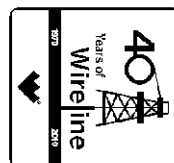




Weatherford

CML MESSENGER SHUTTLE
CPMPACT PHOTO DENSITY
COMPENSATED NEUTRON

Company	SANDRIDGE ENERGY		
Well	ISAAC FARMS 1-36H		
Field	FINNEY		
Province	FINNEY		
Country	U.S.A. / KANSAS		
Location	200' FNL & 400' FWL		



SEC	TWP	RGE	Other	Permanent G.L.CommaElevation 2886 feet LogFrom KB DrillFrom K.B. @ 16 FEET	Elevations Kb Df GI	feet 2902.00 2900.00 2886.00
22	31W	36S	MAI			
API Number	15-055-22135		CMI			
Permit Number						
Date	05-MAY-2012					
RunNo	ONE					
DepthDriller	9272.00			feet		
DepthLogger	9272.00			feet		
FirstReading	9192.00			feet		
LastReading	5357.00			feet		
CasingDriller	5357.00			feet		
CasingLogger	5357.00			feet		
BitSize	6.125			inches		
HoleFluid	W/BM					
Density	8.33	g/c3	30.00	CP		
Ph	8.50		18.00	ml/30Min		
SampleSource	FLOWLINE					
RmMeas	0.86 @ 73.0			ohm-m		
RmflMeas	0.69 @ 73.0			ohm-m		
RmcMeas	1.03 @ 73.0			ohm-m		
RmtSouce	CALC		CALC			
RmBht	0.48 @132.0			ohm-m		
TimeCirc	2 HOURS					
MaxTemp	132.00			deg F		
Equipment	COMPACT					
Base	18077		OKC			
Recorded	STEVEN TOTTEY					
Witnessed	WILLIAM SCOTT					
S.O. #	3535254					

BoreholeRec			Last Edited: 05-MAY-2012 15:49	
BitSize Inches	DepthFrom Feet		DepthTo Feet	
6.125	5357.00		9272.00	
CasingRec				
Type	Size Inches	DepthFrom Feet	ShoeDepth Feet	Weight Pdff
surface	9.625	0.00	1332.00	29.30
inter	7.000	0.00	5357.00	17.00

Remarks
TOOLS RAN: 200V MBS-119,MMSE158, MGS-135, MDN-391, MPD-394,MIE-157, MAI-392 RAN IN COMBINATION
HARDWARE: MAI: MIS-B 0.5" STANDOFF USED ABOVE MAI, ISA 0.5" STANDOFF USED BELOW MAI. MDN: MIS-A DOUBLE BOWSPRING USED ABOVE MDN. MPD: 4INCH PROFILE PLATE USED, MIS-A SINGLE BOWSPRING USED BELOW MPD CMI: MIS-A CENTRALIZER RAN ABOVE AND BELOW CMI
2.71 G/CC DENSITY MATRIX USED TO CALCULATE POROSITY ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST.
DRILL PIPE DEPTH DURING DEPLOYMENT: 9153.33 LOGGING TOOL DEPTH AFTER DEPLOYMENT: 9254.33
ANNULAR HOLE VOLUME CALCULATED USING WITH 4.5 INCH PRODUCTION CASING

RIG: LARIET #3

OPERATOR(S): DREW TURNER AND CLINT HAWKINS

HOLE RUGOSITY MAY AFFECT LOG QUALITY.

5 INCH MAIN LOG

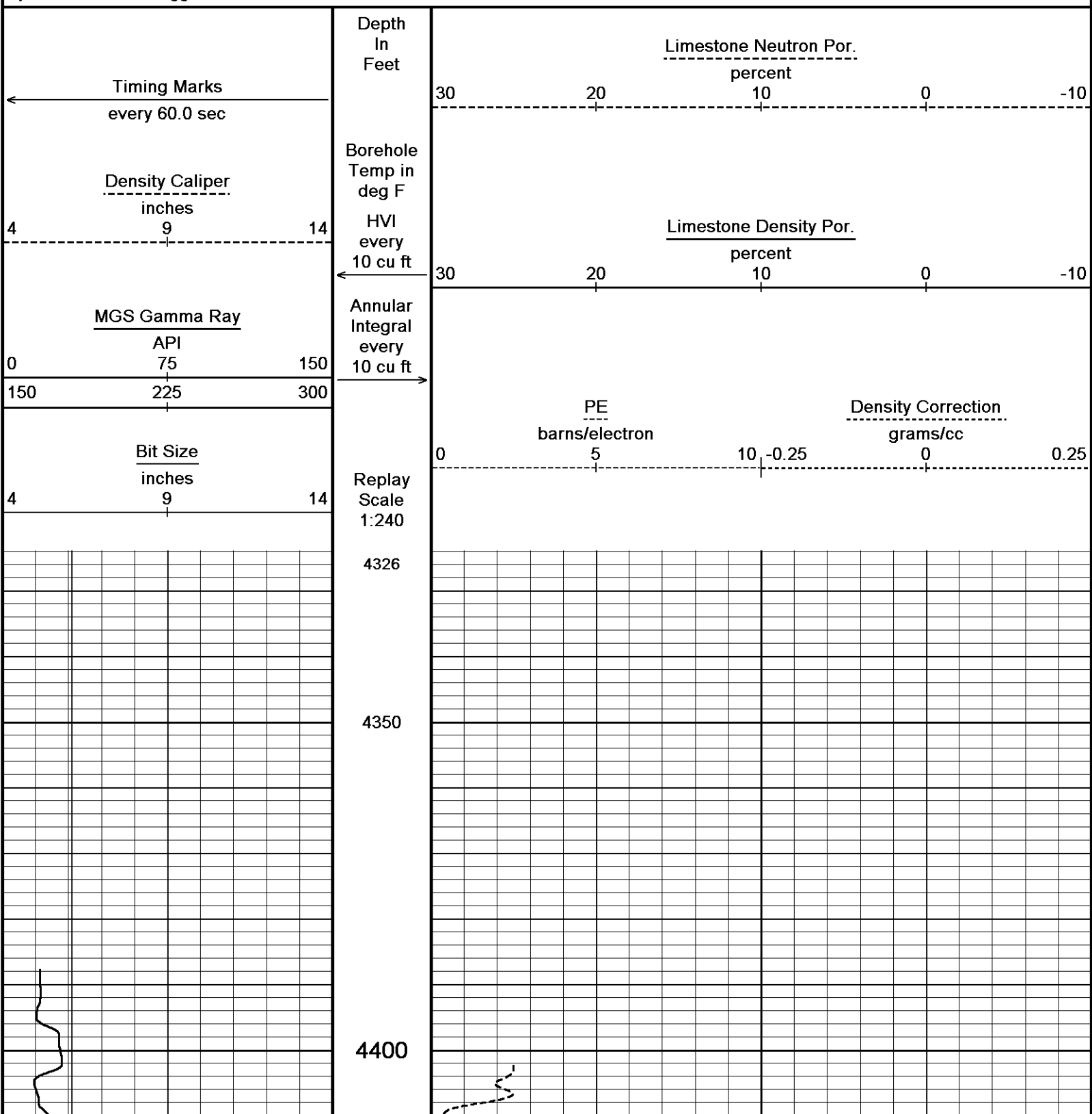
Depth Based Data - Maximum Sampling Increment 10.0cm

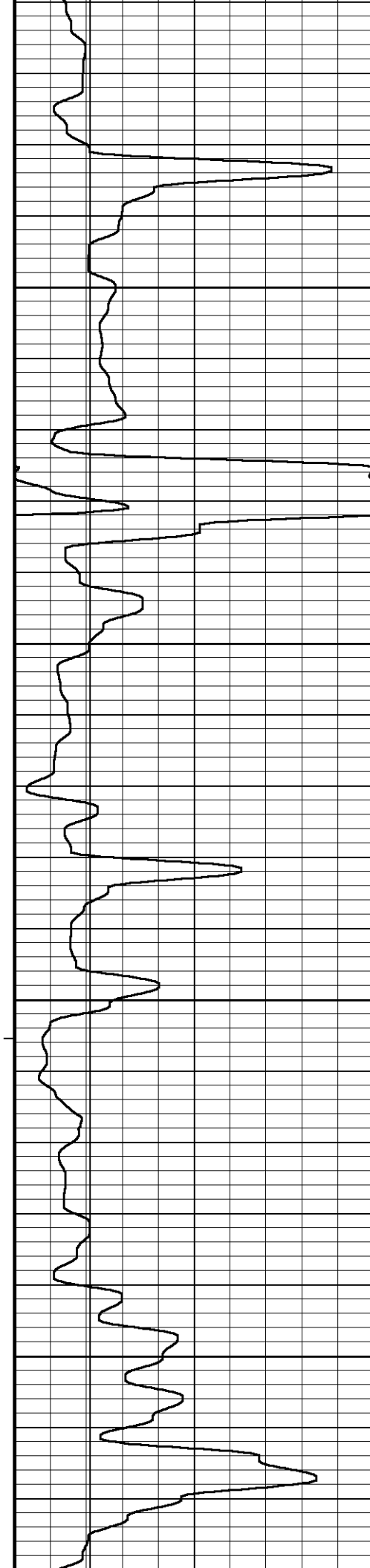
Plotted on 22-MAY-2012 10:16

Filename: C:\Users\amundt\AppData\Local\Temp\Weatherford PreView\0\RTAP 32268 158.dta

Recorded on 05-MAY-2012 18:09

System Versions: Logged with 13.01.5821 Processed with 13.01.5821 Plotted with 12.01.3513





122°

4450

123°

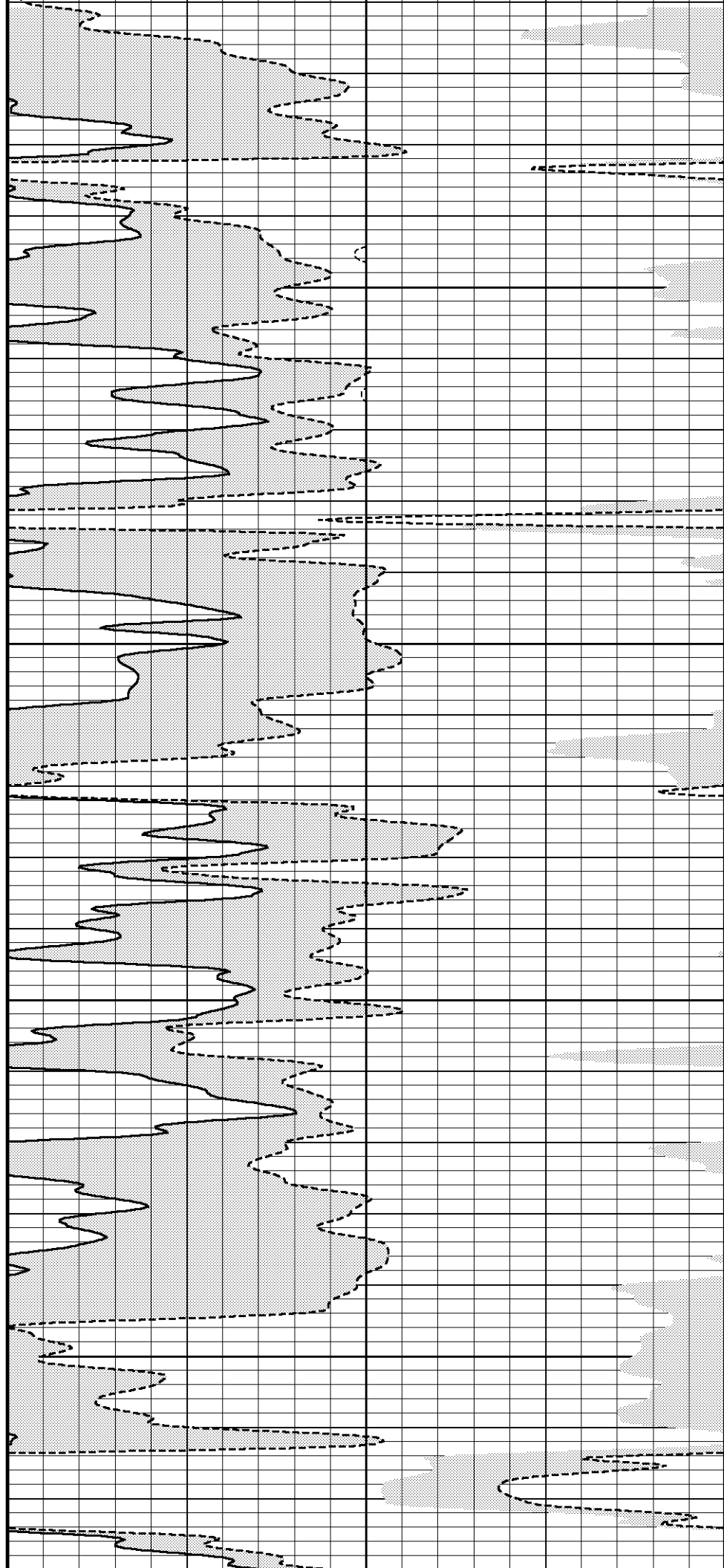
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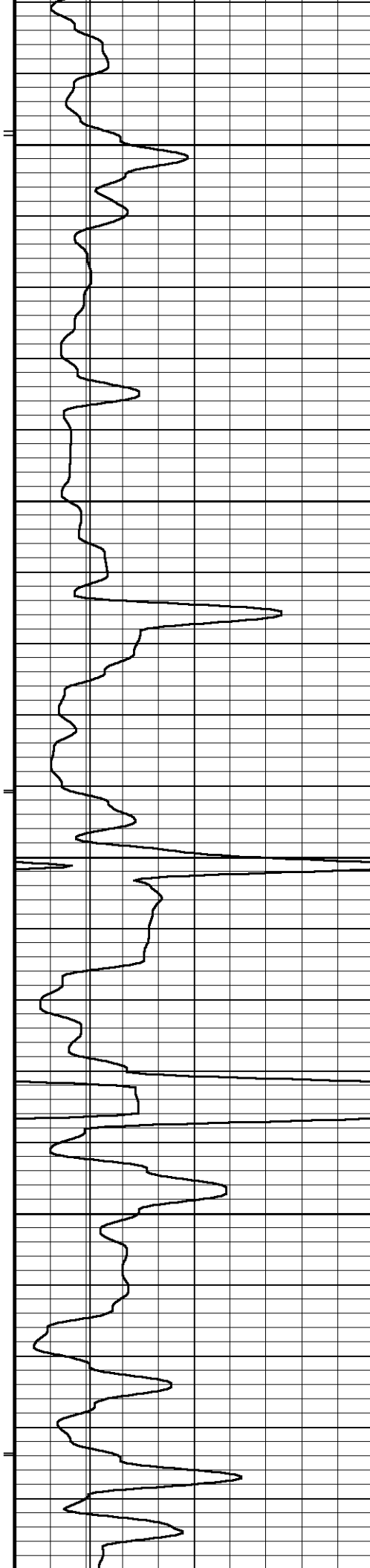
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4550

124°

4600





124°

4650

125°

4700

125°

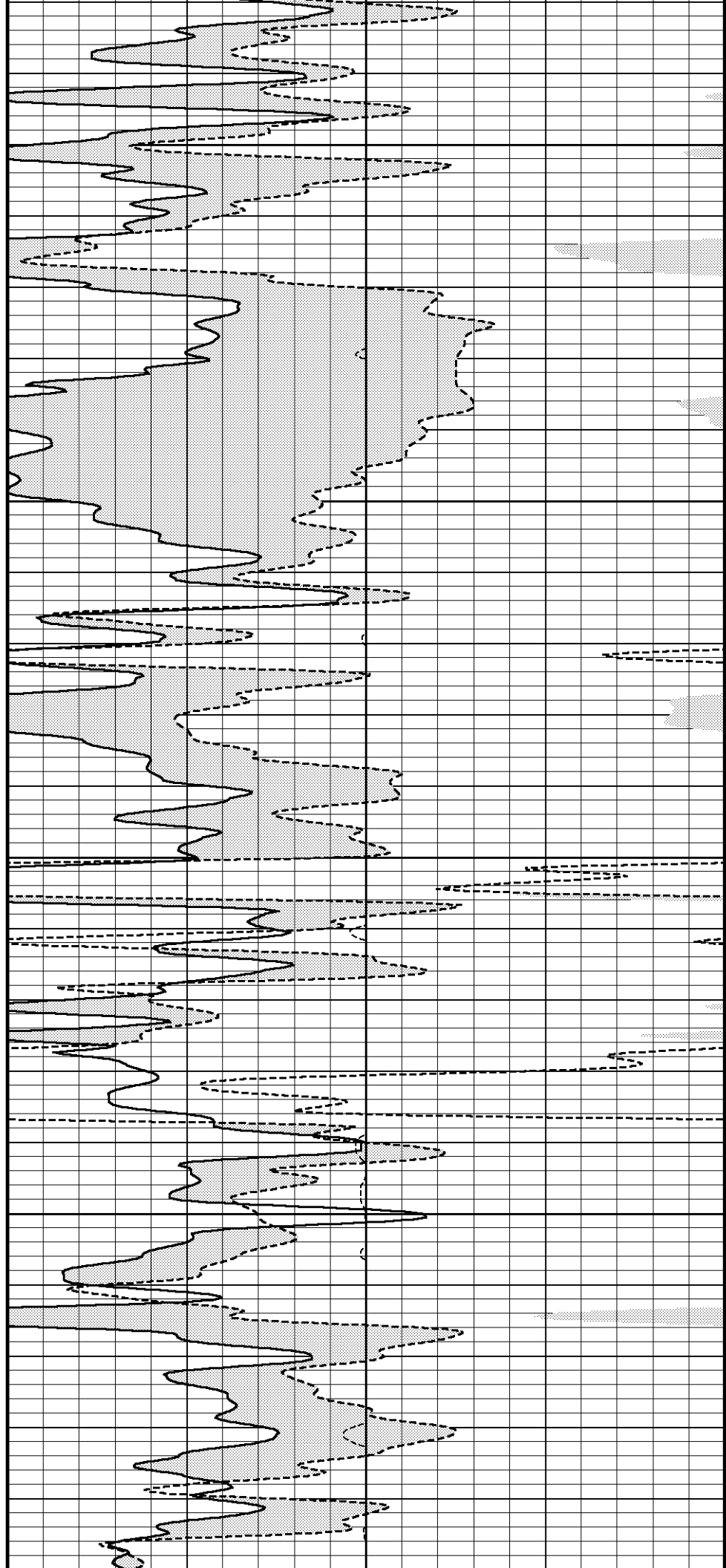
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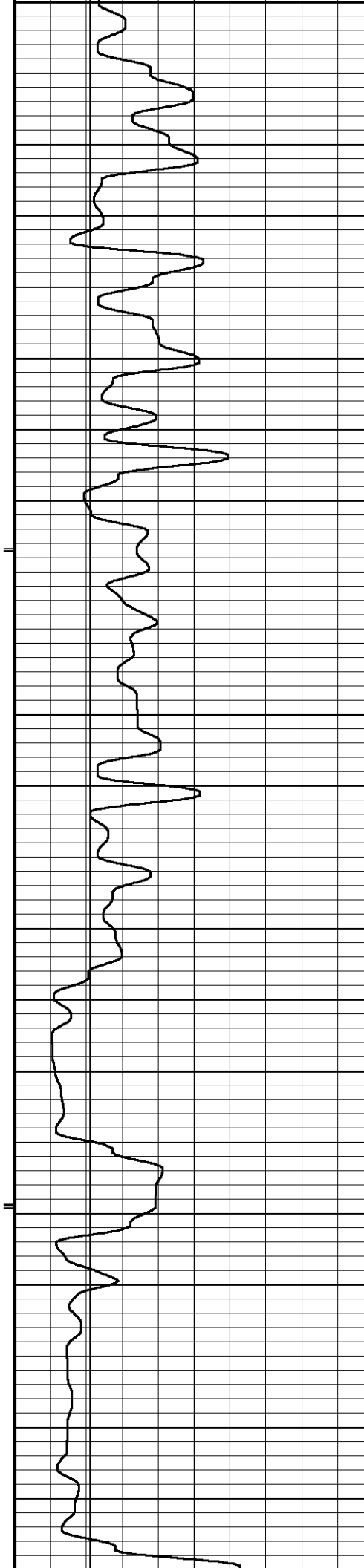
125°

4800

125°

4850





4850

126°

4900

126°

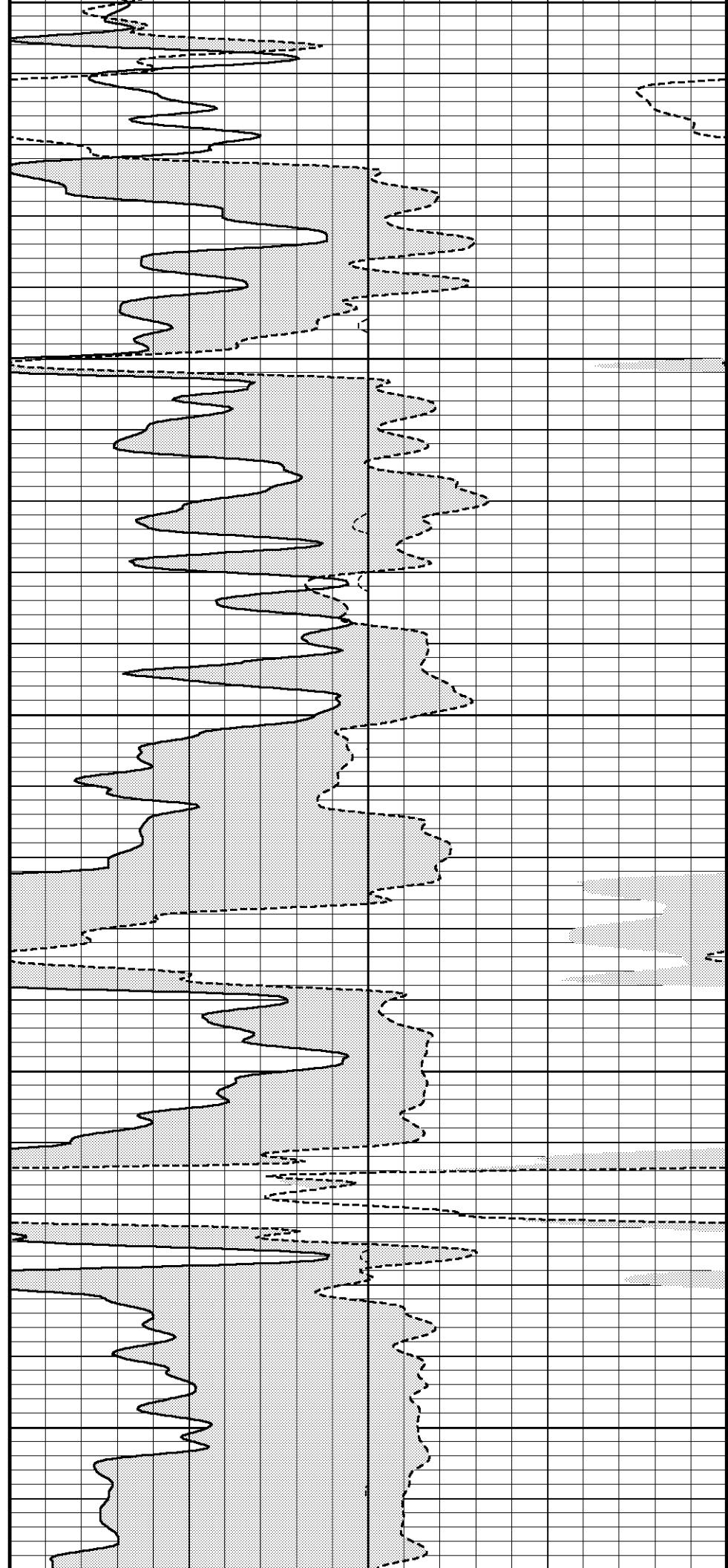
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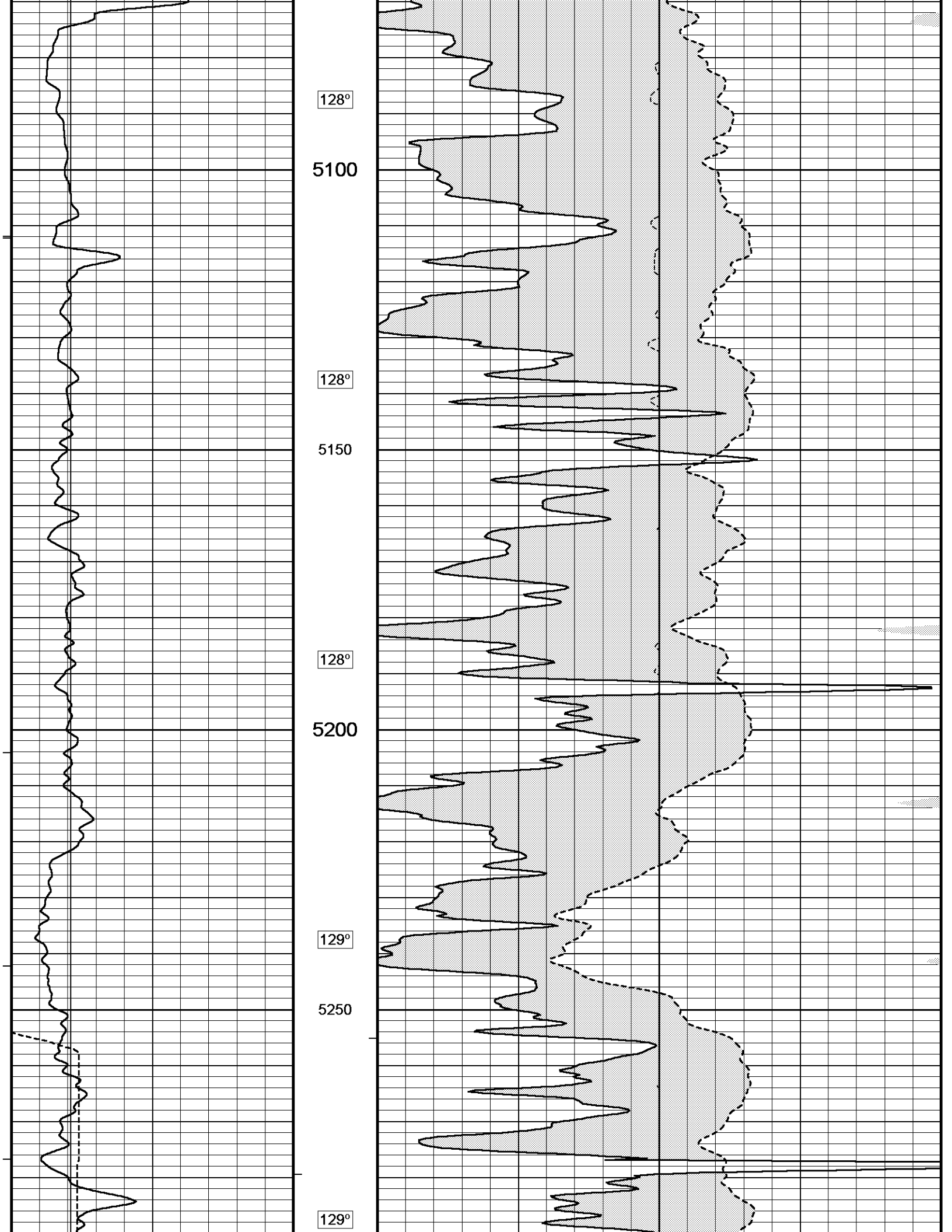
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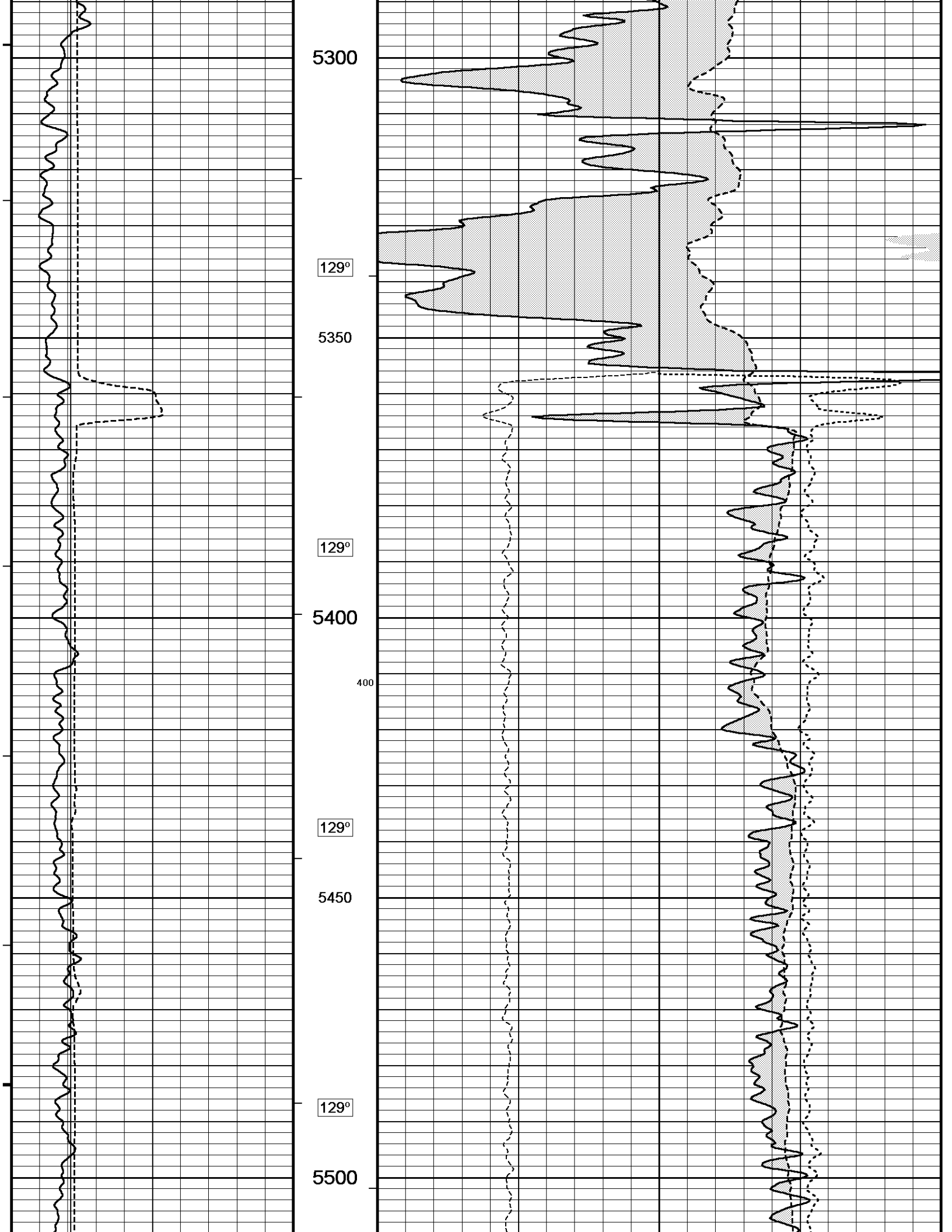
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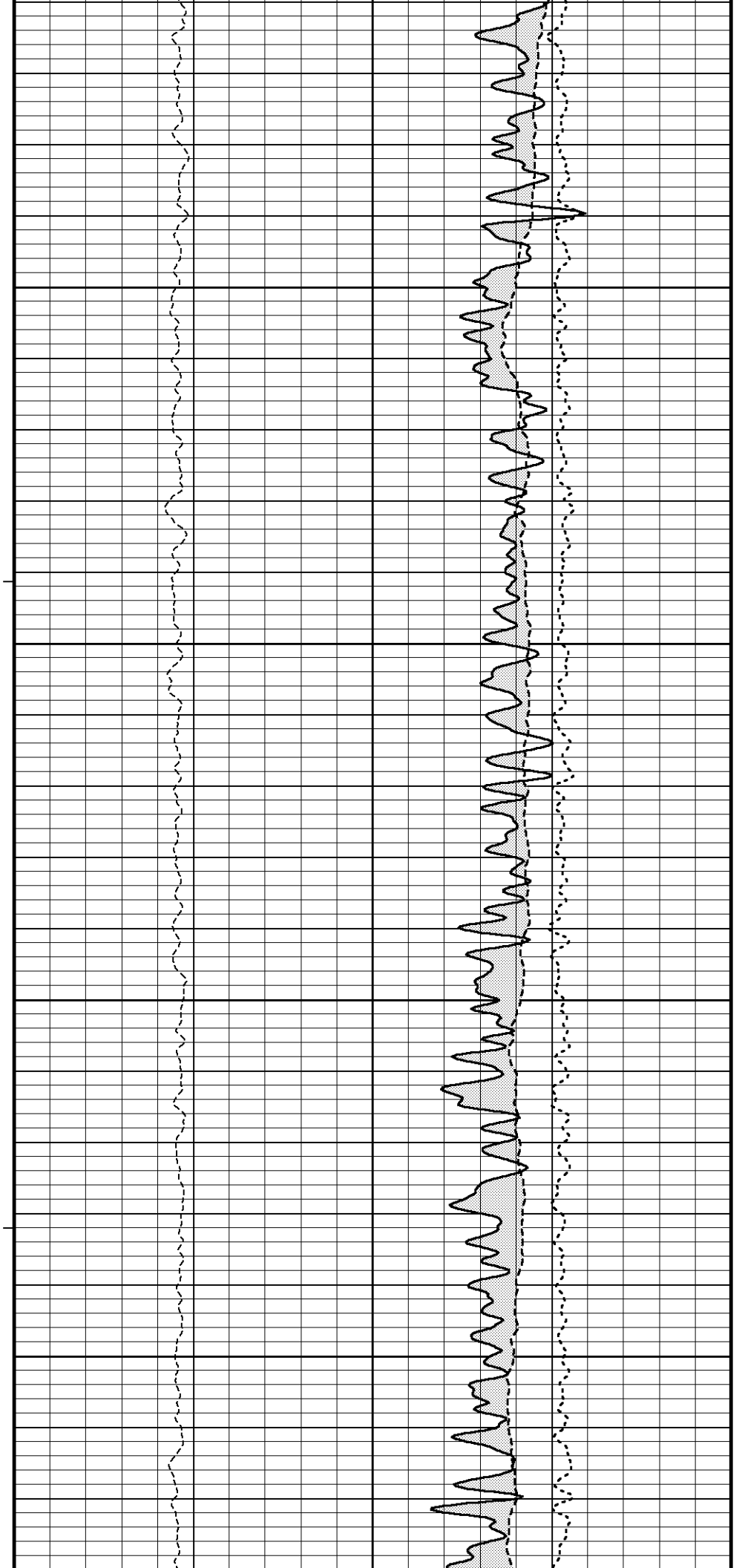
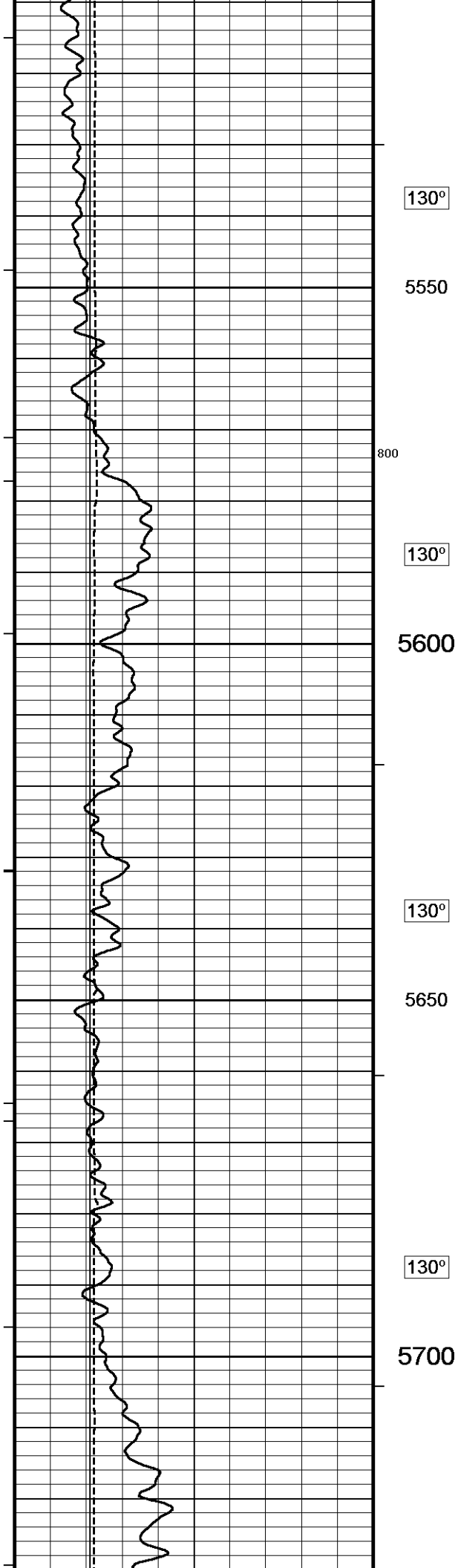
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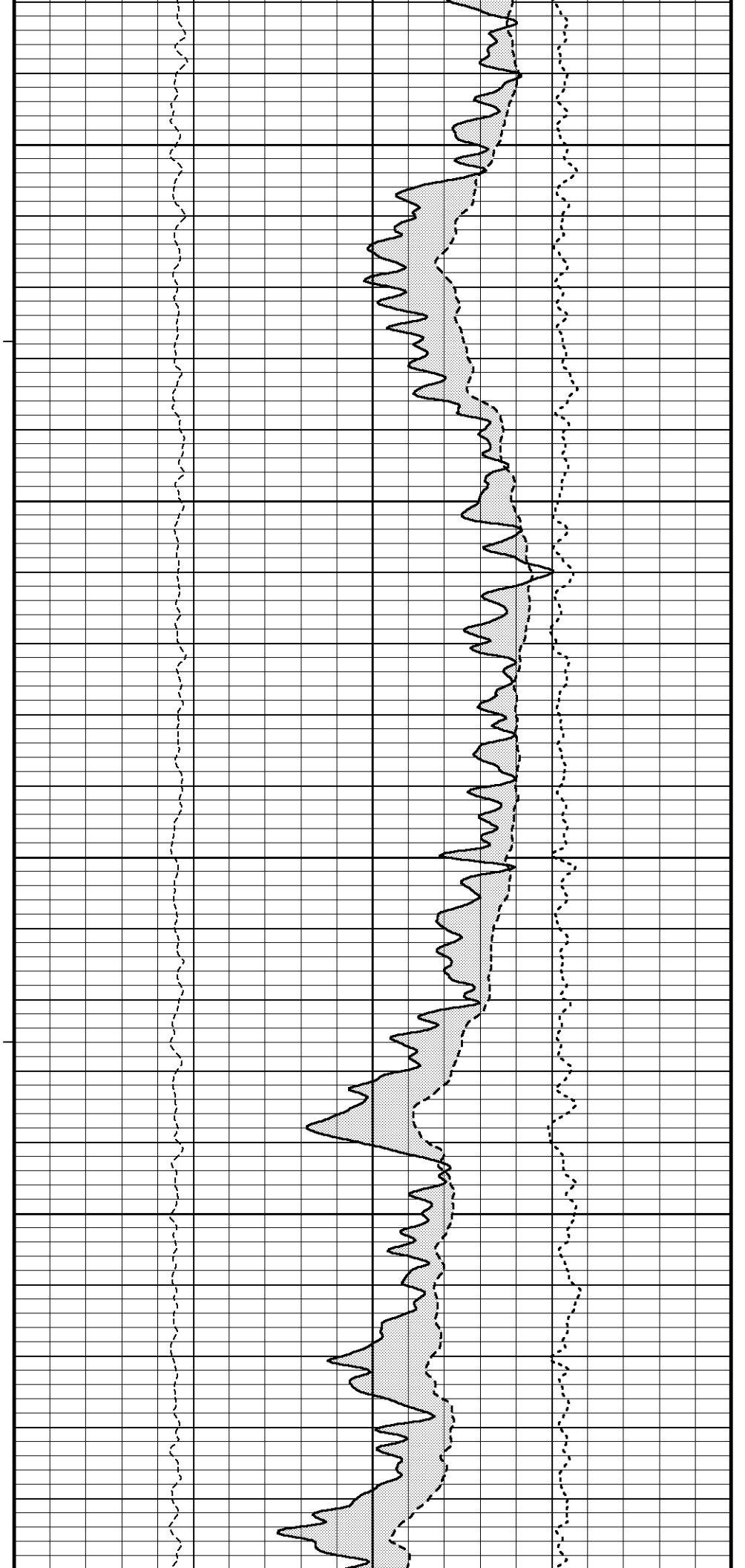
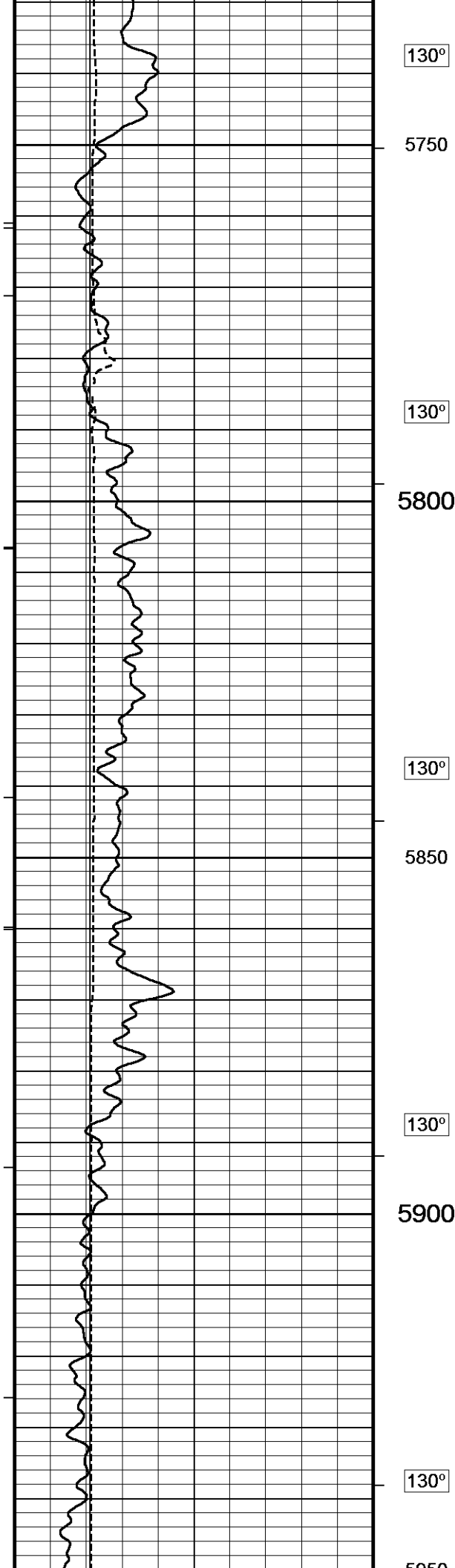
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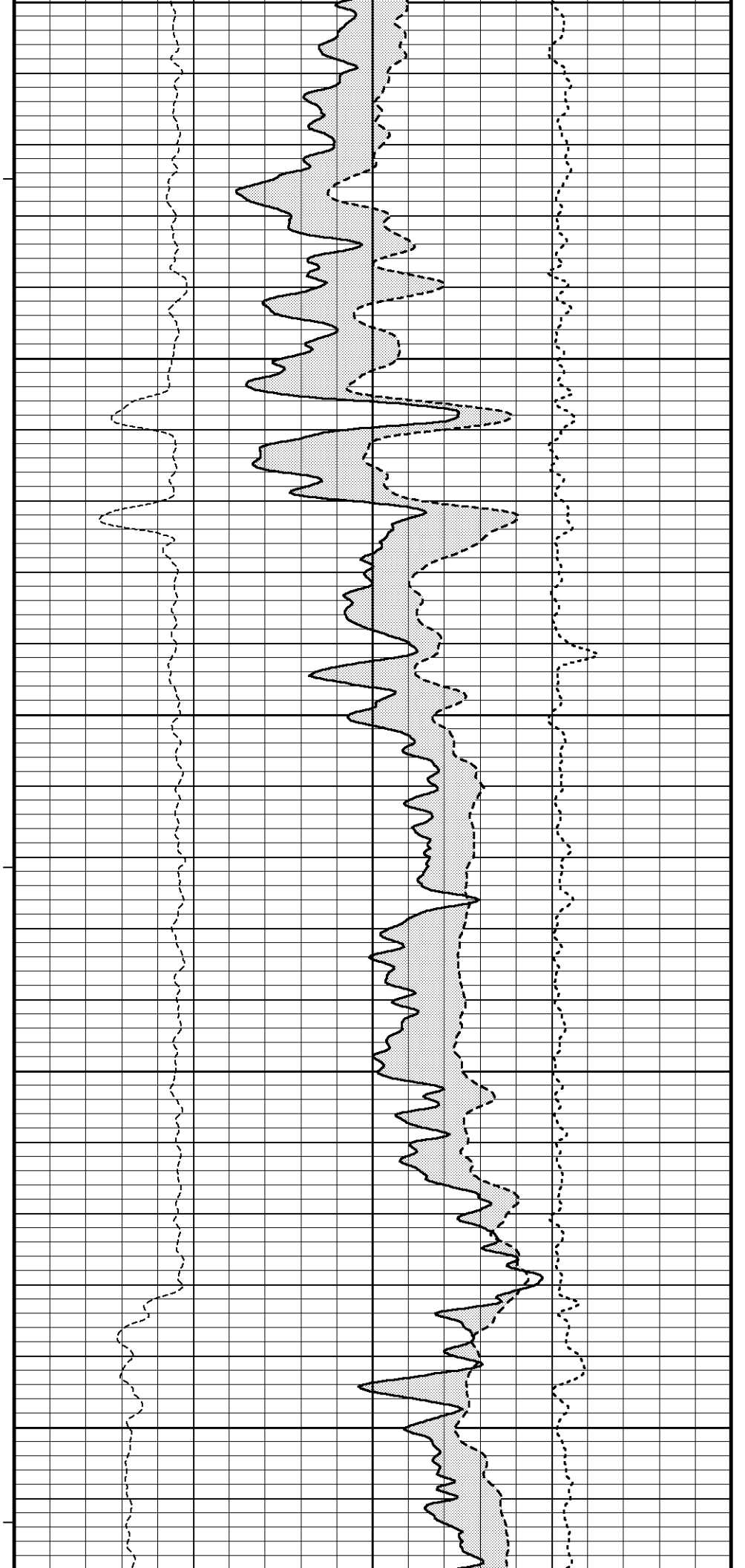
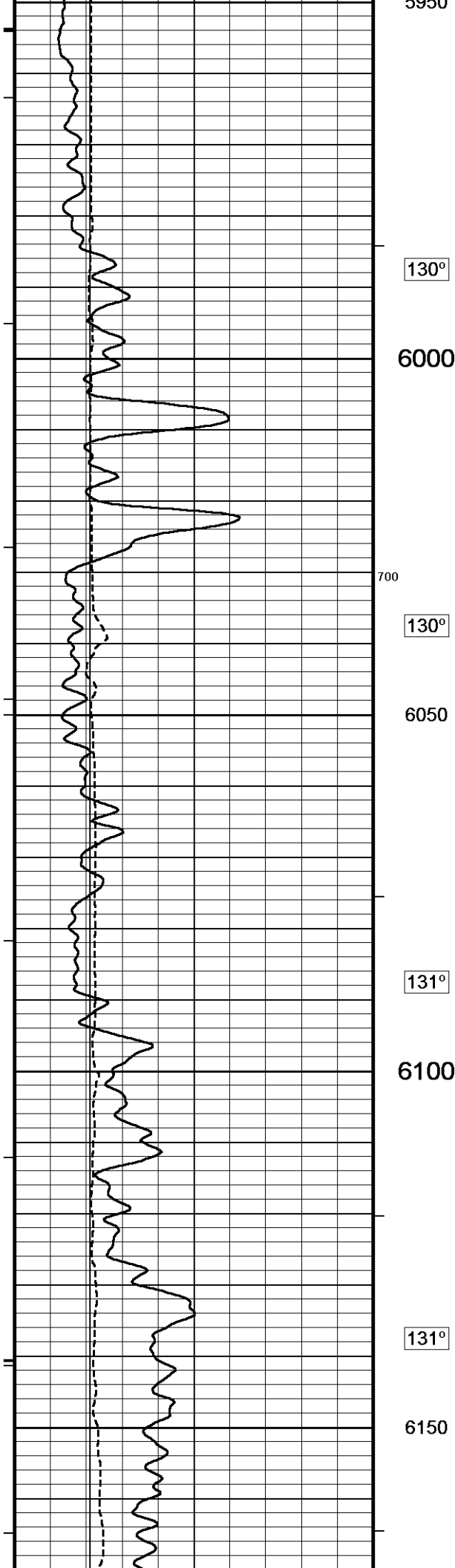


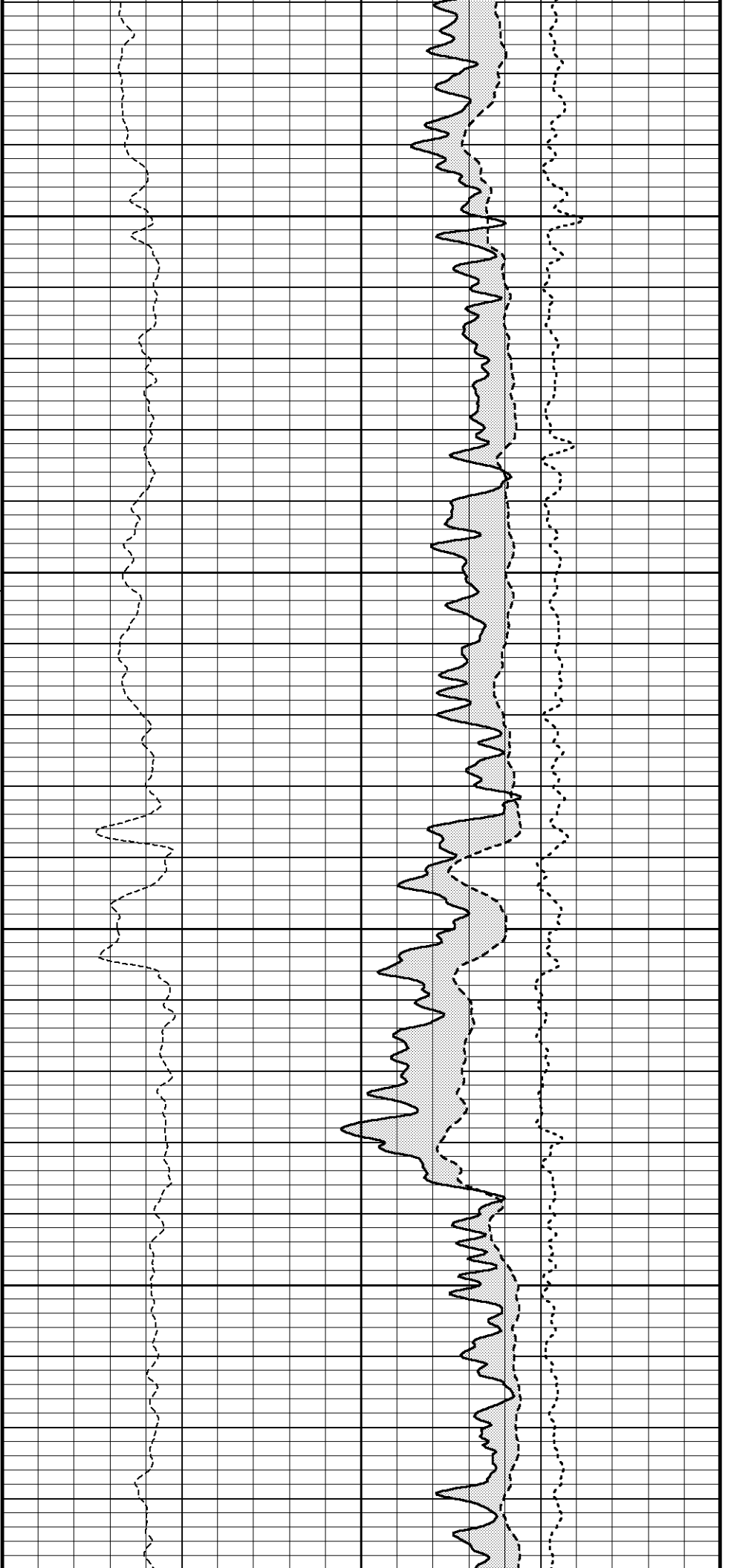
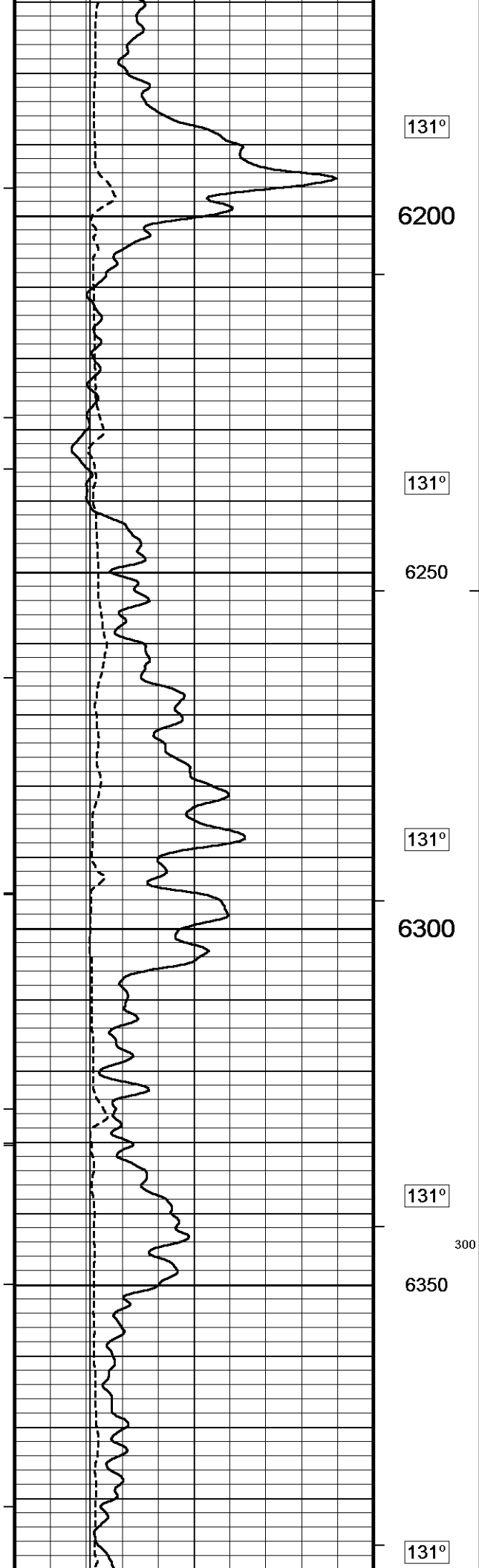


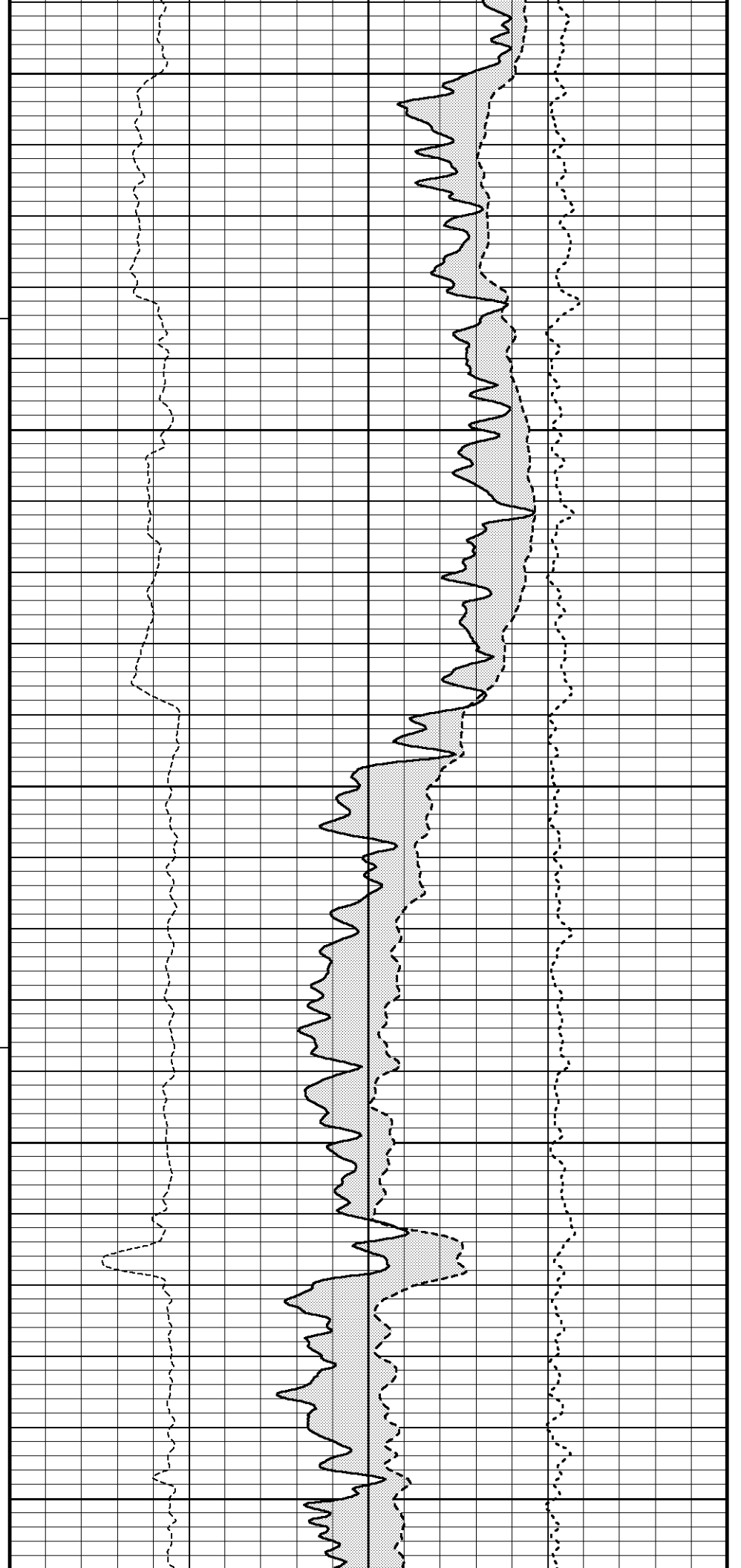
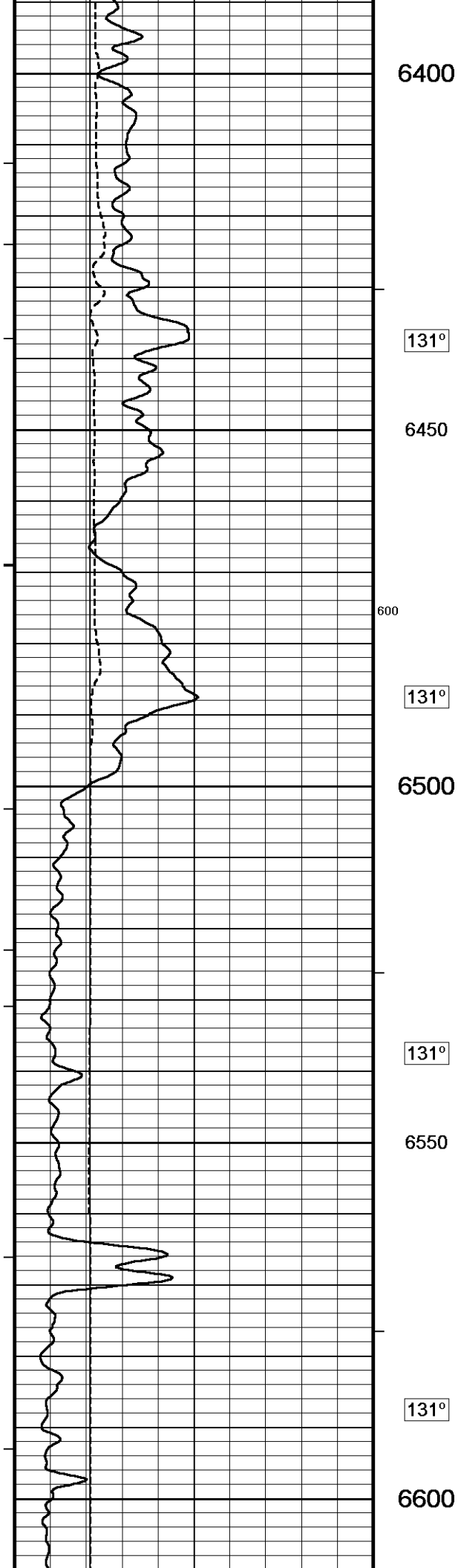


