

# Reeves

## DUAL LATEROLOG

**GAMMA RAY**  
**1:500 TVD**

COMPANY			ESSO AUSTRALIA PTY LTD		
WELL			FLOUNDER A24A		
FIELD			GIPPSLAND BASIN		
PROVINCE/COUNTY			BASS STRAIT		
COUNTRY/STATE			AUSTRALIA		
LOCATION			5758709.11 m N, 625849.47 m E 38°18'39.233" S, 148°26'22.099" E		
LSD	SEC	TWP	RGE	Other Services	
				COMPENSATED SONIC	
API Number				PHOTO DENSITY	
Permit Number				COMPENSTAED NEUTRON	
Permanent Datum MSL				, Elevation 0 metres	
Log Measured From RT@33.85 metres above Permanent Datum					
Drilling Measured From RT					
Date	16-MAR-2003				
Run Number	1				
Depth Driller	2626.97			metres	
Depth Logger	2628.90			metres	
First Reading	2627.30			metres	
Last Reading	1885.90			metres	
Casing Driller	597.60			metres	
Casing Logger	596.20			metres	
Bit Size	8.50			Inches	
Hole Fluid Type	KC/PHPA/GLY				
Density / Viscosity	9.50 lb/USg		68.00 sec/qt		
PH / Fluid Loss	9.00		2.50 ml/30Min		
Sample Source	FLOWLINE				
Rm @ Measured Temp	0.119 @ 25.0		ohm-m		
Rmf @ Measured Temp	0.089 @ 25.0		ohm-m		
Rmc @ Measured Temp	0.119 @ 25.0		ohm-m		
Source Rmf / Rmc	PRESS		PRESS		
Rm @ BHT	0.048 @ 96.0		ohm-m		
Time Since Circulation	15hr 40min				
Max Recorded Temp	98.00		deg C		
Equipment Name	CWS/CIS				
Equipment / Base	1				
Recorded By	G. McManus, D. Woodward			W. Arnold, C. Burton	
Witnessed By	G. Smith				
Circ. Stopped	22:10 15-MAR				

BOREHOLE RECORD				
Bit Size inches		Depth From metres		Depth To metres
8.510		662.60		3193.00
CASING RECORD				
Type	Size inches	Depth From metres	Shoe Depth metres	Weight pounds/ft
Conduct.	20.000	0.00	202.65	133.00
Surface	10.750	202.65	662.60	54.50
REMARKS				
DRILLING RIG: NABORS (ISDL) 453.				
COMPACT WIRELINE TOOLS LOGGED CONVENTIONALLY VIA SCHLUMBERGER WIRELINE UNIT.				
DUAL NEUTRON / PHOTO DENSITY ECCENTRALISED				
COMPENSATED SONIC / LATEROLOG FITTED WITH 1/2" STANDOFF				
BARITE CONTENT 1.65%				

AFTER SURVEY CALIBRATION			C:\FLA A24A\FLA_A24A_Sonde_Picture.dta	
Gamma Check MCG 044			Field Calibration on 14-MAR-2003 09:40	
			After Survey Check on 17-MAR-2003 00:08	
	Before (API)	After (API)		
Background	10	13		
Calibrator (Gross)	919	922		
Calibrator (Net)	909	909		
Photo Density Check MPD 067			Before Survey Check on 14-MAR-2003 03:49	
			After Survey Check on 17-MAR-2003.00:13	

# Density Check

	Near		Far	
	Before	After	Before	After
	959.8	957.8	1151.7	1156.6

# PE Check

	Before	After
WS	178.7	179.7
WH	833.1	834.3

# Laterolog Check MLE 015

Before Survey Check on 14-MAR-2003,03:10  
After Survey Check on 17-MAR-2003,00:56

Channel	Before Survey (ohm-m)	After Survey (ohm-m)
Shallow	49.1	49.1
Deep	31.5	31.5
Groningen	246.3	246.3

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions in our price schedule.



# MAIN LOG 1:500



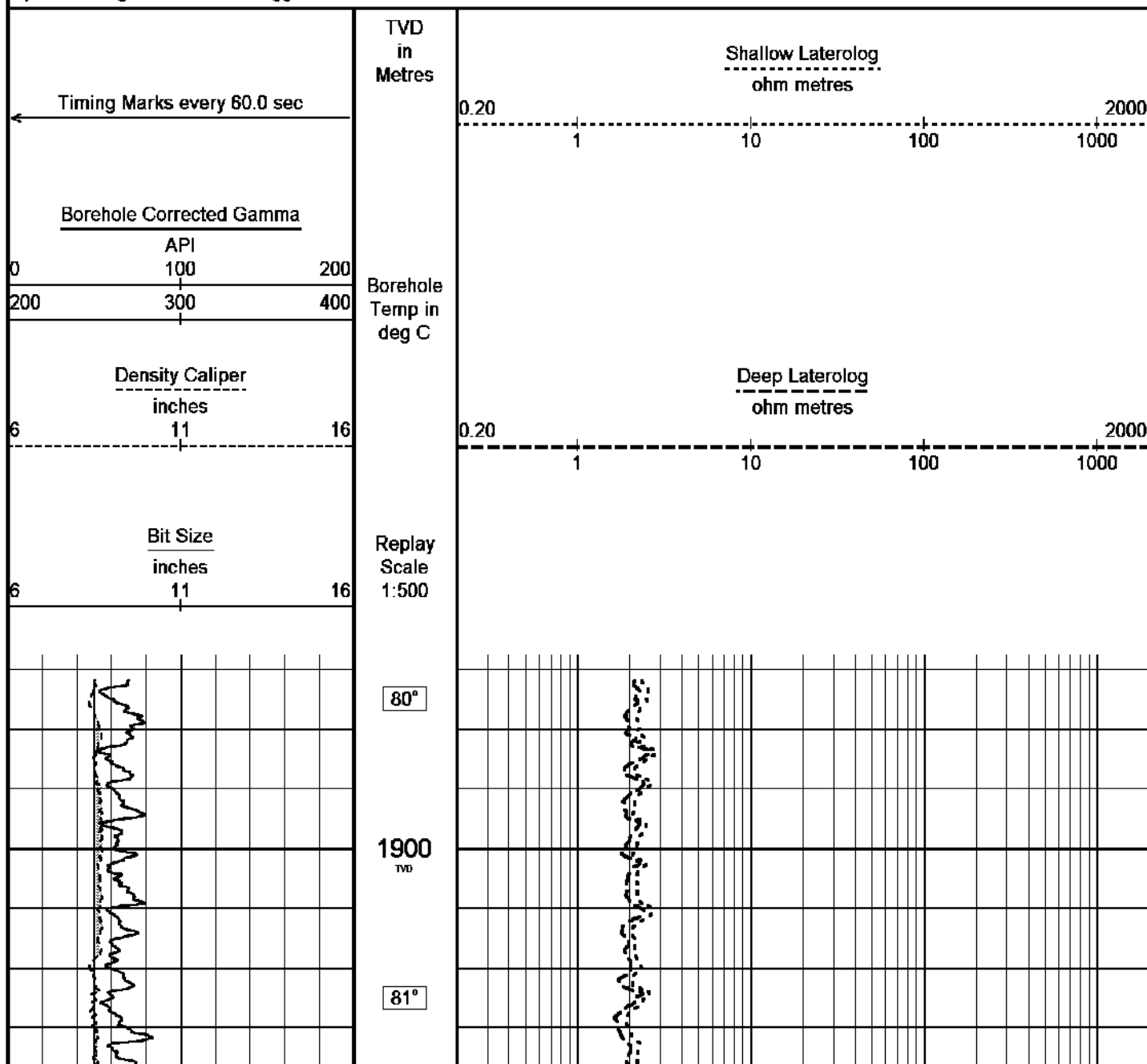
Depth Based Data - Maximum Sampling Increment 10.0cm

