

# WDSS Report

Date: 26/03/98

PB/SKR

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<b>Well no:</b>	<b>Operator:</b>
<b>35/10-01</b>	<b>STATOIL</b>

## Well

Coordinates :	61° 07' 02.05" N 03° 13' 34.87" E	UTM coord. :	6776027.74 N 512197.93 E
License no :	173	Permit no :	692
Rig :	DEEPSEA BERGEN	Rig type :	SEMI-SUB.
Contractor :	ODFJELL DRILLING AND CONSULTING COMPANY A/S		
Bottom hole temp:	150°C	Elev. KB :	23 M
Spud. date :	91.08.01	Water depth :	362 M
Compl. date :	92.01.16	Total depth :	3986 M
Spud. class :	WILDCAT	Form. at TD :	E.JURASSIC
Compl. class :	P&A. DRY HOLE	Prod.form. :	
Seisloca :	NOD4 - 84 - 06, SP. 2030		

## Licenses

15.000000 NORSK HYDRO PRODUKSJON AS  
20.000000 MOBIL DEVELOPMENT NORWAY AS  
50.000000 DEN NORSKE STATS OLJESELSKAP A.S  
15.000000 ELF PETROLEUM NORGE AS

## Casing and Leak-off Tests

Type	Casing diam	Depth below KB	Hole diam.	Hole depth below KB	Lot mud eqv. g/cm3
CONDUCTOR	30	445.0	36	446.0	
INTERM.	20	730.0	26	732.0	1.49
INTERM.	13 3/8	1789.0	17 1/2	1790.0	1.55
INTERM.	9 5/8	3020.0	12 1/4	3022.0	1.69
LINER	7	3288.0	8 1/2	3986.0	2.15

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**Conventional Cores**

Core no.	Intervals cored meters	Recovery m	%
1	3329.0 – 3340.8	11.8	100.0
2	3342.0 - 3360.5	18.5	100.0
3	3360.5 - 3388.0	19.5	100.0
4	3388.2 - 3396.5	8.4	100.0
5	3396.5 - 3400.6	4.1	100.0
6	3401.0 – 3414.8	13.8	100.0
7	3415.0 - 3416.8	1.8	100.0
8	3416.8 – 3419.3	2.5	100.0
9	3419.4 – 3422.7	3.4	100.0
10	3422.7 - 3432.0	9.3	100.0
11	3432.0 - 3437.5	5.5	100.0
12	3438.0 - 3450.8	12.8	100.0
13	3450.8 - 3469.2	18.4	100.0
14	3469.0 - 3486.1	17.1	100.0
15	3489.0 - 3511.5	22.5	100.0
16	3511.5 - 3517.9	6.4	100.0
17	3575.0 - 3602.4	27.4	100.0
18	3602.4 - 3630.0	27.6	100.0
19	3630.1 - 3657.8	27.7	100.0

**Mud**

Depth	Mud weight	Visc.	Mud type
493.0	1.25		WATER BASED
740.0	1.25		WATER BASED
759.0	1.25		WATER BASED
770.0	1.20	20.0	WATER BASED
1021.0	1.20	24.0	WATER BASED
1136.0	1.20	22.0	WATER BASED
1266.0	1.20	22.0	WATER BASED
1370.0	1.20	18.0	WATER BASED
1500.0	1.20	18.0	WATER BASED
1570.0	1.23	17.0	WATER BASED
1685.0	1.23	16.0	WATER BASED
1796.0	1.20	21.0	WATER BASED
1820.0	1.27	17.0	WATER BASED
1855.0	1.27	19.0	WATER BASED
2024.0	1.35	23.0	WATER BASED
2115.0	1.40	31.0	WATER BASED
2163.0	1.35	28.0	WATER BASED

