

A WELL PAIRED SOLUTION

FOR COMPLEX SAGD OPERATIONS

DRILLING MOTORS

TITAN22 - PERFORMANCE MOTOR SOLUTION

TOOL SIZES AVAILABLE: 5.15 in (130.8 mm), 6.6 in (168 mm), 7.15 in (181 mm)

TITAN HD - SHORT BIT TO BEND

TOOL SIZES AVAILABLE: 6.9 in (175.3 mm)

LOGGING WHILE DRILLING

SCI-DRIVER™ - NEAR BIT SMART MOTOR (Azimuthal Gamma & Continuous Inclination)

TOOL SIZES AVAILABLE: 4.75 in (120.7 mm), 6.50 in (165mm), 8.00 in (218.4 mm)

SCI-GAIN™ - NATURAL API GAMMA & INCLINATION

TOOL SIZES AVAILABLE: 3.125 in (79.4 mm), 3.5 in (88.9 mm), 4.75 in (120.7 mm), 6.5 in (165.1 mm), 6.75 in (171.5 mm), 8.0 in (203.2 mm), 9.5 in (241.3 mm)

SCI-QUEST™ - PROPOGATION RESISTIVITY

TOOL SIZES AVAILABLE: 4.75 in (120.7 mm), 6.5 in (165.1 mm), 6.75 in (171.5 mm), 8.0 in (203.2 mm)

MEASUREMENT WHILE DRILLING

FALCON MP (MUD PULSE)

TOOL SIZES AVAILABLE: 4.75 in (120.7 mm), 6.5 in (165.1 mm), 6.75 in (171.5 mm), 8.0 in (203.2 mm)

FALCON EM (ELECTROMAGNETIC)

TOOL SIZES AVAILABLE: 3.125 in (79.4 mm), 3.5 in (88.9 mm), 4.75 in (120.7 mm), 6.5 in (165.1 mm), 8.0 in (203.2 mm), 9.5 in (241.3 mm)

MAGNETIC RANGING

SurfaceTraC™ - SUBSURFACE RANGING

SURVEY DURATION: <2 MINUTES, SURVEY ACCURACY UP TO 10X MORE ACCURATE THAN SURVEY MANAGEMENT TECHNIQUES ALONE

Lodestone™ - AT BIT MAGNETIC RANGING

NOMINAL SENSOR OD: 3.5 in (89 mm) and 2.125 in (54 mm), MAXIMUM OPERATING RANGE 420 ft (128 m)

MagTracer™ - ACTIVE RANGING SYSTEM

TOOL SIZES AVAILABLE: 1.66 in (42.164 mm) and 1.90 in (48.260 mm) , MINIMUM TUBING ID: 2.375 in (60.325 mm)

MagTraC MWD RANGING™ - PASSIVE RANGING SOLUTION

ACCURACY DEPENDENT ON MWD SYSTEM UTILIZED (RANGE: ± 10% of distance to target; Tool Face Direction ± 5°)

For detailed specifications, please contact your Scientific Drilling Representative or visit us at www.scientificdrilling.com



