

# SelectShift Motor Eliminates Bit Trip While Drilling VertiCurve

7⅞-in. Vector Series 50 SelectShift downhole adjustable motor drills a challenging VertiCurve section in a single run saving the operator considerable cost in the Three Forks basin

### Challenge:

To provide a motor capable of drilling the 8¾-in lower vertical and curve section of the client's well. The interval involved drilling a tangent section that included a drop back to vertical before kicking off to drill the curve, which typically requires more than one motor to complete. If this entire interval could be completed using a single motor, it would save the client significant trip time and cost by eliminating one complete BHA trip.

### Solution:

Due to the unique capabilities and robustness, the Vector™ Series 50 SelectShift™ downhole adjustable motor was chosen to tackle this challenging application. The motor featured a 1.50° locked to 2.12° adjustable bend setting, powered by the 7/8 lobe 5.0 stage ERT™ power section. This SelectShift motor configuration would provide the required reliability and ultimate adjustability to deliver superb excellence required by this demanding run.

### Results:

The Vector Series 50 SelectShift motor was run in hole at 8,433 ft MD and was able to drill to TD of the curve at 11,960 ft MD. At completion of the lower tangent section, the SelectShift was successfully shifted from 1.50° bend to a final 2.12° bend setting, allowing the curve to be drilled completed, eliminating the need of a dedicated curve assembly. Over the course of the run the SelectShift downhole adjustable motor delivered the following results:

- Successfully completed the lower vertical & curve section in one run
- Eliminated one complete BHA trip
- Produced a build rate of 18° max yield



<b>Client:</b>	Confidential
<b>Well Name:</b>	Confidential nd
<b>Field/Block:</b>	Three Forks
<b>County:</b>	McKenzie
<b>State:</b>	North Dakota
<b>Country:</b>	USA
<b>Date:</b>	Q4 2020



### Vector Series 50 SelectShift Technical Specifications

<b>Size:</b>	7⅞-in.
<b>Bit to center of stabilizer:</b>	18½-in.
<b>Motor stabilizer size:</b>	Max ¼-in. UG
<b>Bit to bend:</b>	64½-in.
<b>Bit to stator:</b>	122-in.
<b>WOB @ 100 RPM:</b>	115,000 lbs
<b>Bottom connection:</b>	4½-in. REG