

**General information**

Wellbore name	9/11-1
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Well name	9/11-1
Seismic location	
Production licence	014
Drilling operator	Conoco Norway Inc.
Drill permit	57-L
Drilling facility	TRANSWORLD RIG61
Drilling days	48
Entered date	03.07.1971
Completed date	19.08.1971
Release date	19.08.1973
Publication date	25.04.2005
Purpose - planned	WILDCAT
Reentry	NO
Content	SHOWS
Discovery wellbore	NO
Kelly bushing elevation [m]	25.0
Water depth [m]	65.0
Total depth (MD) [m RKB]	2196.0
Bottom hole temperature [°C]	68
Oldest penetrated age	TRIASSIC
Oldest penetrated formation	SKAGERRAK FM
Geodetic datum	ED50
NS degrees	57° 0' 41.4" N
EW degrees	4° 31' 40.6" E
NS UTM [m]	6319845.51
EW UTM [m]	592790.86
UTM zone	31
NPDID wellbore	194

Wellbore history

**General**

Well 9/11-1 is situated in the Åsta Graben in the Danish-Norwegian Basin in the North Sea. The purpose of the well was to test the hydrocarbon and reservoir potential of Triassic to basal Tertiary sediments over a north-south elongated salt dome. The Jurassic - Triassic sandstones were the primary objective, with the Late Cretaceous - Danian carbonates and Palaeocene sandstones as secondary objectives.

The well is Type Well for the Late Paleocene Fiskebank Formation

Operations and results

Wildcat well 9/11-1 was spudded with the semi-submersible installation Transworld 61 on 3 July 1971 and drilled to TD at 2196 m in the Late Triassic Skagerrak Formation. The 26" section was first drilled with a 17 1/2" bit to 412 m using gel/seawater mud. The hole was then under-reamed to 26" to 411 m. The 26" bit was run in hole but could not get past 119 m. When reaming was attempted, circulation was lost at 127 m. The hole was then re-drilled to 412 m with a 17 1/2" bit and opened to 26" with no problems. The 20" casing was run and cemented at 378 m. Eleven days were used on this interval and 700 bbl mud lost to seabed. The remaining well was drilled without significant problems. The well was drilled with seawater and hi-vis pills to 127 m, with seawater and gel from 127 m to 412 m, and with seawater / lignosulphonate (Spersene) and 1 -6 % diesel from 412 m to TD.

The well drilled a thick Tertiary-Quaternary section (approx. 1600 m), composed mainly of Oligocene-Miocene brown-grey clays and Pliocene-Pleistocene grey sandy clays. The Eocene (Lower part) is represented by green clays overlying varicoloured Paleocene clays without sands. There was a thin chalk, all of Late Cretaceous age (Tor Formation). No Danian was present. The Early Cretaceous was represented by a condensed sequence ranging from Valanginian to Aptian/Albian. From 1766 m to 1993 m there was a series of transitional Early Cretaceous to Late Jurassic beds, the main part of which was presumably deposited during the Late Kimmeridgian. Darker clays with Kimmeridgian faunas were drilled from 1966 m to 2040 m, followed by black shales and sands with coal of Middle Jurassic age from 2040 m to 2082 m. The basal section was represented by red shales, siltstones, and sandstones (Gassum and Skagerrak Formations). All targets proved to be water bearing. Occasional spots of dark brown tarry oil were encountered in the Middle Jurassic sandstones in the recovered part of core 2 and in a sidewall core at 2078 m. A very weak fluorescence was observed locally from the sandstone in core 2 but there was no cut. No fluorescence or cut was seen in the sidewall cores. Organic geochemical analyses proved an immature well all through. Top oil window maturity is suggested at ca 2500 m, below TD. Source rocks are restricted to Late Jurassic shales (best in Tau and Egersund Formations), and in coals and shales of the Bryne Formation.

Two conventional cores were cut. Core 1 was cut from 1981.2 m to 1990.3 m and core 2 from 2042.8 m to 2061.1 m. Two FIT fluid samples were taken at 2077 m and 1632 m. Both recovered salt water.

