PRODUCT SPEC SHEET

SurfaceTraC - SURFACE TO DOWNHOLE RANGING

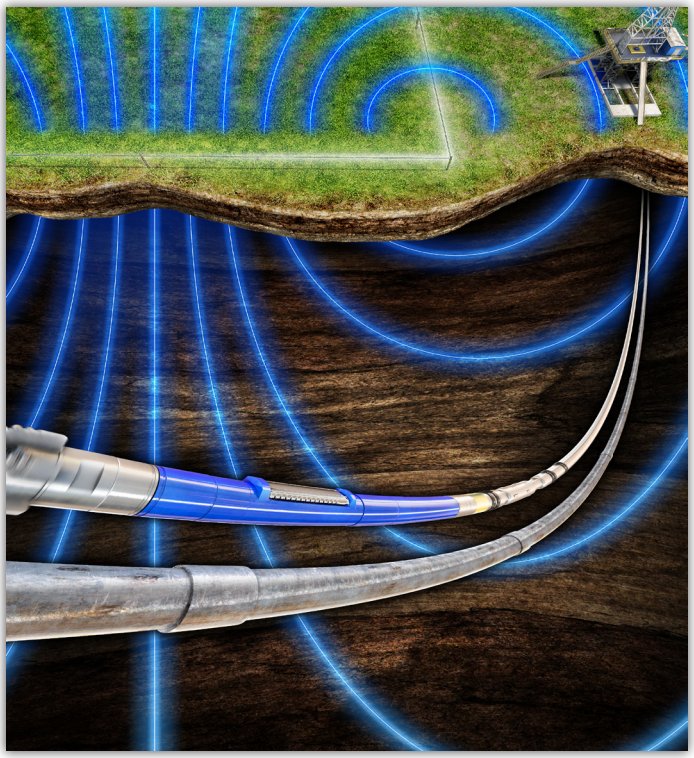
The SurfaceTraC System, from Scientific Drilling, is the first of its kind to utilize a surface magnetic field source (with a GPS surveyed position) to accurately position the wellbore without cumulative uncertainty, and avoid collisions in a congested environment. Each ranging measurement, which is recorded while drilling, is referenced back to the surface field source and does not compound errors from previous stations. When operating in highly congested environments, the SurfaceTraC System is the ultimate solution for delivering optimally placed and cost effective shallow horizontal wellbores.

DELIVERING THE ULTIMATE VALUE

- No additional downhole equipment is required, providing cost savings and safer operations
- Ellipse of Uncertainty (EOU) remains the same at each survey point, eliminating growing EOU and ensuring that wellbore placement in the producing zone is optimized
- Significantly reduces the need for survey management, minimizing extra rig time, and eliminating additional costs
- Ability to avoid collisions with vertical observation wells without the need to access the cased vertical well
- System is ideally suited to confirm TVD of extended-reach horizontal wells, and to optimize spacing between horizontal wellbores
- Utilizes a GPS surveyed position at surface for high-accuracy wellbore placement
- Ability to be installed on short notice for greater efficiency

TARGET APPLICATIONS

- Steam Assisted Gravity Drainage (SAGD)
- Mining, River Crossings, etc.
- Collision Avoidance



TECHNICAL SPECIFICATIONS	
GENERAL SPECIFICATIONS	
Power Supply	208 AC three phase input, Variable DC or AC output
System Power	Powered by Rig or Generator
Surface Lines	6-12 AWG insulated single conductor wires
Survey Duration	Less than 2 minutes
Detection Range	Accuracy depends on excitation current and TVD. Routine deployment is 100-350m TVD
System Accuracy	Up to 10 times more accurate than the placement of a horizontal well with survey management techniques alone

*Specifications are subject to change without notice.

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