General information

Wellbore name	30/6-18
Type	EXPLORATION
Purpose	WILDCAT
Status	P&A
Factmaps in new window	link to map
Main area	NORTH SEA
Field	OSEBERG
Discovery	30/6-18 (Kappa)
Well name	30/6-18
Seismic location	NH 82 - 121 SP. 290
Production licence	053
Drilling operator	Norsk Hydro Produksjon AS
Drill permit	476-L
Drilling facility	BYFORD DOLPHIN
Drilling days	115
Entered date	01.08.1985
Completed date	23.11.1985
Release date	23.11.1987
Publication date	28.05.2003
Purpose - planned	WILDCAT
Reentry	NO
Content	OIL/GAS
Discovery wellbore	YES
1st level with HC, age	EARLY JURASSIC
1st level with HC, formation	STATFJORD GP
Kelly bushing elevation [m]	25.0
Water depth [m]	108.0
Total depth (MD) [m RKB]	3690.0
Final vertical depth (TVD) [m RKB]	3686.0
Maximum inclination [°]	4.8
Bottom hole temperature [°C]	148
Oldest penetrated age	LATE TRIASSIC
Oldest penetrated formation	HEGRE GP
Geodetic datum	ED50
NS degrees	60° 30' 30.65'' N
EW degrees	2° 41' 20.65'' E
NS UTM [m]	6708243.70
EW UTM [m]	482923.04

UTM zone	31
NPDID wellbore	488

Wellbore history

General

Well 30/6-18 was drilled on the Kappa structure, which is located in the south-western corner of the block. Kappa is an elongated down faulted block bounded by north south trending major faults to the east and the west. The structure is an easterly tilted fault block where the Base Cretaceous truncates both the Brent Group and the Statfjord Formation. The main objective of the well was to prove hydrocarbons in the Statfjord Formation by drilling on a location that leaves a minimum of possible reserves up dip of the well. Secondary objectives were to improve stratigraphical and structural knowledge of the area and to acquire input data for further exploration activity in blocks 30/6 and 30/9.

Operations and results

Wildcat well 30/6-18 was spudded with the semi-submersible installation Byford Dolphin 1 August 1985 and drilled to TD at 3690 m in Late Triassic rocks. Drilling proceeded without any significant problems. The well was drilled with spud mud down to 658 m and with a KCl polymer mud from 658 m to TD. The Statfjord Formation came in 120 m higher than prognosed. The logs show that the Statfjord Formation contains 16 m of gas and 44 m of oil. Oi1/water contact was defined at 3181 m. The reservoir quality seems to be good. There is a separate column of 19 m oil further down in the Statfjord Formation. A thick shale sequence from 3287 to 3305 m separates the upper reservoir unit from the lower. The lower oil column is probably restricted to only one layer of sand with a gas cap on top. Eight cores were cut in the Statfjord Formation in the interval 3126 - 3215 m. Three sets of segregated RFT samples were retrieved from 3165 m, 3125.5 m, and 3312.8 m in the Statfjord Formation. The well was plugged and abandoned on 23 November 1985 as an oil and gas discovery.

Testing

Three drill stem tests were performed in this well. The intervals were 3306 m - 3323 m, 3198 m - 3210 m and 3164 m & 3173.2 m.

Cuttings at the Norwegian Offshore Directorate

Cutting sample, top depth [m]	Cutting samples, bottom depth [m]
230.00	3690.00

Cuttings available for sampling?	NO

Cores at the Norwegian Offshore Directorate

Core sample number	Core sample - top depth	Core sample - bottom depth	Core sample depth - uom
1	3126.0	3128.5	[m]
2	3139.0	3146.2	[m]
3	3146.2	3148.0	[m]
4	3148.0	3166.6	[m]
5	3166.6	3184.0	[m]
6	3184.0	3187.6	[m]
7	3192.0	3210.3	[m]
8	3210.3	3215.0	[m]

