



DUAL INDUCTION LOG

Company GRAND MESA OPERATING COMPANY
 Well YORK #1-4
 Field UNNAMED
 County LANE
 State KANSAS

Company GRAND MESA OPERATING COMPANY
 Well YORK #1-4
 Field UNNAMED
 County LANE State KANSAS

Location: API #: 15-101-22673-0000
 577' FSL & 2489' FEL
 NW - SW - SW - SE
 SEC 4 TWP 16S RGE 29W
 Permanent Datum GROUND LEVEL Elevation 2619
 Log Measured From KELLY BUSHING 11' A.G.L.
 Drilling Measured From KELLY BUSHING
 Other Services CDL/CNL/PE MEL/SON
 Elevation K.B. 2630
 D.F. 2628
 G.L. 2619

Date	9/28/22
Run Number	ONE
Depth Driller	4440
Depth Logger	4441
Bottom Logged Interval	4438
Top Log Interval	200
Casing Driller	8 5/8" @ 227
Casing Logger	227
Bit Size	7 7/8
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.2/50
PH / Fluid Loss	10.5/7.2
Source of Sample	FLOWLINE
Rm @ Meas. Temp	1.50 @ 78F
Rmt @ Meas. Temp	1.13 @ 78F
Rmc @ Meas. Temp	1.80 @ 78F
Source of Rmf / Rmc	MEASUREMENT
Rm @ BHT	.975 @ 120F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	11:00 P.M.
Maximum Recorded Temperature	120F
Equipment Number	3802
Location	HAYS, KANSAS
Recorded By	COLE ROBBEN
Witnessed By	GARET DINKEL

<<< Fold Here >>>

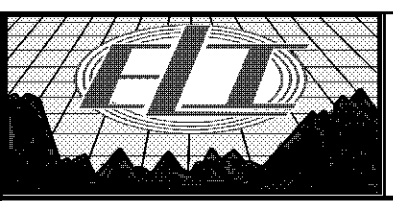
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

THANK YOU FOR USING ELI WIRELINE SERVICES, HAYS, KS. (785) 628-6395

DIRECTIONS:

FROM HIGHWAY 4/23 INTERSECTION NORTH 6 MILES TO LANE GOVE RD., 2 MILES WEST TO N HICKOCK RD., SOUTH 3/4 MILES AND WEST INTO, FOLLOW LEASE ROAD NORTHEAST

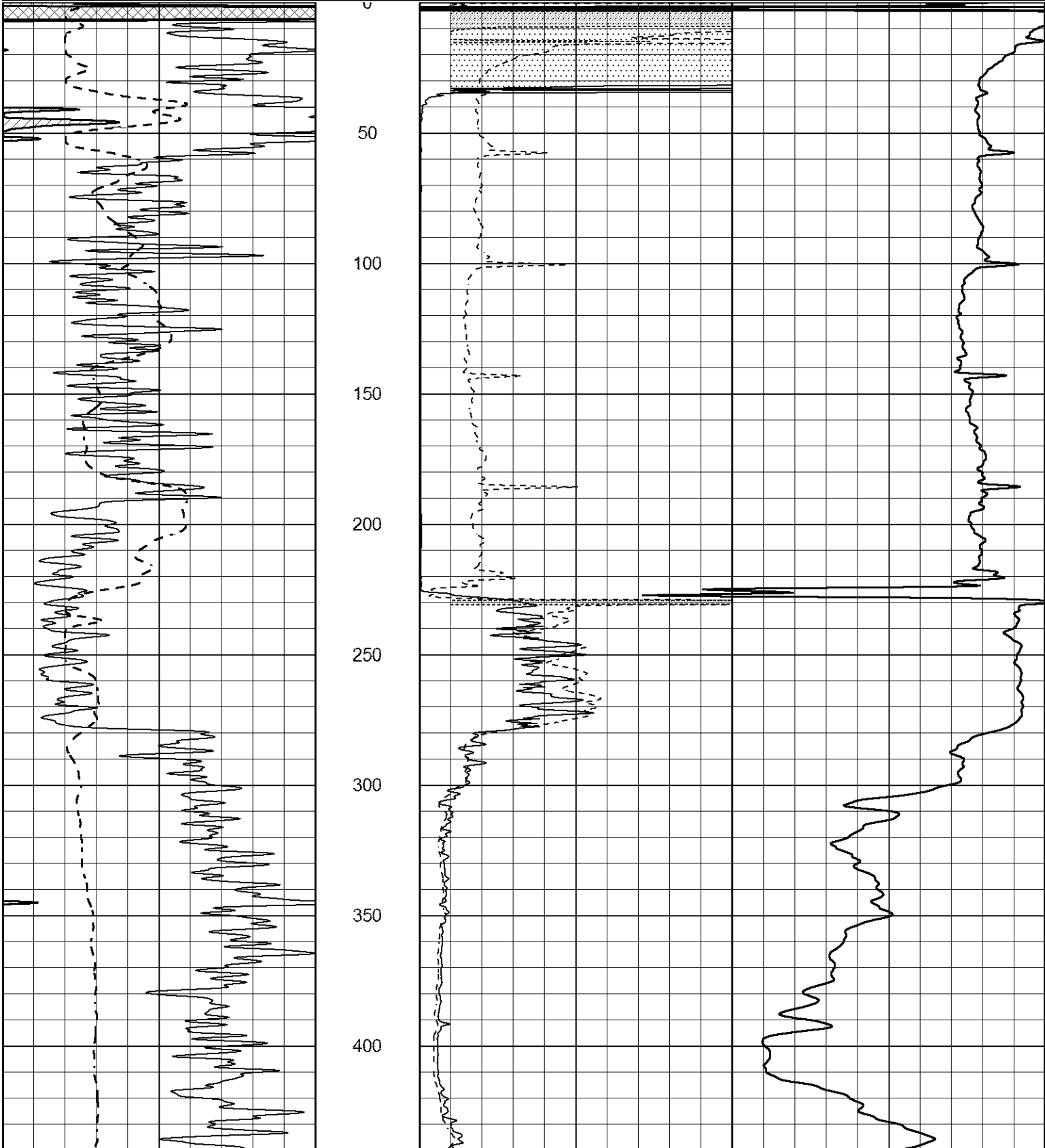


MAIN SECTION

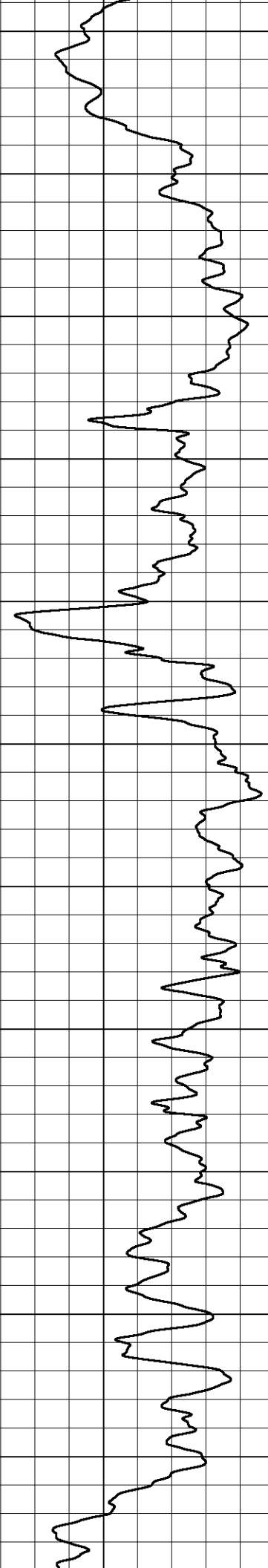
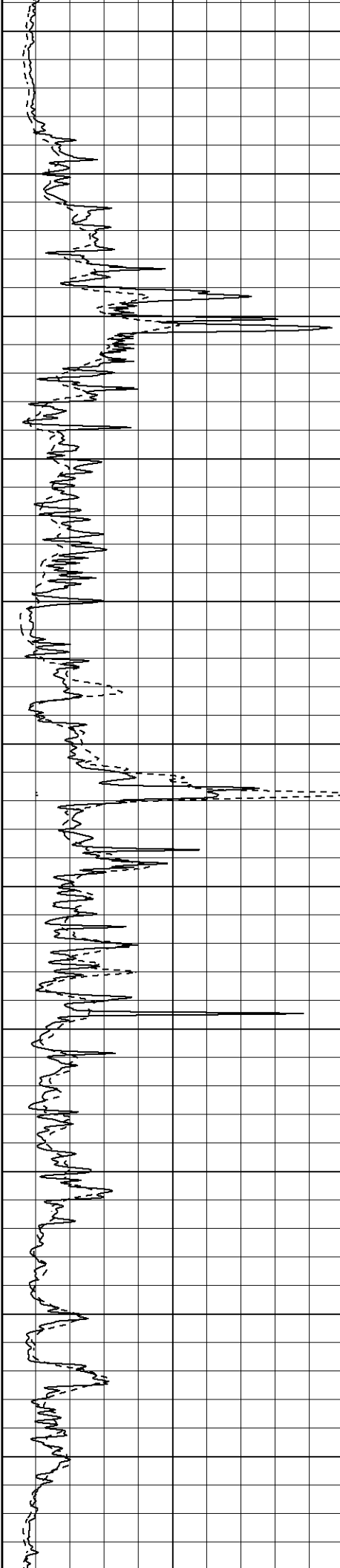
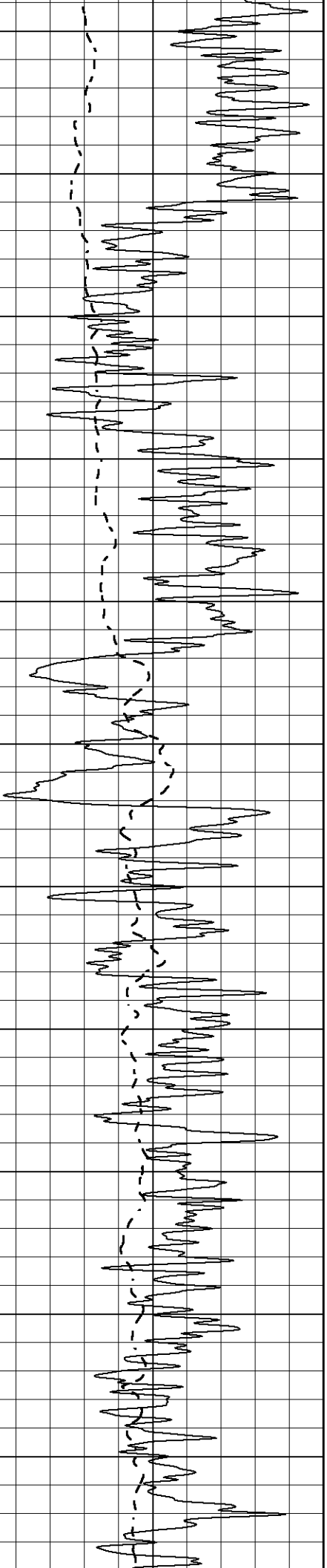
Database File 7024pe.db
 Dataset Pathname pass3M
 Presentation Format _dil2
 Dataset Creation Thu Sep 29 02:01:13 2022
 Charted by Depth in Feet scaled 1:600

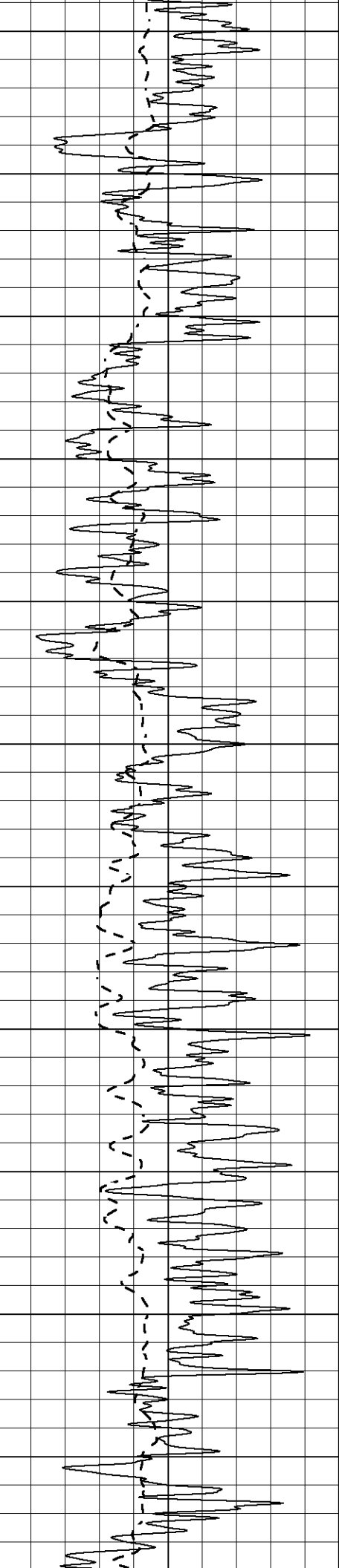
0 Gamma Ray (GAPI) 150
 -100 SP (mV) 100

1000 CILD (mmho/m) 0
 0 RLL3 (Ohm-m) 50
 0 Deep Induction (Ohm-m) 50
 50 RILD X10 (Ohm-m) 500
 50 RLL3 X10 (Ohm-m) 500

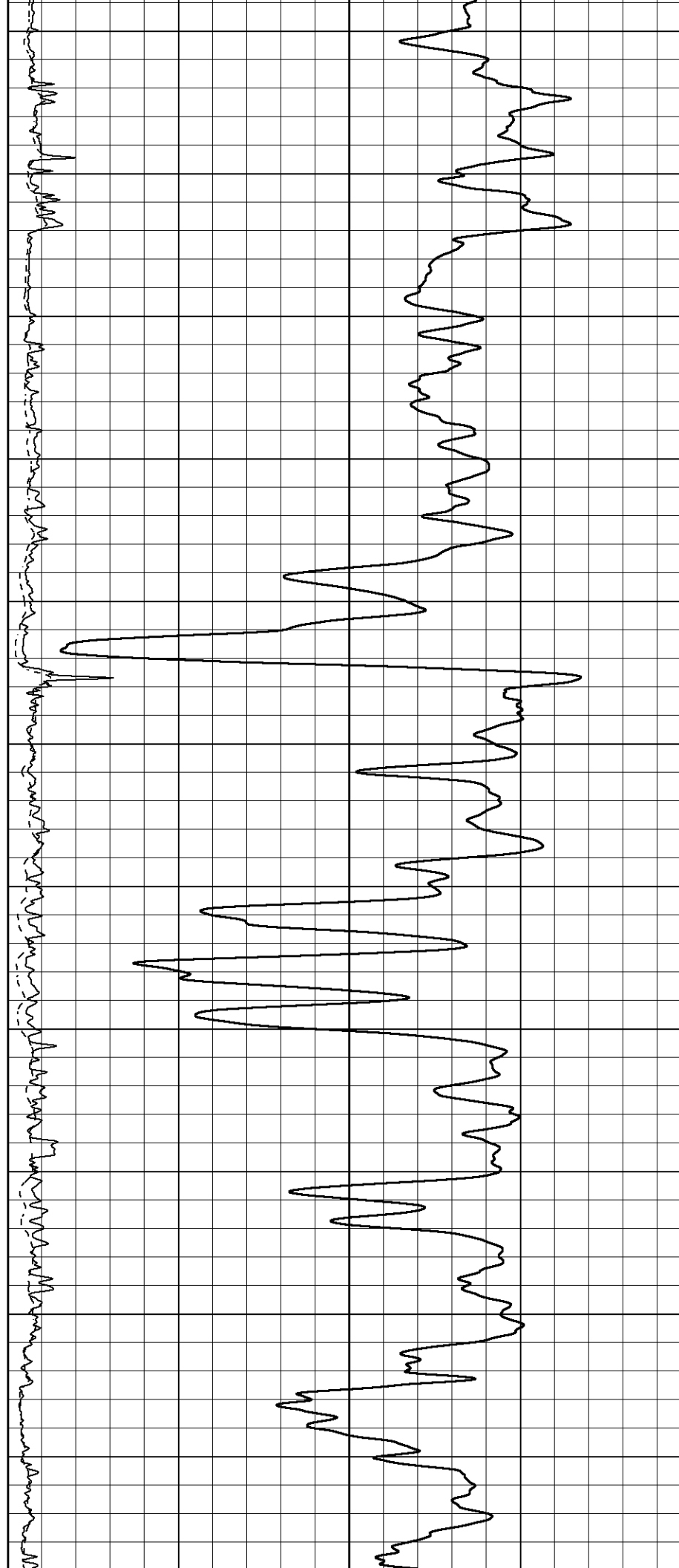


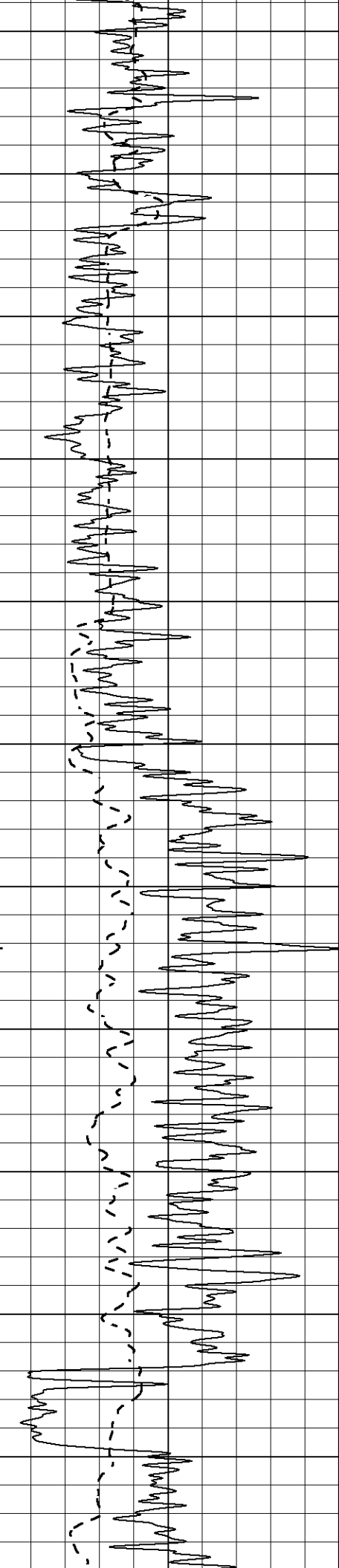
450
500
550
600
650
700
750
800
850
900
950



