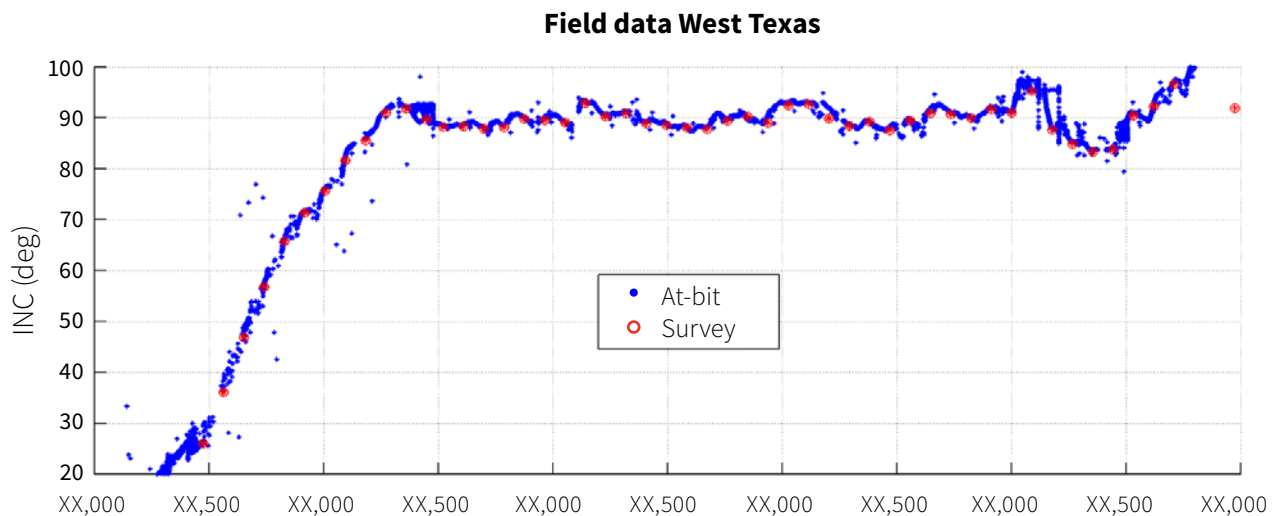
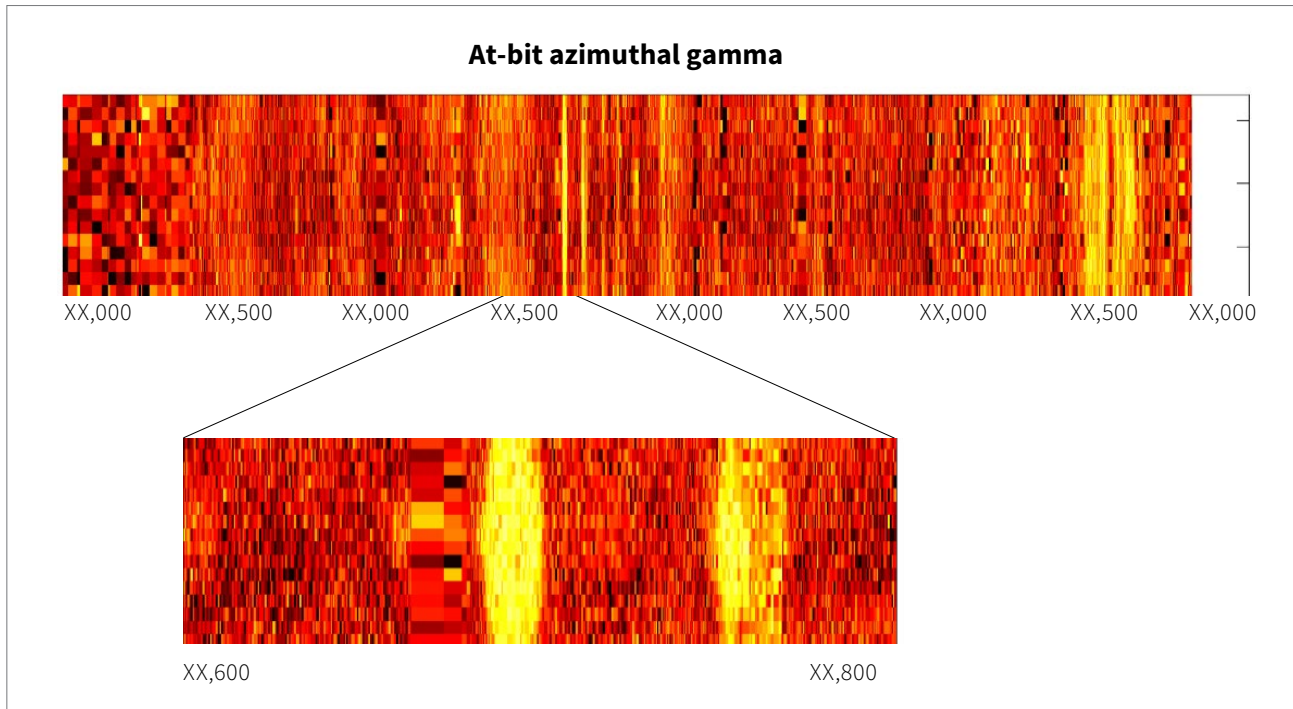


