General information

Wellbore name	8/12-1
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Well name	8/12-1
Seismic location	LINE C 8-6. SP.70
Production licence	014
Drilling operator	Conoco Norway Inc.
Drill permit	56-L
Drilling facility	MÆRSK EXPLORER
Drilling days	54
Entered date	31.05.1971
Completed date	23.07.1971
Release date	23.07.1973
Publication date	24.09.2004
Purpose - planned	WILDCAT
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	34.0
Water depth [m]	62.0
Total depth (MD) [m RKB]	2875.0
Bottom hole temperature [°C]	82
Oldest penetrated age	TRIASSIC
Oldest penetrated formation	SKAGERRAK FM
Geodetic datum	ED50
NS degrees	57° 13' 18.6'' N
EW degrees	3° 46' 45.13'' E
NS UTM [m]	6342491.38
EW UTM [m]	547054.64
UTM zone	31
NPDID wellbore	193

Wellbore history

General

Well 8/12-1 is located in the Åsta Graben. It was drilled on a salt dome with about 122 m of vertical closure over an area of about 23 km2. The well was programmed to test all porous formations from the Miocene to the Triassic. The main objectives were the Palaeocene Danian, Middle Jurassic, and Triassic sections. Secondary possibilities were seen in the Oligocene - Miocene, Late Cretaceous, and Early Cretaceous.

The well is Reference Well for the Bryne Formation.

Operations and results

Wildcat well 8/12-1 was spudded with the jack-up installation Maersk Explorer on 31 May 1971 and drilled to TD at 2875m in the Skagerrak Formation. Some difficulties were encountered with over-pressured shales from 853 m to 1113 m before setting 13-3/8" casing, cementing the 13-3/8" casing, and with lost returns immediately below the 9-5/8" casing set at 1903 m. The well was drilled with a Seawater/gel/IMCO-RD-333 mud system with 3 % to 5 % oil.

Methane gas in quantities up to 12% was recorded on the mud-gas detector during drilling of the Miocene and Oligocene clays. No significant reservoir sections were encountered in this section, and the gas was most probably released directly from the richly organic clays. Two very weak oil shows were obtained in the Middle Jurassic sandstones. In porous sandstones from core No.3, where one of these shows was observed, up to 9.4% residual oil was measured. However, evaluation of the logs showed that all porous intervals penetrated were water bearing. The formation water in the Middle Jurassic sandstones was calculated to have a salinity of 140,000 ppm NaCl.

Three conventional cores were cut in the intervals 6181 feet - 6237 feet (1884.0 m - 1901.0 m), 8811 feet - 8817 feet (2685.6 m - 2687.4 m), and 8919 feet - 8969 feet (2718.5 m to 2733.8 m). One fluid sample was taken on wire line at 2666 m. The tool was opened for 10 min and recovered 100 cc of salt water (55,000 ppm NaCl).

The well was permanently abandoned on 23 July 1971 as a dry hole with weak shows.

Testing

A DST was run over the interval 1902.6 m to 1950.7 m. Recovery in addition to the 457 m water cushion was 87 m of rat mud and 26 m of salt water cut mud. All pressure instruments indicated a low permeability zone that was depleted during the test period.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
106.68	2871.22

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	6181.0	6235.0	[ft]

2	8811.0	8817.5	[ft]
3	8919.0	8996.5	[ft]