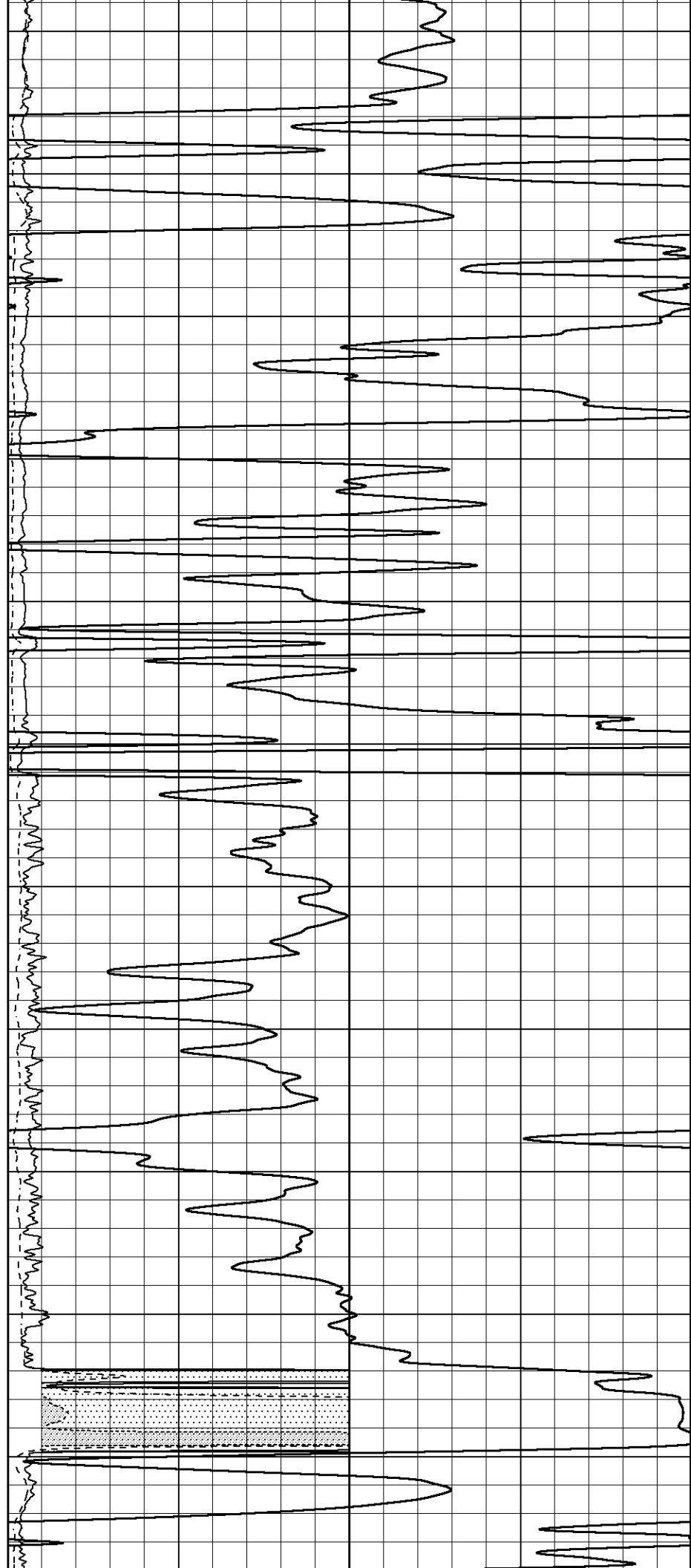


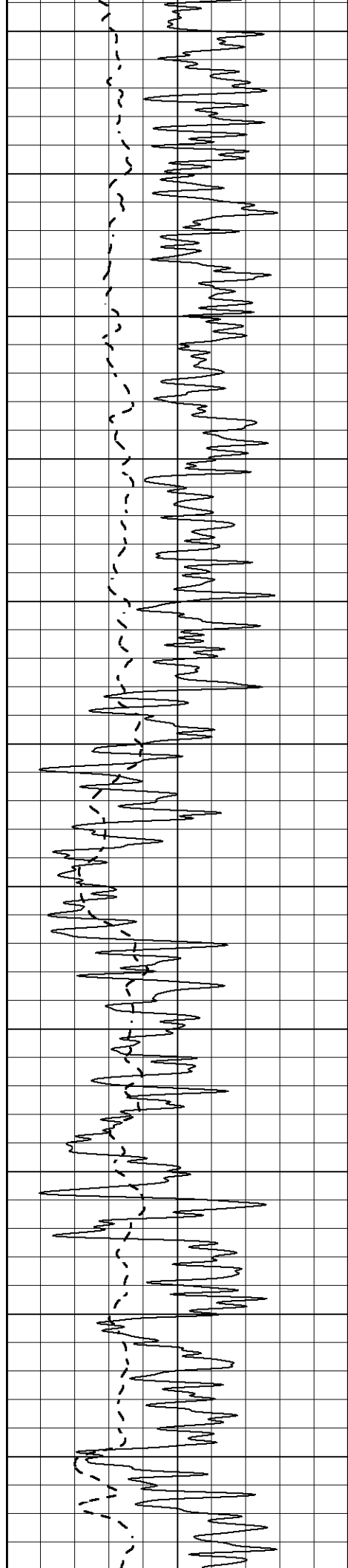
1000
1050
1100
1150
1200
1250
1300
1350
1400
1450
1500



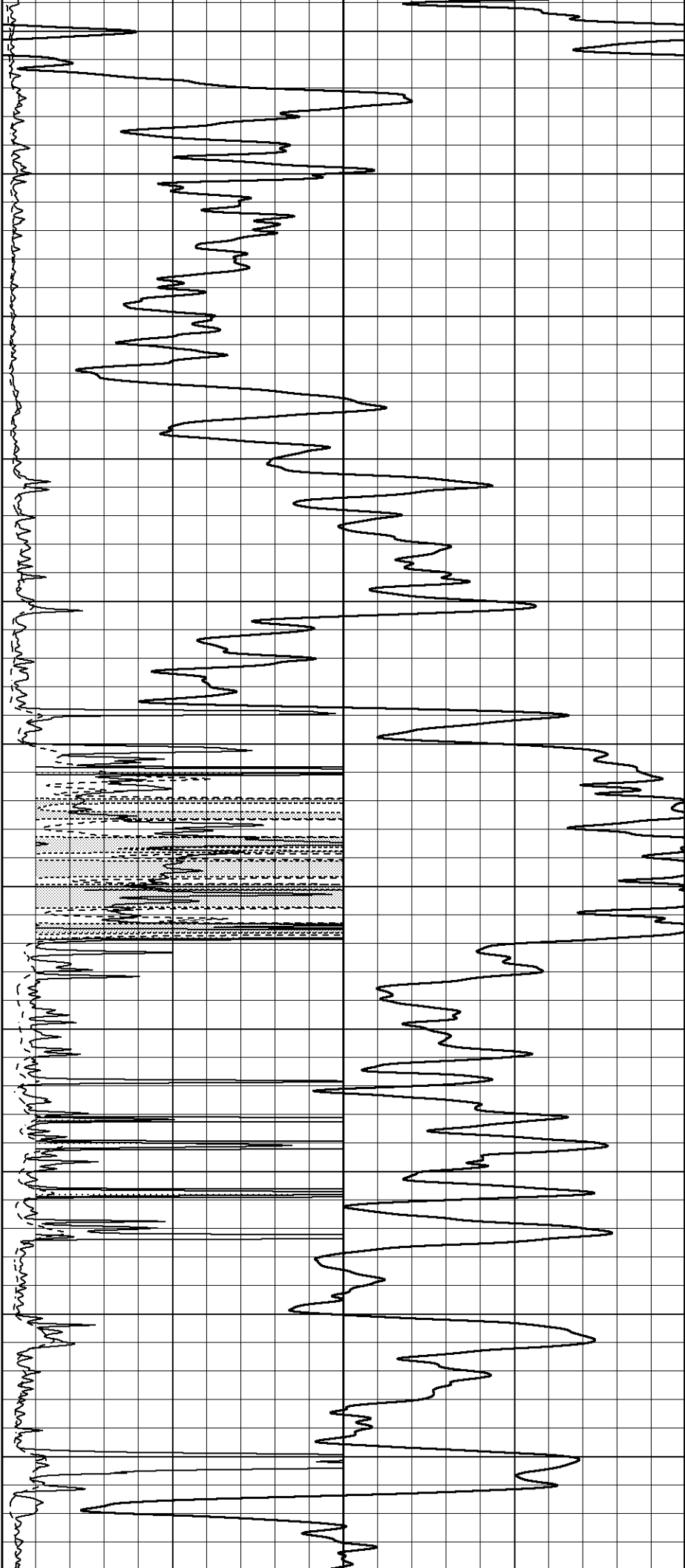


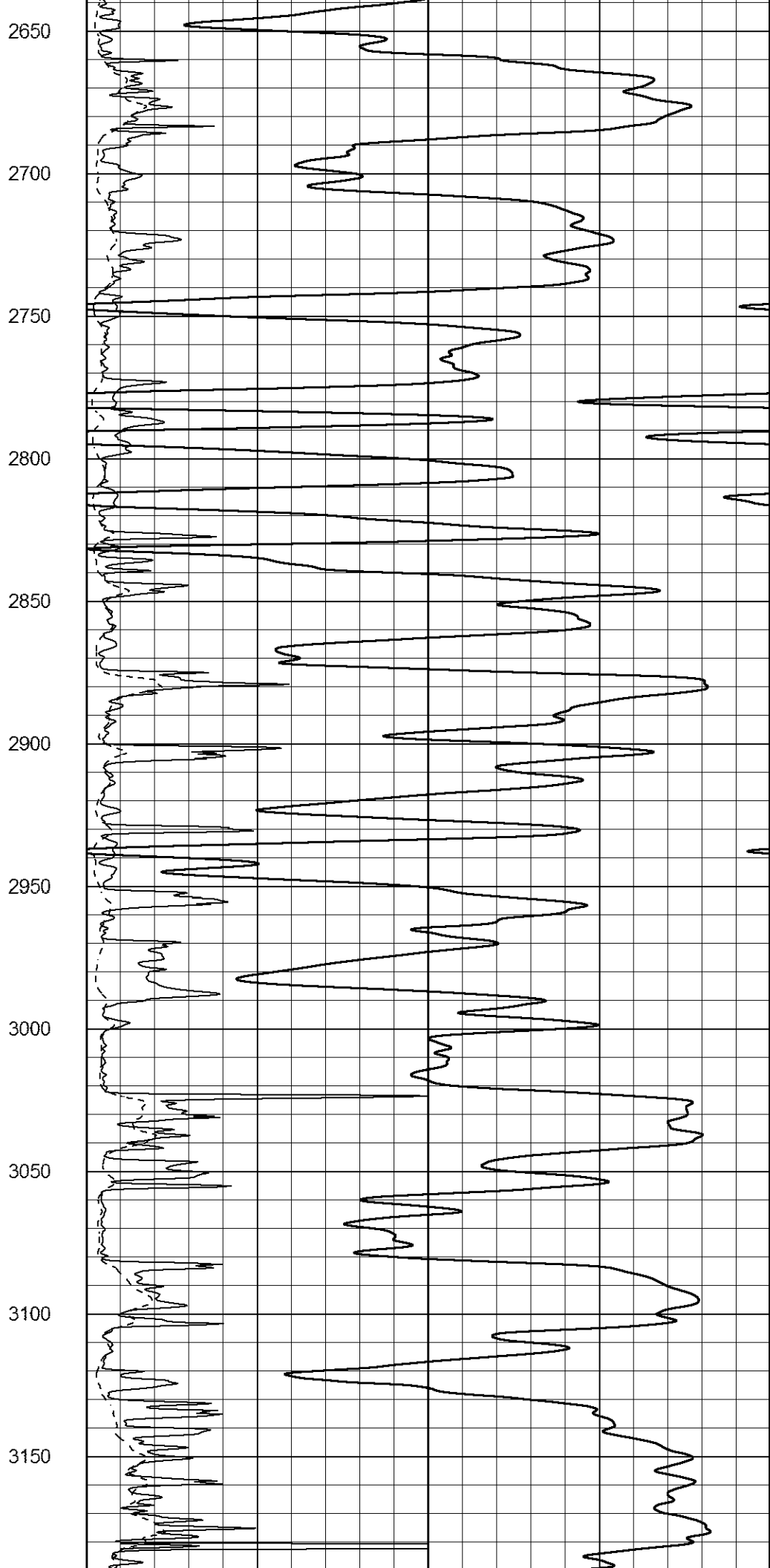
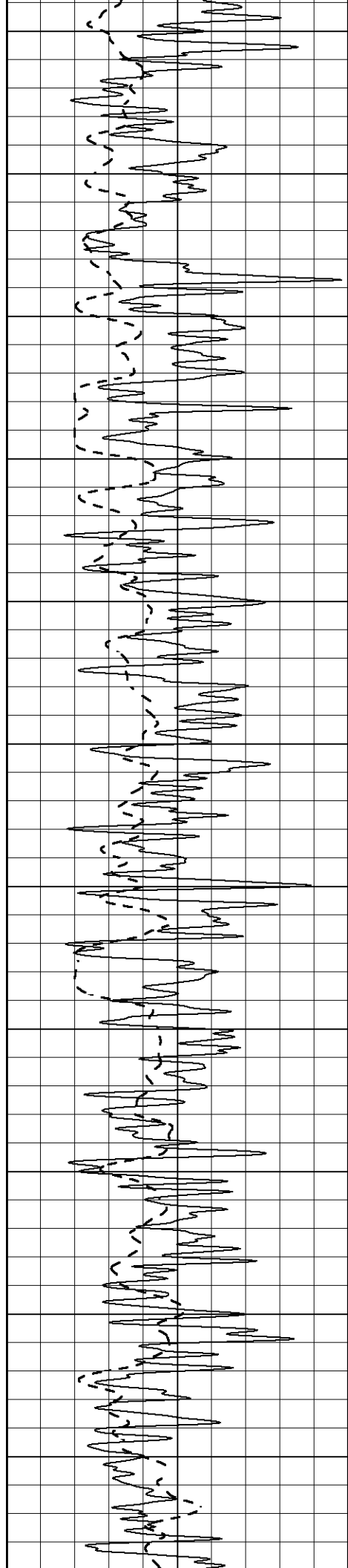
1550
1600
1650
1700
1750
1800
1850
1900
1950
2000
2050

