

Company **CMX INCORPORATED**
Well **BUSHTON #1-20**
Field **STOLTENBERG**
County **ELLSWORTH**
State **KANSAS**

RECON
FULL WAVEFORM
SONIC
GAMMA RAY
X-Y CALIPER

OTHER SERVICES:		
DDT		
CNL		
Location, 925' FSL & 710' FWL		
SEC	TWP	RGE
20	17S	09W
SURF. SAME		
API#		SW/NE/SW/SW
		015-053-21323-00-00
Permanent Datum	Ground Level	Elev
Log Measured From	Kelly Bushing	1764
Drilling Measured From	Kelly Bushing	
ELEVATIONS		
K.B.		1777
G.L.		1764
D.F.		1775

Date	19-MAY-2015	
Run No.	ONE	
TD Driller	3320	ft.
TD RECON	3317	ft.
Bot Logged Interval	3316	ft.
Top Logged Interval	340	ft.
Casing Depth Driller	8 5/8	in.
Casing Depth RECON	8 5/8	in.
Bit Size	7 7/8	in.
Drilling Fluid Type	WBM	
Density	9.2	56
Fluid Loss	PH	12.0
Source Of Sample	Flowline	
RM @ Measured Temp	1.04	Ohmm @ 75
RMF @ Measured Temp	0.78	Ohmm @ 75
RMC @ Measured Temp	1.29	Ohmm @ 75
RM @ MRT	0.74	Ohmm @ 107.6
Max Recorded Temp	107.6	DegF
Time Drilling Stopped	19-MAY-2015	11:43
Time Circulation Stopped	19-MAY-2015	13:10
Time Logger On Bottom	19-MAY-2015	17:15
Unit Num	Location	OKLAHOMA CITY, OK
Recorded By	K. HELDERMON	
Witnessed By	K. LEBLANC	

interpretations made by any of our officers, agents or employees, except in the case of provable Gross Neglegence or willfull damage. Interpretations are also subject to the terms and conditions of our Price Schedule and General Service Agreement.

All interpretations are based on inferences from electrical or other readings, and therefore, RECON cannot and will not guarantee the accuracy of any interpretations of log data. RECON shall not be liable for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from

RIG INFORMATION

Drill Contr/Rig# DUKE DRILLING #7

GENERAL REMARKS SECTION

FIRST RUN IN THE HOLE
CNL AND LDT LOGGED IN A LIMESTONE MATRIX
TOP MARK - 298, BOTTOM MARK - 3301.5
CNL/LDT LOGGED MATRIX: 2.71 g/cc.

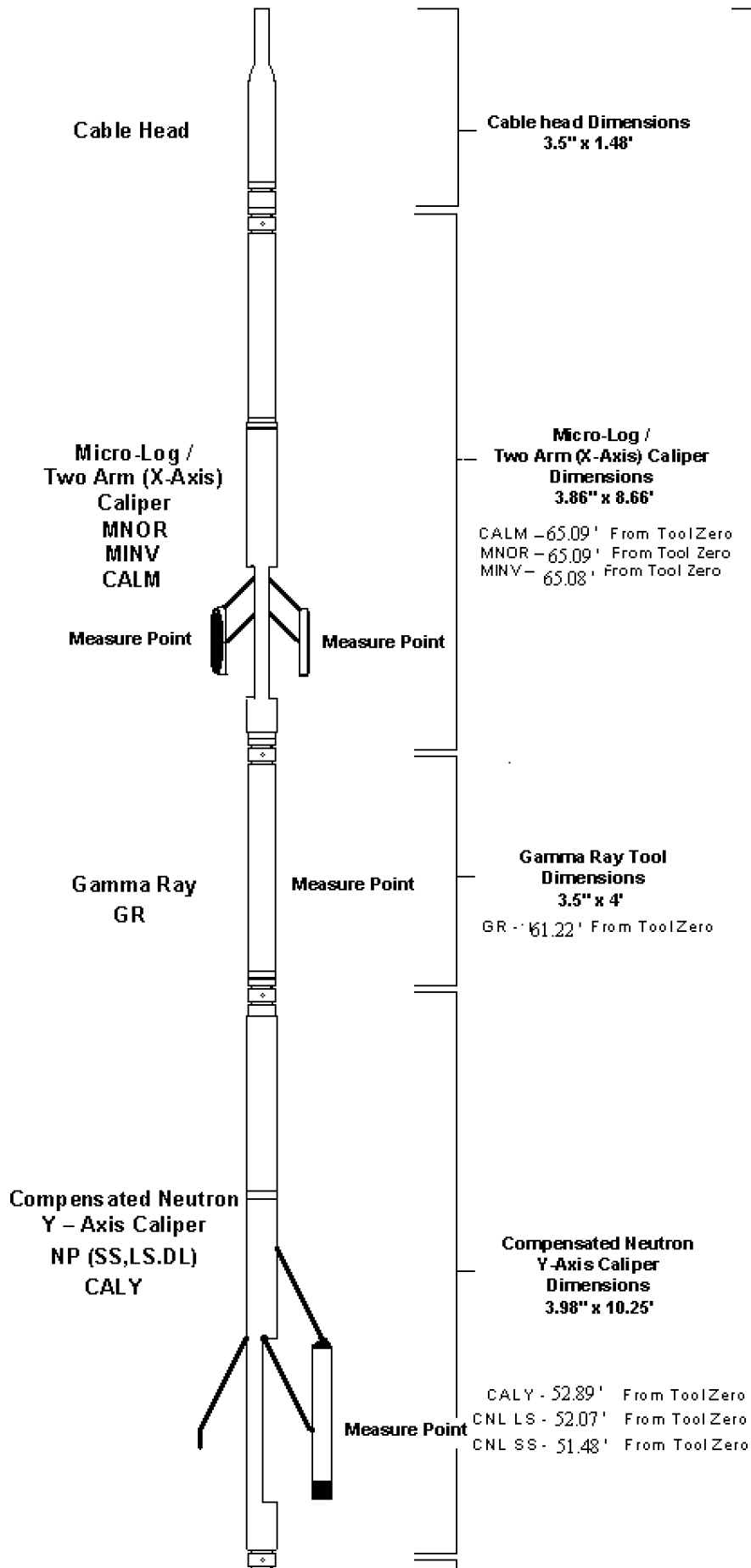
CHLORIDES: 5000
LCM: 0

THANK YOU FOR USING RECON PETROTECHNOLOGIES LTD.

AHV CALCULATED ON 5.5" PROD. CASING

CREW: J. THOMAS

**DUAL INDUCTION – SP / BHC SONIC /
GAMMA RAY / LITHO-DENSITY / X CALIPER
COMPENSATED NEUTRON / Y-CALIPER
MICRO - LOG / M-CALIPER**



Digital Telemetry

**Digital Telemetry Section
Dimensions
3.5" x 3.15'**

**Tool String
Length Total
73.64 '**

**Compensated
Litho-Density (Pe)
X - Axis Caliper**

DP(SS,LS,DL)
RHOB
DRHO
PE
CALX
Measure Point

**Compensated Litho-Density
X-Axis Caliper
Dimensions
3.98" x 9.35'**

CALX - 38.94' From ToolZero
LDT w1 -
LDT w2 - -38.68' From ToolZero
LDT w3 -
LDT w4 -
LDT SS - 38.19' From ToolZero

**Borehole
Compensated
Sonic**

SP(SS,LS,DL)
DT
TTI
VDL
TT
Measure Point
Tool First Reading
Point

T-1
Transmitter 1

**Borehole Compensated Sonic
Tool Dimensions
3.5" x 15.75'**

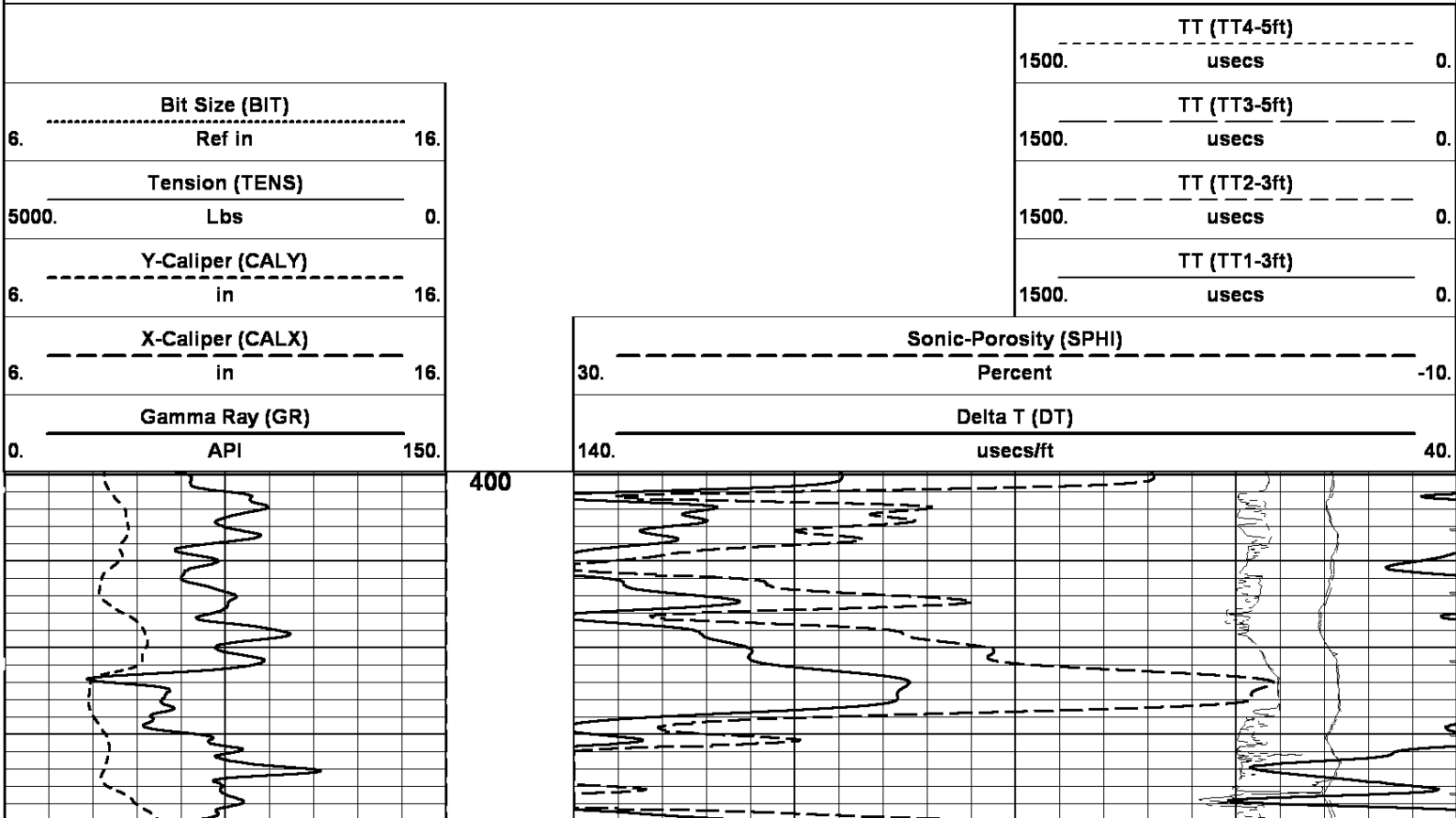
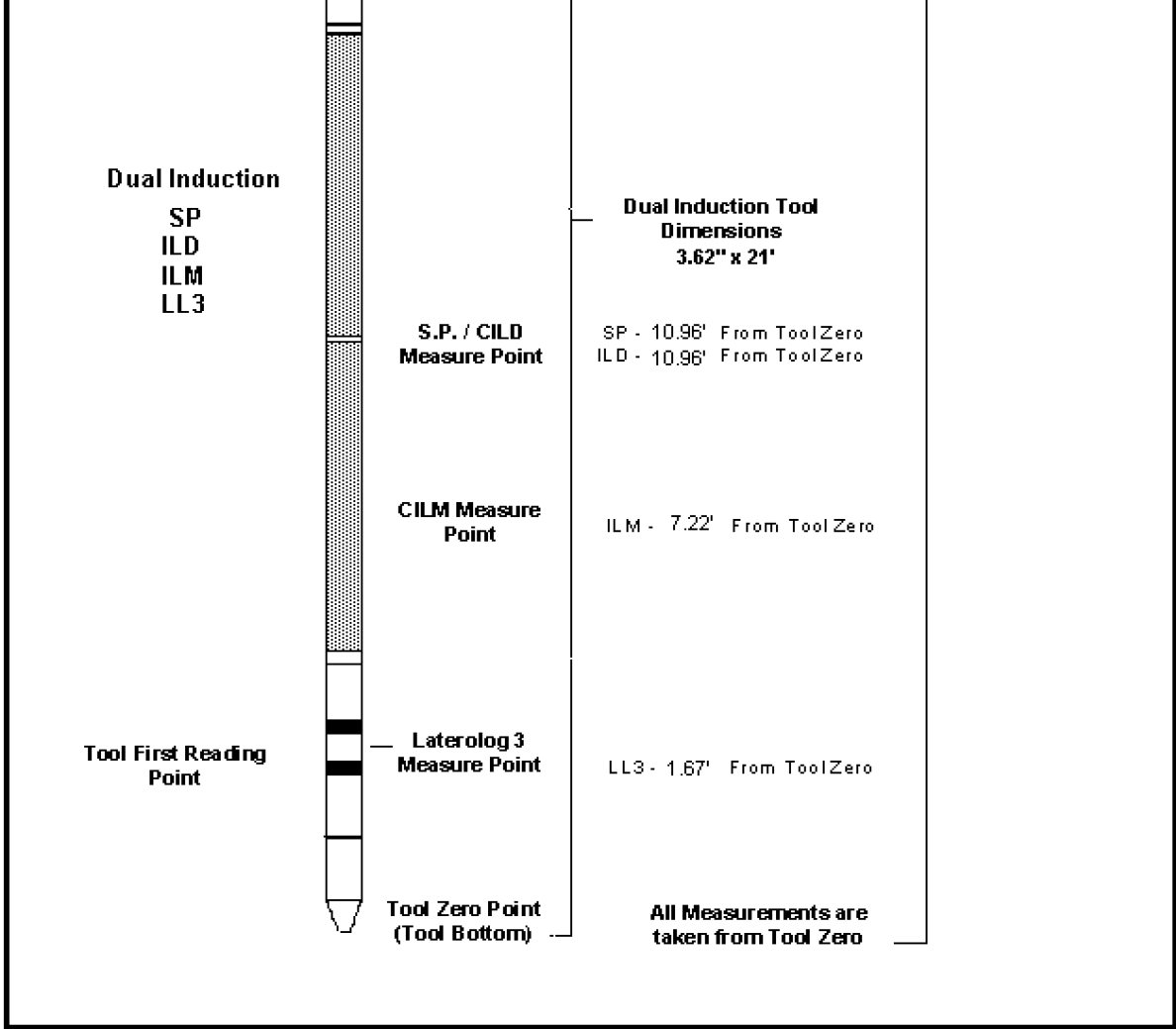
T1R1 - 33.35' From ToolZero
T1R2 - 31.35' From ToolZero

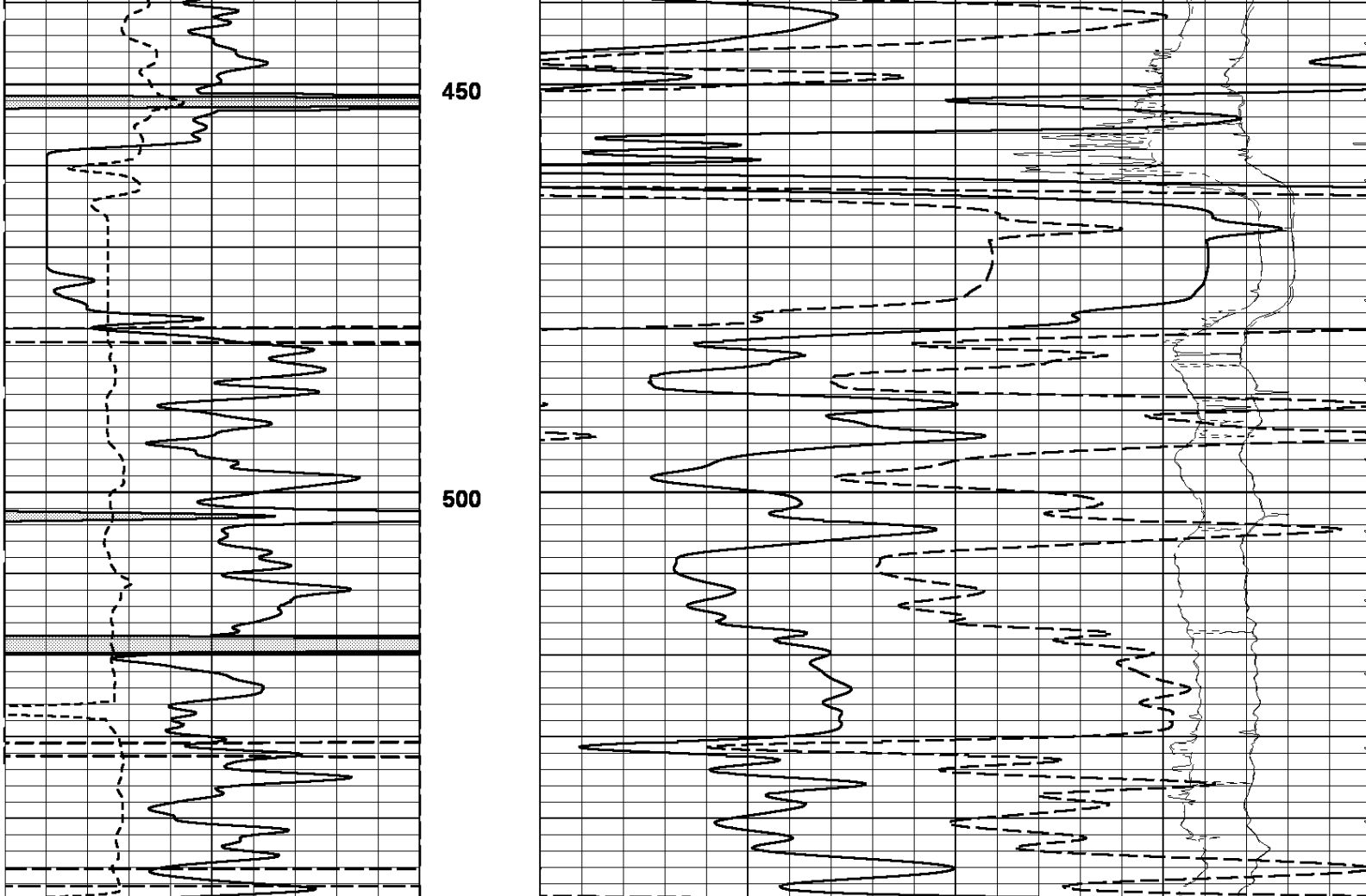
R-1
Receiver 1

R-2
Receiver 2

T2R1 - 28.54' From ToolZero
T2R2 - 28.37' From ToolZero

T-2
Transmitter 2

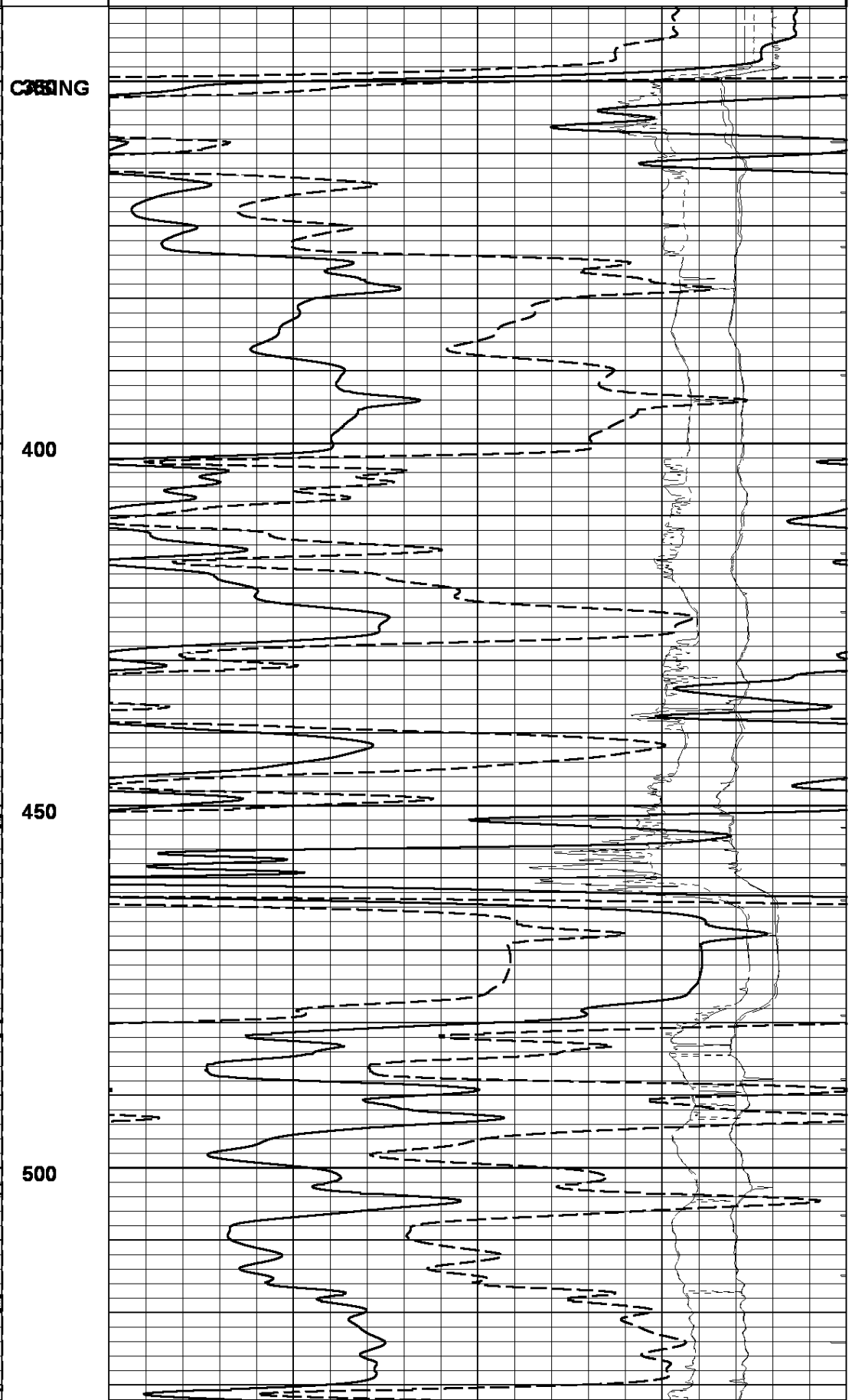
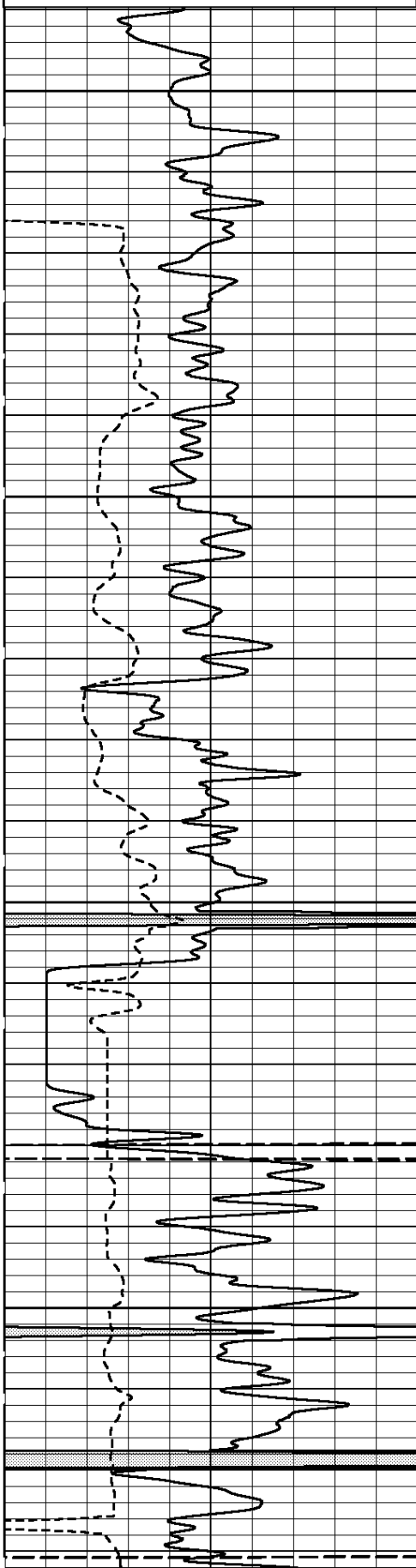
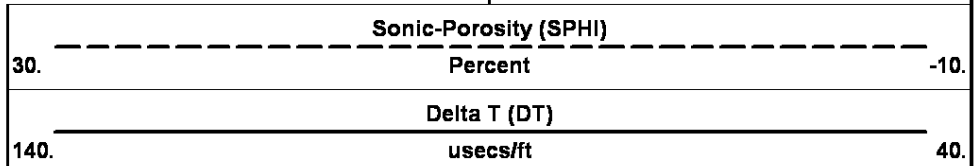
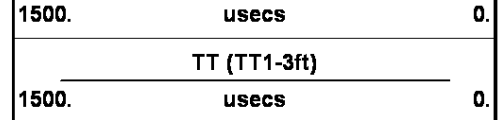
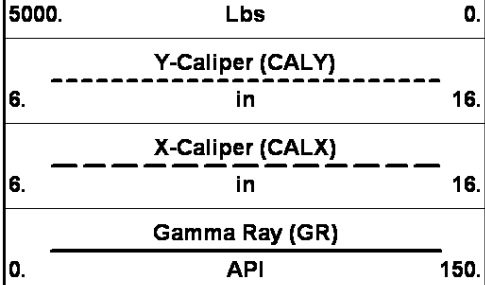


