



NABORS

**COMPLETION
& PRODUCTION
SERVICES CO.**

**DUAL INDUCTION
LOG**

Company	LOTUS OPERATING COMPANY, LLC.		
Well	#1 EADS "A"		
Field	ASTFER SOUTH		
County	PRATT	State	KANSAS
Location:	API # : 15-151-22429-0000		Other Services CDL/CNL/PE MEL/SON/FF
SEC 26 TWP 29S RGE 15W		Elevation	
Permanent Datum	GROUND LEVEL	Elevation	1976
Log Measured From	KELLY BUSHING 13' A.G.L.	K.B. 1989 D.F. 1987 G.L. 1976	
Drilling Measured From	KELLY BUSHING		
Date	12/6/13		
Run Number	ONE		
Depth Driller	4975		
Depth Logger	4971		
Bottom Logged Interval	4969		
Top Log Interval	00		
Casing Driller	10 3/4"@261'		
Casing Logger	261		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 4,500 PPM	
Density / Viscosity	9.3/61		
pH / Fluid Loss	11.0/9.2		
Source of Sample	FLOWLINE		
Rin @ Meas. Temp	.700@50F		
Rinf @ Meas. Temp	.525@50F		
Rinc @ Meas. Temp	.840@50F		
Source of Rinf / Rinc	MEASUREMENT		
Rin @ BHT	.280@125F		
Time Circulation Stopped	3 HOURS		
Time Logger on Bottom	5:30 P.M.		
Maximum Recorded Temperature	125F		
Equipment Number	4854		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	TIM HELLMAN		

<<< 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 "NABORS" HAYS, KANSAS (785) 628-6395
DIRECTIONS

CROFT, KS., 1/4S. TO "RD. SW 100TH", 3E. TO TANK BATTERY, S. INTO THEN S. BEHIND FARM HOUSE



NABORS
**COMPLETION
& PRODUCTION**

MAIN SECTION

Database File:

011821pe.db

Dataset Pathname:

pass3.9

Presentation Format:

dil2

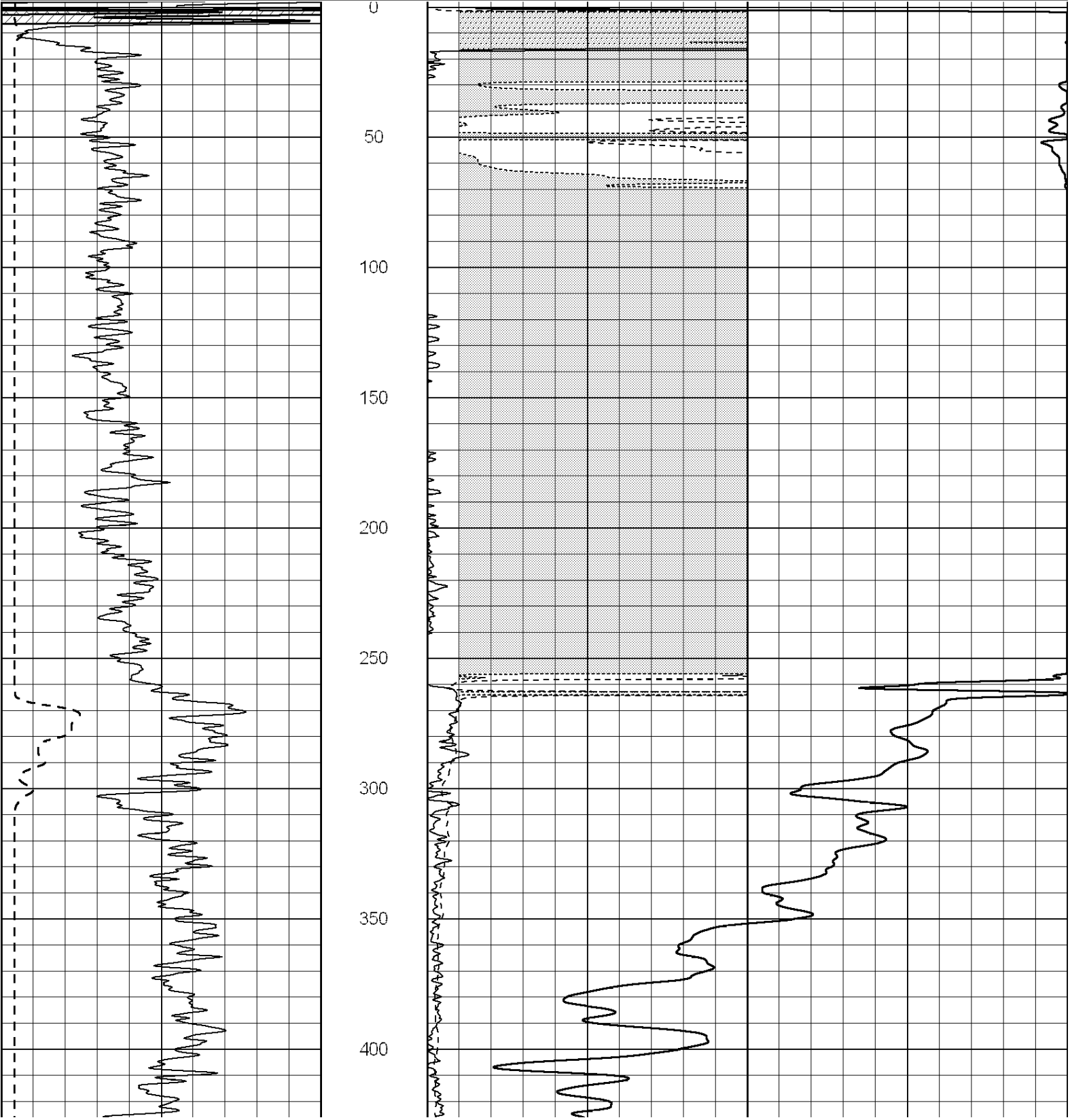
Dataset Creation:

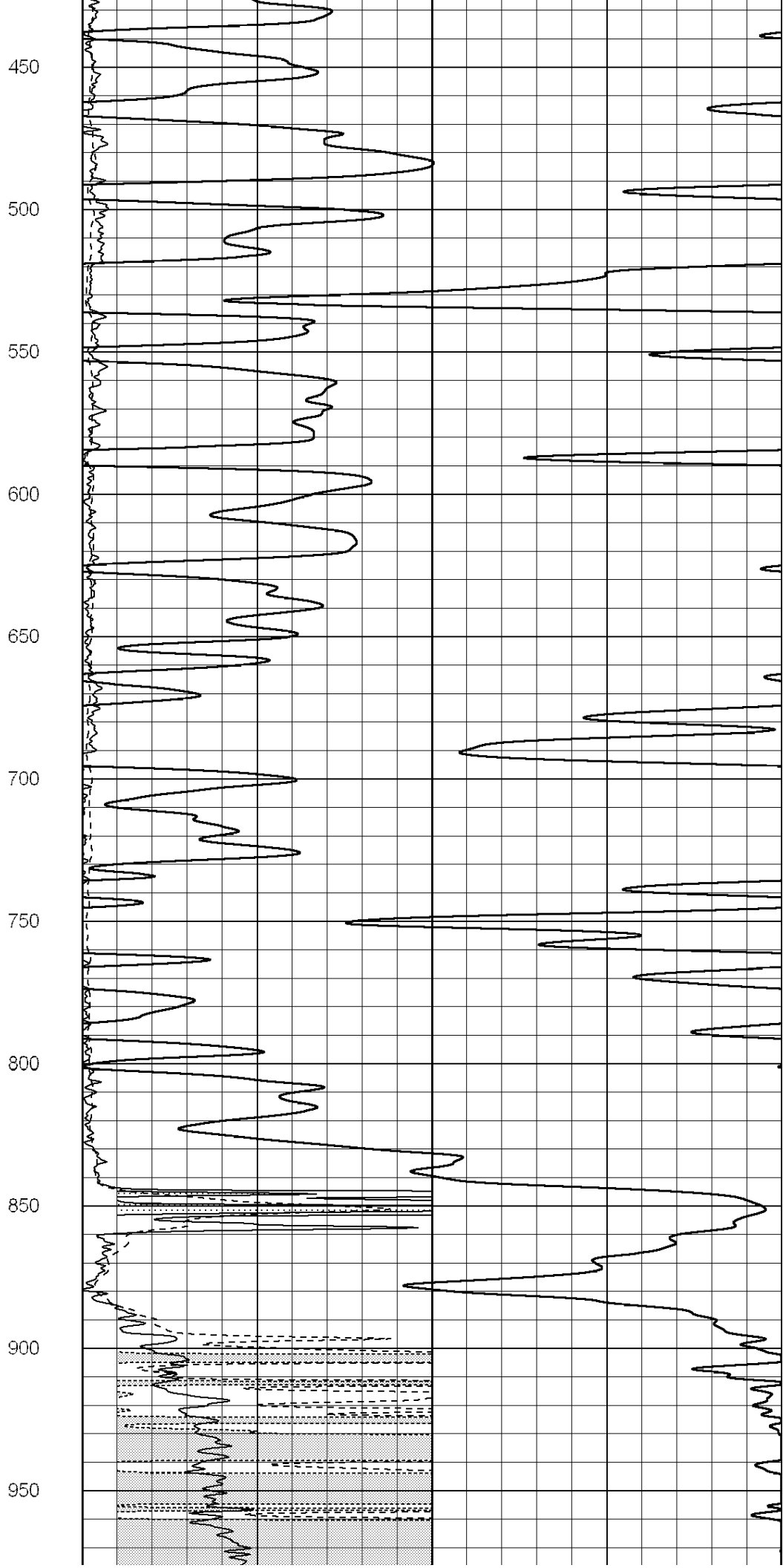
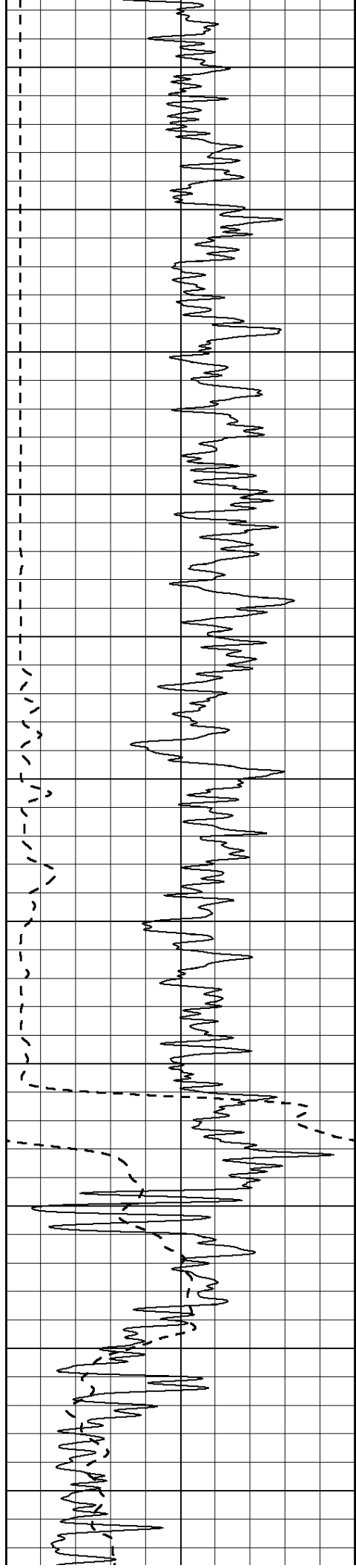
Fri Dec 06 19:30:36 2013

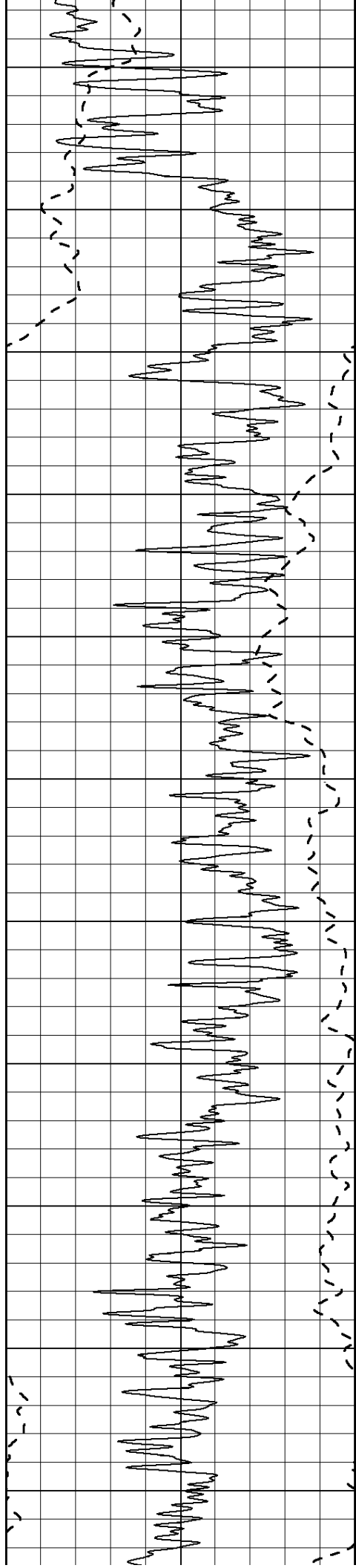
Charted by:

Depth in Feet scaled 1:600

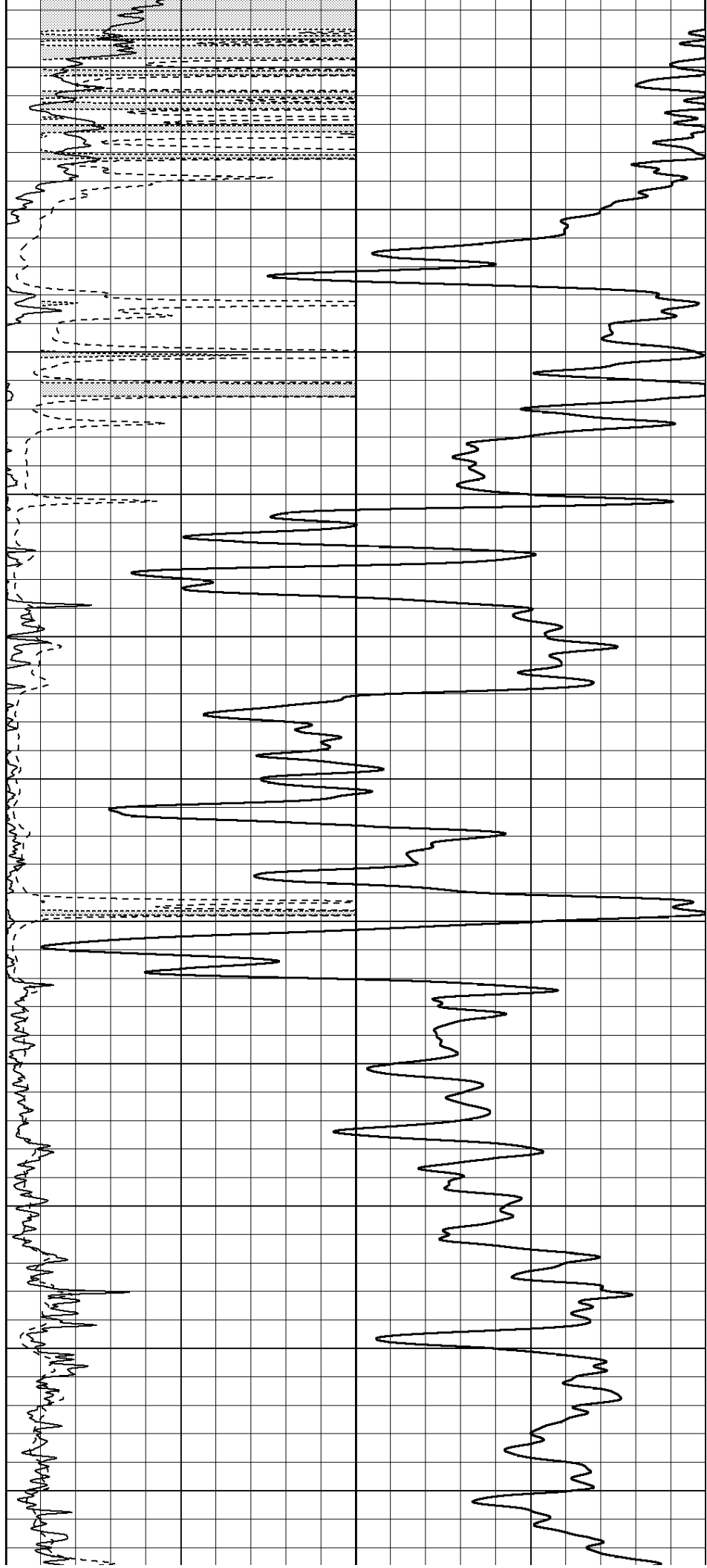
0	Gamma Ray (GAPI)	150	0	RLL3 (Ohm-m)	50
-100	SP (mV)	100	0	RILD (Ohm-m)	50
-----			1000	CILD (mmho/m)	
			50	RILD X10 (Ohm-m)	500
			50	RLL3 X10 (Ohm-m)	500

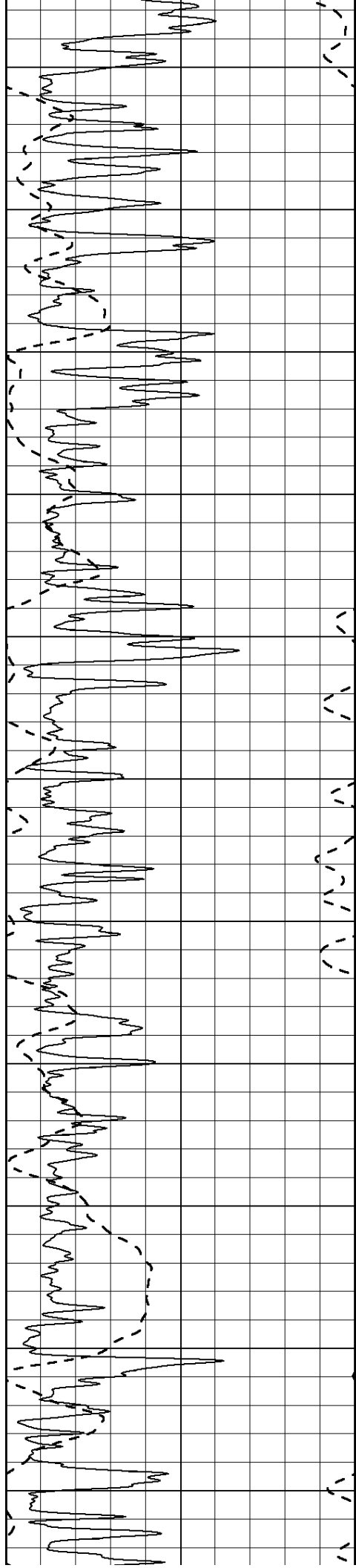






1000
1050
1100
1150
1200
1250
1300
1350
1400
1450
1500





1550

1600

1650

1700

1750

1800

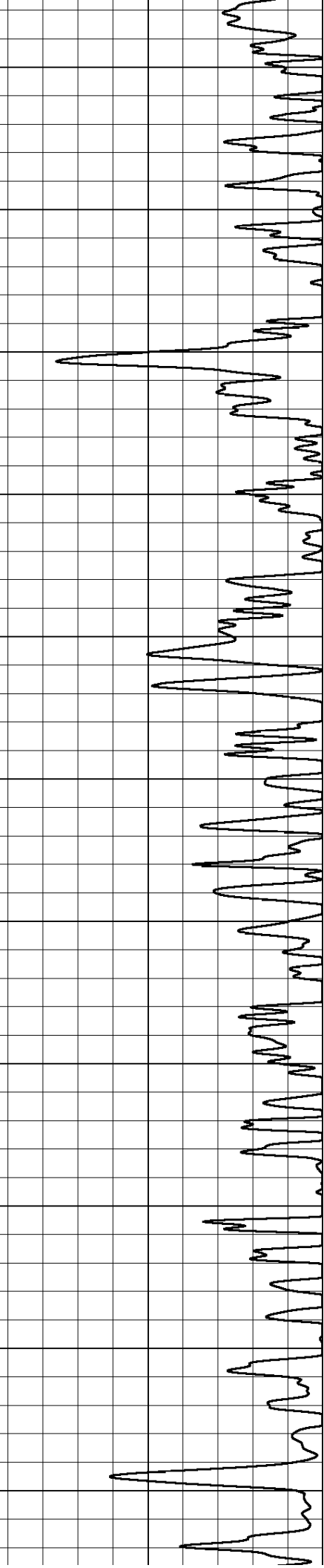
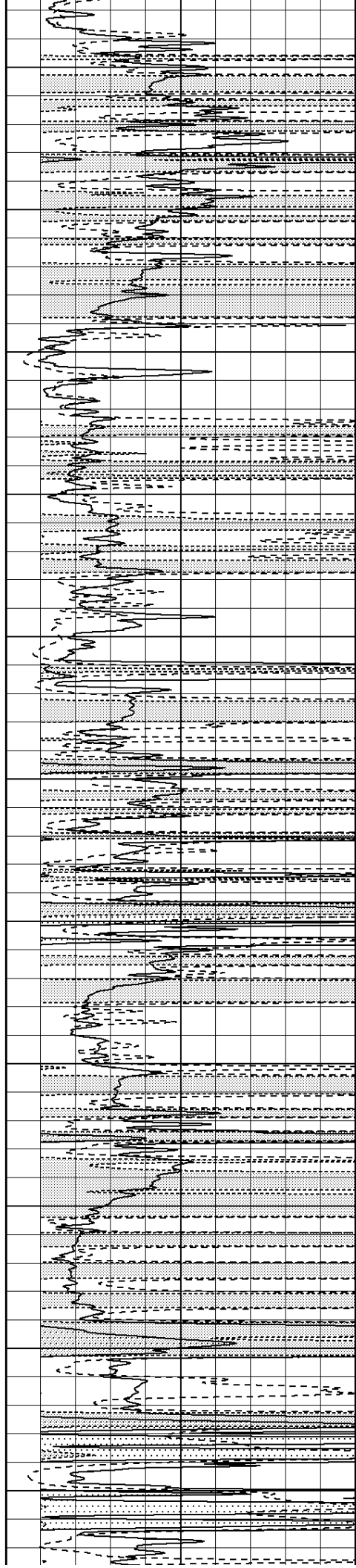
1850

