

Well no : 34/10-21

Operator : STATOIL

Coordinates	: 61 07 33.04 N 02 08 54.53 E	UTM coord.	: 6777264 N UTM zone 31 454125 E
Licence no	: 050	Permit no	: 426
Rig	: DYVI DELTA	Rig type	: SEMI-SUB.
Contractor	: DYVI OFFSHORE A/S		
Bottom hole temperature	: 110 deg.C	Elev. KB	: 29 M
Spud date	: 84.07.26	Water depth	: 136 M
Compl. date	: 84.10.22	Total depth	: 4001 M
Spud class.	: WILDCAT	Age at TD	: TRIASSIC
Compl. class.	: P&A. GAS DISCOVERY		
Seis. loc.	: ST 8134 - 173 SP. 160		

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
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CONDUCTOR	30	226.0	36	228.0	
SURF.COND.	20	600.0	26	745.0	1.81
INTERM.	13 3/8	1896.0	17 1/2	1990.0	1.56
INTERM.	9 5/8	3181.0	12 1/4	3196.0	1.99
LINER	7	4000.0	8 1/2	4005.0	

CONVENTIONAL CORES

Core no.	Intervals cored meters	Recovery		Series
		M	%	
1	3289.0 - 3307.0	17.3	96.0	MIDDLE JURASSIC
2	3307.0 - 3334.0	24.4	90.0	MIDDLE JURASSIC
3	3334.0 - 3361.5	25.0	91.0	MIDDLE JURASSIC
4	3361.0 - 3383.0	21.5	99.9	MIDDLE JURASSIC
5	3974.0 - 3977.5	3.6	99.9	UPPER TRIASSIC
6	3977.5 - 3989.5	11.9	99.0	UPPER TRIASSIC

MUD PROPERTIES

Depth below KB meter	Mud weigh g/cm ³	Plastic viscosity mPa.s	Mud type
228.0	1.03		WATER BASED
495.0	1.06	8.0	WATER BASED
629.0	1.22	7.0	WATER BASED
745.0	1.10	5.0	WATER BASED
1237.0	1.11	5.0	WATER BASED
1755.0	1.10	6.8	WATER BASED
1760.0	1.17	6.8	WATER BASED
1915.0	1.20	10.0	WATER BASED
1918.0	1.29	9.0	WATER BASED
2134.0	1.28	14.0	WATER BASED
2851.0	1.26	15.0	WATER BASED
2948.0	1.27	15.0	WATER BASED
2949.0	1.33	14.0	WATER BASED
3047.0	1.39	16.0	WATER BASED
3185.0	1.44	19.0	WATER BASED

DRILL STEM TEST

INTERVALS AND PRESSURES

Test no.	Interval meter	Choke size	Pressure (PSI)		
			FSIP	BTHP	FFP
1.0	3922.5 - 3905.2				
2.0	3312.0 - 3290.0	25.4		6195.0	

RECOVERY

Test no.	Oil Sm ³ /d	Gas M Sm ³ /d	Oil grav. g/cm ³	Gas grav. rel. air	GOR m ³ /m ³
1.0					
2.0	194	1132	0.800	0.650	5840

