

Well no : 7/11-09 Operator : HYDRO

Coordinates : 57 12 11.79 N UTM coord. : 6340308 N
 02 24 50.18 E 464590 E

Licence no : 70 Permit no : 491

Rig : DEEPSEA DRILLER Rig type : SEMI-SUB.

Contractor : DOLPHIN SERVICES A/S

Bottom hole temperature : 0 deg.C Elev. KB : 25 M

Spud. date : 85.11.26 Water depth : 91 M

Compl. date : 86.03.09 Total depth : 4272 M

Spud. class : WILDCAT Form. at TD : TRIASSIC

Compl. class : P&A. DRY HOLE Prod. form :

Seisloca : NH CN 82 - 308 SP. 713

LICENSEES

7.500000 NORSKE CONOCO A/S
 25.000000 NORSK HYDRO PRODUKSJON A.S
 7.500000 MOBIL DEVELOPMENT NORWAY A.S.
 10.000000 SAGA PETROLEUM A.S.
 50.000000 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	190.0	36	192.0	.
SURF. COND.	20	708.0	26	723.0	2.14
INTERM.	13 3/8	2195.0	17 1/2	2212.0	2.00
INTERM.	9 5/8	3932.0	12 1/4	3947.0	.
LINER	7	4255.0	8 1/2	4272.0	.

CONVENTIONAL CORES

Core no	Intervals cored meters	Recovery	
		M	%
1	4166.0 - 4179.0	13.0	100.0
2	4179.0 - 4190.0	11.0	100.0
3	4191.0 - 4209.7	18.7	100.0

MUD PROPERTIES

Depth below KB meter	Mud weighth g/cm ³	Viscosity	Mud type
192.000	1.20	0.0	WATER BASED
192.000	1.07	0.0	WATER BASED
635.000	1.10	5.0	WATER BASED
723.000	1.11	5.0	WATER BASED
723.000	1.10	10.0	WATER BASED
723.000	1.16	10.0	WATER BASED
723.000	1.15	15.0	WATER BASED

830.000	1.16	16.0	WATER BASED
1355.000	1.26	20.0	WATER BASED
1863.000	1.58	30.0	WATER BASED
2212.000	1.60	34.0	WATER BASED
2212.000	1.63	32.0	WATER BASED
2212.000	1.66	23.0	WATER BASED
2233.000	1.60	26.0	WATER BASED
3159.000	1.57	24.0	WATER BASED
3347.000	1.56	23.0	WATER BASED
3696.000	1.60	23.0	WATER BASED
3719.000	1.74	26.0	WATER BASED
4015.000	1.60	30.0	WATER BASED
4025.000	1.83	47.0	WATER BASED
4128.000	1.89	34.0	WATER BASED
4133.000	1.74	25.0	WATER BASED
4214.000	1.89	30.0	WATER BASED
4241.000	1.60	25.0	WATER BASED
4260.000	1.89	30.0	WATER BASED
4271.000	1.74	32.0	WATER BASED

DRILL STEM TEST

INTERVALS AND PRESSURES

Test no.	interval meter	Choke size	Pressure (PSI)		
			WHP	BTHP	FFP
1.0	4169.500 - 4182.500	44.45	18.9	9914.9	8711.6
Test temperature: 156 °C					

RECOVERY

Test no.	Oil Sm ³ /d	Gas Sm ³ /d	Oil grav. g/cm ³	Gas grav. rel. air	GOR m ³ /m ³
1.0	0	0	0.000	0.000	0

DRILL BIT CUTTINGS AND WET SAMPLES

SAMPLE TYPE	INTERVAL BELOW KB	NUMBER OF SAMPLES
Cutting	210-4271	1050
Wet Samples	210-4260	570

