

AziExpress Geosteering While Drilling Combination Instrument



Shenkai AziExpress geosteering while drilling combination instrument (azimuthal resistivity) is a precision geosteering tool, which is a special research achievement of a national major scientific instrument undertaken by Shanghai Shenkai Petroleum & Chemical Equipment Co., Ltd., with independent intellectual property rights. It is highly integrated, integrate azimuthal resistivity, azimuthal gamma, compensated resistivity, annular pressure, wellbore temperature into one drill collar.

Azimuthal resistivity is mainly used in the projects of complex formations and thin reservoirs. It provides real-time boundary detection, reservoir tracking, oil-water interface detection and other functions while drilling to achieve accurate geosteering and borehole trajectory optimization. It is also helpful for water saturation analysis, borehole cleanliness, well kick and lost circulation prediction, ensuring that tools drill through high-quality parts of the reservoir, and improving the drilling ratio at sweet spots, as well as improving drilling safety.

Product Features

- Calculation of the direction and distance of the formation boundary and oil-water interface by making use of azimuthal gamma, azimuthal resistivity, and compensated resistivity
- Optimize the drilling trajectory to maintain drilling near the upper interface in the reservoir
- The azimuthal resistivity detection depth is much deeper than that of traditional resistivity tools, and the formation changes can be detected for a longer time in advance, so as to improve the drilling speed and quality, and reduce risks
- Max. working temperature: 175°C
- Max. working pressure: 25000psi
- Mass Memory: 1GB
- Annular pressure: range: 25000 PSI, Accuracy: ± 24 PSI
- Azimuthal gamma: 16 sectors, 0-1000API
- Azimuthal resistivity: 16 sectors, Max Detection distance: 15 ft
- Compensated resistivity: 400KHz, 2MHz, 0.2-3000 ohm-m

175°C

Max. Operate temperature

25000psi

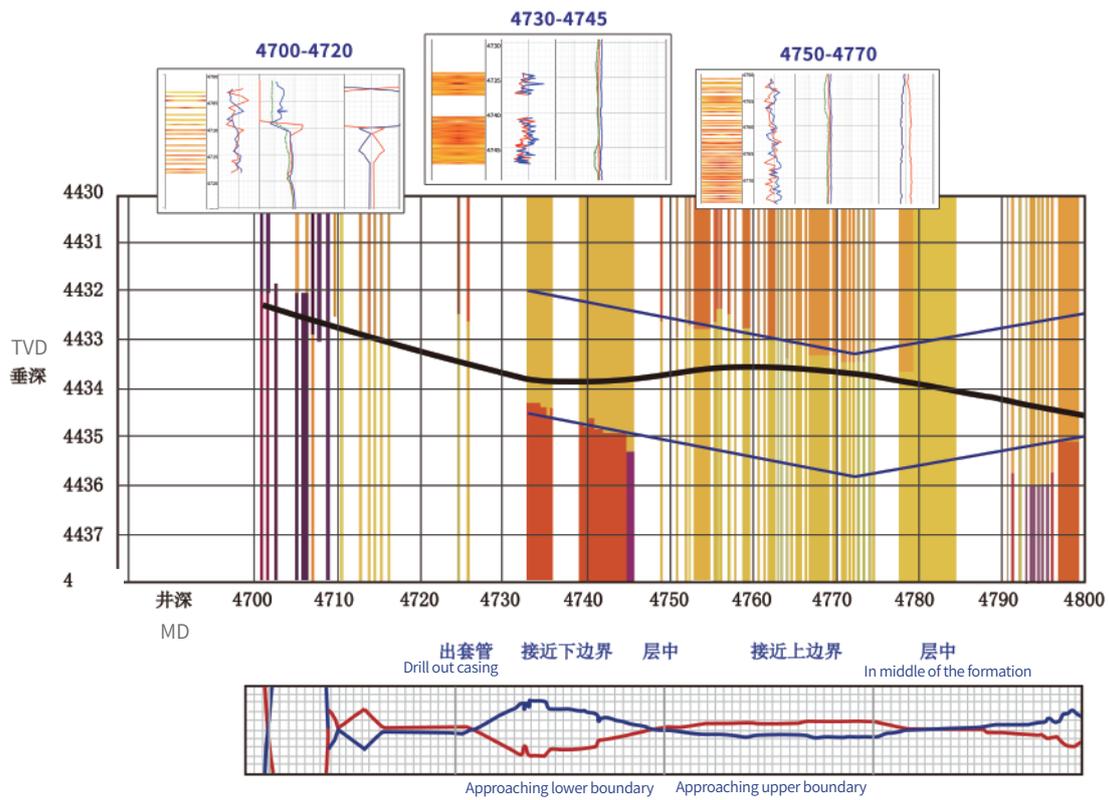
Max. Operate pressure: 25000psi

2000+ Hrs

Mass Memory

Parameter	Value	Unit
AziExpress length	4.16	M
Max. operate temperature	175	°C
Max. survival temperature	185	°C
Max. operate pressure	25000	Psi
vibration	20	G RMS
shock	1000	G
Max. Boundary detection distance	4.6	M
Annular pressure measurement range	25000	Psi

Case 1: Application in formation angle sudden change



Case 2: Application in discontinuous formation

