

**General information**

Wellbore name	1/6-4
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Well name	1/6-4
Seismic location	LINE 002425 SP.6977
Production licence	011
Drilling operator	A/S Norske Shell
Drill permit	144-L
Drilling facility	CHRIS CHENERY
Drilling days	103
Entered date	29.12.1975
Completed date	09.04.1976
Release date	09.04.1978
Publication date	15.06.2011
Purpose - planned	WILDCAT
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	33.0
Water depth [m]	72.0
Total depth (MD) [m RKB]	3810.0
Bottom hole temperature [°C]	133
Oldest penetrated age	LATE CRETACEOUS
Oldest penetrated formation	TOR FM
Geodetic datum	ED50
NS degrees	56° 44' 52.06" N
EW degrees	2° 42' 23.64" E
NS UTM [m]	6289490.96
EW UTM [m]	482053.29
UTM zone	31
NPDID wellbore	242

Wellbore history

**General**

Well 1/6-4 was drilled in the southernmost part of the Breiflabb Basin in the North Sea. The objective was to evaluate a large low relief base Tertiary - Late Cretaceous structure with potential reservoirs both in the Danian - Late Cretaceous Chalk and in the Paleocene Sands. The primary target was the Chalk (Ekofisk and Tor formations).

Operations and results

Wildcat well 1/6-4 was spudded with the semi-submersible installation Chris Chenery on 29 December 1975 and drilled to TD at 3810 m in the Late Cretaceous Tor Formation. The drilling of 1/6-4 was beset with rig mechanical problems, most notably failures in the mooring system induced by adverse North Sea weather. All in all 34 days (ca 33%) of the total rig time on the well was counted as down time. The well was drilled with bentonite/seawater spud mud down to 437 m and with lime/Drispac/seawater mud from 437 m to TD.

Top Rogaland Group, Balder Formation, came in at 3110 m. A Paleocene sandstone, Andrew Formation was penetrated from 3197 to 3253 m. Top Shetland Group, Ekofisk Formation, came in at 3374 m. The Balder Formation (Tuff marker) had some residual hydrocarbons up to 30%. This was substantiated by gas readings and some shows of fluorescence in ditch cuttings. The underlying Andrew Formation sandstones were found 100% water-bearing. Both the Danian and Maastrichtian were fully water bearing based on petrophysical analyses. This was in agreement with the lack of oil/gas shows while drilling in this section.

No cores were cut and no wire line fluid samples were taken.

The well was permanently abandoned on 9 April 1978 as a dry well 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]
192.00	3810.00

Cuttings available for sampling?	YES
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Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
8000.0	[ft]	DC	RRI
8060.0	[ft]	DC	RRI
8120.0	[ft]	DC	RRI
8180.0	[ft]	DC	RRI
8240.0	[ft]	DC	RRI
8300.0	[ft]	DC	RRI



8360.0 [ft]	DC	RRI
8420.0 [ft]	DC	RRI
8480.0 [ft]	DC	RRI
8540.0 [ft]	DC	RRI
8600.0 [ft]	DC	RRI
8620.0 [ft]	DC	RRI
8660.0 [ft]	DC	RRI
8680.0 [ft]	DC	RRI
8720.0 [ft]	DC	RRI
8740.0 [ft]	DC	RRI
8780.0 [ft]	DC	RRI
8800.0 [ft]	DC	RRI
8840.0 [ft]	DC	RRI
8860.0 [ft]	DC	RRI
8900.0 [ft]	DC	RRI
8920.0 [ft]	DC	RRI
8960.0 [ft]	DC	RRI
8980.0 [ft]	DC	RRI
9020.0 [ft]	DC	RRI
9040.0 [ft]	DC	RRI
9080.0 [ft]	DC	RRI
9100.0 [ft]	DC	RRI
9140.0 [ft]	DC	RRI
9160.0 [ft]	DC	RRI
9200.0 [ft]	DC	RRI
9220.0 [ft]	DC	RRI
9260.0 [ft]	DC	RRI
9270.0 [ft]	DC	RRI
9320.0 [ft]	DC	RRI
9330.0 [ft]	DC	RRI
9380.0 [ft]	DC	RRI
9410.0 [ft]	DC	RRI
9450.0 [ft]	DC	RRI
9480.0 [ft]	DC	RRI
9500.0 [ft]	DC	RRI
9520.0 [ft]	DC	RRI
9560.0 [ft]	DC	RRI
9600.0 [ft]	DC	RRI
9620.0 [ft]	DC	RRI
9680.0 [ft]	DC	RRI



