General information

Wellbore name	3/8-1
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	NORTH SEA
Well name	3/8-1
Seismic location	LN08M01 xline : 107246 & inline :46880
Production licence	400
Drilling operator	Lundin Norway AS
Drill permit	1325-L
Drilling facility	MÆRSK GUARDIAN
Drilling days	62
Entered date	29.10.2010
Completed date	29.12.2010
Release date	16.10.2012
Publication date	16.10.2012
Purpose - planned	WILDCAT
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	42.0
Water depth [m]	65.5
Total depth (MD) [m RKB]	4070.0
Final vertical depth (TVD) [m RKB]	4070.0
Maximum inclination [°]	1.6
Oldest penetrated age	EARLY PERMIAN
Oldest penetrated formation	ROTLIEGEND GP
Geodetic datum	ED50
NS degrees	56° 27' 16.93'' N
EW degrees	4° 25' 7.3'' E
NS UTM [m]	6257730.03
EW UTM [m]	587440.04
UTM zone	31
NPDID wellbore	6476

Wellbore history

General

Well 3/8-1 was drilled on the Barchan prospect on the eastern side of the Søgne Basin in the North Sea, ca 3 km north of the Danish border. The primary objective was to prove reservoir potential and hydrocarbons in the Rotliegend Group of

the Barchan prospect. Secondary objectives were to test reservoir and hydrocarbon potentials in the Early Paleocene (Breeze lead) and in the Åsgard Formation (Bouma lead).

Operations and results

Wildcat well 3/8-1 was spudded with the jack-up installation Mærsk Guardian on 29 October 2010 and drilled to TD at 4070 m in the Permian Rotliegend Group. A precautionary 9 7/8" pilot hole was drilled from the 30" conductor shoe at 186 m down to 1203 m, below the 13 3/8" casing setting depth. No shallow gas was seen, but mud losses occurred in intervals from 186 m and from 403 m. No significant problem was encountered in the operations. The well was drilled with seawater and hi-vis sweeps down to 1203 m and with Versatec oil based mud from 1203 m to TD.

The well was found to be dry. Oil based mud made shows evaluation problematic but it was concluded that no significant hydrocarbon shows existed in the well. The low level of heavy gas components (butanes and pentanes) throughout the well supported the shows evaluation. The Early Paleocene Våle Formation was encountered at 2744 m and sands were present but water bearing. The Åsgard Formation was encountered at 3208 m but proved to be shale prone. The Rotliegend Group within the Barchan prospect was encountered at 4020.5 m. The Rotliegend was of poor (non-) reservoir quality and without hydrocarbon shows. In addition, the overlying halite of the Zechstein Group was found to be much thicker than prognosed.

Due to dry hole and lack of reservoirs no cores were cut and no wire line logs were run. Consequently no wire line fluid samples were taken.

The well was permanently abandoned on 29 December 2010 as a dry well.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
200.00	4070.00

Cuttings available for sampling?	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
108	NORDLAND GP
1215	HORDALAND GP
2643	ROGALAND GP
2643	BALDER FM
2665	SELE FM
2683	LISTA FM
2719	TY FM
2744	VÅLE FM
2762	SHETLAND GP
2762	EKOFISK FM
2824	TOR FM
2961	HOD FM
3114	HIDRA FM
3130	CROMER KNOLL GP
3130	SOLA FM
3162	TUXEN FM
3208	ÅSGARD FM
3286	TYNE GP
3286	MANDAL FM
3305	FARSUND FM
3465	HAUGESUND FM
3563	ZECHSTEIN GP
4019	KUPFERSCHIEFER FM
4021	ROTLIEGEND GP

Geochemical information

Document name	Document format	Document size [MB]
6476_01_3_8_1_gch_transfer_1	txt	0.00
6476_01_3_8_1_gch_transfer_2	txt	0.00
6476_02_3_8_1_gch_results_1	txt	0.10
6476_02_3_8_1_gch_results_2	txt	0.13

Logs

Log type	Log top depth [m]	Log bottom depth [m]
MWD - PUP RCO GVR SON	3042	4064
MWD - PUR ARC GVR SON SADN	1164	3056
MWD - TELE	93	1199
MWD - TELE ARC VIS	179	1199

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	186.0	36	194.0	0.00	LOT
SURF.COND.	13 3/8	1196.0	17 1/2	1203.0	1.93	LOT
PILOT HOLE		1203.0	9 7/8	1203.0	0.00	LOT
INTERM.	9 5/8	3062.0	12 1/4	3068.0	1.87	LOT
OPEN HOLE		4070.0	8 1/2	4070.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
194	1.07			Water	
260	1.09			Water	
1029	1.08			Water	
1203	1.14			Water	
1203	1.08			Water	
1703	1.58			Synthetic	
2827	1.50			Synthetic	
3068	1.50			Synthetic	
3168	1.64			Synthetic	
3339	1.62			Synthetic	
4060	1.62			Synthetic	