## General information

| | |
|---|---|
| Wellbore name | 16/7-3 |
| Type | EXPLORATION |
| Purpose | WILDCAT |
| Status | P&A |
| Factmaps in new window | link to map |
| Main area | NORTH SEA |
| Well name | 16/7-3 |
| Seismic location | ST 8122 - 563  SP 738 |
| Production licence | 072 |
| Drilling operator | Esso Exploration and Production Norway A/S |
| Drill permit | 331-L |
| Drilling facility | GLOMAR BISCAY II |
| Drilling days | 47 |
| Entered date | 11.06.1982 |
| Completed date | 27.07.1982 |
| Release date | 27.07.1984 |
| Publication date | 24.09.2004 |
| Purpose - planned | WILDCAT |
| Reentry | NO |
| Content | DRY |
| Discovery wellbore | NO |
| Kelly bushing elevation [m] | 25.0 |
| Water depth [m] | 85.0 |
| Total depth (MD) [m RKB] | 3141.0 |
| Final vertical depth (TVD) [m RKB] | 3141.0 |
| Bottom hole temperature [°C] | 94 |
| Oldest penetrated age | EARLY PERMIAN |
| Oldest penetrated formation | ROTLIEGEND GP |
| Geodetic datum | ED50 |
| NS degrees | 58° 24' 21.96'' N |
| EW degrees | 2° 8' 8.06'' E |
| NS UTM [m] | 6474396.59 |
| EW UTM [m] | 449482.48 |
| UTM zone | 31 |
| NPDID wellbore | 75 |

## Wellbore history

### General

Exploration well 16/7-3 is located on the Utsira High, about ten km east of the Sleipner East field. The objective of the well was to test potential Jurassic sands on the large structure in the centre of the block.

The well would also test the Zechstein carbonate and Rotliegendes sandstone plays in a small fault block structure.

### Operations and results

The well was spudded with the semi-submersible installation Glomar Biscay II and drilled without incident to TD at 3141 m in the Rotliegendes Group. The well was drilled with seawater gel, adding lignite from 2150 m.

The Cretaceous sequence consisted of the Late Cretaceous Tor and Hod chalk formations resting unconformably on a very thin Late Jurassic Draupne shale. Thirty-seven net m of good quality sand was encountered in the Jurassic Hugin Formation. The Triassic consisted of red beds with no major sand development. The Zechstein contained tight anhydritic dolomite, some vuggy dolomite, and shales, while the Rotliegendes Group had poor reservoir quality dolomite cemented sandstones, siltstones and shales. A shows on a core was recorded in the interval 2345 m to 2350.7 m in the upper part of the Jurassic Hugin Formation. Otherwise no hydrocarbons were encountered in the well. Two cores were taken in the 8 1/2" section, in the interval 2342 m to 2365.5 m in the Jurassic Hugin Formation. Forty sidewall cores were taken in the interval 2296 m to 3130 m. No fluid samples were taken. The well was permanently abandoned as dry on 28 August 1982.

### Testing

No drill stem test was performed

## Cuttings at the Norwegian Offshore Directorate

| Cutting sample, top depth [m] | Cutting samples, bottom depth [m] |
|---|---|
| 180.00 | 3140.00 |

| | |
|---|---|
| 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 | 2342.0 | 2350.7 | [m ] |
| 2 | 2351.0 | 2365.6 | [m ] |

| | |
|---|---|
| Total core sample length [m] | 23.2 |
| Cores available for sampling? | YES |

## Core photos


2342-2348m


2348-2450m


2351-2357m


2357-2363m


2363-2365m

## Palynological slides at the Norwegian Offshore Directorate

| Sample depth | Depth unit | Sample type | Laboratory |
|---|---|---|---|
| 520.0 | [m] | DC | |
| 550.0 | [m] | DC | |
| 580.0 | [m] | DC | |
| 610.0 | [m] | DC | |
| 640.0 | [m] | DC | |
| 670.0 | [m] | DC | |
| 700.0 | [m] | DC | |
| 730.0 | [m] | DC | |
| 760.0 | [m] | DC | |
| 790.0 | [m] | DC | |
| 820.0 | [m] | DC | |
| 850.0 | [m] | DC | |
| 880.0 | [m] | DC | |
| 910.0 | [m] | DC | |
| 940.0 | [m] | DC | |
| 970.0 | [m] | DC | |
| 1000.0 | [m] | DC | |
| 1030.0 | [m] | DC | |
| 1060.0 | [m] | DC | |
| 1090.0 | [m] | DC | |
| 1120.0 | [m] | DC | |
| 1150.0 | [m] | DC | |
| 1180.0 | [m] | DC | |
| 1210.0 | [m] | DC | |
| 1240.0 | [m] | DC | |
| 1270.0 | [m] | DC | |

