

Well no : 30/06-18

Operator : HYDRO

Coordinates : 60 30 30.65 N
02 41 20.65 EUTM coord. : 6708243 N
482923 E

Licence no : 53

Permit no : 476

Rig : BYFORD DOLPHIN

Rig type : SEMI-SUB.

Contractor : DOLPHIN SERVICES A/S

Bottom hole temperature : deg.C

Elev. KB : 25 M

Spud. date : 85.08.01

Water depth : 108 M

Compl. date : 86.01.23

Total depth : 3690 M

Spud. class : WILDCAT

Form. at TD : TRIASSIC

Compl. class : P&A. OIL/GAS DISC.

Prod. form : E. JURASSIC

Seisloca : NH 82 - 121 SP. 290

LICENSEES

10.667000 ELF AQUITAINE NORGE A/S
 12.250000 NORSK HYDRO PRODUKSJON A.S
 8.000000 MOBIL EXPLORATION NORWAY INC.
 7.350000 SAGA PETROLEUM A.S.
 56.400000 DEN NORSKE STATS OLJESELSKAP A.S
 5.333000 TOTAL NORGE A.S

CASING AND LEAK-OFF TESTS

Type	Casing diam.	Depth below KB	Hole diam.	Hole depth below KB	Lot mud eqv. g/cm3
CONDUCTOR	30	219.0	36	219.0	.
SURF.COND.	20	643.5	26	654.0	1.43
INTERM.	13 3/8	1598.0	17 1/2	1613.0	1.79
INTERM.	9 5/8	3413.0	12 1/4	3486.0	1.76
OPEN HOLE		3690.0	8 3/8	3690.0	.

CONVENTIONAL CORES

Core no.	Intervals cored meters	Recovery		Series
		M	%	
1	3126.0 - 3128.5	2.5	100.0	
2	3139.0 - 3146.2	7.2	100.0	LOWER JURASSIC
3	3146.2 - 3148.0	1.8	100.0	LOWER JURASSIC
4	3148.0 - 3166.6	18.6	100.0	LOWER JURASSIC
5	3166.6 - 3184.0	17.4	100.0	LOWER JURASSIC
6	3184.0 - 3188.0	3.6	90.0	LOWER JURASSIC
7	3192.0 - 3210.3	18.3	100.0	LOWER JURASSIC
8	3210.3 - 3215.6	5.3	100.0	LOWER JURASSIC

MUD PROPERTIES

Depth below KB meter	Mud weight g/cm3	Viscosity	Mud type
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150.000	1.03	0.0	WATER BASED
214.000	1.05	0.0	WATER BASED
525.000	1.07	5.0	WATER BASED
654.000	1.16	5.0	WATER BASED
654.000	1.15	16.0	WATER BASED
654.000	1.16	5.0	WATER BASED
654.000	1.15	16.0	WATER BASED
881.000	1.20	15.0	WATER BASED
1282.000	1.21	22.0	WATER BASED
1494.000	1.28	27.0	WATER BASED
1613.000	1.30	30.0	WATER BASED
1613.000	1.26	26.0	WATER BASED
1982.000	1.35	37.0	WATER BASED
2386.000	1.38	27.0	WATER BASED
2918.000	1.39	19.0	WATER BASED
3021.000	1.41	18.0	WATER BASED
3126.000	1.42	19.0	WATER BASED
3134.000	1.34	0.0	WATER BASED
3146.000	1.42	27.0	WATER BASED
3164.000	1.34	0.0	WATER BASED
3166.000	1.41	24.0	WATER BASED
3182.000	1.34	0.0	WATER BASED
3184.000	1.41	24.0	WATER BASED
3192.000	1.39	27.0	WATER BASED
3195.000	1.35	21.0	WATER BASED
3197.000	1.34	0.0	WATER BASED
3215.000	1.33	21.0	WATER BASED
3285.000	1.35	24.0	WATER BASED
3304.000	1.34	0.0	WATER BASED
3371.000	1.35	27.0	WATER BASED
3372.000	1.33	21.0	WATER BASED
3372.000	1.36	0.0	WATER BASED
3372.000	1.35	0.0	WATER BASED
3372.000	1.34	0.0	WATER BASED
3390.000	1.33	21.0	WATER BASED
3428.000	1.35	27.0	WATER BASED
3650.000	1.31	25.0	WATER BASED
3690.000	1.33	26.0	WATER BASED

