

Well no : 31/ 3-02

Operator : HYDRO

Coordinates	: 60 52 11.41 N 03 40 41.79 E	UTM coord.	: 6748639 N
		UTM zone 31	: 536836 E
Licence no	: 085	Permit no	: 403
Rig	: TREASURE SEEKER	Rig type	: SEMI-SUB.
Contractor	: WILHELMSSEN OFFSHORE SERVICES		
Bottom hole temperature	: 60 deg.C	Elev. KB	: 25 M
Spud date	: 84.03.04	Water depth	: 340 M
Compl. date	: 84.04.30	Total depth	: 2090 M
Spud class.	: APPRAISAL	Age at TD	: JURASSIC
Compl. class.	: P&A. OIL/GAS DISC.		
Seis. loc.	: ST 8007 - 338 A SP. 204.5		

LICENSEES

9.000	NORSK HYDRO PRODUKSJON A.S
6.000	SAGA PETROLEUM A.S.
85.000	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 ³
CONDUCTOR	30	451.0	36	451.0	
SURF.COND.	20	609.0	26	625.0	1.45
INTERM.	13 3/8	1502.0	17 1/2	1515.0	1.56
INTERM.	9 5/8	1805.0	12 1/4	2090.0	

CONVENTIONAL CORES

Core no.	Intervals cored meters	Recovery		Series
		M	%	
1	1565.0 - 1581.0	10.5	65.6	UPPER JURASSIC
2	1581.0 - 1593.0	9.3	77.5	UPPER JURASSIC
3	1593.0 - 1608.0	13.3	88.7	UPPER JURASSIC
4	1608.0 - 1626.0	18.0	100.0	U/M JURASSIC
5	1626.0 - 1640.0	14.0	100.0	U/M JURASSIC

MUD PROPERTIES

Depth below KB meter	Mud weight g/cm ³	Plastic viscosity mPa.s	Mud type
460.0	1.06		WATER BASED
560.0	1.37	11.0	WATER BASED
650.0	1.20	18.0	WATER BASED
1250.0	1.25	19.0	WATER BASED
1355.0	1.30	18.0	WATER BASED
1650.0	1.22	40.0	WATER BASED

DRILL STEM TEST

INTERVALS AND PRESSURES

Test no.	Interval meter	Choke size	Pressure (PSI)		
			FSIP	BTHP	WHP
1.0	1577.0 - 1567.0	63.5			880.0

RECOVERY

Test no.	Oil Sm ³ /d	Gas M Sm ³ /d	Oil grav. g/cm ³	Gas grav. rel. air	GOR m ³ /m ³
1.0	1272	563	0.890	0.620	442

