

Well no : 6506/11-01

Operator : STATOIL

Coordinates	: 65 11 04.49 N 06 39 53.88 E	UTM coord.	: 7231229 N 390662 E
Licence no	: 134	Permit no	: 569
Rig	: WEST DELTA	Rig type	: SEMI-SUB.
Contractor	: DYVI OFFSHORE A/S		
Bottom hole temperature	: 148 deg.C	Elev. KB	: 29 M
Spud. date	: 87.12.30	Water depth	: 246 M
Compl. date	: 88.03.31	Total depth	: 4679 M
Spud. class	: WILDCAT	Form. at TD	: E.JURASSIC
Compl. class	: P&A. SHOWS	Prod. form	:
Seisloca	: ST 8403 - 860 SP. 622		

LICENSEES

 30.000000 NORSK AGIP A/S
 50.000000 DEN NORSKE STATS OLJESELSKAP A.S
 10.000000 TENNECO OIL NORWAY A/S
 10.000000 TEXAS EASTERN NORWEGIAN INC.

CASING AND LEAK-OFF TESTS

Type	Casing diam.	Depth below KB	Hole diam.	Hole depth below KB	Lot mud eqv. g/cm ³
CONDUCTOR	30	372.0	36	372.0	.
SURF.COND.	20	586.0	26	590.0	1.47
INTERM.	13 3/8	2071.0	17 1/2	2088.0	1.87
INTERM.	9 5/8	4124.0	12 1/4	4138.0	2.16
OPEN HOLE		4679.0	8 1/2	4679.0	.

CONVENTIONAL CORES

Core no.	Intervals cored meters	Recovery		Series
		M	%	
1	4140.0 - 4167.5	27.5	100.0	
2	4167.5 - 4195.0	27.5	100.0	MIDDLE JURASSIC
3	4262.0 - 4273.5	11.5	100.0	MIDDLE JURASSIC
4	4483.0 - 4505.3	22.3	100.0	LOWER JURASSIC

MUD PROPERTIES

Depth below KB meter	Mud weight g/cm ³	Viscosity	Mud type
325.000	1.03	0.0	WATER BASED
372.000	1.07	0.0	WATER BASED
387.000	1.03	0.0	WATER BASED

410.000	1.05	0.0	WATER BASED
456.000	1.03	0.0	WATER BASED
490.000	1.07	0.0	WATER BASED
530.000	1.45	20.0	WATER BASED
560.000	1.03	0.0	WATER BASED
590.000	1.08	0.0	WATER BASED
615.000	1.30	12.0	WATER BASED
685.000	1.45	18.0	WATER BASED
1343.000	1.30	14.0	WATER BASED
1509.000	1.40	15.0	WATER BASED
2000.000	1.45	18.0	WATER BASED
2029.000	1.40	16.0	WATER BASED
2088.000	1.45	5100.0	WATER BASED
2091.000	1.67	5900.0	WATER BASED
3699.000	1.80	22.0	WATER BASED
3699.000	1.85	24.0	WATER BASED
3727.000	1.95	26.0	WATER BASED
3770.000	1.75	26.0	WATER BASED
3770.000	1.95	27.0	WATER BASED
3777.000	1.75	15.0	WATER BASED
3777.000	1.75	15.0	WATER BASED
3956.000	1.88	23.0	WATER BASED
4138.000	1.80	22.0	WATER BASED
4167.000	1.88	21.0	WATER BASED
4167.500	1.86	23.0	WATER BASED
4168.000	1.88	27.0	WATER BASED

DRILL STEM TEST

INTERVALS AND PRESSURES

Test no	interval meter	Choke size	Pressure (PSI)		
			WHP	BTHP	FFP
1.0	3727.000 - 3745.000	9.5	580.1	N/A	N/A
Test temperature: N/A					

RECOVERY

Test no.	Oil Sm ³ /d	Gas Sm ³ /d	Oil grav. g/cm ³	Gas grav. rel. air	GOR m ³ /m ³
1.0	116	N/A	N/A	0.645	N/A

DRILL BIT CUTTINGS AND WET SAMPLES

SAMPLE TYPE	INTERVAL BELOW KB	NUMBER OF SAMPLES
Cutting	590-4677	660
Wet Samples	600-4677	330

