

Well no : 2/ 2-02 Operator : SAGA

Coordinates : 56 56 40.61 N UTM coord. : 6311426 N
 03 22 46.81 E 523099 E

Licence no : 066 Permit no : 336

Rig : DYVI ALPHA

Contractor : DYVI OFFSHORE A/S

Bottom hole temperature : 93 deg.C Elev. KB : 25 M

Spud. date : 82.07.05 Water depth : 66 M

Compl. date : 82.08.27 Total depth : 3124 M

Spud. class : WILDCAT Form. at TD : PERMIAN

Compl. class : P&A. GAS DISCOVERY Prod. form :

Seisloca : SG 8052 - 302 SP 285

LICENSEES

5,000 ARCO NORWAY INC.
 10,000 NORSK HYDRO PRODUKSJON A.S
 25,000 MOBIL DEVELOPMENT NORWAY A/S
 10,000 SAGA PETROLEUM A.S
 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	203,0	36	206,0	
SURF.COND.	20	706,0	26	715,0	1,57
INTERM.	13 3/8	1945,0	17 1/2	1965,0	1,77
INTERM.	9 5/8	3103,0	12 1/4	3124,0	

CONVENTIONAL CORES

Core no.	Intervals cored meters	Recovery		Series
		M	%	
1	1979.3 - 1996.9	15.0	85.2	L. OLIGOCENE
2	2939.6 - 2947.5	7.3	92.4	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	BHP	WHP
			1A	1980 - 1988	9.5		283.0		
1B	1980 - 1988	6.4		109.3		0.57		3111	2665
1C	1980 - 1988	7.9		207.3		0.57		3082	2625
1D	1980 - 1988	11.2		313.5		0.57		3060	2030

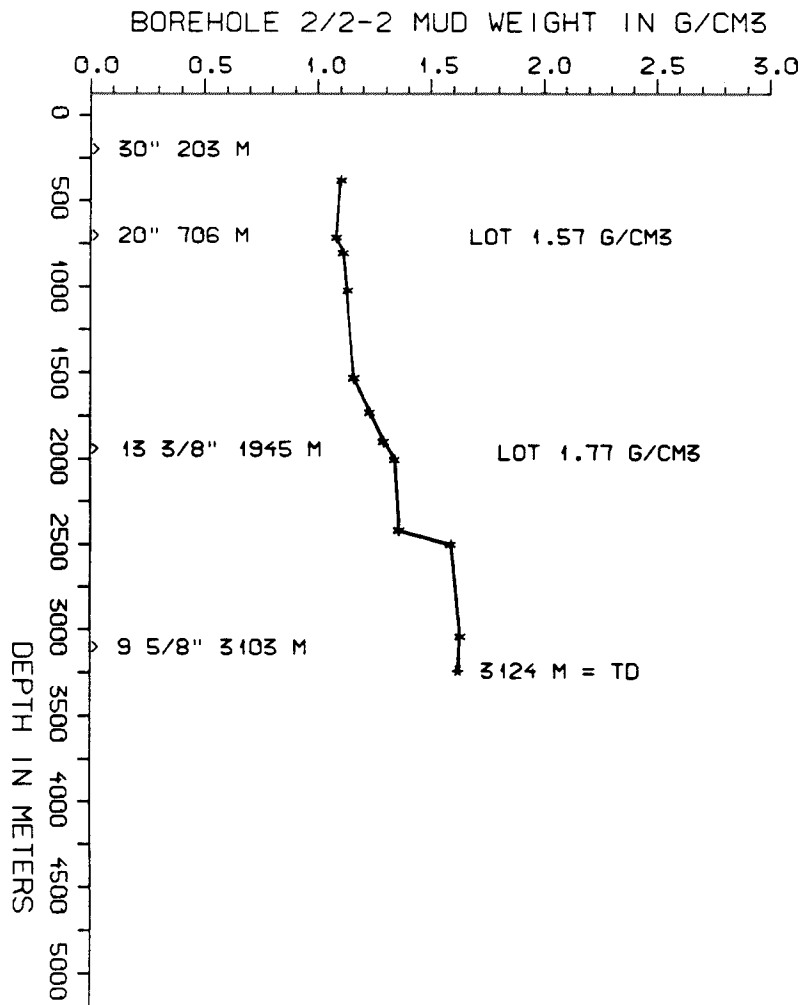
AVAILABLE LOGS				
LOG TYPE	INTERVALS	1/200	1/500	
ISF DDBHC GR	203 - 714	x	x	
ISF DDBHC	705 - 1968	x	x	
ISF DDBHC MSFL	1946 - 2570	x	x	
ISF DDBHC MSFL	2550 - 3124	x	x	
LDT CNL	1946 - 1971	x	x	
LDT CNL	2550 - 3127	x	x	
DLL MSFL	1946 - 2250	x	x	
CDM	1946 - 3127	x		
CDM AP	1948 - 2124	x	x	
CDM AP	2869 - 3105	x	x	
GEODIP	1970 - 2060	1:40		
GEODIP	2900 - 3010	1:40		
RFT	1981 - 2546	x		
RFT	2937 - 2994	x		
TEMPERATURE	236 - 1900	x	x	
CBL	603 - 1945	x	x	
CBL	550 - 1945	x	x	
CST	1970 - 3101	x		
MUD	90 - 3124		x	
VELOCITY (S.C.L.)	203 - 3124		x	

