

BA-90-323-1
- 8 FEB. 1990
REGISTRERT
OLJEDIREKTORATET

WELL 25/1-8R

WELL 25/1-8R S3

RE-ENTRY NO. 3

REPORT

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SUMMARY

1. Dispatch list.
2. General well data and position map.
3. Well historic and status before re-entry No. 3 (1989).
4. Purpose of the re-entry.
5. Chronology of re-entry operations.
6. Time distribution and unproductive time summary.
7. Well 25/1-8R Reservoir Results.
8. Well status after re-entry operations No. 3 (1989).

1. DISPATCH LIST

WELL 25/1-8R

<u>Distribution</u>	<u>Comments</u>	<u>Number</u>
* AUTHORITIES	Dispatch by Drilling & Completion Department	2
* PARTNERS	Dispatch by Exploration Division or Reservoir Department	2 copies per partner
* SNEA(P)	DPFE/EUROPE T. ELF	1 (Paris)
EP/S/PRO/FIC	DIV. FORAGE INTERVENTIONS CONTROL	1 (Paris)
EP/S/PRO/FIP	DIV. FORAGE	1 (Pau)
EP/S/PRO/EXP	DIV. EXPLOITATION	1 (Pau)
EP/S/PRO/EXP/GIS	DIV. GISEMENTS	1 (Paris)
	SID	2 (Paris)
	DIR. EXPLORATION	1 (Paris)
* EAN	EXPLORATION DIV. RESERVOIR DEPT.	1 1
	DRILLING AND COMPLETION DEPT.	
	- Well File 14.2.2	1 (+ original)
	- Well Report File 5.5	1

NB! All copies should be numbered. Copy number "one) shall be the original document.

2. GENERAL WELL DATA AND POSITION MAP

GENERAL WELL DATA

1/2	IDENTIFICATION/NAME	:	25/1-8
3	GEOGRAPHICAL AREA	:	NORWEGIAN CONTINENTAL SHELF
4	GEOLOGICAL BASIN	:	VIKING GRABEN
5	FIELD STRUCTURE	:	FRIGG FIELD
6	BLOCK	:	25/1
7	LICENCE	:	024
			ELF AQUITAINE NORGE A/S 41.42%
			NORSK HYDRO PROD A/S 32.87%
			TOTAL MARINE NORSK A/S 20.71%
			STATOIL 5.00%
9	OPERATOR	:	ELF AQUITAINE NORGE A/S
10	REFERENCE WELLS	:	10/1-4, 10/1-5, 25/-1-1
11	STATUS	:	REMOTE CONTROL WELL
12	COORDINATES	:	X = 449800.9
		:	Y = 6640871.3
			LAT = 59°54'03.29"N
			LONG = 02°06'09.80"E
13	.WATER DEPTH	:	102M
	.RKB/MSL	:	25M
	.RKB/ML	:	127M



