



**PRECISION**  
ENERGY SERVICES

**COMPENSATED SONIC**

**Compact**

**1:200 MD**

COMPANY

ESSO AUSTRALIA PTY LTD

WELL

BREAM A10A

FIELD

BREAM

PROVINCE/COUNTY

BASS STRAIT

COUNTRY/STATE

AUSTRALIA

LOCATION

S 38 29 58.824, E 147 46 19.976

N 5738460.340 m, E 567336.310 m

**FINAL PRINT**

LSD

SEC

TWP

RGE

Other Services

DUAL LATEROLOG

PHOTO DENSITY

COMPENSATED NEUTRON

API Number

Permit Number

Permanent Datum MSL

Elevation 0.0 metres

Log Measured From RT @ 32.82m above Permanent Datum

Drilling Measured From RT

Date

16-MAY-2005

Elevations:

KB

DF

GL

metres

metres

metres

Run Number

ONE

Depth Driller

3379.50

metres

Depth Logger

3375.10

metres

First Reading

3370.10

metres

Last Reading

2258.80

metres

Casing Driller

2258.20

metres

Casing Logger

2258.80

metres

Bit Size

8.50

inches

Hole Fluid Type

KCl/POLY/GYL

Density / Viscosity

10.10 lb/USg

30.00 cP

PH / Fluid Loss

9.00

3.00 ml/30Min

Sample Source

FLOWLINE

Rm @ Measured Temp

0.134 @ 25.0

ohm-m

Rmf @ Measured Temp

0.103 @ 25.0

ohm-m

Rmc @ Measured Temp

0.236 @ 25.0

ohm-m

Source Rmf / Rmc

PRESS

PRESS

Rm @ BHT

0.053 @ 97.3

ohm-m

Time Since Circulation

28.5 HRS

Max Recorded Temp

104.10

deg C

Equipment Name

CWS/CML

Recorded By

1

SALE

## BOREHOLE RECORD

Bit Size  
inches

8.500

Depth From  
metres

2258.80

Depth To  
metres

3379.50

## CASING RECORD

Type

Size  
inches

Depth From  
metres

Shoe Depth  
metres

Weight  
pounds/ft

K-55

13.375

0.00

921.00

54.50

L-80

9.625

0.00

2258.80

47.00

## REMARKS

RIG: NABORS 453

5" SHUTTLE/MEMORY COMPACT OPERATION.

CREW: G MCMANUS , R TENCH , B MOSS , K LUCIEER.

ALL LOGS DEPTH CORRELATED TO ANADRILL GAMMA LOG.

DENSITY CALIPER CLOSED BETWEEN 2594.50m MD AND 2598.2m MD

DUE TO THE INDUCTION SONDE DETECTING A PIECE OF BRASS DEBRIS

IN THE WELL. DENSITY - NEUTRON DATA IN THIS INTERVAL WILL BE INACCURATE.

MAX. TEMPERATURE: 104.1 DEG C AT 3331.10m MD

MAX. INCLINATION: 47.28 DEG AT 2315.54m MD

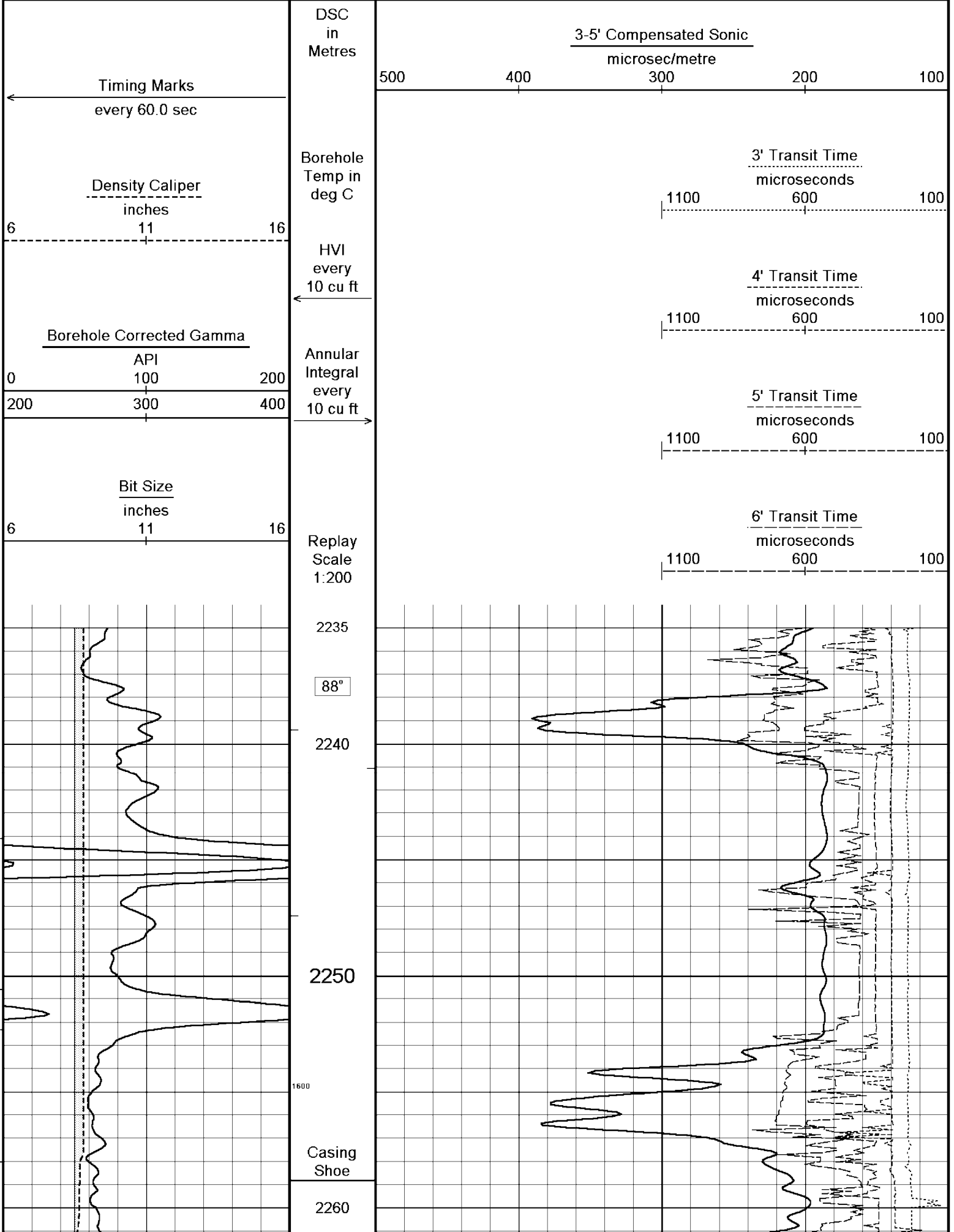
MAX. DOGLEG SERVERITY: 4.68 DEG/30m AT 2775.31m MD

