semm logging
WELL LOGGING SERVICES

3 ⅜" Product Line

VSP Tool

The triaxial Geophone instrument records seismic signals in the borehole generated at surface from explosives, air guns or vibrator trucks. The instrument contains three geophones and a lowside detection sensor is also incorporated. It has motorized arms to optimize the recording of the seismic waves. The instrument requires the Telemetry module for data transmission to surface. The VSP tool is run in open hole and needs a fluid-filled borehole.

Specifications

Diameter:	79 mm	(3.11")
With small kit: (11" max)	98 mm	(3.85")
With large kit: (16" max)	103 mm	(4.06")
Length:		
931 Telemetry:	1360 mm	(53.5")
325 VSP:	6833 mm	(269.0")
Weight:		
931 Telemetry:	35 kg	(77.2 lbs)
1325 VSP Body:	25 kg	(55.1 lbs)
1325 Bridle:	12 kg	(26.4 lbs)
Max. Temp:	170°C	(338°F)
Max. Pressure:	100 MPa	(14 500 psi)

Telemetry required:	yes
Top Connector:	yes
Bottom Connector:	none

Sensors:
3 Geophones, Type SMC1850 15 Hz
2 Accelerometers (optional)

Measure points (from bottom)

VSP:	150 mm
GR (Telemetry):	7237 mm a

Measuring Parameters

VSP

Data rate:	50kbit/s or 110 kbit/s
Max. Number of Samples per Trace:	30 000
Signal Resolution:	23 bit
Data sampling rate:	0.486 ms, 0.972 ms or 1.944 ms
Gain Range:	66dBs surface controlled

Telemetry

Measuring range GR:	0 to 3000 gAPI
Accuracy GR:	± 5 % of measured values

Logging Parameters

Recommended

Min. Hole Diameter:	150 mm	(5.9")
Max. Hole Diameter:	438 mm	(17.2")

Recommended

Logging Speed:	stationary
Sample Rate:	0.5 ms, 1 ms, 2ms surface controlled

Displayed Standard Curves

VSP
Seismic Data x, y, z
Relative Bearing

Telemetry

GR in API	Gamma Ray
CHV in V	Cable Head Voltage
TEMP in °C	Electronics Temperature

Combinability

With Telemetry module

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