General information

Wellbore name	33/12-9 S
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	GULLFAKS SØR
Discovery	33/12-9 S (Skinfaks Sør)
Well name	33/12-9
Seismic location	3D survey ST06M05-BIN inline 2052 & xline 1539
Production licence	152
Drilling operator	Statoil Petroleum AS
Drill permit	1378-L
Drilling facility	COSLPioneer
Drilling days	71
Entered date	28.10.2011
Completed date	08.01.2012
Release date	08.01.2014
Publication date	08.01.2014
Purpose - planned	WILDCAT
Reentry	NO
Content	OIL
Discovery wellbore	YES
1st level with HC, age	MIDDLE JURASSIC
1st level with HC, formation	BRENT GP
Kelly bushing elevation [m]	25.0
Water depth [m]	134.5
Total depth (MD) [m RKB]	3812.0
Final vertical depth (TVD) [m RKB]	3746.0
Maximum inclination [°]	19.5
Oldest penetrated age	MIDDLE JURASSIC
Oldest penetrated formation	DRAKE FM
Geodetic datum	ED50
NS degrees	61° 1' 46.89'' N
EW degrees	1° 56' 0.72'' E
NS UTM [m]	6766724.25

EW UTM [m]	442371.98
UTM zone	31
NPDID wellbore	6729

Wellbore history

General

Well 33/12-9 S was drilled about seven kilometres south of the 33/12-8 S oil/gas discovery on Skinfaks Sør, between the Gullfaks Sør field and the UK border in the northern part of the North Sea. Skinfaks Sør was proven in 2002 and consists of several smaller structures. The main objective of the well was to explore a possible commercial oil leg in the Jurassic Tarbert Formation of the Brent Group, with the secondary objective of proving commercial volumes of hydrocarbons in the Ness and Etive/Rannoch Formations of the Brent Group.

Operations and results

Well 33/12-9 S was spudded with the semi-submersible installation COSL Pioneer on 28 October 2011 and drilled to TD at 3812 m (3746 m TVD) in Middle Jurassic sediments of the Drake Formation. The well was drilled vertical down to 2400 m and deviated from there. The deviation from vertical was built to ca 19 deg at 3100 m. This deviation was kept to TD. The well was drilled with hi-vis/bentonite sweeps down to 947 m, with Glydril mud from 2078 m to 3340 m, and Versatec oil based mud from 3340 m to TD.

Top of primary target, Tarbert Formation sandstone, was encountered at 3420 m (3375.2 m TVD). The Tarbert Formation contained light oil from top and down to 3501 m (3452 m TVD) with a most likely OWC just one meter deeper than that. Oil shows with petroleum odour continued down to 3538. Weaker shows on sandstones, typically patchy moderate bright yellow direct fluorescence and slow streaming/blooming blue white-yellow white cut fluorescence with blue white residual fluorescence, continued down to 3795 m. No oil shows were recorded above top reservoir level.

No cores were cut. MDT oil samples were taken at 3428.6 m and 3498.5 m. The samples were lightly contaminated by the drilling fluid (6-8wt %).

The well was permanently abandoned on 8 January 2012 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]
2080.00	3814.00

Cuttings available for sampling?	YES

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
2090.0	[m]	DC	BIOSTRAT
2110.0	[m]	DC	BIOSTRAT
2130.0	[m]	DC	BIOSTRAT
2150.0	[m]	DC	BIOSTRAT
2170.0	[m]	DC	BIOSTRAT
2190.0	[m]	DC	BIOSTRAT
2210.0	[m]	DC	BIOSTRAT
2230.0	[m]	DC	BIOSTRAT
2250.0	[m]	DC	BIOSTRAT
2270.0	[m]	DC	BIOSTRAT
2290.0	[m]	DC	BIOSTRAT
2310.0	[m]	DC	BIOSTRAT
2330.0	[m]	DC	BIOSTRAT
2350.0	[m]	DC	BIOSTRAT
2370.0	[m]	DC	BIOSTRAT
2390.0	[m]	DC	BIOSTRAT
2410.0	[m]	DC	BIOSTRAT
2430.0	[m]	DC	BIOSTRAT
2450.0	[m]	DC	BIOSTRAT
2470.0	[m]	DC	BIOSTRAT
2490.0	[m]	DC	BIOSTRAT
2510.0	[m]	DC	BIOSTRAT
2530.0	[m]	DC	BIOSTRAT
2550.0	[m]	DC	BIOSTRAT
2570.0	[m]	DC	BIOSTRAT
2590.0	[m]	DC	BIOSTRAT
2610.0	[m]	DC	BIOSTRAT
2630.0	[m]	DC	BIOSTRAT
2650.0	[m]	DC	BIOSTRAT
2670.0	[m]	DC	BIOSTRAT
2690.0	[m]	DC	BIOSTRAT
2710.0	[m]	DC	BIOSTRAT
2730.0	[m]	DC	BIOSTRAT
2750.0	[m]	DC	BIOSTRAT
2770.0	[m]	DC	BIOSTRAT
2790.0	[m]	DC	BIOSTRAT
2810.0	[m]	DC	BIOSTRAT
2830.0	[m]	DC	BIOSTRAT