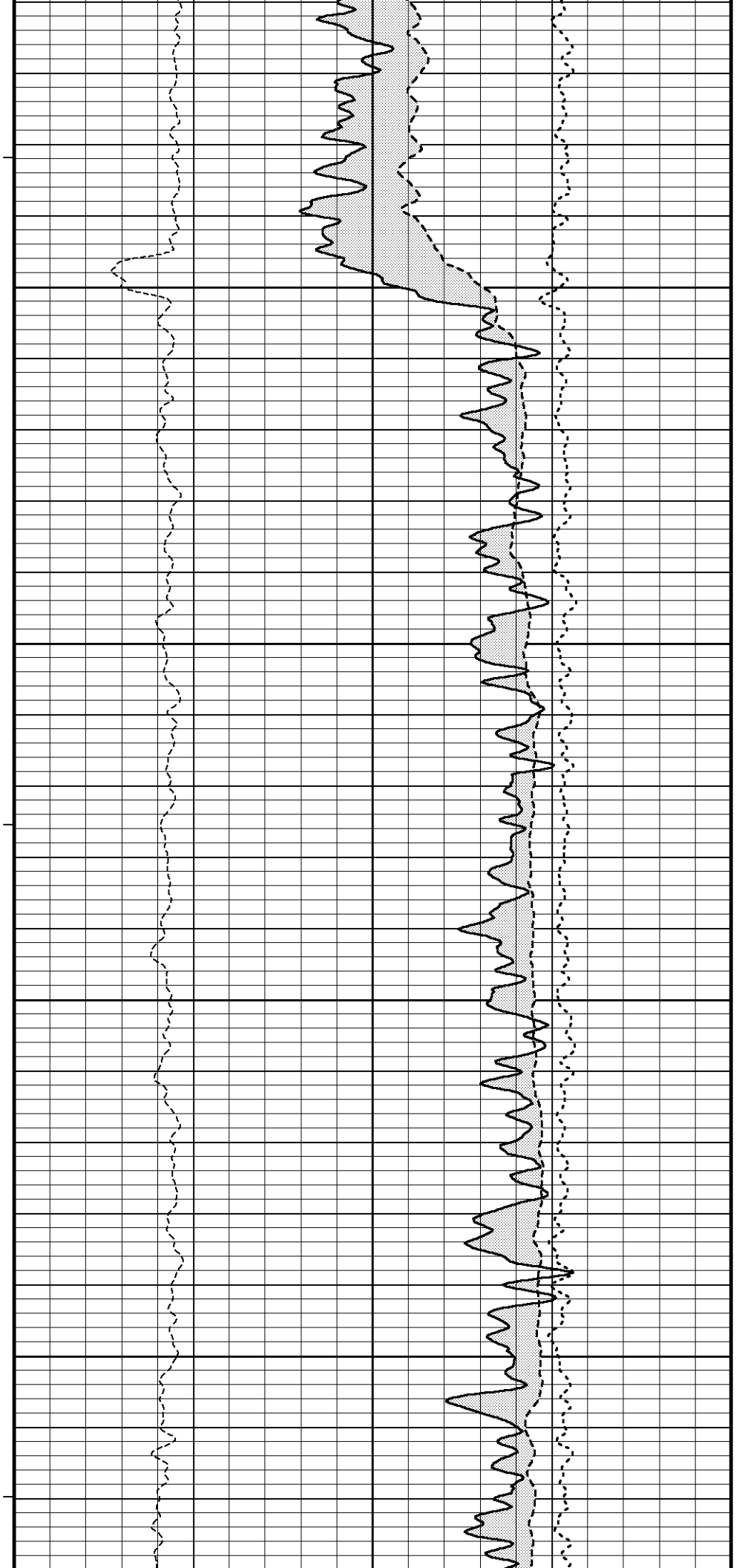
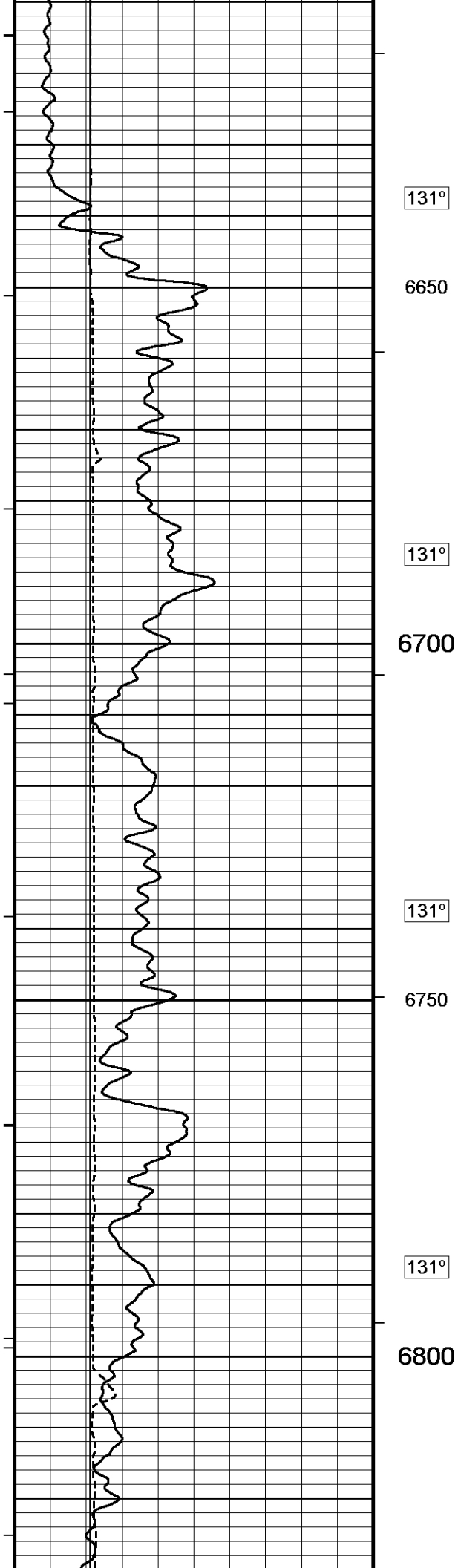


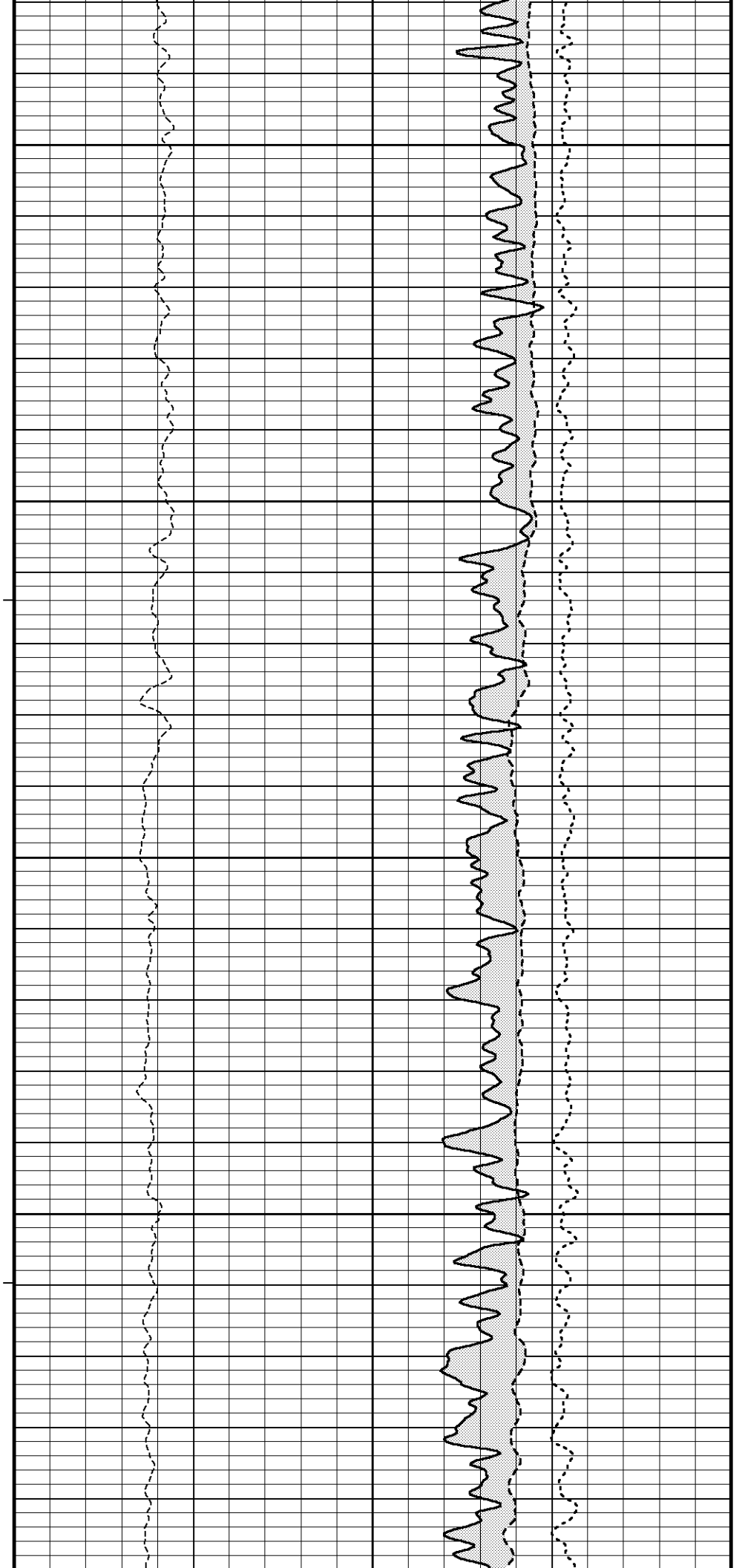
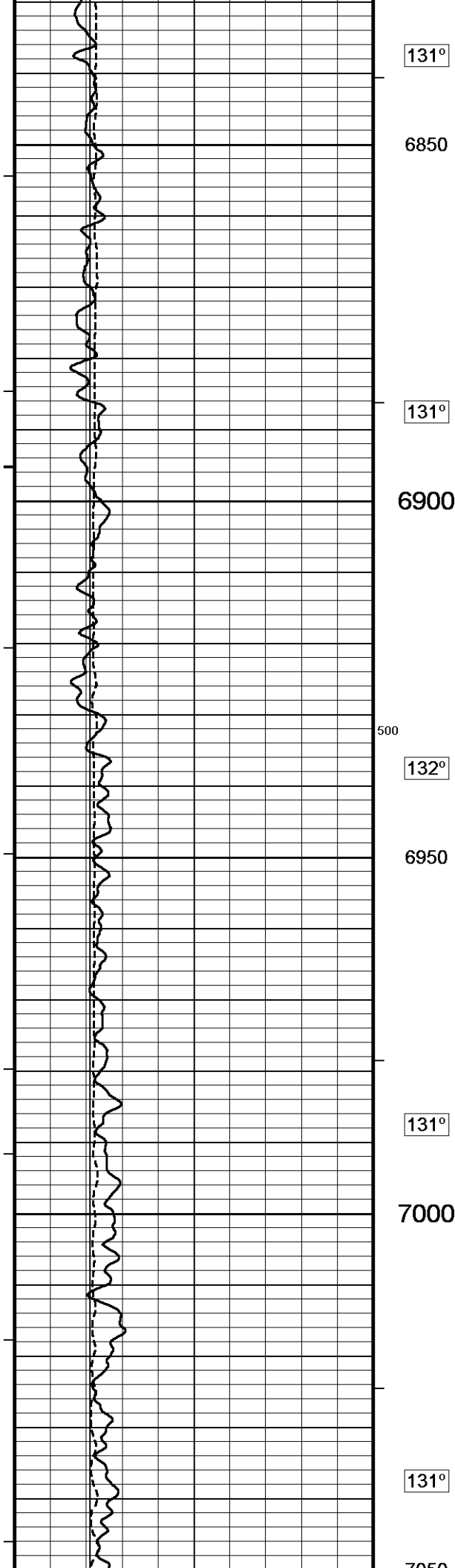


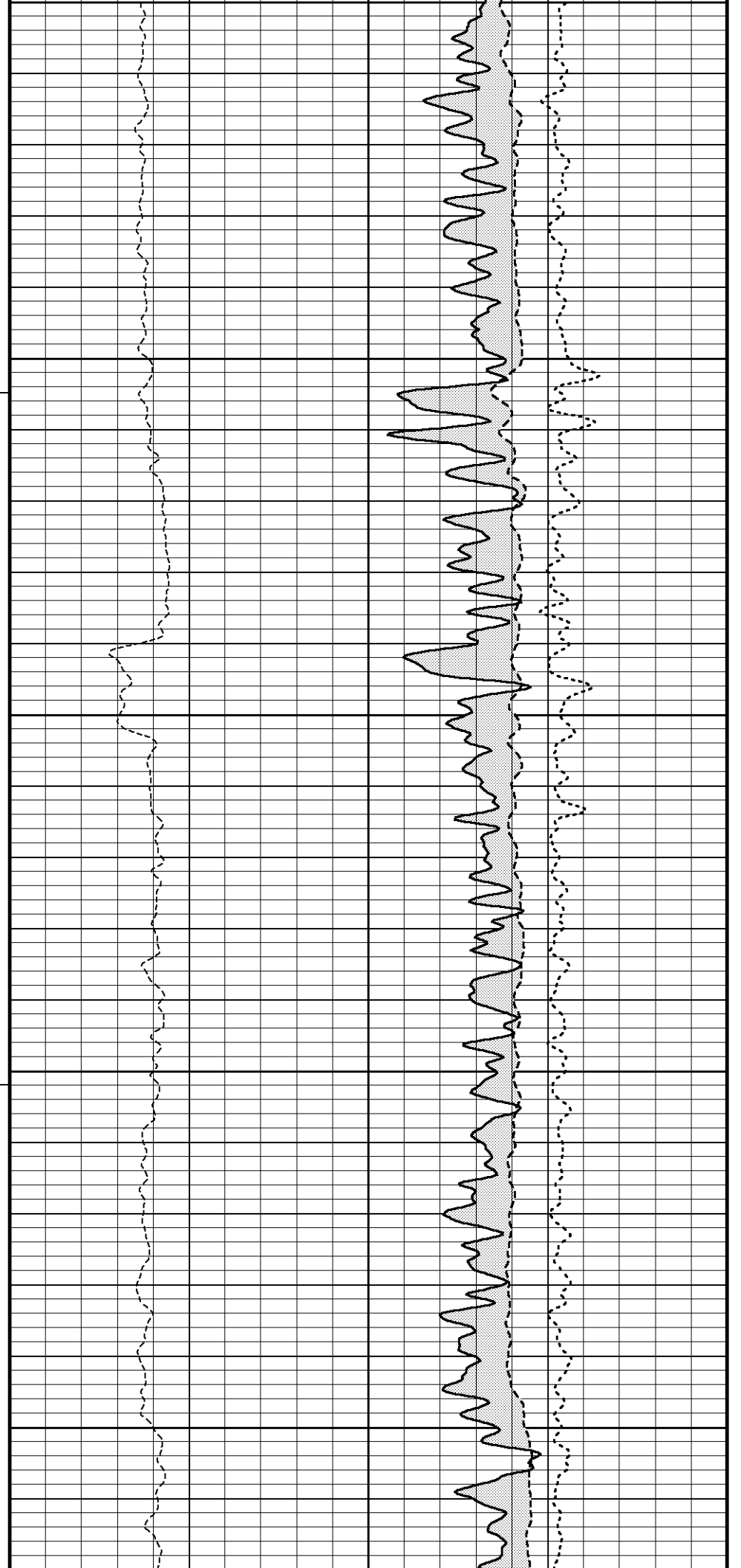
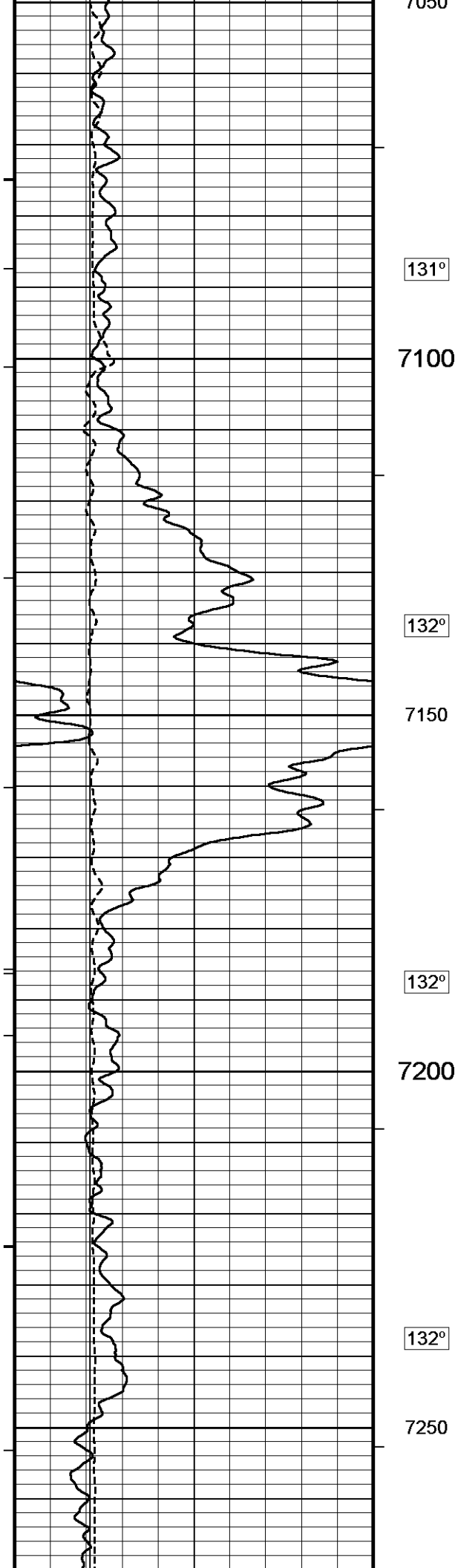


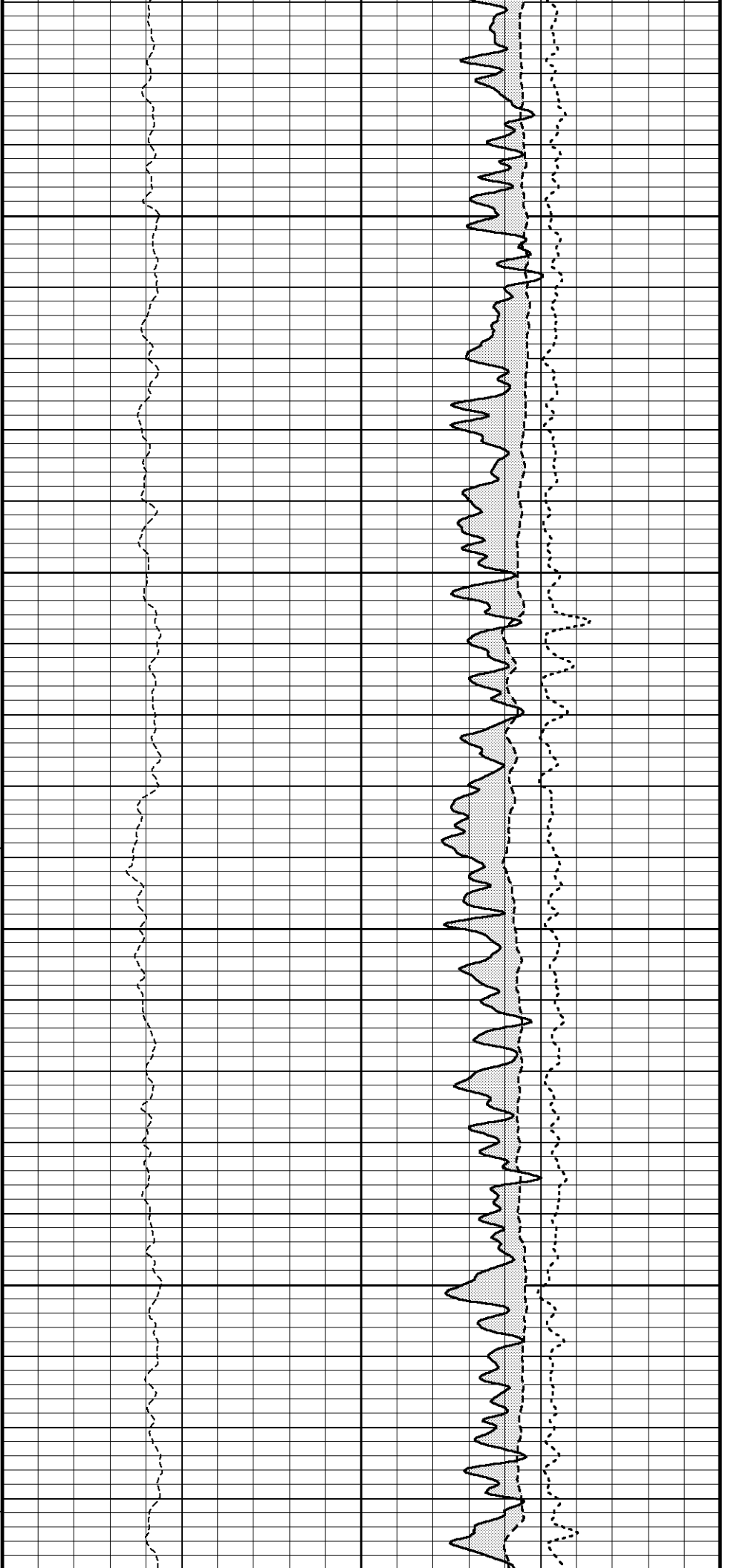
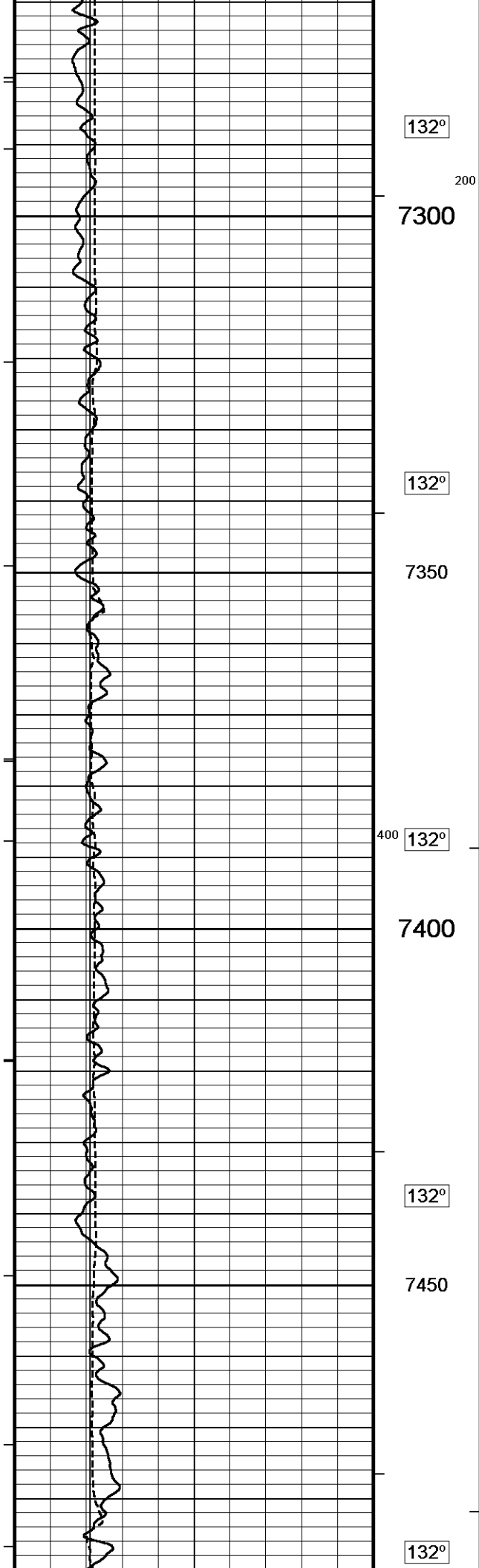


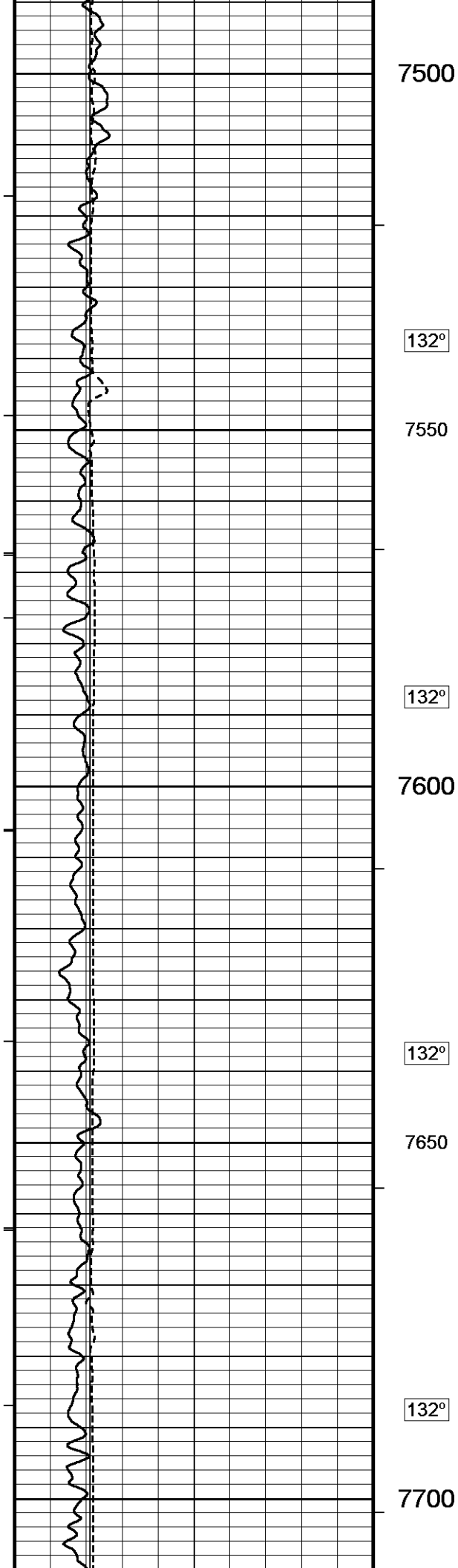












7500

132°

7550

132°

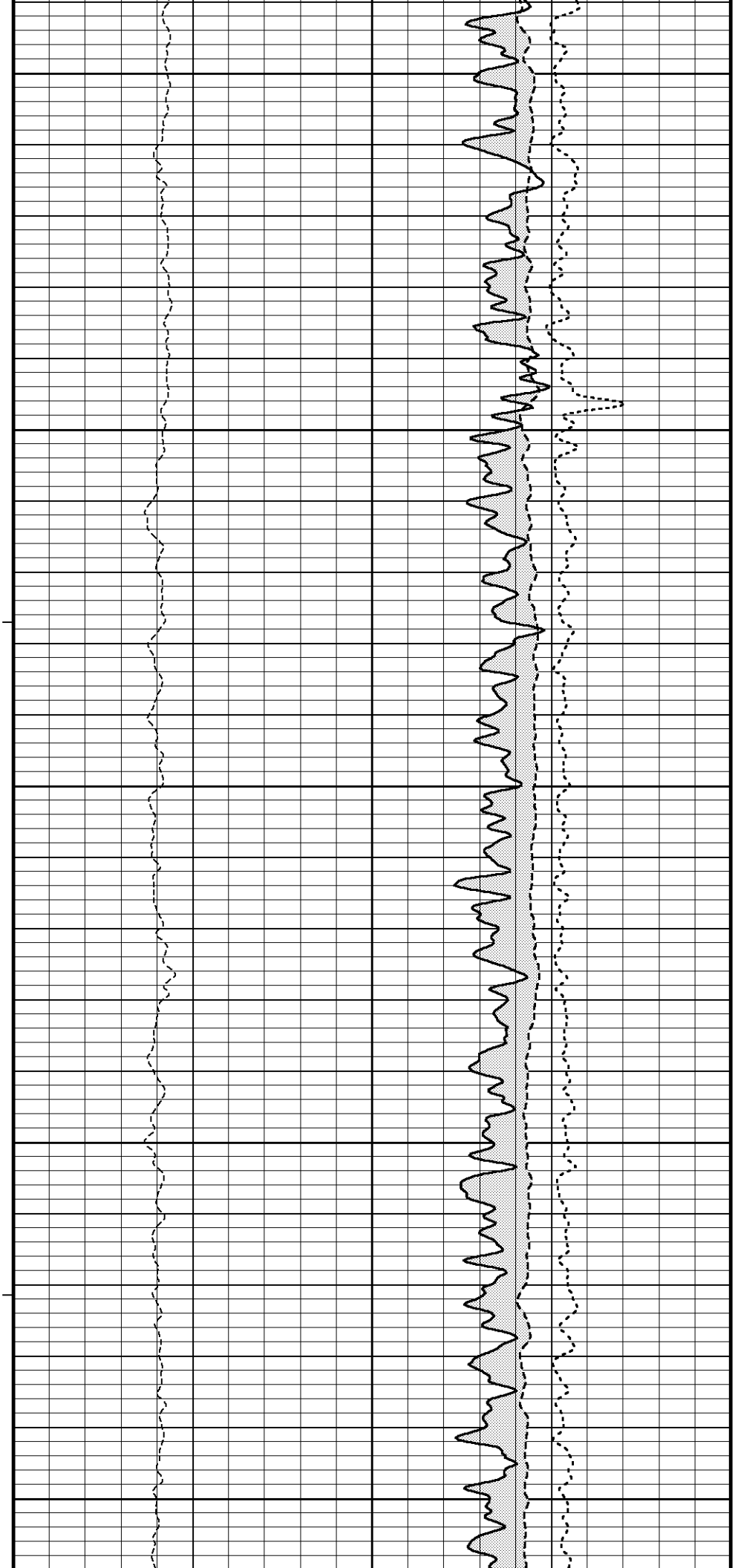
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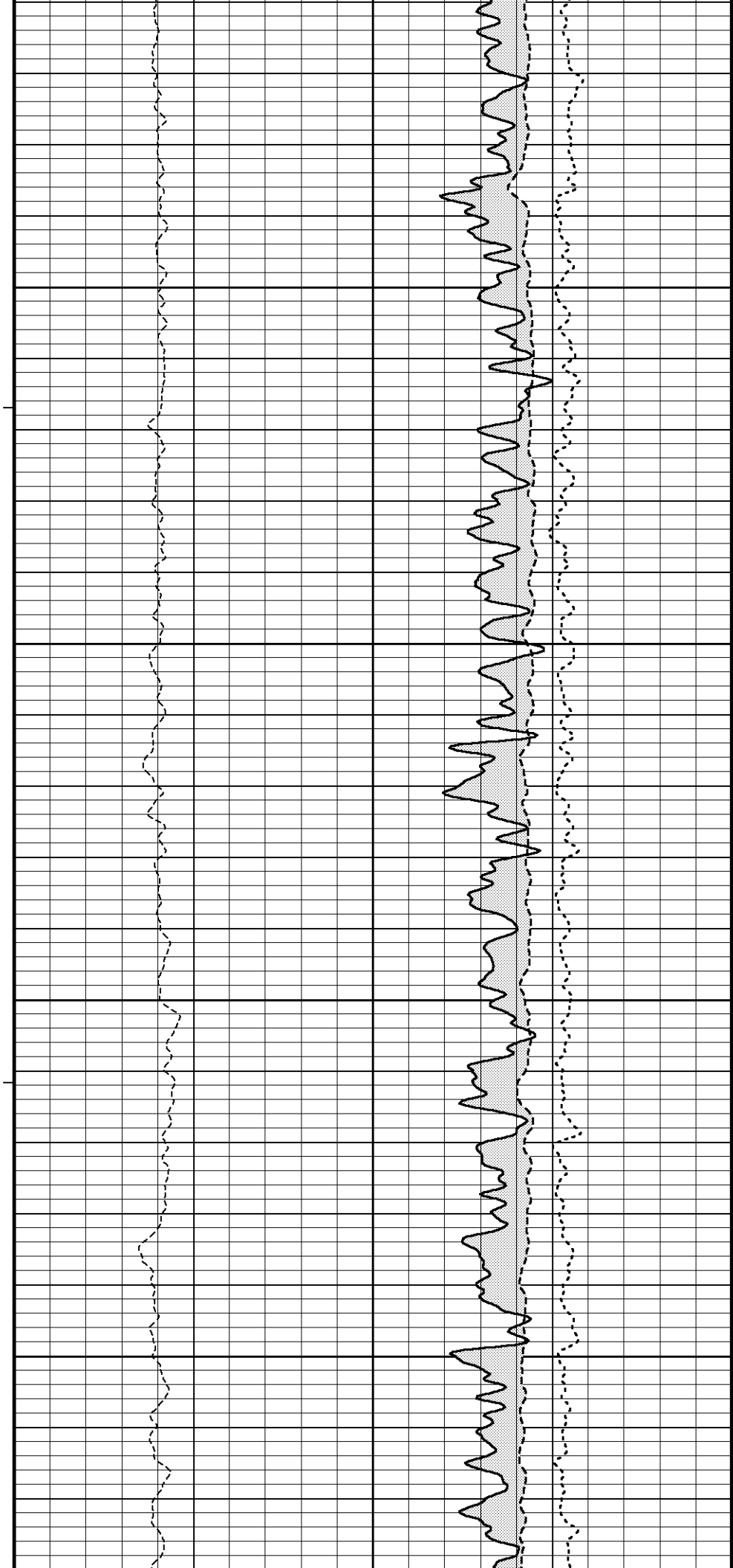
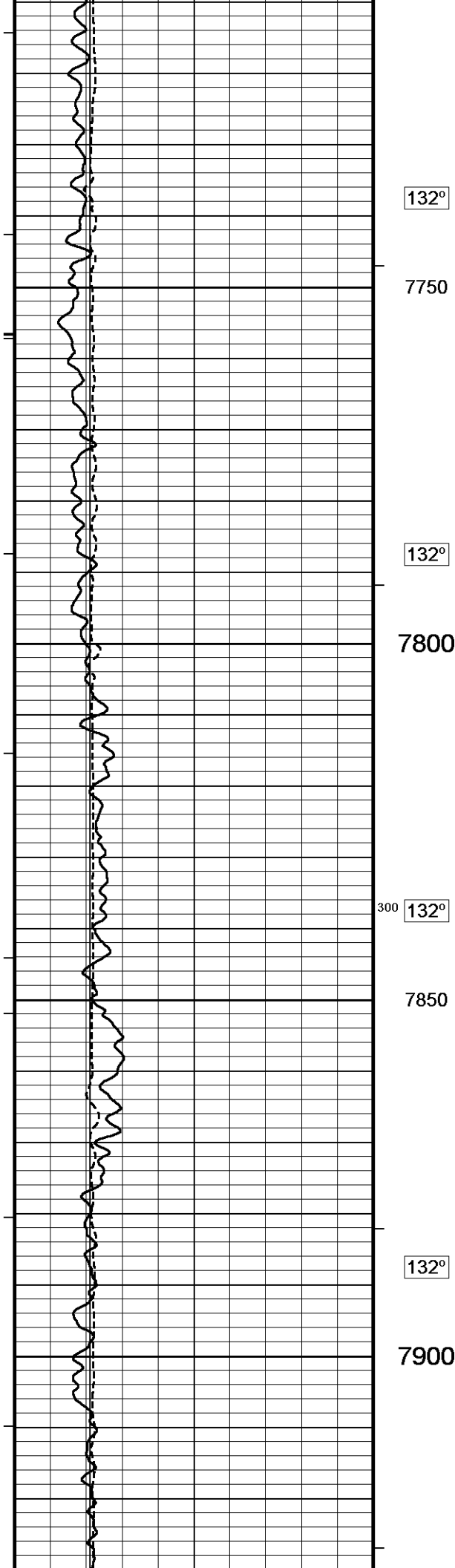
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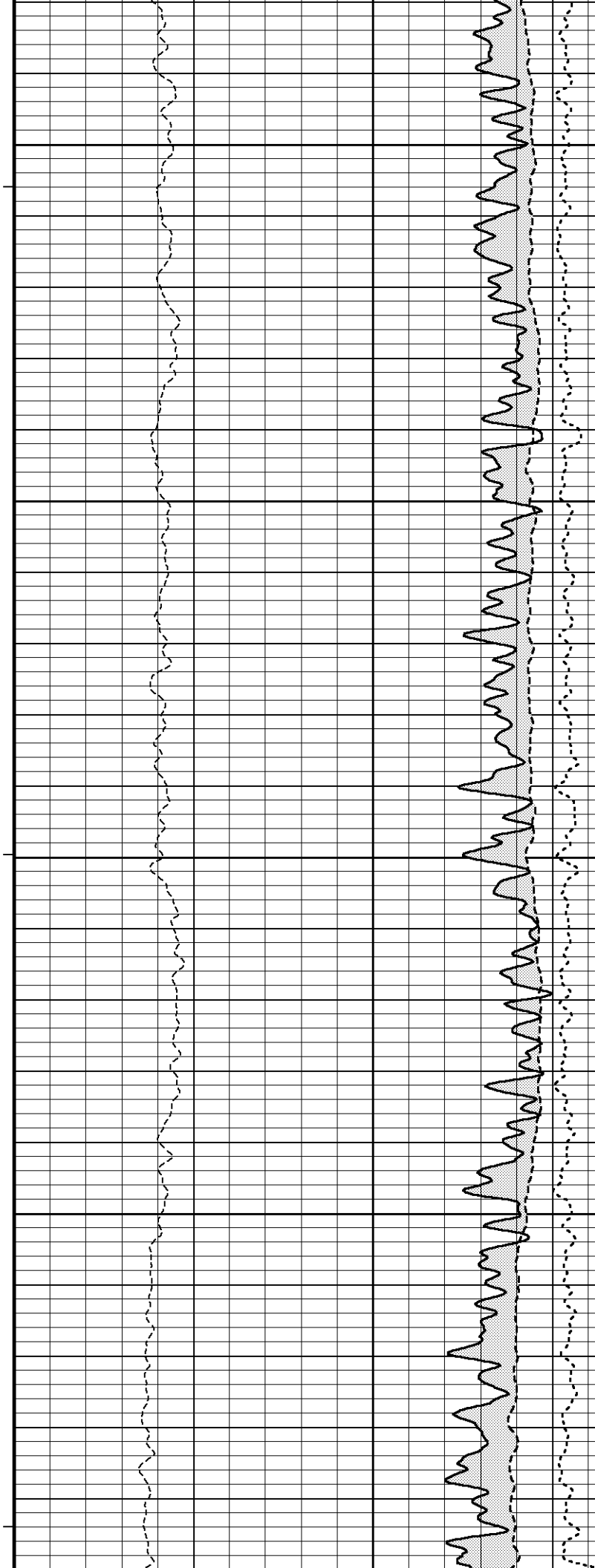
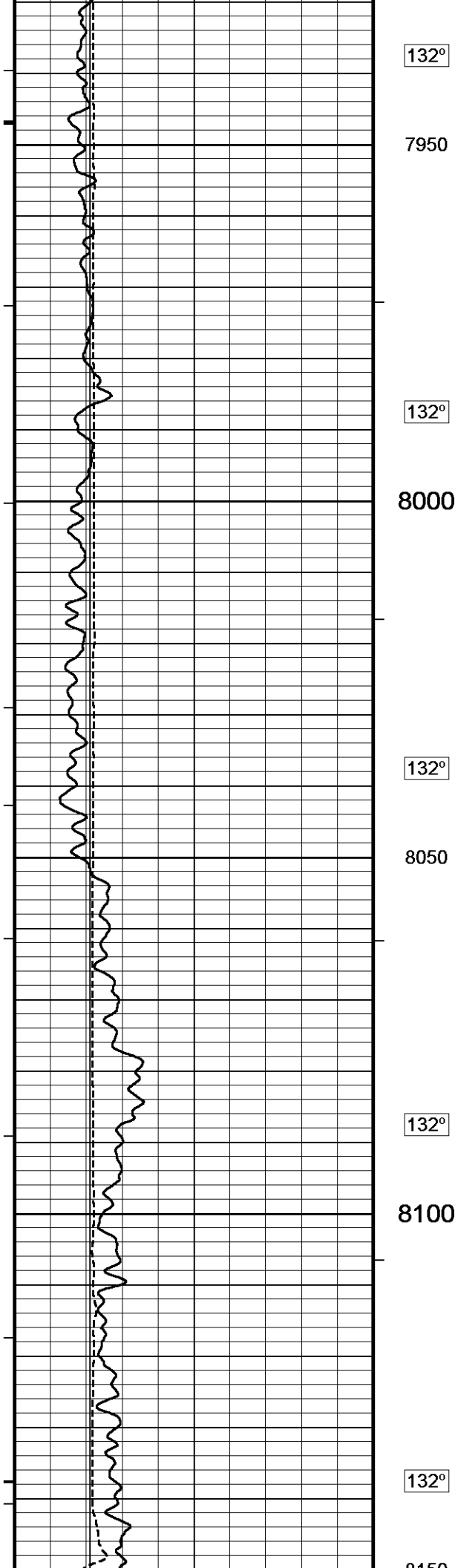
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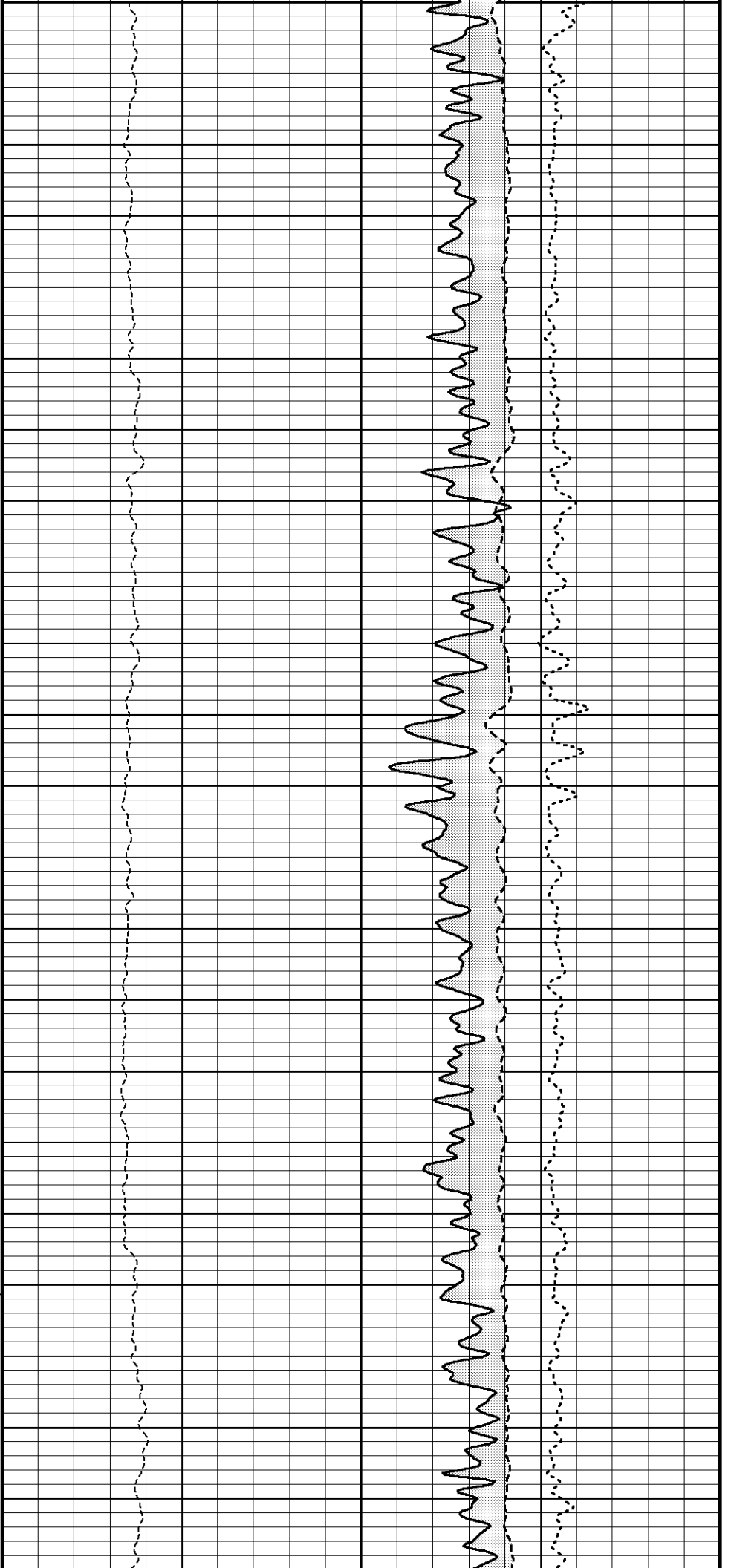
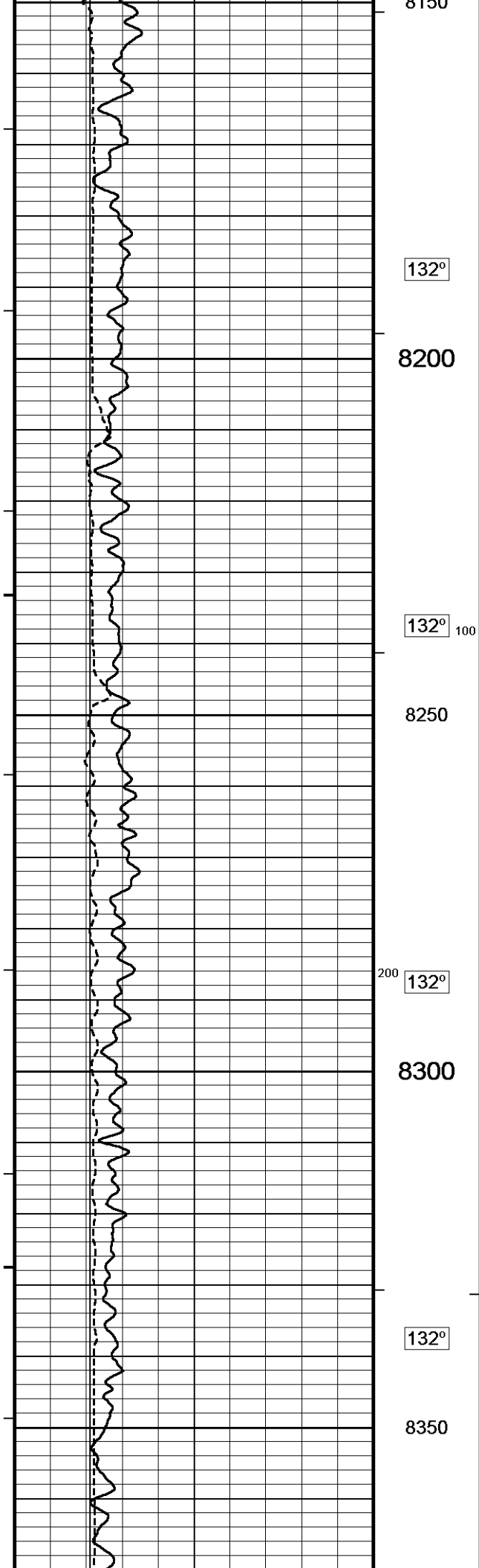
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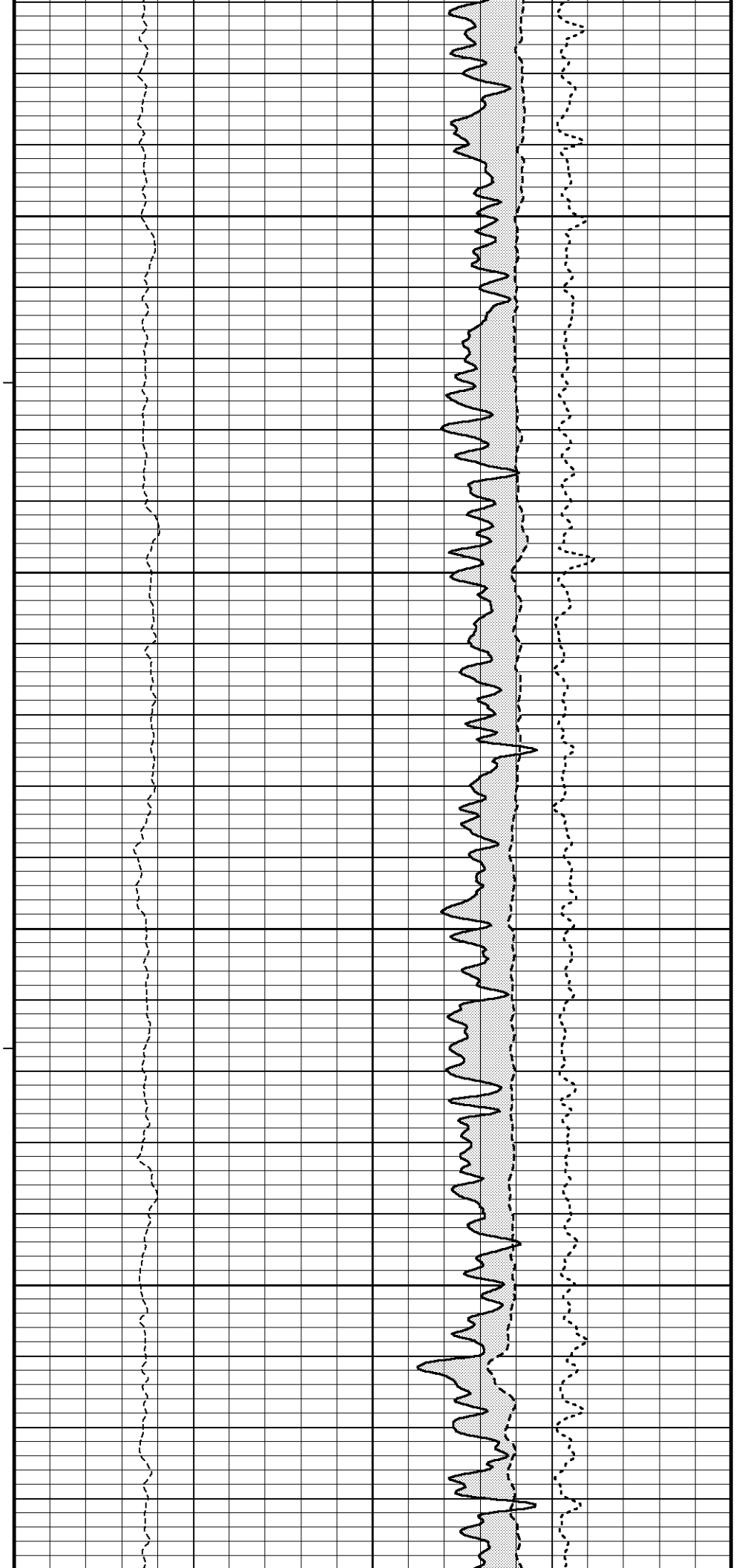
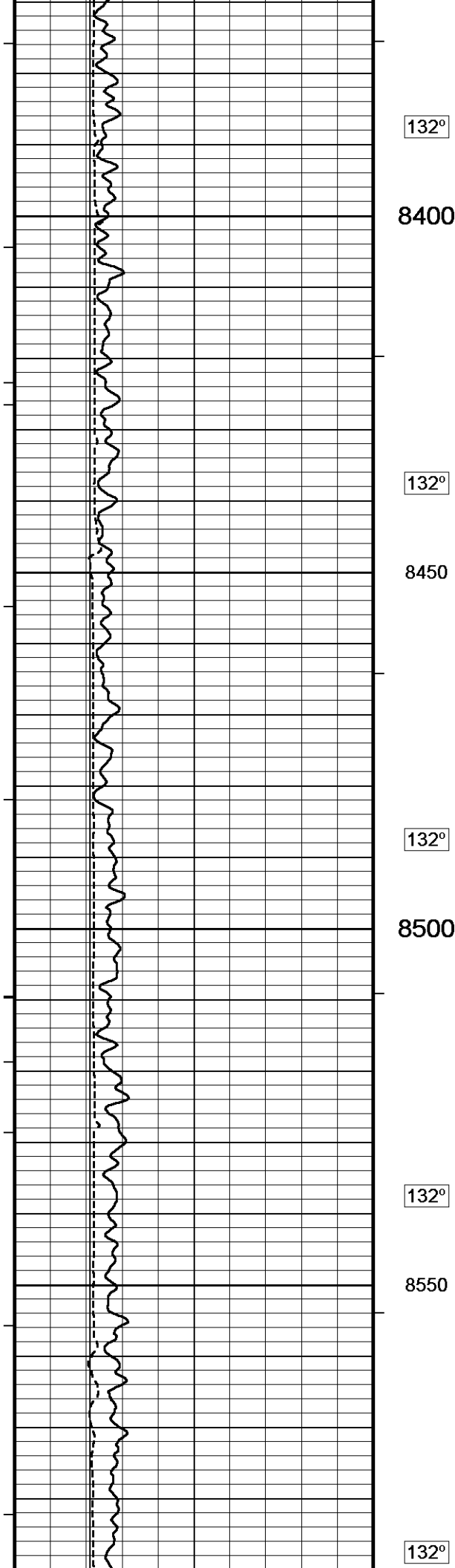
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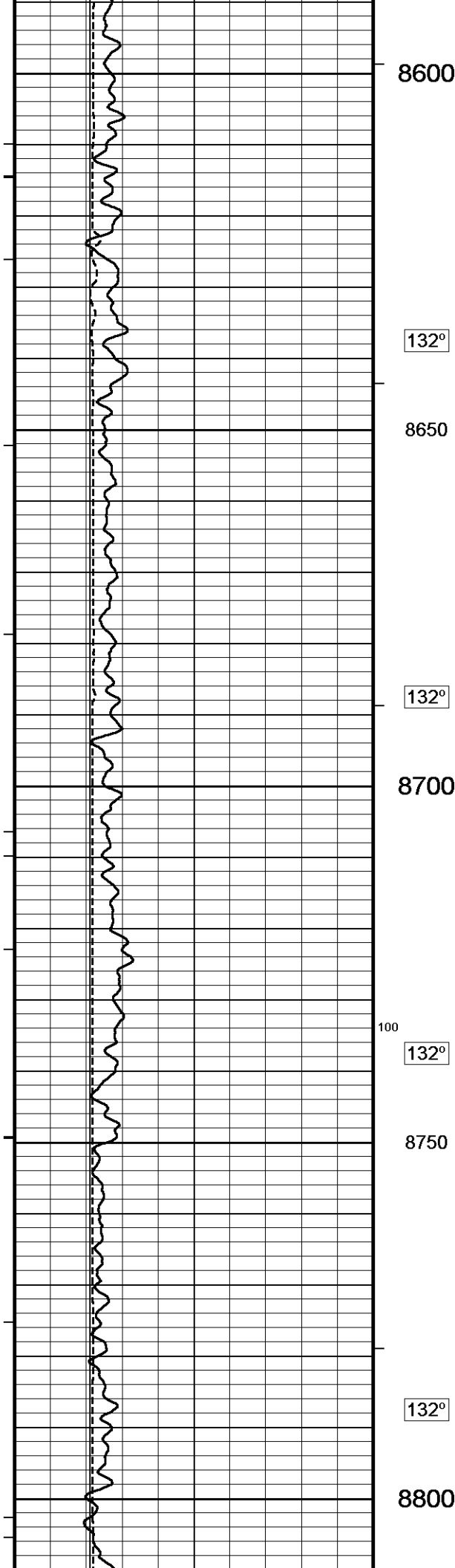












