Well no : 2/02-04 Operator : SAGA

Coordinates : 56 47 40.88 N
03 39 34.46 E

UTM coord. : 6294866 N
540289 E

Licence no : 66

Permit no : 574

Rig : TREASURE SAGA

Rig type : SEMI-SUB.

Contractor : WILHELMSEN OFFSHORE SERVICES

Bottom hole temperature :131 deg.C

Elev. KB : 26 M

Spud. date : 88.04.16

Water depth : 59 M

Compl. date : 88.06.07

Total depth : 4020 M

Spud. class : WILDCAT

Form. at TD : TRIASSIC

Compl. class : P&A DRY HOLE

Prod. form :

Seisloca : SG 8652 - 102 SP. 218

LICENSEES

5.000000	ARCO NORGE A/S
10.000000	NORSK HYDRO PRODUKSJON A.S
25.000000	MOBIL DEVELOPMENT NORWAY A.S.
10.000000	SAGA PETROLEUM A.S.
50.000000	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/cm3
CONDUCTOR	30	207.0	36	207.0	.
SURF.COND.	20	897.0	26	915.0	1.65
INTERM.	13 3/8	2304.0	17 1/2	2319.0	1.77
INTERM.	9 5/8	3295.0	12 1/4	3321.0	2.04
OPEN HOLE		4020.0	8 1/2	4020.0	.

MUD PROPERTIES

Depth below KB meter	Mud weigth g/cm3	Viscosity	Mud type
120.000	1.46	15.0	WATER BASED
207.000	1.05	4.0	WATER BASED
400.000	1.13	4.0	WATER BASED
915.000	1.12	5.0	WATER BASED
915.000	1.15	4.0	WATER BASED
1060.000	1.16	20.0	WATER BASED
1405.000	1.23	22.0	WATER BASED
1730.000	1.40	24.0	WATER BASED
2450.000	1.42	17.0	WATER BASED
2793.000	1.45	16.0	WATER BASED
3086.000	1.50	15.0	WATER BASED
3146.000	1.46	15.0	WATER BASED
3157.000	1.50	16.0	WATER BASED

3177.000	1.50	16.0	WATER BASED
3310.000	1.52	21.0	WATER BASED
4020.000	1.48	22.0	WATER BASED
4020.000	1.46	20.0	WATER BASED

DRILL BIT CUTTINGS AND WET SAMPLES

SAMPLE TYPE	INTERVAL BELOW KB	NUMBER OF SAMPLES
Cutting	210-4010	270
Wet Samples	210-4019	240

SHALLOW GAS

Interval below KB	REMARKS

AVAILABLE LOGS

LOG TYPE	INTERVALS	1/200	1/500	Div.
BHC AC GR	898.000 - 2297.000	X	X	
DIFL LS BHC AC GR	2305.000 - 3310.000	X	X	
DIFL LS BHC GR	3297.000 - 4020.000	X	X	
CDL CNL GR	898.000 - 2297.000	X	X	
CDL CNL GR	2305.000 - 3309.000	X	X	
CDL CNL GR	3297.000 - 4020.000	X	X	
DLL MLL	898.000 - 2299.000	X	X	
MWD	213.000 - 4017.000	X	X	
CDM	2305.000 - 3309.000	X		
CDM	3297.000 - 4019.000	X		
CDM AP	2305.000 - 3309.000	X	X	
CDM AP	3297.000 - 4019.000	X	X	
FMT	2087.000 - 2177.000		X	
FMT	3340.000 - 3863.000		X	
FMT	3328.000 - 3868.000		X	
DRILL DATA PRESSURE	85.000 - 4020.000	1:5000		
PRESSURE EVALUATION	85.000 - 4020.000	1:5000		
TEMPERATURE DATA	85.000 - 4020.000	1:5000		
WIRELINE DATA PRESS.	85.000 - 4020.000	1:5000		
AC CBL VDL GR	650.000 - 2305.000	X	X	
AC CBL VDL GR	2097.000 - 3297.000	X		
MUD	85.000 - 4020.000		X	
VELOCITY LOG	874.000 - 4028.000	1:1000	X	

(Synthetic Seismogram, 10cm/s 2 stk.)
(V.S.P., 10cm/s 8 stk.)
(Fixed Offset V.S.P., 10cm/s 10 stk.)