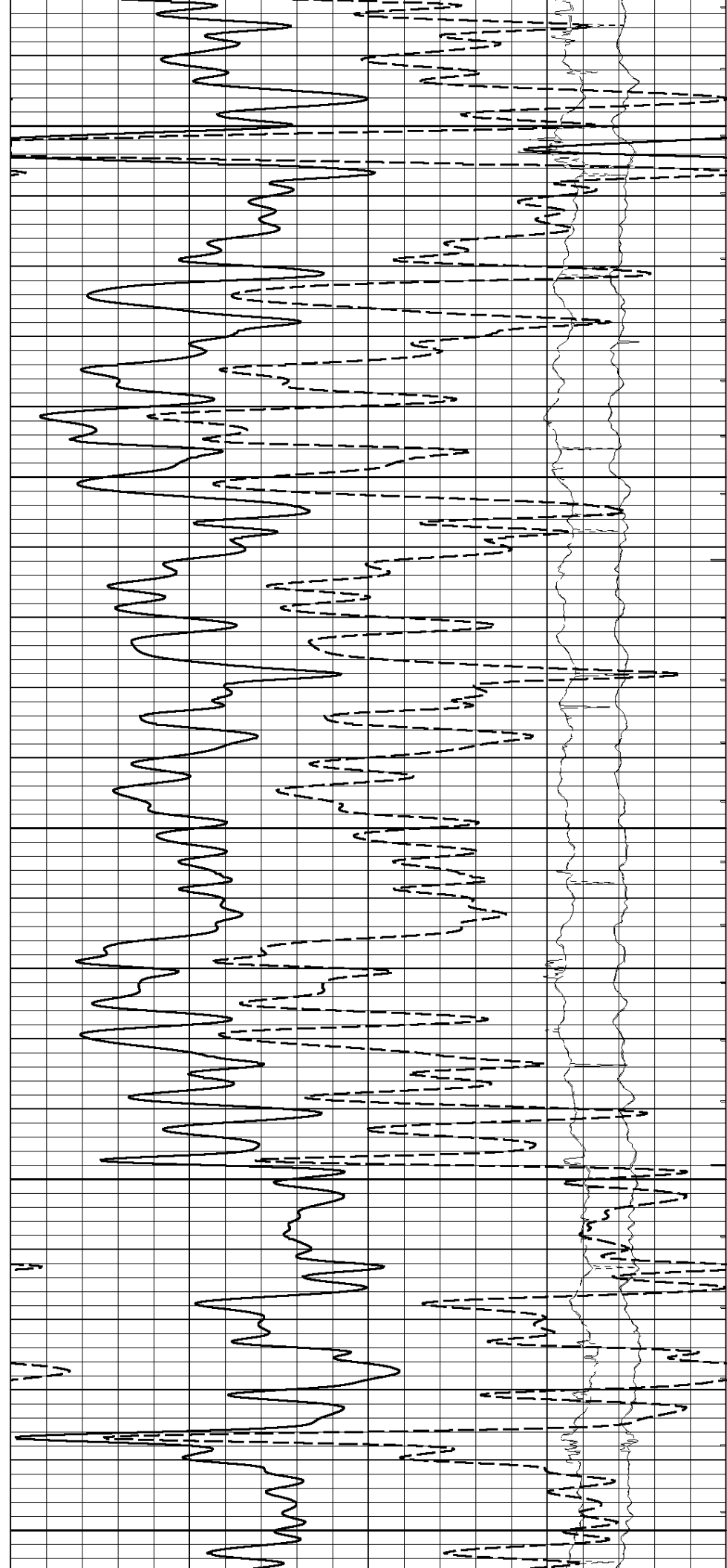
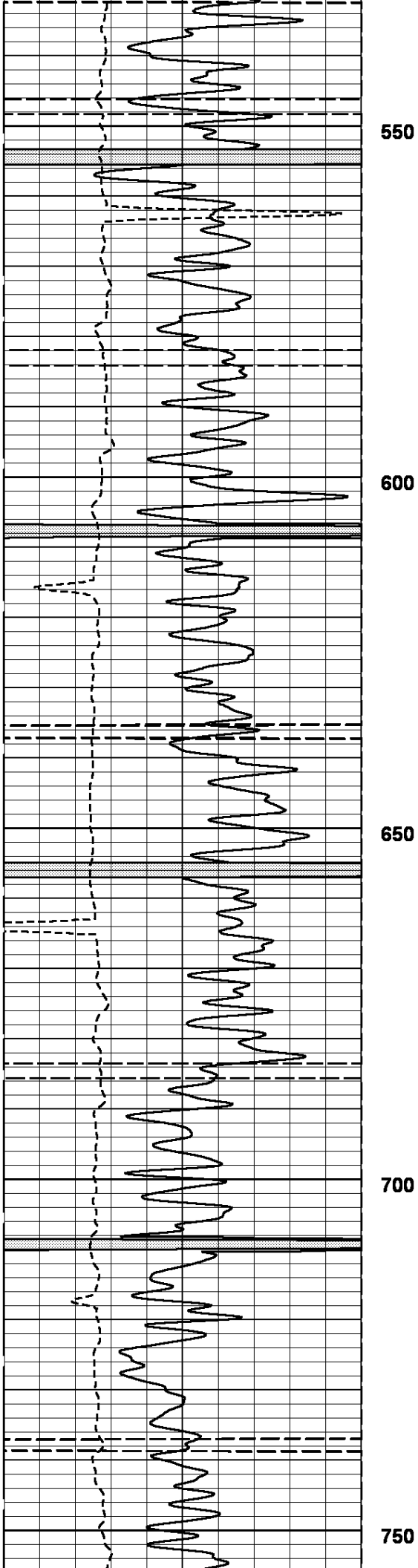


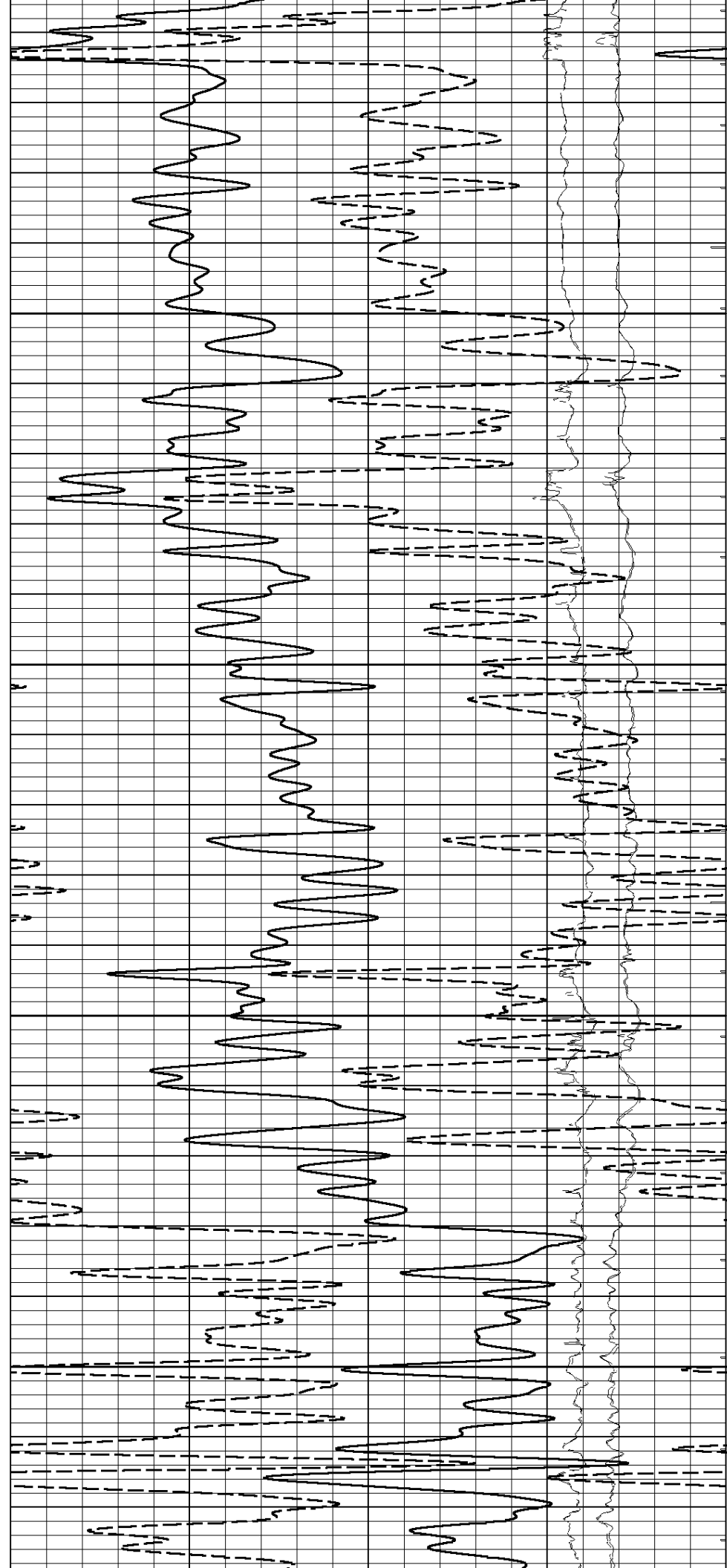
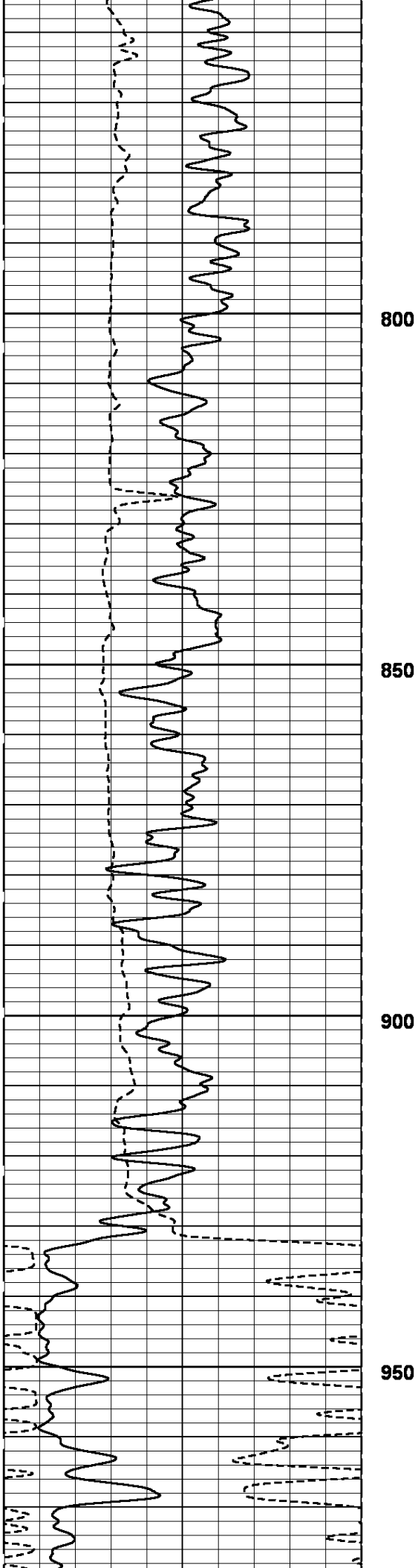
Gamma Ray (GR)		Delta T (DT)	
0.	API	140.	usecs/ft
X-Caliper (CALX)		Sonic-Porosity (SPHI)	
6.	in	30.	Percent
Y-Caliper (CALY)		TT (TT1-3ft)	
6.	in	1500.	usecs
Tension (TENS)		TT (TT2-3ft)	
5000.	Lbs	1500.	usecs
Bit Size (BIT)		TT (TT3-5ft)	
6.	Ref in	1500.	usecs
		TT (TT4-5ft)	
		1500.	usecs

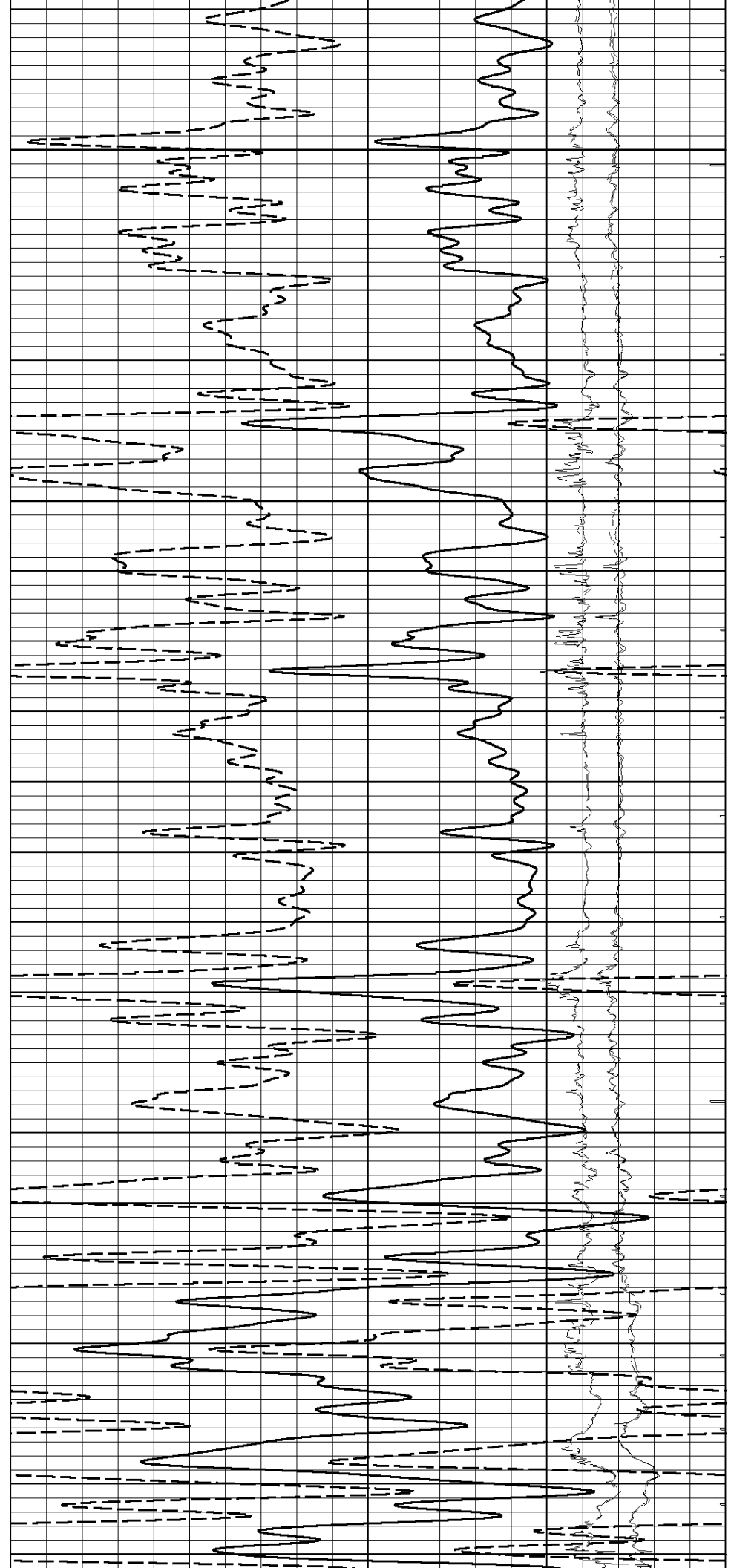
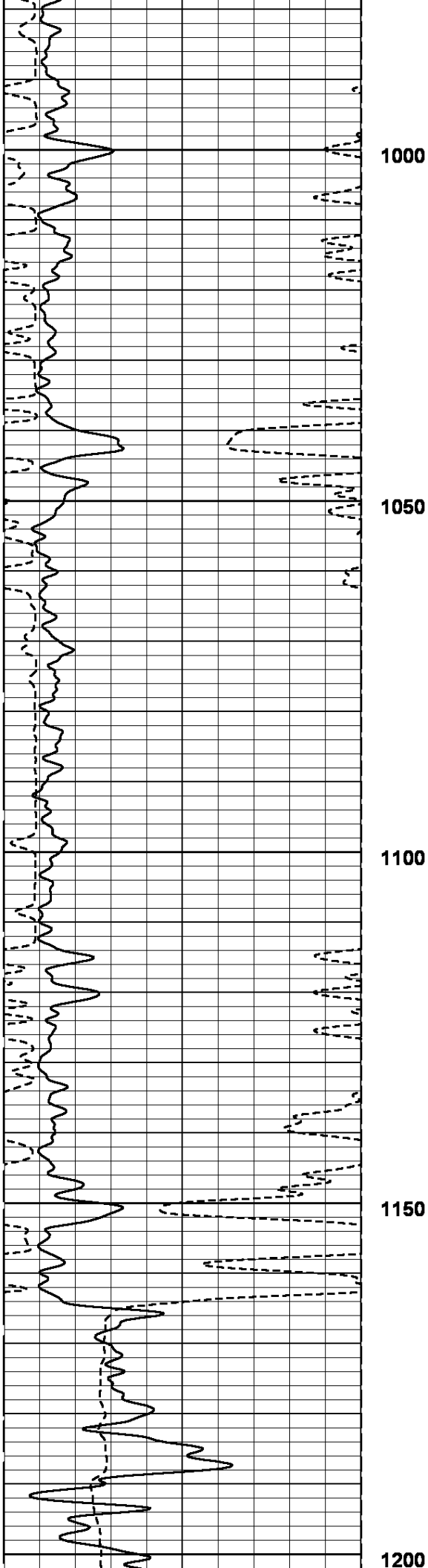
05/19/2015	ANHYDRITE MARKER (5"/100ft)	Log UP - (VER 11.19)
18:09:39 => Start Time		Start Depth=> 549.90 Feet

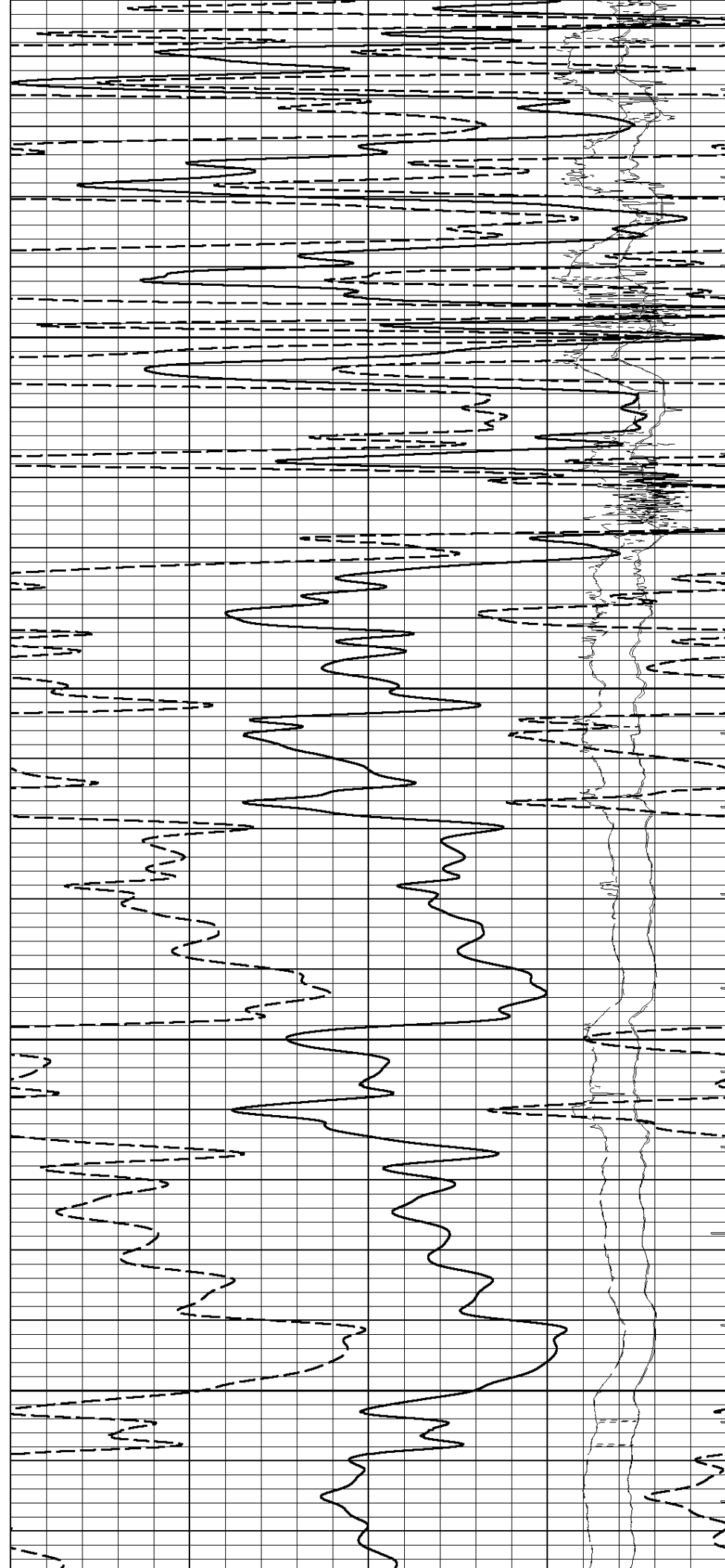
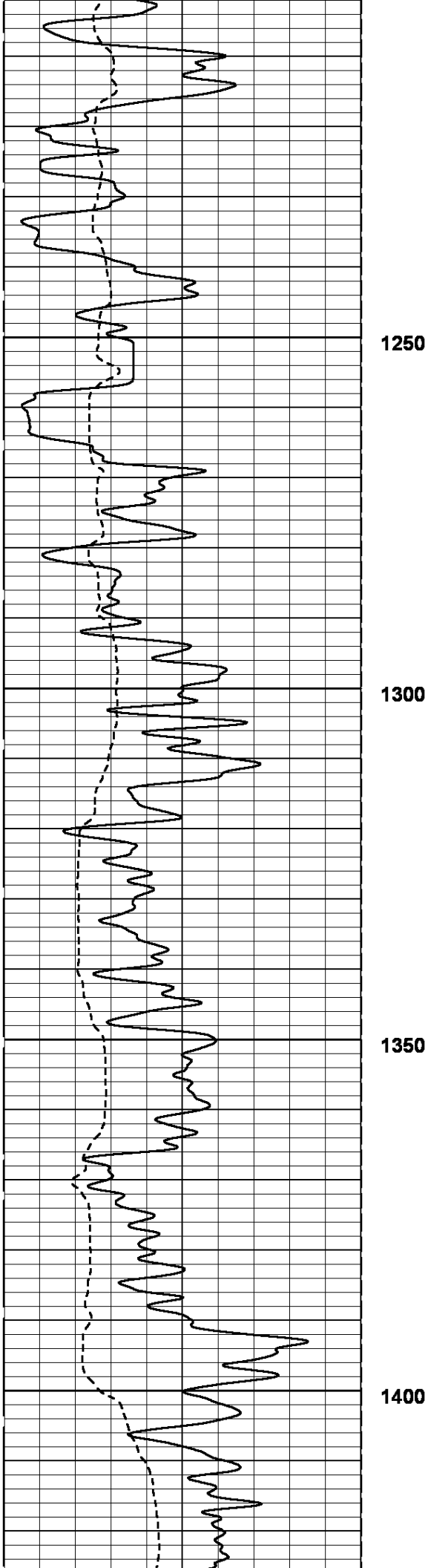
05/19/2015		MAIN PASS - LIMESTONE (5"/100ft)		Log UP - (VER 11.19)	
21:04:43 => End Time				End Depth=> 339.90 Feet	
Bit Size (BIT)		TT (TT4-5ft)		TT (TT3-5ft)	
6.	Ref in	1500.	usecs	1500.	usecs
Tension (TENS)		TT (TT2-3ft)			

