ESSO EXPLORATION AND PRODUCTION

NORWAY INC.

15/6-6

FINAL WELL REPORT

ESSO PROPRIETARY

C.

ESSO EXPLORATION INC.

P. O. BOX 146 • HOUSTON, TEXAS 77001

August 31, 1982

Esso Exploration & Production Norway, Inc.
P. O. Box 560
4001 Stavanger, Norway

Attention: Mr. A. N. Gist

Subject: 15/6-6 Final Well Report

Gentlemen:

Enclosed are six copies of the 15/6-6 Final Well Report. These copies of the Final Well Report are provided for your use and distribution to the NPD in accordance with agreed upon procedures.

The 15/6-6 well was spudded on 1 April 1982, drilled to a total depth of 3760 meters, production tested and abandoned in 70.57 days. The final well cost is estimated to be 12841.4 KUSD. This cost is 1656.7 KUSD under the original dry hole estimate. The production test indicated significant accumulations of gas and condensate. Abandonment was completed on 9 June 1982, and the rig was moved on to the next location.

Sincerely,

Robert C. Jenkins

R. C. Jenkins
Drilling Technology Manager

EMK/kaj
Enclosure

A5-EMK

ESSO EXPLORATION AND PRODUCTION NORWAY INC.

15/6-6

FINAL WELL REPORT

Esso Proprietary
Prepared by: E. M. Kocian
August 1982

A8-2147

APPROVAL

The 15/6-6 Final Well Report has been reviewed and is approved.

Robert C. Jenkins

R. C. Jenkins
Drilling Technology Manager

9-1-82

Date

A29-2147

WELL 15/6-6

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FINAL WELL REPORT

WELL 15/6-6

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1. OPERATIONS SUMMARY

1.1 Overview

Well 15/6-6 was located in the Sleipner Field at latitude 01°44'53.3" and longitude 58°31'14.7"N. The well was drilled by the semi-submersible Glomar Biscay II.

The principal objective of the well was to evaluate a gas bearing Jurassic sandstone known as the Hugin formation.

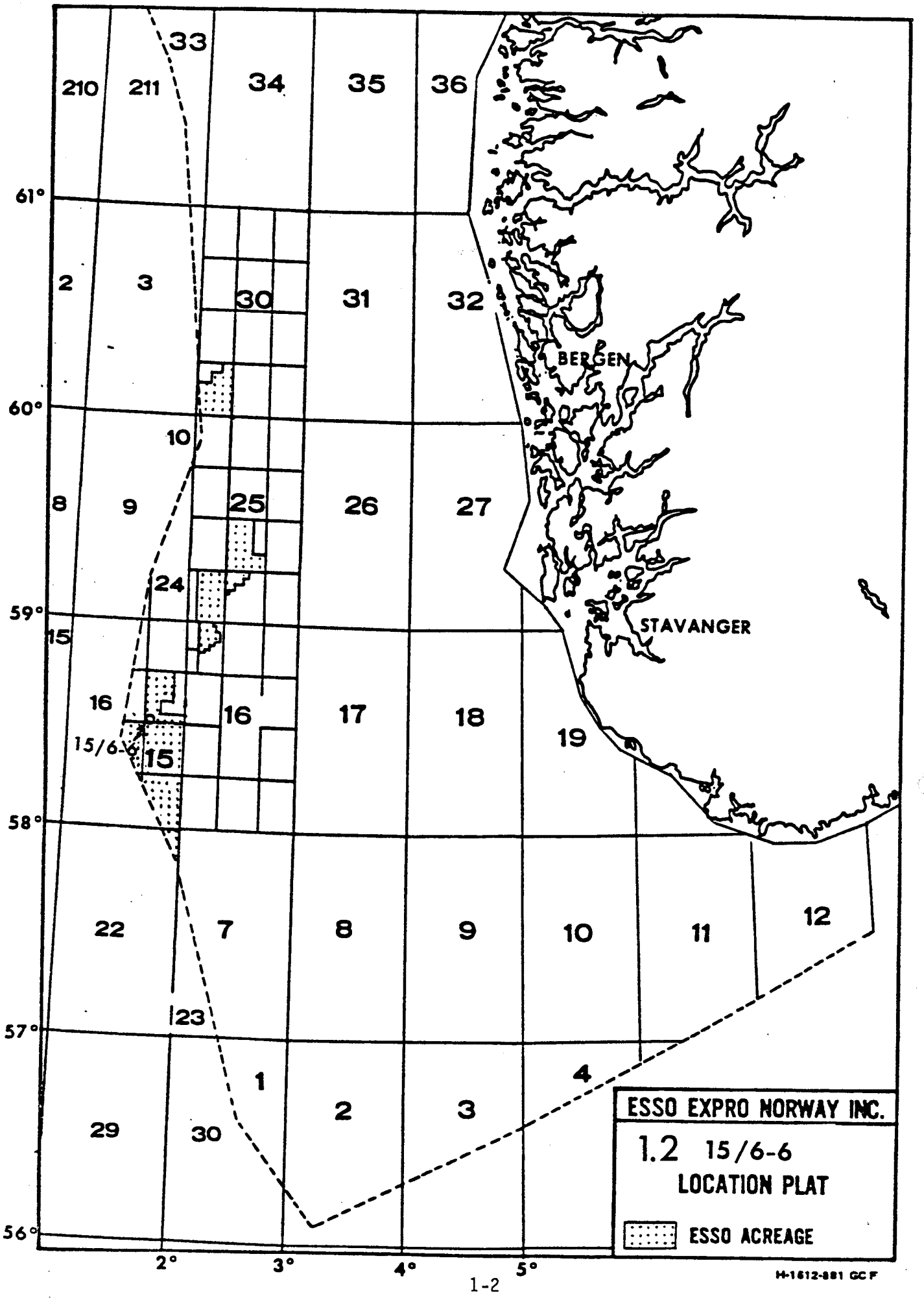
The Glomar Biscay II arrived at the 15/6-6 location at 0545 hours 31 March 1982 and the well was spudded at 0215 hours 1 April. The 36" hole was drilled to 197 m where 30" casing was set at 196 m. The 26" hole was drilled to 465 m and 20" casing was set at 447 m. After the BOP stack was run, a 17-1/2" hole was drilled to 1218 m and the 13-3/8" casing was set at 1202 m. A 12-1/4" hole was drilled to 2794 m, then 9-5/8" casing was set at 2779 m. An 8-1/2" hole was then drilled to TD at 3760 m and 7" casing was run from 3686 m to surface.

One zone was production tested where reservoir data indicated significant accumulations of gas and condensate.

The well was completed in 70.57 days with a total downtime of 12.64 days (17.91% of total time). The main causes of downtime were WOW, leaking seal assemblies (9-5/8" and 7") and ledges in the 36" hole.

The estimated final well cost was 12841.4 KUSD for an average of 182.0 KUSD/day.

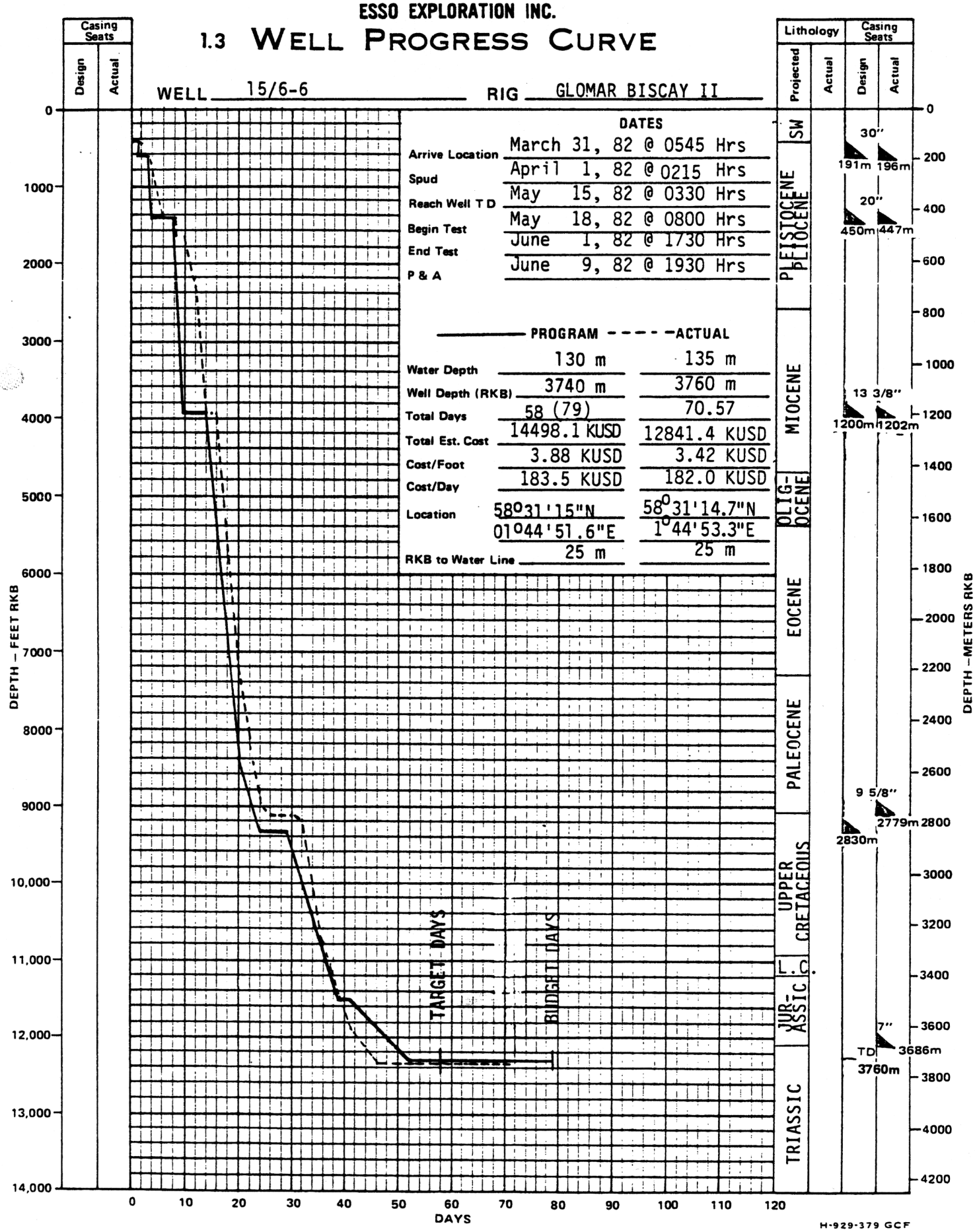
The rig was moved to location 16/7-3 at 1930 hours 9 June 1982.


ESSO EXPRO NORWAY INC.
1.2 15/6-6
LOCATION PLAT
ESSO ACREAGE
BERGEN
STAVANGER
15/6-6
61°
60°
59°
58°
57°
56°
2°
3°
4°
5°
H-1612-881 GCF

ESSO EXPLORATION INC.

1.3 WELL PROGRESS CURVE

WELL 15/6-6 RIG GLOMAR BISCAY II



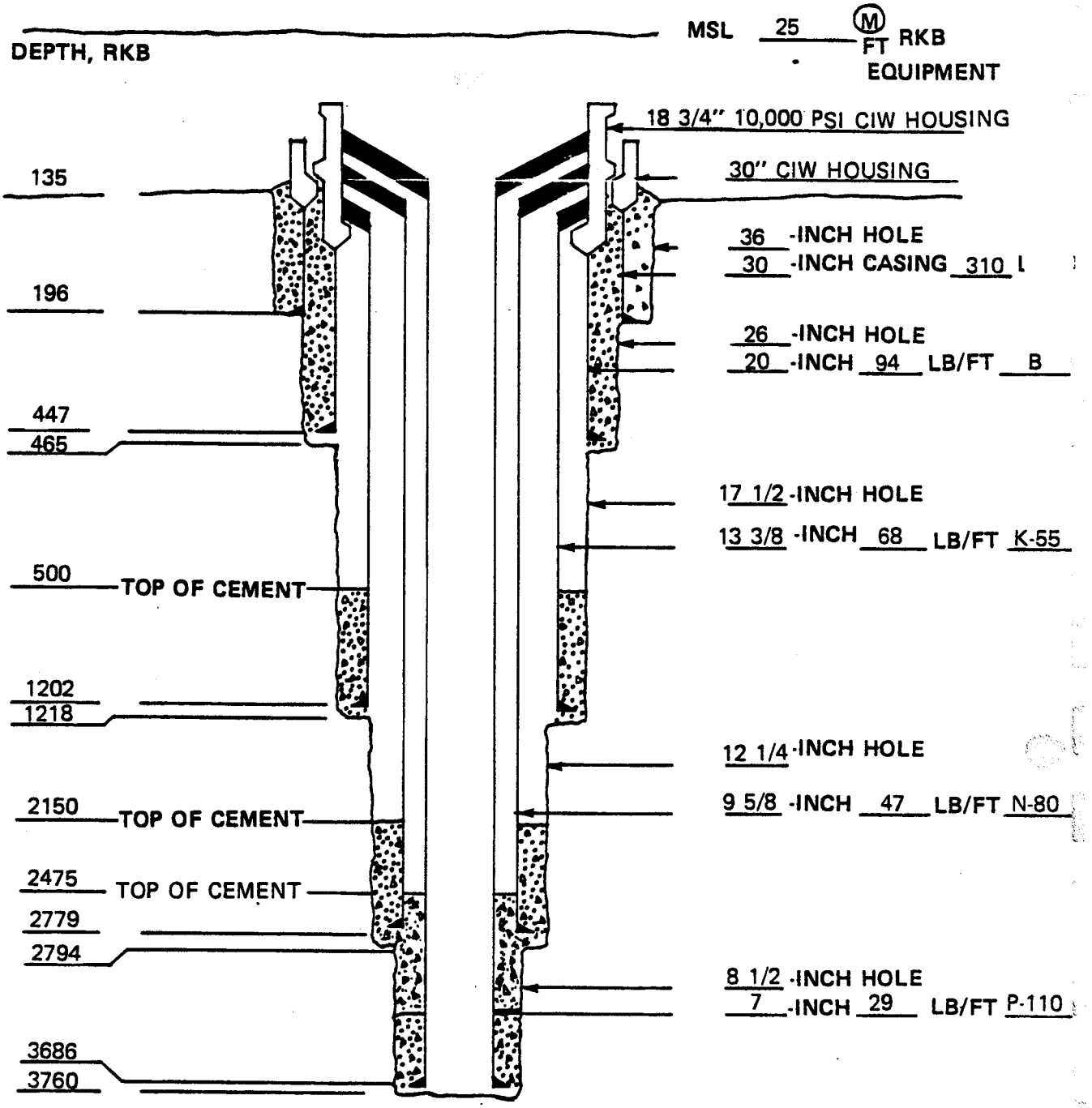
DATES	
Arrive Location	March 31, 82 @ 0545 Hrs
Spud	April 1, 82 @ 0215 Hrs
Reach Well T D	May 15, 82 @ 0330 Hrs
Begin Test	May 18, 82 @ 0800 Hrs
End Test	June 1, 82 @ 1730 Hrs
P & A	June 9, 82 @ 1930 Hrs

	PROGRAM	ACTUAL
Water Depth	130 m	135 m
Well Depth (RKB)	3740 m	3760 m
Total Days	58 (79)	70.57
Total Est. Cost	14498.1 KUSD	12841.4 KUSD
Cost/Foot	3.88 KUSD	3.42 KUSD
Cost/Day	183.5 KUSD	182.0 KUSD
Location	58°31'15"N 01°44'51.6"E	58°31'14.7"N 1°44'53.3"E
RKB to Water Line	25 m	25 m

H-929-379 GCF

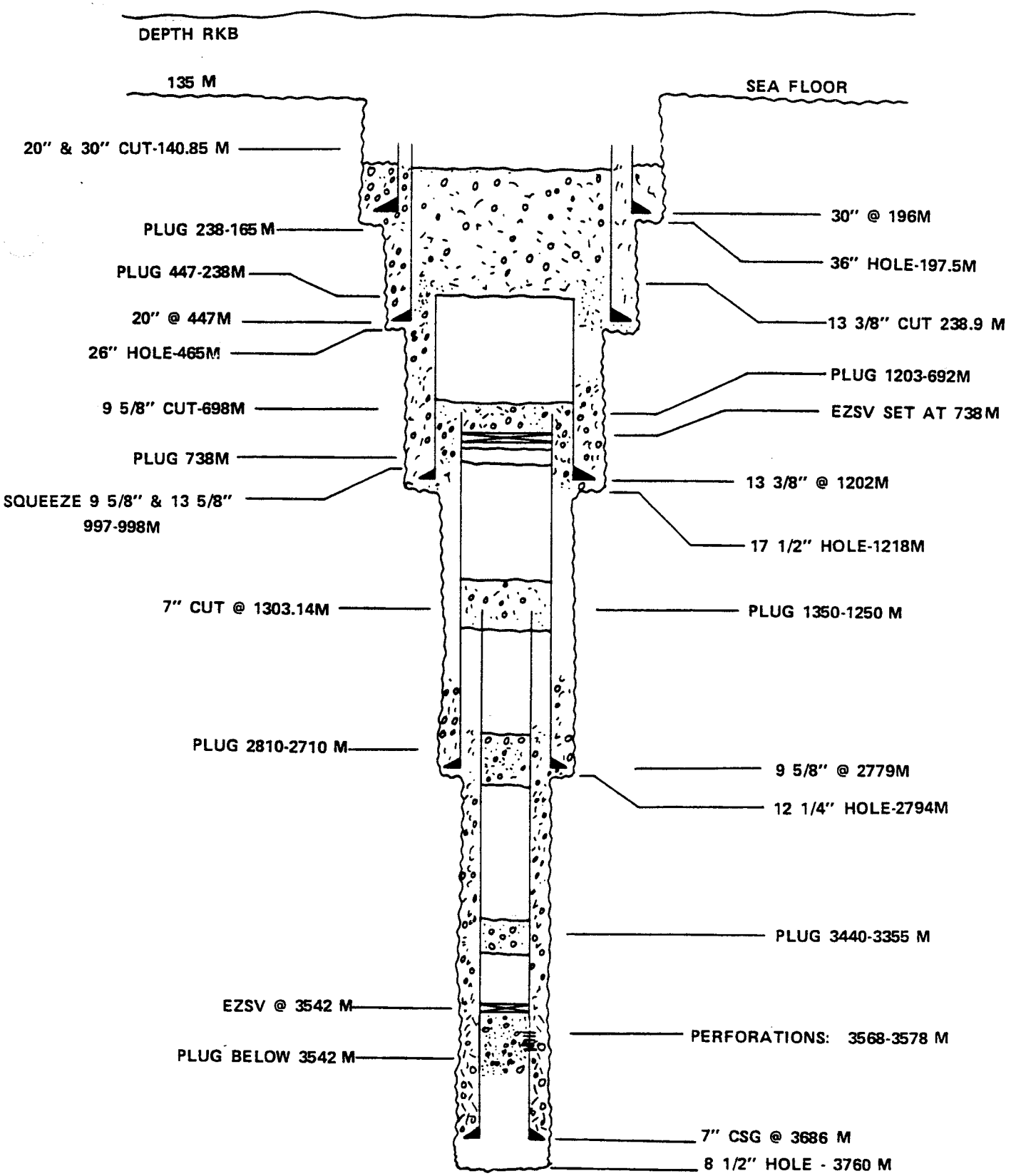
WELL 15/6-6

1.4 WELLBORE SCHEMATIC



WELL 15/6-6

1.5 ABANDONMENT SCHEMATIC



4 H-1915-882 GUM

1.6 Personnel (Esso Exploration Inc.)

The following personnel participated in the drilling of well 15/6-6:

Operations Managers:	J. Homer/R. Hicks
Supervising Engineer:	R. Bell
Operations Superintendents:	D. Stickle
	D. McClean/C. W. Haston
Operations Supervisors:	P. Rogers
	J. Willrodt
	R. Parish
	B. Smith
Operations Technicians:	E. Bethke
	B. Carpenter
Drilling Engineers:	J. Monus
	E. Kocian
	T. Upton
	G. Wulf
	A. Romero
	B. Dixon

1.7 Personnel (Esso Expro Norway)

The following personnel participated in the drilling of well 15/6-6:

Operations Manager:	A. Gist
Regulatory Coordinator:	T. Skaaren
Accounting:	P. Svalland
Warehouse:	L. Rasmussen
	P. Berge
	T. Tobiason
Geology:	G. Zeebregts
Drilling Engineer:	P. Petersen
Services:	H. Bjelland
Reservoir Engineers:	L. Kollboth
	S. Haaland

1.8 Contractors

The following contractors were involved in drilling well 15/6-6:

Rig:	Glomar Biscay II
Mud Logging:	Gearhardt Geodata
Mud Engineering:	Norsk Petroleum Services
Cement:	Halliburton
Electric Logging:	Dresser Atlas
Testing:	Halliburton
	Otis
	Sperry Sun
Positioning:	Decca
Helicopter:	Helikopter Services
Workboats:	Siddis Pilot
	Sandtor
	Frank Viking
	Ragna Viking
Standby Boats:	Alcor
Casing Crew:	Weatherford-Lamb
Coring:	Scan-Core
Turbodrilling:	Hunting Drilling

BOP's:	Cameron
	Hydril
Wellheads:	Cameron
Casing Cutter:	A-1
DP/Riser Inspection:	Scan Test
Subsea Services:	Scan-Dive

Other:

Tubing Testing	Oglaend Oil Services

SECTION TWO

GEOLOGY

2.1 Geological Summary

The 15/6-6 well was drilled to test the northern extension of the Middle Jurassic Hugin Formation, provide needed structural control and establish a gas/water contact for the northeastern flank of the Alpha Structure.

The gas bearing Hugin Formation was encountered at 3563 m (-3538 m) and had a gross thickness of 58 m.

The gas/water contact was found at 3607 m (-3582 m) which gives a gross gas interval of 44 m.

2.2 Logging Summary - 15/6-6

Log	Depths (m)	Casing Shoe on Log (m)	Total Depth Logs (m)
Combination Induction-Electrical BHC Acoustic Log with GR and SP and Caliper:			
Run 1A	190 - 462	196.4	463.8
Run 3B	386 - 1200	448.5	1201.0
Run 5C	1150 - 2773	1202.8	2775.1
Run 7D	2720 - 3753	2778.0	3755.0
Dual Latero Log, Micro Latero Log:			
Run 7A	3500 - 3750	Not Logged	3751.0
Densilog-Neutron-GR:			
Run 5A	1180 - 2781	1202.0	2782.0
Run 7B	2763 - 3754	2777.0	3754.9
Diplog:			
Run	2773 - 3749.2	2777.5	3750.0
Acoustic Cement Bond Log:			
Run 8A	2446 - 3630		
Caliper Log:			
Run 2A	160 - 424	196.5	Not Reached
Temperature Log:			
Run 4A	195 - 1174		1174.0
Run 6B	1500 - 2754		2754.0
Formation Multi Tester:			
Run 7A	3569 - 3716		
Sidewall Cores:			
Run 7A	2809 - 3750		
Prolog Field Analysis:	3547 - 3630		
Logging Service Company:	Dresser Atlas		
Vertical Seismic Profile:			
Run 1	1800 - 3748	2778.0	3755.0
Logging Service Company:	Schlumberger		

2.3 Core Descriptions

Core No. 1 Cored 18.5 m 100% Recovery

3591 m to 3609.5 m Sandstone

Core No. 2 Cored 16.0 m 100% Recovery

3609.5 m to 3622 m Sandstone, only individual grains apparent. No shows.

Core No. 3 Cored 18.9 m 99.5% Recovery

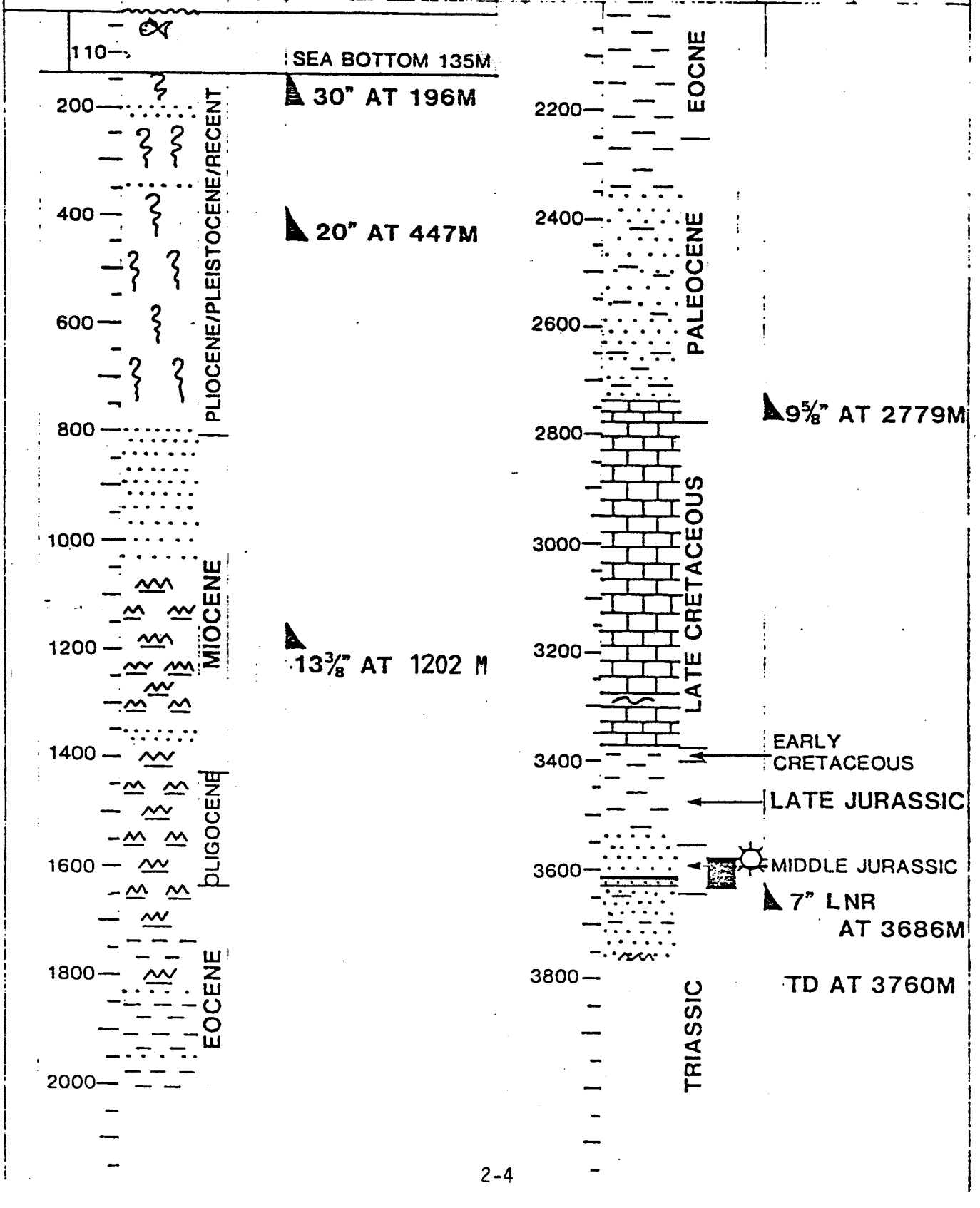
3625.5 m to 3644.5 m Sandstone, shale & coal

TABLE III

2.4

WELL SUMMARY CHART

DEPTH BELOW KB (M)	LITHOLOGY	AGE	CORES	SHOWS	CASING	DESCRIPTION REMARKS
						COMPANY: EEPN; WELL: 15/6-6; LAT: 58° 31' 14.7" N; LONG: 01° 44' 53.3 "E; W.D.: 110; ELEV.: 25



3. RIG TIME DISTRIBUTION

3.1 Summary

The 15/6-6 well was drilled, production tested and abandoned in 70.57 days. An additional .15 days were required to move the rig from well 16/7-2. Productive operations were conducted during 86.52% of the dry hole operational period excluding moving. Productive operations were conducted during 72.22% of the production testing period.

The time distribution shows a total non-productive time of 303.25 hours (17.91% of total time). The main causes of non-productive time were:

A) 28.25 hours - Ledges and/or boulders in the 36" hole necessitated two reaming trips before 30" casing could be run to bottom.

B) 73.7 hours - WOW. Heave of 14-20 feet. Could not run BOP stack.

C) 47.0 hours - Leak in the 9-5/8" seal assembly caused multiple displacement problems during the P & A.

D) 20 hours - Leak in the 7" seal assembly resulted in failure to test the stack and subsequent downtime required to pull and replace the seal assembly.

3.2

RIG TIME DISTRIBUTION

WELL 15/6-6

RIG GLOMAR BISCAY II

	HOURS	DAYS	%
I. RIG MOVE & MOORING			
1. MOVING*	3.5	.15	0.21
2. MOORING	30.75	1.28	1.81
SUBTOTAL	34.25	1.43	2.02
II. DRILLING OPERATIONS			
3. DRILLING	382.5	15.94	22.59
4. HOLE OPENING	0.00	0.00	0.00
5. UNDERREAMING	18.75	0.78	1.11
6. TRIPS	111.15	4.65	6.59
7. CSG; CMT; WOC	159.50	6.65	9.42
8. SUBSEA EQUIPMENT	32.25	1.34	1.90
9. ABNORMAL PRESSURE DETECTION	0.00	0.00	0.00
10. ROUTINE CIRCULATING & CONDITIONING	29.50	1.23	1.74
11. REAMING	3.00	0.13	0.18
12. SURVEY	39.00	1.63	2.31
13. PLUG & ABANDON	61.75	2.57	3.64
14. EQUIPMENT REMOVAL & SALVAGE	56.50	2.35	3.33
15. BLOWOUT PREVENTION ACTIVITIES	25.75	1.07	1.52
16. OTHER	7.50	0.31	0.44
SUBTOTAL	927.50	38.65	54.77
III. FORMATION EVALUATION			
18. CORING	61.25	2.55	3.61
19. LOGGING	89.50	3.73	5.29
20. CIRCULATING SAMPLES	4.75	0.20	0.28
21. WIRELINE FORMATION TESTS	6.75	0.28	0.40
22. OTHER	0.00	0.00	0.00
SUBTOTAL	162.25	6.76	9.58
IV. NON-PRODUCTIVE			
24. RIG REPAIRS	10.00	0.42	0.60
25. FISHING	0.00	0.00	0.00
26. SUBSEA & SURFACE BOP EQUIP. REPAIRS	12.00	0.50	0.71
27. LOST CIRCULATION	0.00	0.00	0.00
28. WELL CONTROL	0.00	0.00	0.00
29. HOLE INSTABILITY	62.75	2.61	3.70
30. FORMATION EVALUATION	6.50	0.27	0.38
31. MOORING	0.00	0.00	0.00
32. WAITING ON WEATHER	73.50	3.06	4.34
33. ANCILLORY CONTRACTOR'S REPAIRS	12.25	0.51	0.72
34. CASING & WELLHEAD	47.00	1.96	2.78
35. DRILL STRING	0.00	0.00	0.00
36. UNFORSEEN EVENTS	0.00	0.00	0.00
37. OTHER WAITING	0.00	0.00	0.00
38. OTHER	4.25	0.18	0.26
SUBTOTAL	228.25	9.51	13.48
V. PRODUCTION TESTING			
40. PRODUCTION TESTING	270.00	11.25	15.94
41. PRODUCTION TESTING DOWNTIME	75.00	3.13	4.43
SUBTOTAL	345.00	14.38	20.38
GRAND TOTAL	1693.75	70.57	100.00

(1) *Moving is presented only for sake of completness and is not included in the totals or calculations so that an even basis for drilling distribution between locations may be obtained.

(2) Numbered functions correspond to the Drilling Time Distribution Categories and Definition codes.

H-782-478 WWE

3.3 NON-PRODUCTIVE TIME SUMMARY

3.3.1 Non-Testing Operations

	HOURS	% NP TIME	% TOTAL WELL TIME
RIG REPAIRS			
- Install new rollers on motion compensator guide frame	1-3/4	0.77	0.10
- Repair motion compensator	1/2	0.22	0.03
- Replace broken kelly drive bushing lock-down pin	3/4	0.33	0.04
- Repair and modify stabbing board	2-1/4	0.99	0.13
- Repair hinge arm on soot slips and replaced slip segments	2	0.88	0.11
- Repair hydraulic hose to compensator	1/4	0.11	0.01
- Change out washpipe and packing	1-1/4	0.55	0.07
- Replace module seals in #1 pump	1-1/4	0.55	0.07
TOTAL	10.0	4.38	0.60

FISHING

TOTAL			

NON-TESTING OPERATIONS (CONT.)

SUBSEA/BOP	HOURS	% NP TIME	% TOTAL WELL TIME
- Airline to riser pump valve repaired	1	0.47	0.06
- Pin connector landed at an angle so rig had to be ballasted to connect	5	2.19	0.30
- Pin connector box lock ring would not release from riser joint	2-3/4	1.20	0.16
- Blue pod messenger line parted at spool while running BOP	2-1/2	1.10	0.15
- Could not initially pull 9-5/8" seal assembly through Hydril	3/4	0.33	0.04
TOTAL	12.0	5.26	0.71

NON-TESTING OPERATIONS (CONT.)

	HOURS	% NP TIME	% TOTAL WELL TIME
LOST CIRCULATION			
TOTAL			
WELL CONTROL			
TOTAL			
HOLE INSTABILITY			
- Ledge or rock in 36" hole had to be reamed twice to land 30" csg.	28-1/4	12.38	1.67
- Ledges in 26" hole would not allow caliper to pass so hole was reamed	9-3/4	4.27	0.58
- Tight spots in 17-1/2" hole	6-1/2	2.85	0.38
- Ream tight spot 1192-1218 m	3/4	0.32	0.04
- Hole packed off with lost returns	1-1/4	0.55	0.07
- Stuck pipe on connection at 1627 m	6-3/4	2.96	0.40
- Tight spots in 12-1/4 hole 2477-2794	9-1/2	4.16	0.56
TOTAL	62.75	27.49	3.70

NON-TESTING OPERATIONS (CONT.)

FORMATION EVALUATION	HOURS	% NP TIME	% TOTAL WELL TIME
- Failure of acoustic logging tool so changed out	1-1/2	0.66	0.09
- CDL/CNL logging tool failure	2-3/4	1.20	0.16
- Lost hydraulic pressure on MFT	2-1/4	0.99	0.13
TOTAL	6-1/2	2.85	0.38

MOORING/ASK			
TOTAL			

WAITING ON WEATHER

WOW to run BOP

MAXIMUM RIG MOTION:

ROLL 2.5

PITCH 3.0

HEAVE 18.0

MAXIMUM WEATHER:

WIND N58

SEA N28

SWELL N36

	41-1/2	18.18	2.45

NON-TESTING OPERATIONS

	HOURS	% NP TIME	% TOTAL WELL TIM
WAITING ON WEATHER (CONT.)			
WOW to drill out 20" casing MAXIMUM RIG MOTION: ROLL 2.1 PITCH 2.5 HEAVE 14.0 MAXIMUM WEATHER: WIND N 60 SEA NNW 26 SWELL N 30	7	3.07	0.41
WOW - Well depth 2805 m, 8-1/2" hole MAXIMUM RIG MOTION: ROLL 2.0 PITCH 3.5 HEAVE 20 MAXIMUM WEATHER: WIND W 60 SEA W 22 SWELL W 30	25	10.95	1.48
MAXIMUM RIG MOTION: ROLL PITCH HEAVE MAXIMUM WEATHER: WIND SEA SWELL			
TOTAL	73.5	32.20	4.34

NON-TESTING OPERATIONS (CONT.)

	HOURS	% NP TIME	% TOTAL WELL TIME
ANCILLARY CONT. REPAIR			
- No initial indication of perfs in 7" casing during P & A. Had to reperforate	2.5	1.10	0.15
- First attempt to cut 7" csg failed. Recut at same depth	6.5	2.85	0.38
- Howco cement line plugged from surge pod to recirculator	.25	0.11	0.01
- No initial indication of perfs in 9-5/8"	3.0	1.31	0.18
TOTAL	12.25	5.37	0.72
CASING & WELLHEAD			
- Leak in 9-5/8" seal assembly caused multiple displacement problems during P & A	47.0	20.59	2.78
TOTAL	47.0	20.59	2.78

NON-TESTING OPERATIONS (CONT.)

	HOURS	%NP TIME	% TOTAL WELL TIM
DRILL STRING			
TOTAL			
UNFORSEEN EVENTS			
TOTAL			
OTHER WAITING			
TOTAL			
OTHER			
- Survey misrun	1	0.45	0.06
- Survey misrun	2	0.88	0.12
- Survey misrun	1.25	0.55	0.07
TOTAL	4.25	1.86	0.26
TOTAL NON-TESTING OPERATIONS	228.25	100.00	13.48

3.3.2 PRODUCTION TESTING

	HOURS	% NP TIME	% TOTAL WELL TIME
RIG REPAIRS			
Repaired ruptured salt water cooling line to main motors	4.0	5.33	0.31
TOTAL	4.0	5.33	0.31
FISHING			
TOTAL			
LOST CIRCULATION			
TOTAL			

PRODUCTION TESTING (CONT.)

	HOURS	% NP TIME	% TOTAL WELL TIME
SUBSEA/BOP			
- Leak around AX-gasket on stump test	5	6.67	0.29
- Identify crossed hydraulic lines on blue pod	5.25	7.00	0.33
- Plugged control line in blue pod hose bundle	3	4.00	0.18
TOTAL	13.25	17.67	0.78
CASING/WELLHEAD/LINER			
- Could not seat cup tester or boll weavil in 7" seal assembly	13.0	17.33	0.76
- Fill crater around wellhead w/cement	6.5	8.67	0.38
- Leaking 7" seal assembly	20.0	26.67	1.18
TOTAL	39.5	52.67	2.33

PRODUCTION TESTING (CONT.)

MOORING/ASK	HOURS	% NP TIME	% TOTA WELL TIME
TOTAL			

THIRD PARTY REPAIRS	HOURS	% NP TIME	% TOTA WELL TIME
- Repair low torque gauge on Howco unit	1.0	1.33	0.06
- Leaks in Loomis tubing tester	5.25	7.00	0.33
- EZSV failed to set	3.0	4.00	0.18
TOTAL	9.25	12.33	0.55

UNFORSEEN EVENTS	HOURS	% NP TIME	% TOTA WELL TIME
TOTAL			

OTHER	HOURS	% NP TIME	% TOTA WELL TIME
- Evaluating data from pressure gauges	1.25	1.67	0.07
TOTAL	1.25	1.67	0.07

PRODUCTION TESTING (CONT.)

TEST STRING	HOURS	% NP TIME	% TOTAL WELL TIM
- Leak in slip jts during surface tests	6.50	8.67	0.38
- Chiksan leaks during final build-up test	1.25	1.67	0.07
TOTAL	7.75	10.33	0.46
TOTAL PRODUCTION TESTING	75.0	100.00	4.43
TOTAL WELL	303.25	100.00	17.91

WELL 15/6-6
WATER DEPTH 135 M
TOTAL DEPTH 3760 M
TOTAL DAYS 70.57

3.4 DAILY DRILLING REPORT

RIG TIME DISTRIBUTION

DATE	DEPTH	MOVE-MOOR: MOVING (1)	MOVE-MOOR: MOORING (2)	DRILLING OPERATION: DRILLING (3)	HOLE OPEN (4)	UNDERREAM (5)	TRIPS (6)	CSG. CMT. WOC (7)	SUBSEA EQUIPMENT (8)	AP DETECTION (9)	ROUTINE C & C (10)	REAM (11)	SURVEY (12)	P & A (13)	EQUIP. REMOVE & SAL. (14)	BOP ACTIVITIES (15)	OTHER (16)	REMARKS (17)	FORMATION EVALUATION: CORING (18)	LOGGING (19)	CIR. SAMPLES (20)	W/L FORM. TEST (21)	OTHER (22)	REMARKS (23)	NON-PRODUCTIVE: RIG REPAIRS (24)	FISHING (25)	SUBSEA/BOP (26)	LOST CIRC. (27)	WELL CONTROL (28)	HOLE INSTAB. (29)	FORM EVAL (30)	MOORING/ASK (31)	WOW (32)	ANCILLARY CNTR. REPAIR (33)	CASING & WELL HEAD (34)	DRILL STRING (35)	UNFORSEEN EVENTS (36)	OTHER WAITING (37)	OTHER (38)	REMARKS (39)	PROD. TEST: PRODUCTION TESTING (40)	PROD. TESTING DOWNTIME (41)
MARCH 31	–	3½	15				1½																																			
APRIL 1	197.5			8½			4¼	8																	1¾															REPAIR MOTION COMPENSATOR	
2	197.5																													3¼										HEADING TIGHT 36" HOLE	
3	203.0						2	11	9																					24										" "	
4	465.0			9½			4¼				½		2			¼				2½							1			1										RUNNING 36"	
5	465.0					15¼	4¾													4							5													DRILL 12¼ PILOT UNDERREAM TO 36"	
6	465.0					3½	2	4½	1½		1¾					1														9¾											
7	465.0							15	6¼																		2¾														
8	465.0								2½																								21½							RUN 26" CSG	
9	465.0								3																															WOW	
10	465.0						3½	3½	10							5½											1						30								WOW	
11	699.0			9			½	4			2½		¼			¾											1½														RUN STOCK	
12	1140.0			16¾			¼				4¼		2¾																				7								DRLG 17½ HOLE	
13	1218.0			2½			5	2			3¼		½							4¼																					DRLG 17½ HOLE	
14	1218.0							2¾																						6½											
15	1218.0						3½	19½								½														3¼											
16	1505.0			15¾				2¾					3¼												½															REPAIR MOTION COMPENSATOR	
17	1723.0			13¼									2																	1¼								1		CLEAN MISCELL	
																														6¾								2		" "	
SUB TOTAL		3.5	15.0	75.25		18.25	51.5	93.5	32.25		12.25		10.75			8.0				10.75					2.25		11.25			53.25			42.5					3.0				
CUMULATIVE																																										

WELL 15/6-6
WATER DEPTH 135 M
TOTAL DEPTH 3760 M
TOTAL DAYS 90.57

DAILY DRILLING REPORT

RIG TIME DISTRIBUTION

DATE	DEPTH	MOVE-MOOR		DRILLING OPERATION															FORMATION EVALUATION						NON-PRODUCTIVE																PROD. TEST	
		MOVING	MOORING	DRILLING	HOLE OPEN	UNDERREAM	TRIPS	CSG. CMT. WOC	SUBSEA EQUIPMENT	AP DETECTION	ROUTINE C & C	REAM	SURVEY	P & A	EQUIP. REMOVE & SAL.	BOP ACTIVITIES	OTHER	REMARKS	CORING	LOGGING	CIR. SAMPLES	W/L FORM. TEST	OTHER	REMARKS	RIG REPAIRS	FISHING	SUBSEA/BOP	LOST CIRC.	WELL CONTROL	HOLE INSTAB.	FORM EVAL	MOORING/ASK	WOW	ANCILLARY CNTR. REPAIR	CASING & WELL HEAD	DRILL STRING	UNFORSEEN EVENTS	OTHER WAITING	OTHER	REMARKS	PRODUCTION TESTING	PROD. TESTING DOWNTIME
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
APRIL 18	1877.0			10½			10¾				1		1¾																													
19	2194			18¼									3¾												3/4														1¼	SURVEY MISSED KELLY DRIVE		
20	2437			21¾									2¼																													
21	2477			4¼			11½				1¼		1				3/4	CUT & SLIP DRILL LINE												5¼										DRL + REAM 12¼" HOLE		
22	2650			17¼			4¼						1¾				1/4													½												
23	2707			16½			5½						½																	1½												
24	2753			14¾			8½						¼																	1												
25	2794			20½			2						1																	½										REAM 12¾" HOLE		
26	2794							2			4¼									15½										3/4	1½									REAM TO BTM.		
27	2794							22¼																	1¾																	
28	2794							21½																	2½															REPLACE STABILIZER BRD.		
29	2794							15¾			2½					5¾																										
30	2805			2¼			10	4½			4¾					1¼	1	CUT & SLIP DRILL LINE							1/4															COMPLETE CIRC BAR GROUND FREE PE 10. OVERLOAD		
MAY 1	2805						½																										23½									
2	2923			19			2½						1																				1½									
3	3053			21¾									1												1¼															REPAIRING MOUNTS SEALS #1 PUMP		
4	3188			22									2																													
5	3289			20¾									3¼																													
SUB TOTAL				209			55.5	66.0			13.75		19.5			7.0	2.0			15.5					6.5					9.5	1.5		25.0						1.25			
CUMULATIVE																																										

WELL 15/6-6
WATER DEPTH 135 m
TOTAL DEPTH 3760 m
TOTAL DAYS 70.57

DAILY DRILLING REPORT

RIG TIME DISTRIBUTION

DATE	DEPTH	MOVE-MOOR: MOVING	MOOR-ING	DRILLING OPERATION: DRILLING	HOLE OPEN	UNDERREAM	TRIPS	CSG. CMT. WOC	SUBSEA EQUIPMENT	AP DETECTION	ROUTINE C & C	REAM	SURVEY	P & A	EQUIP. REMOVE & SAL	BOP ACTIVITIES	OTHER	REMARKS	FORMATION EVALUATION: CORING	LOGGING	CIR. SAMPLES	W/L FORM. TEST	OTHER	REMARKS	NON-PRODUCTIVE: RIG REPAIRS	FISHING	SUBSEA/BOP	LOST CIRC.	WELL CONTROL	HOLE INSTAB.	FORM EVAL	MOORING/ASK	WOW	ANCILLARY CNTR. REPAIR	CASING & WELL HEAD	DRILL STRING	UNFORSEEN EVENTS	OTHER WAITING	OTHER	REMARKS	PROD. TEST: PRODUCTION TESTING	PROD. TESTING DOWNTIME
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
MAY 6	3318			5½			12¼					¼				6																										
7	3435			22½									1½																													
8	3551			21½									2½																													
9	3591			7½			5¼				3½		2						2¼		3½																					
10	3610																5	SLIPP CUT DRILL LINE	19																								
11	3627						½												23½																							
12	3645						2¾									4¾			16½																							
13	3681			17			3					2¾													1¼																	
14	3745			20¾									2								1¼																					
15	3760			3½			¾						¾							16¼											2¾											
16	3760																			24																						
17	3760																			15		6¾									2¼											
18	3760																			8																					16	
19	3760																																								24	
20	3760																																								24	
21	3760																																								24	
22	3760																																							LEAKING AD-BINT	16½	7½
23	3760																																							CMT AROUND WH	17	7
SUB TOTAL				98.25			24.5				3.5	3.0	8.75			10.75	5.0		61.25	63.25	4.75	6.75			1.25						5.0										121.5	14.5
CUMULATIVE																																										

WELL 15/6-6
WATER DEPTH 135 M
TOTAL DEPTH 3760 M
TOTAL DAYS 70.57

DAILY DRILLING REPORT

RIG TIME DISTRIBUTION

DATE	DEPTH	MOVE-MOOR: MOVING	MOVE-MOOR: MOORING	DRILLING OPERATION: DRILLING	HOLE OPEN	UNDERREAM	TRIPS	CSG. CMT. WOC	SUBSEA EQUIPMENT	AP DETECTION	ROUTINE C & C	REAM	SURVEY	P & A	EQUIP. REMOVE & SAL.	BOP ACTIVITIES	OTHER	REMARKS	FORMATION EVALUATION: CORING	LOGGING	CIR. SAMPLES	W/L FORM. TEST	OTHER	REMARKS	NON-PRODUCTIVE: RIG REPAIRS	FISHING	SUBSEA/BOP	LOST CIRC.	WELL CONTROL	HOLE INSTAB.	FORM EVAL	MOORING/ASK	WOW	ANCILLARY CNTR. REPAIR	CASING & WELL HEAD	DRILL STRING	UNFORSEEN EVENTS	OTHER WAITING	OTHER	REMARKS	PROD. TEST: PRODUCTION TESTING	PROD. TESTING DOWNTIME
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
MAY 24	3760																																							COULD NOT SET CLIP TESTER	10 3/4	13 3/4
25	3760																																							LEAKING SEAL ASSEMBLY	13	11
26	3760																																							PLUGGED TUBING LINE	7 1/4	16 3/4
27	3760																																							PULL 8" SEAL ASSEMBLY	16 1/2	7 1/2
28	3760																																							LEAK IN SLIP JOINTS	17 1/2	6 1/2
29	3760																																							TESTING	24	0
30	3760																																							LEAK IN CHICKSANS	22 3/4	1 1/4
31	3760																																								22 1/4	1 3/4
JUNE 1	3760													6 1/2			1/2																								14 1/2	2 1/2
2	3760													4	11																			9						HAD TO CUT DN CSG. TWICE		
3	3760													15 1/4	5 1/2																			3 1/4						FAILED TO PREP ON 1ST ATTEMPT		
4	3760													4 3/4																					19 1/4					DID NOT PLUG 9 5/8		
5	3760														5 3/4																				18 1/4					13 3/8 ANNULUS LEAK IN 9 5/8 SEAL ASSEMBLY		
6	3760													3 3/4	10												3/4								9 1/2							
7	3760													15 1/4	8 3/4																											
8	3760		1											7 1/2	15 1/2																											
9	3760		14 3/4											4 3/4																												
SUB TOTAL			15.25											61.25	56.5		.5										.75							12.25	47.0						148.5	60.5
CUMULATIVE		3.5	30.25	382.5	0.0	18.75	111.5	159.5	32.25	0.0	29.5	3.0	39.0	61.25	56.5	25.75	7.5		61.25	89.5	4.75	6.75			10.0		12.0			52.75	6.5		73.5	12.25	47.0				4.25		270.0	75.0

4. WELL COST ANALYSIS

4.1 Summary

The 15/6-6 well costs are estimated at 12841.4 KUSD or 1656.7 KUSD under budget. The dry hole AFE was budgeted on 79 days and the well was drilled, production tested and abandoned in 70.57 days. A breakdown of the estimated final well costs and a comparison with AFE figures is provided in Section 4.2. Most items have a decreased cost in comparison to the AFE estimate due to the well being completed ahead of budget time. Items which deserve special mention are:

1) Electric Logging - 99.6 KUSD over AFE due to low estimate on electric logging service charges.

2) Fixed Testing - 95.9 KUSD over AFE due to rental of additional Halliburton and Otis testing equipment and personnel not covered by dry hole AFE.

3) Velocity Survey - 39.4 KUSD over AFE due to Mob/Demob of a Schlumberger unit which had to be rigged up for the job. SSL had no available personnel to perform the job at the required time.

4) Cementing - 89.9 KUSD over AFE due to additional cement needed to set 7" casing, and plugs required during P & A operations.

5) Diving - 91.2 KUSD under AFE due to actual contract daily rate of 2090 USD/day vs 3025 USD/day budgeted.

6) Well Location - 77.0 KUSD under AFE due to site survey costs being covered under a separate AFE instead of on a individual well basis.

7) Materials and Supplies - 41.3 KUSD over AFE due to full string of 7" casing not budgeted for in AFE.

8) Mob/Demob - 77.7 KUSD over AFE due to seafloor cleanup charges no longer being charged on an individual well basis.

9) Other - 55.0 KUSD over AFE due to turbodrill rental charges not covered by AFE.

ESSO EXPLORATION INC.

4.2 FINAL WELL COST REPORT

REPORT BY E. M. Kocian

COUNTRY Norway

DATE 6-26-82

WELL 15/6-6

RIG Glomar Biscay II

MS	Total EEI-AFE	Est.Final Well Cost	Final Cost Vs.AFE	Acctg. Final	Acctg.Final Vs. AFE
1. RIG	7498.2	6688.4	809.8		
2. TRANSPORTATION					
Marine	1098.9	962.4	136.5		
Air - Helicopters	535.3	438.2	97.1		
Air - Fixed Wing					
Total Transportation	1634.2	1400.6	233.6		
3. LOGGING					
Mud Logging	90.9	81.3	9.6		
Electric Logging	923.8	1023.4	(99.6)		
Fixed Testing Costs	144.6	240.5	(95.9)		
Velocity Survey	15.0	54.4	(39.4)		
Total Logging	1174.3	1399.6	(225.3)		
4. MUD HANDLING	35.6	31.8	3.8		
5. CEMENTING	76.4	166.3	(89.9)		
6. DIVING	239.0	147.8	91.2		
7. WELL LOCATION	90.0	13.0	77.0		
8. MATERIALS AND SUPPLIES	1912.0	1953.5	(41.3)		
9. LAND FACILITIES	446.0	399.2	46.8		
10. SUPERVISION					
Direct (Rig/Venture Company)	282.4	252.8	29.6		
Distributed (Region/Headquarters)	79.0	70.7	8.3		
Total Supervision	361.4	323.5	37.9		
11. OTHER					
Mob/Demobilization	102.0	24.3	77.7		
Other	238.6	293.6	(55.0)		
Total Other	340.6	317.9	22.7		
CONTINGENCY	690.4	-0-	690.4		
Total Dry Hole	14498.1	12841.4	1656.7		
12. PRODUCTION TESTING (Days 14.38)					
Total Well Cost	14498.1	12841.4	1656.7		

STATISTICAL COST DATA	Total AFE	Est.Final Well Cost	Final Cost Vs.AFE	Acctg. Final	Acctg.Final Vs.AFE
Operating Days	79.00	70.57	8.43		
Footage Drilled	3740.00	3760.00	(20)		
Operating Cost Per/Day (Dry Hole)	183.50	182.23	1.27		
(Total)	183.50	182.00	1.50		
Operating Cost Per/M (Dry Hole)	3.88	2.72	1.16		
(Total)	3.88	3.42	0.46		

H-754-578 WWE

5. Conclusions and Recommendations

5.1 Drilling Operations

In the 36" hole, boulders and/or ledges prohibited the 30" casing from being run to bottom. Because this is a rare problem (first occurrence in 11 North Sea wells), it is recommended to continue drilling the top hole section with a 36" hole opener and 9" drill collars. If a reaming trip is necessary, stiffen the drillstring with a 36" stabilizer.

5.2 Subsea/BOP

Crossed hydraulic control lines on the blue pod reel were discovered during a BOP stack test on bottom. Fourteen lines had parted from the blue pod reel by accident. After they were reconnected they were not visually function tested while the stack was on the surface. It is recommended that anytime the hydraulic system is repaired it be tested by the most positive, practical method available to insure that the repair work corrects the problem.

5.3 Casing and Wellhead

A leaking 9-5/8" seal assembly caused numerous delays during P & A operations (see Special Report #3). The cause of failure was determined to be a ratchet-latch retainer ring that had been installed upside down at the CIW shore base. When using CIW weight set seal assemblies in the future, the following three checks should always be made to avoid recurrence of this problem.

1. Prior to running each housing, visual inspection of the hanger should confirm that the threads which mate into the seal assembly ratchet-latch retainer ring, have been properly cut (45° angle cut on the top of the thread).

2. Prior to running each seal assembly, visual inspection should confirm that the threads on the ratchet-latch retainer ring have been properly cut (45° angle cut on the bottom of the thread).

3. After stabbing the seal assembly into the hanger, bump the drill pipe to the right (maximum 2000 ft-lbs of torque) to insure complete make up of the seal assembly onto the hanger. An increase in torque assures that the hanger and seal assembly are made up and that the ratchet-latch retainer ring is properly engaged.

6.1 Mobilization

The rig move from well 16/7-2 to well 15/6-6 was completed in 3-1/2 hours. The rig departed well 16/7-2 at 0215 hours 31 March 1982 and arrived at well 15/6-6 at 0545 hours on the same day.

6.2 Mooring

Mooring operations were completed in 15 hours with the use of four workboats. Anchors #1, 4, 5, 6, 7 and 8 were piggybacked and all anchors were successfully pull tested from 325-375 kips. The rig heading was 305°.

6.3 Drilling Operations

6.3.1 36-Inch Hole/30-Inch Structural Casing

The 36-inch hole was spudded at 0215 hours on April 1 with a 17-1/2-inch bit and 36-inch hole opener. The hole was drilled to a total depth of 197.5 meters. While attempting to run 30-inch casing, a ledge was encountered at 166 meters so the casing was pulled out of the hole. The 36-inch hole was reamed and the 30-inch casing rerun, but another ledge was found at 169 meters. The casing was once again pulled and this time the hole was reamed with two 36-inch hole openers spaced 2.5 meters apart. The casing was then run to 196 meters and cemented with 1000 sacks class G cement mixed with 2% $CaCl_2$ water.

6.3.2 26-Inch Hole/20-Inch Conductor Casing

The cement, float shoe and six meters of new hole were drilled out with a 26-inch bit. The pin connector was then run and latched, but did not seal because it was cocked at an angle. The rig was then ballasted up 2 degrees in the stern and 1-1/2 degrees on the starboard side in order to bring the pin connector down straight onto the 30-inch housing joint. With the pin connector securely latched, the diverter was tested through both lines and the pilot hole assembly was run to bottom. A 12-1/4-inch bit was used to drill the pilot hole from 203-465 meters at an average ROP of 28 m/hr. An IEL/AC-GR and caliper logs were then run to determine if any gas sands were present. No gas sands were indicated and the hole was underreamed to 26 inches with the riser in place using a 12-1/4-inch bit, 17-1/2-inch hole opener and 26-inch underreamer. A caliper log was then run and could not get below 425 meters. Several ledges were also indicated by the caliper from 240-425 meters, so a 17-1/2-inch bit and 26-inch underreamer were used to ream back to bottom. The reaming assembly was then pulled to the mudline where the riser was displaced with water. The riser dump valve was opened to void the riser to sea level. No flow was indicated by the pressure transducer. The pin connector was then unlatched and the riser was pulled to the surface.

A total of 316 meters of 20-inch casing was run with the shoe at 447 meters. The casing was landed in the 30-inch housing and pull tested to 25 kips. The casing was then cemented in place with a lead slurry of 1000 sacks G cement mixed with 8% PHG and a tail slurry of 1000 sacks G neat cement. Good returns were observed throughout the cementing job and displacement with an

SSR plug was performed with the cementing unit. The float at the shoe did not hold initially so back pressure was held at the cementing unit until the cement became firm.

A period of 41-1/2 hours was then spent WOW before the BOP stack could be run. During the storm, anchor #2 slipped at 250 kips. It was rerun and piggybacked when the weather cleared. The rig heading was changed to 307°. After landing the BOP stack and pull testing it successfully to 50 kips, the yellow pod had to be pulled due to a leaking SPM valve (see EFR #3). While the yellow pod was pulled, a Phase I PIT was run to 500 psi with no leakoff.

6.3.3 17-1/2-Inch Hole/13-3/8-Inch Surface Casing

Simultaneous to rerunning the yellow pod, the 17-1/2-inch BHA was run in the hole and tagged cement at 426 meters. The cement, float shoe, rathole and 3 meters of new formation were drilled before running a Phase II PIT. The PIT indicated a formation integrity of 12.9 ppg EMW. Due to excessive heave (14-18 ft), the hang off tool was then picked up and run. WOW operations lasted 7 hours thereafter. The 17-1/2-inch bit then drilled from 471-1218 meters through predominately mudstone and unconsolidated sands. The 17-1/2-inch hole was logged from 1200 meters with the IEL/AC-GR log. The 13-3/8-inch casing was landed at 1202 meters and cemented with 657 sacks class G cement mixed with 8% PHG tailed by 510 sacks class G neat. Forty-six barrels of fluid were lost to the hole while displacing the cement slurry. The casing was tested to 2500 psi in a Phase I PIT test.

6.3.4 12-1/4-Inch Hole/9-5/8-Inch Intermediate Casing

The plugs, float collar, cement, float shoe, rathole and 2 meters of new hole were drilled before a Phase II PIT conducted below the 13-3/8-inch casing shoe only obtained an EMW of 14.0 ppg. The 14.0 ppg, which is lower than previous Sleipner wells, can be attributed to the occurrence of an unconsolidated sand section from 1185 to 1199 meters. This section may also have been the interval where lost returns occurred while cementing.

Minor hole problems were experienced with the mudstones in the upper section of the hole, and at 1627 meters the hole packed off and the drillstring was temporarily stuck while making a connection. Two X3As drilled the first 1493 meters of hole at an average ROP of 17.8 m/hr. By 2477 meters, the formation had become much harder and a J4 was selected as the third bit in this interval. With alternating sand/shale sequences being drilled, the fourth bit in the series, also a J4, could only average 3 m/hr. The 12-1/4-inch hole was completed in a hard chalk formation at 2794 meters with a J22.

The hole was logged with the IEL/AC/GR and CNL/CDL tools from 2775 meters. The 9-5/8-inch casing was run and landed with the shoe at 2779 meters. The casing was cemented with a lead cement of 300 sacks class G mixed with 8% PHG, .159 gal/sx CFR2-L and 0.7 gal/sx HALAD 10L and followed by a tail cement of 225 sacks class G mixed with 0.159 gal/sx CRF2L, 0.7 gal/sx HALAD 10 and 0.03 gal/sx HR6L. The slurry was displaced using the rig pumps with 629 bbls of mud. The plug was bumped with 2000 psi and the floats held. The wellhead was washed and the seal assembly was set and tested. A Phase I PIT was performed to 5000 psi and a temperature survey was run to estimate the top of the cement. The survey indicated the cement top behind casing at 2150 m.

6.3.5 8-1/2-Inch Hole/7-Inch Production Casing

The plugs, float collar, cement, float shoe, rathole and 3 meters of new hole were drilled in 4-1/2 hours. A Phase II PIT was then conducted to an EMW of 14.4 ppg. An 8-1/2-inch hole was drilled from 2797-2805 meters at which point the bit was pulled and a turbine/diamond bit combination was run in the hole. The hole was then drilled with a Lynx diamond bit on a turbine to 3289 meters at which point a washout was found between the two top drill collars (see EFR #11). A trip was made to replace the drill collars and drilling continued with an LX13 diamond bit on a turbine to a depth of 3591 meters where it was decided to core.

Three cores were cut in the interval from 3591-3645 meters with cores #1 and #2 recovering 100% and core #3, 99.5%. Drilling resumed with a J-22 bit which completed the 8-1/2-inch hole at 3760 meters. The hole was logged with the IEL/BHC-AC, CDL/CNL/CAL, DLL/MLL and dipmeter logs. Logging operations were followed by an MFT run, velocity survey and sidewall cores.

It was decided that one zone of interest, the Hugin sandstone, was to be production tested, so 7-inch casing was run to 3686 meters. The casing was set in the wellhead instead of as a liner due to casing burst considerations on the 9-5/8-inch string if a leak developed in the tubing string during production testing. The casing was cemented with a lead slurry of 570 sacks class G, mixed with 1.2 gal/sx HALAD 10, 0.29 gal/sx CFR2L and .11 gal/sx HR12L followed by a tail slurry of 540 sacks class G, mixed with 1.2 gal/sx HALAD 10, 0.29 gal/sx CFR2L and 0.09 gal/sx HR12L. Displacement was performed with the rig pumps. The plug was bumped and the floats held. The 7-inch seal assembly was then run and tested to 5200 psi.

6.4 Production Testing

6.4.1 Production Test

The BOP stack was pulled to the surface where the middle and upper pipe rams were changed from 5-inch to 3-1/2-inch and the fail safe choke and kill valves were recharged. A crater was discovered around the wellhead at this time so two separate cement jobs of 1000 sacks each were made to try to fill the void. The stack was stump tested to its full working pressure and then skidded below the rotary to be run back to bottom. Prior to running the stack the blue pod reel was cycled back without removing the RBQ plate causing 14 control lines to become sheared or damaged. The lines were reterminated and the stack was run to bottom, latched and pull tested with 50 kips. Four attempts were made to land a testing tool in the seal assembly without success. A fifth run was made with the boll weavil test tool and a joint of 3-1/2-inch drill pipe beneath it. The tool seated and the lower 5-inch pipe rams were tested to 6000 psi. Upon POOH, it was discovered that the 3-1/2-inch upper pipe rams had been inadvertantly closed on 5-inch drill pipe due to crossed hydraulic lines. The blue pod was pulled and the lines were fixed and function tested. The boll weavil test tool was then run on 3-1/2-inch drill pipe and the 3-1/2-inch pipe rams were tested to 6000 psi. Both Hydrils were also tested to 3500 psi. After a run with a casing scraper, a Phase I PIT was held to 5500 psi.

It was then decided to run the production tubing in the hole, testing each connection with the Loomis tubing tester. This procedure, however, was abandoned after running 40 joints of tubing due to numerous failures with the tubing tester (see Special Report #1).

The test cup was run in the hole on 3-1/2-inch drill pipe to get a final pressure test on the stack. While attempting to test the middle pipe rams, the 7-inch seal assembly was found leaking, so it was pulled and replaced. The boll weavil test tool was then run in the hole and seated. Function testing on the blue pod revealed a problem with the MPR so the blue pod was pulled again. A plugged pilot line was flushed out and the pod was run back to bottom. The seal assembly and stack were then tested successfully.

After a CBL/CCL/GR run, the 7-inch casing was perforated from 3568-3578 meters. The test string was then run in the hole, pressure testing every 30 joints of tubing to 7500 psi against the drill pipe tester valve. The SSTT and lubricator valve were installed and the STT was rigged up on surface. After pressure testing the test equipment, the RTTS packer was set at 3533 meters.

The well initially flowed 3 bbls on a 24/64" choke and was then shut in. The initial buildup period was 1 hour and the well was reopened for major flow. Final stabilized flow rates of 29.3 MMCFD and 1750 bbls of condensate per day were produced on a 56/64" choke. The well was shut in after 13-3/4 hours with the downhole LPR valve. When the valve did not hold, the well was shut in at the choke manifold where the pressure stabilized at 4650 psi.

When the final buildup test was completed the well was killed by pumping mud down the tubing and into the perforations. The APR-M valve was then sheared open and the tubing was reverse circulated. (See Special Report #2 for production test information.)

6.5 Plug and Abandonment

The producing zone was plugged by placing an EZSV cement retainer at 3542 meters and pumping 100 sacks cement through it. An additional 50 sacks plug from 3440-3355 meters was layed above the EZSV. A third plug was layed in the vicinity of the 9-5/8-inch casing shoe from 2810-2710 meters. Two perforating runs were required in the 7-inch casing in order to check for annular gas. No gas was detected so the 7-inch casing was cut at 1303 meters. The casing did not come free with 200 kips overpull so a second cutting attempt was performed. This time the casing came free with 25 kips overpull. After recovering the casing, a cement plug was layed across the stub from 1350-1250 meters.

Two perforating runs were needed in the 9-5/8-inch casing at 997 meters before an injection rate could be established. The 13-3/8-inch casing shoe was then cemented by squeezing the cement through the perforations and displacing the plug down from 1202-1027 meters. The plug was tested to 450 psi where it leaked off. Suspecting cement channeling, a second squeeze attempt was performed in order to plug off the 13-3/8-inch casing shoe. This plug, however, was never displaced past 786 meters as a leak had developed in the 9-5/8-inch seal assembly (see Special Report #3). This plug was tested

to 800 psi before a leak off was observed. Cement was tagged at 786 meters and washed down to 791 meters. It was thought that this may have been some cement residue that was not displaced, so a third plugging attempt was performed with an EZSV cement retainer. The EZSV was set at 738 meters. Five hundred sacks of cement were pumped through the retainer, but due to a leak in the retainer and the leaking 9-5/8-inch seal assembly the cement came up around the drill pipe to 220 meters. Upon completion of the cement job all 500 sacks (130 bbls) of cement were reverse circulated back to the cementing unit. In an attempt to isolate the leak, an RTTS packer was RIH and identified the leak at the 9-5/8-inch seal assembly. The 13-3/8-inch casing shoe was finally cemented by cutting and retrieving the 9-5/8-inch casing from 698 meters and braidenheading cement down the 9-5/8 x 13-3/8-inch annulus. The plug was tagged at 692 meters and tested to 1500 psi.

The 13-3/8-inch casing was then perforated to check for annular gas before cutting it at 239 meters. The 13-3/8-inch casing was then retrieved and a plug was set from 447-238 meters with 850 sacks of cement in the 13 3/8 x 20" annulus. A final plug was set from 238-165 meters with 415 sacks of cement. After the BOP was released and skidded into the moonpool the 20 and 30-inch casing was cut. The casing parted with 250 kips overpull and the wellhead and PGB were recovered. Deballasting operations were completed at 1000 hours June 9 and the last anchor was bolstered at 1930 hours on the same day for the move to well 16/7-3.

SPECIAL REPORT #1

LOOMIS TUBING TESTER

A Loomis tubing tester operated by Oglaend Oil Services was used to test tubing prior to the production test of well 15/6-6. The tubing tester failed three times in the process of testing the first forty joints of tubing. Total NPT using the Loomis tool was 5.25 hours versus 4.0 hours productive time. The following report documents the sequential operations of the aborted tubing test in addition to offering an explanation of the failure.

The Loomis tubing tester used for well 15/6-6 was set up to pressure test every tubing tool joint to 7500 psi from inside the pipe using water. A sketch of the tool and operating equipment used for well 15/6-6 can be found in Figures 1 and 3. The tool was originally rigged up to be stabbed into the tubing by the derrickman after unlatching the tubing elevators and lifting the traveling block approximately 5 m (see Photo 1). The tool was lowered by winch to the tubing tool joint in the rotary. The water pump was then engaged to pump fluid between the packers and on the tool joint to 7500 psi (see Photo 2). The pump was disengaged (a check valve held pressure on the tool) and a pressure gauge on the operating unit indicated any leaks in the tool joint. If no leak was indicated the pressure was bled off manually and the tool was lowered beneath the rotary table while the tubing was lowered into the hole. After setting the tubing slips, the tool was pulled up to the stabbing board by winch until the next tubing joint was stabbed. The only time spent waiting on the tubing tester was during the actual pressure test itself (approximately 10 seconds). The tool was run down to the tool joint while the tubing was being torque turned and was retrieved while picking up the next joint of tubing.

Rig up time for both Weatherford Lamb and Oglaend was 1.75 hours and the first joint of tubing was run in the hole at 1015 hours. The first failure of the Loomis tester was observed at 1045 hours. The bottom hard packer on the top set of packing became badly worn from hitting the inner lip of the Hydril PH-6 tubing and fluid was escaping through numerous gaps. The top set of packing was completely changed out and the problem was solved by placing a conical metal washer on the underside of the bottom hard packer to stop the chipping.

Testing continued for two hours until the tool was again suspected of leaking. The pressure gauge indicated a leak, but no fluid could be seen coming out of the tool joint. The tool was pulled and the upper soft packer was found fluid cut. The backup tool was then run in the hole while the soft packer on the first tool was replaced.

Testing then continued with a change of procedure to see if the tubing running speed could be increased. Since the derrickman had some difficulty getting the tool by the traveling block, the tool was lowered to the rig floor and the tool joints were tested 10 m below the rotary. Fourteen joints (#23-#36) were run in this fashion, averaging 3 minutes 55 seconds per joint (15 jts/hr). The disadvantages of this setup were no visual identification of a leak, and the time it took for the tool to fall through the mud in the tubing to reach the tool joint. It was then decided to drop the tool from above again in order to establish a timing comparison. After two runs, however, the tool began leaking again as another top soft packer developed a fluid cut leak.

The original tool was then run in the hole, but it would not hold pressure. Fluid could be heard flowing past the upper packing at the drill floor. After numerous test runs with the tool, the operator found that the top packer would set on the 2.687" I.D. in the upset tool joint of the tubing, but not the 2.75" I.D. on the tubing pipe body. The test unit was finally rigged down when it was realized that the repairs necessary for the tool to work could not be made on the rig.

Several possibilities on the failure of this tool were explored as a result of the poor test performance. The tubing was inspected to insure that it was the grade and weight specified by Esso prior to the test and to make sure it was not badly pitted. The inspection was performed by a Hydril representative, and Loomis representatives agreed that the condition of the tubing was not the problem. The test unit was checked and although a check valve on the operating unit was changed out, it too was eliminated as a potential cause of the failure. The tool itself was then broken down and inspected. Some smashed O-rings were discovered in the tool, but due to their location in the tool and the fact that no leak was present during the test when the upper packing was set in the tubing coupling, this theory was eliminated also. The port sub (see Figure 2) on the tool was then suspected because it regulates the initial setting force on the packers before fluid is pressured up on the coupling. The port sub operates in the following manner:

1) Water enters the port sub from above and until enough pressure is exerted to overcome the force of the top spring, the pressure is used to expand two mandrel sections.

2) The two mandrel sections are used to compress the bottom and top packing.

3) Once the pressure overcomes the force of the top spring, water flows through the ported plunger into the port outlet and into the space between the port sub and coupling.

4) The pressure continues to build to the predetermined test pressure and the compression of the top and bottom packing continues.

5) Once the test is completed, water is bled from inside the tool until the pressure in the annulus overcomes the force of the bottom spring and the test water is bled out.

It was suspected that the top spring might not have sufficient force to hold back the pressure needed to initially set the packers. The recommended pressure is 1200-1800 psi. Both port subs were tested in the Oglaend warehouse and found to be opening at 900-1000 psi. The conclusion reached was that the leaks must have developed before the packers were properly set. This phenomena is not uncommon and can be verified in the field with the proper equipment (0-2000 psi gauge). The common solution to this problem is to place a spacer (washer or nut) under the spring to increase its compressive strength. This was done in the Oglaend warehouse with a 1/4" thick nut and found to increase the port sub opening pressure to 1500 psi. If this tubing testing tool is used in the future, the operator should make sure the tool is satisfactorily tested before sending it to the rig.

FIGURE 1

LOOMIS TUBING TESTER TOOL

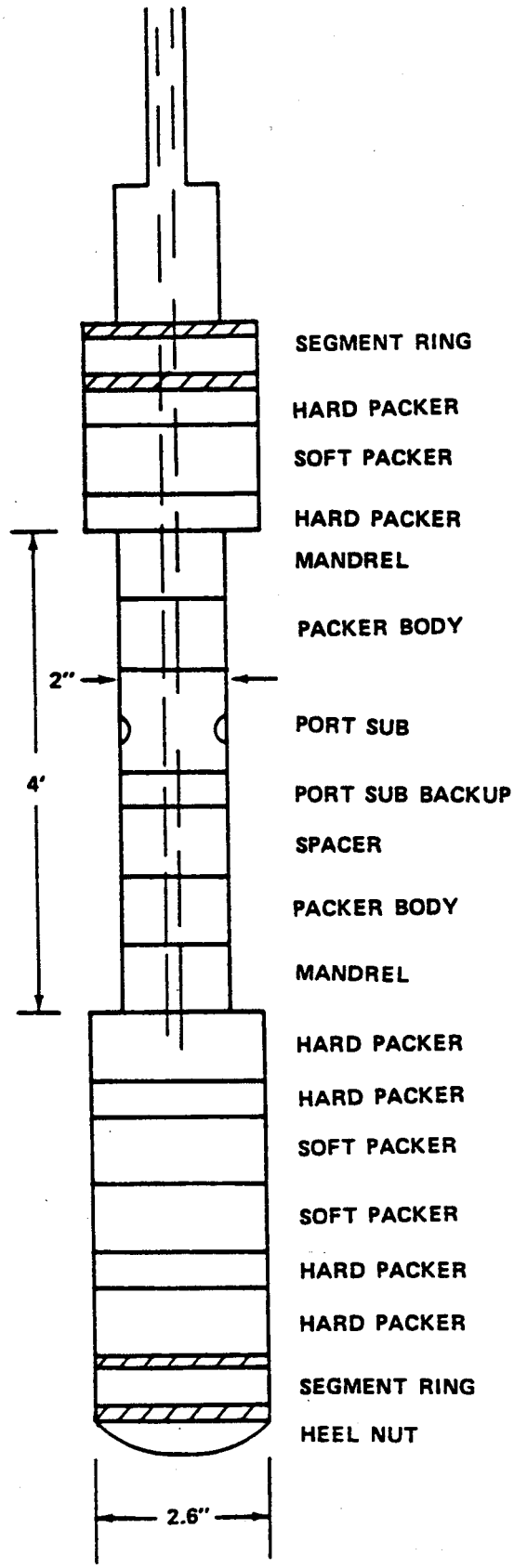


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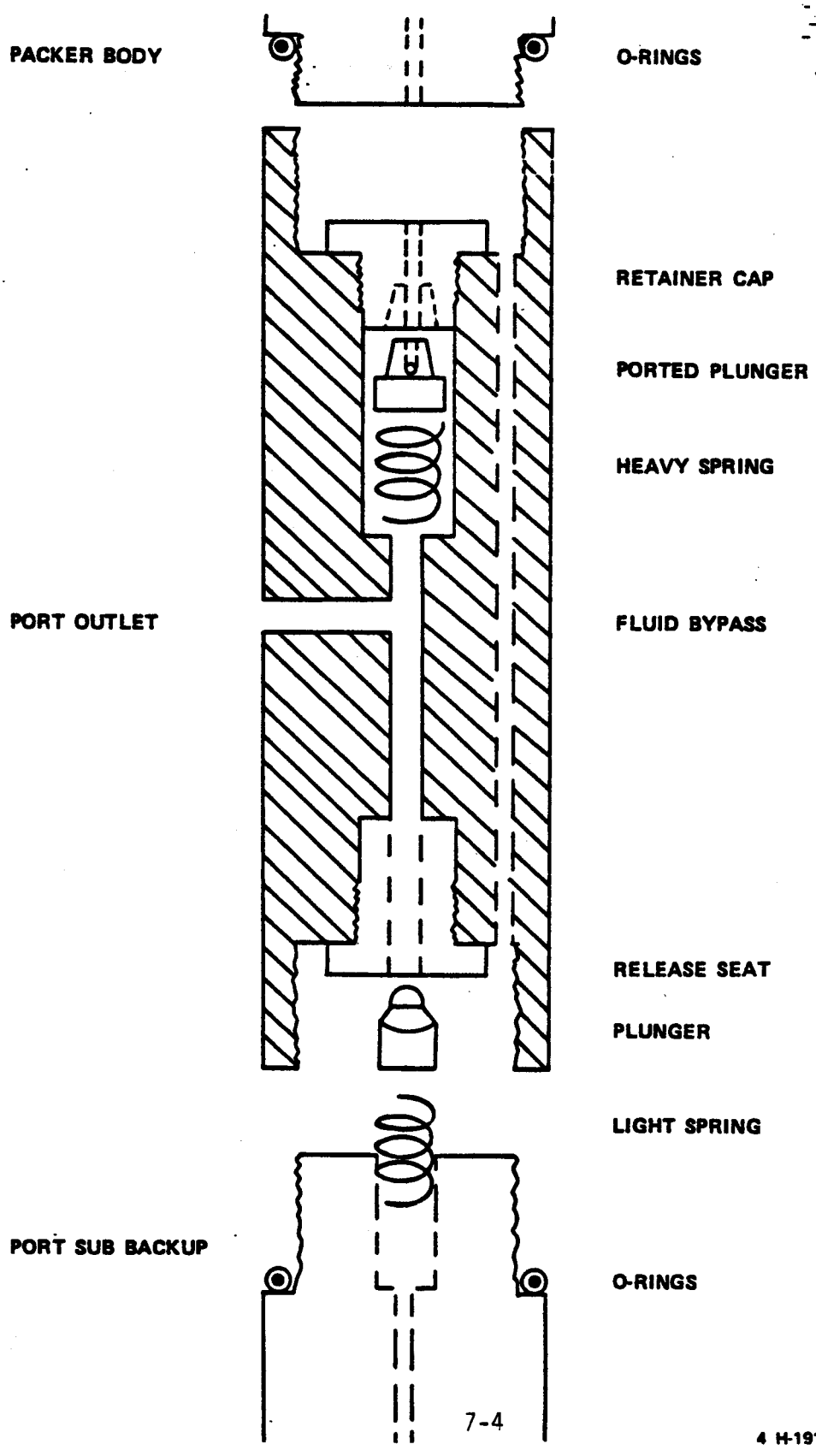
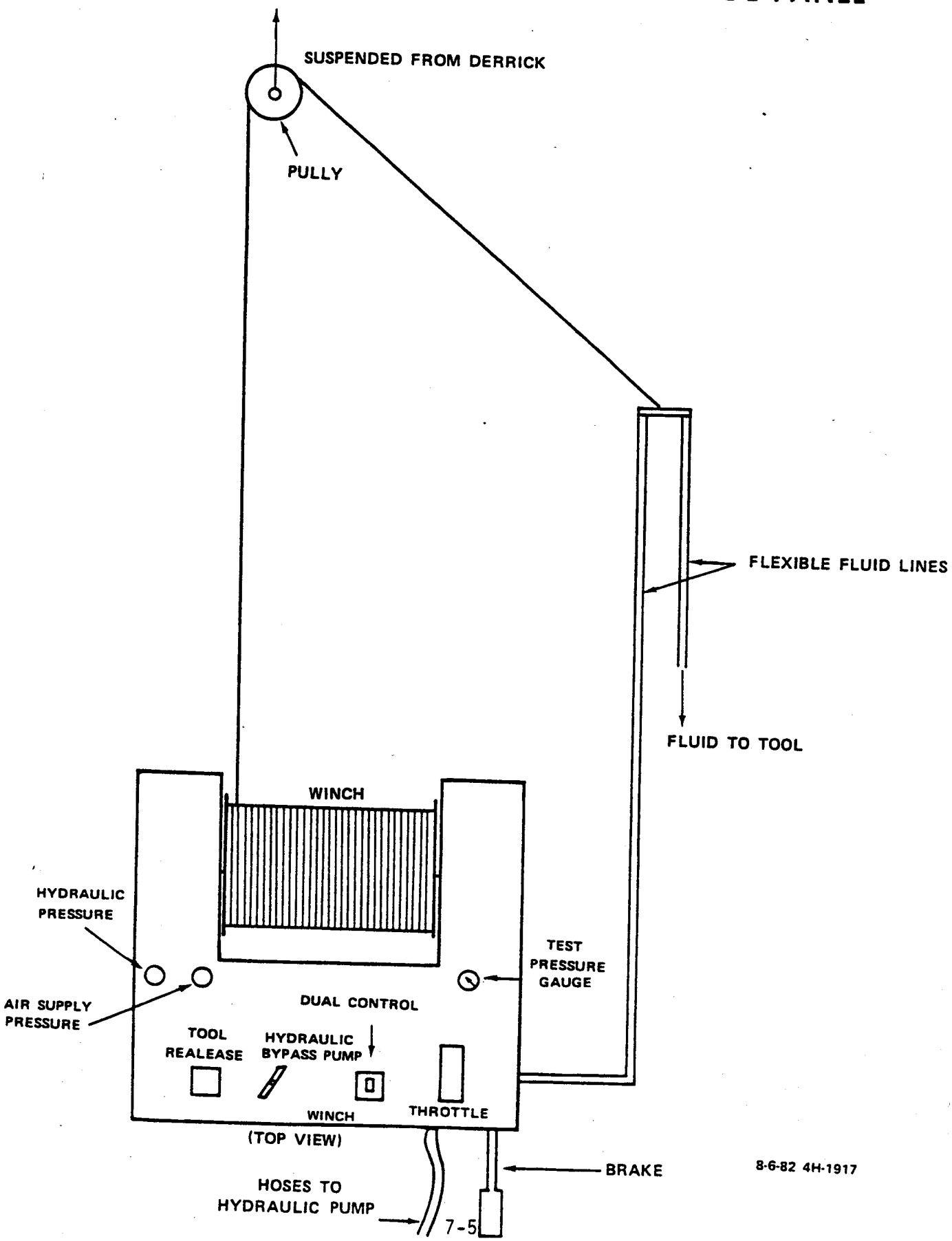
FIGURE 2
PORT SUB SCHEMATIC



4 H-1916-882 GUM

FIGURE 3

LOOMIS WINCH,FLUID LINES,AND CONTROL PANEL



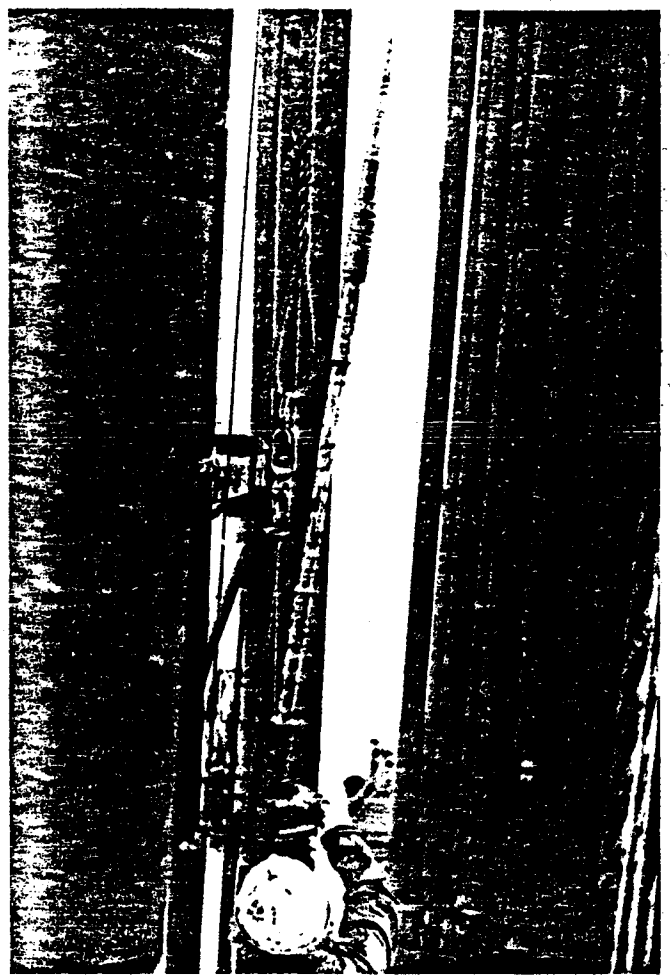


PHOTO 1. DERRICKMAN STABBING LOOMIS TEST TOOL INTO TUBING.

PHOTO 2. LOOMIS CONTROL PANEL

SPECIAL REPORT #2

PRODUCTION TESTING

One production test was performed during well 15/6-6 on the Hugin formation in the Sleipner Field. The Hugin formation is a gas bearing, middle Jurassic sandstone. This report explains the test string and sequential operations as well as provides some basic reservoir data obtained from the test.

The test string utilized for well 15/6-6 is explained in three parts: the tailpipe assembly, lower test string, and upper test string. (See Figure 1)

The tailpipe assembly consisted of a 2-7/8" perforated joint, XN-nipple, 2-7/8" pup joints and a mule shoe. Two Sperry Sun pressure gauges and two Amerada gauges were hung off in the XN-nipple after making up the tailpipe assembly. Two steel bars were welded into the mule shoe to prevent the pressure gauges from falling out of the tailpipe assembly if they parted from the XN-nipple.

The lower test string consisted mainly of Halliburton's annular pressure response downhole tools. These tools were selected due to the depth of the test zone (3560 m), its pore pressure (10.4 ppg) and because a downhole shut-in test minimizes after flow effects on reservoir test data.

From the bottom up, the first piece of equipment was the RTTS packer. This packer is set with 20,000 lbs of weight and a 1/4 turn to the right at the tool. The packer rubber was checked with a durometer prior to running it and the hardness was measured at an acceptabe range (80-85). A safety joint was run immediately above the packer as a point to backoff the test string in case the packer could not be retrieved. The safety joint is released by a combination of right hand rotation and vertical movement of the test string. Big John type drilling jars were run directly above the safety joint to help unseat the packer if necessary. A hydraulic bypass was run next, to allow mud from the annulus to enter the test string above the packer. This is necessary in order to run the packer in and out of the hole due to its large outer diameter.

The LPR tester valve is the main downhole testing component of the APR system. It is a full opening valve which is run in the hole in the closed position. This tool is a somewhat modified version of the APR-N tool. The closing force of the LPR tool can be adjusted using annulus pressure, whereas the APR-N was closed with one preset force. A drill pipe tester valve was run above the LPR tool in order to pressure test the string without damaging the LPR. The tubing was tested to 7500 psi which is in the range of pressure that could possibly damage a C-clamp in the LPR tool. A modified drill pipe tester valve was run during well 15/6-6. The old drill pipe tester valve caused numerous problems on well 15/8-1 as it required right hand torque to open it while setting the packer and opening a hydraulic bypass above the drill pipe tester valve in order to eliminate any pressure differential across the ball. The new drill pipe tester valve opens with 5000 lbs of weight set down on it with no rotation. The valve closes again when the

5000 lbs is picked up. With this design, the drill pipe tester valve opens when the packer is set and closes when the packer is picked up. Two drill collars and a slip joint were run below the drill pipe tester valve so that the valve can be picked up and closed without opening the hydraulic bypass. The APR-M tool was located next on the test string. This tool is operated by an annulus pressure greater than that needed to operate the LPR tool. The annulus pressure is determined on surface by placing a calculated number of brass shear pins in the tool. The APR-M valve is the point where gas is circulated out of the tubing by reverse circulating. It is also a point in the string where fluid is drained as you POOH so the string is not pulled wet. The RTTS circulating valve was in the test string as a backup to the APR-M tool. It is opened by picking up and rotating 1/4 turn to the right at the tool. Two slip joints are run below the RTTS circulating valve in order to manipulate it without unseating the packer. A stand of drill collars was also located below the circulating valve to keep weight on the drill pipe tester valve and keep it open while manipulating the RTTS circulating valve. Four stands of drill collars were run above the test string to supply the weight needed to set the RTTS packer. Two slip joints were run above the collars in order to keep constant weight on the packer during heaving conditions.

The tubing used for the test was 3-1/2", 12.95 lb/ft, C-75, PH-6. It was doped with liquid O-ring and made up with Weatherford Lamb's torque-turn tongs to 4000 ft-lbs.

The upper test string consisted mainly of Otis supplied equipment. From the bottom up the first piece of equipment was the Otis Sub Sea Test Tree (SSTT). The purpose of the SSTT is in case of severe weather problems or any circumstance in which you had to get off the well quickly the well could be shut in at the SSTT and the upper string unlatched. The SSTT can be unlatched either mechanically or hydraulically. An Otis lubricator valve is located in between the SSTT and Surface Test Tree (STT). The lubricator provides a means of running wireline tools and gauges without rigging up a lubricator from above the STT. The Otis STT is a four valve block tree which allows the kill line and chicksans to be rigged up from the side and tools to be lowered from the top if necessary.

The test itself consisted of four distinct periods; the initial flow, initial shut-in, major flow and major build up.

The initial flow period began at 1555 hours on May 29 with 3 bbls of water being flowed to the test tank. The initial flow took 2 minutes and was stopped at 3 bbls to insure that no sand production would cut out the LPR valve during this initial flow. The initial choke size was 24/64ths and the flowing wellhead pressure was 683 psi.

The initial buildup period lasted 1 hour and the well was reopened for flow at 1701 hrs.

The first 5-1/2 hours of the major flow period were spent cleaning up the well as 2 to 5% mud was being produced. The production was then switched through the separator for 7 hours in order to measure a stabilized flow rate. Stabilized flow was measured on a 56/64ths choke at 29.52 MSCF/D and 1751 bbl

condensate/day. Hydrogen sulfide and CO_2 were also measured at 7-1/2 ppm and 5% respectively.

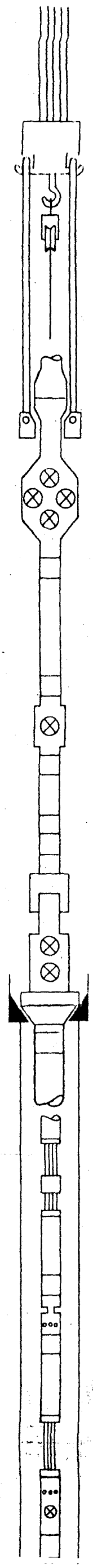
The first attempt to shut in the well for the major build up period was with the LPR tool. It failed so the well was closed off at the choke manifold where the pressure stabilized. Upon completion of the major build up period (18-1/2 hours), the well was flowed again to see if the LPR tool could shut it in. It failed again, so the well was shut in at the choke manifold and then the LPR was closed.

The pressure was bled off at the manifold, then the well was killed by bullheading mud down the tubing to the LPR valve, opening the valve and pumping an additional 29-3/4 bbls mud into the formation.

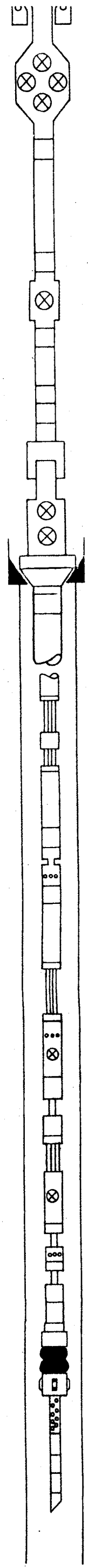
The APR-M valve was then sheared at 3700 psi and the tubing string was circulated. The pressure gauges were retrieved and anlayzed by the reservoir engineers. The data was satisfactory so the test was terminated. Production test summary data is attached.

WELL TEST STRING

FIGURE 1



SKETCH	DESCRIPTION	LENGTH IN.	ID IN.	OD IN.	TOP CONN	BOT. CONN	RMKS
	RIG MOTION COMPENSATOR						
	WIRELINE PULLEY						
	30-FT BAILS						RENTAL FROM FLOPETROL
	X OVER TO WL LUBRICATOR						DRESSER SUPPLIED
	OTIS SURFACE TEST TREE W/LIFT SUB AND SWIVEL		2.88			4 3/8" 6 STUB ACME BOX	OTIS SUPPLIED
	X-OVER				4 3/8" 6 STUB ACME (P)	3½" PH-6	
	3½" TBG	AS REQ			3½" PH-6 BOX	3½" PH-6 PIN	ESSO
	X-OVER				3½" PH 6 (B)	4½" 4 STUB (P)	
	OTIS LUBRICATOR VALVE		2.88	10.75	4½" 4 STUB ACME BOX	4½" 4 STUB ACME PIN	OTIS SUPPLIED
	X-OVER				4½" 4 STUB BOX	3½" PH-6 (P)	
	3½" TBG	AS REQ			3½" PH-6 (BOX)	3½" PH-6 (PIN)	ESSO
	3-1/2" TBG PUP JT				3½" PH-6 (B)	3½" PH-6 (P)	ESSO
	X-OVER				3½" PH-6 BOX	4½" 4 STUB ACME (P)	
	OTIS SUBSEA TEST TREE W/ RELEASE						
	5 SLICK JOINT	10	2.88		4½" 4 STUB ACME BOX	4½" 4 STUB ACME PIN	OTIS SUPPLIED
	BALL VALVE			(CENTRALIZERS)			
	BALL VALVE			10.75 (ON VALVES)			
	X-OVER				4½" 4 STUB ACME BOX	3½ PH-6 PIN	
	3½" TBG	AS REQ			3½" PH-6 (BOX)	3½" PH-6 (PIN)	ESSO
	X-OVER				3½" PH-6 (B)	3½ IF (P)	
	TWO HOWCO SLIP JOINTS 5' STROKE EA.		2.25	5.00	3½ IF (B)	3½ IF (P)	HALLIBURTON LENGTH (EACH) OPEN - 218" CLOSED - 158"
	4 3/4" DRILL COLLARS 24,000 LB				3½ IF (B)	3½ IF (P)	RENTAL
	X-OVER	7.50	2.50	4.75	3½ IF (B)	2 7/8 EUE (P)	HALLIBURTON
	MECHANICAL CIRC. VALVE	32.89	2.44	4.62	2 7/8 EUE (B)	2 7/8 EUE (P)	HALLIBURTON
	X-OVER	8.00	2.25	4.75	2 7/8 EUE (B)	3½ IF (P)	HALLIBURTON
	STAND OF DRILL COLLARS				3½ IF (B)	3½ IF (P)	RENTAL
	SLIP JOINT 5' STROKE		2.25	5.00	3½ IF (B)	3½ IF (P)	HALLIBURTON OPEN–218" CLOSED–158"
	APR-M CIRC./SFTY VALVE	100.5	2.25	5.00			HALLIBURTON
	DRILL PIPE						HALLIBURTON



OTIS SURFACE TEST TREE W/LIFT SUB AND SWIVEL		2.88			4 3/8" 6 STUB ACME BOX	OTIS SUPPLIED
X-OVER				4 3/8" 6 STUB ACME (P)	3½" PH-6	
3½" TBG	AS REQ			3½" PH-6 BOX	3½" PH-6 PIN	ESSO
X-OVER				3½" PH 6 (B)	4½" 4 STUB (P)	
OTIS LUBRICATOR VALVE		2.88	10.75	4½" 4 STUB ACME BOX	4½" 4 STUB ACME PIN	OTIS SUPPLIED
X-OVER				4½" 4 STUB BOX	3½" PH-6 (P)	
3½" TBG	AS REQ			3½" PH-6 (BOX)	3½" PH-6 (PIN)	ESSO
3-1/2" TBG PUP JT				3½" PH-6 (B)	3½" PH-6 (P)	ESSO
X-OVER				3½" PH-6 BOX	4½" 4 STUB ACME (P)	
OTIS SUBSEA TEST TREE W/ RELEASE						
5 SLICK JOINT	10	2.88		4½" 4 STUB ACME BOX	4½" 4 STUB ACME PIN	OTIS SUPPLIED
BALL VALVE			(CENTRALIZERS)			
BALL VALVE			10.75 (ON VALVES)			
X-OVER				4½" 4 STUB ACME BOX	3½ PH-6 PIN	
3½" TBG	AS REQ			3½" PH-6 (BOX)	3½" PH-6 (PIN)	ESSO
X-OVER				3½" PH-6 (B)	3½ IF (P)	
TWO HOWCO SLIP JOINTS 5' STROKE EA.		2.25	5.00	3½ IF (B)	3½ IF (P)	HALLIBURTON LENGTH (EACH) OPEN - 218" CLOSED - 158"
4 3/4" DRILL COLLARS 24,000 LB				3½ IF (B)	3½ IF (P)	RENTAL
X-OVER	7.50	2.50	4.75	3½ IF (B)	2 7/8 EUE (P)	HALLIBURTON
MECHANICAL CIRC. VALVE	32.89	2.44	4.62	2 7/8 EUE (B)	2 7/8 EUE (P)	HALLIBURTON
X-OVER	8.00	2.25	4.75	2 7/8 EUE (B)	3½ IF (P)	HALLIBURTON
STAND OF DRILL COLLARS				3½ IF (B)	3½ IF (P)	RENTAL
SLIP JOINT 5' STROKE		2.25	5.00	3½ IF (B)	3½ IF (P)	HALLIBURTON OPEN–218" CLOSED–158"
APR-M CIRC./SFTY VALVE	100.5	2.25	5.00			HALLIBURTON
DRILL PIPE TESTER VALVE	57.49	2.25	5.00			HALLIBURTON
STAND OF DRILL COLLARS						RENTAL
SLIP JOINT		2.25	5.00			HALLIBURTON
LPR TESTER VALVE	153.3	2.25	5.00			HALLIBURTON
HYDRAULIC BY-PASS VALVE	75.88	2.25	4.62			HALLIBURTON
BIG JOHN JARS	75.88	2.37	4.62			HALLIBURTON
RTTS SAFETY JOINT/CIRC. VALVE						HALLIBURTON
RTTS PACKER	54.22	2.40	5.75		2 7/8 EUE (B)	HALLIBURTON
PERFORATED JOINT						ESSO
X NIPPLE						ESSO
2 JTS 2 7/8 EUE TBG				2 7/8 EUE	2 7/8 EUE	ESSO
MULE SHOE						
				2 7/8 EUE		ESSO

NOTES: (1) The tubing is 3 1/2-inch, C-75, 12.95 LB/Ft, with Hydril PH-6 connections.

(2) The 2 JTS of 2 7/8-inch EUE tubing must have a hole in them so that fluid/pressure communication exist between the gauges and the formation.

PRODUCTION TEST SUMMARY

Well: Esso 15/6-6 Test #1 Date 29/30-05-82

Test Data:

1. Interval: 3568 m - 3578 m (IEL)
2. Production Fluid: Gas & condensate
3. Average Rate: 29.52 (MMSCF/D)
4. Length of Flow Period: 12.3 (Hr, min)
5. Choke: 56 (64ths)
6. Gravity of Oil or Condensate: 47.0° (°API @ 60°F)
7. GOR or Condensate - Gas Ratio: 59.3 (STB/MMSCF)
8. Water Cut: 1 (%)
9. Chlorides: 4000 (PPM)
10. H_2S 7.5 (PPM)
11. CO_2 5 (%)
12. Average Flowing Wellhead Pressure: 2360 (psi)

SPECIAL REPORT #3

SEAL ASSEMBLY FAILURE DURING P & A OPERATIONS

A total of 47 hours of NPT was spent attempting to seal the 9-5/8" x 13-3/8" annulus during plug and abandonment operations. The major cause of the NPT was a leak in the 9-5/8" seal assembly which contributed to two faulty cement jobs. This report summarizes the pertinent sequential operations and identifies the seal assembly problem.

The following sequential operations are provided to explain how the leak was formed and why it was not detected earlier in the operation.

A cement plug had been layed across the stub of the 7" casing which had been cut at 1303 m. The plug had been pressure tested to 2500 psi before attempting to perforate the 9-5/8" casing.

The first attempt to perforate the 9-5/8" casing was made from 997-998 m with a limited entry gun and 0.8 gram charges. Five hundred psi was put on the casing and a 40 psi pressure loss was observed subsequent to firing the charges. The 9-5/8" casing was then pressured up to 4500 psi without leakoff indicating that the perforations did not exist and that the 9-5/8" seal assembly was intact. A second perforation run was then made and this time a pressure drop on the casing was observed from 500-0 psi. An injection rate of 2 BPM at 800 psi was then established. A balanced plug (54-1/4 bbls or 150% of annular volume required) was then set from 747-990 m and then squeezed through the perforations until it had been displaced 30 m below the perforations. The final squeeze pressure was 625 psi at 1 bpm. A leakoff test was then performed on the plug, after WOC, with the pressure breaking over at 450-500 psi (see Figure 1).

Since the PIT limit at the 13-3/8" casing shoe was 550 psi with 11.3 ppg mud, it was suspected that cement channeling may have caused the problem. When the 9-5/8" casing was perforated it was done at 0° phasing, leaving all the perforations on one side of the pipe. This is the current practice for perforating 9-5/8" casing as it helps to insure that the 13-3/8" casing is not accidentally perforated also.

To correct the problem, a second balanced plug was layed from 747-990 m and was supposed to be displaced 30 m below the perforations. It was at this point that the 9-5/8" seal assembly was definitely leaking as the displacing mud went down the 9-5/8" x 13-3/8" annulus instead of displacing the second balanced plug (see Figure 2). A subsequent pressure test indicated a leak off at 800 psi.