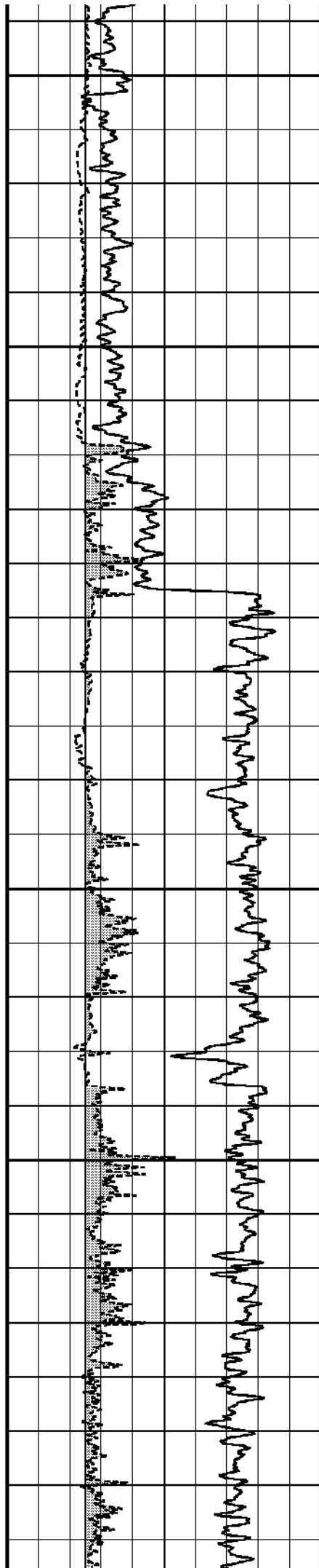
Plotted on 16-MAY-2003 15:25

Filename: C:\FLA A24A\FLA\_A24A\_Main\_Log.dta

Recorded on 16-MAR-2003 13:38

System Configuration Dates: Logged 23-OCT-2002: Processed 23-OCT-2002: Plotted 23-OCT-2002:





81°

1950  
TVD

82°

83°

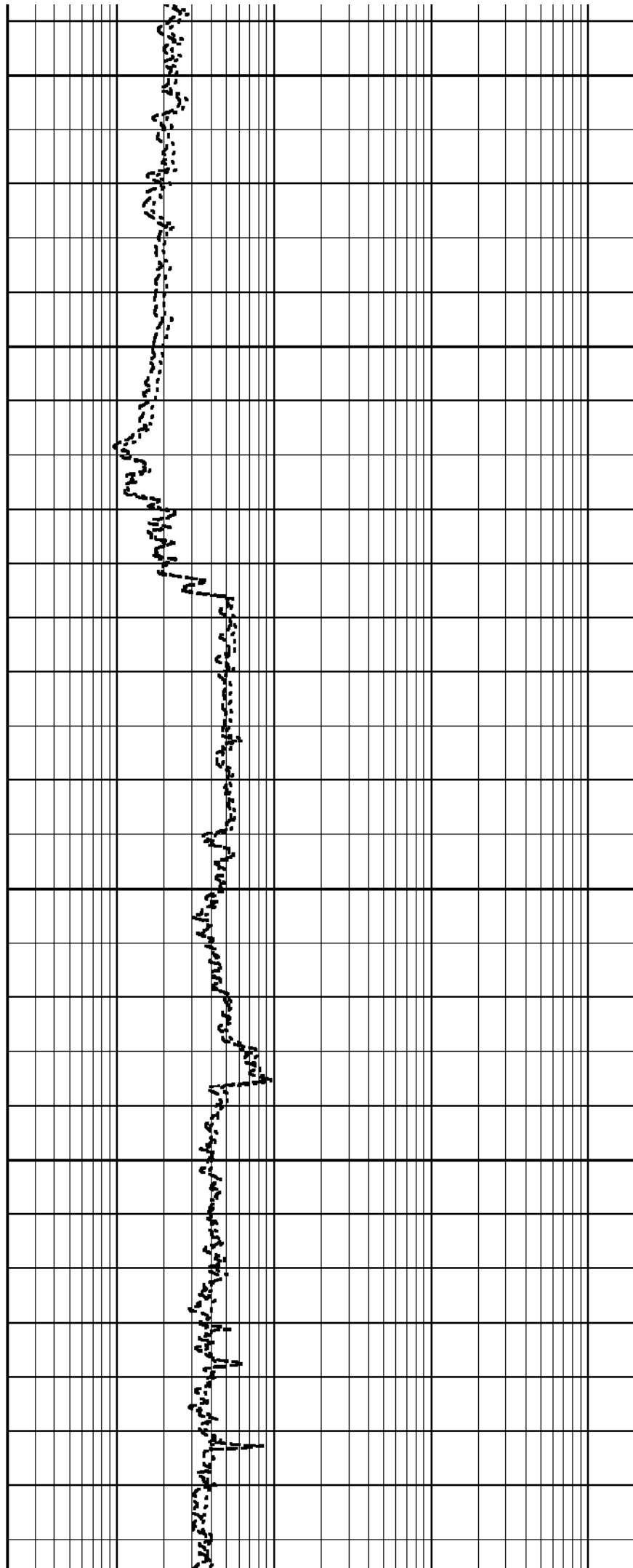
2000  
TVD

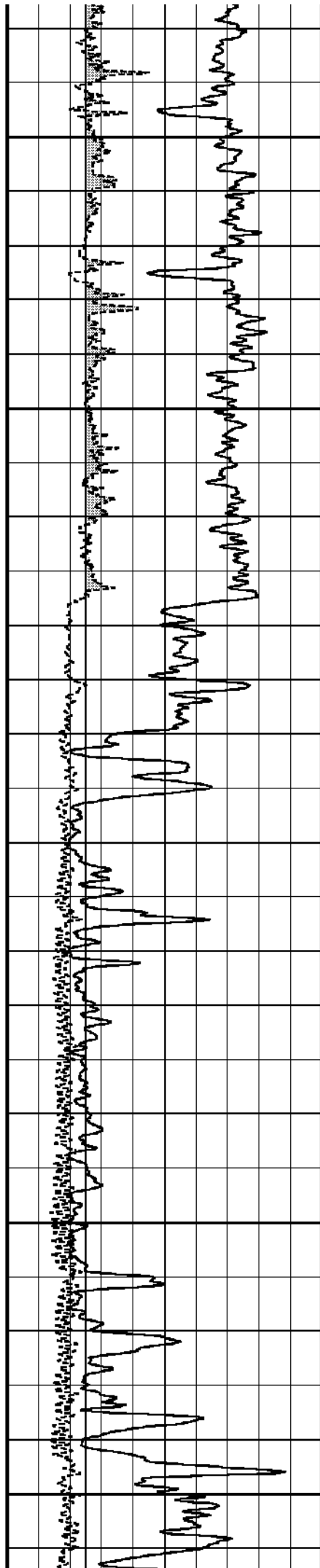
83°

83°

2050  
TVD

84°





2100

85°

2100  
TVD

85°

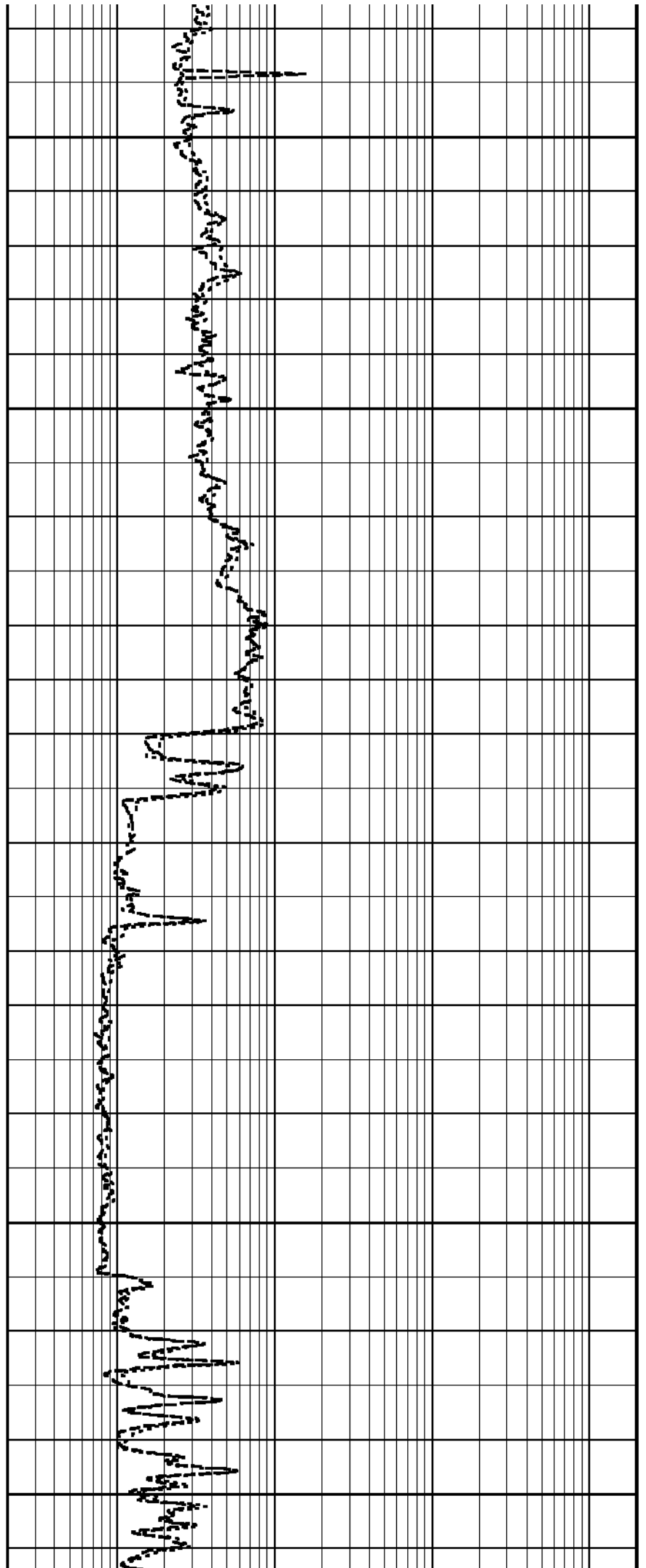
86°

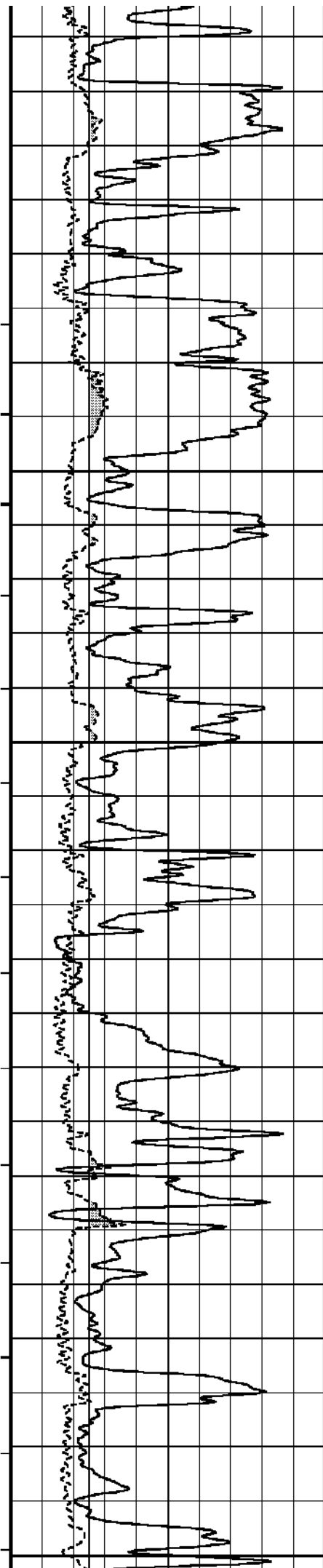