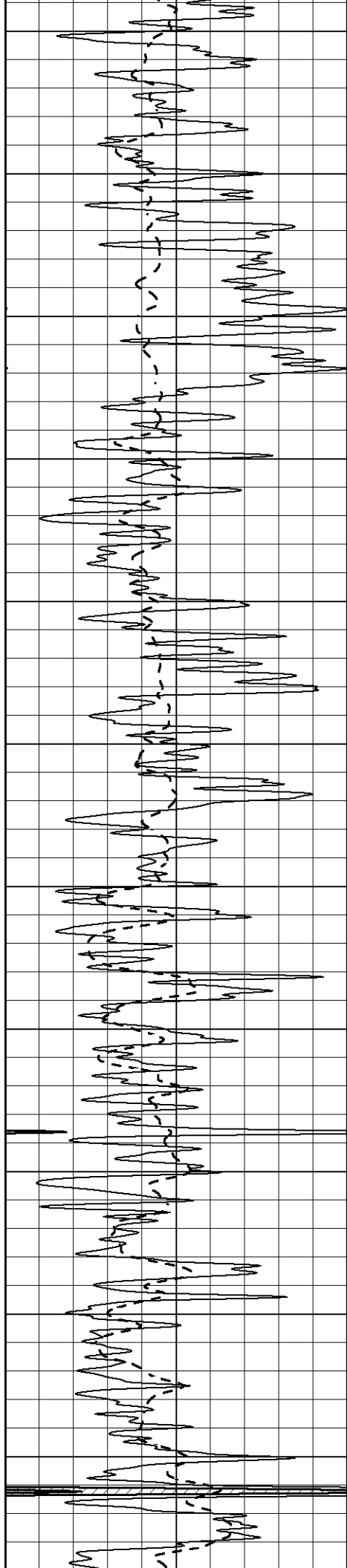




2100
2150
2200
2250
2300
2350
2400
2450
2500
2550
2600







3200

3250

3300

3350

3400

3450

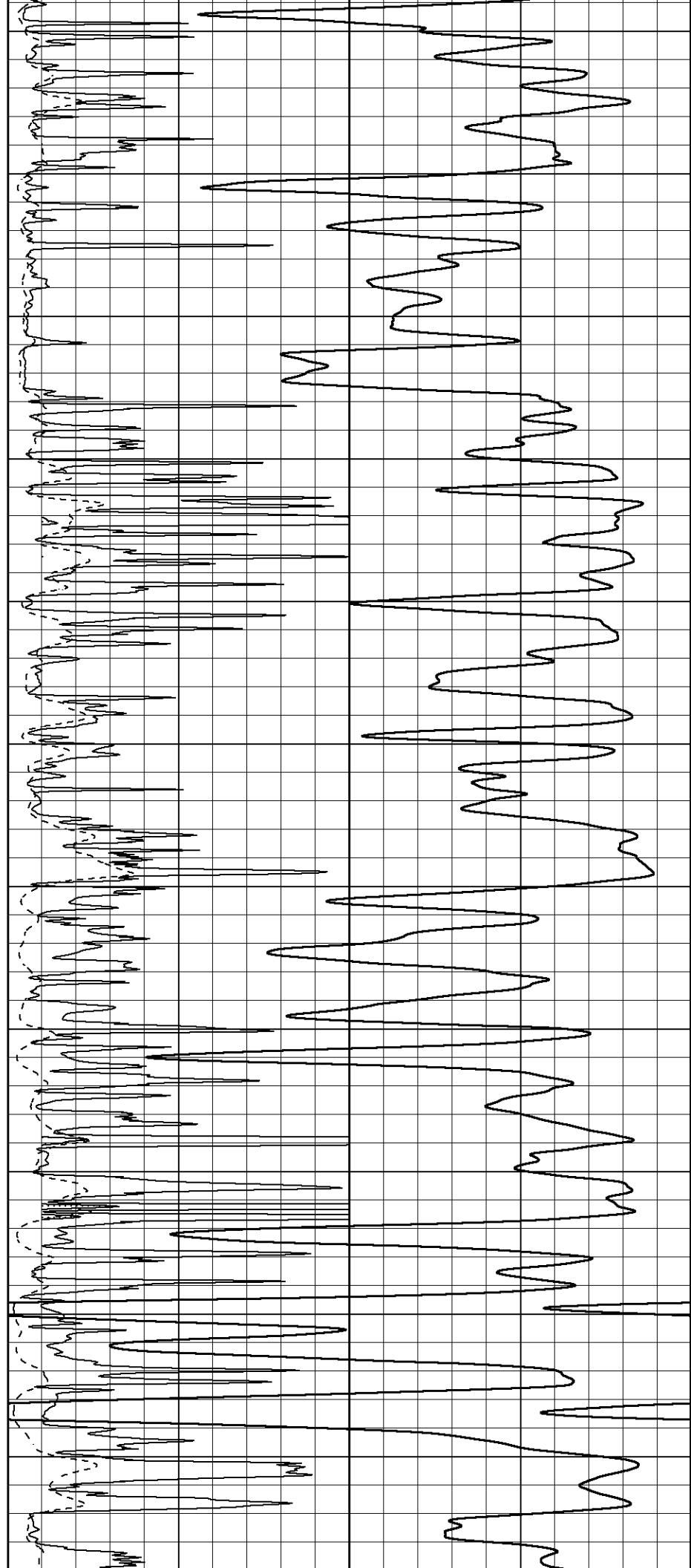
3500

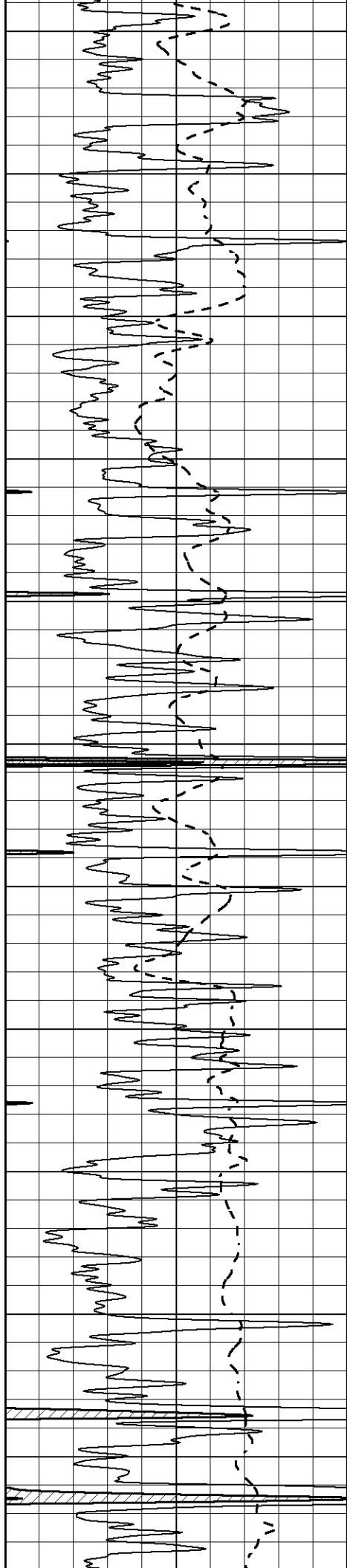
3550

3600

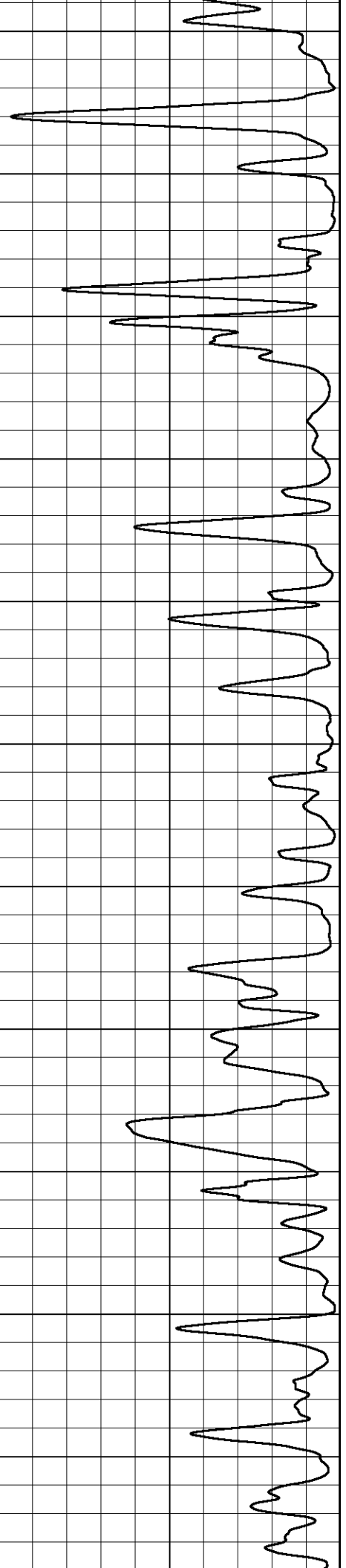
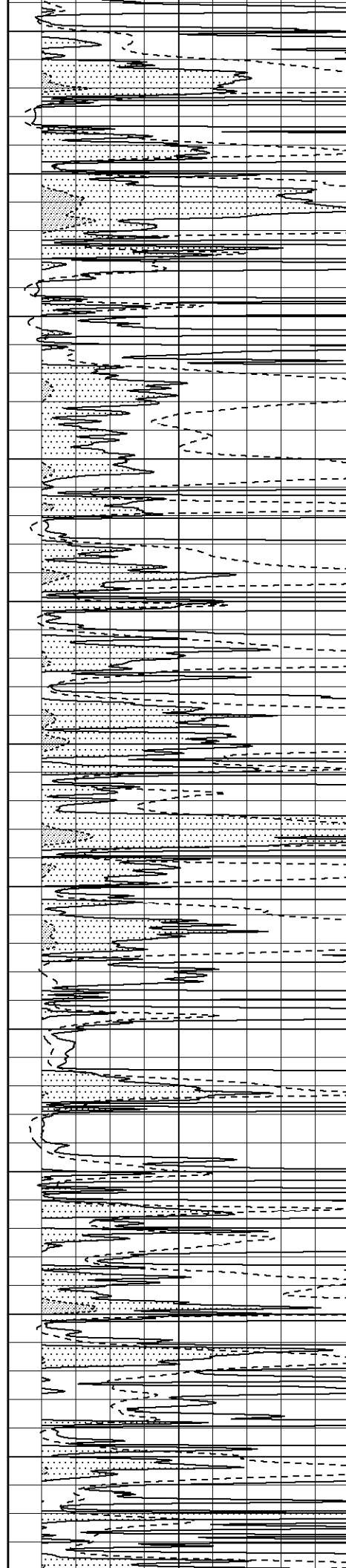
3650

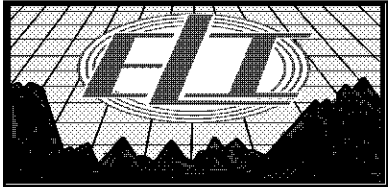
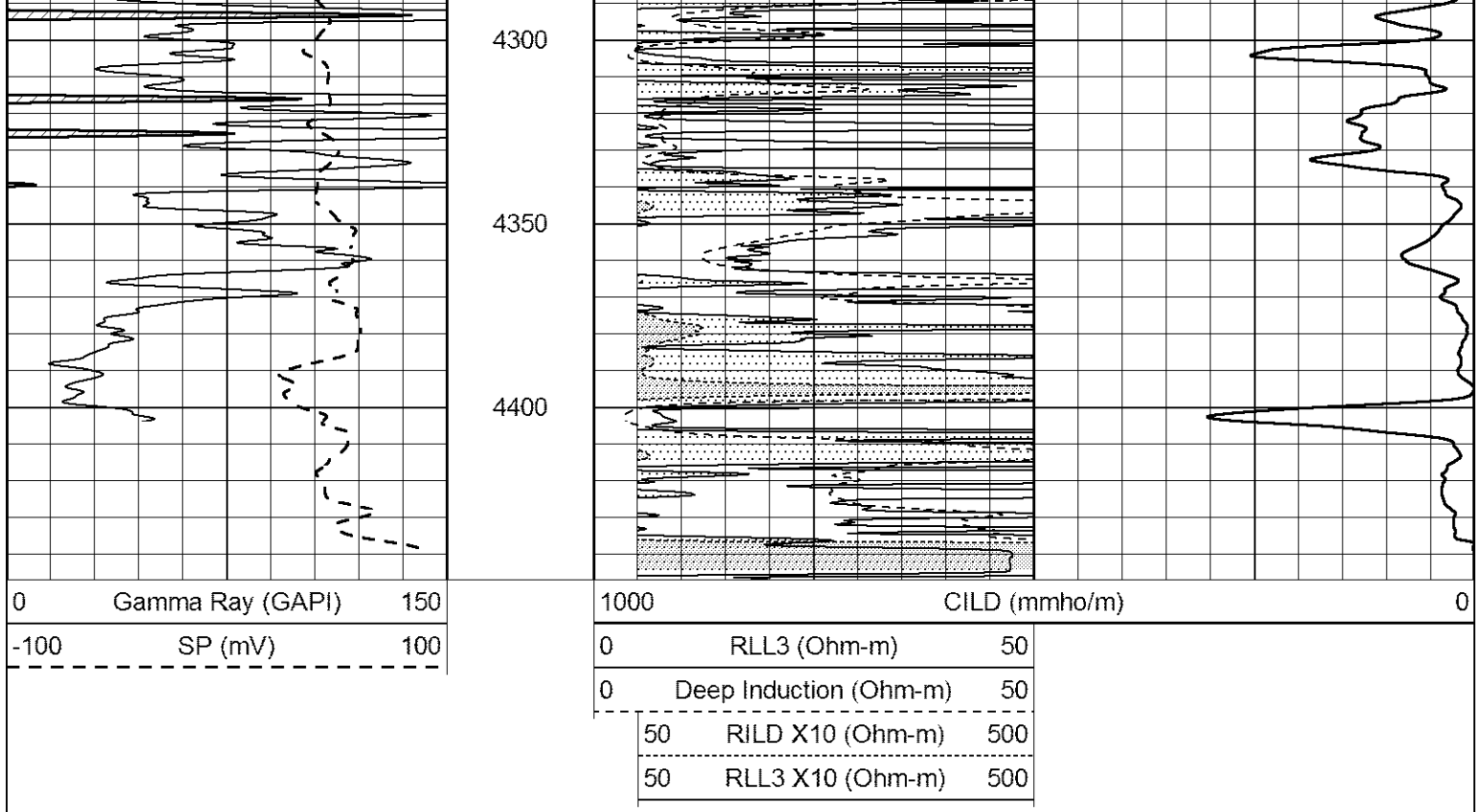
3700





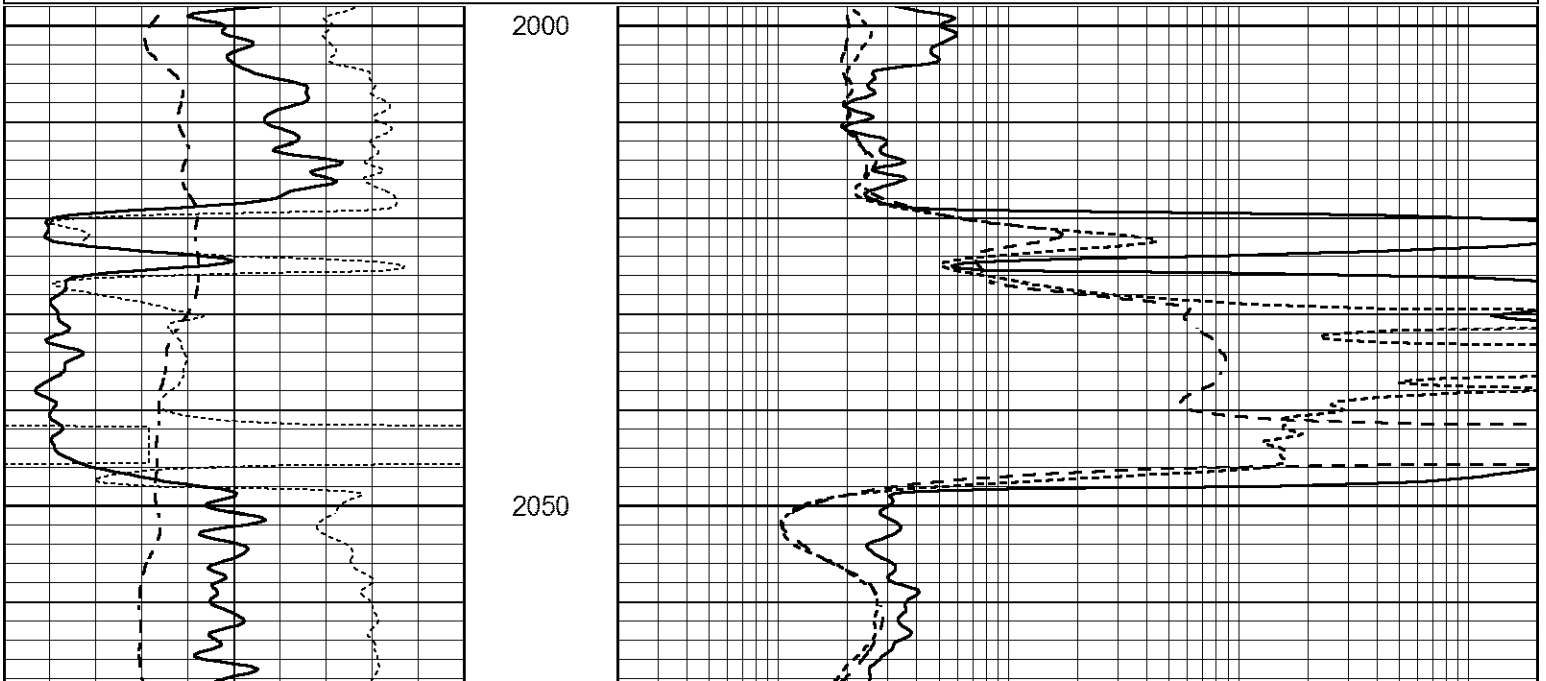
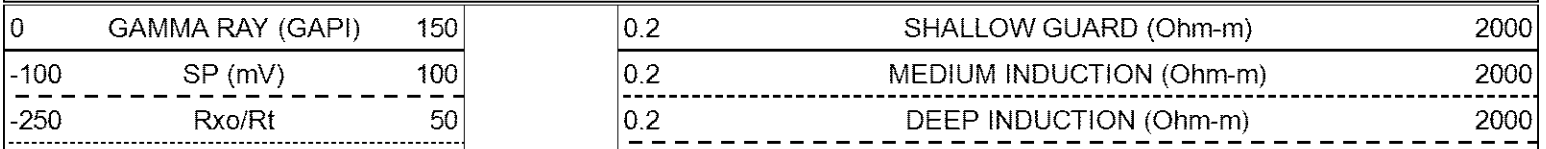
3750
3800
3850
3900
3950
4000
4050
4100
4150
4200
4250





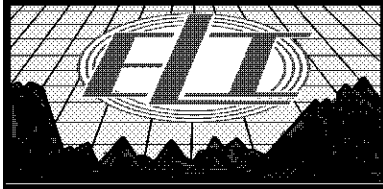
ANHYDRITE

Database File 7024pe.db
 Dataset Pathname pass3A
 Presentation Format _dil
 Dataset Creation Thu Sep 29 00:34:24 2022
 Charted by Depth in Feet scaled 1:240



0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000

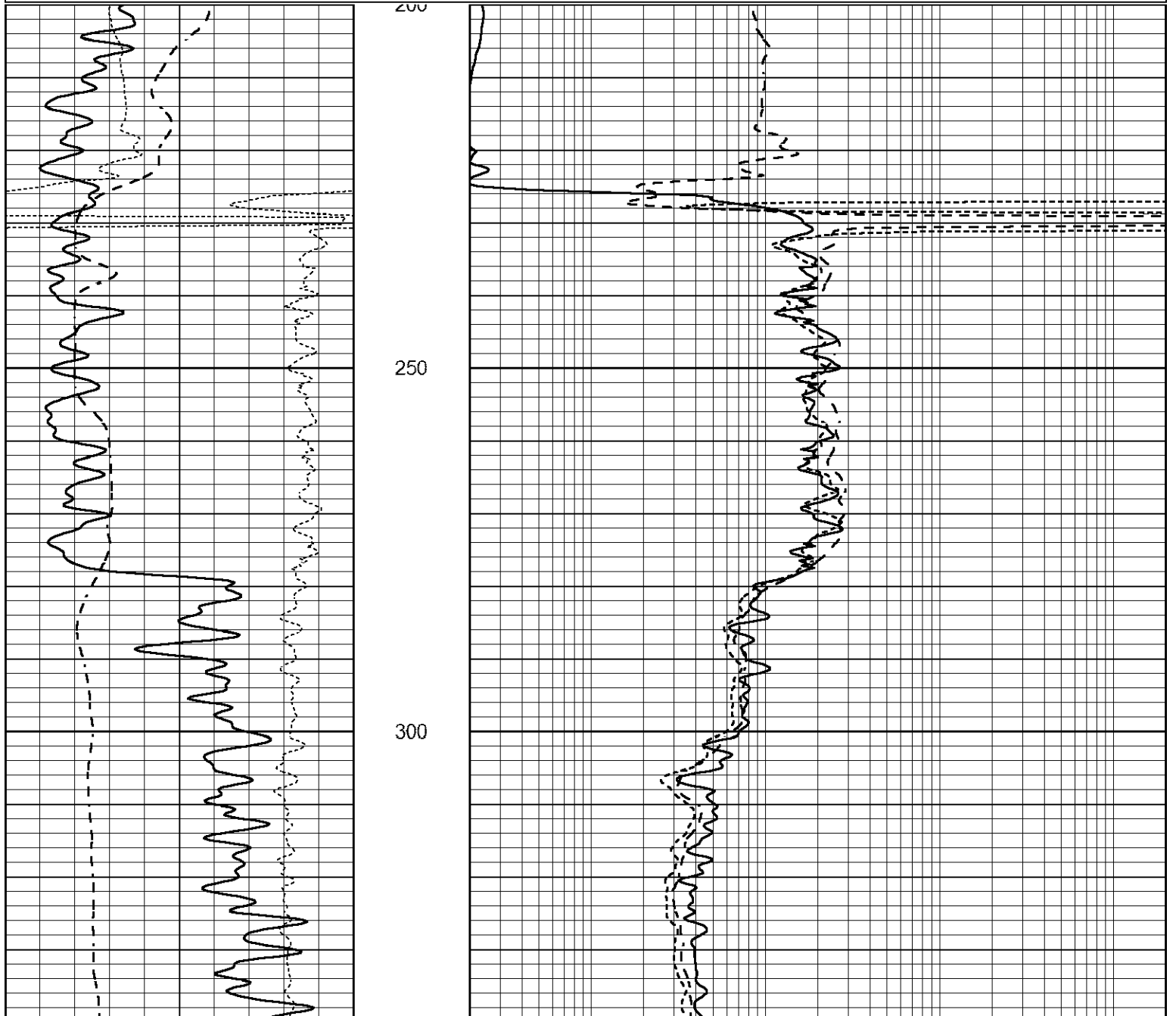


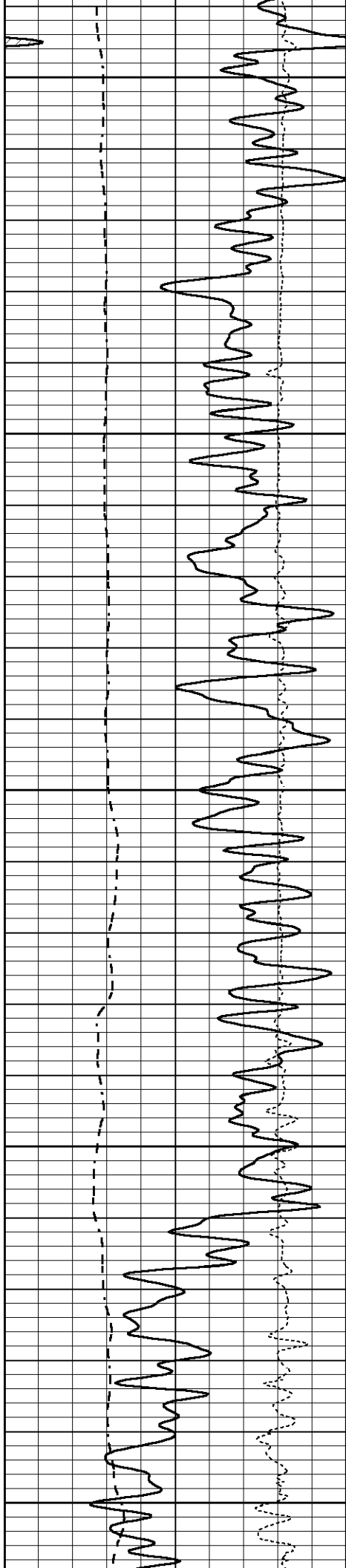
MAIN SECTION

Database File 7024pe.db
 Dataset Pathname pass3M
 Presentation Format _dil
 Dataset Creation Thu Sep 29 02:01:13 2022
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000





