



SUPERIOR
Hays,
Kansas

**COMPENSATED
DENSITY / NEUTRON
PE LOG**

Company WOOLSEY OPERATING CO. LLC.
Well WECKWORTH #1
Field HARDTNER
County BARBER
State KANSAS

Company WOOLSEY OPERATING COMPANY, LLC.
Well WECKWORTH #1
Field HARDTNER
County BARBER State KANSAS

Location: API #: 15-007-23476-0000
2310' FSL & 1650' FWL
NW - NE - SW
SEC 9 TWP 35S RGE 12W
Permanent Datum GROUND LEVEL Elevation 1417
Log Measured From KELLY BUSHING 9' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
DIL
Elevation
K.B. 1426
D.F. 1424
G.L. 1417

Date	12/1/09		
Run Number	ONE		
Depth Driller	5507		
Depth Logger	5510		
Bottom Logged Interval	5486		
Top Log Interval	1800		
Casing Driller	10 3/4"@219'		
Casing Logger	220		
Bit Size	7 7/8		
Type Fluid In Hole	CHEMICAL MUD	CHLORIDES 2,000 PPM	
Density / Viscosity	9.2/55		
pH / Fluid Loss	10.5/9.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.870@74F		
Rmf @ Meas. Temp	.653@74F		
Rmc @ Meas. Temp	1.04@74F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.495@130F		
Time Circulation Stopped	3 HOURS		
Time Logger on Bottom	1:00 A.M.		
Maximum Recorded Temperature	130F		
Equipment Number	0836		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	CURTIS COVEY		

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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

THANK YOU FOR USING SUPERIOR WELL SERVICE HAYS, KANSAS (785) 628-6395
DIRECTIONS
HARDTNER, KS. 1/2 E. ON HWY, S. INTO@CATTLE GUARD

