

Reeves

PHOTO DENSITY COMPENSATED NEUTRON 1:500 MD

COMPANY	ESSO AUSTRALIA PTY. LTD.			
WELL	FLOUNDER A12a			
FIELD	GIPPSLAND BASIN			
PROVINCE/COUNTY	BASS STRAIT			
COUNTRY/STATE	AUSTRALIA			
LOCATION	5758709.11 m N, 625849.47 m E 38°18'39.173" S, 148°26'21.833" E			
LSD	SEC	TWP	RGE	Other Services
API Number	COMPENSATED SONIC			
Permit Number	DUAL LATEROLOG			
Permanent Datum MSL	, Elevation 0 metres			Elevations:
Log Measured From RT	@33.85 metres above Permanent Datum			KB DF 33.85 metres
Drilling Measured From RT				GL -93.00 metres
Date	12-APR-2003			
Run Number	1			
Depth Driller	2920.00 metres			
Depth Logger	2921.00 metres			
First Reading	2920.50 metres			
Last Reading	1250.00 metres			
Casing Driller	856.25 metres			
Casing Logger	856.00 metres			
Bit Size	8.50 inches			
Hole Fluid Type	KC/PHPA/GLY			
Density / Viscosity	9.90 lb/USg 68.00 sec/cst			
PH / Fluid Loss	9.40 2.50 ml/30Min			
Sample Source	FLOWLINE			
Rm @ Measured Temp	0.124 @ 25.0 ohm-m			
Rmf @ Measured Temp	0.113 @ 25.0 ohm-m			
Rmc @ Measured Temp	0.179 @ 25.0 ohm-m			
Source Rmf / Rmc	PRESS PRESS			
Rm @ BHT	0.048 @100.0 ohm-m			
Time Since Circulation	17:45 HRS			
Max Recorded Temp	100.00 deg C			
Equipment Name	COMPACT			
Equipment / Base	1			
Recorded By	M.Barnes, R.Tench			
Witnessed By	E.Espiritu			
Circ. Stopped	08:00 11-APR			

BOREHOLE RECORD				
Bit Size inches		Depth From metres		Depth To metres
8.500		0.00		2920.00
CASING RECORD				
Type	Size inches	Depth From metres	Shoe Depth metres	Weight pounds/ft
K-55	10.750	0.00	856.25	40.50
REMARKS				
DRILLING RIG: NABORS (ISDL) 453.				
TOP OF WINDOW: 856.25m				
TOP OF WHIPSTOCK: 856.75m				
BTM OF WINDOW: 863.25m				
REEVES COMPACT WIRELINE TOOLS RUN ON SCHLUMBERGER UNIT.				
MPD CALIPER AND MMR CALIPER ARE INDEPENDENT OF EACH OTHER, DUE TO SWIVALS ABOVE AND BELOW DENSITY/NEUTRON SECTION.				
SPIKES IN DEEP LATEROLOG @ 2094m MD AND 2113m MD ARE INVALID.				
HTHP: 11.2 ml/30 min @ Deg 121 deg C.				
MAX DEVIATION: 53.8 DEGREES AT 2137.0 m.				
DOGLEG AT 892 M, WITH DLS > 6.0 DEGREES/30 m.				
REEVES CREW: M.BARNES, R.TENCH, G.MCMANUS.				
SCHLUMBERGER CREW: B.GLOVER, B.TAYLOR, J.LIGHT, R.DEGROOT.				

AFTER SURVEY CALIBRATION

C:\Fla a12a\MAIN LOG A DSC.dta

Gamma Check MCG 076

Field Calibration on 7-APR-2003,14:34
After Survey Check on 12-APR-2003,07:31

	Before (API)	After (API)
Background	10	6
Calibrator (Gross)	919	915
Calibrator (Net)	909	909

Neutron Check MDN 069

Before Survey Check on 7-APR-2003 14:52
After Survey Check on 12-APR-2003,07:35

Near (cps)		Far (cps)	
Before	After	Before	After
1846	1818	2708	2648
Ratio			
Before		After	
0.682		0.687	

Photo Density Check MPD 067

Before Survey Check on 7-APR-2003 14:40
After Survey Check on 12-APR-2003,07:40

Density Check

Near		Far	
Before	After	Before	After
957.7	954.7	1152.3	1153.1

PE Check

	Before	After
WS	180.1	179.6
WH	831.6	828.5

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 B 1:500



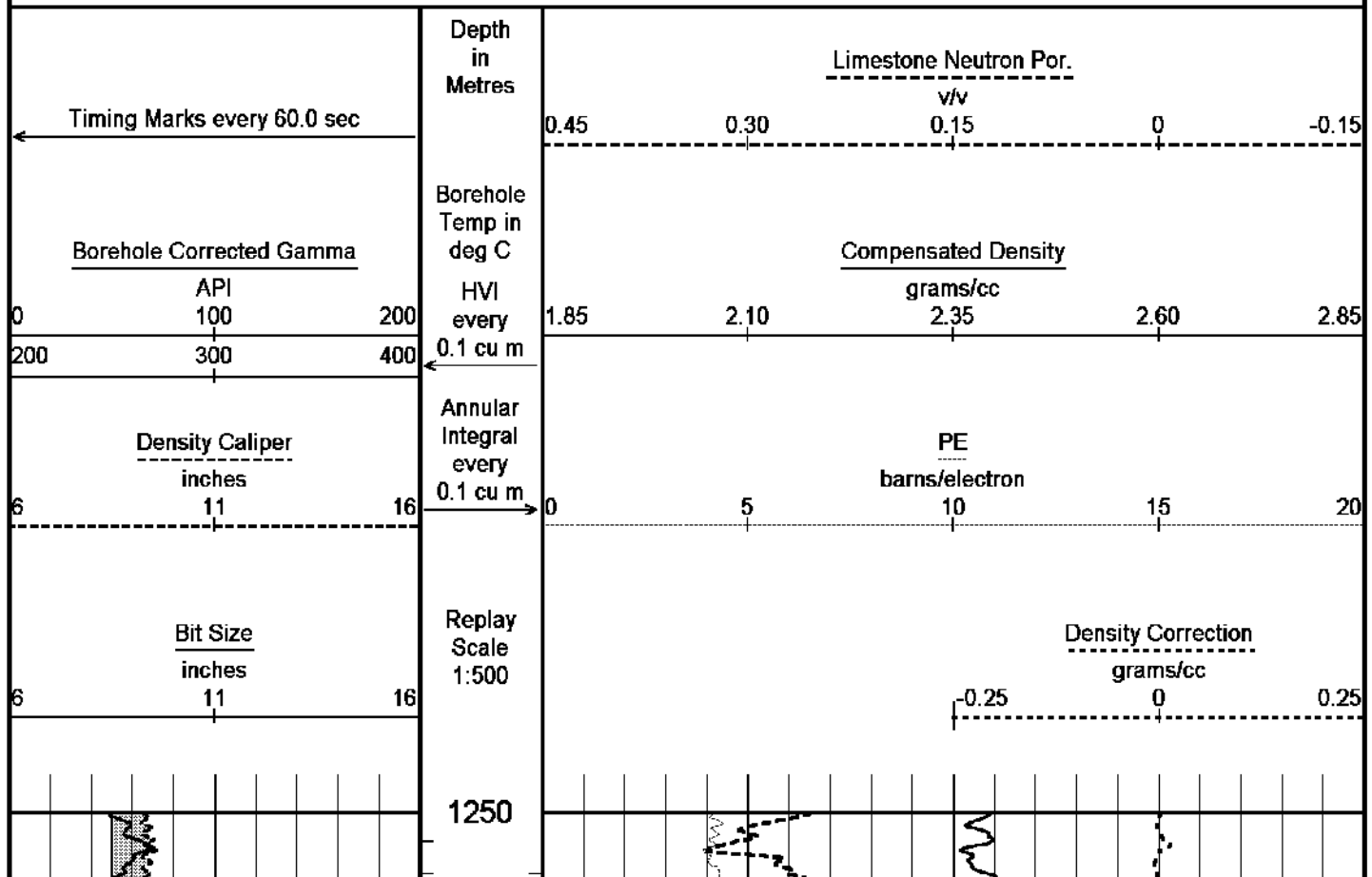
Depth Based Data - Maximum Sampling Increment: 10.0cm

