

Date: 25/09/96

Well no:	Operator:
<b>34/07-17</b>	<b>SAGA</b>

## Well

Coordinates :	61° 20' 50.69" N 02° 05' 42.31" E	UTM coord. :	6801982.38 N 451591.07 E
License no :	89	Permit no :	668
Rig :	TREASURE SAGA	Rig type :	SEMI-SUB.
Contractor :	TRANSOCEAN AS	Elev. KB :	26 M
Bottom hole temp:	91 °C	Water depth :	259 M
Spud. date :	91.02.25	Total depth :	3115 M
Compl. date :	91.04.07	Form. at TD :	TRIASSIC
Spud. class :	APPRAISAL	Prod.form. :	
Compl. class :	P&A. DRY HOLE		
Seisloca :	GE-83, ROW 341- COL. 1025		

## Licensees

.700000 DNO OLJE A/S  
 5.600000 ELF PETROLEUM NORGE AS  
 10.500000 ESSO EXPL. & PROD. NORWAY A/S  
 8.400000 NORSK HYDRO PRODUKSJON AS  
 9.600000 IDEMITSU PETROLEUM NORGE AS  
 7.000000 SAGA PETROLEUM A.S.  
 55.400000 DEN NORSKE STATS OLJESELSKAP A.S  
 2.800000 DEMINEX NORGE AS

## Casing and Leak-off Tests

Type	Casing diam	Depth below KB	Hole diam.	Hole depth below KB	Lot mud eqv. g/cm <sup>3</sup>
CONDUCTOR	30	371.0	36	372.0	
INTERM.	20	881.0	26	902.0	1.83
INTERM.	13 3/8	1955.0	17 1/2	1974.0	1.80

Date: 25/09/96

<b>Well no:</b>	<b>Operator:</b>
<b>34/07-17</b>	<b>SAGA</b>

## Conventional Cores

Core no.	Intervals cored meters	Recovery m	%
1	2460.0 - 2478.5	18.5	100.0
2	2478.5 - 2496.9	18.4	100.0
3	2498.0 - 2507.5	9.5	100.0
4	2508.0 - 2531.6	23.6	100.0
5	2534.0 - 2542.0	8.0	100.0
6	2545.0 - 2552.5	7.5	100.0
7	2554.0 - 2570.2	16.2	100.0
8	2571.0 - 2586.0	15.0	100.0

## Mud

Depth	Mud weight	Visc.	Mud type
390.0	1.20		WATER BASED
390.0	1.04		WATER BASED
815.0	1.04		WATER BASED
897.0	1.30	20.0	WATER BASED
897.0	1.04		WATER BASED
1268.0	1.30	25.0	WATER BASED
1509.0	1.40	31.0	WATER BASED
1807.0	1.49	36.0	WATER BASED
1879.0	1.49	33.0	WATER BASED
1969.0	1.49	32.0	WATER BASED
1974.0	1.49	27.0	WATER BASED
2036.0	1.51	31.0	WATER BASED
2272.0	1.60	34.0	WATER BASED
2460.0	1.65	40.0	WATER BASED

## Drill Stem Test (intervals and pressures)

Test no.	Test interval meter	Choke size	Pressure (psi) WHP	BTHP	FFP
----------	---------------------	------------	--------------------	------	-----

Date: 25/09/96

Well no:	Operator:
<b>34/07-17</b>	<b>SAGA</b>

### 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>

### Drill Bit Cuttings and Wet Samples

Sample type	Interval below KB	Number of samples
WET SAMPLES	900 - 3114	300
CUTTINGS	900 - 3114	150

### Shallow Gas

Interval below KB	Remarks

### Available Logs

Log type	Intervals logged	1/200	1/500	
AMS	1954.0 - 3103.0			
CBL VDL CCL GR	750.0 - 1942.0			
CDM AP/SHDT GR	1954.0 - 3119.0			
DIL LSS SP GR	880.0 - 1948.0			
DIL LSS SP GR	880.0 - 1948.0			
DIL MSFL DSI SP GR	1954.0 - 3116.0			
FORMATION PRESSURE	300.0 - 3115.0			
FORMATION TESTER	1879.0 - 1914.0			
HP RFT GR	2462.0 - 3074.0			
LDL CNL GR	1954.0 - 3103.0			
LDL GR	880.0 - 1948.0			

