SUPERIOR WELL SERVICES

SUPERIOR
Hays,
Kansas

COMPENSATED NEUTRON / DENSITY PE LOG

Company ATLAS OPERATING, LLC.
Well HOBBSIEFKIN #2-11
Field FALL CREEK
County SUMNER State KANSAS
Location: API # : 15-191-22651-0000
2270' FSL & 1315' FWL
SE - NE - NW - SW
SEC 3 TWP 35S RGE 3W

Company ATLAS OPERATING, LLC.
Well HOBBSIEFKIN #2-11
Field FALL CREEK
County SUMNER State KANSAS

Permanent Datum	GROUND LEVEL
Elevation	1139
Log Measured From	KELLY BUSHING 10' A.G.L.
Drilling Measured From	KELLY BUSHING

Other Services: DIL/MEL

Elevation: K.B. 1149, D.F. 1147, G.L. 1139

Date	5/29/12		
Run Number	ONE		
Depth Driller	4990		
Depth Logger	4990		
Bottom Logged Interval	4966		
Top Log Interval	2100		
Casing Driller	8 5/8" @ 393		
Casing Logger	391		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.6/58	CHLORIDES 12,000 PPM	
pH / Fluid Loss	9.0/20.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.32 @ 100F		
Rmf @ Meas. Temp	0.24 @ 100F		
Rmc @ Meas. Temp	0.38 @ 100F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	0.26 @ 125F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	125F		
Equipment Number	680		
Location	HAYS, KS.		
Recorded By	JEFF GRONEWEG		
Witnessed By	SAMAN SHARIFAIE	PAT DEENIHAN	

<<< 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.

