

Well no :	2/8-13	Operator :	AMOCO
Coordinates :	56° 23' 21.65" N 03° 23' 57.58" E	UTM coord. :	624962457 N 52465538 E
Licence no :	6	Permit no :	607
Rig :	DYVI STENA	Rig type :	SEMI-SUB.
Contractor :	STENA DRILLING A/S		
Bottom hole temp:	93 °C	Elev. KB :	25 M
Spud. date :	89.04.29	Water depth :	68,7 M
Compl. date :	89.06.22	Total depth :	1940 M
Spud. class :	WILDCAT	Form. at TD	PERMIAN
Compl. class :	P&A. DRY HOLE	Prod.form. :	
Seisloca :	ANO 8701 - 36 SP 310		

LICENSEES

28,333000	AMOCO NORWAY OIL COMPANY
28,333000	ENTERPRISE OIL NORWEGIAN A/S
15,000000	NORWEGIAN OIL CONSORTIUM A/S & CO
28,333000	AMERADA HESS NORGE 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	178,0	36	183,0	
INTERM.	20	374,0	26	380,0	1,60
INTERM.	13 3/8	1238,8	17 1/2	1255,0	1,85
INTERM.	9 5/8	1449,0	12 1/4	1457,0	1,98
LINER	7	1757,0	8 1/2	1783,0	2,18
OPEN HOLE			5 7/8	1940,0	

CONVENTIONAL CORES

Core no.	Intervals cored meters	Recovery	
		M	%
1	1780,0 - 1782,0	2,0	100,0

MUD

Depth	Mud weight	Visc.	Mud type
157,000	1,82	33,0	WATER BASED
276,000	1,20		WATER BASED
610,000	1,38	16,0	WATER BASED
642,000	1,20	14,0	WATER BASED
828,000	1,33	11,0	WATER BASED
832,000	1,50	17,0	WATER BASED
906,000	1,54	17,0	WATER BASED
1204,000	1,56	18,0	WATER BASED
1204,000	1,58	21,0	WATER BASED
1255,000	1,61	21,0	WATER BASED

Depth	Mud weight	Visc.	Mud type
1255,000	1,62	24,0	WATER BASED
1255,000	1,61	21,0	WATER BASED
1257,000	1,68	18,0	WATER BASED
1260,000	1,80	23,0	WATER BASED
1457,000	1,85	34,0	WATER BASED
1457,000	1,82	33,0	WATER BASED
1524,000	1,89	31,0	WATER BASED
1780,000	1,87	27,0	WATER BASED
1783,000	1,88	36,0	WATER BASED
1783,000	1,68	21,0	WATER BASED
1783,000	1,87	37,0	WATER BASED
1783,000	1,86	33,0	WATER BASED
1783,000	1,87	27,0	WATER BASED
1783,000	1,85	24,0	WATER BASED
1783,000	1,88	32,0	WATER BASED
1783,000	1,85	27,0	WATER BASED
1940,000	1,78	33,0	WATER BASED

DRILL BIT CUTTINGS AND WET SAMPLES

Sample type	Interval below KB	Number of samples
WET SAMPLES	380 - 1921	180
CUTTING	380 - 1940	180

SHALLOW GAS

Interval below KB	Remarks
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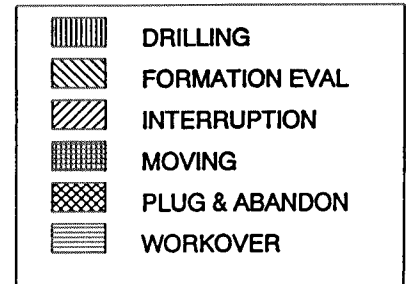
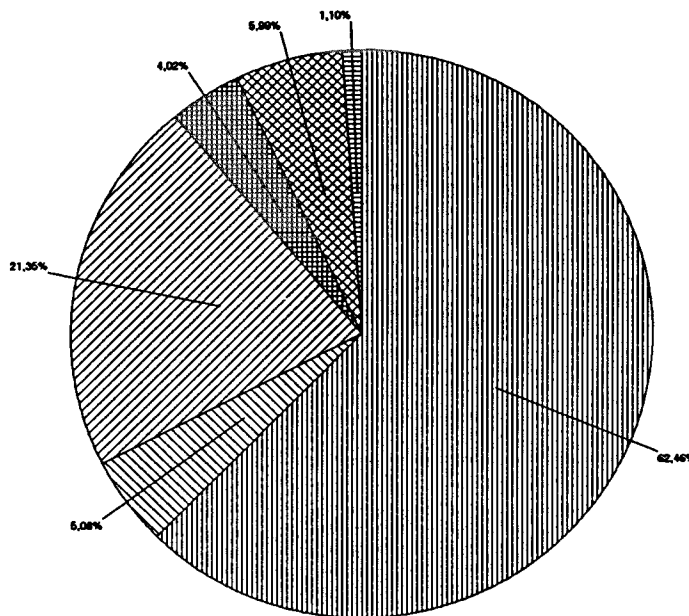
AVAILABLE LOGS

