General information

Wellbore name	6306/6-1
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORWEGIAN SEA
Well name	6306/6-1
Seismic location	LineEH91-112 & SP451
Production licence	198
Drilling operator	Den norske stats oljeselskap a.s
Drill permit	791-L
Drilling facility	ROSS RIG (2)
Drilling days	14
Entered date	22.06.1994
Completed date	05.07.1994
Release date	05.07.1996
Publication date	30.06.2005
Purpose - planned	WILDCAT
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	24.0
Water depth [m]	284.0
Total depth (MD) [m RKB]	1317.0
Final vertical depth (TVD) [m RKB]	1317.0
Maximum inclination [°]	1.3
Bottom hole temperature [°C]	43
Oldest penetrated age	PRE-DEVONIAN
Oldest penetrated formation	BASEMENT
Geodetic datum	ED50
NS degrees	63° 30' 1.45'' N
EW degrees	6° 49' 14.42'' E
NS UTM [m]	7043364.00
EW UTM [m]	391515.49
UTM zone	32
NPDID wellbore	2384

Wellbore history

General

Well 6306/6-1 was drilled on the Frøya High in the Møre I area off shore southern Mid Norway. The main objective was to prove HC accumulations in Late Jurassic Rogn Formation sandstones, the A-prospect.

Operations and results

Wildcat well 6306/6-1 was spudded with the semi-submersible installation Ross Rig on 22 June 1994 and drilled to TD at 1317 m in basement rocks. No significant problems were encountered in the operations. The well was drilled with bentonite and seawater down to 432 m and with KCl/PAC mud from 432 m to TD.

The Paleocene Egga sandstone unit was encountered at 604 m. The sandstones were rather silty; partly calcite cemented, and with reduced porosity due also to the presence of mica and glauconite. A 93 m thick Rogn Formation sandstone unit came in at 1158 m, sandwiched in Spekk Formation shales above and below. Under base Spekk a sequence of Middle Jurassic age (Fangst Group) was penetrated from 1267 m to 1281 m. Sandstones with occasional interbeds of claystone/shale grading to coals dominated this sequence. No shows were recorded in any section of the well while drilling, and since only questionable sandstone extracts were found in post-well organic geochemical analyses the well is concluded as dry. Very good source rocks are present in the well. The best source rock is seen in the upper Spekk section, which contain a typically marine anoxic, oil-prone Type II kerogen. The lower Spekk section has higher TOC, but is more terrestrial in composition and thus more gas/condensate -prone. Also the coaly shales and coals of the Middle Jurassic have very good potential for mixed oil and gas. The well is however immature all through with a vitrinite reflectance of about 0.45 % Ro at TD.

One FMT run was performed in the Rogn Formation sandstone. Six pressure points gave a water gradient of 1.002 g/cm3. No fluid sample was taken.

The well was permanently abandoned on 5 July 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]
440.00	1317.00

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	1176.0	1194.8	[m]

Total core sample length [m]	18.8
Cores available for sampling?	YES

Core photos


1176-1181m


1186-1191m


1181-1186m


1191-1194m

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
480.0	[m]	DC	MILL
500.0	[m]	DC	MILL
520.0	[m]	DC	MILL
540.0	[m]	DC	MILL
560.0	[m]	DC	MILL
580.0	[m]	DC	MILL
600.0	[m]	DC	MILL
620.0	[m]	DC	MILL
640.0	[m]	DC	MILL
660.0	[m]	DC	MILL
680.0	[m]	DC	MILL
700.0	[m]	DC	MILL
740.0	[m]	DC	MILL
760.0	[m]	DC	MILL
770.0	[m]	DC	MILL
780.0	[m]	DC	MILL
800.0	[m]	DC	MILL
810.0	[m]	DC	MILL
820.0	[m]	DC	MILL
830.0	[m]	DC	MILL