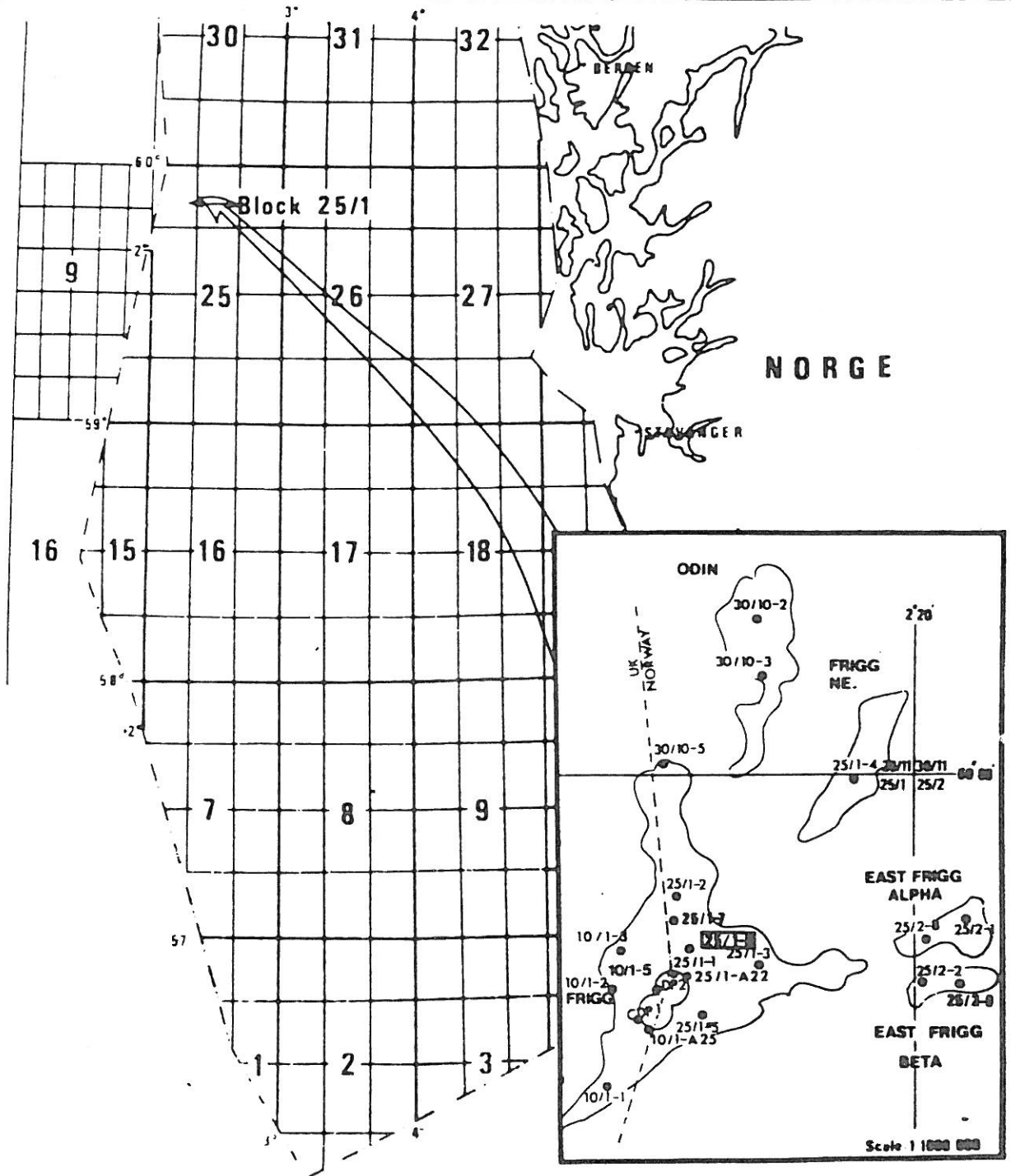
POSITION MAP



BLOCK 25/1
 WELL 25/1-8
 OWNER FRIGG UNIT

Scale 1 2500 000

Date



EXPLORATION DIVISION

Fig.1

3. WELL HISTORIC AND STATUS BEFORE RE-ENTRY 1989Well historic and status:

Well 25/1-8 is a deviated control well drilled to 2650m RKB on the Frigg Field from the semi-submersible "Byford Dolphin".

This well was spudded at 16:00 hrs the 28.05.85 and the drilling was finished at 18:00 hrs the 21.07.85. The well has since been re-entered twice, in February 1987 and in May 1988.

Casing status:

30" Casing-309.7 lb/ft-X52- Vetco ST2 shoe at 187m, Incl = 0.40°.
 13 3/8" Casing-68 lb/ft-K55 - BTC at 190m.
 12 3/8" Casing-72 lb/ft-N80 - BTC shoe at 1015m, Incl = 19.10°.
 9 5/8" Casing-53.5 lb/ft-P110- Vam shoe at 1910m, Incl = 13.10°.
 7" Casing - 29 lb/ft - L89 - Vam shoe at 2201m, Incl = 19.30°.