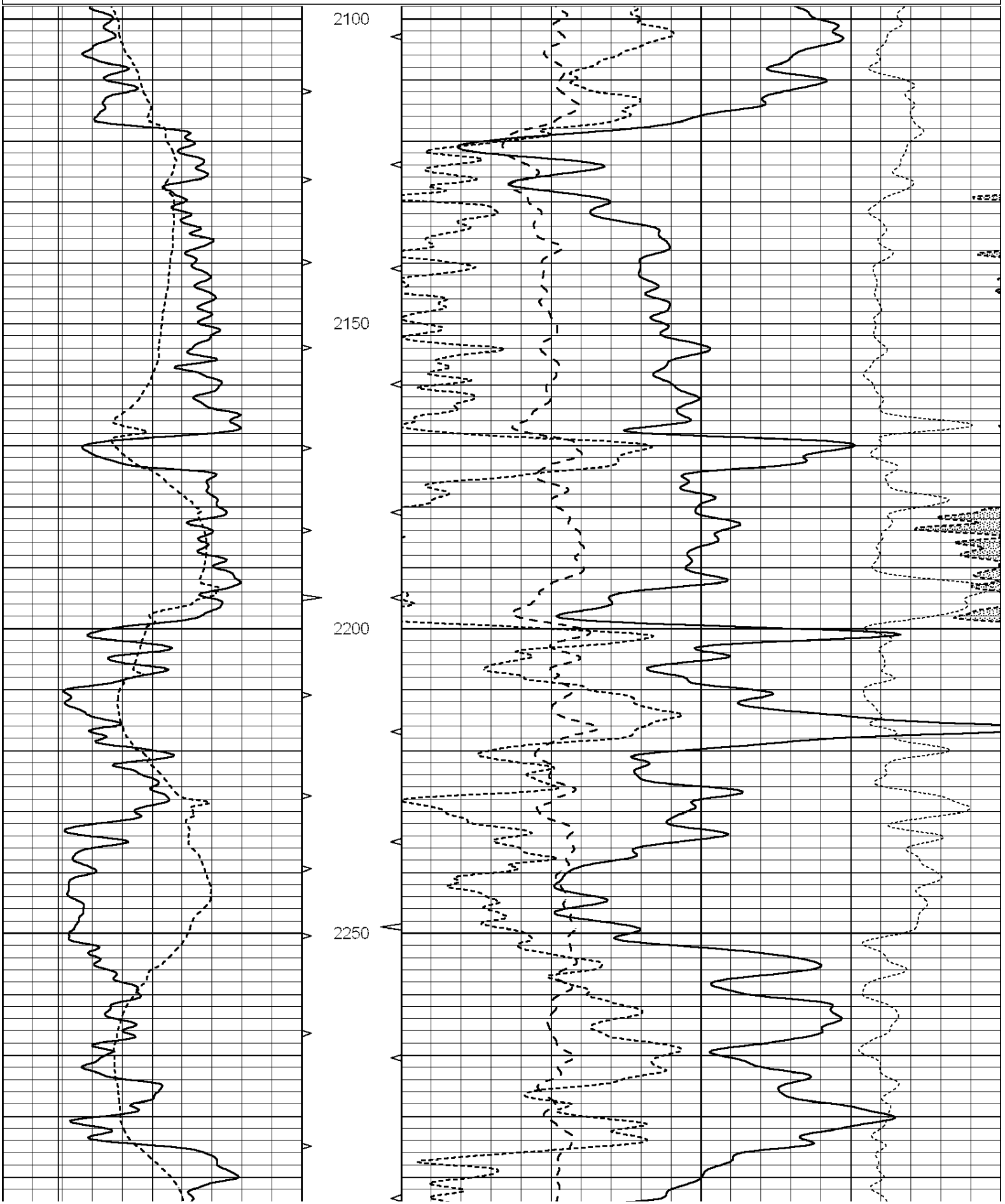
Comments

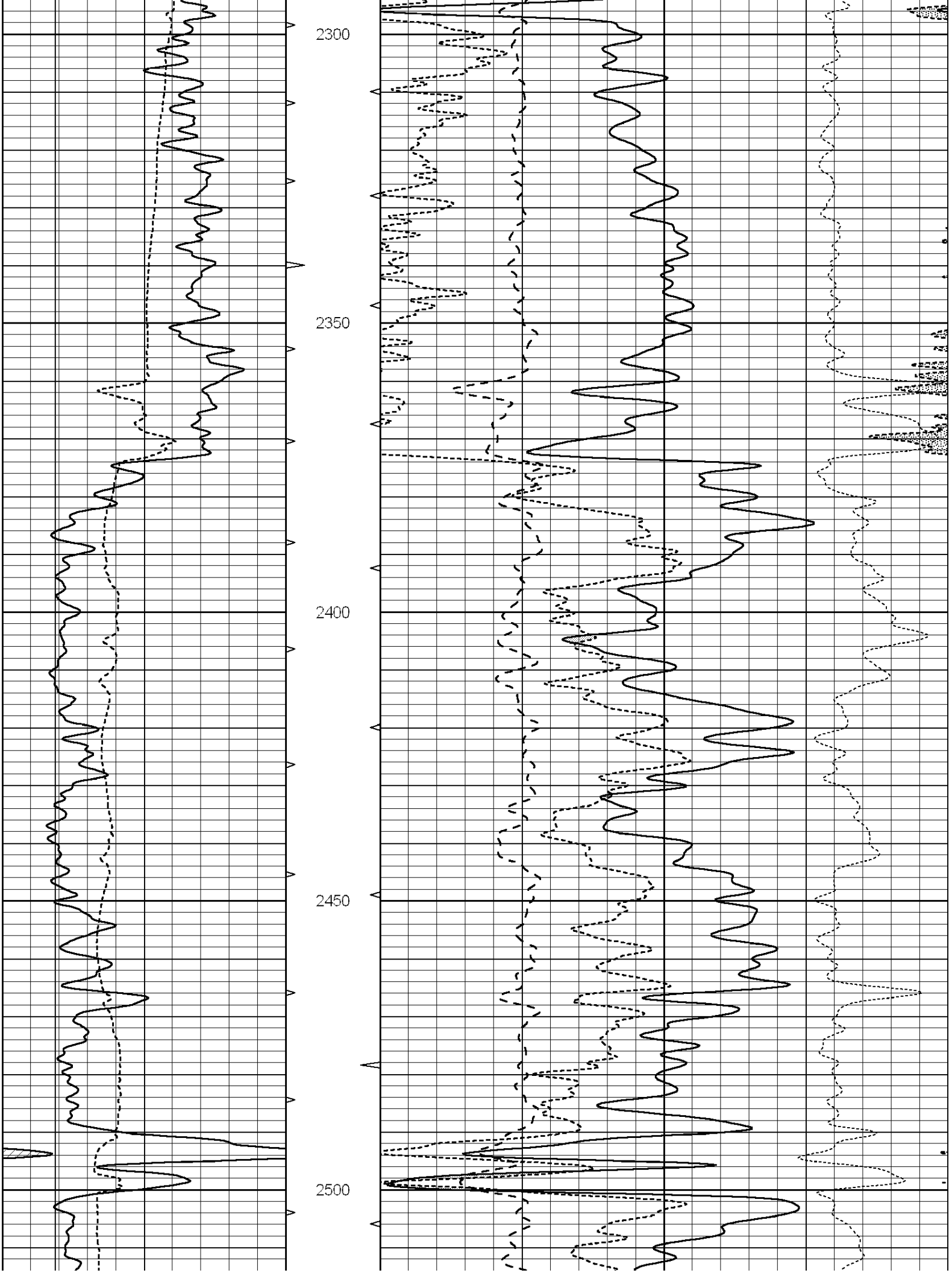
THANK YOU FOR USING SUPERIOR WELL SERVICE (785) 628-6395
DIRECTIONS
CALDWELL, KS INTERESCTION HWY 49 & 81 - 4 BLOCKS NORTH TO AVE E
1 MILE WEST FROM WEST EDGE OF TOWN - SOUTH INTO

