General information

Wellbore name	34/4-10
Type	EXPLORATION
Purpose	WILDCAT
Status	SUSPENDED
Factmaps in new window	link to map
Main area	NORTH SEA
Discovery	34/4-10 (Beta Brent)
Well name	34/4-10
Seismic location	MN 9601 INLINE 1220 - CROSSLINE 2054
Production licence	057
Drilling operator	Saga Petroleum ASA
Drill permit	968-L
Drilling facility	TRANSOCEAN ARCTIC
Drilling days	23
Entered date	12.02.2000
Completed date	05.03.2000
Release date	05.03.2002
Publication date	29.05.2002
Purpose - planned	WILDCAT
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	24.0
Water depth [m]	357.0
Total depth (MD) [m RKB]	2380.0
Final vertical depth (TVD) [m RKB]	2379.5
Maximum inclination [°]	3.6
Bottom hole temperature [°C]	141
Oldest penetrated age	LATE CRETACEOUS
Oldest penetrated formation	KYRRE FM
Geodetic datum	ED50
NS degrees	61° 37' 33.27'' N
EW degrees	2° 4' 30.41'' E
NS UTM [m]	6833018.73
EW UTM [m]	450962.75
UTM zone	31
NPDID wellbore	3143

Wellbore history

General

The purpose of the well 34/4-10 was to test the hydrocarbon potential of the Delta prospect located NW of the Snorre Field in block 34/4. The Delta prospect is a NE-SW oriented structural trap at the rim of the Marulk Basin. The main objective was to test the lithology and the presence of hydrocarbons in possible sandstone units within the Heather Formation. The well had as secondary target the Brent Group. Planned TD for the well was 50 m into the Statfjord Formation.

Operations and results

The well was spudded with the semi-submersible rig "Transocean Arctic" 12 February 2000 and reached a total depth of 4246 m in Statfjord Formation 7 April 2000.
After 13 3/8" casing at 2380 m the well was temporarily plugged and abandoned due to onshore rig-repair at Ågotnes.
After 13 days the well was re-entered as 34/4-10R. The well was drilled water based to 2385 m and oil based from 2385 m to TD.

In the Upper Jurassic sequences no sandstones were found and therefore no core was taken. The Heather Formation was therefore thinner than prognosed. However, a 103 m thick oil bearing, Aalenian to lower Bajocian, Brent sequence was proven. It is an oil down to situation with 10 m net pay. MDT sampling was carried out in the oil column at 3966.5 m. Six sample bottles were filled, 5 SPMC bottles (450 cc) and 1 MRSC 1 gallon sample chamber. About 50 litres of formation fluid was pumped out before sampling was commenced resulting in a draw down during sampling of about 165 bar. PVT analysis indicated a moderately light oil (GOR 135 sm3/sm3, 0.850g/cc - 0.69 g/cc at reservoir conditions) with about 30% sample contamination by mud filtrate.

One 30 m core was taken in the best sandstone interval from 3953.0 - 3980.4 m. The core shows a classical prograding sequence from lower shore face to upper shore face, with a sequence boundary/ ravinement surface near the top. Above this a sandy transgressive interval is interpreted. At the top of the Brent sequence an unconformity is interpreted at 3937 m. Both the formation pressure and the temperature were high. The Statfjord Formation was water bearing. The well was permanently plugged and abandoned as an oil discovery 18 April 2000.

Testing

No drill stem test was performed.

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
381	NORDLAND GP
1241	UTSIRA FM
1249	HORDALAND GP
1741	ROGALAND GP
1741	BALDER FM
1780	LISTA FM

1910	SHETLAND GP
1910	JORSALFARE FM
2195	KYRRE FM

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

Document name	Document format	Document size [MB]
3143_34_4_10_COMPLETION_LOG	.pdf	3.79
3143_34_4_10_COMPLETION_REPORT	.pdf	63.12

Logs

Log type	Log top depth [m]	Log bottom depth [m]
MWD CDR	381	2364

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	454.5	36	455.0	0.00	LOT
INTERM.	18 5/8	1304.0	24	1309.0	1.65	LOT
INTERM.	13 3/8	2380.0	17 1/2	2380.0	1.88	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
2380	1.54	27.0		WATER BASED	