Initial Abandonment status:

After final logging, three cement plugs filled open hole from 2650 to 2215m. The 7" casing was set at 2201m and cement up to 1805m. (Top cement inside 7" casing at 2145m.)

At 7" bridge plug was set at 383m.

At 13 5/8" diverless corrosion cap (Vetco design 112.784) was installed on the 13 5/8 SG1 housing.

A special protection structure with SIMRAD transponder was run onto P.G.B.

The four guide posts were recovered.

No wear-bushing in the well-head.

Well status after re-entry 1987 (No. 1)

The re-entry operations was performed with S/S NORTRYM from 03:00 hrs the 14.02.87 to 16:30 hrs the 18.02.87. The well was temporary abandoned by means of a 7" bridge plug Baker N1 set at 371m RKB. Casing status was unchanged.

A 13 5/8" diverless corrosion cap (Vetco design No. 112784) was re-installed on the 13 5/8" SG1 housing. (No wearbushing in the wellhead.)

The protection cage was re-run and locked on the PGB.

The four guide posts were recovered.

A Simrad transponder Frequency code "X" 25188 HZ was installed on the protection cage.

WELL STATUS AFTER RE-ENTRY 1988 (No. 2)

The last re-entry operations was performed with the the S/S west vanguard from 17:30 hrs the 10.05.88 to 24:00 hrs the 16.05.88.

The 25/1-8 R remote control well was temporary abandoned by means of a 7" bridge plug Baker N1 set at 366m RKB.*

Casing status was unchanged.

A 13 5/8" diverless corrosion cap (Vetco design No. 112784) was installed on the 13 5/8" SG1 housing. (No wear bushing in the wellhead).

The protection cage was locked on the PGB.

The four guide posts were recovered.

The Simrad transponder Frequency code "X" 25188 HZ was installed on the protection cage.

* Bridge plug setting depth 366m was corrected to RKB/MSL = 25m (WEST VANGUARD RKB/MSL = 22m.)

Note: The site was marked with a buoy (with spring buoy) installed 100 meters East from well location 25/1-8R.

4. PURPOSE OF THE RE-ENTRY

4.1 Objective

The objective of the re-entries in well 25/1-7 and 25/1-8 was to determine the water-encroachment north of DP2 since the last measurement of May 1988. The two wells are/have been protected by more or less continuous barriers extending towards DP2 and creating an unswept zone in this area, whereas well 25/1-10 (north of 25/1-7) has been completely swept.

The two wells were last re-entered in May 1988 with the following results:

Well 25/1-7: GLC at 1951.2m RKB (1925.4m MSL)

Well 25/1-8: GCL at 1975m RKB (1897.5m MSL) (Depths MSL are TVD)

The results of the re-entries in terms of water-level was used for matching of the mathematical model and help delineating the geometry of the unswept zone before deciding on the deviated well drilled from DP2 during the summer/autumn of 1989.

