Well no : 16/ 4-01 **Operator :** HYDRO

Coordinates	: 58 38 18.33 N 02 08 17.03 E	UTM coord. UTM zone 31	: 6500262 N 449959 E
Licence no	: 087	Permit no	: 432
Rig	: TREASURE SEEKER	Rig type	: SEMI-SUB.
Contractor	: WILHELMSEN OFFSHORE SERVICES		
Bottom hole temperature	: 72 deg.C	Elev. KB	: 25 M
Spud date	: 84.09.08	Water depth	: 96 M
Compl. date	: 84.11.18	Total depth	: 2909 M
Spud class.	: WILDCAT	Age at TD	: BASEMENT
Compl. class.	: P&A. DRY HOLE		
Seis. loc.	: NH 8105 - 306 SP. 752		

LICENSEES

20.000	NORSK HYDRO PRODUKSJON A.S
20.000	A/S NORSKE SHELL
50.000	DEN NORSKE STATS OLJESELSKAP A.S
10.000	TENNECO OIL NORWAY A/S

CASING AND LEAK-OFF TESTS

Type	Casing diam.	Depth below KB	Hole diam.	Hole depth below KB	Lot mud eqv. g/cm3
CONDUCTOR	30	206.0	36	280.0	
SURF.COND.	20	480.0	26	497.0	1.37
INTERM.	16	626.0	22	650.0	1.89
INTERM.	13 3/8	2028.0	17 1/2	2066.0	1.79
OPEN HOLE			12 1/4	2909.0	

CONVENTIONAL CORES

Core no.	Intervals cored meters	Recovery M	Recovery %	Series
1	2161.0 - 2174.0	11.0	85.0	UPPER PALEOCENE
2	2404.0 - 2422.0	17.5	97.0	TRIASSIC
3	2907.0 - 2909.0	2.0	99.0	BASEMENT

MUD PROPERTIES

Depth below KB meter	Mud weigth g/cm3	Plastic viscosity mPa.s	Mud type
280.0	1.09	5.0	WATER BASED
494.0	1.10		WATER BASED
497.0	1.15	17.0	WATER BASED
572.0	1.25	15.0	WATER BASED
625.0	1.16	16.0	WATER BASED
650.0	1.15	15.0	WATER BASED
712.0	1.16	19.0	WATER BASED
1507.0	1.18	19.0	WATER BASED
1602.0	1.30	17.0	WATER BASED
1870.0	1.25	16.0	WATER BASED
1957.0	1.30	16.0	WATER BASED
2052.0	1.25	20.0	WATER BASED
2066.0	1.23	16.0	WATER BASED
2161.0	1.20	19.0	WATER BASED
2283.0	1.25	20.0	WATER BASED

