

Well no : 34/10-16 AND 34/10-16 R Operator : STATOIL

Coordinates : 61 05 35.62 N UTM coord. : 6773610 N
 02 10 46.66 E 455758 E

Licence no : 050 Permit no : 357

Rig : NORDRAUG Rig type : SEMI-SUB.
 Re-entry : ROSS ISLE Rig type : SEMI-SUB.

Contractor : GOLAR-NOR OFFSHORE A/S
 Re-entry : ROSS DRILLING CO. A/S

Bottom hole temperature : 126 deg.C Elev. KB : 25 M

Spud. date : 82.12.14 Water depth : 138 M
 Re-entry : 83.08.31

Compl. date : 83.04.11 Total depth : 4042 M
 Re-entry : 83.09.27

Spud. class : WILDCAT Form. at TD : TRIASSIC

Compl. class : SUSP. OIL/GAS/COND. Prod. form :
 Re-entry : P&A. OIL/GAS/COND.

Seisloca : 8008 - 111 SP 270

LICENSEES

9,000 NORSK HYDRO PRODUKSJON A.S
 6,000 SAGA PETROLEUM A.S
 85,000 DEN NORSKE STATS OLJESELSKAP A.S

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	225,0	36	226,0	
SURF.COND.	20	598,0	26	619,0	1,46
INTERM.	13 3/8	1904,0	17 1/2	1920,0	1,67
INTERM.	9 5/8	2915,0	12 1/4	2930,0	1,87
LINER	7	4035,0	9 1/2	4042,0	

CONVENTIONAL CORES

Core no.	Intervals cored meters	Recovery		Series
		M	%	
1	3170.0 - 3177.0	5.3	75.7	MIDDLE JURASSIC
2	3177.0 - 3195.0	18.0	100.0	MIDDLE JURASSIC
3	3195.0 - 3213.0	16.8	93.3	MIDDLE JURASSIC
4	3213.0 - 3229.0	15.2	95.0	MIDDLE JURASSIC
5	3229.0 - 3247.0	18.0	100.0	MIDDLE JURASSIC
6	3247.0 - 3261.0	13.5	96.4	MIDDLE JURASSIC
7	3261.0 - 3279.0	18.0	100.0	MIDDLE JURASSIC

CONVENTIONAL CORES

Core no.	Intervals cored meters	Recovery		Series
		M	%	
8	3279.0 - 3298.0	17.0	89.5	MIDDLE JURASSIC
9	3298.0 - 3311.0	10.0	76.9	MIDDLE JURASSIC
10	3311.0 - 3323.0	11.0	91.7	MIDDLE JURASSIC
11	3323.0 - 3341.0	18.0	100.0	MIDDLE JURASSIC
12	3341.0 - 3347.0	6.0	100.0	MIDDLE JURASSIC
13	3347.0 - 3359.0	6.0	50.0	MIDDLE JURASSIC
14	3359.0 - 3365.0	4.0	66.7	MIDDLE JURASSIC
15	3365.0 - 3371.0	5.4	90.0	MIDDLE JURASSIC
16	3371.0 - 3378.0	6.9	98.6	MIDDLE JURASSIC
17	3378.0 - 3387.0	9.0	100.0	MIDDLE JURASSIC
18	3387.0 - 3396.0	8.7	96.7	MIDDLE JURASSIC
19	3396.0 - 3414.0	17.4	96.7	MIDDLE JURASSIC
20	3414.0 - 3431.0	16.5	97.1	MIDDLE JURASSIC
21	3431.0 - 3450.0	16.9	88.9	MIDDLE JURASSIC
22	3450.0 - 3466.0	15.4	96.3	MIDDLE JURASSIC
23	3811.0 - 3830.0	18.4	96.8	TRIASSIC

DRILL STEM TEST

TEST NO	DEPTH BELOW KB	CHOKE SIZE mm	RECOVERY					PRESS. (psi)	
			OIL Sm ³ /d	GAS M Sm ³ /d	OIL GRAV. g/cm ³	GAS GRAV. rel.air	GOR m ³ /m ³	BHP	WHP
1	3397 - 3407	19.05	955	182	0.86	0.67	191	4452	
2	3177 - 3187	20.64	400	1647	0.79	0.66	4118	5685	