SHALLOW GAS

Interval below KB	REMARKS

AVAILABLE LOGS

LOG TYPE	INTERVALS	1/200	1/500	Div.
MWD	475.000 - 4679.000		X	
DIFL BHC AC GR	585.000 - 2084.000	X	X	
DIFL BHC AC GR	2067.000 - 4133.000	X	X	
DIFL BHC AC GR	4120.000 - 4678.000	X	X	
CDL GR	585.000 - 2068.000	X	X	
CDL CNL	2067.000 - 4118.000	X	X	
CDL CNL	4120.000 - 4671.000	X	X	
SHDT	4121.000 - 4678.000	X		
CDM AP	4121.000 - 4678.000	X	X	
CDM AP/STRATDIP	4121.000 - 4678.000	1:40		
FMT	4150.000 - 4570.000		X	
AC CBL VDL	246.000 - 2067.000	X	X	
AC CBL VDL	3580.000 - 4120.000	X	X	
AC CBL VDL	3400.000 - 3773.000	X		
MWD TEMPERATURE	275.000 - 4679.000			X
DRILLING DATA PRESSURE	275.000 - 4679.000			X
MUD				
VELOCITY	650.000 - 4670.000	1:1000X		
(VSP, 10 cm/s			7 stk.)	
(Synthetic seismogram, 10 cm/s			1 stk.)	
(Two-way travel time, 10 cm/s			1 stk.)	

MAIN OPERATIONS FOR WELL: 650611 01

Main operation: DRILLING

Sub operations	Minutes	Hrs	% of total
BOP ACTIVITIES	2370	39,5	3,09
BOP/WELLHEAD EQ	3420	57,0	4,45
CASING	5790	96,5	7,54
CIRC/COND	4230	70,5	5,51
DRILL	37139	619,0	48,36
HOLE OPEN	3180	53,0	4,14
OTHER	240	4,0	0,31
PRESS DETECTION	541	9,0	0,70
REAM	3599	60,0	4,69
SURVEY	360	6,0	0,47
TRIP	15930	265,5	20,74
Total	76799	1280,0	100,00

Main operation: FORMATION EVAL

Sub operations	Minutes	Hrs	% of total
CIRC SAMPLES	120	2,0	0,46
CIRC/COND	555	9,3	2,15
CORE	1110	18,5	4,29
DST	13290	221,5	51,42
LOG	6300	105,0	24,38
OTHER	30	0,5	0,12
RFT/FIT	90	1,5	0,35
TRIP	4350	72,5	16,83
Total	25845	430,8	100,00

Main operation: INTERRUPTION

Sub operations	Minutes	Hrs	% of total
FISH	2700	45,0	25,75
MAINTAIN/REP	2701	45,0	25,76
OTHER	825	13,8	7,87
WAIT	4020	67,0	38,34
WELL CONTROL	240	4,0	2,29
Total	10486	174,8	100,00

