

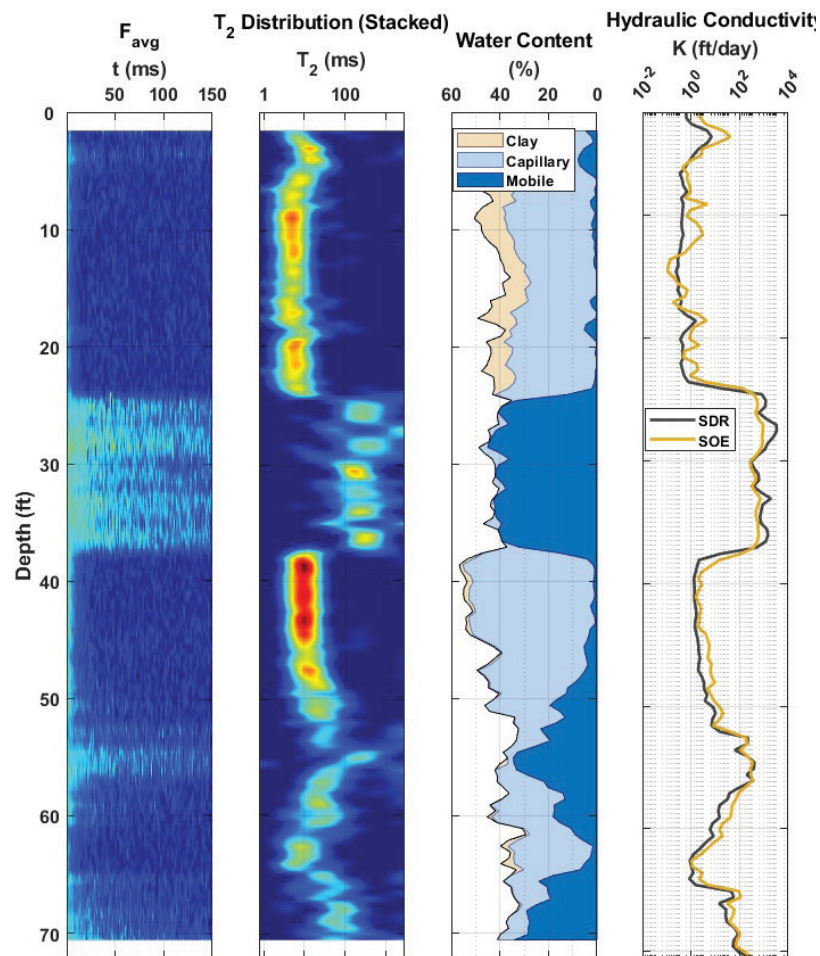
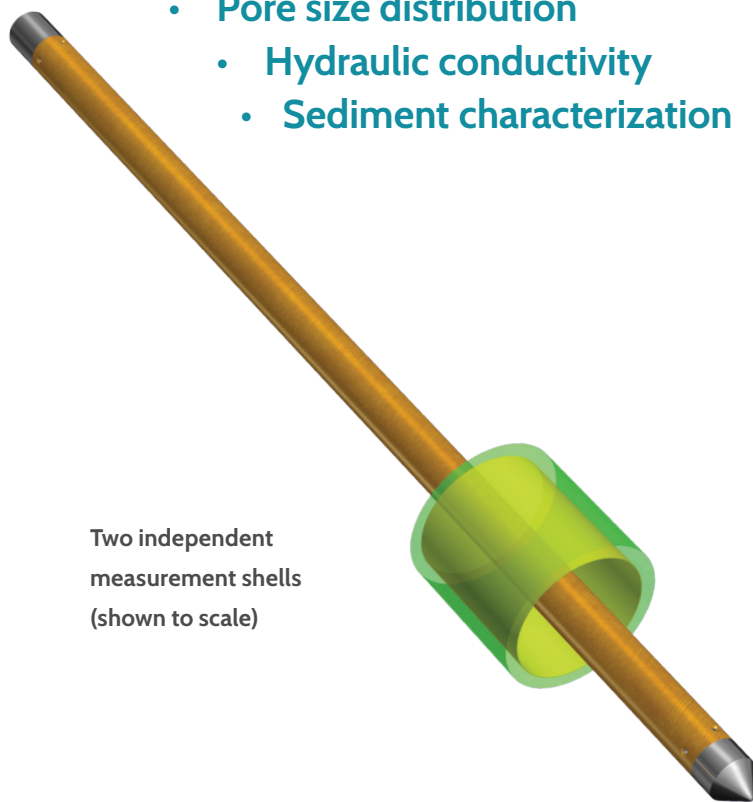
Dart™