DRILL BIT CUTTINGS AND WET SAMPLES

SAMPLE TYPE	INTERVAL BELOW KB	NUMBER OF SAMPLES
CUTTINGS	228 - 4005	720
WET SAMPLES	228 - 4002	640

SHALLOW GAS

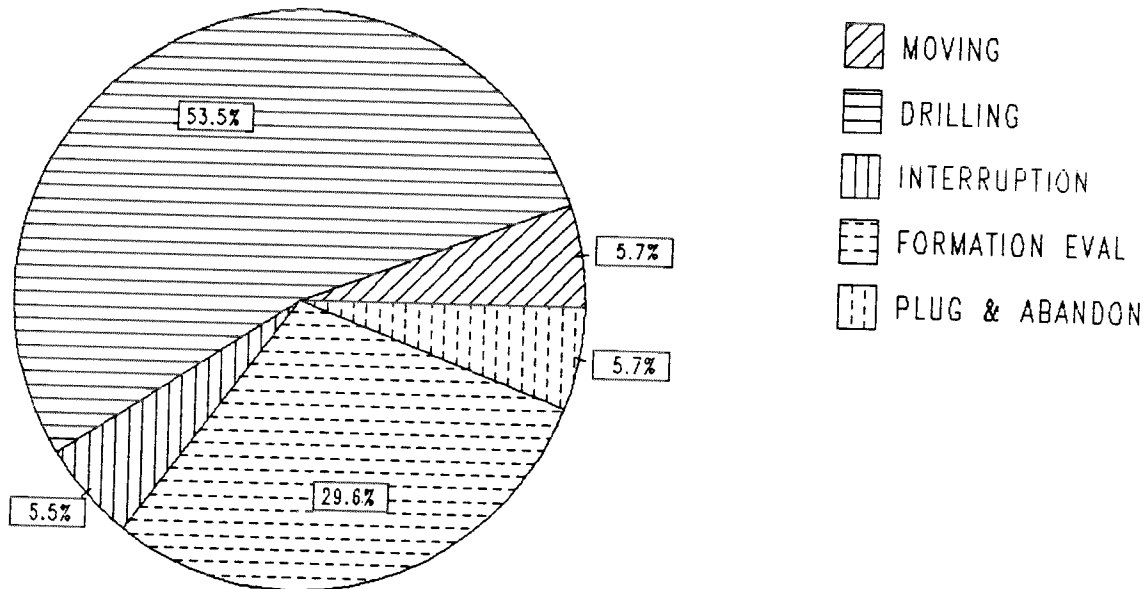
INTERVAL BELOW KB	REMARKS
484 M	POSSIBLE SHALLOW GAS

AVAILABLE LOGS

LOG TYPE	INTERVALS	1/200	1/500
ISF BHC MSFL GR	600 - 1907	X	
ISF LSS MSFL	1907 - 3193	X	
ISF LSS	3193 - 3611	X	
ISF LSS	3611 - 3960	X	
ISF LSS MSFL	3960 - 4005	X	
ISF LSS	600 - 4005		X
LDL	600 - 1893	X	
LDL CNL	1907 - 3195	X	
LDL CNL	3193 - 3611	X	
LDL CNL	3611 - 3961	X	
LDL CNL	3961 - 4005	X	
LDL CNL	600 - 4005		X
DLL MSFL	3181 - 3608	X	X
DLL MSFL	3608 - 3957	X	X
DLL MSFL	3957 - 4006	X	X
SHDT	1896 - 3195	X	
SHDT	3181 - 3961	X	
RFT	3291 - 3513		1:100
RFT	3294 - 3498		1:100
NGS	3193 - 3611	X	X
CBL VDL	1700 - 1896	X	
CBL VDL	750 - 3181	X	
CBL VDL	3035 - 3181	X	
MUD	226 - 3090		X
VELOCITY	600 - 4005		X
(+ WSS - VSP, RUN 5A,	240 - 4005	1 stk)	

DAILY DRILLING REPORT SYSTEM

Main operation : 34/10-21



Total : 2208.00 HRS

Main operation	Minutes	Hours	% of total
MOVING	7530	125.50	5.6
DRILLING	70890	1181.50	53.5
INTERRUPTION	7350	122.50	5.5
FORMATION EVAL	39150	652.50	29.5
PLUG & ABANDON	7560	126.00	5.7

MAIN OPERATION: MOVING

Sub operations	Min	% of total
ANCHOR	6660	88.45
POSITION	330	4.38
JACK	540	7.17
TOTAL	7530	100.00

