

Well no : 31/ 2-10 Operator : SHELL

Coordinates : 60 47 38.94 N UTM coord. : 6740120 N  
 03 29 39.46 E 526908 E

Licence no : 054 Permit no : 346

Rig : BORGNY DOLPHIN

Contractor : DOLPHIN SERVICES A/S

Bottom hole temperature : 51 deg.C Elev. KB : 25 M

Spud. date : 82.10.02 Water depth : 357 M

Compl. date : 82.10.31 Total depth : 1833 M

Spud. class : APPRAISAL Form. at TD : L.JURASSIC

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

Seisloca : 79-410 SP 668 AND 8007-328 SP 612

#### LICENSEES

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5,000 CONOCO NORWAY INC.  
 5,000 NORSK HYDRO PRODUKSJON A.S  
 5,000 MOBIL DEVELOPMENT NORWAY A/S  
 35,000 A/S NORSKE SHELL LETE-OG UTVINNINGSAVDELINGEN  
 50,000 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
CONDUCTOR	30	454,0	36	472,0	
SURF.COND.	20	793,0	26	810,0	1,51
INTERM.	13 3/8	1514,0	17 1/2	1530,0	1,59
OPEN HOLE			12 1/4	1575,0	
OPEN HOLE			8 1/2	1833,0	

#### CONVENTIONAL CORES

Core no.	Intervals cored meters	Recovery		Series
		M	%	
1	1575.5 - 1585.0	5.8	61.1	L. JURASSIC
2	1585.0 - 1599.0	7.5	53.6	L. JURASSIC
3	1599.0 - 1617.5	18.0	97.3	L. JURASSIC
4	1617.5 - 1637.0	16.9	86.7	L. JURASSIC
5	1637.0 - 1655.5	18.3	98.9	L. JURASSIC
6	1655.5 - 1674.0	18.5	100.0	L. JURASSIC
7	1674.0 - 1692.5	12.4	67.0	L. JURASSIC
8	1692.5 - 1704.5	11.9	99.2	L. JURASSIC
9	1704.5 - 1723.0	18.5	100.0	L. JURASSIC
10	1723.0 - 1741.5	18.5	100.0	L. 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
	NONE								

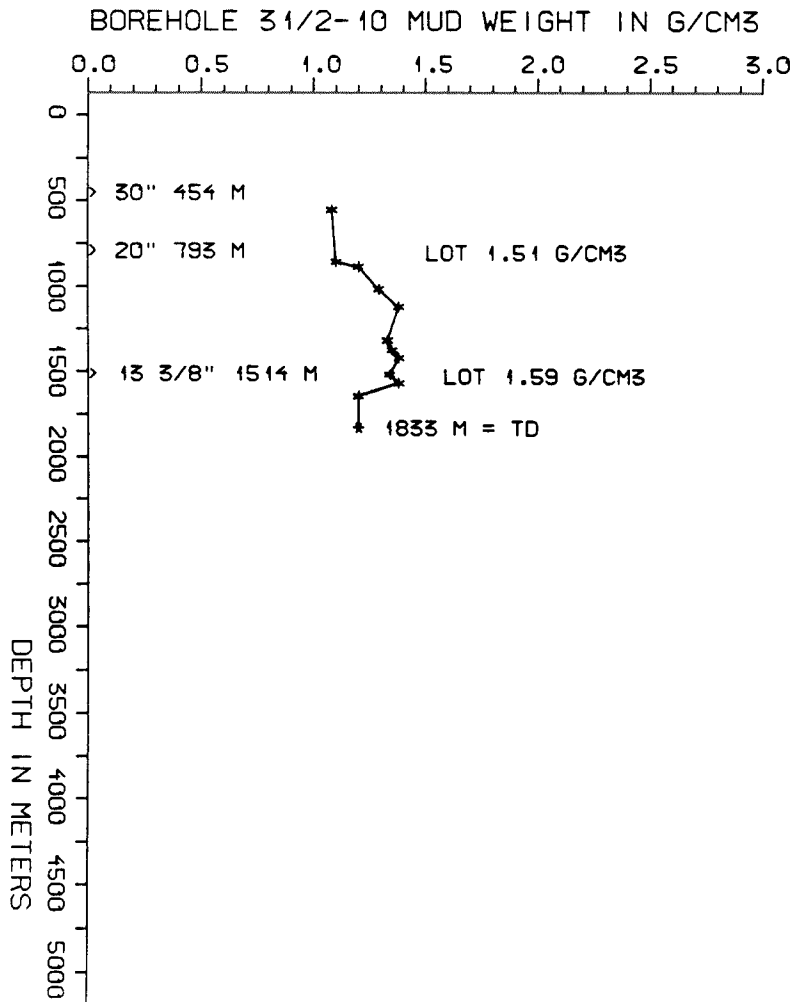
AVAILABLE LOGS			
LOG TYPE	INTERVALS	1/200	1/500
GR	350 - 455	x	x
ISF BHC GR	455 - 810	x	x
ISF BHC	794 - 1526	x	x
ISF BHC	1515 - 1832	x	x
LDL CNL	455 - 811	x	x
LDL CNL	793 - 1528	x	x
LDL CNL NGS	1515 - 1832	x	x
DLL MSFL	1515 - 1824	x	x
CDM	1515 - 1827	x	
CDM AP	1533 - 1827	x	x
CDM PP	1600 - 1827		
CDM SP	1600 - 1827		
NGS	1515 - 1828	x	x
RFT	1602 - 1818	x	
HP	1602 - 1818	x	
CBL VDL	500 - 1515	x	
MUD	476 - 1833		x
VELOCITY (S.C.L.)	350 - 1831		x

