



**COMPLETION  
& PRODUCTION  
SERVICES CO.**

**COMPENSATED  
DENSITY / NEUTRON  
PE LOG**

Company WOOLSEY OPERATING CO, LLC.  
Well TUCKER B GU #6  
Field ROUNDUP SOUTH  
County BARBER  
State KANSAS

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Location: API # : 15-007-24214-0000  
1980' FNL & 1980' FEL  
C - SW - NE  
SEC 11 TWP 34S RGE 11W  
Permanent Datum GROUND LEVEL Elevation 1392  
Log Measured From KELLY BUSHING 12' A.G.L.  
Drilling Measured From KELLY BUSHING  
Other Services  
DIL  
Elevation  
K.B. 1404  
D.F. 1402  
G.L. 1392

Date	8/30/14		
Run Number	ONE		
Depth Driller	5120		
Depth Logger	5124		
Bottom Logged Interval	5100		
Top Log Interval	1700		
Casing Driller	13 3/8" @ 229'		
Casing Logger	227'		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 8500 PPM	
Density / Viscosity	9.063		
pH / Fluid Loss	10.0/9.6		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.30 @ 79F		
Rmt @ Meas. Temp	0.23 @ 79F		
Rmc @ Meas. Temp	0.36 @ 79F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	0.19 @ 126F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	126F		
Equipment Number	4010		
Location	HAYS, KS.		
Recorded By	JEFF GRONWEG		
Witnessed By	BILL KLAVER		

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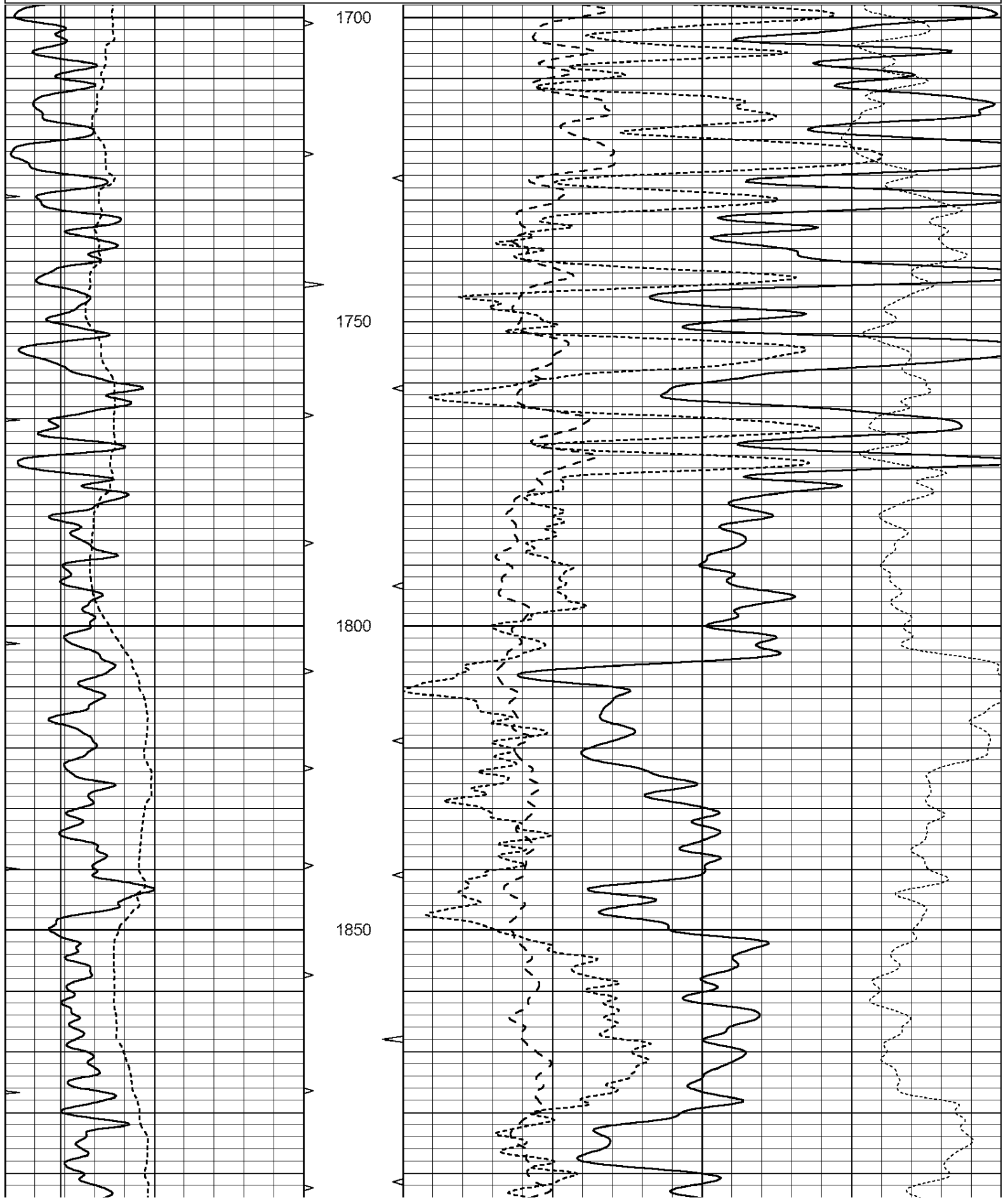
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