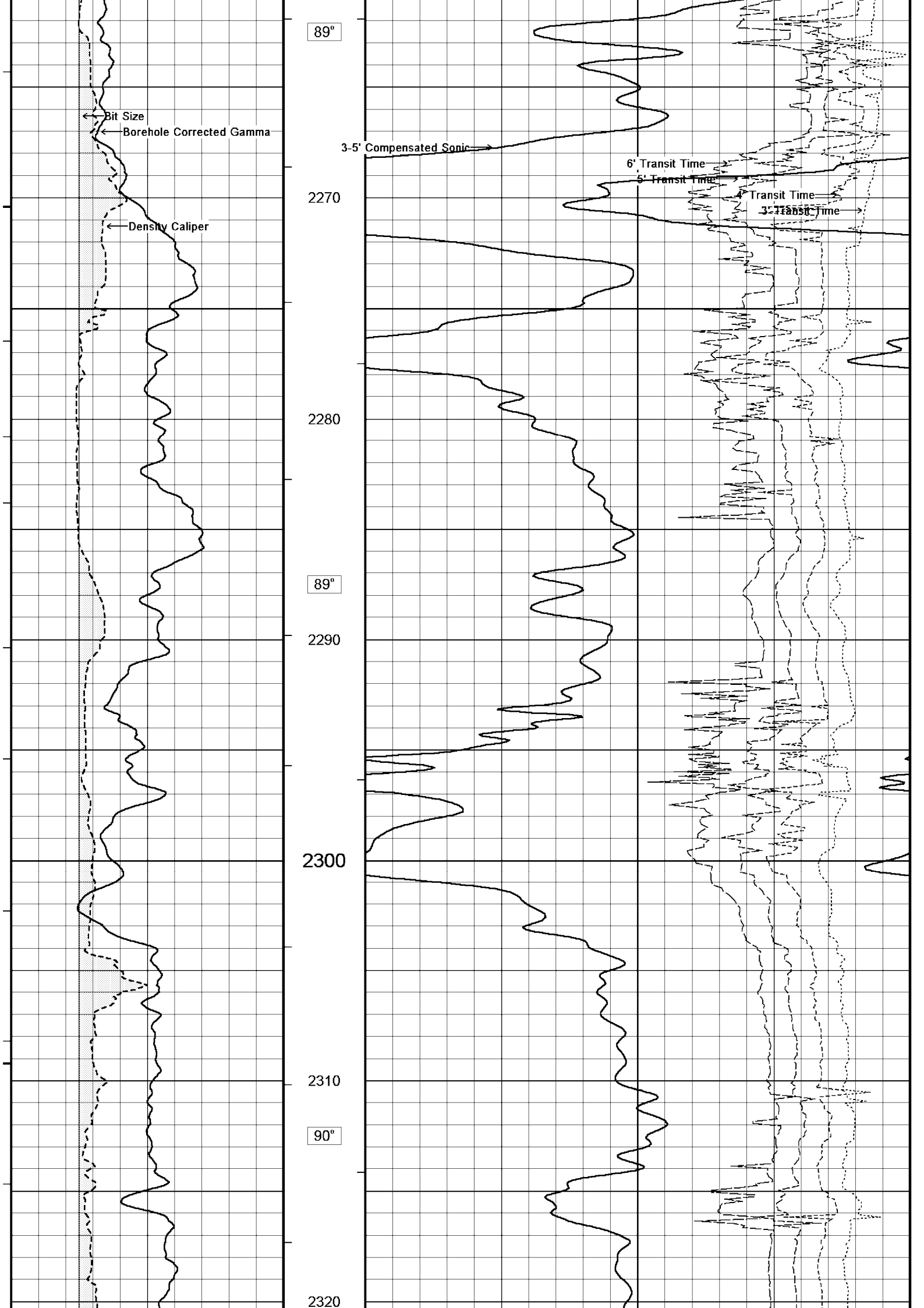
DEPLOYMENT ANGLE: 24 DEG

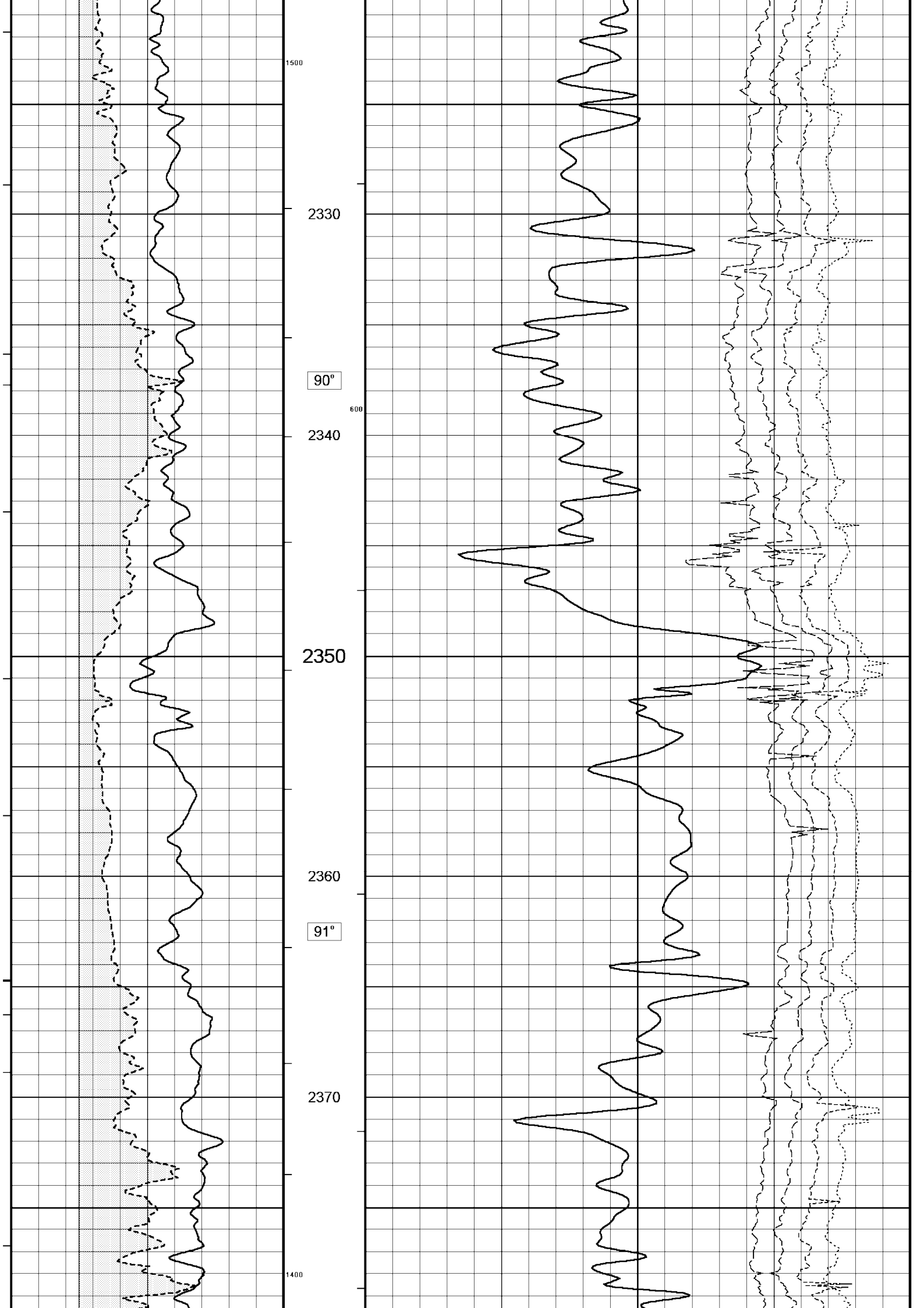
HVOL: 1620 FT^3

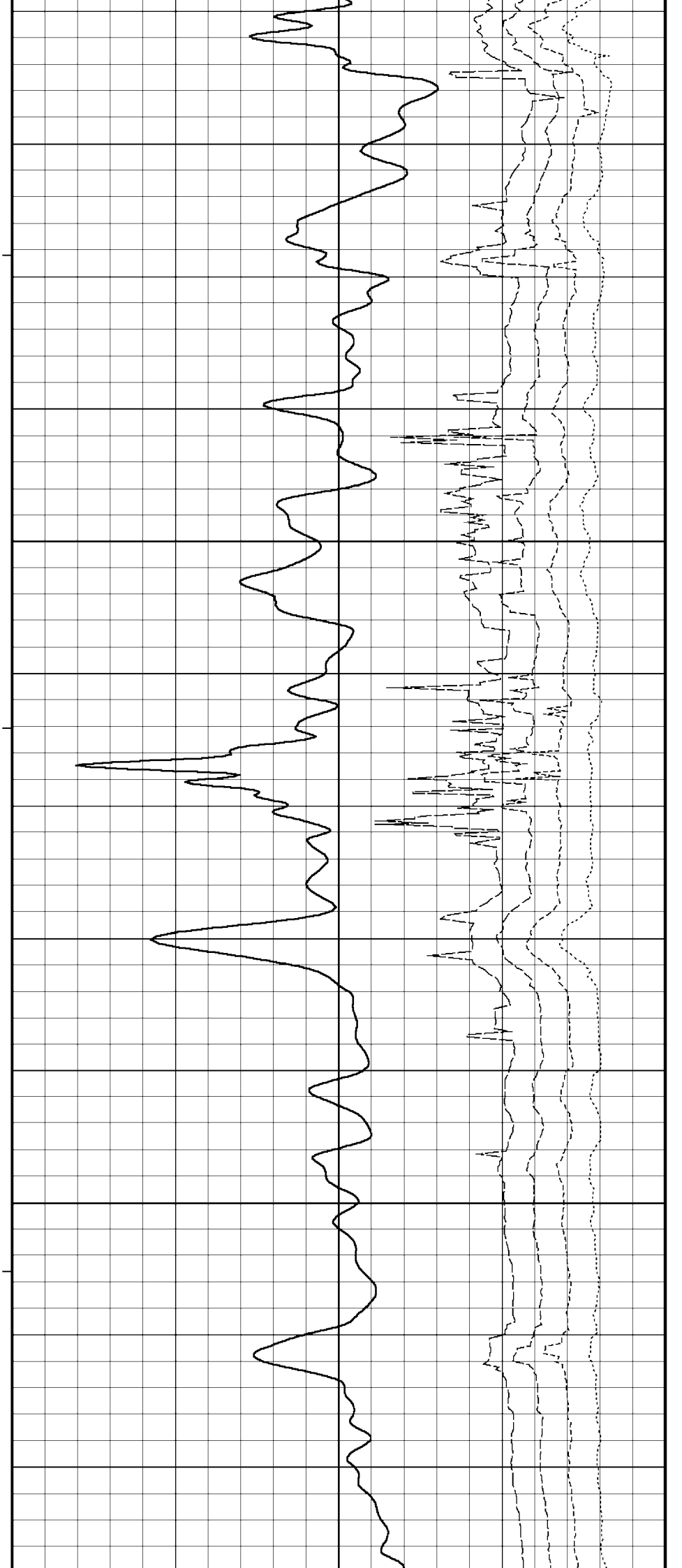
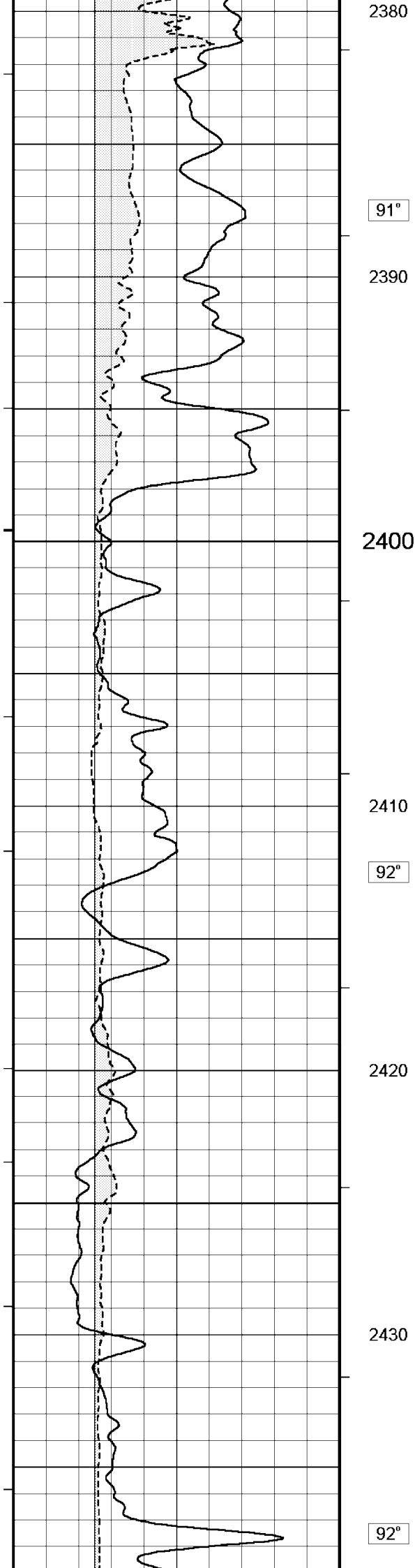
AVOL: 865 FT^3

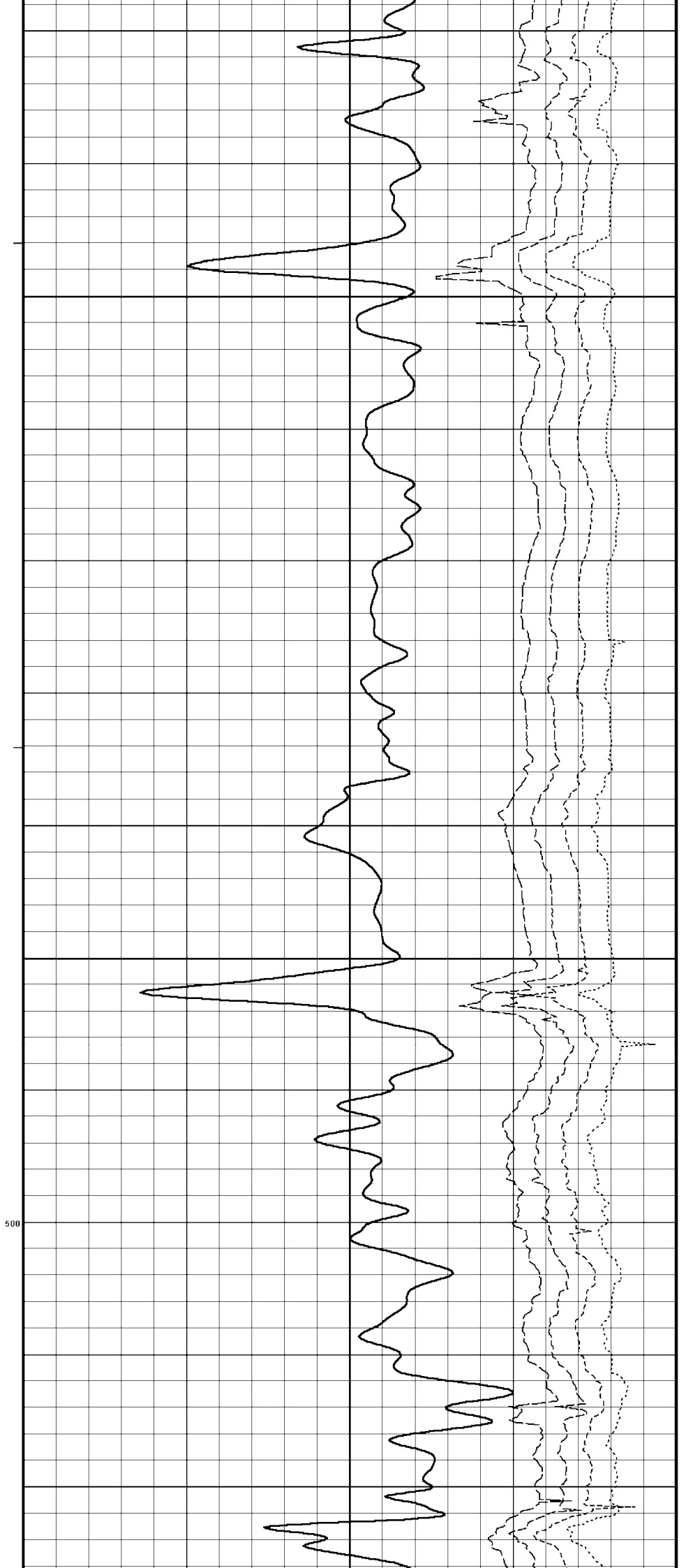
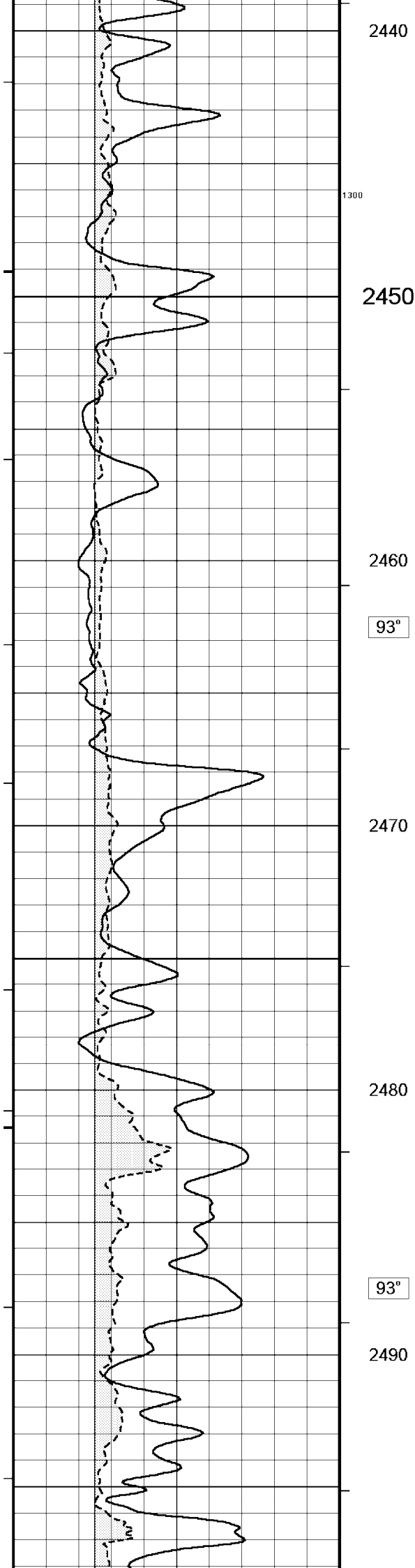
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs,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

