



**COMPLETION  
& PRODUCTION  
SERVICES CO.**

**TRIPLE COMBO  
LOG**

Company O'BRIEN RESOURCES, LLC.  
Well STEFFENS 19 #1  
Field JENNISON  
County LANE  
State KANSAS

Company O'BRIEN RESOURCES, LLC.  
Well STEFFENS 19 #1  
Field JENNISON  
County LANE State KANSAS

Location: API # : 15-101-22376-0000  
513' FSL & 2017' FEL  
NE - SW - SW - SE  
SEC 19 TWP 16S RGE 29W  
Permanent Datum GROUND LEVEL Elevation 2779  
Log Measured From KELLY BUSHING 9' A.G.L.  
Drilling Measured From KELLY BUSHING  
Other Services  
CDL/CNL/PE  
DIL/MEL  
Elevation  
K.B. 2788  
D.F. 2786  
G.L. 2779

Date	12/3/12		
Run Number	ONE		
Depth Driller	4514		
Depth Logger	4516		
Bottom Logged Interval	4514		
Top Log Interval	00		
Casing Driller	8 5/8"@263'		
Casing Logger	263		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 800 PPM	
Density / Viscosity	9.5/50		
pH / Fluid Loss	10.5/7.2		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	1.50@80F		
Rmf @ Meas. Temp	1.13@80F		
Rmc @ Meas. Temp	1.80@80F		
Source of Rmf / Rmc	MEASUREMENT		
Rim @ BHT	.992@121F		
Time Circulation Stopped	2.5 HOURS		
Time Logger on Bottom	8:15 P.M.		
Maximum Recorded Temperature	121F		
Equipment Number	4854		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	KURT TALBOTT		

<<< 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**

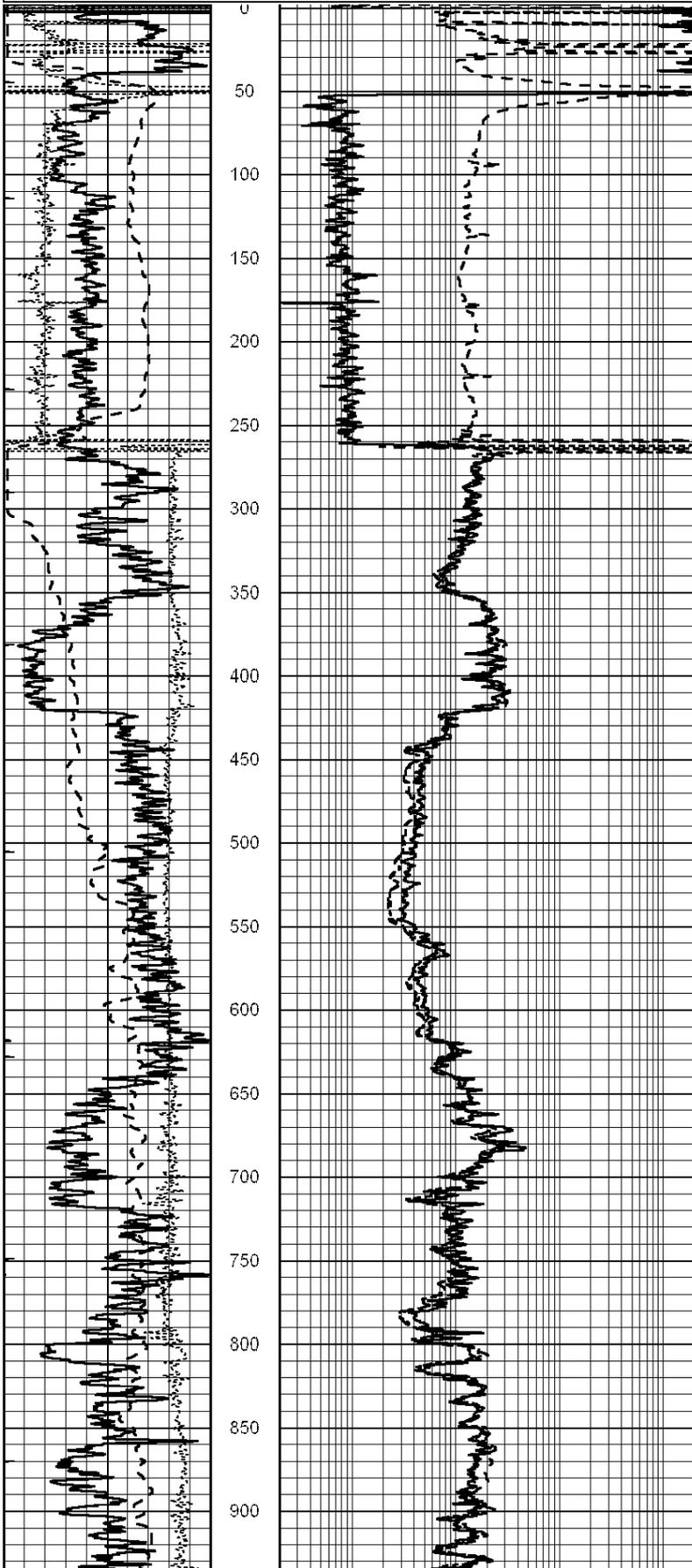
THANK YOU FOR USING "NABORS" HAYS, KANSAS (785) 628-6395  
DIRECTIONS  
HEALY, KS. 1E. ON HWY 4 TO "EAGLE RD.", 3N. TO "RD. 260", 2 1/2E., N. INTO

