## General information

| | |
|---|---|
| Wellbore name | 34/10-37 |
| Type | EXPLORATION |
| Purpose | WILDCAT |
| Status | P&A |
| Factmaps in new window | link to map |
| Main area | NORTH SEA |
| Field | GULLFAKS SØR |
| Discovery | 34/10-37 Gullveig |
| Well name | 34/10-37 |
| Seismic location | NOD4-84-06 & SP2030 |
| Production licence | 050 |
| Drilling operator | Den norske stats oljeselskap a.s |
| Drill permit | 802-L |
| Drilling facility | DEEPSEA BERGEN |
| Drilling days | 28 |
| Entered date | 26.01.1995 |
| Completed date | 22.02.1995 |
| Release date | 22.02.1997 |
| Publication date | 19.10.2006 |
| Purpose - planned | WILDCAT |
| Reentry | NO |
| Content | OIL |
| Discovery wellbore | YES |
| 1st level with HC, age | MIDDLE JURASSIC |
| 1st level with HC, formation | NESS FM |
| Kelly bushing elevation [m] | 23.0 |
| Water depth [m] | 140.0 |
| Total depth (MD) [m RKB] | 2873.0 |
| Final vertical depth (TVD) [m RKB] | 2872.0 |
| Maximum inclination [°] | 3.1 |
| Bottom hole temperature [°C] | 103 |
| Oldest penetrated age | EARLY JURASSIC |
| Oldest penetrated formation | DRAKE FM |
| Geodetic datum | ED50 |
| NS degrees | 61° 8' 9.78'' N |
| EW degrees | 2° 0' 55.81'' E |
| NS UTM [m] | 6778501.30 |
| EW UTM [m] | 446979.26 |

| | |
|---|---|
| UTM zone | 31 |
| NPDID wellbore | 2431 |

## Wellbore history

### General

Wildcat well 34/10-37 was drilled in the Tampen Spur area, ca 8 km WNW of the Gullfaks Sør Field. The main objective of the well was to test the potential for hydrocarbons in the sandstones of Middle Jurassic age (Brent Group) on the Delta prospect.

### Operations and results

Well 34/10-37 was spudded with the semi-submersible installation Deepsea Bergen on 26 January 1995 and drilled to TD at 2873 m in the Early Jurassic Drake Formation. No significant problems were encountered in the operations. The well was drilled with bentonite/CMC EHV down to 1525 m, and with KCl/PAC from 1525 m to TD.

Well 34/10-37 penetrated the Brent Group at 2613 m; about 58 m deeper than prognosed and the Tarbert Formation was found to be absent. The Brent Group proved to be hydrocarbon bearing with an OWC at 2645 m (2622 m TVD MSL).

Two conventional cores were cut from 2626 m to 2673 m in the Ness Formation. Segregated FMT samples were taken at 2624.7 m (both contained oil and gas), 2629 m (oil and gas), 2642 m (oil and gas), and at 2670 m (water with gas). The results from 34/10-37 indicated a more complex fault pattern at the crest of the structure than expected and it was decided to drill a side track. The well bore was plugged back to 2055 m on 22 February 1995 and abandoned as an oil discovery.

### Testing

No drill stem test was performed

## Cuttings at the Norwegian Offshore Directorate

| Cutting sample, top depth [m] | Cutting samples, bottom depth [m] |
|---|---|
| 1530.00 | 2873.00 |

| | |
|---|---|
| Cuttings available for sampling? | YES |

## Cores at the Norwegian Offshore Directorate

| Core sample number | Core sample - top depth | Core sample - bottom depth | Core sample depth - uom |
|---|---|---|---|
| 1 | 2626.0 | 2644.7 | [m ] |
| 2 | 2645.0 | 2672.1 | [m ] |

| | |
|---|---|
| Total core sample length [m] | 45.8 |
| Cores available for sampling? | YES |