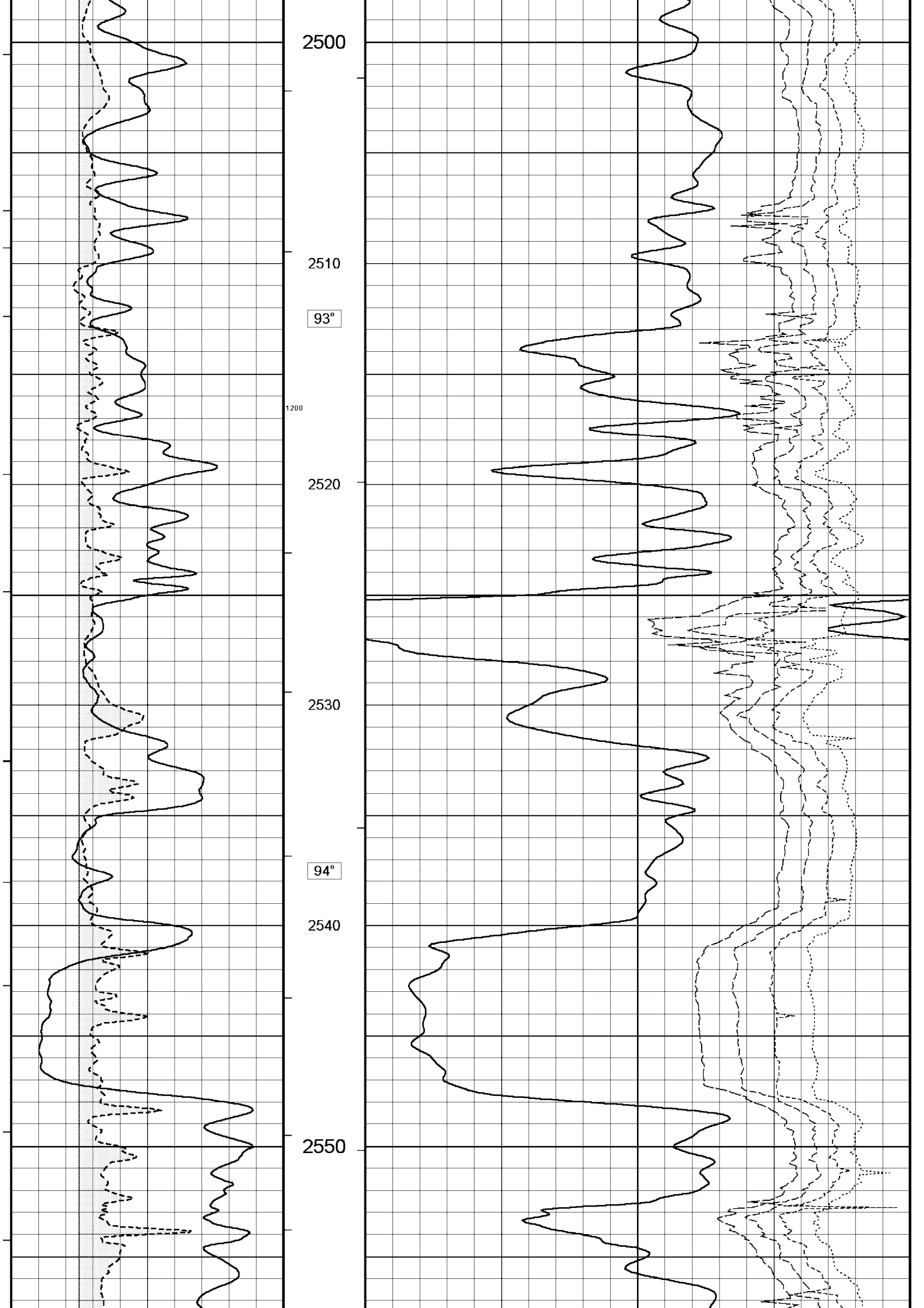


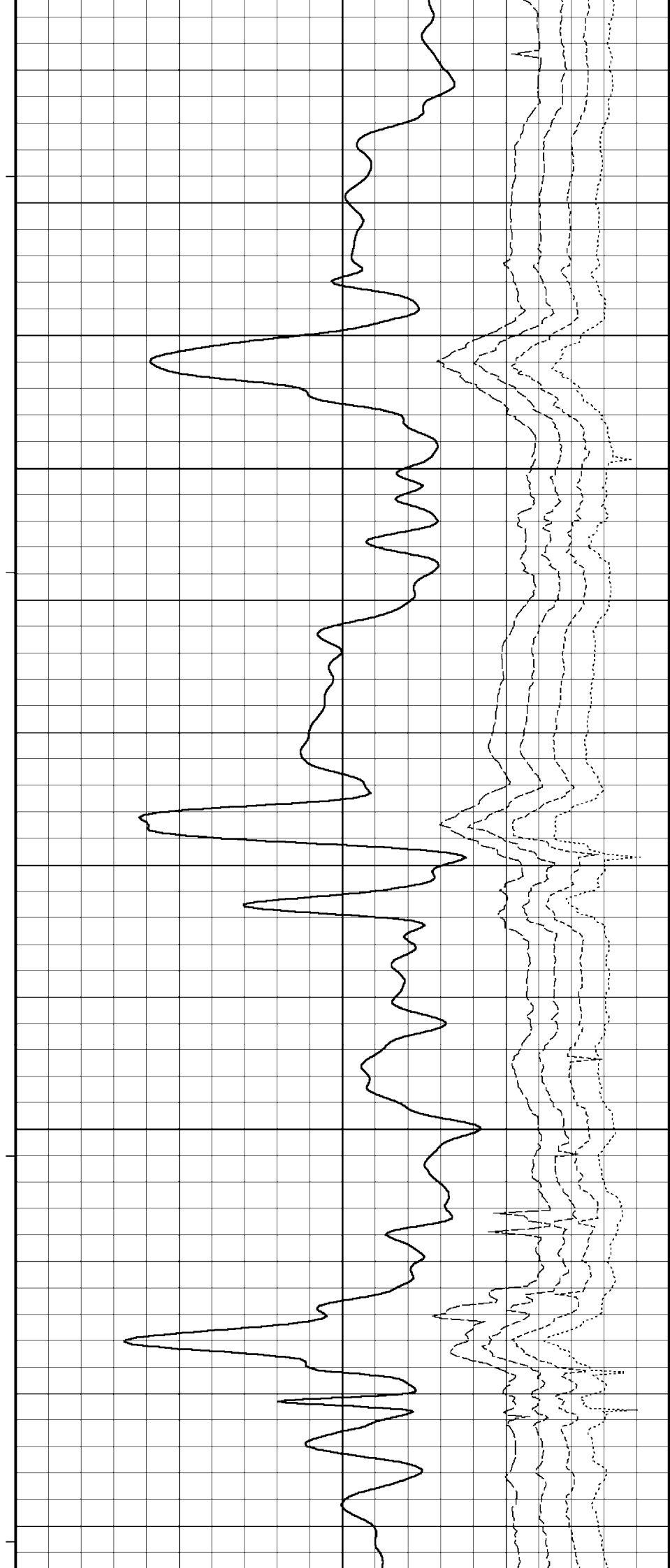
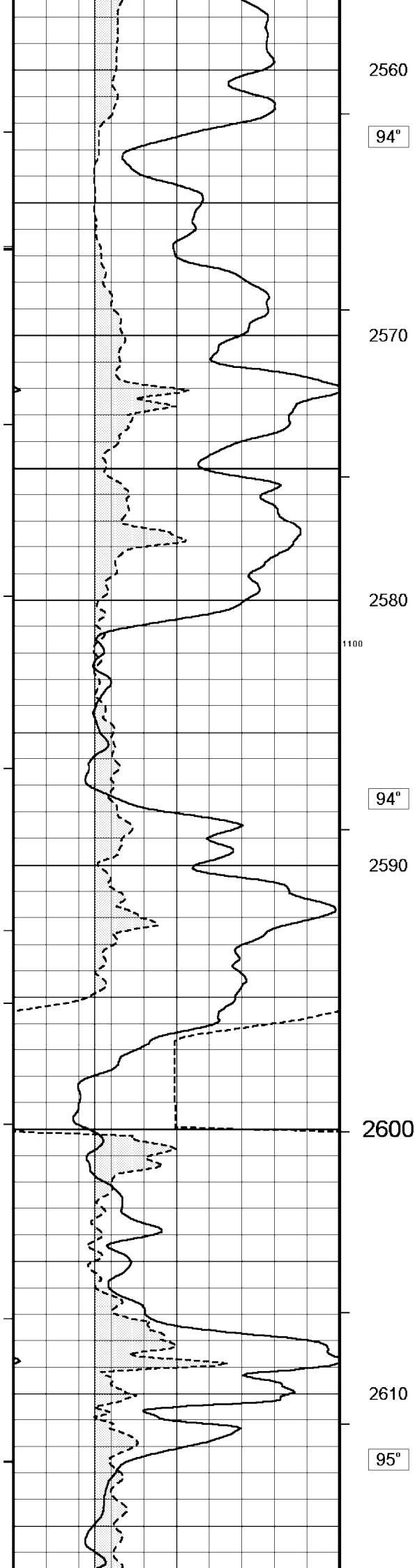




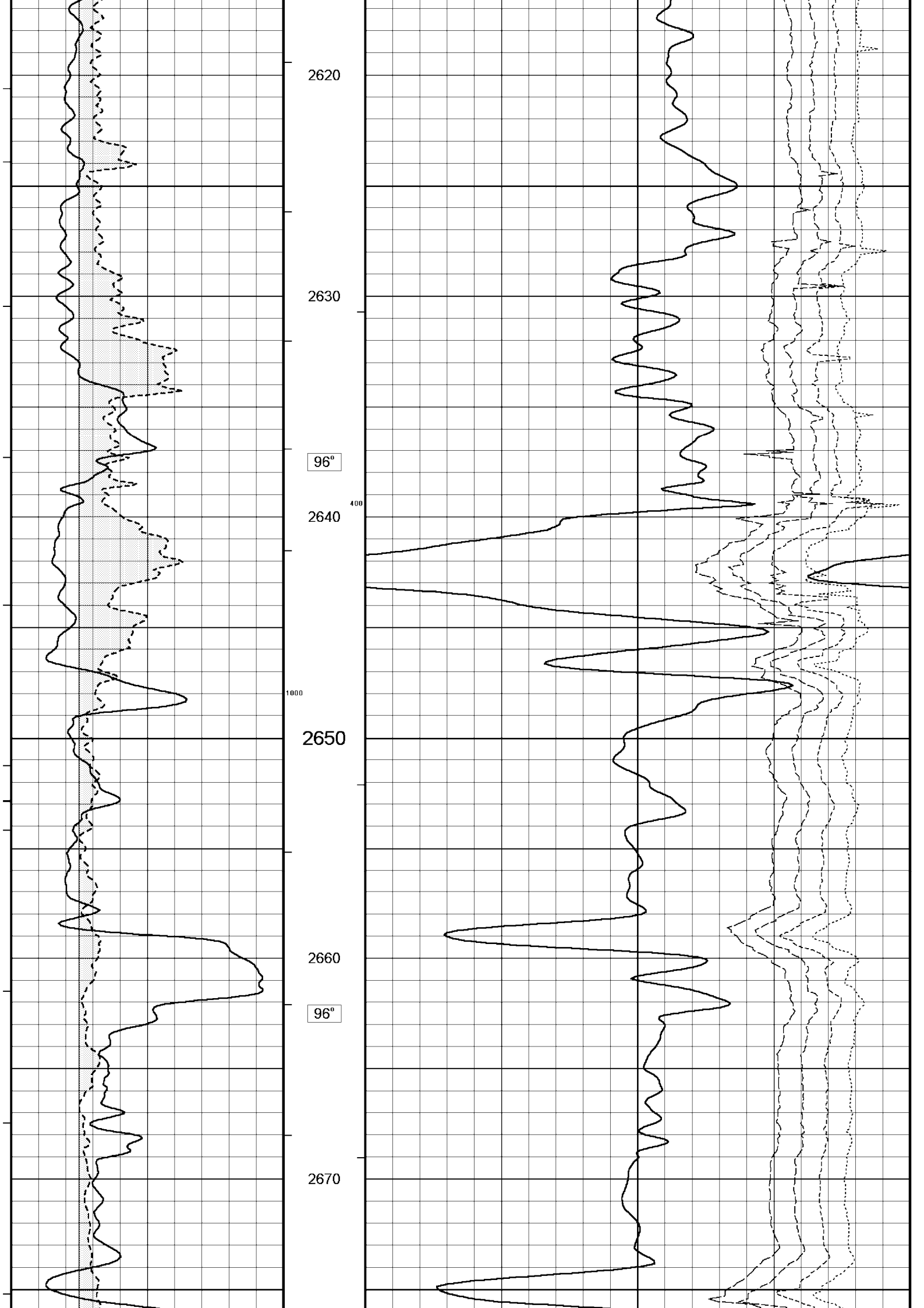


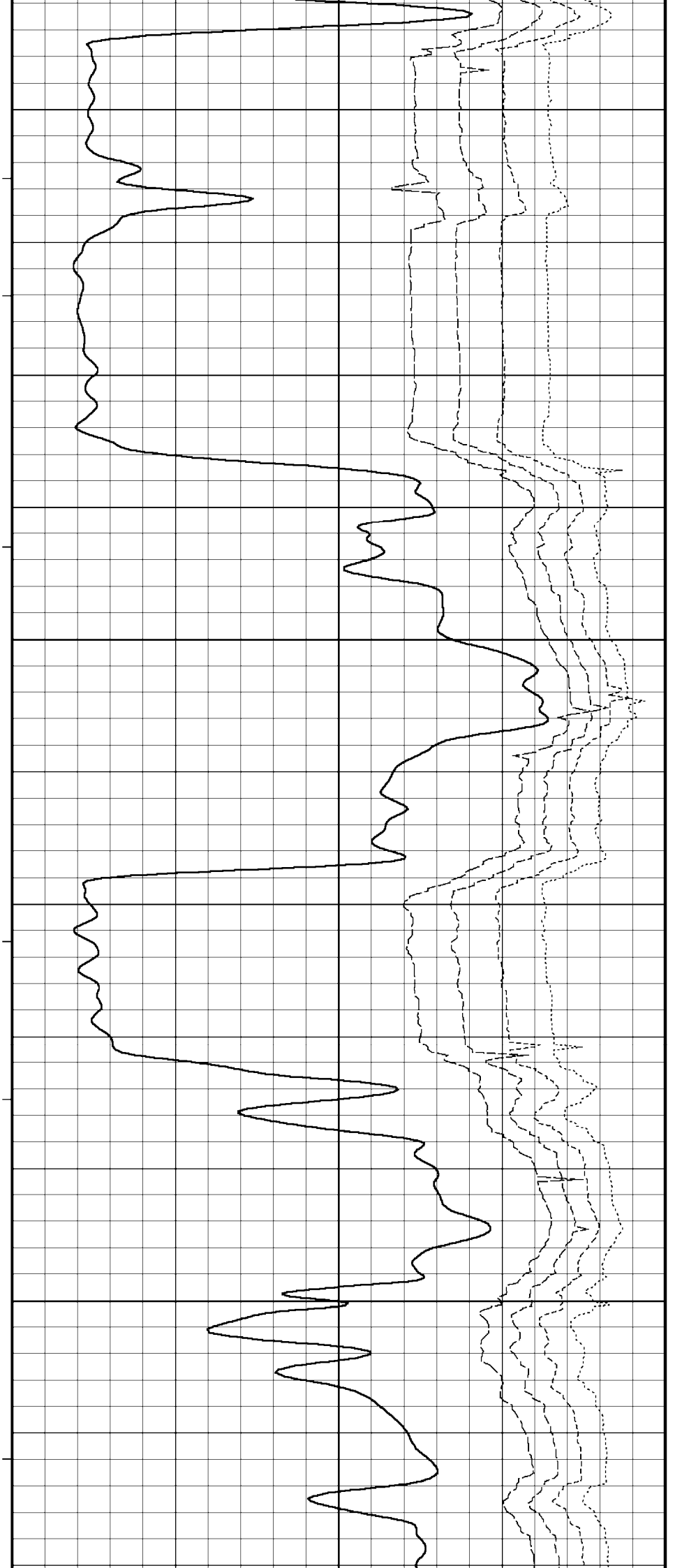
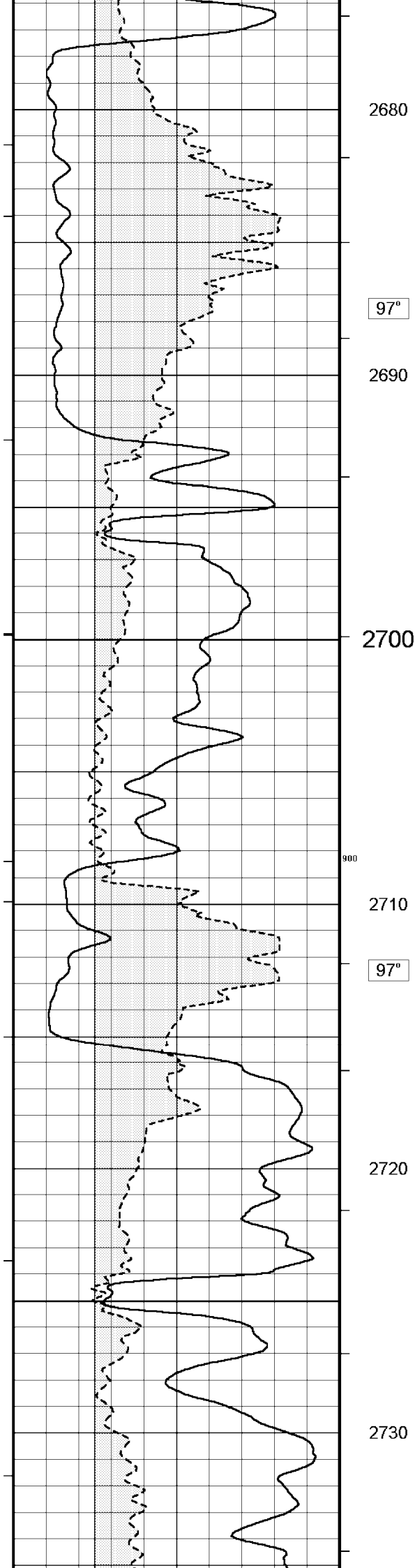