Because another squeeze job was needed, drill pipe was RIH to verify the location of the second plug. Cement was tagged at 786 m with 20 kips and was washed down to 791 m in 1-1/2 hours. The decision was then made to set an EZSV cement retainer and squeeze cement below it to get to the perforations. The cement tagged at 786 m was thought to be cement scale on the side of the 9-5/8" casing which had not been displaced. The EZSV was then set at 738 m. After stinging into it, 500 psi was put on the annulus to check for a leak in

the EZSV. No leaks were found until mud was pumped through the EZSV at 4 bpm and 1300-1500 psi and the same pressure was read on the casing side. At this point it was assumed that the EZSV had failed, due to the measured squeeze pressure on the casing side. It was decided to squeeze cement through it and overdisplace the plug by 5 bbls. Five hundred sacks of cement were then mixed and pumped, but when the cement job was completed 400 psi remained on the drill pipe. This was approximately the differential between mud inside the pipe and cement outside the pipe (see Figure 3). When the Hydril was opened the well was observed to be flowing, as a 19 bbl pit gain was registered. The well was shut in and the cement plus 10 bbls of preflush water were reverse circulated back to the cementing unit. It was now firmly clear that there was a leak close to the mudline in the 9-5/8" wellbore. As a secondary test, 20 bbls of mud were pumped into the wellbore at 4 bpm and 1500 psi. When pumping was stopped, 15-3/4 bbls of mud came back. An RTTS packer was then run to verify the leak at the 9-5/8" seal assembly.

The 9-5/8" x 13-3/8" annulus was finally plugged by cutting and retrieving the 9-5/8" casing at 698 m and then braidenheading 600 sacks of cement down the annulus (see Figure 4).

The 9-5/8" seal assembly was later recovered and inspected at the Cameron Iron Works shop. It was then discovered that the ratchet-latch retainer ring had been originally installed upside down at the shop. This ring is designed to engage a matching thread profile on the 13-3/8" casing hanger. The profile is a 45° angle on a buttress type thread (see Figure 5). Because the ratchet-latch retainer ring was upside down the threads did not mate with those on the casing hanger and when a differential pressure was exerted beneath the seal assembly, (after perforating) the seal assembly disengaged from the casing hanger. The differential pressure was a result of heavier mud in the casing (11.2 ppg) than what the casing was set in (9.7 ppg).

(See Conclusions and Recommendations for proper inspection practices.)

WELL 15/6-6

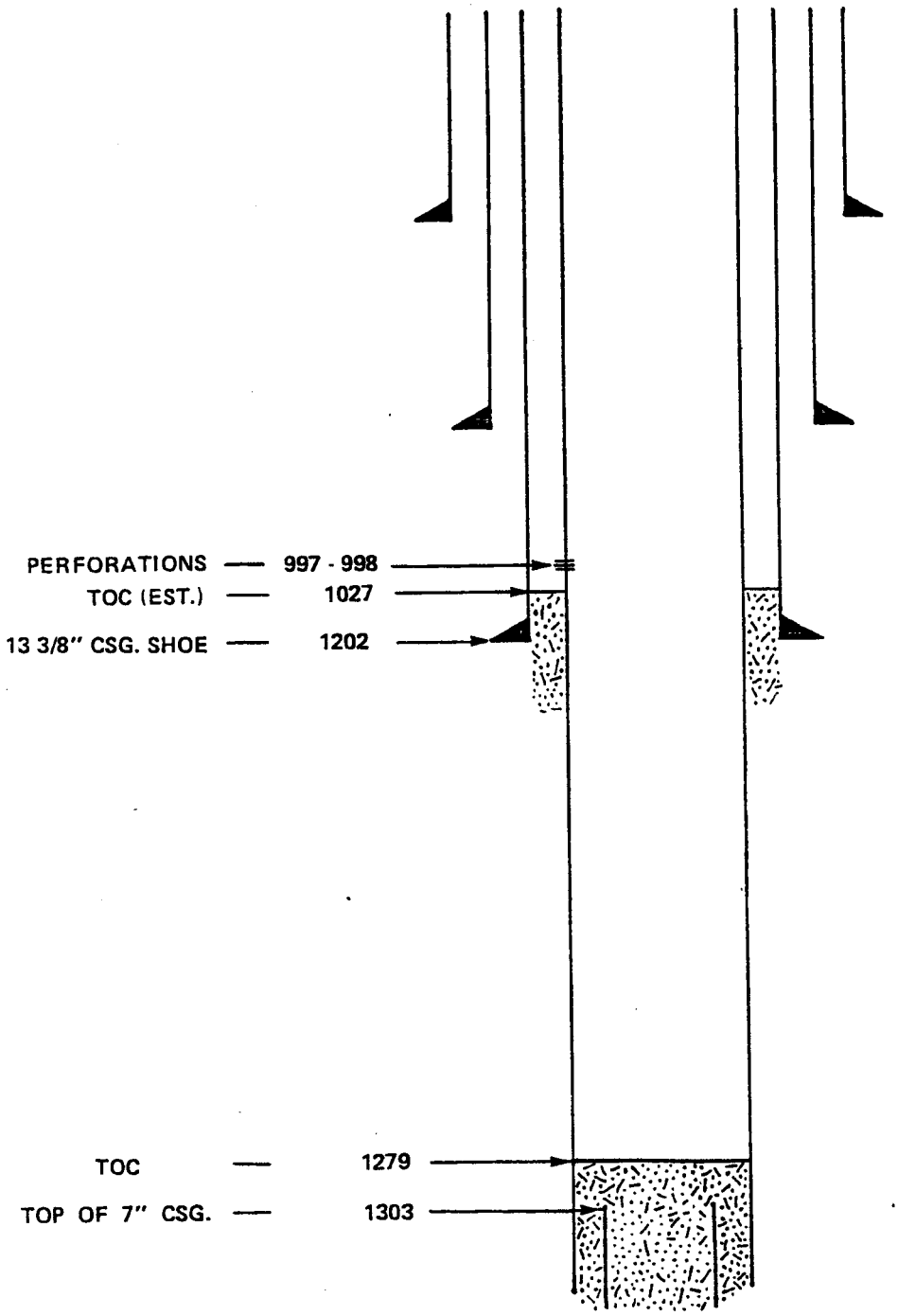


FIG. 1, FIRST PLUG ATTEMPT

4H-1902-782 GUM

WELL 15/6-6

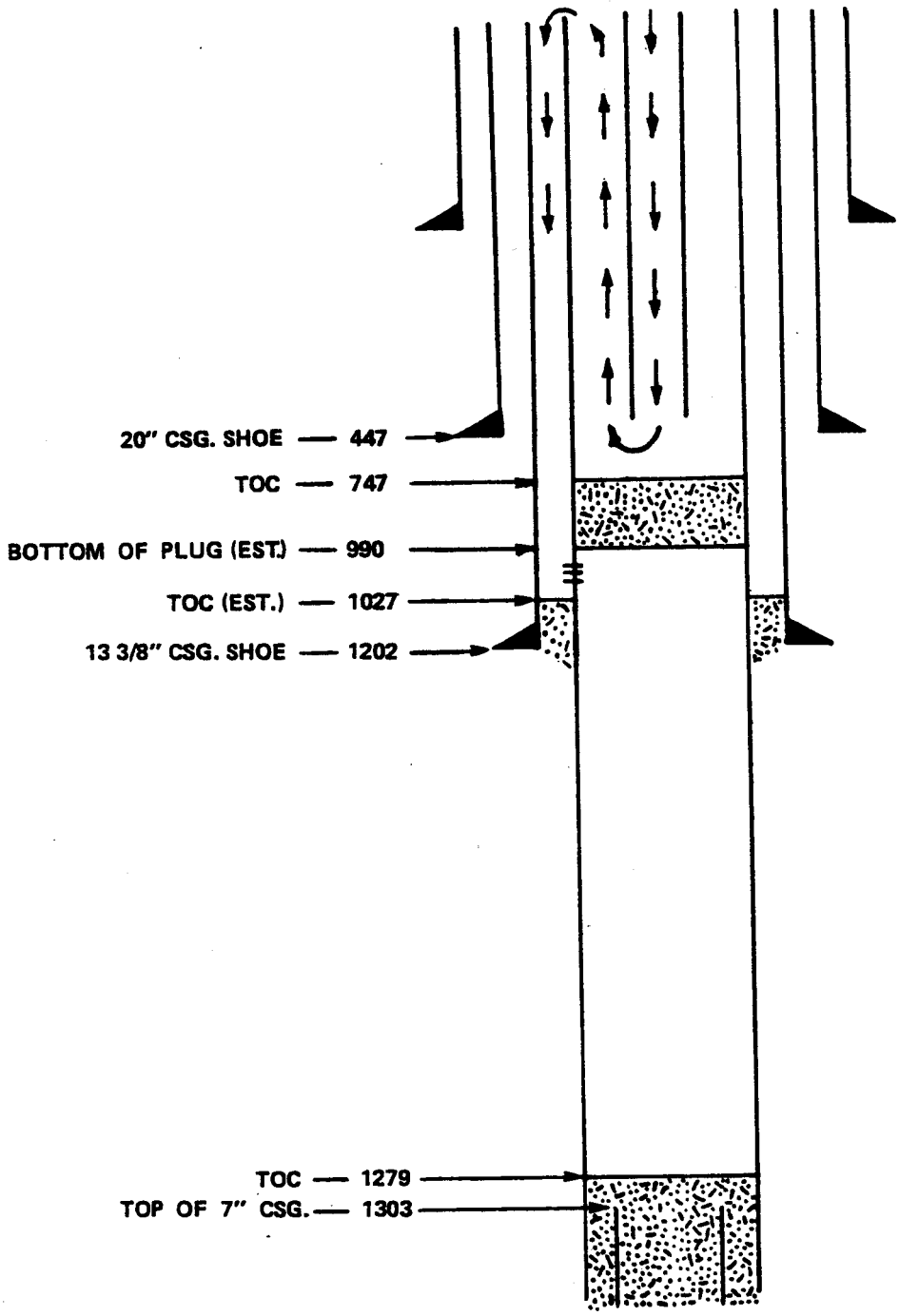


FIG. 2, SECOND PLUG ATTEMPT

4H-1903-782 GUM

WELL 15/6-6

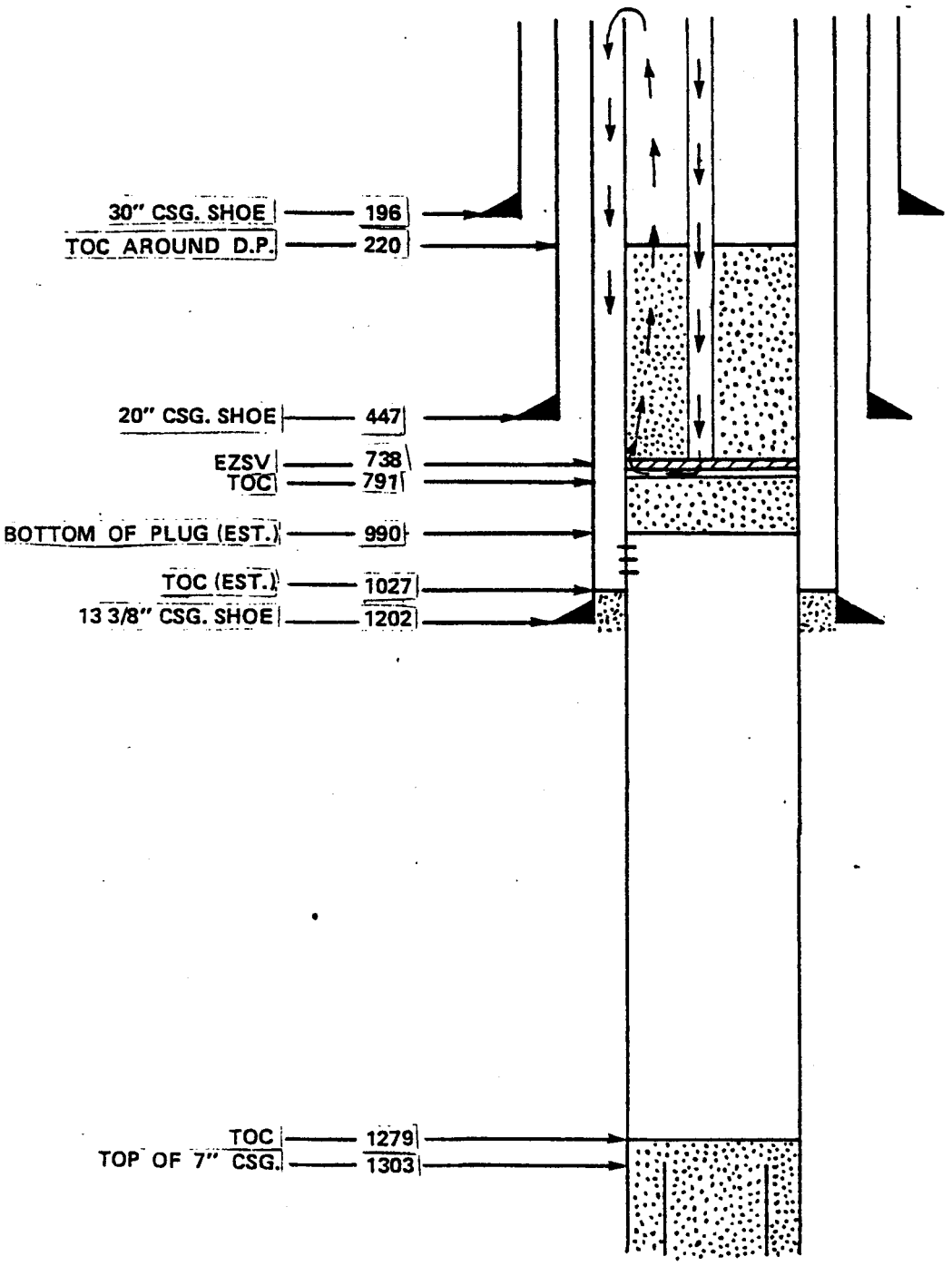


FIG. 3, THIRD PLUG ATTEMPT

4H-1904-782 GUM

WELL 15/6-6

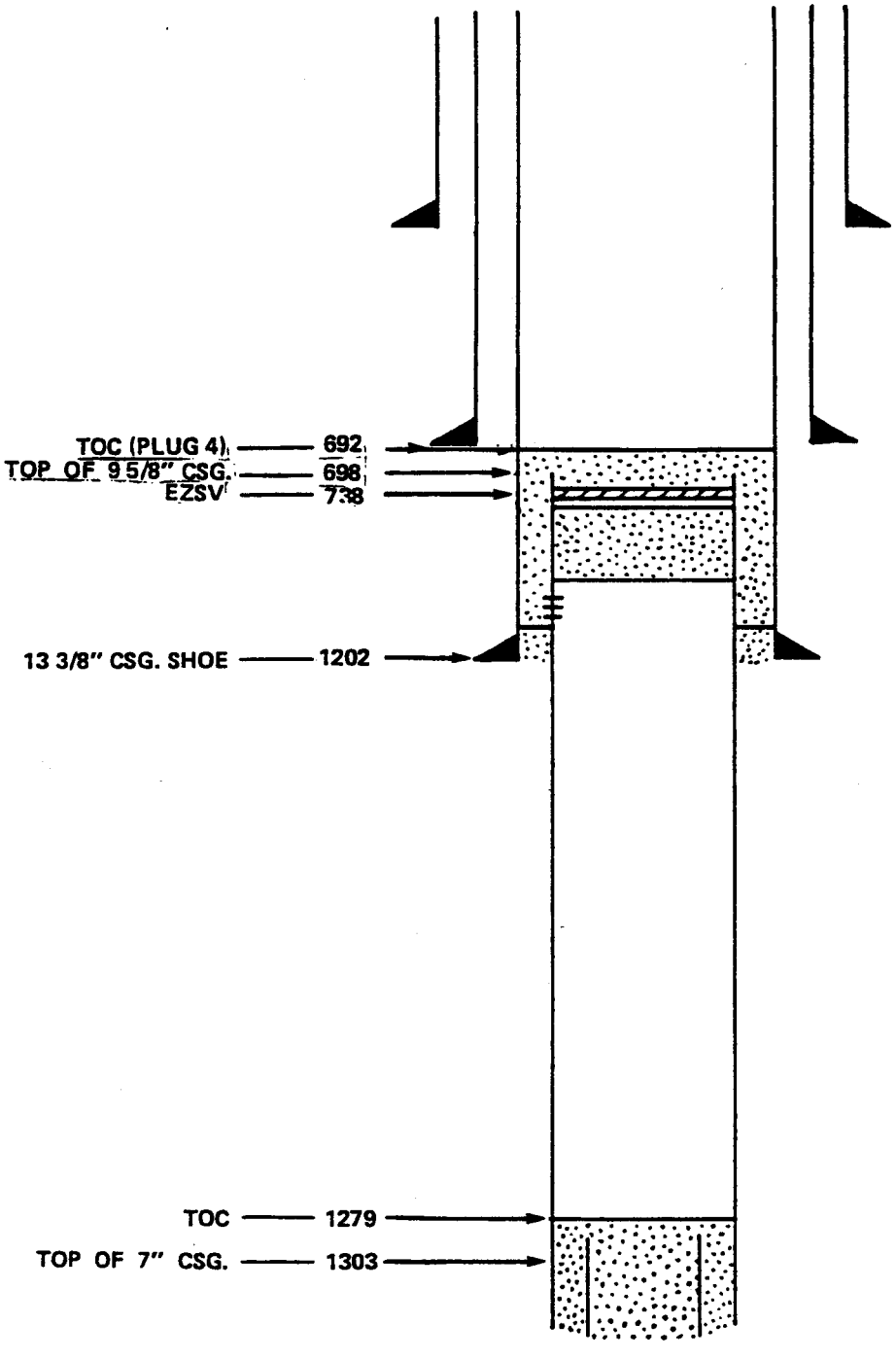
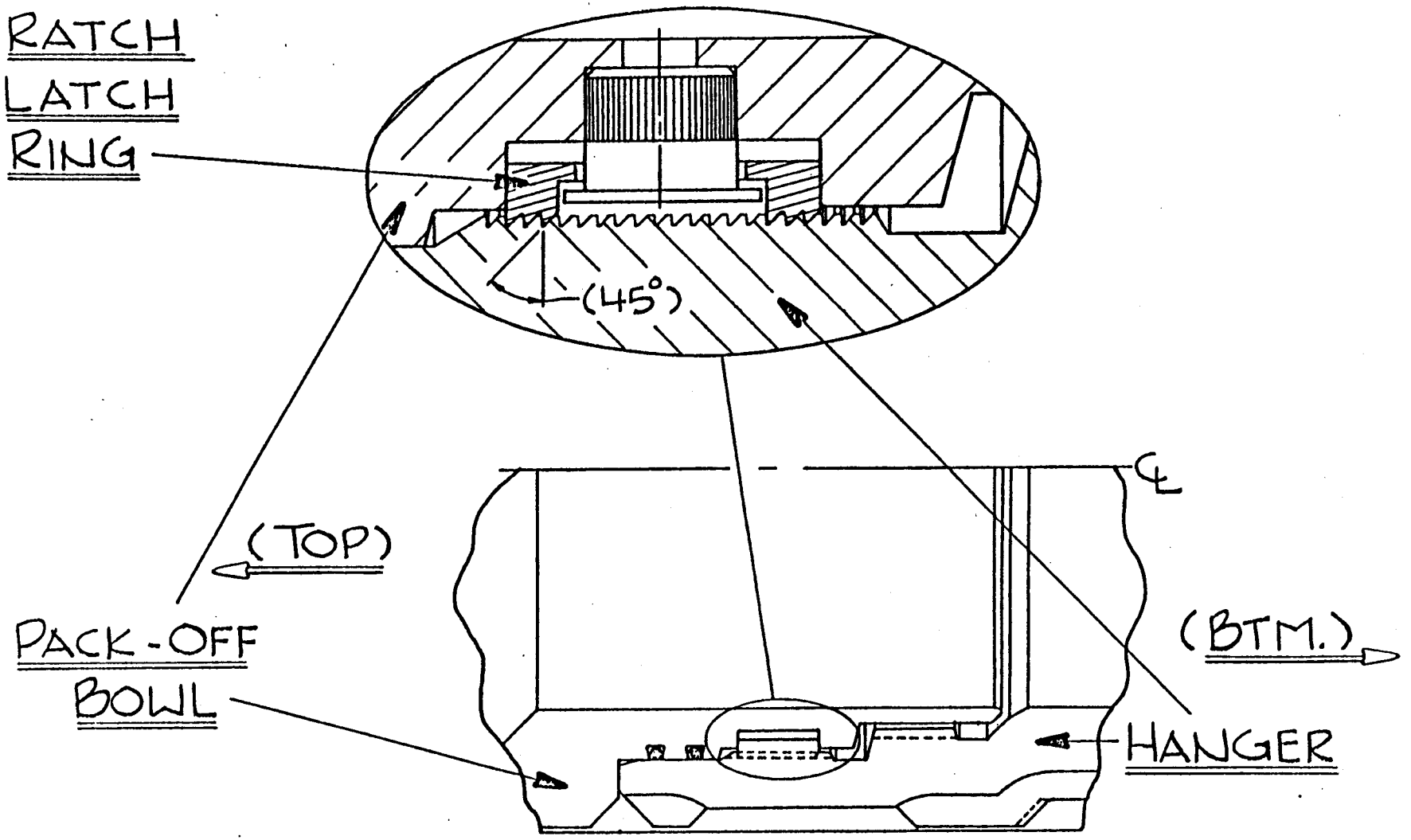


FIG. 4 FOURTH PLUG ATTEMPT

4H-1905-782 GUM

45° ANGLE ON RATCH-LATCH RING FACES DOWN ⟹ SK-38195-1



TOLERANCE UNLESS OTHERWISE SPECIFIED			SURFACE TREATMENT	DO NOT SCALE		Cameron IRON WORKS, INC.	P.O. BOX 1212 HOUSTON, TEXAS 77001
.X	± —	ANGLES —	MATERIAL & HEAT TREAT	DRAWN BY D. Jure	DATE 7-27-82	TITLE 18-3/4"-10M-WT. SET HGR. & SEAL ASSY SHOWING PROPER ORIENTATION OF RATCH-LATCH RING.	
.XX	± —	√ RMS		CHECKED	DATE		
				APPROVED	DATE		

A1 REV

FIGURE 5

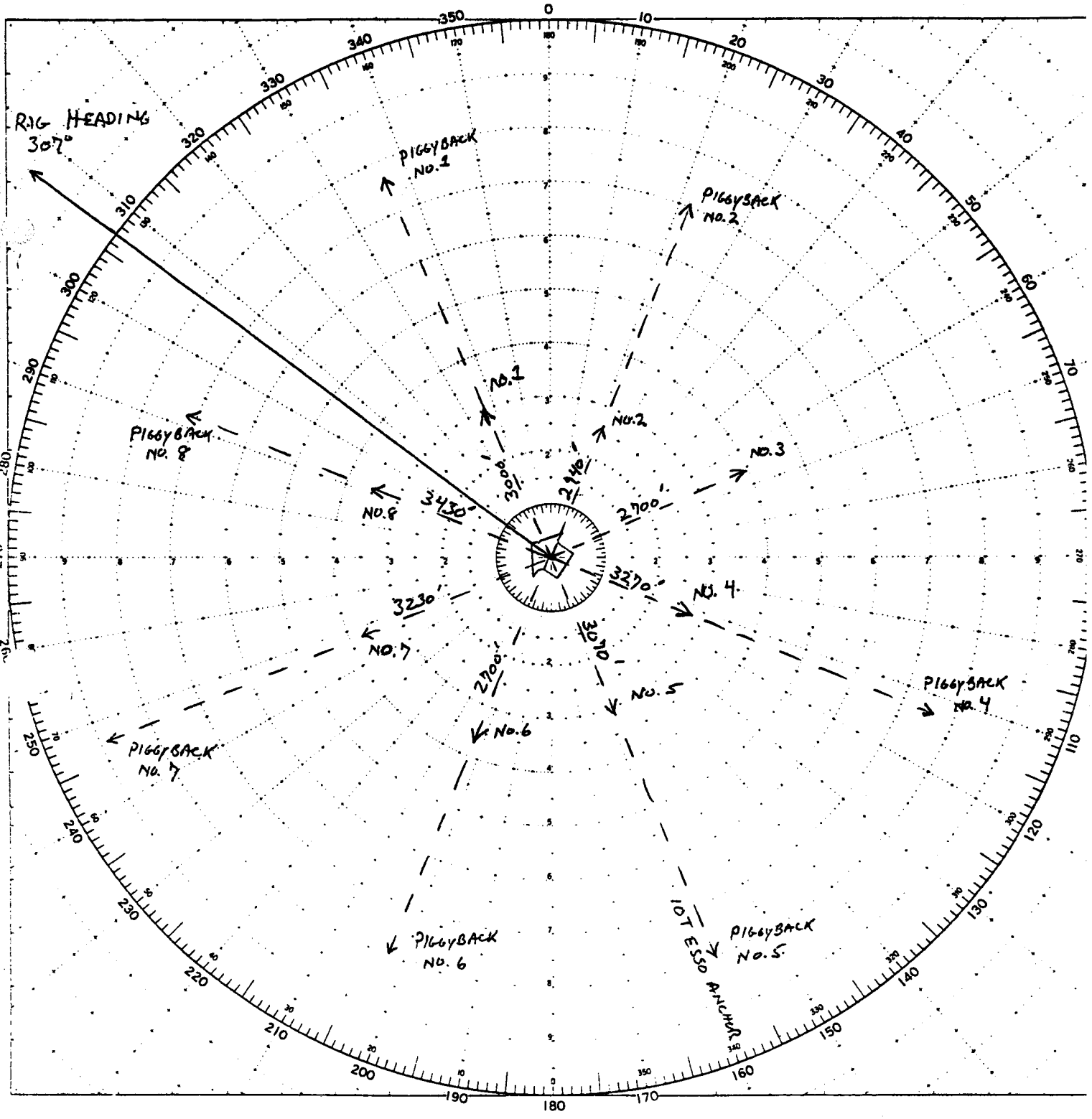
Global Marine Drilling Company

VESSEL HEADING AND ANCHOR PATTERN

VESSEL: GLOMAR BISCAY II CLIENT: ESSO DATE: 10 APRIL

AREA: NORTH SEA WELL NO. 15/6-6 WATER DEPTH 110M

LOCATION COORDINATES: 58° 31' 14.7" N 01° 44' 53.3" E



Move No. 2-S2

ANCHOR HANDLING WELL: 16/7-2 & 15/6-6.

Start	Complete	Operation
		MARCH 30th. & 31st.
0125	0420	"Ragna Viking" pulled 3 piggybacks on anchor no 7.
		and 1 piggyback on no 5.
1722	1744	"Ragna Viking" pulled piggyback on anchor no 2.
1730	1750	"Frank Viking" pulled " " " " 1.
1740	1752	"Siddis Pilot" " " " " " 4.
1754	1800	"Sandtor" " " " " " 6.
1710	2230	Deballasting.
1910	0200	Pulled all main anchors.
		"Siddis Pilot" handling anchor no. 4-5-7.
		"Frank Viking" " " " 1-3.
		"Ragna Viking" " " " 2.
		"Sandtor" " " " 6-8.
2300	0815	"Ragna Viking" towing .
		MARCH 31st.
0215	0800	Used Propulsion.
0550	0620	Run anchor no 5, "Siddis Pilot" dropped Sea buoy.
0618	0642	" " " 4, "Frank Viking" anchor handling boat.
0650	0804	" " " 8 + piggyback, "Siddis Pilot" handling.
0656	0748	" " " 1 + " , "Frank Viking" " .
0730	0835	" " " 6 + " , "Sandtor" " .
0834	0910	" " " 2, "Siddis Pilot" anchor handling boat.
0845	0917	" " " 3, "Sandtor" " " "
0900	1012	" " " 7,+ piggyback, "Ragna Viking" a.h.boat.
1058	1105	"Ragna Viking" put piggyback on no 4.
1020	1310	Ballasting rig to 70' draft.
1300	1330	Pretested all anchors to 250 Kips.

E-56

YELLOW - RIG LOG BOOK PINK - RIG MANAGER WHITE - HOUSTON

MOORE PAPER FORMS – HOUSTON – (713) 228-9191

Move No. 2-82

Start	Complete	Operation
		'MARCH 31st 1982.
	1715	Anchor no 1-4-6-8 tested to 375 kips.
		" " 3 " " 350 "
		" " 2 " " 325 "
		" . " 5 slipped at 275 kips.
1808	1905	"Siddis Pilot" checked and piggybacked no5.
	2015	Anchor no.5 tested to 375 kips.
2015	2025	Reduced tension on all anchors to 200 kips and
		adjusted rig position, acc. to Decca puls 8 nav.
		APRIL 3rd
	0610	Anchor no 2 tested to 350 kips.
		"Glomar Biscay II", April 4, 1982.
		Ole J. Øyen
		Platform Mngr.

E-56

YELLOW - RIG LOG BOOK PINK - RIG MANAGER WHITE - HOUSTON

MOORE PAPER FORMS - HOUSTON - (713) 223-9191

Start	Complete	Operation
		April 8th. 1982
0112		Anchor No.2 slipped. Rig 20'- 25'off location.
		Wind N 55 kn. Sea 22'Swell 26'Heave 12'
		April 9th 1982.
1350	1440	S/V "Siddis Pilot" piggy backed Anchor No.2.
		Material used : 1 ea. Global Marine Anchor, 13,8 tön,
		600'2 1/2 " Pendant Line.
1615	1630	Repositioned rig.
1815	1930	All Anchors retested to 275 kips.
		" Glomar Biscay II", April 9th.1982
		Oddmund Bjørkevåg
		Platform Mngr.

E-56

YELLOW RIG LOG BOOK PINK - RIG MANAGER WHITE - HOUSTON

8.2 Abnormal Pressure Data

The following pore pressure prediction parameters were monitored while drilling:

1) D_c exponent
2) Shale density
3) Mud temperature, °C
4) Change in mud temperature, °C
5) Gas units
6) Formation pressure gradient
7) ROP

A pore pressure gradient of 1.03 g/cc was maintained to the top of the Oligocene at 1437 m. The Oligocene represents a transition zone with a pore pressure gradient increase to 1.12 g/cc over the interval. The pore pressure again increases steadily to a maximum of 1.16/1.17 g/cc at 1820 m, and is maintained to 2130 m. A pore pressure reversal to 1.04/1.07 g/cc is indicated at 2250 m. This gradient continues to 2350 m where intermixed sands, shales and limestones in the Paleocene tends to mask trends. A pore pressure increase to 1.25 g/cc is found in a small transition zone from 3280-3270 m in the Danian chalk. This pore pressure is maintained to TD through the Middle Jurassic and Triassic sands.

COMPANY	ESSO
RIG	GLOMAR BISCAY II
WELL	15/6-6
FIELD	SLEIPNER
COUNTRY	NORWAY
CO-ORDINATES	58° 31'14.7"N 01° 44'53.3"E

DEPTH LOGGED FROM	203m
TO	3760m
DATE LOGGED FROM	4/4/82
TO	15/5/82

GEARHART GEODATA SERVICES LTD.

2/10 SIMPSON PLACE,
NETHERMAINS,
KILWINNING,
AYRSHIRE,
SCOTLAND,

No. 10.10.060

GEARHART THE GO COMPANY

TELEPHONE: (0294) 53928/9/20
56252

TELEX: 778067

LITHOLOGY

CLAYEY
SILTY
SANDY
GRAVELLY
LIMESTONE
DOLOMITE
CLAY NODESTONE SHALE
SILTSTONE
SANDSTONE SAND
CONGLOMERATE, GRAVEL
CALCAREOUS SILTSTONE
DOLOMITIC LIMESTONE
SILICEOUS ROCK
COAL, LIGNITE & OTHER CARBONACEOUS ROCK
IRON MANGANESE PHOSPHATE & OTHER MISCELLANEOUS MINERALS
CHERT
ORE SAMPLES
MISCELLANEOUS CARBONATE
ANHYDRITE, GYPSUM
MISCELLANEOUS CHLORIDES & SULPHATES
HALITE
METAMORPHIC
EXTRUSIVE IGNEOUS
INTRUSIVE IGNEOUS
TUFFACEOUS
BITUMITIC
MICROFOSSIL RICH RED
MICROFOSSIL RICH BRN
SIGNIFICANT GLAUCONITE
CALCAREOUS

LOGGING ENGINEERS

1 R.MENZIES.
2 K BILSON
3 R. PAYNE.
4 C. MASON

CHROMATOGRAPH AND TOTAL GAS RECORDER — CARLO ERBA SERIES 4200
DUAL FLAME IONISATION DETECTOR

H_2S RECORDER — GENERAL MONITORS 2170 SEMICONDUCTOR

ABBREVIATIONS

	NB	NEW BIT
	NCB	NEW CORE BIT
		CORING
	CS	CASING SHOE
	SWC	SIDEWALL CORE
	EL	ELECTRIC LOG
	RBB	REBUILT BIT
	WOB	WEIGHT ON BIT
	RPM	REVOLUTIONS PER MINUTE
	PP	PUMP PRESSURE
	SPM	STROKES PER MINUTE
	CR	CIRCULATED RETURNS
	PR	PARTIAL RETURNS
	NR	NO RETURNS
	CG	CONNECTION GAS
	DS	DIRECTIONAL SURVEY
	WT	WIPER TRIP
	POH	PULL OUT OF HOLE
	RIH	RUN IN HOLE
	WOW	WAIT ON WEATHER
	LAT	LOGGED AFTER TRIP
	LCM	LOST CIRCULATION MATERIAL
	DC	DEPTH CORRECTION
	DST	DRILL STEM TEST

MUD TYPE VARIABLE DETAILS SPECIFIED IN DRILLING RATE COLUMN

MUD DATA

W	WEIGHT	SG
MG	MUD GRADIENT	PSI/FT
V	FUNNEL VISCOSITY	SEC/QT
PV	PLASTIC VISCOSITY	CPS
YP	YIELD POINT	LBS/100 FT^2
GEL	GEL STRENGTH	LBS/100 FT^2
pH		
F	FILTRATE	API ML/30 MIN
CK	CAKE THICKNESS	32 NB INCH
S	SALINITY	PPM CL
SD	SAND CONTENT	% BY VOLUME
O	OIL CONTENT	% BY VOLUME
WL	WATER LOSS	% BY VOLUME
SOL	SOLIDS CONTENT	% BY VOLUME
pf	ALKALINITY OF FILTRATE	
GYP	GYPSUM TOTAL SOLUBLE	

INSTRUMENTS CHECKED DAILY

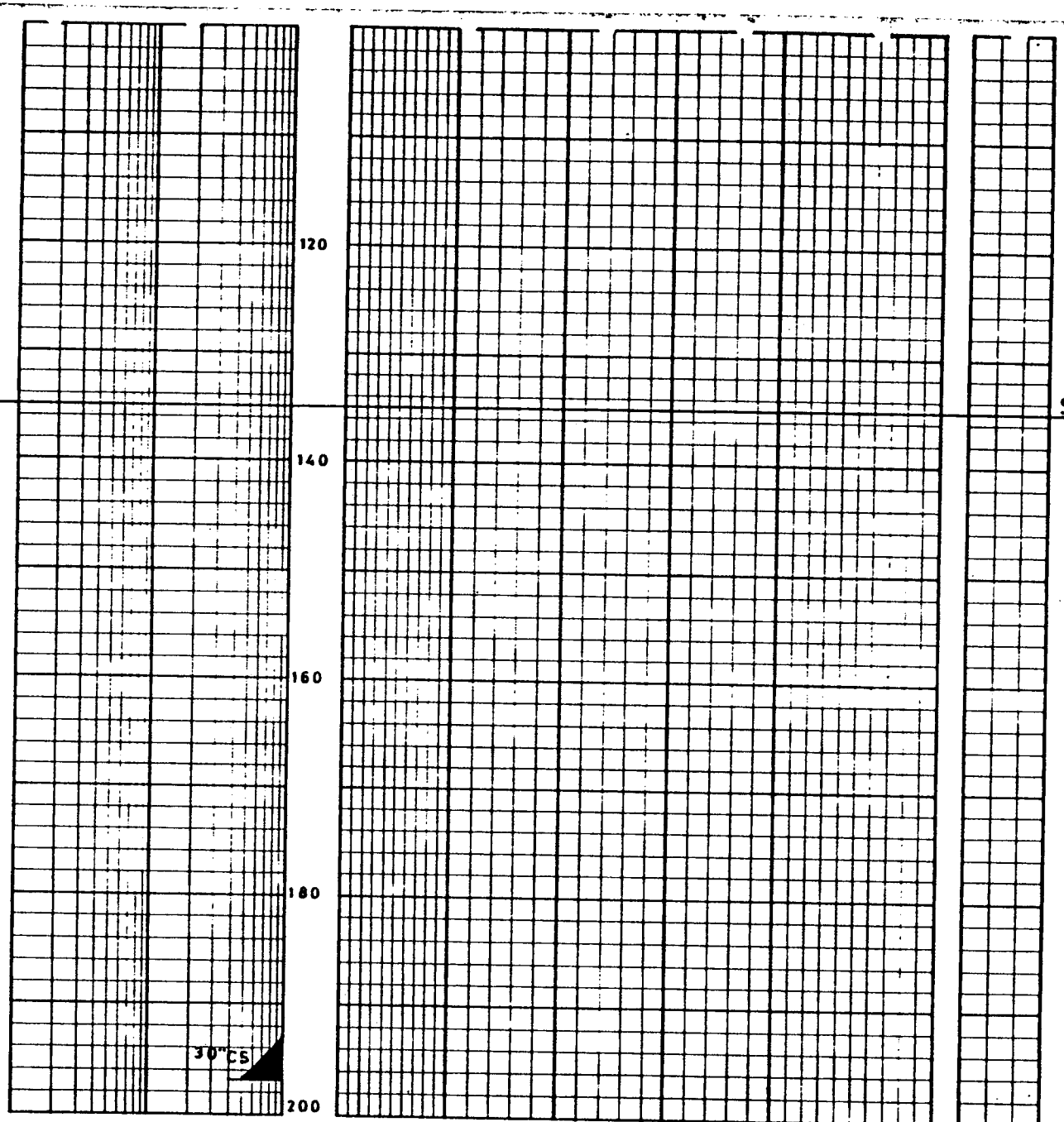
24 HRS LOGGING SERVICE

SCALE 1:500

CASING & HOLE DATA

BIT SIZE	HOLE DEPTH	CASING SIZE	CASING SHOE
17.5"/36"	203m	30"	196m
12.25"/26"	465m	20"	447m
17.5"	1218m	13.375"	1202.7m
12.25"	2794m	9.625"	2779m
8.5"	3760m		

DRILLING & CORING DATA	DRILLING RATE	DEPTH (metre)	CUTTINGS LITHOLOGY	DITCH GAS	MUD TEMP	CORE RECOVERY	OIL	LITHOLOGY DESCRIPTION & REMARKS
	DATE DEVIATION SURVEY CASING DATA BIT PERFORMANCE MINUTES/METRE METRES/HOUR			TOTAL GAS METHANE C1 ETHANE C2 PROPANE C3 I BUTANE iC4 N BUTANE nC4 PENTANE SCALE %	IN —x— OUT —o— MUD Wt IN MUD Wt OUT SG		UV & CUT WEAK FAIR GOOD	



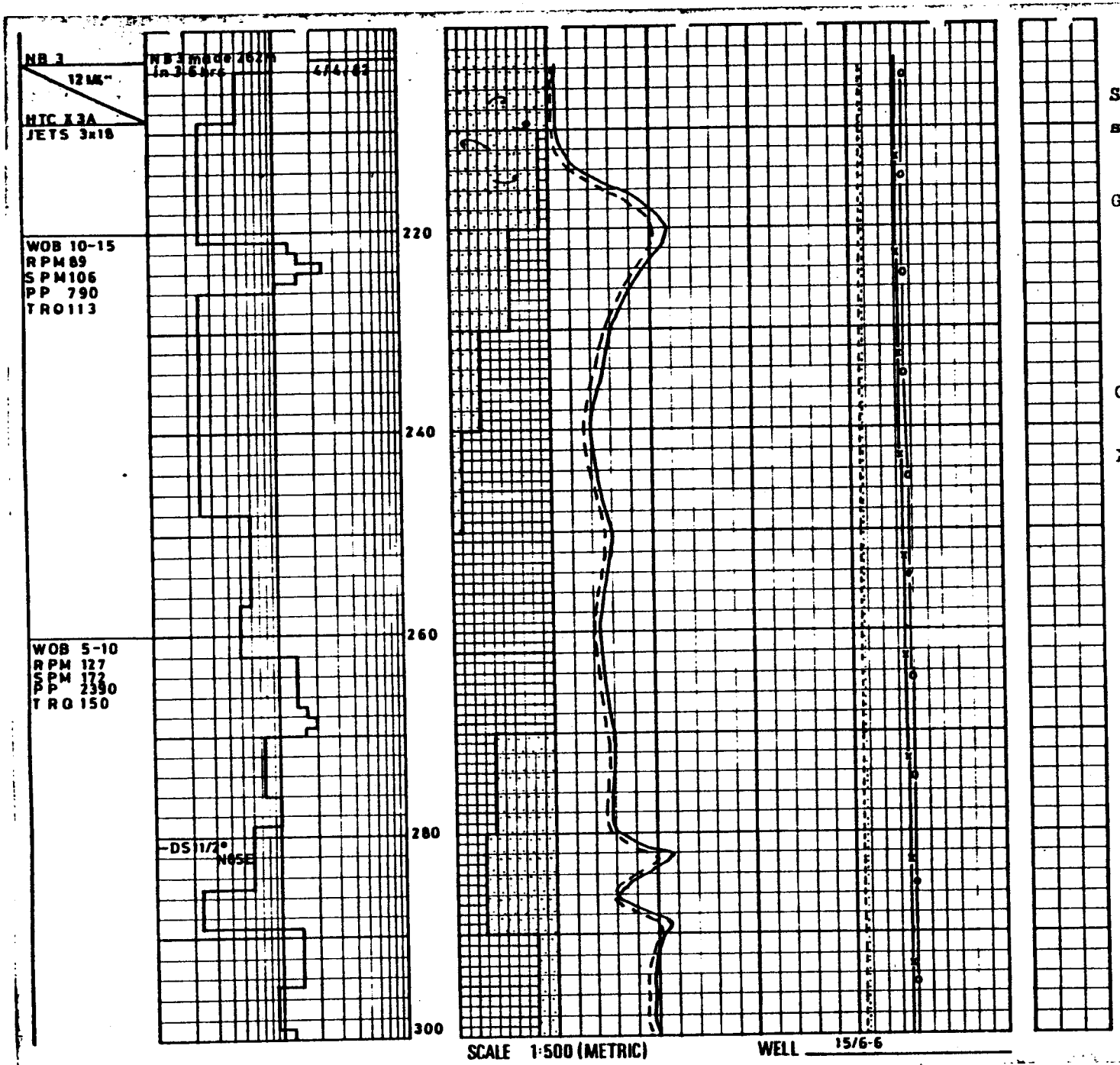
SEA BED

WELL SP DUED02:15 HRS
01 APRIL 1982

DRILLING 36" SURFACE HOLE
WITHOUT MARINE RISER -
NO RETURNS

SCALE 1:500 (METRIC) WELL 15/6-6

PAGE 2



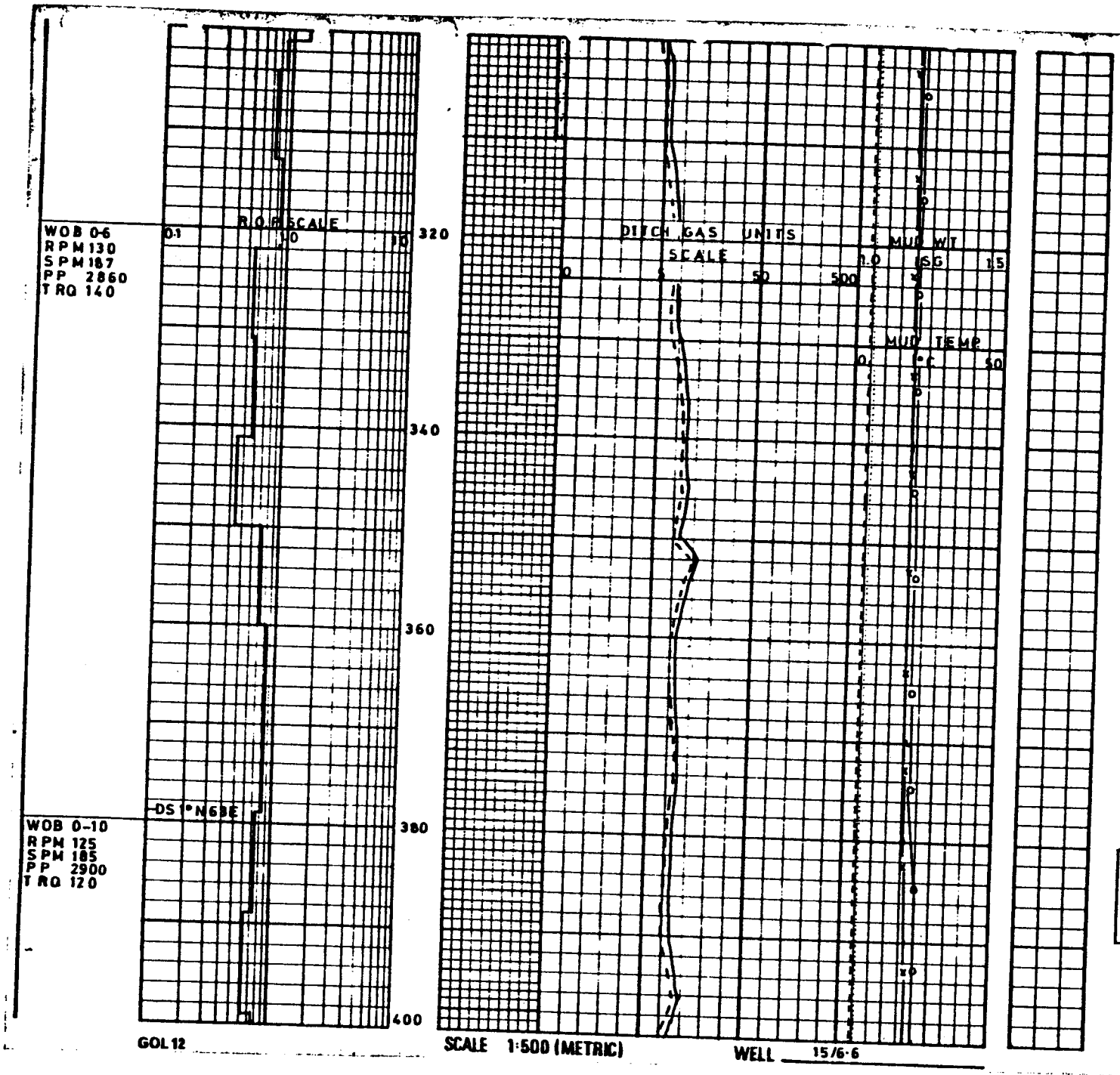
SND:clss,crse-v crse,sbang-wrnd spher,mod-w srt,lse.

GD TR.SHELLS.

CL:gy,sft,sticky,calc.

LOCALLY ABUN ROCK FRAGS.

SND:clss,med-crse,occ f,ang-sbang,occ sbrnd,p-mod srt, uncons.

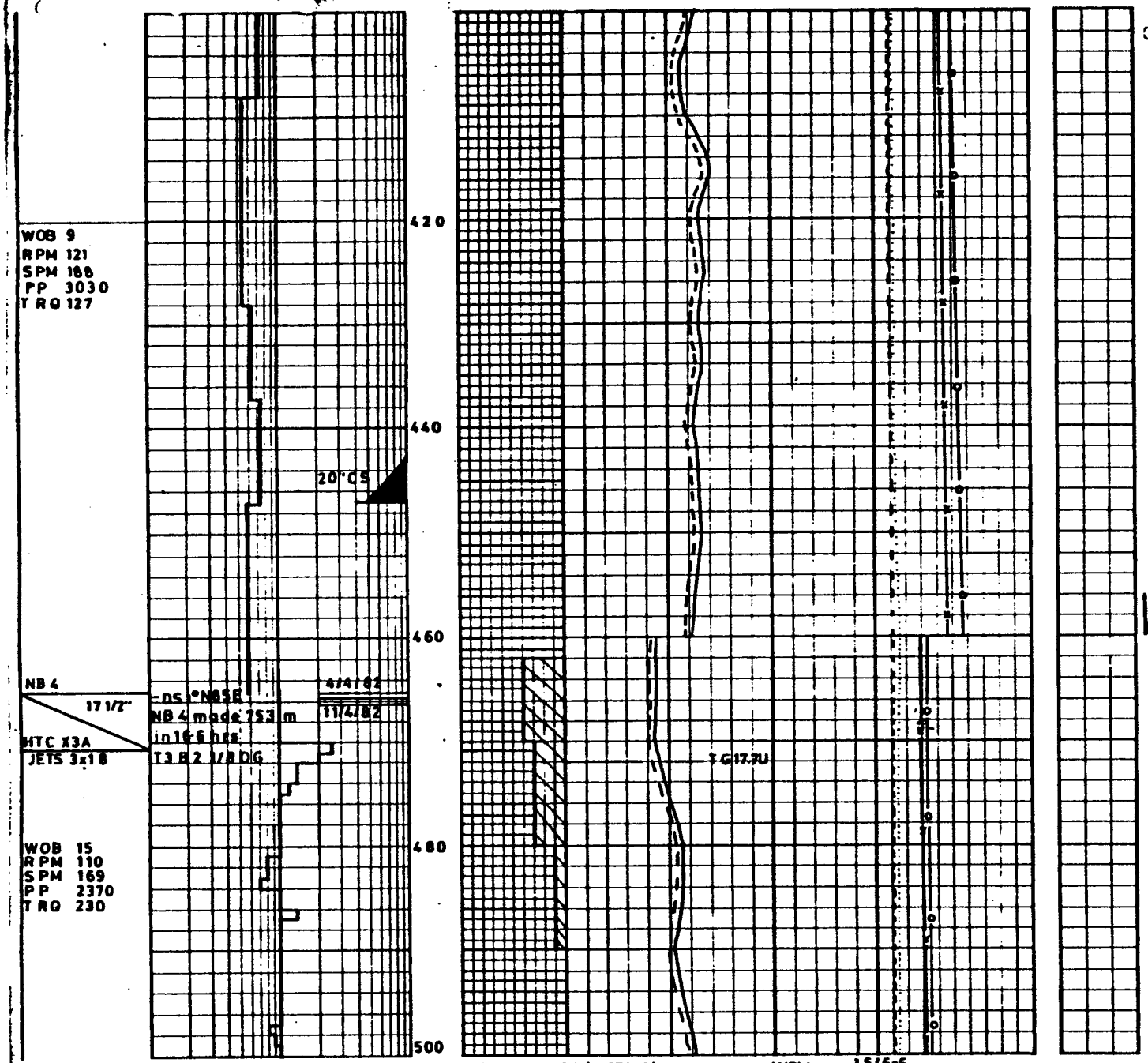


CL:lt-med gy,sft,sticky,calc.
SND:clss,med-crse,occ f,occ v crse,ang-sbang,occ sbrnd, p-mod srt,uncons.

TR CARBONACEOUS MATERIAL.

CL:a/a bec sl slty.

MUD DATA
W 1.08 V 41 PV 5 YP 33
GEL 14/18 pH 10.2 F 50+
CK 3 Cl 14K SD Tr SOL 4

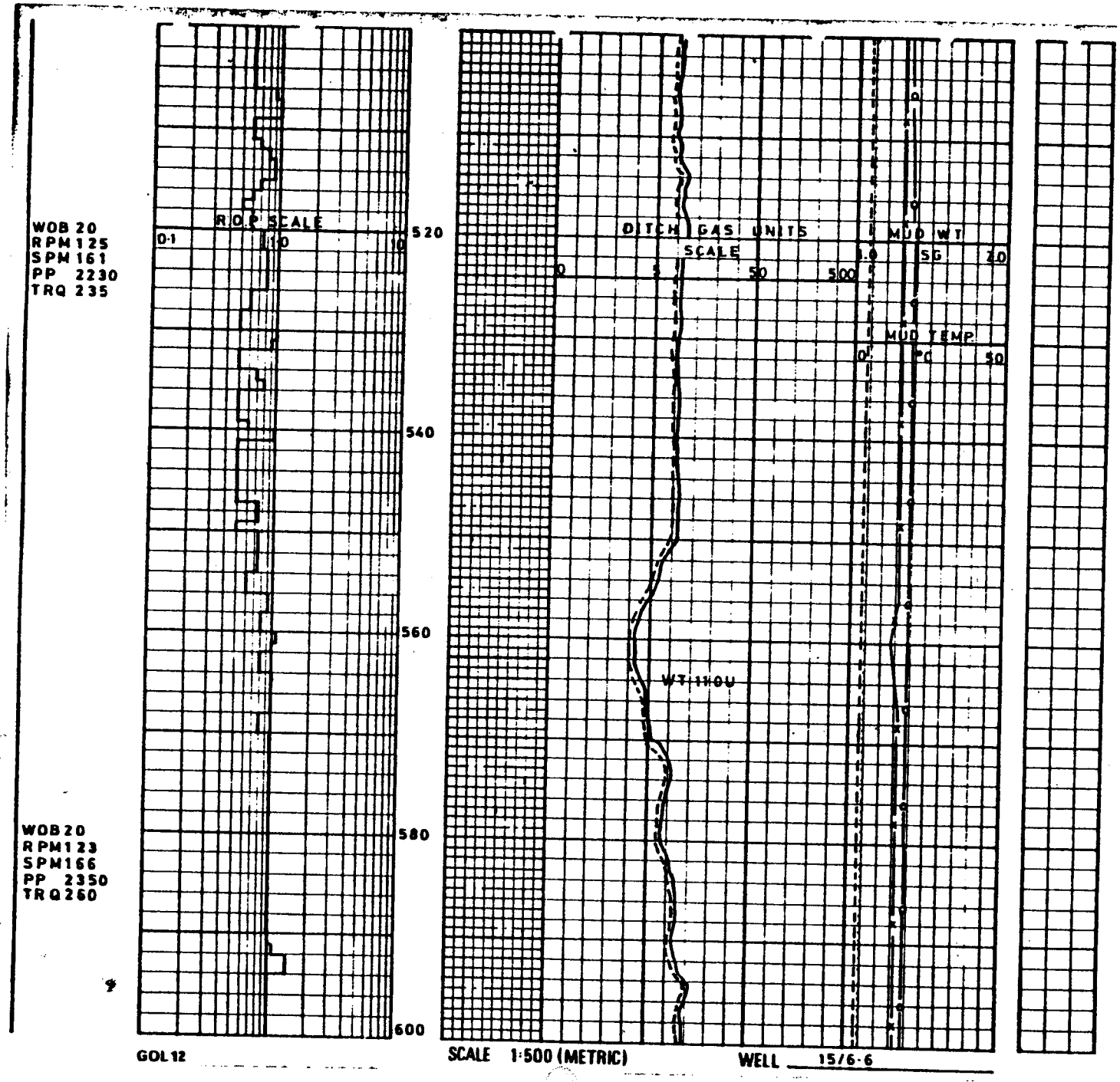


CL:lt-med gy,sft,stcky,sl slty,
v calc.
TR LST:bf,hd,micritic,pos
dtrl.

CL:a/a.

CLST:gy,sft,sticky,slty,occ
sdy,v calc.

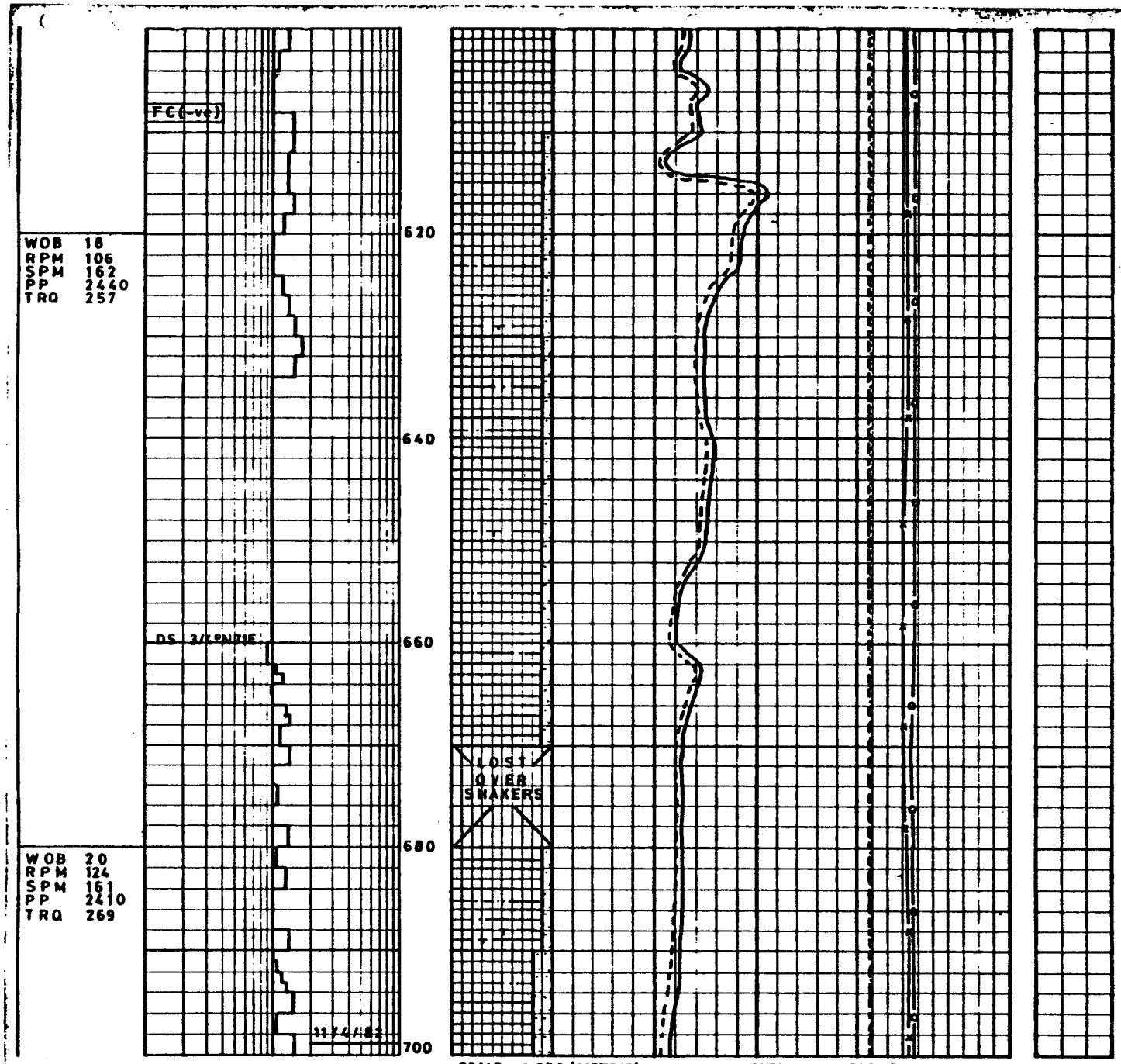
SCALE 1:500 (METRIC) WELL 15/6-6



CLST:gy,sft,sticky,occ sdy, v calc.

CLST:a/a bec more sdy.

CLST:a/a.



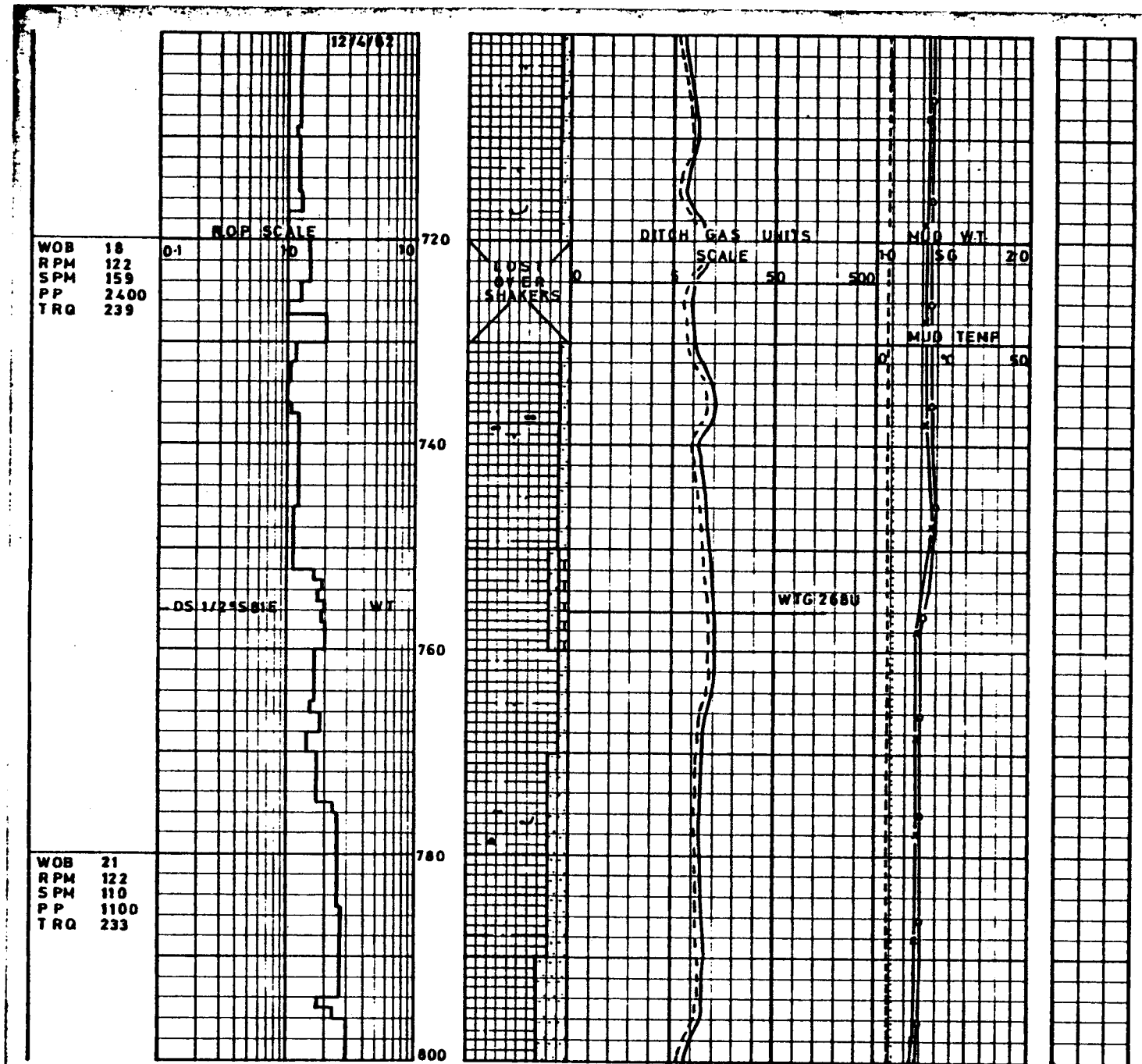
CLST:gy,sft,sticky,vslty,occ sdy,mic,v calc.

SD:clss,v f-v crse,ang-sbrnd, p srt,uncons.
TR SHELLS.

CLST:a/a.
ABUN GLAUC.
TR SHELLS.

SD:a/a.

SCALE 1:500 (METRIC) WELL 15/6-6



CLST:gy,sft,sticky,v slty,occ sdy,mic,v calc.

SD:clss,f-crse,ang-sbrnd,p-mod srt,uncons.

TR SHELLS.

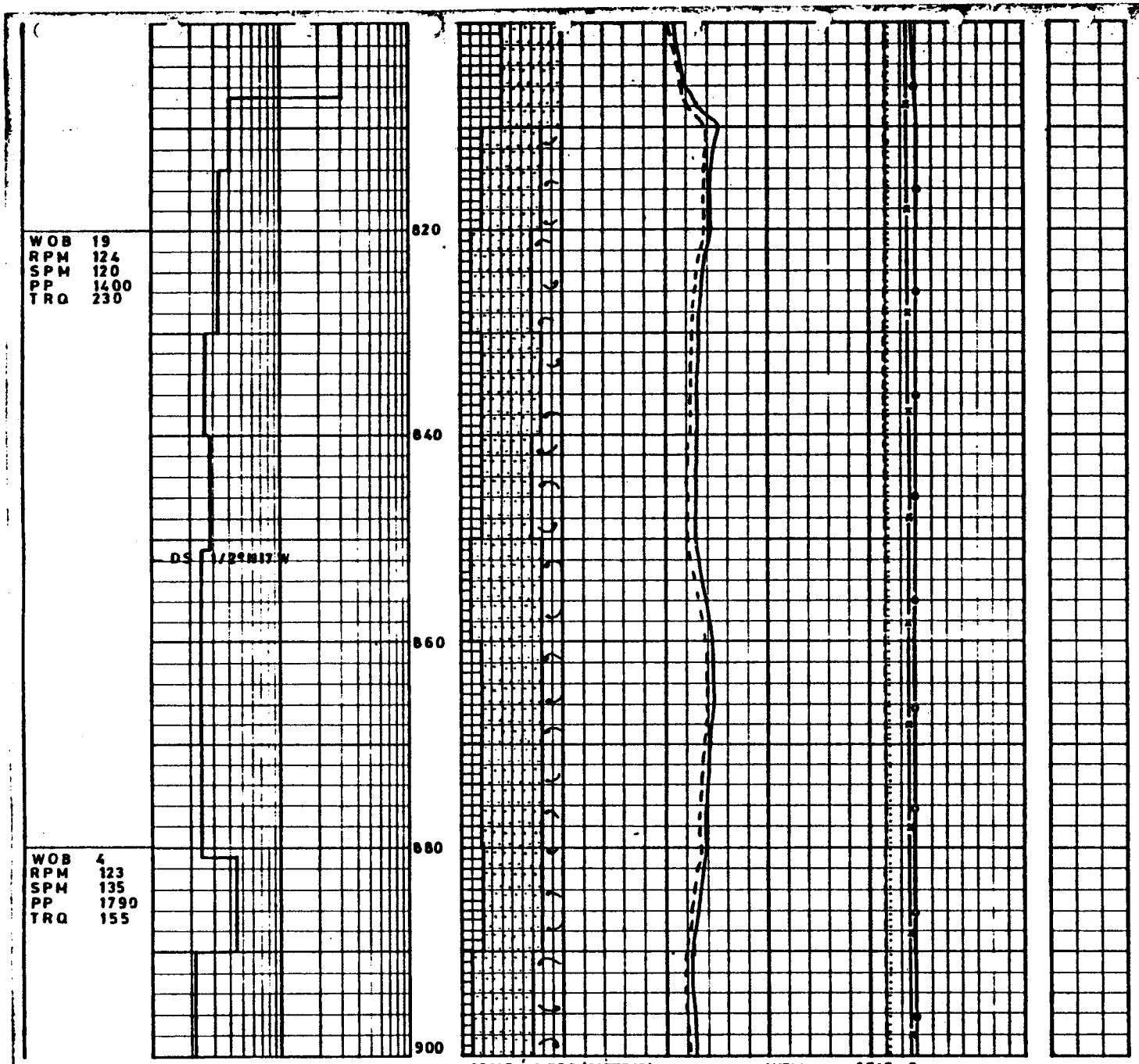
MUD DATA				
W 1.10	V 40	PV 7	YP 13	
GEL 2/7	pH 10.3	F 9.9		
CK 1	CL 16K	SD Tr	SOL 5	

TR PYRITE.

LST:wh,sft,floury,paste.

CLST:a/a.
SD:a/a.
TR SHELLS.

TR GLAUC.



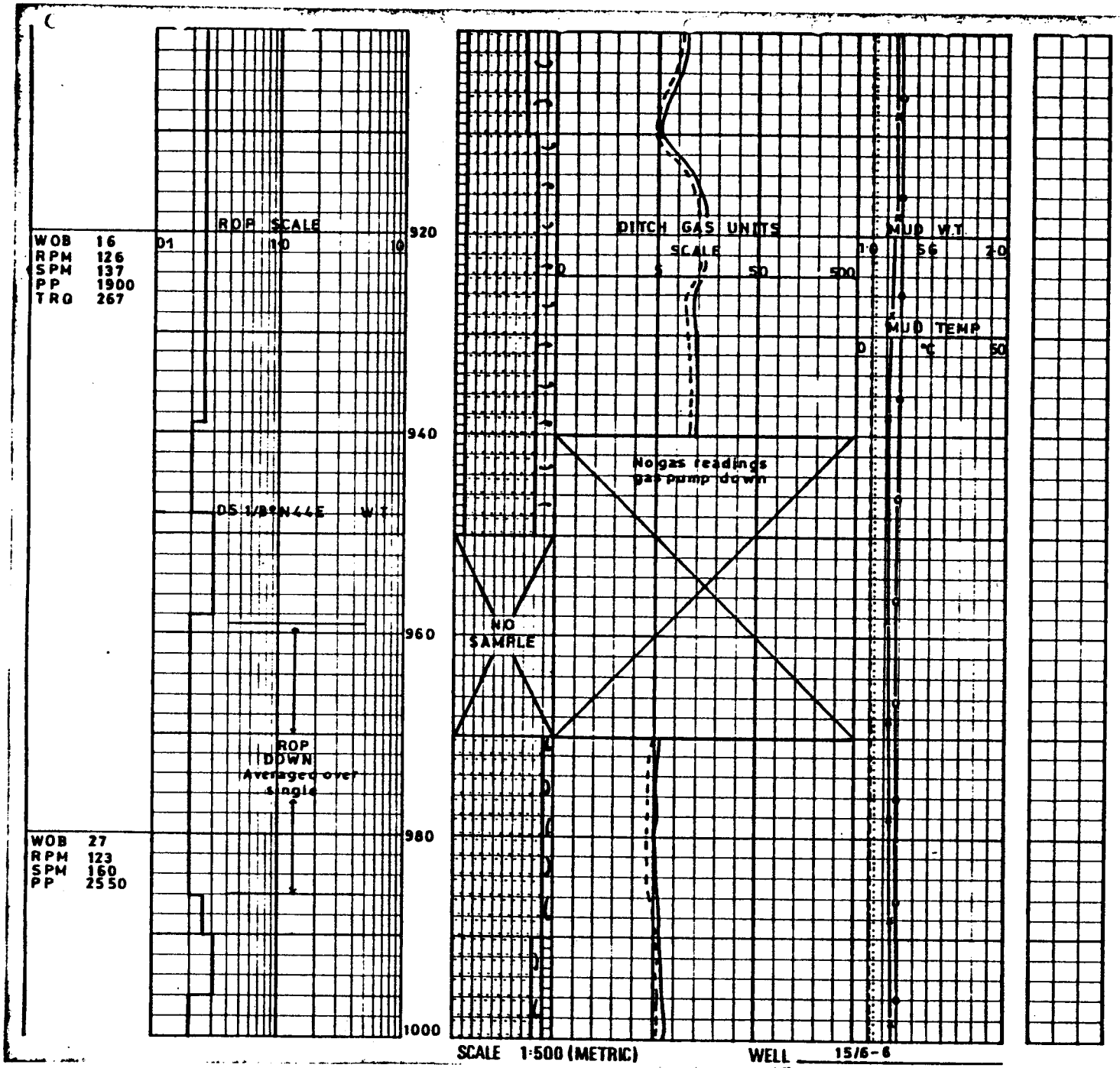
SHELLS:pred Bivalve frags, sm micr fos,inc Foram& Gast.

SD:a/a,inc cr gn,sm glauc.

CLST:gy,sft,stcky,mic,occ sdy,v.calc.

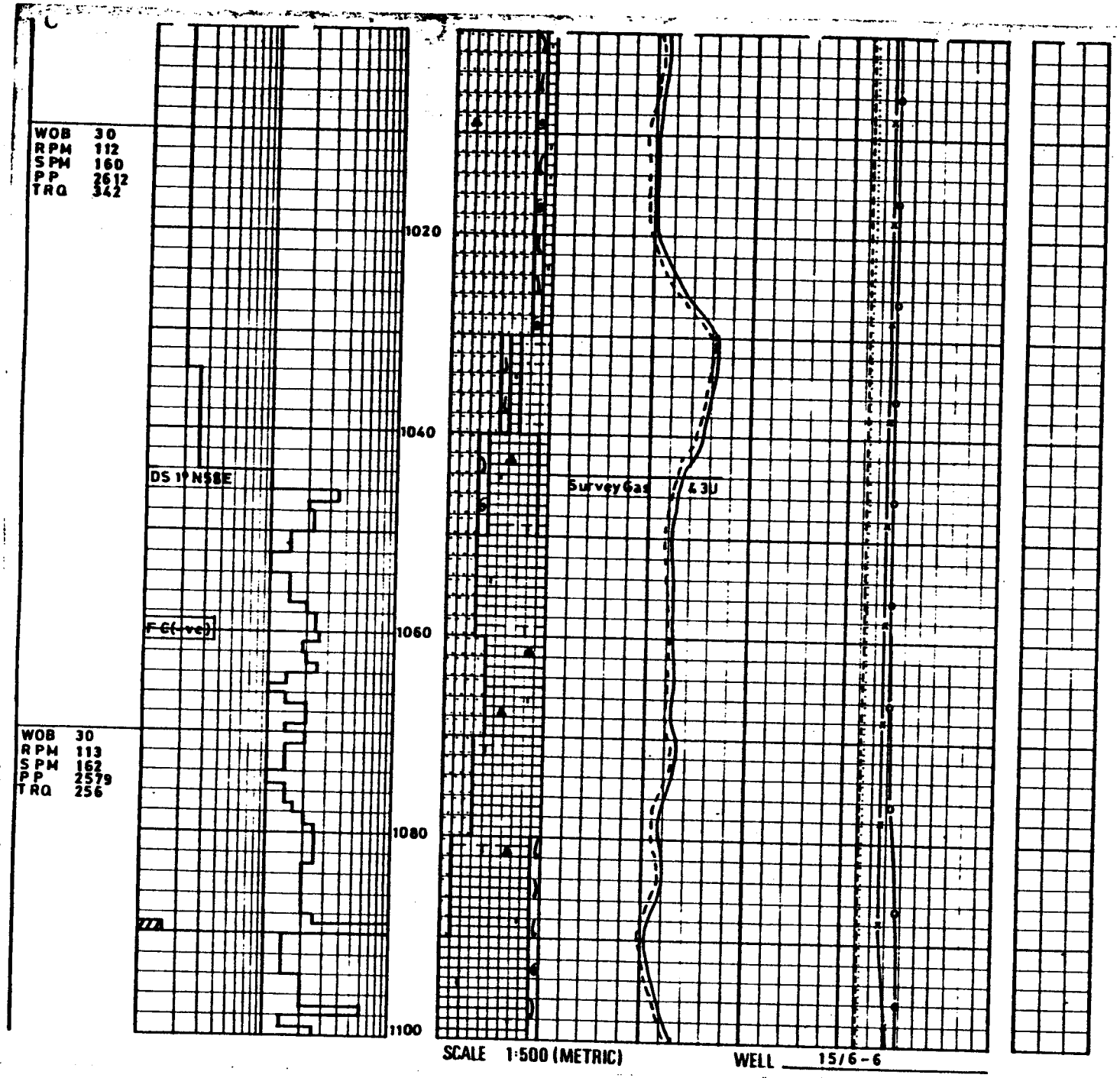
SD:clss,f-cr gn,sb-ang,pr srt,uncons.

SCALE 1:500 (METRIC) WELL 15/6-6 PAGE 9



SHELLS:a/a,inc Polychaete frags.

SD:clss,f-crse,sbang-sbrnd, p srt,sm v.f gn SST,pred uncons.

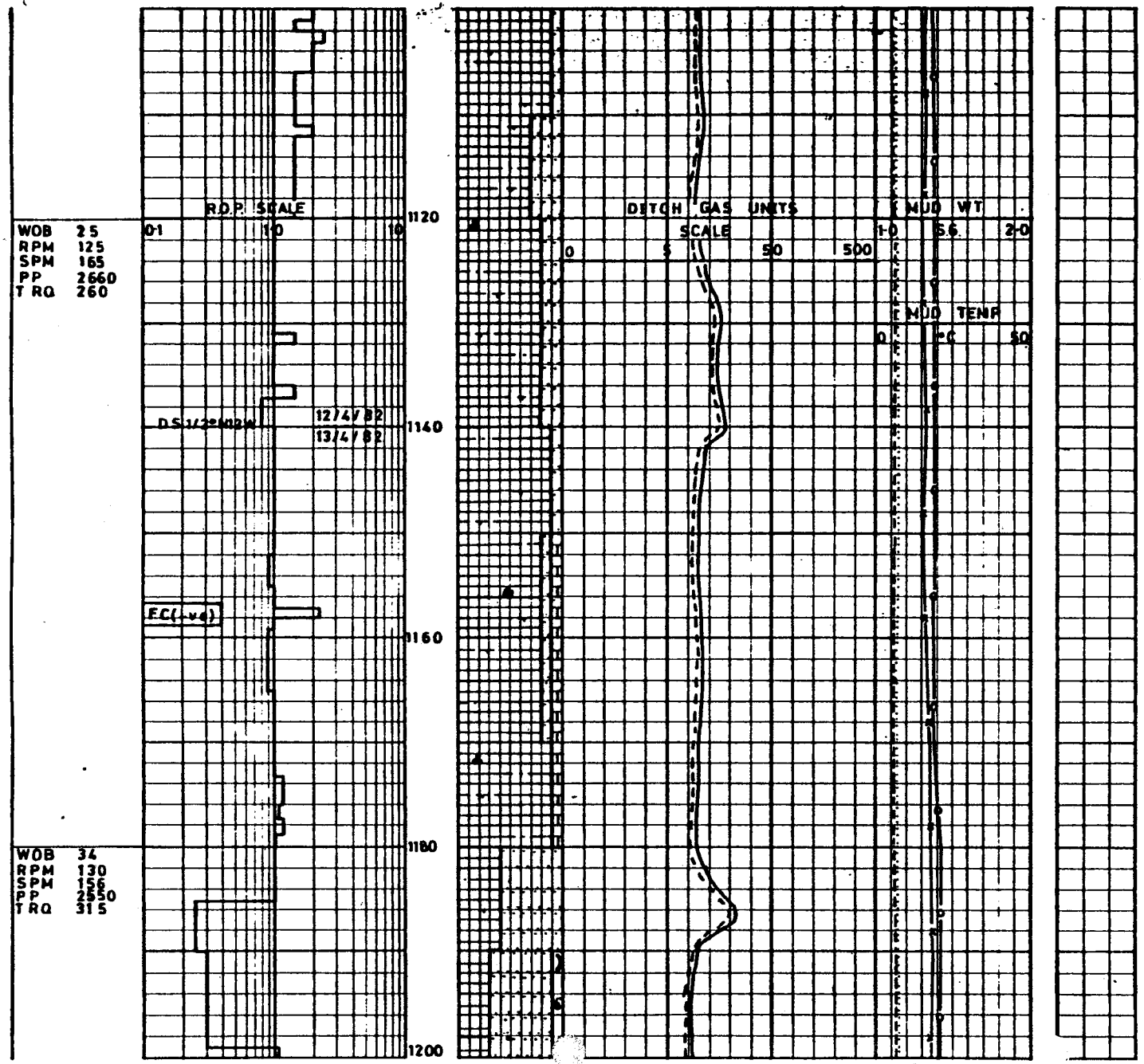


Tr GLAUC.

SLST:gy brn,sft-mo frm,glauc micr mic,calc.

Tr LST&bf,transl bn,microxtln.

CLST:gy-dk gy,sft,v.calc,tr carb,glauc,mic,incr lith,sl swlg.



Tr LST.

Tr SHELLS.

Tr GLAUC.

CLST:a/a,becming mr slty.

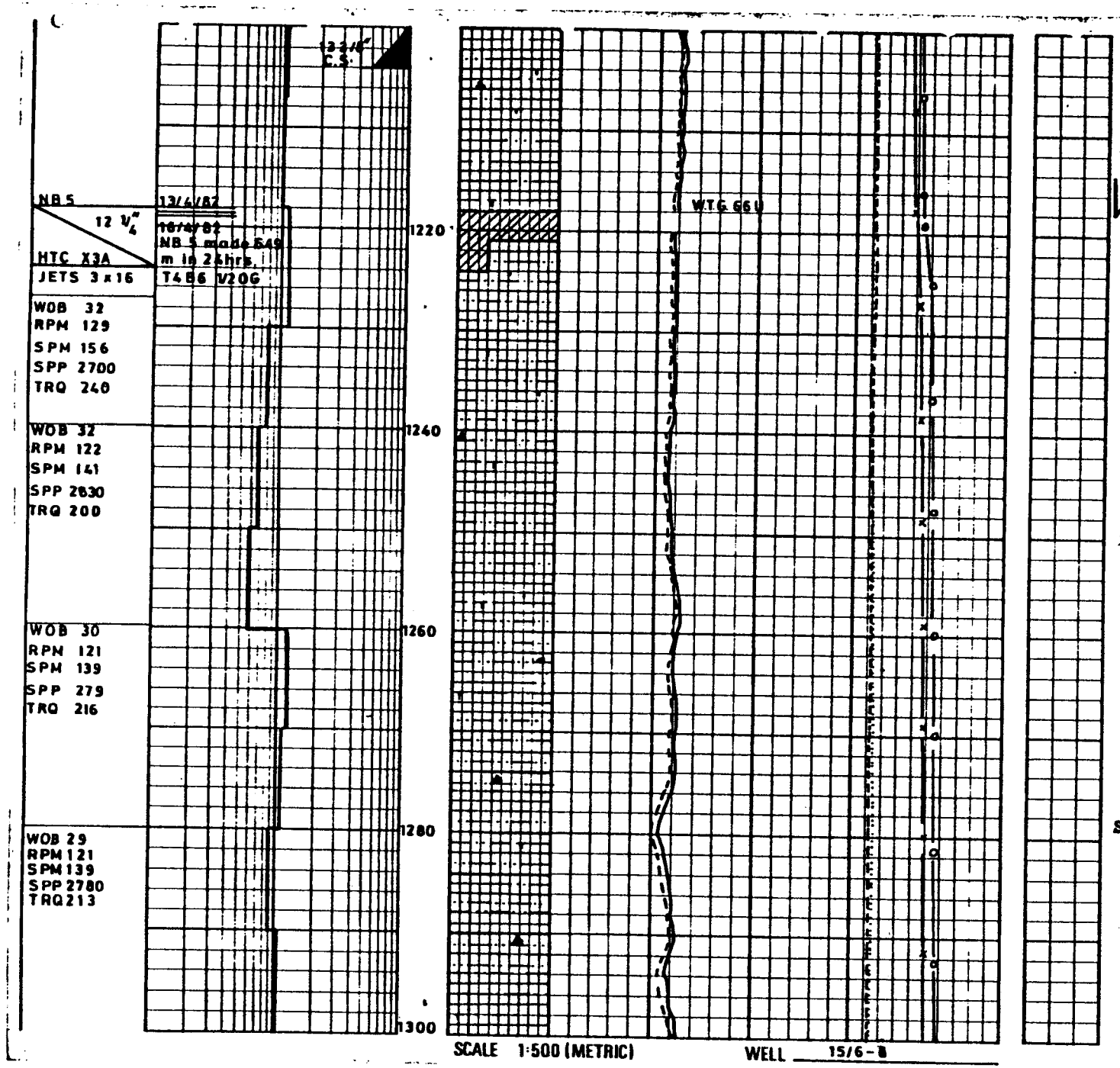
MUD DATA			
W 1.12	V 49	PV 9	YP 17
GEL 3/13	pH 10.0	F 6.9	
CK 1	CL 16K	SD Tr	SOL 6

CLST/SLST:gy-bn,calc,sndy mic,glauc,sft-mo frm.

SD:a/a.

SHELLS:pred bivalve frags,sm Foram,Gast& Ech spines.

SCALE 1:50 (METRIC) WELL 15/6-6



CLST/SLST:brn,v.calc,sft-mo fm,mic,glauc,tr pyr,occ sndy.

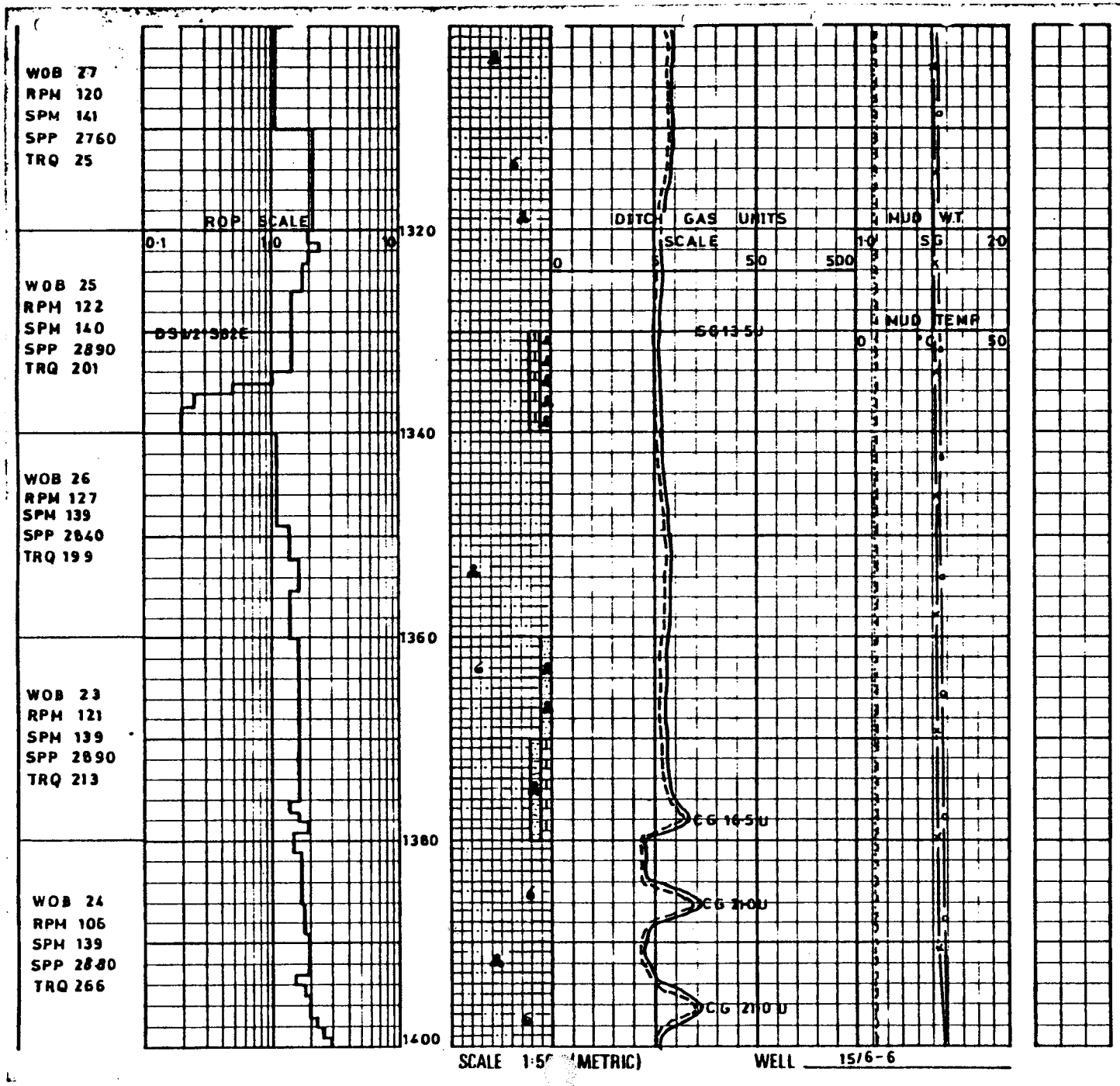
EL:IEL,SONIC,GR.

SLST :a/a ,sl crsr.

CLST : a/a grdg to CLST

SLST : a/a v sft bwn-bf

SCALE 1:500 (METRIC) WELL 15/6-8



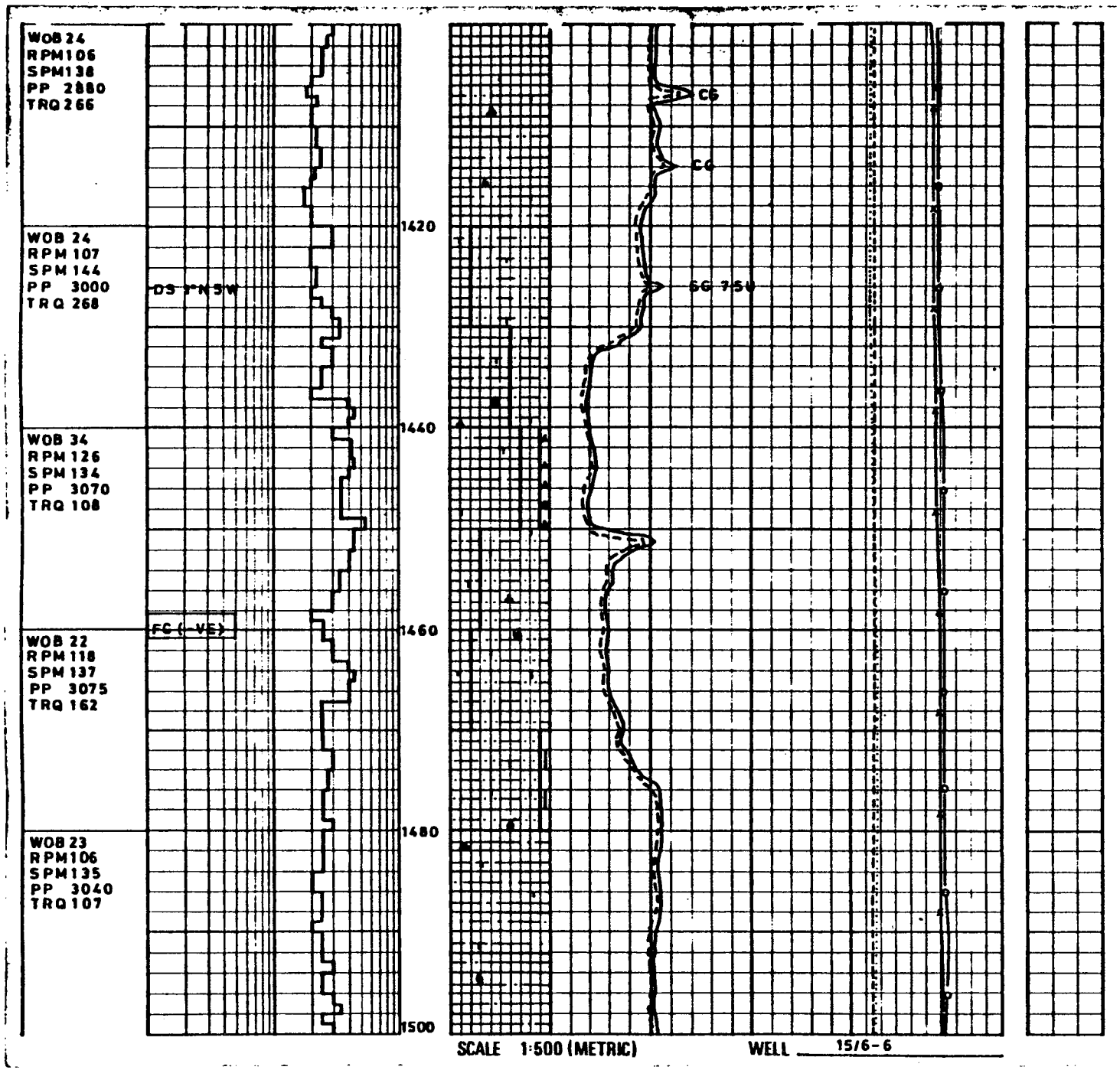
CLST/SLST : dk gy,inc slty micromic v calc glauc,mod fm, blcky sft,crmbly brk.
SD clss md cr gn,rnded,well srted.
LST : bf micrxln.
GLAUC SD dp gn well rnded,gd srtng cr gn.

TR FOSSILS

MUD DATA

W 9.7	V 49	PV 10	YP 16	
GEL 11/48	pH 9.9	F 8.1		
CK 2	Cl 15	SD Tr	SOL 9	

SCALE 1:5[illegible] (METRIC) WELL 15/6-6



TR PYR
TR GLAUC

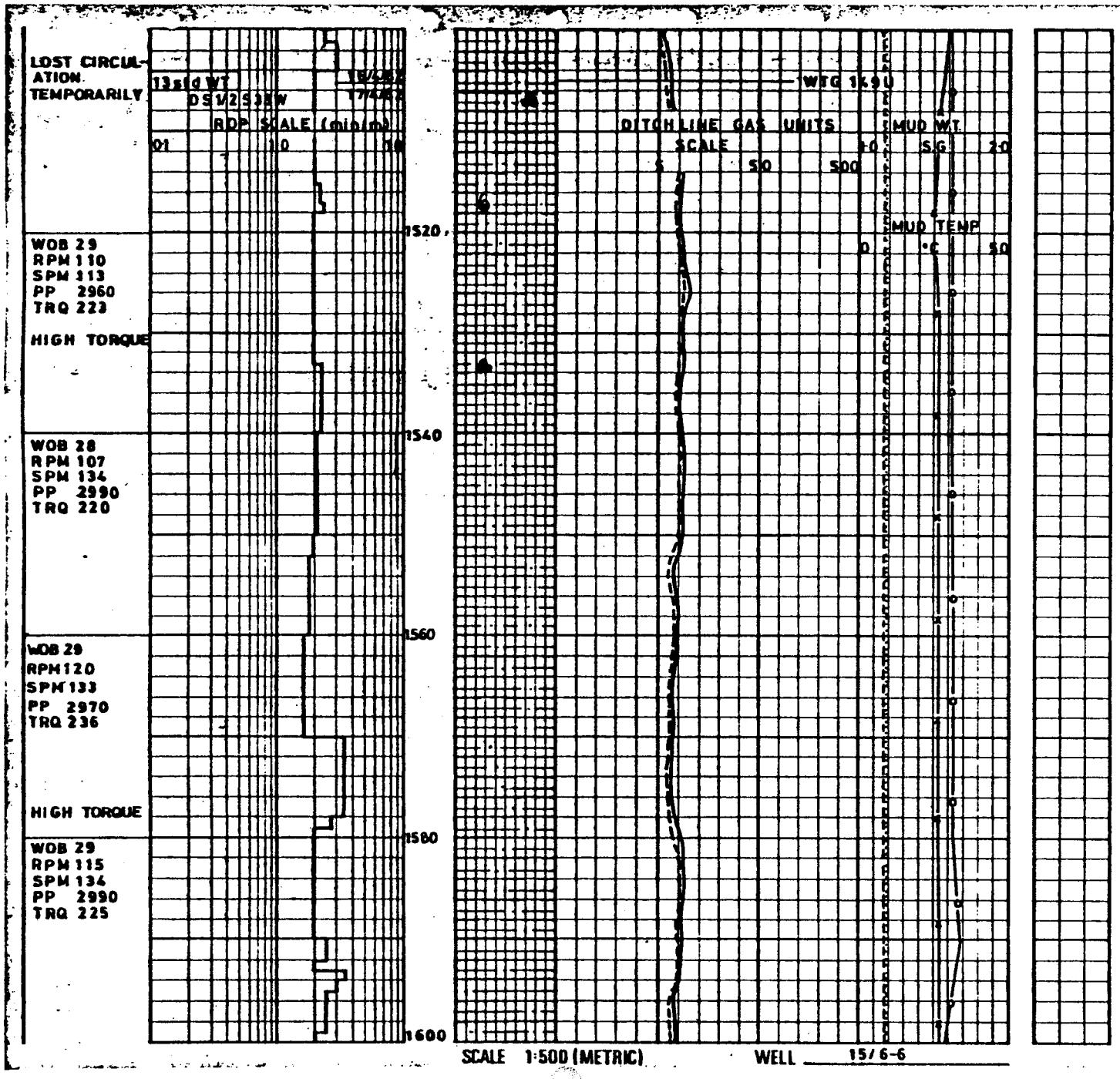
SLTST:dk gy-brn,sli calc, glauc,tr pyr.

TR SHELLS.

GLAUC:dp gn,well rnded,gd srt cr gn.

LST:bff-brn,microxtln,hd,sm flour

CLYST: gy,mic,sli-mo calc, glauc,v.slty,sub fiss,mo frm.



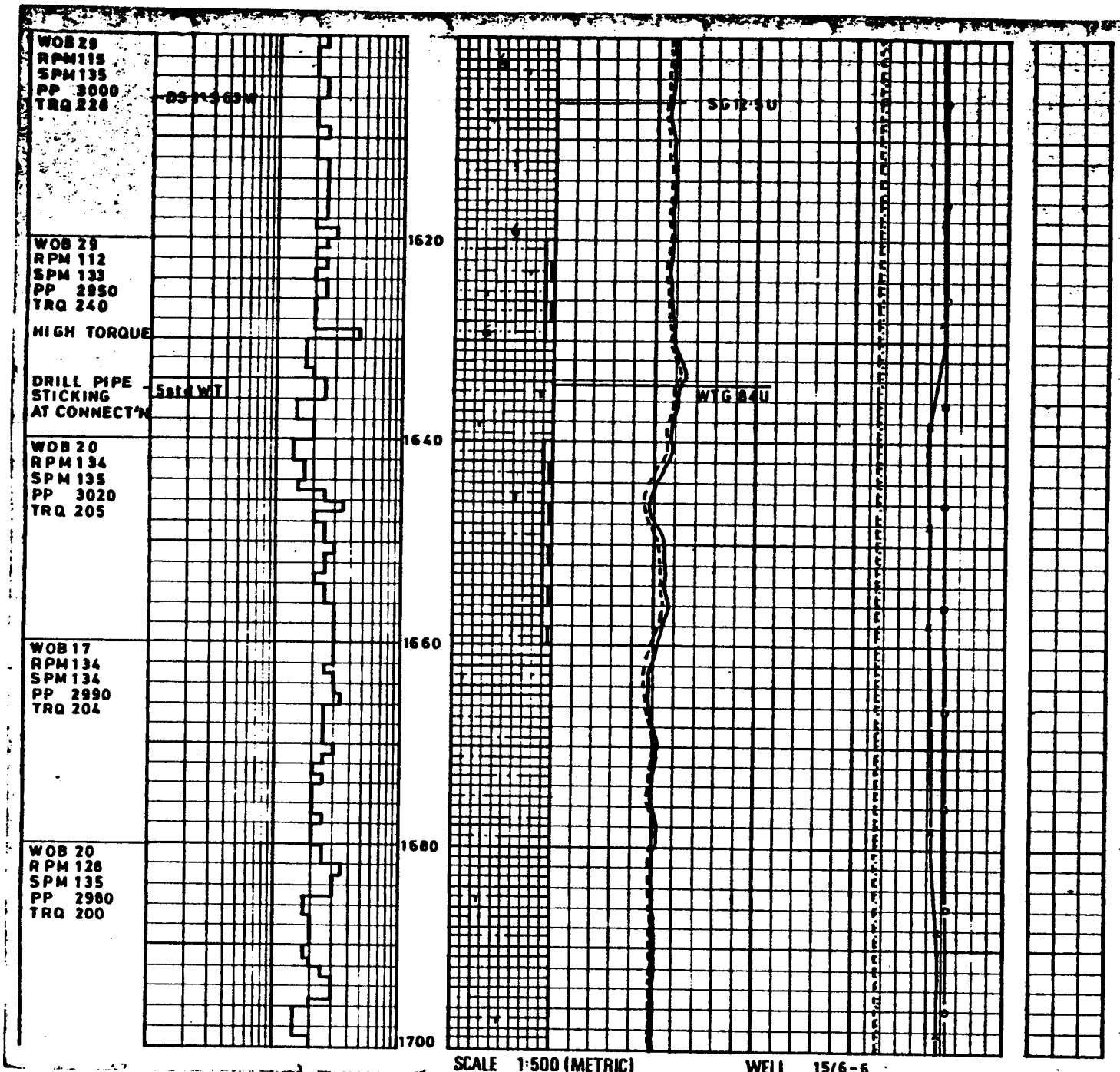
CLYSTra/m.

TR MICRFOS.

MUD DATA
W 9.7 V 49 PV 9 YP 22
GEL 18/60 pH 10.2 F 10.1
CK 2 Cl 15K SD TR SOL 9

TR LST.

SCALE 1:500 (METRIC) WELL 15/6-6



SLTST:bn,v.fn gr,mic,glauc, mo calc,mo fm,crmbly,sub-fiss in places.

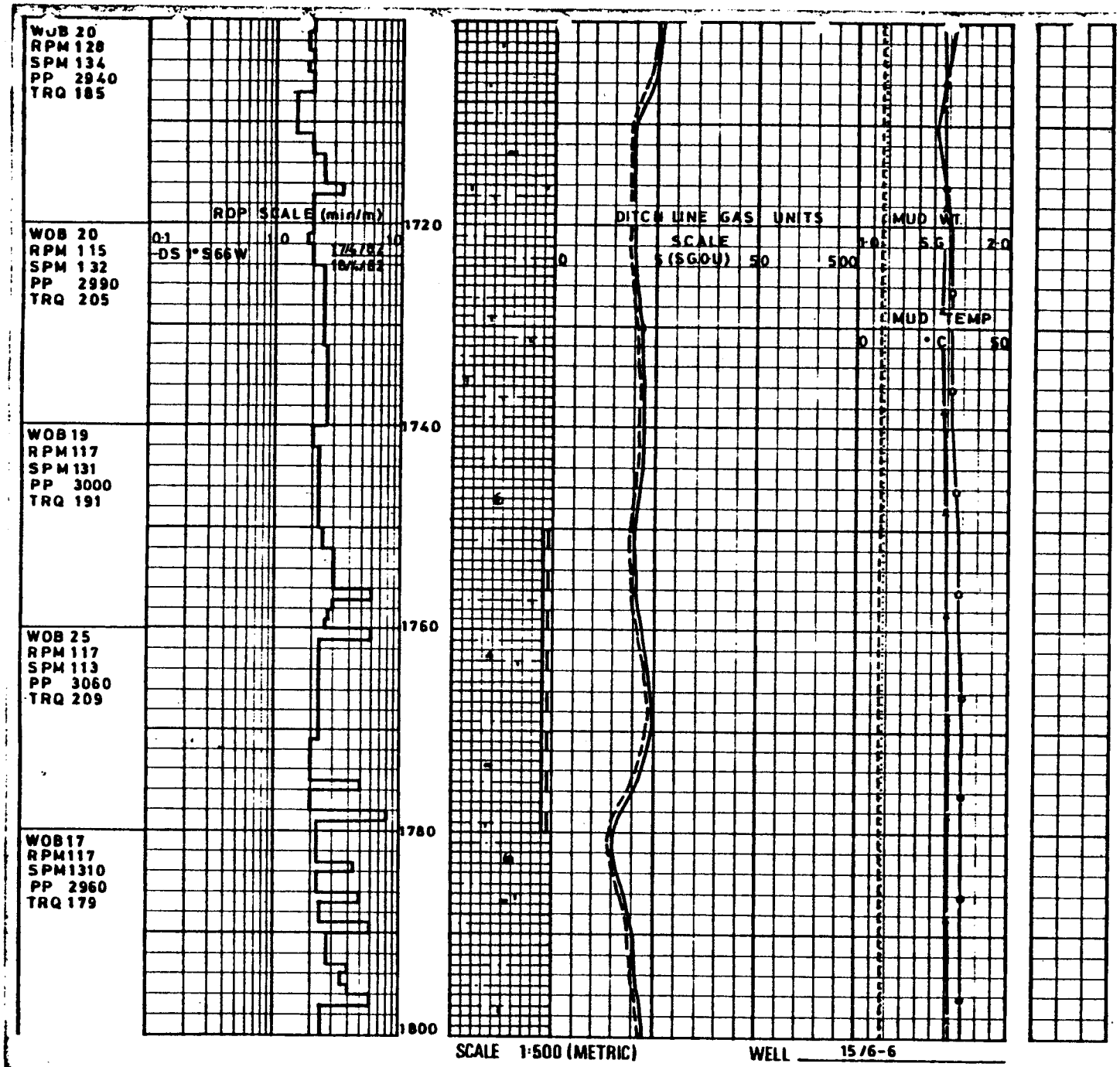
LST:buff,micrxtln,sm flour, sm spar calcite.