MAIN OPERATION: DRILLING

Sub operations	Min	% of total
TRIP	15060	21.24
DRILL	31500	44.44
CIRC/COND	2010	2.84
SURVEY	570	0.80
CASING	12300	17.35
BOP/WELLHEAD EQ	5520	7.79
BOP ACTIVITIES	2010	2.84
PRESS DETECTION	690	0.97
REAM	1230	1.74
TOTAL	70890	100.00

MAIN OPERATION: INTERRUPTION

Sub operations	Min	% of total
MAINTAIN/REP	3240	44.08
FISH	4110	55.92
TOTAL	7350	100.00

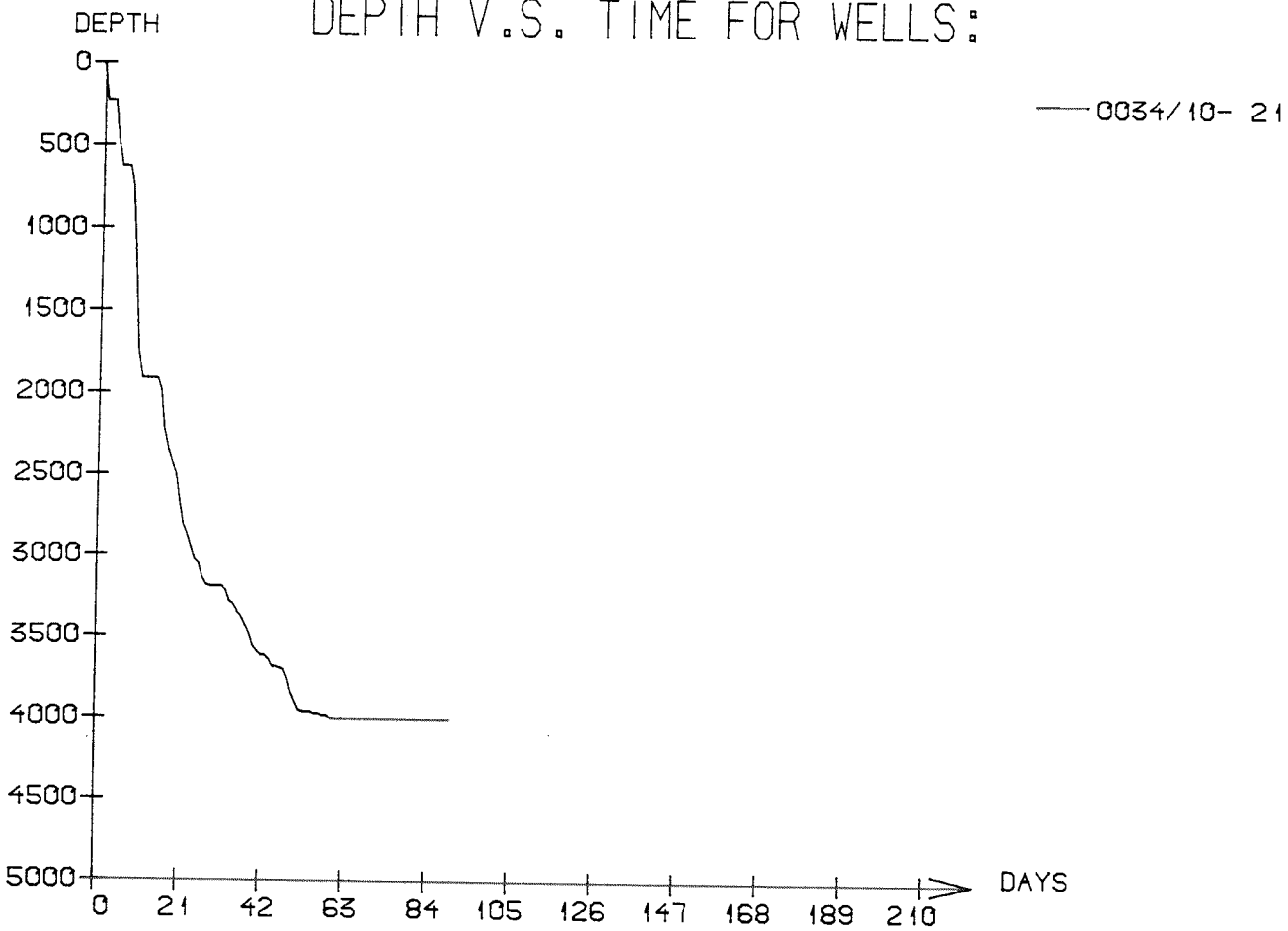
MAIN OPERATION: FORMATION EVAL

Sub operations	Min	% of total
CIRC/COND	1020	2.61
TRIP	15570	39.77
LOG	7140	18.24
CIRC SAMPLES	420	1.07
CORE	3150	8.05
DST	11850	30.27
TOTAL	39150	100.00

