General information

Wellbore name	7/7-1
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Well name	7/7-1
Seismic location	NOD 6 - 86 - 010 SP 260
Production licence	148
Drilling operator	Den norske stats oljeselskap a.s
Drill permit	626-L
Drilling facility	DEEPSEA BERGEN
Drilling days	53
Entered date	30.12.1989
Completed date	20.02.1990
Release date	20.02.1992
Publication date	08.03.2004
Purpose - planned	WILDCAT
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	23.0
Water depth [m]	83.0
Total depth (MD) [m RKB]	3500.0
Final vertical depth (TVD) [m RKB]	3497.0
Maximum inclination [°]	6.9
Bottom hole temperature [°C]	140
Oldest penetrated age	LATE TRIASSIC
Oldest penetrated formation	SMITH BANK FM
Geodetic datum	ED50
NS degrees	57° 24' 56.88'' N
EW degrees	2° 15' 59.74'' E
NS UTM [m]	6364053.40
EW UTM [m]	455943.56
UTM zone	31
NPDID wellbore	1492

Wellbore history

General

Well 7/7-1 was the first well in license 148, and was designed to drill a tilted block on the Jæren High close to the UK border. Early/Middle Jurassic events resulted in uplift and erosion, such that Jurassic sediments at the well location are missing. Due to the Tertiary uplift and eastward tilting of the Shetland Platform, along with a relative drop in sea level, this tilting gave rise to an eastward drainage pattern. Submarine fan sandstones derived from deltaic and barrier bar complexes in the Morray Firth area were deposited in the Central Graben and on to the Jæren High. Several lobe systems developed, giving rise to continuous and periodic sandstone deposition as the lobes migrated laterally. The eastern pinch out of these systems occurs in blocks 7/4 and 7/7. The primary objective of this well was an anticlinal closure at the Base Cretaceous Unconformity level, the C-prospect, Triassic sandstones. The secondary objective was the B-prospect, Paleocene sandstones, a possible closure along a pinch out of a sandy sequence consisting of distal turbidites. Some high amplitude anomalies indicated shallow gas between 241 to 395 m. The nearest one at 308 m was situated approximately 300 m east of the well location. Sticky and swelling "gumbo" clays are common in the area.

Operations and results

Wildcat well 7/7-1 was spudded with the semi-submersible installation Deepsea Bergen 30 December 1989 and drilled to TD at 3500 m in the Triassic Smith Bank Formation. The well was drilled with seawater and gel down to 572 m, with gypsum/polymer mud from 572 m to 3263 m, and with bentonite/lignosulphonate mud from 3263 m to TD. Apart from some tight hole problems, drilling went without severe problems. No shallow gas was encountered. The well was drilled approximately 200 m into the Triassic, which consisted of brick red sandstones, interbedded with siltstone / claystone. The Paleocene sandstones came in nearly 60 m below the prognosed depth, and only minor amounts of sand was encountered (Andrew Formation). No indication of hydrocarbons was seen in this well. Two conventional cores were cut, one from 2786 m to 2803 m in the Paleocene Andrew Formation and a second from 3286 m to 3313.5 m driller's depth (3291.5 m to 3319 m loggers depth) in the Smith Bank Formation. A total of 125 sidewall cores were attempted, and 118 sidewall cores were recovered. No fluid samples were taken. The well was permanently abandoned on 20 February 1990 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]
590.00	3500.00

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	2786.0	2803.0	[m]
2	3296.0	3313.5	[m]

Total core sample length [m]	34.5
Cores available for sampling?	YES

Core photos


2786-2791m


2791-2796m


2796-2801m


2801-2803m


3286-3291m


3291-3296m


3296-3301m


3301-3306m


3306-3311m


3311-3313m

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
2022.0	[m]	SWC	STATO
2074.0	[m]	SWC	STATO
2111.0	[m]	SWC	STATO
2122.0	[m]	SWC	STATO
2135.0	[m]	SWC	STATO
2143.2	[m]	SWC	STATO
2175.0	[m]	SWC	STATO
2225.0	[m]	SWC	STATO
2275.0	[m]	SWC	STATO
2310.0	[m]	SWC	STATO
2325.0	[m]	SWC	STATO
2344.0	[m]	SWC	STATO
2360.0	[m]	SWC	STATO