DRILL BIT CUTTINGS AND WET SAMPLES

SAMPLE TYPE	INTERVAL BELOW KB	NUMBER OF SAMPLES
CUTTINGS	450 - 2090	400
WET SAMPLES	460 - 2090	360

SHALLOW GAS

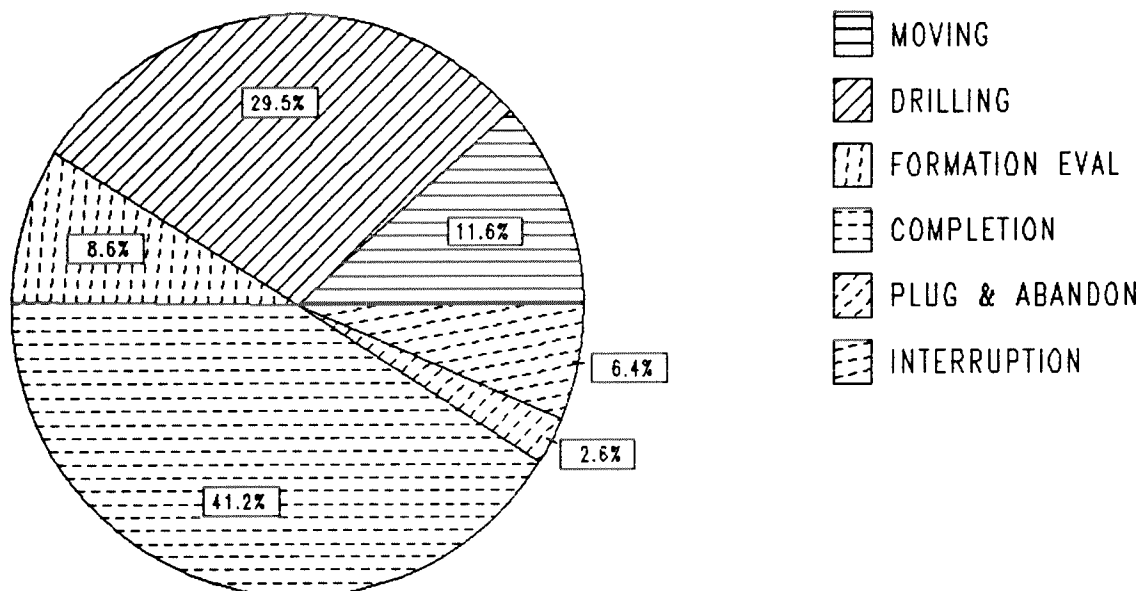
INTERVAL BELOW KB	REMARKS
	NONE

AVAILABLE LOGS

LOG TYPE	INTERVALS	1/200	1/500
ISF LSS GR	451 - 623	X	
ISF LSS	610 - 1491	X	
ISF LSS	1502 - 2085	X	
ISF LSS	451 - 2085		X
LDL CNL	451 - 624	X	
LDL CNL	610 - 1493	X	
LDL CNL	1502 - 1638	X	
LDL CNL NGS	1502 - 2086	X	
LDL CNL	451 - 2086		X
CNL CCL	1470 - 1562	X	
CNL CCL	1470 - 1603	X	
DLL MSFL SP	1502 - 1635	X	X
NGS	1502 - 2086	X	
CDM	610 - 1492	X	
CDM AP	611 - 1491	X	X
SHDT	1502 - 2085	X	X
RFT	1568 - 2022		1:100
TEMPERATURE DATA LOG	365 - 2090		1:5000
DRILLING DATA PRESSURE	365 - 2090		1:5000
DXC NXB	365 - 2090		1:5000
CBL VDL	610 - 1499	X	
CBL VDL	1390 - 1705	X	
CBL VDL CCL	1400 - 1736	X	
MUD	365 - 2090		X
VELOCITY	451 - 2085		X
(+ Airgun Well Velocity Survey and Calibr. log data			1 stk)
(+ Synthetic Seismogram, 10 cm/s,			2 stk)
(+ Synthetic Seismogram, Marine, 10 cm/s,			1 stk)