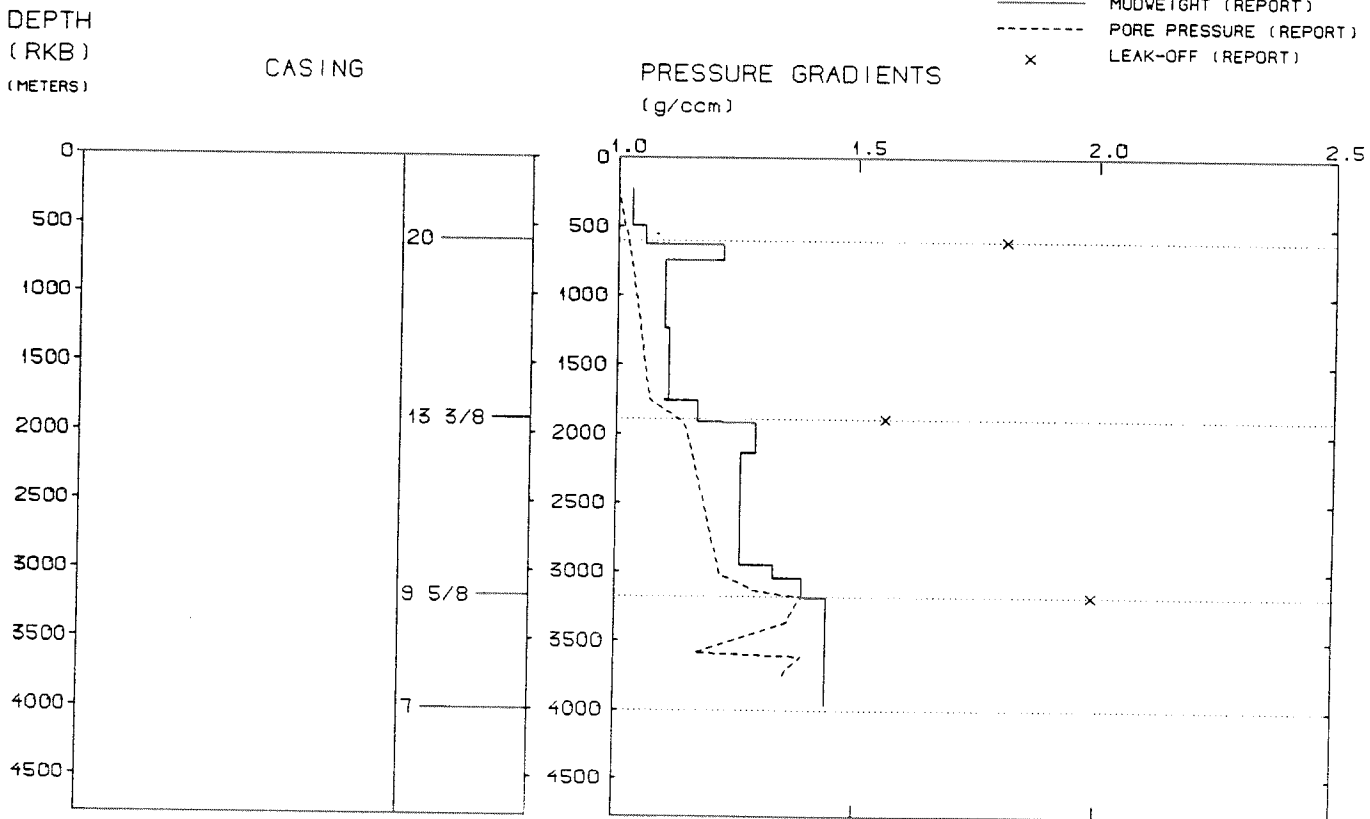
MAIN OPERATION: PLUG & ABANDON

Sub operations	Min	% of total
TRIP	2460	32.54
SQUEEZE	450	5.95
OTHER	180	2.38
CEMENT PLUG	330	4.37
CIRC/COND	300	3.97
MECHANICAL PLUG	270	3.57
PERFORATE	180	2.38
EQUIP RECOVERY	720	9.52
CUT	2550	33.73
WAIT	120	1.59
TOTAL	7560	100.00

DEPTH V.S. TIME FOR WELLS:



WELL: 003410 21 PRESSURE COMPOSITE PLOT



WELL HISTORY - 34/10-21

GENERAL:

The wildcat 34/10-21 situated in the Gullfaks South area, was designed to test for possible hydrocarbon accumulations and for a possible extension of reserves in the Gullfaks South area. Targets included the Brent, Cook and Statfjord Sandstones and possible sand accumulations in the Lower Cretaceous. Hydrocarbons were encountered in the Brent sandstone. No hydrocarbons were encountered in the Cook and Statfjord sandstones. No sandstones were encountered in the Lower Cretaceous.

OPERATIONS:

The well was spudded 26.07.84 by the semi-submersible rig Dyvi Delta. Six cores were cut, four from the Middle Jurassic and two from the Upper Triassic sequences.

Tight spots were experienced in the 17 1/2" hole section.