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2315.0	1.40	24.0	WATER BASED
2459.0	1.40	31.0	WATER BASED
2625.0	1.40	27.0	WATER BASED
2751.0	1.40	29.0	WATER BASED
2769.0	1.40	27.0	WATER BASED
2821.0	1.40	28.0	WATER BASED
2918.0	1.40	25.0	WATER BASED
2969.0	1.40	25.0	WATER BASED
3028.0	1.40	21.0	WATER BASED
3039.0	1.40	21.0	WATER BASED
3165.0	1.55	21.0	WATER BASED
3275.0	1.55	19.0	WATER BASED
3279.0	1.58	17.0	WATER BASED
3325.0	1.83	20.0	WATER BASED
3329.0	1.84	57.0	WATER BASED
3360.0	1.84	42.0	WATER BASED
3388.0	1.85	27.0	WATER BASED
3396.0	1.86	39.0	WATER BASED
3410.0	1.86	35.0	WATER BASED
3416.5	1.86	39.0	WATER BASED
3431.0	1.86	40.0	WATER BASED
3438.0	1.86	38.0	WATER BASED
3450.0	1.86	36.0	WATER BASED
3489.0	1.86	35.0	WATER BASED
3511.5	1.86	36.0	WATER BASED
3518.0	1.86	30.0	WATER BASED
3575.0	1.86	31.0	WATER BASED
3602.0	1.86	28.0	WATER BASED
3630.0	1.86	27.0	WATER BASED
3657.0	1.86	23.0	WATER BASED
3706.0	1.85	22.0	WATER BASED
3824.0	.00	23.0	WATER BASED
3932.0	.00	28.0	WATER BASED
3965.0	1.84	31.0	WATER BASED
3987.0	1.83	25.0	WATER BASED

**Drill Stem Test (intervals and pressures)**

Test no.	Test interval meter	Choke size	Pressure (psi) WHP	BTHP	FFP
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**Drill Stem Test (recovery)**

Test	Oil	Gas	Oil grav.	Gas grav.	GOR
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<b>Well no:</b>	<b>Operator:</b>
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no.	Sm3/d	Sm3/d	g/cm3	rel. air	m3/m3
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### Drill Bit Cuttings and Wet Samples

Sample type	Interval below KB	Number of samples
WET SAMPLES	750 - 3984	410

### Shallow Gas

Interval below KB	Remarks

### Available Logs

Log type	Intervals logged	1/200	1/500	
AC CBL VDL GR	384.0 - 1786.0			
ACBL VDL GR	2820.0 - 3025.0			
ACOUSTIC CEMENT	382.0 - 2860.0			
BHC AC DIFL CAL GR	729.0 - 1803.0			
BHC AC DIFL GR CAL	445.0 - 735.0			
CDM AP/COMPUTED DIP	3375.0 - 3857.0			
CORGUN	905.0 - 3850.0			
CPI LOG	3325.0 - 3825.0			
DIFL BHC AC GR	445.0 - 3651.0			
FMT	913.0 - 3841.0			
FORMATION EVALUATION	735.0 - 3987.0			
MUD	720.0 - 1895.0			
MWD	454.0 - 3326.0			
SHDT	3286.0 - 3857.0			

