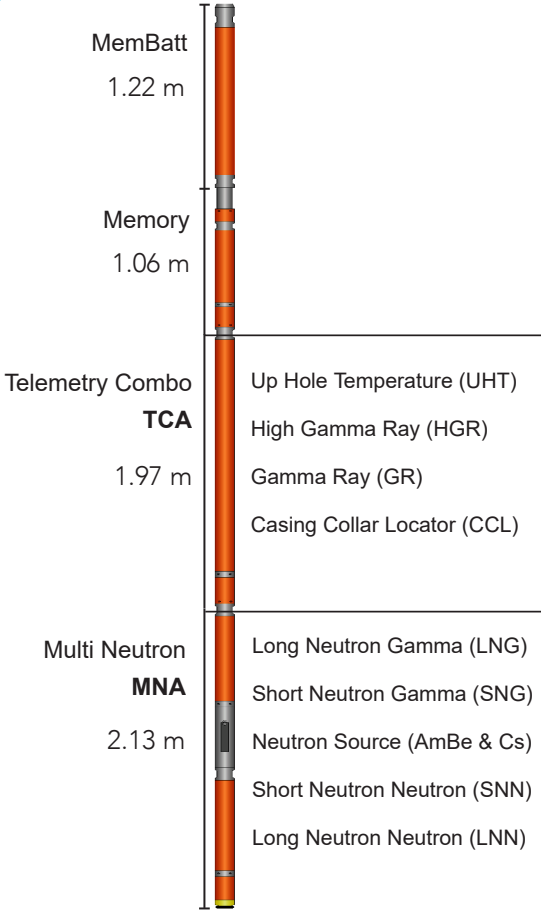
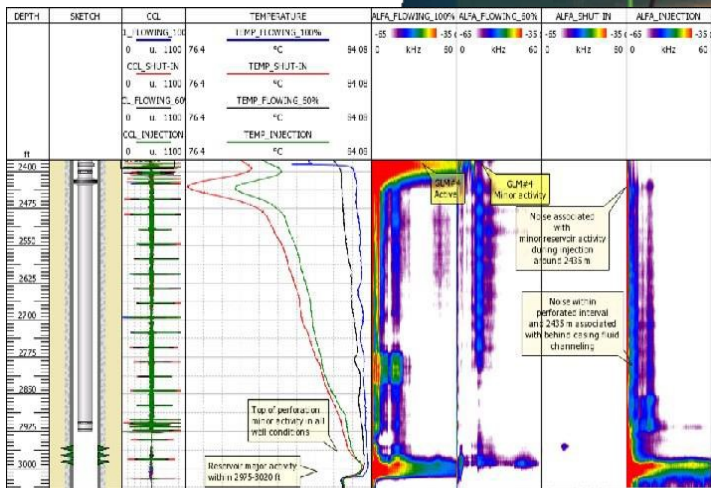
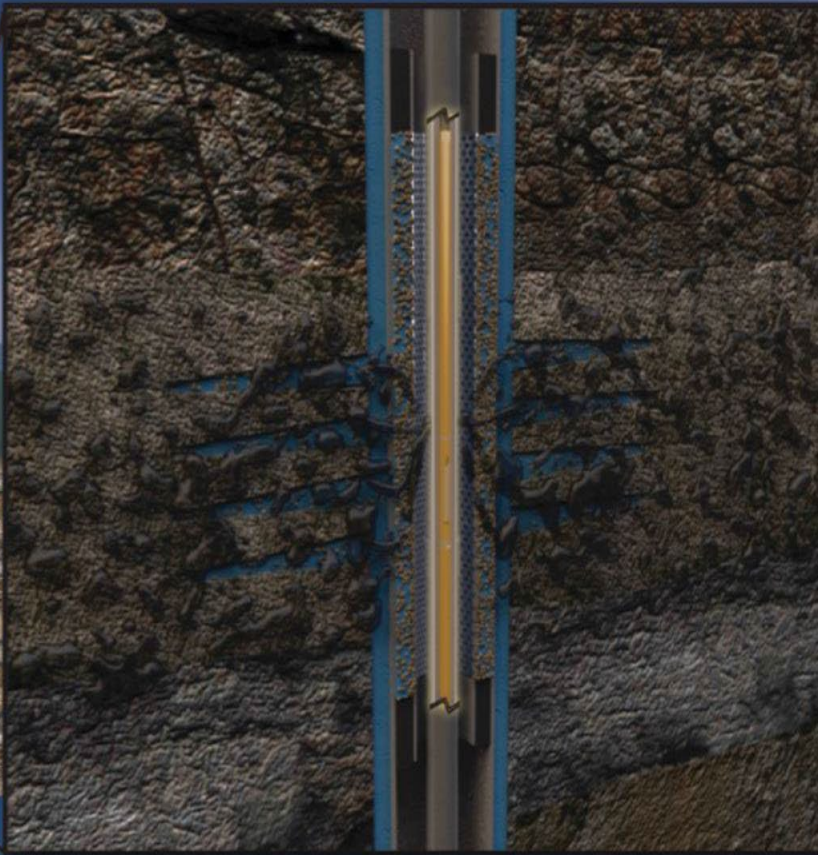


CEMENT EVALUATION THRU PIPE

i-QUAD CEMENT SCANNER

Characteristic	Description
Measurement Principle	Neutron - Neutron, Neutron - Gamma and Gamma - Gamma using a dual AmBe241 & Cs137 radioactive source
Dimensions	1-11/16" (43 mm)
Ratings	150deg C, 15,000 PSI
Measurements	Cement evaluation of multiple casing while logging through tubing.
Conveyance Acquisitions	Wireline, Slickline, Coiled Tubing, Drill Pipe and Tractor Real Time and Memory Mode
Logging Speed Requirement	5m/min or 15ft/min
Resolution	Vertical Resolution: 12"
Minimum ID	43 mm (1.71 in)
Application	<ol style="list-style-type: none"> 1. Cement volume calculation for multiple casing 2. Cement index calculation for multiple casing 3. Evaluate cement volume behind two layers of casing without the hassle of pulling out the tubing.





HYDRAULIC ISOLATION DIAGNOSTIC

SPECTRAL NOISE MONITORING

Characteristic	Description
Measurement Principle	Highly sensitive acoustic sensor
Dimensions	1.26" (32 mm)
Ratings	150deg C, 15,000 PSI
Measurements	Spectral Noise, High Resolution Temperature and Casing Collar Locator sensors
Conveyance	Wireline & Slickline
Acquisitions	Memory Mode
Application	<ol style="list-style-type: none"> 1. Leak Detection (tubing/casing/packer leaks) 2. Diagnosis of Sustained Casing Pressure 3. Location of open perforations 4. Identification of flow zones behind pipe 5. Identification of channelling behind pipe



ACOUSTIC SENSOR	
Dynamic Range	90dB
Operating Frequency Range	8Hz to 120,000Hz
Operating Mode	Stationary
Number of Spectral Channel	1024 (512 + 512)
General	
Length	1.64ft (0.5m)
Weight	3.10lbs (1.4Kg)
Memory	
Capacity	2GB
Sampling	0.5 to 255sec