

GLOSSARY

ENGINEERIUM

HSE

HSE is an abbreviation for health, safety and environment which is about avoiding damage or injury to people, the environment, or materials. This is especially important when the consequences are serious. Focus on HSE prevents problems by assessing the risks and possible outcomes of our actions. It is important to emphasise a good attitude, learning from mistakes, and to incorporate rules and routines at the workplace.

RESERVOIR

This is the area where oil and gas are located. The reservoir consists of porous rocks called reservoir rock, and the oil and gas are in the pores of the reservoir rocks. This kind of rock is found in the earth's upper crust, both on land and beneath the seabed.

SEISMIC SURVEY

Seismic surveys are like ultrasounds of the earth. Seismic vessels mechanically generate sound waves which are sent into the earth. Sensors are towed behind the vessel and register the time it takes for the waves to reflect back, and the remaining energy. The recordings are then processed and transformed into visual images of the subsurface of the earth.

EXTRACTION

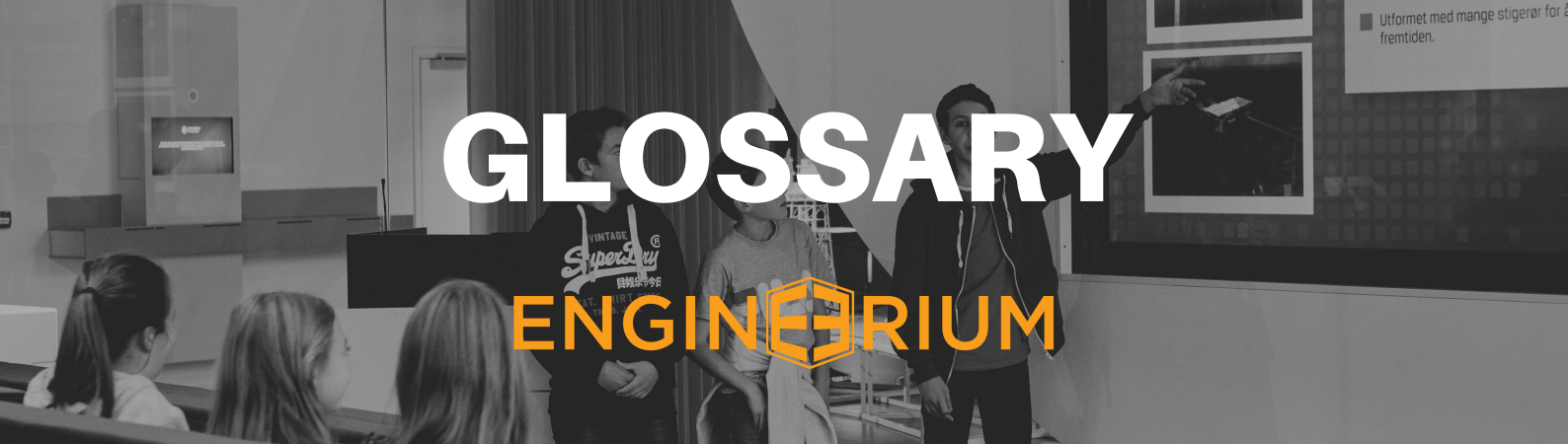
The process of recovering oil and gas from reservoirs. This can be done by placing a type of development concept on the field where oil and gas has been located.

RECOVERY RATE

The share of petroleum recovered from the reservoir. On the Norwegian Continental Shelf the average percentage is 47% recovery, whereas it is 30-35% worldwide (from the amount of original oil in the reservoir - OOIR).

DEVELOPMENT CONCEPT

The equipment used for the recovery of petroleum. In Engineering Challenge you choose between a fixed or floating platform, production vessel (FPSO-Floating Production Storage and Offloading) or a subsea system.



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INVESTMENT

Developing an oil field is expensive. However, companies are willing to pay high costs as they expect to make more money when selling the oil and gas. An investment is an expense that is expected to provide returns in the future.

INJECTION

In the petroleum industry injecting refers to the method where water or gas is pumped back into the reservoir to extract more oil. Oil is not pumped up, but rather it rises due to the high pressure in the reservoir. As the oil is recovered the pressure in the reservoir decreases. By injection the pressure is increased, and more oil can be extracted. Injection is a part of EOR (Enhanced Oil Recovery) methods.

GENERATOR

A generator converts mechanical energy to electric energy. Offshore installations often use a gas-powered generator for electricity rather than a long cable from shore.

CHRISTMAS TREE

A system of pipes and valves placed on top of the oil well distributing the oil and gas flow, as well as controlling the pressure in the reservoir.

RISERS

Vertical pipes connecting the well to the platform's drilling or production installation. A drill string goes inside the riser during drilling operations, otherwise the risers are used for the flow of petroleum up, or gas/water injection down.