AVAILABLE LOGS

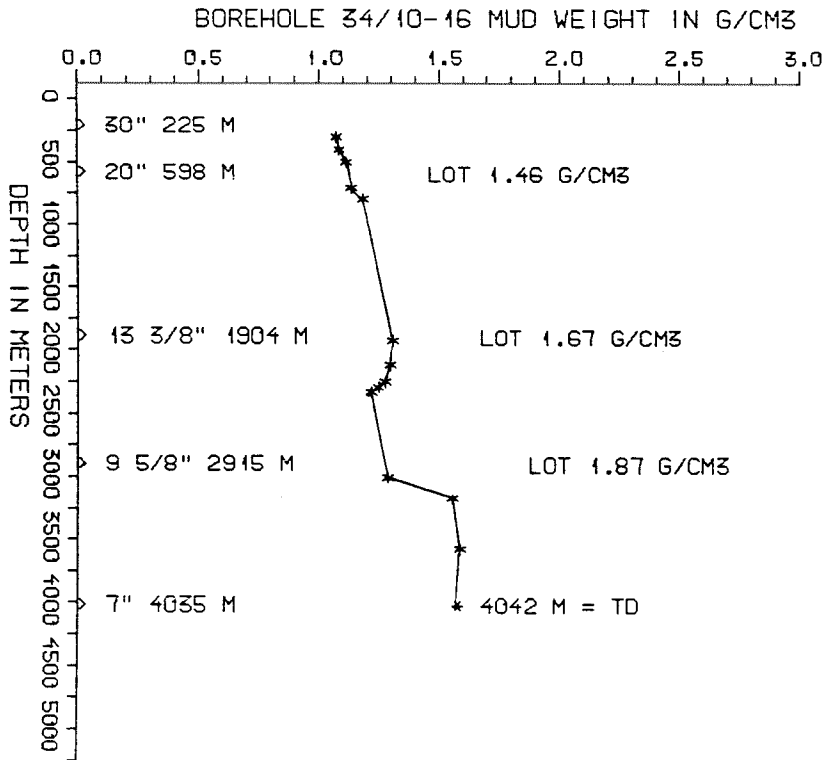
LOG TYPE	INTERVALS	1/200	1/500
ISF LSS GR MSFL	163 - 617	X	
ISF LSS MSFL	617 - 1920	X	
ISF LSS MSFL	1920 - 2926	X	
ISF LSS MSFL	2926 - 4043	X	
ISF LSS MSFL	226 - 4044		X
LDL CNL	226 - 617	X	
LDL	617 - 1920	X	
LDL CNL	1920 - 2926	X	
LDL CNL NGS	2926 - 4043	X	
LDL CNL	226 - 4044		X
DLL GR	3157 - 3223	X	X
CASED HOLE RFT	3286 - 3359		
CASED HOLE RFT HP-GAUGE	3286 - 3359		
NGS	3150 - 3500	X	X
CBL VDL BI	1684 - 1910	X	
CBL VDL BI	899 - 2917	X	
CBL VDL BI	2758 - 4010	X	
MUD	225 - 4042		X
VELOCITY	163 - 4043	1:1000	X

(Two Way Travel Time, 10 cm/s 1 stk)

MUD PROPERTIES			
DEPTH BELOW KB m	WEIGHT g/cm ³	FUNNEL VISC. sec	FILTRATE LOSS cm ³
225	1.04		
325	1.05		
425	1.08		
625	1.10		
720	1.15		
1845	1.27		
2160	1.26		
2170	1.24		
2215	1.21		
2225	1.20		
2250	1.18		
2935	1.25		
3100	1.52		
3500	1.55		
4040	1.55		

DRILL BIT CUTTINGS AND WET SAMPLES		
SAMPLE TYPE	INTERVAL BELOW KB	NUMBER OF SAMPLES
CUTTINGS	230 - 4042	640
WET SAMPLES	230 - 4039	900

SHALLOW GAS	
DEPTH INTERVAL m KB	REMARKS
	NONE



WELL HISTORY - 34/10-16 AND 34/10-16 R

GENERAL:

The wildcat 34/10-16 was drilled on the Gullfaks south structure. The purpose of this well was to investigate a fault block, en echelon to the first fault block tested by well 34/10-2 (see WDSS vol.9), for possible extension of hydrocarbon accumulation. The principal objective was sandstones of the Brent Group. Secondary objectives were the Cook and Statfjord sands. Both oil and gas were found in the Brent Group. No hydrocarbons were encountered in the Cook and Statfjord Formations. The well was temporary plugged and later re-entered for two successful drill-stem tests.

OPERATIONS:

The well was spudded 14.12.82 by the semi-submersible rig Nordraug and re-entered 31.08.83 by the semi-submersible rig Ross Isle. A total of 23 cores were cut, 22 of these in the Brent Group. Excessive time were lost due to waiting on weather, hole problems, logging problems and other technical problems. The well was drilled with waterbased mud.

TESTING:

When the well was re-entered two DST's were performed in the Brent sequence, both produced hydrocarbons. Recoverable reserve estimates in the block were raised considerably by the information gained from this well.

GEOLOGICAL TOPS
WELL 34/10-16 AND 34/10-16 R

	Depth m (RKB)
Nordland Group	138,0
Utsira	859,0
Hordaland Group	1002,0
Rogaland Group	1855,0
Balder Fm	1855,0
Lista Fm	1928,0
Shetland Group	2062,0
Cromer Knoll Group	2981,0
Viking Group	3017,0
Draupne Fm	3017,0
Heather Fm	3032,0
Brent Group	3171,0
Tarbert Fm	3171,0
Ness Fm	3218,0
Etive Fm	3399,0
Rannoch Fm	3412,0
Dunlin Group	3475,0
Drake Fm	3475,0
Cook Fm	3556,0
Amundsen	3625,0
Statfjord Fm	3798,0
TD =	4042,0