

ReedHycalog™ bit sets curve record

Performance
Summary

8 ½” TK56 sets the Appalachian Basin curve record in 6.72 hours for a major operator in Susquehanna Co., PA

Challenge:

To drill both the 8 ½” Marcellus Shale curve and lateral sections to TD in a single BHA while meeting directional requirements and increasing the overall average ROP.

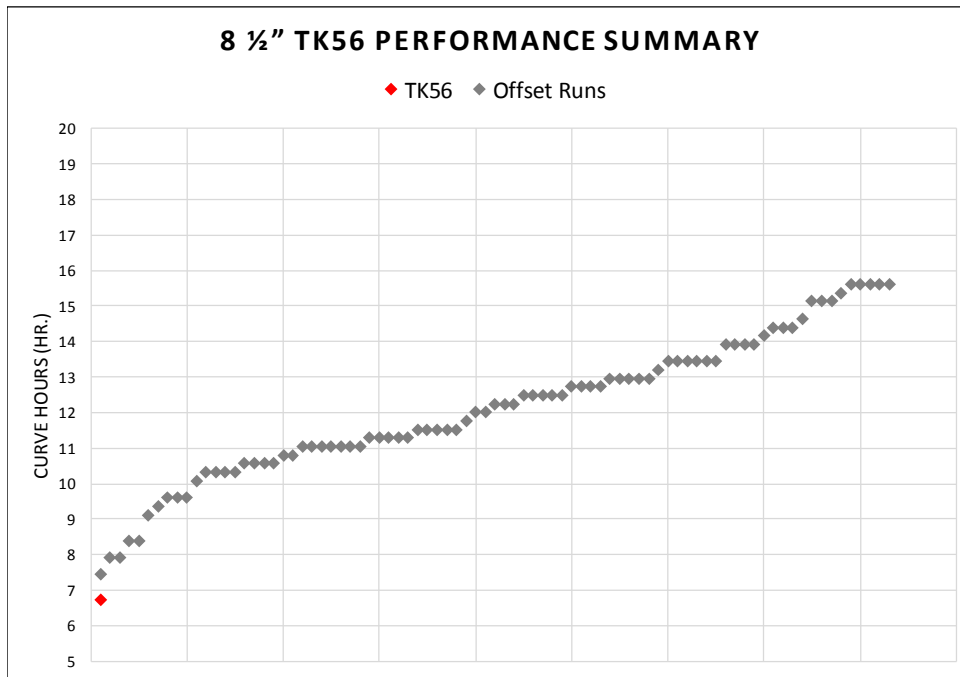
Solution:

A major operator in the Northeast ran an NOV *ReedHycalog* 8 ½” TK56 below an 7/8, 6.4 stage, fixed 2.0° NOV 34 Series motor in their curve and lateral sections of a Marcellus Shale well in Susquehanna Co., Pennsylvania. The locally engineered TK56 design, encompassing Tektonic™ features, set the Appalachian Basin curve record at 6.72 hours which was 44% faster than the average of basin offsets. The optimized cutting structure, utilizing ION™ polished PDC cutters, was not only able to drill to TD in a single BHA while meeting directional requirements, but it was able to do so while yielding an excellent dull grade of 1-2-BT-S-X-I-CT-TD.

Field	Marcellus
County	Susquehanna
State	Pennsylvania
Country	USA
Date	Q4 2018
Lithology	Sandstone, Shale

Results:

- Appalachian Basin curve record at 6.72 hours
- 44% faster curve than the average of basin offsets
- Drilled the entire curve and lateral sections to TD in a single BHA
- Yielded an excellent dull grade of 1-2-BT-S-X-I-CT-TD



8 ½” TK56

Bit Mfg.	# of Runs	Bit Type	Depth In (ft.)	Depth Out (ft.)	Total Interval Drilled (ft.)	Overall Average ROP (ft./hr.)	Curve Hours (hr.)	Dull Grade
<i>ReedHycalog</i>	1	TK56	5,515	12,276	6,761	141.6	6.72	1-2-BT-S-X-I-CT-TD
Offsets Avg.	83	-	-	-	-	-	12.1	-
Delta	-	-	-	-	-	-	-44%	-

*Offsets include all Marcellus Shale and Utica Shale curve sections by the same operator in the Appalachian Basin