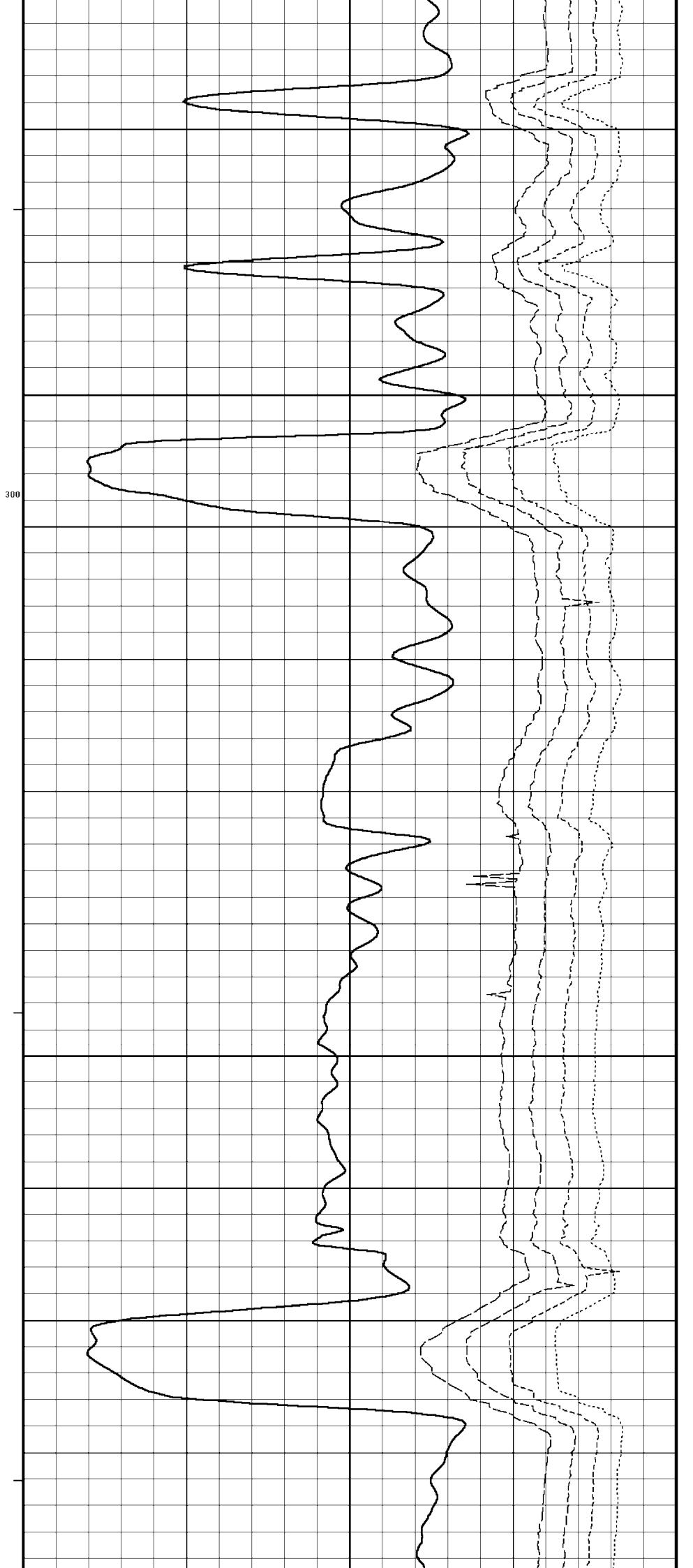
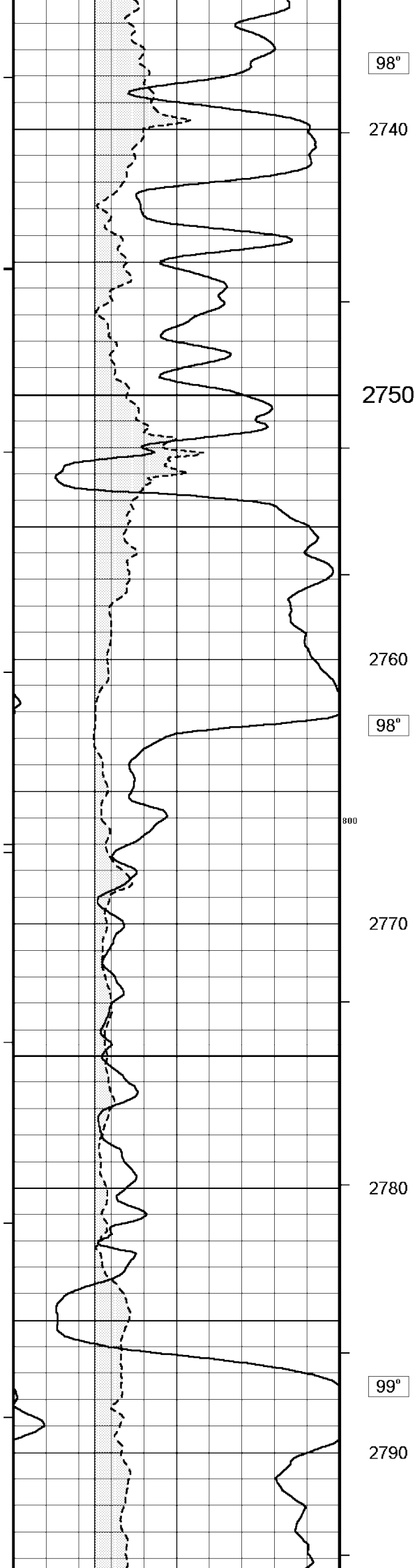


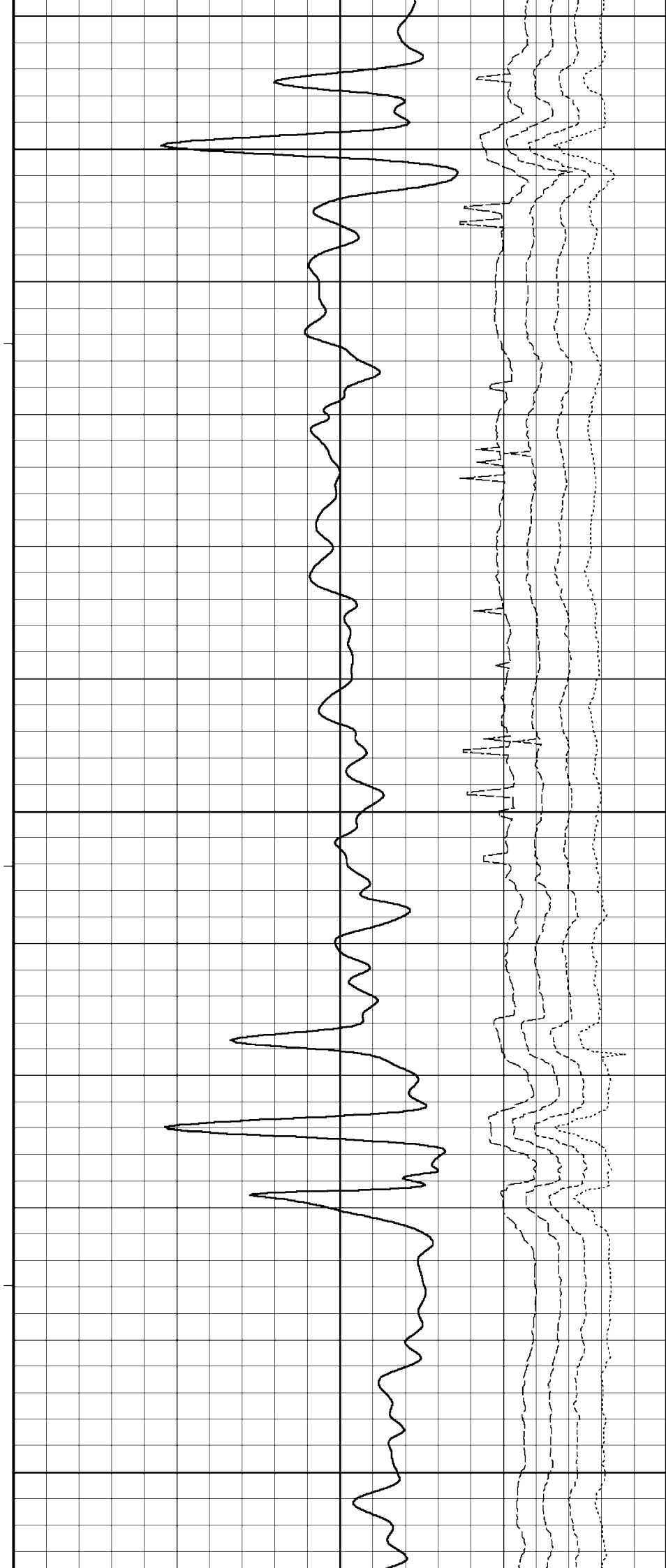
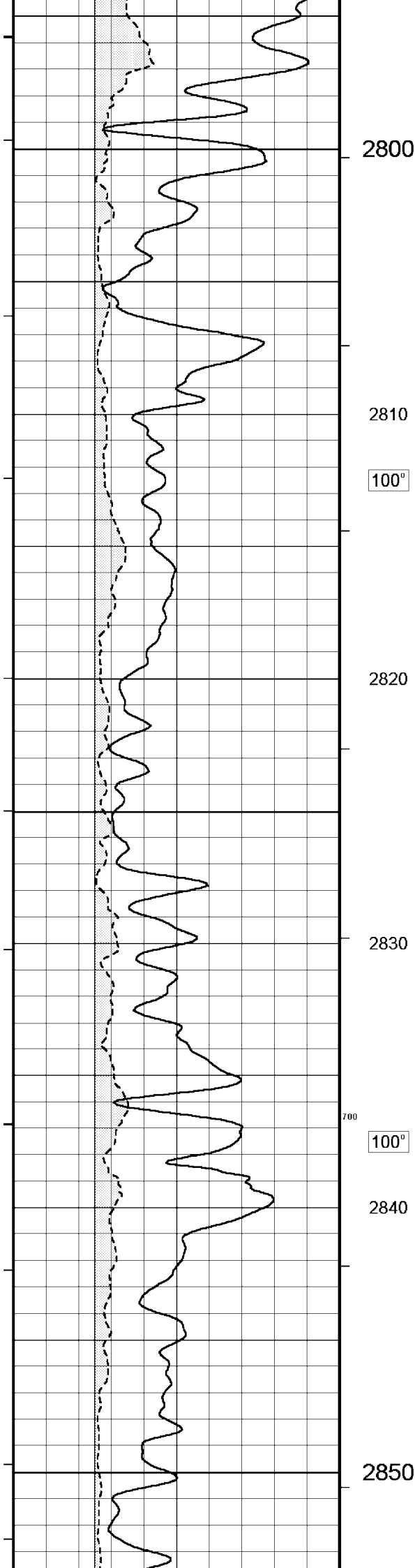