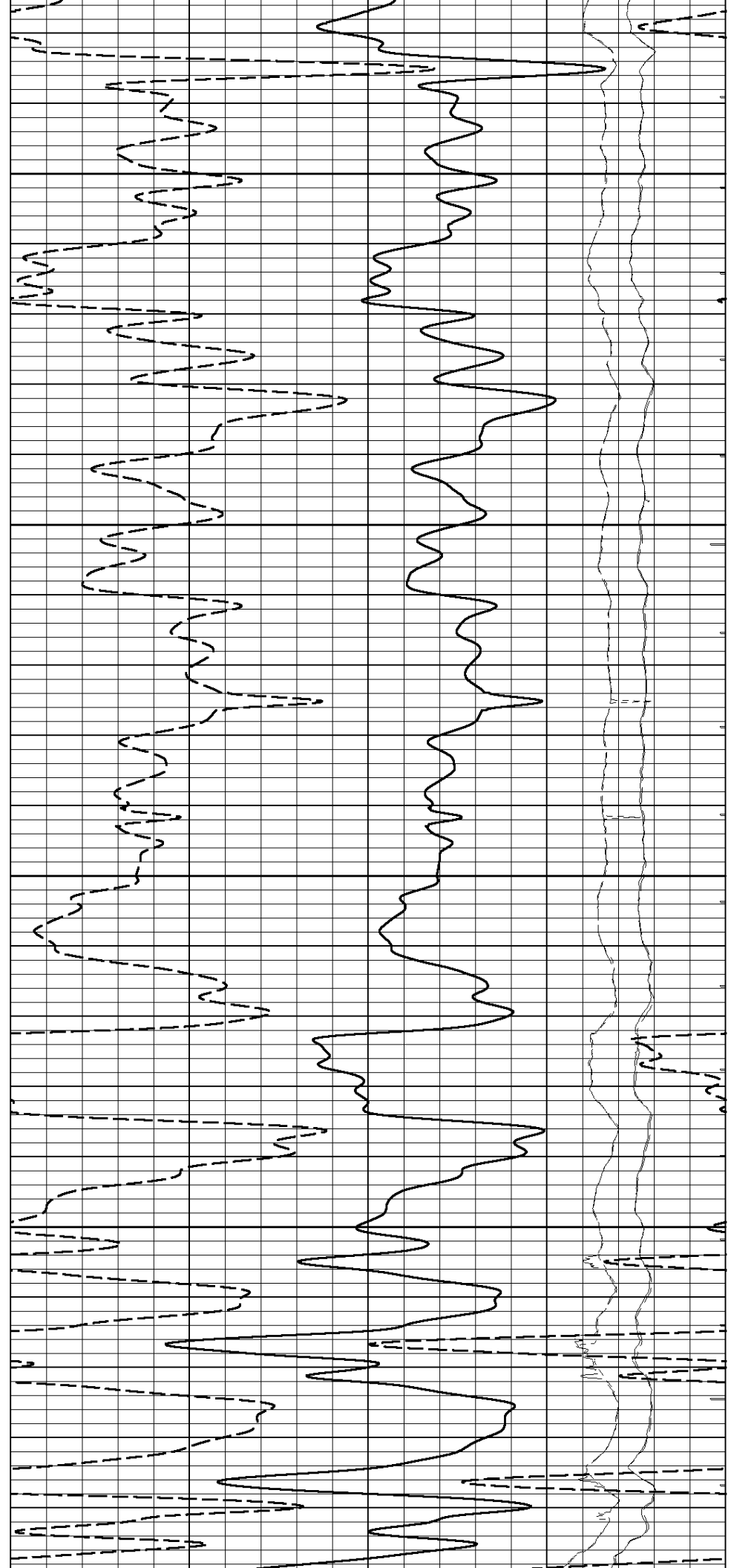
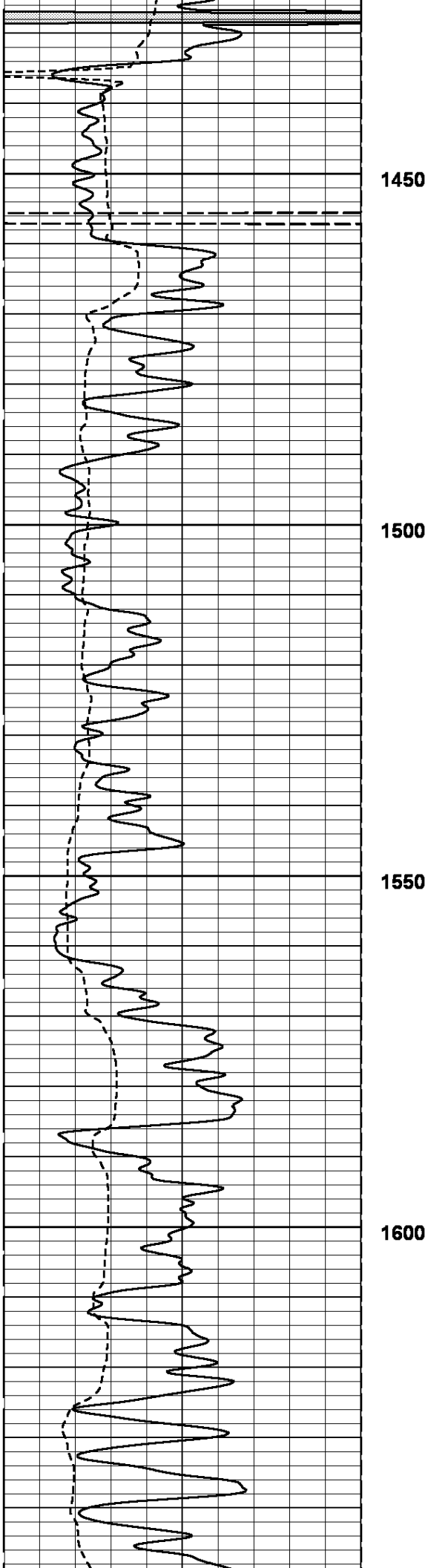


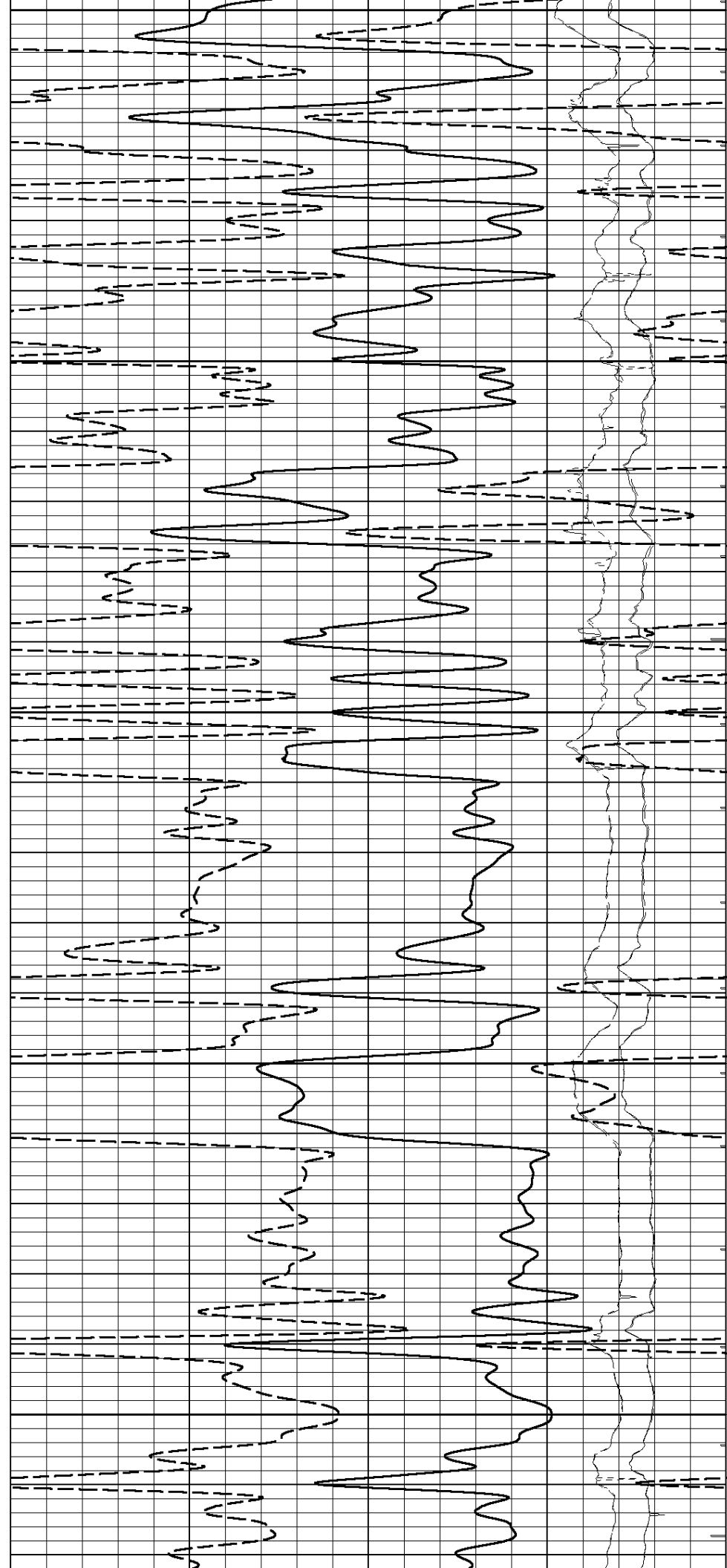
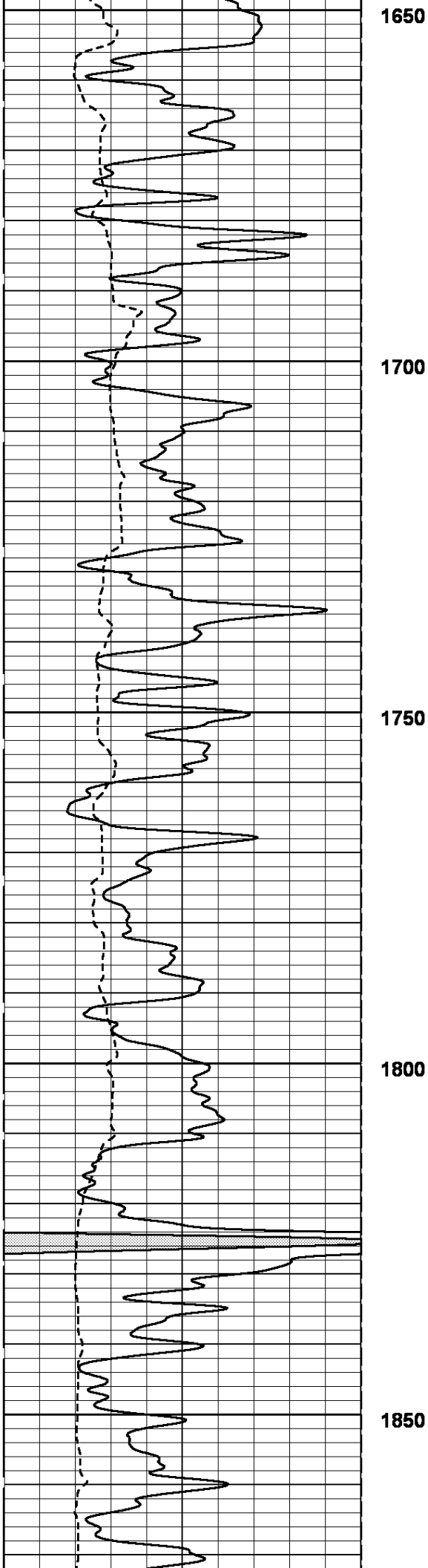


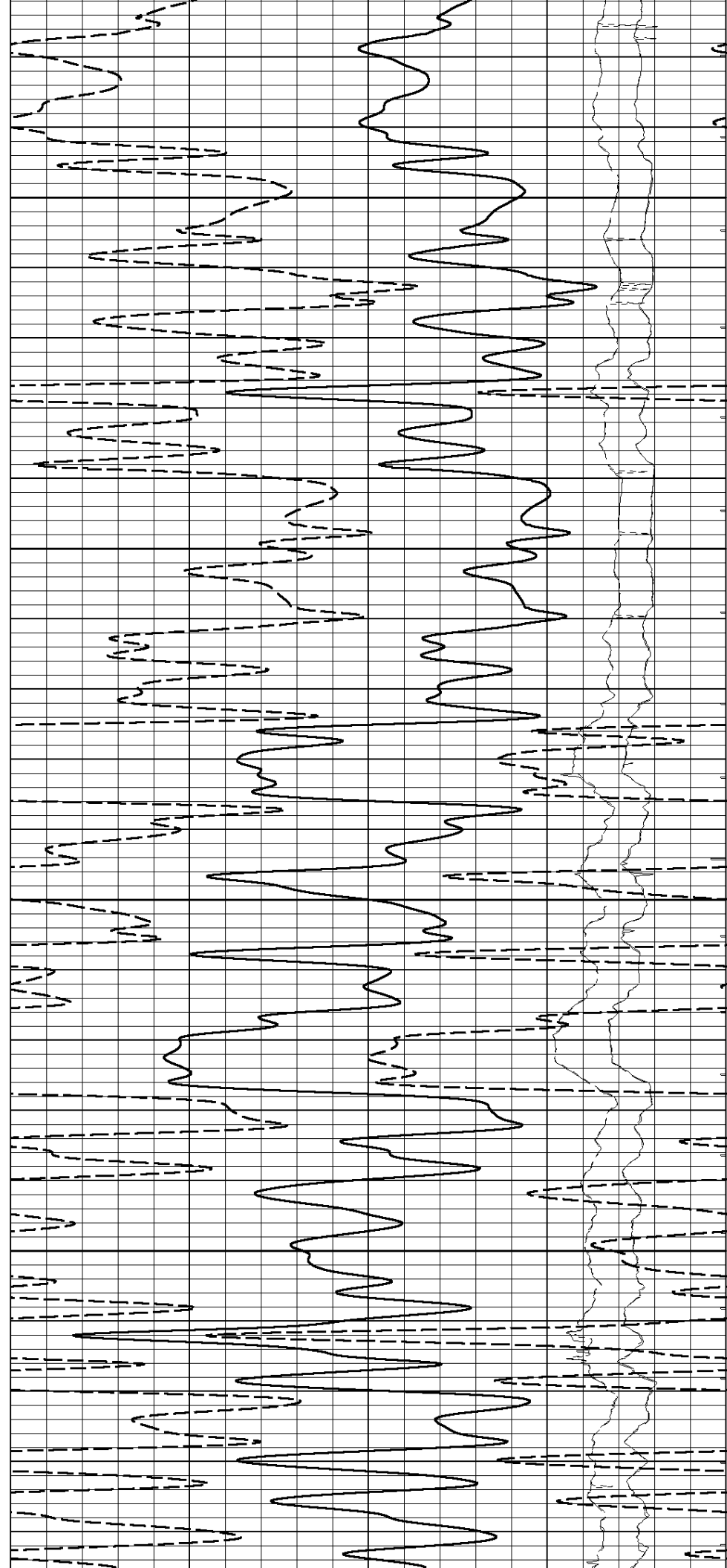
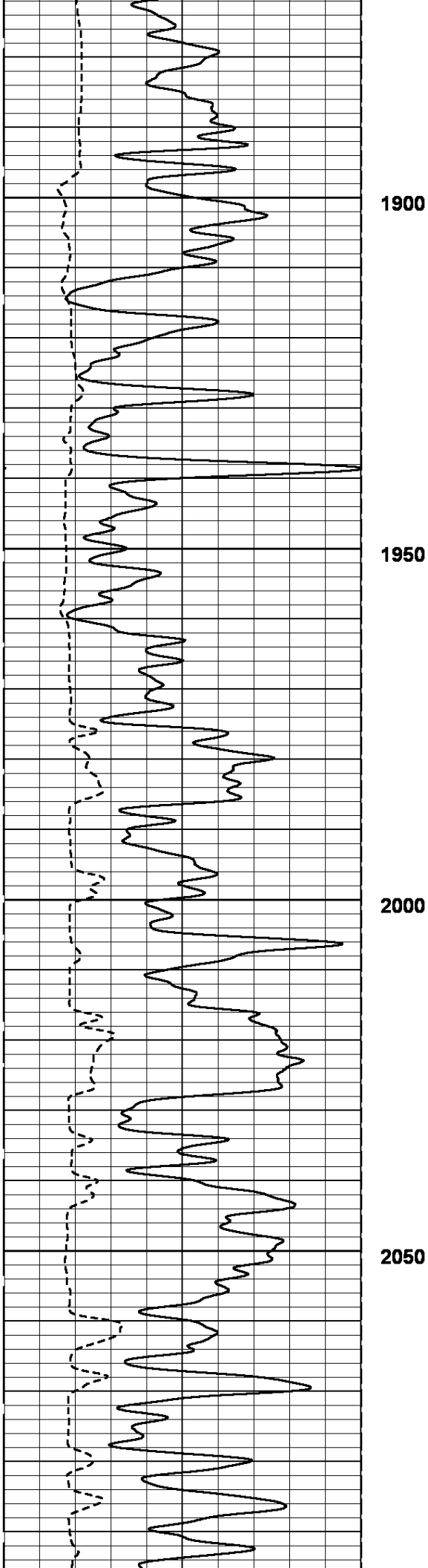


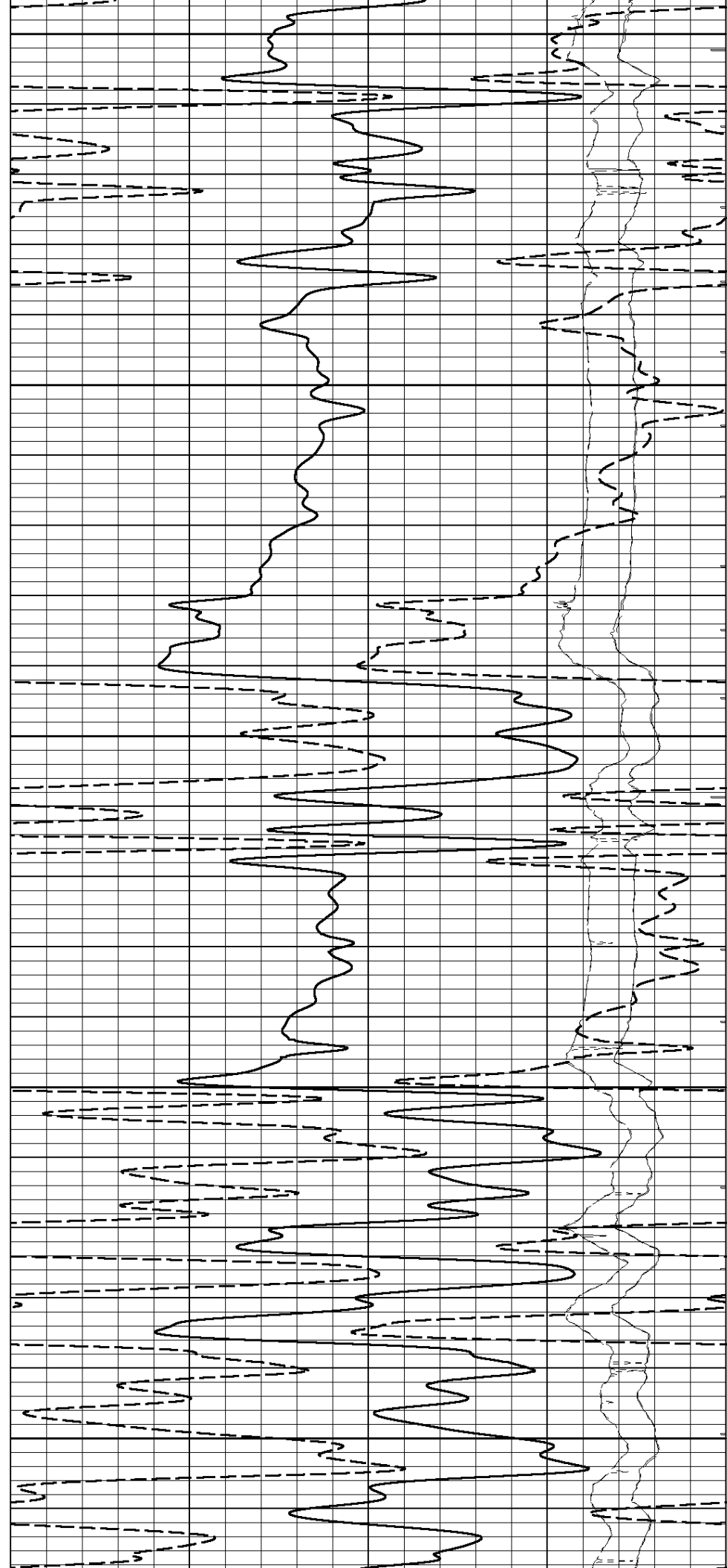
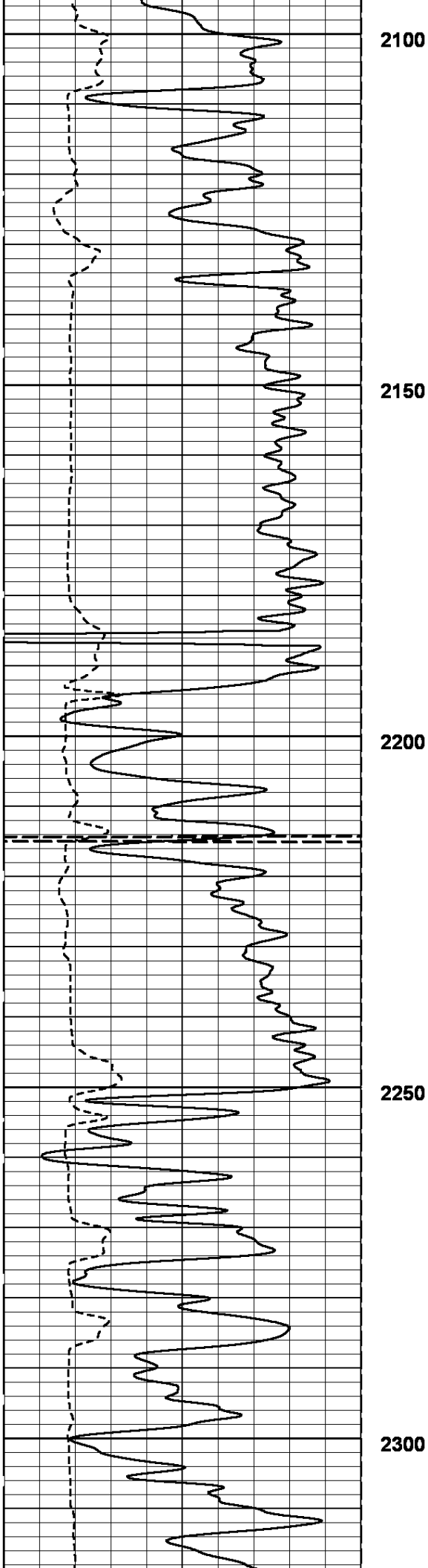


