Date: 21/10/96

PB/SKR

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Well no:	Operator:
6407/07-05	HYDRO

#### Well

Coordinates:

64° 18' 24.34" N

UTM coord.:

7132634.02 N

07° 10' 50.58" E

411996.5 E

License no:

107

Permit no:

660

Rig:

TRANSOCEAN 8

Rig type:

SEMI-SUB.

Contractor:

TRANSOCEAN ASA

Bottom hole temp:

127°C

Elev. KB:

24 M

Spud. date:

90.12.17

Water depth:

327 M

Compl. date:

91.02.15

Total depth: Form. at TD:

3725 M **E.JURASSIC** 

Spud. class: Compl. class: APPRAISAL P&A. SHOWS

Prod.form.:

Seisloca:

NH 8604- RAD 342, KOL. 655

#### Licensees

20.000000 NORSK HYDRO PRODUKSJON AS

20.000000 A/S NORSKE SHELL

50.000000 DEN NORSKE STATS OLJESELSKAP A.S

10.000000 NORSK AGIP AS

#### **Casing and Leak-off Tests**

Туре	Casing diam	Depth below KB	Hole diam.	Hole depth below KB	
CONDUCTOR	30	435.0	36	437.0	
INTERM.	13 3/8	1097.0	17 1/2	1100.0	1.49
INTERM.	9 5/8	2859.0	12 1/4	2866.0	1.45
OPEN HOLE		3725.0	8 1/2	3725.0	

PB/SKR

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Well no:	Operator:
6407/07-05	HYDRO

# **Conventional Cores**

Core no.	Intervals cored	Recovery	%
]	meters	m	
1	3075.0 - 3083.7	8.7	100.0
2	3168.0 - 3195.5	27.5	100.0
3	3195.5 - 3214.5	19.0	100.0
4	3359.0 - 3383.0	24.0	100.0
5	3410.0 - 3437.0	27.0	100.0

### Mud

Depth	Mud	Visc.	Mud type
Dept	weight	,	
380.0	1.60	38.0	WATER BASED
650.0	1.05		WATER BASED
1112.0	1.40	20.0	WATER BASED
1400.0	1.46	23.0	WATER BASED
1902.0	1.60	28.0	WATER BASED
2272.0	1.60	26.0	WATER BASED
2519.0	1.60	21.0	WATER BASED
2588.0	1.60	24.0	WATER BASED
2723.0	1.60	24.0	WATER BASED
2795.0	1.61	48.0	WATER BASED
2824.0	1.60	26.0	WATER BASED
2826.0	1.60	28.0	WATER BASED
2834.0	1.60	20.0	WATER BASED
2866.0	1.60	25.0	WATER BASED
2870.0	1.45	26.0	WATER BASED
2964.0	1.45	26.0	WATER BASED
3026.0	1.64	29.0	WATER BASED
3049.0	1.40	31.0	WATER BASED
3075.0	1.64	27.0	WATER BASED
3084.0	1.67	29.0	WATER BASED
3090.0	1.64	31.0	WATER BASED
3134.0	1.64	27.0	WATER BASED
3168.0	1.64	29.0	WATER BASED
3195.0	1.64	28.0	WATER BASED
3214.0	1.64	29.0	WATER BASED
3359.0	1.64	30.0	WATER BASED
3383.0	1.64	30.0	WATER BASED
3410.0	1.64	29.0	WATER BASED
3437.0	1.64	30.0	WATER BASED

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	Well no:	Operator: HVDRO
1	6407/07/-05	HYDKU

1	3716.0	1.64	27.0	WATER BASED	
	3725.0	1.64	26.0	WATER BASED	

# **Drill Stem Test (intervals and pressures)**

1	Test	Test interval	Choke	Pressure (psi)	втнр	FFP
	no.	meter	size	WHP		

### **Drill Stem Test (recovery)**

Test	Oil	Gas	Oil grav.	Gas grav.	GOR
no.	Sm3/d	Sm3/d	g/cm3	rel. air	m3/m3

## **Drill Bit Cuttings and Wet Samples**

Sample type	Interval	Number of
	below KB	samples
CUTTINGS	1120 - 3525	450
WET SAMPLES	1120 - 3725	270