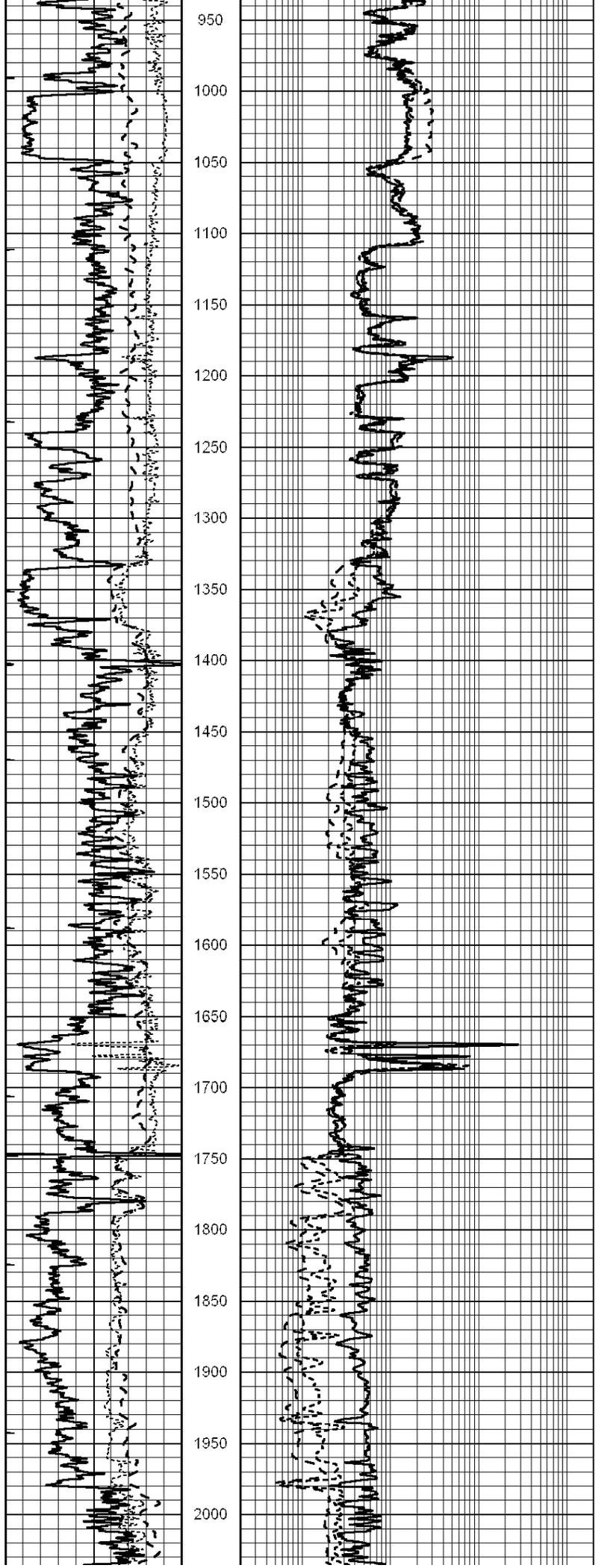


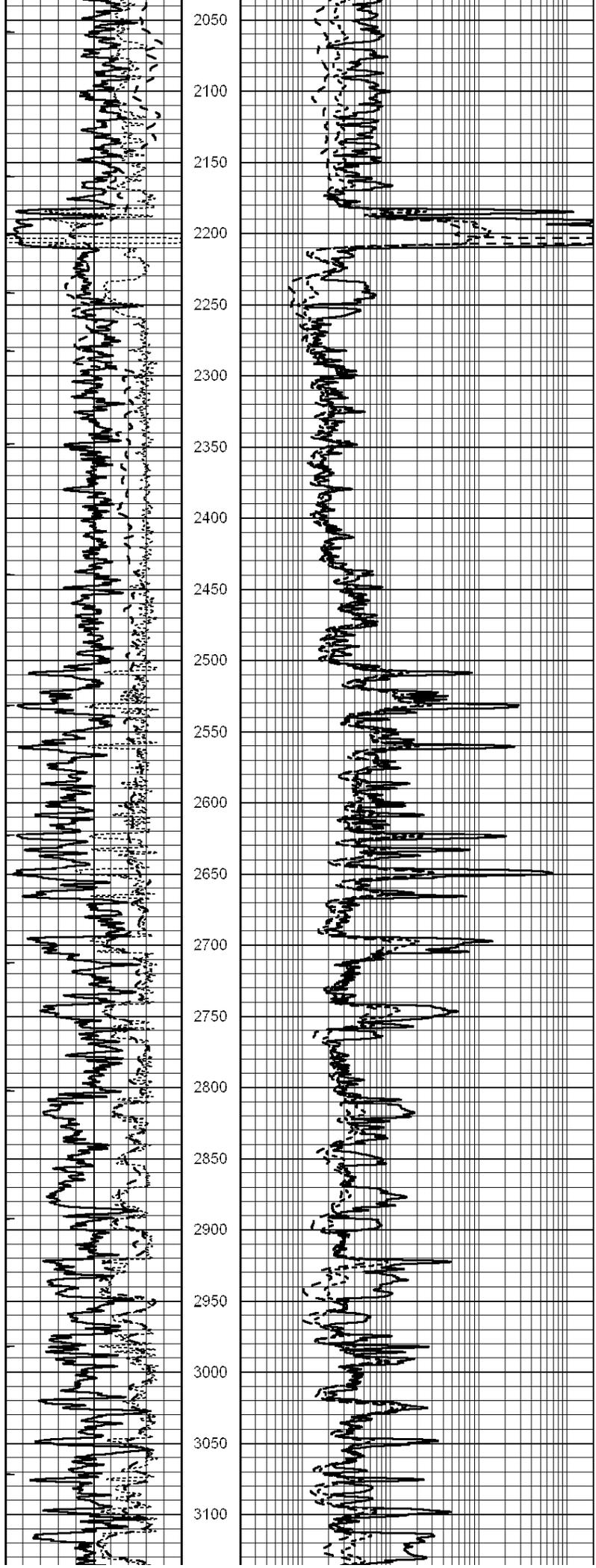
**MAIN SECTION**

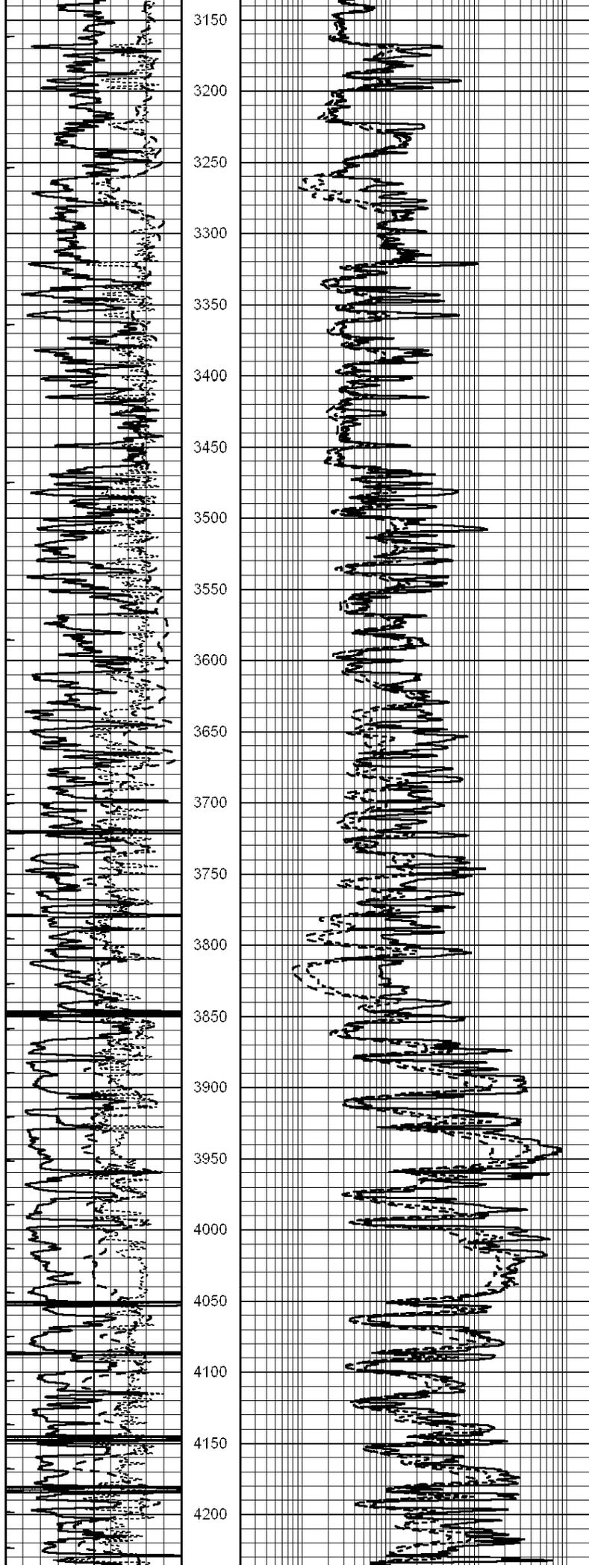
Database File: 010026pe.db  
Dataset Pathname: pass3.3

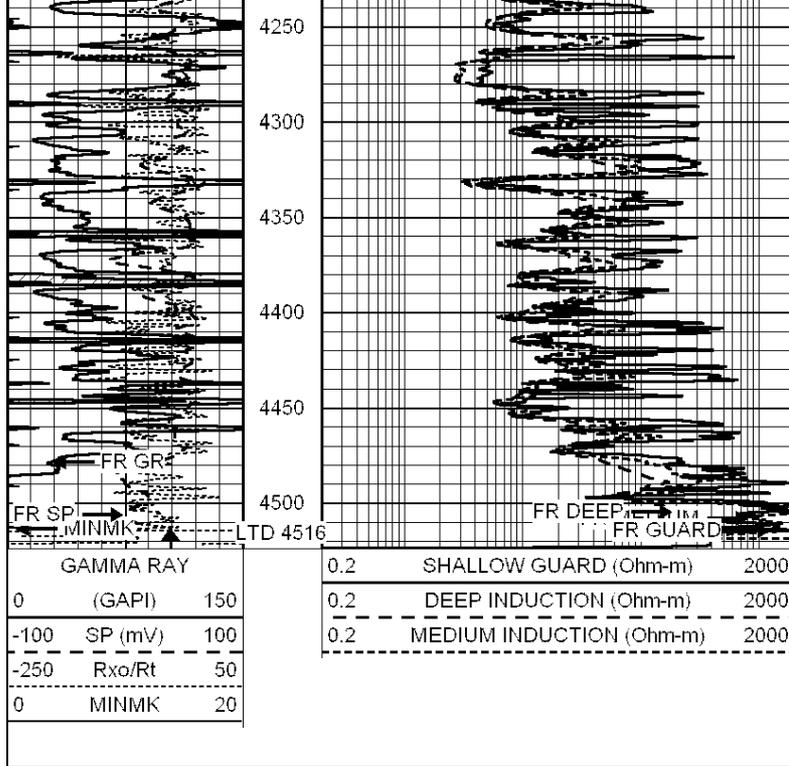
GAMMA RAY			0.2	SHALLOW GUARD (Ohm-m)	2000
0	(GAPI)	150	0.2	DEEP INDUCTION (Ohm-m)	2000
-100	SP (mV)	100	-----		
-250	Rxo/Rt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000
-----			-----		
0	MINMK	20			









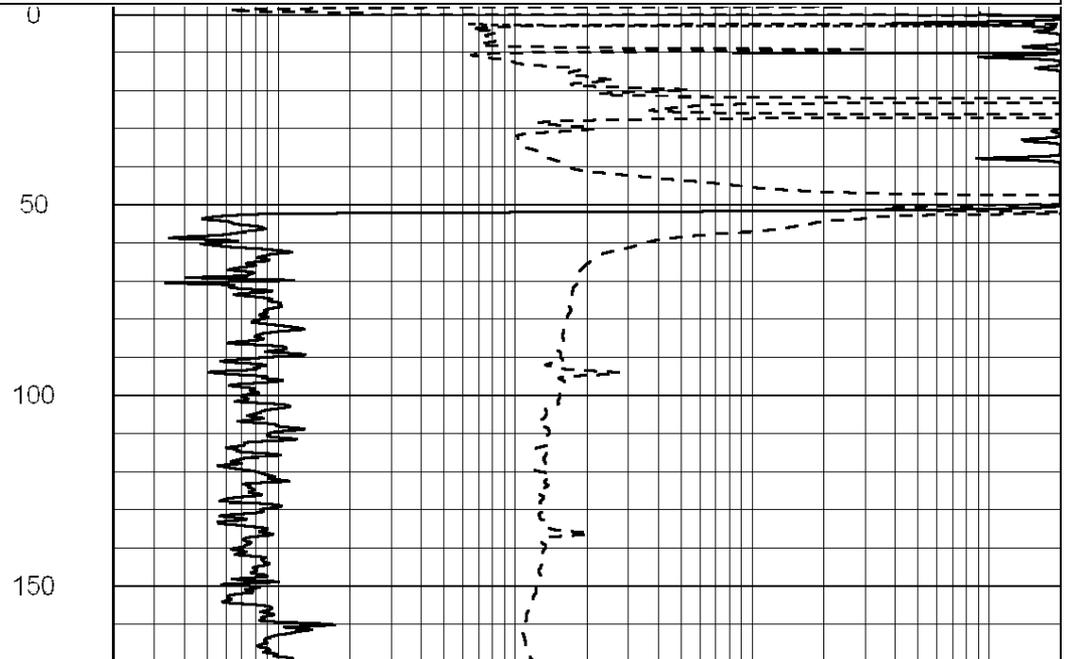
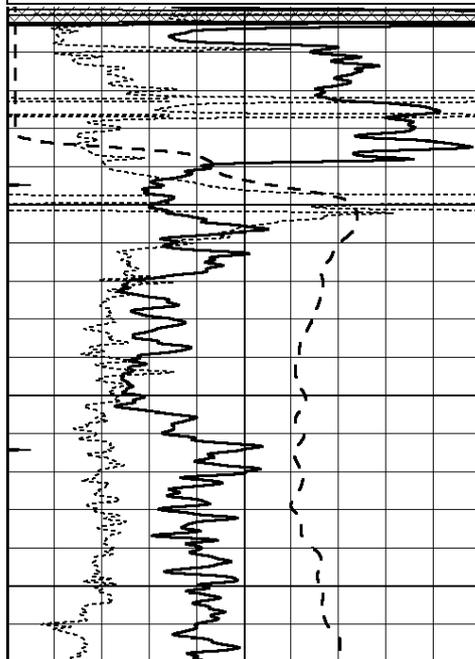


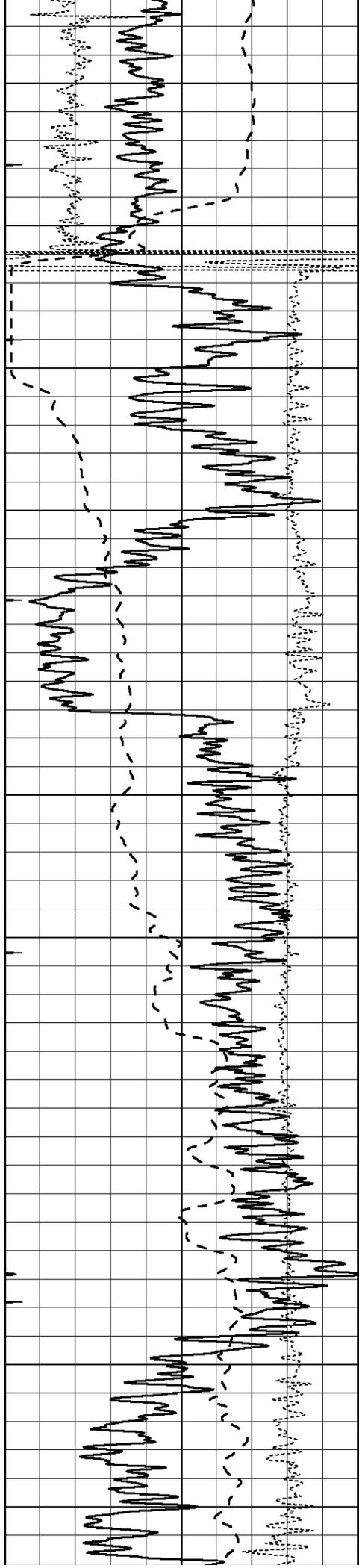
# MAIN SECTION

Database File: 010026pe.db  
 Dataset Pathname: pass3.3  
 Presentation Format: dil  
 Dataset Creation: Mon Dec 03 21:55:56 2012 by Calc SOC 120430  
 Charted by: Depth in Feet scaled 1:600

