

ImageTrak high-resolution ultrasonic borehole imaging service

The **ImageTrak™ high-resolution ultrasonic borehole imaging service** from Baker Hughes captures amplitude and travel-time images of the borehole wall in all drilling fluid types. These real-time acoustic images provide a wide range of information, including the condition of the wellbore and the geology of the surrounding formation.

Ultrasonic transducers operating in a pulse-echo mode are used to measure both the amplitude and travel time, generating a 256-sector image of the wellbore. The reflectance amplitude image shows contrasts of the borehole wall to identify and evaluate variations of lithology, bedding, lamination, or physical rock features such as fractures and vugs. The travel-time image shading displays the borehole shape and size, which is indicative of the distance of the transducer to the wellbore wall. This is especially useful for identifying open, closed, and mineralized fractures. Other borehole geometry applications include real-time wellbore stability monitoring and geomechanic studies, along with borehole and cement volume determination.

The ultrasonic measurement was optimized to allow operation in both oil and water-based drilling mud systems in a range of mud weights and borehole sizes. In addition, the system's high sampling rate and multiple transducers minimizes the effects of high rate of penetration (ROP) and rotations per minute (RPM).

Contact your representative today or visit bakerhughes.com to find out how the ImageTrak high-resolution ultrasonic borehole imaging service can help you evaluate your geological environment in any mud type while drilling.

Applications

- Formation dip and strike
- Structural mapping and well-to-well correlation
- Detailed formation fracture studies
- Optimize hydraulic fracturing programs
- Wellbore stability and geomechanic studies
- High-resolution borehole geometry
- Secondary porosity distribution in carbonates

Benefits

- Acquire clear, high-resolution images in water- and oil-based mud systems while drilling
- Accurate measurements in large boreholes and heavy mud
- 100% coverage at high ROP
- Identification of small-scale formation features