

Well no :	6507/8-4	Operator :	STATOIL
Coordinates :	65° 23' 17.18" N 07° 23' 59.65" E	UTM coord. :	725283558 N 42564379 E
Licence no :	124	Permit no :	631
Rig :	DEEPSEA BERGEN	Rig type :	SEMI-SUB.
Contractor :	ODFJELL DRILLING AND CONSULTING COMPANY A/S		
Bottom hole temp:	73 °C	Elev. KB :	23 M
Spud. date :	90.06.14	Water depth :	354 M
Compl. date :	90.08.13	Total depth :	2560 M
Spud. class :	WILDCAT	Form. at TD	TRIASSIC
Compl. class :	SUSPENDED. OIL/GAS	Prod.form. :	
Seisloca :	CN 8502-211 SP.568		

LICENSEES

10.000000	CONOCO PETROLEUM NORGE A/S
5.000000	DNO OLJE A/S
10.000000	NORSK HYDRO PRODUKSJON A.S
10.000000	NESTE PETROLEUM A/S
50.000000	DEN NORSKE STATS OLJESELSKAP A.S
15.000000	NORSKE CONOCO 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	437.0	36	441.0	
INTERM.	20	564.7	26	574.0	1.32
INTERM.	13 3/8	1533.0	17 1/2	1555.0	1.66
INTERM.	9 5/8	2084.0	12 1/4	2100.0	1.77
LINER	7	2546.0	8 1/2	2560.0	

CONVENTIONAL CORES

Core no.	Intervals cored meters	Recovery	
		M	%
1	2128.0 - 2150.0	22.0	100.0
2	2155.0 - 2171.0	16.0	100.0
3	2172.0 - 2185.0	13.0	100.0
4	2185.0 - 2198.0	14.0	100.0
5	2200.0 - 2205.0	5.0	100.0
6	2207.0 - 2226.0	19.0	100.0
7	2227.0 - 2245.0	18.0	100.0
8	2246.0 - 2264.0	18.0	100.0
9	2265.0 - 2291.2	26.2	100.0
10	2292.0 - 2295.5	3.5	100.0
11	2301.0 - 2317.5	16.5	100.0

MUD

Depth	Mud weight	Visc.	Mud type
1555.000	1.20	7.0	WATER BASED
1555.000	1.22	10.0	WATER BASED
1555.000	1.18	7.0	WATER BASED
1880.000	1.35	19.0	WATER BASED
2100.000	1.30	22.0	WATER BASED
2100.000	1.45		WATER BASED
2100.000	1.30	34.0	WATER BASED
2100.000	1.38	18.0	WATER BASED
2100.000	1.30	28.0	WATER BASED
2100.000	1.45	19.0	WATER BASED
2100.000	1.30	20.0	WATER BASED
2100.000	1.38	19.0	WATER BASED
2100.000	1.45	.0	WATER BASED
2100.000	1.30	37.0	WATER BASED
2100.100	1.41	19.0	WATER BASED
2129.500	1.30	23.0	WATER BASED
2129.500	1.18	7.0	WATER BASED
2155.000	1.30	.0	WATER BASED
2159.500	1.18	10.0	WATER BASED
2185.000	1.30	20.0	WATER BASED
2201.000	1.18	11.0	WATER BASED
2201.000	1.30	23.0	WATER BASED
2246.000	1.30	23.0	WATER BASED
2252.000	1.18	14.0	WATER BASED
2560.000	1.30	28.0	WATER BASED

DRILL STEM TEST

INTERVALS AND PRESSURES

Test no.	Interval meter		Choke size	Pressure (PSI) WHP	BTHP	FFP
1.0	2250,0	-	2254,0	12.7		
2.0	2200,0	-	2221,0	12.7		
3.0	2150,0	-	2161,0	19.1		
3.1	2163,5	-	2168.0	22.2		
4.0	2126,0	-	2135,0	15.9		

Test temperature: N/A

RECOVERY

Test no.	Oil Sm3/d	Gas Sm3/d	Oil grav. g/cm3	Gas grav. rel. air	GOR m3/m3	
1.0						WATER
2.0	1023,8	58700	.900	.640	59	

