

CASE HISTORY

ARGENTINA: BENCHMARK HORIZONTAL WELL FOR SDI-ESTRELLA ALLIANCE IN VACA MUERTA SHALE

APPLICATION

Pad Drilling

TECHNOLOGY

Falcon Mud Pulse MWD System, Sci-Gamma

LOCATION

Vaca Muerta Shale, Argentina

CUSTOMER CHALLENGE

Vaca Muerta is a geologic formation of Jurassic and Cretaceous age, located at Neuquén Basin in Argentina. It is best known as the host rock for major deposits of tight oil (shale oil) and shale gas, the second largest for gas and the fourth for oil in the world. The formation covers a total area of 30,000 square kilometers (12,000 sq mi). The shale is at a depth of about 2,900m (9,500 ft), where it has been found productive of oil and gas.

The Scientific Drilling-Estrella Alliance was challenged to build from vertical and drill horizontal section of 2,000m in one run.

SCIENTIFIC SOLUTION

In the past for YPF, only a few horizontal wells have been drilled in this formation with a horizontal section of 2,000m. YPF not only is our main client in Argentina but also is the main operator in the basin and country.

Drilling reached a total depth of 5,247m MD (17,214 ft) after navigating 2,016m horizontally, the longest well ever drilled with the SDI-Estrella Alliance and one of the top 5 longest in Unconventional Fields.

The Falcon Mud Pulse MWD + Sci-Gamma drilled the complete 6 1/8" hole section of 2,785m MD (9,137ft) in one run, building from vertical to 90° landing point at 3,231m (10,600ft). This is also the longest horizontal section drilled by the Alliance.

A second benchmark was achieved with 445 circulating hours, setting the longest directional record run without failures in YPF's Fields in the Neuquén basin, Argentina, where we compete with all the major global directional service providers. The previous record was 320 hrs.

CUSTOMER VALUE

This exceptionally long run without failures strengthens the client confidence and reliability in the Scientific Drilling-Estrella Alliance MWD system and sets new achievement benchmarks for future wells.