9700.0	[ft]	DC	RRI
9740.0	[ft]	DC	RRI
9760.0	[ft]	DC	RRI
9800.0	[ft]	DC	RRI
9840.0	[ft]	DC	RRI
9860.0	[ft]	DC	RRI
9920.0	[ft]	DC	RRI
9960.0	[ft]	DC	RRI
9980.0	[ft]	DC	RRI
10020.0	[ft]	DC	RRI
10040.0	[ft]	DC	RRI
10080.0	[ft]	DC	RRI
10140.0	[ft]	DC	RRI
10180.0	[ft]	DC	RRI
10200.0	[ft]	DC	RRI
10220.0	[ft]	DC	RRI
10260.0	[ft]	DC	RRI
10300.0	[ft]	DC	RRI
10320.0	[ft]	DC	RRI
10340.0	[ft]	DC	RRI
10380.0	[ft]	DC	RRI
10400.0	[ft]	DC	RRI
10440.0	[ft]	DC	RRI
10450.0	[ft]	DC	RRI
10500.0	[ft]	DC	RRI
10510.0	[ft]	DC	RRI
10560.0	[ft]	DC	RRI
10600.0	[ft]	DC	RRI
10620.0	[ft]	DC	RRI
10670.0	[ft]	DC	RRI
10680.0	[ft]	DC	RRI
10720.0	[ft]	DC	RRI
10730.0	[ft]	DC	RRI
10770.0	[ft]	DC	RRI
10790.0	[ft]	DC	RRI
10820.0	[ft]	DC	RRI
10850.0	[ft]	DC	RRI
10900.0	[ft]	DC	RRI
10910.0	[ft]	DC	RRI
10960.0	[ft]	DC	RRI



10970.0	[ft]	DC	RRI
11020.0	[ft]	DC	RRI
11030.0	[ft]	DC	RRI
11080.0	[ft]	DC	RRI
11090.0	[ft]	DC	RRI
11150.0	[ft]	DC	RRI
11220.0	[ft]	DC	RRI
11280.0	[ft]	DC	RRI
11340.0	[ft]	DC	RRI
11410.0	[ft]	DC	RRI

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
105	NORDLAND GP
1633	HORDALAND GP
3110	ROGALAND GP
3110	BALDER FM
3124	SELE FM
3130	LISTA FM
3197	ANDREW FM
3253	LISTA FM
3335	VÅLE FM
3374	SHETLAND GP
3374	EKOFISK FM
3475	TOR FM

Geochemical information

Document name	Document format	Document size [MB]
242_1	pdf	0.05
242_2	pdf	0.69

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

Document name	Document format	Document size [MB]
242_01_WDSS_General_Information	pdf	0.27





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

Document name	Document format	Document size [MB]
242 1 6 4 Completion Log	pdf	1.62
242 1 6 4 Completion report	pdf	25.70

Logs

Log type	Log top depth [m]	Log bottom depth [m]
BGT	594	1431
BGT	1409	2947
BHC GR	1409	4036
BHC GR CAL	4023	10775
BHC GR CAL	10736	12498
DLL GR	10737	12484
DLL SP	4023	10765
FDC CNL CAL	4026	10776
FDC CNL GR CAL	10737	12500
IES GR	4024	10778

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	181.0	36	187.0	0.00	LOT
INTERM.	20	429.0	26	437.0	0.00	LOT
INTERM.	13 3/8	1224.0	17 1/2	1232.0	0.00	LOT
INTERM.	9 5/8	3272.0	12 1/4	3285.0	0.00	LOT
OPEN HOLE		3810.0	8 1/2	3810.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
173	1.54			seawt/bento	
435	1.55			seawt/bento	





1228	1.55			seawt/bento	
3283	1.56			seawt/lime	
3810	1.56			seawt/lime	