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

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





200

250

300

350

400

450

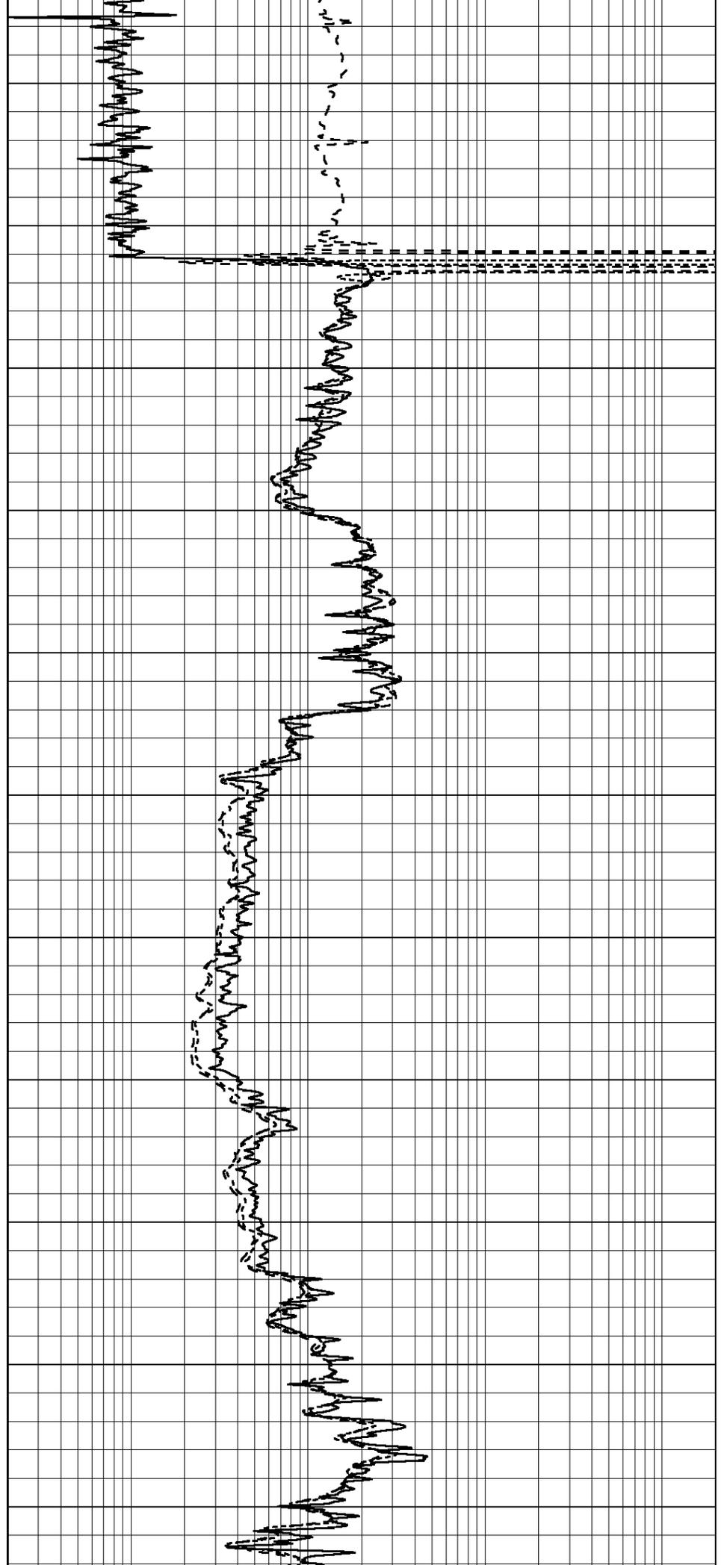
500

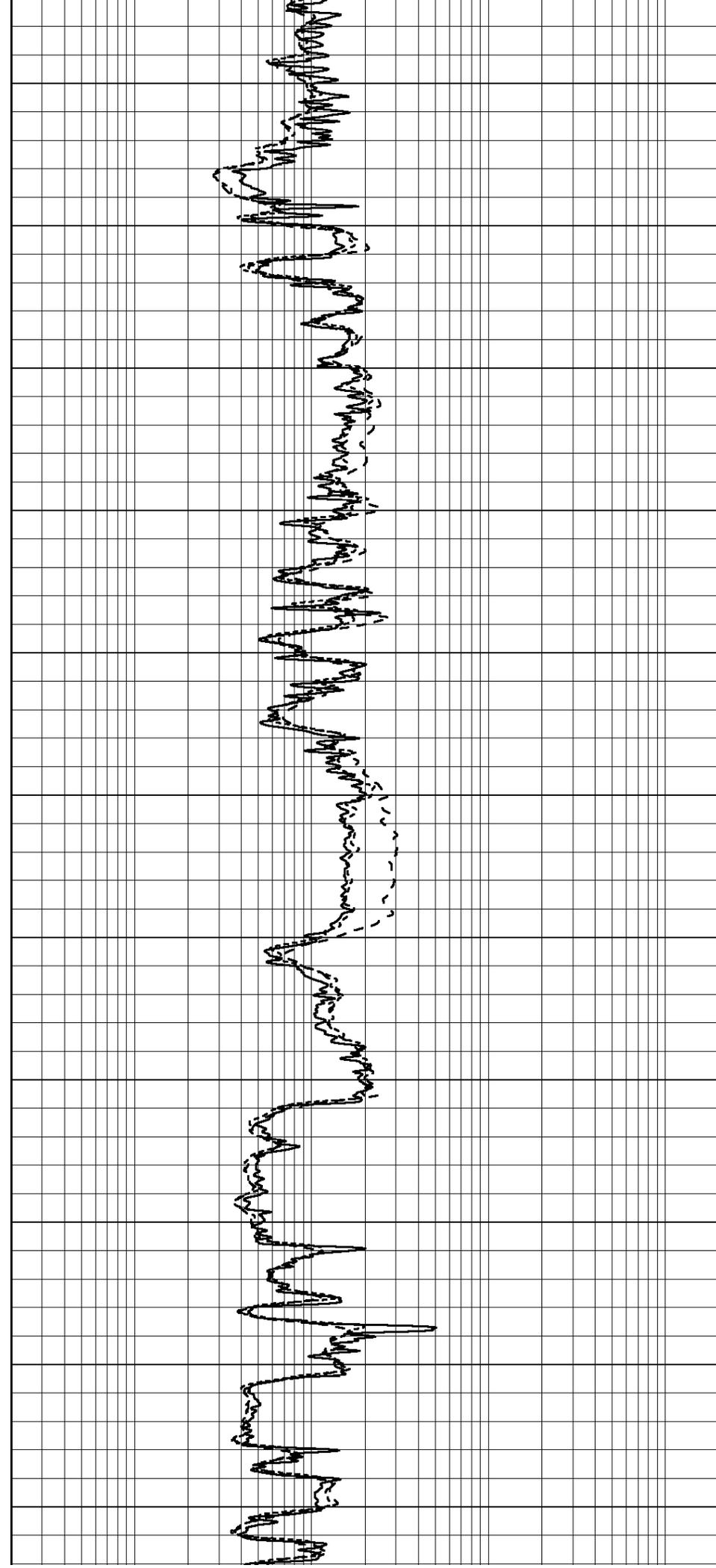
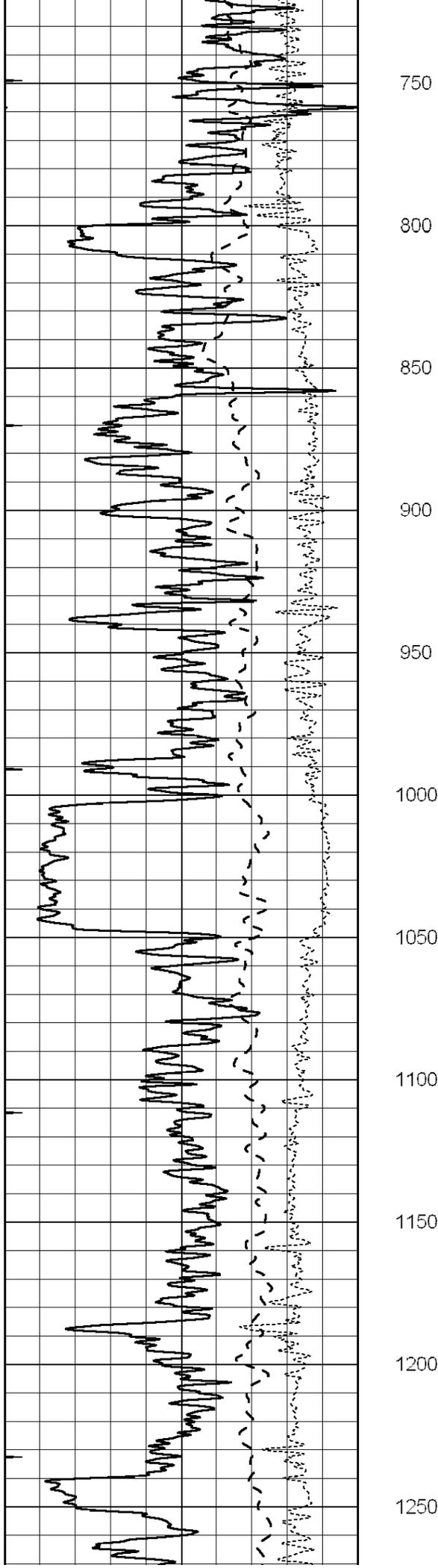
550