SHALLOW GAS

Interval below KB	REMARKS

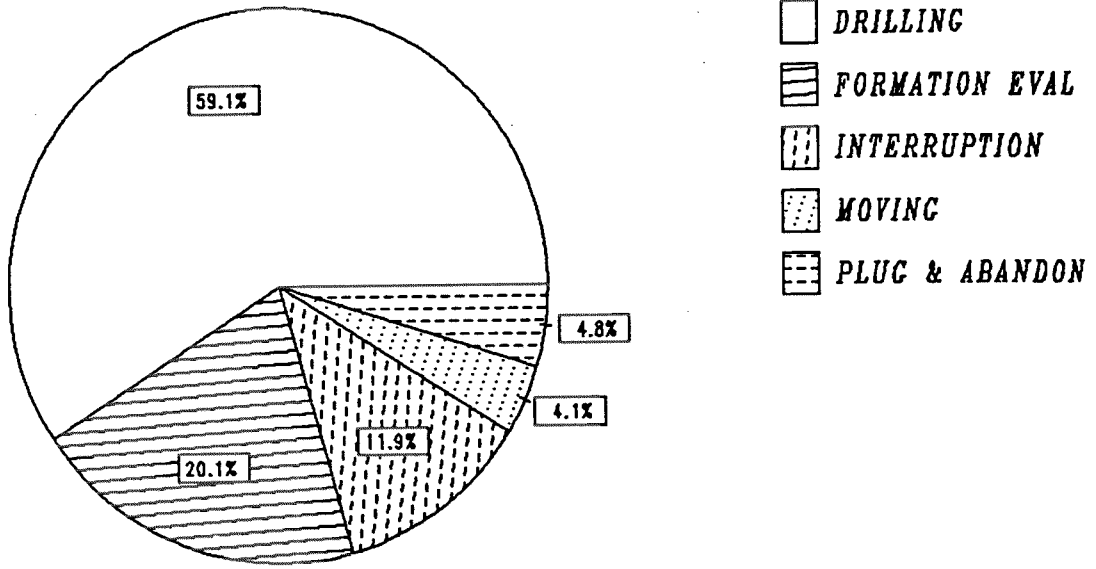
AVAILABLE LOGS

LOG TYPE	INTERVALS	1/200	1/500	Div.
ISF LSS GR	97.000 - 720.000	X	X	
DIS LSS COMPOSITE	97.000 - 4272.000	X	X	

LDL CNL COMPOSITE	708.000 - 4265.000	X	X
DLL MSFL SP	3933.000 - 4258.000	X	X
SHDT	2770.000 - 3951.000	X	
SHDT	3933.500 - 4274.000	X	
CDM AP/SHDT MSD	3935.000 - 4275.000	X	X
NGS	3933.000 - 4256.000	X	
RFT GR	4169.500 - 4181.000		
HP	4169.000 - 4180.000		
CBL VDL GR	508.000 - 2190.000	X	
CBL VDL	1600.000 - 3933.000	X	
MUD	106.000 - 4271.000		X
VELOCITY	97.000 - 4272.000		X
(Geogram, synthetic seismogram, plot 3-8			6 stk.)
(VSP.Rigshot, 10cm/s.Plot 1-15			15 stk.)
(VSP.Run 4A, 864-4271m			1 stk.)

DAILY DRILLING REPORT SYSTEM

Main operations for well : 0007/11 - 09



Total : 2568.00 hours

Main operation	Minutes	Hours	% of total
DRILLING	91080	1518.00	59.11
FORMATION EVAL	30990	516.50	20.11
INTERRUPTION	18300	305.00	11.88
MOVING	6300	105.00	4.09
PLUG & ABANDON	7410	123.50	4.81

MAIN OPERATIONS FOR WELL : 0007 / 11 - 09

MAIN OPERATION : DRILLING

Sub operations	Minutes	Hrs	% of total
BOP ACTIVITIES	3120	52.00	3.43
BOP/WELLHEAD EQ	3420	57.00	3.75
CASING	14850	247.50	16.30
CIRC/COND	2790	46.50	3.06
DRILL	43110	718.50	47.33
PRESS DETECTION	330	5.50	0.36
REAM	2520	42.00	2.77
SURVEY	2070	34.50	2.27
TRIP	15990	266.50	17.56
UNDERREAM	1860	31.00	2.04
WAIT	1020	17.00	1.12
Total	91080	1518.00	100.00

