General information

Wellbore name	6507/2-1
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORWEGIAN SEA
Well name	6507/2-1
Seismic location	NRGS 84 - 437 SP. 785
Production licence	122
Drilling operator	Norsk Hydro Produksjon AS
Drill permit	518-L
Drilling facility	POLAR PIONEER
Drilling days	98
Entered date	24.06.1986
Completed date	29.09.1986
Release date	29.09.1988
Publication date	17.09.2007
Purpose - planned	WILDCAT
Reentry	NO
Content	SHOWS
Discovery wellbore	NO
Kelly bushing elevation [m]	23.0
Water depth [m]	381.0
Total depth (MD) [m RKB]	4477.0
Final vertical depth (TVD) [m RKB]	4475.0
Maximum inclination [°]	4.3
Bottom hole temperature [°C]	156
Oldest penetrated age	LATE TRIASSIC
Oldest penetrated formation	ÅRE FM
Geodetic datum	ED50
NS degrees	65° 54' 2.48'' N
EW degrees	7° 26' 16.43'' E
NS UTM [m]	7309911.23
EW UTM [m]	428828.15
UTM zone	32
NPDID wellbore	911

Wellbore history

General

Well 6507/2-1 is located on the Dønna Terrace, offshore Mid Norway. The primary objective of the well was to test the hydrocarbon potential of Middle and Early Jurassic sandstone sequences. Secondary objective was to examine the possibilities of Cretaceous sand in the area.

It was expected that the primary target, the Middle Jurassic Tomma sandstone (Fangst Group in today?s nomenclature) would be encountered at ca 3848 m whilst the Early Jurassic Aldra sandstone (Tilje Formation) was prognosed at ca 4158 m. Expected total depth for the well was 4823 m +/- 200 m or about 50 m into Triassic aged sediments.

Operations and results

Well 6507/2-1 was spudded with the semi-submersible installation Polar Pioneer on 24 June 1986 and drilled to TD at 4477 m in Late Triassic claystones and siltstones of the Åre Formation. The well had 29% down time, due mostly to problems with the seal assemblies and technical sidetracking. The sidetrack was kicked off from 3285 m after the pipe had stuck twice, at 3432 m and 3430 m. The well was drilled with seawater and high viscosity pills down to1064 m, with KCl/polymer mud from 1064 m to 3655 m (including sidetrack), and with gel/lignite/resinex mud from 3655 m to TD.

The well penetrated several sandy intervals in the Cretaceous, the most important beeing a thin Lysing Formation sand from 2874 to 2879 m, and an Intra-Lange Formation sandy sequence from 3425 m to 3490 m. The Jurassic sandstones of the Fangst Group were encountered at 3858 m. Oil shows; staining and fluorescence were observed sporadically throughout the well from 2800 m to 4375 m. The strongest oil shows were observed in the Lysing and Lange Formation sandstones, and from 3858 m down to 3956 m in the Fangst and Båt Groups. Well site geochemical analyses indicated two source rock intervals in the well. The sequence from 3610 to 3858 m (the Viking Group) was considered to be a fair source rock containing mature Type II marginal Type III kerogen, while the interval 3956 to TD had many good quality coal horizons considered to have excellent potential and to contain mature hydrogen rich source material. No conventional cores were taken in this well. One RFT run was made and a total of 18 pressure points recorded, but no fluid samples were taken.

The well was permanently abandoned on 29 September 1986 as a dry hole with residual hydrocarbon shows in both the Cretaceous and Jurassic sequences.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
500.00	4477.00

Cuttings available for sampling?	YES

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
0.0	[unknown]		

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
404	NORDLAND GP
1431	KAI FM
1686	HORDALAND GP
1686	BRYGGE FM
1841	ROGALAND GP
1841	TARE FM
1959	TANG FM
2003	SHETLAND GP
2874	CROMER KNOLL GP
2874	LYSING FM
2879	LANGE FM
3610	VIKING GP
3610	SPEKK FM
3615	MELKE FM
3858	FANGST GP
3858	GARN FM
3881	NOT FM
3907	ILE FM
3929	BÅT GP
3947	TILJE FM
4135	ÅRE FM