DRILL STEM TEST

NO DST's WERE PERFORMED IN THIS WELL

DRILL BIT CUTTINGS AND WET SAMPLES

SAMPLE TYPE	INTERVAL BELOW KB	NUMBER OF SAMPLES
CUTTINGS	210 - 2907	640
WET SAMPLES	210 - 2907	480

SHALLOW GAS

INTERVAL BELOW KB	REMARKS
494 M	SHALLOW GAS BLOW OUT

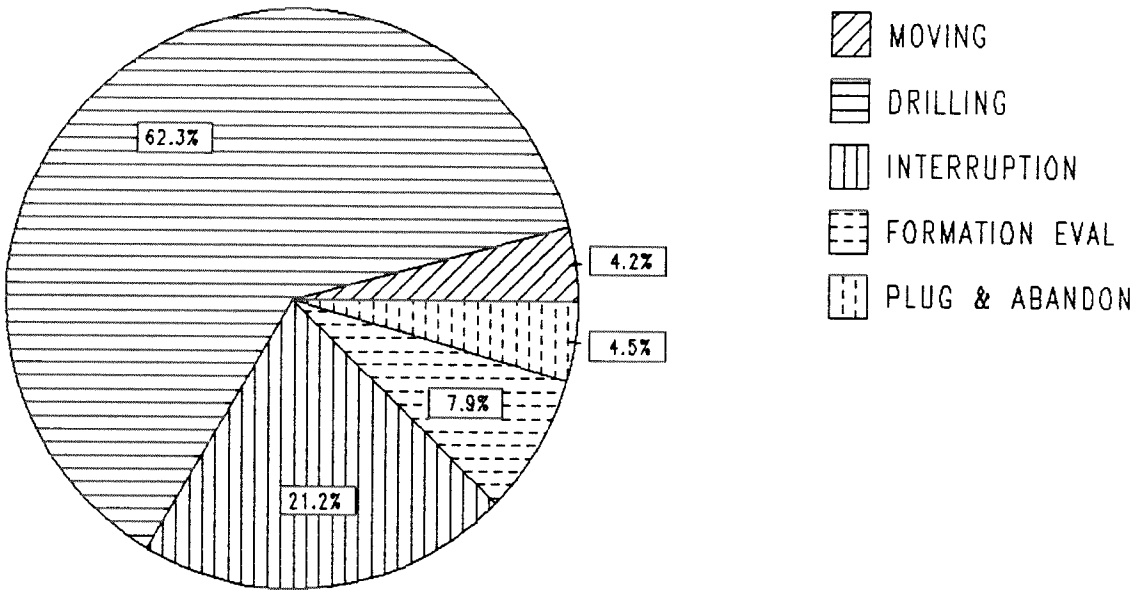
AVAILABLE LOGS

LOG TYPE	INTERVALS	1/200	1/500
ISF LSS GR	115 - 477	X	
ISF LSS	473 - 620	X	
ISF LSS	626 - 2028	X	
ISF LSS MSFL	2028 - 2666	X	
ISF LSS	2406 - 2907	X	
ISF LSS	115 - 2907		X
LDL CNL	472 - 621	X	
LDL CNL	626 - 2029	X	
LDL CNL	2028 - 2667	X	
LDL CNL	2601 - 2907	X	
LDL CNL	473 - 2907		X
CDM/SHDT	2016 - 2908	X	
CDM AP	2030 - 2908	X	X
RFT	2083 - 2423	X	
CBL VDL	125 - 2015	X	
DRILLING DATA PRESSURE	121 - 2909	1:5000	
TEMPERATURE DATA	121 - 2909	1:5000	
DXC/NXB	121 - 2909	1:5000	
MUD	121 - 2909		X
VELOCITY	461 - 2907		X

(+ Synthetic Seismogram, Geogram, 10 cm/s, 6 stk)
(+ V.S.P., PLOT 1-11, 11 stk)

DAILY DRILLING REPORT SYSTEM

Main operation : 16/04-01



Total : 1824.00 HRS

Main operation	Minutes	Hours	% of total
MOVING	4545	75.75	4.1
DRILLING	68235	1137.25	62.3
INTERRUPTION	23175	386.25	21.1
FORMATION EVAL	8610	143.50	7.8
PLUG & ABANDON	4875	81.25	4.4

MAIN OPERATIONS WELL : 16/04-01

MAIN OPERATION: MOVING

Sub operations	Min	% of total
TRANSIT	2880	63.37
ANCHOR	1665	36.63
TOTAL	4545	100.00

MAIN OPERATION: DRILLING

Sub operations	Min	% of total
CASING	7800	11.43
TRIP	13920	20.40
DRILL	22005	32.25
SURVEY	1245	1.82
OTHER	1245	1.82
CIRC/COND	3705	5.43
BOP/WELLHEAD EQ	6600	9.67
PRESS DETECTION	360	0.53
WAIT	405	0.59
UNDERREAM	6915	10.13
BOP ACTIVITIES	1605	2.35
REAM	2430	3.56
TOTAL	68235	100.00