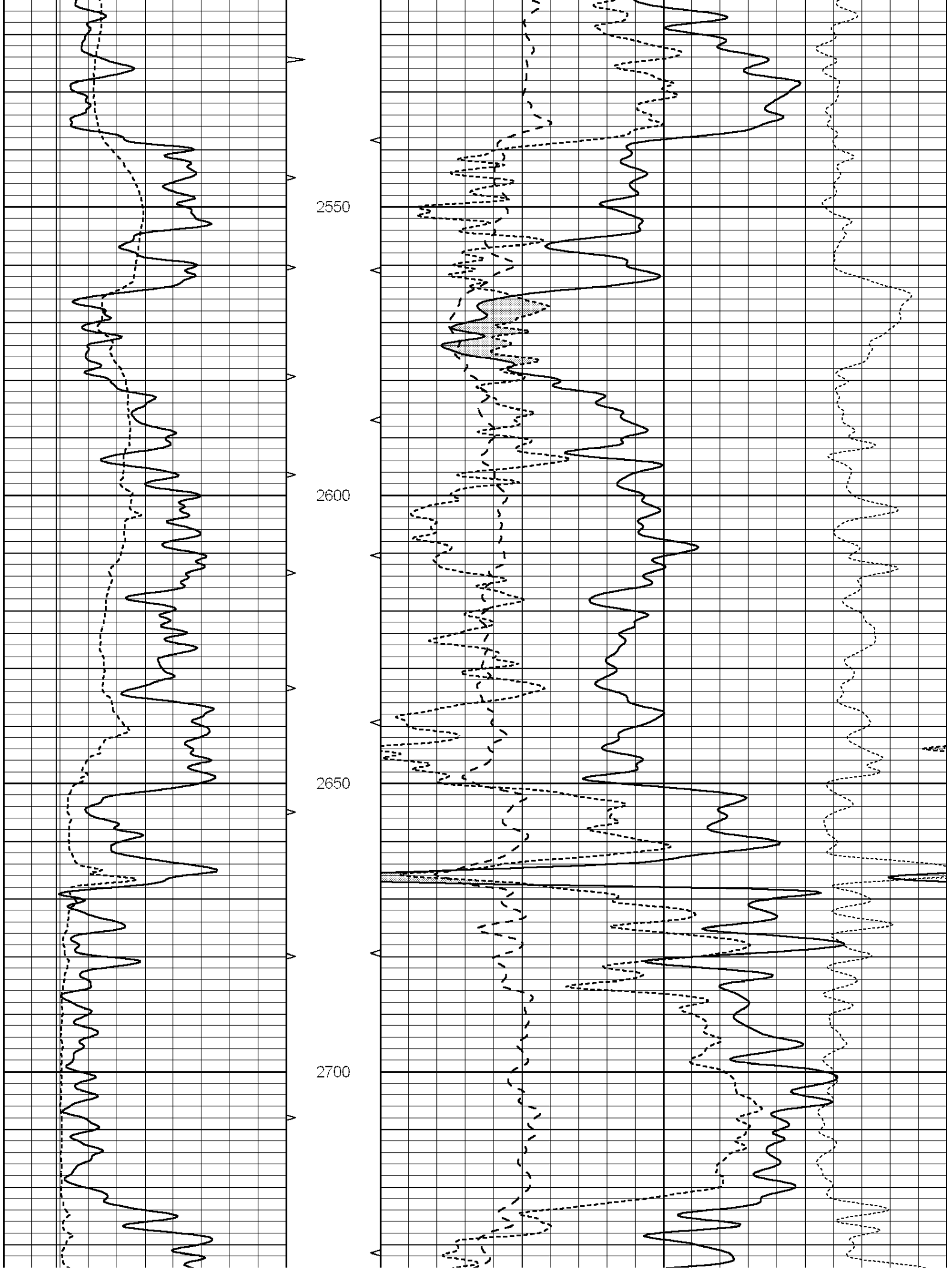
Database File:	009209pe.db
Dataset Pathname:	pass4.3
Presentation Format:	_ldt_neu
Dataset Creation:	Tue May 29 22:24:31 2012
Charted by:	Depth in Feet scaled 1:240