### **Shallow Gas**

Interval	Remarks
below KB	

## **Available Logs**

Log type	Intervals logged	1/200	1/500	
AMS	1098.0 - 3688.0			
CDM AP MSD	2860.0 - 3702.0			
CDR	438.0 - 3721.0			
CPI	3150.0 - 3675.0			

#### **WDSS** Report

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Well no:	Uperatur.
6407/07-05	HYDRO

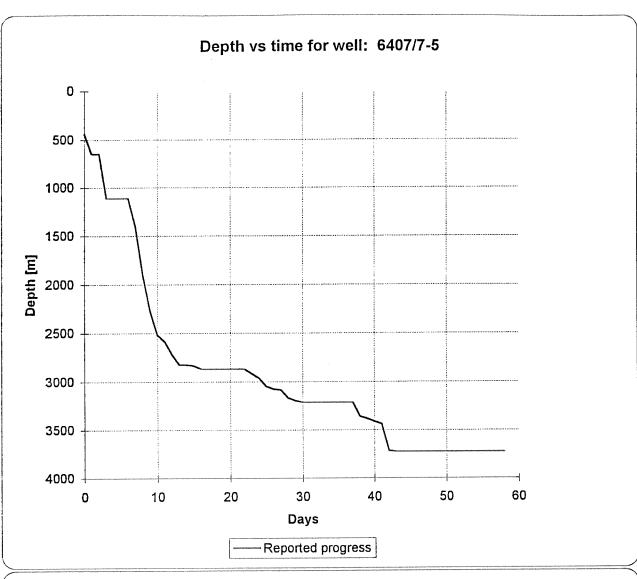
			1	
DIL LSS GR	1098.0 - 3719.0			***************************************
DIL LSS GR				
DRLG. DATA PRESSURE	300.0 - 3725.0			
- Auditor Engine remaining and the second and the least to the control of the con				
FMS-4 AMS GR	2859.0 - 3704.0			
LDI CNI CD	2859.0 - 3716.0			***************************************
LDL CNL GR	2037.0 - 3710.0			
LDL GR	1098.0 - 2848.0			
MUD	300.0 - 3725.0			
MWD AND CDR LOG.	352.0 - 3721.0			
MWD AND CDREGG.				
RFT HP AMS GR	3004.0 - 3434.0			
CONTRACTOR OF AN				
SYNTHETIC SEISMOGRAM		***************************************		
TEMPERATURE DATA	1100.0 - 3700.0			
TWO-WAY TRAVEL TIME	.0 - 3600.0	***************************************		
WIRELINE DATA SUMARY	1100.0 - 3800.0			
VSP			***************************************	