WDSS Report

Date: 25/09/96

PB/SKR

Page: 4 / 4

<b>Well no:</b>	<b>Operator:</b>
<b>34/07-17</b>	<b>SAGA</b>

MSD	1954.0 - 3119.0			
MUDLOG/MASTERLOG	26.0 - 3115.0			
MWD MD+TVD	1994.0 - 2650.0			
RWD	286.0 - 3115.0			
SWS GR	2000.0 - 3097.0			
SYNTHETIC SEISMOGRAM				
TWO-WAY TRAVEL TIME	900.0 - 3114.0			
WELLSITE LITHOLOGY	285.0 - 3115.0			
VELOCITY LOG				
VSP				

## Main operations for well: 34/7-17

### Main operation: DRILLING

Sub operation:	Minutes:	Hours:	% of total:
BOP ACTIVITIES	660	11,0	1,80
BOP/WELLHEAD EQ	1860	31,0	5,07
CASING	4620	77,0	12,58
CIRC/COND	1350	22,5	3,68
DRILL	19980	333,0	54,41
HOLE OPEN	990	16,5	2,70
OTHER	60	1,0	0,16
PRESS DETECTION	30	0,5	0,08
REAM	450	7,5	1,23
TRIP	6330	105,5	17,24
WAIT	390	6,5	1,06
<b>Total</b>	<b>36720</b>	<b>612,0</b>	<b>100,00</b>

### Main operation: FORMATION EVAL

Sub operation:	Minutes:	Hours:	% of total:
CIRC/COND	540	9,0	3,70
CORE	3360	56,0	23,05
LOG	4560	76,0	31,28
RFT/FIT	540	9,0	3,70
TRIP	5460	91,0	37,45
WAIT	120	2,0	0,82
<b>Total</b>	<b>14580</b>	<b>243,0</b>	<b>100,00</b>

### Main operation: INTERRUPTION

Sub operation:	Minutes:	Hours:	% of total:
FISH	2580	43,0	40,19
MAINTAIN/REP	2700	45,0	42,06
OTHER	60	1,0	0,93
WAIT	1080	18,0	16,82
<b>Total</b>	<b>6420</b>	<b>107,0</b>	<b>100,00</b>

