

**General information**

Wellbore name	15/8-1
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Field	UTGARD
Discovery	15/8-1 Utgard
Well name	15/8-1
Seismic location	LINE NO. 609 159 SP:534
Production licence	046
Drilling operator	Den norske stats oljeselskap a.s
Drill permit	298-L
Drilling facility	GLOMAR BISCAY II
Drilling days	174
Entered date	18.07.1981
Completed date	07.01.1982
Release date	07.01.1984
Publication date	19.10.2006
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]	25.0
Water depth [m]	112.0
Total depth (MD) [m RKB]	4300.0
Final vertical depth (TVD) [m RKB]	4299.0
Maximum inclination [°]	2.5
Bottom hole temperature [°C]	141
Oldest penetrated age	MIDDLE JURASSIC
Oldest penetrated formation	RATTRAY FM
Geodetic datum	ED50
NS degrees	58° 21' 48.1" N
EW degrees	1° 34' 22.31" E
NS UTM [m]	6470198.70
EW UTM [m]	416499.09



UTM zone	31
NPDID wellbore	321

Wellbore history

General

Wildcat well 15/8-1 was drilled west of the Sleipner field, ca 2 km from the UK border. The well was designed to test possible hydrocarbon accumulation in the sandstones of middle Jurassic age.

Operations and results

Wildcat well 15/8-1 was spudded with the semi-submersible installation Glomar Biscay II on 18 July 1981 and drilled to TD at 4300 m in the Middle Jurassic Fladen Group. Drilling operations were performed without significant problems in the 36", 26" and 17 1/2" holes. Pipe stuck in the 12 1/4" hole at 2254 m and several times in the 8 1/2" hole. Miscellaneous technical problems occurred while drilling the 6" hole and a gas kick was at 4265 m while tripping. The well was drilled with seawater and gel down to 500 m and with gypsum mud from 500 m to 2890 m. Lignosulphonate was added from 1570 m, and from 2890 m to TD the gypsum mud was gradually depleted and replaced with a gel/lignosulphonate mud.

The well 15/8-1 proved gas and condensate in sandstone of Middle Jurassic age. The gas/water contact was indicated at 3698 m from the Formation Multi Tester. Oil shows were recorded from 3065 m to 3075 m in the Hod Formation. Five conventional cores were cut in the interval 3658 m to 3705.5 m in the Hugin Formation. Three samples were attempted taken during FMT runs. Due to technical malfunctions only 1 sample (from 3668 m) was obtained.

The well was permanently abandoned on 7 January 1982 as a gas/condensate discovery.

Testing

One drill stem test was performed in the Sleipner formation and three in the Hugin Formation. The procedure of the tests was similar; after initial flow and build up the well was flowed for approximately 660 min. producing gas/condensate. Test no. 4 was only flowed for 480 minutes. CO₂ was produced in all tests, in concentrations ranging from 4% to 15%, and up to 8 ppm H₂S was recorded in DST2. Two sets of PVT samples were taken at the separator during all 4 tests.

DST1 from 4079 m to 4094 m in the Sleipner Formation produced 427000 Sm³ gas and 316 Sm³ condensate/day on a 19.1 mm choke. The gas/condensate ratio (CGR) was 1351 m³/m³. DST2 from 3911 m to 3926 m produced 486000 Sm³ gas and 399 Sm³ condensate/day on a 16.7 mm choke, the CGR was 1218 m³/m³. DST3 from 3688 m to 3697 m produced 657000 Sm³ gas and 408 Sm³ condensate/day on a 22.2 mm choke. The CGR was 1610 m³/m³. DST4 from 3643 m to 3653 m produced 550000 Sm³ gas and 290 Sm³ condensate/day on a 22.2 mm choke. The CGR was 1897 m³/m³.

Cuttings at the Norwegian Offshore Directorate



Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
200.00	4298.00

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	3658.0	3667.5	[m]
2	3667.5	3678.6	[m]
3	3678.8	3680.6	[m]
4	3681.9	3699.0	[m]
5	3699.0	3706.2	[m]