840.0	[m]	DC	MILL
850.0	[m]	DC	MILL
860.0	[m]	DC	MILL
870.0	[m]	DC	MILL
879.5	[m]	SWC	STATO
887.5	[m]	SWC	STATO
900.0	[m]	DC	MILL
910.0	[m]	DC	MILL
920.0	[m]	DC	MILL
925.5	[m]	SWC	STATO
940.0	[m]	DC	MILL
950.0	[m]	DC	MILL
960.0	[m]	DC	MILL
969.0	[m]	DC	MILL
978.0	[m]	DC	MILL
987.0	[m]	DC	MILL
993.0	[m]	SWC	STATO
1005.0	[m]	DC	MILL
1014.0	[m]	DC	MILL
1023.0	[m]	DC	MILL
1032.0	[m]	DC	MILL
1041.0	[m]	DC	MILL
1046.5	[m]	SWC	STATO
1059.0	[m]	DC	MILL
1068.0	[m]	DC	MILL
1077.0	[m]	DC	MILL
1086.0	[m]	DC	MILL
1095.0	[m]	DC	MILL
1104.0	[m]	DC	MILL
1113.0	[m]	DC	MILL
1122.0	[m]	DC	MILL
1131.0	[m]	DC	MILL
1137.5	[m]	SWC	STATO
1143.0	[m]	DC	MILL
1152.0	[m]	DC	MILL
1160.5	[m]	SWC	STATO
1170.0	[m]	DC	MILL
1176.1	[m]	C	APT
1177.0	[m]	C	STATOIL
1178.6	[m]	C	APT

1180.4	[m]	C	APT
1182.0	[m]	C	APT
1182.0	[m]	C	STATOIL
1184.0	[m]	C	APT
1186.2	[m]	C	APT
1187.6	[m]	C	APT
1189.0	[m]	C	APT
1191.0	[m]	C	APT
1193.3	[m]	C	APT
1201.0	[m]	SWC	STATOIL
1212.0	[m]	DC	MILL
1228.8	[m]	SWC	STATOIL
1236.0	[m]	DC	MILL
1248.0	[m]	DC	MILL
1259.5	[m]	SWC	STATOIL
1261.5	[m]	SWC	STATOI
1267.0	[m]	DC	MILL
1273.0	[m]	DC	MILL
1276.0	[m]	DC	MILL
1279.0	[m]	DC	MILL
1282.0	[m]	DC	MILL
1285.0	[m]	DC	MILL
1297.0	[m]	DC	MILL

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
308	NORDLAND GP
486	ROGALAND GP
486	TANG FM
605	EGGA FM (INFORMAL)
728	SHETLAND GP
728	NISE FM
971	KVITNOS FM
1039	CROMER KNOLL GP
1039	LANGE FM
1100	LYR FM
1137	VIKING GP
1137	SPEKK FM

1159	ROGN FM
1252	SPEKK FM
1267	FANGST GP
1282	RED BEDS (INFORMAL)
1312	BASEMENT

Composite logs

Document name	Document format	Document size [MB]
2384	pdf	0.13

Geochemical information

Document name	Document format	Document size [MB]
2384_1	pdf	1.81

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

Document name	Document format	Document size [MB]
2384_6306_6_1_COMPLETION_REPORT_AND_LOG	pdf	31.77

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CBL VDL(MAC)	430	750
DIFL MAC ZDL CN SL	750	1317
FMT GR	1165	1237
MWD - DPR TF4	421	756
MWD - DPR TF4	756	1176
MWD - DPR TF4	1176	1317
SWC GR	810	1317
VSP	430	1315

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	356.0	36	357.0	0.00	LOT
SURF.COND.	13 3/8	428.0	17 1/2	430.0	1.44	LOT
INTERM.	9 5/8	750.0	12 1/4	752.0	1.65	LOT
OPEN HOLE		1317.0	8 1/2	1317.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
610	1.20	15.0		DUMMY	
756	1.20	12.0		DUMMY	
759	1.20	12.0		DUMMY	
1050	1.25	25.0		DUMMY	
1096	1.25	27.0		DUMMY	
1160	1.25	25.0		DUMMY	
1191	1.25	27.0		DUMMY	
1317	1.25	25.0		DUMMY	

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]
2384_Formation_pressure_(Formasjonstrykk)	pdf	0.16