| | | | |
|---|---|---|---|
| 1300.0 | [m] | DC | |
| 1330.0 | [m] | DC | |
| 1360.0 | [m] | DC | |
| 1390.0 | [m] | DC | |
| 1420.0 | [m] | DC | |
| 1450.0 | [m] | DC | |
| 1480.0 | [m] | DC | |
| 1510.0 | [m] | DC | |
| 1540.0 | [m] | DC | |
| 1570.0 | [m] | DC | |
| 1600.0 | [m] | DC | |
| 1630.0 | [m] | DC | |
| 1660.0 | [m] | DC | |
| 1690.0 | [m] | DC | |
| 1720.0 | [m] | DC | |
| 1750.0 | [m] | DC | |
| 1780.0 | [m] | DC | |
| 1810.0 | [m] | DC | |
| 1840.0 | [m] | DC | |
| 1870.0 | [m] | DC | |
| 1900.0 | [m] | DC | |
| 1930.0 | [m] | DC | |
| 1960.0 | [m] | DC | |
| 1990.0 | [m] | DC | |
| 2021.0 | [m] | DC | |
| 2039.0 | [m] | DC | |
| 2051.0 | [m] | DC | |
| 2060.0 | [m] | DC | |
| 2069.0 | [m] | DC | |
| 2081.0 | [m] | DC | |
| 2090.0 | [m] | DC | |
| 2099.0 | [m] | DC | |
| 2111.0 | [m] | DC | |
| 2120.0 | [m] | DC | |
| 2129.0 | [m] | DC | |
| 2141.0 | [m] | DC | |
| 2171.0 | [m] | DC | |
| 2180.0 | [m] | DC | |
| 2189.0 | [m] | DC | |
| 2201.0 | [m] | DC | |

| | | | |
|---|---|---|---|
| 2210.0 | [m] | DC | |
| 2219.0 | [m] | DC | |
| 2231.0 | [m] | DC | |
| 2240.0 | [m] | DC | |
| 2249.0 | [m] | DC | |
| 2252.0 | [m] | DC | |
| 2261.0 | [m] | DC | |
| 2273.0 | [m] | DC | |
| 2282.0 | [m] | DC | |
| 2312.0 | [m] | DC | |
| 2334.5 | [m] | SWC | |
| 2335.0 | [m] | SWC | |
| 2336.5 | [m] | SWC | |
| 2337.5 | [m] | SWC | |
| 2337.5 | [m] | SWC | |
| 2340.0 | [m] | SWC | |
| 2341.0 | [m] | SWC | |
| 2342.0 | [m] | C | |
| 2342.0 | [m] | DC | |
| 2342.1 | [m] | C | |
| 2342.5 | [m] | C | |
| 2342.8 | [m] | C | |
| 2343.0 | [m] | C | |
| 2343.3 | [m] | C | |
| 2343.8 | [m] | C | |
| 2344.0 | [m] | C | |
| 2345.5 | [m] | C | |
| 2346.3 | [m] | C | |
| 2347.0 | [m] | C | |
| 2351.0 | [m] | C | |
| 2351.2 | [m] | C | |
| 2354.1 | [m] | C | |
| 2355.0 | [m] | C | |
| 2356.8 | [m] | C | |
| 2359.0 | [m] | C | |
| 2361.3 | [m] | C | |
| 2363.0 | [m] | C | |
| 2364.0 | [m] | C | |
| 2365.0 | [m] | C | |
| 2365.5 | [m] | C | |

| | | | |
|---|---|---|---|
| 2372.0 | [m] | DC | |
| 2372.0 | [m] | SWC | |
| 2376.0 | [m] | SWC | |
| 2386.0 | [m] | SWC | |
| 2391.0 | [m] | SWC | |
| 2402.0 | [m] | DC | |
| 2432.0 | [m] | DC | |
| 2462.0 | [m] | DC | |
| 2492.0 | [m] | DC | |
| 2522.0 | [m] | DC | |
| 2543.0 | [m] | DC | |
| 2573.0 | [m] | DC | |
| 2581.0 | [m] | SWC | |
| 2603.0 | [m] | DC | |
| 2635.0 | [m] | DC | |
| 2666.0 | [m] | DC | |
| 2696.0 | [m] | DC | |
| 2726.0 | [m] | DC | |
| 2756.0 | [m] | DC | |
| 2786.0 | [m] | DC | |
| 2816.0 | [m] | DC | |
| 2840.2 | [m] | SWC | |
| 2846.0 | [m] | DC | |
| 2876.0 | [m] | DC | |
| 2906.0 | [m] | DC | |
| 2936.0 | [m] | DC | |
| 2966.0 | [m] | DC | |
| 2996.0 | [m] | DC | |
| 3026.0 | [m] | DC | |
| 3056.0 | [m] | DC | |
| 3086.0 | [m] | DC | |
| 3116.0 | [m] | DC | |
| 3140.0 | [m] | DC | |