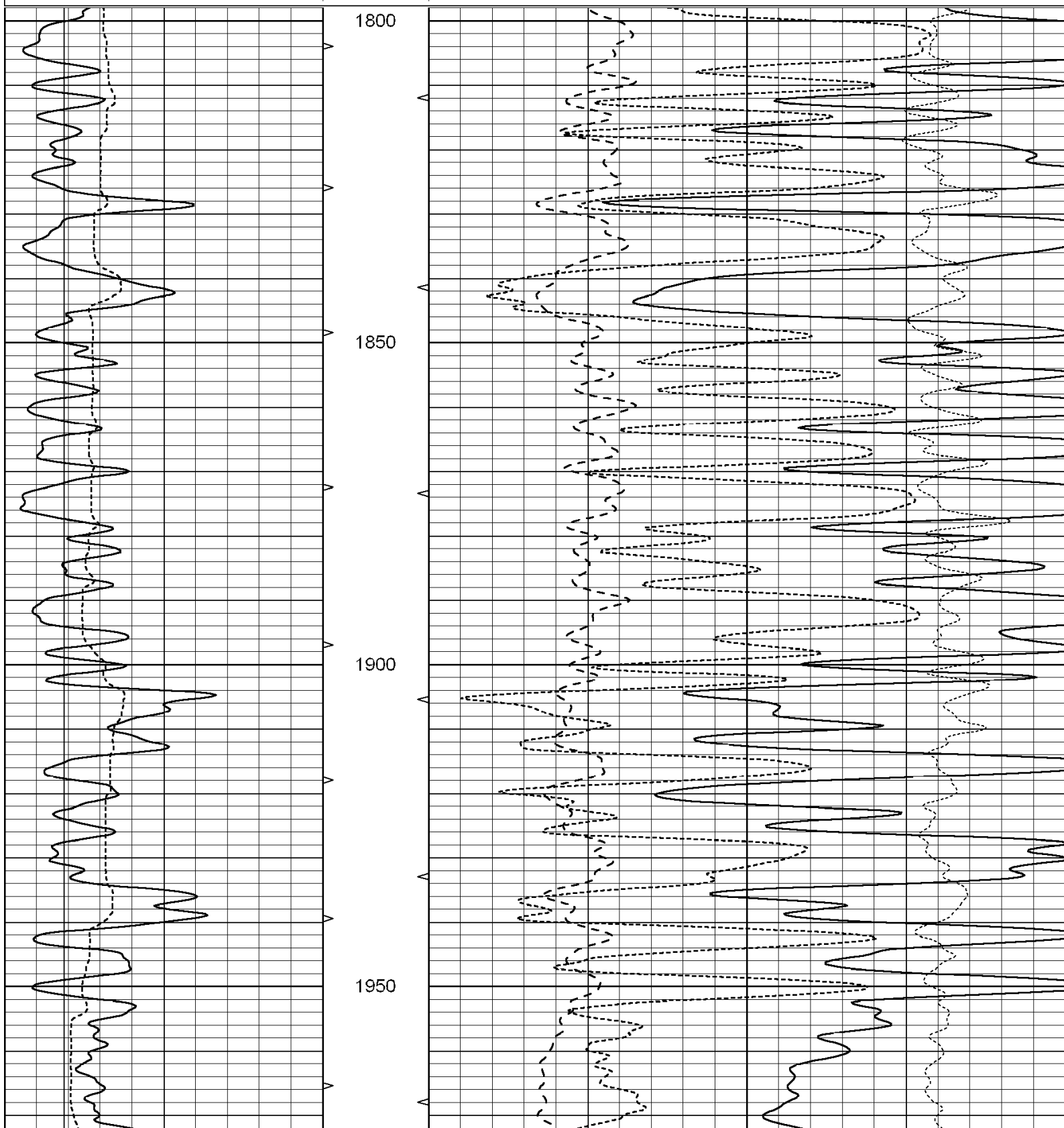


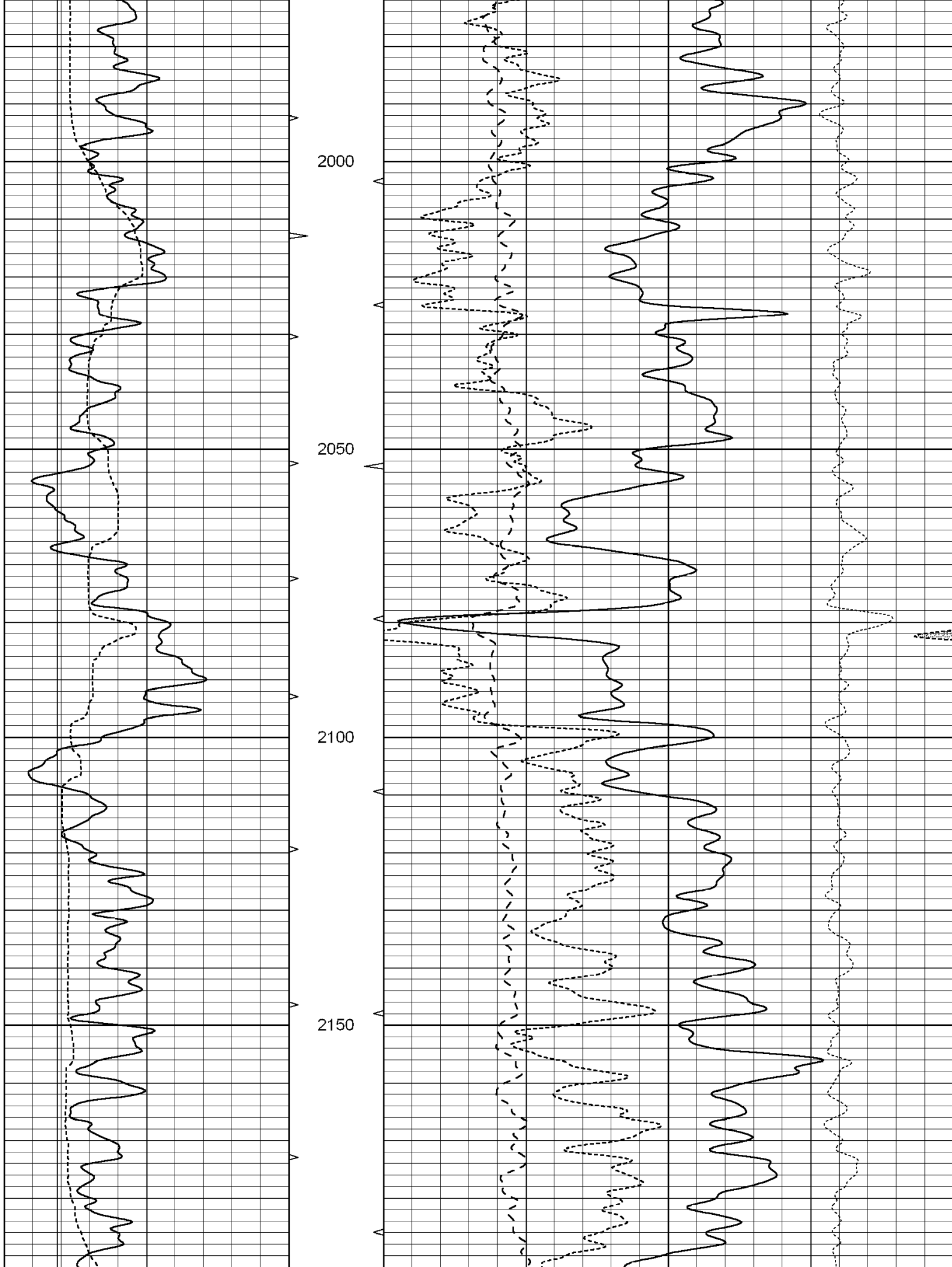
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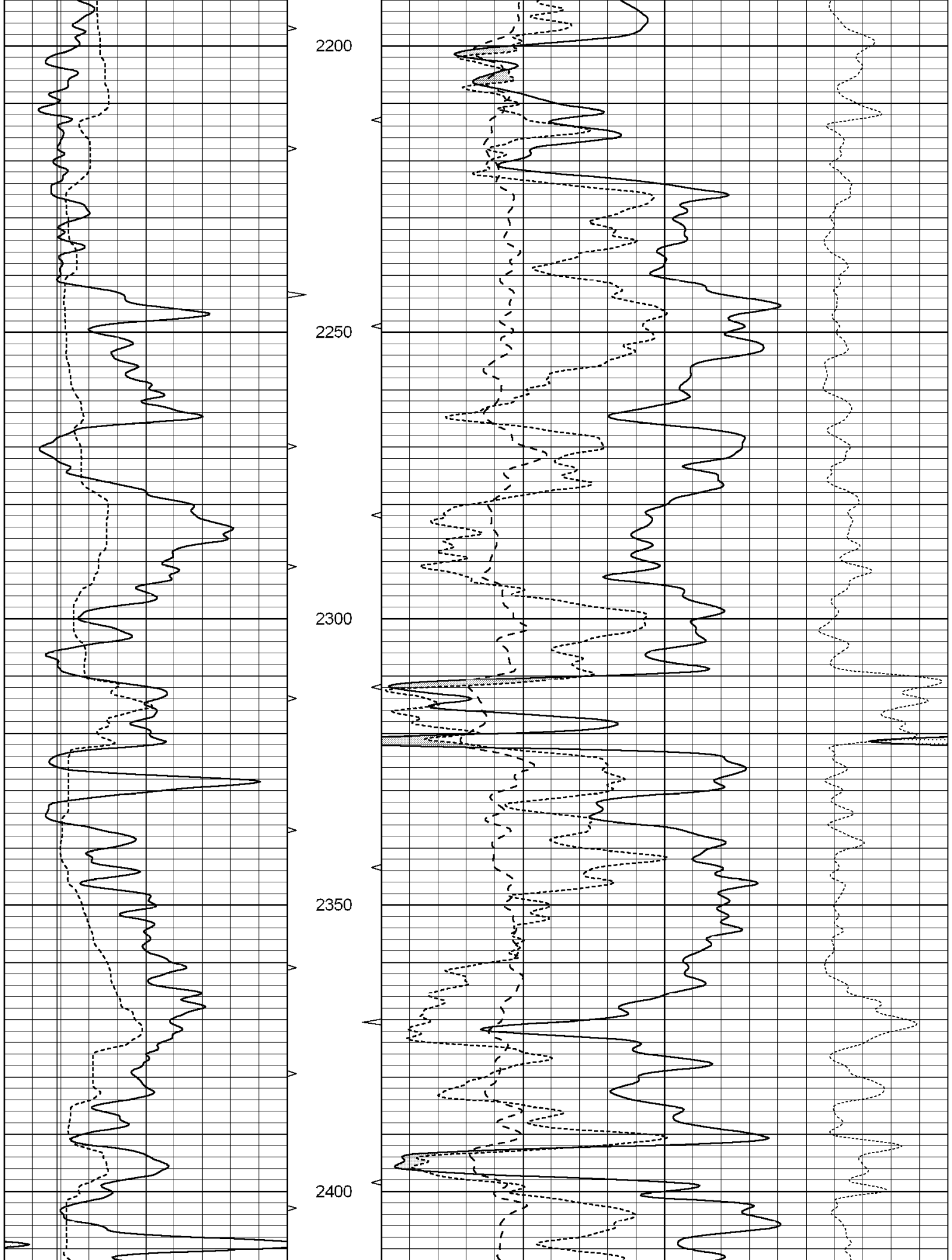
MAIN SECTION

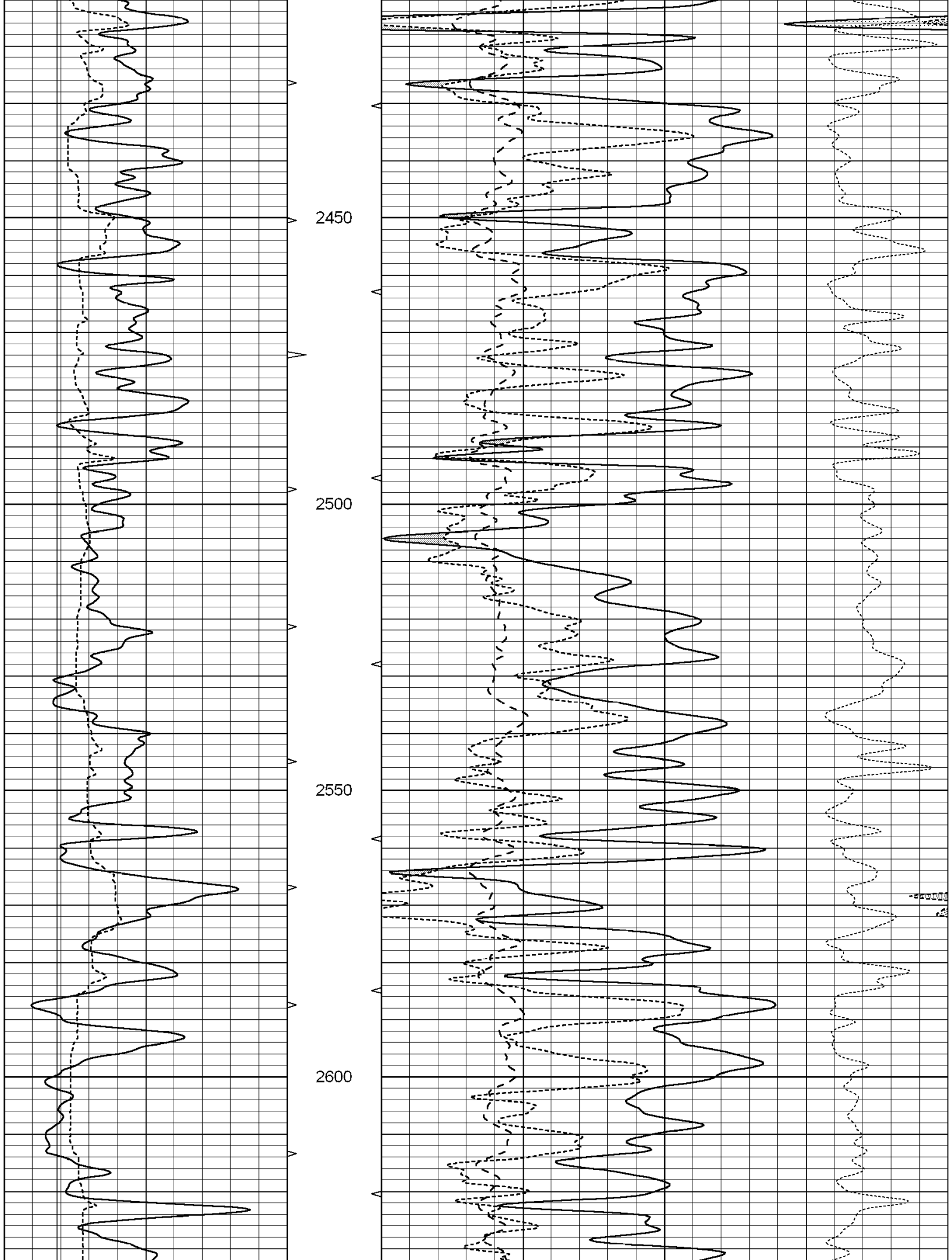
Database File: 004378pe.db
 Dataset Pathname: pass3.8
 Presentation Format: ldt_neu
 Dataset Creation: Wed Dec 02 03:08:07 2009 by Calc Open-Cased 060407
 Charted by: Depth in Feet scaled 1:240