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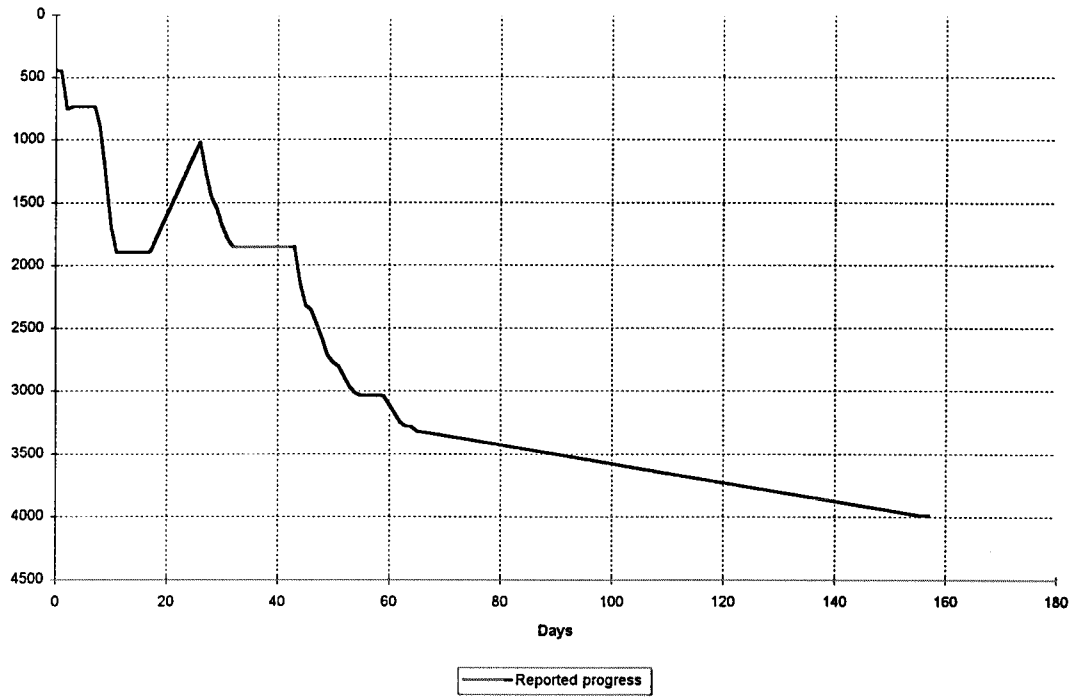
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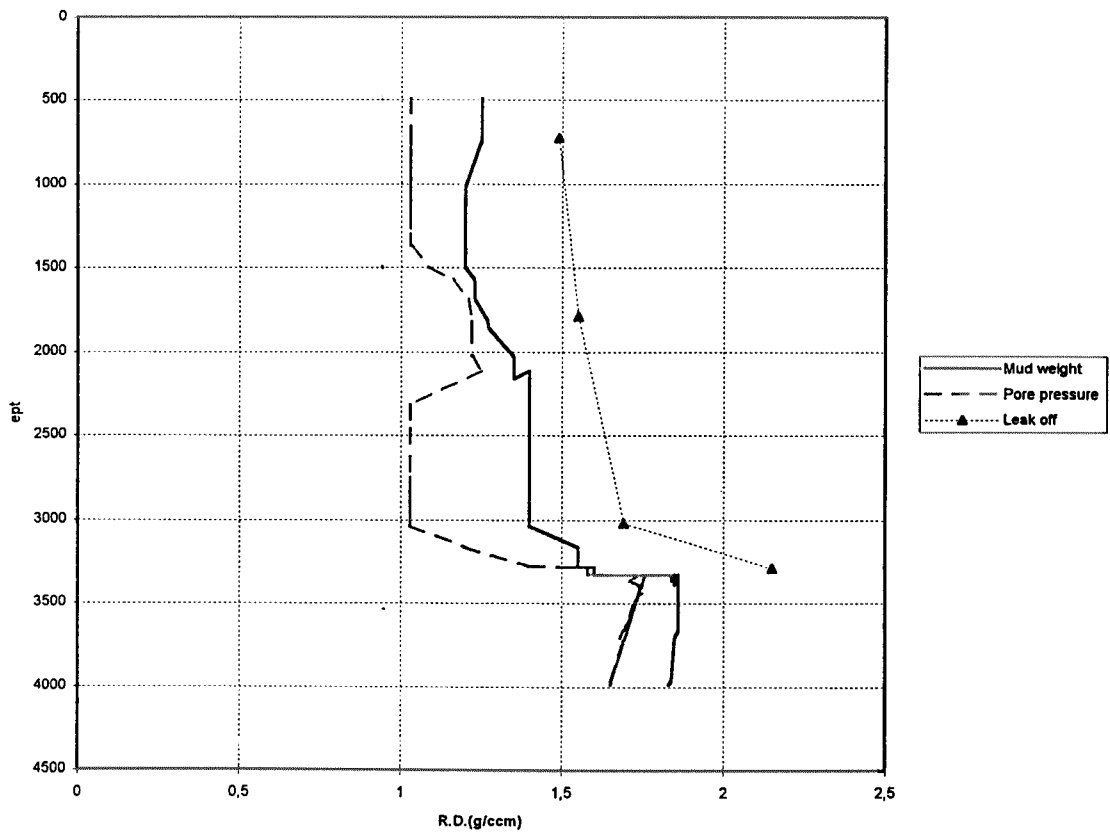
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SHDT/DIPLOG	3016.0 - 3290.0			
SYNTHETIC SEISMOGRAM				
TWO TRAVEL TIME LOG				
VELOCITY LOG	447.0 - 3849.0			
VERTICAL SEISMIC PRO				
Z-CDL CN GR	445.0 - 3856.0			
ZDL CN CAL GR	3286.0 - 3651.0			
ZDL CN X-Y CAL. GR	3016.0 - 3290.0			

Depth v.s. time plot for well: 35/10-1



Composite plot for well: 35/10-1



**Main operations for well: 35/10-1****Main operation: DRILLING**

Sub operation:	Minutes:	Hours:	% of total:
BOP ACTIVITIES	1260	21,0	1,78
BOP/WELLHEAD EQ	4710	78,5	6,66
CASING	16320	272,0	23,09
CIRC/COND	4680	78,0	6,62
DRILL	21390	356,5	30,26
HOLE OPEN	960	16,0	1,36
OTHER	1290	21,5	1,83
PRESS DETECTION	720	12,0	1,02
REAM	1470	24,5	2,08
SURVEY	750	12,5	1,06
TRIP	17130	285,5	24,24
<b>Total</b>	<b>70680</b>	<b>1178,0</b>	<b>100,00</b>