## Core photos


2626-2631m


2631-2636m


2636-2641m


2641-2644m


2646-2650m


2650-2655m


2655-2660m


2660-2665m


2665-2670m


2670-2672m

## Palynological slides at the Norwegian Offshore Directorate

| Sample depth | Depth unit | Sample type | Laboratory |
|---|---|---|---|
| 1530.0 | [m] | DC | GEOST |
| 1540.0 | [m] | DC | GEOST |
| 1560.0 | [m] | DC | GEOST |
| 1570.0 | [m] | DC | GEOST |
| 1590.0 | [m] | DC | GEOST |
| 1600.0 | [m] | DC | GEOST |
| 1620.0 | [m] | DC | GEOST |
| 1630.0 | [m] | DC | GEOST |
| 1650.0 | [m] | DC | GEOST |
| 1660.0 | [m] | DC | GEOST |
| 1680.0 | [m] | DC | GEOST |
| 1690.0 | [m] | DC | GEOST |
| 1710.0 | [m] | DC | GEOST |
| 1720.0 | [m] | DC | GEOST |
| 1740.0 | [m] | DC | GEOST |
| 1750.0 | [m] | DC | GEOST |
| 1770.0 | [m] | DC | GEOST |

| | | | |
|---|---|---|---|
| 1780.0 | [m] | DC | GEOST |
| 1800.0 | [m] | DC | GEOST |
| 1810.0 | [m] | DC | GEOST |
| 1830.0 | [m] | DC | GEOST |
| 1840.0 | [m] | DC | GEOST |
| 1860.0 | [m] | DC | GEOST |
| 1870.0 | [m] | DC | GEOST |
| 1890.0 | [m] | DC | GEOST |
| 1900.0 | [m] | DC | GEOST |
| 1920.0 | [m] | DC | GEOST |
| 1930.0 | [m] | DC | GEOST |
| 1950.0 | [m] | DC | GEOST |
| 1960.0 | [m] | DC | GEOST |
| 1980.0 | [m] | DC | GEOST |
| 2000.0 | [m] | DC | GEOST |
| 2010.0 | [m] | DC | GEOST |
| 2020.0 | [m] | DC | GEOST |
| 2040.0 | [m] | DC | GEOST |
| 2050.0 | [m] | DC | GEOST |
| 2070.0 | [m] | DC | GEOST |
| 2080.0 | [m] | DC | GEOST |
| 2100.0 | [m] | DC | GEOST |
| 2110.0 | [m] | DC | GEOST |
| 2130.0 | [m] | DC | GEOST |
| 2140.0 | [m] | DC | GEOST |
| 2160.0 | [m] | DC | GEOST |
| 2170.0 | [m] | DC | GEOST |
| 2190.0 | [m] | DC | GEOST |
| 2200.0 | [m] | DC | GEOST |
| 2220.0 | [m] | DC | GEOST |
| 2230.0 | [m] | DC | GEOST |
| 2250.0 | [m] | DC | GEOST |
| 2260.0 | [m] | DC | GEOST |
| 2280.0 | [m] | DC | GEOST |
| 2290.0 | [m] | DC | GEOST |
| 2300.0 | [m] | DC | GEOST |
| 2330.0 | [m] | DC | GEOST |
| 2340.0 | [m] | DC | GEOST |
| 2350.0 | [m] | DC | GEOST |
| 2360.0 | [m] | DC | GEOST |

