STEP energy services

CASE STUDY | LONG LATERAL MILLOUT

Project Scope: Long lateral millout

Location: Montney, NE BC

String Size: 73mm (2-7/8")

No. of Wells: 5 of an 11 well pad

Total Measured Depth: Deepest well - 6,275m (20,590ft)

Date: January 2014

With the increasing number of horizontal wells and multistage fractures needed to access unconventional resources, producers in the WCSB are looking at alternative well designs to maximize production economically. Some are finding means to this challenge by increasing horizontal length, a solution which calls for long-reach coiled tubing services to access depths that have never been touched before. One client in particular determined early on that standard coiled tubing applications would not meet well objectives and a customized solution would be required.

It was late 2013 when a major E&P company began the planning process for a long lateral program in northeast British Columbia. The client was experimenting lateral wellbores that were 60 per cent longer than their standard development wells. Five ultra-long lateral wells were drilled out of 11 wells to deviate from the development standard for this trial. These wells were considered exceptionally challenging due in part to the pronounced wellbore deviation, casing size variations and total measured depth.

EXECUTION:

STEP professionals identified a few major components early on that would limit conventional equipment to work on these long laterals. To maximize the probability of success the team started looking at a custom coiled tubing string and a compatible reel. STEP's engineering team designed a custom tapered 2-7/8" coiled tubing string which was manufactured to meet the client's needs and reach total depth of these challenging wellbores. An ultra-capacity 12 foot reel trailer was also made to accommodate the 6,600m (21,654ft) string of coiled tubing – the heaviest string ever built in North America. In addition to the coiled tubing design, STEP's technical experts partnered with the client to come up with a well trajectory design that enabled fracture stimulation evenly along the length of the wellbore while still allowing a successful well cleanout post-stimulation.

STEP's operations professionals successfully milled up to 18 plugs per well with limited wiper trips, reaching a maximum depth of 6,275 metres (20,590ft), beating STEP's previous North American record from November 2013.

With the client's experimental horizontal wellbore strategy and STEP's unique string and program design, both parties were able to push the limits of extended reach CT interventions in the industry to new heights.

What possibilities can STEP help you achieve in order to maximize the effectiveness your long lateral program?

For more information, please visit **stepenergyservices.com**

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