Consistent Drillbit Performance for Slim Coalbed Methane Wells

Xplorer tungsten carbide insert bits drill 15,172 ft in Pennsylvania, US

**CHALLENGE**
Achieve drillbit consistency and high drilling performance for two slim coalbed methane (CBM) wells.

**SOLUTION**
Drill wells using 4¾-in Xplorer* slimhole tungsten carbide insert (TCI) drill bits.

**RESULTS**
Experienced drillbit consistency and high drilling performance over 15,172 ft drilled. Broke world record for cumulative footage drilled.

Using 4¾-in Xplorer slimhole TCI drill bits for these two CBM wells, the operator experienced optimal drillbit consistency and high drilling performance.

**Consistent drillbit performance needed**
Working in northeastern US, an operator planned major projects in southwestern Pennsylvania and northern West Virginia. The projects were expected to have 100 wells over 684,000 acres. For two CBM wells in southwestern Pennsylvania, this operator needed consistent drillbit performance to improve slimhole drilling efficiency.

**Slimhole TCI bit applied**
The 4¾-in Xplorer slimhole TCI drill bit was chosen for this slim CBM application. Xplorer TCI bits have ultrashort leg forgings that improve steerability at extreme build angles and maximize chassis strength in the face of challenging hydraulic demands. To handle the high rotation speeds associated with slimhole drilling, Xplorer rock bits use the Bullet* dual-material seal system, which reduces seal wear while limiting temperature buildup. These bits also have individual cutter layouts specifically developed for slim holes that reduce cone shell wear and insert loss.

**Drilling performance optimized**
Using 4¾-in Xplorer slimhole TCI drill bits for these two CBM wells, the operator experienced optimal drillbit consistency and high drilling performance. A total of 15,172 ft was drilled, breaking the world record for cumulative footage drilled.