

**General information**

Wellbore name	6407/10-1
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORWEGIAN SEA
Well name	6407/10-1
Seismic location	NH 8604 - 185 SP. 1180
Production licence	132
Drilling operator	Norsk Hydro Produksjon AS
Drill permit	541-L
Drilling facility	POLAR PIONEER
Drilling days	44
Entered date	07.05.1987
Completed date	19.06.1987
Release date	19.06.1989
Publication date	02.03.2004
Purpose - planned	WILDCAT
Reentry	NO
Content	GAS SHOWS
Discovery wellbore	NO
Kelly bushing elevation [m]	23.0
Water depth [m]	343.0
Total depth (MD) [m RKB]	3347.0
Final vertical depth (TVD) [m RKB]	3346.0
Maximum inclination [°]	4.1
Bottom hole temperature [°C]	120
Oldest penetrated age	LATE TRIASSIC
Oldest penetrated formation	GREY BEDS (INFORMAL)
Geodetic datum	ED50
NS degrees	64° 13' 40.66" N
EW degrees	7° 11' 29.81" E
NS UTM [m]	7123840.08
EW UTM [m]	412273.83
UTM zone	32
NPDID wellbore	1054



Wellbore history

General

Block 6407/10 is an oil prone part of the Halten Terrace. Well 6407/10-1 is located immediately to the south of the Njord Field in block 6407/7, on compartment B1 of the B-structure. The B-structure is down faulted relative to the Frøya High in south-southeast and to the A-structure in block 6407/7 to the west. The structure is dipping into a small, deep basin to the north. The main objectives of the well were to test hydrocarbon potential of the Garn, Ile and Ti1je Formations in the B-structure. Further objectives were to test the geological model and to calibrate the seismic interpretation and horizon identification. The well location was chosen to penetrate the target reservoir with an up-dip of less than 15-30x10⁶ sm³ oil in place, and to penetrate the Tilje Formation within the expected depth range of the oil-water contact in the Ti1je Formations in the A-structure.

Operations and results

Wildcat well 6407/10-1 was spudded 7 may 1987 by Polar Frontier Drilling semi-submersible rig Polar Pioneer and drilled to TD at 3347 m in the Triassic Grey Beds. Due to a shallow gas risk, the well was drilled without riser and logged with MWD down to 1100 m. The prognosed shallow gas levels were drilled without problems and only small peaks on the log indicated sand with a certain gas saturation. The 20" casing was skipped and 13 3/8" casing was set directly. The well was drilled with seawater and hi-vis pills down to 1117 m and with KCl mud from 1117 m to TD.

The well was water bearing with a possible small amount of gas in the upper part of Ti1je Fm. Some shows were recorded in the Ile Formation. The Formation pressures encountered showed that the A and B compartments of the Njord Field are not in communication. Five cores were cut in the intervals 2582 - 2610 m (Rogn Formation), 2748 - 2776 m (Not Formation), 2817 - 2845 m (Ile Formation), 2845.5 - 2873.5 m (Ile / Ror Formation), and 2983 - 3011 m (Tilje Formation).

The well was permanently abandoned on 19 June 1987 at 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]
1100.00	3345.00

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	2582.0	2610.0	[m]
2	2748.0	2776.0	[m]
3	2817.0	2845.0	[m]
4	2845.0	2872.9	[m]
5	2983.0	3011.0	[m]

Total core sample length [m]	139.9
Cores available for sampling?	YES

Core photos

2582-2587m



2587-2592m



2592-2597m



2597-2602m



2602-2607m



2607-2610m



2748-2753m



2753-2758m



2758-2763m



2763-2768m



2768-2773m



2773-2774m



2817-2822m



2822-2827m



2827-2832m



2832-2837m



2837-2842m



2842-2845m



2845-2850m



2950-2855m



2855-2860m



2860-2865m



2865-2870m



2870-2872m



2983-2988m



2988-2993m



2993-2998m



2998-3003m



3003-3008m



3008-3011m

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
2752.8	[m]	C	OD
2757.9	[m]	C	OD
2774.2	[m]	C	OD
2819.5	[m]	C	OD
2847.6	[m]	C	OD
2853.9	[m]	C	OD

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
366	NORDLAND GP
366	NAUST FM
1041	KAI FM
1240	HORDALAND GP
1240	BRYGGE FM
1671	ROGALAND GP
1671	TARE FM
1735	TANG FM
1913	SHETLAND GP
2390	CROMER KNOLL GP
2390	LANGE FM
2573	VIKING GP



