

**General information**

Wellbore name	25/11-16
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Field	SVALIN
Discovery	25/11-16 Svalin
Well name	25/11-16
Seismic location	VGD 89 - 212 & SP. 106
Production licence	169
Drilling operator	Norsk Hydro Produksjon AS
Drill permit	733-L
Drilling facility	VILDKAT EXPLORER
Drilling days	26
Entered date	29.06.1992
Completed date	24.07.1992
Release date	24.07.1994
Publication date	20.06.2011
Purpose - planned	WILDCAT
Reentry	NO
Content	OIL
Discovery wellbore	YES
1st level with HC, age	PALEOCENE
1st level with HC, formation	HEIMDAL FM
Kelly bushing elevation [m]	25.0
Water depth [m]	120.0
Total depth (MD) [m RKB]	1945.0
Final vertical depth (TVD) [m RKB]	1945.0
Maximum inclination [°]	1.4
Bottom hole temperature [°C]	71
Oldest penetrated age	LATE CRETACEOUS
Oldest penetrated formation	HOD FM
Geodetic datum	ED50
NS degrees	59° 7' 6.55" N
EW degrees	2° 23' 6.2" E
NS UTM [m]	6553559.14
EW UTM [m]	464790.04



UTM zone	31
NPDID wellbore	1920

Wellbore history

General

Well 25/11-16 was drilled south of the Balder Field complex on the Utsira High in the North Sea. The main objective was to test the hydrocarbon potential of the Heimdal Formation within the "Hanna" mound. Possible younger sand developments in the Lista and Sele Formations were secondary targets.

Operations and results

Wildcat well 25/11-16 was spudded with the semi-submersible installation Vildcat Explorer on 29 June 1992 and drilled to TD at 1945 m in the Late Cretaceous Hod Formation. The well was drilled with spud mud down to 1339 m and with CaCO₃/NaCl mud from 1339 m to TD.

The primary target Heimdal Formation was encountered from 1767 m to 1872 m. Gross thickness is 105.75 m with 83.9 m net sand. The formation was oil bearing with 18.87 m net pay of heavy oil (0.85 g/cc at reservoir conditions) down to a series of claystone beds at 1786 m. The average porosity in the oil zone was 37.5% and the average Sw was 12.8%. The reservoir sand is very poorly consolidated, homogenous and has a net to gross ratio in the oil zone of 0.96. The average range of both horizontal and vertical permeabilities is 10 to 14 Darcies. A free water contact was established at 1793 m from MDT data. The oil/water contact appears to occur at the base of the sand unit at ca 1790 m (1765 m TVD MSL). In addition to oil shows in the Heimdal Formation oil zone oil two isolated shows were recorded in thin sand stringers at 1713 m in the Balder Formation and at 1735 m in the Sele Formation.

A total of 200 m core was recovered from 14 cores taken in the interval 1699 m to 1914 m (93% recovery), starting 1 m below the top of the Balder Formation and ending 17 m into the Tor Formation. A total of 26 pressure points were recorded with the MDT tool. Fluid samples were taken at 1774 m, 1793.5 m, and 1838 m.

The well was suspended without testing on 24 July 1992 as an oil discovery.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1340.00	1945.00

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	1699.0	1713.0	[m]
2	1713.0	1725.7	[m]
3	1730.0	1740.3	[m]
4	1747.5	1748.0	[m]
5	1748.5	1767.0	[m]
6	1767.5	1784.0	[m]
7	1784.5	1786.0	[m]
8	1786.0	1803.0	[m]
9	1803.0	1820.7	[m]
10	1821.0	1838.4	[m]
11	1839.0	1854.0	[m]
12	1855.0	1881.3	[m]
13	1882.0	1886.0	[m]
14	1887.0	1914.5	[m]