CLYST: brn-gy,sm bl-gy,glauc occ mic,sli calc in places, mo fm,crmbly brk,sub fiss, tr pyr, mo slty.

LST:a/a,dol in places.

SST:clss,v.fn grn,pr cmtg, mo-gd por,gd srt,sub rnd,mic, tr glauc.

SCALE 1:500 (METRIC) WELL 15/6-6 PAGE 17



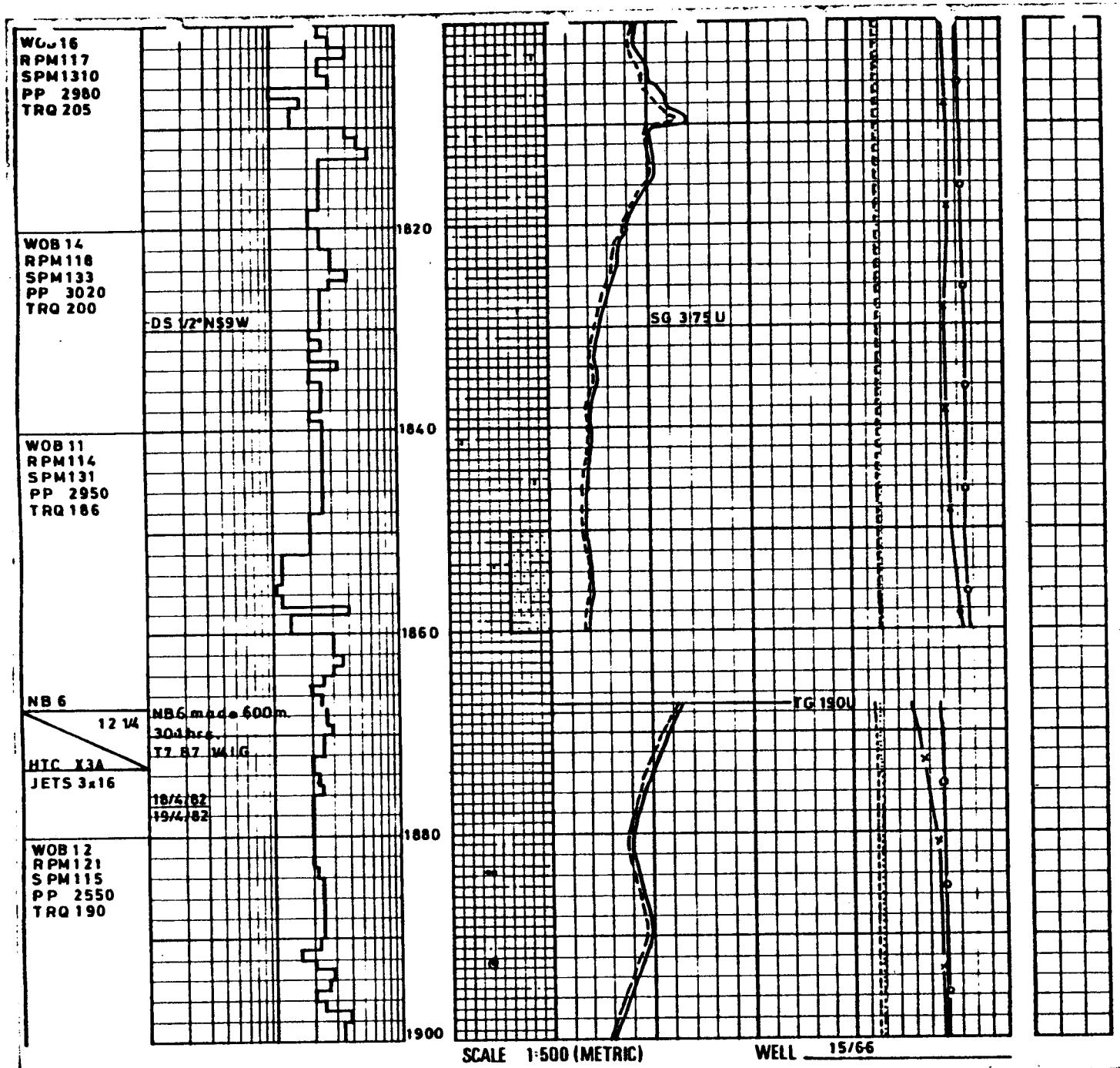
CLYST:a/a.

TR MICRFOS.

LST:hd,wh-buff,micrxtln,blcky, fraced.

MUD DATA				
W 9.7	V 53	PV 8	YP 12	
GEL 14/53	pH 9.8	F 9.6		
CK 2	Cl 15K	SD ¼	SOL 9.	

TR PYR.

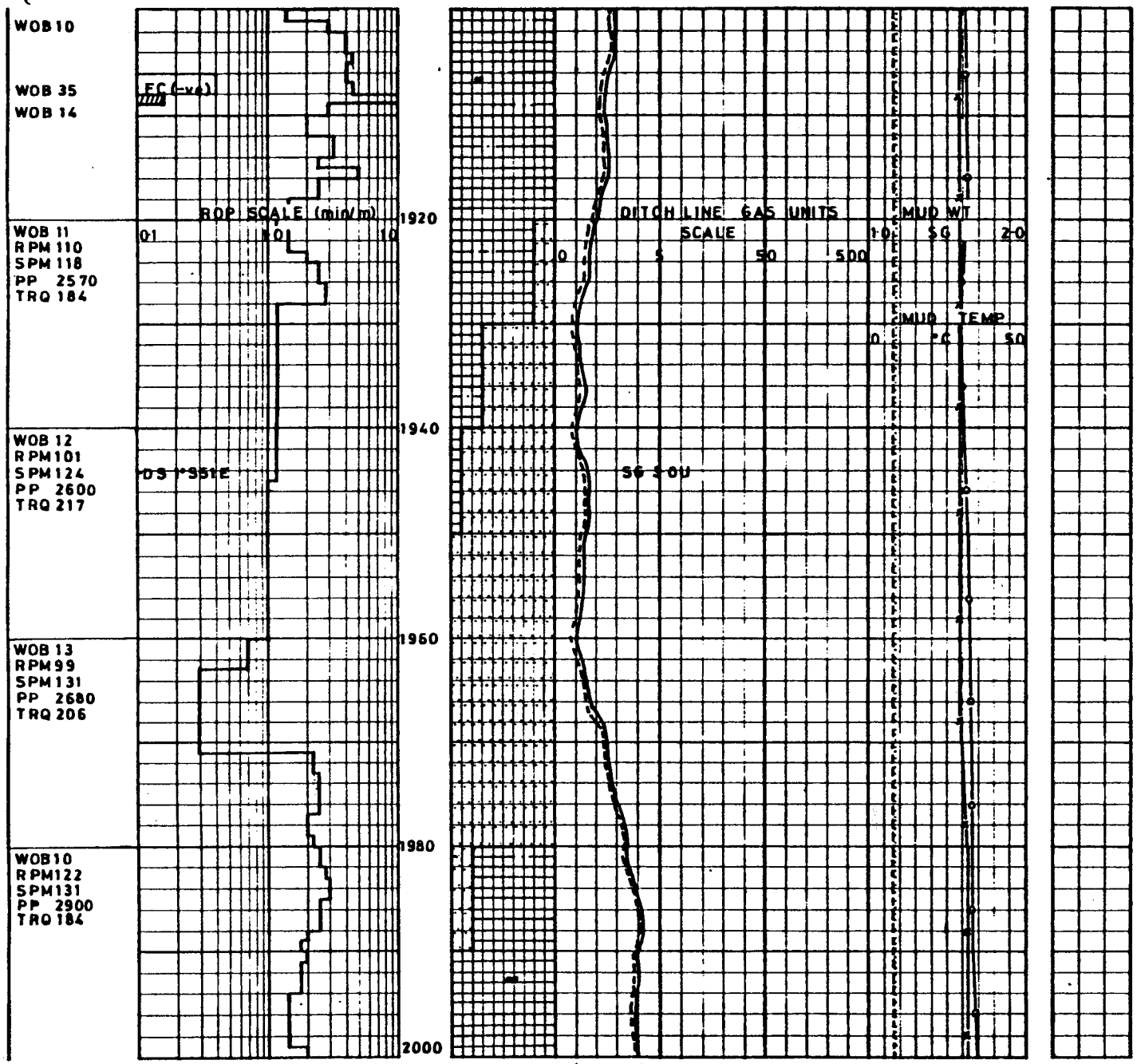


CLYST:a/a.

TR LST:wh,sft,flour.

SST;clss,v.fn gr/coarse SLST,.
v.mic,pr cmt,crmbly.

TR PYR.



TR CALC DOL:yel-brn,hd.

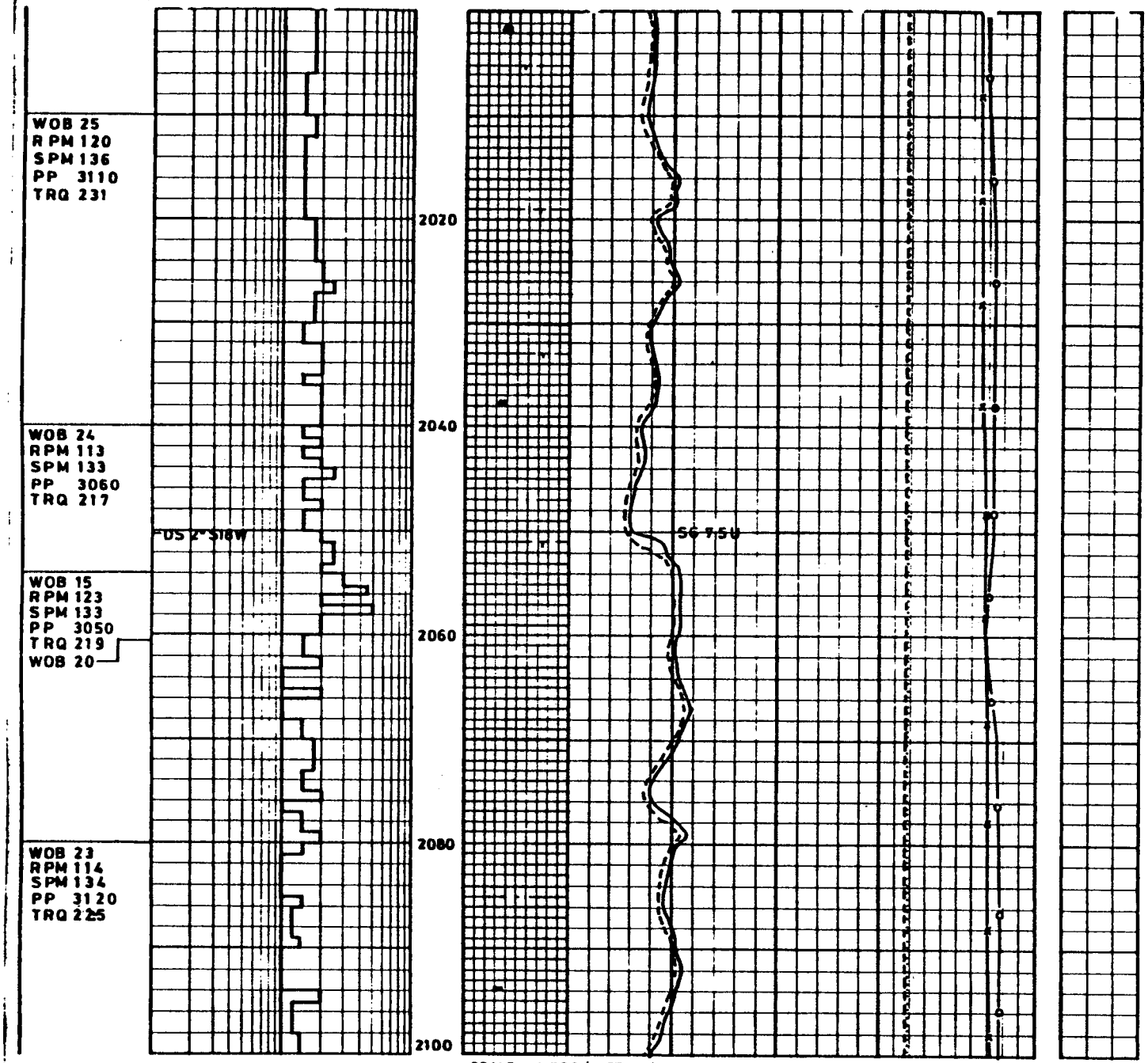
SST:a/a.

SST/SD:mstly lse clss qtz, med-coarse gr,sub rnd-rnd, pr srtg,mic.

SD:a/a,no vis cmt.

CLYST:gy-gn,fm,sub fiss,micr-mic,sli calc,non swell,homog.

SCALE 1:500 (METRIC) WELL 15/6-6 PAGE 20



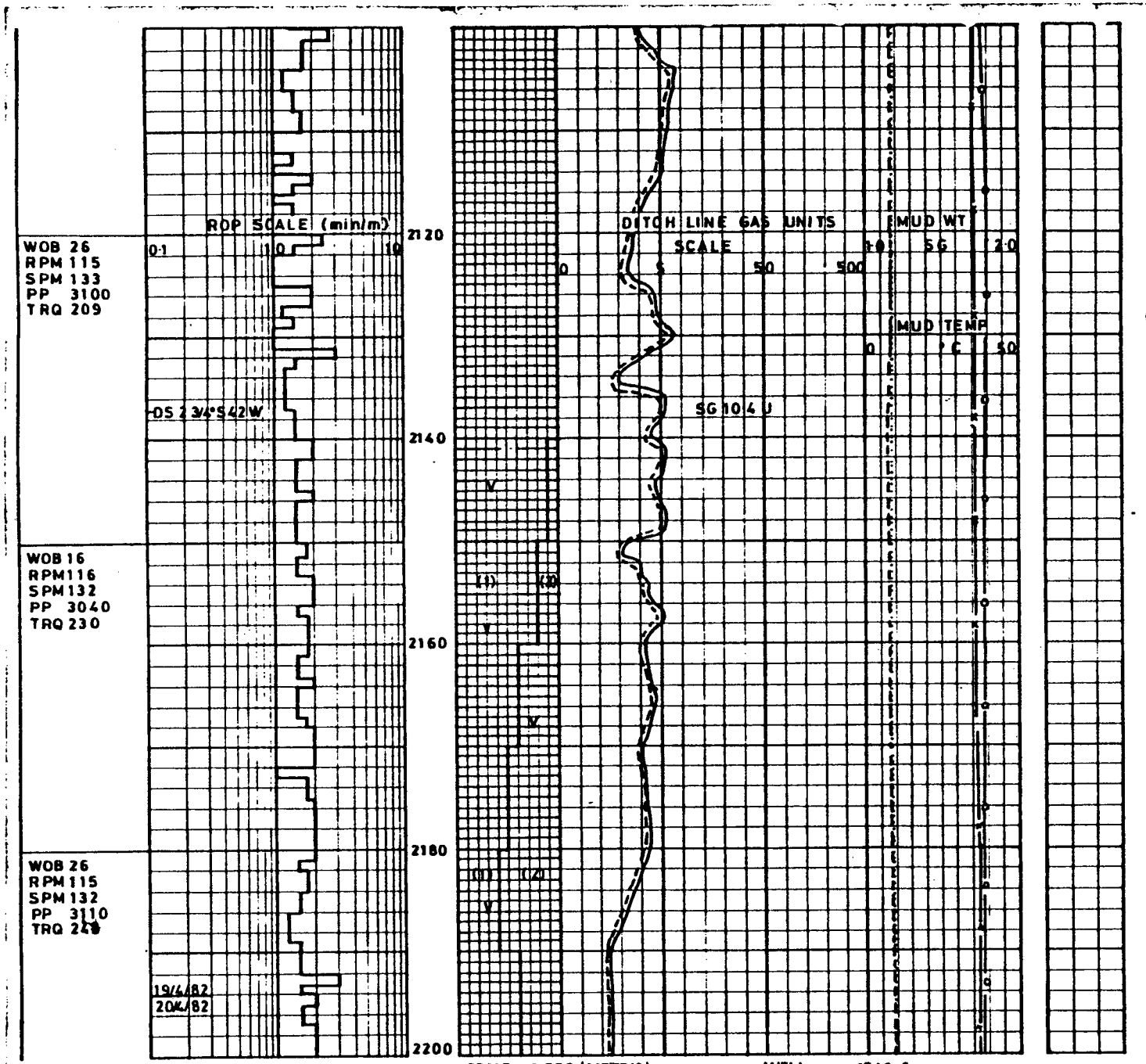
TR LST:

TR PYR:

MUD DATA
W 9.7 V 51 PV 9 YP 20
GEL 14/51 pH 10.3 F 11.4
CK 2 Cl 16.5K SD Tr SOL 8

TR DOL:yel-brn,sli calc,hd.

CLYST: a/a.

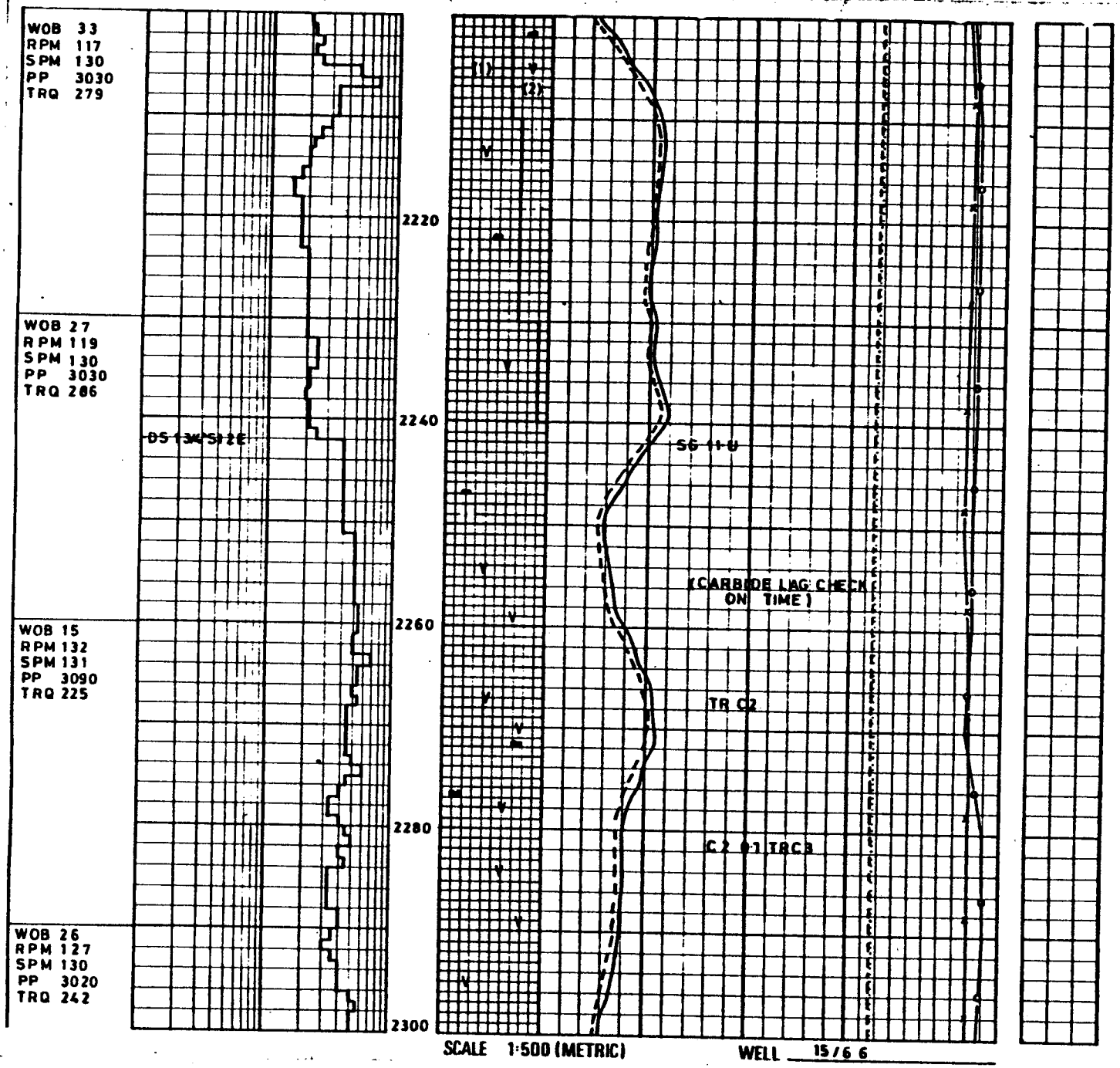


CLYST:a/a,sli tuffaceous.

TR SST:a/a.

CLYST(2):rd-brn,mic,sli shy, sub fiss,fm.

TR TUFF:crm-gy,bitty,speck, mo fm.



MUD DATA

W 9.7 V 51 PV 10 YP 20
GEL 11/43 pH10.2 F 32.8
CK 2.5 Cl 18K SD ¼ SOL 9

CLYST(1)&(2)f a/a

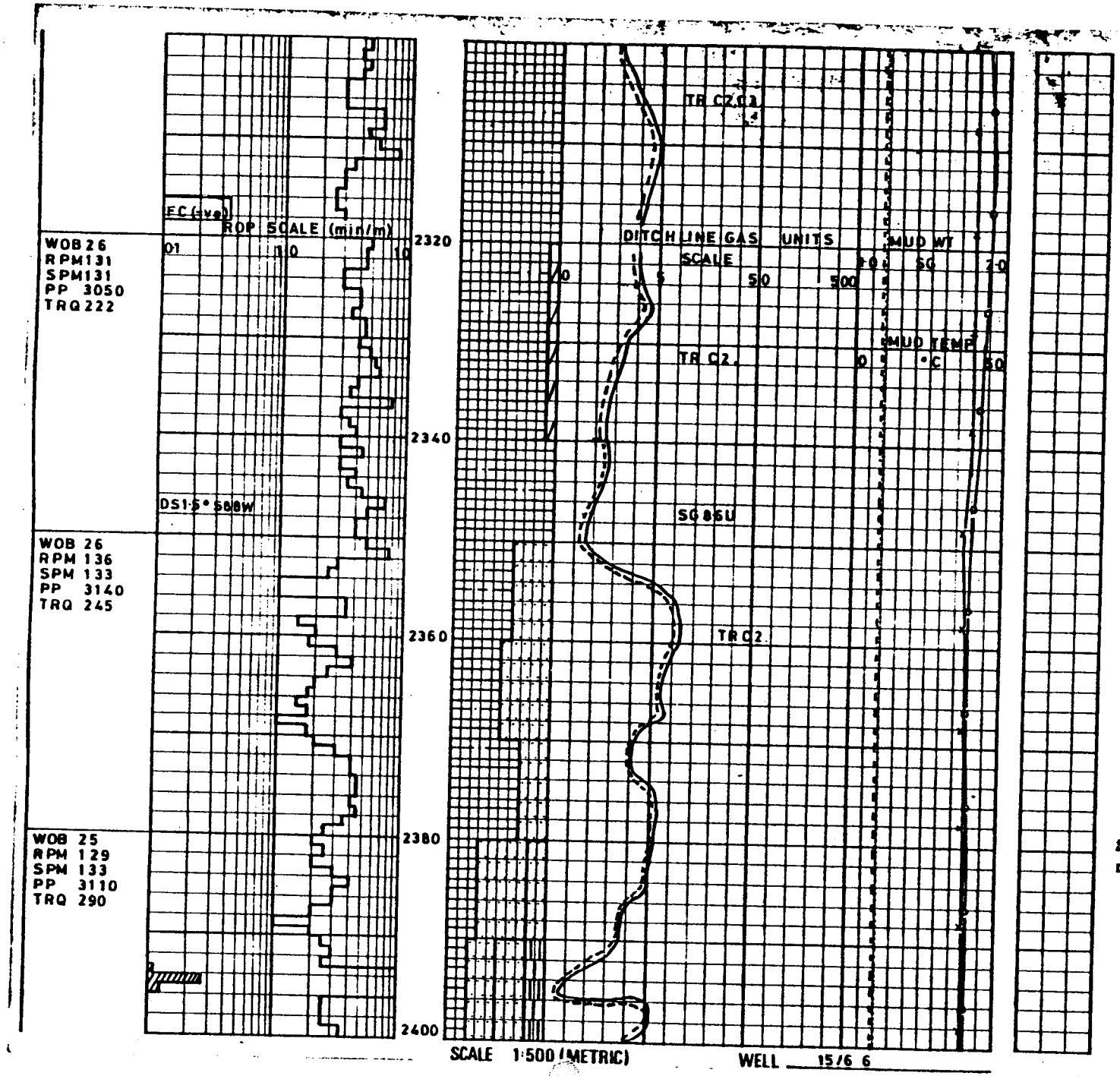
TR PYR.

TR TUFF.

TR LST/DOL.

TR PYR:incr sli.

CLYST(1):SH.



SH:bl-gy,sli calc,sub fiss, lam in places,crmbly,occ v. slty,fm-mo hd.

DOL:buff-brn,hd,calc,micrxtln, frac.

TR TUFF.

SD:clss,no vis cmt,med-crs gr sub ang-sub rnd,pr srt.

SST:clss,fn gr,glauc,calc cmt, mod por,gd srt,sub ang crmbly.

ALOT OF CAVINGS.

WOB 19
RPM 138
SPM 132
PP 3070
TRQ 272

20/4/82
21/4/82

WOB 37
RPM 134
SPM 127
PP 2900
TRQ 271

DS175 S80W

NB 7
12 1/4
HTC J4
JETS 3x16
WOB 24
RPM 107
SPM 127
PP 3090
TRQ 313

21/4/82
NB7 made 173m in 16 hrs 22/4/82
T6B41

2420
2440
2460
2480
2500

SG 55U
TG 56U

SH:dk gy-brn,fm,sub fiss,slty in places,sli mic.

MUD DATA				
W 1.16	V 51	PV 10	YP 20	
GEL 11/43	pH 10.2	F 10		
CK 2.5	Cl 18K	SD 1/4	SOL 9	

SD:clss,med gr,pr srt,sub rnd-rnd.

TR TUFF.

TR PYR.

SH:a/a,dk gy-gy/pl bl occ sli tuff.

MUD DATA				
W 1.16	V 45	PV 8	YP 16	
GEL 7/31	pH 10.4	F 9.4		
CK 2	Cl 18.5K	SD tr	SOL 8	

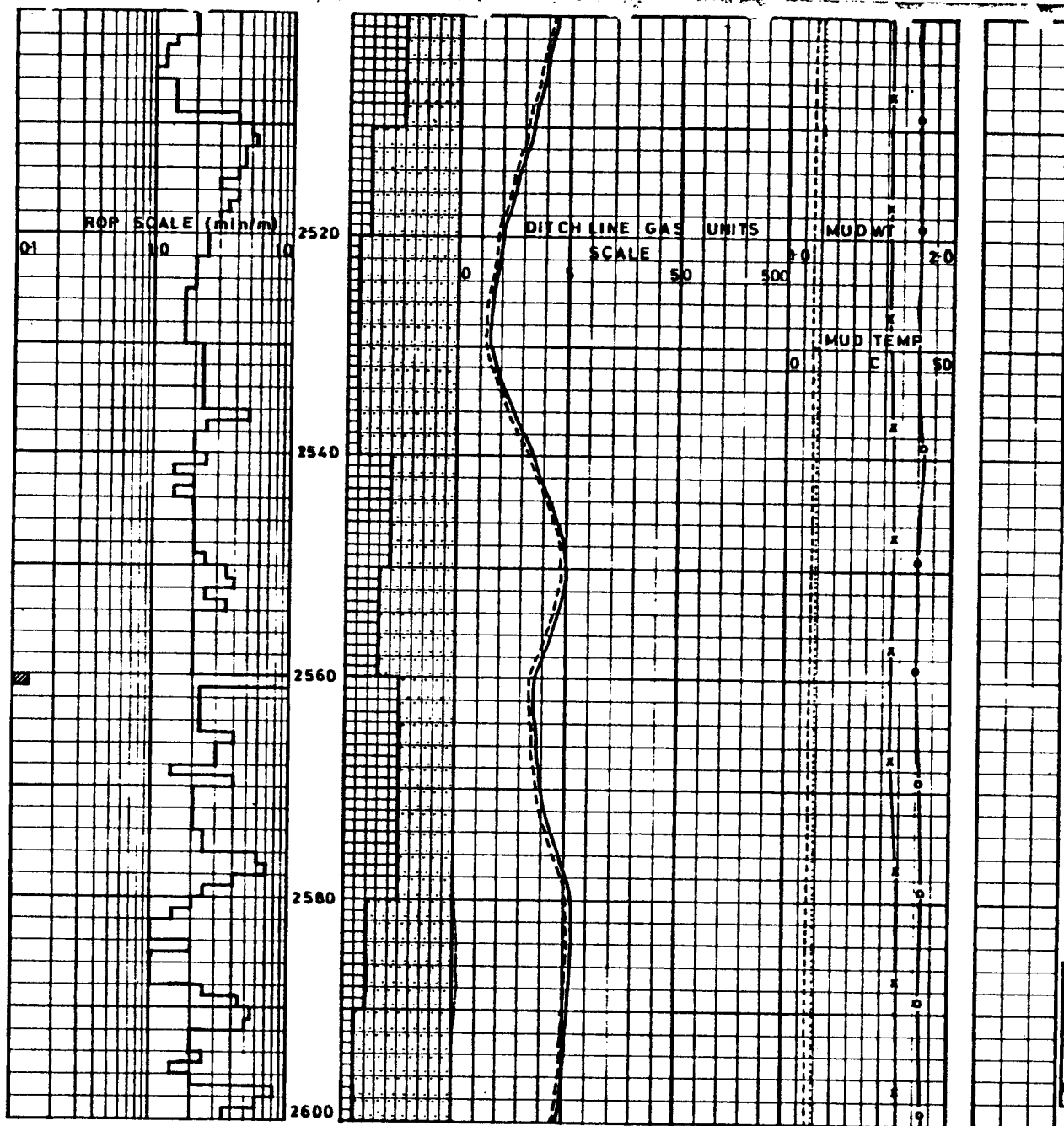
SH:dk gy-gy,bl gn,occ rd,sub fiss,calc i p,tr mica.

SD:clr,med-crs,rnd-sub rnd,sub sph,lse grns,tr pyr.

TR:LST,DOL.

SCALE 1:500 (METRIC)

WELL 15/6 6



SCALE 1:500 (METRIC)

WELL 15/6 6

SH:dk gy-gy,bl gn,sub fiss.

SD:clr,med-crs,rnd-sub rnd,sub sph,lse grns

TR:PYR,DOL.

SD:clr,med-crs,rnd-sub rnd,sub sph,lse grns,occ silic mtx,v sl calc,occ intst pyr.

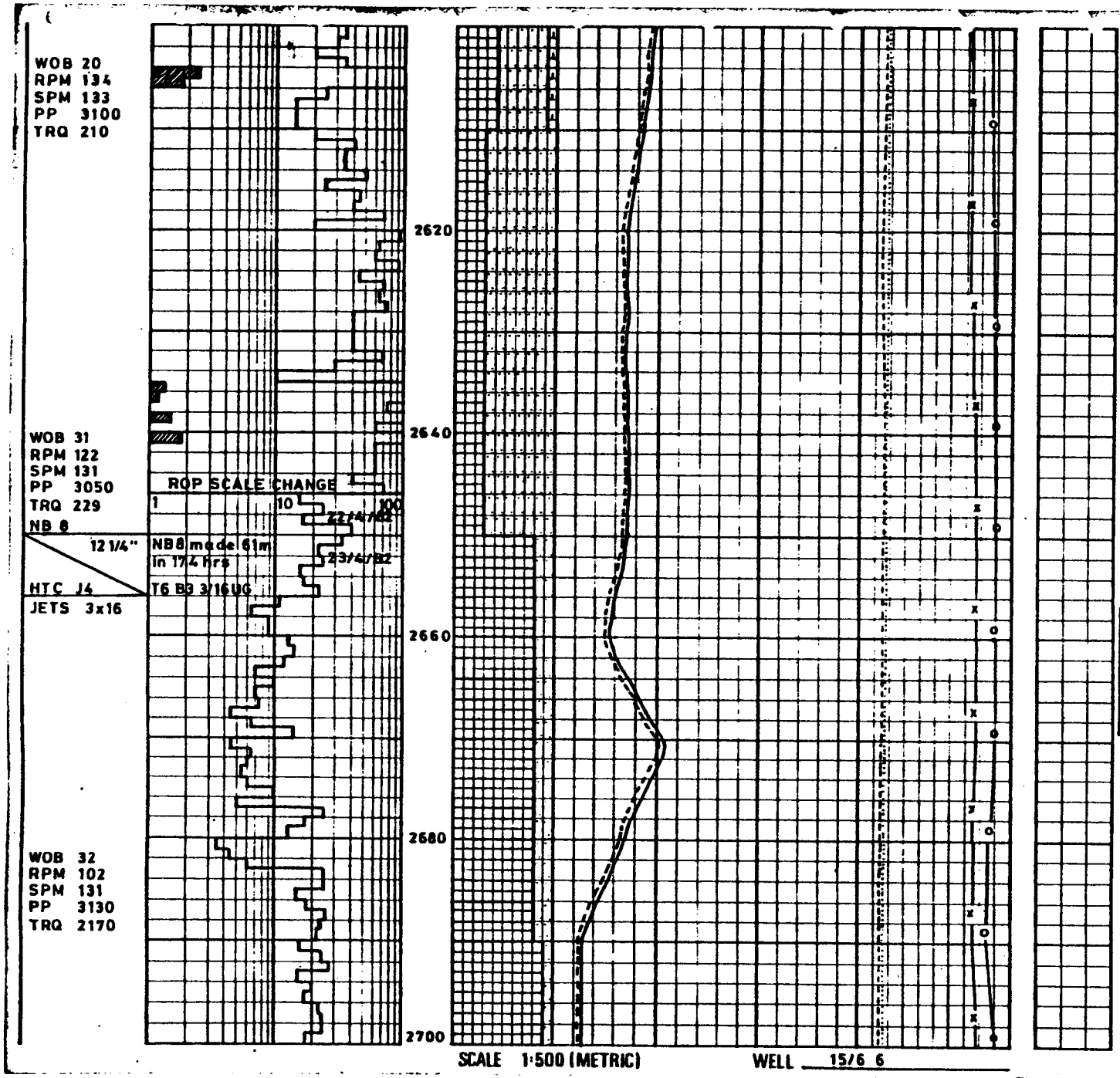
SH:dk gy-gy,bl gn,sub fiss.

TR:LST;lt gy bn-gn bl,mxln, mod hd,blky.

SD:a/a,also,clr,bf,med-f,rnd-sub sph,calc mtx,sl silic.

MUD DATA			
W 1.16	V 46	PV 12	YP 17
GEL 7/33	pH 9.5	F 7.3	
CK 2	Cl 19K	SD 1/4	sol 9

PAGE 26



MRL:lt bn,off wh,lt bl gn,mxln, occ slty,grdg to v f SST,calc mtx.

SD:clr,lt bn,lse grns,med-crs, occ cmtd f-med,rnd-sub rnd,i p silic,pyr,or calc mtx.

SH:dk gy,gy,gy bl gn,sub fiss, v occ calc.

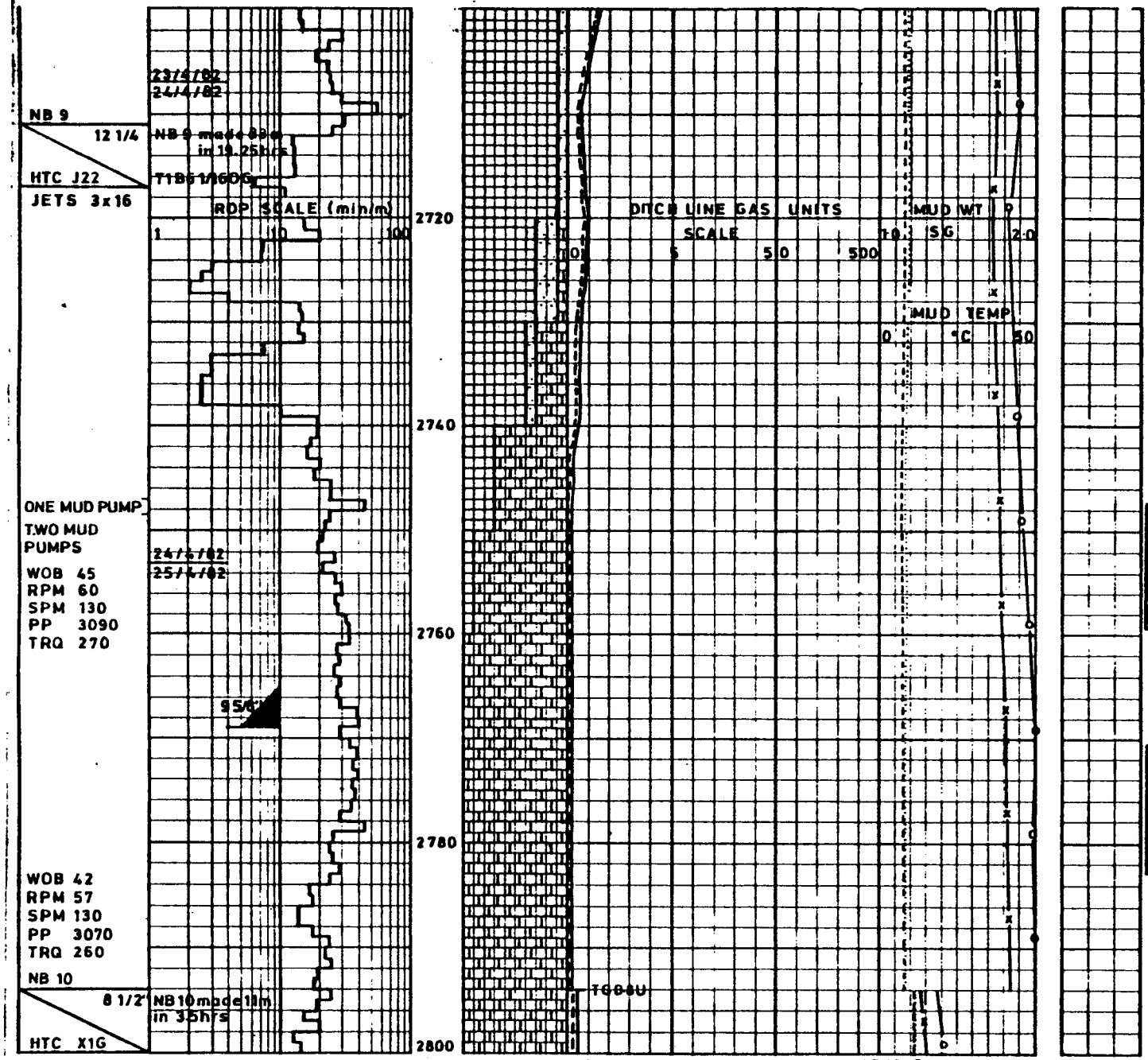
TR:DOL;lt crm,bn,mod hd, ang, mxln,conch frac.

SD:a/a;SST:clr,f,sub rnd,-sub ang,dol mtx-occ silic.

TR:PYR.

SH:a/a,mostly bl gy-gy.

MUD DATA				
W 1.16	V 47	PV 11	YP 17	
GEL 11/40	pH 10.8	F 7.8		
CK 1	Cl 17K	SD 1/4	SOL 9	



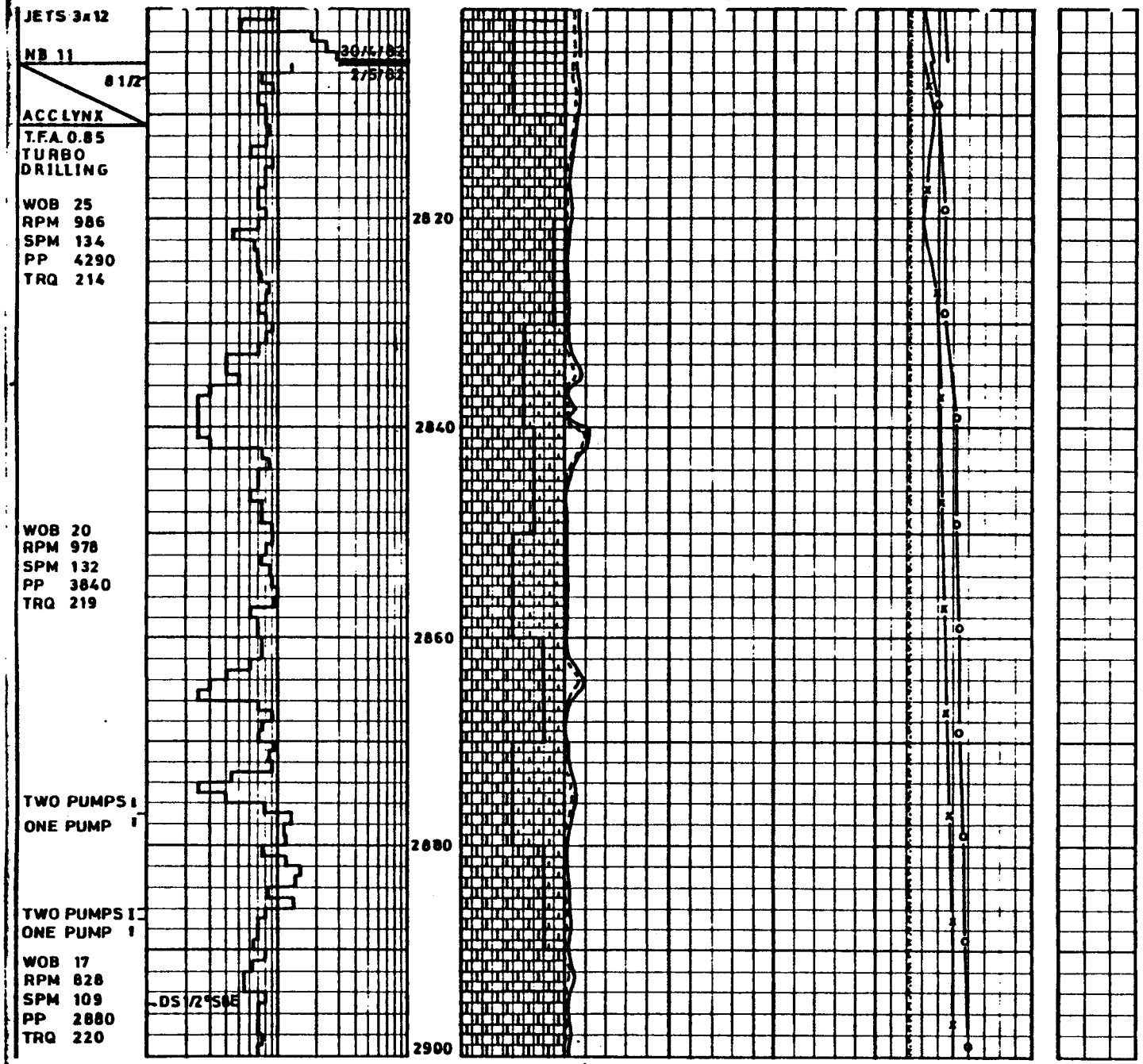
SD:clr,off wh,lt bn,med-f,sub rnd,sub sph,argil,dol,&slty mtx, pyr,mica i p.
SH:gy,gy bl,bl,gy gn,fiss-sub fiss,occ slty,micrmic,v occ carb.Also,lt gy bn,sft,poor con.
LST:wh,lt gy,mxln,conch frac.

LST:a/a,bc sl dolo.

MUD DATA				
W 1.16	V 55	PV 16	YP 12	
GEL 2/19	pH11.2	F 5.1		
CK 1	Cl 1[illegible]K	SD 1/2	SOL 10	

LST:a/a,b c lt pk bn,hd,sl arg.

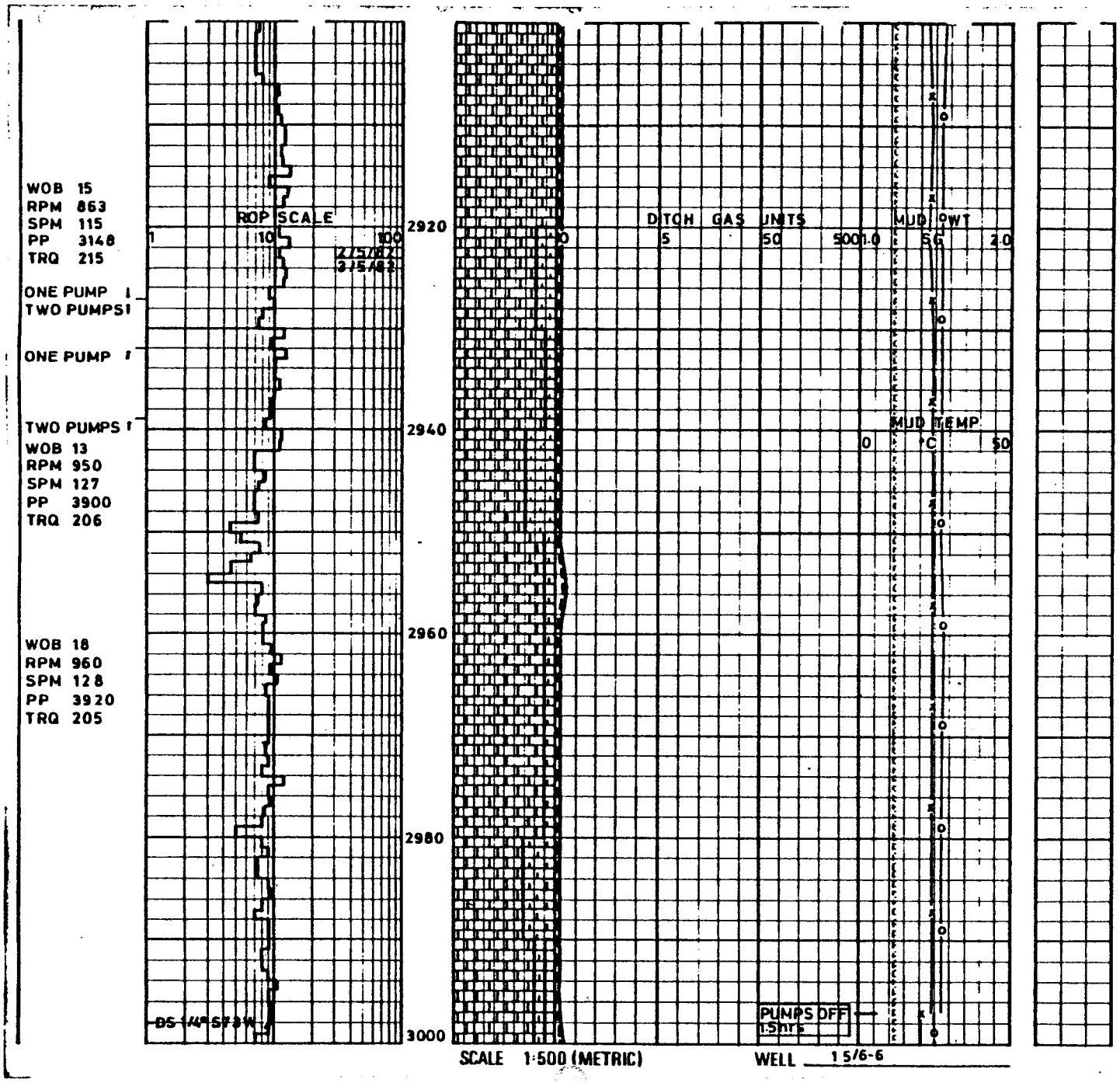
MUD DATA				
W 1.16	V53	PV 18	YP 15	
GEL 3/22	pH 10.7	F 4.5		
CK 1	Cl 18K	SD 1/4	SOL 12	



LST:crm,off wh,lt brn,sft-hd, ang-conch brk,xln,dol i.p.
MARL:med gy-dk gy,frm-occ mod hd,fiss,occ slty,occ micrmicac, POSSIBLY CAVINGS.

LST:a/a.
MARL:lt-med gy,sft-frm,slty.

LST:crm,lt brn,sft-hd,ang-conch brk,xln,dol.
MARL:lt-med gy,sft-occ frm,occ slty.



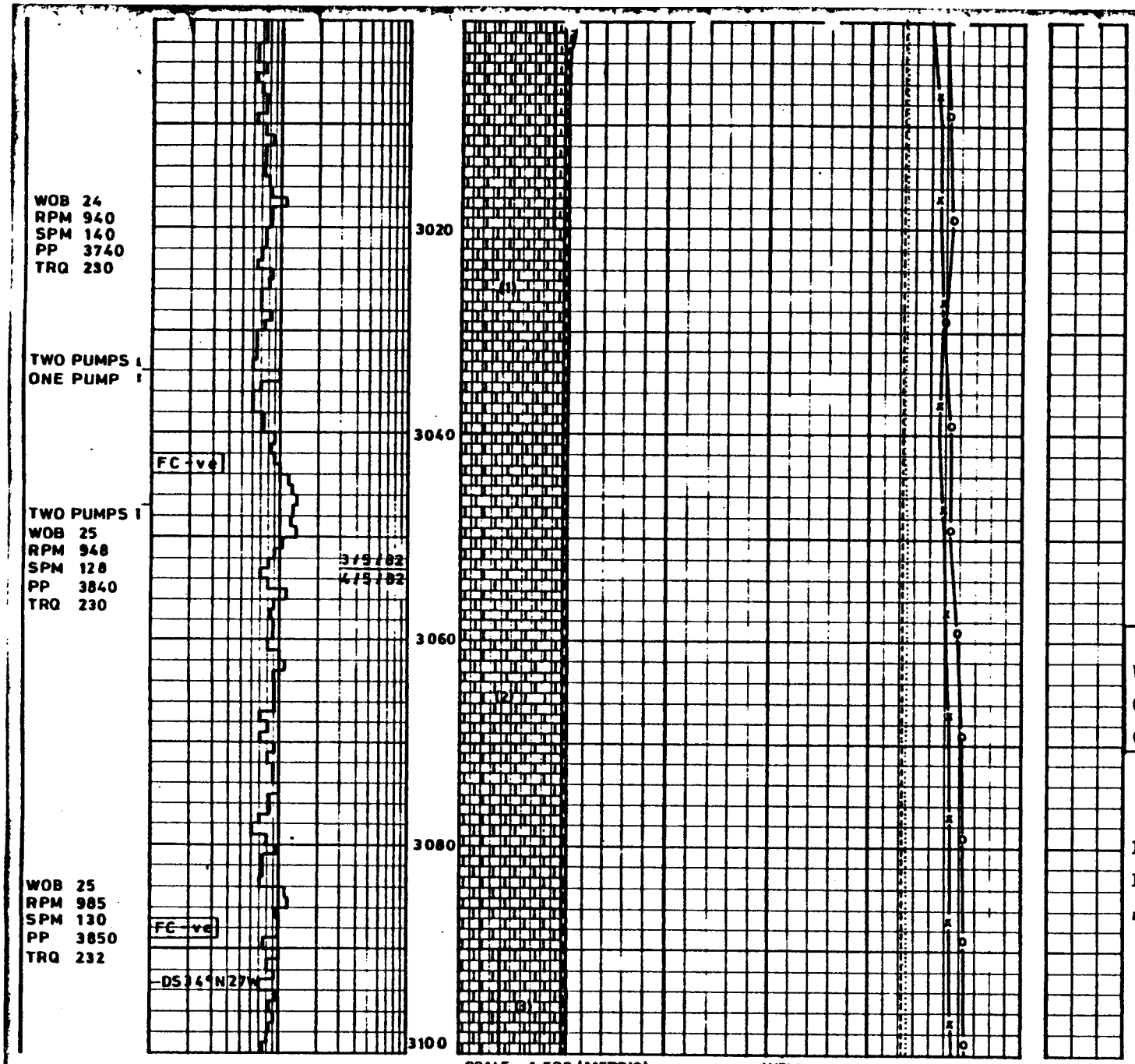
LST:crm,lt brn,sft-occ mod frm, commonly v sft.

MARL:lt gy,sft-locally mod frm, slty.

MARL:a/a.

LST:a/a.

LST:pred crm-lt brn,occ pa gy, sft,occhd-v hd,xln,occ arg. MARL:pa gy,sft-mod frm,blky, occ sbfiss,slty i.p.



LST(1):crm,lt brn,sft-occ mod hd,xln,occ sl arg.

MARL:pa gy,sft-frm,occ slty, occ sbfiss.

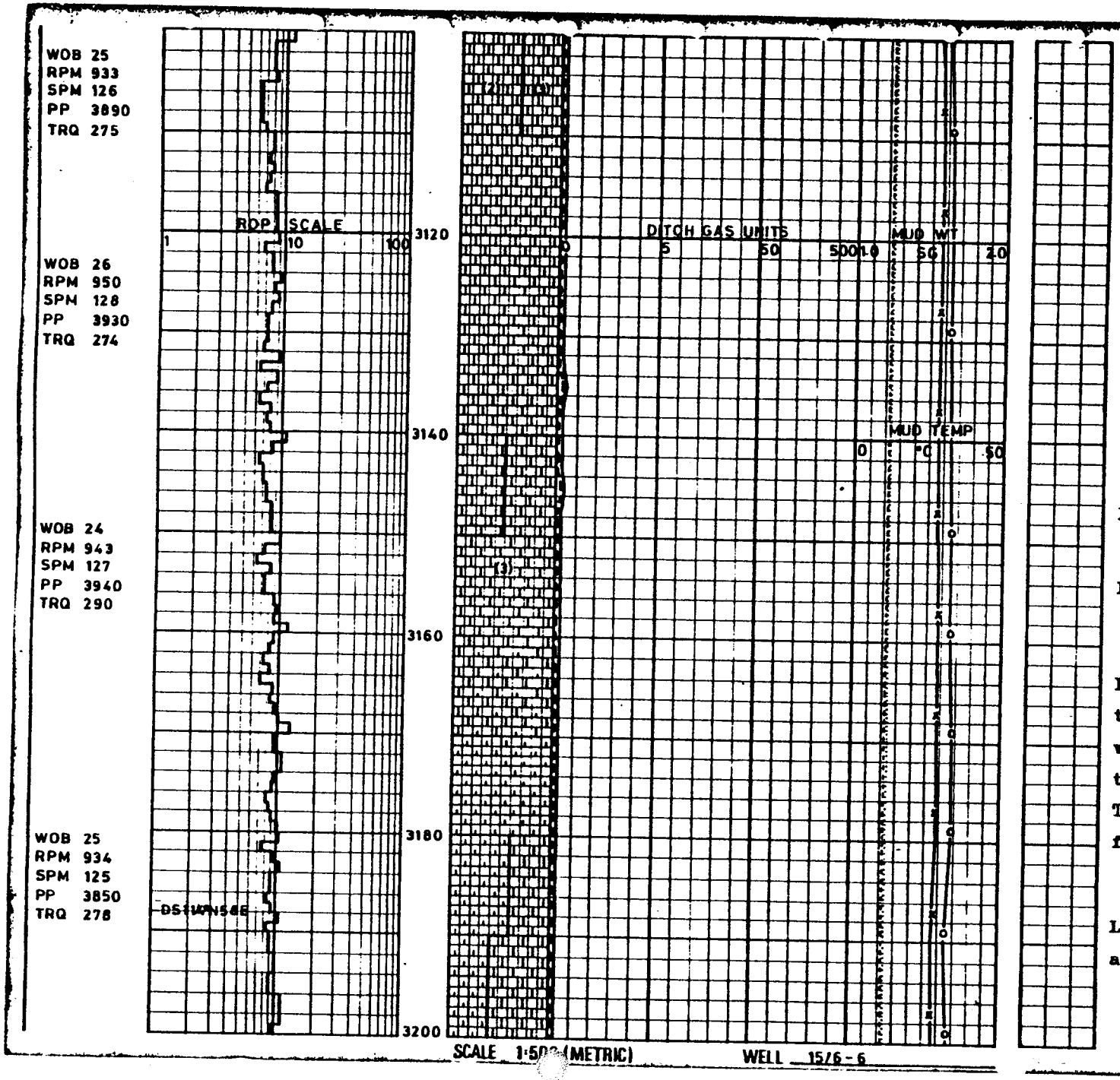
LST(2):pnk-rd brn,mod hd-v hd, xln,brittle,splintery.

MUD DATA			
W1.22	V41	PV12	YP 8
GEL 1/3	pH 10.9	F 4.4	
CK 1	Cl18K	SDtr	SOL 10

LST(2):a/a.

LST(3):pa gy,hd-v hd,brittle, splintery,xln.

SCALE 1:500 (METRIC) WELL 15/6-6



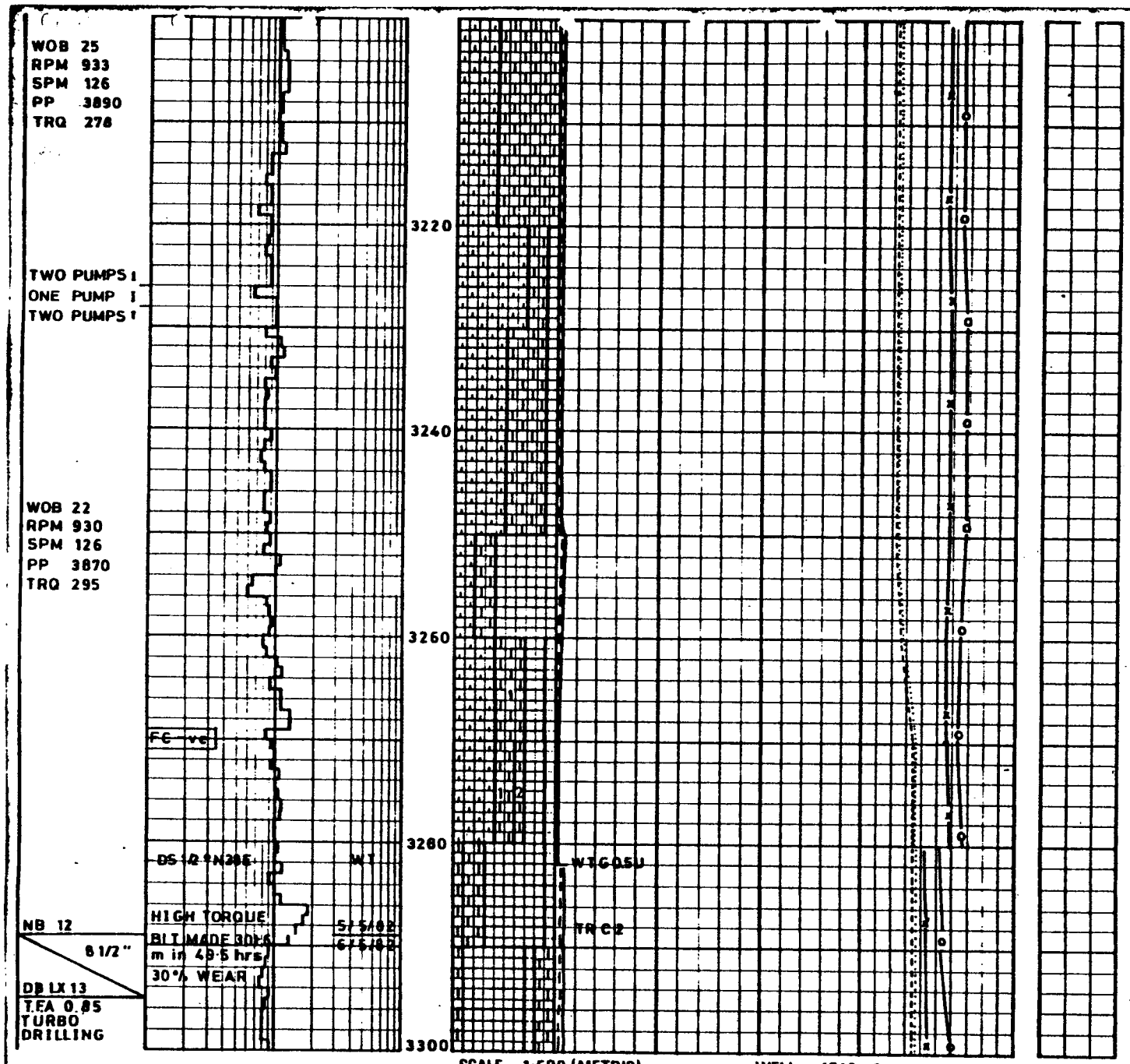
LST(2):rd brn,pnk,hd,brittle, occ splintery,occ arg,xln.
LST(3):pa gy,hd,brittle,splintery,arg i.p.grading to MARL.

LST(2):a/a.

LST(3):a/a.

LST(3):pa gy-med gy,hd,splintery,occ brittle,micro xln, v arg,f lams,occ slty,grading to MARL.
TR:CHERT:milky wh,v hd,conch frac.

LST:pa gy,mod hd,occ brittle, arg.



LST:pa gy,mod hd,brittle,v arg.

MARL:pred pa brn,occ lt gy,sft-frm,blky,occ sbfiss,slty.

SH:med-dk gy gn,frm,sbfiss,slty mic,calc.

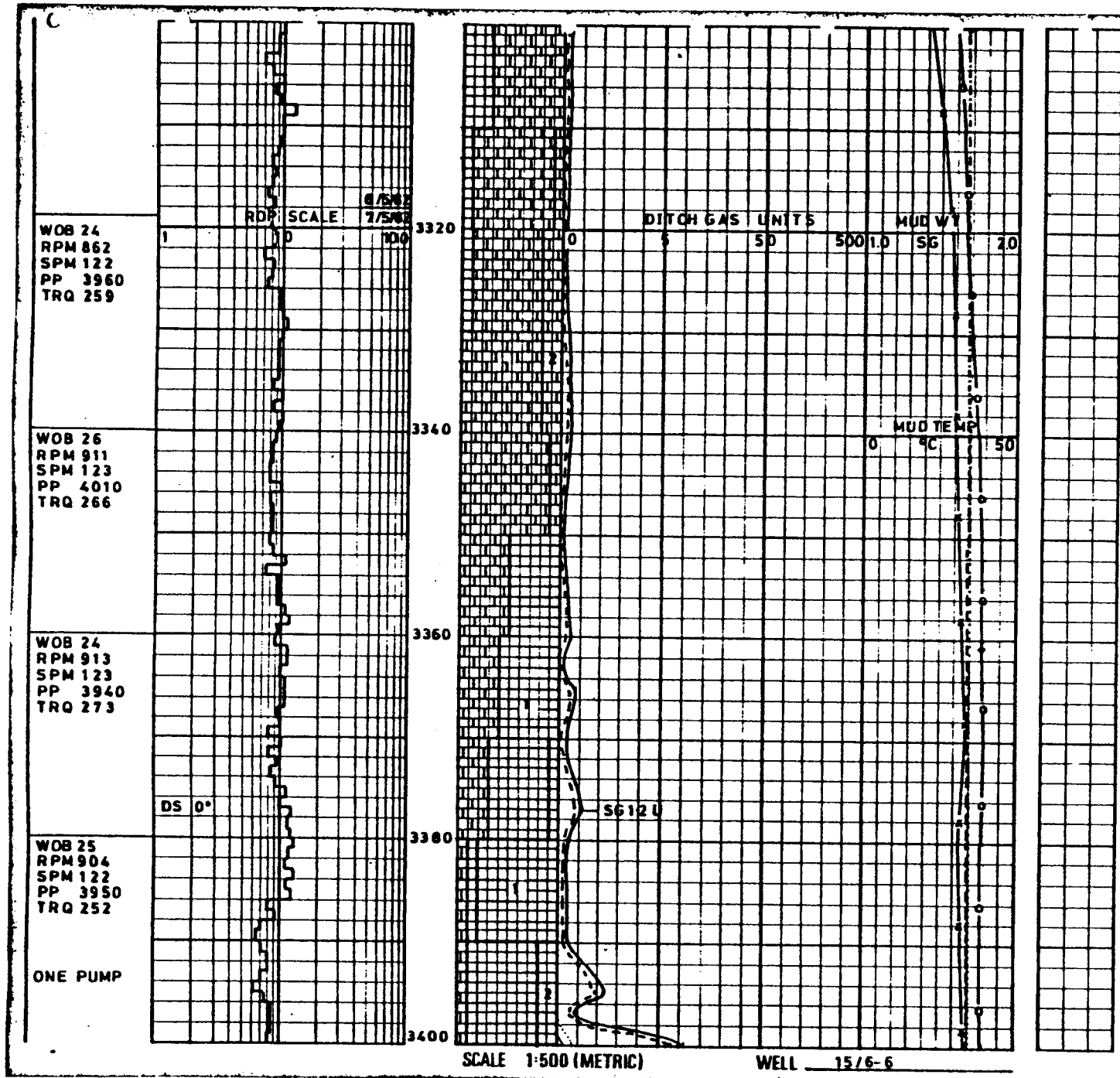
SH:med-dk gy,frm-hd,occ sbfiss, calc-v calc,marly.

SLTST:lt gy-gy gn,blky,hd,v calc.

LST(1):lt brn,pa gy,hd-v hd,br ittle,v arg i.p.

LST(2):off wh,v hd,xln.

MUD DATA			
W 1.34	V 45	PV 14	YP 13
GEL 2/4	pH 10.0	F 5.4	
CK 1/3	CL 17K	SD Tr	SOL 13



CLST:lt gy-gn/bl-gn,frm-mod hd,sub fiss,shaly,mic,v.calc, occ slty.

Tr CHERT:hd,transl.

LST:pa gy,hd,brit,arg,bec mrly.

MUD DATA			
W 1.35	V 48	PV 19	YP 18
GEL 3/17	pH 10.8	F 4.7	
CK 1/3	CL 15K	SD Tr	SOL 15.

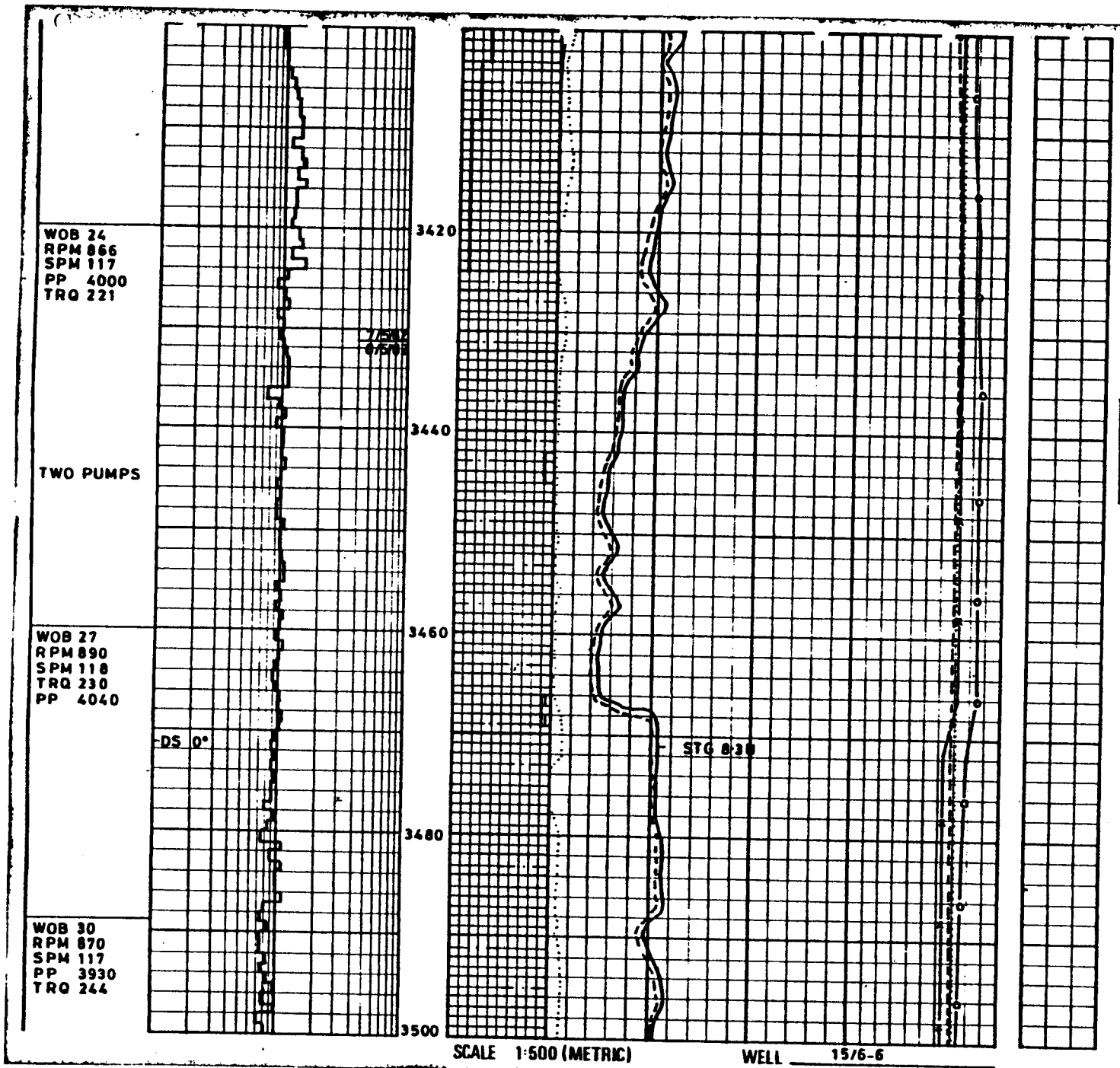
Tr GLAUC.
Tr PYRITE.
Tr CLST:brn,mo frm,sub fiss-fiss, sli calc,mic.

CLST(1):gy/dk gy,mo hd, slty, fiss,mo calc,mic.

LST/MARL:pa gy/gy,hd,brit,arg, sli xtln.

Tr SST:wh sli calc cmt,clss qtz,glauc.

CLST(2):red brn,hd,sub fiss,sli calc.



CLST(3):dk gy-blk,sft,occ frm, slty,carb,calc.

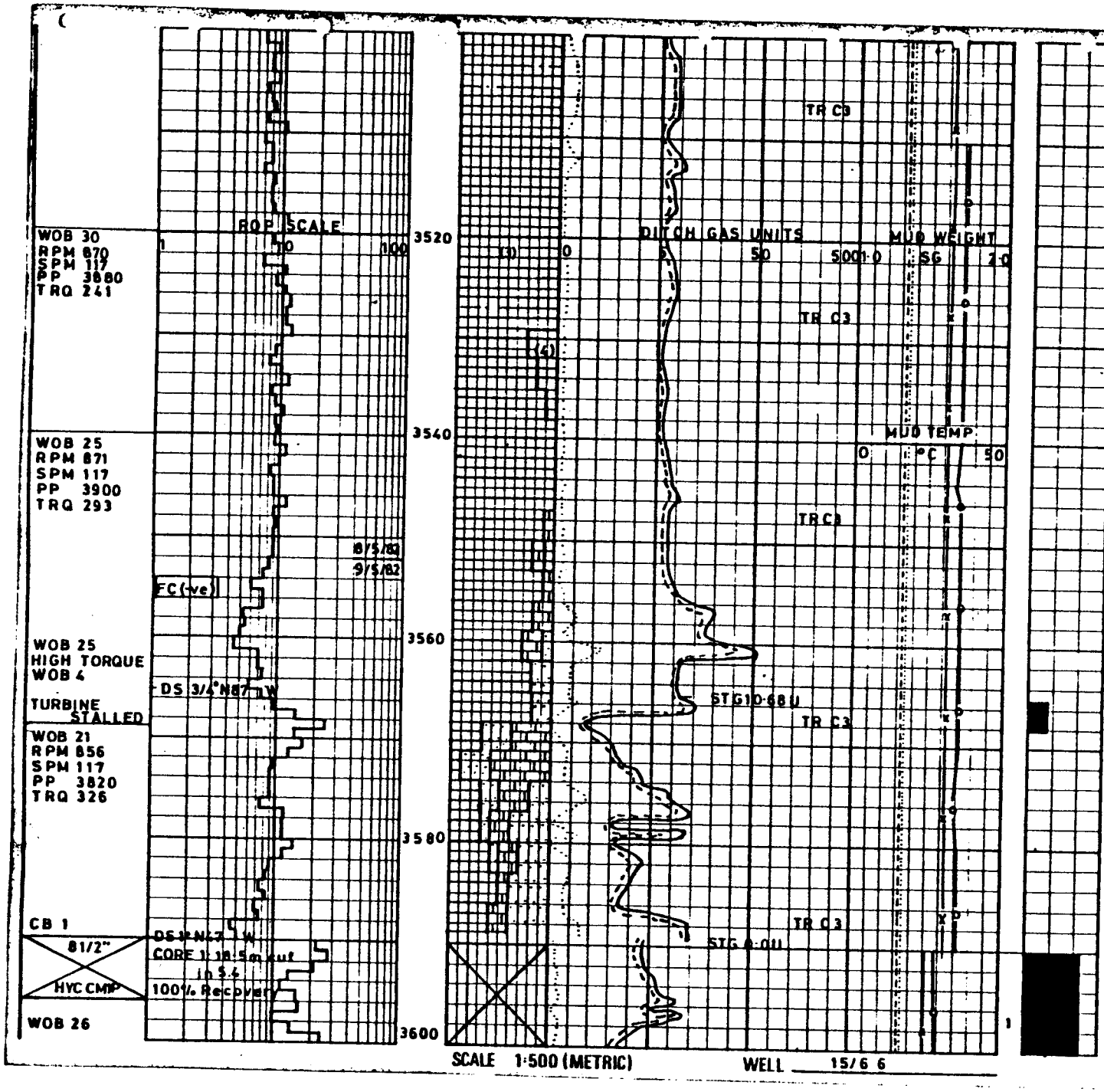
MUD DATA
W 1.34 V 47 PV 16 YP 11
GEL 3/15 pH 10.0 F 5.0
CK 1/3 CL 15K SD Tr SOL 15.

CLST(4):crm-pa gy,sft-mo frm, calc,sli sndy,mic,non fiss.

ALOT OF CAVINGS.

Tr SST/SD:clss,v.fn gr,mo srtg sub rnd,tr calc cmt,tr glauc.

CLST(3):dk gy-blk,frm,v.slty, carb,occ lam,mic,sub fiss, blky brk.



CLST(3):dk gy-blk,frm,v.slty, carb,occ lam,mic,sub fiss.

CLST(4):pa brn-tan,sft,slty, non calc.

ALOT OF CAVINGS.

LST:wh,hd,micrxtln,calcitic in pla.

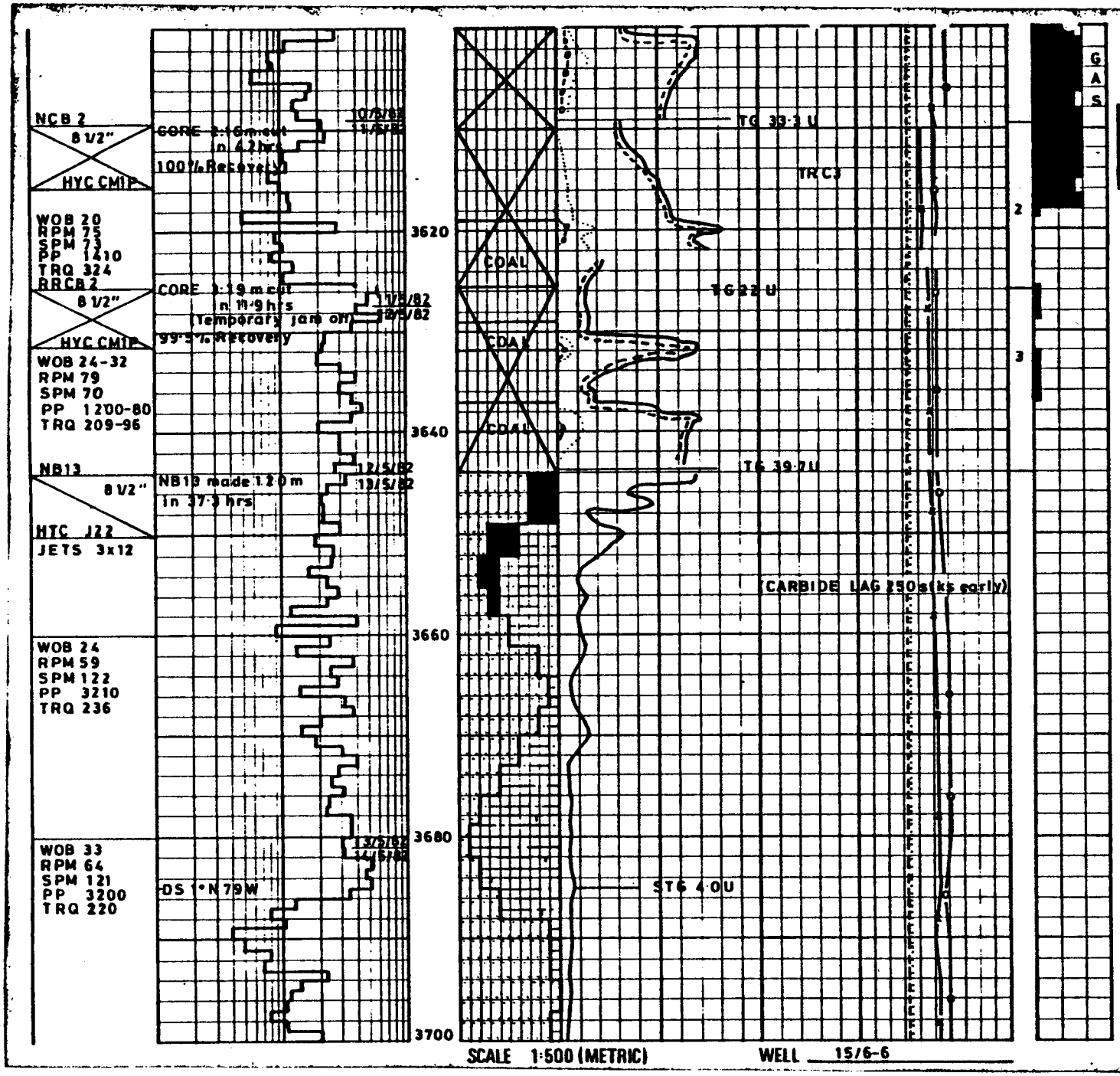
CLST(3): dk gy-blk,frm,v.slty, carb,occ lam,mic,sub fiss,blky brk.

SD:clss,pr srtg,sub ang-sub rnd.

SST:clss-transl brn,fn-med gr, well cmtd,calc,mo por,glauc, pa gold flor-mo cut,mlky crush.

MUD DATA
W1.35 V 47. PV 16 YP 11
GEL 2/8 pH 10.3 F 5.0
CK 1.0 CL 14.5K SD Tr SOL 16.

FROM CORE:
100% SST:gy-brn,qtz,crse slst-med gr sd,sm calc cmt mstly silic,pr-med por,pa flor,slow-rapid mlky cut.



FROM CORE:

100% SST:gy-brn,qtz,fn-crse gn silic cmt,pr-med por,pa flor, slow-rapid mlky cut.

MUD DATA			
W 1.36	V 42	PV 13	YP 10
GEL 1/5	pH 10.5	F 4.3	
CK 1.3	CL 15K	SD Tr	SOL16.

COAL:blk,hd,brit,tr plant rems (anthracitic).

SST:a/a,bec slty in places, pa flor,sli tr cut.

COAL:a/a.

SST:a/a,no crush cut.

SLST:brn-dkbrn,micrmic,carb, sndy,hd,pa mlky crush cut.

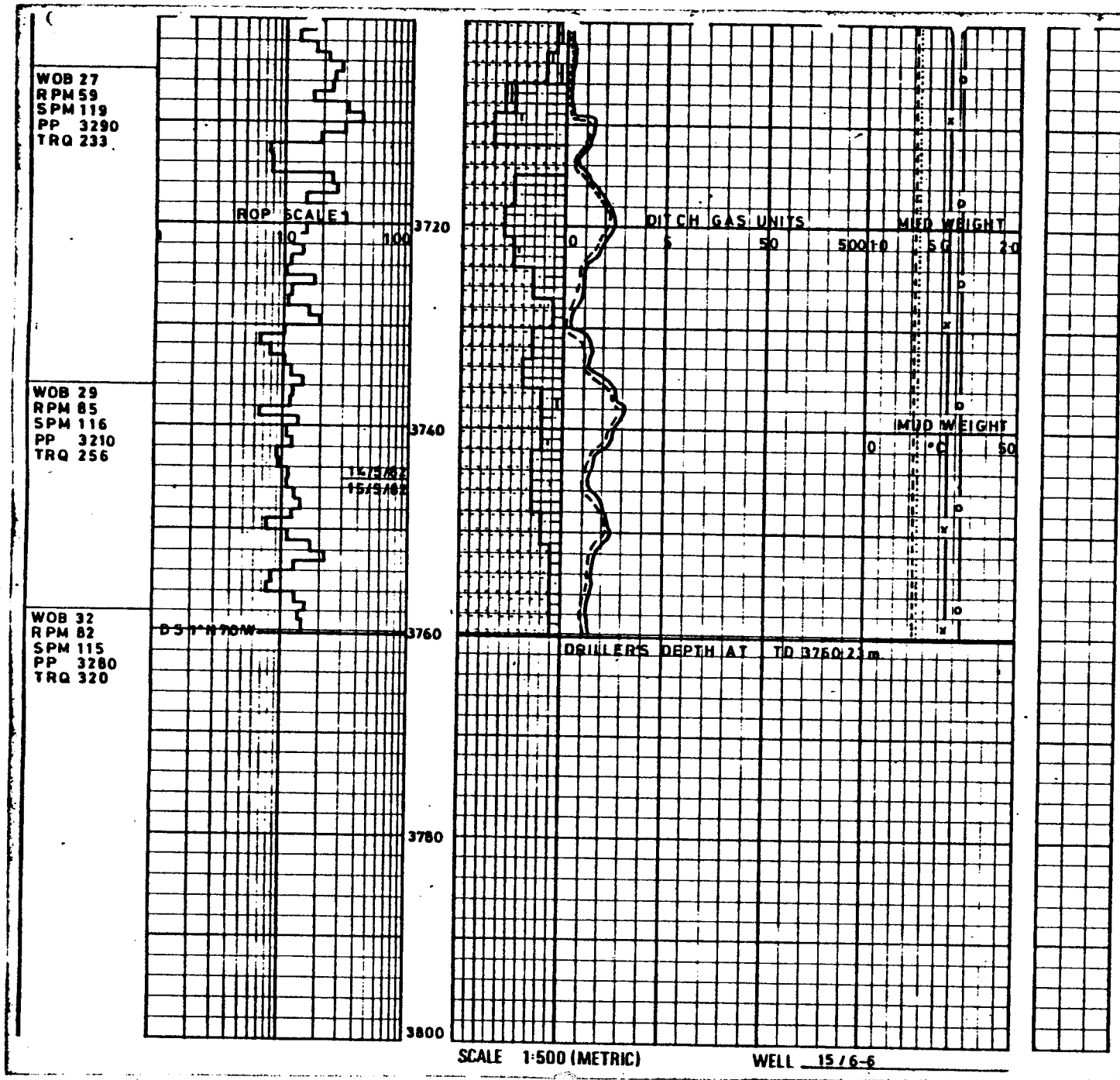
Tr PYR.

MUD DATA			
W1.34	V 47	PV 13	YP 13
GEL 2/7	pH 10.2	F 3.3	
CK 1.3	CL 15K	SD Tr	SOL 16.

SHALE:dk gy-brn,calc in pla, sli dol,micrmic,mo hd,sub fim

Tr pa pnk SHALE.

SCALE 1:500 (METRIC) WELL 15/6-6



LST:wh-pa pnk,hd,micrxtal,blky, frac,sli calc.

SST:clss-wh,rnd-sub ang,fn-crse gn,lse-well cmtd,mo-gd por.

MUD DATA
W 1.34 V47 PV 15 YP 12
GEL 2/9 pH 10.4 F 3.5
CK 1.2 CL 15K SD Tr SOL 15.

CLST:pa gy/dk gy-blk/brn,frq v.calc,slty.

Tr SLST.

Tr PYR.

SST:a/a.

EL:IEL/BHC-AC,CDL-CNL, DLL-MLL,Diplog,VEL' SURVEY,MFT,SWC.

FLUID PROPERTIES

WELL 15/6-6

DATE	DEPTH M	TIME IN	TIME OUT	WT.	P.V.	Y.P.	GELS 0/10	WATER LOSS A.P.I.	WATER LOSS HT-HP	CAKE THK	CAKE DESC	pH	ALK Pf/Mf	Rf	Cl mppm	Ca ppm	SOLIDS %	SAND %	OIL %	CEC	OPERATIONS
APRIL 1		1600		8.7	10	21	7/20	NC	–	-	SOFT	12.0	.65/.8	-	4	100	3			19	DRILLING 36" HOLE
2	PIT	2200		9.5	12	32	11/28	NC	-	-	-	11.2	.65/.85	-	3	120	3			22	FV = 100+
3	PIT	2030		8.8	9	63	30/40	25		4	SOFT	12.2	.78/.98		9	40	3			14	FV= 90
4	265		1100	8.8	9	61	27/44	-		8	-	11.2	.35/.42		6.5	200	4	1 1/2	-	17	FV=55
	310	1400		8.8	9	50	15/20	40+		3	SOFT	11.0	.3/.4		7.0	240	3	3/4		17	FV=47
	390	1900		8.9	5	33	14/18	50+		4	SOFT	10.2	.2/.25		14	500	4	TRC		15	FV=41
5	210	1015		8.9	5	35	11/16	50+		4	SOFT	10.7	.2/.21		15	500	4	TRC		14	FV=39
	310		1530	9.0	3	43*	16/20	50+		4	SOFT	10.2	.13/.22		15	440	4	TRC		13	FV=41
	401	2130		9.1	4	36	17/21	50+		4	SOFT	10.3	.15/.2		15	420	4	TRC		15	FV=40
6	PIT	1000		9.2	5	33	12/15	50+		4	SOFT	10.2	.15/.25		15	400	4	TRC		13	FV=13
	400		1615	9.2	6	35	17/21	50+		4	SOFT	10.0	.13/.2		15	410	4	TRC		15	FV=15
7	PIT	1900		9.1	8	64	21/25	50+		4	SOFT	11.3	.2/.29		6	330	4	TRC		19	FV=75
8	PIT	0830		8.9	6	50	20/24	50+		4	SOFT	10.9	.18/.25		2	380	3	TRC		17	FV=65
9	PIT	1830		8.9	10	58	19/24	50+		4	SOFT	11.5	.42/.64		6	220	3	TRC		19	FV=63
10	430	2200		8.9	10	65	10/29	50+		4	SOFT	12.4	.65/.78		10	360	3	TRC		14	FV=54
11	468	0430		8.5	8	57	12/29	50+		4	SOFT	12.7	1.5/1.68		14	600	4	1		14	FV=61
	510		1530	9.1	5	54	13/15	50+		4	SOFT	12.4	1.0/1.2		14.5	400	5	1/2		14	FV=38
	680	2200		9.1	4	14	9/13	54		4	SOFT	10.6	.15/.25		15	650	5	1/2		15	FV=40

FLUID PROPERTIES

WELL 15/6-6

DATE	DEPTH M	TIME IN	TIME OUT	WT.	P.V.	Y.P.	GELS 0/10	WATER LOSS A.P.I.	WATER LOSS @ ..... °F HT-HP	CAKE THK	CAKE DESC	pH	ALK Pf/Mf	Rf	Cl mppm	Ca ppm	SOLIDS %	SAND %	OIL %	CEC	OPERATIONS
APRIL 12	890	1100		9.1	5	12	6/9	31		3	SOFT	10.0	.15/.3		16	550	6	7	-	16	FV=40
	990		1630	9.5	7	13	4/8	28		3	SOFT	9.6	.17/.4		16	590	7	7	-	17	FV=38
	1140	2300		9.2	7	13	2/7	9.9		1	FIRM	10.3	.28/.5		16	600	5	TRC		18	FV=40
April 13	PIT	1600		9.3	10	18	4/15	6.6		1	FIRM	10.2	.28/.21		16	360	6	TRC		25	FV=55
	PIT	2300		9.3	9	17	3/13	6.9		1	FIRM	10.0	.68/.55		16	380	6	TRC		25	FV=49
April 14	PIT	2200		9.3	8	14	3/13	6.3		1	FIRM	10.6	.25/.58		16	350	6	TR		25	FV=40
April 15	PIT	1430		9.3	7	9	20/20	7.6		2	FIRM	9.0	.15/.5		17	320	7	1/4		20	FV=40
	1179		2215	9.4	10	15	6/37	7.8		2	FIRM	9.0	.15/.3		17	200	7	1/4		20	FV=47
April 16	1317	0645		9.4	11	21	26/63	8.9		2	FIRM	10.9	.5/.8		17	40	8	1/4		20	FV=51
	1436		1515	9.7	12	20	8/35	8.6		2	FIRM	10.0	.35/.55		15.5	80	10	1/2		27	FV=57
	1505	2200		9.7	10	16	11/48	8.1		2	FIRM	9.9	.35/.55		15	140	9	TR		30	FV=49
April 17	1608	0700		9.7	9	16	10/42	8.5		2	FIRM	9.5	.2/.45		16	200	8	TR		30	FV=48
	1637		1400	9.8	9	20	16/57	9.0		2	FIRM	9.2	.15/.3		16.5	260	9	TR		30	FV=57
	1714	2200		9.7	9	22	18/60	10.1		2	FIRM	10.2	.35/.65		15	120	9	TR		35	FV=49
APRIL 18	1817	0700		9.7	8	18	14/53	9.6		2	FIRM	9.8	.3/.6		15	120	9	1/4		37.5	FV=53
	1868		1200	9.8	9	21	15/58	10.0		2	FIRM	10.1	.35/.7		15	120	9	1/2		37.5	FV=58
APRIL 19	1944	0700		9.7	8	16	10/35	11.2		2	FIRM	9.4	.25/.6		16	220	8	1/3		37	FV=47
	2050		1400	9.8	6	19	12/42	11.6		2	FIRM	10.0	.35/.7		16.5	140	9	1/4		37	FV=60

FLUID PROPERTIES

WELL 15/6-6

DATE	DEPTH	TIME IN	TIME OUT	WT.	P.V.	Y.P.	GELS 0/10	WATER LOSS A.P.I.	WATER LOSS HT-HP °F	CAKE THK	CAKE DESC	pH	ALK Pf/Mf	Rf	Cl mppm	Ca ppm	SOLIDS %	SAND %	OIL %	CEC	OPERATIONS
APRIL 19	2163	2200		9.7	9	20	14/51	11.4		2	FIRM	10.3	.4/.8		16.5	120	8	TR		37	FV=51
APRIL 20	2270	2270		9.7	10	19	11/42	10.1		2	FIRM	10.8	.6/1.2		17.5	100				40	FV=48
	2345		2345	9.7	12	22	10/39	9.7		2	FIRM	10.0	.35/.8		18.0	140				40	FV=55
	2415	2415		9.7	10	20	11/43	10.0		2.5	FIRM	10.2	.35/.75		18.0	140				40	FV=51
APRIL 21	2477	2477		9.7	8	16	7/31	9.4		2	FIRM	10.4	.4/.9		18.5	120	8	TR	-	37	FV=45
	2452		2452	9.8	10	21	10/39	9.7		2-4	FIRM	9.9	.3/.7		18.5	140	10	1/2	-	35	FV=52
APRIL 22	2410	0800		9.7	9	14	8/37	10.4		2-4	FIRM	10.0	.2/.7		17	200	9	TR		34	FV=43
	2490		1530	9.7+	13	18	9/40	8.8				10.0	.2/.61		18	280	10	1		37	FV=47
	2590	2130		9.7	12	17	7/33	7.3		2-4	FIRM	9.5	.2/.6		19	280	9	1/4		38	FV=46
April 23	2665	0940		9.7	11	17	11/41	7.8	25	1	FIRM	10.8	.21/.65		17	240	9	1/4		34	FV=47
	2674		1905	9.7	13	12	3/21	6.8				11.5	.4/1.0		17.5	160	10	Tr		36	FV=43
April 24	2730		1615	9.8	20	12	4/18	4.9				11.6	.6/1.1		18	160	12	1/4		36	FV=51
	2750	2130		9.7	16	12	2/19	5.1	18.5	1/3	m. FIRM	11.2	.46/1.3		18	160	10	1/2		35	FV=55
April 25	2771	0945		9.7	18	15	3/22	4.5	17.0	1/3	m. FIRM	10.7	.24/.94		18	360	12	1/4		36	FV=53
	2781		1630	9.7	20	13	2/18	4.8				10.3	.13/.65		18	300	12	1/4		36	FV=57
	2794	2115		9.7	18	17	4/24	4.5	16.2	1/2	m. FIRM	10.1	.07/.9		18	340	12	Tr		34	FV=58
April 26	PIT	2130		9.7	17	13	2/21	4.7	16.9	1/2	m. FIRM	10.0	.1/.9		18	360	12	Tr		34	FV=49
April 27	PIT	1400		9.7	18	12	3/20	4.3	17.5	1	m. FIRM	11.1	.18/1.05		18	440	12	1/4		-	

FLUID PROPERTIES

WELL 15/6-6

DATE	DEPTH	TIME IN	TIME OUT	WT.	P.V.	Y.P.	GELS 0/10	WATER LOSS A.P.I.	WATER LOSS @ .....°F HT-HP	CAKE THK	CAKE DESC	pH	ALK Pf/Mf	Rf	Cl mppm	Ca ppm	SOLIDS %	SAND %	OIL %	CEC	OPERATIONS
APRIL 28	2794	PIT		9.7	18	12	3/12	4.3	17.5	1/32	FIRM	11.1	.18/1.08		18	440	12	1/4	0	34	F.V. = 53
APRIL 29	2794	PIT		9.5	11	9	1/10	4.9	38	1/32	FIRM	10.1	.14/.55		18	520	9	1/4	0	25	F.V. = 49
APRIL 30	2793		0840	9.7	11	9	1/18	5.3	—	1/32	FIRM	9.5	.15/.6		18	600	9	1/4	0	25	F.V. = 55
APRIL 30	2805	2130		10.4	12	8	1/10	5.4	@ 300°F 30.0	1/32	FIRM	10.9	.32/.85		18	240	9	1/4	0	25	F.V. = 45
MAY 1	2805	PIT 1030		10.4	11	7	1/9	5.5	@ 300°F 30.3	1/32	FIRM	10.7	.3/.8		18	240	9	1/4	0	23	F.V. = 42
MAY 2	2882		1500	10.1	16	11	1/5	4.2	@ 250°F 18.4	1/32	FIRM	9.8	.2/.9		18	320	13	1/4	0	26	F.V = 43
MAY 2	2920	2100		10.2	14	12	1/4	3.6	@ 250°F 18.4	1/32	FIRM	11.0	.2/1.3		18	280	10	1/4	0	25	F.V. = 46
MAY 3	3036		2030	10.4	12	8	1/3	4.6	@ 300°F —	1/32	FIRM	10.8	.2/1.2		18	220	14	TR	0	24	F.V. = 42
MAY 3	3041	2130		10.2	12	8	1/3	4.6	@ 300°F 18.9	1/32	FIRM	10.9	.35/1.3		18	220	10	TR	0	24	F.V. = 41
MAY 4	3130		1530	10.3	14	11	2/4	5.1	—	1/32	FIRM	10.2	.15/.8		18	220	13	1/4	0	24	F.V. = 43
MAY 4	3170	2100		10.2	12	11	2/4	5.1	@ 250°F 19.3	1/32	FIRM	10.3	.2/1.2		18	200	12	TR	0	24	F.V. = 42
MAY 5	3265		1600	10.8	16	9	1/4	5.6	19.5	1/32	FIRM	10.2	.2/3		18	200	16	TR	0	24	F.V. = 44
MAY 5	3280	2100		11.2	14	12	1/4	4.4	15.9	1/32	FIRM	10.4	1.5/1.6		18	180	16	TR	0	24	F.V. = 43
MAY 6	3307		2200	11.2	14	13	2/4	5.4	18.8	1/32	FIRM	10.0	.3/1.2		17	160	13	1/4	0	22.5	F.V. = 45
MAY 7	3390		1430	11.3	19	15	3/9	4.8	19.4	1/32	FIRM	10.3	.45/1.3		15	120	15	TR	0	24	F.V. = 48
MAY 7	3426	2200		11.3	19	18	3/17	4.7	20.8	1/32	FIRM	10.8	.7/1.9		15	100	15	TR	0	25	F.V. = 48
MAY 8	3497		1430	11.2	20	14	3/14	4.8	—	1/32	FIRM	10.2	.55/1.7		15	140	16	TR	0	25	F.V. = 51
MAY 8	3540	2200		11.2	17	14	3/15	4.8	18.8	1/32	FIRM	10.3	.6/1.8		15	120	15	TR	0	25	F.V. = 47

FLUID PROPERTIES

WELL 15/6-6

DATE	DEPTH	TIME IN	TIME OUT	WT.	P.V.	Y.P.	GELS 0/10	WATER LOSS A.P.I.	WATER LOSS @ .....°F HT-HP	CAKE THK	CAKE DESC	pH	ALK Pf/Mf	Rf	Cl mppm	Ca ppm	SOLIDS %	SAND %	OIL %	CEC	OPERATIONS
MAY 9	3566	0700		11.2	17	13	2/13	4.8	18	1/32	FIRM	10.1	.5/1.7		14.5	140	15	TR	0	25	F.VIS : 47
MAY 9	3588		1430	11.3	16	11	2/8	5.0	-	1/32	FIRM	10.0	.5/1.8		14.5	140	16	TR	0	25	F. VIS. = 47
MAY 10	3609.5	0700		11.2	16	10	2/7	4.7	17.6	1/32	FIRM	10.0	.5/1.8		14.5	140	15	TR	0	22.5	F. VIS. = 45
May 11	3624		0630	11.3	16	10	1/7	4.1	16.4	1-3	FIRM	10.2	.6/1.9		14.0	120	16	1/4	0	25	FV = 46
May 11	3625	1800		11.4	13	10	1/5	4.3	16.8	1-3	FIRM	10.5	.7/1.3		15.0	100	16	TR	0	25	FV = 47
May 12	3637	0615		11.2	14	13	2/9	4.0	16.0	1-3	Thin	10.1	.55/1.7		15.5	120	15	TR	0	22.5	FV = 48
May 12	PIT	1415		11.4	14	11	2/7	4.7	16.8	1-3	Thin	10.3	.65/1.8		15.0	120	15	TR	0	25.0	FV = 46
May 13	3645		0615	11.2	16	13	2/8	4.3	15.6	1-3	Thin	10.0	.5/1.4		15.0	120	16	1/4	0	25.0	FV = 47
May 13	3660	1400		11.2	12	12	2/7	4.3	15.8	1-3	Thin	10.0	.5/1.5		15.0	140	15	TR	0	22.5	FV = 46
May 13	3677	2200		11.2	13	13	2/7	3.3	15.6	1-3	Thin	10.2	.6/1.7		15.0	140	16	TR	0	22.5	FV = 47
May 14	3687	0650		11.2	15	14	2/7	3.1	14.8	1-2	Thin	10.0	.5/1.6		15.0	100	16	TR	0	25.0	FV = 47
May 14	3710		1430	11.3	16	12	2/8	3.4	14.8	1-2	Thin	10.5	.7/1.9		15.0	100	16	TR	0	25.0	FV = 49
May 14	3736	2200		11.2	15	14	2/9	3.5	15.0	1-2	Thin	10.4	.7/2.1		15.0	100	15	TR	0	25.0	FV = 47
May 15	3760	0700		11.2	14	12	2/8	3.4	14.8	1-2	Thin	10.6	.7/2.3		15.5	120	15	TR	0	25.0	FV = 45
May 15	3760		1100	11.2	18	12	2/8	3.9	15.0	1-2	Thin	10.4	.8/2.4		15.5	80	16	TR	0	25.0	FV = 48
May 15	3760	PIT 2200		11.2	10	10	1/5	4.0	14.6	1-2	Thin	10.2	.6/2.0		15.0	120	15	TR	0	25.0	FV = 42
May 16	3760	PIT 0900		11.1	10	8	1/4	3.9	14.8	1-2	Thin	10.1	.55/1.3		14.5	120	14	TR	0	25.0	FV = 43
May 16	3760		2100	11.2	15	11	2/7	3.9	15.0	1-2	Thin	10.0	.5/1.5		15.5	120	16	TR	0	22.5	FV = 47

FLUID PROPERTIES

WELL 15/6-6

DATE	DEPTH	TIME IN	TIME OUT	WT.	P.V.	Y.P.	GELS 0/10	WATER LOSS A.P.I.	WATER LOSS @ .....°F HT-HP	CAKE THK	CAKE DESC	pH	ALK Pf/Mf	Rf	Cl mppm	Ca ppm	SOLIDS %	SAND %	OIL %	CEC	OPERATIONS
May 17	3760	PIT 0900		11.1	12	11	1/7	4.2	15.6	1-2	Firm	10.4	.7/1.8		15.0	100	15	TR	0	22.5	FV = 49
May 18	3760	PIT 0945		11.3	11	8	1/4	3.7	14.8	1-2	Firm	10.6	.8/1.6		16.0	120	15	TR	0	22.5	FV = 43
May 18	3760		1500	11.2	14	11	1/6	4.3	15.0	1-2	Firm	10.2	.6/1.6		15.5	120	15	TR	0	25.0	FV = 47
May 19	3760	PIT 1200		11.2	12	9	1/7	4.0	15.4	1-2	Firm	10.3	.7/1.8		15.0	140	15	TR	0	25.0	FV = 48
May 20	3760	PIT 1600		11.2	14	9	1/5	5.4	17.1	1-3	Firm	10.0	.6/1.8		15.0	200	14	TR	0	23.0	FV = 45
May 21	3760	PIT 1900		11.1	13	7	1/5	5.7		1	Firm	9.6	.55/1.8		14.5	200	14	TR	0	23.0	FV = 45
May 22	3760	PIT 2000		11.1	13	7	1/4	5.8		1	Firm	9.5	.5/1.8		14.5	200	14	TR	0	23.0	FV = 44
May 23	3760	PIT 2345		11.3	15	10	2/7	5.9		1	Firm	10.1	.5/1.8		14.5	220	15	TR	0	23.0	FV = 50
May 24	3760	PIT 2130		11.3	14	9	1/5	6.3		1	Firm	9.8	.5/1.7		14.5	250	14	TR	0	23.0	FV = 40
MAY 25	3760	PIT 2000		11.3	15	9	1/9	6.0		1	FIRM	10.1	.65/3.0		13.0	160	15	1/4	0	26.0	FV = 47
MAY 25	3760		2100	11.3	16	10	2/10	6.1		1	FIRM	10.0	.6/2.8		13.0	180	15	1/2	0	26.0	FV = 50
MAY 26	3760	2100		10.2	14	8	1/8	6.3		1	FIRM	10.0	.61/2.9		13.0	160	15	TRC	0	25.0	FV = 43
MAY 27	3760	PIT 1600		11.3	13	8	1/6	6.2		1	FIRM	10.0	.6/2.8		13.0	160	15	TRC	0	24.0	FV = 40
MAY 28	3760	PIT 2000		11.3	13	9	1/5	6.1		1	FIRM	10.0	.6/2.7		13.0	160	15	TRC	0	23.0	FV = 43
MAY 29	3760	PIT 2000		11.3	13	8	1/5	6.2		1	FIRM	9.9	.6/2.7		13.0	160	15	TRC	0	23.0	FV = 41
MAY 30	3760	PIT 1900		11.3	13	7	1/5	6.3		1	FIRM	9.9	.6/2.7		13.0	160	15	TRC	0	23.0	FV = 41
MAY 31	3760	PIT 2000		11.3	13	7	1/5	6.4		1	FIRM	9.8	.6/2.7		13.5	180	15	TRC	0	23.0	FV = 39
JUNE 1	3760	PIT 1400		11.3	12	7	1/4	8.1		1	FIRM	10.3	.5/2.5		13.0	150	14	TRC	0	21.0	FV = 39

