

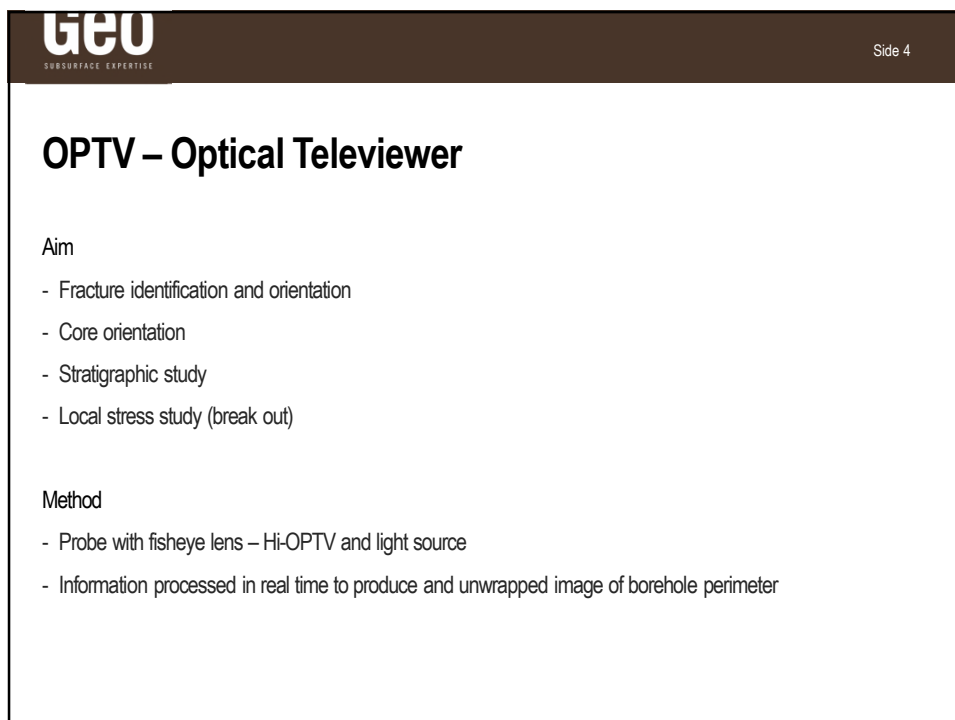
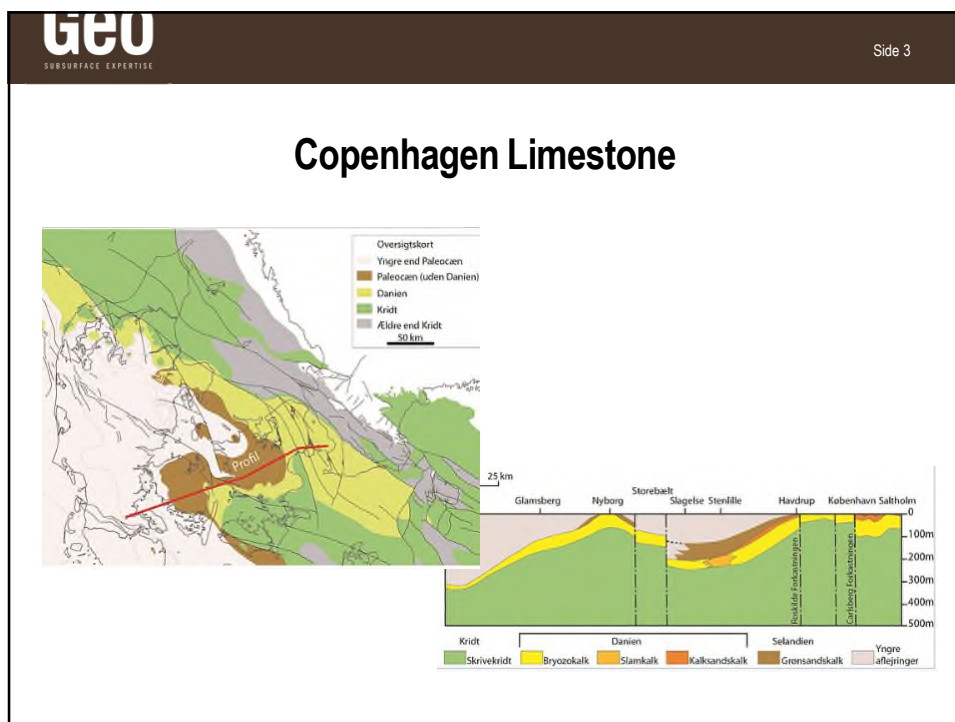


GEO
SUBSURFACE EXPERTISE

Side 2

OATV in Copenhagen Limestone

- Copenhagen Limestone
- OPTV – Optical Tele Viewer
- ATV – Acoustic Tele Viewer
- Case story – use of OATV in Copenhagen Limestone



GEO
SUBSURFACE EXPERTISE

Side 5

OPTV – Optical Televiewer

Advantages

- 360 degree photo of borehole perimeter
- continuous recording of the formation

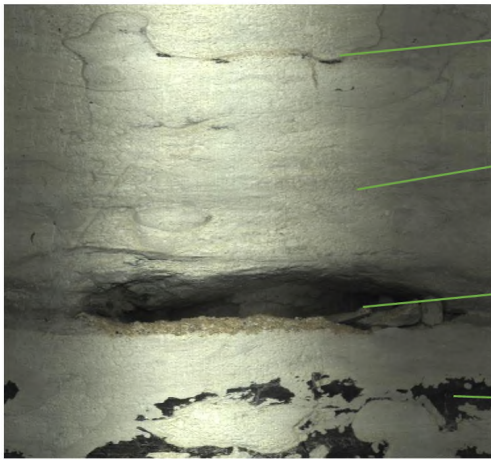
Disadvantages

- require open and stable borehole

GEO
SUBSURFACE EXPERTISE

Side 6

OPTV – Optical Televiewer



Silicified burrows

Clay rich limestone

Fracture

Flint

ATV – Acoustic Televiewer

Aim

- Fracture identification and orientation
- Core orientation
- Hardness logs'
- Stratigraphic study
- Local stress study (break out)

Method

- Probe with fixed acoustic transducer and a rotating acoustic mirror to scan with a ultrasound beam
- Records amplitude and travelttime in separate files
- Travel time log equivalent to 360 arm caliper – shows diameter change including fractures

ATV – Acoustic Televiewer

Advantages

- 360 degree sounding of the borehole surroundings
- continuous recording of the formation
- can be carried out in a cased borehole
- Can be carried out in dirty or opaque borehole fluids

Disadvantages

- require open and stable borehole