MAIN OPERATION : FORMATION EVAL

Sub operations	Minutes	Hrs	% of total
CIRC SAMPLES	270	4.50	0.87
CIRC/COND	720	12.00	2.32
CORE	1470	24.50	4.74
DST	17220	287.00	55.57
LOG	6660	111.00	21.49
OTHER	150	2.50	0.48
TRIP	3210	53.50	10.36
WAIT	1290	21.50	4.16
Total	30990	516.50	100.00

MAIN OPERATION : INTERRUPTION

Sub operations	Minutes	Hrs	% of total
FISH	7680	128.00	41.97
MAINTAIN/REP	6090	101.50	33.28
OTHER	180	3.00	0.98
WAIT	4350	72.50	23.77
Total	18300	305.00	100.00

MAIN OPERATION : MOVING

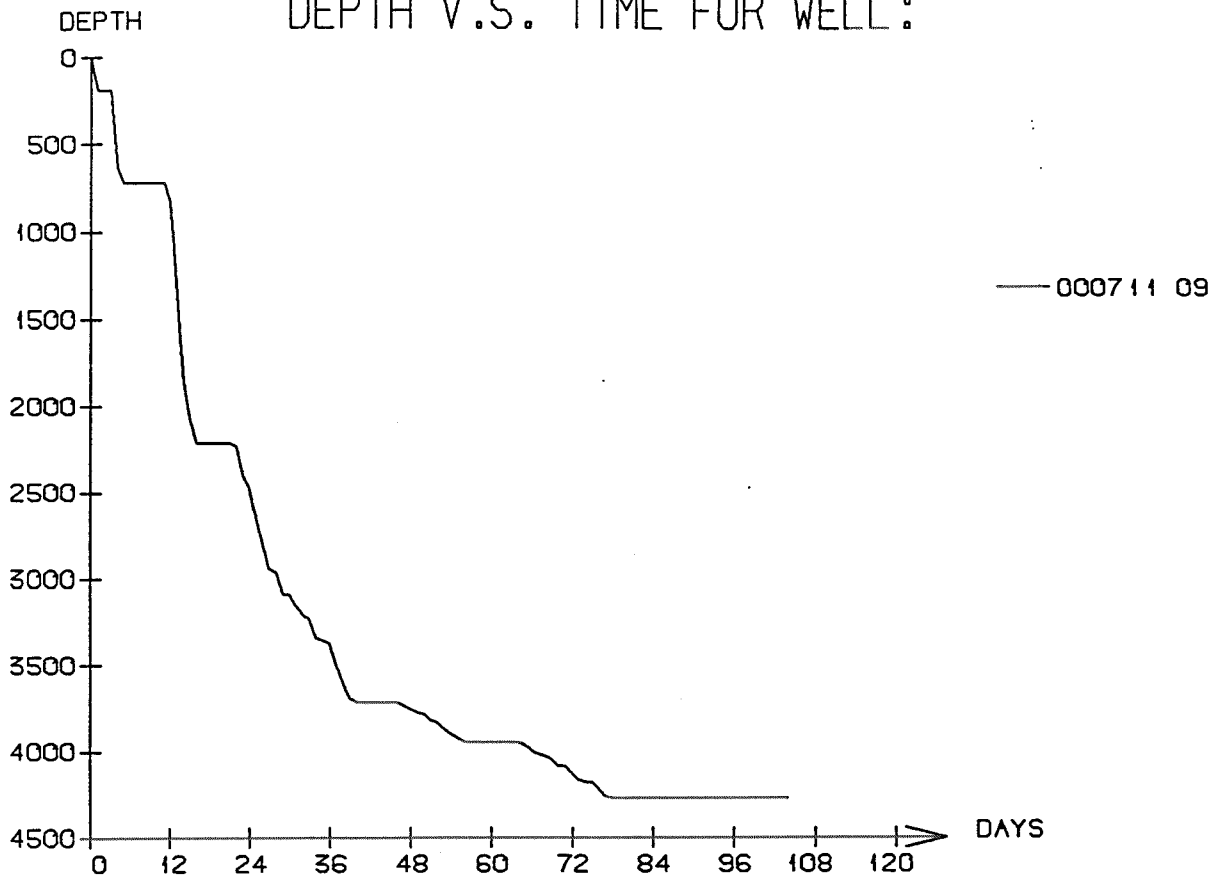
Sub operations	Minutes	Hrs	% of total
ANCHOR	3120	52.00	49.52
TRANSIT	3180	53.00	50.48
Total	6300	105.00	100.00