MAIN OPERATIONS FOR WELL: 000202 04

Main operation: DRILLING

Sub operations	Minutes	Hrs	% of total
BOP ACTIVITIES	960	16,0	1,64
BOP/WELLHEAD EQ	2940	49,0	5,03
CASING	5130	85,5	8,77
CIRC/COND	2400	40,0	4,10
DRILL	32280	538,0	55,18
PRESS DETECTION	90	1,5	0,15
REAM	1410	23,5	2,41
SURVEY	300	5,0	0,51
TRIP	10410	173,5	17,79
UNDERREAM	1920	32,0	3,28
WAIT	660	11,0	1,13
Total	58500	975,0	100,00

Main operation: FORMATION EVAL

Sub operations	Minutes	Hrs	% of total
CIRC SAMPLES	180	3,0	2,15
CIRC/COND	150	2,5	1,79
LOG	6780	113,0	81,00
RFT/FIT	480	8,0	5,73
TRIP	780	13,0	9,32
Total	8370	139,5	100,00

Main operation: INTERRUPTION

Sub operations	Minutes	Hrs	% of total
FISH	1650	27,5	59,78
MAINTAIN/REP	1110	18,5	40,22
Total	2760	46,0	100,00

Main operation: MOVING

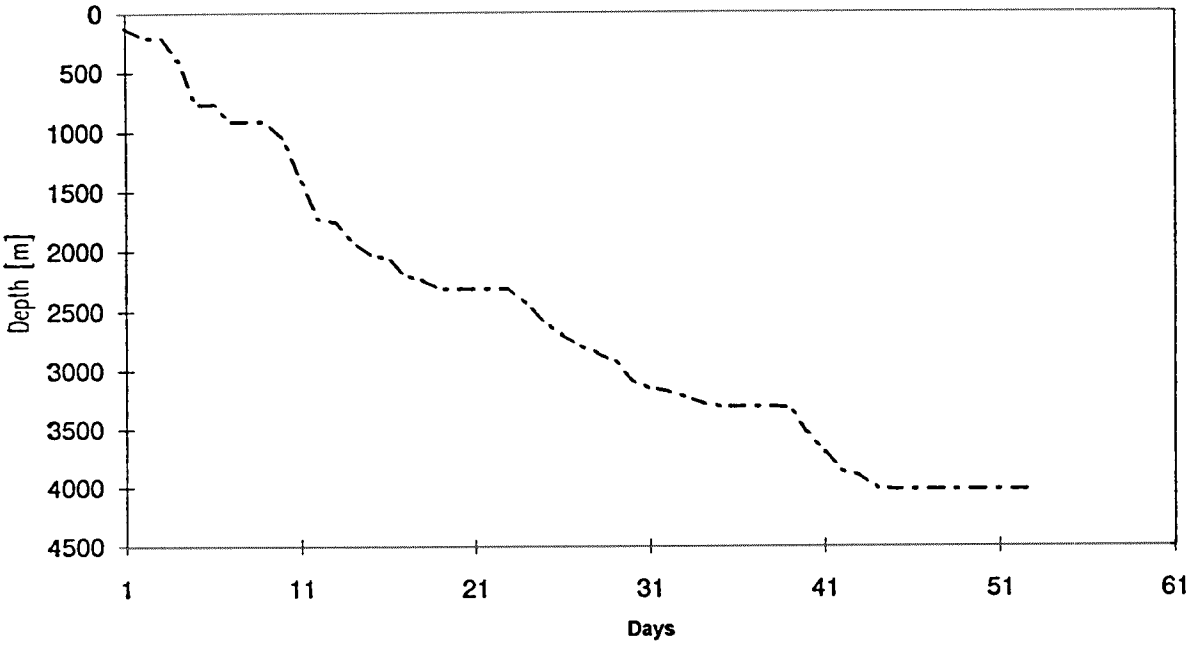
Sub operations	Minutes	Hrs	% of total
ANCHOR	3060	51,0	40,16
TRANSIT	4560	76,0	59,84
Total	7620	127,0	100,00

