

# i-Trak drilling automation services

## Get safe, efficient, and predictable drilling performance

**i-Trak™ drilling automation services** from Baker Hughes reduce operational risk and well delivery costs by integrating and automating drilling systems.

In today's complex drilling environment where surface and downhole real-time systems must deliver according to plan in a predictable, efficient, and safe manner, automation of drilling systems is crucial. The drive to reduce HSE risks by moving personnel from wellsite red zones to remote centers is simplified and supported through the integration and automation of drilling systems.

Baker Hughes's i-Trak drilling automation services improve drilling performance, wellbore quality and trajectory; extend bit life; reduce nonproductive and invisible lost time (NPT, ILT) to deliver wells faster and more economically while reducing operational risk to enable de-manning at the rigsite. These benefits are achieved by aggregating real-time surface and downhole data and annular pressures, and using hybrid physics-based and data-driven models, in combination with automated standardized operating procedures and checklists.

Our i-Trak drilling automation services manage well construction via fully closed loop-control of Baker Hughes rotary steerable assemblies, wellbore

hydraulics, and drilling optimization services.

i-Trak services offers two levels of automated control:

- **Advisory mode:** recommended actions or parameters are displayed to the driller who can accept or reject them
- **Closed-loop mode:** parameter changes and instructions are automatically downlinked to downhole tools or transmitted to rig automation platforms to control surface parameters.

In closed-loop mode, the human driller can start/stop the system at any time to make any desired adjustments to the drilling path or operational parameters.

The i-Trak service is a fully integrated extension of Baker Hughes' digital well planning software and ecosystem. This allows i-Trak to monitor and control drilling and reservoir navigation operations based on a continuously updated digital twin of the reservoir and downhole environment.

Contact your Baker Hughes representative to learn how i-Trak drilling automation services can help you achieve safer, more efficient, and more predictable performance on your next well.

## Applications

- Wells with inefficient, or inconsistent or unpredictable drilling performance
- Wells with hole cleaning issues, stability issues, or challenging pressure windows
- Wells that must be consistently and repetitively drilled
- Wells using decision-making remote operations or leveraging integrated operations personnel models

## Benefits

- Improved safety, lower risks
  - Openhole pressure regime monitoring with automated alerts
  - Swab/surge NPT protection
  - Reduced personnel risks
- Superior drilling and reservoir navigation efficiency
  - Improved hole cleaning
  - Optimized tripping speeds
  - Guaranteed average-excess dogleg severity limits (AEDLS) <1°/100 ft. (30m)
  - Increased hydrocarbon recovery
- Predictable drilling performance
  - Increased gross ROP
  - Fewer stuck pipe incidents
  - Reduced NPT and ILT