

# Reeves

## Compact

Photo Density  
Compensated Neutron  
1:200 MD

COMPANY	ESSO AUSTRALIA PTY. LTD.		
WELL	MARLIN A24A		
FIELD	TURRUM		
PROVINCE/COUNTY	BASS STRAIT		
COUNTRY/STATE	AUSTRALIA		
LOCATION	38Deg13'49.203"S, 148Deg13'15.554"E N 5767923.720 m, E 606865.170 m		
LSD	SEC	TWP	RGE
API Number	Other Services Dual Laterolog		
Permit Number	VIC/L11 Compensated Sonic		
Permanent Datum MSL	, Elevation 0.0 metres		
Log Measured From RT@27.91 m	above Permanent Datum		
Drilling Measured From RT			
Date	5-MAY-2004		
Run Number	ONE		
Depth Driller	3275.00	metres	
Depth Logger	3270.50	metres	
First Reading	3270.12	metres	
Last Reading	2008.50	metres	
Casing Driller	653.00	metres	
Casing Logger			
Bit Size	8.50	inches	
Hole Fluid Type	KCL/GLY/PPHA		
Density / Viscosity	10.15 lb/USg	30.00 CP	
PH / Fluid Loss	8.90	3.00 ml/30Min	
Sample Source	PRESS		
Rm @ Measured Temp	0.137 @ 25.0	ohm-m	
Rmf @ Measured Temp	0.098 @ 25.0	ohm-m	
Rmc @ Measured Temp	0.236 @ 25.0	ohm-m	
Source Rmf / Rmc	FLOW	FLOW	
Rm @ BHT	0.066 @ 75.0	ohm-m	
Time Since Circulation	36 HRS		
Max Recorded Temp	90.60	deg C	
Equipment Name	CWS/CML		
Equipment / Base	1	SALE	
Recorded By	G. MCMANUS, N. PATMAN		
Witnessed By	C. MENHENNIT, L. CULLEN		
Circ. Stopped	1400 4-MAY		

Elevations:  
KB 27.91 metres  
DF 27.91 metres  
GL -59.00 metres

### BOREHOLE RECORD

Bit Size inches	Depth From metres	Depth To metres
8.500	653.000	3275.000

### CASING RECORD

Type	Size inches	Depth From metres	Shoe Depth metres	Weight pounds/ft
SURFACE	13.375	0.000	653.000	0.00
L80	9.625	0.000	653.000	47.00

### REMARKS

\*\*\*Miss Run - No data collected above 2008.5 m MD Due To Battery Failure\*\*\*

Rig Nabors 453

5" SHUTTLE - MEMORY LOGGING

5-MAY-04

Crew: G McManus, N Patman, M Susa, B Goodwin

Logs depth corrected -1.1m to correlate with Anadrill gamma log.

AVERAGE INCLINATION: 38° FROM WINDOW TO TD

MAXIMUM INCLINATION: 42.38° @ 3162.70 mMD

MAXIMUM DOGLEG SERVERITY: 5.53°/30m @ 780.54

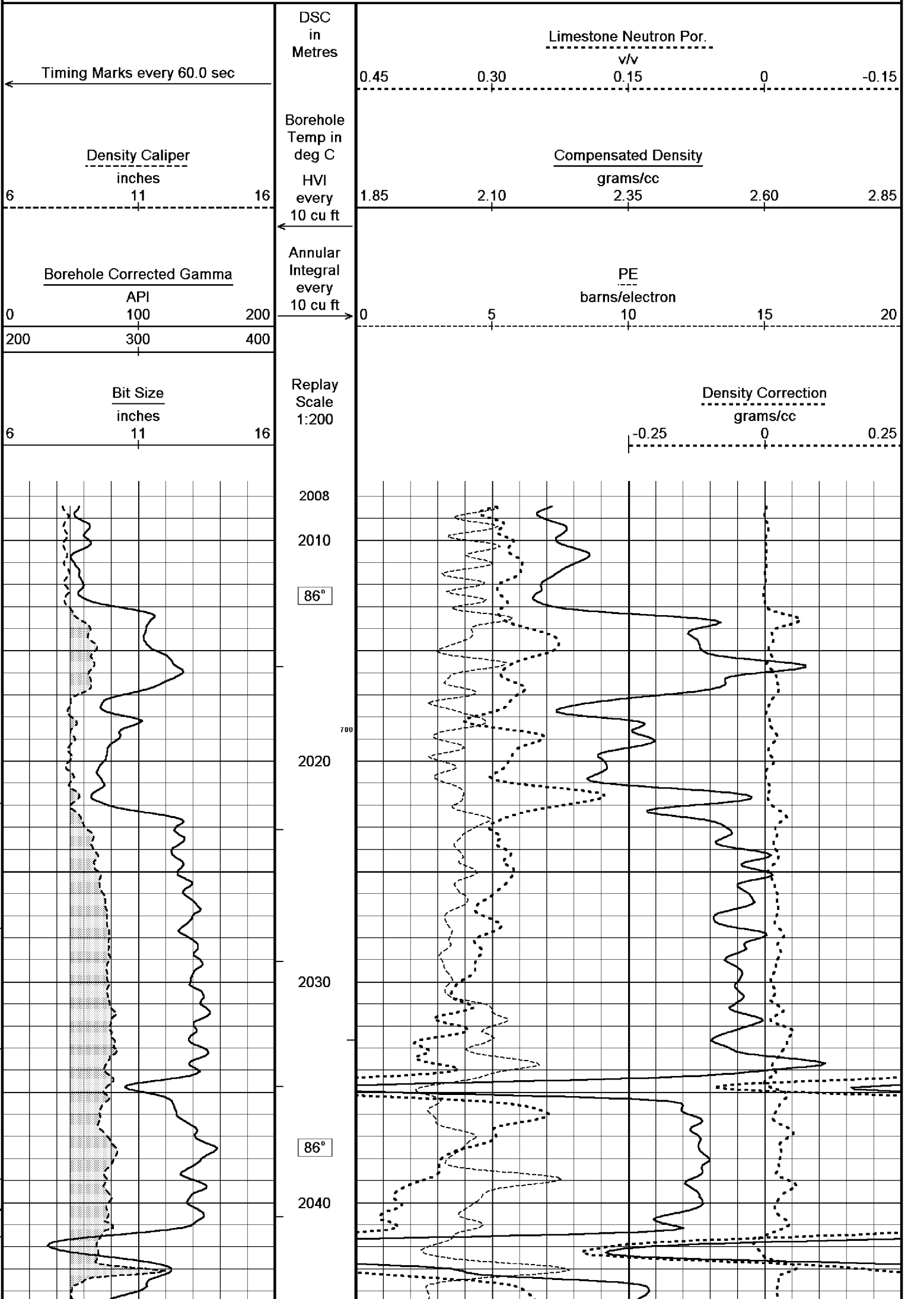
MAXIMUM TEMPERATURE: 90.6°C @ 2654.30 mMD

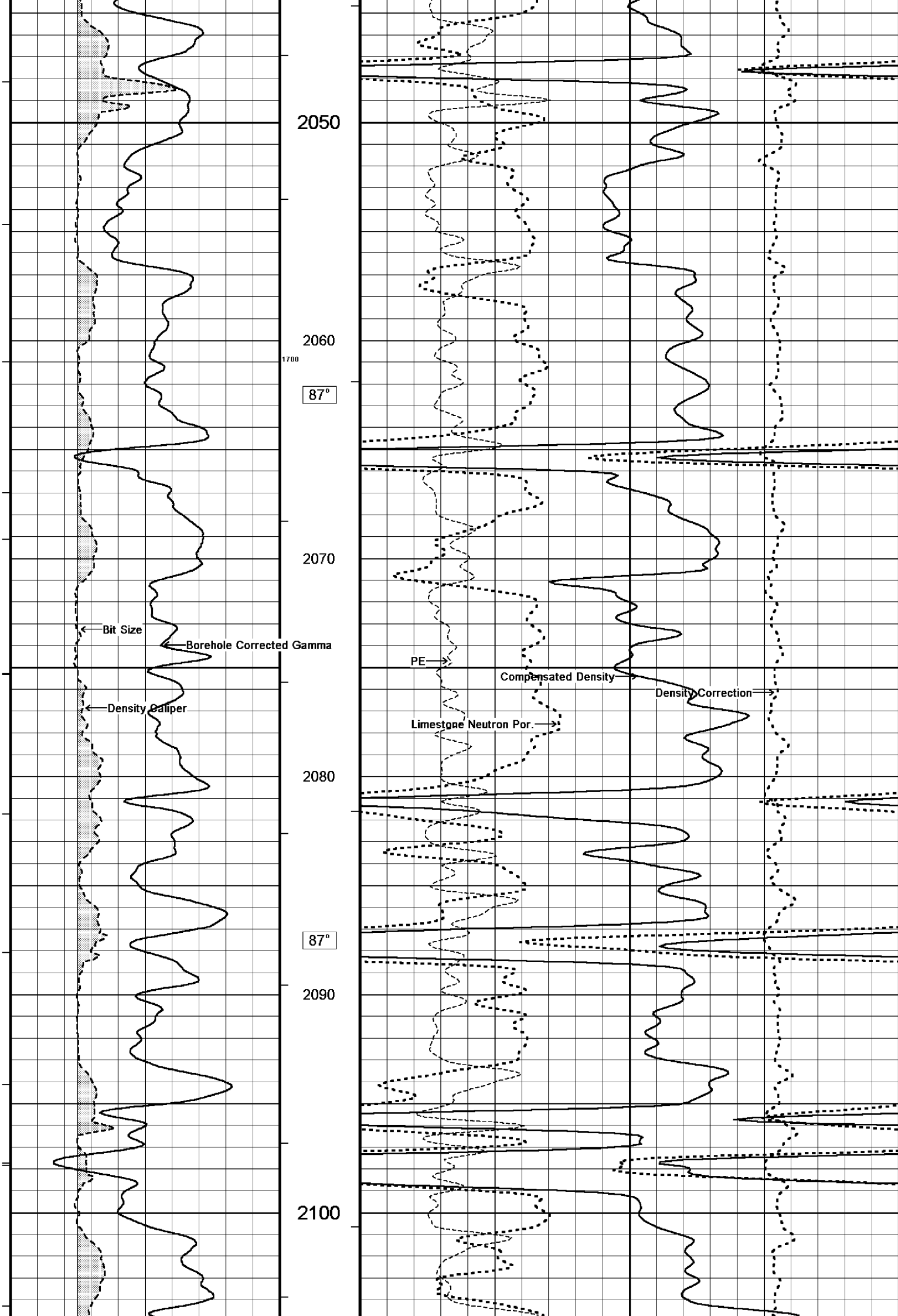
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, 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.

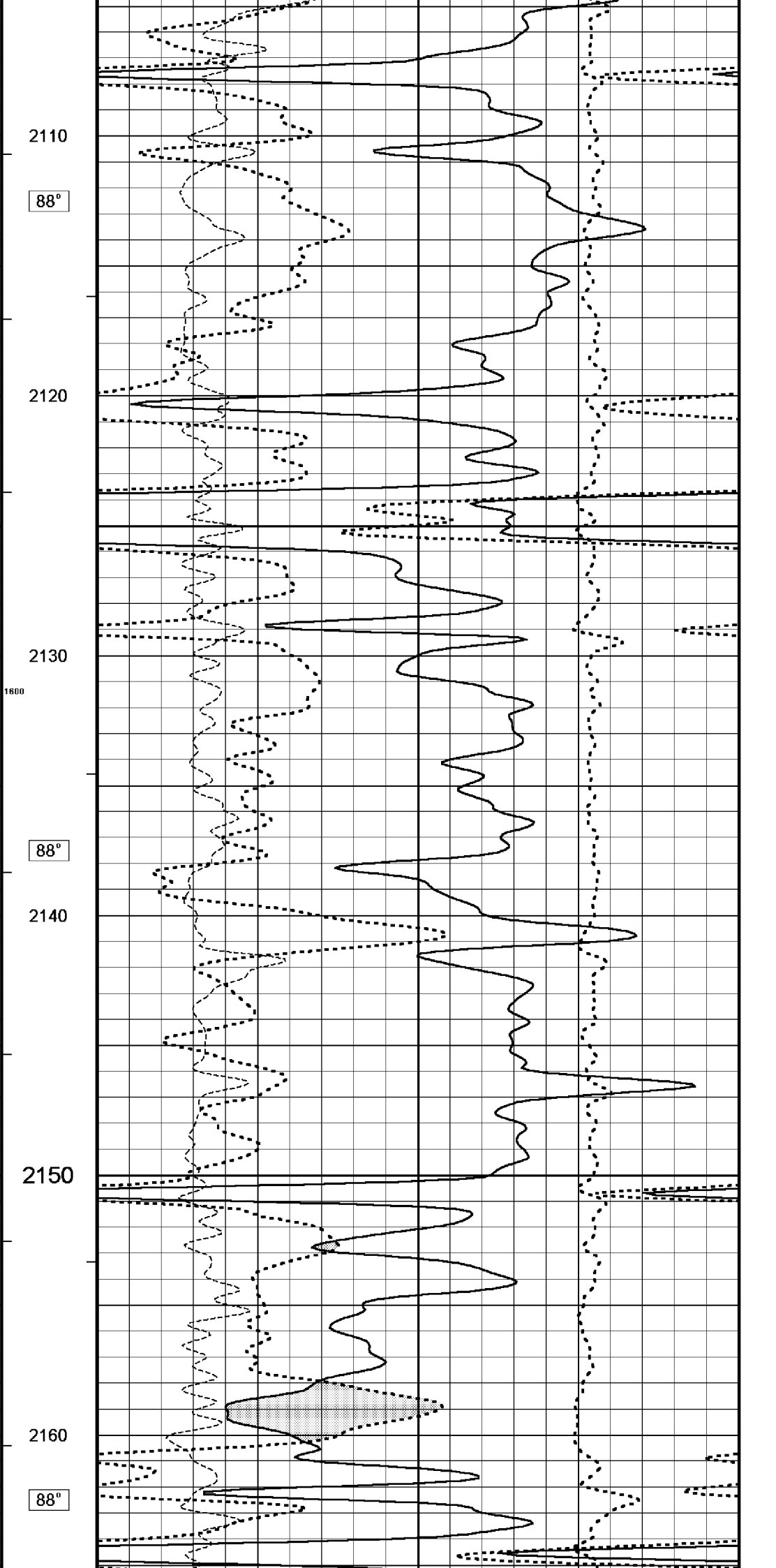
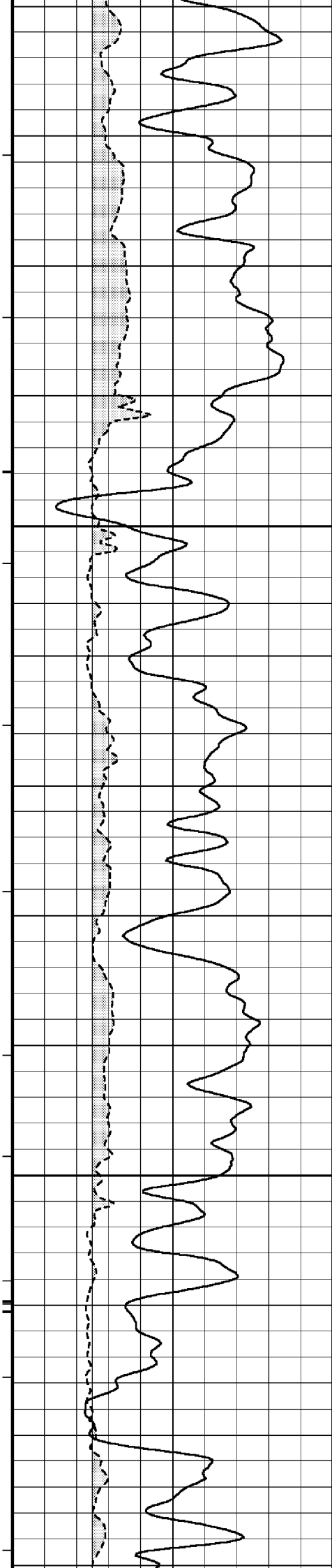
### MAIN LOG 1:200