### Main operation: MOVING

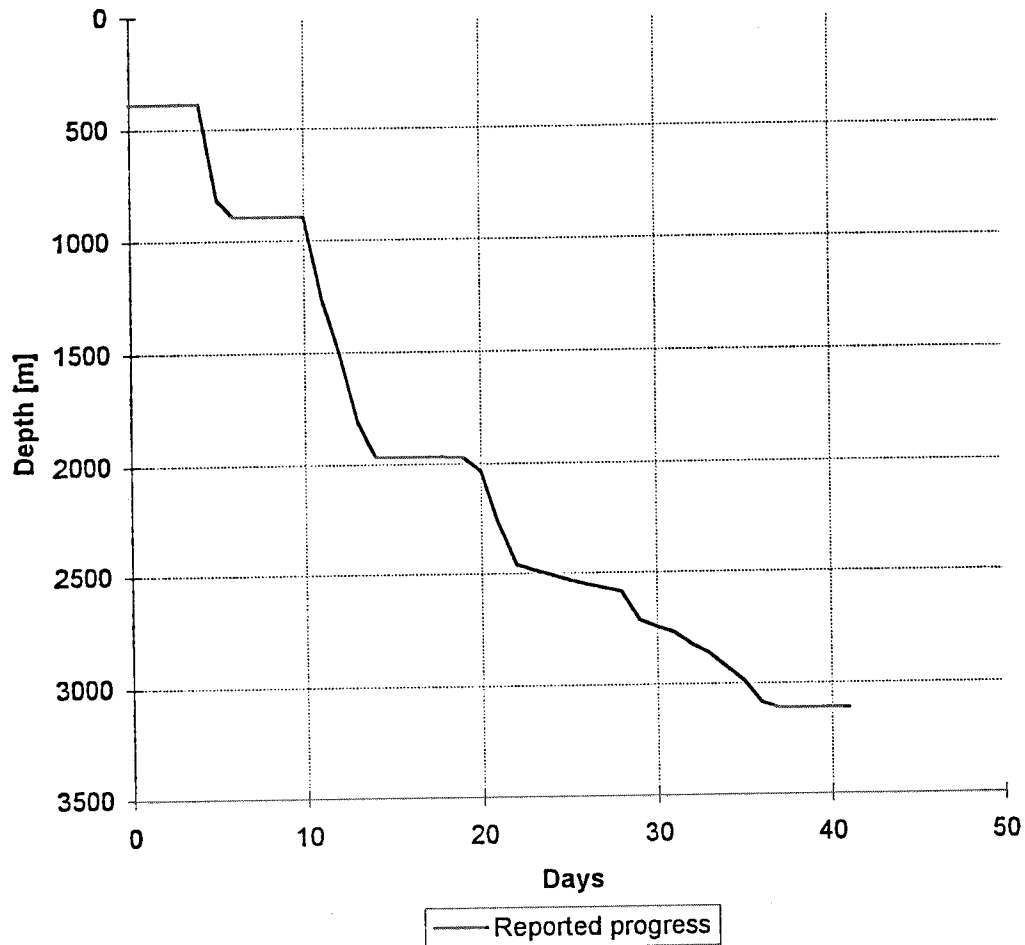
Sub operation:	Minutes:	Hours:	% of total:
ANCHOR	990	16,5	23,57
TRANSIT	3210	53,5	76,43
<b>Total</b>	<b>4200</b>	<b>70,0</b>	<b>100,00</b>

### Main operation: PLUG & ABANDON

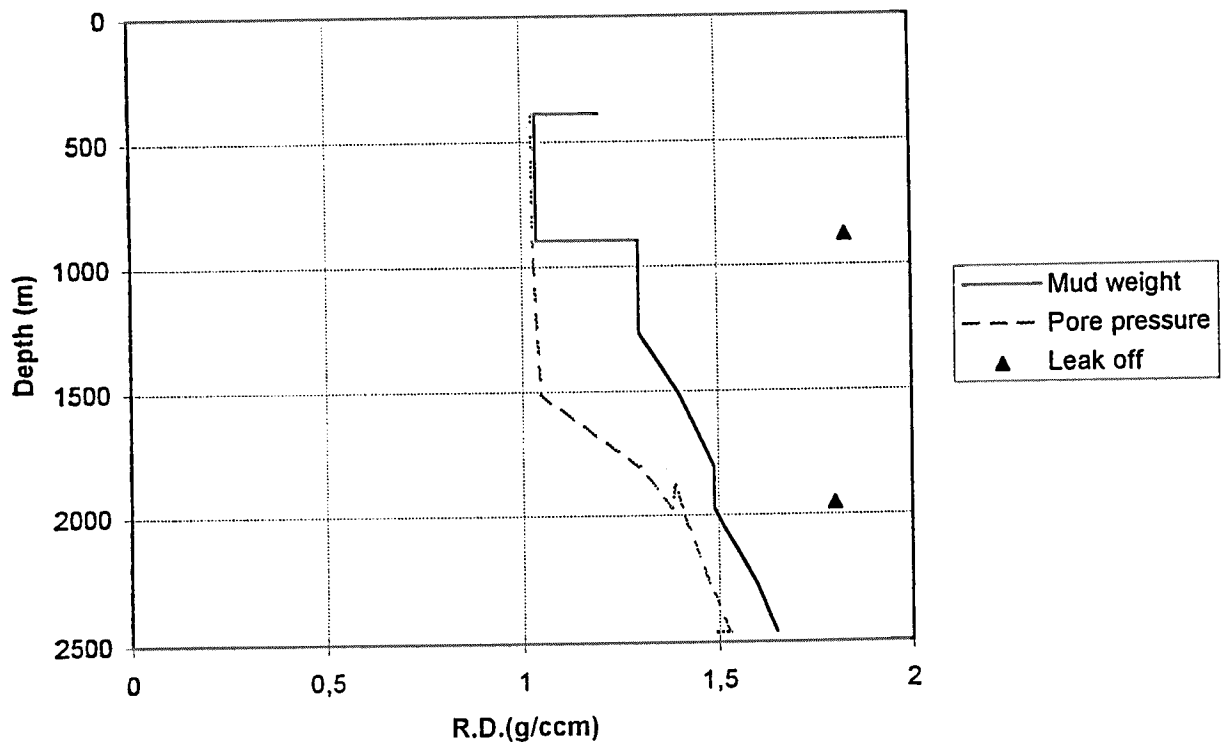
Sub operation:	Minutes:	Hours:	% of total:
CEMENT PLUG	780	13,0	54,17
CIRC/COND	240	4,0	16,67
MECHANICAL PLUG	60	1,0	4,17
TRIP	360	6,0	25,00
<b>Total</b>	<b>1440</b>	<b>24,0</b>	<b>100,00</b>

