

**General information**

Wellbore name	25/5-3
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Field	SKIRNE
Discovery	25/5-3 Skirne
Well name	25/5-3
Seismic location	EL 8902 - 111 SP 830
Production licence	102
Drilling operator	Elf Petroleum Norge AS
Drill permit	627-L
Drilling facility	WEST VANGUARD
Drilling days	59
Entered date	27.01.1990
Completed date	26.03.1990
Release date	26.03.1992
Publication date	15.08.2008
Purpose - planned	WILDCAT
Reentry	NO
Content	GAS/CONDENSATE
Discovery wellbore	YES
1st level with HC, age	MIDDLE JURASSIC
1st level with HC, formation	HUGIN FM
Kelly bushing elevation [m]	22.0
Water depth [m]	118.0
Total depth (MD) [m RKB]	2900.0
Final vertical depth (TVD) [m RKB]	2900.0
Maximum inclination [°]	1.1
Bottom hole temperature [°C]	94
Oldest penetrated age	TRIASSIC
Oldest penetrated formation	NO GROUP DEFINED
Geodetic datum	ED50
NS degrees	59° 35' 8.01" N
EW degrees	2° 37' 46.94" E
NS UTM [m]	6605469.05
EW UTM [m]	479087.08



UTM zone	31
NPDID wellbore	1488

Wellbore history

Wildcat well 25/5-3 is located on the Utsira High, ca 15 km south-south-east of the Frøy Field in the North Sea. The main target was a prospect at Middle Jurassic level. Early Palaeocene sandstones and Early Jurassic Statfjord sandstones were secondary targets. For all targets the expected fluid was oil.

Operations and results

Well 25/5-3 was spudded with the semi-submersible installation West Vanguard on 27 January 1990 and drilled to TD at 2900 m in the Triassic Group. No significant problems were encountered in the operations. The top hole down to 200 m was drilled with sea water. The reservoirs were drilled with sea water / KCl / polymers.

Two massive, clean, sandstone intervals (22 and 61 m) were found between 2211 and 2310 m in the basal Tertiary (Ty Formation). The sands were separated by a shaly layer and were water bearing (no shows at all). The Vestland Group reservoir was 69 m thick (2384-2453 m) and consisted of sandstones, generally fine grained, clean, occasionally micaceous/shaly and calcareous cemented. It was gas-bearing at top (gas column 42 m). The gas-water contact was found at 2426 m, based on logs and RFT pressures. Oil shows were observed on two sidewall cores at 2425 and 2428.7 m, but the amount of hydrocarbons (latroscan) obtained by geochemical studies were very low. No evidence of an oil zone could be seen on the RFT plot. The upper 21 m had very good reservoir qualities with porosities above 25%, and average horizontal and vertical permeabilities of $K_h = 363$ mD and $K_v = 236$ mD, respectively. The basal part had porosities around 20 %. For the total Brent the N/G was ca 77 %. The Statfjord Formation was 139 m thick (2613-2752 m) and consisted of alternating sandstones and shales. The N/G was around 63 % with an average porosity of 25 % for the reservoir levels. Some sandy levels had very good petrophysical characteristics (permeabilities above one Darcy). These reservoirs were water bearing. Apart from the two questionable oil shows at the base of the gas zone no oil shows were recorded in the well.

Two conventional cores were cut. One was cut from 2386 to 2404 m in the Hugin Formation, and the other from 2615 to 2628 m in the Statfjord Formation. No wire line fluid samples were taken.

The well was permanently abandoned on 26 March 1990 as a gas/condensate discovery.

Testing

The top Vestland Group reservoir was perforated and tested in the interval 2386 - 2405 m. Maximum flow was 585 000 m³ of gas with ca 120 Sm³ condensates /day through a 40/64" choke. The GOR was 5100 - 6200 m³/m³ depending on the separator temperature. The condensate density was 0.755 - 0.766 g/cm³ and the gas gravity (air = 1) was 0.678 - 0.692. The temperature at end of build-up was 85 deg C.