MAIN OPERATION : PLUG & ABANDON

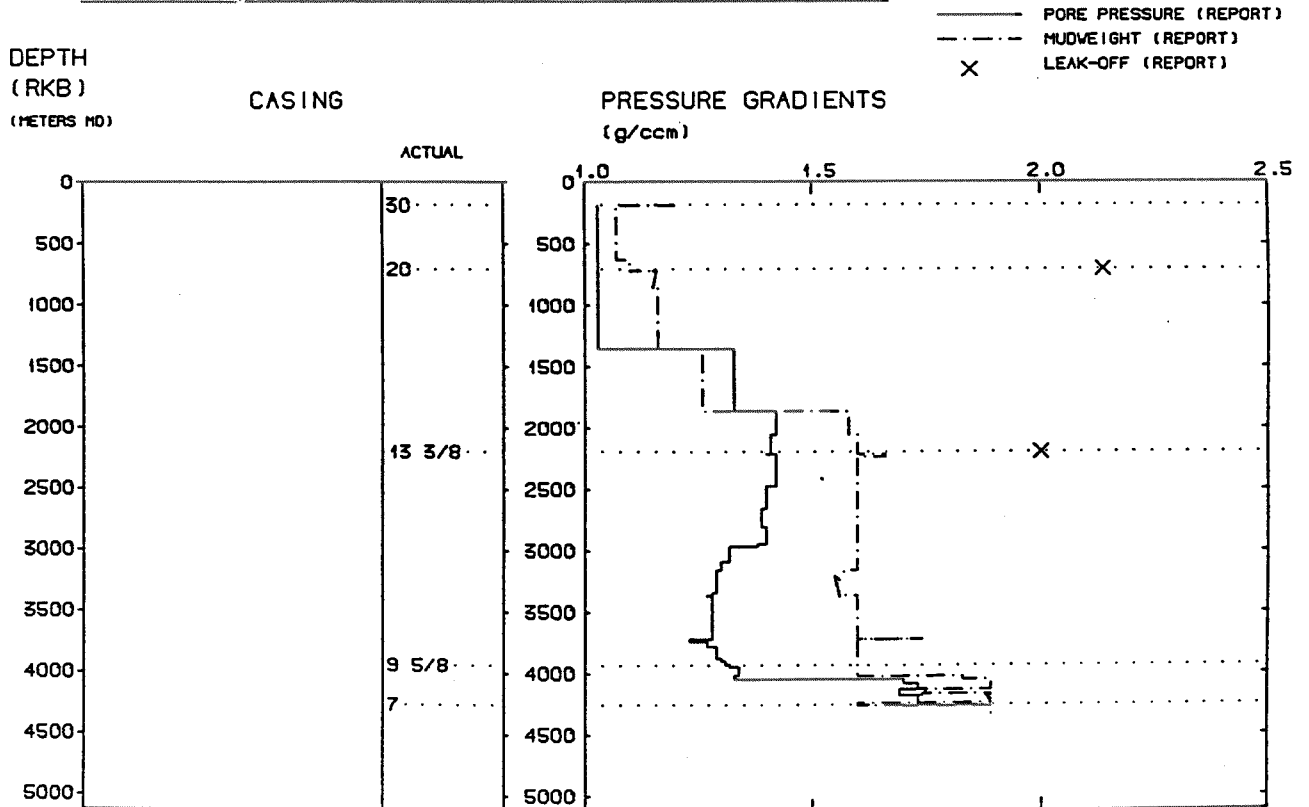
Sub operations	Minutes	Hrs	% of total
CEMENT PLUG	270	4.50	3.64
CIRC/COND	210	3.50	2.83
CUT	600	10.00	8.10
EQUIP RECOVERY	1230	20.50	16.60
MECHANICAL PLUG	390	6.50	5.26
OTHER	180	3.00	2.43
PERFORATE	240	4.00	3.24
SQUEEZE	240	4.00	3.24
TRIP	4050	67.50	54.66
Total	7410	123.50	100.00

