

**General information**

Wellbore name	6609/5-1
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORWEGIAN SEA
Well name	6609/5-1
Seismic location	EL 8204-833 SP. 167
Production licence	080
Drilling operator	Den norske stats oljeselskap a.s
Drill permit	439-L
Drilling facility	WEST VANGUARD
Drilling days	64
Entered date	03.11.1984
Completed date	05.01.1985
Release date	05.01.1987
Publication date	17.09.2007
Purpose - planned	WILDCAT
Reentry	NO
Content	SHOWS
Discovery wellbore	NO
Kelly bushing elevation [m]	22.0
Water depth [m]	292.0
Total depth (MD) [m RKB]	3600.0
Final vertical depth (TVD) [m RKB]	3599.0
Maximum inclination [°]	3.9
Bottom hole temperature [°C]	97
Oldest penetrated age	MIDDLE TRIASSIC
Oldest penetrated formation	RED BEDS (INFORMAL)
Geodetic datum	ED50
NS degrees	66° 37' 42.73" N
EW degrees	9° 24' 52.17" E
NS UTM [m]	7390220.93
EW UTM [m]	518349.04
UTM zone	32
NPDID wellbore	445

**Wellbore history****General**

Wildcat well 6609/5-1 was drilled on horst structure in the western part of block 6609/5 in the Trænabanken area, off shore Mid Norway. The main objective was Late Triassic - Early Jurassic sand bodies at a prognosed depth of 3600 m.

Operations and results

Well 6609/5-1 was spudded with the semi-submersible installation West Vanguard on 3 November 1984 and drilled to TD at 3600 m in the Triassic Red Beds. Few technical problems occurred during the drilling period. The well was drilled with spud mud down to 820 m, with gypsum/polymer mud from 820 m to 3115 m, and with gel/lignosulphonate mud from 3115 m to TD.

Top Cretaceous was encountered at 2132 m. Grey brownish sediments of the Early Cretaceous were found unconformable on reddish Late Triassic sediments at 3066 m. Early Cretaceous sand and silt layers had indications of hydrocarbons at a depth of 2195 m. Similar indications were seen in a silt at 2580 m to 2595 m, some thin sandstones at 2856 to 2904, and a possibly Cenomanian to Turonian age sand at 2987 m. Fluorescence and cut was observed on thin sandstones in the core at 3009 m. Further spots of weak shows were observed on several cuttings and SWC sandstone samples from the Triassic between 3154 m and 3496 m. Logs displayed that all observed shows were residual hydrocarbons.

One core was cut from 3009 m to 3020 m. No wire line fluid samples were taken in the well.

The well was permanently abandoned on 5 January 1985 as dry with shows.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
390.00	3597.00

Cuttings available for sampling?	YES
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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	3009.0	3020.4	[m]

Total core sample length [m]	11.4
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Cores available for sampling?	YES
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Core photos



3009-3014m



3015-3020m

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
1460.0	[m]	DC	OD
1500.0	[m]	DC	OD
1510.0	[m]	DC	OD
1520.0	[m]	DC	OD
1530.0	[m]	DC	OD
1540.0	[m]	DC	OD
1550.0	[m]	DC	OD
1560.0	[m]	DC	OD
1570.0	[m]	DC	OD
1580.0	[m]	DC	OD
1590.0	[m]	DC	OD
1600.0	[m]	DC	OD
1610.0	[m]	DC	OD
1620.0	[m]	DC	OD
1630.0	[m]	DC	OD
1640.0	[m]	DC	OD
1650.0	[m]	DC	OD
1660.0	[m]	DC	OD
1670.0	[m]	DC	OD
1680.0	[m]	DC	OD
1690.0	[m]	DC	OD
1700.0	[m]	DC	OD
1700.0	[m]	SWC	STRAT
1710.0	[m]	DC	OD