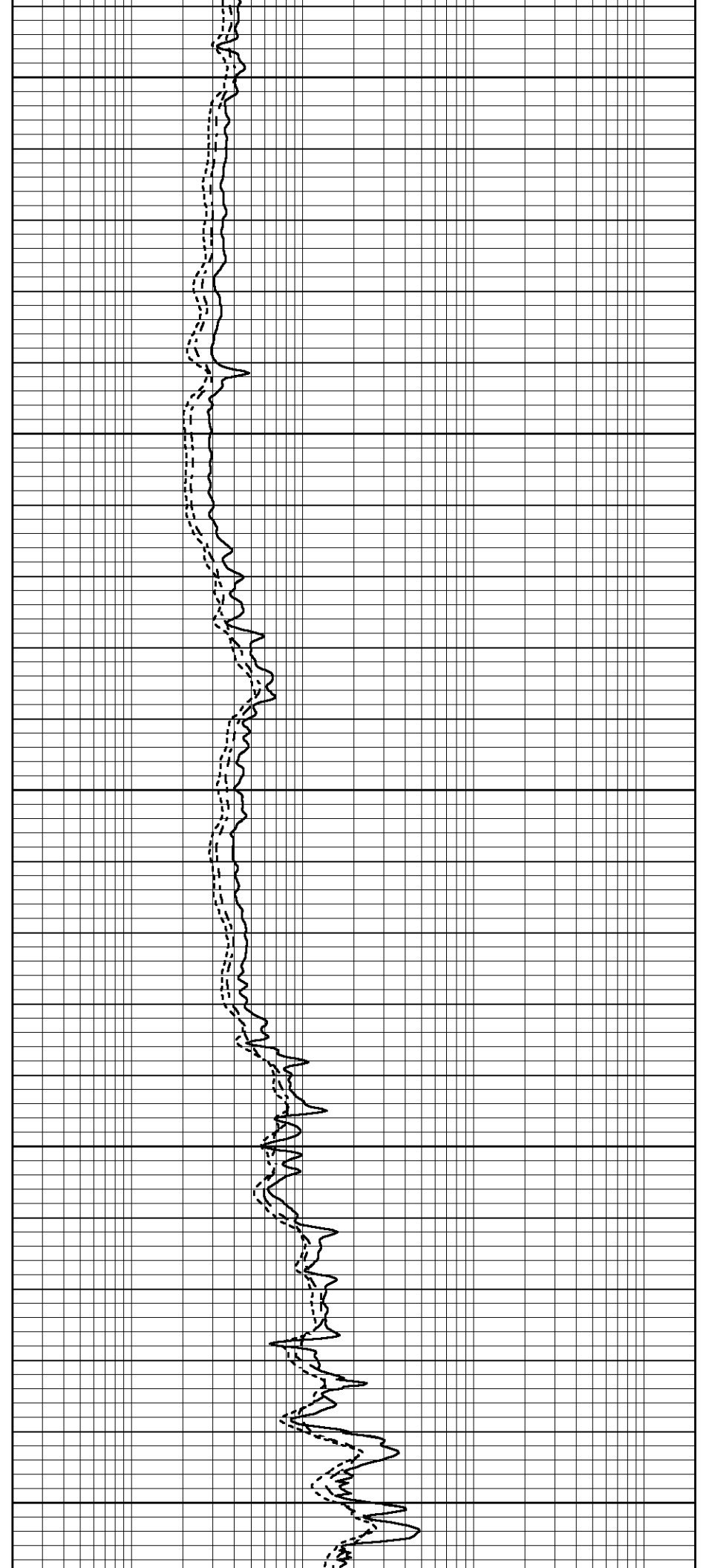
350

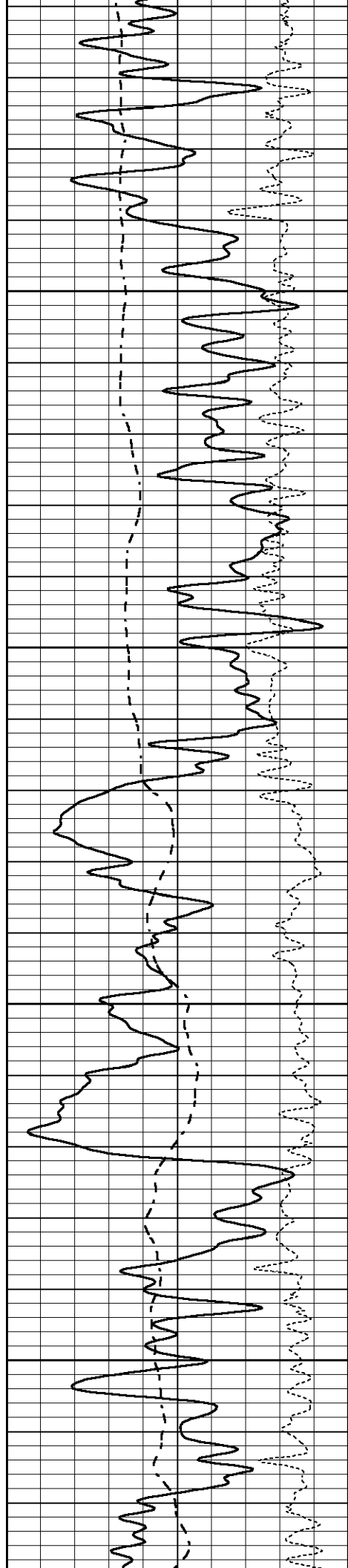
400

450

500

550



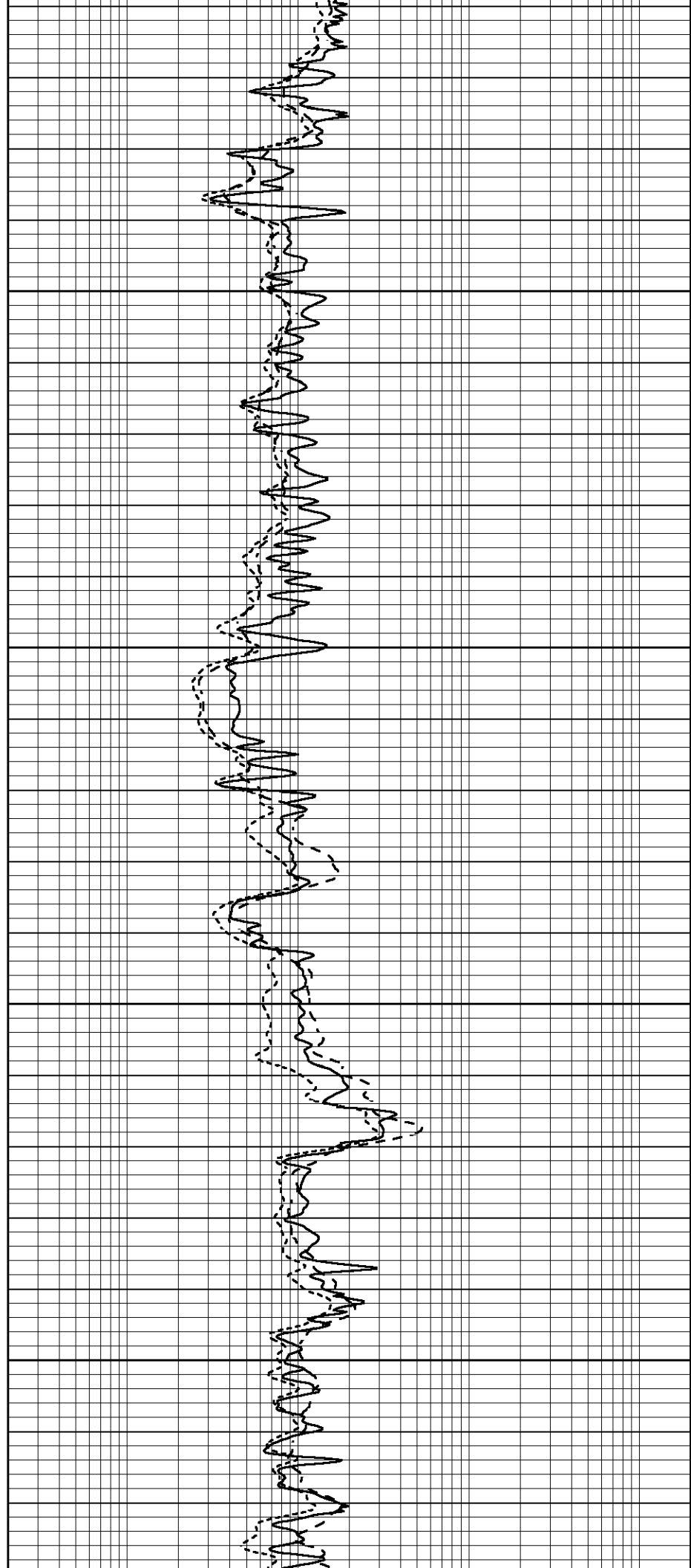


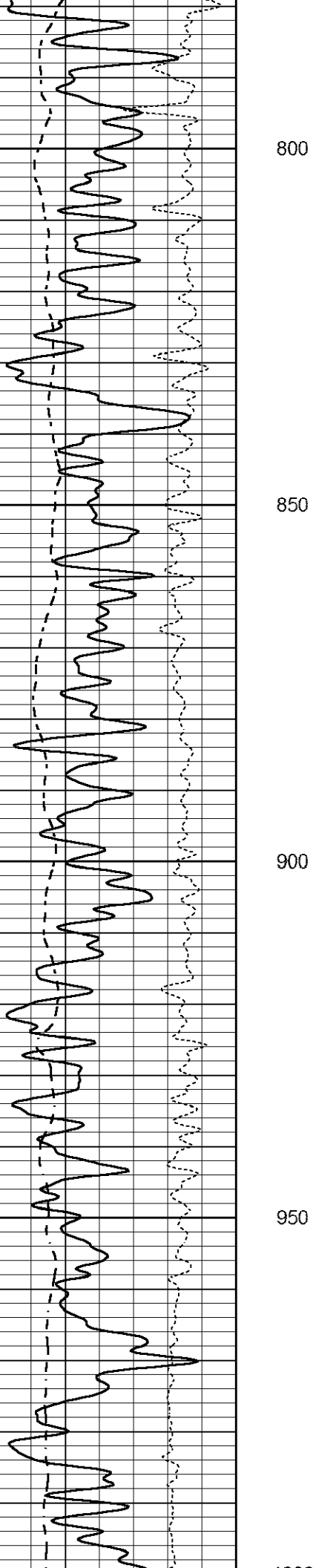
600

650

700

750



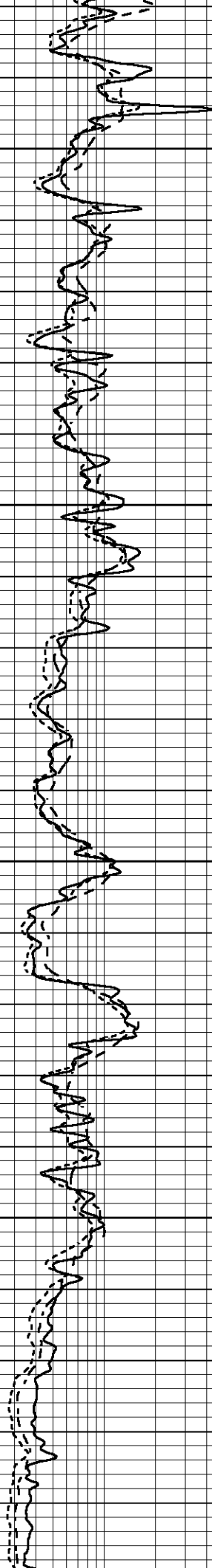


800

850

900

950



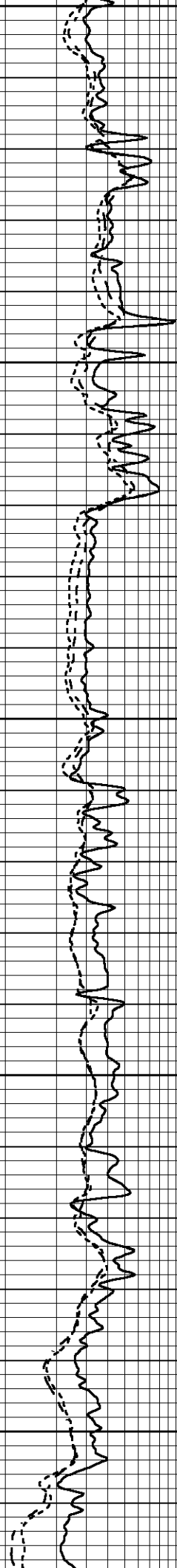
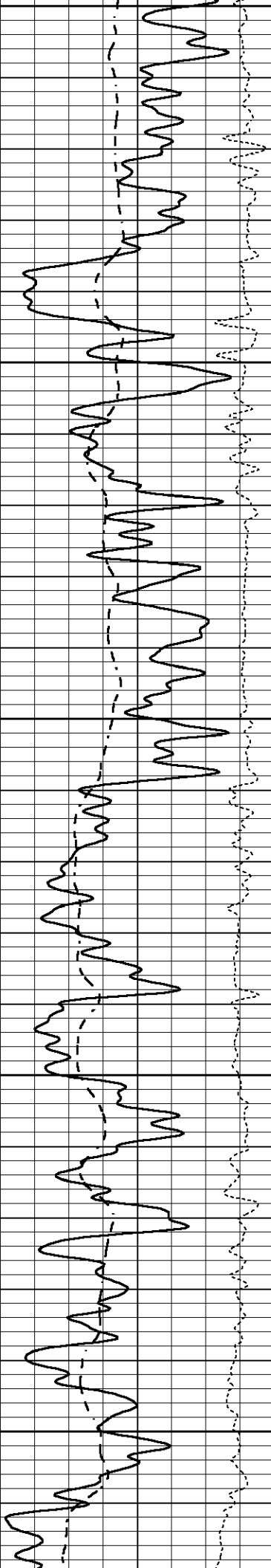
1000