DRILL BIT CUTTINGS AND WET SAMPLES

SAMPLE TYPE	INTERVAL BELOW KB	NUMBER OF SAMPLES
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Cutting

Wet Samples	230-3690	600
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SHALLOW GAS

Interval below KB	REMARKS
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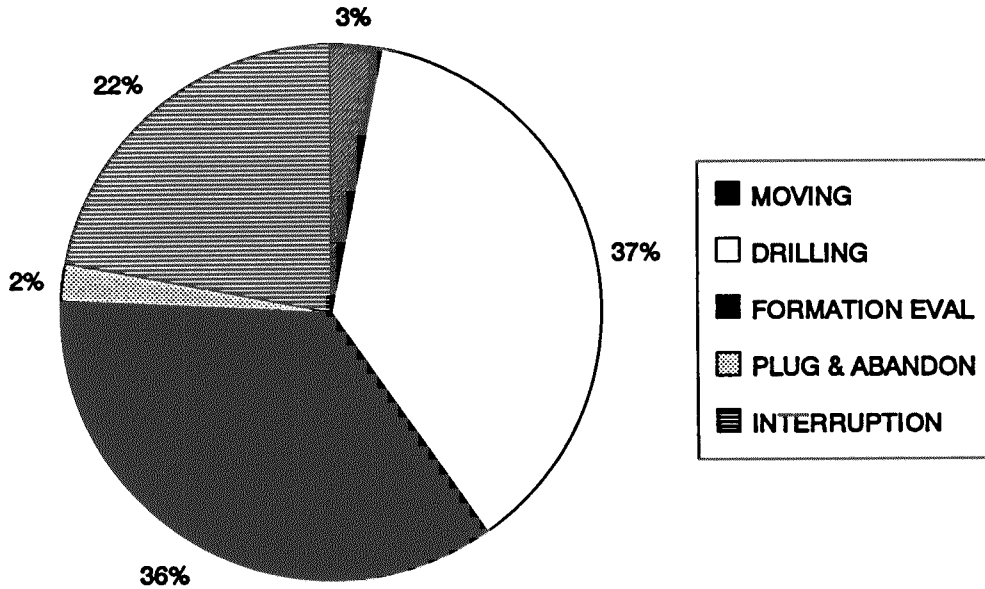
AVAILABLE LOGS

LOG TYPE	INTERVALS	1/200	1/500	Div.
ISF LSS GR	132.000 - 652.000	X	X	

LDL CAL GR	644.000 - 1598.000	X	X
DLL MSFL GR	3185.000 - 3210.000	X	X
SHDT MSD	1598.000 - 3418.000	X	X
SHDT-HOLE GEOMETRY	1598.000 - 3418.000	X	
SHDT MSD	3420.000 - 3692.000	X	
SHDT HOLE GEOMETRY	3419.000 - 3692.000	X	
NGT	3050.000 - 3423.000	X	
NGT	3418.000 - 3693.000	X	
HRT	50.000 - 1700.000		1:1000
RFT GR	3122.000 - 3195.000		1:100
RFT	3447.000 - 3693.000		1:100
CBL VDL GR	430.000 - 1598.000	X	
CBL VDL CCL	1200.000 - 3400.000	X	
TEMPERATURE DATA	219.000 - 3690.000		X
DXC NXB	140.000 - 1600.000		X
MUD LOG	142.000 - 3690.000		X
VELOCITY LOG	206.000 - 3692.000		X
	(Geogram, Synthetic seismogram, 135-3025 m		6 stk.)
	(VSP.Offset, 10cm/s.Plot 1-10		10 stk.)
	(VSP.Rigshot, 10cm/s. Plot 1-13		13 stk.)

