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GJENNOM

PL 073

STATOIL - AMOCO - CONOCO - NORSK HYDRO

COMPLETION REPORT

WELL 6407/1-1 X

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I GENERAL INFORMATION

1. Well data record

a. Well designation: 6407/1-1

b. Well classification: Wildcat

c. Well location:

I Country: Norway, Haltenbanken

II License: 073

III Latitude: 64°47' 51.66"N

Longitude: 07°02' 21.62"E

IV Seismic location: Shotpoint no. 234 line no. 8110-427

V Waterdepth: 273 m MSL

d. Rigdata

I Rig name: Dyvi Delta

II Drilling draft: 24.4 m

III RKB-MSL: 29 m

2. Purpose of the well

The purpose of well 6407/1-1 was to test possible hydrocarbon accumulations in sandstones of Middle and Lower Jurassic age.

3. Results of the well

The well was drilled to a total depth of 900 meters. Due to problems with the setting of the 20" casing, the hole was plugged and abandoned.

4. Well History

a. General

I Spud date: October 19, 1982

II Rig released: November 13, 1982

III Status: Plugged and abandoned

b. Contractors

- I Drilling platform: Dyvi Delta
- II Drilling contractor: Dyvi Drilling A/S
- III Cementing: Halliburton
- IV Casing: Weatherford/Lamb
- V Electric logging: Schlumberger
- VI Mud logging: Exlog
- VII Mud contractor: Dresser Magcobar
- VIII Supplyboats: Statoil supply boat pool
- IX Diving: Subsea Dolphin
- X Helicopters: Helikopter Service A/S

c. Casing

- I 30" at 401 m
- II 20" at 879 m

e. Logging

1. Mudlogging

A Gemdas-computerised logging unit from Exploration Logging conducted the mudlogging with the following data being recorded:

Drilling rate
 lithology
 Cutting gas
 Mud gas
 Shale density and some 20 other parameters

2. Electrical logging

The electrical logging was performed by Schlumberger

Type of log	Run no.	Interval (m RKB)
ISF/sonic-MSFL-GR (+SP+CAL)	1	302.0 - 898.0
LDT/CNL-GR-CAL	1	401.0 - 899.0

II GEOLOGICAL REPORT

1. Stratigraphy

The chronostratigraphic tops are based only on log correlations with other wells, since no paleoreport will be produced.

a. Table of chronostratigraphy (all depths in meters)

<u>Chronostratigraphic tops</u>	<u>Depth (RKB)</u>	<u>Depth (MSL)</u>
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Quaternary	273	244
Pliocene	500	471

b. Table of Lithostratigraphy (all depths in meters)

<u>Lithostr. tops</u>	<u>Depth (RKB)</u>	<u>Depth (MSL)</u>	<u>Thickness</u>
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Nordland Group	273	244	627+
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2. Lithological Description

Nordland Group (273 - 900 m RKB+)

The Nordland Group is composed of interbedded sand and clay. The sand is very fine to very coarse grained, angular to subrounded. The clay is light to dark grey, greenish grey, slightly to moderately calcareous and silty in parts. Trace amounts of different types of rock fragments, shell fragments, foraminiferas, mica, pyrite, glauconite and lignite are also observed.

WELLSITE SAMPLE DESCRIPTION

Country: NORWAY	Area: HALTENBANKEN	Field:
Well no.: 6407/1-1		
K. B. E. 29 meters	Company: STATOIL/NORSK HYDRO/CONOCO/AMOCO	
Hole size: 26"	Geologist: P. CLINT/O. LIND-HANSEN	Date: 23.10.82

Depth (m/KBE)	Lith. (%)	Lithologic description	Shows & Remarks
		Rock name, mod. lith, colour, grain size, sorting, roundness, matrix, cementation, hardness, accessories, fossils, porosity, contamination	
404	60	SAND: clr-mlky wh, occ ornge brn, med- v crs, ang-subrnd, ls qtz poor srt'd	
	10	ROCK FRAGS: blk-wh streaks, grn-dk grn, wh, micaceous, mod hd-hd. pred. ign	
	TR	TR: Foss frags	
	10	CLY: lt gry, sft, calc	
	20	Cement contamination	
410	60	SAND: clr-mlky wh, occ ornge, brn, med- crs, ang-subrnd, mod srt'd	GAS 0.1%
	15	ROCK FRAGS: blk, dk grn, wh mica, biotite	
	TR	TR: shell frags, foram	
	5	CLY: lt gry, sft	PROB. WASHED AWAY
	20	Cement contamination	
	TR	LIGNITE: black, mod hd-fm	
420	60	SAND: clr-mlky wh, occ ornge brn, med- crs, ang-subrnd, mod srt'd occ brn-ish	GAS 0.18%
	15	ROCK FRAGS: blk, drk brn, wh mica, biotite	
	TR	TR: shell frags, foram	
	5	CLY: lt gry, sft	PROB. WASHED AWAY
	20	Cement contamination	
430	60	SAND: clr-mlky wh, occ ornge brn, med- crs ang-subrnd, mod srt'd	GAS 0.08%
	10	ROCK FRAGS: blk, brn-dk brn, biotite wh mica	
	TR	TR: Shell frags, foram	
	20	CLY: lt gry, sft	PROB. WASHED AWAY
	10	Cement contamination	

WELLSITE SAMPLE DESCRIPTION

Country: NORWAY		Area: HALTENBANKEN		Field:	
Well no.: 6407/1-1					
K. B. E.		meters	Company: STATOIL/NORSK HYDRO/CONOCO/AMOCO		
Hole size:		Geologist: P. CLINT/O. LIND-HANSNEN		Date: 23.10.82	
Depth (m/KBE)	Lith. (%)	Lithologic description		Shows & Remarks	
		Rock name, mod. lith, colour, grain size, sorting, roundness, matrix, cementation, hardness, accessories, fossils, porosity, contamination			
440	60	SAND: clr, mlky-wh, occ ornge brn, mod-crs ang-subrnd		GAS 0.075%	
	10	ROCK FRAGS: blk, lt brn-brn, grn			
	TR	TR: Shell frags, foram			
	20	CLY: lt gry-mod gry, sft sl calc			CLAY BEING WASHED OUT. % LOT HIGHER
	10	Cement contamination			
	TR	Pyrite, lignite ?			
450	60	SAND: clr, mlky-wh, occ ornge brn, med-crs , ang-subrnd		GAS 0.08%	
	10	ROCK FRAGS: blk, brn-dk brn, grn, wh mica			
	TR	TR: Shell frags, foram lignite ?			
	30	CLY: lt gry-med gry, sft, calc			CLY BEING WASHED OUT
	TR	Cement contamination			
460	60	SAND: clr, mlky-wh, occ ornge brn, med- v crs ang-subrnd		GAS 0.18%	
	10	ROCK FRAGS: blk, brn-dk brn, grn, gy, mod hd-hd			
	TR	TR: Shell frags, foram			
	30	CLY: lt gry-med gry, sft, sl calc			
	TR	Cement contamination			
470	50	SAND: clr, mlky-wh, occ ornge brn, fn-crs ang-subrnd		GAS 0.06	
	10	ROCK FRAGS: blk, dk brn, grn			
	TR	TR: Shell frags, foram			
	40	CLY: med-dk gry, sft, sl calc			

WELLSITE SAMPLE DESCRIPTION

Country: NORWAY	Area: HALTENBANKEN	Field:
Well no.: 640771-1		
K. B. E. 29 meters	Company: STATOIL/NORSK HYDRO/CONOCO/AMOCO	
Hole size: 12 1/4 pilot	Geologist: . CLINT/O. LIND-HANSEN	Date: 23.10.82

