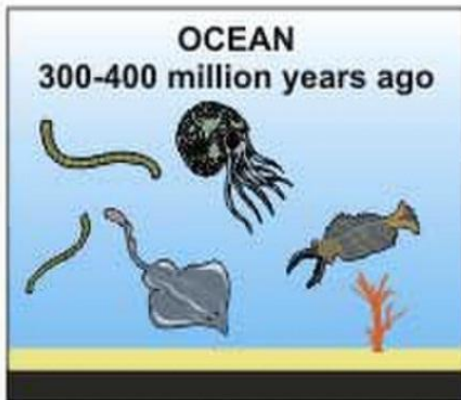
Figure 1 Petroleum

The term 'Petroleum' is derived from two words - 'Petra' which means 'rock' and 'oleum' which means 'oil'. It is mined from the rocks under the Earth.

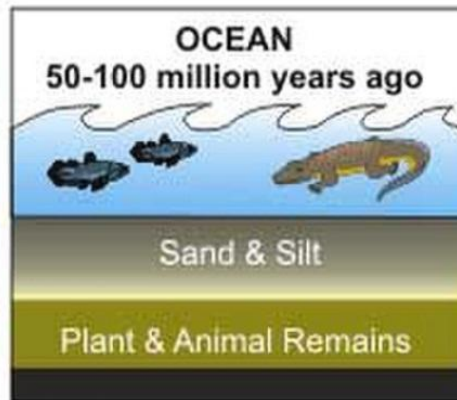
Petroleum (also known as crude oil) is a fossil fuel formed from the remains of ancient marine organisms.

How is Petroleum and Natural Gas formed?

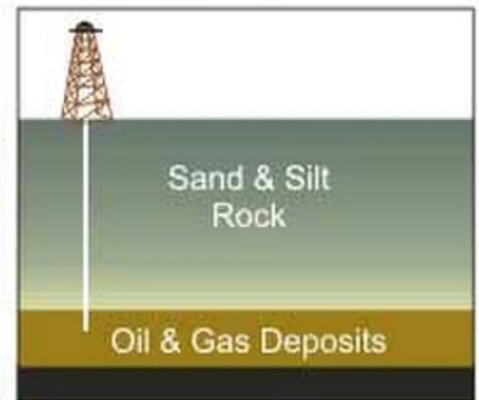
PETROLEUM & NATURAL GAS FORMATION



Tiny sea plants and animals died and were buried on the ocean floor. Over time, they were covered by layers of silt and sand.



Over millions of years, the remains were buried deeper and deeper. The enormous heat and pressure turned them into oil and gas.



Today, we drill down through layers of sand, silt, and rock to reach the rock formations that contain oil and gas deposits.

Figure 2 Formation of petrol and natural gas

- When the sea organisms die, their bodies sink to the bottom of the sea. With time, they get covered by the layers of sand and clay.
- Over millions of years, these remains get transformed in petroleum and natural gas due to high temperature, high pressure, and absence of air.

