

Well no :	7/11-10 S	Operator :	HYDRO
Coordinates :	57° 07' 12.51" N 02° 29' 10.56" E	UTM coord. :	633101886 N 46889106 E
Licence no :	70	Permit no :	641
Rig :	TRANSOCEAN 8	Rig type :	SEMI-SUB.
Contractor :	TRANSNOR RIG A/S		
Bottom hole temp:	148 °C	Elev. KB :	23,5 M
Spud. date :	90.07.05	Water depth :	78,5 M
Compl. date :	90.09.10	Total depth :	4566 M
Spud. class :	APPRAISAL	Form. at TD	
Compl. class :	SUSP.	Prod.form. :	
Seisloca :	NH 8601 ROW 206		

LICENSEES

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
7,500000	NORSKE CONOCO 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	185,0	36	192,0	
INTERM.	18 5/8	597,0	24	620,0	
INTERM.	13 3/8	1941,0	17 1/2	1957,0	
INTERM.	9 5/8	4205,0	12 1/4	4220,0	1,97
LINER	7	4564,0	8 1/2	4566,0	

CONVENTIONAL CORES

Core no.	Intervals cored meters	Recovery	
		M	%
1	4350,0 - 4366,0	9,3	58,4
2	4366,0 - 4389,0	22,7	99,1
3	4389,0 - 4403,0	13,5	96,4

MUD

Depth	Mud weight	Visc.	Mud type
192,000	1,20		WATER BASED
192,000	1,03		WATER BASED
359,000	1,60	15,0	WATER BASED
425,000	1,07	6,0	WATER BASED
611,000	1,10	9,0	WATER BASED
611,000	1,20	15,0	WATER BASED
1102,000	1,30	17,0	WATER BASED

Depth	Mud weight	Visc.	Mud type
1499,000	1,44	23,0	WATER BASED
1874,000	1,50	22,0	WATER BASED
1957,000	1,52	21,0	WATER BASED
1957,000	1,50	21,0	WATER BASED
1957,000	1,53	21,0	WATER BASED
2277,000	1,52	54,0	OIL BASED
2741,000	1,51	50,0	OIL BASED
2865,000	1,52	49,0	OIL BASED
2952,000	1,53	51,0	OIL BASED
3167,000	1,52	51,0	OIL BASED
3313,000	1,51	51,0	OIL BASED
3388,000	1,52	53,0	OIL BASED
3434,000	1,53	50,0	OIL BASED
3529,000	1,52	56,0	OIL BASED
3557,000	1,51	55,0	OIL BASED
3760,000	1,52	49,0	OIL BASED
3810,000	1,51	46,0	OIL BASED
3998,000	1,52	44,0	OIL BASED
4020,000	1,58	21,0	WATER BASED
4220,000	1,52	43,0	OIL BASED
4220,000	1,54	23,0	WATER BASED
4220,000	1,52	43,0	OIL BASED
4366,000	1,55	21,0	WATER BASED
4503,000	1,54	19,0	WATER BASED
4511,000	1,53	16,0	WATER BASED
4511,000	1,58	20,0	WATER BASED
4511,000	1,50	21,0	WATER BASED
4517,000	1,60	22,0	WATER BASED
4566,000	1,57	24,0	WATER BASED
4566,000	1,60	25,0	WATER BASED
4566,000	1,57	23,0	WATER BASED
4566,000	1,60	25,0	WATER BASED

DRILL BIT CUTTINGS AND WET SAMPLES

Sample type	Interval below KB	Number of samples
WET SAMPLES	200 - 4566	420
CUTTINGS	620 - 4569	330

SHALLOW GAS

Interval below KB	Remarks
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AVAILABLE LOGS

Log type	Intervals	1/200	1/500	Div.
AMS	4205,0 - 4384,0		X	
CBL VDL	1250,0 - 1961,0	X		

Log type	Intervals		1/200	1/500	Div.
CBL VDL CCL	3269,0	- 4055,0	X		
CBL VDL CCL	4053,0	- 4502,0	X		
DIL LSS GRC GR	1894,0	- 4209,0	X	X	
LDL CNL	4205,0	- 4486,0	X	X	
DITE LSS AMS GR	4205,0	- 4384,0	X	X	
DITE MSFL GR	4205,0	- 4495,0	X	X	
MUD	102,0	- 4566,0	X	X	
MWD	102,0	- 4566,0	X	X	
SYNTHETIC SEISMOGRAM	10 cm/s				2
VSP	20 cm/s				4
TWO WAY TRAVEL TIME	20 cm/s				1

Main operations for well: 7/11-10 S

Main operation: DRILLING

Sub operation:	Minutes:	Hours:	% of total:
BOP ACTIVITIES	2490	41,5	3,48
BOP/WELLHEAD EQ	2940	49,0	4,11
CASING	10710	178,5	14,96
CIRC/COND	2040	34,0	2,85
DRILL	31410	523,5	43,86
HOLE OPEN	870	14,5	1,21
OTHER	270	4,5	0,38
REAM	600	10,0	0,84
SURVEY	630	10,5	0,88
TRIP	18720	312,0	26,14
UNDERREAM	930	15,5	1,30
Total	71610	1193,5	100,00