Depth (m/KBE)	Lith. (%)	Lithologic description	Shows & Remarks
		Rock name, mod. lith, colour, grain size, sorting, roundness, matrix, cementation, hardness, accessories, fossils, porosity, contamination	
480	60	SAND: clr, cloudy, mlky wh, occ ornge brn occ pnk, v.occ grnish a/a	GAS 0.14%
	50	CLAY: med dk gry, sft a/a	
	TR	ROCK FRAGS: blk, hd, grn-dk gry	
	TR	Foss frags, forams	
	TR	Mica flakes	
490	60	CLAY: med lt gry-med dk gry, sft, occ firm sl calc, sl glau	GAS 0.08%
	40	SAND: clr-cloudy wh, v.occ orng brn, vfn- med, occ crs, ang-subrnd, mod -poor srted, loose qtz	
	TR	Rock frags a/a	
	TR	Pyrite	
	TR	Shell frags	
500	70	CLAY: med gry-med drk gry, sft, sticky, calc	
	30	SAND: clr, mlky wh, occ orng brn, fn-vfn, ang-subrnd, mod-poor srted	
	TR	ROCK FRAGS: blk, hd, gr-drk grn	
	TR	Pyrite, biotite	
	TR	Shell frags	
510	60	CLAY: med gry-med drk gry, sft, sticky, calc sl glauc	
	40	SAND: clr, mlky wh, occ orng brn, fn-vfn, ang-subrnd, mod-poor srted	
	TR	Rock frags: a/a	
	TR	Pyrite	
	TR	Shell frags	
	TR	Mica flakes	

WELLSITE SAMPLE DESCRIPTION

Country: NORWAY	Area: HALTENBANKEN	Field:
Well no.: 6407/1-1		
K. B. E. 29 meters	Company: STATOIL/NORSK HYDRO/CONOCO/AMOCO	
Hole size: 12 1/4"	Geologist: P. CLINT/O. LIND-HANSEN	Date: 23.10.82

Depth (m/KBE)	Lith. (%)	Lithologic description	Shows & Remarks
		Rock name, mod. lith, colour, grain size, sorting, roundness, matrix, cementation, hardness, accessories, fossils, porosity, contamination	
520	60	CLAY: med gry-med drk gry, sft, sticky, sl calc	GAS 0.04%
	40	SAND: clr, mlky, wh, occ orng brn, fn-vfn ang-subrnd, mod-poor srted	
	TR	Rock frags: a/a	
	TR	Pyrite, tube in-filled w/pyrite (fossils)	
530	TR	Shell frags	GAS 0.06%
	60	CLAY: med gry-med drk gry, sft, sticky, sl calc	
	40	SAND: clr, mlky wh, occ orng brn, fn-vfn ang-subrnd, pr-mod srted	
	TR	Rock frags: blk, grn-drk grn, hd	
	TR	Shell frags, foram	
	TR	Lignite ?	
540	TR	Wh mica	GAS 0.04%
	60	CLAY: med drk grey, sft, sl calc	
	40	SAND: clr, mlky, wh, occ orng brn, fn-vfn ang-subrnd	
	TR	Rock frags: blk, drk grn, hd	
	TR	Pyrite (in-filled fossils tubes)	
	TR	Lignite ?	
550	TR	Shell frags, foram	GAS 0.04%
	70	CLAY: med gry-med dk gry sft, occ frm, sl calc	
	30	SAND: clr, milky, wh, v.occ orng brn, fn-vfn, occ med-v crs, ang-subrnd, mod srted	
	TR	Mica, lignite: blk-dk brn, sft, glau nod. Forams, shell frags	

WELLSITE SAMPLE DESCRIPTION

Country: NORWAY		Area: HALTENBANKEN		Field:	
Well no.: 6407/1-1					
K. B. E. 29 meters		Company: STATOIL/NORSK HYDRO/CONOCO/AMOCO			
Hole size: 12 1/4"		Geologist: P. CLINT/O. LIND-HANSEN		Date: 23.10.82	
Depth (m/KBE)	Lith. (%)	Lithologic description		Shows & Remarks	
		Rock name, mod. lith, colour, grain size, sorting, roundness, matrix, cementation, hardness, accessories, fossils, porosity, contamination			
560	50	SAND: a/a pred vfn-med, occ crs sl glau occ silt		GAS 0.14%	
	50	CLAY: a/a greenish in part			
	TR	Rock frags, blk, hd, grey, grn gry, chert			
	TR	Mica, Shell frags, sl tr Lign?			
570	60	CLAY: med dk gry, sft, v silty, sl calc		GAS 0.13%	
	40	SAND: a/a gen vfn-fn, occ med-crs			
	TR	A/A			
580	60	CLAY: med dk gry sft, sticky a/a silty with sd vfn-fn, clr qtz grains		GAS 0.22%	
	40	SAND: a/a occ glauconitic			
	TR	Lignite blk-dk brn, firm-mod hd			
	TR	Rock frags, blk-dk gry, hd, gn, schistose pa brn			
	TR	Mica flakes			
	TR	Shell frags, Tr pyrite			
590	60	CLAY: med dk gry, sft, sticky, calc			
	40	SAND: clr, mlky wh, vfn-fn, ang-subrnd mod srted			
	TR	Lignite, blk-dk brn			
	TR	Rock frags, a/a			
	TR	Shell frags, foram			
600	60	CLAY: med dk gry, sft, sl calc		GAS 0.19%	
	40	SAND: clr, mlky wh, occ orng brn, occ grn, med-fn, mod srted, occ silt			
	TR	Lignite: blk-dk brn, firm-mod hd			
	TR	Shell frags, foram, pyrite, biotite, mica flakes			
	TR	Rock frags, blk, hd, grn, gry			

WELLSITE SAMPLE DESCRIPTION

Country: NORWAY		Area: HALTENBANKEN		Field:	
Well no.: 6407/1-1					
K. B. E. 29 meters		Company: STATOIL/NORSK HYDRO/CONOCO/AMOCO			
Hole size: 12 1/4"		Geologist: P. CLINT/O. LIND-HANSEN		Date: 24.10.82	
Depth (m/KBE)	Lith. (%)	Lithologic description			Shows & Remarks
		Rock name, mod. lith, colour, grain size, sorting, roundness, matrix, cementation, hardness, accessories, fossils, porosity, contamination			
610	60	CLAY: med dk gry, sft, sl calc			
	40	SAND: clr, mlky wh, occ orng brn, med-fn, mod srt d			
	TR	Shell frags, foram			
	TR	Rock frags, blk, gry, hd			
	TR	Pyr, mica flakes			
620	60	CLAY: med dk gry, sft, sl calc			
	40	SAND: clr, mlky wh, occ orng brn, fn-med, mod srt			
	TR	Shell frags, foram			
	TR	Rock frags, blk, gry-dk gry, grn, hd			
	TR	Mica flakes, occ lign			
630	60	CLAY: a/a			
	40	SAND: clr, mlky wh, occ orng brn, med-fn, mod srt d, occ slst			
	TR	Shell frags, foram			
	TR	Rock frags, a/a			
	TR	Mica flakes, occ lign			
640	60	CLAY: med dk gry, sft, calc			
	40	SAND: clr, mlky wh, occ orng brn, fn-med, mod srt d, occ siltst			
	TR	Sl shell frags			
	TR	Rock frags, blk, gry, grn, hd			
	TR	Mica flakes			

WELLSITE SAMPLE DESCRIPTION

Country: NORWAY		Area: HALTENBANKEN		Field:	
Well no.: 6407/1-1					
K. B. E. 29 meters		Company: STATOIL/NORSK HYDRO/CONOCO/AMOCO			
Hole size: 12 1/4		Geologist: P. CLINT/O. LIND-HANSEN		Date: 24.10.82	
Depth (m/KBE)	Lith. (%)	Lithologic description		Shows & Remarks	
		Rock name, mod. lith, colour, grain size, sorting, roundness, matrix, cementation, hardness, accessories, fossils, porosity, contamination			
650	60	CLAY: a/a		Gas 0.13%	
	40	SAND: clr, mlky wh, occ orng brn, v fn-fn ang-subrnd, mod srted		Clay % probably higher - easily washed out	
	TR	shell frags, foram			
	TR	Mica flakes, sl pyr			
	TR	Rock frags, blk, dk grn, hd			
660	70	CLAY: med gry, v sft, amorph, sticky		Gas 0.31%	
	30	SAND: clr, occ rose, occ brn, fn-med, sub-rnd- ang. occ rnd, lse qtz, mod srted			
	TR	Shell frags, pyr			
	TR	Rock frags, blk, hd, brittle, dk grey, mica, green			
670	60	CLAY: a/a		Gas 0.21%	
	40	SAND: a/a clr, white, occ brn, v occ rose			
	TR	Pyrite, rock frags a/a, mica, shell frags forams			
680		A/A		Gas 0.19%	
690	50	CLAY: med gry-gn gry, soft, sticky, mod calc		Gas 0.21%	
	50	SAND: clr-cloudy, v fn-fn, occ med, ang-sub rnd, mod-well srted, occ sl glau, occ rose, occ grnish			
	TR	Glau, nodules black-v dk green, firm			
	TR	Shell frags, forams			
	TR	Rock frags a/a, pyrite			

