

**General information**

Wellbore name	34/10-46 S
Type	EXPLORATION
Purpose	WILDCAT
Status	RE-CLASS TO DEV
Factmaps in new window	link to map
Main area	NORTH SEA
Field	GULLFAKS
Discovery	34/10-46 A
Well name	34/10-46
Seismic location	
Production licence	050
Drilling operator	Statoil ASA (old)
Drill permit	1030-L
Drilling facility	GULLFAKS A
Drilling days	79
Entered date	13.11.2001
Completed date	30.01.2002
Plugged date	30.01.2002
Release date	30.01.2004
Publication date	03.05.2004
Purpose - planned	WILDCAT
Reclassified to wellbore	34/10-A-48
Reentry	NO
Content	GAS
Discovery wellbore	YES
1st level with HC, age	MIDDLE JURASSIC
1st level with HC, formation	TARBERT FM
Kelly bushing elevation [m]	82.2
Water depth [m]	134.0
Total depth (MD) [m RKB]	5568.0
Final vertical depth (TVD) [m RKB]	2368.0
Bottom hole temperature [°C]	94
Oldest penetrated age	EARLY JURASSIC
Oldest penetrated formation	STATFJORD GP
Geodetic datum	ED50
NS degrees	61° 10' 33.86" N
EW degrees	2° 11' 23.22" E
NS UTM [m]	6782830.47



EW UTM [m]	456420.11
UTM zone	31
NPDID wellbore	4489

Wellbore history

General

Well 34/10-46 S was drilled to a structure 5 km southwest of the Gullfaks field. The primary objective of the well was to be a water injector in Tarbert.. The other purposes of the well were to prove and produce oil from the Statfjord Formation D1-segment. On the way to the main target the well was going to prove and later produce oil from the Brent Group in the E1-segment.

Operations and results

The wildcat well 34/10-46 S was spudded on 12 December 2001 from the permanent installation Gullfaks A and drilled to TD at 5568 m in the Early Jurassic Statfjord Formation. The well was drilled with WBM down to 17 1/2" section, with low KCL content in the upper part of the 17 1/2" section. The 12 1/4" section was drilled with OBM to TD.

Shallow gas underneath GFA was expected in the intervals 392-399 m and possibly 559 -567 m TVD RKB. The possible shallow gas zones in the 24" section were not logged. There was no increase of gas values in the specified intervals.

In well 34/10-46 S/46 A/46 B the Brent Group in segment E1 and the Statfjord Formation in segment D1 were reached by the 12 1/4" section. Base Cretaceous was penetrated 65 m deeper than prognosis due to a too shallow seismic interpretation. The top of the Brent Group was faulted out in the well and the Tarbert Formation was penetrated 29 m deeper than prognosis. The main fault between the E1 and D1 segments and the top Statfjord Formation were encountered at about estimated depths. A small gas discovery was made in the Brent Group in segment E1, whereas the Statfjord Formation in segment D1 was water-filled.

The reported reservoir pressures in well bore A-46 S are prognosed initial pressures, as no pressure measurements were performed in this well track. No fluid samples were collected and no coring was performed in the well.

Only minor amounts of hydrocarbons were encountered, and the well 34/10-46 S was plugged back on 30 January 2002 and re-classed to development well 34/10-A-48. Due to the water-filled Statfjord Formation in segment D1 it was decided to drill a side track, 34/10-46 A to the Cretaceous/Brent Group prospect D1.

Testing

No drill stem test was performed

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
216	NORDLAND GP
1728	HORDALAND GP



2230	ROGALAND GP
2230	BALDER FM
2530	LISTA FM
3251	SHETLAND GP
5207	VIKING GP
5207	HEATHER FM
5245	BRENT GP
5245	TARBERT FM
5273	DUNLIN GP
5273	AMUNDSEN FM
5428	STATFJORD GP

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

Document name	Document format	Document size [MB]
4489 34 10 46 S COMPLETION LOG	.PDF	1.39
4489 34 10 46 S COMPLETION REPORT	.PDF	0.58

Logs

Log type	Log top depth [m]	Log bottom depth [m]
MWD LWD - GR	361	1232
MWD LWD - GR	1232	2751
MWD LWD - GR	2751	5568

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
INTERM.	20	1227.0	24	1232.0	1.64	LOT
INTERM.	13 3/8	2747.0	17 1/2	2751.0	1.79	LOT
OPEN HOLE		5568.0	12 1/4	5568.0	0.00	LOT

Drilling mud





Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
344	1.03	12.0		CMC/SEAWATER	
361	1.04	10.0		CMC/SEAWATER	
399	1.04	10.0		CMC/SEAWATER	
525	1.14	17.0		CMC/SEAWATER	
997	1.15	11.0		CMC/SEAWATER	
1227	1.20	19.0		CMC/SEAWATER	
1232	1.20	12.0		CMC/SEAWATER	
1787	1.50	13.0		KCL/GLYCOL/POLY	
1989	1.55	12.0		KCL/PAC/XANVIS	
1999	1.58	20.0		KCL/PAC/XANVIS	
2374	1.59	20.0		KCL/PAC/XANVIS	
2702	1.59	21.0		KCL/PAC/XANVIS	
2751	1.59	24.0		KCL/PAC/XANVIS	
2751	1.59	28.0		KCL/PAC/XANVIS	
2779	1.64	45.0		VERSAVERT	
3900	1.64	60.0		VERSAVERT	
4000	1.64	42.0		VERSAVERT	
4680	1.64	51.0		VERSAVERT	
4902	1.64	57.0		VERSAVERT	
5176	1.64	50.0		VERSAVERT	