

Petroleum Power



Formation of Crude Oil

Crude oil, or oil in the ground, is thick and dark brown or black. It is a mixture of various hydrocarbons, and can form from dead organisms buried in the ground. Heat and pressure from layers over fossils creates liquid oil.

Study Tip

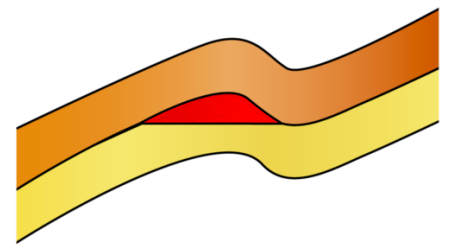
Just like water must be refined before we can drink it, crude oil must be refined before we are able to use it.



*(OPEC)
Organization
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Production of Petroleum

To produce petroleum, crude oil must be trapped between a porous rock layer and an impermeable layer. Oil companies drill into the porous rock to extract crude oil from it. Then, to separate the different types of hydrocarbons, crude oil must be refined in factories.



Oil (red) is found in the porous rock layer (yellow) and trapped by the impermeable layer (brown). The folded structure has allowed the oil to pool so a well can be drilled into the reservoir.

Use of Oil

Oil is mainly used as fuels, such as gasoline, diesel, and heating oil. It is rich in energy and easily transported. The remaining compounds from oil are used to make waxes, plastics, fertilizers, and other products. In cars, gasoline burns, causing the pistons to move; this powers the vehicle.

Consequences of Oil Use

Oil spills, such as the 2010 BP spill in the Gulf of Mexico, occur regularly. In addition, oil is not a renewable resource, and will run out eventually.

Concept Check

- How is crude oil formed?
- What are some main uses of oil?
- What are the consequences of oil use?