WELLSITE SAMPLE DESCRIPTION

Country: NORWAY		Area: HALTENBANKEN	Field:
Well no.: 6407/1-1			
K. B. E.	29 meters	Company: STATOIL/NORSK HYDRO/CONOCO/AMOCO	
Hole size: 12 1/4	Geologist: P. CLINT/O. LIND-HANSEN		Date: 24.10.82
Depth (m/KBE)	Lith. (%)	Lithologic description	Shows & Remarks
		Rock name, mod. lith, colour, grain size, sorting, roundness, matrix, cementation, hardness, accessories, fossils, porosity, contamination	
700	85	CLAY: pa gry-grn gry, soft, sticky amorph - silty	GAS 0.22%
	15	SAND: clr, cloudy, occ brn, rose, pale green v fn-fn, occ crs	
	TR	A/A glau nodls	
710	A/A		GAS 0.15%
	TR	Lignite, mica flakes, less glau	
720	70	CLAY: lt gry-med gry, sft a/a silty in part	GAS 0.17%
	30	SAND: clr-wh, vf-fn, occ v crs, ang -sub rnd a/a occ brn, rose pink	
	TR	Mica flakes, glau nodules (black- v dk grn)	
	TR	Shell frags, forams, rock frags	
730	A/A		GAS 0.28%
	SL	Tr pyrite	
740	80	CLAY: lt gry, greenish sft a/a	GAS 0.25%
	20	SAND: a/a	
	TR	Rock frags a/a, mica flakes	
750	A/A		GAS 0.14%
760	90	CLAY: med gry-dk gry, sft, silty mod calc	GAS 0.21%
	10	SAND: clr-wh, occ rose, a/a	
	TR	Glau nodls, forams, mica, sl tr shell frags, tr pyr	
770	A/A		GAS 0.23%

WELLSITE SAMPLE DESCRIPTION

Country: NORWAY	Area: HALTENBANKEN	Field:
Well no.: 6407/1-1		
K. B. E. 29 meters	Company: STATOIL/NORSK HYDRO/CONOCO/AMOCO	
Hole size: 12 1/4	Geologist: P. CLINT/O. LIND-HANSEN	Date: 24.10.82

Depth (m/KBE)	Lith. (%)	Lithologic description	Shows & Remarks
		Rock name, mod. lith, colour, grain size, sorting, roundness, matrix, cementation, hardness, accessories, fossils, porosity, contamination	
780	90	CLAY: med gry-dk gry-grn, sft, sl calc	GAS 0.18%
	10	SAND: clr-wh, vf-fn, ang-subrnd, mod srt	
	TR	Frag, shell, sl foram	
	TR	Sl pyr	
	TR	Rock frags, blk, hd, drk grn	
	TR	Mica flakes	
790	80	CLAY: med drk gry-grn gry, sft	GAS 0.14%
	20	SAND: clr, mlk wh, occ orng brn, sl rose, med-v fn, ang-subrnd, mod srt	
	TR	Sl shell frags, sl foram	
	TR	Mica flakes	
	TR	Rock frags, blk-drk grn, hd	
800	90	CLAY: a/a	GAS 0.23%
	10	SAND: a/a	
	TR	Mica flakes	
	TR	Rock frags a/a	
	TR	Sl shell frags, sl foram	
	TR	Pyr	
810	80	CLAY: a/a, sl sticky	GAS 0.24%
	20	SAND: a/a, sl siltst, drk gry-blk	
	TR	a/a	
820	80	CLAY: a/a	GAS 0.19%
	20	SAND: a/a	
	TR	a/a, sl glau	

WELLSITE SAMPLE DESCRIPTION

Country: NORWAY		Area: HALTENBANKEN		Field:	
Well no.: 6407/1-1					
K. B. E. 29 meters		Company: STATOIL/NORSK HYDRO/CONOCO/AMOCO			
Hole size: 12 1/4		Geologist: P. CLINT/O. LIND-HANSEN		Date: 24-10.82	
Depth (m/KBE)	Lith. (%)	Lithologic description		Shows & Remarks	
		Rock name, mod. lith, colour, grain size, sorting, roundness, matrix, cementation, hardness, accessories, fossils, porosity, contamination			
830	80	CLAY: med drk gry-gry grn, sft, sl calc		GAS 0.25%	
	20	SAND: clr, mlky wh, occ orng brn, ang-subrnd, mod srted, med-vfn			
	TR	Mica flakes			
	TR	Sl shell frags, sl foram			
	TR	Rock frags, a/a			
840	80	CLAY: a/a		CLAY PROBABLY WASHING OUT OF SAMPLES GAS 0.21%	
	20	SAND: a/a			
	TR	Shell frags			
	TR	Pyr, mica flakes			
	TR	Rock frags, a/a			
850	80	CLAY: med dark gry, gry-grn, sft, sl calc		GAS 0.2%	
	20	SAND: clr, mlky wh, sl orng brn, vfn-fn, ang-subrnd, mod srted			
	TR	Rock frags, blk, drk grn, lt grn, hd			
	TR	Pyr			
	TR	Mica flakes			
860	85	CLAY: lt grn gry-med gry, sft, non-sl calc silty in parts, loose qtz included		CLAY DIFFICULT TO WASH THROUGH SIEVE GAS 0.18%	
	15	SAND: clr-wh a/a			
	TR	Rock frags, a/a			
	TR	Shell frags, tr lignite			
870	85	CLAY: a/a		GAS 0.22%	
	15	SAND: a/a			
	TR	a/a w/forams			

WELLSITE SAMPLE DESCRIPTION

Country: NORWAY		Area: HALTENBANKEN		Field:
Well no.: 6407/1-1				
K. B. E.	29 meters	Company: STATOIL/NORSK HYDRO/CONOCO/AMOCO		
Hole size:	12 1/4"	Geologist:	P. CLINT/O. LIND-HANSEN	
		Date:		24.10.82
Depth (m/KBE)	Lith. (%)	Lithologic description		Shows & Remarks
		Rock name, mod. lith, colour, grain size, sorting, roundness, matrix, cementation, hardness, accessories, fossils, porosity, contamination		
880	85	CLAY: a/a		GAS 0.16%
	15	SAND: a/a		
	TR	Trace forams, lignite, tr shell frags		
890	70	CLAY: greenish gry-med gry a/a		CLAY STICKY NOT WASHING THROUGH SIEVE GAS 0.25%
	30	SAND: clr-cloudy, fn-v fn, occ med a/a		
900	90-95%	CLAY: v lt gry		GAS 0.17%
	5-10%	SAND: clr lse qtz, generally a/a, v fn		
	TR	Lignite, blk- mod firm		
	TR	Shell ls frags		

111 DRILLING REPORT

111 1. SUMMARY

III 1. SUMMARY

6407/1-1 was a wildcat designed to test possible hydrocarbon accumulations in the 6407/1 "B" structure. The primary objective was the Middle Jurassic Sandstone with the Lower Jurassic Sands as a secondary objective. The total depth was planned to 4500 m.

The well had to be plugged and abandoned after a total depth of 900 m. The reason for this was that the 20" casing got stuck with the 18 3/4" wellhead 6 m above the 30" housing. When trying to free the 20" casing the drill pipe landing string parted. After several unsuccessfully attempts to free and land the 20" casing the well had to be plugged and abandoned.

The well was finished after 31 days and with a total cost of 31.2 MMkr.

Dyvi Delta was moved a short distance to drill 6407/1-2 at 0300 the 13th November.

111 2. DRILLING OPERATIONS IN INTERVALS

III 2. DRILLING OPERATIONS IN INTERVALS

The well was spudded on the 19th October 1982 in 273 m water depth. The final position was 64° 47' 51.66" N, 07° 02' 21.62" E. The deviation was 5 m on a bearing of 348° from the intended position.