2382.2	[m]	SWC	STATO
2400.0	[m]	SWC	STATO
2415.0	[m]	SWC	STATO
2431.0	[m]	SWC	STATO
2450.0	[m]	SWC	STATO
2464.0	[m]	SWC	STATO
2479.0	[m]	SWC	STATO
2500.0	[m]	SWC	STATO
2513.5	[m]	SWC	STATO
2530.0	[m]	SWC	STATO
2545.0	[m]	SWC	STATO
2560.0	[m]	SWC	STATO
2580.0	[m]	DC	RRI
2595.0	[m]	DC	RRI
2610.0	[m]	DC	RRI
2625.0	[m]	DC	RRI
2640.0	[m]	DC	RRI
2649.5	[m]	SWC	STATO
2658.5	[m]	SWC	STATO
2679.0	[m]	DC	RRI
2694.0	[m]	DC	RRI
2706.0	[m]	SWC	STATO
2724.0	[m]	DC	RRI
2739.0	[m]	DC	RRI
2742.0	[m]	SWC	STATO
2753.0	[m]	SWC	STATO
2758.3	[m]	SWC	STATO
2769.0	[m]	DC	RRI
2790.2	[m]	SWC	STATO
2793.0	[m]	SWC	STATO
2795.3	[m]	SWC	STATO
2798.1	[m]	SWC	STATO
2801.9	[m]	SWC	STATO
2826.0	[m]	DC	RRI
2832.0	[m]	DC	RRI
2958.0	[m]	SWC	STATO
3433.2	[m]	SWC	STATO
3503.9	[m]	SWC	STATO

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
106	NORDLAND GP
1256	HORDALAND GP
2626	ROGALAND GP
2626	BALDER FM
2660	SELE FM
2758	LISTA FM
2780	ANDREW FM
2808	VÅLE FM
2830	SHETLAND GP
2830	EKOFISK FM
2925	TOR FM
3108	HOD FM
3243	CROMER KNOLL GP
3243	ÅSGARD FM
3288	NO GROUP DEFINED
3288	SMITH BANK FM

Composite logs

Document name	Document format	Document size [MB]
1492	pdf	0.57

Geochemical information

Document name	Document format	Document size [MB]
1492_1	pdf	0.23

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

Document name	Document format	Document size [MB]
1492_01_WDSS_General_Information	pdf	0.19
1492_02_WDSS_completion_log	pdf	0.18

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

Document name	Document format	Document size [MB]
1492_7_7_1_COMPLETION_REPORT_AND_LOG	pdf	18.43

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CBL VDL GR	1333	2554
CBL VDL GR	1903	3253
DIFL ACL CDL CNL GR	2548	3260
DIFL ACL CDL CNL GR	3253	3502
DIFL ACL CDL GR	567	2567
DIPS GR	3254	3499
FMT GR	3290	3317
MLL SPL	3253	3505
MWD	572	3500
SWC GR	2021	2566
SWC GR	2649	3258
SWC GR	3260	3503
VSP	100	3490

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	167.0	36	168.0	0.00	LOT
INTERM.	20	567.0	26	580.0	1.64	LOT
INTERM.	13 3/8	2548.0	18	2565.0	1.86	LOT
INTERM.	9 5/8	3251.0	12 1/4	3263.0	1.63	LOT
OPEN HOLE		3500.0	8 1/2	3500.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
576	1.03			WATER BASED	05.01.1990
580	1.03			WATER BASED	05.01.1990
580	1.03			WATER BASED	08.01.1990
2565	1.56	29.0	6.0	WATER BASED	16.01.1990
2565	1.56	26.0	6.0	WATER BASED	16.01.1990
2565	1.56	25.0	5.0	WATER BASED	17.01.1990
2568	1.50	21.0	5.0	WATER BASED	24.01.1990
2685	1.50	22.0	4.0	WATER BASED	25.01.1990
2690	1.50	21.0	4.5	WATER BASED	26.01.1990
2764	1.50	22.0	6.0	WATER BASED	29.01.1990
2786	1.50	21.0	5.0	WATER BASED	29.01.1990
2803	1.50	23.0	5.0	WATER BASED	29.01.1990
2903	1.50	24.0	6.5	WATER BASED	30.01.1990
2997	1.50	27.0	6.0	WATER BASED	31.01.1990
3047	1.50	27.0	5.5	WATER BASED	02.02.1990
3054	1.50	25.0	4.5	WATER BASED	05.02.1990
3114	1.50	25.0	5.0	WATER BASED	06.02.1990
3263	1.50	25.0	5.5	WATER BASED	07.02.1990
3263	1.50	23.0	5.0	WATER BASED	07.02.1990
3263	1.50	27.0	5.0	WATER BASED	08.02.1990
3284	1.55	45.0	6.0	WATER BASED	12.02.1990
3284	1.55	43.0	6.5	WATER BASED	14.02.1990
3284	1.55	42.0	5.0	WATER BASED	14.02.1990
3284	1.55	43.0	5.5	WATER BASED	15.02.1990
3294	1.55	40.0	12.5	WATER BASED	20.02.1990
3294	1.55	40.0	10.0	WATER BASED	20.02.1990
3294	1.55	43.0	5.5	WATER BASED	16.02.1990
3294	1.55	42.0	10.5	WATER BASED	20.02.1990
3365	1.55	43.0	6.5	WATER BASED	14.02.1990

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]
1492_Formation_pressure_(Formasjonstrykk)	pdf	0.22