



SUPERIOR
Hays,
Kansas

DUAL
INDUCTION
LOG

Company	WOOLSEY OPERATING COMPANY, LLC.		
Well	DIEL F #2		
Field	MAYBERRY NORTH POOL		
County	BARBER	State	KANSAS
Location:	API # : 15-007-23885-0000 495' FSL & 660' FWL N/2 - S/2 - SW - SW		Other Services CDL/CNL PE/SON
Permanent Datum	SEC 23 TWP 34S RGE 11W	Elevation	
Log Measured From	GROUND LEVEL	Elevation	1327
Drilling Measured From	KELLY BUSHING 13' A.G.L. KELLY BUSHING	K.B. 1340 D.F. 1338 G.L. 1327	
Date	6/14/12		
Run Number	ONE		
Depth Driller	5173		
Depth Logger	5174		
Bottom Logged Interval	5172		
Top Log Interval	0		
Casing Driller	10 3/4" @ 219'		
Casing Logger	215'		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 5000 PPM	
Density / Viscosity	8.9/50		
pH / Fluid Loss	10.5/9.6		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	0.65 @ 91F		
Rinf @ Meas. Temp	0.49 @ 91F		
Rmc @ Meas. Temp	0.78 @ 91F		
Source of Rinf / Rmc	MEASURED		
Rim @ BHT	0.47 @ 127F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	127F		
Equipment Number	680		
Location	HAYS, KS.		
Recorded By	JEFF GRONEMEG		
Witnessed By	SCOTT ALBERG		

<<< Fold Here >>>

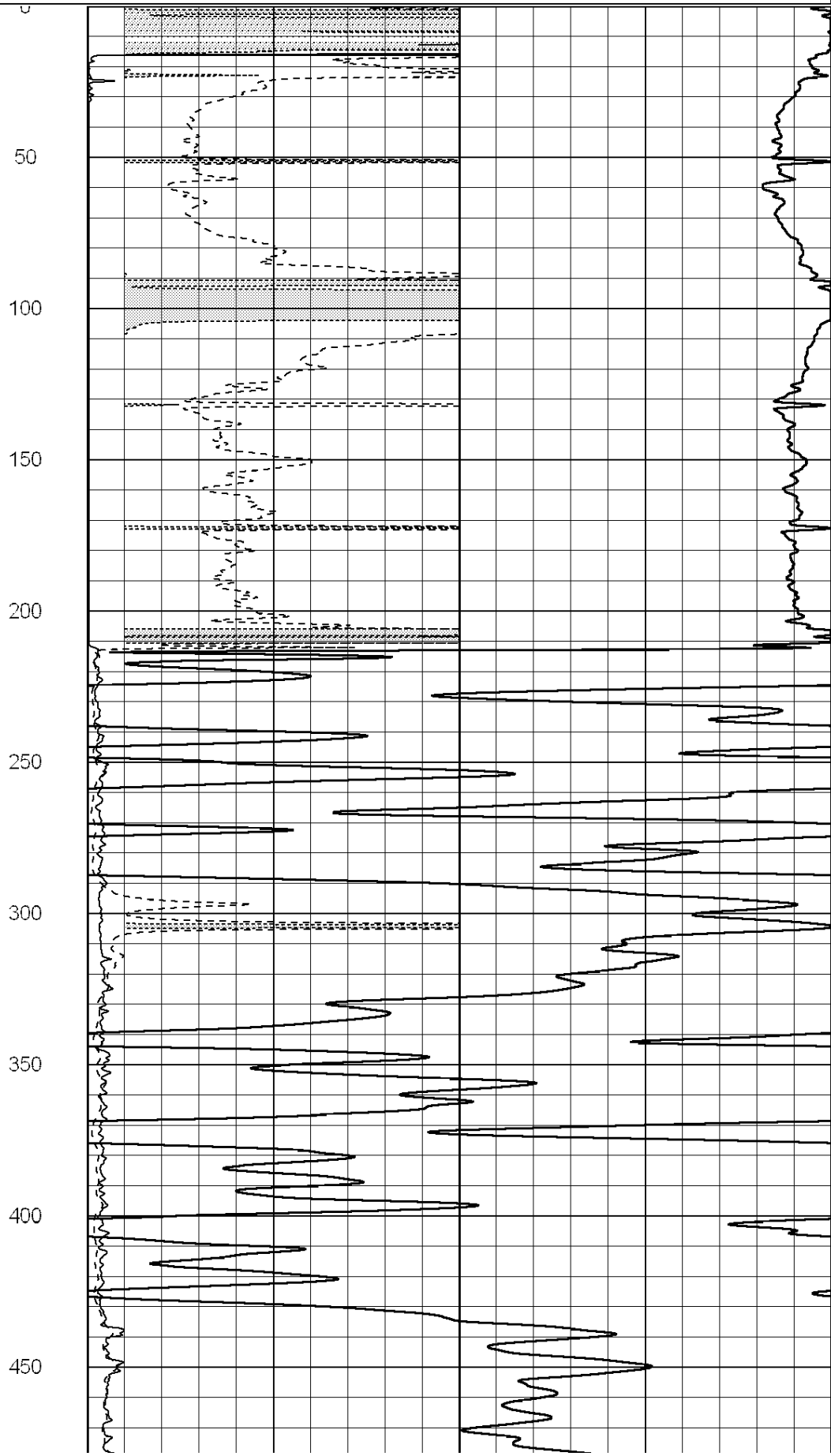
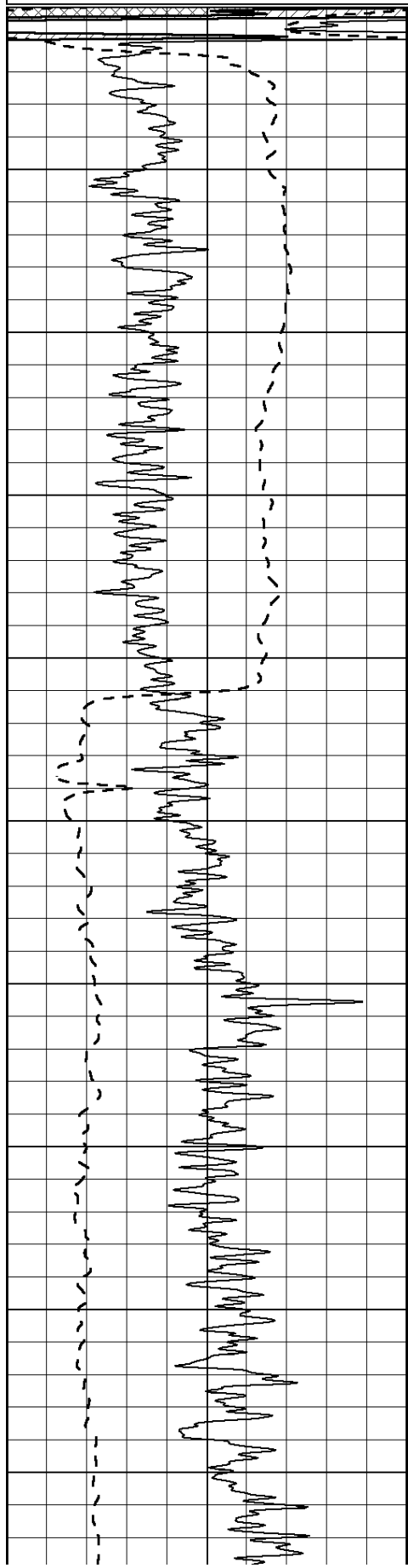
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

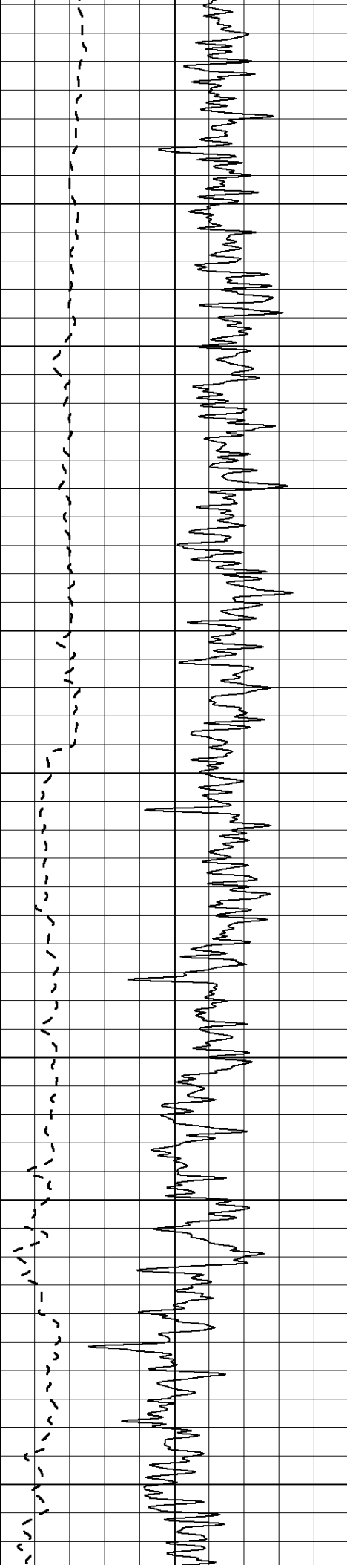
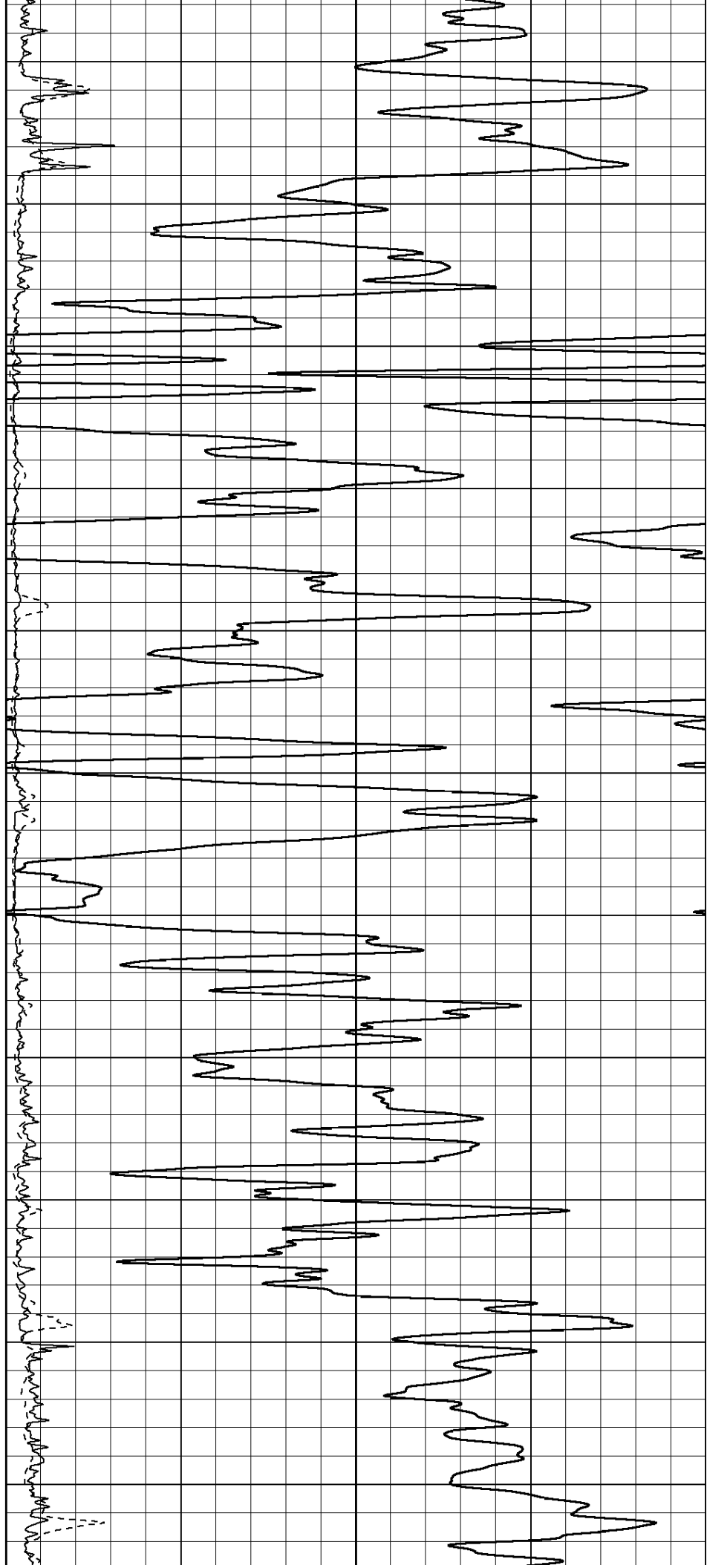
THANK YOU FOR USING SUPERIOR WELL SERVICE (785) 628-6395
DIRECTIONS
MEDICINE LODGE, KS. - 9 S. TO GERLANE RD. - 7 1/2 MILES EAST TO BETHEL RD
3 1/2 MILES SOUTH TO ANGUS RD - 1 MILE WEST - 1/2 MILE SOUTH
WEST & SOUTH INTO

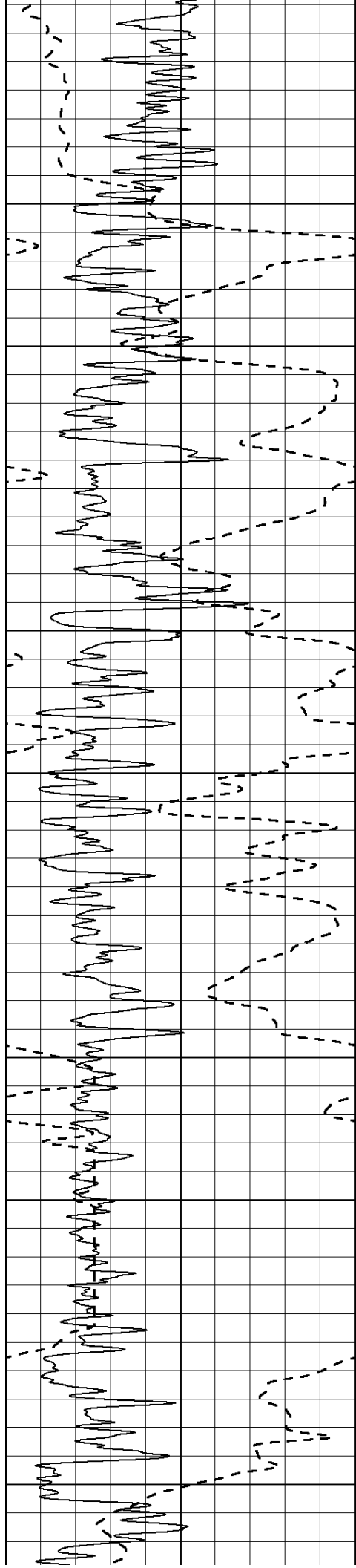
0	Gamma Ray (GAPI)	150
-100	SP (mV)	100

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

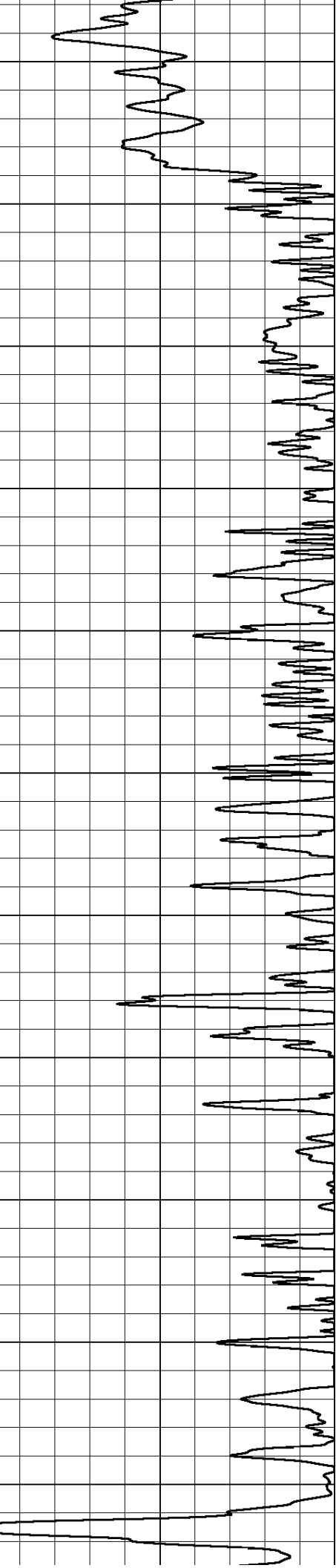
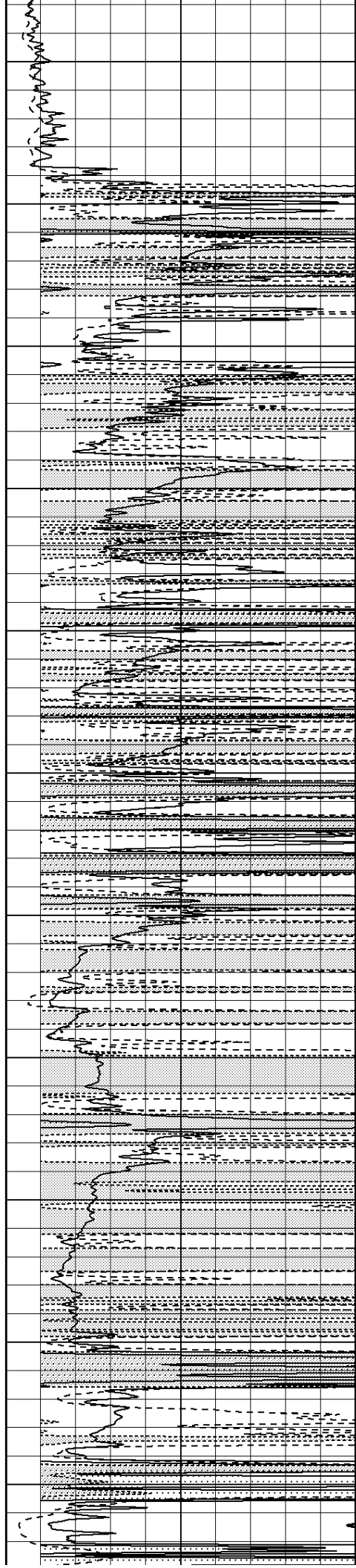