| | | | |
|---|---|---|---|
| 2380.0 | [m] | DC | GEOST |
| 2390.0 | [m] | DC | GEOST |
| 2410.0 | [m] | DC | GEOST |
| 2420.0 | [m] | DC | GEOST |
| 2440.0 | [m] | DC | GEOST |
| 2450.0 | [m] | DC | GEOST |
| 2456.0 | [m] | DC | GEOST |
| 2462.0 | [m] | DC | GEOST |
| 2468.0 | [m] | DC | GEOST |
| 2477.0 | [m] | DC | GEOST |
| 2483.0 | [m] | DC | GEOST |
| 2489.0 | [m] | DC | GEOST |
| 2495.0 | [m] | DC | GEOST |
| 2501.0 | [m] | DC | GEOST |
| 2507.0 | [m] | DC | GEOST |
| 2513.0 | [m] | DC | GEOST |
| 2519.0 | [m] | DC | GEOST |
| 2525.0 | [m] | DC | GEOST |
| 2528.0 | [m] | DC | GEOST |
| 2534.0 | [m] | DC | GEOST |
| 2540.0 | [m] | DC | GEOST |
| 2546.0 | [m] | DC | GEOST |
| 2549.0 | [m] | DC | GEOST |
| 2558.0 | [m] | DC | GEOST |
| 2563.0 | [m] | SWC | STATO |
| 2570.0 | [m] | DC | GEOST |
| 2579.0 | [m] | DC | GEOST |
| 2583.0 | [m] | DC | STATO |
| 2591.0 | [m] | DC | GEOST |
| 2596.0 | [m] | SWC | STATO |
| 2603.0 | [m] | DC | GEOST |
| 2608.0 | [m] | DC | WESTL |
| 2609.0 | [m] | DC | GEOST |
| 2611.0 | [m] | DC | WESTL |
| 2612.0 | [m] | SWC | STATO |
| 2614.0 | [m] | DC | WESTL |
| 2617.0 | [m] | DC | WESTL |
| 2619.0 | [m] | SWC | STATO |
| 2619.0 | [m] | SWC | WESTL |
| 2620.0 | [m] | DC | WESTL |

| | | | |
|---|---|---|---|
| 2624.0 | [m] | DC | GEOST |
| 2626.0 | [m] | DC | WESTL |
| 2626.0 | [m] | C | STATO |
| 2629.0 | [m] | C | STATO |
| 2631.0 | [m] | C | STATO |
| 2633.0 | [m] | C | STATO |
| 2637.0 | [m] | C | STATO |
| 2639.0 | [m] | C | STATO |
| 2641.0 | [m] | C | STATO |
| 2644.0 | [m] | C | STATO |
| 2645.0 | [m] | C | STATO |
| 2648.0 | [m] | C | STATO |
| 2651.0 | [m] | C | STATO |
| 2655.0 | [m] | C | STATO |
| 2658.0 | [m] | C | STATO |
| 2661.0 | [m] | C | STATO |
| 2663.0 | [m] | C | STATO |
| 2665.0 | [m] | C | STATO |
| 2667.0 | [m] | C | STATO |
| 2671.0 | [m] | C | STATO |
| 2678.0 | [m] | DC | GEOST |
| 2684.0 | [m] | DC | GEOST |
| 2690.0 | [m] | DC | GEOST |
| 2694.0 | [m] | SWC | STATO |
| 2703.0 | [m] | SWC | STATO |
| 2710.0 | [m] | SWC | STATO |
| 2720.0 | [m] | DC | GEOST |
| 2729.0 | [m] | SWC | STATO |
| 2734.0 | [m] | SWC | STATO |
| 2741.0 | [m] | DC | GEOST |
| 2747.0 | [m] | DC | GEOST |
| 2759.0 | [m] | DC | GEOST |
| 2765.0 | [m] | DC | GEOST |
| 2774.0 | [m] | DC | GEOST |
| 2780.0 | [m] | DC | GEOST |
| 2786.0 | [m] | DC | GEOST |
| 2792.0 | [m] | DC | GEOST |
| 2799.0 | [m] | SWC | STATO |
| 2806.0 | [m] | SWC | STATO |
| 2810.0 | [m] | DC | GEOST |

| | | | |
|---|---|---|---|
| 2815.0 | [m] | SWC | STATO |
| 2822.0 | [m] | DC | GEOST |
| 2828.0 | [m] | DC | GEOST |
| 2834.0 | [m] | DC | GEOST |
| 2840.0 | [m] | SWC | STATO |
| 2846.0 | [m] | DC | GEOST |
| 2852.0 | [m] | DC | GEOST |
| 2858.0 | [m] | DC | GEOST |
| 2864.0 | [m] | DC | GEOST |
| 2870.0 | [m] | DC | GEOST |
| 2873.0 | [m] | DC | GEOST |