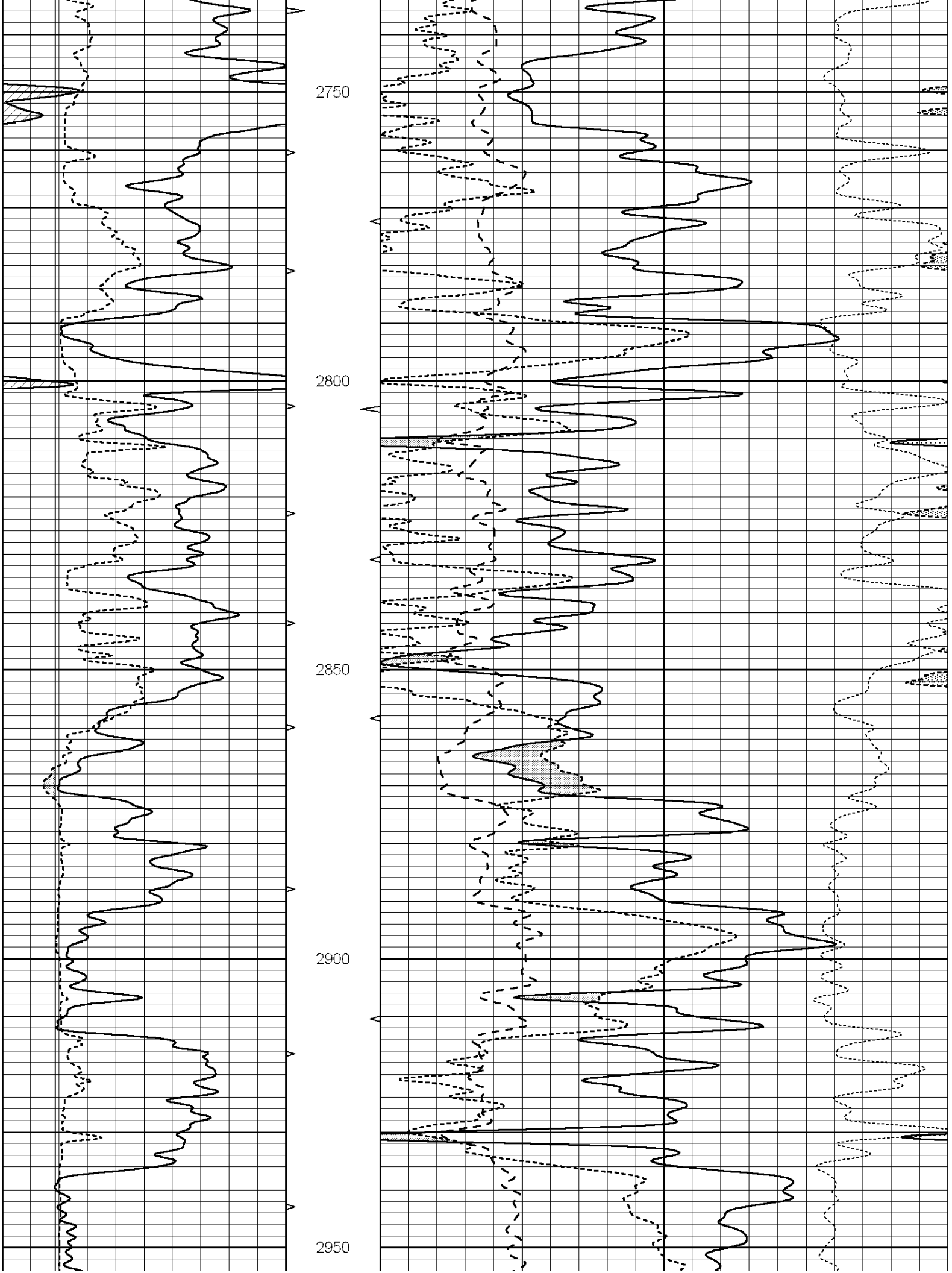
Started by: Depth in Feet scaled 1:240

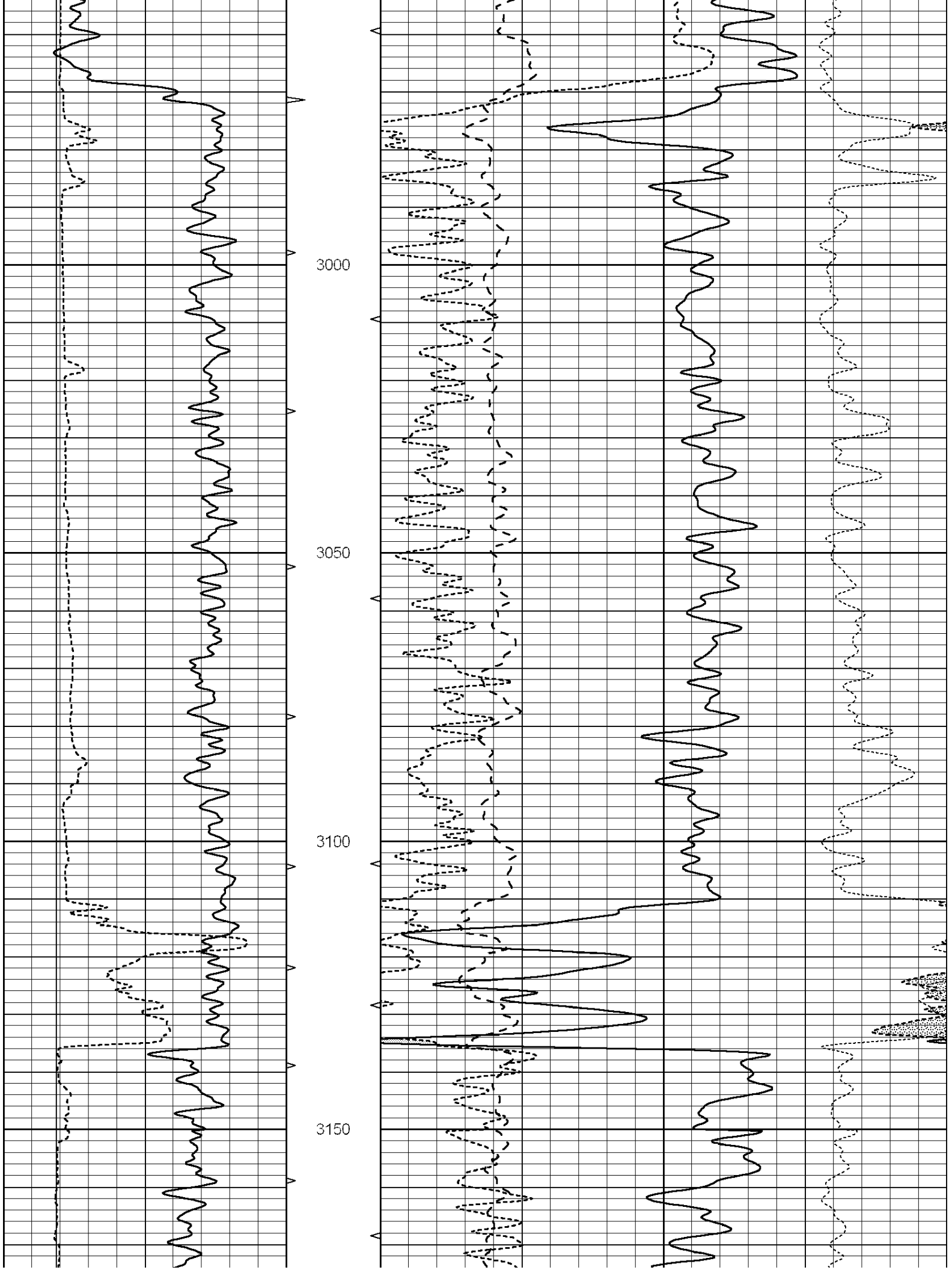
0 GAMMA RAY (GAPI) 150	ABHV	30 COMPENSATED DENSITY (pu) -10
6 CALIPER (in) 16	10 (ft3) 0	30 COMPENSATED NEUTRON (pu) -10
	TBHV	0 PE 10 -0.25 CORRECTION (g/cc) 0.25
	0 (ft3) 10	