8600

132°

8650

132°

8700

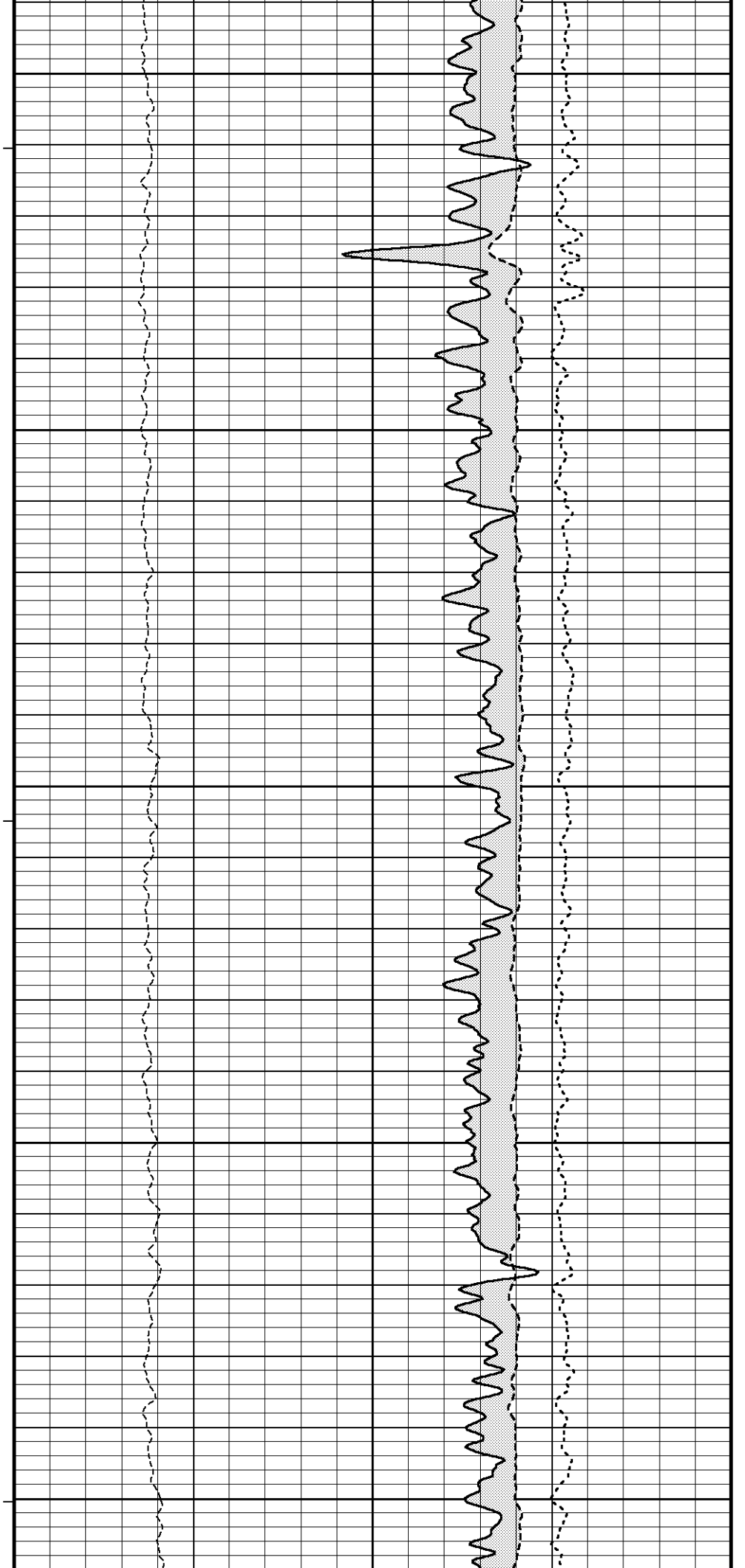
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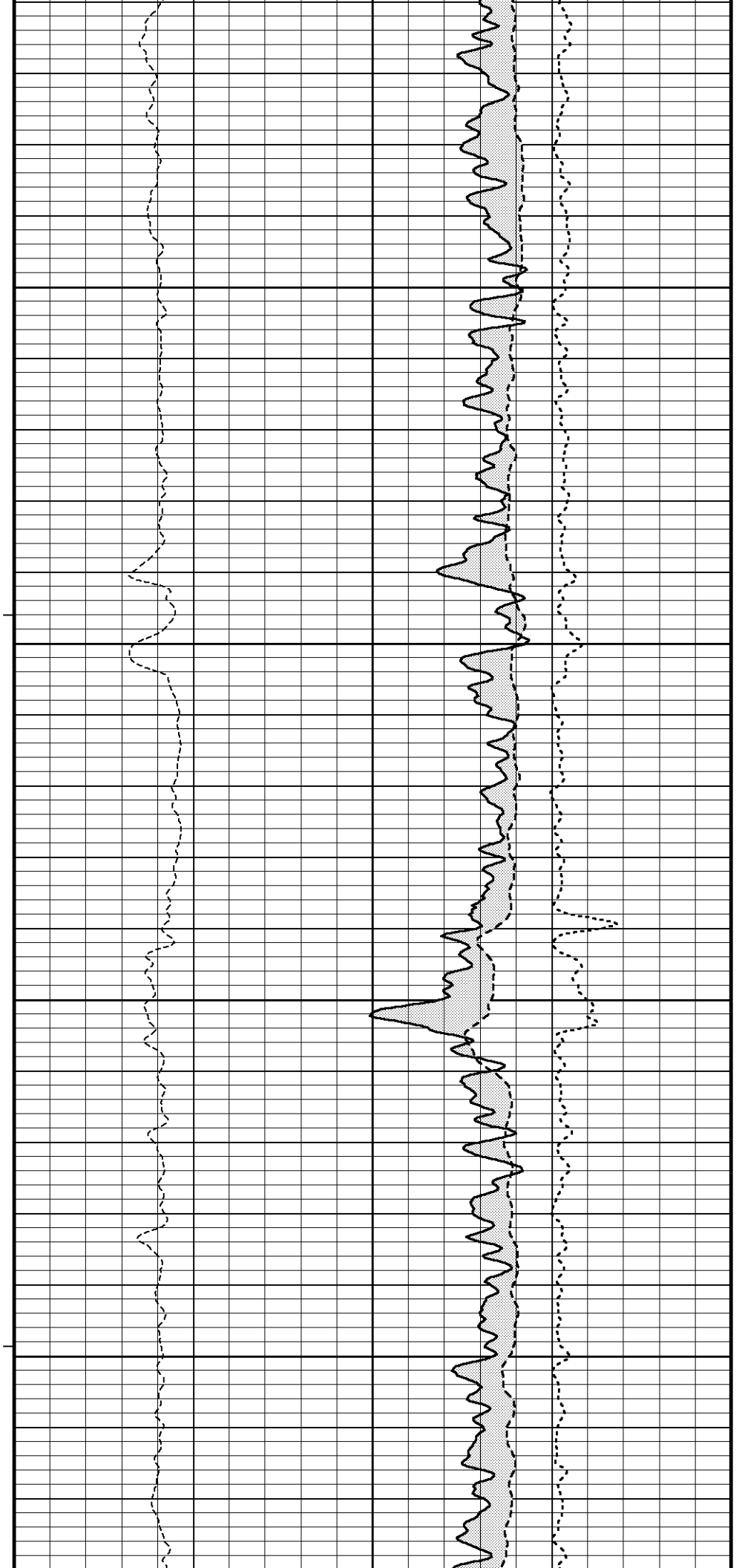
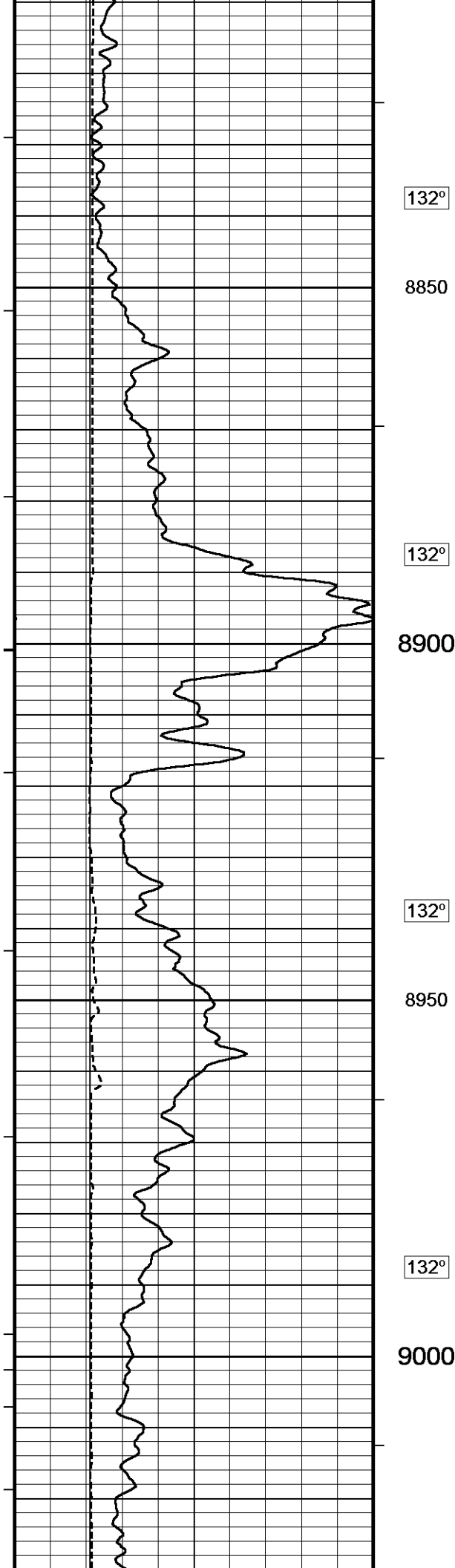
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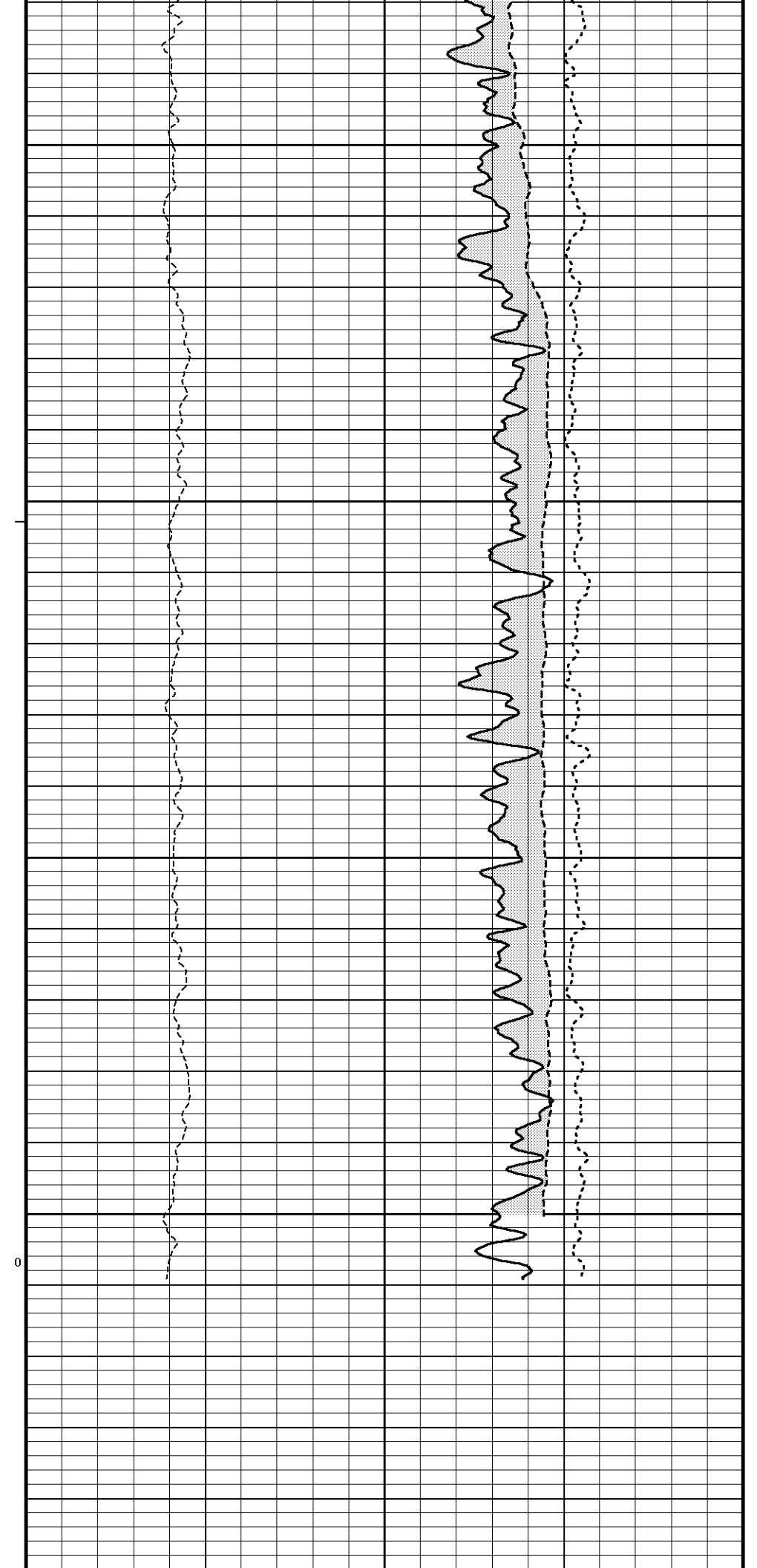
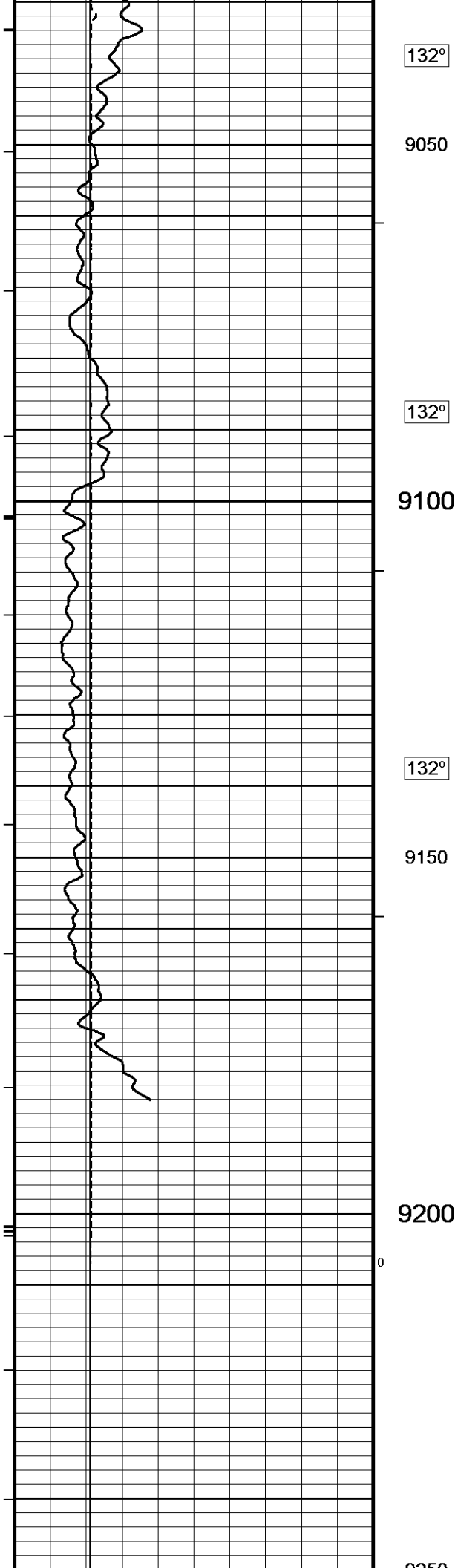
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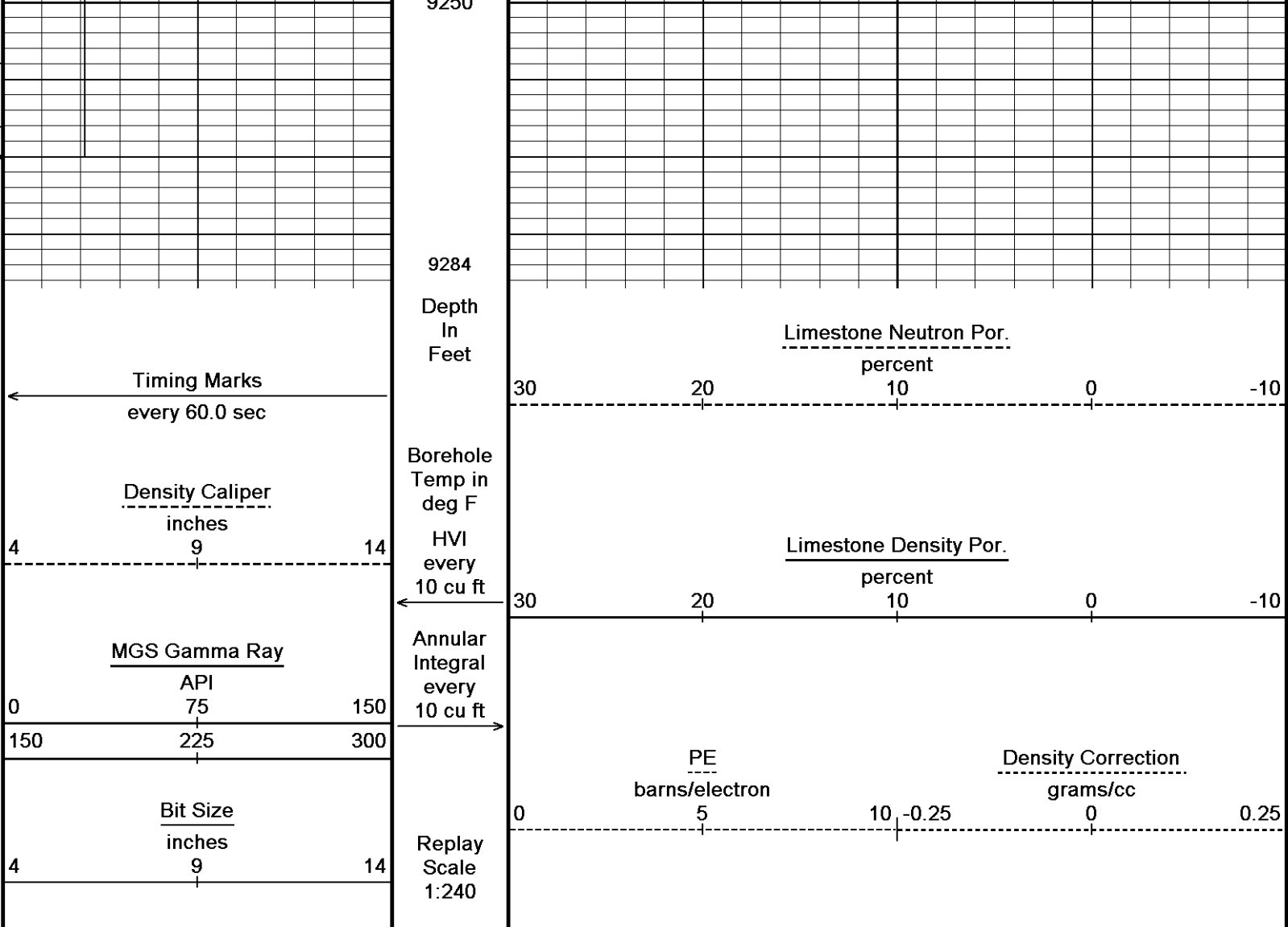
132°

8800









Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 22-MAY-2012 10:16

Filename: C:\Users\amundt\AppData\Local\Temp\Weatherford PreView\0\RTAP 32268 158.dta

Recorded on 05-MAY-2012 18:09

System Versions: Logged with 13.01.5821 Processed with 13.01.5821 Plotted with 12.01.3513

↑

5 INCH MAIN LOG

↑

↓

5 INCH BULK DENSITY

↓

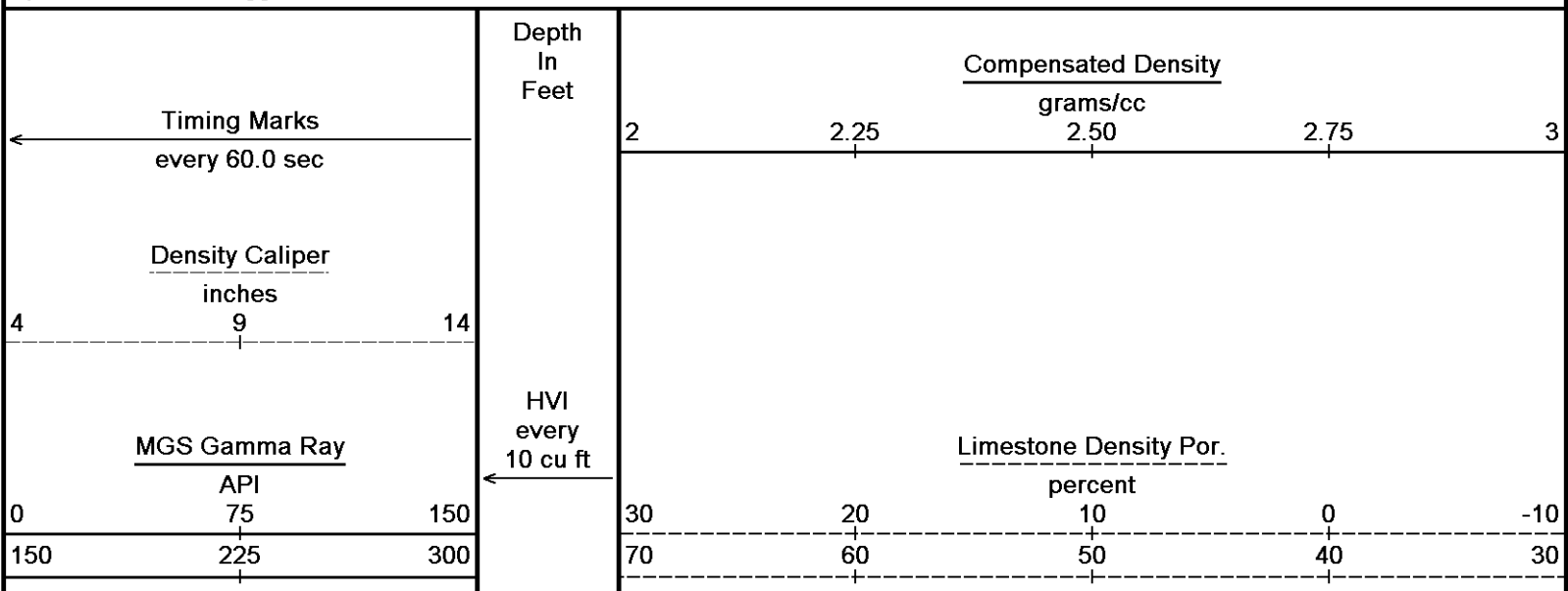
Depth Based Data - Maximum Sampling Increment 10.0cm

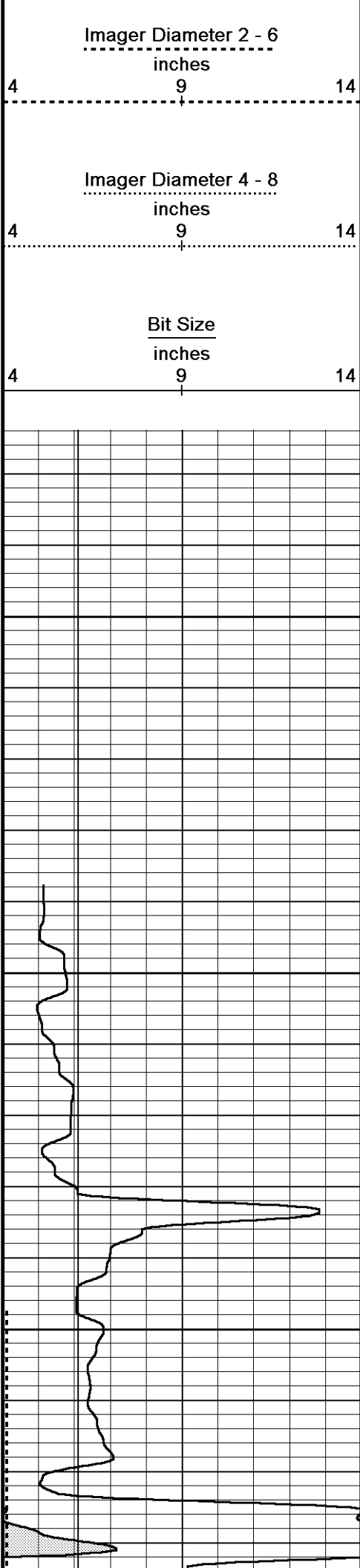
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Recorded on 05-MAY-2012 18:09

System Versions: Logged with 13.01.5821 Processed with 13.01.5821 Plotted with 12.01.3513





Annular
Integral
every
10 cu ft

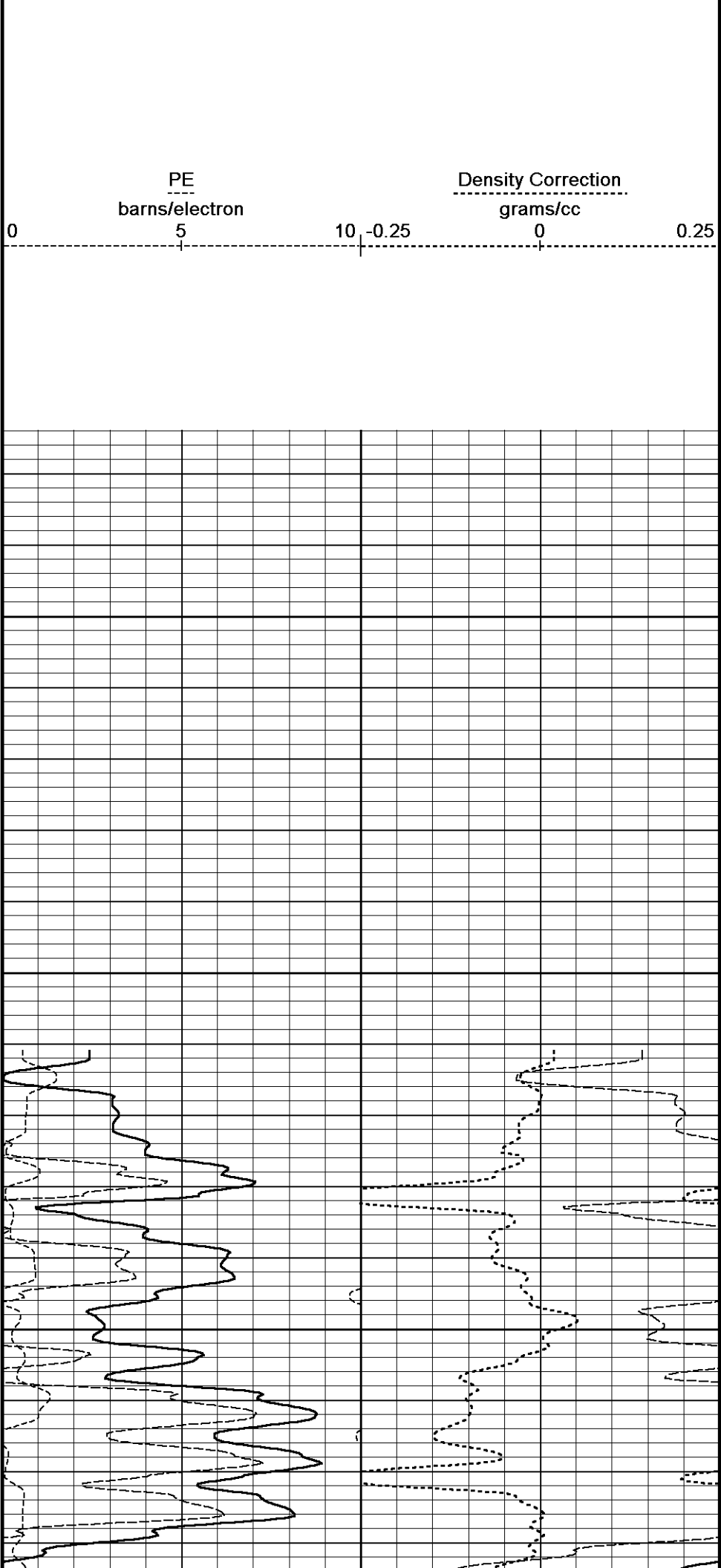
Replay
Scale
1:240

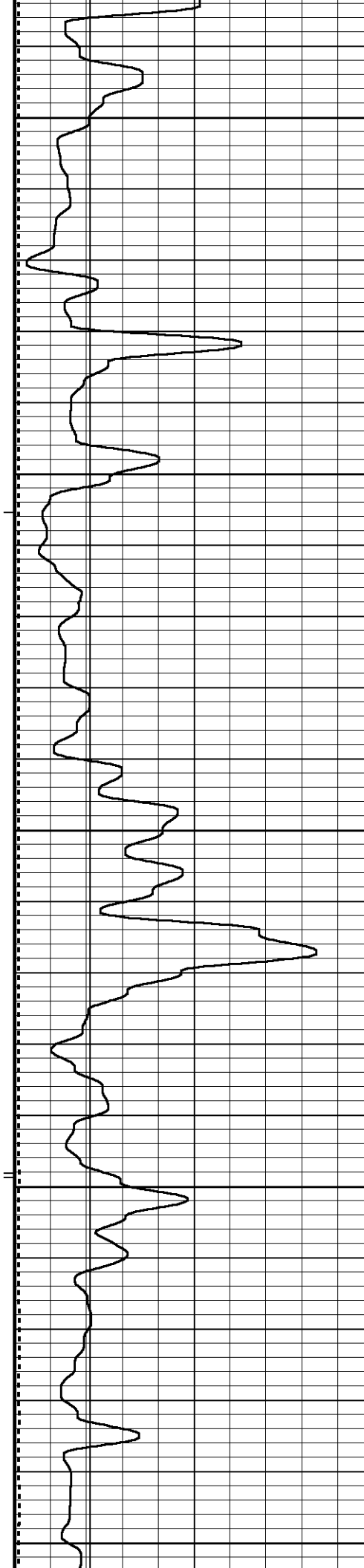
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4350

4400

4450





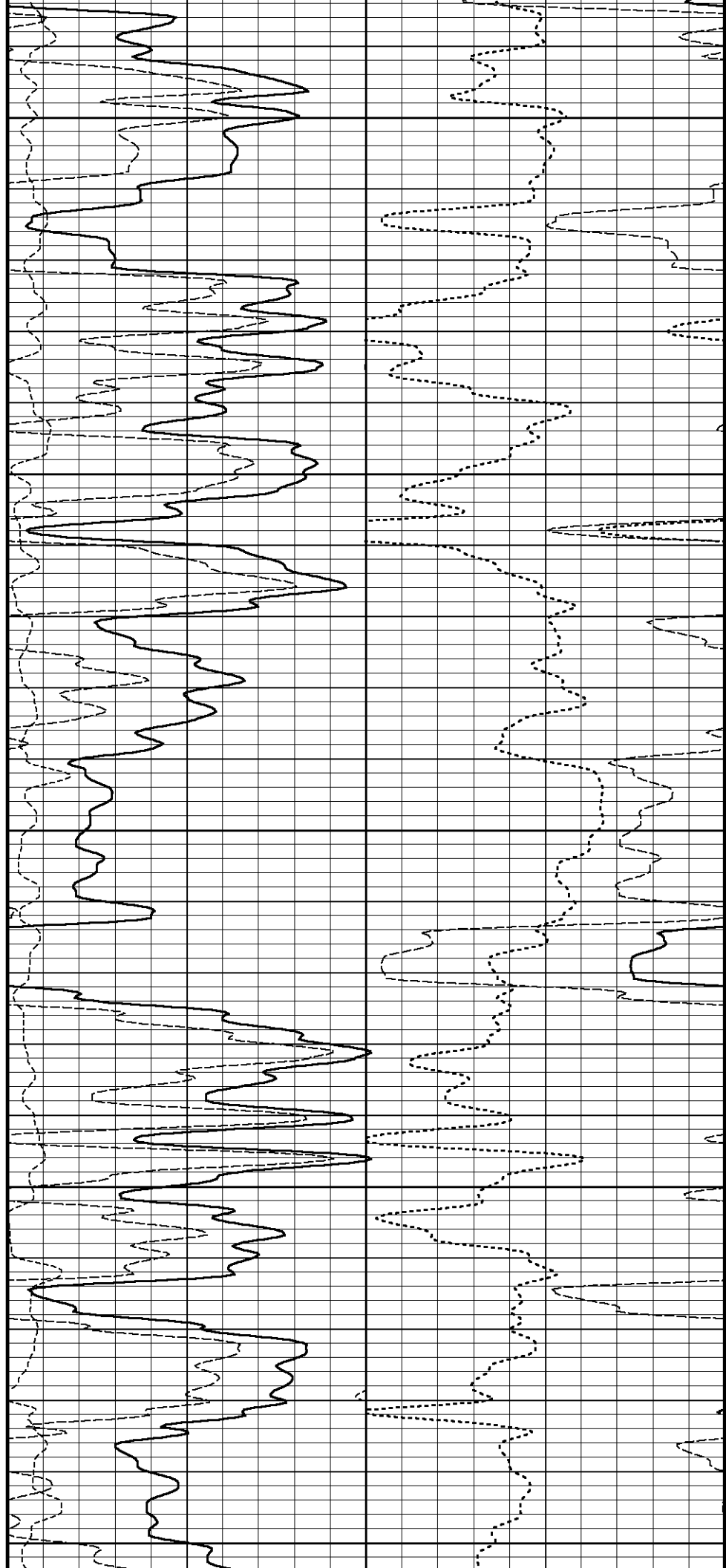
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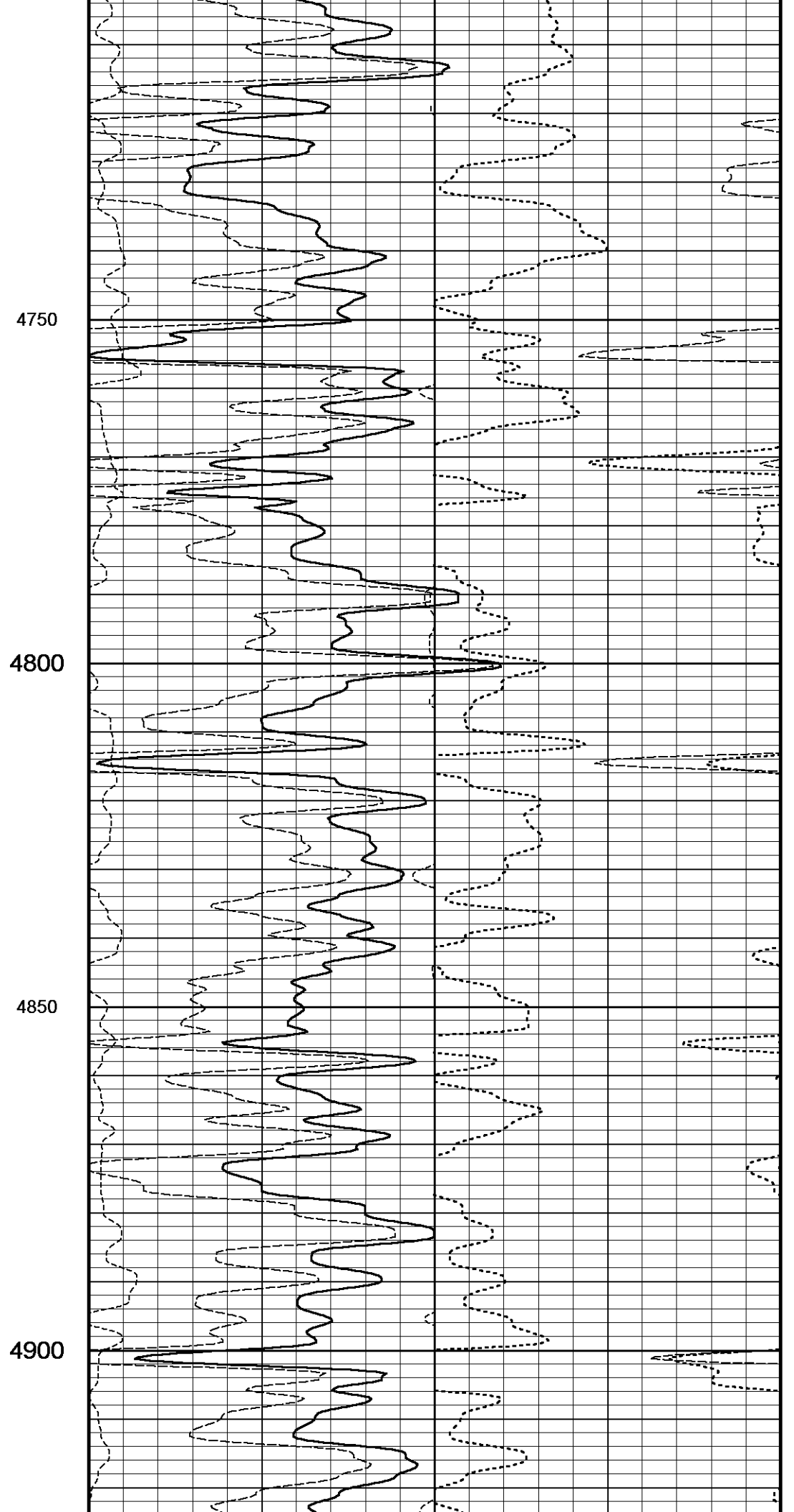
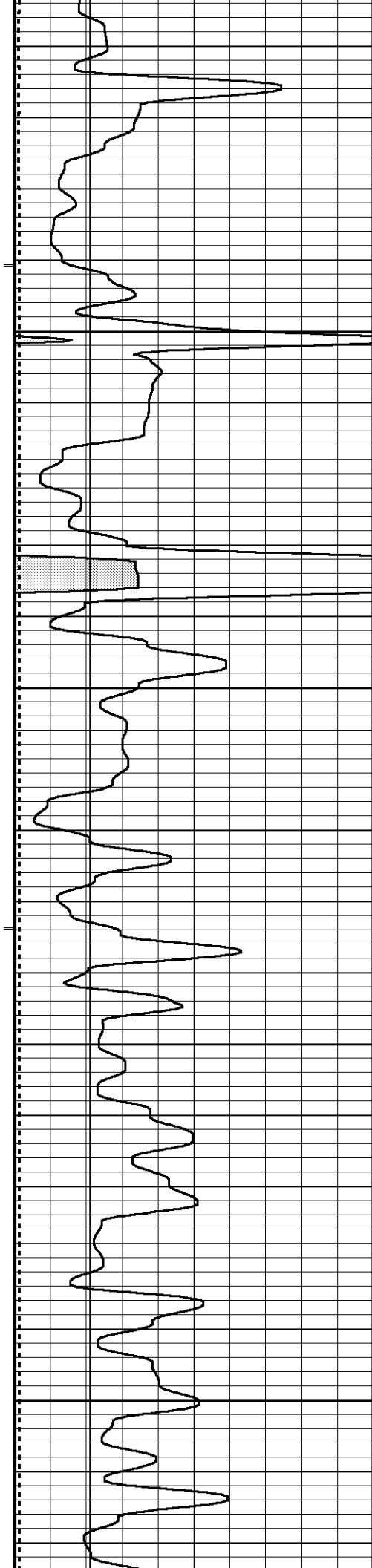
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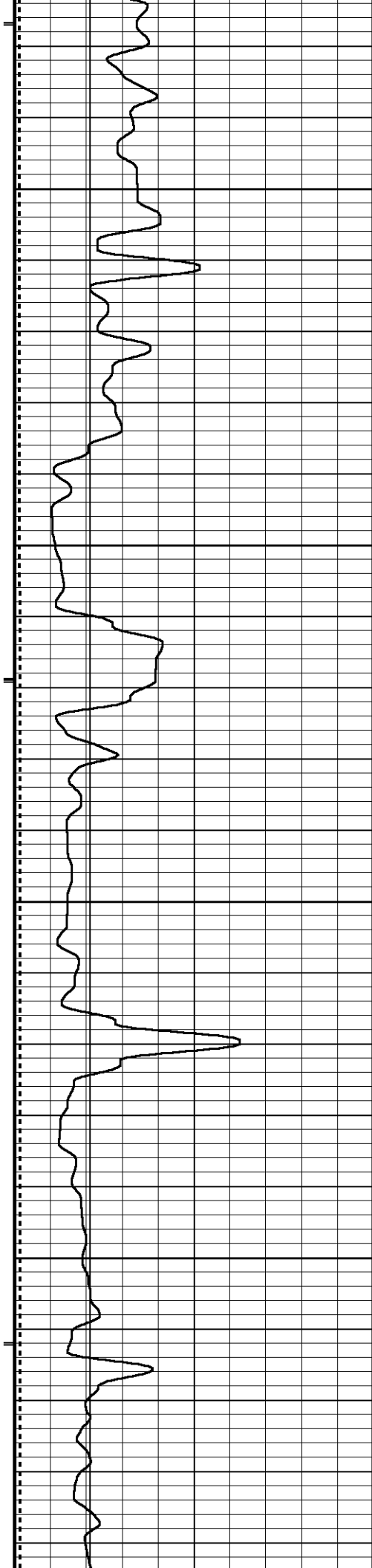
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4650

4700





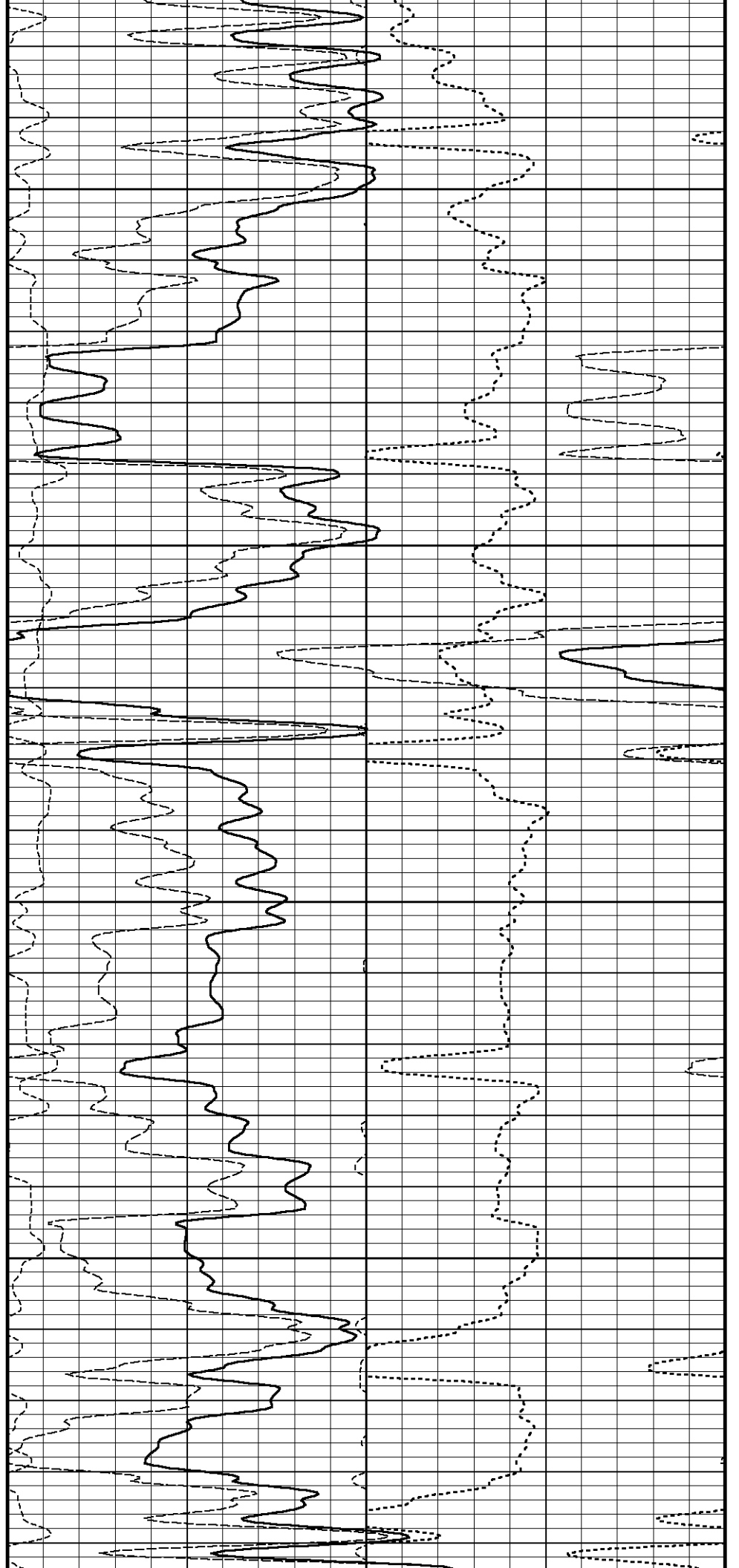


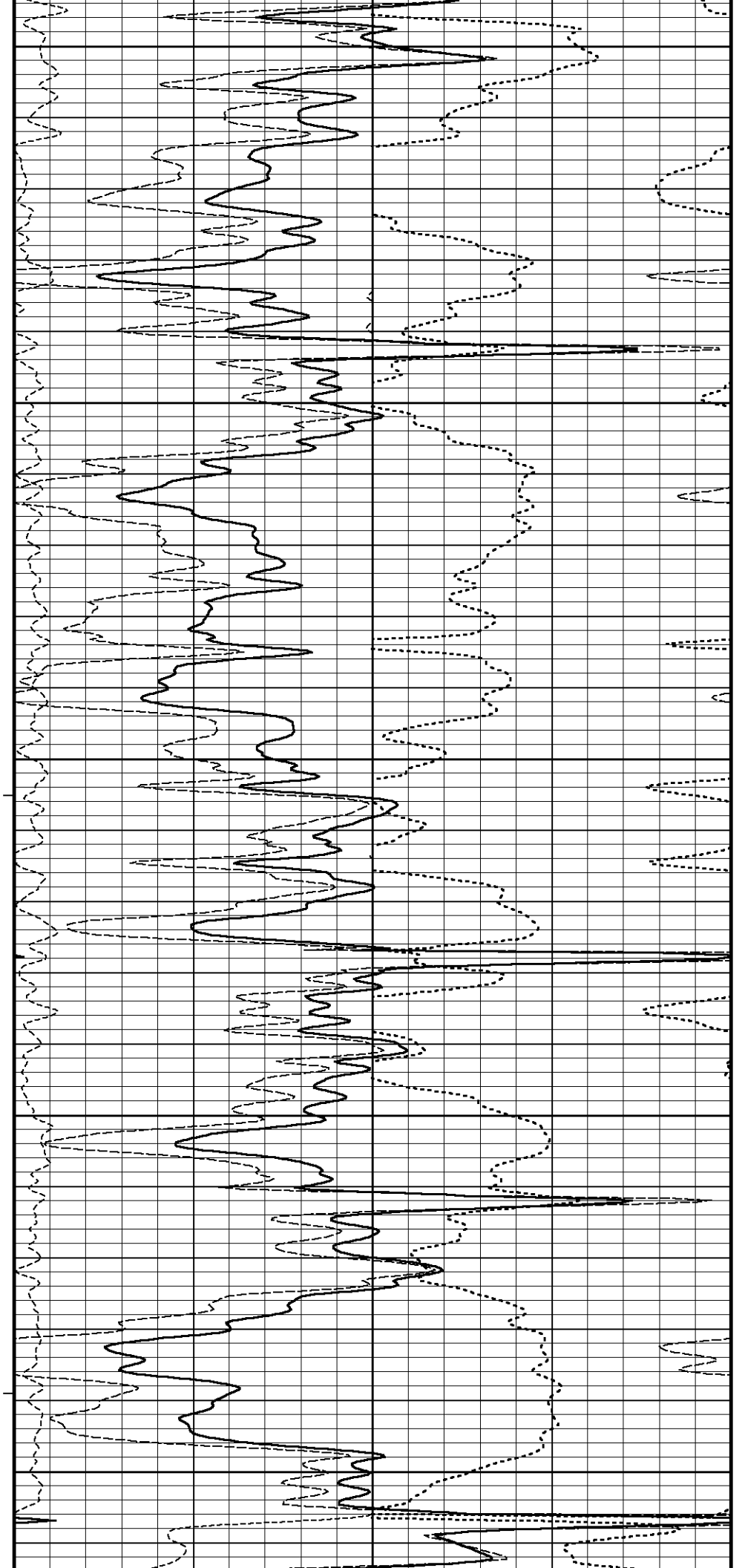
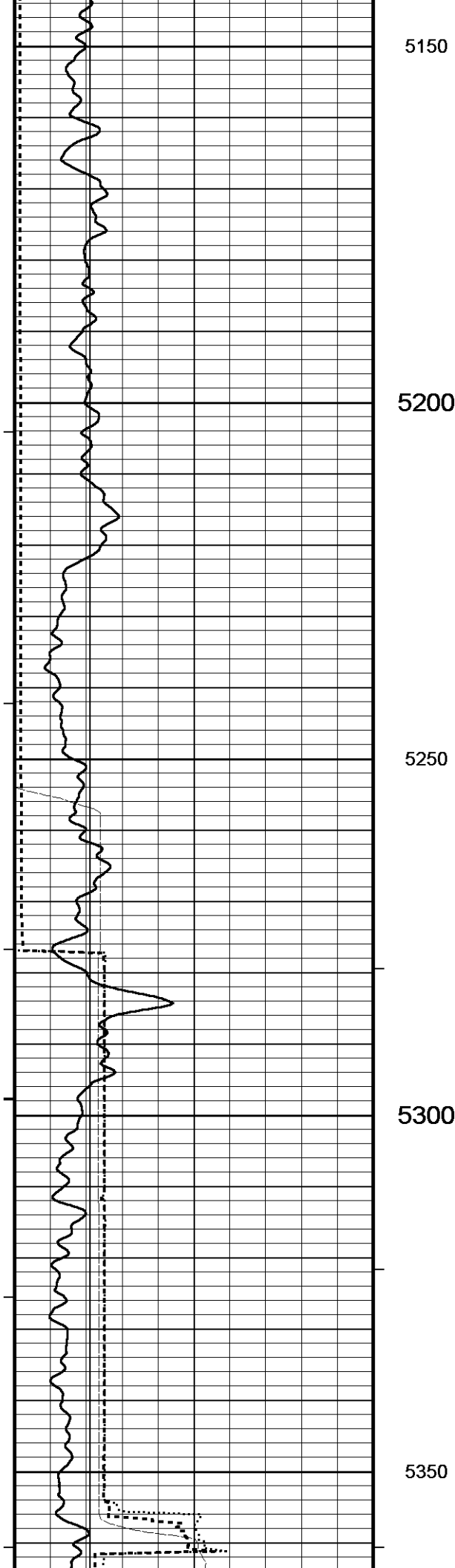
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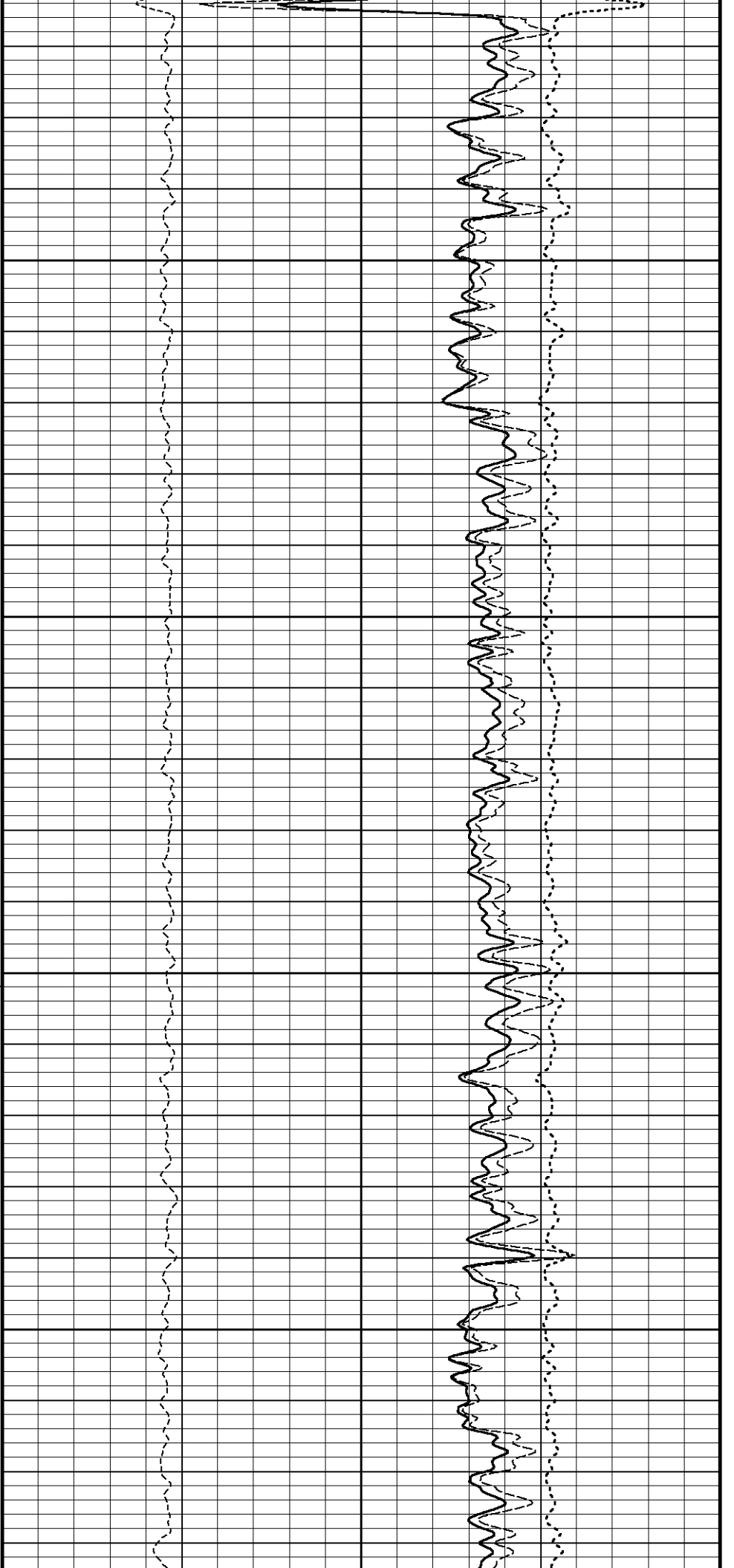
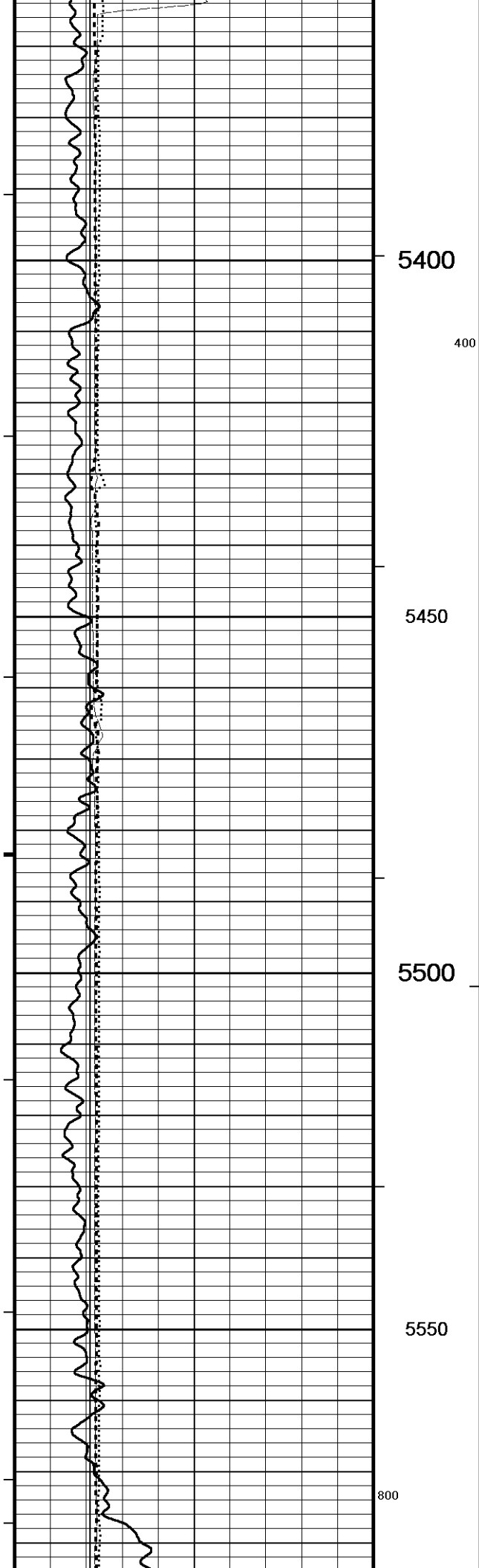
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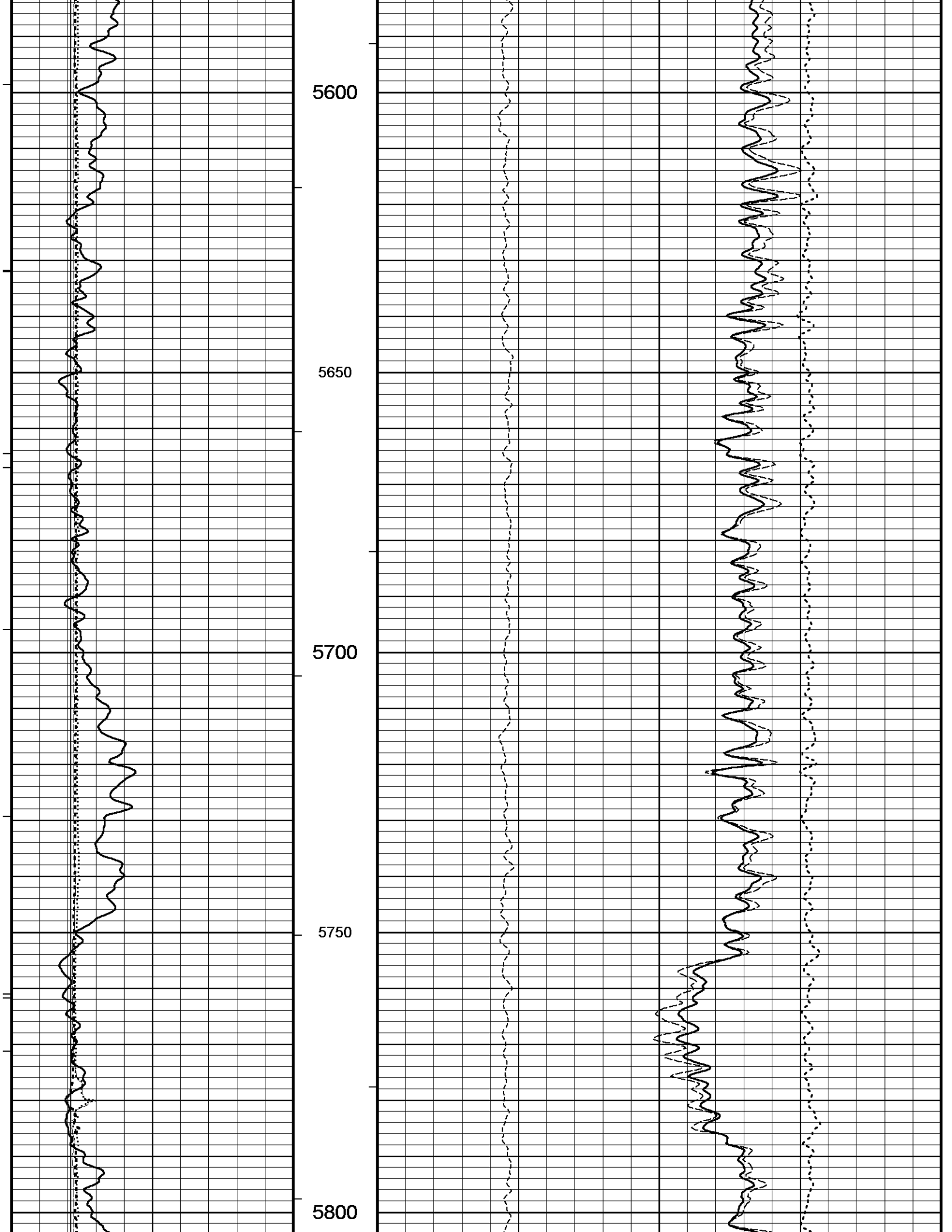
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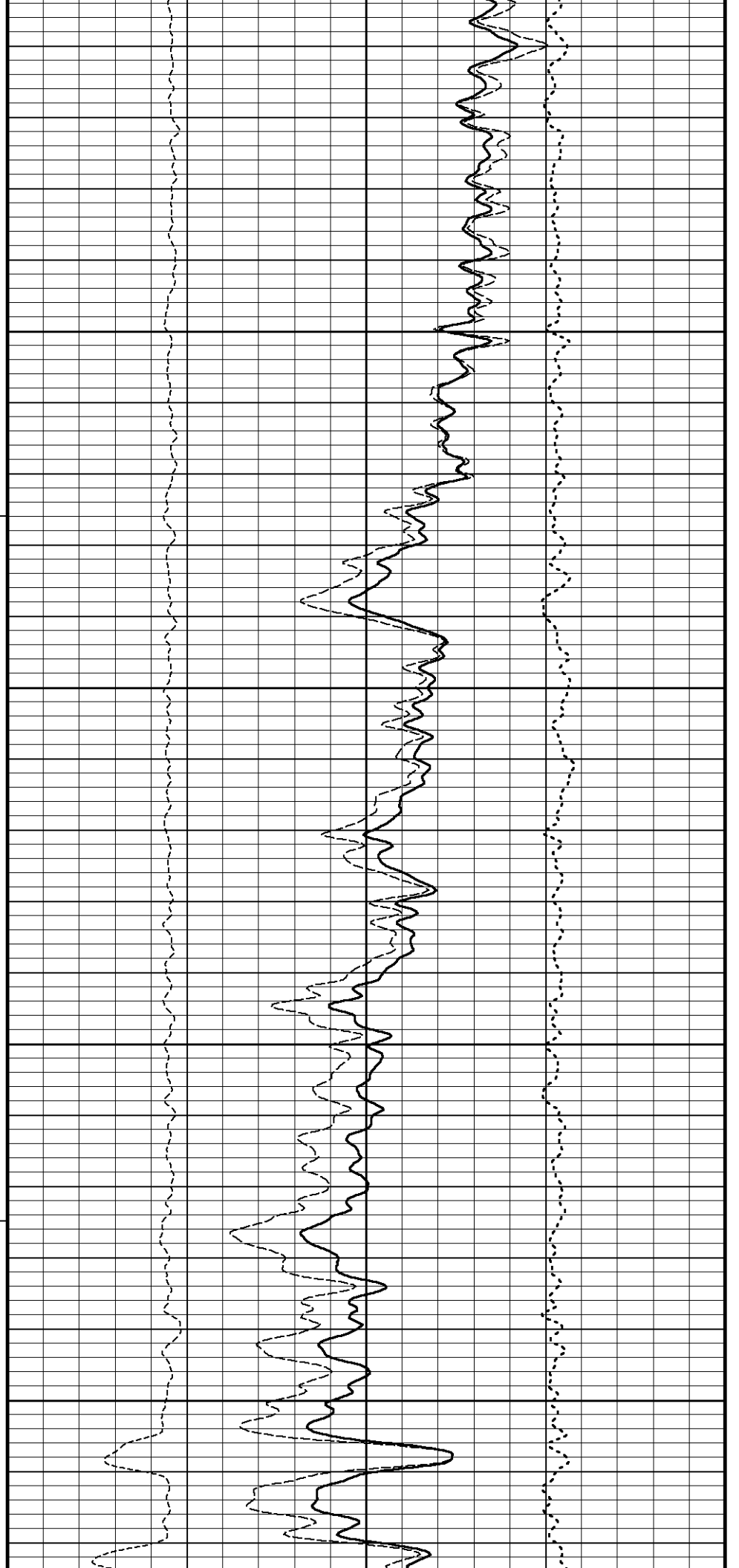
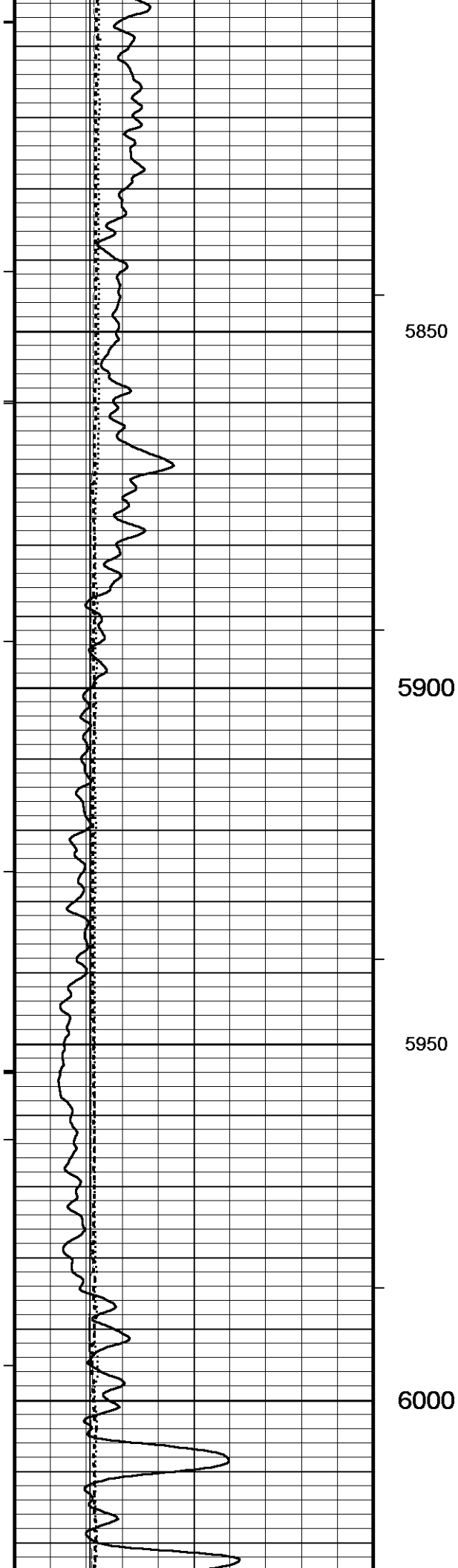
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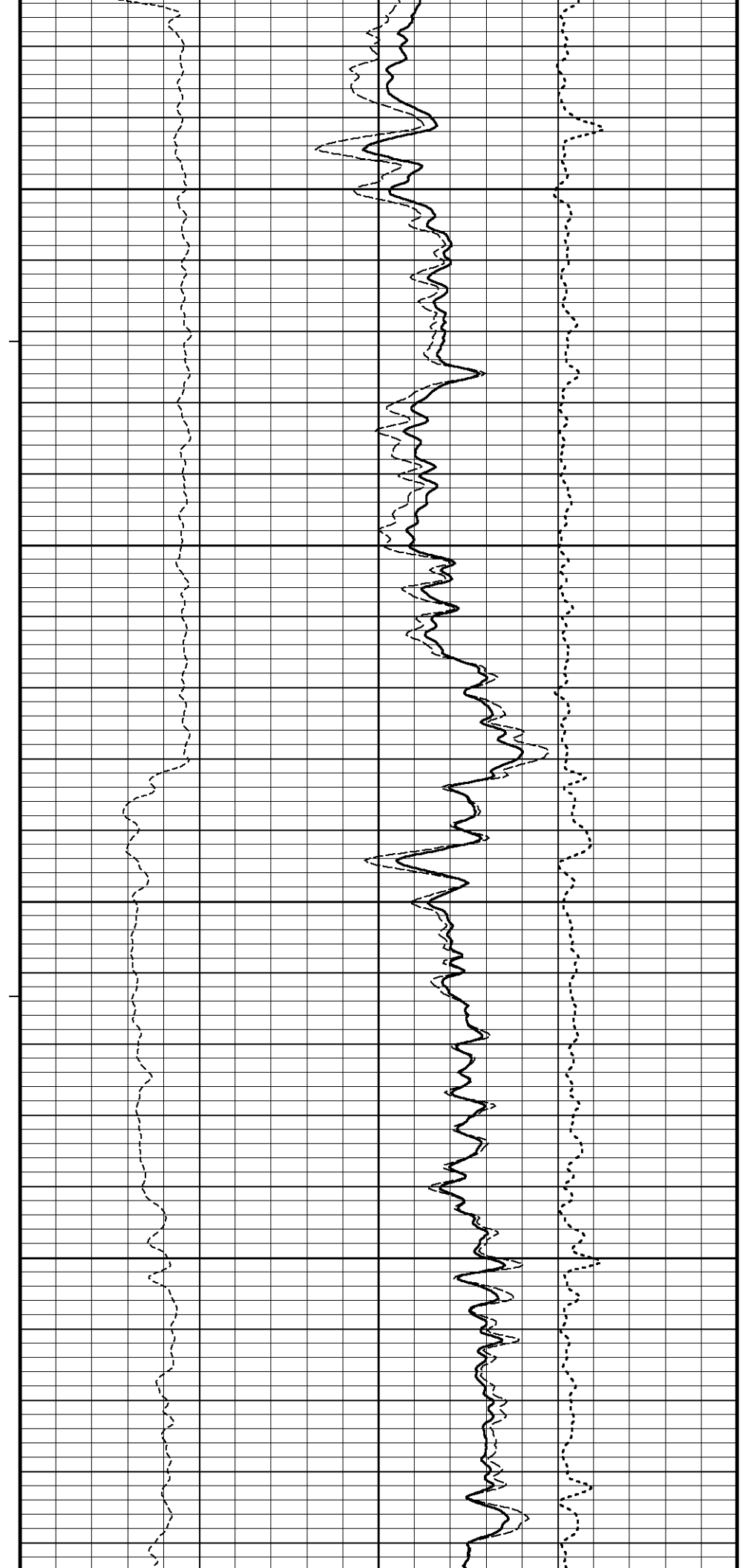
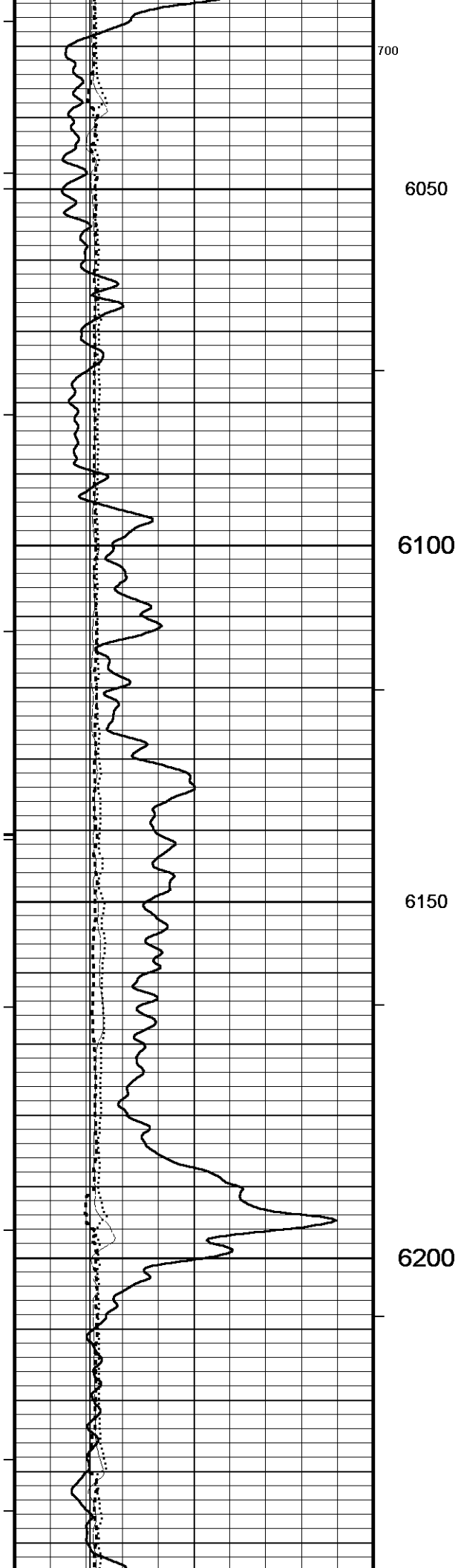