## Lithostratigraphy

| Top depth [mMD RKB] | Lithostrat. unit |
|---|---|
| 163 | NORDLAND GP |
| 916 | UTSIRA FM |
| 958 | HORDALAND GP |
| 1754 | ROGALAND GP |
| 1754 | BALDER FM |
| 1830 | LISTA FM |
| 1858 | SHETLAND GP |
| 2517 | VIKING GP |
| 2517 | HEATHER FM |
| 2613 | BRENT GP |
| 2613 | NESS FM |
| 2730 | ETIVE FM |
| 2750 | RANNOCH FM |
| 2796 | BROOM FM |
| 2810 | DUNLIN GP |
| 2810 | DRAKE FM |

## Documents - reported by the production licence (period for duty of secrecy expired)

| Document name | Document format | Document size [MB] |
|---|---|---|
| 2431_34_10_37_COMPLETION_REPORT_AND_LOG | pdf | 33.54 |

## Logs

| Log type | Log top depth [m] | Log bottom depth [m] |
|---|---|---|
| DIPLOG GR | 2545 | 2872 |
| DLL MLL DAC ZDL CN DSL | 2351 | 2872 |
| FMT QDYNE GR | 2616 | 2780 |
| FMT QDYNE GR | 2624 | 2624 |
| FMT QDYNE GR | 2624 | 2624 |
| FMT QDYNE GR | 2629 | 2629 |
| FMT QDYNE GR | 2670 | 2670 |
| MWD - DPR | 228 | 1525 |
| MWD - RGD | 1525 | 2873 |
| SWC GR | 2500 | 2824 |
| SWC GR | 2507 | 2840 |
| VSP | 500 | 2870 |

## Casing and leak-off tests

| Casing type | Casing diam. [inch] | Casing depth [m] | Hole diam. [inch] | Hole depth [m] | LOT/FIT mud eqv. [g/cm3] | Formation test type |
|---|---|---|---|---|---|---|
| CONDUCTOR | 30 | 222.0 | 36 | 228.0 | 0.00 | LOT |
| INTERM. | 13 3/8 | 1504.0 | 17 1/2 | 1525.0 | 1.65 | LOT |
| INTERM. | 9 5/8 | 2353.0 | 12 1/4 | 2369.0 | 2.04 | LOT |
| OPEN HOLE | | 2873.0 | 8 1/2 | 2873.0 | 0.00 | LOT |

## Drilling mud

| Depth MD [m] | Mud weight [g/cm3] | Visc. [mPa.s] | Yield point [Pa] | Mud type | Date measured |
|---|---|---|---|---|---|
| 185 | 1.03 | | | WATER BASED | |
| 571 | 1.03 | | | WATER BASED | |
| 1415 | 1.03 | | | WATER BASED | |
| 1525 | 1.03 | | | WATER BASED | |
| 2174 | 1.57 | 32.0 | | WATER BASED | |
| 2369 | 1.48 | 29.0 | | WATER BASED | |
| 2612 | 1.57 | 36.0 | | WATER BASED | |
| 2640 | 1.57 | 32.0 | | WATER BASED | |
| 2825 | 1.57 | 36.0 | | WATER BASED | |

## Pressure plots

The pore pressure data is sourced from well logs if no other source is specified. In some wells where pore pressure logs do not exist, information from Drill stem tests and kicks have been used. The data has been reported to the NPD, and further processed and quality controlled by IHS Markit.

| Document name | Document format | Document size [MB] |
|---|---|---|
| 2431_Formation_pressure_(Formasjonstrykk) | pdf | 0.23 |