Geochemical information

Document name	Document format	Document size [MB]
911_1	pdf	0.20
911_2	pdf	1.57
911_3	pdf	0.40

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

Document name	Document format	Document size [MB]
911_01_WDSS_General_Information	pdf	0.23
911_02_WDSS_completion_log	pdf	0.31

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

Document name	Document format	Document size [MB]
911_01_Completion_Report	pdf	7.93
911_02_Completion_log	pdf	2.81

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CBL VDL	664	1878
CBL VDL	2159	3640
CST GR	3421	3550
CST GR	3640	4000
CST GR	4012	4452
DIL LSS GR SP	3625	4478
DLL GR SP	488	1078
DLL LSS GR SP	1047	1895
DLL LSS GR SP	1878	3655
DLL MSFL GR CAL	3625	4478
LDL CNL GR CAL	1047	1892
LDL CNL GR CAL	1878	3655
LDL CNL GR CAL	3625	4478
LSS GR	488	1078
MSFL GR CAL	1878	3655
MWD	404	3743
RFT GR	3860	4153
SHDT GR	3625	4450
VSP	1055	4450

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	488.0	36	490.0	0.00	LOT
SURF.COND.	20	1050.0	26	1080.0	1.70	LOT
INTERM.	13 3/8	1880.0	17 1/2	1900.0	1.82	LOT
INTERM.	9 5/8	3630.0	12 1/4	3655.0	1.97	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
434	1.10	50.0	25.0	WATER BASED	24.06.1986
490	1.10	50.0	25.0	WATER BASED	25.06.1986
490	1.10	50.0	25.0	WATER BASED	26.06.1986
766	1.09	50.0	25.0	WATER BASED	30.06.1986
1080	1.17	6.0	10.0	WATER BASED	30.06.1986
1080	1.15	7.0	12.0	WATER BASED	30.06.1986
1080	1.15	4.0	14.0	WATER BASED	30.06.1986
1080	1.15	4.0	8.0	WATER BASED	01.07.1986
1080	1.15	7.0	8.0	WATER BASED	02.07.1986
1080	1.15	6.0	10.0	WATER BASED	03.07.1986
1080	1.15			WATER BASED	06.07.1986
1080	1.20	17.0	12.0	WATER BASED	06.07.1986
1080	1.20	17.0	12.0	WATER BASED	07.07.1986
1080	1.20	18.0	11.0	WATER BASED	08.07.1986
1403	1.30	25.0	16.0	WATER BASED	10.07.1986
1706	1.31	25.0	16.0	WATER BASED	11.07.1986
1770	1.77	18.0	5.0	WATER BASED	25.09.1986
1831	1.34	23.0	15.0	WATER BASED	14.07.1986
1900	1.57	35.0	19.0	WATER BASED	14.07.1986
1900	1.57	33.0	17.0	WATER BASED	14.07.1986
1900	1.57	34.0	16.0	WATER BASED	16.07.1986
1900	1.57	34.0	16.0	WATER BASED	17.07.1986
1900	1.57	34.0	16.0	WATER BASED	18.07.1986
1900	1.57	30.0	13.0	WATER BASED	21.07.1986
1900	1.57	34.0	16.0	WATER BASED	15.07.1986
1903	1.57	29.0	11.0	WATER BASED	21.07.1986
2096	1.62	37.0	16.0	WATER BASED	21.07.1986
2403	1.65	32.0	11.0	WATER BASED	22.07.1986