1720.0 [m]	DC	OD
1730.0 [m]	DC	OD
1730.0 [m]	SWC	STRAT
1750.0 [m]	DC	OD
1760.0 [m]	DC	OD
1770.0 [m]	DC	OD
1770.0 [m]	SWC	STRAT
1780.0 [m]	DC	OD
1800.0 [m]	DC	OD
1810.0 [m]	DC	OD
1810.0 [m]	SWC	STRAT
1820.0 [m]	DC	OD
1830.0 [m]	DC	OD
1840.0 [m]	DC	OD
1850.0 [m]	DC	OD
1850.0 [m]	SWC	STRAT
1860.0 [m]	DC	OD
1870.0 [m]	SWC	STRAT
1870.0 [m]	DC	
1880.0 [m]	DC	OD
1900.0 [m]	DC	
1910.0 [m]	SWC	STRAT
1930.0 [m]	SWC	STRAT
1930.0 [m]	DC	
1950.0 [m]	DC	OD
1960.0 [m]	DC	
1969.9 [m]	SWC	STRAT
1970.0 [m]	DC	STRAT
1990.0 [m]	DC	
2000.0 [m]	DC	STRAT
2010.0 [m]	SWC	STRAT
2020.0 [m]	DC	
2030.0 [m]	DC	STRAT
2050.0 [m]	SWC	STRAT
2050.0 [m]	DC	OD
2050.0 [m]	DC	
2060.0 [m]	DC	STRAT
2080.0 [m]	DC	
2090.0 [m]	DC	STRAT
2100.0 [m]	DC	OD



2100.0	[m]	DC	
2121.0	[m]	DC	STRAT
2130.0	[m]	SWC	STRAT
2130.0	[m]	DC	
2135.0	[m]	SWC	STRAT
2151.0	[m]	DC	STRAT
2180.0	[m]	DC	OD
2181.0	[m]	DC	STRAT
2190.0	[m]	SWC	STRAT
2211.0	[m]	DC	STRAT
2230.0	[m]	SWC	STRAT
2241.0	[m]	DC	STRAT
2260.0	[m]	DC	OD
2271.0	[m]	DC	STRAT
2275.0	[m]	SWC	STRAT
2300.0	[m]	SWC	STRAT
2316.0	[m]	DC	STRAT
2331.0	[m]	DC	STRAT
2340.0	[m]	SWC	STRAT
2340.0	[m]	DC	OD
2346.0	[m]	DC	
2361.0	[m]	DC	STRAT
2367.0	[m]	DC	
2370.0	[m]	SWC	STRAT
2391.0	[m]	DC	STRAT
2420.0	[m]	DC	OD
2421.0	[m]	DC	STRAT
2429.0	[m]	SWC	STRAT
2451.0	[m]	DC	STRAT
2470.0	[m]	SWC	STRAT
2481.0	[m]	DC	STRAT
2500.0	[m]	DC	OD
2511.0	[m]	DC	STRAT
2541.0	[m]	DC	STRAT
2550.0	[m]	SWC	STRAT
2571.0	[m]	DC	STRAT
2590.0	[m]	SWC	STRAT
2601.0	[m]	DC	STRAT
2631.0	[m]	DC	STRAT
2632.0	[m]	SWC	STRAT



2661.0	[m]	DC	STRAT
2670.0	[m]	SWC	STRAT
2691.0	[m]	DC	STRAT
2722.0	[m]	DC	STRAT
2737.0	[m]	DC	STRAT
2740.0	[m]	SWC	STRAT
2767.0	[m]	DC	STRAT
2780.0	[m]	SWC	STRAT
2794.0	[m]	DC	STRAT
2826.0	[m]	DC	STRAT
2830.0	[m]	SWC	STRAT
2856.0	[m]	DC	STRAT
2886.0	[m]	DC	STRAT
2891.0	[m]	SWC	STRAT
2916.0	[m]	DC	STRAT
2946.0	[m]	DC	STRAT
2970.0	[m]	SWC	STRAT
2976.0	[m]	DC	STRAT
3000.0	[m]	DC	
3006.0	[m]	DC	STRAT
3009.4	[m]	C	STRAT
3009.8	[m]	C	
3010.1	[m]	C	STRAT
3010.8	[m]	C	
3010.9	[m]	C	STRAT
3011.8	[m]	C	STRAT
3012.9	[m]	C	STRAT
3014.1	[m]	C	STRAT
3014.9	[m]	C	STRAT
3014.9	[m]	C	
3015.1	[m]	C	
3016.7	[m]	C	STRAT
3018.1	[m]	C	STRAT
3018.9	[m]	C	STRAT
3018.9	[m]	C	
3036.0	[m]	DC	STRAT
3050.0	[m]	SWC	STRAT
3050.0	[m]	DC	
3062.0	[m]	DC	STRAT
3066.0	[m]	DC	STRAT