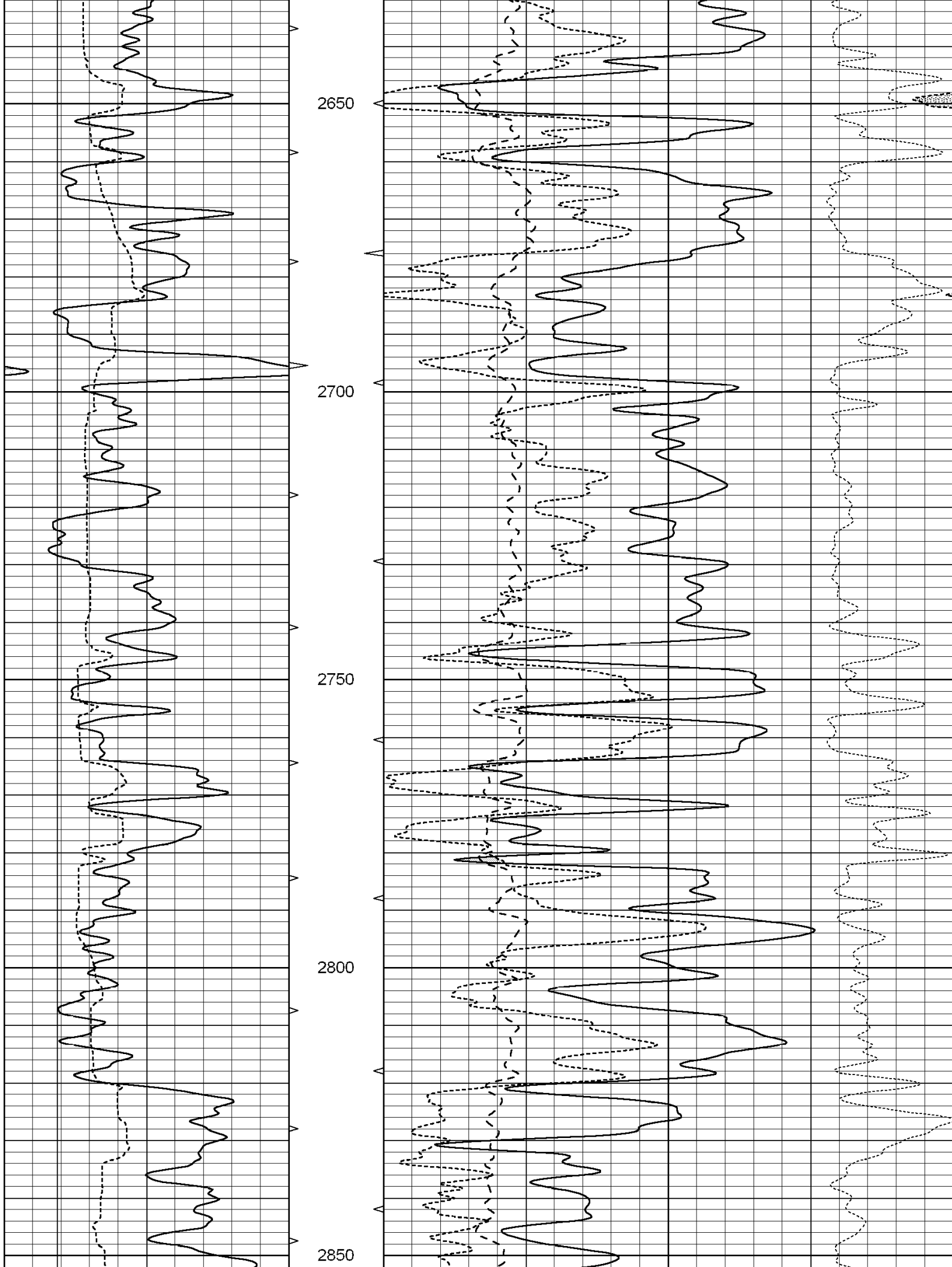
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)		-10
6	CALIPER (in)	16	10 (ft3)	0	COMPENSATED NEUTRON (pu)		-10
			TBHV	0	PE	10	-0.25 CORRECTION (g/cc) 0.25
			0 (ft3)	10			