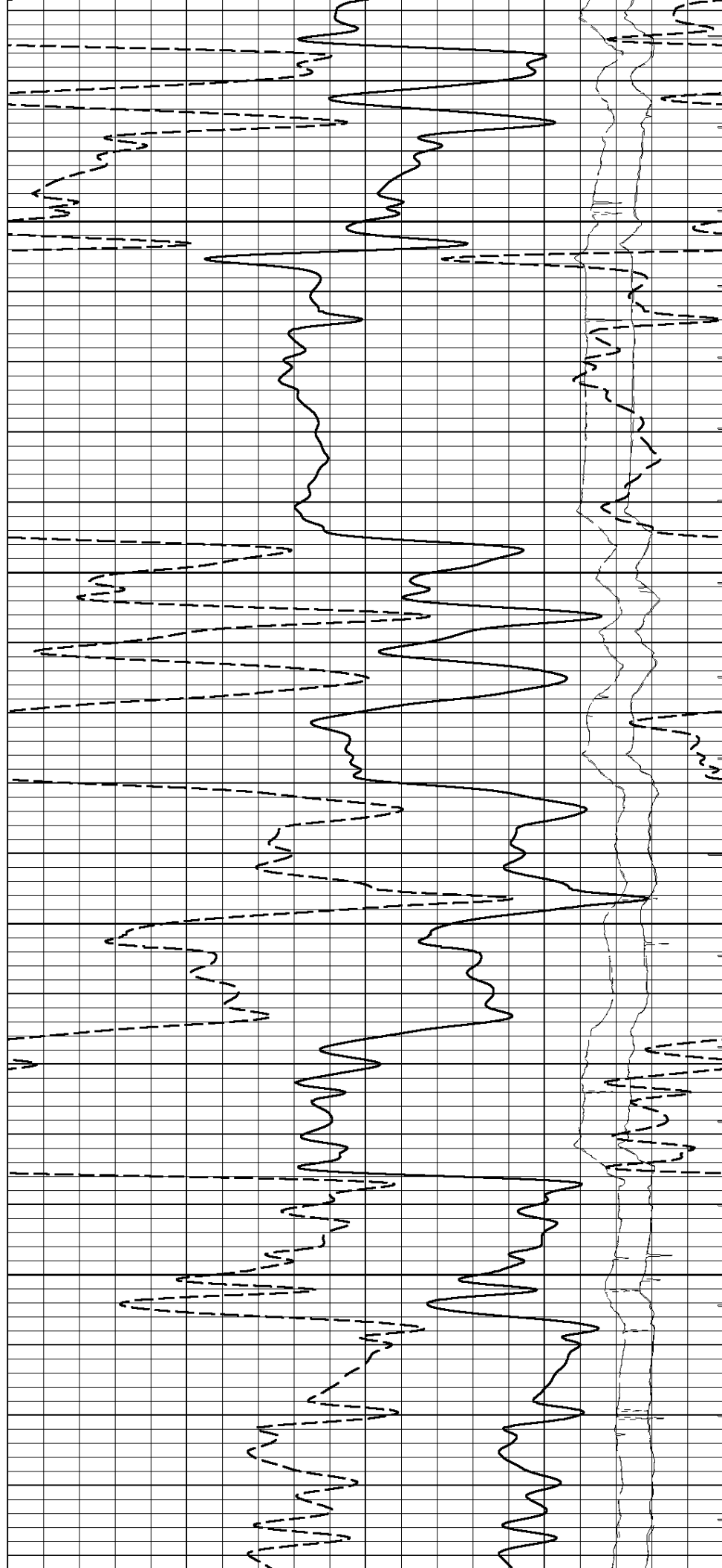
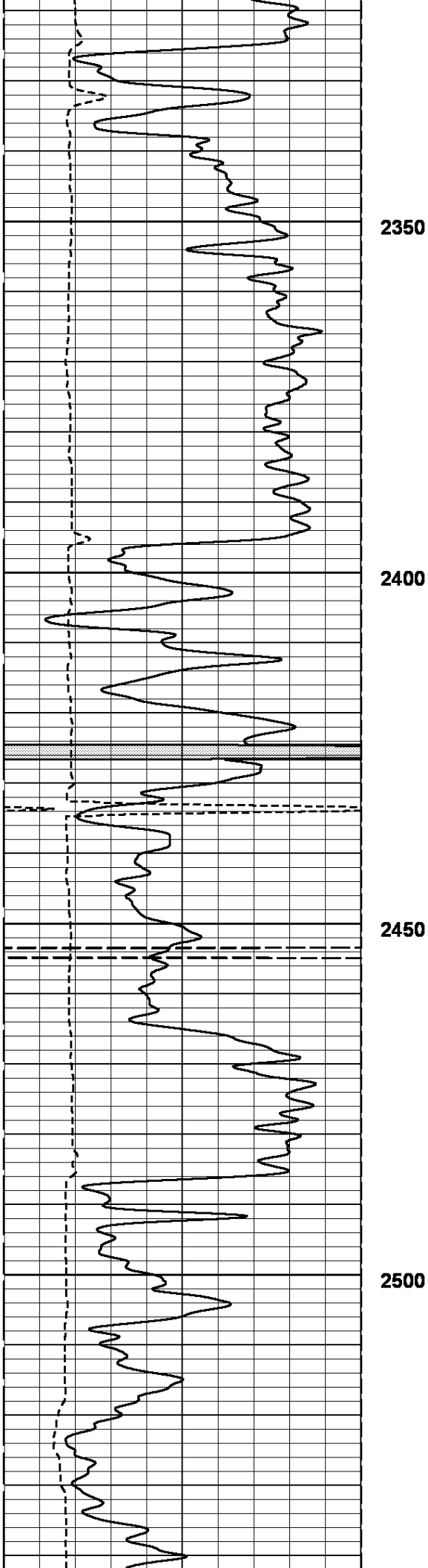


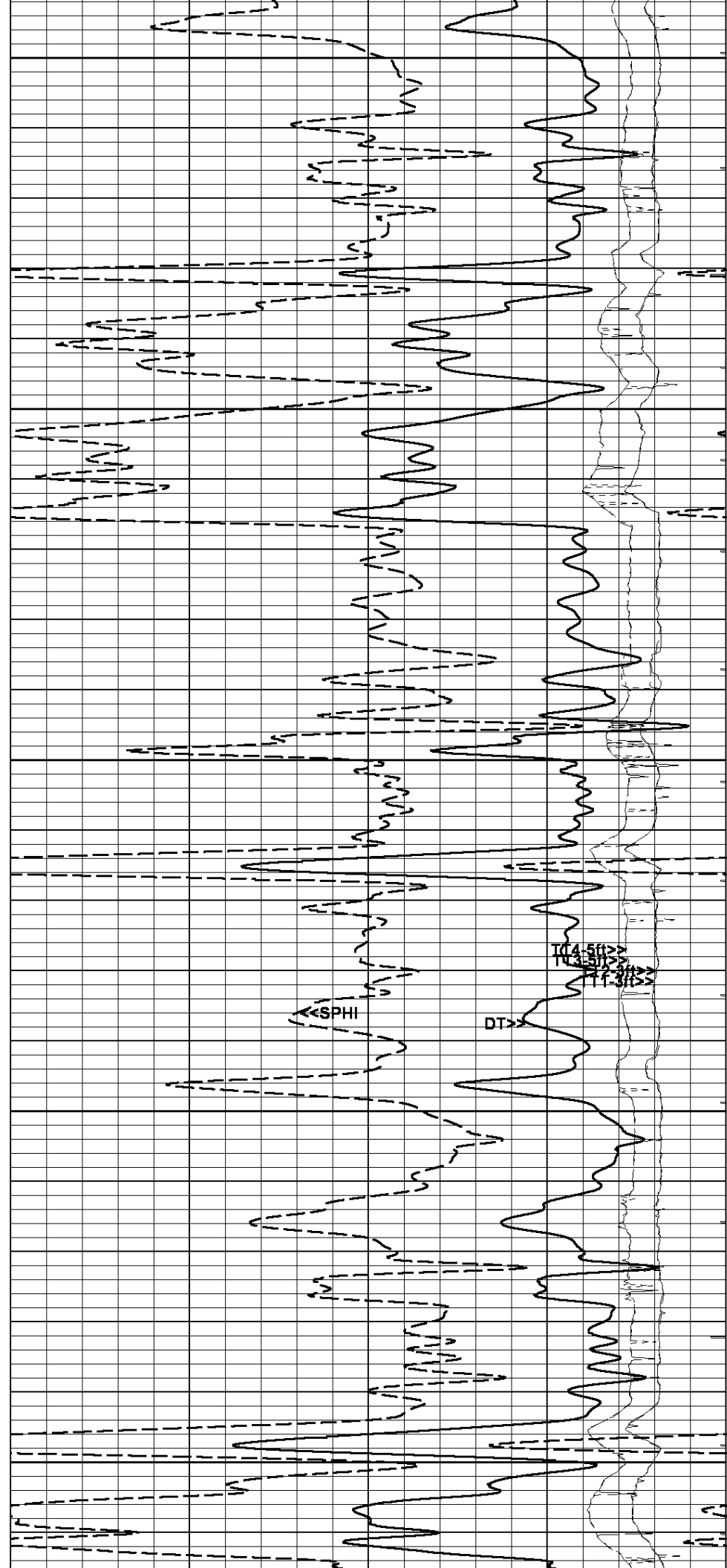
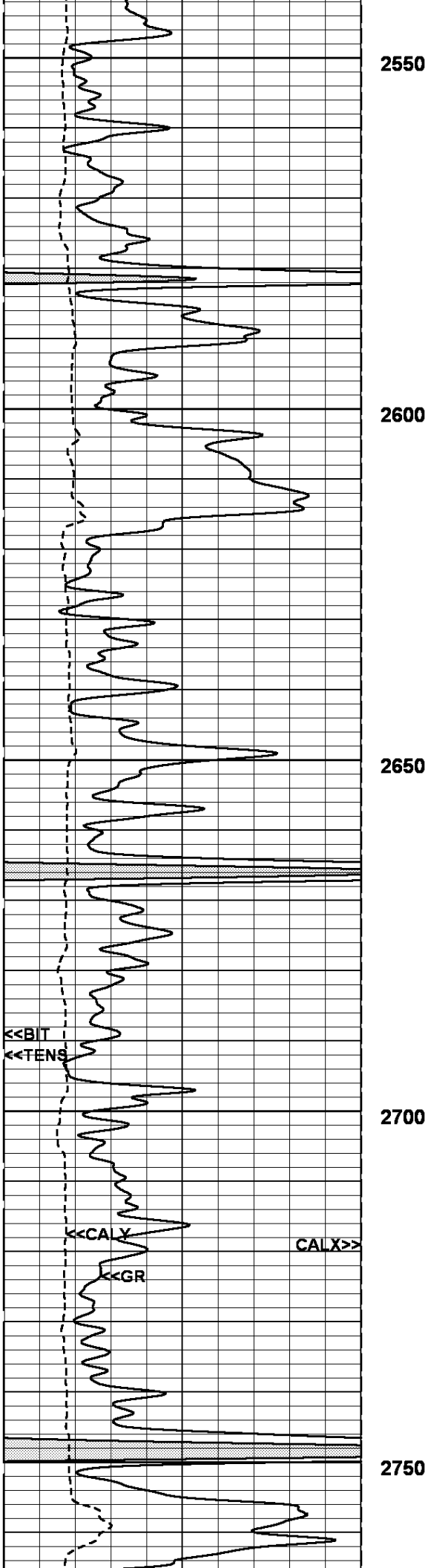


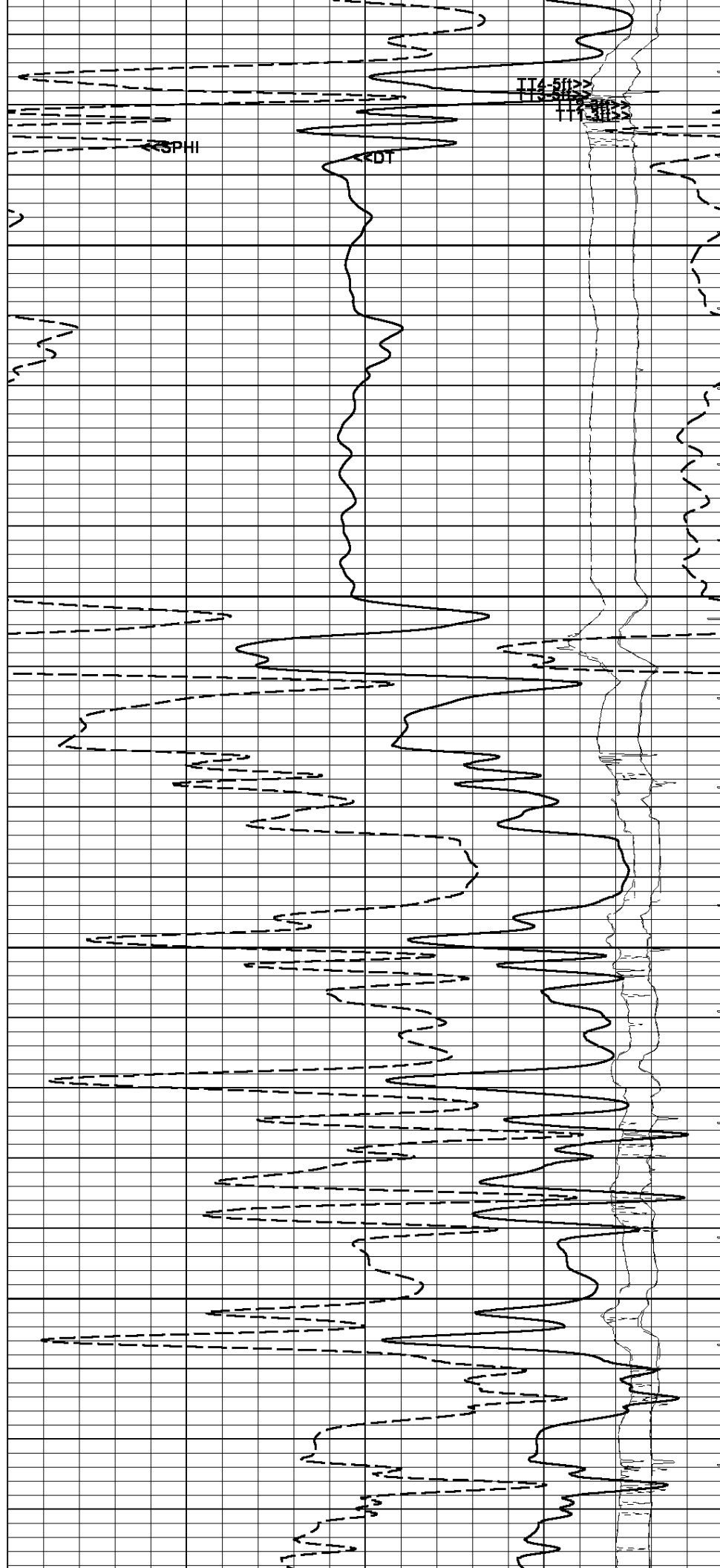
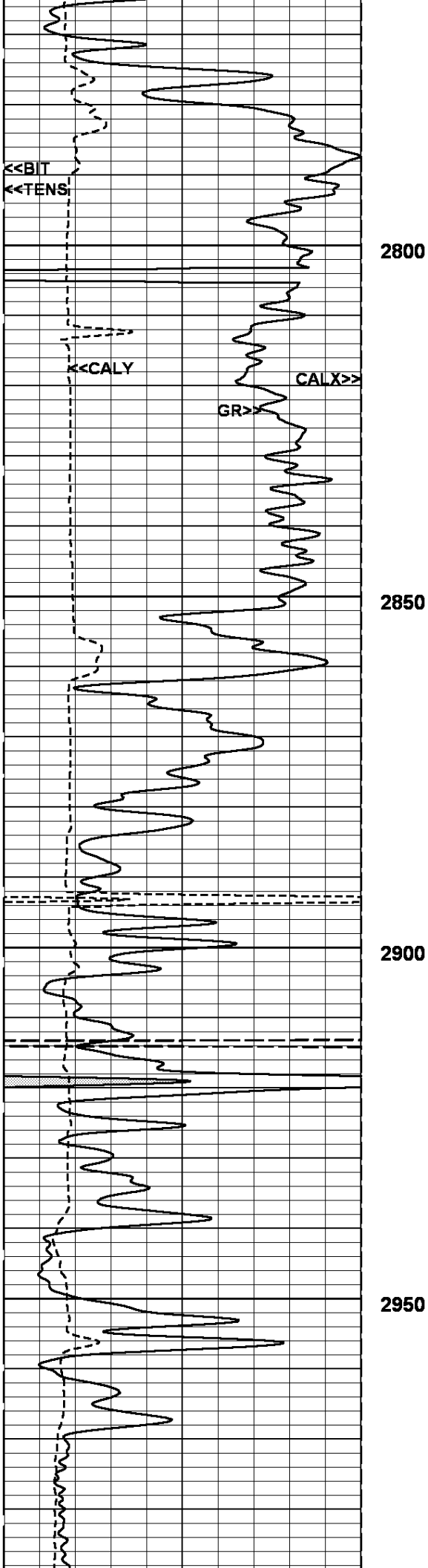


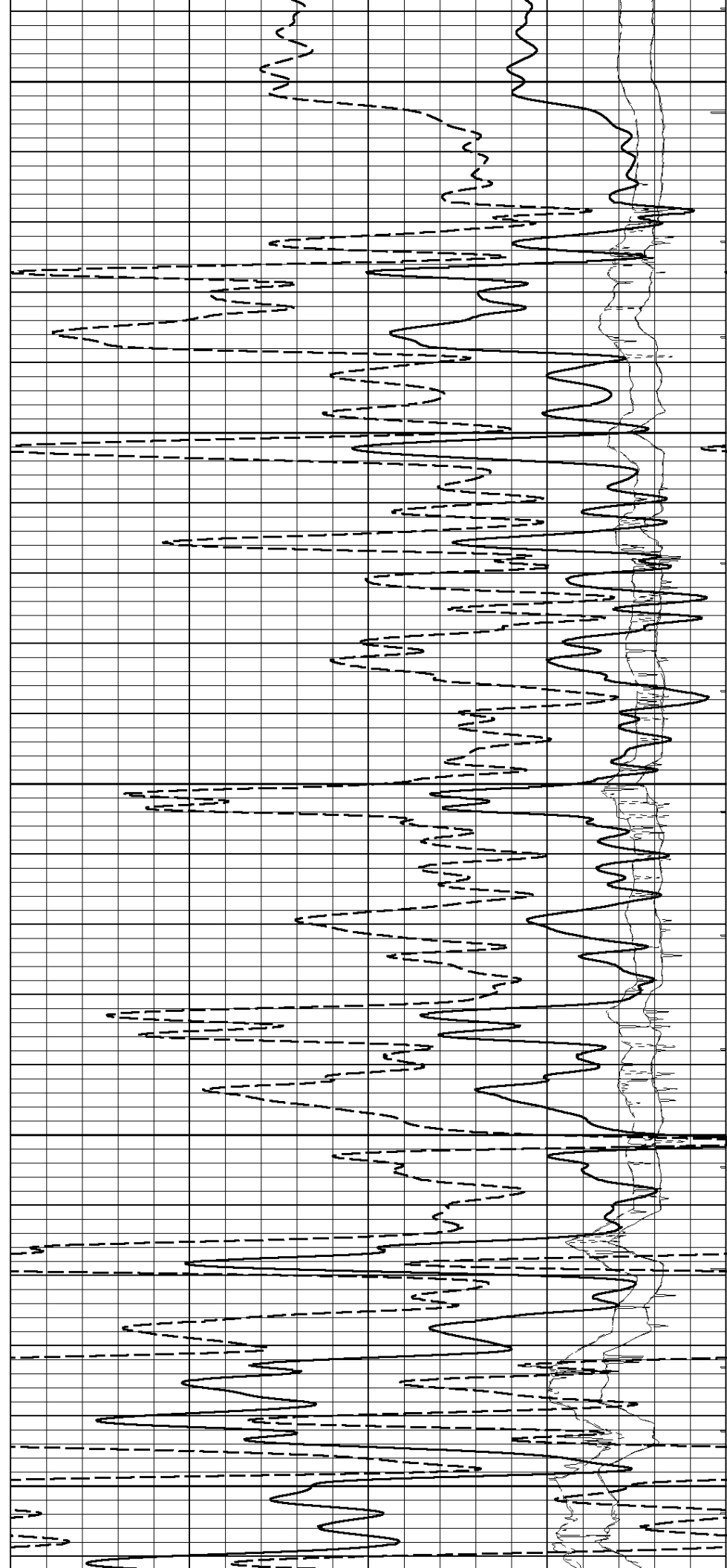
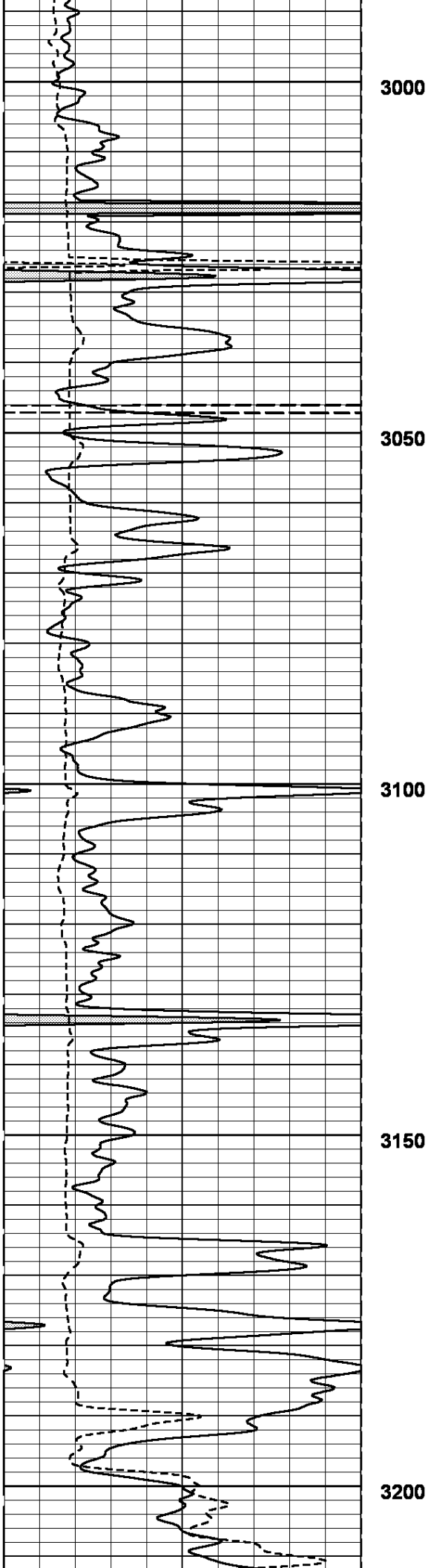