(+ Geogram Synthetic Seismogram, 10 cm/s - nor/rev. polarity, 6stk)  
 (+ Geogram Synthetic Seismogram, 20 cm/s - nor/rev. polarity, 6stk)  
 (+ Seismic plot, raw data, reverse polarity, - plot 1 - 12, 1stk)  
 (+V.S.P., stacked data, nor/rev. polarity - plot 13 - 26, 14stk)

MUD PROPERTIES			
DEPTH BELOW KB m	WEIGHT g/cm3	FUNNEL VISC. sec	FILTRATE LOSS cm3
490	1.05		
570	1.06		
790	1.07		
820	1.17		
900	1.18		
950	1.26		
1050	1.35		
1250	1.30		
1305	1.32		
1350	1.35		
1450	1.31		
1500	1.35		
1580	1.17		
1650	1.18		
1833	1.18		

DRILL BIT CUTTINGS AND WET SAMPLES		
SAMPLE TYPE	INTERVAL BELOW KB	NUMBER OF SAMPLES
CUTTINGS		
WET SAMPLES	510 - 1831	160

SHALLOW GAS	
DEPTH INTERVAL m KB	REMARKS
	NONE



## WELL HISTORY - 31/2-10

### GENERAL :

The main objectives of well 31/2-10 were to define the top and intra reservoir markers in this area and to determine the reserves potential in the structurally low area east-north of well 31/2-5 and south-east of 31/2-7. The reservoir sands were found to be waterbearing.

### OPERATIONS :

Well 31/2-10 was spudded 02.10.82 by the drilling rig "Borgny Dolphin". After drilling the 36" section, a 14 3/4" pilot hole was drilled to 810 m. The hole was then logged (there was no indication of shallow gas) before opening up to 26". 10 cores were taken while drilling the 12 1/4" hole. 1.5 days were lost during coring due to bad weather. After coring, drilling resumed with a 8 1/2" bit. This reached TD at 1833 m.

### TESTING :

The well was not tested. One RFT run was made between 1601.5 and 1817.5 m.

# GEOLOGICAL TOPS

WELL: 31/2-10

	<i>Depth m (RKB)</i>
<i>Nordland Group</i>	382 m
<i>Hordaland Group</i>	739 m
<i>Rogaland Group</i>	1279 m
<i>Balder Fm</i>	1279 m
<i>Sele Fm</i>	1362,5 m
<i>Lista Fm</i>	1392 m
<i>Cromer Knoll Group ?</i>	1534,5 m
<i>Viking Group</i>	1564,5 m
<i>Draupne Fm</i>	1564,5 m
<i>Sognefjord/Heather Fm</i>	1600 m
<i>Fensfjord Fm</i>	1793 m
	<u>TD = 1833 m</u>