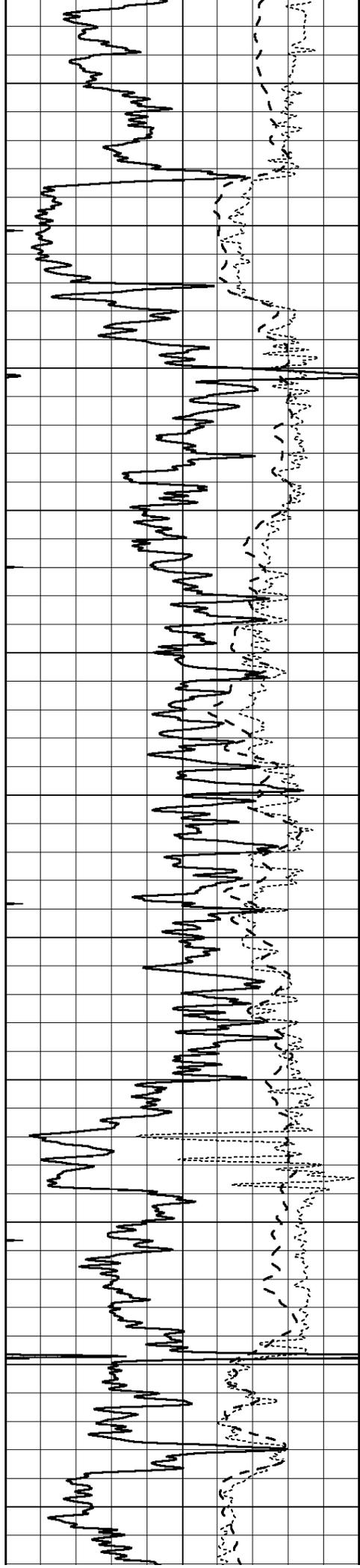
600

650

700







1300

1350

1400

1450

1500

1550

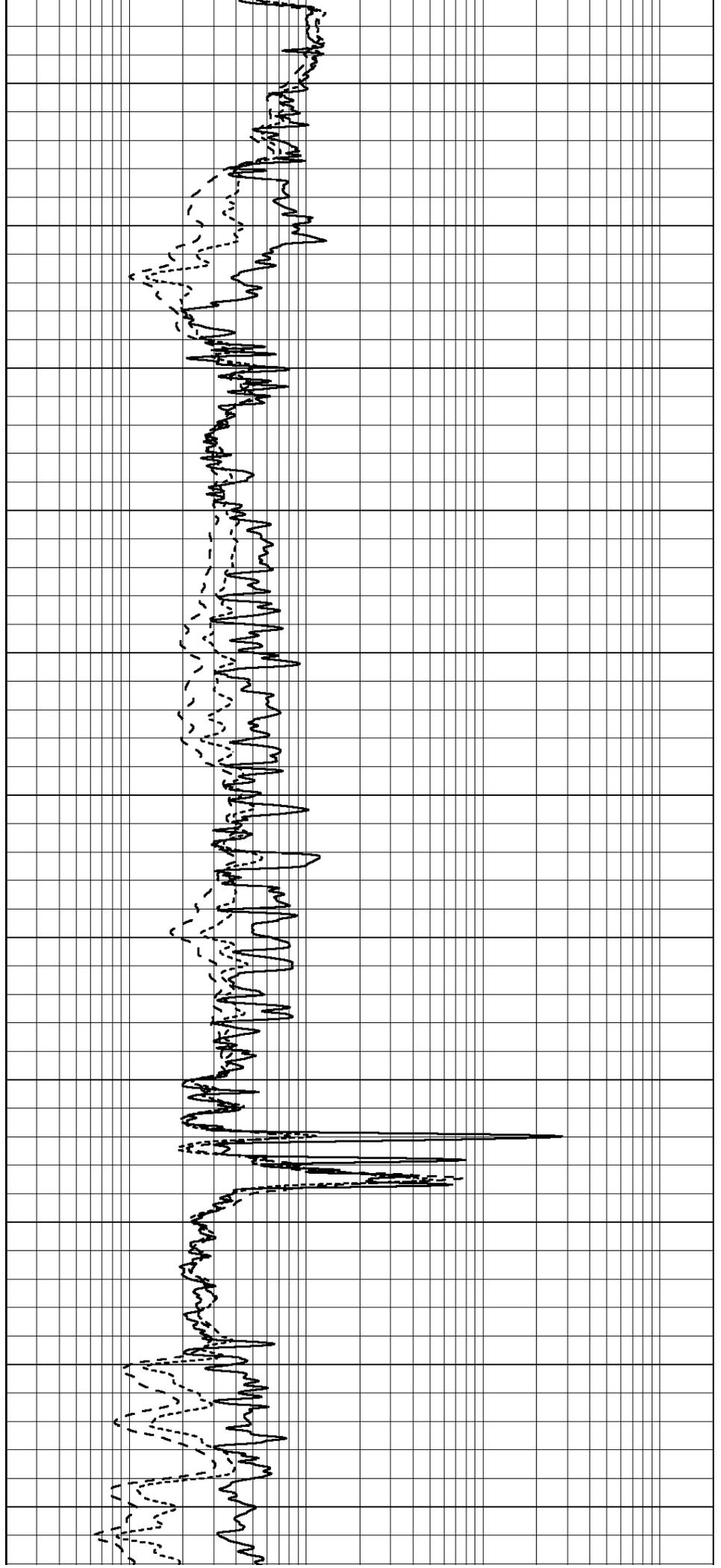
1600

1650

1700

1750

1800



1300

1350

1400

1450

1500

1550

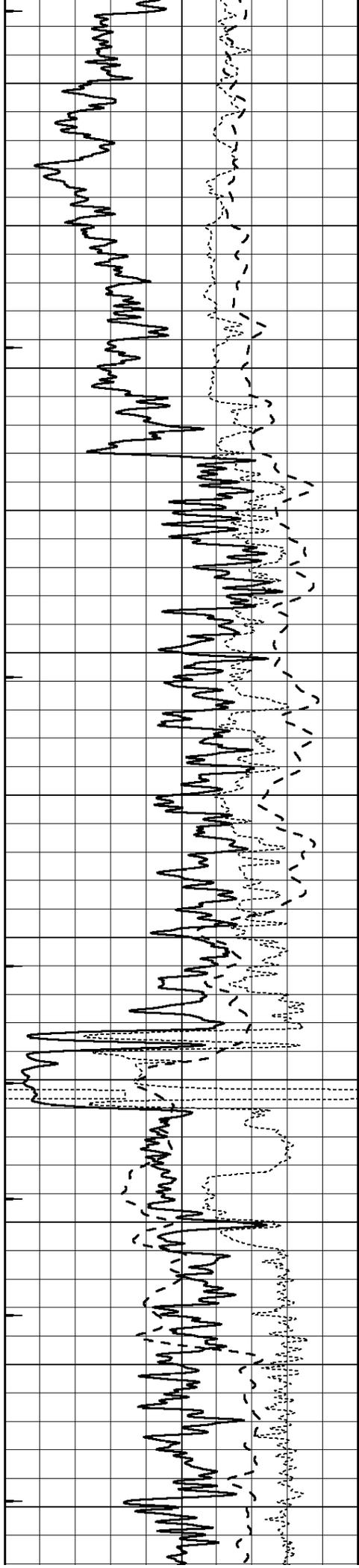
1600

1650

1700

1750

1800



1850

1900

1950

2000

