

Earlier insight. Precise steering. Lower risk.

ZoneTrak G UHD near-bit gamma ray service



The **ZoneTrak™ G ultra-high-definition (UHD) service** from Baker Hughes delivers advanced near-bit gamma ray measurements, enabling early formation change identification, geostopping, and geosteering capabilities while drilling. By rapidly detecting geological targets, bed boundaries, and potential trouble zones, drillers can efficiently navigate to the most productive intervals while minimizing well construction risks.

High-quality formation evaluation

Equipped with a compact sub housing dual scintillation gamma ray detectors, the ZoneTrak G UHD service offers highly repeatable and reliable measurements. It provides single and dual gamma ray readings up to 500 API, along with azimuthal gamma ray images and drilling dynamics, delivering formation evaluation quality data directly behind the bit.

Enhance geosteering precision

By placing gamma sensors close to the bit, the service enables earlier detection of formation changes than conventional

LWD tools positioned further uphole—especially advantageous with modular motor assemblies. ZoneTrak G UHD generates both real-time and memory-based borehole gamma images, which, when integrated with Reservoir Navigation Services (RNS), support precise geosteering to maximize reservoir contact.

These images also provide valuable structural insights, including formation boundaries, fault identification, and dip analysis—contributing to more informed reservoir modeling.

Risk reduction through geostopping

Early zone detection enables accurate casing point selection, reducing exposure to wellbore instability and saving rig time by eliminating the need to circulate cuttings for confirmation. The service also supports precise coring decisions, ensuring optimal placement without missing the reservoir top.

ZoneTrak G UHD is particularly effective in environments with low formation resistivity contrast, where traditional resistivity-based tools may be less effective.

Applications

- Geostopping
 - Top of productive reservoirs
 - Top of coring sections
 - Casing point selections
 - High-risk zones
- Geosteering for enhanced well placement

Benefits

- Detects early formation changes
- Saves rig time compared to cuttings circulation to verify bed boundaries
- Ensures data confidence
- Improves statistical accuracy
- Acquires formation evaluation quality measurements
- Offers imaging up to 16 sectors
- Optimizes well placement when used with real-time RNS
- Provides high quality gamma images for structural evaluation and dip picking
- Provides real-time data visualization
- Facilitates faster remote decisions while drilling

Flexible deployment options

Available in 4¾-in., 6¾-in., and 9½-in. sizes, the ZoneTrak G UHD service is compatible with the **AutoTrak™ rotary steerable system**. Specialized versions of the 6¾-in. and 9½-in. tools can be deployed above conventional motor systems or directly above the bit, offering versatile integration into various BHA configurations.

To learn how the ZoneTrak G UHD service can help optimize well placement and reduce operational risk, please contact your Baker Hughes representative.

SPECIFICATIONS	Tool size / AutoTrak version		
	4-3/4 in. AutoTrak eXact RSS	6-3/4 in.	9-1/2 in.
Borehole size	7/8 to 6-3/4 in. (149 to 171 mm)	8-3/8 to 9-7/8 in. (213 to 251 mm)	12-1/4 to 18-1/4 in. (311 to 464 mm)
Maximum temperature	302°F (150°C)	302°F (150°C)	302°F (150°C)
Maximum pressure	30,000 psi (2070 bar)	30,000 psi (2070 bar)	25,000 psi (1725 bar)
Gamma ray measurements (memory and real time)	Single gamma ray Dual gamma ray Azimuthal gamma ray images	Single gamma ray Dual gamma ray Azimuthal gamma ray images	Single gamma ray Dual gamma ray Azimuthal gamma ray images
Drilling dynamics	VSS in GRMS	VSS in GRMS	VSS in GRMS
Tool configuration and measure point from downhole shoulder of tool	4-3/4 in. AutoTrak eXact with ZoneTrak G UHD service From bottom of AutoTrak: 10.35 ft (3.15 m)	Bit sub ¹ 2.16 ft (0.66 m) ZoneTrak G UHD AutoTrak sub 1.73 ft (0.53 m)	Bit sub ¹ 2.66 ft (0.81 m) ZoneTrak G UHD AutoTrak sub 2.10 ft (0.64 m)

¹ Modular connection up, bit box connection down