2150  
TVD

87°

88°

2200  
TVD





89°

90°

2250  
TVD

91°

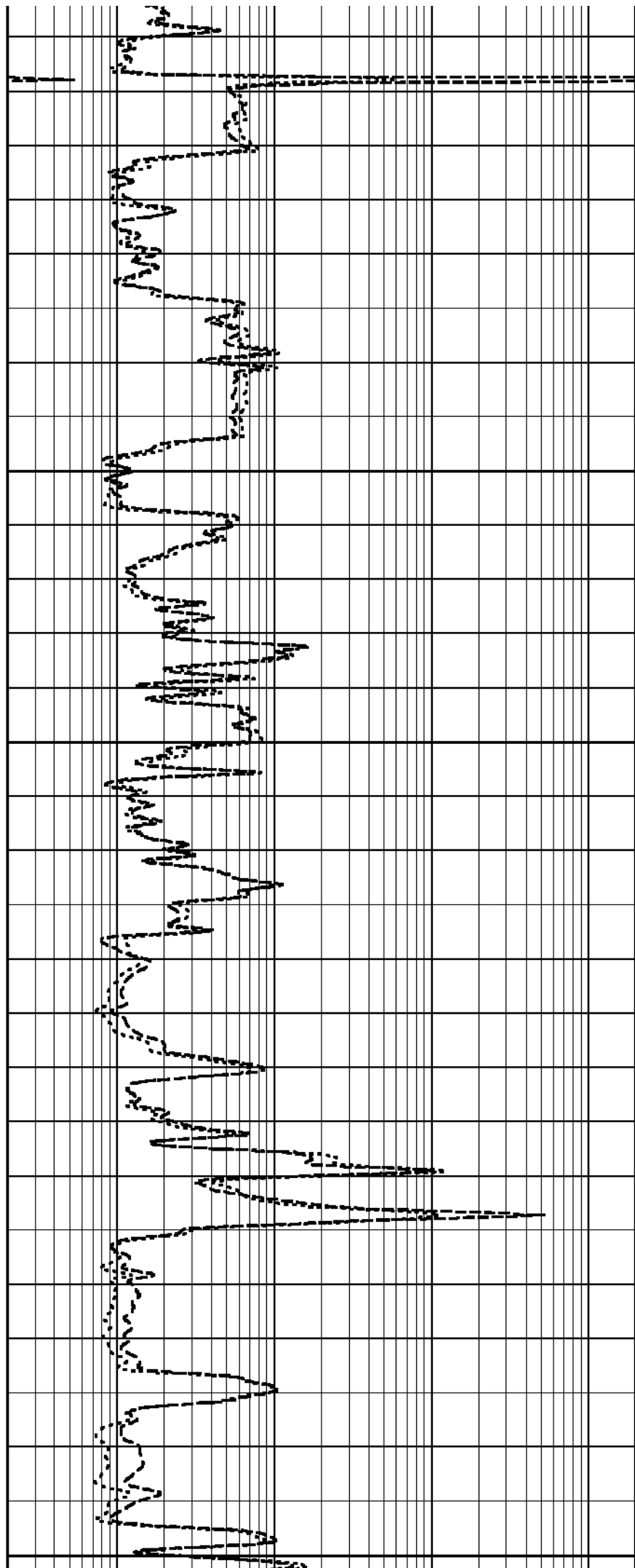
91°

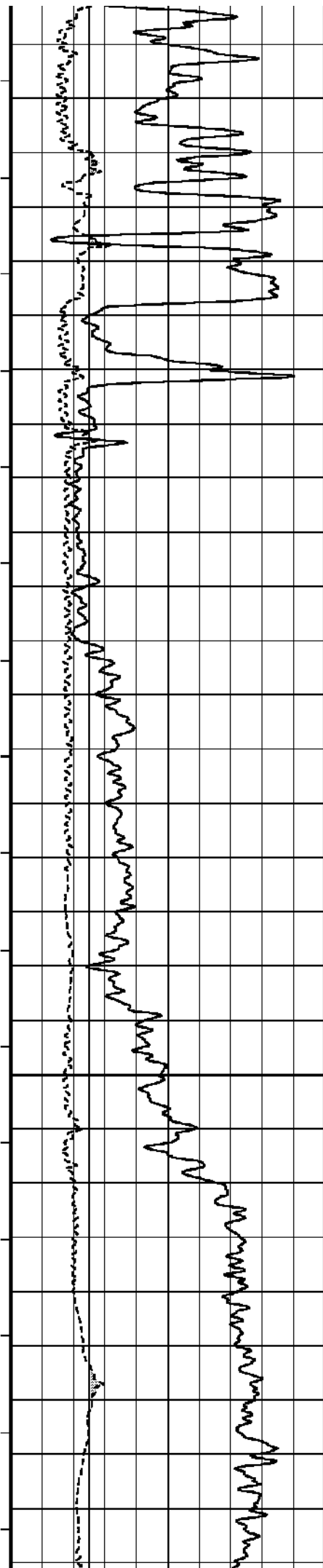
2300  
TVD

92°

93°

2350





IVD

94°

95°

2400  
IVD

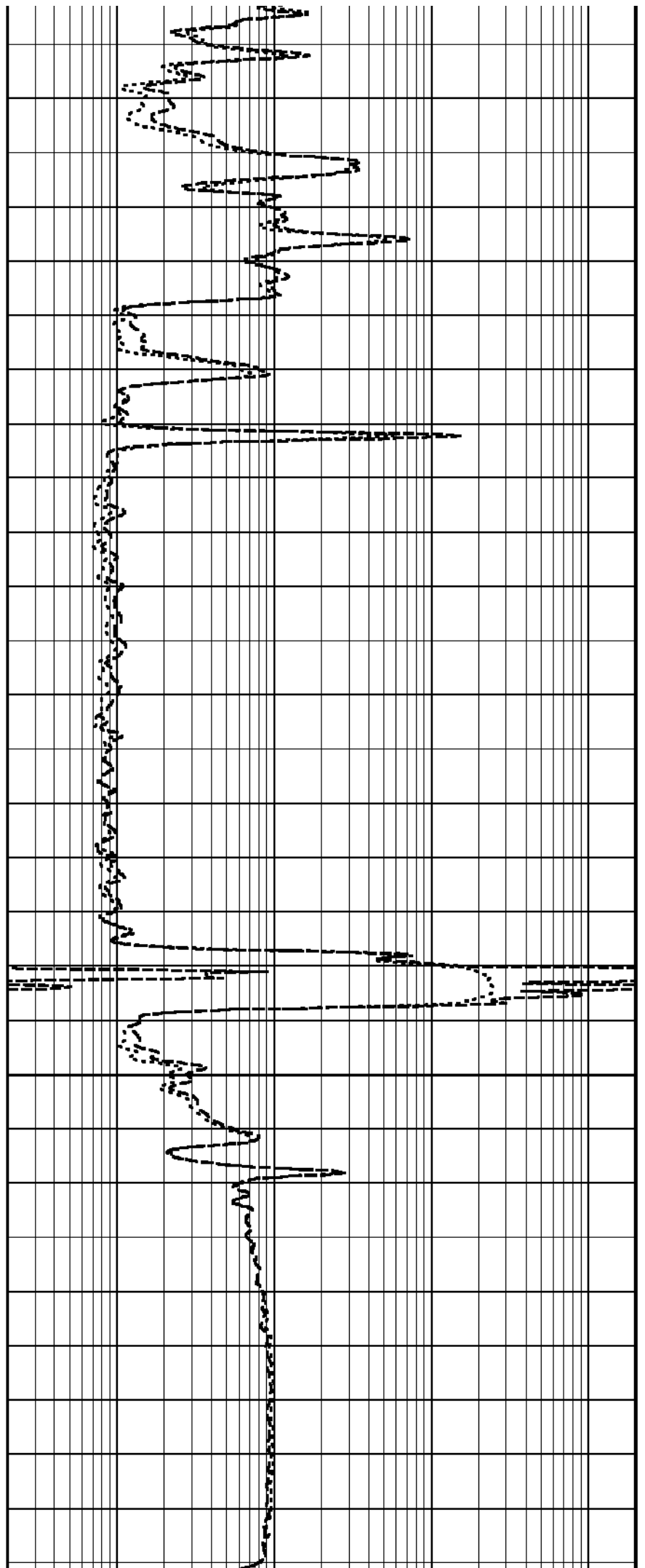
95°

