

Well no : 30/ 6-09 Operator : HYDRO

Coordinates : 60 30 03.46 N UTM coord. : 6707381 N
 02 46 52.62 E 487984 E

Licence no : 053 Permit no : 339

Rig : NORTRYM

Contractor : GOLAR-NOR OFFSHORE A/S

Bottom hole temperature : 116 deg.C Elev. KB : 25 M

Spud. date : 82.08.28 Water depth : 107 M

Compl. date : 82.12.16 Total depth : 3476 M

Spud. class : WILDCAT Form. at TD : TRIASSIC

Compl. class : SUSP. OIL/GAS DISC. Prod. form :

Seisloca : ST 8006 - 121 SP 510

LICENSEES

13,330 ELF AQUITAINE NORGE A/S
 12,500 NORSK HYDRO PRODUKSJON A.S
 10,000 MOBIL DEVELOPMENT NORWAY A/S
 7,500 SAGA PETROLEUM A.S
 50,000 DEN NORSKE STATS OLJESELSKAP A.S
 6,670 TOTAL MARINE NORSK A.S

CASING AND LEAK-OFF TESTS

Type	Casing diam.	Depth below KB	Hole diam.	Hole depth below KB	Lot mud eqv. g/cm
CONDUCTOR	30	218.5	36	219.5	
SURF.COND.	20	960.0	26	975.0	1,66
INTERM.	13 3/8	2384.0	17 1/2	2400.0	1,81
INTERM.	9 5/8	2738.0	12 1/4	2750.0	
OPEN HOLE			8 3/8	3476.0	

CONVENTIONAL CORES

Core no.	Intervals cored meters	Recovery M %	Series
1	2462.0 - 2480.0	18.0 100.0	M. JURASSIC
2	2480.0 - 2498.5	18.5 100.0	M. JURASSIC
3	2498.5 - 2516.5	17.5 97.2	M. JURASSIC
4	2516.5 - 2533.0	16.5 100.0	M. JURASSIC
5	2533.0 - 2535.0	1.0 50.0	M. JURASSIC
6	2535.0 - 2553.0	17.8 98.9	M. JURASSIC
7	2553.0 - 2571.0	18.0 100.0	M. JURASSIC
8	2571.0 - 2589.0	18.0 100.0	M. JURASSIC
9	2589.0 - 2607.0	18.0 100.0	M. JURASSIC
10	2607.0 - 2624.5	17.5 100.0	M/E. JURASSIC

DRILL STEM TEST									
TEST NO	DEPTH BELOW KB	CHOKE SIZE mm	RECOVERY					PRESS. (psi)	
			OIL Sm3 /d	GAS M Sm3 /d	OIL GRAV. g/cm3	GAS GRAV. rel. air	GOR m3/m3	FSIP	WHP
			1	2612 - 2615	12.7	529	58.581		
2	2554 - 2559	12.7	554	65.656	0.857	0.678	118		
3	2537 - 2547	11.9	429	52.072	0.806	0.675	121		
4	2498 - 2501	15.8	200 *	642.80	0.759*	0.662	3214		
5	2460 - 2463	15.8	189 *	673.54	0.738*	0.670	3563		

* = CONDENSAT

AVAILABLE LOGS			
LOG TYPE	INTERVALS	1/200	1/500
GR	130 - 220	x	
DIFL BHC AC GR	220 - 964	x	
DIFL BHC AC	959 - 2397	x	
DIFL BHC AC	2353 - 2748	x	
DIFL BHC AC	2713 - 3475	x	
DIFL BHC AC	130 - 3475		x
CDL CNL	930 - 2397	x	
CDL CNL PASS 1	2378 - 2647	x	
CDL CNL PASS 2/3	2379 - 2746	x	
CDL CNL	2710 - 3474	x	
CDL CNL	930 - 3474		x
(DIFL LSBHC CAL - CDL CNL GR)	2710 - 3475	x	
DLL MLL	2370 - 2749	x	x
CDM	1920 - 2396	x	
CDM	2379 - 2748	x	
CDM	2740 - 3465	x	
CDM AP	1920 - 2396	x	x
CDM AP	2379 - 2748	x	x
CDM AP	2740 - 3465	x	x
STRATADIP	2353 - 2748	x	
TEMPERATURE	700 - 1075		x
SPECTRALOGE	2378 - 2641	x	x
FMT	2114 - 2619		x
FMT	3049 - 3458		x
COLLAR	375 - 2447	x	
COLLAR GR	2350 - 2748	x	
CBL	2303 - 2725	x	
CBL	2400 - 2548	x	
CBL	2450 - 2614	x	
MUD	218 - 3476		x
VELOCITY	218 - 3475		x