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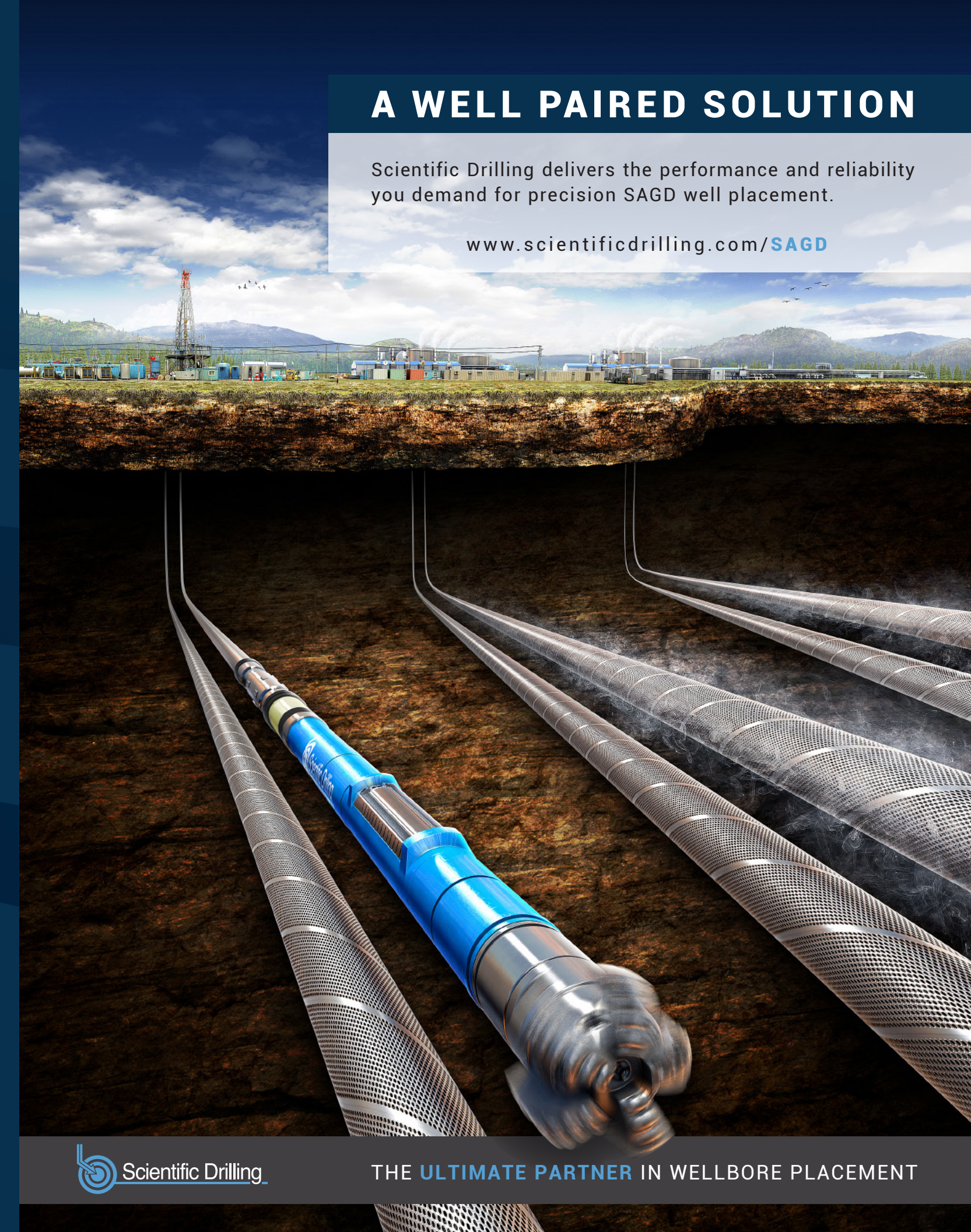
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A WELL PAIRED SOLUTION

Scientific Drilling delivers the performance and reliability you demand for precision SAGD well placement.

www.scientificdrilling.com/SAGD



THE **ULTIMATE PARTNER** IN WELLBORE PLACEMENT

THE ULTIMATE PARTNER IN SAGD WELL PLACEMENT

Scientific Drilling is a proven leader in unconventional drilling around the world, delivering innovative technology and experienced personnel for the most challenging well placement applications.

Whether in the tar sands of Western Canada or the heavy oil reservoirs in Russia, we provide robust drilling solutions designed to attain maximum return in the most complex SAGD operations.

DELIVERING THE ULTIMATE VALUE

We offer a wide range of solutions to support your SAGD challenges:

- + Active Ranging providing real-time magnetic ranging data for precise well separation. Ideal in situations where wellbores can be accessed
- + MagTraC MWD Ranging™ and magnetized casing solutions for accurate opposing lateral placement. Ideal in situations where wellbores cannot be accessed.
- + High Accuracy LWD technologies for precision wellbore placement
- + High Speed and High Temperature MWD systems with proven reliability, allowing you to drill ahead with confidence.
- + Performance Motors engineered to handle the most extreme environments

PROVEN PERFORMANCE

Scientific Drilling has a resume of proven performance in complex SAGD projects ranging from opposing lateral placement to close proximity drilling with ultra tight separation.

To view our recent successes, visit us at: www.scientificdrilling.com/successes