Test no.	Oil Sm ³ /d	Gas Sm ³ /d	Oil grav. g/cm ³	Gas grav. rel. air	GOR m ³ /m ³
3.0	986	45300	.908	.635	56
3.1	1480	70100	.908	.634	61
4.0	16,1	756777	.780	.648	47078

DRILL BIT CUTTINGS AND WET SAMPLES

Sample type	Interval below KB	Number of samples
WET SAMPLES	584 - 2560	150
CUTTINGS	574 - 2560	180

SHALLOW GAS

Interval below KB	Remarks
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AVAILABLE LOGS

Log type	Intervals	1/200	1/500	Div.
AC CBL VDL	377,0 - 1534,0	X		
AC CBL VDL	1046,0 - 2081,0	X		
AC CBL VDL	1835,0 - 2490,0	X		
CDL	377,0 - 1538,0	X	X	
CDL	1534,0 - 2078,0	X	X	
CDL CNL	2081,0 - 2543,0	X	X	
CDM	2075,0 - 2552,0	X		
CDM AP	2080,0 - 2555,0		1:40	1
DIFL BHC AC CAL GR	377,0 - 1538,0	X	X	
DIFL BHC AC CAL GR	1534,0 - 2078,0	X	X	
DIFL BHC AC GR	2081,0 - 2560,0	X	X	
FMT	2125,0 - 2298,0	X	X	*
FMT	2125,0 - 2298,0	X	X	*
MUD	577,0 - 2560,0		X	
MWD	437,0 - 2557,0		X	
VELOCITY	700,0 - 2500,0		X	1:1000
SYNTHETIC SEISMOGRAM	10 cm/s			2
TWO WAY TIME LOG	10 cm/s - 20 cm/s			2
V.S.P,	10 cm/s - 20 cm/s			5

* BOTH 1:200 AND 1:500 ON THE SAME LOG.

Main operations for well: 6507/8-4**Main operation: DRILLING**

Sub operation:	Minutes:	Hours:	% of total:
BOP ACTIVITIES	1620	27,0	4,60
BOP/WELLHEAD EQ	6240	104,0	17,73
CASING	11010	183,5	31,29
CIRC/COND	1290	21,5	3,67
DRILL	9000	150,0	25,58
HOLE OPEN	480	8,0	1,36
OTHER	360	6,0	1,02
REAM	450	7,5	1,28
SURVEY	30	0,5	0,09
TRIP	4440	74,0	12,62
WAIT	270	4,5	0,77
Total	35190	586,5	100,00

Main operation: FORMATION EVAL

Sub operation:	Minutes:	Hours:	% of total:
CIRC/COND	1140	19,0	2,57
CORE	120	2,0	0,27
DST	29640	494,0	66,94
LOG	6540	109,0	14,77
OTHER	180	3,0	0,41
RFT/FIT	1020	17,0	2,30
TRIP	5640	94,0	12,74
Total	44280	738,0	100,00

Main operation: INTERRUPTION

Sub operation:	Minutes:	Hours:	% of total:
FISH	1770	29,5	93,65
MAINTAIN	90	1,5	4,76
MAINTAIN/REP	30	0,5	1,59
Total	1890	31,5	100,00