Total core sample length [m]	74.0
Cores available for sampling?	YES

Core photos


3126-3129m


3139-3144m


3144-3146m


3146-3148m


3148-3153m


3153-3158m


3158-3163m


3163-3166m


3166-3171m


3171-3176m


3176-3181m


3181-3184m


3184-3188m


3192-3197m


3197-3202m


3202-3207m


3207-3210m


3210-3215m


3215-3217m

Palynological slides at the Norwegian Offshore Directorate

Sample depth	Depth unit	Sample type	Laboratory
2626.0	[m]	SWC	RRI
2785.0	[m]	SWC	RRI
2880.0	[m]	DC	RRI
2890.0	[m]	DC	RRI
2900.0	[m]	SWC	RRI
2908.0	[m]	SWC	RRI
2912.0	[m]	SWC	RRI
2915.0	[m]	SWC	RRI
2918.0	[m]	SWC	RRI
2930.0	[m]	DC	RRI
2935.0	[m]	SWC	RRI
2952.5	[m]	SWC	RRI
2965.0	[m]	SWC	RRI
2970.0	[m]	DC	RRI
2975.0	[m]	SWC	RRI
2982.0	[m]	SWC	RRI
2990.0	[m]	SWC	RRI
2996.0	[m]	SWC	RRI
3000.0	[m]	DC	RRI
3001.5	[m]	SWC	RRI
3015.0	[m]	DC	RRI
3025.0	[m]	SWC	RRI
3058.0	[m]	SWC	RRI
3090.0	[m]	DC	RRI
3100.0	[m]	DC	RRI
3117.0	[m]	DC	RRI
3126.3	[m]	C	RRI
3128.5	[m]	C	RRI
3137.0	[m]	DC	RRI

3148.8	[m]	C	RRI
3159.2	[m]	C	RRI
3187.3	[m]	C	RRI
3193.1	[m]	C	RRI
3215.5	[m]	C	RRI
3238.0	[m]	SWC	RRI
3300.0	[m]	DC	RRI
3315.0	[m]	DC	RRI
3330.0	[m]	DC	RRI
3345.0	[m]	DC	RRI
3357.0	[m]	SWC	RRI
3360.0	[m]	DC	RRI
3375.0	[m]	DC	RRI
3383.2	[m]	SWC	RRI
3390.0	[m]	DC	RRI
3417.0	[m]	DC	RRI
3427.0	[m]	DC	RRI
3545.0	[m]	DC	RRI
3555.0	[m]	DC	RRI

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	DST1A	3307.00	3324.00		20.10.1985 - 00:00	YES

Lithostratigraphy

Top depth [mMD RKB]	Lithostrat. unit
133	NORDLAND GP
597	UTSIRA FM
815	UNDIFFERENTIATED
893	HORDALAND GP
927	SKADE FM
952	UNDIFFERENTIATED
1101	NO FORMAL NAME
1339	UNDIFFERENTIATED

1439	NO FORMAL NAME
1454	NO FORMAL NAME
1480	NO FORMAL NAME
1579	NO FORMAL NAME
2047	ROGALAND GP
2047	BALDER FM
2129	SELE FM
2197	LISTA FM
2362	VÅLE FM
2380	SHETLAND GP
2380	HARDRÅDE FM
2400	JORSALFARE FM
2580	KYRRE FM
2913	DUNLIN GP
2913	DRAKE FM
2983	AMUNDSEN FM
3121	STATFJORD GP
3670	HEGRE GP

Composite logs

Document name	Document format	Document size [MB]
488	pdf	0.64

Geochemical information

Document name	Document format	Document size [MB]
488_1	pdf	0.15

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

Document name	Document format	Document size [MB]
488_01_WDSS_General_Information	pdf	0.39
488_02_WDSS_completion_log	pdf	0.29

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

Document name	Document format	Document size [MB]
488_30_6_18_COMPLETION_LOG	pdf	2.80
488_30_6_18_COMPLETION_REPORT	pdf	28.30

Drill stem tests (DST)