2850.0	[m]	DC	BIOSTRAT
2870.0	[m]	DC	BIOSTRAT
2890.0	[m]	DC	BIOSTRAT
2910.0	[m]	DC	BIOSTRAT
2930.0	[m]	DC	BIOSTRAT
2950.0	[m]	DC	BIOSTRAT
2970.0	[m]	DC	BIOSTRAT
3010.0	[m]	DC	BIOSTRAT
3030.0	[m]	DC	BIOSTRAT
3040.0	[m]	DC	BIOSTRAT
3050.0	[m]	DC	BIOSTRAT
3060.0	[m]	DC	BIOSTRAT
3080.0	[m]	DC	BIOSTRAT
3090.0	[m]	DC	BIOSTRAT
3100.0	[m]	DC	BIOSTRAT
3110.0	[m]	DC	BIOSTRAT
3120.0	[m]	DC	BIOSTRAT
3130.0	[m]	DC	BIOSTRAT
3140.0	[m]	DC	BIOSTRAT
3150.0	[m]	DC	BIOSTRAT
3160.0	[m]	DC	BIOSTRAT
3170.0	[m]	DC	BIOSTRAT
3180.0	[m]	DC	BIOSTRAT
3190.0	[m]	DC	BIOSTRAT
3200.0	[m]	DC	BIOSTRAT
3210.0	[m]	DC	BIOSTRAT
3220.0	[m]	DC	BIOSTRAT
3230.0	[m]	DC	BIOSTRAT
3240.0	[m]	DC	BIOSTRAT
3250.0	[m]	DC	BIOSTRAT
3260.0	[m]	DC	BIOSTRAT
3270.0	[m]	DC	BIOSTRAT
3280.0	[m]	DC	BIOSTRAT
3290.0	[m]	DC	BIOSTRAT
3300.0	[m]	DC	BIOSTRAT
3310.0	[m]	DC	BIOSTRAT
3320.0	[m]	DC	BIOSTRAT
3330.0	[m]	DC	BIOSTRAT
3340.0	[m]	DC	BIOSTRAT
3559.0	[m]	DC	BIOSTRAT

3562.0	[m]	DC	BIOSTRAT
3565.0	[m]	DC	BIOSTRAT
3568.0	[m]	DC	BIOSTRAT
3571.0	[m]	DC	BIOSTRAT
3574.0	[m]	DC	BIOSTRAT
3577.0	[m]	DC	BIOSTRAT
3580.0	[m]	DC	BIOSTRAT
3583.0	[m]	DC	BIOSTRAT
3586.0	[m]	DC	BIOSTRAT
3589.0	[m]	DC	BIOSTRAT
3592.0	[m]	DC	BIOSTRAT
3595.0	[m]	DC	BIOSTRAT
3598.0	[m]	DC	BIOSTRAT
3601.0	[m]	DC	BIOSTRAT
3604.0	[m]	DC	BIOSTRAT
3607.0	[m]	DC	BIOSTRAT
3610.0	[m]	DC	BIOSTRAT
3613.0	[m]	DC	BIOSTRAT
3616.0	[m]	DC	BIOSTRAT
3619.0	[m]	DC	BIOSTRAT
3622.0	[m]	DC	BIOSTRAT
3625.0	[m]	DC	BIOSTRAT
3628.0	[m]	DC	BIOSTRAT
3631.0	[m]	DC	BIOSTRAT
3634.0	[m]	DC	BIOSTRAT
3637.0	[m]	DC	BIOSTRAT
3640.0	[m]	DC	BIOSTRAT
3643.0	[m]	DC	BIOSTRAT
3646.0	[m]	DC	BIOSTRAT
3649.0	[m]	DC	BIOSTRAT
3652.0	[m]	DC	BIOSTRAT
3655.0	[m]	DC	BIOSTRAT
3658.0	[m]	DC	BIOSTRAT
3661.0	[m]	DC	BIOSTRAT
3664.0	[m]	DC	BIOSTRAT
3667.0	[m]	DC	BIOSTRAT
3670.0	[m]	DC	BIOSTRAT
3673.0	[m]	DC	BIOSTRAT
3676.0	[m]	DC	BIOSTRAT
3679.0	[m]	DC	BIOSTRAT