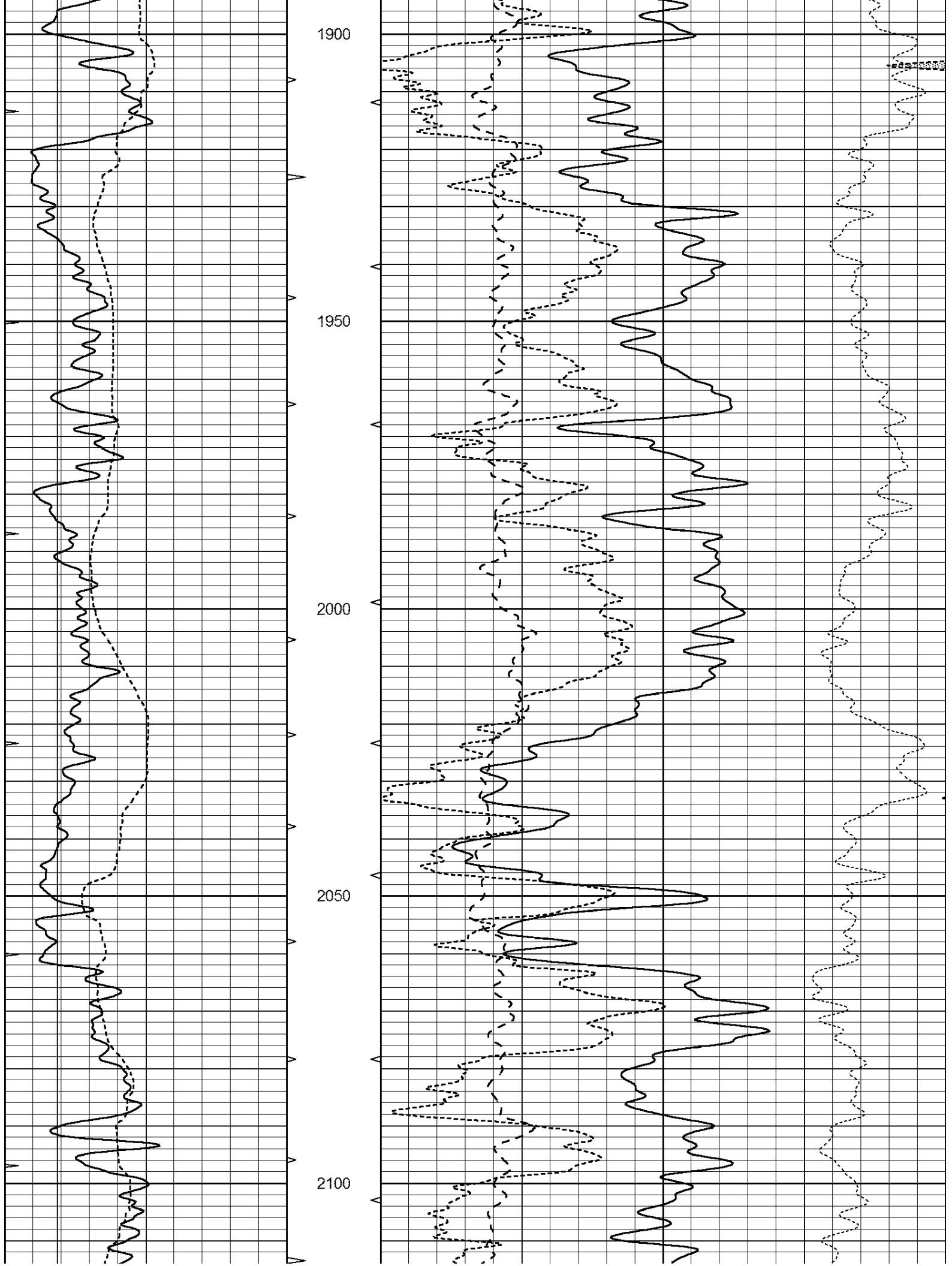
Comments

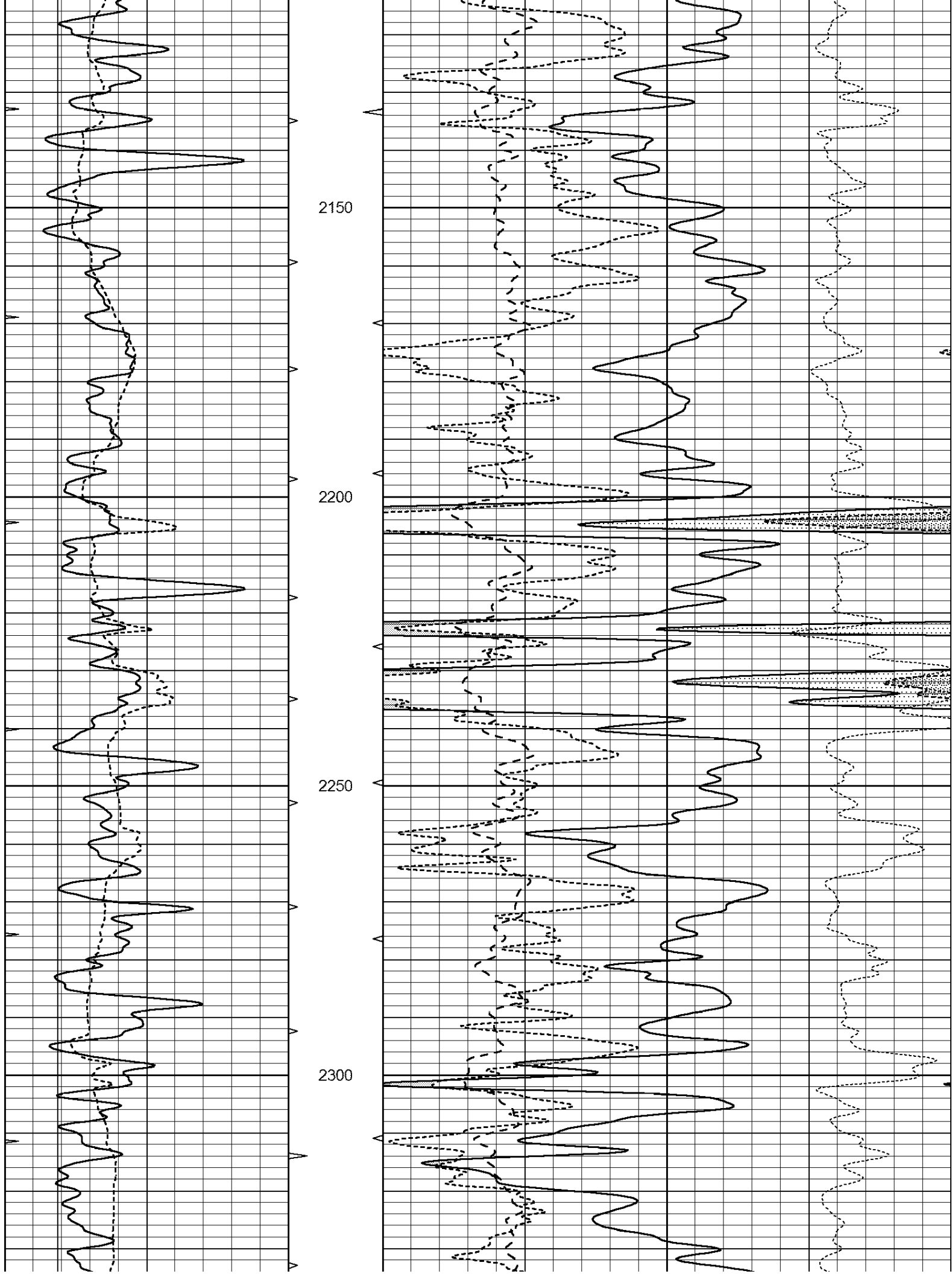
**NABORS COMPLETION & PRODUCTION SERVICES**  
 785-628-6395  
 THANK YOU FOR YOUR BUSINESS  
 MEDICINE LODGE, KS - SOUTH TO GERLANE RD - EAST TO BETHEL RD  
 1 MILE SOUTH - 1/2 MILE WEST - SOUTH INTO

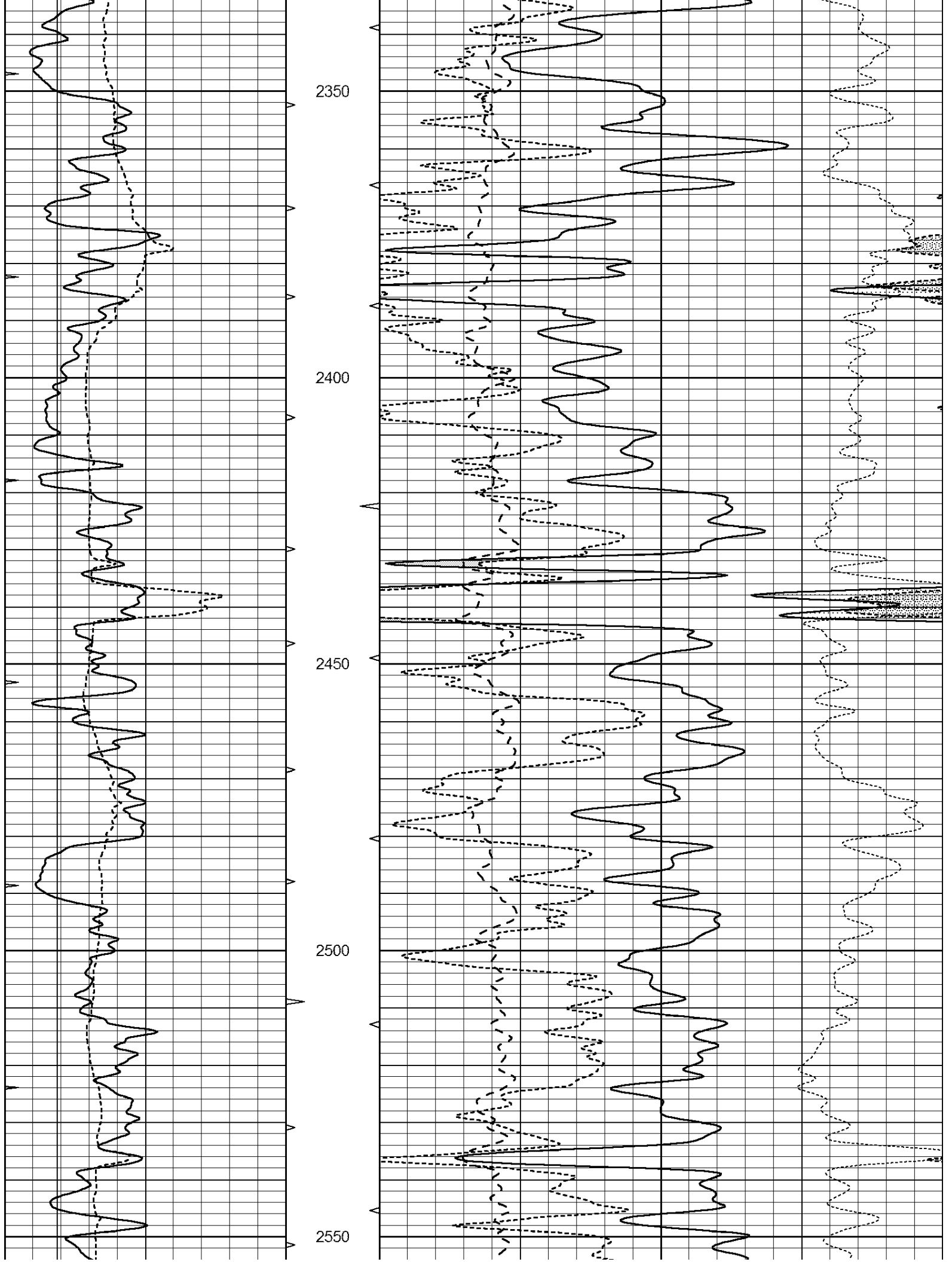
Database File: 25861pe.db  
 Dataset Pathname: pass3.3  
 Presentation Format: \_ldt\_neu  
 Dataset Creation: Sat Aug 30 05:25:53 2014 by Calc Open-Cased 090629  
 Charted by: Depth in Feet scaled 1:240

