

# WDSS Report

Date: 26/03/98

PB/SKR

Page: 1 / 1

Well no:	Operator:
34/10-35	STATOIL

## Well

Coordinates : 61° 04' 16.17" N UTM coord. : 6771063.85 N  
02° 19' 16.77" E 463374.05 E  
License no : 50 Permit no : 715  
Rig : ROSS RIG Rig type : SEMI-SUB.  
Contractor : ROSS OFFSHORE A/S  
Bottom hole temp: 150 °C Elev. KB : 23 M  
Spud. date : 92.02.05 Water depth : 135 M  
Compl. date : 92.06.30 Total depth : 4310 M  
Spud. class : WILDCAT Form. at TD :  
Compl. class : P&A. OIL/GAS Prod.form. :  
Seisloca : ST 8720, REKKE 507,  
KOLONNE 1181

## Licenseses

6.000000 SAGA PETROLEUM ASA  
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9.000000 NORSK HYDRO PRODUKSJON 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	221.0	36	221.0	
INTERM.	20	1083.0	26	1083.0	1.62
INTERM.	13 3/8	3200.0	17 1/2	3202.0	2.00
INTERM.	9 5/8	3777.0	12 1/4	3780.0	2.12
LINER	7	4123.0	8 1/2	4310.0	

## Conventional Cores

Core no.	Intervals cored meters	Recovery m	%
1	3931.0 - 3939.0	8.0	100.0

**WDSS Report**

Date: 26/03/98

PB/SKR

Page: 2 / 2

<b>Well no:</b>	<b>Operator:</b>
<b>34/10-35</b>	<b>STATOIL</b>

2	3939.0 - 3944.5	5.2	100.0
3	3944.5 - 3948.5	3.5	100.0
4	3949.5 - 3955.5	5.0	100.0
5	3968.0 - 3970.8	2.8	100.0
6	3984.0 - 3994.0	10.0	100.0
7	3994.0 - 4013.0	19.0	100.0
8	4013.0 - 4018.0	5.0	100.0
9	4018.0 - 4046.0	28.0	100.0
10	4046.0 - 4056.6	10.6	100.0
11	4057.5 - 4063.6	6.1	100.0
12	4250.0 - 4275.6	25.6	100.0
13	4276.0 - 4286.9	10.9	100.0

**Mud**

Depth	Mud weight	Visc.	Mud type
903.0	1.03		WATER BASED
1083.0	1.03	17.0	DUMMY
1090.0	1.03		WATER BASED
1091.0	1.03	19.0	DUMMY
1535.0	1.20	20.0	DUMMY
1995.0	1.30	24.0	DUMMY
2536.0	1.30	24.0	DUMMY
2629.0	1.30	31.0	WATER BASED
2860.0	1.30	29.0	WATER BASED
2973.0	1.30	25.0	WATER BASED
3215.0	1.42	29.0	WATER BASED
3218.0	1.40	22.0	WATER BASED
3285.0	1.40	23.0	WATER BASED
3339.0	1.40	24.0	WATER BASED
3449.0	1.40	27.0	WATER BASED
3496.0	1.40	24.0	WATER BASED
3527.0	1.68	36.0	WATER BASED
3534.0	1.68	32.0	WATER BASED
3546.0	1.68	33.0	WATER BASED
3547.0	1.70	28.0	DUMMY
3549.0	1.70	32.0	DUMMY
3592.0	1.70	38.0	DUMMY
3633.0	1.78	41.0	DUMMY
3662.0	1.78	44.0	DUMMY
3740.0	1.83	44.0	DUMMY
3780.0	1.92	40.0	DUMMY
3812.0	2.01	27.0	DUMMY
3821.0	2.05	39.0	DUMMY
3869.0	2.04	25.0	DUMMY

## WDSS Report

Date: 26/03/98

PB/SKR

Page: 3 / 3

<b>Well no:</b>	<b>Operator:</b>
<b>34/10-35</b>	<b>STATOIL</b>

3871.0	2.05	50.0	DUMMY
3883.0	2.04	26.0	DUMMY
3921.0	2.05	33.0	DUMMY
3939.0	2.05	31.0	DUMMY
3948.5	2.05	35.0	DUMMY
3968.0	2.05	39.0	DUMMY
4046.0	2.05	56.0	DUMMY
4078.0	2.05	51.0	DUMMY
4086.0	2.05	30.0	DUMMY
4157.0	2.05	50.0	DUMMY
4202.0	2.05	52.0	DUMMY
4250.0	2.05	45.0	DUMMY
4276.0	2.05	44.0	DUMMY
4287.0	2.05	46.0	DUMMY
4310.0	2.05	49.0	DUMMY