FLUID PROPERTIES

WELL 15/6-6

DATE	DEPTH	TIME IN	TIME OUT	WT.	P.V.	Y.P.	GELS 0/10	WATER LOSS A.P.I.	WATER LOSS ..... °F HT-HP	CAKE THK	CAKE DESC	pH	ALK Pf/Mf	Rf	Cl mppm	Ca ppm	SOLIDS %	SAND %	OIL %	CEC	OPERATIONS
JUNE 2	2710	PIT 2000		11.3	14	6	1/4	8.4		1	FIRM	10.1	.5/2.6		13000	180	14	TR	0	20.0	FV= 35
JUNE 3	1279	PIT 1530		11.3	8	5	1/2	6.4		3/32	FIRM	10.3	.7/2.5		14000	180	14	TR	0	20.0	FV= 36
JUNE 4	1279	PIT 1530		11.1	7	4	1/2	6.6		2	FIRM	10.4	.65/3.3		14500	190	13	TRC	0	20.0	FV= 35
JUNE 5	1279	PIT 1500		11.0	21	12	5/33	5.6		2	FIRM	11.4	1.5/2.6		14000	200	11	TR	0	20.0	FV=68
JUNE 6	692	PIT 1500		11.0	10	6	1/3	6.6		2	FIRM	11.7	1.4/2.4		14000	200	11	TRC	0	20.0	FV= 41
JUNE 7	692	1330		10.9	10	6	1/4	6.9		2	FIRM	11.6	1.2/2.1		13000	180	10	TR	0	20.0	FV= 41

H-7903-381 GCF

8.4 Material Consumption

The following is a list of materials consumed while drilling well 15/6-6:

Wellhead	Quantity		Cost - USD
Permanent Guide Base	1		N/C
36" Housing Jt	1		12,460
18-3/4" Housing Jt	1		37,061
13-3/8" Casing Hanger	1		5,192
13-3/8" Seal Assembly	1		5,724
9-5/8" Casing Hanger	1		6,276
9-5/8" Seal Assembly	1		15,500
7" Casing Hanger	1		8,575
7" Seal Assembly	2		29,950
AX Gaskets	2		4,422
		Total	125,160
Tubulars			
30" Casing (Incl. Shoe Jt.)	4		38,880
20" Casing (" " ")	24		99,600
13-3/8" Casing(" " ")	89		149,642
9-5/8" Casing (" " ")	214		317,500
7" Casing (" " ")	299		306,174
		Total	931,796
Cement Plug Assemblies			
20" Top Plug	1		3,000
13-3/8" SSR Plug Set	1		3,608
9-5/8" SSR Plug Set	1		2,824
7" SSR Plug Set	1		2,638
7" EZSV Cement Retainer	1		2,079
9-5/8" EZSV Cement Retainer	1		2,623
		Total	16,772
Miscellaneous			
13-3/8" Centralizers	7		560
9-5/8" Centralizers	6		330
7" Centralizers	15		825
		Total	1,715
Cement and Additives			119,120
Bits and Coreheads			123,358
Fuel and Lubes			505,148
Mud Products			130,223
		TOTAL MATERIALS	1,953,292

MATERIAL CONSUMPTION

WELL 15/6-6

	DEPTH M	BARITE (SX)	BENTONITE SX/BULK	LIGNO-SULFONATE	CAUSTIC	BICARB/AL. STEARATE	RESINEX/BROMAC	SODA ASH/XC	PIPE LAW/XD	CMC LV/HV	CMC SX/HR	HR 64/CFR 2L	ECONOLITE	COST OF MUD $	CEMENT (G)	HULK 298/HRI2L	DRL. WATER	POT. WATER	RIG FUEL	WORKBOAT FUEL	HELICOPTER FUEL	REMARKS
UNIT																						
DATE																						
MARCH 31	-		0/197											2738			1270		62		2.15	
APRIL 1	197.5		0/185		13									2579			760		60			DRILLING 36" HOLE
2	197.5	416	0/69											3153			760		60			REAMING 36" HOLE
3	203		0/352		6						27/0			5351	1162		980		90			CEMENTING 30" CSG.
4	465		0/92		18									1490			810		90			DRILL 12¼" PILOT HOLE
5	465				21									289			360		90			UNDERREAM TO 26" HOLE
6	465		30/0		15									649			720		90			REREAM 26" HOLE
7	465	264	0/106		2			21/0						2866	1998		480		100		3.65	
8	465	51	0/115		2									1835			740		100		2.79	
9	465													0			60	25	50		3.6	WOW
10	465			3	2	6	1							289			260	128	30			RUN BOP STACK
SUB-TOTAL							1															
CUMULATIVE		731	30/1116	3	79	6	1	21/0			27/0			21,239	3060		7200	153	802		11.69	

H-781-878 WWE

MATERIAL CONSUMPTION

WELL 15/6-6

	DEPTH M	BARITE (SX)	BENTONITE SX/BULK	LIGNO-SULFONATE	CAUSTIC	BICARB/AL-STEARATE	RESINEX/DRISPAC	SODA ASH/PC	PHPLCAR/DD	CMC LV/HV	CACL2 SX/LIQ	HRGL/CCR2L	ECONOLITE/LINE	COST OF MUD $	CEMENT (G)	HYDRACIDE VP/MERIL	DRL. WATER	POT. WATER	RIG FUEL	WORKBOAT FUEL	HELICOPTER FUEL	REMARKS
UNIT																						
DATE																						
APRIL 11	699	103	0/106	21		12/0								2699			440	35	80			
12	1140	103	0/24		34	17/0				24/45				5164			320		120			
13	1218			2	2		0/13			0/14				1237			700		50		2.95	
14	1218		45/35		6					0/4				1384	910		640		70		2.16	
15	1218	103	0/46											1169			400	20	60		1.99	
16	1505	209	0/24	20	12	8/0								2092			440		80			
17	1723	209	72/0	16	22					5/0				2924			540		130			
18	1877	104		15										1000			300	75	70			
19	2194	103		31	36					10/10				2061			280	90	110			
20	2437	207		30	34					15/3				2964			320		90			
21	2477	52		20			20/-			-/5				2843			300		104			
SUB TOTAL																						
CUMULATIVE		1924	147/131	158	225	43/0	21/13	21/0		54/91	27/0			46,776	3970		11080	373	1766		18.79	

H-701-570 WWE

MATERIAL CONSUMPTION

WELL 15/6-6

	DEPTH	BARITE (SX)	BENTONITE SX/BULK	LIGNO-SULFONATE	CAUSTIC/Lignite	BICARB/AL STEARATE	RESINEX/BRINE	SODA ASH/XC POL	PIPE LUBE/DD	CMC LV/HV	CaCl2 SX/LQ	HRGL/CFBZL	ECO/LIME	COST OF MUD $	CEMENT (G)	HLXC248/HERL	DRL. WATER	POT. WATER	RIG FUEL	WORKBOAT FUEL	HELICOPTER FUEL	REMARKS
UNIT																						
DATE																						
APR 22	2650			4			10							4157			260	60	126		5.11	
APR 23	2707	22		48	45/80					37/7				5210			340	45	95		7.15	
APR 24	2753	196	35	33	35/25	/1				27/14				5141			360	43	100			
APR 25	2794	247		28	/28	/2				9/12				3551			500	-	90			
APR 26	2794			2										35			240	-	65			
APR 27	2794	366		1	1/									2026			200	-	70		1.93	
APR. 28	2794	366		1	1/					11/				2026			200	-	70		1.93	
APR. 29	2794			11										153	701		180	-	80			
APR. 30	2805	625		24	3/241	10/1		/2		4/1			/1	5226			260	-	110		3.26	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
SUB-TOTAL																						
CUMULATIVE	.	3746	182/1351	310	310/374	53/4	31/13	21/2		142/125	27/0		0/1	74,301	4671		14420	521	2572		38.17	

H-761-578 WWE

MATERIAL CONSUMPTION

WELL 15/6-6

UNIT	DEPTH	BARITE (SX)	BENTONITE SX/BULK	LIGNO-SULFONATE	CAUSTIC/LIGNITE	BICARB./AL STEARATE	RESINEX/DARSPAC	SODA ASH/XC POLY.	PIPE LAX/D.D	CMC LV/HV	$CaCl_2$ SX/LQ	HRGL/CRZL	ECO/LIME	COST OF MUD $	CEMENT (G)	HLC248/HRZL	DRL. WATER	POT. WATER	RIG FUEL	WORKBOAT FUEL	HELICOPTER FUEL	REMARKS
DATE	METERS																					
MAY 1	2805													0			280		110			W.O.W.
MAY 2	2923		/46	120	19/70	5/1	/1	-/9		19/1			/1	1749			420		110			
MAY 3	3053	312			11/-					10/-				2297			640		110			
MAY 4	3188	3	/26	25	17/25					5/1				1749			280		110			
MAY 5	3289	757	43/	40	10/20		1/1	/3		3/1			/1	6894			780		90		1.0	
MAY 6	3318	221			6/-					/10				1726			180	123	95			
MAY 7	3435	207		10	17/20					-/6				2569			420	60	95			
MAY 8	3551	207		29	11/40		10/			3/-				3396			400					
MAY 9	3591	528		15	10/30	/1	10/							4991			200		100			
MAY 10	3609.5			20	12/40					1/				1304			140		70			
MAY 11	3627	277		8	1/10	/1				3/				2042			220	81	100			
SUB-TOTAL																						
CUMULATIVE		6258	271/137	577	424/629	58/7	52/15	21/26		186/144			/3	103018			18380	785	3562		39.17	

H-781-578 WWE

MATERIAL CONSUMPTION

WELL 15/6-6

	DEPTH	BARITE (SX)	BENTONITE SX/BULK	LIGNO-SULFONATE	CAUSTIC/LIGNITE	BICARB./AL. STEARATE	RESINEX/DRISPAC	SODA ASH/XC POLY.	DIPELAX/D.D	CMC LV/HV	$CaCl_2$ SX/L.Q	HRGL/CFR2L	ECO./LIME	COST OF MUD	CEMENT (G)	HLX C248/HR12L	DRL. WATER	POT. WATER	RIG FUEL	WORKBOAT FUEL	HELICOPTER FUEL	REMARKS
UNIT	METERS													$								
DATE																						
MAY 12	3644.5	209		8	5/15		7/	/3		1/				3113			200		100			
MAY 13	3681	233		29	10/46	/1	10/4							4218			220		90		3.06	
MAY 14	3745		20/	10	10/10		/2							1070			320		90		1.4	
MAY 15	3760		14/	10	5/10	/1	9/							1385			200		100		3.14	
MAY 16	3760	183	6/	2	3/					/2				1233			180		70		3.18	
MAY 17	3760													-0-			480		50			
MAY 18	3760	55	14/		3/									527			120		60			
MAY 19	3760									/3				156			110		60			
MAY 20	3760									/1				52	847		316		45		2.77	
MAY 21	3760													-0-	783		14	163	65		4.25	
MAY 22	3760													-0-					60			
SUB-TOTAL																						
CUMULATIVE		6938	325/1377	636	140/710	58/9	78/21	21/29		187/150			0/3	120,810	6501		30540	948	4352		56.97	

H-781-5/6 WWE

MATERIAL CONSUMPTION

WELL 15/6-6

	DEPTH	BARITE (SX)	BENTONITE SX/BULK	LIGNO-SULFONATE	CAUSTIC/LIME	BICARB/M. STEARATE	RESINEX/DRISPAC	SODA ASH/K. POLYMER	PIPE LAX/D.D.	CMC LV/HV	CACL2 SX/LIQ	HARGL/CPAC-L	ECONOLITE/LIMA	COST OF MUD $	CEMENT (G)	HI-XC 248/HARGL	DRL. WATER	POT. WATER	RIG FUEL	WORKBOAT FUEL	HELICOPTER FUEL	REMARKS
UNIT																						
DATE																						
MAY 23	3760				2/0					1/2				180	931		110		50		3.11	
24	3760	62												328			90		50			
25	3760	519	0/58	3	4/0		0/2							4343			300	50	90			
26	3760	52	0/46		5/0									1254			120		60			
27	3760													658			260		50		1.08	
28	3760													-0-			100		44			
29	3760	35												187			140		50			
30	3760													-0-			140		51			
31	3760													365			136		49			
JUNE 1	3760				18/0					0/1				1768	391		504	63	61			
2	3760	53												281			60		65			
SUB-TOTAL																						
CUMULATIVE		7659	325/1481	639	489/910	58/9	78/23	21/29		188/153			0/3	130,174	7823		22500	1061	4952		61.16	

H-781-578 WWE

MATERIAL CONSUMPTION

WELL 15/6-6

	DEPTH	BARITE (SX)	BENTONITE SX/BULK	LIGNO-SULFONATE	CAUSTIC/LIME	BICARB/ALL-STEAM	RESINEX/DRISPAC	SOAP-NOX/XC-POLYMER	PIPE LUB/DD	CMC LV/HV	CMC SX/LIQ	HRC-L/CFRC-L	ECONOLITE/LIME	COST OF MUD $	CEMENT 'G'	HI-XC-24/HI-121	DRL. WATER	POT. WATER	RIG FUEL	WORKBOAT FUEL	HELICOPTER FUEL	REMARKS
UNIT																						
DATE																						
JUNE 3	3760														197		330		50			
4	3760														462		210		60		1.85	
5	3760	130						0/1		0/6					423		260		50			
6	3760														578		240		70			
7	3760	180									4/0				1090		580		50			
8																	80		50			
SUB-TOTAL																						
CUMULATIVE		79 69	525/1481	639	482/710	58/9	78/23	21/30	-	188/159	25/0	-	0/3	130,174	25250	-	24200	1061	5282	-	6301	

H 781-578 WWC

119-0112

PRESSURE INTEGRITY TEST

NO. DATE 11 APRIL 19[illegible]

OPERATOR	WELL NAME & NO.	AREA	COUNTY
ESSO EXPLORATION	15/6-6	NORTH SEA	NORWAY

STATE	RIG NAME	TYPE RIG
	GLOMAR BISCAY II	SEMI

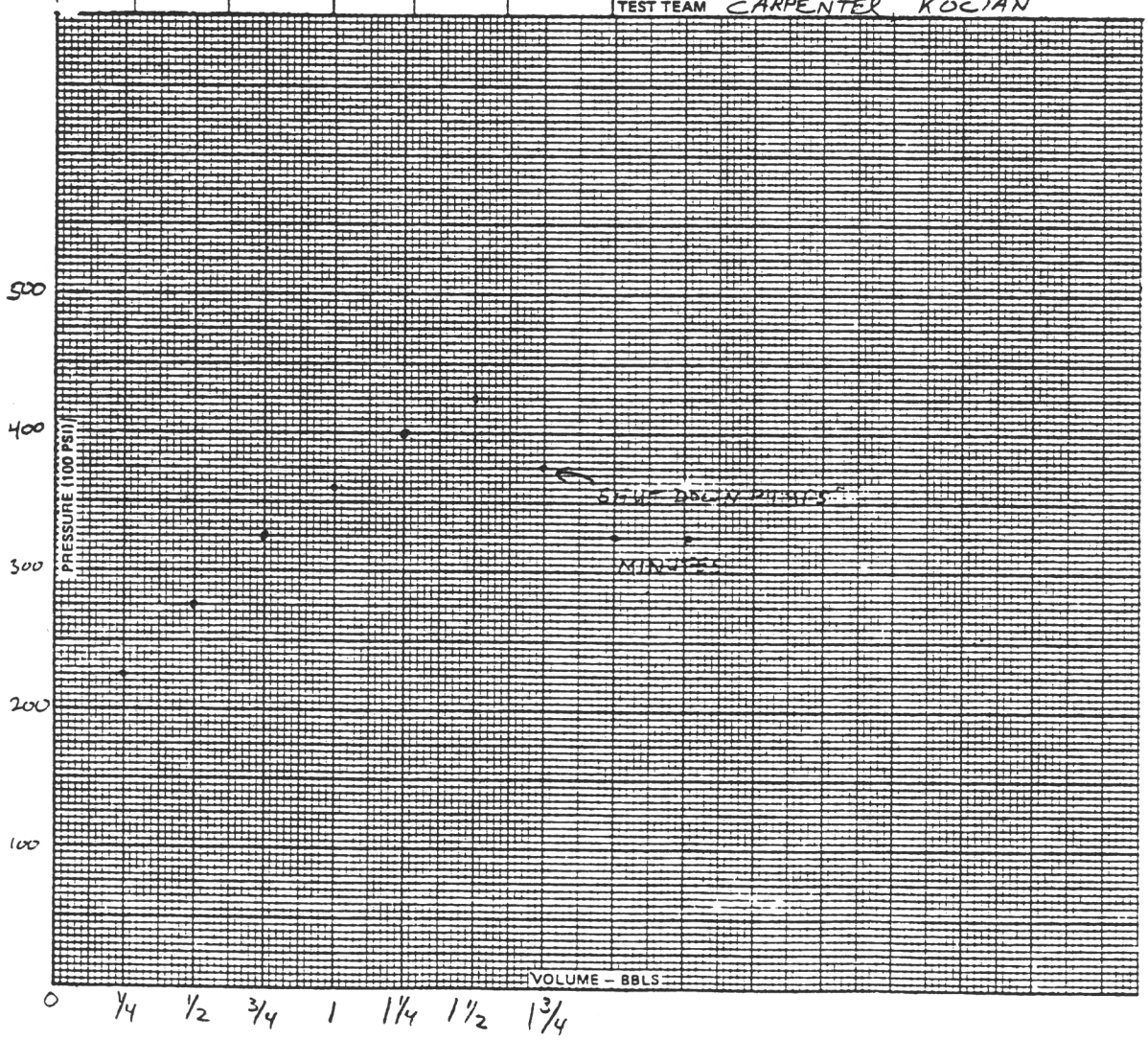
ELEV. RKB	ABOVE MSL	ABOVE CHF	ABOVE MUDLINE	CSG SIZE	WT.	GRADE	SHOE DEPTH (MEAS.)	TOTAL VER. DEPTH
	445 FT	FT	FT	20"	94 #/FT	X-52	1468 FT	FT

MUD PROP.	WT	VIS	PV	YP	API WL	GELS 0/10	PUMP CALIBRATION	TYPE PUMP	TEST RATE
	8.6	54	10	65	50+	10/29	BBLS/STROKE @ BPM		BPM

TEST	TYPE	TD OF TEST	MUD PUMPED	MUD FLOWBACK
	☐ CSG ☐ CSG SHOE ☑ 1ST OPEN HOLE ☐ 2ND OPEN HOLE ☐ P & A	1545 TVD	1 3/4 BBLS	1 1/4 BBLS

PRED. FRAC GRADE	TESTED GRADE @ SHOE	DEPTH 1ST SAND BELOW CSG	ELEC. LOG	MAX. PRES. OBSVD	PIT LIMIT
(EMS) PPG	(EMS) PPG	(DRLR (TVD) FT	(TVD) FT	450 PSI	325 PSI

TIME	VOLUME	PRESSURE	TIME	VOLUME	PRESSURE	DISCUSSION
	1/4	225				PUMP DOWN KILL LINE AT 1/4 BPM
	1/2	275				WITH CEMENT UNIT.
	3/4	325				
	1	360				CALCULATED PIT LIMIT = 12.9 PPG
	1 1/4	400				
	1 1/2	425				
	1 3/4	375				
	1 min	325				
	2 min	325				
	Held only 2 minutes due to					
	adverse weather conditions					
						TEST TEAM CARPENTER, KOCIAN



119-0112

PRESSURE INTEGRITY TEST

NO.

DATE 16 April '82

OPERATOR	ESSO EX
STATE	
WELL NAME & NO.	15/6-6
RIG NAME	Glomar Biscay II
AREA	North Sea
COUNTY	Norway
TYPE RIG	Semi

ELEV. RKB	ABOVE MSL	ABOVE CHF	ABOVE MUDLINE	CSG SIZE	WT.	GRADE	SHOE DEPTH (MEAS.)	TOTAL VER. DEPTH
	82 FT	FT	445 FT	13 3/8	68	K 55	3943 FT	FT

MUD PROP.	WT.	VIS	PV	YP	API WL	GELS 0/10	PUMP CALIBRATION	TYPE PUMP	TEST RATE
	9.4	47	10	15	7.8	6/37	BBLS/STROKE @ BPM	Howco	1/2 BPM

TEST TYPE: ☐ CSG ☑ CSG SHOE ☐ 1ST OPEN HOLE ☐ 2ND OPEN HOLE ☐ P & A

TD OF TEST	MUD PUMPED	MUD FLOWBACK
3950 TVD	3 1/8 BBLS	2 BBLS

PRED. FRAC GRADE	TESTED GRADE @ SHOE	DEPTH 1ST SAND BELOW CSG	ELEC. LOG	MAX. PRES. OBSVD	PIT LIMIT
(EMS) PPG	(EMS) PPG	(DRLR (TVD) FT	(TVD) FT	950 PSI	PSI

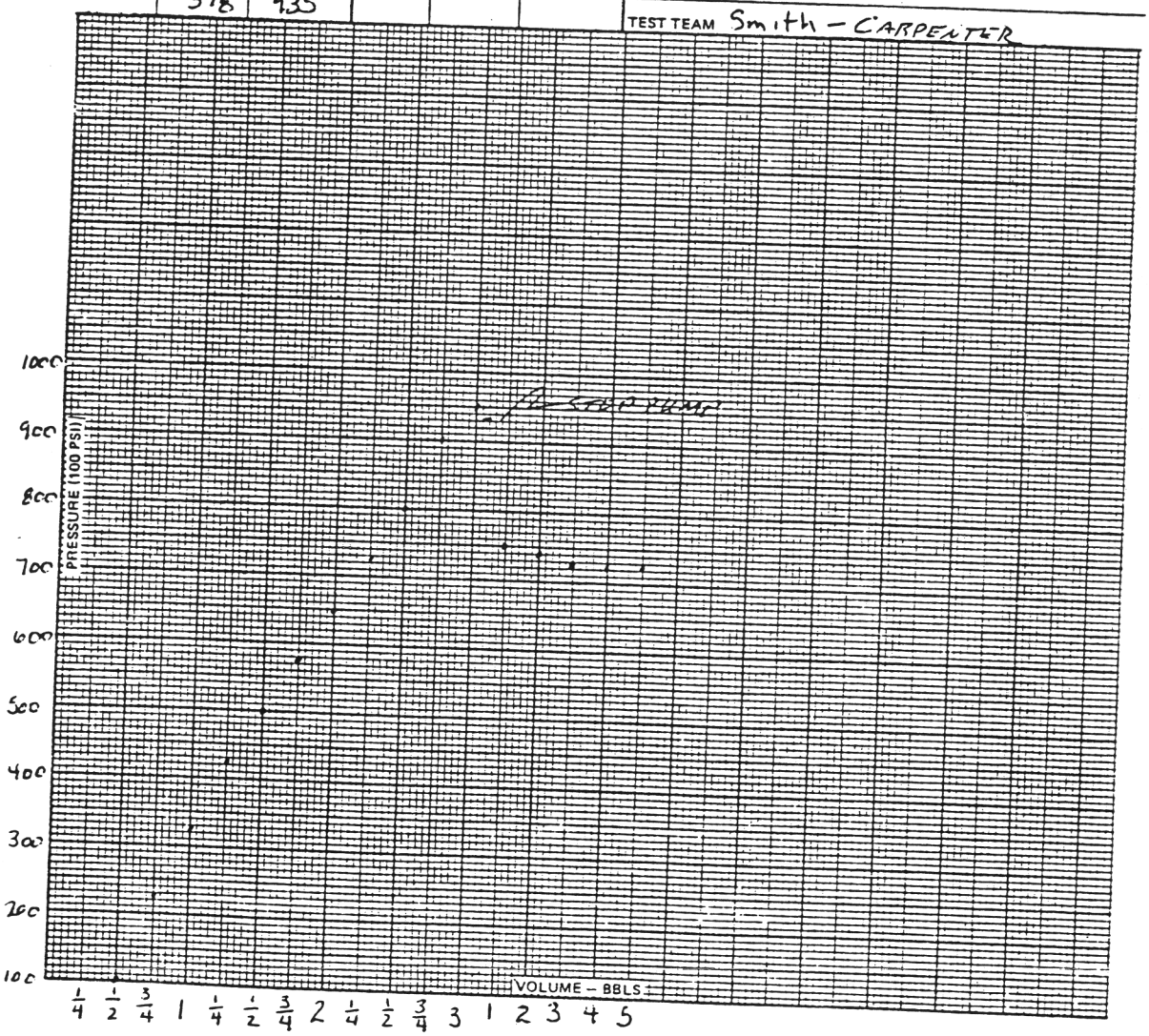
TIME	VOLUME	PRESSURE	TIME	VOLUME	PRESSURE
	1/4	0		1min	750
	1/2	100		2	740
	3/4	225		3	730
	1	325		4	725
	1 1/4	425		5	725
	1 1/2	500			
	1 3/4	575			
	2	650			
	2 1/4	725			
	2 1/2	800			
	2 3/4	900			
	3	950			
	3 1/8	935			

DISCUSSION

Estimated PIT Limit = 14 ppg equivalent

ISIP = 850 psi

TEST TEAM Smith – CARPENTER



119-0112

PRESSURE INTEGRITY TEST

NO. DATE 30 April 82

OPERATOR	WELL NAME & NO.	AREA	COUNTY
Esso Ex	15/6-6	SLEIPNER	NORWAY

STATE	RIG NAME	TYPE RIG
	GLOMAR BISCAY II	SEMI

ELEV. RKB	ABOVE MSL	ABOVE CHF	ABOVE MUDLINE	CSG SIZE	WT.	GRADE	SHOE DEPTH (MEAS.)	TOTAL VER. DEPTH
	23m 82.0 FT	FT	135m 445.0 FT	9 5/8"	47	N-80	2779.14m 9118.00 FT	FT

MUD PROP.	WT	VIS	PV	YP	API WL	GELS 0/10	PUMP CALIBRATION	TYPE PUMP	TEST RATE
	9.7	49	11	9	4.9	1/10	BBLS/STROKE @ SPM	HOWCO	1/4 SPM

TEST	TYPE	TD OF TEST	MUD PUMPED	MUD FLOWBACK
	☐ CSG ☐ CSG SHOE ☐ 1ST OPEN HOLE ☐ 2ND OPEN HOLE ☐ P & A	2797.0 m 9176.5 TVD	6 1/2 BBLS	4 3/4 BBLS

PRED. FRAC GRADE	TESTED GRADE @ SHOE	DEPTH 1ST SAND BELOW CSG	ELEC. LOG	MAX. PRES. OBSVD	PIT LIMIT
(EMS) PPG	(EMS) PPG	(DRLR (TVD) FT	(TVD) FT	2525 PSI	PSI

TIME	VOLUME	PRESSURE	TIME	VOLUME	PRESSURE
	1/2	225		1 min	2445
	1	275		2	2405
	1 1/2	400		3	2400
	2	675		4	2395
	2 1/2	940			
	3	1210			
	3 1/2	1500			
	4	1760			
	4 1/2	2010			
	5	2225			
	5 1/2	2350			
	6	2450			
	6 1/2	2525			

DISCUSSION

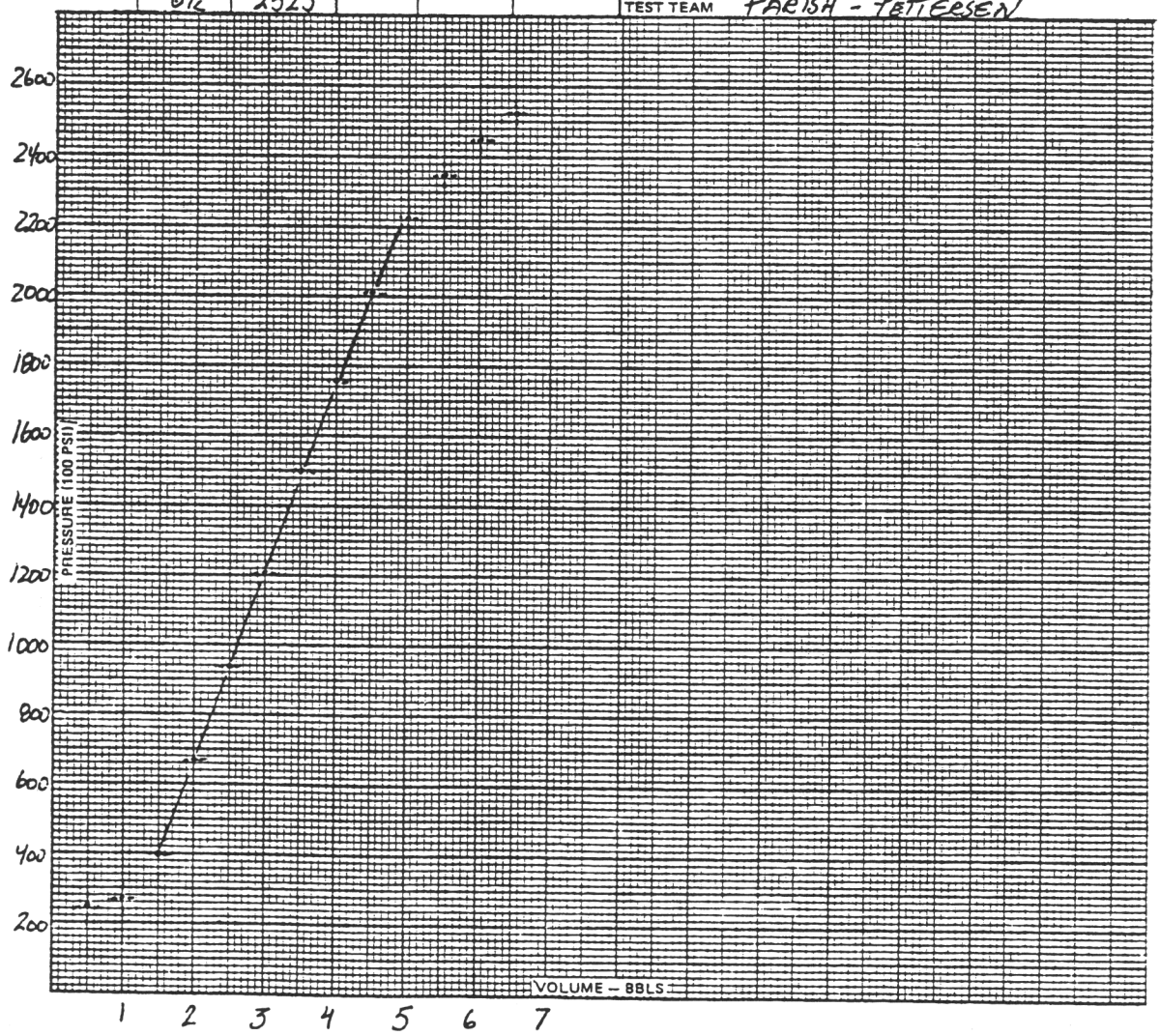
ESTIMATED PIT LIMIT = 14.4 Ppg EQUIVALENT

PIT LIMIT 2225 Psig

2225 ÷ 9118.0 ÷ 0.052 = 4.7

9.7 + 4.7 = 14.4 Ppg EQUIV.

TEST TEAM PARISH - PETTERSEN



PAGE 1 OF 2

PUMP 12-P-160

STROKE/LINER 12x7

GPM/STROKE .0142 BBL/ST.

BIT RECORD

WELL 15/6-6

RUN NO.	BIT NO.	SIZE IN.	TYPE	SERIAL NO.	JETS (32)	DEPTH OUT M	FOOTAGE M	HOURS	CUM HRS	M/PT/HR	WOB	RPM	PUMP PRESSURE	PUMP GPM	D. PIPE AV.	CONDITION T	CONDITION B	CONDITION G	REMARKS
1	1	17½	X3A	ND185	3-18	197.5	62	8.5	8.5	7.3	5-15	40-45	1200	1163	105	1	1	I	GUIDE BIT ON 36" HO
w/36" HO																			
2	1RR	17½	X3A	ND185	3-18	197.5													REDRILL ORIGINAL HOLE DUE TO TIGHT SPOTS.
w/36" HO																			
3	1RR	17½	X3A	ND185	3-18	197.5													REAMING TIGHT SECTION IN 36" HOLE
w/TWO 36" HO																			
4	2	26	3A5	CR305	3-18	203		.75	9.25		5-10	40-70	1450	850	32	2	2	I	DRILL CEMENT
5	3	12¼	X3A	410 6K	3-18	465	262	9.5	18.75	27.57	0-15	90	2900	1067	209	2	2	I	DRILL PILOT HOLE
6	3RR	12¼		410 6K	3-9	465		18.75			0-15	70	1800	1300	49	2	5	I	UNDEREAM TO 26"
w/13⅜" HO AND 26" UNDEREAMER																			
7	1RR	17½	X3A	ND185	3-18	465		3.5			0-5	65	1500	950	36	1	1	I	UNDEREAM LEDGES IN 26" SECTION.
w/26" UNDEREAMER																			
8	4	17½	X3A	HX121	3-18	1218	753	28.25	47	26.7	30-35	130	2600			4	3	1/8	DRILL 17½" HOLE
9	RR1	17½	X3A	ND185	3X18	1218					0-10	140	2600	905	79	1	1	I	CONDITION HOLE PRIOR TO 13⅜ CSG
10	5	12¼	X3A	GK408	3X16	1868	650	38.5	38.5	16.8	15/20	115	3100	754	148	4	6	1/8	
11	6	12¼	X3A	PZ890	3X16	2477	609	45¼	45¼	13.4	20-25	120	3100	750	147	7	7	1/4	DRILL 12¼" HOLE
12	7	12¼	J4	42EL	3X16	2650	173	15	15	11.53	25-30	120	3000	750	147	4	6	I	
13	8	12¼	J4	423EL	3X16	2711	61	19.25	19.25	3.16	35-40	60-80	3000	750	147	6	3	BO	

H-765-381 GCF

BIT RECORD

WELL 15/6-6

PAGE 2 OF 2

PUMP 12-P-160

STROKE/LINER 7x12

GPM/STROKE .0142 BBL/ST.

RUN NO.	BIT NO.	SIZE IN.	TYPE	SERIAL NO.	JETS (32)	DEPTH OUT M	FOOTAGE M	HOURS	CUM HRS	M PT/HR	WOB	RPM	PUMP PRESSURE	PUMP GPM	D. PIPE AV.	CONDITION T	CONDITION B	CONDITION G	REMARKS
14	9	12¼	J22	69856	3x16	2394	83	32	32	2.59	45	60	3000	145	136	2	6	1/16	
15	3RR	12¼	X3A	6K410		OPEN		WIPER		TRIP									CHANGE TO 6-INCH LINERS
16	10	8½	X16	19160L	3x12	2394	42	3	35	14	15/25	80	1100	81	200				
"	"	"	"	"	"	2805	11	2¼	37¼	4.88	25/30	80	1100	81	200	5	2	1	DRILL F COLLARS + FLOAT SHOE PM 4/NR
17	11	8½	LYNX	20119	.85	3289	484	83¾	121	5.80	15/25	950	1200		285	50%			
18	12	8½	LX-13	70812132	1.0	3591	302	56½	177.5	5.30	15/30	50-90	4000		150	70%	GOOD		
19	CB1RR	8½	CM1P	21484		3609.2	18	6¼	183¾	2.88	15/25	50-70	1200		197	70%	GOOD		CUT CORE N-1 18 METERS
20	CBN2	8½	CM1P	21917		3625.5	16	4½	4½	3.6	15/25	50-70	1300	417	200	80%	GOOD		CORE #2
21	CB2	8½	CM1P	21917		3641.5	19	12½	17	1.5	15/30	90	1300	417	200	70%	GOOD		CORE #3
22	13	8½	J22	55736K	3x12	3760	115	41¼	41¼	2.8	25/40	50/80	3000	697	335	8	4	5/16	
23	14	8½	J22	390TF	3x12		CLEAN		OUT	TRIP									
24	RR14	8½	J22	390TF	3x12		CLEAN		OUT	TRIP									
25	15	6½				CONDITIONING			TRIP										

H-765-381 GCF

BOTTOM HOLE ASSEMBLIES

Well 15/6-6

Hole Size	Interval Drilled	BHA Description	Total BHA Length
36"	135.5 - 197.5	One 17-1/2" bit, 36" hole opener, bit sub, six 9" DC, XO	61.83 m
36"	Reaming original hole from 135.5 - 197.5 m	17-1/2" bit, 36" hole opener, 36" hole opener, bit sub, six 9" DC, XO	63.94 m
12-1/4"	203 - 465 Pilot Hole	12-1/4" bit, BS, Monel, one 8" DC, one stab, XO, fourteen 8" DC, XO, jars, two 8" DC, two XO, fifteen HWDP	317.01 m
26"	203 - 465	12-1/4" bit, 17-1/2" HO, 26" underreamer, FS, 9" Monel, six 9" DC, XO, seven 8" DC, XO, jars, 8" DC, two XO, two HWDP	184.60 m
26"	203 - 465	17-1/2" bit, 26" underreamer, FS, 9" Monel, six 9" DC, XO, seven 8" DC, XO, jars, 8" DC, two XO, two HWDP	183.33 m
17-1/2"	465 - 1218	17-1/2" bit, FS, 9" Monel, 9" DC, 17-1/2" stab, five 9" DC, XO, seven 8" DC, XO, jars, two 8" DC, two XO, fifteen HWDP	299.85 m

4 H-1691-1181 GUM

BOTTOM HOLE ASSEMBLIES

Well 15/6-6

Hole Size	Interval Drilled m	BHA Description	Total BHA Length
12-1/4"	1218 - 2794	12-1/4" bit, FS, 8" Monel, one 8" DC, 12-1/4" Stab, XO, fourteen 8" DC, XO, jars, two 8" DC, XO, fifteen HWDP	315.99 m
12-1/4"	Wiper Trip @ 2794 m	12-1/4" bit, junk sub, bit sub, Monel, one 8" DC, Stab, XO, jars, two 8" DC, two XO, fifteen HWDP	187.82 m
8-1/2"	2794 - 2805	8-1/2" bit, junk sub, N.B. stab, 8" pup DC, 8-1/2" stab, Monel, 8-1/2" stab, 6-1/2" DC, XO, twenty-two 6-1/2" DC, XO, six HWDP, 1 jard, nine HWDP	316.07 m
8-1/2"	2805 - 3289	Bit, turbine, 8-1/2" stab, Monel, 8-1/2" stab, 6-1/2" DC, XO, twenty-two 6-1/2" DC, XO, six HWDP, jar, nine HWDP	387.70 m
8-1/2"	3289 - 3591	Bit 8-1/2" LX13, 7-1/4" T3A1, 8-1/2" stab, 6-1/2" Monel, 8-1/2" stab, 6-1/2" DC, XO, twenty 6-1/2" DC, XO, six HWDP, jars, nine HWDP	369.53 m
8-1/2" C.B.	3591 - 3642	8-1/2" CMIP, core bbl, XO, stab, 6-1/2" DC, XO, twenty 6-1/2" DC, six HWDP, jars, nine HWDP	360.48 m

4 H-1691-1181 GUM

BOTTOM HOLE ASSEMBLIES

Well 15/6-6

Hole Size	Interval Drilled	BHA Description	Total BHA Length
8-1/2"	3642 - 3760	8-1/2" bit, junk sub, 8-1/2" stab, 6-1/2" DC pup, 8-1/2" stab, 6-1/2" monel DC, 8-1/2" stab, 6-1/2" DC, XO, twenty 6-1/2" DC, XO, six HWDP, jars, nine HWDP	357.17 m

4 H-1691-1181 GUM

CASING DATA

WELL 15/6-6

CSG O.D. IN.	WT. LBS/FT	GRADE	CONN.	CSG LENGTH FT m	SHOE DEPTH R.K.B. m	CENTRALIZER POSITION	REMARKS
30"	310	B	VETCO ATD/RB		196	None	Cement with 1000 sx Class 6 Neat. Returns to Surface
20"	94	X-52	VETCO ST		447	None	Cement w/1000 sx "G" cmt w/8% GEL Tailed by 1020 sx "G" neat. Returns to Surf.
13 3/8"	68	K-55	BUTTRESS	1067	1202	Joints # 1,3,5,6,7 66 + 67	Cement w/ 657 sx w/8% gel tailed by 510 sx neat cmt.
9 5/8"	47	N-80	BUTTRESS	216 jts. 2646.78M	2779M	Joints # 1,2,3,4,5+6	Cement w/300 sx w 8.5*/bbl Gel-.15 gal/sx CFRZ-L-.70 gal/sx H-10 Tailed by 225sx w/0.3 gal/s ~~HRGL. .159 g/sx CFR-2~~6, .7 sx H-10
7"	29	P-110	BUTTRESS	3554	3686	Joints # 1,2,3,4,5	Cement w/570 sx neat lead and 540 sx neat tail

H-780-578 WWE

CEMENT DATA

WELL 15/6-6

DATE	DEPTH m	TYPE JOB	ADDITIVES	AMOUNT	TYPE CEMENT	REMARKS
April 3	197.5	30" csg	2% $CaCl_2$	1000 sxs	G	15.8 ppg avg Displace w/31 bbls SW. Floats held.
April 7	465	20" csg	8% PHG Neat	1000 sxs Lead 1020 sxs Tail	G	Lead @ 13.2 ppg Tail @ 15.8 ppg Good returns thruout Float did not hold
April 14	1202	13-3/8" csg	8% gel Neat	657 sx Lead 510 sx Tail	G	Lead @ 13.2 ppg Tail @ 15.8 ppg Slight lost returns
April 28	2779	9-5/8" csg	8.5 #/bbl gel 15 gal/sx CFR2-L 70" Halad 10 .157 gal/sx CFR2 .7" Halad 10 .03 gal/sx HR6L	300 sx Lead 225 sx Tail	G	Slurry vol=97.24 bbl Total s. vol=143.24 bbl Slurry vol=46 bbl
May 20	3687	7" csg	.09 gps HR-12L .29 gps CFR2 1.2 gps Halad 10 .11 gps HR12 .29 gps CFR2 1.2 gps Halad 10	570 sx Lead 540 sx Tail	G	Lead = 15.6 ppg Tail = 15.6 ppg
May 23	135.5	Grout around wellhead	1% $CaCl_2$	1000 sxs	G	16.0 ppg avg 205 bbls slurry volume
June 1	3542 - Into Perfs	Plug across producing zone 3568-3578	1.2 gps Halad 10 .29 gps CFR2L .09 gps HR12L	100 sxs	G	Squeeze pressure 2800 psi Av. density=15.8 ppg
June 1	3355-3440	Plug above EZSV cement retainer	1.2 gps Halad 10 .29 gps CFR2L .09 gps HR12L	50 sxs	G	Avg. density = 15.8 ppg
June 1	2710-2810*	Plug across 9-5/8" csg shoe	.09 gps HR12L	60 sxs	G	Avg. density = 15.8 ppg

H-760-578 WWE

CEMENT DATA

WELL 15/6-6

DATE	DEPTH m	TYPE JOB	ADDITIVES	AMOUNT	TYPE CEMENT	REMARKS
June 3	1250-1350	Plug across 7" csg stub	Neat	90 sxs	G	Avg. density = 15.8 ppg
June 3	1027-1202	Plug into 9-5/8" x 13-3/8" annulus	Neat	265 sxs	G	Squeeze pressure = 625 psi
June 4	786-998	Replug 9-5/8" x 13-3/8" annulus	Neat	265 sxs	G	Sqz press. =825 psi Due to leak in 9-5/8" seal assembly, plug was never displaced down.
June 5	738-181	Squeeze thru EZSV cement retained	Neat	500 sxs	G	Cmt. leaked around EZSV & up DP-csg annulus. All cement U-tubed when job was done.
June 6	1203-668	Plug 9-5/8" x 13-3/8" annulus	Neat	600 sxs	G	Sqz. cmt. down annulus & left 6 m cmt. over 9-5/8" stub
June 7	385-150	Plug 13-3/8" x 20" annulus	2-1/2% $CaCl_2$	850 sxs	G	Final squeeze pressure=300 psi at 1/2 BPM
June 7	238-165	Top plug	Neat	415 sxs	G	Avg density = 15.8 ppg

H-760-578 WWE

Supply and Transportation

Helicopter

Company HELIKOPTER SERVICES Type SK-61

Base Location FORUS

DATE	FLIGHTS	CUM. FLIGHTS	TOTAL NO. OF PASSENGERS	CUM. PASSENGERS	EST. FLT. TIME	TOTAL FLT. TIME
MARCH 31	1	1	29	29	2.5 HRS	2.5
APRIL 1	1	2	24	53	2.5 HRS	5.0
2	1	3	16	69	2.5 HRS	7.5
4	1	4	4	73	2.5 HRS	10.0
6	2	6	31	104	5.0 HRS	15.0
7	1	7	23	127	2.5 HRS	17.5
8	1	8	13	140	2.5 HRS	20.0
9	1	9	5	145	2.5 HRS	22.5
12	1	10	8	153	2.5 HRS	25.0
13	1	11	27	180	2.5 HRS	27.5
14	1	12	31	211	2.5 HRS	30.0
15	2	14	25	236	5.0 HRS	35.0
16	1	15	13	249	2.5 HRS	37.5
17	—	15	—	249	—	37.5
18	—	15	—	249	—	37.5
19	1	16	2	251	2.5 HRS	40.0
20	1	17	25	276	2.5 HRS	42.5
21	1	18	25	301	2.5 HRS	45.0
22	1	19	19	320	2.5 HRS	47.5

Supply and Transportation

Helicopter

Company HELIKOPTER SERVICES Type SK-61

Base Location TORUS

DATE	FLIGHTS	CUM. FLIGHTS	TOTAL NO. OF PASSENGERS	CUM. PASSENGERS	EST. FLT. TIME HRS	TOTAL FLT. TIME
APR 23	1	20	6	326	2.5	50.0
APR 27	1	21	25	351	2.5	52.5
APR. 28	1	22	25	376	2.5	55.0
APR. 29	1	23	22	398	2.5	57.5
APR. 30	1	24	17	415	2.5	60.0
MAY- 4	2	26	30	445	5.0	65.0
MAY- 5	1	27	29	474	2.5	67.5
MAY-6	1	28	18	492	2.5	70.0
MAY- 8	1	29	3	495	2.5	72.5
MAY 11	1	30	21	516	2.5	75.0
MAY 12	1	31	22	528	2.5	77.5
MAY 13	1	32	21	549	2.5	80.0
May 14	1	33	15	564	2.5	82.5
May 15	1/2		4	568	1.25	83.75
May 16	1/2	34	5	573	1.25	85.0
May 18	2	36	35	608	5.0	90.0
May 19	1	37	31	639	2.5	92.5
May 20	1	38	10	649	2.5	95.0
May 21	1	39	18	667	2.5	97.5

Supply and Transportation

Helicopter

Company HELIKOPTER SERVICES Type SK-61

Base Location FORUS

DATE	FLIGHTS	CUM. FLIGHTS	TOTAL NO. OF PASSENGERS	CUM. PASSENGERS	EST. FLT. TIME	TOTAL FLT. TIME
May 23	2	41	10	677	5.0	102.5
MAY 25	1	42	31	708	2.5	105
MAY 26	1	43	25	733	2.5	107.5
MAY 27	1	44	22	755	2.5	110
MAY 28	1	45	5	760	2.5	112.5
JUNE 1	1	46	25	785	2.5	115
2	1	47	26	811	2.5	117.5
3	2	49	14	825	5.0	122.5
4	1	50	6	831	2.5	125
7	1	51	7	838	2.5	127.5
8	1	52	23	861	2.5	130.0
9	1	53	28	889	2.5	132.5

SUPPLY AND TRANSPORTATION

Well 15/6-6

Total Well Days 70.57

I. SUPPLY/STANDBY VESSELS

Name	Santor	Sidors Pilot	Alcor	Nautic	Mariner
Company	Offshore Supply Association	Signes Offshore Service A/D	Signes Offshore Service A/S	Alcor Relief Boat	Siddis Relief Boat
Charter Date	25 Sept. 1980	30 Sept. 1980	28 Oct. 1980	6 April 1982	27 May 1982
Release Date	---	---	---	8 April 1982	3 June 1982
No. Round Trips	11	8½	Standby	Standby	3
Passengers					
From Port					
To Port					

II. HELICOPTERS

Company Helikopter Services A/S

Type Helo S 61 N

Total Flight Time 132.5 Hrs.

Freight Not Listed

Base Location Forus

Number of Round Trips 53

Number of Passengers (Total In plus Out) 889

Fuel Consumption Not Listed

III. FIXED WING

Company None

Type Fixed Wing

Total Flight Time

Freight

Base Location

Number of Round Trips

Number of Passengers (Total In plus Out)

Fuel Consumption

SUPPLY AND TRANSPORTATION

Well 15/6-6 Total Well Days 70.57

I. SUPPLY/STANDBY VESSELS

Name	Ragna Viking	Frank Viking			
Company					
Charter Date	30 March 1982	30 March 1982			
Release Date	31 March 1982	31 March 1982			
No. Round Trips	Anchor Handling	Anchor Handling			
Passengers					
From Port					
To Port					

II. HELICOPTERS

Company

Type Helo

Total Flight Time

Freight

Base Location

Number of Round Trips

Number of Passengers (Total In plus Out)

Fuel Consumption

III. FIXED WING

Company

Type Fixed Wing

Total Flight Time

Freight

Base Location

Number of Round Trips

Number of Passengers (Total In plus Out)

Fuel Consumption

DIVING SUMMARY

WELL 15/6-6

DIVE NO.	DATE	TYPE DIVE	ON BOTTOM TIME-Min.	DECOMP. TIME-Hr.	ACTIVITY
1	4 APRIL		206 min		Observe leak from pin connector observe pin connector latching
2	13 to 15 APRIL				Maintenance on submarine and equipment
3	16 to 28 APRIL				Maintenance on submarine and equipment
4	24 to 30 APRIL				Maintenance on submarine and equipment
5	11 MAY	Mantis	120 min		Sonar Sweep - Searching for 7 jts. of dropped casing with Mantis
6	12 MAY	Mantis	310 min		Locate lost casing with Sonar on Mantis
7	12 MAY	Mantis	180 min		Sonar Sweep with Mantis to locate lost casing
8	14 MAY	Mantis	142 min		Attempt to recover 1st joint of casing; unsuccessful
9	14 MAY	Mantis	7 Hrs. 43 min		Attempt unsuccessful to place lifting tool on casing
10	15 MAY	Mantis	230 min		Recover 1st joint of dropped casing
11	16 MAY	Mantis	5 Hrs. 37 min		Recover 2nd joint of casing
12	16 MAY	Mantis	108 min		Dive aborted as rig required use of crane.
13	16 MAY	Mantis	89 min		Recover 3rd joint of casing
14	17 MAY	Mantis	219 min		Recover 4th joint of casing
15	18 MAY	Mantis	115 min		Recover 5th casing joint

H-761-578 WWE

DIVING SUMMARY

WELL 15/6-6

DIVE NO.	DATE	TYPE DIVE	ON BOTTOM TIME-Min.	DECOMP. TIME-Hr.	ACTIVITY
16	18 MAY	Mantis	91 min		Recover 6th casing joint
17	18 MAY	Mantis	195 min		Mantis searching for more casing joints w/Sonar Sweep
18	18 MAY	Mantis	100 min		Recover stairway from Port-aft leg of rig.

H-761-578 WWE

SINGLE SHOT SURVEY

WELL 15/6-6
INSTRUMENT
ALL LENGTH MEASURED IN METERS
ALL ANGLES MEASURED IN DEGREES

MEAS. DEPTH METERS	DRIFT ANGLE	DRIFT DIR.	COURSE LENGTH METERS	AVG. DRIFT ANGLE	AVG. DRIFT DIR.	VERT. DEPTH	TRUE VERT. DEPTH	COURSE DEV'T	COORDINATE DIFFERENCE +N, −S	COORDINATE DIFFERENCE +E, −W	RECTANGULAR COORDINATE +N, −S	RECTANGULAR COORDINATE +E, −W	DOG LEG SEVERITY (DEG/)
197.5	1°	N58°E	62.5	0.5	58	62.498	197.498	0	0	0	0	0	0
281	1.5°	N58°E	83.5	0.75	58	83.493	280.992	1.092	+0.579	+0.927	+0.579	+0.927	0.539
379	1°	N63°E	98	1.25	60.5	97.977	378.969	2.138	+1.053	+1.861	+1.632	+2.789	0.157
465	1°	N78°E	86	1	70.5	85.987	464.956	1.501	+0.501	+1.415	+2.133	+4.202	0.091
565	0.5°	N3°E	100	0.75	40.5	99.991	564.948	1.309	+0.995	+0.850	+3.128	+5.053	0.299
660	0.75°	N71°E	95	0.625	37	94.994	659.942	1.036	+0.828	+0.623	+3.956	+5.676	0.230
756	0.5°	S81°E	96	0.625	85	95.994	755.936	1.047	+0.913	+1.043	+4.047	+6.719	0.121
852	0.5°	N17°W	96	0.5	41	95.996	851.935	0.838	+0.632	+0.549	+4.497	+6.226	0.266
948	0.125°	N44°E	96	0.312	13.5	95.999	947.933	0.524	+0.509	+0.122	+5.006	+6.348	0.141
1044	1°	N58°E	96	0.563	51	95.995	1043.929	0.942	+0.593	+0.732	+5.999	+7.080	0.275
1140	0.5°	N12°W	96	0.675	30	95.992	1139.985	1.257	+1.157	+0.491	+6.756	+7.572	0.298
1218	0.75°	S51°W	78	0.675	289.5	77.995	1217.981	0.851	+0.284	-0.802	+7.040	+6.769	0.413
1330	0.5°	S82°W	112	0.675	246.5	111.993	1329.974	1.222	-0.487	-1.120	+6.553	+5.649	0.110
1426	1°	S50°W	96	0.750	246.0	95.992	1425.966	1.257	-0.511	-1.148	+6.042	+4.501	0.198
1505	0.5°	S33°W	79	0.750	221.5	78.993	1504.959	1.034	-0.774	-0.685	+5.267	+3.816	0.206
1608	1°	S63°W	103	0.750	228.0	102.991	1607.950	1.348	-0.902	-1.002	+4.365	+2.814	0.120
1723	1°	S66°W	115	1.0	244.5	114.982	1722.933	2.007	-0.864	-1.811	+3.501	+1.003	0.014
1829	0.5°	N59°W	106	0.750	273.5	105.991	1828.924	1.387	+0.085	-1.385	+3.586	-0.382	0.233

SINGLE SHOT SURVEY

WELL 15/6-6
INSTRUMENT
ALL LENGTH MEASURED IN METERS
ALL ANGLES MEASURED IN DEGREES

MEAS. DEPTH	DRIFT ANGLE	DRIFT DIR.	COURSE LENGTH	AVG. DRIFT ANGLE	AVG. DRIFT DIR.	VERT. DEPTH	TRUE VERT. DEPTH	COURSE DEV'T	COORDINATE DIFFERENCE +N, −S	COORDINATE DIFFERENCE +E, −W	RECTANGULAR COORDINATE +N, −S	RECTANGULAR COORDINATE +E, −W	DOG LEG SEVERITY (DEG/)
1944	1°	S51°E	115	0.75	215	114.990	1943.914	1.505	-1.233	-0.863	+2.353	-1.246	0.390
2050	1°	S18°W	106	1.0	163.5	105.983	2049.898	1.850	-1.774	-0.525	+0.579	-0.720	0.321
2137	2.75°	S42°W	87	1.625	210	86.953	2136.851	2.847	-2.465	-1.423	-1.886	-2.143	0.649
2242	1.25°	S12°E	105	2.0	195	104.936	2241.787	3.664	-3.540	-0.948	-5.426	-3.092	0.644
2347	1.5°	S88°W	105	1.375	215	104.970	2346.757	2.519	-2.064	-1.445	-7.490	-4.537	0.577
2452	1.75°	S88°W	105	1.625	262	104.958	2451.715	2.978	-0.414	-2.949	-7.904	-7.486	0.071
2557	0.75°	N45°E	105	1.25	333.5	104.975	2556.690	2.290	+2.050	-1.022	-5.854	-8.508	0.683
2650	0.75°	S6°W	93	0.75	115.5	92.992	2649.682	1.217	-0.524	+1.099	-6.378	-7.409	0.456
2711	0.5°	S8°W	61	0.625	187	60.996	2710.678	0.665	-0.660	-0.081	-7.038	-7.490	0.123
2794	0°	—	83	0.25	188	83	2793.678	0.362	-0.359	-0.050	-7.397	-7.540	0.181
2895	0.5°	S8°E	101	0.25	180	101	2894.677	0.441	-0.441	0	-7.838	-7.541	0.148
2998	0.25°	S73°W	103	0.375	212.5	102.998	2997.674	0.674	-0.569	-0.362	-8.407	-7.903	0.152
3093	0.75°	N27°W	95	0.5	303	94.996	3092.671	0.829	+0.452	-0.695	-7.955	-8.598	0.262
3188	1.25°	N58°E	95	1.0	25.5	94.986	3187.656	1.658	+1.496	+0.714	-6.459	-7.884	0.365
3282	0.5°	N38°E	94	0.875	48	93.989	3281.645	1.435	+0.960	+1.067	-5.498	-6.817	0.255
3377	0	—	95	0.25	38	95	3376.645	0.415	+0.327	+0.255	-5.171	-6.562	0.158
3471	0	—	94	0	38	94	3470.655	0	0	0	-5.171	-6.562	0
3565	0.75°	N87°W	94	0.375	335.5	93.998	3564.642	0.615	+0.560	-0.255	-4.612	-6.817	0.239

H-1249-1180 GCF

SINGLE SHOT SURVEY

WELL 15/6-6
INSTRUMENT
ALL LENGTH MEASURED IN METERS
ALL ANGLES MEASURED IN DEGREES

MEAS. DEPTH	DRIFT ANGLE	DRIFT DIR.	COURSE LENGTH	AVG. DRIFT ANGLE	AVG. DRIFT DIR.	VERT. DEPTH	TRUE VERT. DEPTH	COURSE DEV'T	COORDINATE DIFFERENCE		RECTANGULAR COORDINATE		DOG LEG SEVERITY
									+N, −S	+E, −W	+N, −S	+E, −W	(DEG/)
3590	1°	N47°W	25	0.875	293	24.997	3589.639	0.382	+0.149	-0.351	-4.463	-7.169	0.772
3685	1°	N79°W	95	1.0	297	94.985	3684.625	1.658	+0.753	-1.477	-3.710	-8.646	0.174
3760	1°	N70°W	75	1.0	285.5	74.989	3759.614	1.309	+0.350	-1.261	-3.360	-9.907	0.063

OPERATING CONDITIONS

WELL 15/6-6

DATE	MAX WIND		MAX SEAS		MAX SWELL			MAX VESSEL MOVEMENT			VESSEL HEADING DEG	VESSEL OFFSET % W.D.	ANCHOR TEN.		RISER DATA		
	SPEED	DIR	HT	DIR	HT	DIR	PERIOD SEC	HEAVE	ROLL DEG	PITCH DEG			MIN	MAX	TENSION KIPS	SLIP JT PRESS.	B J PRESS
MARCH 31	15	VAR	4	VAR	4	VAR		2	.5	.5	305	-	170	240			
APRIL 1	16	S	5	S	6	VAR		2	.5	.5	305	-	175	220			
2	20	SSW	4	SW	6	VAR		2	.5	.5	305	-	175	205			
3	20	SW	4	SW	6	VAR		2	.3	.5	305	-	180	210	140		
4	16	SW	2	SW	4	VAR		1	.2	.3	305	1/2	180	210	120	28	750
5	16	S	3	S	4	VAR		1	.2	.3	305	1/5	175	210	160	30	750
6	20	SE	4	S	5	S		1	.3	.5	305	.67	175	210	116	30	750
7	55	N	14	N	20	N		8	1.2	2	305	NA	175	225	NA	NA	NA
8	58	N	28	N	36	N		18	2.5	3	305	65	110	225	NA	NA	NA
9	45	NNW	20	NNW	28	N		12	2.2	2.2	305	4.4	120	225	NA	NA	NA
10	50	NNW	16	NNW	18	N		8	1.6	2.2	307	.6	160	230	160	30	1100
11	60	N	26	NNW	30	N		14	2.1	2.5	307	2.7	150	230	160	30	1300
12	50	NNW	26	NW	29	N		12	1.2	1.4	307	1.3	150	225	160	30	1300
13	30	N	12	N	16	N		10	1.2	1.4	307	.9	160	225	160	30	1250
14	20	WSW	4	SW	10	N		5	0.5	0.5	307	.4	170	225	160	32	1250
15	18	SW	2	SW	3	VAR		1	0.2	0.2	307	.4	170	225	160	30	1250
16	22	WSW	6	NW	6	W		1	0.4	0.5	307	.2	170	225	160	30	1300
17	18	NW	6	NW	8	NNW		5	0.5	0.7	307	.2	160	225	160	30	1300
18	8	NW	2	NW	6	NNW		3	0.5	0.7	307	.2	165	220	160	30	1300
19	9	NW	1	NW	6	NNW		2	0.3	0.5	307	.2	170	225	160	30	1300
20	26	S	5	SW	6	SW		1	0.5	0.5	307	.2	165	225	160	30	1250
21	4	VAR	4	VAR	4	SW		1	0.3	0.3	307	.2	160	240	160	30	1250

H-748-578 WWE

OPERATING CONDITIONS

WELL 15/6-6

DATE	MAX WIND		MAX SEAS		MAX SWELL			MAX VESSEL MOVEMENT			VESSEL HEADING DEG	VESSEL OFFSET % W.D.	ANCHOR TEN.		RISER DATA		
	SPEED	DIR	HT	DIR	HT	DIR	PERIOD SEC	HEAVE	ROLL DEG	PITCH DEG			MIN	MAX	TENSION	SLIP JT. PRES.	B.J PRESS
APR 22	20	SW	6	VAR	6	SW		3	0.5	0.4	307		165	230	160	30	1250
APR 23	24	WNW	6	WNW	6	WNW		3	0.5	0.5	307	.2	165	230	160	30	1250
APR 24	18	W	5	W	5	W		2	0.5	0.5	307	.2	170	230	160	30	1200
APR 25	28	WNW	8	WNW	8	WNW		4	0.5	0.8	307	.2	170	230	160	30	1200
APR 26	30	W	10	W	12	W		4	1.0	1.5	307	.2	170	230	160	30	1200
APR 27	30	W	10	W	12	W		4	1.0	1.5	307	.0	160	230	160	30	1200
APR 28	30	W	10	W	12	W		4	1.0	1.5	307	0	170	230	160	30	1200
APR 29	50	W	16	W	25	W		8	1.7	2.8	307	1.5	170	230	160	30	1250
APR. 30	55	NW	18	NW	24	W		14	2.0	2.5	307	2.02	170	290	160	30	1250
MAY 1	60	NW	22	NW	30	W		20	2.0	3.5	307	1.1	150	290	160	30	1250
MAY 2	18	SW	22	SW	22	SW		10	2.5	2.5	307	1.3	160	270	160	30	1250
MAY 3	50	SSE	18	SSE	22	SW		10	1.0	2.5	307	1.3	155	225	160	30	1250
MAY 4	35	SW	10	SW	10	SW		2	.8	.5	307	.8	165	230	160	30	1250
MAY 5	30	SW	8	SW	10	VAR		4	.5	.5	307	.67	170	230	160	30	1250
MAY 6	24	SW	6	SW	8	SW		4	.5	1.0	307	1.0	165	230	160	30	1250
MAY 7	20	NE	3	NE	6	VAR		3	.5	.5	307	.8	160	225	160	30	1250
MAY 8	40	NE	10	NE	14	VAR		5	.8	1.7	307	.8	160	225	160	30	1300
MAY 9	30	NW	10	NW	14	N.W		5	1.0	1.7	307	.9	155	220	160	30	1300
MAY 10	12	-CALM- NW	5	-CALM- NW	6	NE		.5	.5	.5	307	.9	155	230	160	30	1300
MAY 11	12	NW	3	NW	3	NW		.5	.3	.3	307	.9	160	265	160	42	1300
MAY 12	15	SW	3	SW	3-4	VAR		.5	.3	.3	307	.67	160	245	160	35	1300
MAY 13	10	WSW	2	WSW	3	VAR		.5	.3	.3	307	.67	165	240	160	30	1300

OPERATING CONDITIONS

WELL 15/6-6

DATE	MAX WIND		MAX SEAS		MAX SWELL			MAX VESSEL MOVEMENT			VESSEL HEADING DEG	VESSEL OFFSET % W.D.	ANCHOR TEN.		RISER DATA		
	SPEED	DIR	HT	DIR	HT	DIR	PERIOD SEC	HEAVE	ROLL DEG	PITCH DEG			MIN	MAX	TENSION	SLIP JT. - PRESSURE	B J PRESS
MAY 14	8	S	1	VAR	3	VAR		.5	.2	.2	307	.67	150	225	160	30	1200
MAY 15	8	VAR	0	—	2	VAR		.5	.2	.2	307	.67	165	270	160	30	1250
MAY 16	20	SE	3	E	5	E		1.0	.2	.3	307	.67	175	260	160	30	1250
MAY 17	18	SW	3	VAR	5	S		1.0	.1	.3	307	.90	175	250	160	30	1250
MAY 18	20	E	3	E	6	E		1.0	.2	.2	307	.90	175	240	160	30	1250
MAY 19	18	WSW	3	WSW	5	E		.5	.2	.2	307	.67	160	240	160	30	1300
MAY 20	22	SSE	6	SSE	6	SSE		1.0	.4	.5	307	.67	155	225	160	30	1250
MAY 21	16	SSE	2	SSE	3	S		1.0	.3	.3	307	.67	105	225	—	—	—
MAY 22	40	SE	14	SE	18	SE		5.0	1.5	2.0	307	—	105	230	—	—	—
MAY 23	18	SSW	6	SW	10	S		3.0	1.0	0.8	307	1.12	150	230	160	30	1300
MAY 24	24	SW	4	SW	4	SW		0.5	0.3	0.4	307	0	160	225	160	30	1300
MAY 25	38	WSW	14	WSW	14	WSW		2.0	1.5	1.3	307	.44	160	230	160	30	1250
MAY 26	23	WSW	8	WSW	10	WSW		2.0	.8	.8	307	.22	160	225	160	30	1250
MAY 27	18	SW	4	SW	5	SW		1.0	.7	.7	307	0	150	230	160	30	1250
MAY 28	20	WNW	5	WNW	5	W		.5	.3	.3	307	0	160	230	160	30	1250
MAY 29	20	SW	5	SW	6	SW		.5	.3	.3	307	0	150	220	160	30	1200
MAY 30	20	SW	6	SW	6	SW		2	.3	.3	307	0	150	215	160	30	1250
MAY 31	15	S	5	S	5	S		.5	.5	.3	307	0	150	235	160	30	1200
JUNE 1	12	S	4	S	4	S		.5	.3	.3	307	0	150	205	160	30	1200
JUNE 2	12	S	2	S	2	S		.5	.3	.3	307	0	160	230	160	30	1200
JUNE 3	12	S	2	S	2	S		.5	.2	.2	307	0	155	235	160	30	1150
JUNE 4	4	SE	2	SE	2	S		.5	.2	.2	307	0	155	230	160	30	1150

14-748-5/8 WWE

OPERATING CONDITIONS

WELL 15/6-6

DATE	MAX WIND		MAX SEAS		MAX SWELL			MAX VESSEL MOVEMENT			VESSEL HEADING DEG	VESSEL OFFSET % W.D.	ANCHOR TEN.		RISER DATA		
	SPEED	DIR	HT	DIR	HT	DIR	PERIOD SEC	HEAVE	ROLL DEG	PITCH DEG			MIN	MAX	TENSION	SLIP JT. PRESSURE	B J PRESS
JUNE 5	8	S	5	S	2	S		5	.2	.2	307	0	150	240	160	30	1150
JUNE 6	24	ENE	8	N	10	VAR		3	1	1	307	0	150	240	160	30	1150
JUNE 7	18	NW	6	N	12	VAR		3	1	1	307	0	155	245	160	30	1150
JUNE 8	20	NW	6	NW	9	NNW		1.5	1	.7	307		155	230			

GLOBAL MARINE DRILLING COMPANY
SUPERVISOR'S INVESTIGATION OF INJURY OR ILLNESS

PRINT OR TYPE ONLY

1. Name of injured ØKSNEVAD Jostein — Length of time in present job 3 yrs., [illegible] mos.
Home address 4342 UNDHEIM, NORWAY
2. Rig GLOMAR BISCAY 2
Well name or no: SLEIPNER 15-6-6
Geographic location NORTHSEA NORWAY
Age 25 — Sex: ☒ Male ☐ Female
Occupation OPERATOR
Length of time with Company WEATHERFORD 3 yrs., ____ mos.
Operator ESSO

3. Is injured person a Global Marine employee?
☐ Yes (☐ U.S. ☐ Other Expatriate ☐ National)
☒ No (employed by WEATHERFORD NORWAY A/S)
Type of injury: ☒ Occupational ☐ Non-occupational
Did employee report and resume regular work assignment on the day after the accident or illness? ☒ Yes ☐ No

4. Date of report 27 Apr 82 (Month/day/year) — Date hitch began 22 Apr 82 (Month/day/year)
Date of incident 04.23.82 (Month/day/year) — Time of occurrence 23.05
Date and time injured began work 04.26.82 22.00
When did supervisor first know of incident? immediately

5. Describe the type of injury or illness in detail. Then check the appropriate boxes below.
~~Superficial and two small cuts on his knees~~
☐ Amputation ☐ Bruise (contusion) ☐ Burn ☐ Crushing injury ☒ Cut (laceration, puncture)
☐ Electric shock ☐ Fracture/Dislocation ☐ Sprain/Strain ☐ Illness ☐ Other
Part of body: ☐ Left ☐ Right ☒ Both ☐ Eye ☐ Head, face, neck ☐ Back ☐ Trunk (chest, stomach) ☐ Pelvis or groin ☐ Arm ☐ Hand, fingers ☒ Leg ☐ Foot, toes ☐ Internal
Did the injury or illness result in death? ☐ Yes ☒ No

6. Where did the accident or exposure occur? ☐ Bow ☐ Stern ☐ Mud pits ☐ Pump room ☐ Rig floor ☐ Main deck ☐ Galley ☐ Quarters ☐ Casing rack ☐ Pipe racker ☐ Engine room ☒ Derrick ☐ Mud room ☐ Other area on rig (____) ☐ Off rig (____) ☐ Other

7. What was the object or substance which directly injured the person? ☐ Tongs ☐ Slips ☐ Stairs ☐ Pipe ☐ Chemicals ☐ Fire ☐ Crane ☐ Hand tools ☐ Electricity ☐ Knives ☐ Chains ☐ Cable ☐ Metal ☐ Grease ☒ Falling object ☐ Illness or infection ☒ Other ~~stabbingboard~~

8. ACCIDENT TYPE: ☐ Bodily Motion or Overexertion ☐ Contact (with chemical or electricity) ☐ Fall from same level ☒ Fall from elevation ☐ Caught Between, In, or Under ☒ Struck Against ☒ Struck By ☐ Overexposure (to heat or cold)

9. What was the injured person doing at the time? He was on stabbingboard after doing stabbing casing and was waiting for to go down.
Explain how accident occured: ~~Compensaten bottle from block that was going down hit the stabbingboard, on grounds of that he did not get the flaps in the position as it should be.~~
Weather conditions at time of accident: ☒ Fair ☐ Rain ☐ Fog ☐ Snow ☐ Ice ☐ Rough Seas

10. Witnesses: Name Leif Kåre BÅRDSEN — Company WEATHERFORD
Home address DUSAVIK — Telephone No. 04-541077
Name BENEKE — Company ESSO
Home address — Telephone No.
Name Leif [illegible] — Company
Home address — Telephone No.

in/charge L.K. BÅRDSEN (WEATHERFORD) — D. LABARBET
(Signature & Title of Immediate Supervisor) — Signature & Title of Rig Supt. (Sr. Toolpusher)

Global Marine Drilling Co.

To: Å. Valand and M. Thygesen Date: 28 April 1982
From: R. LaBarthe, Superintendent

Subject: Stabbing board accident, 28 April 1982

As you know the accident report on this near disasterous accident places the majority of the blame on the Weatherford hand and the equipment. Even in the event that 1. The Weatherford man did not get the flap on the stabbing up properly and, 2. The board was not working as well as it could, it does not relieve the driller and the toolpusher of total responsibility for th accident.

In the first place it is the drillers job to insure that all of the equipment is in readiness for any given job. And the toopushers job to see that the driller prepares and proceeds with the job in a safe and efficient manner. The driller and toolpusher are paid to be aware of everthing that is going on in the operation around them. There is no excuse for not knowing that the man was having trouble opersting the stabbing board in this case.

This is not the first time a near accident or accident has taken place on this crew because of improper attention being paid to the job. I must also take responsibility for allowing dangerous situations to develope as I am ultimately responsible for every person aboard and their performance of there jobs. I do not feel that either of you gentelmen are doing your jobs up to standard and if there is not a great improvement very soon stronger action will be taken.

Sincerely

Robert LaBarthe
Superintendent

c.c. Å. Valand
M. Thygesen
D. Black
File
Esso Rep.

EQUIPMENT FAILURE REPORT INDEX

REPORT NUMBER	EQUIPMENT ITEM
1	Cameron RCK Connector
2	Spool Line for Blue Pod
3	Koomey 1" SPM Valve
4	COFLEXIP Choke and Kill Lines
5	Hose Fitting on Rucker-Schaffer Motion Compensator
6	National Type 12-P-160 Triplex Mud Pump
7	Lock Down Pin on Kelly Drive Bushing
8	Hydraulic Hose from Weatherford Power Unit to Casing Tongs
9	BJ 500 Ton Casing Elevators with 9 5/8" Slip Inserts
10	Middle Suction Module for Triplex National 12-P-160 Mud Pump No 2
11	Drill Collar - 4 1/2 H90 Connections, 6 1/2 UD
12	.092" Wireline
13	Sandline
14	CDL/CHL/GR Logging Tool
15	DLL/MLL/GR Logging Tool
16	MFT Tool

Report #1

EQUIPMENT FAILURE REPORT

WELL 15/6-6

Rig Glomar Biscay II

Report by F. Kocian

Date of failure April 7, 1982

Date of report April 11, 1982

Downtime (if applicable) From 0245 Hrs To 0530 Hrs

Description of failure (Describe completely - including location, photos, sketches etc) : While attempting to disconnect the riser from the Pin Connector, 2 3/4 hours were needed to release the Lockring in the Pin Connector box. The Lockring was hinged on the lip of the Riser Pin end above it.

Equipment involved (include manufacturer, size, model number, etc) : CIW RCK type Connector

Cause (if necessary hypothesize and give reasons) : The cause of this problem originated when the Lockring became cocked to one side either by tightening one of the bolts at initial make-up too tight or failure of one of the rubber crossmembers separating the two Lockrings.

Comments and recommendations (include recommended design or procedural changes plus any information which would aid a follow up report) : In this case the recommendation applies to how to get the connectors separated once the problem is found. A chisel or similar instrument should be inserted through a side port and hammered in order to move the Lockring back in place.

H-751-578 WWE

Report #2

EQUIPMENT FAILURE REPORT

WELL 15/6-6

Rig Glomar Biscay II

Report by E. Kocian

Date of failure April 9-10, 1982

Date of report April 11, 1982

Downtime (if applicable) From April 9, 2300 Hrs To April 10, 0130 Hrs

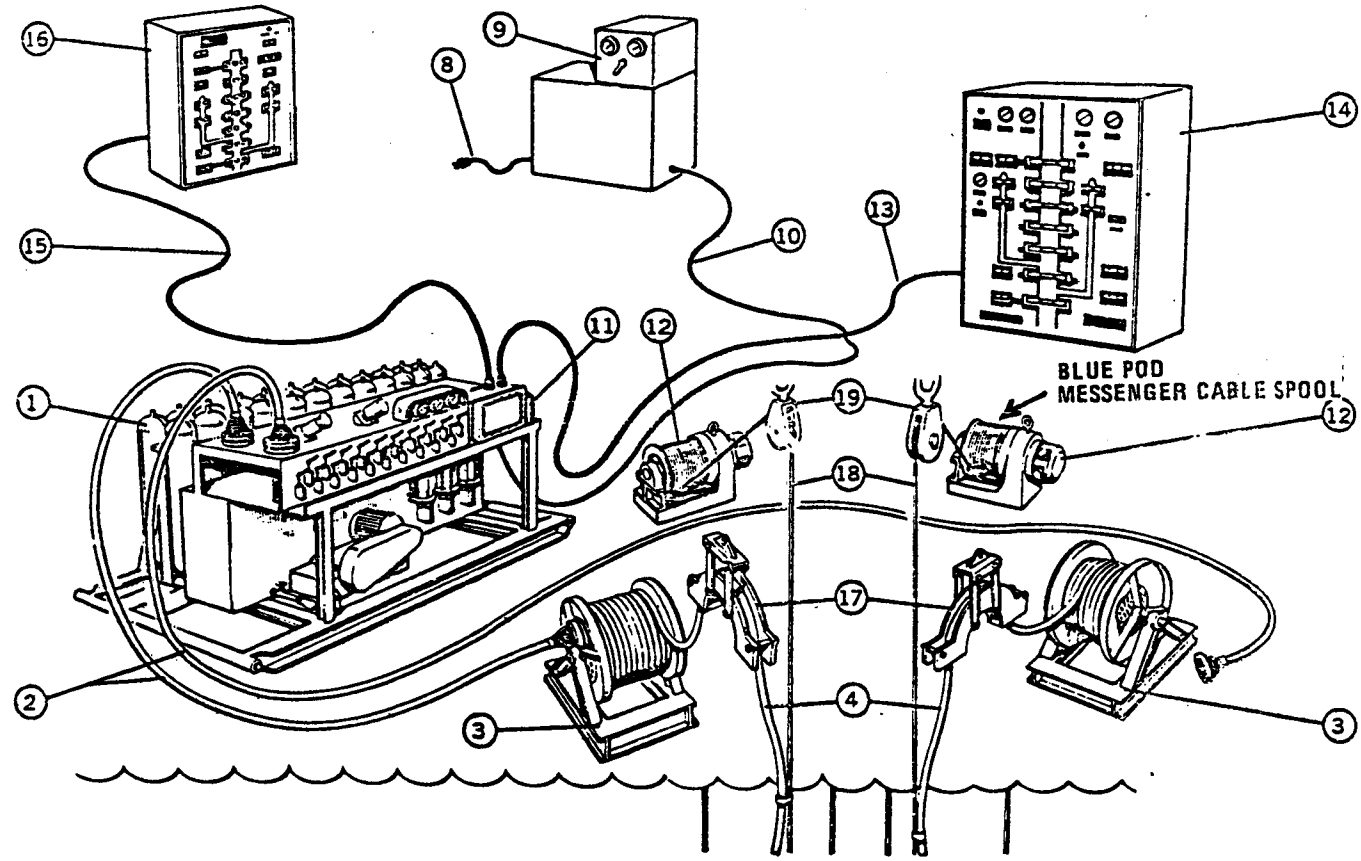
Description of failure (Describe completely - including location, photos, sketches etc) : While running the BOP Stack the Blue Pod messenger line parted on the spool. The stack was retrieved and 2 1/2 hours were needed to rewire the spool and run the stack back to its previous position.

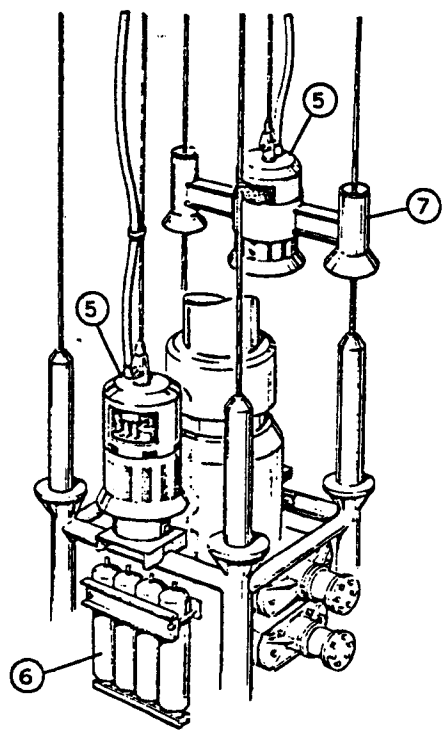
Equipment involved (include manufacturer, size, model number, etc) : Spool Line for Blue Pod

Cause (if necessary hypothesize and give reasons) : The cable parted because it became entangled on the Spool and was being fed out without supervision. The Spools are tension set to unwind as the Blue Pod is lowered out the cable was tangled under two other rows and snapped in half.

Comments and recommendations (include recommended design or procedural changes plus any information which would aid a follow up report) : Before running the Stack the Yellow and Blue Pod Spools should be checked to make sure they can unwind freely and are loaded with cable in good condition. Additionally someone should watch the Spools unwind even though they feed out automatically.

H-751-578 WWE





Equipment List

1. Hydraulic Power Unit with Pumps
2. Hydraulic Jumper Hose Bundles
3. Subsea Hose Reels (with Manual Control Manifold)
4. Subsea Hydraulic Hose Bundles
5. Subsea Control Pods
6. Subsea Accumulators
7. Retrieving Frame for Subsea Pods
8. Electric Control Power Supply Cable
9. Electric Power Pack
10. Electric Power Cable to Control System
11. Central Hydraulic Control Manifold
12. Air Winches for Running Subsea Pods
13. Master Electric Panel Control Cable
14. Master Electric Panel
15. Electric Mini-Panel Control Cable
16. Electric Mini-Panel
17. Sheaves for Subsea Hose Bundles
18. Wire Lines to Subsea Pods
19. Sheaves for Wire Lines to Subsea Pods

FIG. 1. KOOMEY HYDRAULIC BOP CONTROL SYSTEM WITH ELECTRIC CONTROL PANELS

Report #3

EQUIPMENT FAILURE REPORT

WELL 15/6-6

Rig Glomar Biscay II

Report by E. Kocian

Date of failure April 10, 1982

Date of report April 11, 1982

Downtime (if applicable) From

To

Description of failure (Describe completely - including location, photos, sketches etc) : While attempting to function the LPR open with the Yellow Pod, the power fluid was found to be leaking at a fast rate. The Yellow Pod was pulled to the surface and the SPM Valve which was leaking was repaired. No NPT occured as productive operations occured while the Pod was retrieved fixed and reconnected.

Equipment involved (include manufacturer, size, model number, etc) : Koomey 1" SPM Valve

Cause (if necessary hypothesize and give reasons) : This problem developed because a nut on the bottom of the piston rod was backed off to the last thread. This allowed the piston to travel upward but the ported cage that is supposed to move up with the piston moved only slightly allowing power fluid to come in the bottom ports of the cage and out the top.

Comments and recommendations (include recommended design or procedural changes plus any information which would aid a follow up report) : The nut on the bottom of the SPM Valves is supposed to have a Kotter pin through it to stop the nut from backing off. Six other SPM Valves were inspected when the Pod was pulled and all were found to have the Kotter pin in place. This problem was caused by faulty assembly of the Pod in the Koomey workshop and a letter of disapproval is in order.

H-751-578 WWE

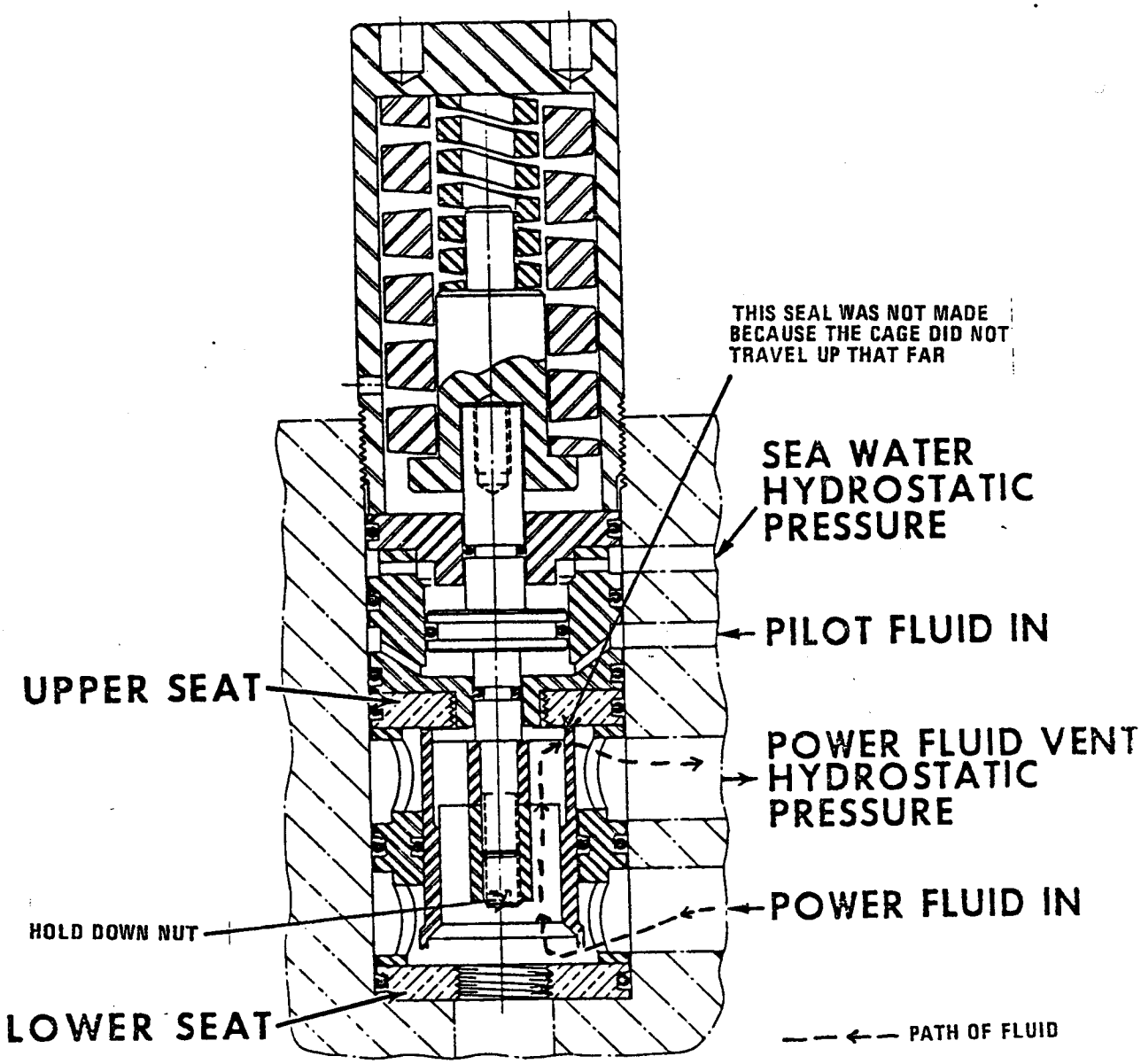


FIG. 6. KOOMEY 1" SPM VALVE (OPEN POSITION)

Report #4

EQUIPMENT FAILURE REPORT

WELL 15/6-6

Rig Glomar Biscay II

Report by E. M. Kocian

Date of failure April 5, 1982

Date of report April 7, 1982

Downtime (if applicable) From

To

Description of failure (Describe completely - including location, photos, sketches etc) · The two flexible hoses that were sent to the rig to replace the Chiksan lines as choke and kill lines on the BOP stack could not be functionally attached.

Equipment involved (include manufacturer, size, model number, etc) : Two COFLEXIP Brand, 15000 PSI, H_2S Service hoses, 18 Ft. long each

Cause (if necessary hypothesize and give reasons) : In order to accomodate the two flexible hoses, the guideframe on the BOP would have to be restructured on the LMRP. Additionally the location of the hoses would have restricted release of either pod and was directly interfering with the path of the guideline wires.

Comments and recommendations (include recommended design or procedural changes plus any information which would aid a follow up report) : Global Marine should have had a COFLEXIP and CIW representative on the rig to properly engineer the connection of the flexible hoses. The hoses were sent to rig without drawings, plans or instructions and an entire day of work was wasted on the stack trying to make it fit and re-installing the Chiksan hoses.

H-751-578 WWE

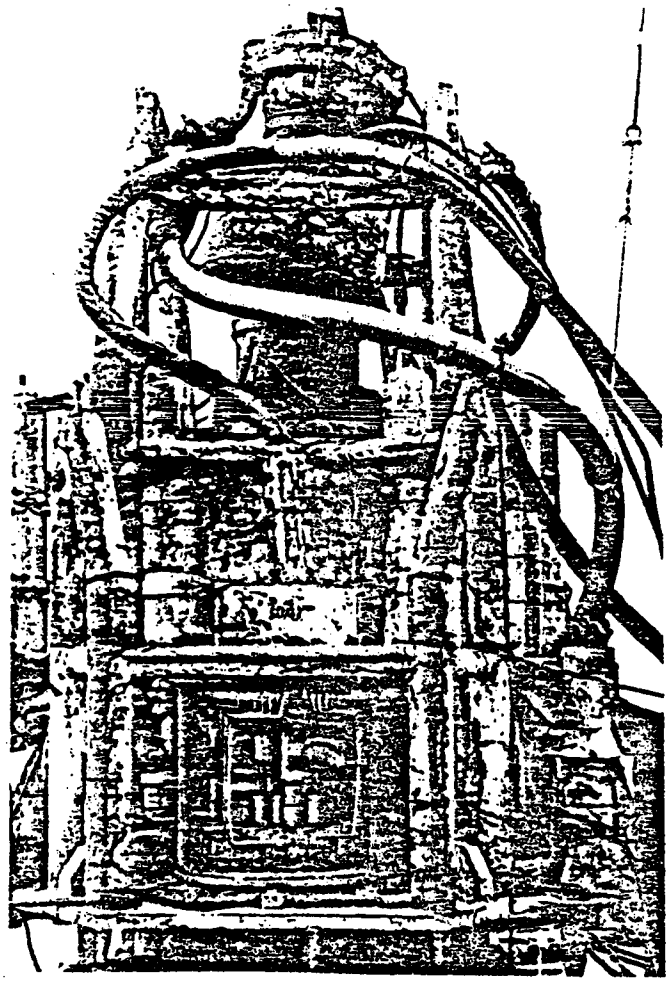


PHOTO 1. FLEXIBLE HOSE LOCATED DIRECTLY ABOVE RETRIEVABLE POD.

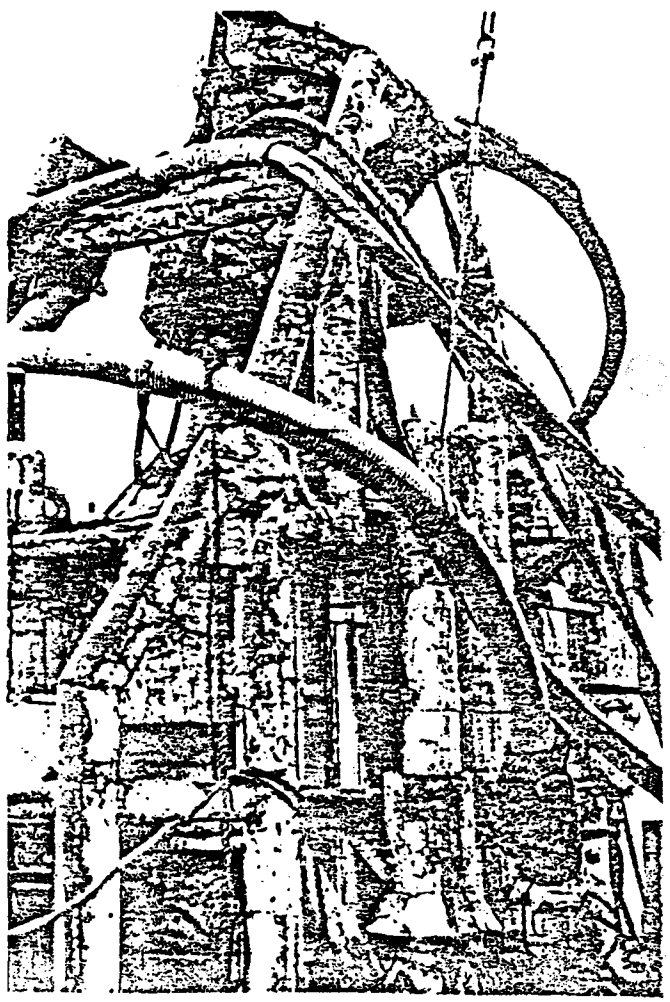


PHOTO 2. FLEXIBLE HOSE LOCATED ABOVE GUIDE FUNNEL.

Report #5

EQUIPMENT FAILURE REPORT

WELL 15/6-6

Rig Glomar Biscay II

Report by T. L. Upton

Date of failure April 15, 1982

Date of report April 23, 1982

Downtime (if applicable) From 1800 Hrs 4/15 To 1830 Hrs 4/15

Description of failure (Describe completely - including location, photos, sketches etc) : One-half hour was required to repair a leaking high-pressure air fitting on an air hose for the motion compensator's air/oil interface bottle.

Equipment involved (include manufacturer, size, model number, etc) : Hose fitting on Rucker-Shaffer SX motion compensator

Cause (if necessary hypothesize and give reasons) : The hose fitting developed a leak after a stand of drill pipe fell across the air hose during a trip into the hole.

Comments and recommendations (include recommended design or procedural changes plus any information which would aid a follow up report) : A guard could be constructed to protect the compensator hose fittings, however, due to the infrequent occurence of this type of failure it is probably not necessary to do so.

H-751-578 WWE

Report #6

EQUIPMENT FAILURE REPORT

WELL 15/6-6

Rig Glomar Biscay II Report by T. L. Upton

Date of failure April 18, 1982 Date of report April 23, 1982

Downtime (if applicable) From No Downtime Incurred To

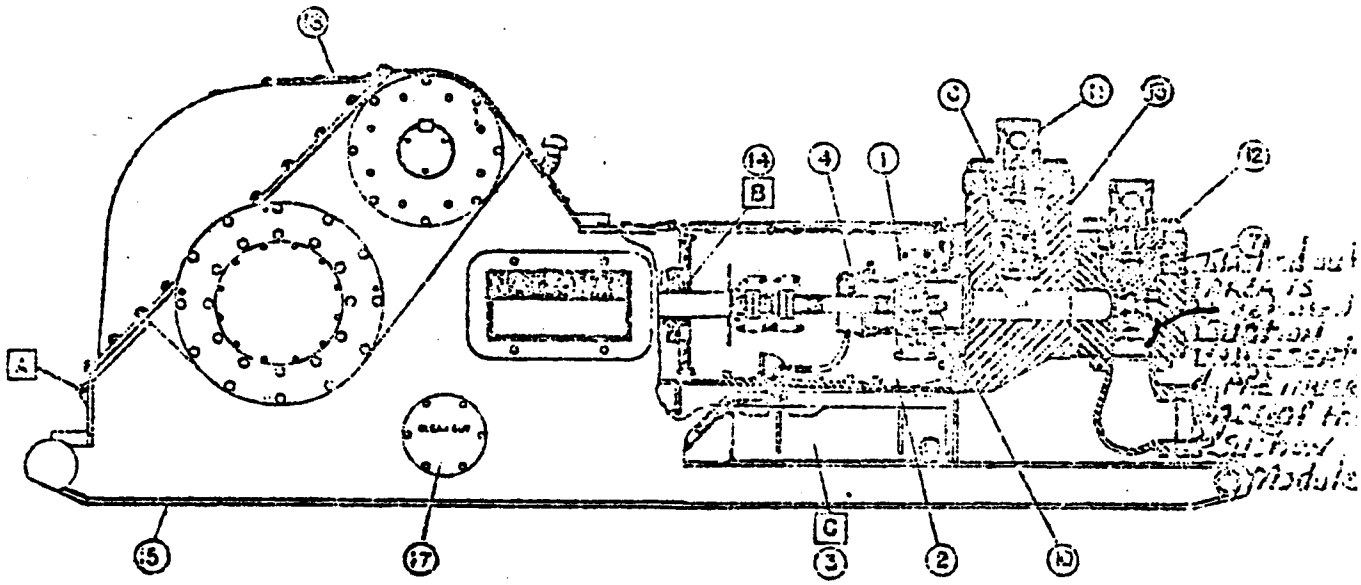
Description of failure (Describe completely - including location, photos, sketches etc) · Mud pump #2 went down for approximately 6 hours due to a washout in one of the discharge modules. Drilling continued on one pump while a temporary repair was made.

Equipment involved (include manufacturer, size, model number, etc) : National Type 12-P-160 Triplex Mud Pump

Cause (if necessary hypothesize and give reasons) : The liner bore of the 12-P-160 pump has a smaller diameter than the discharge module that it is attached to. The lip formed in the area where they attach creates an area of turbulance which eventually washes out the modules seal and wear plate, resulting in a pump leak (See attach. drawing)

Comments and recommendations (include recommended design or procedural changes plus any information which would aid a follow up report) : This failure is largely due to the design of the pump and has occurred on previous occasions. A periodic inspection of the pump modules could be made during extended non-use periods which could identify impending washouts and prevent their occurrences by replacing the seals and wear plates before they wash out.

H-751-578 WWE



LUBRICATION SCHEDULE

FREQUENCY	CHECK POINT	TYPE	PROCEDURE
Daily	A	AGMA EP Gear Lubricant*	Check oil level with pump at rest
Daily	B	NLGI No. 1 Multipurpose lithium base grease	Two strokes of a hand grease-gun
Daily	C	50% water + 50% water soluble oil	Check fluid level in sump
Six Months	A	AGMA EP Gear Lubricant**	Change oil and clean oil sump

*Surrounding Air Temperature Lubricant Selection.

50°F. (10°C.) to 155°F. (68°C.) — AGMA Mild EP #6 Viscosity 288-352 CST @ 100°F. (38°C.)
20°F. (- 7°C.) to 100°F. (38°C.) — AGMA Mild EP #5 Viscosity 198-242 CST @ 100°F. (38°C.)
-20°F. (-29°C.) to 60°F. (16°C.) — AGMA Mild EP #2 Viscosity 61- 75 CST @ 100°F. (38°C.)

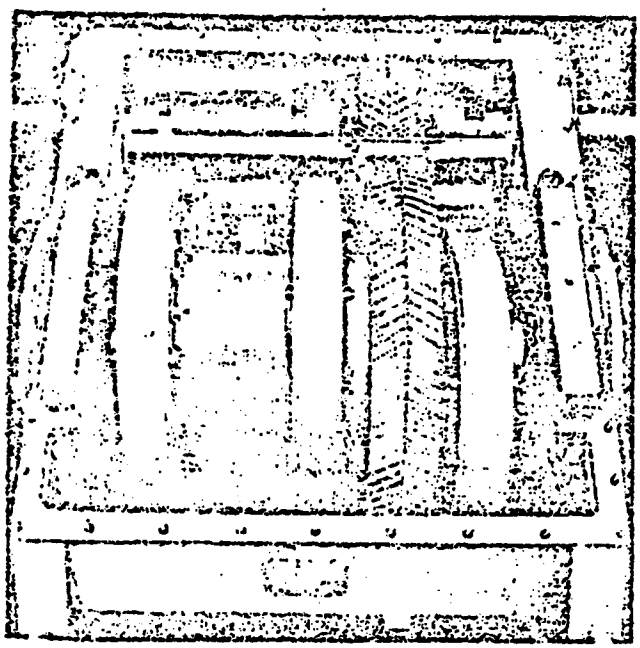
**Oil Capacities —

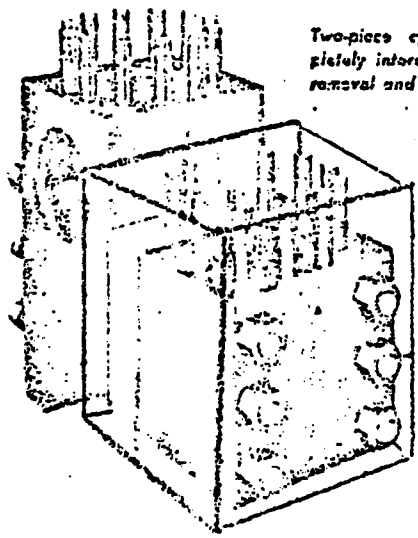
7-P-80 — 70 U.S. Gal. (265 Liters)
8-P-80 — 85 U.S. Gal. (322 Liters)
9-P-100 — 95 U.S. Gal. (360 Liters)
10-P-130 — 90 U.S. Gal. (341 Liters)
12-P-160 — 130 U.S. Gal. (492 Liters)

ARMCO National Supply Company

Slush Pumps

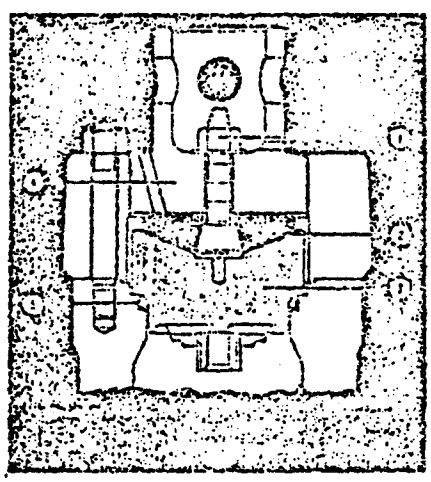
YOU GET THESE FEATURES ON ALL NATIONAL TRIPLEX SLUSH PUMPS

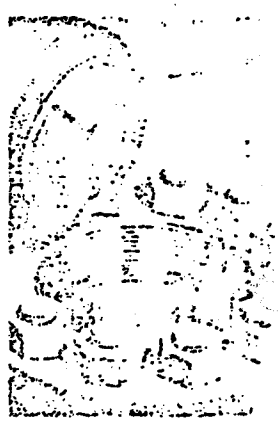




Two-piece cylinder modules, completely interchangeable, permit fast removal and attachment.

