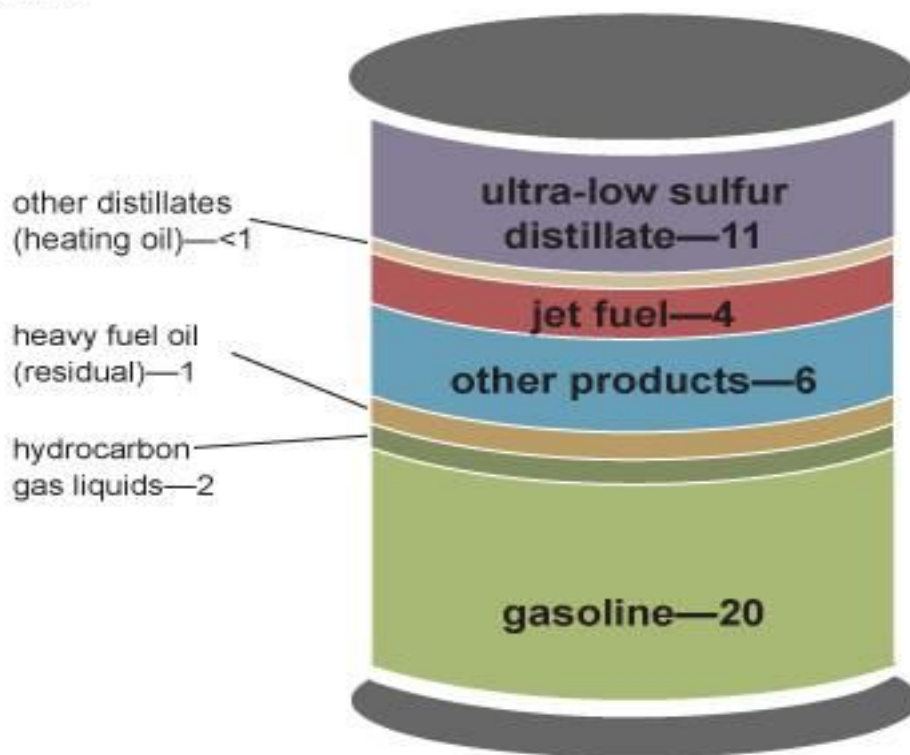


## Crude oil and petroleum products

Crude oil is a mixture of hydrocarbons that formed from plants and animals that lived millions of years ago. Crude oil is a fossil fuel, and it exists in liquid form in underground pools or reservoirs, in tiny spaces within sedimentary rocks, and near the surface in tar (or oil) sands. Petroleum products are fuels made from crude oil and other hydrocarbons contained in natural gas. Petroleum products can also be made from coal, natural gas, and biomass.

### Petroleum products made from a barrel of crude oil, 2017

gallons



Note: A 42-gallon (U.S.) barrel of crude oil yields about 45 gallons of petroleum products because of refinery processing gain. The sum of the product amounts in the image may not equal 45 because of independent rounding.

Source: U.S. Energy Information Administration, *Petroleum Supply Monthly*, May 2018, preliminary data

## Many countries produce crude oil

About 100 countries produce crude oil. In 2017, 48% of the world's total crude oil production came from five countries:

- Russia—13%
- Saudi Arabia—13%
- United States—12%
- Iraq—6%
- Iran—5%

### **Classification:**

Upstream companies work in underground or underwater crude oil and natural gas fields, drilling of exploratory wells that recover and bring the crude oil or raw natural gas to surface.

Also known as Exploration and Production (E&P) Sector

Midstream Companies involve the transportation (by pipeline, rail, barge or truck), storage and wholesale marketing of crude or refined petroleum products. They are often included in some upstream or downstream companies.

Downstream Companies work on refining of petroleum crude oil and the processing and purifying of raw natural gas as well marketing and distribution of products derived from crude oil and natural gas. It touches consumers through products such as gasoline, kerosene.

Independent oil and gas are non-integrated companies which generate revenue at Wellheads. Integrated Oil & Gas Companies engage Exploration, production, refinement, distribution, marketing.

### **Oil Refineries in India:**

- 1) Gujrat Refinery (IOCL)
  - 2) Mumbai Refinery (HPCL)
  - 3) Kochi Refineries (BPCL)
- Rs. 4924/barrel

### **Top 10 biggest oil and gas companies in the world**

- 1- Saudi Aramco
- 2- Gazprom
- 3- National Iranian Oil
- 4- ExxonMobil
- 5- PetroChina

- 6- BP
- 7- royal Dutch Shell
- 8- premex
- 9- cheveron
- 10-kuwait pertroleum corp.

#### **Top 10 biggest oil and gas companies in India**

- 1- indian oil corporation
- 2- ONGC
- 3- bharat petroleum limited
- 4- reliance petroleum limited
- 5- eassar oil limited
- 6- cairn india
- 7- gas authority petroleum corporation
- 8- hindustan petroleum corporation
- 9- oil india ltd
- 10- tata petrodyne

#### **Top 2 companies in UPSTREAM OIL &GAS COMPANIES**

- 1- SAUDI ARAMCO( saudi arabia)
- 2- NICO(iran)

#### **Top 2 companies in downstream OIL &GAS COMPANIES**

- 1-Exxon mobil(north america)
- 2- PDVSA(latin america)

#### **Top 2 companies in OIL &GAS COMPANIES**

- 1- kinder morgan energy partners
- 2- plains all american pipeline

#### **Fully integrated oil and gas companies**

- 1-chevron(north america)
- 2- petrobras(latin america)