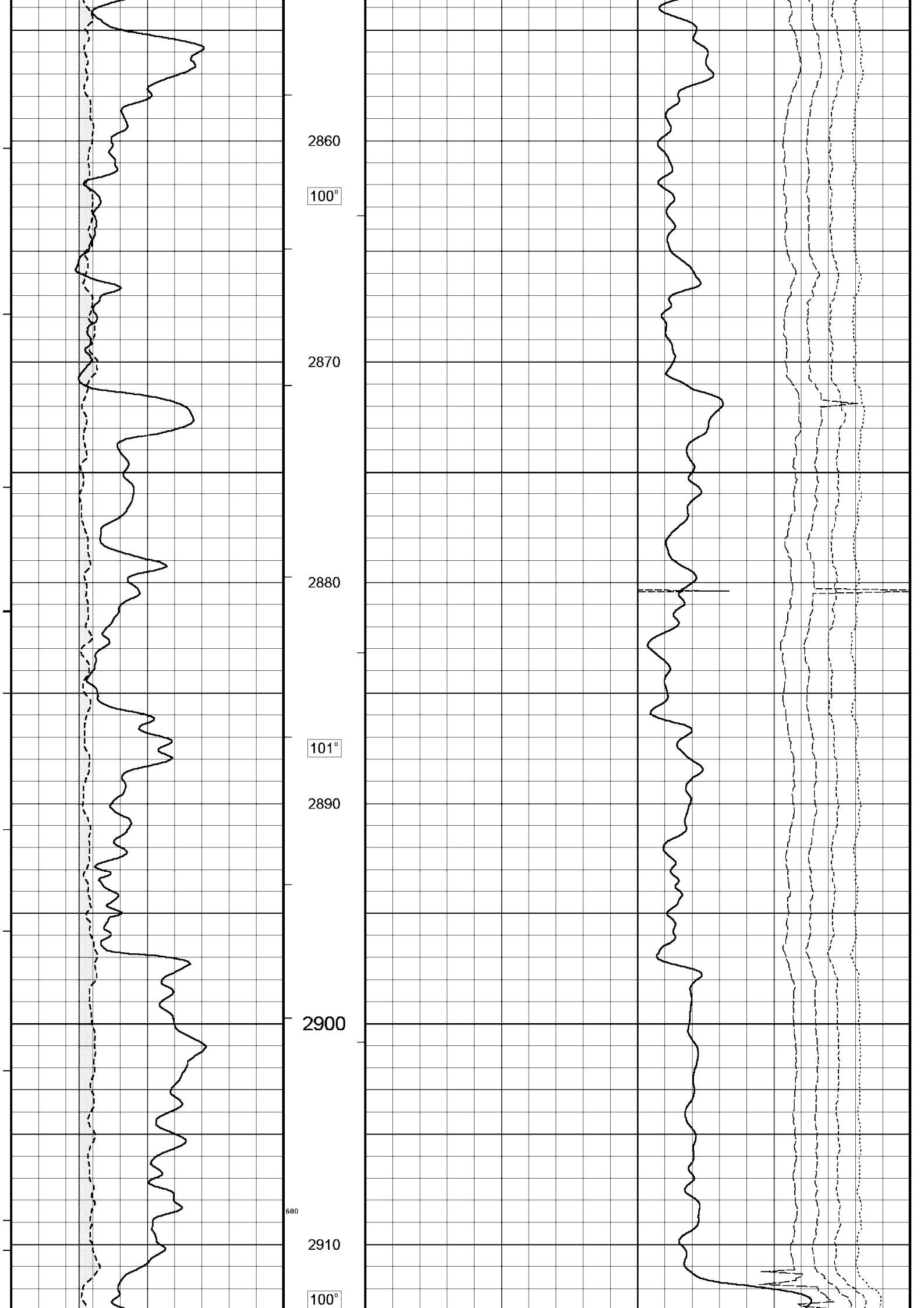


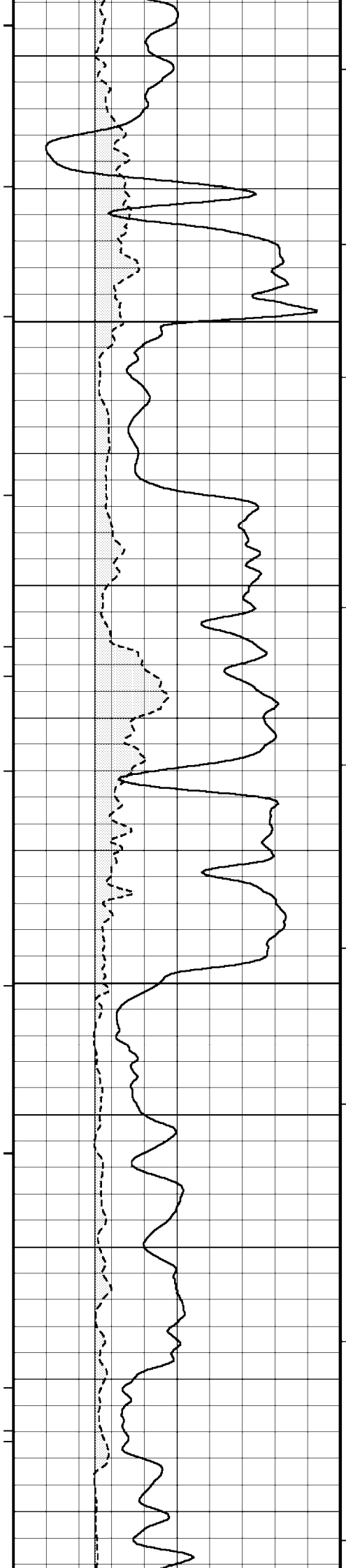












2920

2930

100°

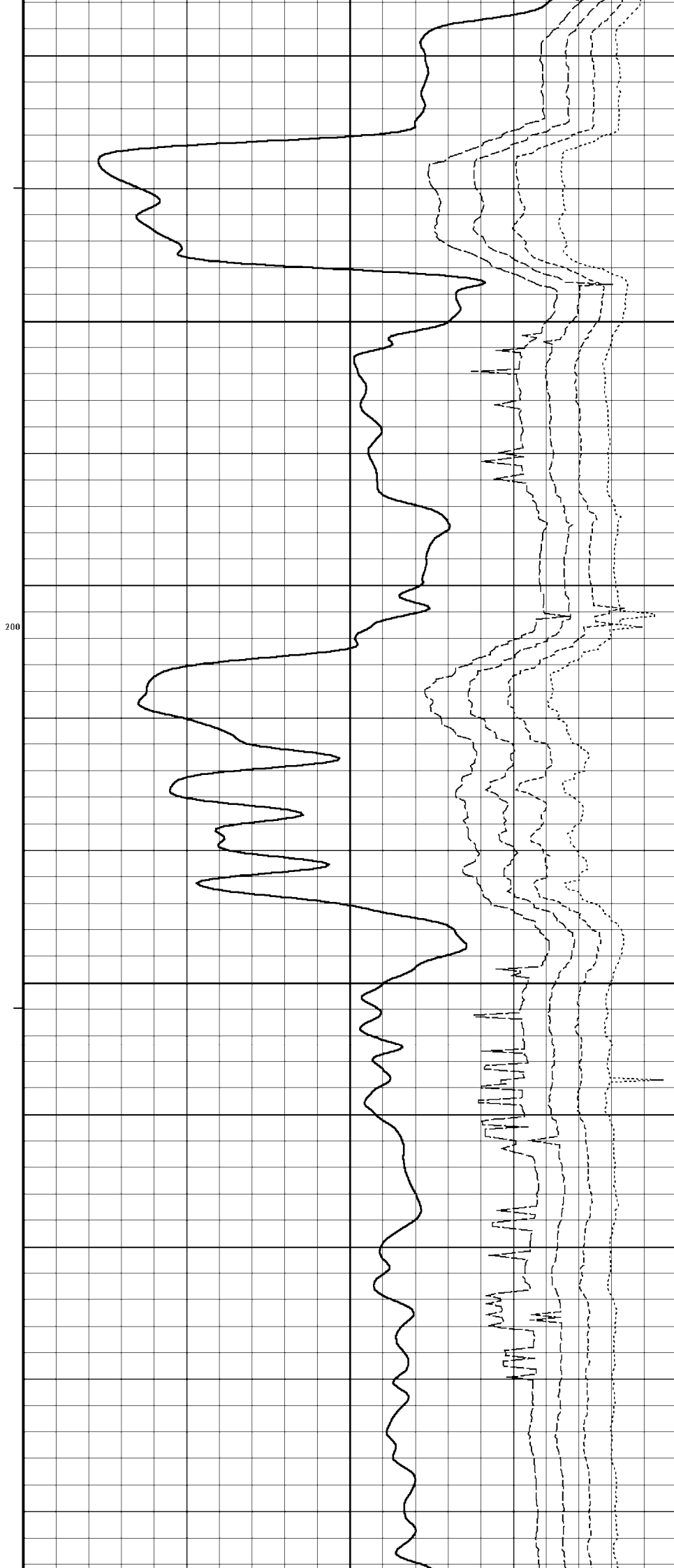
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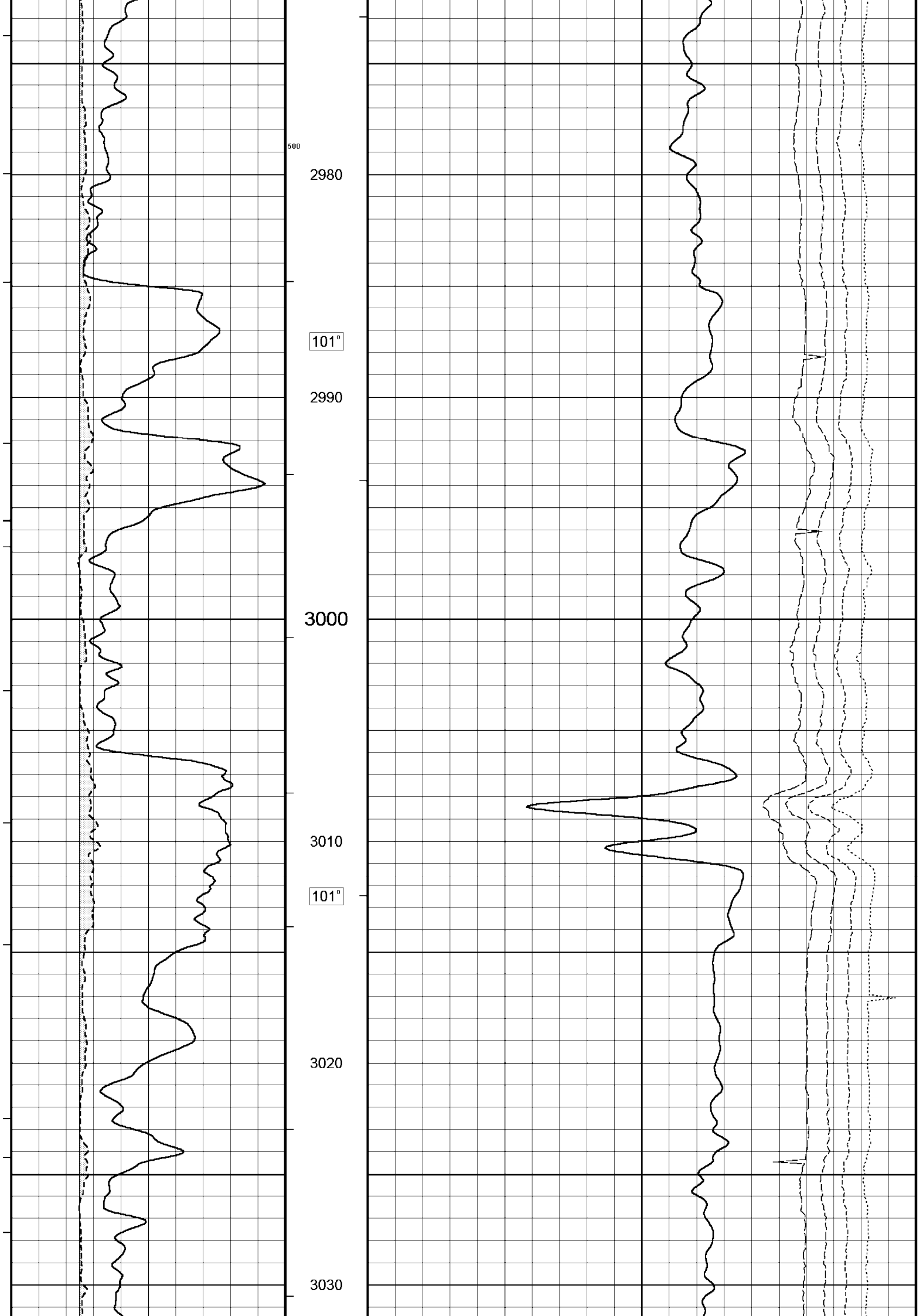
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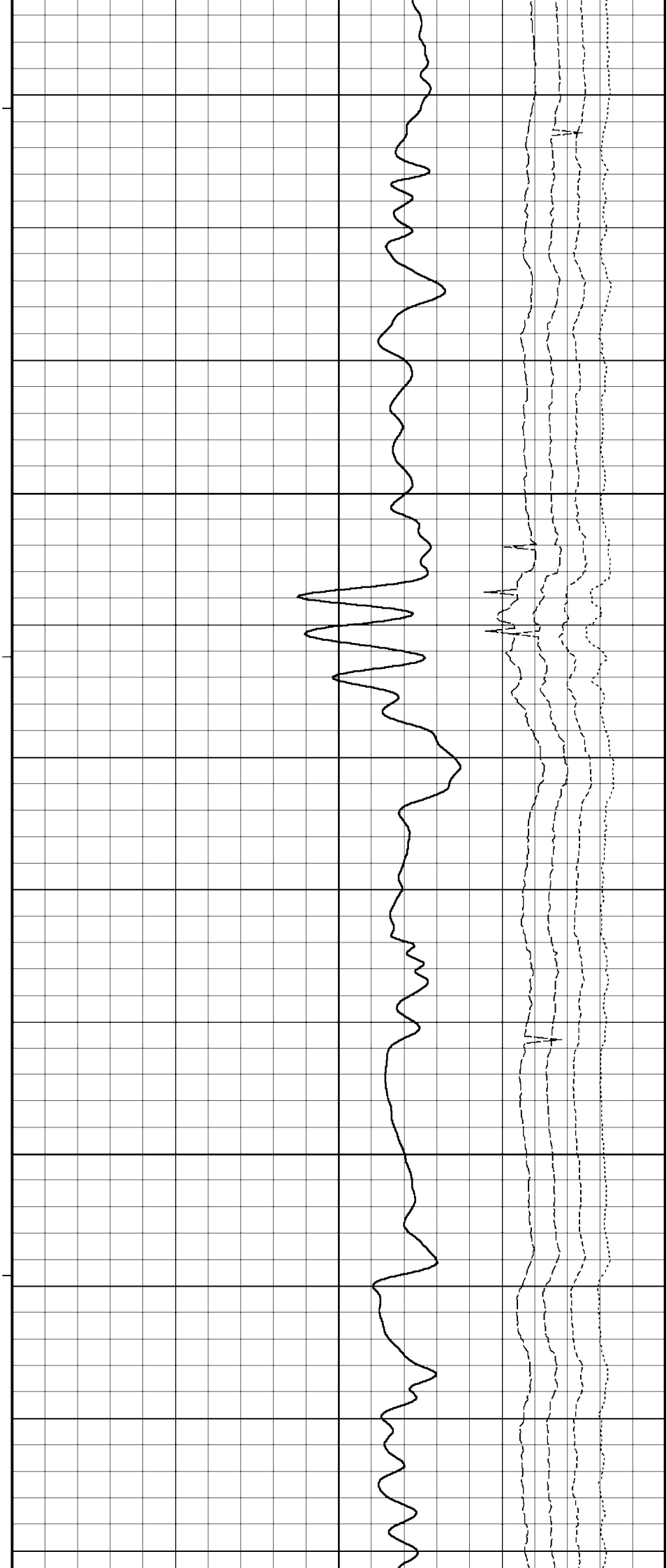
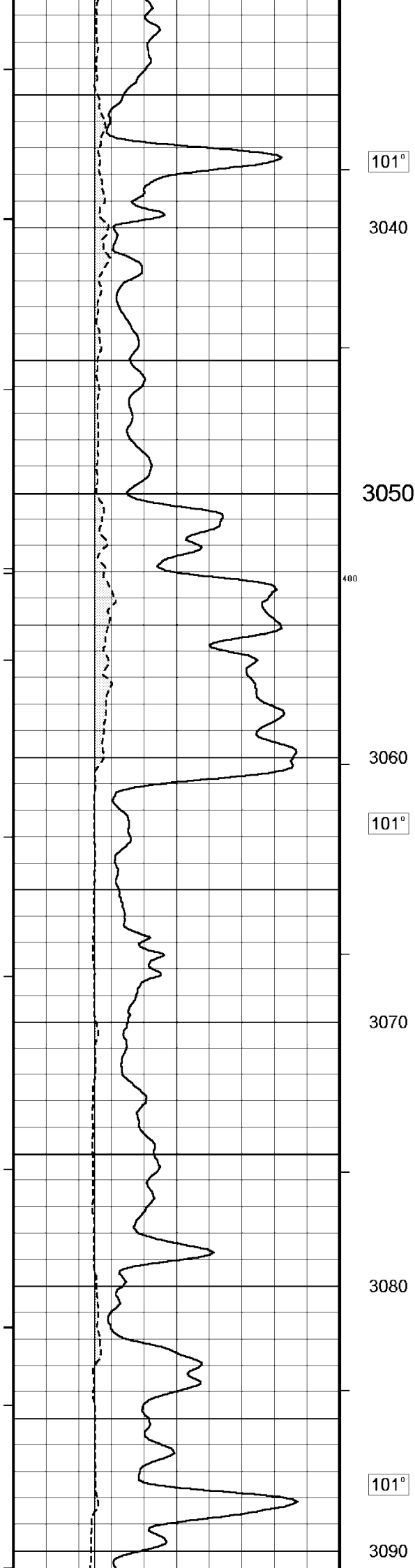
2960