5. CHRONOLOGY OF RE-ENTRY OPERATIONS

DATE dd mm yy	Nb	DEPTH	DESCRIPTION
06.04.89	1D		TOWING THE RIG TO LOCATION 25/1-8R. OLAV VIKING ON TOWING GEAR.
07.04.89	1C	2201	ANCHOR HANDLING: NO 8 AT 00H05 , NO 4 AT 00H20 , NO 5 AT 01H28 , NO 1 AT 02H09 , NO 3 AT 03H13 , NO 2 AT 03H15 , NO 6 AT 04H30 NO 7 AT 04H33 . BALLAST RIG. PULL OUT SIMRAD POSITIONING EQUIPMENT INSTALLED ON DP RUN ROV , FOUND WELL HEAD. BALLAST RIG. MADE UP 4 ARMS UTILITY GUIDE FRAME. RUN 4 GUIDE POST TO 108M. RIG TO FAR FROM WELL HEAD TO CONNECT GUIDE POST. CONTINUE TO BALLAST RIG. TENSION TEST ON ALL ANCHORS TO 160T , POSITIONING RIG OVER WELL HEAD. CONNECTED ON GUIDE POST. GOT ROPE INTO ROV TRUSTER. PULL ROV TO REPAIR. RUN ROV. CONTINUE TO CONNECT GUIDE POSTS , TENSION TEST 5T. PULL 4 ARMS UTILITY FRAME. REMOVE UTILITY FRAME FROM CELLAR DECK. RUN J SLOT RUNNING TOOL , RECOVERED PROTECTION CAGE , LAID DOWN SAME.
08.04.89	2C	2201	MAID UP AND RUN WEAR BUSHING. R/T, RECOVERED CORROSION CAP, LAID DOWN SAME. LAID DOWN 3 * 8"DC WHILE TESTING BOP. PREPARE TO RUN BOP. PUT ON 2 JOINTS OF RISER. PRESSURE TEST KILL AND CHOKE LINE ON BOP TO 482 BARS.OK. CHANGE CONTROL LINES IN BOTH PODS. CONNECTED BOP ON RISER. REMOVE 18"3/4 TEST STUMP. INSTALLED 13"5/8 TEST STUMP AND 13"5/8 * 18"3/4 ADAPTOR ON BOP CARRIER. ATTEMPT TO CONNECT ADAPTOR TEST STUMP NOT CENTERED ON CARRIER. CUT WELDS BETWEEN STUMP AND CARRIER. LATCH ADAPTOR INTO BOP. TESTED ADAPTOR AGAINST SHEAR RAMS 343 BARS. LEAK ON 4 WAY VALVE ON KOOMEY UNIT. UNABLE TO DISCONNECT JUNCTION BOX. REPAIR 4 WAY VALVE.
09.04.89	3C	2201	REPAIRED KOOMEY UNIT (UNABLE TO DISCONNECT JUNCTION BOX BECAUSE OF FAILURE IN STACK STINGER SEAL FUNCTION). RUN BOP, TEST KILL & CHOKE LINE TO 35 BARS/5 MN. - 207 BARS/10 MN EVERY 2 JTS. LAND BOP. PICK UP TEST 15 T. R/D RISER HANDLING EQ. TESTED WELLHEAD CONNECTOR & SHEAR RAM AGAINST BRIDGEPLUG TO 207 BARS. M/U AND RIH 5 7/8 JUNK MILL + BHA NO. 1 TO 200 M.
10.04.89	4C	2201	CONT. RIH 5 7/8 JUNK MILL W/ 3 1/2 DP TO 332 M. TESTED BOP ON BLUE POD TO 35 BARS/5 MN. - 207 BARS/10 MN. FUNCTION TEST ON YELLOW POD. RIH TO 366 M. & MILLED OUT BRIDGE PLUG. DISPLACED MUD MW 1,25 W/SEAWATER. RIH TO 1200 M. (P/U 3 1/2 DP FROM 895 M.). DISPL. MUD W/SEAWATER. CONT. RIH TO 1625 M. CHANGED SPEED CTRL. FOR DRAW WORK & DISPL. MUD W/SEAWATER. RIH 5 7/8 JUNK MILL, TAGGED CMT AT 2145 M. (WASHED DOWN 2083-2145 M.). CIRCULATED, 15 M3 SEAWATER + 59 M3 SEAWATER W/3L/M3 OXYGEN INHIBITOR. SLIPPED DRILLING LINE. POOH 5 7/8 JUNK MILL, RIG UP SCHLUMBERGER. LOGGING W/SCHLUMBERGER IN PROGRESS (TDT 2110-1920).
11.04.89	5C	2201	CONT. LOGGING. RUN NO. 1: TDT FROM 2110 TO 1920 M. SCALE 1/200 - 1/500. WATER CONTACT AT 1975 M. RUN NO. 2: GAUGE RING TO 400 M. RUN NO. 3: SET BRIDGE PLUG AT 370 M. TESTED BRIDGE PLUG TO 70 BARS. RIGGED DOWN LOGGING EQUIPMENT. DUE TO WEATHER WINDOW: PULLED BOP. DISCONNECTED 18 3/4 X 13 5/8 ADAPTER IN

