General information

Wellbore name	30/3-9
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Discovery	30/3-9
Well name	30/3-9
Seismic location	Crossline 1515- Inline 877 St98M7
Production licence	052
Drilling operator	Den norske stats oljeselskap a.s
Drill permit	972-L
Drilling facility	WEST ALPHA
Drilling days	69
Entered date	24.04.2000
Completed date	01.07.2000
Release date	01.07.2002
Publication date	18.12.2002
Purpose - planned	WILDCAT
Reentry	NO
Content	GAS/CONDENSATE
Discovery wellbore	YES
1st level with HC, age	MIDDLE JURASSIC
1st level with HC, formation	NESS FM
Kelly bushing elevation [m]	18.0
Water depth [m]	123.0
Total depth (MD) [m RKB]	4015.0
Final vertical depth (TVD) [m RKB]	4010.0
Maximum inclination [°]	10.74
Bottom hole temperature [°C]	142
Oldest penetrated age	EARLY JURASSIC
Oldest penetrated formation	DRAKE FM
Geodetic datum	ED50
NS degrees	60° 47' 34.27'' N
EW degrees	2° 41' 43.29'' E
NS UTM [m]	6739912.52
EW UTM [m]	483415.22
UTM zone	31
NPDID wellbore	4053

Wellbore history

General

The purpose of well 30/3-9 was to prove minimum economical volumes of hydrocarbons in the Brent Group within the C-prospect, and to possibly identify a down flank hydrocarbon/water contact within the Brent Group. The C-prospect is situated within an easterly dipping terrace, north of the Oseberg platform. The 30/3-9 well was the first well drilled on this structural segment.

Operations and results

Wildcat well 30/3-9 was spudded on 24 April 2000 with the semi-submersible installation "West Alpha" and drilled to a total depth of 4015 m in the Early Jurassic Drake Formation. No shallow gas was encountered. The well was drilled with seawater with hi-vis pills and bentonite mud down to 1027 m, and with KCl/polymer/glycol mud ("Glydril" with 3.5 % glycol) from 1027 m to 2466 m. The well was then displaced to oil based "VersaPro" mud and drilled with this mud through the 12 1/4" section to 3712 m. Circulation was lost at 3644 m and 294 m3 "VersaPro" was lost to the formation. The 8 1/2" section (3712 m to TD) was drilled with KCl/polymer/glycol mud ("Glydril" with 2.5 % glycol). Thin gas-charged stringers were encountered at 2113 m (sandstone in the Lista Formation), 2526 m and 2541 m (limestone in the Jorsalfare Formation). The reservoir of the Brent Group was expected to comprise a complete set of formations. However, only the Ness and Oseberg Formations were conclusively present. The absence of the Tarbert Formation is due to erosion. From the image log (FMI), a fault zone was recognized within the Brent Group in the interval between 3900 m and 3909 m. The absence of the Etive/Rannoch Formations (and possibly, the upper part of the Oseberg Formation) is due to faulting. It is possible that the uppermost 3 m of the 19 m thick lower sand (from 3904 to 3907 m) in the reservoir represents the Etive Formation. However, this is not conclusive and the sands are thus assigned to the Oseberg Formation in this report.

The uppermost sandstone layer in the Ness Formation, from 3815 m to 3819 m, contained gas/condensate. This was confirmed by MDT sampling. The remaining sandstones in Ness/Oseberg Formations were water wet. MDT fluid sampling gave water in the Oseberg Formation (3909.3 m), water in the Ness Formation (3838.5 m), and gas/condensate in the Ness Formation (3816.0 m). One core was cut from 3899 m in the Ness Formation. The core jammed after 1 m. 30/3-9 was permanently abandoned on July 1 2000 as a gas/condensate discovery.