### Drill Stem Test (intervals and pressures)

Test no.	Test interval meter	Choke size	Pressure (psi) WHP	BTHP	FFP
1.0	4015.0 - 4025.0	15.8		7.6	
2.0	3984.0 - 3995.0	12.7			39.0
3.0	3920.0 - 3930.0	15.8			6.0

### Drill Stem Test (recovery)

Test no.	Oil Sm <sup>3</sup> /d	Gas Sm <sup>3</sup> /d	Oil grav. g/cm <sup>3</sup>	Gas grav. rel. air	GOR m <sup>3</sup> /m <sup>3</sup>
1.0	130	630000	0.795	0.665	4800
2.0	220	990000	0.795	0.667	4500
3.0	113	340000	0.794	0.684	3000

### Drill Bit Cuttings and Wet Samples

Sample type	Interval below KB	Number of samples
WET SAMPLES	1100 - 4310	300

### Shallow Gas

**WDSS Report**

Date: 26/03/98

PB/SKR

Page: 4 / 4

<b>Well no:</b>	<b>Operator:</b>
<b>34/10-35</b>	<b>STATOIL</b>

Interval below KB	Remarks

**Available Logs**

Log type	Intervals logged	1/200	1/500	
4-ARM CALIPER LOG GR	3858.0 - 4302.0			
ACBL VDL GR	2635.0 - 3192.0			
ACOUSTIC CEMENT BOND	3009.0 - 3769.0			
BIT PERFORMANCE PLOT	150.0 - 4310.0			
CALIBRATED SONIC				
CEMENT RETAINER	.0 - 3888.0			
COMP. Z-DENSILOG	1080.2 - 3101.0			
COMPUTED DIPLOG	3858.0 - 4302.0			
CORGUN	1100.0 - 4237.0			
DIFL BHC GR	3192.0 - 3770.0			
DIGITAL ARRAY	3657.0 - 4287.0			
DIPLOG	3858.0 - 4302.0			
DUAL LATEROLOG MICRO	3898.0 - 4057.0			
FMT	3871.0 - 3932.0			
FORMATION MULTI TEST	3920.0 - 4294.0			
GR	3750.0 - 3930.0			
GR CCL CORRELATION	3840.0 - 3925.0			
MUD	150.0 - 4310.0			
MWD REAL TIME LOG	162.0 - 4310.0			
PRESSURE EVAL	150.0 - 4310.0			

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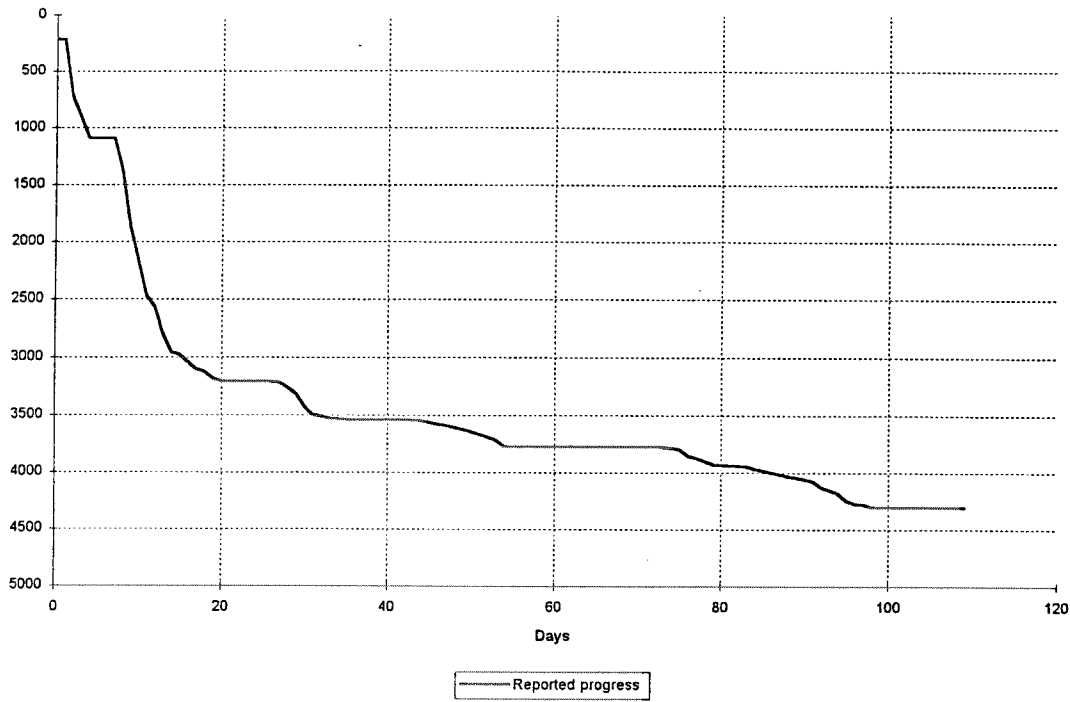
PB/SKR

