

**General information**

Wellbore name	15/12-17 S
Type	EXPLORATION
Purpose	APPRAISAL
Status	P&A
Press release	link to press release
Factmaps in new window	link to map
Main area	NORTH SEA
Field	REV
Discovery	15/12-12 Rev
Well name	15/12-17
Seismic location	
Production licence	038
Drilling operator	Talisman Energy Norge AS
Drill permit	1127-L
Drilling facility	MÆRSK GIANT
Drilling days	44
Entered date	23.12.2006
Completed date	04.02.2007
Release date	04.02.2009
Publication date	09.03.2009
Purpose - planned	APPRAISAL
Reentry	NO
Content	GAS/CONDENSATE
Discovery wellbore	NO
1st level with HC, age	LATE JURASSIC
1st level with HC, formation	INTRA HEATHER FM SS
Kelly bushing elevation [m]	43.0
Water depth [m]	87.0
Total depth (MD) [m RKB]	3371.0
Final vertical depth (TVD) [m RKB]	2860.0
Maximum inclination [°]	45.74
Bottom hole temperature [°C]	125
Oldest penetrated age	LATE PERMIAN
Oldest penetrated formation	ZECHSTEIN GP
Geodetic datum	ED50
NS degrees	58° 1' 42.68" N
EW degrees	1° 55' 23.46" E
NS UTM [m]	6432538.90



EW UTM [m]	436399.33
UTM zone	31
NPDID wellbore	5442

Wellbore history

General

Well 15/12-17 S was drilled to explore an un-drilled part of the East flank of the Rev structure. Four previous wells on the structure had proved good quality Late Jurassic shallow marine reservoir sandstone containing gas-condensate and a thin oil leg around a salt structure at about 3000 metres depth. Pressure measurements have shown that the reservoir is in communication with the Varg field to the north. Seismic data indicated that the reservoir thins and possibly pinches-out up dip towards the crest of the salt wall.

Operations and results

Well 15/12-17 S was spudded with the jack-up installation Mærsk Giant on 23 December 2006 and drilled to TD at 3371 m in the Late Permian Zechstein Group. The well surface position was on the west flank of the salt structure. A vertical 9 7/8" pilot hole was drilled in one bit run down to 810 m to ensure no shallow gas in potential zones. No gas was observed. The pilot hole was then opened up to 17 1/2" down to 810 m. From there the 17 1/2" section was drilled deviated in a single bit run down to 1313 m. The well continued in an east-southeast direction with TD at a location east of the crest of the salt structure. The well was drilled with sea water and hi-vis sweeps down to 810 m, with sea water and KCl/polymer from 810 m to 1313 m and with Carbo SEA oil based mud from 1313 m to TD. The well took a 15 m3 gas kick at 3258 m (2871 m TVD RKB). It is clear from the kick that the reservoir pressures were higher than both the anticipated depleted values and the previously measured virgin pressures in the Varg/Rev area.

The Late Jurassic reservoir sands were penetrated at 3246 m (2773 m TVD RKB) and were found to be gas/condensate filled. No gas/water or gas/oil contact was penetrated. Apart from the oil bearing Late Jurassic reservoir section, fluorescence, mostly mineral fluorescence, was recorded only in limestone of the Tor Formation.

No cores were cut. MDT pressure samples were acquired in the Late Jurassic sandstones together with an MDT fluid gas/condensate sample at 3288 m. The pressure data obtained showed that the reservoir penetrated by the well was in a separate pressure cell that did not seem to have been affected by production from Varg.

Following wire line logging and pressure and fluid sampling, the well was plugged back for a geological. The purpose of the sidetrack was to establish the hydrocarbon/water contacts.

The well was plugged back to 3156 m on 4 February 2007.

Testing

No drill stem test was performed.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
230.00	3371.00



Cuttings available for sampling?	YES
----------------------------------	-----

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
3218.0	[m]	DC	APT
3227.0	[m]	DC	APT
3236.0	[m]	DC	APT
3245.0	[m]	DC	APT
3254.0	[m]	DC	APT
3263.0	[m]	DC	APT
3272.0	[m]	DC	APT
3281.0	[m]	DC	APT
3290.0	[m]	DC	APT
3299.0	[m]	DC	APT
3308.0	[m]	DC	APT
3317.0	[m]	DC	APT
3326.0	[m]	DC	APT
3335.0	[m]	DC	APT
3344.0	[m]	DC	APT
3353.0	[m]	DC	APT
3362.0	[m]	DC	APT
3371.0	[m]	DC	APT

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
130	NORDLAND GP
1085	UTSIRA FM
1258	HORDALAND GP
2501	ROGALAND GP
2501	BALDER FM
2523	SELE FM
2579	LISTA FM
2684	VÅLE FM
2693	SHETLAND GP
2693	EKOFISK FM
2705	TOR FM



2904	HOD FM
3017	BLODØKS FM
3039	HIDRA FM
3047	CROMER KNOLL GP
3047	RØDBY FM
3092	SOLA FM
3122	ÅSGARD FM
3162	VIKING GP
3162	DRAUPNE FM
3246	INTRA HEATHER FM SS
3331	NO GROUP DEFINED
3331	SKAGERRAK FM
3345	ZECHSTEIN GP

Logs

Log type	Log top depth [m]	Log bottom depth [m]
AIT DSI PEX	130	3360
MDT	3266	3338
MWD - DIR	130	215
MWD - GR RES DIR PWD	213	1313
MWD - GR RES DIR PWD	3258	3371
MWD - GR RES SONIC DIR PWD	1313	3258

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	213.0	36	215.0	0.00	LOT
INTERM.	13 3/8	1306.0	17 1/2	1313.0	1.72	LOT
INTERM.	9 5/8	3251.0	12 1/4	3258.0	0.00	LOT
OPEN HOLE		3371.0	8 1/2	3371.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
208	1.05			WATER BASED	



220	1.06	108.0		WATER BASED	
514	1.11			WATER BASED	
1766	1.60			OIL BASED	
2821	1.60			OIL BASED	
3210	1.60			OIL BASED	
3258	1.62			OIL BASED	
3258	1.62			OIL BASED	
3371	1.35			OIL BASED	

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]
5442_Formalion_pressure_(Formasjonstrykk)	pdf	0.23