101°

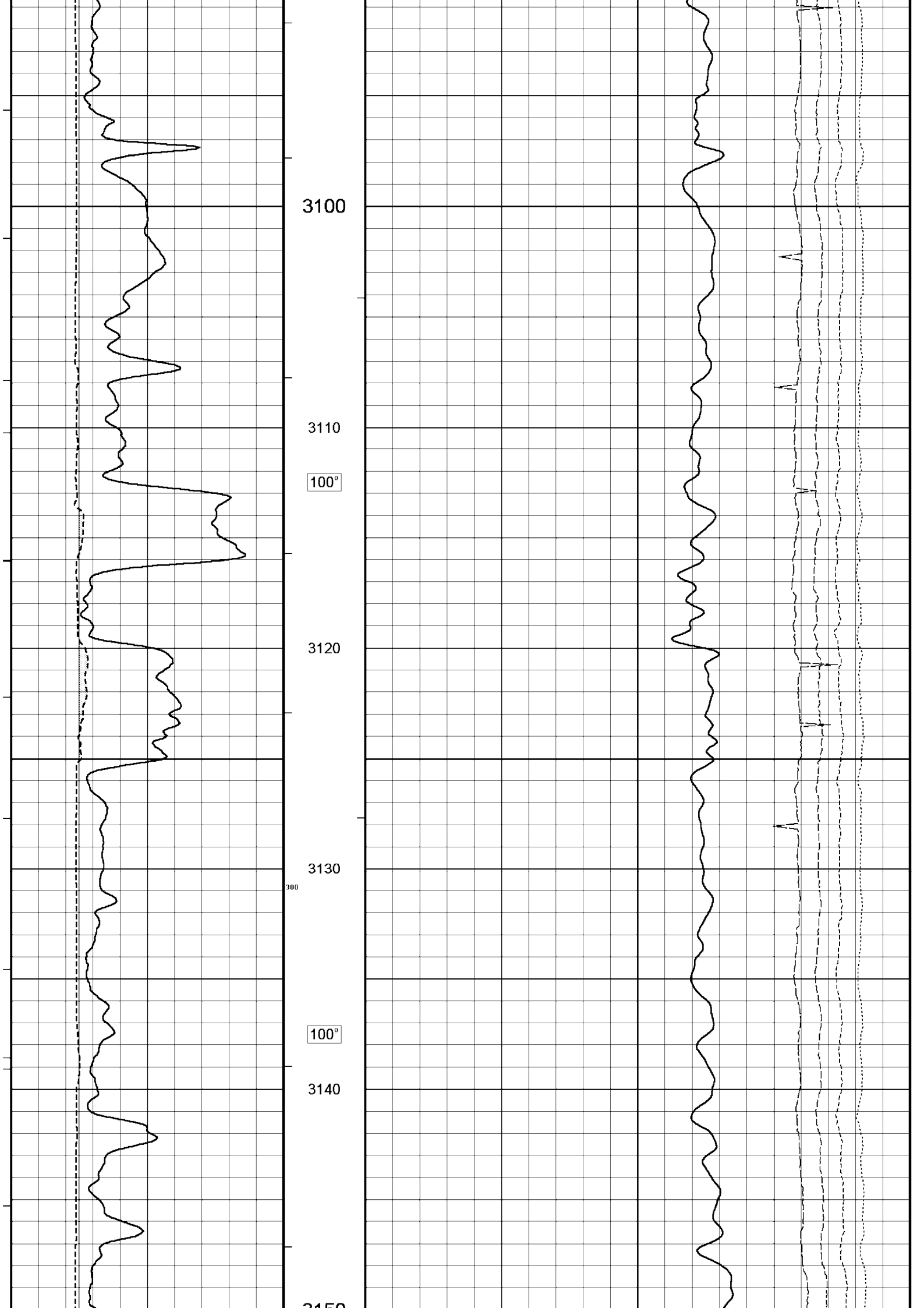
2970

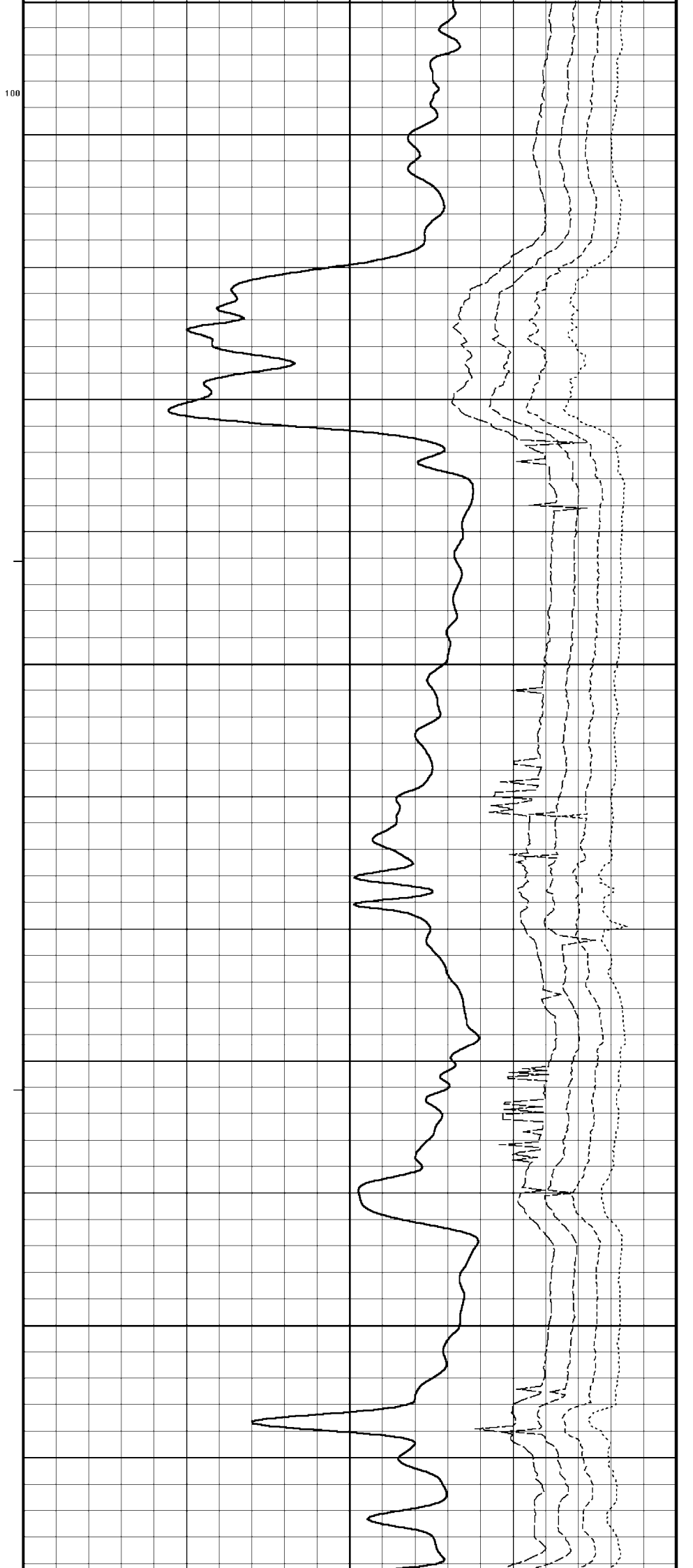
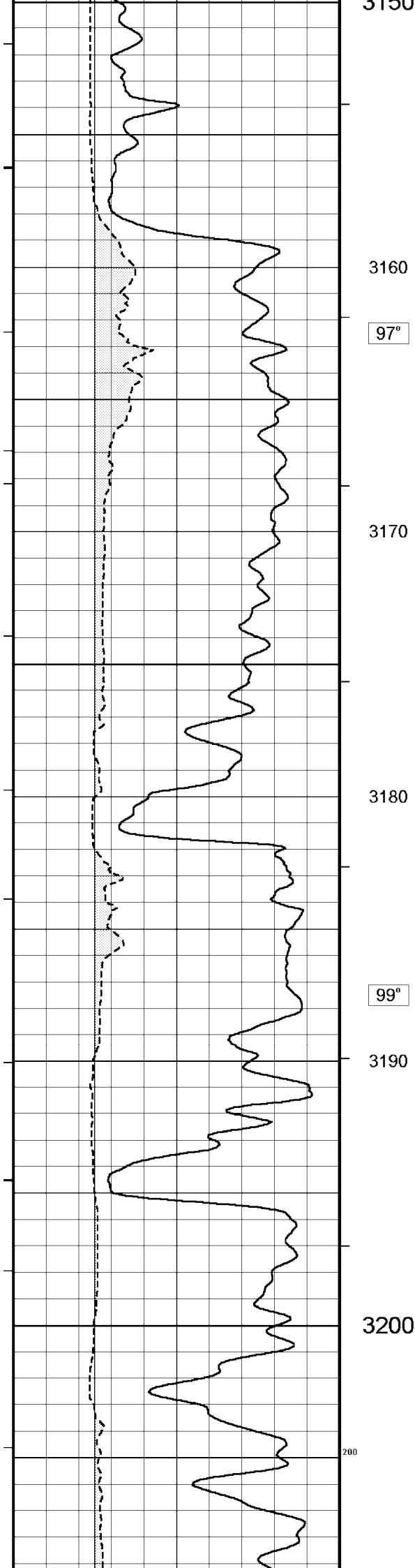