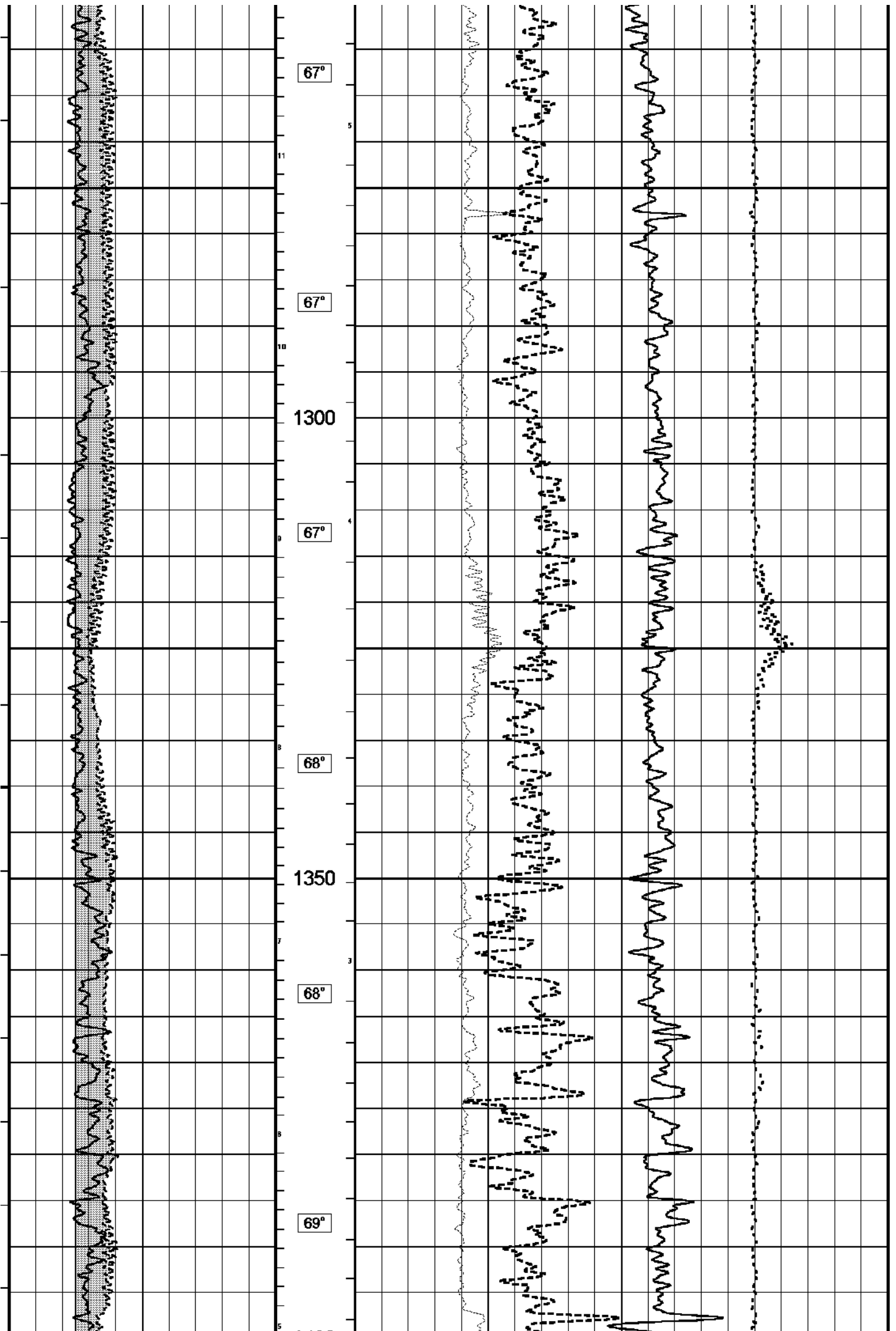
Plotted on 24-MAY-2003 16:12

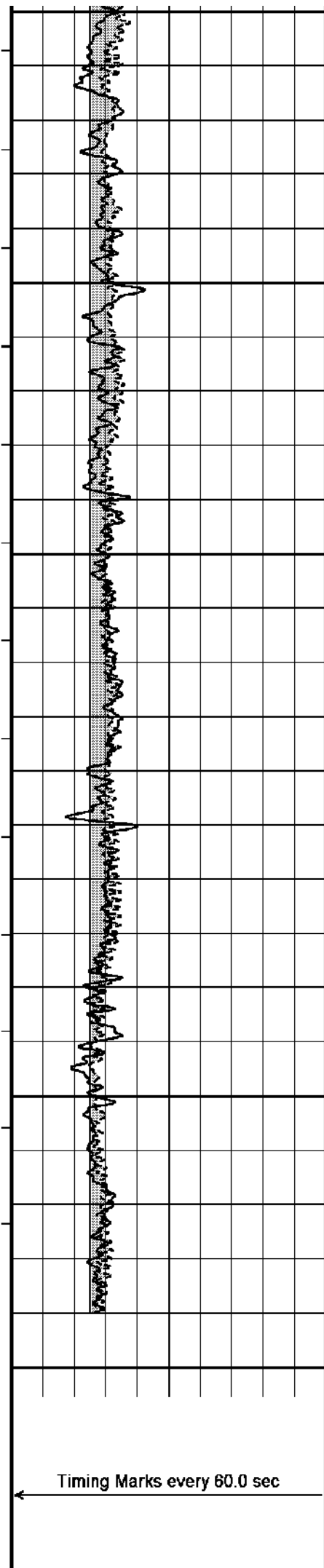
Filename: C:\Fla a12a\MAIN LOG B DSC.dta