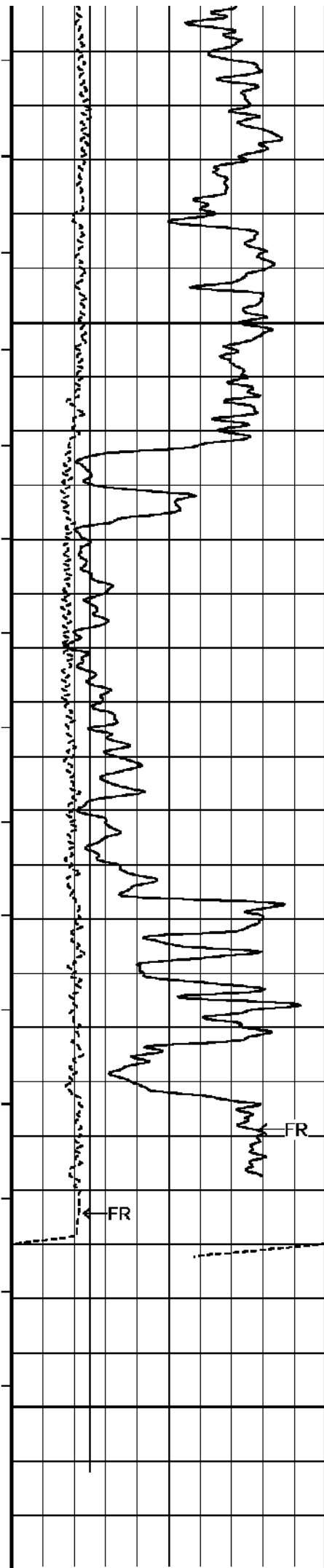
96°

2450  
IVD

97°

97°





2500  
TVD

97°

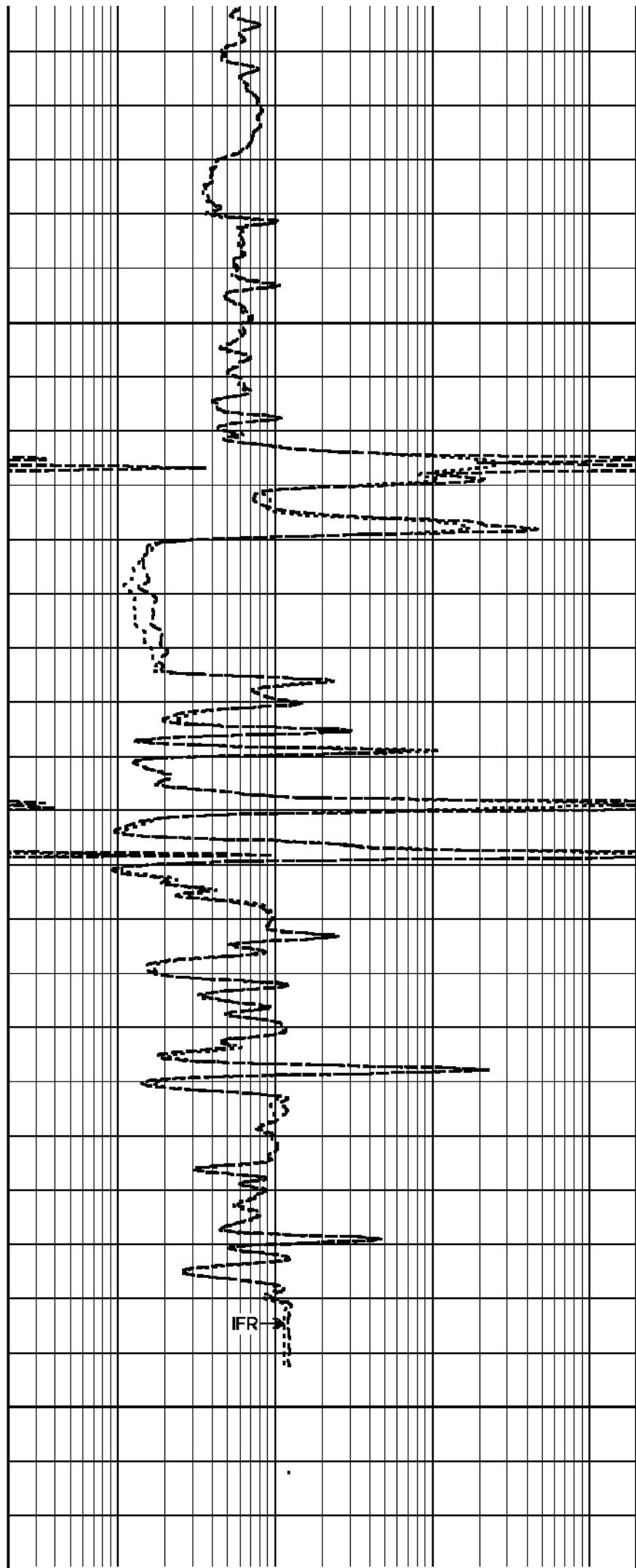
98°

2550  
TVD

98°

97°

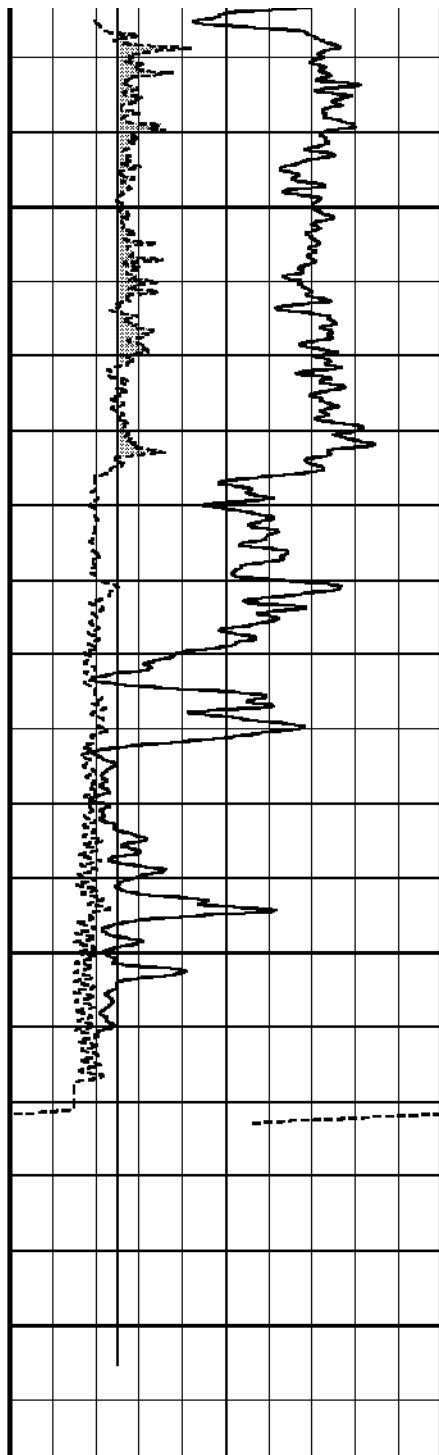
2600  
TVD



IFR







85°

2100  
TVD

86°

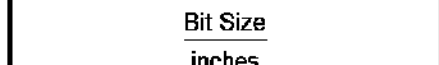