## Lithostratigraphy

| Top depth [mMD RKB] | Lithostrat. unit |
|---|---|
| 110 | NORDLAND GP |
| 835 | UTSIRA FM |

| | |
|---|---|
| 995 | UNDIFFERENTIATED |
| 1194 | HORDALAND GP |
| 2000 | ROGALAND GP |
| 2000 | BALDER FM |
| 2048 | SELE FM |
| 2107 | LISTA FM |
| 2244 | VÅLE FM |
| 2258 | SHETLAND GP |
| 2258 | EKOFISK FM |
| 2265 | TOR FM |
| 2311 | HOD FM |
| 2332 | VIKING GP |
| 2332 | DRAUPNE FM |
| 2333 | HEATHER FM |
| 2344 | VESTLAND GP |
| 2344 | HUGIN FM |
| 2385 | NO GROUP DEFINED |
| 2385 | SMITH BANK FM |
| 2795 | ZECHSTEIN GP |
| 2795 | UNDIFFERENTIATED |
| 2857 | KUPFERSCHIEFER FM |
| 2859 | ROTLIEGEND GP |

## Composite logs

| Document name | Document format | Document size [MB] |
|---|---|---|
| 75 | pdf | 0.39 |

## Geochemical information

| Document name | Document format | Document size [MB] |
|---|---|---|
| 75_1_hydrocarbon_source_analyses_well_16_7_3_norway | pdf | 2.31 |

## Documents - older Norwegian Offshore Directorate WDSS reports and other related documents

| Document name | Document format | Document size [MB] |
|---|---|---|
| 75_01_WDSS_General_Information | pdf | 0.15 |
| 75_02_WDSS_completion_log | pdf | 0.23 |

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

| Document name | Document format | Document size [MB] |
|---|---|---|
| 75_1_hydrocarbon_source_analyses_well_16_7_3_norway | pdf | 2.31 |

**Logs**

| Log type | Log top depth [m] | Log bottom depth [m] |
|---|---|---|
| 4ARM-CAL | 110 | 460 |
| 4ARM-CAL | 440 | 1223 |
| CBL GR | 171 | 255 |
| CDL CNL GR SP CAL | 2287 | 2851 |
| CDL CNL GR SP CAL | 2500 | 3134 |
| DIPLOG | 2282 | 3133 |
| IEL AC GR SP CAL | 105 | 463 |
| IEL AC GR SP CAL | 440 | 1223 |
| IEL AC GR SP CAL | 1882 | 2297 |
| IEL AC GR SP CAL | 2274 | 2848 |
| IEL AC GR SP CAL | 2500 | 3134 |
| MFT | 2346 | 2841 |
| SWC | 2296 | 3130 |
| TEMP | 10 | 1183 |
| TEMP CCL | 1200 | 1775 |
| VSP | 175 | 3128 |

**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 | 171.3 | 36 | 173.0 | 0.00 | LOT |
| SURF.COND. | 20 | 449.5 | 26 | 469.0 | 1.78 | LOT |
| INTERM. | 13 3/8 | 1212.0 | 17 1/2 | 1228.0 | 1.74 | LOT |

| | | | | | | |
|---|---|---|---|---|---|---|
| INTERM. | 9 5/8 | 2287.0 | 12 1/4 | 2303.0 | 1.80 | LOT |
| OPEN HOLE | | 3141.0 | 8 1/2 | 3141.0 | 0.00 | LOT |

## Drilling mud

| Depth MD [m] | Mud weight [g/cm3] | Visc. [mPa.s] | Yield point [Pa] | Mud type | Date measured |
|---|---|---|---|---|---|
| 340 | 1.07 | 55.0 | | water | |
| 460 | 1.10 | 40.0 | | water | |
| 640 | 1.14 | 50.0 | | water | |
| 980 | 1.19 | 40.0 | | water | |
| 1620 | 1.20 | 47.0 | | water | |
| 1990 | 1.19 | 43.0 | | water | |
| 2140 | 1.17 | 46.0 | | water | |
| 2230 | 1.27 | 60.0 | | water | |
| 2880 | 1.21 | 54.0 | | water | |
| 2940 | 1.20 | 56.0 | | water | |

## 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] |
|---|---|---|
| 75_Formation_pressure_(Formasjonstrykk) | pdf | 0.22 |