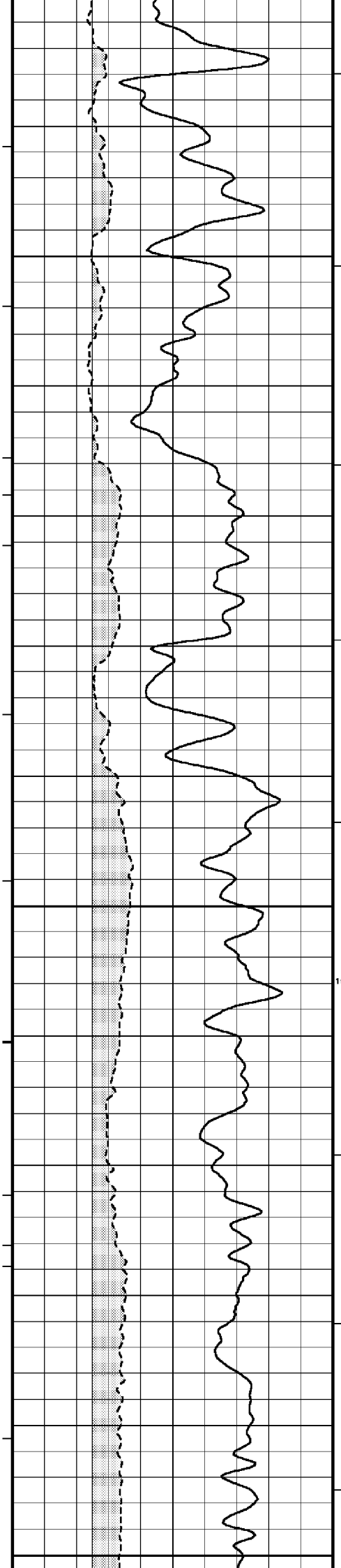
Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 24-SEP-2004 13:14