36" hole: 302 m - 401 m

The 36" hole section was drilled with one 26" bit and a 36" hole opener down to 401 m in 11.7 hours with returns to the sea bed. ROP averaged 5 m/hrs to 350 m and 15 m/hrs from 350 to 401 m. Seawater was used to drill this section and high viscosity pills pumped on each connection. At 401 m a 80 m³ high viscosity pill was pumped to clean the hole and a wiper trip was made and survey taken prior to running 30" casing. 8 joints of grade B casing with Vetco ATD/RD connectors were run to 401 m. The casing was cemented successfully.

Prior to spud a temporary guide base was run. This tilted to an angle of 80 degrees when the bit was pulled through it. The temporary guide base was then pulled and the string was guided in the hole with help from the submarine.

26" hole: 401 m - 903 m

A 20" marine riser consisting of 17 bouyant sections was run and a diverter line installed. After drilling out cement from 392 m and 3 m of new formation with a 17½" and a 26" under-reamer, a 12 1/4" pilot hole was drilled to 900 m. The hole was then logged, ran ISF/SONIC-MSFL-GR and LDT/CNL-GR. After logging the riser was unlatched due to bad weather. Small amount of gas bubbles were observed at the seabed, and the rig was pulled 70 m off location against the wind for safety reasons. When the weather came down the rig was pulled on location again and the riser was run. The 12 1/4" hole was then opened up to 26" using a 12 1/4" bit, 17½" hole opener and 26" under-reamer.

Seawater was used to drill this section, and high viscosity pills pumped on every fifth connection. The lithology was predominantly claystone interbedded with thin stringers of sand. The 20" casing was run to 879 m, and at this depth the casing got stuck. Planned shoe depth was 885 m, so the 18 3/4" wellhead was 6 m above the 30" housing. When trying to pull the casing free the rig was caught by 1,5 m heave and were not able to control the hook load. The drill pipe landing string parted. Further attempts to free the casing were unsuccessfully. The casing was then cemented and the well was plugged and abandoned. The rig was then moved a short distance, by pulling and slacking off anchors, to drill 6407/1-2.

111 3. EXTRACT OF DAILY ACTIVITIES

III 3. EXTRACT OF DAILY ACTIVITIES 6407/1-1

- 14.10 Rig on move to Haltenbanken, location 6407/1-1.
- 15.10 Rig on move.
- 16.10 Rig on move.
- 17.10 Anchor handling. Let anchors soak.
- 18.10 Pretensioned the anchors. Ran a T.G.B. and landed same at 302 m. Backed out the running tool and pooh. Rih with a 26" bit with a 36" hole opener.
- 19.10 Drilled 36" hole from 302 to 401 m. Cbu and made wiper trip. Unable to stab back into T.G.B. Ran a utility guide frame. T.G.B. seemed to tilt approx. 80°. Pooh with 26" bit and 36" hole opener.
- 20.10 Ran a 17½" hole opener upside down, stabbed into T.G.B. and pulled same off bottom. Pulled out with the hole opener and the T.G.B. Rih with 26" bit and 36" holeopener. Attempted to stab in blind, no success. Lowered Mantis submarine and adjusted anchors to get rig above the well with assistance from Mantis. Stabbed into the hole and rih to 401 m. Pumped 80 m³ mud.
- 21.10 Made a wiper trip to 305 m, rih to 401 m and pumped 90 m³ hi-vis mud. Pooh. Rigged up and ran 30" casing with P.G.B. Circulated and cemented 30" casing. Released running tool and pooh. Rigged up and ran 30" pin connector on riser.
- 22.10 WOW to latch pin connector. Landed the riser on the 30" housing. Rih with a 17½" bit and 26" U.R.

- 23.10 Drilled cement from 392 m to 401 m. Drilled 3 m new formation to 404 m. Pumped a high visc. pill and pooh. Rih with a 12 1/4" bit and drilled a 12 1/4" pilot hole from 404 m - 603 m.
- 24.10 Drilled a 12 1/4" pilot hole from 603 m - 900 m. Cbu and pumped 20 m³ high visc. mud to clean the hole.
- 25.10 Pulled out to the casing shoe and circulated to clean the riser and the 30" casing. Rih to 900 m. Cbu, dropped the survey and pooh. Rigged up and ran electric logs, ISF/SONIC-MSFL-GR and LDT/CNL-GR. Unlatched riser due to bad weather. Observed the well, it seemed not to be static. Pulled the rig 70 m off location for safety reason. WOW.
- 26.10 Pulled the riser and the pin connector. Ran a TV camera and observed 30" housing, found only small amounts of migrating gas. Rih with open ended drill pipe to 650 m. Pumped 71 m³ of 1.50 S.G. mud. Observed 30" housing, the well was static. Ran the riser and the pin connector.
- 27.10 Rih with a 12 1/4" bit, 17½" hole opener and 26" under-reamer. Circulated out 1.50 S.G. mud with seawater at 350 m. Opened the 12 1/4" hole to 26" from 401 m - 510 m. Pooh to the 30" casing shoe and pumped 40 m³ 1.40 S.G. mud due to bad weather. Pulled out to seabed and displaced riser with seawater. Pooh, changed the cutter arms on the under-reamer. Rih to the 30" casing shoe.
- 28.10 WOW. Displaced the riser with mud. Rih to 510 m. Opened the 12 1/4" hole to 26" from 510 m to 687 m, pumped a high visc. pill every second connection. Pulled out to 30" casing shoe.
- 29.10 Pumped 40 m³ 1.40 S.G. mud. Pulled out to seabed and displaced the riser with seawater. Pooh. Changed the

cutter arms on the under-reamer. Rih and displaced the riser with mud. Rih to 687 m and opened the 12 1/4" hole to 26" from 687 m to 900 m. Pumped 40 m³ high visc. pill.

- 30.10 Pulled out to the 30" casing and spotted 40 m³ 1.40 S.G. mud weight due to bad weather. Displaced riser with seawater and pooh. WOW. Rih to 900 m. Displaced the hole from 900 m to the 30" housing with 1.25 S.G. mud. Pulled out to the 30" housing and displaced the riser with seawater. Pooh.
- 31.10 Unlatched the pin connector and pulled the riser and the pin connector. Rih with a 26" bit. Circulated 1.25 S.G. mud until good mud returned to seabed. Rigged up and prepared to run 20" casing. Laid out two float collar joints and one shoe joint due to bad threads.
- 01.11 Ran the 20" casing. When the 20" casing shoe was at 879 m, the casing got stuck and were not able to control the hook load due to 1.0 m - 1.5 m heave. The drill pipe landing string parted at a maximum overpull of 260 000 daN. Drill pipe parted 56 m below RKB. The 18 3/4" wellhead was sticking 6 m above the 30" housing. Prepared fishing equipment and waited on explosive charges.
- 02.11 Prepared fishing equipment and waited on explosive charges. WOW to lower the Mantis.
- 03.11 Lowered Mantis. Lowered explosive charges to 18 3/4" wellhead on guide frame. Attempted to latch explosive charges on 5" drill pipe above 18 3/4" running tool. No success. Modified the guide arrangement twice before succeeding. Fired explosive charges. Lowered Mantis and videoed wellhead area. Found the drill pipe to be laying across guide base.