Test number	From depth MD [m]	To depth MD [m]	Choke size [mm]
1.0	3307	3324	14.0
2.0	3198	3210	14.0
3.0	3164	3173	14.0

Test number	Final shut-in pressure [MPa]	Final flow pressure [MPa]	Bottom hole pressure [MPa]	Downhole temperature [°C]
1.0				126
2.0				122
3.0				119

Test number	Oil [Sm3/day]	Gas [Sm3/day]	Oil density [g/cm3]	Gas grav. rel.air	GOR [m3/m3]
1.0	609	161970	0.811		265
2.0	871	2832			
3.0	957	189744	0.845	0.705	198

Logs

Log type	Log top depth [m]	Log bottom depth [m]
CBL VDL	430	1598
CET CBL VDL	1152	3400
CST	1997	3116
CST	1997	3122
CST	3035	3383
CST	3435	3690
DLL MSFL GR	3085	3210
DLL MSFL GR	3181	3415

HRT	50	1700
ISF LSS SP GR	321	652
ISF LSS SP GR	644	1599
ISF LSS SP GR	1598	3211
ISF LSS SP GR	3186	3424
ISF LSS SP GR	3419	3692
LDT CAL GR	644	1598
LDT CNL CAL GR	1598	3213
LDT CNL NGT CAL GR	3050	3423
LDT CNL NGT CAL GR	3419	3693
MWD - RES GR	1650	3185
RFT	3122	3195
RFT	3122	3402
RFT	3125	3126
RFT	3429	3683
SHDT	1598	3418
SHDT	3419	3692
VSP	898	3379

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	219.0	36	219.0	0.00	LOT
SURF.COND.	20	643.5	26	654.0	1.43	LOT
INTERM.	13 3/8	1598.0	17 1/2	1613.0	1.79	LOT
INTERM.	9 5/8	3413.0	12 1/4	3486.0	1.76	LOT
OPEN HOLE		3690.0	8 3/8	3690.0	0.00	LOT

Drilling mud

Depth MD [m]	Mud weight [g/cm3]	Visc. [mPa.s]	Yield point [Pa]	Mud type	Date measured
150	1.03			WATER BASED	25.11.1985
214	1.05			WATER BASED	02.08.1985
214	1.05			WATER BASED	06.08.1985
214	1.05			WATER BASED	06.08.1985
525	1.07	5.0	35.0	WATER BASED	06.08.1985
654	1.16	5.0	21.0	WATER BASED	06.08.1985

654	1.16	5.0	22.0	WATER BASED	06.08.1985
654	1.16	5.0	23.0	WATER BASED	08.08.1985
654	1.15	16.0	11.0	WATER BASED	13.08.1985
654	1.16	5.0	22.0	WATER BASED	06.08.1985
654	1.15	16.0	10.0	WATER BASED	09.08.1985
654	1.15	16.0	11.0	WATER BASED	13.08.1985
654	1.15	16.0	10.0	WATER BASED	09.08.1985
654	1.16	5.0	23.0	WATER BASED	08.08.1985
881	1.20	15.0	11.0	WATER BASED	13.08.1985
1282	1.21	22.0	12.0	WATER BASED	14.08.1985
1494	1.28	27.0	14.0	WATER BASED	19.08.1985
1613	1.30	30.0	16.0	WATER BASED	21.08.1985
1613	1.30	26.0	13.0	WATER BASED	21.08.1985
1613	1.30	27.0	12.0	WATER BASED	21.08.1985
1613	1.26	26.0	12.0	WATER BASED	21.08.1985
1650	1.35	37.0	13.0	WATER BASED	22.08.1985
1982	1.35	37.0	16.0	WATER BASED	23.08.1985
2172	1.38	23.0	11.0	WATER BASED	27.08.1985
2386	1.38	27.0	11.0	WATER BASED	27.08.1985
2464	1.39	30.0	12.0	WATER BASED	27.08.1985
2607	1.39	10.0	18.0	WATER BASED	29.08.1985
2727	1.39	23.0	8.0	WATER BASED	29.08.1985
2771	1.39	20.0	7.0	WATER BASED	30.08.1985
2867	1.39	20.0	8.0	WATER BASED	03.09.1985
2918	1.39	19.0	7.0	WATER BASED	03.09.1985
3021	1.41	18.0	6.0	WATER BASED	03.09.1985
3070	1.42	21.0	7.0	WATER BASED	03.09.1985
3126	1.42	19.0	8.0	WATER BASED	05.09.1985
3134	1.34			WATER BASED	22.11.1985
3136	1.42	21.0	8.0	WATER BASED	06.09.1985
3146	1.42	27.0	9.0	WATER BASED	06.09.1985
3164	1.34			WATER BASED	20.11.1985
3164	1.34			WATER BASED	21.11.1985
3166	1.41	24.0	9.0	WATER BASED	09.09.1985
3182	1.34			WATER BASED	04.11.1985
3182	1.34			WATER BASED	05.11.1985
3182	1.34			WATER BASED	06.11.1985
3182	1.34			WATER BASED	12.11.1985
3182	1.34			WATER BASED	10.11.1985
3182	1.34			WATER BASED	20.11.1985