DATE	Nb	DEPTH	DESCRIPTION
dd MM yy			
			MOON POOL SECURED BOP, L/D RUNNING TOOL.
			RAN AND SET 13 5/8 CORROSION CAP, FILLED SAME WITH OIL, POOH RUNNING TOOL.
			SET SIMRAD TRANSPONDER CODE "X" ON WELLHEAD WITH ROV WHILE RUNNING
			PROTECTION CAGE, LOCKED CAGE TO PCB WITH ROV, POOH J SLOT RUNNING TOOL.
			RELEASED AND PULLED 4 GUIDE POSTS.
			L/D 12 DC 4 3/4. WEATHER TOO BAD AND TOO MUCH WEIGHT IN DERRICK TO START
			DEBALLASTING RIG.
12.04.89	6C	2201	CONTINUE L/D 9 DC 4 3/4", 201 DP 3 1/2", 114 DP 5" G105, 27 DP 5" S135.
			P/U 60 DP 5" G105 (INSPECTED). WEATHER TOO BAD TO DEBALLAST RIG.
			M/U BHA FOR MILLING BRIDGE PLUG (25/1-7R). DEBALLAST RIG.
13.04.89	7C	2201	ANCHOR HANDLING.
			ANCHOR NO. 2 ON BOLSTER 02.40 SOLFONN
			ANCHOR NO. 6 ON BOLSTER 02.50 TROMS TJELD
			ANCHOR NO. 7 ON BOLSTER 03.37 OLAV VIKING
			ANCHOR NO. 3 ON BOLSTER 04.15 SOLFONN
			ANCHOR NO. 4 ON BOLSTER 06.00 SOLFONN
			ANCHOR NO. 8 70 M. LEFT 06.25 TROMS TJELD
			ANCHOR NO. 1 70 M. LEFT 07.55 SOLFONN
			ANCHOR NO. 5 70 M. LEFT 08.20 PULLED WITH RIG.

