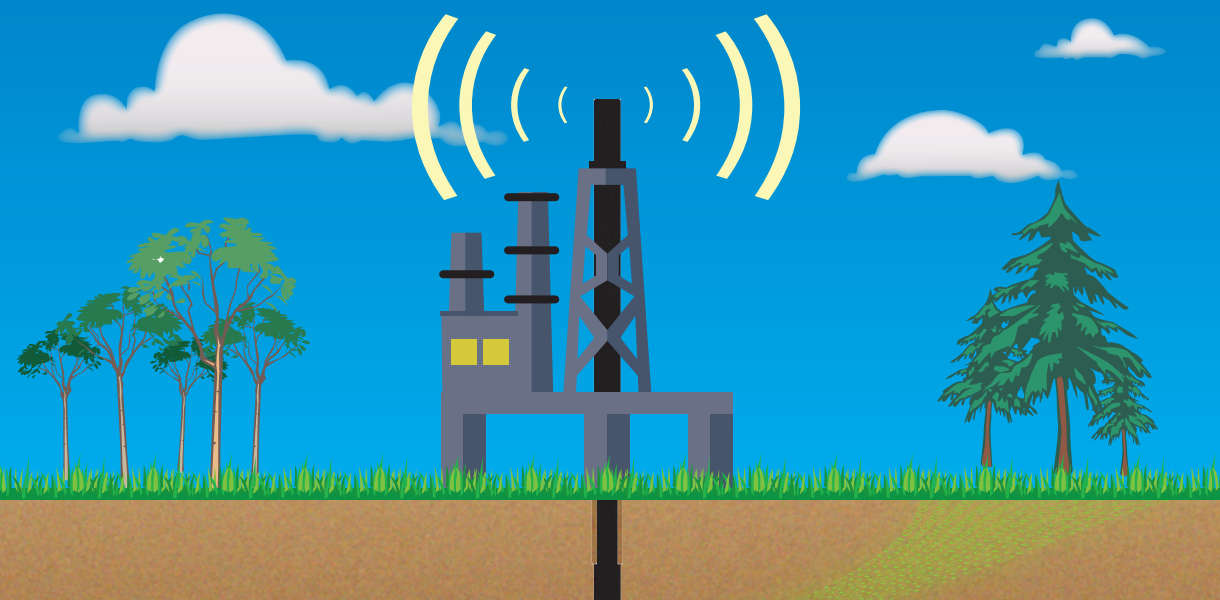
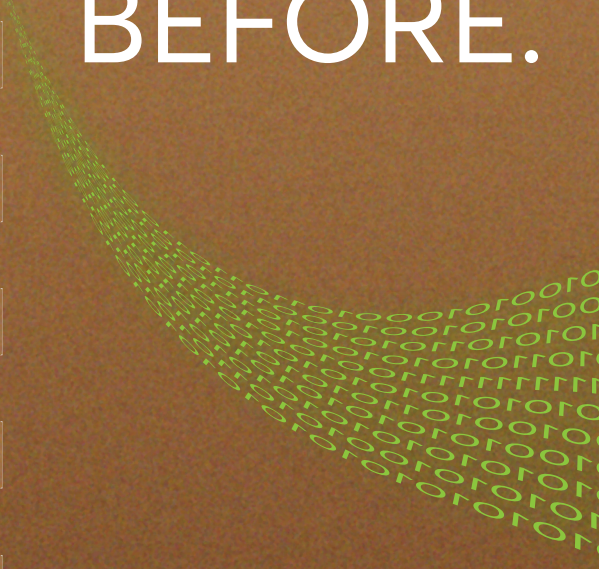
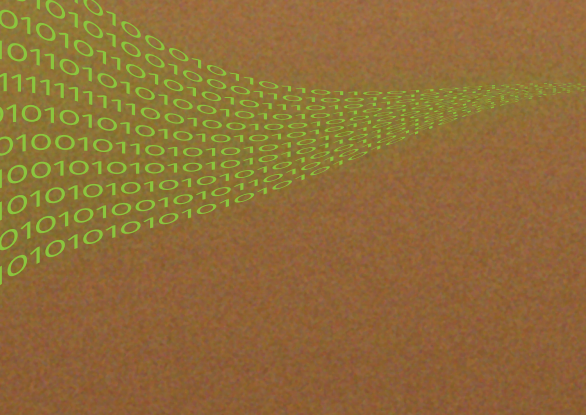


A wave of digitalization and innovation has recently swept through the oil and gas industry.