Washed out Suction module





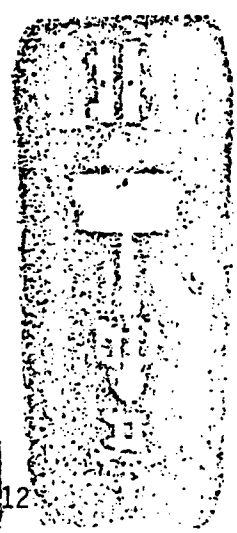
TAPR-LOK valve covers lock the seal in place through metal-to-metal contact, and can be easily loosened and tightened by one man.

DURABLE POWER END

- Fabricated steel frame construction
- One-piece construction of crankshaft, connecting rods and pinion shaft
- Accepts a variety of drive arrangements, on either or both sides
- Anti-friction bearings throughout
- Splash and gravity flow lubrication system

EASY-TO-SERVICE FLUID END

- Two-piece modular cylinder design with complete interchangeability between modules
- TAPR-LOK valve covers *on each valve* for fast maintenance
- Choice of suction manifolds either with front inlet or with side inlet connections
- Discharge piping connects from either side
- Fully open, easy-access piston and liner chamber
- Two-piece piston rod allows removal of piston without disturbing liner
- Easily operated clamps lock liners and piston rod assemblies in place
- "Full-circle" spray system cools and lubricates



Positive-lock retention clamps on liners and rods assure firm positioning and easy inspection and service.

Report #7

EQUIPMENT FAILURE REPORT

WELL 15/6-6

Rig Glomar Biscay II

Report by T. L. Upton

Date of failure April 19, 1982

Date of report April 23, 1982

Downtime (if applicable) From 0715 Hrs 4/19 To 0800 4/19

Description of failure (Describe completely - including location, photos, sketches etc) : Three quarters of an hour were required to replace a broken lockdown pin on the kelly drive bushing.

Equipment involved (include manufacturer, size, model number, etc) : Lockdown Pin on kelly drive bushing

Cause (if necessary hypothesize and give reasons) : The lockdown pin sheared off under normal operating conditions. Probably due to fatigue from normal wear and tear.

Comments and recommendations (include recommended design or procedural changes plus any information which would aid a follow up report) : A periodic visual inspection of the lockdown pins should be made to detect signs of fatigue and imminent failure. Suspect pins should be replaced during periods when the kelly is not in use.

H-751-578 WWE

EQUIPMENT FAILURE REPORT

WELL 15/6-6

Rig Glomar Biscay II

Report by Smith

Date of failure 28-4-82

Date of report 28-4-82

Downtime (if applicable) From 0600 To 0630

Description of failure (Describe completely - including location, photos, sketches etc) : Hydraulic hose from Weatherford power unit to casing tongs ruptured while runing 9 5/8 casing

Equipment involved (include manufacturer, size, model number, etc) :

Cause (if necessary hypothesize and give reasons) : This break occurred on the end of hose attached to tongs. This part of hose receives the most flexing due to movement involved in using tongs.

Comments and recommendations (include recommended design or procedural changes plus any information which would aid a follow up report) : Ends of hose should be cut off at periodic intervals. Also Weatherford should keep a spare hose with power unit.

H-751-578 WWE

Report #9

EQUIPMENT FAILURE REPORT

WELL 15/6-6

Rig Glomar Biscay II

Report by Smith

Date of failure 28-4-82

Date of report 28-4-82

Downtime (if applicable) From 1700 To 1745

Description of failure (Describe completely - including location, photos, sketches etc) : 9 5/8 slip segment was broken off when hit by coupling of casing while lowering casing

Equipment involved (include manufacturer, size, model number, etc) : BJ-500 ton casing elevators equipped with 9 5/8" slip inserts

Cause (if necessary hypothesize and give reasons) : While lowering casing thru slips rig motion caused casing to swing into slip inserts knocking them into closed position. Casing collar was just above slips when this happened and the collar hit top of one lip insert causing break of hinge ear.

Comments and recommendations (include recommended design or procedural changes plus any information which would aid a follow up report) : Drillers must remain aware that this can occur and be prepared to stop casing.

H-751-578 WWE

EQUIPMENT FAILURE REPORT

WELL 15/6-6

Rig Glomar Biscay II

Report by Parish-Bethke-Patterson

Date of failure 02.05.82

Date of report 02.05.82

Downtime (if applicable) From _____ To _____

Description of failure (Describe completely - including location, photos, sketches etc) : Wash-out of suction valve seat and the inner face of the middle suction module. The washed out sections were 5mm. deep and were from 5mm to 30mm wide form top to bottom of washed out area.

Equipment involved (include manufacturer, size, model number, etc) : Middle suction module for Triplex National 12-P-160 Mud pump No. 1 and valve seat for same.

Cause (if necessary hypothesize and give reasons) : (1) The valve was not seated properly. (2) The valve seat area of the module was milled out improperly. (3)Metal failure of valve seat (4) Stress failure of metal when rebuilding the module (heated too much and or cooled too fast).

Comments and recommendations (include recommended design or procedural changes plus any information which would aid a follow up report) : The middle suction module on mud pump No. 1 was changed out with a rebuilt module. After installation, run it for 15-30 minutes. Take off the cap and examine the seat and module body looking for damage. - The derrickman could hear a wash-out , he pulled the valve, but could not see any cut. The derrickman should pull the valve seat and look under it.

H-751-578 WWE

Report #1

EQUIPMENT FAILURE REPORT

WELL 15/6-6

Rig Glomar Biscay II

Report by R. Parish - A. Romero

Date of failure 06-May-82

Date of report 06-May-82

Downtime (if applicable) From N.A.

To N.A.

Description of failure (Describe completely - including location, photos, sketches etc) : -Washout-While attempting to drill form 3289 M. the R.O.P., decreased from 4.5 M/HR to 0 bit torqued up on bottom and would stall out, once on bottom, it would not drill. The washout that occured was large (Bottom of shoulder 2" long, top of shoulder 1/5" long with a height of 3/4" and 3/4" deep). The threads inside the box and on the pin almost completely washed out. This could explain why the turbine quit drilling along with the fact that the bit was starting to ring-out in the throat, on the nose and on the top step.

Equipment involved (include manufacturer, size, model number, etc) : Drill Collar - 4 1/2" H-90 Connections, 6 1/2" O.D., 2 13/16 I.D.

Cause (if necessary hypothesize and give reasons) : Could be excessive thread's wear. Had two previous washouts on well 16/7-2 in the 4 1/2" H-90 tool joints. See Report Number: 58, on March 7, 1982.

Comments and recommendations (include recommended design or procedural changes plus any information which would aid a follow up report) : It is recommended that all the 4 1/2" H-90 connections be inspected at the end of present well. The correct thread compoud (50 % Zinc) is being applied and the correct torque of 23,000 #/Ft.

H-751-578 WWE

EQUIPMENT FAILURE REPORT

WELL 15/6-6

Rig Glomar Biscay II

Report by Parish

Date of failure 8 May 1982

Date of report 8 May 1982

Downtime (if applicable) From One hour

To

Description of failure (Describe completely - including location, photos, sketches etc) · When retreiving single shot survey at 3471 the .092 line parted. Two stands of D.P. had to be pulled out of the hole and the line tied together. Total time for the survey was 2 1/2 hours. The previous survey took 1 1/2 hrs-1 hr lost.

Equipment involved (include manufacturer, size, model number, etc) : .092 Wire Line

Cause (if necessary hypothesize and give reasons) : The line was said to have been installed ± one year ago. The line is constantly exposed to a sea water atmosphere and washing up w/ sea water on the rig floor.

Comments and recommendations (include recommended design or procedural changes plus any information which would aid a follow up report) : A new line to be installed today.

H-751-578 WWE

Report #13

EQUIPMENT FAILURE REPORT

WELL 15/6-6

Rig Glomar Biscay II

Report by Parish

Date of failure 5-5-82

Date of report 8-5-82

Downtime (if applicable) From N.A.

To

Description of failure (Describe completely - including location, photos, sketches etc) : While recovering a single shot survey at 9100' the sandline came unravelled. The length was approximately 3'. Another length of bad wire could be seen on the drum. It was removed from the drum. It's condition was similar and the length was 6'.

Equipment involved (include manufacturer, size, model number, etc) : Elkem a/s Stal of tau Sandline 6 X 7 (20,000') Drawn-Galvanized 14mm (9/16")

Cause (if necessary hypothesize and give reasons) : An Elkem representive was onboard when the line was installed to supervise the operation. The Elkem Rep. had no definite idea of what caused the failure but said that it could possibly be factory flaw.

Comments and recommendations (include recommended design or procedural changes plus any information which would aid a follow up report) : This line was changed out on the last well (16/7-2) in Feb. of 1982. (See equip. failure report 14 Feb 1982) The prior sandline was also an Elkem and had to be changed our after only nine months. Approximately 400' was cut off and the Elkem man spliced the wire.

H-751-578 WWE

EQUIPMENT FAILURE REPORT

WELL 15/6-6

Rig Glomar Biscay II

Report by Smith

Date of failure 15 May 82

Date of report 18 May 82

Downtime (if applicable) From 2115 To 2400

Description of failure (Describe completely - including location, photos, sketches etc) : See attached report from Dresser Engineer

Equipment involved (include manufacturer, size, model number, etc) : Dresser Atlas CDL-CNL-GR Log Tool

Cause (if necessary hypothesize and give reasons) : See attached report from Dresser

Comments and recommendations (include recommended design or procedural changes plus any information which would aid a follow up report) : Routine service/repair of these tools is done in Dresser Shop - Suggest discusstion with Dresser manager on quality of their PM program.

H-751-578 WWE

1/a. Downtime = 1.75 Hours due to Gamma Ray

b. Density/Neutron/Gamma Ray Combination

c. Gamma Ray tool (No. 1309-41813) lost output sensitivity at 1900 metres in well. Spent 20 minutes at this depth eliminating any possibility of a surface equipment failure before POOH. This tool was last checked in full combination on the 10th May and also 15 minutes before RIH for log. On both occasions it calibrated perfectly.

After POOH, tool was again checked on catwalk but found to be still inoperative. Back-up gamma ray tool was then installed on original density/neutron combination, calibrated and RIH. No further problems found.

The line module in the electronics section of the tool is strongly suspected of causing the failure although this has to be confirmed by laboratory checks.

EQUIPMENT FAILURE REPORT

WELL 15/6-6

Rig Glomar Biscay II

Report by Smith

Date of failure 16 May 82

Date of report 18 May 82

Downtime (if applicable) From 0315 To 0600

Description of failure (Describe completely - including location, photos, sketches etc) : See attached report from Dresser Engineer

Equipment involved (include manufacturer, size, model number, etc) : Dresser Atlas DLL-MLL-GR Log Tool

Cause (if necessary hypothesize and give reasons) : See attached report from Dresser

Comments and recommendations (include recommended design or procedural changes plus any information which would aid a follow up report) : Routine service/repair of these tools is done in Dresser Shop - Suggest discussion with Dresser manager on quality of their PM program.

H-751-578 WWE

2/a. Downtime = 3.0 Hours due to Dual Laterolog

b. Dual Laterolog/Micro Laterolog/Gamma Ray

c. Dual Laterolog would not surface between its calibration values at T.D. (Tool No. 1229-37999). Combination run was last checked (on rig) on 3rd May and before RIH and appeared to be functioning correctly in both cases. String also worked when checked just below 9 5/8" shoe and after running a tie in at T.D. Tool failure occured just before start of Repeat section.

POOH and changed complete combination for back-ups. No further problems occured.

The Dual Laterolog switching circuitry is undoubtably the cause of this failure but, as with the gamma ray problem, will have to be confirmed by laboratory tests.

EQUIPMENT FAILURE REPORT

WELL 15/6-6

Rig Glomar Biscay II

Report by Smith

Date of failure 17 May 82

Date of report 18 May 82

Downtime (if applicable) From 0600 To 0815

Description of failure (Describe completely - including location, photos, sketches etc) · See attached report Dresser Engineer

Equipment involved (include manufacturer, size, model number, etc) : Dresser Atlas MFT Tool

Cause (if necessary hypothesize and give reasons) : See attached Dresser report

Comments and recommendations (include recommended design or procedural changes plus any information which would aid a follow up report) : Routine service/repair of these tools is done in Dresser Shop - Suggest discussion with Dresser manager on quality of their PM work.

H-751-578 WWE

3/a. Downtime = 3/0 Hrs due to FMT Tool

b. Formation Mult-Tester/Gamma Ray Comn

c. FMT tool (1925-39149) was checked by FMT specialist the previous day to the log. At this time the tool failed due to a loss of hydraulic pump pressure which is used to open and close the sampling pad. A complete new hydraulic power pack assembly was flown from town and then fitted to the mal-functioning tool.

The tool was then opened and checked repeatedly with no loss of pump pressure and therefore the decision was taken to run the tool in the hole.

After running the tool in the hole 3 or 4 tests were completed successfully before the loss of pump pressure problem re-occured. One more pressure test was carried out in another section of the hole but the problem remained and therefore the tool was POOH and exchanged for a back-up

The back-up tool ran a successful log.

The failed tool will be sent to base for a complete overhaul during which the source of the pressure loss will be located.

DAILY DRILLING REPORT

WELL 15/6-6
WATER DEPTH –
ESSO SUPR. ROGERS / WILLAGOT
ESSO ENGR. MONKS
ESSO TECH.
RIG SUPR. CLAGGET

RIG GLOMAR BISCAY II

PAGE ..... OF .....
REPORT NO. 1
24 HRS. END 31/3/82
WELL DEPTH –
PROGRESS –

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
1	0545	3-1/2	DEPART WELL 16/7-2 AT 0215 HRS. UNDER WAY TO NEW LOCATION WELL 15/6-6.
2	2045	15	MOORING - DROP NO 5 FROM RIG AT 0550 HRS. BAR WIND SEA SWELL R P H 1016 VAR 15 4' VAR 4' 2 2 1-2 NO 4 FRANK VIKING 0618 PENNANT ONBOARD 0622 RUN ANCHOR 0634 ON BTM 0642 BOUY LAUNCHED 1058 PIGGY BACKED NO 8 SIDDIS PILOT 0650 PENNANT ONBOARD 0720 RUN ANCHOR 0735 ON BTM 0755 P.B ON BTM 0804 BOUY LAUNCHED NO 6 SANDTOR 0730 PENNANT ONBOARD 0736 RUN ANCHOR 0750 ANCHOR ON BTM 0820 P.B. ON BTM 0835 BOUY LAUNCHED NO 2 SIDDIS PILOT 0834 PENNANT ONBOARD 0848 RUN ANCHOR 0855 ANCHOR ON BTM 0910 BOUY LAUNCHED NO 3 SANDTOR 0845 PENNANT ONBOARD 0850 RUN ANCHOR 0909 ANCHOR ON BTM 0917 BOU LAUNCHED NO 7 RAGNA VIKING 0900 PENNANT ONBOARD 0910 RUN ANCHOR 0925 ANCHOR ON BTM 1000 P.B. ON BTM 1012 BOUY LAUNCHED NO 1 FRANK VIKING 0656 PENNANT ONBOARD 0708 RUN ANCHOR 0718 ANCHOR ON BTM 0740 P.B. ON BTM 0748 BOUY LAUNCHED 1030 START BALLAST DOWN 28' DRAFT 1310 FINISH BALLAST DOWN 70' DRAFT 1715 ANCHOR TENSIONED: 1 - 375 5 - SLIPPED 2 - 325 6 - 375 3 - 350 7 - 375 4 - 375 8 - 375 1800-1900 PICK UP NO 5 ANCHOR AND PIGGY BACK. 2015 TEST NO 5 TO 375 K. 2045 ANCHORS ALL AT 200 K WORKING TENSION.
24	2230	1-3/4	FINISH INSTALLING NEW ROLLERS ON MOTION COMP GUIDE FRAME.
6	2400	1-1/2	MAKE UP 36'' B.H.A.

TIME SUMMARY	CODE	1	2	6	24									TOTAL
	HOURS	3 1/2	15	1 1/2	1 3/4									

LEX telecopy plus TELEX telecopy plus TELEX telecopy plus TELEX telecopy plus TELEX telecop

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135.5
ESSO SUPR. ROGERS/WILLOUGHBY
ESSO ENGR. MONUS/KOSIAN
ESSO TECH. BETHKE
RIG SUPR. CLAGGET

RIG GLOMAR BISCAY II

PAGE ..... OF .....
REPORT NO. 2
24 HRS. END 1/4/82
WELL DEPTH 197.5
PROGRESS 62

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
			24 HOUR SUMMARY
6	0200	2	FINISH MAKE UP 36'' DHA - BIT, H.O., F/SUB, 4X24'' DC'S.
6	0215	1/4	TAG SEA BOTTOM - 135.5 MKB.
3	0600	3-3/4	SPUD WELL - DRILLING 36'' HOLE FROM 135.5 TO 163, SEA BOTTOM VERY FIRM.
			NEED: TELEX PAPER - TYPE W/ONLY 4 COPIES. D SIZE FLASHLIGHT BATTERIES.
			FRANK VIKING DEPART 1200 HRS 31/3/82 FUEL 203 L/T OIL 59.7 BBLS P. WATER 45 L/T ETA DUSAVIKA 2400 HRS
			RAGNA VIKING DEPART 1340 HRS 31/3/82 FUEL 242 L/T OIL 51 BBLS D. WATER 203 L/T ETA WEST VENTURE 0540 HRS
3	1045	4-3/4	COMPLETE DRLG 36'' HOLE TO 197.5 M, PUMPING 40 BBLS OF HI-VIS GEL EACH CONNECTION.
7	1115	1/2	MADE WIPER TRIP TO 140 M. NO DRAG, HAD 1-1/2 M OF FILL.
7	1130	1/4	PUMP 300 BBL HI-VIS GEL.
6	1330	2	POOH STRAPPING, NO CHANGE - STRAP OK.
7	2000	6-1/2	R/U TO RUN 30'' CSG. INSTALL PERMANENT GUIDEBASE, HOOK UP GUIDELINES, M/U STINGER, FILL CASING.
7	2045	3/4	RIH, TOOK WEIGHT AT 166 M. ATTEMPT TO WASH DOWN, NO GOOD.
29	2245	2	POOH W/CASING. HANG 30'' IN MOONPOOL AND PULL STINGER.
29	2400	1-1/4	RIH W/36'' DHA.

TIME SUMMARY	CODE	6	3	7	29									TOTAL
	HOURS	4 1/4	8 1/2	8	3 1/4									24

DAILY DRILLING REPORT

FORM B

WELL 15/6-6
SIZE/DEPTH LAST CSG. -
ANN TOC LAST CSG. -

PAGE ..... OF .....
REPORT NO. 2
24 HRS. END 1/4/82

DAILY WELL COST 156,020
CUM. WELL COST 392,763

MUD CHEKS	(N) OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH							
TIME	1600						
WT	8.7						
PV @ °F	10						
YP @ °F	21						
GELS (0/10)	7/20						
API F.L.	NC						
HTHP F.L. @ °F PSI	-						
CAKE THK	-						
CAKE DESC	SOFT						
pH	13.0						
pf	.65						
Mf	.85						
Rf @ °F	-						
Cl⁻	4000						
Ca⁺⁺	100						
SOLIDS %	3						
SAND %	-						
OIL %	-						
CEC	19						

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)			4217
BENT (SX)			74
BENTONITE		185	339
LIG. SULFONATE			255
LIGNITE			126
CAUSTIC		13	100
BICARB/BL STEB			43/29
RESINEX/BIOPAC			100/89
SODA ASH/XC			63/94
PIPE FREEING/BD			6/5
CMC LV/HV			106/87
CEMENT (G)			4201
CaCl2 SX/LIQ			61/500
HRGL/CER 2-6			115/265
HLXC 2%/HRIZL			523/395
ECONOLITE			500
DRL WATER		760	2940
WASH WATER			
POT WATER			340
RIG FUEL		60	2920
HELIFUEL			15.36

MUD
MAKE UP WATER: Cl⁻ 200, Ca⁺⁺ 80, Rw @ °F; SHAKER SCREEN MESH 20 X 40, 20 X 40
DESANDER HRS —, DESILTER HRS —, CENTRIFUGE HRS SCRN SCRN 200
DAILY MUD COST 2579, CUM MUD COST 5317, MUD PUMP TYPE/LINERS PX12, 12-P-160

BITS	RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	M FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G
	1	1	17½	X3A	A0185	3-18	197.5	62	8½	7.3	5-15	40-45	720	200	[illegible]	1	1	I
	W		36	HO														

DRILLING ASSEMBLY COMPONENT	FT	DEVIATION AND LEAKOFF DATA				
1-17½" BIT	.41	DEPTH				
1-HO	2.92	ANGLE				
1-BIT SUB	.90	LEAKOFF PPG EQUIV				
6-9" D.C.	56.71	DEPTH				
1-XO	.92	DATE				
TOTAL	61.83	FIXED WING AND HELICOPTERS				
		FW FLTS/PAX	; TO	FR		
		FW FLTS/PAX	; FR	TO		
		HELI FLTS/PAX TO RIG	1	115		
		HELI FLTS/PAX FR RIG	1	19		
		WORKBOATS				
		BOAT	ALCOR	SIMIS	SANDA	
		LOCATION	R16	R16	SR6	
		ENROUTE TO				
		ETA				

PERSONNEL ON BOARD COMPANY	NO.
ESSO	8
DRLG CONT	53
MUD LOGGER	1
MUD	1
CEMENT	1
DIVERS	3
E. LOG	3
DECCA	2
TRISTAR	1
TOTAL	73

WEATHER (RANGE/DAY)	
SEA	S5-S5
SWELL	VAR 4/6
WIND	S 16/20
BALL JT	
RISER TEN	
RIG DATA (RANGE/DAY)	
HEADING	315
ROLL	.5
PITCH	.5
HEAVE	1-2
% OFFSET	-
ANCHOR TENS	
MAX.	3 C 220
MIN	7 C 195

DAILY DRILLING REPORT

WELL 15/6-6
WATER DEPTH 135.5 M
ESSO SUPR ROGERS / PARISH
ESSO ENGR KOCIAN
ESSO TECH OETHKE
RIG SUPR CLAGGETT

RIG GLOMAR BISCAY II

PAGE ..... OF .....
REPORT NO 3
24 HRS. END 2/4/82
WELL DEPTH 197.5
PROGRESS —

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
			24 HOUR SUMMARY
29	0015	1/4	RIH TO 151 M W/36'' BHA. TOOK WT.
	0345	3-1/2	REAM FROM 151-197. PUMP 300 BBL HI-VIS PILL.
	0400	1/4	MADE SHORT TRIP TO 140 M, RIH TO BTM. NO DRAG - HAD 2-1/2 M OF FILL.
	0430	1/2	DRILL OUT FILL, DISPLACE 130 BBLS HI-VIS PILL.
	0500	1/2	MADE SHORT TRIP TO 140 M, RIH TO BTM. NO DRAG - HAD 1-1/2 M FILL.
	1515	1/4	DROP SURVEY.
	0615	1	POOH, RETRIEVE SURVEY - 1 DEG
	0815	2	R/U, SKID 30'' CSG AND PGB UNDER ROTARY, R/U STINGER, M/U RUNNING TOOL, FILL CASING, RIH, TOOK WT AT 163 M.
	0900	3/4	M/U CHICKSANS ATTEMPT TO WASH DOWN.
	1130	2-1/2	L/D CHICKSANS, POOH W/CASING, BACKOUT RUNNING TOOL, TAKE OUT GUIDELINES FROM PGB, P/U 15 FT PUP M/U 30'' RUNNING TOOL, M/U TOOL TO CASING, SKID PGB AWAY FROM ROTARY.
	1315	1-1/4	RIH TO 163 M.
	2045	7-1/2	REAM FROM 163-197.5 M. PUMP 30 BBLS HI-VIS EACH CONNECTION.
	2100	1/4	MADE WIPER TRIP TO 140 M. RIH, HAD 7 M FILL.
	2300	2	ROTATE AND WASH OUT FILL. PUMP 30 BBLS HI-VIS PILL, PULL UP, SHUT DOWN PUMPS, WENT BACK TO BTM - NO FILL.
	231[illegible]	1/4	[illegible]
	240[illegible]	3/4	[illegible]

TIME SUMMARY	CODE	29												TOTAL
	HOURS	24												

TELEX TEL

DAILY DRILLING REPORT

FORM B

WELL 15/6-6
Biscay II
SIZE/DEPTH LAST CSG
ANN TOC LAST CSG
DAILY WELL COST 165,133
CUM. WELL COST 557,826

PAGE ..... OF .....
REPORT NO 3
24 HRS. END 2/4/82

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT						
TIME	2200						
WT	9.5						
PV @ 60 °F	12						
YP @ 60 °F	32						
GELS (0/10)	11/28						
API F.L.	NC						
HTHP F.L. @ °F PSI	—						
CAKE THK	—						
CAKE DESC	—						
pH	11.2						
pf	.65						
Mf	.85						
Rf @ °F	—						
Cl⁻	3000						
Ca⁺⁺	120						
SOLIDS %	3						
SAND %	0						
OIL %	0						
CEC	22						
FUNNEL VISCOSITY	100+	TTTM					

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)		416	3801
CEMT (SX)			74
BENTONITE		69	270
LIG. SULFONATE			255
LIGNITE			126
CAUSTIC			100
BICARB/AL STEAR			43/29
[illegible] JEX-DRIS			101/89
SODA ASH/XC			63/94
PIPE LAX - DD			6-5
CMC(LV)+(HV)			106/87
CEMENT (G)			4201
CaCl2 SX/41a			61/500
HARL/CFR-2L)			115/205
HLXC 248/HRW			573/395
Econolite		INV.	930
DRL WATER		760	2940
WASH WATER			
POT WATER			340
RIG FUEL		60	2920
HELIFUEL			15.36

MUD
MAKE UP WATER: Cl⁻ 200, Ca⁺⁺ 80, Rw — @ — °F; SHAKER SCREEN MESH / /
DESANDER HRS. /, DESILTER HRS. /, MUD CLNR HRS. / SCREEN size 200
DAILY MUD COST $ 7153, CUM MUD COST $ 8470, MUD PUMP TYPE/LINERS 7 x 12, 12-P-160

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV.	COND T	COND B	COND G
2	1 RR	17½	X3A	MD185	3-18	197.5	REAMING			W/36" HO							
3	1 RR	17½	X3A	MD185	3-18	197.5	REAMING			W/ TWO 36" HO							

DRILLING ASSEMBLY

COMPONENT	FT
1-17½ bit	.41
1-HO 36"	2.82
1-HO 36"	2.11
1-BS	.90
6-9" D.C.	56.78
1-XO	.92
TOTAL	63.94

DEVIATION AND LEAKOFF DATA

DEPTH	197.5			
ANGLE	1°			
LEAKOFF PPG EQUIV				
DEPTH				
DATE				

FIXED WING AND HELICOPTERS

FW FLTS/PAX	TO	FR
FW FLTS/PAX	FR	TO
HELI FLTS/PAX TO RIG	1	11
HELI FLTS/PAX FR RIG	1	5

WORKBOATS

BOAT	ALLAN	SIGDS	SAMA
LOCATION	R14	R14	
ENROUTE TO			R14
ETA			0200

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	6
DRLG CONT	56
MUD LOGGER	4
MUD	1
CEMENT	2
DIVERS	4
E. LOG	3
DECCA	2
TRISTATE	1
TOTAL	79

WEATHER (RANGE/DAY)	
SEA	SSW 4-SW 4
SWELL	VAR 6-VAR 6
WIND	SW 18-20 SW 16-20
BLIP JT	N/A
BALL JT	N/A
RISER TEN	N/A
RIG DATA (RANGE/DAY)	
HEADING	305
ROLL	.3-.3
PITCH	.5-.5
HEAVE	1-2 1-2
% OFFSET	N/A
ANCHOR TENS	
MAX.	3 AT 205
MIN	7 AT 175

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135.5
ESSO SUPR ROGERS / PARISH
ESSO ENGR KOCIAN
ESSO TECH BETHKE
RIG SUPR CLARGETT

RIG GLOMAR BISCAY II

PAGE ..... OF .....
REPORT NO. 4
24 HRS. END 3 APR 82
WELL DEPTH 203
PROGRESS 5.5

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
			24 HOUR SUMMARY
1-29	0115	1-1/4	M/U R.T. INTO W.H. FILL CASING, RIH, LAND CASING AT 0135 HRS. PUMP 30 BBLS HI-VIS GEL.
4-7	0200	3/4	CIRC W/S.W. TEST LINES TO 1500 PSI.
	0330	1-1/2	CEMENT 1000 SX CLASS "G" W/2 O/D CACl2 MIXED W/S.W. SLURRY VOLUME - 208 BBLS AT 15.8 PPG. DISPLACE W/31 BBLS SEA WATER. FLOATS HELD.
	0445	1-1/4	POOH STRAPPING, STRAP FROM 30 W.H. TO RKB - 135 M L/D RUNNING TOOL AND STINGER.
	0030	4-3/4	L/D 36" BHA, P/U 26" BHA, R/U TV, RIH. TAG CMT AT 180.46 M
	1015	3/4	DRILL CEMENT FROM 180-199, DRILL NEW FORMATION 199-203 M
	1115	1	POOH.
	1200	3/4	M/U RUNNING TOOL FOR 20" CASING W/STINGER, L/D SAME.
9	2100	9	R/U TO RUN PIN CONNECTOR. M/U PIN CONNECTOR, INSTALL GUIDELINES, BEACON, RUN RISER, INSTALL RISER DUMP VALVE. LAND PIN CONNECTOR AT 2026 HRS. INSTALL DIVERTER AND RIG DOWN.
6	2300	2	P/U 12-1/4 BHA, RISER DUMP VALVE WOULD NOT CLOSE.
26	2400	1	DISCONNECT RISER FROM WELLHEAD, REPAIR AIR LINE TO RISER DUMP VALVE. [illegible]

TIME SUMMARY	CODE	29	7	8	6	26								TOTAL
	HOURS	1	11	9	2	1								24

DAILY DRILLING REPORT

FORM B

WELL 15/6-6 Biscay II
SIZE/DEPTH LAST CSG —
ANN TOC LAST CSG
DAILY WELL COST 229.837
CUM. WELL COST 787.733

PAGE 2 OF 2
REPORT NO. 4
24 HRS. END 03/APR/82

MUD CHEKS	(IN) OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT						
TIME	2030						
WT	8.8						
PV @ 60 °F	9						
YP @ 60 °F	63						
GELS (0/10)	10/40						
API F.L.	25						
HTHP F.L. @ °F PSI	—						
CAKE THK	4						
CAKE DESC	SOFT						
pH	12.2						
pf	.78						
Mf	.98						
Rf @ °F	—						
Cl⁻	9000						
Ca⁺⁺	40						
SOLIDS %	3						
SAND %	0						
OIL %	0						
CEC	14						
FUNNEL VISCOSITY	90						

STOCKS	RECD	USED	REMAIN STOCK
BARITE (BULK)	990		4791
CEMENT (SX)			74
BENTONITE	561	352	478
LIG. SULFONATE			255
LIGNITE			126
CAUSTIC		6	94
BICARB/N STEAM			43/29
[illegible]JEX-DRIS			101/89
SODA ASH/XC			63/94
PIPE LAX - DD			6-5
CMC(LV)+(HV)			106/87
CEMENT (G)	834	1162	3873
$CaCl_2$ SX/LIQ		271 —	34/500
MRGL/CFR-2L			115/305
HLXC 2+8/HRIGL			523/395
Econolite			930
DRL WATER	1520	780	3060
WASH WATER			
POT WATER			300
RIG FUEL		70	2780
HELIFUEL			25.15

MUD
MAKE UP WATER: Cl 200, Ca⁺⁺ 80, Rw — @ — °F; SHAKER SCREEN MESH 20/40, 20/40
DESANDER HRS —, DESILTER HRS —, MUD CLNR HRS —, Screen Size 200
DAILY MUD COST $5351, CUM MUD COST $13 821, MUD PUMP TYPE/LINERS 7x12 12-P-160

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G
4	2	26"	3AJ	CR3305	3/18's	203	14	.75	18.66	5/10	40/70	1450	141		2	2	I

DRILLING ASSEMBLY

COMPONENT	FT
1-26" Bit	.53
1-B/Sub	.90
6-9" D.C.	56.72
1-X/O	.92
TOTAL =	59.13

DEVIATION AND LEAKOFF DATA

DEPTH	
ANGLE	
LEAKOFF PPG EQUIV	
DEPTH	
DATE	

FIXED WING AND HELICOPTERS
FW FLTS/PAX : TO FR
FW FLTS/PAX : FR TO
0 HELI FLTS/PAX TO RIG
0 HELI FLTS/PAX FR RIG

WORKBOATS

BOAT	ALCOR	SUDOC	SOUTHAM
LOCATION	RIG		RIG
ENROUTE TO		STJ	
ETA		23:00 TODAY	

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	6
DRLG CONT	56
MUD LOGGER	4
MUD	1
CEMENT	2
DIVERS	4
E. LOG	3
DECCA	2
Tristate	1
TOTAL	79

WEATHER (RANGE/DAY)	
SEA	SW4 SW2
SWELL	VAR6 VAR4
WIND	SW K/30 SW K/10
FLT JT B.B.	N/A
BALL JT	N/A
RISER TEN	140
RIG DATA (RANGE/DAY)	
HEADING	305°
ROLL	.3 .2
PITCH	.5 .3
HEAVE	1-2 1
% OFFSET	N/A
ANCHOR TENS	
MAX.	No 6 & 8 at 210
MIN	No 7 AT 180

DAILY DRILLING REPORT

FORM A

WELL 15/6-4
WATER DEPTH 135.5
ESSO SUPR. ROGERS / PARISH
ESSO ENGR. KOSLAN
ESSO TECH. BETHRE
RIG SUPR. CLAGGETT

RIG GLOMAR BISCAY II

PAGE ... OF ...
REPORT NO. 5
24 HRS. END 4 APRIL 82
WELL DEPTH 465 m
PROGRESS 262 m

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
			24 HOUR SUMMARY
6	0130	1-1/2	M/U 12-1/4 BHA.
	0245	1-1/4	L/D 5 STDS HWDP AND 1 STD DP.
	0330	3/4	P/U 7-3/4 DAILY JARS AND 2-8" DC'S, TEST DIVERTER SYSTEM - OK. JARS: UPSTROKE 118.000, DOWNSTROKE 47.000
26	0430	1	ATTEMPT TO DISPLACE RISER. HAD LEAK AT WELLHEAD. COULD NOT DISTINGUISH IF LEAK CAME FROM PIN CONNECTOR OR COMMUNICATION FROM CEMENT JOB.
	0645	2-1/4	JUMPED MANTIS, INSPECTED PIN CONNECTOR AND WELLHEAD. FOUND BALL JOINT TO BE COCKED UP ON NO 3 AND 4 ARMS TO GUIDE POST WITH NO 1 AND 2 ARMS TO BE COMPLETELY DOWN ON NO 1 AND 2 GUIDE POST. NO 1 AND 2 GUIDELINES ARE USED TO RUN THE RIG T.V. CAMERA. RAISED AND LOWERED PIN CONNECTOR W/RISER TENSIONERS AND WITH DRILL STRING AT 31M. ATTEMPTING TO STRAIGHTEN AND LATCH PIN CONNECTOR - NO GOOD.
	0715	1/2	POOH W/DRILL STRING.
	0830	1-1/4	ATTEMPTED TO STRAIGHTEN AND RELATCH PIN CONNECTOR. BALLAST RIG UP 2 DEG IN STERN AND 1-1/2 DEG UP ON THE STARBOARD SIDE, PIN CONNECTOR BALL JT STRAIGHTENED AND RELATCHED PIN CONNECTOR - OK.
6	0915	3/4	RIH TO 203 METERS.
15	0930	1/4	CIRC AND DISPLACE RISER. PUMPING THRU FORWARD PORT DIVERTER LINES
3	1315	3-3/4	DRILL FROM 203-231 METERS. AVG ROP 23 M/HR. BGG = 4, CG = 0, MAX = 9
12	1400	3/4	CIRC. DROP AND RETRIEVE SURVEY = 1-1/2 DEG N53E
3	1715	3-1/4	DRILL FROM 231-379. AVG ROP 30.15 BGG = 10-14 CG = 0, MAX GAS = 22
12	1800	3/4	CIRC, DROP AND RETRIEVE SURVEY = 1 DEG N63E
3	2030	2-1/2	DRILL FROM 379-465 METERS. AVG ROP 34 BGG = 15, CG = 0, MAX GAS = 20
10	2100	1/2	CIRC AND CLEAN HOLE, SLUG PIPE. HAD 15 UNITS MAX AND FELL TO 3
19	2145	3/4	MADE WIPER TRIP TO 195, RIH TO BTM. NO FILL, NO DRAG.
1/2 19	2230	3/4	CIRC CLEAN HOLE. TRIP GAS 10 UNITS AND FELL RAPIDLY. DROP SURVEY.
1/4 12			
19	2315	3/4	POOH TO 195 METERS.
12	2330	1/4	RETRIEVE SURVEY = 1 DEG N35E
19	2400	1/2	[illegible] TO [illegible]

TIME SUMMARY	CODE	6	26	15	3	12	10	19							TOTAL
	HOURS	4 1/4	5	1/4	9 1/2	2	1/2	2 1/2							24

WELL Biscay II
SIZE/DEPTH LAST CSG
ANN TOC LAST CSG

PAGE 3 OF 3
REPORT NO. 5
24 HRS. END 04/APRIL/82

DAILY WELL COST 176,904
CUM. WELL COST 964,637

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	265	310	390				
TIME	1100	1400	1900				
WT	8.8	8.8	8.9				
PV@ 60 °F	9	9	5				
YP@ 60 °F	61	50	33				
GELS (0/10)	27/44	15/20	14/18				
API F.L.	—	40+	50+				
HTHP F.L. @ °F PSI	—	—	—				
CAKE THK	8 —	3+	4+				
CAKE DESC	—	SOFT	SOFT				
pH	11.2	11.0	10.2				
pf	.35	.3	.2				
Mf	.42	.4	.25				
Rf @ °F	—	—	—				
Cl⁻	6500	7000	14000				
Ca⁺⁺	200	240	500				
SOLIDS %	4	3	4				
SAND %	1 1/2	3/4	Tr				
OIL %	0	0	0				
CEC	17	17	15				
FUNNEL VIS	55	47	41				

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)		—	4791
BENT (SX)	200		274
BENTONITE	336	92	722
LIG. SULFONATE			255
LIGNITE			126
CAUSTIC		18	76
BICARB/AI STEAR			43/29
KCl/JSX-DRIS			101/89
SODA ASH/XC			63/96
PIPE LAX - DD			6/5
CMC(LV)+(HV)			106/87
CEMENT (G)			3873
CaCl2 SX/LIQ			74/500
HIRAL/(FR-2L)			115/205
HLXC 218/HR12L			573/325
Econolite			930
DRL WATER	1350	810	3600
WASH WATER			
POT WATER			300
RIG FUEL	780	90	3470
HELIFUEL			25/15

MUD
MAKE UP WATER: Cl 200, Ca⁺⁺ 80, Rw — @ — °F; SHAKER SCREEN MESH 20/20, 20/20
DESANDER HRS. 12, DESILTER HRS. 12, MUD CLNR HRS. 12 SCREEN SIZE 200
DAILY MUD COST $ 14,90, CUM MUD COST $ 15,71, MUD PUMP TYPE/LINER 7 1/2 12 x 18

BITS	RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL GPM	D.PIPE AV	COND T	B	G
	5	3	12 1/4	317J	410GK	3/18	465	262	9	29.1	9/15	70	3900	184	199	2	2	I

DRILLING ASSEMBLY

COMPONENT	FT
1-12 1/4 Bit	1.3
1-8 Stab	7.6
1-[illegible]	8.7
1-8" D.C.	9.2
1-Stab	1.64
1-X/O	.30
19-8" D.C.	188.91
1-X/O	.30
1-JARS	30.42
2-8" D.C.'s	18.50
2-X/O's	.73
15-HWDP	136.51
TOTAL =	317.01

DEVIATION AND LEAKOFF DATA			
DEPTH	281	379	465
ANGLE	1 1/2°	1°	1°
~~LEAKOFF FORMATION~~	N58E	N63E	N85E
DEPTH			
DATE			

FIXED WING AND HELICOPTERS
FW FLTS/PAX : TO FR
FW FLTS/PAX : FR TO
/ HELI FLTS/PAX TO RIG /
/ HELI FLTS/PAX FR RIG 3

WORKBOATS

BOAT	ALCOA	SIDDIS	SAFIRE
LOCATION	RIG	STN	RIG
ENROUTE TO			
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	4
DRLG CONT	56
MUD LOGGER	4
MUD	1
CEMENT	2
DIVERS	4
E. LOG	3
DECCA	2
TRI-STATE	1
TOTAL	77

WEATHER (RANGE/DAY)	
SEA	SW.2 CALM
SWELL	VAR.4 VAR.2-3
WIND	SW/16 CALM
BARO	28
BALL JT	750
RISER TEN	120
RIG DATA (RANGE/DAY)	
HEADING	305°
ROLL	.2 .2
PITCH	.3 .2
HEAVE	1 1
% OFFSET	1/2 %
ANCHOR TENS	
MAX.	1,015 AT 210
MIN	697 AT 160

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135.5 M
ESSO SUPR. PARISH
ESSO ENGR. KOCIAN
ESSO TECH. BETHKE
RIG SUPR. C. LAGGETT

RIG GLOMAR BISCAY II

PAGE ..... OF .....
REPORT NO. 6
24 HRS. END 5 APRIL/82
WELL DEPTH 465 M
PROGRESS –

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
24 HOUR SUMMARY			
19	0030	1/2	POOH, STRAP - 462.66 METERS.
	0130	1	R/U DRESSER ATLAS.
	0400	2-1/2	RUN ISF SONIC - GR, CALIPER. TAG BTM AT 464 METERS. TAG 30'' CSG SHOE AT 195.6
			PPOH, R/D.
6	0845	4-3/4	R/U 26'' BHA. TEST 26'' UNDERREAMER ON SURFACE, OK. RIH, TAG BTM AT 203 M.
5	2400	15-1/4	REAM FROM 203-430. AVG ROP = 14.88, BGG = 5-10, CG = 0, MAX GAS = 13

TIME SUMMARY														TOTAL
CODE	19	6	5											
HOURS	4	4 3/4	15 1/4											24

DAILY DRILLING REPORT

FORM B

WELL 15/6-6 Biscay II
PAGE 2 OF 2

SIZE/DEPTH LAST CSG. 30" At 196
ANN TOC LAST CSG.
REPORT NO. 6
24 HRS. END 05/APRIL/82

DAILY WELL COST 146,441
CUM. WELL COST 1,110,078

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	210	310	401				
TIME	1015	1530	2130				
WT	8.9	9.0	9.1				
PV @ 60 °F	5	3	4				
YP @ 60 °F	35	43	36				
GELS (0/10)	11/16	16/20	17/21				
API F.L.	50+	50+	50+				
HTHP F.L. @ °F PSI	—	—	—				
CAKE THK	4	4	4				
CAKE DESC	SOFT	SOFT	SOFT				
pH	10.7	10.2	10.5				
pf	.2	.13	.15				
Mf	.21	.22	.2				
Rf @ °F	—	—	—				
Cl⁻	15000	15000	15000				
Ca⁺⁺	500	440	420				
SOLIDS %	4	4	4				
SAND %	Tr	Tr	Tr				
OIL %	0	0	0				
CEC	14	13	15				
FUNNEL VIS	39	41	40				

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)			4791
CEMENT (SX)			274
BENTONITE			722
LIG. SULFONATE			255
LIGNITE			126
CAUSTIC		21	55
BICARB/AH STEAM			43/29
GEL/JEX-DRIS			101/89
SODA ASH/XC			63/94
PIPE LAX - DD			615
CMC(LV)+(HV)			106/87
CEMENT (G)			3373
CaCl2 SX/LIQ			34/500
HRGL/CFR-2L)			115/205
HLXC 2LP/HR(2L)			513/395
Econolite			930
DRL WATER		360	3240
WASH WATER			
POT WATER			300
RIG FUEL		90	3330
HELIFUEL			25.15

MUD
MAKE UP WATER: Cl⁻ 200, Ca⁺⁺ 50, Rw @ °F; SHAKER SCREEN MESH 20/20, 20/20
DESANDER HRS. 15, DESILTER HRS. 15, MUD CLNR HRS. 15, Screen Size 200
DAILY MUD COST $289, CUM MUD COST $15,600, MUD PUMP TYPE/LINERS 7x12, 12-P-160

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G
6	3RR	12 1/4	YSA	410GK	3/9's	INC.	227	[illegible]	[illegible]	15	70	1800	227	78	E	N	C
	WITH	17 1/2"	H.D.	52103	3/9's	INC.	227	15.2	14.88	15	70	1800	227				
		26	RMR	TRI-STATE	1 1/2"	INC.	227	15.2	14.88	15	70	1800	227				

52103

DRILLING ASSEMBLY

COMPONENT	FT
1-12 1/4 Bit	.30
1-17 1/2" H.D.	1.27
1-Reamer	2.93
1-Float Sub	.90
1-9" Monel	9.00
6-9" D.C.	56.78
1-X/O	.96
7-8" D.C.	61.34
1-X/O	.30
1-Jars	10.42
2-8" D.C's	18.50
2-X/O	.75
2-HWDP	18.17
Total	184.60

DEVIATION AND LEAKOFF DATA

DEPTH				
ANGLE				
LEAKOFF PPG EQUIV				
DEPTH				
DATE				

FIXED WING AND HELICOPTERS

FW FLTS/PAX	TO	FR
FW FLTS/PAX	FR	TO
0 HELI FLTS/PAX TO RIG		
0 HELI FLTS/PAX FR RIG		

WORKBOATS

BOAT	Alcoa	Swiftel	Stocks
LOCATION	RIG	RIG	STV
ENROUTE TO			
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	4
DRLG CONT	56
MUD LOGGER	4
MUD	1
CEMENT	2
DIVERS	4
E. LOG	3
DECCA	2
TRI-STATE	1
TOTAL	77

WEATHER (RANGE/DAY)	
SEA	5 13 SSE 2
SWELL	VARIA 3-4 VARIA 3-4
WIND	S 14/6 SSE 8
B. Flip Jt	30
BALL JT	750
RISER TEN	160
RIG DATA (RANGE/DAY)	
HEADING	305°
ROLL	.2 .2
PITCH	.3 .3
HEAVE	1 1
% OFFSET	.22%
ANCHOR TENS	
MAX.	No. 8 At 210
MIN	No. 1 At 175

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135 M
ESSO SUPR PARISH
ESSO ENGR KOGIAN
ESSO TECH BETHKE
RIG SUPR CLAGGETT

RIG GLOMAR BISCAY II

PAGE ..... OF .....
REPORT NO. 7
24 HRS. END 6 APRIL 82
WELL DEPTH 465 M
PROGRESS –

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
			[illegible]
5	0300	2	REAM FROM 430 - 462 AVG ROP: 15, MAX: 11-15, CG-0, MAX-15
29	0330	1/2	CLEAN OUT FLOWLINE, PUMPS BELLY.
5	0430	1-1/2	REAM FROM 462 - 465 METERS. ROP - 24 FROM 454-456 + 11-15 FROM 460-465, CG - 0, MAX - 24
10	0545	1-3/4	CIRC 4TMS. UP, CLEAN HOLE
6	0745	2	PUMP SLUG, POOH TO RUN CALIPER LOG, L/D 1-9" D.C. INSPECT UNDERREAMER - OK. - SET BACK SAME.
7	1015	2-1/2	R/U DRESSER. RUN 4-ARM CALIPER. COULD NOT GET PAST 425 METERS. ATTEMPT TO WORK THROUGH - NO GOOD. POOH, R/D DRESSER.
29	1255	1-3/4	REDRESS 26" UNDERREAMER, TEST SAME.
29	1430	2	RIH TO 240 METERS.
29	1730	3-1/2	REAM OUT UNDERGUAGED AREAS THAT APPEARED ON LOG FROM 240-265, 275-290, 300-310, 350-370, AND 410-465. DID NOT SEE ANYTHING AT THESE AREAS ON TORQUE OR WEIGHT INDICATOR.
29	1930	1	CIRC. + SLUG PIPE.
29	1930	1	POOH TO MUDLINE
15	2000	1	DISPLACE RISER W/SEA WATER. OBSERVED HOLE FOR 5 MINUTES - NO FLOW. DUMPED RISER TO WATER LINE WITH NEW RISER DUMP VALVE + OBSERVED PRESSURE DROP FROM TRANSDUCER ON DIGITAL DISPLAY + WORKED EXCELLENTLY. OBSERVED FOR PRESSURE INCREASE OR FLOW FOR 10 MINUTES - NO FLOW. FILLED RISER WITH WATER + TRIP TANK TO POOH W/BHA. REPEATED OBSERVED PRESSURE INCREASE. - O.K.
7	2200	2	COMPLETE POOH. R/U FMT. MANIFOLD AT 1 STD. OF HWDP, SET BACK SAME, L/D [illegible] 1-8" [illegible] TOOL.
8	2400	1-1/2	R/U T [illegible] WELL [illegible] 1-3/4" [illegible] TOOL TO [illegible]

TIME SUMMARY	CODE	5	6	7	10	15	29	8						TOTAL
	HOURS	3 1/2	2	4 1/2	13 1/4	1	9 3/4	1 1/2						24

DAILY DRILLING REPORT

FORM B

WELL 15/6-6 Biscay II
PAGE 2 OF .....

SIZE/DEPTH LAST CSG.....
ANN TOC LAST CSG.....
REPORT NO.....
24 HRS. END.....

DAILY WELL COST 171,856
CUM. WELL COST 1,281,934

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT	400					
TIME	1000	1615					
WT	9.2	9.2					
PV @ 60 °F	5	6					
YP @ 60 °F	33	35					
GELS (0/10)	12/15	17/21					
API F.L.	50+	50+					
HTHP F.L. @ °F PSI	—	—					
CAKE THK	4	4					
CAKE DESC	SOFT	SOFT					
pH	10.2	10.0					
pf	.15	.17					
Mf	.25	.2					
Rf @ °F	—	—					
Cl⁻	15000	15000					
Ca⁺⁺	400	410					
SOLIDS %	4	4					
SAND %	Tr	Tr					
OIL %	0	0					
CEC	13	15					
FUNNEL VIS	13	15					

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)			4791
BENT (SX)		30	244
BENTONITE			722
LIG. SULFONATE			255
LIGNITE			126
CAUSTIC		15	40
BICARB/NH4 STAN			43/29
RESINEX-DRIS			101/89
SODA ASH/XC			63/194
PIPE LAX-DD			6/5
CMC(LV)+(HV)			106/87
CEMENT (G)			3873
CaCl2 SX/LIQ			34/500
HRGL/CFR-2L			115/205
HLXC 24A/HRGL			573/395
Econolite			930
DRL WATER		720	2520
WASH WATER			
POT WATER			170
RIG FUEL		90	3290
HELIFUEL			25.15

MUD
MAKE UP WATER: Cl⁻ 200, Ca⁺⁺ 80, Rw —@— °F; SHAKER SCREEN MESH 20/20, 20/20
DESANDER HRS 7, DESILTER HRS 7, MUD CLNR HRS 7, Screen size 200
DAILY MUD COST $ 649, CUM MUD COST $ 11,249, MUD PUMP TYPE/LINE IS 12-P-160

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G
7	3KK	12 1/4	X3A	4106K	3/3/3	465	262				70	1800	225				
		17 1/2	H.O	GRANITE 55103	3/3/3	465	262	18.75	13.97	5/25	70						
		26	RMF	TRI-STATE	1/3	465	262	18.75	13.97	5/25	70				2	5	I

DRILLING ASSEMBLY

COMPONENT	FT
1-12 1/4 Bit	.30
1-17 1/2 H.O.	2.93
1-8 Sub	.90
1-9" Mnel	9.0
6-9" D.C.	56.78
1-X/O	.96
7-8" D.C.	64.31
1-X/O	.30
1-JARS	10.50
2-8" D.C.'s	18.30
2-X/O's	.73
5-HWDP	18.17
Total	183.33

DEVIATION AND LEAKOFF DATA

DEPTH	
ANGLE	
LEAKOFF PPG EQUIV	
DEPTH	
DATE	

FIXED WING AND HELICOPTERS

FW FLTS/PAX	TO FR
FW FLTS/PAX	FR TO
HELI FLTS/PAX TO RIG	12
HELI FLTS/PAX FR RIG	19

WORKBOATS

BOAT	Alcor	Sumar	Sumar	Nesnil
LOCATION		RIG	RIG	RIG
ENROUTE TO	Hanna 83 SWE			
ETA	0400 9/4			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	4
DRLG CONT	51
MUD LOGGER	4
MUD	1
CEMENT	2
DIVERS	4
E. LOG	3
TRI-STATE	1
TOTAL	70

WEATHER (RANGE/DAY)	
SEA	SE 4 4
SWELL	S S S S
WIND	SE 12/20 S 10/20
FLT JT	30
BALL JT	750
RISER TEN	116
RIG DATA (RANGE/DAY)	
HEADING	305
ROLL	.3 .3
PITCH	.5 .5
HEAVE	1 1
% OFFSET	.67%
ANCHOR TENS	
MAX. No. 8	AT 210
MIN	NO. 1 AT 175

FORM A

DAILY DRILLING REPORT

WELL 15/6-6
WATER DEPTH 135 M
ESSO SUPR PARISH
ESSO ENGR KOGLAN
ESSO TECH BETHKE
RIG SUPR CLAGGETT

RIG GLOMAR BISCAY II

PAGE ..... OF .....
REPORT NO. 8
24 HRS. END 7 APRIL 82
WELL DEPTH 465 M
PROGRESS -

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
8	0245	2-3/4	CONTINUE PULLING RISER, LAND PIN CONNECTOR ON FORKLIFT.
26	0530	2-3/4	ATTEMPT TO DISCONNECT RISER FROM PIN CONNECTOR - NO GO. LOCKRING WOULD NOT RELEASE. MOVE LOCK RING IN PIN CONNECTO -OR BOX. P/U, RISER DISCONNECTED.
8	0600	1/2	SET BACK PIN CONNECTOR + RISER.
7	1300	7	R/U AND RUN 20'' CSG. CHECK FLOAT SHOE - O.K. ATTEMPT TO INSTALL 20'' LANDING RING - NOT O.K. LANDING RING TOO LARGE FOR ST CONNECTIONS TO FASTEN. INSTALL 2-ARM GUIDE W/ TV CAMERA ABOVE SAME. RUN CSG. M/U RUNNING TOOL WITH SSR PLUG AND STINGER. RIH, LAND CSG, 25 KIPS OVERPULL - O.K.
7	1400	1	R/U CMT. LINES, CIRC. 100 BBLS MUD.
7	1730	3-1/2	PUMP 5 BBLS H2O AHEAD. TEST CMT. LINES TO 4000 PSI - O.K. CMT. LEAD SLURRY - 1300 SXS CLASS ''G'' W/233 BBLS 8 0/0 PHG. AVG. SLURRY DENSITY - 13.2 PPG. SLURRY VOLUME - 308 BBLS TAIL SLURRY - 1320 SXS CLASS ''G'' NEAT W/119 BBL SEA-WATER. AVG. SLURRY DENSITY - 15.8 PPG. SLURRY VOLUME - 203 BBLS. DISPLACED W/10 BBLS H2O AND 346 BBLS OF 9.0 PPG MUD. BLED BACK 8 BBLS. FLOAT NOT HOLDING. PUMP 8 BBLS. BACK.
7	1900	1-1/2	WOC
7	2100	2	BLEED BACK 1 BBL - O.K. BACK OUT RUNNING TOOL. POOH STRAPPING 131.38 M - GOOD
8	2400	3	R/U RISER EQUIPMENT, P/U SLIP JT. CHANGE OUT PACKING [illegible] FORKLIFT.

TIME SUMMARY	CODE	8	26	7									TOTAL
	HOURS	6 1/4	2 3/4	15									24

TELEX

DAILY DRILLING REPORT

FORM B

WELL 15/6-6 Biscay II

PAGE 3 OF 3

SIZE/DEPTH LAST CSG 20" AT 449.3
ANN TOC LAST CSG MUDLINE

REPORT NO. 8
24 HRS. END 07/APR/82

DAILY WELL COST 314,183

CUM. WELL COST 1,596,112

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT						
TIME	1900						
WT	9.1						
PV @ 60 °F	8						
YP @ 60 °F	64						
GELS (0/10)	21/25						
API F.L.	50+						
HTHP F.L. @ °F PSI	—						
CAKE THK	4						
CAKE DESC	SOFT						
pH	11.3						
pf	.2						
Mf	.29						
Rf @ °F	—						
Cl⁻	6000						
Ca⁺⁺	330						
SOLIDS %	4						
SAND %	Tr						
OIL %	0						
CEC	19 -						
FUNNEL VIS	75						

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)		264	4527
CEMENT (SX)			244
BENTONITE		106	616
LIG. SULFONATE			255
LIGNITE			126
CAUSTIC		2	38
BICARB			43/29
[illegible] JEX-Dris			101/87
SODA ASH/XC		2/—	61/94
PIPE LAX -DD			6/5
CMC(LV)+(HV)			106/87
CEMENT (G)		1878	1975
CaCl2 SX/LIQ			34/500
HRGL/CFR-2L			115/205
HLXC 24P/HRGL			503/325
Econolite			930
DRL WATER		280	2010
WASH WATER			
POT WATER			100
RIG FUEL		100	3190
HELIFUEL		365	2150

MUD
MAKE UP WATER: Cl⁻ 200, Ca⁺⁺ 50, Rw — @ — °F; SHAKER SCREEN MESH 20/20, 20/20
DESANDER HRS ✓, DESILTER HRS ✓, MUD CLNR HRS ✓, Screen size 200
DAILY MUD COST 12866, CUM MUD COST 19,115, MUD PUMP TYPE/LINERS 7X12, 12-P-160

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G

DRILLING ASSEMBLY

COMPONENT	FT

DEVIATION AND LEAKOFF DATA

DEPTH				
ANGLE				
LEAKOFF PPG EQUIV				
DEPTH				
DATE				

FIXED WING AND HELICOPTERS

FW FLTS/PAX ; TO FR
FW FLTS/PAX ; FR TO
/ HELI FLTS/PAX TO RIG 11
/ HELI FLTS/PAX FR RIG 12

WORKBOATS

BOAT	ALCOA HAVEN	SP SUN-2	SAIPO STV	NAMC LIG	NAMC RIG
LOCATION					
ENROUTE TO					
ETA					

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	4
DRLG CONT	51
MUD LOGGER	4
MUD	1
CEMENT	2
DIVERS	4
E. LOG	3
TOTAL	69

WEATHER (RANGE/DAY)	
SEA	N 3/4 - N 1 3/4
SWELL	N 1/2 - N 1 3/20
WIND	N 35 - N 45
D.P. & J+	NA
BALL JT	NA
RISER TEN	NA
RIG DATA (RANGE/DAY)	
HEADING	305
ROLL	1.2 - 1.2
PITCH	2 - 2
HEAVE	5/8 - 5/8
% OFFSET	NA
ANCHOR TENS	
MAX.	2 AT 225
MIN	1 AT 175

DAILY DRILLING REPORT

WELL 15/6-6
WATER DEPTH 135 M
ESSO SUPR. PARISH
ESSO ENGR. KOLIAN
ESSO TECH. CARPENTER
RIG SUPR. CLAGGETT

RIG GLOMAR BISCAY II

PAGE ..... OF .....
REPORT NO. 9
24 HRS. END 8 APRIL 82
WELL DEPTH 485 M
PROGRESS —

24 HOUR SUMMARY			
CODE	TIME TO	HOURS	OPERATION
24 HOUR SUMMARY			
8	0230		2-1/2 CHANGE OUT SLIP JT. PACKING
32	2400		21-1/2 WOW. SLIP + CUT RISER TENSIONER LINES.

	SEA	SWELL	WIND	HEAVE	ROLL	PITCH	BAROMETER
0200	N20-24	N24-29	N50-58	10-12	2.1	2.4	992
0600	N26	N32	N50-56	10-14	2.2	2.5	995
1000	NNW26	N30-34	NNW45-55	12-16	2.5	3	997
1400	N26-29	N30-36	NNW50-60	12-16	2.5	3	1000
1800	NNW26	N30-34	NNW40-50	12-16	2	2.5	1002
2200	NNW20-24	N28-32	NNW40-50	10-14	2.3	2.4	1005
2400	NNW18-20	N26-29	NNW40-50	8-12	2.2	2.2	1005

ANCHORS	1	2	3	4	5	6	7	8
0200	225	155	170	185	155	125	125	220
0600	225	150	160	190	150	120	125	220
1000	200	145	150	180	150	120	130	225
1400	205	150	150	135	145	120	130	225
1800	200	140	150	185	150	125	150	225
2200	195	135	145	190	150	120	145	225
2400	190	140	150	195	150	120	140	225

TIME SUMMARY	CODE	32	8										TOTAL
	HOURS	21½	2½										24

WELL 15/6-6 Biscay II

PAGE 3 OF 3

SIZE/DEPTH LAST CSG. 20" @ 447 m
ANN TOC LAST CSG. MKB line

REPORT NO. 9
24 HRS. END 8 April 82

DAILY WELL COST 152501

CUM. WELL COST 1748618

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	417						
TIME	0830						
WT	8.9						
PV @ 60 °F	6						
YP @ 60 °F	50						
GELS (0/10)	20/24						
API F.L.	50+						
HTHP F.L. @ °F PSI	—						
CAKE THK	4						
CAKE DESC	soft						
pH	10.9						
pf	.18						
Mf	.25						
Rf @ °F	—						
Cl⁻	2000						
Ca⁺⁺	380						
SOLIDS %	3						
SAND %	@ Tr						
OIL %	0						
CEC	17						
FUNNEL VIS	65						

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)		51	4475
CEMENT (SX)			244
BENTONITE		115	501
LIG. SULFONATE			255
LIGNITE			126
CAUSTIC		2	36
BICARB/AL STEAR			43/29
RESINEX-DRIS			101/89
SODA ASH/XC			61/94
PIPE LAX-PD			6/5
CMC(LV)+(HV)			106/87
CEMENT (G)			1975
CaCl2 SX/LIQ			34/500
HRGL/CFR-2L			115/205
HLXC 249/HRGL			573/395
Econolite			930
DRL WATER		740	1300
WASH WATER			
POT WATER			100
RIG FUEL		100	3090
HELIFUEL		2.79	18.71

MUD
MAKE UP WATER: Cl 200, Ca⁺⁺ 80, Rw — @ — °F; SHAKER SCREEN MESH 20/30, 20/30
DESANDER HRS. —, DESILTER HRS. —, MUD CLNR HRS. —, SCREEN size 200
DAILY MUD COST $1835, CUM MUD COST $20,950, MUD PUMP TYPE/LINERS 7x12, 12-A/60

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G

DRILLING ASSEMBLY

COMPONENT	FT

DEVIATION AND LEAKOFF DATA				
DEPTH				
ANGLE				
LEAKOFF PPG EQUIV				
DEPTH				
DATE				
FIXED WING AND HELICOPTERS				
FW FLTS/PAX	; TO	FR		
FW FLTS/PAX	; FR	TO		
HELI FLTS/PAX TO RIG	1/7			
HELI FLTS/PAX FR RIG	1/6			
WORKBOATS				
BOAT	Alcor	Santer	Siddy	Nauti
LOCATION	Rig			
ENROUTE TO		STV	Rig	704
ETA		0030	0200	0400

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	4
DRLG CONT	51
MUD LOGGER	5
MUD	1
CEMENT	2
DIVERS	4
E. LOG	3
TOTAL	70

WEATHER (RANGE/DAY)	
SEA	N 12/14 - N 22/28
SWELL	N 18/20 - N 30/36
WIND	NNW 35/45 - N 50/70
BLIND JT	NA
BALL JT	NA
RISER TEN	NA
RIG DATA (RANGE/DAY)	
HEADING	305
ROLL	1-2.5
PITCH	2-3
HEAVE	5-18
% OFFSET	.65
ANCHOR TENS	
MAX.	225-138
MIN	110-6

FORM A

DAILY DRILLING REPORT

WELL 15/6-6
WATER DEPTH 135
ESSO SUPR PARISH
ESSO ENGR KOCIAN
ESSO TECH CARPENTER
RIG SUPR CLAGGETT

RIG GLOMAR BISCAY II

PAGE ..... OF .....
REPORT NO 10
24 HRS. END 9 APRIL 82
WELL DEPTH 465
PROGRESS -

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
32	2300	20	WOW - M/U 17-1/2 BHA + BACK IN DERRICK L/D SLIP JT. - PICK UP ONE 50' RISER JT + L/D ONE 45' RISER JT. - BRAKE OUT BIT + UNDEREAMER - SLIP + CUT 113' DRLG LINE - REPAIR UPPER CHOKE VALVE IN CELLAR DECK. COULD NOT REPAIR UPPER KILL VALVE IN CELLAR DECK (BODY CUT OUT). ADJUSTED CHAINS ON MOTION COMPENSATOR. SKID BOP BELOW ROTARY + MADE UP 2 JTS RISER. TESTED CHOKE + KILL LINES (350 - 7500 PSI) AT 1440 HRS SIDDIS PILOT PIGGY BACKED NO 2 ANCHOR PULL TESTED ALL ANCHORS TO 375 KIPS. POSITION RIG OVER HOLE.
8	2300	3	CHANGED LOCK DOG CONNECTORS, INSTALL NEW AX RING + RUN 4 JTS. RISER. BLUE POD LINE PARTED.
26	2400	1	PULL BOP TO SURFACE + REPAIRING BLUE POD LINE

WEATHER 0000-2000 HRS

	WIND	SEA	SWELL	HEAVE	PITCH	ROLL	BARO.
0000	NNW40/50	13/20	N26/29	8-14	2.2	2.2	1005
0400	NNW40/45	16-20	N22/29	9-12	2.0	2.0	1007
0800	NW30/35	12/16	N16/20	6-10	2.0	1.5	1006
1200	NW30/40	12/16	N16/20	6-10	2.0	1.5	1006
1600	NW30/35	12/14	N16/19	6-8	1.5	1.5	1006
2000	NW25/30	10/14	N16/19	4-7	1.1	1.1	1005

ANCHORS 0000-2000 HRS

0000	1-200, 2-140, 3-155, 4-185, 5-150, 6-120, 7-145, 8-225
0400	1-195, 2-145, 3-145, 4-190, 5-150, 6-125, 7-140, 8-225
0800	1-195, 2-135, 3-140, 4-185, 5-155, 6-125, 7-140, 8-225
1200	1-190, 2-135, 3-140, 4-185, 5-150, 6-125, 7-145, 8-225
1600	1-195, 2-135, 3-141, 4-[illegible], 5-155, 6-125, 7-150, 8-225
2000	1-175, 2-175, 3-141, 4-175, 5-155, 6-175, 7-175, 8-225

TIME SUMMARY	CODE	32	8	26										TOTAL
	HOURS	20	3	1										

FORM B

DAILY DRILLING REPORT

WELL 15/6-6
Biscay II
SIZE/DEPTH LAST CSG 20 @ 447
ANN TOC LAST CSG Mud line
DAILY WELL COST 150 814

PAGE 3 OF 3
REPORT NO 10
24 HRS. END 9 April 82
CUM. WELL COST 1899431

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT						
TIME	1850						
WT	8.4						
PV @ 120 °F	10						
YP @ 120 °F	58						
GELS (0/10)	19/24						
API F.L.	50+						
HTHP F.L. @ °F PSI	—						
CAKE THK	4						
CAKE DESC	SOFT						
pH	11.5						
pf	.42						
Mf	.64						
Rf @ °F	—						
Cl⁻	6000						
Ca⁺⁺	220						
SOLIDS %	3						
SAND %	Tr						
OIL %	0						
CEC	19						
FUNNEL VIS	63						

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)			4475
CEMT (SX)			244
BENTONITE			501
LIG. SULFONATE			255
LIGNITE			126
CAUSTIC	200		276
BICARB / DILSTOP	40/-		83/29
[illegible] JEX-Dris			101/89
SODA ASH/XC			61/44
PIPE LAX - DD			6/5
CMC(LV)+(HV)	160/80		266/167
CEMENT (G)			1975
$CaCl_2$ SX/LIQ			34/500
MRGL/CFR-2L)			115/205
HLXC 248/HR121			513/375
Econolite			930
DRL WATER		60	1240
WASH WATER			
POT WATER		25	75
RIG FUEL		50	3040
HELIFUEL		3.6	15.11

MUD
MAKE UP WATER: Cl 2.000, Ca⁺⁺ 80, Rw — @ — °F; SHAKER SCREEN MESH 20/20, 20/20
DESANDER HRS —, DESILTER HRS —, MUD CLEANER HRS —, Screen size 200
DAILY MUD COST 1, CUM MUD COST 18.0 950, MUD PUMP TYPE/LINER: 7-12, 12-P160

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G

DRILLING ASSEMBLY

COMPONENT	FT

DEVIATION AND LEAKOFF DATA				
DEPTH				
ANGLE				
LEAKOFF PPG EQUIV				
DEPTH				
DATE				
FIXED WING AND HELICOPTERS				
FW FLTS/PAX	; TO	FR		
FW FLTS/PAX	; FR	TO		
HELI FLTS/PAX TO RIG	1/3			
HELI FLTS/PAX FR RIG	1/2			
WORKBOATS				
BOAT	Alcor	Siddis	Sanbor	
LOCATION	Rig	Rig	STV	
ENROUTE TO				
ETA				

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	4
DRLG CONT	52
MUD LOGGER	5
MUD	1
CEMENT	2
DIVERS	4
E. LOG	3
TOTAL	71

WEATHER (RANGE/DAY)
SEA NW 8/12 - NNW 18/20
SWELL N12/18 - N26/28
WIND NW 25/30 - NNW 40/
Slip Jt D.P. NA
BALL JT NA
RISER TEN NA
RIG DATA (RANGE/DAY)
HEADING 305
ROLL 1 - 2.2
PITCH 1.1 - 2.2
HEAVE 4 - 12
% OFFSET 4.4
ANCHOR TENS
MAX. 225 - 8
MIN 120 - 6

FORM A

DAILY DRILLING REPORT

WELL 15/6-6
WATER DEPTH 135 M
ESSO SUPR Parish
ESSO ENGR Kocian
ESSO TECH Carpenter
RIG SUPR Clagett

RIG Glomar Biscay II

PAGE ..... OF .....
REPORT NO. 11
24 HRS. END 10 APRIL 82
WELL DEPTH 465
PROGRESS –

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
26	0100	1	[illegible]
26-4½	0600	5	RUN BOP ON RISER + TEST CHOKE + KILL LINES TO (300-7500 PSI). CHANGE ONE PACKING
8	0830	2-1/2	PICK UP SLIP JT. HOOK UP CHOKE + KILL LINES + POD GOOSENECK. TEST CHOKE + KILL LINES TO 300-7500 PSI - OK
8	1015	1-3/4	LAND BOP W 160 K ON RISER + 8500 ON GUIDELINES PULL TEST TO 50,000 OVER. STROKE OUT INNER BARRELL + INSTALL DIVERTER. FUNCTION TEST YELLOW POD - LEAKING
15	1230	2-1/4	TEST CMT AGAINST SHEAR RAMS TO 500 PSI MAKE UP BOP TEST TOOL + RIH. PULL YELLOW POD
15	1415	1-3/4	TEST BOP ON BLUE POD TO 500 PSI - OK
15-1	1630	2-1/4	POH W/ TEST PLUG P/U WEAR BUSHING + RIH. POH
6-1¾	2000	3-1/2	RIH W/ 17-1/2 BHA + TAG CMT AT 426 M. RUN YELLOW POD
16	2030	1/2	PUMP THROUGH DIVERTER LINES
7	2400	3-1/2	DRLG CMT 426 - 435

TIME SUMMARY	CODE	26	8	15	6	7								TOTAL
	HOURS	1½	10	5½	3½	3½								24

FORM B

DAILY DRILLING REPORT

WELL 15/6-6 Biscay II
PAGE 3 OF 3
SIZE/DEPTH LAST CSG 20 @ 447
ANN TOC LAST CSG Mud line
REPORT NO. 11
24 HRS. END 10 April 82
DAILY WELL COST 148106
CUM. WELL COST 2047537

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	430						
TIME	2200						
WT	8.4						
PV @ 120 °F	10						
YP @ 120 °F	65						
GELS (0/10)	10/29						
API F.L.	50+						
HTHP F.L. @ °F PSI	—						
CAKE THK	4'						
CAKE DESC	SOFT						
pH	12.4						
pf	.65						
Mf	.78						
Rf @ °F	—						
Cl⁻	10 800						
Ca⁺⁺	360						
SOLIDS %	3						
SAND %	Tr						
OIL %	0						
CEC	14						
FUNNEL VIS	54						

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)			4475
CEMT (SX)			224
BENTONITE	220		721
LIG. SULFONATE		3	252
LIGNITE			126
CAUSTIC		2	234
BICARB/Al Stop		6/1	77/28
[illegible] JEX-Dris			101/89
SODA ASH/XC			61/94
PIPE LAX - DD			6-5
CMC (LV)+(HV)			266/167
CEMENT (G)			1975
CaCl2 SX/LIQ			34/500
HRGL/(FR-2L)			115/205
HLXC 2+8/HRGL			573/593
Econolite			430
DRL WATER		260	1840
WASH WATER			
POT WATER		128	330
RIG FUEL		30	3010
HELIFUEL			15.11

MUD: MAKE UP WATER: Cl 200, Ca⁺⁺ 80, Rw — @ — °F; SHAKER SCREEN MESH 20/20, 20/20
DESANDER HRS. 2, DESILTER HRS. 2, MUD CLNR HRS. 2, Screen size 200
DAILY MUD COST $2289, CUM MUD COST $21 239, MUD PUMP TYPE/LINER: 7x12, 12-P-160

BITS	RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G
	8	4	17½	X3A	MX121	3-18		9	37	2.6	10-20	45	1000	115	124			

DRILLING ASSEMBLY COMPONENT	FT
Bit	.45
FS	.9
9" Monel	9.0
9 DC	9.47
17½ stab	1.43
59" DC	47.28
XO	.46
7-8" DC	64.14
XO	.3
Jars	10.42
2-8" DC	18.5
2-XO	.73
15 HWDP	136.27
	299.85

DEVIATION AND LEAKOFF DATA				
DEPTH				
ANGLE				
LEAKOFF PPG EQUIV				
DEPTH				
DATE				

FIXED WING AND HELICOPTERS		
FW FLTS/PAX	TO	FR
FW FLTS/PAX	FR	TO
HELI FLTS/PAX TO RIG	0	
HELI FLTS/PAX FR RIG	0	

WORKBOATS				
BOAT		Alcor	Sawlon	Siddis
LOCATION		Rig	STV	Rig
ENROUTE TO				
ETA				

PERSONNEL ON BOARD COMPANY	NO.
ESSO	4
DRLG CONT	52
MUD LOGGER	5
MUD	1
CEMENT	2
DIVERS	4
E. LOG	3
TOTAL	71

WEATHER (RANGE/DAY)
SEA N 8/12 - NNW 10/14
SWELL N 12/16 - N 14/18
WIND NNW 22/26 - NNW 44/50
Clip Jt 30 psi
BALL JT 1100 psi
RISER TEN 160 K.lb
RIG DATA (RANGE/DAY)
HEADING 307
ROLL 1-1.6
PITCH 1-2.2
HEAVE 3-8
% OFFSET .6
ANCHOR TENS
MAX. 230-8
MIN 160-5

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135 M
ESSO SUPR PARISH
ESSO ENGR KOCIAN
ESSO TECH CARPENTER
RIG SUPR CLAGGETT

RIG GLOMAR BISCAY II

PAGE ..... OF .....
REPORT NO. 12
24 HRS. END 11 APRIL 82
WELL DEPTH 699
PROGRESS 234

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
			[illegible]
7	0015	1/4	DRLG OUT TO 437
15	0045	1/2	FUNCTION TEST YELLOW POD
7	0430	3-3/4	DRILL THRU SHOE AT 447 M - DRILL 9 M CEMENT IN RAT HOLE CLEAN RAT HOLE TO 465. RATHOLE GAS 6.5 UNITS
3	0445	1/4	DRLG 465-471 BGG 4 UNITS
10	0515	1/2	CIRC.
15	0530	1/4	TAKE PHASE II PIT (12.9 PPG EQUIVALENT)
32	0600	1/2	POOH TO HANG OFF DUE TO WEATHER.
	0700	1	M/U INSIDE BOP 1 STD BELOW HANG OFF TOOL + RIH. HANG OFF
	0715	1/4	POOH
	1045	3-1/2	WOW
	1230	1-3/4	RIH + RETRIEVE HANG OFF TOOL - POOH + L/D HANG OFF TOOL
6	1300	1/2	RIH W 17-1/2 BHA
3	1430	1-1/2	DRL 471-516 BGG 14.3 UNITS MAX, 9.7 AVG - TG 17.7
10	1445	1/4	DIRC + CLEAN OUT FLOW LINE
3	1630	1-3/4	DRL 516-565 BGG 15.3 UNITS MAX.
10	1645	1/4	CIRC + DROP SURVEY
12	1900	1-1/4	POH TO SHOE + RETRIEVE SURVEY 1/2 DEG N3E
3	2130	3-1/2	DRL 565-660 BGG 63.6 UNITS MAX
10	2200	1/2	CIRC, DROP SURVEY + RETRIEVE 3/4 DEG N71E
3	[illegible]	[illegible]	DRL [illegible]

TIME SUMMARY	CODE	7	15	3	10	32	6	12						TOTAL
	HOURS	4	3/4	9	1 1/4	7	1/2	1/4						24

WELL 15/6-6 Biscay II

SIZE/DEPTH LAST CSG 20 @ 447
ANN TOC LAST CSG Mud Line
DAILY WELL COST 144 464

PAGE 3 OF 3
REPORT NO. 12
24 HRS. END 11 April 82
CUM. WELL COST 2192001

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	468	510	680				
TIME	0430	1530	2200				
WT	8.5	9.1	9.1				
PV @ 120 °F	8	5	4				
YP @ 120 °F	57	54	14				
GELS (0/10)	12/29	13/15	9/13				
API F.L.	50+	50+	54				
HTHP F.L. @ °F PSI	—	—	—				
CAKE THK	4	4	4				
CAKE DESC	SOFT	SOFT	SOFT				
pH	12.7	12.4	10.6				
pf	1.50	1.0	.15				
Mf	1.68	1.2	.25				
Rf @ °F	—	—	—				
Cl⁻	14000	14500	15000				
Ca⁺⁺	600	400	650				
SOLIDS %	4	5	5				
SAND %	1	1/2	1/2				
OIL %	0	0	0				
CEC	14	14	15				
FUNNEL VIS	61	38	40				

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)		103	4372
BENT (SX)			224
BENTONITE		106	615
LIG. SULFONATE		21	231
LIGNITE			126
CAUSTIC		12	222
BICARB/AL STAT		12/0	65/28
RESINEX-DRIS			101/89
SODA ASH/XLC			61/94
PIPE LAX - DD			6-5
CMC(LV)+(HV)			266/167
CEMENT (G)			1975
$CaCl_2$ SX/LIQ			34/500
HRGL/CFR-2L			115/205
HLXC 24P/HRGL			573/395
Econolite			930
DRL WATER		440	1400
WASH WATER			
POT WATER		35	295
RIG FUEL		80	2930
HELIFUEL			15.11

MUD
MAKE UP WATER: Cl⁻ 200, Ca⁺⁺ 80, Rw — @ — °F; SHAKER SCREEN MESH 40/60, 60/80
DESANDER HRS. 11 DESILTER HRS. 11, MUD CLNR HRS. 11 SCREEN SIZE 200
DAILY MUD COST $2699, CUM MUD COST $27 938, MUD PUMP TYPE/LINER: 7-12, N-P-10

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	R	G
8	4	17 1/2	X3A	MX121	3-18	INC	234	13	18	25	125	2400	160	76			

DRILLING ASSEMBLY

COMPONENT	FT
Bit	.45
FS	.9
9" Monel	9.0
9" DC	9.47
17 1/2 Stab	1.43
5-9" DC	47.21
XO	.96
7-8" DC	64.14
XO	.3
Jars	10.42
2-8" DC	18.5
2 XO	.73
15 HWDP	476.27
299.85	

DEVIATION AND LEAKOFF DATA

DEPTH	565	660
ANGLE	1/2 N3E	3/4 N71E
LEAKOFF PPG EQUIV	12.9	
DEPTH	447	
DATE	4-11	

FIXED WING AND HELICOPTERS

FW FLTS/PAX ; TO FR
FW FLTS/PAX ; FR TO
HELI FLTS/PAX TO RIG 0
HELI FLTS/PAX FR RIG 0

WORKBOATS

BOAT	Alcor	Santor	Sidds
LOCATION	Rig	STV	Rig
ENROUTE TO			
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	4
DRLG CONT	52
MUD LOGGER	5
MUD	1
CEMENT	2
DIVERS	4
E. LOG	3
TOTAL	71

WEATHER (RANGE/DAY)
SEA NNW 10-16 N/W 8-9
SWELL N 16-20 N 2-3 30
WIND NNW 15-45 N 50-60
BLIND JT 30
BALL JT 1300
RISER TEN 160 K
RIG DATA (RANGE/DAY)
HEADING 307
ROLL 1.5-2.1
PITCH 1.8-2.5
HEAVE 8-14
% OFFSET 2.7
ANCHOR TENS
MAX. 230 - 8
MIN 150 - 6

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135
ESSO SUPR. DARISH
ESSO ENGR. KOLIAN
ESSO TECH. CARPENTER
RIG SUPR. C. CASSETT

RIG GLOMAR BISCAY II

PAGE ... OF ...
REPORT NO. 13
24 HRS. END 12 APRIL 82
WELL DEPTH 1140
PROGRESS 441

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
3	0215	2-1/4	DRLG 699-756 MAX BGG 21 AVG 14
10	0230	1/4	CIRC
12	0245	1/4	DROP SURVEY + PUMP SLUG
10	0330	3/4	PULL 11 STDS TO SHOE + RETRIEVE SURVEY TG 268 40 KIPS OVERPULL AT 600
12	0345	1/4	RETRIEVE SURVEY (1/2 DEG S31E)
6	0400	1/4	RIH - NO DRAG OR FILL
3	0915	5-1/4	DRLG FROM 756-852 MAX BGG 36, AVG 19
10	0930	1/4	CIRC
12	1000	1/2	DROP + RETRIEVE SURVEY (1/2 DEG N17W)
3	1245	2-3/4	DRLG 852-948 MAX BGG 24, AVG 15
12	1300	1/4	CIRC + DROP SURVEY
10 12	1545 -2½ -¼	2-3/4	PULL 19 STDS TO SHOE - 40-50 KIPS DRAG AT 827 + 35-40 K AT 722 RETRIEVE SURVEY (1/8 DEG N44E) RIH 15 KIPS DRAG AT 722
3	1630	3/4	DRL 948-995 MAX BGG 7.2 AVG 4.5
10	1700	1/2	CIRC OUT TRIP GAS TG 158
3	1800	1	DRL 995-1044 MAX BGG 31.2 AVG 13
12	1830	1/2	CIRC. DROP + RETRIEVE SURVEY (1 DEG N58E)
3	2315	4-3/4	DRL 1044-1140 MAX BGG 27.6 AVG 14.5
12	2400	3/4	CIRC. DROP + RETRIEVE SURVEY (1/2 DEG N12W)

TIME SUMMARY	CODE	3	10	12	6									TOTAL
	HOURS	16¾	4¼	2¾	¼									24

WELL 15/6-6 Biscay II

PAGE 3 OF 3

SIZE/DEPTH LAST CSG. 20 @ 447
ANN TOC LAST CSG. Mud line

REPORT NO. 13
24 HRS. END 12 April 82

DAILY WELL COST 157207

CUM. WELL COST 2349208

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	890	990	1140				
TIME	1100	1630	2300				
WT	9.1	9.5	9.2				
PV @ 120 °F	5	7	7				
YP @ 120 °F	12	13	13				
GELS (0/10)	6/9	4/8	2/7				
API F.L.	31	28	9.9				
HTHP F.L. @ °F PSI	—	—	—				
CAKE THK	3	3	1				
CAKE DESC	SOFT	SOFT	FIRM				
pH	10.0	9.6	10.5				
pf	.15	.17	.28				
Mf	.3	.4	.5				
Rf @ °F	—	—	—				
Cl⁻	16000	16000	16000				
Ca⁺⁺	550	590	600				
SOLIDS %	6	7	8				
SAND %	2	7	Tr				
OIL %	0	0	0				
CEC	16	17	18				
FUNNEL VIS	40	38	40				

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)		103	4269
BENT (SX)			224
BENTONITE		24	591
LIG. SULFONATE			231
LIGNITE			126
CAUSTIC		34	188
BICARB/AH STEAM		17/—	48/28
GEL/JEX-DRIS			101/89
SODA ASH/XC			61/94
PIPE LAX - DD			6-5
CMC (LV)+(HV)		24/45	242/62
CEMENT (G)			1975
CaCl2 SX/LIQ			34/500
HAGL/CFR-2L)			115/205
HLXC 24P/HAGLL			523/395
Econolite			930
DRL WATER		320	1080
WASH WATER			
POT WATER			320
RIG FUEL		120	2810
HELIFUEL			15.11

MUD
MAKE UP WATER: Cl 200, Ca⁺⁺ 80, Rw ... @ ... °F; SHAKER SCREEN MESH 20/40, 20/30
DESANDER HRS. 20, DESILTER HRS. 20, MUD CLNR HRS. 20 SCREEN WIRE 120
DAILY MUD COST $5164, CUM MUD COST $25,102, MUD PUMP TYPE/LINERS 7x12, 13-P-160

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	M FT	HR	M FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND R	COND G
8	4	17½	x3A	MX121	3-18	INC				30/35	130	2600	165	79			

DRILLING ASSEMBLY

COMPONENT	FT
Bit	.45
FS	.9
9" monel	9.0
9" DC	9.47
17½ stab	1.43
5-9" DC	47.28
XO	.96
7-8" DC	64.14
XO	.3
Jars	10.42
2-8" DC	18.5
2xO	.73
15 HWDP	134.27
299.85	

DEVIATION AND LEAKOFF DATA					
DEPTH	756	852	948	1044	1140
ANGLE	½° S31E	½° N17W	¾° N44E	1° N58E	½° N12W
LEAKOFF PPG EQUIV					
DEPTH					
DATE					

FIXED WING AND HELICOPTERS

FW FLTS/PAX	TO	FR
FW FLTS/PAX	FR	TO
HELI FLTS/PAX TO RIG	1/5	
HELI FLTS/PAX FR RIG	1/3	

WORKBOATS

BOAT	Alcor	Sidis	Santor
LOCATION	Rig		Rig
ENROUTE TO		STV	
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	4
DRLG CONT	52
MUD LOGGER	5
MUD	1
CEMENT	2
DIVERS	1
E. LOG	3
Cameron	1
W-Ford	4
TOTAL	73

WEATHER (RANGE/DAY)
SEA N 0/14 - NW 20/26
SWELL N 10/15 - N24/28
WIND N25/30 - NNW 40/50
BAR 1034
BALLAST
RISER TEN
RIG DATA (RANGE/DAY)
HEADING 307
ROLL 1.2
PITCH 1.4
HEAVE 8-12
% OFFSET 1.3
ANCHOR TENS
MAX. 225-8
MIN 150-6

DAILY DRILLING REPORT

WELL 15/6-6
WATER DEPTH 135 M
ESSO SUPR PARISH
ESSO ENGR KOLAN
ESSO TECH CARPENTER
RIG SUPR CLAGETT

RIG GLOMAR BISCAY II

PAGE ..... OF .....
REPORT NO. 14
24 HRS. END 13 APRIL 82
WELL DEPTH 1218
PROGRESS 78

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
3	[illegible]	1-1/2	[illegible]
10	[illegible]	1-1/4	[illegible]
6	0430	3/4	POH 110 KIPS OVERPULL AT 1032
29	0545	1-1/4	P/U KELLY AND WASH TO 970
6	0600	1/4	SET BACK KELLY AND POH TO 950
6	0645	3/4	FINISH POH TO SHOE.
29	0745	1	RIH - TOOK 40 KIPS WT. P/U KELLY
29	0830	3/4	REAM 971 - 990.
29	1200	3-1/2	RIH 990-1032 TOOK 40-45 KIPS WT. P/U KELLY AND REAM 1032 - 1211.
12	1415	2-1/4	CIRC AND CONDITION MUD, DROP SURVEY, SLUG, TG 66.
6	1745	3-1/2	POH - RETRIEVE SURVEY AT D.C.(3/4 @ 51 W)
12	2315	1/2	RIG UP DRESSER.
19	[illegible]	3-1/2	LOG (IEL, ACOUSTIC, AND GR) COULD ONLY GET DOWN TO 1200.
19	2200	1/4	RIG DOWN DRESSER.
7	2245	3/4	[illegible]
7	2400	1-1/4	[illegible]

TIME SUMMARY	CODE	3	10	6	29	12	7	19						TOTAL
	HOURS	2 1/2	3 1/4	5	6 1/2	1/2	2	4 1/4						24

WELL 15/6-6 — DAILY DRILLING REPORT — Biscay II

PAGE 3 OF 3

SIZE/DEPTH LAST CSG. 20 @ 447
ANN TOC LAST CSG. Mud line
REPORT NO. 14
24 HRS. END 13-April 82
DAILY WELL COST 146,316
CUM. WELL COST 2495524

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH m	PIT	PIT					
TIME	1600	2300					
WT	9.3	9.3					
PV @ 120 °F	10	9					
YP @ 120 °F	18	17					
GELS (0/10)	4/15	7/13					
API F.L.	6.6	6.9					
HTHP F.L. @ °F PSI	—	—					
CAKE THK	1	1					
CAKE DESC	FIRM	FIRM					
pH	10.2	10.0					
pf	.28	.68					
MF	.21	.55					
Rf @ °F	—	—					
Cl⁻	16000	16000					
Ca⁺⁺	360	380					
SOLIDS %	6	6					
SAND %	Tr	Tr					
OIL %	0	0					
CEC	25	25					
FUNNEL VIS	55	49					

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)			4269
BENT (SX)			224
BENTONITE	127		718
LIG. SULFONATE		2	229
LIGNITE			126
CAUSTIC		2	186
BICARB/Al STEAR			48/28
Gel/JEX-Dris		-13	101/86
SODA ASH/XC			61/94
PIPE LAX - DD			6-5
CMC(LV)+(HV)		-14	243/48
CEMENT (G)			1975
$CaCl_2$ SX/LIQ			34/0
HRGL/CFR-2(L)			115/205
HLXC 2YR/HRGEL			573/395
Econolite			430
DRL WATER		710	2740
WASH WATER			
POT WATER			335
RIG FUEL		50	3780
HELIFUEL		295	1216

MUD
MAKE UP WATER: Cl⁻ 200, Ca⁺⁺ 80, Rw — @ — °F; SHAKER SCREEN MESH 30/40, 40/80
DESANDER HRS. 5, DESILTER HRS. 5, MUD CLNR HRS. 5 Screen sizes 120
DAILY MUD COST $1237, CUM MUD COST $30339, MUD PUMP TYPE/LINERS 7-12, 12-P-165

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D PIPE AV	COND T	B	G
3	4	17½	X3A	MX121	3-18	1218	753	28¼	26.6	30/55	130	2600	165	79	1	3	1/8

DRILLING ASSEMBLY

COMPONENT	FT
Bit	.45
FS	.9
9" monel	9.0
9" DC	9.47
17½ Stab	1.43
5-9" DC	47.23
XO	.96
7-8" DC	64.14
XO	.3
Jars	10.42
2-8" DC	18.5
2-XO	.73
15 HWDP	136.27
299.85	

DEVIATION AND LEAKOFF DATA

DEPTH	1218
ANGLE	3/4 S51W
LEAKOFF PPG EQUIV	
DEPTH	
DATE	

FIXED WING AND HELICOPTERS

FW FLTS/PAX ; TO FR
FW FLTS/PAX ; FR TO
HELI FLTS/PAX TO RIG 1/14
HELI FLTS/PAX FR RIG 1/13

WORKBOATS

BOAT	Alcor	Gabo	Siddis	
LOCATION	Rig	Rig	STV	
ENROUTE TO				
ETA				

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	4
DRLG CONT	52
MUD LOGGER	5
MUD	1
CEMENT	2
DIVERS	1
E. LOG	4
Cameron	1
W-Ford	4
TOTAL	74

WEATHER (RANGE/DAY)	
SEA	Var 2 - N 10/12
SWELL	N 6/10 - N 10/16
WIND	Var 6 - N 24/30
B.P. Jt	30 psi
BALL JT	1250 psi
RISER TEN	160 K
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.5 - 1.2
PITCH	.5 - 1.4
HEAVE	6-10
% OFFSET	.9
ANCHOR TENS	
MAX.	225 - 8
MIN	160 - 1

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135 m
ESSO SUPR PARISH
ESSO ENGR KOCIAN
ESSO TECH CARPENTER
RIG SUPR CLAGGETT

RIG Glomar Biscay II

PAGE ..... OF .....
REPORT NO. 15
24 HRS. END 14 Apr 82
WELL DEPTH 1218
PROGRESS –

24 HOUR SUMMARY			
CODE	TIME TO	HOURS	OPERATION
7 [illegible]		[illegible]	rih to 1192 - no drlg.
29 0245	3/4		p/u kelly and ream 1192 - 1219 (3 m fill)
7 0345	1		circ and slug pipe t g 21
7 0645	3		poh, 15 kips max overpull, rabbit 1 st std hwdp and m/u cmt head cont. poh
7 0800	1-1/4		m/u wh r/r tool w/ wash tool and rih, wash wellhead and retrieve wh, poh.
7 1700	9		r/u 500 ton csg equip. and run 89 jts 13-3/8 csg total length of 1069.75. shoe at 1202.7
7 1745	3/4		p/u 13-3/8 hanger jt. and landed csg in wellhead
7 1900	1-1/4		r/u howco lines and circ bottoms up.
7 2300	4		pumped 9 bbls fresh water and test lines to 4000 psi. drop ball and launch btm plug w/2000 psi. mix and pump 657 sxs class ''g'' w/150 bbl of 8 3/0 prehydrated gel water. followed by 510 sxs class ''g'' neat mixed w/60 bbls fresh water. avg.slurry wt 15.8 ppg, slurry yield 581 cuft. launched dart and displaced w/ 10 bbls fresh water and 506 bbl mud. btm plug left at 3100 psi. final displacing press 750 psi. lost 46 bbl while displacing (slowed pumps to 5 bbl/min but still had slight loss) bumped plug w/2000 psi and held for 5 min. bled back 4 bbl (floats ok) cip at 2240 hrs.
7 2400	1		backed out hngr running tool and poh, circ through choke and kill lines.

no 3 anchor buoy replaced.

repaired rck connection on top pin connector w/all new parts.

morning tour had blow out drill.

TIME SUMMARY															TOTAL
CODE	7	29													
HOURS	23 1/4	3/4													24

DAILY DRILLING REPORT

FORM B

WELL 15/6-6 BISCAY II

SIZE/DEPTH LAST CSG 13 3/8 @ 1202
ANN TOC LAST CSG 702

PAGE ..... OF .....
REPORT NO. 15
24 HRS. END 14 Apr 82

DAILY WELL COST 346,240 CUM. WELL COST 2,841,764

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT						
TIME	2200						
WT	9.3						
PV@ 120 °F	8						
YP@ 120 °F	14						
GELS (0/10)	3/13						
API F.L.	6.3						
HTHP F.L. @ °F PSI	–						
CAKE THK	1						
CAKE DESC	FIRM						
pH	10.6						
pf	.25						
Mf	.58						
Rf @ °F	–						
Cl⁻	16000						
Ca''	350						
SOLIDS %	6						
SAND %	TR						
OIL %	–						
CEC	25						
FUN VIS	40						

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)			4269
BENT (SX)		45	177
BENTONITE		35	683
LIG. SULFONATE			229
LIGNITE			126
CAUSTIC		6	180
BICARB/AL STEAR			48/28
RESINEX/DRIS			101/86
SODA ASH / XC			61/94
PIPE LAX/ DD			6/5
CMC LV/HV		0/4	242/44
CEMENT (G)		910	2848
$CaCl_2$ SX/LQ			34/0
HRGL/CFR-2			115/205
HLXC-240/HR-12L			573/345
ECONOLITE			430
DRL WATER		640	2120
WASH WATER			
POT WATER			335
RIG FUEL		70	3710
HELIFUEL		2.16	10.0

MUD
MAKE UP WATER: Cl⁻ 200, Ca'' 80, Rw @ °F; SHAKER SCREEN MESH 20/40 20/30
DESANDER HRS 2, DESILTER HRS 2 MUD CLNR HRS 5 Screen 120
DAILY MUD COST 13,384, CUM MUD COST 31,723, MUD PUMP TYPE/LINERS 12-P-60/7x12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G
7	KR1	17 1/2	X3A	ND185	3x19	1218	–	11 3/4		0/10	140	2600	156	75	1	1	I

DRILLING ASSEMBLY

COMPONENT	~~FT~~ M
BIT	.45
FS	.9
9" MONEL	9.0
1x9" DC	9.47
17 1/2" Stab	1.43
5x9" DC	47.23
XO	.76
7x8" DC	54.14
XO	.3
JARS	10.42
2x8" DC	18.5
15x HWDP	136.27
277.85	

DEVIATION AND LEAKOFF DATA			
DEPTH	1218		
ANGLE	3/4 S	51 W	
LEAKOFF PPG EQUIV			
DEPTH			
DATE			
FIXED WING AND HELICOPTERS			
FW FLTS/PAX	; TO	FR	
FW FLTS/PAX	; FR	TO	
HELI FLTS/PAX TO RIG			
HELI FLTS/PAX FR RIG			
WORKBOATS			
BOAT			
LOCATION			
ENROUTE TO			
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	3
DRLG CONT	54
MUD LOGGER	5
MUD	1
CEMENT	2
DIVERS	1
E. LOG	4
CAMERON	1
U-FORD	4
TOTAL	75

WEATHER (RANGE/DAY)	
SEA	W 2 - SW 4
SWELL	VAR 3 - N 6/10
WIND	W 6 - WSW 20
MUD	SLIP JT. - 32
CEMENT	BALL JT 1250
DIVERS	RISER TEN 160
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.2 - .5
PITCH	.2 - .5
HEAVE	1 - 5
% OFFSET	.4
ANCHOR TENS	
MAX.	8 - 225
MIN	2 - 170

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135
ESSO SUPR Smith
ESSO ENGR Bell
ESSO TECH Carpenter
RIG SUPR Clagett

RIG Biscay II

PAGE ..... OF .....
REPORT NO. 16
24 HRS. END 15 Apr. 82
WELL DEPTH 1218 m
PROGRESS -

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
7	[illegible]	1	poh w/hanger running tool, lay down r/u wash tool and rih.
7	0130	1/2	r/u wb r/r tool and wash tool, rih and wash wellhead.
7	0215	3/4	poh.
7	0315	1	r/u seal assy and change bails.
7	0730	4-1/4	set seal assy w/20 kips and press test seal assy + bop (300-2500 psi) on yellow pod and function on blue.
7	1100	3-1/2	pooh and l/d 9" dcs, 17-1/2 stab and bit.
7	1245	1-3/4	run wear bushing.
7	1415	1-1/2	r u dresser to run temperature survey (195-1174)
7	1430	1/4	test 13-3/8 csg to 2500 psi = ok.
6	1800	3-1/2	m u 12-1/4 bha, rih, tag cmt at 1178.
24	1830	1/2	repair compensator.
15	1900	1/2	held bops power choke drill.
7	2400	5	drill plugs and cmt 1178-1185.

TIME SUMMARY	CODE	6	7	15	24								TOTAL
	HOURS	3 1/2	19 1/2	1/2	1/2								24

TELEX

WELL 15/6-6

Biscay II

SIZE/DEPTH LAST CSG 13 3/8 @ 1202
ANN TOC LAST CSG 702

DAILY WELL COST 160,816

FORM B

PAGE ..... OF .....
REPORT NO. 16
24 HRS. END 15 Apr. 82

CUM. WELL COST 3,002,580

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT		1179				
TIME	1430		2215				
WT	9.3		9.4				
PV @ °F	7		10				
YP @ °F	9		15				
GELS (0/10)	20/20		6/37				
API F.L.	7.6		7.8				
HTHP F.L. @ °F PSI							
CAKE THK	2		2				
CAKE DESC	FIRM		FIRM				
pH	7.0		7.0				
pf	.15		.15				
Mf	.5		.3				
Rf @ °F							
Cl⁻	17000		17000				
Ca⁺⁺	320		200				
SOLIDS %	7		7				
SAND %	1/4		1/4				
OIL %							
CEC	20		20				
FV	40		47				

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)		103	4165
BENT (SX)			179
BENTONITE		46	640
LIG. SULFONATE			177
LIGNITE			126
CAUSTIC			180
BICARB / ALST			48/28
Res / Oris			101/86
SODA ASH			61/94
PIPE Lax / OD			615
CMC LV/HV			242/104
CEMENT (G)			2848
CaCl2 SX/LQ			34/0
HR-6L / CFR1			115/205
HLXC/HR12			573/335
Econolite			430
DRL WATER		400	1720
WASH WATER			
POT WATER		2.0	315
RIG FUEL		60	3650
HELIFUEL		1.77	8.01

MUD
MAKE UP WATER: Cl⁻ 200 Ca⁺⁺ 80, Rw @ °F; SHAKER SCREEN MESH 40/60 40/60
DESANDER HRS. 2 1/4, DESILTER HRS. -, MUD CLNR HRS. 2 1/4 Screen 150
DAILY MUD COST 1169, CUM MUD COST 32,872, MUD PUMP TYPE/LINERS 12-P-60/7x12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G
10	5	12 1/4	X3A	6K408	3x14		0	11	out	5	Loc						

DRILLING ASSEMBLY

COMPONENT	FT
BIT	.3
FS	.74
8" Monel	8.7
8" DC	7.2
12 1/4" Stab	1.62
XO	.3
14x8" DC	128.74
XO	.3
JARS	10.42
2x8" DC	18.5
XO	.73
15x NUDP	136.2
Total	315.99

DEVIATION AND LEAKOFF DATA				
DEPTH	1218			
ANGLE	3/4	S57W		
LEAKOFF PPG EQUIV				
DEPTH				
DATE				
FIXED WING AND HELICOPTERS				
FW FLTS/PAX	; TO	FR		
FW FLTS/PAX	; FR	TO		
HELI FLTS/PAX TO RIG	2 / 15			
HELI FLTS/PAX FR RIG	2 / 15			
WORKBOATS				
BOAT	AIC	SAN	SIO	
LOCATION	Rig	STV		
ENROUTE TO			Rig	
ETA			0530 4/16	

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	4
DRLG CONT	53
MUD LOGGER	5
MUD	1
CEMENT	2
DIVERS	1
E. LOG	4
TOTAL	70

WEATHER (RANGE/DAY)	
SEA	VAR 1 - SW2
SWELL	VAR 2-3
WIND	SSW8 - SW18
SLIP JT	30
BALL JT	1250
RISER TEN	160 K
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.2
PITCH	.2
HEAVE	1/2 - 1
% OFFSET	.4
ANCHOR TENS	
MAX.	8 @ 225
MIN	6 @ 170

FORM A

DAILY DRILLING REPORT

WELL 15/6-6
WATER DEPTH 135
ESSO SUPR Smith
ESSO ENGR Bell
ESSO TECH Carpenter
RIG SUPR Labarthe

RIG Biscay II

PAGE ..... OF .....
REPORT NO 17
24 HRS. END 16 Apr. 82
WELL DEPTH 1505
PROGRESS 297 m

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
7	0115	1/4	drill out shoe and clean rat hole 1203-1219
3	0030	1/4	drill 1219-1220
7	0230	2	circ for leak off test - t.g. 25 units.
7	0330	1/2	leak off test (14 ppg equivalent)
3	0700	4	drill 1220-1320 - bgg 10, avg 10
38	0715	1/4	circ for survey
38	0730	3/4	drop and retrieve survey (misrun)
3	0830	1/2	drl 1320-1330
12	0845	1/4	circ for survey
12	0915	1/2	drop + retrieve survey (1/2 - s 92 e)
3	1345	4-1/2	drl 1330 - 1426
12	1400	1/4	circ for survey
12	1430	1/2	drop + retrieve survey (1 - s 50 w)
3	2100	6-1/2	drl 1426-1505
29	2215	1-1/4	hole packed off, worked pipe and reestablished circ. circ hole clean peak gas 95 units along w/large amount of cuttings.
12	2330	1-1/4	drop survey, pump slug and pull 11 stds to shoe, 70k overpull at 1300 m. avg overpull 20-30 k.
12	2400	1/2	retrieve survey (1/2 - s 33 w)

bgg 5 - 12 units.
con.g 1320-1416 m 7-16 units inc.mud to 9.7 ppg 1420m.
probable contributing factor on cg was driller stoping pumps to soon while picking up kelly.

need: 10 rolls telex tape.

held fire and boat drill.

mtn 1514 show 238 jts 9-5/8 csg sent, we only received 236.