3070.0	[m]	DC	STRAT
3072.0	[m]	SWC	STRAT
3072.0	[m]	SWC	OD
3072.0	[m]	DC	
3074.0	[m]	DC	STRAT
3078.0	[m]	DC	STRAT
3082.0	[m]	DC	STRAT
3086.0	[m]	DC	STRAT
3090.0	[m]	DC	STRAT
3092.0	[m]	DC	
3094.0	[m]	DC	STRAT
3098.0	[m]	DC	STRAT
3110.0	[m]	DC	STRAT
3116.0	[m]	DC	
3123.5	[m]	SWC	OD
3140.0	[m]	DC	STRAT
3146.0	[m]	DC	
3169.5	[m]	SWC	OD
3172.0	[m]	DC	STRAT
3188.0	[m]	SWC	OD
3200.0	[m]	DC	STRAT
3229.5	[m]	SWC	OD
3230.0	[m]	DC	STRAT
3244.0	[m]	SWC	OD
3260.0	[m]	DC	STRAT
3296.0	[m]	DC	STRAT
3324.0	[m]	DC	STRAT
3328.0	[m]	SWC	OD
3351.0	[m]	DC	STRAT
3378.0	[m]	DC	STRAT
3405.0	[m]	DC	STRAT
3432.0	[m]	DC	STRAT
3440.5	[m]	SWC	OD
3468.0	[m]	DC	STRAT
3495.0	[m]	DC	STRAT
3522.0	[m]	DC	STRAT
3549.0	[m]	SWC	OD
3549.0	[m]	DC	STRAT
3600.0	[m]	SWC	OD

**Lithostratigraphy**

Top depth [mMD RKB]	Lithostrat. unit
314	NORDLAND GP
314	NAUST FM
1566	KAI FM
1743	HORDALAND GP
1743	BRYGGE FM
1829	ROGALAND GP
1829	TARE FM
1930	TANG FM
2132	SHETLAND GP
2855	CROMER KNOLL GP
3066	RED BEDS (INFORMAL)

Geochemical information

Document name	Document format	Document size [MB]
445 1	pdf	0.64
445 2	pdf	0.96
445 3	pdf	0.34
445 4	pdf	0.04
445 5	pdf	0.11

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

Document name	Document format	Document size [MB]
445 01 WDSS General Information	pdf	0.25
445 02 WDSS completion log	pdf	0.25

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

Document name	Document format	Document size [MB]
445 01 Completion report	pdf	11.56
445 02 Completion log	pdf	8.53



**Logs**

Log type	Log top depth [m]	Log bottom depth [m]
CBL VDL GR	314	1660
CBL VDL GR	1181	3102
CST	700	3109
CST	3119	3600
ISF BHC GR SP CAL	300	1670
ISF BHC MSFL GR SP CAL	1660	3600
LDL CNL NGT	3102	3600
LDL GR	388	1668
MWD DLWD	823	3600
RFT	3052	3082
RFT	3140	3515
SHDT GR	1660	3600
VELOCITY	340	3600

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	389.0	36	389.0	0.00	LOT
SURF.COND.	20	805.0	26	820.0	1.49	LOT
INTERM.	13 3/8	1660.0	17 1/2	1676.0	1.98	LOT
INTERM.	9 5/8	3103.0	12 1/4	3125.0	2.18	LOT
OPEN HOLE		3600.0	8 1/2	3600.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
624	1.07	3.0	3000.0	WATER BASED	08.11.1984
820	1.07	3.4	3000.0	WATERBASED	09.11.1984
820	1.07	3.4	3000.0	WATER BASED	09.11.1984
823	1.10	6.7	2100.0	WATER BASED	14.11.1984
823	1.10	6.7	2100.0	WATERBASED	14.11.1984
1126	1.10	8.0	2500.0	WATER BASED	15.11.1984



