General information

Wellbore name	25/5-7
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	NORTH SEA
Field	ATLA
Discovery	25/5-7 Atla
Well name	25/5-7
Seismic location	inline 1620 & crossline 1835(TO06R06M1)
Production licence	102 C
Drilling operator	Total E&P Norge AS
Drill permit	1318-L
Drilling facility	OCEAN VANGUARD
Drilling days	60
Entered date	25.08.2010
Completed date	23.10.2010
Release date	23.10.2012
Publication date	23.10.2012
Purpose - planned	WILDCAT
Reentry	NO
Content	GAS/CONDENSATE
Discovery wellbore	YES
1st level with HC, age	MIDDLE JURASSIC
1st level with HC, formation	BRENT GP
Kelly bushing elevation [m]	22.0
Water depth [m]	119.0
Total depth (MD) [m RKB]	3045.0
Final vertical depth (TVD) [m RKB]	3045.0
Maximum inclination [°]	2.2
Bottom hole temperature [°C]	110
Oldest penetrated age	LATE TRIASSIC
Oldest penetrated formation	HEGRE GP
Geodetic datum	ED50
NS degrees	59° 39' 43.26'' N
EW degrees	2° 34' 15.39'' E
NS UTM [m]	6614003.76

EW UTM [m]	475823.34
UTM zone	31
NPDID wellbore	6423

Wellbore history

General

Well 25/5-7 was drilled on the David prospect on the north-eastern part of the Heimdal Terrace in the North Sea. The primary objective was to investigate the hydrocarbon potential of the Brent and Statfjord reservoirs. Secondary objective was sands in the Tertiary section.

Operations and results

Wildcat well 25/5-7 was spudded with the semi-submersible installation Ocean Vanguard on 23 September 2010 and drilled to TD at 3045 m in the Late Triassic Hegre Group. Due to shallow gas low risk, a 9"7/8 pilot hole was drilled first and was opened to 17"1/2. No shallow gas was encountered, but several tight spots were encountered while drilling and opening up this section. At 438 m the rig experienced a power shutdown. The rig was on repair from 31 August 2010 until the 4 September (123.75 hrs NPT). The well was drilled with seawater and hi-vis sweeps down to 1160 m and with oil based mud ("non-aqueous based mud") from 1160 m to TD.

The well penetrated a massive Ty sand and minor Lista/Heimdal sands, while no Hermod sand was encountered. All potential reservoirs in the Tertiary were found water bearing. The well encountered the Middle Jurassic Brent sandstones at 2684 m, 40 m shallower than prognosed. The thickness of the Brent was 27.5m, 45m less than expected. The Brent reservoir was found gas bearing. The Statfjord was also encountered 40 m shallow to prognosis, but with a thickness of 135m, close to the prognosis. The Statfjord was found water wet. Petrophysical interpretation indicated that the Brent reservoir has a net-to-gross of 93%, an average effective porosity of 17.5% and a water saturation of 12%. The MDT results showed that the mobility in reservoirs are high and that the gas density is 0.26 g/cc. Apart from weak oil shows in the Brent reservoir a weak oil show (very weak light yellow direct and cut fluorescence) was recorded at 1390 m.

One 54 m core with 100% recovery was cut from 2690 m down to 2744 m covering most of the Brent reservoir sands. MDT gas samples with condensate were taken at 2708 m and at 2689 m.

Well 25/5-7 was plugged back to 2253 m on 24 October 2010. This part of the well bore was permanently abandoned as a gas/condensate discovery. The top hole was designed for re-entry and sidetracking as a producer. The producer 25/5-D-1 H was drilled in 2012.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1170.00	3045.00

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	2690.0	2744.2	[m]

Total core sample length [m]	54.2
Cores available for sampling?	YES

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
2130.0	[m]	DC	PETROSTR
2140.0	[m]	DC	PETROS
2150.0	[m]	DC	PETROS
2160.0	[m]	DC	PETROS
2170.0	[m]	DC	PETROS
2180.0	[m]	DC	PETROS
2190.0	[m]	DC	PETROS
2200.0	[m]	DC	PETROS
2220.0	[m]	DC	PETROS
2240.0	[m]	DC	PETROS
2250.0	[m]	DC	PETROS
2270.0	[m]	DC	PETROS
2290.0	[m]	DC	PETROS
2300.0	[m]	DC	PETROS
2305.0	[m]	DC	PETROS
2315.0	[m]	DC	PETROS
2325.0	[m]	DC	PETROS
2335.0	[m]	DC	PETROS
2345.0	[m]	DC	PETROS
2355.0	[m]	DC	PETROS
2365.0	[m]	DC	PETROS
2375.0	[m]	DC	PETROS
2385.0	[m]	DC	PETROS
2410.0	[m]	DC	PETROS

2420.0	[m]	DC	PETROS
2430.0	[m]	DC	PETROS
2440.0	[m]	DC	PETROS
2450.0	[m]	DC	PETROS
2460.0	[m]	DC	PETROS
2470.0	[m]	DC	PETROS
2485.0	[m]	DC	PETROS
2495.0	[m]	DC	PETROS

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
141	NORDLAND GP
483	UTSIRA FM
526	NO FORMAL NAME
964	HORDALAND GP
1243	GRID FM
1314	GRID FM
1407	HORDALAND GP
2135	ROGALAND GP
2135	BALDER FM
2155	SELE FM
2189	LISTA FM
2333	VÅLE FM
2391	TY FM
2489	SHETLAND GP
2647	VIKING GP
2647	DRAUPNE FM
2677	HEATHER FM
2685	BRENT GP
2712	DUNLIN GP
2995	HEGRE GP

Logs

Log type	Log top depth [m]	Log bottom depth [m]
AIT PPC DSI HNGS EDTC	2561	3003
HNGS APS LDS PPC MSIP PPC	100	2566

MDT	2685	2880
MWD LWD - ABG GR RES PWD DI	1160	2496
MWD LWD - DI	141	227
MWD LWD - GR RES PWD DI	227	1160
MWD LWD - GR RES PWD DI	2496	2570
MWD LWD - RES DGR PWD IDS DI	2684	3045
MWD LWD - RES GR PWD	2570	2690
SGT APS LDS CMR	2610	2781
SGT USIT CBL	0	0
UBI OBMI EDTC	2568	2781
VSI GR	141	2884

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	220.0	36	223.0	0.00	LOT
SURF.COND.	13 3/8	1149.0	17 1/2	1157.0	1.50	LOT
INTERM.	9 5/8	2560.0	12 1/4	2570.0	1.60	LOT
OPEN HOLE		3045.0	8 1/2	3045.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
158	1.04	16.0		ManualEntry	
227	1.03	15.0		ManualEntry	
438	1.20	20.0		ManualEntry	
1160	1.21	18.0		ManualEntry	
1165	1.21	21.0		ManualEntry	
2280	1.21	21.0		ManualEntry	
2444	1.17	23.0		ManualEntry	
2496	1.30	31.0		ManualEntry	
2570	1.30	28.0		ManualEntry	
2633	1.13	18.0		KCl mud	
2727	1.11			Sodium chloride	
3040	1.15	22.0		ManualEntry	
3045	1.16	20.0		ManualEntry	

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]
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