TIME SUMMARY	CODE	3	7	12	29	38								TOTAL
	HOURS	15 3/4	2 3/4	3 1/4	1 1/4	1								24

TELEX TELEX TELEX TELEX

FORM B

WELL 15/6-6
Biscay II
SIZE/DEPTH LAST CSG 13 3/8 @ 1202
ANN TOC LAST CSG 702

PAGE ..... OF .....
REPORT NO 17
24 HRS. END 16 Apr 82

DAILY WELL COST 153,524
CUM. WELL COST 3,156,104

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	1319		1436		1505		
TIME	0645		1515		2200		
WT	9.4		9.7		9.7		
PV @ °F	11		12		10		
YP @ °F	21		20		16		
GELS (0/10)	26/63		8/35		11/48		
API F.L.	8.7		8.6		8.1		
HTHP F.L. @ °F PSI							
CAKE THK	2		2		2		
CAKE DESC	FIRM		FIRM		FIRM		
pH	10.7		10.0		9.7		
pf	.5		.35		.35		
Mf	.8		.55		.55		
Rf @ °F							
Cl⁻	17000		15500		15000		
Ca⁺⁺	40		80		140		
SOLIDS %	8		10		9		
SAND %	1/4		1/2		TR		
OIL %							
CEC							
FV	20		27		30		
	51		57		49		

STOCKS	~~UNITS~~ REC	USED	REMAIN STOCK
BARITE (BULK)		209	3756
BENT (SX)			179
BENTONITE		24	616
LIG. SULFONATE		20	179
LIGNITE	100		226
CAUSTIC	120	12	312
BICARB / AL ST	48/0	8/0	88/28
RES/ DRIS			101/86
SODA ASH / XC			61/94
PIPE LAX/DD			6/5
CMC LV/HV	120/120		362/224
CEMENT (G)			3566
CaCl2 SX/LB			34/0
HR-6L/ CFR1			115/205
HLXC/HR12			573/295
Econolite			430
DRL WATER		440	2340
WASH WATER			
POT WATER			315
RIG FUEL		80	3570
HELIFUEL			8.01

MUD: MAKE UP WATER: Cl⁻ 200, Ca⁺⁺ 14, Rw @ °F; SHAKER SCREEN MESH 40/60 20/40
DESANDER HRS 22, DESILTER HRS 3, MUD CLNR HRS 15 Screen 220
DAILY MUD COST 2092, CUM MUD COST 4904, MUD PUMP TYPE/LINERS 12-P-60 / 7x12

BITS	RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32ds	DEPTH OUT	FT M	HRS	M/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G
	10	5	12 1/4	XSR	6K408	3x16		287	15 3/4	18.2	20/30	110	3100	130	62			

DRILLING ASSEMBLY COMPONENT	FT
BIT	.3
FS	.74
MONEL	8.7
1 x 8" DC	9.2
STAB	1.62
XO	.3
14 x 8" DC	128.74
XO	.3
JARS	10.42
2 x 8" DC	18.5
XO	.73
15" HWDP	136.22
Total	315.77

DEVIATION AND LEAKOFF DATA			
DEPTH	1320	1426	1505
ANGLE	1/2 S32W	1 S50W	1/2 S33W
LEAKOFF PPG EQUIV	14		
DEPTH	1220		
DATE	16 APR 82		

FIXED WING AND HELICOPTERS
FW FLTS/PAX ; TO FR
FW FLTS/PAX ; FR TO
HELI FLTS/PAX TO RIG 1/5
HELI FLTS/PAX FR RIG 1/8

WORKBOATS

BOAT	ALC	SAN	SIO
LOCATION	R16	STU	R16
ENROUTE To			
ETA			

PERSONNEL ON BOARD COMPANY	NO.
ESSO	3
DRLG CONT	52
MUD LOGGER	5
MUD	1
CEMENT	2
DIVERS	1
E. LOG	3
TOTAL	67

WEATHER (RANGE/DAY)	
SEA	SW3 - NW6
SWELL	VAR 3 - W6
WIND	NW 18 - WSW 32
SLIP JT	30
BALL JT	1300
RISER TEN	160 k
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.2 - .4
PITCH	.2 - .5
HEAVE	1/2 - 1
% OFFSET	.2
ANCHOR TENS	
MAX.	8 @ 225
MIN	6 @ 170

FORM A

DAILY DRILLING REPORT

WELL 15/6-6
WATER DEPTH 135
ESSO SUPR Smith
ESSO ENGR
ESSO TECH Carpenter
RIG SUPR Lebarthe

RIG Biscay II

PAGE ..... OF .....
REPORT NO. 18
24 HRS. END 17 Apr. 82
WELL DEPTH 1723
PROGRESS 218 m

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
12	0045	1/4	rih to 1515 [illegible] max drag - no fill.
12	0100	1/4	circ
3	0630	5-1/2	drlg 1505-1608. bg 8 u tg 150
12	0645	1/4	circ for survey
12	0715	1/2	drop and retrieve survey.
3	0900	1-3/4	drlg 1603 - 1627.
29	1200	3	pipe stuck on connection, cannot circ or rotate work pipe. max overpull 130 k. work pipe free.
29	1330	1-1/2	wash and ream 1603-1627.
29	1430	1	circ hole clean. peak gas 144 units.
29	1530	1	pump slug and pull 7 stds (no drag) rih.
29	1545	1/4	wash and ream 1603-1627.
3	2115	5-1/2	drl 1627 - 1714. tg 84 units.
38	2130	1/4	circ for survey.
38	2315	1-3/4	run survey (misrun) re run survey (misrun)
3	2345	1/2	drill 1714 - 1723.
12	2400	1/4	circ. drop survey.

bgg 4-9 units

est. pore press 1.1

TIME SUMMARY															TOTAL
	CODE	3	12	29	38										
	HOURS	13 1/4	2	6 3/4	2										24

15 1/4

EXPLORATION TELEX

FORM B

DAILY DRILLING REPORT

WELL 15/6-6

PAGE ..... OF .....

SIZE/DEPTH LAST CSG 13 3/8 @ 1202
ANN TOC LAST CSG 702

REPORT NO. 18
24 HRS. END 17 Apr. 82

DAILY WELL COST 145,721

CUM. WELL COST 3,302,025

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	1608		1637		1714		
TIME	0700		1400		2200		
WT	9.7		9.8		9.7		
PV @ °F	9		9		9		
YP @ °F	16		20		22		
GELS (0/10)	10/41		14/51		18/60		
API F.L.	8.5		9.0		10.1		
HTHP F.L. @ °F PSI							
CAKE THK	2		2		2		
CAKE DESC	FIRM		FIRM		FIRM		
pH	9.5		9.2		10.2		
pf	.2		.15		.35		
Mf	.45		.3		.65		
Rf @ °F							
Cl^-	16000		16500		15000		
Ca^{++}	200		260		120		
SOLIDS %	8		9		9		
SAND %	Tr		Tr		Tr		
OIL %							
CEC	30		30		35		
FV	48		57		49		

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)		209	3747
BENT (SX)		22	107
BENTONITE			616
LIG. SULFONATE		16	163
LIGNITE			226
CAUSTIC		22	290
BICARB/AL ST			88/28
RES/DRIS			101/86
SODA ASH/XC			61/94
PIPE LAX/DD			6/5
CMC LV/HV		5/0	357/224
CEMENT (G)			3566
$CaCl_2$ SX/LQ			3410
HRCL/CFR1			115/205
HLXC/HR12			573/275
Econolite			430
DRL WATER		540	1800
WASH WATER			
POT WATER			315
RIG FUEL		130	3440
HELIFUEL			8.01

MUD

MAKE UP WATER: Cl 200 Ca^{++} 14, Rw ..... @ ..... °F, SHAKER SCREEN MESH 40/60 20/40
DESANDER HRS 16, DESILTER HRS 8, MUD CLNR HRS 16 Screen 150
DAILY MUD COST 2924, CUM MUD COST 3[illegible],911, MUD PUMP TYPE/LINERS 12-P-60/7x12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G
10	5	12 1/4	X3A	6K408	3x16		505	29	17.4	15/20	115	3100	135	65			

DRILLING ASSEMBLY

COMPONENT	FT
Bit	.3
FS	.74
Monel	8.7
8" DC	9.2
Stab	1.62
XO	.3
14 x 8" DC	128.91
XO	.3
JARS	10.42
2 x 8" DC	18.50
XO	.73
15 x HWDP	136.27
Total	315.99

DEVIATION AND LEAKOFF DATA				
DEPTH	1608			
ANGLE	1° S63W			
LEAKOFF PPG EQUIV	14.0			
DEPTH	1220			
DATE	16 Apr			
FIXED WING AND HELICOPTERS				
FW FLTS/PAX	; TO	FR		
FW FLTS/PAX	; FR	TO		
HELI FLTS/PAX TO RIG				
HELI FLTS/PAX FR RIG				
WORKBOATS				
BOAT	ALC	SAN	SIO	
LOCATION	R16	STV	R16	
ENROUTE TO				
ETA				

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	3
DRLG CONT	52
MUD LOGGER	5
MUD	1
CEMENT	2
DIVERS	1
E. LOG	3
TOTAL	67

WEATHER (RANGE/DAY)	
SEA	VAR 3 - NW 6
SWELL	NW 6 - NNW 8
WIND	VAR 8 NW 18
SLIP JT.	30
BALL JT	1300
RISER TEN	160k
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.4 - .5
PITCH	.5 - .7
HEAVE	1-5
% OFFSET	.2
ANCHOR TENS	
MAX.	8 @ 225
MIN	1 @ 160

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 110
ESSO SUPR. Smith
ESSO ENGR.
ESSO TECH. Carpenter
RIG SUPR. Labarthe

RIG Biscay II

PAGE ..... OF .....
REPORT NO. 19
24 HRS. END 18 Apr 82
WELL DEPTH 1877 m
PROGRESS 154 m

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
12	0300	1/2	retrieve survey (1 - s66w)
3	0745	7-1/4	drlg 1723 - 1829 (bit 2 - 5)
12	0815	1/2	circ for survey
12	0900	3/4	drop and retrieve survey (1/2 - n59w)
3	1115	2-1/4	drlg 1829 - 1868 (bbg 2) (peak of 13)
10	1215	1	circ btms up.
6	1730	5-1/4	pump slug pob max drag 70 kips at 1756 + 1616
6	1900	1-1/2	m/u new kelly.
6	2330	4	p/u new bit and rih (1/2 m fill) avg drag 50 kips.
3	2400	1	drlg 1868 - 1877 (t q 190)

morning tour bad kick drill.

TIME SUMMARY	CODE	3	6	10	12								TOTAL
	HOURS	10 1/2	10 3/4	1	1 3/4								24

DAILY DRILLING REPORT

FORM B

WELL 15/6-6 Biscay II
SIZE/DEPTH LAST CSG. 13 3/8 @ 1202
ANN TOC LAST CSG. 702

PAGE ..... OF .....
REPORT NO. 19
24 HRS. END 18 Apr 82

DAILY WELL COST 153,344
CUM. WELL COST 3,445,369

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	1817		1868				
TIME	0700		1200				
WT	9.7		9.8				
PV @ °F	8		9				
YP @ °F	18		21				
GELS (0/10)	14/53		15/58				
API F.L.	7.6		10.0				
HTHP F.L. @ °F PSI							
CAKE THK	2		2				
CAKE DESC	FIRM		FIRM				
pH	9.8		10.1				
pf	.3		.35				
Mf	.6		.7				
Rf @ °F							
Cl⁻	15000		15000				
Ca⁺⁺	120		120				
SOLIDS %	9		9				
SAND %	1/4		1/2				
OIL %							
CEC	37.5		37.5				
FV	53		58				

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)		104	3643
BENT (SX)			107
BENTONITE			616
LIG. SULFONATE		15	148
LIGNITE			226
CAUSTIC		14	276
BICARB / AL ST			88/28
RES / DRIS			101/86
SODA ASH / XC			61/94
PIPE LAX/DD			615
CMC LV/HV			357/224
CEMENT (G)			3566
$CaCl_2$ SX/LQ			34/0
HRGL / CFR)			115/205
HLXC / HR12)			573/375
Econolite			430
DRL WATER		300	1500
WASH WATER			
POT WATER		75	240
RIG FUEL		70	3370
HELIFUEL			8.01

MUD: MAKE UP WATER: Cl⁻ 200 Ca⁺⁺ 14, Rw ..... @ ..... °F; SHAKER SCREEN MESH 40/60 20/40
DESANDER HRS. 10, DESILTER HRS. 8, MVD CLNR HRS. 10 Screen 150
DAILY MUD COST 1,000, CUM MUD COST 38,910, MUD PUMP TYPE/LINER HRS. 12-P-60 / 7x12

BITS	RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT M	HRS	FT/HR M	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G
	10	5	12 1/4	X3A	6K408	3x16	1868	650	38.5	16.8	15/20	115	3100	135	65	4	6	1/8
	11	6	12 1/4	X3A	P2870	3-16		9	1	9	15/20	100	2300	115	55			

DRILLING ASSEMBLY COMPONENT	FT
Bit	.3
FS	.74
Monel	8.7
1x8" DC	9.2
Stab	1.62
XO	.3
14x8" DC	128.74
XO	.3
JARS	10.42
2x8" DC	18.5
XO	.73
15x HWDP	136.27
Total	315.99

DEVIATION AND LEAKOFF DATA		
DEPTH	1723	1829
ANGLE	1° S66W	1/2° N59W
LEAKOFF PPG EQUIV	14.0	
DEPTH	1220	
DATE		

FIXED WING AND HELICOPTERS
FW FLTS/PAX ; TO FR
FW FLTS/PAX ; FR TO
HELI FLTS/PAX TO RIG
HELI FLTS/PAX FR RIG

WORKBOATS			
BOAT	ALC	SAN	SIO
LOCATION	RIG	STU	RIG
ENROUTE TO			
ETA			

PERSONNEL ON BOARD COMPANY	NO.
ESSO	3
DRLG CONT	52
MUD LOGGER	5
MUD	1
CEMENT	2
DIVERS	1
E. LOG	3
TOTAL	67

WEATHER (RANGE/DAY)	
SEA	NW-1 VAR2
SWELL	NNW 6
WIND	VAR 4-8
Slip Jt	30
BALL JT	1300
RISER TEN	160K
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.3-.5
PITCH	.5-.7
HEAVE	1-3
% OFFSET	.2
ANCHOR TENS	
MAX.	8 - 220
MIN	1 - 165

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 110
ESSO SUPR Smith
ESSO ENGR
ESSO TECH Carpenter
RIG SUPR Labarthe

RIG Biscay II

PAGE ..... OF .....
REPORT NO. 20
24 HRS. END 19 Apr. 82
WELL DEPTH 2194 m
PROGRESS 217 m

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
3	0430	4-1/2	drlg 1877 - 1935 (no 2 pump down)
38	0500	1/2	circ for survey
38	0545	3/4	retrieve survey (misrun)
3	0600	1/4	drlg 1935 - 1944 b g - nil
12	0630	1/2	circ for survey
12	0715	3/4	drop + retrieve survey (1 - s51e)
24	0800	3/4	replace broken kelly drive bushing lockdown pin.
3	1330	5-1/2	drlg 1944 - 2050.
12	1345	1/4	circ for survey.
12	1445	1	drop and retrieve survey (2 - s18w)
3	1930	4-3/4	drlg 2050 - 2137.
12	1945	1/4	circ for survey.
12	2045	1	drop and retrieve survey (2-3/4 - s42w)
3	2400	3-1/4	drl 2137 - 2194.

b g g 1 - 6 units.

morning tour had kick drill.

need: 3 - 150 mesh screens for mud cleaner.

full film loader for eastman survey tool.

TIME SUMMARY	CODE	3	12	24	38									TOTAL
	HOURS	18 1/4	3 3/4	3/4	1 1/4									24

DAILY DRILLING REPORT

FORM B

WELL 15/6-6 Biscay II

SIZE/DEPTH LAST CSG 13 3/8 @ 1202 m
ANN TOC LAST CSG 702

PAGE ..... OF .....
REPORT NO. 20
24 HRS. END 19 Apr. 82

DAILY WELL COST 143,881
CUM. WELL COST 3,589,250

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	1944		2050		2163		
TIME	0700		1400		2200		
WT	9.7		9.8		9.7		
PV @ °F	8		6		9		
YP @ °F	16		19		20		
GELS (0/10)	10/35		12/42		14/51		
API F.L.	11.2		11.6		11.4		
HTHP F.L. @ °F PSI							
CAKE THK	2		2		2		
CAKE DESC	FIRM		FIRM		FIRM		
pH	9.4		10.0		10.3		
pf	.25		.35		.4		
Mf	.6		.7		.8		
Rf @ °F							
Cl⁻	16000		16500		16500		
Ca⁺⁺	220		140		120		
SOLIDS %	8		9		8		
SAND %	1/3		1/4		Tr		
OIL %							
CEC	37		37		37		
FV	47		60		51		

STOCKS	UNITS REC	USED	REMAIN STOCK
BARITE (BULK)		103	3540
BENT (SX)	60		167
BENTONITE			616
LIG. SULFONATE		31	117
LIGNITE			226
CAUSTIC		36	240
BICARB / AL ST			88/28
RES / DRIS			101/86
SODA ASH / XC			61/74
PIPE LAX/DD			6/5
CMC LV/HV		10/0	347/224
CEMENT (G)			3566
$CaCl_2$ sx/lb			340
HRGL/CFR1			115/205
HLXC/HR121			573/395
Econolite			430
DRL WATER		280	1220
WASH WATER			
POT WATER		70	150
RIG FUEL		110	3260
HELIFUEL			8.01

MUD
MAKE UP WATER: Cl 200 Ca⁺⁺ 14 Rw @ °F SHAKER SCREEN MESH 20/40 40/80
DESANDER HRS 20, DESILTER HRS 16, MUD CLNR HRS 20 Screen 150
DAILY MUD COST 2061, CUM MUD COST 49,771, MUD PUMP TYPE/LINERS 12-P-160/7x12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G
11	6	12 1/4	X3A	P8890	3x6		326	19.25	16.9	20/25	115	3150	133	66			

DRILLING ASSEMBLY

COMPONENT	FT
Bit	.3
FS	.74
Monel	8.7
1x8" DC	9.2
Stab	1.62
XO	.3
14x8" DC	128.70
XO	.3
JARS	10.42
2x8" DC	18.5
XO	.73
15x HWDP	136.27
Total	315.33

DEVIATION AND LEAKOFF DATA				
DEPTH	1944	2050	2137	
ANGLE	1° S51°E	2° S18W	2 3/4° S42°W	
LEAKOFF PPG EQUIV	14.0			
DEPTH	1220			
DATE				

FIXED WING AND HELICOPTERS

FW FLTS/PAX	TO	FR
FW FLTS/PAX	FR	TO
HELI FLTS/PAX TO RIG	1	0
HELI FLTS/PAX FR RIG	1	1

WORKBOATS

BOAT	ALC	SAN	SIO
LOCATION	RIG	STV	RIG
ENROUTE TO			
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	3
DRLG CONT	51
MUD LOGGER	5
MUD	1
CEMENT	2
DIVERS	1
E. LOG	3
TOTAL	66

WEATHER (RANGE/DAY)	
SEA	NW 1
SWELL	NNW 3-6
WIND	VARG NW8
SLIP JT	30
BALL JT	1300
RISER TEN	160k
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.2 - .3
PITCH	.2 - .5
HEAVE	1 - 2
% OFFSET	.2
ANCHOR TENS	
MAX.	8 - 225
MIN	1 - 170

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 110
ESSO SUPR Smith
ESSO ENGR
ESSO TECH Carpenter
RIG SUPR Labarthe

RIG Biscay II

PAGE ..... OF .....
REPORT NO. 21
24 HRS. END 20 April 82
WELL DEPTH 2437 m
PROGRESS 243 m

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
3	0700	3	drlg 2234 - 2243
12	0315	1/4	circ for survey
12	0400	3/4	drop and retrieve survey (1 1/4 - s 12 e)
3	1415	10 1/4	drlg 2243 - 2347
12	1430	1/4	circ for survey
12	0530	1 1/2	2347 - 2389 drop and retrieve sur
3	2400	3 1/2	drlg 2347 - 2437
			avg bgg 1.5 - 6 max 13

morning tour had kick drill

TIME SUMMARY	CODE	3	12											TOTAL
	HOURS	21 3/4	2 1/4											24

DAILY DRILLING REPORT

FORM B

WELL 15/6-6

SIZE/DEPTH LAST CSG 13 3/8 @ 1202
ANN TOC LAST CSG 202

DAILY WELL COST 152,741

PAGE ..... OF .....
REPORT NO. 21
24 HRS. END 20 Apr. 82

CUM. WELL COST 3,741,991

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	2270		2345		2415		
TIME	0700		1400		2200		
WT	9.7		9.7		9.7		
PV @ °F	10		12		10		
YP @ °F	19		22		20		
GELS (0/10)	11/42		10/39		11/43		
API F.L.	10.1		9.7		10.0		
HTHP F.L. @ °F PSI					32.8		
CAKE THK	2		2		2/5		
CAKE DESC	FIRM		FIRM		FIRM		
pH	10.8		10.0		10.2		
pf	.6		.35		.35		
Mf	1.2		.8		.75		
Rf @ °F							
Cl^-	17500		18000		18000		
Ca^{++}	100		140		140		
SOLIDS %							
SAND %							
OIL %							
CEC	40		40		40		
FV	49		55		51		

STOCKS	~~UNITS~~ REC	USED	REMAIN STOCK
BARITE (BULK)	884	207	4217
BENT (SX)			167
BENTONITE			616
LIG. SULFONATE		30	87
LIGNITE			226
CAUSTIC		34	206
BICARB / ALST			88/28
RES / DRIS			101/86
SODA ASH			61/74
PIPE LAX/DD			6/5
CMC LV/HV		15/3	332/221
CEMENT (G)			3566
$CaCl_2$ SX/LQ			3410
HRGL/CFR 1			115/205
HLXC/HR12 1			573/395
Econolite			430
DRL WATER		320	700
WASH WATER			
POT WATER			205
RIG FUEL		90	3170
HELIFUEL			8.01

MUD

MAKE UP WATER: Cl 200, Ca^{++} 14, Rw ..... @ ..... °F SHAKER SCREEN MESH 20/30 40/80
DESANDER HRS 22, DESILTER HRS 15.5, MUD CLNR HRS 22 Screen 150
DAILY MUD COST 2964, CUM MUD COST 41,735, MUD PUMP TYPE/LINERS 12-P-160/7 x12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT M	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G
11	6	12 1/4	XDA	128970	3W6		569	41	13.7	20/25	125	3100	130	62			

DRILLING ASSEMBLY

COMPONENT	FT
BIT	.3
FS	.74
monel	8.7
1 x 8" DC	9.2
Stab	1.62
XO	.3
14 x 8" DC	128.7
XO	.3
JARS	10.42
2 x 8" DC	18.5
XO	.73
15 x HWDP	136.2
Total	315.7

DEVIATION AND LEAKOFF DATA		
DEPTH	2242	2347
ANGLE	1 1/4° SIZE	1 1/2 SIZE
LEAKOFF PPG EQUIV	14.0	
DEPTH	1220	
DATE		

FIXED WING AND HELICOPTERS

FW FLTS/PAX	TO	FR
FW FLTS/PAX	FR	TO
HELI FLTS/PAX TO RIG	1/12	
HELI FLTS/PAX FR RIG	1/13	

WORKBOATS

BOAT	ALC	SID	SAN
LOCATION	RIG	RIG	STU
ENROUTE TO			
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	3
DRLG CONT	49
MUD LOGGER	5
MUD	1
CEMENT	2
DIVERS	1
E. LOG	3
SCANCORE	1
TOTAL	65

WEATHER (RANGE/DAY)	
SEA	VAR1 - SW5
SWELL	VAR3 - SW6
WIND	VAR10 - S26
SLIP JT	30
BALL JT	1250
RISER TEN	160k
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.3 - .5
PITCH	.3 - .5
HEAVE	1
% OFFSET	.2
ANCHOR TENS	
MAX.	8 - 225
MIN	5 - 165

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 110 m
ESSO SUPR. SMITH
ESSO ENGR.
ESSO TECH. CARPENTER
RIG SUPR. LABARTHE

RIG BISCAY II

PAGE 1 OF 1
REPORT NO. 22
24 HRS. END 21 APR 82
WELL DEPTH 2477 m
PROGRESS 40 m

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
3	0145	1 3/4	drlg 2417 - 2452
12	0230	1/4	circ for survey
12	0245	3/4	drop and retrieve survey (1 3/4 s88w)
3	0515	2 1/2	drlg 2452 - 2477
10	0630	1 1/4	circ btms up
6	0800	1 1/2	pump slug, poh , tight hole 2069 - 2064 (45-60 k ovpl
29	0815	1/4	rih 2064 - 2122 (50 k drag)
29	0830	1/4	ream 2060 - 2075
29	1015	1 3/4	rih 2122 - 2217 (50 k drag)
29	1030	1/4	ream 2217 - 2233
29	1045	1/4	rih to 2275 (50 k drag)
29	1115	1/2	ream to 2300
29	1145	1/2	rih to 2457 (50 k drag)
29	1215	1/2	ream to 2477
29	1315	1	circ btms up MGU 95
6	1445	1 1/2	slug pipe poh to 2006 (60 k overpull)
6	1700	2 1/4	pu kelly and wash 2006 - 1872 ld 15 jts dp
6	2045	3 3/4	poh
6	2315	2 1/2	mu 12 1/4 j4 and rih to shoe
16	2400	3/4	cut and slip 113' drill line
			bgn 2 - 4
			kick drill on both tours

TIME SUMMARY														TOTAL
CODE	3	6	10	12	29	16								
HOURS	4 1/4	11 1/2	1 1/4	1	5 1/4	3/4								

TELEX TELEX TELEX

DAILY DRILLING REPORT

FORM B

WELL 15/6-6

SIZE/DEPTH LAST CSG. 13 3/8 @ 1202 m
ANN TOC LAST CSG. 702 m

PAGE 1 OF 1
REPORT NO. 22
24 HRS. END 21 APR 82

DAILY WELL COST 156,424
CUM. WELL COST 3,898,415

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	2477		2452				
TIME	0700		1315				
WT	9.7		9.8				
PV @ 120 °F	8		10				
YP @ 120 °F	16		21				
GELS (0/10)	7/31		10/39				
API F.L.	9.4		9.7				
HTHP F.L. @ 200 °F 500 PSI	-		30.8				
CAKE THK	2		2-4				
CAKE DESC	FIRM		FIRM				
pH	10.4		9.9				
pf	.4		.3				
Mf	.9		.7				
Rf @ °F							
Cl⁻	18500		18500				
Ca⁺⁺	120		140				
SOLIDS %	8		10				
SAND %	TR		½				
OIL %	0		0				
CEC	37		35				
VIS	45		52				

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)		52	4165
BENT (SX)			167
BENTONITE			616
LIG. SULFONATE		20	67
LIGNITE		10	216
CAUSTIC		19	187
BICARB/AL ST			88/28
RESIN/DRIS		20/-	81/86
SODA ASH/XC			61/94
PIPE LAX/DP			6/5
CMC LV/HV		-/5	332/221
CEMENT (G)			3566
CaCl2 SQ/LQ			34/450
HRGL/CFR			350/100
HLXC/HR12			100/100
ECONOLITE			425
DRL WATER		300	6000
WASH WATER			
POT WATER			235
RIG FUEL		104	3066
HELIFUEL			8.01

MUD
MAKE UP WATER: Cl⁻ 200, Ca⁺⁺ 14, Rw @ °F
SHAKER SCREEN MESH 20/30, 40/80
DESANDER HRS. 12, DESILTER HRS. 7, MUD CLNR HRS. 12 SCREEN 150
DAILY MUD COST 2843, CUM MUD COST 46,778, MUD PUMP TYPE/LINER 12-P-160/7X12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	m	HRS	m/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G
11	6	12 1/4	X3A	PZ 890	3x16	2477	609	45 3/4	13.4	20/25	120	3100	130	62	7	7	1/4
12	7	12 1/4	J4	412JEL	3x16												

DRILLING ASSEMBLY

COMPONENT	m
BIT	.3
FS	.74
MONEL	8.7
8" DC	9.2
STAB	1.62
XO	.3
14 x 8" DC	128.91
XO	.3
JARS	10.42
2 x 8" DC	18.5
2 x XO	.73
15 x HWDP	362.7
	315.91

DEVIATION AND LEAKOFF DATA

DEPTH	2452	
ANGLE	1¼° S88W	
LEAKOFF PPG EQUIV	14	
DEPTH	1220	
DATE		

FIXED WING AND HELICOPTERS

FW FLTS/PAX	;TO FR
FW FLTS/PAX	;FR TO
HELI FLTS/PAX TO RIG	1/14
HELI FLTS/PAX FR RIG	1/11

WORKBOATS

BOAT	ALC	SAN	SID
LOCATION	RIG	RIG	RIG
ENROUTE TO			
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	3
DRLG CONT	51
MUD LOGGER	5
MUD	1
CEMENT	2
DIVERS	1
E. LOG	3
SCAN CORE	1
SYMINEX	1
TOTAL	68

WEATHER (RANGE/DAY)	
SEA	3-4
SWELL	SW 3-4
WIND	VAR 4
SLIP JT	30
BALL JT	1250 PSI
RISER TEN	160 K
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.3
PITCH	.3
HEAVE	1
% OFFSET	.2
ANCHOR TENS	
MAX. #8	240
MIN #5	160

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 110 M
ESSO SUPR. SMITH
ESSO ENGR. UPTON
ESSO TECH. BETHKE
RIG SUPR. LABARTHE

RIG BISCAY II

PAGE 1 OF 1
REPORT NO. 23
24 HRS. END 22 APR 82
WELL DEPTH 2650 m
PROGRESS 173 m

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
16	0315	1/4	cont slip and cut drill line
6	0315	3	rih to 2457
29	0345	1/2	p/u kelly and break circ, ream 2457 - 2477
3	0600	2 1/4	drlg 2477 - 2500 tq - 56 u bgg 4
3	0930	3 1/2	drill from 2477 to 2557 meters avg rop=20 bgg= 4-5 cq=0 max=5
12	0945	1/4	circ prior to survey
12	1030	3/4	drop and retrieve survey = 3/4 n45e
3	2200	11 1/2	drill from 2557 to 2650. from 2557 - 2633 avg rop 15.34 m/hr from 2633 - 2650 avg rop 3 m/hr at 2649 - 2650 rop 1 m/hr cq=0 max gas=5 bgg=4 - 5
12	2215	1/4	cir prior to survey
12	2245	1/2	drop survey and slug pipe
6	2400	1 1/4	pooh to change bit

anchors:

	1	2	3	4	5	6	7	8
	125	173	190	190	170	170	175	230
	170	165	190	175	170	145	145	230

TIME SUMMARY	CODE	3	6	29	12	16								TOTAL
	HOURS	17 1/4	4 1/4	1/2	1 3/4	1 1/4								

DAILY DRILLING REPORT

FORM B

WELL 15/6-6

PAGE 1 OF 1

SIZE/DEPTH LAST CSG. 13 3/8 @ 1202 m
ANN TOC LAST CSG. 702 m

REPORT NO. 23
24 HRS. END 22 APR 82

DAILY WELL COST 158,496
CUM. WELL COST 4056 911

MUD CHEKS	(1) OR OUT	IN OR OUT	IN OR (OUT)	IN OR OUT	(1) OR OUT	IN OR OUT	IN OR OUT
DEPTH	2410		2490		2590		
TIME	0800		1530		2130		
WT	9.7		9.7+		9.7		
PV @ 120 °F	9		13		12		
YP @ 120 °F	14		18		17		
GELS (0/10)	8/37		9/40		7/33		
API F.L.	10.4		8.8		7.3		
HTHP F.L. @ °F PSI	34				23.7		
CAKE THK	2/4				2/4		
CAKE DESC	FIRM				FIRM		
pH	10.0		10.0		9.5		
pf	.2		.2		.2		
Mf	.7		.61		.6		
Rf @ °F	-		-		-		
Cl^-	17000		18000		19000		
Ca^{++}	200		280		280		
SOLIDS %	9		10		9		
SAND %	TR		1		1/4		
OIL %	0		0		0		
CEC	34		37		38		
VIS	43		47		46		

STOCKS	REC	USED	REMAIN STOCK
BARITE (BULK)	674		4839
BENT. (SX)			167
BENTONITE			616
LIG. SULFONATE	200	4	263
LIGNITE		57	159
CAUSTIC		24	163
BICARB/AL ST			88/28
RESIN/DRIS		10	71/86
SODA ASH/XC			61/94
PIPE LAX/DD			6/5
CMC LV/HV			292/216
CEMENT (G)	953		4519
$CaCl_2$ SX/LQ			34/450
HRGL/CFR			350/100
HLXC/HBIZ			100/100
ECONOLITE			425
DRL WATER	2280	260	2620
WASH WATER			
POT WATER		60	295
RIG FUEL	900	126	3840
HELIFUEL	15.72	3.11	18.62

MUD

MAKE UP WATER: Cl 200, Ca^{++} 14, Rw @ °F; SHAKER SCREEN MESH 20/30 40/60
DESANDER HRS. 15, DESILTER HRS. 15, MUD CLNR HRS. 15 SCREEN 150
DAILY MUD COST 4157, CUM MUD COST 510935, MUD PUMP TYPE/LINERS 7 X 12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	m	HRS	M/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G
12	7	12 1/4	J-4	421FL	3X16	2650	173	15	11.53	25-30	120	3000	126	136	4	6	I

DRILLING ASSEMBLY

COMPONENT	m
BIT	.3
FS	.74
MONEL	8.7
8" DC	9.2
STAB	1.62
XO	.3
14 X 8" DC	128.91
XO	.3
JARS	10.42
2 X 8" DC	18.5
2 X XO	.73
15 X HWDP	136.7
	315.71

DEVIATION AND LEAKOFF DATA		
DEPTH	2577	
ANGLE	3/4 N45E	
LEAKOFF PPG EQUIV	14	
DEPTH	1220	
DATE		

FIXED WING AND HELICOPTERS		
FW FLTS/PAX	; TO	FR
FW FLTS/PAX	; FR	TO
HELI FLTS/PAX TO RIG	1/12	
HELI FLTS/PAX FR RIG	1/7	

WORKBOATS			
BOAT	ALC	SID	SAN
LOCATION	RIG	STV	RIG
ENROUTE TO			
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	5
DRLG CONT	51
MUD LOGGER	4
MUD	1
CEMENT	2
DIVERS	1
E. LOG	3
SCANCORE	1
CAMERON	1
W-FORD	4
TOTAL	73

WEATHER (RANGE/DAY)	
SEA	3-6
SWELL	4-6 SW
WIND	8-20 SW
SLIP JT	30 PSI
BALL JT	1250 PSI
RISER TEN	160
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.5
PITCH	.4
HEAVE	1-3
% OFFSET	
ANCHOR TENS	
MAX. #8	230
MIN #2	165

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 110
ESSO SUPR Smith
ESSO ENGR Upton
ESSO TECH Aetlke
RIG SUPR Labarthe

RIG Biscay II

PAGE ..... OF .....
REPORT NO. 24
24 HRS. END 23 Apr. 1982
WELL DEPTH 2707 m
PROGRESS 57 m

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
6 0300		3	continue pooh
12 0330		1/2	retrieve survey = 3/4 deg s6w change bit
6 0600		2 1/2	rih to 2617 meters. filled pipe at shoe. had 50 000 drag
29 0730		1 1/2	p/u kelly, ream to 2650
3 2400		16 1/2	drill from 2650 to 2707 meters

bgg= 1 - 3 cg= 0 max= 3 avg rop= 3.5

anchors: 1 2 3 4 5 6 7 8
170 170 190 175 170 170 175 230
160 160 195 175 160 160 170 230

need:
160 caustic
170 trapite
120 q broxin

	TIME	CODE	3	29	12	6								TOTAL
	SUMMARY	HOURS	16 1/2	1 1/2	1/2	5 1/2								24

DAILY DRILLING REPORT

FORM B

WELL 15/6-6
Biscay II
SIZE/DEPTH LAST CSG 13 3/8 @ 1201
ANN TOC LAST CSG 702

PAGE ..... OF .....
REPORT NO. 24
24 HRS. END 23 Apr. '82

DAILY WELL COST 160,604
CUM. WELL COST 4,217,515

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	2665		2694		2695		
TIME	0940		1255		1905		
WT	9.7		9.7		9.7		
PV @ °F	11		12		13		
YP @ °F	17		12		12		
GELS (0/10)	11/41		3/21		3/21		
API F.L.	7.8		6.2		6.8		
HTHP F.L. 200°F 500 PSI	25		24		-		
CAKE THK	1		1		-		
CAKE DESC	FIRM		FIRM		-		
pH	10.8		11.5		11.5		
pf	.21		.4		.4		
Mf	.65		1.1		1.0		
Rf @ °F	-		-		-		
Cl⁻	17000		17500		17500		
Ca⁺⁺	240		160		160		
SOLIDS %	9		10		10		
SAND %	1/4		Tr		Tr		
OIL %							
CEC	34		35		36		
F V	47		44		43		

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)		22	4817
BENT (SX)			167
BENTONITE			616
LIG. SULFONATE		48	215
LIGNITE		80	79
CAUSTIC		45	118
BICARB/ALST			88/28
RES/DRIS			71/86
SODA ASH/XC			61/74
PIPE LAX/DO			6/5
CMC LV/HV		37/7	255/209
CEMENT (G)			4519
CaCl2 SX/LQ			34/450
HRGL/CFR			350/100
HLXC/HR12			100/100
Econolite			425
DRL WATER		340	2280
WASH WATER			
POT WATER		45	250
RIG FUEL		95	3745
HELIFUEL		7.15	11.47

MUD
MAKE UP WATER: Cl⁻ 300, Ca⁺⁺ 18, Rw @ °F; SHAKER SCREEN MESH 20/30 40/60
DESANDER HRS 17, DESILTER HRS 5, MUD CLNR HRS 17 Screen 150
DAILY MUD COST 5210, CUM MUD COST 56,145, MUD PUMP TYPE/LINERS 12-P-160/7 1/2

BITS	RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT/M	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G
	12	7	12 1/4	J4	424EL	3×16	2650									6	4	I
	13	8	12 1/4	J4	423EL	3×16		57	16.5	3.45	20/35	100/80	2000	126				

DRILLING ASSEMBLY

COMPONENT	FT
Bit	.3
Bit Sub	.74
Monel	8.7
1×8" DC	9.2
Stab	1.62
XO	.3
14×8" DC	128.91
XO	.3
JARS	19.42
2×8" DC	18.5
2×XO's	.73
15×HWDP	136.27
Total	315.77

DEVIATION AND LEAKOFF DATA

DEPTH				
ANGLE				
LEAKOFF PPG EQUIV	14.0			
DEPTH	1220			
DATE				

FIXED WING AND HELICOPTERS
FW FLTS/PAX ; TO FR
FW FLTS/PAX ; FR TO
HELI FLTS/PAX TO RIG 1/3
HELI FLTS/PAX FR RIG 1/3

WORKBOATS

BOAT	ALC	SID	SAM
LOCATION	R16	STU	R16
ENROUTE TO			
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	4
DRLG CONT	51
MUD LOGGER	4
MUD	1
CEMENT	2
DIVERS	1
E. LOG	4
Cameron	1
Scancore	1
W-LAMB	4
TOTAL	73

WEATHER (RANGE/DAY)	
SEA	WNW 2-6
SWELL	SW-WNW 5-6
WIND	SW-WNW 8-24
SLIP JT	30
BALL JT	1250
RISER TEN	160k
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.4-.5
PITCH	.4-.5
HEAVE	1-3
% OFFSET	.2
ANCHOR TENS	
MAX.	8 - 230
MIN	1 - 165

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 110
ESSO SUPR. Smith
ESSO ENGR. Upton
ESSO TECH. Bethke
RIG SUPR. Labarthe

RIG Biscay II

PAGE ..... OF .....
REPORT NO. 25
24 HRS. END 24 Apr. 82
WELL DEPTH 2753 m
PROGRESS 46 m

24 HOUR SUMMARY			
CODE	TIME TO	HOURS	OPERATION
3	0245	2 3/4	drilled from 2707 to 2711 meters, avg rop= 1.45 bgg= 3 cg = 0 max = 3
12	0300	1/4	drop survey , pump slug
6	0630	3 1/2	pooh to change bit, no overpull
6	0700	1/2	recover survey = 1/2 deg sSw. change bit
6	1130	4 1/2	rih to shoe at 1203. fill pipe, rih to 2684
29	1230	1	p/u kelly, ream to 2711. work junk basket. trip gas = 25 units
3	2400	11 1/2	drill from 2711 to 2753 meters. top of chalk at 2740. avg rop = 3.5 - 4 from 2711 to 2740 avg rop = 1 to 1.6 from 2740 to 2753 bgg = 1 cg = 0 max = 1

anchors: 1 2 3 4 5 6 7 8
170 170 195 190 170 170 170 230
165 165 175 175 165 165 170 220

TIME SUMMARY	CODE	3	6	29	12									TOTAL
	HOURS	14 1/4	8 1/2	1	1/4									24

DAILY DRILLING REPORT

FORM B

WELL 15/6-6
PAGE ..... OF .....
SIZE/DEPTH LAST CSG. 13 3/8 @ 1202
ANN TOC LAST CSG. 702
REPORT NO. 25
24 HRS. END 24 Apr. 82
DAILY WELL COST 159 427
CUM. WELL COST 4 376 742

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT		2730		2750		
TIME	0830		1615		2130		
WT	9.7		9.8		9.7		
PV@ 120 °F	12		20		16		
YP@ 120 °F	12		12		12		
GELS (0/10)	2/7		4/18		2/19		
API F.L.	5.2		4.9		5.1		
HTHP F.L. @ °F PSI	22.5		–		18.5		
CAKE THK	1/3		–		1/3		
CAKE DESC	M. FIRM		–		M. FIRM		
pH	11.5		11.6		11.2		
pf	.6		.6		.46		
Mf	1.0		1.1		1.3		
Rf @ °F							
Cl⁻	17500		18000		18000		
Ca⁺⁺	160		160		160		
SOLIDS %	9		12		10		
SAND %	Tr		1/4		1/2		
OIL %							
CEC	34		36		35		
F V	50		51		55		

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)		196	4621
BENT (SX)			167
BENTONITE		35	581
LIG. SULFONATE		33	182
LIGNITE		25	54
CAUSTIC		35	83
BICARB / AL STEAR		/1	88/27
RES / DRIS			71/86
SODA ASH			61/94
PIPE LAX/DD			6/5
CMC LV/HV		27/14	228/195
CEMENT (G)			4517
$CaCl_2$ SX / LO			34/450
HRGL / CPA			350/200
HLXC / HRI2			100/100
Econolite			425
DRL WATER		360	1720
WASH WATER			
POT WATER		43	383
RIG FUEL		100	3645
HELIFUEL			11.47

MUD
MAKE UP WATER: Cl⁻ 200, Ca⁺⁺ 18, Rw ..... @ ..... °F SHAKER SCREEN MESH 20/30 40/60
DESANDER HRS. 12, DESILTER HRS. –, MUD CLNR HRS. 12 Screen 150
DAILY MUD COST 5141, CUM MUD COST 6 286, MUD PUMP TYPE/LINER RS. 12-P-160/7-12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT M	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G
13	8	12 1/4	J4	423EL	3-16	2711	61	19.25	3.16	35/40	60/80	3000	128	164	6	3	3/16
14	9	12 1/4	J22	67985L	3-16		42	11.5	3.6	35/40	80	3000	128	164			

DRILLING ASSEMBLY

COMPONENT	FT
Bit	.3
Bit Sub	.74
Monel	8.7
1 × 8" DC	9.2
Stab	1.62
XO	.3
14 × 8" DC	128.7
XO	.3
JARS	10.42
2 × 8" DC	18.5
2 × XO	.73
15 × HWDP	136.2
Total	315.77

DEVIATION AND LEAKOFF DATA			
DEPTH	2711		
ANGLE	1/2° S8W		
LEAKOFF PPG EQUIV	14.0		
DEPTH	1220		
DATE			
FIXED WING AND HELICOPTERS			
FW FLTS/PAX	; TO	FR	
FW FLTS/PAX	; FR	TO	
HELI FLTS/PAX TO RIG			
HELI FLTS/PAX FR RIG			
WORKBOATS			
BOAT	ALC	SLO	SAN
LOCATION	RIG	STV	RIG
ENROUTE TO			
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	4
DRLG CONT	51
MUD LOGGER	4
MUD	1
CEMENT	2
DIVERS	1
E. LOG	4
Cameron	1
Scancore	1
W-Lamb	4
TOTAL	73

WEATHER (RANGE/DAY)	
SEA	WNW-W 2-5
SWELL	WNW-W 4-5
WIND	WNW-W 8-18
SLIP JT	30
BALL JT	1200
RISER TEN	160k
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.4 - .5
PITCH	.4 - .5
HEAVE	1 - 2
% OFFSET	.2
ANCHOR TENS	
MAX.	8 - 230
MIN	1 - 170

DAILY DRILLING REPORT

WELL 15/6-6
WATER DEPTH 110
ESSO SUPR Smith
ESSO ENGR
ESSO TECH Bethke
RIG SUPR Lebarthe

RIG Biscay II

PAGE ..... OF .....
REPORT NO. 26
24 HRS. END 25 Apr. 82
WELL DEPTH 2794m
PROGRESS 41 m

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
3	0600	6	drill from 2753 to 2764 avg rop= 1.8 - 2 m/hr bgg= 1 cg= 0 max= 1
3	2030	14 1/2	drill from 2764 - 2794 avg rop= 2.9 bgg= 1 cg= 0 max= 1 lithology= 100 o/o chalk
12	2045	1/4	circ
12	2115	1/2	drop survey, slug pipe
6	2245	1 1/2	short trip up to 1814 meters had 50 kips o.p. at 2093. had 25-35 kips o.p. at 2150, 2371,2580. worked pipe thru same areas
12	2300	1/4	retrieve survey = bulsseye 0 and 0
6	2330	1/2	rih to 2083 meters
29	2400	1/2	p/u kelly, ream from 2083 to 2098. pulled back throug it = no drag and clean

anchors:

1	2	3	4	5	6	7	8
175	170	195	175	170	170	170	230
170	170	190	175	165	165	170	230

notes: held fire and abandon ship drill
started engines and lowered and reset all lifeboats = ok

TIME SUMMARY	CODE	3	6	29	12									TOTAL
	HOURS	20 1/2	2	1/2	1									24

DAILY DRILLING REPORT

FORM B

WELL 15/6-6

PAGE ..... OF .....

SIZE/DEPTH LAST CSG 13 3/8 @ 1202
ANN TOC LAST CSG 702

REPORT NO. 26
24 HRS. END 25 Apr 82

DAILY WELL COST 146,735

CUM. WELL COST 4 523 677

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	2771		2781		2794		
TIME	0945		1630		2115		
WT	9.7+		9.7		9.7		
PV @ 120 °F	18		20		18		
YP @ 120 °F	15		13		17		
GELS (0/10)	3/22		2/18		4/24		
API F.L.	4.5		4.8		4.5		
HTHP F.L. @ °F PSI	17.0		–		16.2		
CAKE THK	1/3		–		1/2		
CAKE DESC	M.FIRM		–		M.FIRM		
pH	10.7		10.3		10.1		
pf	.24		.13		.09		
Mf	.94		.65		.9		
Rf @ °F							
Cl⁻	18000		18000		18000		
Ca⁺⁺	360		300		340		
SOLIDS %	12		12		12		
SAND %	1/4		1/4		Tr		
OIL %							
CEC	36		36		34		
F V	53		57		58		

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)		247	4374
BENT (SX)			167
BENTONITE			581
LIG. SULFONATE		28	154
LIGNITE		28	26
CAUSTIC			83
BICARB/ALST		/2	88/25
RES/DRIS			71/86
SODA ASH			61/74
PIPE LAX/DD			6/5
CMC LV/HV		9/12	219/183
CEMENT (G)			4519
$CaCl_2$ SX/LQ			34/450
HRGL/CPR			350/200
HLXC/HRGL			100/100
Ecomelite			425
DRL WATER		500	1420
WASH WATER			
POT WATER			383
RIG FUEL		90	3555
HELIFUEL			11.47

MUD
MAKE UP WATER: Cl⁻ 200 Ca⁺⁺ 18, Rw ..... @ ..... °; SHAKER SCREEN MESH 30/40, 40/50
DESANDER HRS 12, DESILTER HRS 6, MUD CLNR HRS 20 Screen 120
DAILY MUD COST 3551, CUM MUD COST 64837, MUD PUMP TYPE/LINERS 12-P-160/7x12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV.	COND T	B	G
14	9	12 1/4	J22	679856	3x16	2794	83	32	2.59	45	60	3000	126	136			

DRILLING ASSEMBLY

COMPONENT	FT
Bit	.30
Junk Sub	.88
Bit Sub	.74
Monel	8.7
1x8" DC	9.2
Stab	1.62
XO	.3
14x8" DC	128.7
XO	.3
JARS	10.42
2x8" DC	18.5
2-XO	.73
15x HWDP	136.2
Total	316.8

DEVIATION AND LEAKOFF DATA

DEPTH	2794
ANGLE	0°
LEAKOFF PPG EQUIV	14.0
DEPTH	1220
DATE	

FIXED WING AND HELICOPTERS

FW FLTS/PAX	;TO FR
FW FLTS/PAX	;FR TO
HELI FLTS/PAX TO RIG	
HELI FLTS/PAX FR RIG	

WORKBOATS

BOAT	ALC	SAN	SIO
LOCATION	RIG	RIG	STU
ENROUTE TO			
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	4
DRLG CONT	51
MUD LOGGER	4
MUD	1
CEMENT	2
DIVERS	1
E. LOG	4
Cameron	1
Scancore	1
W-Lamb	4
TOTAL	73

WEATHER (RANGE/DAY)	
SEA	W-WNW 3-8
SWELL	W-WNW 5-8
WIND	W-WNW 12-28
SLIP JT.	30
BALL JT	1200
RISER TEN	160k
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.4-.5/.5
PITCH	.4-.8/.8
HEAVE	1-4/2-4
% OFFSET	.2
ANCHOR TENS	
MAX.	8-230
MIN	2-170

DAILY DRILLING REPORT

WELL 15/6-6
WATER DEPTH 110
ESSO SUPR Smith
ESSO ENGR
ESSO TECH Bethke
RIG SUPR Labarthe

RIG Biscay II

PAGE ..... OF .....
REPORT NO. 27
24 HRS. END 26 Apr. 82
WELL DEPTH 2794
PROGRESS 0

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
10	0115	1 1/4	continue rih to 2757, had 50 kips drag
29	0200	3/4	rean to btm 2794
10	0445	2 3/4	circ btms up - clean hole tg= 6 bgg= 0 max= 6
10	0500	1/4	work junk basket, pump slug
19	0945	4 3/4	pooh stranping, no drag, slm no correction
19	1015	1/2	r/u dresser
30	1145	1 1/2	rih log no.1 - had acoustic failure - pooh - change tools
19	1700	5 1/4	run iel/ac-gr log tool stopped at 2775 m log out
19	2200	5	r/u and run log no. 2 - cnl - cdl
7	2400	2	r/d dresser atlas, r/u and m/u csg running tool, ssr plugs

anchors:

1	2	3	4	5	6	7	8
175	170	195	175	175	170	175	230
171	170	190	175	171	165	170	230

TIME SUMMARY															TOTAL
CODE	7	10	19	29	30										
HOURS	2	4 1/4	15 1/2	3/4	1 1/2										24

DAILY DRILLING REPORT

FORM B

WELL 15/6-6

PAGE ..... OF .....

SIZE/DEPTH LAST CSG 13 3/8 @ 1202
ANN TOC LAST CSG 702

REPORT NO. 27
24 HRS. END 26 Apr. 82

DAILY WELL COST 141 748

CUM. WELL COST 4 665 425

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT						
TIME	2130						
WT	9.7						
PV @ 120 °F	17						
YP @ 120 °F	13						
GELS (0/10)	2/21						
API F.L.	4.7						
HTHP F.L. @ °F PSI	16.9						
CAKE THK	1/2						
CAKE DESC	m. Firm						
pH	10.0						
pf	.1						
Mf	.9						
Rf @ °F							
Cl⁻	18000						
Ca⁺⁺	360						
SOLIDS %	12						
SAND %	Tr						
OIL %							
CEC	34						
FV	49						

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)			4374
BENT (SX)			167
BENTONITE			581
LIG. SULFONATE		2	153
LIGNITE			26
CAUSTIC			83
BICARB / ALST			88/25
RES / ORIS			71/86
SODA ASH / XC			61/74
PIPE LAX/DD			6/5
CMC LV/HV			219/183
CEMENT (G)			4519
$CaCl_2$ SX/LQ			34/450
HRGL/CFR			350/200
HLXC/HR12			100/100
Econolite			425
DRL WATER		240	1180
WASH WATER			
POT WATER			383
RIG FUEL		65	3470
HELIFUEL			11.47

MUD

MAKE UP WATER: Cl⁻ 200, Ca⁺⁺ 20, Rw ..... @ ..... °F. SHAKER SCREEN MESH 30/40 40/50
DESANDER HRS. —, DESILTER HRS. —, MUD CLNR HRS. — Screen 120
DAILY MUD COST 35, CUM MUD COST 67 872, MUD PUMP TYPE/LINERS 12-P-160/7"×12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND 8	COND G
15	9	12 1/4	J22	6785L		2794									2	6	1/16

DRILLING ASSEMBLY

COMPONENT	~~FT~~ m
Bit	.3
Junk Sub	.88
Bit Sub	.74
Monel	8.7
1×8" DC	7.2
Stab	1.62
XO	.3
JARS	10.42
2×8" DC	18.5
2×XO	.73
15×HWDP	136.27
Total	187.0

DEVIATION AND LEAKOFF DATA			
DEPTH			
ANGLE			
LEAKOFF PPG EQUIV			
DEPTH			
DATE			
FIXED WING AND HELICOPTERS			
FW FLTS/PAX	; TO	FR	
FW FLTS/PAX	; FR	TO	
HELI FLTS/PAX TO RIG	—		
HELI FLTS/PAX FR RIG	—		
WORKBOATS			
BOAT	ALC	SIO	SAN
LOCATION	RIG		
ENROUTE To		RIG	Aberdeen
ETA		0400 27 Apr	2200 27 Apr

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	4
DRLG CONT	51
MUD LOGGER	4
MUD	1
CEMENT	2
DIVERS	1
E. LOG	4
Cameron	1
Scan Core	1
W-Lamb	4
TOTAL	73

WEATHER (RANGE/DAY)	
SEA	WNW-NW/6-9
SWELL	WNW-NW/8-12
WIND	WNW-NW/18-20
SLIP JT.	30
BALL JT	1200
RISER TEN	160 k
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.5-.8
PITCH	.6-1.5
HEAVE	3-5
% OFFSET	.2
ANCHOR TENS	
MAX.	8 - 230
MIN	2 - 170

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 110
ESSO SUPR Smith
ESSO ENGR
ESSO TECH Ostlie
RIG SUPR Labarthe

RIG Biscay II

PAGE ..... OF .....
REPORT NO. 28
24 HRS. END 27 Apr 82
WELL DEPTH 2774
PROGRESS NIL

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
7	[illegible]	1/2	complete pkl csg, running tool to hgr. at same
7	0430	4	rih to 2776, had 5 kips drag
7	0515	3/4	ream from 2776-2794 meters
7	0600	3/4	circ and clean hole. tq=3u
7	0715	1-1/4	complete circ and cleaning hole
7	1015	3	short trip up to 1800 meters, had 40 kips o.p. at 2671 and 45 kips o.p. at 2633 meters. wipen thru same coming up until no o.p. rih to btm, 2794. no drag, had 2 meters of fill
7	1300	2-3/4	circ and clean hole. pumped 40 bbls ht vis pill did not get much increase in cutting from pill. hole clean at tq=1.6, bqg=.6, max=1.6
7	1730	4-1/2	pooh to hwdp. m/u cmt. manifold on std. of hwdp. rack back and rabbit same o.k.
7	2015	2-3/4	m/u wearbushing running tool and wash tool. rih and tool would not go down. p/u kelly/wash down from 95-110m = o.k. rih to wellhead. wash same. pooh w/wear bushing
7	2130	1-1/4	r/u to run 9-5/8'' casing
7	2215	3/4	p/u float shoe, test float=ok, came down to p/u float collar. jt. and sat down on the stabbing board with the stabber in it, breaking the 3/8'' drive cable that the stabbing platform motor and hoist uses to raise and lower the stabbing platform, andcausing the platform and stabber to fall to within 10 ft. from the btm of the stabbing platforms guide tracks base and stooped on top of the compensator hose bundle. weatherford stabber had only surface abrasions on his knees and was walking o.k.
24	2400	1-3/4	repair and modify stabbing board

anchors: 1 2 3 4 5 6 7 8
175 175 195 180 120 175 170 230
170 170 190 175 170 170 170 230

note: santor sta 0603 33th

TIME SUMMARY															TOTAL
	CODE	7	24												
	HOURS	22 1/4	1 3/4												24

TELEX TELEX TELEX TELEX

WELL 15/6-6

SIZE/DEPTH LAST CSG 13 3/8" @ 1202
ANN TOC LAST CSG 702 m

DAILY WELL COST 233,334

FORM B

PAGE ..... OF .....
REPORT NO. 28
24 HRS. END 27 Apr 82

CUM. WELL COST 4,898,759

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT						
TIME	1400						
WT	9.7						
PV @ 120 °F	18						
YP @ 120 °F	12						
GELS (0/10)	3/20						
API F.L.	4.3						
HTHP F.L. @ °F PSI	17.5						
CAKE THK	1						
CAKE DESC	m.FIRM						
pH	11.1						
pf	.18						
Mf	1.05						
Rf @ °F							
Cl⁻	18000						
Ca⁺⁺	440						
SOLIDS %	12						
SAND %	1/4						
OIL %							
CEC	34						
FV	53						

STOCKS	REC ~~UNITS~~	USED	REMAIN STOCK
BARITE (BULK)	495	366	4495
BENT (SX)			167
BENTONITE			581
LIG. SULFONATE	150	1	302
LIGNITE	120		146
CAUSTIC	200	1	282
BICARB / ALST			88/25
RES/ DRIS			71/86
SODA ASH / XC			61/94
PIPE LAX/DD			6/5
CMC LV/HV			218/183
CEMENT (G)			4579
$CaCl_2$ SX/LQ			34/450
HRGL/CFR)			350/200
HLXC/HR12			100/100
Econolite			425
DRL WATER	1580	200	2560
WASH WATER			
POT WATER			383
RIG FUEL		70	3420
HELIFUEL	1.36	1.33	10.7

MUD
MAKE UP WATER: Cl 200, Ca⁺⁺ 18, Rw @ °F; SHAKER SCREEN MESH 30/40 40/50
DESANDER HRS —, DESILTER HRS —, MUD CLNR HRS 6 Screen 120
DAILY MUD COST 2026, CUM MUD COST 66898, MUD PUMP TYPE/LINERS

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G
15	3RR	12 1/4	X3A	GK410			Wiper		Trip						2	2	I

DRILLING ASSEMBLY

COMPONENT	FT
Bit	.3
Junk Sub	.88
Bit Sub	.74
Monel	8.7
1 × 8" DC	7.2
Stab	1.68
XO	.3
JARS	10.42
2 × 8" DC	18.5
2 × XO	.73
15 × HWDP	134.37
Total	182.[illegible]

DEVIATION AND LEAKOFF DATA

DEPTH				
ANGLE				
LEAKOFF PPG EQUIV				
DEPTH				
DATE				

FIXED WING AND HELICOPTERS
FW FLTS/PAX ; TO FR
FW FLTS/PAX ; FR TO
HELI FLTS/PAX TO RIG 1 / 11
HELI FLTS/PAX FR RIG 1 / 11

WORKBOATS

BOAT	ALC	SID	SAN
LOCATION	RIG	OSS	Aberdeen
ENROUTE TO			
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	3
DRLG CONT	50
MUD LOGGER	4
MUD	1
CEMENT	2
DIVERS	1
E. LOG	4
Cameron	1
W-Lamb	4
TOTAL	70

WEATHER (RANGE/DAY)	
SEA	WNW-W / 5-10
SWELL	WNW-W / 9-12
WIND	WNW-W / 16-30
SLIP JT	30
BALL JT	1200
RISER TEN	160k
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.8-1
PITCH	1-1.5
HEAVE	2-4
% OFFSET	0
ANCHOR TENS	
MAX.	8 - 230
MIN	2 - 160

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 110
ESSO SUPR. SMITH
ESSO ENGR.
ESSO TECH. BETHKE
RIG SUPR. LABARTHE

RIG GLOMAR BISCAY II

PAGE 1 OF 2
REPORT NO. 29
24 HRS. END 28-APR-82
WELL DEPTH 2794
PROGRESS NIL

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
			24 hour summary:
24	0030	1/2	complete repairing stabbing platform
7	0600	5-1/2	run casing to 990 meters=31 jts out of 215 total
7	0630	1/2	repair weatherford hydraulic hose connection and change out bad collar on a jt. of casing. l/d casing jt w/damaged pin
7	0645	1/4	run 9-5/8 casing
7	0715	1/2	m/u 500 ton eleuators
7	0745	1/2	run casing
24	0900	1-1/4	elevator slips failed to open-found slip segment hinge arm broken- l/d for repair - p/u sidedoor elevators
7	0945	3/4	run casing
7	1000	1/4	m/u 500 ton elevator
7	1730	7	run casing
24	1745	3/4	broke hinge arm on 500 ton slips when hit with casing collar - ~~removed~~ replaced slip segments
7	2015	2-1/2	run casing 216 jts total- csg length 2646.78
7	2100	3/4	land casing in wellhead on hwdp- shoe at 2779m
7	2115	1/4	r/u cmt line
7	2245	1-1/2	circ casing capacity 682 bbls. tq=4, bgg=2, max=4,
7	2400	1-1/4	circ 5 bbls. ahead, test lines to 5,000 psi=ok, drop ball shear first ssr ~~pat~~ plug with 1100 psi. cement. lead=300 sx class ''g'' w/8.5 lb/bbl. gel, 15 gal/sk cfr2-l, 70a1/sk halad 10. slurry volume= 97.24 bbls
			tail=225 sx. class ''g'' w/.159a1/sk cfr2-l, .7 gal/sk halad 10, .03 gal/sk hr6l, slurry volume=46bbl

total slurry volume=143.24 bbls

anchors	1	2	3	4	5	6	7	8
	175	170	195	180	175	170	170	230
	170	170	190	175	165	165	170	230

TIME SUMMARY	CODE	7	24										TOTAL
	HOURS	21 1/2	2 1/2										24

FORM B

SIZE/DEPTH LAST CSG. 13 3/8" @ 1202 GLOMAR BISCAY II
ANN TOC LAST CSG.
DAILY WELL COST 233,334

PAGE 2 OF 2
REPORT NO. 29
24 HRS. END 28 APR 1982
CUM. WELL COST 4,898,759

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT						
TIME	1400						
WT	9.7						
PV @ 120 °F	18						
YP @ 120 °F	12						
GELS (0/10)	3/20						
API F.L.	4.3						
HTHP F.L. @ °F PSI	17.5						
CAKE THK	1						
CAKE DESC	FIRM						
pH	11.1						
pf	.18						
Mf	1.85						
Rf @ °F							
Cl⁻	18000						
Ca⁺⁺	440						
SOLIDS %	12						
SAND %	1/4						
OIL %	0						
CEC	34						
F. VIS.	53						

STOCKS	~~REC UNITS~~	USED	REMAIN STOCK
BARITE (BULK)	495	366	4495
BENT (SX)			165
BENTONITE			581
LIG. SULFONATE	150	1	302
LIGNITE	120		145
CAUSTIC	200	1	282
BICARB/AL.ST.			88/125
RES/DRIS.			71/86
SODA ASH/XC			61/94
PIPE LAX/DD			/
CMC LV/HV		11	218/183
CEMENT (G)			4519
CaCl2 SX/LIG			34/450
HR6L/CFR2L			350/200
HLXC/HR12			100/100
ECONOLITE			425
DRL WATER	1580	200	2560
WASH WATER			
POT WATER			383
RIG FUEL		70	3420
HELIFUEL			10.90

MUD
MAKE UP WATER: Cl⁻ 200, Ca⁺⁺ 18, Rw @ °; SHAKER SCREEN MESH 30/40, 40/50
DESANDER HRS., DESILTER HRS. —, MUD CLNR. HRS. 6
DAILY MUD COST 2026, CUM MUD COST 66,898, MUD PUMP TYPE/LINERS 7 x 12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G
15	3RR	12 1/4	X3A	6K410	0	PE	N	WI	PER		T	RI	P		2	2	I

DRILLING ASSEMBLY

COMPONENT	FT
BIT	.30
JONK SUB	.88
BIT SUB.	.74
MONEL	8.7
1-8" D.C.	9.2
STAB.	1.68
X O	.30
1 JAR	10.42
2-8" D.C.	18.5
2 x o	.73
15 HWDP	136.39

DEVIATION AND LEAKOFF DATA

DEPTH					
ANGLE					
LEAKOFF PPG EQUIV					
DEPTH					
DATE					

FIXED WING AND HELICOPTERS

FW FLTS/PAX	; TO	FR
FW FLTS/PAX	; FR	TO
HELI FLTS/PAX TO RIG	1/11	
HELI FLTS/PAX FR RIG	1/14	

WORKBOATS

BOAT	ALC	SID	SAN
LOCATION	RIG	DSS	ABERDEEN
ENROUTE TO			
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	3
DRLG CONT	50
MUD LOGGER	4
MUD	1
CEMENT	2
DIVERS	1
E. LOG	4
CAMERON	1
W-LAMB.	4
TOTAL	70

WEATHER (RANGE/DAY)	
SEA	WNW-W 5-10
SWELL	WNW-W 9-12
WIND	WNW-W 16-30
SLIP JT.	30
BALL JT	1200
RISER TEN	160
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.6 - 1
PITCH	1 - 1.5
HEAVE	2 - 4
% OFFSET	0
ANCHOR TENS	
MAX. N·8	- 230
MIN N·2	- 170

FORM A

DAILY DRILLING REPORT

WELL 15/6-6
WATER DEPTH 110
ESSO SUPR. SMITH, PARISH
ESSO ENGR.
ESSO TECH. BETHKE
RIG SUPR. LABARTHE

RIG GLOMAR BISCAY II

PAGE 1 OF 3
REPORT NO. 30
24 HRS. END 29-APR-82
WELL DEPTH 2794
PROGRESS NIL

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
			24 hour summary:
7	0315	1/4	complete cementing of tail slurry
	0045	1/2	release dart, pump 5 bbl mud, shear 2nd ssr plug w/3000 psi
	0200	1-1/4	switch to rig pump, disolace 629 bbls mud, bumped plug w/2000 psi and 3 bbls. bled back 3 bbls, plugs held
	0245	3/4	pooh
	0330	3/4	p/u wash tool w/13-3/8'' bore protector, rih to 125 meters, lower annular, tool would not go down, p/u kelly, wash down = ok.
	0430	1	wash wellhead hgg=2, max=2. had considerable amount of shale cuttings over shakers, wash wellhead and complete boo working bore protector through boo
15	0500	1/2	pooh to p/u 9-5/8 seal assembly
	0700	1	p/u sealassembly, rih w/seal assembly, 2 jts ''g'' d.p., 2 std 8'' d.c., 2 stds and single of whdp, set same.
	1045	3-3/4	test seal assembly 300/5000/10 min = ok test bop - upm, mpr, lpr - 300/5000/10min=o.k. inter and outer choke and kill - 300/5000/10min=ok upper and lower annular -300/2500/10min=ok tested on blue pod from drill floor function tested on yellow pod from mini-panel=o.k.
7	1845	8	while waiting on cement: l/d 8-3''d.c. and 1-monel. left 9-8 '' d.cs in derrick. p/d 13-3/8 r.t. and w bushing. r/d csg elevator bails, r/u d.p. elevator bails, r/d air line to 500t csg, elevators. r/u 9-5/8''. w.bushing r.t. w/9-5/8'' w.bushing, rih, set same. began taking out 10,000 psi. cameron valve on kill line in moonpool manifold to put in new one:
	1915	1/2	r/u dresser atlas
	2045	1-1/2	run temp and ccl log. found top of cement to be at 2150 meters
	2100	1/4	r/d dresser atlas. completed installing new cameron kill line valve in moonpool manifold
X 15 & 10	2400	3	m/u 8-1/2'' bha while running phase 1 ptt and simultanedusly contiuned testing the btm. side of the new cameron/ kill valve on the moonpol manifold pumped 1/2 bpm at pressure indreases of 250 psi. avg. per 1/2 bbl for a total of 10 bbls. and 5000 psi held for 15 mins= good. bled back 10 bbls tested top side of new cameron kill valve 300/5000/ 10 min = ok
			CHARGE: MAKE-UP 8½" B.H.A 2½ HRS TO 10, AND ½ HR TO 15

TIME SUMMARY	CODE	7	10	15										TOTAL
	HOURS	15¾	2½	5¾										24

WELL 15/6-6
WATER DEPTH 110
ESSO SUPR. SMITH, PARISH
ESSO ENGR.
ESSO TECH. BETHKE
RIG SUPR. LABARTHE

RIG GLOMAR BISCAY II

PAGE 2 OF 3
REPORT NO. 30
24 HRS. END 29 APR.-82
WELL DEPTH 2794
PROGRESS NIL

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
			notes: 1) hthp 200 degrees at 500 ps = 21.5 250 degrees at 500 psi = 2 .2 400 degrees at 500 psi = 3 .0 2) found 2'' sleeve for circ, sub on turbo drill onboard. 3) need 1 pallet aluminium stearate pallets carbonox 4) change out cameron valve on moonp ol manifold 5) found top of cement at 2150 meter anchors: 1 2 3 4 5 6 7 8 170 185 190 175 170 170 170 230 170 170 180 170 165 165 170 230

TIME SUMMARY	CODE	ON	PAGE	N°	1									TOTAL
	HOURS	-	-	-	-									

DAILY DRILLING REPORT

FORM B

WELL 15/6-6

GLOMAR BISCAY II

PAGE 3 OF 3

SIZE/DEPTH LAST CSG 9 5/8" @ 2779M

REPORT NO. 30

ANN TOC LAST CSG 2150M BY TEMP LOG

24 HRS. END 30-APR-82

DAILY WELL COST 507,680

CUM. WELL COST 5559613

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT						
TIME	2100						
WT	9.5						
PV @ 120 °F	11						
YP @ 120 °F	9						
GELS (0/10)	1/10						
API F.L.	4.9						
HTHP F.L. @ 300 °F PSI	38						
CAKE THK	1.13						
CAKE DESC	FIRM						
pH	10.1						
pf	.14						
Mf	.55						
Rf @ °F							
Cl^-	18000						
Ca^{++}	520						
SOLIDS %	9						
SAND %	1/4						
OIL %	0						
CEC	25						
F. VIS.	49						

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)			4495
BENT (SX)			197
BENTONITE		11	570
LIG. SULFONATE			302
LIGNITE/RESINEX			146/71
CAUSTIC/LIME			282/37
BICARB/A. STEA.			88/6
XC POL./DRIS.			94/86
SODA ASH			61
PIPE LAX/DD			6/5
CMC LV/HV			218/123
CEMENT (G)		701	38/8
$CaCl_2$ SX/LIG			34/445
HRGL/CFR2L)	(INVENTORY)		385/150
HLXC/HR12	"		400/100
ECONOLITE			425
DRL WATER		180	4560
WASH WATER			
POT WATER			325
RIG FUEL		80	3255
HELIFUEL			10.9

MUD

MAKE UP WATER: Cl^- 200, Ca^{++} 18, Rw @ °F; SHAKER SCREEN MESH 60/80, 60/80

DESANDER HRS, DESILTER HRS, CENTRIFUGE HRS

DAILY MUD COST 153, CUM MUD COST 68798, MUD PUMP TYPE/LINERS 6 x 12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			

DRILLING ASSEMBLY

COMPONENT	FT
—	
—	
—	
—	
—	
—	
—	
—	
—	
—	
—	
—	
—	
—	

DEVIATION AND LEAKOFF DATA				
DEPTH				
ANGLE				
LEAKOFF PPG EQUIV				
DEPTH				
DATE				
FIXED WING AND HELICOPTERS				
FW FLTS/PAX ; TO FR				
FW FLTS/PAX ; FR TO				
HELI FLTS/PAX TO RIG 1/11				
HELI FLTS/PAX FR RIG 1/11				
WORKBOATS				
BOAT	ALCAR	SANTAR	SIDRIS	
LOCATION	RIG	STV.	SAGA.	
ENROUTE TO				
ETA				

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	6
DRLG CONT	50
MUD LOGGER	4
MUD	1
CEMENT	2
DIVERS	1
E. LOG	3
HUNTING	2
TOTAL	69

WEATHER (RANGE/DAY)
SEA W-N-NW 12-16
SWELL WSW 17-25
WIND WNW 45-50
SPLIT JT 30
BALL JT 1250
RISER TEN 160
RIG DATA (RANGE/DAY)
HEADING 307
ROLL 1.5 - 1.7
PITCH 2 - 2.8
HEAVE 4 - 8
% OFFSET 1.5
ANCHOR TENS
MAX. N8 - 230
MIN N1 - 170

DAILY DRILLING REPORT

WELL 15/6-6
WATER DEPTH 110 M
ESSO SUPR. PARISH
ESSO ENGR.
ESSO TECH. BETHKE
RIG SUPR. LABARTHE

RIG GLOMAR BISCAY II

PAGE 1 OF 3
REPORT NO. 31
24 HRS. END 30-APR-82
WELL DEPTH 2805 M
PROGRESS 11 M

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION

24 hour summary:

10	0445	4-3/4	complete m/u 8-1/2'' bha tag wiper plugs at 2752 m had blowout trip drill at 1603 meters, filled pipe. continue rih
15	0515	1/2	fill pipe, held power operated choke drill as per drilling program
7	0915	3	drill float collar and float shoe from 2752-2794 drilled out shoe at 2779 m. bgg=3
7	0945	1-1/2	drill from 2794-2797 avg rop=2 bgg=8, max gas=8
15	1030	3/4	did phase 11 pit at 2797 meters=14,4 ppg. equivalent 9.7 mud, pumped 6-1/2 bbls in, bled 4-3/4 bbls back pumped at 1/4 bpm
3	1245	2-1/4	drill from 2797-2805 bgg=5, cg=0, max gas=1.1 from 2802 meters. avg rop=5
6	1330	3/4	work junk baskets. circ.
6	1430	1/2	slug pipe, l/d 7 jts. ''g'' pipe to clean out derrick
16	1445	3/4	slip and cut 123 ft of drill line
6	1930	4-1/4	complete pooh, l/d bit, junk subs, 1-8-1/2'' stab and 1-8'' pup d.c.
6	2045	1-3/4	m/u turbine. test same=o.k. m/u bit
6	2215	1-1/2	rih w/turbine. weather getting worse see notes
24	2230	1/4	secure the hydraulic hose to ds compensator lock bar broke free of hose bundle and broke electric line to dsc lights-tied back
6	2315	3/4	continue rih
16	2330	1/4	secure sandline in derrick
6	2400	1/2	continue rih to 792 meters

TIME SUMMARY	CODE	3	6	7	10	15	16	24						TOTAL
	HOURS	2¼	10	4½	4¾	1¼	1	¼						24

DAILY DRILLING REPORT

WELL 15/6-6
WATER DEPTH 110 M
ESSO SUPR. PARISH
ESSO ENGR.
ESSO TECH. BETHKE
RIG SUPR. LABARTHE

RIG GLOMAR BISCAY II

PAGE 2 OF 3
REPORT NO. 31
24 HRS. END 30-APR-82
WELL DEPTH 2805 M
PROGRESS 11 M

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION

notes: 1) 1st bha of today
1) bit 24
2- j/subs 1.54
1- nd stab 8-1/2 1.44
1- oub d.c. 8'' 3.89
1-8-1/2 stab 1.55
1-monel 9.35
1-8-1/2 stab 1.58
1-6-1/2 d.c. 9.12
1-x 10 .33
22-6-1/2''dc 200.43
1-x 10 .29
6-hwdp 54.51
1-jars 9.99
9-hwdp 81.76

total 316.07

2) add to report no 30 at 2400 hrs. tested casing using shear rams to 5000 psi 15 min=ok tested while doing phase 1 piton 9-5/8'' casing
3) reduced 8 pieces of cast aluminium, 2 brass screws, 2 steel pieces and 3 chunks of pyrite from junk subs
4) pit phase 11 1/2 bbl increments 225,275,400,675,940,1210 1500,1760,2010,2225,2350, 2450,2525, pit limit is 2225. 14.4 ppg equivalen 6-1/2 bbls, pumped, 4-3/ bled back mud wt, 9.7
5) weather

anchors:

1	2	3	4	5	6	7	8
240	180	190	175	175	175	180	245
170	170	175	175	165	170	170	230

time	wind	sea	swell	motion
1800	994 8 w 30/40	10 6 w	12 7	.7 1.0 3-4
2000	994 8 wsw 35/40	14 6 w	15 7	1.0 1.5 3-4
2200	993 7 wsw 45/55	17 7 w	18/20 8	1.5 2.0 4-6
2400	992 7 w 50/55	18 7 w	20/24 8	2 2.5 12-14

mooring tension

1	2	3	4	5	6	7	8
170	170	190	175	175	175	175	230
170	170	190	175	170	175	175	230
170	170	185	175	170	170	175	250
200	170	185	175	170	170	180	300/320
225	170	170	175	125	170	180	280/290

remarks: 2350 hrs - paid 12 links on no. 4 and heaved in 2 links on no 1 to ease tension on no 8.

TIME SUMMARY	CODE	ON	PAGE	N°	1									TOTAL
	HOURS	–	–	–	–									

DAILY DRILLING REPORT

FORM B

WELL 15/6-6

PAGE 3 OF 3

SIZE/DEPTH LAST CSG 9 5/8" @ 2779M

REPORT NO. 31

ANN TOC LAST CSG. 2150M BY TEMP. LOG.

24 HRS. END 30-APR-82

DAILY WELL COST 157981

CUM. WELL COST 5717594

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH		2793		2804			
TIME		0840		2130			
WT		9.7		10.4			
PV @ 120 °F		11		12			
YP @ 120 °F		9		8			
GELS (0/10)		1/18		1/10			
API F.L.		5.3		5.4			
HTHP F.L. @ °F PSI		–		30.0			
CAKE THK		1/3		1/3			
CAKE DESC		FIRM		FIRM			
pH		9.5		10.9			
pf		.15		.32			
Mf		.6		.85			
Rf @ °F		–		–			
Cl^-		18000		18000			
Ca^{++}		600		240			
SOLIDS %		9		9			
SAND %		1/4		1/4			
OIL %		0		0			
CEC		25		25			
FUNNEL VIS.		55		45			

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)		625	3870
BENT (SX)			197
BENTONITE			570
LIG. SULFONATE		24	178
LIGNITE/RESINEX		241/–	122/71
CAUSTIC/LIME		8/1	279/37
BICARB/SOL SODA.		10/1	78/6
XC POLY./DRIS.		2/–	92/86
SODA ASH			61
PIPE LAX/OD			6/6
CMC LV/HV		4/1	214/183
CEMENT (G)			3818
$CaCl_2$ SX/LIG			34/445
HRGL/CFR2-L)			385/150
HLXC248/HR12L)			400/100
ECONOLITE			426
DRL WATER		260	4300
WASH WATER			
POT WATER			315
RIG FUEL		110	3145
HELIFUEL		3.26	7.64

MUD

MAKE UP WATER: Cl^- 200, Ca^{++} 18, Rw @ °F; SHAKER SCREEN MESH 60/80, 60/80

DESANDER HRS. 1, DESILTER HRS. 1, MUD CLNR. HRS. 6

DAILY MUD COST 5226, CUM MUD COST 74024, MUD PUMP TYPE/LINERS 6 x 12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	M	HRS	M/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G
16	10	8 1/2	XIG	191GL	3-12	2794	42	3	14	15/25	80	1100	70	200			
CMT	AND	SHOE	XIG	191GL	3-12	2806	11	2 1/4	4.88	25/30	80	1100	70	200	5	2	I
17	11	8 1/2	LYNX	20119	→	→	1 NG.		R. I. H.								→

DRILLING ASSEMBLY

COMPONENT	FT
BIT	.24
3-SUBS (3)	1.54
1 N.M. STAB. 8 1/2	1.44
PUP D.C. 8"	3.89
1-8 1/2" STAB.	1.65
1-MONEL	9.35
1-8 1/2 STAB.	1.58
1-6 1/2" D.C.	9.12
1 X-O	.33
22-6 1/2" D.C.	204.43
1 X-O	.29
6-HWDP	54.51
1-JARD	9.99
9-HWDP	81.76
TOTAL: 316.07	

DEVIATION AND LEAKOFF DATA

DEPTH	
ANGLE	
LEAKOFF PPG EQUIV	
DEPTH	
DATE	

FIXED WING AND HELICOPTERS

FW FLTS/PAX	; TO	FR
FW FLTS/PAX	; FR	TO
HELI FLTS/PAX TO RIG	1/11	
HELI FLTS/PAX FR RIG	1/6	

WORKBOATS

BOAT	ALLOR	SANTOR	SVONS
LOCATION	RIG		
ENROUTE TO		RIG	STV.
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	4
DRLG CONT	53
MUD LOGGER	4
MUD	1
CEMENT	2
DIVERS	1
E. LOG	4
HUNTING	2
OTIS	2
SCANCORE	1
TOTAL	74

WEATHER (RANGE/DAY)
SEA N-S-W- 8-18
SWELL N-S-W-14-24
WIND N-S-W-20-55
SLIP JT 30
BALL JT 1250
RISER TEN 160
RIG DATA (RANGE/DAY)
HEADING 307
ROLL 1-7-1, 5/2
PITCH 2-10-2 2/2.5
HEAVE 12-14
% OFFSET 2.02
ANCHOR TENS
MAX. N° 8 290
MIN N° 2 170

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 110 M
ESSO SUPR. PARISH
ESSO ENGR.
ESSO TECH. BETHKE
RIG SUPR. LABARTHE

RIG GLOMAR BISCAY II

PAGE 1 OF 2
REPORT NO. 32
24 HRS. END 1-MAY-82
WELL DEPTH 2805 M
PROGRESS NIL

24 HOUR SUMMARY			
CODE	TIME TO	HOURS	OPERATION

24 hour summary:

6 0030 1/2 rih to 1305 meters
32 0115 3/4 p/u hang off tool, rih, land string, pooh
0600 4-3/4 wow - while waiting on weather, repair dump valve in sandtrap, and repair electric line for position indicator lights to drill string compensator
2400 18 wow

time	barom	wind	sea	swell	motion			
0100	992	w 50/55	20	w 24/26	2	3	10-15	9
0200	992	w 50/60	22	w 25/30	2	3.5	12-16	9
0500	993	w 40/50	20	w 25/28	2	3	12-16	7-8
0800	993	wnw 30/45	18	wnw 24	2	3	7-12	
1200	996	nw 35/45	20	nw 26	2	3	7-12	
1600	998	wnw 40/50	22	nw 28	2	3	7-14	
1900	1000	wnw 35/40	20	nw 25	1.5	2.5	8-12	9-11
2400	1001	wnw 30/40	16	nw 18/20	1.5	2.5	8-10	3/5

mooring tension

1	2	3	4	5	6	7	8	
225	155	195	120	150	165	205	290	
230	155	190	120	150	145	200	280	time 0200
230	140	195	120	120	160	190	270	0500
220	160	190	150	165	165	170	260	0800
215	165	215	150	165	165	180	250	1200
215	165	210	150	160	165	180	255	1600
225	170	220	145	160	170	180	255	1900
230	170	210	140	160	160	180	270	2400

remarks: 0140 started both propulsions at 150 rpms
1930 turned off propulsion, 2000 tensionsholding and remaining hole position

NOTE: LITHOLOGY 2794 TO 2805M.
CHALK WITH MINOR INTBD. SHALE AND CLAYSTONE

TIME SUMMARY	CODE	6	32										TOTAL
	HOURS	1/2	23 1/2										24

DAILY DRILLING REPORT

FORM B

WELL 15/6-6 GLOMAR BISCAY II

PAGE 2 OF 2
REPORT NO. 32
24 HRS. END 1-MAY-82

SIZE/DEPTH LAST CSG. 9 5/8" @ 2779 M
ANN TOC LAST CSG. 2150 M

DAILY WELL COST 162,520
CUM. WELL COST 5,880,114

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH		PIT					
TIME		1030					
WT		10.4					
PV @ 120 °F		11					
YP @ 120 °F		7					
GELS (0/10)		1/9					
API F.L.		5.5					
HTHP F.L. @ °F PSI		30.3					
CAKE THK		1/32					
CAKE DESC		FIRM					
pH		10.7					
pf		.3					
Mf		.8					
Rf @ °F							
Cl⁻		18000					
Ca⁺⁺		240					
SOLIDS %		9					
SAND %		1/4					
OIL %		0					
CEC		23					
FUNNEL VIS.		42					

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)			3870
BENT (SX)			197
BENTONITE			570
LIG. SULFONATE			278
LIGNITE/RESINEX			122/71
CAUSTIC/LIME			279/34
BICARB/AL.STEA.			78/6
XC PAL./DRIS.			92/86
SODA ASH			61
PIPE LUB/DD			6/5
CMC LV/HV			214/183
CEMENT (G)			3818
$CaCl_2$ SX/LIG			34/445
HRGL/CFR2-L			385/150
NLKC248/HRIZL			400/100
ECONOLITE			425
DRL WATER		280	4020
WASH WATER			
POT WATER			8383
RIG FUEL		110	
HELIFUEL			

MUD
MAKE UP WATER: Cl⁻ 200, Ca⁺⁺ 18, Rw @ °F; SHAKER SCREEN MESH 60/80, 60/80
DESANDER HRS. –, DESILTER HRS. –, MUD CLNR. HRS. –
DAILY MUD COST –, CUM MUD COST 71024, MUD PUMP TYPE/LINERS G x 12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT		HRS	/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G
17	11	8 1/2	L4NX	20119		H	U	71	6		0	F	F				

DRILLING ASSEMBLY

COMPONENT	FT
BIT	.71
TURBINE	18.68
1x 8 1/2" STAB.	1.55
1 MONEL	9.35
1 STAB	1.58
1 6 1/2" D.C	9.12
1 X-O	.33
22 x 6 1/2" D.C.	204.93
X-O	.29
6-HWDP	54.51
1-JARS	9.99
9-HWDP	81.16
TOTAL:	387.70

DEVIATION AND LEAKOFF DATA

DEPTH				
ANGLE				
LEAKOFF PPG EQUIV				
DEPTH				
DATE				

FIXED WING AND HELICOPTERS
FW FLTS/PAX ; TO FR
FW FLTS/PAX ; FR TO
HELI FLTS/PAX TO RIG
HELI FLTS/PAX FR RIG

WORKBOATS

BOAT	ALCOR	SANTNR	SIDDNS
LOCATION	RIG	RIG	STV.
ENROUTE TO			
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	4
DRLG CONT	53
MUD LOGGER	4
MUD	1
CEMENT	2
DIVERS	1
E. LOG	4
HUNTING	2
OTIS	2
SCAN CORE	1
TOTAL	74

WEATHER (RANGE/DAY)
SEA W 15-22
SWELL W 20-30
WIND W 30-60
SLIP JTS 30
BALL JT 1250
RISER TEN 160
RIG DATA (RANGE/DAY)
HEADING 307
ROLL 1.5 - 2.0
PITCH 2.5 - 3.5
HEAVE 10 - 20
% OFFSET 0
ANCHOR TENS
MAX. N° 8 290
MIN N° 2 150

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135 R.K.B.
ESSO SUPR. PARISH
ESSO ENGR.
ESSO TECH. BETHKE
RIG SUPR. LABARTE

RIG GLOMAR BISCAY II

PAGE 1 OF 2
REPORT NO. 33
24 HRS. END 2-MAY-82
WELL DEPTH 2923 M
PROGRESS 118 M

24 HOUR SUMMARY			
CODE	TIME TO	HOURS	OPERATION

24 hour summary:
32 0015 1/4 wow
32 0130 1-1/4 rih, retrieve string, pooh, l/d indide hon and hang off tool
6 0400 2-1/2 rih to 2805 meters
3 0600 2 drill from 2805 to 2817 m. tg=.5
avg. rop=722 bgg=.5, cg=0, max gas=.5
3 1730 11 11-1/2 drill from 2817 to 2895. bgg=.1, cg=0, max=.1
12 1745 1/4 circ for survey
12 1830 3/4 run and retreive survey = 1/2 deg s8e
3 2400 5-1/2 drill from 2895-2923 bgg=.1, cg=0, max=.1

notes:
1) the no 2 suction (middle suction) module washed out at 1615 hrs. have welded seat into module. urgently need a new module for a national 12p-160 triplex mud pump.

2) what is the status of out polaroid sx-70 camera. was sent in to have the automatic focus repaired.

anchors:

1	2	3	4	5	6	7	8
190	155	105	190	190	145	190	270
241	175	213	140	141	153	193	200

			LITHOLOGY : FROM 2817M TO 2956M
			CHALK WITH INTERBED MARLSTONE - CHALK WHT. TO CREAM -

TIME SUMMARY	CODE	3	6	12	32									TOTAL
	HOURS	19	2 1/2	1	1 1/2									

DAILY DRILLING REPORT

FORM B

WELL 15/6-6
GLOMAR BISCAY II
SIZE/DEPTH LAST CSG. 9 5/8" @ 2779 M
ANN TOC LAST CSG. 2150
DAILY WELL COST 153191

PAGE 2 OF 2
REPORT NO. 33
24 HRS. END 2-MAY-82
CUM. WELL COST 6,033,305

MUD CHEKS	IN OR OUT	OUT	IN OR OUT	IN OR OUT	IN OR OUT	OUT	IN OR OUT
DEPTH		2820		2882		2920	
TIME		0700		1500		2100	
WT		10.2		10.1		10.2	
PV @ 120 °F		13		16		14	
YP @ 120 °F		9		11		12	
GELS (0/10)		1/4		1/5		1/4	
API F.L.		6.0		4.2		3.6	
HTHP F.L. 258 °F PSI		–		18.4		17.0	
CAKE THK		1/3		1/3		1/3	
CAKE DESC		FIRM		FIRM		FIRM	
pH		10.6		9.8		11.0	
pf		.19		.2		.2	
Mf		.85		.9		1.3	
Rf @ °F		-		-		-	
Cl⁻		18000		18000		18000	
Ca⁺⁺		200		320		280	
SOLIDS %		10		13		10	
SAND %		1/4		1/4		1/4	
OIL %		0		0		0	
CEC		22.5		26		25	
FUNNEL VIS.		47		43		46	

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)			3870
BENT (SX)			197
BENTONITE		46	624
LIG. SULFONATE		120	158
LIGNITE/RESINEX		70/-	52/71
CAUSTIC/LIME		19/1	260/34
BICARB/A.STE.		5/1	73/6
XC POLY./ORIS		9/1	83/86
SODA ASH			61
PIPE L MX/DD			6/5
CMC LV/HV		19/1	195/183
CEMENT (G)			3818
$CaCl_2$ / LIG			34/445
HRGL/CFR2-L			385/150
HLXC248/HRICLL			400/100
BICANOLITE			425
DRL WATER		420	3600
WASH WATER			
POT WATER			325
RIG FUEL		110	2925
HELIFUEL			7.64

MUD
MAKE UP WATER: Cl⁻ 200, Ca⁺⁺ 18, Rw @ °F; SHAKER SCREEN MESH 60/80, 60/80
DESANDER HRS., DESILTER HRS., MUD CLNR. HRS 19 - SCREEN SIZE: 120
DAILY MUD COST 8081, CUM MUD COST 81,095, MUD PUMP TYPE/LINERS 6 x 12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT		HRS	/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G
17	11	8 1/2	L4NX	20119		1	N	[illegible]	→								

DRILLING ASSEMBLY

COMPONENT	FT
S.A.B.	
TOTAL: 387.70	

DEVIATION AND LEAKOFF DATA				
DEPTH	–			
ANGLE	–			
LEAKOFF PPG EQUIV	–			
DEPTH	–			
DATE	–			
FIXED WING AND HELICOPTERS				
FW FLTS/PAX	; TO	FR		
FW FLTS/PAX	; FR	TO		
HELI FLTS/PAX TO RIG	—			
HELI FLTS/PAX FR RIG	—			
WORKBOATS				
BOAT	ALCOR	SANTIR	SID	
LOCATION	RIG	RIG	STB.	
ENROUTE TO				
ETA				

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	4
DRLG CONT	53
MUD LOGGER	4
MUD	1
CEMENT	2
DIVERS	1
E. LOG	4
HUNTING	2
OTIS	2
SCANCORE	1
TOTAL	74

WEATHER (RANGE/DAY)
SEA SW 18
SWELL SW 10 - 22
WIND SW 18
SLIP JT. 30
BALL JT 1250
RISER TEN 160
RIG DATA (RANGE/DAY)
HEADING 307
ROLL .8 - 2.5
PITCH 1.0 - 2.5
HEAVE 8 - 10
% OFFSET .8 - 1.3%
ANCHOR TENS
MAX. N·8 270
MIN N·5 160

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135 R.K.B.
ESSO SUPR. PARISH
ESSO ENGR.
ESSO TECH. BETHKE
RIG SUPR. LABARTHE

RIG GLOMAR BISCAY II

PAGE 1 OF 2
REPORT NO. 34
24 HRS. END 3-MAY-82
WELL DEPTH 3053 M
PROGRESS 130 M

24 HOUR SUMMARY			
CODE	TIME TO	HOURS	OPERATION

24 hour summary:

* 3 0511 4 drill from 2923-2956 no 1.pump down from 2400 to 0115 and 0215 to 0415 hrs

avg rop=9.8 bgg=.1, cg=0, max=.1

** 3 1300 7 drill from 2956-2998 no 1.pump down from 0915 to 1315 hrs.

avg rop=8 bgg=.1 cg=0 max=.1

12 1315 1/4 circ for survey
12 1400 3/4 run and retrieve survey = 1/4deg s 73 w
24 1515 1-1/4 changed oil in no 2 pump and piston rod seals.
*** running no 1 pump w/25 uct modules
seals were leaking and allowed water into drive end of pump contaminating oil lubrication system
3 2400 8-3/4 drill from 2998 to 3053 meters
avg rop=8.4 bgg=.1-.2, cg=0, max=.2
at 3040-3047 meters went thru a small 0/0 of chert with the chalk then transcend into a red lmst which was harder and more dense than the previous milky white lmst.
at 2020 hrs. - shut down no 1 pump and changed out cut middle suction module for a new one.
at 2320 hrs - no 1. pump back on line

notes: 1) no 1 pump down times:
2400-0115 = 1-1/2 hrs avg rop=5.7 from 3
0215-0415 = 2 hrs avg rop = 5.7 from 7
0915-1315 = 4 hrs avg rop = 6.9 from 3, 12
1315-2020 = 5 hrs avg rop = 8.2 from 6,3 w/no 1 operating as a duplex

---
12-1/2 total hrs

2) held pit drill on evening drill crew

anchors: 1 2 3 4 5 6 7 8
190 170 200 130 180 175 190 225
180 155 200 160 160 165 190 190

3) hthp results = 250 deg at 500 psi = 12.3 and 303 deg at 500 psi = 11

* CHARGE 3½ HRS. TO 24 & 2½ HRS TO 3
** CHARGE 4 HRS. TO 24 & 3 HRS TO 3
*** CHARGE 5 HRS TO 24 & 5 HRS TO 3

TIME SUMMARY	CODE	3	12	24									TOTAL
	HOURS	10½	1	12½									24

TELEX TELEX TELEX TELEX TELEX TELEX

DAILY DRILLING REPORT

FORM B

WELL 15/6-6

SIZE/DEPTH LAST CSG. 9⅝ @ 2779 M
ANN TOC LAST CSG. 2150 BY TEMPLOG

DAILY WELL COST 147,417

PAGE 2 OF 2
REPORT NO. 34
24 HRS. END 3-MAY-82

CUM. WELL COST 6,180,722

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	2960	3036	3041	?			
TIME	0900		2030	2130			
WT	10.2		10.4	10.2			
PV @ 120 °F	11		12	12			
YP @ 120 °F	9		8	8			
GELS (0/10)	1/3		1/3	1/3			
API F.L.	4.3	@300°F	4.6	4.4			
HTHP F.L. @ °F PSI	18.8	31	?	18.9			
CAKE THK	1/32		1/32	1/32			
CAKE DESC	FIRM		FIRM	FIRM			
pH	10.8		10.8	10.8			
pf	.18		.2	.35			
Mf	1.2		1.2	1.3			
Rf @ °F	-		-	-			
Cl⁻	18000		18000	18000			
Ca⁺⁺	200		220	220			
SOLIDS %	10		14	10			
SAND %	TR.		TR.	TR.			
OIL %	0		0	0			
CEC	23		24	24			
FUNNEL VIS.	44		42	41			

STOCKS	RECV'D ~~UNITS~~	USED	REMAIN STOCK
BARITE (BULK)		312	3558
BENT (SX)			197
BENTONITE			524
LIG. SULFONATE			158
LIGNITE/RES	160	-	212/71
CAUSTIC/LIME		11/-	249/34
BICARB/A.STER.	-/33		73/39
XC POLY/DRIS			83/86
SODA ASH			61
PIPE LAX/DD			6/5
CMC LV/HV		10/-	185/183
CEMENT (G)			3818
$CaCl_2$ SX/LIG.			34/445
HRGL/CFR2-L			385/150
HLXC348/HRILL			400/100
ECONOLITE			425
DRL WATER		640	2960
WASH WATER			
POT WATER			383
RIG FUEL		110	2815
HELIFUEL			7.64

MUD
MAKE UP WATER: Cl⁻ 200, Ca⁺⁺ 18, Rw @ °F; SHAKER SCREEN MESH 60/80, 60/80
DESANDER HRS ?, DESILTER HRS ?, MUD CLNR. HRS 24 SCREENSIZE: 150
DAILY MUD COST 2297, CUM MUD COST 83,392, MUD PUMP TYPE/LINERS 6 K 12

BITS	RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	M	HRS	M/HR	WOB	RPM	PRESS	TOTAL S'M	D.PIPE AV	COND T	B	G
	17	11	8½	HWX	20119	8STFA	INC.	136	21.75	5.97	15/25	50-40	3300-2900	126-120	290-228	1/1	C	—

DRILLING ASSEMBLY

COMPONENT	FT
S.A.B.	
TOTAL 387.	70

DEVIATION AND LEAKOFF DATA

DEPTH	2998			
ANGLE	1/4°	S73W		
LEAKOFF PPG EQUIV				
DEPTH				
DATE				

FIXED WING AND HELICOPTERS
FW FLTS/PAX ; TO FR
FW FLTS/PAX ; FR TO
HELI FLTS/PAX TO RIG —
HELI FLTS/PAX FR RIG —

WORKBOATS

BOAT	ALCAR	SANTER	SIDDIS
LOCATION	RIG	RIG	STAV.
ENROUTE TO			
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	5
DRLG CONT	
MUD LOGGER	A
MUD	
CEMENT	
DIVERS	B
E. LOG	
TOTAL	74

WEATHER (RANGE/DAY)
SEA SSE 18
SWELL SW 22
WIND SSE 50
SLIP JT. 30
BALL JT 1250
RISER TEN 160
RIG DATA (RANGE/DAY)
HEADING 307
ROLL 1.0
PITCH 2.5
HEAVE 8-10
% OFFSET 1.3 %
ANCHOR TENS
MAX. N°8 @ 225
MIN N°2 @ 155

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135 R.K.B
ESSO SUPR. PARISH
ESSO ENGR. PETTERSEN
ESSO TECH. BETHKE
RIG SUPR. LAMARTHE

RIG GLOMAR BISCAY II

PAGE 1 OF 2
REPORT NO. 35
24 HRS. END 4-MAY-82
WELL DEPTH 3188 M
PROGRESS 135 M

24 HOUR SUMMARY			
CODE	TIME TO	HOURS	OPERATION

24 hour summary

3	0600	6	drill from 3053 to 3088 ave rop 5.8 mph ave bgg .2 cg = 0 max bgg .2
3	0645	3/4	drill from 3088 to 3093. avg rop 5.8 bgg = .2 cg = 0 max .2
12	0800	1-1/4	circ and survey = 3/4 deg n27w
3	2315	15-1/4	drill from 3093 to 3188 meters. avg rop = 7 bgg = .2 cg = 0 max = .2
12	2330	1/4	circ for survey.
12	2400	1/2	run and retrieve survey = 1-1/4 deg n58e

notes

1) held pit drills on both drill crews.
2) estimated pore pressure = 9.7
3) m.t. helifuel tank coming in on sandtor. please re-fuel and return to rig.

anchors	1	2	3	4	5	6	7	8
max	190	180	200	170	165	170	195	230
min	190	170	195	160	160	165	190	210

LITHOLOGY: 3049m - 3088m = CHALK/LIMESTONE
3088 - 3142m : CHALK/LIMESTONE W. MINOR INTERBED OF MALSTONE.