3182	1.34			WATER BASED	07.11.1985
3184	1.41	24.0	8.0	WATER BASED	09.09.1985
3192	1.39	27.0	9.0	WATER BASED	09.09.1985
3195	1.35	21.0	8.0	WATER BASED	16.09.1985
3197	1.34			WATER BASED	04.11.1985
3215	1.35	22.0	7.0	WATER BASED	16.09.1985
3215	1.39	23.0	8.0	WATER BASED	12.09.1985
3215	1.35	21.0	7.0	WATER BASED	16.09.1985
3215	1.39	23.0	8.0	WATER BASED	11.09.1985
3215	1.39	22.0	8.0	WATER BASED	12.09.1985
3215	1.33	21.0	8.0	WATER BASED	13.09.1985
3285	1.35	24.0	10.0	WATER BASED	24.09.1985
3304	1.34			WATER BASED	23.10.1985
3304	1.34			WATER BASED	29.10.1985
3304	1.34			WATER BASED	30.10.1985
3304	1.34			WATER BASED	31.10.1985
3322	1.35	26.0	9.0	WATER BASED	24.09.1985
3371	1.35	27.0	10.0	WATER BASED	24.09.1985
3372	1.33	21.0	6.0	WATER BASED	09.10.1985
3372	1.33	21.0	6.0	WATER BASED	09.10.1985
3372	1.33	24.0	10.0	WATER BASED	10.10.1985
3372	1.36			WATER BASED	16.10.1985
3372	1.35			WATER BASED	17.10.1985
3372	1.35			WATER BASED	18.10.1985
3372	1.34			WATER BASED	21.10.1985
3372	1.34			WATER BASED	22.10.1985
3372	1.34			WATER BASED	20.10.1985
3372	1.34			WATER BASED	24.10.1985
3372	1.34			WATER BASED	23.10.1985
3390	1.33	21.0	6.0	WATER BASED	07.10.1985
3428	1.35	28.0	12.0	WATER BASED	24.09.1985
3428	1.35	29.0	11.0	WATER BASED	24.09.1985
3428	1.35	29.0	12.0	WATER BASED	24.09.1985
3428	1.35	27.0	9.0	WATER BASED	25.09.1985
3428	1.35	27.0	9.0	WATER BASED	03.10.1985
3428	1.35	27.0	9.0	WATER BASED	27.09.1985
3451	1.31	23.0	5.0	WATER BASED	03.10.1985
3527	1.31	25.0	6.0	WATER BASED	03.10.1985
3588	1.31	25.0	8.0	WATER BASED	03.10.1985
3650	1.31	25.0	8.0	WATER BASED	03.10.1985

3690	1.33	26.0	7.0	WATER BASED	07.10.1985

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]
488_Formation_pressure_(Formasjonstrykk)	pdf	0.23