Smart Infrastructure Group of Companies

RADISE INTERNATIONAL

SMARTSTRUCTURES

APPLIED FOUNDATION TESTING
Specialty Geotechnical Services

Borehole Geophysical Services

www.Smart-Infrastructure.com

Borehole Geophysical Services

Applied Foundation Testing (AFT) and RADISE International, LC (RADISE), collectively referred to as the Smart Infrastructure Group (SIG) are Pleased new announce our new line of Borehole Geophysical Services.

Borehole geophysical logging involves measuring the physical properties of the surrounding medium with a camera and/or sensor located in a borehole. Since the down-hole geophysical measurements are made in situ, it can provide highly accurate information about subsurface properties. A variety of geologic information can be obtained from borehole geophysical surveys.

Specific Applications

- Cut-off wall verification
- Foundation inspections
- Characterize lithologies and physical properties
- Determine depths & orientations of bedrock fractures
- Locate productive bedrock fractures & water producing zones
- Inspect casing
- Determine verticality/borehole deviation
- Detect zones of contamination
- Select zones for permeability testing

SIG is equipped with a state-of-the-art Borehole Geophysical Logging trailer equipped with a MX Winch and Controller manufactured by Mount Sopris Instruments capable of reaching depths of great than 1,000 feet. A precision measuring wheel, rotary encoder and speed adjustments allow the amount of cable played to be accurately tracked and controlled. The trailer is equipped with the latest logging software along with a high definition cameras which allows engineers and owners to view the results in real time. The trailer is currently equipped with an Optical Televiewer (OPTV), QL40OBI-2G Optical Borehole Imager manufactured by Advanced Logic Technology and a Closed-Circuit Television (CCTV), WC1750 Slimline Dual View Camera manufactured by Aeries Industries, Inc. SIG's versatile system allows for additional measurement probes and cameras to be attached in order to meet any borehole logging applications.

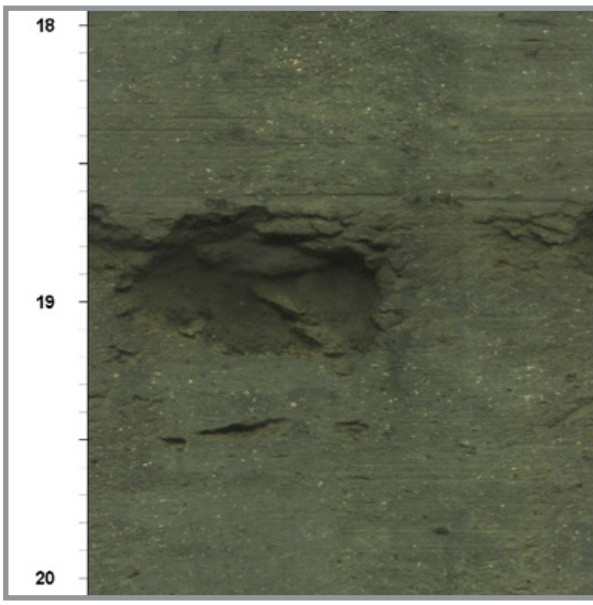
www.Smart-Infrastructure.com

Optical Televiewer (OPTV)

QL40OBI-2G Optical Borehole Imager manufactured by Advanced Logic Technology The QL40OBI-2G is the new generation of slim hole Optical Borehole Imagers. The new system comprises a completely redesigned optical assembly with new electronics. It implements a high resolution CMOS digital image sensor combined with a fisheye lens. The tool produces an extraordinarily clear, sharp, 360° continuous – unwrapped digital picture of the borehole wall, either in air or clear water. Resolutions up to 1800 pixels over the borehole circumference can be achieved which makes it ideal for lithological, mineralogical and structural analyses.

A built in high precision orientation package incorporating a 3-axis fluxgate magnetometer and 3 accelerometers allows orientation of the images to a global reference and determination of the borehole's azimuth and inclination.

The new QL40OBI-2G is fully digital and can operate on standard wirelines. It can be either combined with other logging tools of the QL (Quick Link) product line to build tool strings or operated as a standalone tool.



Applications

- **Detailed and oriented structural information**
- **Reference for core orientation**
- **Fracture detection and evaluation**
- **Breakout analysis**
- **Detection of thin beds**
- **Determination of bedding dip**
- **Lithology and mineralogical characterization**
- **Casing inspection**

Closed Circuit Television (CCTV)

WC1750 Slimline Dual View Camera manufactured by Aeries Industries, Inc. The WC1750 Dual View Inspection Camera inspects waterwell and borehole walls between two and eight inches in diameter. There are two camera-viewing modules that provide either a direct down view or a direct 90° side view with a press of a button. It provides a 360° continuous viewing capability for inspecting casing welds, perforations and open borehole geological strata. The camera is suspended from an industry standard Gearhart-Owens single conductor threaded connector. It is compatible with some other manufacturers' waterwell inspection and geophysical logging systems

Productive

Designed to improve downhole inspections by allowing the operator to see two views of the inside of water wells, boreholes and other vertical shafts.

Industrious

Camera rotates 360 degrees continuously without the use of high pressure rotating seals

Additional Available Geophysical Services

- Acoustic Televiewers
- Fluid Temperature & Resistivity
- Material Resistivity
- Spontaneous Measurements
- Natural & Spectral Gamma
- EM Induction Logging
- Full Waveform Sonic & CBL
- Crosshole Sonic
- Water Quality (Nitrate, pH, T, FEC, ORP, DO)
- Borehole Deviation-Magnetic/Gyro
- Borehole Sonar
- Neutron Logging for Porosity
- High Resolution Focused Density
- Drilled Shaft Density
- Magnetic Susceptibility
- Induced Polarization
- 3-Arm Caliper/Borehole Volume
- Formation Pressure

" Building Resilient and Sustainable Infrastructure "

Smart Infrastructure Group of Companies

RADISE INTERNATIONAL

SMARTSTRUCTURES

AFT APPLIED FOUNDATION TESTING Specialty Geotechnical Services

4152 West Blue Heron Blvd, Suite 1114, Riviera Beach, FL 33404 Ph: 561.841.0103 Fax: 561.841.0104

www.Smart-Infrastructure.com