2170

2180

88°

2190

600

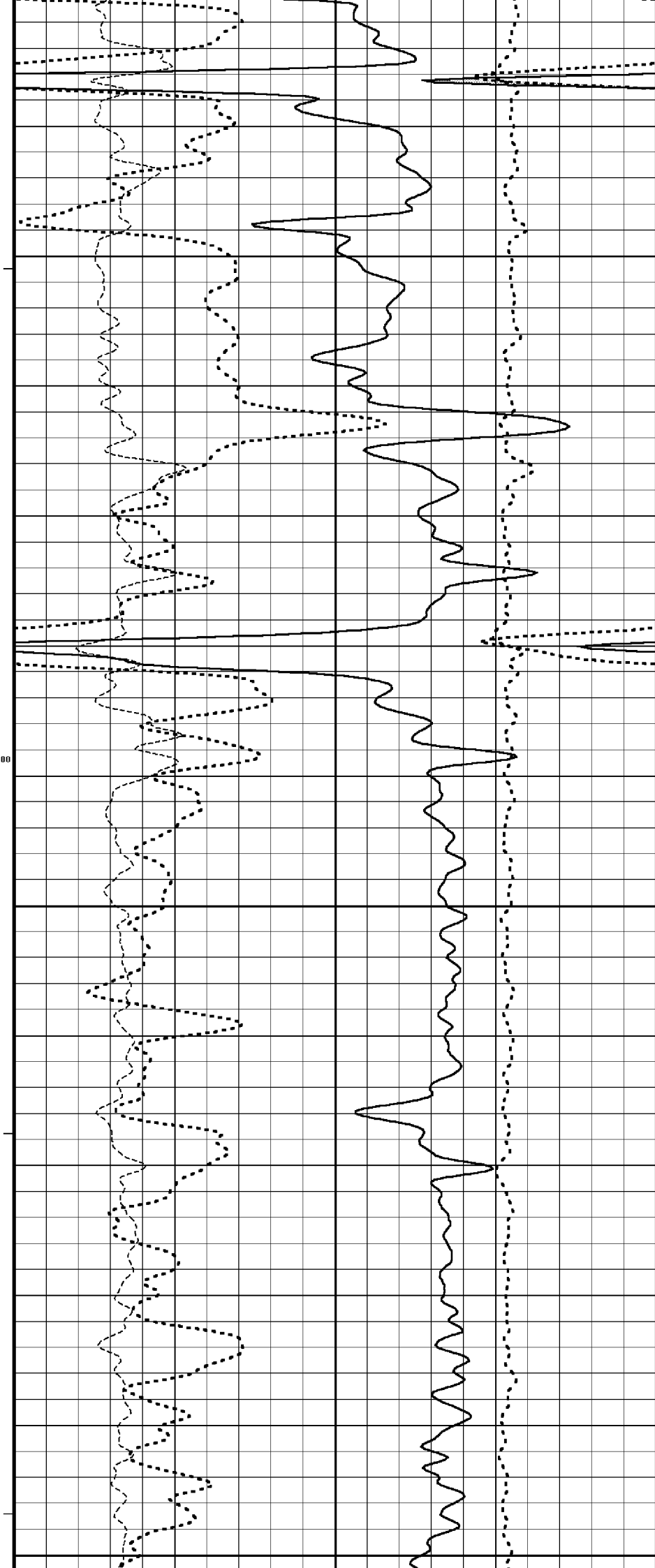
2200

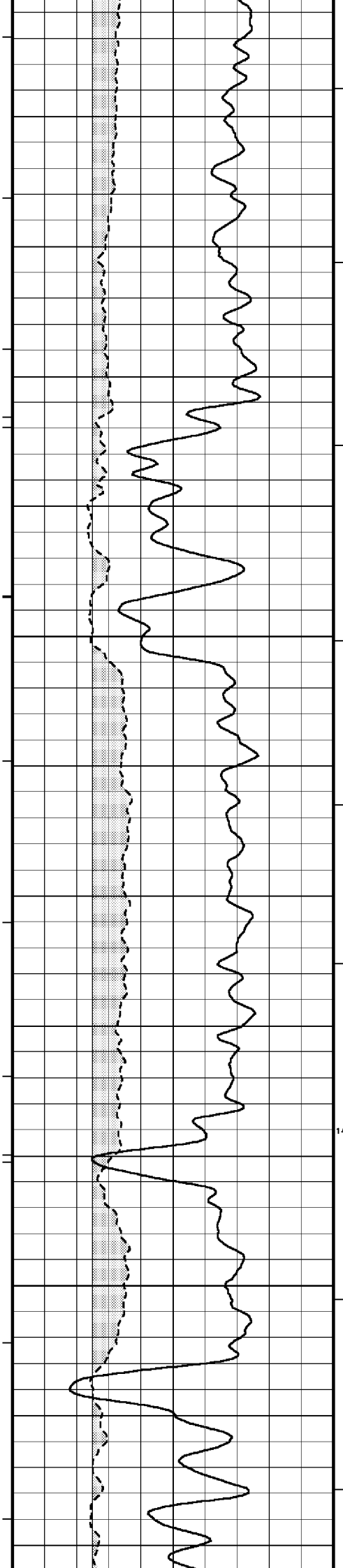
1500

2210

88°

2220





2230

88°

2240

2250

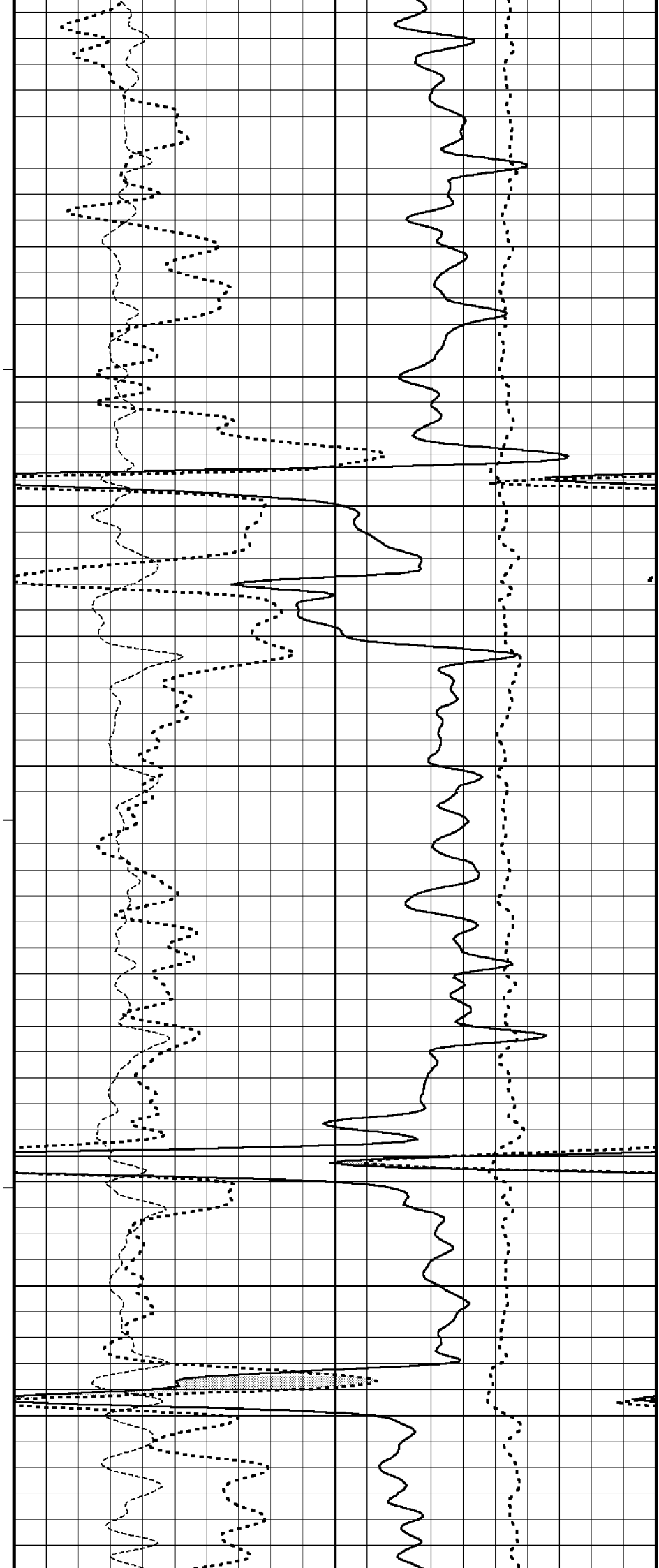
2260

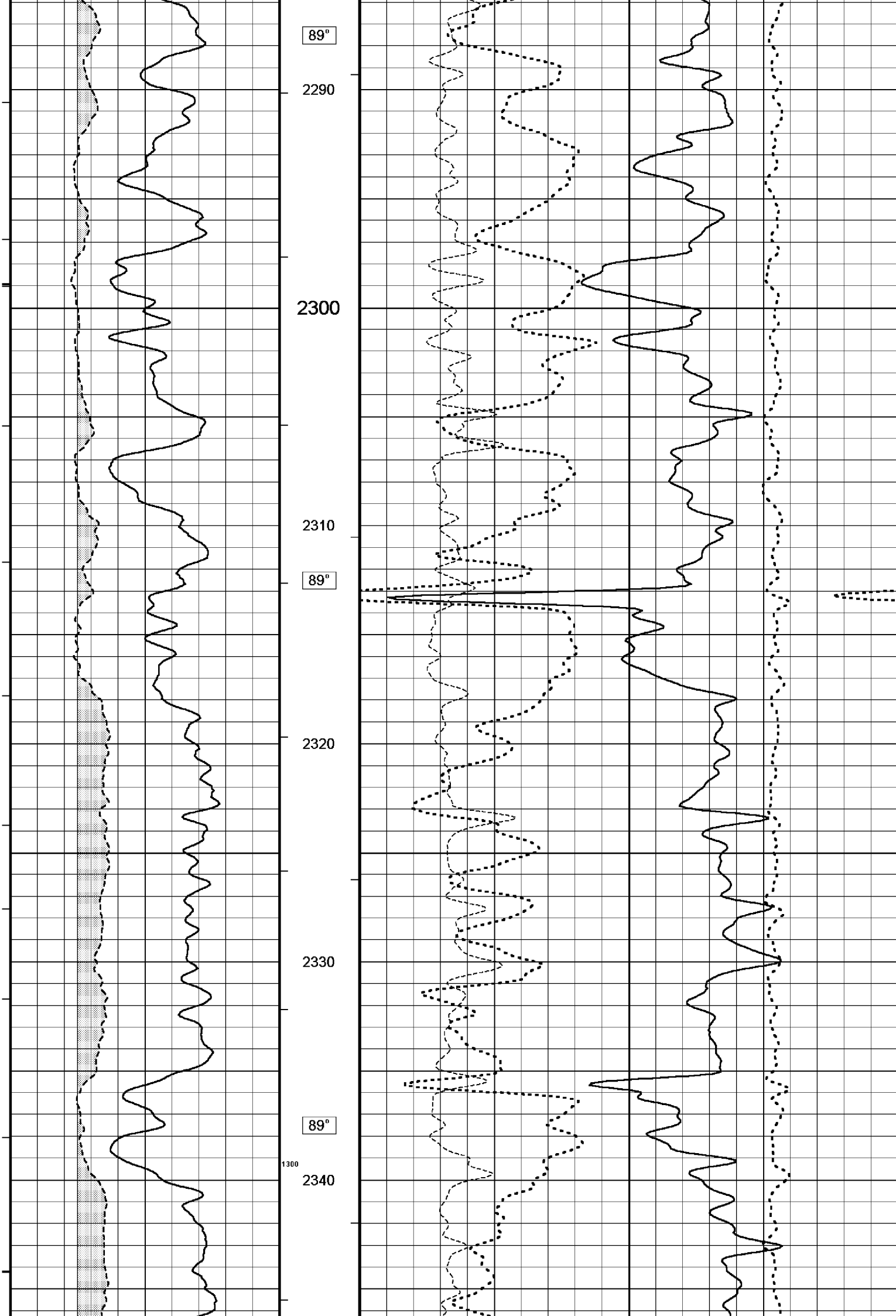