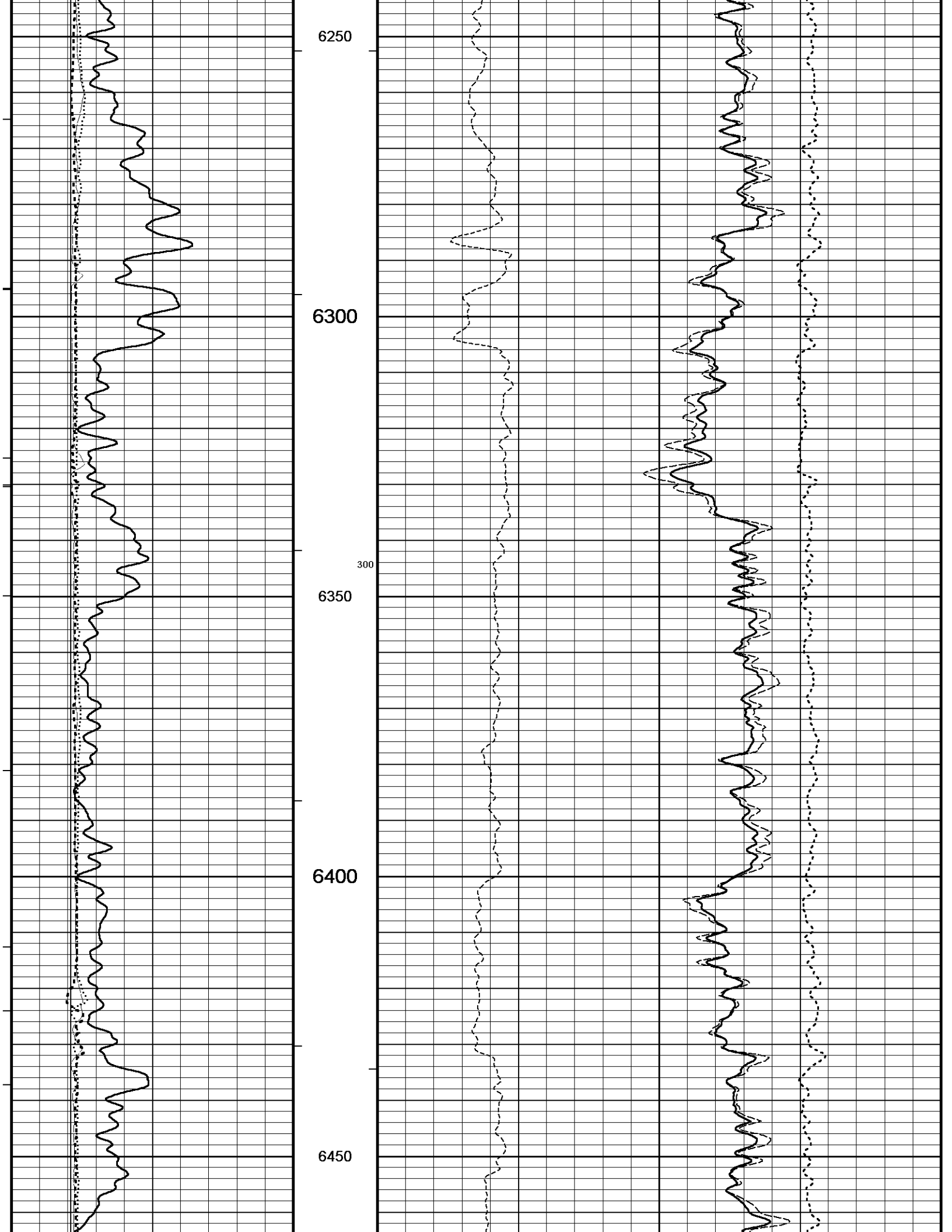


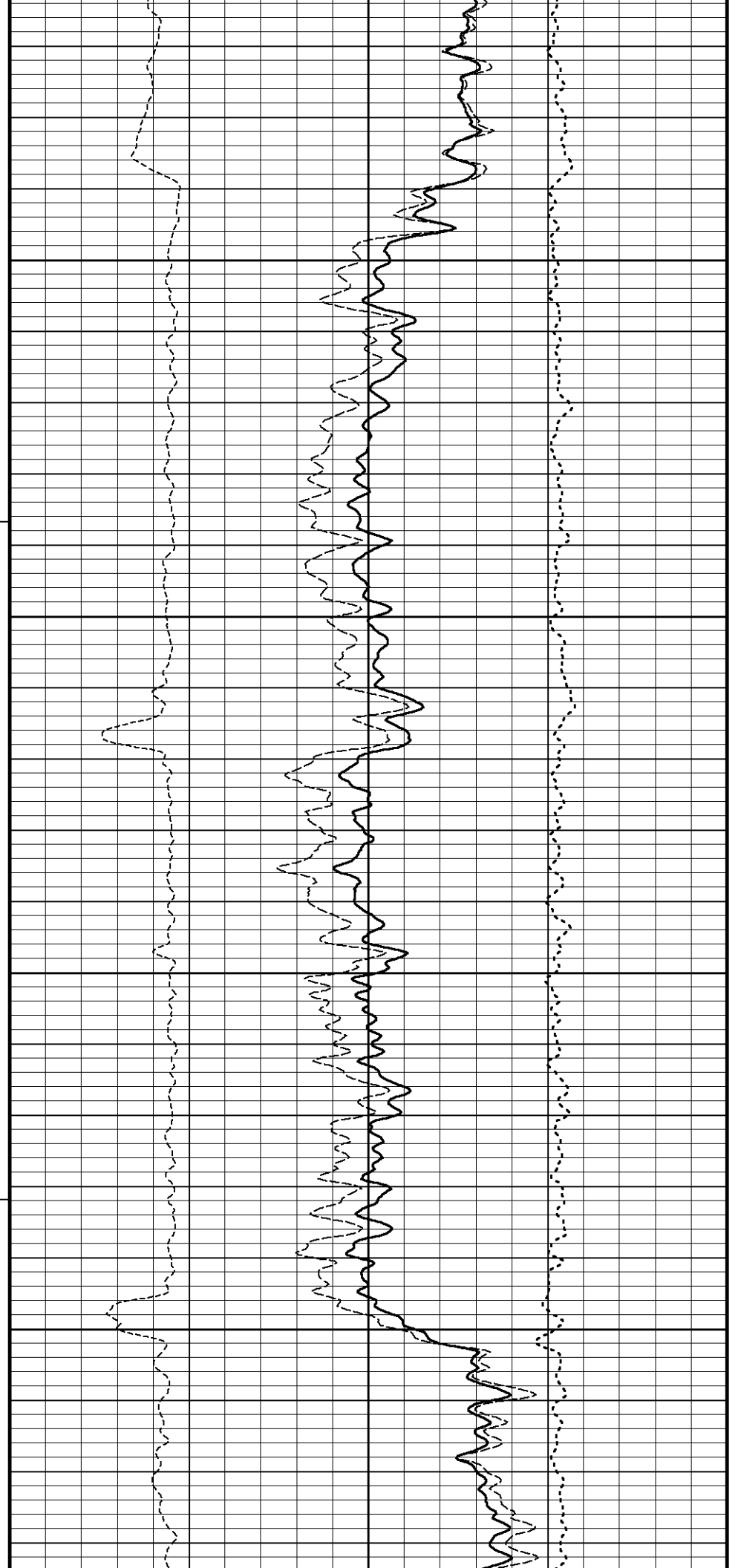
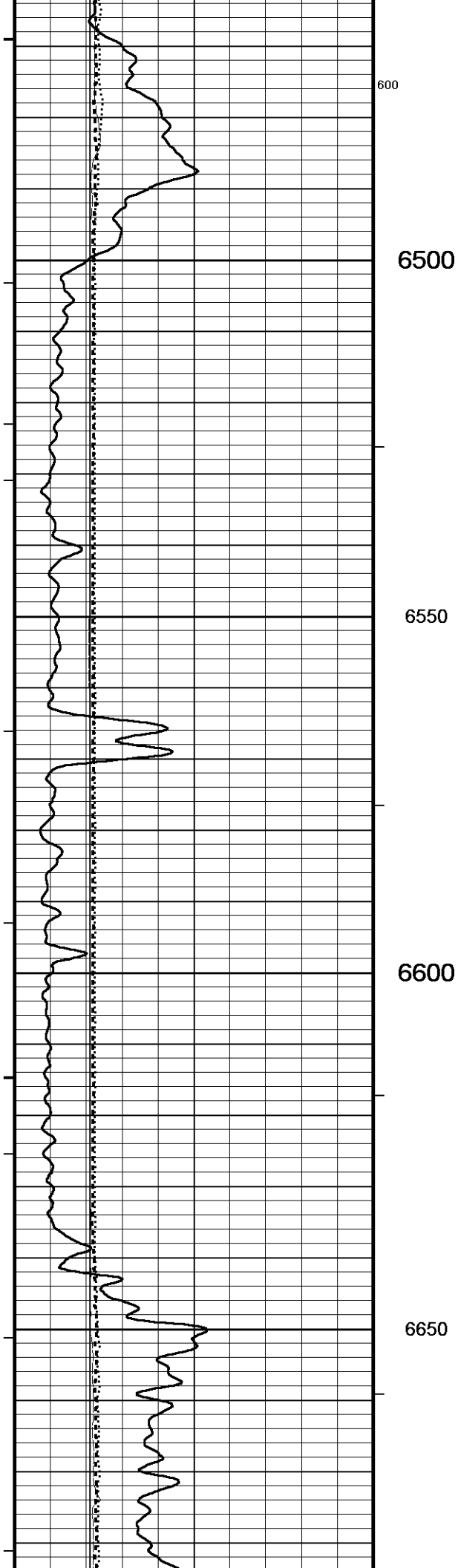


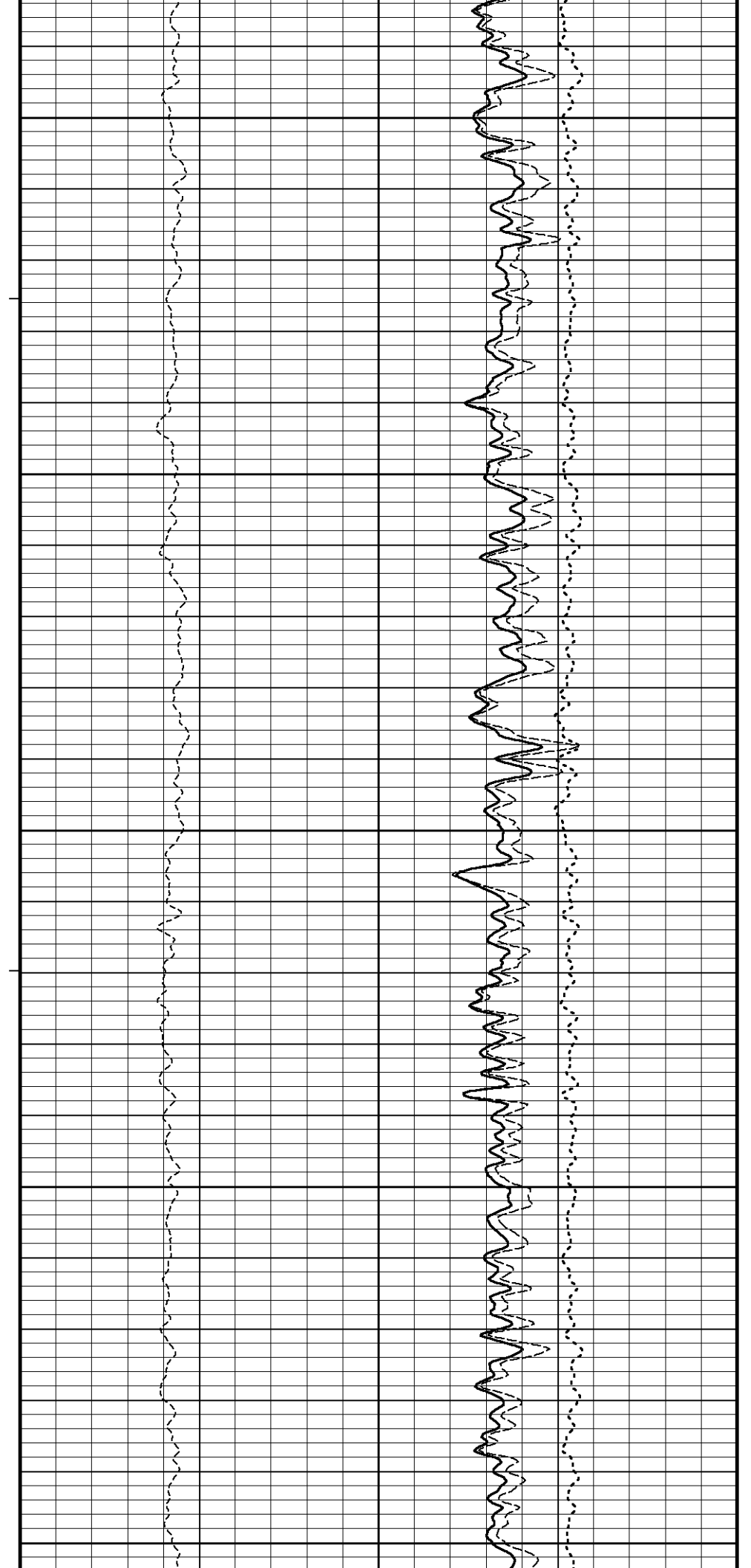
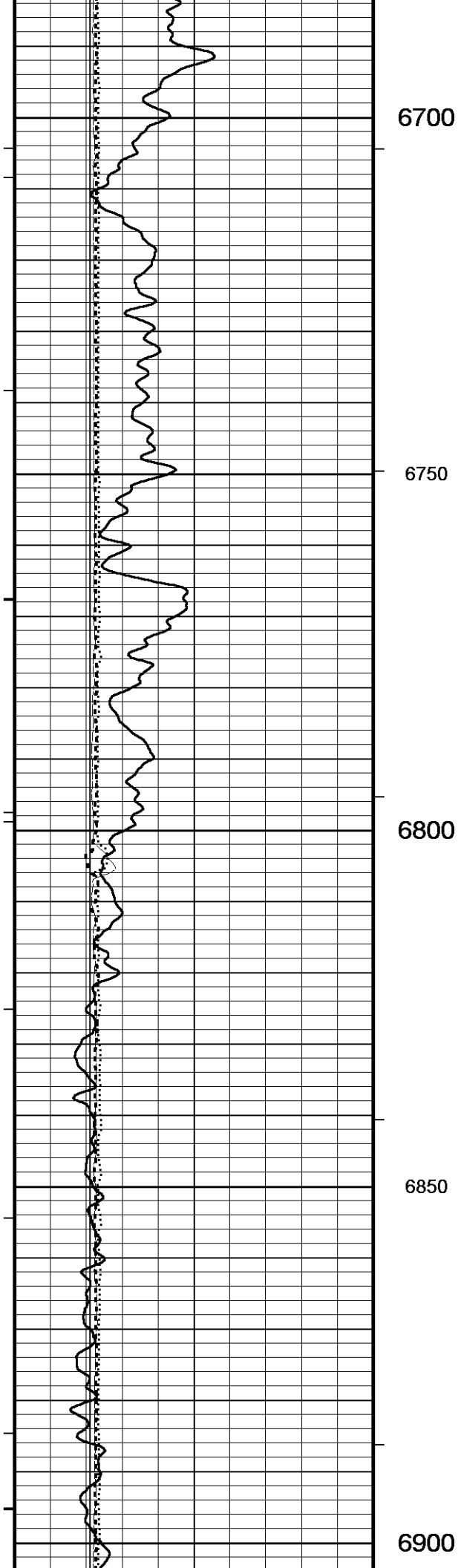


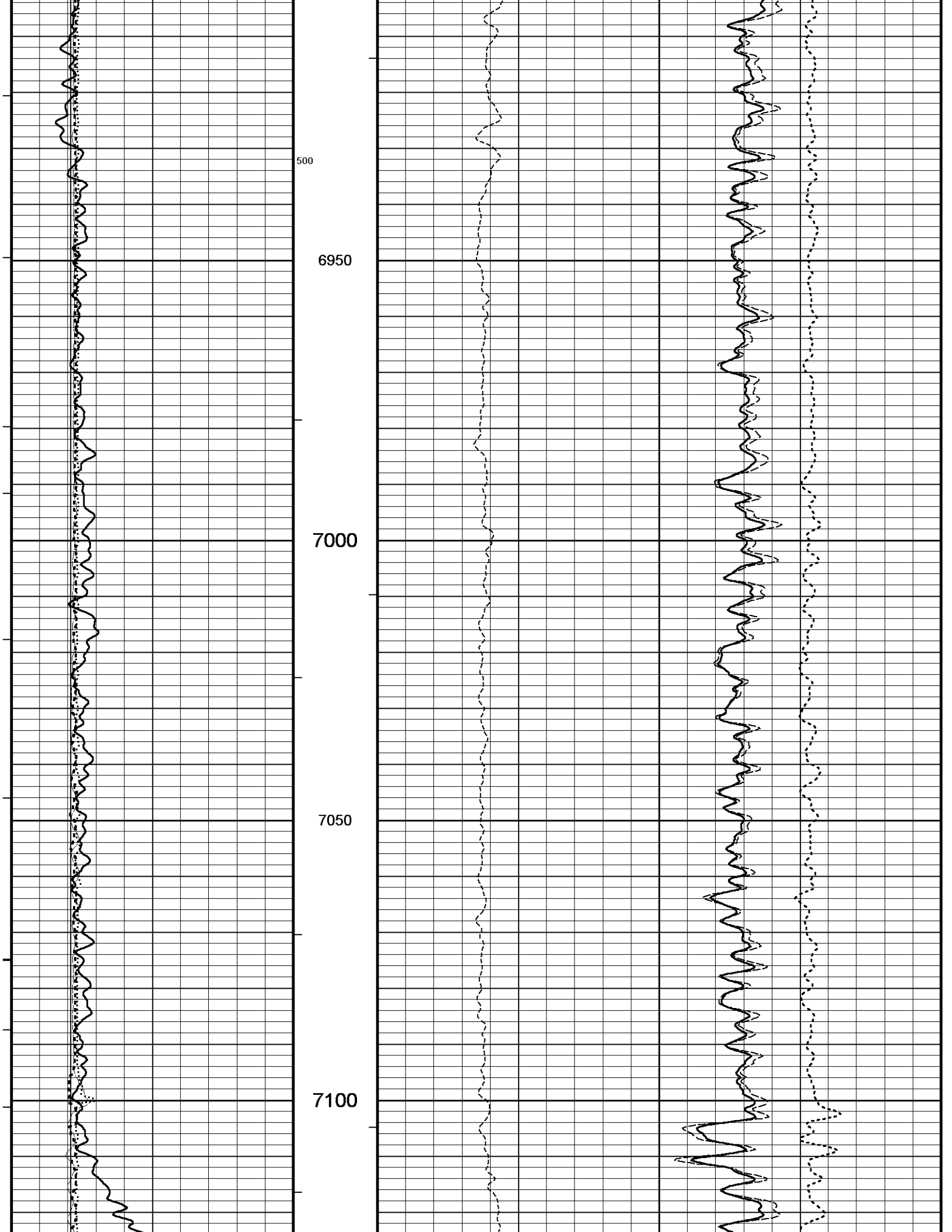


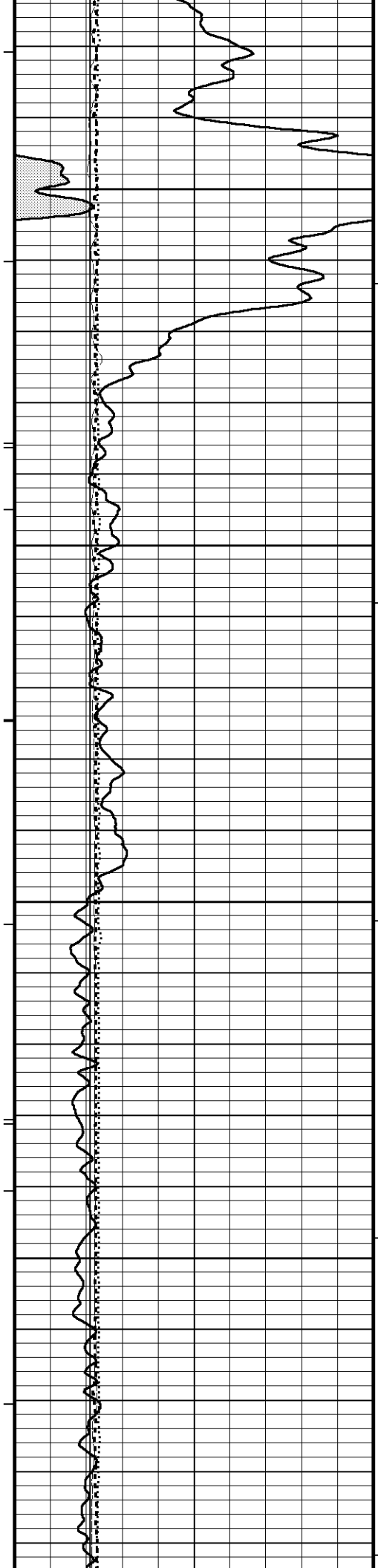












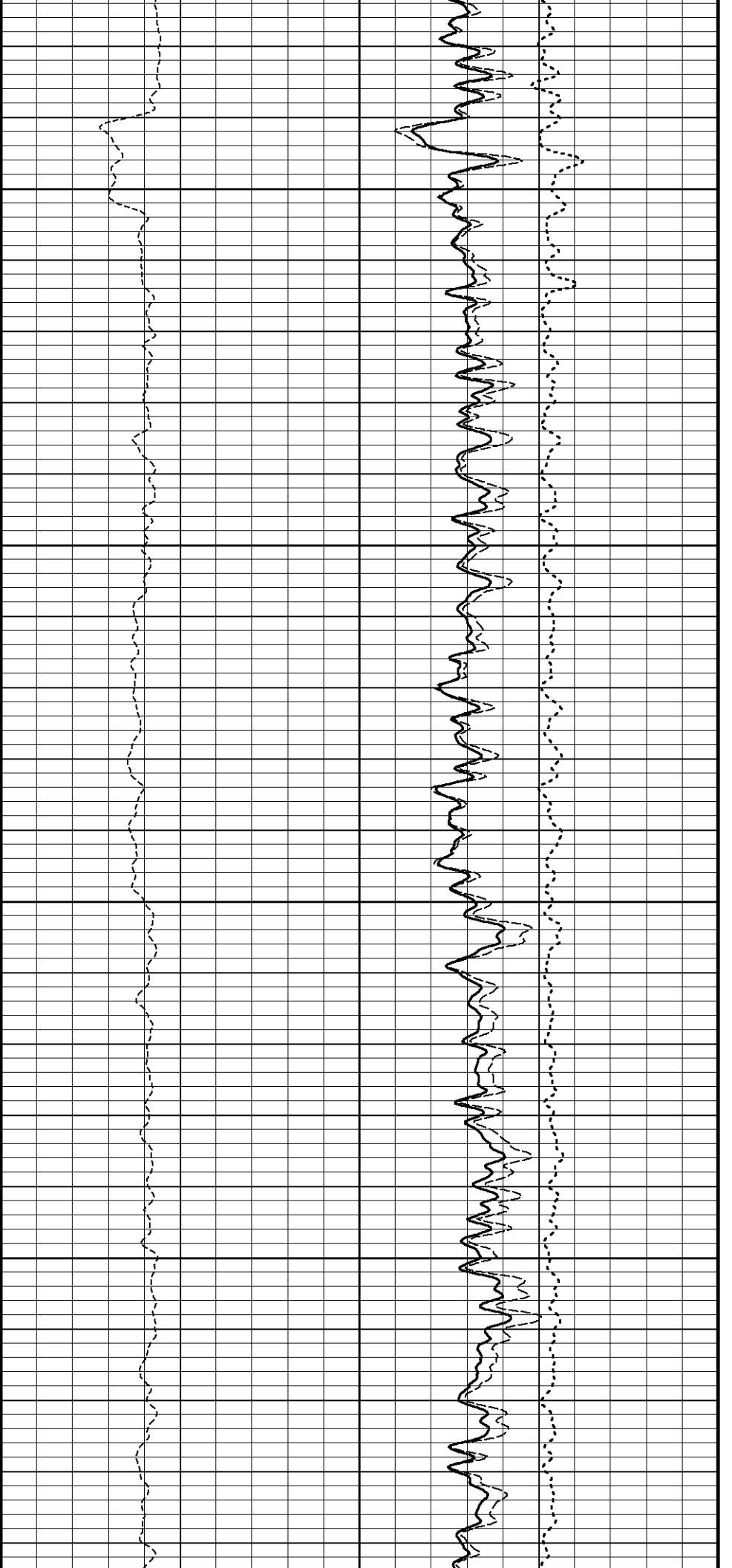
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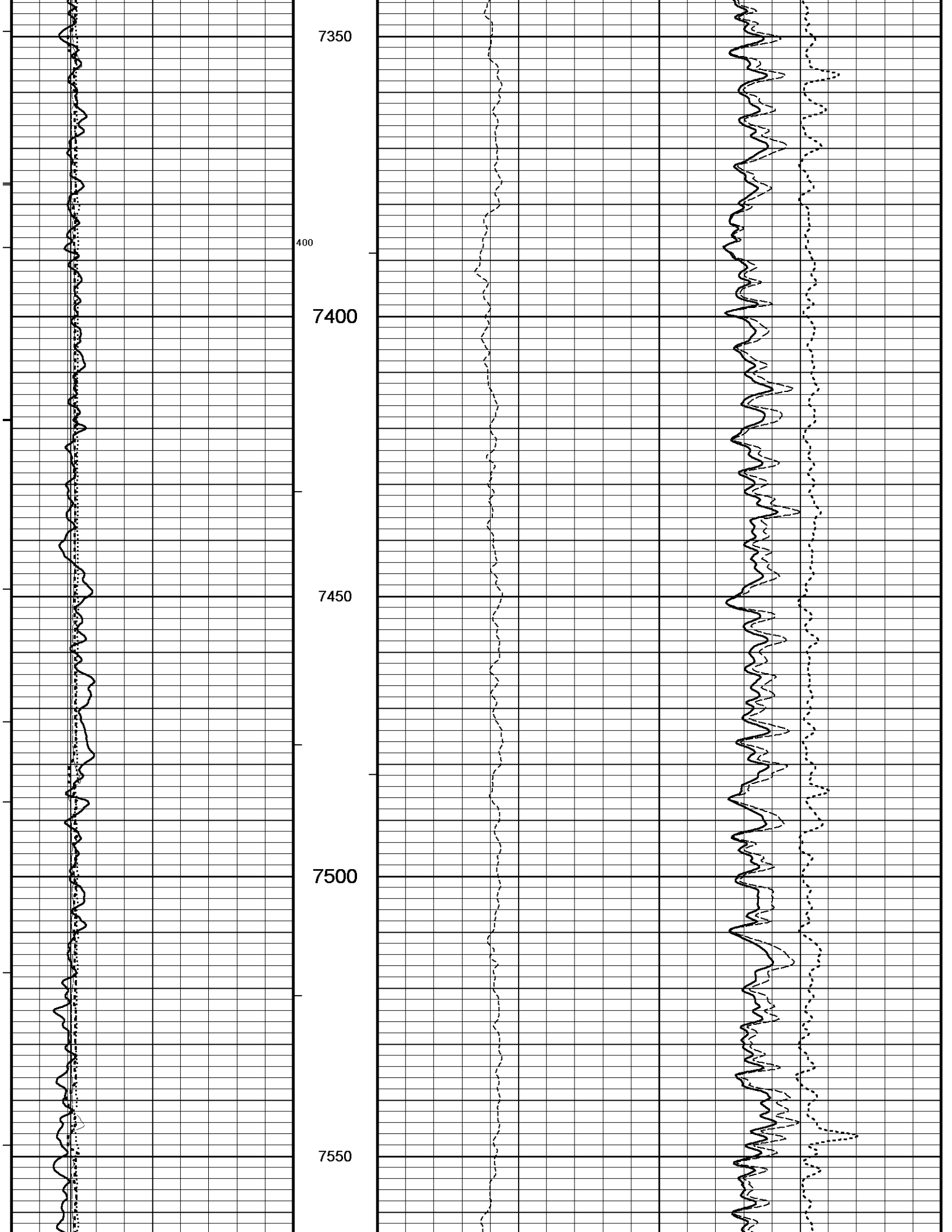
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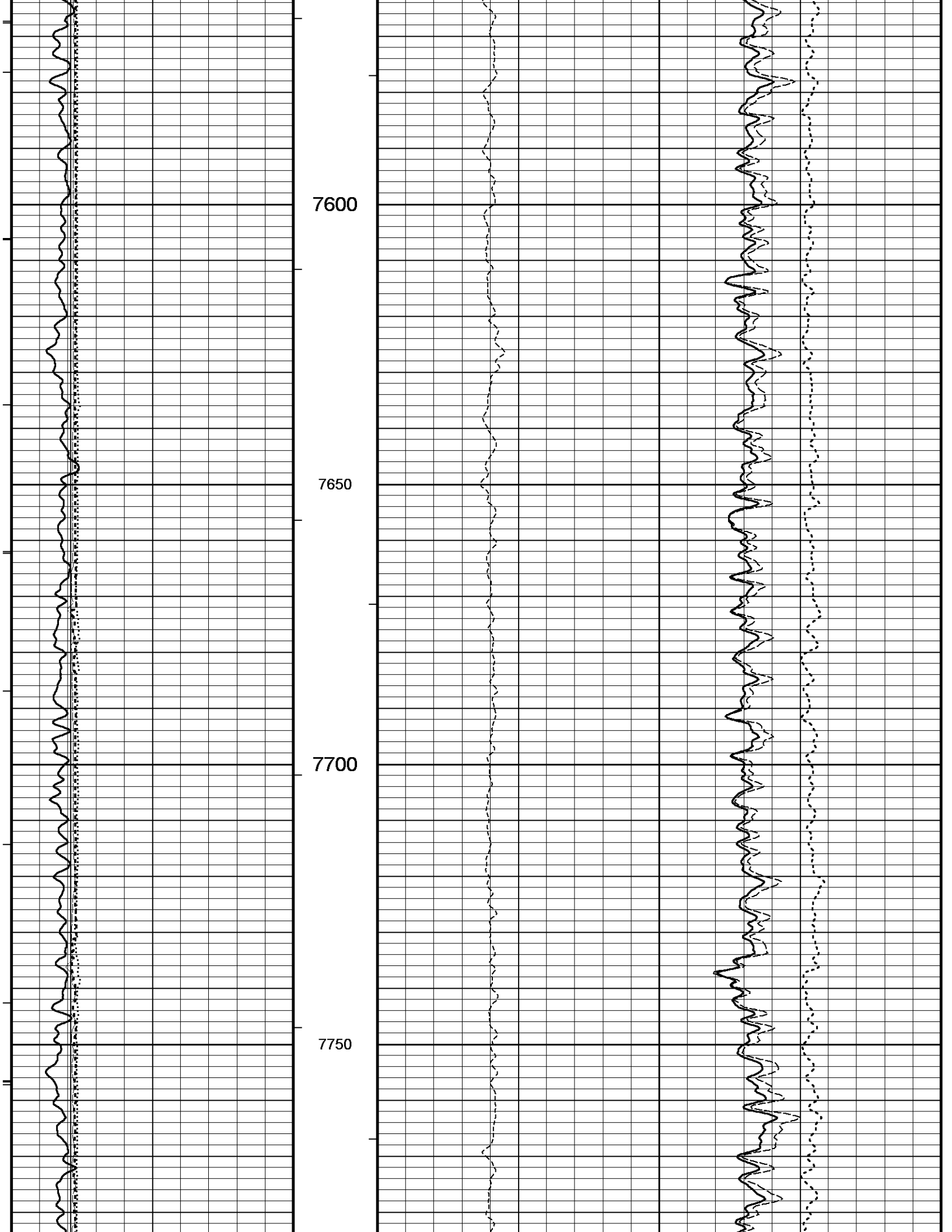
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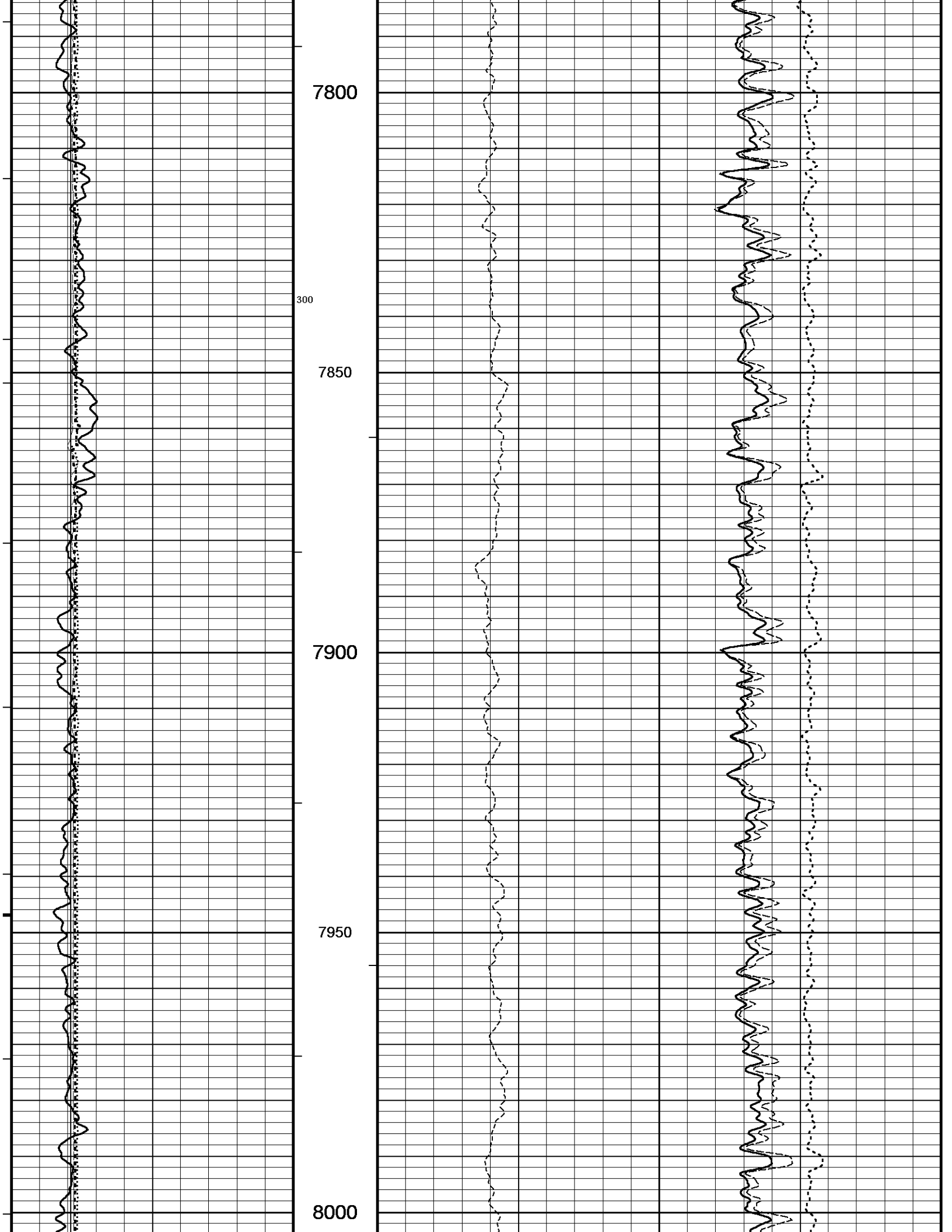
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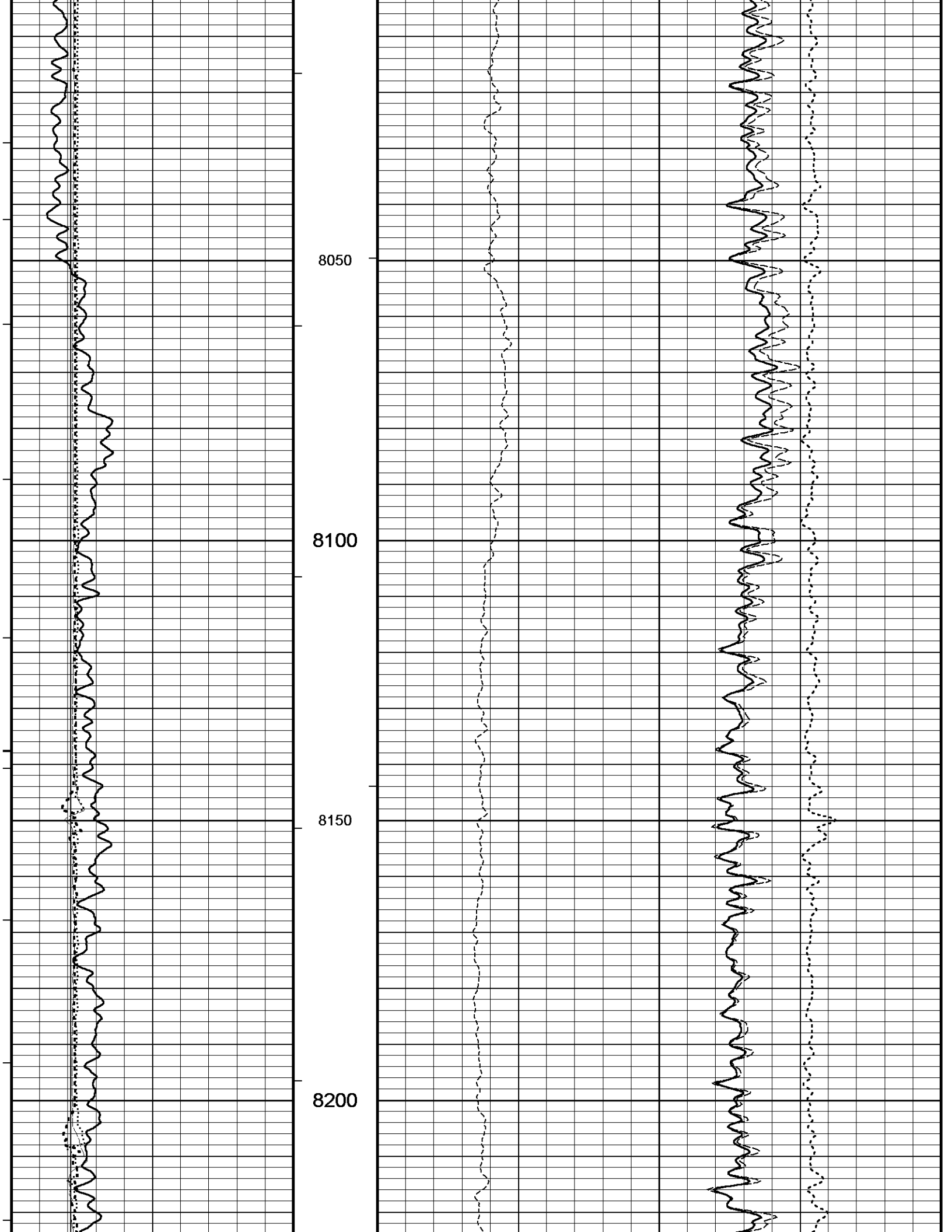
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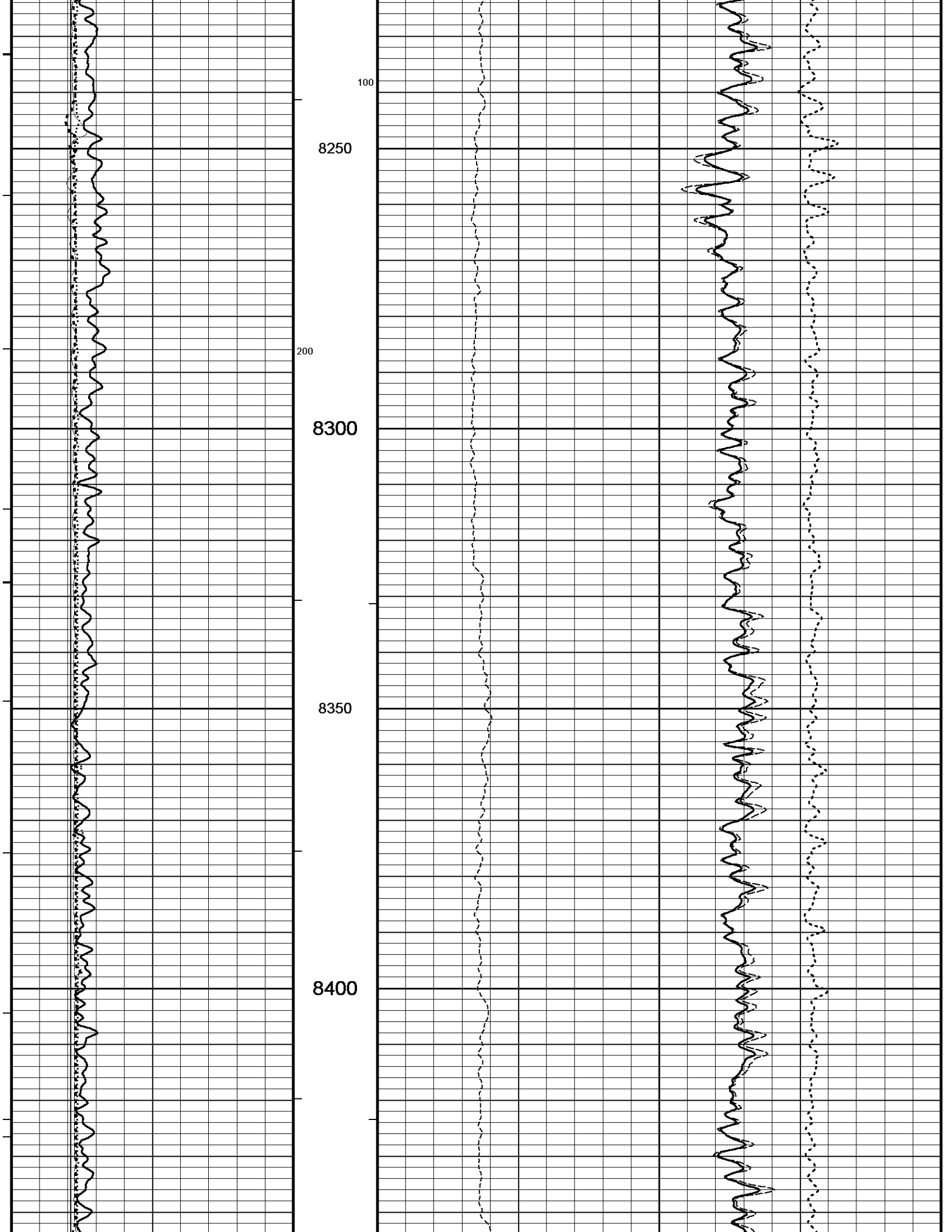


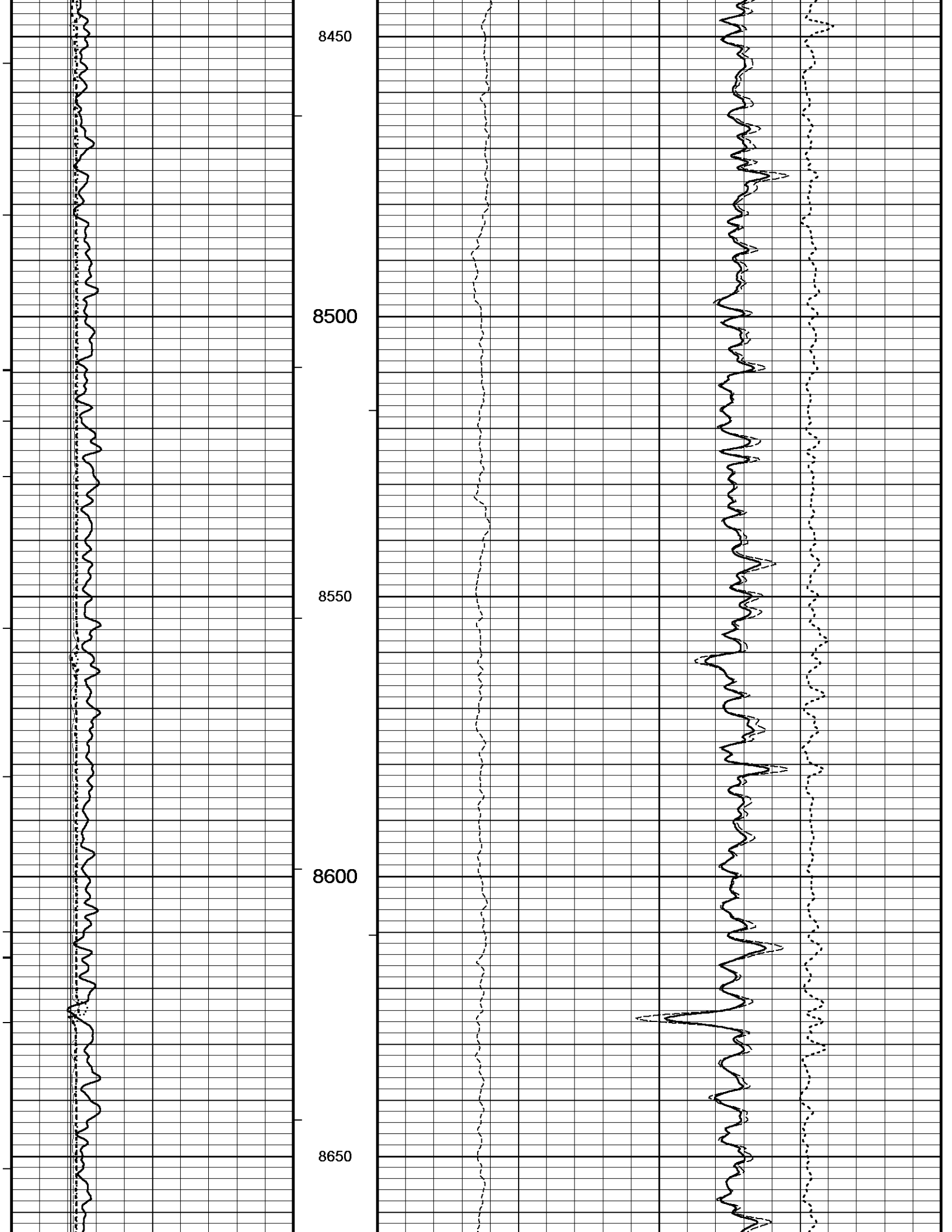


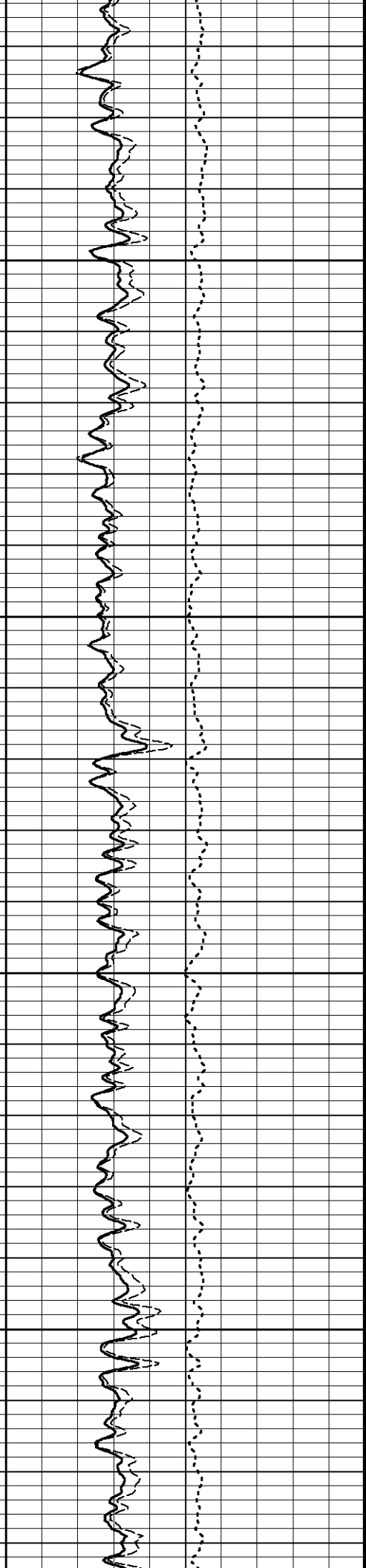
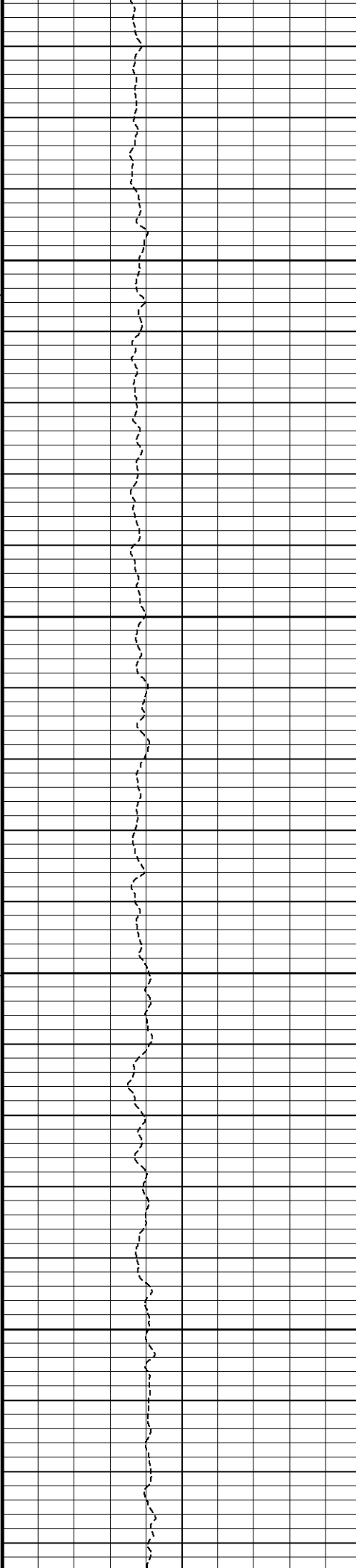
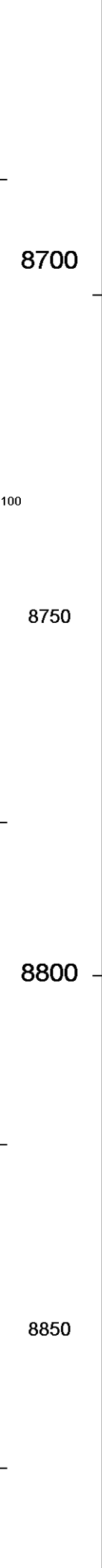
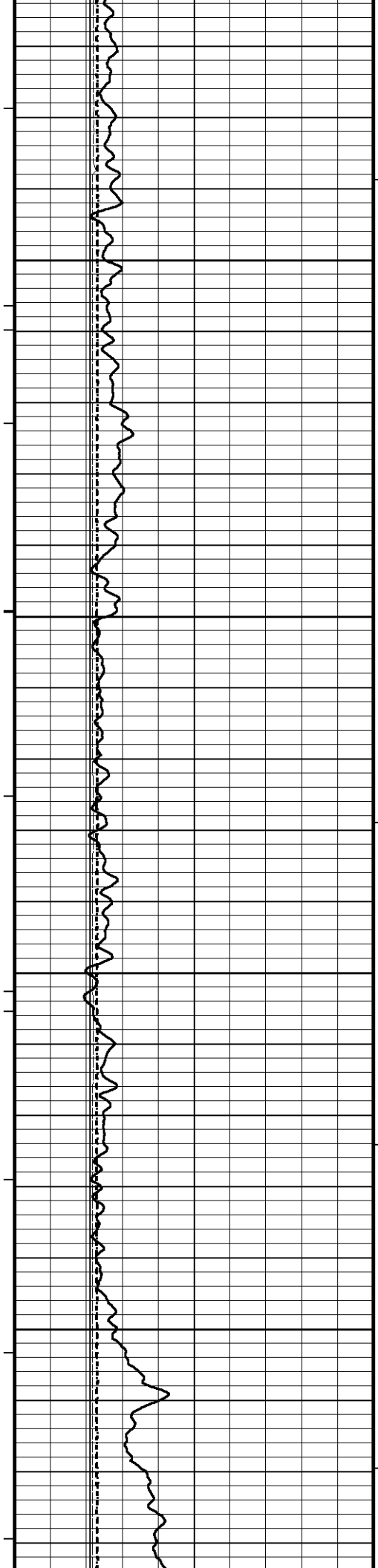