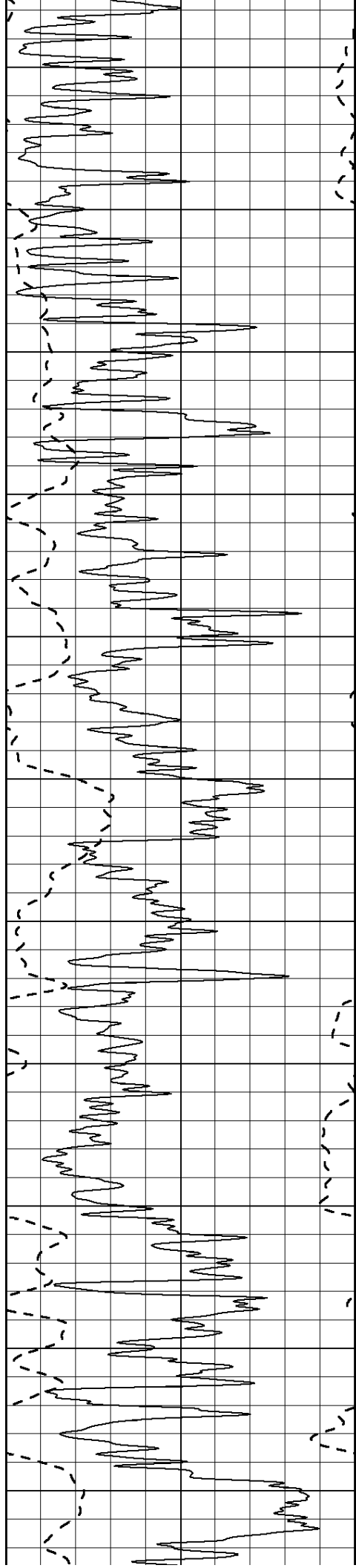
1900

1950

2000

2050





2100

2150

2200

2250

2300

2350

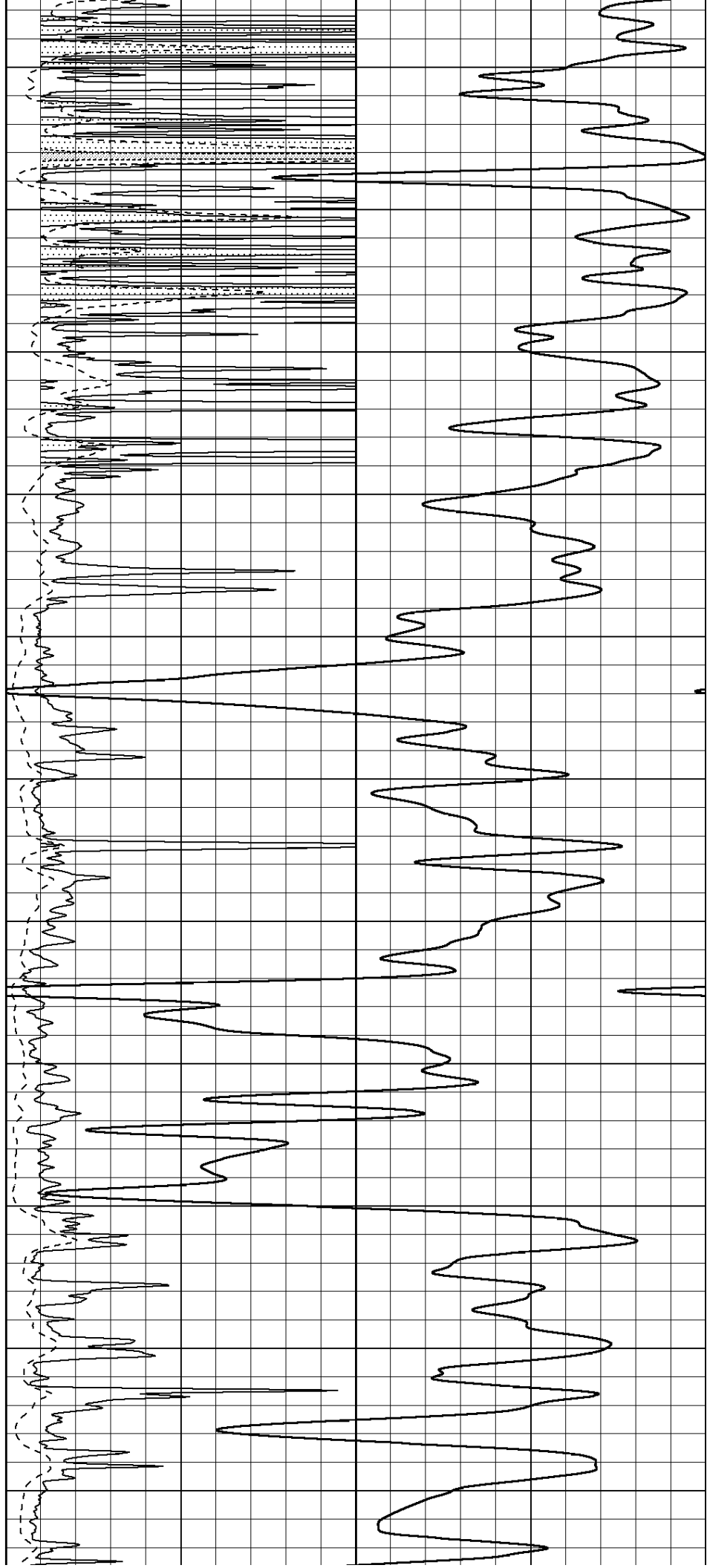
2400

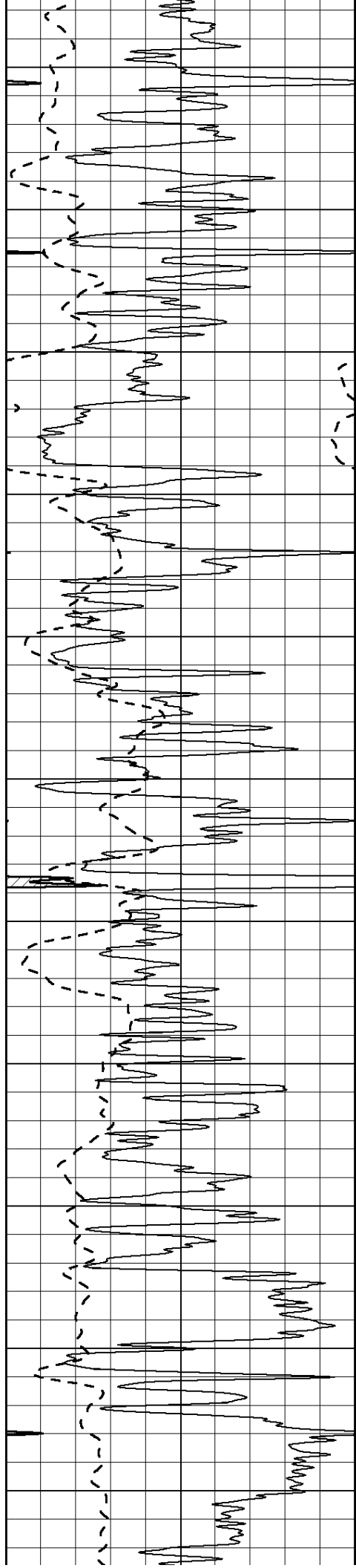
2450

2500

2550

2600





2650

2700

2750

2800

2850

2900

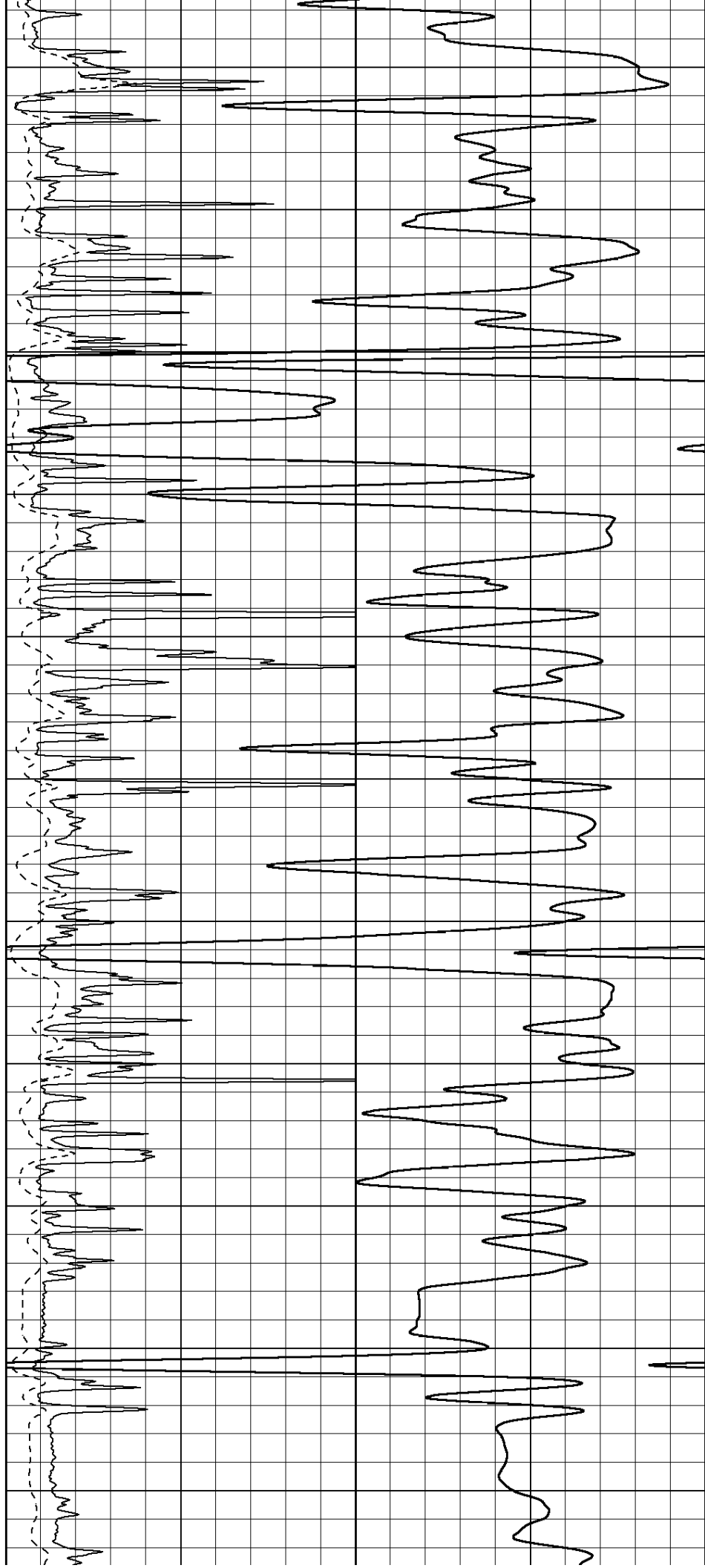
2950

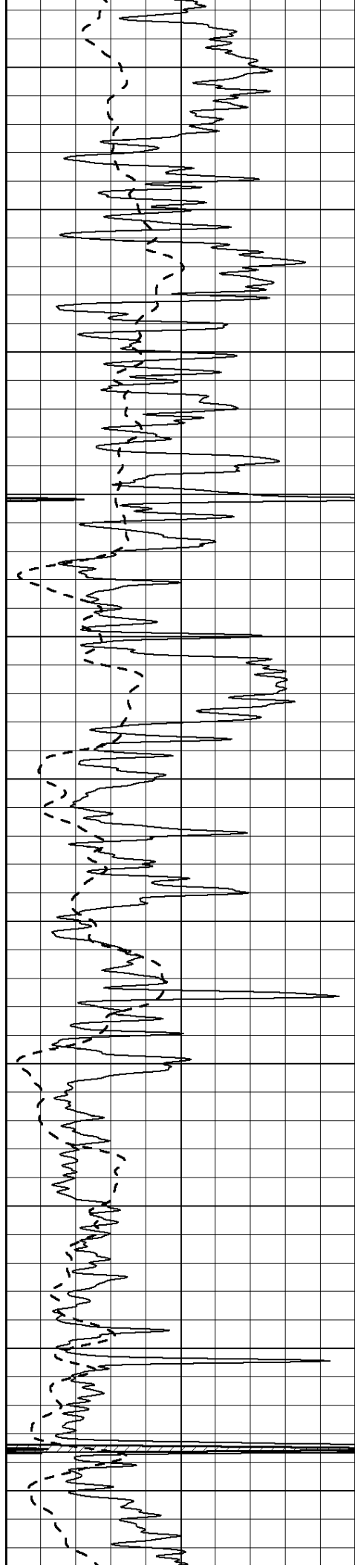
3000

3050

3100

3150





3200

3250

3300

3350

3400

3450

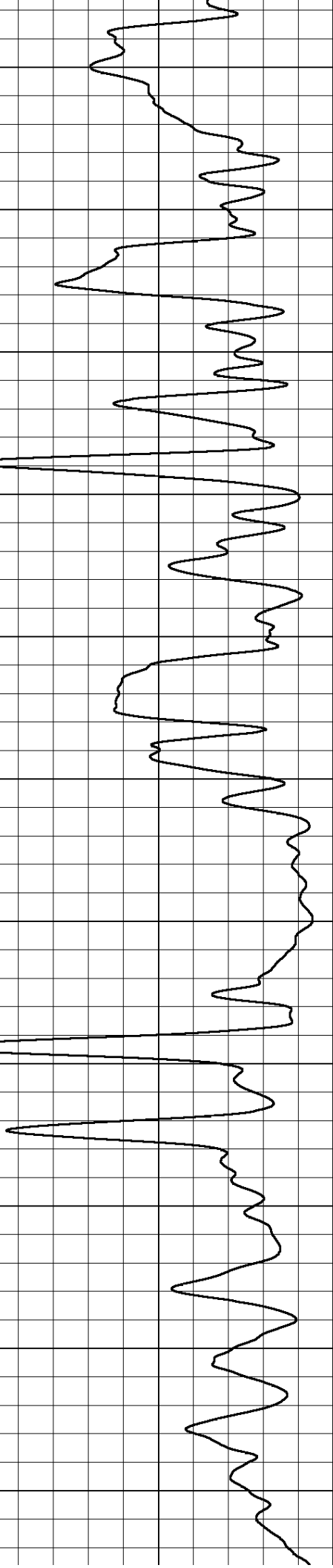
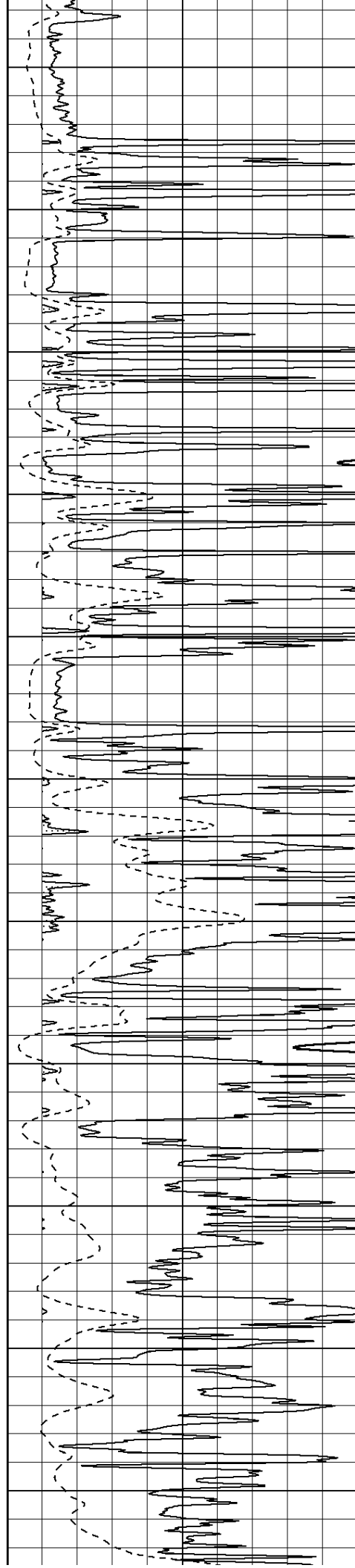
3500

