High Temperature Acoustic Borehole Imager

**QL85 ABI™**

**Technical specifications**

- **Diameter**: 85 mm (3¾")
- **Length**
  - with “inline” centralisers: 5.2 m (205”)
  - without “inline” centralisers: 3.7 m (145”)
- **Weight**: 150 kgs
- **Operational temp & pressure**: See figure 1
- **Acoustic sensor**: Fixed transducer and rotating focusing mirror
- **Focusing**: Collimated acoustic beam
- **Frequency**: 1.2 MHz
- **Caliper resolution**: 0.08mm (0.003”)
- **Deviation sensor**: APS544-3 axis magnetometer - 3 axis accelerometer

**Operating conditions**

- **Cable type**: Multi conductor recommended
- **Compatibility SCOUT/OPAL**: Scout / Opal (ALTIogger / Bbox)
- **Digital data transmission**
- **Telemetry**: Variable baudrate telemetry according to cable length/type & surface system
- **Centralisation**: Required
- **Borehole fluid**: Water, water based mud, brine, oil (oil based mud not applicable)

**Options**

- **Centralisers**: In-line 85 mm & 92 mm (OD versions)
- **Pressure housing**: 92 mm (OD version)
- **Fluid excluder (figure 2)**: 7.5” (OD version)

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**Pressure (bar)**

- Orange: Applicable for QL85-ABI with 85mm and 92mm pressure housing
- Blue: Applicable for QL85-ABI with 92mm pressure housing only

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(1) Geothermal gradient - hot spot
(2) Geothermal gradient - common

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**figure 1**

**figure 2**
Open hole

- Detailed and oriented caliper and structural information
- Borehole deformation (stress field analysis)
- Fracture detection and evaluation
- Breakout analysis
- Lithology characterization (detection of thin beds, determination of bedding dip)
- Rock strength

Since the delivery of the first 2 systems to Sandia National Laboratories in 2005, the AB85 has been deployed successfully in several geothermal fields including Iceland, New Zealand, Australia & Japan.

Publications