Log type	Intervals	1/200	1/500	Div.
9 5/8" CBL VDL GR	925,0 - 1300,0	X		
CDM AP	1448,0 - 1756,0	X	X	
CDM AP / SHDT (versjon 1)	1757,0 - 1932,0	X	X	
CDM AP / SHDT (versjon 11)	1757,0 - 1932,0	X	X	
SHDT GR	1448,5 - 1757,5	X		
SHDT GR	1757,0 - 1934,0	X		
SHDT GR (HOLE GEOM)	1448,5 - 1757,5	X		
LSS GR CAL	178,0 - 379,0	X	X	
DIL BHC GR SP	1237,0 - 1455,0	X	X	
DLL BHC GR SP	1448,5 - 1753,0	X	X	
DLL SDT GR SP	1757,0 - 1936,0	X	X	
LDL CNL GR	178,0 - 379,0	X	X	
LDL CNL GR	1237,0 - 1456,0	X	X	

Log type	Intervals		1/200	1/500	Div.
LDL CNL GR CAL	1448,5	- 1757,0	X	X	
LDL GR CAL	1757,0	- 1939,0	X	X	
DRILL DATA PRESS LOG	96,0	- 1940,0			1:5000
TEMPERATURE DATA LOG	380,0	- 1940,0			1:5000
WIRELINE DATA PRESS.	96,0	- 1940,0			1:5000
PRESS. DATA PLOT	94,0	- 1940,0			1:5000
MWD RESIST.GR	93,0	- 1780,0	X	X	
MUD LOG	380,0	- 1940,0		X	
VELOCITY WSC	178,0	- 1936,0		X	
FREQUENCY TEST	10 cm/s				8
SYNTHETIC SEISMOGRAM	10 cm/s				2
V.S.P., ZERO OFFSET PLOT 1-7	10 cm/s				7
V.S.P., WAVESHAPING ZERO PHASE	10 cm/s				2

Daily Drilling Report System (DDRS)

Operations for well: 2/8-13



Main operations	Minutes	Hours	% of total
DRILLING	51270	854,50	62,46
FORMATION EVAL	4170	69,50	5,08
INTERRUPTION	17520	292,00	21,35
MOVING	3300	55,00	4,02
PLUG & ABANDON	4920	82,00	5,99
WORKOVER	900	15,00	1,10
Total	82080	1368,00	100,00

Operations for well: 2/8-13**Main operation: DRILLING**

Sub operations	Minutes	Hours	% of total
BOP ACTIVITIES	1170	19,50	2,28
BOP/WELLHEAD EQ	2610	43,50	5,09
CASING	9090	151,50	17,73
CIRC/COND	11190	186,50	21,83
DRILL	11460	191,00	22,35
HOLE OPEN	1170	19,50	2,28
PRESS DETECTION	720	12,00	1,40
REAM	660	11,00	1,29
SURVEY	210	3,50	0,41
TRIP	12990	216,50	25,34
Total	51270	854,50	100,00

Main operation: FORMATION EVAL

Sub operations	Minutes	Hours	% of total
CORE	60	1,00	1,44
LOG	3510	58,50	84,17
TRIP	600	10,00	14,39
Total	4170	69,50	100,00

Main operation: INTERRUPTION

Sub operations	Minutes	Hours	% of total
FISH	4770	79,50	27,23
LOST CIRC	8730	145,50	49,83
MAINTAIN/REP	570	9,50	3,25
OTHER	150	2,50	0,86
SIDETRACK	930	15,50	5,31
WAIT	870	14,50	4,97
WELL CONTROL	1500	25,00	8,56
Total	17520	292,00	100,00

Main operation: MOVING

Sub operations	Minutes	Hours	% of total
ANCHOR	3300	55,00	100,00
Total	3300	55,00	100,00

