

OSG Logging Operations

AIG10a

16-18 August 2002 OSG: Bohn, Kück, Töpfer

Well: **AIG10 (Aigion 10)**
Location: Aigion, Peleponnes, 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): **708.80 m**
Casing: ID = 252.7/251.3 mm (10 3/4") 0 - 211.30 m
OH bit size: 244.5 mm (9 5/8")
Density (@surface): 1.12 g/cm³ (bentonite with clay from formation)
Time circulation stopped: 17-August-2002; 00:00

Travel

Departure: 12/13-AUG-2002, Potsdam/Windischeschenbach
Ferryboat: 14-AUG-02, 19:30, Brindisi, Hellenic Mediteranean Lines
Arrival: 15-AUG-2002, 16:30, AIG10 drill site

Logging operations: 16 to 18-AUG-02

16-AUG-2002

Preparations: (9 h)

- set up logging truck, check of equipment, Logging PC has a defect monitor, Halliburton bridle cable head defect,
- rebuilding to Schlumberger LEHQ head = OK,
- check of digital sondes 'MP' & 'SGR' = OK,
- repair of Halliburton head and check = OK

17-AUG-2002

Borehole Logging: (13.7 h)

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

Start: 17-AUG-02, 09:24 End: 17-AUG-02, 11:50 ~ 2.4 h

- log down 0 - 707.84 m with 8 m/min
- max. recorded temp: 30.23°C, temp variations over entire well < 4°C
- pressure sensor port clogged by extreme thick mud, no usable measurement
- mud resistivity is very stable at 2 Ohmm, accuracy could be reduced due to sticky mud

SGR (Spectral Gamma Ray)

Start: 17-AUG-02, 12:06 End: 17-AUG-02, 14:45 ~ 2.6 h
- log up 705.4 - 150 m
- very good results (high dynamic); 5.4 m/min

Change of cable head: dismount LEH-Q, mount Halliburton w/ bridle

Start: 17-AUG-02, 14:50 End: 17-AUG-02, 15:35 ~ 0.75 h

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

Start: 17-AUG-02, 16:00 End: 17-AUG-02, 19:15 ~ 3.25 h
- log up 703.4 - 184 m with 11 m/min
- upper part of OH shows mainly formation resistivity close to mud-resistivity
- lower part (> 390 m) shows mainly formation resist. close to micro-resistivity
- repeat run, 251 - 191 m

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

Start: 17-AUG-02, 19:48 End: 17-AUG-02, 21:50 ~ 2 h
- log up 704.6 - 230.8 m with 8 - 14 m/min
- average micro-resistivity > 10 Ohmm, always higher than 5 Ohmm
- micro-resistivity is usually clearly higher than mud-resistivity
- repeat run, 704.6 - 649.5 m

Resumé:

- all tools worked error free, except LL3 resistivity inside the DIL sonde
- smooth and fast operation
- very good cooperation with drilling crew
- total time of OSG operations at logging day: 13.7 h
- pure OSG logging time: 11 h

18-AUG-2002

Dismounting: (5 h)

- disassembly of equipment and logging truck, packing
- back-up of data
- short on-site logging report
- discussion of first results with the responsible on-site geologist

Travel

Departure: 19-AUG-02, 13:00, Aigion drill site

Ferryboat: 19-AUG-02, 21:00, Patras, Hellenic Mediteranean Lines
scheduled departure was 19:30

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

Time overview:

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

Traveltime: 7/9 days (from KTB/ from Potsdam)

On-site operations: 3 days (27.7 h)

Pure logging time: 13.7 h