Main operation: MOVING

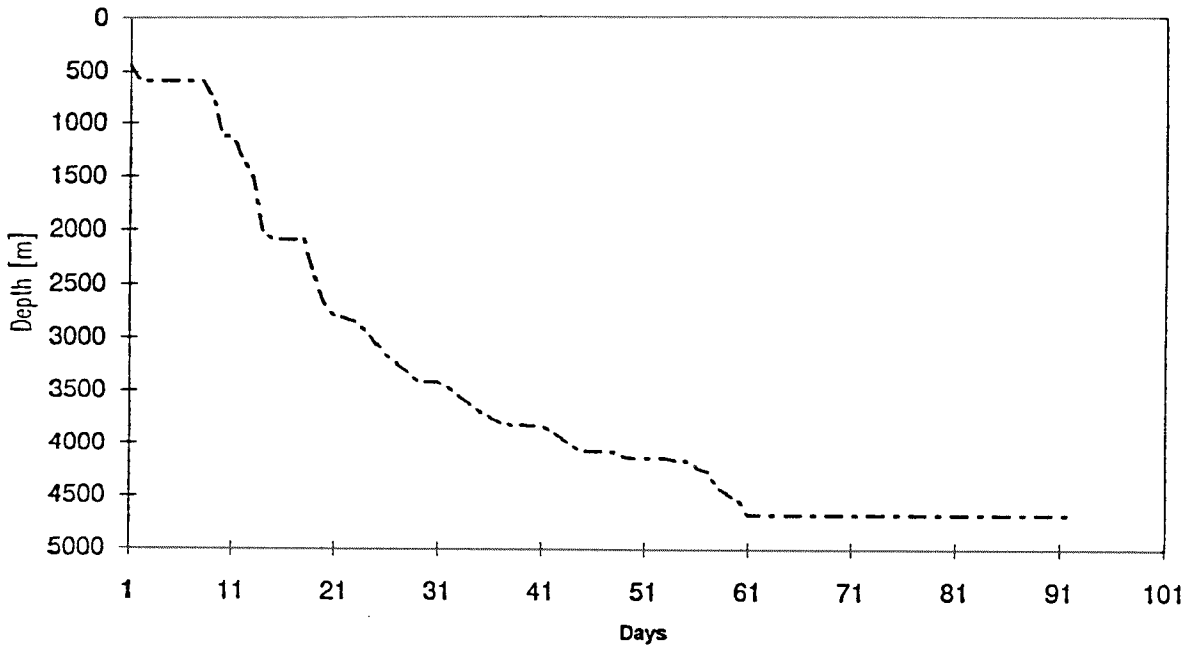
Sub operations	Minutes	Hrs	% of total
ANCHOR	2520	42,0	79,25
TRANSIT	660	11,0	20,75
Total	3180	53,0	100,00

Main operation: PLUG & ABANDON

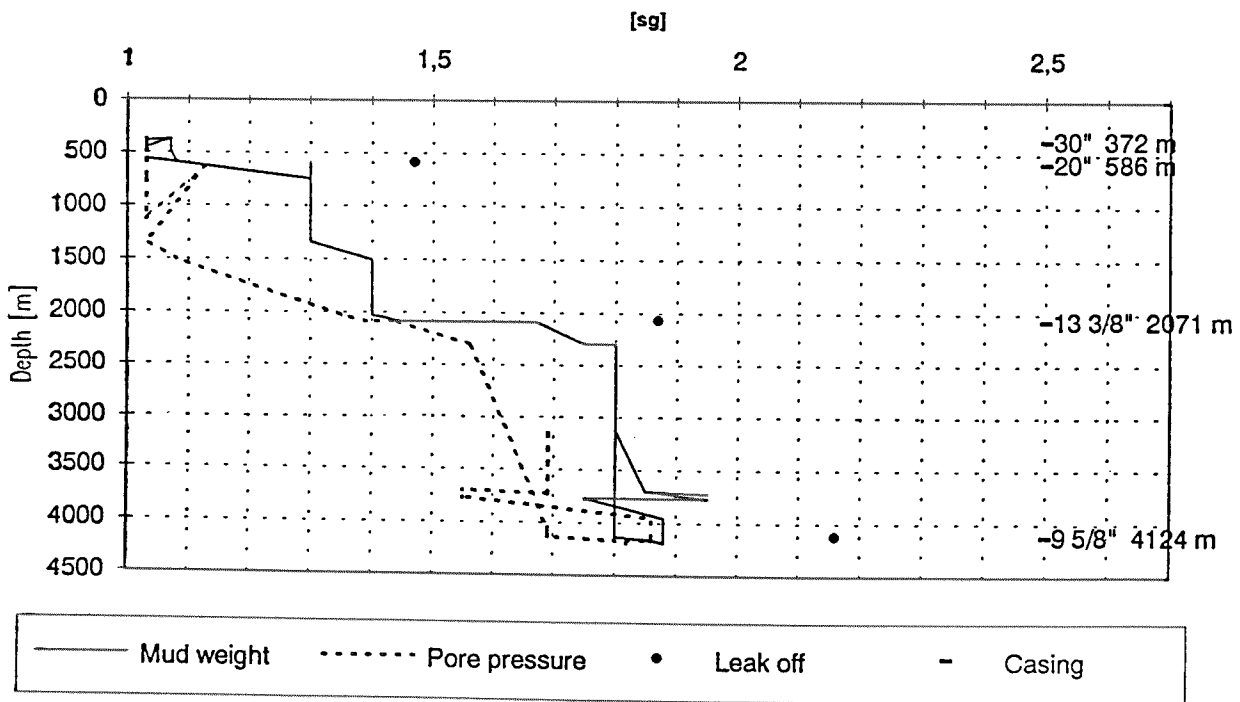
Sub operations	Minutes	Hrs	% of total
CEMENT PLUG	1320	22,0	7,50
CIRC/COND	2673	44,6	15,18
CUT	1710	28,5	9,71
EQUIP RECOVERY	2427	40,5	13,78
MECHANICAL PLUG	1470	24,5	8,35
OTHER	180	3,0	1,02
PERFORATE	960	16,0	5,45
SQUEEZE	810	13,5	4,60
TRIP	6060	101,0	34,41
Total	17610	293,5	100,00