2050

2100

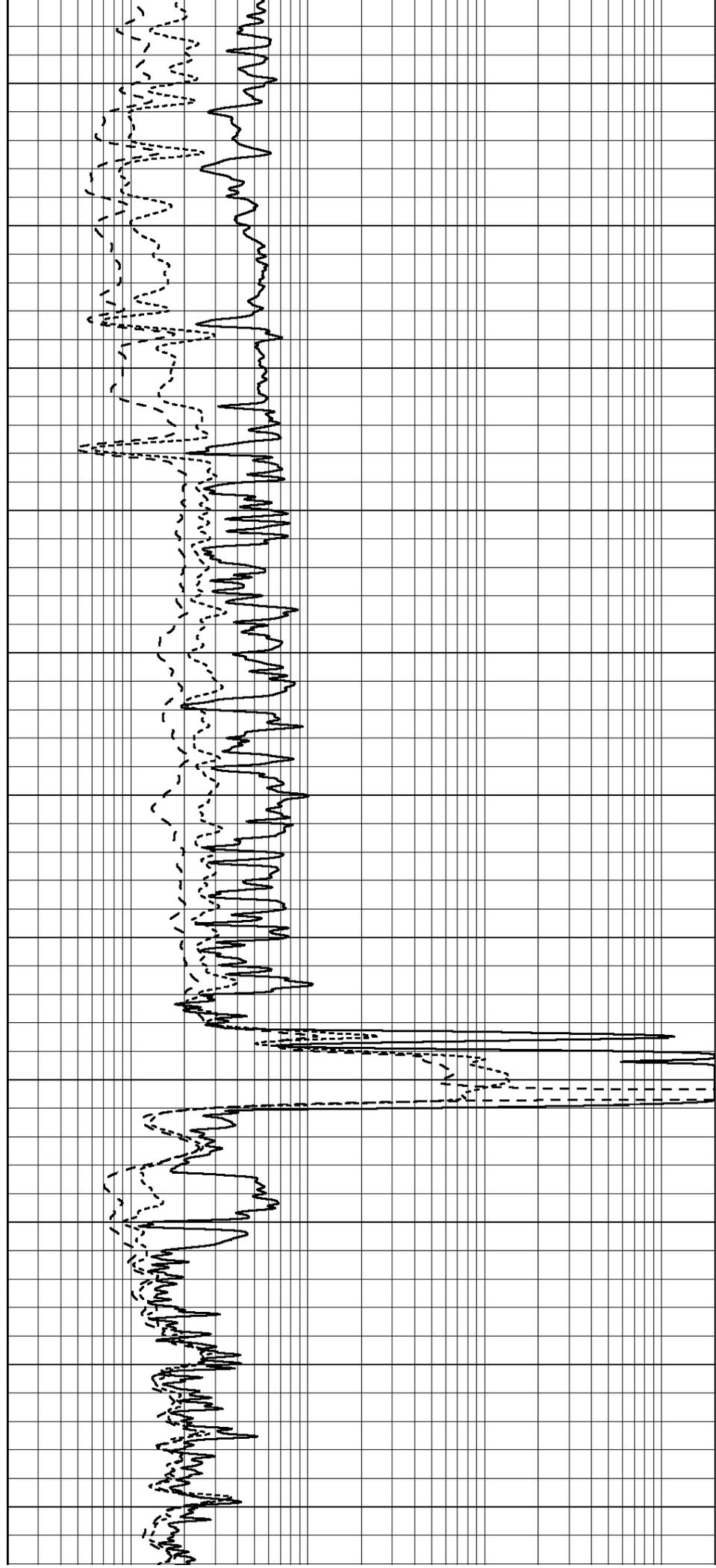
2150

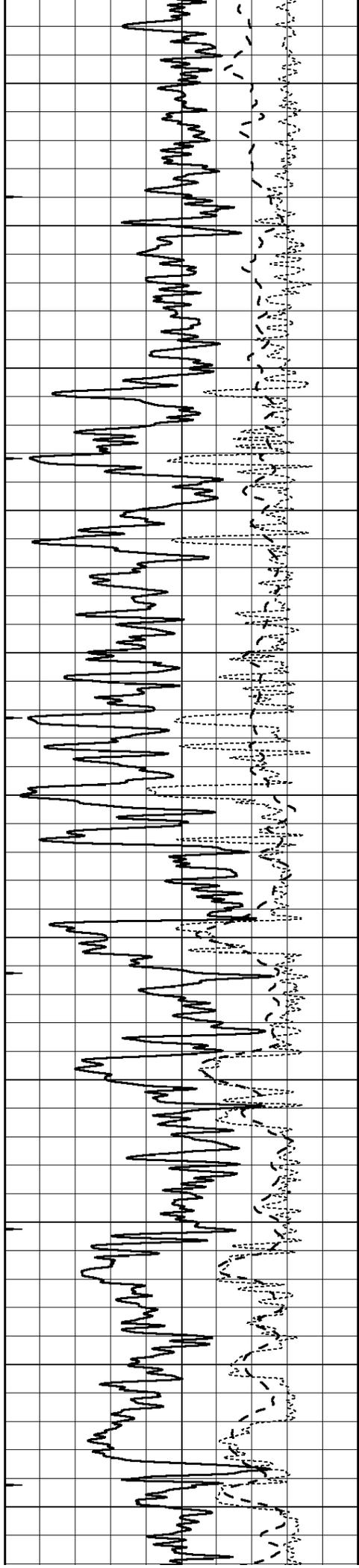
2200

2250

300

350





2400

2450

2500

2550

2600

2650

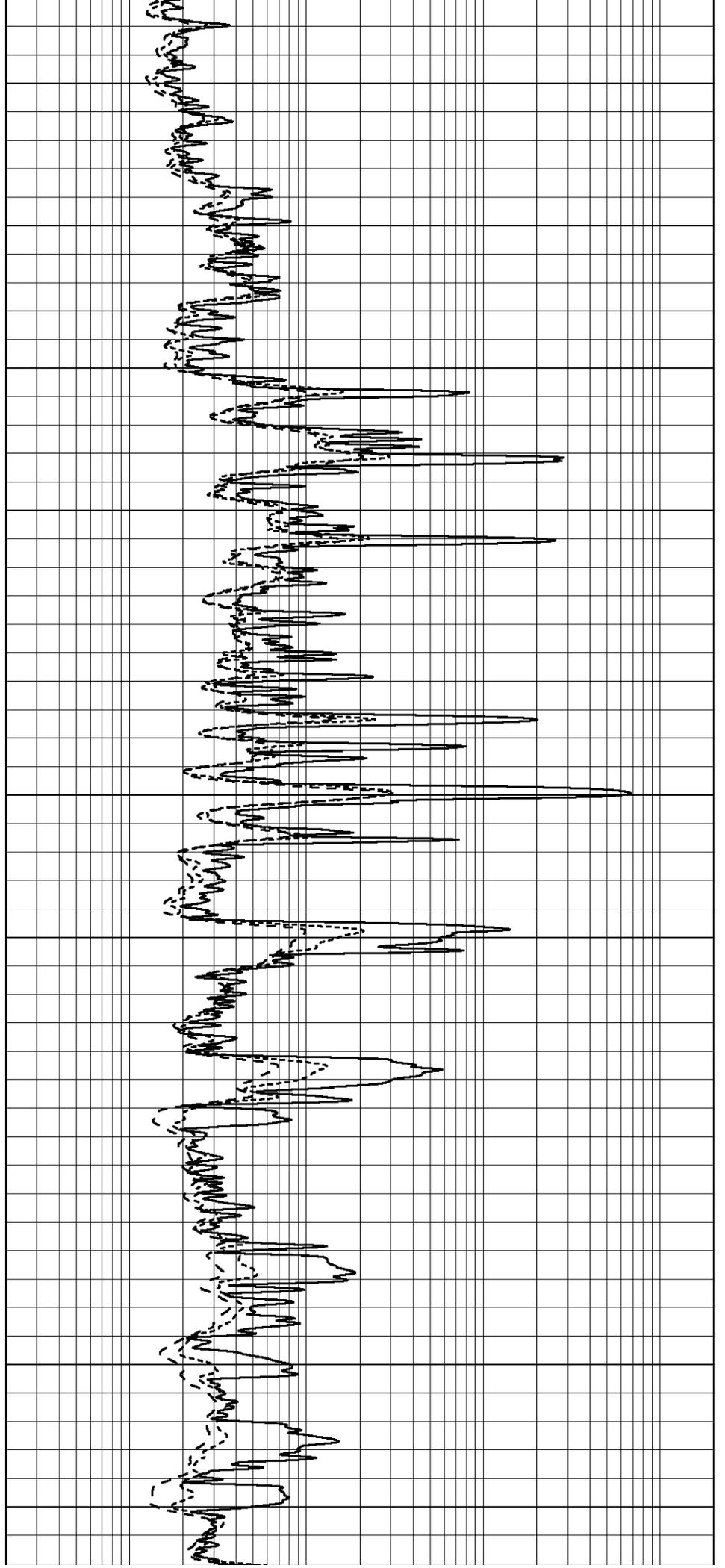
2700

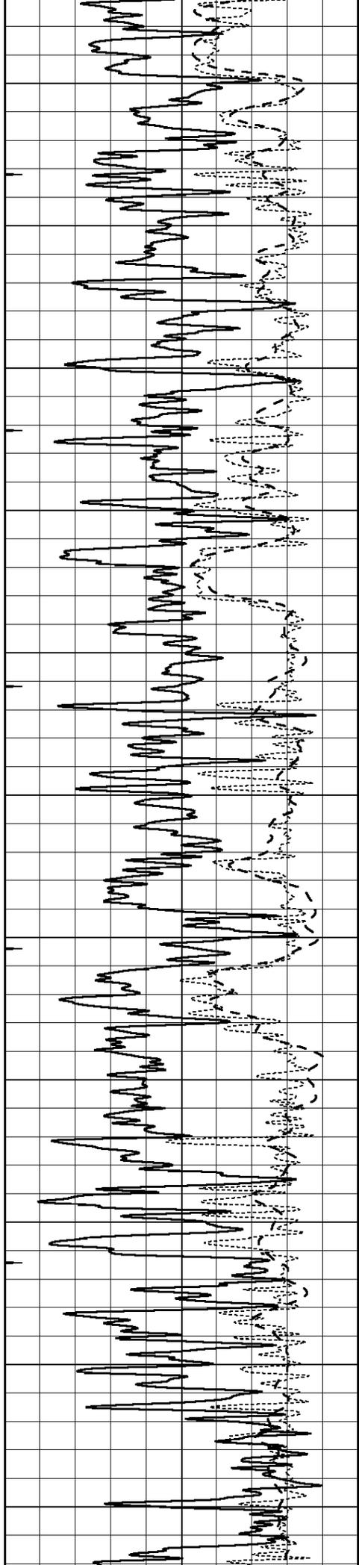
2750

2800

2850

2900





2950

3000

3050

3100

3150

