Well no : 30/09-06 **Operator :** HYDRO

Coordinates	: 60 23 03.77 N 02 49 55.59 E	UTM coord.	: 6694389 N 490743 E
Licence no	: 104	Permit no	: 539
Rig	: POLAR PIONEER	Rig type	: SEMI-SUB.
Contractor	: POLAR FRONTIER DRILLING A/S		
Bottom hole temperature	: deg.C	Elev. KB	: 23 M
Spud. date	: 87.03.08	Water depth	: 113 M
Compl. date	: 87.04.21	Total depth	: 3034 M
Spud. class	: WILDCAT	Form. at TD	: E.JURASSIC
Compl. class	: P&A. OIL/GAS DISC.	Prod. form	: M.JURASSIC
Seisloca	: NH 8502 320 KOL1080		

LICENSEES

5.000000	NORSK AGIP A/S
5.000000	DET NORSKE OLJESELSKAP A/S
30.000000	NORSK HYDRO PRODUKSJON A.S
5.000000	SAGA PETROLEUM A.S.
50.000000	DEN NORSKE STATS OLJESELSKAP A.S
5.000000	TENNECO OIL NORWAY 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	213.0	36	214.0	.
INTERM.	13 3/8	954.0	17 1/2	970.0	1.71
INTERM.	9 5/8	2567.0	12 1/4	2587.0	1.81
LINER	7	3031.0	8 1/2	3034.0	.

CONVENTIONAL CORES

Core no.	Intervals cored meters	Recovery M	Recovery %	Series
1	2593.0 - 2603.3	10.3	100.0	
2	2608.0 - 2623.5	15.5	100.0	MIDDLE JURASSIC
3	2628.0 - 2636.0	8.0	100.0	MIDDLE JURASSIC
4	2649.0 - 2665.1	16.1	100.0	MIDDLE JURASSIC
5	2671.0 - 2676.8	5.8	100.0	MIDDLE JURASSIC

MUD PROPERTIES

Depth below KB meter	Mud weigth g/cm3	Viscosity	Mud type
160.000	1.03	0.0	WATER BASED

1438.000	1.34	28.0	WATER BASED
2267.000	1.40	32.0	WATER BASED
2350.000	1.21	25.0	WATER BASED
2399.000	1.40	34.0	WATER BASED
2465.000	1.21	22.0	WATER BASED
2528.000	1.40	33.0	WATER BASED
2587.000	1.21	17.0	WATER BASED
2587.000	1.40	31.0	WATER BASED
3034.000	1.21	25.0	WATER BASED

DRILL STEM TEST

INTERVALS AND PRESSURES

Test no.	interval meter	Choke size	Pressure (PSI) WHP	BTHP	FFP
1.0	2637.900 - 2645.500	7.9	1407.0	4084.0	3940.0
	Test temperature: 100 °C				
2.0	2591.500 - 2596.500	7.9	1326.0	4013.0	3693.0
	Test temperature: 100 °C				

RECOVERY

Test no.	Oil Sm3/d	Gas Sm3/d	Oil grav. g/cm3	Gas grav. rel. air	GOR m3/m3
1.0	185	17175	0.855	0.698	93
2.0	166	16980	0.856	0.698	102

DRILL BIT CUTTINGS AND WET SAMPLES

SAMPLE TYPE	INTERVAL BELOW KB	NUMBER OF SAMPLES
Cutting	980-3032	330
Wet Samples	970-3032	360

SHALLOW GAS

Interval below KB	REMARKS

AVAILABLE LOGS

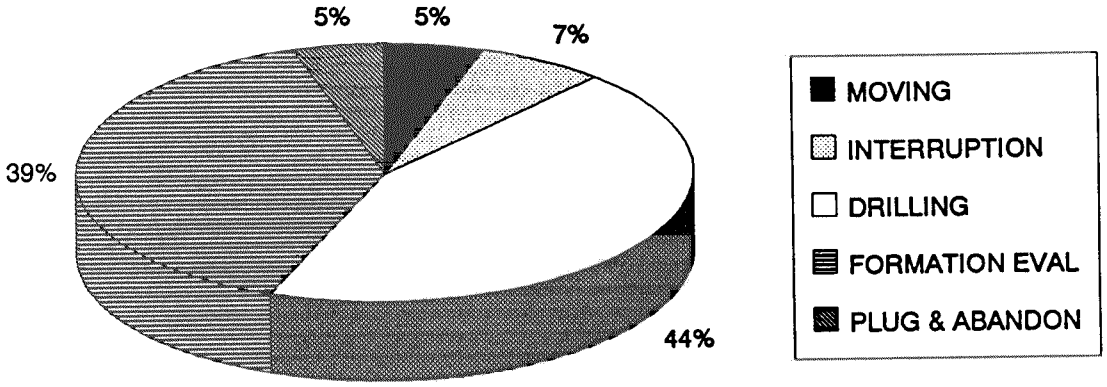
LOG TYPE	INTERVALS	1/200	1/500	Div.
DIL LSS GR	950.500 - 2575.000	X	X	
DIL LSS	2567.000 - 3031.000	X	X	
DLL MSFL NGS	2567.000 - 2800.000	X		
LDL CNL	950.000 - 2575.000	X	X	
LDL CNL GR	2567.000 - 3011.000	X	X	
SHDT GR	950.500 - 2577.500	X		
SHDT	2567.000 - 3003.000	X		
CDM AP/SHDT MSD	953.000 - 1555.000	X	X	