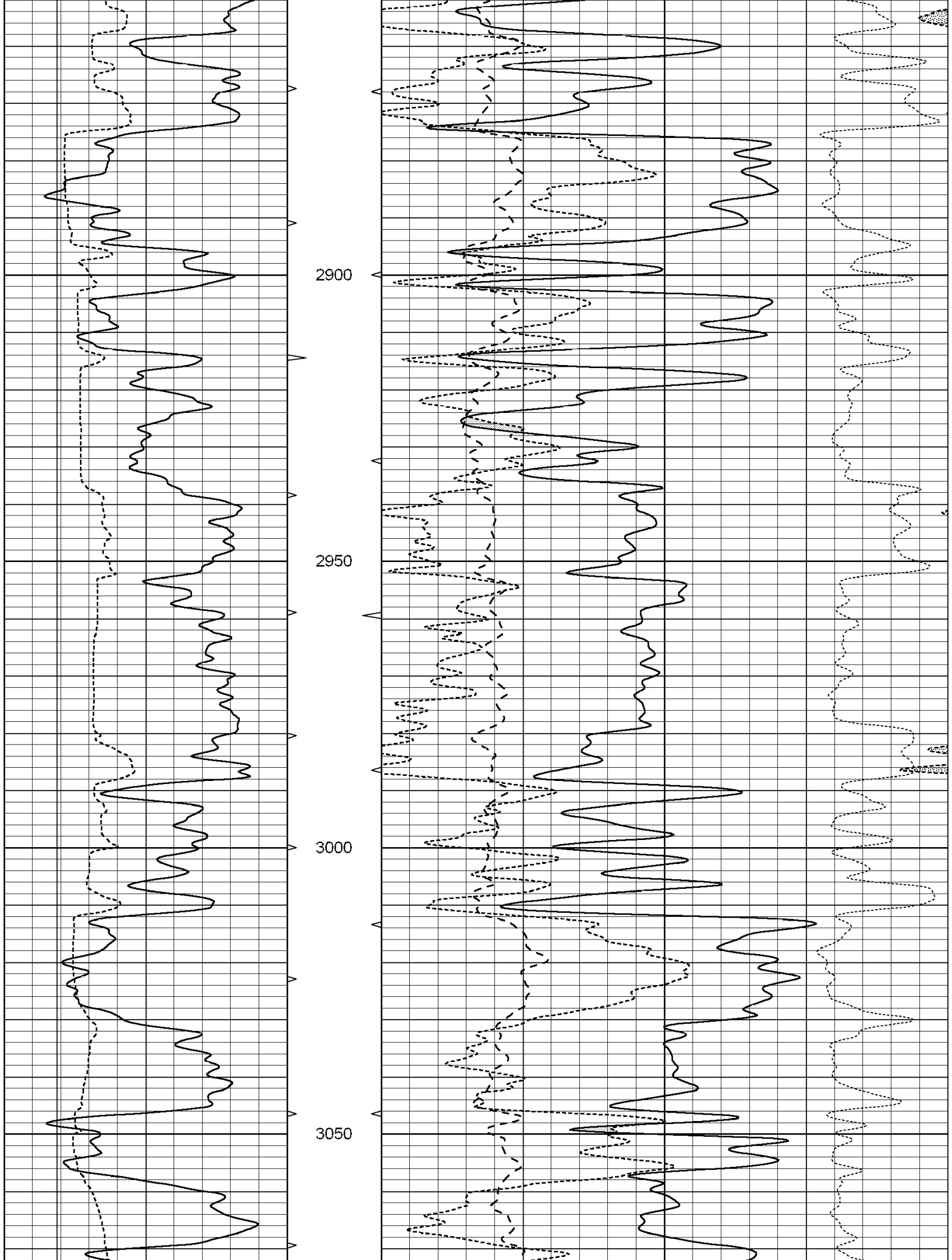


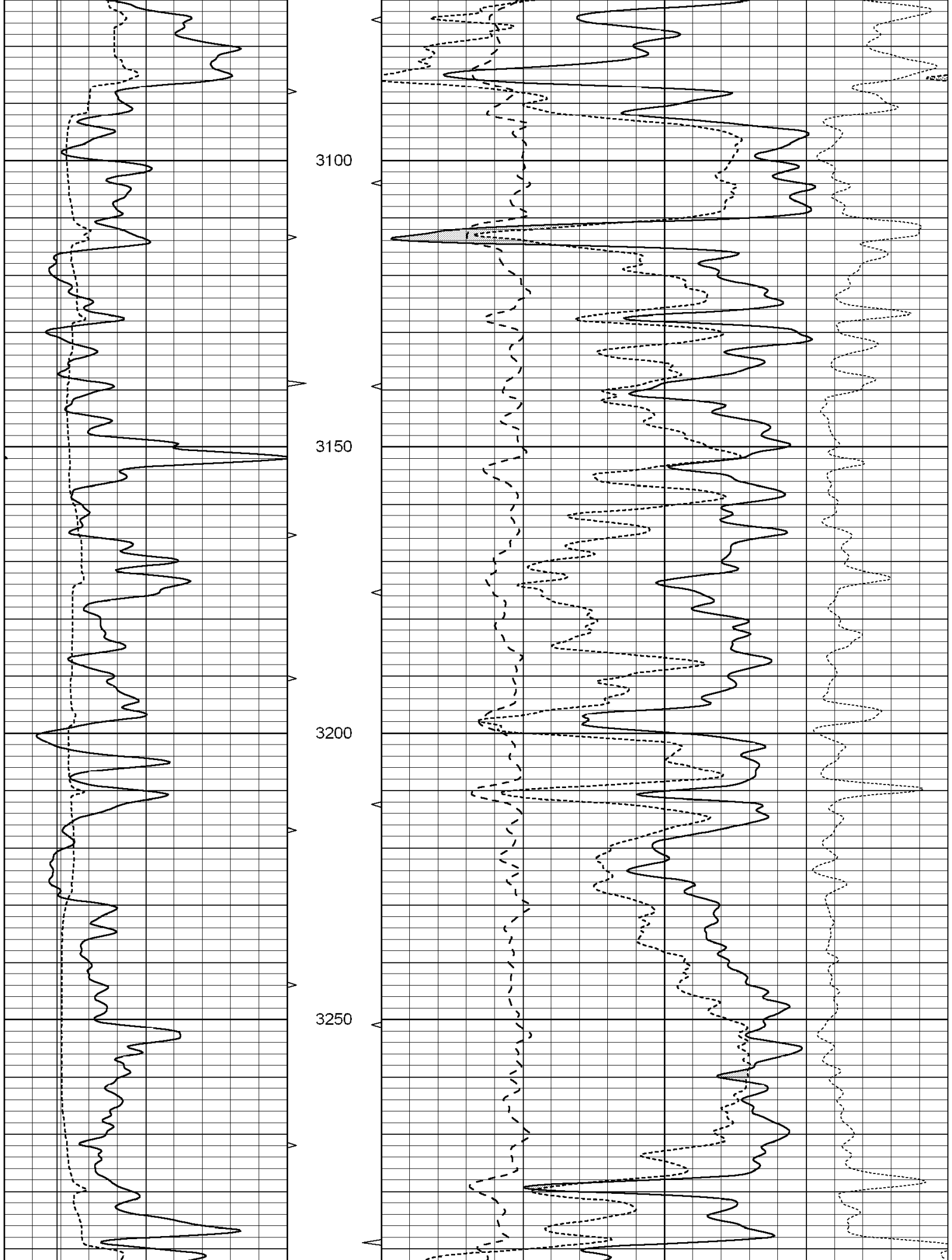


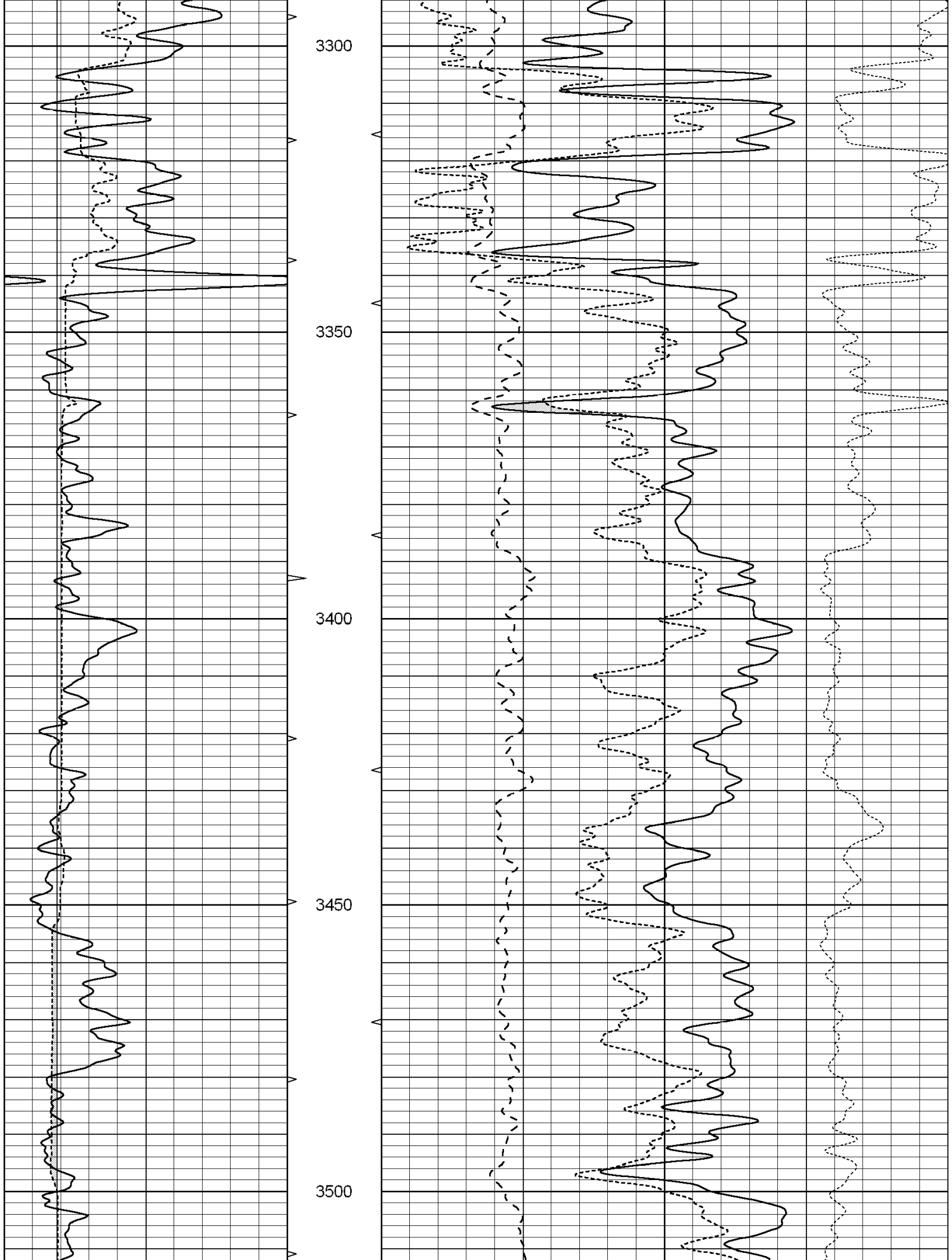


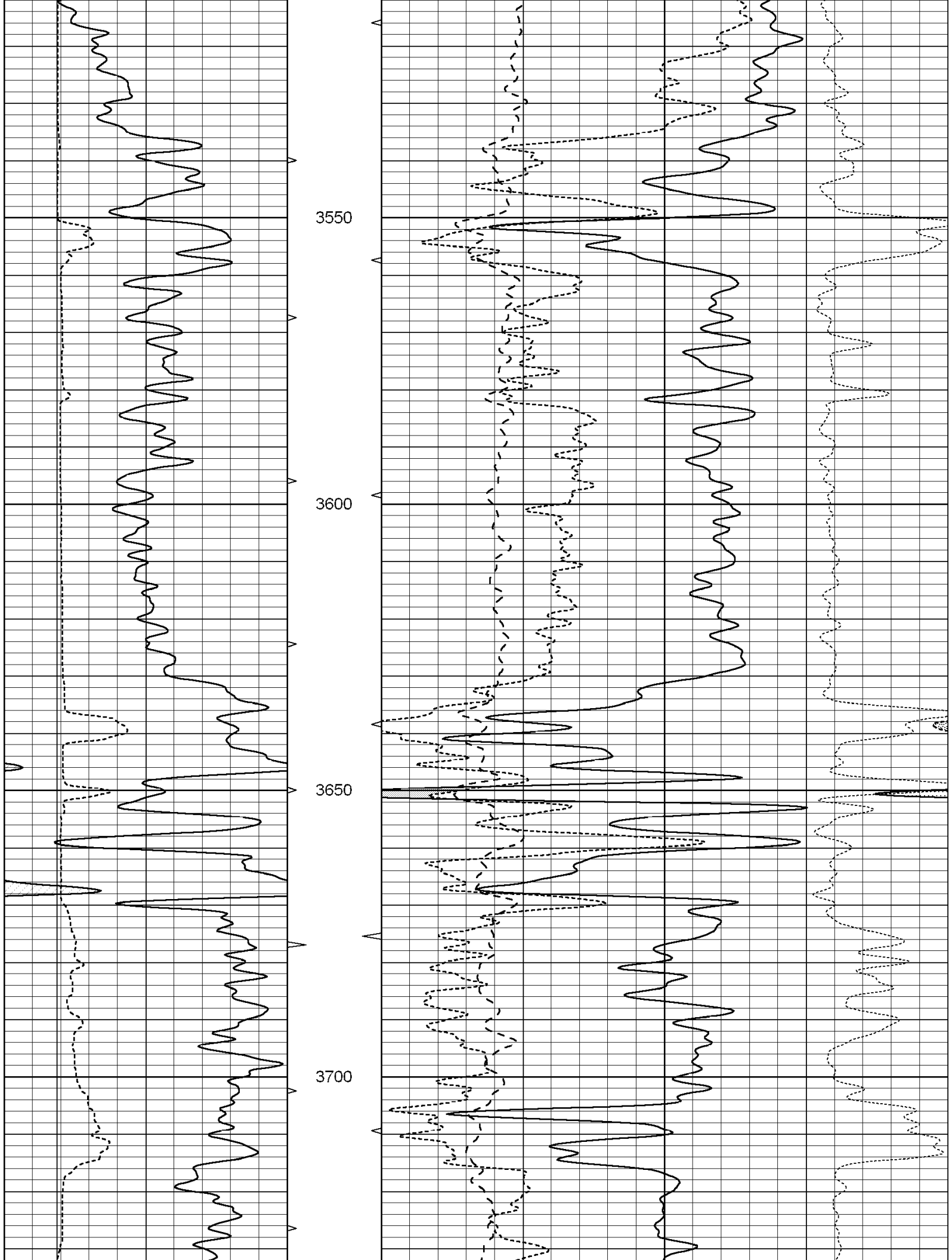


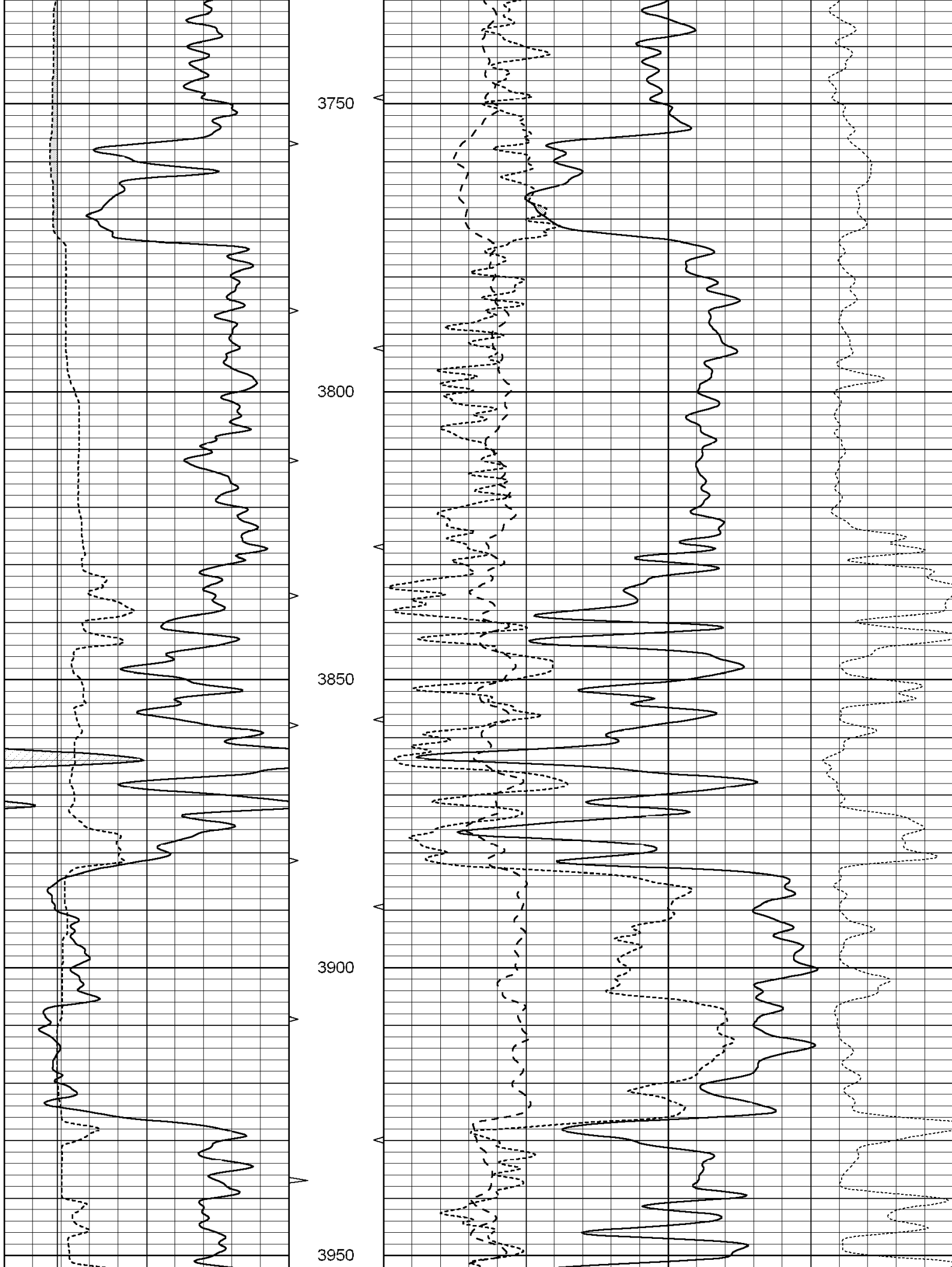


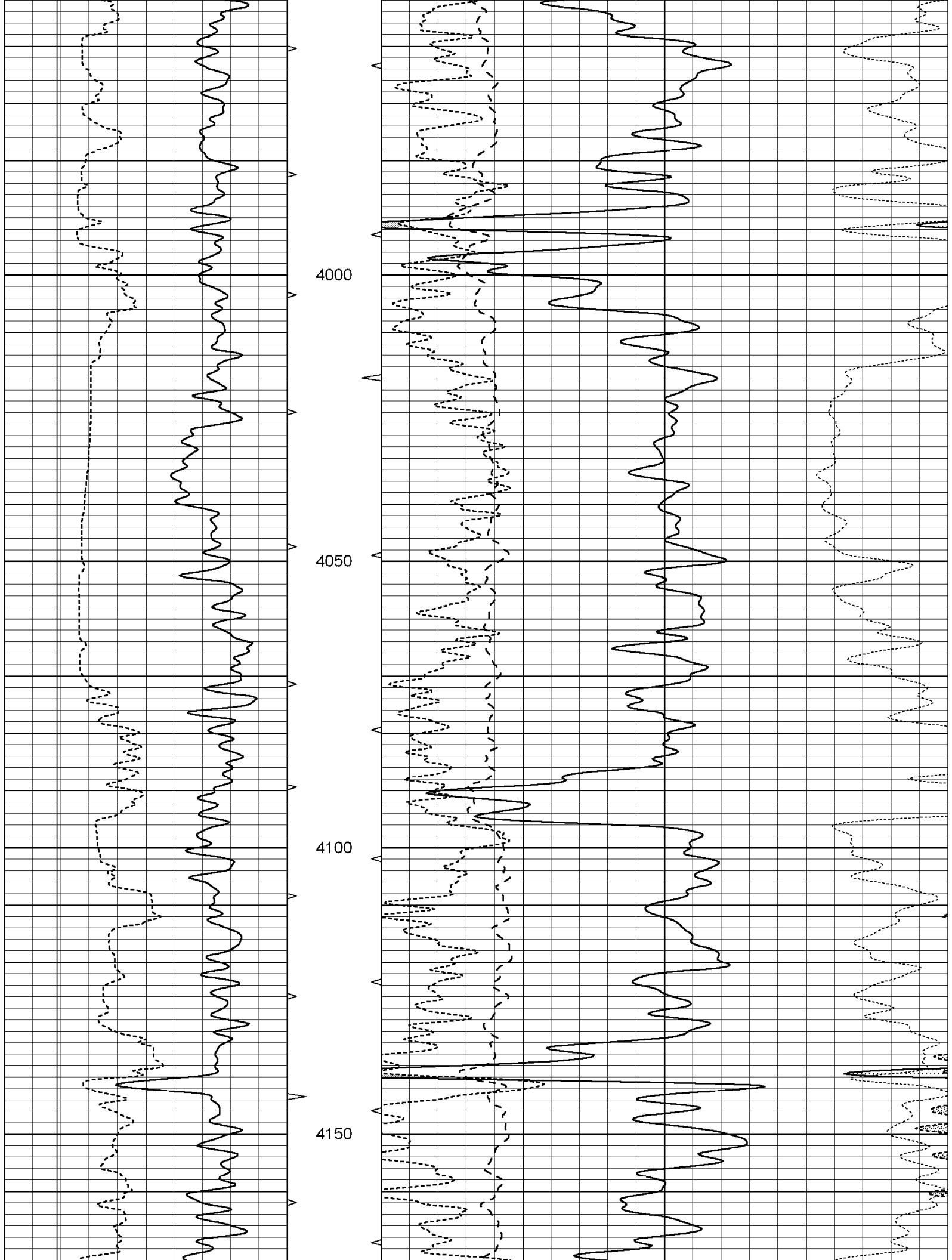


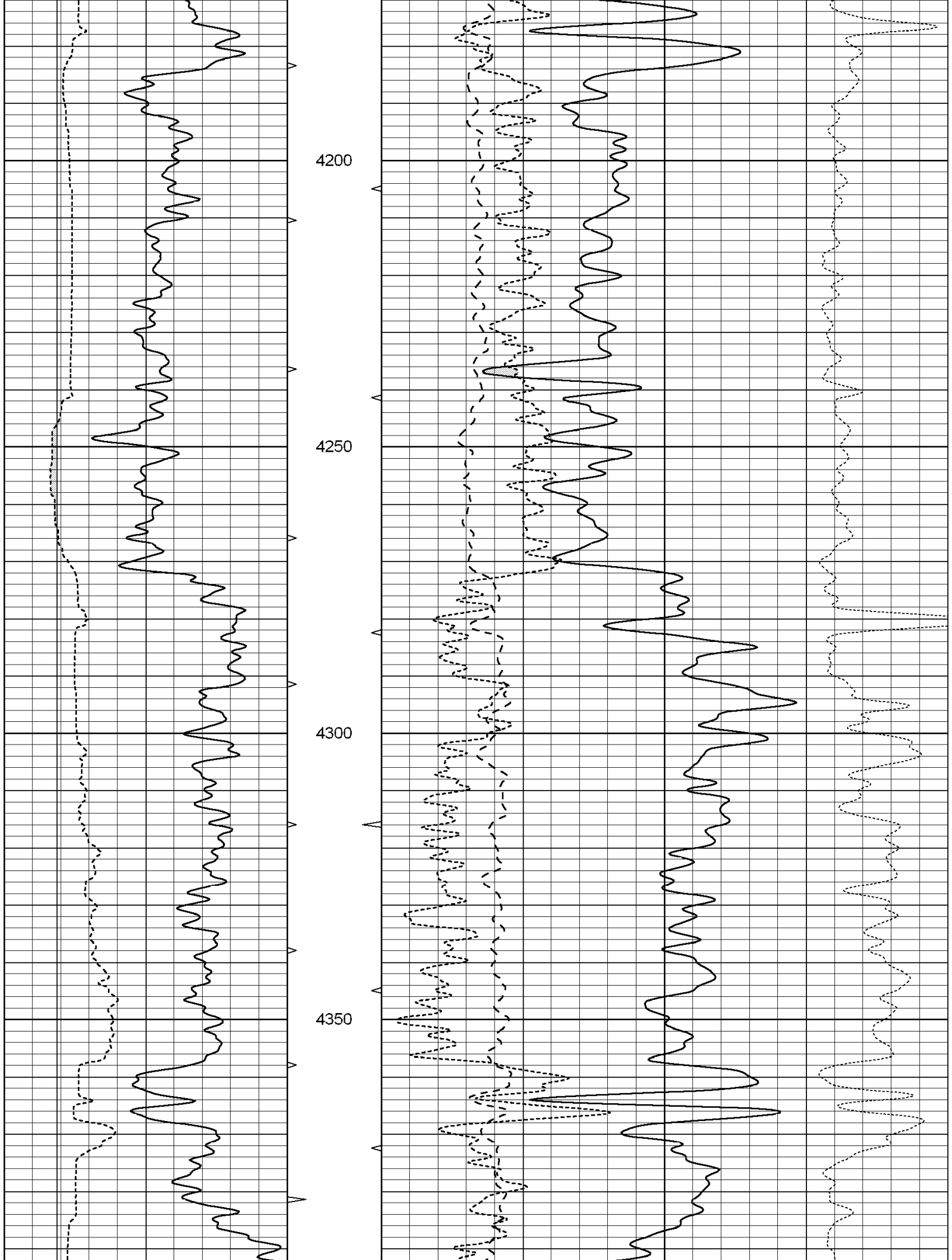


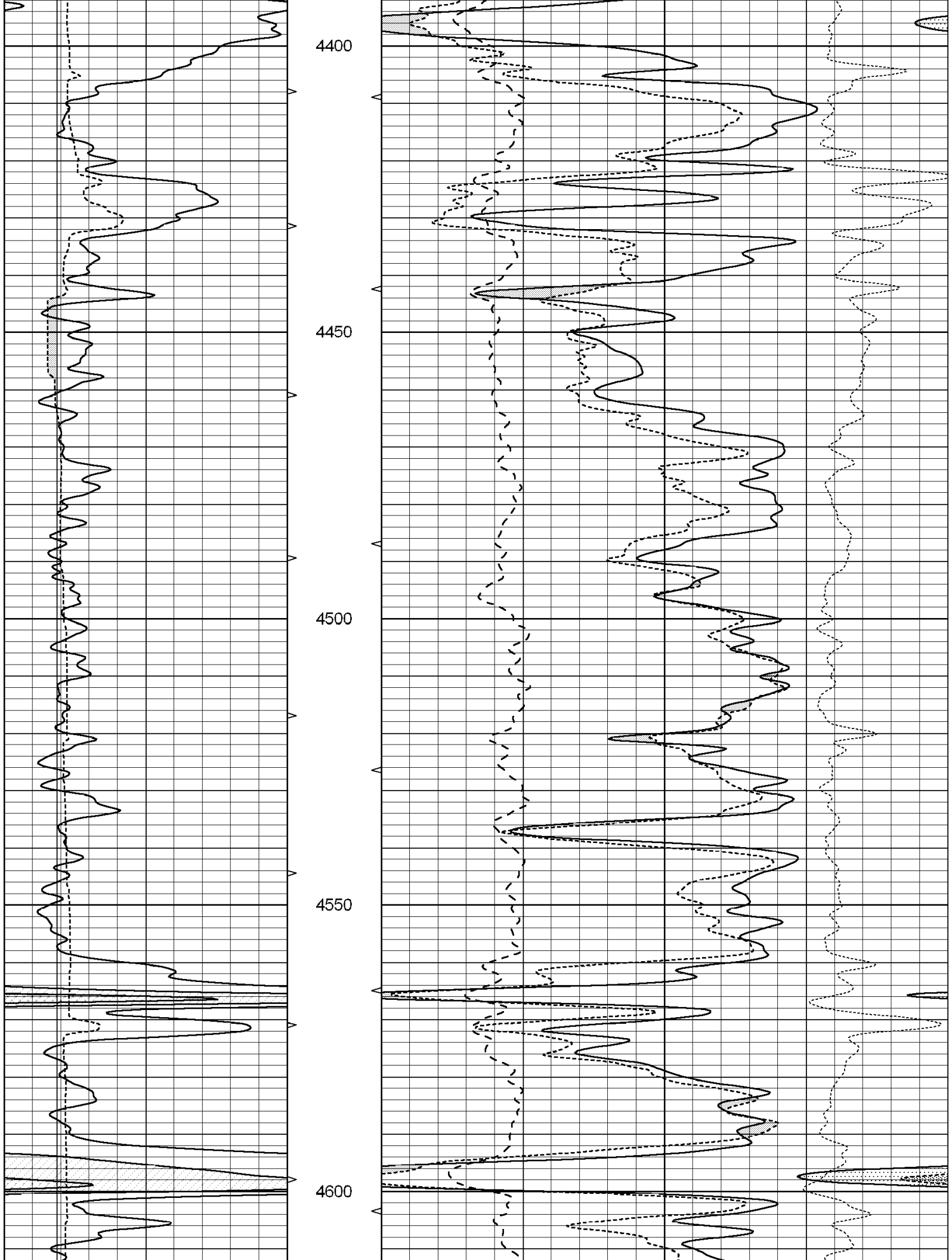


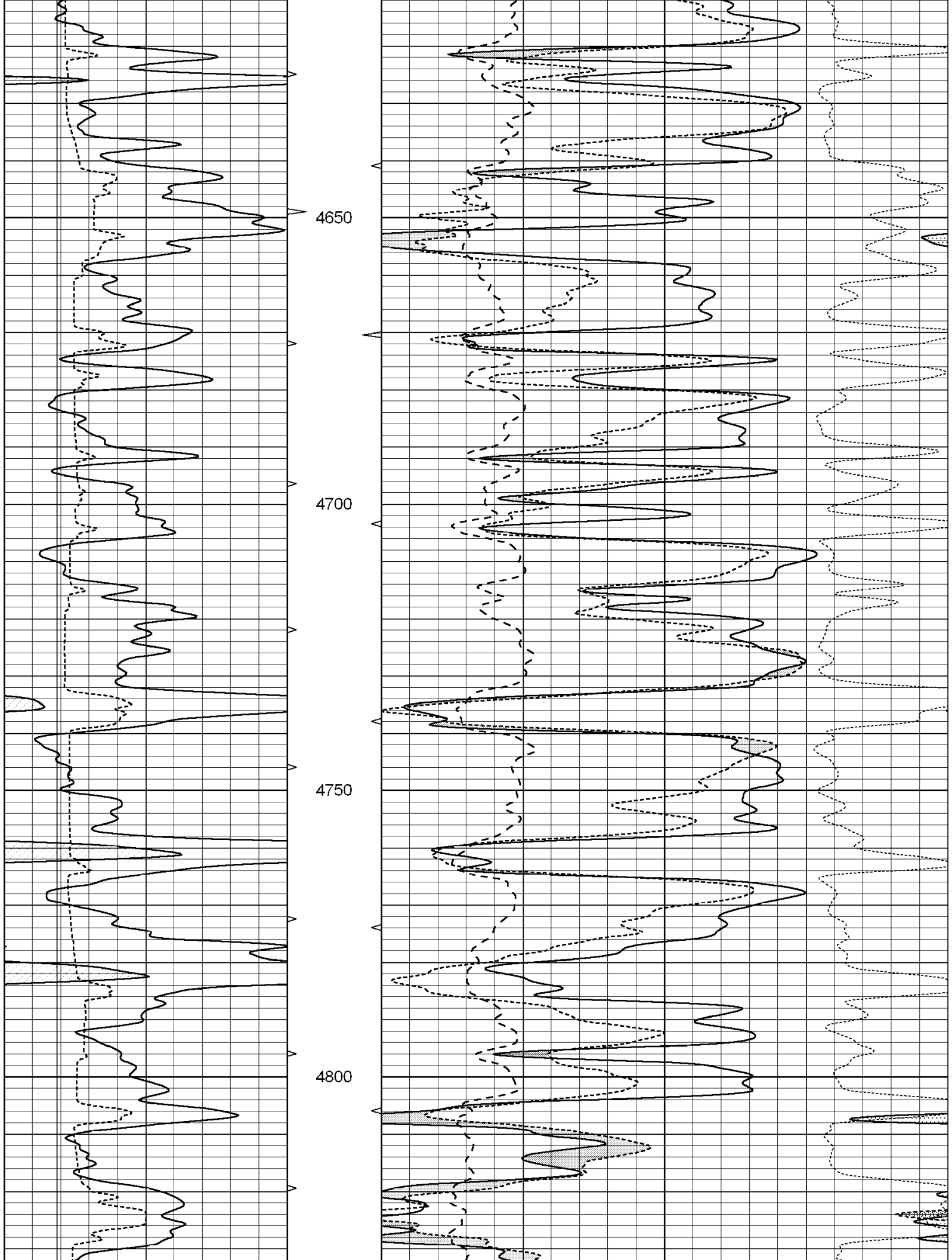


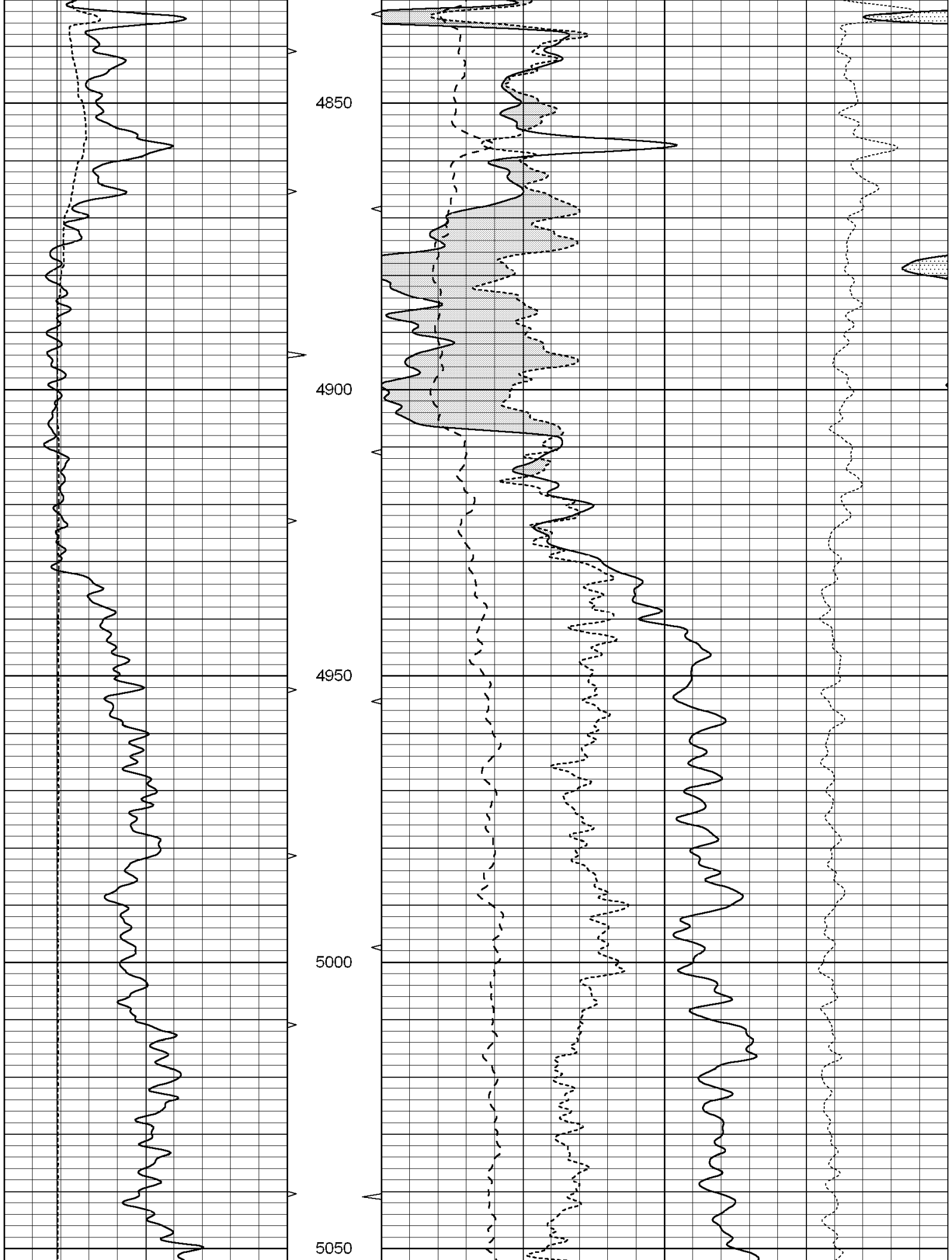