Main operation: MOVING

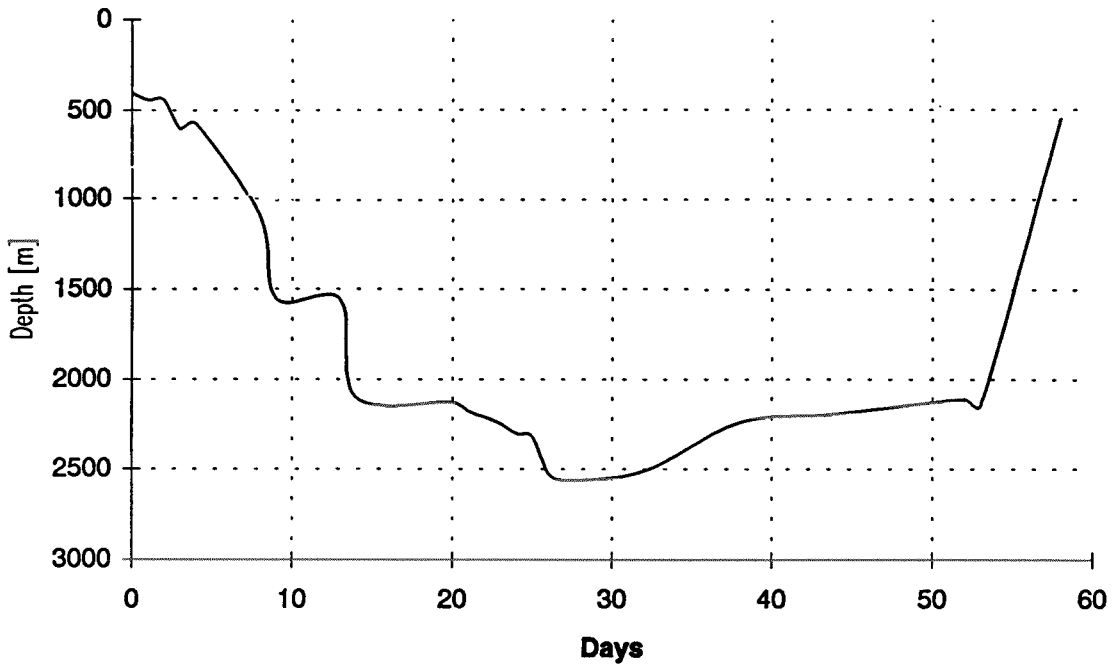
Sub operation:	Minutes:	Hours:	% of total:
ANCHOR	1710	28,5	30,16
SKID	1440	24,0	25,40
TRANSIT	2520	42,0	44,44
Total	5670	94,5	100,00

Main operation: PLUG & ABANDON

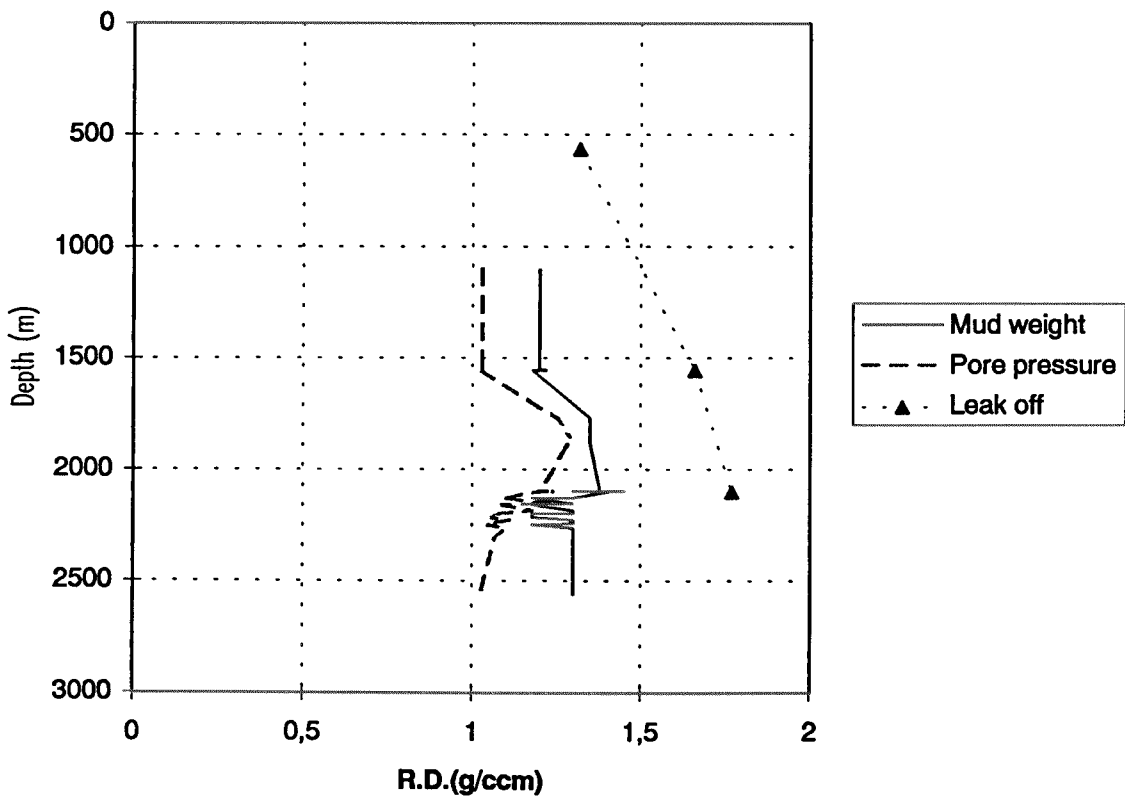
Sub operation:	Minutes:	Hours:	% of total:
CEMENT PLUG	120	2,0	9,30
CIRC/COND	180	3,0	13,95
MECHANICAL PLUG	210	3,5	16,28
OTHER	30	0,5	2,33
TRIP	750	12,5	58,14
Total	1290	21,5	100,00