Tolteq iSeries Near-bit Sub (iNBS)

The Tolteq™ iSeries near-bit sub (iNBS) is a near-bit tool that provides real-time inclination and azimuthal gamma data for geosteering applications. The iNBS tool connects with the Tolteq iSeries mud pulse MWD platform for real-time data transmission. Providing continuous inclination and azimuthal gamma images with up to 16 sectors available in real time, the iNBS tool enables accurate well placement even in the thinnest of reservoirs. As the shortest near-bit measurement sub on the market, the iNBS tool ensures steerability when run below a motor.



Tolteq iSeries Near-bit Sub (iNBS)

Features:

- Dynamic inclination measurement allows for continuous monitoring of well trajectory progression while drilling.
- Azimuthal gamma ray and resistivity with up to 16 sectors for proactive geosteering.
- Electromagnetic short-hop telemetry seamlessly transmits data through Tolteq iSeries MWD to surface.

Benefits:

- Monitor bit progression at any time.
- Tightly place wellbores through even the thinnest pay zones.
- Continually acquire images in sliding mode.

Specifications

Tool size	4¾-in.	6¾-in.
Hole size range	5⅞-in. to 6¾-in.	8½-in. to 9½-in.
Maximum OD	5¼-in.	7¼-in.
Minimum ID	1.3-in.	2.375-in.
Sub length	34.3-in.	34.3-in.
Top connection	3½-in. REG Pin*	4½-in. REG Pin*
Bottom connection	3½-in. REG Box*	4½-in. REG Box*
Maximum DLS rotating	15°/100ft	8°/100ft
Maximum DLS sliding	30°/100ft	16°/100ft
Maximum operating pressure	15,000 psi/20,000psi	15,000 psi/20,000psi
Maximum RPM	360	360
Maximum operating temperature	150°C/175°C	150°C/175°C
Maximum torque	>10,000 lbf-ft	>15,000 lbf-ft
Maximum sand content	2%	2%
Battery life	Up to 200 hrs	Up to 200 hrs
Maximum flow rate	>300 gpm	>600 gpm
Cont. inclination range	0° to 180°	0° to 180°
Cont. inclination accuracy	±0.2°	±0.2°
Azimuthal gamma measurement		
- Range	0 – 250 AAPi	0 – 250 AAPi
- Accuracy	5%	5%
- Sectors	Max 16	Max 16
Azimuthal Resistivity @ Bit (Available in GeoTracker or GeoTracker DUO)		
- Range	0.1 - 200 ohmm	
- Accuracy	10% (< 10 ohmm) or 10 mmhos (> 10 ohmm)	
- Depth of Investigation	Upto 30 in. (0.76 m)	
- Vertical Resolution	6 in. (0.15 m)	
- Number of Sectors	16	

* Per customer specs

iNBS is jointly developed and integrated under a partnership with Well Resolutions Technology.