General information

Wellbore name	7227/11-1 S
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	BARENTS SEA
Well name	7227/11-1
Seismic location	ST0309-inline 3419 & crossline 2990
Production licence	202
Drilling operator	Statoil ASA (old)
Drill permit	1086-L
Drilling facility	EIRIK RAUDE
Drilling days	41
Entered date	13.01.2006
Completed date	22.02.2006
Release date	22.02.2008
Publication date	15.08.2008
Purpose - planned	WILDCAT
Reentry	NO
Content	DRY
Discovery wellbore	NO
Kelly bushing elevation [m]	25.0
Water depth [m]	236.5
Total depth (MD) [m RKB]	2590.0
Final vertical depth (TVD) [m RKB]	2294.0
Bottom hole temperature [°C]	68
Oldest penetrated age	EARLY PERMIAN
Oldest penetrated formation	ØRN FM
Geodetic datum	ED50
NS degrees	72° 14' 22.18'' N
EW degrees	27° 22' 14.89'' E
NS UTM [m]	8015904.21
EW UTM [m]	512625.20
UTM zone	35
NPDID wellbore	5006

Wellbore history

General

Well 7227/11-1 S is located in the Nordkapp Basin in the Barents Sea. The well was designed deviated to avoid a salt-diapir. The objective was to prove hydrocarbons in the Late Triassic Carnian reservoir sandstone in the Kap Toscana Group. As Permian strata appeared where the Triassic sequence was prognosed, the side track 7227/11-1 A was drilled in order to hit the target.

Operations and results

Well 7227/11-1 S was spudded with the semi-submersible installation Eirik Raude on 13 January 2006 and drilled to TD at 2590 m (2294 m TVD RKB) in Permian evaporite of the Ørn Formation. No shallow gas was expected, but since this was a new area a 9 7/8" pilot hole was drilled. Some hole problems were experienced while opening up the pilot to 26", otherwise operations went without significant problems. The well was drilled with seawater and hi-vis pills down to 725 m, with Sildril mud from 725 m to 1574 m, and with salt-saturated KCl mud from 1574 m to TD.

The observed stratigraphy was somewhat different from the prognosis. The Cretaceous sequence was thinner than expected and the Jurassic sequence came in shallower because of this. Where Triassic strata were prognosed, Permian strata were encountered. Consequently the Triassic targets were not found.

Well 7227/11-1 S was plugged back and abandoned on 22 February 2006. Sidetrack 7227/11-1 A was drilled in order to reach the Triassic targets. The Permian strata encountered in 7227/11-1 S were believed to be large allochthonous blocks intruded into younger strata via halokinesis, and the Triassic targets were prognosed to be located underneath these Permian strata. The well 7227/11-1 A was kicked off on 24 February 2006 below the 13 3/8" casing shoe at 1160 m and drilled to a total depth of 3446 m (3197.6 m TVD RKB), giving the same result as 7227/11-1 S with TD set in evaporite of Permian age. No hydrocarbon indications were observed in the wells 7227/11-1 S and 7227/11-1 A. Except for one gas peak of 43.55 % total gas at 2299 in Permian halite in 7227/11-1S, the gas readings were very low throughout both wells.

No cores were cut and no wire line fluid samples were taken.

Well 7227/11-1 A was permanently abandoned on 24 March 2006. Both well bores are characterized as dry.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
730.00	2591.00

Cuttings available for sampling?	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
262	ADVENTDALEN GP
262	KOLMULE FM
1091	HEKKINGEN FM
1142	KAPP TOSCANA GP
1142	STØ FM
1166	NORDMELA FM
1190	TUBÅEN FM
1201	GIPSDALEN GP
1201	ØRN FM

Logs

Log type	Log top depth [m]	Log bottom depth [m]
MSIP	683	2593
MWD - AUTOTRACK G3 ONTRACK	725	2590
MWD - DCP MPR	321	725
MWD - DSP MPR APX	312	691
PEX FMI-DIP	1093	2595
VSP	285	585
VSP	755	955

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	310.0	36	320.0	0.00	LOT
SURF.COND.	20	715.0	26	725.0	2.07	LOT
INTERM.	13 3/8	1094.0	17 1/2	1100.0	1.80	LOT
OPEN HOLE		2590.0	12 1/4	2590.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
725	1.35			SW / BENTONITE 1	

1052	1.30	16.0		SILDRIL 66	
1100	1.45	16.0		SILDRILL	
1154	1.50			SILDRILL	
1574	1.50	10.0		SILDRILL	
2355	1.50	30.0		SILDRILL	
2590	1.50	26.0		SILDRILL	