

CASE STUDY

WELLGUIDE RSS™ REACHES NEW LATERAL LENGTHS IN GRANITE WASH - OVER 9,000 FEET

▶ TECHNOLOGY

- 4 ¾" WellGuide RSS™
- 4 ¾" GyroDrill™ Performance Motor
- MagGuide EM MWD

▶ APPLICATION

- Directional Drilling
- Extended Reach Drilling

▶ LOCATION

- Granite Wash Play (Texas USA)

INDUSTRY CHALLENGE + OBJECTIVE

A mid-continent, E&P operator needed to drill two directional wells in the Granite Wash Play, an area difficult to maintain directional control due to its extremely abrasive and variable bedding. The operator was experiencing challenges drilling in lateral sections greater than 7,500 feet with conventional directional drilling assemblies. To remedy the mud losses in the predicted lost circulation zones, the operator required higher concentrations of lost circulation material (LCM) and reduced flow rates.

Gyrodata was requested to provide a rotary steerable system (RSS) solution that could handle the high LCM volume and low flow rates needed to drill each lateral section to nearly 9,500 feet on a more efficient timeline.

TECHNOLOGY + SERVICE SOLUTION

- Gyrodata recommended an optimized BHA design incorporating the 4 ¾" WellGuide RSS, as well as the 4 ¾" GyroDrill Performance Motor and MagGuide EM MWD for precise steering control and survey validation.
- For each well, the WellGuide RSS was programmed with the target course and parameters required to complete each lateral section, then deployed to drill the lateral sections, achieving the planned 8,653 feet in Well 1 followed by 9,475 feet in Well 2.

RESULT + VALUE DELIVERED

- Both laterals were completed under the targeted timeline.
- The WellGuide RSS maintained directional accuracy while allowing for increased LCM volume and lower flow rates to mitigate losses, delivering a smooth wellbore at a controlled ROP of +/- 50 feet per hour.
- Gyrodata has since contributed to several other drilling jobs with the customer - regularly drilling extended reach laterals for an additional +/- 2,500 feet of production hole.

