APPLICATIONS

+ Identify potential non-completed hydrocarbon zones

+ Time-lapse water saturation analysis

+ Shallow gas detection for infill drilling risk mitigation

+ Inert tracer frac proppant evaluation

Scientific Drilling's MPNN is a highly cost effective reservoir evaluation technology. The tool combines conventional pulsed neutron technology with dual He³ detectors.

Data from the detectors is recorded to the downhole memory module. The data is uploaded at the surface and used to calculate the borehole and formation components of the decay curve. In addition, the near and far total counts are overlaid on the log and provide gas or low porosity zone indicators.

The use of neutron detectors, as opposed to gamma-ray, makes the the MPNN the superior option for gas environment logging. Multiple passes can be performed for enhanced signal-to-noise ratio data acquisition without concern for formation-activated background gamma-ray effects.

For more information on cased hole services, contact your Scientific Drilling sales representative or visit:
http://scientificdrilling.com/cased-hole-services

BENEFITS

+ Compact design reduces footprint at surface and allows easier passage through tight doglegs

+ Sigma measurement point ~5 ft from bottom of tool, maximizing data acquisition across the interval of interest

+ Flexible data acquisition scheduling for long duration runs

+ Highly effective in gas environments. No requirement for seawater-filled borehole for reliable measurements

+ Superior performance in radioactive scale vs neutron-gamma technology

+ Slickline/coiled tubing conveyance

Scientific Drilling

GENERAL SPECIFICATIONS

LENGTH	19.00 ft (5.80 m)
DIAMETER	1.625 in, 1.69 in
WEIGHT	88 lbs (49 kg)
MAXIMUM TEMPERATURE	302°F (150°C)
MAXIMUM PRESSURE	10,000 psi (670 Bar)
NEUTRON OUTPUT	14 MeV/neutrons @ 2.6 X 10 neutron/second
DATA ACQUISITION	64 gates, Near detector 64 gates, Far detector
MEMORY CAPACITY	50 hours of logging
BATTERY LIFE	20 hours (single battery pack, can be stacked for longer durations)

*Specifications are subject to change without notice

Battery

Memory

Gamma Ray

CCL

Far Detector

Near Detector

Neutron Generator

Bull Nose

Scientific Drilling