Page: 5 / 5

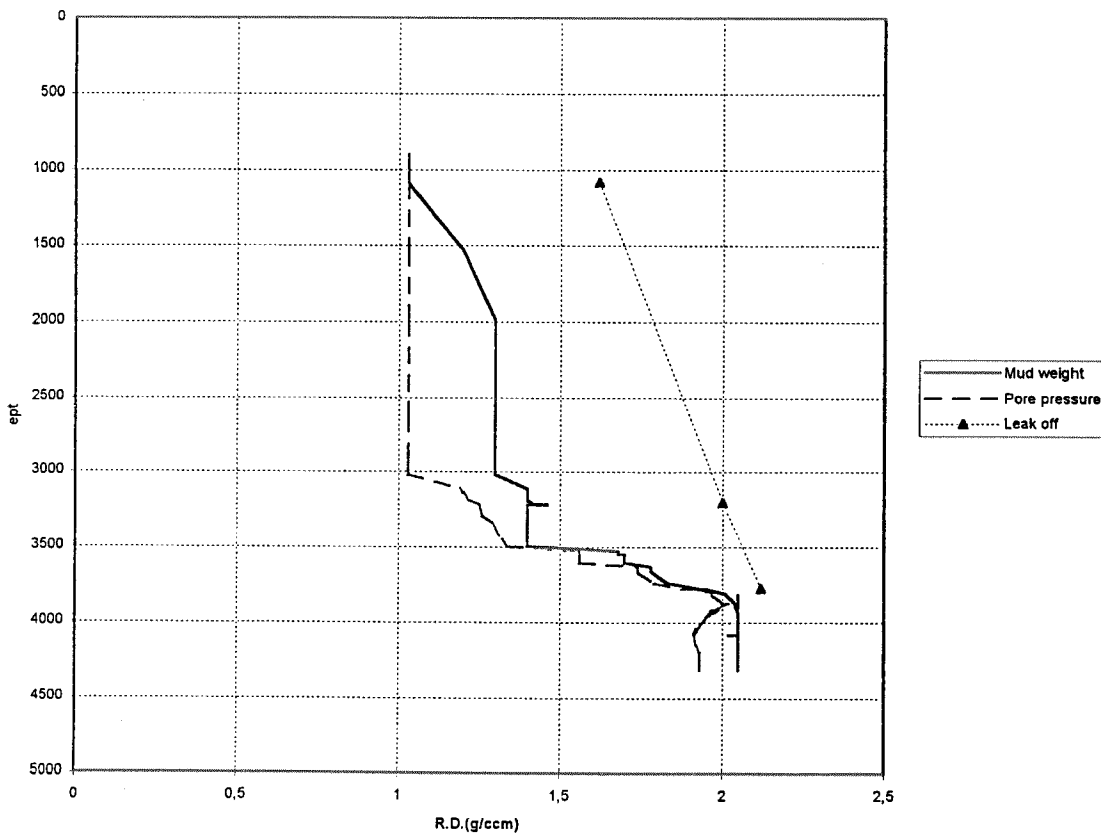
<b>Well no:</b>	<b>Operator:</b>
<b>34/10-35</b>	<b>STATOIL</b>

SEGMENTED BOND LOG	3646.0 - 4065.0			
SPECTRALOG	3887.0 - 4057.0			
SYNTHETIC SEISMOGRAM				
TWO WAY TRAVEL TIME				
VSP				
VSP				
Z-DENSILOG	3769.0 - 4165.0			
Z-DENSILOG NEUTRON	3769.0 - 4302.0			
ZDL GR	3192.0 - 3770.3			