3200

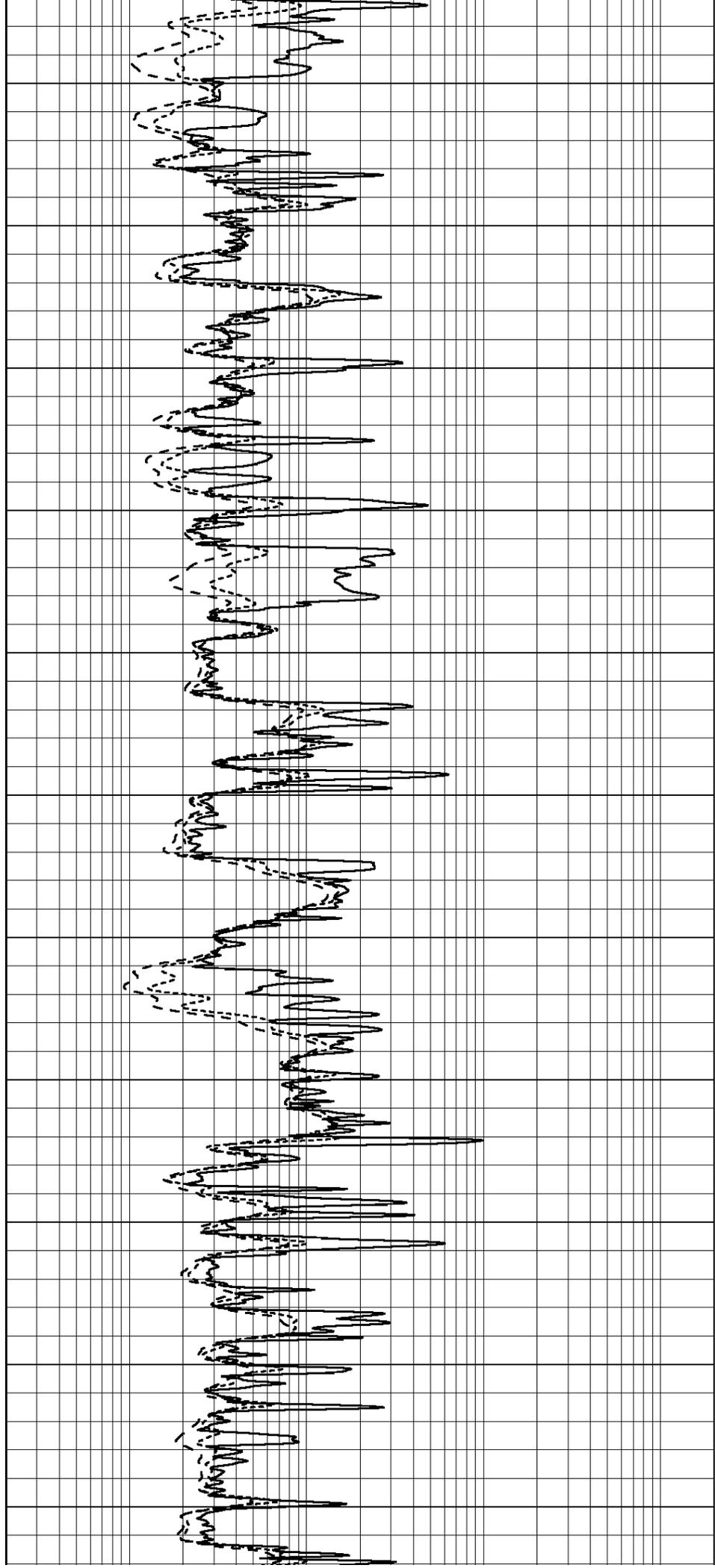
3250

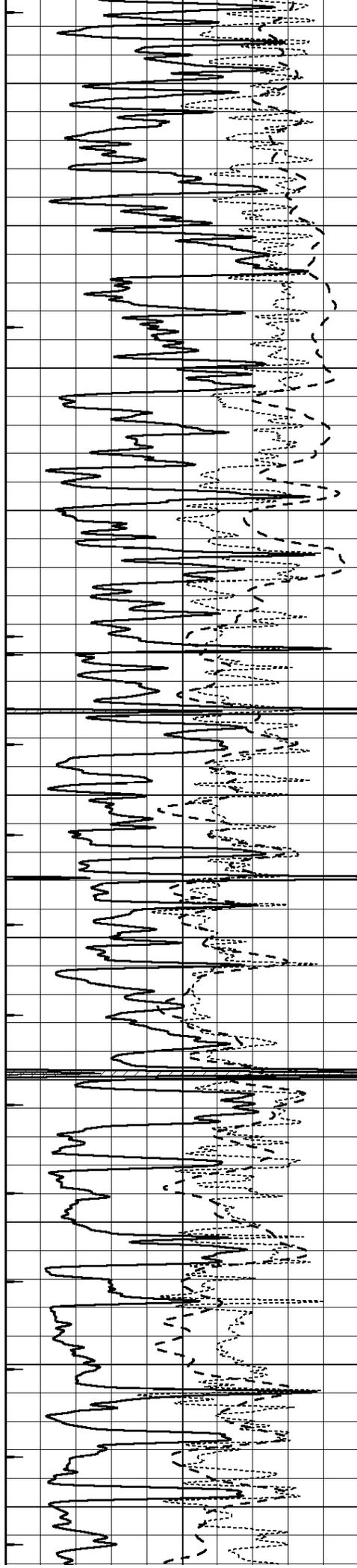
3300

3350

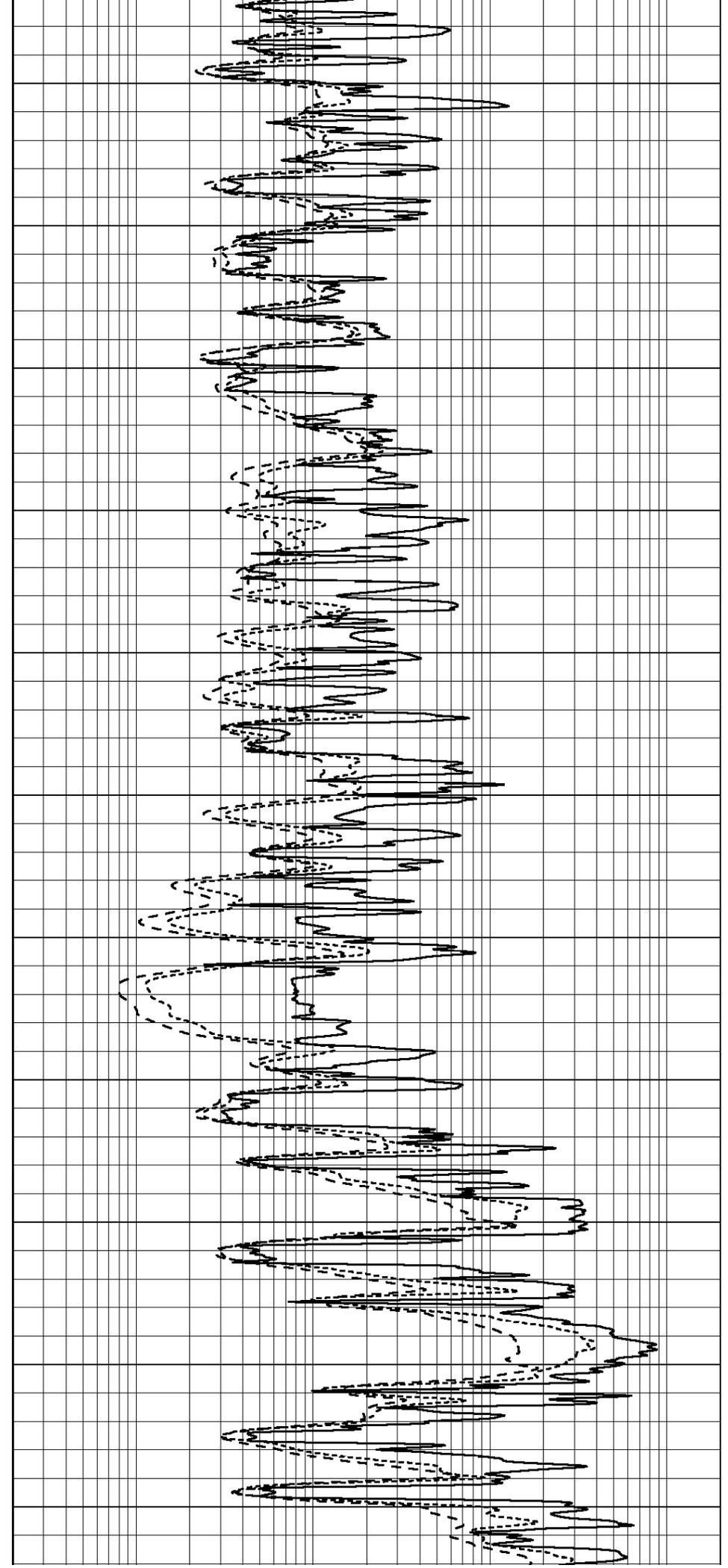
3400

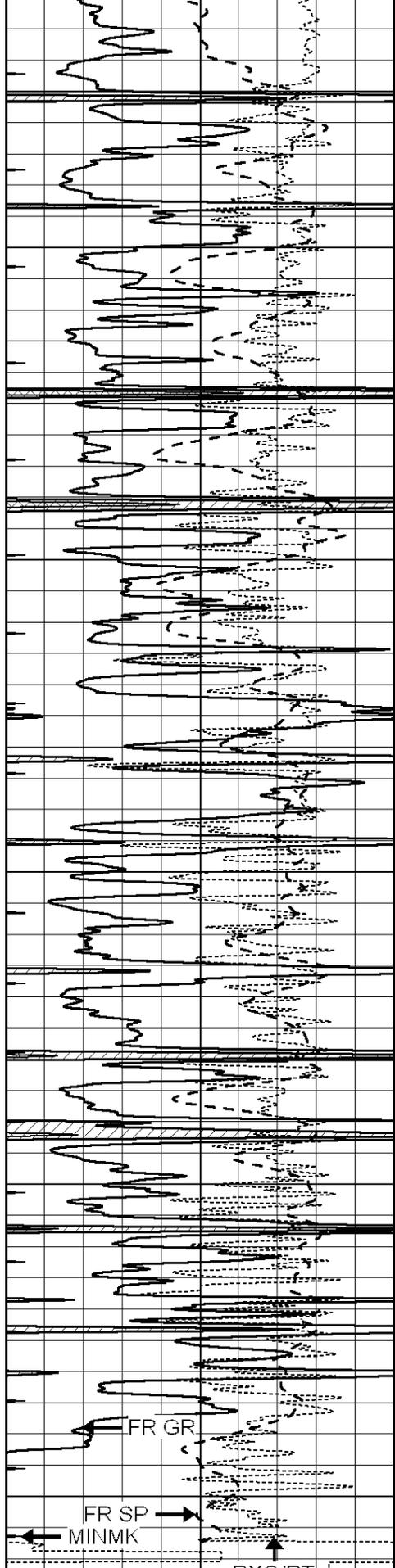
3450



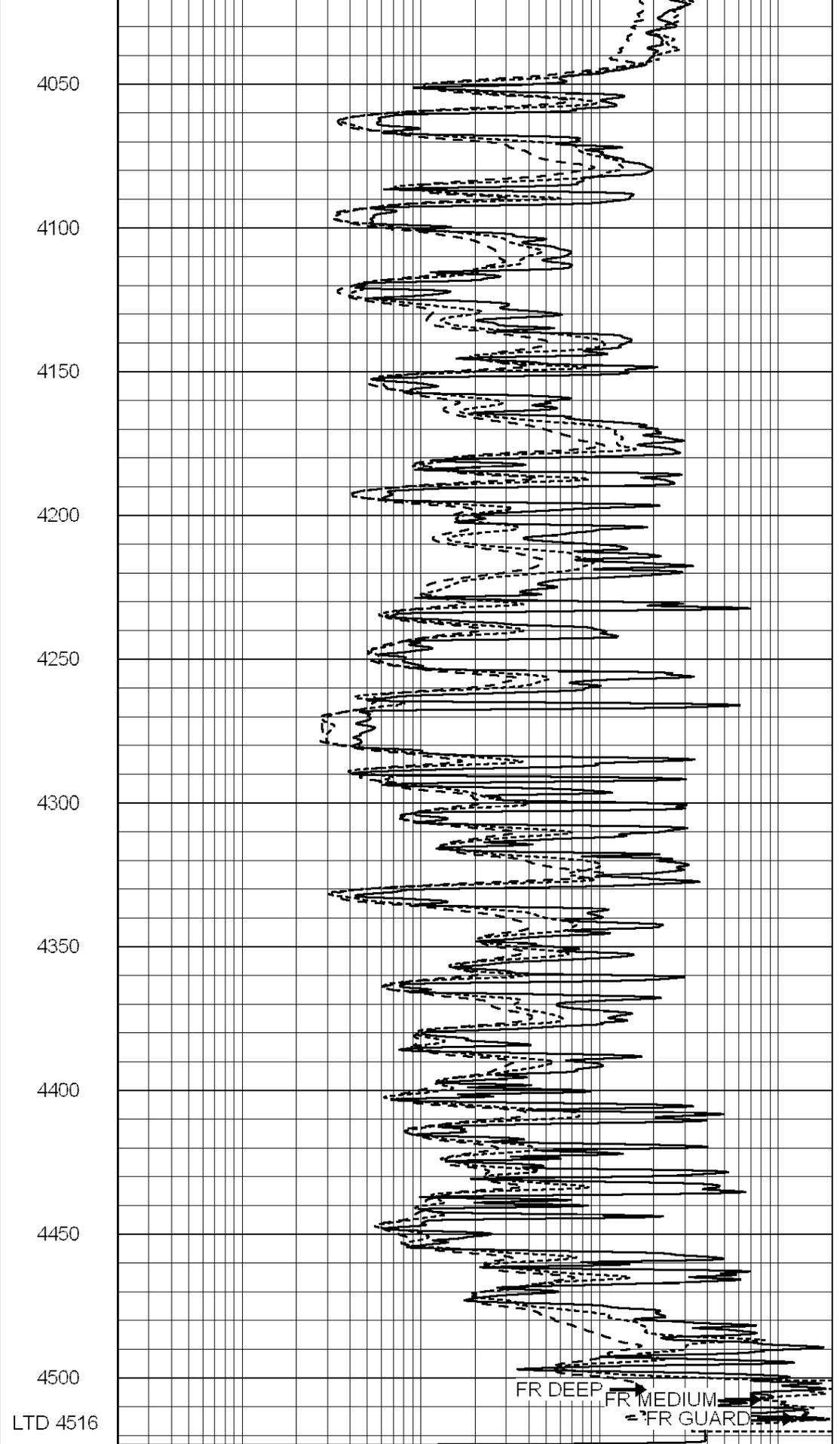


3500  
3550  
3600  
3650  
3700  
3750  
3800  
3850  