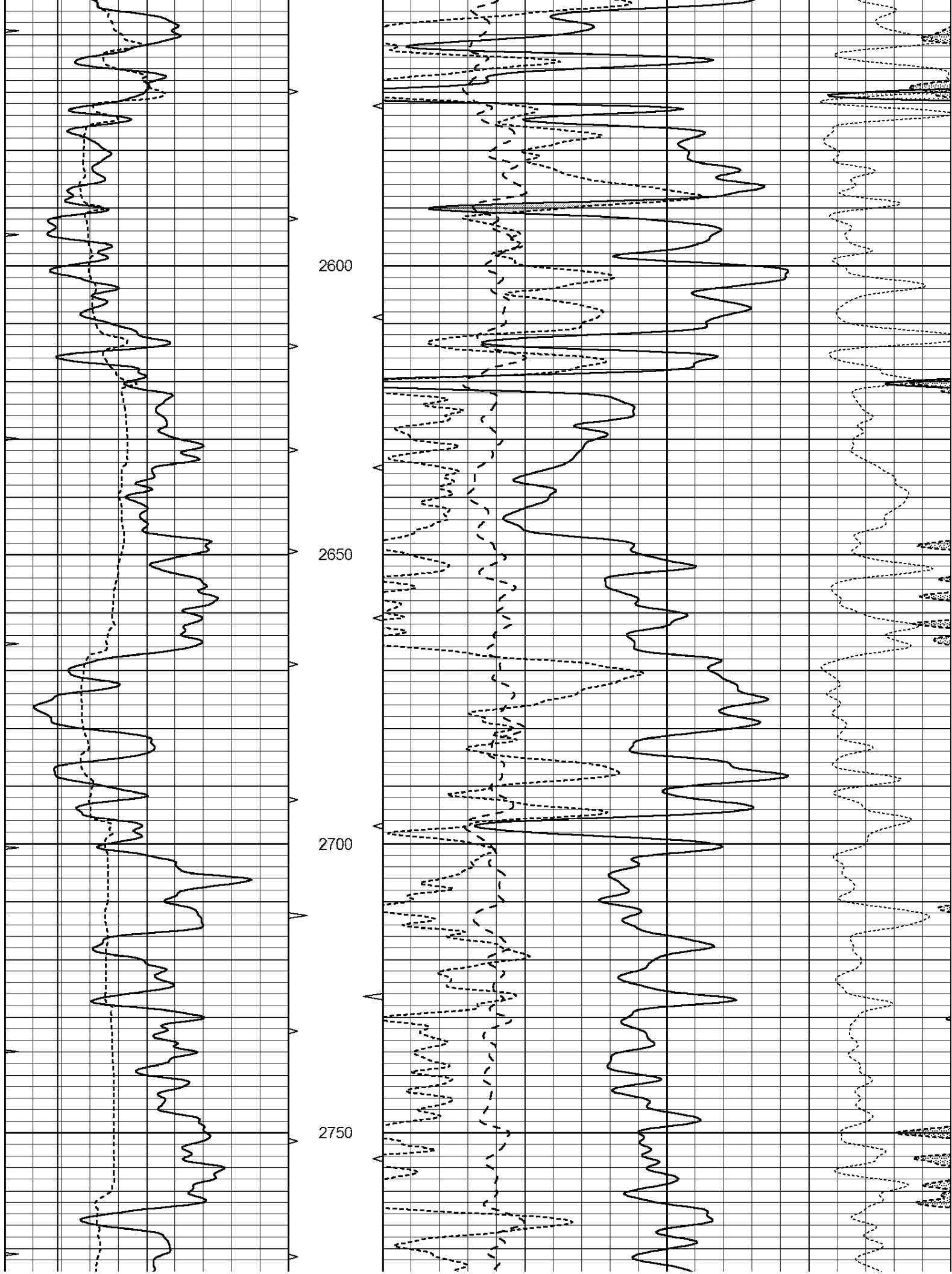
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)			-10	
6	CALIPER (in)	16	10 (ft3)	0	30	COMPENSATED NEUTRON (pu)			-10
0	MINMK	20	TBHV	0	PE	10	-0.25	CORRECTION (g/cc)	0.25
			0 (ft3)	10					

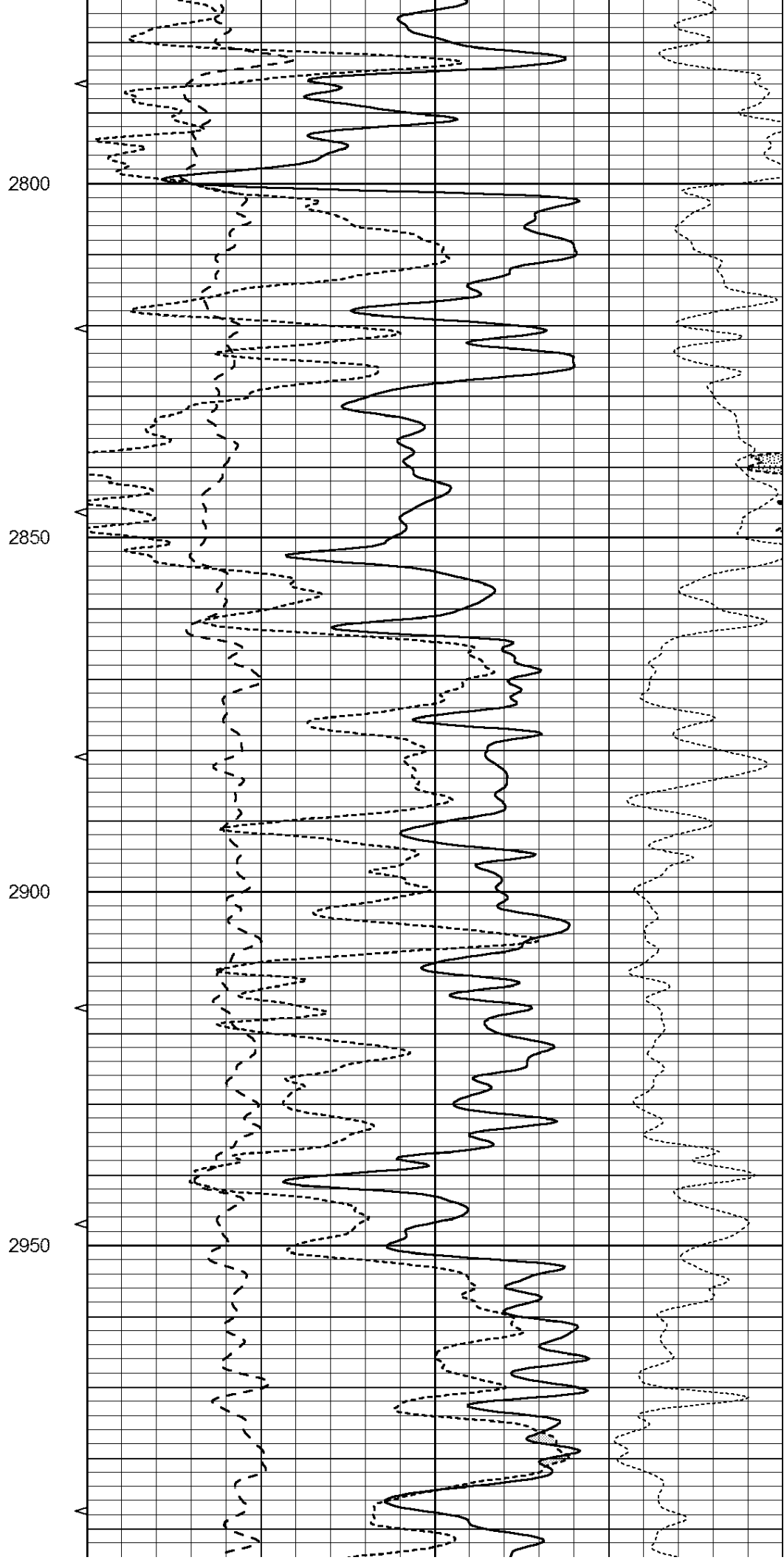
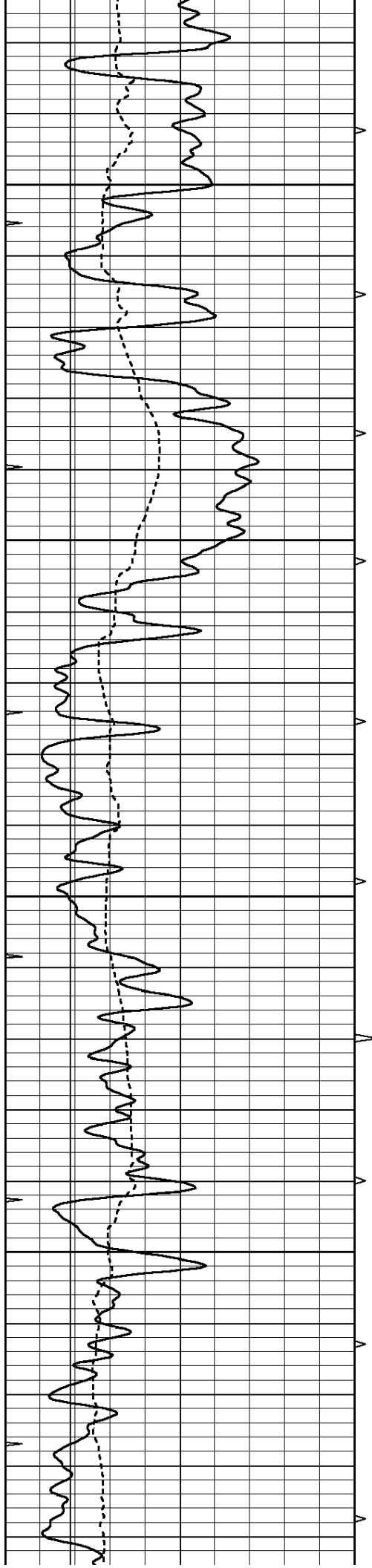