DAILY DRILLING REPORT SYSTEM

Main operations for well: 30/06-18



Total: 2688 HRS

Main operation	Minutes	Hrs	% of total
MOVING	5280	88,0	3,27
DRILLING	59760	996,0	37,05
FORMATION EVAL	57510	958,5	35,66
PLUG & ABANDON	3720	62,0	2,31
INTERRUPTION	35010	583,5	21,71
Total	161280	2688,0	100,00

MAIN OPERATIONS FOR WELL: 30/06-18

MAIN OPERATION: MOVING

Sub operation	Minutes	Hrs	% of total
ANCHOR	3570	59,5	67,61
TRANSIT	1710	28,5	32,39
Total	5280	88,0	100,00

MAIN OPERATION: DRILLING

Sub operation	Minutes	Hrs	% of total
TRIP	13410	223,5	22,44
DRILL	24810	413,5	41,52
SURVEY	1500	25,0	2,51
CIRC/COND	2580	43,0	4,32
CASING	8070	134,5	13,50
BOP/WELLHEAD EQ	3690	61,5	6,17
PRESS DETECTION	270	4,5	0,45
UNDERREAM	1050	17,5	1,76
HOLE OPEN	630	10,5	1,05
BOP ACTIVITIES	2760	46,0	4,62
REAM	990	16,5	1,66
Total	59760	996,0	100,00

MAIN OPERATION: FORMATION EVAL

Sub operation	Minutes	Hrs	% of total
LOG	10470	174,5	18,21
CIRC SAMPLES	510	8,5	0,89
TRIP	4200	70,0	7,30
CIRC/COND	2040	34,0	3,55
CORE	2490	41,5	4,33
DST	37800	630,0	65,73
Total	57510	958,5	100,00