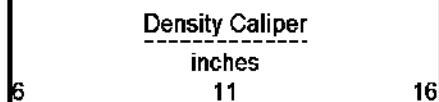
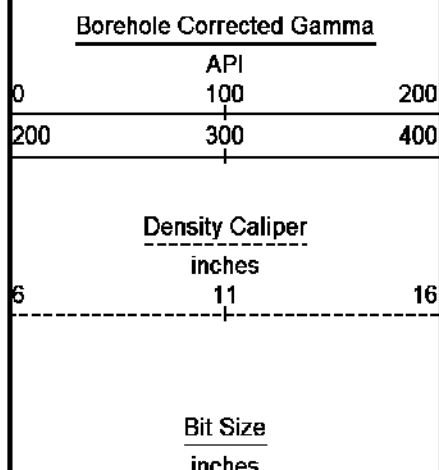
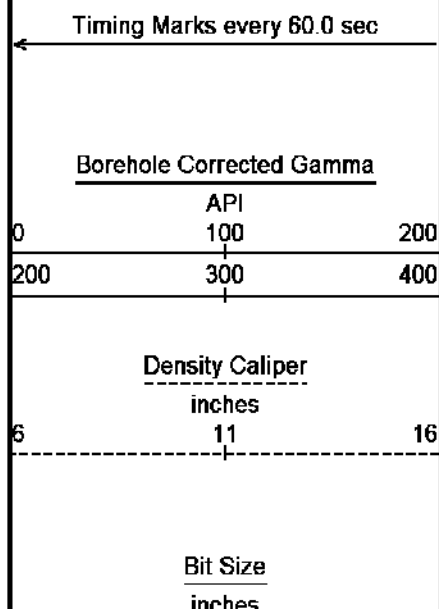
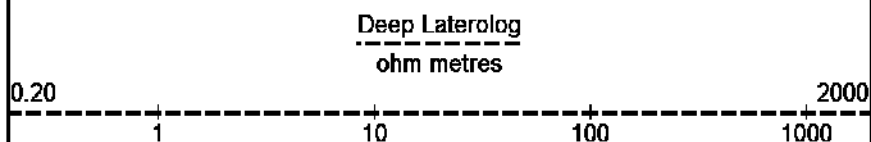
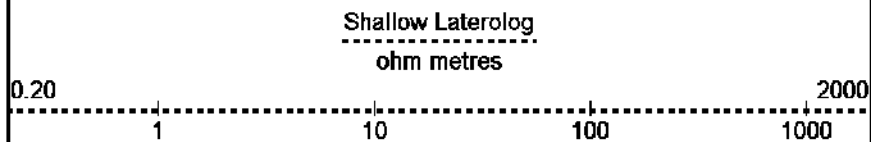
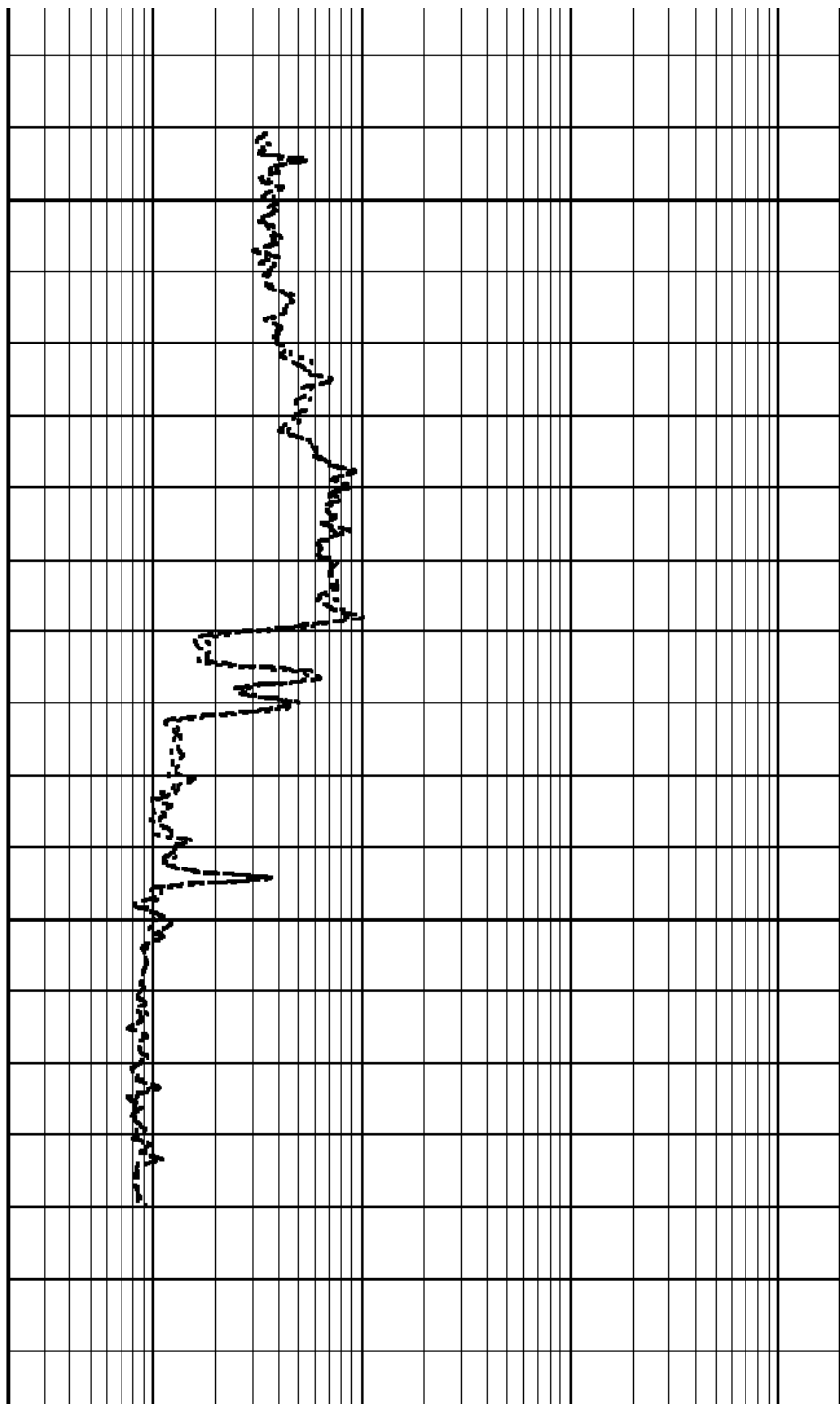
86°