Main operation: PLUG & ABANDON

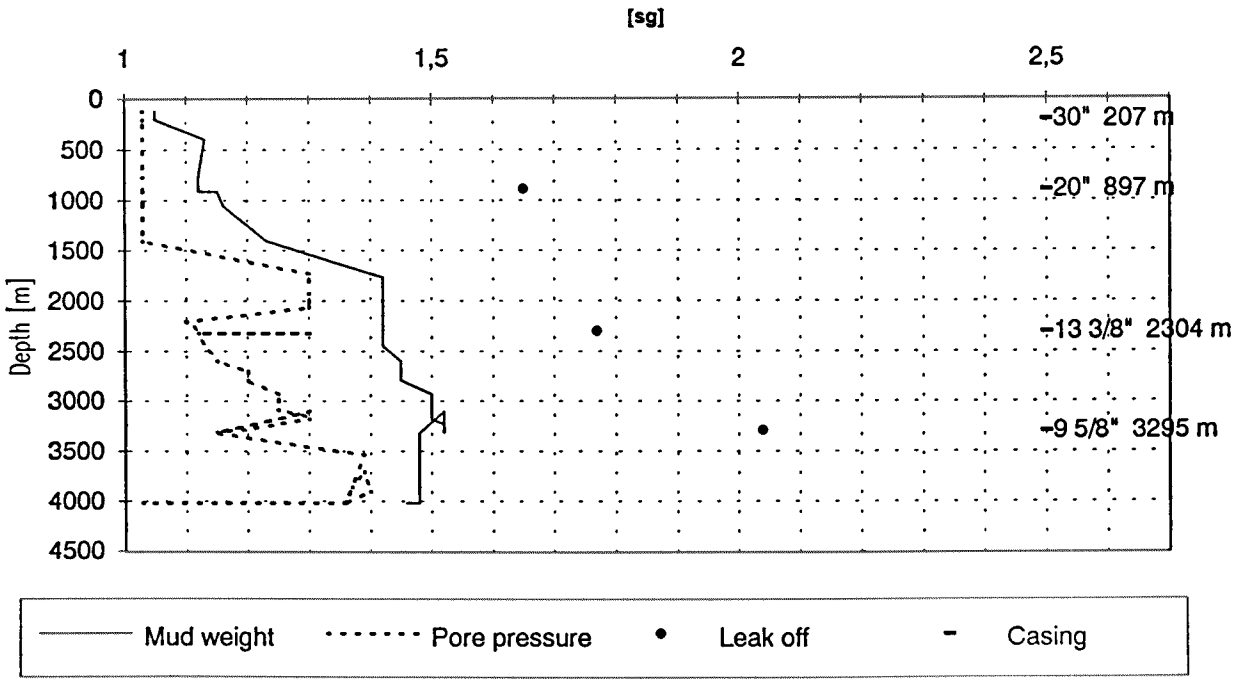
Sub operations	Minutes	Hrs	% of total
CEMENT PLUG	780	13,0	16,15
CIRC/COND	690	11,5	14,29
CUT	510	8,5	10,56
EQUIP RECOVERY	600	10,0	12,42
PERFORATE	180	3,0	3,73
TRIP	2040	34,0	42,24
WAIT	30	0,5	0,62
Total	4830	80,5	100,00

Total time used 1368 hrs (57 days)

Depth v.s. time plot for well: 0002/02-04



Composite plot for well: 000202 04



Well History 2/2-4

GENERAL:

Well 2/2-4 was drilled on the northern segment of the Alpha structure in the south-eastern corner of block 2/2. The southern segment, seperated from the northern by a normal fault, proved oil in Upper Jurassic sandstones in well 2/2-1. The well was located on the northeastern flank of the Central Graben in the Hidra Fault Zone. The structure is a salt induced dome in an area exposed to extensional tectonism where rollover mechanism may have influenced the final structure.

The main objective of the well was to test the reservoir potential of Upper Jurassic and to test an eventual communication with the Alpha South structure. If hydrocarbon bearing, the objective was to prove an oil column thick enough for commercial exploitation of the Alpha structure.

OPERATIONS:

Wildcat well 2/2-4 was spudded 16 April 1988 by Wilh. Wilhelmsen semi-submersible rig Treasure Saga and completed 7 June 1988 at a depth of 4020 m in Triassic rocks.

Oligocene came in at 2084 m, where there were sand with small amounts of gas. 8 pressure points in the interval gave a watergradient of 1.0 g/cc and a gasgradient of 0.21 g/cc. The gas/water contact was defined at 2110.5 m, the same as in 2/2-1. Estimated porosity from logs was max. 27%.

It was drilled down to top Jurassic and 9 5/8" casing was set. The reservoir was encountered at 3324 m, but there were no signs of hydrocarbons throughout the reservoir.

The well was plugged and abandoned as dry.

TESTING:

No DST tests were performed in the well.

GEOLOGICAL TOPS

WELL: 2/2-4

	Depth m (RKB)
Nordland Group	*85.0*
Hordaland Group	*1573.5*
Vade Fm.	*2086.0*
Undefined claystone sequence	*2184.0*
Rogaland Group	*2666.0*
Balder Fm.	*2666.0*
Sele Fm.	*2683.5*
Lista Fm.	*2698.0*
Våle Fm.	*2777.0*
Shetland Group	*2825.5*
Ekofisk Fm.	*2825.5*
Tor Fm.	*2847.0*
Hod Fm.	*3135.0*
Cromer Knoll Group	*3212.5*
Rødby Fm.	*3212.5*
Åsgard Fm.	*3217.0*
Tyne Group	*3307.5*
Mandal Fm.	*3307.5*
Farsund Fm.	*3312.0*
Vestland Group	*3324.0*
Ula Fm.	*3324.0*
Undefined sequence (Heno Fm. eqv.)	*3808.0*
Tyne Group	*3871.0*
Undefined sequence (Lola Mb. eqv.)	*3871.0*
Vestland Group	*3893.0*
Bryne Fm.	*3902.0*
Triassic Group	*3968.5*
Smith Bank Fm.	*3968.5*
T.D.	*4020.0*