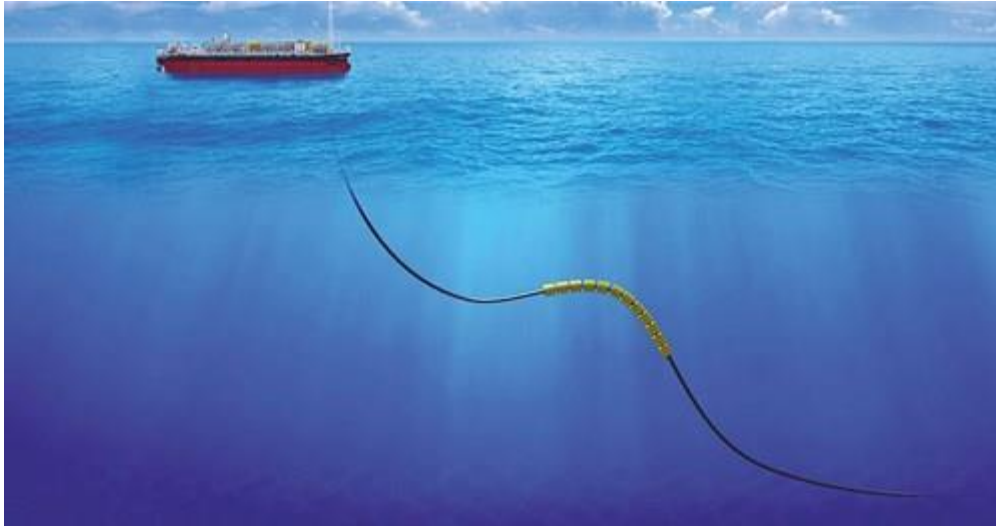


## OTC: 2015 Petrobras receives highest award in global oil industry



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For the third time, Petrobras is set to receive the highest award that an oil company can be given, bestowed by the Offshore Technology Conference (OTC) committee, based in Houston, USA. The OTC Distinguished Achievement Award for Companies, Organizations, and Institutions provides recognition for the set of technologies developed for oil and gas production in the pre-salt layer off the Brazilian coast, where the company achieved a new daily production record on December 21, 2014, extracting 713,000 barrels of oil. The awards ceremony will take place in May in Houston.

In 1992, Petrobras received the same award for its technical achievements related to the development of deepwater production systems in Marlim field, Campos Basin, off the coast of Rio de Janeiro, and in 2001, for its advances in technologies and cost effectiveness in deepwater projects in the development of Roncador field, also in Campos Basin.

In a letter informing Petrobras of the award, the chairman of the Offshore Technology Conference, Edward G. Stokes, emphasized that: "This award provides recognition for Petrobras' notable, significant and unique achievements and its major contributions to our industry [offshore oil and

gas]. The [OTC] selection committee was extremely impressed by the nomination. Petrobras' achievements in the drilling and production of these challenging reservoirs are world-class. The industry has learned a lot from the information shared by Petrobras about pre-salt in papers and sessions presented at the OTC. We are all benefiting from your success."

Since 1969, the OTC has held the world's largest annual business event in the offshore oil and gas production sector. It is attended by practically all offshore oil and gas operators, as well as their suppliers, attracting 100,000 conference goers from 130 countries.

The OTC hosts discussions of the latest offshore technology for exploration, drilling, production and environmental protection, and showcases the latest innovations in products and services for exploration and production activities.

### **10 key technologies in pre-salt:**

**1** – First riser support buoy – Designed to sustain, on the ocean surface, the pipes that take oil or gas from a well to a platform;

**2** – First steel catenary riser (SCR) – Rigid pipe, generally made of steel, which takes oil or gas from a well to a platform;

**3** – Deepest steel lazy wave riser (SLWR) – Another special type of steel pipe, which transports oil and gas from a well to a platform, also installed in deeper waters;

**4** – Deepest flexible riser (2,140 m) – Pipe that transfers oil or gas from a well on the seabed to a production platform. The flexible riser in question was installed at a record water depth.

**5** – First application of flexible risers with integrated monitoring – First ever use of a flexible riser to transfer oil and gas from a well to a platform, with integrated control.

**6** – Record water depth (2,103 m) for drilling an underwater well using the pressurized mud cap drilling (PMCD) technique with a dynamic positioning drilling rig – Well drilled in deepest ever waters using pressurized mud.

The mud is a mixture used to maintain the well's pressure during drilling and prevent its walls from caving in.

**7** – First intensive use of intelligent completion in ultra-deep waters in satellite wells – Satellite wells are production or injection wells drilled far from a production platform.

**8** – First separation of CO<sub>2</sub> associated with natural gas in ultra-deep waters (2,200 m), by injecting CO<sub>2</sub> into production reservoirs – CO<sub>2</sub> is an odorless, colorless, non-flammable gas, heavier than air, also produced in some reservoirs together with oil, water and natural gas. This technology makes it possible to separate it from oil and gas to re-inject into reservoirs through special wells called injection wells, in order to improve the productivity of production wells.

**9** – Deepest CO<sub>2</sub> gas injection well (water depth of 2,200 m) – With this well, Petrobras set a new record for CO<sub>2</sub> injection well depth, in order to raise oil and gas output.

**10** – First use of alternative water and gas injection method in ultra-deep waters (2,200 m) – Oil and gas is injected to raise the productivity of oil and gas reservoirs.