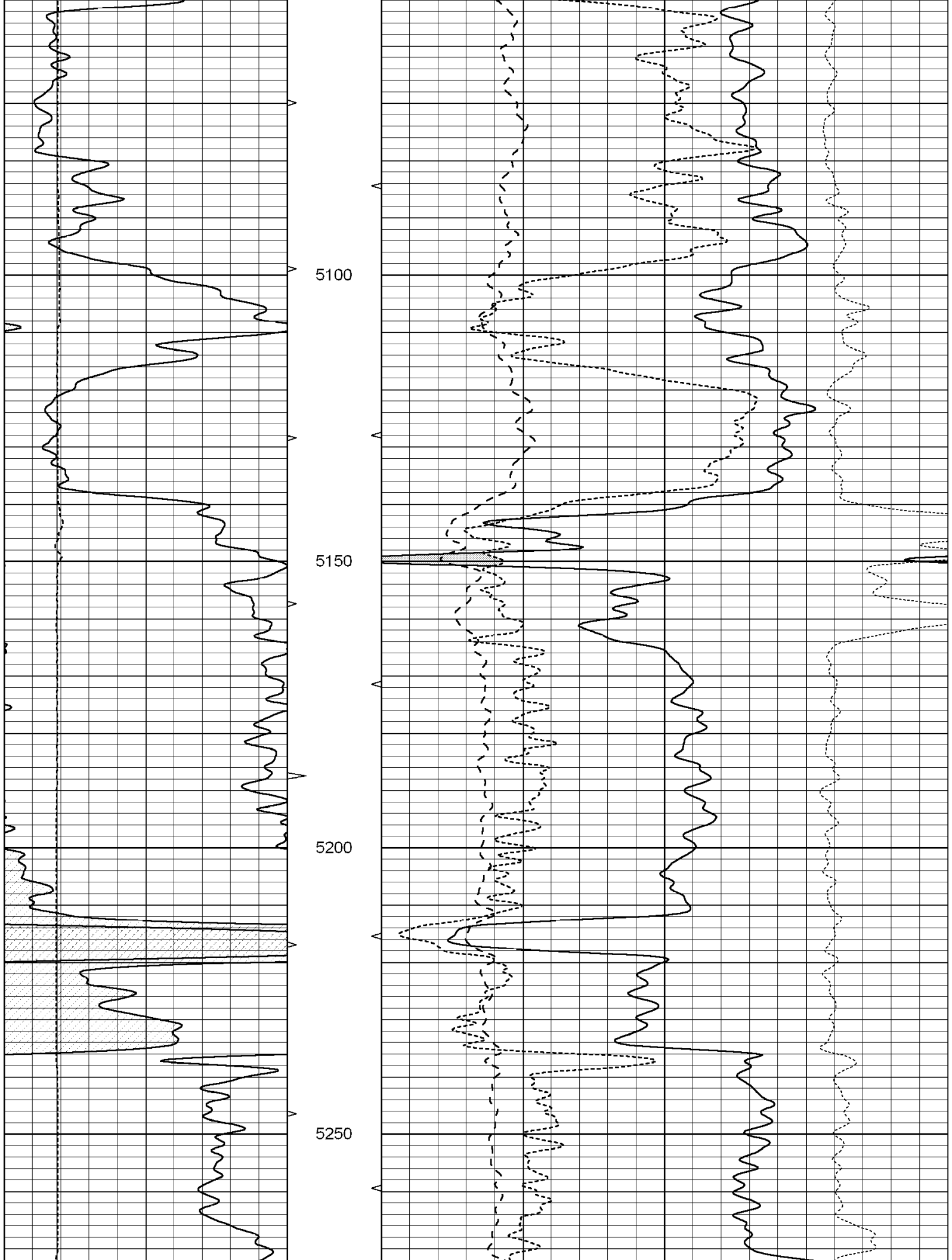


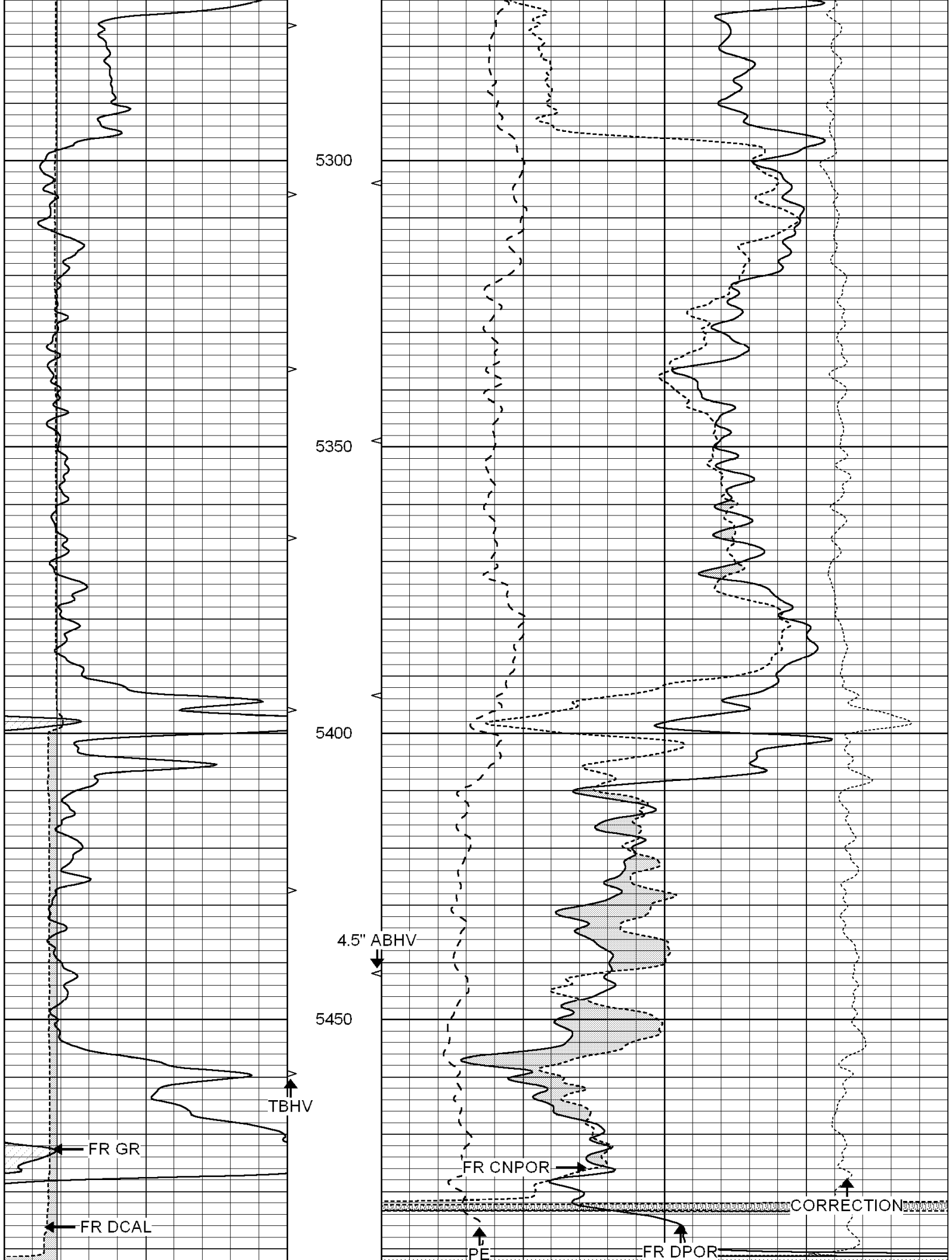


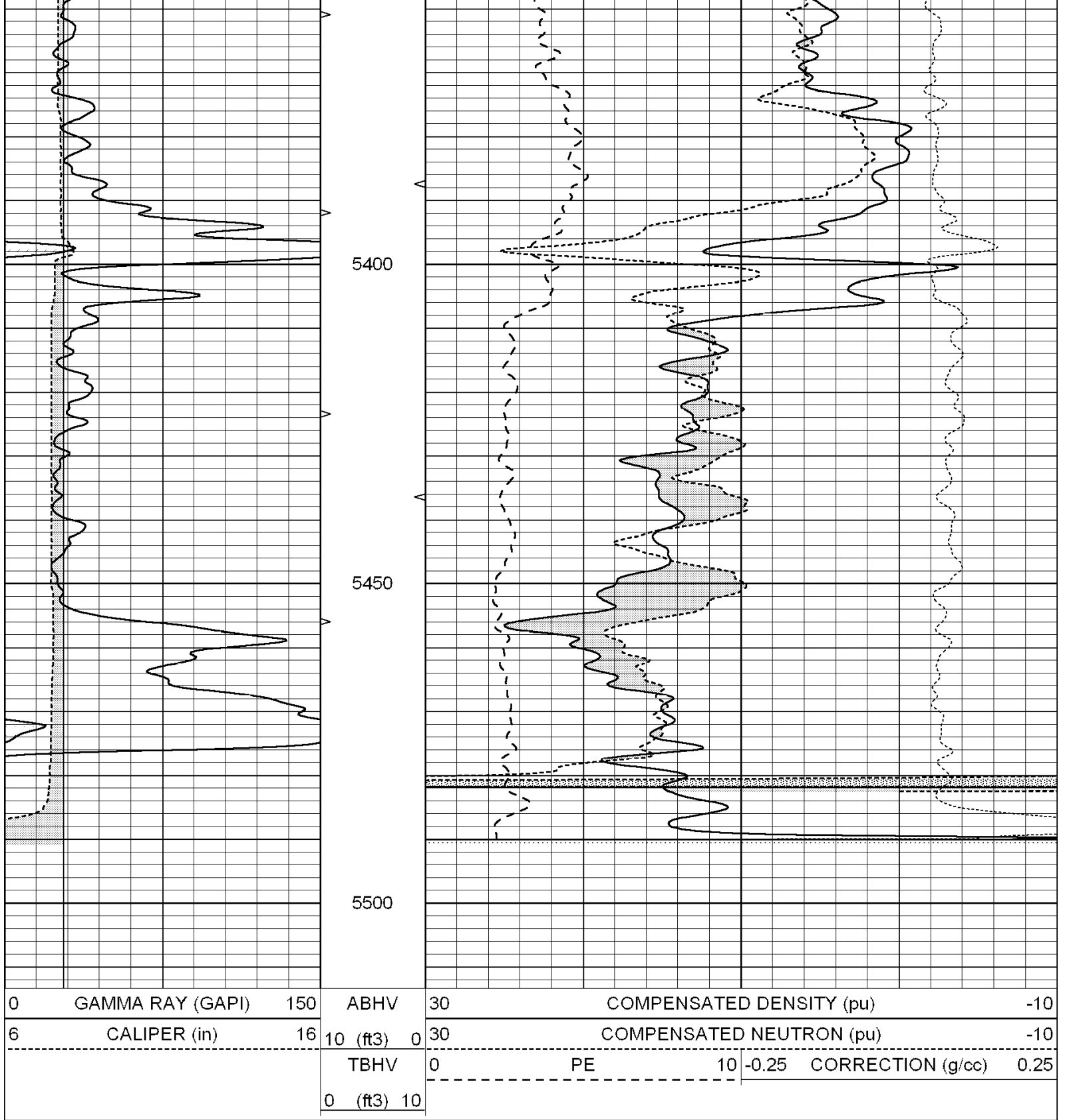












Calibration Report

Database File: 004378pe.db
 Dataset Pathname: pass3.8
 Dataset Creation: Wed Dec 02 03:08:07 2009 by Calc Open-Cased 060407

Dual Induction Calibration Report

Serial-Model: DIL3-GEAR
 Performed: Wed Dec 02 01:07:51 2009

Readings

References

Results

