Scientific Drilling's Vulcan™ FLS (Flow Logging System) 1.75⁶ & 2.25⁶ are extended duration, flasked system production logging tools for high-temperature geothermal wells.

This high-temperature system offers the following sensors:

- + Casing collar locator (CCL)
- + Gamma ray
- + Pressure
- + Temperature
- + Spinner flowmeter
- + Optional: Nuclear Fluid Density

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

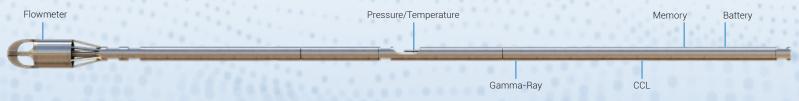
GENERAL SPECIFICATIONS		
MAXIMUM TEMPERATURE**	650°F (343°C)	
AXIMUM PRESSURE***	16,000 psi (110,316 kPa)	
MEMORY	Non-volatile, 48 MB	
MPERATURE SENSOR CCURACY/RESOLUTION	High-accuracy platinum resista ±1.8°F (1°C) / 0.02°F (0.01°C	
RESSURE SENSOR CCURACY/RESOLUTION	High-accuracy quartz ±3.0 psi / 0.01 psi	
INTINUOUS SPINNER SOLUTION & OD RANGE	Minimum 0.1 rps with direction 1.75 - 3.5 in	on
AMMA RAY CRYSTAL TECTOR	Sodium iodide (Nal) scintillation	
SING COLLAR LOCATOR PE & MEASUREMENT FREQUENCY	Magnetic flux 50 samples per second	
NTRALIZERS	Over-body	
USING DIAMETER	Medium: Lar 1.75 in (44.4 mm) 2.25 in (5	
CLEAR FLUID DENSITY		
CCURACY	0.02 g/cc	
SOLUTION	± 0.01 g/cc	
URCE	Cs ¹³⁷ 10 mCi / 20 mCi	
MPERATURE RATING	600°F (315°C)	

APPLICATIONS

- Steam entry flow profiling
- Memory and real-time data acquisition
- Thermal EOR steam injection flow profiling
- Heat-up tests (feed zone identification)
- Completion tests (injection surveys)
- Quantitative flow evaluation
- Re-injector water acceptance capacity evaluation

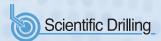
BENEFITS

- High-endurance in hot wells
- Slickline conveyance simplifies
 pressure control for safer operations
- + Highly robust and reliable system
- Includes gamma-ray sensor for accurate depth correlation
- Nuclear fluid density provides steam quality evaluation capability
- Over-body centralizers optimize tool centralization



**Max. temperature rating dependent on run duration

***Max. pressure rating dependent on temperature



*Specifications are subject to change without notice