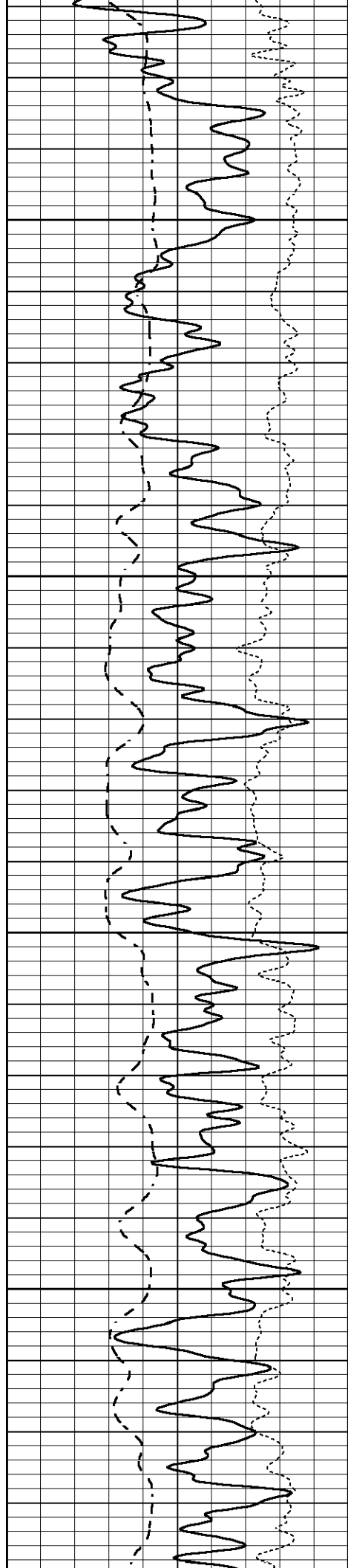
1050

1100

1150

1200



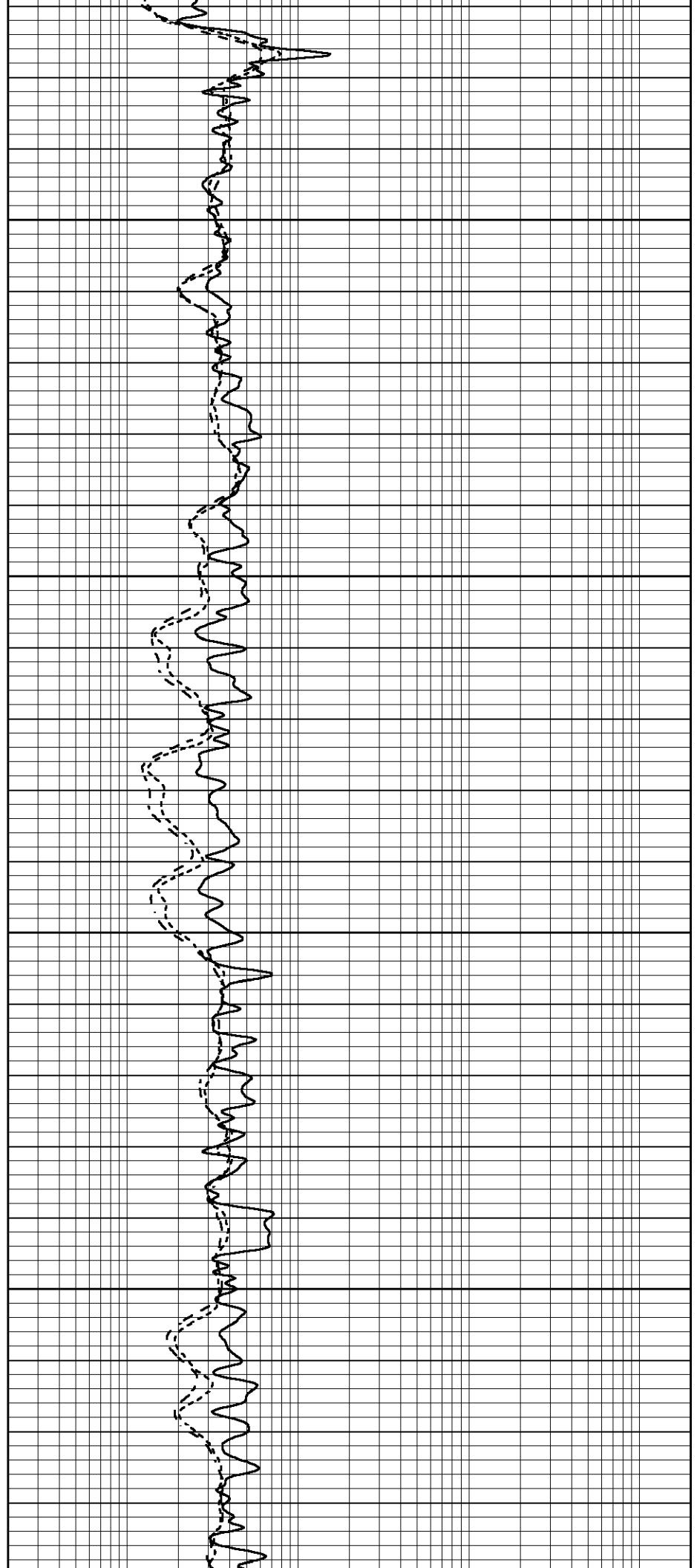


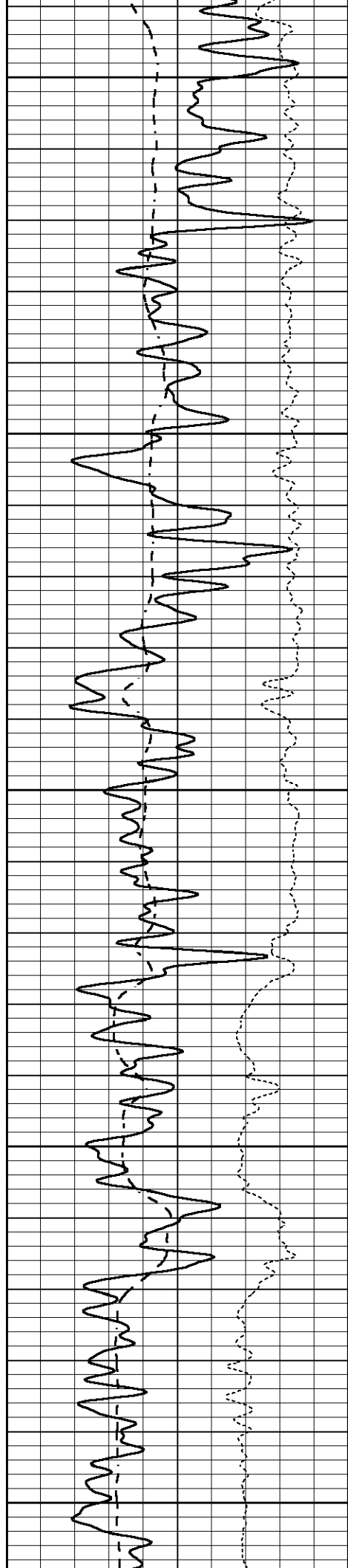
1250

1300

1350

1400





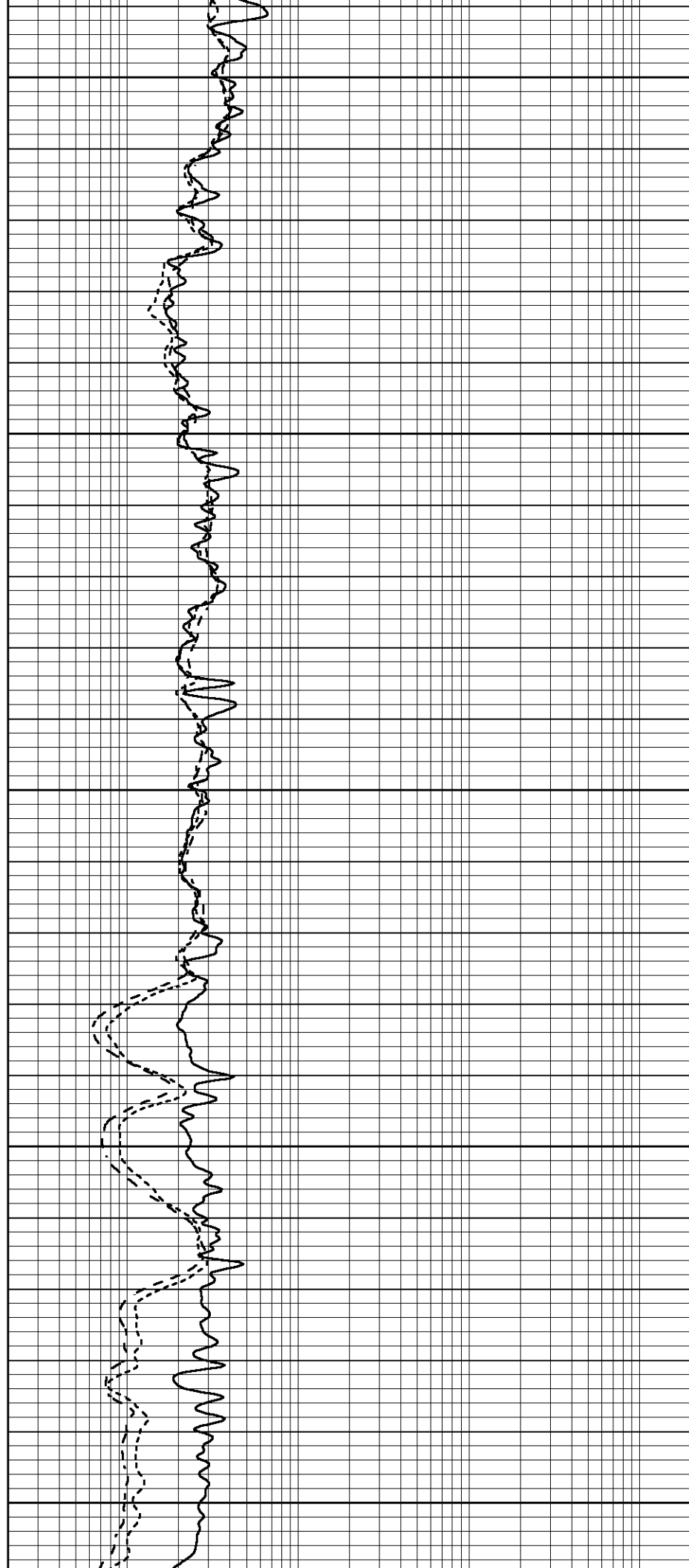
1450

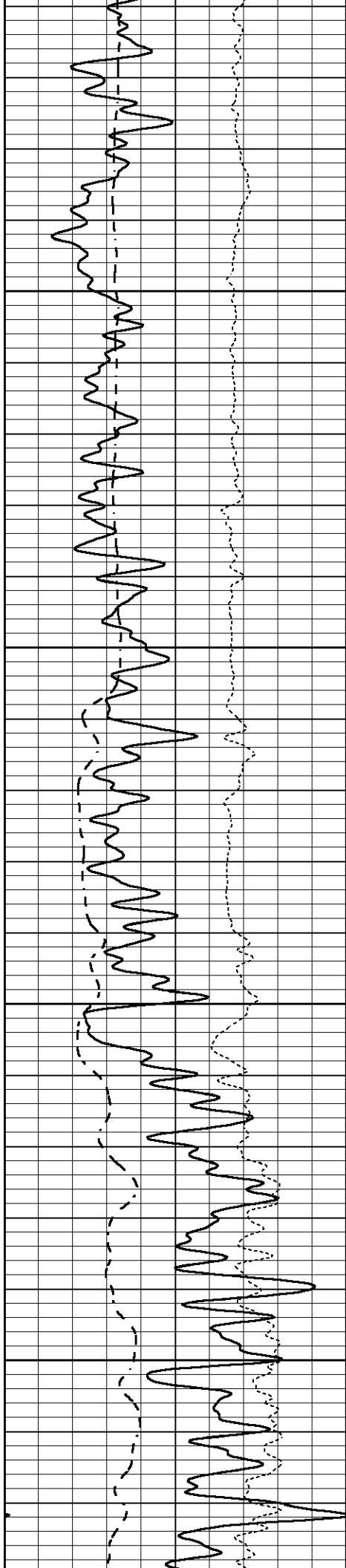
1500

1550

1600

1650



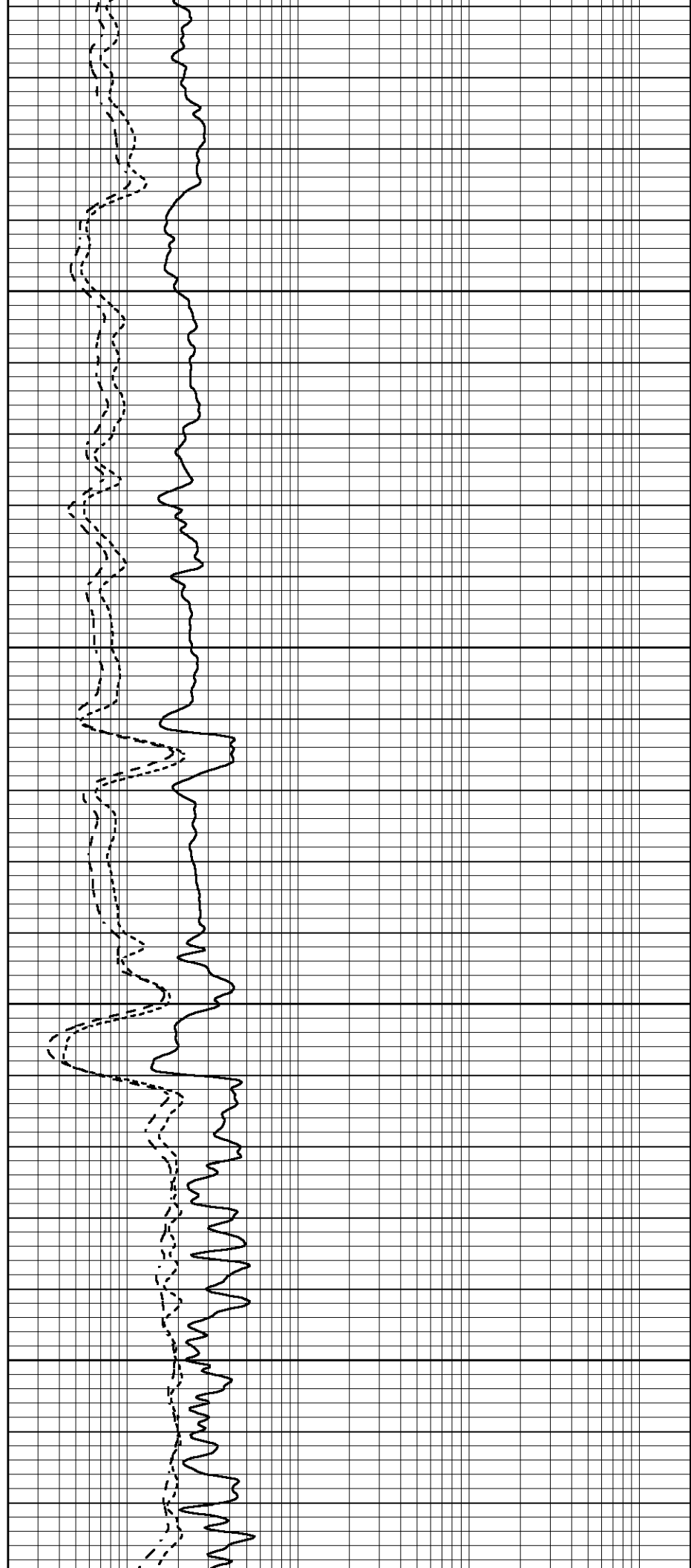


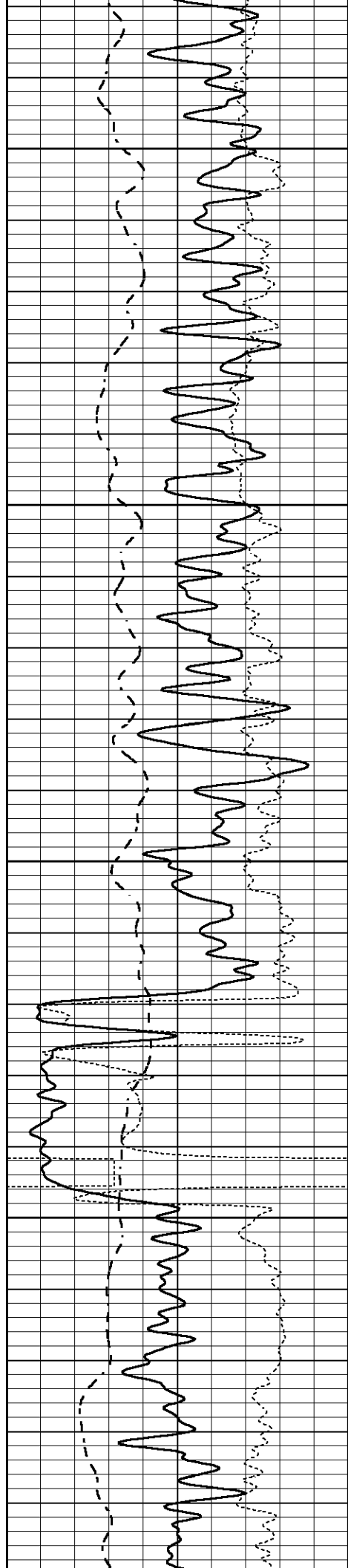
1700

1750

1800

1850



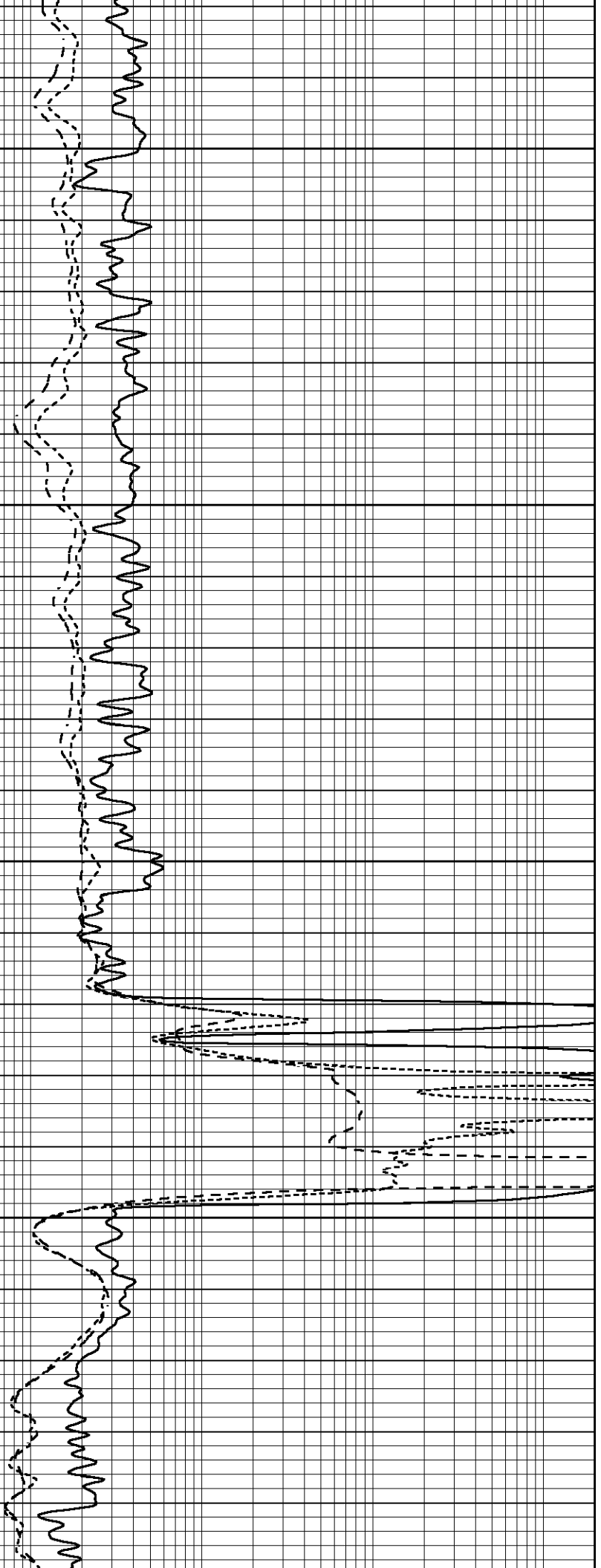
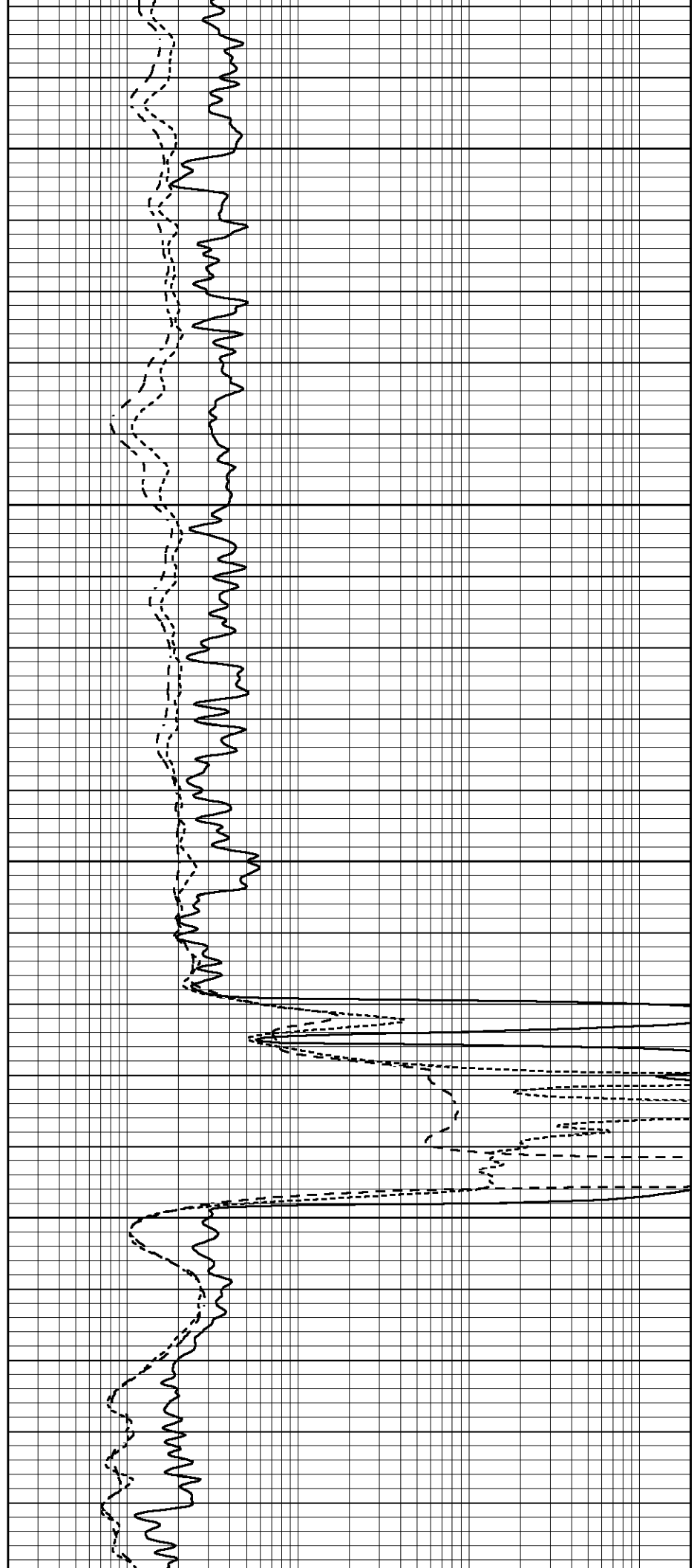