2150  
TVD

TVD  
in  
Metres

Borehole  
Temp in  
deg C

Replay  
Scale



6	11	16	1:500	
Depth Based Data - Maximum Sampling Increment: 10.0cm Plotted on 16-MAY-2003 15:25 Filename: C:\FLA A24A\FLA_A24A_Repeat_Section.dta Recorded on 16-MAR-2003 15:18 System Configuration Dates: Logged 23-OCT-2002: Plotted 23-OCT-2002:				
↑ REPEAT SECTION 1:500 ↑				

## BEFORE SURVEY CALIBRATION

C:\FLA A24A\FLA\_A24A\_Main\_Log.dta

### General Constants All 000

General Parameters

Mud Resistivity	0.12	ohm-metres
Mud Resistivity Temperature	25.00	degrees C
Water Level	0.00	metres
Density/Neutron Processing	Wet Hole	

### Hole/Annular Volume and Differential Caliper Parameters

HVOL Caliper 1	Density Caliper	
HVOL Caliper 2	None	
Annular Volume Diameter	7.00	inches
Caliper for Differential Caliper	Density Caliper	

### Rwa Parameters

Porosity used	Base Density Porosity
Resistivity used	Deep Laterolog
RWA Constant A	0.61
RWA Constant M	2.15

### Gamma Calibration MCG 044

Field Calibration on 14-MAR-2003 09:40

	Measured	Calibrated (API)
Background	16	10
Calibrator (Gross)	1435	919
Calibrator (Net)	1419	909

### Gamma Constants MCG 044

Gamma Calibrator Number	060	
Mud Density	1.14	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl	0.00	kppm

### High Resolution Temperature Calibration MCG 044

Field Calibration on 4-SEP-2002,14:58

	Measured	Calibrated(Deg C)
Lower	1.00	1.00
Upper	150.00	150.00

### High Resolution Temperature Constants MCG 044

Pre-filter Length	11
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### Caliper Calibration MPD 067

Base Calibration on 19-FEB-2003,13:48

Field Calibration on 14-MAR-2003 03:53

### Base Calibration

Reading No	Measured	Calibrator Size (in)
1	14847	4.01
2	24400	5.99
3	34321	7.98
4	44338	9.94
5	55648	12.01
6	N/A	N/A

### Field Calibration

Measured Caliper (in)	Actual Caliper (in)
7.98	7.98

### Laterolog Calibration MLE 015

Base Calibration on 4-SEP-2002,14:40

Field Check on 14-MAR-2003 03:10

# Base Calibration

Channel	Measured		Calibrated (ohm-m)	
	Resistor 1	Resistor 2	Resistor 1	Resistor 2
Shallow	0.0	972.3	0.0	1327.3
Deep	0.0	972.9	0.0	852.7
Groningen	0.0	996.2	0.0	852.7
Channel	Base Check (ohm-m)		Field Check (ohm-m)	
Shallow	49.1		49.1	
Deep	31.5		31.5	
Groningen	246.3		246.3	

## Laterolog Constants MLE 015

Squasher Start	40000	ohm-m
Shallow Laterolog K Factor	1.3273	
Deep Laterolog K Factor	0.8527	
Groningen Laterolog K Factor	0.8527	
Interference Rejection	50 Hz	
SP Connection	SP Bridle Electrode	
Groningen Connection	Groningen Electrode	

## DOWNHOLE EQUIPMENT

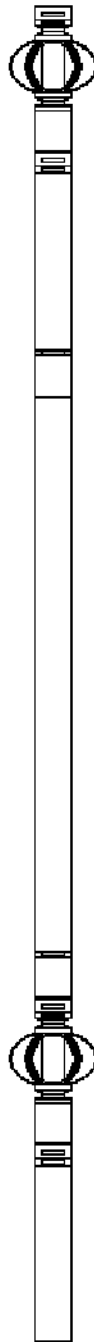
All measurements relative to tool zero.

