

## VectorZIEL™ Rotary Steerable System

# VectorZIEL™ 600 Rotary Steerable System first successful run in coal seam mining application in Australia



### Technology

NOV's VectorZIEL™ rotary steerable systems (RSS) features near bit inclination, azimuth and gamma ray capabilities within 5 ft (1.26m) of the bit along with an integrated pulser. VectorZIEL™ is available to independent directional drillers and operators world-wide.

### Challenge

The VectorZIEL™ RSS was used to drill the 8-1/2" horizontal section of a coal seam gas well located in Bowen Basin, Northern Queensland, Australia. The directional challenge was to drill and geosteer within the heavily faulted coal seam, while attempting to minimize the number of sidetracks (branch cuts).

### Results

The VectorZIEL™ 600 RSS demonstrated exceptional directional control and sidetracking capability in the coal formation. The VectorZIEL™ 600 stayed within the coal seam for the entire interval of 1,739m drilled, successfully intercepted the vertical production well in one attempt, and demonstrated the ability to achieve high dogleg of up to 9°/30m. This is also the first standalone RSS run in coal seam that successfully performed open hole sidetracks. Using its unique near-bit measurement capability, the VectorZIEL™ delivered a substantially lower number of sidetracks (4 in total) compared to offset wells with an average of 18 using conventional method.

