

PRESS RELEASE
FEBRUARY 12, 2013

LUKOIL INTRODUCES NEW PRODUCTION TECHNIQUE FOR HEAVY OIL

LUKOIL has become the first company in the world to implement a counter Steam-Assisted Gravity Drainage (SAGD) project with a system of horizontal wells located in Lyaelskaya area of Yaregskoye field in Komi Republic.

The counter SAGD technique will allow them to bring into production more than 16 million tons of oil reserves in Lyaelskaya area alone.

Unlike the traditional SAGD technique that provides for the drilling of a steam injector and a production well at neighboring points, the new technique provides for the drilling of counter wells at opposite points.

As part of the project, five pairs of wells with a horizontal borehole length of 1,000 meters were drilled in the pay zone. The distance between two wells is 5-10 meters, while the distance between the well pairs is 70 meters.

Steam is continuously injected into the top well, which results in the formation of a constantly expanding steam chamber. The steam is condensed at the chamber border and flows, due to gravity, to the bottom of the oil-producing well along with the heated oil.

Yaregskoye field's heavy oil has a viscosity of 12,000 mPas (millipascal-second). For instance, the viscosity of water is 1 mPas. The field was discovered in 1932. It comprises three structures: Yaregskaya, Lyaelskaya and Vezhavozhskaya. Only the Yaregskaya structure has been in commercial development since 1939, while the thermal-mine oil production method has been applied there since 1972.