Total core sample length [m]	46.7
Cores available for sampling?	YES

Core photos



3658-3661m



3661-3664m



3664-3667m



3667-3668m



3667-3670m



3670-3673m



3673-3676m



3676-3678m



3678-3680m



3681-3684m



3684-3687m



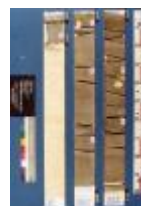
3687-3690m



3690-3693m



3693-3696m



3696-3699m



3699-3702m



3702-3705m



3705-3706m

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
3500.0	[m]	DC	
3530.0	[m]	DC	
3539.0	[m]	DC	
3560.0	[m]	DC	
3566.0	[m]	DC	
3575.0	[m]	DC	
3590.0	[m]	DC	
3596.0	[m]	C	
3605.0	[m]	C	
3620.0	[m]	DC	
3629.0	[m]	C	
3629.0	[m]	DC	OD
3638.0	[m]	DC	
3641.0	[m]	DC	
3641.0	[m]	DC	OD
3650.0	[m]	DC	OD
3650.0	[m]	DC	
3658.2	[m]	C	OD
3663.6	[m]	C	
3671.0	[m]	C	OD
3676.0	[m]	C	
3676.3	[m]	C	OD
3677.0	[m]	DC	
3680.0	[m]	DC	
3680.5	[m]	DC	OD
3682.2	[m]	DC	OD
3683.4	[m]	DC	
3685.5	[m]	DC	OD
3686.0	[m]	C	



3688.1 [m]	C	OD
3688.8 [m]	C	
3690.2 [m]	C	OD
3698.5 [m]	C	OD
3700.4 [m]	C	
3710.0 [m]	DC	
3713.0 [m]	DC	
3719.0 [m]	DC	OD
3740.0 [m]	DC	OD
3740.0 [m]	DC	
3761.0 [m]	DC	OD
3770.0 [m]	DC	
3773.0 [m]	DC	
3779.0 [m]	DC	OD
3800.0 [m]	DC	OD
3800.0 [m]	DC	
3809.0 [m]	DC	OD
3815.0 [m]	C	
3821.0 [m]	DC	OD
3821.0 [m]	DC	OD
3830.0 [m]	DC	
3833.0 [m]	DC	
3839.0 [m]	DC	OD
3860.0 [m]	DC	OD
3860.0 [m]	DC	
3881.0 [m]	DC	OD
3890.0 [m]	DC	
3899.0 [m]	DC	
3920.0 [m]	DC	
3920.0 [m]	DC	OD
3920.0 [m]	DC	RRI
3941.0 [m]	DC	
3941.0 [m]	DC	OD
3950.0 [m]	DC	
3955.0 [m]	DC	OD
3980.0 [m]	DC	
4010.0 [m]	DC	
4010.0 [m]	DC	RRI
4040.0 [m]	DC	
4070.0 [m]	DC	



4100.0	[m]	DC	
4130.0	[m]	DC	
4160.0	[m]	DC	
4190.0	[m]	DC	
4220.0	[m]	DC	
4250.0	[m]	DC	
4280.0	[m]	DC	
4298.0	[m]	DC	

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	TEST2	3911.00	3926.00	WATER	17.12.1981 - 00:00	YES
DST	TEST3	3688.00	3697.00		24.12.1981 - 00:00	YES
DST	TEST4	3643.00	3653.00		29.12.1981 - 00:00	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
137	NORDLAND GP
879	UTSIRA FM
1088	NO FORMAL NAME
1359	HORDALAND GP
1926	GRID FM
2225	NO FORMAL NAME
2365	ROGALAND GP
2365	BALDER FM
2418	SELE FM
2463	LISTA FM
2510	HEIMDAL FM
2675	LISTA FM
2727	MAUREEN FM
2825	VÅLE FM
2830	SHETLAND GP
2830	EKOFISK FM



2841	TOR FM
2998	HOD FM
3237	BLODØKS FM
3335	SVARTE FM
3436	CROMER KNOLL GP
3436	RØDBY FM
3445	SOLA FM
3452	ÅSGARD FM
3535	VIKING GP
3535	DRAUPNE FM
3605	HEATHER FM
3643	VESTLAND GP
3643	HUGIN FM
3945	SLEIPNER FM
4162	FLADEN GP
4162	RATTRAY FM

Geochemical information

Document name	Document format	Document size [MB]
321 1	pdf	0.97
321 2	pdf	4.59

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

Document name	Document format	Document size [MB]
321_01_WDSS_General_Information	pdf	0.18
321_02_WDSS_completion_log	pdf	0.32

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

Document name	Document format	Document size [MB]
321_01_15_8_1_Completion_Report	pdf	9.87
321_01_Comments_to_Gecos_report_Special_core_analysis	pdf	0.67
321_02_15_8_1_Completion_log	pdf	1.71





