

Conoco Phillips Canada

13-32-72-13 W6
 Beaver Lodge. AB
 Precision Drilling Rig 282

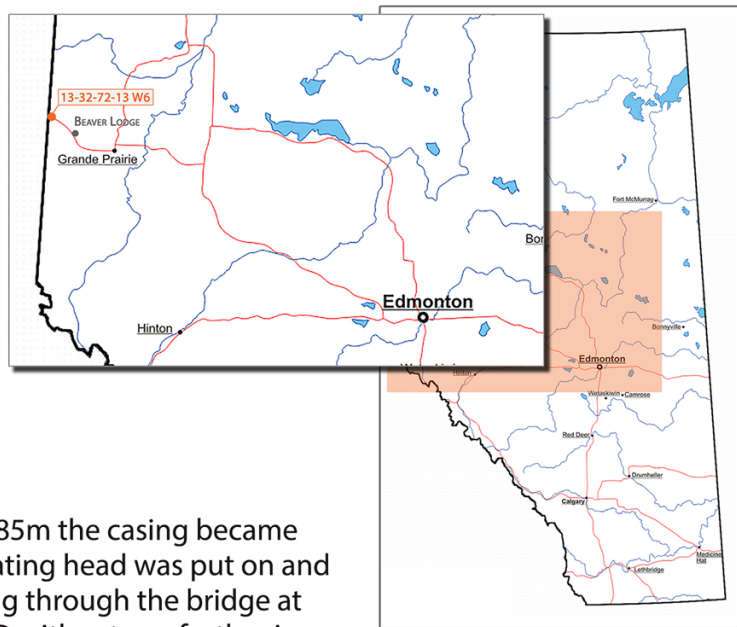
Longhorn recieved a call from Conoco Phillips for a Stubby run on a problematic well. Located outside of Beaver Lodge, Alberta, the well had a total measured depth of 1962m, with tight spots encountered during the last wiper run around 1880m. Prior to running in the casing string, Conoco had logging services in the hole, and the rig had been out of the hole for several hours.

The casing was run in without issue to a depth of 1800m. At 1885m the casing became tight as the string encountered a bridge. At this point, the circulating head was put on and the tool is worked against the bridge repeatedly, finally breaking through the bridge at 1896m. The last eight joints were run until the string reached TD without any further issues.

During the drill-out operations, Conoco Phillips elected to test a tri-cone tooth bit's ability to drill through the internals of a Stubby effectively. The drill out took almost 9 hours to complete, and the tri-cone bit was completely spent. Futher, the Stubby tool mandrel had a thin walled section of mandrel remaining inside the tool body, which was retrieved during the next wiper trip. The reasons for the poor drill-out performance were two fold; First, a tri-cone bit has a tendency to drill an oval shaped hole, and the oblong pattern left a long, thin wall of aluminum along one side. Secondly, a PDC bit is designed to cut from the center out, while a tooth bit is made to grind and chip material from the outside-in. As a result, the Stubby mandrel was essentially shaped to the bit until it was driven between the bit cones and could not be easily drilled further.

In the post-run with Conoco's drilling department, Conoco agreed that the tool was an effective way of reliably getting the casing string to bottom, and with set drill-out procedures, will be an effective tool in their drilling program.

Since this tool run, Conoco Phillips Canada has run a tptal of 41 more Stubby tools and run Longhorn's equipment on 97 wells.



Run Summary

Client:	Conoco Phillps Canada
Tool:	7" Stubby PDC Drillable
Bit:	7" Aluminum Negotiator
Target:	7" Intermediate Casing
Hole Size:	222.25 mm / 8 3/4"
TMD:	1962 m/ 6,437 ft

Expected Issues	Bridges Swelling Shales Coal Seams
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Total Run Time:	9 Hours
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Noteworthy

The tool worked through an 11m (36 ft) bridge at 1885 m (6184 ft), and reamed various shale sections. After cementing, the tool was drilled out with a Tri-Cone bit, resulting in a prolonged drill-out.



LEFT: Rig crew preparing the Stubby for the casing run, CENTER: Photo of PD 427 RIGHT: Photo of the Stubby in the Slips