DAILY DRILLING REPORT SYSTEM

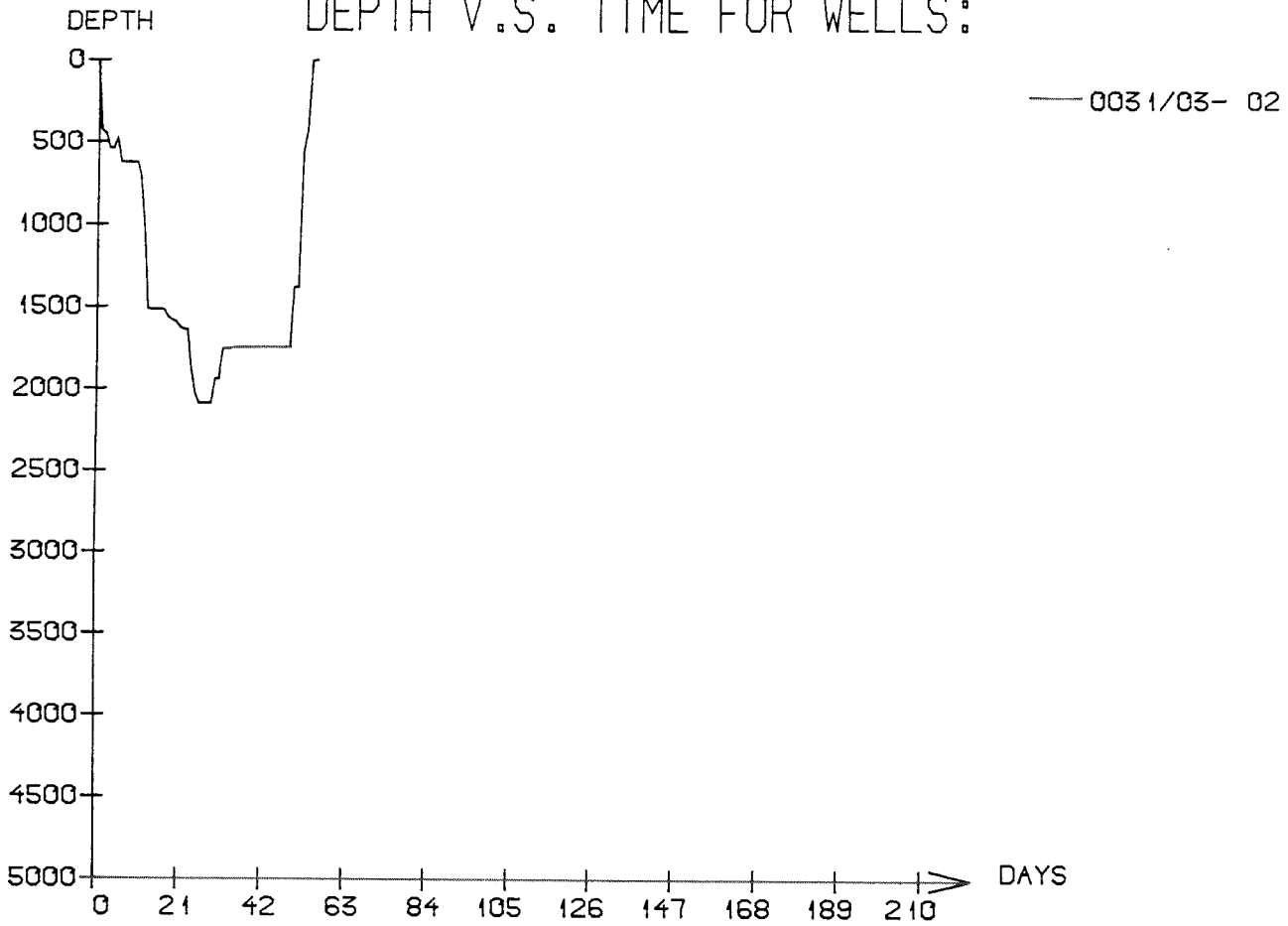
Main operation : 31/03-02



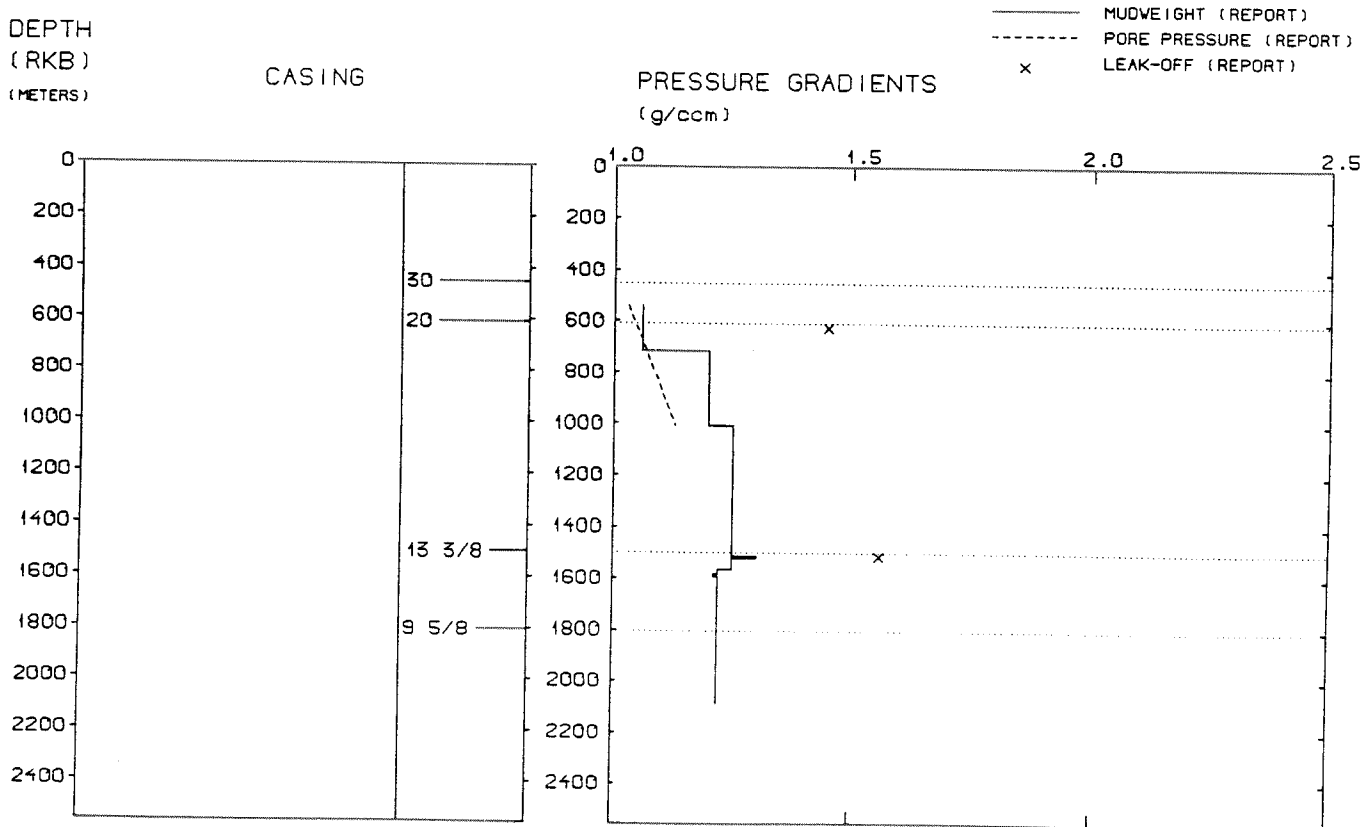
Total : 1592,60 HRS

Main operation	Hours	% of total
MOVING	185,75	11,66
DRILLING	469,70	29,49
FORMATION EVAL	137,90	8,66
COMPLETION	654,75	41,11
PLUG & ABANDON	42,90	2,69
INTERRUPTION	101,60	6,38

DEPTH V.S. TIME FOR WELLS:



WELL: 003103 02 PRESSURE COMPOSITE PLOT



WELL HISTORY - 31/3-2

GENERAL:

The main objectives of the appraisal well 31/3-2 were to determine if hydrocarbons were present on the downthrown side close to the boundary fault between Troll West and Troll East, and to determine the contacts. The well encountered hydrocarbon bearing Upper Jurassic Viking Group sandstones.

OPERATIONS:

The well was spudded 04.03.84 by the semi-submersible rig Treasure Seeker. Five cores were cut in the Upper and Middle Jurassic sequence. No major problems occurred due to drilling. The well was drilled using water based mud.