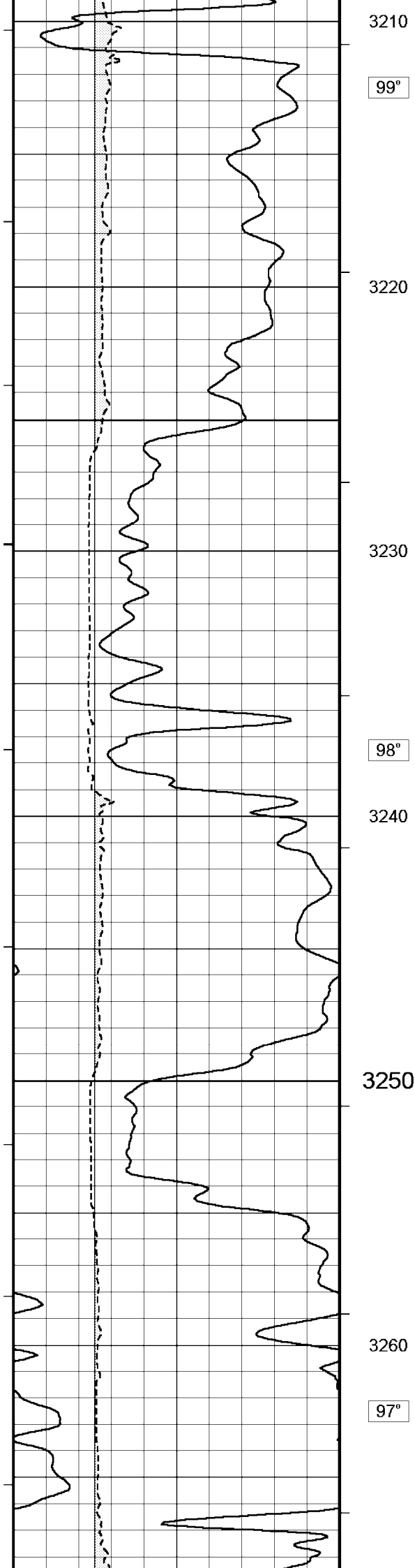












3210

99°

3220

3230

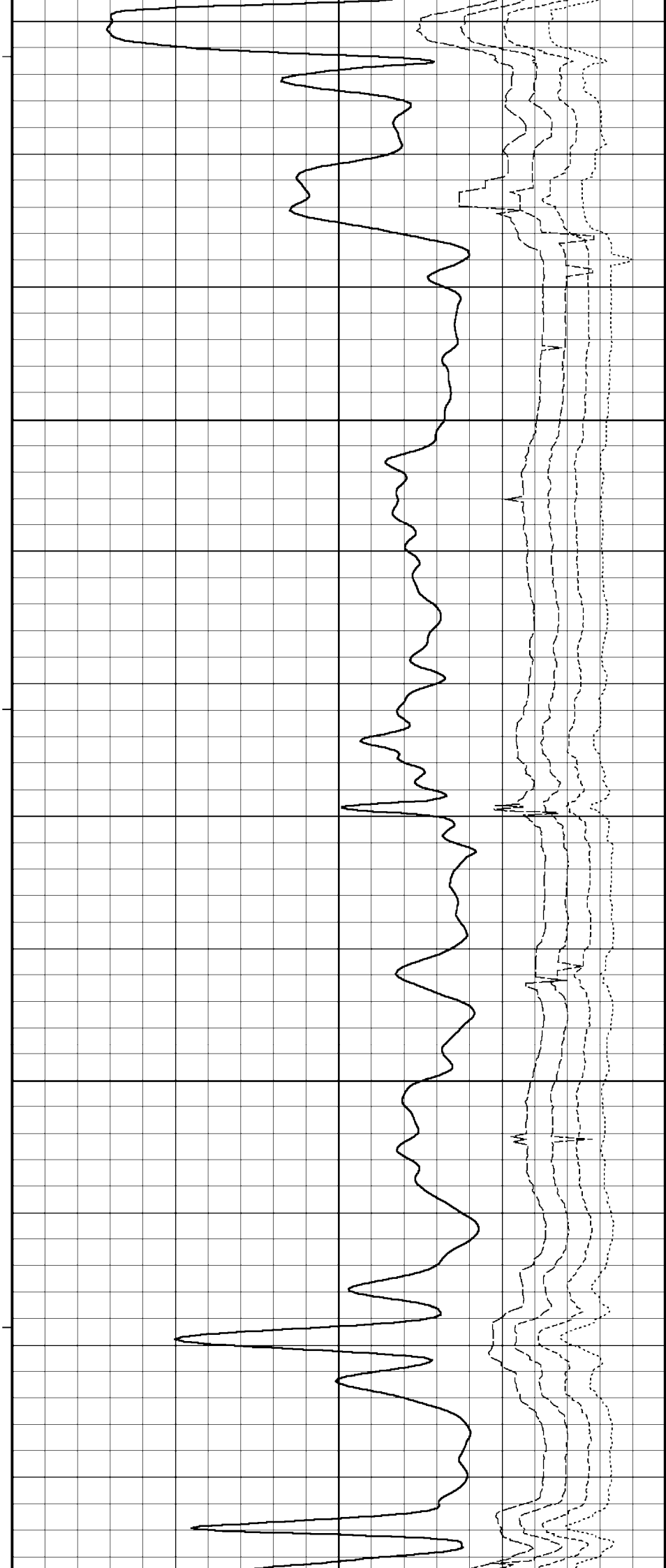
98°

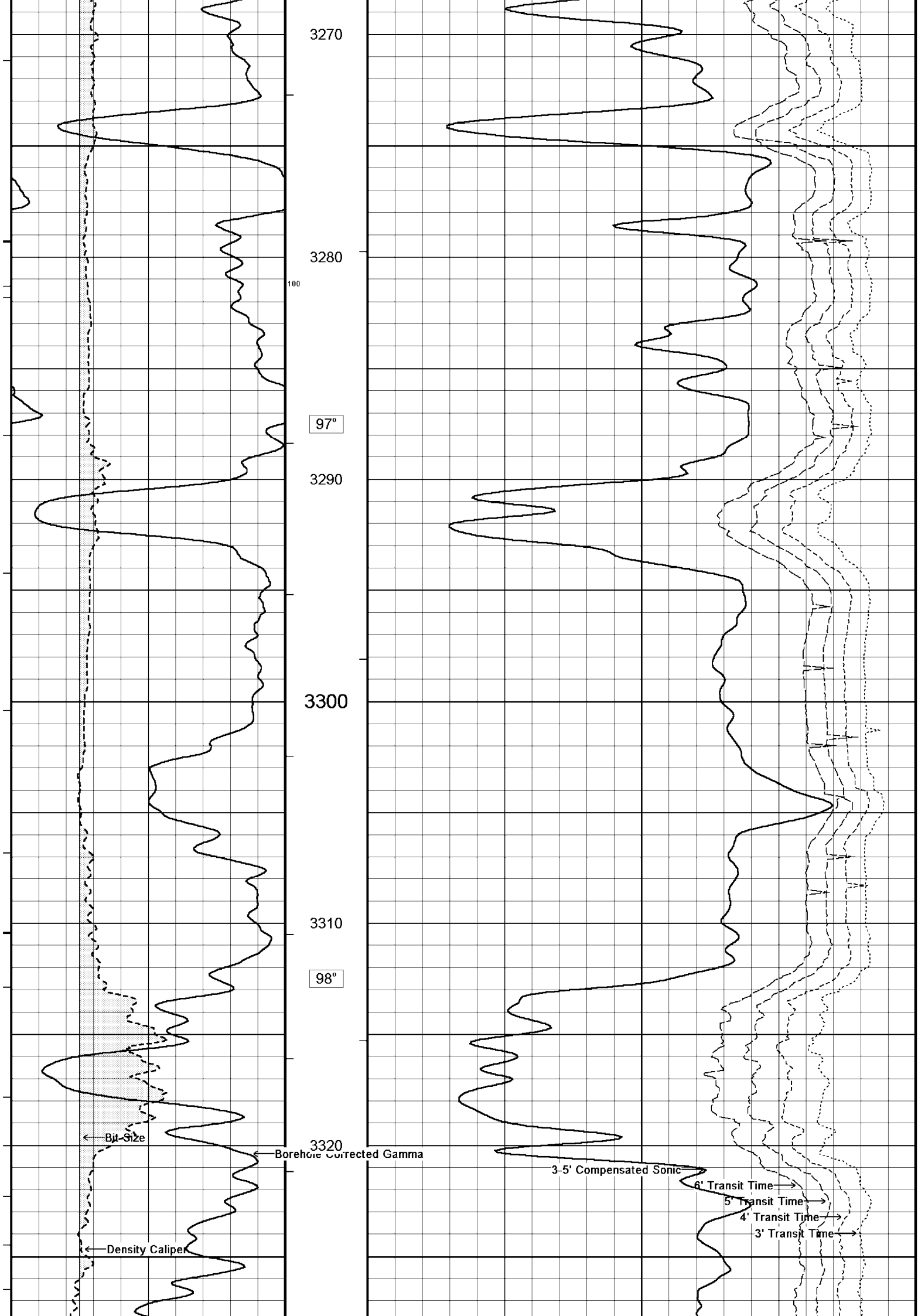
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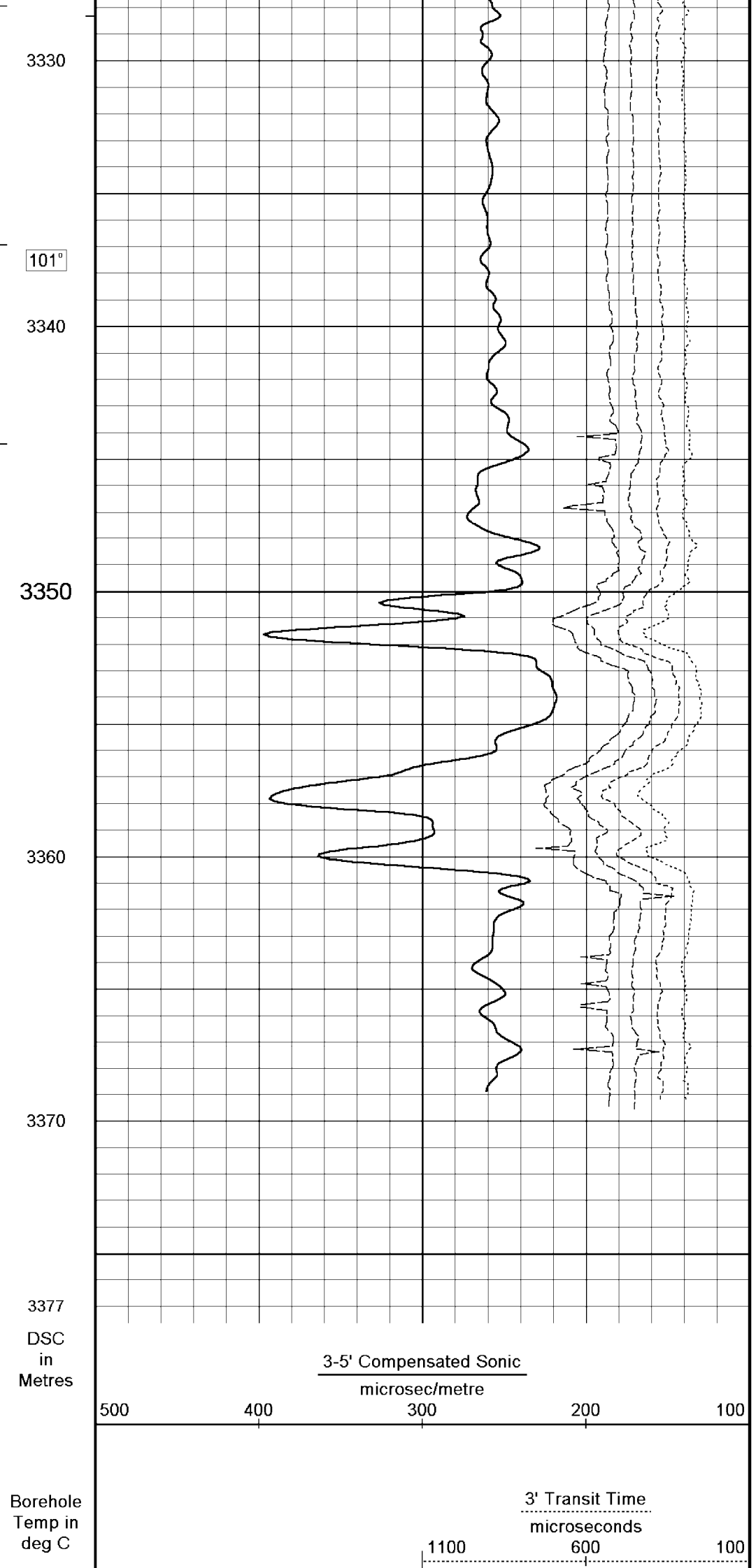
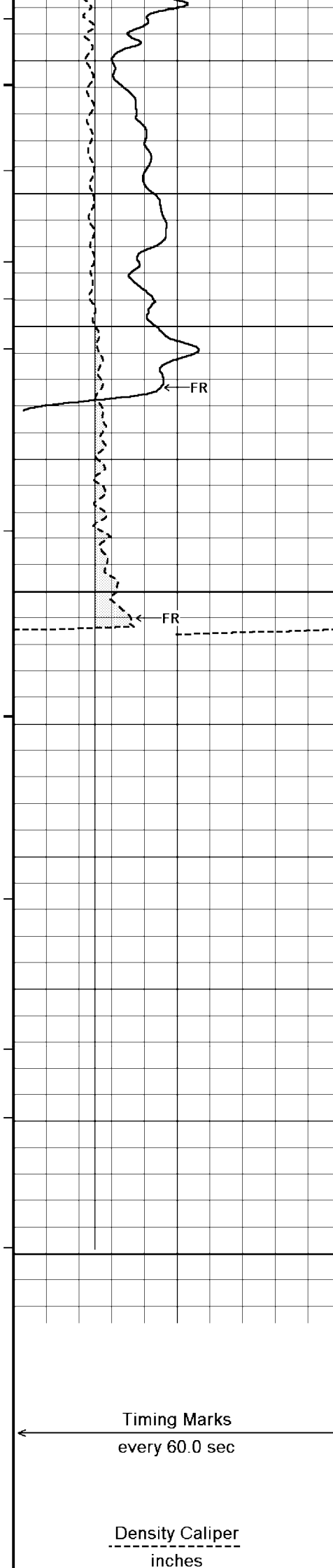
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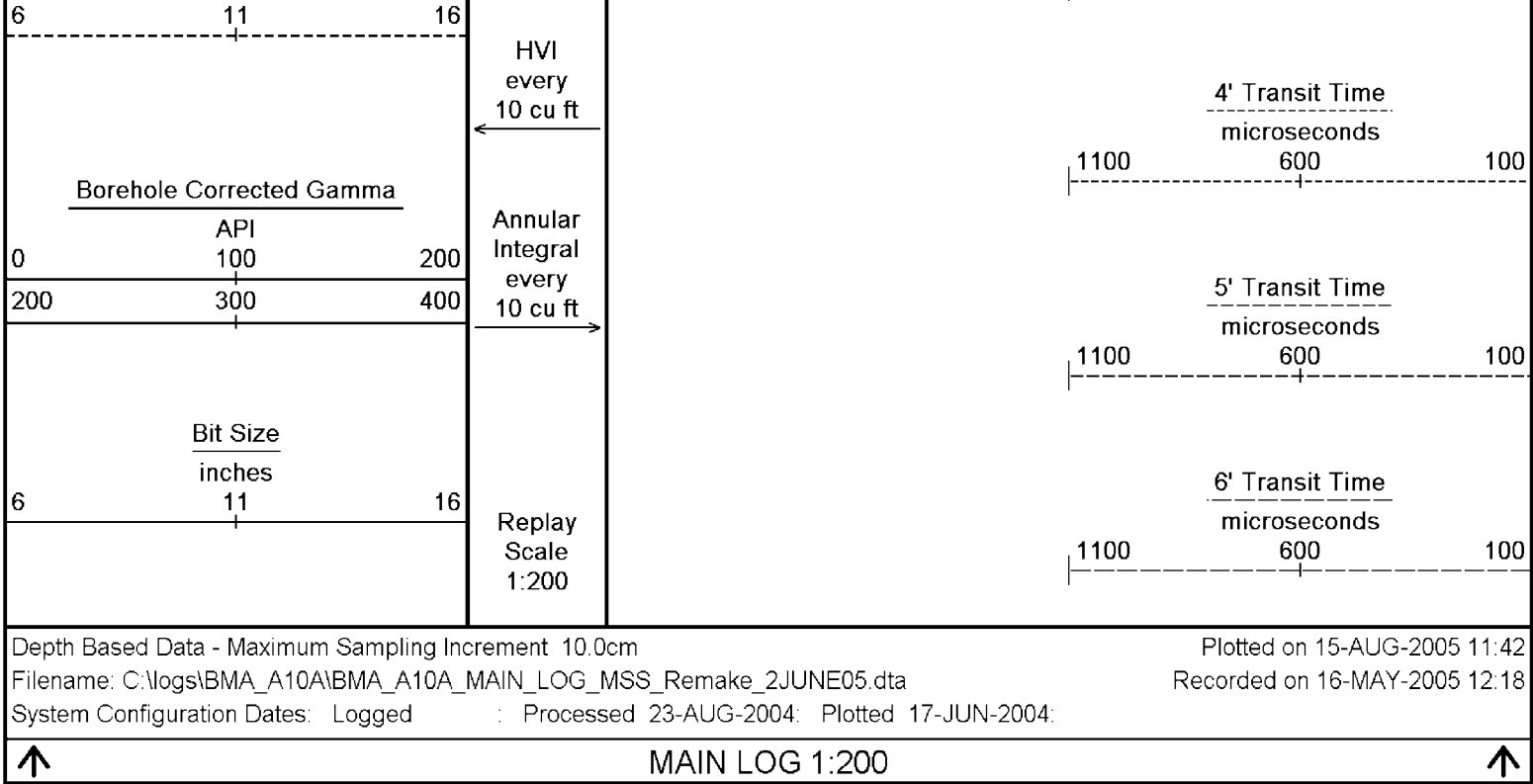
3260

