



Raven Downhole Services Inc.



## Contact Segmented Cement Bond Logging Tool

### Introduction

The Contact Segment Cement Bond Logging Tool is Raven Downhole's flagship tool that quantitatively measures the cement bond integrity in six segments around the casing. The Segmented Cement Bond Logging tool can locate and define channels in the cement annulus that could result in a poor hydraulic seal.

The Contact Segmented Bond Logging Tool can also find zones of uniform bonding over only a few meters of casing. Under conditions where a short-bonded interval produces an adequate hydraulic seal, unnecessary cement jobs can be avoided. The Segmented Bond tool is also able to determine cement bond integrity behind heavy wall casings, where standard cement bond logging tools would be ineffective.

The Contact Segmented Cement Bond Logging Tool has significant advantages over conventional cement bond logging tools due to its insensitivity to heavy or gasified borehole fluids, fast formations, temperature, and pressure variations, and small amounts of tool decentralization.

### Features

Tool string is made up of the following components: Telemetry Cartridge, Gamma Ray Tool, Collar Locator Tool

- Segment Pad Section
- Variable Density (VDL) Tool



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## Applications and Benefits

Provides quantitative analysis of cement bond in six 60 degree segment for 360 degrees coverage around the borehole.

Effectively identifies intervals of uniform bonding and detects cement channels or voids in casing sizes from 101.6 mm to 339.7 mm in one logging pass.

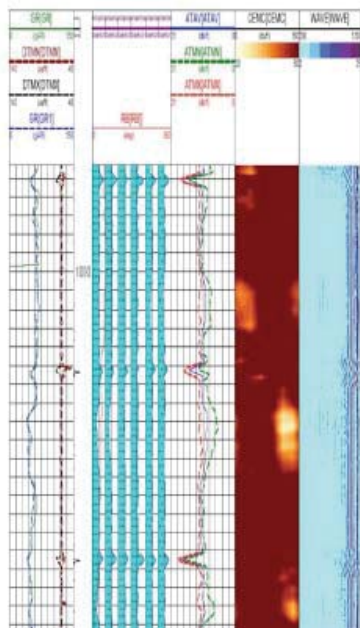
Insensitive to moderate tool decentralization.

Orients cement voids relative to the low side of the wellbore.

Preserves data quality through downhole digitization of waveforms.

In the case of deviated or horizontal wellbore, and scenarios exhibiting no free pipe, the Contact Segmented Bond Tool provides the best method to estimate the quality of the cement bond.

The Contact Segmented Bond Tool is H<sub>2</sub>S resistant.



### Specification

Transmission Mode	Manchester Code (Transmission rate of 20.8Kbps)
Working Temperature	175°C(continuously work for 10 hours)
Working Pressure	140MPa
Outer Diameter	φ85.8mm
Working Voltage Rating	150VDC ± 10%
Working Current Rating	55mADC
Min. Casing Inner Diameter	4in (101.6mm)
Max.Casing Outer Diameter	15.5in (393.7mm)
Measure Range	0-22dB/ft
Absolute Accuracy	±1.0dB/ft
Repetition Rate	±1.0dB/ft
Vertical Resolution	0.25dB/ft (7.62cm)
Radial Resolution	60°