Two unsuccessful leak off tests caused setting and squeezing of a cement plug below the 13 3/8" casing shoe.

In the 8 1/2" hole the drill string parted but was recovered.

The well was drilled using water based mud.

TESTING:

Two drill stem tests were performed. No flow occurred during the test in the Statfjord Formation which was water bearing. The Middle Jurassic Tarbert Formation produced gas.

GEOLOGICAL TOPS

WELL: 34/10-21

	<i>Depth m (RKB)</i>
<i>Nordland Group</i>	<i>165.000</i>
<i>Utsira Fm</i>	<i>909.000</i>
<i>Hordaland Group</i>	<i>1053.000</i>
<i>Rogaland Group</i>	<i>1799.000</i>
<i>Balder Fm</i>	<i>1799.000</i>
<i>Lista Fm</i>	<i>1870.000</i>
<i>Shetland Group</i>	<i>2014.000</i>
<i>Cromer Knoll Group</i>	<i>2900.000</i>
<i>Viking Group</i>	<i>2920.000</i>
<i>Draupne Fm</i>	<i>2920.000</i>
<i>Heather Fm</i>	<i>3047.000</i>
<i>Brent Group</i>	<i>3287.000</i>
<i>Tarbert Fm</i>	<i>3287.000</i>
<i>Ness Fm</i>	<i>3328.000</i>
<i>Etive Fm</i>	<i>3497.000</i>
<i>Rannoch Fm</i>	<i>3503.000</i>
<i>Dunlin Group</i>	<i>3550.000</i>
<i>Drake Fm</i>	<i>3550.000</i>
<i>Cook Fm</i>	<i>3632.000</i>
<i>Amundsen Fm</i>	<i>3763.000</i>
 <i>Statfjord Fm</i>	 <i>3906.000</i>
 <i>TD =</i>	 <i>4001.000</i>