MAIN OPERATION: INTERRUPTION

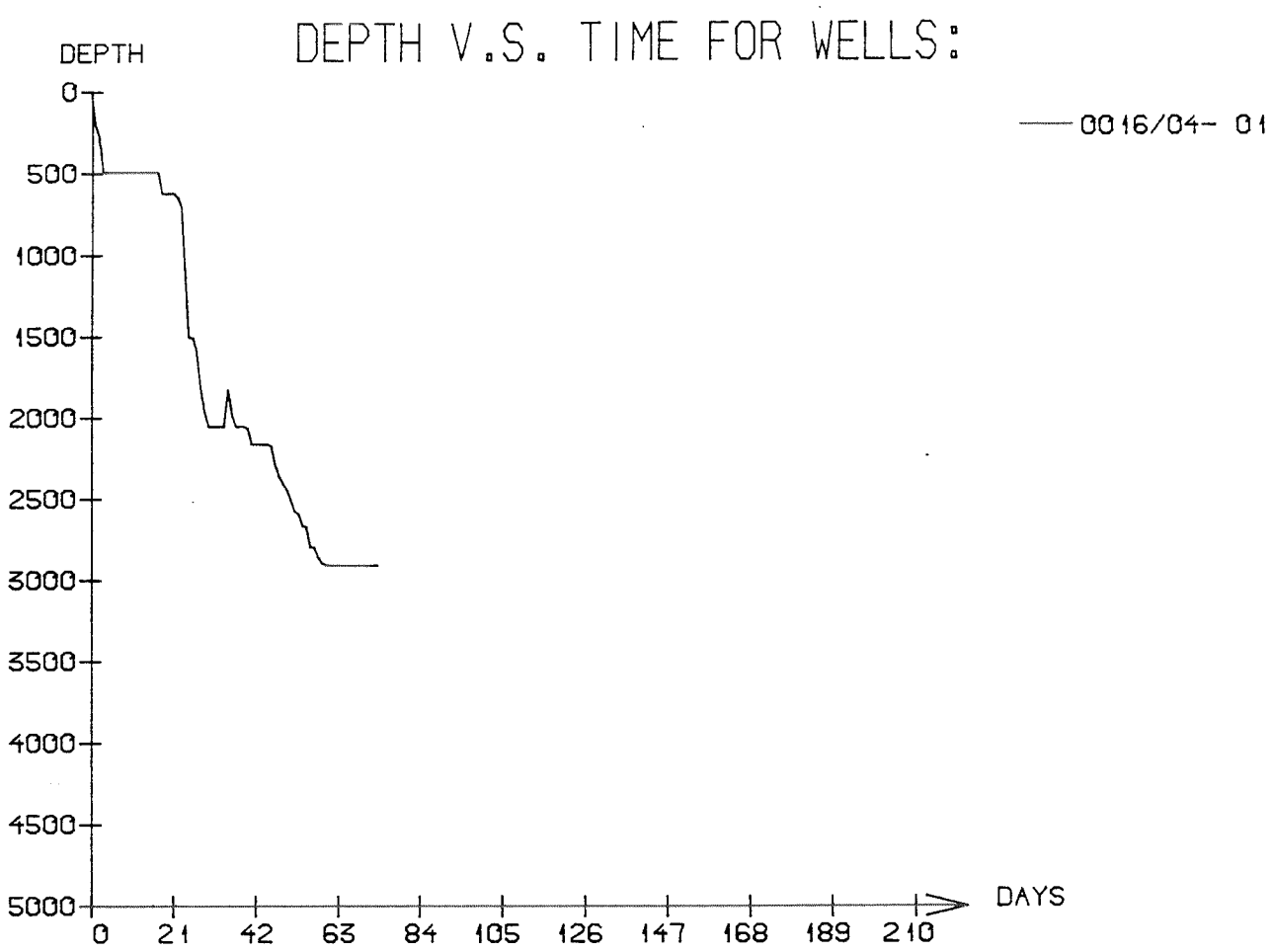
Sub operations	Min	% of total
MAINTAIN/REP	13005	56.12
WELL CONTROL	285	1.23
WAIT	9825	42.39
OTHER	60	0.26
TOTAL	23175	100.00