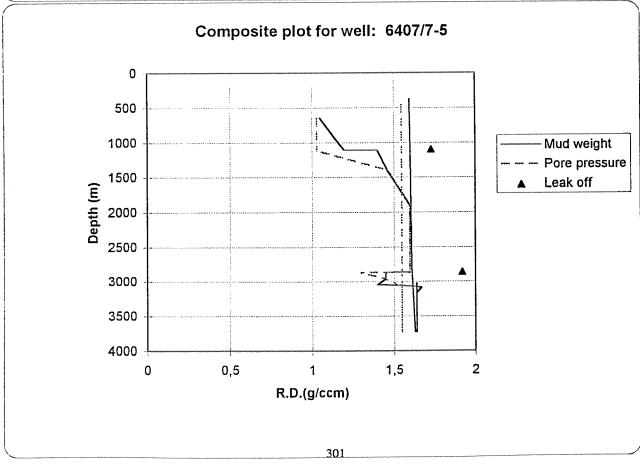
Main operations for well: 6407/7-5

Main operation: DRILLING						
Sub operation:	Minutes:	Hours:	% of total:			
BOP ACTIVITIES	2910	48,5	8,84			
BOP/WELLHEAD EQ	120	2,0	0,36			
CASING	2760	46,0	8,39			
CIRC/COND	1050	17,5	3,19			
DRILL	15360	256,0	46,67			
OTHER	210	3,5	0,64			
PRESS DETECTION	1320	22,0	4,01			
REAM	30	0,5	0,09			
SURVEY	30	0,5	0,09			
TRIP	8610	143,5	26,16			
WAIT	510	8,5	1,55			
Total	32910	548,5	100,00			
Main operation: FOR	RMATION EVAL					
Sub operation:	Minutes:	Hours:	% of total:			
CIRC SAMPLES	300	5,0	2,36			
CIRC/COND	630	10,5	4,95			
CORE	2370	39,5	18,63			
LOG	3570	59,5	28,07			
OTHER	480	8,0	3,77			
RFT/FIT	1020	17,0	8,02			
TRIP	4350	72,5	34,20			
Total	12720	212,0	100,00			
Main operation: INT	Main operation: INTERRUPTION					
Sub operation:	Minutes:	Hours:	% of total:			
FISH	13560	226,0	61,58			
MAINTAIN/REP	7410	123,5	33,65			
OTHER	90	1,5	0,41			
WAIT	690	11,5	3,13			
WELL CONTROL	270	4,5	1,23			
Total	22020	367,0	100,00			
Main operation: MO	VING					
Sub operation:	Minutes:	Hours:	% of total:			
ANCHOR	930	15,5	22,14			
TRANSIT	3270	54,5	77,86			
Total	4200	70,0	100,00			
Main operation: PLUG & ABANDON						
Sub operation:	Minutes:	Hours:	% of total:			
CEMENT PLUG	270	4,5	2,31			
CIRC/COND	600	10,0	5,14			
CUT	630	10,5	5,40			
EQUIP RECOVERY	3480	58,0	29,82			
OTHER	840	14,0	7,20			
PERFORATE	390	6,5	3,34			
SQUEEZE	90	1,5	0,77			
TRIP	5370	89,5	46,02			
Total	11670	194,5	100,00			

1392,0 Hours

Total time used:





# Well History 6407/07-05

#### General:

Well 6407/07-05 was designed to drill the North II fault segment on the northern flank of the Njord structure. The Njord Field is situated in the southern part of the Haltenbanken area in a downfaulted position relative to the Trondelag Platform and the Froya High. The main objectives for the well were:

- 1) to confirm the resource potential of the Northern Flank.
- 2) to clarify the number of production and injection wells needed for development.
- 3) to verify the geological model of the main structure, assess the reservoir quality and clarify the sealing potential of faults.

The porepressure gradient was expected to be maximum 1.54 r.d. in the reservoir. A warning for possible shallow gas warnings were given for 6 levels down to 650 m RKB. Planned TD was 3725 m RKB

#### **Operations:**

Wildcat well 6407/07-05 was spudded 17 December 1990 by the semi-submersible rig Transocean 8 and completed 15 February 1991 at a total depth of 3725 m RKB within the sandstones, claystones and siltstones of the Jurassic Bât Group. At 3214.5 m RKB the well was plugged back and side-tracked from 3080 m RKB after leaving a fish in the hole. The reason was that the drilling assembly got stuck when running in the hole after coring the interval 3168-3215m. A total of five conventional cores were cut in the well. A total of 15 sidewall cores were attempted, and 5 were recovered. Indications of shallow gas were found in two of the six levels that were warned. The reservoir sandstones of the Ile. Ror and Tilje Formations were found to be water bearing. The well was permanently plugged and abandoned as a dry well.

#### **Testing:**

No DST tests were performed

# Geological Tops.

# Well: 6407/7-5.

	Depth m (RKB).
Nordland Group	351.0
Naust Fm	351.0
Kai Fm	1120.0
TXII X XX	
Hordaland Group	1139.5
Brygge Fm	1139.5
2-5-06 ····	
Reveland Group	1795.0
Rogaland Group	1795.0
Tare Fin	1863.5
Tang Fm	1803.3
Shetland Group	2067.0
Springar Fm	2067.0
Nise Fm	2111.0
Kvitnos Fm	2532.0
Cromer Knoll Group	3003.0
Lysing Fm	3003.0
Lyr Fm	3111.0
Viking Group	3120.0
Spekk Fm	3120.0
<b></b>	
Fangst Group	3154.0
Not Fm	3154.0
Ile Fm	3163.5
Båt Group	3207.0
Ror Fin	3207.0
Tilje Fm	3355.0
Âre Fm	3496.0
TD	3725.0
T.D.	3,23.0