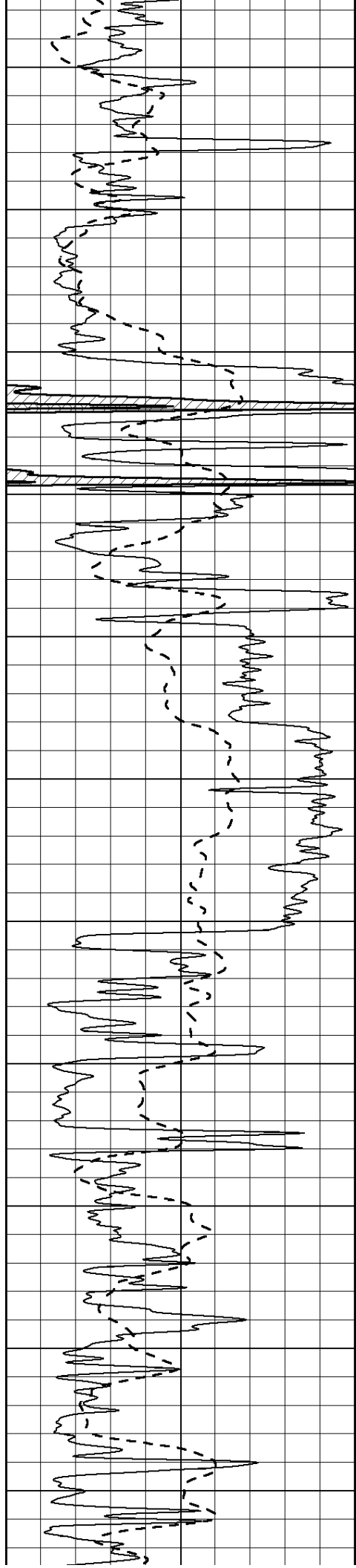
3550

3600

3650

3700





3750

3800

3850

3900

3950

4000

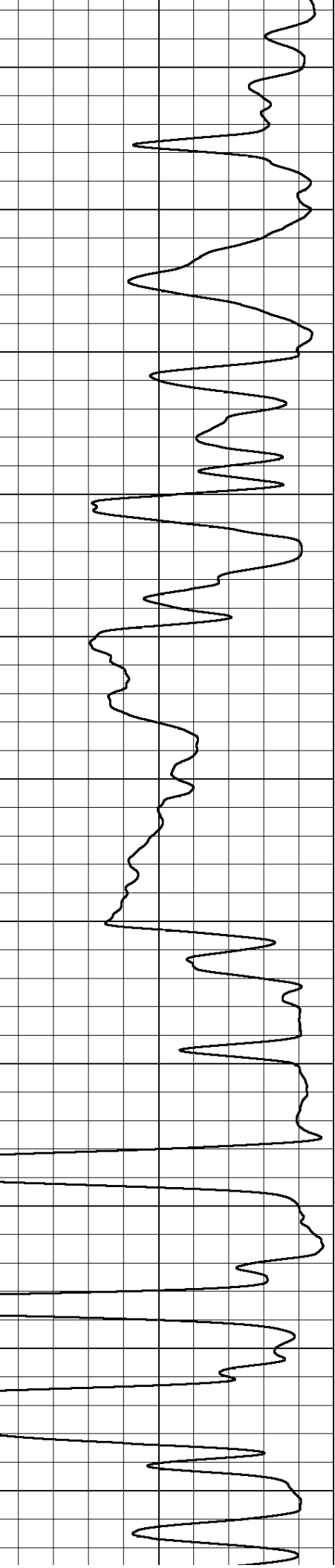
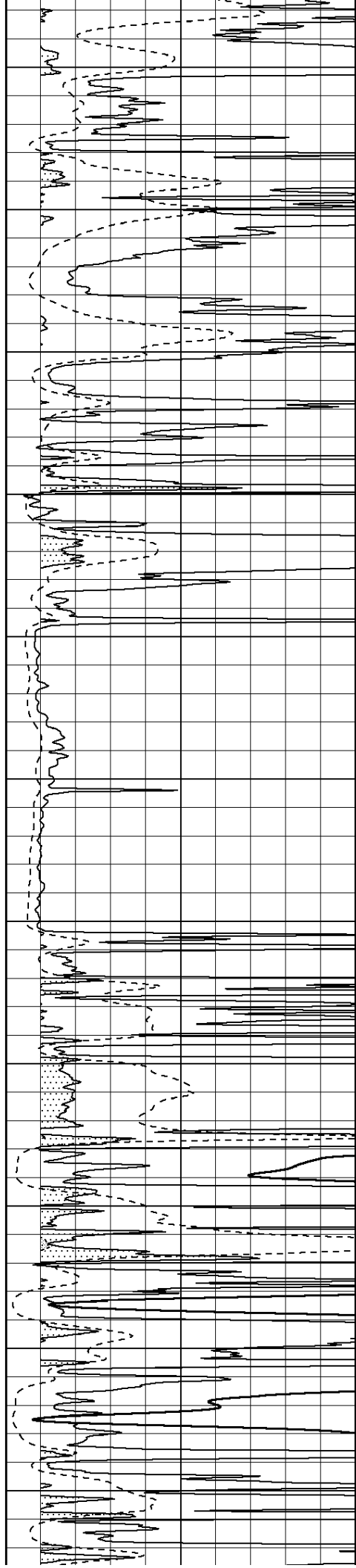
4050

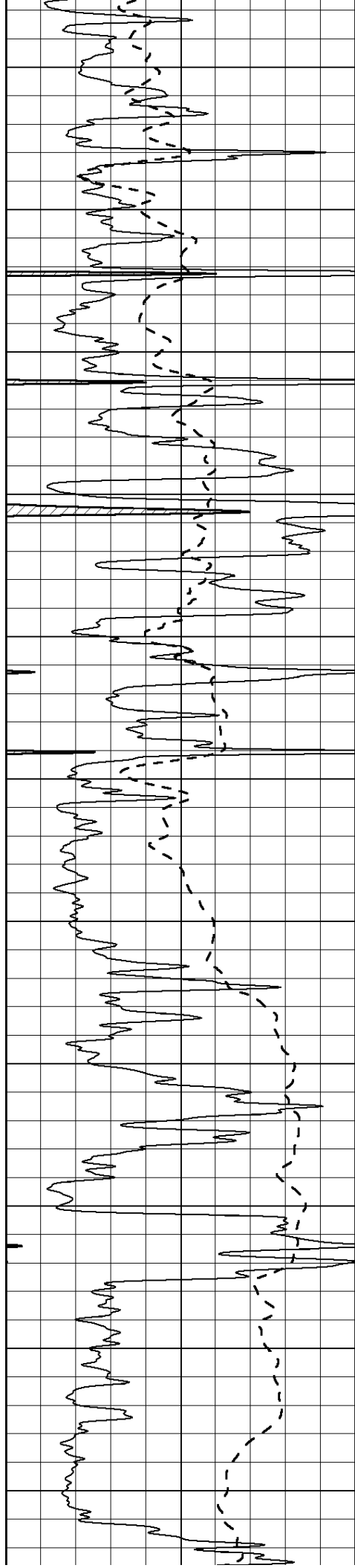
4100

4150

4200

4250





4300

4350

4400

4450

4500

4550

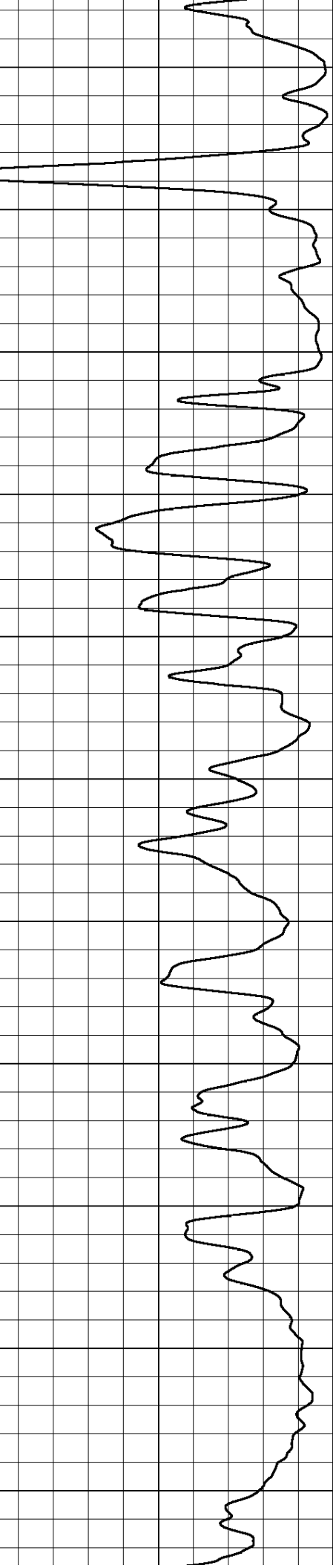
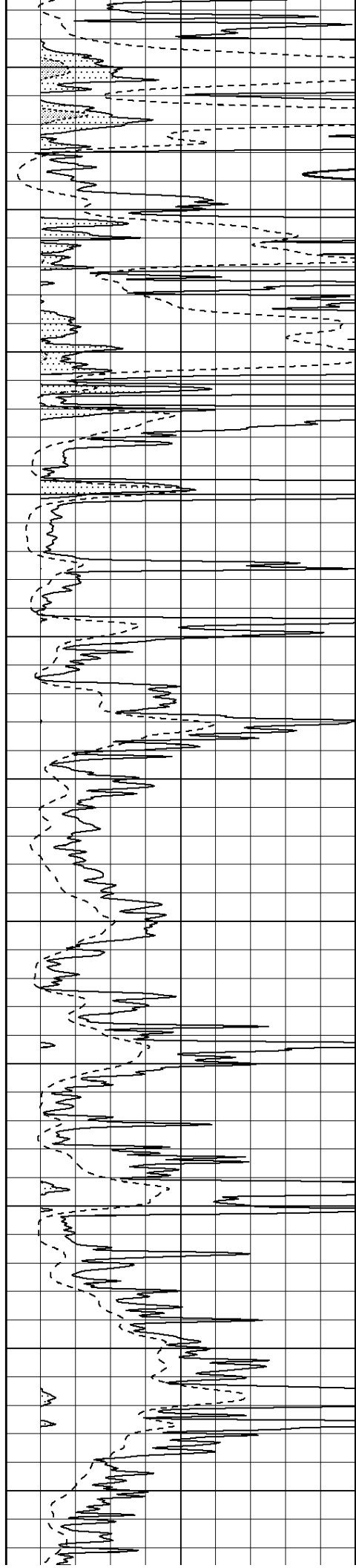
4600