2444	1.65	34.0	11.0	WATER BASED	24.07.1986
2641	1.65	33.0	10.0	WATER BASED	24.07.1986
2642	1.65	36.0	9.0	WATER BASED	25.07.1986
2659	1.65	35.0	10.0	WATER BASED	27.07.1986
2722	1.65	32.0	8.0	WATER BASED	27.07.1986
2730	1.65	31.0	8.0	WATER BASED	27.07.1986
2841	1.65	35.0	8.0	WATER BASED	28.07.1986
2872	1.65	32.0	10.0	WATER BASED	29.07.1986
2960	1.65	28.0	11.0	WATER BASED	30.07.1986
3068	1.65	20.0	5.0	WATER BASED	31.07.1986
3166	1.65	24.0	6.0	WATER BASED	03.08.1986
3234	1.65	24.0	8.0	WATER BASED	07.08.1986
3259	1.65	21.0	6.0	WATER BASED	03.08.1986
3320	1.65	23.0	5.0	WATER BASED	17.08.1986
3345	1.65	20.0	9.0	WATER BASED	03.08.1986
3380	1.65	23.0	6.0	WATER BASED	11.08.1986
3380	1.65	16.0	3.0	WATER BASED	11.08.1986
3380	1.65	27.0	6.0	WATER BASED	13.08.1986
3380	1.65	21.0	6.0	WATER BASED	13.08.1986
3380	1.66	26.0	5.0	WATER BASED	14.08.1986
3417	1.65	23.0	6.0	WATER BASED	17.08.1986
3427	1.65	20.0	8.0	WATER BASED	04.08.1986
3432	1.65	23.0	7.0	WATER BASED	05.08.1986
3432	1.65	23.0	8.0	WATER BASED	06.08.1986
3432	1.65	21.0	9.0	WATER BASED	11.08.1986
3501	1.66	25.0	7.0	WATER BASED	17.08.1986
3567	1.65	25.0	9.0	WATER BASED	18.08.1986
3625	1.65	22.0	7.0	WATER BASED	19.08.1986
3655	1.65	21.0	7.0	WATER BASED	20.08.1986
3655	1.65	22.0	7.0	WATER BASED	21.08.1986
3655	1.65	20.0	6.0	WATER BASED	24.08.1986
3655	1.65	22.0	7.0	WATER BASED	24.08.1986
3655	1.65	21.0	6.0	WATER BASED	24.08.1986
3655	1.65	22.0	7.0	WATER BASED	25.08.1986
3655	1.65	22.0	7.0	WATER BASED	26.08.1986
3655	1.65	22.0	7.0	WATER BASED	28.08.1986
3655	1.65	22.0	8.0	WATER BASED	02.09.1986
3655	1.65	22.0	7.0	WATER BASED	29.08.1986
3659	1.46	16.0	5.0	WATER BASED	02.09.1986
3668	1.46	16.0	5.0	WATER BASED	02.09.1986

3743	1.46	16.0	6.0	WATER BASED	04.09.1986
3802	1.46	16.0	6.0	WATER BASED	04.09.1986
3861	1.70	21.0	6.0	WATER BASED	05.09.1986
3892	1.77	21.0	8.0	WATER BASED	08.09.1986
3979	1.77	22.0	10.0	WATER BASED	08.09.1986
4045	1.77	20.0	9.0	WATER BASED	08.09.1986
4112	1.77	21.0	7.0	WATER BASED	09.09.1986
4182	1.77	20.0	7.0	WATER BASED	10.09.1986
4206	1.77	19.0	8.0	WATER BASED	11.09.1986
4244	1.77	20.0	9.0	WATER BASED	15.09.1986
4296	1.77	19.0	7.0	WATER BASED	15.09.1986
4375	1.77	19.0	9.0	WATER BASED	15.09.1986
4444	1.77	16.0	7.0	WATER BASED	15.09.1986
4459	1.77	18.0	8.0	WATER BASED	16.09.1986
4477	1.77	17.0	6.0	WATER BASED	18.09.1986
4477	1.77	16.0	5.0	WATER BASED	21.09.1986
4477	1.77	18.0	5.0	WATER BASED	22.09.1986
4477	1.77	17.0	6.0	WATER BASED	23.09.1986
4477	1.77	17.0	6.0	WATER BASED	24.09.1986
4477	1.77	16.0	6.0	WATER BASED	17.09.1986

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]
911_Formation_pressure_(Formasjonstrykk)	pdf	0.29