1344	1.12	7.0	2400.0	WATERBASED	16.11.1984
1344	1.12	7.0	2400.0	WATER BASED	16.11.1984
1550	1.12	1800.0	10.2	WATERBASED	19.11.1984
1550	1.12	1800.0	10.2	WATER BASED	19.11.1984
1675	1.55	2800.0	8.0	WATER BASED	22.11.1984
1676	1.25	2300.0	10.6	WATER BASED	19.11.1984
1676	1.25	2100.0	10.2	WATER BASED	20.11.1984
1676	1.25	1400.0	4.2	WATER BASED	20.11.1984
1676	1.25	2300.0	10.6	WATERBASED	19.11.1984
1676	0.00	2100.0	10.2	WATERBASED	20.11.1984
1676	0.00	1400.0	4.2	WATERBASED	20.11.1984
1748	1.30	1900.0	8.0	WATER BASED	21.11.1984
2130	1.70	2800.0	7.6	WATER BASED	23.11.1984
2271	1.70	2800.0	7.6	WATER BASED	26.11.1984
2333	1.70	2800.0	7.6	WATER BASED	26.11.1984
2333	1.70	2800.0	7.4	WATER BASED	26.11.1984
2333	1.70	2800.0	7.4	WATER BASED	26.11.1984
2427	1.70	2700.0	8.4	WATER BASED	26.11.1984
2493	1.70	2200.0	7.8	WATER BASED	27.11.1984
2497	1.70	2100.0	7.2	WATER BASED	28.11.1984
2565	1.70	2100.0	7.2	WATER BASED	29.11.1984
2613	1.70	2000.0	8.1	WATER BASED	30.11.1984
2700	1.70	2200.0	8.0	WATER BASED	03.12.1984
2726	1.70	2400.0	9.6	WATER BASED	03.12.1984
2756	1.70	2200.0	9.6	WATER BASED	03.12.1984
2804	1.70	2200.0	9.6	WATER BASED	04.12.1984
2823	1.70	2300.0	8.9	WATER BASED	05.12.1984
2865	1.70	2100.0	8.9	WATER BASED	06.12.1984
2909	1.70	2200.0	7.6	WATER BASED	07.12.1984
2978	1.70	2000.0	7.2	WATER BASED	10.12.1984
3009	1.70	2100.0	7.6	WATER BASED	10.12.1984
3016	1.70	2100.0	7.2	WATER BASED	10.12.1984
3041	1.70	1700.0	6.3	WATER BASED	11.12.1984
3100	1.70	1900.0	6.7	WATER BASED	12.12.1984
3108	1.70	1400.0	4.2	WATER BASED	19.12.1984
3115	1.70	1900.0	5.5	WATER BASED	17.12.1984
3115	1.70	1800.0	5.1	WATER BASED	18.12.1984
3115	1.70	2000.0	5.9	WATER BASED	17.12.1984
3115	1.70	1900.0	5.5	WATER BASED	17.12.1984
3115	1.70	1800.0	5.1	WATER BASED	18.12.1984



3125	1.40	1400.0	4.2	WATER BASED	20.12.1984
3207	0.40	1500.0	5.1	WATER BASED	21.12.1984
3285	1.40	1500.0	5.1	WATER BASED	27.12.1984
3318	1.40	1500.0	5.1	WATER BASED	27.12.1984
3410	1.40	1500.0	5.1	WATER BASED	27.12.1984
3475	1.40	1500.0	5.1	WATER BASED	27.12.1984
3498	1.40	1800.0	5.9	WATER BASED	27.12.1984
3530	1.40	1900.0	5.9	WATER BASED	27.12.1984
3595	1.40	1900.0	5.9	WATER BASED	28.12.1984
3600	1.40	2200.0	5.9	WATER BASED	02.01.1985
3600	1.40	2400.0	6.3	WATER BASED	02.01.1985
3600	1.40	2200.0	5.9	WATER BASED	02.01.1985
3600	1.40	2400.0	6.3	WATER BASED	02.01.1985
3600	1.40	2000.0	5.9	WATER BASED	02.01.1985

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]
445 Formation pressure (Formasjonstrykk)	pdf	0.28