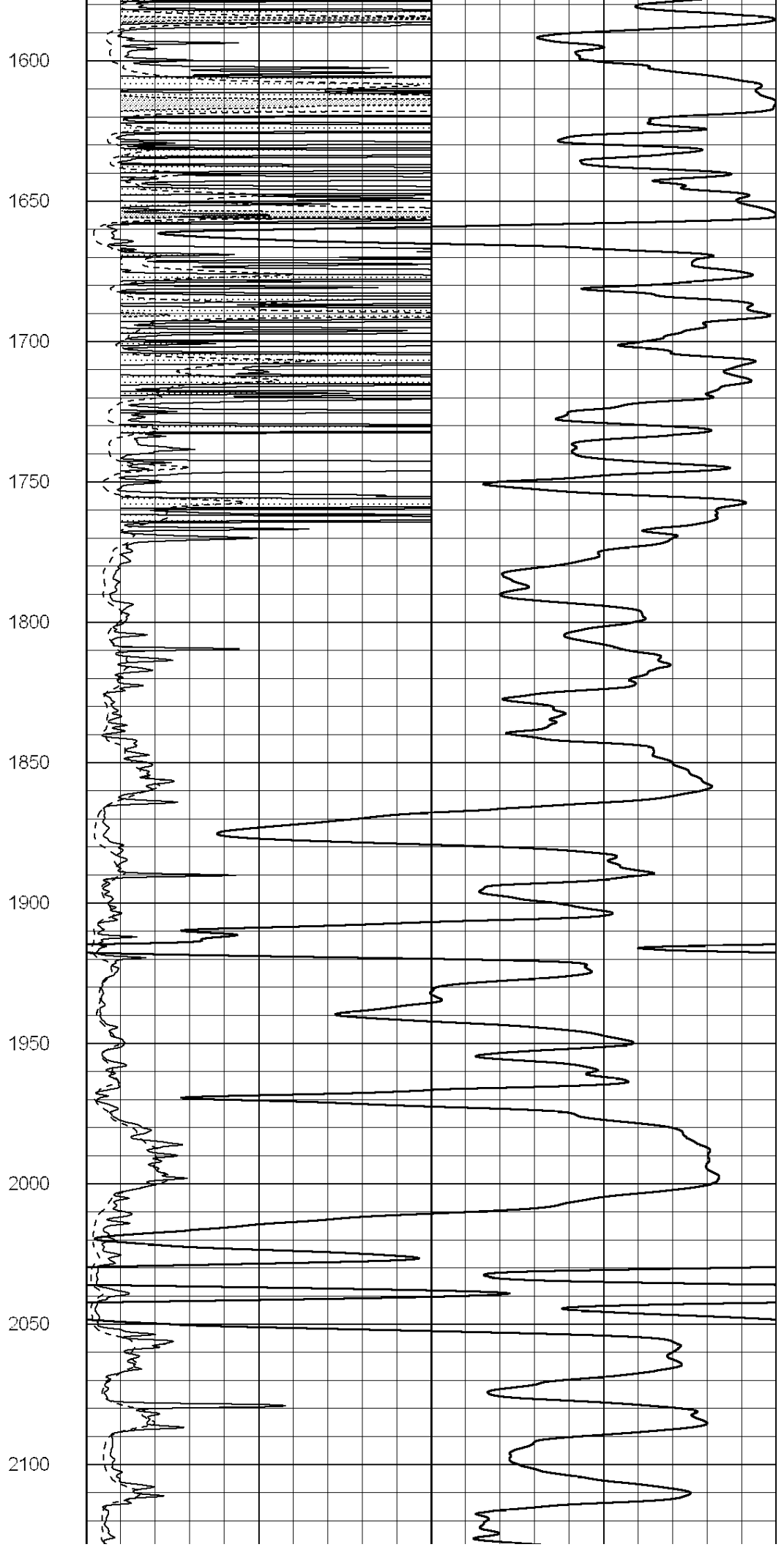
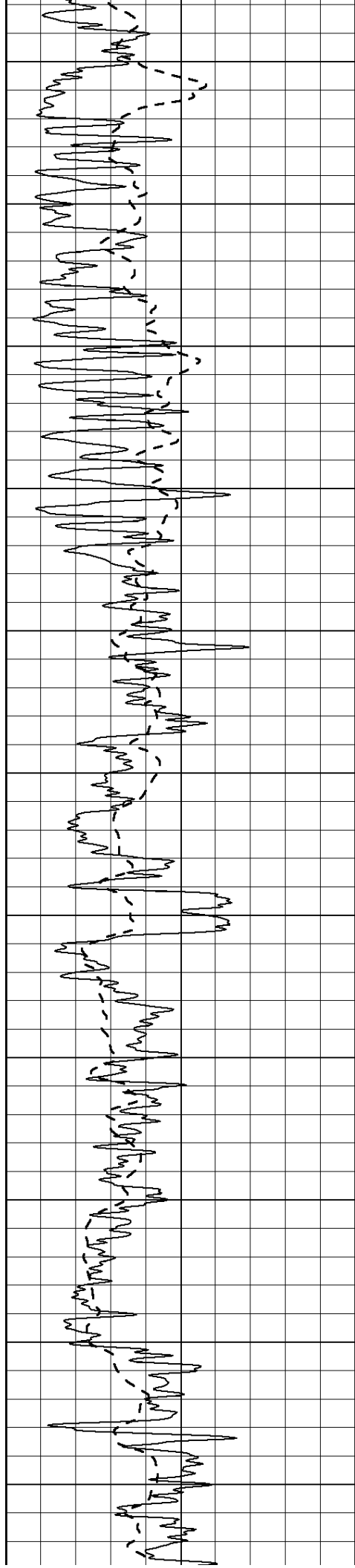
500 550 600 650 700 750 800 850 900 950 1000

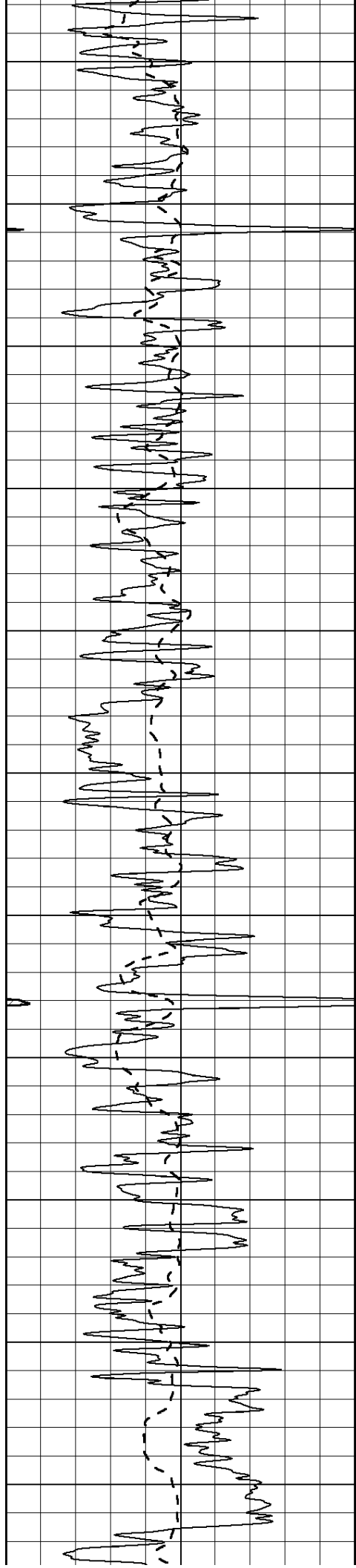




1050
1100
1150
1200
1250
1300
1350
1400
1450
1500
1550







2150

2200

2250

2300

2350

2400

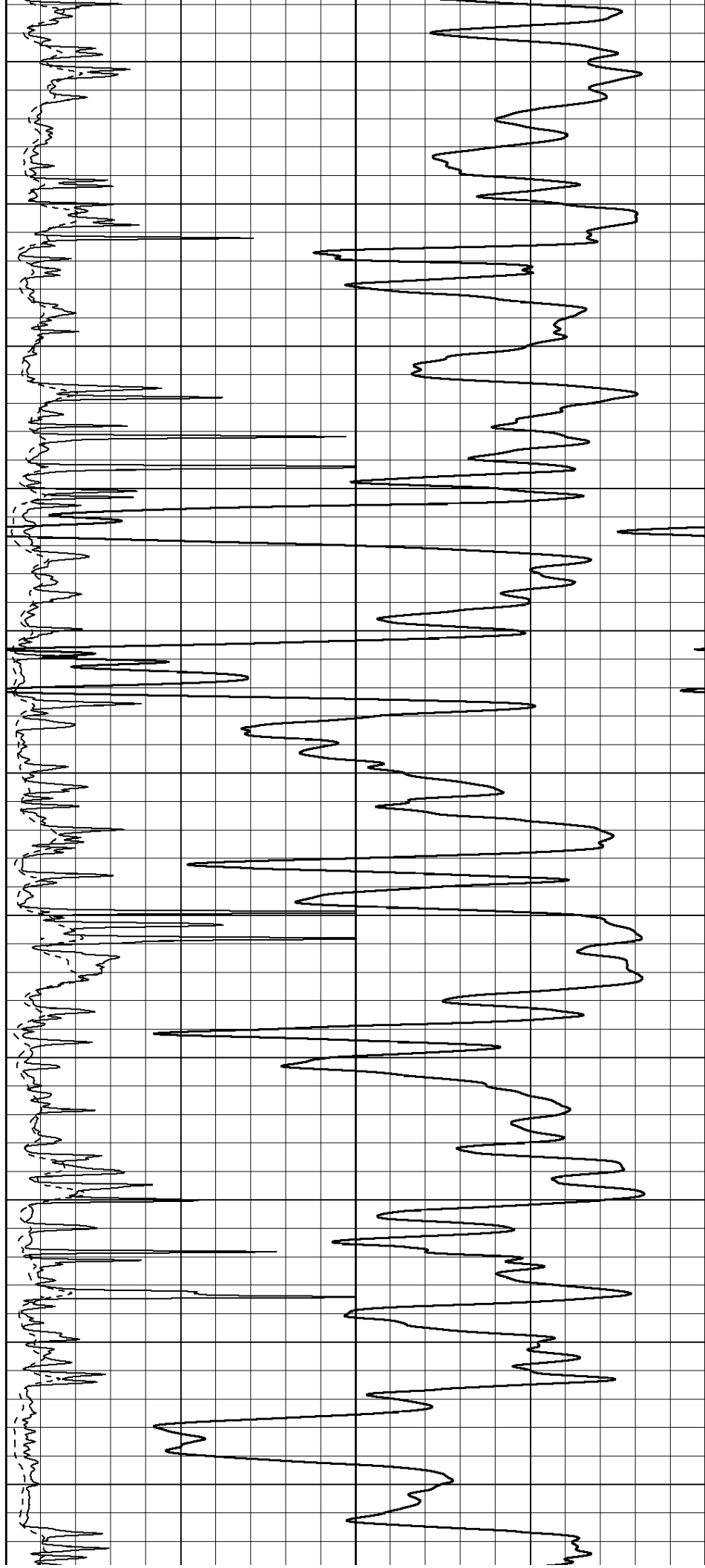
2450

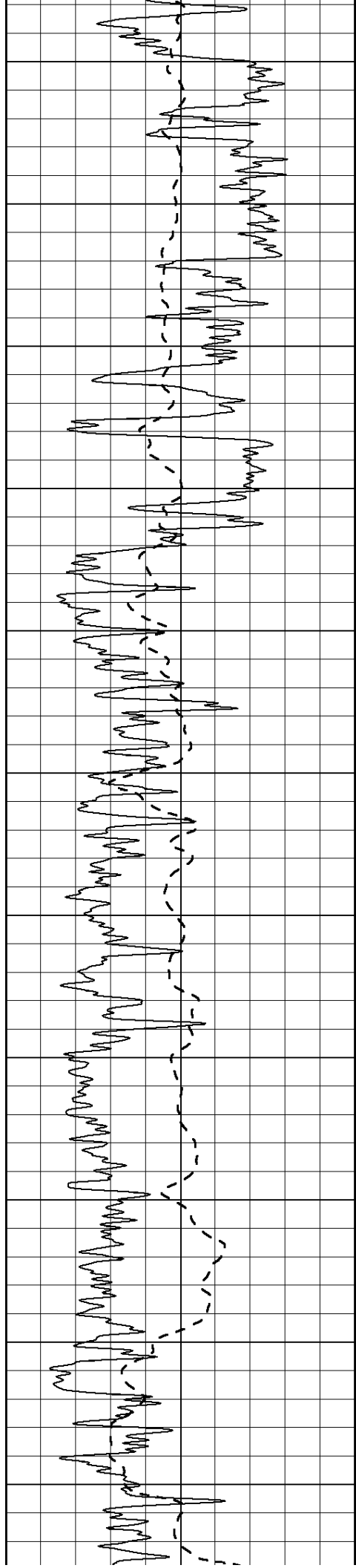
2500

2550

2600

2650





2700

2750

2800

2850

2900

2950

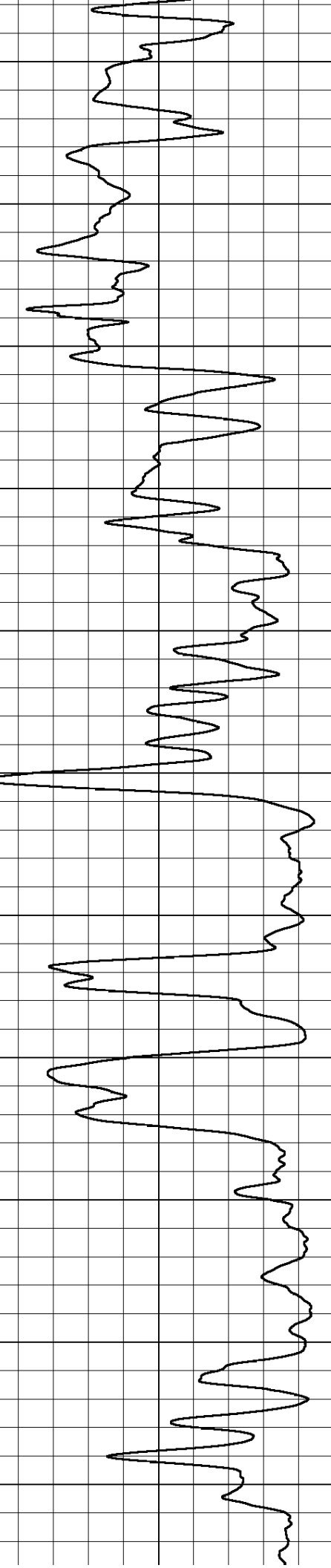
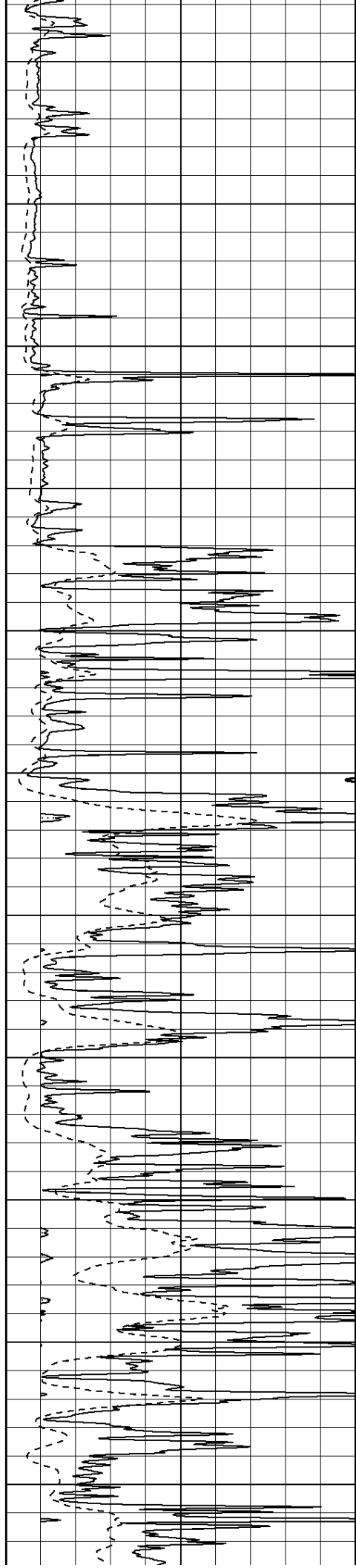
3000