**Main operation: FORMATION EVAL**

Sub operation:	Minutes:	Hours:	% of total:
CIRC SAMPLES	360	6,0	1,01
CIRC/COND	2310	38,5	6,46
CORE	10680	178,0	29,87
LOG	10140	169,0	28,36
OTHER	300	5,0	0,84
TRIP	11940	199,0	33,39
WAIT	30	0,5	0,08
<b>Total</b>	<b>35760</b>	<b>596,0</b>	<b>100,00</b>

**Main operation: INTERRUPTION**

Sub operation:	Minutes:	Hours:	% of total:
FISH	7800	130,0	7,00
LOST CIRC	9030	150,5	8,11
MAINTAIN/REP	20010	333,5	17,96
OTHER	6360	106,0	5,71
SIDETRACK	10920	182,0	9,80
WAIT	22260	371,0	19,98
WELL CONTROL	35010	583,5	31,43
<b>Total</b>	<b>111390</b>	<b>1856,5</b>	<b>100,00</b>

**Main operation: MOVING**

Sub operation:	Minutes:	Hours:	% of total:
ANCHOR	2605	43,4	42,19
TRANSIT	3570	59,5	57,81
<b>Total</b>	<b>6175</b>	<b>102,9</b>	<b>100,00</b>

**Main operation: PLUG & ABANDON**

Sub operation:	Minutes:	Hours:	% of total:
CEMENT PLUG	630	10,5	3,93
CIRC/COND	2850	47,5	17,79
CUT	1260	21,0	7,87
EQUIP RECOVERY	420	7,0	2,62
MECHANICAL PLUG	870	14,5	5,43
OTHER	1170	19,5	7,30
SQUEEZE	30	0,5	0,19
TRIP	8670	144,5	54,12
WAIT	120	2,0	0,75
<b>Total</b>	<b>16020</b>	<b>267,0</b>	<b>100,00</b>

Total time used:  Hours

# WELL HISTORY 35/10-1

## **GENERAL:**

The main objective of the well 35/10-1 was to test the hydrocarbon potential of the Middle Jurassic Brent Group sandstones located in a rotated fault block. A secondary target was the Lower Jurassic Cook Formation.

## **OPERATION:**

Well 35/10-1 was spudded on the 1<sup>st</sup> August 1991 by the semi submersible rig "Deepsea Bergen" and was completed 17<sup>th</sup> January 1992, in the Statfjord Formation.

Both the Primary and secondary objectives proved to be water bearing, although low saturation of hydrocarbons are observed throughout the Brent Group. Log evaluation indicates water saturation of 50-100% in the Brent and Dunlin Groups. A well kick at 3325m MD RKB confirms water in the top of the Brent Group, the Tarbert Formation. In the Cook Formation, there is low saturation of hydrocarbons, with a possible gas-cap in the top, from 3525m MD RKB to 3543m MD RKB. Log evaluation indicates water saturation of 65-100%. A 2 meters thick sand layer from 1891m MD RKB to 1893m MD RKB in the Lista Formation, proved to be oil bearing (well kick, FMT sample at 1892m MD RKB).

The well was permanently plugged and abandoned as a dry well.

## **TESTING:**

No DST test was performed in this well.



# Geological Tops.

## Well: 35/10-1.

	Depth m (RKB).
Nordland Group	384.0
Utsira Fm	911.0
Hordaland Group	948.0
Grid Fm	1202.0
Rogaland Group	1754.0
Balder Fm	1754.0
Sele Fm	1823.0
Lista Fm	1840.0
Våle Fm	1992.0
Shetland Group	2003.0
Jorsalfare Fm	2003.0
Kyrre Fm	2225.8
Tryggvason Fm	3004.0
Blodøks Fm	3040.0
Svarte Fm	3055.0
Cromer Knoll Group	3063.0
Rødby Fm	3063.0
Sola Fm	3078.0
Mime Fm	3081.0
Viking Group	3095.0
Draupne Fm	3095.0
Heather Fm	3143.0
Brent Group	3321.0
Tarbert Fm	3321.0
Ness Fm	3340.0
Etive Fm	3445.0
Rannoch Fm	3456.0
Oseberg Fm	3501.0
Dunlin Group	3504.0
Drake Fm	3504.0
Cook Fm	3532.0
Amundsen Fm	3645.0
Statfjord Fm	3822.0
T.D	3986.0