CDM AP/SHDT MSD	*2568.000 - 3033.000*	X	X
RFT STRAIN GAUGE	*2591.800 - 3002.500*		
RFT HP GAUGE	*2591.000 - 3002.000*		
CBL VDL	*1600.000 - 2962.000*	X	
CBL CET	*1600.000 - 2962.000*	X	
MUD	*127.000 - 3034.000*		X
VELOCITY	*950.000 - 3031.000*	*1000*	X

(VSP,borehole seismic,run 2a 1 stk.)
(VSP, 10cm/s, plot 1-7 7 stk.)
(VSP, walkway UMO, 10 cm/s, plot 2-19 18 stk.)
(VSP, walkway, plot 1-6 6 stk.)
(Synthetic seismogram & frequency test 8 stk.)

DAILY DRILLING REPORT SYSTEM

MAIN OPERATIONS FOR WELL: 30/09-06



Main operation	Minutes	Hrs	% of total
MOVING	3570	59,5	5,39
INTERRUPTION	4380	73,0	6,61
DRILLING	29280	488,0	44,20
FORMATION EVAL	25890	431,5	39,09
PLUG & ABANDON	3120	52,0	4,71
Total	66240	1104,0	100,00

SUB OPERATIONS FOR WELL: 30/09-06

MAIN OPERATION: MOVING

Sub operation	Minutes	Hrs	% of total
TRANSIT	2610	43,5	73,11
ANCHOR	960	16,0	26,89
Total	3570	59,5	100,00

MAIN OPERATION: INTERRUPTION

Sub operation	Minutes	Hrs	% of total
MAINTAIN/REP	2940	49,0	67,12
OTHER	1440	24,0	32,88
Total	4380	73,0	100,00

MAIN OPERATION: DRILLING

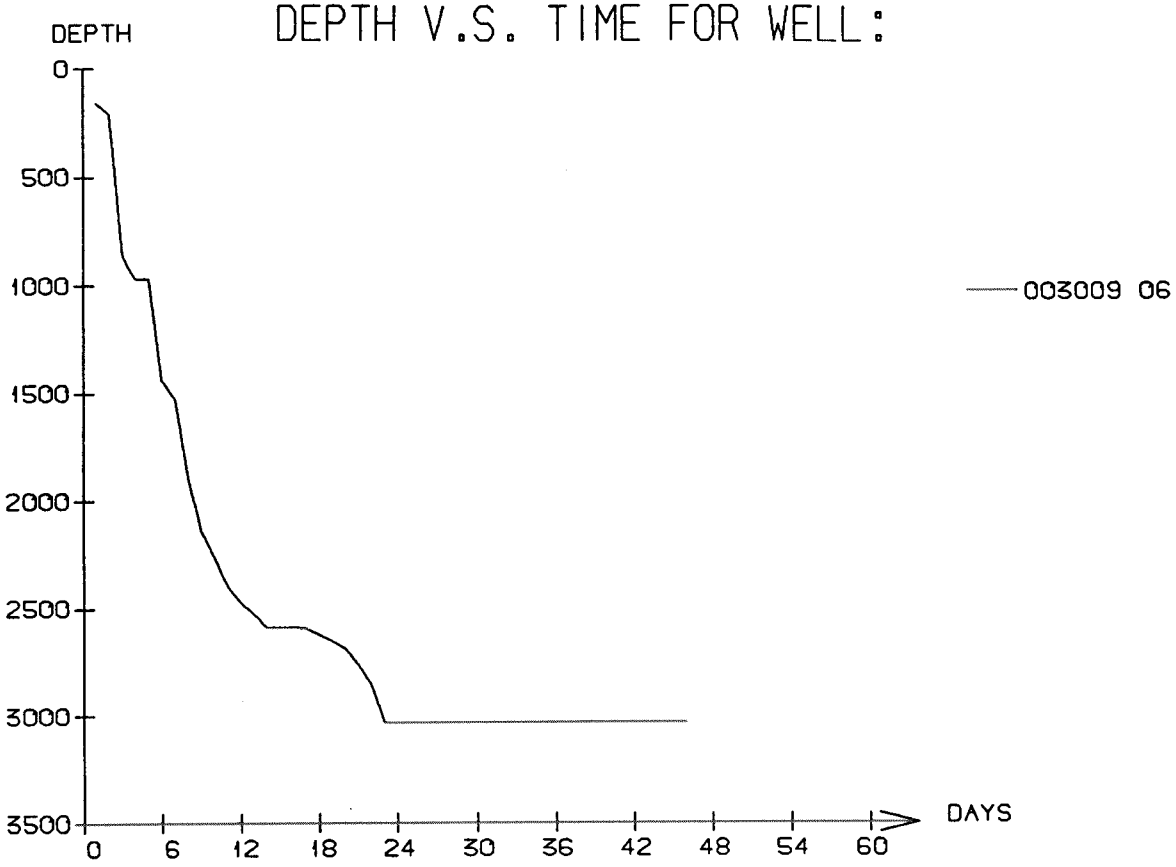
Sub operation	Minutes	Hrs	% of total
TRIP	5400	90,0	18,44
DRILL	14070	234,5	48,05
CIRC/COND	210	3,5	0,72
CASING	7050	117,5	24,08
BOP ACTIVITIES	1380	23,0	4,71
REAM	390	6,5	1,33
SURVEY	210	3,5	0,72
BOP/WELLHEAD EQ	570	9,5	1,95
Total	29280	488,0	100,00