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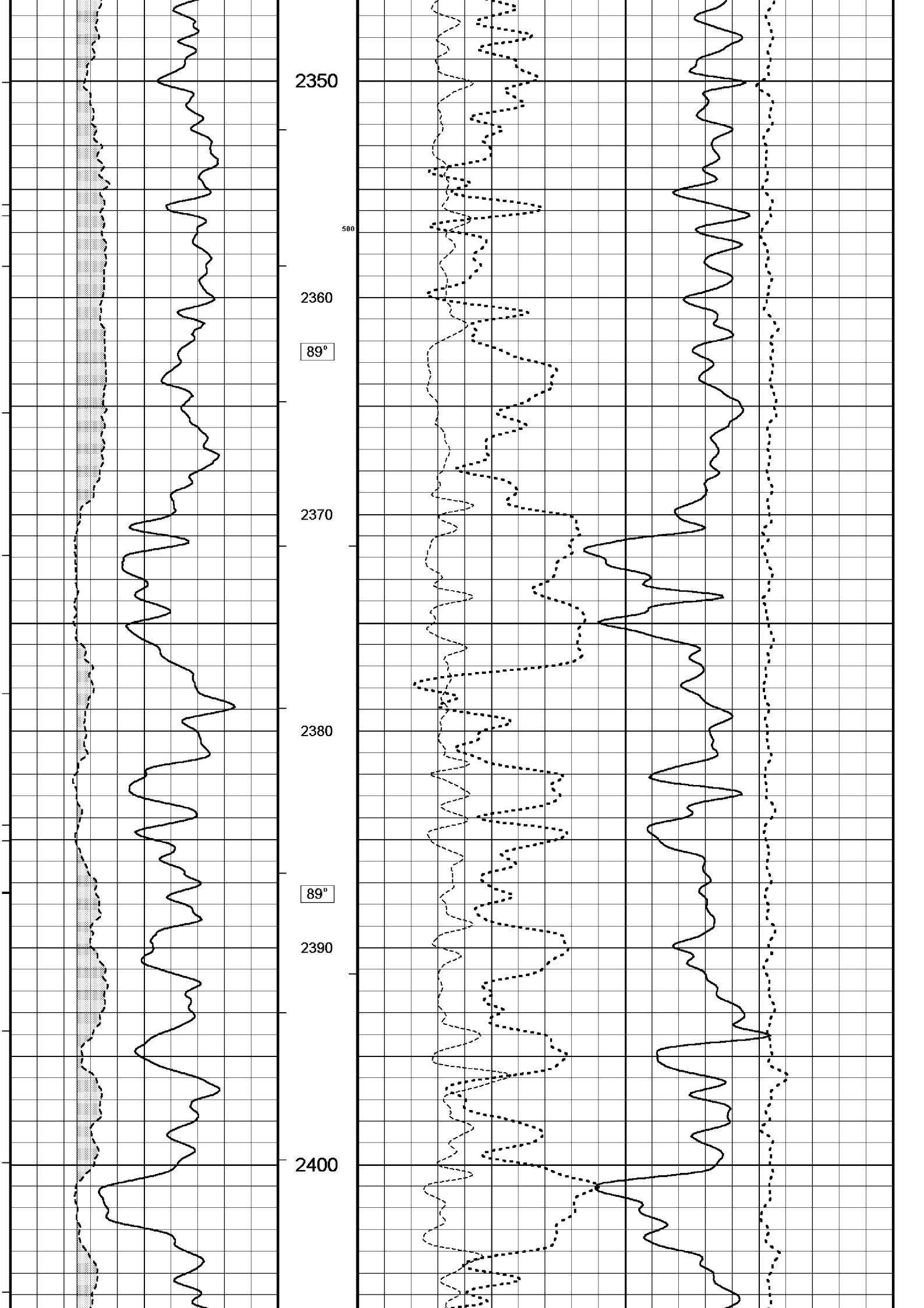
1400

2270

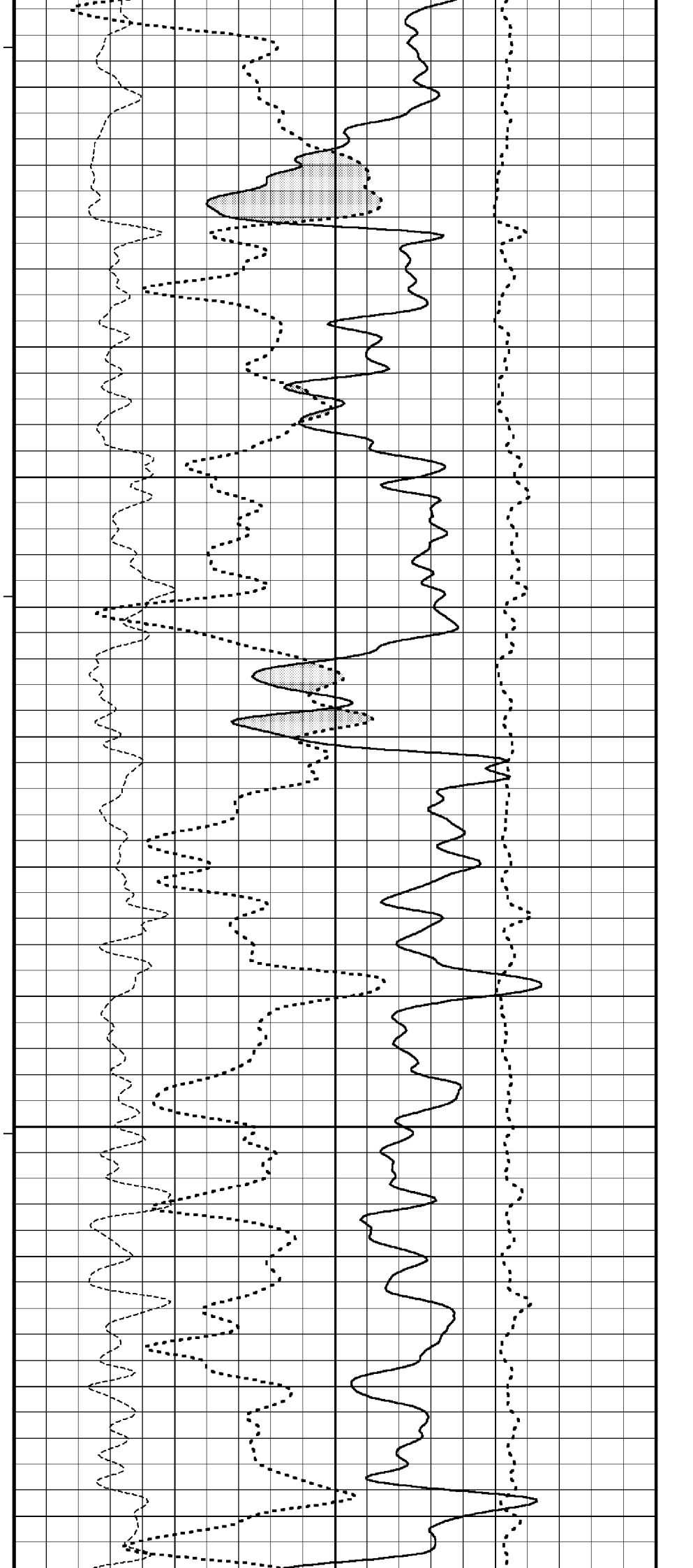
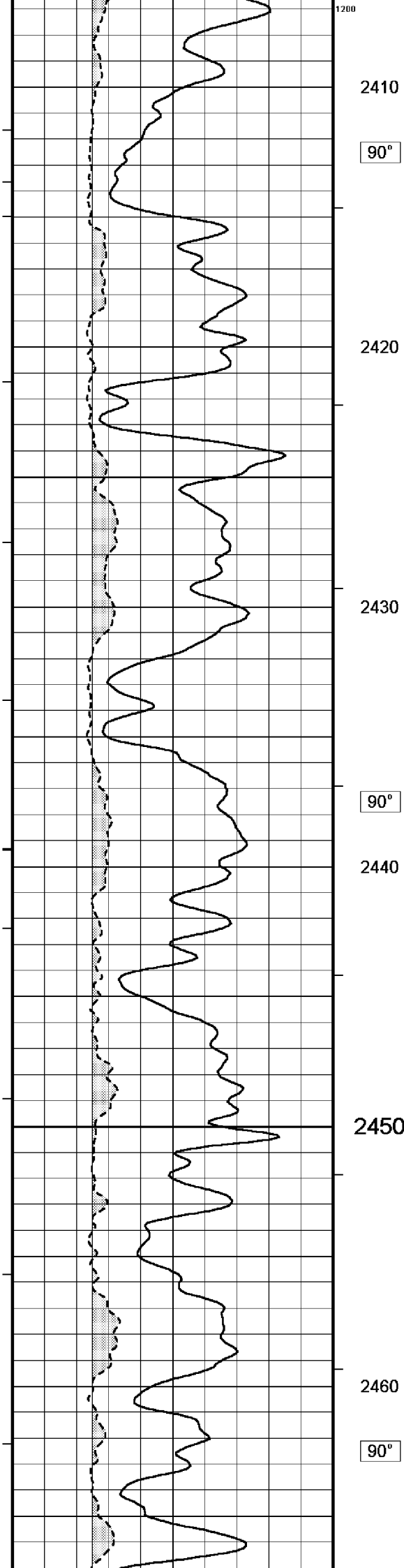
2280

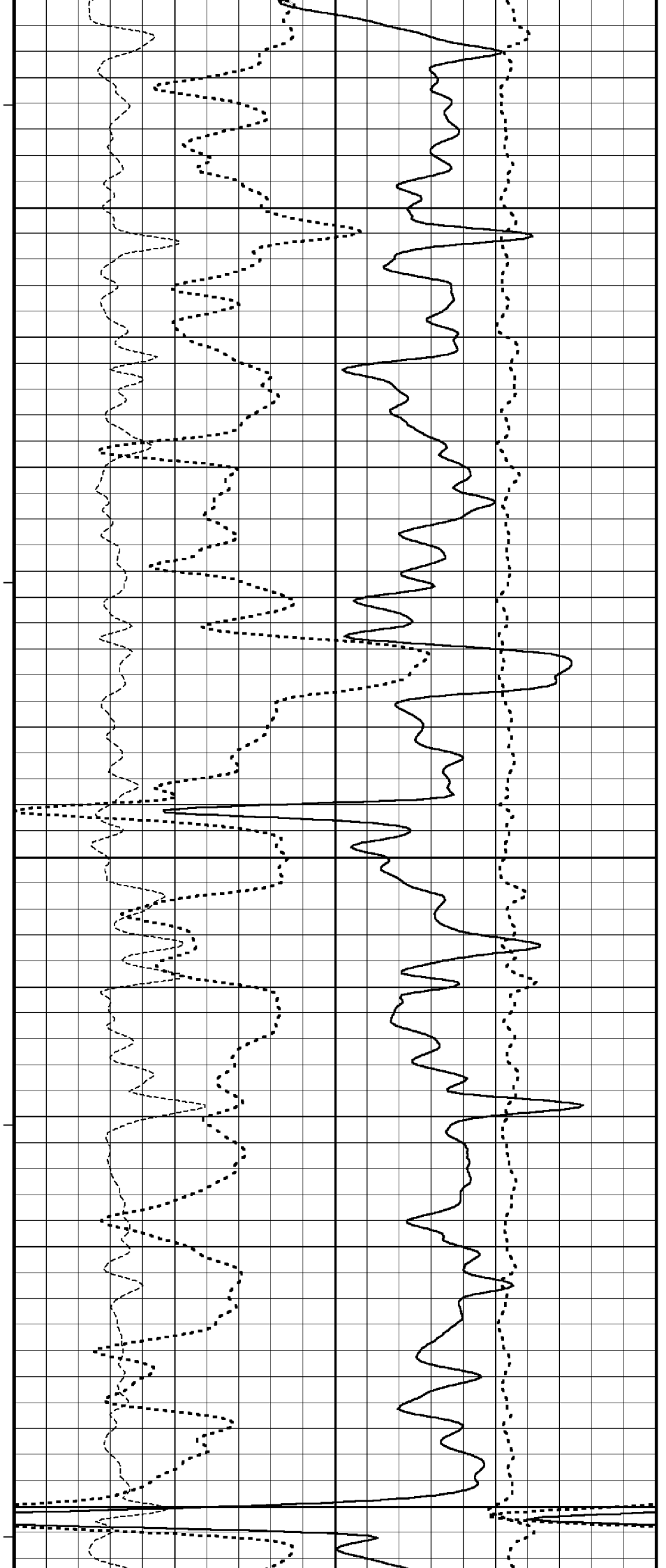
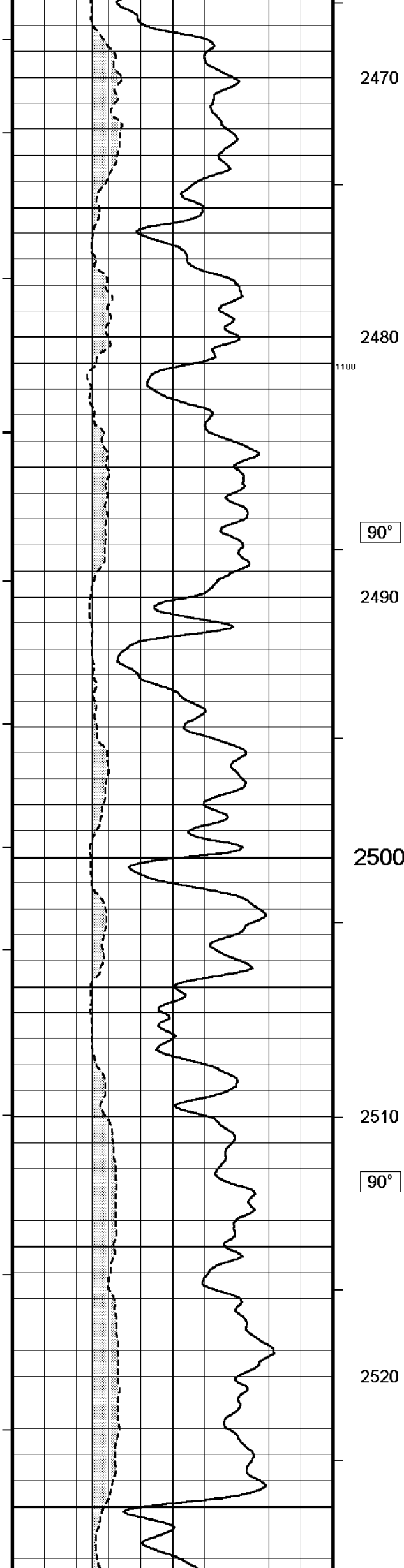


