



Radial Drilling North Urtabaluk Trial for Tethys Petroleum, Uzbekistan

Radial Drilling Services lateral jetting technique was utilized in the to optimize recovery in an ageing field, whilst reducing the need for infill drilling.

CHALLENGE

To maximize ultimate oil recovery in a time-efficient manner by employing modern technologies to access untapped oil reserves beneath the mobile salt zone and to access “trapped” oil between existing wells.

SOLUTION

Apply a sequence of laterals placed to effectively maximize incremental oil flow, extend existing drainage radius and reduce the need of additional infill drilling.

RESULTS

Increased drainage area of 5 wells to that of 13 wells equivalent, whilst increasing production rates of between 30% to 400% from existing wellbores

Large percentage of unproductive & under performing wells

Operating in the in the upper Jurassic Reef (XV Unit), Tethys needed a time-efficient method to improve production through work-over optimization of cemented vertical wells. Five under performing wells were chosen to trail the effectiveness of extending the drainage area.

Surface core tests and analysis indicated good formation response to the use of hydrochloric acid as a stimulation fluid, opening additional flow channels not normally seen through conventional completion.

Effective solution through sequenced lateral placement.

Radial drilling operations were successfully completed on schedule in all 5 wells. With four laterals placed in the target horizon.

The laterals were accurately placed to allow delivery of maximum natural flow returns to the main wellbore and to surface.

Laterals were achieved using fluid volumes no more than 1,000 liters per lateral and configured for zero formation invasion.

30% - 400% higher production without loss of efficiency or added cost.

Following lateral placement a significant post radial drilling production increase was noted in all 5 wells despite this being a pressure depleted field.

Radial Drilling technology was proven to be effective and Tethys has confirmed its continued use elsewhere in Uzbekistan.