3900  
3950  
4000





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



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

LTD 4516

FR DEEP → FR MEDIUM → FR GUARD

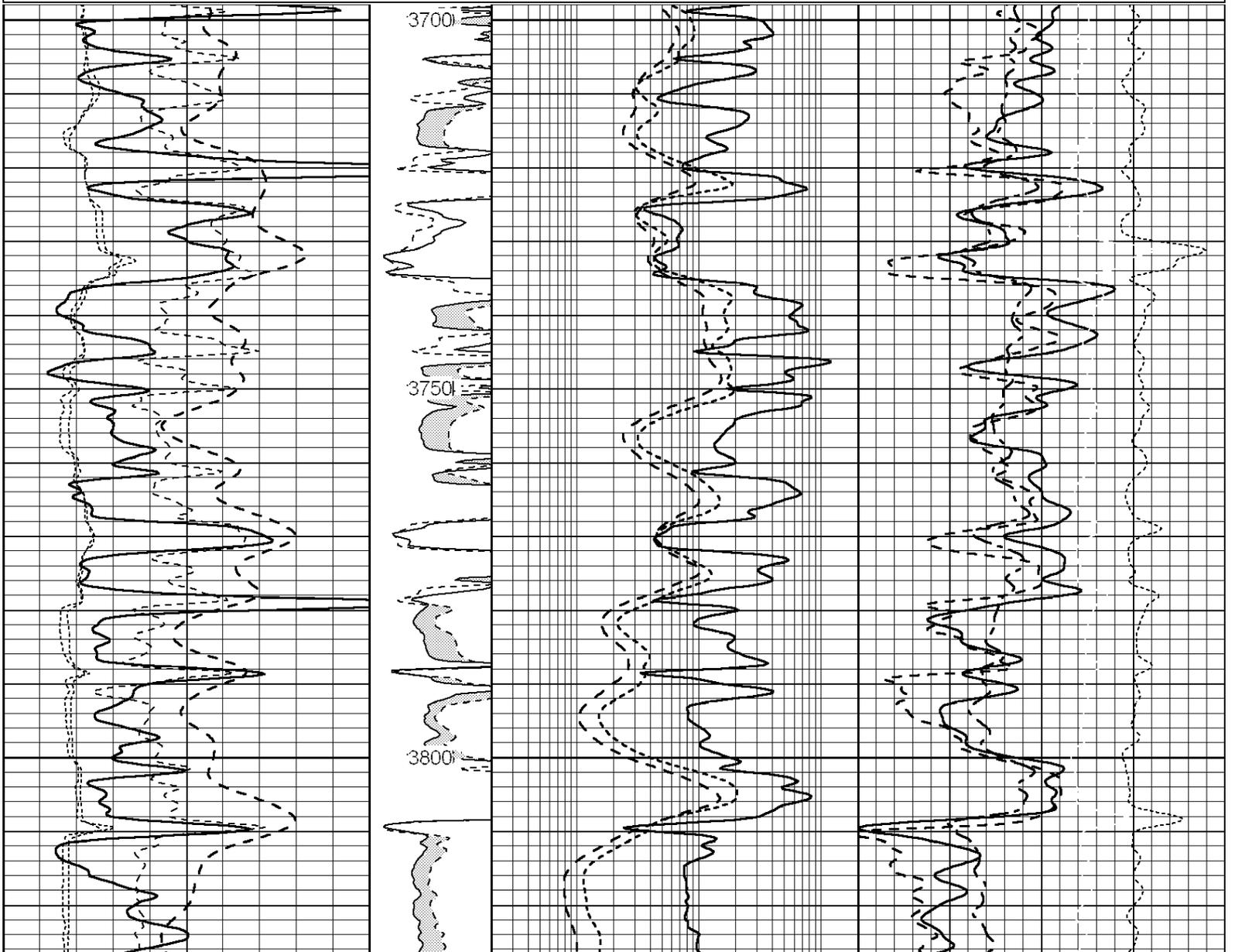


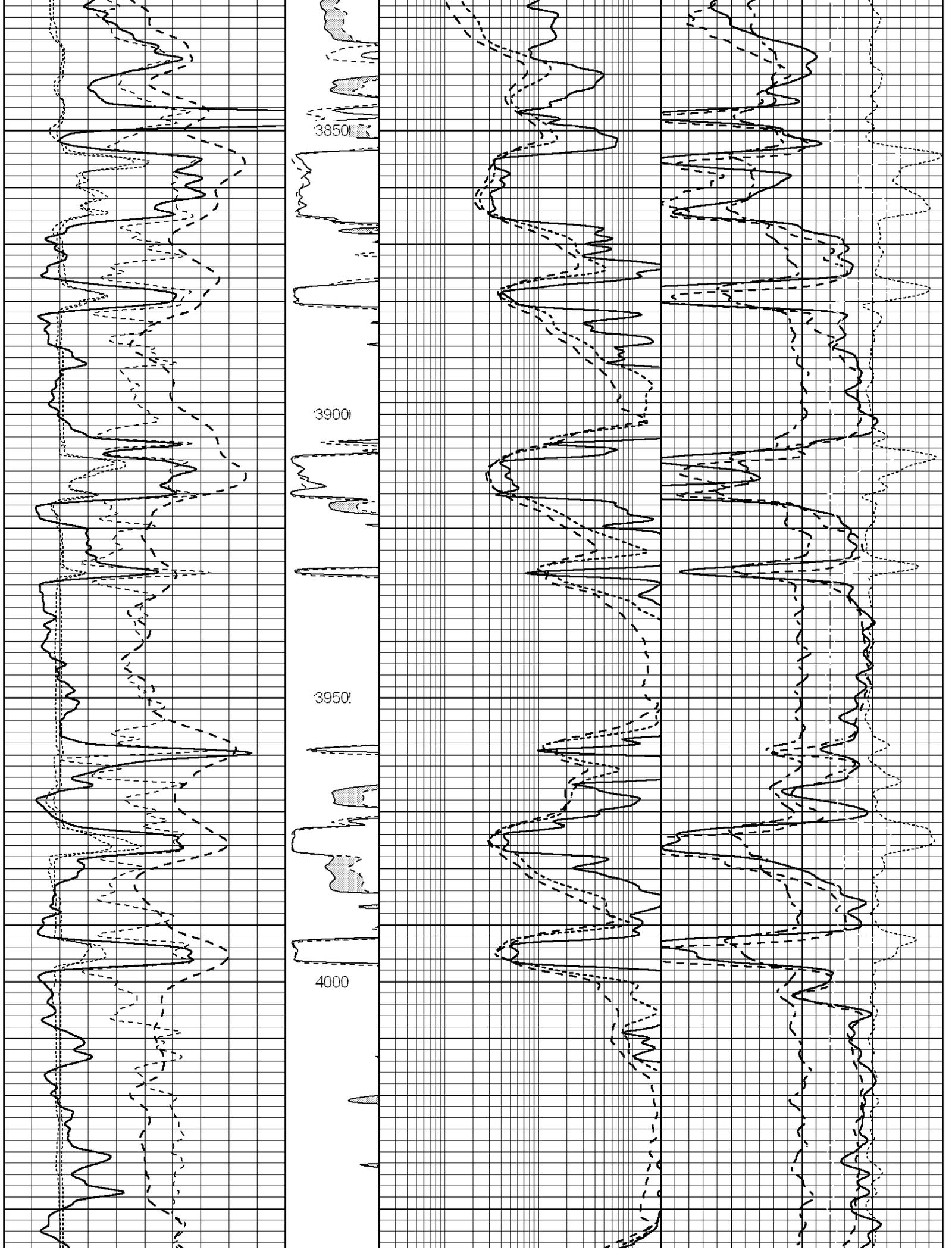
**COMPLETION  
& PRODUCTION  
SERVICES CO.**

