General information

Wellbore name	30/7-6
Type	EXPLORATION
Purpose	WILDCAT
Status	SUSPENDED
Factmaps in new window	link to map
Main area	NORTH SEA
Well name	30/7-6
Seismic location	
Production licence	040
Drilling operator	Norsk Hydro Produksjon AS
Drill permit	173-L
Drilling facility	POLYGLOMAR DRILLER
Drilling days	166
Entered date	15.02.1977
Completed date	31.07.1977
Release date	31.07.1979
Publication date	21.05.2015
Purpose - planned	WILDCAT
Reentry	NO
Content	SHOWS
Discovery wellbore	NO
Kelly bushing elevation [m]	24.0
Water depth [m]	116.0
Total depth (MD) [m RKB]	3784.0
Bottom hole temperature [°C]	127
Oldest penetrated age	LATE JURASSIC
Oldest penetrated formation	HEATHER FM
Geodetic datum	ED50
NS degrees	60° 29' 29.82'' N
EW degrees	2° 3' 26.14'' E
NS UTM [m]	6706692.25
EW UTM [m]	448196.93
UTM zone	31
NPDID wellbore	389

Wellbore history

General

Well 30/7-6 was drilled on the East Shetland Basin in the North Sea close to the UK border. It was drilled as replacement well for wells 30/7-4 and 30/7-5, which were both junked for technical reasons. Well 30/7-6 (Phase I) was planned to be suspended after setting the 9-5/8" casing at ca 3800 m. The well would then be re-entered as 30/7-6 R (Phase II) and drilled to a TD of ca. 5000 meters employing the 11" 1000 bar BOP system. The main objective was Middle Jurassic sandstones, and this was planned to be penetrated in the re-entry. The exploration targets in the 30/7-6 well were the secondary ones: possible lower Cretaceous carbonate development, and possible Late Jurassic sandstones. The hydrocarbon-bearing Eocene sands (Frigg Formation) tested by the 30/7-2 well were also expected to be encountered within the same structural closure by this well.

Operations and results

Wildcat well 30/7-6 was spudded with the semi-submersible installation Polyglomar Driller on 15 February 1977. At 3784 m, on April 14, a massive gas kick occurred and circulation was lost. The well was killed and plugged back into the 13 3/8" casing. A sidetrack was kicked off from 2619 m. The sidetrack proceeded with the 12 1/4" hole to 3252 m and the 8 3/8" hole to 3711 m. A 7" liner was set down to 3707. The cement flash set around the running string for the liner and 18 days were spent cleaning out the hole. At this point, the well was plugged back and suspended. The well was drilled with a gel/lignosulphonate mud system.

The top of the Eocene sands were penetrated at 1783.5 m and were found to be water wet. This agrees with the observation made in 30/7-2, in which the oil water contact was defined at 1783 m. No reservoir development was encountered in the Cretaceous limestone or in the Late Jurassic; only traces of sandstone was seen towards the base of the Heather Formation where the gas kick occurred.

Occasional oil stains on sandstone, limestone and siltstone were described between 1975 m and 2282 m in the Rogaland Group. Frequent shows on limestone stringers were described from 2343 to 3034 m in the Shetland Group. A geochemical extract at 2675 proved mature and migrated oil.

No cores were cut in the well. No fluid samples were taken

The well was suspended on 31 July as a dry well with shows.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
195.00	4114.00

Cuttings available for sampling?	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
140	NORDLAND GP
455	UTSIRA FM
870	HORDALAND GP
1783	FRIGG FM
1965	ROGALAND GP
1965	BALDER FM
2000	LISTA FM
2044	HEIMDAL FM
2084	LISTA FM
2377	SHETLAND GP

Geochemical information

Document name	Document format	Document size [MB]
389_GCH_1	pdf	0.13
389_GCH_2	pdf	1.13
389_GCH_3	pdf	0.10

Documents - older Norwegian Offshore Directorate WDSS reports and other related documents

Document name	Document format	Document size [MB]
389_01_WDSS_General_Information	pdf	0.43

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

Document name	Document format	Document size [MB]
389_30_7_6_COMPLETION_LOG	pdf	1.90
389_30_7_6_COMPLETION_REPORT	pdf	12.27

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CBL	1000	3215

CNL GR	3250	3666
CST	1773	2418
CST	3262	3707
CST	3630	3704
CST	3705	3682
DLL MSFL GR	3252	3707
FDC CNL GR	1700	3707
GR	3670	3711
HDT	2544	3707
HRT	2000	3775
ISF SON GR	765	3705
NEU	2550	3770
RFT	3262	3500
RFT	3262	3707
VELOCITY	600	3707

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	186.0	36	188.0	0.00	
SURF.COND.	20	765.0	26	770.0	0.00	
INTERM.	13 3/8	2541.0	17 1/2	2550.0	0.00	
OPEN HOLE		3784.0	12 1/4	3784.0	0.00	

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
188	1.09			waterbased	
1297	1.07	39.0		waterbased	
1988	1.10	48.0		waterbased	
2262	1.12	44.0		waterbased	
2550	1.20	73.0		waterbased	
3020	1.71	55.0		waterbased	
3158	1.76	83.0		waterbased	
3613	1.71	50.0		waterbased	

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]
389_Formation_pressure_(Formasjonstrykk)	pdf	0.18