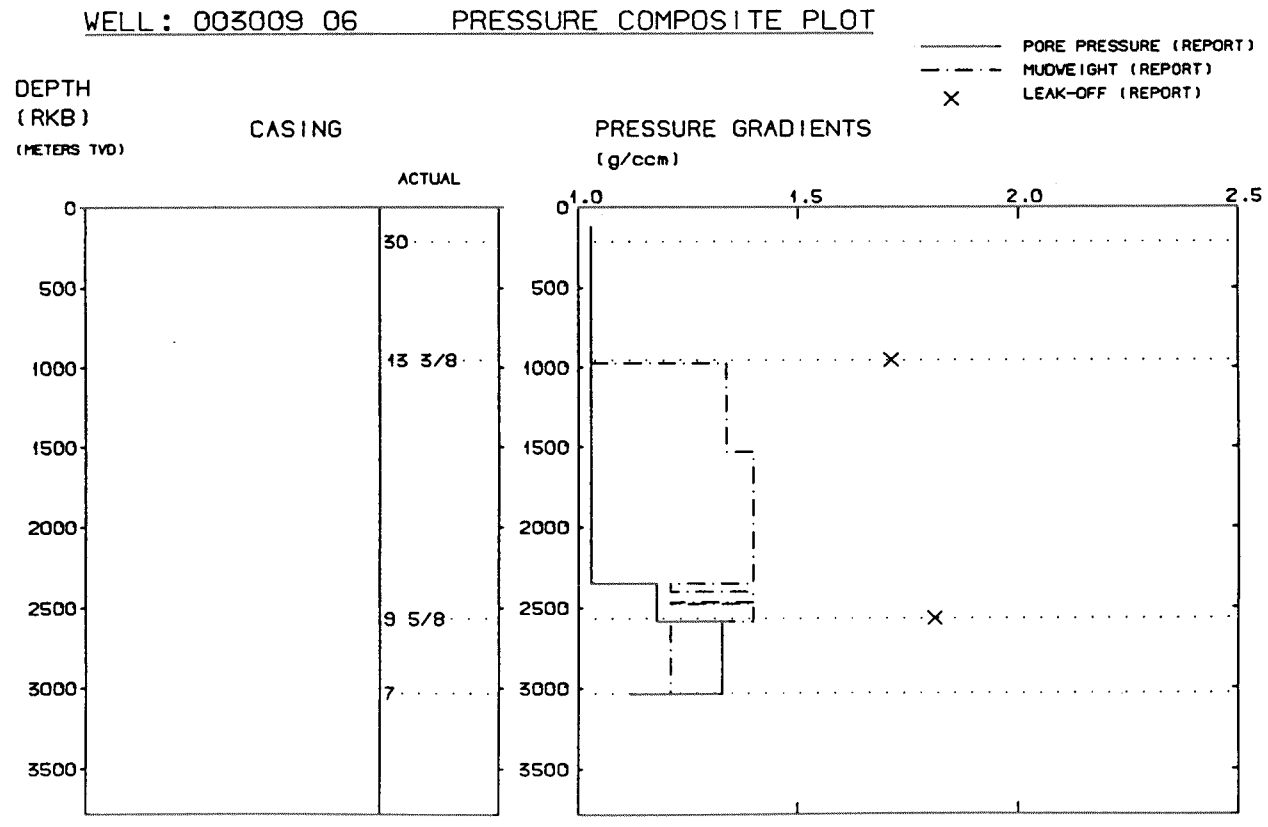
MAIN OPERATION: FORMATION EVAL

Sub operation	Minutes	Hrs	% of total
LOG	4110	68,5	15,87
CIRC/COND	330	5,5	1,27
TRIP	2220	37,0	8,57
CORE	2430	40,5	9,39
RFT/FIT	960	16,0	3,71
DST	15840	264,0	61,18
Total	25890	431,5	100,00

MAIN OPERATION: PLUG & ABANDON

Sub operation	Minutes	Hrs	% of total
TRIP	1830	30,5	58,65
CEMENT PLUG	240	4,0	7,69
PERFORATE	120	2,0	3,85
SQUEEZE	60	1,0	1,92
CUT	270	4,5	8,65
EQUIP RECOVERY	600	10,0	19,23
Total	3120	52,0	100,00


DEPTH V.S. TIME FOR WELL:
DEPTH
0
500
1000
1500
2000
2500
3000
3500
0
6
12
18
24
30
36
42
48
54
60
DAYS
003009 06


WELL: 003009 06 PRESSURE COMPOSITE PLOT
PORE PRESSURE (REPORT)
MUDWEIGHT (REPORT)
LEAK-OFF (REPORT)
DEPTH
(RKB)
(METERS TVD)
CASING
ACTUAL
30
13 3/8
9 5/8
7
PRESSURE GRADIENTS
(g/ccm)
1.0
1.5
2.0
2.5
0
500
1000
1500
2000
2500
3000
3500

Well History 30/9-6

GENERAL:

Well 30/9-6 was drilled on the "C" prospect in block 30/9. The structure is a rotated fault block with overall easterly dips towards the Horda Platform fault. The prospect is further bounded by faults to the west and to the north west.

The prime objectives of the well were:

- *To prove hydrocarbons in the Brent Group with minimum reserves left untested up-dip.*
- *To verify the structural interpretation of the area.*
- *To verify possible pressure communication between the "C" structure and the Oseberg field "Alpha" structure.*
- *To improve the geological understanding of an area where mainly poor quality seismic data is available.*