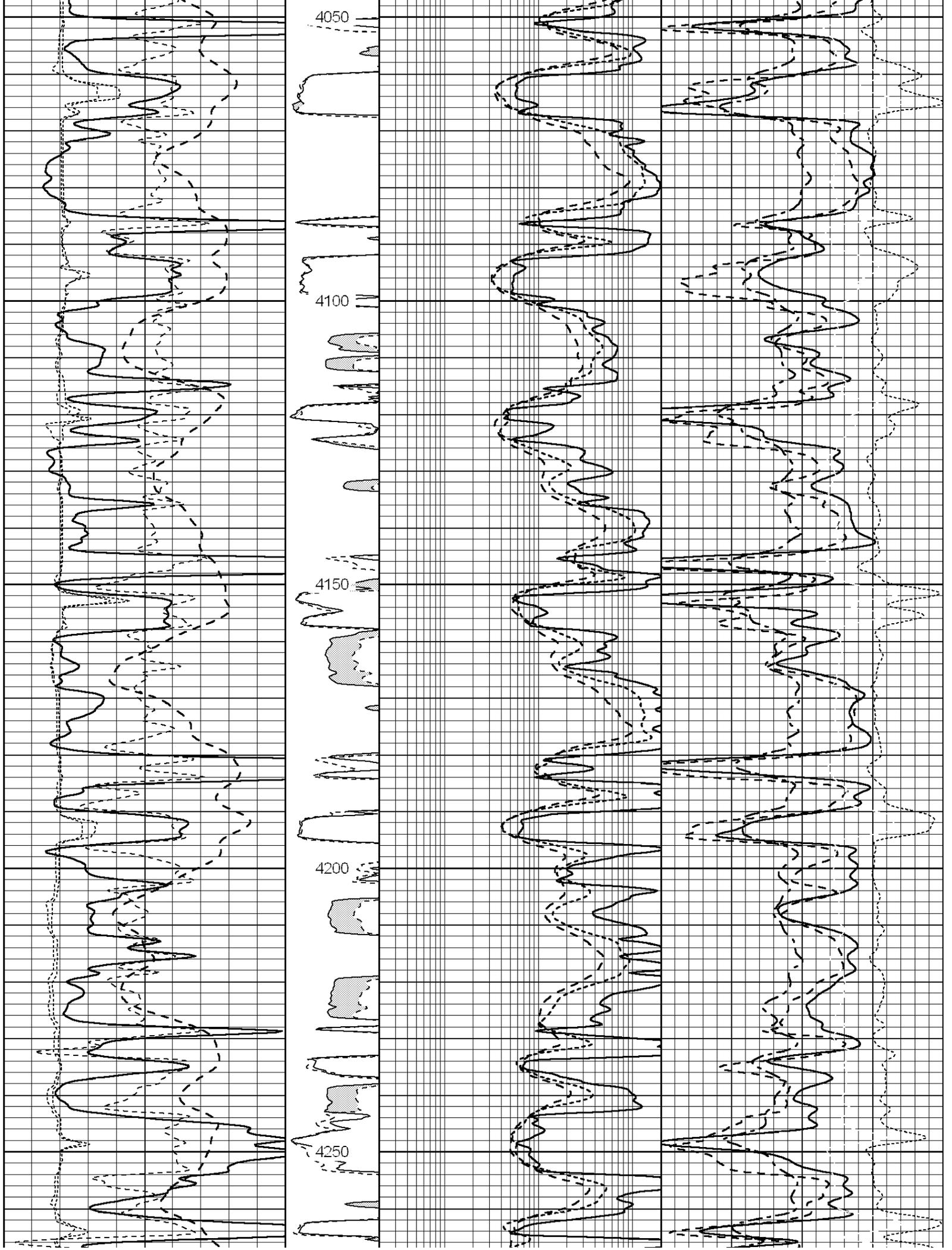
# MAIN SECTION

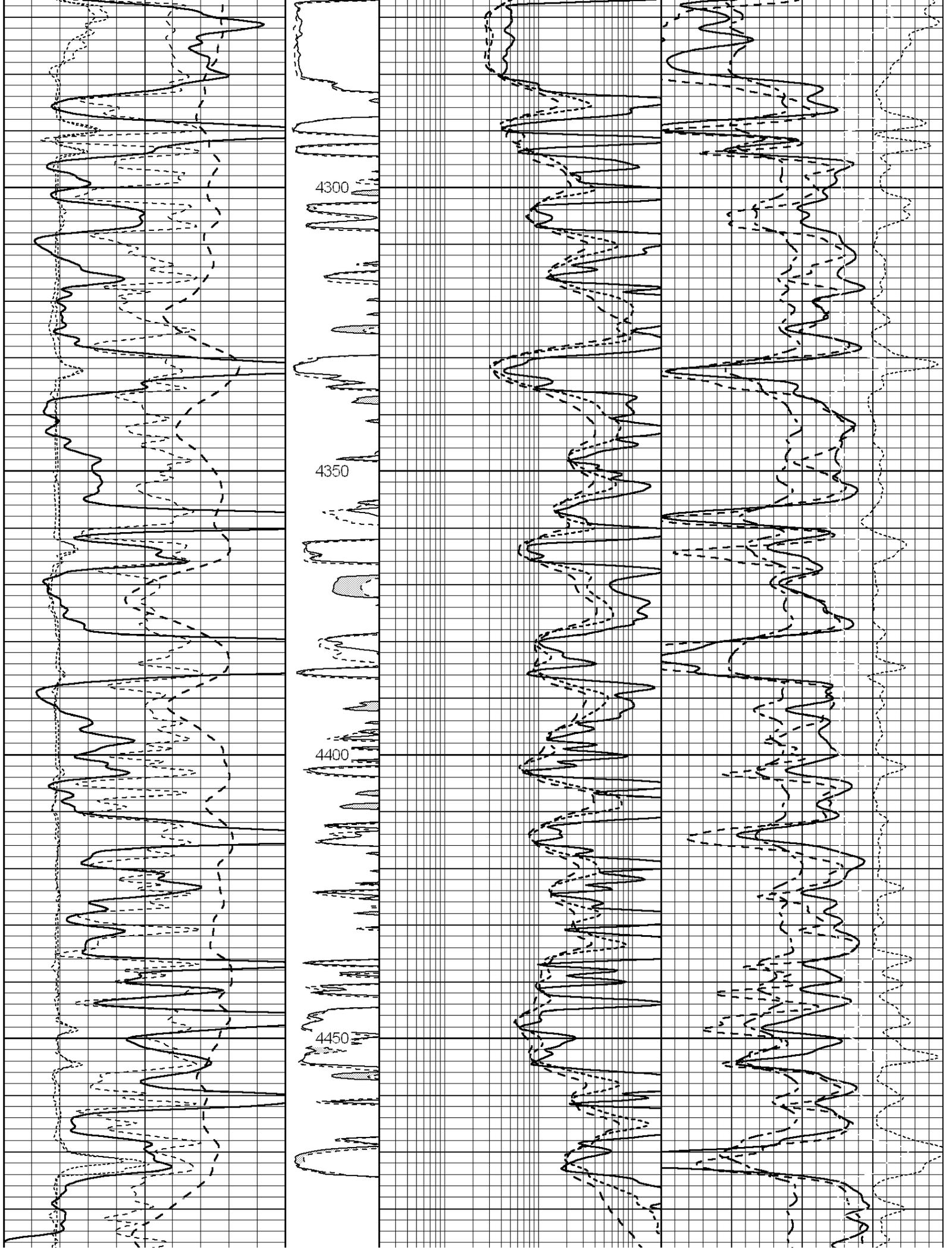
Database File: 010026pe.db  
 Dataset Pathname: pass3.3L  
 Presentation Format: obrcomp  
 Dataset Creation: Mon Dec 03 23:40:50 2012  
 Charted by: Depth in Feet scaled 1:240

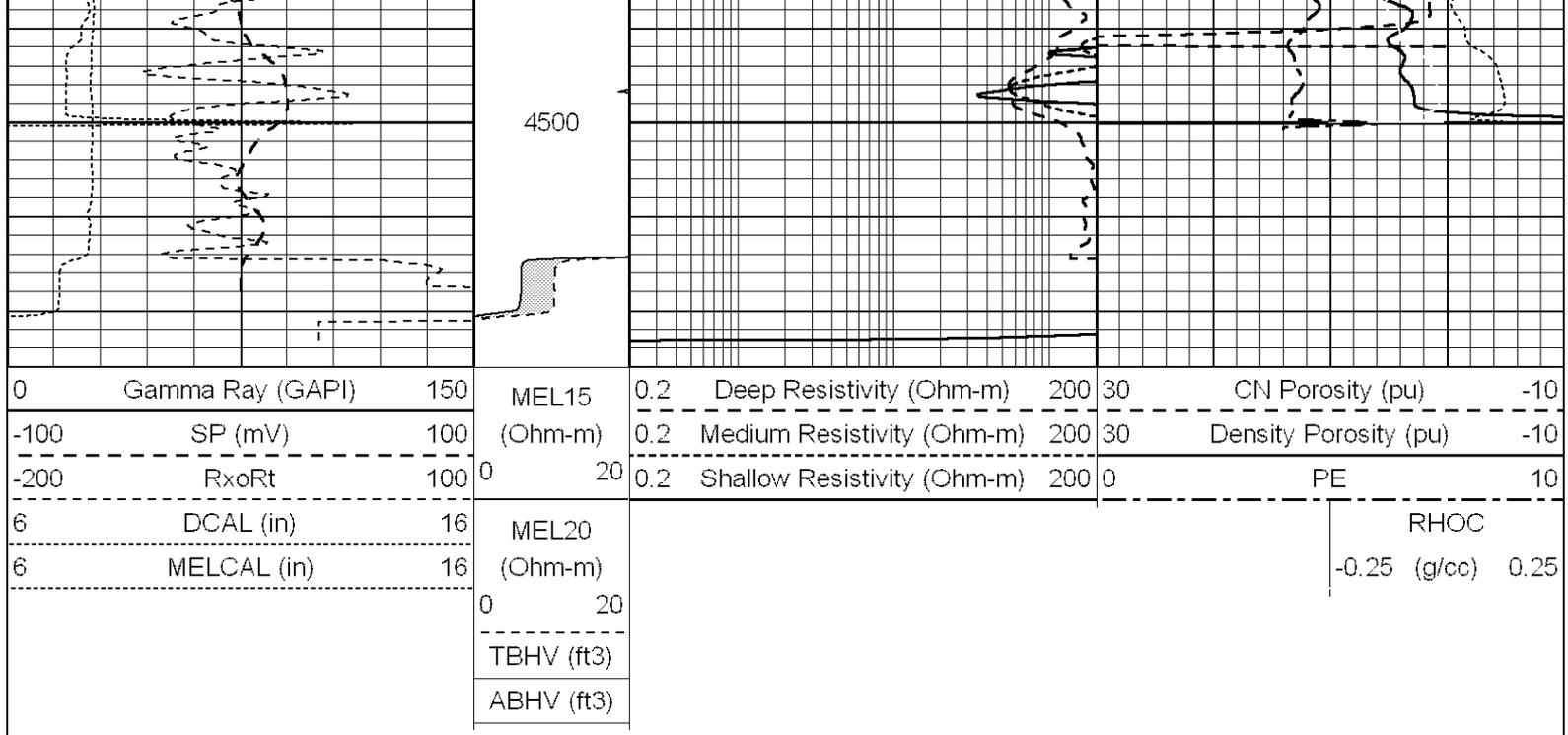
0	Gamma Ray (GAPI)	150	MEL15	0.2	Deep Resistivity (Ohm-m)	200	30	CN Porosity (pu)	-10
-100	SP (mV)	100	(Ohm-m)	0.2	Medium Resistivity (Ohm-m)	200	30	Density Porosity (pu)	-10
-200	RxoRt	100	0 20	0.2	Shallow Resistivity (Ohm-m)	200	0	PE	10
6	DCAL (in)	16	MEL20					RHOC	
6	MELCAL (in)	16	(Ohm-m)					-0.25 (g/cc)	0.25
			0 20						
			TBHV (ft3)						
			ABHV (ft3)						











**Calibration Report**

Database File: 010026pe.db  
 Dataset Pathname: pass3.3L  
 Dataset Creation: Mon Dec 03 23:40:50 2012

**Dual Induction Calibration Report**

Serial-Model: DIL3-GEAR  
 Performed: Mon Dec 03 20:26:59 2012

Loop:	Readings				References		Results	
	Air	Loop			Air	Loop	m	b
Deep	0.011	0.656	V	0.000	400.000	mmho/m	640.000	7.000
Medium	0.013	0.740	V	0.000	462.500	mmho/m	700.000	3.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.002	0.645	V	0.000	400.000	mmho/m	622.059	-1.071
Medium	0.007	0.740	V	0.000	462.500	mmho/m	631.393	-4.555

**Litho Density Calibration Report**  
 Serial: 006 Model: PRB  
 Performed Sun Aug 15 09:48:41 2010

**Litho Density Calibration**

	Background	Magnesium	Aluminum	Sandstone	
Window 1	1686.6	11612.8	3932.0	12718.8	cps
Window 2	1531.4	9204.7	3267.8	9851.9	cps
Window 3	1198.3	4733.6	1952.5	4920.6	cps
Window 4	317.3	321.2	325.9	303.6	cps
Long Space	0.0	7673.3	1736.4	8320.4	cps
Short Space	1.7	2548.5	1657.2	2628.8	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	

Rib Angle	: 43.8	Rib Slope	: 0.961	Density/Spine Ratio	: 0.569
Spine Angle	: 73.8	Spine Slope	: 3.453	Spine Intercept	: -18.1

Caliper

Low Ref  
High Ref

Readings  
3.5  
5.5  
Gain: 4.4

Reference  
6.5  
15.0

Offset: -9.1

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: Wed Nov 28 18:32:17 2012

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps  
Calibrator Reading: 1.0 cps

Sensitivity: 0.3000 GAPI/cps