Loop:	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	0.000	400.000	mmho-m	640.000	-4.000
Medium	0.013	0.740	V	0.000	462.500	mmho-m	700.000	-13.000
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: 003N Model: PRB
Performed Tue Sep 08 14:14:44 2009

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	2042.6	12312.8	4225.8	13758.4	cps
Window 2	1855.8	10134.7	3624.2	11113.1	cps
Window 3	1639.4	6760.2	2716.3	7260.3	cps
Window 4	466.4	469.2	466.1	476.5	cps
Long Space	0.0	8278.9	1768.4	9257.4	cps
Short Space	2.2	2377.3	1544.1	2574.2	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	
Rib Angle	: 44.4	Rib Slope	: 0.979	Density/Spine Ratio	: 0.549
Spine Angle	: 74.4	Spine Slope	: 3.577	Spine Intercept	: -18.8

Caliper

	Readings	Reference	
Low Ref	1.8	7.3	
High Ref	4.2	14.0	
	Gain: 2.8		Offset: 2.2

Compensated Neutron Calibration Report

Serial Number: NEU_3I
Tool Model: G

CALIBRATION

Detector	Readings	Target	Normalization
Short Space	997.00 cps	1000.00 cps	1.0000
Long Space	986.00 cps	1000.00 cps	1.0000

Gamma Ray Calibration Report

Serial Number: GR3
Tool Model: OPEN
Performed: Wed Dec 02 00:45:17 2009

Calibrator Value: 200.0 GAPI

Background Reading: 3.0 cps
Calibrator Reading: 186.0 cps

Sensitivity: 0.5500 GAPI/cps