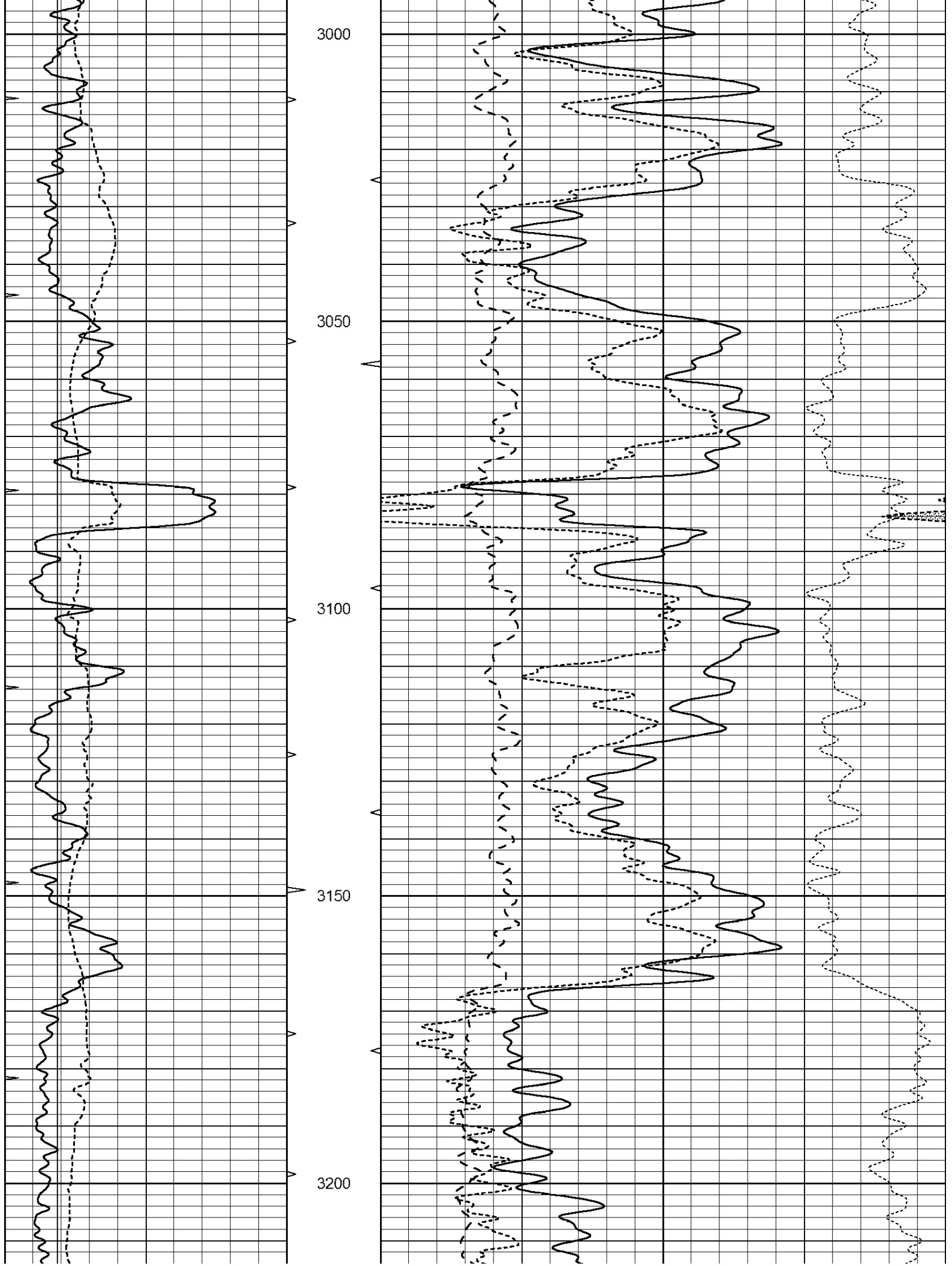




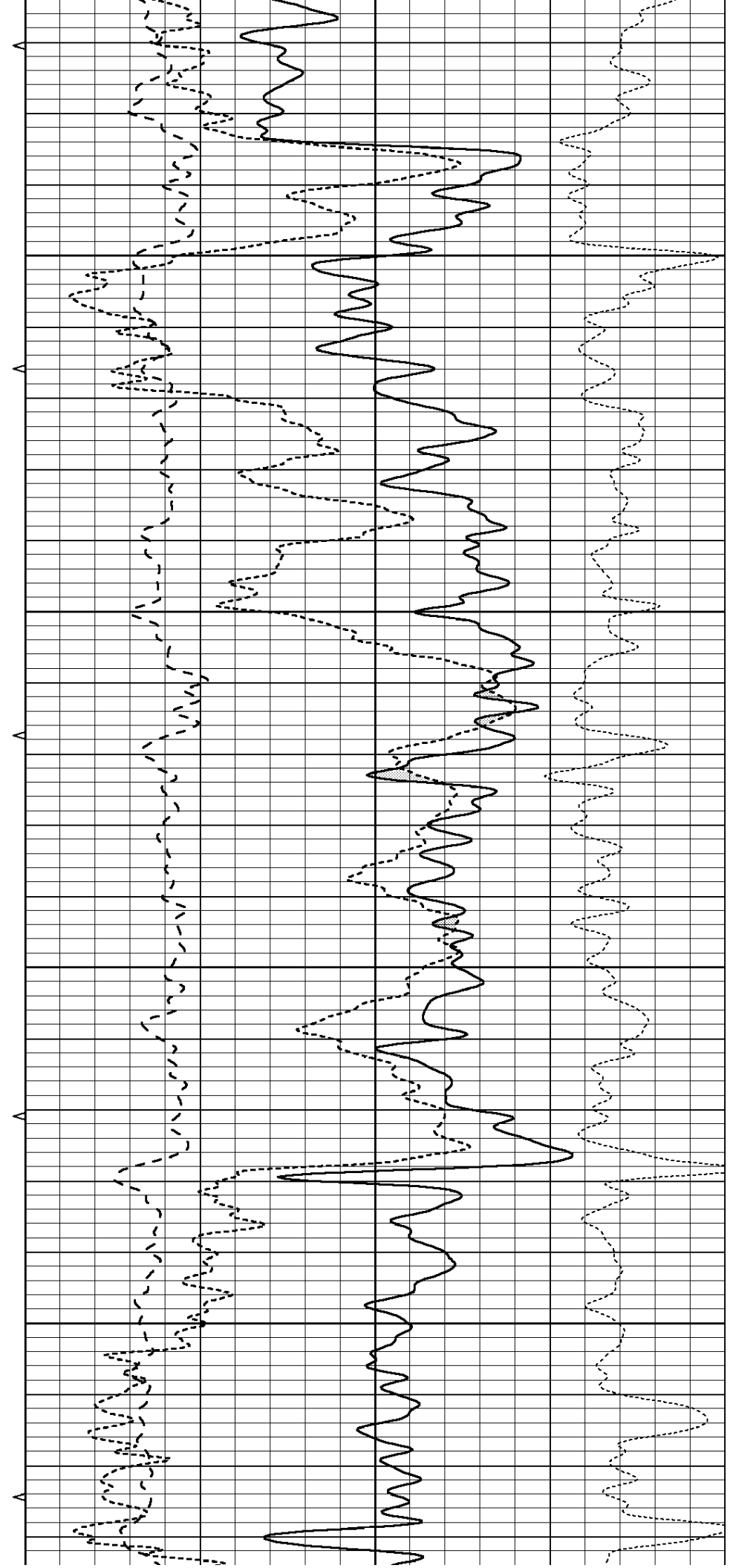
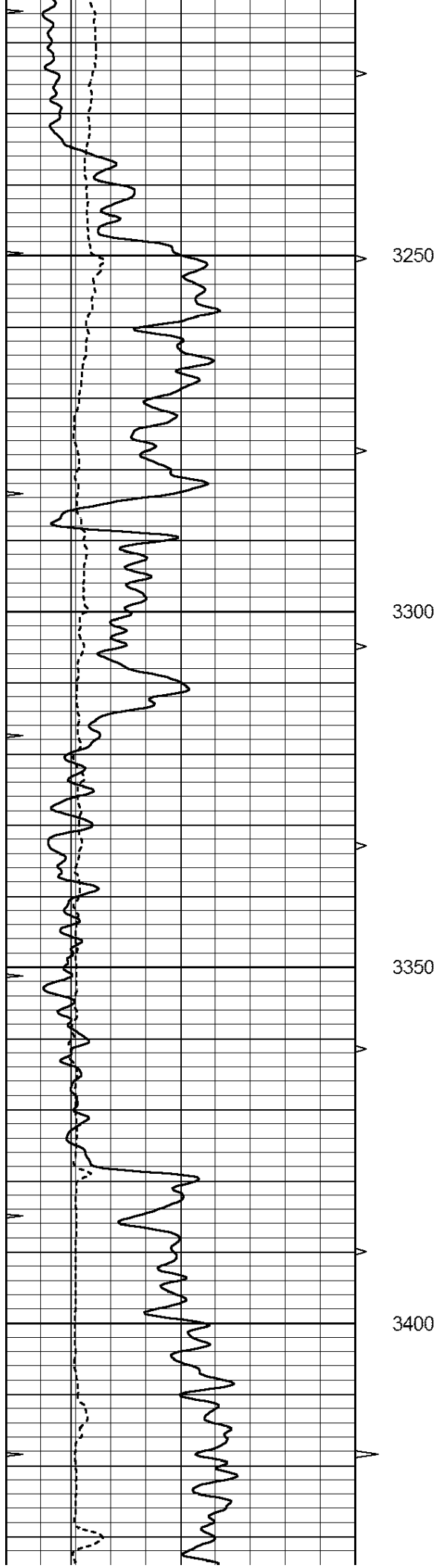


