

Well no : 1/ 3-03 Operator : ELF

Coordinates : 56 57 08.56 N UTM coord. : 6312226 N
 02 58 54.05 E 498885 E

Licence no : 065 Permit no : 343

Rig : BORGSTEN DOLPHIN Rig type : SEMI-SUB.

Contractor : DOLPHIN SERVICES A/S

Bottom hole temperature : 132 deg.C Elev. KB : 25 M

Spud. date : 82.08.22 Water depth : 68 M

Compl. date : 83.03.24 Total depth : 4875 M

Spud. class : WILDCAT Form. at TD : PERMIAN

Compl. class : P&A. OIL/GAS DISC. Prod. form :

Seisloca : 8186 - 216 264

LICENSEES

16,667 ELF AQUITAINE NORGE A/S
 15,000 A/S NORSKE SHELL LETE-OG UTVINNINGSAVDELINGEN
 50,000 DEN NORSKE STATS OLJESELSKAP A.S
 10,000 TEXACO EXPLORATION NORWAY A/S
 8,333 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 ³
CONDUCTOR	30	153,0	36	155,0	
SURF.COND.	20	697,0	26	710,0	1,80
INTERM.	13 3/8	1902,0	17 1/2	1912,0	1,81
INTERM.	9 5/8	4047,0	12 1/4	4060,0	2.21
LINER	7	4800,0	8 1/2	4875,0	

CONVENTIONAL CORES

Core no.	Intervals cored meters	Recovery		Series
		M	%	
1	4129.0 - 4147.0	17.8	98.9	UPPER JURASSIC
2	4181.0 - 4199.0	18.0	100.0	UPPER JURASSIC
3	4199.0 - 4213.0	14.0	100.0	UPPER JURASSIC
4	4213.0 - 4231.0	18.0	100.0	UPPER JURASSIC
5	4231.0 - 4239.0	3.5	43.8	UPPER JURASSIC
6	4239.0 - 4248.0	8.7	96.7	UPPER JURASSIC

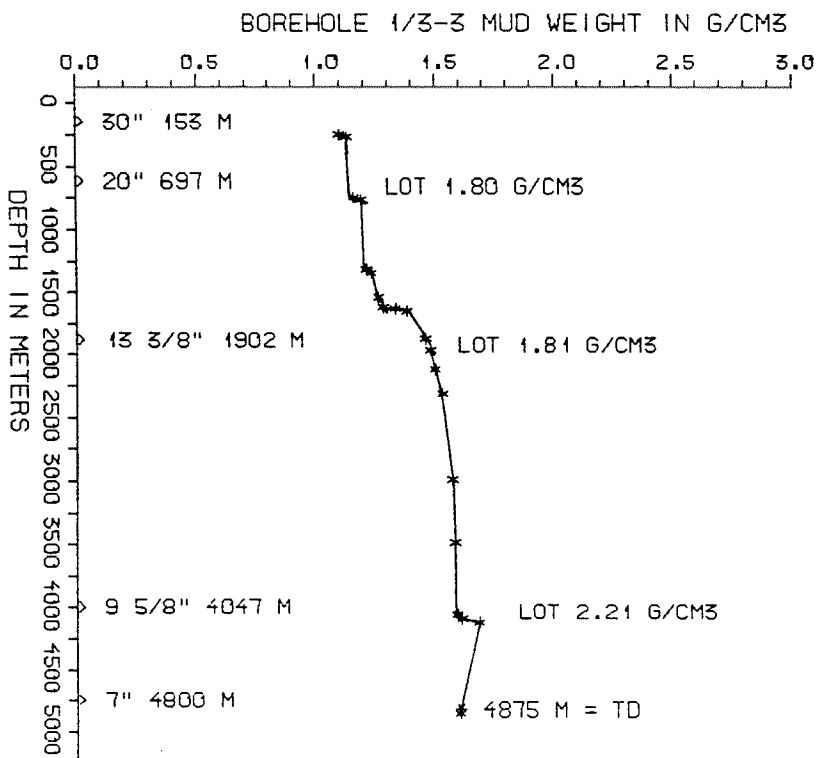
DRILL STEM TEST									
TEST NO	DEPTH BELOW KB	CHOKE SIZE mm	RECOVERY					PRESS. (psi)	
			OIL Sm ³ /d	GAS M Sm ³ /d	OIL GRAV. g/cm ³	GAS GRAV. rel. air	GOR m ³ /m ³	WHFP	BHFP
1	4529 - 4552	25.40	4	WATER					
2	4233 - 4240	9.53	170	WATER					
3A	4202 - 4208	50.80	6	WATER					
3B	4202 - 4208								
	4211 - 4214	12.70	193	45000					
		6.35	143	28000	0.829	0.820	240	565	3335