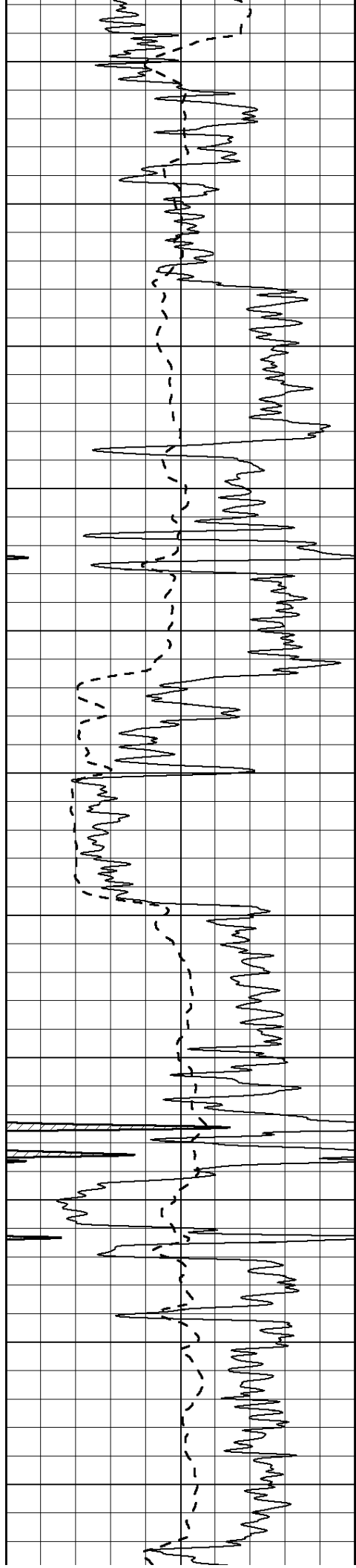
3050

3100

3150

3200





3250

3300

3350

3400

3450

3500

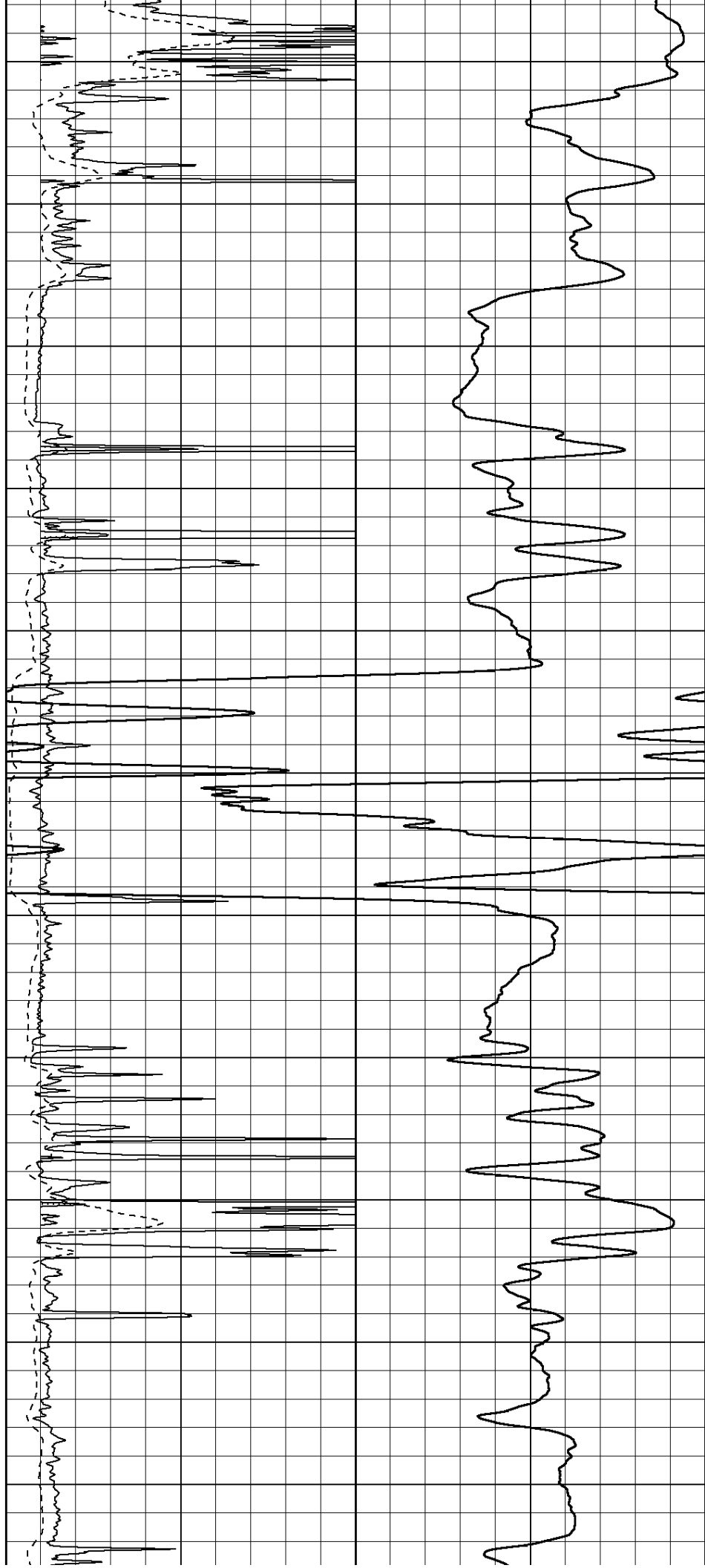
3550

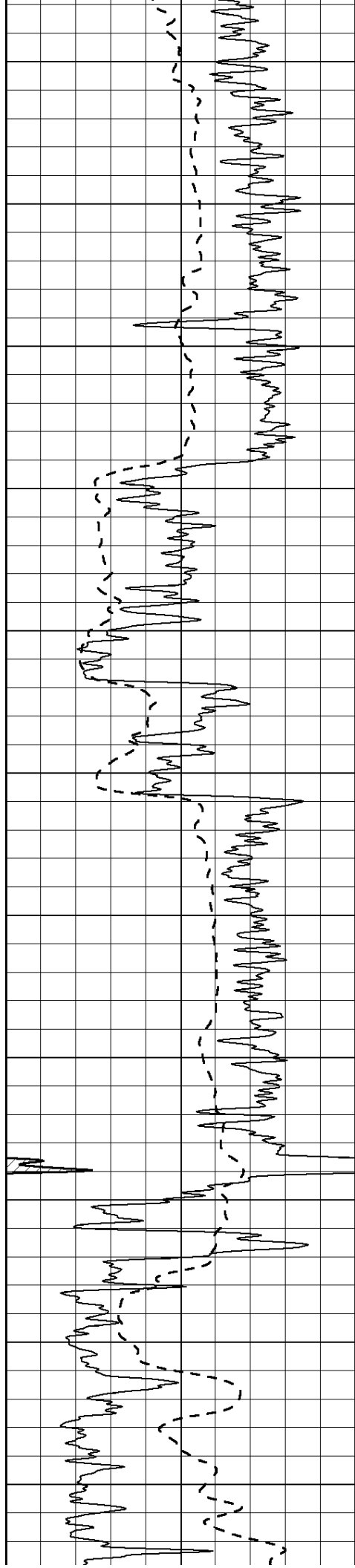
3600

3650

3700

3750





3800

3850

3900

3950

4000

4050

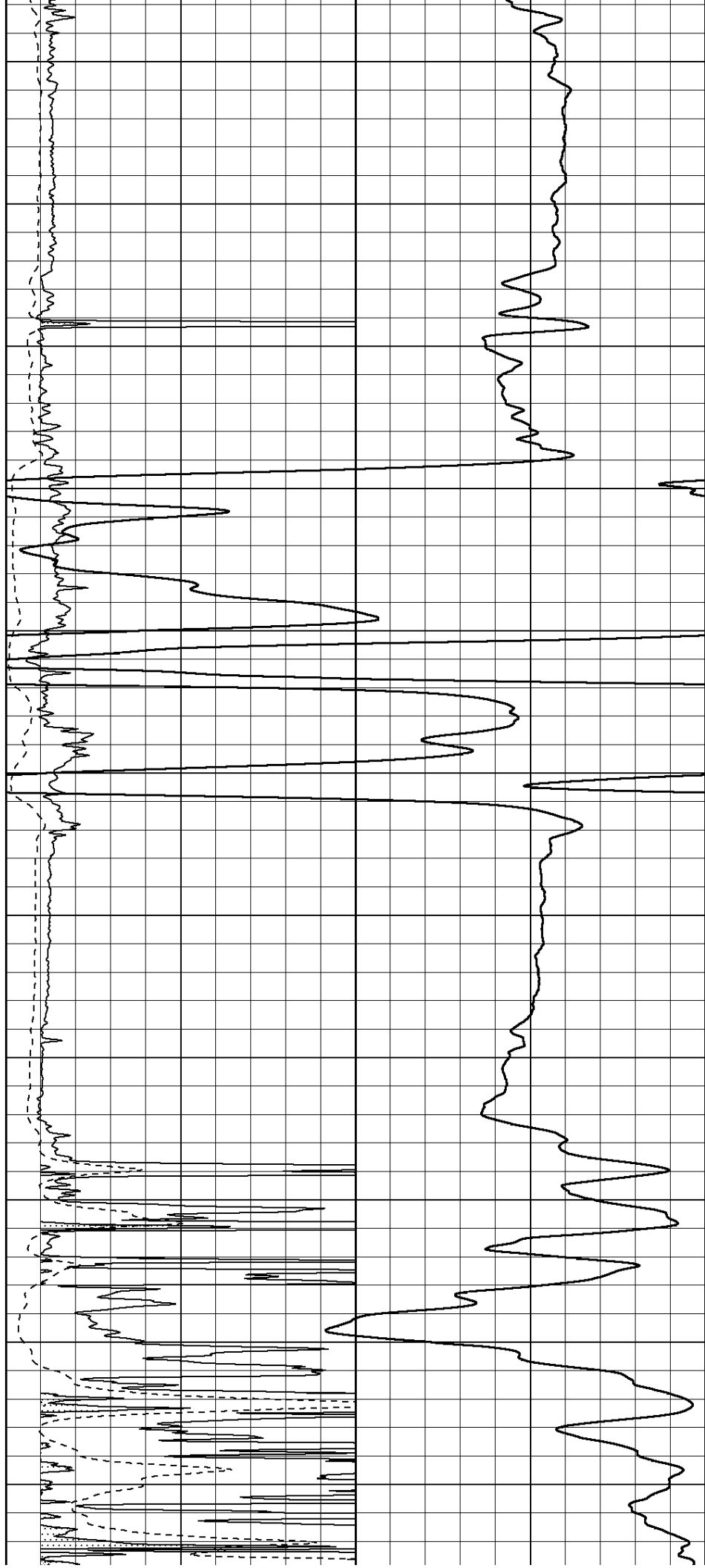
4100

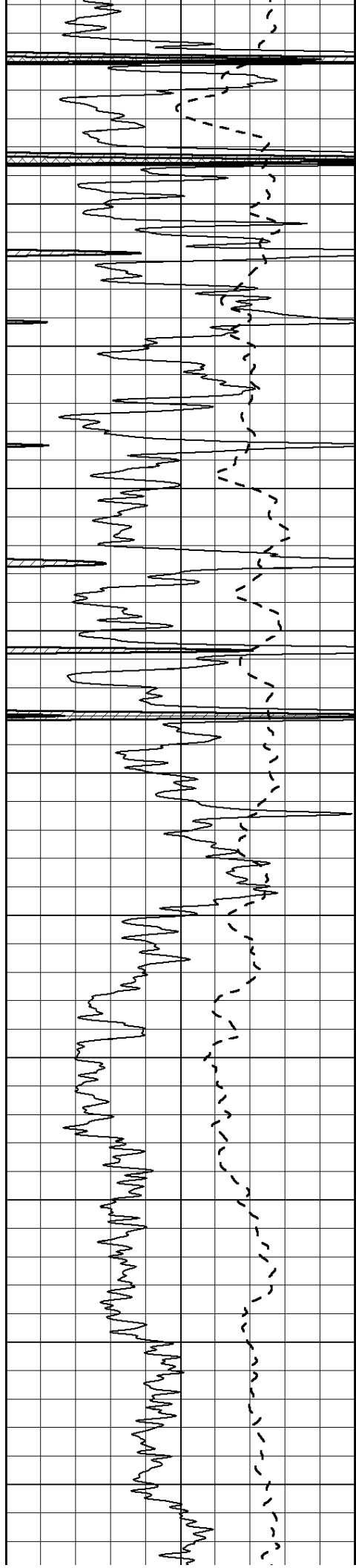
4150

4200

4250

4300





4350

4400

4450

4500

4550

4600

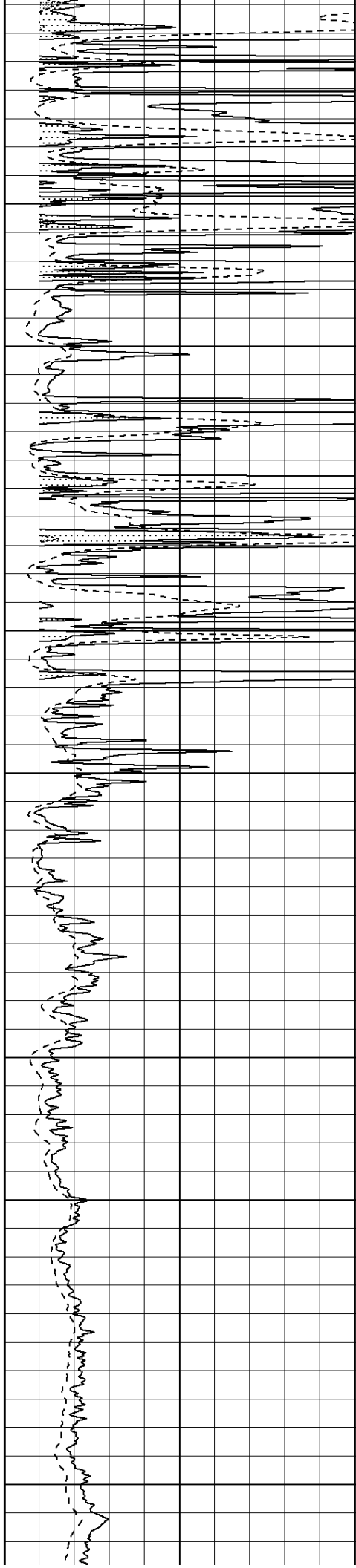
4650

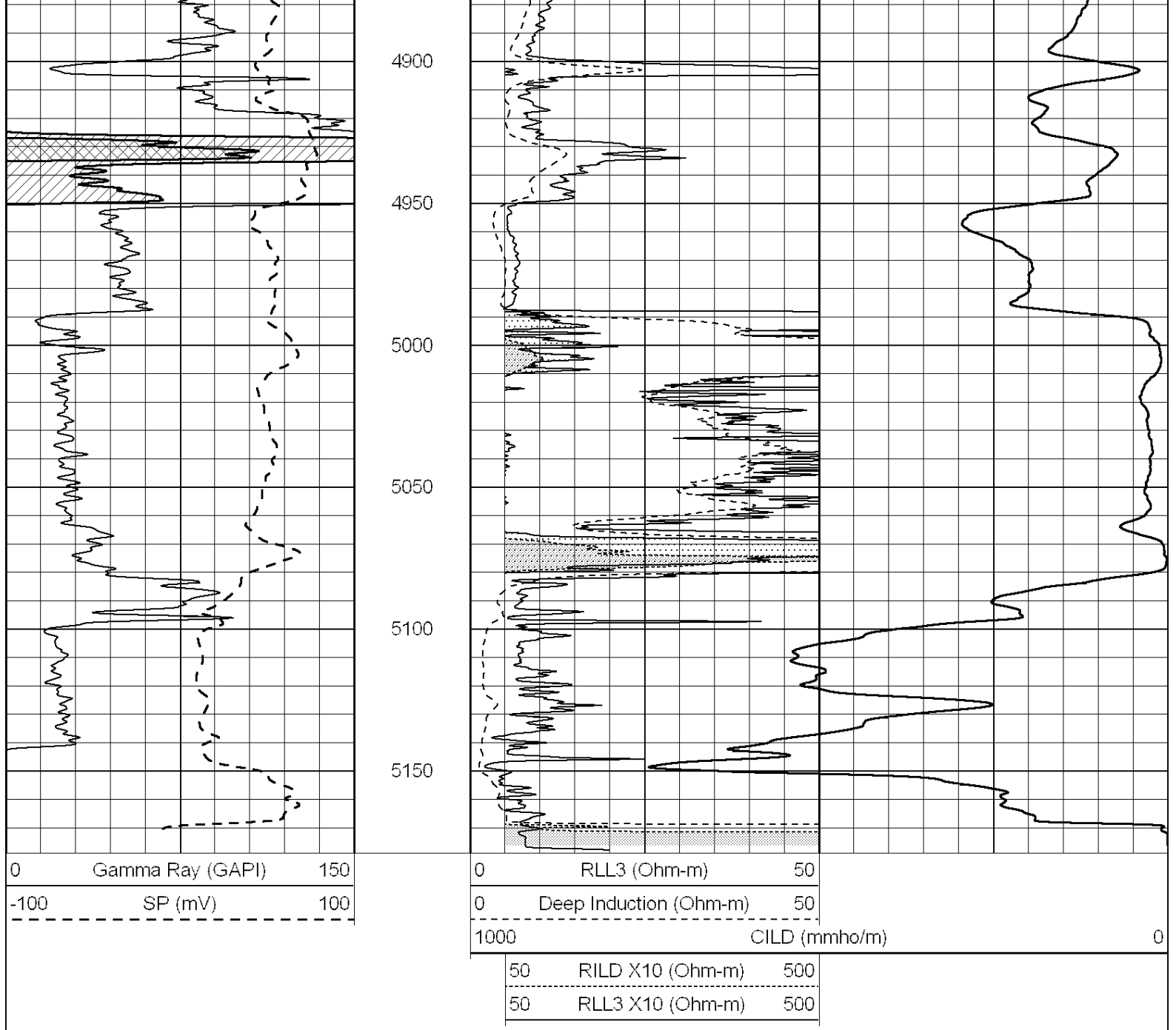
4700

4750

4800

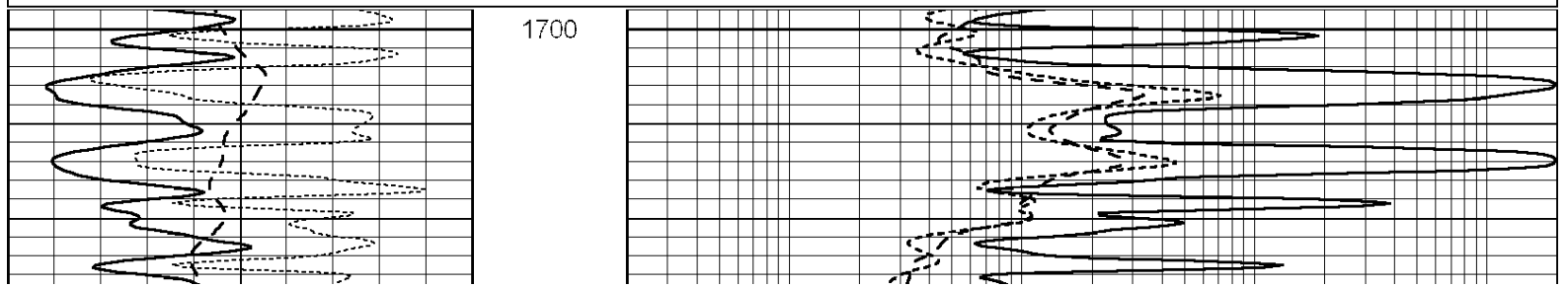
4850

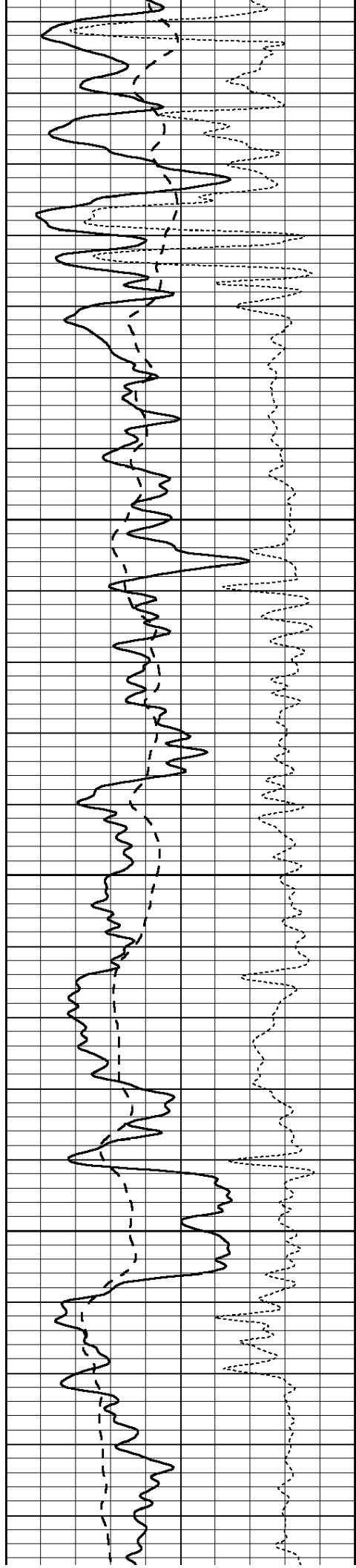




Database File: 009222pe.db
 Dataset Pathname: pass3.3
 Presentation Format: _dil
 Dataset Creation: Thu Jun 14 17:57:40 2012 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

