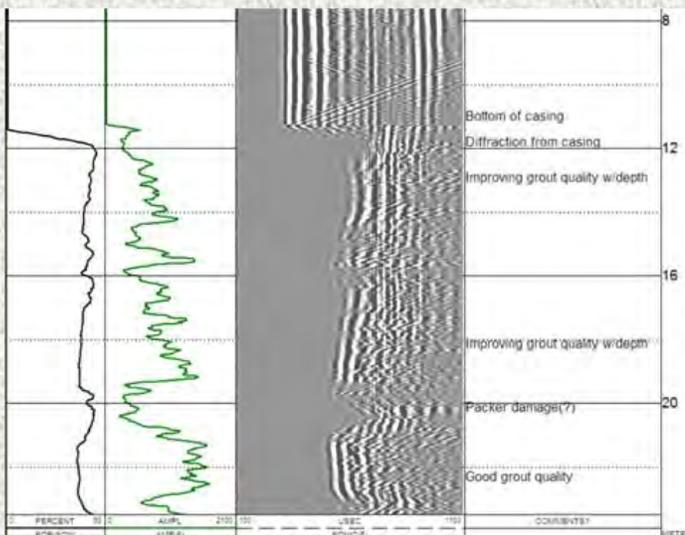
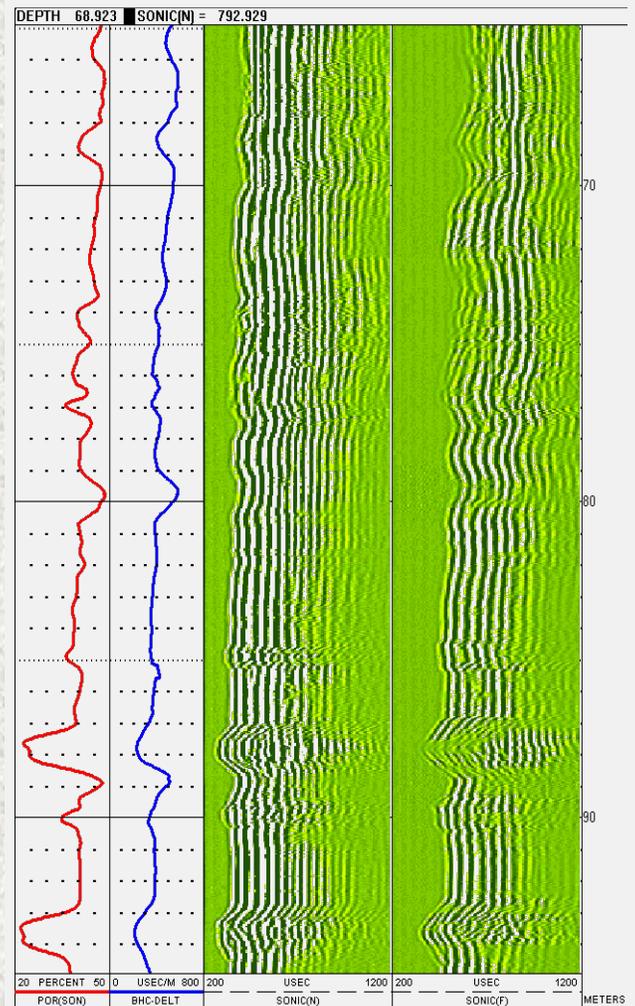


Geophysics and Geology

Borehole Full Waveform Sonic

The full waveform sonic tool is designed for high-resolution acquisition of velocity and waveform data in rock. Changes in velocity with depth may be used for stratigraphic interpretation, and direct calculation of formation porosity can be made from the P wave velocities. Under ideal conditions, S-wave velocities may also be determined from the wave traces. In addition, waveform analysis can be used to determine locations of fracture zones and, in cased holes, the waveform data can be used to evaluate the casing/cement bond.

The full waveform sonic tool may be used as an inexpensive complement to core data for identification of zones of increased porosity as well as qualitative assessment of secondary permeability (fractures and joints).



More information on sonic logs is available from the Federal Highway Administration at the following link:

<http://www.cflhd.gov/resources/agm/geoApplications/BoreholeMethods/1043AcousticLogging.cfm#10431>