Main operation: FORMATION EVAL

Sub operation:	Minutes:	Hours:	% of total:
CIRC/COND	180	3,0	2,93
CORE	1050	17,5	17,07
DST	210	3,5	3,41
LOG	2730	45,5	44,39
OTHER	30	0,5	0,49
TRIP	1950	32,5	31,71
Total	6150	102,5	100,00

Main operation: INTERRUPTION

Sub operation:	Minutes:	Hours:	% of total:
FISH	6270	104,5	36,10
MAINTAIN/REP	3300	55,0	19,00
OTHER	210	3,5	1,21
SIDETRACK	7590	126,5	43,70
Total	17370	289,5	100,00

Main operation: MOVING

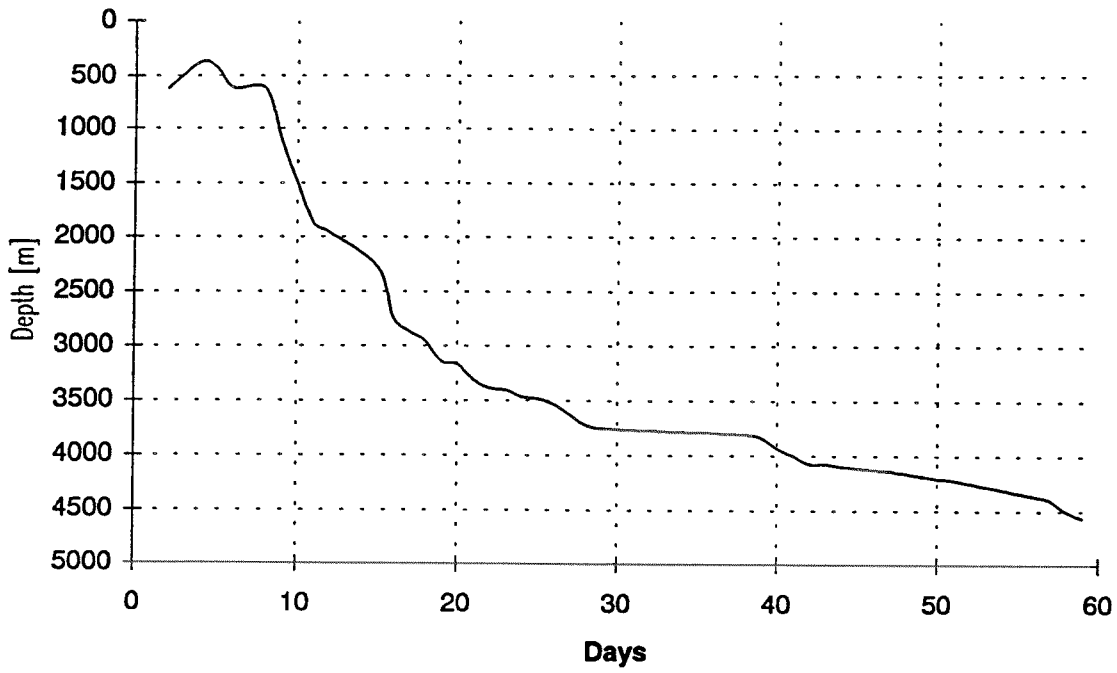
Sub operation:	Minutes:	Hours:	% of total:
ANCHOR	1710	28,5	37,75
TRANSIT	2820	47,0	62,25
Total	4530	75,5	100,00