Cuttings at the Norwegian Offshore Directorate



Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
1040.00	1900.00

Cuttings available for sampling?	YES
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Cores at the Norwegian Offshore Directorate

Core sample number	Core sample - top depth	Core sample - bottom depth	Core sample depth - uom
1	2386.0	2403.8	[m]
2	2615.0	2638.4	[m]

Total core sample length [m]	41.2
Cores available for sampling?	YES

Core photos

2391-2396m



2396-2410m



2401-2403m



2386-2391m



2615-2620m



2620-2625m



2625-2628m

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	DST1	2386.00	2405.00		08.03.1990 - 00:00	YES

**Lithostratigraphy**

Top depth [mMD RKB]	Lithostrat. unit
140	NORDLAND GP
495	UTSIRA FM
1012	HORDALAND GP
1048	SKADE FM
1068	NO FORMAL NAME
1357	GRID FM
1373	NO FORMAL NAME
1998	ROGALAND GP
1998	BALDER FM
2044	SELE FM
2095	LISTA FM
2162	VÅLE FM
2211	TY FM
2310	SHETLAND GP
2310	HARDRÅDE FM
2347	VIKING GP
2347	HEATHER FM
2384	VESTLAND GP
2384	HUGIN FM
2431	SLEIPNER FM
2453	DUNLIN GP
2453	DRAKE FM
2475	BURTON FM
2613	STATFJORD GP
2752	NO GROUP DEFINED

Geochemical information

Document name	Document format	Document size [MB]
1488_1	pdf	0.07
1488_2	pdf	1.18
1488_3	pdf	1.49

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





Document name	Document format	Document size [MB]
1488 01 WDSS General Information	pdf	0.21
1488 02 WDSS completion log	pdf	0.16

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

Document name	Document format	Document size [MB]
1488 25 5 3 COMPLETION REPORT AND LOG III	PDF	8.40
1488 25 5 3 COMPLETION REPORT I	PDF	105.50
1488 25 5 3 COMPLETION REPORT II	PDF	11.36

Drill stem tests (DST)

Test number	From depth MD [m]	To depth MD [m]	Choke size [mm]
1.0	2405	2336	11.1

Test number	Final shut-in pressure [MPa]	Final flow pressure [MPa]	Bottom hole pressure [MPa]	Downhole temperature [°C]
1.0	15.000		23.000	

Test number	Oil [Sm3/day]	Gas [Sm3/day]	Oil density [g/cm3]	Gas grav. rel.air	GOR [m3/m3]
1.0	57	585000	0.800	0.750	5100

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CBL VDL GR	148	1176
CST GR	1812	2296
CST GR	2353	2858
DIL DDBHC GR AMS SP	1154	2327
DIL DDBHC GR SP	2230	2884
DIL MSFL GR	2351	2481
FMS GR AMS	2351	2790





LDL CNL NGL AMS	2351	2882
LDL GR AMS	1154	2327
MWD - GR RES DIR	200	2900
RFT GR AMS	2386	2638
SHDT GR AMS	1170	2318
VSP	1100	2800

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	138.5	36	140.0	0.00	LOT
INTERM.	13 3/8	1176.0	17 1/2	1180.0	0.00	LOT
INTERM.	9 5/8	2350.0	12 1/4	2355.0	0.00	LOT
LINER	7	2615.0	8 1/2	2900.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
255	1.07			WATER BASED	30.01.1990
369	1.07			WATER BASED	31.01.1990
825	1.07			WATER BASED	01.02.1990
1008	1.07			WATER BASED	02.02.1990
1303	1.25	22.0	10.7	WATER BASED	09.02.1990
2349	1.30	27.0	19.6	WATER BASED	12.02.1990
2615	1.12	24.0	12.2	WATER BASED	19.02.1990
2827	1.15	26.0	11.2	WATER BASED	21.02.1990
2900	1.15	27.0	14.2	WATER BASED	23.02.1990

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]
1488 Formation pressure (Formasjonstrykk)	pdf	0.22