Recorded on 12-APR-2003 04:49

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







1400

69°

70°

1450

70°

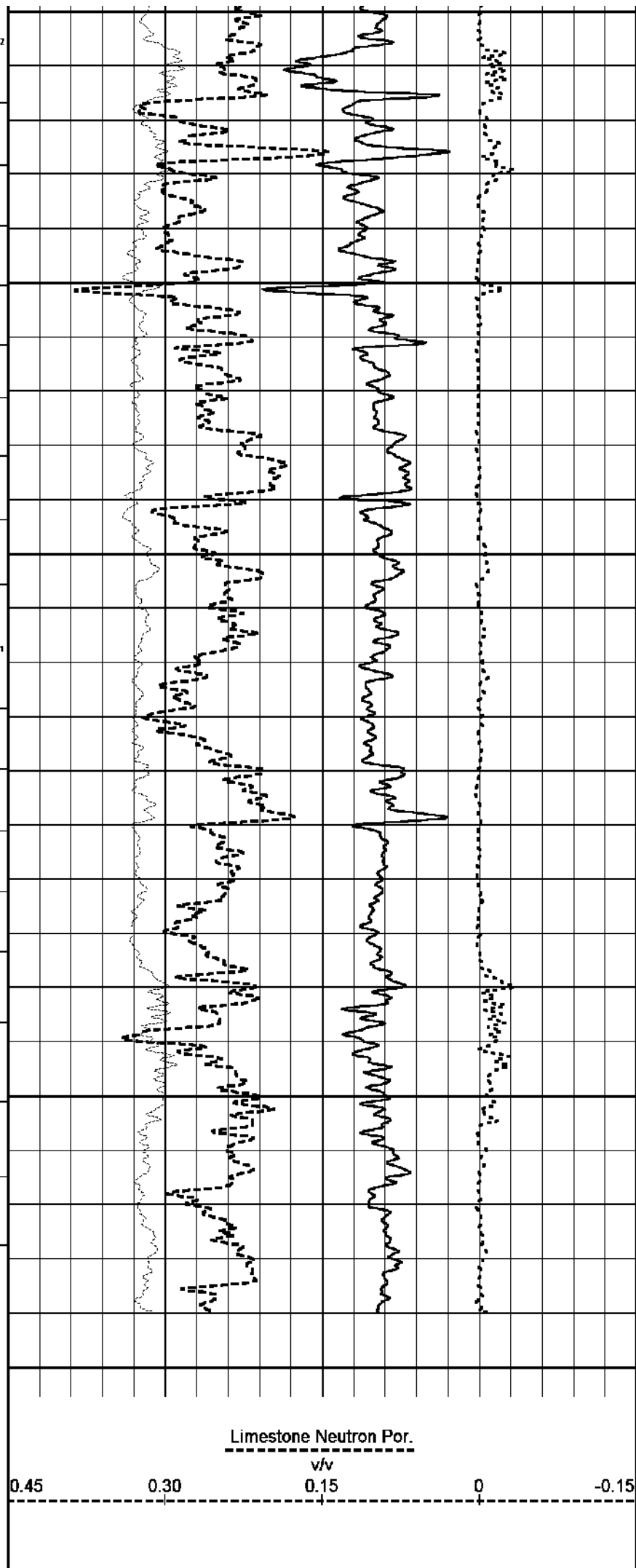
71°

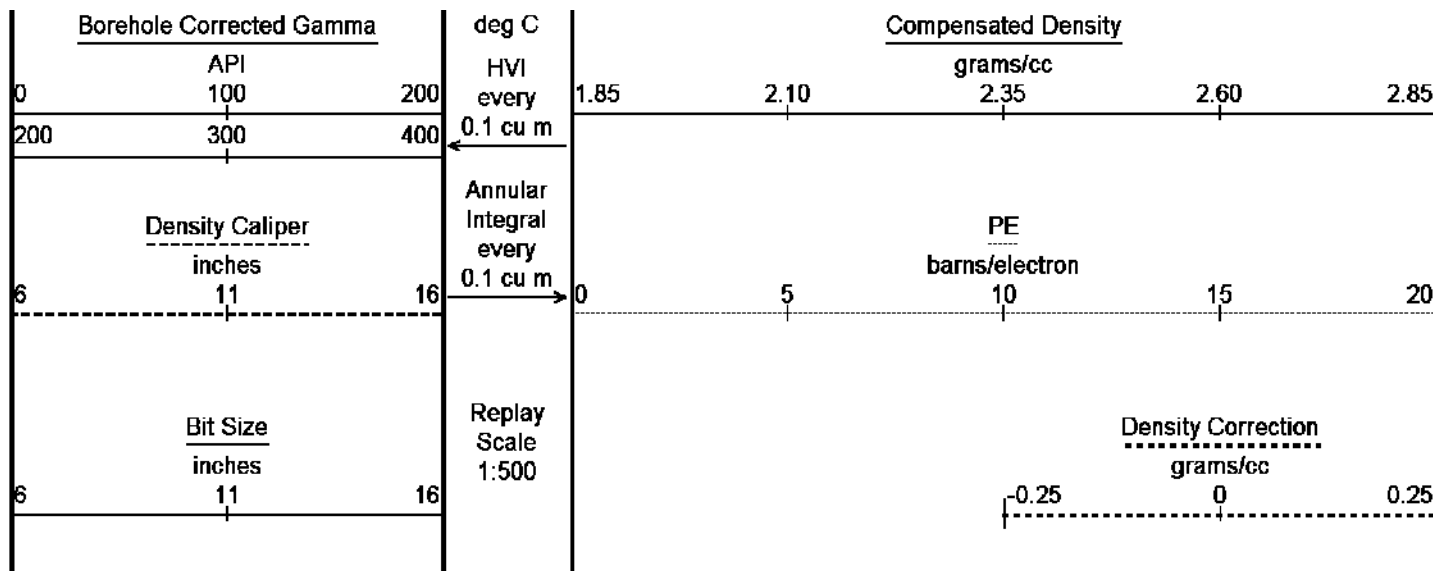
1500

71°

Depth
in
Metres

Borehole
Temp in





Depth Based Data - Maximum Sampling Increment 10.0cm

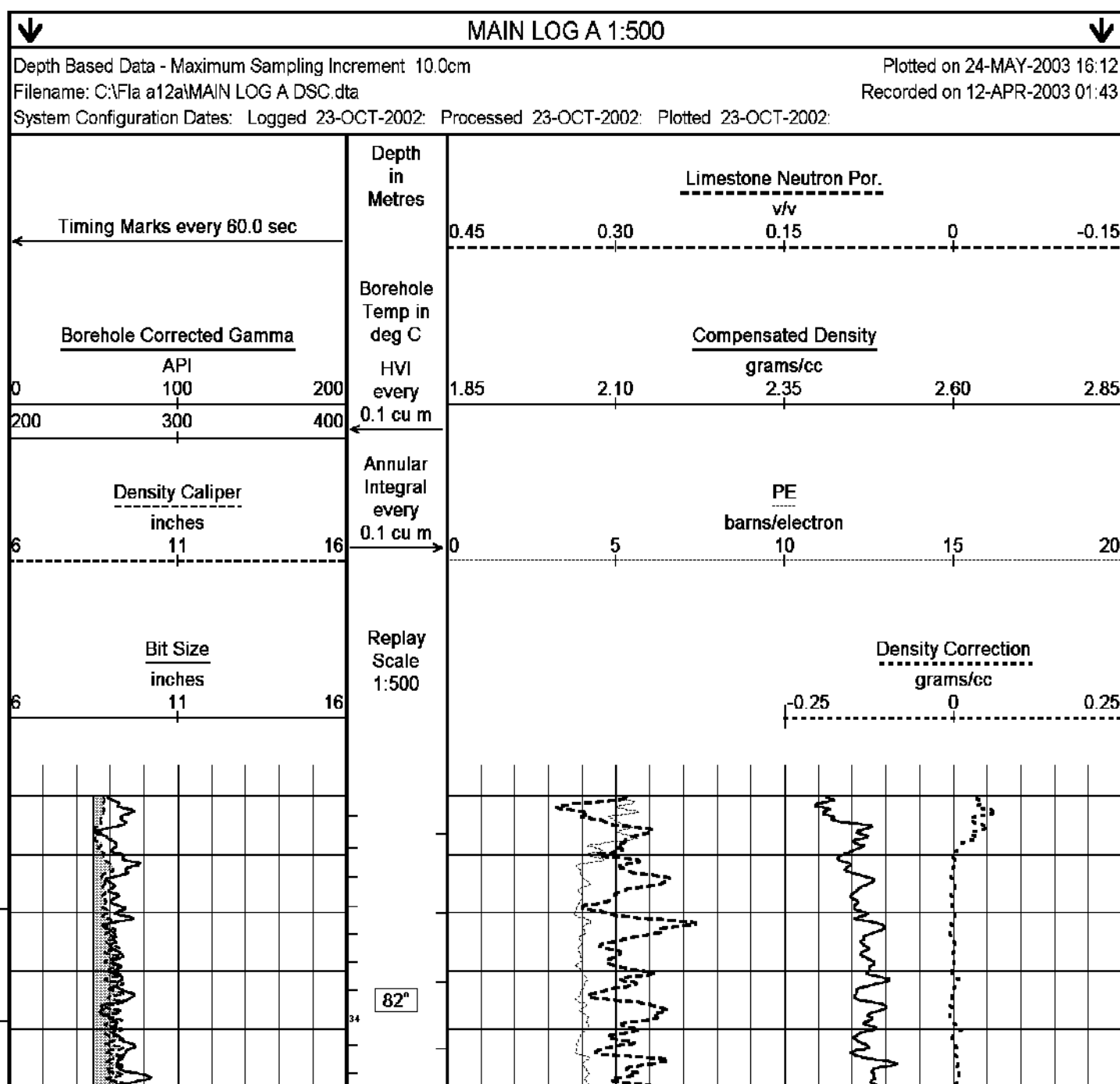
Plotted on 24-MAY-2003 16:12

Filename: C:\Fla a12a\MAIN LOG B DSC.dta

Recorded on 12-APR-2003 04:49