Depth v.s. time plot for well: 34/10-35



Composite plot for well: 34/10-35



## Main operations for well: 34/10-35

### Main operation: DRILLING

Sub operation:	Minutes:	Hours:	% of total:
BOP ACTIVITIES	1830	30,5	2,39
BOP/WELLHEAD EQ	2310	38,5	3,01
CASING	21180	353,0	27,62
CIRC/COND	3120	52,0	4,07
DRILL	31890	531,5	41,59
HOLE OPEN	900	15,0	1,17
REAM	840	14,0	1,10
SURVEY	810	13,5	1,06
TRIP	13800	230,0	18,00
<b>Total</b>	<b>76680</b>	<b>1278,0</b>	<b>100,00</b>

### Main operation: FORMATION EVAL

Sub operation:	Minutes:	Hours:	% of total:
CIRC SAMPLES	750	12,5	1,57
CIRC/COND	2790	46,5	5,85
CORE	4620	77,0	9,68
DST	22050	367,5	46,20
LOG	9300	155,0	19,48
OTHER	990	16,5	2,07
RFT/FIT	990	16,5	2,07
TRIP	6240	104,0	13,07
<b>Total</b>	<b>47730</b>	<b>795,5</b>	<b>100,00</b>

### Main operation: INTERRUPTION

Sub operation:	Minutes:	Hours:	% of total:
FISH	6180	103,0	20,02
LOST CIRC	9420	157,0	30,52
MAINTAIN/REP	9810	163,5	31,78
OTHER	210	3,5	0,68
WAIT	4950	82,5	16,03
WELL CONTROL	300	5,0	0,97
<b>Total</b>	<b>30870</b>	<b>514,5</b>	<b>100,00</b>

### Main operation: MOVING

Sub operation:	Minutes:	Hours:	% of total:
ANCHOR	1320	22,0	23,16
POSITION	120	2,0	2,11
TRANSIT	4260	71,0	74,74
<b>Total</b>	<b>5700</b>	<b>95,0</b>	<b>100,00</b>

### Main operation: PLUG & ABANDON

Sub operation:	Minutes:	Hours:	% of total:
CEMENT PLUG	1020	17,0	5,81
CIRC/COND	1410	23,5	8,03
CUT	3630	60,5	20,68
MECHANICAL PLUG	930	15,5	5,30
OTHER	4050	67,5	23,08
SQUEEZE	360	6,0	2,05
TRIP	6150	102,5	35,04
<b>Total</b>	<b>17550</b>	<b>292,5</b>	<b>100,00</b>

Total time used:  Hours

# WELL HISTORY 34/10-35

## GENERAL:

Well 34/10-35 was primarily designated to explore the Brent Group of the Gamma structure and the hydrocarbon reserves in this group. Information on pressure conditions and hydrocarbon composition was also objectives for the well.

## OPERATION:

Well 34/10-35 was spudded on the 5<sup>th</sup> February 1992 by the semi submersible rig "Ross Isle" and was completed 13<sup>th</sup> May 1992 in rocks of Jurassic age. The well proved gas/condensate bearing sandstones of Jurassic age in the Ness - Cook Formations. The well was tested. The Cook formation test was performed in the interval 3984-3995m MD RKB and produced 190m<sup>3</sup>/d condensate and 990000m<sup>3</sup>/d gas on 14.3 mm choke. The Ness Formation was perforated in the interval 3920-3929m MD RKB and produced 95m<sup>3</sup>/d condensate and 350000m<sup>3</sup>/d gas through a 22.2mm choke. No gas/water contact was established in this well.

The well was plugged and abandoned as a gas/condensate discovery.

## TESTING:

Three DST tests were performed in this well.



# Geological Tops.

## Well: 34/10-35.

	Depth m (RKB).
Nordland Group	330.0
Utsira Fm	1092.0
Hordaland Group	1131.0
Rogaland Group	1842.0
Balder Fm	1842.0
Sele Fm	1908.5
Shetland Group	2036.5
Cromer Knoll Group	2903.5
Viking Group	2908.0
Draupne Fm	2908.0
Heather Fm	2914.0
Brent Group	2922.5
Tarbert Fm	2922.5
Ness Fm	2942.5
Etive Fm	2956.0
Rannoch Fm	2962.5
Dunlin Group	2983.5
Drake Fm	2983.5
Cook Fm	3012.0
Amundsen Fm	3116.0
Statfjord Fm	3151.5
Hegre Group	3246.0
Lunde Fm.	3246.0
T.D.	3530.0