Total core sample length [m]	198.9
Cores available for sampling?	YES

Core photos

1699-1704m



1704-1709m



1709-1713m



1713-1718m



1718-1723m



1723-1725m



1730-1735m



1735-1740m



1740-1740m



1747-1748m



1748-1753m



1753-1758m



1758-1763m



1763-1767m



1767-1772m



1772-1777m



1777-1782m



1782-1784m



1784-1786m



1786-1791m



1791-1796m



1796-1801m



1803-1808m



1808-1813m



1813-1818m



1818-1820m



1821-1826m



1826-1831m



1831-1836m



1836-1838m



1839-1844m



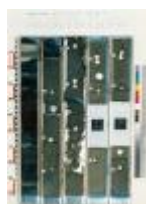
1849-1854m



1844-1849m



1855-1860m



1860-1865m



1865-1870m



1870-1875m



1875-1880m



1880-1881m



1882-1886m



1887-1892m



1892-1897m



1897-1902m



1902-1907m



1907-1912m



1912-1914m

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
1365.0	[m]	DC	CGG
1395.0	[m]	DC	CGG
1430.0	[m]	DC	CGG
1450.0	[m]	DC	CGG
1490.0	[m]	DC	CGG
1510.0	[m]	DC	CGG
1520.0	[m]	DC	CGG
1530.0	[m]	DC	CGG
1565.0	[m]	DC	CGG
1590.0	[m]	DC	CGG
1620.0	[m]	DC	CGG
1650.0	[m]	DC	CGG
1685.0	[m]	DC	CGG
1697.0	[m]	DC	CGG
1712.0	[m]	C	CGG
1715.5	[m]	C	CGG
1722.1	[m]	C	CGG
1731.7	[m]	C	CGG
1733.4	[m]	C	CGG
1733.7	[m]	C	CGG
1738.1	[m]	C	CGG
1749.9	[m]	C	CGG
1752.7	[m]	C	CGG



1760.9 [m]	C	CGG
1774.2 [m]	C	CGG
1788.5 [m]	C	CGG
1792.4 [m]	C	CGG
1798.0 [m]	C	CGG
1810.1 [m]	C	CGG
1817.3 [m]	C	CGG
1836.1 [m]	C	CGG
1856.6 [m]	C	CGG
1861.1 [m]	C	CGG
1872.2 [m]	C	CGG
1874.4 [m]	C	CGG
1876.9 [m]	C	CGG
1880.9 [m]	C	CGG
1884.9 [m]	C	CGG
1890.0 [m]	C	CGG

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
145	NORDLAND GP
663	UTSIRA FM
764	NO FORMAL NAME
836	HORDALAND GP
836	SKADE FM
953	NO FORMAL NAME
1521	GRID FM
1562	NO FORMAL NAME
1698	ROGALAND GP
1698	BALDER FM
1733	SELE FM
1739	LISTA FM
1767	HEIMDAL FM
1872	LISTA FM
1885	VÅLE FM
1897	SHETLAND GP
1897	TOR FM
1936	HOD FM



Geochemical information

Document name	Document format	Document size [MB]
1920_2	pdf	2.84

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

Document name	Document format	Document size [MB]
1920_01_WDSS_General_Information	pdf	0.44
1920_02_WDSS_completion_log	pdf	0.14

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

Document name	Document format	Document size [MB]
1920_25_11_16_COMPLETION_REPORT_AND_LOG	pdf	17.29

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CST GR	1355	1939
DIL DSI LDL CNL NGT SP AMS	1335	1926
DLL MSFL GR AMS	1336	1934
FMI GR	1335	1615
FMI GR	1580	1940
MDT GR AMS	1524	1871
MWD - GR RES DIR	145	1945
VSP	590	1930

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	232.0	36	233.0	0.00	LOT





INTERM.	9 5/8	1333.0	12 1/4	1335.0	1.70	LOT
LINER	7	1764.0	8 1/2	1945.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
232	1.06			WATER BASED	
340	1.06			WATER BASED	
1145	1.06			WATER BASED	
1699	1.28	2.5		WATER BASED	
1730	1.28	25.0		WATER BASED	
1767	1.28	24.0		WATER BASED	
1803	1.28	20.0		WATER BASED	
1855	1.28	21.0		WATER BASED	
1855	1.28	21.0		WATER BASED	
1914	1.28	19.0		WATER BASED	
1945	1.28	19.0		WATER BASED	

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]
1920 Formation pressure (Formasjonstrykk)	pdf	0.19