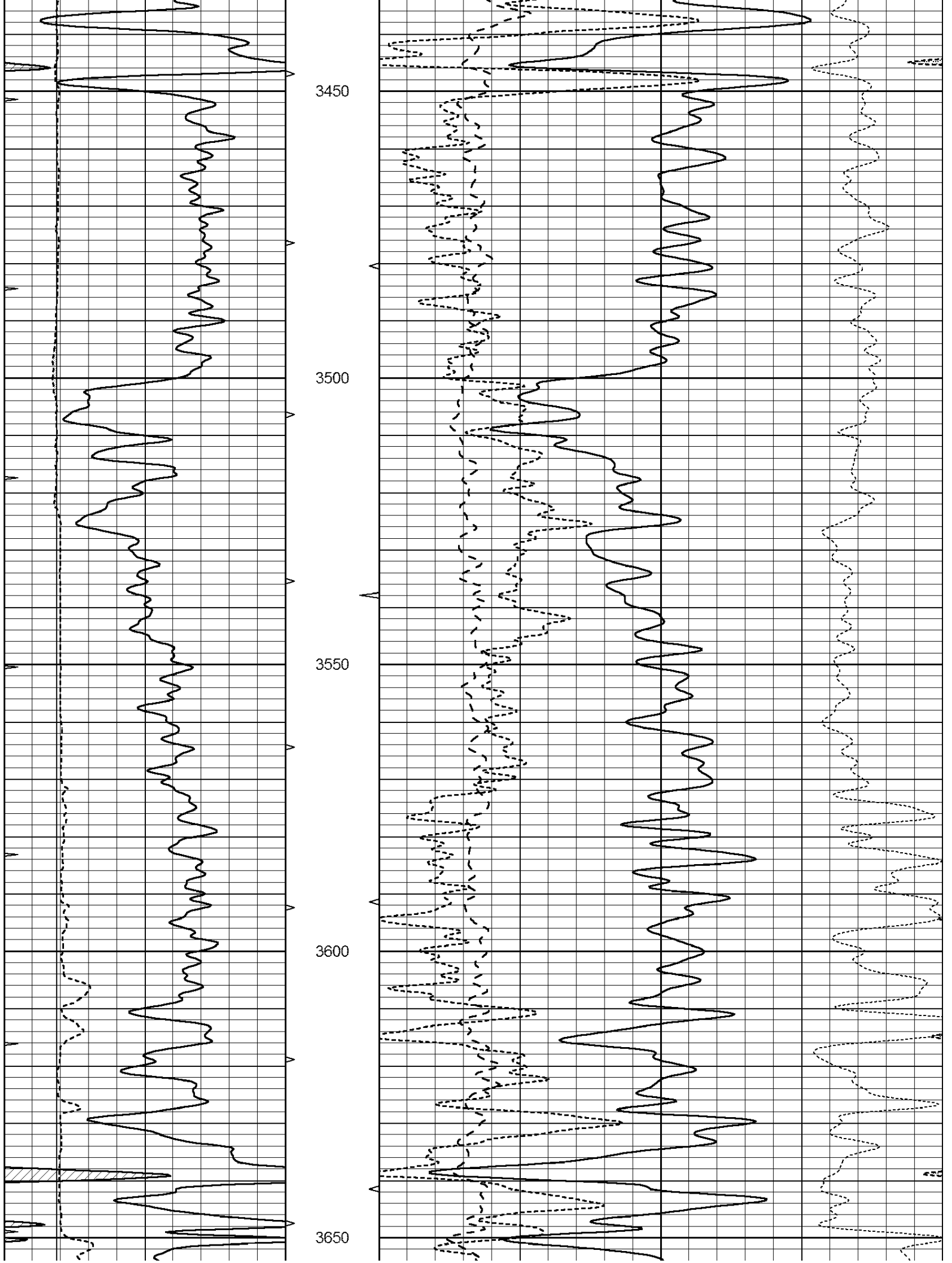


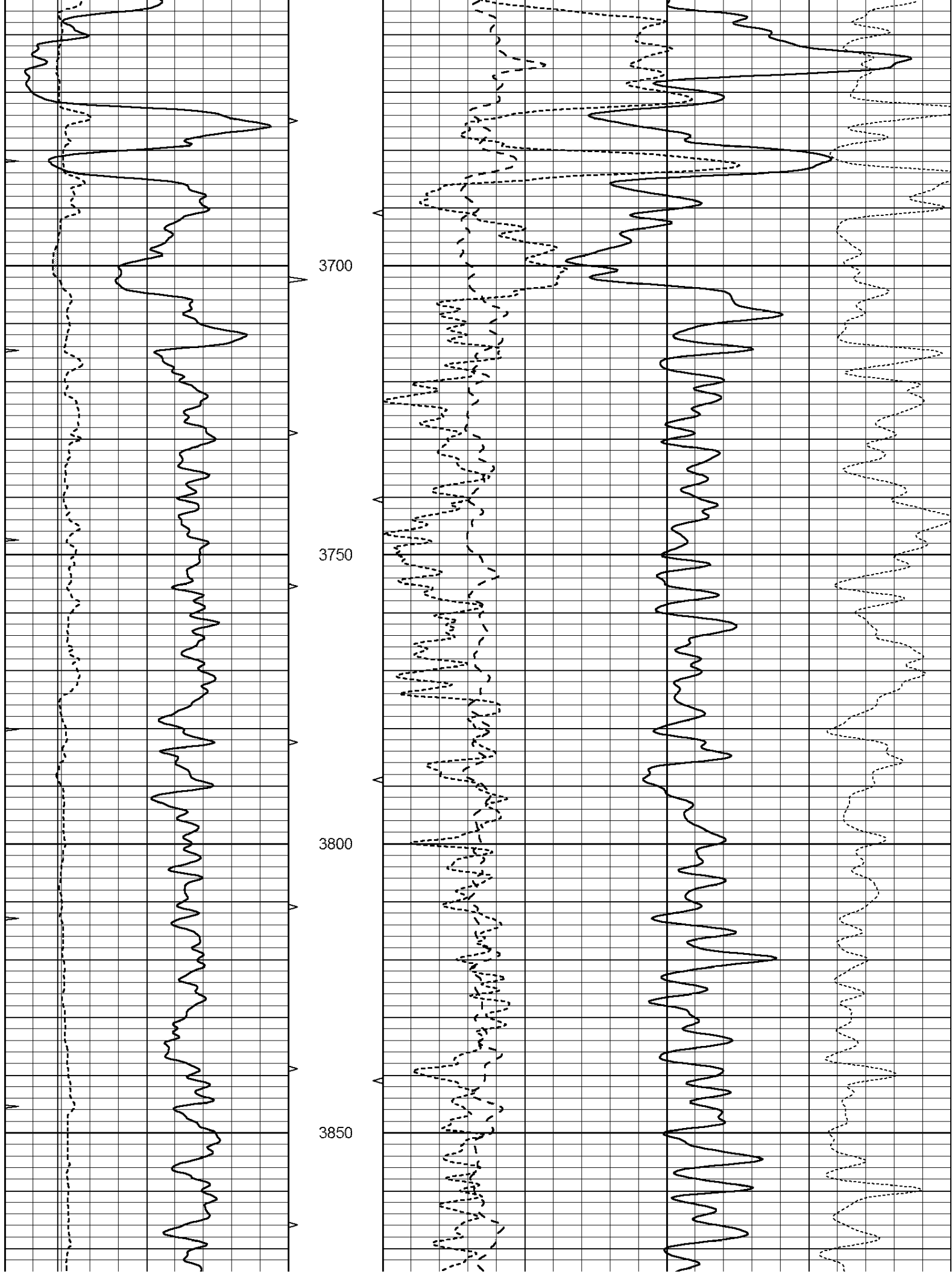


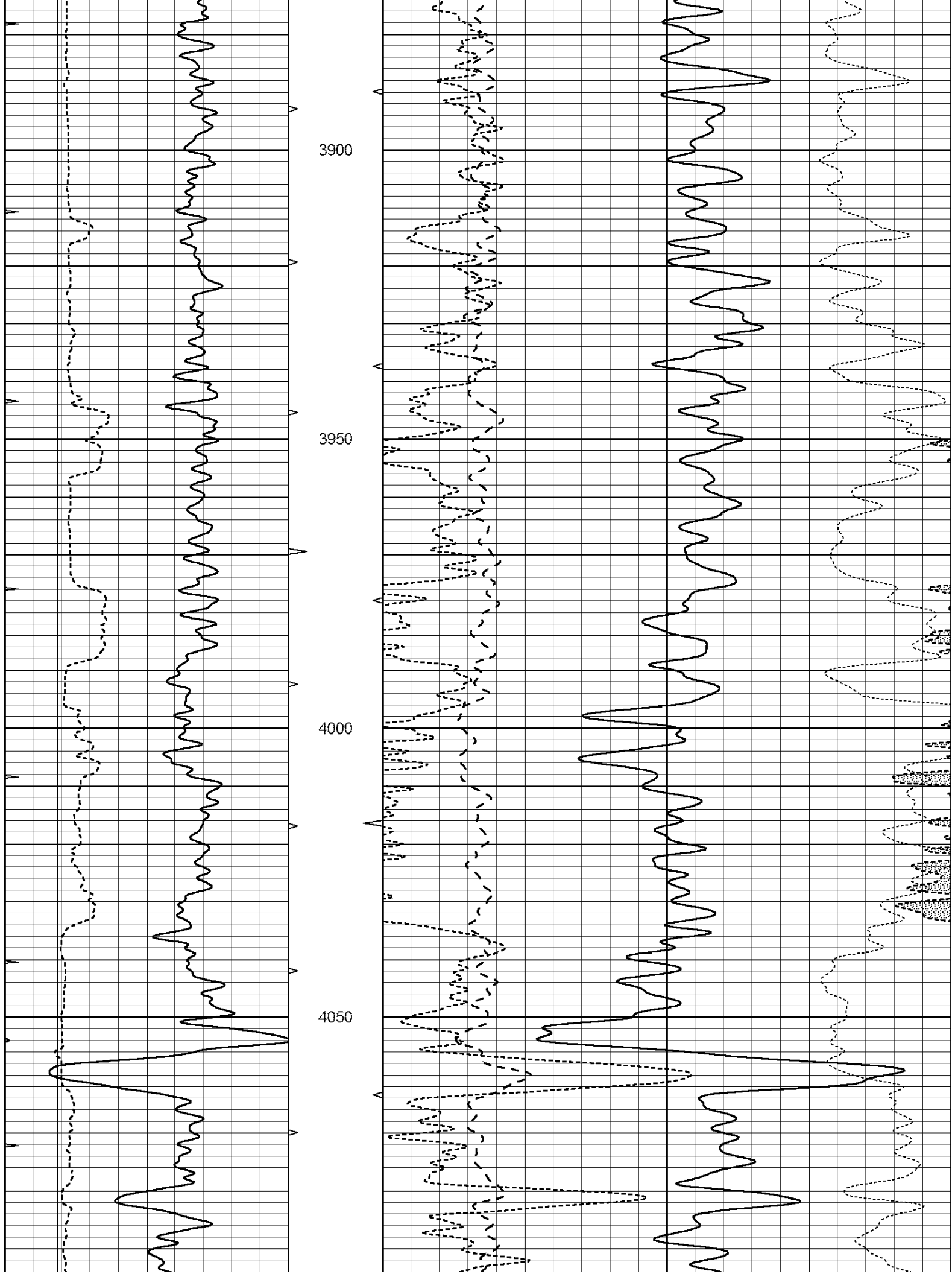


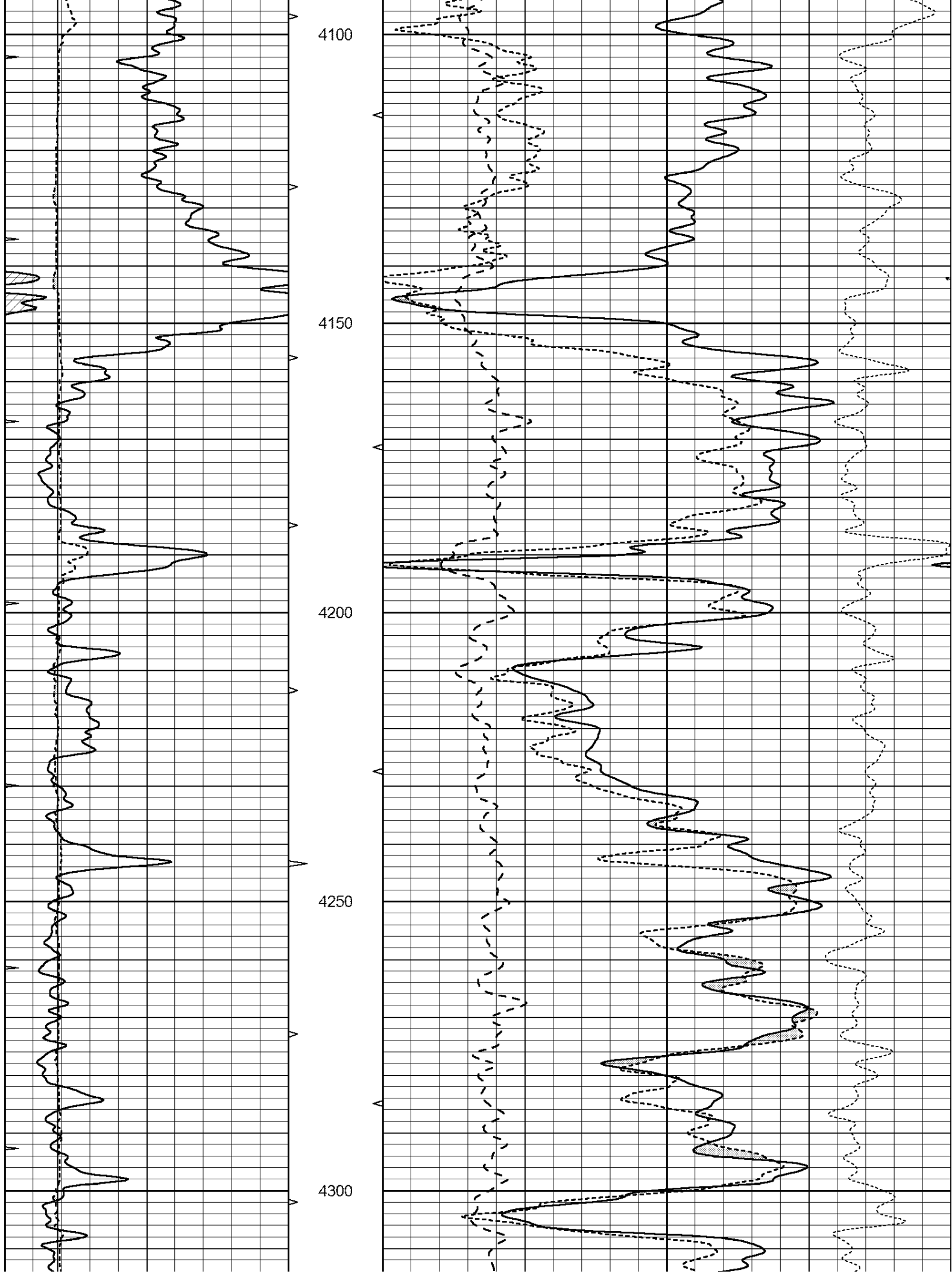


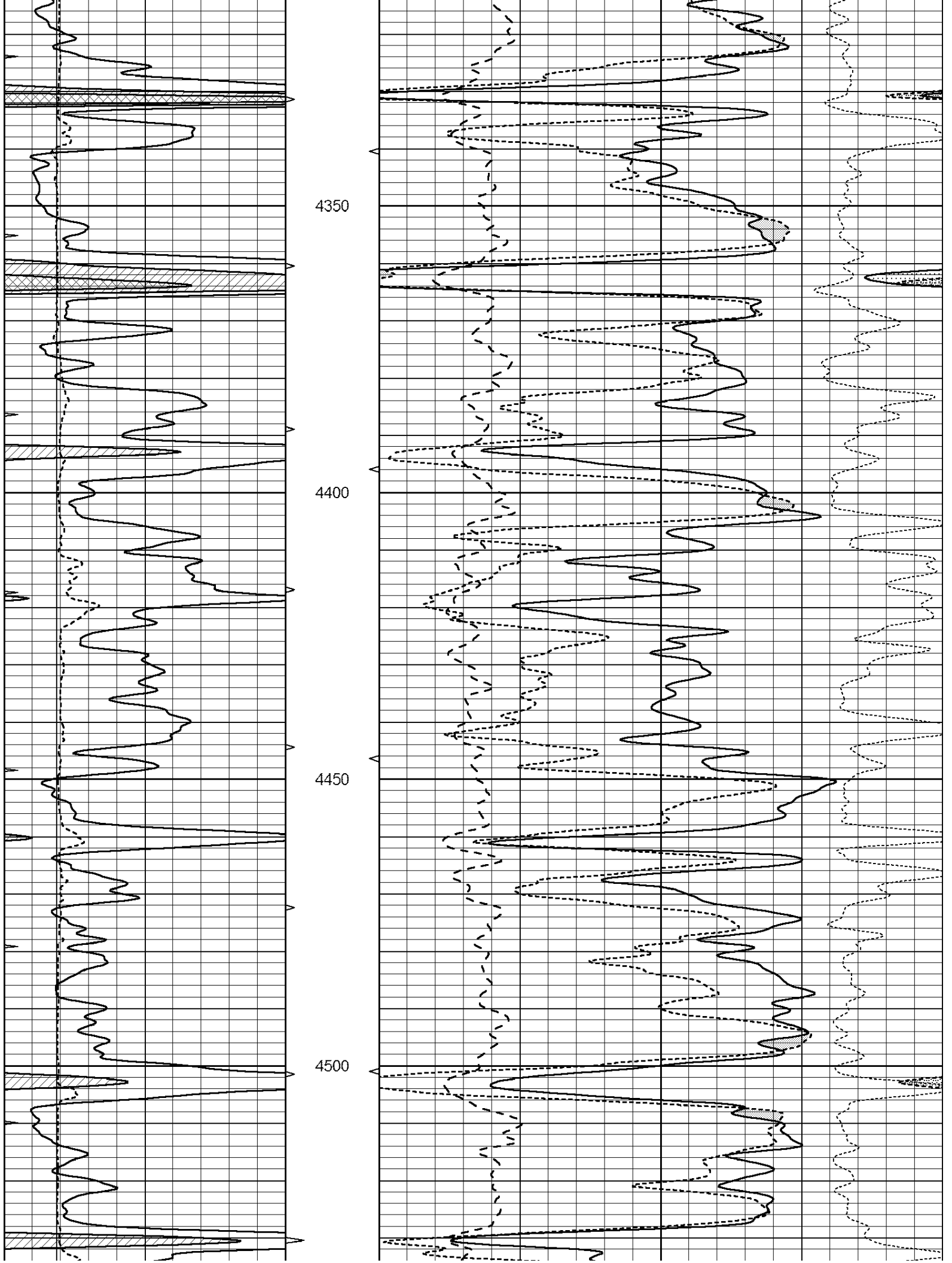


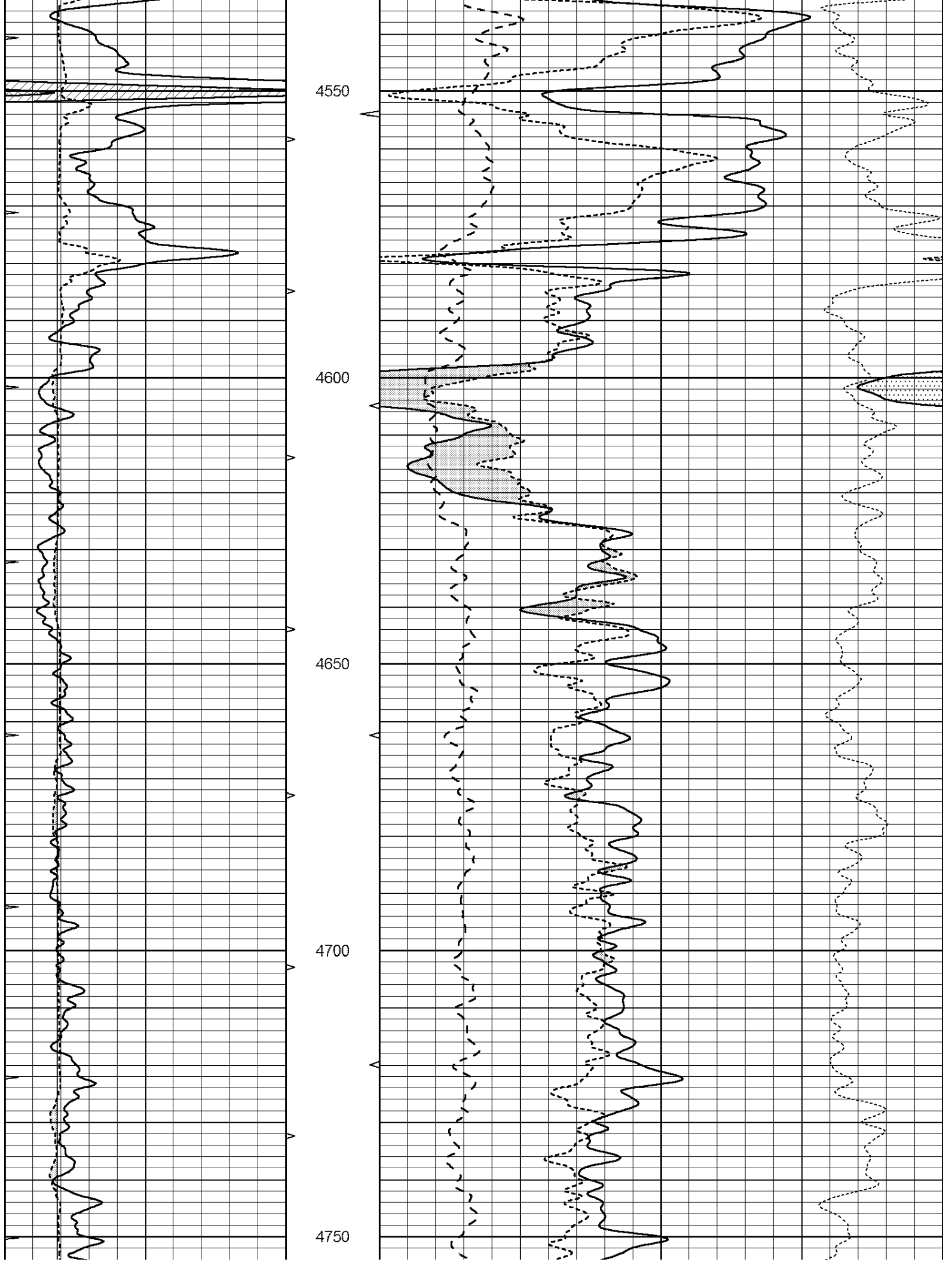


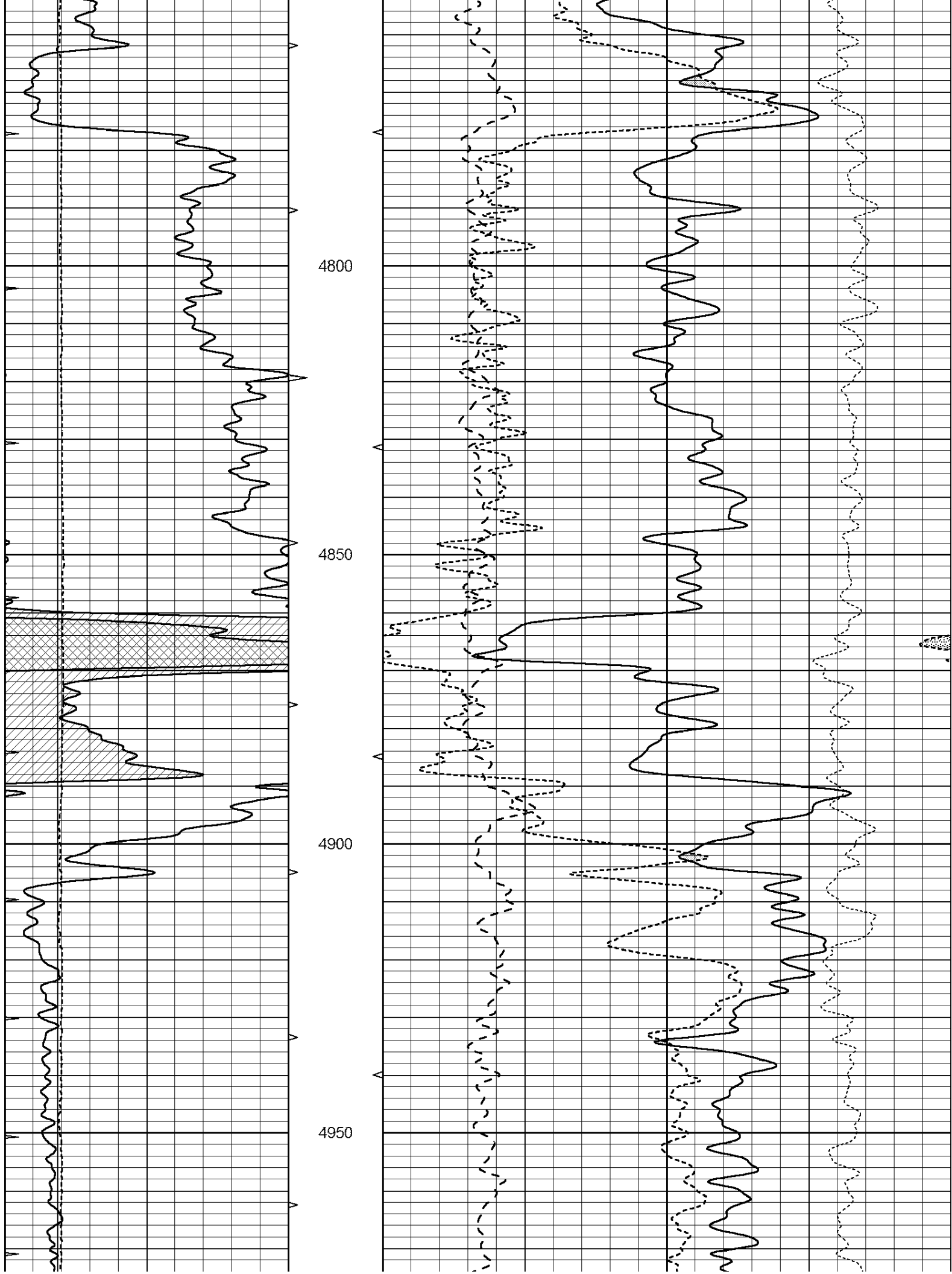




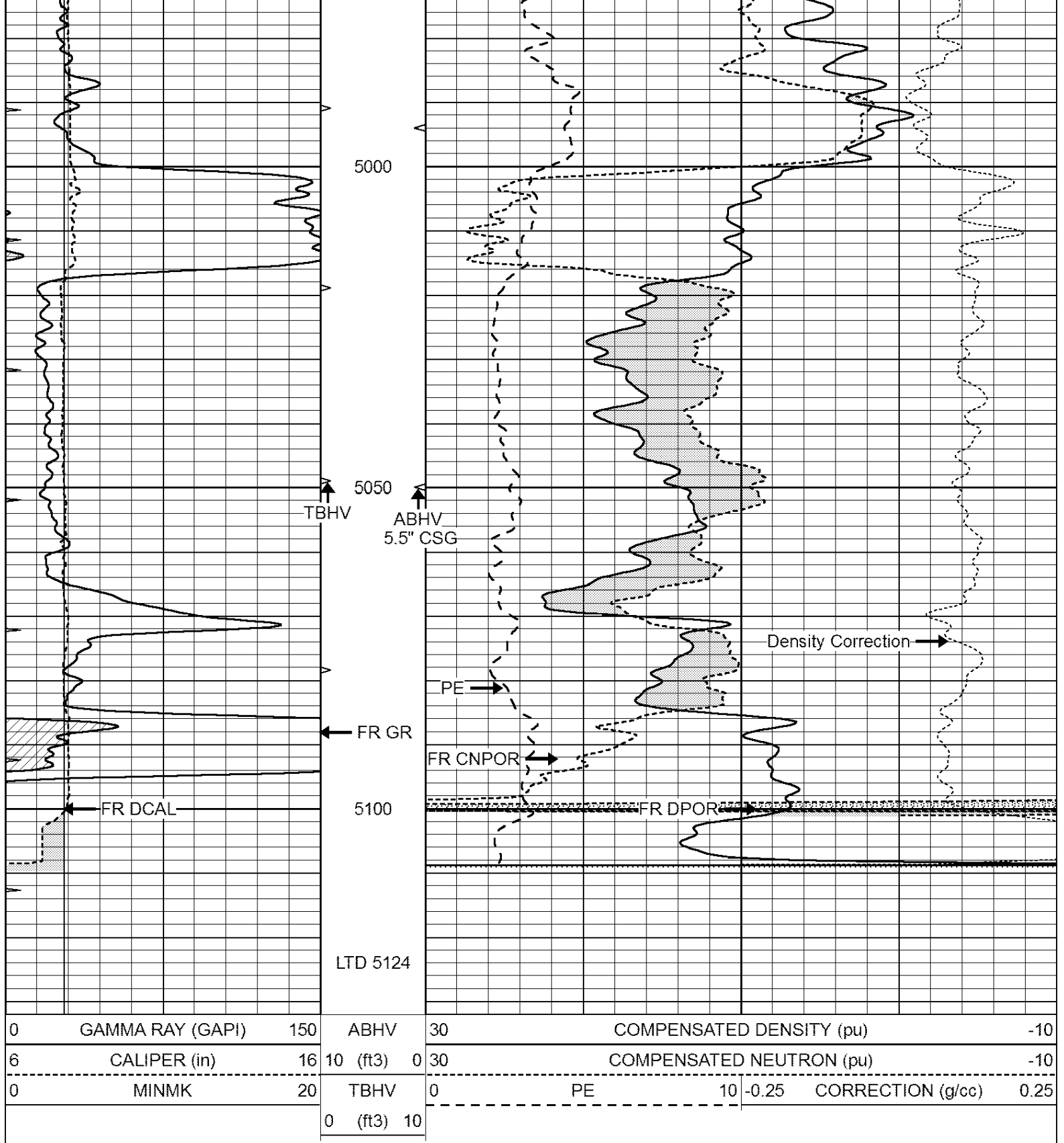








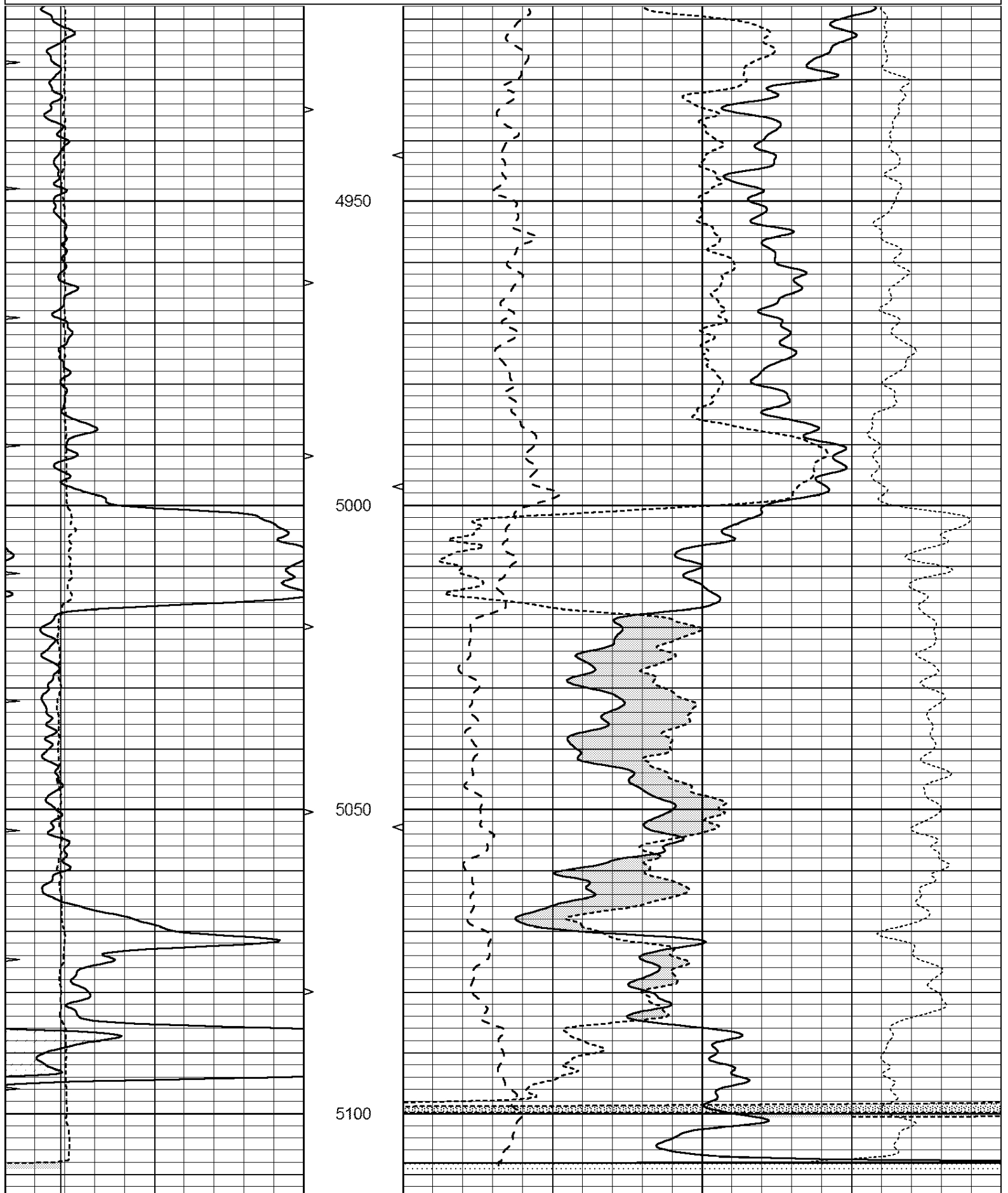




# REPEAT SECTION

Database File: 25861pe.db  
 Dataset Pathname: pass2.4  
 Presentation Format: \_ldt\_neu  
 Dataset Creation: Sat Aug 30 04:30:12 2014  
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10			
6	CALIPER (in)	16	10 (ft3)	0	30	COMPENSATED NEUTRON (pu)	-10		
0	MINMK	20	TBHV	0	PE	10	-0.25	CORRECTION (g/cc)	0.25