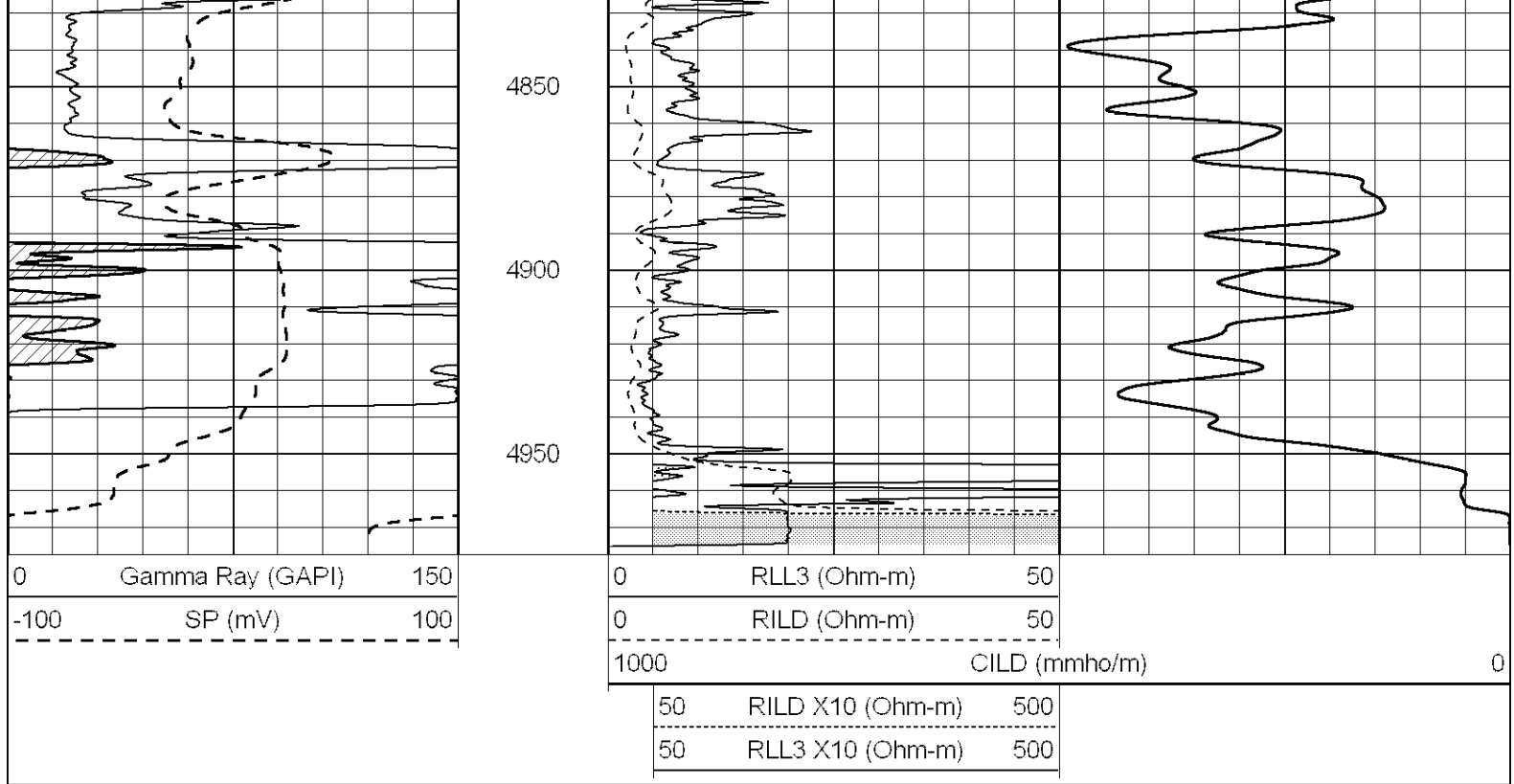
4650

4700

4750

4800





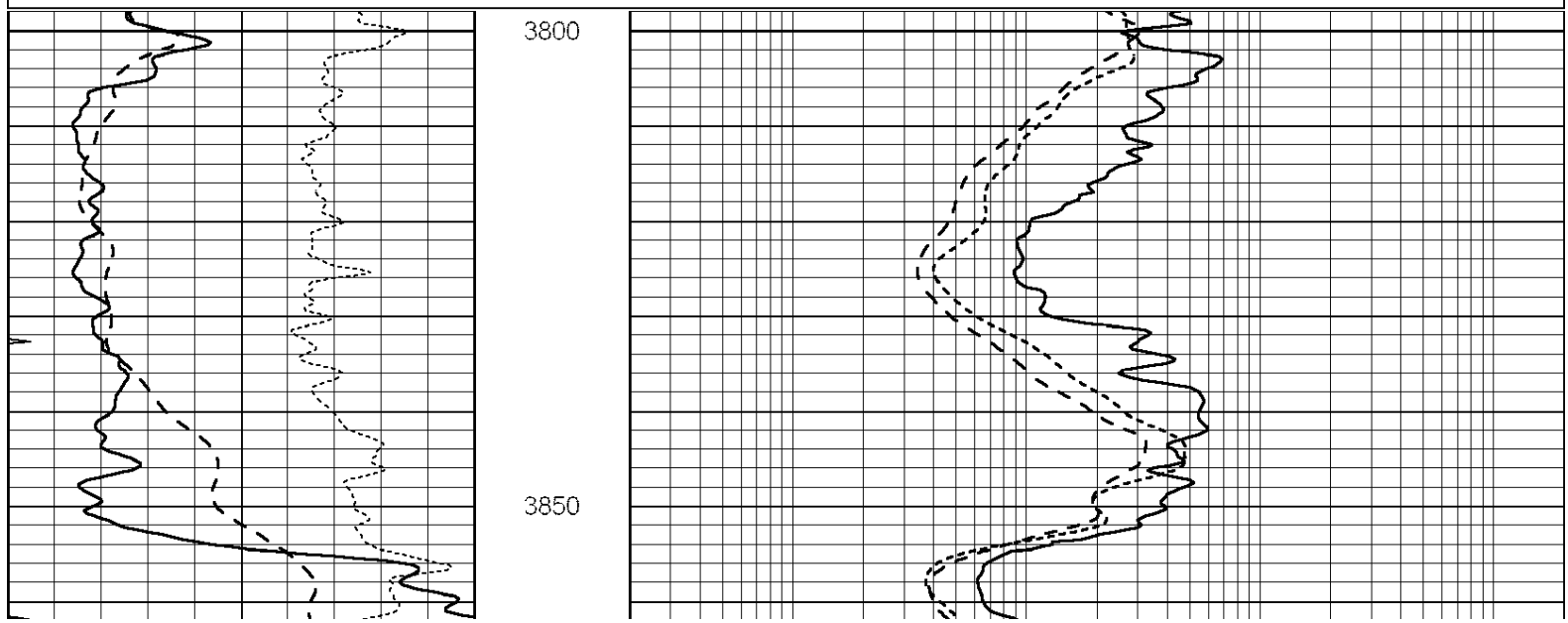


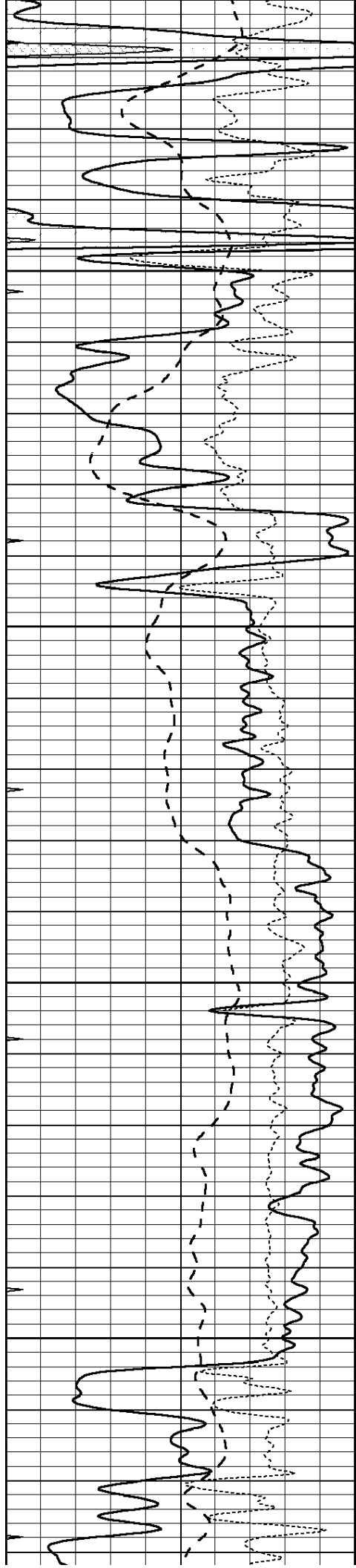
NABORS
COMPLETION
& PRODUCTION
SERVICES CO.

MAIN SECTION

Database File: 011821pe.db
 Dataset Pathname: pass3.9
 Presentation Format: dil
 Dataset Creation: Fri Dec 06 19:30:36 2013
 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	DEEP INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000
0	MINMK	20			