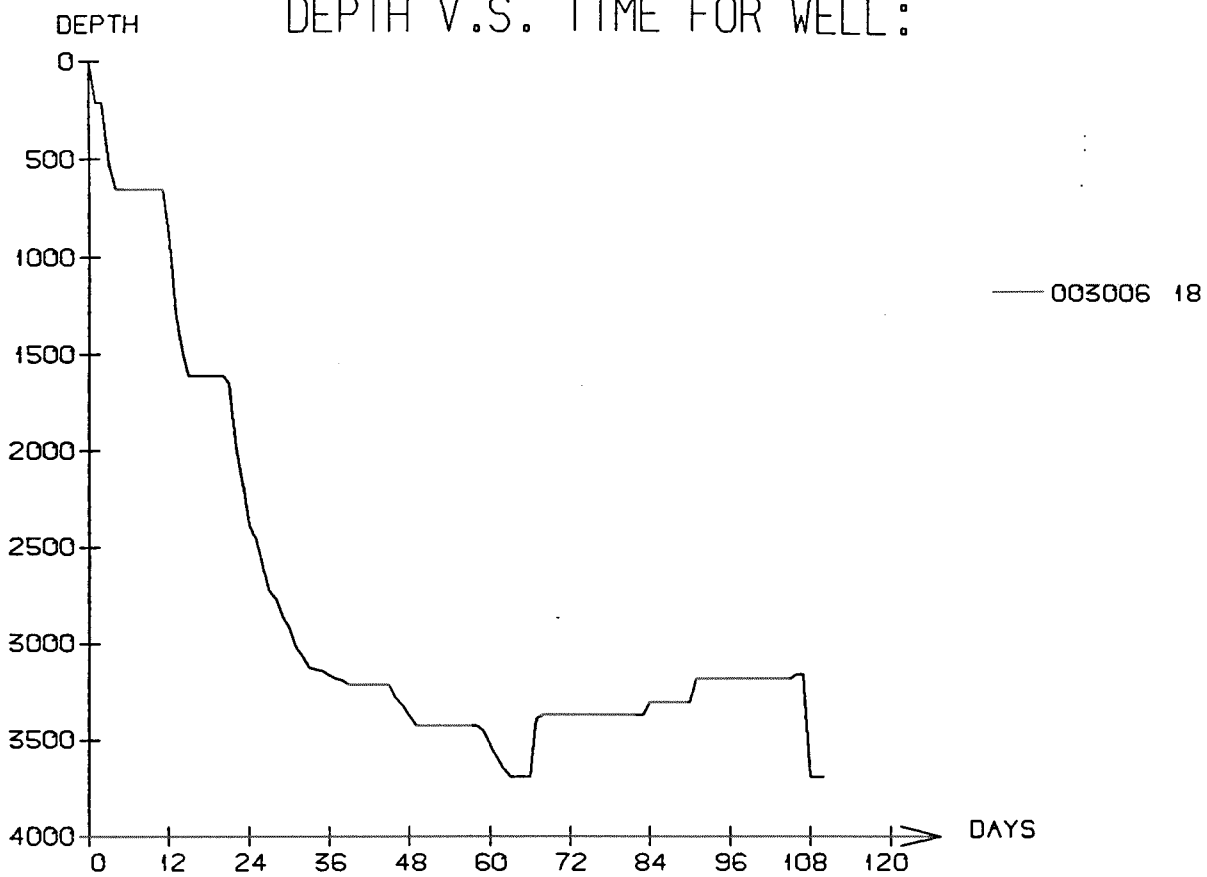
MAIN OPERATION: INTERRUPTION

Sub operation	Minutes	Hrs	% of total
MAINTAIN/REP	10200	170,0	29,13
OTHER	930	15,5	2,66
FISH	11070	184,5	31,62
WAIT	12810	213,5	36,59
Total	35010	583,5	100,00

MAIN OPERATION: PLUG & ABANDON

Sub operation	Minutes	Hrs	% of total
CEMENT PLUG	480	8,0	12,90
TRIP	750	12,5	20,16
CIRC/COND	180	3,0	4,84
MECHANICAL PLUG	570	9,5	15,32
SQUEEZE	150	2,5	4,03
EQUIP RECOVERY	1260	21,0	33,87
CUT	210	3,5	5,65
OTHER	120	2,0	3,23
Total	3720	62,0	100,00

DEPTH V.S. TIME FOR WELL:



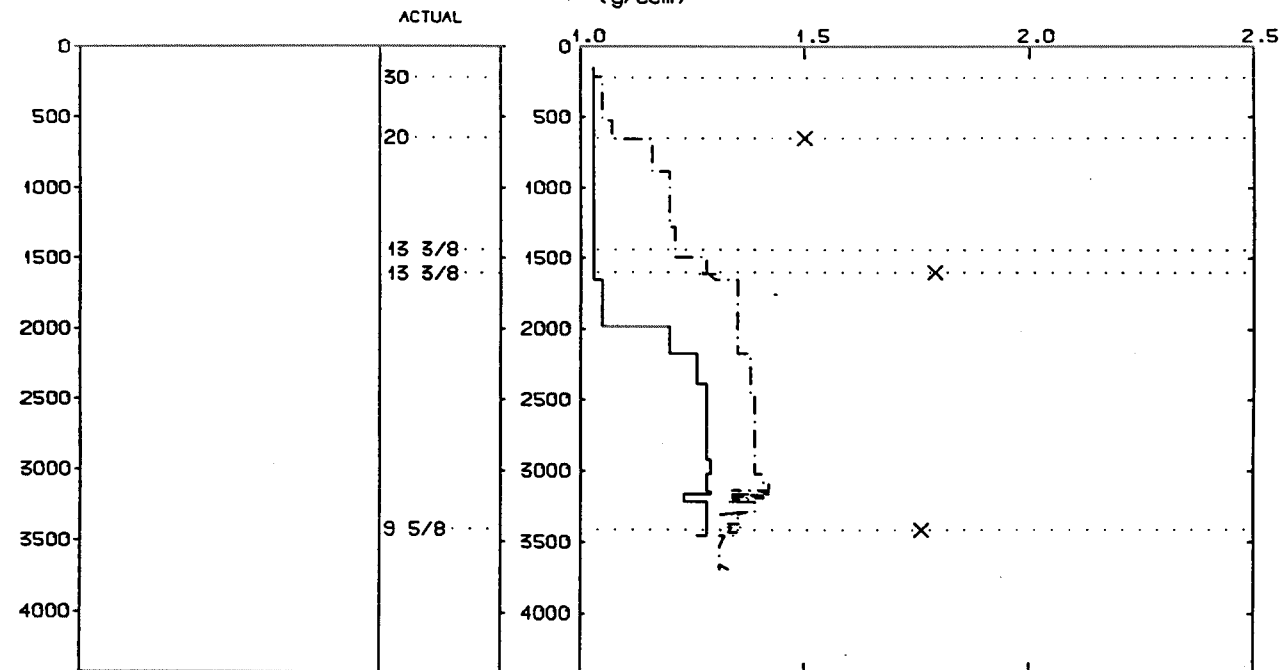
WELL: 003006 18 PRESSURE COMPOSITE PLOT

——— PORE PRESSURE (REPORT)
 - - - - MUDWEIGHT (REPORT)
 X LEAK-OFF (REPORT)

DEPTH
(RKB)
(METERS MD)

CASING

PRESSURE GRADIENTS
(g/ccm)



Well History 30/6-18

GENERAL:

Well 30/6-18 was drilled on the Kappa structure which is located in the southwestern corner of the block. Kappa is an elongated downfaulted block bounded by north-south trending major faults to the east and the west. The structure is an easterly tilted fault block where both the Brent Group and the Statfjord Formation are truncated by the Base Cretaceous.

The objectives of the well were to:

- prove hydrocarbons in the Statfjord Formation
- drill on a location which leaves a minimum of possible reserves updip of the well in the Statfjord Formation
- improve stratigraphical and structural knowledge of the area
- acquire input data for further exploration activity in the blocks 30/6 and 30/9.

OPERATIONS:

Wildcat well 30/6-18 was spudded 1 August 1985 by Dolphin Services A/S semi-submersible rig Byford Dolphin and completed 23 November 1985 at a depth of 3690 m in Triassic rocks. Drilling proceeded without any significant problems.

8 cores were cut in the Statfjord Formation in the interval 3126 - 3215 m. Statfjord Formation came in 120 m higher than prognosed. The logs show that the Statfjord Fm. contains 16 m of gas and 44 m of oil. Oil/water contact is defined at 3181 m. The reservoir quality seems to be good. There is a separate column of 18 m oil further down in the Statfjord Fm. The lower oil column is probably restricted to only one layer of sand with a gascap on top.

The resources are estimated to 10 mill. oil in place and 2 bill. gas in place for the upper reservoir and 5 mill. oil in place for the lower reservoir.

TESTING:

3 DST tests were performed in this well. The intervals were 3306 - 3323 m, 3198 - 3210 m and 3164 - 3173 m.

GEOLOGICAL TOPS

WELL: 30/6-18

Depth m (RKB)

<i>Nordland Group</i>	133.0
<i>Utsira Fm.</i>	597.0
<i>Hordaland Group</i>	893.0
<i>Skade Fm.</i>	927.5
<i>Grid Fm.</i>	1101.0
<i>Grid Fm.</i>	1439.0
<i>Rogaland Group</i>	2047.0
<i>Balder Fm.</i>	2047.0
<i>Sele Fm.</i>	2129.0
<i>Lista Fm.</i>	2225.0
<i>Våle Fm.</i>	2362.0
<i>Shetland Group</i>	2380.0
<i>Hardråde Fm.</i>	2380.0
<i>Kyrre Fm.</i>	2718.0
<i>Dunlin Group</i>	2913.0
<i>Drake Fm.</i>	2913.0
<i>Burton Fm.</i>	2983.0
<i>Amundsen Fm.</i>	3050.0
<i>Statfjord Fm.</i>	3121.0
<i>Hegre Group</i>	3643.0
<i>Lunde Fm.</i>	3643.0
<i>T.D.</i>	3690.0