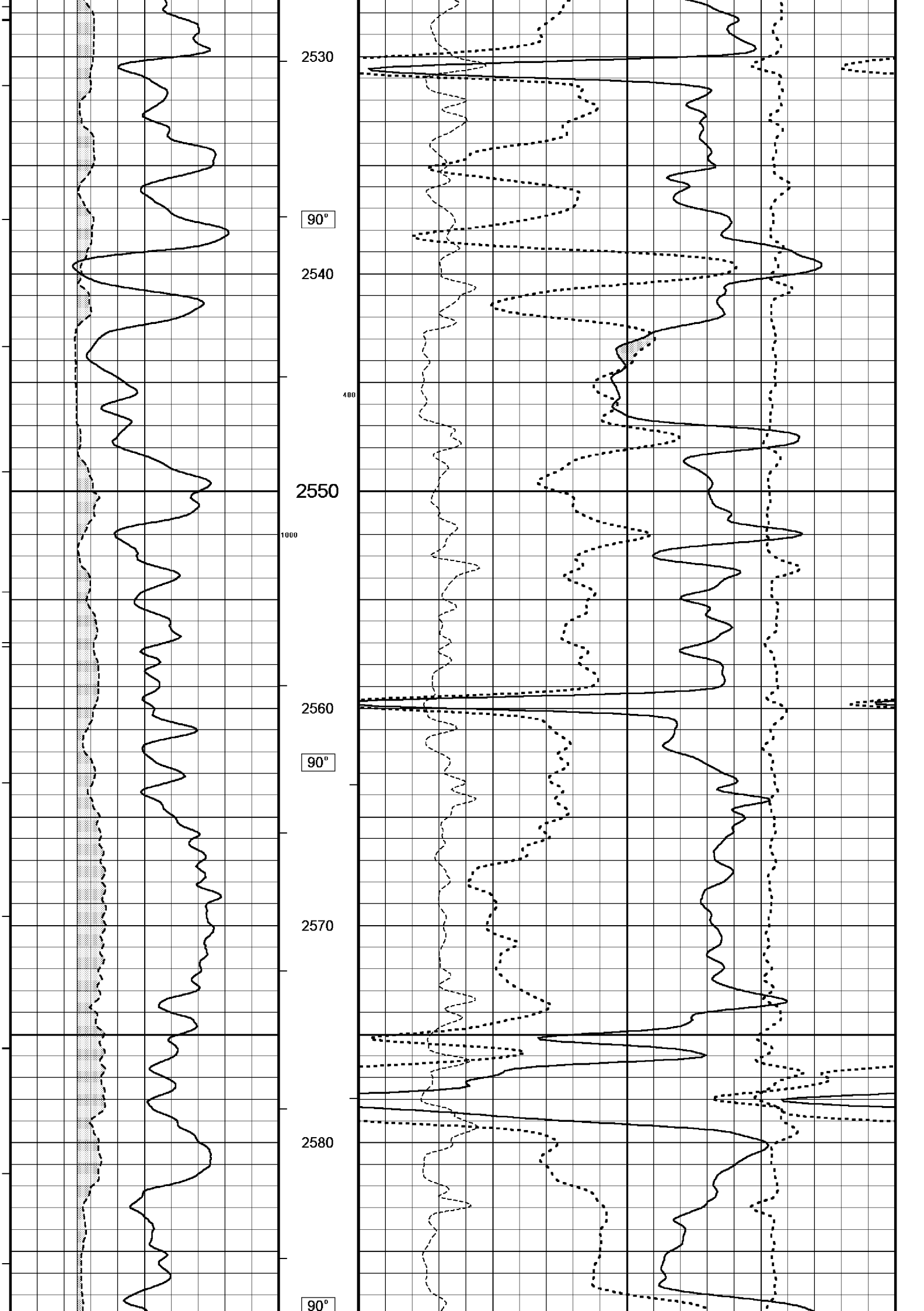


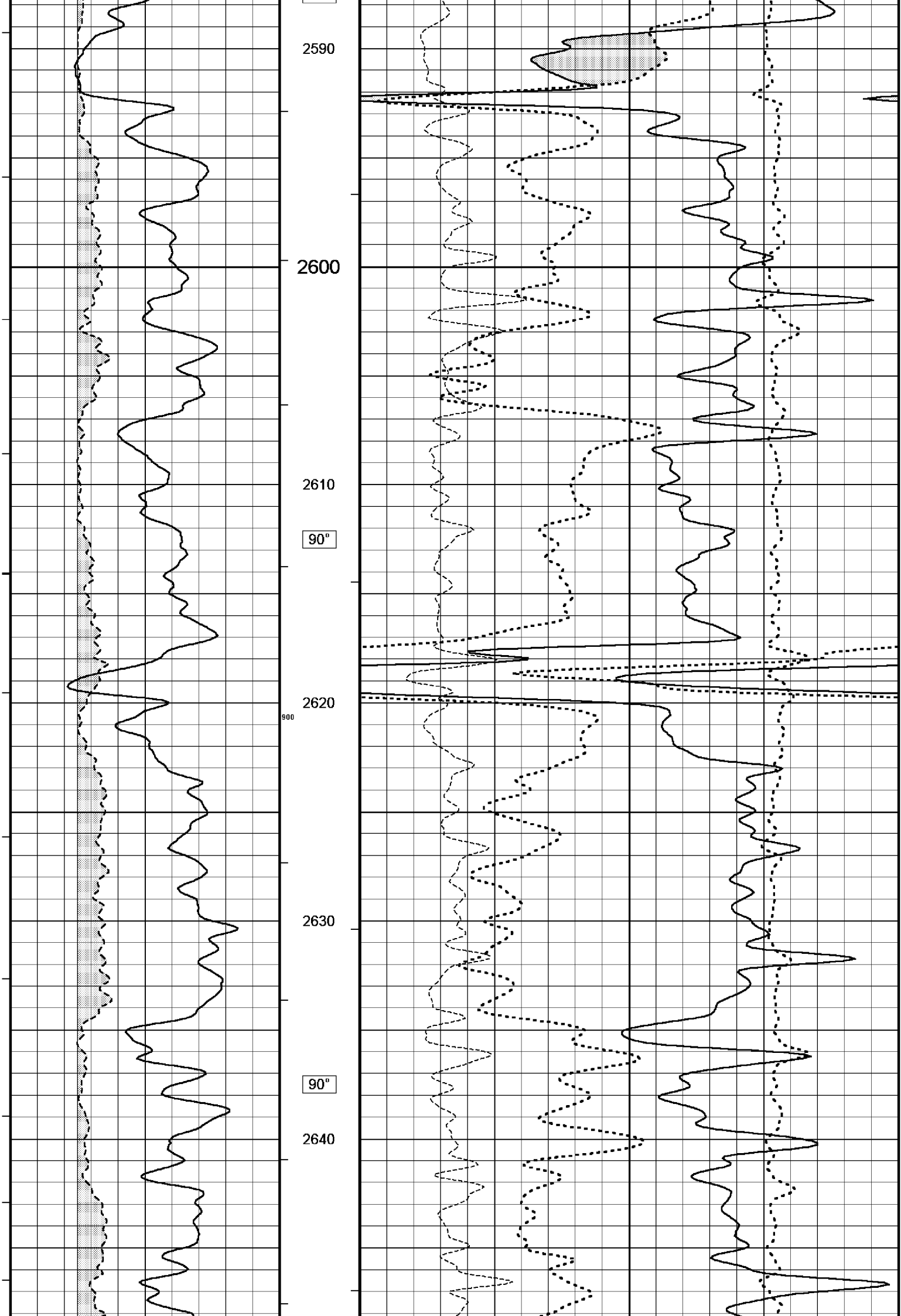


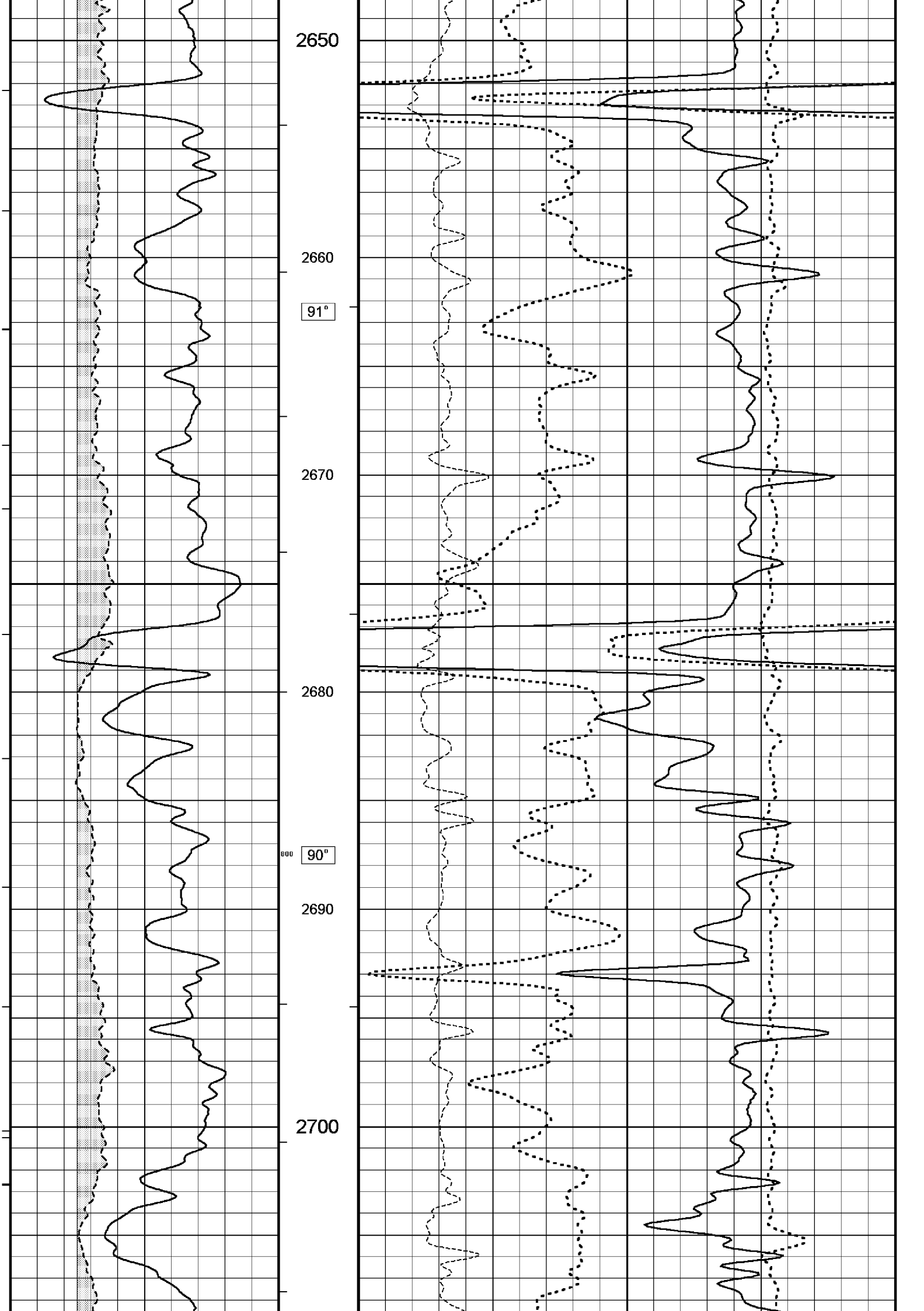


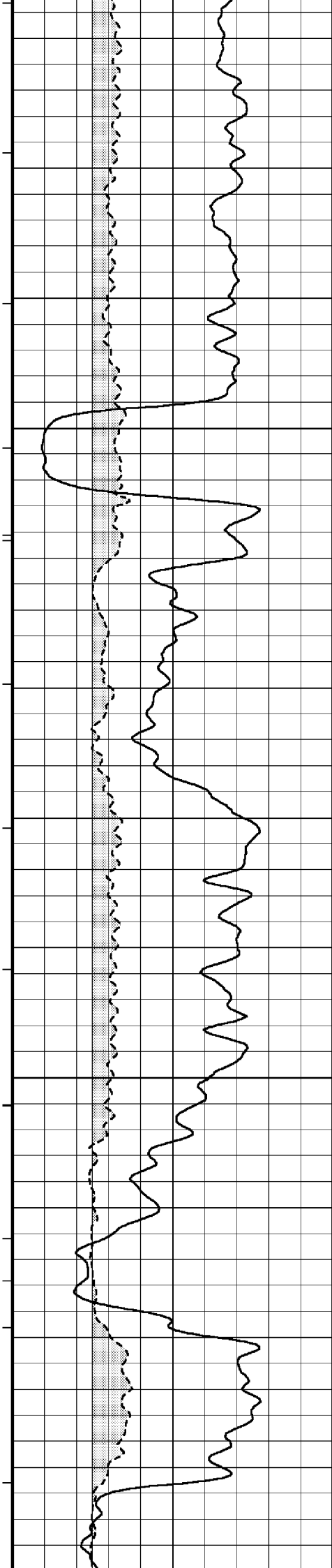












2710 300

90°

2720

2730

90°

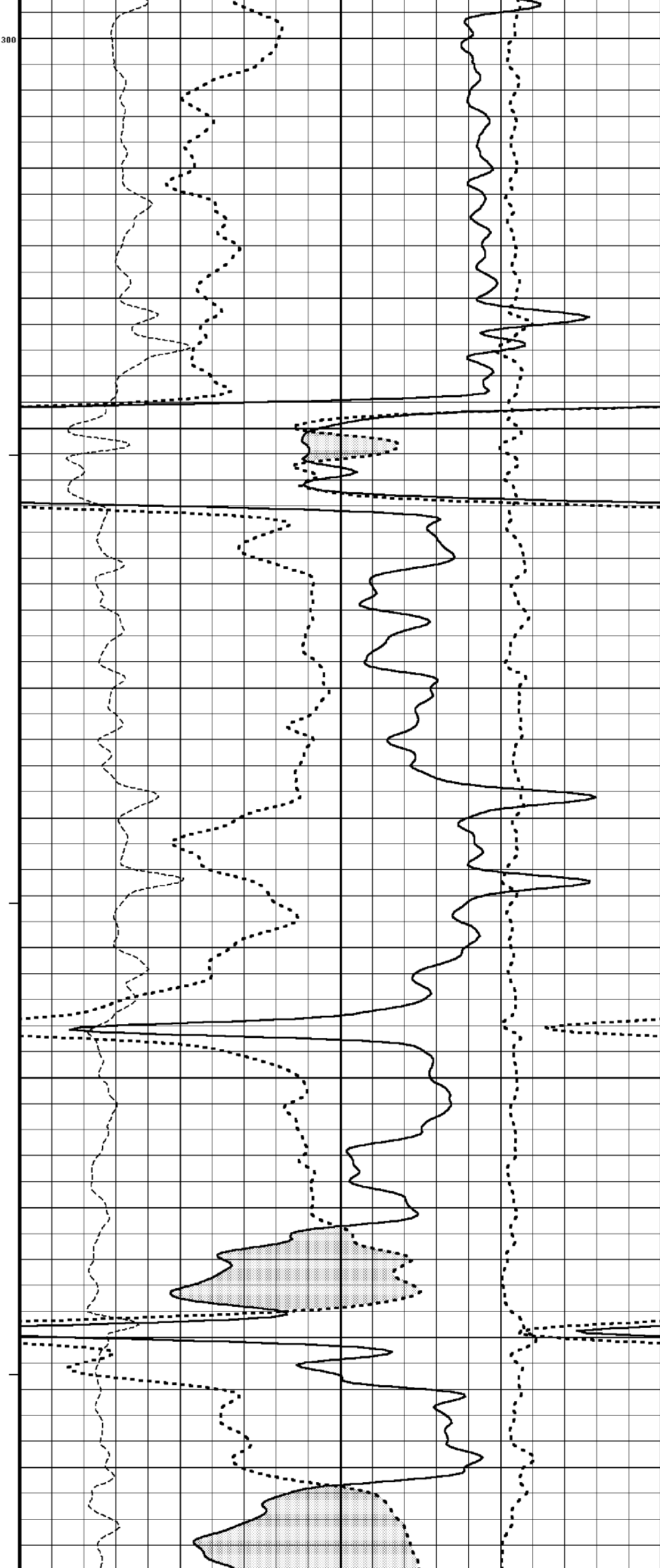
2740

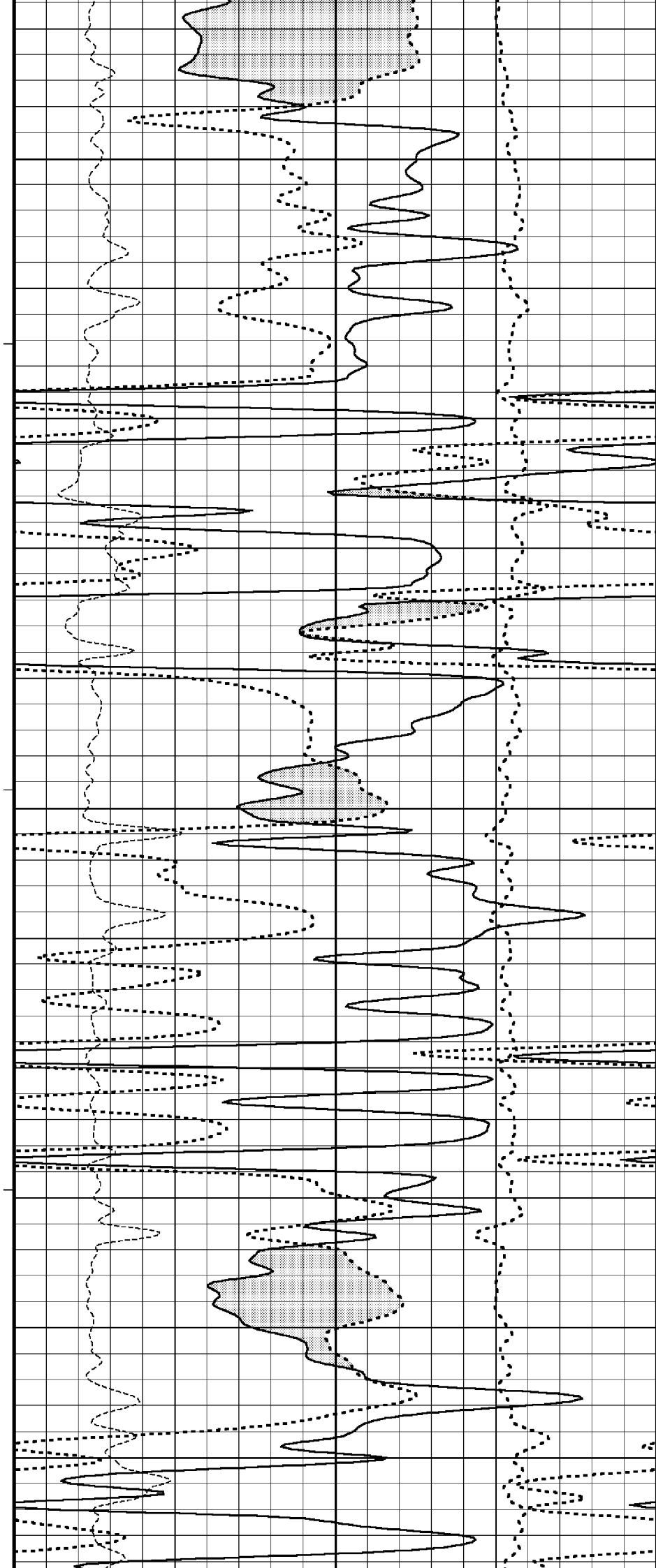
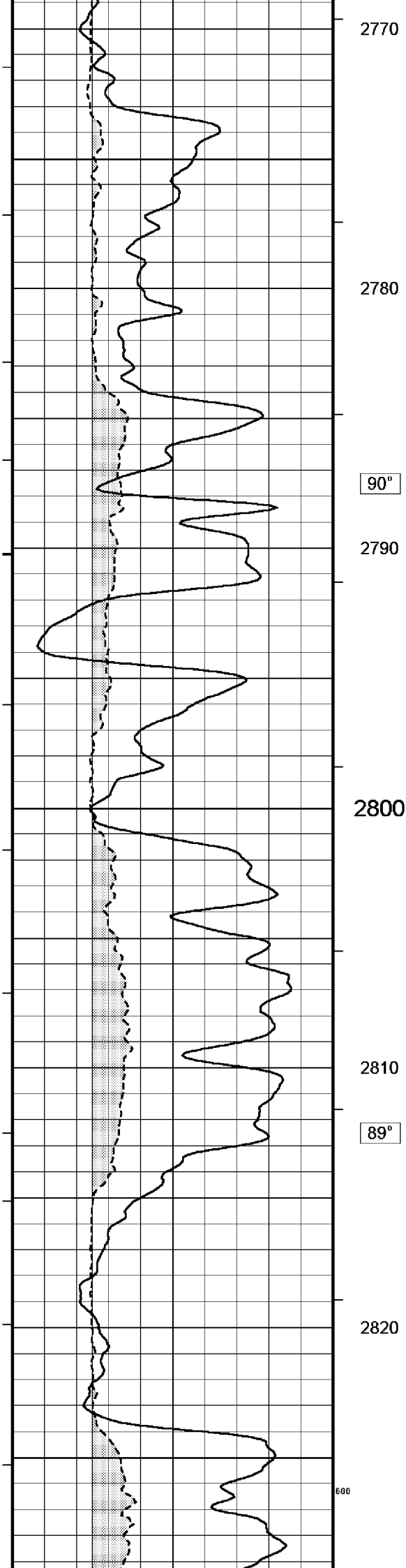
2750