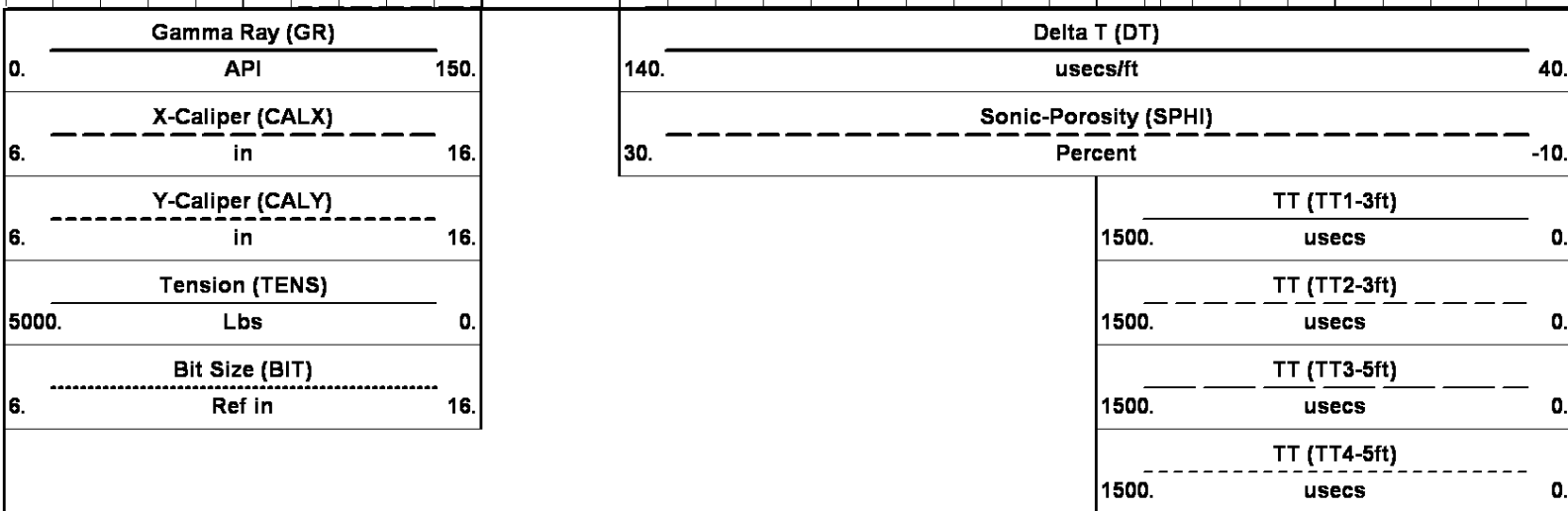
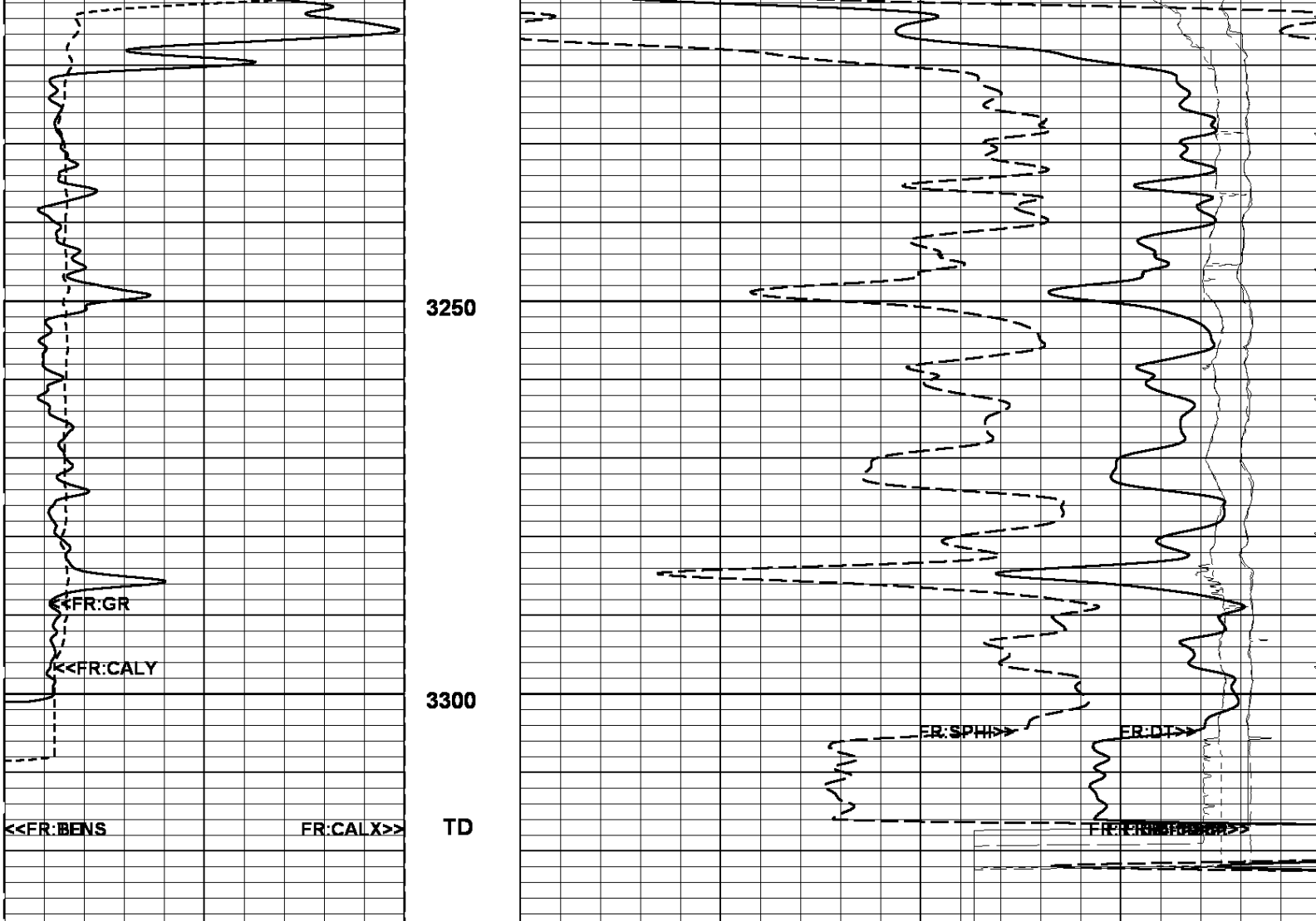








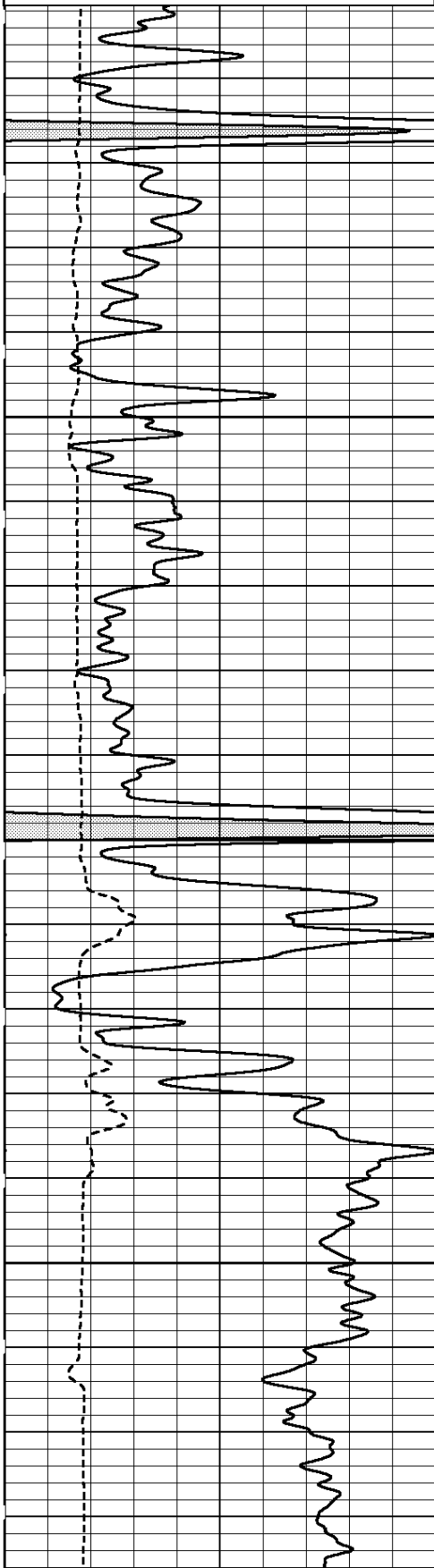
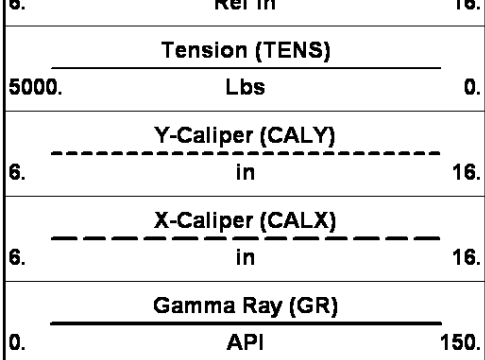




05/19/2015 **MAIN PASS - LIMESTONE (5"/100ft)** Log UP - (VER 11.19)
 18:09:39 => Start Time Start Depth=> 3329.60 Feet

05/19/2015 **REPEAT PASS - LIMESTONE (5"/100ft)** Log UP - (VER 11.19)
 17:54:17 => End Time End Depth=> 2651.30 Feet

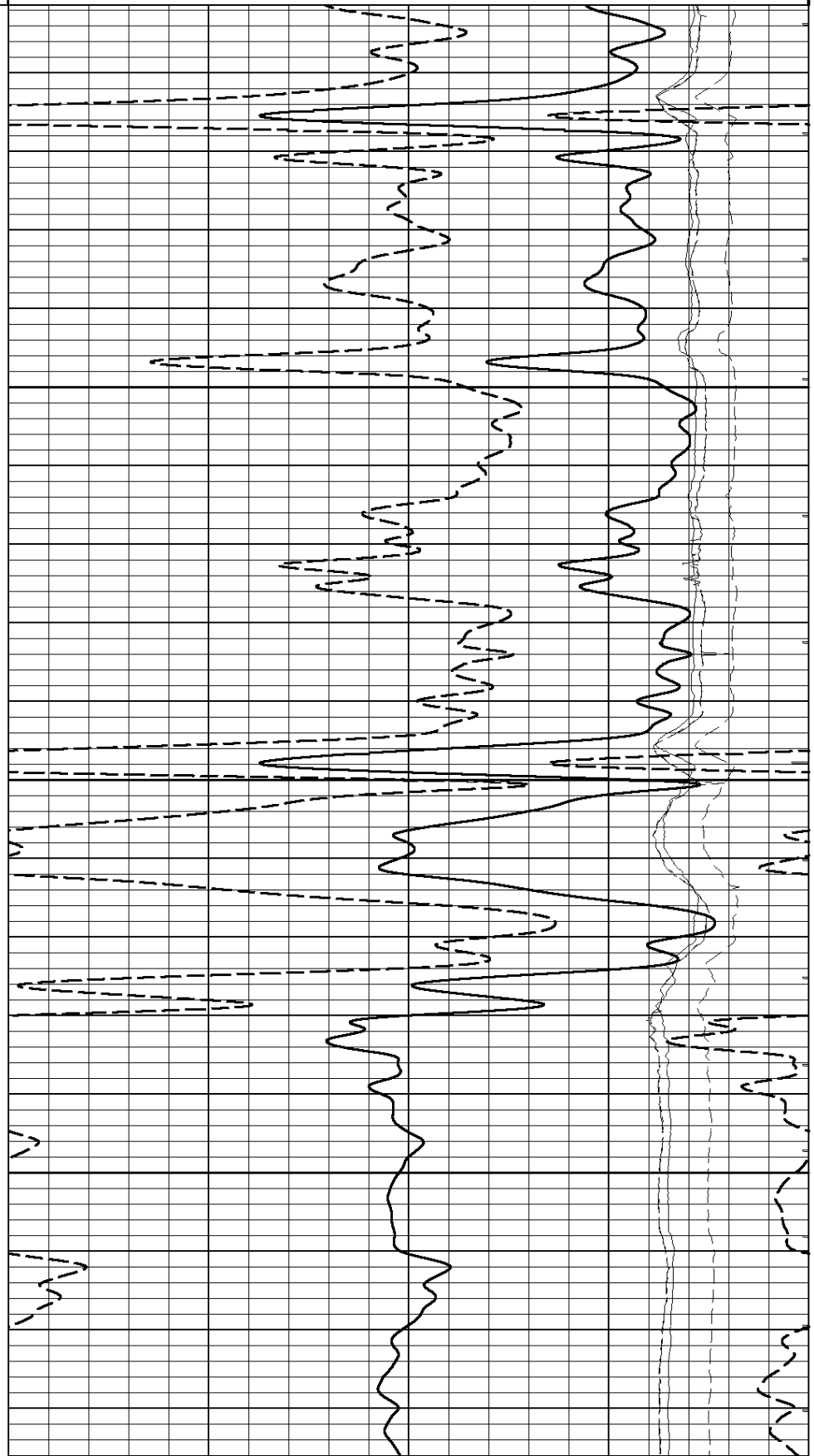
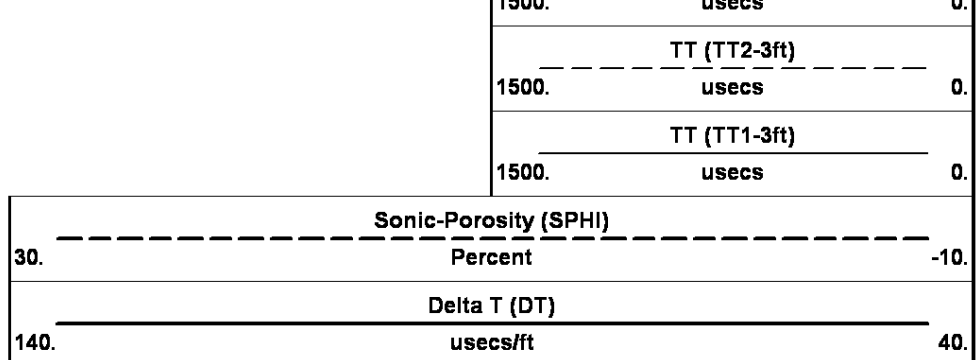


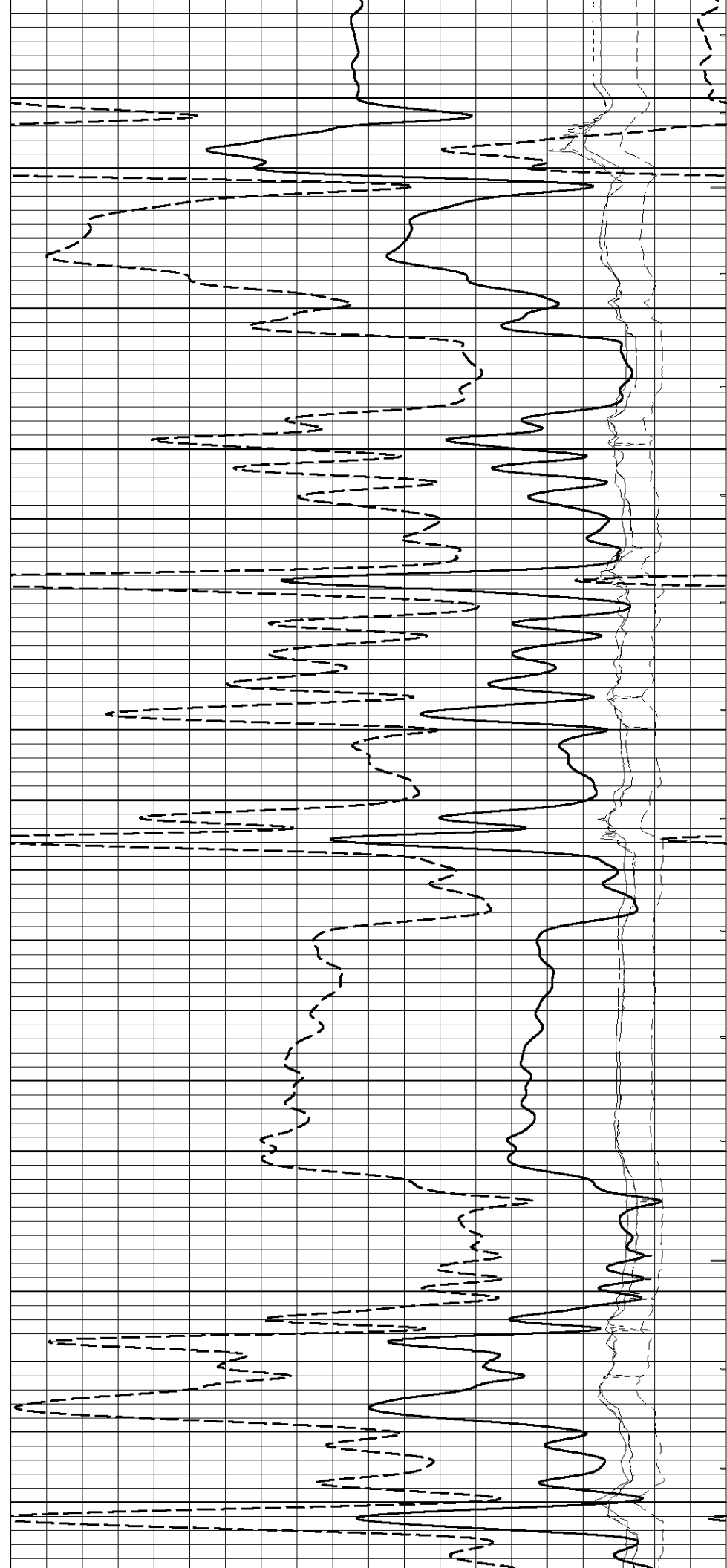
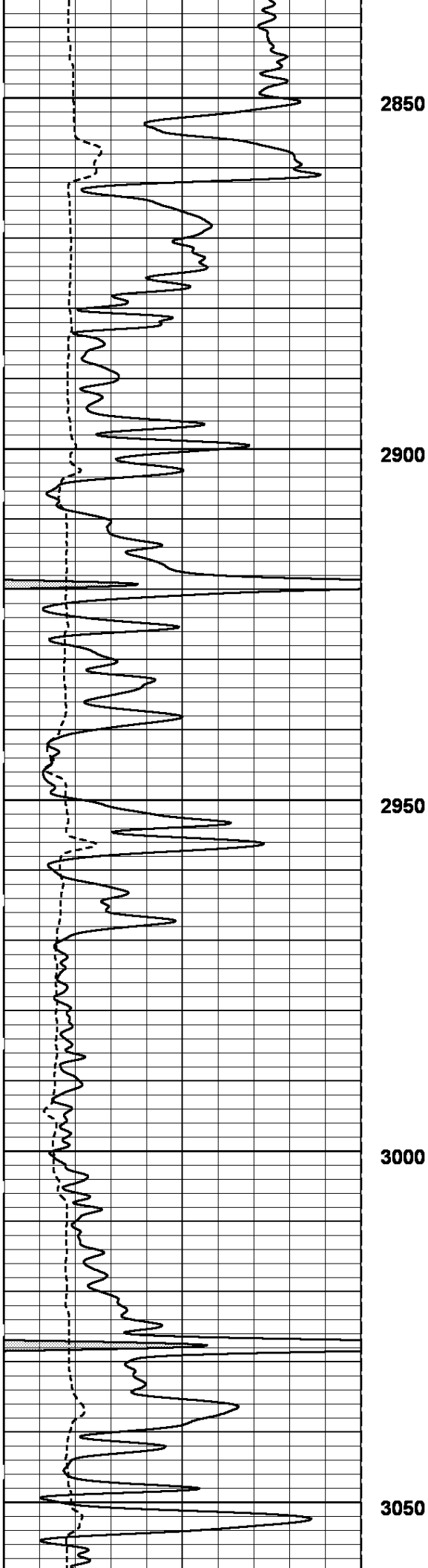