TIME SUMMARY	CODE	3	12												TOTAL
	HOURS	22	2												24

DAILY DRILLING REPORT

FORM B

WELL 15/6-6
GLOMAR BISCAY II
SIZE/DEPTH LAST CSG. 9 5/8" @ 2779 M
ANN TOC LAST CSG.

PAGE 2 OF 2
REPORT NO. 35
24 HRS. END 4 MAY 82

DAILY WELL COST 196,888
CUM. WELL COST 6,377,610

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH		3080		3130		3170	
TIME		0900		1530		2100	
WT		10.2		10.3		10.2	
PV @ 120 °F		11		14		12	
YP @ 120 °F		13		11		11	
GELS (0/10)		1/4		2/4		2/4	
API F.L.		5.0		5.1		5.1	
HTHP F.L. @ 250 °F PSI		20.5		-		19.3	
CAKE THK		1/32		1/32		1/32	
CAKE DESC		FIRM		FIRM		FIRM	
pH		10.4		10.2		10.3	
pf		.17		.15		.2	
Mf		.85		.8		1.2	
Rf @ °F		-		-		-	
Cl^-		18000		18000		18000	
Ca^{++}		200		200		200	
SOLIDS %		11		13		12	
SAND %		TR		1/4		TR	
OIL %		0		0		0	
CEC		24		24		24	
FUNNEL VIS		42		43		42	

STOCKS	REC. ~~UNITS~~	USED	REMAIN STOCK
BARITE (BULK)	1277	3	4833
BENT (SX)			197
BENTONITE		26	498
LIG. SULFONATE		25	133
LIGNITE/RESINEX		25/-	187/71
CAUSTIC/LIME		17/-	232/34
BICARB/A.STEAM			73/39
XC POLY./DRIS.			83/86
SODA ASH			61
PIPE 4.0 X/OD			6/5
CMC LV/HV		5/1	180/103
CEMENT (G)			3818
$CaCl_2$ SX/LIG			34/445
NR6L/CFR2-L			395/150
HLX C248/NR7L			400/100
ECONOLITE			425
DRL WATER	2310	280	4990
WASH WATER			
POT WATER			383
RIG FUEL	1400	110	4105
HELIFUEL			

MUD
MAKE UP WATER: Cl 200, Ca^{++} 18, Rw @ °I ; SHAKER SCREEN MESH 60/80, 60/80
DESANDER HRS., DESILTER HRS., MUD CLNR. HRS. 24 - SCREEN SIZE: 150
DAILY MUD COST 1749, CUM MUD COST 86061, MUD PUMP TYPE/LINER RS. 6 x 12

BITS	RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	M	HRS	M/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G
	17	11	8 1/2	LYNX	20119	.85 14	INC	383	61.25	6.10	20-25	50	4150	130	284	INC →		

DRILLING ASSEMBLY	COMPONENT	FT
	S.A.B.	
	TOTAL: 387.	70

DEVIATION AND LEAKOFF DATA				
DEPTH	3093		3188	
ANGLE	3/4° N	27 W	1 1/4° N	58 E
LEAKOFF PPG EQUIV				
DEPTH				
DATE				
FIXED WING AND HELICOPTERS				
FW FLTS/PAX	; TO	FR		
FW FLTS/PAX	; FR	TO		
HELI FLTS/PAX TO RIG	2/15			
HELI FLTS/PAX FR RIG	2/15			
WORKBOATS				
BOAT	ALCOR	SANDT.	S.P.	
LOCATION	RIG			
ENROUTE TO		STV.	RIG	
ETA				

PERSONNEL ON BOARD	COMPANY	NO.
	ESSO	
	DRLG CONT	5
	MUD LOGGER	
	MUD	A
	CEMENT	
	DIVERS	B
	E. LOG	
	TOTAL	74

WEATHER (RANGE/DAY)
SEA SW 6-10
SWELL SW 10
WIND SW 25-35
SLIP JT. (MCG. PRESS: 30)
BALL JT 1250
RISER TEN 160
RIG DATA (RANGE/DAY)
HEADING 307°
ROLL 1.5 - .8
PITCH .5
HEAVE 1 - 2
% OFFSET .8
ANCHOR TENS
MAX. N°1-230
MIN N°1-165

DAILY DRILLING REPORT

WELL 15/6-6
WATER DEPTH 135m R.K.B.
ESSO SUPR. PARISH
ESSO ENGR. PETTERSEN
ESSO TECH. BETHKE
RIG SUPR. LAGARTHE

RIG GLOMAR BISCAY II

PAGE 1 OF 2
REPORT NO. 36
24 HRS. END 5-MAY-82
WELL DEPTH 3289 M
PROGRESS 101 M

24 HOUR SUMMARY			
CODE	TIME TO	HOURS	OPERATION

24 HOUR SUMMARY

12	0015	1/4	CONT SURVEY AT 3188M, 1-1/4 DEG N33E
3	0500	5-3/4	DRILL FROM 3189 TO 3213, 5.2 AVE ROP BGG=.2, CG=0
3	1800	12	DRILL FROM 3213 TO 3282M, AVG ROP=9.7 FROM 3218-3270 AND AVG ROP=5.65 FROM 3270-3282. BGG=.4, CG=0, MAX=.4
12	1315	1/4	CIRC FOR SURVEY.
12	1330	1/4	DROP SURVEY.
12	1930	1	SLUG PIPE, POOH TO SHOE AT 2779M.
12	2015	3/4	RETRIEVE SURVEY - 1/2 DEG N33E
12	2100	3/4	RIH, NO DRAG, NO FILL.
3	2400	3	DRILL FROM 3282 TO 3289. TG=.5 AVE ROP=4.45 BGG=.4 CG=0 MAX=.4

NOTES

1) WORKED ON NO 1 PUMP FROM 2145 TO 2400 HRS. CHANGED OUT TWO VALVES. ONE IN THE MIDDLE SUCTION (WHICH IS NEW) AND ONE IN THE MIDDLE DISCHARGE (WHICH IS NEW).
2) HELD PIT DRILL ON BOTH CREWS.
3) ESTIMATED PORE PRESSURE = 9.7
4) SANDLINE WIRE CAME UNRAVELLED WHILE PULLING SURVEY. IS NOT SERVICEABLE ANYMORE, WILL HAVE TO USE THE WIRELINE TO RUN SURVEY UNTIL GLOBAL GETS NEW SANDLINE. WAS JUST CHANGED LAST WELL.
5) NEED 3-EACH-150 AND 200 MESH SCREENS FOR MUD CLEANER.
6) NEED 1 CASE AA BATTERIES FOR OUR CAMERA FLASH.

ANCHORS	1	2	3	4	5	6	7	8
MAX	195	190	200	170	165	170	195	230
MIN	190	170	195	160	160	170	190	220

LITHOLOGY: 3218 M TO 3213M. SHALEY LIMESTONE
3213 M TO 3249M. DOLOMITES
3249 M TO 3256M. INTERBEDDED SHALE AND DOLOMITE
3266M TO 3289M INTERBEDDED LIMESTONES

TIME SUMMARY														TOTAL
CODE	3	12												
HOURS	20 3/4	3 1/4												24

24

WELL 15/6-6

DAILY DRILLING REPORT

— ESSO EXPLORATION INC —

FORM B
PAGE 2 OF 2
REPORT NO. 36
24 HRS. END 5/5/82

SIZE/DEPTH LAST CSG. 9 5/8 @ 2779
ANN TOC LAST CSG. 2150

DAILY WELL COST 158,530
CUM. WELL COST 6,536,140

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	3240		3265		3280		
TIME	0930		1600		2100		
WT	10.2		10.8		11.2		
PV @ 120 °F	13		16		14		
YP @ 120 °F	12		9		12		
GELS (0/10)	2/6		1/4		1/4		
API F.L.	5.6		4.4		5.0		
HTHP F.L. @ °F PSI	19.1		19.5		16.9		
CAKE THK	1/32		1/32		1/32		
CAKE DESC	firm		firm		firm		
pH	9.7		10.2		10.4		
pf	.21		.2		.3		
Mf	1.2		1.5		1.6		
Rf @ °F							
Cl^-	18,000		18,000		18,000		
Ca^{++}	200		200		180		
SOLIDS %	12		16		16		
SAND %	tr.		tr.		tr.		
OIL %							
CEC	24		24		24		
FV	42		44		43		

STOCKS	rec ~~UNITS~~	USED	REMAIN STOCK
BARITE (BULK)	599	757	4675
Bent (SX)		43	154
BENTONITE			498
LIG. SULFONATE	200	40	293
LIGNITE/Resin	51	20/1	218/71
CAUSTIC /Lime		10/1	222/34
BICARB /A. STE			73/39
KCPoly/Drlg.		3/1	80/86
SODA ASH			61
PIPE FREEING/100			6/5
CMC LV/HV		3/1	177/183
CEMENT (G)			381B
$CaCl_2$ /Lig			34/445
HRBL/CORZL			385/150
HLX6248/HR12L			400/100
Econolite			42.5
DRL WATER	1540	780	5790
WASH WATER			
POT WATER			383
RIG FUEL		90	4015
HELIFUEL		1.0	13.4

MUD
MAKE UP WATER: Cl^- 200, Ca^{++} 18, Rw @ °F; SHAKER SCREEN MESH 60/80, 60/80
DESANDER HRS., DESILTER HRS., Mud Clnr HRS. 20 - Screen size 150
DAILY MUD COST 6894, CUM MUD COST 92,955, MUD PUMP TYPE/LINERS 6X12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	M	HRS	M/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G
17	11	8 1/2	4Nx	20119	.85	INC	484	83.5	5.79	5/20	50	3500	125	275	INC →		

DRILLING ASSEMBLY

COMPONENT	FT
SAB	
TOTAL:	389.70

DEVIATION AND LEAKOFF DATA

DEPTH	3188		3282	
ANGLE	1 1/4 N47E		1 1/2 N38E	
LEAKOFF PPG EQUIV				
DEPTH				
DATE				

FIXED WING AND HELICOPTERS

FW FLTS/PAX	TO	FR
FW FLTS/PAX	FR	TO
HELI FLTS/PAX TO RIG	1/13	
HELI FLTS/PAX FR RIG	1/16	

WORKBOATS

BOAT	Alcor	Sandbar	Siddle	Mervo
LOCATION		SVG	rig	rig
ENROUTE	Exchange			
ETA	0700			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	4
DRLG CONT	51
MUD LOGGER	4
MUD	1
CEMENT	2
DIVERS	1
E. LOG	4
Hunting	2
Norsco	1
Scancore	1
TOTAL	71

WEATHER (RANGE/DAY)	
SEA	WS - SWB
SWELL	Ver 8/10
WIND	W15 - SW25/30
Slip jt.	30
BALL JT	1250
RISER TEN	160
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.1 - .5
PITCH	.1 - .5
HEAVE	2 - 4
% OFFSET	.44 - .67
ANCHOR TENS	
MAX.	230 - 8
MIN	170 - 2

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135M R.K.B.
ESSO SUPR. PARISH
ESSO ENGR. ROMERO
ESSO TECH. BETHKE
RIG SUPR. LABARTHE / SUSTAWSON (CHG. OUT)

RIG GLOMAR BISCAY II

PAGE 1 OF 2
REPORT NO. 37
24 HRS. END 06-MAY-82
WELL DEPTH 3318 M
PROGRESS 29 M

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
			24 HOUR SUMMARY
	0015	1/4	ATTEMPT TO DRILL FROM 3289. ROP=0, BIT TORQUING UP ON BTM. AFTER P/U TO GO BACK TO BTM. ROTARY WOULD STALL OUT INDICATING STABILIZERS HANGING UP AND BIT DRILLING UNDERGAUGED. ATTEMPTED SEVERAL TIMES TO RESEAT THE BIT, AND WOULD STALL OUT, ONCE ON BTM, IT WOULD NOT DRILL. LAST SAMPLE HAD 30 O/O HARD LMST AND 70 O/O MARLY LMST.
6	0045	1/2	CIRC, PUMP SLUG.
6	0500	4-1/4	POOH, HELD 2 KICK DRILLS WHILE COMING OUT. NO DRAG. HOLE DISPLACEMENT - OK.
	0600	1	RIH W/W.B. R/R TOOL. WASH. RECOVER W.B. POOH.
15	0630	1/2	RIH W/CUP TESTER.
15	0915	2-3/4	TEST BOPS ON YELLOW POD. RAMS AND FAILSAFE VALVES TO 300/5000. HYDRILS TO 300/3000. FUNCTION TEST ON BLUE POD FROM KOOMEY UNIT.
15	0945	1/2	POOH W/CUP TESTER.
	1100	1-1/4	RUN AND SET W.B. POOH. TEST TURBINE. PRESS TEST JARS, OK.
	1830	7-1/2	RIH BREAKING AND SERVICING D.C'S. FOUND WASHOUT BETWEEN TOP TWO DRILL COLLARS. L/D SAME.
11	1845	1/4	REAMING FROM 3268M TO 3289M.
3	2400	5-1/4	DRILL FROM 3289M TO 3318M, NO TORQUE, NO DRAG ON CONNECTIONS. T.G.=1.1 UNIT, BGG=.3 UNIT NO CONNECTION AVE ROP 5.5 MPH.

NOTE

THE WASHOUT THAT OCCURED WAS LARGE. THE THREADS INSIDE THE BOX AND ON THE WERE ALMOST COMPLETELY WASHED OFF. THIS COULD EXPLAIN WHY THE TURBINE QUIT DRILLING ALONG WITH THE FACT THAT THE BIT WAS STARTING TO RING-OUT IN THE THROAT, ON THE NOSE AND ON THE TOP STEP.

WASHOUT WAS 2'' LONG AT THE BOTTOM OF THE SHOULDER, 1-1/2'' LONG AT THE TOP OF THE SHOULDER WITH A HEIGHT OF 3/4'' AND 3/4'' DEEP.

ANCHORS	1	2	3	4	5	6	7	8
MAX	200	175	200	170	160	175	200	230
MIN	185	170	200	160	165	165	190	210

LITHOLOGY : 3289M. TO 3318M = LIMESTONE W/MINOR INTERBEDS OF MARLSTONE.

TIME SUMMARY	CODE													TOTAL
	HOURS													

DAILY DRILLING REPORT

FORM B

WELL 15/6-6
SIZE/DEPTH LAST CSG. 9 5/8 at 2779m
ANN TOC LAST CSG. 2150
DAILY WELL COST 178,657

PAGE ... OF ...
REPORT NO. 37
24 HRS. END 6-5-82
CUM. WELL COST 6714797

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT	3307					
TIME	1100	2200					
WT	11.2	11.2					
PV @ 120 °F	12	14					
YP @ 120 °F	9	13					
GELS (0/10)	1/3	2/4					
API F.L.	4.0	5.4					
HTHP F.L. @ °F PSI	17.4	18.8					
CAKE THK	1-3	1-3					
CAKE DESC	firm	firm					
pH	10.0	10.0					
pf	.3	.3					
Mf	1.1	1.2					
Gas train	-	0					
Cl⁻	16000	17000					
Ca⁺⁺	160	160					
SOLIDS %	13	13					
SAND %	7/8	1/4					
OIL %							
CEC	225	225					
Funnel Vis	41	45					

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)		221	4684
BENT (SX)			154
BENTONITE			722
LIG. SULFONATE			293
LIGNITE / Caustic			215/71
CAUSTIC / 6 mts		6/-	214/37
BICARB / 2/1 Steam cab			73/39
XC Polymer / Drill			80/86
SODA ASH			61
PIPE HAY/DD			6/5
CMC LV/HV		-/10	177/73
CEMENT (G)			3818
$CaCl_2$ Sx/Liq			34/445
HPGL/CFR2-L			385/150
HLXC248/HRDL			400/100
Econolite			425
DRL WATER		180	5610
WASH WATER			
POT WATER		123	260
RIG FUEL		95	3920
HELIFUEL			134

MUD
MAKE UP WATER: Cl 206, Ca⁺⁺ 18, Rw @ °F; SHAKER SCREEN MESH 60/80, 60/80
DESANDER HRS. 0, DESILTER HRS. 6, mud clnr HRS. 6 Screen 342 : 150
DAILY MUD COST 1726, CUM MUD COST 94181, MUD PUMP TYPE/LINERS 12P160/6x12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	m	HRS	m/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G
17	11	8 1/2	XWX	20119	.85	3289	484	83 1/2	5.8	15/25	950	4200	130	285	5/6		1/32
18	12	8 1/2	XX-13	7081272	-	Inc	29	5 1/2	5.5	25	56	3900	78	77	inc	-	-

DRILLING ASSEMBLY

COMPONENT	FT
8 1/2 HX13	.71
7 1/4 13 A1	19.04
8 1/2 Stab	4.55
6 1/2 Monel	9.35
8 1/2 Stab	1.58
6 1/2 DC	9.12
X/O	.33
23x6 1/2 DC	200.[illegible]
X/O	.29
6/HWDP	5.951
Jars	9.99
9/HWDP	81.76
Total	387.76

DEVIATION AND LEAKOFF DATA

DEPTH				
ANGLE				
LEAKOFF PPG EQUIV				
DEPTH				
DATE				

FIXED WING AND HELICOPTERS

FW FLTS/PAX ; TO FR
FW FLTS/PAX ; FR TO
HELI FLTS/PAX TO RIG 1/10
HELI FLTS/PAX FR RIG 1/8

WORKBOATS

BOAT	S.T	S.P.	Maersk
LOCATION	STV	Rig	Rig
ENROUTE TO			
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	5
DRLG CONT	51
MUD LOGGER	4
MUD	1
CEMENT	3
DIVERS	1
E. LOG	4
Hunting	2
Nixon	1
Seancore	1
TOTAL	73

WEATHER (RANGE/DAY)	
SEA	W-SW 3-6
SWELL	W-SW 6-8
WIND	W-SW 6-24
MUD	Slipsl pkg press 30 psi
BALL JT	1250
RISER TEN	160
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.5
PITCH	1.0
HEAVE	2-4
% OFFSET	1.6
ANCHOR TENS	
MAX.	8 - 280
MIN	5 - 165

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135 M R.K.B.
ESSO SUPR. PARISH
ESSO ENGR. ROMERO
ESSO TECH.
RIG SUPR. GUSTAVSON

ESSO EXPLORATION INC.

RIG GLOMAR BISCAY II

PAGE 1 OF 2
REPORT NO. 38
24 HRS. END 07/MAY/82
WELL DEPTH 3435 M
PROGRESS 117 M

24 HOUR SUMMARY			
CODE	TIME TO	HOURS	OPERATION

24 HOUR SUMMARY

3 0600 6		DRILL FROM 3318 TO 3322. 2.7 PPG ECD=.25 TO .45 UNITS EST PORE PRESS AT 3322 IS 9.7 PPG.
3 1030	4-1/2	DRILL FROM 3322 TO 3377M.
12 1045	1/4	CIRCULATE AND DROP SURVEY.
12 1200	1-1/4	RUN .002 UNIT AND RETRIEVE SURVEY (DRIFT: 0 DEG).
3 2400	12	DRILLING FROM 3377M TO 3435M - NO TORQUE, NO DRAG ON CONNECTIONS - AVG ROP 4.3 M/HR, BGG MAX 10.7 UNIT AT 3400M - CG = 0 - AVE BGG = 5 UNITS.

ANCHORS	1	2	3	4	5	6	7	8
MAX	190	175	200	170	165	165	190	225
MIN	180	170	200	165	160	160	190	205

LITHOLOGY: 3358M - 3376M TOP OF LOWER CRETACEOUS IS 3358 M (R.K.B) - CLAYSTONE - AT 3370 CLST WITH INTERBEDDED SHALES. -

3397M TO 3435.M = TOP UPPER JURASSIC IS 3397M R.K.B. INTERBEDDED CLASTONE & SHALES.

TIME SUMMARY														TOTAL
CODE	3	12												
HOURS	22½	1½												24

DAILY DRILLING REPORT

FORM B

WELL 15/6-6
ESSO EXPLORATION INC.
SIZE/DEPTH LAST CSG. 9⅝" @ 2779M
ANN TOC LAST CSG. 2150 M

PAGE 2 OF 2
REPORT NO. 38
24 HRS. END 07/MAY/82

DAILY WELL COST 154300
CUM. WELL COST 6,868,997

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	3359		3390		3426		
TIME	0700		1430		2200		
WT	11.2		11.3		11.3		
PV @ 120 °F	18		19		19		
YP @ 120 °F	15		15		18		
GELS (0/10)	3/10		3/9		3/17		
API F.L.	4.5		4.8		4.7		
HTHP F.L. @ 250 °F PSI	20.4		19.4		20.8		
CAKE THK	1/32		1/32		1/32		
CAKE DESC	FIRM		FIRM		FIRM		
pH	10.8		10.3		10.8		
pf	.6		.45		.7		
Mf	1.5		1.3		1.9		
Rf @ °F	—		—		—		
Cl⁻	14000		15000		15200		
Ca⁺⁺	120		120		100		
SOLIDS %	14		15		15		
SAND %	TR		TR		TR		
OIL %	—	—	—		—		
CEC	22.5		24		25		
FUNNEL VIS	47		48		48		

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)		207	4266
BENT (SX)			154
BENTONITE			722
LIG. SULFONATE		10	283
LIGNITE		20/5	198/66
CAUSTIC/LIME		17/-	-/37
BICARB/A.STEAR			73/39
RC POLYMER/MIS			82/86
SODA ASH			61
PIPE LAX/DD			6/5
CMC LV/HV		-/6	177/167
CEMENT (G)			3818
CaCl2 SX/LIQ			34/440
HR6L/CFR2-L			350/150
HLXC 248/HILL			425/130
ECONOLITE			425
DRL WATER		420	5190
N-F-1			20
POT WATER		60	200
RIG FUEL		95	3825
HELIFUEL		1.16	12.24

MUD
MAKE UP WATER: Cl⁻ 200, Ca⁺⁺ 18, Rw @ °I ; SHAKER SCREEN MESH 60x80, 60x80
DESANDER HRS., DESILTER HRS., MUD CLNR. HRS. 23 SCREEN SIZE: 150
DAILY MUD COST 2569, CUM MUD COST 91,323, MUD PUMP TYPE/LINER 12P160 6x12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	M	HRS	M/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G
18	12	8½	LX-13	7081212	1.0	INC	146	27½	5.3	15-30	50	3980	115	76	INC →		

DRILLING ASSEMBLY

COMPONENT	FT
8½" LX-13	.71
7¼" TSA1	18.08
8½" STAB	1.55
6½" MONEL	9.35
8½" STAB.	1.58
6½" D.C.	9.12
X-O	.33
20x 6½" D.C.	182.71
X-O	.29
6x HWDP	54.51
JARS	9.99
9x HWDP	81.76
TOTAL:	369.53

DEVIATION AND LEAKOFF DATA

DEPTH	3377			
ANGLE	0°			
LEAKOFF PPG EQUIV				
DEPTH				
DATE				

FIXED WING AND HELICOPTERS
FW FLTS/PAX ; TO FR
FW FLTS/PAX ; FR TO
HELI FLTS/PAX TO RIG —
HELI FLTS/PAX FR RIG —

WORKBOATS

BOAT	ALCOR	S.P.	SAND.
LOCATION	RIG		STV.
ENROUTE TO		TERRENEAD	
ETA		7000	

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	3
DRLG CONT	50
MUD LOGGER	4
MUD	1
CEMENT	2
DIVERS	2
E. LOG	4
SCANCORE	1
HUNTING	2
ELKEM	1
TOTAL	70

WEATHER (RANGE/DAY)	
SEA	NE 1-3
SWELL	VAR 3-6
WIND	NE 3-20
SLIP JT.	30 PSI
BALL JT	1250
RISER TEN	160
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.5
PITCH	.5
HEAVE	2-3
% OFFSET	
ANCHOR TENS	
MAX.	N° 8-226
MIN	N° 5,6-160

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 136M R.K.B.
ESSO SUPR. PARISH
ESSO ENGR. ROMERO
ESSO TECH.
RIG SUPR. GUSTAVSON

ESSO EXPLORATION INC

RIG GLOMAR BISCAY II

PAGE 1 OF 2
REPORT NO. 39
24 HRS. END 08-MAY-82
WELL DEPTH 3551M
PROGRESS 116 M

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
			24 hour summary
	0600	6	drlg from 3435m to 3463m rop 4.7 mph, ave bgg 3 max gas 4, no conn gas, clst dk gy.
	0745	1-3/4	drill from 3463m to 3471m.
	1015	2-1/2	circ, drop survey and retrieve survey. note: when retrieving survey .092 line parted. pooh two stands and tie w/l. one hour non-prod time. survey 0 deg.
	2400	13-3/4	drill from 3471m to 3551m. avg bgg 6.5, max 12, 0 cg, rop 5.8

anchors:

	1	2	3	4	5	6	7	8
max	200	135	200	170	165	165	190	225
min	190	170	200	165	160	160	135	205

anchors

TIME SUMMARY	CODE													TOTAL
	HOURS													

DAILY DRILLING REPORT

FORM B

WELL 15/6-6
ESSO EXPLORATION INC
SIZE/DEPTH LAST CSG. 9 5/8" @ 2779
ANN TOC LAST CSG. 2150

PAGE 2 OF 2
REPORT NO. 39
24 HRS. END 08/MAY/82

DAILY WELL COST 164,509
CUM. WELL COST 7,033,506

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	3468		3497		3540		
TIME	0700		1430		2200		
WT	11.2		11.2		11.2		
PV @ 120 °F	19		20		17		
YP @ 120 °F	18		14		14		
GELS (0/10)	4/19		3/14		3/15		
API F.L.	4.5		4.8		4.8		
HTHP F.L. @ 250 °F PSI	20.6		–		18.8		
CAKE THK	1/32		1/32		1/32		
CAKE DESC	FIRM		FIRM		FIRM		
pH	10.3		10.2		10.3		
pf	.6		.55		.6		
Mf	1.4		1.7		1.8		
Rf @ °F							
Cl⁻	14000		15000		15000		
Ca⁺⁺	120		140		120		
SOLIDS %	16		16		15		
SAND %	TR		TR		TR		
OIL %	0		0		0		
CEC	25		25		25		
FUNNEL VIS.	51		51		47		

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)		207	4059
B (SX)			154
BENTONITE			722
LIG. SULFONATE		29	254
LIGNITE/RESINEX		40/10	158/56
CAUSTIC/LIME		11/-	188/37
BICARB/A.STEA.			73/39
XC POLY./DRIS			82/86
SODA ASH			61
PIPE LAX/D.D.			6/5
CMC LV/HV		3/-	174/167
CEMENT (G)			3818
CaCl2 SX/LIG			34/440
HRGL/CFR2-L			350/150
HLXC248/HR12L			425/230
ECONOLITE			425
DRL WATER		400	4790
N-F-1			20
POT WATER			210
RIG FUEL		110	3715
HELIFUEL			12.24

MUD
MAKE UP WATER: Cl⁻ 200, Ca⁺⁺ 18, Rw @ °F; SHAKER SCREEN MESH 60/80, 60/80
DESANDER HRS. 4, DESILTER HRS. 4, MUD CLENR. HRS. 23 S. SIZE: 200
DAILY MUD COST 7396, CUM MUD COST 120,719, MUD PUMP TYPE/LINERS 12OP-160 6x12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	M	HRS	M/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G
18	12	8½	LX13	7681212	1.0	INC.	262	114	5.3	25-30	50	4000	115	250	INC →		

DRILLING ASSEMBLY

COMPONENT	FT
BIT 8½" LX13	.71
7¾" FSA1	18.08
8½" STAB.	1.55
6½" MONEL	9.35
8½" STAB.	1.58
6½" D.C.	9.12
X-o	.33
20 x 6½" D.C.	187.26
X-o	.29
6 HWDP	54.51
JARS	9.99
9 HWDP	81.76
TOTAL: 369.53	

DEVIATION AND LEAKOFF DATA

DEPTH	3471			
ANGLE	0°			
LEAKOFF PPG EQUIV				
DEPTH				
DATE				

FIXED WING AND HELICOPTERS

FW FLTS/PAX ; TO FR
FW FLTS/PAX ; FR TO
HELI FLTS/PAX TO RIG 1/1
HELI FLTS/PAX FR RIG 1/2

WORKBOATS

BOAT	S.D	SAND	ALCOR
LOCATION	RIG	STY.	RIG
ENROUTE TO			
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	3
DRLG CONT	50
MUD LOGGER	4
MUD	1
CEMENT	2
DIVERS	2
E. LOG	4
SCANCORE	1
HUNTING	2
TOTAL	69

WEATHER (RANGE/DAY)
SEA NE 3 - N10
SWELL VAR 3 - N14
WIND NE 20 - N 35-40
SLIP JT. 34 psi
BALL JT 1300 psi
RISER TEN 160 K
RIG DATA (RANGE/DAY)
HEADING 307
ROLL .3 - .8
PITCH .3 - 1.7
HEAVE 1 - 5
% OFFSET .8
ANCHOR TENS
MAX. 8 - 225
MIN 6 - 160

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135m RKB
ESSO SUPR. PARISH
ESSO ENGR.
ESSO TECH. CARPENTER
RIG SUPR. GUSTAVSON

ESSO EXPLORATION INC

RIG GLOMAR BISCAY II

PAGE 1 OF 2
REPORT NO. 40
24 HRS. END 09/MAY/82
WELL DEPTH 3591
PROGRESS 40

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
			24 hour summary
3	0100	1	drlg 3551-3559, rop increased from 6.5 m/hr to 10 m/hr.
10	0245	1-3/4	circ btms up, bgg increased from 8.5 units to 30 units.
3	0330	3/4	drlg 3559-3565, bgg 14, rop 8 m/hr.
10	0515	1-3/4	circ btms up, max bgg 51 units, circ, gas dropped back to less than 1 unit.
12	0700	1-3/4	drop survey. pooh to 3408m, max of 20k drag, recover survey, rih, no drag, survey 3/4 n87w.
3	1000	3	drill from 3565 to 3575, excessive torque when attempting to drill. survey and short trip gas was 10 units. avg bgg 2, max bgg 21
20	1030	1/2	circ samples, max bgg 10 FOR GEOLOGIST
3	1230	2	drill from 3575 to 3584, rop 4.5 m/hr, avg bgg 3.5 max bgg 13
20	1345	1-1/4	circ sample, max bgg 15 FOR GEOLOGIST
3	1430	3/4	drill 3584-3591, rop 10.6 m/hr, avg bgg 1.5
20	1415	1-3/4	circ sample, max bgg 19.8 FOR GEOLOGIST
6	1645	1/2	drop survey and slug pipe.
6	2145	5	pooh, lay down monel and turbine, retrieve survey (1 deg n47w).
18	2400	2-1/4	make up core barrell and rih.

notes
---
received 95 jts 7" csg on board, lost 7 over board, 2 jts had damaged pins. have a total of 93 good jts (3599.72').

need
---
batteries for sss (type c alkaline).

anchors:

	1	2	3	4	5	6	7	8
max	[illegible]	199	235	171	161	173	135	220
min	195	131	213	161	160	135	131	213

LITHOLOGY : 3565M - 3581M.
SHALE SAND AND SANDSTONE SEQUENCES
3581M - 3597M
TOP OF JURASIC SAND AT 3581M
* CHARGE 1/4 HRS TO 12 & 1/4 HRS TO 6

TIME SUMMARY	CODE	3	6	10	12	18	20							TOTAL
	HOURS	7 1/2	5 1/4	3 1/2	2	2 1/4	3 1/2							24

DAILY DRILLING REPORT

FORM B

WELL 15/6-6
ESSO EXPLORATION INC
SIZE/DEPTH LAST CSG. 9 5/8" @ 2779
ANN TOC LAST CSG. 2150 M
DAILY WELL COST 146,881

PAGE 2 OF 2
REPORT NO. 40
24 HRS. END 09/MAY/82
CUM. WELL COST 7,180,387

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH		3565		3588			
TIME		0700		1430			
WT		11.2		11.3			
PV @ 120 °F		17		16			
YP @ 120 °F		13		11			
GELS (0/10)		2/13		2/8			
API F.L.		4.8		5.0			
HTHP F.L. @ 210 °F PSI		18.0		-			
CAKE THK		1/32		1/32			
CAKE DESC		FIRM		FIRM			
pH		10.1		10.0			
pf		.5		.5			
Mf		1.7		1.8			
Rf @ °F							
Cl^-		14500		14500			
Ca^{++}		140		140			
SOLIDS %		15		16			
SAND %		TR		TR			
OIL %		0		0			
CEC		25		25			
FUNNEL VIS.		47		47			

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)		528	3531
B (SX)			154
BENTONITE			722
LIG. SULFONATE		15	239
LIGNITE/RESINEX		30/10	128/46
CAUSTIC/LIME		10/	178/37
BICARB/A. STEAR		/1	73/38
KC POLY/DRISP.			82/86
SODA ASH			61
PIPE LAX/DD			6/5
CMC LV/HV			/167
CEMENT (G)			3818
$CaCl_2$ SX/LIQ			34/440
HR6L/CFR-2			350/150
HLX C248/HR12L1			425/230
ECONOLITE			425
DRL WATER		200	4590
NF-1			20
POT WATER			180
RIG FUEL		100	3615
HELIFUEL			12.24

MUD
MAKE UP WATER: Cl^- 200, Ca^{++} 14, Rw @ °F; SHAKER SCREEN MESH 60 x 80, 60 x 80
DESANDER HRS., DESILTER HRS., MUD CLNR. HRS. 19 SCREEN SIZE: 150
DAILY MUD COST 4991, CUM MUD COST 105,710, MUD PUMP TYPE/LINERS 12P160 6 x 12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	M	HRS	M/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G
18	12	8 1/2	4X13	708121U2	1.0	3591	302	51.2	5.3	15-30	80-90	4000	150	250	70	8	0
19	C.B.	8 1/2	CHIP	21484	1	NC	→										

DRILLING ASSEMBLY

COMPONENT	FT
8 1/2 CHIP	.12
CORE BBL	30.14
X-O	.38
STAB.	1.58
1 x 6 1/2 D.C.	9.12
X-O	.29
20 x 6 1/2 D.C.	182.26
X-O	.29
6 - HWDP	59.51
JARS	9.99
9 x HWDP	81.76
TOTAL 360.48	

DEVIATION AND LEAKOFF DATA

DEPTH	3565		3590		
ANGLE	3/4 N	87W	1 N	47W	
LEAKOFF PPG EQUIV					
DEPTH					
DATE					

FIXED WING AND HELICOPTERS

FW FLTS/PAX	; TO FR
FW FLTS/PAX	; FR TO
HELI FLTS/PAX TO RIG	—
HELI FLTS/PAX FR RIG	—

WORKBOATS

BOAT	S.P.	SANDEC	ALCAR
LOCATION	RIG	SRV.	RIG
ENROUTE TO			
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	3
DRLG CONT	50
MUD LOGGER	4
MUD	1
CEMENT	2
DIVERS	2
E. LOG	4
SCANCORE	1
HUNTING	2
TOTAL	69

WEATHER (RANGE/DAY)	
SEA	N.W. 5 - 10
SWELL	N.W. 6 - 14
WIND	N.W. 12 - 30
SLIP JT.	30
BALL JT	130 0
RISER TEN	160
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.5 — 1.0
PITCH	.5 - 1.7
HEAVE	.5 - 5
% OFFSET	.9 %
ANCHOR TENS	
MAX.	N°8 - 220
MIN	N°6 - 155

FORM A

DAILY DRILLING REPORT

WELL 15/6-6
WATER DEPTH 135M R.K.B
ESSO SUPR. PARISH
ESSO ENGR. —
ESSO TECH. CARPENTER
RIG SUPR. GUSTAVSON

ESSO EXPLORATION INC.

RIG GLOMAR BISCAY II

PAGE 1 OF 2
REPORT NO. 41
24 HRS. END 10/MAY/82
WELL DEPTH 3609.5M
PROGRESS 18.5M

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
18	0300	3	finish rih to 3586
18	0345	3/4	circ and ream to 3591
18	0600	2-1/4	core from 3591 to 3597. trip gas 32 units.
18	1000	4	core from 3597 to 3609.5 max gas while coring was 20.9 units from 3601m.
18	1445	4-3/4	pump slug. pooh. max drag 45k at 3352m.
18	1600	1-1/4	recover core. 18.5m 100 0/0. stand back core barrel.
24	2015	4-1/4	r/u and slip and cut riser tensioners 48 ft.
18	2245	2-1/2	rih to 2000m.
16	2330	3/4	slip and cut 127' drlg line.
18	2400	1/2	cont rih.

24 hour summary
---

note
---

evening tour had trip drill.

end***

TIME SUMMARY	CODE	16	18	24										TOTAL
	HOURS	3/4	19	4 1/4										

DAILY DRILLING REPORT

FORM B

WELL 15/6-6
ESSO EXPLORATION INC.
SIZE/DEPTH LAST CSG. 9 5/8" @ 2779
ANN TOC LAST CSG. 2150

PAGE 2 OF 2
REPORT NO. 41
24 HRS. END 10/MAY/82

DAILY WELL COST 204,855
CUM. WELL COST 7,385,242

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH		3600					
TIME		0700					
WT		11.2					
PV @ 120 °F		16					
YP @ 120 °F		10					
GELS (0/10)		2/7					
API F.L.		4.7					
HTHP F.L. @ 200°F PSI		17.6					
CAKE THK		1/32					
CAKE DESC		FIRM					
pH		10.0					
pf		.5					
Mf		1.8					
Rf @ °F							
Cl⁻		14500					
Ca⁺⁺		140					
SOLIDS %		15					
SAND %		TR					
OIL %		0					
CEC		22.5					
FUNNEL VIS.		46					

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)			3531
B (SX)			154
BENTONITE			722
LIG. SULFONATE		20	219
LIGNITE		40/	88/46
CAUSTIC/LIME		12/	166/37
BICARB/A. STEA.			73/38
XC POLY./DRIS.			82/86
SODA ASH			61
PIPE LAX/DD			6/5
CMC LV/HV		1/	165/167
CEMENT (G)			3818
$CaCl_2$ SX/LIQ			34/440
HR6L/CFR3-L			350/150
HLXC248/HR12L			425/430
ECONOLITE			425
DRL WATER		140	4450
NF-1			20
POT WATER			180
RIG FUEL		70	3545
HELIFUEL			12.24

MUD
MAKE UP WATER: Cl⁻ 100, Ca⁺⁺ 40, Rw @ °F; SHAKER SCREEN MESH 60 x 80, 60 x 80
DESANDER HRS., DESILTER HRS. 3 MUD CLNR. HRS. 0 SCREEN SIZE 150
DAILY MUD COST 1304, CUM MUD COST 107,014, MUD PUMP TYPE/LINERS 12P160 x 6 x 12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	M	HRS	M/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G
19	CB1[illegible]	8 1/2	CHIP	21484		3609.2	18	4 1/4	3	25-28	50-70	1200	69	197	70%	Good	D
20	CB N2	8 1/2	CHIP	21917													

DRILLING ASSEMBLY

COMPONENT	FT
8 1/2 CHIP	.12
CORE BBL.	20.14
X-O	.38
STAB.	1.58
1 x 6 1/2 D.C.	9.12
X-O	.29
20 x 6 1/2" D.C.	182.26
X-O	.29
6 HWDP	57.51
JARS	9.99
9 HWDP	81.76
TOTAL:	360.48

DEVIATION AND LEAKOFF DATA

DEPTH	
ANGLE	
LEAKOFF PPG EQUIV	
DEPTH	
DATE	

FIXED WING AND HELICOPTERS

FW FLTS/PAX	; TO FR
FW FLTS/PAX	; FR TO
HELI FLTS/PAX TO RIG	—
HELI FLTS/PAX FR RIG	—

WORKBOATS

BOAT	S.P	ALCOR	SADT.
LOCATION	RIG	RIG	RIG
ENROUTE TO			
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	3
DRLG CONT	50
MUD LOGGER	4
MUD	1
CEMENT	2
DIVERS	2
E. LOG	4
SCANCORE	1
HUNTING	2
TOTAL	69

WEATHER (RANGE/DAY)
SEA NW-S -CALM-
SWELL NE 2-6
WIND NW 12 -CALM-
SLIP JT. 30
BALL JT 1300
RISER TEN 160
RIG DATA (RANGE/DAY)
HEADING 307
ROLL .3 - .5
PITCH .3 - .5
HEAVE .5
% OFFSET .4 - .7
ANCHOR TENS
MAX. N°8 - 230
MIN N°7 - 155

DAILY DRILLING REPORT

FORM A

WELL: WELL 15/6-6
WATER DEPTH: 135M R.K.B.
ESSO SUPR: PARISH
ESSO ENGR:
ESSO TECH: CARPENTER
RIG SUPR: GUSTAVSEN

ESSO EXPLORATION INC

RIG: BISCAY II

PAGE 1 OF 2
REPORT NO. 42
24 HRS. END: 11-MAY-82
WELL DEPTH: 3627
PROGRESS: 18

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION

/8 [illegible] 1-1/2 rih to 3590 m. taking wt.
/8 [illegible] 2 ream to 3622, drop ball and pump down. t.q.33
/8 0600 2-1/2 core from 3600.5 to 3622 (5 mph)
/8 0800 2 core from 3622 to 3625.5
/8 0830 1/2 pump slug. pooh to 3511m. had 50k o.p. could not work thru.
/8 0915 3/4 p/u kelly and pump out 2 singles. pump slug cont.pooh. 40 k drag at 3463.
/8 1445 5-1/2 pooh and retrieve core, stand back core bhl.
6 1515 1/2 m/u new bha w/8-1/2 j22 bit, pooh + lay down same.
/8 1930 4-1/4 p/u new jars + rih w/core assymbly, tight spot at 3598m.
/8 2345 1-1/4 ream 3598-3625.5
/8 2230 1-3/4 circ.btms up. drop ball + pump down max tq 26
/8 2400 1-1/2 core 3625.5 - 3627

morning tour had pit drill.

need: dresser atlas crew for thurs.or fri.

jumn scan dive while rih. could not locate csg. are going to attempt to get a more powerful thruster from u.k. today and mount on mantis. presently they don't have enough power to maneuver any distance from the bops.

anch:	1	2	3	4	5	6	7	8
max:	220	205	230	190	190	180	225	230
min:	190	175	200	160	160	160	190	200

TIME SUMMARY	CODE	6	18									TOTAL
	HOURS	1/2	23 1/2									

DAILY DRILLING REPORT

FORM B

WELL: 15/6-6
ESSO EXPLORATION INC.
SIZE/DEPTH LAST CSG: 9 5/8 2979
ANN TOC LAST CSG: 2150
DAILY WELL COST: 144,032

PAGE ... OF ...
REPORT NO. 42
24 HRS. END: 11 May 82
CUM. WELL COST: 7,529,274

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	3624	3625					
TIME	0630	1800					
WT	11.3	11.4					
PV @ 120°F	16	13					
YP @ 120°F	10	10					
GELS (0/10)	1/7	1/5					
API F.L.	4.1	4.3					
HTHP F.L. @ 500°F PSI	16.4	16.8					
CAKE THK	1-3	1-3					
CAKE DESC	firm	firm					
pH	10.2	10.5					
pf	.6	.7					
Mf	1.9	1.3					
Rf @ gas/min °F	0	–					
Cl^-	14000	15000					
Ca^{++}	120	100					
SOLIDS %	16	16					
SAND %	1/4	tr					
OIL %	0	0					
CEC	25	25					
funnel vis	46	47					

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)	1300	277	4554
B (SX)			154
BENTONITE			722
LIG. SULFONATE		8	211
LIGNITE /res		10-	78/96
CAUSTIC /lime		1-	165/37
BICARB		-1	73/37
XC/dris			82/86
SODA ASH			61
PIPE lox-dd			6/5
CMC lv/hv		3-	162/167
CEMENT ( )			3818
$CaCl_2$ sx/l			39/440
HR6L/CFR2			350/150
HLXC/HR12			425/230
Econolite			425
DRL WATER	1800	220	6030
nt-1			20
POT WATER	211	.81	310
RIG FUEL		100	3445
HELIFUEL			12.24

MUD: MAKE UP WATER: Cl⁻ 100, Ca^{++} 40, Rw ●, °F; SHAKER SCREEN MESH 60/80, 60/80
DESANDER HRS, DESILTER HRS 5, HRS mud cleaner 10 screen 150
DAILY MUD COST 2042, CUM MUD COST 109,056, MUD PUMP TYPE/LINERS 6 x 12

BITS RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32	DEPTH OUT	m	HRS	m/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G
20	CB2	8 1/2	cmip	21917		3625.5	16	4 1/2	3.6	15-25	50-70	1300	710	200	2/8	6/8	-/-
21	CB2RR	8 1/2	cmip	21917		INC	1.5	.5	1	10-25	90	1300	710	200			

DRILLING ASSEMBLY COMPONENT	FT
8 1/2 cmip	.12
core bbl	20.14
XO	.38
stab	1.58
1-6 1/2 dc	9.12
XO	.29
20 dc	182.26
XO	.29
6 hwdp	54.57
jars	9.99
9 hwdp	91.76
	360.8

DEVIATION AND LEAKOFF DATA

DEPTH				
ANGLE				
LEAKOFF PPG EQUIV				
DEPTH				
DATE				

FIXED WING AND HELICOPTERS

FW FLTS/PAX	; TO FR
FW FLTS/PAX	; FR TO
HELI FLTS/PAX TO RIG	1/11
HELI FLTS/PAX FR RIG	1/10

WORKBOATS

BOAT	Sandfor	S.P.	Aker
LOCATION			
ENROUTE TO	R'a	Stv	Rig
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	3
DRLG CONT	50
MUD LOGGER	4
MUD	1
CEMENT	2
DIVERS	4
E. LOG	4
Scanscr	1
Syminex	1
TOTAL	70

WEATHER (RANGE/DAY)	
SEA	NW 1-3
SWELL	NW 2-3
WIND	NW 6-12
Slip Jt.	42 psi
BALL JT	1300 psi
RISER TEN	160K
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.2 - .3
PITCH	.3
HEAVE	.5
% OFFSET	.9
ANCHOR TENS	
MAX.	8 - 265
MIN	6 - 160

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135
ESSO SUPR Parish
ESSO ENGR
ESSO TECH Carpenter
RIG SUPR Gustavson

RIG Biscay II

PAGE ..... OF .....
REPORT NO. 43
24 HRS. END 12 May '82
WELL DEPTH 3644.5
PROGRESS 17.5 m

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
10	[illegible]	6	core 3637-3644 rop 1.4 m/hr [illegible] units avg hkp 1.5 max hkp 17.2
10	1100	5	core from 3637 to 3644.5
10	1545	4-3/4	pump slug. pooh. 50k drag from 3559 to 3540 and at 3502. hole free from 3500m to shoe.
10	1630	3/4	recover core. 18.9m of 19.0m +stand back core bbl.
15	1745	1-1/4	rih and retrieve wear bushing, rih w/ test tool.
15	2000	2-1/4	test bop's on blue pod and function on yellow = ok.
15	2115	1-1/4	pooh w/ test tool + rih w/ wear bushing, pooh.
6	2400	2-3/4	m/u new bha and rih.

need: 30/50 dispersant fluid for np 50 cannon coniler.

jumped scandive, located 4 jts of csg 280 ft from bop's on a heading of 140 degrees
set pinger.

anch:	1	2	3	4	5	6	7	8
max:	230	220	230	190	190	185	220	245
min:	190	175	195	165	160	165	190	205

TIME SUMMARY														TOTAL
CODE	6	15	18											
HOURS	2 3/4	4 3/4	16 1/2											24

DAILY DRILLING REPORT

FORM B

WELL 15/6-6
ESSO EXPLORATION INC.

PAGE ..... OF .....

SIZE/DEPTH LAST CSG 9 5/8 @ 2779
ANN TOC LAST CSG 2150

REPORT NO. 43
24 HRS. END 12 May '82

DAILY WELL COST 170,600
CUM. WELL COST 7,679,874

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	3637		PIT				
TIME	0615		1415				
WT	11.2		11.4				
PV @ 120 °F	14		14				
YP @ 120 °F	13		11				
GELS (0/10)	2/9		2/7				
API F.L.	4.0		4.4				
HTHP F.L. @ °F PSI	16.0		16.8				
CAKE THK	1/3		1/3				
CAKE DESC	Thin		Thin				
pH	10.1		10.3				
pf	.55		.65				
Mf	1.7		1.8				
Rf @ °F							
Cl^-	15500		15000				
Ca^{++}	120		120				
SOLIDS %	15		15				
SAND %	Tr		Tr				
OIL %							
CEC	22.5		25.0				
FV	48		46				

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)		209	4345
BENT (SX)			154
BENTONITE			1200
LIG. SULFONATE		8	203
LIGNITE / RES		15/7	63/37
CAUSTIC / Lime		5/	160/37
BICARB / AIST			73/37
XC / QRIS		3/	79/86
SODA ASH			61
PIPE LAX / OO			6/5
CMC LV/HV		1/	161/167
CEMENT (G)			3818
$CaCl_2$ SX/L			34/440
HRGL / CFR			350/150
HLXC / HR12			425/230
Econolite			425
DRL WATER		200	5830
NF-1			20
POT WATER			250
RIG FUEL		100	3345
HELIFUEL			12.24

MUD
MAKE UP WATER: Cl 160 Ca^{++} 40, Rw @ °F; SHAKER SCREEN MESH 60/80, 60/80
DESANDER HRS —, DESILTER HRS —, Mud Clnr. HRS 12 Screen 150
DAILY MUD COST 3113, CUM MUD COST 12,167, MUD PUMP TYPE/LINERS 12-P-160/6x12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	M	HRS	M/HR	WOB	RPM	PRESS	TOTAL S'M	D.PIPE AV	COND T	COND B	COND G
21	C82	8 1/2	CMIP	21717	—	3641.5	19	12.5	1.5	15/30	90	1300	70	200	7	7	6 Good I
22	13	8 1/2	J22	55766	3x12												

DRILLING ASSEMBLY

COMPONENT	FT
Bit	.24
Junk Sub	.86
Stab	1.44
DC Pup	3.87
Stab	1.55
Monel	9.35
Stab	1.58
1 x DC	9.12
XO	.33
20 x DC	213.73
XO	.29
6 x HWDP	54.51
JARS	9.77
9 x HWDP	81.76
Total	357.17

DEVIATION AND LEAKOFF DATA

DEPTH	
ANGLE	
LEAKOFF PPG EQUIV	
DEPTH	
DATE	

FIXED WING AND HELICOPTERS

FW FLTS/PAX	TO	FR
FW FLTS/PAX	FR	TO
HELI FLTS/PAX TO RIG	1/12	
HELI FLTS/PAX FR RIG	1/10	

WORKBOATS

BOAT	ALC	SIO	SAN
LOCATION	R16	STU	
ENROUTE TO			STU
ETA			0400 5/13

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	3
DRLG CONT	51
MUD LOGGER	4
MUD	1
CEMENT	2
DIVERS	4
E. LOG	4
Drexel	1
Syminex	1
Scancore	1
TOTAL	72

WEATHER (RANGE/DAY)	
SEA	NW-1 SW-3
SWELL	UAR 3/4
WIND	NW-6 SW10/15
Slip JT	35
BALL JT	1300
RISER TEN	160k
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.2-.3
PITCH	.3
HEAVE	.5-.1
% OFFSET	.67
ANCHOR TENS	
MAX.	8-245
MIN	5-160

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135
ESSO SUPR. Parish
ESSO ENGR.
ESSO TECH. Carpenter
RIG SUPR. Gustavsen

RIG Biscay II

PAGE ..... OF .....
REPORT NO. 44
24 HRS. END 13 May 82
WELL DEPTH 3681
PROGRESS 36 m

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
6	0215	2-1/4	rih to 3502, work pipe thru tight spot.
11	0245	1/2	ream 3500 - 3516.
6	0300	1/4	rih to 3533, tight spot at 3533
11	0330	1/2	ream 3533 - 3543, wash pipe leaking.
24	0445	1-1/4	change out wash pipe and packing
11	0500	1/4	ream 3533 - 3543.
6	0515	1/4	rih to 3580, tight spot.
11	0530	1/4	ream 3580 - 3595.
6	0545	1/4	rih to 3601, tight spot.
11	0700	1-3/4	ream 3601 - 3644.5
3	2400	17	drlg 3644.5 - 3681 rop 2.1 avg bgg 2 tg 39.7

notes: morning tour had oit drill.

recieved 135 jts csg 1593.23 m (5227.36') added to the 93 jts 1097.21m (3599.5') already on board = 2690.44m (8826.9'), with 7" shoe at 3740m we need 3608m csg or approx 30 more jts.

mech:	1	2	3	4	5	6	7	8
max	230	210	240	195	185	150	215	230
min	195	130	210	160	169	169	198	225

TIME SUMMARY	CODE	3	6	11	24								TOTAL
	HOURS	17	3	2 3/4	1 1/4								24

DAILY DRILLING REPORT

FORM B

WELL 15/6-6
ESSO EXPLORATION INC.
SIZE/DEPTH LAST CSG 9 5/8 @ 2779
ANN TOC LAST CSG 2150

PAGE ..... OF .....
REPORT NO. 44
24 HRS. END 13 May '82

DAILY WELL COST 156,404
CUM. WELL COST 7,856,278

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	3645		3660		3677		
TIME	0615		1400		2200		
WT	11.2		11.2		11.2		
PV @ 120 °F	16		12		13		
YP @ 120 °F	13		12		13		
GELS (0/10)	2/8		2/7		2/7		
API F.L.	4.3		4.3		3.3		
HTHP F.L. @ °F PSI	15.6		15.8		15.6		
CAKE THK	1/3		1/3		1/3		
CAKE DESC	Thin		Thin		Thin		
pH	10.0		10.0		10.2		
pf	.5		.5		.6		
Mf	1.4		1.5		1.7		
Rf @ °F							
Cl^-	15000		15000		15000		
Ca^{++}	120		140		140		
SOLIDS %	16		15		16		
SAND %	1/4		Tr		Tr		
OIL %							
CEC	25.0		22.5		22.5		
FV	49		46		47		

STOCKS	REC ~~UNITS~~	USED	REMAIN STOCK
BARITE (BULK)		233	4112
BENT (SX)			154
BENTONITE			1200
LIG. SULFONATE	150	29	324
LIGNITE / RES	120 /	46/10	136/27
CAUSTIC / Lime		10/	150/37
BICARB / ALST		/1	73/36
XC / ORIS		/4	77/82
SODA ASH			61
PIPE LAX/OO			6/4
CMC LV/HV		1/	160/167
CEMENT (G)	712		4530
$CaCl_2$ SX/LQ			34/440
HRGL / CFR2	/400		350/550
HLXC / HR12			425/230
Econolite			425
DRL WATER	600	220	6210
NF-1			20
POT WATER	190		340
RIG FUEL		90	3255
HELIFUEL		3 06	9.18

MUD
MAKE UP WATER: Cl^- 150, Ca^{++} 36, Rw ..... @ ..... °F; SHAKER SCREEN MESH 60/80 60/80
DESANDER HRS. —, DESILTER HRS. 4, Mud Clnr HRS. 20 Screen 150
DAILY MUD COST 4218, CUM MUD COST 116,388, MUD PUMP TYPE/LINERS 12-P-160/6x12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	M	HRS	M/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G
22	13	8 1/2	J22	5576K	3x12		36	17.2	2.1	25/40	50/70	3000	122	349			

DRILLING ASSEMBLY

COMPONENT	FT
Bit	.24
Junk Sub	.86
Stab	1.44
OC Pup	7.87
Stab	1.55
Monel	9.35
Stab	1.58
OC	9.12
X O	.33
20 x OC	613.73
X O	.29
6 x HWDP	54.51
JARS	9.77
9 x HWDP	81.76
Total	3 57.12

DEVIATION AND LEAKOFF DATA
DEPTH
ANGLE
LEAKOFF PPG EQUIV
DEPTH
DATE

FIXED WING AND HELICOPTERS
FW FLTS/PAX ; TO FR
FW FLTS/PAX ; FR TO
HELI FLTS/PAX TO RIG 1/14
HELI FLTS/PAX FR RIG 1/7

WORKBOATS

BOAT	ALC	SIO	SAN
LOCATION	RIG	RIG	STU
ENROUTE TO			
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	4
DRLG CONT	51
MUD LOGGER	6
MUD	1
CEMENT	1
DIVERS	4
E. LOG	7
Scanco	1
Symine	1
NRK	3
TOTAL	79

WEATHER (RANGE/DAY)	
SEA	Calm WSW-2
SWELL	VAR 2-3
WIND	Calm WSW-10
Slip Jt	30
BALL JT	1300
RISER TEN	160 k
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.2 - .3
PITCH	.2 - .3
HEAVE	1/4 - 1/2
% OFFSET	.67
ANCHOR TENS	
MAX.	3 - 240
MIN	6 - 165

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135
ESSO SUPR Smith
ESSO ENGR
ESSO TECH Carpenter
RIG SUPR Gustavsen

RIG Bissay II

PAGE ..... OF .....
REPORT NO. 45
24 HRS. END 15 May '82
WELL DEPTH 3745
PROGRESS 64

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
3	0315	3-1/4	drill 3631 - 3635. rop 1.2 bgg .5 cits.
12	0515	2	circ, drop survey, pump slug, pull 7 stds +retrieve survey (1 - 079w) rih, no drag.
3	0715	2	drill 3685 - 3691 rop 3 bgg .5 units.
20	0830	1-1/4	circ samples.
3	2400	15-1/2	drlg 3691 - 3745. rop 3.5 bgg 1 max bgg 3

anchors:	1	2	3	4	5	6	7	8
max:	200	185	210	170	170	170	190	230
min:	195	170	207	160	160	157	185	205

TIME SUMMARY	CODE	3	12	20									TOTAL
	HOURS	20 3/4	2	1 1/4									24

DAILY DRILLING REPORT

FORM B

WELL 15/6-6
ESSO EXPLORATION INC.
SIZE/DEPTH LAST CSG 9 5/8 @ 2779
ANN TOC LAST CSG 2150

PAGE ..... OF .....
REPORT NO. 45
24 HRS. END 14 May '82

DAILY WELL COST 153,406
CUM. WELL COST 8,009,684

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	3689		3710		3736		
TIME	0650		1430		2200		
WT	11.2		11.3		11.2		
PV @ °F	15		16		15		
YP @ °F	14		12		12		
GELS (0/10)	2/7		2/8		2/9		
API F.L.	3.1		3.4		3.5		
HTHP F.L. @ °F PSI	14.8		14.8		15.0		
CAKE THK	1/2		1/2		1/2		
CAKE DESC	Tlin		Tlin		Tlin		
pH	10.0		10.5		10.4		
pf	.5		.7		.7		
Mf	1.6		1.9		2.1		
Rf @ °F							
Cl⁻	15000		15000		15000		
Ca⁺⁺	100		100		100		
SOLIDS %	16		16		15		
SAND %	Tr		Tr		Tr		
OIL %							
CEC	25		25		25		
FV	47		49		47		

STOCKS	REC ~~UNITS~~	USED	REMAIN STOCK
BARITE (BULK)	702		4814
BENT (SX)		20	134
BENTONITE			1200
LIG. SULFONATE		10	314
LIGNITE / RES		10 /	126/29
CAUSTIC / Lime		10 /	140/37
BICARB / ALST			73/36
XC / DRIS		/2	79/80
SODA ASH			61
PIPE LAX/OD			6/5
CMC LV/HV			160/167
CEMENT (G)			4530
CaCl2 SX/LQ			34/440
HRGL/CFR2			350/550
HLXC/HR12	400/		825/230
Ecomolite			425
DRL WATER	860	320	6750
NF-1			20
POT WATER			383
RIG FUEL		90	3165
HELIFUEL		1.4	7.78

MUD
MAKE UP WATER: Cl⁻ 150 Ca⁺⁺ 36, Rw @ °F; SHAKER SCREEN MESH 60/80 60/80
DESANDER HRS. —, DESILTER HRS. 6, Mud Clnr HRS. 22 Screen 150
DAILY MUD COST 1070, CUM MUD COST 117,457, MUD PUMP TYPE/LINERS 12-P-160/6x12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	M	HRS	M/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G
22	13	8 1/2	722	55706	3x13		100	17.8	2.6	25/35	70/80	2900	118	337			

DRILLING ASSEMBLY

COMPONENT	FT
Bit	.24
Junk Sub	.86
Stab	1.44
DC Pup	3.87
Stab	1.55
Monel	9.35
Stab	1.58
DC	9.12
XO	.33
20 x DC	613.71
XO	.29
6 x HWDP	54.51
JARS	7.77
9 x HWDP	81.76
Total	357.17

DEVIATION AND LEAKOFF DATA				
DEPTH	3685			
ANGLE	1/4°			
LEAKOFF PPG EQUIV				
DEPTH				
DATE				
FIXED WING AND HELICOPTERS				
FW FLTS/PAX	; TO	FR		
FW FLTS/PAX	; FR	TO		
HELI FLTS/PAX TO RIG	1/6			
HELI FLTS/PAX FR RIG	1/7			
WORKBOATS				
BOAT	ALC	SID	SAN	
LOCATION	Rig			
ENROUTE TO		CCB	Rig	
ETA		0700	0530	

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	4
DRLG CONT	50
MUD LOGGER	6
MUD	1
CEMENT	2
DIVERS	4
E. LOG	7
Symia	1
Scancore	1
TOTAL	76

WEATHER (RANGE/DAY)	
SEA	Var - 1
SWELL	Var 2-3
WIND	Calm 5-8
Slip JT	70
BALL JT	1200
RISER TEN	160k
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.2
PITCH	.2
HEAVE	1/4 - 1/2
% OFFSET	.67
ANCHOR TENS	
MAX.	8 - 225
MIN	6 - 150

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135 AKB
ESSO SUPR. Smith
ESSO ENGR.
ESSO TECH. Carpenter
RIG SUPR. Gustavsen

RIG Biscay II

PAGE ..... OF .....
REPORT NO. 46
24 HRS. END 15 May '82
WELL DEPTH 3760
PROGRESS 15m

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
3	[illegible]	1-1/2	drlg 3745 - 3760. rop 4.3 bag 2 units.
19	0445	1-1/4	circ btms up. bag dropped to 0.
12	0500	1/4	drop survey, pump slug.
19	0600	1	pooh. 60 k trpull at 3600, 40k overpull at 3500.
19	0645	3/4	pooh to shoe.
12	0715	1/2	retrieve survey (1 - n70w)
19	0845	1-1/2	rih to 3760, ream 3756 -3760
19	1100	2-1/4	pump hi vis pill and circ out. tg 10.5 units.
19	1545	4-3/4	pooh - no drag slm - no correction.
6	1630	3/4	l/d core barrell.
19	1700	1/2	r/u dresser.
19	2115	4-1/4	log run no 1 (3755-3730) lel/hhc ac
30	2400	2-3/4	log run no 2 cdl cnl misrun.

both tours had pit drills.

anch:	1	2	3	4	5	6	7	8
max:	225	215	235	195	190	185	220	270
min:	200	135	205	180	165	170	165	225

TIME SUMMARY	CODE	3	12	19	30	6								TOTAL
	HOURS	3 1/2	3/4	16 1/4	2 3/4	3/4								24

DAILY DRILLING REPORT

FORM B

WELL 15/6-6
ESSO EXPLORATION INC.
SIZE/DEPTH LAST CSG. 9 5/8 @ 2779
ANN TOC LAST CSG. 2150

PAGE ..... OF .....
REPORT NO. 46
24 HRS. END 15 May 82

DAILY WELL COST 154,260
CUM. WELL COST 8,163,944

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	3760		3760		PIT		
TIME	0700		1100		2200		
WT	11.2		11.2		11.2		
PV @ °F	14		18		10		
YP @ °F	12		12		10		
GELS (0/10)	2/8		2/8		1/5		
API F.L.	3.4		3.9		4.0		
HTHP F.L. @ °F PSI	14.8		15.0		14.6		
CAKE THK	1-2		1-2		1-2		
CAKE DESC	Thin		Thin		Thin		
pH	10.6		10.4		10.2		
pf	.7		.8		.6		
Mf	2.3		2.4		2.0		
Rf @ °F							
Cl⁻	15500		15500		15000		
Ca⁺⁺	120		80		120		
SOLIDS %	15		16		15		
SAND %	TR		TR		TR		
OIL %							
CEC	25		25		25		
F V	45		48		42		

STOCKS	~~Rec UNITS~~	USED	REMAIN STOCK
BARITE (BULK)			3560
BENT (SX)		14	120
BENTONITE			1200
LIG. SULFONATE		10	304
LIGNITE / RES		10/9	116/20
CAUSTIC / Lime		5/	135/37
BICARB / ALST		/1	73/35
XC / ORIS			79/80
SODA ASH			61
PIPE LAX/OD			6/5
CMC LV/HV			160/167
CEMENT (G)			4530
$CaCl_2$ SX/LQ			34/440
HRGL/CFR-2			350/550
HLXC/HRIZL	1000/350		1825/750
Econolite			425
DRL WATER		200	6550
NF-1			20
POT WATER			383
RIG FUEL		100	3065
HELIFUEL		3.14	4.64

MUD
MAKE UP WATER: Cl⁻ 150 Ca⁺⁺ 36, Rw @ °F; SHAKER SCREEN MESH 60/80 60/80
DESANDER HRS. —, DESILTER HRS. 3, Mud Clnr. HRS. 11 Screen 150
DAILY MUD COST 1285, CUM MUD COST 118,842, MUD PUMP TYPE/LINERS 12-P-160/6x12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	M	HRS	M/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G
22	13	8 1/2	J22	557CK	3x12	3760	115	11.25	2.8	25/40	50/80	3000	117	335	8	4	5/16

DRILLING ASSEMBLY

COMPONENT	FT
SAB	

DEVIATION AND LEAKOFF DATA				
DEPTH	3760			
ANGLE	1/2 N70W			
LEAKOFF PPG EQUIV				
DEPTH				
DATE				
FIXED WING AND HELICOPTERS				
FW FLTS/PAX	; TO	FR		
FW FLTS/PAX	; FR	TO		
HELI FLTS/PAX TO RIG	1/4			
HELI FLTS/PAX FR RIG	0			
WORKBOATS				
BOAT	ALC	SAN	SID	
LOCATION	Rig		Rig	
ENROUTE T		STV		
ETA		0530		

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	4
DRLG CONT	50
MUD LOGGER	6
MUD	1
CEMENT	2
DIVERS	4
E. LOG	10
Symin	1
Scancore	1
W. Lamb	1
Hel. Pilots	2
TOTAL	

WEATHER (RANGE/DAY)	
SEA	0
SWELL	VAR - 2
WIND	Calm - VAR 8
Slip Jt.	30
BALL JT	1250
RISER TEN	160 k
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.2
PITCH	.2
HEAVE	1/2
% OFFSET	.67
ANCHOR TENS	
MAX.	8 - 270
MIN	5 - 165

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135 RKB
ESSO SUPR. Smith
ESSO ENGR.
ESSO TECH. Carpenter
RIG SUPR. Gustavsen

RIG Biscay II

PAGE ..... OF .....
REPORT NO. 47
24 HRS. END 16 May '82
WELL DEPTH 3760
PROGRESS —

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
19	0315	3-1/4	run log no 2 cal cnl (3755 - 2766)
19	0600	2-3/4	run log no 3 dll mll misrun
19	0630	1/2	pooh log no 3
19	0830	2	run log no 3 (3750 - 3500)
19	1300	4-1/2	run log no 4 diplog (3750 - 2778)
19	1330	1/2	rig down dresser.
19	1645	3-1/4	m/u new bit, rih to 2720
19	1745	1	slip and cut 135' drl line.
19	1845	1	rih to 3743, taking weight.
19	1915	1/2	ream 3743 - 3760, 3 m fill.
19	2100	1-3/4	pump hi vis pill and circ.out pump press dropped 350 psi. tq 38 units.
19	24000	3	pooh wet looking for washout, 30 kip overpull at 3570.

evening tour had pit drill.

anch:	1	2	3	4	5	6	7	8
max:	225	200	240	195	185	185	220	260
min:	205	190	225	180	180	175	200	230

TIME SUMMARY	CODE	19												TOTAL
	HOURS	24												24

DAILY DRILLING REPORT

FORM B

WELL 15/6-6
ESSO EXPLORATION INC.
SIZE/DEPTH LAST CSG. 9 5/8 @ 2777
ANN TOC LAST CSG. 2150

PAGE ..... OF .....
REPORT NO. 47
24 HRS. END 16 May '82

DAILY WELL COST 142,157
CUM. WELL COST 8,306,101

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT		3760				
TIME	0960		2100				
WT	11.1		11.2				
PV @ °F	10		15				
YP @ °F	8		11				
GELS (0/10)	1/4		2/7				
API F.L.	3.9		3.9				
HTHP F.L. @ °F PSI	14.8		15.0				
CAKE THK	1-2		1-2				
CAKE DESC	Thin		Thin				
pH	10.1		10.0				
pf	.55		.5				
Mf	1.3		1.5				
Rf @ °F							
Cl⁻	14500		15500				
Ca⁺⁺	120		120				
SOLIDS %	14		16				
SAND %	TR		TR				
OIL %							
CEC	25.0		22.5				
FV	43		47				

STOCKS	REC ~~UNITS~~	USED	REMAIN STOCK
BARITE (BULK)		183	4631
BEAT (SX)		6	114
BENTONITE			1200
LIG. SULFONATE		2	302
LIGNITE / RES			116/20
CAUSTIC / Lime		3 /	132/37
BICARB / ALST			73/35
XC / DRIS			79/80
SODA ASH			61
PIPE LAX / DO			6/5
CMC LV/HV		/ 2	16/165
CEMENT (G)			4530
CaCl2 SX/LQ			34/440
HRGL / CFR2			350/550
HLXC / HR12			825/230
Econolite			425
DRL WATER		180	6370
NF-1			20
POT WATER			295
RIG FUEL		70	2995
HELIFUEL	14.61	3.18	15.72

MUD

MAKE UP WATER: Cl⁻ 150, Ca⁺⁺ 36, Rw @ °F; SHAKER SCREEN MESH 60/80 60/80
DESANDER HRS. —, DESILTER HRS. —, mud clnr. HRS. 2 Screen 150
DAILY MUD COST 1233, CUM MUD COST 120,076, MUD PUMP TYPE/LINERS 12 P160/6x12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32	DEPTH OUT	HRS	/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G
23	14	8 1/2	J22	7907P	3x12	Clean	Out	Trip								

DRILLING ASSEMBLY

COMPONENT	FT
Bit	.24
Junk Sub	.86
Stab	1.44
DC Pup	3.87
Stab	1.55
Monel	9.35
Stab	1.58
DC	9.12
XO	.33
20 x DC	213.33
XO	.29
6 x HWDP	54.5
JARS	9.99
9 x HWDP	81.70
Total	357.17

DEVIATION AND LEAKOFF DATA

DEPTH			
ANGLE			
LEAKOFF PPG EQUIV			
DEPTH			
DATE			

FIXED WING AND HELICOPTERS

FW FLTS/PAX	TO	FR
FW FLTS/PAX	FR	TO
HELI FLTS/PAX TO RIG	—	—
HELI FLTS/PAX FR RIG	1	15

WORKBOATS

BOAT	ALC	SIO	SAN
LOCATION	Rig	Rig	Stu
ENROUTE TO			
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	4
DRLG CONT	50
MUD LOGGER	4
MUD	1
CEMENT	2
DIVERS	4
E. LOG	10
Symnx	1
W-Lamb	1
TOTAL	77

WEATHER (RANGE/DAY)	
SEA	VAR 1/2 - E3
SWELL	VAR 2 - E5
WIND	VAR 5 - SE 18/20
Slip Jt.	30
BALL JT	1250
RISER TEN	160k
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.2
PITCH	.3
HEAVE	1/2 - 1
% OFFSET	0 - .67
ANCHOR TENS	
MAX.	8 - 260
MIN	6 - 175

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135 RKB
ESSO SUPR Smith
ESSO ENGR
ESSO TECH Carpenter
RIG SUPR Gustavsen

RIG Biscay II

PAGE ..... OF .....
REPORT NO. 48
24 HRS. END 17 May '82
WELL DEPTH 3760
PROGRESS –

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
19	0315	3-1/4	finish qooh, 1 nozzel gone, 30 k overpull at 3573
19	0345	1/2	rig up dresser.
19	0600	2-1/4	run mft
19	0315	2-1/4	lost hydraulic press on mft -m/u back up mft - rih.
19	1215	4	run mft (3716 - 3569)
19	1300	3/4	rig up schlumberger.
19	2400	11	run velocity survey.

anch:	1	2	3	4	5	6	7	8
max:	220	210	230	190	185	180	220	250
min:	210	200	230	180	180	175	205	230

TIME SUMMARY	CODE	19											TOTAL
	HOURS	24											24

DAILY DRILLING REPORT

WELL 15/6-6 ESSO EXPLORATION INC.

PAGE ..... OF .....
REPORT NO. 48
24 HRS. END 17 May '82

SIZE/DEPTH LAST CSG 9 5/8 @ 2229
ANN TOC LAST CSG 2150

DAILY WELL COST 131,426

CUM. WELL COST 8,442,704

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT						
TIME	0900						
WT	11.1						
PV @ °F	12						
YP @ °F	11						
GELS (0/10)	1/7						
API F.L.	4.2						
HTHP F.L. @ °F PSI	15.6						
CAKE THK	1-2						
CAKE DESC	FIRM						
pH	10.4						
pf	.7						
Mf	1.8						
Rf @ °F							
Cl⁻	15000						
Ca⁺⁺	100						
SOLIDS %	15						
SAND %	TR						
OIL %							
CEC	22.5						
FV	49						

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)			4631
BENT (SX)			114
BENTONITE			1200
LIG. SULFONATE			302
LIGNITE / RES			116/20
CAUSTIC / Lime			152/37
BICARB / ALST			73/35
XC / DRIS			79/80
SODA ASH			61
PIPE LAX/OO			6/5
CMC LV/HV			160/165
CEMENT (G)			4530
$CaCl_2$ SX/LQ			34/440
HRGL/CFR2			350/550
HLXC/HR12			1940/650
Econolite			425
DRL WATER		480	5890
NF-1			20
POT WATER			295
RIG FUEL		50	2945
HELIFUEL			15.92

MUD
MAKE UP WATER: Cl⁻ 150 Ca⁺⁺ 36, Rw @ °F; SHAKER SCREEN MESH 60/80 60/80
DESANDER HRS –, DESILTER HRS –, MUD CLNR HRS 0 Screen 150
DAILY MUD COST 0, CUM MUD COST 120,076, MUD PUMP TYPE/LINERS 12P-160/6x12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT		HRS	/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G

DRILLING ASSEMBLY

COMPONENT	FT

DEVIATION AND LEAKOFF DATA

DEPTH			
ANGLE			
LEAKOFF PPG EQUIV			
DEPTH			
DATE			

FIXED WING AND HELICOPTERS

FW FLTS/PAX	; TO	FR
FW FLTS/PAX	; FR	TO
HELI FLTS/PAX TO RIG		
HELI FLTS/PAX FR RIG		

WORKBOATS

BOAT	ALC	SIO	SAN
LOCATION	R16	R16	STV
ENROUTE TO			
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	4
DRLG CONT	50
MUD LOGGER	4
MUD	1
CEMENT	2
DIVERS	4
E. LOG	10
Syminex	1
W-Lamb	1
TOTAL	77

WEATHER (RANGE/DAY)	
SEA	CALM - VAR3
SWELL	VAR - SS
WIND	Calm - SW18
Slip Jt.	30
BALL JT	1250
RISER TEN	160k
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.1
PITCH	.3
HEAVE	.5-1
% OFFSET	.22-.90
ANCHOR TENS	
MAX.	8-250
MIN	6-175

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135 RKB
ESSO SUPR. Smith
ESSO ENGR.
ESSO TECH. Carpenter
RIG SUPR. Gus Tavsen

RIG Biscay II

PAGE ..... OF .....

REPORT NO. 49
24 HRS. END 18 May 82
WELL DEPTH 3760
PROGRESS —

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
19	0130	1-1/2	finish velocity survey 70 levels (td-1800)
19	0200	1/2	rig down schlumberger, rig up dresser
19	0700	5	run side wall core 50 shots (3750-2309)
19	0800	1	recover cores - left 5 in hole 95 0/0 rec - r/d dresser
40	0900	1	m/u cement plugs + running tool to hanger jt.
40	1315	4-1/4	rih to 3740 - taking wt.
40	1400	3/4	ream 3740 - td 4 m fill
40	1630	2-1/2	circ + slug pipe
40	2030	4	pooh, rabbit hwdp, m/u cmt head, lay down jars
40	2115	3/4	m/u wear bushing retrieval tool + retrieve wear bushing
40	2230	1-1/4	m/u csg running equip
40	2400	1-1/2	run 15 jts 7 '' csg

both tours had pit drill

retrieve total of six jts. 7'' csg from sea floor

anchors	1	2	3	4	5	6	7	8
max	225	205	240	190	180	180	210	240
min	210	190	233	173	133	175	205	233

TIME SUMMARY	CODE	40	19										TOTAL
	HOURS	16	8										24

EXPLORATION TELEX

DAILY DRILLING REPORT

WELL 15/6-6

ESSO EXPLORATION INC.

PAGE ..... OF .....

SIZE/DEPTH LAST CSG 9 5/8 @ 2779
ANN TOC LAST CSG 2150

REPORT NO. 49
24 HRS. END 18 May '82

DAILY WELL COST 461,756

CUM. WELL COST 8,704,660

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT		3760				
TIME	0945		1500				
WT	11.3		11.2				
PV @ 120 °F	11		14				
YP @ 120 °F	8		11				
GELS (0/10)	1/4		1/6				
API F.L.	3.7		4.3				
HTHP F.L. @ °F PSI	14.8		15.0				
CAKE THK	1-2		1-2				
CAKE DESC	FIRM		FIRM				
pH	10.6		10.2				
pf	.8		.6				
Mf	1.6		1.6				
Rf @ °F							
Cl^-	16000		15500				
Ca^{++}	120		120				
SOLIDS %							
SAND %	Tr		Tr				
OIL %							
CEC	22.5		25.0				
FV	43		47				

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)		55	4576
BENT (SX)		14	100
BENTONITE			722
LIG. SULFONATE			702
LIGNITE / RES			116/20
CAUSTIC / Lime		3/	149/37
BICARB / ALST			73/35
XC / DRIS			79/80
SODA ASH			61
PIPE LAX/DD			6/5
CMC LV/HV			160/165
CEMENT (G)			4530
$CaCl_2$ sx/LQ			34/440
HRGL/CFR2			350/550
HLXC/HR12			740/650
Econolite			425
DRL WATER		120	5770
NF-1			20
POT WATER			383
RIG FUEL		60	2885
HELIFUEL			15.92

MUD

MAKE UP WATER: Cl 15.9, Ca^{++} 3.6, Rw @ °F; SHAKER SCREEN MESH 60/80 60/80
DESANDER HRS —, DESILTER HRS —, mud Clnr HRS 3 Screen 150
DAILY MUD COST 527, CUM MUD COST 120603, MUD PUMP TYPE/LINERS 12P160/6x12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32	DEPTH OUT		HRS	/HR	WOB	RPM	PRESS	TOTAL RPM	D.PIPE AV.	COND T	B	G
24	RR	8 1/2	J22	370TF	3x12		Clean		Out	Trip							

DRILLING ASSEMBLY

COMPONENT	FT
Bit	.24
Junk Sub	.86
Stab	1.44
DC Pup	3.87
Stab	1.55
Monel	9.36
Stab	1.58
DC	9.12
XO	.33
20 x DC	613.95
XO	.29
6 x HWDP	54.61
Jars	9.99
9 x HWDP	81.70
Total	3521

DEVIATION AND LEAKOFF DATA

DEPTH			
ANGLE			
LEAKOFF PPG EQUIV			
DEPTH			
DATE			

FIXED WING AND HELICOPTERS

FW FLTS/PAX	; TO	FR
FW FLTS/PAX	; FR	TO
HELI FLTS/PAX TO RIG	2/14	
HELI FLTS/PAX FR RIG	2/21	

WORKBOATS

BOAT	ALC	SIO	SAN	
LOCATION	Rig			
ENROUTE TO		STV	Rig	
ETA				

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	2
DRLG CONT	49
MUD LOGGER	4
MUD	1
CEMENT	2
DIVERS	4
E. LOG	3
W-Lamb	4
Cameron	1
TOTAL	70

WEATHER (RANGE/DAY)	
SEA	E 3
SWELL	E 5/6
WIND	E 20
Slip Jt.	30
BALL JT	1250
RISER TEN	160 k
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.1 - .2
PITCH	.1 - .2
HEAVE	.5 - 1
% OFFSET	.45 - .90
ANCHOR TENS	
MAX.	3 - 240
MIN	6 - 175

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135 RKB
ESSO SUPR. Smith
ESSO ENGR.
ESSO TECH. Carpenter
RIG SUPR. Gustavson

RIG Biscay II

PAGE ..... OF .....
REPORT NO. 50
24 HRS. END 19 May '82
WELL DEPTH 3760
PROGRESS —

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
40	1115	11-1/4	running 7 " csg to 3430 m (294 jts)
40	1200	3/4	tight hole at 3480 m - took 70 kips wt. - m/u circ head on jt of csg for washing
40	1400	2	wash csg down to 3504 - taking wt to 75 kips drag to 40 kips - wash + work ea jt until free
40	1415	1/4	run csg free to 3513 m
40	1500	3/4	wash down to 3518 m
40	1515	1/4	run csg free to 3523 m
40	1630	1-1/4	wash down to 3567 m
40	1815	2-3/4	circ - pumped 40 bbl hi-vis pill + circ out clean
40	1930	1-1/4	l/d wash jt - m/u hgr jt - r/d 500 ton csg tools
40	2400	4-1/2	wash down dp singles to 3667

anchors	1	2	3	4	5	6	7	8
max	225	200	240	190	180	180	205	230
min	190	175	220	160	160	165	190	220

TIME SUMMARY	CODE	40										TOTAL
	HOURS	24										24

DAILY DRILLING REPORT

ESSO EXPLORATION INC.

WELL 15/6-6
SIZE/DEPTH LAST CSG. 9 5/8 @ 2779
ANN TOC LAST CSG. 2150
DAILY WELL COST 148,726

PAGE ..... OF .....
REPORT NO. 50
24 HRS. END 19 May '82
CUM. WELL COST 9,053,386

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT						
TIME	1200						
WT	11.2						
PV @ °F	12						
YP @ °F	9						
GELS (0/10)	1/7						
API F.L.	4.0						
HTHP F.L. @ °F PSI	15.4						
CAKE THK	1-2						
CAKE DESC	FIRM						
pH	10.3						
pf	.7						
Mf	1.8						
Rf @ °F							
Cl⁻	15000						
Ca⁺⁺	140						
SOLIDS %	15						
SAND %	TR						
OIL %							
CEC	25						
FV	48						

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)			4576
BENT (SX)			100
BENTONITE			722
LIG. SULFONATE			302
LIGNITE / RES			116/20
CAUSTIC / Lime			149/37
BICARB / AL ST			73/35
XC / DRIS			79/80
SODA ASH			61
PIPE LAX/OO			6/5
CMC LV/HV		/3	160/162
CEMENT (G)			4530
$CaCl_2$ Sx/LQ			34/440
HRGL/CFR2			350/550
HLXC/HR12			1740/650
Econolite			425
DRL WATER		110	5660
NF-1			20
POT WATER			383
RIG FUEL		60	2825
HELIFUEL		2.14	13.77

MUD
MAKE UP WATER: Cl⁻ 150, Ca⁺⁺ 76, Rw @ °F; SHAKER SCREEN MESH 60/80 60/80
DESANDER HRS. —, DESILTER HRS. —, MUD CLNR HRS. 0 Screen 150
DAILY MUD COST 156, CUM MUD COST 120,759, MUD PUMP TYPE/LINERS 12P160/6x12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32	DEPTH OUT	M	HRS	M/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G

DRILLING ASSEMBLY

COMPONENT	FT

DEVIATION AND LEAKOFF DATA				
DEPTH				
ANGLE				
LEAKOFF PPG EQUIV				
DEPTH				
DATE				
FIXED WING AND HELICOPTERS				
FW FLTS/PAX	; TO	FR		
FW FLTS/PAX	; FR	TO		
HELI FLTS/PAX TO RIG	1/ 15			
HELI FLTS/PAX FR RIG	1/ 16			
WORKBOATS				
BOAT	ALC	SAN	SIG	
LOCATION	Rig	Rig		
ENROUTE TO			STI	
ETA				

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	2
DRLG CONT	50
MUD LOGGER	2
MUD	1
CEMENT	2
DIVERS	4
E. LOG	3
W-Lamb	4
Cameron	1
TOTAL	69

WEATHER (RANGE/DAY)	
SEA	SI - WSW3
SWELL	SW2 - E3/5
WIND	SW8 - WSW18
Slip Jt	30
BALL JT	1300
RISER TEN	160 k
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.2
PITCH	.2
HEAVE	.5
% OFFSET	.45 - .67
ANCHOR TENS	
MAX.	3 - 240
MIN	5 - 160

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135 RKB
ESSO SUPR Smith
ESSO ENGR
ESSO TECH Carpenter
RIG SUPR Gustavsen

RIG Biscay II

PAGE 1 OF 2
REPORT NO 51
24 HRS. END 20 May '82
WELL DEPTH 3760
PROGRESS —

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
	0115	1-1/4	wash down csg + land in wellhead
	0230	1-1/4	circ
	0245	1/4	pump 4 bbl water with howco + press. test lines to 3300 psi. drop ball + shear btm plug w/ 1200 osi pump 6 bbl water.
	0315	1/2	mix 570 sx cmt w/ 3.47 gps water, 1.2 gps halad 10 .29 gps cfr2l + .11 gps hr12l avg density 15.6 ppg
	0345	1/2	mix 540 sx cmt w/ 3.49 gps water, 1.2 gps halad 10 .29 gps cfr2l + .09 gps hr12l
	0400	1/4	launch dart + shear top plug w/ 1500 psi, pump 10 bbl water behind w/ howco
	0515	1-1/4	displace w/ rig pumps, bumped plug, floats held full returns during displacement
	0630	1-1/4	pull landing string + r.t.
	0745	1-1/4	p/u wash tool, rih, wash, pooh.
	0845	1	m/u seal ass., rih, set same
	1015	1-1/2	circ. 6 bbls. test seal assembly 300/5200/15 min = ok.
	1115	1	pooh, l/d seal ass., r.t. + 9-5/8 wear bushing.
	1230	1-1/4	r/d 500 ton elevator bails, r/u 350 ton bails, rih 2 stds 6-1/2 d.c. l/d same, + move 5 stds. hwdp to d.c. side of derrick.
	2030	8	l/d 144 jts. 5'' d.p. + moved 5 stds. hwdp back to d.p. si side of derrick to make room for 3 stds. of riser. while l/d 5 '' d.p. from 1730-1330 hrs., ran phase I pit test on 7 '' csg. at 1/2 bpm with 350-400 psi increments per 1/2 bbl for 7-1/2 total bbls pumped to a pressure of 5500/15 min = o.k.
	2100	1/2	displace riser w/s.w. while r/u to pull same.
	2400	3	l/d diverter, unlatch bop at 2230 hrs., collapse slip jt, r/d choke + kill lines + laying out slip joint.

TIME SUMMARY															TOTAL
	CODE	40													
	HOURS	24													24

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135 RKB
ESSO SUPR Smith
ESSO ENGR
ESSO TECH Carpenter
RIG SUPR Gustavsen

RIG Biscay II

PAGE 2 OF 2
REPORT NO 51
24 HRS. END 20 May '82
WELL DEPTH 3760
PROGRESS —

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION

anchors

1	2	3	4	5	6	7	8
195	180	220	165	170	170	190	225
190	175	210	155	160	160	190	210

notes:
---

1) recovered all six joint of casing from ocean floor. floor clean.
also recovered the broken ladder + sent in on santor w/ casing.

2) siddis arrived at 0043 hrs. 21 may 82.

TIME SUMMARY															TOTAL
	CODE	40													
	HOURS	24													24

DAILY DRILLING REPORT

WELL 15/6-6

ESSO EXPLORATION INC.

PAGE ..... OF .....

SIZE/DEPTH LAST CSG 7" @ 3686

ANN TOC LAST CSG .....

REPORT NO. 51

24 HRS. END 20 May '82

DAILY WELL COST 527,079

CUM. WELL COST 9,580,465

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT						
TIME	1600						
WT	11.2						
PV @ °F	14						
YP @ °F	9						
GELS (0/10)	1/5						
API F.L.	5.4						
HTHP F.L. @ °F PSI	17.1						
CAKE THK	1/3						
CAKE DESC	Firm						
pH	10.0						
pf	.6						
Mf	1.8						
Rf @ °F							
Cl^-	15000						
Ca^{++}	200						
SOLIDS %	14						
SAND %	Tr						
OIL %							
CEC	23						
FV	45						

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)			4576
BENT (SX)			100
BENTONITE			722
LIG. SULFONATE			302
LIGNITE / RES			116/20
CAUSTIC / Lime			149/37
BICARB / ALST			73/35
XC / ORIS			79/80
SODA ASH			61
PIPE LAX/DD			6/5
CMC LV/HV		/1	160/111
CEMENT (G)		847	3683
$CaCl_2$ SX/LQ			34/440
HRGL/CFR2			350/550
HLXC/HR12			1740/650
Econolite			425
DRL WATER		316	5344
NF-1			
POT WATER			383
RIG FUEL		45	2780
HELIFUEL		2.77	11.00

MUD

MAKE UP WATER: Cl^- 150, Ca^{++} 36, Rw ..... @ ..... °F; SHAKER SCREEN MESH 60/80, 60/80

DESANDER HRS ....., DESILTER HRS ....., HRS — Screen 150

DAILY MUD COST 52, CUM MUD COST 120,810, MUD PUMP TYPE/LINERS 12P160/6x12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT		HRS	/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G

DRILLING ASSEMBLY

COMPONENT	FT

DEVIATION AND LEAKOFF DATA				
DEPTH				
ANGLE				
LEAKOFF PPG EQUIV				
DEPTH				
DATE				
FIXED WING AND HELICOPTERS				
FW FLTS/PAX	;TO	FR		
FW FLTS/PAX	;FR	TO		
HELI FLTS/PAX TO RIG	1/4			
HELI FLTS/PAX FR RIG	1/6			
WORKBOATS				
BOAT	ALC	SAN	SIO	
LOCATION	Rig			
ENROUTE TO		STV	Rig	
ETA		0200	0045	
		May 21	May 21	

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	3
DRLG CONT	50
MUD LOGGER	1
MUD	1
CEMENT	2
DIVERS	4
E. LOG	4
TOTAL	65

WEATHER (RANGE/DAY)	
SEA	SSE 6 / 51
SWELL	SSE 6 / SW 2
WIND	SSE 22 / 510
Slip Jt.	30
BALL JT	1250
RISER TEN	160
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.4 / .2
PITCH	.5 / .2
HEAVE	1 - ½
% OFFSET	.67
ANCHOR TENS	
MAX.	8 - 225
MIN	4 - 155

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135 RKB
ESSO SUPR Smith
ESSO ENGR Pedersen
ESSO TECH Bethke
RIG SUPR Gustavson

RIG Biscay II

PAGE ..... OF .....
REPORT NO. 52
24 HRS. END 21 May 82
WELL DEPTH 3760
PROGRESS —

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
40	1315	3-1/4	complete l/d slip jt. l/d pup jt., stood back 4 jts. riser in derrick.
40	0400		dismounted guidelines, removed beacons, positioned forklift under hop + latched same. disconnected 2 jts. riser and stood back in derrick.
40	0900		skid and secure bop.
40	2200		broke all ram bonnet bolts. had to grind some of the ram bolt cavities to get new wrench to fit onto the new cameron bonnet bolts. once cavities were ground out, the new cameron hydraulic bonnet bolt tensioner work with exceotional efficiency. also serviced the cameron collet connector, + choke + kill valves. just put the primary charge on the failsafe valves. will do final charging and calibration after daylight tomorrow. grouted 1,000 sacks class "g" mixed with sea water under wellhead. 16.0 ppg 1150 bbl. slurry. cement level approxemately 1-1/2 meters below wellhead. done from 1200-1300 hrs. from 1830-1945 hrs. moved rig 100 ft. aft. of location. continue l/d 5" d.p. + 6-1/2" d.c.'s.
40	2400	2	broke off wedgelock hoses, stroked out all ram bonnets, changed ram packers + seals on lower 5" pipe rams.

anchors 1 2 3 4 5 6 7 8
195 175 220 160 160 175 190 225
165 105 175 155 140 165 120 195

TIME SUMMARY	CODE	HOURS	TOTAL
	40	24	24

TELEX TELEX TELEX TELEX

DAILY DRILLING REPORT

WELL 15/6-6
ESSO EXPLORATION INC.
SIZE/DEPTH LAST CSG 7" @ 3686
ANN TOC LAST CSG
DAILY WELL COST 162,844

PAGE ..... OF .....
REPORT NO. 52
24 HRS. END 21 May '82
CUM. WELL COST 9,743,309

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT						
TIME	1900						
WT	11.1						
PV @ °F	13						
YP @ °F	7						
GELS (0/10)	1/5						
API F.L.	5.7						
HTHP F.L. @ °F PSI							
CAKE THK	1						
CAKE DESC	Firm						
pH	9.6						
pf	.55						
Mf	1.8						
Rf @ °F							
Cl⁻	14500						
Ca⁺⁺	200						
SOLIDS %	14						
SAND %	TR						
OIL %							
CEC	23.0						
FV	45						

STOCKS	REC ~~UNITS~~	USED	REMAIN STOCK
BARITE (BULK)	104		4681
BEAT (SX)			100
BENTONITE			722
LIG. SULFONATE			302
LIGNITE / RES			116/20
CAUSTIC / Lime			149/37
BICARB / ALST			73/35
XC / DRIS			79/80
SODA ASH			61
PIPE LAX/OO			6/5
CMC LV/HV			160/161
CEMENT (G)		983	2700
$CaCl_2$ SX/LQ			34/440
HRGL/CFR2		INV	350/220
HLXC/HRIJL		INV	500/550
Econolite		INV	425
DRL WATER	1400	14	6730
POT WATER		163	220
RIG FUEL	5115	65	3250
HELIFUEL		4.25	6.75

MUD
MAKE UP WATER: Cl⁻ 150, Ca⁺⁺ 36, Rw @ °F; SHAKER SCREEN MESH 60/80 60/80
DESANDER HRS —, DESILTER HRS —, Mud Clnr. HRS 0, Screen 150
DAILY MUD COST —, CUM MUD COST 120,810, MUD PUMP TYPE/LINERS 12P160/6x12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32"	DEPTH OUT		HRS	/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G

DRILLING ASSEMBLY

COMPONENT	FT

DEVIATION AND LEAKOFF DATA

DEPTH				
ANGLE				
LEAKOFF PPG EQUIV				
DEPTH				
DATE				

FIXED WING AND HELICOPTERS
FW FLTS/PAX ; TO FR
FW FLTS/PAX ; FR TO
HELI FLTS/PAX TO RIG 1/14
HELI FLTS/PAX FR RIG 1/4

WORKBOATS

BOAT	ALC	SAN	SID
LOCATION	Rig	STU	
ENROUTE TO			STU
ETA			0300 21 May

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	3
DRLG CONT	49
MUD LOGGER	2
MUD	1
CEMENT	3
DIVERS	4
E. LOG	4
Otis	6
Oglaend	3
TOTAL	75

WEATHER (RANGE/DAY)	
SEA	SSE 2
SWELL	S 3
WIND	SSE 16
Slip Jt.	—
BALL JT	—
RISER TEN	—
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.3/.2
PITCH	.3/.2
HEAVE	1/.5
% OFFSET	.67
ANCHOR TENS	
MAX.	8 - 225
MIN	2 - 105

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135 m
ESSO SUPR Smith
ESSO ENGR Pedersen
ESSO TECH Bathke
RIG SUPR Gustavsen

RIG Biscay II

PAGE ..... OF .....
REPORT NO. 53
24 HRS. END 22 May '82
WELL DEPTH 3760
PROGRESS —

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
40	0600	6	continue l/d pipe while working bop. changed middle and upper pipe rams to 3-1/2'' and installed new ram packers, blocks, + seals on same. changed bonnet seals, new o-rings on bonnet bolts, calibrated ram cavities. closed all ram bonnets. have 11 stands 5'' d.p. remaining to cut 9-5/8 casing, and 5 stds. hwdp.
	1545		torque bonnet bolts, re-connect wedge lock hoses + ram hoses, picked up 2 stds. 3-1/2'' d.p. made final pressure adjustment to failsafe choke + kill valves. calibrated valve bladders to 1/4'' as per memo dated 04/may/82.
40	1630	3/4	attempt to test bop. had leak in ax-ring.
41	1845	2-1/4	move bop onto forklift.
	1915	1/2	ran t.v. + inspected wellhead. discovered large crater around 30'' casing. pulled t.v.
	2200	2-3/4	skid bop under rotary, connect joint of riser. lift bop, change out ax ring. disconnect riser, skid bop back.
	2400	2	while rigging bop for test, r/u grout string with guide to guidelines. running to w.h. to cmt.

anchors:

1	2	3	4	5	6	7	8
195	155	220	155	160	180	175	230
165	105	175	155	155	155	120	195

notes: 1) need 6 - ea - double packs film for sx-70 polaroid camera. asap.
also if available a couple packs of asa 600 film for sx-70 camera.

2) need 4 - ea - pails of liquid O-ring.

3) weatherford jam unit sent in on helco today.

TIME SUMMARY	CODE	41	40										TOTAL
	HOURS	7½	16½										24

DAILY DRILLING REPORT

FORM B

WELL 15/6-6
SIZE/DEPTH LAST CSG 7" @ 3686
ANN TOC LAST CSG
DAILY WELL COST 143,135

PAGE ..... OF .....
REPORT NO. 53
24 HRS. END 22 May '82
CUM. WELL COST 9,886,444

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT						
TIME	2000						
WT	11.1						
PV @ °F	13						
YP @ °F	7						
GELS (0/10)	1/4						
API F.L.	5.8						
HTHP F.L. @ °F PSI							
CAKE THK	1						
CAKE DESC	Firm						
pH	9.5						
pf	.5						
Mf	1.8						
Rf @ °F							
Cl⁻	14500						
Ca⁺⁺	200						
SOLIDS %	14						
SAND %	TR						
OIL %							
CEC	23						
FV	44						

STOCKS	~~REC UNITS~~	USED	REMAIN STOCK
BARITE (BULK)			4681
BENT (SX)			100
BENTONITE			722
LIG. SULFONATE			302
LIGNITE / RES			116/20
CAUSTIC / Lime			149/37
BICARB / ALST			73/35
XC / DRIS			79/80
SODA ASH			61
PIPE LAX / DD			6/5
CMC LV/HV			160/161
CEMENT (G)			2700
$CaCl_2$ SX/LQ			34/440
HRGL/CFR2			350/220
HLXC/HR12			500/550
Econolite			425
DRL WATER			6730
WASH WATER			
POT WATER			200
RIG FUEL		60	3190
HELIFUEL	15.72		22.47

MUD
MAKE UP WATER: Cl⁻ 150 Ca⁺⁺ 36 Rw @ °F; SHAKER SCREEN MESH 60/80 60/80
DESANDER HRS. — DESILTER HRS. — Mud Clnr. HRS. 0 Screen 150
DAILY MUD COST -0- CUM MUD COST 120,810 MUD PUMP TYPE/LINERS 12 P 160/6x12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT		HRS	/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G

DRILLING ASSEMBLY

COMPONENT	FT

DEVIATION AND LEAKOFF DATA

DEPTH				
ANGLE				
LEAKOFF PPG EQUIV				
DEPTH				
DATE				

FIXED WING AND HELICOPTERS

FW FLTS/PAX	; TO	FR
FW FLTS/PAX	; FR	TO
HELI FLTS/PAX TO RIG	—	
HELI FLTS/PAX FR RIG	—	

WORKBOATS

BOAT	ALC	SAN	SID
LOCATION	Rig	Stv	Stv
ENROUTE TO			
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	3
DRLG CONT	47
MUD LOGGER	2
MUD	1
CEMENT	3
DIVERS	4
E. LOG	4
Otis	6
Ogaeland	3
TOTAL	75

WEATHER (RANGE/DAY)	
SEA	SE 14 / SSE 2
SWELL	SE 15-18 / S2
WIND	SE 40 / SSE 16
Slip Jt	—
BALL JT	—
RISER TEN	—
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	1.5 / .2
PITCH	2.0 / .2
HEAVE	3-5 / .5
% OFFSET	—
ANCHOR TENS	
MAX.	8 - 230
MIN	2 - 105

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135 RKB
ESSO SUPR. Smith
ESSO ENGR. Pedersen/Koelan
ESSO TECH. Oetke
RIG SUPR. Gustafsen

RIG Biscay II

PAGE ..... OF .....
REPORT NO. 54
24 HRS. END 23 May '82
WELL DEPTH 3760
PROGRESS —

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
40	0230	2	null grout string. re-establish string into guideframe, rih to grout 30''.
40	0245	3/4	cmt. 1000 sx class ''g'' w/1 0/0 caci2 using s.w. 16.0 ppg, 205 bbl. slurry volume.
40	0400	1-1/4	observe cement = o.k.
40	0915	5-1/4	testing bop. mpr, upr, lpr = 300/10,000/10 min. = o.k. inner, outer choke + kill = 300/10,000/10 min. = o.k. lower annular = 300/ 3,500/10 min. = o.k. downward to top of outer choke + outer kill = 300/10,000/10 min. = o.k.
40	1030	3/4	skid bop under rotary, r/u double of riser, attempt to test riser choke + kill lines = no good. halco had bad low torque.
41	1130	1	repair low torque on halco unit.
40	1230	1	test choke + kill lines = 300/7500/5 min. = o.k.
40	1400	1-1/2	change ax-ring, mount guidelines, beacons, move forklift.
40	1915	5-1/4	run bop + riser testing choke + kill lines.
40	2130	1-3/4	nipple up choke + kill lines.
40	2200	1	made final test on choke + kill lines. landed stack at 2155 hrs. applied 51 kips o.p. = o.k. stroked out inner barrel + rigged un diverter.
41	2400	2	r/u test tool, rih. could not set test cup with 7'' seal assembly running tool.

anchors:

1	2	3	4	5	6	7	8
195	175	225	170	170	170	190	230
195	150	210	150	150	150	175	225

TIME SUMMARY	CODE	40	41										TOTAL
	HOURS	17	7										24

DAILY DRILLING REPORT

FORM B

WELL 15/6-6

SIZE/DEPTH LAST CSG. 7" @ 3686
ANN TOC LAST CSG.