1900

1950

2000

2050





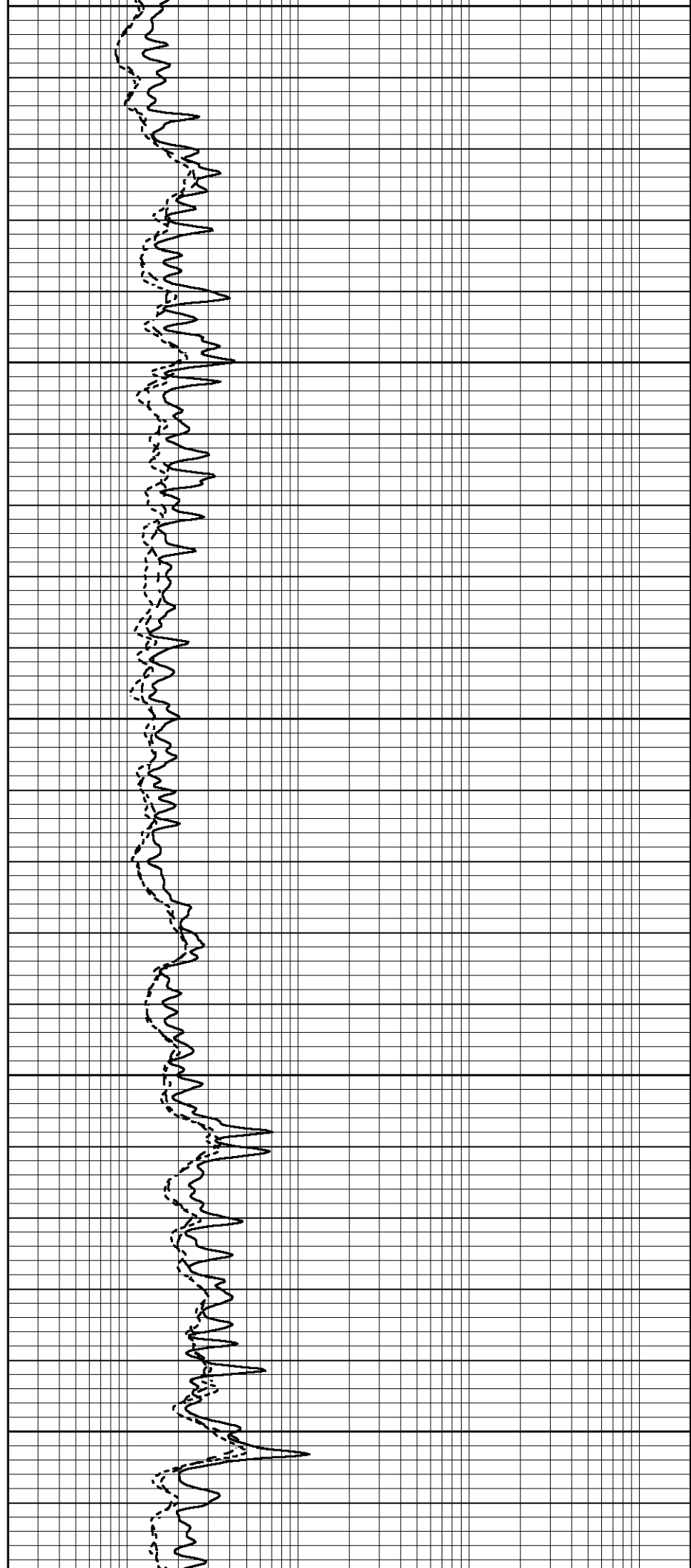
2100

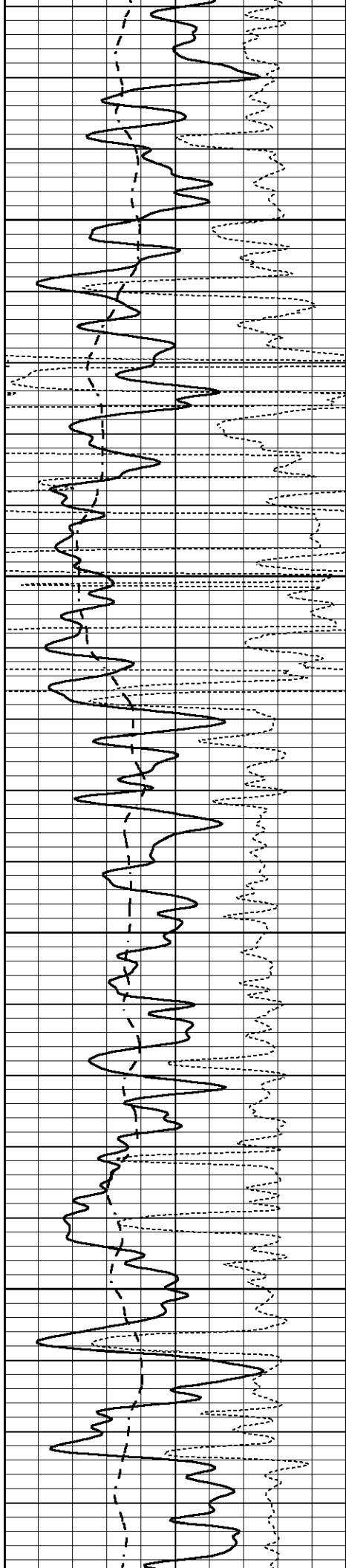
2150

2200

2250

2300



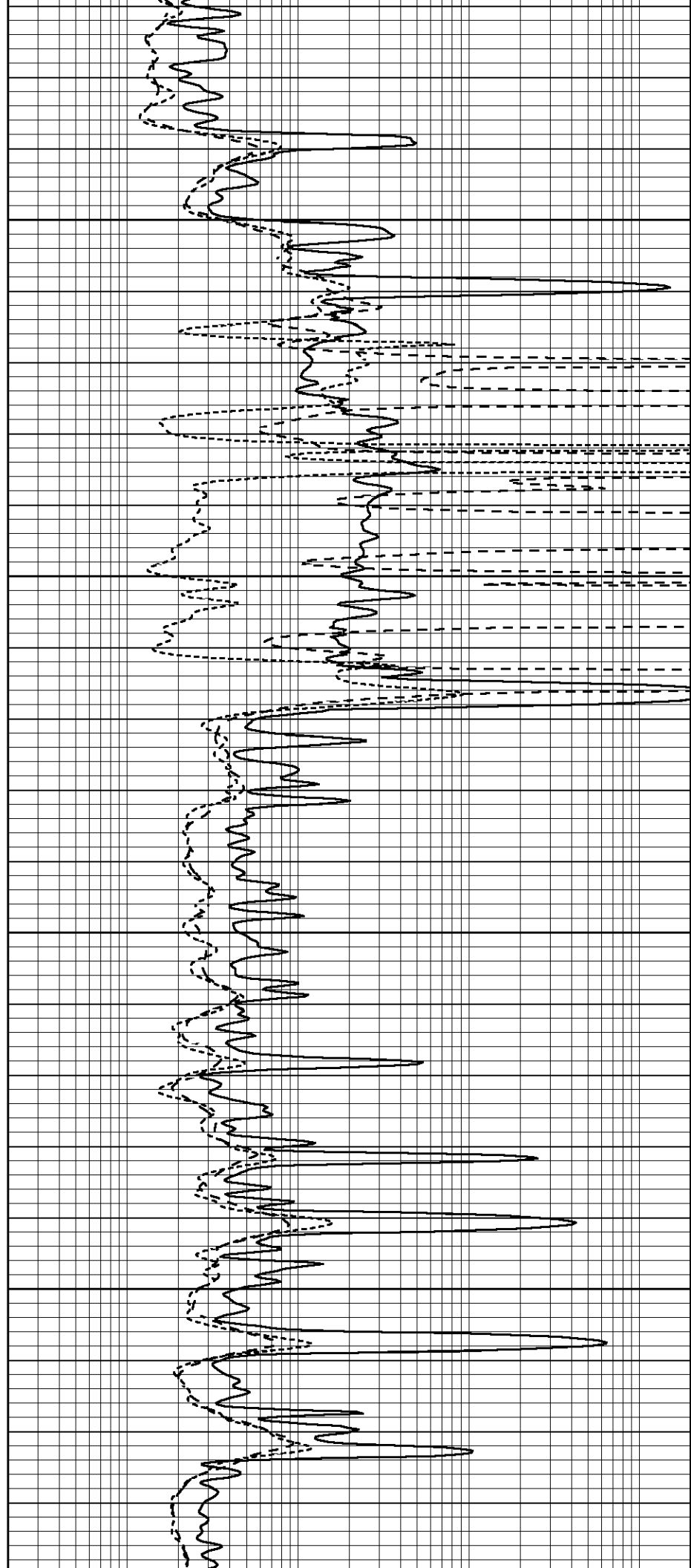


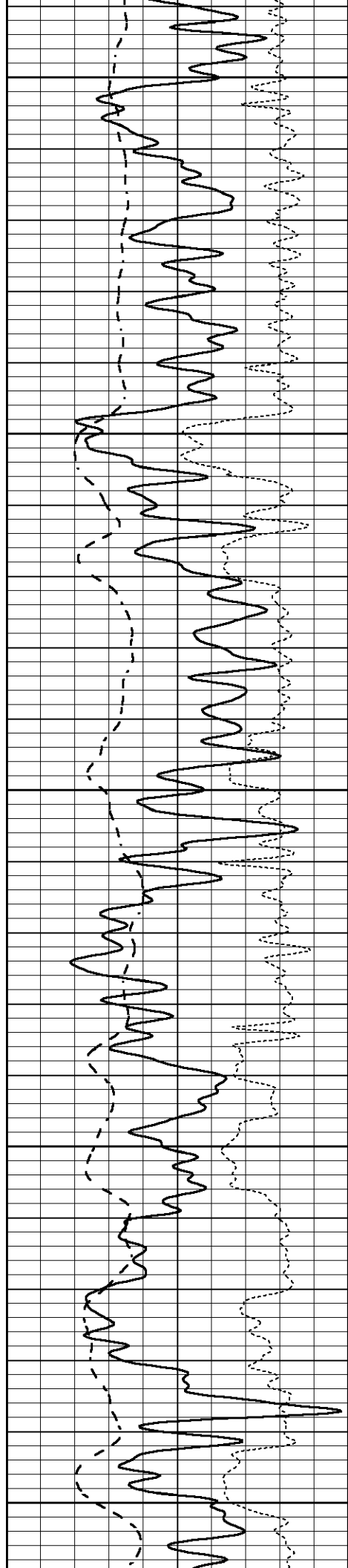
2350

2400

2450

2500





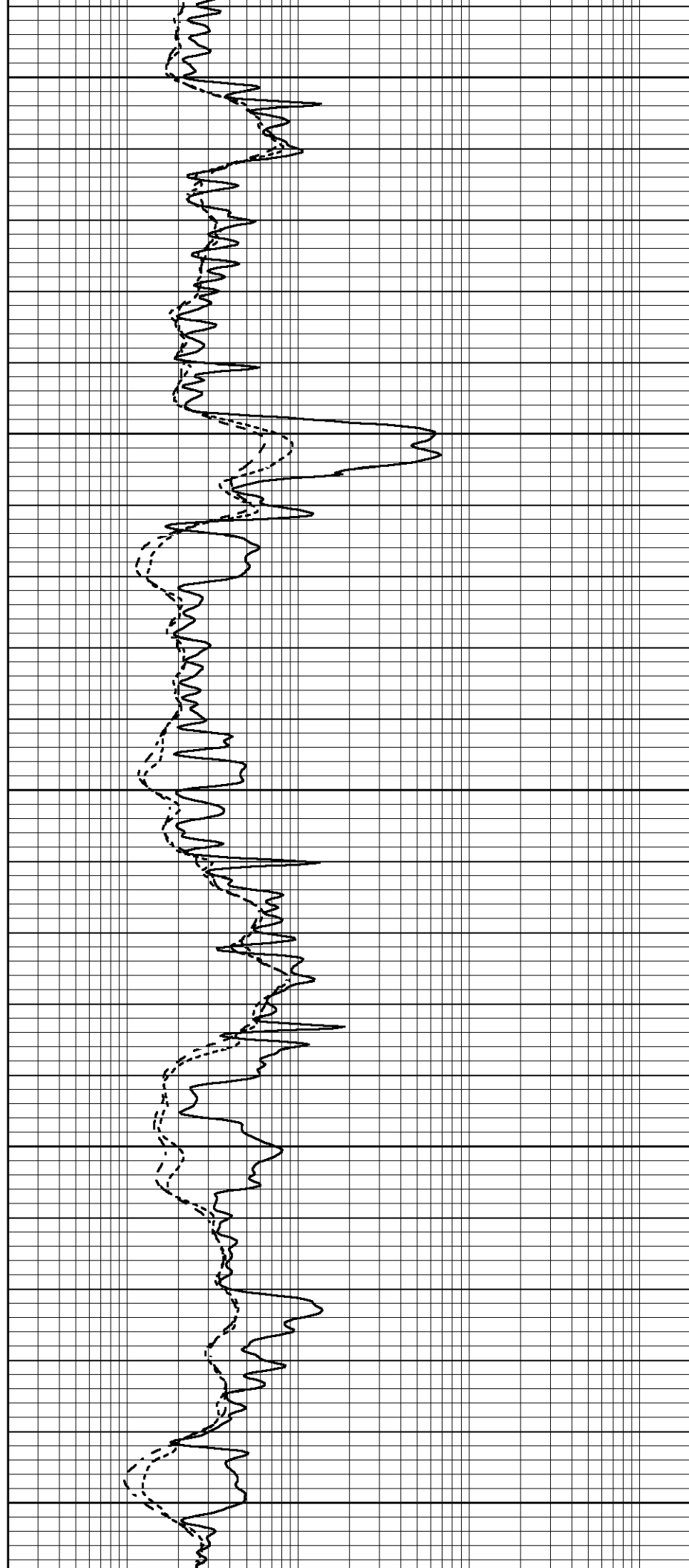
2550

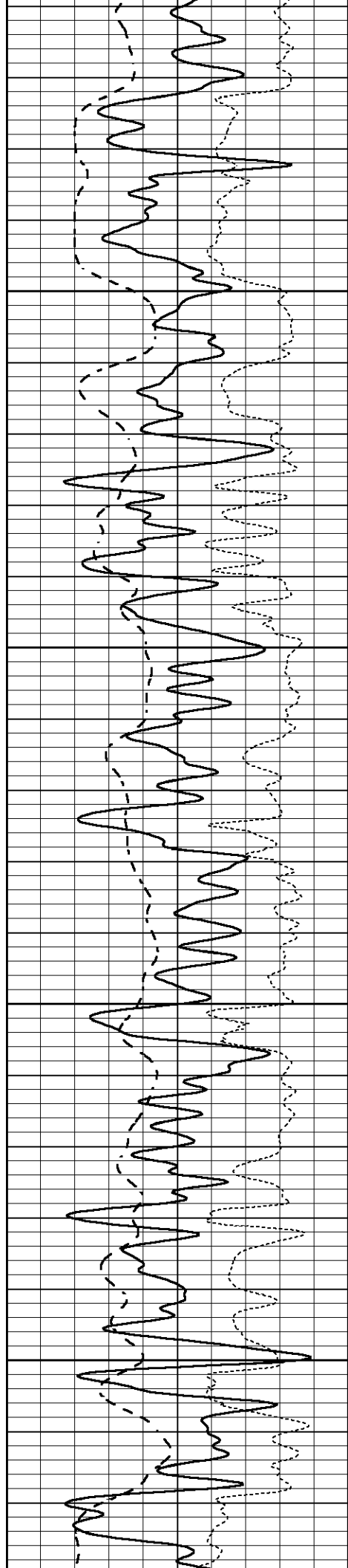
2600

2650

2700

2750



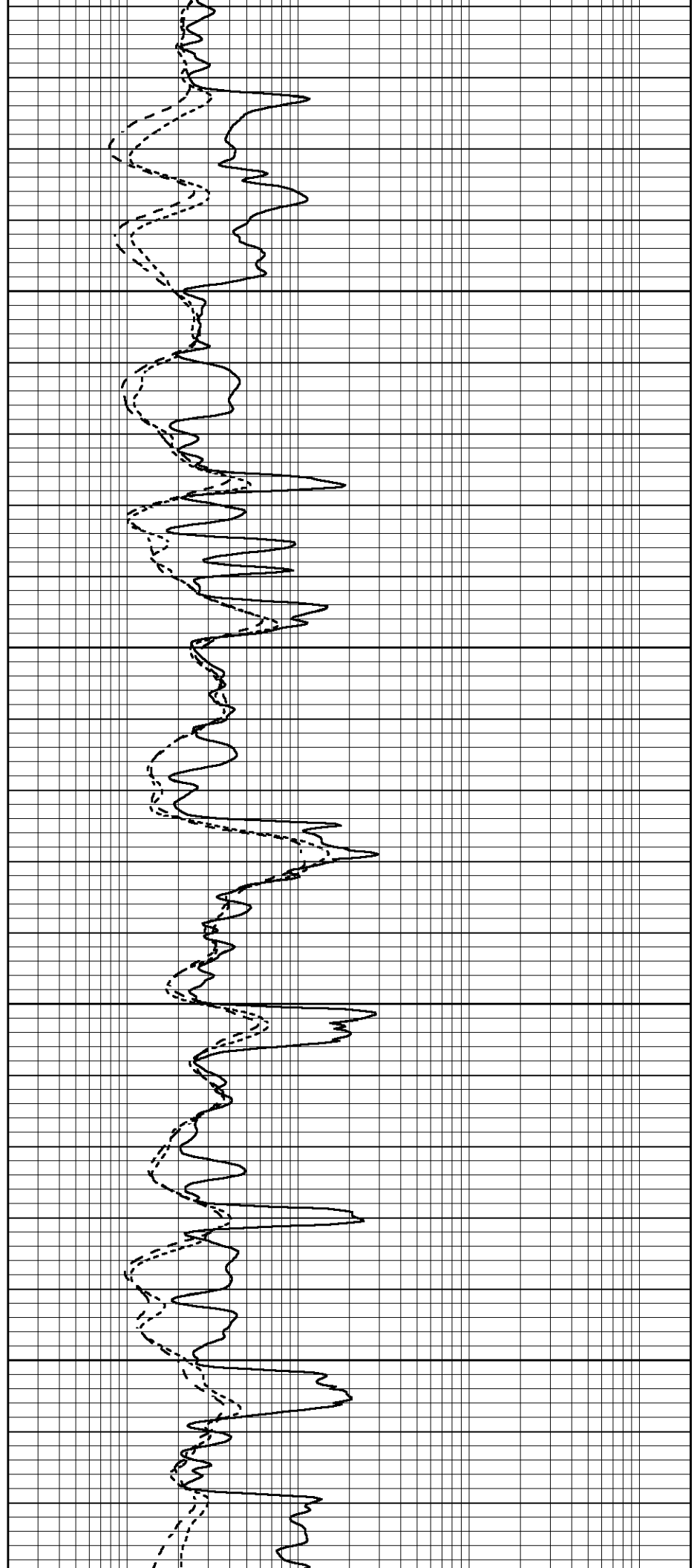


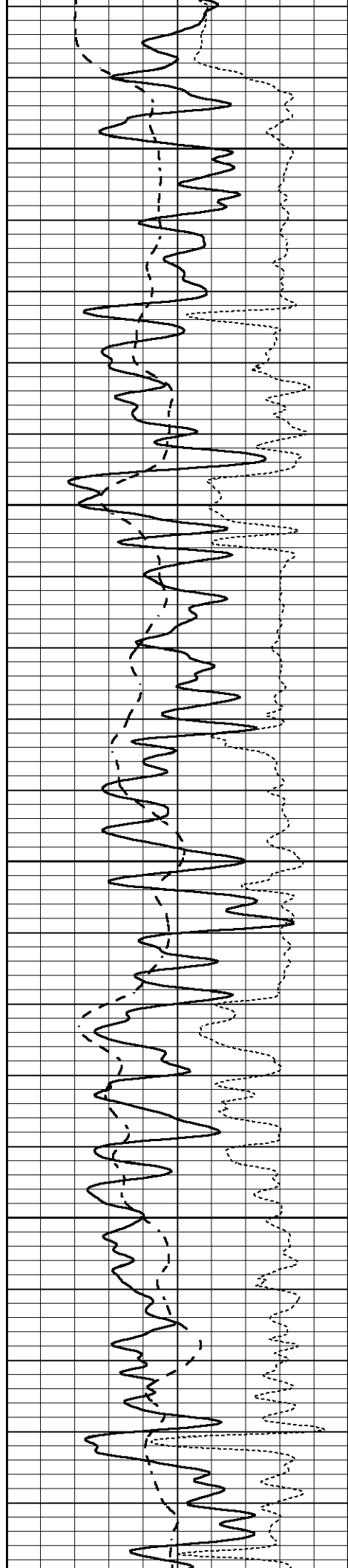
2800

2850

2900

2950





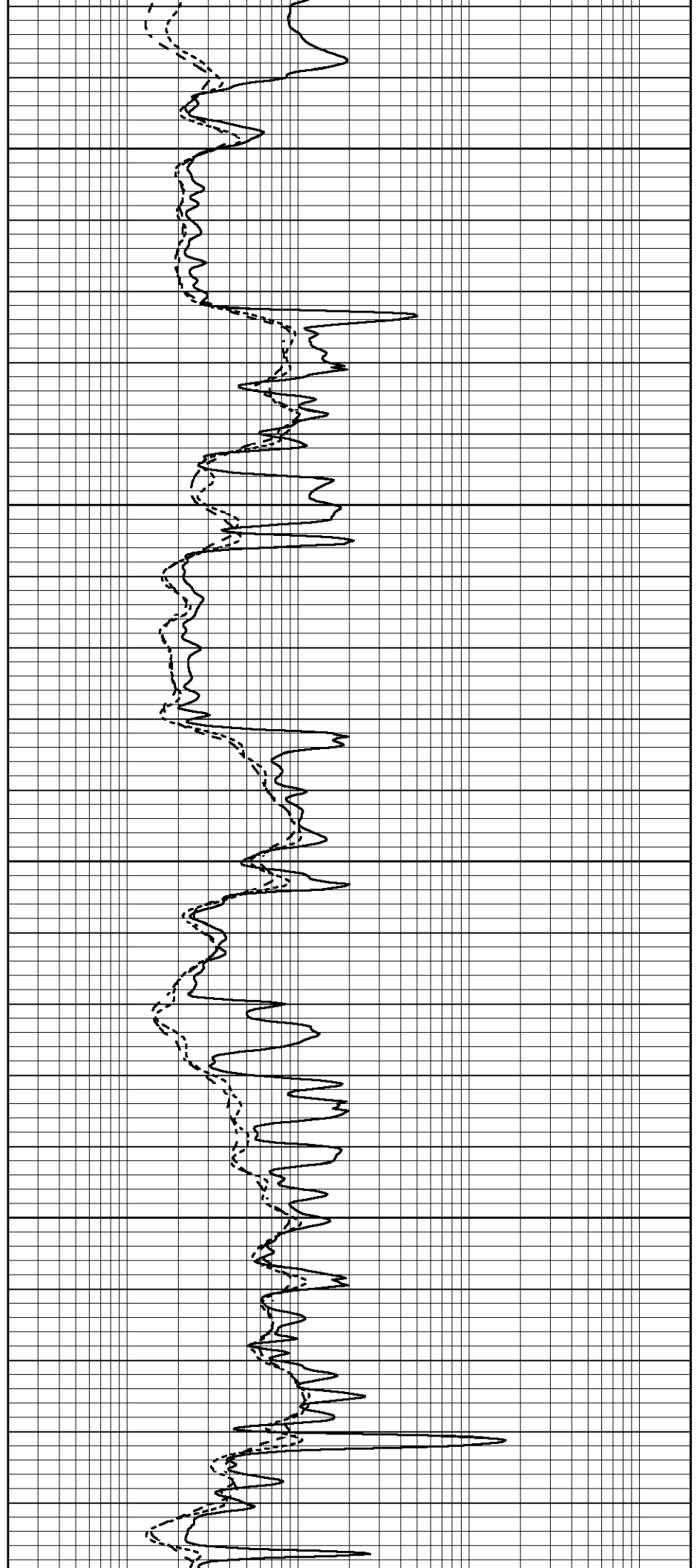
3000

3050

3100

3150

3200



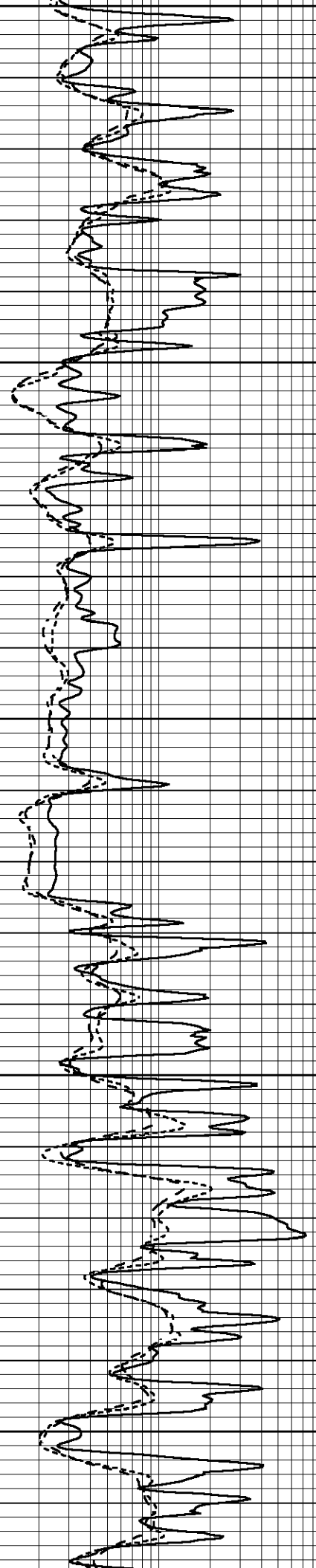
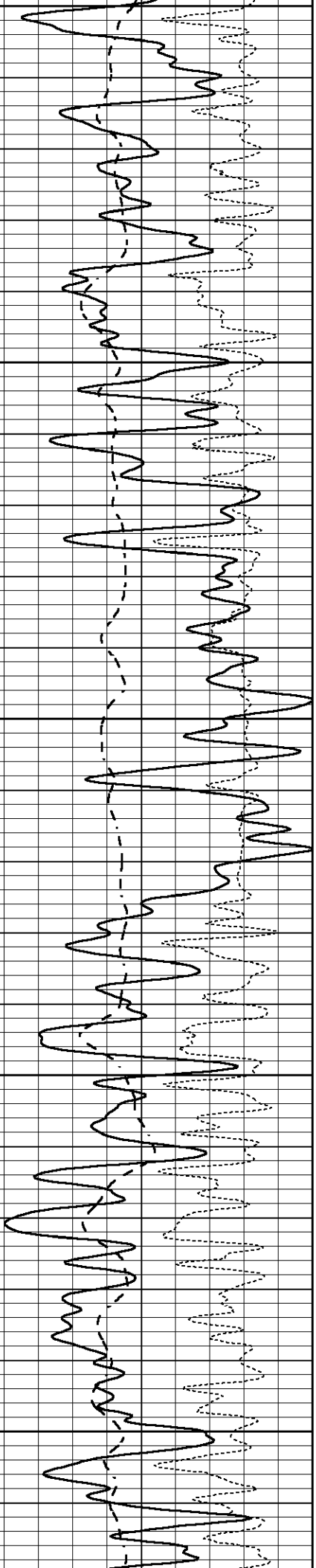
3200