Total time used 2232 hrs (93 days)

Depth v.s. time plot for well: 650611 01



Composite plot for well: 650611 01



Well History 6506/11-1

GENERAL:

Well 6506/11-1 was designed to prove hydrocarbons in the G-structure lying in the easternmost part of block 6506/11. This is close to the already discovered Smørbukk Field.

The primary purpose of the well was to find hydrocarbon accumulations of significant amounts in the Middle-Early Jurassic reservoirs. Secondary targets were sands of Cretaceous age, especially the Lysing Fm. which has been proven to be oil-bearing in the area.

The well should also test the hypothesis of a western ultra-high pore pressure area, verify the geophysical and structural interpretation and to improve the geological, paleontological and geochemical understanding of the area. Total depth was planned 200 m into the coal-bearing Åre Fm.

OPERATIONS:

Wildcat well 6506/11-1 was spudded 30 December 1987 by Smedvig Drilling semi-submersible rig Dyvi Delta and completed 31 March 1988 at a depth 4679 m in Early Jurassic rocks.

The drilling generally went without problems. Thin sands in Early Cretaceous, indicating gas, were encountered. It was doubtful if they had any economic interest. The prospect came in as prognosed (Fangst Group), but did not indicate hydrocarbons. Logs showed that the hole was water-bearing. High pressure was registered. This is typical for water-bearing holes on Haltenbanken.

Two cores were cut in the Garn Fm. between 4140 - 4195 m. One core was cut in the Ile Fm. in the interval 4262 - 4274 m, and one core in the Ror/Tilje Fm. between 4477 - 4504 m.

Plugged and abandoned as a well with shows.

TESTING:

One DST test was performed in the lower Cretaceous, with perforated intervals 3727 - 3730 m and 3741 - 3745 m.

GEOLOGICAL TOPS

WELL: 6506/11-1

Depth m (RKB)

<i>Nordland Group</i>	275.0
<i>Naust Fm.</i>	275.0
<i>Kai Fm.</i>	1468.0
<i>Hordaland Group</i>	1889.0
<i>Brygge Fm.</i>	1889.0
<i>Rogaland Group</i>	2059.5
<i>Tare Fm.</i>	2059.5
<i>Tang Fm.</i>	2147.0
<i>Shetland Group</i>	2192.0
<i>Springar Fm.</i>	2192.0
<i>Nise Fm.</i>	2558.0
<i>Kvitnos Fm.</i>	2918.0
<i>Cromer Knoll Group</i>	3159.0
<i>Lysing Fm.</i>	3159.0
<i>Lange Fm.</i>	3211.0
<i>Lyr Fm.</i>	3813.0
<i>Viking Group</i>	3844.0
<i>Spekk Fm.</i>	3844.0
<i>Melke Fm.</i>	3862.0
<i>Fangst Group</i>	4136.0
<i>Garn Fm.</i>	4136.0
<i>Not Fm.</i>	4214.0
<i>Ile Fm.</i>	4263.0
<i>Båt Group</i>	4363.0
<i>Ror Fm.</i>	4363.0
<i>Tofte Fm.</i>	4387.0
<i>Ror Fm.</i>	4445.0
<i>Tilje Fm.</i>	4485.0
<i>Åre Fm.</i>	4662.0
<i>T.D.</i>	4679.0