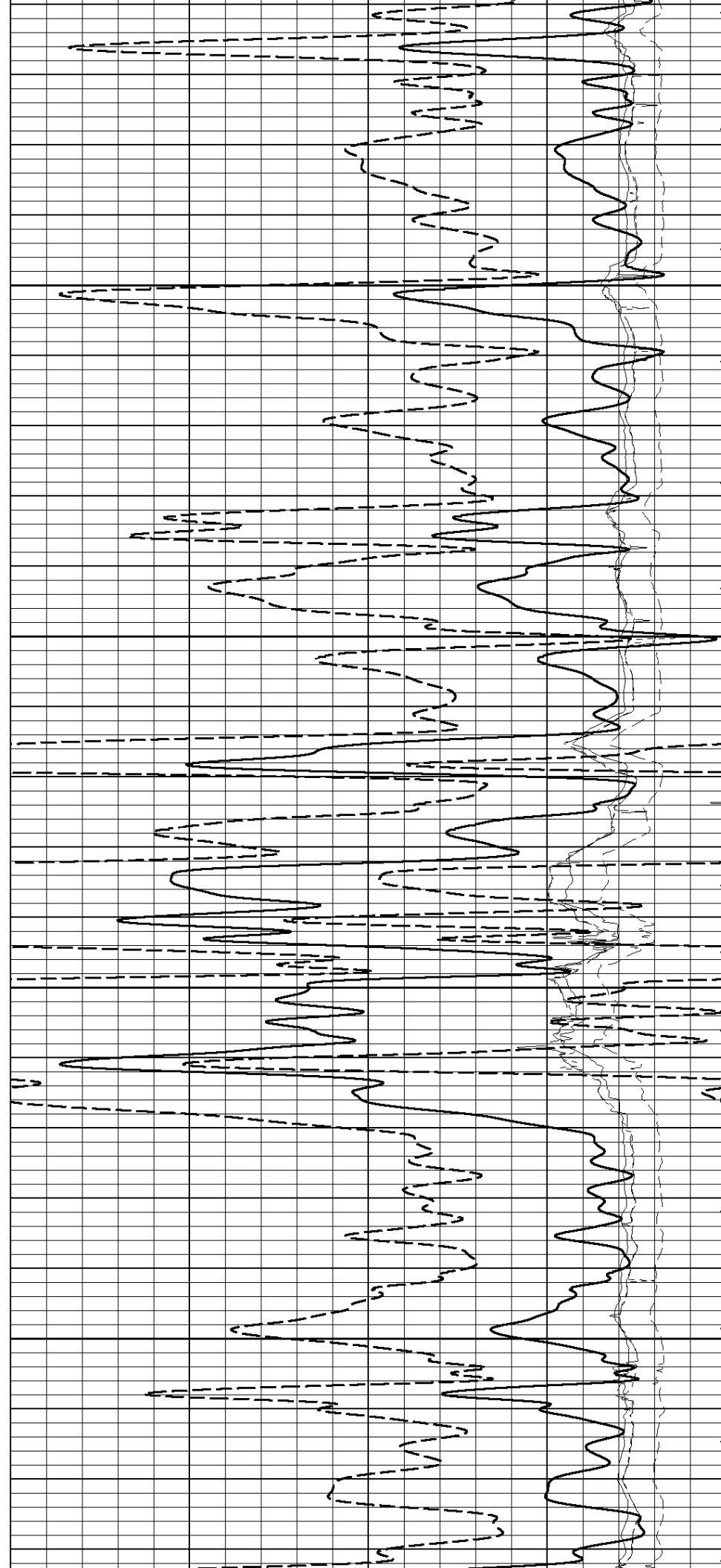
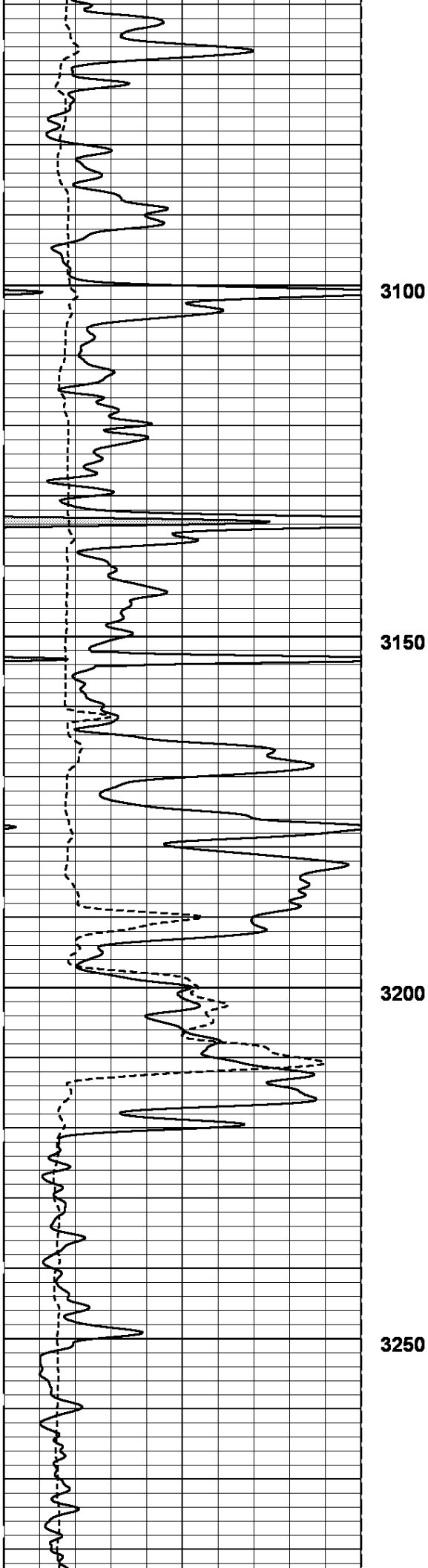
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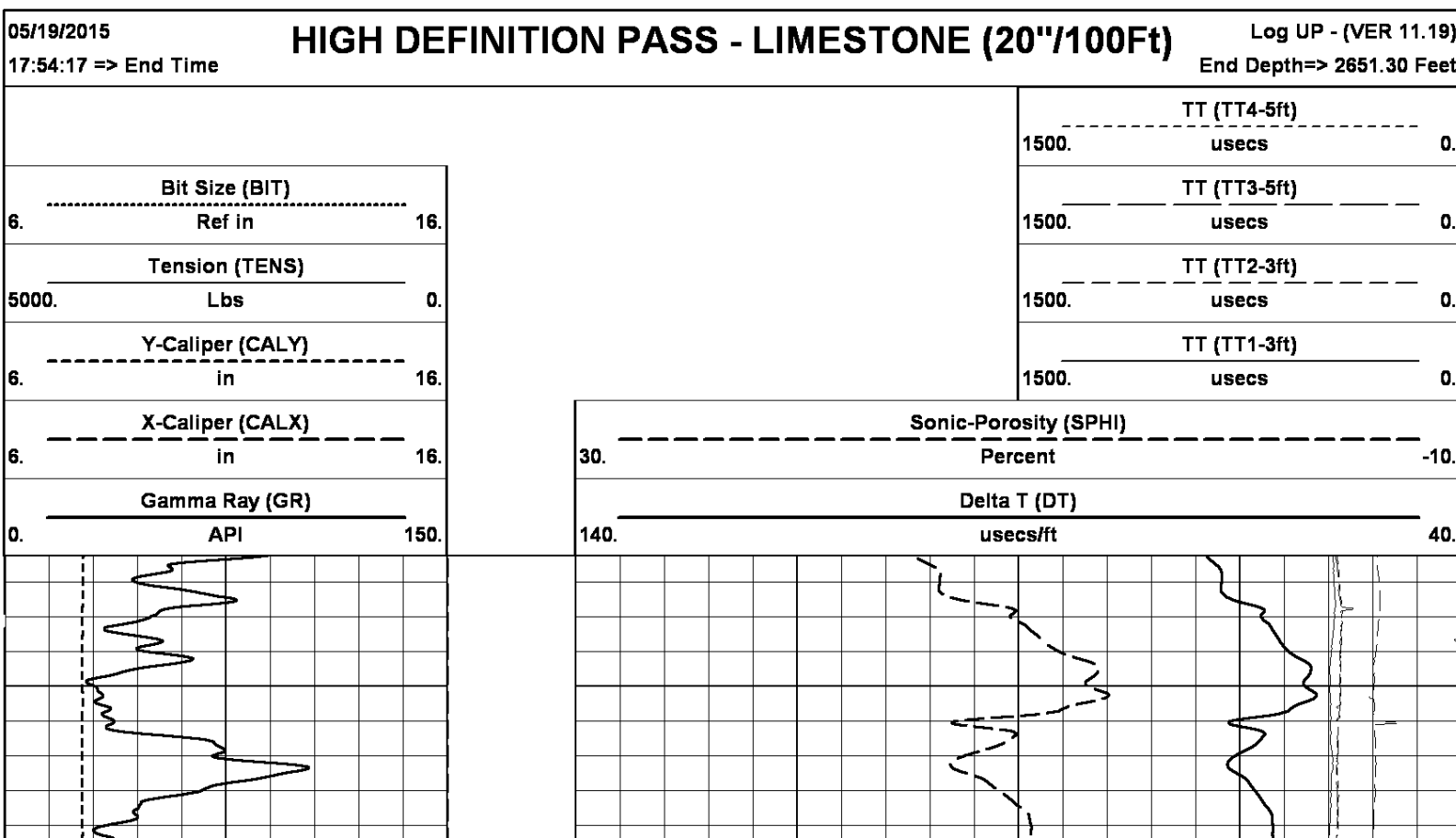
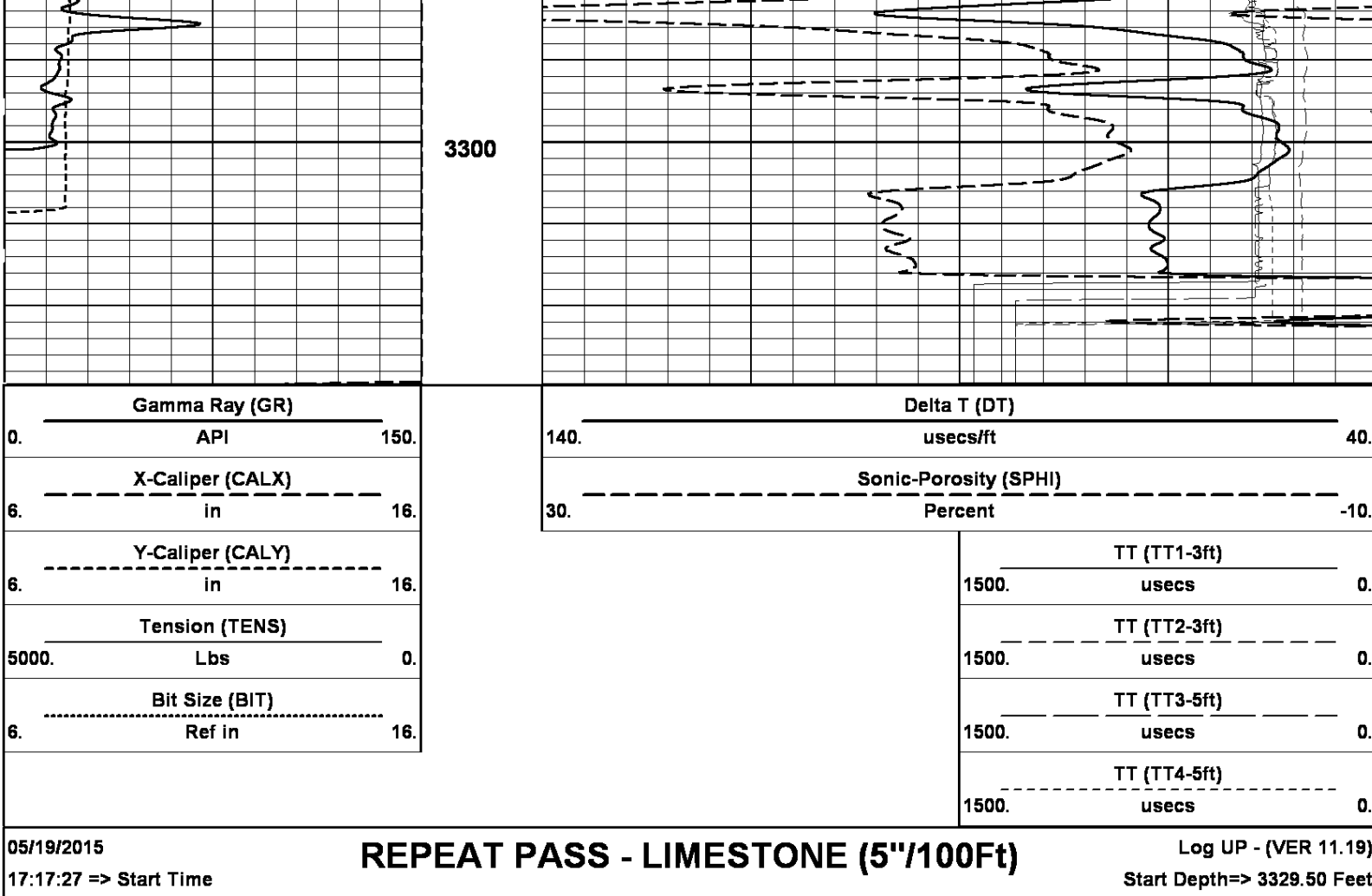
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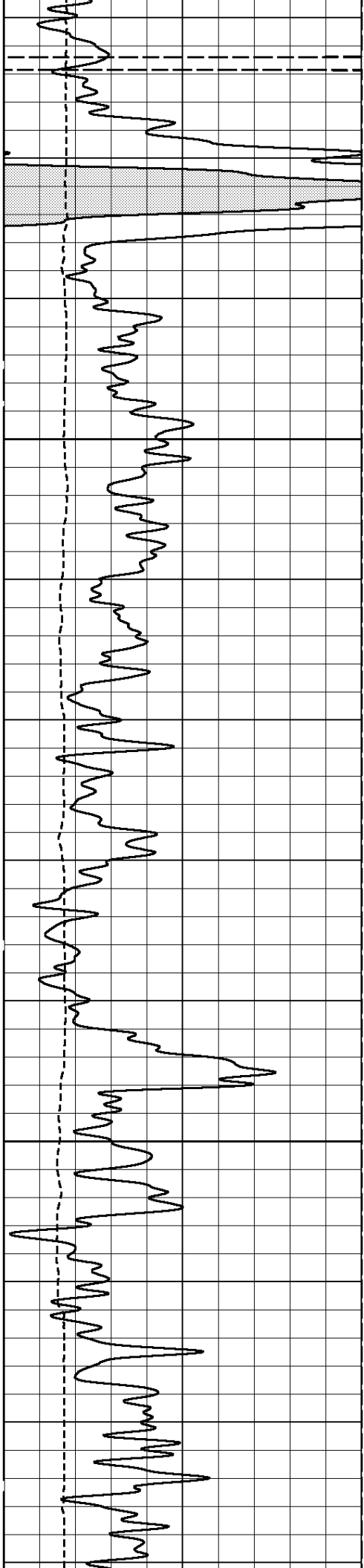
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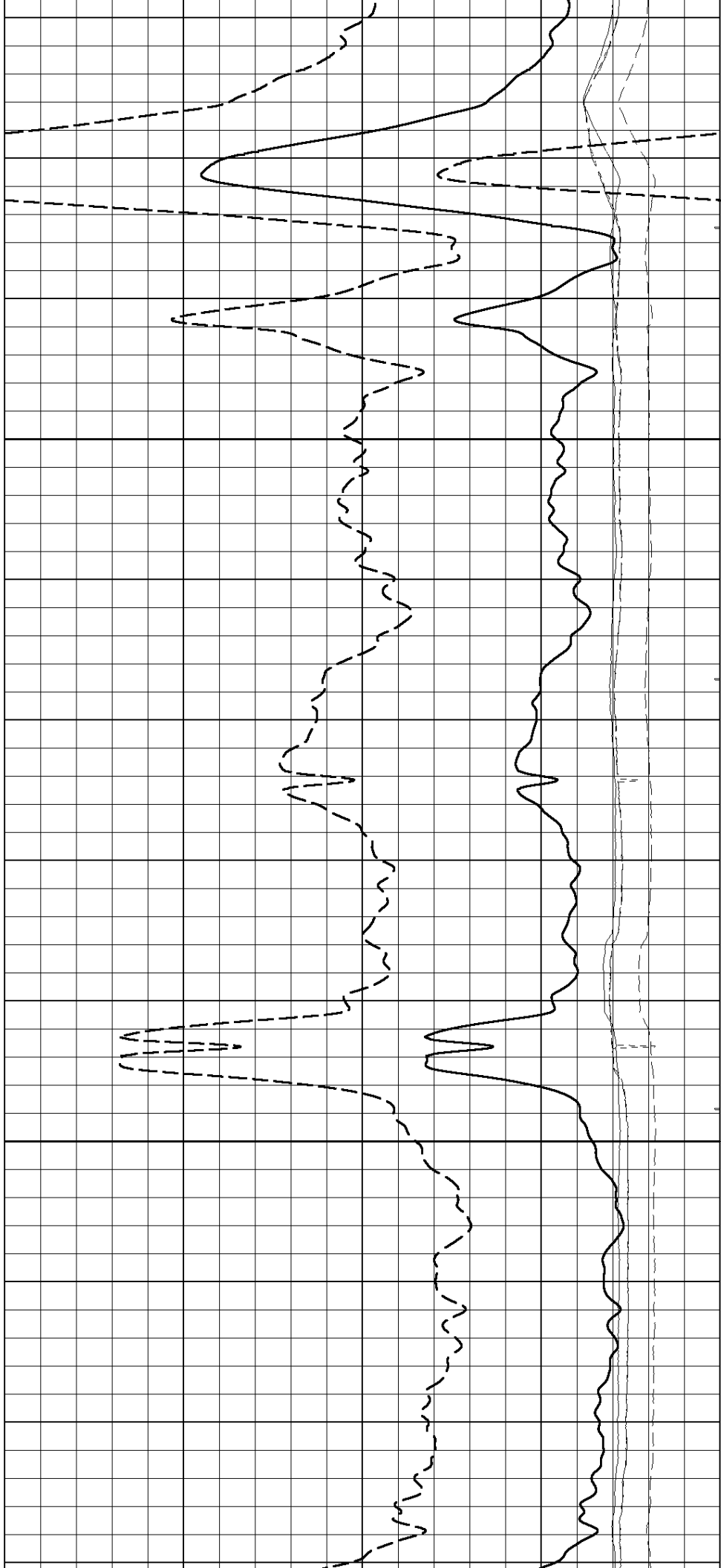


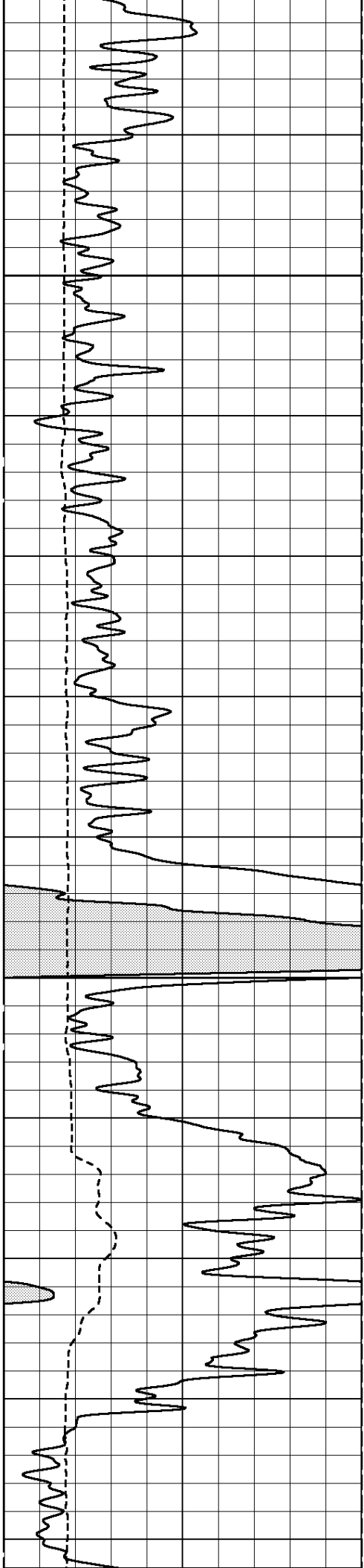




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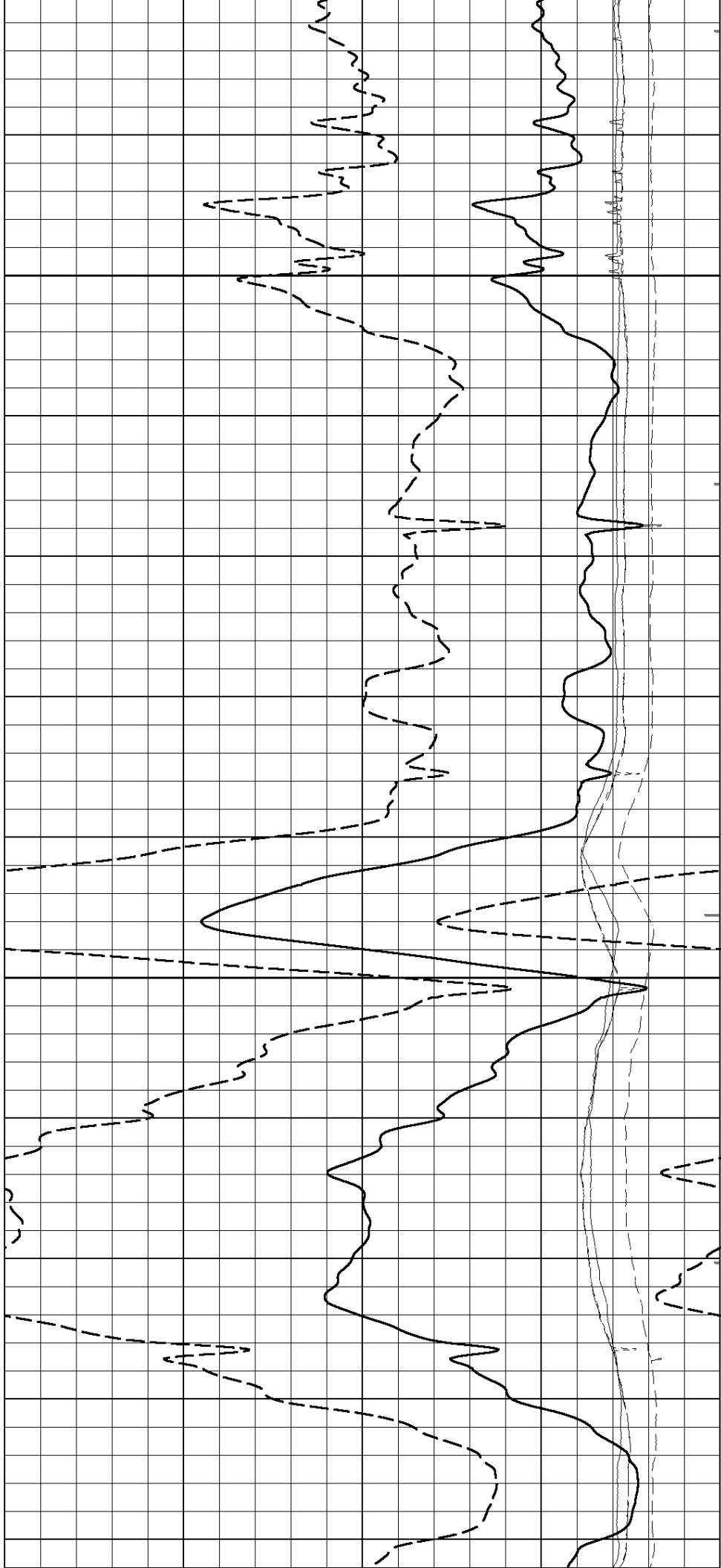
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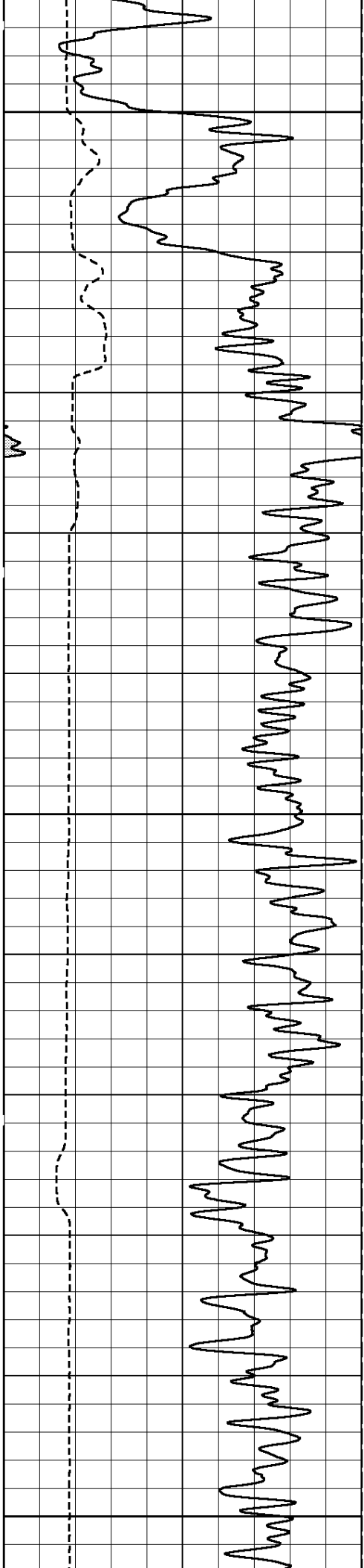




2725

2750

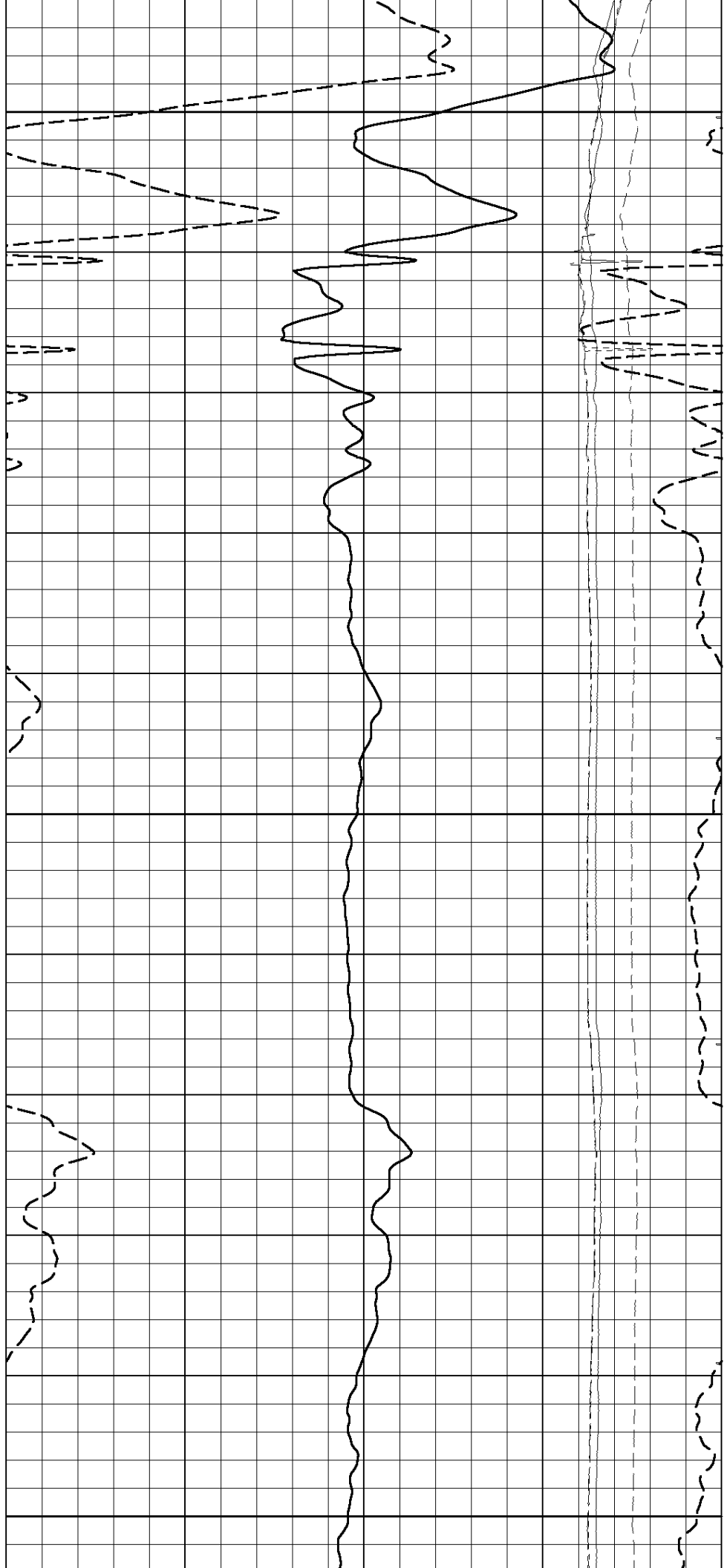


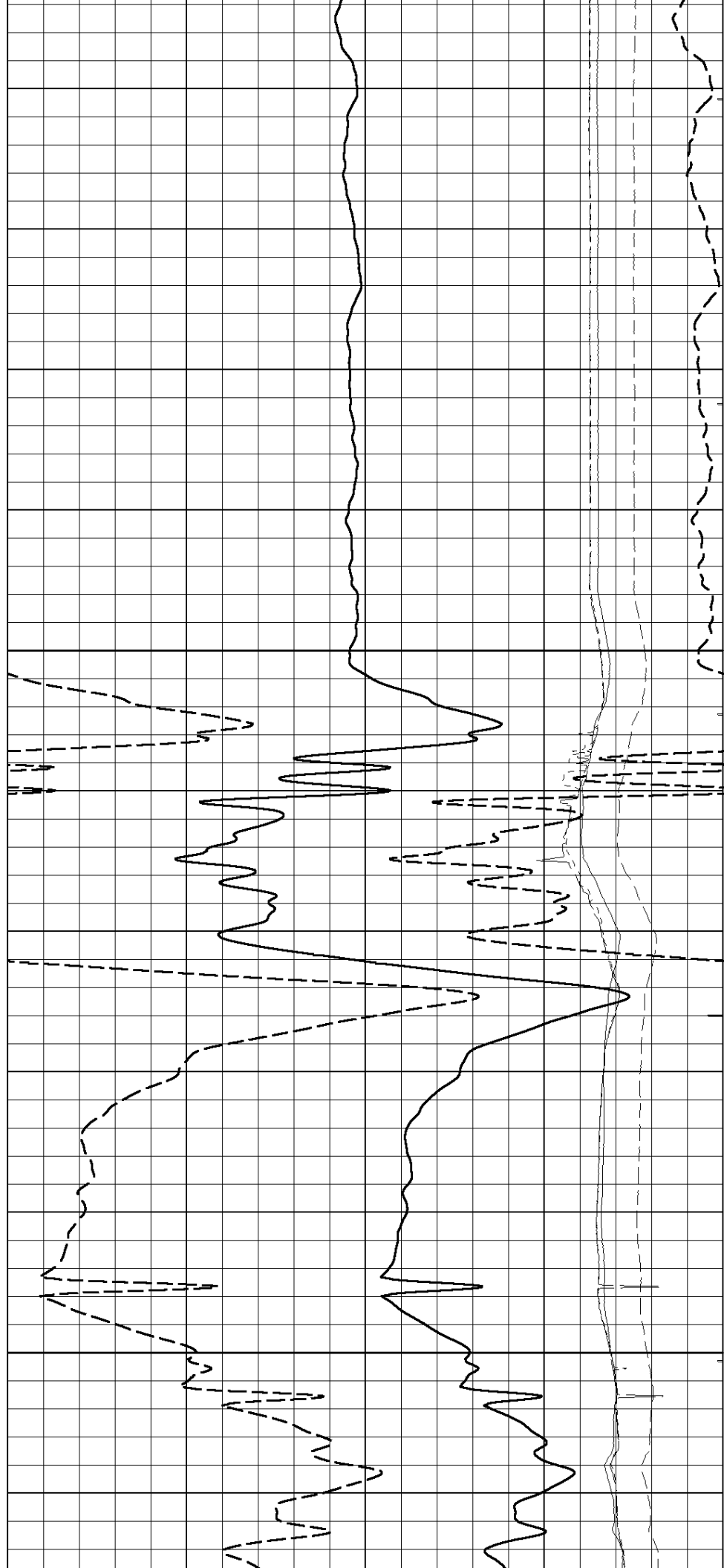
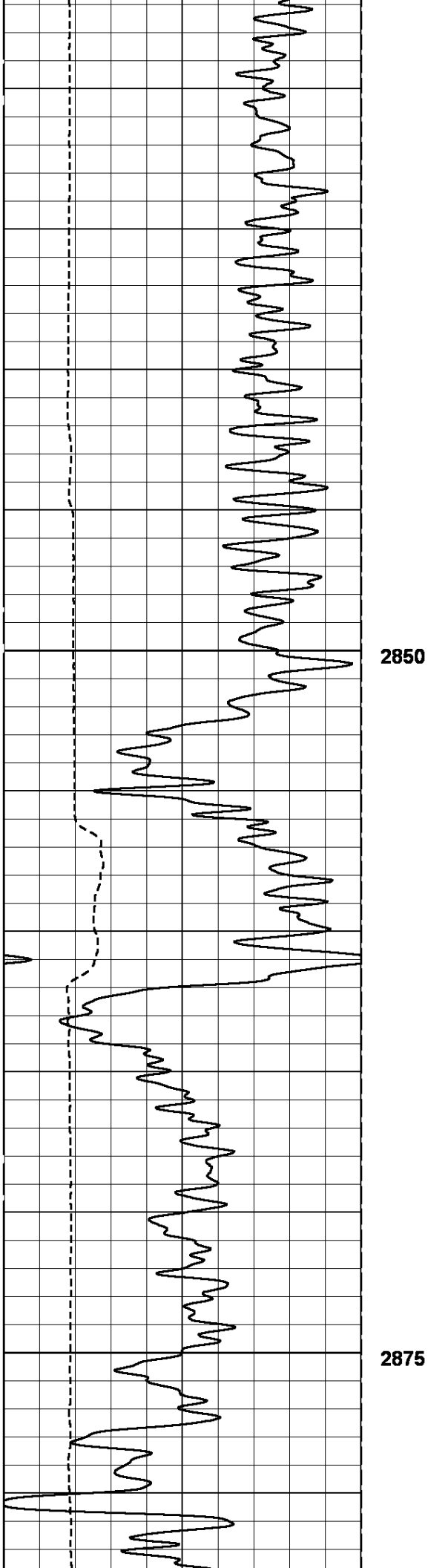