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



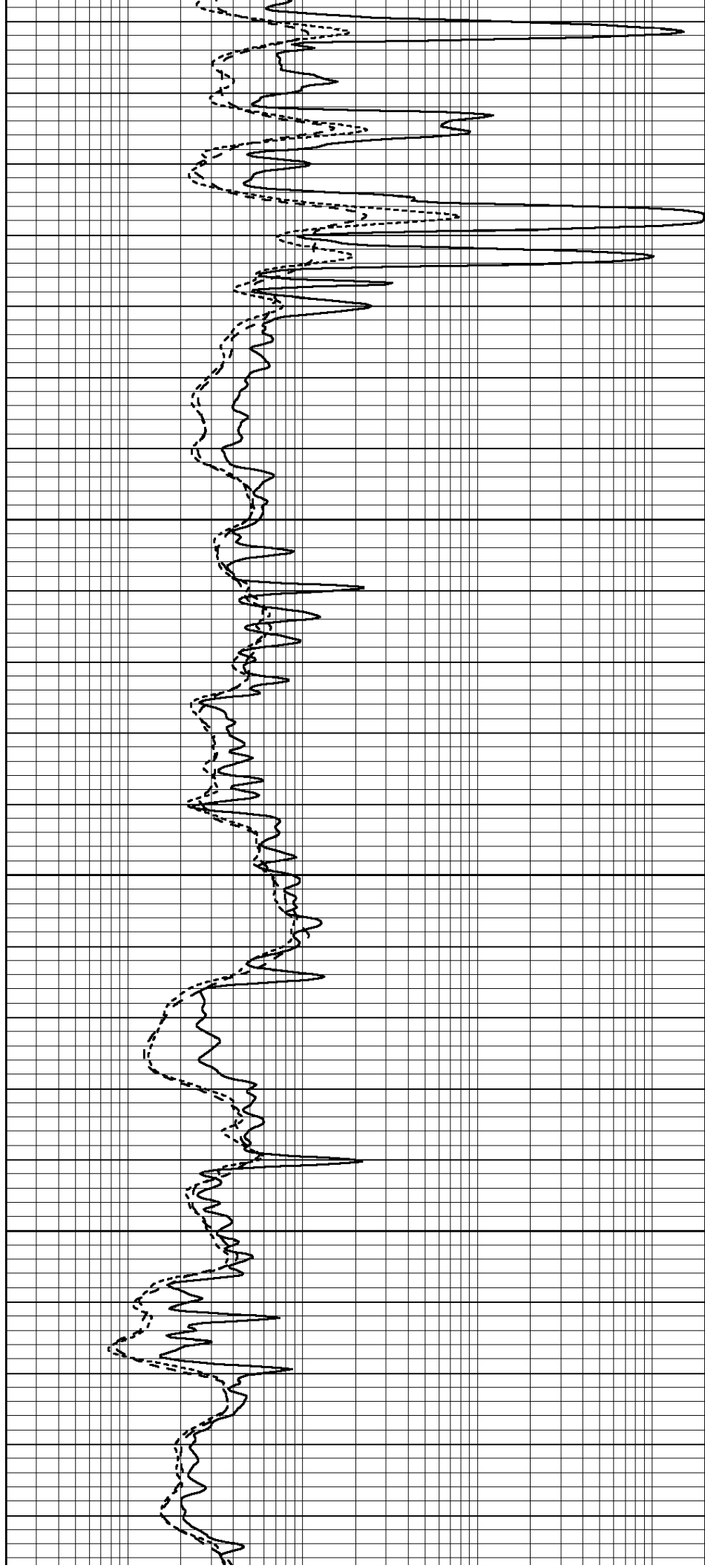


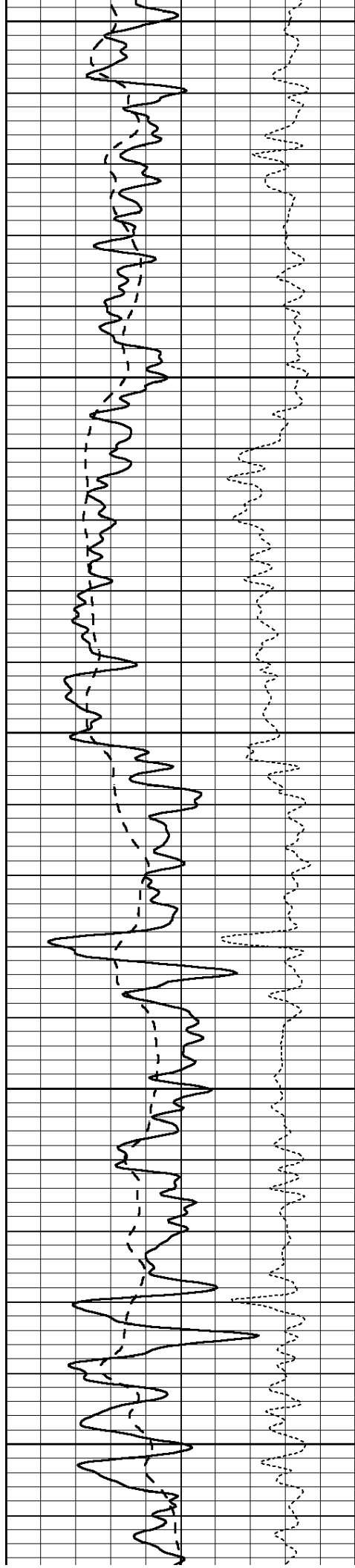
1750

1800

1850

1900





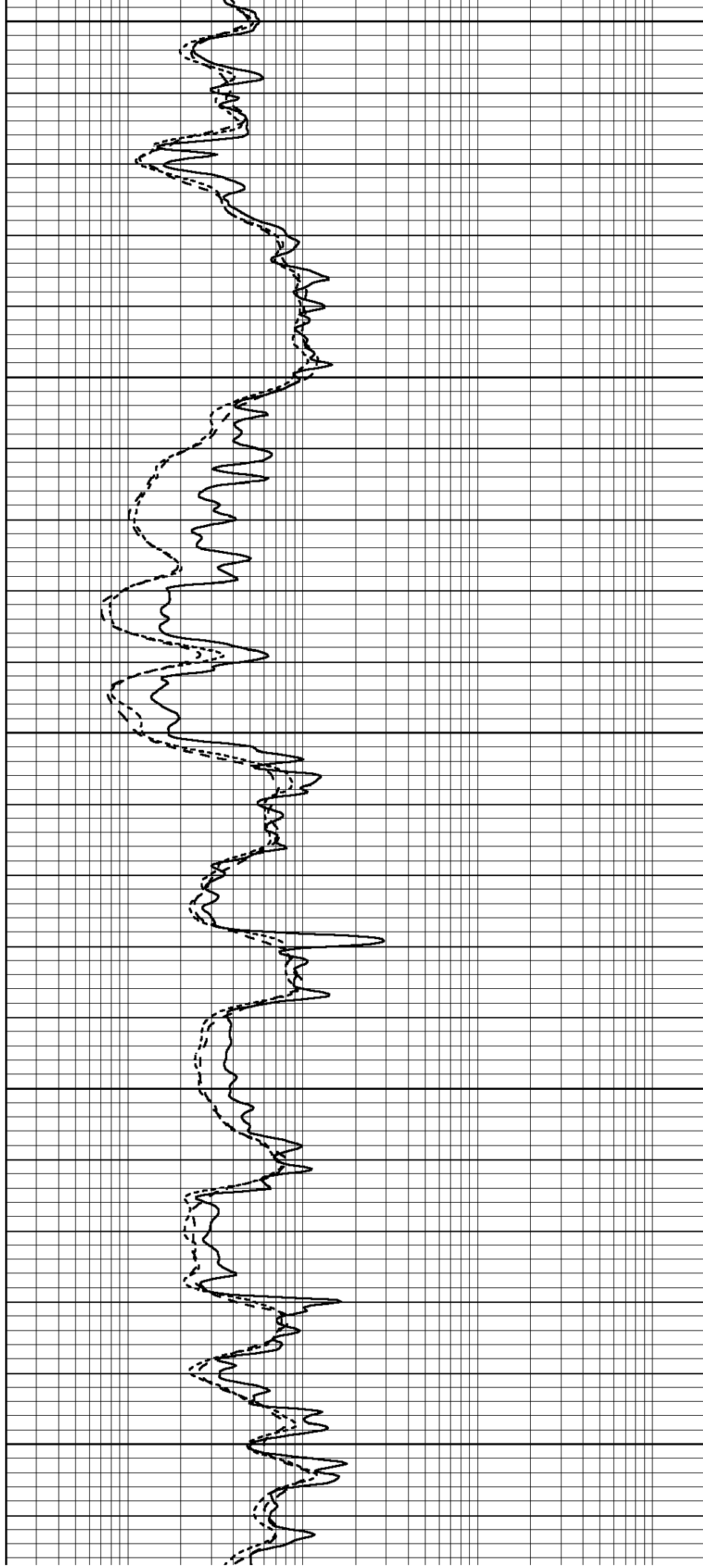
1950

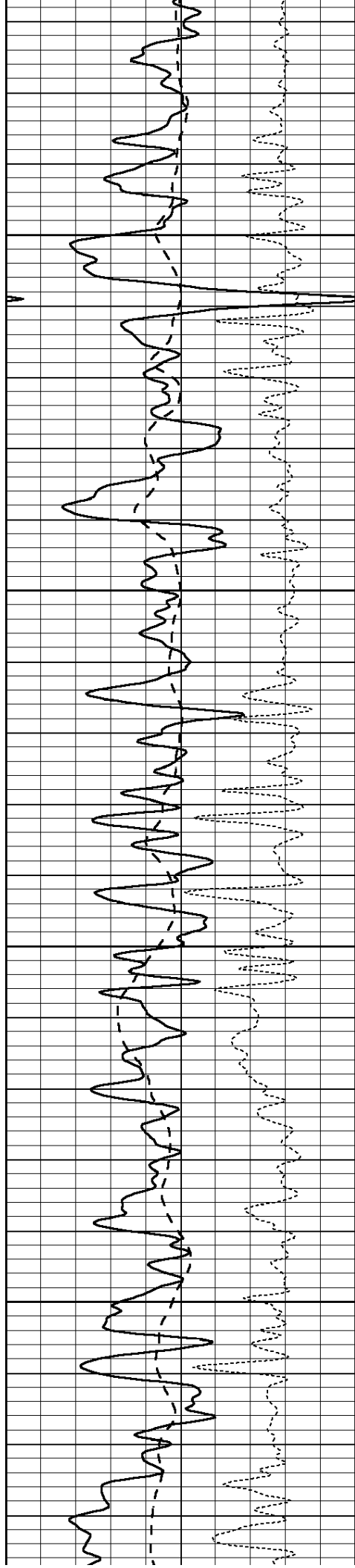
2000

2050

2100

2150



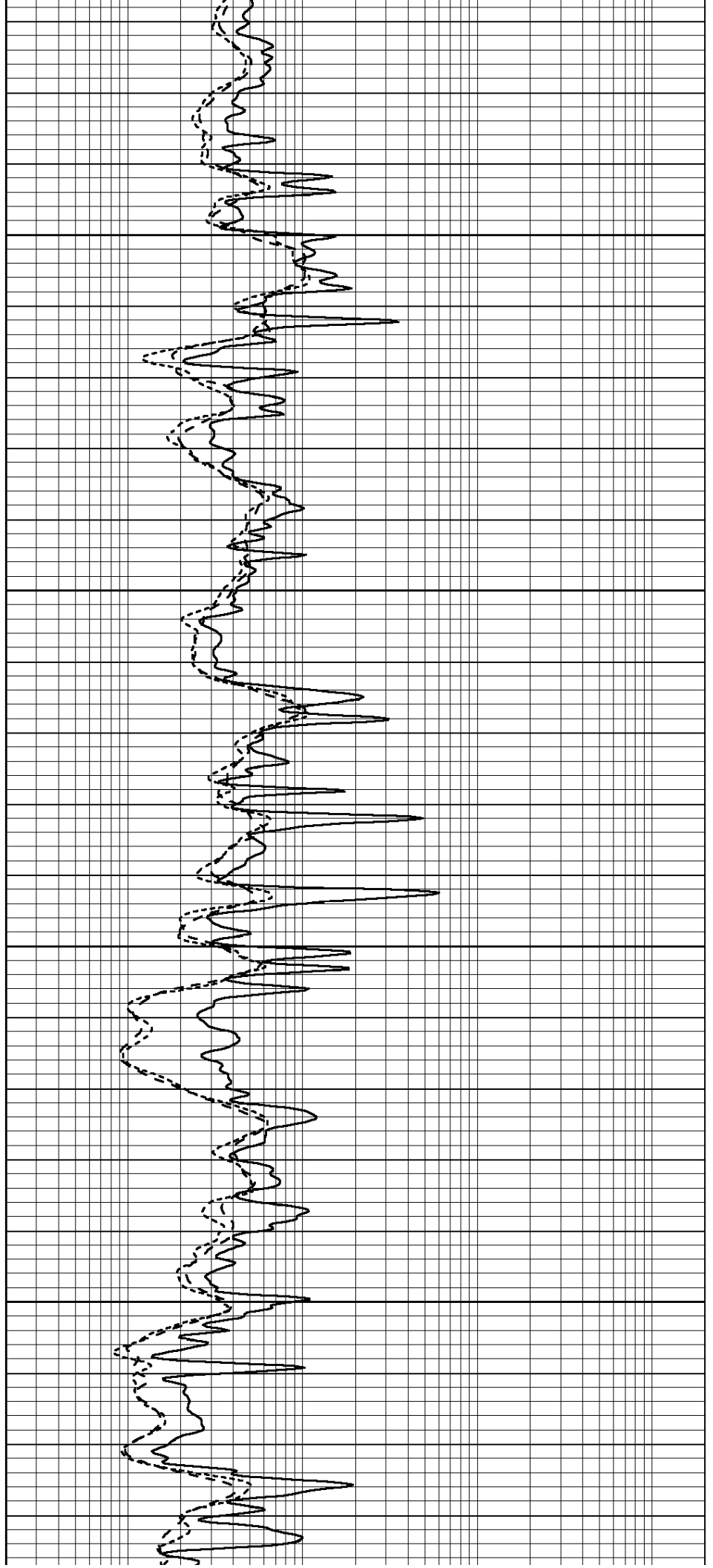


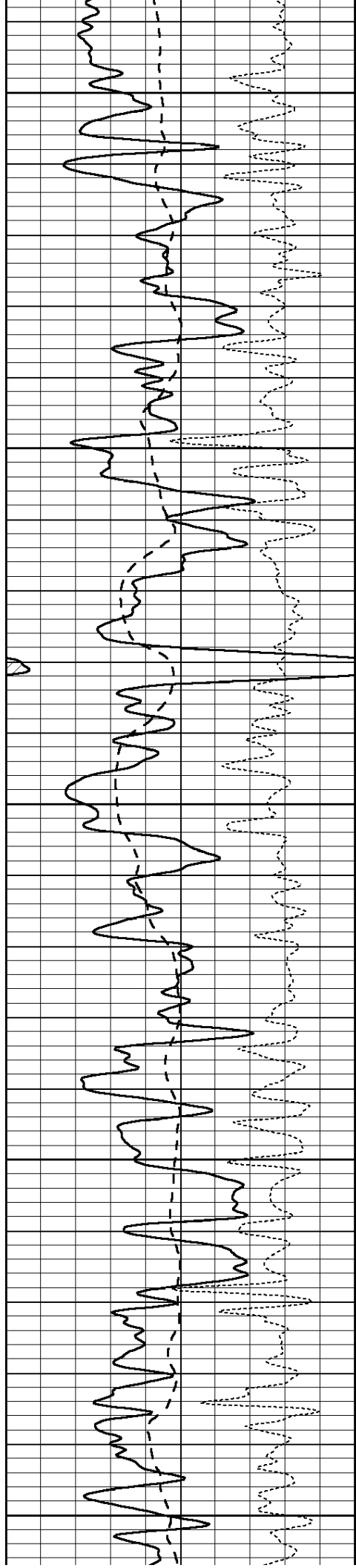
2200

2250

2300

2350





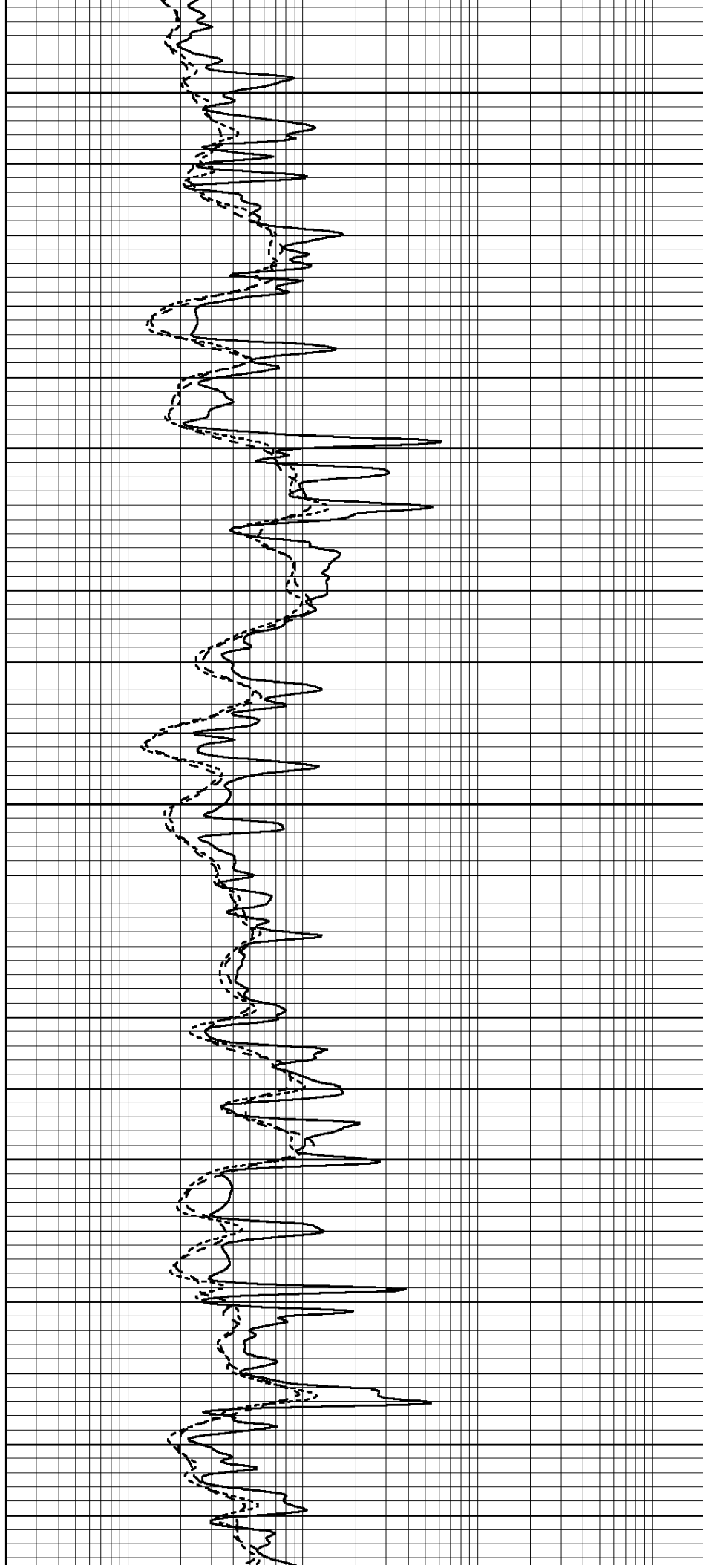
2400

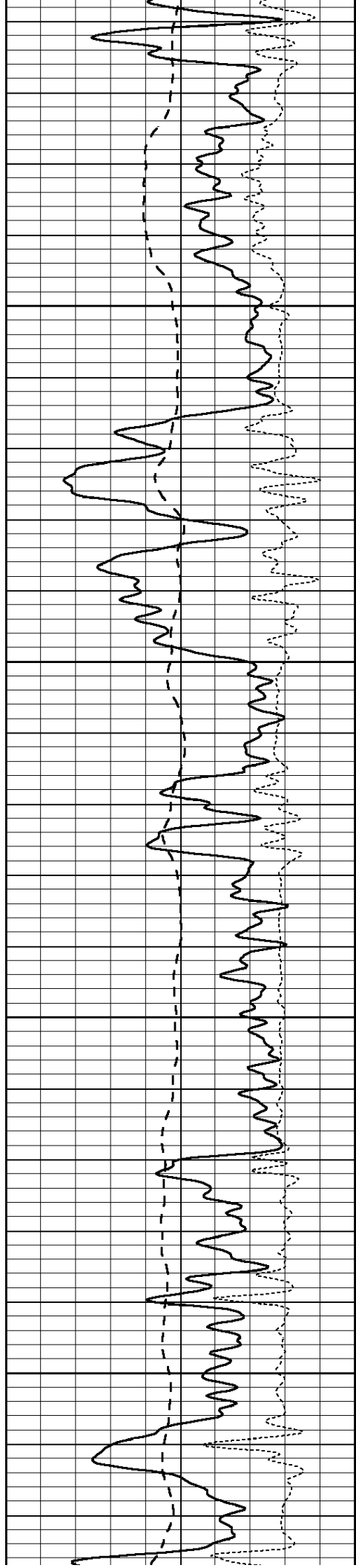
2450

2500

2550

2600



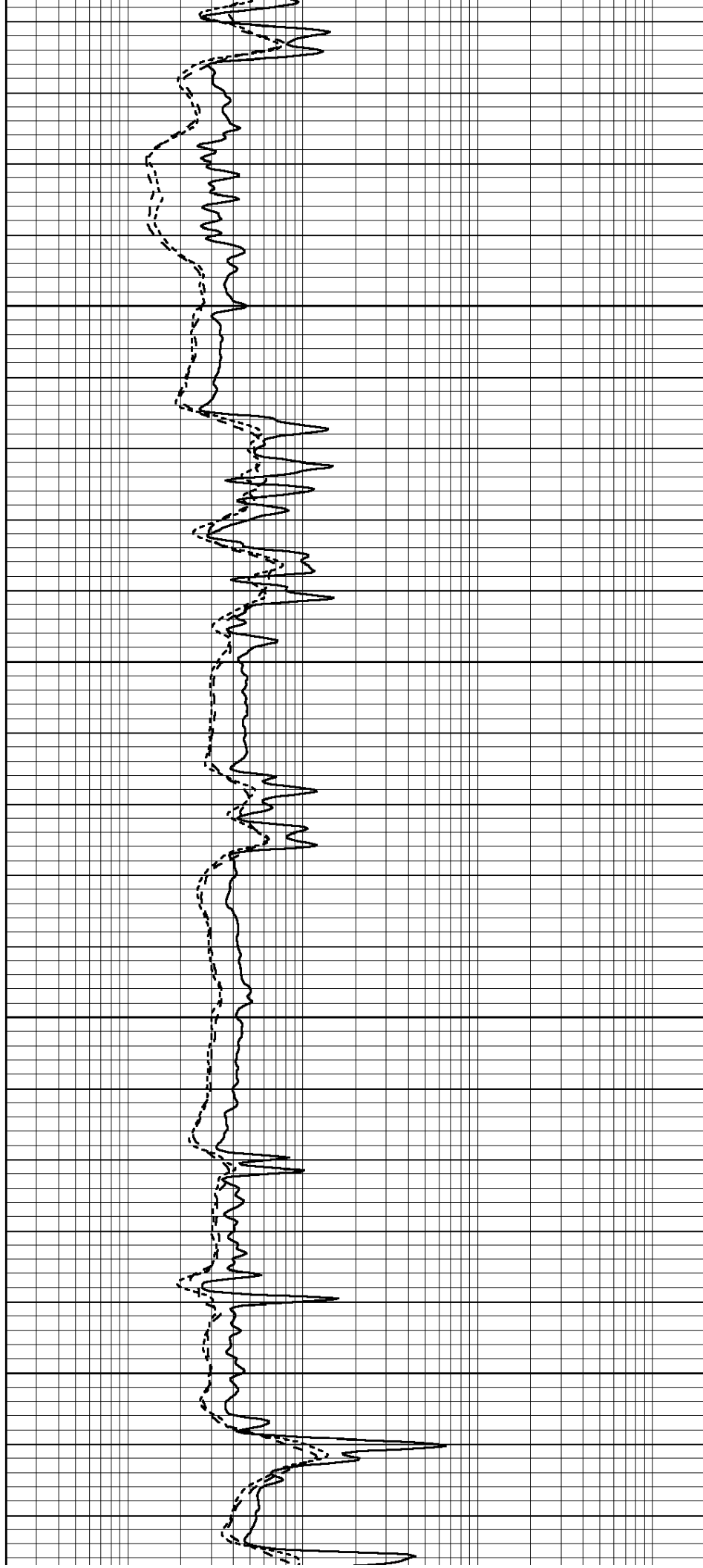


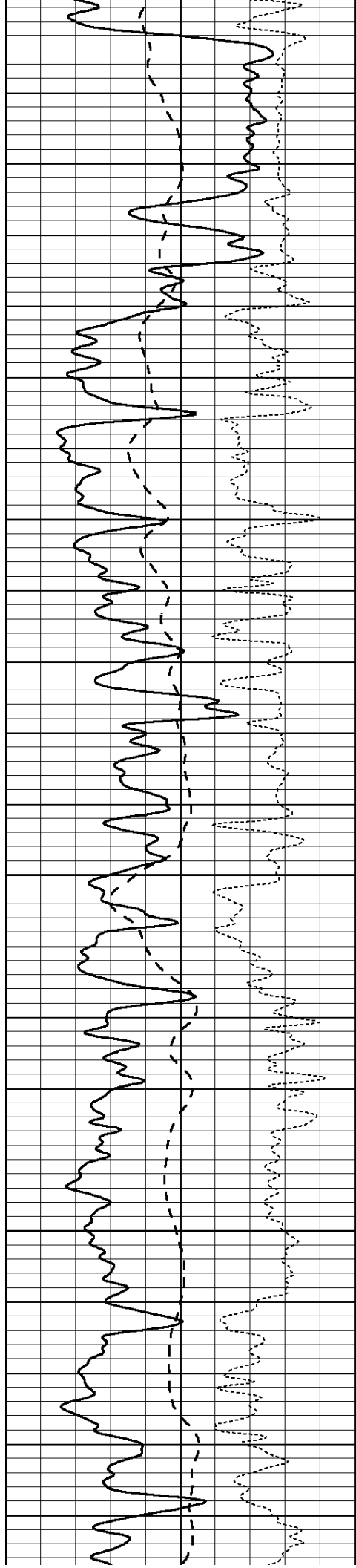
2650

2700

2750

2800



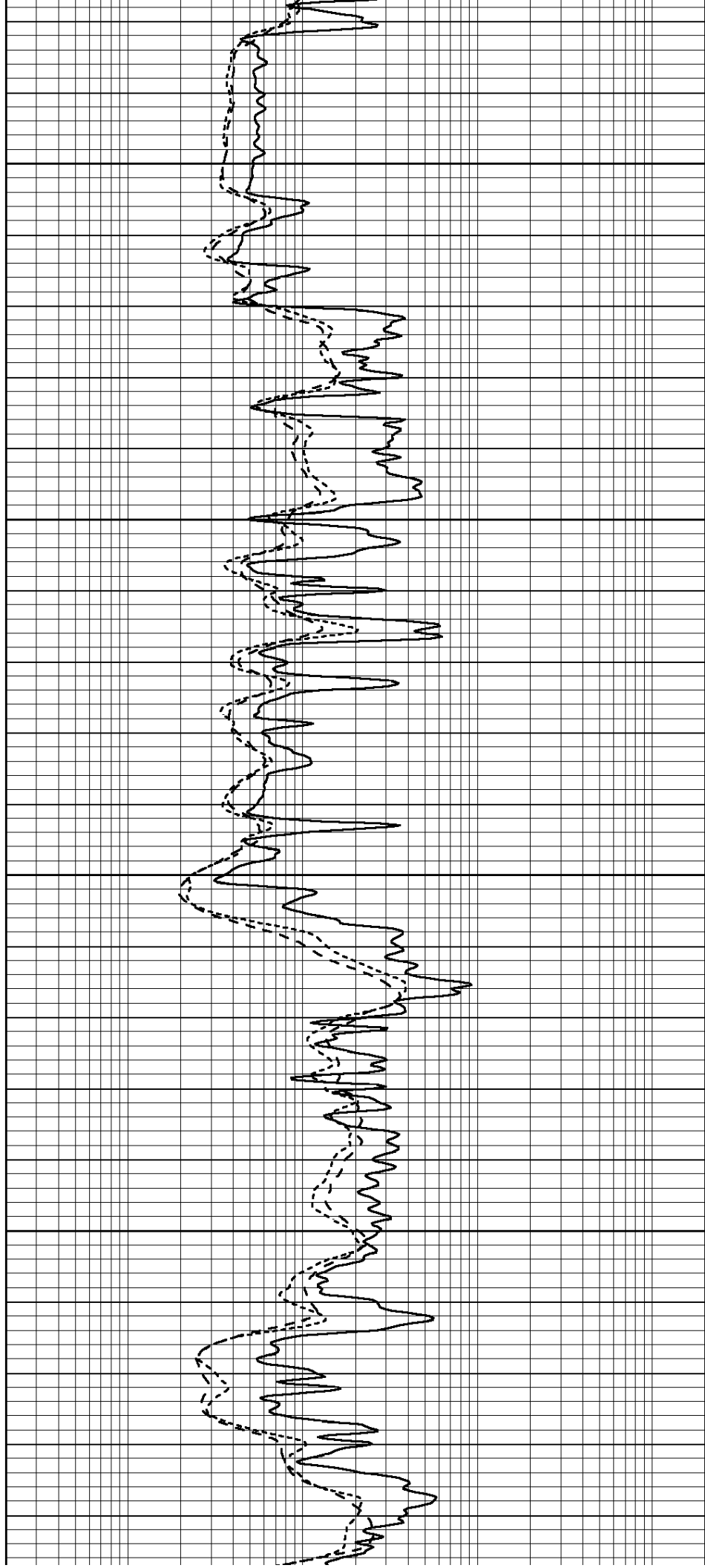


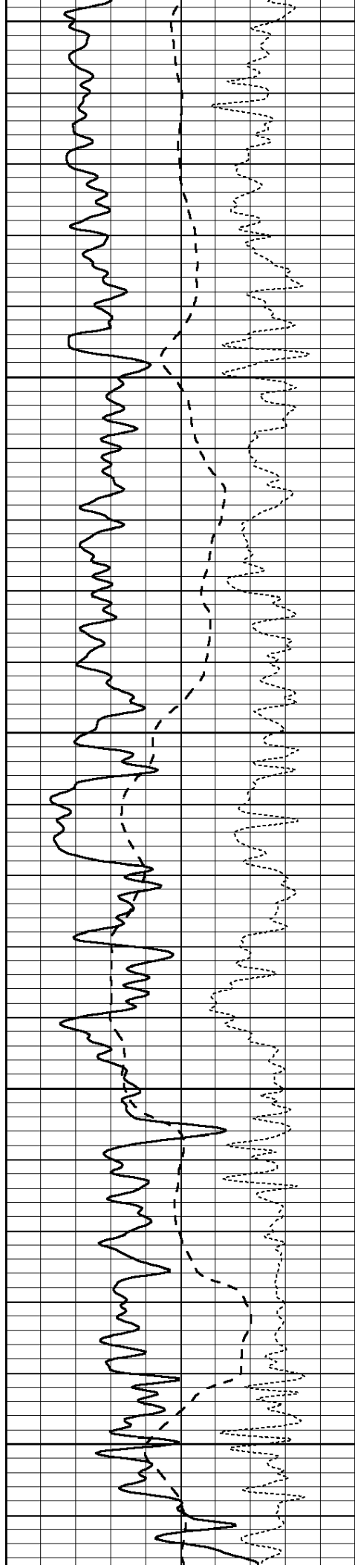
2850

2900

2950

3000





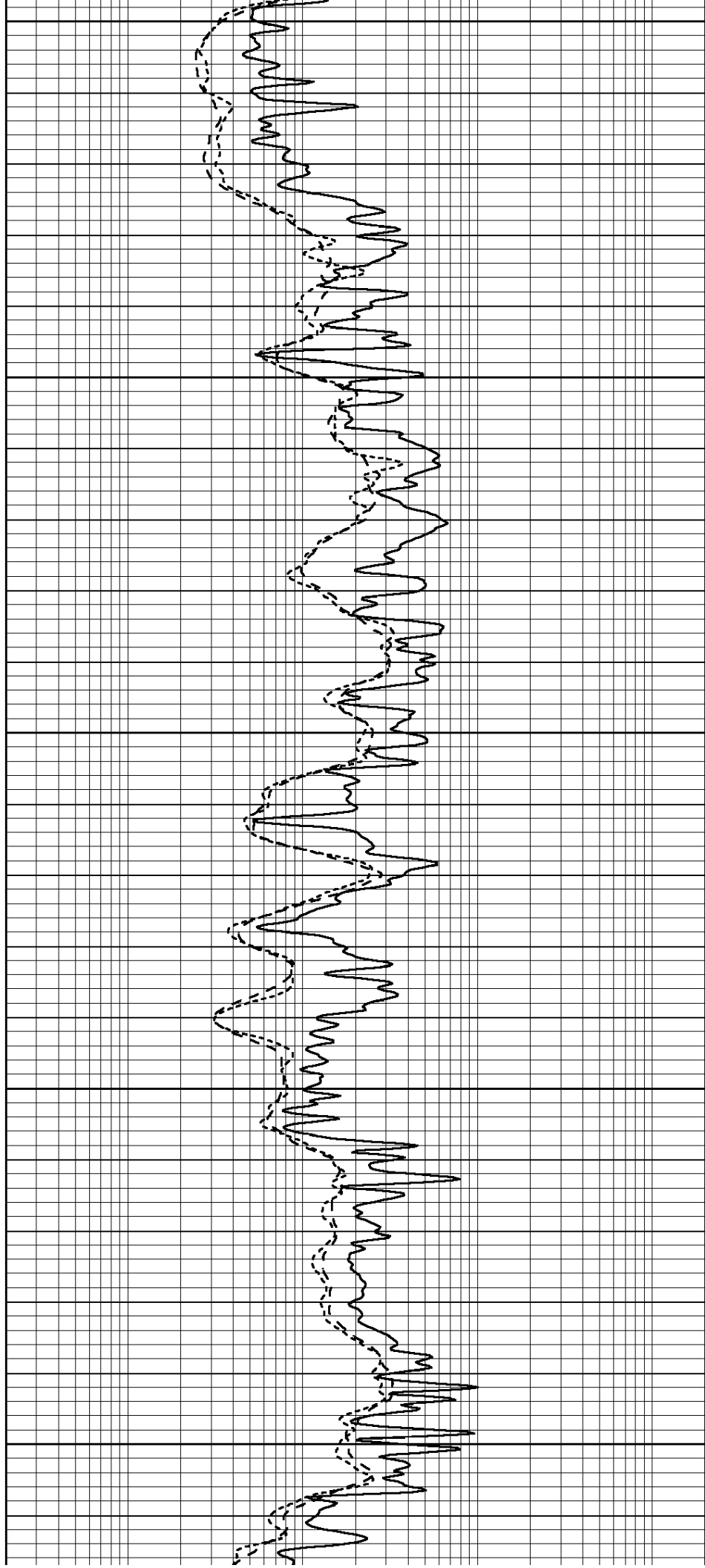
3050

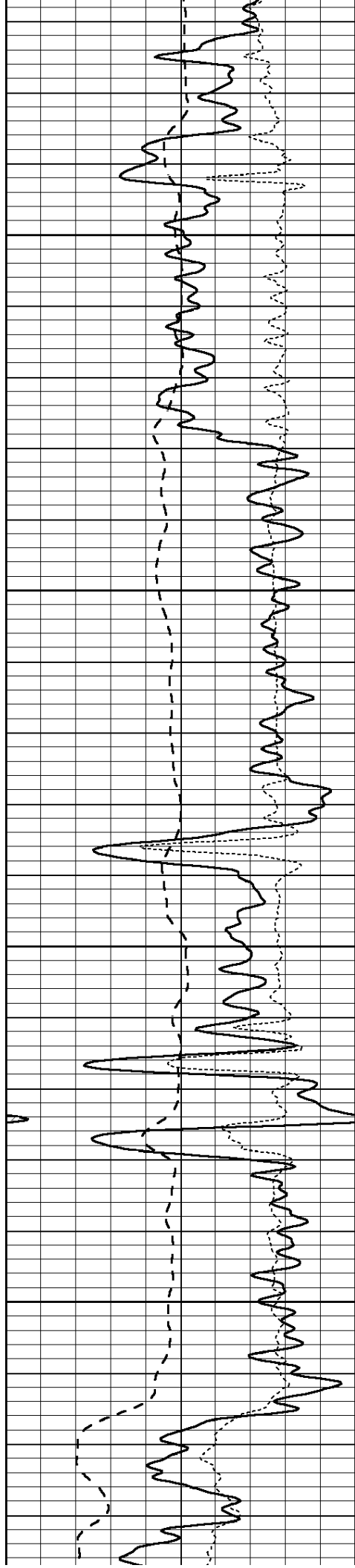
3100

3150

3200

3250



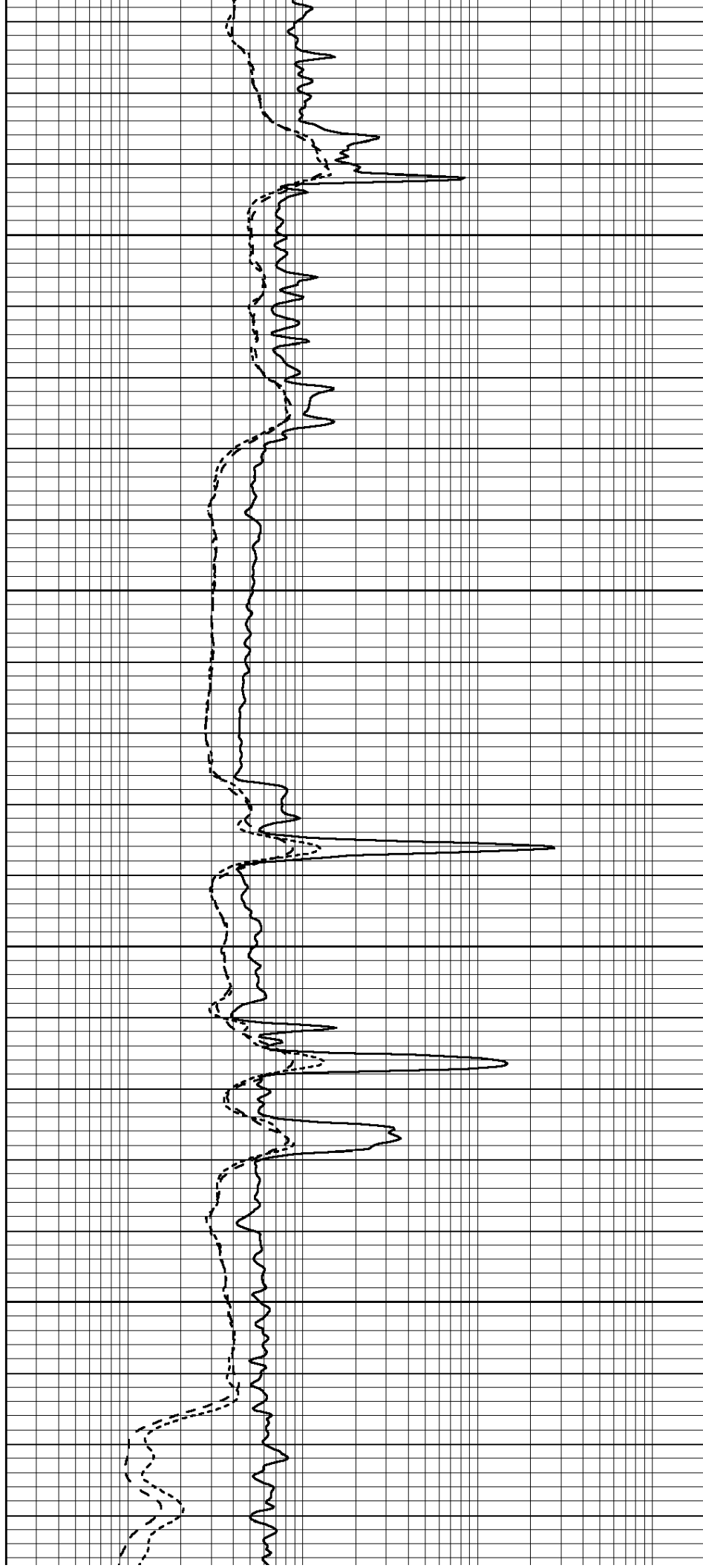


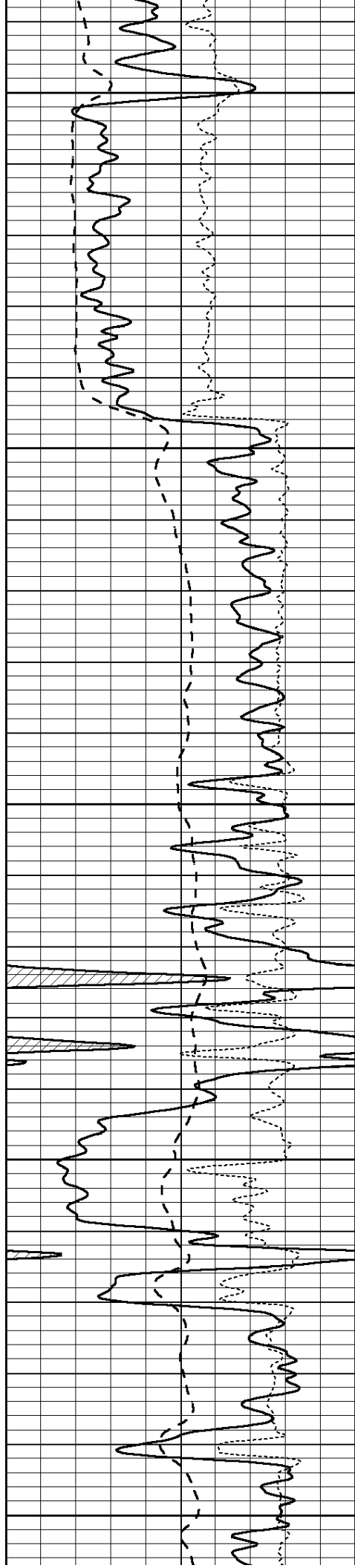
3300