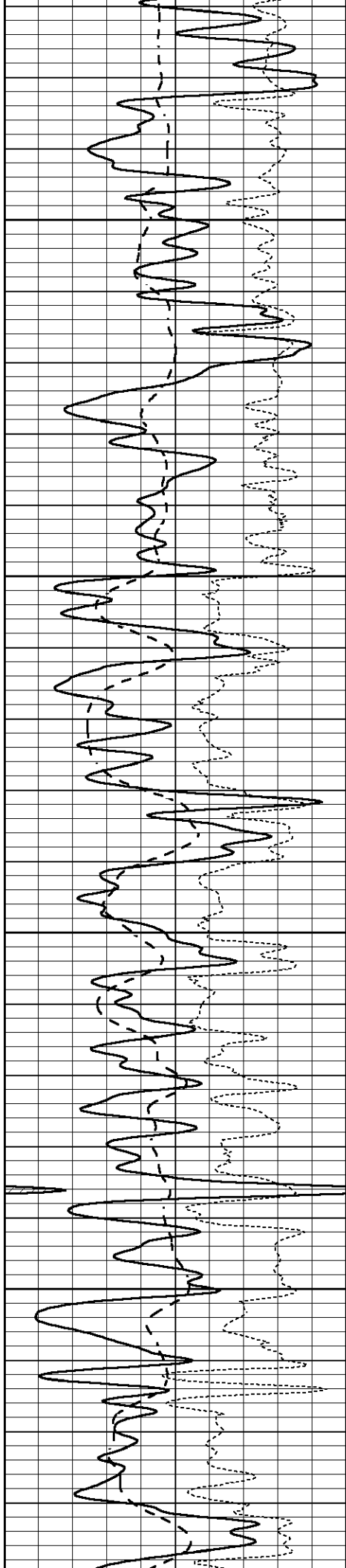
3250

3300

3350

3400



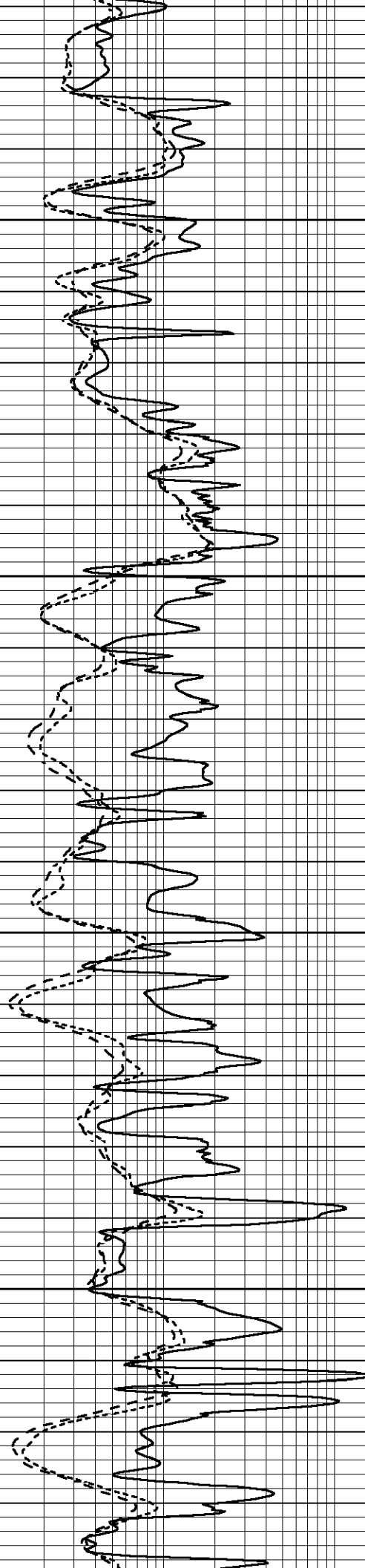


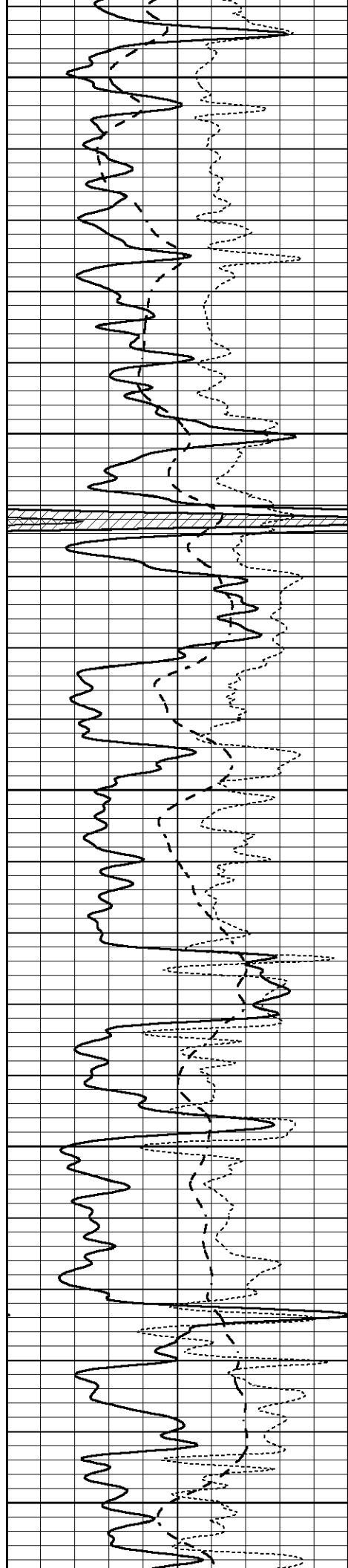
3450

3500

3550

3600





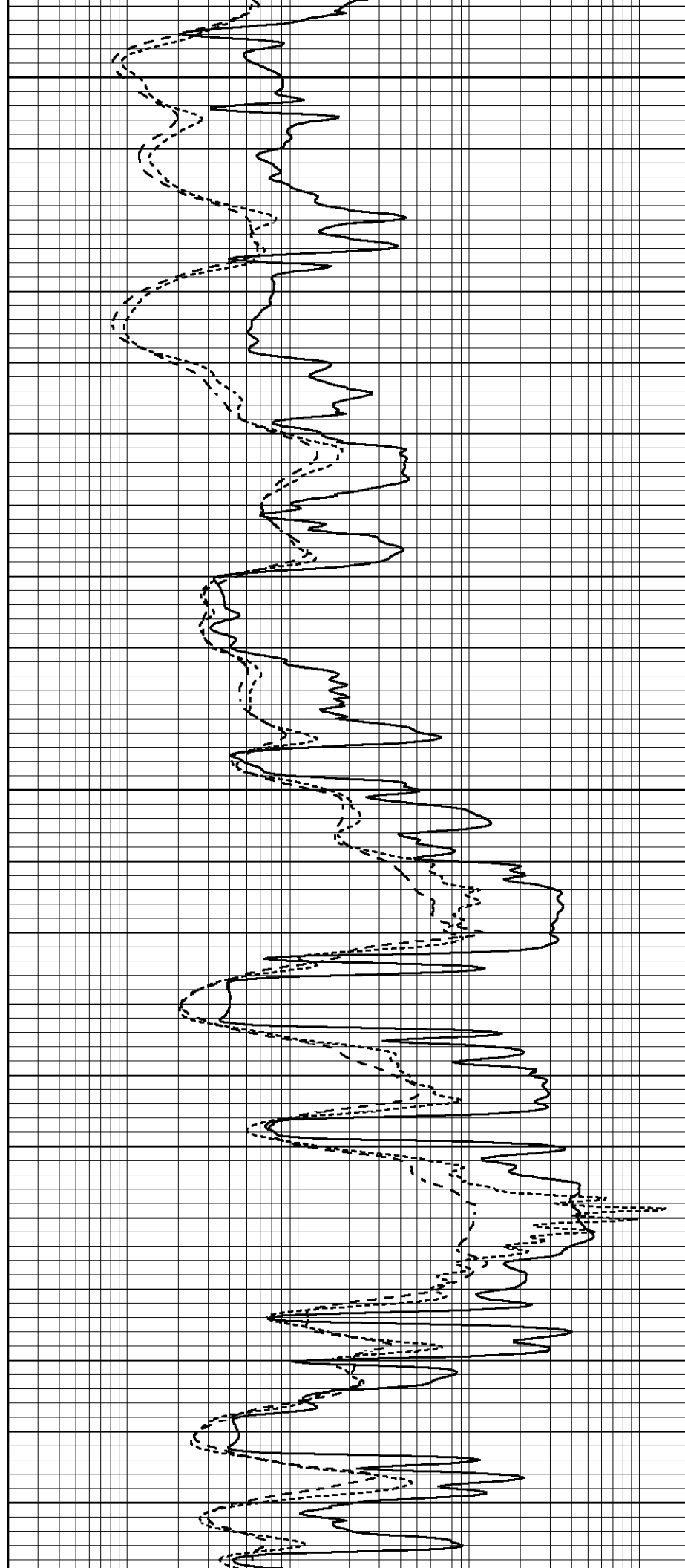
3650

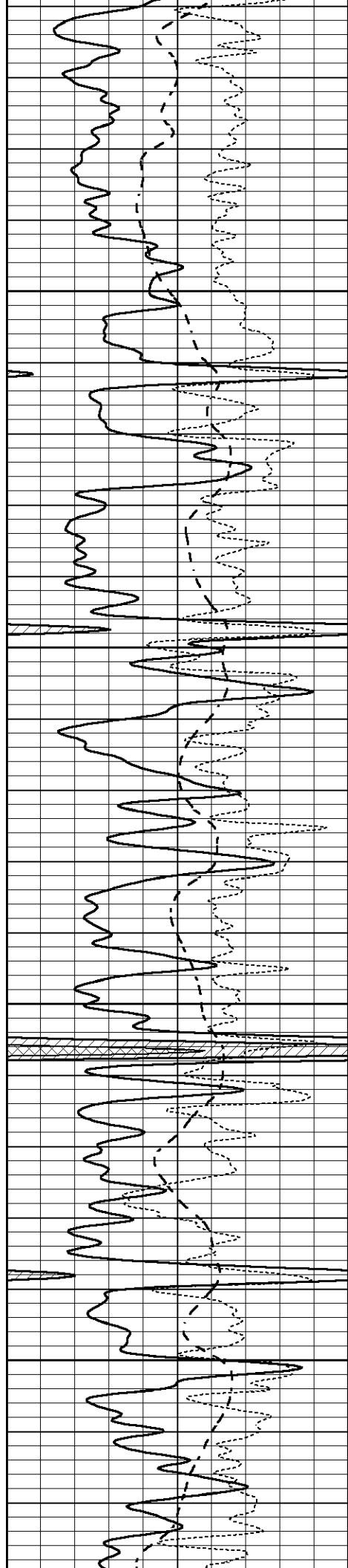
3700

3750

3800

3850



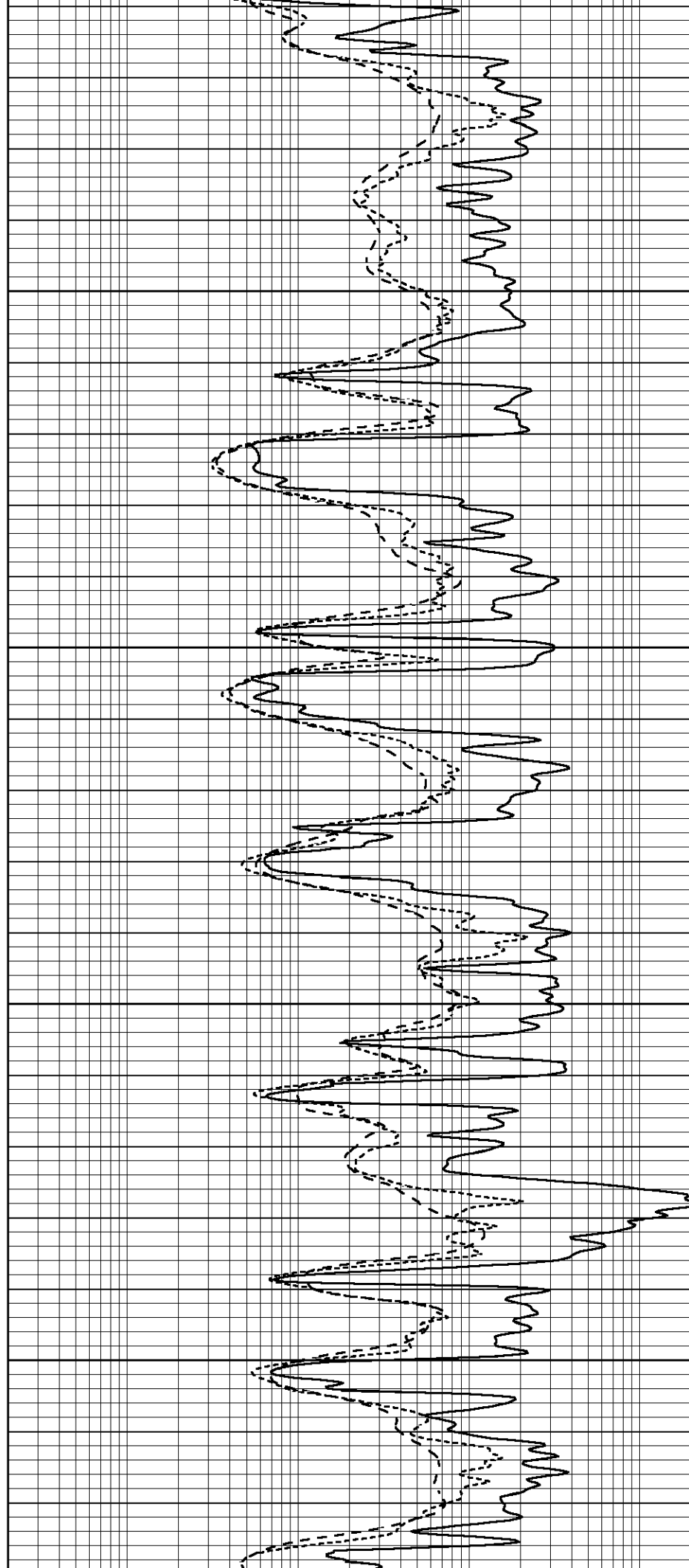


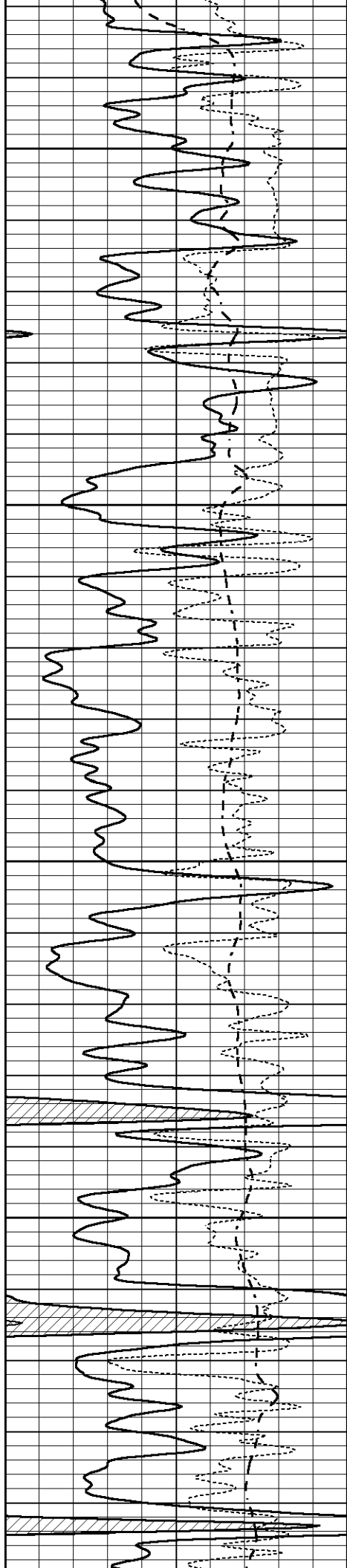
3900

3950

4000

4050





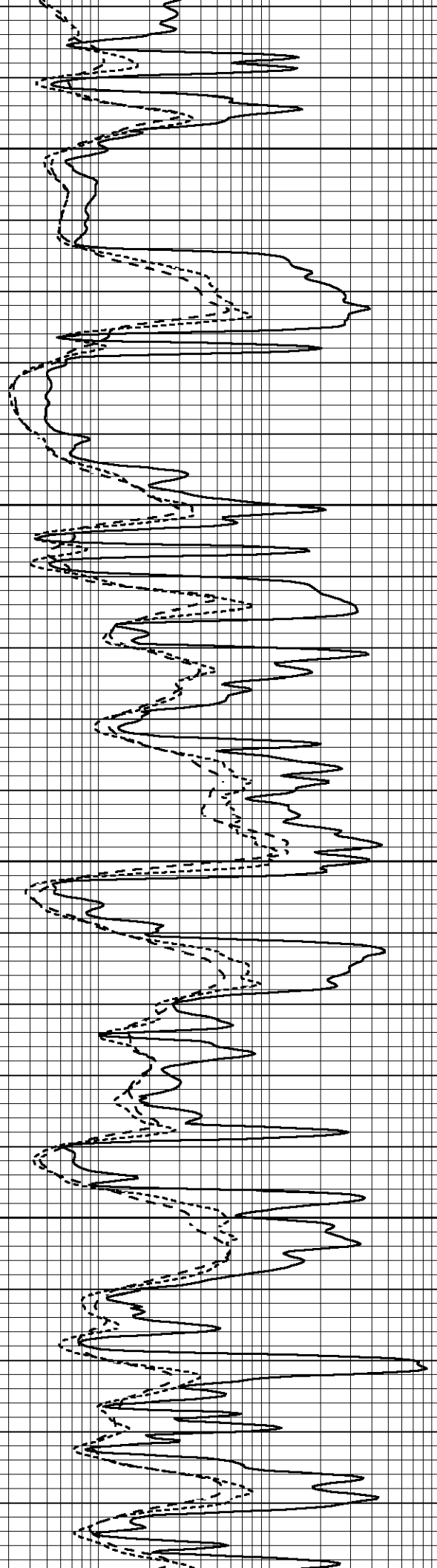
4100

4150

4200

4250

4300



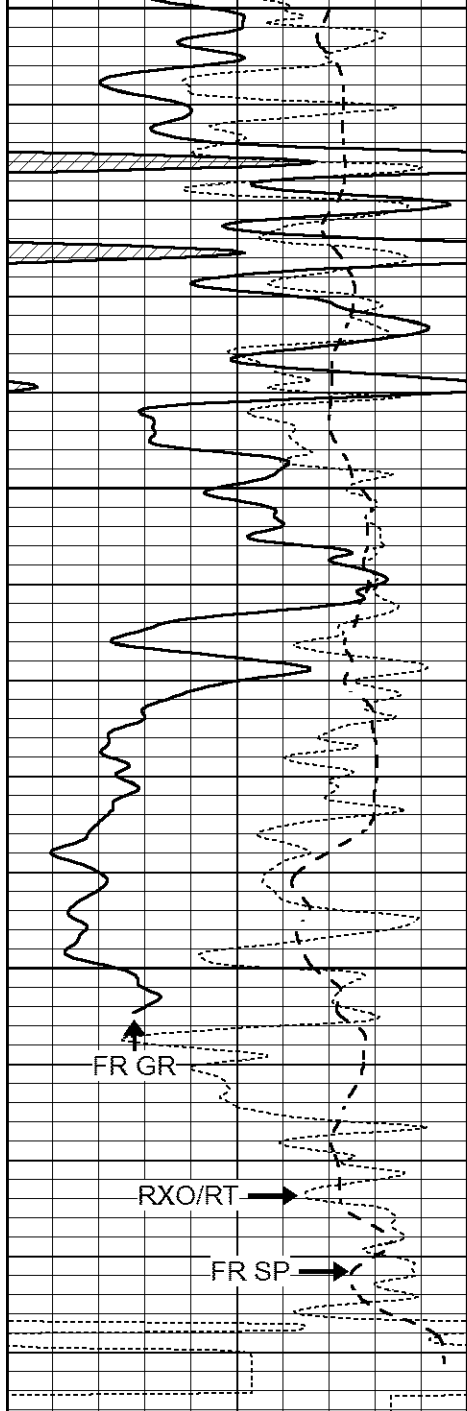
4100

4150

4200

4250

4300



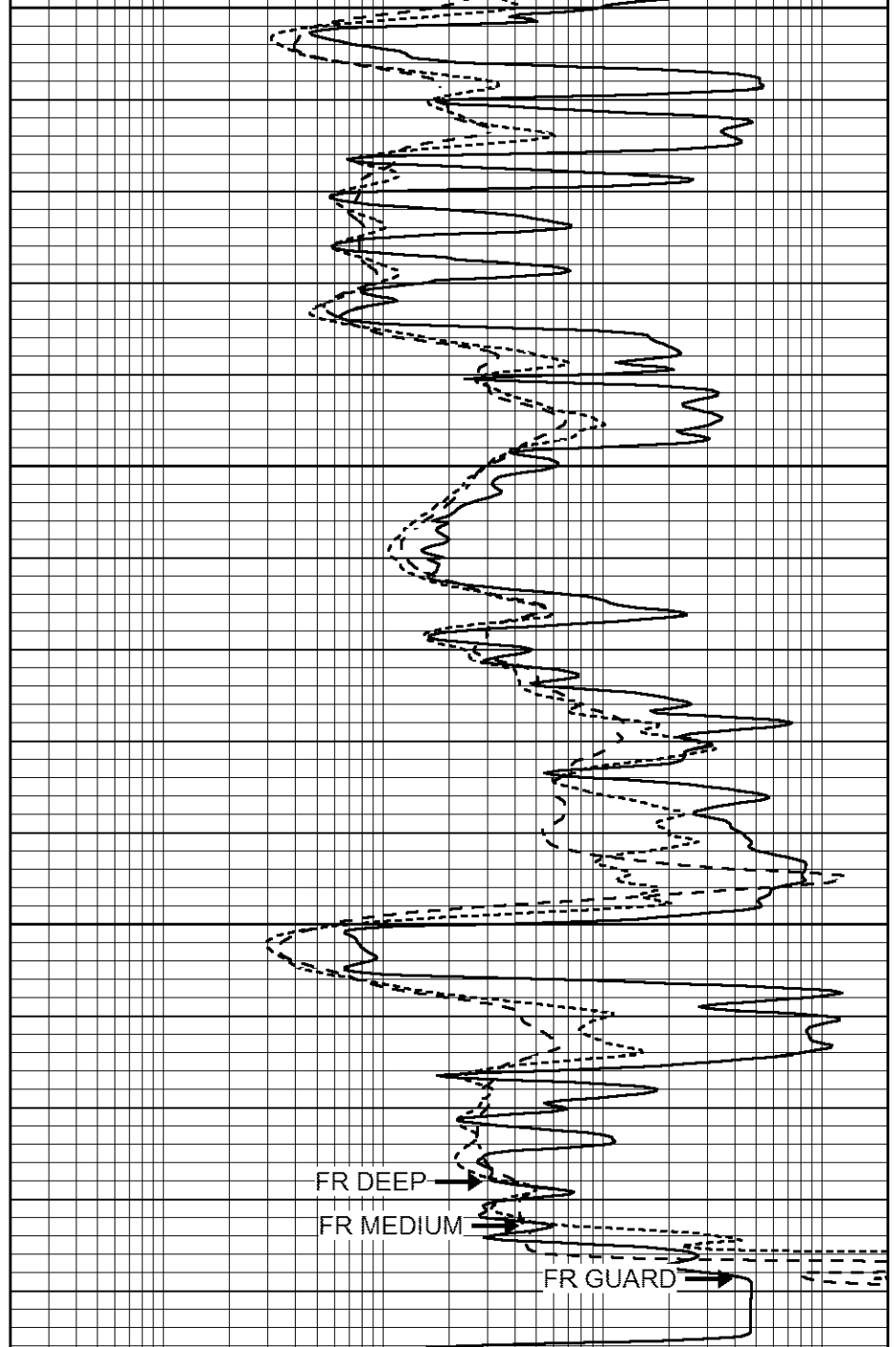
4300

4350

4400

LTD 4441

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50



0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000

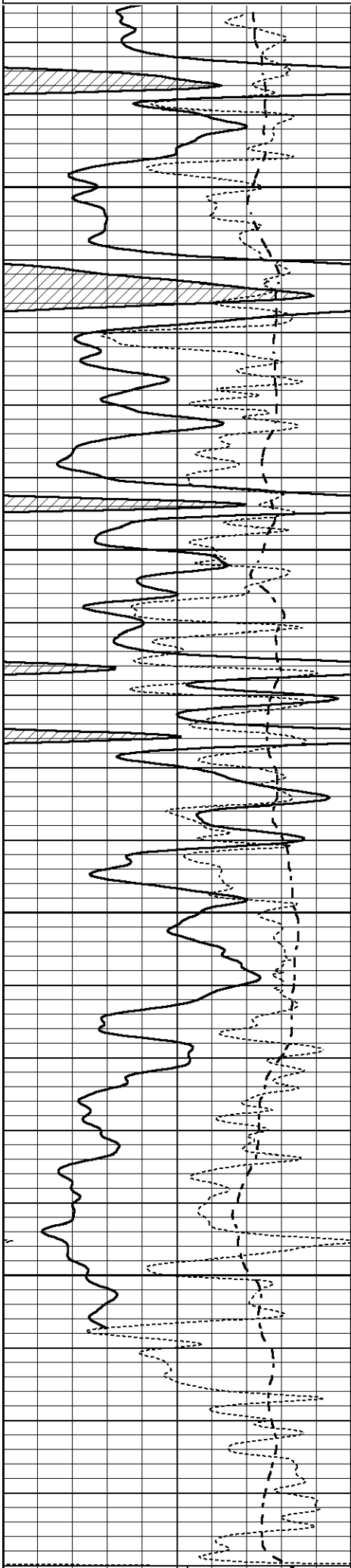


REPEAT SECTION

Database File 7024pe.db
 Dataset Pathname pass2R
 Presentation Format _dil
 Dataset Creation Thu Sep 29 00:14:51 2022
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000

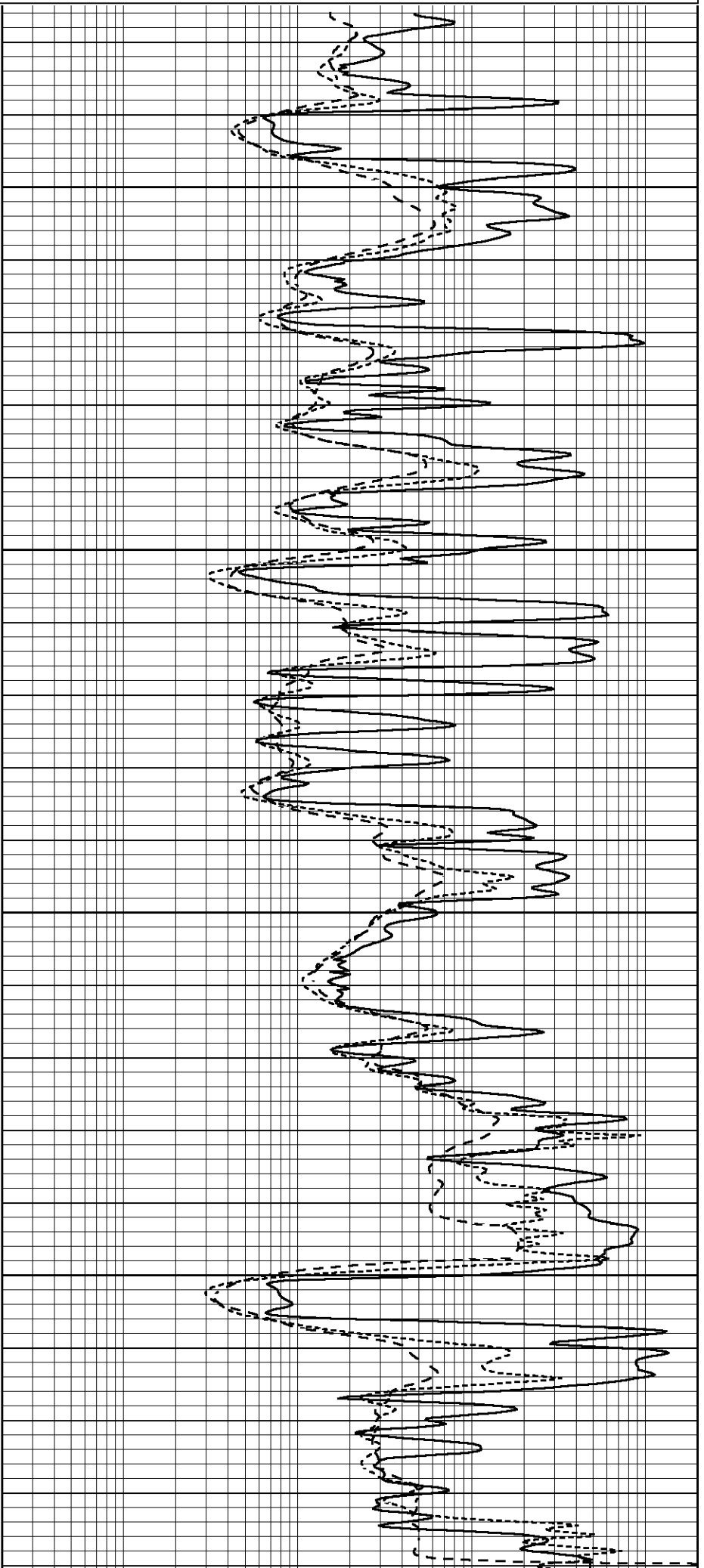


4250

4300

4350

4400



			4450			
0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000	
-100	SP (mV)	100	0.2	MEDIUM INDUCTION (Ohm-m)	2000	
-250	Rxo/Rt	50	0.2	DEEP INDUCTION (Ohm-m)	2000	

Calibration Report

Database File 7024pe.db
 Dataset Pathname pass3M
 Dataset Creation Thu Sep 29 02:01:13 2022

Dual Induction Calibration Report

Serial-Model: FW1410-55-Probe
 Surface Cal Performed: Thu Jun 30 01:48:00 2022
 Downhole Cal Performed: Tue Feb 19 11:44:24 2019
 After Survey Verification Performed: Tue Feb 19 11:44:27 2019

Surface Calibration		Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b	
Deep	0.011	0.656	V	1.000	400.000	mmho/m	650.000	-3.000	
Medium	-0.000	0.731	V	1.000	464.000	mmho/m	632.856	-5.000	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.007	0.649	V	0.000	400.000	mmho/m	623.784	-4.595	