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

MAIN LOG B 1:500



Depth Based Data - Maximum Sampling Increment 10.0cm

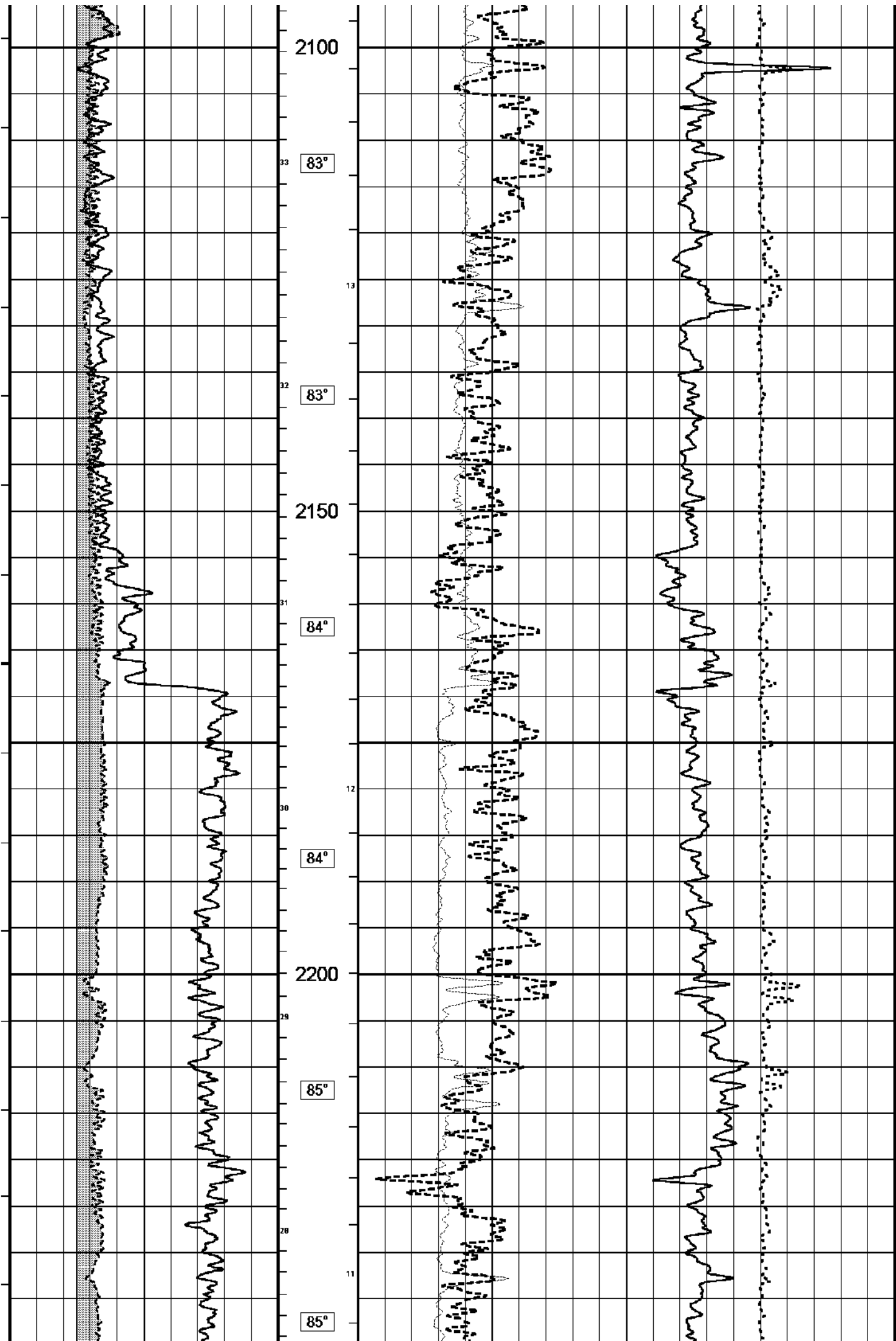
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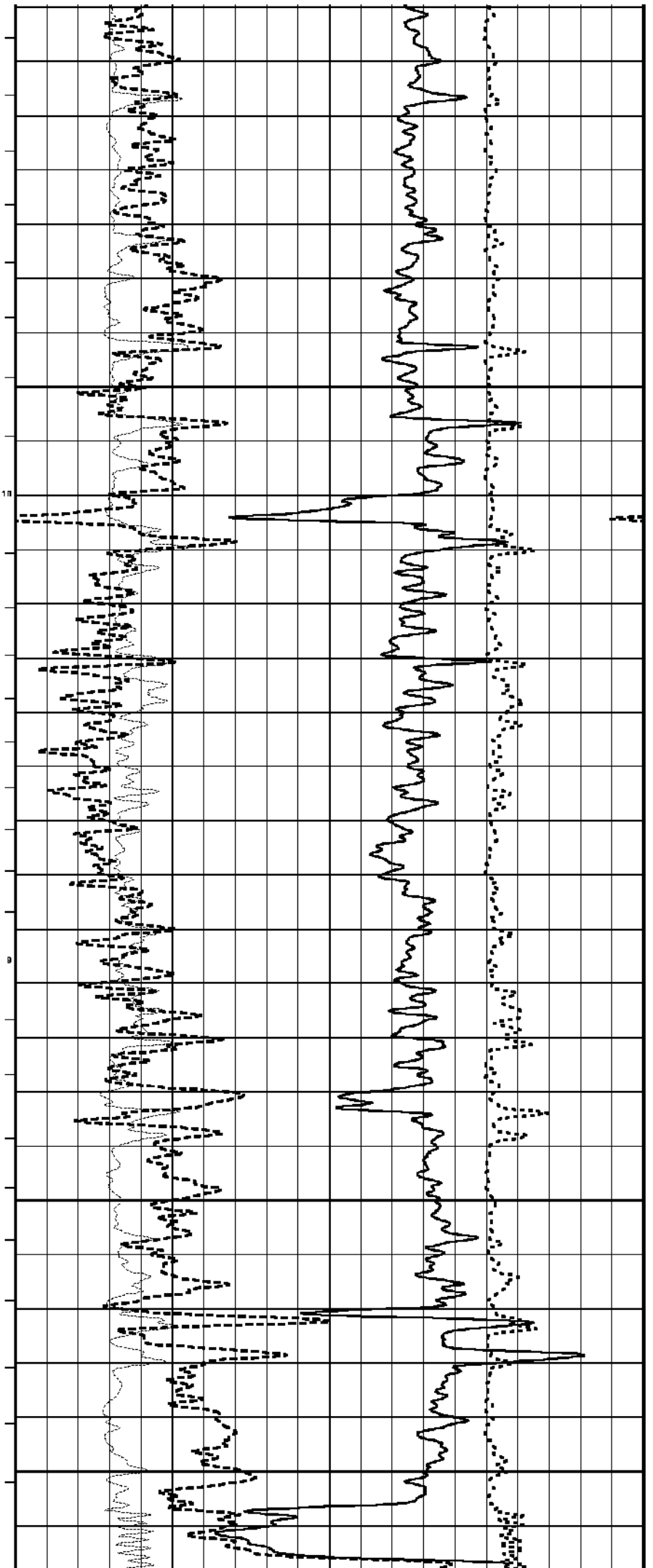
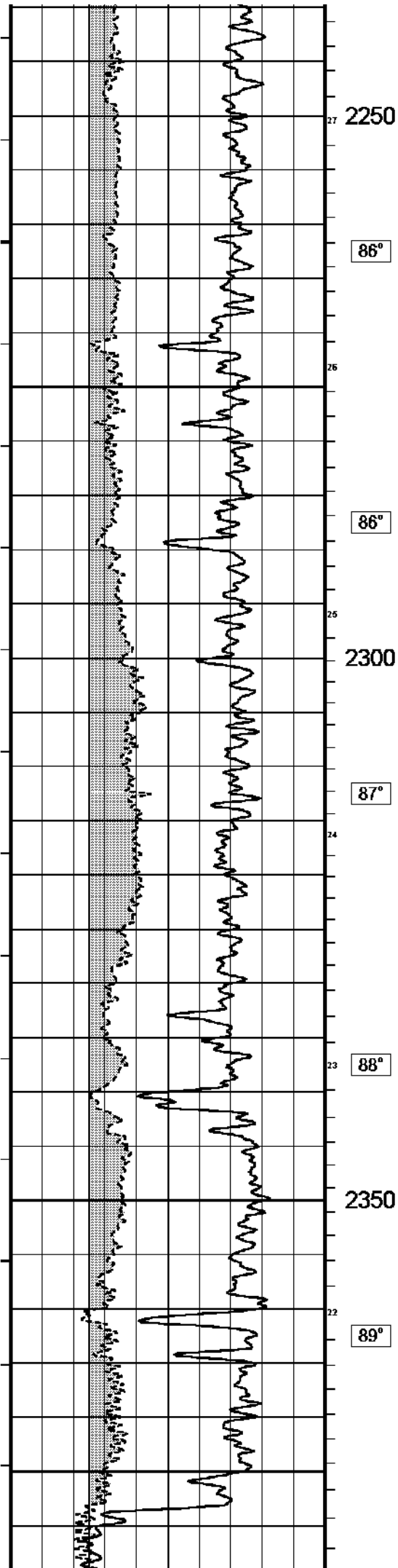
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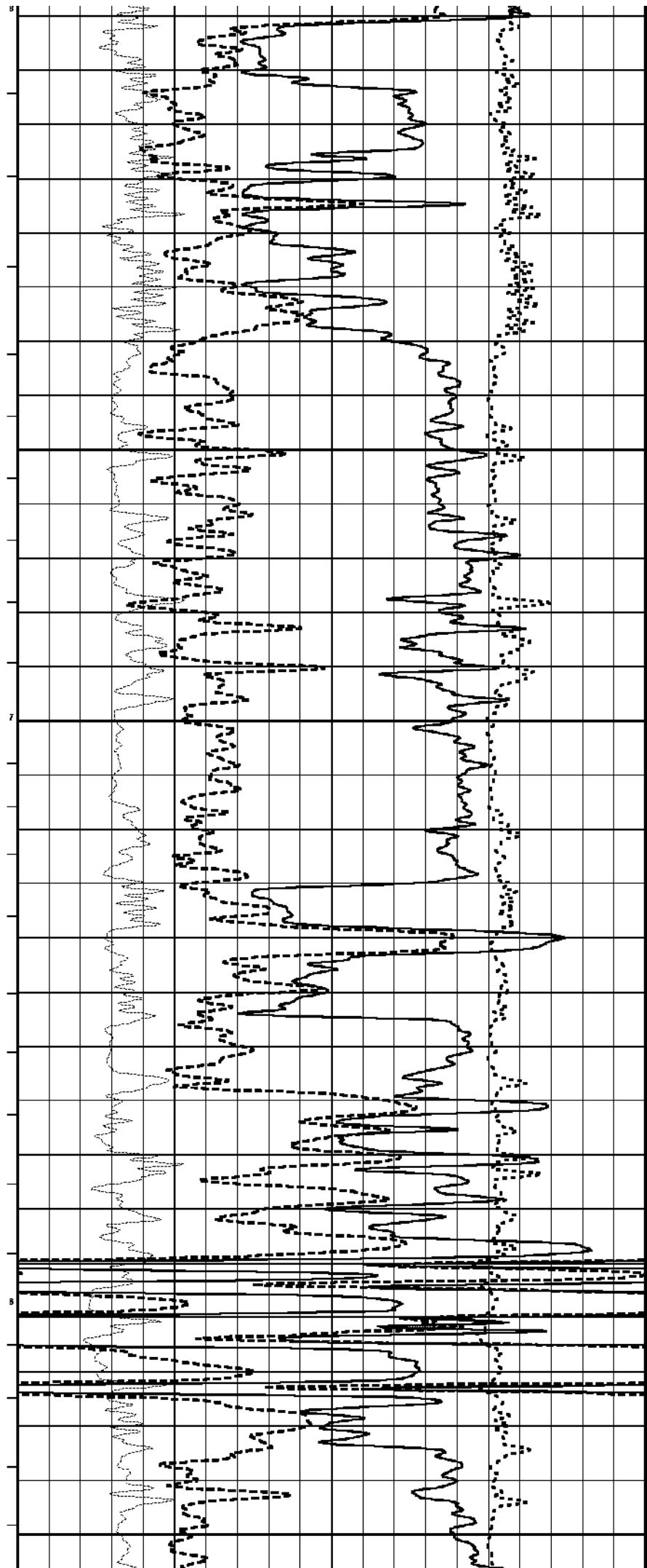
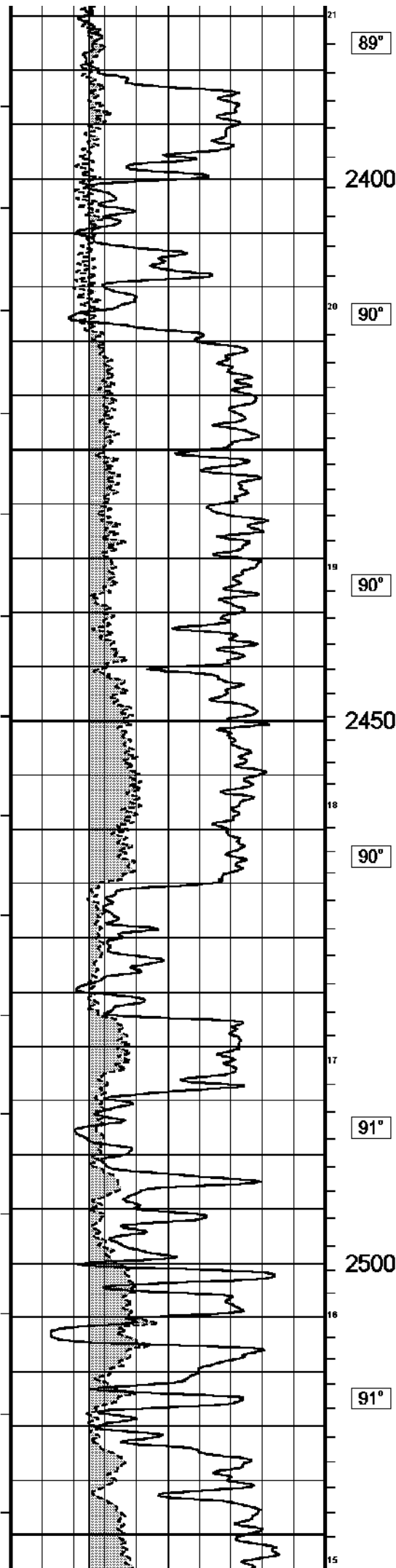
Recorded on 12-APR-2003 01:43