2573	SPEKK FM
2579	ROGN FM
2702	FANGST GP
2702	NOT FM
2803	ILE FM
2868	BÅT GP
2868	ROR FM
2974	TILJE FM
3155	ÅRE FM
3319	GREY BEDS (INFORMAL)

Composite logs

Document name	Document format	Document size [MB]
1054	pdf	0.38

Geochemical information

Document name	Document format	Document size [MB]
1054_1	pdf	1.19

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

Document name	Document format	Document size [MB]
1054_01_WDSS_General_Information	pdf	0.39
1054_02_WDSS_completion_log	pdf	0.27

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

Document name	Document format	Document size [MB]
1054_6407_10_1_COMPLETION_REPORT_AND_LOG	pdf	11.58





Logs

Log type	Log top depth [m]	Log bottom depth [m]
CST GR	1300	2530
CST GR	2530	3325
DIT-D LSS GR SP	1098	2537
DIT-D LSS GR SP	2423	3345
LDL CNL NGT MSFL	2423	3345
MWD - GR EWR	2748	2947
MWD - GR RES	366	3346
RFT GR	2582	2835
RFT GR	2835	3005
SHDT GR	1098	2539
SHDT GR	2523	3348
VSP	800	3342

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	442.0	36	590.0	0.00	LOT
INTERM.	13 3/8	1101.0	17 1/2	1117.0	1.93	LOT
INTERM.	9 5/8	2526.0	12 1/4	2545.0	1.91	LOT
OPEN HOLE		3347.0	8 1/2	3347.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
376	1.03			WATER BASED	11.05.1987
416	1.42	33.0	8.0	WATER BASED	18.06.1987
442	1.03			WATER BASED	12.05.1987
590	1.03			WATER BASED	12.05.1987
1117	1.20			WATER BASED	12.05.1987
1117	1.20	22.0	10.0	WATER BASED	14.05.1987
1117	1.20	21.0	11.0	WATER BASED	14.05.1987
1380	1.60	36.0	14.0	WATER BASED	18.05.1987
1759	1.60	45.0	15.0	WATER BASED	18.05.1987
2100	1.60	45.0	14.0	WATER BASED	18.05.1987



2136	1.60	45.0	11.0	WATER BASED	18.05.1987
2213	1.60	45.0	11.0	WATER BASED	19.05.1987
2237	1.60	44.0	11.0	WATER BASED	20.05.1987
2296	1.42	33.0	8.0	WATER BASED	17.06.1987
2400	1.60	37.0	11.0	WATER BASED	25.05.1987
2485	1.60	37.0	11.0	WATER BASED	25.05.1987
2540	1.60	36.0	10.0	WATER BASED	25.05.1987
2545	1.45	24.0	8.0	WATER BASED	29.05.1987
2545	1.60	31.0	9.0	WATER BASED	27.05.1987
2545	1.60	31.0	9.0	WATER BASED	29.05.1987
2545	1.52	23.0	7.0	WATER BASED	01.06.1987
2572	1.52	28.0	8.0	WATER BASED	01.06.1987
2610	1.52	32.0	7.0	WATER BASED	01.06.1987
2724	1.52	33.0	7.0	WATER BASED	02.06.1987
2773	1.52	32.0	8.0	WATER BASED	03.06.1987
2817	1.52	32.0	7.0	WATER BASED	04.06.1987
2848	1.52	30.0	7.0	WATER BASED	05.06.1987
2933	1.52	31.0	8.0	WATER BASED	09.06.1987
2983	1.52	30.0	9.0	WATER BASED	09.06.1987
3011	1.52	30.0	8.0	WATER BASED	09.06.1987
3031	1.52	29.0	8.0	WATER BASED	09.06.1987
3055	1.52	30.0	9.0	WATER BASED	10.06.1987
3157	1.50	29.0	8.0	WATER BASED	11.06.1987
3227	1.50	32.0	9.0	WATER BASED	12.06.1987
3320	1.50	34.0	9.0	WATER BASED	15.06.1987
3346	1.50	37.0	9.0	WATER BASED	15.06.1987
3346	1.42	33.0	8.0	WATER BASED	16.06.1987
3346	1.42	30.0	8.0	WATER BASED	15.06.1987

Thin sections at the Norwegian Offshore Directorate

Depth	Unit
2588.30	[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]
1054 Formation pressure (Formasjonstrykk)	pdf	0.31