Medium	0.004	0.743	V	0.000	464.000	mmho/m	627.284	-2.251	

Downhole Calibration		Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'	
Deep	-0.824	395.917	mmho/m	-0.976	397.550	mmho/m	1.004	-0.149	
Medium	3.565	471.327	mmho/m	3.468	471.590	mmho/m	1.001	-0.099	
LL3		7.503	V		1500.000	Ohm-m			
		0.001	V		20.000	Ohm-m			
		-7.481	V		3745.000	mmho-m			

After Survey Verification		Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'	
Deep	0.000	0.000	mmho/m	-0.824	395.917	mmho/m	1.000	0.000	
Medium	0.000	0.000	mmho/m	3.565	471.327	mmho/m	1.000	0.000	
LL3		0.000	Ohm-m		1500.000	Ohm-m			
		0.000	Ohm-m		20.000	Ohm-m			
		0.000	mmho-m		3745.000	mmho-m			

Litho Density Calibration Report
 Serial: 005 Model: Litho_Ver3

Master Calibration		Performed Fri May 13 13:54:36 2022			
	Background	Magnesium	Aluminum	Aluminum+Fe	
Window 1	1363.1	46477.8	11515.9	9589.9	cps
Window 2	1239.4	36488.4	9270.1	7998.9	cps
Window 3	1044.3	20488.1	5500.7	4913.3	cps
Window 4	315.7	358.7	321.5	319.5	cps

Long Space	0.0	35249.0	8030.7	6759.4	cps
Short Space	1.4	9675.7	6523.4	5391.9	cps
Rho		1.7100	2.5900	0.0000	g/cc
Pe		2.0000	2.7500	5.7900	

Rib Angle	: 45.1	Rib Slope	: 1.003	Density/Spine Ratio	: 0.575
Spine Angle	: 75.1	Spine Slope	: 3.752	Spine Intercept	: -24.0

Before Survey Verification

Performed Wed Dec 31 18:00:00 1969

Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

After Survey Verification

Performed Wed Dec 31 18:00:00 1969

Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

Compensated Neutron Calibration Report

Serial Number: 080621PMC
Tool Model: NABORS

PRE-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

POST-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number: 7
Tool Model: Probe1
Performed: Thu May 26 08:56:46 2022

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps

Calibrator Reading: 1.0 cps

Sensitivity: 0.5500 GAPI/cps