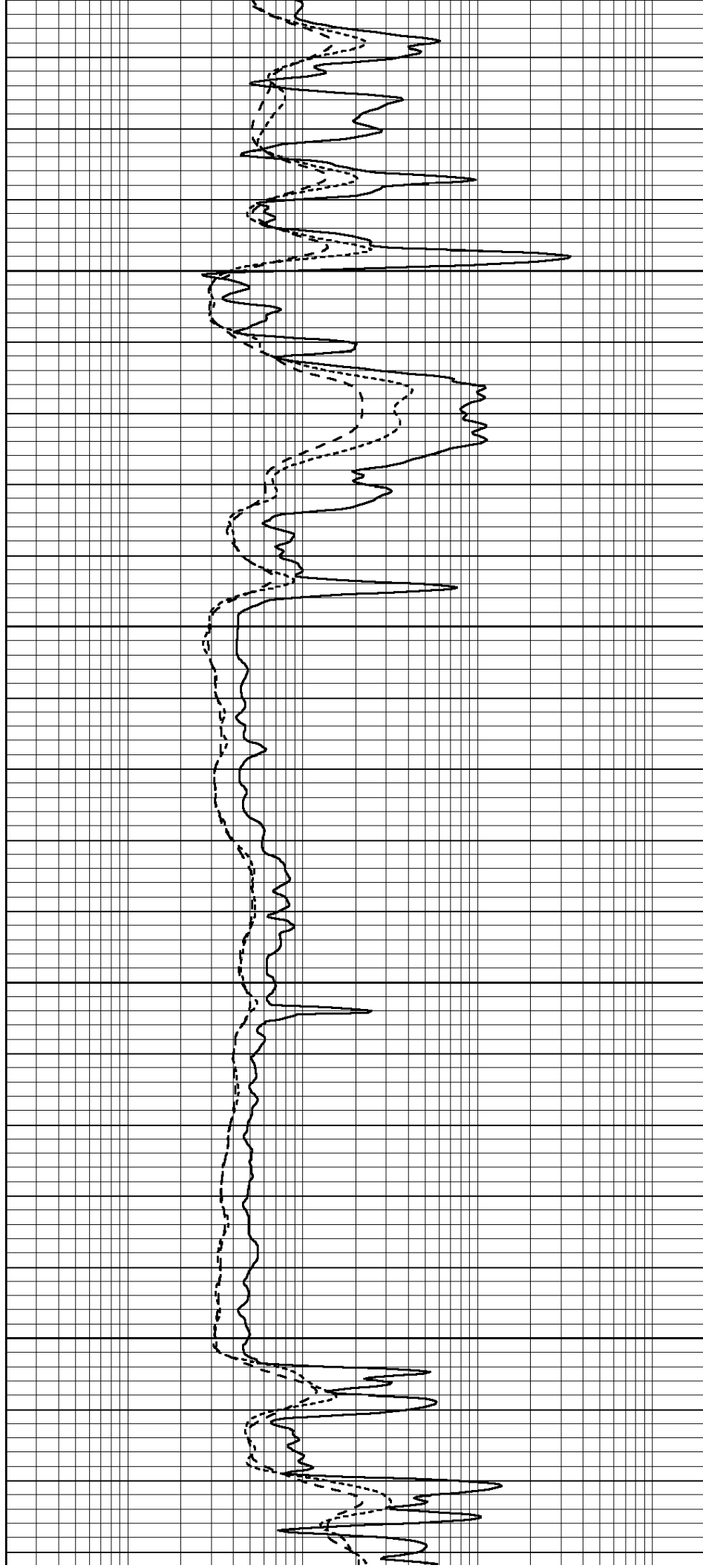


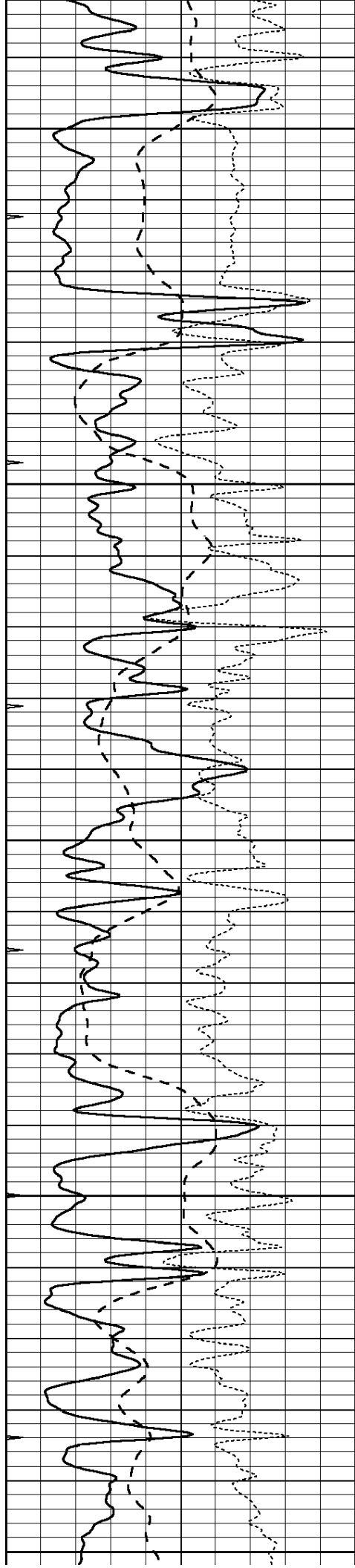
3900

3950

4000

4050





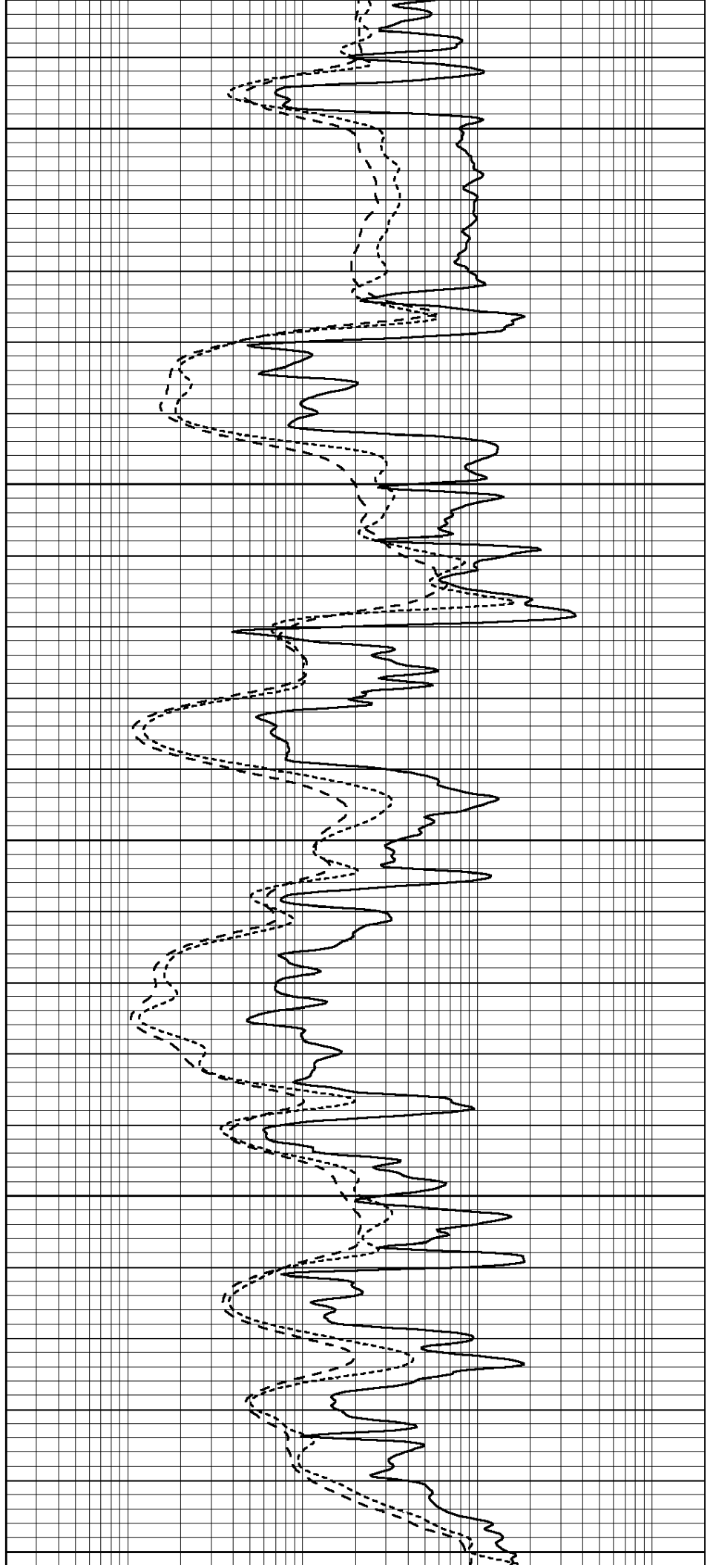
4100

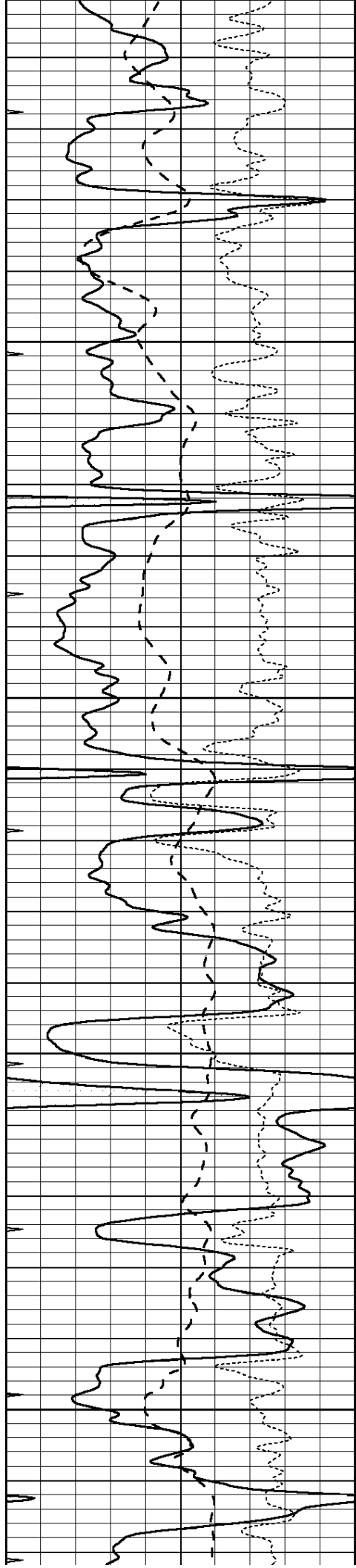
4150

4200

4250

4300



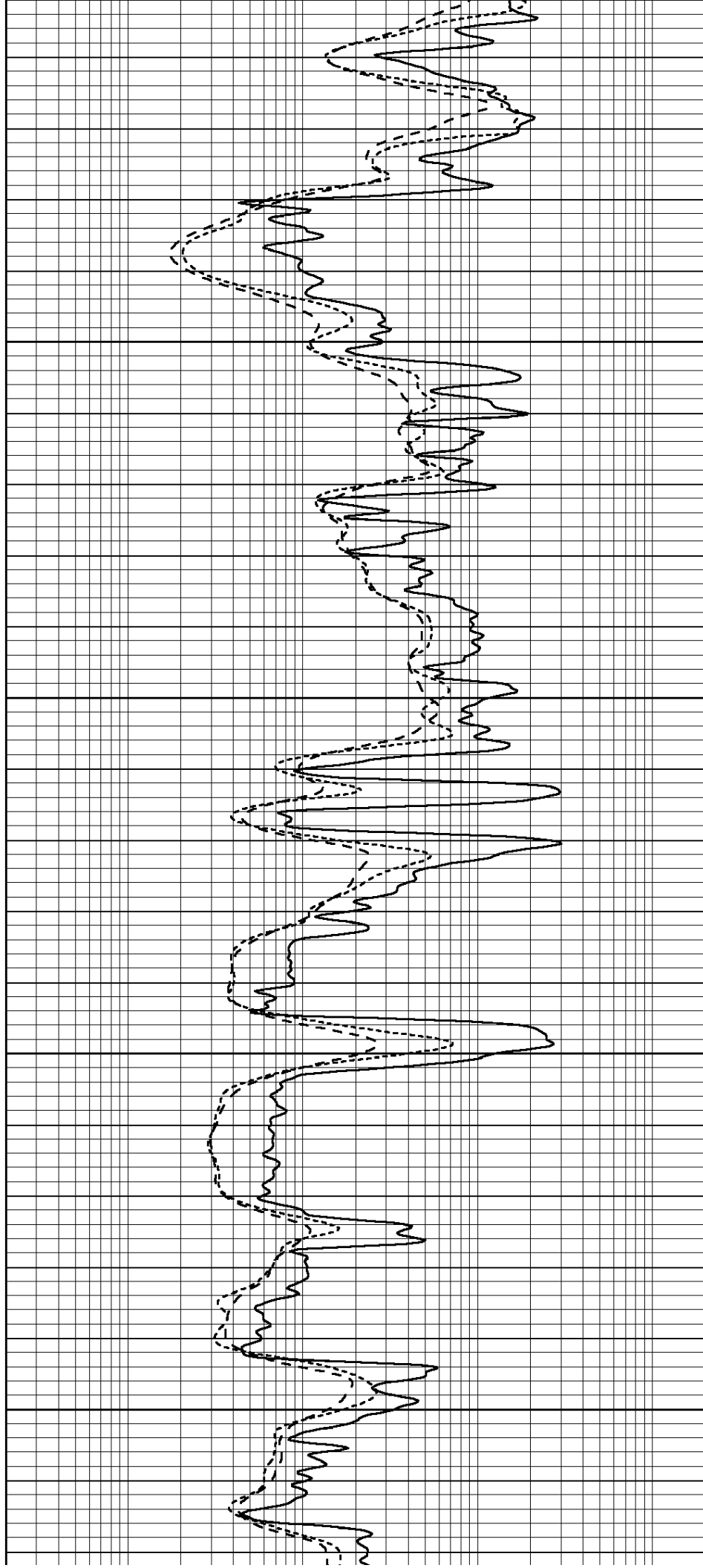


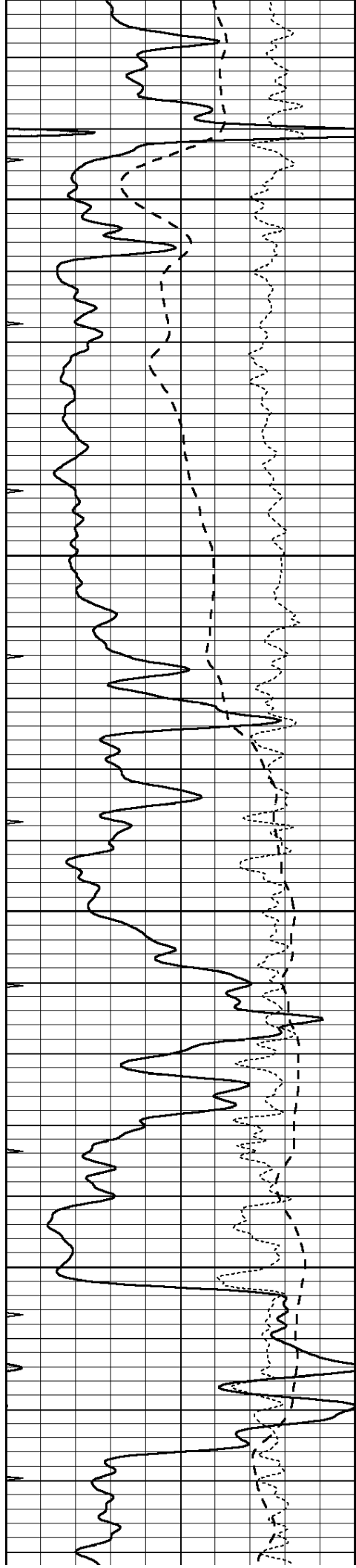
4350

4400

4450

4500



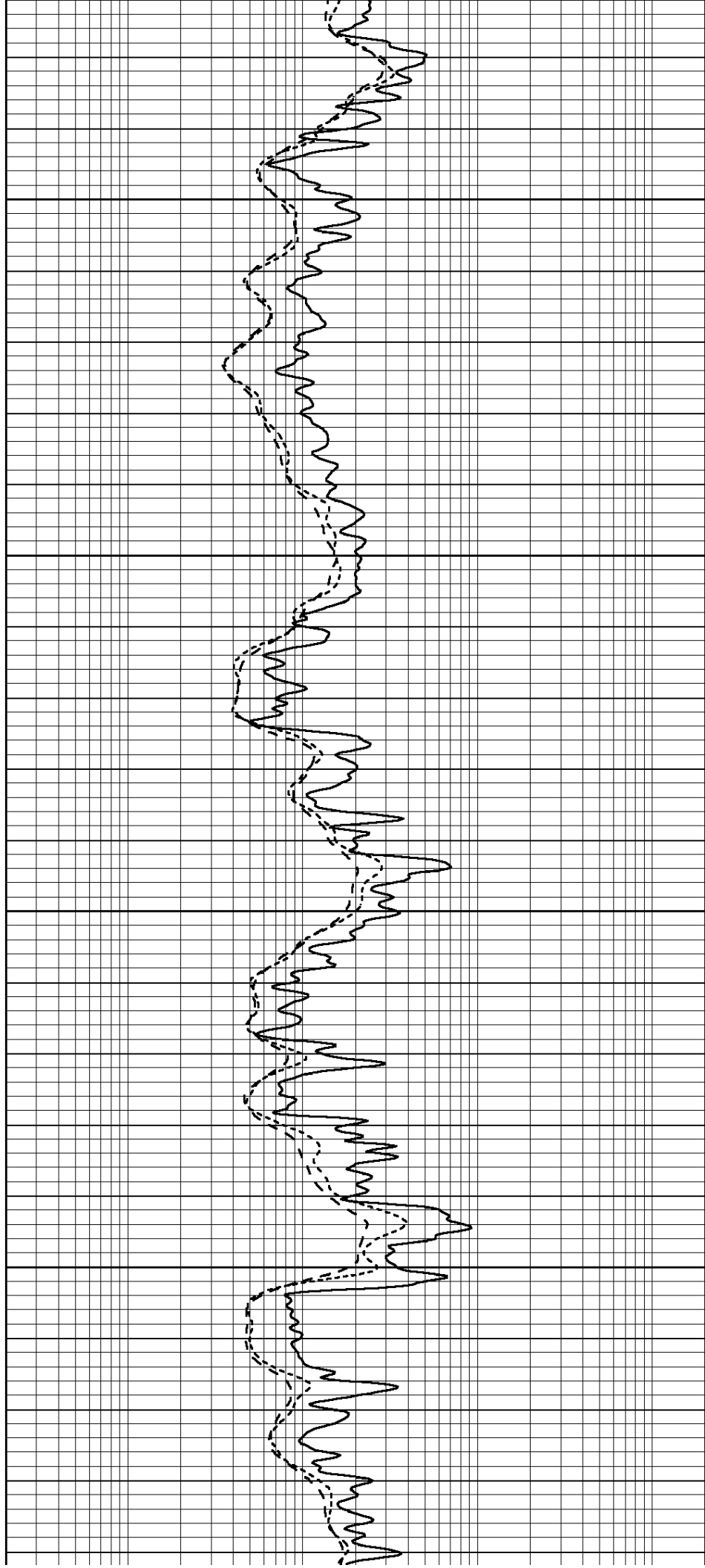


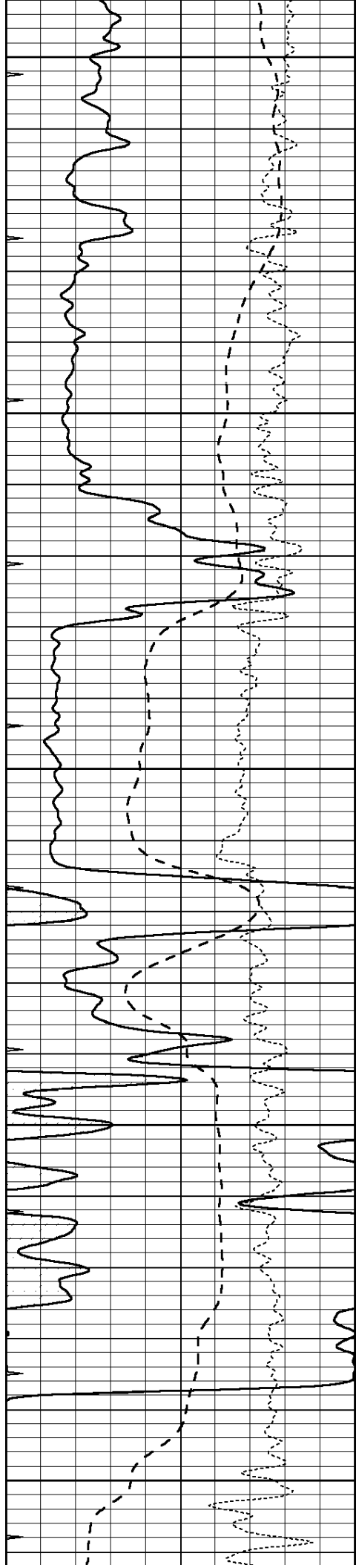
4550

4600

4650

4700





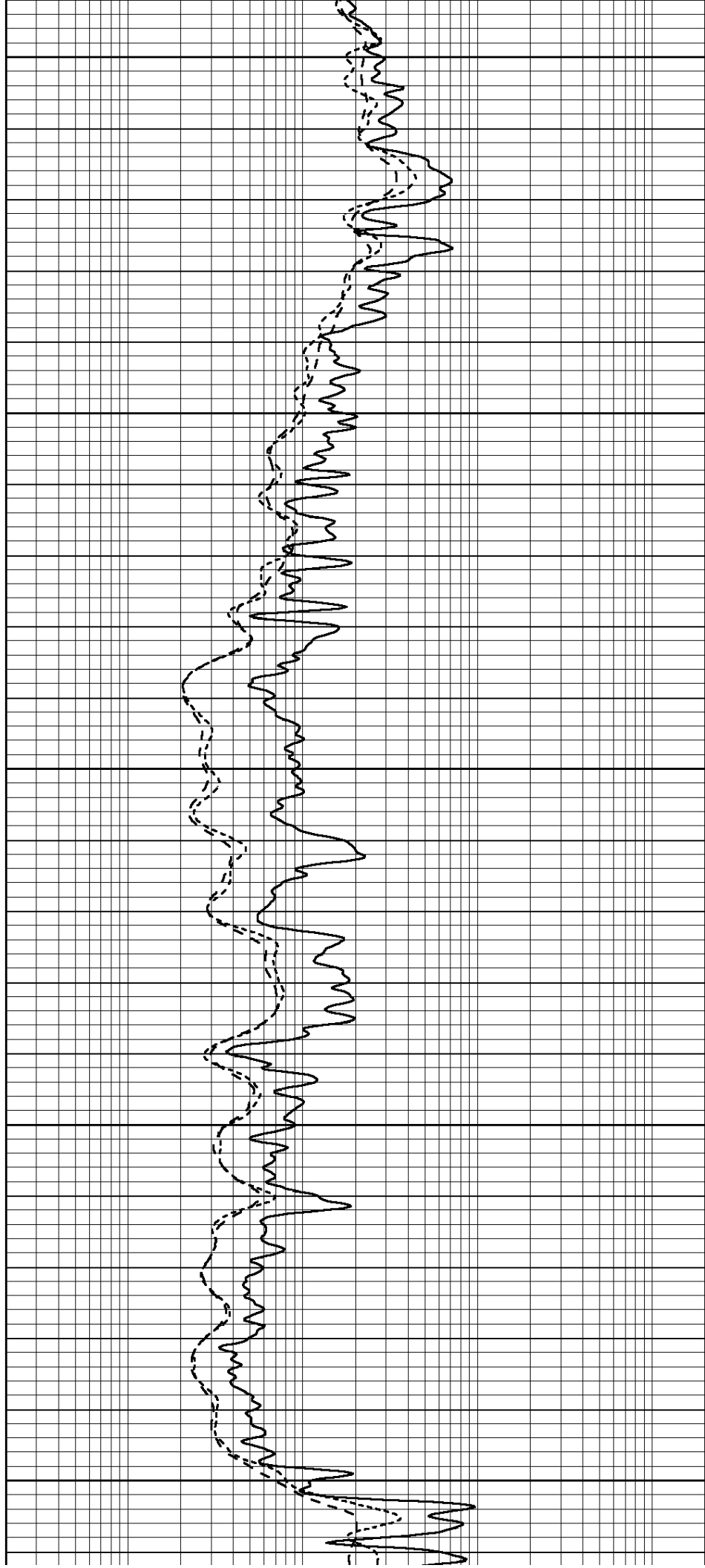