(+ Geogram Synthetic Seismogram, 10 - 20 cm/s
4stk)
(+ Seismic log, 1stk)
(+ VSP, 205 - 3127m, 1stk)

MUD PROPERTIES			
DEPTH BELOW KB m	WEIGHT g/cm3	FUNNEL VISC. sec	FILTRATE LOSS cm3
315	1.07		
650	1.05		
740	1.08		
960	1.10		
1465	1.13		
1665	1.20		
1835	1.26		
1940	1.31		
2350	1.33		
2435	1.56		
2970	1.60		

DRILL BIT CUTTINGS AND WET SAMPLES		
SAMPLE TYPE	INTERVAL BELOW KB	NUMBER OF SAMPLES
CUTTINGS	220 - 3120	297
WET SAMPLES	230 - 3122	480

SHALLOW GAS	
DEPTH INTERVAL m KB	REMARKS
	NONE



WELL HISTORY - 2/2-2

GENERAL :

The main target of well 2/2-2 was the Ula formation in the Late Jurassic. Secondary targets were sandstones in the Middle Jurassic and Late Triassic. Secondary objectives were represented by the Late Cretaceous chalk and a sandstone of Oligocene age. The Jurassic sandstones proved water bearing. Gas was tested from the Oligocene sand.

OPERATIONS :

Well 2/2-2 was spudded 05.07.82 by the drilling rig "Dyvi Alpha". When drilling the 36" hole, the pipe stuck. After the pipe was worked free, the drilling continued. The well took a kick at 2425 m. Two cores were cut in the 12 1/4" section before the well was drilled to TD at 3124 m.

TESTING :

The well was tested over one interval in the Oligocene sandstone. Initial flow lasted 794 minutes. Flowrates varied due to technical problems with the choke. Problems with plugging of the choke and hydrate build-up also occurred. The initial build-up period lasted 295 minutes. Second flow and build-up lasted 302 and 325 minutes respectively. The third flow period lasted 480 minutes, but after two hours the choke got plugged by cement particles. The well was then shut-in for 642 minutes. The fourth flow period was designed to define the minimum flowrate at which sand production occurred. Produced solids were found to be a mixture of cement and mud particles. Eight samples of gas were collected during the second and third flow periods. Neither condensate, water nor H₂S was reported during the test.

GEOLOGIC TOPS

WELL: 2/2-2

	<i>Depth m (RKB)</i>
<i>Hordaland Group</i>	1308 m
<i>Rogaland Group</i>	2326 m
<i>Balder Fm</i>	2326 m
<i>Sele Fm</i>	2358 m
<i>Lista Fm</i>	2389 m
<i>Calck Group</i>	2512 m
<i>Tor Fm</i>	2512 m
<i>Hod Fm</i>	2639 m
<i>Cromer Knoll Group</i>	2754 m
<i>Tyne Group</i>	2908 m
<i>Mandal Fm</i>	2908 m
<i>Vestland Group</i>	2917 m
<i>Sleipner Fm</i>	2917 m
<i>Triassic Group</i>	2995 m
<i>Smith Bank Fm</i>	2995 m
<i>Zechstein Group</i>	3104 m
	<u>TD = 3124 m</u>