

PRESS RELEASE  
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## LUKOIL ADOPTS UNIQUE MULTI-STAGE HYDROFRACTURING TECHNOLOGY TTS

PJSC LUKOIL has successfully introduced TTS technology in multi-stage hydrofracturing in horizontal wells. The technology was implemented at Western Siberia oil fields. TTS technology in multi-stage hydrofracturing (MSF) helps increasing the productivity of low permeability formations by creating an artificial reservoir.

The application of this innovative approach has resulted in increased oil production rates by 1.2-1.6 times compared to the conventional MSF which allowed for a more effective development of pay zones.

OOO LUKOIL-Western Siberia (a wholly-owned subsidiary of PJSC LUKOIL) operates 20 horizontal wells involving multi-stage fracturing based on TTS technology, including 10 wells on the Imilorsko-Istochnoye field with an average flow rate of 68 tons/day and 10 wells on the Tevlinsko-Russkinskoye, Potochnoye and Severo-Pokachevskoye fields.

Implementation of this unique technology has allowed for increasing well production rates at average 32% and improving the technical and economic parameters of tight reservoir development.

In 2015-2016, TTS multi-stage fracturing technology is included in field development design and process documentation as design solution.