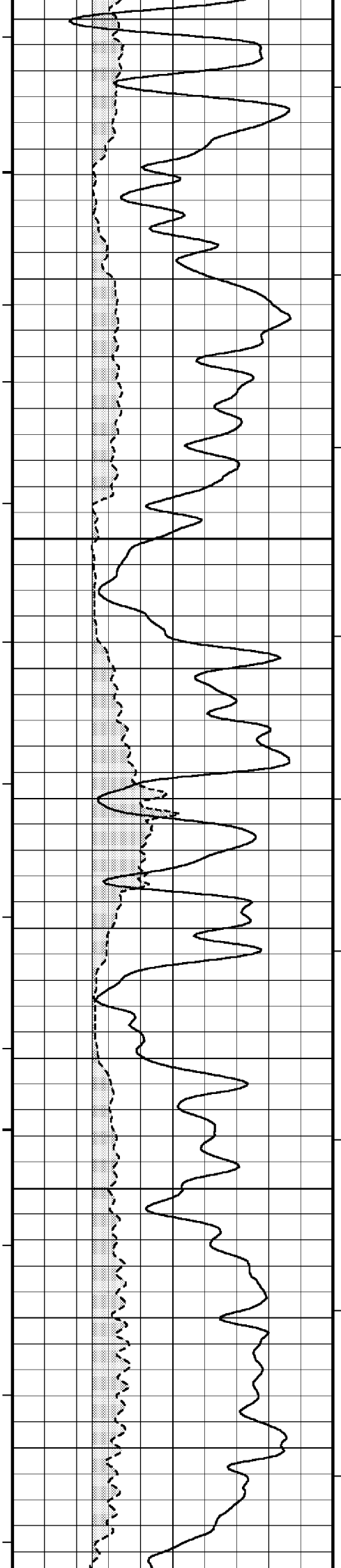
700

2760

90°







2830

89°

2840

2850

2860

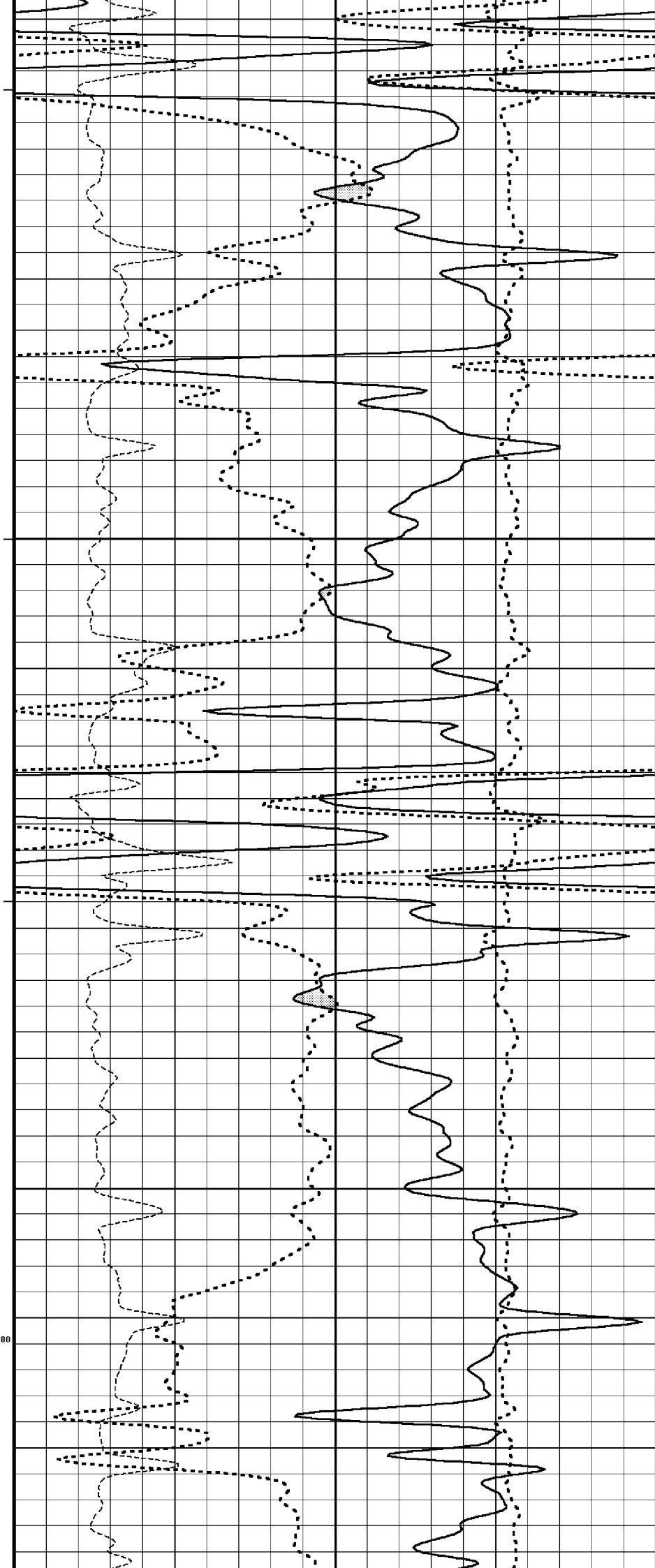
90°

2870

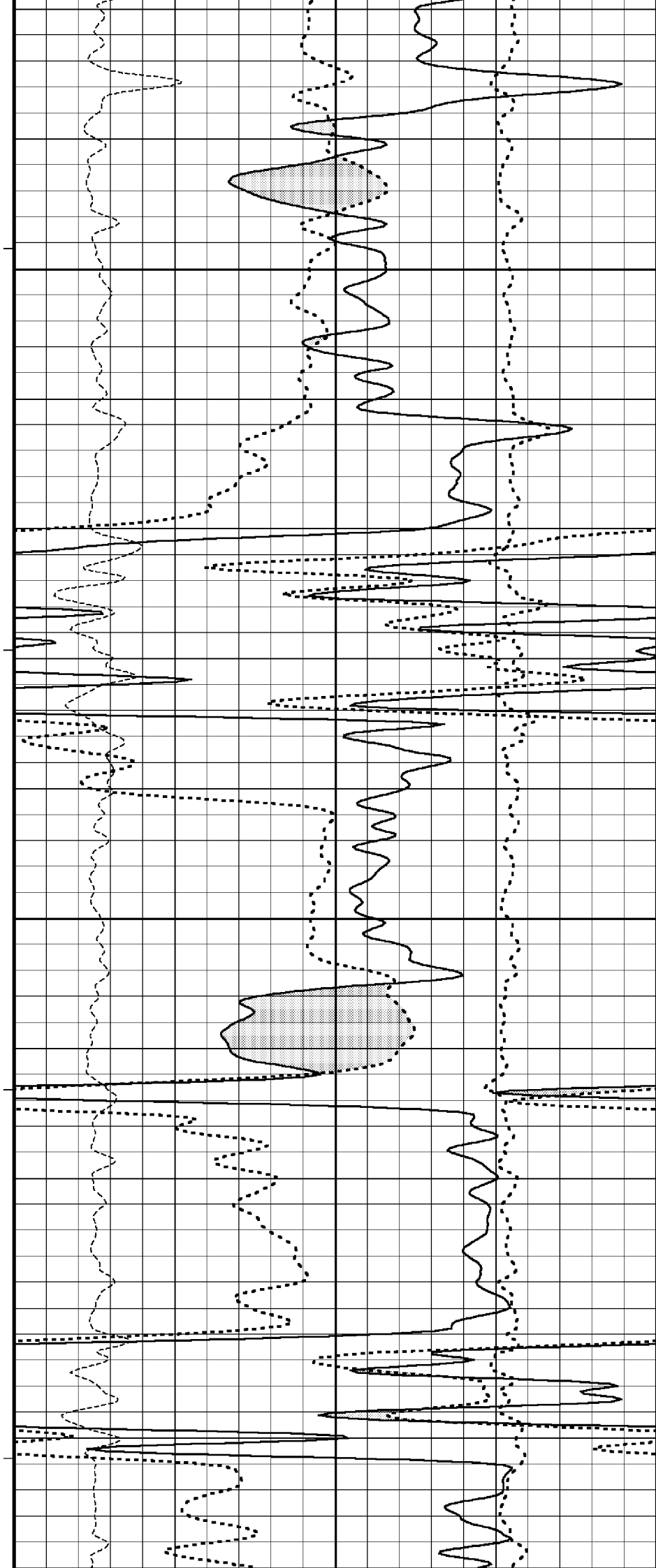
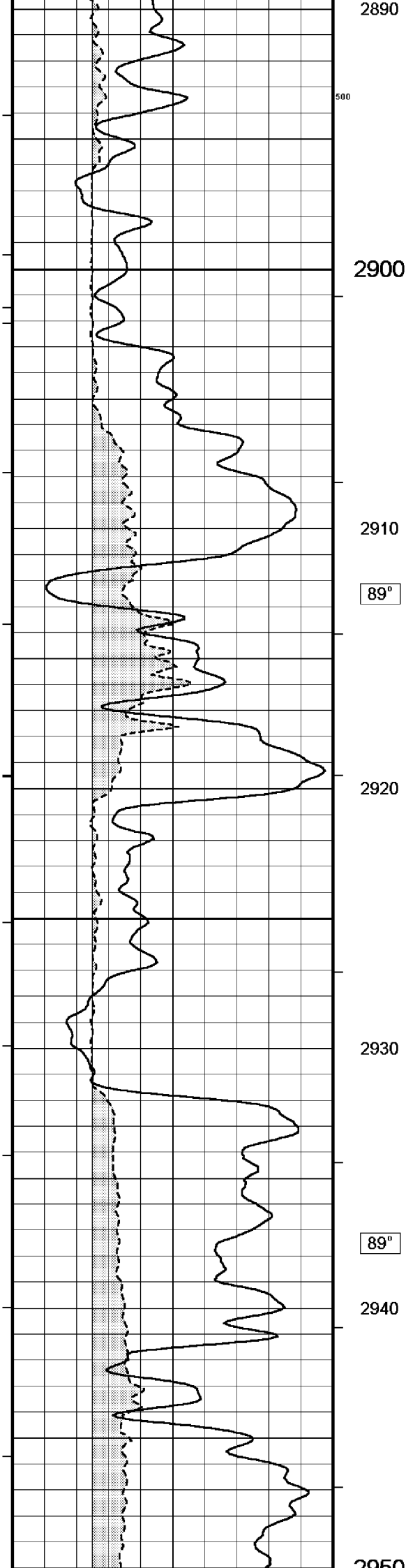
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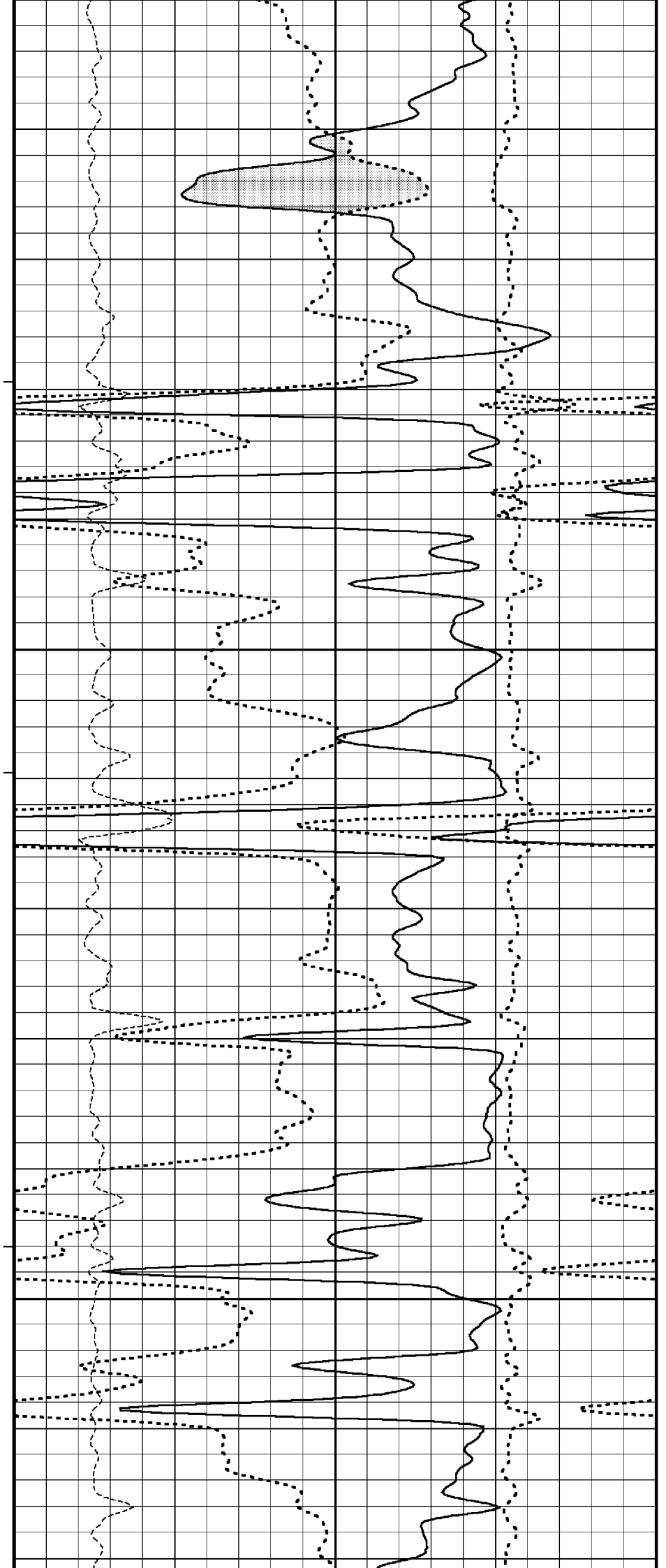
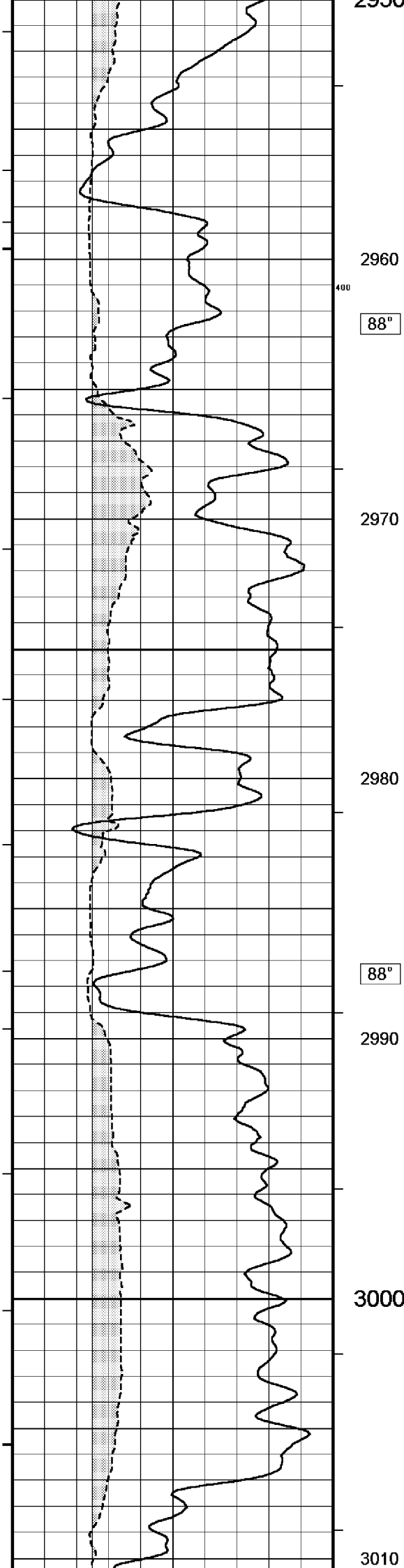
200

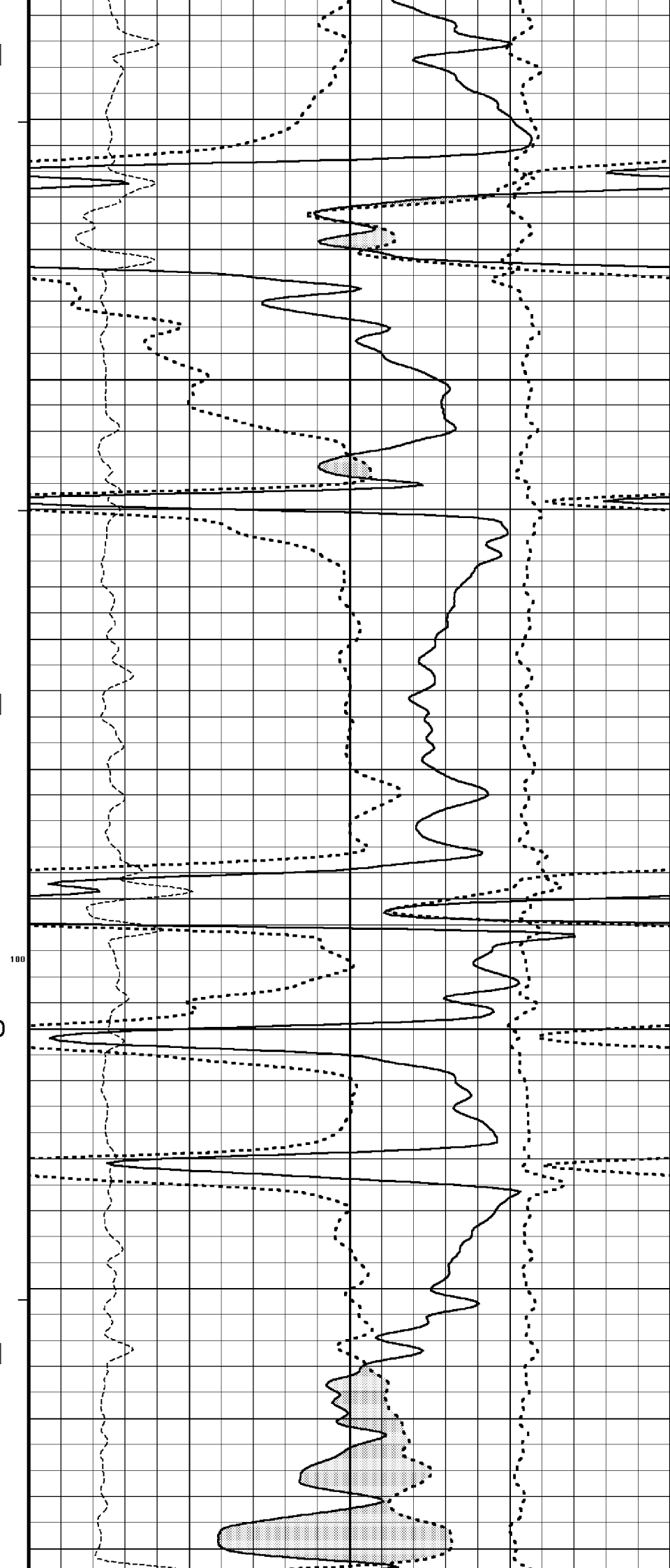
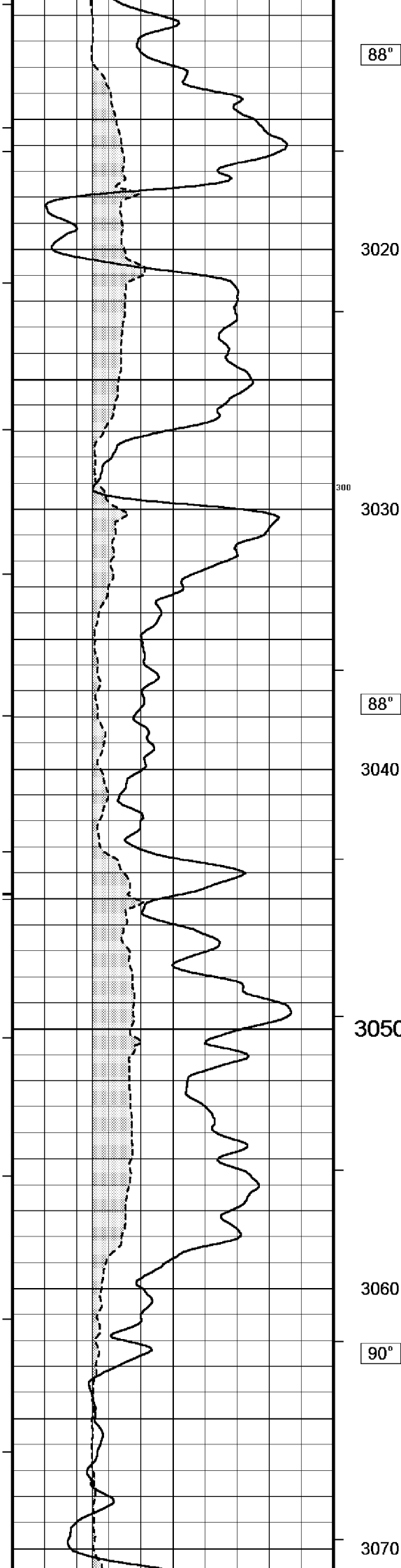
89°

