

API gravity: The standard American Petroleum Institute method for specifying the density of crude petroleum. The density in degrees of API equals $(141.5 / P) - 131.5$, where P is the specific gravity of the oil measured at 60° F.

barrel: A common unit of measurement of liquids in the petroleum industry; it equals 42 U.S. standard gallons.

chemical flooding: An enhanced oil recovery technique based upon adding various chemicals to the water used in waterflooding in order to increase waterflood efficiencies.

conditional mean resources: The average amount of oil and/or gas expected to exist if at least one of the prospects in an area contained economically recoverable accumulations of hydrocarbons and if all of the prospects modelled were drilled.

directional drilling: Drilling that has been deliberately angled away from the vertical.

drilling mud: A special mixture of clay, water, or oil and chemical additives pumped through the drill pipe and drill bit. The mud cools the rapidly rotating bit; lubricates the drill pipe as it turns in the well bore; carries rock cuttings to the surface; serves as a plaster to prevent the wall of the bore hole from crumbling or collapsing; and provides the weight or hydrostatic head to prevent formation fluids from entering the well bore and to control downhole pressures,

economically recoverable resource estimate: An assessment of the hydrocarbon potential of a field that takes into account physical and technological constraints on production and the relation of costs and market price.

enhanced oil recovery: See tertiary recovery.

fault: A fracture along which the rocks on one side are displaced relatively to those on the other.

field: Composed of a single pool or multiple pools

that are grouped on or related to a single structural and/or stratigraphic feature. "Pool" is a term meaning a body of reservoir rock containing recoverable oil and/or gas.

formation: A rock mass composed of individual beds or units with similar physical characteristics or origin.

gas lift: The effect of either naturally or artificially induced gas pressure in an oil well that causes the oil to flow from the well.

gas/oil ratio: The proportion of gas produced relative to oil produced from a reservoir(s) or field(s), usually expressed as cubic feet per barrel of oil.

gas injection: The process of injecting (or re-injecting) gas into a reservoir to maintain the producing pressure.

infill drilling: Drilling at a smaller spacing than called for in the original development plan, designed to speed up production and/or increase ultimate recovery.

in-place resources: The total amount of oil in a field, only a portion of which will ultimately be recoverable.

inferred, potential reserves: Those resources that should eventually be added to proved reserves through extensions of known fields, revisions of earlier reserves estimates resulting from new subsurface and production information, and production from new producing zones in known fields.

log, well log: Measurements of the physical properties of the drilled section, generally taken while raising measurement devices up the wellbore on an electrical cable.

marginal probability: The probability that economically recoverable oil and gas resources exist in an area under study.

migration: The movement of oil, gas, or water through porous and permeable rock.

miscible flooding: A technique based upon using some gas – such as enriched reservoir gas or CO₂—to miscibly displace some oils, thereby permitting the recovery of most of the in-place oil contacted.

outer continental shelf: The part of the continental shelf beyond the line that marks State ownership; that part of the offshore area under Federal jurisdiction.

pay: A rock stratum or zone that yields oil or gas.

permafrost: Any soil, subsoil, or other surficial deposit occurring in arctic, subarctic, and alpine regions at a variable depth beneath the Earth's surface in which a temperature below freezing has existed continuously for a long time.

permeability: The degree to which a rock will allow liquid or gas to pass through it.

play: A rock formation or group of formations within a sedimentary basin with geological characteristics similar to those that have been proven productive. A play serves as a planning unit around which an exploration program can be constructed.

pool: A subsurface accumulation of oil and/or gas in porous and permeable rock, having its own isolated pressure system. Theoretically, a single well could drain a pool. Also known as a reservoir.

porosity: The proportion of a rock's total volume occupied by the voids between the mineral grains.

pressure cycling: A technique of injecting natural gas or CO₂ into a producing formation and alternating high and low pressures to induce mixing with the crude and thus stimulating the flow.

primary recovery: The fraction of original oil and/or gas in-place that will flow unaided or can be pumped from the reservoir rock matrix to the surface.

production: Activities that take place after the successful establishment of means for the removal of oil and/or gas, including such removal, field operations, operation monitoring, maintenance, and workover drilling.

proprietary information: Scientific, engineering, and financial data, information, and derivatives thereof that are not released to the public for a specified term. Federal laws, regulations, statutes, or contractual requirements affect the terms,

prospect: An area that is a potential site of economically recoverable petroleum accumulation based on preliminary exploration. A play is composed of one or more prospects.

recoverable oil: The sum of proved and potential reserves. May also include estimated undiscovered recoverable oil.

reserves, proved reserves (oil): The portion of an oil field's resource base that has been identified by drilling and estimated directly by engineering measurements, and that is recoverable at current prices and technology.

reservoir pressure: The pressure existing at the level of the oil and/or gas productive zone in a well.

reservoir rock: A porous and permeable rock, e.g., sandstone or limestone, which contains oil and/or gas that can be produced.

resources: The total amount of oil or gas that remains to be produced in the future. Generally does not include oil or gas in such small deposits or under such difficult conditions that it is not expected to be produced at any foreseeable price/technology combination.

risked mean resources: The product obtained by multiplying the conditional mean value by the marginal probability that economically recoverable hydrocarbon resources exist in the area under study.

secondary recovery: Oil and gas obtained by the augmentation of reservoir energy, often by the injection of gas or water into a producing reservoir.

show: An indication of the presence of oil or gas in the formations penetrated during drilling.

shut-in: Shutoff, so there is no flow; refers to a well, plant, pump, etc., when valves are closed. A shut-in well can be returned to production, often with some downhole cleanup work.

source rock: **Sedimentary** rock in which organic material under pressure, heat, and time was transformed to liquid or gaseous hydrocarbons. Source rock is usually shale or limestone.

stratigraphic trap: A trap for oil and/or gas, resulting from changes in rock type, porosity, or permeability, that occurs as a result of sedimentation and diagenetic processes rather than from structural deformation.

structural trap: A trap for oil or gas resulting from folding, faulting, or other rock deformation.

tertiary recovery: Oil recovered using advanced techniques beyond secondary recovery techniques. Techniques include injection of steam or of other injected substances, such as rich miscible gas, carbon dioxide, polymers, solvents, surfactants, micellar fluids, or even microorganisms.

thermal recovery/stimulation: A petroleum recovery process that utilizes heat (in the form of steam or hot gas) to thin viscous oil in an underground reservoir and allow it to flow

more readily toward wells through which it can be brought to the surface.

trap: Any barrier to the upward movement of oil or gas that allows either or both to accumulate. A trap includes reservoir rock and overlying impermeable cap rock.

viscosity: That property of a fluid which determines its rate of flow. As the temperature of a fluid is increased, its viscosity decreases, and it therefore flows more readily.

waterflood: A secondary-recovery operation for oilfields in which water is injected into a petroleum reservoir to force more oil to the producing wells.

work-over: A term applied to any remedial operation performed on a well after completion.

undiscovered, economically recoverable resources: Quantities of economically recoverable oil and gas estimated to exist outside known fields.

undiscovered, in-place resources: Quantities of oil and gas estimated to exist outside known fields, without reference to technological or economic factors.

wellhead: The equipment used to maintain surface control of a well. It is formed of the casing head, tubing head, and Christmas tree (assemblage of valves, gages, fittings, etc.). Also refers to various parameters as they exist at the wellhead: wellhead pressure, wellhead price of oil, etc.