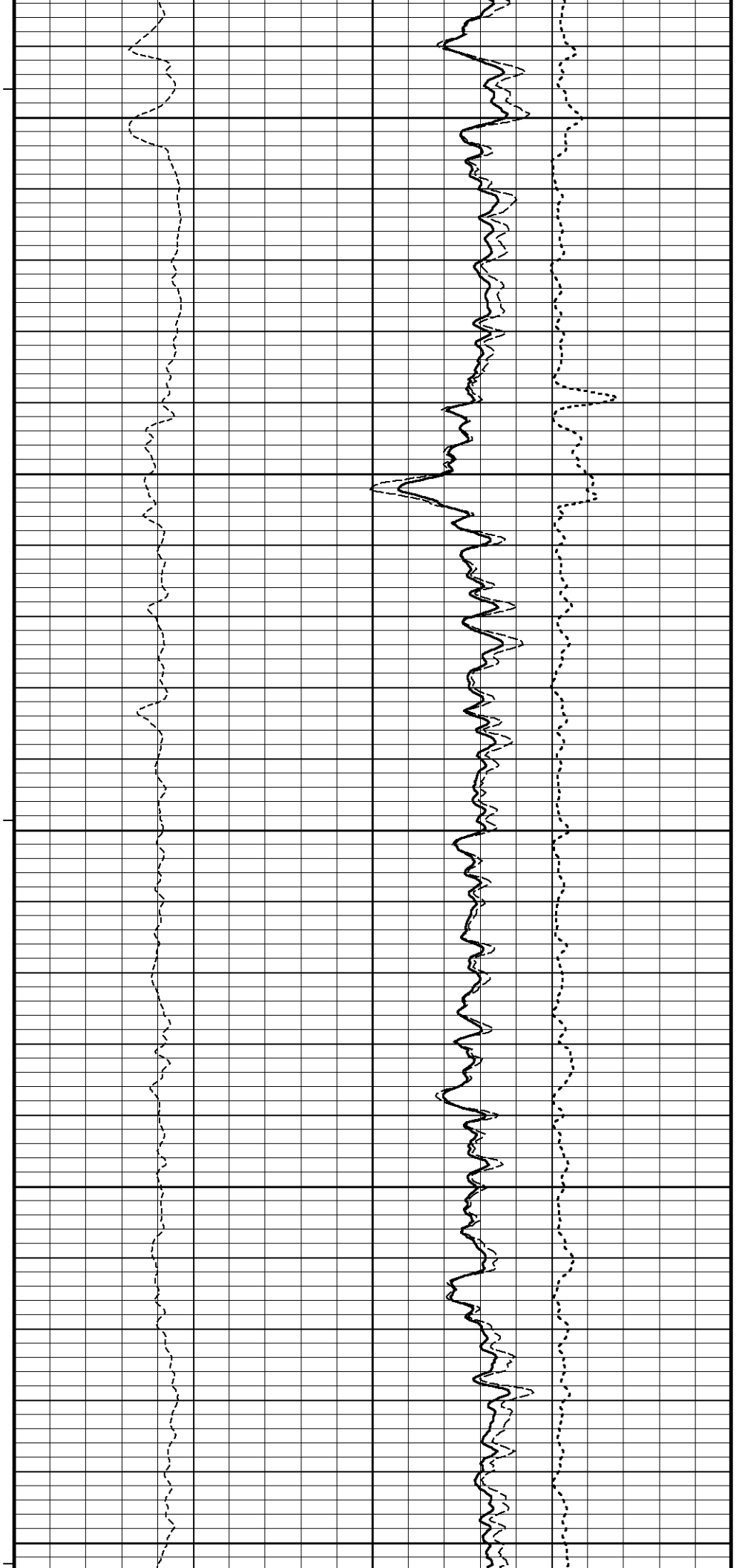
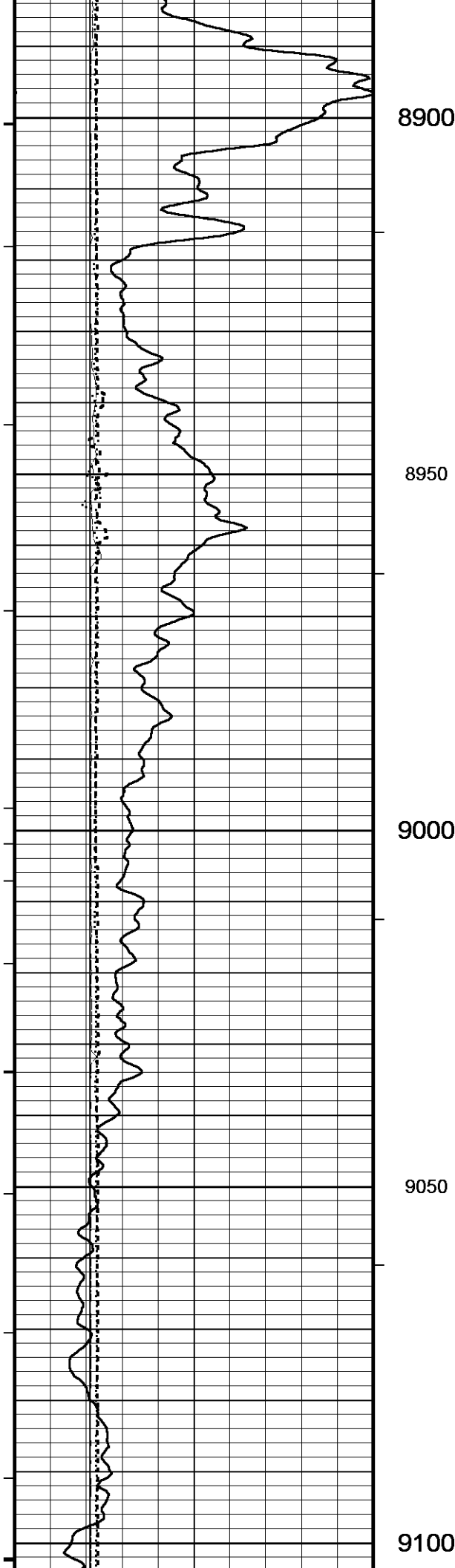


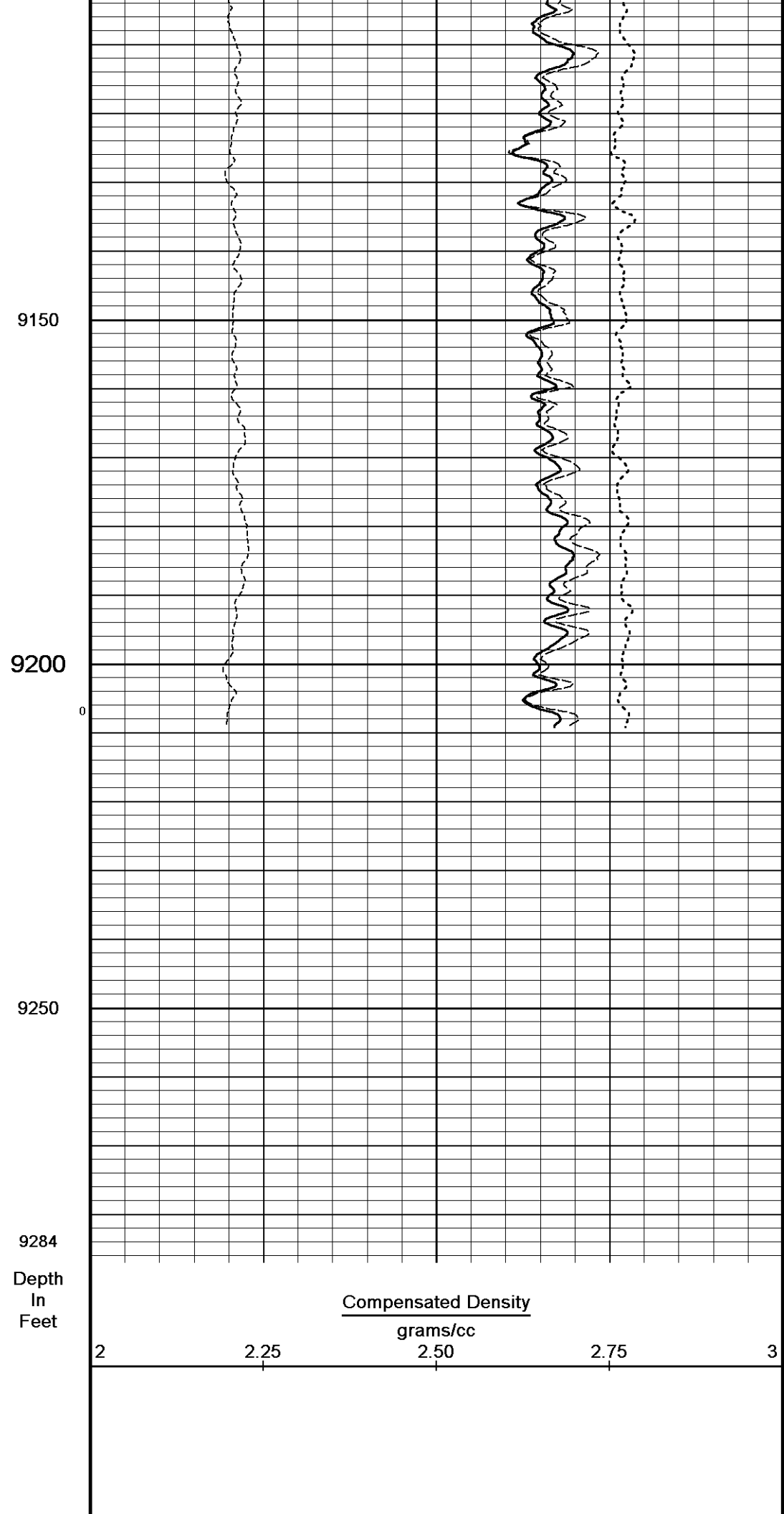
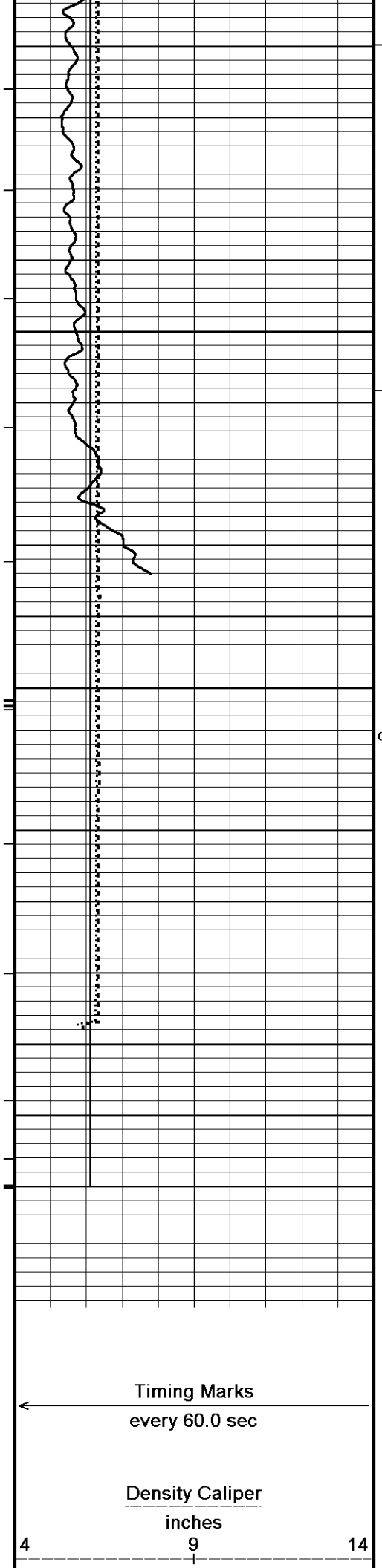


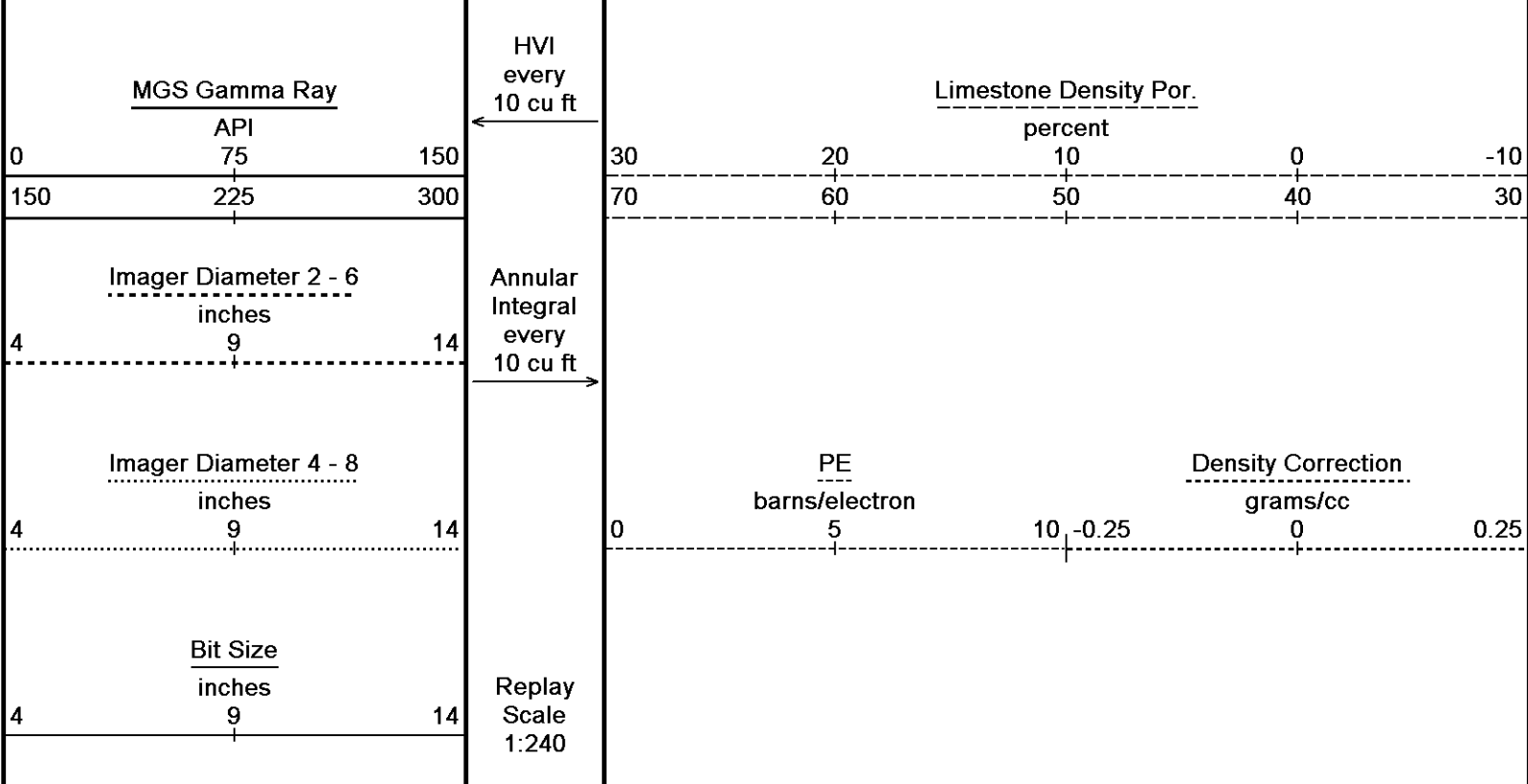












Depth Based Data - Maximum Sampling Increment 10.0cm
 Filename: C:\Users\amundt\AppData\Local\Temp\Weatherford PreView\0\RTAP 32268 158.dta
 System Versions: Logged with 13.01.5821 Processed with 13.01.5821 Plotted with 12.01.3513

Plotted on 22-MAY-2012 10:16
 Recorded on 05-MAY-2012 18:09

5 INCH BULK DENSITY

BEFORE SURVEY CALIBRATION
 C:\Users\amundt\AppData\Local\Temp\Weatherford PreView\0\RTAP 32268 158.dta

General Constants All 000 Last Edited on 02-MAY-2012 23:14

General Parameters		
Mud Resistivity	1.400	ohm-metres
Mud Resistivity Temperature	78.000	degrees F
Water Level	0.000	feet
Density/Neutron Processing	Wet Hole	
Hole/Annular Volume and Differential Caliper Parameters		
HVOL Method	Single Caliper	
HVOL Caliper 1	Density Caliper	
HVOL Caliper 2	N/A	
Annular Volume Diameter	4.500	inches
Caliper for Differential Caliper	Density Caliper	
Rwa Parameters		
Porosity used	Base Density Porosity	
Resistivity used	Array Ind. Six Res Rt	
RWA Constant A	0.610	
RWA Constant M	2.150	

MMS Parameters MMS-E.B 158 Last Edited on 04-MAY-2012 13:32

Logging Parameters		
Firmware Version	2v40	
Caliper Open On	MAI	
Caliper Open Delay	0.0	minutes
Caliper Closed On	Unknown	
Caliper Closed Delay	N/A	minutes
Sample Rate	1.00	seconds
Use Deep Sleep	No	
Delay Deep Sleep	N/A	
Deep Sleep Wake Time	N/A	minutes

Deep Sleep Wake Time	N/A	minutes
Deep Sleep Wake on Temperature	N/A	
Deep Sleep Wake Temperature	N/A	degrees C
Deep Sleep Wake on Pressure	N/A	
Deep Sleep Wake Pressure	N/A	psi
MMI Pad Pressure	8.0	

Release Parameters

Pulse Duration Base Level	10.0	seconds
Pulse Duration Transition Time	60.0	seconds
Pulse Duration Status Pulse From	20.0	seconds
Pulse Duration Caliper Close From	145.0	seconds
Pulse Duration Caliper Open From	150.0	seconds
Pulse Duration Release Pulse From	215.0	seconds
Pulse Duration Release Pulse To	280.0	seconds
Pulse Release Duration	240.0	seconds
Pulse Discriminator Pressure Band	96.0	seconds
Pulse Pressure Discriminator	213.0	seconds
Use Negative Pulsing	No	
Good Status Reply Open Hole	0.0	seconds
Good Status Reply Cased Hole	20.0	seconds
Bad Status Reply	60.0	seconds
Status Pulse To	80.0	seconds
Caliper Close To	0.0	seconds
Caliper Open To	210.0	seconds

Configuration

MMS,MGS,MDN,MPD,MPD,MIM,MIE,MAI

Gamma Calibration MGS-C.J 136

Field Calibration on 04-MAY-2012 12:24

	Measured	Calibrated (API)
Background	44	31
Calibrator (Gross)	1033	727
Calibrator (Net)	989	696

Gamma Constants MGS-C.J 136

Last Edited on

Gamma Calibrator Number	036	
Mud Density	1.00	gm/cc
Caliper Source for Processing	Bit Size	
Tool Position	Centred	
Concentration of KCl	0.00	kppm

High Resolution Temperature Constants MGS-C.J 136

Last Edited on

Pre-filter Length	11
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Neutron Calibration MDN-B.J 391

Base Calibration on 02-FEB-2012 17:34

Field Check on 04-MAY-2012 12:35

Base Calibration					
	Measured		Calibrated (cps)		
	Near	Far	Near	Far	
	3186	96	3714	110	
Ratio	33.156		33.764		
Field Calibrator at Base					
			Calibrated (cps)		
			2267	3463	
Ratio			0.655		
Field Check					
			Calibrated (cps)		
			2320	3464	
Ratio			0.670		

Neutron Constants MDN-B.J 391

Last Edited on 01-MAY-2012 11:37

Neutron Source Id	N1055	
Neutron Jig Number	N639	
Epithermal Neutron	No	
Caliper Source for Processing	Density Caliper	
Stand-off	0.00	inches
Mud Density	1.00	gm/cc

Mud Density	7.10	gm/cc
Limestone Sigma	4.26	cu
Sandstone Sigma	4.70	cu
Dolomite Sigma		
Formation Pressure Source	Constant Value	
Formation Pressure	0.00	kpsi
Temperature Source	None	
Temperature	N/A	degrees F
Mud Salinity	0.00	kppm
Formation Fluid Salinity Source	Constant Value	
Formation Fluid Salinity	0.00	kppm
Barite Mud Correction	Not Applied	

Accelerometer Parameters MIE-A.A 113

Date Of Last Accelerometer Calibration	14-DEC-2010,14:43		
	X Accelerometer	Y Accelerometer	Z Accelerometer
Slope	-1.107308	-1.105240	-1.108008
Offset	0.002033	0.006466	0.004223

Accelerometer Constants MIE-A.A 113

Last Edited on 02-JAN-2012 05:32

Accelerometer Calibrator Number		000			
Accelerometer Temperature Characterisation					
X Accelerometer					
Serial Number	282				
Calibration Date	18-Jul-2007				
	B0	B1	B2	B3	
Bias(g)	0.00000e+000	3.41234e-005	-1.69705e-008	1.28660e-010	
	SF0	SF1	SF2	SF3	
Scale Factor(mA/g)	3.00000e+000	2.70372e-004	8.31146e-007	-1.22715e-009	
Y Accelerometer					
Serial Number	284				
Calibration Date	18-Jul-2007				
	B0	B1	B2	B3	
Bias(g)	0.00000e+000	1.41306e-005	-2.62559e-009	9.20272e-011	
	SF0	SF1	SF2	SF3	
Scale Factor(mA/g)	3.00000e+000	2.83655e-004	6.88154e-007	-5.98912e-010	
Z Accelerometer					
Serial Number	287				
Calibration Date	20-Jul-2007				
	B0	B1	B2	B3	
Bias(g)	0.00000e+000	2.30753e-005	-5.40650e-010	3.42223e-011	
	SF0	SF1	SF2	SF3	
Scale Factor(mA/g)	3.00000e+000	2.66160e-004	7.47858e-007	-1.03559e-009	

Caliper Calibration MIE-A.A 113

Base Calibration on 14-DEC-2011 19:35
Field Calibration on 04-MAY-2012 12:41

Base Calibration					
Reading No	Pads 1-5 Meas.	Pads 3-7 Meas.	Calibrator Size (in)		
1	25344	25763	5.96		
2	35706	36096	7.97		
3	44592	45608	9.84		
4	55539	57575	11.91		
5	0	0	0.00		
Reading No	Pad 2 Meas.	Pad 4 Meas.	Pad 6 Meas.	Pad 8 Meas.	Calibrator Size (in)
1	24430	24823	24178	24236	5.96
2	32865	33510	33277	32610	7.97
3	40619	41653	41341	40744	9.84
4	50269	51437	51603	50454	11.91
5	0	0	0	0	0.00
Field Calibration					
	Measured	Measured	Actual		
	Pads 1-5 Caliper(in)	Pads 3-7 Caliper(in)	Caliper(in)		
	7.94	7.67	8.03		
	Measured	Measured	Measured	Measured	Actual
	Pad 2 Caliper(in)	Pad 4 Caliper(in)	Pad 6 Caliper(in)	Pad 8 Caliper(in)	Caliper(in)
	7.94	7.67	8.03	8.03	8.03

Caliper Constants MIE-A.A 113				Last Edited on 14-DEC-2011 19:27	
Caliper Difference for BRKT	0.120	inches			
Magnetometer Parameters MIE-A.A 113					
Date Of Last Magnetometer Calibration	14-DEC-2011,19:38				
	X Magnetometer	Y Magnetometer	Z Magnetometer		
Slope	-1.000000	-1.016309	-1.000351		
Offset	0.007444	-0.017558	0.006716		
Magnetometer Constants MIE-A.A 113				Last Edited on	
Magnetometer Calibrator Number	000				
Navigation Constants MIE-A.A 113				Last Edited on 14-DEC-2011 19:57	
Magnetic Declination	4.10	degrees	East		
Compact Micro Imager Constants MIE-A.A 113				Last Edited on	
Sonde Configuration	Imager Mode	degrees			
Arm-Pad Kit	Normal Pads (12.25 in)				
Centre Pad 1 Rotational Offset	0.00				
Image/Borehole Ovality Reference	Azimuth of Pad 1	degrees			
Non Active Buttons	Omit	metres			
Search Angle	0.00	metres			
Correlation Interval	1.00	mAmp			
Correlation Step	0.50	mAmp			
Current Offset	0.0000				
Squasher Start	0.0500				
Image Processing	Enabled				
Induction Calibration MAI-B.J 392				Base Calibration on 25-MAR-2012 01:23 Field Check on 04-MAY-2012 12:38	
Base Calibration					
Test Loop Calibration	Measured		Calibrated (mmho/m)		
Channel	Low	High	Low	High	
1	17.1	467.1	9.3	966.2	
2	6.1	375.5	7.6	821.4	
3	3.2	259.2	5.2	566.0	
4	2.2	129.4	2.6	279.2	
Array Temperature	74.7		Deg F		
Channel	Base Check (mmho/m)		Field Check (mmho/m)		
	Low	High	Low	High	
1	0.0	0.0	13.0	3890.4	
2	0.0	0.0	30.4	3591.1	
3	0.0	0.0	28.8	3049.7	
4	0.0	0.0	19.2	2140.4	
Deep	0.0	0.0	17.2	2000.2	
Medium	0.0	0.0	42.6	3974.0	
Shallow	0.0	0.0	45.9	5306.7	
Array Temperature	0.0		75.9 Deg F		
Induction Constants MAI-B.J 392				Last Edited on 02-MAY-2012 23:14	
Induction Model	RtAP-WBM				
Caliper for Borehole Corr.	Density Caliper				
Hole Size for Borehole Correction	N/A	inches			
Tool Centred	No				
Stand-off Type	Fins				
Stand-off	0.50	inches			
Number of Fins on Stand-off	6.0000				
Stand-off Fin Angle	60.00	degrees			
Stand-off Fin Width	0.5000	inches			
Borehole Corr. Rm Source	Temperature Corr				
Temp. for Rm Corr.	MGS External Temperature				
Squasher Start	0.0050	mhos/metre			
Squasher Offset	N/A	mhos/metre			

Equation Editor

N/A

mmhos/metre

Borehole Normalisation

DRM1	0.0000	DRC1	0.0000
DRM2	0.0000	DRC2	0.0000
MRM1	0.0000	MRC1	0.0000
MRM2	0.0000	MRC2	0.0000
SRM1	0.0000	SRC1	0.0000
SRM2	0.0000	SRC2	0.0000

Calibration Site Corrections

Channel 1	0.00	mmhos/metre
Channel 2	0.00	mmhos/metre
Channel 3	0.00	mmhos/metre
Channel 4	0.00	mmhos/metre

Apparent Porosity and Water Saturation Constants

Archie Constant (A)	1.00	
Cementation Exponent (M)	2.00	
Saturation Exponent (N)	2.00	
Saturation of Water for Apor	100.00	percent
Resistivity of Water for Apor and Sw	0.05	ohm-m
Resistivity of Mud Filtrate for Sw	0.00	ohm-m
Source for Rt	0.00	
Source for Rxo	0.00	

High Resolution Temperature Calibration MAI-B.J 392

Field Calibration on 16-SEP-2011 07:02

	Measured	Calibrated(Deg F)
Lower	10.00	50.00
Upper	100.00	212.00

High Resolution Temperature Constants MAI-B.J 392

Last Edited on

Pre-filter Length	11
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Caliper Calibration MPD-C.J 394

Base Calibration on 02-FEB-2012 17:47
Field Calibration on 04-MAY-2012 12:30

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	16864	4.02
2	24593	5.96
3	32730	8.03
4	41088	10.02
5	49920	12.01
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
5.94	5.96

Photo Density Calibration MPD-C.J 394

Base Calibration on 25-MAR-2012 01:35
Field Check on 04-MAY-2012 12:28

Density Calibration

Base Calibration	Measured	Calibrated (sdu)
	Near	Far
Reference 1	48939	23252
Reference 2	21263	2513

Field Check at Base

1237.9	1368.0
--------	--------

Field Check

1227.1	1360.1
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PE Calibration

Base Calibration	Measured	Calibrated
	WH	Ratio
Background	223	1104
Reference 1	19279	48750
Reference 2	5696	21118

Field Check at Base

Field Check at Base 223.2 1104.1

Field Check 220.4 1093.9

Density Constants MPD-C.J 394

Last Edited on 02-MAY-2012 11:08

Density Source Id	236	
Nylon Calibrator Number	DNCE 633	
Aluminium Calibrator Number	DACD 633	
Density Shoe Profile	4 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.01	gm/cc
Mud Density Z/A Multiplier	1.11	
Mud Filtrate Density	1.00	gm/cc
Dry Hole Mud Filtrate Density	1.00	gm/cc
DNCT	0.00	gm/cc
CRCT	0.02	gm/cc
Density Z/A Correction	Hybrid	

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	0.00

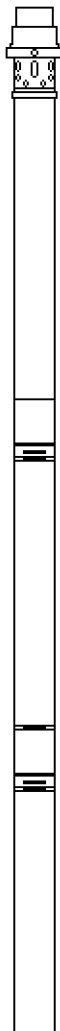
DOWNHOLE EQUIPMENT

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Shuttle Running Tool 3.5")
SRT-A.A 69 LG: 6.62 ft WT: 37.5 lb OD: 2.52 in

DUMMY BATTERY
MLK-A 1 LG: 14.23 ft WT: 30.9 lb OD: 2.24 in

Dummy Battery
MLK-A 2 LG: 14.23 ft WT: 30.9 lb OD: 2.24 in



SKJ-D.A Compact Knuckle Joint

SKJ-D.A 207 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

MBS-G.A 200v Compact Battery Sub

MBS-G.A 119 LG: 17.06 ft WT: 123.5 lb OD: 2.24 in

Compact Memory Sub E.B

MMS-E.B 158 LG: 5.20 ft WT: 37.5 lb OD: 2.24 in

Compact Tool Isolator sub.

MTI-B.A 61 LG: 1.54 ft WT: 13.2 lb OD: 2.24 in

Compact Short Gamma

MGS-C.J 136 LG: 3.41 ft WT: 24.3 lb OD: 2.24 in

84.74 ft GRGM - MGS Gamma Ray

82.75 ft GSXT - MGS External Temperature

SKJ-E.B Compact Knuckle Joint

SKJ-E.B 479 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

SHA-J.A Compact Swivel Head Adaptor

SHA-J.A 431 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in

MIS-D.A Compact Inline Bowspring sub

MIS-D.A 606 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in



Compact Neutron

MDN-B.J 391 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

Compact Density/Caliper

MPD-C.J 394 LG: 9.59 ft WT: 90.4 lb OD: 2.24 in

MIS-A.A Compact Inline Bowspring sub

MIS-A.A 275 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

SHA-J.A Compact Swivel Head Adaptor

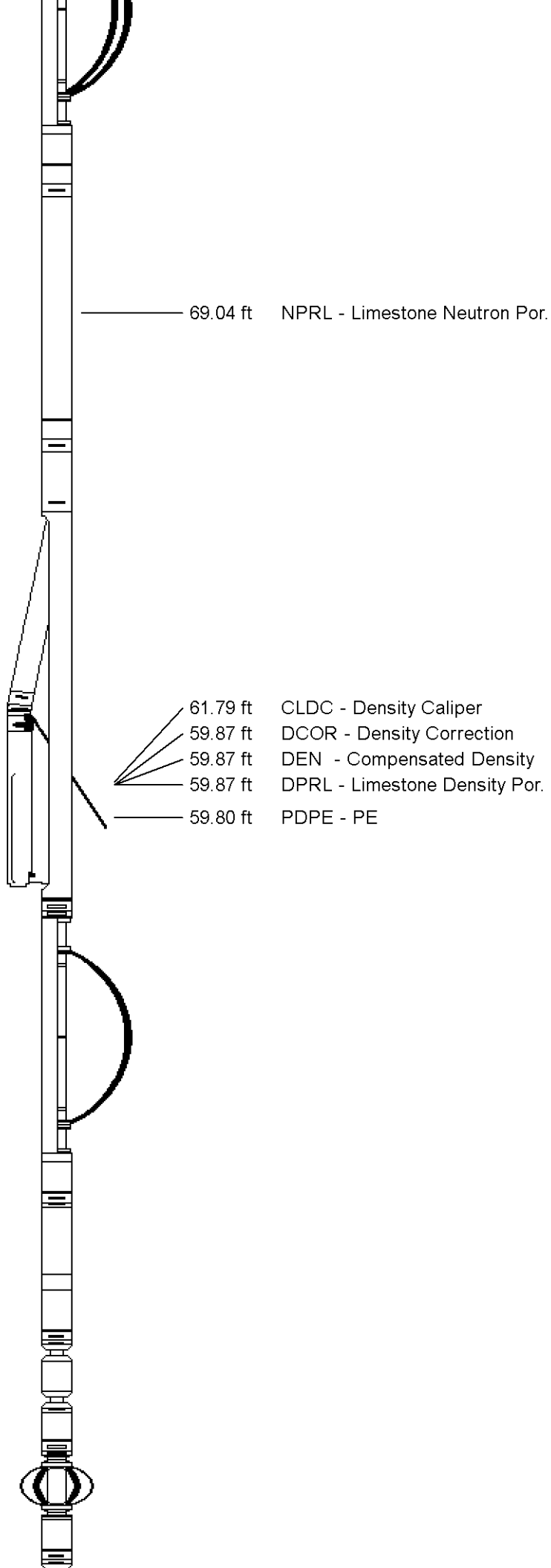
SHA-J.A 434 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in

SKJ-E.B Compact Knuckle Joint

SKJ-E.B 478 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

MIS-E.B Compact Inline Standoff sub

MIS-E.B 574 LG: 2.14 ft WT: 15.4 lb OD: 2.24 in



SKJ-D.A Compact Knuckle Joint
SKJ-D.A 209 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

MIS-A.A Compact Inline Bowspring sub
MIS-A.A 62 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

Compact MMI Memory Section
MIM-A.A 113 LG: 4.65 ft WT: 26.5 lb OD: 2.24 in

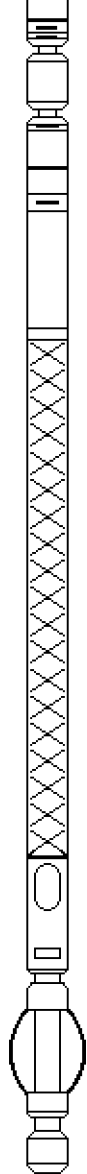
Compact MMI Electrode Section
MIE-A.A 113 LG: 13.96 ft WT: 99.2 lb OD: 4.09 in

20.92 ft	IECX - MIE Caliper X
20.92 ft	IECY - MIE Caliper Y
20.40 ft	IEC2 - MIE Caliper 2
20.40 ft	IEC4 - MIE Caliper 4
20.40 ft	IEC6 - MIE Caliper 6
20.40 ft	IEC8 - MIE Caliper 8
20.40 ft	IMZA - Z Accelerometer
20.40 ft	ITLT - Borehole Tilt
20.40 ft	IAP1 - Azimuth of Reference
20.40 ft	IMGR - MMI Image

MIS-A.A Compact Inline Bowspring sub
MIS-A.A 41 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

SKJ-D.A Compact Knuckle Joint
SKJ-D.A 140 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

Compact Induction
MAI-B.J 392 LG: 12.52 ft WT: 48.5 lb OD: 2.24 in



Tool Zero

(1.84ft from bottom)

Total Length: 148.41 ft Weight: 925.9 lb

All measurements relative to tool zero.

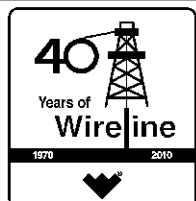
Company	SANDRIDGE ENERGY
Well	ISAAC FARMS 1-36H
Field	FINNEY
Province	FINNEY
Country	U.S.A. / KANSAS

ElevationKB	2902.00	feet	FirstReading	9192.00	feet
ElevationDrill	2900.00	feet	DepthDriller	9272.00	feet
ElevationGround	2886.00	feet	DepthLogger	9272.00	feet



Weatherford®

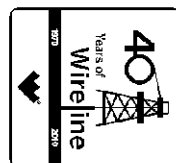
CML MESSENGER SHUTTLE
CPMPACT PHOTO DENSITY
COMPENSATED NEUTRON





Weatherford

CML MESSENGER SHUTTLE ARRAY INDUCTION



Company	SANDRIDGE ENERGY		
Well	ISAAC FARMS 1-36H		
Field	FINNEY		
Province	FINNEY		
Country	U.S.A. / KANSAS		
Location	200' FNL & 400' FWL		
SEC	TWP	RGE	Other
22	31W	36S	MPD/MDN
API Number	15-055-22135		CMI
Permit Number			
Permanent G.L.CommaElevation 2886 feet			Elevations
LogFrom KB			Kb
DrillFrom K.B. @ 16 FEET			Df
Date	05-MAY-2012		GI
RunNo	ONE		
DepthDriller	9272.00	feet	
DepthLogger	9272.00	feet	
FirstReading	9251.00	feet	
LastReading	5357.00	feet	
CasingDriller	5357.00	feet	
CasingLogger	5357.00	feet	
BitSize	6.125	inches	
HoleFluid	WBM		
Density	8.33 g/c3	30.00 CP	
Ph	8.50	18.00 ml/30MIn	
SampleSource	FLOWLINE		
RmMeas	0.86 @ 73.0	ohm-m	
RmflMeas	0.69 @ 73.0	ohm-m	
RmcMeas	1.03 @ 73.0	ohm-m	
RmtSouce	CALC	CALC	
RmBht	0.48 @132.0	ohm-m	
TimeCirc	2 HOURS		
MaxTemp	132.00	deg F	
Equipment	COMPACT		
Base	18077	OKC	
Recorded	STEVEN TOTTEY		
Witnessed	WILLIAM SCOTT		
S.O. #	3535254		

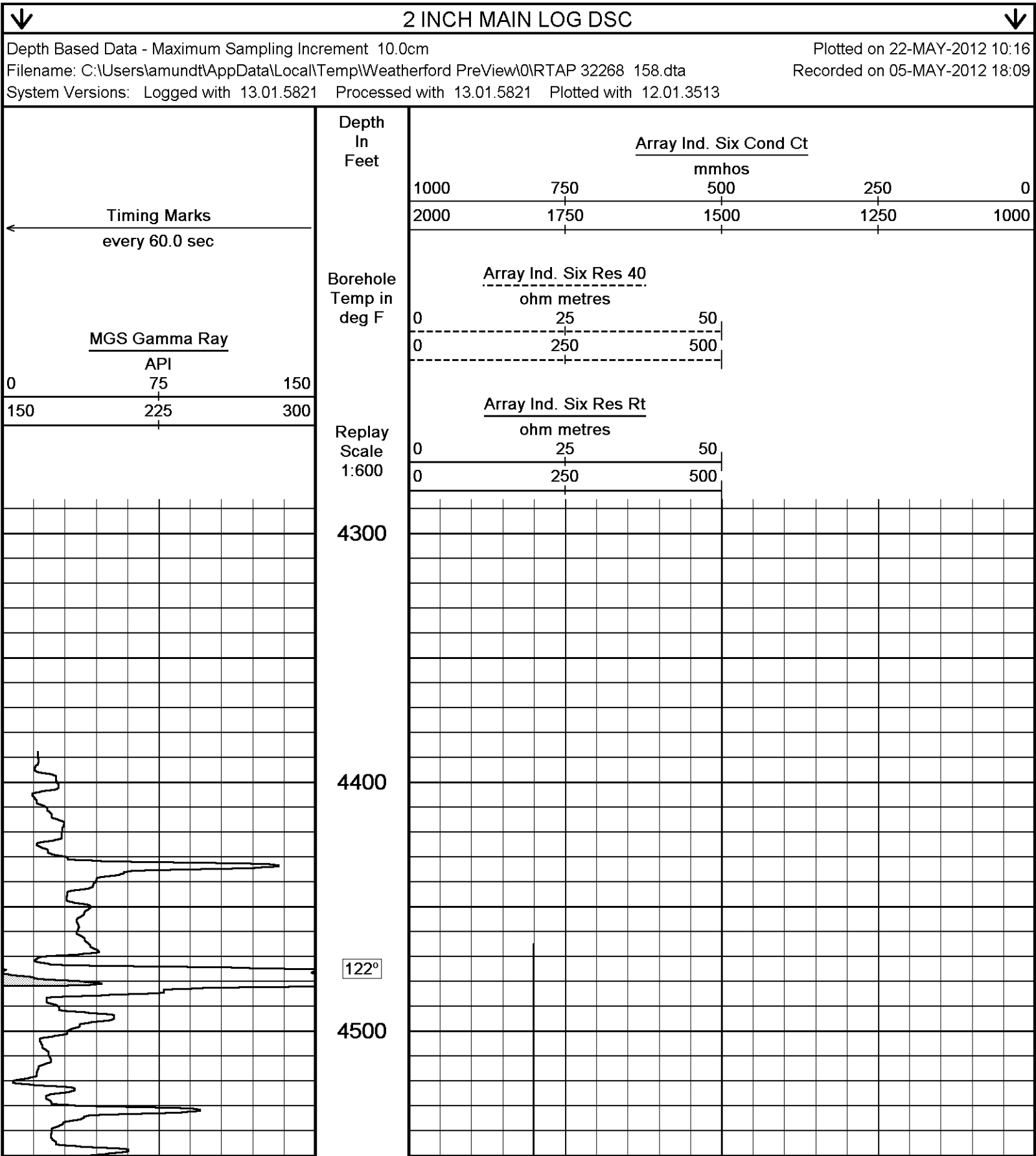
BoreholeRec			Last Edited: 05-MAY-2012 15:49	
BitSize Inches	DepthFrom Feet		DepthTo Feet	
6.125	5357.00		9272.00	
CasingRec				
Type	Size Inches	DepthFrom Feet	ShoeDepth Feet	Weight Pdff
surface	9.625	0.00	1332.00	29.30
inter	7.000	0.00	5357.00	17.00

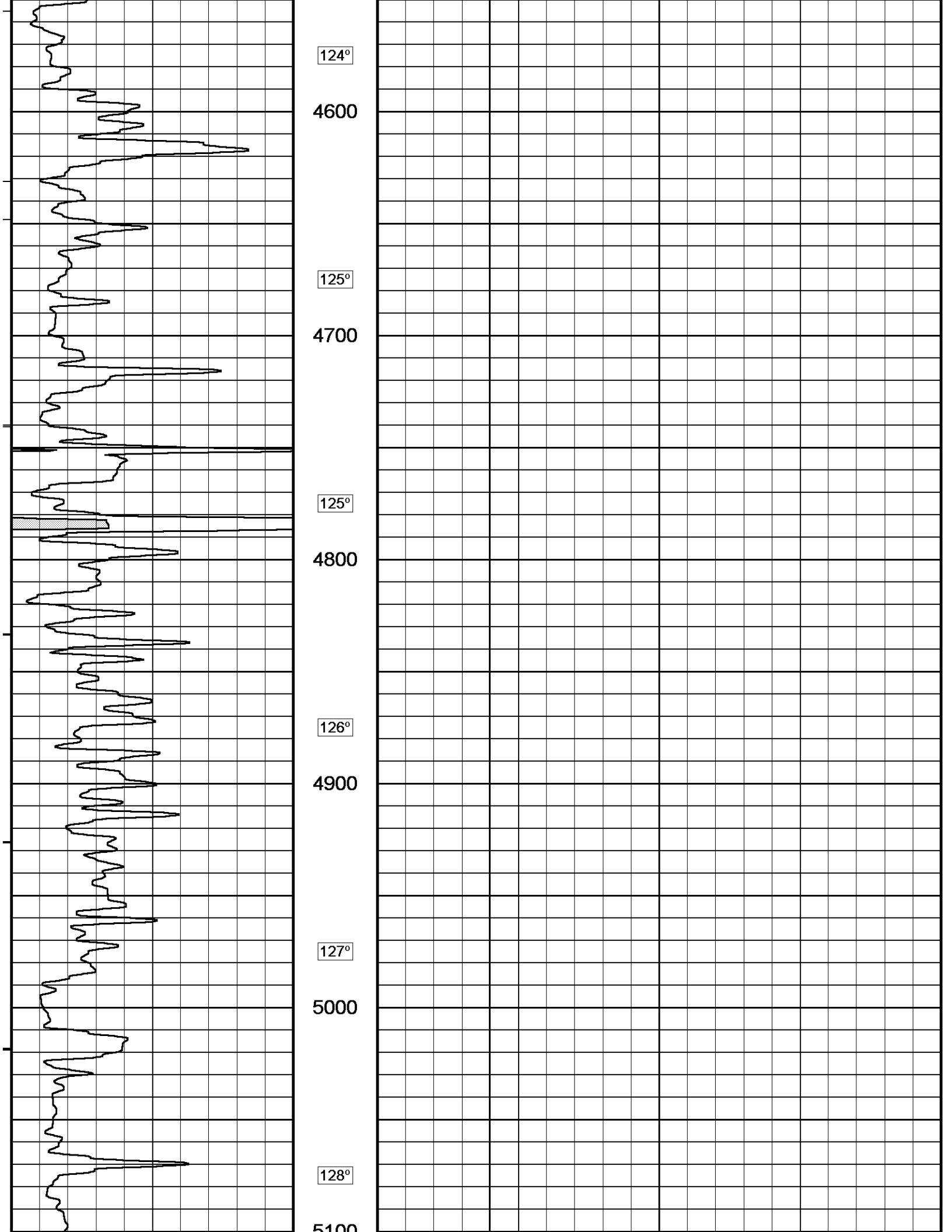
Remarks
TOOLS RAN: 200V MBS-119,MMSE158, MGS-135, MDN-391, MPD-394,MIE-157, MAI-392 RAN IN COMBINATION
HARDWARE: MAI: MIS-B 0.5" STANDOFF USED ABOVE MAI, ISA 0.5" STANDOFF USED BELOW MAI. MDN: MIS-A DOUBLE BOWSPRING USED ABOVE MDN. MPD: 4INCH PROFILE PLATE USED, MIS-A SINGLE BOWSPRING USED BELOW MPD CMI: MIS-A CENTRALIZER RAN ABOVE AND BELOW CMI
2.71 G/CC DENSITY MATRIX USED TO CALCULATE POROSITY ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST.
DRILL PIPE DEPTH DURING DEPLOYMENT: 9153.33 LOGGING TOOL DEPTH AFTER DEPLOYMENT: 9254.33
ANNULAR HOLE VOLUME CALCULATED USING WITH 4.5 INCH PRODUCTION CASING

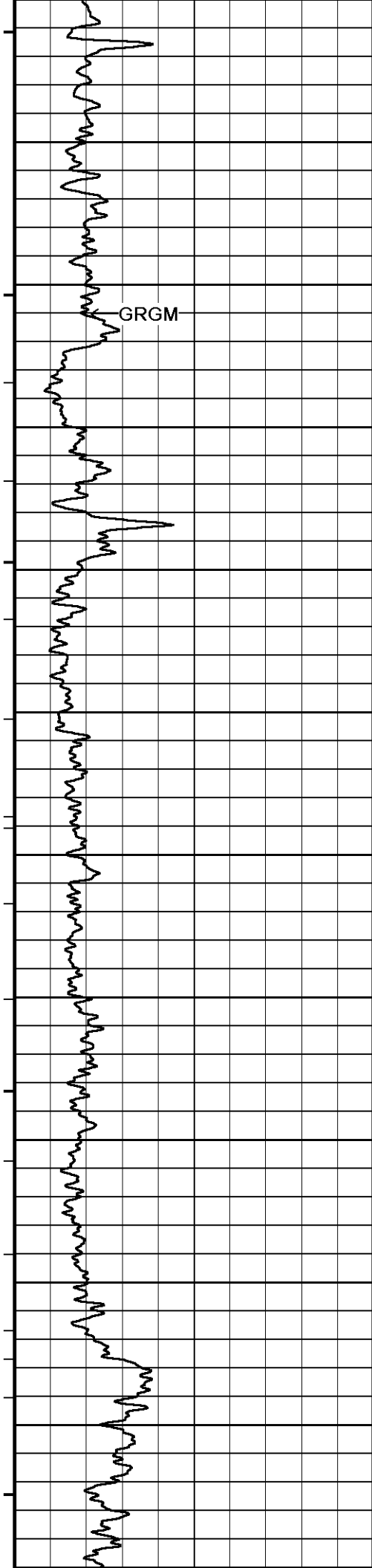
SERVICE ORDER # 3535254
RIG: LARIET #3

OPERATOR(S): DREW TURNER AND CLINT HAWKINS

HOLE RUGOSITY MAY AFFECT LOG QUALITY.







GRGM

5100

128°

5200

129°

5300

Casing
Shoe

129°

5400

129°

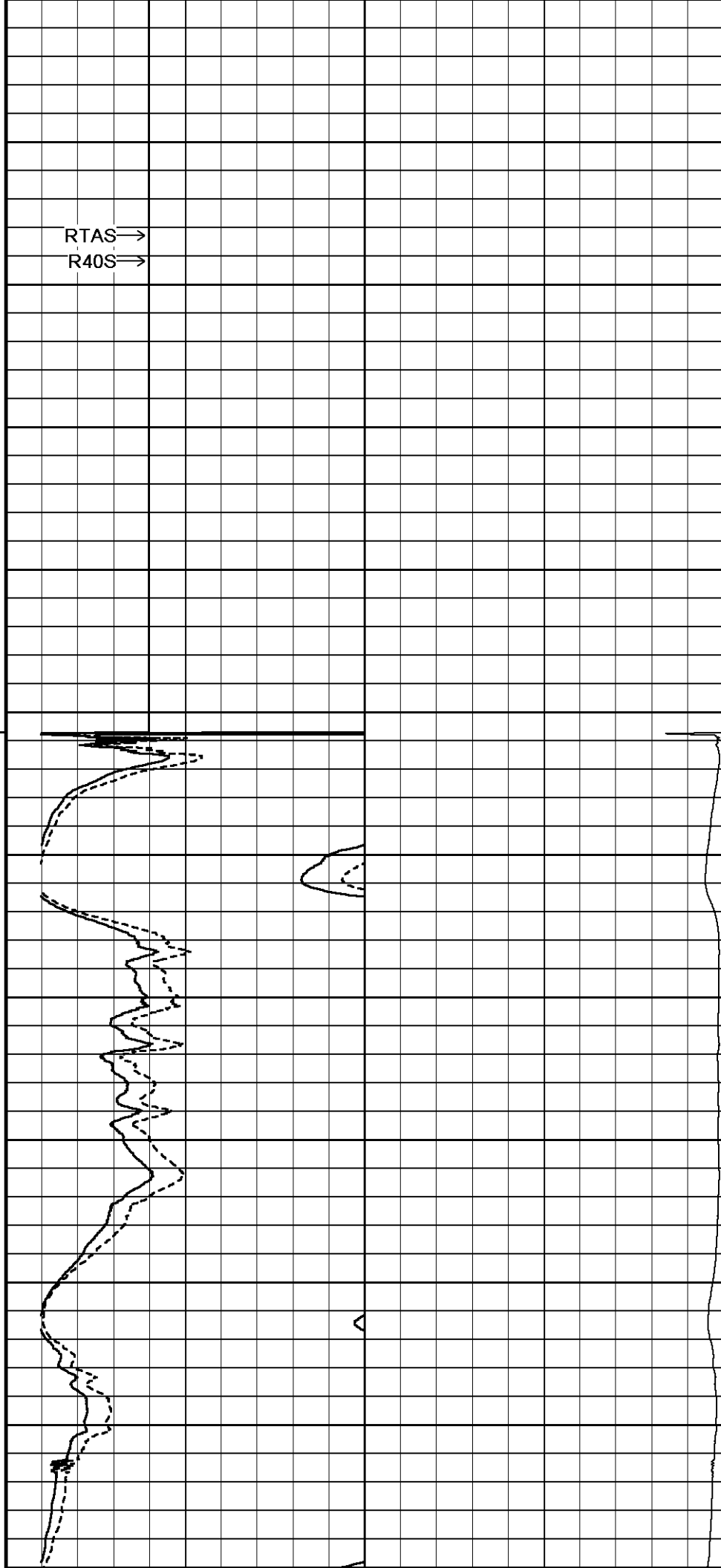
5500

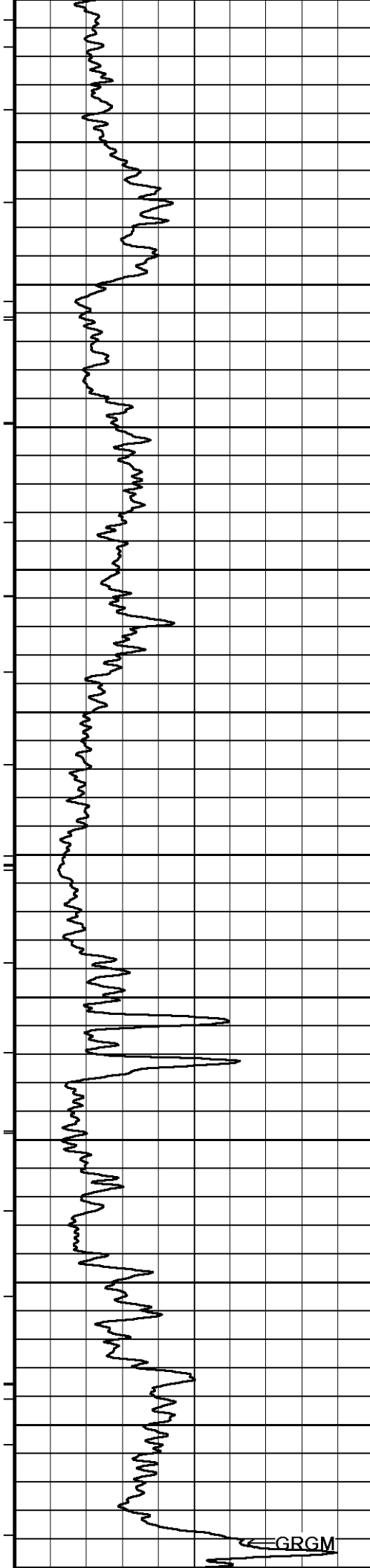
130°

5600

RTAS→

R40S→





130°

5700

130°

5800

130°

5900

130°

6000

131°

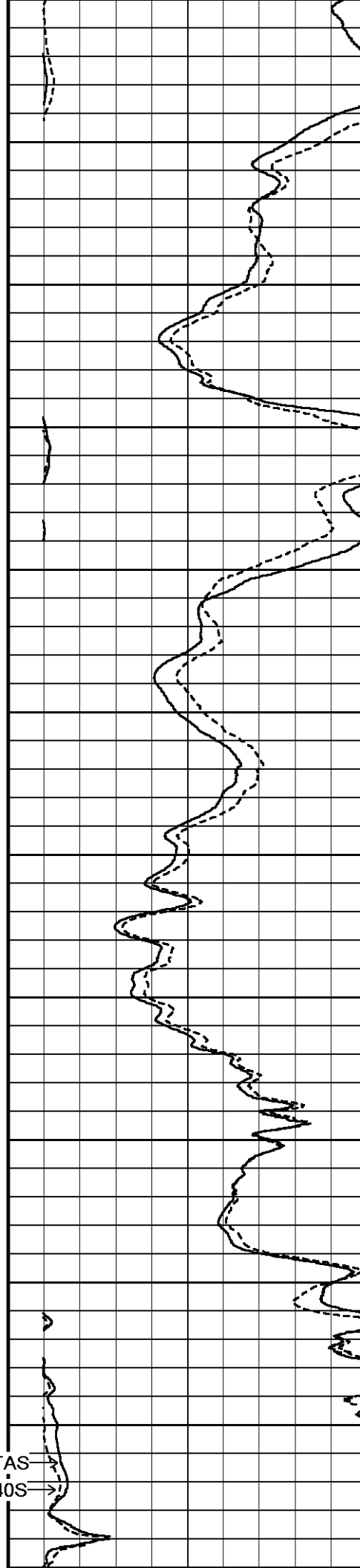
6100

RTAS

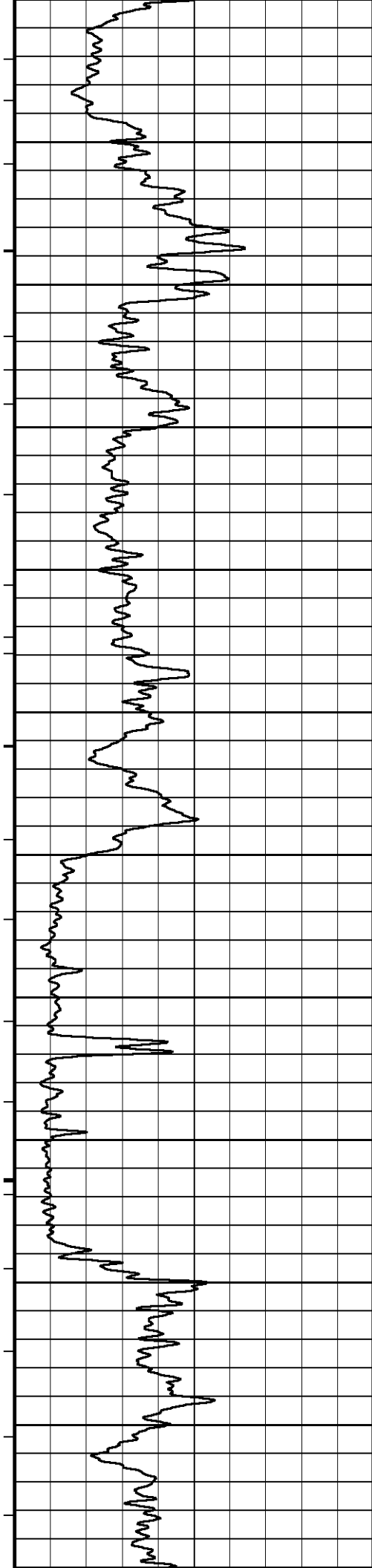
130° R40S

GRGM

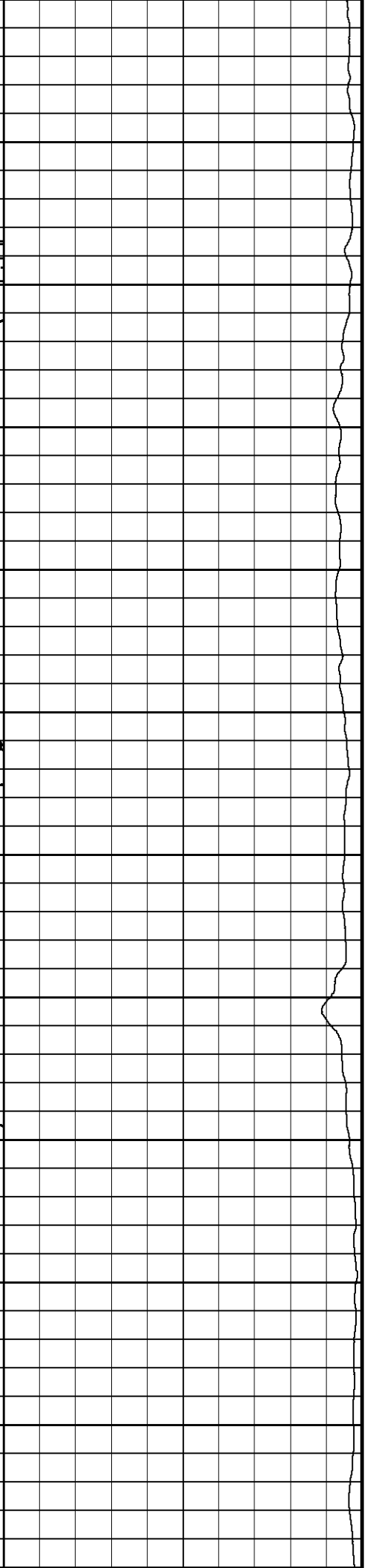
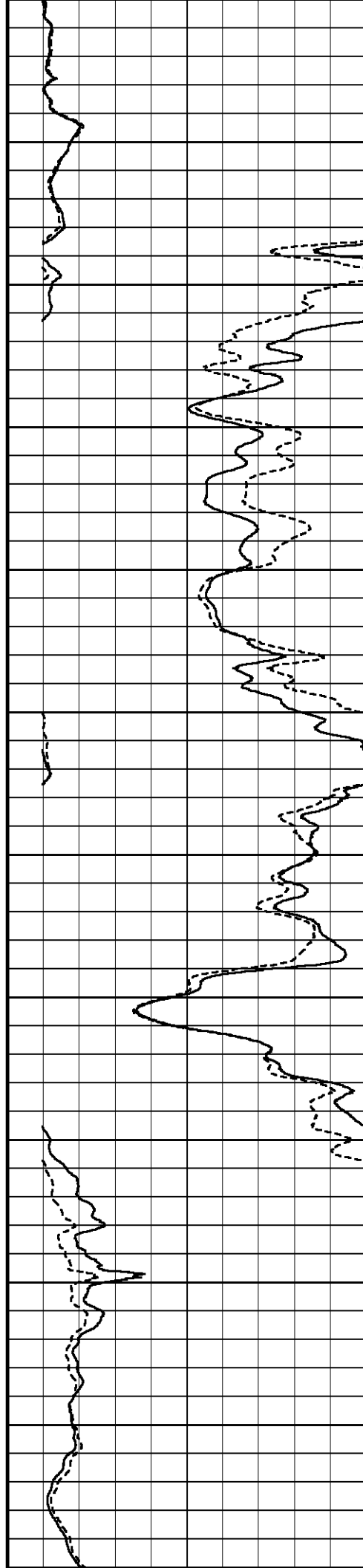
6200