Compact Inline Standoff B  
MIS 52 Length: 0.65 m Weight: 15.43 lb

Compact Stiff Bridle Electrode Sub.  
MBE 9 Length: 3.76 m Weight: 94.80 lb

Compact Inline Standoff B  
MIS 77 Length: 0.65 m Weight: 15.43 lb

Compact Stiff Bridle Electrode Sub.  
MBE 5 Length: 3.76 m Weight: 94.80 lb



Compact Inline Standoff B  
MIS 31    Length: 0.65 m    Weight: 15.43 lb

Compact Gamma  
MCG 44    Length: 2.65 m    Weight: 63.93 lb

27.98 m    GRGC - Gamma Ray

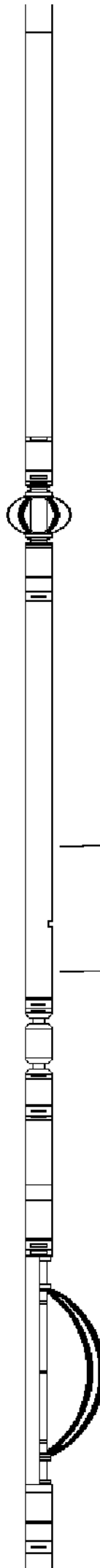
27.09 m    CGXT - MCG External Temperature

Compact Knuckle Joint  
SKJ 46    Length: 0.66 m    Weight: 24.25 lb

Compact Swivel Head Adaptor  
SHA 27    Length: 0.83 m    Weight: 26.46 lb

Compact Inline Bowspring A  
MIS 24    Length: 1.74 m    Weight: 33.07 lb

Compact Neutron



MDN 69 Length: 1.53 m Weight: 50.71 lb

Compact Density/Caliper  
MPD 67 Length: 2.92 m Weight: 90.39 lb

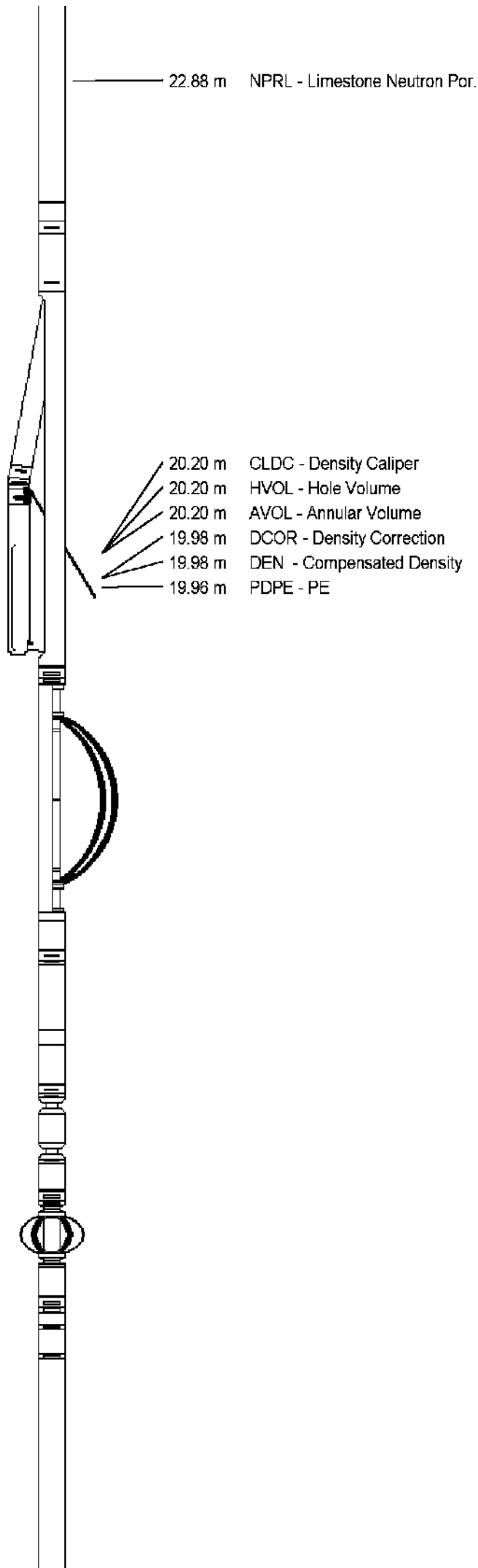
Compact Inline Bowspring A  
MIS 25 Length: 1.74 m Weight: 33.07 lb

Compact Swivel Head Adaptor  
SHA 28 Length: 0.83 m Weight: 26.46 lb

Compact Knuckle Joint  
SKJ 45 Length: 0.66 m Weight: 24.25 lb

Compact Inline Standoff B  
MIS 53 Length: 0.65 m Weight: 15.43 lb

Compact Upper Guard Sub.  
MUG 17 Length: 2.74 m Weight: 68.34 lb



Compact Inline Standoff B  
MIS 49    Length: 0.65 m    Weight: 15.43 lb

Compact Laterolog Electrode Sub.  
MLE 15    Length: 3.76 m    Weight: 92.59 lb

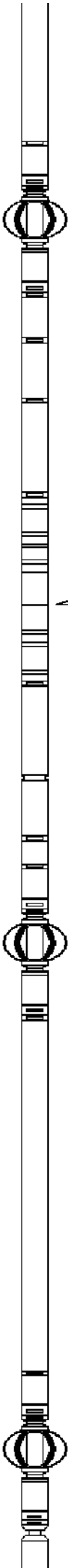
10.06 m    DSLL - Shallow Laterolog  
10.06 m    DDLL - Deep Laterolog

Compact Inline Standoff B  
MIS 76    Length: 0.65 m    Weight: 15.43 lb

Compact Lower Guard Sub.  
MLG 7    Length: 2.44 m    Weight: 55.12 lb

Compact Inline Standoff B  
MIS 73    Length: 0.65 m    Weight: 15.43 lb

Compact Knuckle Joint



SKJ 48      Length: 0.66 m      Weight: 24.25 lb

Compact Inline Standoff B  
MIS 75      Length: 0.65 m      Weight: 15.43 lb

Compact Sonic  
MSS 28      Length: 3.82 m      Weight: 72.75 lb

Compact Inline Standoff B  
MIS 30      Length: 0.65 m      Weight: 15.43 lb

Compact Hole Finder  
HFS 1      Length: 0.24 m      Weight: 2.20 lb

Total Length: 40.60 m

Total Weight: 1016.33 lb



COMPANY	ESSO AUSTRALIA PTY LTD
WELL	FLOUNDER A24A
FIELD	GIPPSLAND BASIN
PROVINCE/COUNTY	BASS STRAIT
COUNTRY/STATE	AUSTRALIA

Elevation Kelly Bushing		metres	First Reading	2627.30	metres
Elevation Drill Floor	33.85	metres	Depth Driller	2626.97	metres
Elevation Ground Level	-93.00	metres	Depth Logger	2628.90	metres

**Reeves**

DUAL LATEROLOG  
GAMMA RAY  
1:500 TVD

