

**General information**

Wellbore name	35/8-4
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	35/8-4
Seismic location	BPA 9301 SD:IL 4035.XL 5522
Production licence	195
Drilling operator	BP Norway Limited U.A.
Drill permit	959-L
Drilling facility	WEST ALPHA
Drilling days	38
Entered date	04.07.1999
Completed date	10.08.1999
Release date	10.08.2001
Publication date	29.05.2002
Purpose - planned	WILDCAT
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	18.0
Water depth [m]	376.0
Total depth (MD) [m RKB]	3719.0
Final vertical depth (TVD) [m RKB]	3718.0
Maximum inclination [°]	3.1
Bottom hole temperature [°C]	89
Oldest penetrated age	LATE JURASSIC
Oldest penetrated formation	SOGNEFJORD FM
Geodetic datum	ED50
NS degrees	61° 21' 32.95" N
EW degrees	3° 30' 20.41" E
NS UTM [m]	6803059.28
EW UTM [m]	527041.39
UTM zone	31
NPDID wellbore	3791

**Wellbore history****General**

The main objective of well 35/8-4 was to test the stratigraphic upside model of the Upper Jurassic Aurora prospect. The well was targeted at Upper Jurassic marine gravity flow sandstone of the Sognefjord Formation.

Operations and results

Exploration well was spudded on 4 July 1999 by the semi-submersible installation "West Alpha" and drilled to a total depth of 3719 in the Late Jurassic Sognefjord Formation. The well was drilled with seawater and high viscosity bentonite pills through the 36" and 26" hole to 910 m. A water based BARASILC/KCl system was used from 910 m to 3356 m. From 3356 m to TD BARASILC was depleted naturally by replacing with a water based KCl Glycol Enhanced Mud (GEM).

Top reservoir was penetrated at 3639 m. The top reservoir pick was based on a shift in MWD gamma response combined with a small increase in gas and the appearance of sand in the cuttings. Shows were seen in drilled cuttings from depth 3512 m to TD. The best shows were seen in the Draupne Formation and upper part of the Heather Formation. There was no visible stain. Poor shows from cuttings were seen in the lower part of the Heather Formations and the Sognefjord Formation. LWD logs were acquired throughout the well. Data quality was very good and of sufficient quality to replace wireline logging for petrophysical data. Thirty-one attempts to acquire MDT pressure data were made in the reservoir section but the formation was too tight to obtain more than one good and two fairly good pressure readings, and one MDT sample. The pressure data indicated that the Sognefjord Formation is in a different pressure regime and over pressured compared to the nearest well 35/8-3. There were insufficient pressure points of good quality to define a fluid gradient.

Shows in cuttings, gas data, LWD logs and an MDT sample from 3705.2 m confirmed a dry hole with minor gas and oil shows. The reservoir quality and the net to gross in the Sognefjord Formation were poorer than predicted. No cores were cut. The well was plugged and abandoned as a dry hole with minor gas and oil shows.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
920.00	3488.00

Cuttings available for sampling?	YES
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**Lithostratigraphy**

Top depth [mMD RKB]	Lithostrat. unit
394	NORDLAND GP
815	HORDALAND GP
1528	ROGALAND GP
1528	BALDER FM
1579	LISTA FM
1717	NO FORMAL NAME
1793	VÅLE FM
1810	SHETLAND GP
1810	JORSALFARE FM
1973	KYRRE FM
3200	BLODØKS FM
3206	SVARTE FM
3213	CROMER KNOLL GP
3213	RØDBY FM
3301	ÅSGARD FM
3465	VIKING GP
3465	DRAUPNE FM
3591	HEATHER FM
3639	SOGNEFJORD FM

Composite logs

Document name	Document format	Document size [MB]
3791	pdf	0.36

Geochemical information

Document name	Document format	Document size [MB]
3791_1	pdf	0.91

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





Document name	Document format	Document size [MB]
3791_35_8_4_COMPLETION_DRILLING_REPO RT	.PDF	37.80
3791_35_8_4_COMPLETION_LOG	.pdf	3.49
3791_35_8_4_COMPLETION_REPORT	.pdf	37.05

Logs

Log type	Log top depth [m]	Log bottom depth [m]
DIR	79	473
DIR CDR PWD	910	3356
DIR CDR PWD RAB ADN	3356	3719
MDT GR	376	3708

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	464.0	36	465.0	0.00	LOT
INTERM.	20	898.0	26	915.0	1.41	LOT
INTERM.	13 3/8	2008.0	17 1/2	2014.0	1.55	LOT
INTERM.	9 5/8	3340.0	12 1/4	3360.0	1.93	LOT
OPEN HOLE		3719.0	8 1/2	3719.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
473	1.09	1.0		SPUD MUD	
910	1.29	38.0		BARASILC	
1402	1.31	34.0		BARASILC	
1838	1.32	33.0		BARASILC	
1858	1.33	36.0		BARASILC	
2017	0.00	31.0		BARASILC	

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]
3791 Formation pressure (Formasjonstrykk)	pdf	0.21