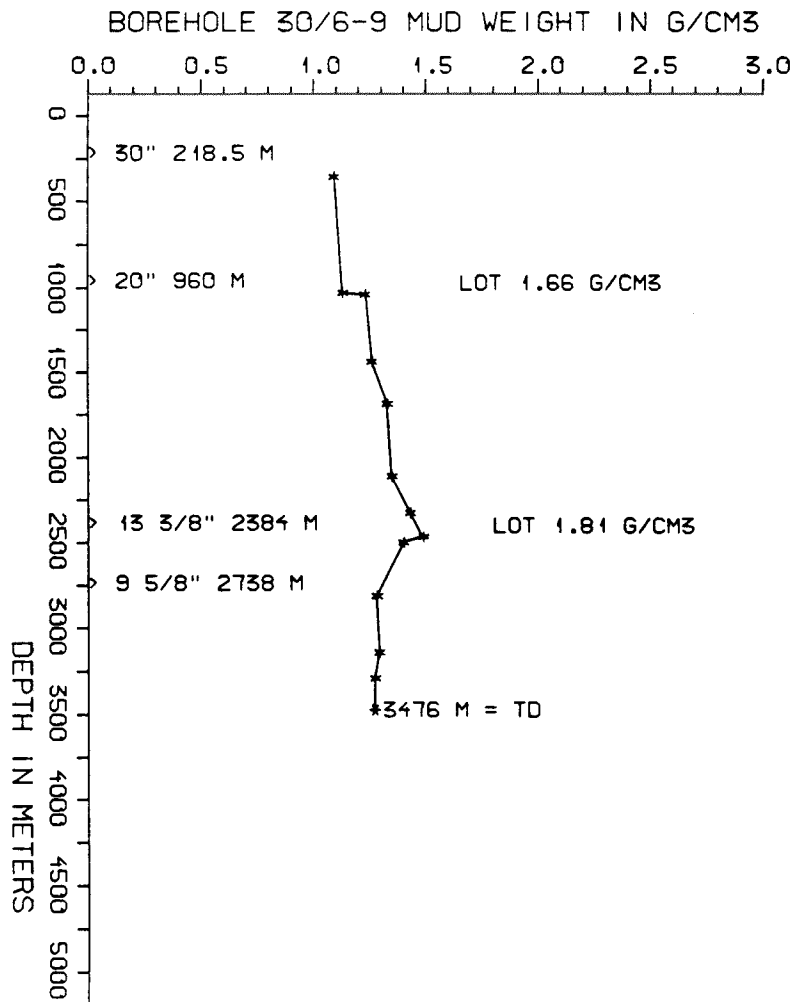
COMBINED - PRESENTATION

(Two Way Travel Time log, 10 cm/s 1stk)
 (Synthetic Seismogram Marine, 10 cm/s-w/t-b/p, 2stk)

MUD PROPERTIES			
DEPTH BELOW KB m	WEIGHT g/cm ³	FUNNEL VISC. sec	FILTRATE LOSS cm ³
293	1.06	50	
965	1.10	40	
975	1.20	46	
1370	1.23	44	
1620	1.30	58	
2045	1.32	59	
2260	1.40	75	
2400	1.46	68	
2435	1.37	47	
2485	1.35	59	
2510	1.37	54	
2750	1.25	48	
3070	1.26	50	
3220	1.24	54	
3390	1.25	50	

DRILL BIT CUTTINGS AND WET SAMPLES		
SAMPLE TYPE	INTERVAL BELOW KB	NUMBER OF SAMPLES
CUTTINGS		
WET SAMPLES	210 - 3475	840

SHALLOW GAS	
DEPTH INTERVAL m KB	REMARKS
	NONE



WELL HISTORY - 30/6-9

GENERAL :

The primary objectives of well 30/6-9 were to test hydrocarbon accumulations in the Brent Group and find additional hydrocarbon accumulations within the Early Jurassic. This was the first well located on the Gamma structure - part of the Oseberg Field. The well encountered hydrocarbon bearing Middle Jurassic Brent Group sandstones. The Early Jurassic Staffjord fm. was found to be water bearing. Weak shows were also reported from thin sandstone and siltstone stringers in the Early Jurassic Dunlin Group (Amundsen fm.).

OPERATIONS :

The well was spudded 28.08.82 by the drilling rig "Nortrym". No special problems occurred while drilling the well. 10 cores were taken in the 12 1/4" section. The well reached TD at 3476 m and was suspended 16.12.82.

TESTING :

Five DST's were performed in this well. Initial flow and build-up of DST no.1 lasted respectively 5 minutes and 60 min. The well was then flowed for clean-up. The main flow period lasted 480 min. and the main build-up 720. DST no.2 followed the same flow and shut-in times as DST no.1. While pulling the bottom hole samples through the sub sea test tree, the tool got stuck. The well was killed and the test string was pulled out. DST no. 2A was re-perforated in the same interval as DST no.2. Bottom hole samples were successfully obtained after the final build-up. DST no. 3 flowed oil from two intervals. Several bottom hole samples were taken. While rigging down the lubricator, the wireline broke and samples were lost. The lubricator was pulled above the rotary to recover the sample chamber. Both DST no. 4 and 5 flowed gas. The tests consisted of a 5 minute initial flow and 60 min. initial build-up. Main flow and build-up on DST no.4 were 480 and 660 minutes respectively. The same periods on DST 5 were 690 and 1080 minutes.

GEOLOGICAL TOPS

WELL: 30/6-9

	Depth m (RKB)
Nordland Group	132 m
Utsira Fm	650,5 m
Hordaland Group	862 m
Rogaland Group	2000,5 m
Balder Fm	2000,5 m
Sele Fm	2073 m
Lista Fm	2175 m
Montrose Group	2265 m
Maureen Fm Equiv.	2265 m
Shetland Group	2280 m
Viking Group	2422,5 m
Heather Fm	2422,5 m
Brent Group	2458 m
Ness Fm	2458 m
Etive Fm	2554 m
Dunlin Group	2620 m
Drake Fm	2620 m
Cook Fm	2820,5 m
Burton Fm	2877,5 m
Amundsen Fm	2963,5 m
Statfjord Fm	3040 m
Hegre Group	3388,5 m

TD = 3476 m