Main operation: PLUG & ABANDON

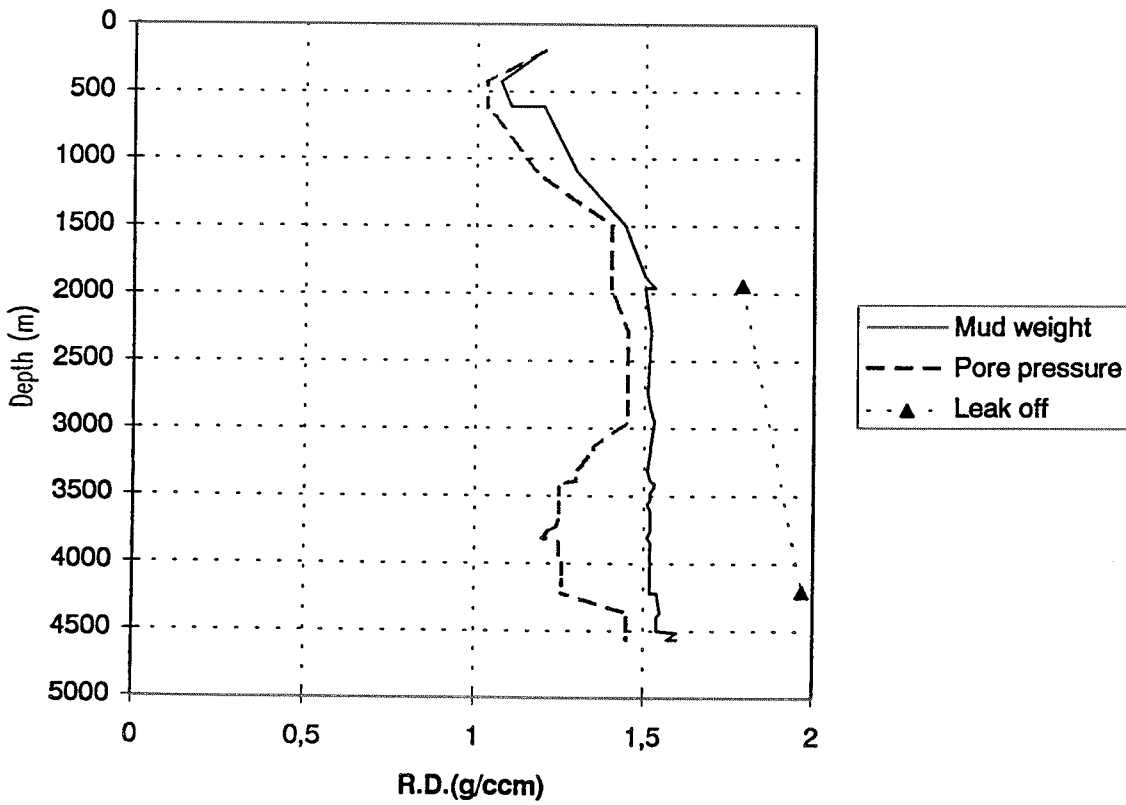
Sub operation:	Minutes:	Hours:	% of total:
CEMENT PLUG	360	6,0	25,00
EQUIP RECOVERY	1020	17,0	70,83
WAIT	60	1,0	4,17
Total	1440	24,0	100,00

Total time used: Hours

Depth vs time for well: 7/11-10 S



Composite plot for well: 7/11-10 S



Well History 7/11-10 S.

General:

Well 7/11-10 S was designed to drill the 7/11-A structure on the Mime Field which is located in the central part of block 7/11, west of the Southern Vestland Arch on the eastern margin of the Central Graben. The structure is salt induced and divided in four compartments, a northern, western, eastern and a southern compartment. Oil is proven in the the northern compartment by the 7/11-5 well in the Late Jurassic Ula formation sandstone. The reservoir sandstone was deposited in a shallow marine environment mainly by storm episodes into an approximately 100 km long and 20 km wide "fairway". Shales of the Late Jurassic Farsund- and Mandal formations make up the cap-rock. The well was to be vertical until 2002 m MSL and then kicked off towards the target with an angle of 33.28 degrees. The primary objective was a long term test production from the oil-bearing Ula formation of Area 1 in the northern compartment. Secondary objective was to improve the geological control, and coring was supposed to give good information about the silica cementation above and below the OWC. Shallow gas might occur in the interval from 318- to 425 m MSL.

Operations:

Appraisal well 7/11-10 S was spudded by the semi-submersible rig Transocean 8 5 July 1990, and completed 10 September 1990 at a depth of 4566 m RKB in rocks of Triassic age. No shallow gas of importance, only background gas, was encountered while drilling. Three conventional cores were cut from 4350 - 4403 m MD RKB. Gumbo problems were encountered in the upper part of the 17 1/2" hole, but hole conditions improved after increasing the mud weight. The well was kicked off at 2010 m MD RKB in 40° direction, and the angle built to 35° at 2610m RKB. While pulling out, the bit came out with three cones lost. The string got stuck at 3740 m RKB. Fishing operation was unsuccessful, and a cement plug was set above the fish. The hole was kicked off from the cement plug at 3550 m RKB and sidetracked. No severe problems were experienced in the last part of the hole except from low penetration rate at times and some tight spots on the bit trips. No logs beneath 4493 m RKB. The well was temporary plugged and abandoned with oil/gas shows.

Testing:

No DST tests were performed in this well.

Geological Tops.

Well:7/11-10 S.

	Depth m (RKB).
Nordland Group	125,5
Hordaland Group	1510,0
Rogaland Group	3177,0
Balder Fm	3177,0
Sele Fm	3205,0
Lista Fm	3237,0
Maureen Fm	3271,0
Shetland Group	3440,0
Ekofisk Fm	3440,0
Tor Fm	3528,0
Hod Fm	3947,0
Hidra Fm	4148,0
Cromer Knoll Group	4198,0
Rødby Fm	4198,0
Valhall Fm	4230,0
Tyne Group	4268,0
Mandal Fm	4268,0
Farsund Fm	4311,0
Vestland Group	4340,5
Ula Fm	4340,5
Triassic Group	4395,5
Smith Bank Fm	4395,5
T.D.	4566,0