

**General information**

Wellbore name	34/11-5 S
Type	EXPLORATION
Purpose	APPRAISAL
Status	PLUGGED
Press release	link to press release
Factmaps in new window	link to map
Main area	NORTH SEA
Field	VALEMON
Discovery	34/10-23 Valemon
Well name	34/11-5
Seismic location	line9671-survey ST0407
Production licence	193
Drilling operator	Statoil ASA (old)
Drill permit	1106-L
Drilling facility	KVITEBJØRN
Drilling days	106
Entered date	03.02.2006
Completed date	03.07.2006
Plugged date	06.05.2008
Release date	03.07.2008
Publication date	15.08.2008
Purpose - planned	APPRAISAL
Reentry	NO
Content	GAS/CONDENSATE
Discovery wellbore	NO
1st level with HC, age	MIDDLE JURASSIC
1st level with HC, formation	TARBERT FM
Kelly bushing elevation [m]	60.5
Water depth [m]	190.0
Total depth (MD) [m RKB]	7380.0
Final vertical depth (TVD) [m RKB]	4432.0
Maximum inclination [°]	70
Bottom hole temperature [°C]	161
Oldest penetrated age	EARLY JURASSIC
Oldest penetrated formation	DRAKE FM
Geodetic datum	ED50
NS degrees	61° 4' 49.01" N
EW degrees	2° 29' 59" E



NS UTM [m]	6771993.27
EW UTM [m]	473009.20
UTM zone	31
NPDID wellbore	5248

Wellbore history

General

Well 34/11-5 S is located on the Kvitebjørn Field in the Northern North Sea, east of the Gullfaks Field. It was the first exploration well drilled from the fixed Kvitebjørn platform. The primary target for the well was to prove hydrocarbons in segment 8 in the Valemon Area. Secondary targets for the well were to clarify the extension of the Kvitebjørn Field, verify seismic interpretation at the top Brent pick, and to check for possible depletion of Valemon through the Kvitebjørn production.

Operations and results

Appraisal well 34/11-5 S was drilled from slot A3 on the fixed installation on the Kvitebjørn Field. The well starts from 1274 m (top of 17 1/2" section) in development well 34/11-A-3 and was drilled to TD at 7380 m (4432 m TVD RKB), 10 m into the Early Jurassic Drake Formation. Inclination started off with ca 20 deg at 1274 m and increased to 65 deg at ca 3000 m and from there it was kept in the range 50 to maximum 70 deg. The well was drilled without any hole stability problems. It was drilled from 1274 m to 6681 m with oil based XP07 mud, and with water based Cs/K-formate mud through the 8 1/2" section from 6681 m to TD.

The Base Cretaceous Unconformity (BCU) was penetrated 39 m TVD deeper than prognosed and the Viking Group was 86 m thicker than prognosed. Hence the top of the Brent Group was encountered 124 m TVD deeper than prognosed, but the thickness of the reservoir was only 2 m TVD thinner than prognosed. The reservoir quality was similar to exploration well 34/11-4 T2 on the Valemon Field. Hydrocarbons were proven in the Tarbert Formation, with an interpreted GWC at 4261 m TVD RKB, which is 20 m deeper than in nearby exploration wells. The pressure measurements indicated that segment 8 is a separate pressure system without communication to the Kvitebjørn production. The reservoir pressure in well 34/11-5 S was in-between Valemon and Kvitebjørn pressures.

No cores were cut. The modular dynamic tester was run to sample HC in the Tarbert Fm. Sampling was performed at 7101.5 m MD RKB / 4257 m TVD RKB (corrected for stretch in drill pipe) in the lower part of the Tarbert Fm after cleaning up for 6 hrs. The formation pressure was 790.7 bar, formation temperature was 156.8 deg C and the mobility was 14.6 mD/cP. MDT chamber no MPSR 166 contained 10 ml oil in addition to mud filtrate and formation water. Analysis of the oil indicated similar gas/condensates as in the Kvitebjørn Field.

The well was plugged back on 03 July 2006 as a gas/condensate appraisal well.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate



Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
4980.00	7380.00

Cuttings available for sampling?	YES
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Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
250	NORDLAND GP
944	UTSIRA FM
1049	HORDALAND GP
2042	ROGALAND GP
2042	BALDER FM
2111	SELE FM
2117	LISTA FM
2372	SHETLAND GP
2372	JORSALFARE FM
2997	KYRRE FM
4848	TRYGGVASON FM
5613	SVARTE FM
6115	CROMER KNOLL GP
6587	VIKING GP
6587	DRAUPNE FM
6796	HEATHER FM
7086	BRENT GP
7086	TARBERT FM
7110	NESS FM
7291	ETIVE FM
7307	RANNOCH FM
7370	DUNLIN GP
7370	DRAKE FM

Geochemical information

Document name	Document format	Document size [MB]
5248_01_34_11_5S_gch_transfer_1	txt	0.00
5248_02_34_11_5S_gch_results_1	txt	0.02
5248_1	pdf	0.80





5248_2	pdf	0.66
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Logs

Log type	Log top depth [m]	Log bottom depth [m]
GR FMI	6665	7370
GR MDT	7089	7250
GR MDT FMI	7088	7102
GR MFC GYRO	50	4933
GR VSP	1238	7090
MWD LWD - ARC	1271	6681
MWD LWD - ARC IAONIC STETOSCOPE	6681	7380
MWD LWD - ARC ISONIC VADN	6520	7380
MWD LWD - DIR	250	367
MWD LWD - GR	367	1271

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	363.0	36	363.0	0.00	LOT
SURF.COND.	20	1246.0	26	1248.0	1.60	LOT
INTERM.	13 3/8	4972.0	17 1/2	4975.0	1.88	LOT
INTERM.	9 5/8	6675.0	12 1/4	6680.0	2.10	LOT
OPEN HOLE		7380.0	8 1/2	7380.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
1310	1.39	21.0		XP-07-POBM 81	
1524	1.39	23.0		XP-07-POBM 81	
1778	1.39	26.0		XP-07-POBM 81	
2522	1.45	29.0		XP-07-POBM 81	
2897	1.48	32.0		XP-07-POBM 81	
3544	1.48	38.0		XP-07-POBM 81	
4562	1.48	30.0		XP-07-POBM 81	
5093	1.70	30.0		XP-07-POBM 80	





5855	1.70	29.0		XP-07-POBM 80	
6681	1.71	32.0		XP-07-POBM 80	
6757	2.00	15.0		CESIUM FORMAT M	
6911	2.02	18.0		CESIUM FORMAT M	
7087	1.99	18.0		CESIUM FORMAT M	
7089	2.00	19.0		CS/KFORMATE	
7102	1.99	19.0		CS/KFORMATE	