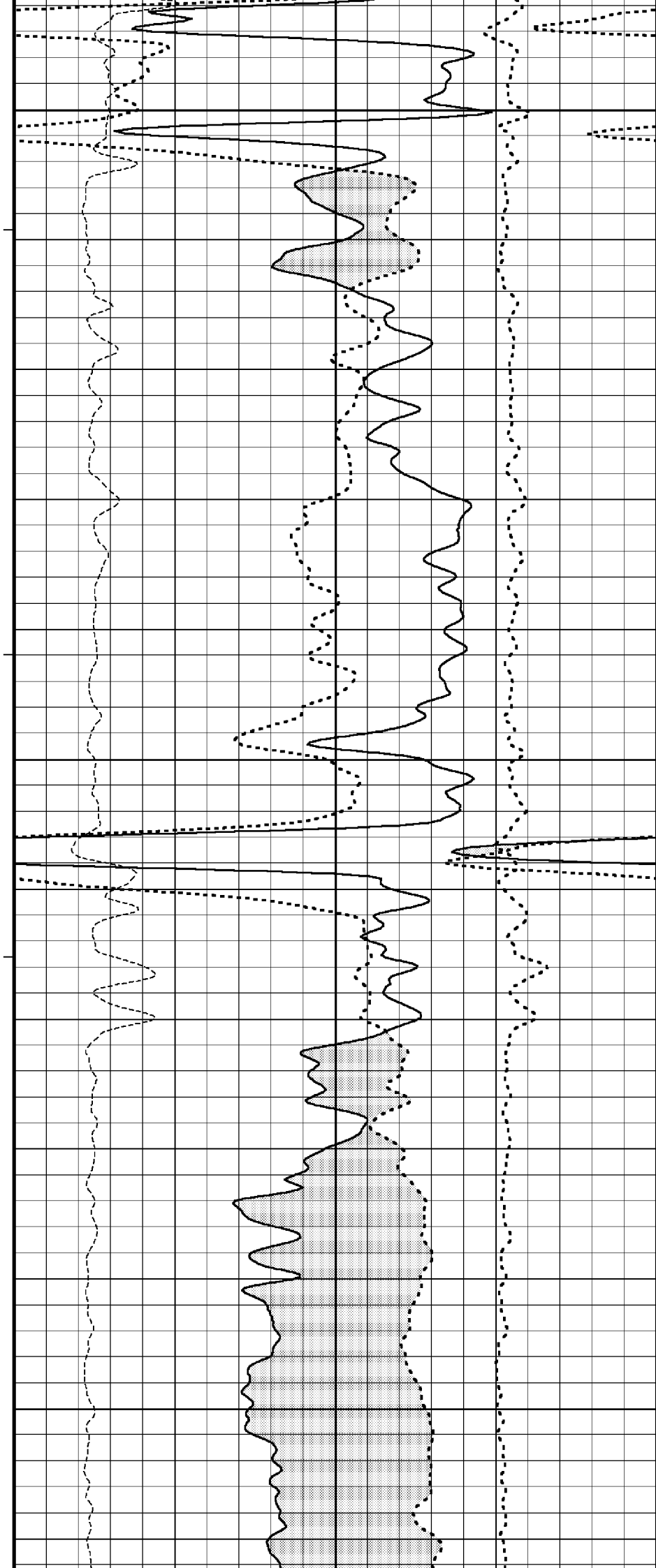
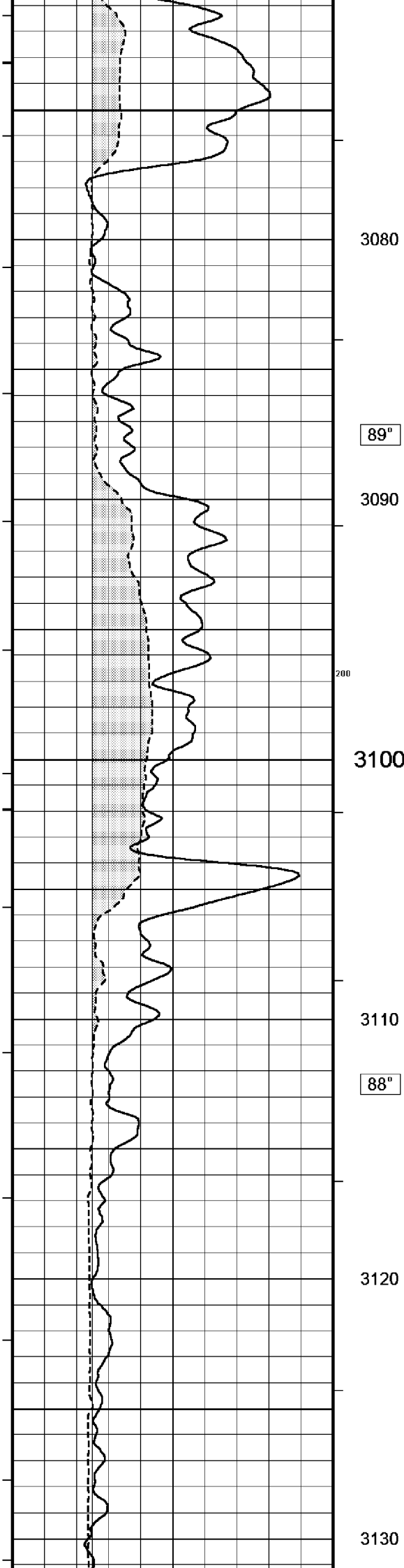


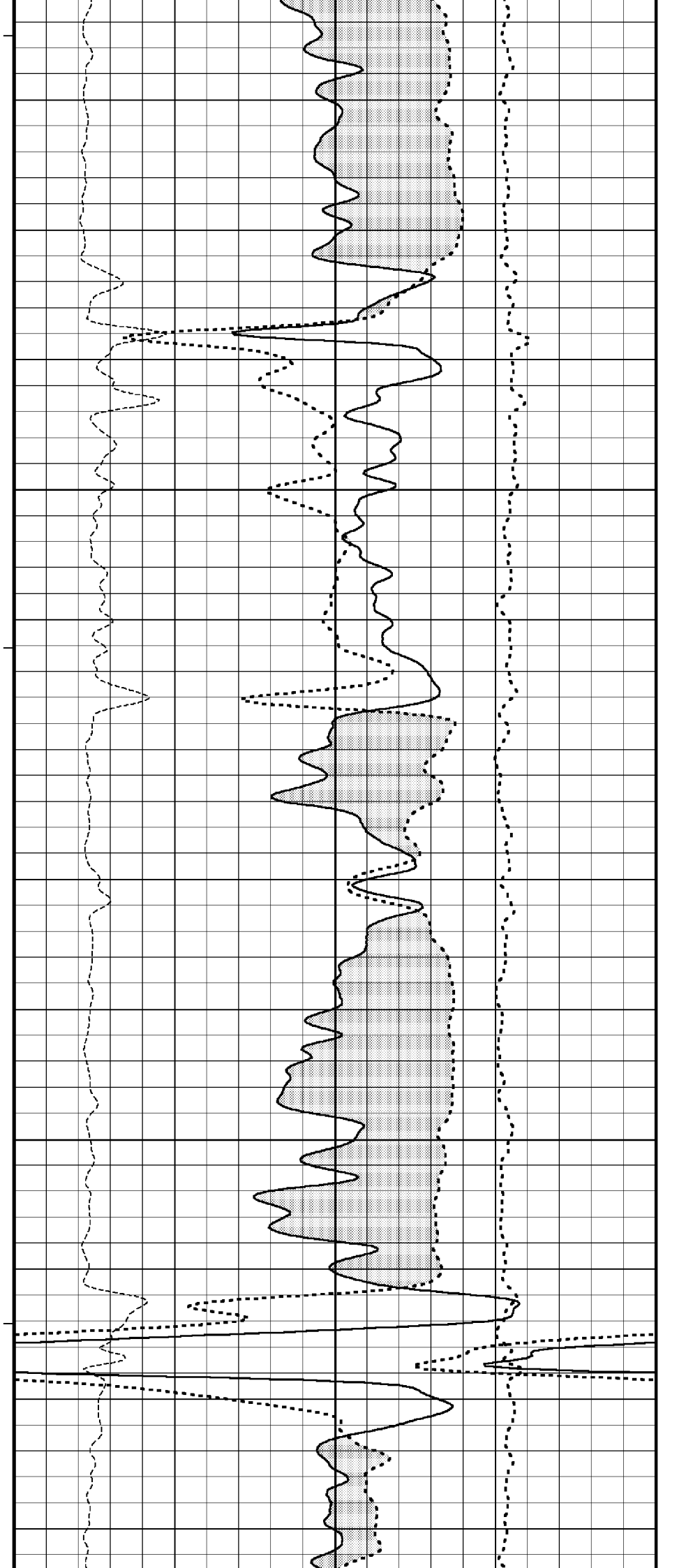
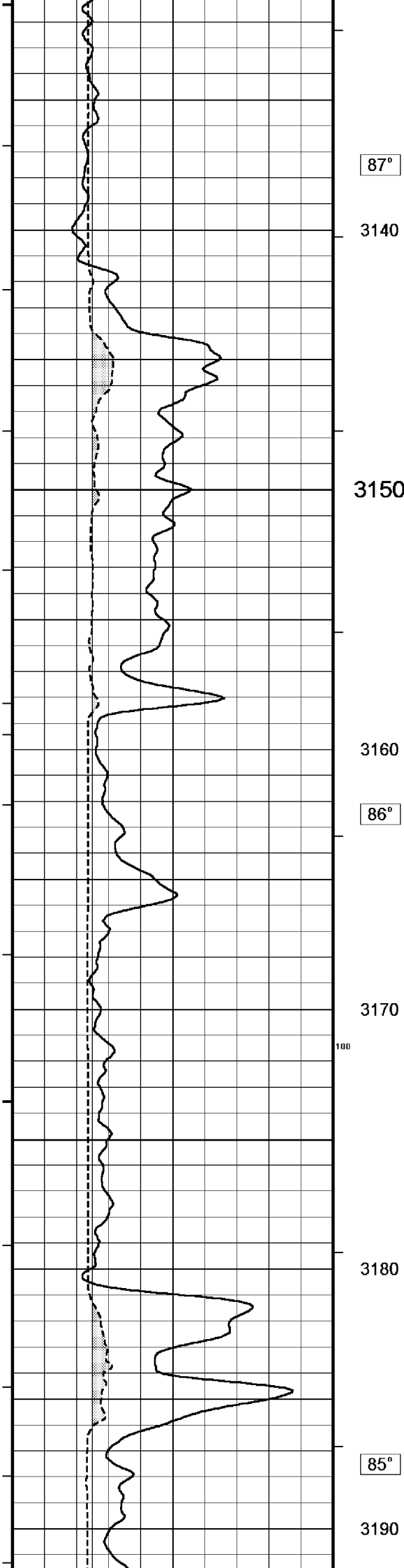


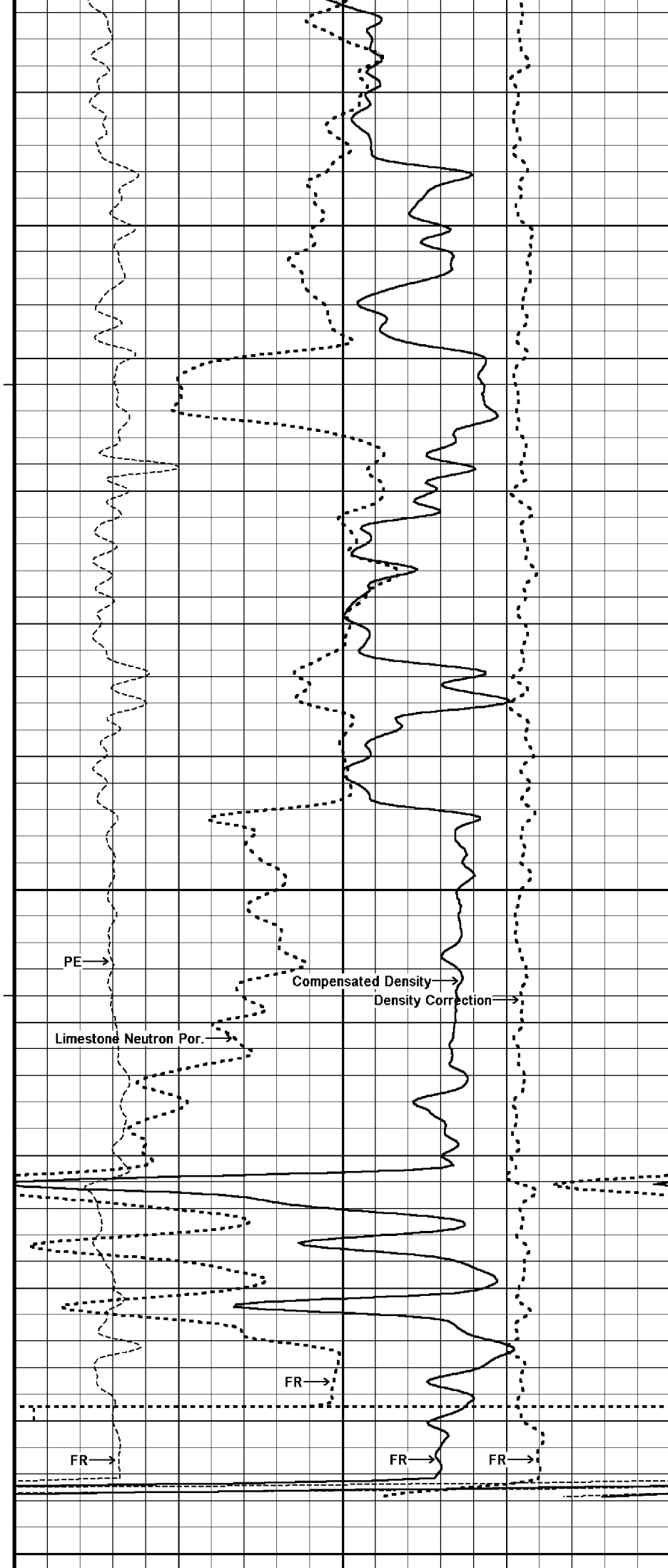
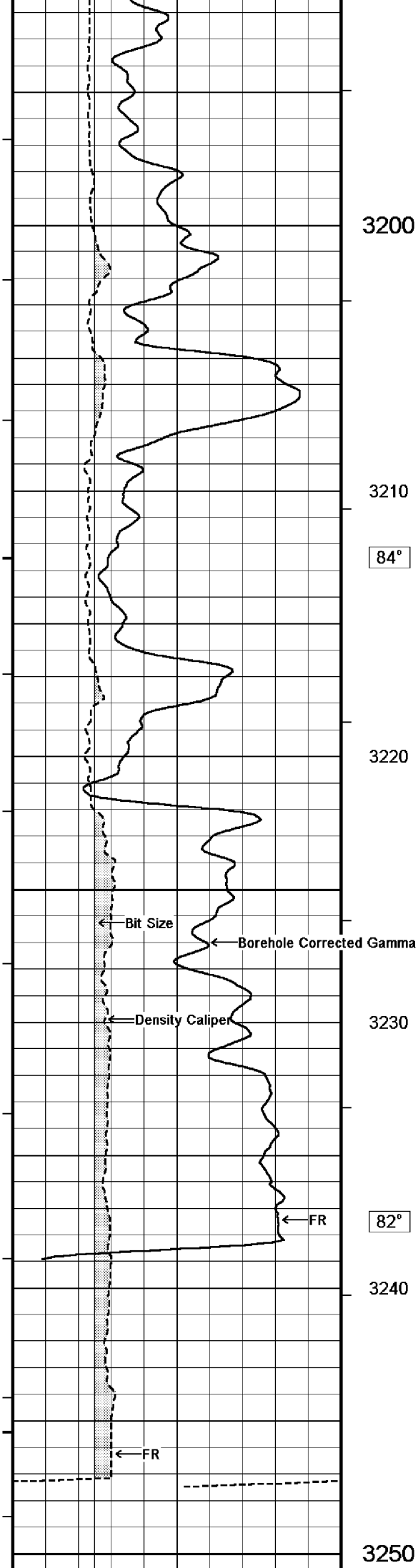