PAGE ..... OF .....
REPORT NO. 54
24 HRS. END 23 May '82

DAILY WELL COST 152,961
CUM. WELL COST 10,037,405

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT						
TIME	2345						
WT	11.3						
PV @ °F	15						
YP @ °F	10						
GELS (0/10)	2/7						
API F.L.	5.9						
HTHP F.L. @ °F PSI							
CAKE THK	1						
CAKE DESC	Firm						
pH	10.1						
pf	.5						
Mf	1.8						
Rf @ °F							
Cl⁻	14500						
Ca⁺⁺	220						
SOLIDS %	15						
SAND %	TR						
OIL %							
CEC	23.0						
FV	50						

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)			4687
BENT (SX)			100
BENTONITE			722
LIG. SULFONATE			302
LIGNITE / RES			116/20
CAUSTIC / Lime		2/	147/37
BICARB / ALST			73/35
XC / ORIS			79/80
SODA ASH			61
PIPE LAX/DD			6/5
CMC LV/HV		1/2	159/15
CEMENT (G)		931	1769
CaCl2 SX / LQ			34/440
HRGL/CFR21			350/220
HLXC/HR121			500/550
Econolite			425
DRL WATER		110	6620
WASH WATER			
POT WATER			200
RIG FUEL		50	3140
HELIFUEL		3.11	19.36

MUD
MAKE UP WATER: Cl⁻ 15.0, Ca⁺⁺ 36, Rw @ °F; SHAKER SCREEN MESH 60/80, 60/80
DESANDER HRS. —, DESILTER HRS. —, Mud Clnr HRS. 0 Screen 150
DAILY MUD COST 180, CUM MUD COST 120,770, MUD PUMP TYPE/LINERS 12P160/6"/7

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G

DRILLING ASSEMBLY

COMPONENT	FT

DEVIATION AND LEAKOFF DATA

DEPTH			
ANGLE			
LEAKOFF MWE EQUIV			
DEPTH			
DATE			

FIXED WING AND HELICOPTERS

FW FLTS/PAX	TO	FR
FW FLTS/PAX	FR	TO
HELI FLTS/PAX TO RIG	2/8	
HELI FLTS/PAX FR RIG	2/2	

WORKBOATS

BOAT	ALC	SAN	SIO
LOCATION	Rig	STU	STU
ENROUTE TO			
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	6
DRLG CONT	49
MUD LOGGER	2
MUD	1
CEMENT	3
DIVERS	4
E. LOG	3
Otis	8
Sperry Sun	1
Oglaend	4
TOTAL	81

WEATHER (RANGE/DAY)	
SEA	SSW18/SW6
SWELL	S10/S4
WIND	SSW18/SW6
Slip Jt.	30
BALL JT	1300
RISER TEN	160
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.8/.3
PITCH	1.0/.4
HEAVE	3/.5
% OFFSET	1.12
ANCHOR TENS	
MAX.	8 - 230
MIN	214 - 150

DAILY DRILLING REPORT

FORM A

WELL: 15/6-6
WATER DEPTH: 125
ESSO SUPR: SMITH
ESSO ENGR: PETTERSEN / KOKIAN
ESSO TECH: BETINKE
RIG SUPR: GUSTAVSON

RIG: GLOMAR SYSCAP II

PAGE 1 OF 2
REPORT NO. 55
24 HRS. END 24-5-82
WELL DEPTH 3360
PROGRESS PRP TEST

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
41	0130	1-1/2	RE-SET CUP TESTER, ATTEMPT TO TEST. NO GOOD. POOH.
	0230	1	M/U BOLL WEEVIL, RIH.
	0245	1/4	COULD NOT GET TO BTM. OR FILL UP OUR PIPE. COULD NOT TEST.
	0315	1/2	POOH, L/D BOLL WEEVIL.
	0400	3/4	M/U CUP TESTER, RIH W/ 1 STD OF D.P. + 4 STD. HWDP
	0430	1/2	ATTEMPT TO SET TEST CUP - NO GOOD. CENTRALIZED W/ANNULARS ON ALL PREVIOUS ATTEMPTS AND THIS ONE PLUS TURNED PIPE W/TONGS FREELEY. MEASURED MARKS AND APPEARS TOOL IS STOPPING IN THE 7'' SEAL ASSEMBLY.
	0500	1/2	POOH
	0600	1	L/D CUP TESTER, M/U BOLL WEEVIL W/ 3-1/2 D.P. BELOW SAME.
	0800	2	RIH W/ 3-1/2 D.P. AND BOLL WEEVIL. ROTATED OFF SEAL ASSEMBLY LIP AND FELL THRU. BOLL WEEVIL SEATED. CLOSE 5'' LPR. TESTED ON YELLOW POD 300/6000 - O.K. SWITCHED TO BLUE POD, FUNCTION TESTED, SWITCH BACK TO YELLOW POD.
	0845	3/4	POOH. FOUND 5'' TEST JOINT TO HAVE BEEN CRIMPED AT THE UPR. ALSO 5'' LOWER PIPE RAM MARKS WERE APPARENT ON TEST JOINT.
	1030	1-3/4	SWITCH TO BLUE POD. RIH WITH PAINTED 5'' D.P. TEST JOINT. SET DOWN ON CLOSED UPR. SWITCHED TO YELLOW POD. UPR OPENED. CONTINUED AND SEATED BOLL WEEVIL. CLOSED + OPENED LPR TO MARK THE TEST JOINT. POOH. FOUND LPR MARKS CORRECT.

TIME SUMMARY	CODE	41	40	TOTAL
	HOURS	13 1/4	10 3/4	24

DAILY DRILLING REPORT

FORM A

WELL:
WATER DEPTH:
ESSO SUPR:
ESSO ENGR:
ESSO TECH:
RIG SUPR:

RIG:

PAGE 2 OF 2
REPORT NO.
24 HRS. END
WELL DEPTH
PROGRESS

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
41	1200	1-1/2	L/D 5'' D.P. M/U 3-1/2'' D.P. ABOVE BOLL WEEVIL
	1230	1/2	RIH.
	1315	3/4	ISOLATE CROSSED PILOT LINES ON BLUE POD.
40	1800	4-3/4	WHILE RELOCATING HYDRAULIC LINES ON BLUE POD RBQ PLATE, STACK WAS PRESSURE TESTED ON YELLOW POD. MPR, UPR, INNER + OUTER CHOKE, INNER + OUTER KILL TESTED 300/6000 - O.K. LOWER AND UPPER HYDRIL TESTED 300/3500 - O.K.
	2000	2	POOH WITH TEST TOOL. TESTED SHEAR RAMS, ALL CHOKE + KILL VALVES IN OPEN POSITION BODY TEST.
	2400	4	P/U 6'' BIT, 4-3/4 D.C., 3-1/2 D.P. CLEANING BOXES, PINS, CIRC. EVERY 10 JTS.

ANCHORS:

1	2	3	4	5	6	7	8
195	180	220	170	170	160	190	225
190	160	210	160	155	150	175	225

TIME SUMMARY	CODE	41	40	TOTAL
	HOURS	13 1/4	10 3/4	24

DAILY DRILLING REPORT

FORM B

WELL 15/6-6

PAGE ..... OF .....

SIZE/DEPTH LAST CSG. 7" @ 3686

REPORT NO. 55

ANN TOC LAST CSG. .....

24 HRS. END 24 May '82

DAILY WELL COST 149,341

CUM. WELL COST 10,188,746

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT						
TIME	2130						
WT	11.3						
PV @ °F	14						
YP @ °F	9						
GELS (0/10)	1/5						
API F.L.	6.3						
HTHP F.L. @ °F PSI							
CAKE THK	1						
CAKE DESC	Firm						
pH	9.8						
pf	.5						
Mf	1.7						
Rf @ °F							
Cl⁻	45000						
Ca⁺⁺	250						
SOLIDS %	14						
SAND %	Tr						
OIL %							
CEC	23.0						
FV	40						

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)		62	4625
BEAT (SX)			100
BENTONITE			722
LIG. SULFONATE			302
LIGNITE / RES			116/20
CAUSTIC / Lime			147/37
BICARB / ALST			73/35
XC / DRIS			77/80
SODA ASH			61
PIPE LAX/DD			6/5
CMC LV/HV			159/157
CEMENT (G)			1769
CaCl2 SX/LQ			34/440
HRCL/CFR2)			350/220
HLXC/HR12			500/550
Econolite			425
DRL WATER		90	6530
WASH WATER			
POT WATER			200
RIG FUEL		50	3090
HELIFUEL			19.36

MUD

MAKE UP WATER: Cl⁻ 150, Ca⁺⁺ 36, Rw @ °F; SHAKER SCREEN MESH 60/80, 60/80

DESANDER HRS. –, DESILTER HRS. –, mud clnr. HRS. 0 Screen 150

DAILY MUD COST 328, CUM MUD COST 121,318, MUD PUMP TYPE/LINERS 12P160 / 6x12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G

DRILLING ASSEMBLY

COMPONENT	FT

DEVIATION AND LEAKOFF DATA				
DEPTH				
ANGLE				
LEAKOFF PPG EQUIV				
DEPTH				
DATE				
FIXED WING AND HELICOPTERS				
FW FLTS/PAX	; TO	FR		
FW FLTS/PAX	; FR	TO		
HELI FLTS/PAX TO RIG	/			
HELI FLTS/PAX FR RIG	/			
WORKBOATS				
BOAT	ALC	SIO	SAN	
LOCATION	R16	DRY DOCK	STU	
ENROUTE TO				
ETA				

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	6
DRLG CONT	49
MUD LOGGER	2
MUD	1
CEMENT	3
DIVERS	4
E. LOG	3
Otis	8
Sperry Sun	1
Oglaend	4
TOTAL	81

WEATHER (RANGE/DAY)	
SEA	SW4 / SW2
SWELL	SW4 / SW3
WIND	SW24 / SW14
Slip Jt.	30
BALL JT	1300
RISER TEN	160
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.3 / .3
PITCH	.4 / .3
HEAVE	1/2
% OFFSET	0
ANCHOR TENS	
MAX.	8 - 225
MIN	214 - 160

DAILY DRILLING REPORT

WELL: 15/6-6
WATER DEPTH: 135 M
ESSO SUPR: SMITH
ESSO ENGR: KOCIAN / PETTERSEN
ESSO TECH: BETTKE
RIG SUPR: GUSTAVSON

RIG: GLOMAR BISCAY II

PAGE ..... OF .....

REPORT NO: 56
24 HRS. END: 25-5-83
WELL DEPTH: 3780
PROGRESS: PROD. TEST

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
			24 HOUR SUMMARY:
40	0600	6	CONTINUE P/U 3-1/2 D.P. IN HOLE AT 2012 METERS AT 0600 HRS
	1230	6-1/2	COMPLETE P/U 3-1/2 D.P., RIH TAG AT 3629M. CMT
41	1630	431/2	DOWNTIME. SALT WATER COOLING LINE TO MAIN MOTORS RUPTURED. REPAIRED SAME
40	1700	1/2	CIRC AND CONDITION MUD
41	1800	1	RAN PHASE 1 PIT ON CASING AGAINST SHEAR RAMS, SEAL ASSEMBLY. DOWN KILL LINE TO 5500 PSI. HAD 300 PSI DROP IN 10 MINUTES, PUMPED UP TO 5500 PSI. HAD 200 PSI , DROP IN 7 MINUTES
	1945	1-3/4	R/U CHICKSANS. TEST DOWN D.P. W/MPR CLOSED AND INNER AND OUTHER CHOKES CLOSED. TEST TO 5500 PSI, HAD 175 PSI. DROP IN 10 MINS. TEST UPR DOWN D.P. TO 5500. HAD 25 PSI. DROP IN 10 MIN.
	2100	1-1/4	CIRC. AND CONDITION MUD WHILE TESTING TO TOP OF OUTER KILL TO 5500. HAD 50 PSI, DROP IN 10 MIN. TESTED TO TOP OF CHOKE HAD 70 PSI, DROP IN 7 MIN.
	2400	3	PUMP SLUG, POOH

ANCHORS:

1	2	3	4	5	6	7	3
195	175	210	170	165	160	190	230
190	170	200	160	155	180	215	

TIME SUMMARY	CODE	40	41											TOTAL
	HOURS	13	11											24

DAILY DRILLING REPORT

WELL:
WATER DEPTH:
ESSO SUPR:
ESSO ENGR:
ESSO TECH:
RIG SUPR:

RIG:

PAGE 2 OF 2

REPORT NO:
24 HRS. END:
WELL DEPTH:
PROGRESS:

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
41	0700	1	ATTEMPT TO TEST. NO GOOD. RESET BOLL WEEVIL. RE-ATTEMPT TO TEST - NO GOOD
	0830	1-1/2	POOH. L/D TEST TOOL
40	1015	1-3/4	R/U LOOMIS TO INTERNAL PRESSURE TEST TUBING, AND R/U TO RUN TUBING
	1045	1/2	RUN TUBING TESTING INTERNALLY. TESTER FAILED
41	1100	1/4	CHANGE OUT TEST TOOL
40	1300	2	CONTINUE RIH TESTING TBG. TOOL BEGAN LEAKING
41	1430	1-1/2	CHANGE OUT TOOL, ATTEMPT TO TEST - NO GOOD, REPAIRED TOOL AND CHANGE OUT PRESSURE GAUGE
40	1545	1-1/4	CONTINUE RIH TESTING TBG. TOOL FAIL
41	1600	1/4	REPAIR TOOL. UPPER CUP ON TESTER FAILING TO SEAL ON I.D. OF PIN END OF TBG.
40	1615	1/4	CONTINUE RIH TESTING TBG. TOOL FAILED
41	1930	3-1/4	ATTEMPT REPAIR TOOL. NO GOOD
40	2015	3/4	R/D LOOMIS
40	2100	3/4	PUMP SLUG, POOH
41	2200	1	R/U TEST CUP TOOL. RIH, SET SAME
	2245	3/4	ATTEMPTED TO TEST MPR ON BLUE POD. MUD CAME OUT OF D.P. PUMPED 1-1/4 BBLS TO GET 1000 PSI. AFTER SHUTTING OFF PUMP, MUD STOPPED AT D.P. PRESSURE HELD. WHEN PUMPING UP, MUD ESCAPED FROM D.P. APPEARS SEAL ASSEMBLY LEAKING. FUNCTION TESTED ANNULARS AND RAMS ON BLUE POD - OK, GOT CORRECT FLUID COUNTS FOR EACH OPERATION.
	2315	1/2	POOH
	2400	3/4	P/U SEAL ASSEMBLY RETRIEVING TOOL, RIH TO RETRIEVE SEAL ASSEMBLY.

ANCHORS:

1	2	3	4	5	6	7	8
195	180	220	175	165	165	195	225
195	165	210	165	155	155	180	220

TIME SUMMARY	CODE													TOTAL
	HOURS													

DAILY DRILLING REPORT

FORM B

WELL 15/6-6

PAGE ..... OF .....

SIZE/DEPTH LAST CSG 7" @ 3686

REPORT NO. 56

ANN TOC LAST CSG .....

24 HRS. END 25 May 82

DAILY WELL COST 208,520

CUM. WELL COST 10,377,266

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	STOCKS	UNITS	USED	REMAIN STOCK
DEPTH	PIT							BARITE (BULK)		519	4106
TIME	2000		2100					BENT (SX)			100
WT	11.3		11.3					BENTONITE		50	664
PV @ °F	15		16					LIG. SULFONATE		3	299
YP @ °F	9		10					LIGNITE / RES			116/20
GELS (0/10)	1/9		2/10					CAUSTIC / Lime		4/	143/37
API F.L.	6.0		6.1					BICARB / ALST			73/35
HTHP F.L. @ °F PSI								XC / DRIS		/2	77/80
CAKE THK	1		1					SODA ASH			61
CAKE DESC	Firm		Firm					PIPE FREEING			6/5
pH	10.1		10.0					CMC LV/HV		/1	159/150
pf	.68		.60					CEMENT (G)			1769
Mf	3.0		2.8					$CaCl_2$ SX / LQ			34/440
Rf @ °F								HRGL/CFR2			350/220
Cl^-	13000		13000					HLXC/HR12			500/550
Ca^{++}	160		180					Econolite			425
SOLIDS %	15		15					DRL WATER		300	6230
SAND %	1/4		1/8					WASH WATER			
OIL %								POT WATER		50	150
CEC	26.0		26.0					RIG FUEL		70	3020
FV	47		50					HELIFUEL			17.36

MUD

MAKE UP WATER: Cl^- 150 Ca^{++} 36, Rw ..... @ ..... °F; SHAKER SCREEN MESH 60/80 60/80

DESANDER HRS —, DESILTER HRS —, Mud Clnr. HRS 4 Screen 150

DAILY MUD COST 4343, CUM MUD COST 125,661, MUD PUMP TYPE/LINERS 12P160/6x12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32"	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G
24	14	6	J2	261 4L	—	Casing	Scraper	Run									

DRILLING ASSEMBLY

COMPONENT	FT
Bit	.19
XO	.63
Csg. Scraper	.88
21 × 4 3/4 DC	177.05
Tot-l	201.35

DEVIATION AND LEAKOFF DATA

DEPTH				
ANGLE				
LEAKOFF PPG EQUIV				
DEPTH				
DATE				

FIXED WING AND HELICOPTERS

FW FLTS/PAX ; TO FR

FW FLTS/PAX ; FR TO

HELI FLTS/PAX TO RIG 1 / 16

HELI FLTS/PAX FR RIG 1 / 15

WORKBOATS

BOAT	ALC	SAN	SIO	MAR
LOCATION	Rig		OO	STU
ENROUTE TO		Rig		
ETA		0730		

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	6
DRLG CONT	51
MUD LOGGER	2
MUD	1
CEMENT	3
DIVERS	0
E. LOG	3
Loomis	1
Oglaend	3
Sperry Sun	1
Cleveland	1
W-Lamb	2
otis	8
TOTAL	82

WEATHER (RANGE/DAY)	
SEA	WSW 14/SW4
SWELL	WSW 14/SW4
WIND	WSW 38/W18
MUD	Slip Jt. 30
BALL JT	1250
RISER TEN	160
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	1.5/.3
PITCH	1.0/1.3
HEAVE	2/.5
% OFFSET	.44
ANCHOR TENS	
MAX.	8 - 230
MIN	4/6 - 160

DAILY DRILLING REPORT

WELL 15/6-6
WATER DEPTH 135 M
ESSO SUPR. SIM ZITT
ESSO ENGR. Kerian / Petersen
ESSO TECH. Dietrich
RIG SUPR. Gustavsen

RIG Glomar Biscay II

PAGE 1 OF 2
REPORT NO. 57
24 HRS. END 26-5-87
WELL DEPTH 3760
PROGRESS Prep. Test

24 HOUR SUMMARY			
CODE	TIME TO	HOURS	OPERATION

24 HOUR SUMMARY:

41	0200	2	COMPLETE POOH
	0530	3-1/2	P/U BOLL WEEVIL TEST TOOL, RIH, SET SAME
			FUNCTION TEST LPR ON BLUE POD - OK.
			CLOSED MPR W/BLUS POD TO TEST.
			ATTEMPTED TO TEST - NO GOOD. BOLL WEEVIL NOT SEATED.
			ATTEMPTED TO OPEN MPR. COULD NOT GET FLUID TO PASS.
			EXAMINED AND FUNCTIONED ALL OTHER OPERATIONS EQUAL OK.
			AFTER 15 MINS, PUSHED CLOSE BUTTON ON MPR AND GOT
			PROPER FLUID COUNT. ATTEMPTED TO RE-OPEN UNSUCCESSFUL.
		L	WAITED 10 MINS, P/U WITH COMPENSATOR GENTLY AND TO
			PASSED THE MPR'S. APPEARS TO BE A STUCK
			SHUTTLE VALVE OR SPM
			RE-SEATED TOOL ATTEMPTED TO TEST - NO GOOD. TOOL DID
			NOT SEAT. MPR CLOSED WITH PROPER FLUID COUNT USING
			THE BLUE POD.
			ATTEMPTED TO RE-OPEN MPR, SAME THING HAPPENED.
			WAITED 10 MINS, LIFTED TOOL U/COMPENSATOR, TOOL
			HUNG ON PARTIALLY OPENED MPR. SLACK OFF, CLOSED ,PR,
			CHANGED TO YELLOW POD, OPENED MPR WITH CORRECT FLUID
			COUNT. P/U TOOL AND CLEAR MPR.
			POOH TO INCPECT TEST TOOL - OK. HAD RAM MARKS ON
			PAINTED JT.- OK.
			CLOSED SHEAR RAMS- TESTED DOWN KILL LINE, AGAINST
			SHEAR RAMS, INNER CHOKE AND SEAL ASSEMBLY TO 5500 PSI
		1/2	10 MIN. LOST 25 PSI - OK. BLED PRESSURE.
			OPENED CHOKE LINE AND CLOSED INNER KILL VALVE
			RETEST FOR FAILSAFE VALVE BODY INTEGRITY IN OPEN
			POSITION TO 5500/10MIN. LOST 25 PSI - OK.
	0600	1/2	RIH W/BOLL WEEVIL, SEATED TOOL.

TIME SUMMARY	CODE	40	41										TOTAL
	HOURS	7 1/2	16 1/2										

TELEX db telecopyplus TELEX db telecopyplus TELEX db telecopyplus TELEX db telecopyplus

DAILY DRILLING REPORT

FORM 8

WELL 15/6-6
SIZE/DEPTH LAST CSG. 7" @ 3686
ANN TOC LAST CSG. 2425

PAGE ... OF ...
REPORT NO. 57
24 HRS. END 26-5-87

DAILY WELL COST 148,950
CUM. WELL COST 10,546,216

MUD CHEKS	@ OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT						
TIME	2100						
WT	11.2						
PV @ 120 °F	14						
YP @ 120 °F	8						
GELS (0/10)	1/8						
API F.L.	6.3						
HTHP F.L. @ °F PSI	–						
CAKE THK	1						
CAKE DESC	FIRM						
pH	10.0						
Pf	.61						
Mf	2.9						
Rf @ °F	–						
Cl⁻	73.0						
Ca⁺⁺	160						
SOLIDS %	15						
SAND %	TRC						
OIL %	0						
CEC	25						
FV	43						

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)		52	4054
BENT (SX)			100
BENTONITE		46	618
LIG. SULFONATE			299
LIGNITE / Resinex			116/20
CAUSTIC / Lime		5/0	138/37
BICARB / Al. stearate			73/35
XC Polymer / Drilpak			97/60
SODA ASH			61
Pipe Lax / DO			6/5
Cmt Lx/HV			157/158
CEMENT (G)	1162		2931
CaCl2 Sx/Lia			34/440
Aqel / Cedar-L			350/220
Hi-Xc 248/Aqel			600/550
Econolite			425
DRL WATER		120	6110
WASH WATER			
POT WATER	240		383
RIG FUEL		60	2960
HELIFUEL			19.36

MUD
MAKE UP WATER: Cl 150, Ca 86, Rw @ °F SHAKER SCREEN MESH 60 X 80, 60 X 80
DESANDER HRS., DESILTER HRS., MUD CLNR HRS. Scalper 6 Clnr 150
DAILY MUD COST 1254, CUM MUD COST 1,696,955, MUD PUMP TYPE/LINERS 6 X 12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G

DRILLING ASSEMBLY

COMPONENT	FT

DEVIATION AND LEAKOFF DATA

DEPTH				
ANGLE				
LEAKOFF PPG EQUIV				
DEPTH				
DATE				

FIXED WING AND HELICOPTERS
I FW FLTS/PAX 14 ; TO // FR
FW FLTS/PAX ; FR TO
HELI FLTS/PAX TO RIG
HELI FLTS/PAX FR RIG

WORKBOATS

BOAT	Alcor	Sabrina	Alpha
LOCATION	R/C		Gov Pier
ENROUTE TO		STV	
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	6
DRLG CONT	53
MUD LOGGER	2
MUD	1
CEMENT	3
DIVERS	0
E. LOG	3
Lawris	1
Halliburton	3
OTIS	8
WF-Lang	4
Sperry Sun	1
TOTAL	85

WEATHER (RANGE/DAY)	
SEA	WSW 8/SW 4
SWELL	WSW/10 SW 5
WIND	WSW 23 / SW 16
SLIP JT	30
BALL JT	1250
RISER TEN	160
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.8-.7
PITCH	.8/.7
HEAVE	2/1
% OFFSET	22
ANCHOR TENS	
MAX.	225
MIN	160

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135
ESSO SUPR. SMITH / PARISH
ESSO ENGR. PETTERSON / KOCIAN
ESSO TECH. BETHKE
RIG SUPR. GUSTAVSON

RIG GLOMAR BISCAY II

PAGE 1 OF 2
REPORT NO. 58
24 HRS. END 27-5-82
WELL DEPTH 3760
PROGRESS PROD. TEST

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
41	0200	2	RIH, RETRIEVE SEAL ASSEMBLY. TOOK 20 LEFT HAND TURNS WITH UPWARD PULL OF 2 TO 5 KIPS- AFTER 12-1/2 TURNS, ENCOUNTERED HIGHER TORQUE FOR 1/2 TURN MORE, THEN TURNED EAS EASILY UNTIL 13-1/2 TURNES THEN GOT ROUGH UNTIL 14 TURNS. THIS CONTINUED UNTIL 19 TURNS, THEN TURNED WITH MINIMAL PULL UNTIL 28 TURNS AT WHICH TIME THE SEAL ASSEMBLY CAME FREE.
	0300	1	POOH SLOWLY, L/D SEAL ASSEMBLY. INSPECTED SAME. FOUND OUTER SURFACE OF PACK OFF RING TO BE RUNG. FROM ABOVE THE SEAL RING GROOVE TO THE TOP OF THE PACK OFF RING, WITH 4 INDIVIDUAL RINGS OF 1/2'', 1/2'', 1/4'', AND 1/8'' DIAMETERS AND A DEPTH OF 1/32'' TO 1/16'' DEEP. ALSO HAD 6 VERTICAL CUTS FROM ABOVE THE SEAL RING TO-WARDS THE TOP OF PACK OFF RING. TWO WERE GOUGES OF 1/4'' WIDE BY 1/16'' AND 1/8'' DEEP. FOUR WERE SUPER-FICIAL SCRATCHES OF 1/16'' WIDE BY 1/32'' DEEP. ALL VERTICAL SCRATCHES WERE ON ONE SIDE OF THE PACK OFF RING ADJACENT THE J SLOT. ALSO, RUBBER FROM THE SEAL RING FILLED BOTH J-SLOTS, INSIDE THE SEAL ASSEMBLY, O-RING IMPRESSIONS FROM THE BOLLWEEVIL TEST TOOL WERE APPARENT AND COMPLETE WITH NO WASHES CUTTING THE IMPRESSIONS. AT THE SMALLEST BEVEL EDGE, REDUCING THE SEAL ASSEMBLY BORE TO 7'', INSIDE THE SEAL ASSEMBLY, THE EDGE WAS INDENTED IN ONE AREA TO A LENGTH OF 3''. APPEARS THAT THIS IS WHERE THE CUP TESTER PIN HAD BEEN STOPPING WHEN WE WERE UNABLE TO GET SAME DOWN TO TEST BOP. CUP TESTED PIN HAD SEMI-CIRCULAR INDENTIONS IN IT AFTER IT WAS ON SURFACE. P/U WASH TOOL, RIH.
	0330	1/2	WASHED WELLHEAD
	0345	1/4	POOH
	0500	1-1/4	R/U SEAL ASSEMBLY
	0530	1/2	RIH W/SEAL ASSEMBLY, 1 JT. HWDP, 3 STDS. 8'' D.C. 2 STDS. HWDP.
	0630	1	SET SEAL ASSEMBLY. CLOSE LOWER PIPE RAMS, TOOK CORRECT FLUID AMT, TESTED SEAL ASSEMBLY, LPR 400/5500/10MIN LOST 50 PSI-OK. TOOK 1/4 BBL. TO PRESSURE UP TO 5500 BLED BACK SAME.

TIME SUMMARY	CODE	40	41											TOTAL
	HOURS	16½	7½											

DAILY DRILLING REPORT

FORM A

WELL
WATER DEPTH
ESSO SUPR.
ESSO ENGR.
ESSO TECH.
RIG SUPR.

RIG

PAGE 2 OF 2
REPORT NO.
24 HRS. END
WELL DEPTH
PROGRESS

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
41	0700	1/2	POOH
	0730	1/2	RIH W/CUP TESTER AND 3-1/2 DP
40	1000	2-1/2	TEST BOP MPR, UPR, INNER AND OUTER CHOKE AND KILL VALVES - 300/5500/10MIN-OK UPPER AND LOWER ANNULARS-300/3500/10MIN-OK FUNCTION TEST ON YELLOW POD-OK
	1030	1/2	POOH
	1215	2-1/4	P/U FLUTED HANGER, RIH, CHECK SPACE OUT FOR SSTT. POOH. SPACE OUT-79.25 INCHES. M/U 3-1/2 HANG OFF TOOL
	1500	2-3/4	P/U SSTT M/U SERVICE BRAKES, FUNCTION SAME. L/D P/U LUBRICATOR, M/U SERVICE BRAKES, L/D
	1530	1/2	R/U DRESSER
	1845	3-1/4	RUN CBL-CCL-GR FROM 3628 TO 2446. TOP OF CMT. AT 2475, HAD FAIR BONDING AT PERFORATED INTERVAL
	2045	2	RUN NO 2. -PERFERATING GUN. PERFORATED FROM 3568 TO 3578. LOGGED PERF'S GOT SOME INDICATION OF PERFORATION
	2400	3-1/4	M/U TEST ASSEMBLY, AND TESTING

NOTES: 1) AMERADAS NO 26306 SET AT 2118 HRS - TOP CLOCK
NO F3695 SET AT 2115 HRS - BTM CLOCK
SPERRY/SUN NO 0105 SET AT 2124 HRS
NO 0149 SET AT 2126 HRS
TOTAL TIME FOR SPERRY SUN-73,4 HRS
TOTAL TIME FOR AMERADAS - 120 HRS

ANCHORS: 1 2 3 4 5 6 7 8
200 173 210 170 170 165 210 230
135 165 200 160 150 150 150 220

TIME SUMMARY	CODE													TOTAL
	HOURS													

DAILY DRILLING REPORT

FORM d

WELL 15/6-6

PAGE ..... OF .....

SIZE/DEPTH LAST CSG 7" @ 3686

REPORT NO. 58

ANN TOC LAST CSG 2486

24 HRS. END 27-5-82

DAILY WELL COST 166,217

CUM. WELL COST 10,712,453

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT						
TIME	1600						
WT	11.3						
PV @ 120 °F	13						
YP @ 120 °F	8						
GELS (0/10)	1/6						
API F.L.	6.2						
HTHP F.L. @ °F PSI	-						
CAKE THK	1						
CAKE DESC	FIRM						
pH	10.0						
Pf	.6						
Mf	2.8						
Rf @ °F	-						
Cl⁻	13.0						
Ca⁺⁺	160						
SOLIDS %	15						
SAND %	TRC						
OIL %	0						
CEC	24						
FV	40						

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)			4054
BGNT (SX)			80
BENTONITE			618
LIG. SULFONATE			299
LIGNITE / RESINEX			116/16
CAUSTIC / LYE			136/34
BICARB / AL STEARA			93/35
XC POLYMER / DRILPAK			77/10
SODA ASH			6
PIPE LUBE / DO			6/5
CMC LV/HV			159/157
CEMENT (G)			2981
CaCl2 SX/LB			
HALL / CFR-2-L			350/230
HLXL 248/HALIZL			504/550
BENTHALITE			425
DRL WATER		260	5650
WASH WATER			
POT WATER			383
RIG FUEL		50	2910
HELIFUEL		1.08	18.28

MUD

MAKE UP WATER: Cl⁻ 150, Ca⁺⁺ 36, Rw ..... @ ..... °F; SHAKER SCREEN MESH 60 & 80, 60 & 80

DESANDER HRS ....., DESILTER HRS ....., MUD CLNR HRS SCRN SIZE 150

DAILY MUD COST 658, CUM MUD COST 127,543, MUD PUMP TYPE/LINERS 6172

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G

DRILLING ASSEMBLY

COMPONENT	FT

DEVIATION AND LEAKOFF DATA				
DEPTH				
ANGLE				
LEAKOFF PPG EQUIV				
DEPTH				
DATE				

FIXED WING AND HELICOPTERS
FW FLTS/PAX 8 ; TO/14 FR
FW FLTS/PAX ; FR TO
HELI FLTS/PAX TO RIG
HELI FLTS/PAX FR RIG

WORKBOATS				
BOAT	ALWA	SAVING	SIMR	MONING
LOCATION	RIG	STAT	DRILL	STAT
ENROUTE TO				
ETA				

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	6
DRLG CONT	51
MUD LOGGER	2
MUD	1
CEMENT	3
DIVERS	0
E. LOG	3
OTIS	8
SPERRY SUN	1
WEATHERFORD	4
TOTAL	79

WEATHER (RANGE/DAY)	
SEA	SW 4/CALM
SWELL	S/CALM
WIND	SW 18/CALM
SLIP JT	30
BALL JT	1250
RISER TEN	160
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.7/.3
PITCH	.7/.3
HEAVE	1/.5
% OFFSET	0
ANCHOR TENS	
MAX.	230
MIN	150

DAILY DRILLING REPORT

WELL 15/6-6
WATER DEPTH 135 M
ESSO SUPR PARISH
ESSO ENGR KOCIAN, PETERSEN
ESSO TECH BEITKE
RIG SUPR LABARTHE

RIG GLOMAR BISCAY II

PAGE ..... OF .....
REPORT NO. 59
24 HRS. END 28-5-82
WELL DEPTH 3760
PROGRESS PROD TEST

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
40	0230	2-1/2	COMPLETE M/U TEST ASSEMBLY AND FILL WITH HI-VIS GEL PILL
41	0345	1-1/4	ATTEMPT TO PRESSURE TEST THE TEST ASSEMBLY-NEGATIVE HAD LEAK IN CONNECTION OF UPPER SLIP JOINTS BROKE OPEN SAME, FOUND O-RING ON PIN END OF UPPER SLIP JT. TO HAVE BEEN CAUSE OF LEAK. DISCARDED O-RING INSPECTED BOX AND PIN, M/U SAME
	0415	1/2	RETESTED STRING-NO GOOD. HAVE LEAK FURTHER DOWN STRING
	0500	1-3/4	POOH L/D DART OF TEST ASSEMBLY AND TESTING TO FIND LEAKS
	0900	3	FOUND ANOTHER O-RING ON PIN END OF A SLIP JOINT CRUSHED UP IN CONNECTION. M/U SAME, TEST-OK. M/U REMAINING TEST ASSEMBLY, FILL WITH HI-VIS PILL
40	1030	1-1/2	RAN 12 STDS. TBG. TEST 300/7500/5MIN-OK
	2400	13-1/2	RAN TGB TO DEPTH OF 2932 METERS, TESTING EVERY 45 JTS

NOTES: 1) HELD FIRE AND BOAT DRILL
2) HELD PRE-TEST SAFETY MEETING WITH ALL RIG PERSONNEL
3) USING TORQUE TURN ON TBG. AND TESTING TO 7500 PSI

TIME SUMMARY	CODE	40	41											TOTAL
	HOURS	17½	6½											

DAILY DRILLING REPORT

FORM 3

WELL 15/6-6

PAGE ..... OF .....

SIZE/DEPTH LAST CSG 7" @ 3686
ANN TOC LAST CSG 2475

REPORT NO. 59
24 HRS. END 28-5-82

DAILY WELL COST 198,624
CUM. WELL COST 10,911,102

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	IN						
TIME	PIT						
WT	11.3						
PV @ 120 °F	13						
YP @ 120 °F	9						
GELS (0/10)	4/5						
API F.L.	6.1						
HTHP F.L. @ °F PSI	-						
CAKE THK	1						
CAKE DESC	FIRM						
pH	10.0						
pf	.6						
Mf	2.9						
Rf @ °F	-						
Cl⁻	13.0						
Ca⁺⁺	160						
SOLIDS %	15						
SAND %	TRC						
OIL %	0						
CEC	23						
FV	43						

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)			4054
BENT (SX)			80
BENTONITE			618
LIG. SULFONATE			299
LIGNITE / RESINEX			116/16
CAUSTIC / LYE			136/34
BICARB / ALK. STREAM			73/35
XC POLYMER / DRIVAC			77/80
SODA ASH			61
DIESEL LUBE / 100			6/5
CMC LV/HV			169/157
CEMENT (G)			2931
$CaCl_2$ SX/LIQ			34/170
HARCL / CER 2-L			350/270
HEXC 248 / MAIZE			500/550
ECHOLITE			425
DRL WATER		100	5750
WASH WATER			
POT WATER			383
RIG FUEL		44	2866
HELIFUEL			18.26

MUD
MAKE UP WATER: Cl⁻ 150, Ca⁺⁺ 320, Rw @ °F; SHAKER SCREEN MESH 60 X 80, 60 X 80
DESANDER HRS, DESILTER HRS, MUD CLNR HRS, SCRN SIZE 150
DAILY MUD COST, CUM MUD COST 127,573, MUD PUMP TYPE/LINERS GK/12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32ⁿ	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G

DRILLING ASSEMBLY

COMPONENT	FT

DEVIATION AND LEAKOFF DATA				
DEPTH				
ANGLE				
LEAKOFF PPG EQUIV				
DEPTH				
DATE				

FIXED WING AND HELICOPTERS
1 FW FLTS/PAX 3 ; TO 2 FR
FW FLTS/PAX ; FR TO
HELI FLTS/PAX TO RIG
HELI FLTS/PAX FR RIG

WORKBOATS

BOAT	ALCIA	OMEGA	SIMAX	MALINA
LOCATION	A/6	SVE	LOCY PLK	SVE
ENROUTE TO				
ETA				

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	6
DRLG CONT	52
MUD LOGGER	2
MUD	1
CEMENT	3
DIVERS	0
E. LOG	3
OTHS	8
SPERRY SUN	1
WF-LAMB	4
TOTAL	80

WEATHER (RANGE/DAY)	
SEA	WNW 5/CALM
SWELL	W 5/CALM
WIND	WNW 20/CALM
SLIP JT	30
BALL JT	1250
RISER TEN	166
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.3/.3
PITCH	.3/.3
HEAVE	.5/.5
% OFFSET	0
ANCHOR TENS	
MAX.	230
MIN	160

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135 M
ESSO SUPR. PARISH
ESSO ENGR. KOCIAN - PETTERSEN
ESSO TECH. BETHKE
RIG SUPR. LABARTHE

RIG GLOMAR BISCAY II

PAGE ..... OF .....
REPORT NO. 60
24 HRS. END 29-5-82
WELL DEPTH 3760
PROGRESS PROD TEST

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
40	0830	6	CONTINUE RUNNING TEST STRING. TEST EVERY 45 JOINTS TO 2500 PSI (RUNNING LANDING STRING AT 0500 HRS)
	1030	4-1/2	COMPLETE RUNNING TEST STRING AND LAND FLUTED HGR. IN W.H.
	1230	2	COMPLETE R/U OTIS CHIKSAN, FLOOR MANIFOLD
	1530	3	TEST SSTT, LUBRICATOR, STT AND UP STREAM VALVES ON FLOOR MANIFOLD TO 7500 PSI./5 MIN - O.K. TEST DOWNSTREAM VALVES ON FLOOR MANIFOLD TO 5,000 PSI 5 MIN - O.K. TEST INLET VALVE TO HEATER TO 5000 PSI / 5 MIN - OK.
	1545	1/4	SET RTTS PACKER AT 3533 METERS
	2400	8-1/4	1540 HRS - OPEN LPR VALVE W/200 PSI. ANNULUS PRESSURE 1555 TO 1557 HRS - INITIAL FLOW - 3 BBLS 1701 HRS - OPEN LPR VALVE W/1000 PSI, ANNULUS PRESSURE FOR FINAL FLOW 1705 HRS-OPEN WELL ON 32/64 POSITIVE CHOKE 1340 HRS-INCREASE TO 44/64 ON HAND ADJUSTABLE 1721 HRS-INCREASED TO 56/64 ON POSITIVE CHOKE 2235 HRS WELL FINALLY CLEANED UP AND SWITCHED TO SEPARATOR

NOTES: 1) WE STILL NEED 6-EA-TWIN PACKS OF POLAROID FILM FOR OUR SX-70 POLAROID CAMERA FAIRLY URGENT. WE ARE OUT.

ANCHORS: 1 2 3 4 5 6 7 8
200 140 215 170 165 160 170 225
200 155 215 160 150 150 170 210

TIME SUMMARY	CODE	HOURS	TOTAL
	40	24	

TELEX EXPRESS TELEX

DAILY DRILLING REPORT

FORM B

WELL 15/6-6

SIZE/DEPTH LAST CSG. 7" @ 3686
ANN TOC LAST CSG. 2475

DAILY WELL COST 160,521

PAGE ..... OF .....
REPORT NO. 60
24 HRS. END 29-5-82

CUM. WELL COST 11,071,698

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT						
TIME	2000						
WT	1.63						
PV @ 120 °F	13						
YP @ 120 °F	8						
GELS (0/10)	1/5						
API F.L.	6.2						
HTHP F.L. @ °F PSI	-						
CAKE THK	1						
CAKE DESC	FIRM						
pH	9.9						
pf	.6						
Mf	2.7						
Rf @ °F	-						
Cl⁻	13.0						
Ca⁺⁺	160						
SOLIDS %	15						
SAND %	TRC						
OIL %	0						
CEC	23						
FV	41						

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)		35	419
BENT (SX)			80
BENTONITE			618
LIG. SULFONATE			299
LIGNITE / RESINEX			116/16
CAUSTIC / LYE			136/34
BICARB / AL. STEARA			73/35
XC POLYMER / DRISPAC			77/80
SODA ASH			61
PIPE LUBE / DO			6/5
PIPE LUBE / HV			159/157
CEMENT (G)			2931
$CaCl_2$ SX / LIQ			34/170
HALL / CEDAR L			350/220
HI VIS PAC / HALL L			500/550
ECONOLITE			
DRL WATER		140	540
WASH WATER			
POT WATER			382
RIG FUEL		50	2916
HELIFUEL			1528

MUD
MAKE UP WATER: Cl⁻ 150, Ca⁺⁺ 36, Rw @ °F; SHAKER SCREEN MESH 60 X 80, 60 X 80
DESANDER HRS., DESILTER HRS., MUD CLNR HRS. SCREEN 5 X 80 150
DAILY MUD COST 187, CUM MUD COST 127,260, MUD PUMP TYPE/LINERS 6K12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G

DRILLING ASSEMBLY

COMPONENT	FT

DEVIATION AND LEAKOFF DATA

DEPTH				
ANGLE				
LEAKOFF PPG EQUIV				
DEPTH				
DATE				

FIXED WING AND HELICOPTERS

FW FLTS/PAX ; TO FR
FW FLTS/PAX ; FR TO
HELI FLTS/PAX TO RIG
HELI FLTS/PAX FR RIG

WORKBOATS

BOAT	ALLOE	SAMAR	SIMON	MARINA
LOCATION	RIG	SVG	DOCK	SVG
ENROUTE TO				
ETA				

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	6
DRLG CONT	52
MUD LOGGER	2
MUD	1
CEMENT	3
DIVERS	0
E. LOG	3
STC	8
SPERRY SUN	1
WF-LAMA	4
TOTAL	80

WEATHER (RANGE/DAY)	
SEA	SW 5/SS
SWELL	SW 6/SS
WIND	SW 20/S14
SLIP JT	30
BALL JT	1200
RISER TEN	160
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	1.3/.3
PITCH	.3/.3
HEAVE	.5/.5
% OFFSET	0
ANCHOR TENS	
MAX.	220
MIN	150

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135 M
ESSO SUPR PARISH
ESSO ENGR PETTERSON, KOCIAN
ESSO TECH BEINKE
RIG SUPR LABARTHE
RIG GLOMAR BISCAY II

PAGE ..... OF .....
REPORT NO 61
24 HRS. END 30-5-82
WELL DEPTH 3760
PROGRESS TESTING

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION

4024 HOUR SUMMARY:
0530 5-1/2 FINAL FLOW PERIOD
0450 HRS - INCREASED ANNULUS PRESSURE TO 2,000 PSI AND HELD FOR 10 MIN. THIS WAS TO SET THE CLOSING PRESSURE OF THE BALL IN THE NEW LPR VALVE TO 1600 PSI. THE CLOSING FORCE IS 400 PSI. LESS THAN ANNULUS PRESSURE.
0502 HRS- BLED ANNULUS TO SHUT THE LPR VALVE WITH FLOOR MANIFOLD OPEN TO MONITOR BLEED DOWN TO 700 PSI. TO MONITOR LPR FOR LEAKAGE, PRESSURE BLED TO 1600 PSI. AND STABILIZED INDICATING THE LPR HAD NOT CLOSED COMPLETELY.
0518 HRS-SHUT IN WELL AT FLOOR. MANIFOLD
0528 HRS-PRESSURED AT SURFACE STABILIZED AT 4750 PSI
4/0645 1-1/4 FINAL BUILD - UP
CHICKSAN SWING BETWEEN SURFACE TEST TREE AND 3" CHICKSAN FLOWLINE BEGAN LEAKING IN THE PACKING SHUT FAILSAFE VALVE ON STT, BLED PRESSURE TO FLOOR MANIFOLD. TOOK OUT CHICKSAN SWING AND RECONNECTED CHIKSAN TO STT.
4/2400 17-1/4 FINAL BUILD UP. BEGAN KILLING WELL AT 2400 HRS.
2145-HRS-PUMPED OUT STORAGE TANK

NOTES: 1) NEED 230FT OF 3/16" SUNFLEX HOSE NO.3100-00 FOR RISER DUMP VALVE ASSEMBLY.

TIME SUMMARY	CODE	40	41											TOTAL
	HOURS	22 3/4	1 1/4											

DAILY DRILLING REPORT

FORM B

WELL 15/6-6
SIZE/DEPTH LAST CSG 7" @ 3666
ANN TOC LAST CSG 2425
DAILY WELL COST 160,112

PAGE ..... OF .....
REPORT NO 61
24 HRS. END 30-5-82
CUM. WELL COST 11,231,870

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT						
TIME	1900						
WT	11.3						
PV @ 120 °F	13						
YP @ 120 °F	7						
GELS (0/10)	1/5						
API F.L.	6.3						
HTHP F.L. @ °F PSI	–						
CAKE THK	1						
CAKE DESC	FIRM						
pH	9.9						
pf	.6						
Mf	2.7						
Rf @ °F	–						
Cl⁻	13.0						
Ca⁺⁺	160						
SOLIDS %	15						
SAND %	TRC						
OIL %	6						
CEC	23						
FV	41						

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)			4019
BENT (SX)			80
BENTONITE			618
LIG. SULFONATE			299
LIGNITE / RESINEX			116/16
CAUSTIC / LIME			136/34
BICARB / AL. STEARATE			73/35
XC POLYMER / DRIFILM			77/60
SODA ASH			61
PES. LAX / DD			6/5
CMC LV/HV			159/157
CEMENT (G)			2931
CaCl2 SX/LIB			34/170
ARBL / CEDEL			330/220
MICA 2XF/MEDIUM			200/550
TECHOLITE			425
DRL WATER		140	5470
WASH WATER			
POT WATER			353
RIG FUEL		51	2816
HELIFUEL			15.28

MUD
MAKE UP WATER: Cl⁻ 150, Ca⁺⁺ 20, Rw @ °F; SHAKER SCREEN MESH 60 x 60, 60 x 80
DESANDER HRS ....., DESILTER HRS ....., MUD CLNR HRS ..... SCREEN SIZE 150
DAILY MUD COST ....., CUM MUD COST 127,200, MUD PUMP TYPE/LINERS 6X12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32ⁿ	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SIM	D.PIPE AV	COND T	COND B	COND G

DRILLING ASSEMBLY

COMPONENT	FT
MULE SHOE SUB	2.98
THK	9.32
XO NIPPLE	.22
DRILL JT	31.55
X NIPPLE	.74
BITS PBACK	1.38
SAFETY JT	.94
SUB	1.57
HYD DISCONN	2.03
LPR	.68
SLIP JT	3.94
DRILL COLLAR	9.08
DP TESTER	1.46
RDCM	3.22
SLIP JT	3.94
DC	28.55
RTTS CROSSOVER	.84
XO	.23
DC	28.57
DC	28.57
DC	28.41
DC	28.56
SLIP JT	3.94
SLIP JT	5.47
XO	1.19
	237.86

DEVIATION AND LEAKOFF DATA				
DEPTH				
ANGLE				
LEAKOFF PPG EQUIV				
DEPTH				
DATE				
FIXED WING AND HELICOPTERS				
FW FLTS/PAX	; TO	FR		
FW FLTS/PAX	; FR	TO		
HELI FLTS/PAX TO RIG				
HELI FLTS/PAX FR RIG				
WORKBOATS				
BOAT				
LOCATION				
ENROUTE TO				
ETA				

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	6
DRLG CONT	52
MUD LOGGER	2
MUD	1
CEMENT	3
DIVERS	0
E. LOG	3
OTIS	8
SCHLUMBERGER	1
WF-LAMB	4
TOTAL	80

WEATHER (RANGE/DAY)	
SEA	SW 5/6
SWELL	SW 5/SW6
WIND	SW15/SW20
SLIP JT	30
BALL JT	1250
RISER TEN	160
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	3
PITCH	3
HEAVE	1/2
% OFFSET	0
ANCHOR TENS	
MAX.	215
MIN	150

DAILY DRILLING REPORT

WELL 15/6-6
WATER DEPTH 135
ESSO SUPR. PARISH
ESSO ENGR. PETTRIGREW/KEGAN
ESSO TECH. BATHKE
RIG SUPR. LACARITTE

RIG GLOMAR CASEY II

PAGE ..... OF .....
REPORT NO. 62
24 HRS. END 31-5-82
WELL DEPTH 3760
PROGRESS TESTING

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
40	0030	1/2	pumped annulus pressure up to 2400 psi. and held for 10 mins to set closing pressure of lpr valve at 2100 psi. bled annulus pressure to 0 and bled down tubing string. lpr valve held
	0145	1-1/4	bullheaded 36-1/4 bbls. down to lpr valve opened lpr valve pumped 6-1/2 bbls more and entered perfs pumped 23-1/4 bbls into formation broke over formation at 4800 psi. and established injection rate of 3 bpm at 2700 psi. stopped pumps. stabilized pressure = 2350. bled back 6 bbls
	0300	1-1/4	sheared apr-m valve w/3700 psi. reversed out tubing. max gas = 355 units
	0315	1/4	open lp rams, p/u and unseated packer, set back down on wellhead. closed lpr
	0345	1/2	pumped 25 bbls. 11.3 mud down annulus at 2800 psi shut off pumps pressure stabilized at 2400 psi bled back 8 bbls.
	0600	2-1/4	opened lp rams circ out the long way while flushing out flow and downstream lines, choke manifold, heater and separator, and flair lines w/ freshwater. r/d otis from drillfloor. max gas= 195 units. circ down to .5 units while r/d otis
	0715	1-1/4	r/d stt and complete l/d otis equipement
	2030	12-1/4	pump slug, pooh l/d tubing
	2100	1/2	r/u dresser
	2115	1-1/4	run no.1 = ccl, ezsv, rih to 300 meters
41	2230	1-1/4	waiting on order to plug and abandon from test engineers.
40	2330	1	continue rih with ezsv, attempt to set same=no good would not fire
41	2400	1/2	pooh

notes: 1) need 200 sx caustic soda
2) need for rig move
6-ea-100 ft pendant lines
4-ea-200 ft pendant lines
4-ea-25' pendant lines
5-ea-75 ton shackles

anchors: 1 2 3 4 5 6 7 8
203 175 230 170 170 170 [illegible] 225
195 155 [illegible] 155 150 150 [illegible]

TIME SUMMARY	CODE	40	41									TOTAL
	HOURS	22 1/4	13/4									

DAILY DRILLING REPORT

FORM B

WELL 15/6-6
PAGE ..... OF .....

SIZE/DEPTH LAST CSG 7" @ 2686
ANN TOC LAST CSG 2475 m.

REPORT NO. 62
24 HRS. END 31-5-82

DAILY WELL COST 154,560
CUM. WELL COST 11,386,370

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT						
TIME	2000						
WT	11.3						
PV @ 120 °F	13						
YP @ 120 °F	7						
GELS (0/10)	1/5						
API F.L.	6.4						
HTHP F.L. @ °F PSI	–						
CAKE THK	1						
CAKE DESC	FIRM						
pH	9.8						
pf	.6						
Mf	2.7						
Rf @ °F							
Cl⁻	13.5						
Ca⁺⁺	160						
SOLIDS %	15						
SAND %	TRC						
OIL %	0						
CEC	23						
FV	39						

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)			409
BBHT (SX)			90
BENTONITE			618
LIG. SULFONATE			299
LIGNITE/RESINEX			116/16
CAUSTIC/LIME			134/34
BICARB/BL. STOB			75/35
KC PYMAR/BBLS.			74/80
SODA ASH			60
PIPELAX/BD			6/5
CMC LV/HV			159/156
CEMENT (G)			2931
CaCl2 SX/LIM			34/190
HR6L/CFR-2-L			350/220
HLVC24/MR12L			500/550
BENTONITE			425
DRL WATER		136	5334
WASH WATER			
POT WATER			383
RIG FUEL		49	2916
HELIFUEL			18.28

MUD
MAKE UP WATER: Cl⁻ 150, Ca⁺⁺ 36, Rw @ °F; SHAKER SCREEN MESH 60 X 80, 60 X 80
DESANDER HRS, DESILTER HRS, MUD CLNR HRS 5 CONE 5/86 150
DAILY MUD COST 365, CUM MUD COST 128,175, MUD PUMP TYPE/LINERS GX 12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G

DRILLING ASSEMBLY

COMPONENT	FT

DEVIATION AND LEAKOFF DATA

DEPTH					
ANGLE					
LEAKOFF PPG EQUIV					
DEPTH					
DATE					

FIXED WING AND HELICOPTERS
FW FLTS/PAX ; TO FR
FW FLTS/PAX ; FR TO
HELI FLTS/PAX TO RIG
HELI FLTS/PAX FR RIG

WORKBOATS

BOAT	ALVA	CANDE	LINDA	MARIA
LOCATION	R16		RIG	SV6
ENROUTE TO		R16		
ETA				

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	4
DRLG CONT	53
MUD LOGGER	2
MUD	1
CEMENT	2
DIVERS	4
E. LOG	3
OTIS	2
SPERRY SUN	1
WEATHERFORD	1
A-1	1
TOTAL	74

WEATHER (RANGE/DAY)	
SEA	S5/S4
SWELL	S5/S4
WIND	S18/S12
SLIP JT.	30
BALL JT	1200
RISER TEN	160
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.3/.3
PITCH	.3/.3
HEAVE	.5/.5
% OFFSET	0
ANCHOR TENS	
MAX.	235
MIN	150

TELEX TELEX TELEX TELEX TELEX TELEX

DAILY DRILLING REPORT

WELL 15/6-6
WATER DEPTH 135
ESSO SUPR. PARISH
ESSO ENGR. PETTERSSON
ESSO TECH. BETTNKE
RIG SUPR. LABARTHE

RIG KUMAR BISCAY II

PAGE ..... OF .....

REPORT NO. 63
24 HRS. END 1-6-82
WELL DEPTH 3280
PROGRESS P+A

0000	9	complete pooh w/ezsv
0900	1 1/2	examine and work on ccl. engineer said everything checked out electrically on surface both before and after ezsv run. problem arises while ccl is in hole. no explanation why at present. marked wireline before pooh
1030	1 1/2	rih w/ezsv, set same at 3542 w/o ccl by using marked wireline from previous run.pooh
0330	1/2	r/d dresser atlas
0400	1/2	m/u cmt stinger on dp
0430	1/2	slip and cut 122 ft of drill line
0900	4 1/2	rih to cmt, tag ezsv at 3542
1315	1 1/4	circ and condition mud
1345	1/2	press test lines to 5000 psi. stung in and establishe injection rate of 2 bpm at 3000 psi
1200	1 1/4	pump 10 bbls fresh h2o ahead. plug no 1. mix and pump 100 sks class 'g' neat w/1.2 gps halad 10, .29 gps cfr2l, and .09 gps hr 12 l. displace w/ 1 bbl fresh h2o and 54 1/2 bbls mud. stung into retainer and squooze 10 bbls h2o and 100 sks cmt below retainer. final squeeze pressure = 2800 psi. average slurry density = 15.8
1230	1/2	pull out of ezsv and reverse out
1330	1	hung off on mpr's and tested cmt job + ezsv to 3000 psi/15 min = ok
1430	1	made and placed cmt plug no.2 from 3440 to 3355 meter as follows: tested lines to 5000 psi. pumped 3 1/2 bbls h2o ahead mix and pump 50 sks of class 'g' neat w/ 1.2 gps halad 10, .29 gps cfr 2 l , and .09 gps hr12l ave density = 15.9
1515	3/4	pooh to 3370 meters and reversed out
1730	2 1/4	l/d 75 joints dp to 2310 meters
1315	3/4	made and placed cmt plug no.3 from 2810 to 2710 meter as follows: tested lines to 5000 psi. pump 3 1/2 bbls h2o ahead. mixed and pumped 40 sks class 'g' neat w/ .09 gps hr12l. displaced w/1 bbl h2o and 54 1/2 bbls mud
1345	1/2	pooh to 2670 meters and reversed out
2300	4 1/4	pooh l/d 138 jts dp
2400	1	rih w/4 jts + double of 5'' hwdo, r/u perf gun, and wireline hop

1) need 1 case of cannon copy paper for cannon np-50 copier
2) need manifest forms.storekeeper is on his last book
3) need waterproof tags for esso materials. they are 4 1/2'' by 7'' and have esso expro norway heading

anchors: 1 2 3 4 5 6 7 8

TIME	CODE	16	19	18	15									TOTAL
SUMMARY	HOURS	2 1/2	14 1/2	1/2	6 3/4									24

DAILY DRILLING REPORT

FORM 8

WELL 15/6-6

PAGE ..... OF .....

SIZE/DEPTH LAST CSG. 9'' @ 3686
ANN TOC LAST CSG. 2475

REPORT NO. 63
24 HRS. END 1-6-82

DAILY WELL COST 173 830

CUM. WELL COST 1,560,700

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT						
TIME	1400						
WT	11.3						
PV @ 120 °F	12						
YP @ 120 °F	7						
GELS (0/10)	1/4						
API F.L.	8.1						
HTHP F.L. @ °F PSI	-						
CAKE THK	1						
CAKE DESC	FIRM						
pH	10.3						
pf	.5						
Mf	2.5						
Rf @ °F	-						
Cl⁻	13.0						
Ca⁺⁺	150						
SOLIDS %	14						
SAND %	TRC						
OIL %	0						
CEC	21						
FV	39						

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)		275	3744
BENT (SX)			80
BENTONITE			618
LIG. SULFONATE			298
LIGNITE / REDUCED			116/16
CAUSTIC / LYE		18	118/34
BICARB / AL. STEARATE			73/35
XC POLYMER / DRISPAC			76/80
SODA ASH			60
PIPE LUBE / DO			6/5
CMC LV/HV		0/1	159/155
CEMENT (G)	1103	391	3643
CaCl2 SX/LIQ			34/170
HRGL / CFR-2-L			350/230
HLXL 248/HR12L			500/550
ECUWEDGE			425
DRL WATER	1840	504	6670
WASH WATER			
POT WATER		63	320
RIG FUEL		61	2655
HELIFUEL			18.28

MUD
MAKE UP WATER: Cl⁻ 150, Ca⁺⁺ 36, Rw @ °F; SHAKER SCREEN MESH 60x60, 60x60
DESANDER HRS, DESILTER HRS, MUD CLNR HRS, SCRN SIZE 150
DAILY MUD COST 1768, CUM MUD COST 172 993, MUD PUMP TYPE/LINERS 6X12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G

DRILLING ASSEMBLY

COMPONENT	FT

DEVIATION AND LEAKOFF DATA

DEPTH					
ANGLE					
LEAKOFF PPG EQUIV					
DEPTH					
DATE					

FIXED WING AND HELICOPTERS
/ FW FLTS/PAX 12 ; TO 13 FR
FW FLTS/PAX ; FR TO
HELI FLTS/PAX TO RIG
HELI FLTS/PAX FR RIG

WORKBOATS

BOAT	ALCOR	SAMUEL	SP	ARE
LOCATION	RIG		DOCK	
ENROUTE TO		SIR		RIG
ETA		600		

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	6
DRLG CONT	55
MUD LOGGER	2
MUD	1
CEMENT	1
DIVERS	4
E. LOG	3
A-1	1
TOTAL	73

WEATHER (RANGE/DAY)	
SEA	5 4/5 2
SWELL	5 4/5 2
WIND	5/12 /510
SLIP JT	30
BALL JT	1200
RISER TEN	160
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.3/.3
PITCH	.3/.3
HEAVE	5/5
% OFFSET	0
ANCHOR TENS	
MAX.	8 @ 205
MIN	256 @ 150

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135
ESSO SUPR. PARISH
ESSO ENGR. PETTERSEN
ESSO TECH. DETHIE
RIG SUPR. LOBARTHE

RIG GLOMAR GISCAY II

PAGE ..... OF .....
REPORT NO. 64
24 HRS. END 2-6-82
WELL DEPTH 2710
PROGRESS P+A

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
13	0100	1	r/u dresser atlas w/wireline bop, and 2 1/8'' limited entry perf.gun
	0130	1/2	rih to 1275 meters
	0200	1/2	close lpr,pressure up annulus to 500 psi.fired.had no pressure drop.fired 10 shots at 4 spf of 1 gram shots each.
	0230	1/2	attempted to log perfs = no indication
13	0300	1/2	pooh
	0400	1	r/d perf gun. all shots fired. r/u new perf gun with .8 gram shots at 4 spf and 10 shots total
	0445	3/4	rih to 1250 meters
	0500	1/4	closed lpr,pressured annulus to 540 psi. fired and got 20 psi pressure drop
13	0530	1/2	pulled perf gun, all shots fired.pressured annulus to 2500 psi for 5 mins = ok
	0630	1	pooh , l/d w.l. bop on 1 single of hwdp
14	0845	2 1/4	m/u casing cutter and rih to 1303.14
	0915	1/2	cut 7'' casing. no decrease in pump press to indicate cut
33	1115	2	pump slug.pooh.knives indicate cut of 8''
33	1345	2 1/2	m/u spear and rih. spear 7'' and close hydril. pulled back 200 k over. try pump. could not pull. pooh
	1530	1 3/4	m/u redressed cutter. rih
	1545	1/4	cut 7'' at 1303.14
14	1730	1 3/4	pooh
	2400	6 1/2	rih w/spear. engage 7'' csg. pull 7'' csg free w/ 25 k overpull. check for press. no press. open hydril pooh l/d casing

anchors 1 2 3 4 5 6 7 8
175 183 220 170 173 175 200 230
171 143 215 161 141 141 180 215

TIME SUMMARY	CODE	33	14	13								TOTAL
	HOURS	9	11	4								24

TELEX

DAILY DRILLING REPORT

FORM B

WELL 15/6-6

SIZE/DEPTH LAST CSG. 7" @ 3686
ANN TOC LAST CSG. 2425

DAILY WELL COST 180,382

PAGE ..... OF .....
REPORT NO. 64
24 HRS. END 2-6-82

CUM. WELL COST 11,740,582

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT						
TIME	2000						
WT	11.3						
PV @ 120 °F	14						
YP @ 120 °F	6						
GELS (0/10)	1/4						
API F.L.	4.4						
HTHP F.L. @ °F PSI							
CAKE THK	1						
CAKE DESC	FIRM						
pH	10.1						
pf	.5						
Mf	2.6						
Rf @ °F							
Cl⁻	13000						
Ca⁺⁺	140						
SOLIDS %	14						
SAND %	TR						
OIL %	0						
CEC	20						
FV	35						

STOCKS	RECD UNITS	USED	REMAIN STOCK
BARITE (BULK)		53	3691
BENT (SX)			80
BENTONITE			618
LIG. SULFONATE			299
LIGNITE / RESINEX			116/16
CAUSTIC / LYE			119/34
BICARB / AL. STEAR			73/35
XC POLYMER / DRISPAC			76/80
SODA ASH			60
DIESEL LK / 100°			6/5
CMC LV/HV			159/155
CEMENT (G)			3642
CaCl2 SX/LIQ			34/170
HALL / GEL-L			350/220
HLXL 248/HALL			500/550
ECONOLITE			425
DRL WATER		60	6610
~~WASH WATER~~			
POT WATER			383
RIG FUEL		65	2590
HELIFUEL			18.28

MUD
MAKE UP WATER: Cl⁻ 150, Ca⁺⁺ 36, Rw ..... @ ..... °F; SHAKER SCREEN MESH 60/80, 60/80
DESANDER HRS ....., DESILTER HRS ....., MUD CLNR HRS ..... SCREN SIZE 150
DAILY MUD COST 281, CUM MUD COST 130,174, MUD PUMP TYPE/LINERS 6 x 12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G

DRILLING ASSEMBLY

COMPONENT	FT

DEVIATION AND LEAKOFF DATA

DEPTH				
ANGLE				
LEAKOFF PPG EQUIV				
DEPTH				
DATE				

FIXED WING AND HELICOPTERS
1 FW FLTS/PAX 11 : TO 15 FR
FW FLTS/PAX : FR TO
HELI FLTS/PAX TO RIG
HELI FLTS/PAX FR RIG

WORKBOATS

BOAT	ALCOR	SAMO	SIDO	SMER
LOCATION	RIG		DOCK	
ENROUTE TO		RIG		SVG
ETA		0800		0500

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	5
DRLG CONT	51
MUD LOGGER	2
MUD	1
CEMENT	1
DIVERS	4
E. LOG	3
A-1	1
AKER	1
TOTAL	69

WEATHER (RANGE/DAY)	
SEA	S2/S1
SWELL	S2/S1
WIND	S12/S4
MUD	SLIP JT 30
CEMENT	BALL JT 1200
DIVERS	RISER TEN 160
RIG DATA (RANGE/DAY)	
HEADING	307 deg
ROLL	.3/.2
PITCH	.3/.2
HEAVE	.5/.5
% OFFSET	CENTER
ANCHOR TENS	
MAX.	Pat 730
MIN	Sat 160

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135
ESSO SUPR. PARISH
ESSO ENGR. PETTERSEN
ESSO TECH. BETHKE
RIG SUPR. LABARTHE

RIG GLOMAR BISCAY II

PAGE ..... OF .....
REPORT NO. 65
24 HRS. END 3-6-82
WELL DEPTH 1279
PROGRESS N/A

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
14	0530	5 1/2	lay down 7" casing. limited entry shots shot w/1 gr bullets had 5 of 13 open. shots w/ .8 gr had 10 perfs open of which 7 were completely open. r/d csg equip
13	0715	1 3/4	rih w/ oedp to 1350 m
	0800	3/4	circ btms up
	0815	1/4	pump 4 bbls water ahead.test lines to 3000 psi.
3	0830	1/4	attempt to mix cmt line plugged from surge pod to recirculator. clear line
13	0915	3/4	plug no.4 from 1350 m to 1250 m . mix and pump 90 sxs of class g neat mixed w/ 10 3/4 bbls fresh water. ave slurry wt 15.8 ppg. slurry volume was 103 1/2 cuft or 18.4 bbls. displace w/ 1/2 bbl of water and 29 1/2 mud
	1015	1	pooh to 1181. rev out. pump slug . pooh to 900 m.
	1045	1/2	test plug no.4 to 2500 psi.no loss
	1345	3	r/u dresser and rih w/limited entry gun. perf at 997 to 998 w/12 shots of .8 gr w/500 psi on casing. lost 40 psi.pooh w/perf gun. all shots fired
13	1400	1/4	attempt to est.inj. rate. press up to 4500 psi. no p press bleed off
	1645	2 3/4	m/u new gun and rih and perf from 997 to 998 w/12 shots of .8 gr w/500 psi on casing.press dropped to zero.-
13	1700	1/4	est.injection rate 2 bpm 500 psi. pumped 10 bbls and bled back 5 bbls
	1715	1/4	r/d dresser
	1930	1 1/4	rih and tag cmt at 1279 w/ 15 k. pooh to 990 m
	2100	2 1/2	mix and pump plug no.5 consisting of 265 sxs of class g neat mixed w/ 31 1/2 fresh water. slurry wt 15.8 ppg. slurry volume 305 cuft or 54 1/4 bbls.pooh to 430 m and squeeze total of 62 1/2 bbls placing 54 1/4 bbls of slurry 30 m below perfs in 9 5/8" x 13 3/8 annulus . final squeeze press of 625 at 1 bpm
	2400	3	hold squeeze press. woc

TIME SUMMARY														TOTAL
CODE	13	33	14											
HOURS	15 1/4	3 1/4	5 1/2											24

DAILY DRILLING REPORT

FORM B

WELL 15/6-6

SIZE/DEPTH LAST CSG. 9 5/8 @ 2339
ANN TOC LAST CSG.
DAILY WELL COST 164 204

PAGE ..... OF .....
REPORT NO. 65
24 HRS. END 3-6-82
CUM. WELL COST 11 904 786

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT						
TIME	1530						
WT	11.3						
PV @ 120 °F	8						
YP @ 120 °F	5						
GELS (0/10)	1/2						
API F.L.	6.4						
HTHP F.L. @ °F PSI							
CAKE THK	2/32						
CAKE DESC	FIRM						
pH	10.3						
Pf	.3						
Mf	2.5						
Rf @ °F							
Cl⁻	19000						
Ca⁺⁺	180						
SOLIDS %	14						
SAND %	TR						
OIL %	0						
CEC	20						
FV	36						

STOCKS	~~RECD~~ UNITS	USED	REMAIN STOCK
BARITE (BULK)	1146		4840
BENT (SX)			80
BENTONITE			616
LIG. SULFONATE			299
LIGNITE / REDUCED			116/16
CAUSTIC / LYE			119/37
BICARB / ~~AL. STEARATE~~			53/95
~~KC. POLYMER~~ / ~~DRILSEAL~~			56/80
SODA ASH			61
PIPE LUBE / DOC			6/5
~~PIPE LUBE~~ / ~~HV~~			159/156
CEMENT (G)	1005	197	4451
$CaCl_2$ SX/LIQ			37/170
HRGL / CFR-2 L			350/220
~~HRGL~~ 2YR / HRGL			500/550
~~BICHROLITE~~			425
DRL WATER		330	6280
WASH WATER			
POT WATER			295
RIG FUEL		50	2540
HELIFUEL	16.94		35.22

MUD
MAKE UP WATER: Cl⁻ 150, Ca⁺⁺ 36, Rw @ °F. SHAKER SCREEN MESH 60/40, 60/40
DESANDER HRS., DESILTER HRS., MUD CLNR HRS. SCRW. S.LAB. 150
DAILY MUD COST 0, CUM MUD COST 132 134, MUD PUMP TYPE/LINERS 6 x 12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G

DRILLING ASSEMBLY

COMPONENT	FT

DEVIATION AND LEAKOFF DATA

DEPTH				
ANGLE				
LEAKOFF PPG EQUIV				
DEPTH				
DATE				

FIXED WING AND HELICOPTERS

FW FLTS/PAX	TO FR
FW FLTS/PAX	FR TO
HELI FLTS/PAX TO RIG	36 to R16
HELI FLTS/PAX FR RIG	34 fr R16

WORKBOATS

BOAT	ALCOR	SSAR.	SAND	S.MAR
LOCATION		R16	R16	SV6
ENROUTE TO	R16			
ETA	0400			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	2
DRLG CONT	51
MUD LOGGER	1
MUD	1
CEMENT	2
DIVERS	4
E. LOG	3
A-1	1
TOTAL	65

WEATHER (RANGE/DAY)	
SEA	5 1/2
SWELL	5 2
WIND	5 8/12
SLIP JT	30
BALL JT	1150
RISER TEN	160
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.2
PITCH	.2
HEAVE	.5
% OFFSET	0
ANCHOR TENS	
MAX.	8 at 235
MIN	5 at 155

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135 M
ESSO SUPR. PARISH
ESSO ENGR.
ESSO TECH. CARPENTER
RIG SUPR. LAGARDE

RIG GLOMAR BISCAY II

PAGE ..... OF .....
REPORT NO. 66
24 HRS. END 4-6-82
WELL DEPTH 2279
PROGRESS 24

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
13	0045	3/4	bled csg press to zero (3/4 bbl)
	0345	3	woc. l/d 13 stds 3 1/2'' dp and 6 stds 4 3/4 dc
	0445	1	rih w/ 5 stds dp, shut mpr and attempt press test 9 5/8 x 13 3/8'' annulus. leaking off at 450 to 500 psi
34	0600	1 1/4	rih to 990 m
	0630	1/2	circ b/u
	0645	1/4	cst inj rate. 1 1/3 bpm with 1000 psi
	0915	2 1/2	pump 4 bbls fresh water. test lines to 3000 psi. mix and pump plug no. 5 rr consisting of 265 sxs of class g neat mixed w/ 31 1/2 bbls fresh water. ave density 15.8 ppg. slurry volume 305 cuft or 54 1/2 bbls. pooh to 430 m, and squeeze total of 62 1/2 bbls placing 54 1/2 bbls of slurry 30 m below perf in 9 5/8 x 13 3/8 annulus. final squeeze press of 825 psi at 1/2 bpm
	1515	6	hold squeeze press
	1530	1/4	attempt to test squeeze job. pit limit 800 psi
	1600	1/2	rih to 786 m, taking 20 kips weight
	1730	1 1/2	wash down 786 m - 791 m
	1830	1	slug pipe pooh
	1900	1/2	rig up dresser
	1945	3/4	run gauge ring and ccl, logging line knoted up 20 m above tool
	2045	1	cut logging line, reterminate socket
	2115	1/2	rig up to run ezsv cmt retainer
	2245	1 1/2	run ezsv and set at 738 m
	2300	1/4	rig down dresser
	2400	1	make up stinger on 5 1/2 dp and rih

TIME SUMMARY	CODE	13	34											TOTAL
	HOURS	4 3/4	19 1/4											24

DAILY DRILLING REPORT

FORM B

WELL 15/6-6

SIZE/DEPTH LAST CSG 9 5/8 @ 2279
ANN TOC LAST CSG 2650

PAGE ..... OF .....
REPORT NO. 66
24 HRS. END 4-6-82

DAILY WELL COST 122,205
CUM. WELL COST 12,081,989

MUD CHEKS	(R) OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT						
TIME	1530						
WT	11.1						
PV @ 120 °F	7						
YP @ 120 °F	4						
GELS (0/10)	1/2						
API F.L.	6.6						
HTHP F.L. @ °F PSI	-						
CAKE THK	2						
CAKE DESC	FIRM						
pH	10.4						
pf	.65						
Mf	2.3						
Rf @ °F							
Cl⁻	14,500						
Ca⁺⁺	180						
SOLIDS %	13						
SAND %	TRS						
OIL %	0						
CEC	20						
FV	35						

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)			4840
BENT (SX)			80
BENTONITE			616
LIG. SULFONATE			299
LIGNITE / [illegible]			116/16
CAUSTIC / LYE			118/27
BICARB / [illegible]			72/35
XC POLYMER / [illegible]			76/80
SODA ASH			61
[illegible]			6/5
[illegible]			159/156
CEMENT (G)		462	3989
CaCl2 SX / [illegible]			34/120
[illegible]			375/235
[illegible]			168/465
BENTONITE			425
DRL WATER		210	6070
WASH WATER			
POT WATER			300
RIG FUEL		6c	2480
HELIFUEL		1.85	33.37

MUD
MAKE UP WATER: Cl⁻ 150, Ca⁺⁺ 36, Rw @ °F; SHAKER SCREEN MESH 60 x 60, 60 x 60
DESANDER HRS., DESILTER HRS., MUD CLNR HRS. SCRN 60 x 60
DAILY MUD COST –, CUM MUD COST 130174, MUD PUMP TYPE/LINERS 6 x 12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G

DRILLING ASSEMBLY

COMPONENT	FT

DEVIATION AND LEAKOFF DATA

DEPTH				
ANGLE				
LEAKOFF PPG EQUIV				
DEPTH				
DATE				

FIXED WING AND HELICOPTERS
FW FLTS/PAX ; TO FR
FW FLTS/PAX ; FR TO
/ HELI FLTS/PAX TO RIG 6
/ HELI FLTS/PAX FR RIG 0

WORKBOATS

BOAT	SAMOR	SNORA	SARA
LOCATION	R14	R16	SV4
ENROUTE TO			
ETA			

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	4
DRLG CONT	52
MUD LOGGER	1
MUD	1
CEMENT	2
DIVERS	4
E. LOG	3
A-1	1
JESCA	2
SCANTEST	1
TOTAL	71

WEATHER (RANGE/DAY)	
SEA	CALM/SLIGHT
SWELL	S 1/2
WIND	CALM 16/4
MUD	SLIP JT 30
BALL JT	1150
RISER TEN	160
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	0/.2
PITCH	0/.2
HEAVE	0/.5
% OFFSET	0
ANCHOR TENS	
MAX.	8 @ 230
MIN	5 @ 155

DAILY DRILLING REPORT

FORM A

WELL 15/6-6
WATER DEPTH 135 m
ESSO SUPR PARISH
ESSO ENGR
ESSO TECH CARPENTER
RIG SUPR LAMARTINE

RIG GLOMAR BISCAY II

PAGE ..... OF .....
REPORT NO. 67
24 HRS. END 5-6-82
WELL DEPTH 1299
PROGRESS 24A

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
24	0030	1/2	make up head on single and sting into ezsv at 738 m
	0045	1/4	close annular preventer and pressure up annulus to 500 psi
	0145	1	start injection,annulus pressure increased, inject 10 bbl mud at 4 bpm at 1300 - 1550 psi w/same on csg. pump 10 bbl water at 1500 psi
	0230	3/4	mix 500 sxs cmt w/60 bbl fresh water
	0245	1/4	displace w/ 1 bbl water and 23 bbl mud
	0300	1/4	bled off csg pressure,open annular and pull out of ezsv. got 19 bbl trip tank increase. bled back 15 bbl to howco
	0400	1	reverse out 130 bbl cmt and water/contaminated mud
	0600	2	circ down dp and up annulus
	0700	1	close annular preventer, inject 20 bbl at 4 bpm w/ 1500 psi. bled back 15 3/4 bbl
	0715	1/4	open annular preventer,circ
	0815	1	pump slug , pooh
	0915	1	rig up dresser
	1015	1	run gauge ring and junk basket,retrieve section of seal assembly rubber in junk basket
	1030	1/4	rig down dresser
	1215	1 3/4	rih w/ 8 1/2 bit and csg scraper to 738 m
	1230	1/4	circ btms up
	1330	1	slug pipe,pooh
	1500	1 1/2	make up rtts,circ valve and safety jt. rih and set rtts at 138 m
	1615	1 1/4	pump down kill line,pit in 1/2 bbl increments:200,300 400,500,600,640.inject at 4 bpm w/1500 psi.pumped total of 15 bbl,bled back 10 1/2 bbl.rig up chicksans and reset rtts at 738
	1700	3/4	attempt to close bypass on rtts
	1715	1/4	test plug no.5 and 9 5/8 csg to 1600 psi, o leak off in 10 min
	1815	1	pooh,make breaks on test tools and lay down
14	2015	2	make up 9 5/8 cutter,rih and cut 9 5/8 at 698 m with hydril closed and returns up choke line
	2045	1/2	circ btms up, slug pipe
	2230	1 3/4	pooh,lay down 13 jts 5 1/2 dp and cutter
	2400	1 1/2	make up 9 5/8 csg spear and rih

TIME SUMMARY	CODE	34	14									TOTAL
	HOURS	18 1/4	5 3/4									24

TELEX ELEVATION TELEX

DAILY DRILLING REPORT

FORM B

WELL 15/6-6

SIZE/DEPTH LAST CSG 9 5/8 @ 2179
ANN TOC LAST CSG 2150

PAGE ..... OF .....
REPORT NO. 67
24 HRS. END 5-6-82

DAILY WELL COST 144,421
CUM. WELL COST 12,226,410

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	PIT						
TIME	1500						
WT	11.0						
PV @ 120 °F	21						
YP @ 120 °F	12						
GELS (0/10)	5/23						
API F.L.	5.6						
HTHP F.L. @ °F PSI	-						
CAKE THK	2						
CAKE DESC	FIRM						
pH	11.4						
pf	1.5						
Mf	2.6						
Rf @ °F	-						
Cl⁻	14000						
Ca⁺⁺	200						
SOLIDS %	11						
SAND %	TR						
OIL %	0						
CEC	20						
FV	68						

STOCKS	UNITS	USED	REMAIN STOCK
BARITE (BULK)		130	470
BENT (SX)			80
BENTONITE			616
LIG. SULFONATE			299
LIGNITE /RESINEX			116/16
CAUSTIC /LYE			118/27
BICARB /AL. STEARATE			73/35
XC POLYMER/DRISPAC		1/0	75/40
SODA ASH			61
PIPE LUBE /DO			6/5
CMC LV/HV		0/6	159/150
CEMENT (G)		423	3566
CaCl2 SX/LIQ			34/120
HALL /CFR-2			375/235
HLXC 248/HALIZL			168/185
ECONOLITE			425
DRL WATER		260	580
NF-1			17
POT WATER			280
RIG FUEL		50	2420
HELIFUEL			3337

MUD: MAKE UP WATER: Cl⁻ 150, Ca⁺⁺ 36, Rw @ °F; SHAKER SCREEN MESH 60 x 80, 60 x 80
DESANDER HRS, DESILTER HRS, MUD CLNR HRS SCRN SIZE
DAILY MUD COST 3,5, CUM MUD COST 31,186, MUD PUMP TYPE/LINER S 6 x 12

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	B	G

DRILLING ASSEMBLY

COMPONENT	FT

DEVIATION AND LEAKOFF DATA

DEPTH				
ANGLE				
LEAKOFF PPG EQUIV				
DEPTH				
DATE				

FIXED WING AND HELICOPTERS
FW FLTS/PAX ; TO FR
FW FLTS/PAX ; FR TO
HELI FLTS/PAX TO RIG
HELI FLTS/PAX FR RIG

WORKBOATS

BOAT	ALLER	SAGA	SP
LOCATION	R/L	R/L	
ENROUTE TO			R/L
ETA			0200

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	4
DRLG CONT	52
MUD LOGGER	1
MUD	1
CEMENT	2
DIVERS	4
E. LOG	3
A-1	1
ARCLA	2
SEAN TART	1
TOTAL	71

WEATHER (RANGE/DAY)	
SEA	CALM/SS
SWELL	S 1/2
WIND	CALM/SE
SLIP JT	30
BALL JT	1150
RISER TEN	160
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	1/2
PITCH	1/2
HEAVE	0/5
% OFFSET	0
ANCHOR TENS	
MAX.	8 @ 246
MIN	2 @ 150

DAILY DRILLING REPORT

WELL 15/6-6
WATER DEPTH 135 m
ESSO SUPR PARISH
ESSO ENGR
ESSO TECH CARPENTER
RIG SUPR LABARTHE

RIG GLOMAR BISCAY II

PAGE ..... OF .....
REPORT NO. 68
24 HRS. END 6-6-82
WELL DEPTH. 692
PROGRESS PTA

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
14	0100	1	engage 9 5/8 csg.pick up 2 m w/hydril closed.circ h/u up. 2 1/2 units gas
26	0145	3/4	open hydril.attemot to pull.hanging up in hops.work thru hops
14	0700	5 1/4	l/d 45 and 3/4 joints of 9 5/8 csg.
34	0900	2	rih w/ oedp.tag ezsv at 738 m
	0915	1/4	circ
	1115	2	pump 10 bbls water. test lines to 2500 psi.mix and pump 600 sxs class g neat mixed w/seawater.ave slurry wt 15.8 ppg.slurry volume 687.4 cuft. displace w/ 1/2 bbl wat water and 11 1/2 mud.pooh 15 stds to 300 m.close pipe rams and squeeze 553.5 cuft or 98 1/2 bbls filling 9 5/8 x 13 3/8 annulus from 698 m to 1203 m and leaving toc at 668 m. max and final squeeze press was 1450 psi at 4 bpm. cid at 1115 hrs
	1330	2 1/4	woc holding squeeze press.bled back 1/2 bbl
	1445	1 1/4	woc l/d 42 joints 3 1/2 dp
	1630	1 3/4	rih and tag cmt at 692 m.press test to 1500 psi
13	1800	1 1/2	lay down 39 jts 3 1/2 dp pooh to 132 m
	1915	1 1/4	rig up dresser,rih w/perforating gun to 145 m
	2015	1	press up to 500 psi and shoot gun,press dropped to 75 psi.press up on 13 3/8 x 20 annulus to 500 psi, held 5 min.pooh and rig down dresser
14	2045	1/2	pooh w/5'' dp
	2130	3/4	break and lay down spear assembly
	2300	1 1/2	make up cutter and rih to 238.9
	2315	1/4	close annular preventer and cut 13 3/8 csg
	2400	3/4	circ

need:
30/50 premix disperseant for cannon n57 copier

TIME	CODE	14	13	26	34								TOTAL
SUMMARY	HOURS	10	3 3/4	3/4	9 1/2								24

DAILY DRILLING REPORT

FORM 8

WELL 15/6-6
PAGE ..... OF .....
SIZE/DEPTH LAST CSG 13 3/8 @ 1203
REPORT NO. 68
ANN TOC LAST CSG -
24 HRS. END 6-6-82
DAILY WELL COST 186,361
CUM. WELL COST 12,412,971

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	STOCKS	~~REC'D~~ UNITS	USED	REMAIN STOCK
DEPTH	PIT							BARITE (BULK)			4710
TIME	1500							BENT (SX)			80
WT	11.0							BENTONITE			616
PV @ 120 °F	10							LIG. SULFONATE			299
YP @ 120 °F	6							LIGNITE / [illegible]			116/16
GELS (0/10)	1/7							CAUSTIC / [illegible]			118/32
API F.L.	6.6							BICARB / [illegible]			73/35
HTHP F.L. @ °F PSI	-							XC [illegible] / [illegible]			95/80
CAKE THK	2							SODA ASH			61
CAKE DESC	FIRM							[illegible] / [illegible]			6/5
pH	11.7							[illegible]			159/150
pf	1.4							CEMENT (G)		508	2988
Mf	2.4							$CaCl_2$ SX/[illegible]			34/170
Rf @ °F	-							[illegible] / [illegible]			375/335
Cl^-	14000							[illegible] / [illegible]			168/185
Ca^{++}	200							ECONOLITE			125
SOLIDS %	11							DRL WATER		240	5570
SAND %	TRC							WASH WATER			13
OIL %	0							POT WATER LF-1			253
CEC	20							RIG FUEL		20	2360
FV	41							HELIFUEL			53,37

MUD
MAKE UP WATER: Cl 150, Ca^{++} 26, Rw @ °F; SHAKER SCREEN MESH 60/80, 60/80
DESANDER HRS, DESILTER HRS, [illegible] HRS SCAN 5126 150
DAILY MUD COST 0, CUM MUD COST 13,156, MUD PUMP TYPE/LINERS 12p160 6X14

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G

DRILLING ASSEMBLY

COMPONENT	FT

DEVIATION AND LEAKOFF DATA					
DEPTH					
ANGLE					
LEAKOFF PPG EQUIV					
DEPTH					
DATE					
FIXED WING AND HELICOPTERS					
FW FLTS/PAX	;TO	FR			
FW FLTS/PAX	;FR	TO			
HELI FLTS/PAX TO RIG					
HELI FLTS/PAX FR RIG					
WORKBOATS					
BOAT	ALCOR	SIDO R	SLUD		
LOCATION	RIG	RIG	RIG		
ENROUTE TO					
ETA					

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	4
DRLG CONT	52
MUD LOGGER	1
MUD	1
CEMENT	2
DIVERS	4
E. LOG	3
A-1	1
DECCA	2
SCANTEST	1
TOTAL	71

WEATHER (RANGE/DAY)	
SEA	CALM NE
SWELL	VAR 1/10
WIND	CALM ENE 24
SLIP JT	30
BALL JT	1150
RISER TEN	160
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	0-1
PITCH	0-1
HEAVE	0-3
% OFFSET	0
ANCHOR TENS	
MAX.	240-8
MIN	150-5

DAILY DRILLING REPORT

WELL 15/6-6
WATER DEPTH 135 m
ESSO SUPR PARISH
ESSO ENGR
ESSO TECH CARPENTER
RIG SUPR LABARTHE

RIG GLOMAR BISCAY II

PAGE ..... OF .....
REPORT NO 69
24 HRS. END 7-6-82
WELL DEPTH 692
PROGRESS PTA

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
14	0130	1 1/2	circ gas peaked at 93 units
	0245	1 1/4	pooh w/cutter, lay down cutter
	0400	1 1/4	pick up spear, rih
	0545	1 3/4	spear into csg, close annular preventer, circ up choke line, gas peaked at 920 units
	0600	1/4	pump slug pooh w/ 13 3/8 csg
	0815	2 1/4	l/d 13 3/8 csg (8 and 3/4 jts)
	0845	1/2	rig down csg equipment, close shear rams and press test 13 3/8 x 20 annulus. BROKE DOWN at 550 psi. PRESSURE DROPPED TO 300 PSI
13	0930	3/4	rih w/oe jb to 385 m
	1145	2 1/4	circ
	1200	1/4	rig up howco and test lines to 2500 psi. est injection rate 3 bpm at 700 psi
	1330	1 1/2	mix and pump 850 sxs cmt w/2.5 lbs/sx cacl, w/101 bbl sea water, displace w/1 bbl water and 7.5 bbl mud. PLUG (385-165m)
	1400	1/2	pooh to 100 m
	1430	1/2	squeeze 93 1/4 bbl cmt between 13 3/8 x 20 annulus. FINAL SQZ. PRESSURE 300 PSI AT 1/4 BPM
	1815	3 3/4	woc. lay down 5" dp and csg spear assembly
	1900	3/4	rih, tag cmt 238 m
	1915	1/4	test cmt to 17.8 ppg equivalent (650 PSI)
	2015	1	circ - MAX GAS 2 UNITS
	2100	3/4	mix and pump 415 sx cmt w/ 49.5 bbl sea water. displace w/ 1/2 bbl water and 7 bbl mud - PLUG (238-165m)
	2130	1/2	pooh lay down 5" dp
	2400	2 1/2	rig up to pull stack. lay down diverter, take off choke and kill goosenecks

TIME SUMMARY	CODE	13	14											TOTAL
	HOURS	15 1/4	8 3/4											24

DAILY DRILLING REPORT

FORM 8

WELL 15/6-6
SIZE/DEPTH LAST CSG 13 3/8" @ 239
ANN TOC LAST CSG
DAILY WELL COST 161,921

PAGE ..... OF .....
REPORT NO 69
24 HRS. END 8-6-82
CUM. WELL COST 12 574 692

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH	210						
TIME	1330						
WT	10.9						
PV @ 120 °F	10						
YP @ 120 °F	6						
GELS (0/10)	1/4						
API F.L.	6.9						
HTHP F.L. @ °F PSI							
CAKE THK	2						
CAKE DESC	FIRM						
pH	11.6						
Pf	1.2						
Mf	2.1						
Rf @ °F							
Cl⁻	13000						
Ca⁺⁺	180						
SOLIDS %	10						
SAND %	TR						
OIL %	0						
CEC	20						
FV	41						

STOCKS	REC'D UNITS	USED	REMAIN STOCK
BARITE (BULK)		180	4528
BENT (SX)			80
BENTONITE			616
LIG. SULFONATE			299
LIGNITE / REDUCED			118/16
CAUSTIC / LYE			118/33
BICARB / AL. STEARATE			93/35
XC POLYMER / DRILL			75/80
SODA ASH			61
PIPE LUBE / DO			45
EMUL LUBE / HW			158/50
CEMENT (G)		1090	1895
CaCl2 SX/LIQ		25	10/170
HALL (CFR-2L)			375/35
MIX. 248 / HALL			168/485
ECHOLITE			425
DRL WATER		580	4990
NF-1			17
POT WATER			170
RIG FUEL		512	2310
HELIFUEL			33.37

MUD
MAKE UP WATER: Cl⁻ 150, Ca⁺⁺ 35, Rw @ °F; SHAKER SCREEN MESH 60/60, 60/60
DESANDER HRS, DESILTER HRS, MUD CLNR HRS SCRN 5 HRS 150
DAILY MUD COST 1,450, CUM MUD COST 132,643, MUD PUMP TYPE/LINERS 12P160 6 1/2

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G

DRILLING ASSEMBLY

COMPONENT	FT

DEVIATION AND LEAKOFF DATA				
DEPTH				
ANGLE				
LEAKOFF PPG EQUIV				
DEPTH				
DATE				
FIXED WING AND HELICOPTERS				
FW FLTS/PAX ; TO				
FW FLTS/PAX ; FR				
HELI FLTS/PAX TO RIG	1/4			
HELI FLTS/PAX FR RIG	1/3			
WORKBOATS				
BOAT	ALCOK	SAND	S.P.	A.C.
LOCATION	RIG	SVG	RIG	RIG
ENROUTE TO				
ETA				

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	3
DRLG CONT	53
MUD LOGGER	1
MUD	1
CEMENT	2
DIVERS	4
E. LOG	3
A-1	1
DECCA	2
SANTEST	1
CAMERON	1
TOTAL	72

WEATHER (RANGE/DAY)	
SEA	N 3/4
SWELL	NNW 1/2
WIND	NW 1/8
SLIP JT	30
BALL JT	1150
RISER TEN	160K
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	1
PITCH	.7-1
HEAVE	1-3
% OFFSET	0
ANCHOR TENS	
MAX.	245 -5
MIN	155 -5

FORM A

DAILY DRILLING REPORT

WELL 15/6-6
WATER DEPTH 135 RKB
ESSO SUPR. PARISH
ESSO ENGR.
ESSO TECH. CARPENTER
RIG SUPR. LAGARDE

RIG GLOMAR BISCAY II

PAGE ..... OF .....
REPORT NO. 70
24 HRS. END 8-6-82
WELL DEPTH –
PROGRESS P+A

24 HOUR SUMMARY

CODE	TIME TO	HOURS	OPERATION
0700		7	pull bop's and riser.
0730		1/2	r/d spider and riser handling tool.
1200		4-1/2	m/u csg cutter and p/u 3x8'' dc's. run and stab into w.h.
1800		6	cut 30 and 20'' casing at 140.85m (5.35m below m.l.)
1900		1	pooh w/cutter.
2300		4	make up spear, rih, engage csg. pull 20 and 30'' w/250,000 overpull. inspected area around wellhead w/t.v. camera. no debris. pooh w/20 and 30''. land pgb on beams in moonpool.
2400		1	deballasting.

notes
---
removed lower marine package, tagged lines, began dismantling stack, had fire and boat drill.

TIME SUMMARY	CODE	13	14	2									TOTAL
	HOURS	7 1/2	15 1/2	1									

DAILY DRILLING REPORT

WELL 15/6-6

PAGE ..... OF .....

SIZE/DEPTH LAST CSG.
ANN TOC LAST CSG.

REPORT NO. 70
24 HRS. END 8-6-82

DAILY WELL COST 168 382
CUM. WELL COST 12,243,434

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH							
TIME							
WT							
PV @ 120 °F							
YP @ 120 °F							
GELS (0/10)							
API F.L.							
HTHP F.L. @ °F PSI							
CAKE THK							
CAKE DESC							
pH							
pM							
MF							
Rf @ °F							
Cl⁻							
Ca⁺⁺							
SOLIDS %							
SAND %							
OIL %							
CEC							
FV							

STOCKS	ACCD UNITS	USED	REMAIN STOCK
BARITE (BULK)			4528
BGENT (SX)			80
BENTONITE			616
LIG. SULFONATE			299
LIGNITE / [illegible]			16/16
CAUSTIC / [illegible]			18/37
BICARB / [illegible]			33/35
[illegible] / [illegible]			75/80
SODA ASH			61
[illegible] / [illegible]			6/5
[illegible] / [illegible]			159/150
CEMENT (G)			1898
CaCl2 SX/[illegible]	0/250		10/420
[illegible] / [illegible]			335/335
[illegible] / [illegible]			165/155
[illegible]	250		278
DRL WATER		80	4910
NF-1			19
POT WATER			150
RIG FUEL		50	2260
HELIFUEL			33.37

MUD
MAKE UP WATER: Cl⁻ ....., Ca⁺⁺ ....., Rw ..... @ ..... °F; SHAKER SCREEN MESH ..... , ...
DESANDER HRS. ....., DESILTER HRS. ..... MUD CLNR HRS. ..... SCRN SIZE .....
DAILY MUD COST ....., CUM MUD COST 1 12,643 ....., MUD PUMP TYPE/LINERS .....

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32'	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G
	CASING		CUTTER								80	1200	35 1/2				

DRILLING ASSEMBLY

COMPONENT	FT

DEVIATION AND LEAKOFF DATA

DEPTH				
ANGLE				
LEAKOFF PPG EQUIV				
DEPTH				
DATE				

FIXED WING AND HELICOPTERS
FW FLTS/PAX ; TO FR
FW FLTS/PAX ; FR TO
HELI FLTS/PAX TO RIG 1/11
HELI FLTS/PAX FR RIG 1/12

WORKBOATS

BOAT	MCOR	SNO	S.P.	N.C.
LOCATION	R16	R16	R16	R16
ENROUTE TO				
ETA				

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	3
DRLG CONT	48
MUD LOGGER	
MUD	
CEMENT	
DIVERS	
E. LOG	
A-1	1
DECCA	2
SCANTEST	1
CAMEROON	1
TOTAL	56

WEATHER (RANGE/DAY)	
SEA	NW 5/6
SWELL	NNW 5/6
WIND	NW 18/20
MUD	
SLIP JT	
BALL JT	
RISER TEN	
RIG DATA (RANGE/DAY)	
HEADING	307
ROLL	.7-1
PITCH	.5-.7
HEAVE	1-1.5
% OFFSET	
ANCHOR TENS	
MAX.	8-230
MIN	5-155

FORM A

DAILY DRILLING REPORT

WELL 15/6-6
WATER DEPTH 135 MM
ESSO SUPR. PARISH
ESSO ENGR. —
ESSO TECH. CARPENTER
RIG SUPR. LABRATE

RIG GLOMAR BISCAY II

PAGE 1 OF 2
REPORT NO. 71
24 HRS. END. 9-6-82
WELL DEPTH —
PROGRESS —

24 HOUR SUMMARY			
CODE	TIME TO	HOURS	OPERATION

24 hour summary

0015 1/4 deballasting to 60' draft.
0500 4-3/4 secure lower marine package, ram bodies, skid and secure hop stack.
1000 5 deballasting.
1930 9-1/2 pulling anchors. last anchor bolstered at 1922 hrs.

siddis pilot	no 7	bolstered at 1055 hrs
norman conger	no 6	" " 1115 "
siddis pilot	no 3	" " 1330 "
sandtor	no 2	" " 1305 "
norman conger	no 8	" " 1415 "
siddis pilot	no 4	" " 1555 "
normann conger	no 5	" " 1710 "
siddis pilot	no 1	" " 1922 "

supply boat inventories

boat name	fuel	drl water	pot water	cmt	bar	bent
norman canger	144 m3	100 m3				
siddis pilot	179.5 m3	280 m3		35mt	45mt	40mt
sandtor	228 m3	220 m3	125 m3	50mt	150mt	34mt

hop work

clean, prime and point new ram bodies and hydril. begin disassymbly of stack frame, weld brackets to stack frame. charge fail safe valves, dress rams. remove bolts and big studs on top plate, remove bolts from top mandrel.

ends+++

TIME SUMMARY	CODE													TOTAL
	HOURS													

TELEX TELEX TELEX

WELL 15/6-6

DAILY DRILLING REPORT

PAGE 2 OF 2
REPORT NO. 71
24 HRS. END. 6-9-82

SIZE/DEPTH LAST CSG. —
ANN TOC LAST CSG. —

DAILY WELL COST 233,815
CUM. WELL COST 12,937,289

MUD CHEKS	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT	IN OR OUT
DEPTH							
TIME							
WT							
PV @ 120 °F							
YP @ 120 °F							
GELS (0/10)							
API F.L.							
HTHP F.L. @ °F PSI							
CAKE THK							
CAKE DESC							
pH							
pf							
MF							
Rf @ °F							
Cl⁻							
Ca⁺⁺							
SOLIDS %							
SAND %							
OIL %							
CEC							
FV							

STOCKS	REC'D UNITS	USED	REMAIN STOCK
BARITE (BULK)			4528
BENT (SX)	90		120
BENTONITE			616
LIG. SULFONATE			299
LIGNITE / REGULAR			116/16
CAUSTIC / LYE			118/37
BICARB / NA SOLUBLE			73/35
XC POLYMER / DRISPAC			75/90
SODA ASH			61
PIPE LUB / 100°			6/5
EMUL LV/HV			159/150
CEMENT (G)			1898
$CaCl_2$ SX/LIQ	10		58/1420
HALL / CEAZ-L			255/535
HI-XL 298/HALZL			168/495
ECHOLITE			500
DRL WATER		80	4850
NF-1			17
POT WATER			150
RIG FUEL		54	2206
HELIFUEL			33.33

MUD
MAKE UP WATER: Cl⁻ ....., Ca⁺⁺ ....., Rw ..... @ ..... °F; SHAKER SCREEN MESH .....
DESANDER HRS. ....., DESILTER HRS. ....., MUD CLNR HRS. ..... SCRN 5.28
DAILY MUD COST ....., CUM MUD COST 132,643, MUD PUMP TYPE/LINERS .....

BITS

RUN NO.	BIT NO.	BIT SIZE	BIT TYPE	BIT SERIAL	JETS 32	DEPTH OUT	FT	HRS	FT/HR	WOB	RPM	PRESS	TOTAL SPM	D.PIPE AV	COND T	COND B	COND G

DRILLING ASSEMBLY

COMPONENT	FT

DEVIATION AND LEAKOFF DATA

DEPTH				
ANGLE				
LEAKOFF PPG EQUIV				
DEPTH				
DATE				

FIXED WING AND HELICOPTERS

FW FLTS/PAX	; TO FR
FW FLTS/PAX	; FR TO
HELI FLTS/PAX TO RIG	1/4
HELI FLTS/PAX FR RIG	1/4

WORKBOATS

BOAT	ALCOR	SAND	S.P.	N.C.
LOCATION	RIG	RIG	RIG	RIG
ENROUTE TO				
ETA				

PERSONNEL ON BOARD

COMPANY	NO.
ESSO	3
DRLG CONT	48
MUD LOGGER	
MUD	
CEMENT	
DIVERS	1
E. LOG	
SCANTEST	1
DECCA	2
CAMERON	1
TOTAL	56

WEATHER (RANGE/DAY)	
SEA	N 6/8
SWELL	NNW 8-NW
WIND	N 20/28
SLIP JT	
BALL JT	
RISER TEN	
RIG DATA (RANGE/DAY)	
HEADING	
ROLL	.7-2
PITCH	.5-2
HEAVE	1
% OFFSET	
ANCHOR TENS	
MAX.	235-8
MIN	160-2

Esso Exploration and Production Norway Inc.

COMPLETION LOG

"GULFAXE" ... Licence 16

15/12-19

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