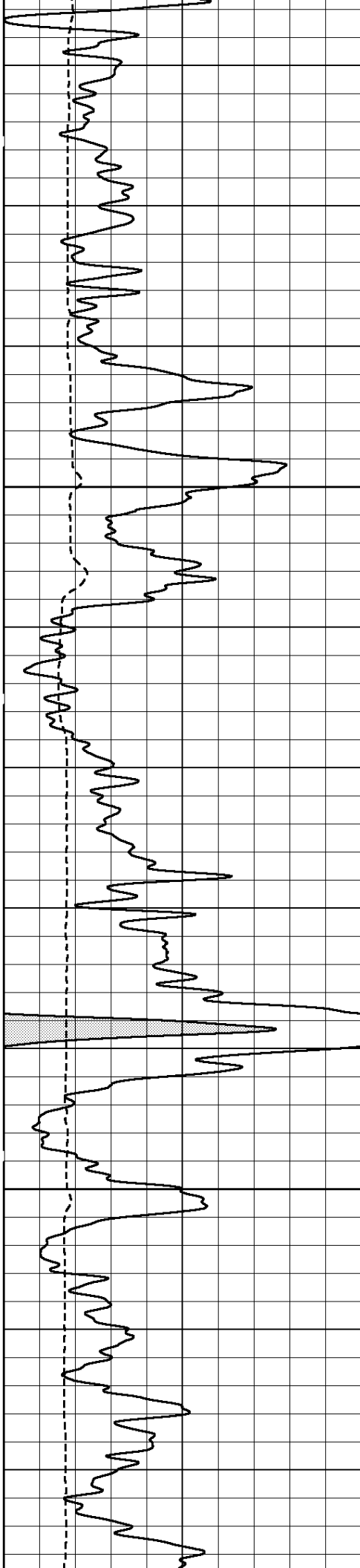
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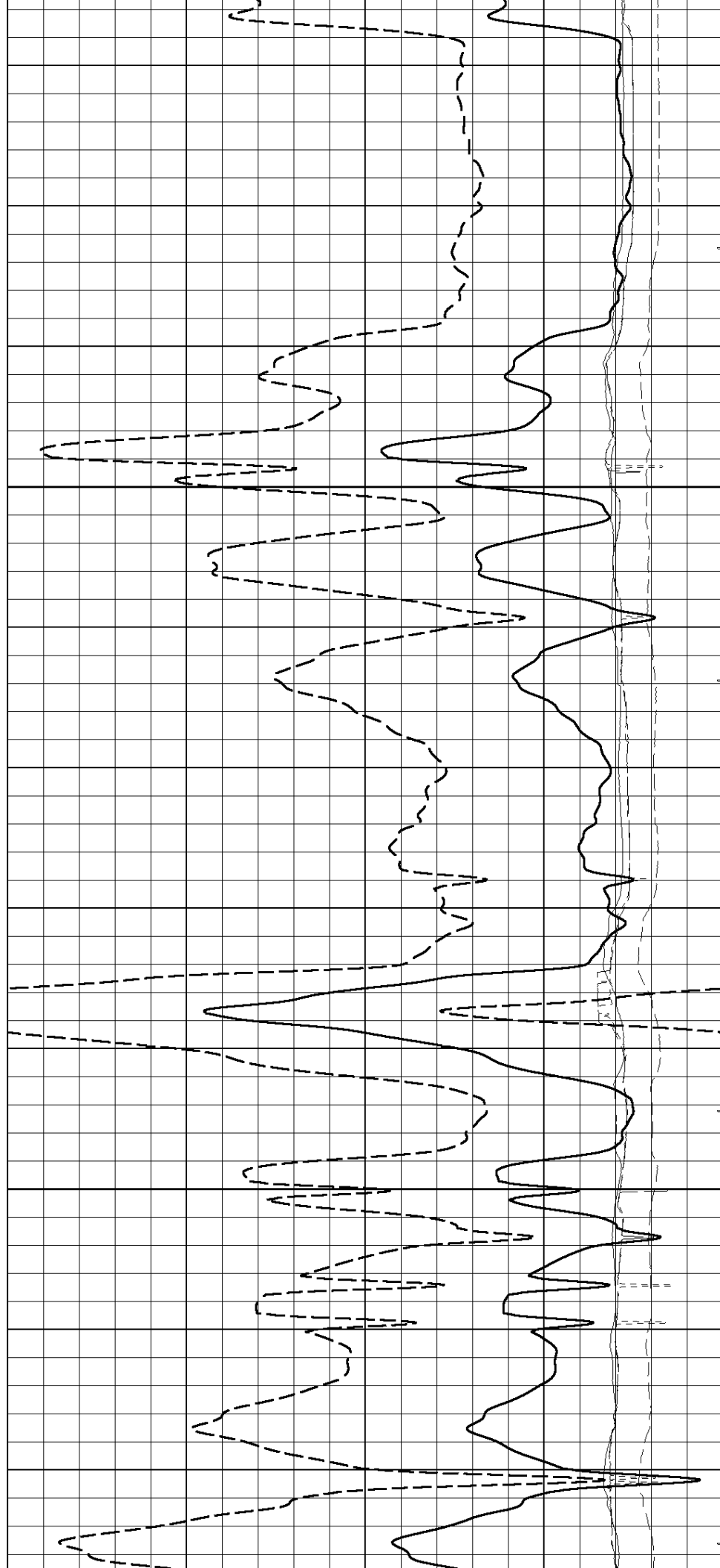


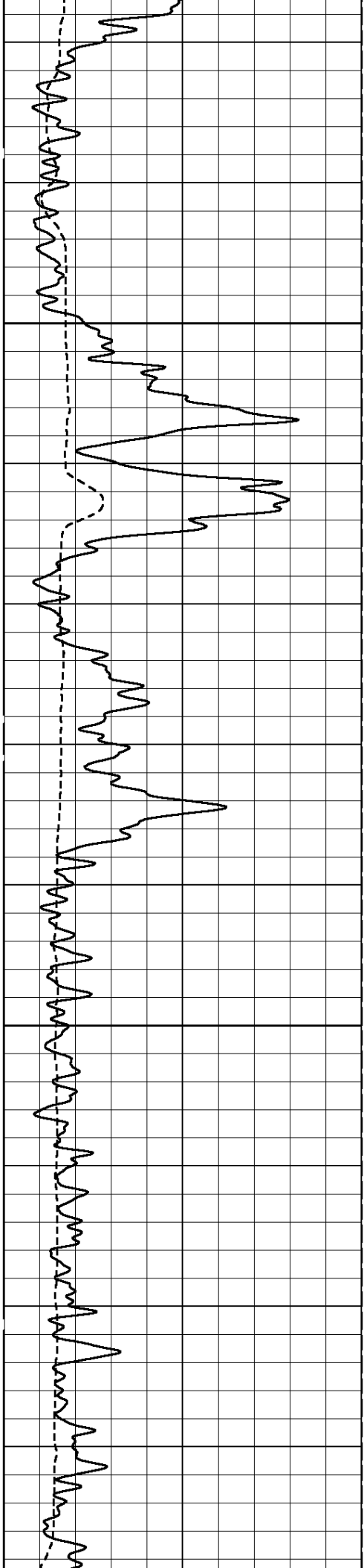




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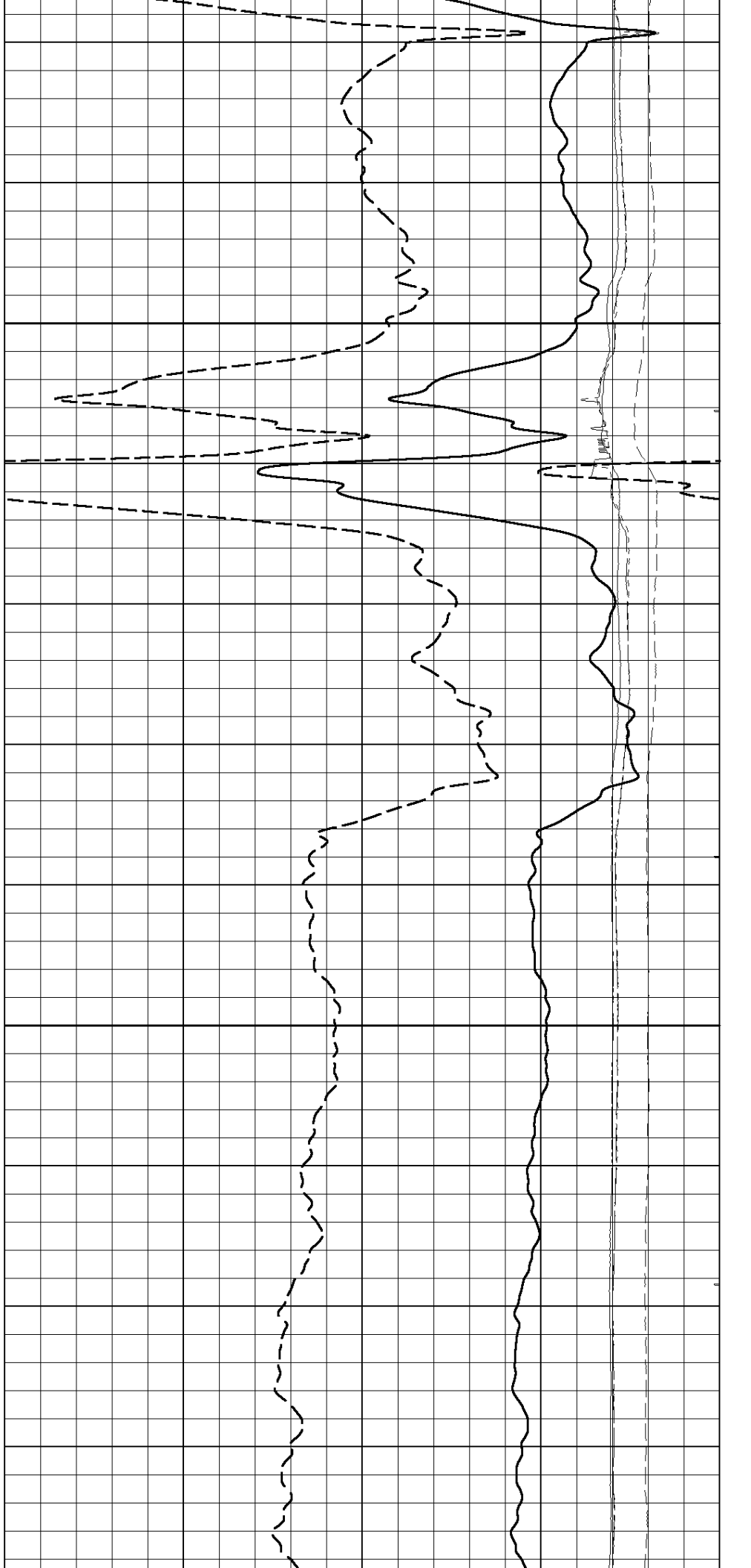
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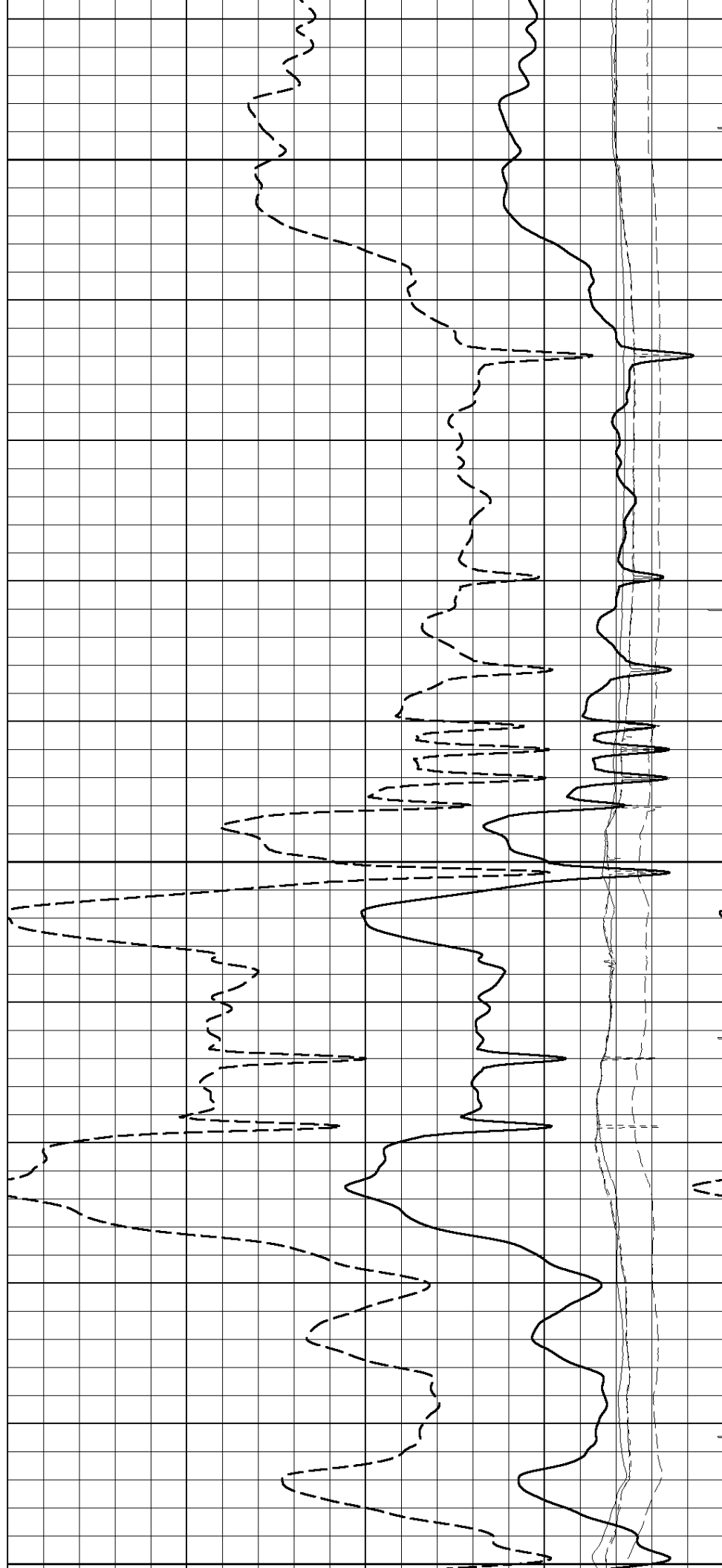
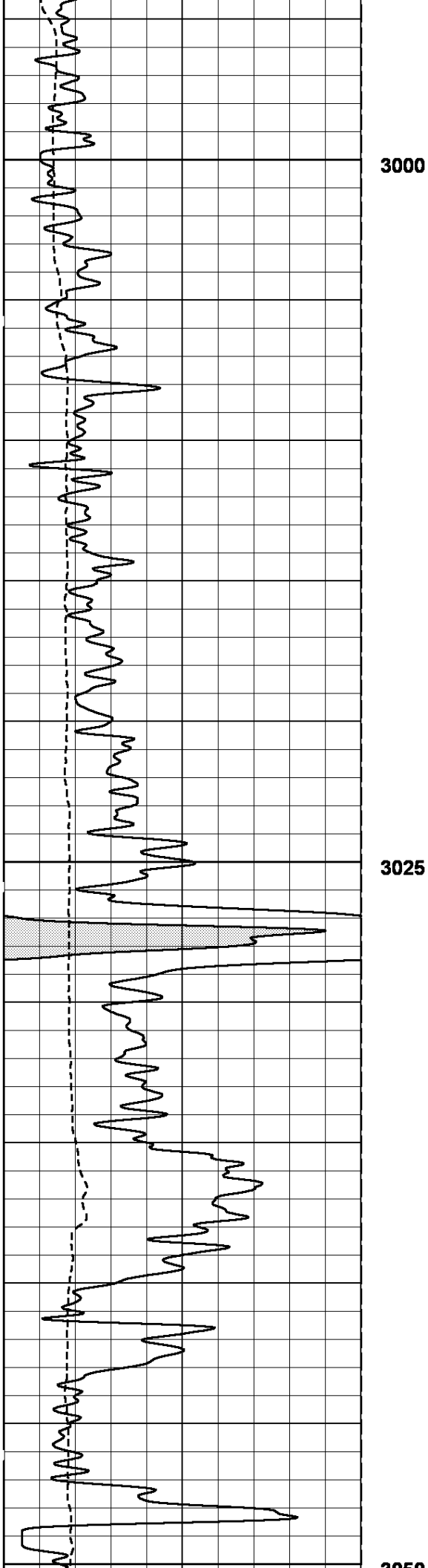


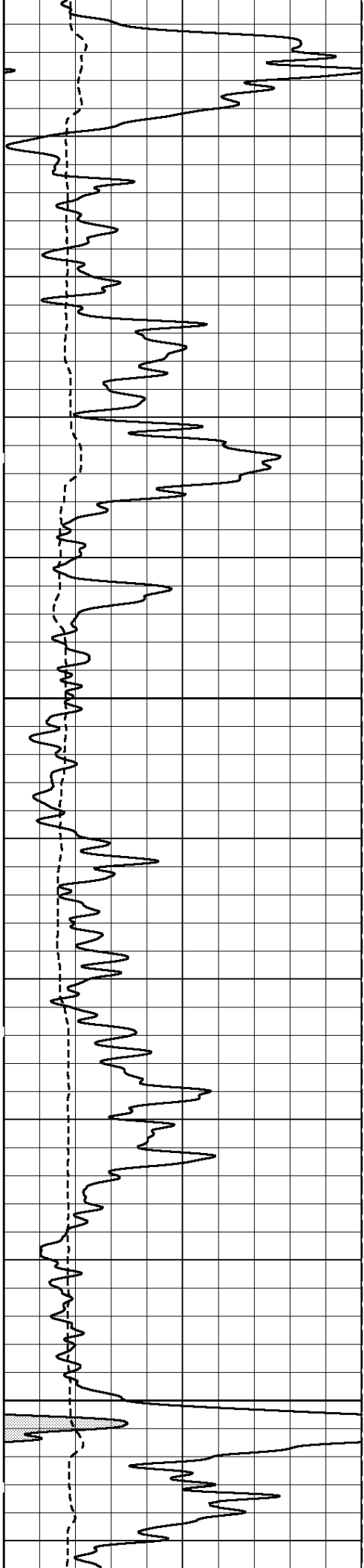


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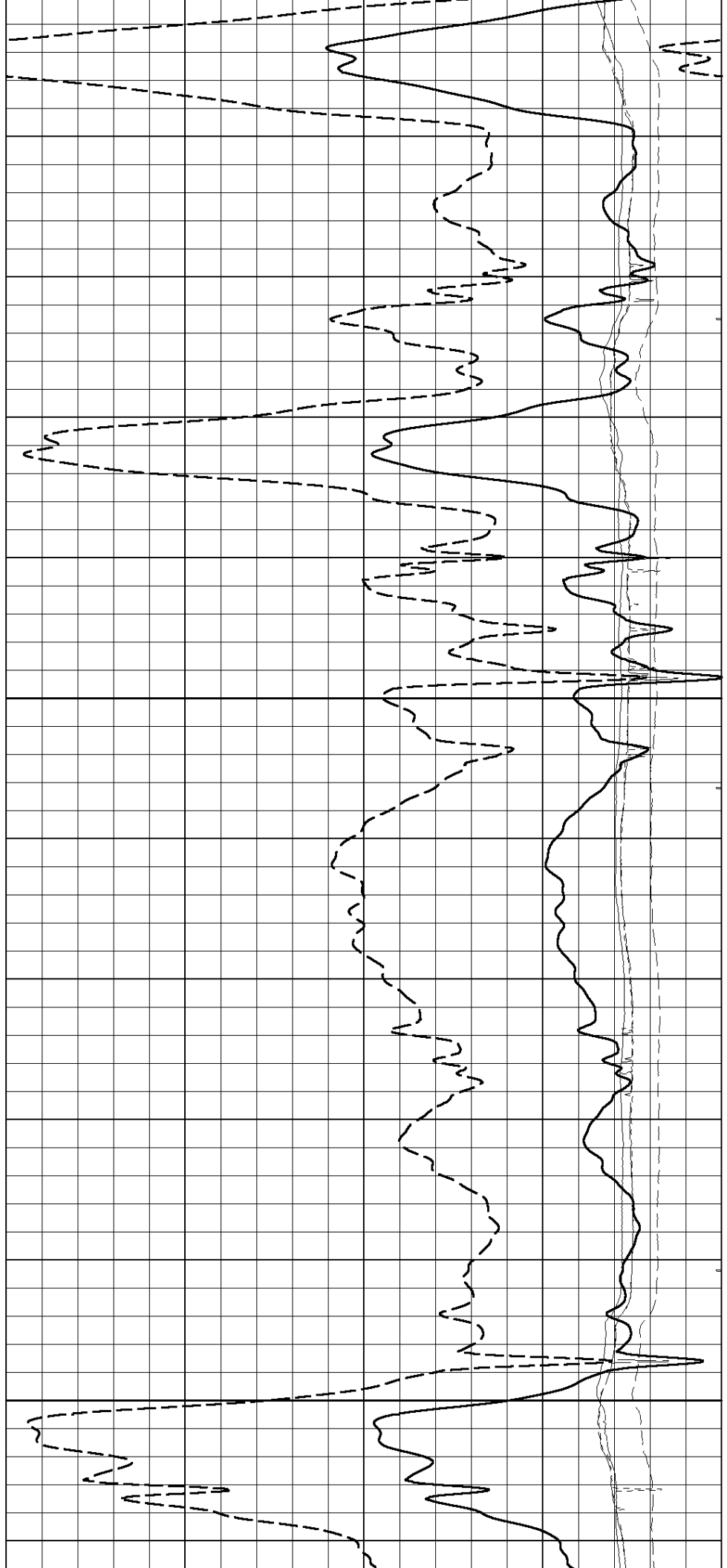