Total core sample length [m]	42.1
Cores available for sampling?	YES

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
8440.0	[ft]	DC	PETROSTR
8460.0	[ft]	DC	PETROS
8470.0	[ft]	DC	PETROS
8490.0	[ft]	DC	PETROS
8510.0	[ft]	DC	PETROS
8530.0	[ft]	DC	PETROS
8550.0	[ft]	DC	PETROS
8580.0	[ft]	DC	PETROS
8590.0	[ft]	DC	PETROS
8610.0	[ft]	DC	PETROS
8630.0	[ft]	DC	PETROS
8650.0	[ft]	DC	PETROS
8670.0	[ft]	DC	PETROS
8690.0	[ft]	DC	PETROS
8720.0	[ft]	DC	PETROS
8740.0	[ft]	DC	PETROS
8770.0	[ft]	DC	PETROS
8790.0	[ft]	DC	PETROS
8810.0	[ft]	DC	PETROS
8817.0	[ft]	C	STRAT
8830.0	[ft]	DC	PETROS
8850.0	[ft]	DC	PETROS
8870.0	[ft]	DC	PETROS
8890.0	[ft]	DC	PETROS
8919.0	[ft]	C	STRAT
8925.0	[ft]	C	STRAT
8928.0	[ft]	C	STRAT
8930.0	[ft]	C	STRAT
8940.0	[ft]	C	STRAT
8946.0	[ft]	C	STRAT

8952.0	[ft]	C	STRAT
8958.0	[ft]	C	STRAT
8964.0	[ft]	C	STRAT
8968.0	[ft]	C	STRAT

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
97	NORDLAND GP
1040	HORDALAND GP
1089	VADE FM
1091	NO FORMAL NAME
1289	VADE FM
1291	NO FORMAL NAME
1303	VADE FM
1305	NO FORMAL NAME
1595	ROGALAND GP
1595	BALDER FM
1604	FISKEBANK FM
1694	LISTA FM
1822	VÅLE FM
1894	SHETLAND GP
1894	EKOFISK FM
1927	TOR FM
2262	HOD FM
2293	BLODØKS FM
2300	HIDRA FM
2340	CROMER KNOLL GP
2340	RØDBY FM
2368	SOLA FM
2423	ÅSGARD FM
2574	BOKNFJORD GP
2574	FLEKKEFJORD FM
2607	SAUDA FM
2661	TAU FM
2663	VESTLAND GP
2663	SANDNES FM
2711	BRYNE FM
2813	NO GROUP DEFINED

2813	SKAGERRAK FM

Composite logs

Document name	Document format	Document size [MB]
193	pdf	0.33

Geochemical information

Document name	Document format	Document size [MB]
193_1	pdf	0.98
193_2_preliminary_results_of_petroleum_geochemical_studies_of_the_8_12_1_well	pdf	0.86

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

Document name	Document format	Document size [MB]
193_01_WDSS_General_Information	pdf	0.16

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

Document name	Document format	Document size [MB]
193_1_Completion_Report	pdf	20.51

Documents - Norwegian Offshore Directorate papers

Document name	Document format	Document size [MB]
193_01_NPD_Paper_No.31_Lithology__Norwegian_Danish_Basin__Well_8_12_1	pdf	33.18
193_02_NPD_Paper_No.31_Correlation_chart_3__Well_8_12_1	pdf	0.64
193_03_NPD_Paper_No.31_Correlation_chart_3_II__Well_8_12_1	pdf	0.49

Logs

Log type	Log top depth [m]	Log bottom depth [m]
BHC GR	320	2872
FDC	1601	2874
GR	91	320
HDT	1902	2874
IES	333	2874
LL-7	1902	2872
PROX ML	762	2872
SNP	1900	2874

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	114.0	36	114.0	0.00	LOT
SURF.COND.	20	333.0	26	347.0	0.00	LOT
INTERM.	13 3/8	1070.0	17 1/2	1082.0	0.00	LOT
INTERM.	9 5/8	1903.0	12 1/4	1911.0	0.00	LOT
OPEN HOLE		2875.0	8 1/2	2875.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
346	1.07	50.0		seawater	
480	1.61	54.0		seawater	
1082	1.49	53.0		seawater	
1883	1.65	50.0		seawater	
1950	1.65	54.0		seawater	
2225	1.65	50.0		seawater	
2645	1.62	49.0		seawater	
2874	1.62	50.0		seawater	

Thin sections at the Norwegian Offshore Directorate

Depth	Unit
6185.00	[m]
6232.00	[m]

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]
193_Formation_pressure_(Formasjonstrykk)	pdf	0.22