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