3350

3400

3450





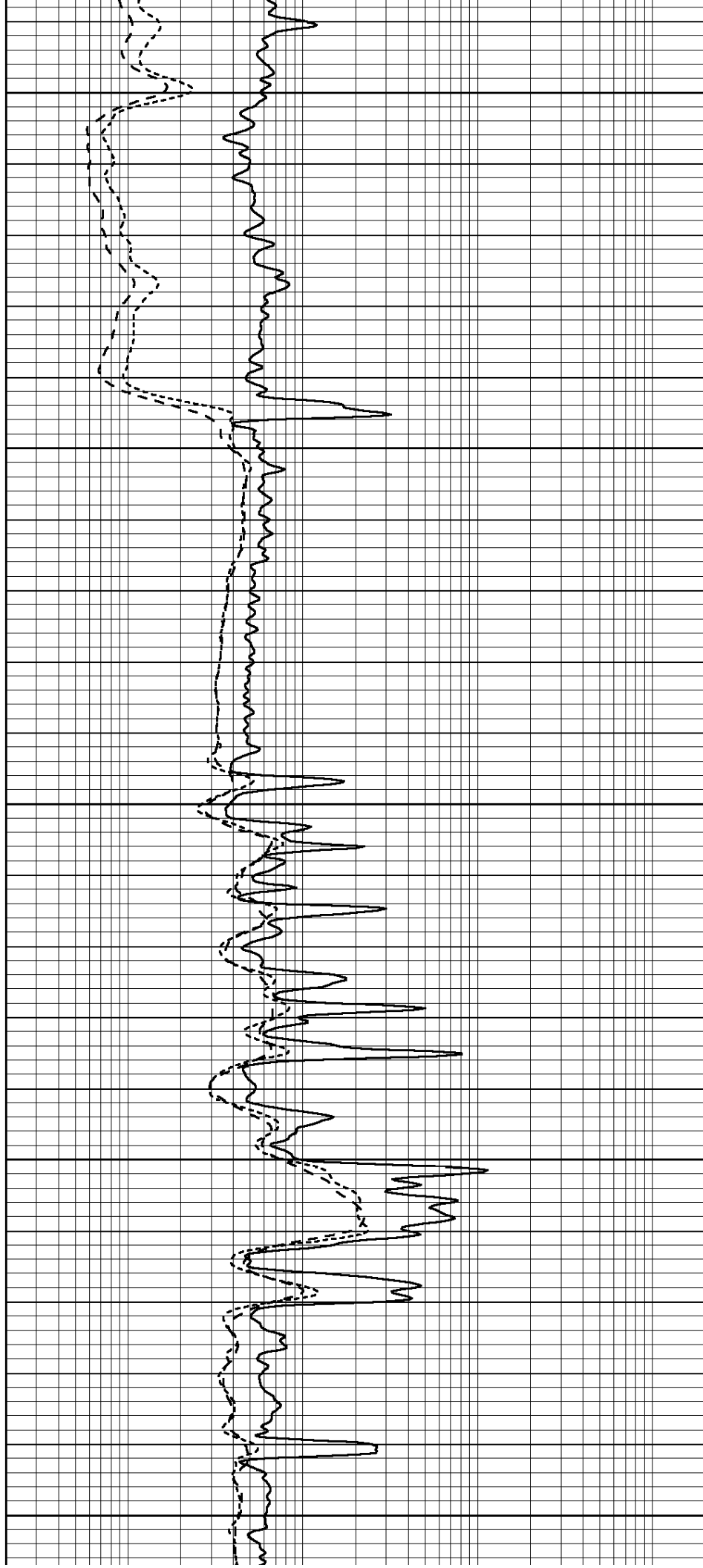
3500

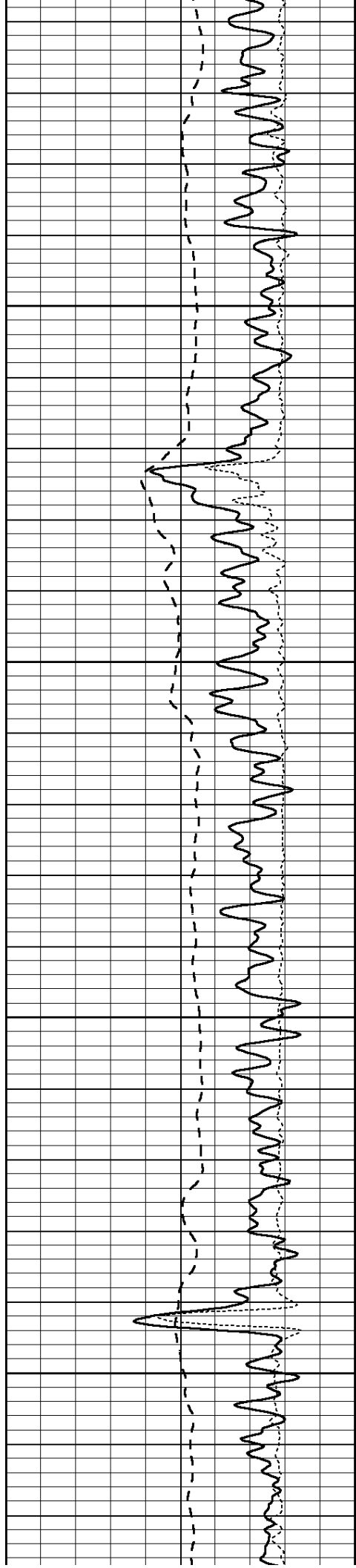
3550

3600

3650

3700



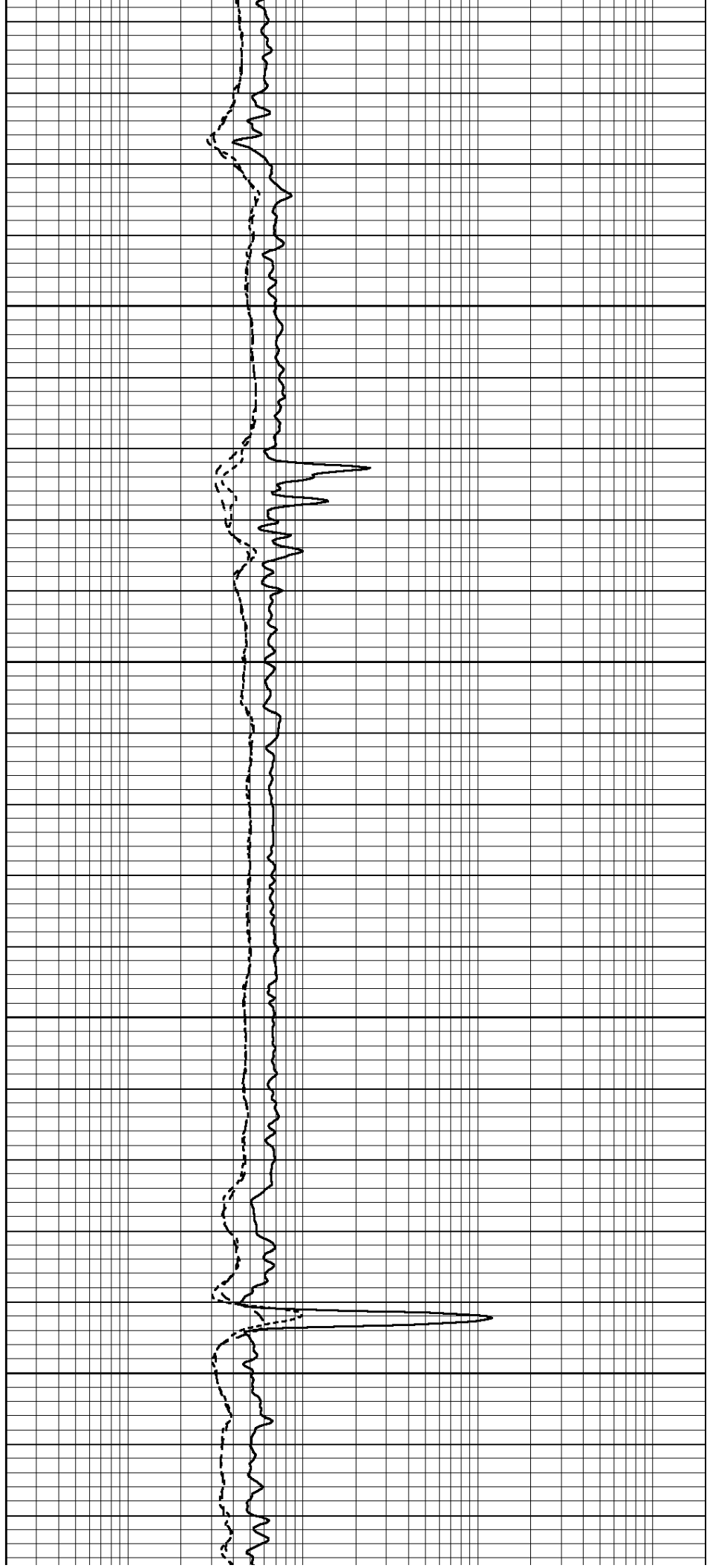


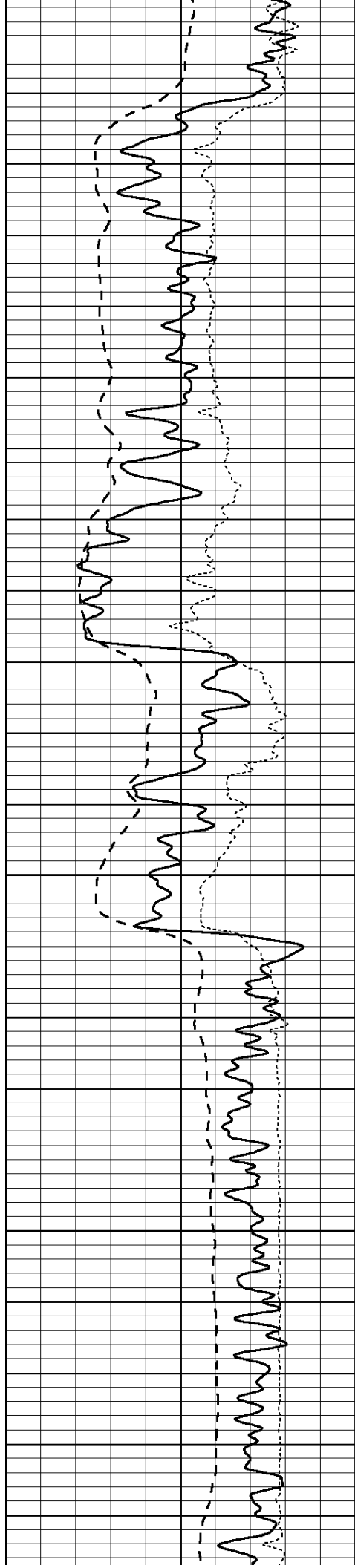
3750

3800

3850

3900



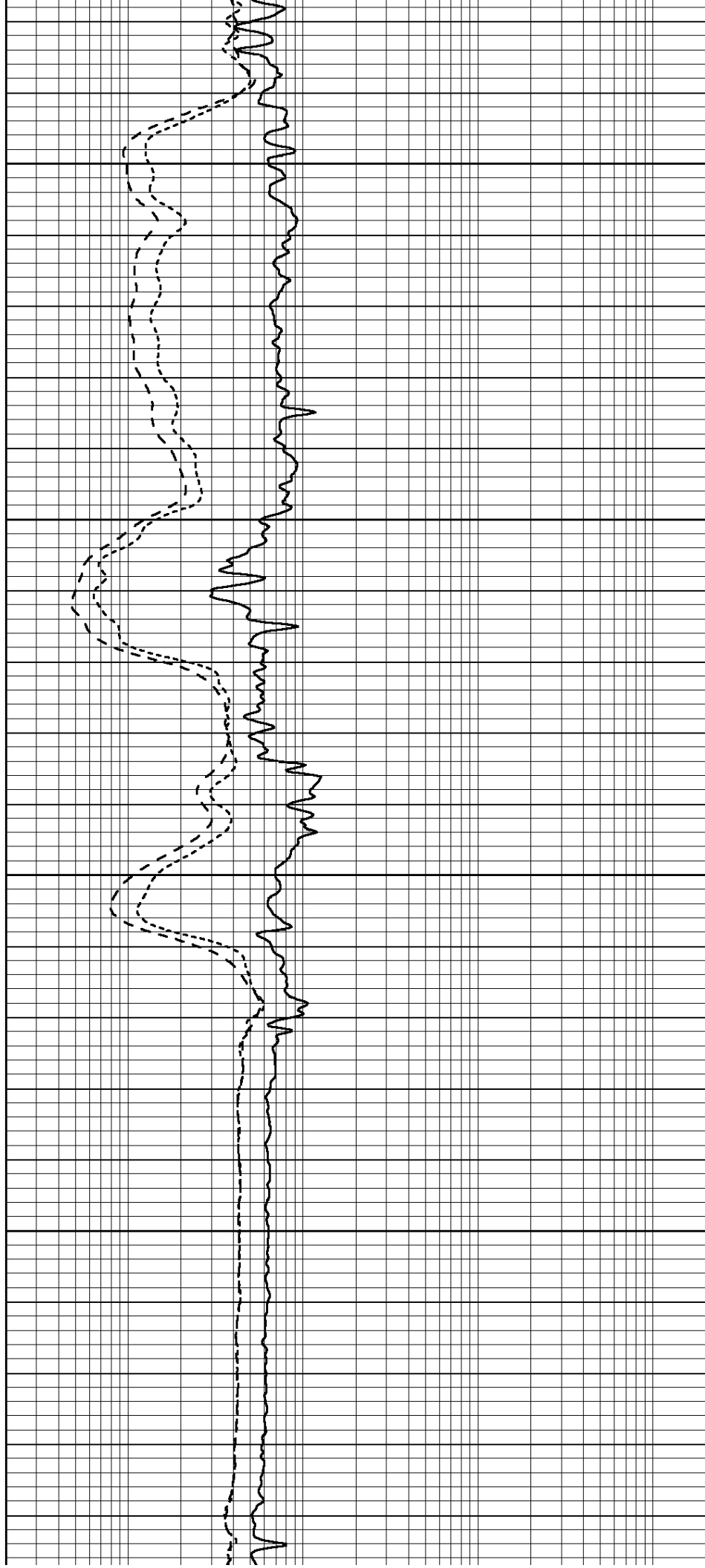


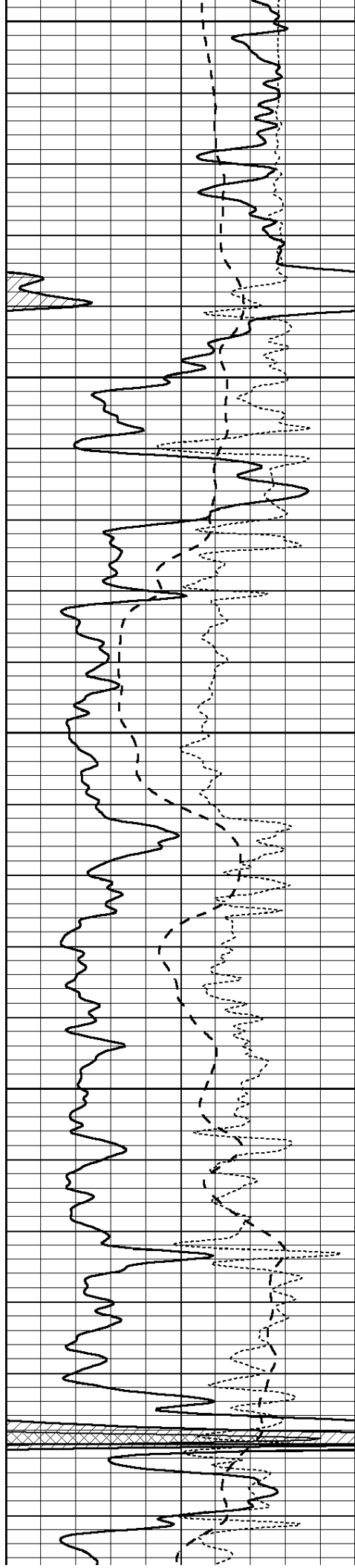
3950

4000

4050

4100





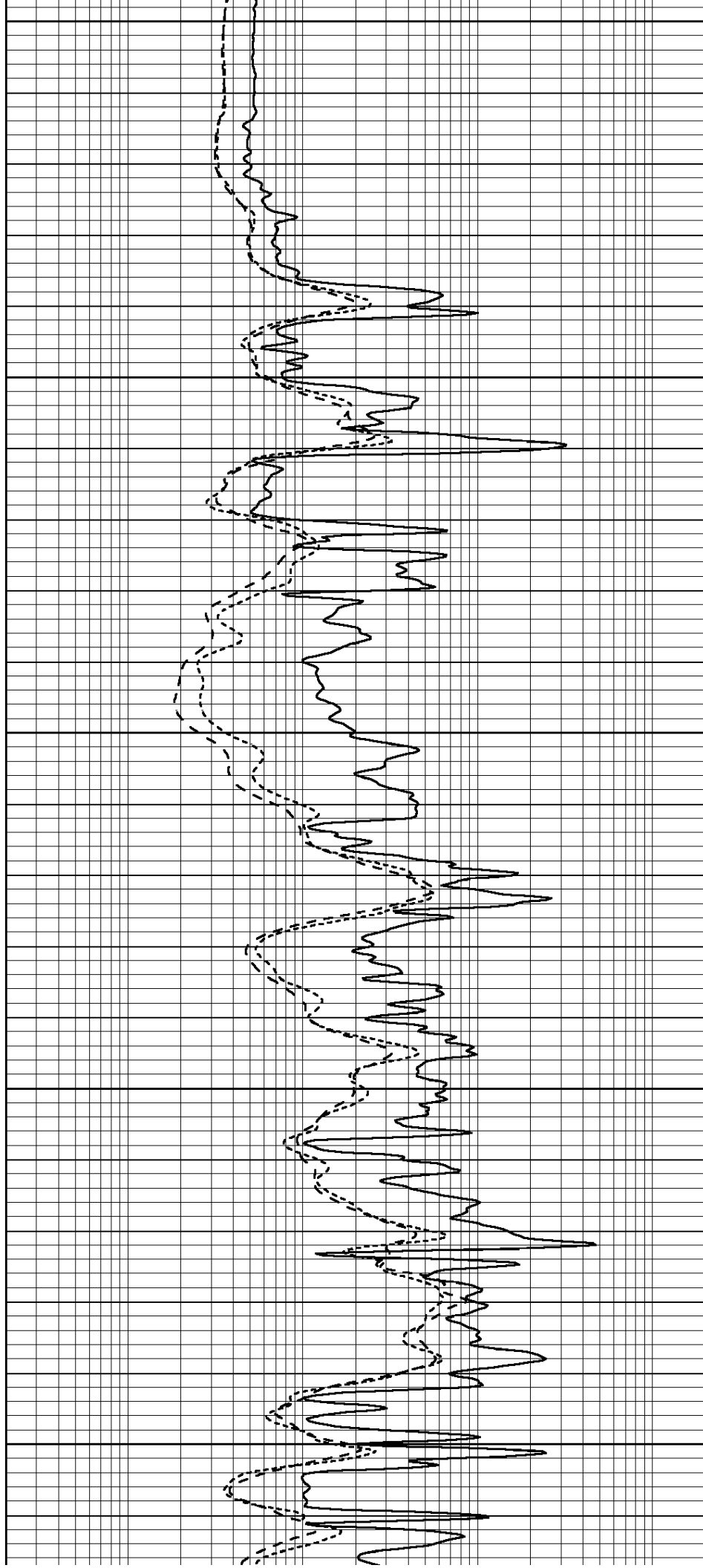
4150

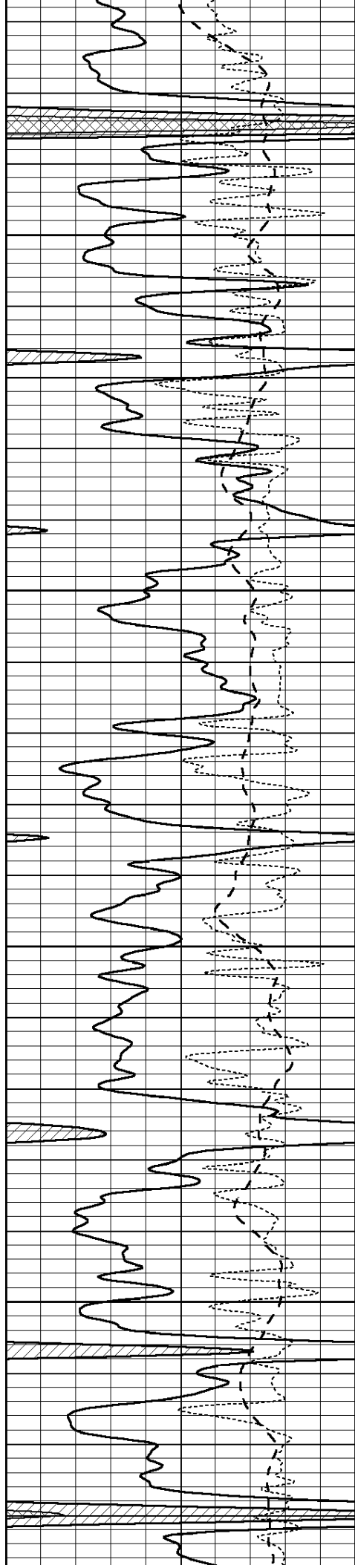
4200

4250

4300

4350



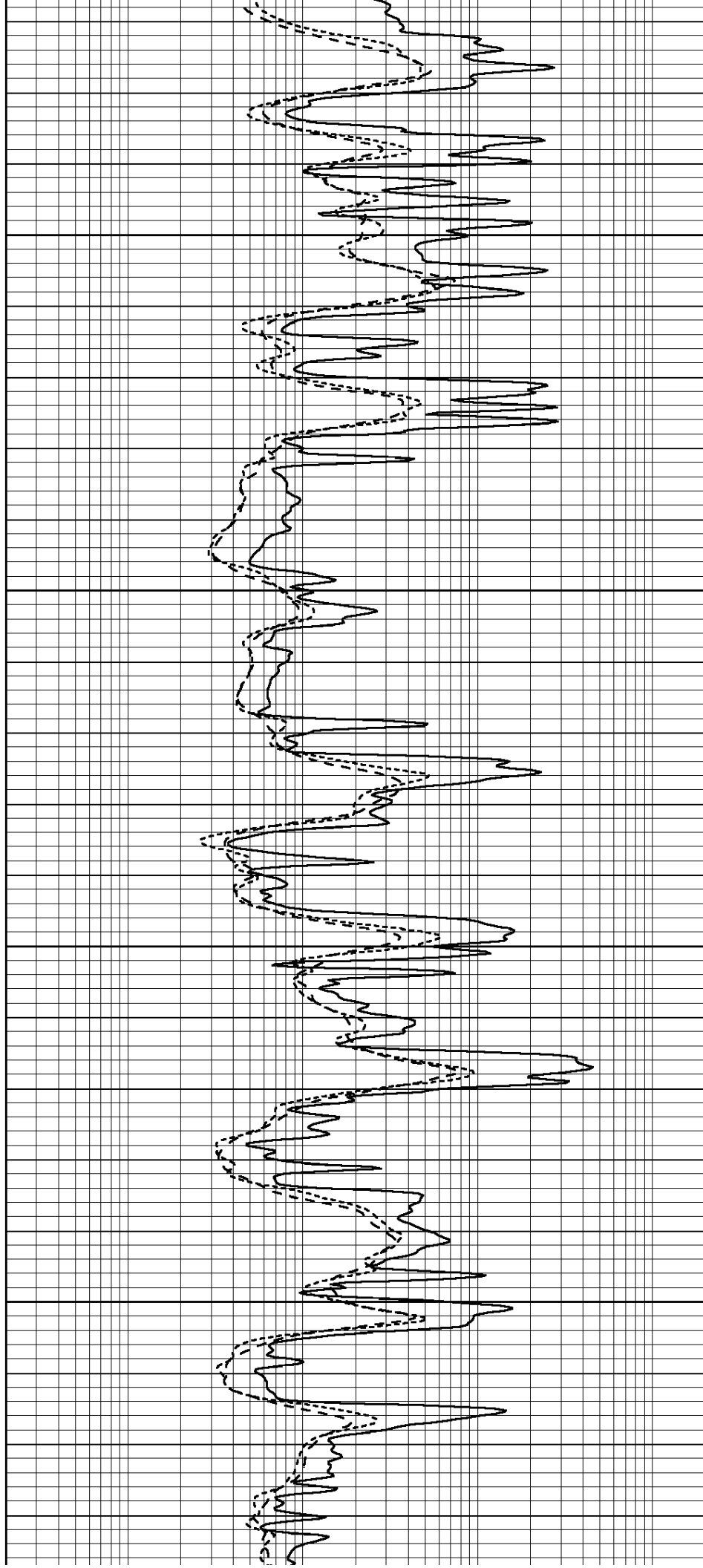


4400

4450

4500

4550





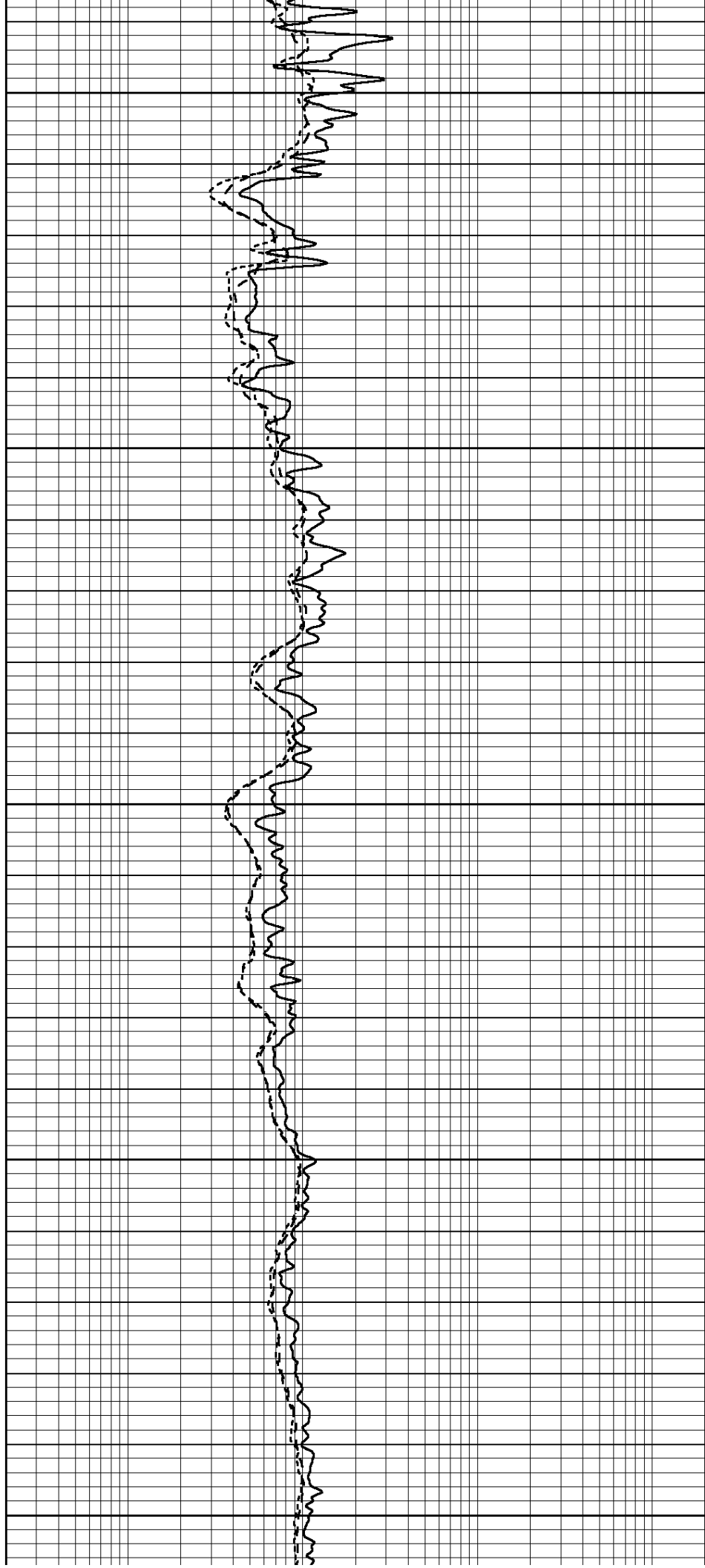
4600

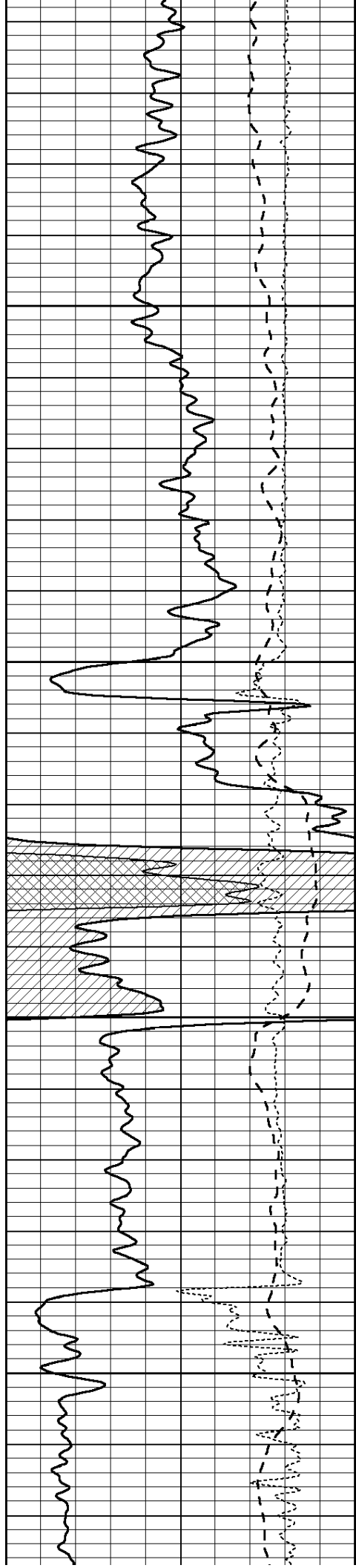
4650

4700

4750

4800



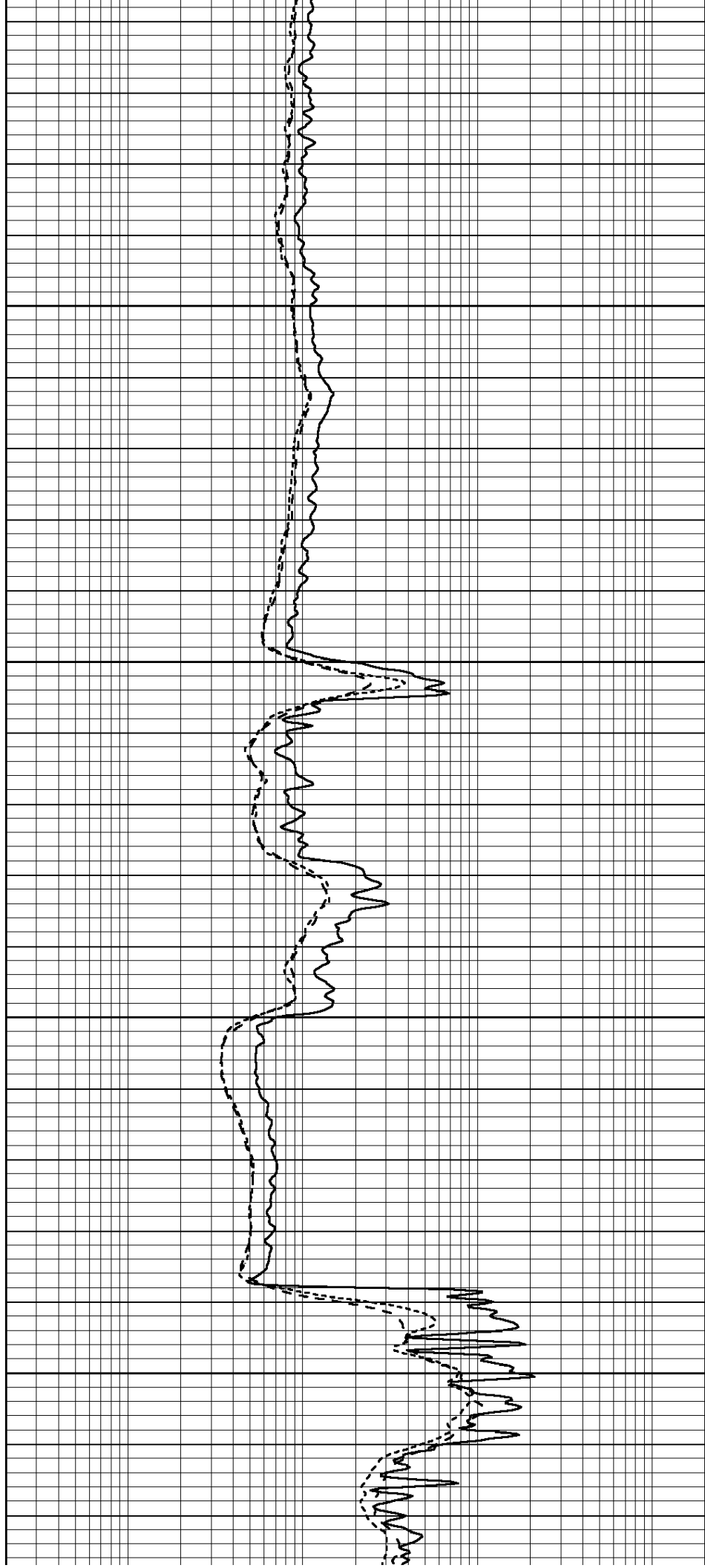


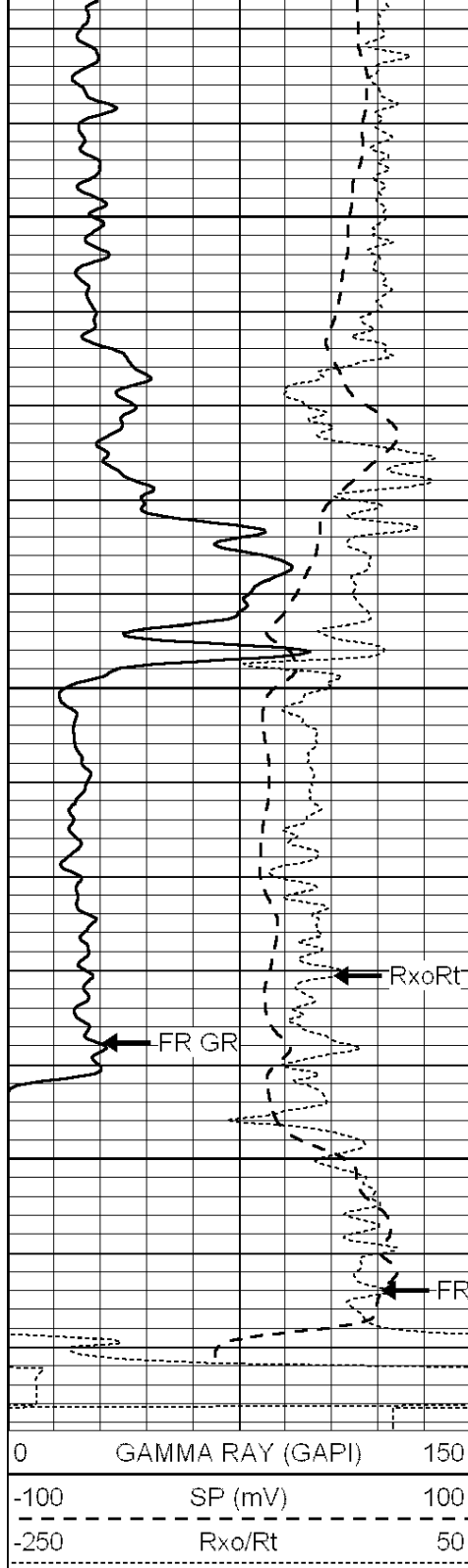
4850

4900

4950

5000



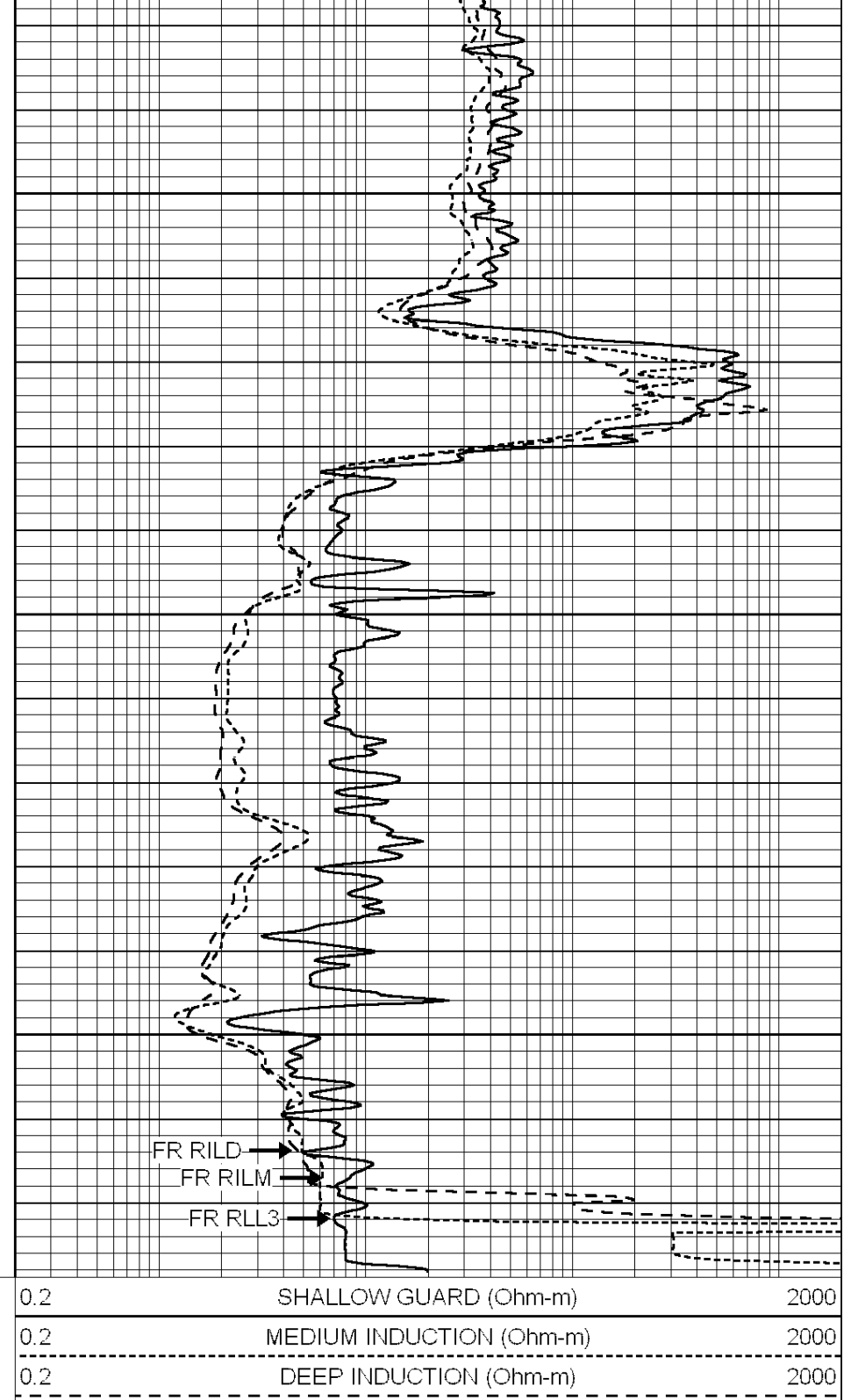


5050

5100

5150

LTD 5174



FR RILD
FR RILM
FR RLL3



SUPERIOR
Hays,
Kansas

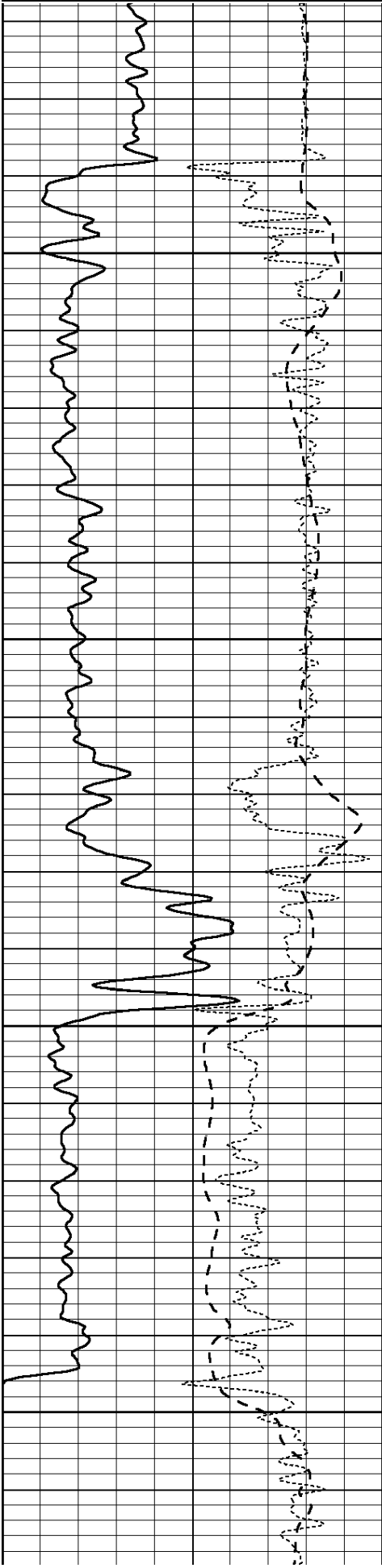