TESTING:

One test was performed in the oil zone at the top of the Sognefjord Formation. Oil and gas were produced.

NOTE:

The three licensees in licence 085 are equal, they do all three operate boreholes in the licence.

GEOLOGICAL TOPS

WELL: 31/ 3-02

	Depth m (RKB)
<i>Nordland Group</i>	365.000
<i>Hordaland Group</i>	540.000
? <i>Frigg Fm</i>	540.000
<i>Rogaland Group</i>	1121.000
<i>Balder Fm</i>	1121.000
<i>Sele Fm</i>	1194.000
<i>Lista Fm</i>	1341.500
<i>Våle Fm</i>	1452.000
<i>Shetland Group</i>	1471.000
<i>Cromer Knoll Group</i>	1533.000
<i>Viking Group</i>	1541.000
<i>Draupne Fm</i>	1541.000
<i>Sognefjord Fm</i>	1567.000
<i>Upper Heather Fm</i>	1706.000
<i>Fensfjord Fm</i>	1725.000
<i>Krossfjord Fm</i>	1850.500
<i>Lower Heather Fm</i>	1929.000
<i>Brent Group</i>	1939.000
<i>Tarbert Fm</i>	1939.000
<i>Ness Fm</i>	1952.000
<i>Etive Fm</i>	1966.000
<i>Dunlin Group</i>	2005.000
<i>Drake Fm</i>	2005.000
<i>TD =</i>	2090.000