

CASE HISTORY

Drill Bits

Outstanding Performance in Extremely Abrasive Application

Impreg-Turbine Application: Rajasthan, India

CHALLENGE:

Halliburton Drill Bits and Services was challenged to provide a bit to drill in an application which was hard and highly abrasive. The bits used in the offset wells were pulled out of the hole with severe damage to the bit and BHA and led to fishing runs. Halliburton DBS, in conjunction with Sperry's Turbopower™ Turbodrill, were posed with the challenge to save the bit trip hours and reduce the total well cost.

SOLUTION:

Halliburton DBS proposed different bit configurations in order to mitigate the uncertainties of this unknown application. In coordination with the design team in Brussels, the IQ Series™ IQ616D impregnated drill bit matched with the Turbopower T172 steerable turbine was chosen to drill the vertical section delivering outstanding performance. To drill the abrasive plastic swelling shales the IQ616D bit was equipped with extra heavy sleeve & gauge reinforcement which significantly reduced the wear on the gauge pad & sleeves resulting in fewer bit trips.

VALUE CREATED:

Meticulous planning and quickly adapting to the application helped ensure that the impregnated bits exceeded customers expectations by delivering field footage and ROP records of 548 m and 1.52 m/hr respectively. This reduced the number of rig days planned by 9 days and saved the operator more than \$200,000 USD.



8-1/2" IQ616D bit