REPEAT SECTION

Database File: 009222pe.db
 Dataset Pathname: pass2.2
 Presentation Format: _dil
 Dataset Creation: Thu Jun 14 15:20:21 2012 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

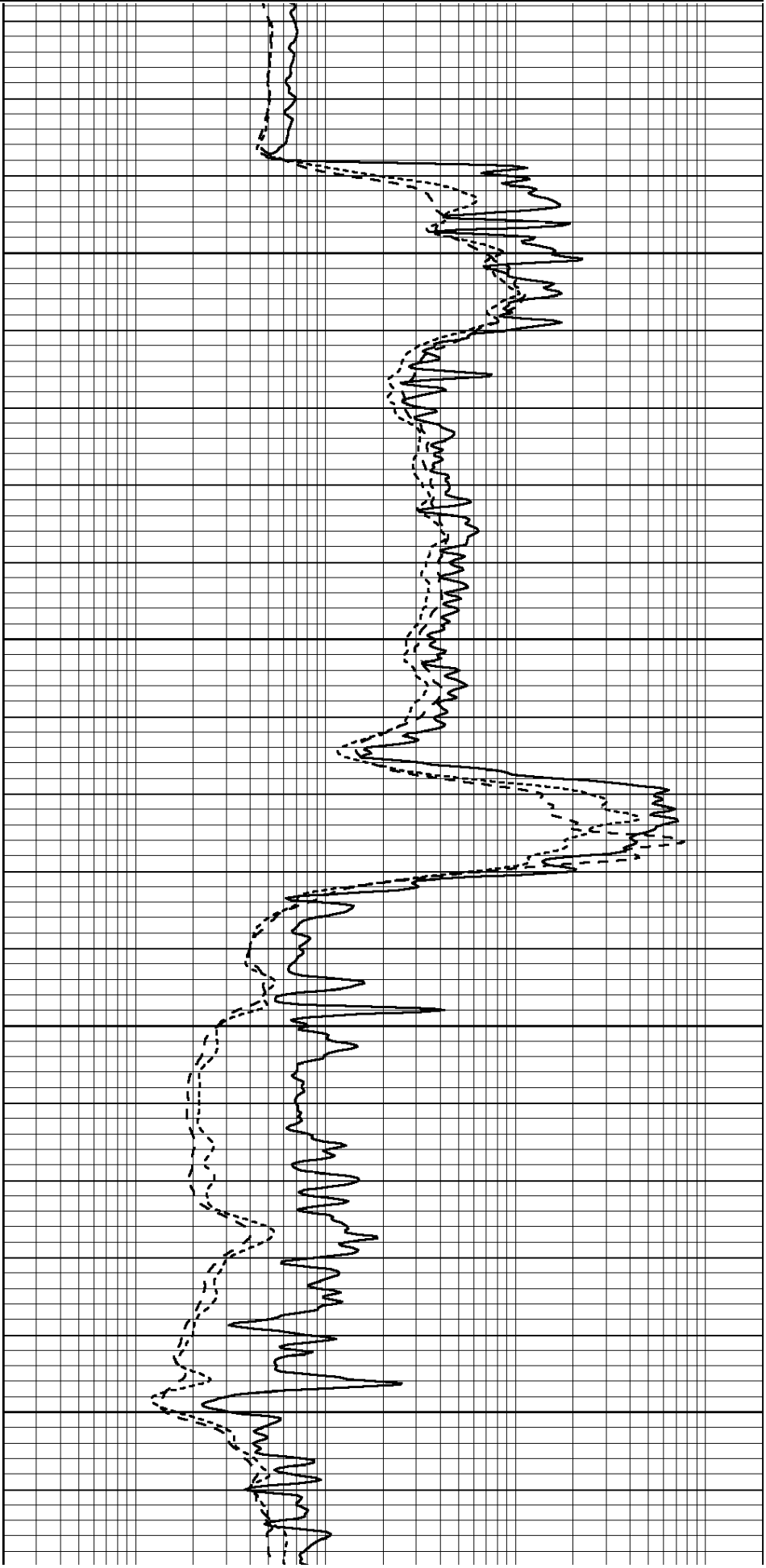
0 GAMMA RAY (GAPI) 150

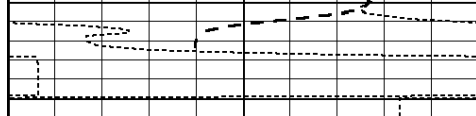
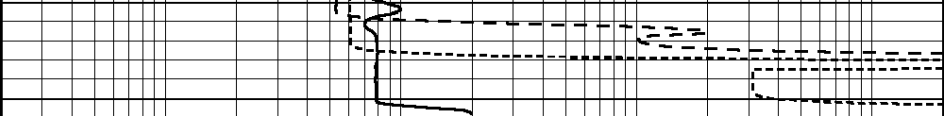
0.2 SHALLOW GUARD (Ohm-m) 2000

	GAMMA RAY (API)	100
-100	SP (mV)	100
-250	Rxo/Rt	50



0.2	SALLOW SOAR (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000



	
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:	009222pe.db
Dataset Pathname:	pass3.3
Dataset Creation:	Thu Jun 14 17:57:40 2012 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model:	PROBE8-DILG
Surface Cal Performed:	Fri Aug 01 06:33:19 2008
Downhole Cal Performed:	Mon Jul 28 11:08:27 2008
After Survey Verification Performed:	Mon Jul 28 11:08:27 2008