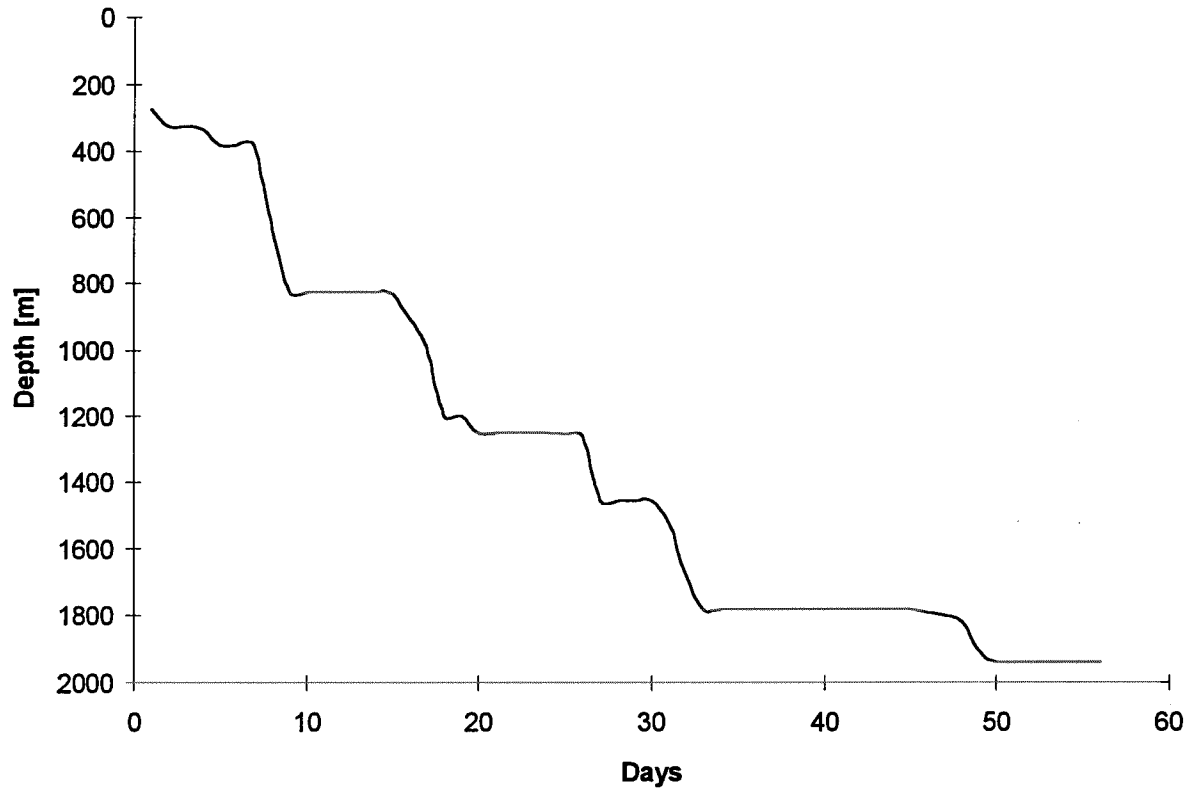
Main operation: PLUG & ABANDON

Sub operations	Minutes	Hours	% of total
CEMENT PLUG	240	4,00	4,88
CIRC/COND	330	5,50	6,71
CUT	1170	19,50	23,78
EQUIP RECOVERY	300	5,00	6,10
MECHANICAL PLUG	90	1,50	1,83
PERFORATE	750	12,50	15,24
TRIP	2040	34,00	41,46
Total	4920	82,00	100,00