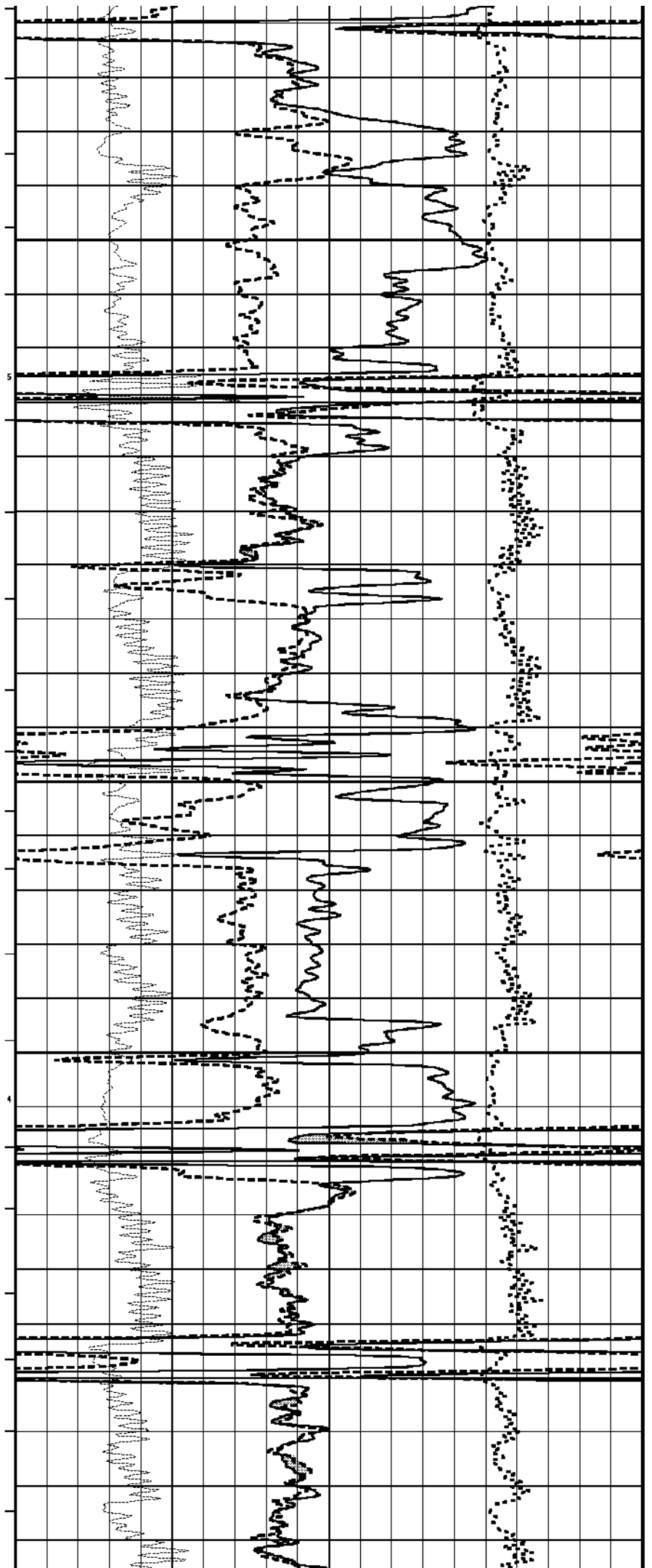
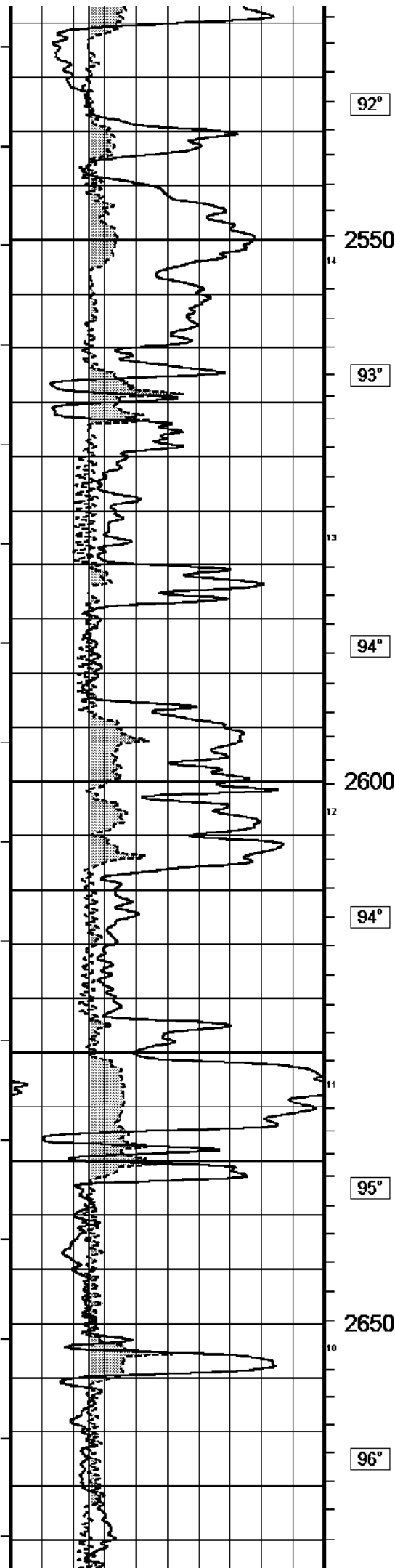
System Configuration Dates: Logged 23-OCT-2002: Processed 23-OCT-2002: Plotted 23-OCT-2002:

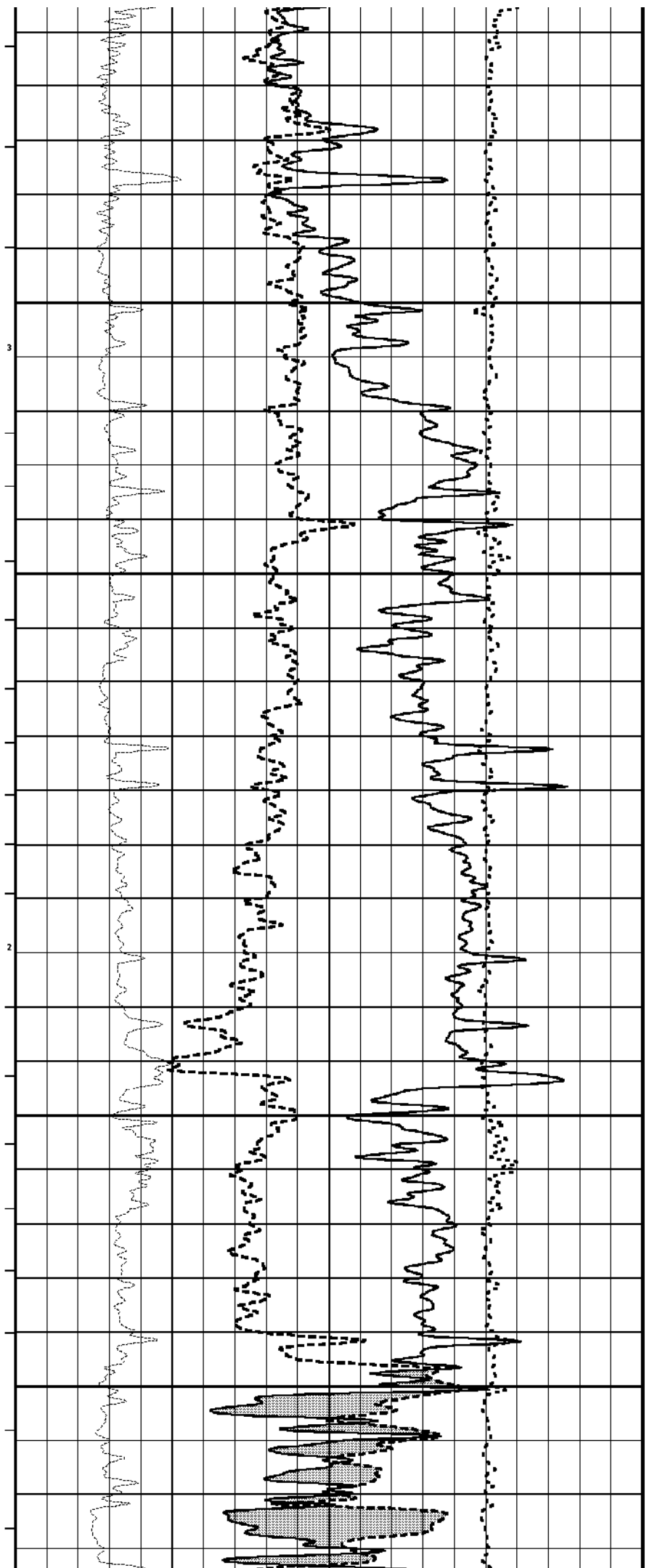
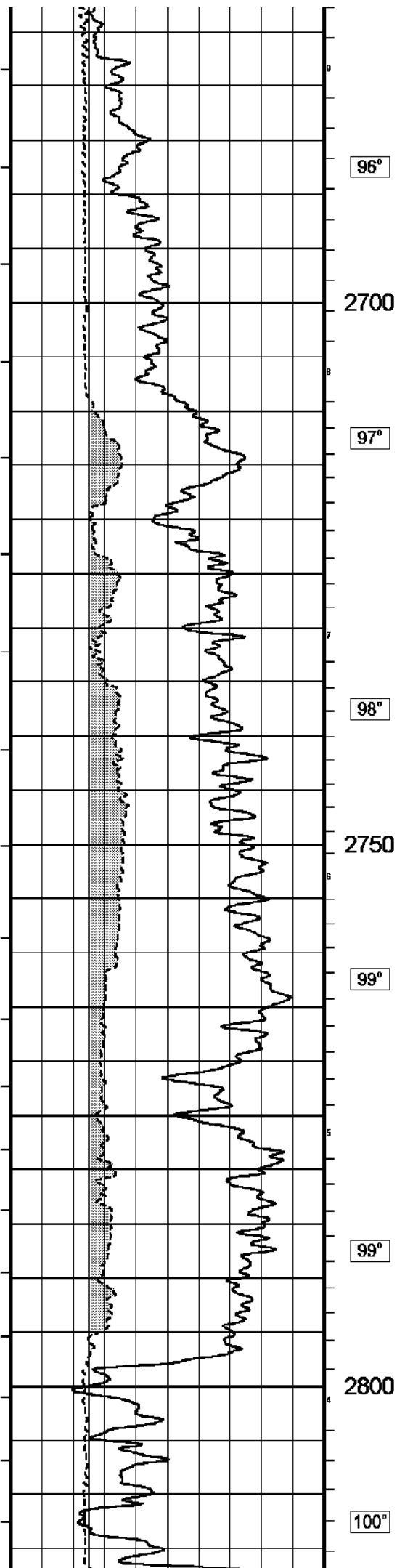
MAIN LOG A 1:500

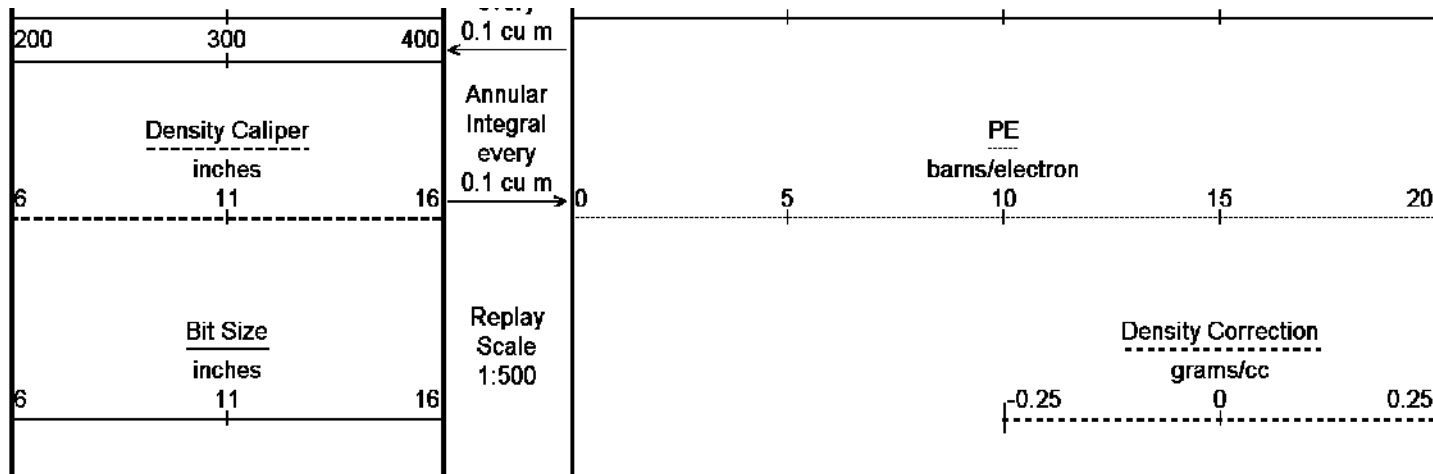












Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 24-MAY-2003 16:12

Filename: C:\Fla a12a\MAIN LOG A DSC.dta

Recorded on 12-APR-2003 01:43

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

MAIN LOG A 1:500

REPEAT SECTION 1:500

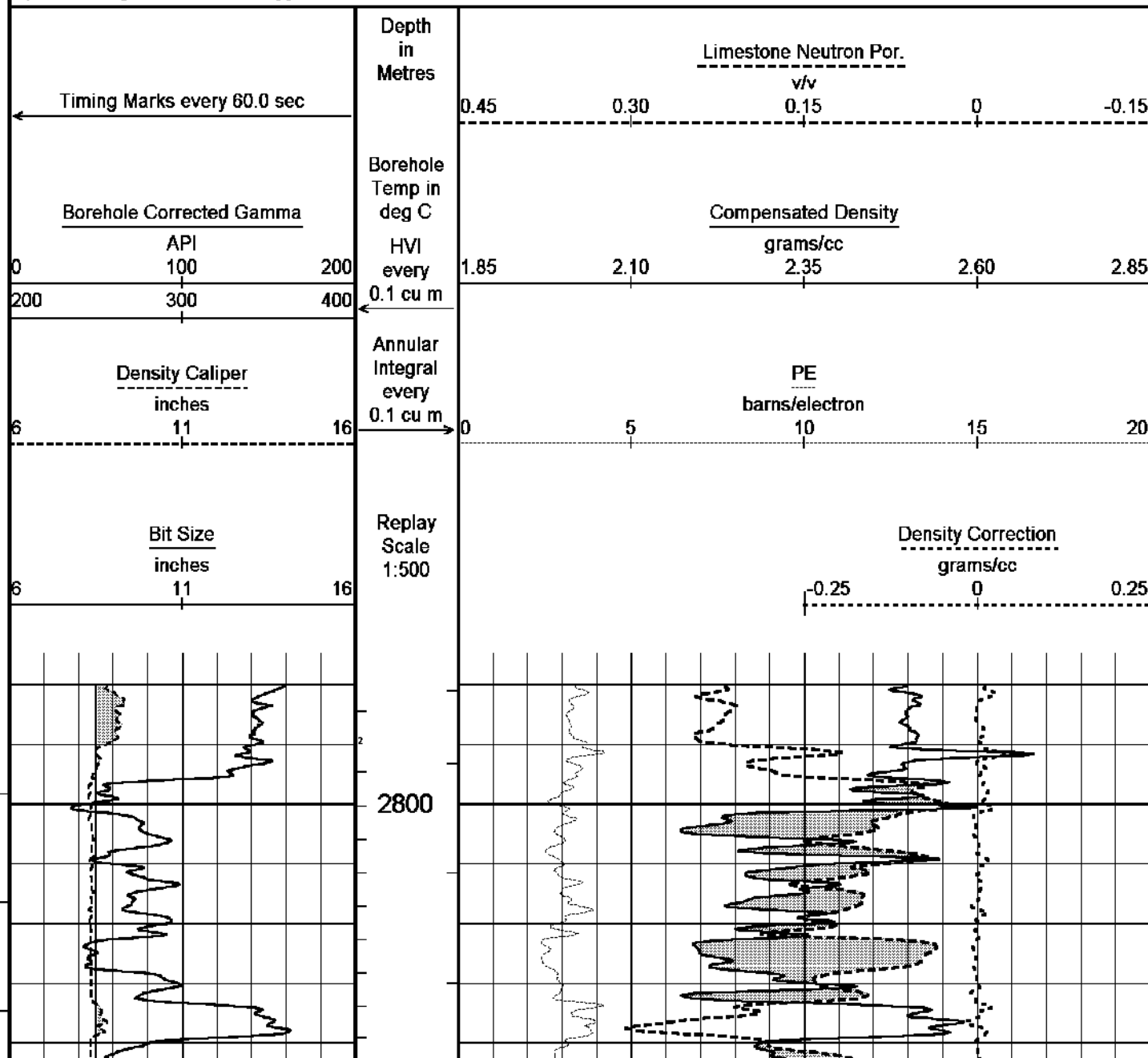
Depth Based Data - Maximum Sampling Increment 10.0cm