Total time used: Hours

Depth vs time for well: 6507/8-4



Composite plot for well: 6507/8-4



Well History 6507/8-4.

General:

Well 6507/8-4 was designed to drill the "Heidrun North" Structure which is a horst block northeast of the Heidrun Field, and is situated in the transition zone between the Nordland Ridge to the north and the Halten Terrace to the southwest. The prospect is mapped with a small structural closure at the base Cretaceous level and a larger stratigraphic trap in the Jurassic sediments. The Jurassic reservoir (Garn to Tilje formations) is truncated towards the northeast by the base Cretaceous unconformity. The large stratigraphic trap relies on seal along the reservoir pinchouts. Shallow gas warnings was given at 608 m RKB, 745 m RKB and 686 m RKB, the last one classified as a medium/ high risk anomaly. The main objectives of this well were to:

- test sandstones of Early Jurassic age.

- test the geophysical and structural interpretation of the area.

- improve the paleontological, geological and geochemical understanding of the area.

Problems with gumbo clay and sloughing shales have been experienced in the Eocene / Paleocene sections in the Haltenbanken area.

Operations:

Wildcat well 6507/8-4 was spudded 14 June 1990 by the semi-submersible rig Deepsea Bergen, and completed 13 August 1990 at a depth of 2560 m RKB in rocks of Triassic age. Shallow gas was encountered at 596- and 686 m RKB. Top reservoir/ base Cretaceous was encountered at 2124 m RKB. The well proved gas and oil in the Åre formation. The GOC was set at 2142 m RKB and the OWC at 2251,5 m RKB. A total of eleven cores were cut in this well in the interval from 2128- to 2318 m RKB, and 25 sidewall cores were attempted and 22 were recovered. Apart from some tight hole experiences, drilling proceeded without any significant problems. The well was temporary plugged and abandoned as a gas and oil discovery.

Testing:

Four DST tests were performed in this well:

No 1 from 2254 to 2250 m RKB, waterbearing.

No 2 from 2221 to 2200 m RKB, gas 58700 Sm³/d oil 1023.8 Sm³/d GOR 59 Sm³/Sm³.

No 3 from 2168 to 2163.5 m RKB, gas 45300 Sm³/d oil 986 Sm³/d GOR 56 Sm³/Sm³, and from 2161 to 2150 m RKB, gas 70100 Sm³/d oil 1480 Sm³/d GOR 61 Sm³/Sm³.

No 4 from 2135 to 2126 m RKB. Gas 75.6777 Sm³/d, oil 16.1 Sm³/d GOR 47.078 Sm³/Sm³.

Geological Tops.

Well:6507/8-4.

	Depth m (RKB).
Nordland Group	377,0
Naust Fm	377,0
Kai Fm	1455,0
Hordaland Group	1788,0
Brygge Fm	1788,0
Rogaland Group	1955,0
Tare Fm	1955,0
Tang Fm	1974,0
Shetland Group	2018,0
Båt Group	2124,0
Åre Fm	2124,0
Triassic Group	2435,0
Grey Beds	2435,0
T.D.	2560,0