

Gas and Oil Terminology - a brief dictionary

Barrel (bbl): The standard barrel of crude oil (bbl) or other petroleum product contains 42 US gallons, or 35 Imperial gallons or 159 L. The barrel is the unit for measurement and pricing. When you see the price of oil, it is for one barrel of oil.

Biodiesel: A diesel fuel substitute or diesel fuel additive or extender. Biodiesel fuels are typically made from oils such as soybeans, rapeseed, or sunflowers, or from animal tallow. Biodiesel can also be made from hydrocarbons derived from agricultural products.

Bitumen: A thick viscous oil that exists in the semisolid or solid phase in natural deposits. One of the largest deposits is in northern Alberta.

CCS: Cyclic Steam Stimulation New Design.

LASER: Liquid Assisted Steam Enhanced Recover New Design.

Coal Bed Methane (CBM): Natural gas that is generated trapped in a coal seam.

Cogeneration: The simultaneous production of steam and electricity from one or more energy sources.

Coke: Solid carbon that remains in the refining process after cracking of hydrocarbons.

Coking: A process used to break down heavy oil molecules into lighter ones by removing the carbon which remains as a coke residue.

Compressor: A machine used to boost natural gas pressure to move it through pipelines or other facilities.

Conventional Crude Oil: Petroleum found in liquid form, flowing naturally or capable of being pumped without further processing, heating or dilution.

Cracking: A refining process for increasing the yield of gasoline from crude oil; cracking involves breaking down the larger, heavier and more complex hydrocarbon molecules into simpler and lighter molecules through the use of heat and pressure, and sometimes a catalyst.

Downstream Sector: The refining and marketing sector of the petroleum industry.

Evaporation Pond: A containment pond (that preferably has an impermeable lining of clay or synthetic material such as Hypalon®) to hold liquid wastes and to concentrate the waste through evaporation.

Gas Processing Plant: A facility designated to achieve the recovery of natural gas liquids from the stream of natural gas, which may or may not have been processed through lease separators and field facilities, and to control the quality of the natural gas to be marketed.

Gasification: A method for converting coal, petroleum, biomass, wastes, or other carbon-containing materials into a gas that can be burned to generate power or processed into chemicals and fuels.

Heavy Oil: A dense, viscous oil, with a high proportion of bitumen, that is difficult to extract with conventional techniques and is more costly to refine.

Hydrocracking: A refining process which adds hydrogen to the carbon- rich molecules of heavier oil, in the presence of a catalyst, to produce high-octane gasoline.

Gas and Oil Terminology continued

In-situ: In its original place; in position; in-situ recovery refers to various methods used to recover deeply buried bitumen deposits, including steam injection, solvent injection and firefloods.

Light Crude Oil: Liquid petroleum which has a low density and flows freely at room temperature.

Light Oil: Lighter fuel oils distilled off during the refining process. Virtually all petroleum used in internal combustion and gas-turbine engines is light oil.

Liquefied Natural Gas (LNG): Super cooled natural gas that is maintained as a liquid at -160 Degrees Celsius; LNG occupies 1/600th of its original volume and is therefore easier to transport if pipelines cannot be used.

Low Sulfur Diesel Fuel (LSD): Diesel fuel containing more than 15 but less than 500 parts per million (ppm) sulfur.

Midstream: The processing, storage and transportation sector of the petroleum industry.

Natural Gas: A gaseous mixture of hydrocarbon compounds, the primary one being methane. Note: The Energy Information Administration measures wet natural gas and its two sources of production, associated/dissolved natural gas and non-associated natural gas, and dry natural gas, which is produced from wet natural gas.

Oil Sands: A deposit of sand saturated with bitumen. One of the largest oil sands deposits is in Alberta.

Oil Shale: A sedimentary rock containing kerogen, a solid organic material.

Petrochemicals: Chemicals derived from petroleum that are used as feedstocks for the manufacture of a variety of plastics and other products such as synthetic rubber.

Petroleum Refinery: An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

SAGD (steam-assisted gravity drainage): A recovery technique for extraction of heavy oil or bitumen that involves drilling a pair of horizontal wells one above the other; one well is used for steam injection and the other for production.

Secondary Recovery: The extraction of additional crude oil, natural gas and related substances from reservoirs through pressure maintenance techniques such as water flooding and gas injection.

Shale: Rock formed from clay.

Sour Gas: Natural gas containing hydrogen sulphide (H₂S) in measurable concentrations.

Steam Injection: A technique where steam is injected into a reservoir to reduce the viscosity of the oil.

Synthetic Crude Oil: a mixture of hydrocarbons, similar to crude oil, derived by upgrading bitumen from oil sands.

Tar Sands: Naturally occurring bitumen-impregnated sands that yield mixtures of liquid hydrocarbon and that require further processing other than mechanical blending before becoming finished petroleum products.

Ultra-low Sulfur Diesel Fuel (ULSD): Diesel fuel containing a maximum 15 parts per million (ppm) sulfur.

Upstream: The exploration and production sector of the petroleum industry.