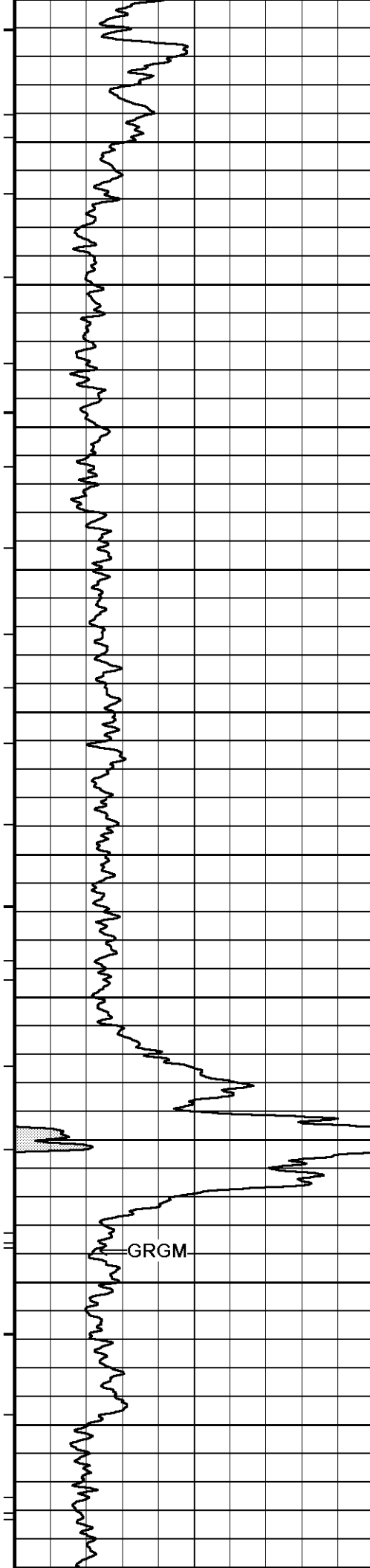


CTAS



0200
131°
6300
131°
6400
131°
6500
131°
6600
131°
6700





131°

6800

131°

6900

131°

7000

131°

7100

RTAS

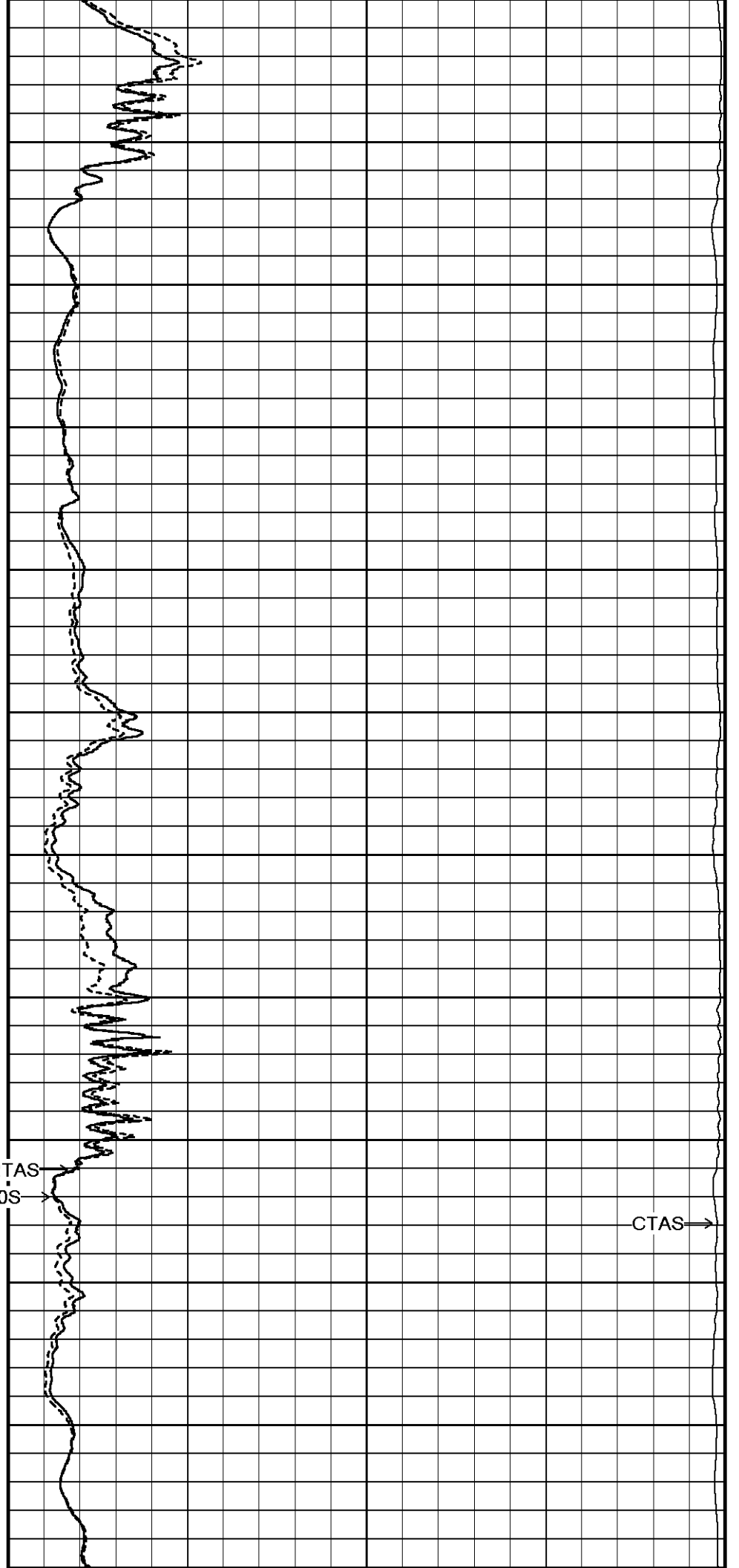
132°

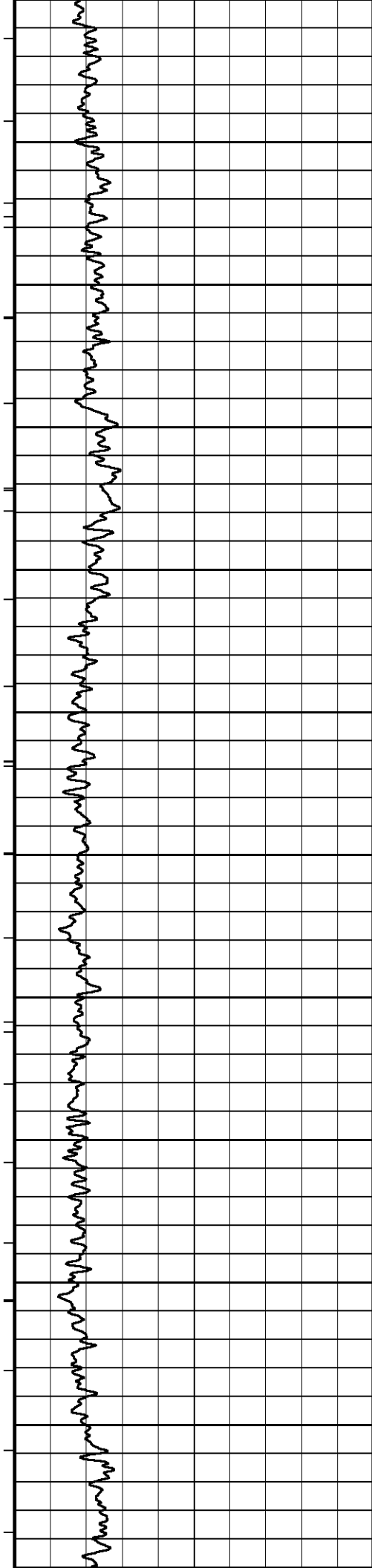
R40S

7200

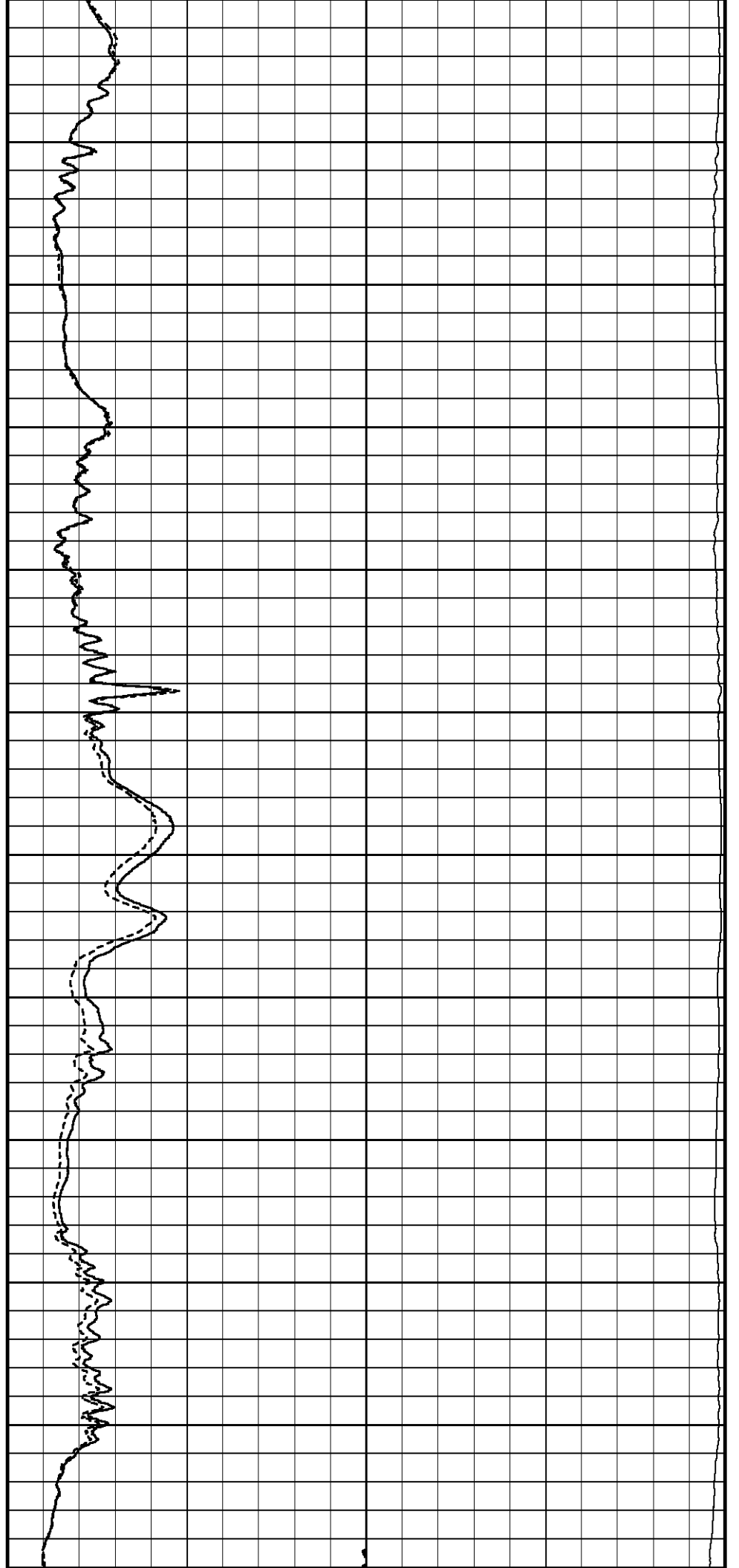
132°

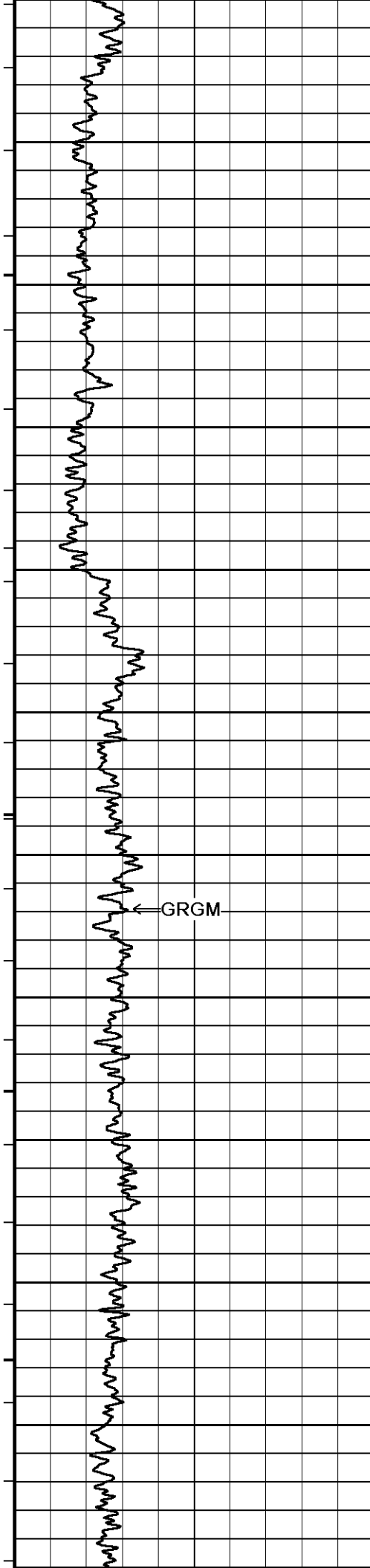
7300





7300
132°
7400
132°
7500
132°
7600
132°
7700
132°
7800





132°

7900

132°

8000

132°

8100

RTAS
R40S

132°

8200

132°

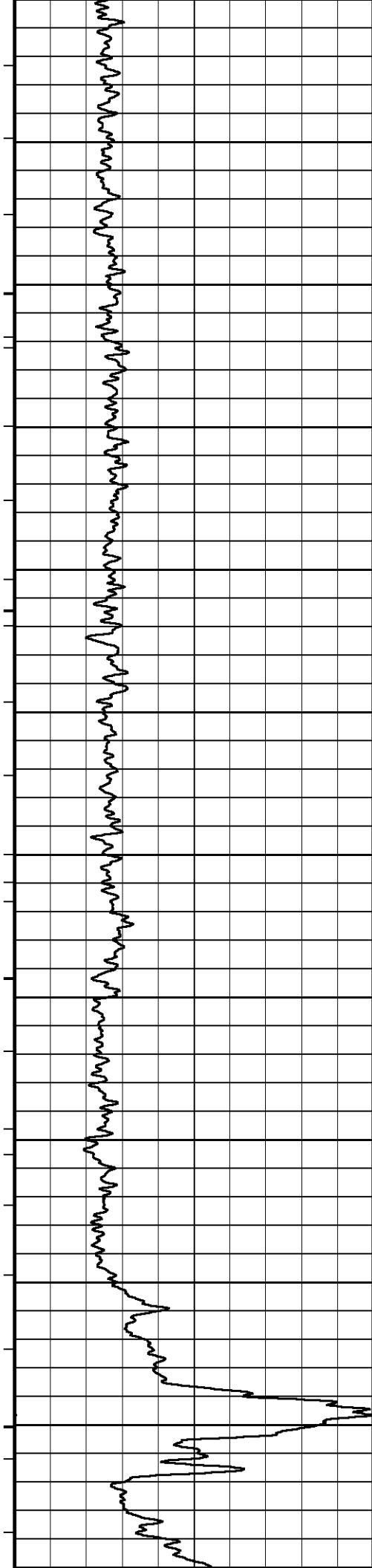
8300

132°

8400

← GRGM

CTAS →



132°

8500

132°

8600

132°

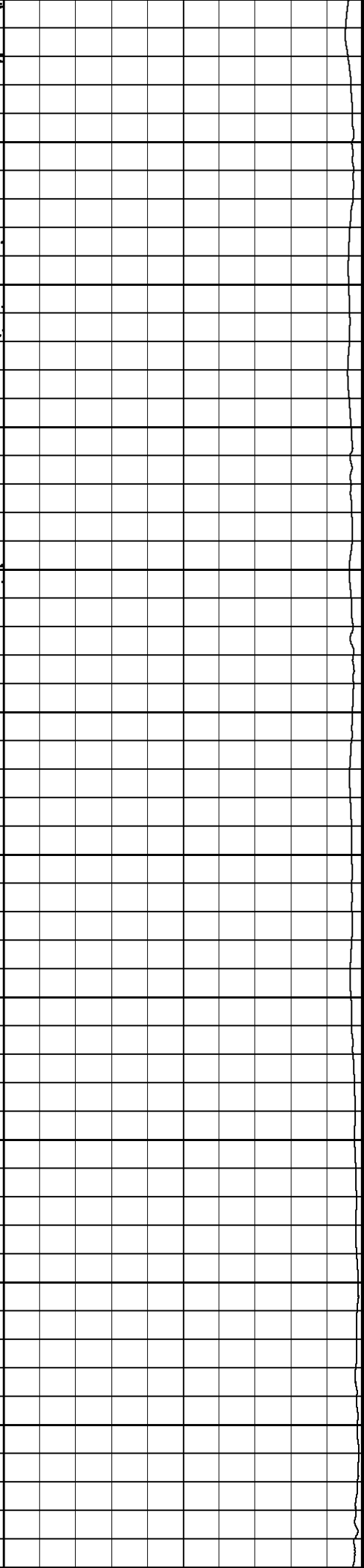
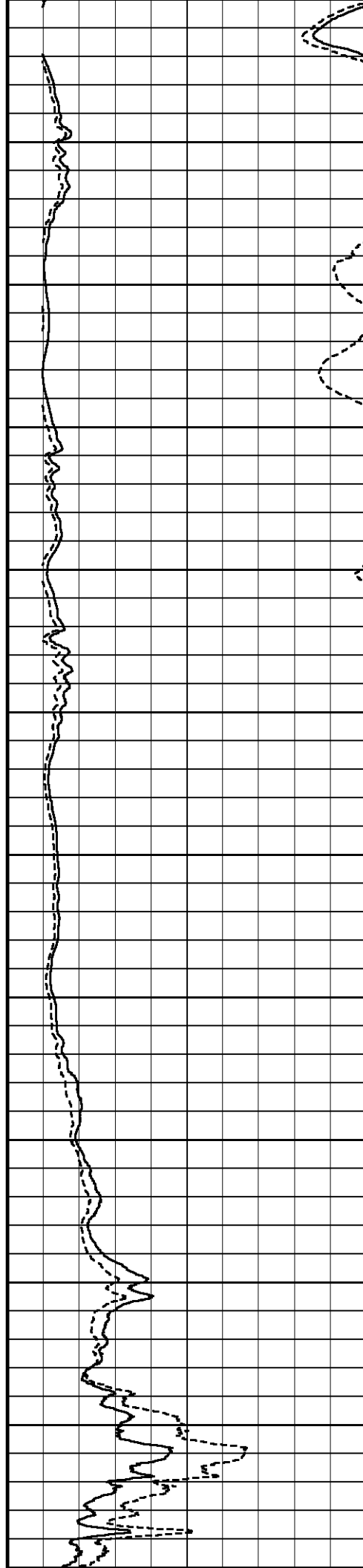
8700

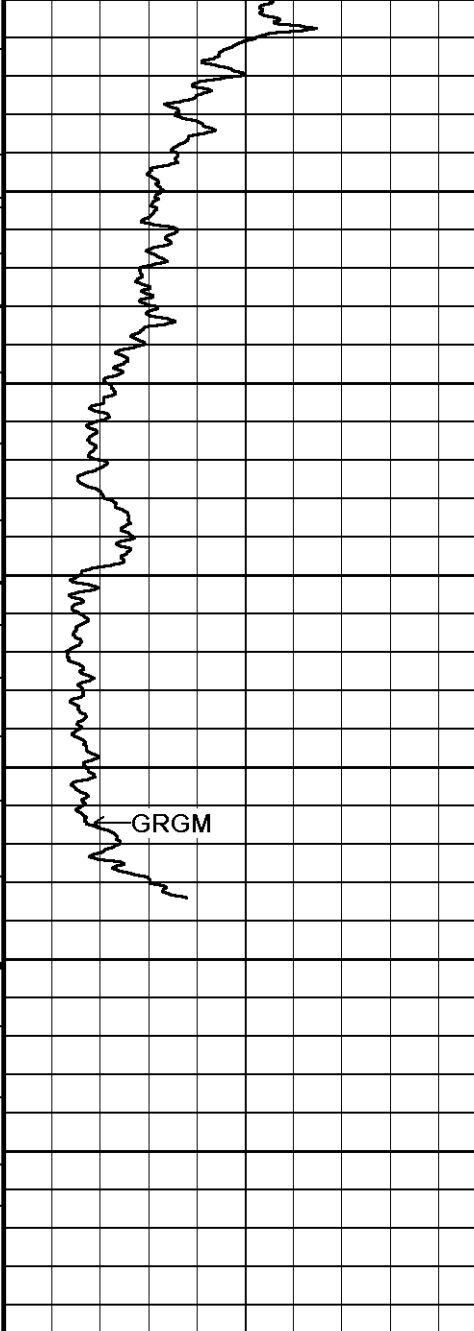
132°

8800

132°

8900





132°

9000

132°

9100

RTAS →

R40S →

132°

9200

CTAS →

9300

Depth
In
Feet

Timing Marks
every 60.0 sec

MGS Gamma Ray

0	75	150
150	225	300

Borehole
Temp in
deg F

Replay
Scale
1:600

Array Ind. Six Cond Ct

mmhos

1000	750	500	250	0
2000	1750	1500	1250	1000

Array Ind. Six Res 40

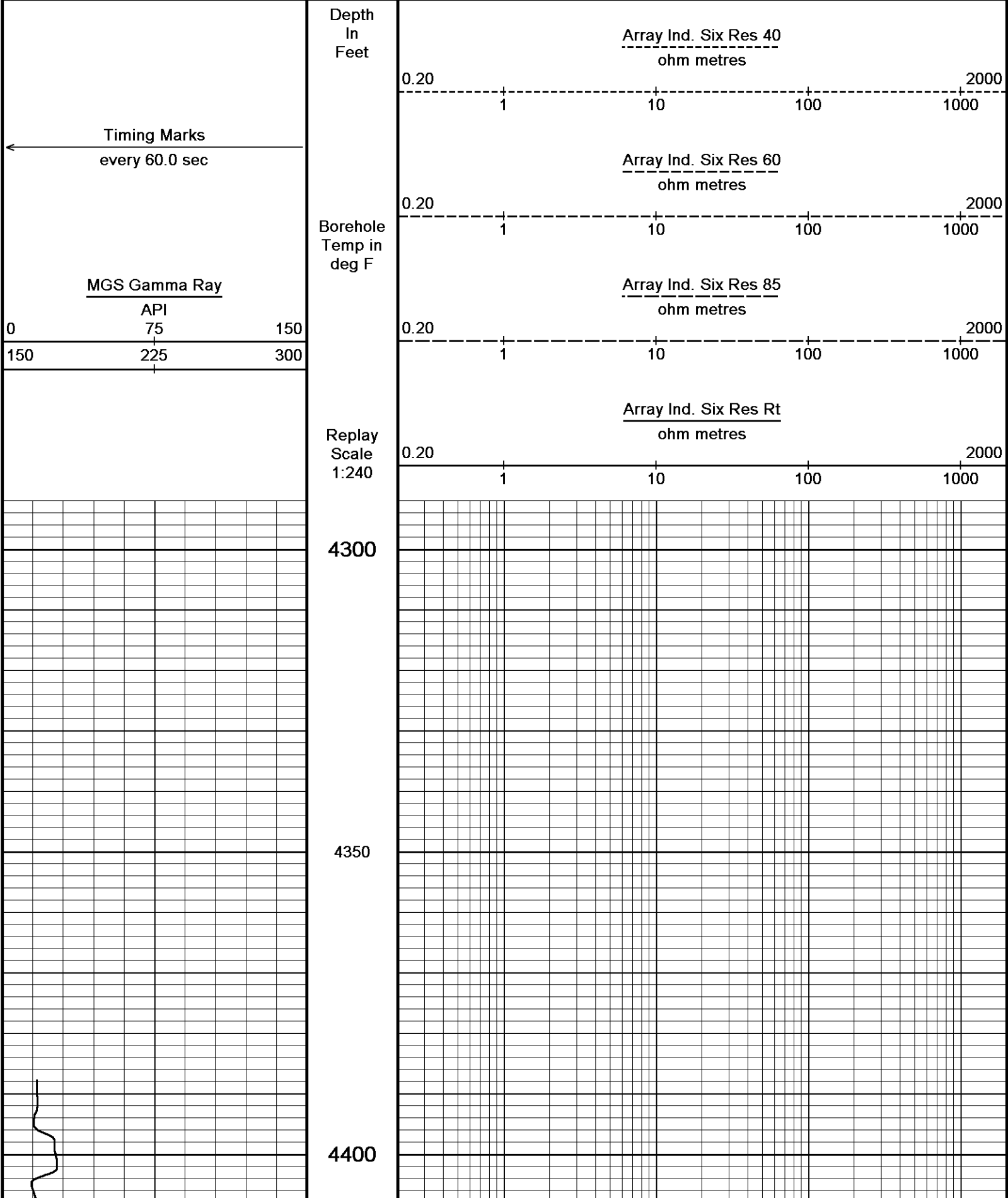
ohm metres

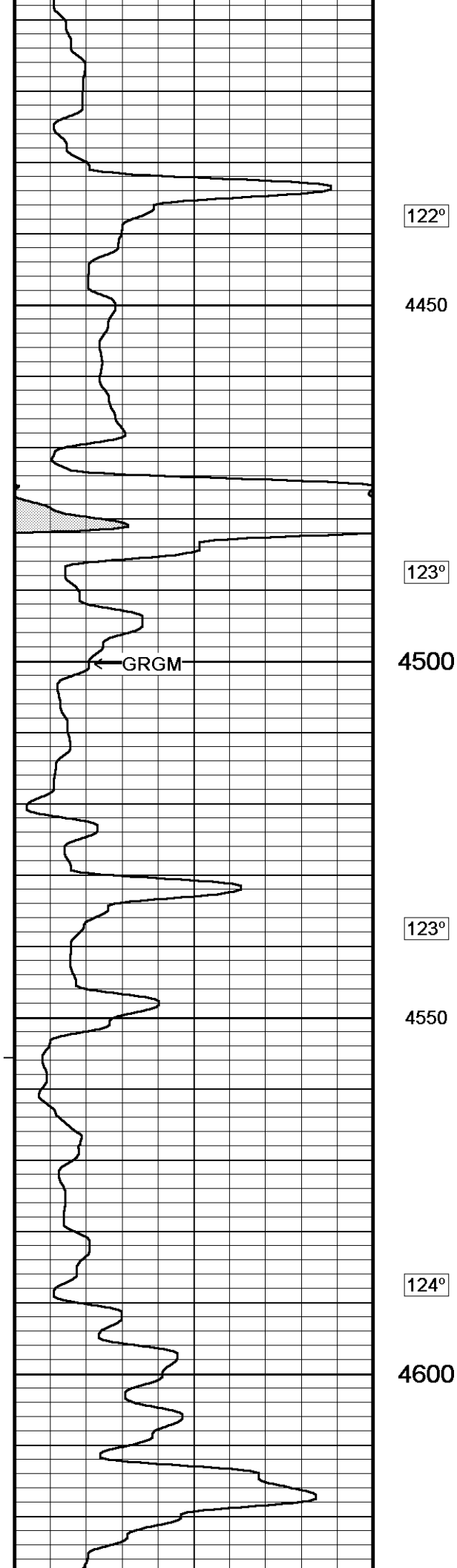
0	25	50
0	250	500

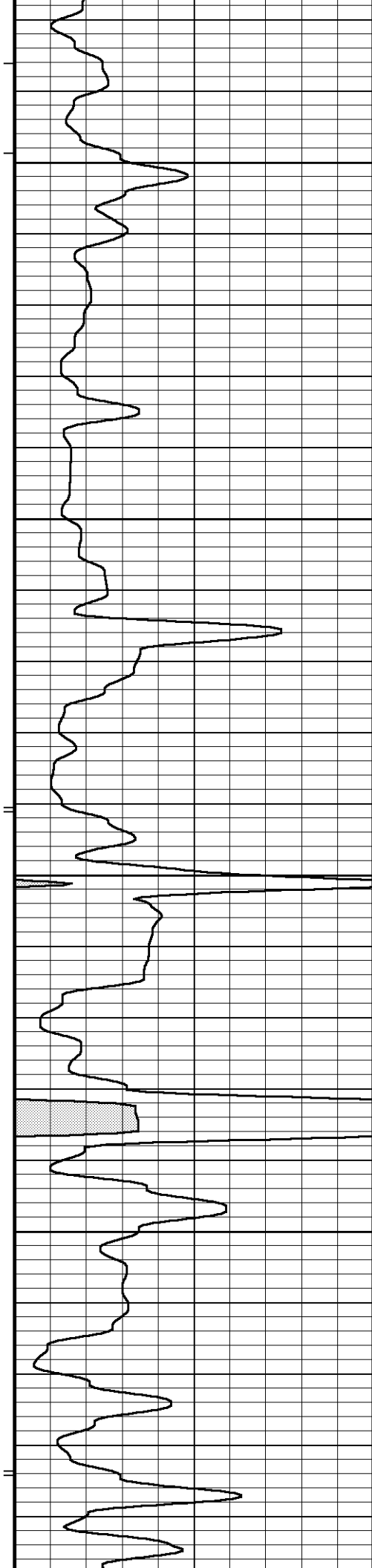
Array Ind. Six Res Rt

ohm metres

0	25	50
0	250	500







124°

4650

125°

4700

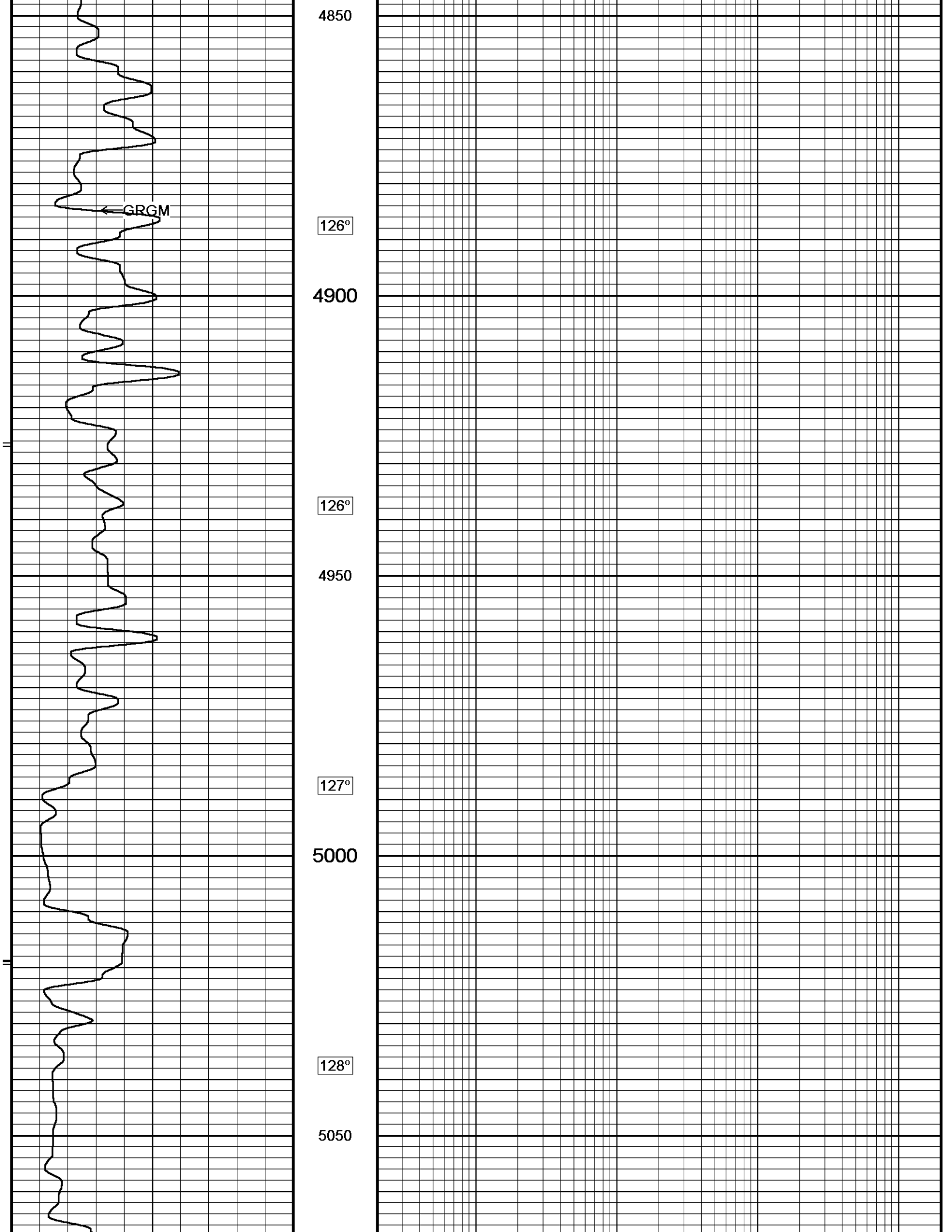
125°

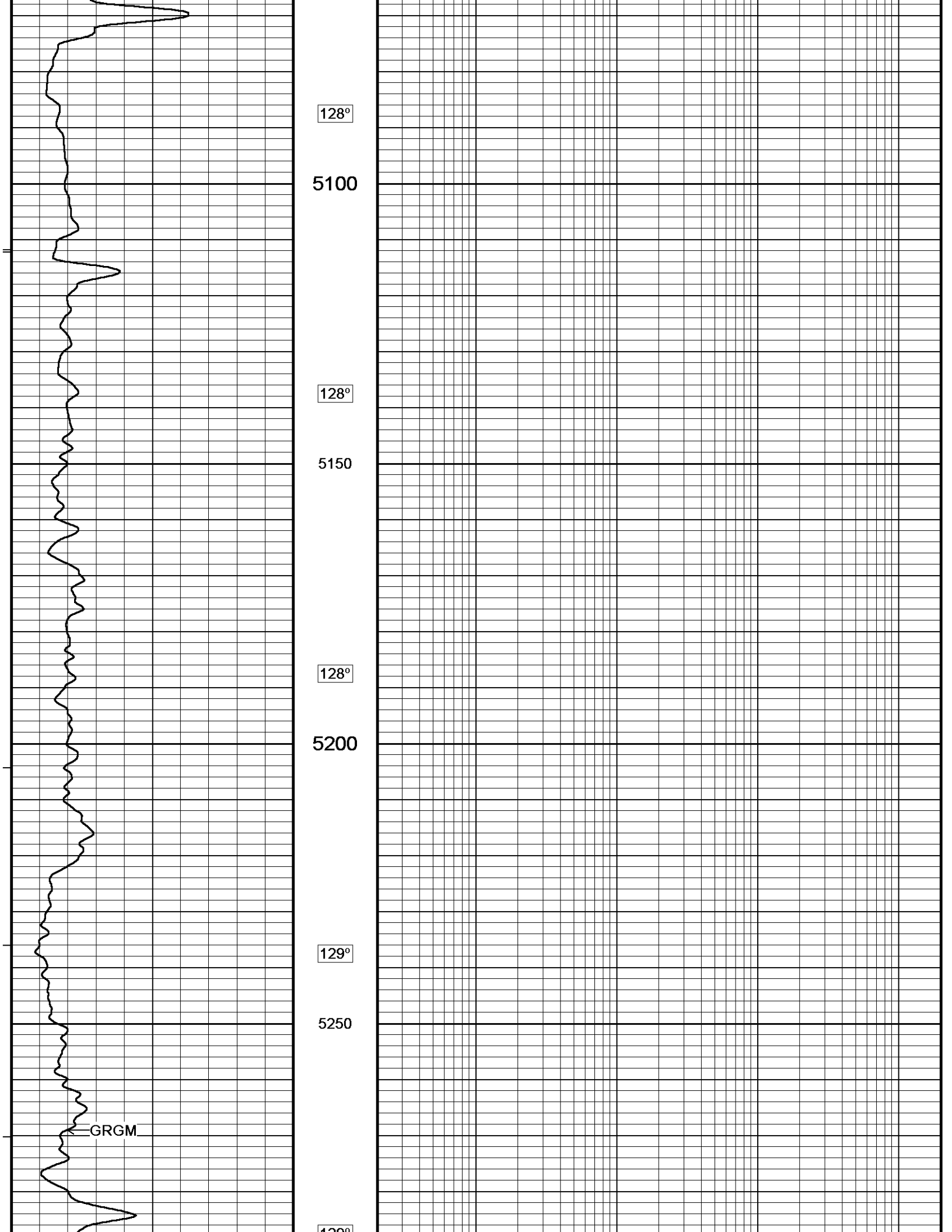
4750

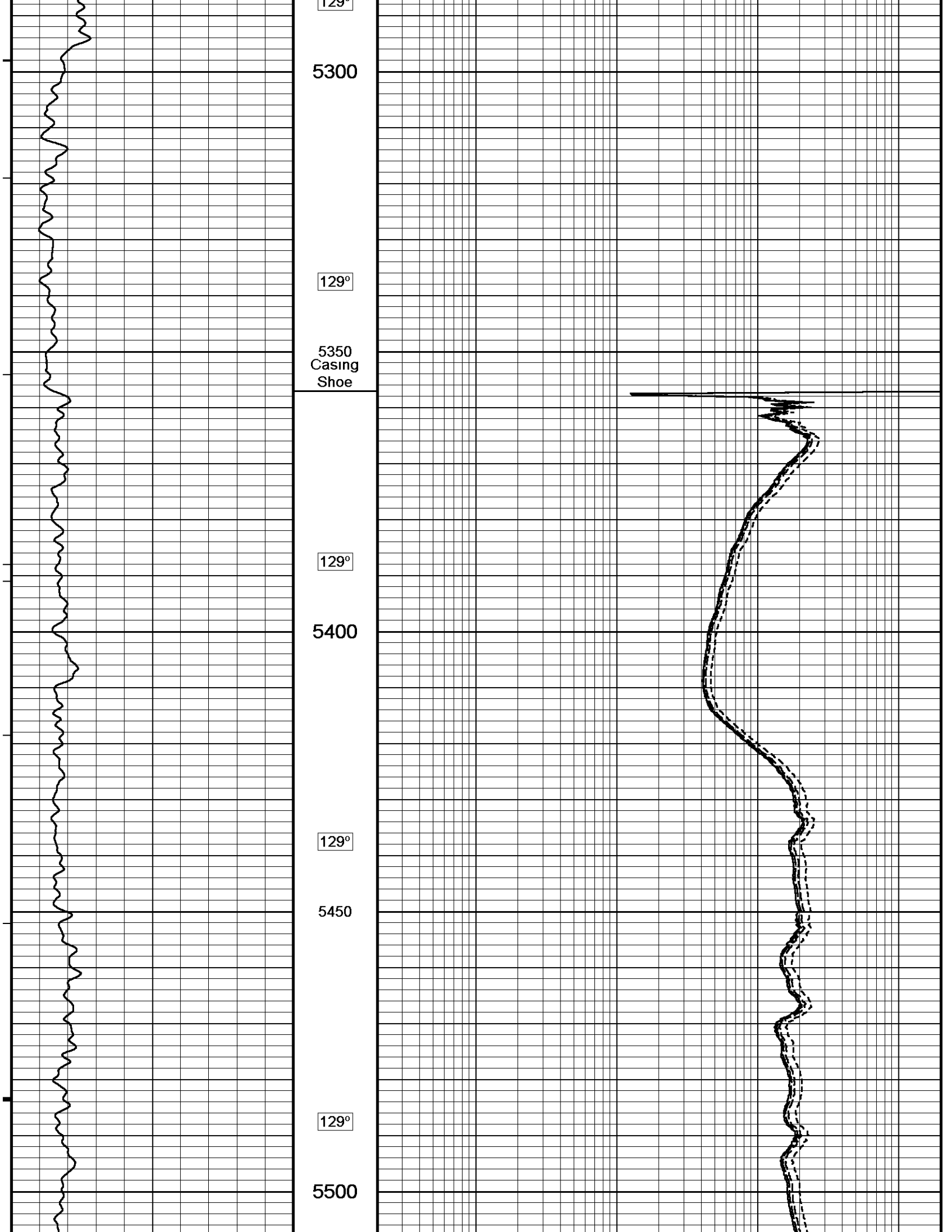
125°

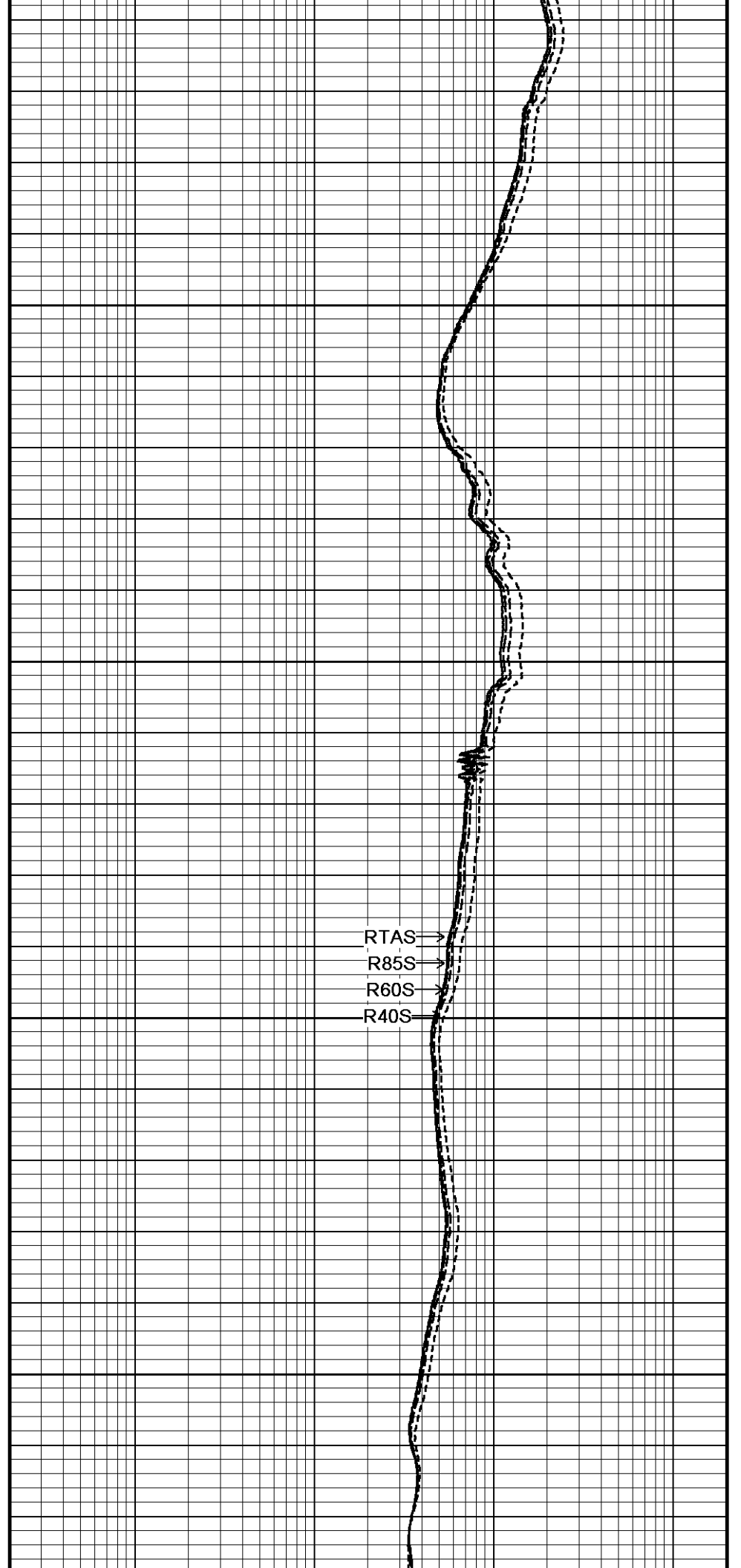
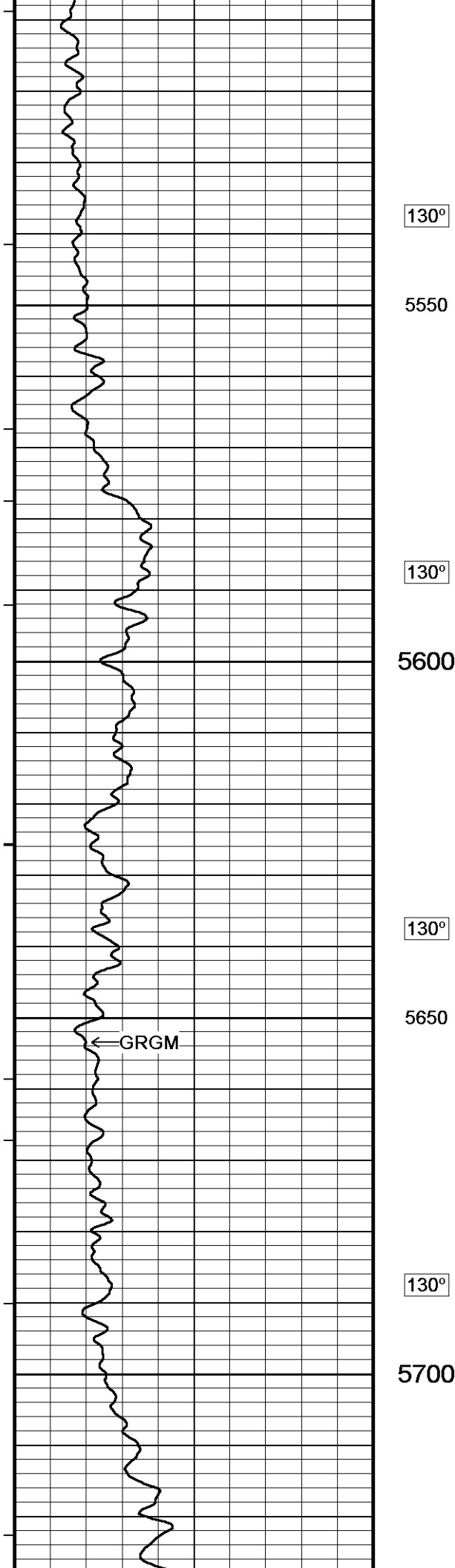
4800

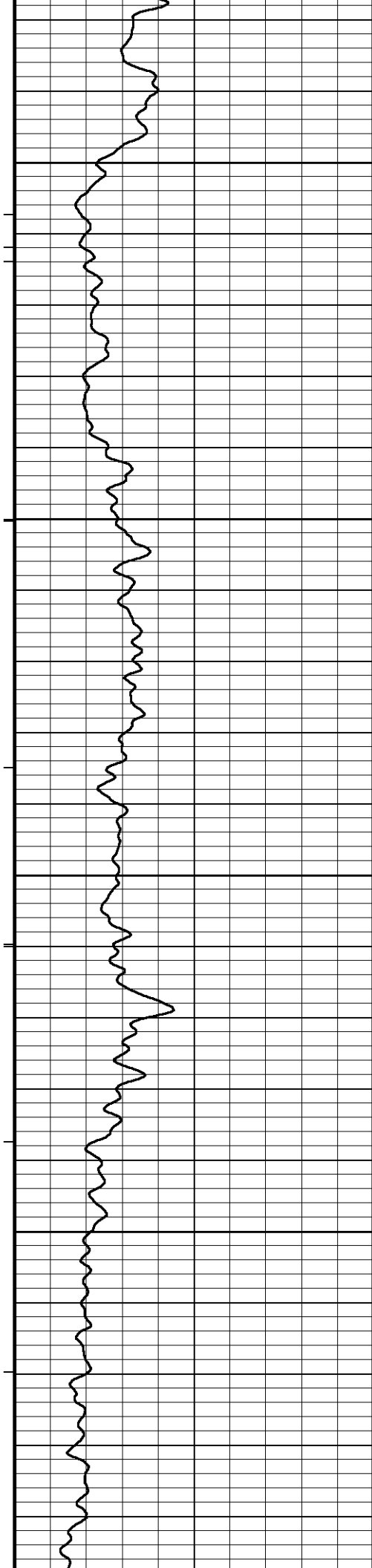
125°











130°

5750

130°

5800

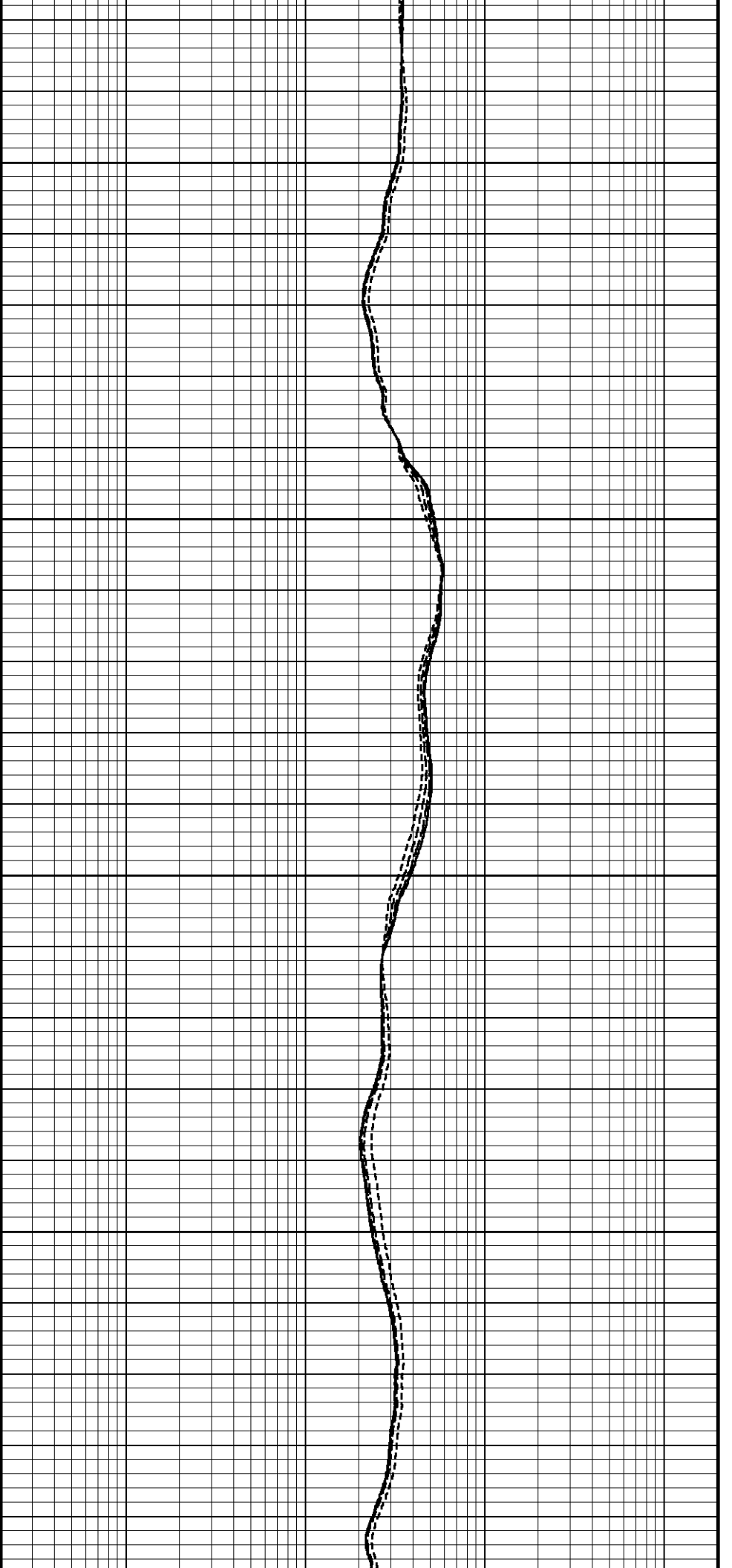
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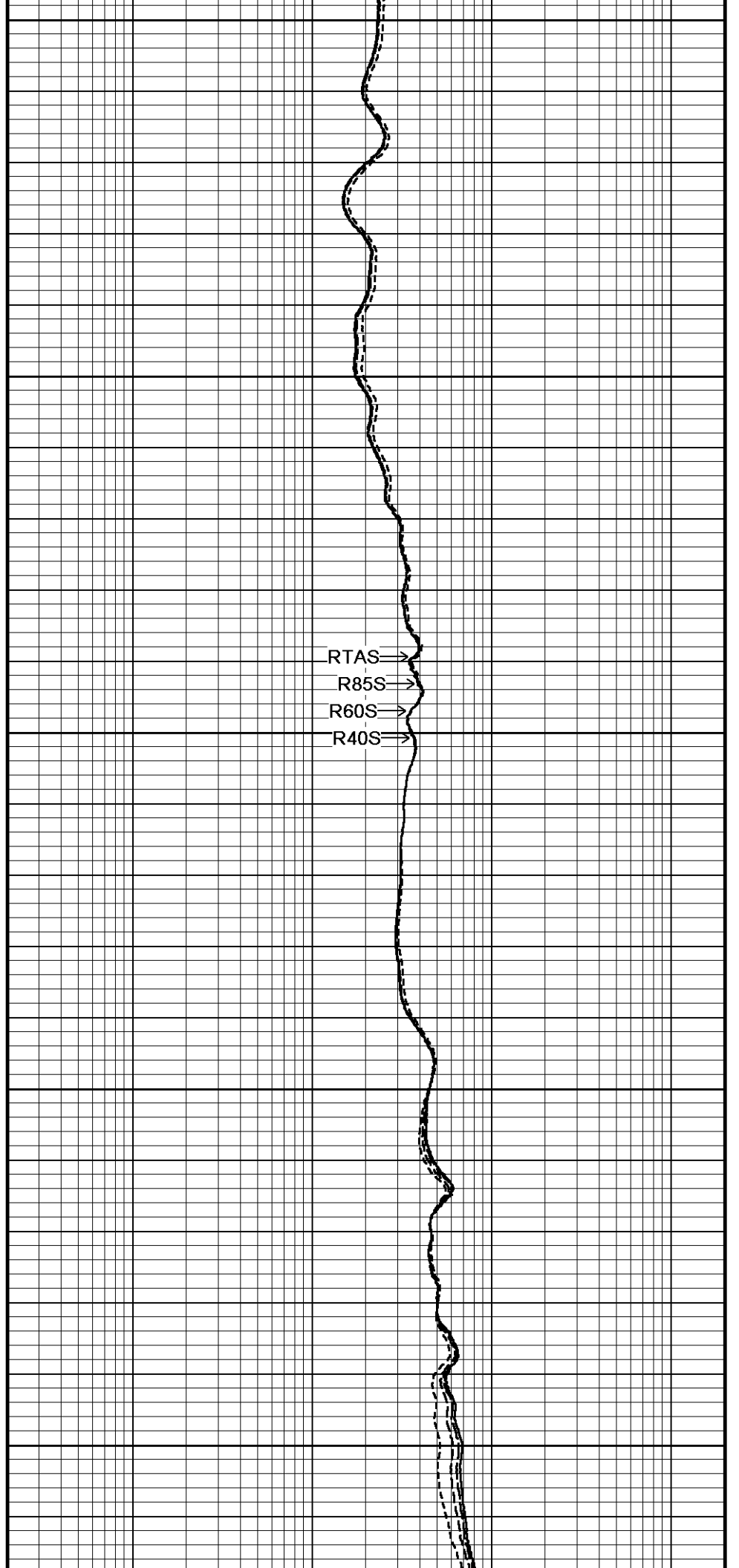
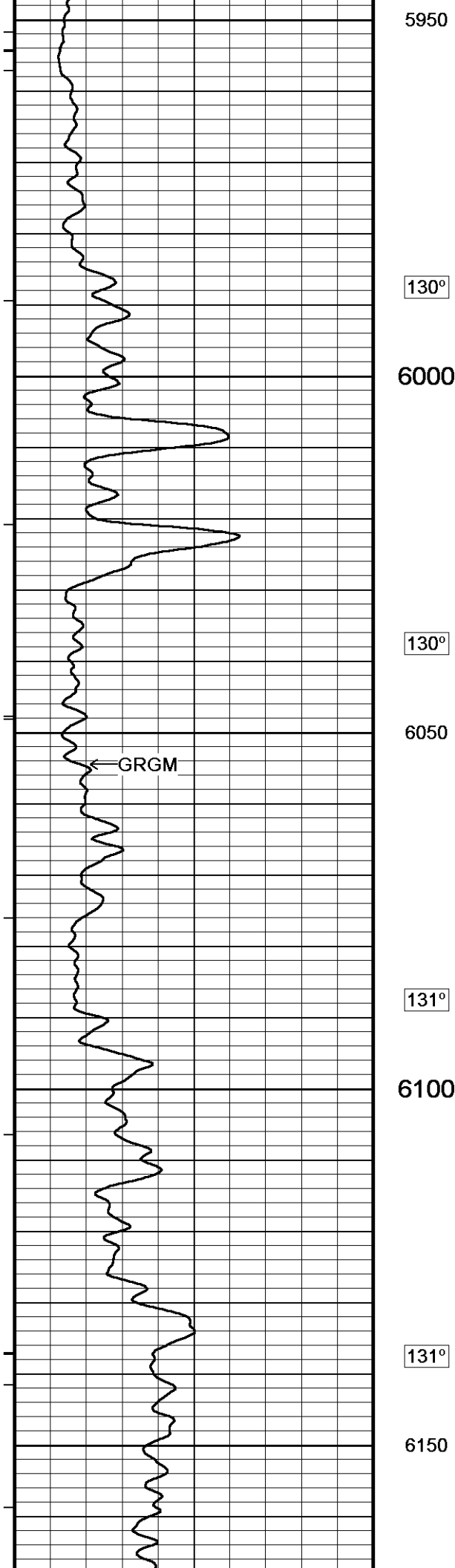
5850