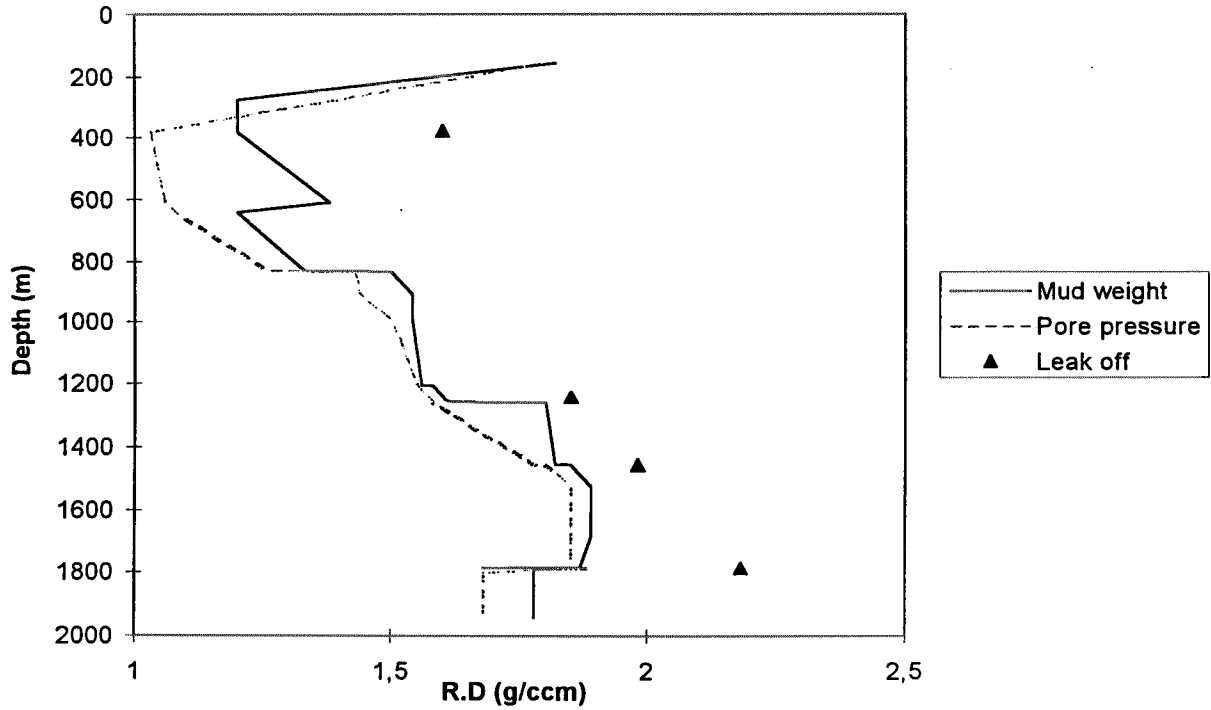
Main operation: WORKOVER

Sub operations	Minutes	Hours	% of total
BOP/WELLHEAD EQ	900	15,00	100,00
Total	900	15,00	100,00

Depth vs time for well: 2/8-13



Composite plot for well: 2/8-13



Well History 2/8-13.

General:

Exploration well 2/8-13 was designed to test the Tertiary and Upper Cretaceous chalks overlying a salt induced domal feature, unofficially named Mode, in the western part of block 2/8. The objectives were:

- Test the possible hydrocarbon accumulation contained within the Tertiary and Upper Cretaceous chalks of the Ekofisk- and Tor Formations, as well as the Hod Formation.
- Determine the reservoir quality of the Shetland Group over the structure.
- Determine the chalk stratigraphy over the "Mode" salt dome.
- Acquire a VSP to help to image the chalk distribution and thickness over the "Mode" feature.

The well was planned to penetrate the Shetland Group on a structurally high at the northern flank of the "Mode" salt feature. Shallow gas was expected at 507- 590- and 730 m RKB.

Operations:

Wildcat well 2/8-13 was spudded 28 April 1989, and completed 22 June 1989 at a depth of 1940 m RKB in Permian rocks. Shallow gas was seen at the above mentioned depths, and controlled with heavy mud. Shallow gas encountered in sands at 828 m RKB, caused the well to flow. The flow was killed with heavy mud, and caused no injuries or damages. The drill pipe got stuck, and had to be shot of above the BHA, which than was cemented in . The well was kicked off for the 2/8-13 sidetrack at 412 m RKB. The Paleocene section was thinner than expected, with Balder-Sele- and part of the Lista Formation missing. The gas cloud above the structure caused some difficulties as to predicting formation depths and velocity correlations across the structure. The Shetland Group came in 220 m higher than prognosed and was 9.5 m thick, compared to prognosed 270 m. No biostratigraphic evidence was found of the Hod- Blodøks or Hidra formations, nor of the Lower Cretaceous, Jurassic or Triassic rocks. The well drilled directly from Upper Cretaceous to Permian rocks. An unexpected section of Celestite (strontium sulfate) was on top of the Anhydrite section. One core was cut in the Celestite section with poor reservoir quality. After having cut the core, the well became unstable and was killed and cemented back to 1415 m RKB and an unintentional sidetrack was made. The Paleocene section came in 10 m deeper in the redrilled hole. Well 2/8-13 was permanently plugged and abandoned as a dry hole with oil and gas shows.

Testing:

No DST tests were performed.

Geological Tops.

Well: 2/8-13.

	Depth m (RKB).
Nordland Group	94.0
Hordaland Group	1215.0
Rogaland Group	1759.0
Lista Fm	1759.0
Våle Fm	1762.0
Shetland Group	1765.5
Ekofisk Fm	1765.5
Tor Fm.	1772.0
Zechstein Group	1775.0
Celestite Rock	1775.0
Halite Rock	1920.0
T.D.	1940.0