

# Cased Hole Services

## SRO / Memory PLT

**Spartek Systems** specializes in providing the oil and gas industry with high quality data to monitor well performance and diagnose potential problems. Founded in 1994, Spartek Systems leads the industry in providing cost effective solutions for acquiring reliable production data.

### Product Overview

The SS8000 Production Logging System provides a complete solution for acquiring, recording, and processing surface and downhole well production data. This easy to operate, portable logging system is offered in a 1 3/8" and 1" diameter Surface Readout (SRO) version with a memory option available for the 1 3/8" diameter tool. The high-speed, 4-wire instrument bus and smart sensor based tools allow the operator to interchange and configure the tool string to suit well conditions.

The Telemetry tool's bi-directional, high-speed, digital communications bus allows the operator to log, record and view downhole data from all sensors in real-time over conventional, single conductor wireline. A unique feature of the bi-directional communication link is that it allows the operator to query each smart sensor at any time, for key configuration parameters such as its serial number and position in the tool string. This feature combined with the SparWorks database architecture greatly automates the setup and calibration procedures prior to each survey.

### Available Tool Sensors

- Accelerometer
- Gamma Ray
- Casing Collar Locator
- Quartz and Sapphire Pressure
- Fast Response Temperature
- Fluid Dielectric (Capacitance)
- Acoustic Density
- Fullbore Folding Flowmeter
- Caged Flowmeter
- Inline Flowmeter
- 4 - Arm Roller Centralizer
- X-Y caliper

### Applications

- Monitor well efficiency
- Production Diagnostics
- Analyze production profile by zone
- Monitor well stimulations
- Well mechanical integrity analysis
- Time lapse logging
- Well treatment verification
- Analyze injection profile by zone

### Primary Features

- 350F / 15Kpsi operating Temperature / Pressure°
- Complete hardware and software solution for acquiring Surface and downhole production data
- Surface Readout (SRO) or Memory mode operation
- Bi-directional, digital communications link over conventional single-conductor wireline
- Tool string configuration parameters
- Smart Sensor" technology allows each sensor" to identify itself upon operator query
- Built in Accelerometer sensor measures tool movement and inclination
- Compatible with the "Warrior" logging system built by Scientific Data Systems
- Compatible with Windows Vista/XP/NT/2000



**Superior Completions**

[www.swsi.com](http://www.swsi.com)

1244 Wall Rd. Broussard, LA 70518 • (866) 209-0414  
159 Enterprise Dr. Victoria, TX 77905 • (888) 573-0414



# Cased Hole Services

## Production Logging Module(s) Specifications

Operating Specifications				
<b>Pressure Rating</b>	15,000 psi (max)	<b>Temperature Range</b>	-40° C to 150° C (1.0 Inch) -40° C to 177° C (1.375 Inch)	
<b>Housing Material</b>	Inconel 718* (sour)	<b>Dimensions (lengths)</b>	<b>1.0 OD</b>	<b>1.375 OD</b>
		<u>Master Controllers</u>		
		Memory / Battery Housing	N/A	2.50 ft
		Surface Read Out	2.10 ft	2.10 ft
<b>Master Controllers</b>		<u>Sensors</u>		
Power Requirements		Gamma Ray / CCL	3.22 ft	2.91 ft
<u>Memory</u>		Press / Temp	N/A	1.00 ft
Voltage	12.0 - 15.6 V (4 cell pack)	Press / Temp / Cap	2.12 ft	N/A
Current (max)	200 mA	Dual Press / Temp / Cap	N/A	2.62 ft
<u>Surface Read Out</u>		Quartz Pressure	N/A	1.50 ft
Voltage	125 V - 150V @ Cablehead	Caged Flowmeter	N/A	0.50 ft (1.68 OD)
Current (max)	100 mA	Full Bore Flowmeter	2.50 ft	2.50 ft
		In Line Flowmeter	N/A	1.33 ft (1.68 OD)
		Roller Centralizer	N/A	2.57 ft
		Acoustic Density	N/A	1.29 ft
		Pressure Bulkhead	N/A	0.42 ft
		Casing Collar Locator	N/A	1.42 ft
		X-Y Caliper	N/A	2.93 ft
<b>Communications</b>	RS232/USB Port (115k Baud)	<b>Data acquisition</b>	128 Mb	
	USB	<u>Memory</u>	0.1 sec to 1 sec	
		Sample Rate	Standard PLT (8 sensors) at 1	
		Logging Time	sec sample for 135 hours	
		<u>Surface Read Out</u>	0.1 sec/sample	
		Sample Rate		
Performance Specifications				
<b>Spinner</b>		<b>Pressure</b>	15,000 psi	
Range	+/- 200 rps	Range	0.003% F.S.	
Operating Diameter	1.81 minimum Caged Spinner	Resolution	0.1% F.S. (1 tool)	
Resolution	0.125 rps	Accuracy	0.024% F.S. (1.375 tool)	
Accuracy	+/- 2%	<b>Acoustic Density</b>	Vibrating Element	
Threshold		Sensor	0 - 2 g/cc	
In Line	8 ft/min (oil flow)	Range	0.01 g/cc	
Caged	4 ft/min (oil flow)	Resolution	0.03 g/cc	
Fullbore	2 ft/min (oil flow)	Accuracy		
<b>Temperature</b>		<b>Fluid Capacitance</b>	0.1%	
Range	-40° C to 150° C	Resolution	2% (range 0% - 30%)	
Resolution	0.01° C	WHI Accuracy	5% (range 30% - 60%)	
Accuracy	+/- 1° C	<b>Casing Collar Locator</b>	Electromagnetic	
<b>Gamma Ray</b>		Detector Type		
Detector Type	Scintillation			
Range	0 - 10,000 API			
<b>Roller Centralizer</b>		<b>Accelerometer</b>	+/- 5 g	
Range	1.4 to 8.2	Range	0.01 g	
		Resolution	+/- 0.1 g	
		Accuracy		
<b>Pressure Bulkhead</b>		<b>X-Y Caliper</b>	2.0 to 9.0 inches	
Range	15,000 psi	Range	+/- .02 inches	
		Resolution	+/- .1 inches	
		Accuracy		