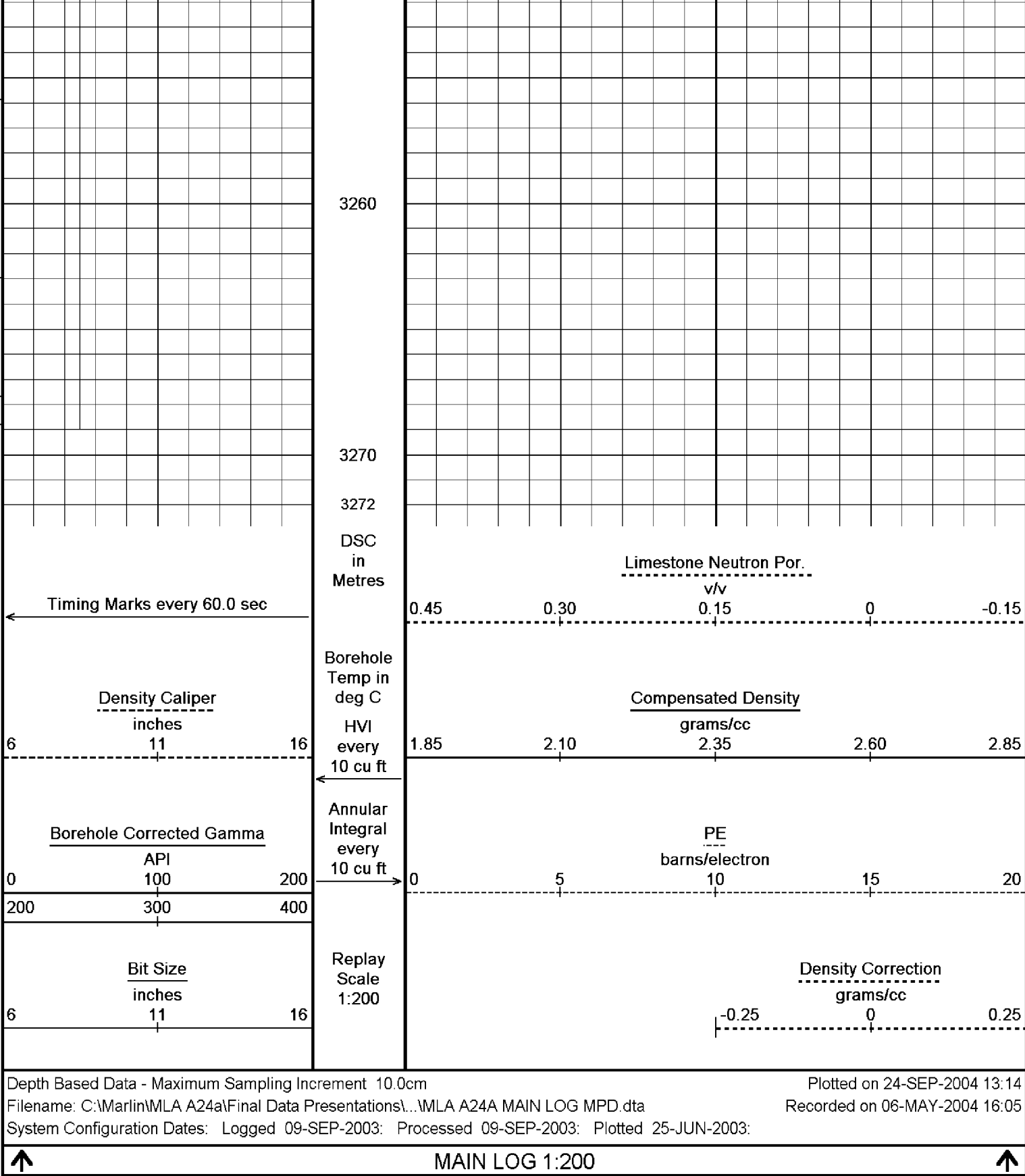












BEFORE SURVEY CALIBRATION			
C:\Marlin\MLA A24a\Final Data Presentations\Black & White Prints\MLA A24A MAIN LOG MPD.dta			
General Constants All 000			
General Parameters			
Mud Resistivity	0.119	ohm-metres	
Mud Resistivity Temperature	25.000	degrees C	
Water Level	0.000	metres	
Density/Neutron Processing	Wet Hole		
Hole/Annular Volume and Differential Caliper Parameters			
HVOL Caliper 1	Density Caliper		
HVOL Caliper 2	Density Caliper		
Annular Volume Diameter	7.000	inches	

Caliper for Differential Caliper		Density Caliper	
Rwa Parameters			
Porosity used		Base Density Porosity	
Resistivity used		Deep Induction	
RWA Constant A		0.610	
RWA Constant M		2.150	
Gamma Calibration MCG 098		Field Calibration on 3-MAY-2004 11:25	
	Measured	Calibrated (API)	
Background	8	5	
Calibrator (Gross)	1371	914	
Calibrator (Net)	1363	909	
Gamma Constants MCG 098			
Gamma Calibrator Number	60		
Mud Density	1.00	gm/cc	
Caliper Source for Processing	Bit Size		
Tool Position	Eccentred		
Concentration of KCl	0.00	kppm	
High Resolution Temperature Calibration MCG 098		Field Calibration on 3-MAY-2004,11:21	
	Measured	Calibrated(Deg C)	
Lower	0.00	0.00	
Upper	100.00	100.00	
High Resolution Temperature Constants MCG 098			
Pre-filter Length	11		
Neutron Calibration MDN 085		Base Calibration on 20-APR-2004 10:18 Field Check on 3-MAY-2004 10:35	
Base Calibration			
	Measured	Calibrated (cps)	
	Near Far	Near Far	
	3167 98	3714 110	
Ratio	32.172	33.764	
Field Calibrator at Base		Calibrated (cps)	
		1647 2404	
Ratio		0.685	
Field Check		Calibrated (cps)	
		1635 2387	
Ratio		0.685	
Neutron Constants MDN 085			
Neutron Source Id	NSN-E-739		
Neutron Jig Number	NEC-C-052		
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	None		
Formation Pressure	N/A	kpsi	
Temperature Source	MCG External Temperature		
Temperature	20.00	degrees C	
Mud Salinity	42.00	kppm	
Formation Fluid Salinity Source	None		
Formation Fluid Salinity	N/A	kppm	
Barite Mud Correction	Not Applied		
Photo Density Calibration MPD 083		Base Calibration on 20-APR-2004 12:19 Field Check on 3-MAY-2004 10:28	
Density Calibration			
Base Calibration			
	Measured	Calibrated (sdu)	
	Near Far	Near Far	
Reference 1	54734 19093	53111 19310	
Reference 2	25855 2558	24951 2530	
Field Check at Base			
	991.1 1147.4		



992.2      1143.0

## Base Calibration

WS	Measured WH	Ratio	Calibrated Ratio
186	857		
7122	54541	0.315	0.320
6855	25709	0.268	0.273

### Field Check at Base

186.1      857.3

### Field Check

184.8      857.7

Density Source Id	242	
Nylon Calibrator Number	DNC-D-536	
Aluminium/Fe Calibrator Number	DAC-D-536	
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

[illegible]

Base Calibration on 20-APR-2004 12:25  
Field Calibration on 3-MAY-2004 10:29

Reading No	Measured	Calibrator Size (in)
1	13792	4.01
2	23424	5.99
3	33363	7.98
4	43344	9.94
5	54608	12.01
6	N/A	N/A

## Field Calibration

Measured Caliper (in)	Actual Caliper (in)
7.96	7.98

## C:\Marlin\MLA A24a\Final Data Presentations\Black &amp; White Prints\MLA A24A MAIN LOG MPD.dta

Compact Swivel Head Adaptor  
SHA 63    Length: 0.83 m    Weight: 26.5 lb

Compact Knuckle Joint  
SKJ 49      Length: 0.66 m      Weight: 24.3 lb

Compact Battery Sub.  
MBS 99    Length: 4.34 m    Weight: 88.2 lb



Compact Inline Standoff B  
MIS 141 Length: 0.65 m Weight: 15.4 lb

Compact Stiff Bridle Electrode Sub.  
MBE 18    Length: 3.76 m    Weight: 94.8 lb

Compact Inline Standoff B  
MIS 127 Length: 0.65 m Weight: 15.4 lb

Compact Stiff Bridle Electrode Sub.  
MBE 19    Length: 3.76 m    Weight: 94.8 lb

Compact Knuckle Joint  
SKJ 110   Length: 0.66 m   Weight: 24.3 lb

Thrid Bridle MBE 20  
MLK 111 Length: 3.76 m Weight: 94.8 lb

Compact Gamma  
MCG 98    Length: 2.65 m    Weight: 63.9 lb

Compact Memory Sub.  
MMS 24    Length: 0.95 m    Weight: 22.0 lb

Compact Knuckle Joint  
SKJ 48      Length: 0.66 m      Weight: 24.3 lb

Compact Swivel Head Adaptor  
SHA 28    Length: 0.83 m    Weight: 26.5 lb

Compact Inline Bowspring A  
MIS 95      Length: 1.74 m      Weight: 33.1 lb

Compact Neutron  
MDN 85    Length: 1.53 m    Weight: 50.7 lb

Compact Density/Caliper  
MPD 83    Length: 2.92 m    Weight: 90.4 lb

32.22 m	GGCE - Borehole Corrected Gamma
31.33 m	CGXT - MCG External Temperature

26.17 m NPRL - Limestone Neutron Por.

✓ 23.48 m AVOL - Annular Volume  
 ✓ 23.48 m HVOL - Hole Volume  
 ✓ 23.48 m CLDC - Density Caliper

Compact Inline Bowspring A  
MIS 94    Length: 1.74 m    Weight: 33.1 lb

Compact Swivel Head Adaptor  
SHA 71    Length: 0.83 m    Weight: 26.5 lb

Compact Knuckle Joint  
SKJ 44    Length: 0.66 m    Weight: 24.3 lb

Compact Inline Standoff B  
MIS 128    Length: 0.65 m    Weight: 15.4 lb

Compact Upper Guard Sub.  
MUG 5    Length: 2.74 m    Weight: 68.3 lb

Compact Inline Standoff B  
MIS 135    Length: 0.65 m    Weight: 15.4 lb

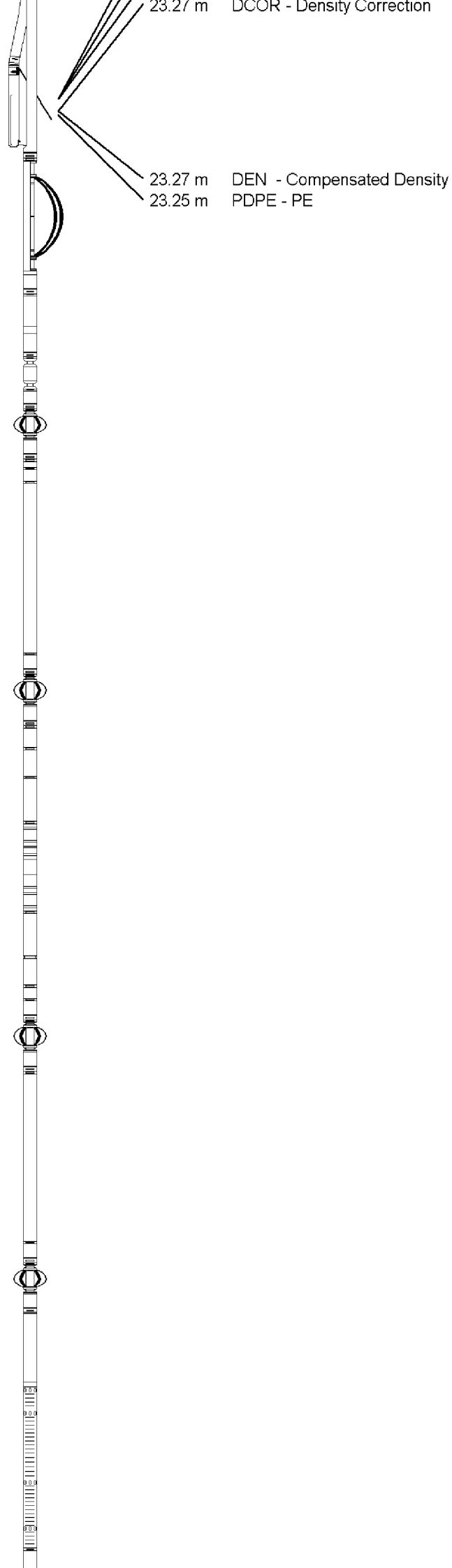
Compact Laterolog Electrode Sub.  
MLE 17    Length: 3.76 m    Weight: 92.6 lb

Compact Inline Standoff B  
MIS 31    Length: 0.65 m    Weight: 15.4 lb

Compact Lower Guard Sub.  
MLG 7    Length: 2.44 m    Weight: 55.1 lb

Compact Inline Standoff B  
MIS 140    Length: 0.65 m    Weight: 15.4 lb

Compact Sonic  
MSS 47    Length: 3.82 m    Weight: 72.8 lb

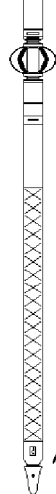


Compact Inline Standoff B  
MIS 73      Length: 0.65 m      Weight: 15.4 lb

Compact Induction  
MAI 39      Length: 3.29 m      Weight: 48.5 lb

Pressure Bung + Hole Finder  
HFS 3      Length: 0.28 m      Weight: 6.6 lb

Total      Length: 53.18 m      Weight: 1294.1 lb



Tool Zero (0.32m from bottom)

All measurements relative to tool zero.

COMPANY	ESSO AUSTRALIA PTY. LTD.
WELL	MARLIN A24A
FIELD	TURRUM
PROVINCE/COUNTY	BASS STRAIT
COUNTRY/STATE	AUSTRALIA

Elevation Kelly Bushing	metres	First Reading	3270.12	metres
Elevation Drill Floor      27.91	metres	Depth Driller	3275.00	metres
Elevation Ground Level      -59.00	metres	Depth Logger	3270.50	metres

**Reeves**

**Compact**

Photo Density  
Compensated Neutron  
1:200 MD