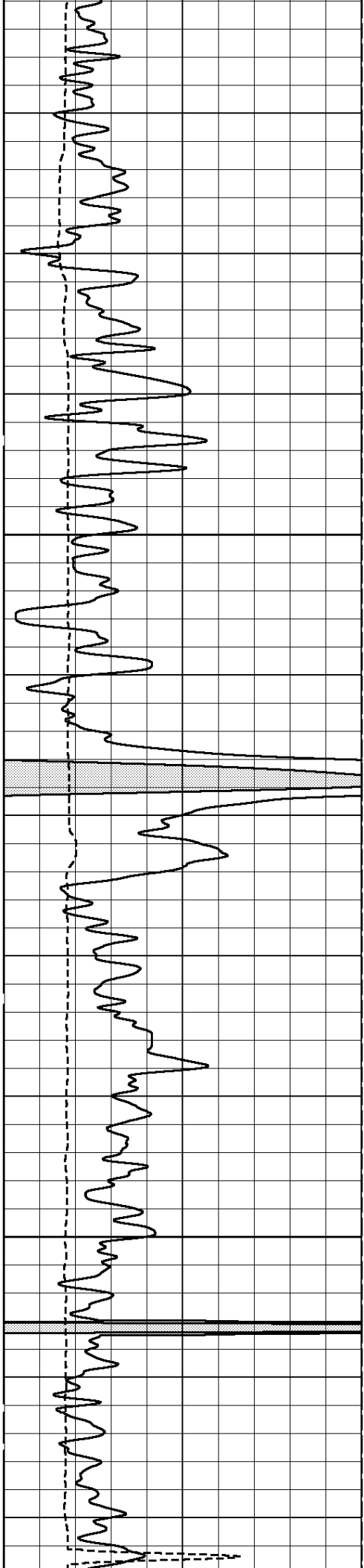


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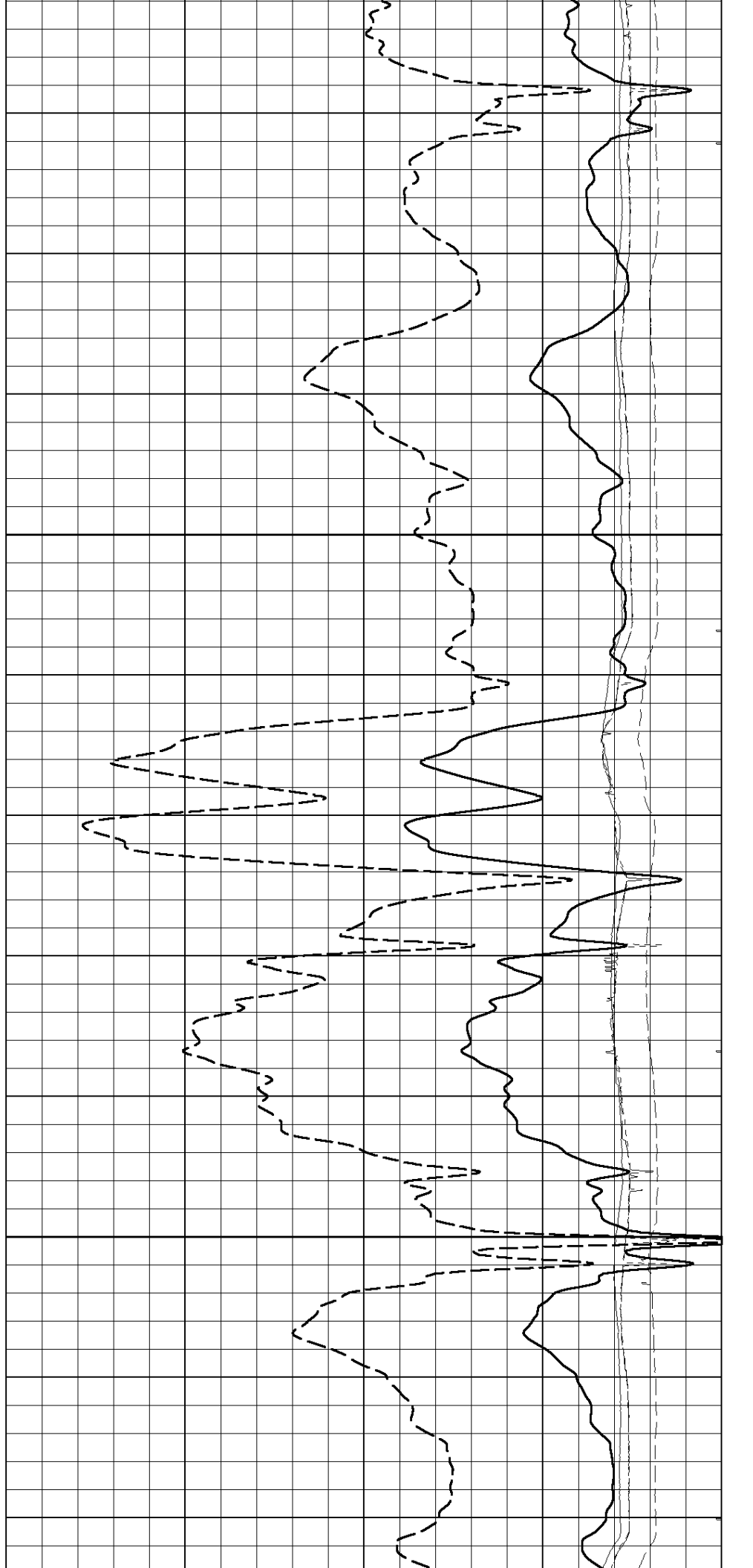
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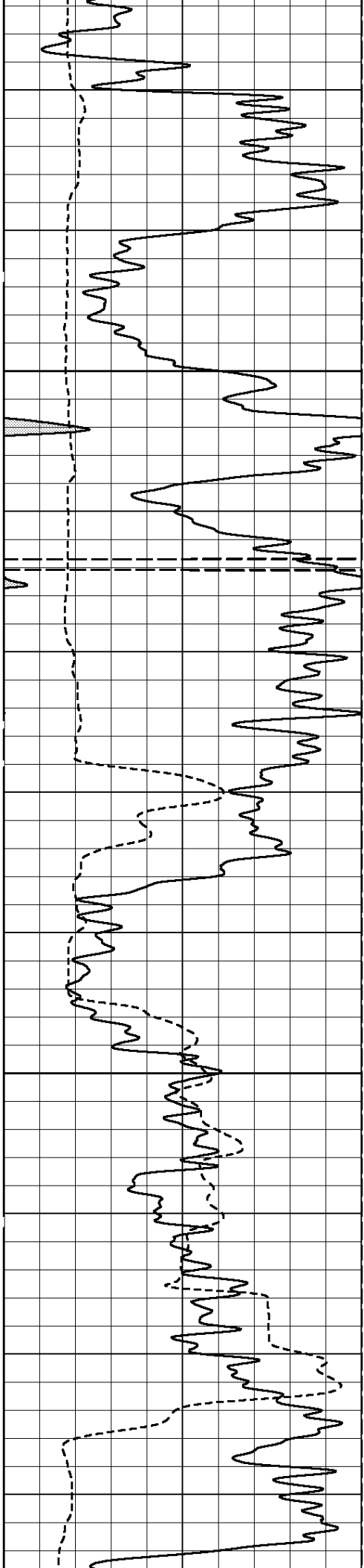




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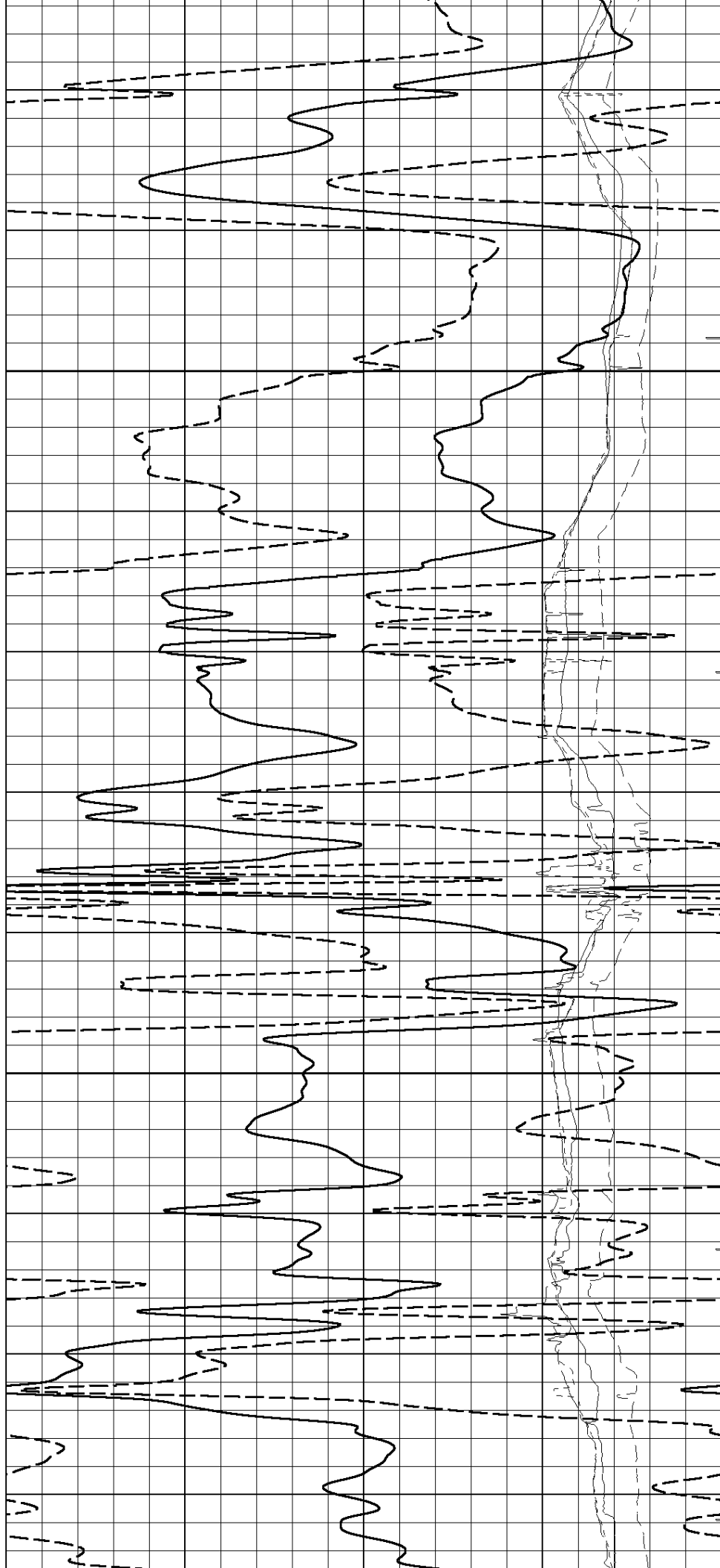
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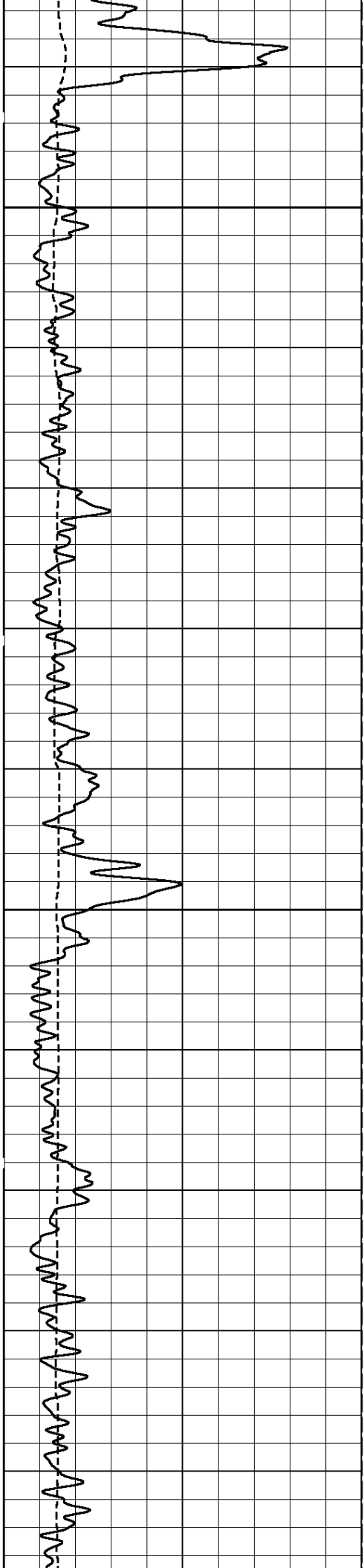




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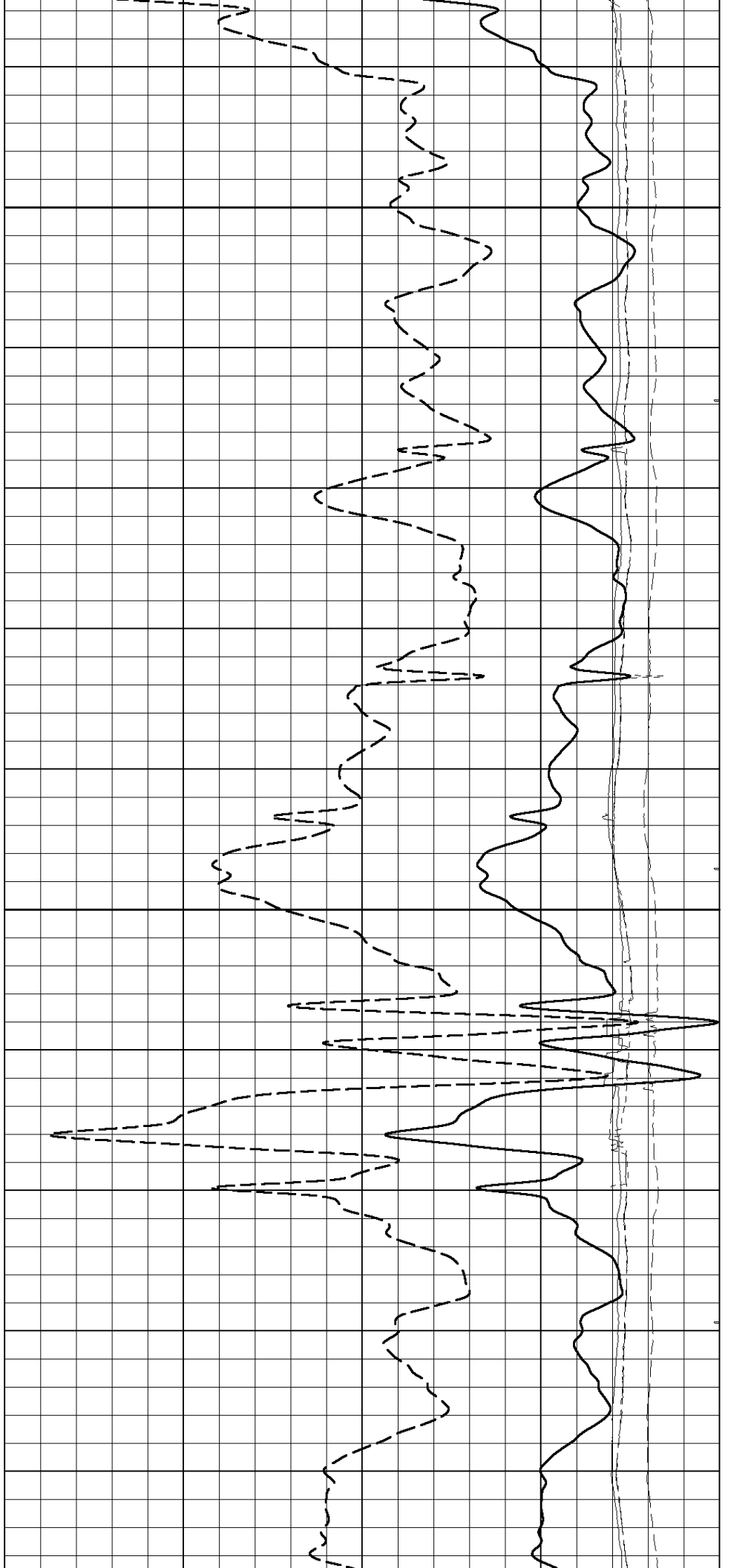
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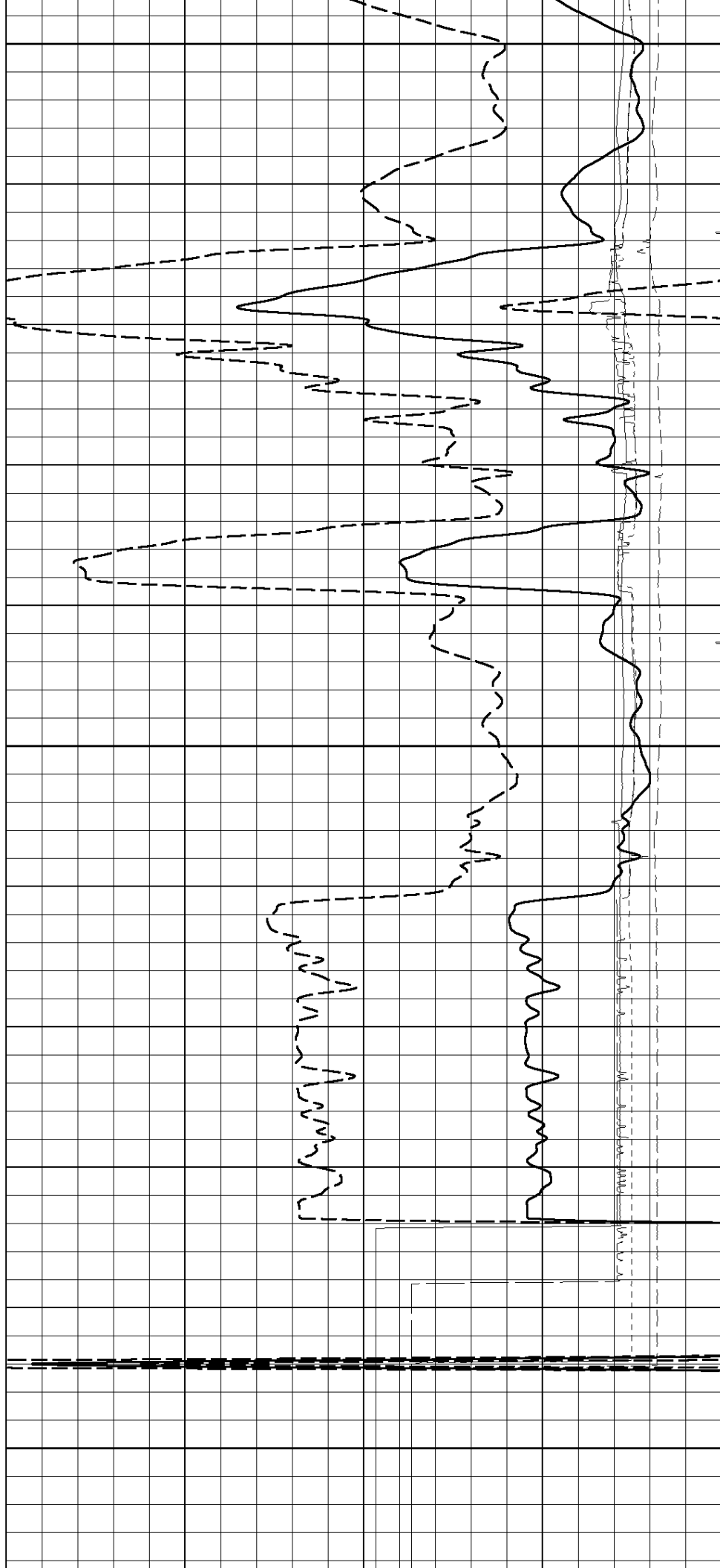
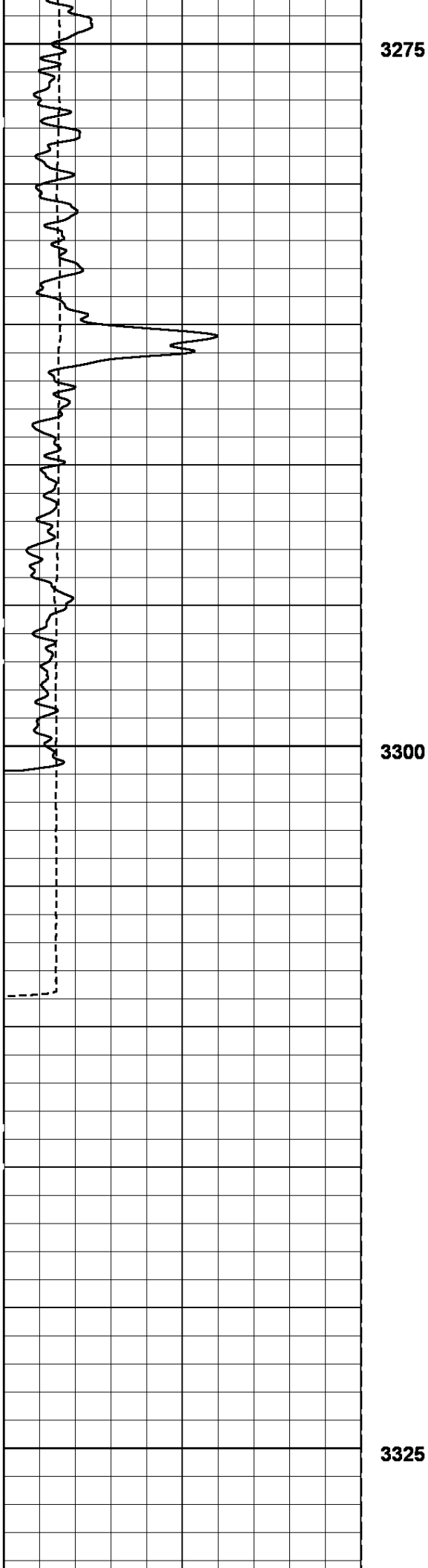




3225

3250





Gamma Ray (GR)		Delta T (DT)	
0.	API	140.	usecs/ft
	150.		40.
X-Caliper (CALX)		Sonic-Porosity (SPHI)	
6.	in	30.	Percent
	16.		-10.
Y-Caliper (CALY)		TT (TT1-3ft)	
6.	in	1500.	usecs
	16.		0.
Tension (TENS)		TT (TT2-3ft)	
5000.	Lbs	1500.	usecs
	0.		0.
Bit Size (BIT)		TT (TT3-5ft)	
6.	Ref in	1500.	usecs
	16.		0.
		TT (TT4-5ft)	
		1500.	usecs
			0.

05/19/2015

17:17:27 => Start Time

HIGH DEFINITION PASS - LIMESTONE (20"/100ft)

Log UP - (VER 11.19)

Start Depth=> 3329.53 Feet

GAMMA RAY CALIBRATION

SERIAL NUM	RG3007
BLANKET NUM	1A

MASTER CALIBRATIONS

	BackGrnd	CalVal: 175.000 API	Gain/Offset	CALIBRATION DATE	CALIBRATION TIME
BASE CALS	35.381 - raw	215.417 - raw	0.972 - gain 0.000 - off	M/D/Y> 4/7/2015	H:M:S> 11:44:55

X CALIPER

SERIAL NUM	RL4101

MASTER CALIBRATIONS

	ZeroVal: 6.000 In	CalVal: 10.000 In	Gain/Offset	CALIBRATION DATE	CALIBRATION TIME
BASE CALS	2713.692 - raw	4888.636 - raw	0.002 - gain 1.009 - off	M/D/Y> 5/18/2015	H:M:S> 16:14:55

Y CALIPER CALIBRATIONS

SERIAL NUM	RN2007

MASTER CALIBRATIONS

	ZeroVal: 6.000 in	CalVal: 10.000 in	Gain/Offset	CALIBRATION DATE	CALIBRATION TIME
BASE CALS	772.886 - raw	1456.720 - raw	0.006 - gain 1.479 - off	M/D/Y> 4/10/2015	H:M:S> 13:57:43

Company	CMX INCORPORATED
Well	BUSHTON #1-20
Field	STOLTENBERG
Operator	EMILY WORTH

County

ELLSWORTH

State

KANSAS

RECON

FULL WAVEFORM

SONIC

GAMMA RAY

X-Y CALIPER