97°









BEFORE SURVEY CALIBRATION			
C:\logs\BMA_A10A\BMA_A10A_MAIN_LOG_MSS_Remake_2JUNE05.dta			
General Constants All 000			
General Parameters			
Mud Resistivity	0.134	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		
High Resolution Temperature Calibration MCG 098			
	Measured	Calibrated(Deg C)	Field Calibration on 8-MAY-2005,02:39
Lower	0.00	0.00	
Upper	100.00	100.00	
High Resolution Temperature Constants MCG 098			
Pre-filter Length	11		
Gamma Calibration MCG 098			
	Measured	Calibrated (API)	Field Calibration on 8-MAY-2005 02:39
Background	9	6	
Calibrator (Gross)	1373	915	
Calibrator (Net)	1364	909	
Gamma Constants MCG 098			
Gamma Calibrator Number	060		
Mud Density	1.21	gm/cc	
Caliper Source for Processing	Density Caliper		
Tool Position	Eccentred		
Concentration of KCl	0.00	kppm	

## Base Calibration

Reading No	Measured	Calibrator Size (in)
1	13428	4.01
2	21585	5.99
3	30000	7.98
4	38511	9.94
5	47824	12.01
6	N/A	N/A

## Field Calibration

Measured Caliper (in)	Actual Caliper (in)
8.03	7.98

## Sonic Constants MSS 066

Maximum Boundary Contrast	328.08	micro-sec/m
Fluid Transit Time	620.08	micro-sec/m
Limestone Transit Time	155.84	micro-sec/m
Sandstone Transit Time	182.09	micro-sec/m
Dolomite Transit Time	142.72	micro-sec/m
Sonic used for Porosities	3-5' Compensated Sonic	
Correction for Sonde Skew	Applied	
Cycle Stretch Algorithm	Applied	
MN3FT	N/A	micro-sec
MX3FT	N/A	micro-sec

## Fixed Gate Parameters

Start Time (micro-sec)	End Time (micro-sec)	Discriminator (mV)	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

## Down Hole Fixed Gate Parameters

Gate Start	N/A	micro-sec
Gate Width	N/A	micro-sec
Initial Discriminator Level	0.0000	mVolts

## Full Waveform Parameters

Use 3' Waveform to derive TR	N/A	
Use 4' Waveform to derive TR	N/A	
Use 5' Waveform to derive TR	N/A	
Use 6' Waveform to derive TR	N/A	
3' Waveform Discriminator Level	N/A	mV
4' Waveform Discriminator Level	N/A	mV
5' Waveform Discriminator Level	N/A	mV
6' Waveform Discriminator Level	N/A	mV
3' Waveform Filter	N/A	
4' Waveform Filter	N/A	
5' Waveform Filter	N/A	
6' Waveform Filter	N/A	
Semblance Level	N/A	
Semblance Window Width	N/A	micro-sec
Sonic 1 Despiker	N/A	N/A
Sonic 2 Despiker	N/A	N/A

## DOWNHOLE EQUIPMENT

C:\logs\BMA\_A10A\BMA\_A10A\_MAIN\_LOG\_MSS\_Remake\_2JUNE05.dta

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

Compact Knuckle Joint  
SKJ 100 Length: 0.66 m Weight: 24.3 lb

Compact Battery Sub.  
MBS 99 Length: 4.41 m Weight: 90.4 lb



Compact Inline Standoff B  
MIS 73    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 139    Length: 0.65 m    Weight: 15.4 lb

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

Compact Inline Standoff B  
MIS 136    Length: 0.65 m    Weight: 15.4 lb

MBE 21 - THIRD BRIDLE  
MLK 111    Length: 3.76 m    Weight: 88.2 lb

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

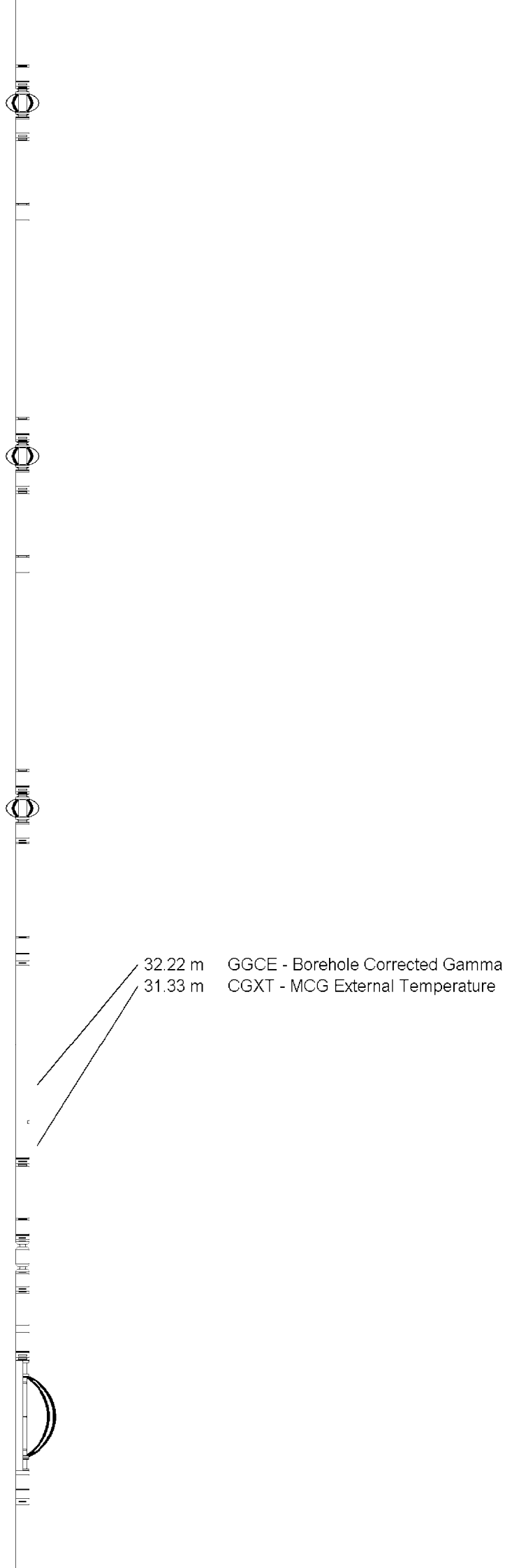
Compact Memory Sub A.C  
MMS 38    Length: 0.95 m    Weight: 30.9 lb

Compact Knuckle Joint  
SKJ 46    Length: 0.66 m    Weight: 24.3 lb

Compact Swivel Head Adaptor F  
SHA 64    Length: 0.83 m    Weight: 26.5 lb

Compact Inline Bowspring A  
MIS 94    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

Compact Inline Bowspring A  
MIS 24    Length: 1.74 m    Weight: 33.1 lb

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

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

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

Compact Upper Guard Sub.  
MUG 20    Length: 2.74 m    Weight: 68.3 lb

Compact Inline Standoff B  
MIS 129    Length: 0.65 m    Weight: 15.4 lb

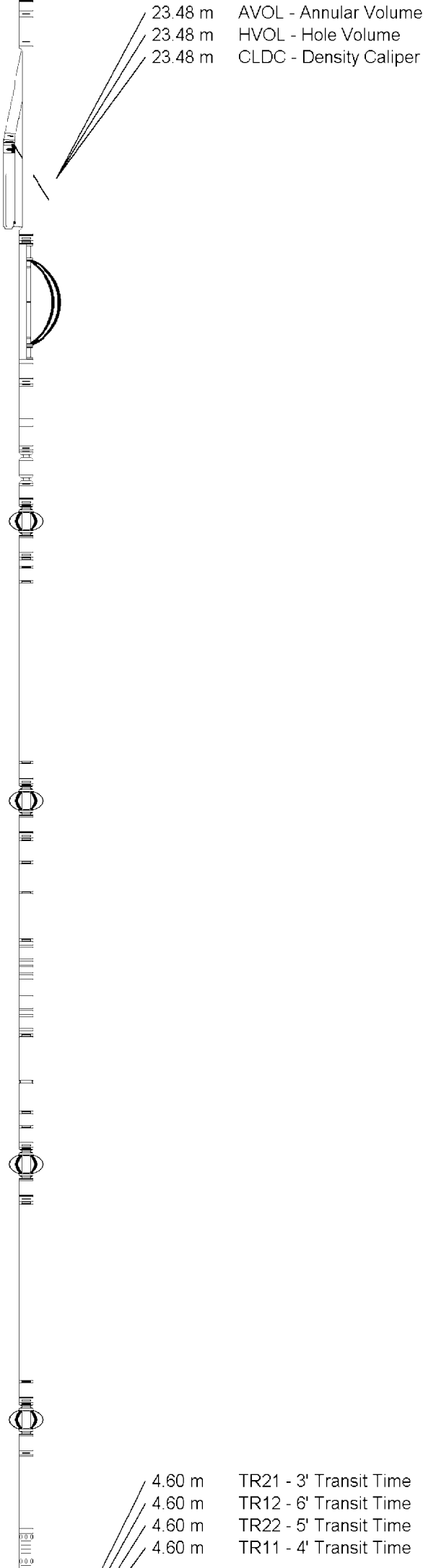
Compact Laterolog Electrode Sub.  
MLE 16    Length: 3.76 m    Weight: 92.6 lb

Compact Inline Standoff B  
MIS 127    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 133    Length: 0.65 m    Weight: 15.4 lb

Compact Sonic  
MSS 66    Length: 3.82 m    Weight: 72.8 lb

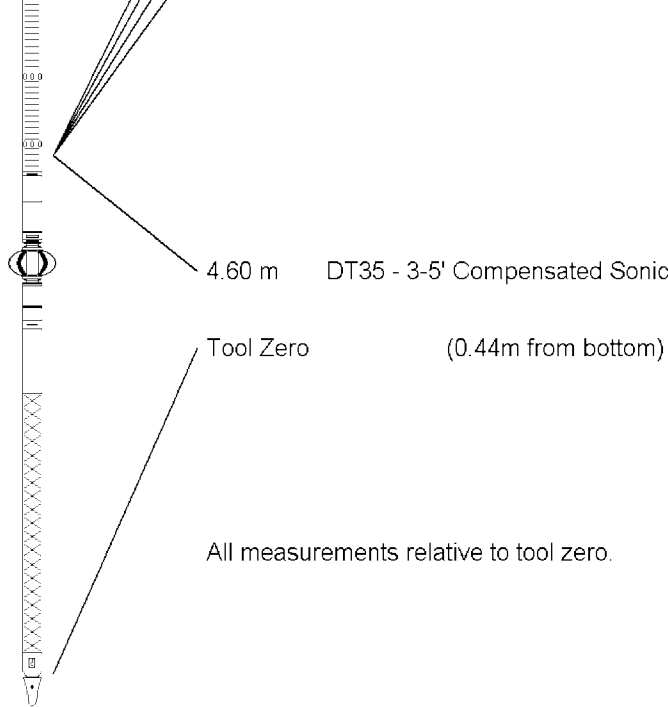


Compact Inline Standoff B  
MIS 128 Length: 0.65 m Weight: 15.4 lb

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

Pressure Bung + Hole Finder  
HFS 3 Length: 0.40 m Weight: 6.6 lb

Total Length: 53.36 m Weight: 1289.7 lb



COMPANY	ESSO AUSTRALIA PTY LTD
WELL	BREAM A10A
FIELD	BREAM
PROVINCE/COUNTY	BASS STRAIT
COUNTRY/STATE	AUSTRALIA

Elevation Kelly Bushing	metres	First Reading	3370.10	metres
Elevation Drill Floor	32.82 metres	Depth Driller	3379.50	metres
Elevation Ground Level	-59.40 metres	Depth Logger	3375.10	metres



COMPENSATED SONIC  
1:200 MD