321 02 15 8 1 Completion report Drilling	pdf	2.67
321 02 Convetional Core Analysis	pdf	0.29
321 03 Special Core Analysis	pdf	15.68
321 04 Well test report DST No 2	pdf	3.69
321 05 Well test report DST No 3	pdf	4.53
321 06 Well test report DST No 4	pdf	2.11
321 07 Well test report DST No 1	pdf	3.73
321 08 Formation testing service report Test no 1C	pdf	1.56
321 09 Formation testing service report Test no 2	pdf	1.50
321 10 Formation testing service report Test no 3	pdf	1.42
321 11 Formation testing service report Test no 4	pdf	0.81
321 12 High Accuracy Pressure Temperature Measurements Sleipner Norway	pdf	2.41
321 13 High Accuracy Pressure Temperature Measurements DST1 Sleipner Norway	pdf	6.52
321 14 High Accuracy Pressure Temperature Measurements DST2 Sleipner Norway	pdf	7.26
321 15 Pressure Survey Report Test no 1 run no 1	pdf	4.27
321 16 Pressure Survey Report Test no 1 run no 1 1981	pdf	1.54
321 17 Pressure Survey Report Test no 2 run no 1	pdf	2.64
321 18 Pressure Survey Report Test no 2 run no 1 1981	pdf	0.44
321 19 Pressure Survey Report Test no 3 run no 1	pdf	3.98
321 20 Pressure Survey Report Test no 4 run no 1	pdf	3.14
321 21 Pressure Survey Report Test no 3 run no 1 1981	pdf	2.84
321 22 Partial reservoir study	pdf	0.30
321 23 Reservoir Fluid Study DST 2 Sleipner field Norway	pdf	1.56
321 24 Reservoir Fluid Study DST 1C Sleipner field Norway RFL 830489	pdf	1.49
321 25 Reservoir Fluid study	pdf	1.45
321 26 Results of Production Tests Sleipner Area Norway	pdf	9.34
321 27 Well test report PL 046 FMT DST NO 1C 2 3 and 4	pdf	5.54





321 28 Biostratigraphy Report No 2724P A Robertson research international limited	pdf	1.69
321 29 Evaluation of Core Data	pdf	3.94
321 30 Corrected reservoir fluid compositions DST 1C and 2 PVT simulations	pdf	1.13

Drill stem tests (DST)

Test number	From depth MD [m]	To depth MD [m]	Choke size [mm]
1.0	4079	4085	19.1
2.0	3911	3926	16.7
3.0	3688	3697	22.2
4.0	3543	3653	22.2

Test number	Final shut-in pressure [MPa]	Final flow pressure [MPa]	Bottom hole pressure [MPa]	Downhole temperature [°C]
1.0				
2.0				
3.0				
4.0				

Test number	Oil [Sm3/day]	Gas [Sm3/day]	Oil density [g/cm3]	Gas grav. rel.air	GOR [m3/m3]
1.0	316	427000	0.754	0.851	1351
2.0	399	486000	0.811	0.944	1218
3.0	408	657000	0.846	0.840	1610
4.0	290	550000	0.799	0.832	1897

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CBL VDL	2700	3980
CBL VDL	3912	4265
CDL CNL	1125	2883
CDL CNL	2862	3982
CDL CNL	3212	3703
CDL CNL	3975	4301
COREGUN	2862	3982





COREGUN	3975	4302
DIPLOG	2862	3892
DIPLOG	3975	4302
DLL MLL	3585	3982
DLL MLL	3975	4301
IEL AC	160	513
IEL AC	490	1199
IEL AC	1125	2883
IEL AC	2840	3703
IEL AC	3585	3982
IEL AC	3965	4230
IEL AC	4150	4301
MFT	2862	3982
MFT2	3975	4302
TEMP	180	1152
TEMP	240	2844
VELOCITY	525	3980

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	187.0	36	187.0	0.00	LOT
SURF.COND.	20	500.0	26	515.0	1.71	LOT
INTERM.	13 3/8	1185.0	17 1/2	1200.0	1.93	LOT
INTERM.	9 5/8	2874.0	12 1/4	2890.0	1.75	LOT
LINER	7	3990.0	8 1/2	3991.0	2.13	LOT
LINER	4 1/2	4296.0	6	4300.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
207	1.03			seawater	
1161	1.12			seawater	
1387	1.10			seawater	
2400	1.19			waterbased	
2582	1.24			waterbased	
3658	1.38			waterbased	



3991	1.38			waterbased	
4147	1.36			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]
321 Formation pressure (Formasjonstrykk)	pdf	0.22

