General information

Wellbore name	35/11-4 R
Type	EXPLORATION
Purpose	APPRAISAL
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Field	FRAM
Discovery	35/11-4 Fram
Well name	35/11-4
Seismic location	MN88 - 814 SP 440
Production licence	090
Drilling operator	Mobil Exploration Norway INC
Drill permit	642-L3
Drilling facility	SOVEREIGN EXPLOR
Drilling days	73
Entered date	16.11.1991
Completed date	27.01.1992
Plugged and abondon date	27.01.1992
Release date	27.01.1994
Publication date	25.04.2005
Purpose - planned	APPRAISAL
Reentry	YES
Reentry activity	TESTING/PLUGGING
Content	OIL/GAS
Discovery wellbore	NO
1st level with HC, age	LATE JURASSIC
1st level with HC, formation	SOGNEFJORD FM
2nd level with HC, age	MIDDLE JURASSIC
2nd level with HC, formation	FENSFJORD FM
3rd level with HC, age	MIDDLE JURASSIC
3rd level with HC, formation	BRENT GP
Kelly bushing elevation [m]	26.5
Water depth [m]	355.0
Total depth (MD) [m RKB]	3136.5
Final vertical depth (TVD) [m RKB]	3135.5
Maximum inclination [°]	5.7
Bottom hole temperature [°C]	117
Oldest penetrated age	EARLY JURASSIC

Oldest penetrated formation	STATFJORD GP
Geodetic datum	ED50
NS degrees	61° 1' 59.93'' N
EW degrees	3° 32' 53.58'' E
NS UTM [m]	6766782.48
EW UTM [m]	529620.95
UTM zone	31
NPDID wellbore	1883

Wellbore history

General

Well 35/11-4 discovered oil and gas in the Sognefjord and Fensfjord Formations and the Brent Group. The discovery was made by shows, logs, FMT pressure gradients and sampling using the dynamically positioned installation Yatzy. This re-entry, 35/11-4R, was made to appraise the 35/11-4 discovery by Drill Stem Testing.

Operations and results

Well 35/11-4R was entered with the semi-submersible installation Sovereign Explorer on 16 November 1991. This rig has an RKB of 27 m compared to 17 m for the rig Yatzy.

The well was permanently abandoned on 27 January 1992 as an oil and gas discovery.

Testing

Four drill stem tests were carried out, one in the oil zone of each of the Brent Group, Fensfjord, lower Sognefjord and upper Sognefjord reservoirs. DST's 1 (2686.7 - 2694.2 m), 2B (2296.1 - 2303.1 m) and 3 (2044.0 - 2056.0 m) flowed oil from the Brent, Fensfjord and lower Sognefjord reservoirs respectively. DST 4B (2010.0 - 2013.0 m) flowed oil and free gas from the upper Sognefjord Formation. Note that the test intervals here are referenced to the Sovereign Explorer RKB. Subtract ten meters to obtain the test intervals used in many of the 34/11-4R well reports, where the Yatzy RKB is used as datum.

Bottom-hole sampling was carried out in DST 1, sampling oil from the Brent Group to obtain samples for direct PVT analysis. Surface oil and gas sampling was carried out in all four DST's to obtain samples for recombination and PVT analysis.

Oil samples at the Norwegian Offshore Directorate

Test type	Bottle number	Top depth MD [m]	Bottom depth MD [m]	Fluid type	Test time	Samples available
DST	DST 1	2674.00	2682.00	OIL	07.12.1991 - 14:00	YES
DST	DST 2	2284.00	2291.00	OIL	16.12.1991 - 18:00	YES

DST	DST 2B	0.00	0.00	OIL	16.12.1991 - 18:00	YES
DST	DST 3	2034.00	2046.00	OIL	31.12.1991 - 04:30	YES
DST	DST 4B	2000.00	2003.00	OIL	16.01.1992 - 12:15	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
382	NORDLAND GP
717	UTSIRA FM
744	HORDALAND GP
1407	ROGALAND GP
1407	BALDER FM
1458	SELE FM
1571	LISTA FM
1770	VÅLE FM
1845	SHETLAND GP
1845	HARDRÅDE FM
1910	KYRRE FM
1976	VIKING GP
1976	DRAUPNE FM
1994	SOGNEFJORD FM
2126	HEATHER FM
2294	FENSFJORD FM
2375	HEATHER FM
2634	BRENT GP
2634	NESS FM
2666	ETIVE FM
2696	RANNOCH FM
2717	OSEBERG FM
2795	DUNLIN GP
2795	DRAKE FM
2835	COOK FM
2928	AMUNDSEN FM
3033	JOHANSEN FM
3092	STATFJORD GP

Geochemical information

Document name	Document format	Document size [MB]
1883_1	pdf	3.16

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

Document name	Document format	Document size [MB]
1883_35_11_4_R_COMPLETION_REPORT	pdf	32.55

Drill stem tests (DST)

Test number	From depth MD [m]	To depth MD [m]	Choke size [mm]
1.0	2676	2684	12.4
2.0	2286	2293	15.8
3.0	2034	2046	17.5
4.0	2010	2013	6.4

Test number	Final shut-in pressure [MPa]	Final flow pressure [MPa]	Bottom hole pressure [MPa]	Downhole temperature [°C]
1.0		26.000	27.000	104
2.0		21.000	23.000	93
3.0		20.000	21.000	84
4.0		19.000	20.000	82

Test number	Oil [Sm3/day]	Gas [Sm3/day]	Oil density [g/cm3]	Gas grav. rel.air	GOR [m3/m3]
1.0	456	77955	0.810	0.730	1709
2.0	545	564066	0.832	0.653	1034
3.0	682	660697	0.845	0.678	954
4.0	44	799943	0.818	0.648	1818