The prognosed depth of the well was 50 m into the Stafjord Formation.

OPERATIONS:

Wildcat well 30/9-6 was spudded 8 March 1987 by Polar Frontier Drilling semi-submersible rig Polar Pioneer and completed 21 April 1987 at a depth of 3034 m in Early Jurassic rocks. Drilling proceeded without any significant problems.

The Brent Group came in at 2591 m, and 5 cores were cut in the interval 2593.5 - 2686 m. The structure contains oil down to approx. 2650 m, and the oil/water contact is hard to find due to interbedding of sand and shale. The Etive Formation was waterbearing, as well as the Cook and Statfjord Formations.

The well was plugged and abandoned as an oil and gas discovery.

TESTING:

2 DST tests were performed in this well. The intervals were 2637.9 - 2645.5 m and 2591.5 - 2596.5 m.

GEOLOGICAL TOPS

WELL: 30/9-6

	Depth m (RKB)
Nordland Group	*126.0*
Utsira Fm.	*684.0*
Hordaland Group	*828.0*
Claystone sequence	*828.0*
Skade Fm.	*1170.0*
Claystone Sequence	*1220.0*
Grid Fm.	*1507.0*
Claystone Sequence	*1535.0*
Rogaland Group	*2020.0*
Balder Fm.	*2020.0*
Sele Fm.	*2080.0*
Lista Fm.	*2138.0*
Våle Fm.	*2302.0*
Shetland Group	*2317.0*
Hardråde Fm.	*2317.0*
Kyrre Fm.	*2517.0*
Viking Group	*2547.0*
Heather Fm.	*2547.0*
Brent Group	*2591.0*
Tarbert Fm.	*2591.0*
Ness Fm.	*2597.0*
Etive Fm.	*2693.0*
Oseberg Fm.	*2699.0*
Dunlin Group	*2723.0*
Drake Fm.	*2723.0*
Cook Fm.	*2835.0*
Burton Fm.	*2845.0*
Amundsen Fm.	*2907.0*
Statfjord Fm.	*2981.0*
T.D.	*3034.0*