4750

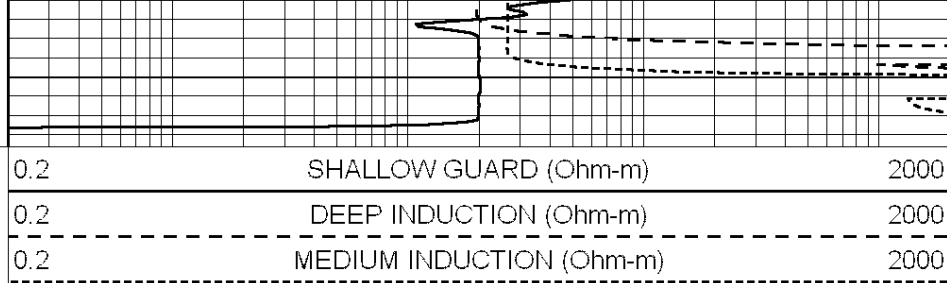
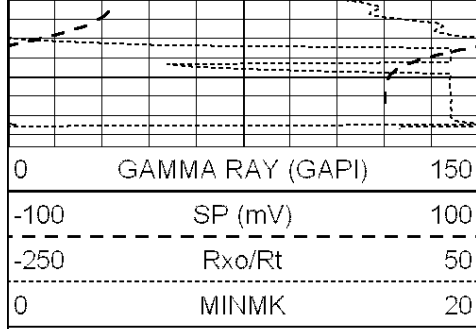
4800

4850

4900

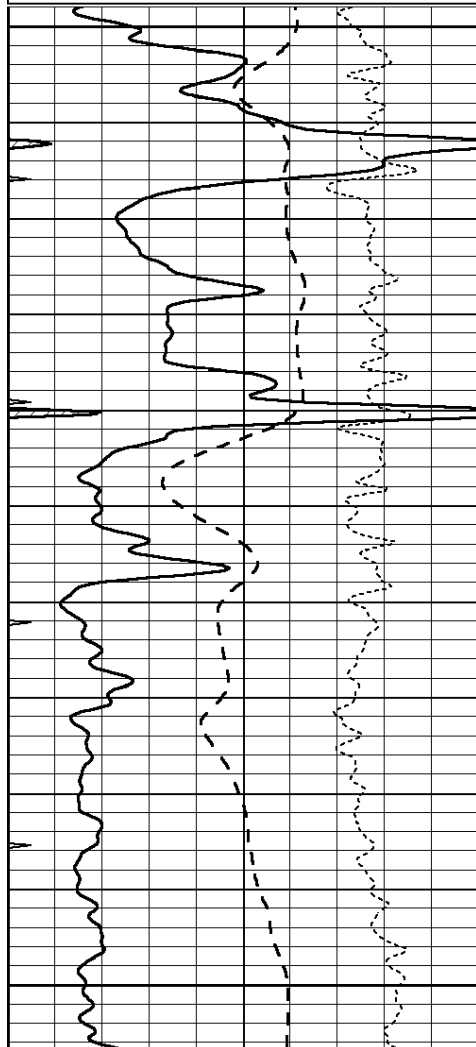
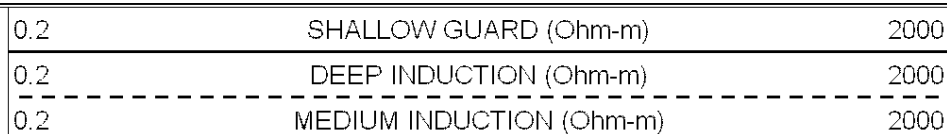
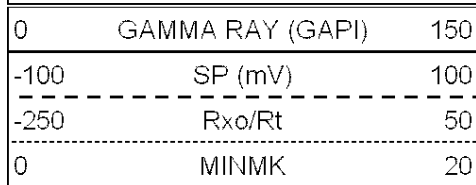
4950





REPEAT SECTION

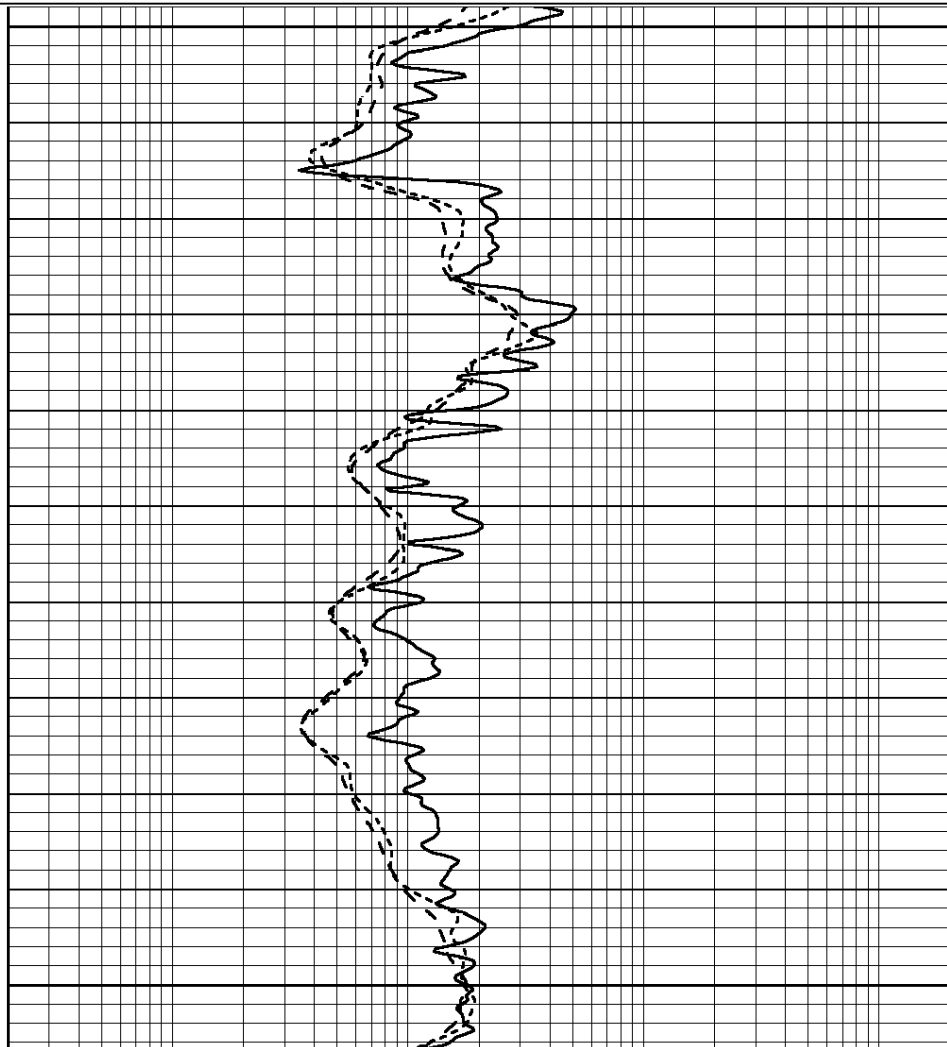
Database File: 011821pe.db
 Dataset Pathname: pass2.5
 Presentation Format: _dil
 Dataset Creation: Fri Dec 06 19:46:41 2013 by Calc SOC 120430
 Charted by: Depth in Feet scaled 1:240