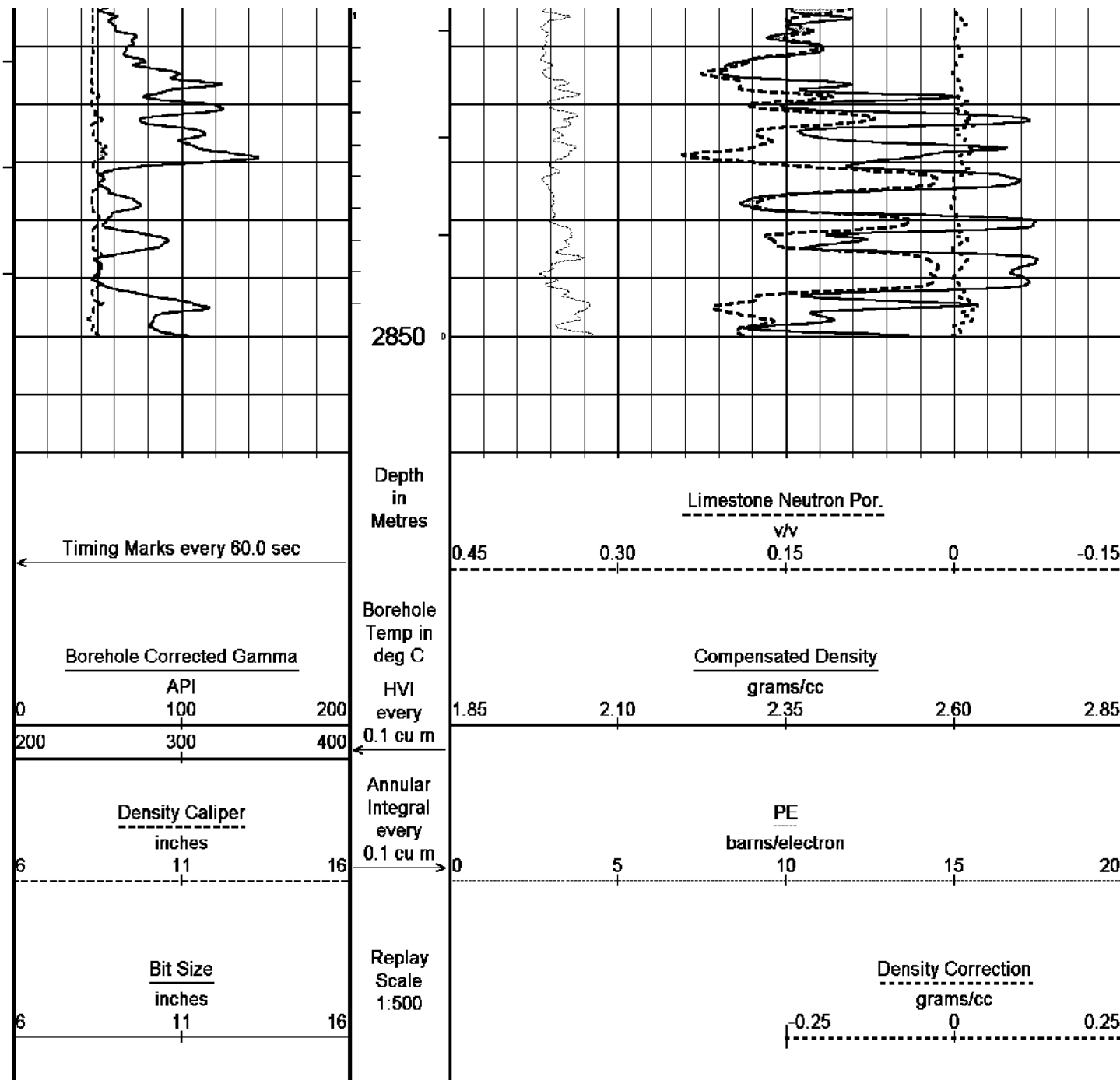
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Filename: C:\Fla a12a\REPEAT SECTION DSC.dta

Recorded on 12-APR-2003 01:08

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





Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 24-MAY-2003 16:12

Filename: C:\Fla a12a\REPEAT SECTION DSC.dta

Recorded on 12-APR-2003 01:08

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

REPEAT SECTION 1:500

BEFORE SURVEY CALIBRATION

C:\Fla a12a\MAIN LOG A DSC.dta

General Constants All 000

General Parameters

Mud Resistivity	0.05	ohm-metres
Mud Resistivity Temperature	100.00	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	Density Caliper	
Annular Volume Diameter	7.00	inches
Caliper for Differential Caliper	Density Caliper	

Rwa Parameters

Porosity used Limestone Sonic Porosity

Resistivity used	Deep Laterolog	
RWA Constant A	0.61	
RWA Constant M	2.15	
Gamma Calibration MCG 076		Field Calibration on 7-APR-2003,14:34
	Measured	Calibrated (API)
Background	16	10
Calibrator (Gross)	1432	919
Calibrator (Net)	1416	909
Gamma Constants MCG 076		
Gamma Calibrator Number	60	
Mud Density	1.19	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl	0.00	kppm
High Resolution Temperature Calibration MCG 076		Field Calibration on 19-FEB-2003,09:40
	Measured	Calibrated(Deg C)
Lower	0.00	0.00
Upper	100.00	100.00
High Resolution Temperature Constants MCG 076		
Pre-filter Length	11	
Neutron Calibration MDN 069		Base Calibration on 17-JAN-2003 16:36 Field Check on 7-APR-2003 14:52
Base Calibration		
	Measured	Calibrated (cps)
	Near Far	Near Far
	2851 89	3714 110
Ratio	31.978	33.764
Field Calibrator at Base		
		Calibrated (cps)
		1871 2717
Ratio		0.689
Field Check		
		Calibrated (cps)
		1846 2708
Ratio		0.682
Neutron Constants MDN 069		
Neutron Source Id	724	
Neutron Jig Number	52	
Epithermal Neutron	No	
Caliper Source for Processing	Density Caliper	
Stand-off	0.00	inches
Mud Density	1.19	gm/cc
Limestone Sigma	7.10	cu
Sandstone Sigma	4.26	cu
Dolomite Sigma	4.70	cu
Formation Pressure Source	Constant Value	
Formation Pressure	0.00	kpsi
Temperature Source	MCG External Temperature	
Temperature	N/A	degrees C
Mud Salinity	53.00	kppm
Formation Fluid Salinity Source	None	
Formation Fluid Salinity	N/A	kppm
Barite Mud Correction	Not Applied	
Caliper Calibration MPD 067		Base Calibration on 12-APR-2003,03:34 Field Calibration on
Base Calibration		
Reading No	Measured	Calibrator Size (in)
1	14809	4.61
2	24384	6.59
3	34304	8.58
4	44327	10.54
5	55504	12.61
6	N/A	N/A

Field Calibration

0	0
0.00	0.00

Photo Density Calibration MPD 067

Base Calibration on 19-JAN-2003 12:40

Field Check on 7-APR-2003 14:40

Density Calibration

Base Calibration	Measured		Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	58595	20350	53282	19349
Reference 2	27401	2638	25298	2555

Field Check at Base

960.1	1164.2
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Field Check

957.7	1152.3
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PE Calibration

Base Calibration		Measured		Calibrated
	WS	WH	Ratio	Ratio
Background	180	835		
Reference 1	18645	58403	0.321	0.318
Reference 2	7313	27257	0.270	0.273