Testing

No drill stem test was performed

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1040.00	4015.00

Cuttings available for sampling?	YES

Cores at the Norwegian Offshore Directorate

Core sample number	Core sample - top depth	Core sample - bottom depth	Core sample depth - uom
1	3899.0	3900.0	[m]

Total core sample length [m]	1.0
Cores available for sampling?	YES

Core photos



3899-3900m

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
3807.0	[m]	SWC	WESTLB
3807.0	[m]	SWC	WESTLB
3813.0	[m]	SWC	WESTLB
3824.0	[m]	SWC	WESTLB
3925.0	[m]	SWC	WESTLB

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		0.00	0.00	CONDENSATE		YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
141	NORDLAND GP
747	UTSIRA FM
930	HORDALAND GP
1613	GRID FM
1641	NO FORMAL NAME
1968	ROGALAND GP
1968	BALDER FM
2045	SELE FM
2065	LISTA FM
2228	SHETLAND GP
2228	JORSALFARE FM
2550	KYRRE FM
3236	TRYGGVASON FM
3460	BLODØKS FM
3469	SVARTE FM
3619	CROMER KNOLL GP
3619	RØDBY FM
3632	SOLA FM
3637	ÅSGARD FM
3718	VIKING GP
3718	DRAUPNE FM
3735	HEATHER FM
3815	BRENT GP
3815	NESS FM
3904	OSEBERG FM
3923	DUNLIN GP
3923	DRAKE FM

Composite logs

Document name	Document format	Document size [MB]
4053	pdf	0.54

Geochemical information

Document name	Document format	Document size [MB]
4053_1	pdf	1.45

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

Document name	Document format	Document size [MB]
4053_30_3_9_COMPLETION_LOG	.PDF	64.73
4053_30_3_9_COMPLETION_REPORT	.PDF	52.50

Logs

Log type	Log top depth [m]	Log bottom depth [m]
DITE DSI LDT ACTS GR	2452	3719
DLT MSFL LDT CNT GR	3712	4023
DSI CSI (VSP) GR	1816	3925
DSI LDL LEH QT GR	1020	2459
FMI GR	3687	3949
MDT GR	3809	3919
MSCT GR	3807	3925
MWD - ARC	3712	4015
MWD - CDR	203	3712
VSP	1860	4000

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	201.0	36	201.0	0.00	LOT
INTERM.	20	1019.0	26	1019.0	1.60	LOT
INTERM.	13 3/8	2452.0	17 1/2	2454.0	1.91	LOT
INTERM.	9 5/8	3707.0	12 1/4	3707.0	2.05	LOT
OPEN HOLE		4015.0	8 1/2	4015.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
180	1.03			DUMMY	
730	1.60	15.0		GLYDRILL	
737	1.82	22.0		GLYDRILL	
748	1.60	16.0		GLYDRILL	
905	1.82	23.0		GLYDRILL	
950	1.82	25.0		GLYDRILL	
1027	1.20			DUMMY	
1328	1.24	12.0		GLYDRILL	
1879	1.45	18.0		GLYDRILL	
2113	1.60	26.0		GLYDRILL	
2123	1.60	24.0		GLYDRILL	
2159	1.58	19.0		GLYDRILL	
2460	1.60	24.0		GLYDRILL	
2463	1.61	21.0		GLYDRILL	
2542	1.75	50.0		VERSAPRO	
2542	1.78	50.0		VERSAPRO	
2885	1.75	50.0		VERSAPRO	
3438	1.78	51.0		VERSAPRO	
3457	1.78	50.0		VERSAPRO	
3536	1.81	53.0		VERSAPRO	
3707	1.82	48.0		VERSAPRO	
3712	1.82	48.0		VERSAPRO	
3718	1.89	26.0		VERSAPRO	
3808	1.91	31.0		GLYDRILL	
3810	1.91	26.0		GLYDRILL	
3899	1.91	28.0		GLYDRILL	
3909	1.91	32.0		GLYDRILL	
3926	1.91	29.0		GLYDRILL	
3975	1.91	30.0		GLYDRILL	
4015	1.91	28.0		GLYDRILL	

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]
4053_Formation_pressure_(Formasjonstrykk)	pdf	0.22