

OSG Logging Operations

AIG10-2

15-19 September 2002; OSG: Carnein, Kück, Töpfer

Well: **AIG10 (Aigion 10)**
Location: Aigion, Peloponnes, Greece
Geographic Coordinates: Lat: 38.25567° Long: 22.07067°
Depth reference: top BOP
(2.4 m above ground which is 2 m above sea level)
Max. depth (driller): **1001 m**
Casing: I D = 177.1 mm (7 5/8") 0 - 711.30 m
OH bit size: 171.5 mm (6 3/4")
Density (@surface): 1.16 g/cm³ (bentonite / CMC)
Time circulation stopped: 15-SEP-2002; 16:00

Travel

Departure: 12/13-SEP-2002, Potsdam/Windischeschenbach
Ferryboat: 14-SEP-02, 15:30, Ancona, Blue Star Ferries
Arrival: 15-SEP-2002, 14:30, AIG10 drill site

Logging operations: 15 to 19-SEP-02

15-SEP-2002

Preparations: (4 h)

- set up logging truck, check of equipment,
- check of digital sondes 'MP' & 'SGR' = Panel does not work, 'Instrument Power' card defect.
- contact ANTARES
- order ANTARES to send spare part ('IP' card) as fast as possible
- OSG logging should start immediately!

16-SEP-2002

Preparations: (8 h)

- contact ANTARES, investigation of defect part
- change Schlumberger logging schedule one day earlier (17. instead of 18.)

17-SEP-2002

Preparations: (8 h)

- rig-up cable, sheaves, tensiometer etc. to be ready for logging
- wait for DHL to bring spare part, does not arrive this day

- Schlumberger arrives at 15:30
- rig-down OSG equipment, move truck

18-SEP-2002

Preparations & Stand-by: (10.5 h)

- get spare part from DHL office in Aigion
- check data acquisition system: OK
- check Halliburton bridle cable head: defect, damaged during rig-up/down
- change to LEH-Q cable head
- Schlumberger logging finished & hole free at 18:30
- rig-up OSG truck and equipment

18 & 19-SEP-2002

Borehole Logging: (13 h)

SGR (Spectral Gamma Ray)

Start: 18-SEP-02, 19:16 End: 18-SEP-02, 22:30 ~ 3 h

- log up 688 - 1002 m
- very good results (high dynamic & repeatability); 5 - 6 m/min
- repeat run, 697 - 742 m

GR-BCS-DIL (total GR, Sonic, Induction Resistivity)

Start: 18-SEP-02, 22:57 End: 19-SEP-02, 01:55 ~ 3 h

- log up 703 - 1001 m with 10 m/min
- repeat run, 696 - 755 m

MP (Mud Parameter: Temperature, Resistivity, total GR)

Start: 19-SEP-02, 02:02 End: 19-SEP-02, 04:50 ~ 3 h

- log down in 2 steps: 0 - 302 m, 10 m/min; 302 - 1003 m, 10 - 20 m/min
- stationary measurements for each 15 min at 302 m and 1003 m
- max. recorded temp: 32.9 °C
- temperature
- pressure sensor port clogged by extreme thick mud, no usable measurement
- mud resistivity is very stable at 2 Ohmm, accuracy seems to be reduced due to sticky mud

GR-MSFL (total GR, Micro Resistivity, one-arm caliper)

Start: 19-SEP-02, 05:25 End: 19-SEP-02, 07:30 ~ 2 h

- log up 725 - 1000 m, 12 m/min
- micro-resistivity is usually clearly higher than mud-resistivity

Resumé:

- fault zone appears clearly in DIL, SGR, BCS, MSFL and caliper data
- all tools worked error free, except LL3 resistivity inside the DIL sonde, needs shop repair
- very good cooperation with drilling crew
- pure OSG logging time: 11 h

19-SEP-2002

Dismounting: (3 h)

- disassembly of equipment and logging truck, packing
- hole free at 08:00, just in time to start trip in of drill strings for the subsequent flow experiment (Cornet)
- back-up of data
- short on-site logging report
- discussion of first results with the responsible on-site geologist

Travel

Departure: 20-SEP-02, 09:00, Aigion drill site

Ferryboat: 20-SEP-02, 13:30, Patras, Blue Star Ferries

Arrival: 22/23-AUG-2002, Windischeschenbach/Potsdam

Time overview:

Total time: 10/12 days (starting from KTB/starting from GFZ Potsdam)

Travelttime: 6/8 days (from KTB/ from Potsdam)

On-site operations: 5 days (46.5 hours)

Pure logging time: 11 h