Field Check at Base

179.8	835.5
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Field Check

180.1	831.6
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Density Constants MPD 067

Density Source Id	226	
Nylon Calibrator Number	517	
Aluminium/Fe Calibrator Number	517	
Density Shoe Profile	4 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.19	gm/cc
Mud Density Z/A Correction	1.11	
Mud Filtrate Density	1.00	gm/cc
Dry Hole Mud Filtrate Density	1.00	gm/cc
DNCT	0.00	gm/cc
CRCT	0.00	gm/cc

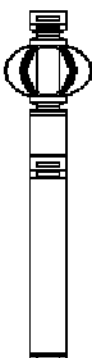
Matrix Density (gm/cc)	Depth (m)
2.71	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00

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

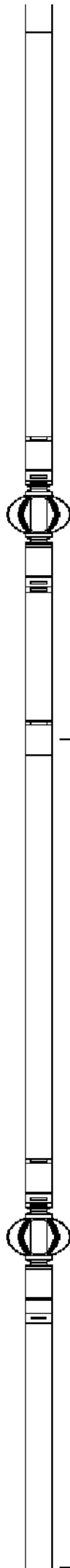


Compact Inline Standoff B
MIS 77 Length: 0.65 m Weight: 15.43 lb

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 76 Length: 2.65 m Weight: 63.93 lb



31.84 m SPDL - Spontaneous Potential

26.85 m GGCE - Borehole Corrected Gamma

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

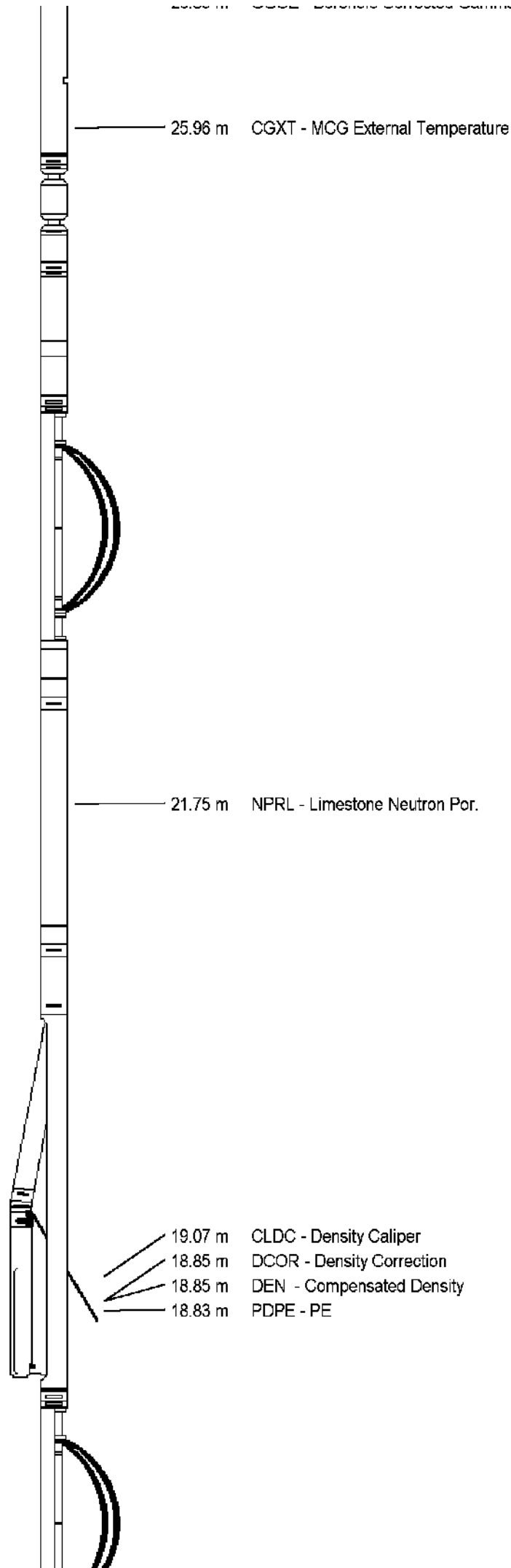
Compact Swivel Head Adaptor
SHA 27 Length: 0.83 m Weight: 26.46 lb

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



25.96 m CGXT - MCG External Temperature

21.75 m NPRL - Limestone Neutron Por.

19.07 m CLDC - Density Caliper
18.85 m DCOR - Density Correction
18.85 m DEN - Compensated Density
18.83 m PDPE - PE

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

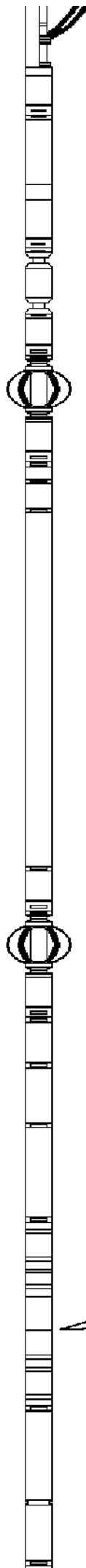
Compact Knuckle Joint
SKJ 45 Length: 0.66 m Weight: 24.25 lb

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



8.93 m

DSLL - Shallow Laterolog

8.93 m

DGLL - Deep Laterolog

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

Compact Micro-Resistivity
MMR 5 Length: 2.62 m Weight: 81.57 lb

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

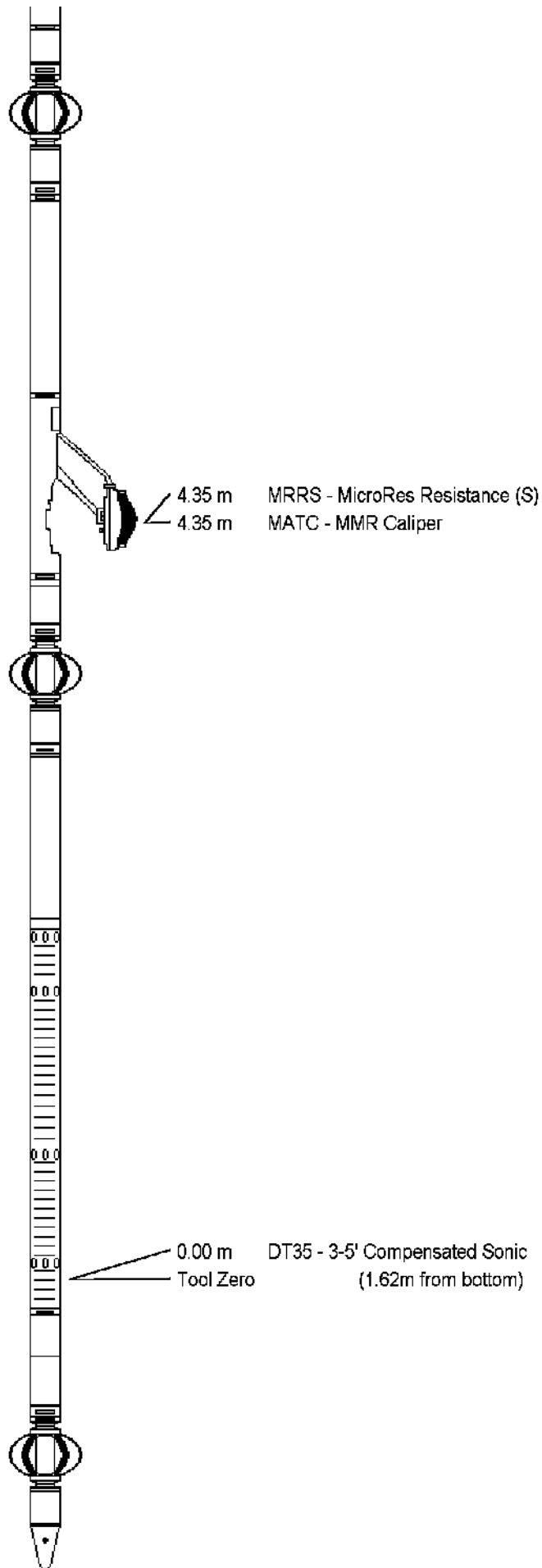
Compact Sonic
MSS 28 Length: 3.82 m Weight: 72.75 lb

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

Pressure Bung + Hole Finder
HFS 3 Length: 0.28 m Weight: 6.61 lb

Total Length: 39.51 m

Total Weight: 1007.51 lb



COMPANY
WELL

ESSO AUSTRALIA PTY. LTD.
FLOUNDER A12a

FIELD		GIPPSLAND BASIN	
PROVINCE/COUNTY		BASS STRAIT	
COUNTRY/STATE		AUSTRALIA	
Elevation Kelly Bushing		metres	
Elevation Drill Floor	33.85	metres	
Elevation Ground Level	-93.00	metres	
First Reading	2920.50	metres	
Depth Driller	2920.00	metres	
Depth Logger	2921.00	metres	
<div><div><div>Reeves</div></div></div> <div>PHOTO DENSITY COMPENSATED NEUTRON 1:500 MD</div>			