- 04.11 Rih with milling assembly. Stabbed over the fish and milled on the fish. Pulled out, changed the mill and rih and milled on the fish. Pooh. Rih with overshot w/spiral grapple. Latched on to fish. Pull-tested to 200 tons. Circulated down drill pipe, had a leak in the overshot. Backed out 18 3/4" running tool and pooh.
- 05.11 Made up 20" casing wiper plug on new 18 3/4" running tool and ran same to the wellhead. Positioned rig and entered wiper plug and running tool into 18 3/4" wellhead. Made up running tool. Circulated 1,25 mud and kept 45 tons overpull on the casing trying to free same. Circulated 1,15 mud.
- 06.11 Circulated seawater and worked casing with maximum 250 tons on the weight indicator.
- 07.11 Mixed and pumped a 88 m³ pipe lax pill and displaced same with seawater. Let the pill soak with 75 tons on the weight indicator. Moved the pill every 30 minutes.
- 08.11 Attempted to free the 20" casing. No success. Cemented the 20" casing, 132 tons 1.62 S.G. lead slurry and 13 tons 1.90 S.G. tail slurry. Displaced cement with seawater and left all the tail slurry into the 20" casing. Float did not hold. WOC.
- 09.11 Backed out running tool and pooh. Made up fishing equipment and fished for 5" drill pipe on sea bed. Recovered 21 of 26 jts drill pipe. Inspected wellhead area, no sign of the last 5 joints. Prepared and rih with 20" and 30" cutting equipment.
- 10.11 When starting to rotate the pipe, the TV cable got wrapped around the pipe and parted. WOW to lower Mantis. Made two blind attempts to fish for TV-frame, no success. Lowered Mantis and hooked on TV frame. Cut 20" casing. Tool stalled out as if the 20" casing fell on the top of the knives. Rih with a 20" spear, stabbed

into 18 3/4" wellhead and pulled 20" casing loose, pooh and laid down 20" casing.

11.11 Made up new bha to cut the 30" casing. Rih with same and cut the 30" casing. Had to much heave to cut, pooh. WOW.

12.11 Rih with same bha and cut 30" casing at 308 m. Pooh. Made up 160 m open ended drill pipe as a stinger below 30" running/retrieving tool. Attempted to screw into 30" housing, no success. Pooh. Changed the 30" running/retrieving tool to cam actuated and rih. Stabbed into the 30" housing, picked up 8 m, no overpull. Set a balanced cement plug from 450 m - 350 m, 24 tons 1.90 S.G. cement slurry.

13.11 Pooh and laid down the 30" casing and the permanent guide base. Made up a transponder on guideline and ran same to seabed. Started moving the rig to 6407/1-2 location by pulling/slacking anchors.

Transferred to 6407/1-2 0300 the 13th November.

111 4. WELLBORE SHEMATIC

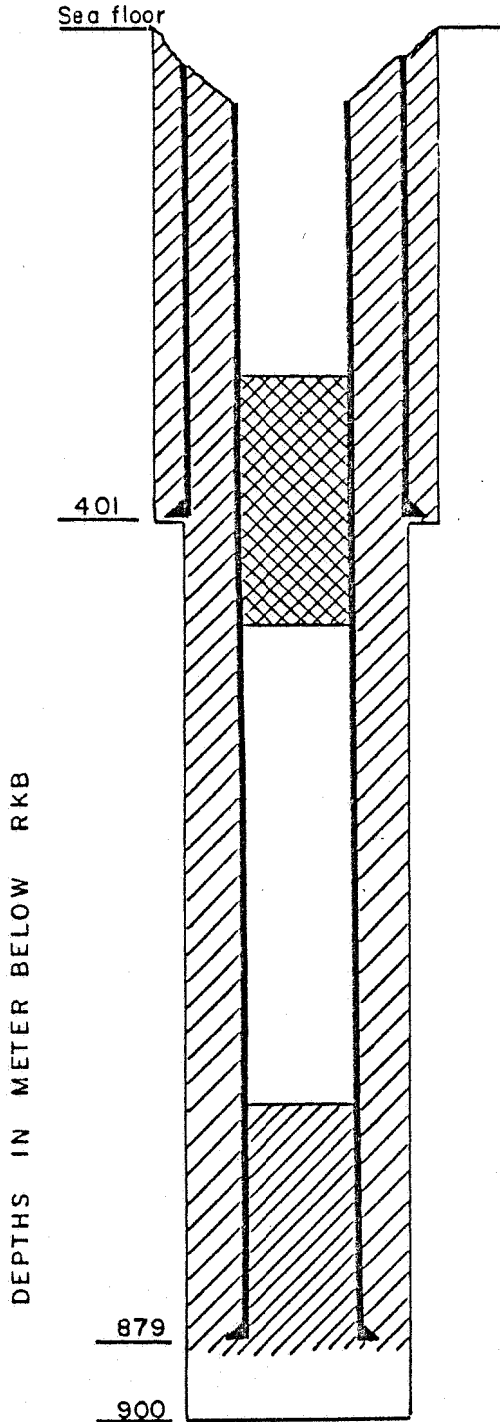
III 4. WELLBORE SCHEMATIC 6407/1-1

(Not to scale)

RKB - MSL : 29 m.

WATER DEPTH: 273 m.

Holes	Casing
36" Hole drilled W/26" Bit and 36" H.O.	30" casing: 301-401m 8 Jts Grade B Vetco ATD/RB 1" Wall thickness Housing jt: 1.5" wall thickness.
26" Hole drilled 12 1/4" pilot hole. Opened up with 12 1/4" Bit 17 1/2" H.O. 26" U.R.	20" casing: 293-783m: 94 lbs/ft, X 56 Vetco LS 783-879m 133 lbs/ft, K 55 Buttress



Casing cement	Plugs/Squeeze
<p>30" CASING LEAD: 37.8 tons class 'G' cement 1210 L Econolite Mixed w/seawater at 1.62 S.G.</p> <p>TAIL: 12.5 tons class 'G' cement 600 L CaCl₂ Mixed w/seawater at 1.90 S.G.</p>	<p>30" cut at 307 m 20" cut at 308 m</p> <p>Cmt plug: 350m-450m 24 tons class 'G' cement Mixed w/seawater to 1.90 S.G.</p>
<p>20" CASING: LEAD: 132 tons class 'G' cement 4224 L Econolite Mixed w/freshwater at 1.62 S.G.</p> <p>TAIL: 13 tons class 'G' cement Mixed w/freshwater at 1.90 S.G.</p> <p>Top of cement into 20" casing: 823 m</p>	

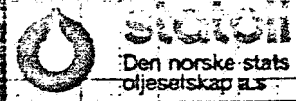
The 20" casing should have been set at 885 m, but the casing got stuck with the 18 3/4" wellhead 6 m above the 30" housing. Did not succeed to free the 20" pipe, so the well was plugged and abandoned. The 20" and the 30" was cut 6 and 5 m below seabed.