Hand-portable and high-resolution NMR technology with Direct Push and CPT deployment options

Unique, all purpose NMR instrument for near-surface earth sciences applications

The new lightweight and small diameter Dart family provides high-resolution hydrogeologic data acquisition to estimate:

- Porosity
 - Bound and mobile water content
 - Pore size distribution
- Hydraulic conductivity
- Sediment characterization



Applications

- High-resolution site characterization
- Geotechnical site investigations
- Environmental monitoring
- Groundwater resources
- Mining
- Unsaturated zone characterization

Dart™ lightweight and high-resolution NMR logging tools

FEATURES

Hand-portable NMR

1.75in (44mm) and 1.4in (36mm) probes allow single person operation in small-diameter open or PVC-cased wells. Being lightweight and portable, the Dart system can easily be operated by single person.

Dart Control Unit

Portable, battery-powered control unit housing tool power, control electronics, and telemetry and used to operate all Dart family products.

Multi-Frequency Operation

Two independent, sensitive shells allow users to assess radial variability and improve resilience in noisy environments.

Ultra-Short Echo Spacing

Echo spacing as short as 400 microseconds ensures the most accurate assessment of clay-bound water content.

Direct Push Compatibility*

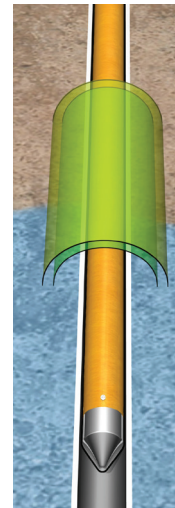
The world's only tool that is optionally compatible with Geoprobe® Direct Push and CPT deployment methods. Direct in-situ characterization of hydrological properties with minimal disturbance to the native formation eliminating dependence on installing of PVC wells.

Measurement Capabilities

Dart measurement is done using continuous, stepped, or stationary modes. The acquisition software measures water signal using Dual-wait CPMG pulse sequence. Additional multi-dimensional pulse sequences include T1-T2 and Diffusion-T2.

SPECIFICATIONS

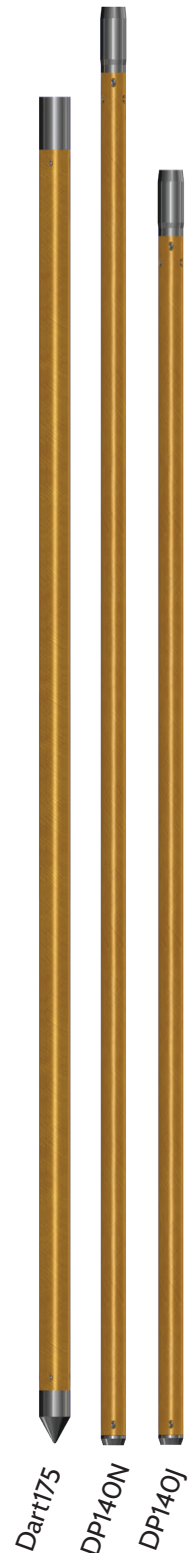
Dart Probes:	Dart175	DP140N*	DP140J*	Control Unit
Diameter:	1.75in (44mm)	1.4in (36mm)	1.4in (36mm)	Weight: 17 lb (7.7 kg)
Length:	48.6 in (169cm)	52.2 in (133cm)	46 in (117cm)	Battery: 24V (internal or external)
Weight:	14 lb (6.3 kg)	10 lb (4.5 kg)	6 lb (2.7 kg)	Interface: PC USB
Sensitive Diameters:	5in (12cm) 6in (15cm)	5in (12cm) 6in (15cm)	5in (12cm) 6in (15cm)	Logging cable length: 20-120 m
Vertical Resolution:	6in (15cm)	6in (15cm)	1.5in (4cm)	Optional reference coil to cancel environmental noise
Echo Spacing:	400µs	500µs	500µs	



Dart sensitive shells outside the zone of disturbance from drilling.



Battery-Powered Dart Control Unit



† Protected by US Patents: US 8,816,684 B2; US 8,736,264 B2; US 10,113,982 B2; US 10,162,026 B2; US 10,302,733 B2; US 9,348,054 B2; US 9,588,068 B2
Dart is a trademark of Vista Clara.

CE Certified. FCC, CTick, CE Emissions Compliant.

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