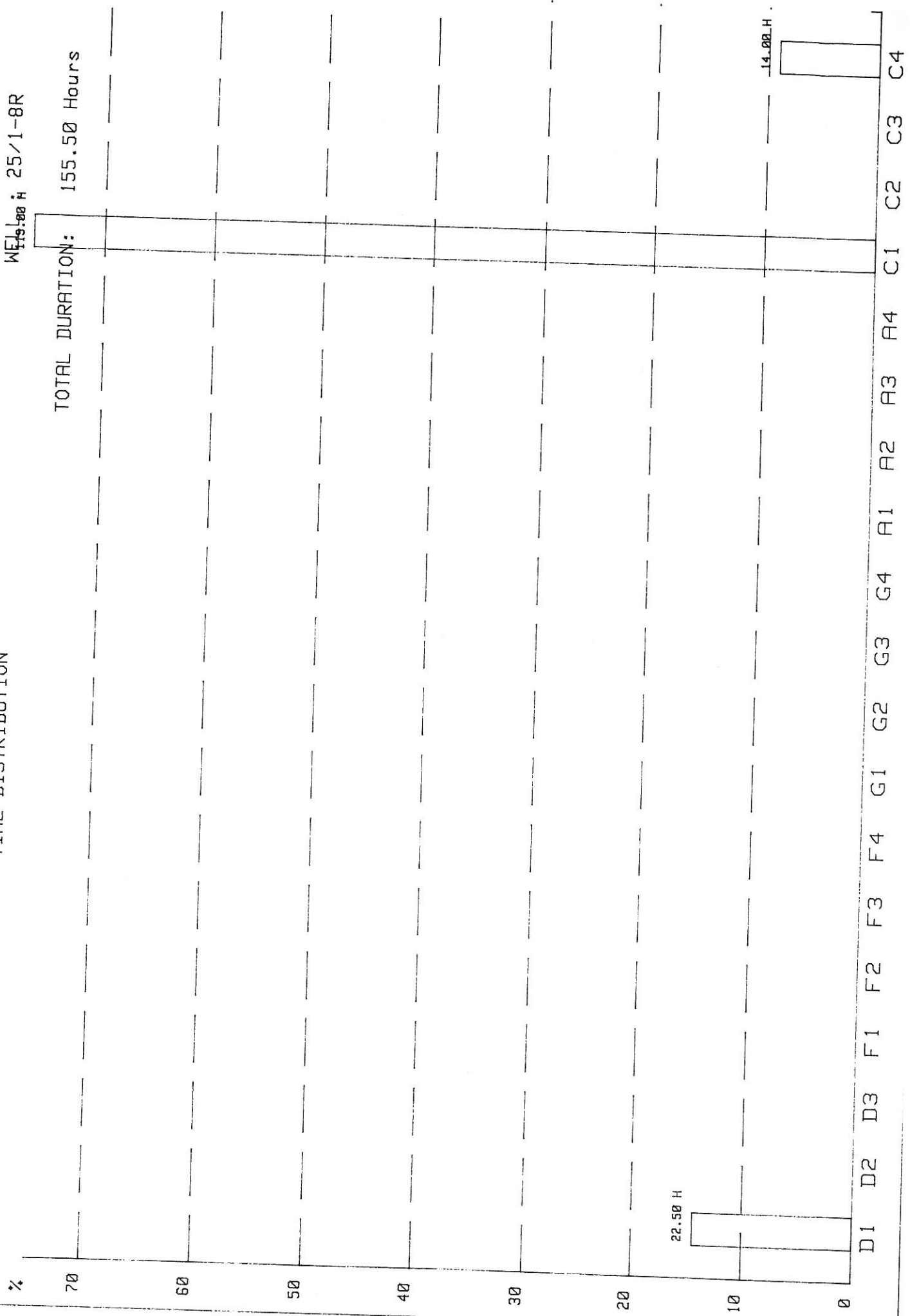
6. TIME DISTRIBUTION AND UNPRODUCTIVE TIME SUMMARY

F3E

TIME DISTRIBUTION

WEL 25/1-8R
179.00 H

TOTAL DURATION: 155.50 Hours



22.50 H

14.00 H

DATE : 890912

F3E'

UNPRODUCTIVE TIME SUMMARY

WELL : 25/1-8R

OPERATIONS IN PROGRESS	DURATION ↓	REASONS ----->	STICKING FISHING		LOSSES, KICKS MUD TREATMENT		WAITING ON WEATHER		WAITING: OTHER	
			NB.	DURATION	NB.	DURATION	NB.	DURATION	NB.	DURATION
MOVING (D2 - D3)		LESS THAN 24H								
		FROM 1 TO 5 DAYS								
		MORE THAN 5 DAYS								
		TOTAL----->								
DRILLING, CASING FORMATION SURVEYS (A1 - A2 - A3 - A4)		LESS THAN 24H								
		FROM 1 TO 5 DAYS								
		MORE THAN 5 DAYS								
		TOTAL----->								
COMPLETION (C3 - C4)		LESS THAN 24H							2	14.
		FROM 1 TO 5 DAYS								
		MORE THAN 5 DAYS								
		TOTAL----->								14.
TOTAL----->										14.
TOTAL DURATION OF INTERRUPTIONS----->										14.
			DURING MOVING							
			DURING DRILLING, CASING OR FORMATION SURVEYS							
			DURING COMPLETION AND PLUGGING						14.	
			TOTAL IN HOURS----->						14.	
			TOTAL IN DAYS----->						.58	

7. WELL 25/1-8R RESERVOIR RESULTS

- 7.1 A TDT-log recorded on the 10th of April 1989 showed no water rise compared with the measurements of May 1988.

8. WELL STATUS AFTER RE-ENTRY OPERATIONS (No. 3)

The re-entry operations have been performed with the S/S WEST VANGUARD from 00:00 hrs the 01.04.89 to 21:00 hrs the 06.04.89.