Original: 00
Tegnet: AM
Dato: 14-4-83

111 5. RIG TIME DISTRIBUTION

WELL 6407/1-1



DRILLING TIME V.S. DEPTH

Original: OØ
Tegnet: AM
Dato: 14-4-83

DEPTH(m)
RKB

Seabed

400

500

600

700

800

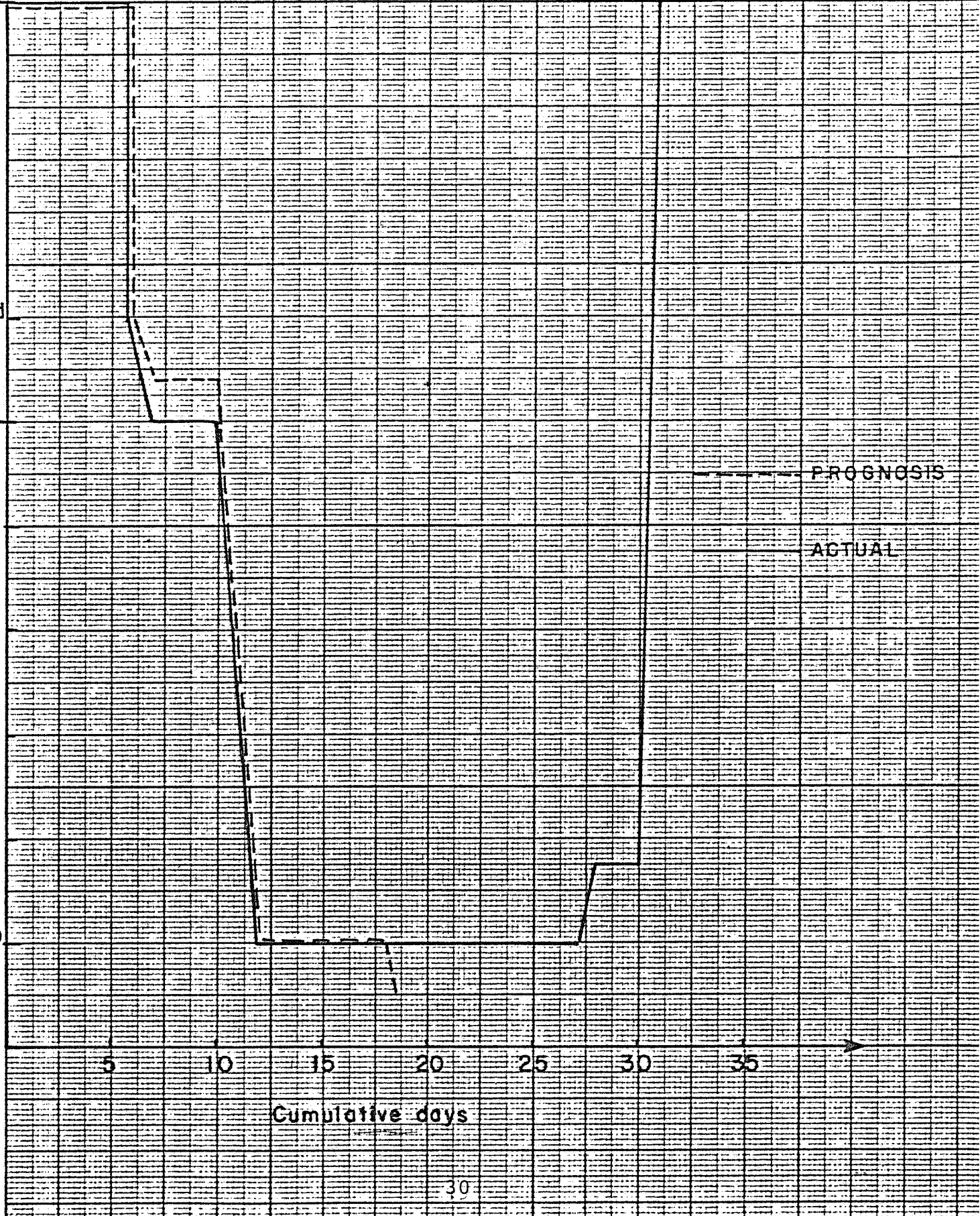
T.D.900

----- PROGNOSIS

----- ACTUAL

5 10 15 20 25 30 35

Cumulative days



WELL 6407/1-1



DRILLING COST VS. DEPTH

Original: 00
Tegnet: AM
Dato: 14-4-83

DEPTH(m)
RKB

Total cost 31,2 MM.NKr.

Seabed

400

500

600

700

800

900

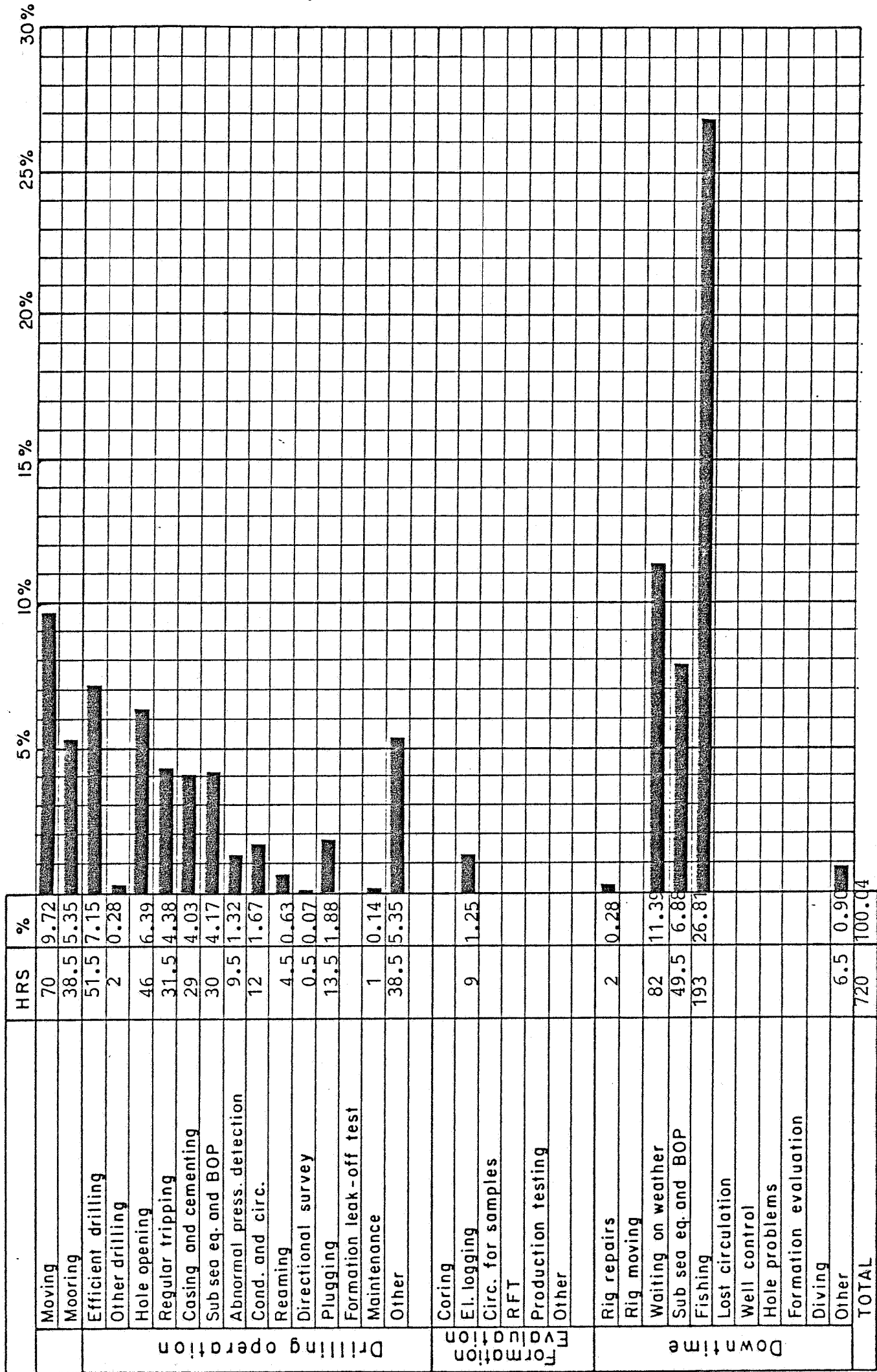
ACTUAL

PROGNOSIS

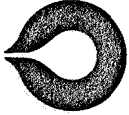
5 10 15 20 25 30 35

Cumulative cost (MM.NKr.)

RIG TIME DISTRIBUTION FOR WELL 640771-1



111 6. BIT RECORD



statoil

BORKRONEDATA

Brønn nr.: 6407/1-1

Nr.	B. k. Nr.	Diam.	Fabr.	Type	Serie no.	Dyser 1/32"	Dybde ut	Fremdrift	Rot. tid	Total rot.tid	Bore-hast.	V.p.b.	O.p.m.	Pumpe		Tilstand			Anmerkninger	
														Trykk	V.grad	v/t	T	B		G
1	1	26"x36"	SMITH	DS	SAH014	3x20	401	99	11.7	11.7	8.46	1-4	50	100	0.97	3800	3	2	I	HOLE OPENER GRADED 4-3-1
2	1RR	"	"	"	"	"	Clean up trip	up trip prior	to run	30" casing										
3	2	17 1/2"x 26"	"	S3SJ	867706	3x18	404	3	0.5	12.2	6	0-7	60	131	0.97	3230	1	1	I	DRILL CMT W/ 26" U.REAMER
4	3	12 1/4"	SECURITY	S33SF	859575	"	900	496	24.5	36.7	20.24	0-4	120	110	0.97	2660	4	5	1/2	
5	4	"	HUGHES	X3A	186DK	"	510	Run w/	17 1/2" H.O.	and 26" U.R.										
6	"	"	"	"	"	"	687	Run w/	17 1/2" H.O.	and 26" U.R.	w/new	Cutter arms								
7	"	"	"	"	"	"	900	Run w/	17 1/2" H.O.	and 26" U.R.	w/new	Cutter arms								
8	1RR	26"	SMITH	DS	SAH014	Clean up	up trip	prior	to run	20" casing										
9	5	9 3/4"	Flat bottom	mill with	10 7/16" OD	overshot.	Milled	on parted	drill pipe											
10	6	"	"	"	"	"	"	"	"	"	"	"	"							

111 7. SURVEY

SURVEY RECORD

The following is a list of Totco deviation surveys taken during drilling of the well.

meters (RKB)	degrees
398	1.00
898	0.50

III 8. DRILLING FLUID SUMMARY

WELL SUMMARY

STATOIL, 6407/1-1

MATERIAL CONSUMPTION AND COSTS BY INTERVAL

36" hole for 30" casing at 400m.