Total time used:  Hours

Depth vs time for well: 34/7-17



Composite plot for well: 34/7-17



# Well History 34/7-17.

## General:

Well 34/7-17 was planned to test the southern extension of the 34/7-16 discovery, which is located west of the Snorre and "Snorre West" Fields in the north and the Tordis Field in the south. The C-Plus structure is intersected by several E-W trending faults that may serve as sealing barriers. Thus, it was uncertain which of these that acted as a seal of the discovery to the south. The main objectives of the well were:

- 1) to test the southern extension of the 34/7-16 discovery.
  - 2) to test the presence and reservoir quality of the Brent sequence, especially upper Brent which was not present in well 34/7-16 (primary target).
  - 3) to test the presence of Upper Jurassic sandstones
  - 4) to test the quality of the Cook Formation
  - 5) to test the seismic marker Top Statfjord Formation
  - 6) to test the reservoir quality and the pressure regime of the Statfjord Formation
- The well was drilled in an updip position where the top of the Brent Group, is becoming progressively truncated to the east. No special shallow gas warnings were given.

## Operations:

Wildcat well 34/7-17 was spudded 25 February 1991 by the semi-submersible rig Treasure Saga and completed 3 April at a total depth of 3115 m RKB MD within the sandy claystones of the Triassic Hegre Group (Lunde Formation). The top of the Brent Group was reached at 2461 m RKB MD (38 m TVD deeper than prognoses). The Jurassic section comprised a minor interval of the Viking Group, and a complete section of the Middle Jurassic Brent Group, the Lower Jurassic Dunlin Group and the Statfjord Formation. A total of 8 conventional cores were cut in this well. A total of 150 sidewall cores were attempted, and 96 were recovered. The main reservoir targets, the Brent Group and Statfjord Formation, proved to be water bearing. The open hole was plugged back for a new reservoir target.

## Testing:

No DST tests were performed in this well.

# Geological Tops.

## Well: 34/7-17.

	Depth m (RKB).
Nordland Group	285.0
Utsira Fm	942.0
Hordaland Group	1098.0
Rogaland Group	1697.0
Balder Fm	1697.0
Lista/Sele Fm	1772.0
Shetland Group	1911.0
Jorsalsfare Fm	1911.0
Brent Group	2444.0
Mime Fm	2444.0
Tarbert Fm	2458.0
Ness Fm	2506.0
Etive Fm	2572.0
Rannoch Fm	2625.0
Dunlin Group	2692.0
Drake Fm	2692.0
Cook Fm	2785.0
Amundsen Fm	2810.0
Statford Fm	2938.0
Hegre Group	3081.0
Lunde Fm	3081.0
T.D.	3115.0