The well was permanently abandoned on 19 August as a dry hole.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate



Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
143.26	2194.56

Cuttings available for sampling?	NO
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Cores at the Norwegian Offshore Directorate

Core sample number	Core sample - top depth	Core sample - bottom depth	Core sample depth - uom
1	6500.0	6530.0	[ft]
2	6702.0	6762.0	[ft]

Total core sample length [m]	27.4
Cores available for sampling?	YES

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
3450.0	[m]	DC	RRI
3500.0	[m]	DC	RRI
3530.0	[m]	DC	RRI
3570.0	[m]	DC	RRI
3610.0	[m]	DC	RRI
3650.0	[m]	DC	RRI
3690.0	[m]	DC	RRI
3730.0	[m]	DC	RRI
3770.0	[m]	DC	RRI
3810.0	[m]	DC	RRI
4380.0	[ft]	DC	OD
4410.0	[ft]	DC	OD
4430.0	[ft]	DC	OD
4470.0	[ft]	DC	OD
4500.0	[ft]	DC	OD
4530.0	[ft]	DC	OD
4560.0	[ft]	DC	OD
4580.0	[ft]	DC	OD
4620.0	[ft]	DC	OD
4650.0	[ft]	DC	OD
4680.0	[ft]	DC	OD
4710.0	[ft]	DC	OD



4750.0 [ft]	DC	OD
4770.0 [ft]	DC	OD
4810.0 [ft]	DC	OD
4840.0 [ft]	DC	OD
4870.0 [ft]	DC	OD
4910.0 [ft]	DC	OD
4930.0 [ft]	DC	OD
4970.0 [ft]	DC	OD
4990.0 [ft]	DC	OD
5020.0 [ft]	DC	OD
5050.0 [ft]	DC	OD
5050.0 [ft]	DC	OD
5080.0 [ft]	DC	OD
5110.0 [ft]	DC	OD
5140.0 [ft]	DC	OD
5170.0 [ft]	DC	OD
5200.0 [ft]	DC	OD
5230.0 [ft]	DC	OD
5260.0 [ft]	DC	OD
5290.0 [ft]	DC	OD
5320.0 [ft]	DC	OD
5340.0 [ft]	DC	OD
5370.0 [ft]	DC	OD
5400.0 [ft]	DC	OD
5430.0 [ft]	DC	OD
5460.0 [ft]	DC	OD
5490.0 [ft]	DC	OD
5520.0 [ft]	DC	OD
5550.0 [ft]	DC	OD
5580.0 [ft]	DC	OD
5760.0 [ft]	DC	STRATLAB
5780.0 [ft]	DC	STRATL
5800.0 [ft]	DC	STRATL
5820.0 [ft]	DC	STRATL
5840.0 [ft]	DC	STRATL
5860.0 [ft]	DC	STRATL
5880.0 [ft]	DC	STRATL
5900.0 [ft]	DC	STRATL
5920.0 [ft]	DC	STRATL
5940.0 [ft]	DC	STRATL



5960.0 [ft]	DC	STRATL
5980.0 [ft]	DC	STRATL
6000.0 [ft]	DC	STRATL
6020.0 [ft]	DC	STRATL
6040.0 [ft]	DC	STRATL
6060.0 [ft]	DC	STRATL
6080.0 [ft]	DC	STRATL
6100.0 [ft]	DC	STRATL
6120.0 [ft]	DC	STRATL
6140.0 [ft]	DC	STRATL
6160.0 [ft]	DC	STRATL
6180.0 [ft]	DC	STRATL
6200.0 [ft]	DC	STRATL
6220.0 [ft]	DC	STRATL
6240.0 [ft]	DC	STRATL
6280.0 [ft]	DC	STRATL
6300.0 [ft]	DC	STRATL
6320.0 [ft]	DC	STRATL
6340.0 [ft]	DC	STRATL
6360.0 [ft]	DC	STRATL
6380.0 [ft]	DC	STRATL
6390.0 [ft]	DC	GEUS
6400.0 [ft]	DC	STRATLAB
6420.0 [ft]	DC	STRATL
6440.0 [ft]	DC	STRATL
6460.0 [ft]	DC	STRATL
6480.0 [ft]	DC	GEUS
6480.0 [ft]	DC	STRATL
6500.0 [ft]	DC	STRATL
6500.0 [ft]	DC	GEUS
6506.0 [ft]	DC	GEUS
6509.0 [ft]	DC	GEUS
6512.0 [ft]	DC	GEUS
6515.0 [ft]	DC	GEUS
6518.0 [ft]	DC	GEUS
6519.0 [ft]	DC	OD
6521.0 [ft]	DC	GEUS
6527.0 [ft]	DC	GEUS
6530.0 [ft]	DC	GEUS
6540.0 [ft]	DC	STRATLAB