100 meters drilled

<u>PRODUCT</u>	<u>SIZE</u>	<u>UNITS</u>	<u>UNIT COST</u>	<u>COST U.S. \$</u>
Bentonite	M.T.	43	\$ 389.97	\$ 16,768.71
Soda Ash	50 kg	27	\$ 21.73	\$ 586.71
Caustic	25 kg	27	\$ 21.41	\$ 578.07
Lime	20 kg	2	\$ 8.20	\$ 16.40

Interval cost: \$ 17,949.89

Volume built	421m ³
Volume used	331m ³
Transferred to 26" section	90m ³
Cost per meter	\$ 179.59
Cost per m ³ built	\$ 42.64

WELL SUMMARY

STATOIL, 6407/1-1

MATERIAL CONSUMPTION AND COSTS BY INTERVAL

26" Hole for 20" Casing

501 meters drilled

<u>PRODUCT</u>	<u>SIZE</u>	<u>UNITS</u>	<u>UNIT COST</u>	<u>COST U.S. \$</u>
Barytes	M.T.	491	\$ 141.96	\$ 69,702.36
Bentonite	M.T.	103	\$ 389.97	\$ 40,166.91
Caustic	25 kg	100	\$ 21.41	\$ 2,141.00
Soda Ash	50 kg	25	\$ 21.73	\$ 534.25
Lime	20 kg	10	\$ 8.20	\$ 82.00
Mica	25 kg	30	\$ 20.54	\$ 616.20
Nut Plug	25 kg	25	\$ 18.90	\$ 472.50

Interval cost: \$ 113,715.22

Volume built	1308m ³	(plug 90m ³ from 36", gel mud only)
Volume used	1200m ³	(gel mud only)
Volume transf. to 6407/1-1A	198m ³	

Cost per meter	\$ 226.97	
Cost per m ³ built	\$ 86.93	(gel mud only)

WELL SUMMARY

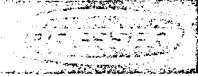
STATOIL, 6407/1-1

TOTAL CONSUMPTION AND COSTS

<u>PRODUCT</u>		<u>UNITS</u>		<u>UNIT TOTAL</u>	<u>UNIT COST \$</u>	<u>COST \$</u>
		<u>36"</u>	<u>26"</u>			
Barytes	M.T.	-	491	491	141.96	69,702.36
Bentonite	M.T.	43	103	146	389.97	56,935.62
Caustic	25 kg	27	100	127	21.41	2,719.07
Soda Ash	50 kg	27	25	52	21.73	1,120.96
Lime	20 kg	2	10	12	8.20	98.40
Mica	25 kg	-	30	30	20.54	616.20
Nut Plug	25 kg	-	25	25	18.90	<u>472.50</u>

Total cost: \$ 131,665.11

The total cost for these sections is significantly over the programmed cost, this is due to the fact that an extra 8868 bbls of mud was required. This is directly due to the problems encountered e.g. moving guide base, well flowing and requiring heavy mud to kill. Extra wiper trips being made requiring extra hole displacements.



WELL SUMMARY

STATOIL, 6407/1-1

SUPPLEMENTAL INFORMATION PERTAINING TO THE MUD

Depth from seabed 301m to 403m

36" Hole - 30" Conductor

Mud Type: Spud Mud

This interval was drilled with seawater with returns to the seafloor. The hole was flushed with 50 bbl viscous slugs before connections. These slugs were made as per our program utilizing:

1/2 lb/bbl	Caustic
1/2 lb/bbl	Soda Ash
35 lb/bbl	Magcogel
1 lb/bbl	Lime

It was felt that 30 bbl slugs were not being successful for hole cleaning so 50 bbl pills were utilized. The viscosity of these pills was 100+ sec/qt.

WELL SUMMARY

STATOIL, 6407/1-1

SUPPLEMENTAL INFORMATION PERTAINING TO THE MUD

Depth from 402m - 930m

26" Hole - 20" Casing

Mud Type: Native Mud

In this section seawater was utilized as drilling began and hi-viscosity slugs spotted as required. This proved effective and necessary as difficulty was experienced in maintaining low weights. The hole was displaced to 100+ viscous mud before trips.



DAILY MATERIALS CONSUMPTION

WELL STATOIL, 6407/1-1

PAGE 1

DATE	DEPTH M	Barite	Bentonite	Caustic	Soda Ash	Lime	Mica	Fine	Nut Plug	Fine	Pipe Lax	Imco Spol (No charge)	DAILY MUD COST \$	REMARKS
18.10	-	15	19	12	12	-							10,056.51	RIH w/26" bit & hole opener.
19.10	402	-	9	12	12	-							4,027.41	Drld 36" hole to 403m.
20.10	402	-	-	-	-	2							16.40	Prepare to run 30" casing.
21.10	402	-	15	3	3	-							5,978.97	Ran & cemented 30" casing.
22.10	402	-	-	-	-	-							0	Ran & latched riser. RIH to d/cnt
23.10	606	-	13	9	9	5							5,498.87	Drilling 12-1/4" hole (pilot).
24.10	900	-	6	3	3	-							2,469.24	Drilled 12-1/4" to 900m.
25.10	900	-	-	-	-	-							0	Ran Schlum. logs. (Pull riser) WOW
26.10	900	79	-	3	3	5							11,385.26	Running riser.
27.10	509	-	-	-	-	-							0	Underreaming 26" hole.
28.10	667	36	2	6	6	-							6,149.34	Underreaming 26" hole. WOW
29.10	903	43	25	12	4	-	30						16,813.57	Underreaming 26" hole. WOW
30.10	903	100	16	21	-	-		25					21,357.63	WOW. Circulate. Unlatch riser.
31.10	903	57	8	6	-	-							11,339.94	Prepare to run 20" casing.
01.11	903	22	12	12	-	-							8,059.68	Run 20" csg. Landing string parted
02.11	903	NO MATERIALS USED											0	Wait on explosives. WOW
03.11	903	"	"	"									0	Severe fish.
04.11	903	"	"	"									0	Mill on fish, back-off running tool
05.11	903	134	21	22	-	-							27,683.02	Displace hole with seawater.
06.11	903	20	-	6	-	-			8	299			10,955.82	Circ. with seawater.
07.11	903	NO MATERIALS USED											0	Spot pipe lax pill.
08.11	903	"	"	"									0	Displace pill. Plug back well.
09.11	-	"	"	"									0	W.O. cement. Fish D.P. on seabed
10.11	-	"	"	"									0	Ret. camera - Cut 30".
11.11	-	"	"	"									0	W.O.W.
12.11	-	"	"	"									0	Plug back to surface.