AVAILABLE LOGS			
LOG TYPE	INTERVALS	1/200	1/500
ISF BHC SONIC GR	92 - 706	x	x
ISF LSS	697 - 1912	x	x
ISF LSS	1904 - 4062	x	x
ISF LSS	4048 - 4874	x	x
LSS	3800 - 4050	x	x
LSS	4048 - 4835	x	x
LDL	155 - 695	x	x
LDL	697 - 1915	x	x
LDT CNL	1904 - 4063	x	x
LDT CNL	4049 - 4352	x	x
LDT CNL	4352 - 4874	x	x
DLL MSFL	4049 - 4353	x	x
DLL MSFL	4300 - 4750	x	x
CDM (DIPMETER)	1904 - 4063	x	
CDM	4048 - 4876	x	
CDM AP	1904 - 4063	x	x
CDM AP	4049 - 4852	x	x
RFT SAMPLING RUNS	4135 - 4324		
RFT	4376 - 4631		
NGS	4049 - 4352	x	x
NGS	4352 - 4863	x	
SIDEWALL CORES	1908 - 4054	x	
DIRECTIONAL SURVEY	1903 - 4064		
CBL	550 - 1904	x	x
CBL VDL	1598 - 4048	x	
CBL VDL CCL	3800 - 4710	x	
VELOCITY (SEISMIC CALIBR.)	155 - 4874		x
(Geogram Synth. Seismogram, 2m/s, n/r. pol.)			2 stk)
(Geogram Synth. Seismogram, 5 - 10 cm/s.)			4 stk)
(Seismic Quicklook, 800 - 4330.)			1 stk)
(Seismic Velocity Survey, 800 - 4330.)			1 stk)
(Seismic Log, plot 1, rev. polarity)			1 stk)

MUD PROPERTIES			
DEPTH BELOW KB m	WEIGHT g/cm ³	FUNNEL VISC. sec	FILTRATE LOSS cm ³
160	1.07	46	
210	1.10	58	
330	1.10	50	
710	1.13	65	
760	1.16	48	
850	1.16	26	
1260	1.18	54	
1385	1.20	24	
1490	1.23	30	
1530	1.25	45	
1620	1.30	45	
1680	1.35	45	
1840	1.43	55	
1930	1.45	65	
2100	1.47	60	
2250	1.50	70	
2910	1.54		
3410	1.55	38	
4030	1.58		
4050	1.65	69	
4410	1.56	55	
4850	1.57	55	

DRILL BIT CUTTINGS AND WET SAMPLES		
SAMPLE TYPE	INTERVAL BELOW KB	NUMBER OF SAMPLES
CUTTINGS	245- 4866	470
WET SAMPLES	4000- 4866	599

SHALLOW GAS	
DEPTH INTERVAL m KB	REMARKS
	NONE



WELL HISTORY - 1/3-3

GENERAL:

The wildcat 1/3-3 was drilled to evaluate the hydrocarbon potential of both the Upper Jurassic and the Triassic sandstone formations. Main target was the Upper Jurassic Ula Formation. Secondary target was the Triassic sandstone found oil bearing in the well 7/12-6 (see WDSS vol.12) at the Ula field. Hydrocarbons were noticed in the Lower Jurassic Bryne Formation but in almost tight sandstones.

OPERATIONS:

Well 1/3-3 was spudded 22.08.82 by the semi-submersible rig Borgsten Dolphin. One core was cut in the Farsund Formation and five in the upper half of the Ula Formation. Two drilling breaks occurred, one at 4127 m and the other at 4180 m. The well was drilled using waterbased mud.

TESTING:

Three DST's were performed in this well. The first two produced water, the third produced oil and gas.

GEOLOGICAL TOPS
WELL 1/3-3

	Depth m (RKB)
Nordland Group	93,0
Hordaland Group	1647,0
Rogaland Group	2927,0
Balder Fm	2927,0
Maureen Fm Eqv	3059,0
Chalk Group	3201,0
Ekofisk Fm	3201,0
Tor Fm	3288,0
Hod Fm	3803,0
Plenus Marl Fm	3852,0
Cromer Knoll Group	3887,0
Valhall Fm	3887,0
Tyne Group	4043,0
Mandal Fm	4043,0
Farsund Fm	4112,0
Vestland Group	4178,0
Ula Fm	4178,0
Bryne Fm	4527,0
Triassic	4620,0
Skagerak Fm	4620,0
Zechstein Group	4820,0
TD=	4876,0