			0 (ft3)	10					



0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)				-10	
6	CALIPER (in)	16	10 (ft3)	0	30	COMPENSATED NEUTRON (pu)				-10
0	MINMK	20	TBHV	0	PE	10	-0.25	CORRECTION (g/cc)	0.25	
			0 (ft3)	10						

**Calibration Report**

Database File: 25861pe.db  
 Dataset Pathname: pass3.3  
 Dataset Creation: Sat Aug 30 05:25:53 2014 by Calc Open-Cased 090629

**Dual Induction Calibration Report**

Serial-Model: PROBE8-DILG  
 Surface Cal Performed: Sun Aug 17 08:09:53 2014  
 Downhole Cal Performed: Mon Jul 28 11:08:27 2008  
 After Survey Verification Performed: Mon Jul 28 11:08:27 2008

**Surface Calibration**

Loop:	Readings				References			Results	
	Air	Loop			Air	Loop		m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	620.000	-2.000	
Medium	0.029	0.796	V	0.000	464.000	mmho/m	590.000	-16.000	
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: 002 Model: PRB

**Master Calibration**

Performed Wed Feb 26 14:40:29 2014

	Background	Magnesium	Aluminum	Sandstone	
Window 1	844 3	7247 0	2284 1	7908 3	cns

Window 1	800.5	6081.1	1985.0	6521.4	cps
Window 2	688.8	3783.7	1363.3	3972.6	cps
Window 3	191.6	192.1	191.7	191.4	cps
Window 4	0.0	5280.6	1184.5	5720.9	cps
Long Space	1.1	1287.1	882.6	1385.1	cps
Short Space		1.7100	2.5900	1.3800	g/cc
Rho		0.0000	2.5700	1.5500	
Pe					

Rib Angle : 45.8 Rib Slope : 1.030 Density/Spine Ratio : 0.571  
 Spine Angle : 75.8 Spine Slope : 3.962 Spine Intercept : -19.8

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: 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

PRE-SURVEY VERIFICATION

	Detector	Readings	Measured	Target
1)	Short Space	cps		
	Long Space	cps	pu	pu
2)	Short Space	cps		
	Long Space	cps	pu	
3)	Short Space	cps		
	Long Space	cps	pu	

POST-SURVEY VERIFICATION

	Detector	Readings	Measured	Target
1)	Short Space Long Space	cps cps	pu	pu
2)	Short Space Long Space	cps cps	pu	pu
3)	Short Space Long Space	cps cps	pu	pu

Gamma Ray Calibration Report

Serial Number:	GR6	
Tool Model:	OPEN	
Performed:	Sun Aug 17 15:23:09 2014	
Calibrator Value:	150.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	276.0	cps
Sensitivity:	0.7000	GAPI/cps