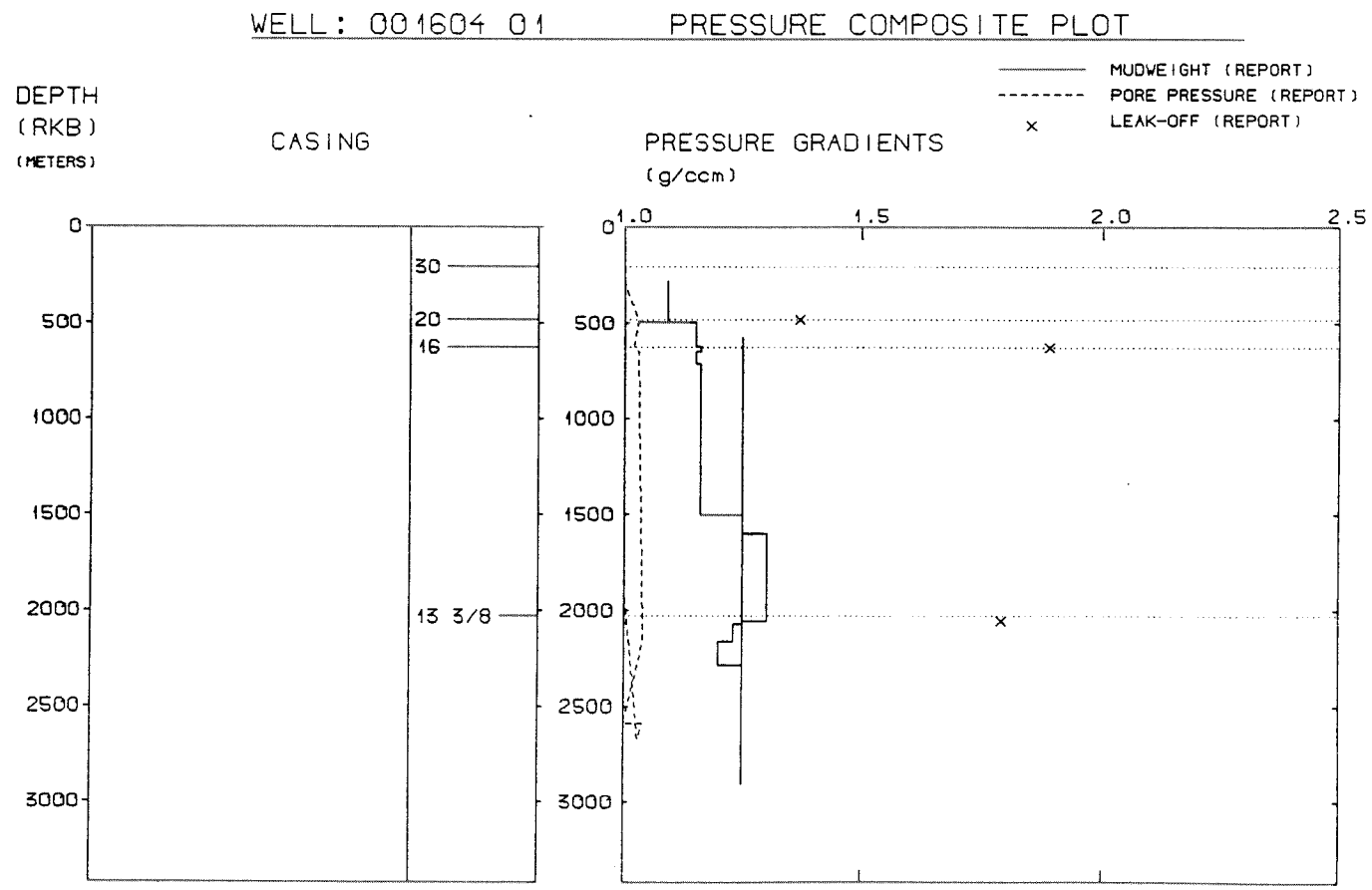
MAIN OPERATION: FORMATION EVAL

Sub operations	Min	% of total
LOG	5115	59.41
CIRC SAMPLES	285	3.31
TRIP	1080	12.54
OTHER	60	0.70
CORE	1860	21.60
CIRC/COND	210	2.44
TOTAL	8610	100.00

MAIN OPERATION: PLUG & ABANDON

Sub operations	Min	% of total
TRIP	1860	38.15
CIRC/COND	150	3.08
CEMENT PLUG	570	11.69
PERFORATE	180	3.69
EQUIP RECOVERY	1500	30.77
CUT	165	3.38
SQUEEZE	195	4.00
OTHER	255	5.23
TOTAL	4875	100.00


DEPTH V.S. TIME FOR WELLS:
DEPTH
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
0016/04- 01
0
21
42
63
84
105
126
147
168
189
210
DAYS


WELL: 001604 01 PRESSURE COMPOSITE PLOT
MUDWEIGHT (REPORT)
PORE PRESSURE (REPORT)
LEAK-OFF (REPORT)
DEPTH
(RKB)
(METERS)
CASING
PRESSURE GRADIENTS
(g/ccm)
30
20
16
13 3/8
1.0
1.5
2.0
2.5
0
500
1000
1500
2000
2500
3000

WELL HISTORY - 16/4-1

GENERAL:

The primary objective of the wildcat 16/4-1 was to test the Paleocene Heimdal Formation. Secondary objectives were Jurassic and Triassic sandstones, Zechstein carbonates and Rotliegendes conglomerates. No hydrocarbon bearing intervals were encountered by this well.

OPERATIONS:

The well was spudded 08.09.84 by the semi-submersible rig Treasure Seeker. Three cores were cut, one in the Upper Paleocene, one in the Triassic sequence and one in basement rocks.
Under the 30" casing shoe a 17 1/2" pilot hole was drilled. At 494 m the well started to flow up the annulus. The well died out by it-self but there were problems with lost circulation, so a cement plug was set from 494 - 415 m. The cement was drilled out to 480 m and the hole was underreamed to 26" before landing of the 20" casing. No other major problems occured during drilling of this well. The well was drilled using water based mud.

TESTING:

The well was not tested.

GEOLOGICAL TOPS

WELL: 16/ 4-01

	Depth m (RKB)
Nordland Group	*121.000*
Utsira Fm	*761.000*
Hordaland Group	*998.000*
Rogaland Group	*1989.000*
Balder Fm	*1989.000*
Sele Fm	*2011.000*
Lista Fm	*2036.000*
Heimdal Fm	*2100.000*
Maureen Fm	*2277.000*
Shetland Group	*2284.500*
Tor Fm	*2284.500*
Cromer Knoll Group	*2315.000*
Triassic	*2337.000*
Smith Bank Fm	*2337.000*
Zechstein Group	*2430.000*
Rotliegendes Group	*2620.500*
TD =	*2909.000*