Total time used 2568.00 hrs

DEPTH V.S. TIME FOR WELL:



WELL: 000711 09 PRESSURE COMPOSITE PLOT



Well History 7/11-9.

GENERAL:

Well 7/11-9 was drilled in the Northern part of the block on the B-South structure. The well was designed to test the sedimentary sequences containing the Ula sands, that were seismically correlateable with well 7/11-5 on the A-structure south of this location. The closure of the B-South was dependent on pinchout of the Ula sands and sealing Triassic rocks over the faults to the east and west.

Prognosed top of the Ula sands was at 4119 m, and the thickness 90 m. Prognosed TD. at 4260 m in Triassic rocks.

OPERATIONS:

Wildcat well 7/11-9 was spudded 11 November 1985 by Dolphin Services semi-submersible rig Byford Dolphin and completed 9 March 1986. The well terminated at a depth of 4275 m RKB in Triassic rocks, the Smith Bank Fm.

Top Lst came in at 3120 m RKB, and top Jurassic at 4027 m RKB. At 4093 m RKB a change in formation character appeared from shale to grey/brownish siltstone, the Farsund Formation.

Ula sand came in at 4168,5 m RKB, and three cores were cut in the interval 4165- 4208,7 m RKB. The cores indicated top Triassic rocks at 4182,5 m RKB, and a 13 m column of shows. RFT-tests were run and showed very low permeability which was confirmed by the DST-test. The well produced water only, no hydrocarbons were produced, and the well was plugged and abandoned as a dry hole.

TESTING:

One DST-test was performed in the interval between 4168,4 - and 4182,5 m RKB.

GEOLOGICAL TOPS

WELL: 7/11-9

Depth m (RKB)

<i>Nordland Group</i>	106.0
<i>Hordaland Group</i>	1451.5
<i>Rogaland Group</i>	2965.5
<i>Balder Fm.</i>	2965.5
<i>Sele Fm.</i>	2993.0
<i>Lista Fm.</i>	3008.5
<i>Forties Fm. Equiv.</i>	3034.0
<i>Maureen Fm.</i>	3093.5
<i>Shetland Group</i>	3162.0
<i>Ekofisk Fm.</i>	3162.0
<i>Tor Fm.</i>	3228.5
<i>Hod Fm.</i>	3624.5
<i>Blodøks Fm.</i>	3871.5
<i>Hidra Fm.</i>	3873.5
<i>Cromer Knoll Group</i>	3899.0
<i>Rødby Fm.</i>	3899.0
<i>Åsgard Fm.</i>	3925.0
<i>Tyne Group</i>	4027.0
<i>Mandal Fm.</i>	4027.0
<i>Farsund Fm.</i>	4093.0
<i>Ula Fm.</i>	4168.5
<i>Triassic Group</i>	4182.5
<i>Smith Bank Fm.</i>	4182.5
<i>T.D. (LD)</i>	4275.0