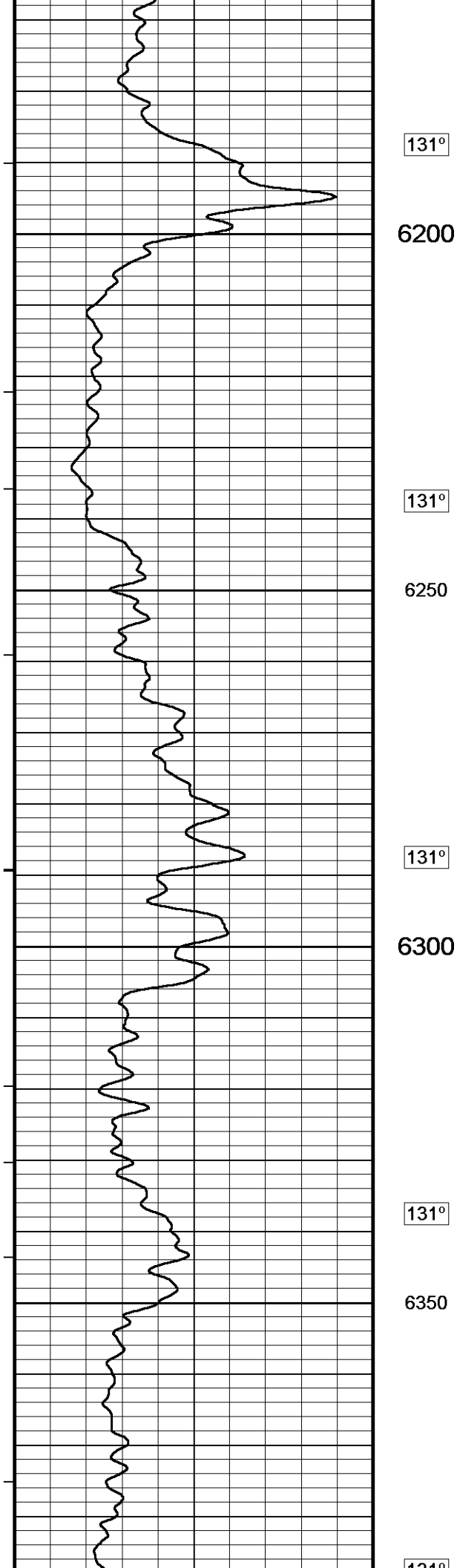
130°

5900

130°







131°

6200

131°

6250

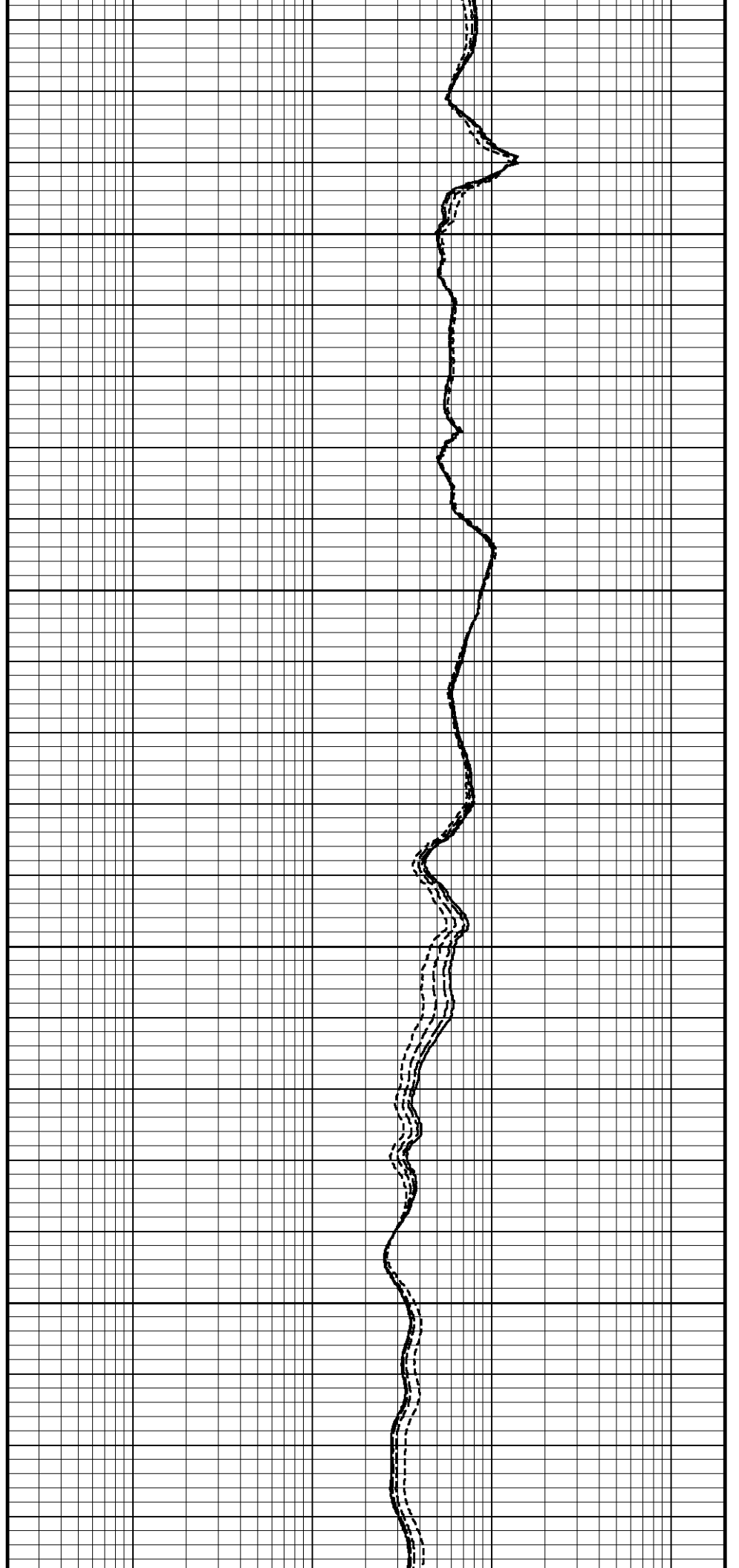
131°

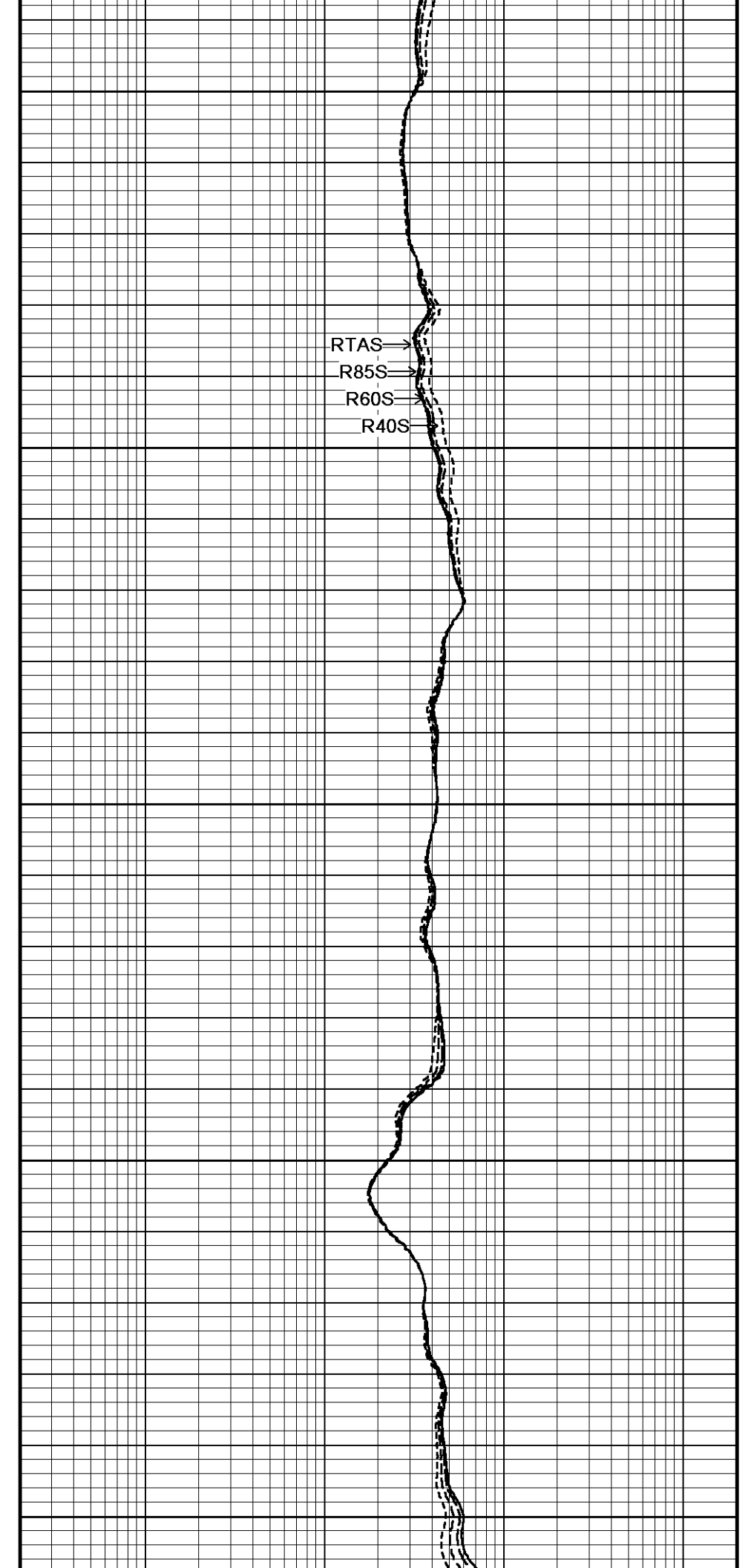
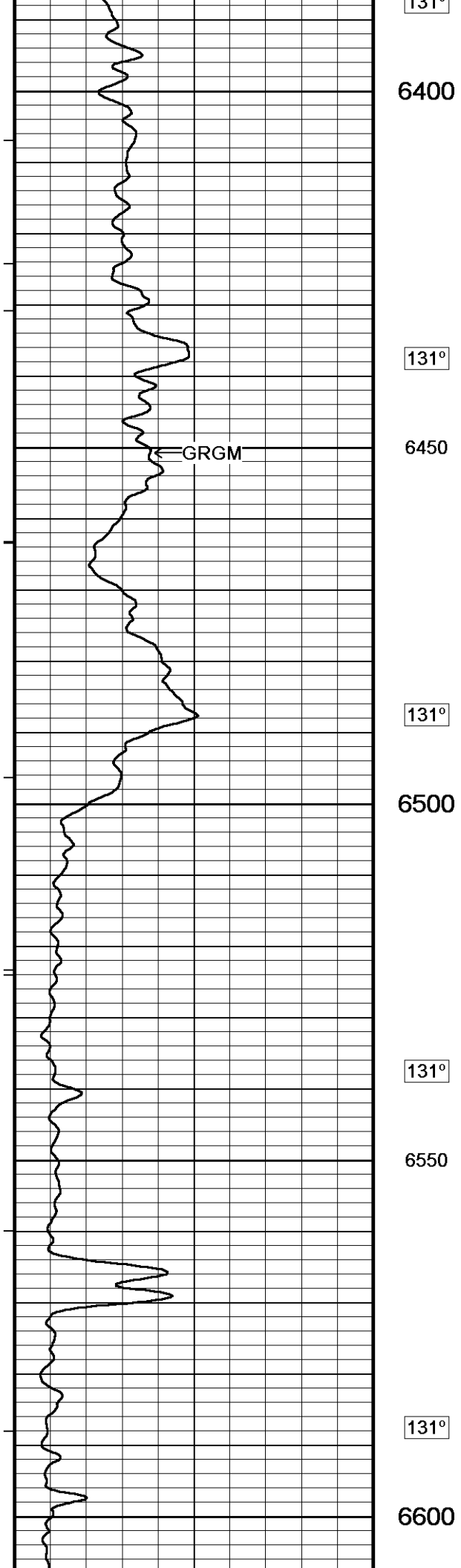
6300

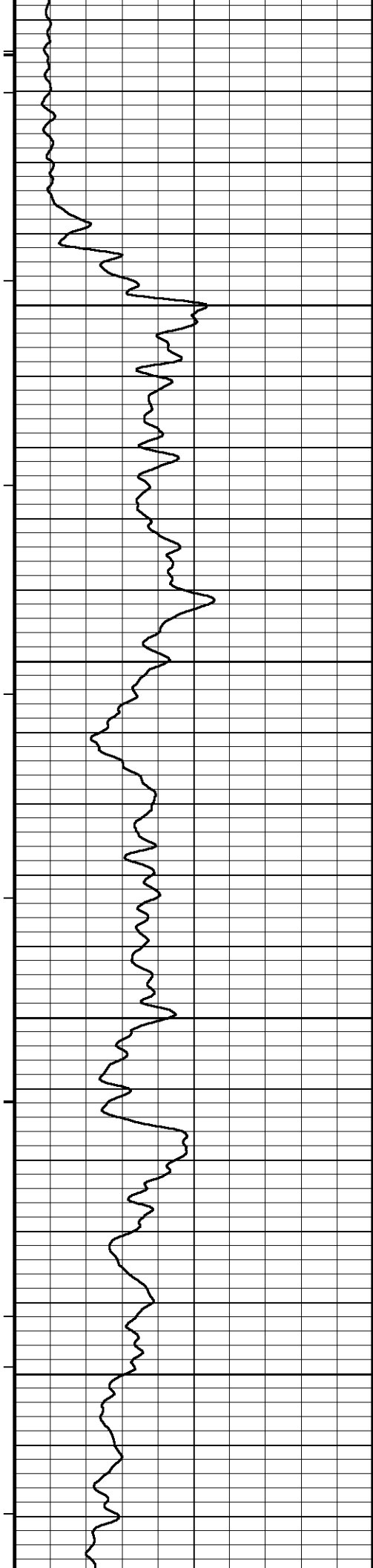
131°

6350

131°







131°

6650

131°

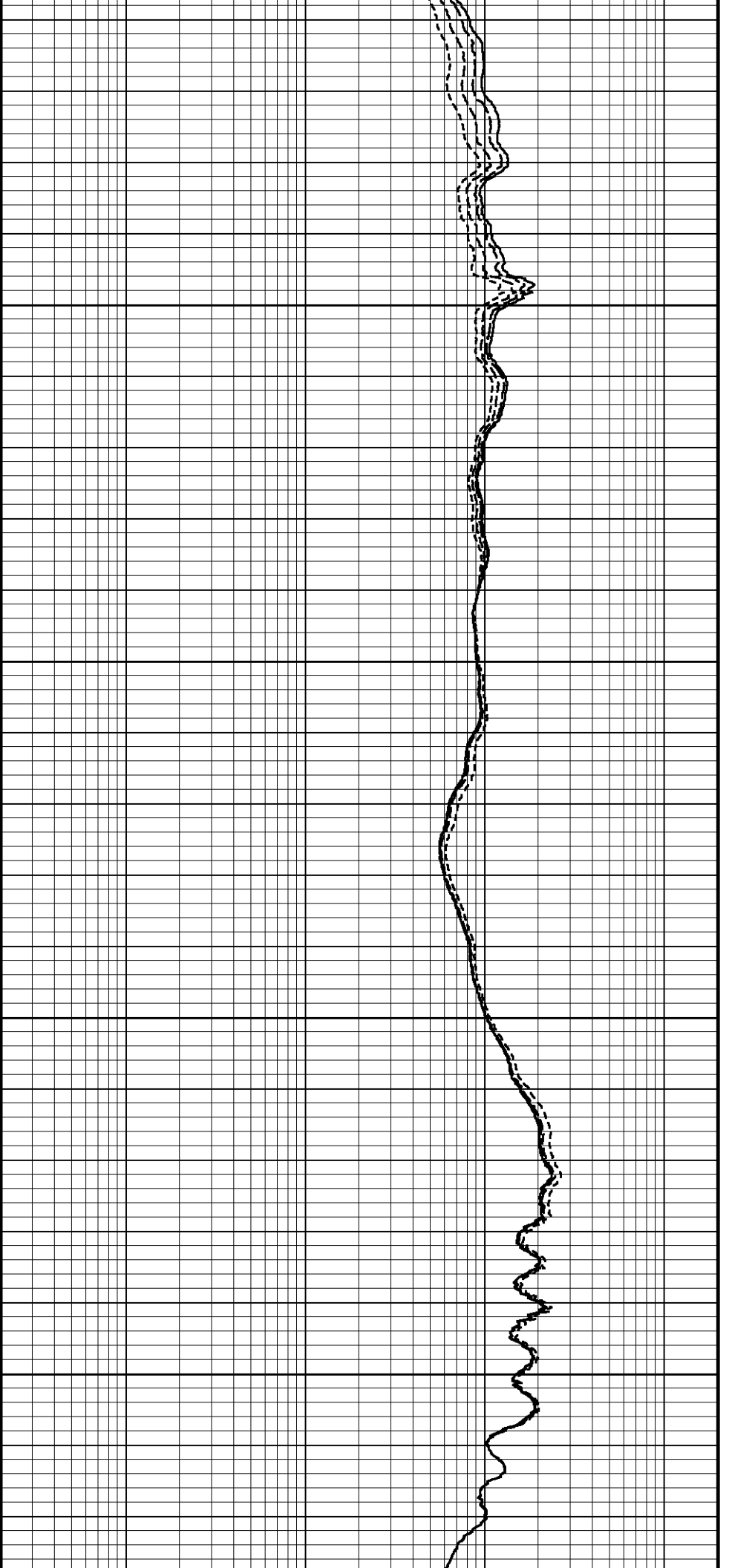
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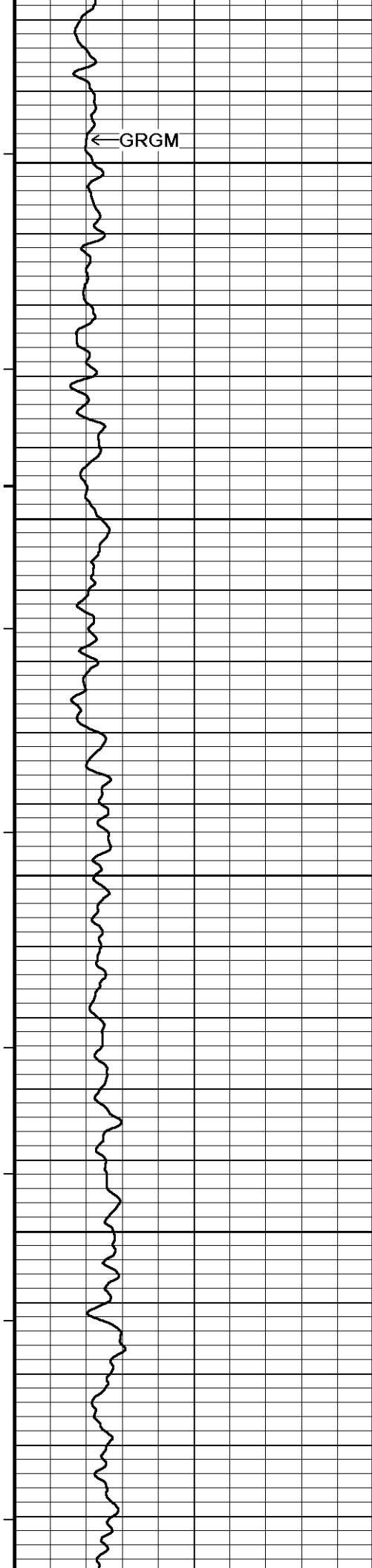
131°

6750

131°

6800





131°

6850

131°

6900

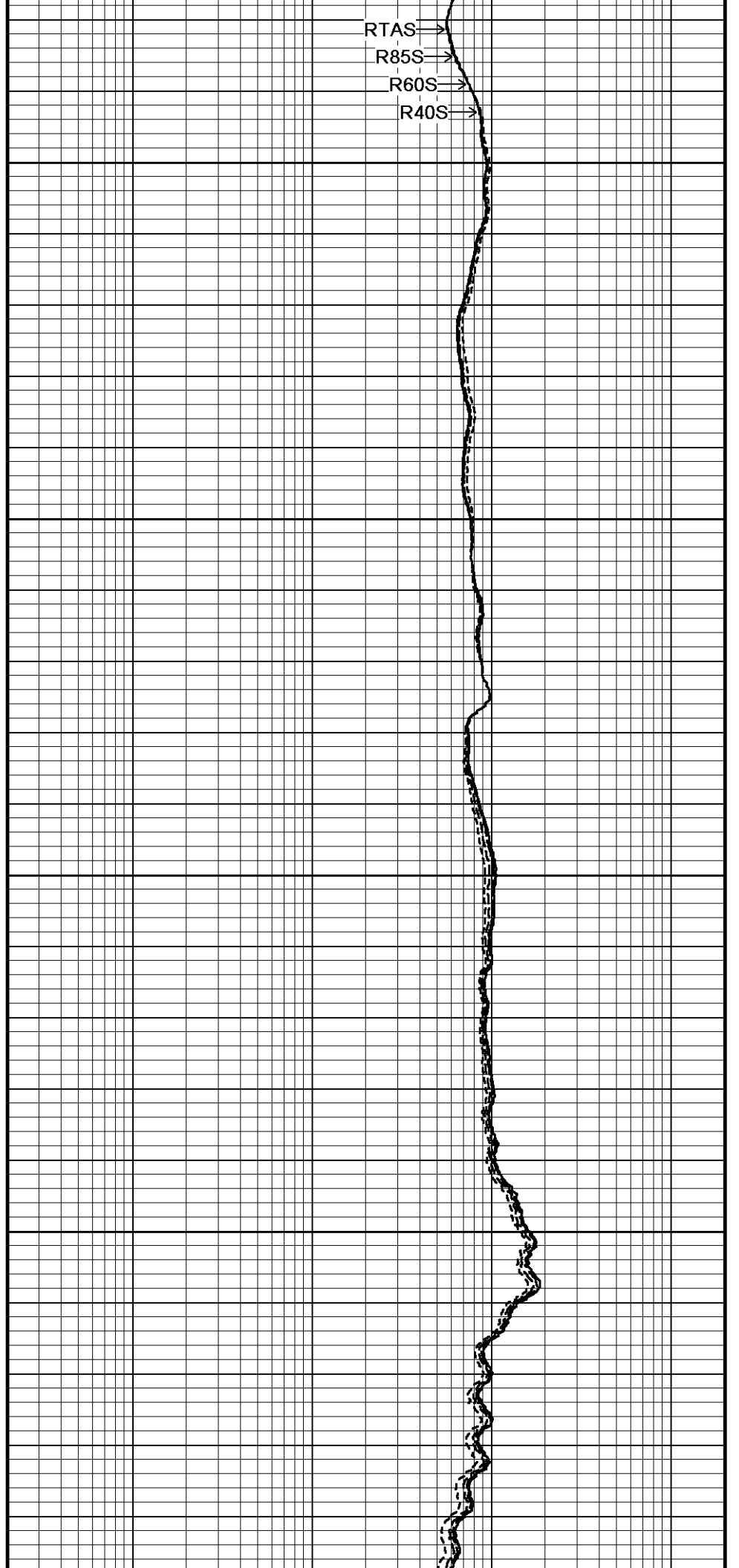
132°

6950

131°

7000

131°

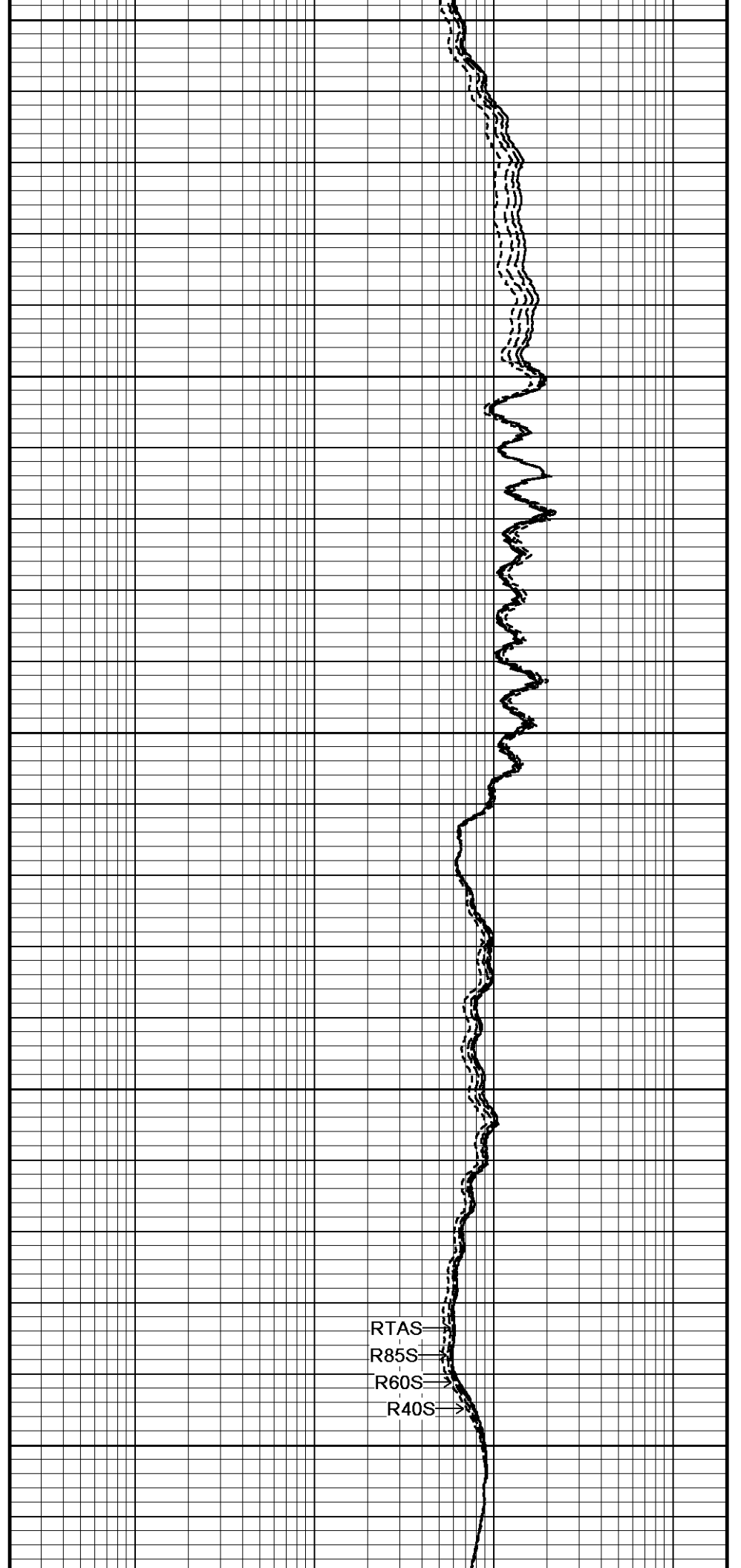
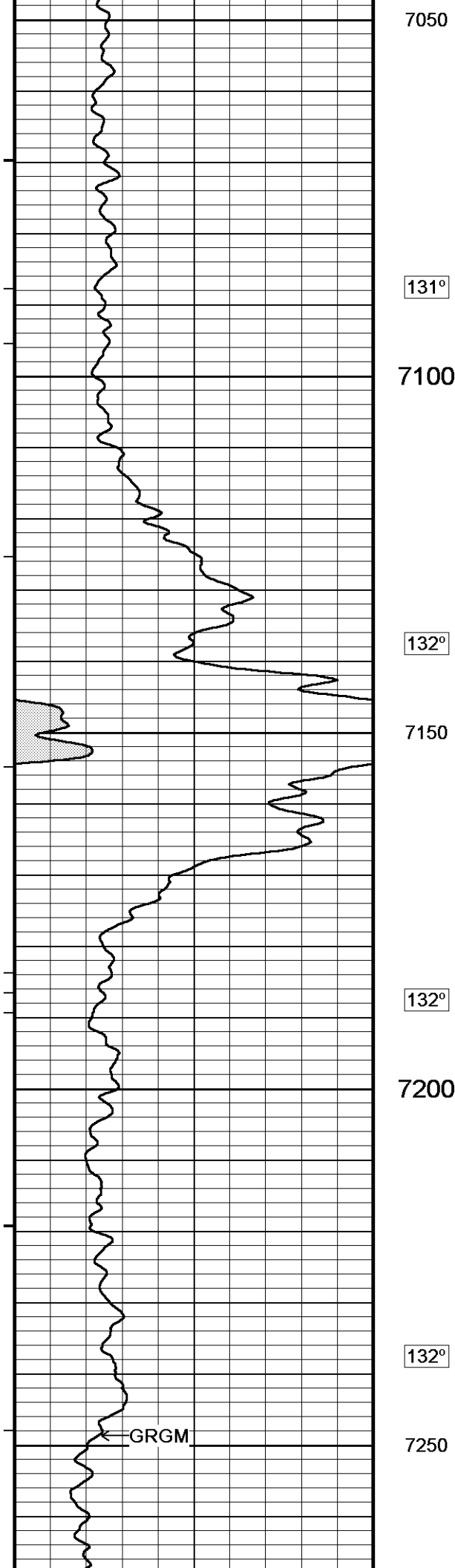


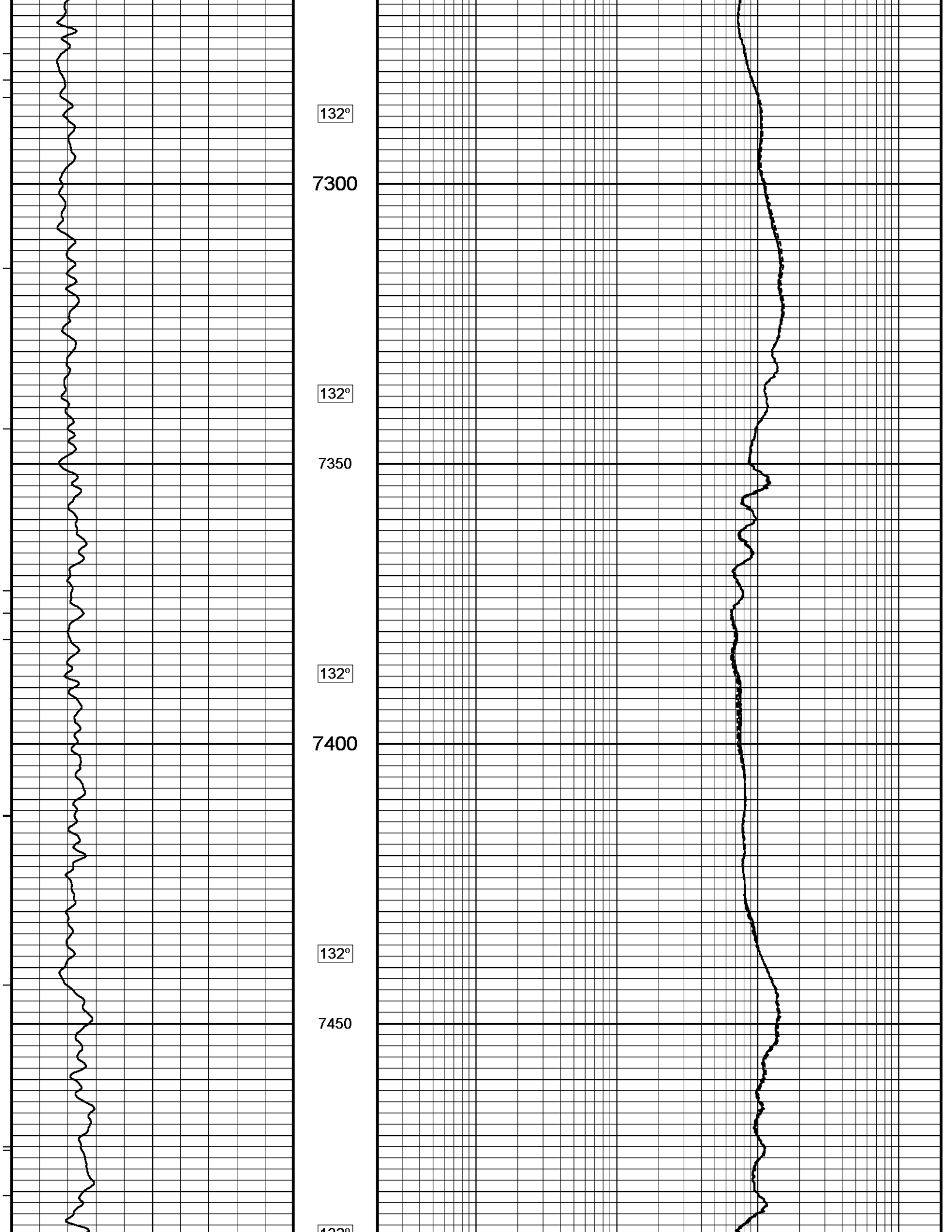
RTAS

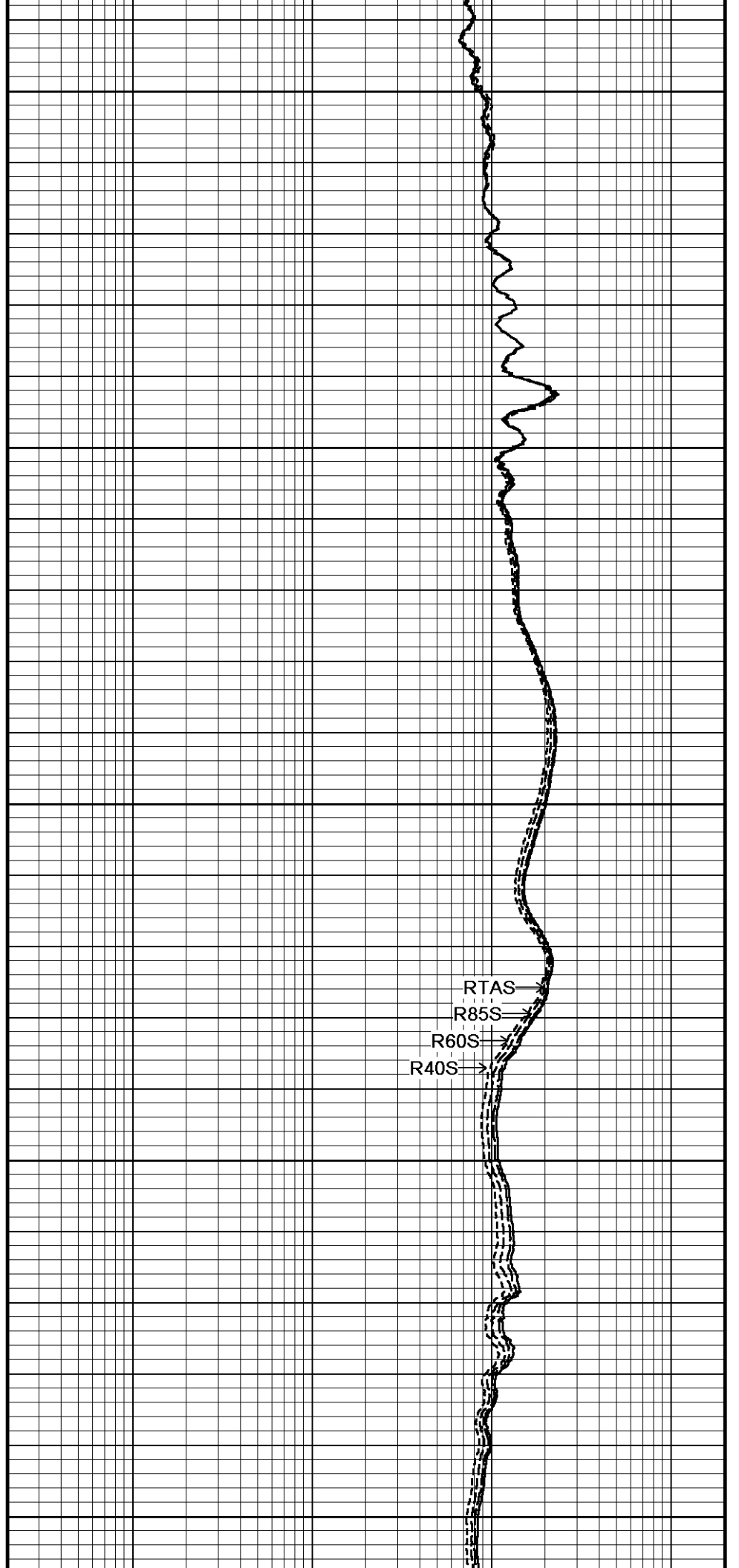
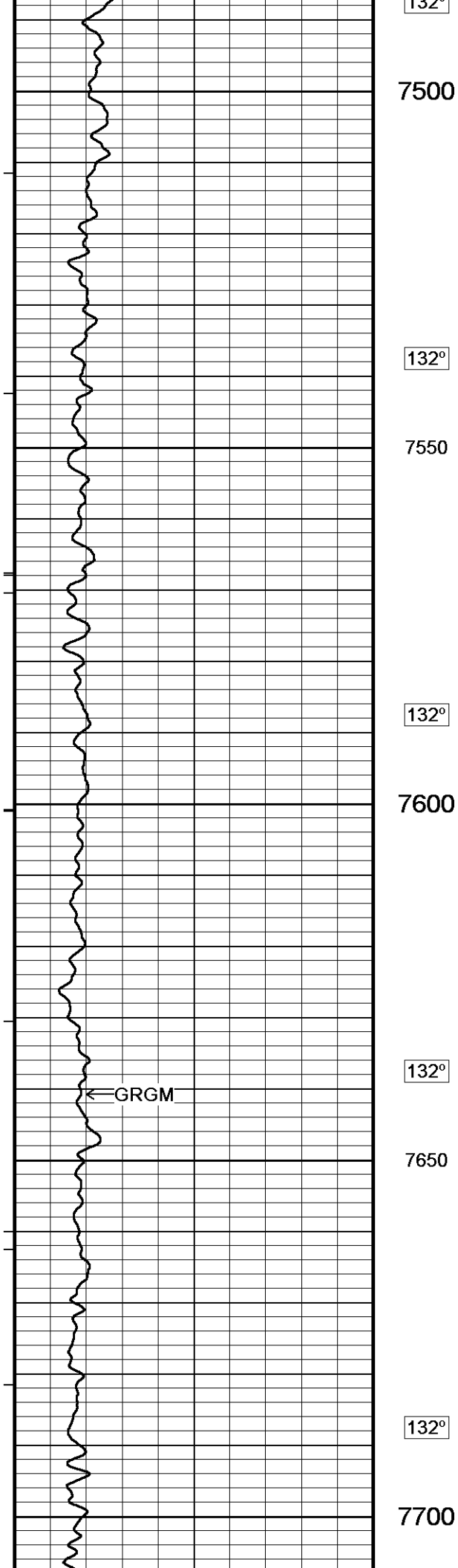
R85S

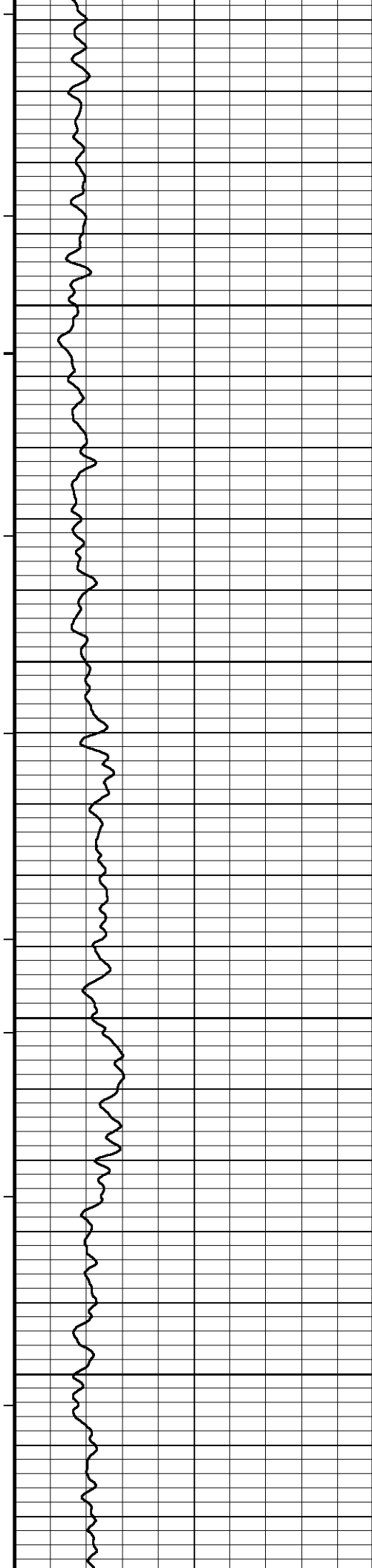
R60S

R40S









132°

7750

132°

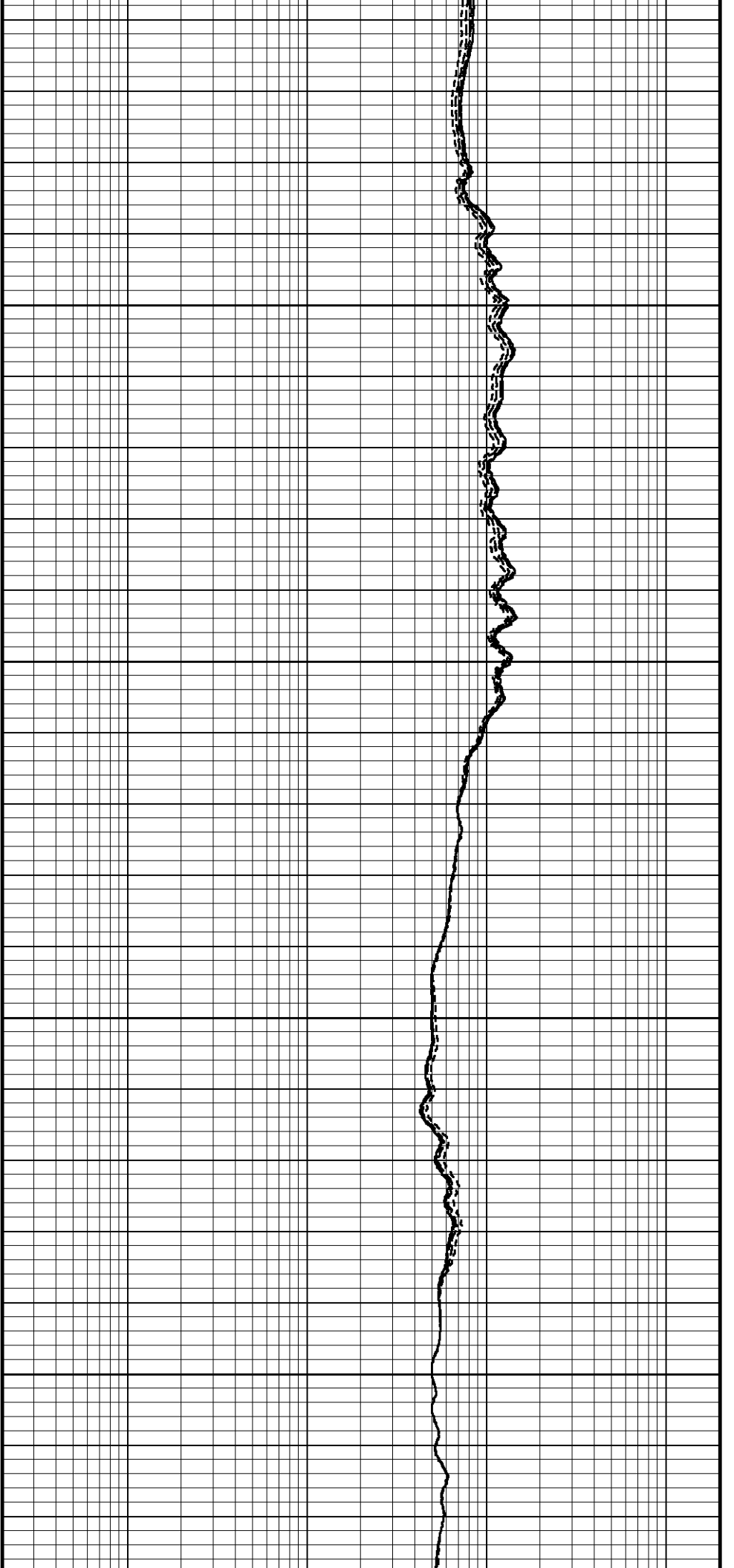
7800

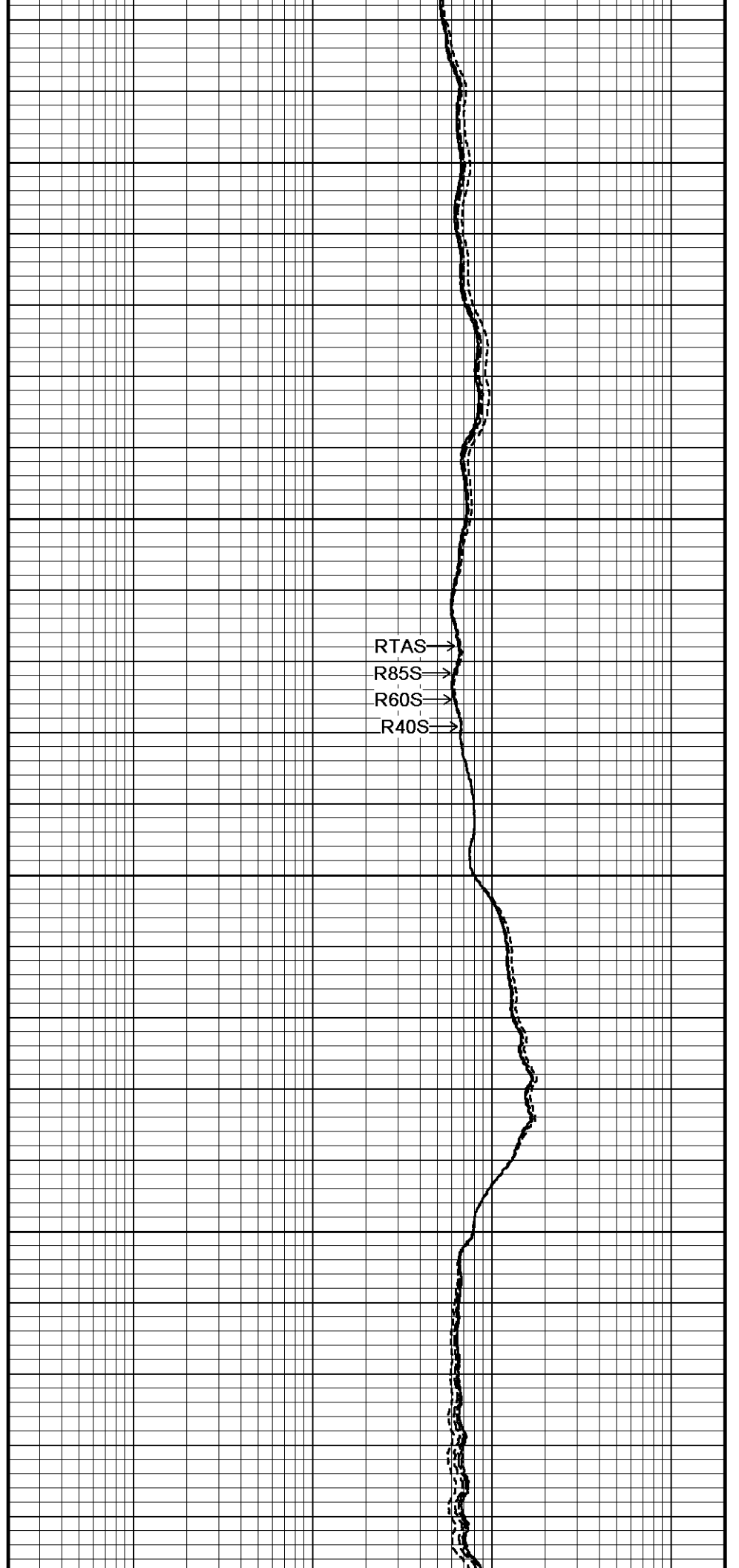
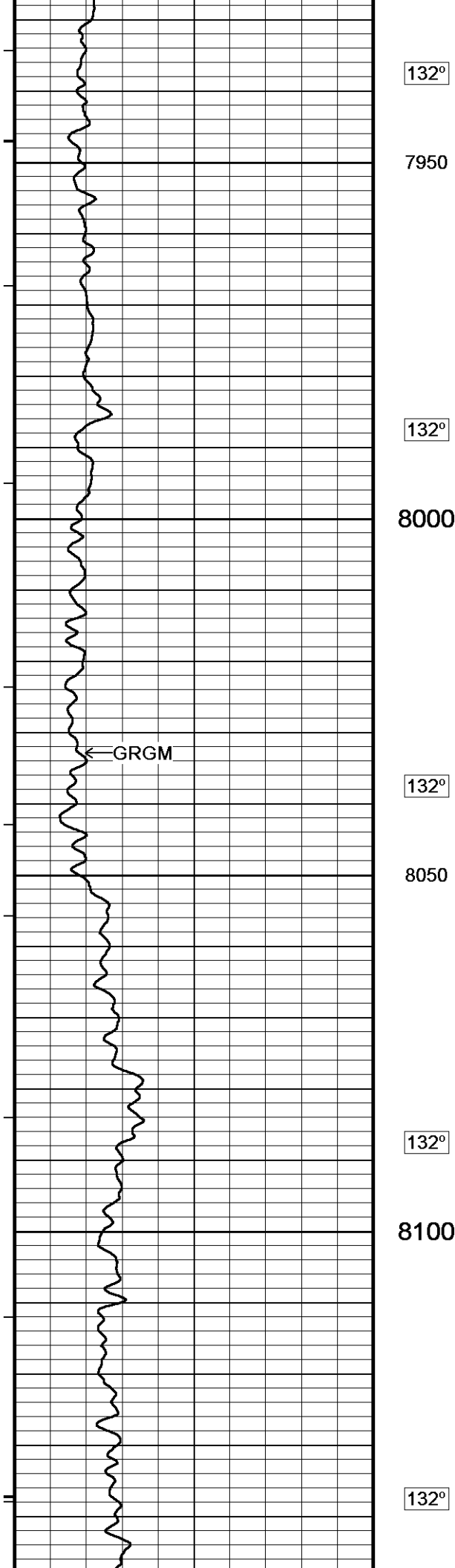
132°

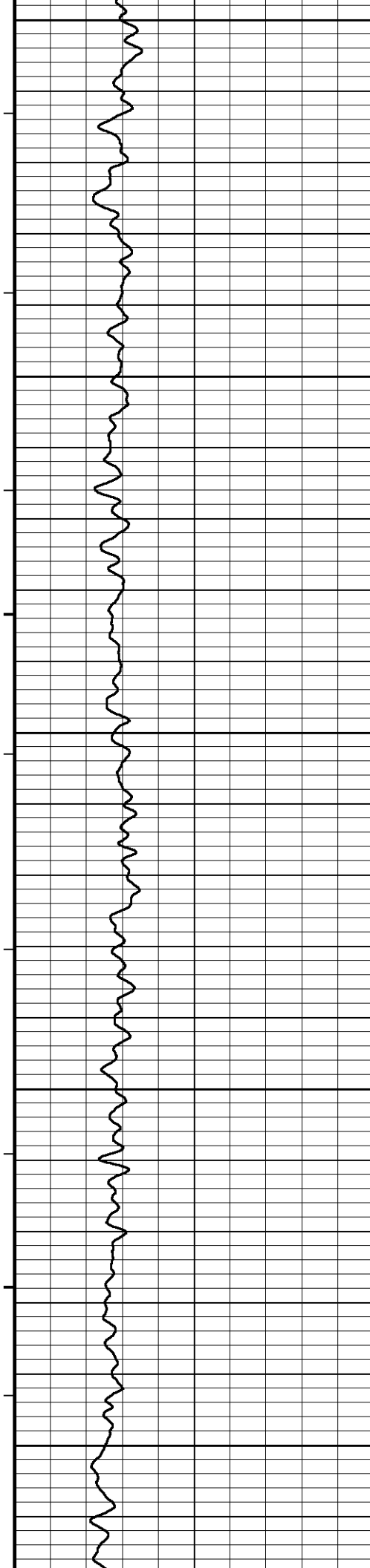
7850

132°

7900







8150

132°

8200

132°

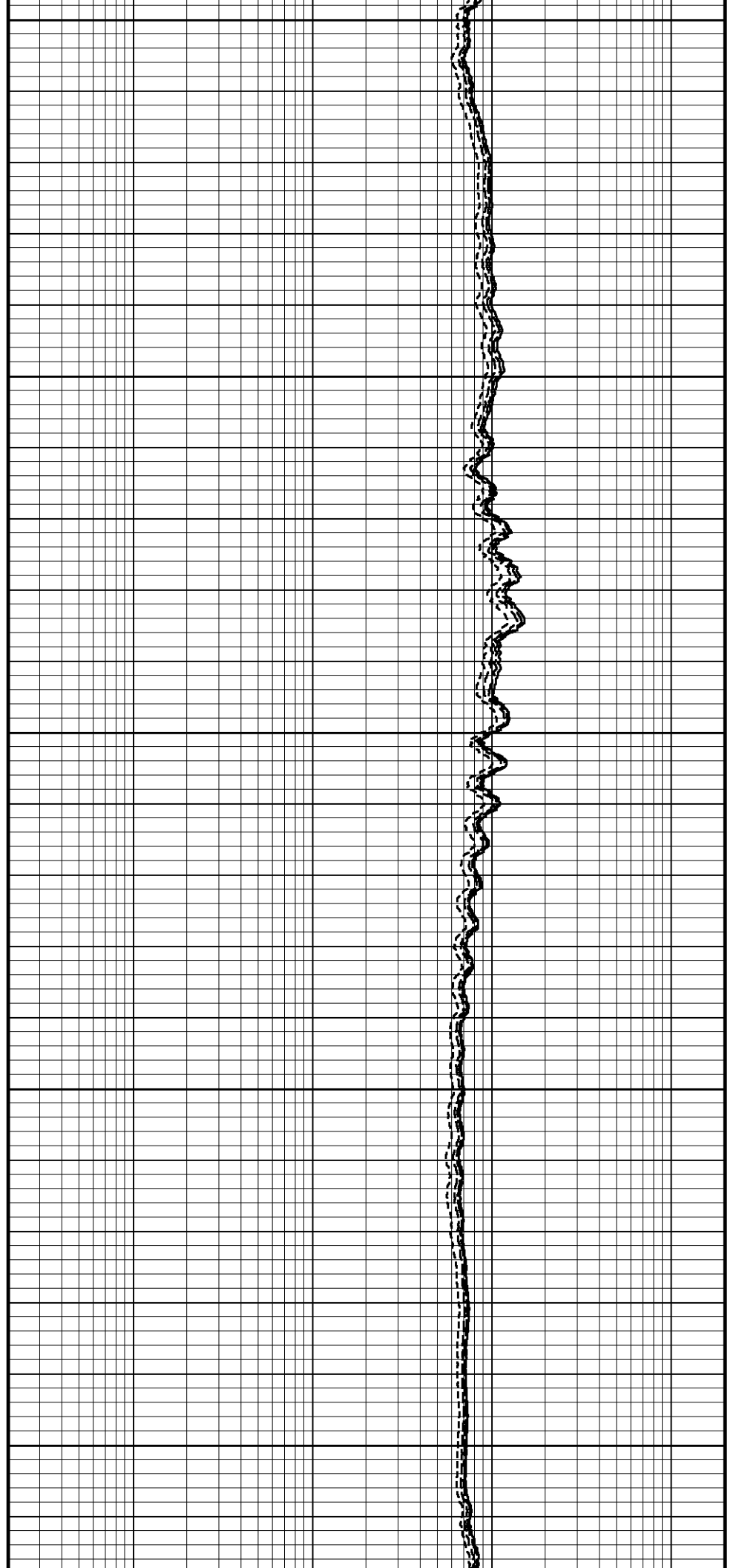
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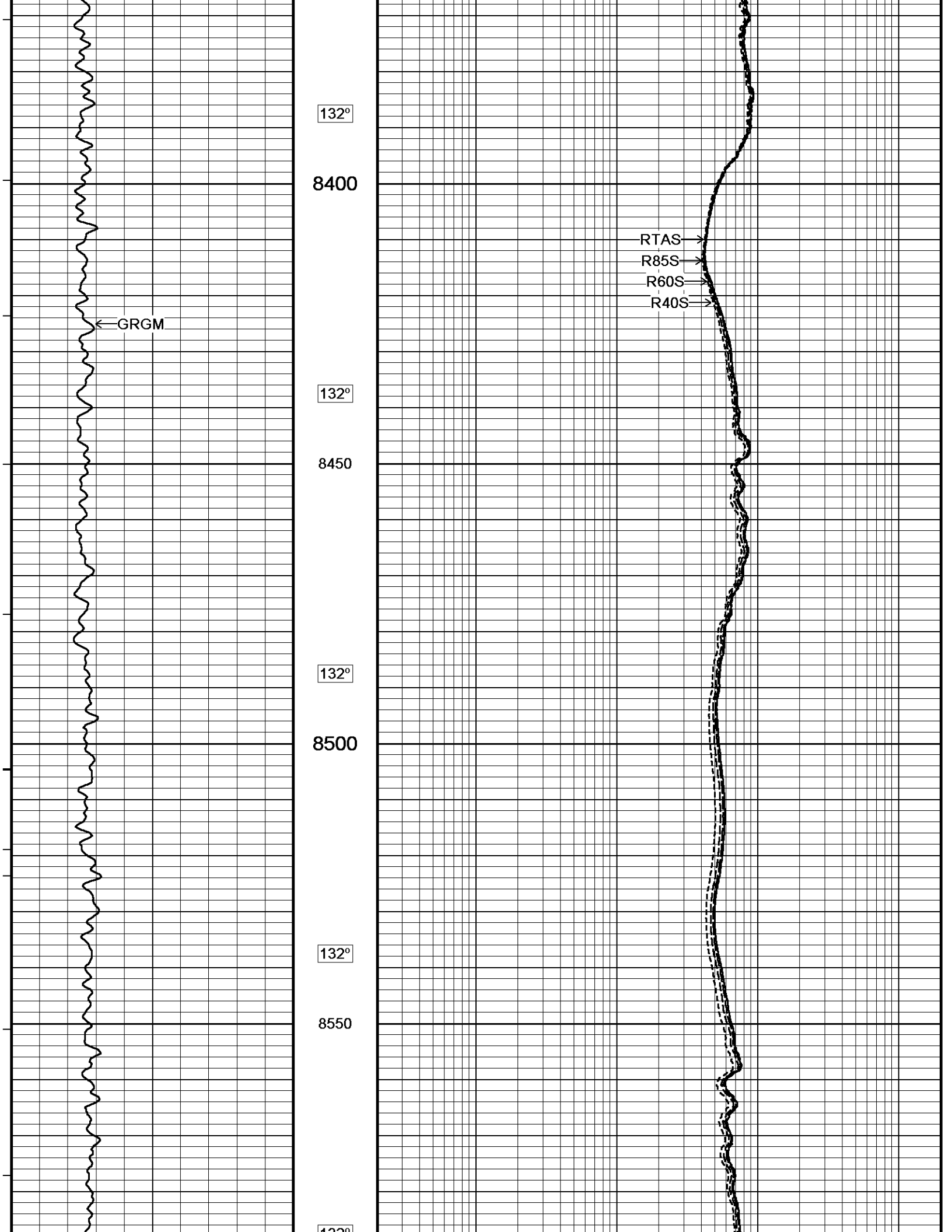
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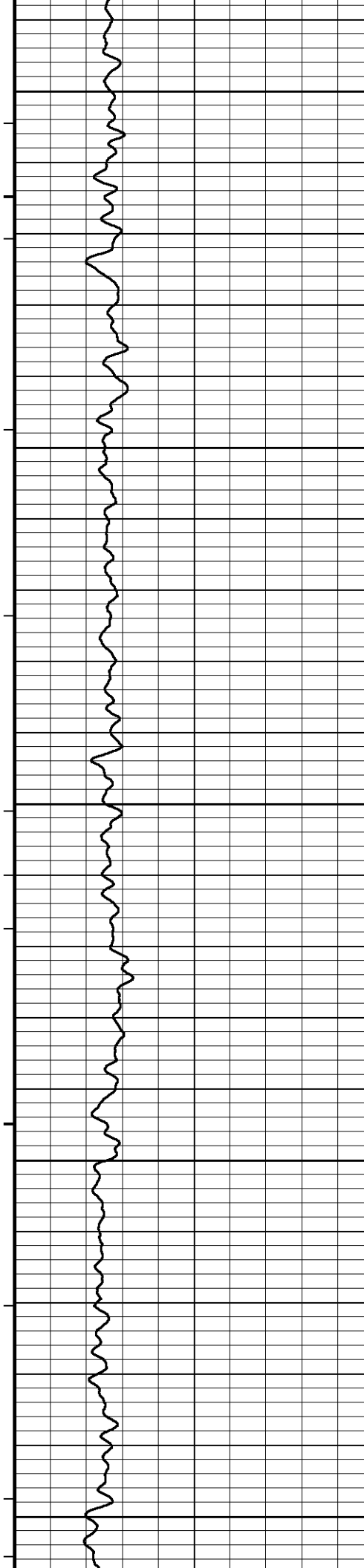
8300