DAILY MUD PROPERTIES

PAGE 1

Well: STATOIL, 6407/1-1

1982 DATE	M DEPTH	S.G. WT.	VIS		CORR. 115°F	GELS	pH	FLUID LOSS			CL	ALKALINITY				CA ppm	RETORT			V.G. METER READING @ 115°					Bbl	\$						
			SEC.	PV YP				100 PSI API	500 PSI	300 °F HT-HP		PF	PM	MF	% OIL		% SOL	% WATER	600 R.P.M.	300 R.P.M.	200 R.P.M.	100 R.P.M.	6 R.P.M.	3 R.P.M.		TOTAL	MUD COST					
18.10	-																														10056.51	
19.10	402	1.03	100+																												14083.92	
20.10	403	1.03	100+																												14100.32	
21.10	403	1.03	100+																												20079.29	
22.10	403	SEAWATER																													20079.29	
23.10	606	1.06	37	2	11	5	10																								25578.16	
24.10	900	1.08	38	4	24	14	21																								28047.40	
25.10	900	1.08	38	4	24	14	22																								28047.40	
26.10	900	SEAWATER																													39432.66	
27.10	509	1.09	31	2	12	9	12																								39432.66	
28.10	687	1.07	28	3	5	3	4																								45582.00	
29.10	903	1.07	28	4	6	4	5																								62395.57	
30.10	903	1.25	35	9	25	10	12																								83753.20	
31.10	903	1.25	35	9	25	10	12																								95093.14	
01.11	903	1.25	35	9	25	10	12																								103152.82	
02.11	903	1.25	60	9	41	27	32																								103152.82	
03.11	903	1.25	60	9	41	27	32																								103152.82	
04.11	903	1.25	60	9	41	27	32																								103152.82	
05.11	903	1.30	35	6	41	12	15																								130835.85	
06.11	903	1.30	35	6	41	12	15																								141791.67	
07.11	903	1.30	35	6	41	12	15																								141791.67	
08.11	903	1.30	35	6	41	12	15																								141791.67	
09.11	-	1.30	35	6	41	12	15																								141791.67	
10.11	-	1.30	35	6	41	12	15																								141791.67	
11.11	-	1.30	35	6	41	12	15																								141791.67	
12.11	-	1.04	100+	SPUD	MUD																										141791.67	

DATE SPUD: 19th October 1982

COST:

DATE T.O.:



MUD VOLUME DATA

DRESSER NORWAY A.S.

COMPANY: STATOIL

PAGE: 1

WELL: 6407/1-1

RIG: DYVI DELTA

DATE	HOLE SIZE INCHES	DEPTH METERS	MUD WT.	VISC.	BBL'S OF DRLLD	1. HOLE VOLUME	2. ACTIVE PIT VOL. VOL.	1+2=3. TOTAL CIRC.	5. VOLUME ADDED	6. MUD LOSSES			7. CUM. LOSS	8. MUD IN STORAGE m ³	3+8. TOTAL VOL. m ³	DAILY COST US \$	TOTAL COST US \$
										DUMP	HOLE LOSS	TOTAL LOSS					
1982																	
18.10	36"	-	1.03	100+									174	174	10,056.51	10,056.51	
19.10	36"	402	1.03	100+					163	163	163	163	174	174	4,027.41	14,083.92	
20.10	36"	402	1.03	100+						168	168	331	6	6	14.40	14,000.32	
21.10	36"	402	1.03	100+					84	-	-	-	90	90	5,978.97	20,079.29	
22.10	Pilot					101	165	266				331	90	356	0	20,079.29	
23.10	12-1/4"	402	1.03	30		SEAWATER WITH GEL PILLS	156	267	140	31	31	362	198	465	5,498.87	25,578.16	
24.10	"	606	1.07	37		111	156	267				418	199	487	2,469.24	28,047.40	
25.10	12-1/4"	900	1.08	38		144	144	288				-	199	487	0	28,047.40	
26.10	12-1/4"	900	1.08	44		94	185	279	122	140	140	558	190	469	11,387.26	39,432.66	
27.10	26"	509	1.09	31		111	180	291	72	58	58	616	190	481	0	39,432.66	
28.10	26"	687	1.08	28		212	70	282	310	400	400	1016	109	391	6,149.34	45,582.00	
29.10	26"	903	1.07	28		277	134	411	262	50	50	1066	192	603	16,813.57	62,395.57	
30.10	26"	903	1.25	35		216	-	216	234	331	331	1397	190	506	21,357.63	83,753.20	
31.10	26"	903	1.25	35		216	-	-	94	93	93	1490	291	507	11,339.94	95,093.14	
01.11	26"	903	1.25	35		197	290	-	120	140	140	1630	-	487	8,059.68	103,152.82	
02.11	20" csg	903	1.25	60		197	290	-	-	-	-	1630	-	487	0	103,152.82	
03.11	20" csg	903	1.25	60		197	290	-	-	-	-	1630	-	487	0	103,152.82	
04.11	20" csg	903	1.25	60		197	290	-	-	-	-	1630	-	487	0	103,152.82	
05.11	20" csg	903	1.30	35		197	308	-	388	370	370	2000	-	505	27,683.03	130,835.85	
06.11	20" csg	903	1.30	35		-	284	-	88	313	313	2313	83	363	10,955.82	141,791.67	
07.11	20" csg	903	1.30	35		-	196	-	-	84	84	2397	83	279	0	141,791.67	
08.11	20" csg	903	1.30	35		-	146	-	-	50	50	2442	83	279	0	141,791.67	
09.11	20" csg	903	1.30	35		-	149	-	3	-	-	2447	83	232	0	141,791.67	
10.11	20" csg	903	1.30	35		-	149	-	-	-	-	2447	83	232	0	141,791.67	
11.11	20" csg	903	1.30	35		-	149	-	-	-	-	2447	83	232	0	141,791.67	
12.11	20" csg	903	1.30	35		-	149	-	-	-	-	2447	83	232	0	141,791.67	

1V MARINE REPORT

WEATHER AND ANCHOR TENSION 6407/1-1

There was a total of 82 hours downtime due to bad weather. This is 11.4% of the total time spent on the well.

The main wind direction was from SSW-SW.

The maximum reported wind speed was 35 m/s from SW.

The main wave direction was from SW. The maximum reported wave height was 10 m from SW.

The maximum experienced anchor tension was 144 tons on anchor no. 12. Rig heading was 313^o.

LOCATION WEATHER DATA SUMMARY



WELL: 6407/1-1 RIG: DYVI DELTA
 TIME PERIOD: FROM 14.10 TO 13.11 -19 82
 READINGS PR. MONTH: 31

WIND

m/sec. dir.	0 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	> 30	total
N			1					1
NNE			1					1
NE			1					1
ENE								
E								
ESE		1	2	1				4
SE								
SSE		1	1					2
S								
SSW		1	1	1			1	4
SW			7	3		1		11
WSW			1	1	1			3
W				2				2
WNW				1				1
NW								
NNW			1					1
total		3	16	9	1	1	1	31 / 31

WAVE

height dir. (m)	0 - 1	1 - 2	2 - 3	3 - 5	5 - 7	7 - 10	> 10	total
N		1				1		2
NNE		1		1				2
NE								
ENE								
E					1			1
ESE		1			3			4
SE								
SSE				1				1
S				2		2		4
SSW				1				1
SW				3	2	2		7
WSW				1	2	1		4
W				2	1			3
WNW				1				1
NW								
NNW					1			1
total		3		12	10	6		31 / 31

NAVIGATION REPORT

RIG MOVE OF "DYVI DELTA" TO WELL 6407/1-1

1. Final position

64° 47' 51.66"N, 07° 02' 21.62"E

Accuracy : 10 meters

Rig heading : 313°

Deviation from intended position: 5 m - 348°

2. Observed Decca Main Chain readings

Chain : Trøndelag 4E

Red : 1 J 11.39

Green : 1 D 47.26

Purple : 1 A 65.10

3. Navigation/positioning method

a) Navigation:

Decca M/C navigation system with HP computer and plotter.

Contractor: Racal-Decca Survey Norway A/S, Bergen

Personnel : Steinar Vikør

b) Positioning:

JMR-4 satellite positioning system.

Contractor: Racal-Decca Survey Norway A/S, Bergen

Personnel : Sveinung Høydal

4. Duration of the rig move

Navigation/positioning equipment

and personnel onboard	:	12 Oct. 1982 at 18.35 hours
Rig left 30/2-1	:	14 Oct. 1982 at 03.00 hours
Start run in (6 kms from loc.)	:	17 Oct. 1982 at 00.15 hours
Dropped first anchor (no.9)	:	17 Oct. 1982 at 00.55 hours
Start drilling	:	18 Oct. 1982 at 19.10 hours

5. Techniques/problems

The operation was performed according to Statoil's procedures without navigational problems.

Before the rig entered the area, a Simrad HPR transponder was dropped from a survey vessel close to the intended well position.

By using the rigs HPR system, this transponder was to great help in navigation and positioning the rig since the transponder gave a fixed reference point the rigs movements could be monitored against. (The Decca M/C system was from time to time very unstable).

The drilling started without anchor no. 6 set.

Discrepancy between Decca M/C position and Satnav. positioning was 40 m - 220°. Decca M/V position SW of Satnav. position.