6560.0 [ft]	DC	STRATL
6580.0 [ft]	DC	STRATL
6600.0 [ft]	DC	STRATL
6600.0 [ft]	DC	OD
6620.0 [ft]	DC	STRATLAB
6650.0 [ft]	DC	STRATL
6660.0 [ft]	DC	STRATL
6680.0 [ft]	DC	STRATL
6700.0 [ft]	DC	STRATL
6702.0 [ft]	DC	STRATL
6702.0 [ft]	DC	GEUS
6704.0 [ft]	DC	GEUS
6705.0 [ft]	DC	OD
6707.0 [ft]	DC	GEUS
6708.0 [ft]	DC	STRATLAB
6710.0 [ft]	DC	GEUS
6710.0 [ft]	DC	GEUS
6712.0 [ft]	DC	GEUS
6770.0 [ft]	DC	STRATLAB
6780.0 [ft]	DC	STRATL
6800.0 [ft]	DC	STRATL
6810.0 [ft]	DC	STRATL
6830.0 [ft]	DC	OD
6840.0 [ft]	DC	STRATLAB
6860.0 [ft]	DC	STRATL
6890.0 [ft]	DC	STRATL
6920.0 [ft]	DC	STRATL
6940.0 [ft]	DC	STRATL
6950.0 [ft]	DC	STRATL
6980.0 [ft]	DC	STRATL
7000.0 [ft]	DC	STRATL
7020.0 [ft]	DC	STRATL
7050.0 [ft]	DC	STRATL
7080.0 [ft]	DC	STRATL
7100.0 [ft]	DC	STRATL
7120.0 [ft]	DC	STRATL
7140.0 [ft]	DC	STRATL
7180.0 [ft]	DC	STRATL
7200.0 [ft]	DC	STRATL

**Lithostratigraphy**

Top depth [mMD RKB]	Lithostrat. unit
90	NORDLAND GP
651	HORDALAND GP
1326	ROGALAND GP
1326	BALDER FM
1335	FISKEBANK FM
1483	LISTA FM
1629	SHETLAND GP
1629	TOR FM
1745	HOD FM
1766	BLODØKS FM
1768	CROMER KNOLL GP
1768	RØDBY FM
1790	SOLA FM
1859	ÅSGARD FM
1957	BOKNFJORD GP
1957	FLEKKEFJORD FM
1966	SAUDA FM
1993	TAU FM
2005	EGERSUND FM
2040	VESTLAND GP
2040	BRYNE FM
2082	NO GROUP DEFINED
2082	GASSUM FM
2121	NO GROUP DEFINED
2121	SKAGERRAK FM

Composite logs

Document name	Document format	Document size [MB]
194	pdf	0.28

Geochemical information





Document name	Document format	Document size [MB]
194 1	pdf	0.93
194 2	pdf	0.96

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

Document name	Document format	Document size [MB]
194_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]
194_01_Final_report	pdf	6.77
194_02_Composite_well_log	pdf	2.31
194_03_Biostratigraphy	pdf	0.71

Documents - Norwegian Offshore Directorate papers

Document name	Document format	Document size [MB]
194_01_NPD_Paper_No.31_Lithology_Norwegian_Danish_Basin_Well_9_11_1	pdf	33.18
194_02_NPD_Paper_No.31_Correlation_chart_4_Well_9_11_1	pdf	0.60
194_03_NPD_Paper_No.31_Correlation_chart_4_II_Well_9_11_1	pdf	0.47

Logs

Log type	Log top depth [m]	Log bottom depth [m]
BHC GR	394	2194
FDC	745	2196
GR	91	394
HDT	1589	2196
IES	394	2196
PROX MI	745	2196





SNP	745	1605
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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	127.0	36	127.0	0.00	LOT
INTERM.	20	394.0	26	411.0	0.00	LOT
INTERM.	13 3/8	745.0	17 1/2	771.0	0.00	LOT
INTERM.	9 5/8	1589.0	12 1/4	1605.0	0.00	LOT
OPEN HOLE		2196.0	8 1/2	2196.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
127	1.33	50.0		waterbased	
411	1.19	44.0		waterbased	
1051	1.43	48.0		waterbased	
1584	1.61	50.0		waterbased	
1752	1.50	50.0		waterbased	
2194	1.49	52.0		waterbased	

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]
194 Formation pressure (Formasjonstrykk)	pdf	0.20

