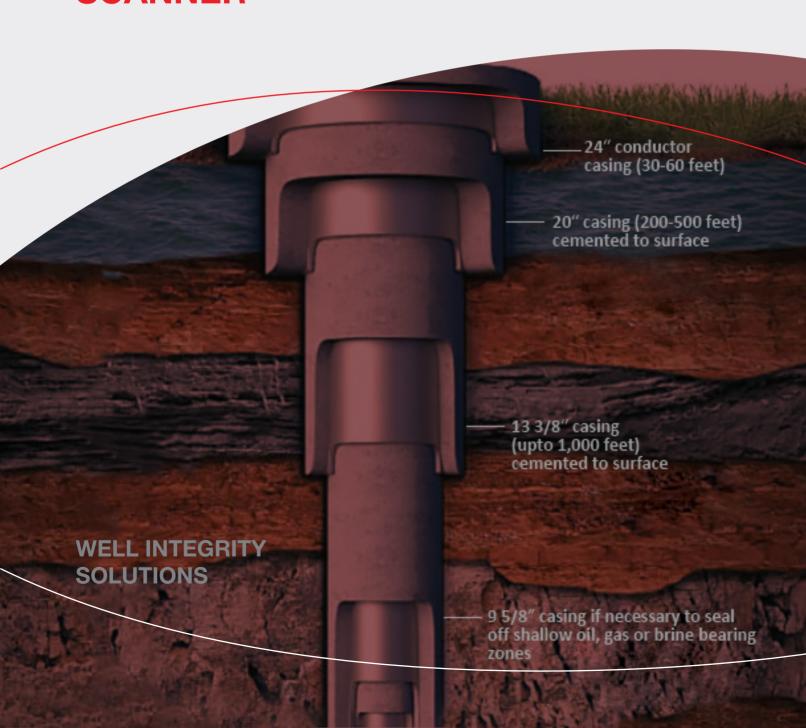
## GINNOVO

# IRS-G INTEGRITY & RESERVOIR SCANNER



**Ginnovo's IRS-G** tool is designed to provide a detailed reservoir and well integrity evaluation without the need to pull out the tubing. The IRS-G consists of two modules that makes this tool unique and very efficient in terms of information acquired from a single run. The combination of neutron logging module and electromagnetic defectoscope makes the IRS-G stand out from the range of other conventional tools in terms of applicability and efficiency.

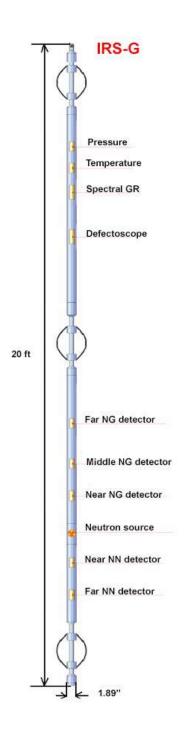
The tool is capable of cement evaluation by means of neutron logging that gives it a competitive edge and vast possibilities. Precise multi-barrier electromagnetic defectoscope, capable of quantitatively measuring the casing wall thickness behind four barriers, is a valuable addition to the toolstring which provides detailed corrosion log of multiple casings.

#### Features:

- The tool provides detailed formation evaluation by determining reservoir saturation, neutron porosity, permeability and matrix density
- Lithological modelling (including clay model)
- · Through tubing cement evaluation behind two casing
- Annular crossflow detection
- Oil-water/gas-oil/gas-water contact determination
- Detection of annual gas and water accumulations
- Multi-casing wall thickness determination

#### Advantages:

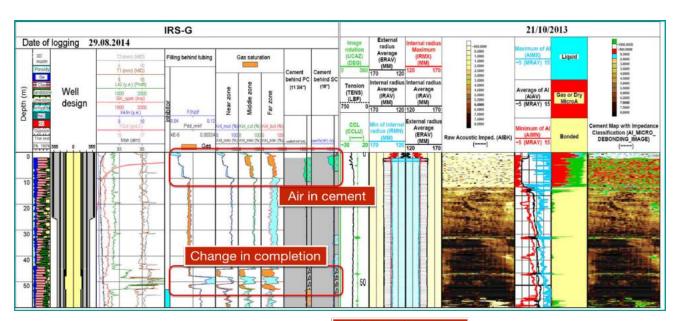
- No need to shut the well in and pull out the tubing
- All measurement are taken in a single run
- 360 radial measurements
- No geological restrictions
- Compatible with any logging system



#### Technical Specifications:

Tool OD, in	1.89; 3.54
Tool length, ft	20
Max. pressure, psi	14500
Max. temperature, F	300
Spectrometer energy resolution on peak 137Cs, %	<15
Energy range of neutron capture gamma rays, MeV	0.1-8.0
Energy range of spectral gamma ray, MeV	0.1-3.0
Telemetry	Manchester-2
Power supply, V	180-260, 50Hz
Logging Speed, ft/min	10
Temperature sensor resolution, C	0.01
Multi barrier defectoscope resolution range, in	0.015-0.025
Weight, lbs	140; 220

#### Examples of logs



Partial gas in cement

### **GINNOVO**

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