3682.0	[m]	DC	BIOSTR
3685.0	[m]	DC	BIOSTR
3688.0	[m]	DC	BIOSTR
3691.0	[m]	DC	BIOSTR
3694.0	[m]	DC	BIOSTR
3697.0	[m]	DC	BIOSTR
3700.0	[m]	DC	BIOSTR
3703.0	[m]	DC	BIOSTR
3706.0	[m]	DC	BIOSTR
3709.0	[m]	DC	BIOSTR
3712.0	[m]	DC	BIOSTR
3715.0	[m]	DC	BIOSTR
3718.0	[m]	DC	BIOSTR
3721.0	[m]	DC	BIOSTR
3724.0	[m]	DC	BIOSTR
3727.0	[m]	DC	BIOSTR
3730.0	[m]	DC	BIOSTR
3733.0	[m]	DC	BIOSTR
3736.0	[m]	DC	BIOSTR
3739.0	[m]	DC	BIOSTR
3742.0	[m]	DC	BIOSTR
3745.0	[m]	DC	BIOSTR
3748.0	[m]	DC	BIOSTR
3751.0	[m]	DC	BIOSTR
3754.0	[m]	DC	BIOSTR
3757.0	[m]	DC	BIOSTR
3763.0	[m]	DC	BIOSTR
3766.0	[m]	DC	BIOSTR
3768.0	[m]	DC	BIOSTR
3769.0	[m]	DC	BIOSTR
3772.0	[m]	DC	BIOSTR
3775.0	[m]	DC	BIOSTR
3778.0	[m]	DC	BIOSTR
3781.0	[m]	DC	BIOSTR
3784.0	[m]	DC	BIOSTR
3787.0	[m]	DC	BIOSTR
3790.0	[m]	DC	BIOSTR
3793.0	[m]	DC	BIOSTR
3796.0	[m]	DC	BIOSTR
3799.0	[m]	DC	BIOSTR

3805.0	[m]	DC	BIOSTR
3808.0	[m]	DC	BIOSTR
3811.0	[m]	DC	BIOSTR
3814.0	[m]	DC	BIOSTR

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
160	NORDLAND GP
798	UTSIRA FM
912	HORDALAND GP
1785	ROGALAND GP
1785	BALDER FM
1846	LISTA FM
1970	SHETLAND GP
1970	UNDIFFERENTIATED
2975	CROMER KNOLL GP
2984	VIKING GP
2984	DRAUPNE FM
3006	HEATHER FM
3420	BRENT GP
3420	TARBERT FM
3534	NESS FM
3706	ETIVE FM
3727	RANNOCH FM
3775	DUNLIN GP
3775	DRAKE FM

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CBL USIT	2900	3336
MDT SAMPLE	3383	3450
MWD - ARCVRES6 POWER TELE	3339	3812
MWD - ARCVRES8 VADN8 PD TELE	2071	3340
MWD - ARCVRES9 POWER	947	2078
MWD - ARCVRS9 TELE	212	947
PEX DSI AIT	3338	3804

PS HY GR	3378	3680

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	208.0	36	212.0	0.00	LOT
SURF.COND.	20	938.5	26	947.0	1.38	LOT
INTERM.	13 3/8	2071.5	17 1/2	2078.0	1.86	LOT
INTERM.	9 5/8	3339.0	12 1/4	3340.0	2.04	LOT
OPEN HOLE		3812.0	8 1/2	3812.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
1510	1.35	14.0		KCl/Polymer/Glycol	
2106	1.36	33.0		Versatec	
2780	1.52	36.0		Versatec	
3222	1.51	37.0		Versatec	
3318	1.62	47.0		Versatec	
3340	1.59	44.0		Versatec	
3340	1.52	36.0		Versatec	
3343	1.59	44.0		Versatec	
3794	1.62	47.0		Versatec	
3812	1.62	31.0		Versatec	
3812	1.62	47.0		Versatec	