

## TECHNICAL SHEET

### IMAGING

### OPTICAL

### OBI

#### Generalities

##### Principle

The OBI probe with the CCD camera associated to a conical mirror (which reflects borehole side), allows the acquisition of very high resolution oriented image of the borehole walls.

##### Results

The video pictures combined with azimuth and tilt measurements produce in real time a complete « unwrapped » image (360°) of the borehole oriented to magnetic north, in real color.

##### Interest

Fracture identification and orientation, stratigraphic studies, core orientation, casing's state (concretions, perforations ...).

##### Options

Magnetometric trajectometry, natural gamma sensor.

#### Constraints / borehole

filling up	: <input checked="" type="checkbox"/> water	<input type="checkbox"/> mud	<input checked="" type="checkbox"/> dry
casing	: <input checked="" type="checkbox"/> PVC	<input checked="" type="checkbox"/> steel	<input checked="" type="checkbox"/> open
borehole	: <input checked="" type="checkbox"/> cored	<input checked="" type="checkbox"/> destructive	
max. depth	: 1000 m (2000 m on request)		
effective diam.	: 76 mm – 500 mm		
temperature	: 0 °C – 60 °C		
max. pressure	: 100 bars (200 bars on request with HP glass)		

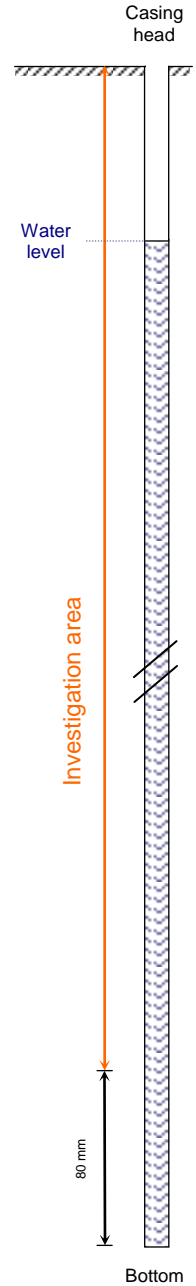
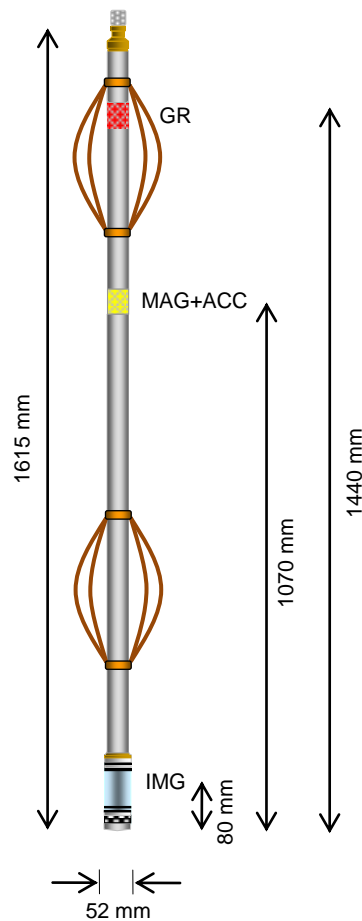
#### Technical specifications

##### Dimensions

- length : 1615 mm
- diameter : 52 mm
- weight : 5 kg

##### Éléments

- 1 optical head : IMG
- 1 magnetometer 3 axis (x,y,z) : MAG
- 1 accelerometer 2 axis : ACC
- 1 natural gamma sensor : GR



#### Records / Measures

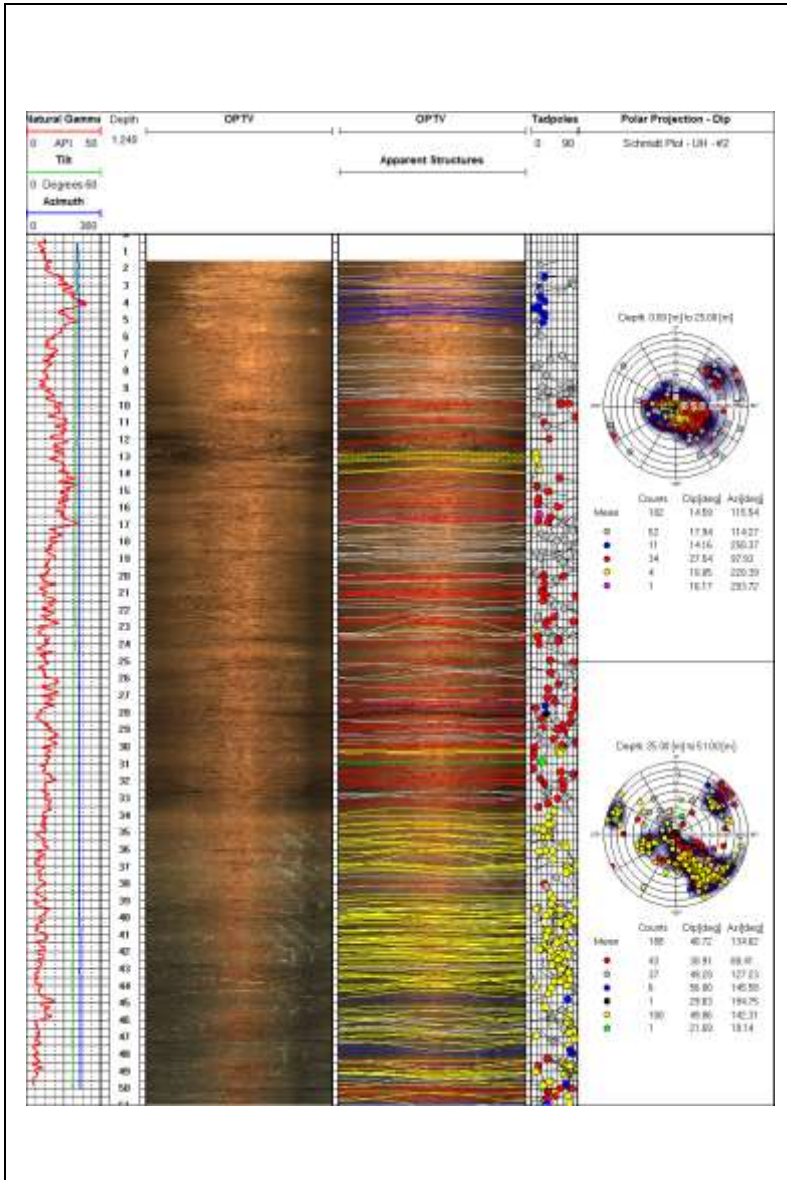
##### Records

- Tool :  centered  off-centered
- Measure :  down  up
- Rec. speed : depends on communication speed

##### Measures

- Horiz resolution : 1440 pixels / 360°
- Vert. resolution : depends on acquisition speed
- Azim. accuracy : 1°
- Incl. Accuracy : 0.5 °

#### Example



**Structurale interpretation**

In the channel OBI is displayed the oriented optical image. Standard log presentations include sinusoidal apparent structures, true tadpoles, and polar Schmidt Diagram, upper hemisphere.