The 25/1-8 R remote control well is temporary abandonment by means of a 7" bridge plug Baker N1 3BB set at 370m RKB.*

At 13 5/8" diverless corrosion cap (Vetco design No. 112784) is installed on the 13 5/8" SG1 housing. (No wear bushing in the wellhead.)

The protection cage has been re-run and locked on the PGB.

The four guide posts were recovered.

A Simrad transponder Frequency code "X" 25188 HZ is installed on the protection cage.

* Bridge plug setting depth 370m is corrected to RKB/MSL = 25m (WEST VANGUARD RKB/MSL = 22m.)

Note: The site was left with a marking buoy (with spring buoy) installed 100 meters east from well location 25/1-8R.

WELL COMPLETION STATUS AFTER RE-ENTRY No. 3

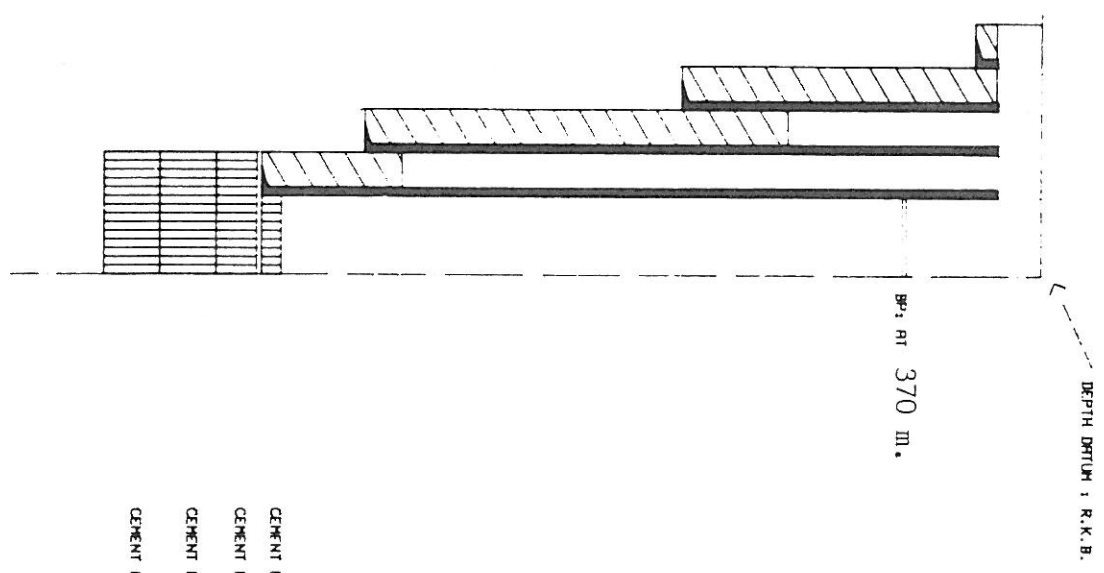
WELL: 25/1-8 R

INITIAL WORK : 487
 CEMENT : 387
 -DEPTH : 188.0 M
 -STOP DEPTH : 187.5 M
 -CEMENT TOP : 127.0 M

INITIAL WORK : 177.2
 CEMENT : 137.3 M
 -DEPTH : 183.0 M
 -STOP DEPTH : 105.0 M
 -CEMENT TOP : 127.0 M

INITIAL WORK : 177.4
 CEMENT : 97.0 M
 -DEPTH : 192.0 M
 -STOP DEPTH : 191.0 M
 -CEMENT TOP : 715.0 M

INITIAL WORK : 471.2
 CEMENT : 123.1 M
 -DEPTH : 2650.0 M
 -STOP DEPTH : 2201.5 M
 -CEMENT TOP : 1885.0 M



CEMENT PLUG: FROM 2145.5 M TO 2201.5 M
 CEMENT PLUG: FROM 2215.5 M TO 2330.0 M
 CEMENT PLUG: FROM 2330.0 M TO 2490.0 M
 CEMENT PLUG: FROM 2490.0 M TO 2650.0 M