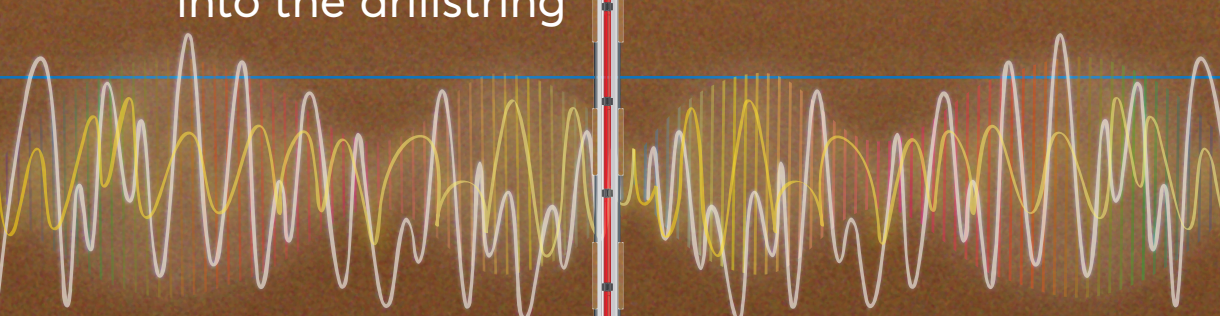


Drillers are receiving more data from downhole

THAN EVER BEFORE.

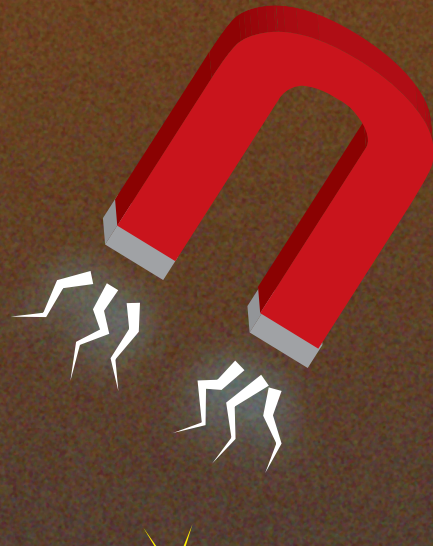


MWD incorporates measurement tools into the drillstring



and provides real-time information to steer the well.

MWD measurements rely upon magnetic north. These measurements can be impacted by magnetic interference from nearby wells, crustal anomalies or solar activity.



When magnetic interference occurs, a driller is unable to obtain reliable directional data.

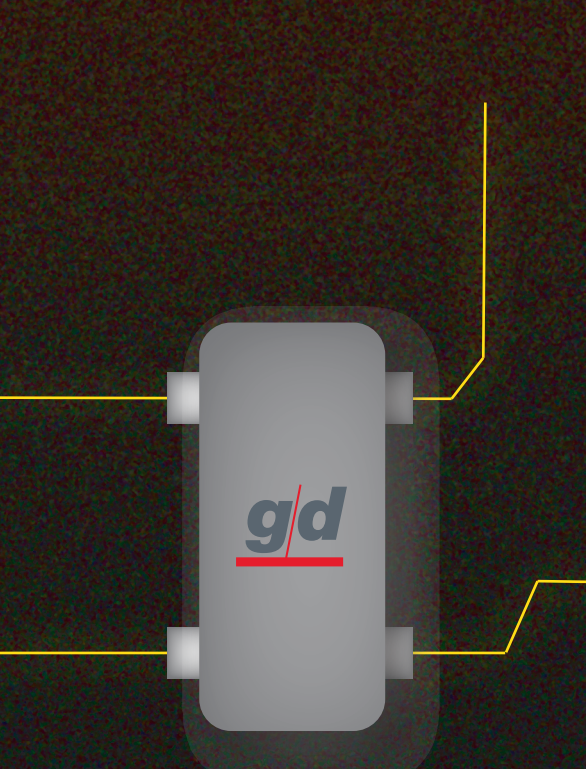


Gyroscopic measurements provide an alternative to the more traditional MWD. Unlike MWD, a gyroscope indicates true north as opposed to magnetic north. (Gyroscopes measure the rate of the earth's rotation.)



Gyro While Drilling™ (GWD) utilizes a gyroscopic-based directional survey instrument in the drill string, which contributes to more accurate wellbore placement. GWD tools are not impacted by magnetic interference.

Gyrodata recently launched SPEAR™ a new solid-state sensor.



SPEAR™ technology surveys are generated with significantly improved accuracy, which leads to optimized wellbore placement.

Overall, the right combination of drilling technologies deployed the right way is reducing collisions, minimizing frac hits, reducing risk of crossing lease lines and improving overall production.