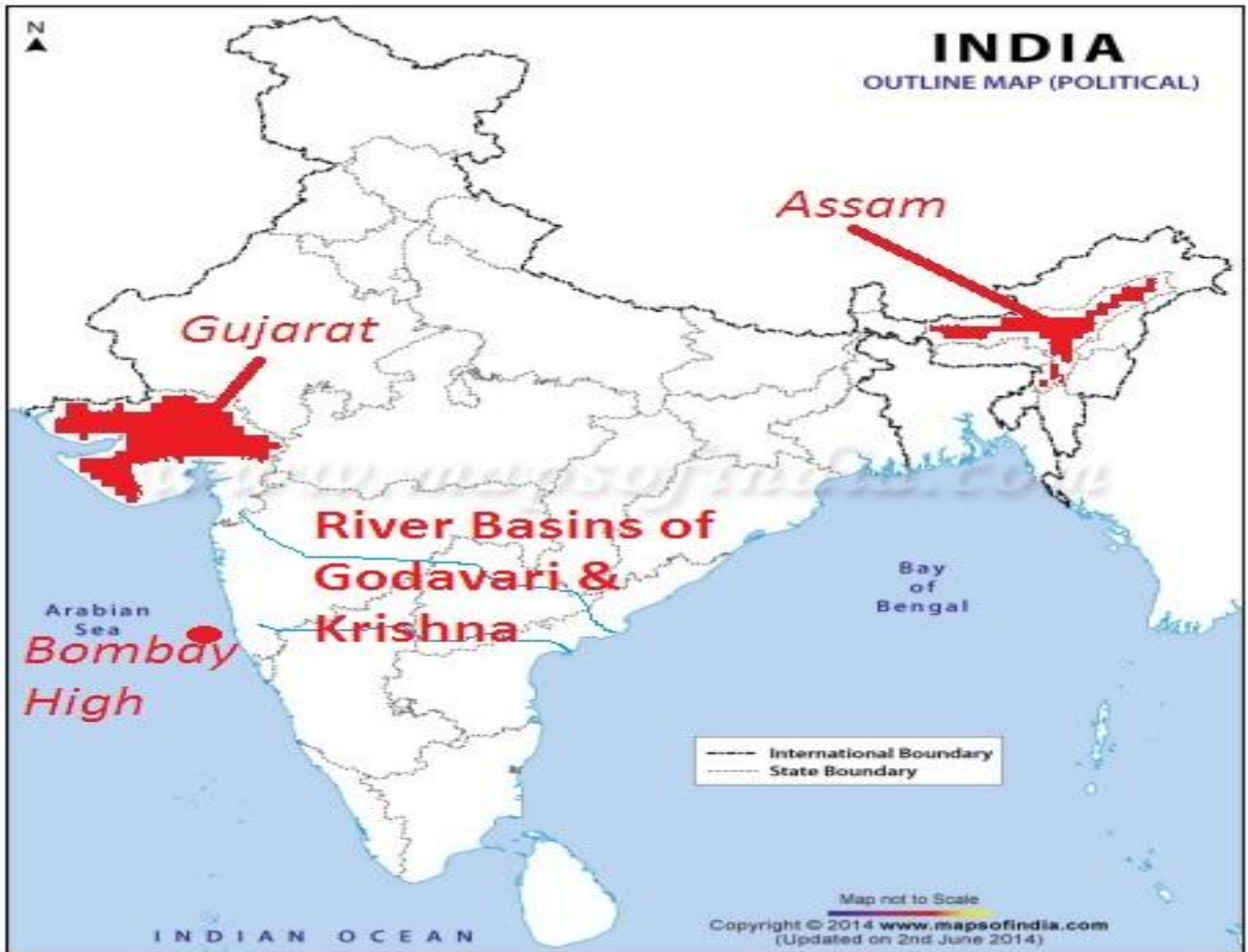
When we dig oil wells, natural gas is above crude oil which in turn is above water. This happens because gas and oil are lighter than water and do not mix with it.

First Oil Well in the World was drilled in **Pennsylvania, USA** in 1859.

Second Oil Well in the World was drilled in **Makum, Assam, India** in 1867 (after eight years).

In India, the oil is found in:

- Assam,
- Gujarat,
- Mumbai High, and
- River basins of Godavari and Krishna.



Refining of Petroleum

Originally, petroleum is a mixture of many things, such as petrol, diesel, petroleum gas, paraffin wax, lubricating oil etc.

- It is a dark and oily liquid with an unpleasant odour.
- Refining of petroleum is the process by which different constituents of petroleum are separated.
- This process takes place in a petroleum refinery.

Constituents of Petroleum and their Uses



Liquid Petroleum Gas (LPG)

- Used as fuel at home and as industry



Petrol

- Used as fuel in motor vehicles and aviation industry, and as solvent in dry cleaning



Kerosene

- Used as fuel in stoves and lamps, and also in jet aircrafts



Diesel

- Used as fuel in electric generators as well as heavy motor vehicles



Lubricating Oil

- Used for lubrication in machinery



Paraffin Wax

- Used to manufacture ointments, candles, vaselines etc.



Bitumen

- Used to manufacture paints or for road surfacing

Figure 3 Constituents of Petroleum

Next Part: Why Petroleum is called 'black gold'?