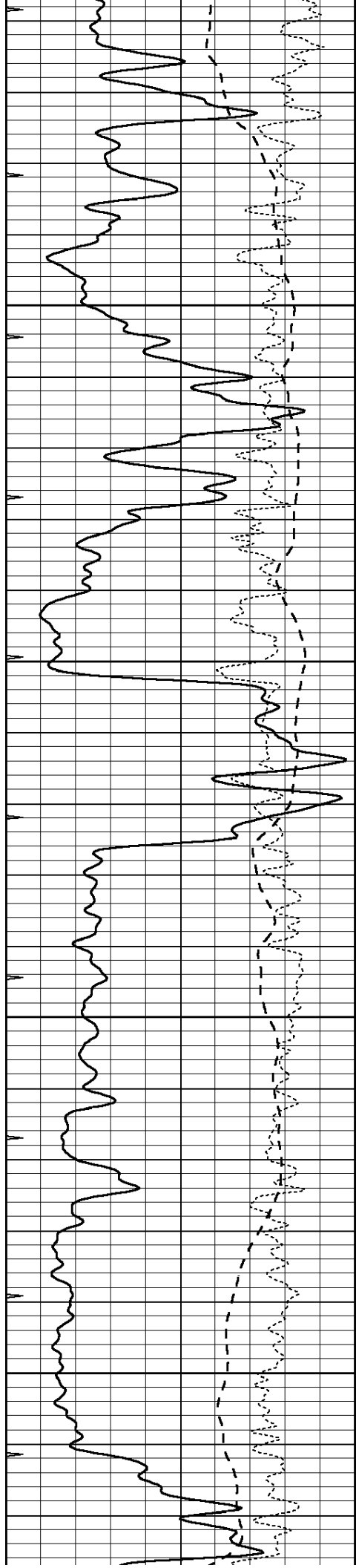


4500

4550

4600



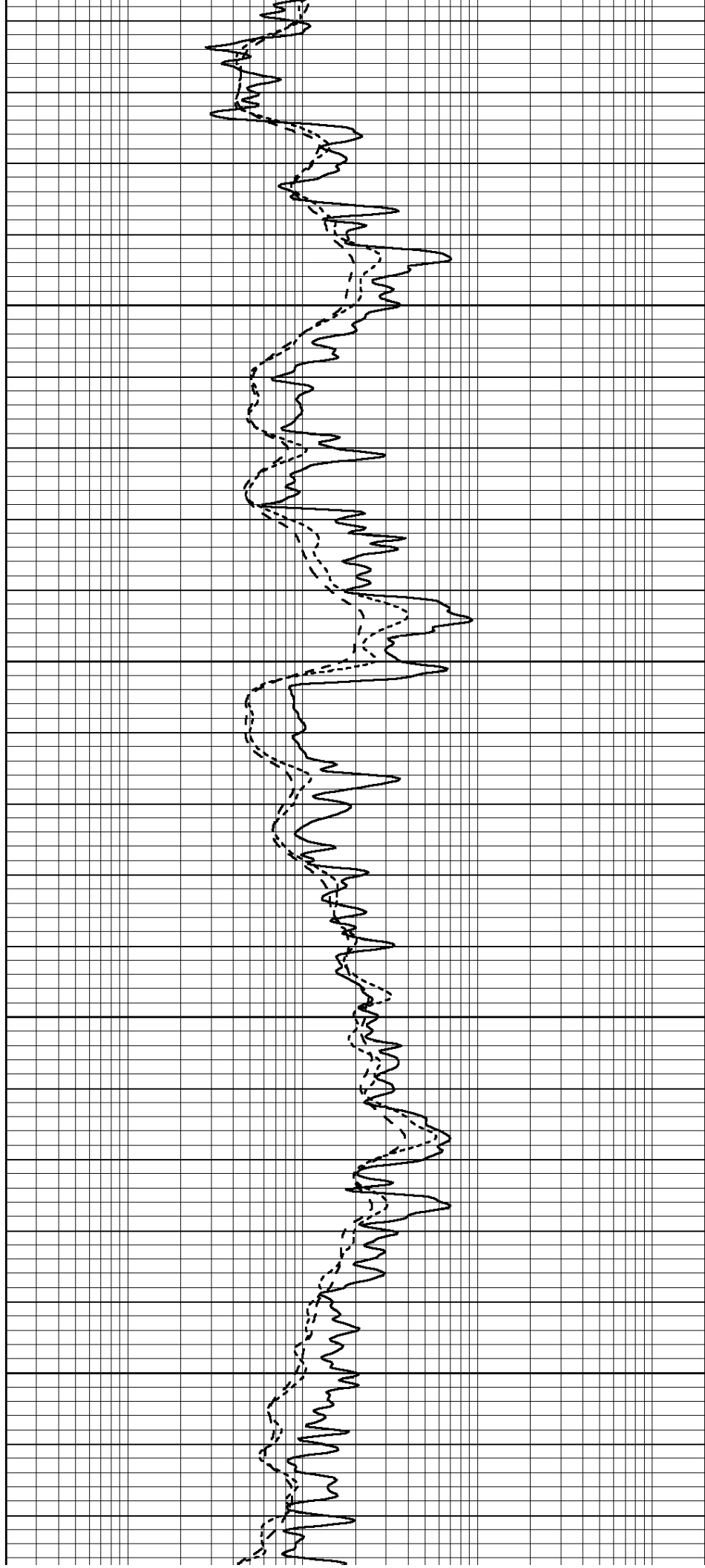


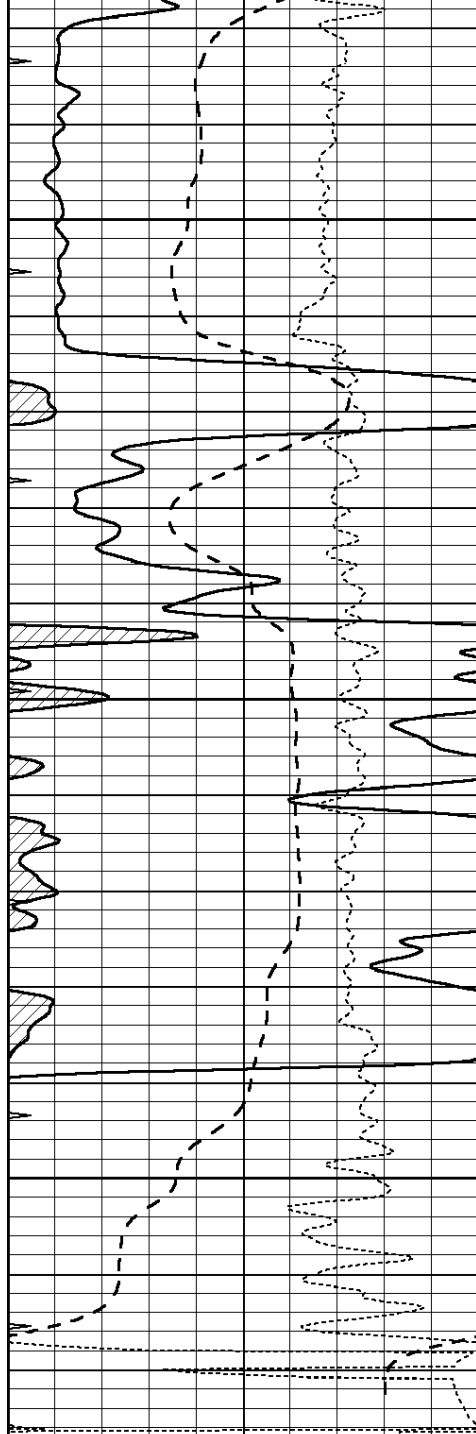
4650

4700

4750

4800



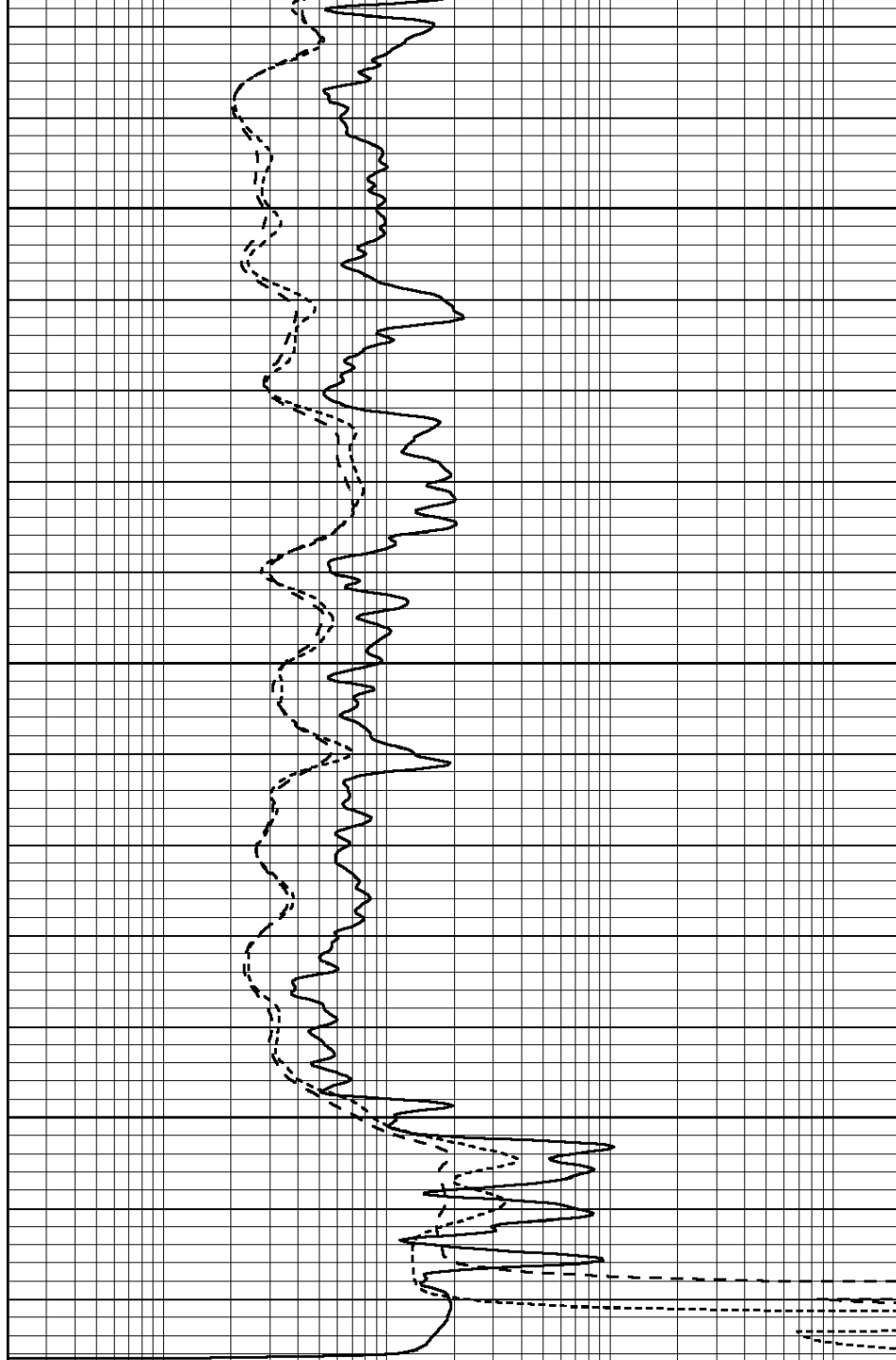


0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

4850

4900

4950



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

Calibration Report

Database File: 011821pe.db
 Dataset Pathname: pass3.9
 Dataset Creation: Fri Dec 06 19:30:36 2013

Dual Induction Calibration Report

Serial-Model:	DIL4-GEAR
Surface Cal Performed:	Fri Dec 06 16:09:35 2013
Downhole Cal Performed:	Tue Sep 25 17:01:29 2001
After Survey Verification Performed:	Sat Jun 11 16:07:12 2005

Surface Calibration								
Readings			References			Results		
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.008	0.666	V	0.000	400.000	mmho/m	570.000	-5.000
Medium	-0.003	0.769	V	0.000	462.500	mmho/m	560.000	-8.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.013	0.651	V	0.000	400.000	mmho/m	627.541	-8.365
Medium	0.020	0.754	V	0.000	462.500	mmho/m	630.311	-12.549

Downhole Calibration								
Readings			References			Results		
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.000	1.000	mmho/m	0.000	1.000	mmho/m	1.000	0.000
Medium	0.000	1.000	mmho/m	0.000	1.000	mmho/m	1.000	0.000
Shallow	2.525	0.026	V	500.000	2.000	Ohm-m	250.000	-5.000

After Survey Verification								
Readings			Targets			Results		
Internal:	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	1.000	mmho/m	0.000	1.000	mmho/m	1.000	0.000
Medium	0.000	1.000	mmho/m	0.000	1.000	mmho/m	1.000	0.000
Shallow	0.000	0.000	Ohm-m	500.000	2.000	Ohm-m	1.000	0.000

Litho Density Calibration Report								
Serial: 004N Model: PRB								

Master Calibration					Performed Mon Jun 03 09:36:56 2013			
	Background	Magnesium	Aluminum	Sandstone				
Window 1	1417.6	10391.4	3464.6	11537.5	cps			
Window 2	1295.0	8959.7	3050.1	9816.4	cps			
Window 3	1105.1	5464.2	2051.0	5838.8	cps			
Window 4	315.0	317.7	312.9	319.8	cps			
Long Space	0.0	7664.6	1755.0	8521.3	cps			
Short Space	1.8	1582.4	1040.8	1699.4	cps			
Rho		1.7100	2.5900	1.3800	g/cc			
Pe		0.0000	2.5700	1.5500				
Rib Angle	: 44.1	Rib Slope	: 0.970	Density/Spine Ratio	: 0.574			
Spine Angle	: 74.1	Spine Slope	: 3.519	Spine Intercept	: -17.0			

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: 070808
Tool Model: Probe

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: 070559
Tool Model: OPEN_GR
Performed: Sun Nov 03 21:08:13 2013

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.3000 GAPI/cps