132°

8350







132°

8600

132°

8650

132°

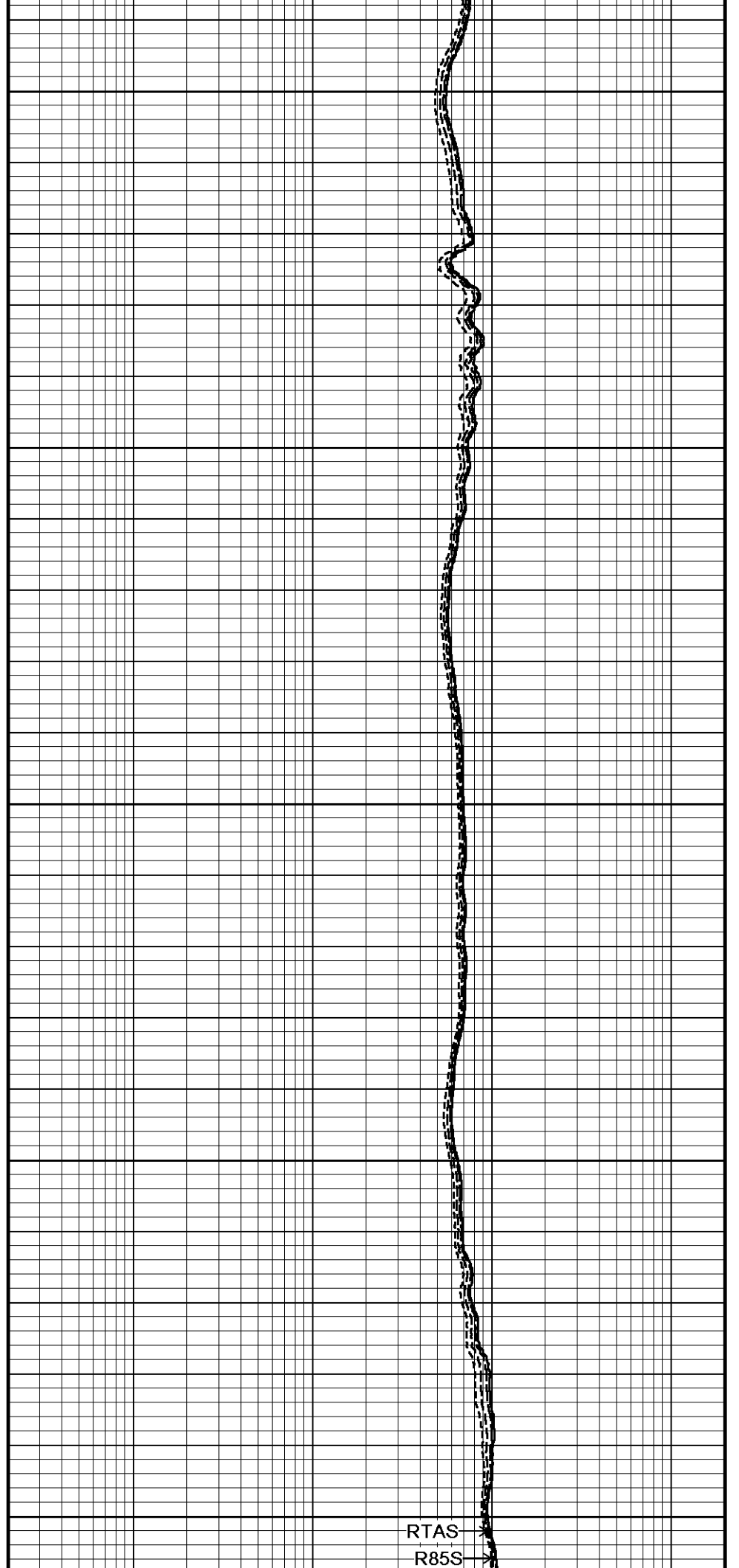
8700

132°

8750

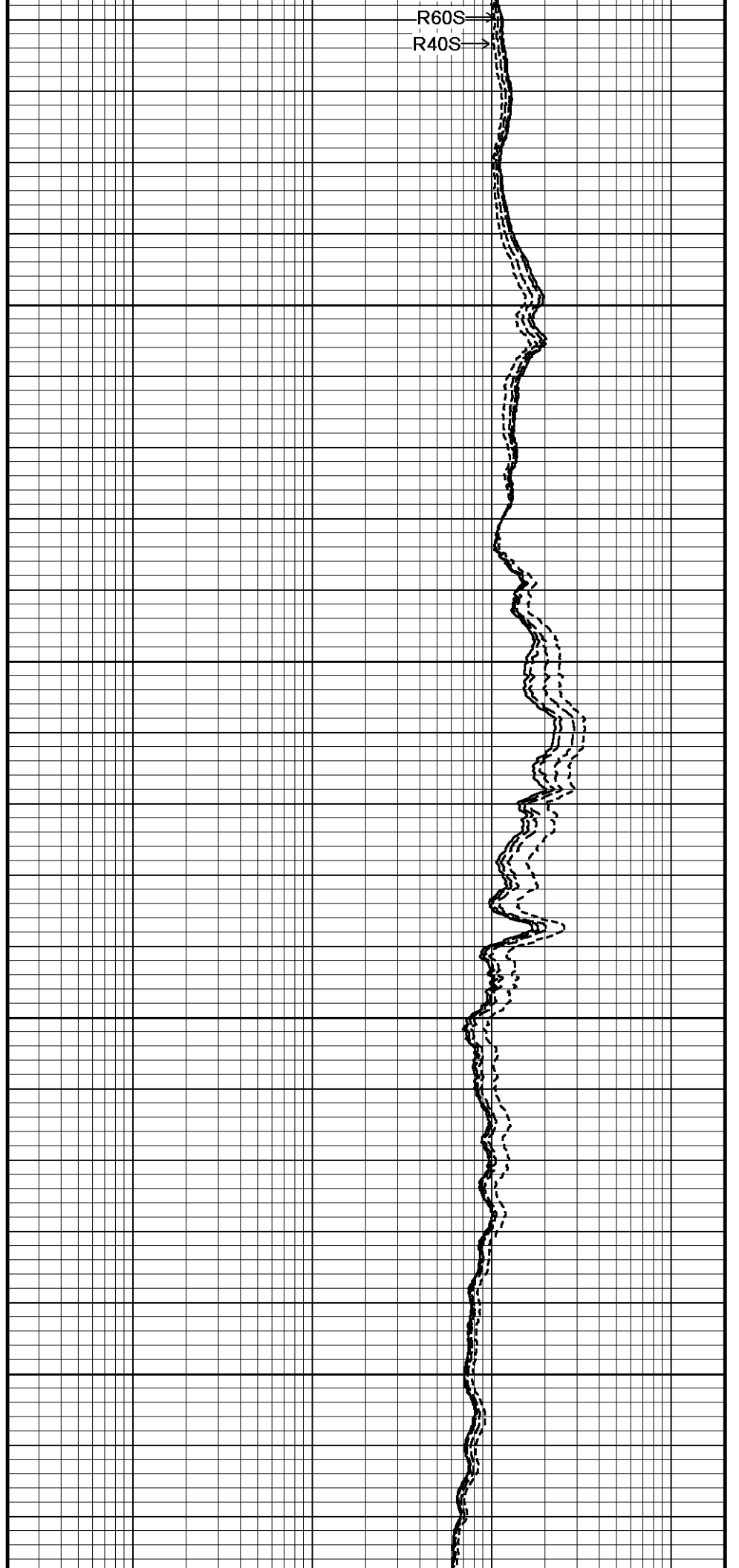
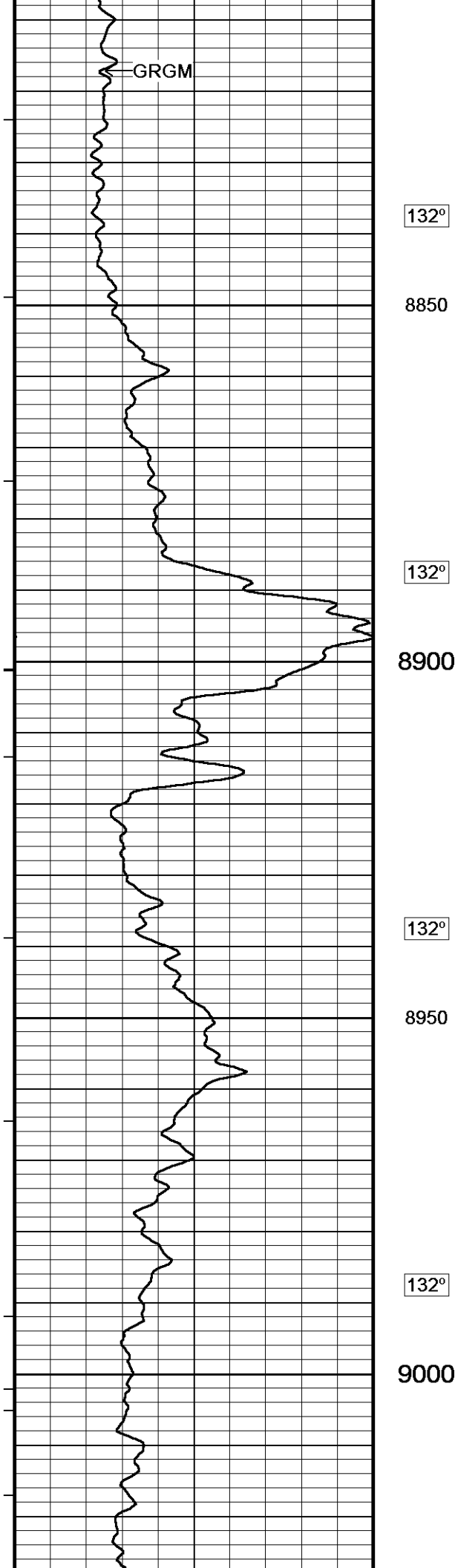
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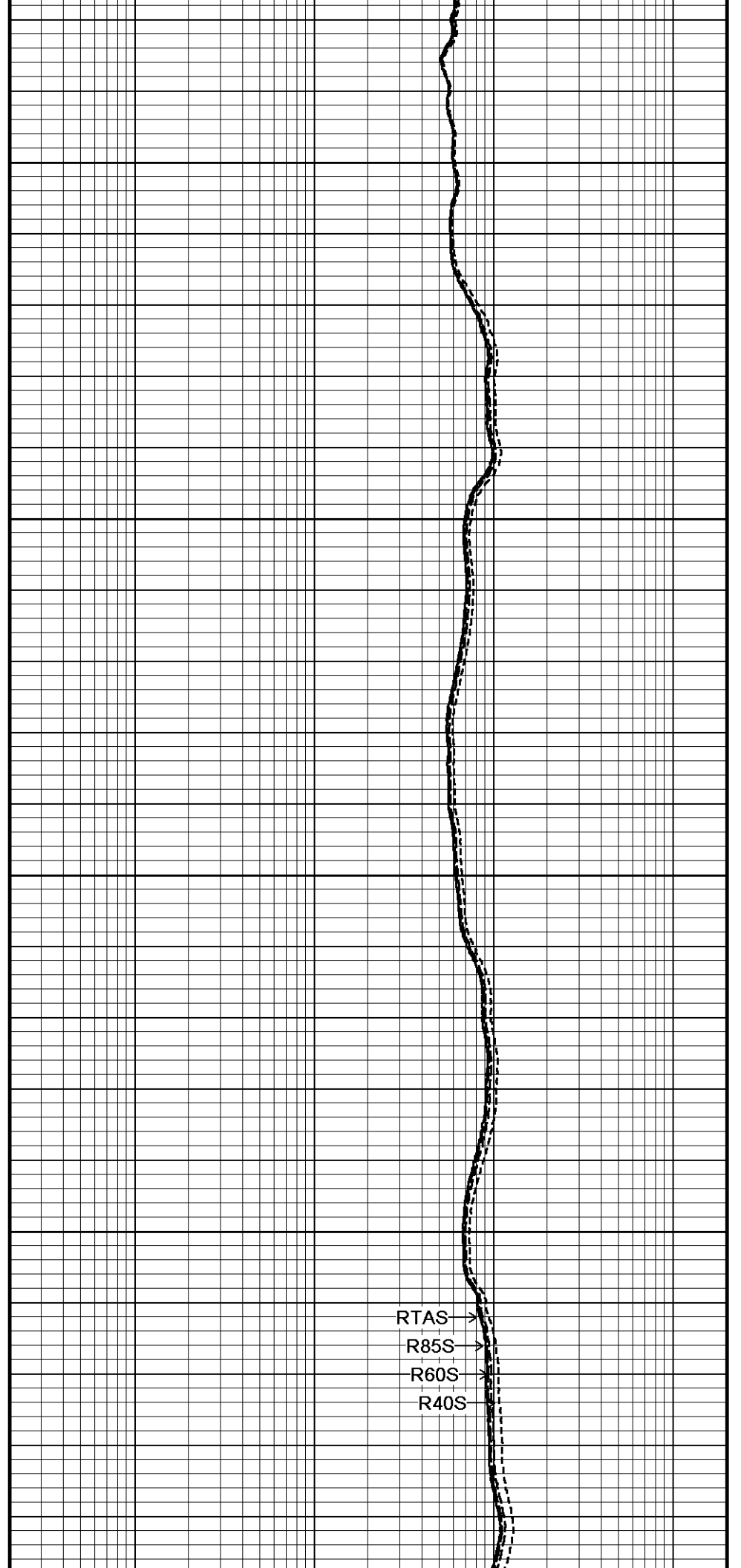
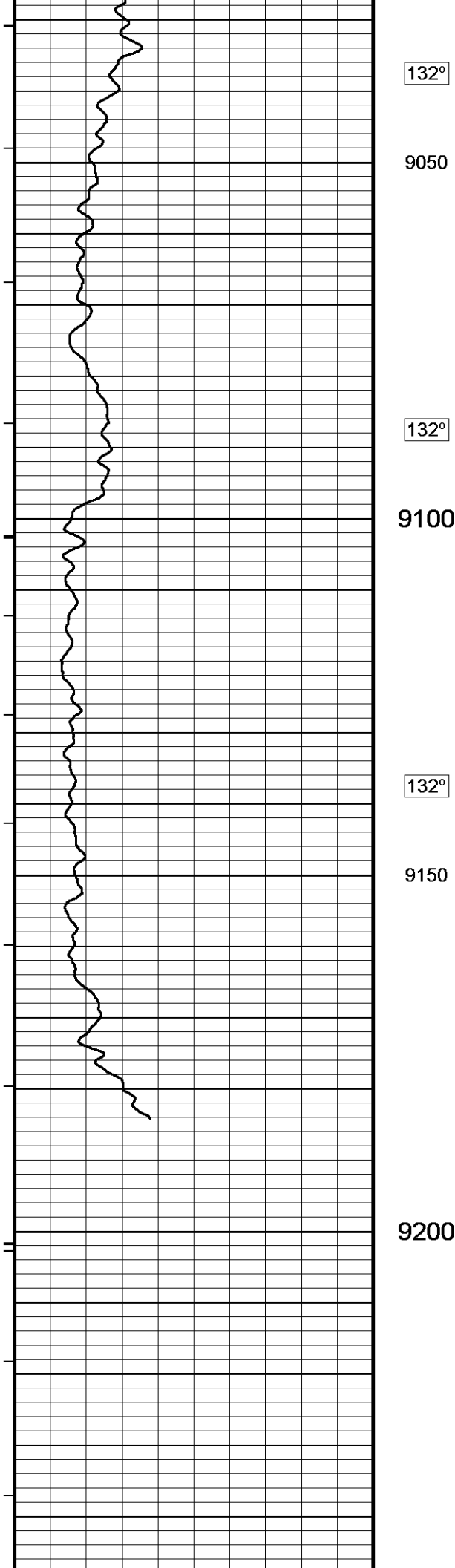
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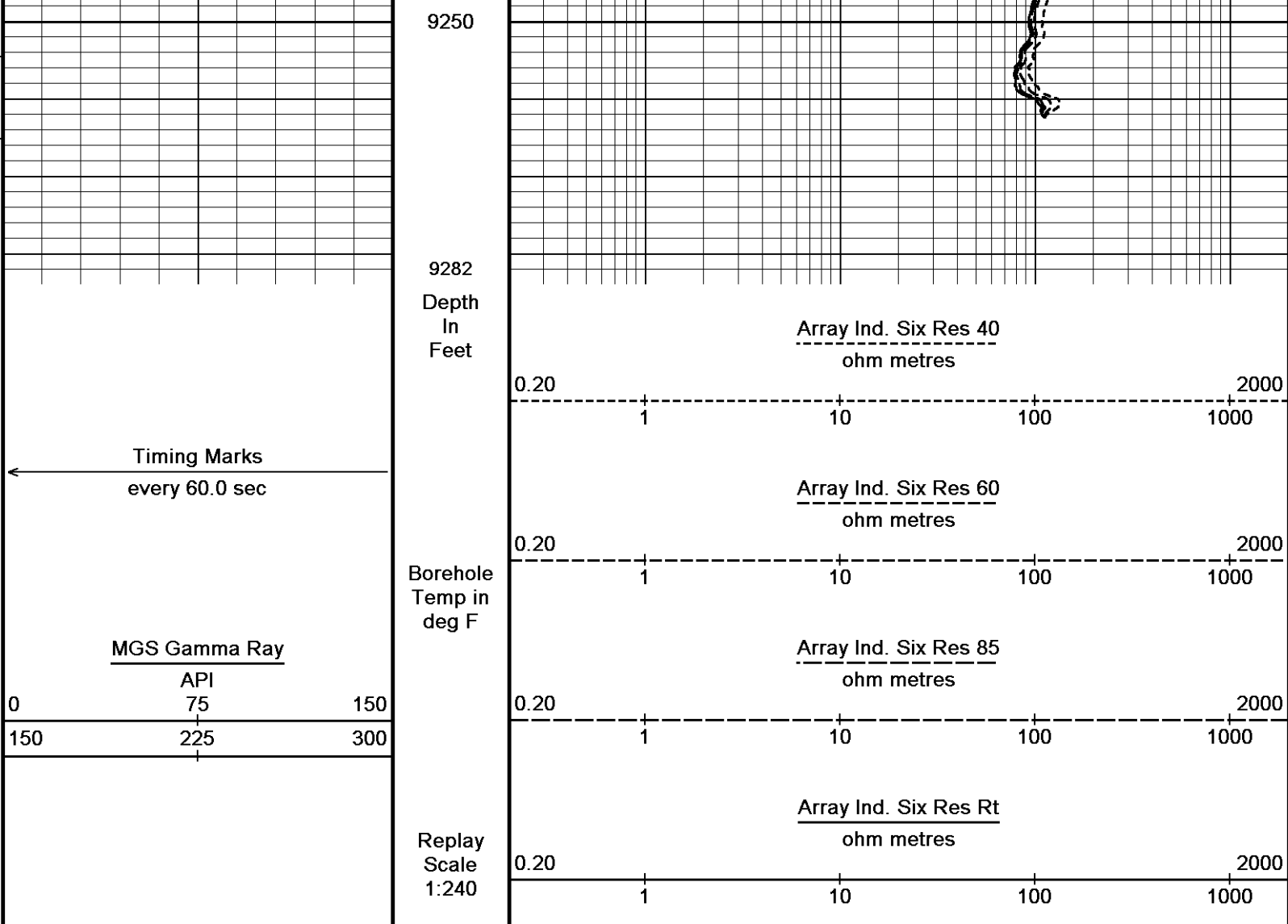


RTAS

R85S







Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 22-MAY-2012 10:16
 Filename: C:\Users\amundt\AppData\Local\Temp\Weatherford PreView\0\RTAP 32268 158.dta Recorded on 05-MAY-2012 18:09
 System Versions: Logged with 13.01.5821 Processed with 13.01.5821 Plotted with 12.01.3513

↑ 5 INCH MAIN LOG DSC ↑

BEFORE SURVEY CALIBRATION

C:\Users\amundt\AppData\Local\Temp\Weatherford PreView\0\RTAP 32268 158.dta

General Constants All 000

Last Edited on 02-MAY-2012 23:14

General Parameters

Mud Resistivity	1.400	ohm-metres
Mud Resistivity Temperature	78.000	degrees F
Water Level	0.000	feet
Density/Neutron Processing	Wet Hole	

Hole/Annular Volume and Differential Caliper Parameters

HVOL Method	Single Caliper	
HVOL Caliper 1	Density Caliper	
HVOL Caliper 2	N/A	
Annular Volume Diameter	4.500	inches
Caliper for Differential Caliper	Density Caliper	

Rwa Parameters

Porosity used	Base Density Porosity
Resistivity used	Array Ind. Six Res Rt
RWA Constant A	0.610
RWA Constant M	2.150

MMS Parameters MMS-E.B 158

Last Edited on 04-MAY-2012 13:32

Logging Parameters

Firmware Version	2v40	
Caliper Open On	MAI	
Caliper Open Delay	0.0	minutes
Caliper Closed On	Unknown	
Caliper Closed Delay	N/A	minutes
Sample Rate	1.00	seconds
Use Deep Sleep	No	
Delay Deep Sleep	N/A	
Deep Sleep Wake Time	N/A	minutes
Deep Sleep Wake on Temperature	N/A	
Deep Sleep Wake Temperature	N/A	degrees C
Deep Sleep Wake on Pressure	N/A	
Deep Sleep Wake Pressure	N/A	psi
MMI Pad Pressure	8.0	

Release Parameters

Pulse Duration Base Level	10.0	seconds
Pulse Duration Transition Time	60.0	seconds
Pulse Duration Status Pulse From	20.0	seconds
Pulse Duration Caliper Close From	145.0	seconds
Pulse Duration Caliper Open From	150.0	seconds
Pulse Duration Release Pulse From	215.0	seconds
Pulse Duration Release Pulse To	280.0	seconds
Pulse Release Duration	240.0	seconds
Pulse Discriminator Pressure Band	96.0	seconds
Pulse Pressure Discriminator	213.0	seconds
Use Negative Pulsing	No	
Good Status Reply Open Hole	0.0	seconds
Good Status Reply Cased Hole	20.0	seconds
Bad Status Reply	60.0	seconds
Status Pulse To	80.0	seconds
Caliper Close To	0.0	seconds
Caliper Open To	210.0	seconds

Configuration

MMS,MGS,MDN,MPD,MPD,MIM,MIE,MAI

Gamma Calibration MGS-C.J 136

Field Calibration on 04-MAY-2012 12:24

	Measured	Calibrated (API)
Background	44	31
Calibrator (Gross)	1033	727
Calibrator (Net)	989	696

Gamma Constants MGS-C.J 136

Last Edited on

Gamma Calibrator Number	036	
Mud Density	1.00	gm/cc
Caliper Source for Processing	Bit Size	
Tool Position	Centred	
Concentration of KCl	0.00	kppm

High Resolution Temperature Constants MGS-C.J 136

Last Edited on

Pre-filter Length	11
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Neutron Calibration MDN-B.J 391

Base Calibration on 02-FEB-2012 17:34

Field Check on 04-MAY-2012 12:35

Base Calibration

	Measured		Calibrated (cps)	
	Near	Far	Near	Far
Ratio	3186	96	3714	110
	33.156		33.764	

Field Calibrator at Base

	Calibrated (cps)	
Ratio	2267	3463
	0.655	

Field Check

Calibrated (cps)

Field Check	Calibrated (cps)	
	2320	3464
Ratio	0.670	
Neutron Constants MDN-B.J 391		
Last Edited on 01-MAY-2012 11:37		
Neutron Source Id	N1055	
Neutron Jig Number	N639	
Epithermal Neutron	No	
Caliper Source for Processing	Density Caliper	
Stand-off	0.00	inches
Mud Density	1.00	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	None	
Temperature	N/A	degrees F
Mud Salinity	0.00	kppm
Formation Fluid Salinity Source	Constant Value	
Formation Fluid Salinity	0.00	kppm
Barite Mud Correction	Not Applied	

Accelerometer Parameters MIE-A.A 113			
Date Of Last Accelerometer Calibration	14-DEC-2010,14:43		
	X Accelerometer	Y Accelerometer	Z Accelerometer
Slope	-1.107308	-1.105240	-1.108008
Offset	0.002033	0.006466	0.004223

Accelerometer Constants MIE-A.A 113			Last Edited on 02-JAN-2012 05:32	
Accelerometer Calibrator Number		000		
Accelerometer Temperature Characterisation				
X Accelerometer				
Serial Number	282			
Calibration Date	18-Jul-2007			
	B0	B1	B2	B3
Bias(g)	0.00000e+000	3.41234e-005	-1.69705e-008	1.28660e-010
	SF0	SF1	SF2	SF3
Scale Factor(mA/g)	3.00000e+000	2.70372e-004	8.31146e-007	-1.22715e-009
Y Accelerometer				
Serial Number	284			
Calibration Date	18-Jul-2007			
	B0	B1	B2	B3
Bias(g)	0.00000e+000	1.41306e-005	-2.62559e-009	9.20272e-011
	SF0	SF1	SF2	SF3
Scale Factor(mA/g)	3.00000e+000	2.83655e-004	6.88154e-007	-5.98912e-010
Z Accelerometer				
Serial Number	287			
Calibration Date	20-Jul-2007			
	B0	B1	B2	B3
Bias(g)	0.00000e+000	2.30753e-005	-5.40650e-010	3.42223e-011
	SF0	SF1	SF2	SF3
Scale Factor(mA/g)	3.00000e+000	2.66160e-004	7.47858e-007	-1.03559e-009

Caliper Calibration MIE-A.A 113			
Base Calibration on 14-DEC-2011 19:35			
Field Calibration on 04-MAY-2012 12:41			
Base Calibration			
Reading No	Pads 1-5 Meas.	Pads 3-7 Meas.	Calibrator Size (in)
1	25344	25763	5.96
2	35706	36096	7.97
3	44592	45608	9.84
4	55539	57575	11.91
5	0	0	0.00
Reading No	Pad 2 Meas.	Pad 4 Meas.	Pad 6 Meas.
1	24430	24823	24178
2	32865	33510	33277
			Pad 8 Meas.
			24236
			32610
			Calibrator Size (in)
			5.96
			7.97

3	40619	41653	41341	40744	9.84
4	50269	51437	51603	50454	11.91
5	0	0	0	0	0.00
Field Calibration					
	Measured Pads 1-5 Caliper(in) 7.94	Measured Pads 3-7 Caliper(in) 7.67	Actual Caliper(in) 8.03		
	Measured Pad 2 Caliper(in) 3.80	Measured Pad 4 Caliper(in) 3.91	Measured Pad 6 Caliper(in) 4.10	Measured Pad 8 Caliper(in) 4.15	Actual Caliper(in) 8.03
Caliper Constants MIE-A.A 113				Last Edited on 14-DEC-2011 19:27	
Caliper Difference for BRKT		0.120	inches		
Magnetometer Parameters MIE-A.A 113					
Date Of Last Magnetometer Calibration		14-DEC-2011,19:38			
	X Magnetometer	Y Magnetometer	Z Magnetometer		
Slope	-1.000000	-1.016309	-1.000351		
Offset	0.007444	-0.017558	0.006716		
Magnetometer Constants MIE-A.A 113				Last Edited on	
Magnetometer Calibrator Number		000			
Navigation Constants MIE-A.A 113				Last Edited on 14-DEC-2011 19:57	
Magnetic Declination		4.10	degrees	East	
Compact Micro Imager Constants MIE-A.A 113				Last Edited on	
Sonde Configuration		Imager Mode	degrees		
Arm-Pad Kit		Normal Pads (12.25 in)			
Centre Pad 1 Rotational Offset		0.00			
Image/Borehole Ovality Reference		Azimuth of Pad 1	degrees		
Non Active Buttons		Omit	metres		
Search Angle		0.00	metres		
Correlation Interval		1.00	mAmp		
Correlation Step		0.50	mAmp		
Current Offset		0.0000			
Squasher Start		0.0500			
Image Processing		Enabled			
Induction Calibration MAI-B.J 392				Base Calibration on 25-MAR-2012 01:23 Field Check on 04-MAY-2012 12:38	
Base Calibration					
Test Loop Calibration		Measured	Calibrated (mmho/m)		
Channel	Low	High	Low	High	
1	17.1	467.1	9.3	966.2	
2	6.1	375.5	7.6	821.4	
3	3.2	259.2	5.2	566.0	
4	2.2	129.4	2.6	279.2	
Array Temperature		74.7	Deg F		
Channel		Base Check (mmho/m)		Field Check (mmho/m)	
	Low	High	Low	High	
1	0.0	0.0	13.0	3890.4	
2	0.0	0.0	30.4	3591.1	
3	0.0	0.0	28.8	3049.7	
4	0.0	0.0	19.2	2140.4	
Deep	0.0	0.0	17.2	2000.2	
Medium	0.0	0.0	42.6	3974.0	
Shallow	0.0	0.0	45.9	5306.7	
Array Temperature		0.0	75.9	Deg F	
Induction Constants MAI-B.J 392				Last Edited on 02-MAY-2012 23:14	
Induction Model		RtAP-WBM			
Caliper for Borehole Corr.		Density Caliper			

Hole Size for Borehole Correction		N/A	inches
Tool Centred		No	
Stand-off Type		Fins	
Stand-off		0.50	inches
Number of Fins on Stand-off		6.0000	
Stand-off Fin Angle		60.00	degrees
Stand-off Fin Width		0.5000	inches
Borehole Corr. Rm Source	Temperature Corr		
Temp. for Rm Corr.	MGS External Temperature		
Squasher Start		0.0050	mhos/metre
Squasher Offset		N/A	mhos/metre
Borehole Normalisation			
DRM1	0.0000	DRC1	0.0000
DRM2	0.0000	DRC2	0.0000
MRM1	0.0000	MRC1	0.0000
MRM2	0.0000	MRC2	0.0000
SRM1	0.0000	SRC1	0.0000
SRM2	0.0000	SRC2	0.0000
Calibration Site Corrections			
Channel 1		0.00	mmhos/metre
Channel 2		0.00	mmhos/metre
Channel 3		0.00	mmhos/metre
Channel 4		0.00	mmhos/metre
Apparent Porosity and Water Saturation Constants			
Archie Constant (A)		1.00	
Cementation Exponent (M)		2.00	
Saturation Exponent (N)		2.00	
Saturation of Water for Apor		100.00	percent
Resistivity of Water for Apor and Sw		0.05	ohm-m
Resistivity of Mud Filtrate for Sw		0.00	ohm-m
Source for Rt		0.00	
Source for Rxo		0.00	
High Resolution Temperature Calibration MAI-B.J 392			
			Field Calibration on 16-SEP-2011 07:02
	Measured	Calibrated(Deg F)	
Lower	10.00	50.00	
Upper	100.00	212.00	
High Resolution Temperature Constants MAI-B.J 392			
			Last Edited on
Pre-filter Length		11	
Caliper Calibration MPD-C.J 394			
			Base Calibration on 02-FEB-2012 17:47
			Field Calibration on 04-MAY-2012 12:30
Base Calibration			
Reading No	Measured	Calibrator Size (in)	
1	16864	4.02	
2	24593	5.96	
3	32730	8.03	
4	41088	10.02	
5	49920	12.01	
6	N/A	N/A	
Field Calibration			
	Measured Caliper (in)	Actual Caliper (in)	
	5.94	5.96	
Photo Density Calibration MPD-C.J 394			
			Base Calibration on 25-MAR-2012 01:35
			Field Check on 04-MAY-2012 12:28
Density Calibration			
Base Calibration			
	Measured	Calibrated (sdu)	
	Near	Far	Near Far
Reference 1	48939	23252	59869 31110
Reference 2	21263	2513	24557 2522
Field Check at Base			
	1237.9	1368.0	

Field Check

1227.1 1360.1

PE Calibration

Base Calibration

Measured

Calibrated

WS

WH

Ratio

Ratio

Background

223

1104

Reference 1

19279

48750

0.400

0.369

Reference 2

5696

21118

0.273

0.271

Field Check at Base

223.2

1104.1

Field Check

220.4

1093.9

Density Constants MPD-C.J 394

Last Edited on 02-MAY-2012 11:08

Density Source Id

236

Nylon Calibrator Number

DNCE 633

Aluminium Calibrator Number

DACD 633

Density Shoe Profile

4 inch

Caliper Source for Processing

Density Caliper

PE Correction to Density

Not Applied

Mud Density

1.01

gm/cc

Mud Density Z/A Multiplier

1.11

Mud Filtrate Density

1.00

gm/cc

Dry Hole Mud Filtrate Density

1.00

gm/cc

DNCT

0.00

gm/cc

CRCT

0.02

gm/cc

Density Z/A Correction

Hybrid

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

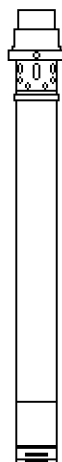
0.00

DOWNHOLE EQUIPMENT

C:\Users\amundt\AppData\Local\Temp\Weatherford PreView\0\RTAP 32268 158.dta

Shuttle Running Tool 3.5")

SRT-A.A 69 LG: 6.62 ft WT: 37.5 lb OD: 2.52 in



DUMMY BATTERY

MLK-A 1 LG: 14.23 ft WT: 30.9 lb OD: 2.24 in

Dummy Battery

MLK-A 2 LG: 14.23 ft WT: 30.9 lb OD: 2.24 in

SKJ-D.A Compact Knuckle Joint

SKJ-D.A 207 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

MBS-G.A 200v Compact Battery Sub

MBS-G.A 119 LG: 17.06 ft WT: 123.5 lb OD: 2.24 in

Compact Memory Sub E.B

MMS-E.B 158 LG: 5.20 ft WT: 37.5 lb OD: 2.24 in

Compact Tool Isolator sub.

MTI-B.A 61 LG: 1.54 ft WT: 13.2 lb OD: 2.24 in

Compact Short Gamma

MGS-C.J 136 LG: 3.41 ft WT: 24.3 lb OD: 2.24 in

84.74 ft GRGM - MGS Gamma Ray

82.75 ft GSXT - MGS External Temperature

SKJ-E.B Compact Knuckle Joint

SKJ-E.B 479 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

SHA-J.A Compact Swivel Head Adaptor
SHA-J.A 431 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in

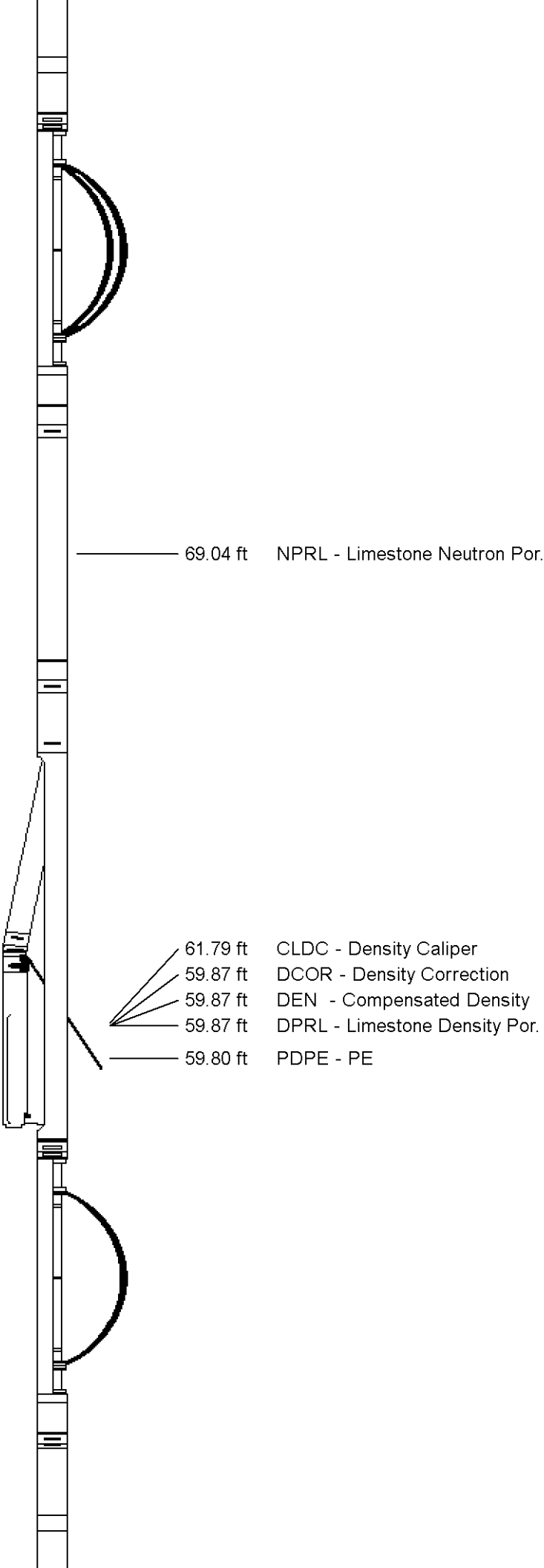
MIS-D.A Compact Inline Bowspring sub
MIS-D.A 606 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

Compact Neutron
MDN-B.J 391 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

Compact Density/Caliper
MPD-C.J 394 LG: 9.59 ft WT: 90.4 lb OD: 2.24 in

MIS-A.A Compact Inline Bowspring sub
MIS-A.A 275 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

SHA-J.A Compact Swivel Head Adaptor
SHA-J.A 434 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in



SKJ-E.B Compact Knuckle Joint
SKJ-E.B 478 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

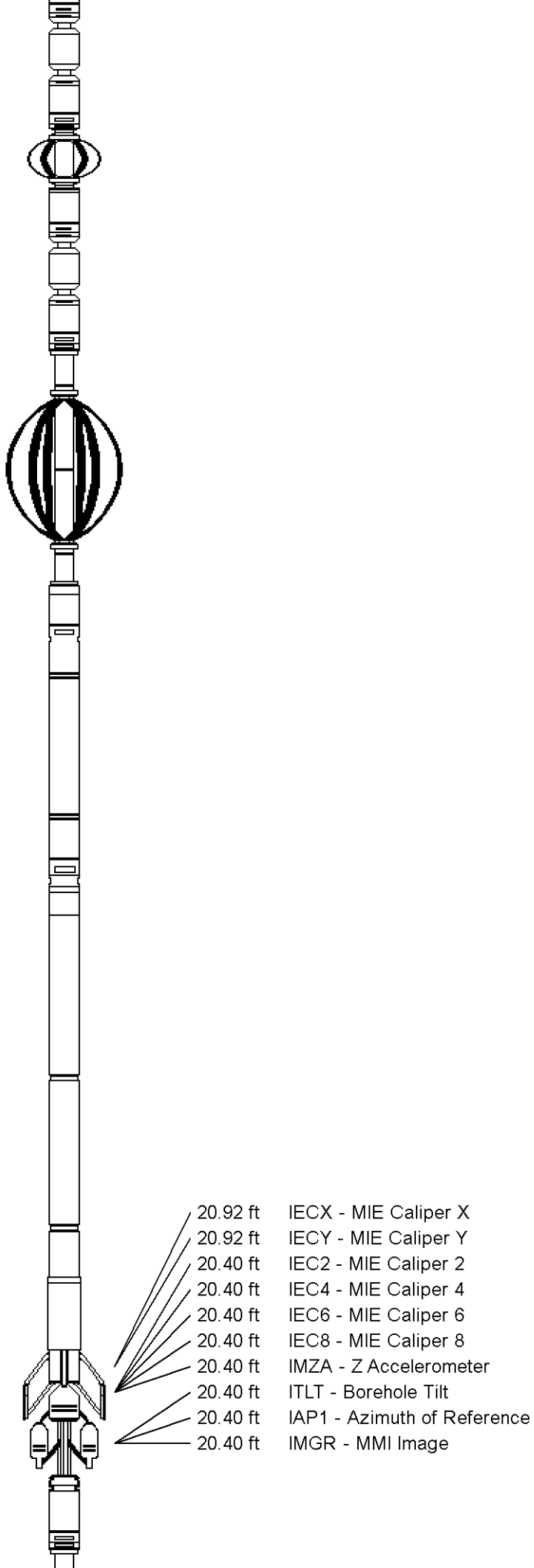
MIS-E.B Compact Inline Standoff sub
MIS-E.B 574 LG: 2.14 ft WT: 15.4 lb OD: 2.24 in

SKJ-D.A Compact Knuckle Joint
SKJ-D.A 209 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

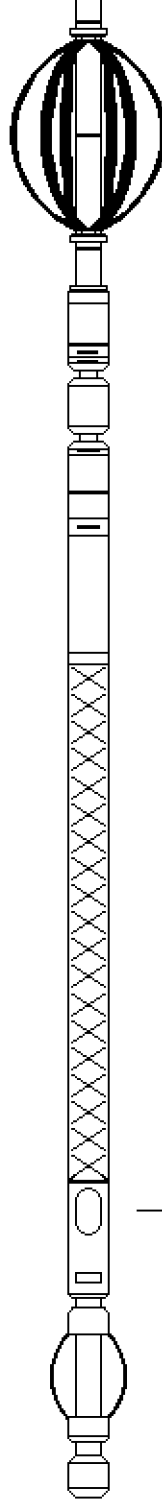
MIS-A.A Compact Inline Bowspring sub
MIS-A.A 62 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

Compact MMI Memory Section
MIM-A.A 113 LG: 4.65 ft WT: 26.5 lb OD: 2.24 in

Compact MMI Electrode Section
MIE-A.A 113 LG: 13.96 ft WT: 99.2 lb OD: 4.09 in



MIS-A.A Compact Inline Bowspring sub
MIS-A.A 41 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in



SKJ-D.A Compact Knuckle Joint
SKJ-D.A 140 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

Compact Induction
MAI-B.J 392 LG: 12.52 ft WT: 48.5 lb OD: 2.24 in

Tool Zero (1.84ft from bottom)

Total Length: 148.41 ft Weight: 925.9 lb

All measurements relative to tool zero.

Company	SANDRIDGE ENERGY
Well	ISAAC FARMS 1-36H
Field	FINNEY
Province	FINNEY
Country	U.S.A. / KANSAS

ElevationKB	2902.00	feet	FirstReading	9251.00	feet
ElevationDrill	2900.00	feet	DepthDriller	9272.00	feet
ElevationGround	2886.00	feet	DepthLogger	9272.00	feet



CML MESSENGER SHUTTLE



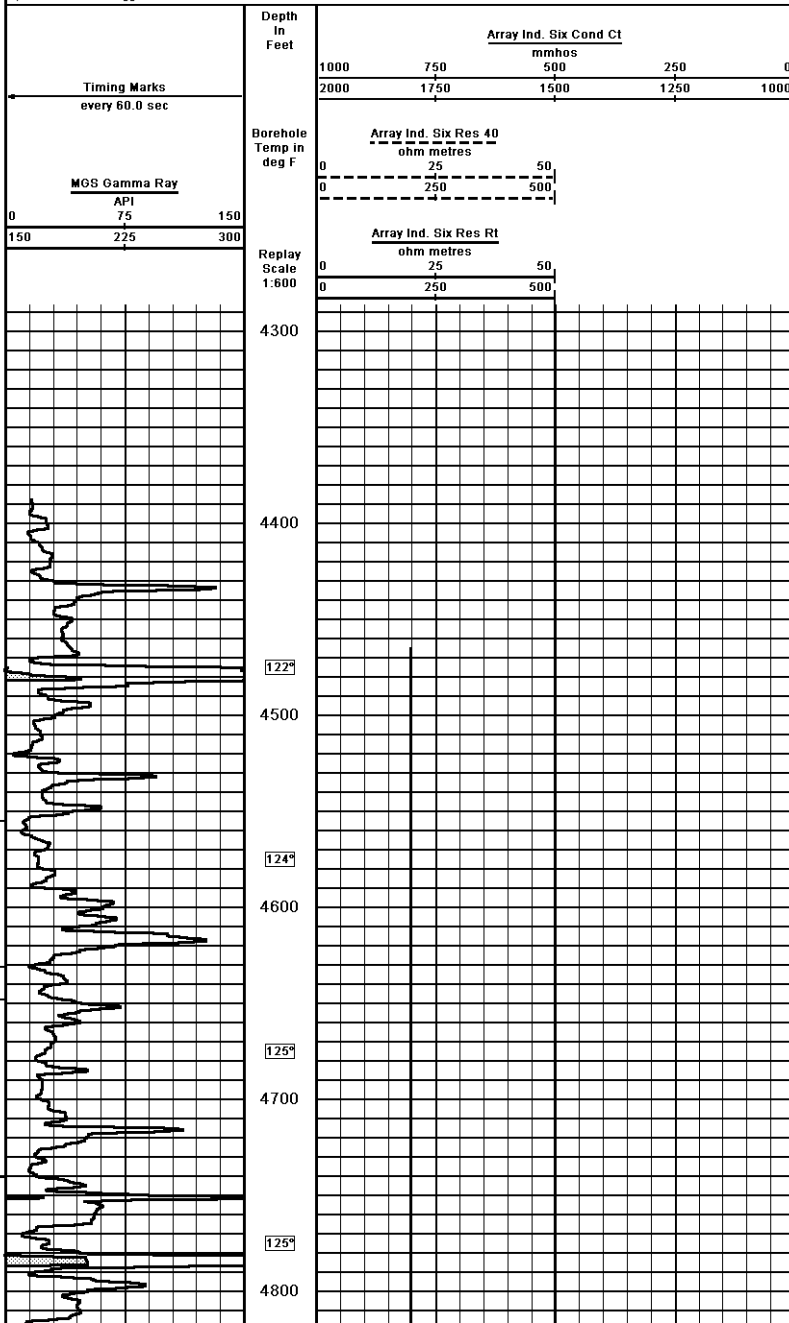


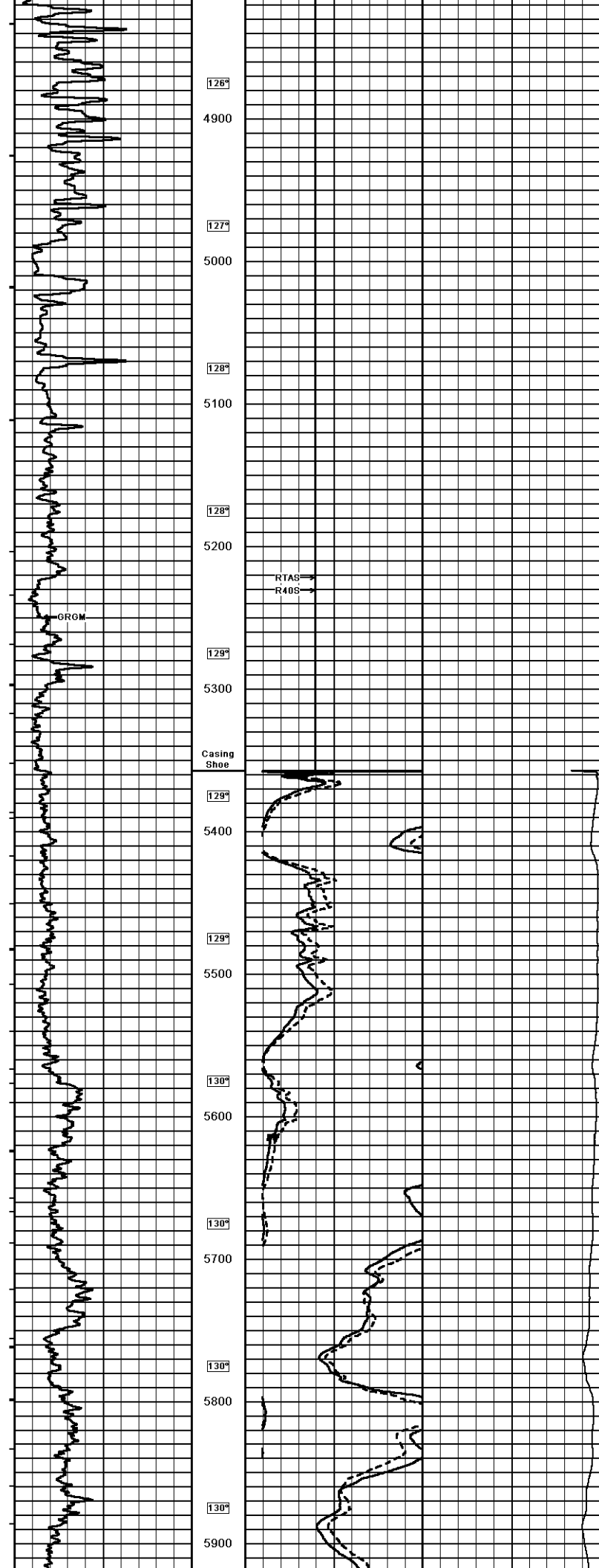
Weatherford										CML MESSENGER SHUTTLE ARRAY INDUCTION	
Company		SANDRIDGE ENERGY									
Well		ISAAC FARMS 1-36H									
Field		FINNEY									
Province		FINNEY									
County		U.S.A. / KANSAS									
Location		200' FNL & 400' FWL									
AP# Number		TWP	RGE	Other							
Permit Number		22	31W	3BS	MP/DOWN						
Permanent G.L. Containment Elevation		2886 feet									
Log from KB											
Diff from K.B @ 16 Feet											
Date	05-MAY-2012										
SUNNO	ONE										
Depth/Diller	9272.00	feet									
Depth/Cogger	9272.00	feet									
FirsReading	9251.00	feet									
LastReading	5357.00	feet									
CasingDiller	5357.00	feet									
Casing/Logger	5357.00	feet									
BHSIZE	6.125	inches									
WBM											
Holefluid											
Density	8.33	g/cc	30.00	CP							
Pn	8.50		18.00	m/m/min							
SampleSource	FLOWLINE										
FirstMeas	0.86 @ 75.0	dm-in									
SecondMeas	0.89 @ 75.0	dm-in									
ThirdMeas	1.03 @ 75.0	dm-in									
FlowRate	CALC										
FlowRate	0.48 @ 32.0	dm-in									
Time/Circ	2 HOURS										
Max Temp	132.00	deg F									
Equipment	COMPACT										
Base	18077	OHC									
Recorded	STEVEN TOTTER										
Witnessed	WILLIAM SCOTT										
CO #	3535254										

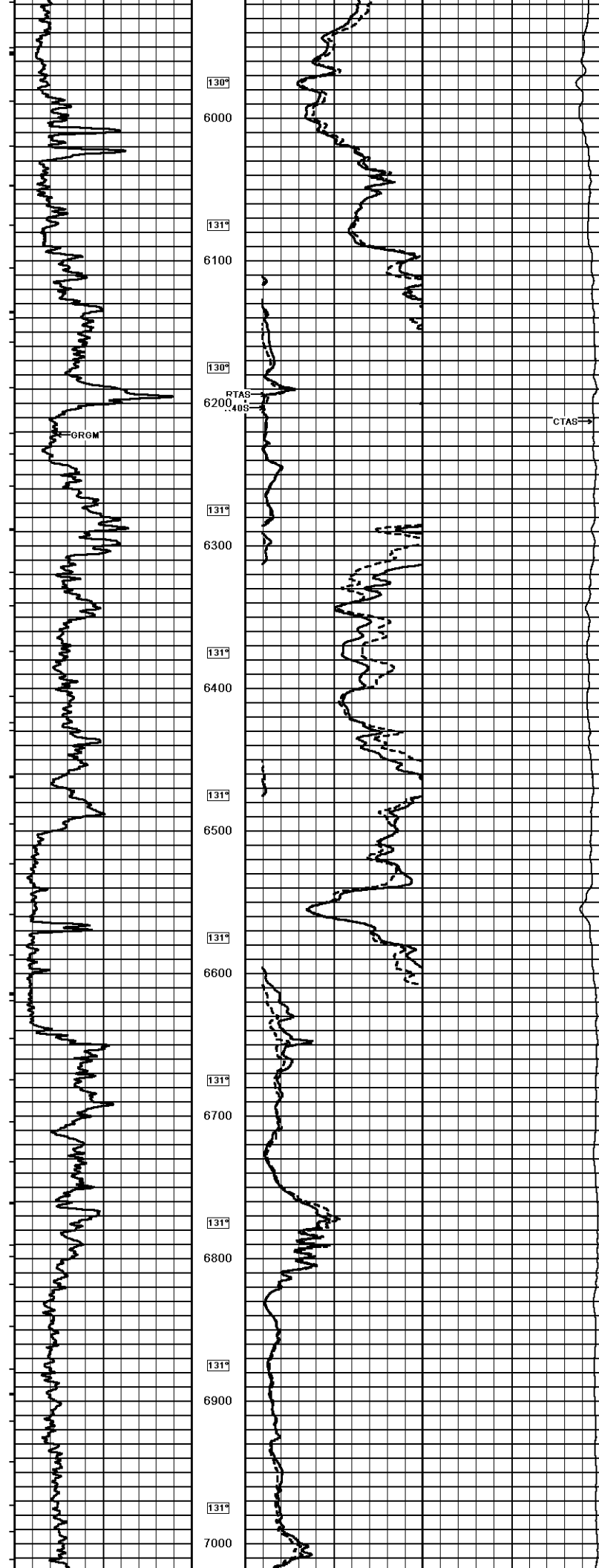
Elevations

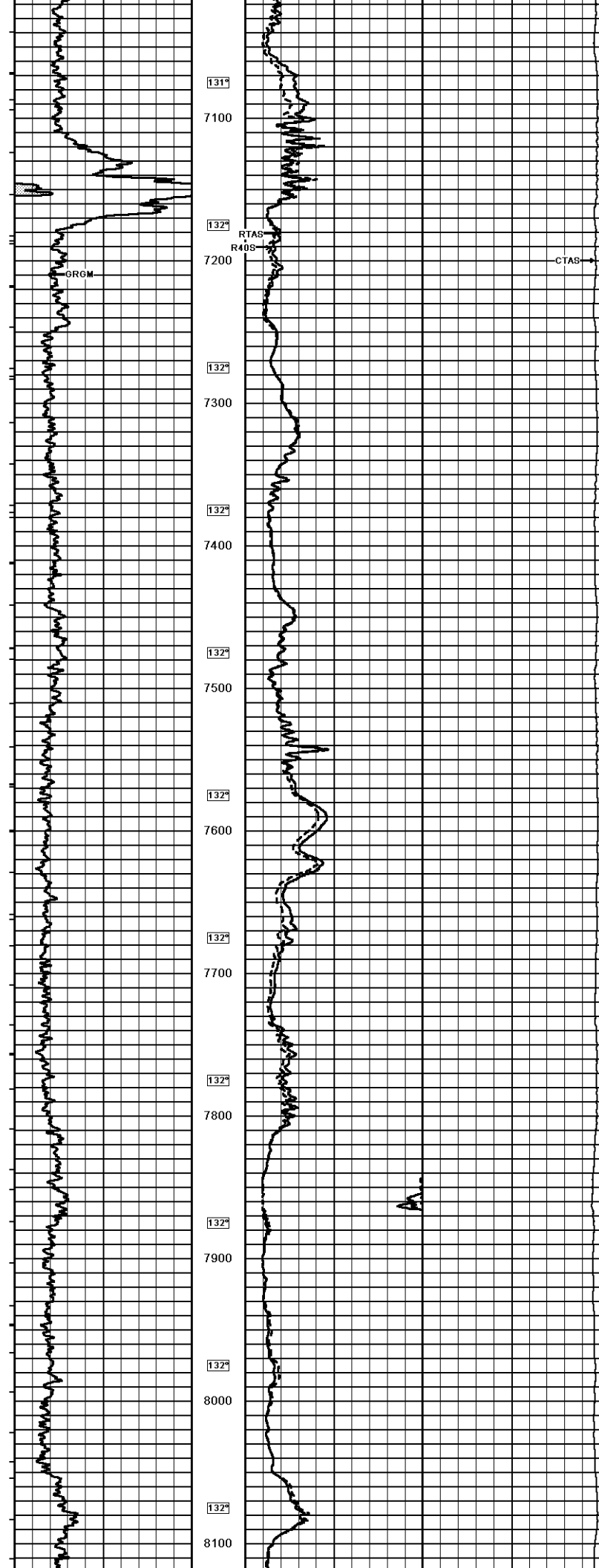
Kid	2902.00
Dr	2960.00
Gd	2886.00

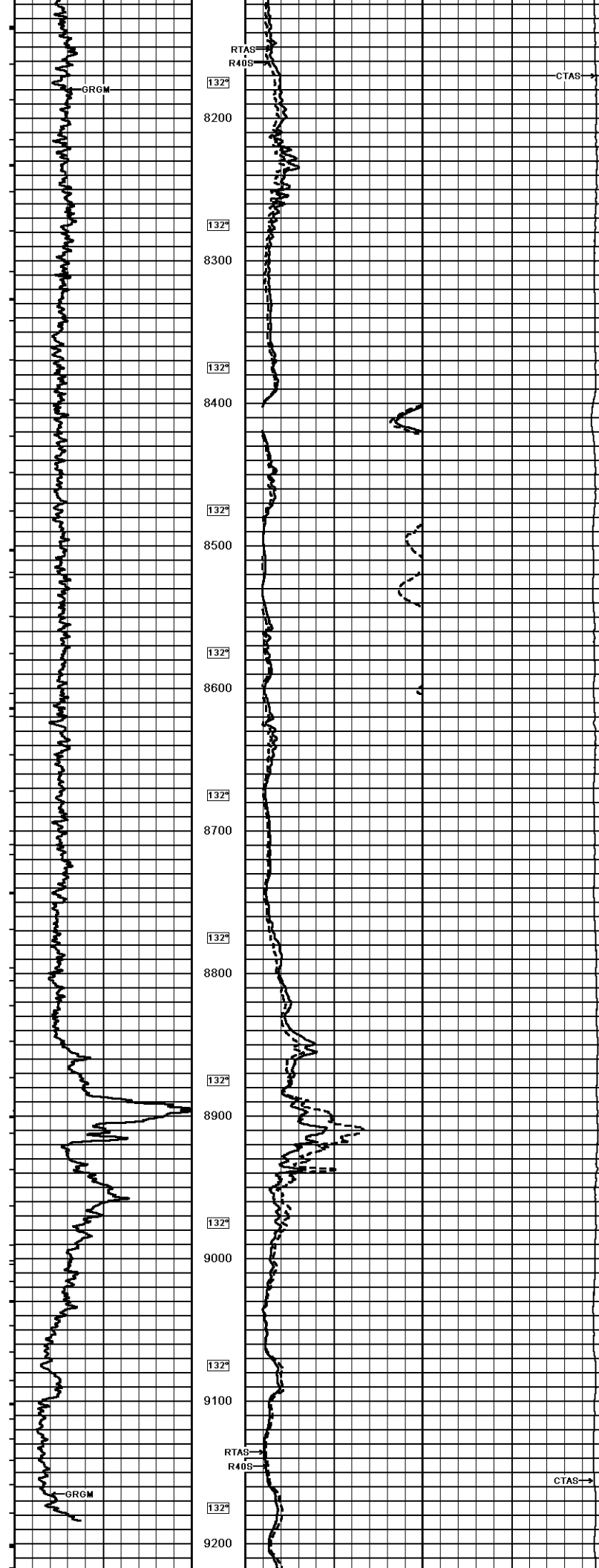
1 INCH MAIN LOG DSC	
Depth Based Data - Maximum Sampling Increment 10.0cm	Plotted on 22-MAY-2012 10:18
Filename: C:\Users\amund\AppData\Local\Temp\Weatherford PreView\0RTAP 32268 158.dta	Recorded on 05-MAY-2012 18:05
System Versions: Logged with 13.01.5821 Processed with 13.01.5821	Plotted with 12.01.3513

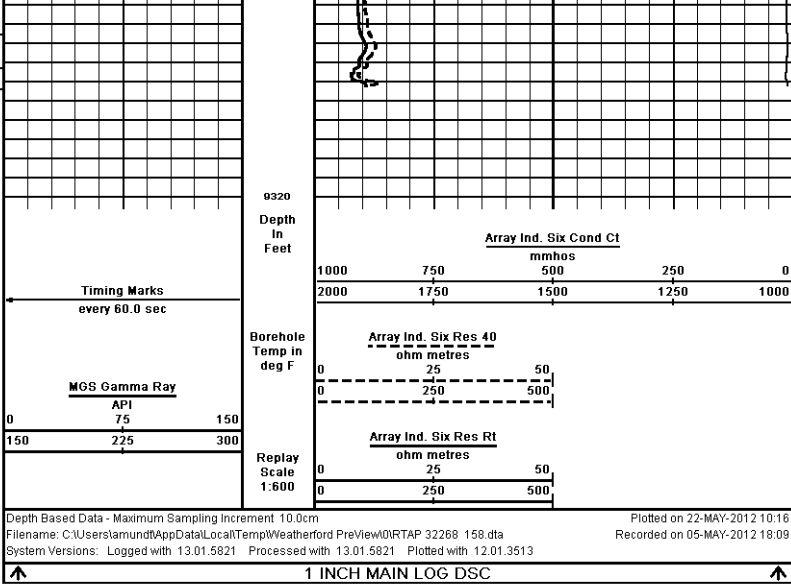












Company	SANDRIDGE ENERGY			
Well	ISAAC FARMS 1-36H			
Field	FINNEY			
Province	FINNEY			
Country	U.S.A. / KANSAS			
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ElevationDrill	2900.00	feet	DepthDriller	9272.00 feet
ElevationGround	2886.00	feet	DepthLogger	9272.00 feet
		CML MESSENGER SHUTTLE		
		ARRAY INDUCTION		
				