Surface Calibration		Readings		References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	632.616	-9.730
Medium	0.029	0.796	V	0.000	464.000	mmho/m	605.049	-17.680
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.017	0.657	V	0.000	400.000	mmho/m	625.153	-10.619
Medium	0.016	0.757	V	0.000	464.000	mmho/m	625.992	-9.739

Downhole Calibration		Readings		References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	2.011	405.777	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	7.590	503.393	mmho/m	1.000	0.000
LL3		7.500	V		1500.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		3800.000	mmho-m		

After Survey Verification		Readings		Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
LL3		1.000	Ohm-m		1.000	Ohm-m		
		0.000	Ohm-m		0.000	Ohm-m		
		1.000	mmho-m		1.000	mmho-m		

Litho Density Calibration Report	
Serial: 001	Model: PRB
Performed Thu Sep 17 09:57:21 2009	

Litho Density Calibration					
	Background	Magnesium	Aluminum	Sandstone	
Window 1	2056.0	9796.8	3673.1	10821.3	cps
Window 2	1920.0	8541.1	3303.5	9307.2	cps

Window 3	1563.1	4735.7	2212.8	5017.5	cps
Window 4	466.0	466.1	465.6	471.5	cps
Long Space	0.0	6621.1	1383.5	7387.2	cps
Short Space	2.5	2361.7	1523.2	2534.0	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	
Rib Angle	: 44.4	Rib Slope	: 0.978	Density/Spine Ratio	: 0.541
Spine Angle	: 74.4	Spine Slope	: 3.570	Spine Intercept	: -18.9

Caliper					
	Readings	Reference			
Low Ref	3.1	8.4			
High Ref	4.3	14.3			
	Gain: 4.6	Offset: -7.7			

Compensated Neutron Calibration Report
--

Serial Number:	6I
Tool Model:	G

CALIBRATION					
Detector	Readings		Target		Normalization
Short Space	1.00	cps	1.00	cps	1.0000
Long Space	1.00	cps	1.00	cps	1.0000

Gamma Ray Calibration Report

Serial Number:	#8	
Tool Model:	OPEN	
Performed:	Mon Jun 13 16:56:43 2011	
Calibrator Value:	150.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	175.0	cps
Sensitivity:	0.8371	GAPI/cps