General information

Wellbore name	34/10-46 B
Type	EXPLORATION
Purpose	APPRAISAL
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	1035-L
Drilling facility	GULLFAKS A
Drilling days	37
Entered date	17.03.2002
Completed date	22.05.2002
Release date	22.05.2004
Publication date	12.05.2004
Purpose - planned	APPRAISAL
Reclassified to wellbore	34/10-A-48 B
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	82.2
Water depth [m]	134.0
Total depth (MD) [m RKB]	7725.0
Final vertical depth (TVD) [m RKB]	2088.0
Oldest penetrated age	MIDDLE JURASSIC
Oldest penetrated formation	TARBERT FM
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	4527

Wellbore history

General

Well 34/10-46 B was drilled to a structure 5 km southwest of the Gullfaks field. Running the liner in well 34/10-46 A failed due to restrictions in the hole and well 34/10-46 B had to be drilled. The primary objectives of the well were to be a water injector in Tarbert Formation in segment D1 and to be a drain point in the top reservoir for oil and gas from Krans Member (Kyrre Formation)/Brent Group in segment D1. The secondary objective was to explore a Cretaceous prospect west of wildcat well 34/10-12.

Operations

The appraisal well 34/10-46 B was spudded on 17 March 2002 from the permanent installation Gullfaks A and drilled to TD at 7725 m (2088 m TVD RKB) into the late Jurassic Viking Group. The well was drilled with OBM to TD.

It was not possible to sidetrack well 34/10-46 B before 6380 m (2017 m TVD RKB). 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. The path of well 34/10-46 B was partly governed by well inclination restrictions in the uppermost part, and by the location of a new Cretaceous sandstone target to the west. The formation changes due to drilling into the Shetland Group, is likely to be the reason for the improper hole quality. The well proved oil down to 1993 m TVD MSL and an oil-leg of at least 5 m in the Brent Group. This oil is interpreted as an appraisal of the oil and gas from Krans Member (Kyrre Formation)/Brent Group in segment D1 in 34/10-46 A. The Brent oil is thus seen as the lower part of a 70 m hydrocarbon column on the structure. Due to a work-over operation on another Gullfaks well, the 8 1/2" section in well 46 B was temporary abandoned after the installation of the 7" liner. A 13 3/8" RTTS was set before the rig was skidded.

The extention of the well 34/10-46 B was drilled to reach a Cretaceous prospect some 1500 m to the west of the crest of segment D1. No Cretaceous sandstone was found.

The reported reservoir pressures in wellbore 46 B are prognosed initial pressures, as no pressure measurements were performed in these well tracks. No fluid samples were collected and no coring was preformed in the well.

The well 34/10-46 B was completed on 27 May 2002 and re-classed to development well 34/10-A 48 B.

Testing

No drill stem test was performed. The well was perforated in the water sone as water injector 34/10-A-48 B.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
6360.00	7725.00

Cuttings available for sampling?	YES

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
6344	NO FORMAL NAME
6394	NO FORMAL NAME
6522	BRENT GP
6522	TARBERT FM
6592	SHETLAND GP
7074	VIKING GP
7074	HEATHER FM
7206	SHETLAND GP

Logs

Log type	Log top depth [m]	Log bottom depth [m]
MWD - ARC AND	7023	7725
MWD LWD - GR RES DEN NEU	6380	7089

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
LINER	7	7725.0	8 1/2	7725.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
1067	1.50	39.0		VERSAVERT	
6566	1.50	32.0		VERSAVERT	
6905	1.50	34.0		VERSAVERT	
7012	1.61	41.0		VERSAVERT	

7025	1.55	40.0		VERSAVERT	
7033	1.55	39.0		VERSAVERT	
7066	1.55	40.0		VERSAVERT	
7067	1.50	35.0		VERSAVERT	
7069	1.55	39.0		VERSAVERT	
7540	1.61	38.0		VERSAVERT	
7725	1.61	39.0		VERSAVERT	