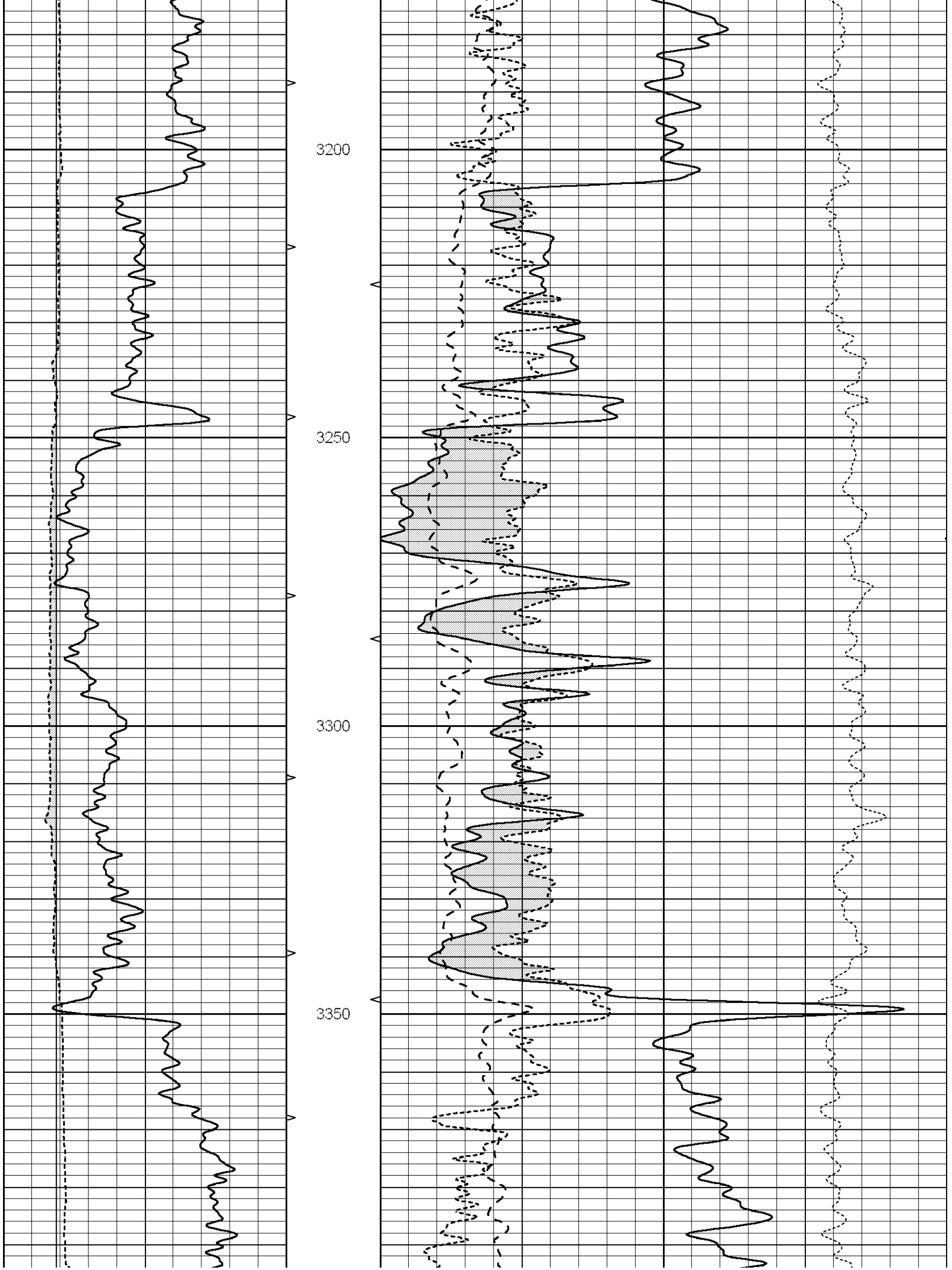


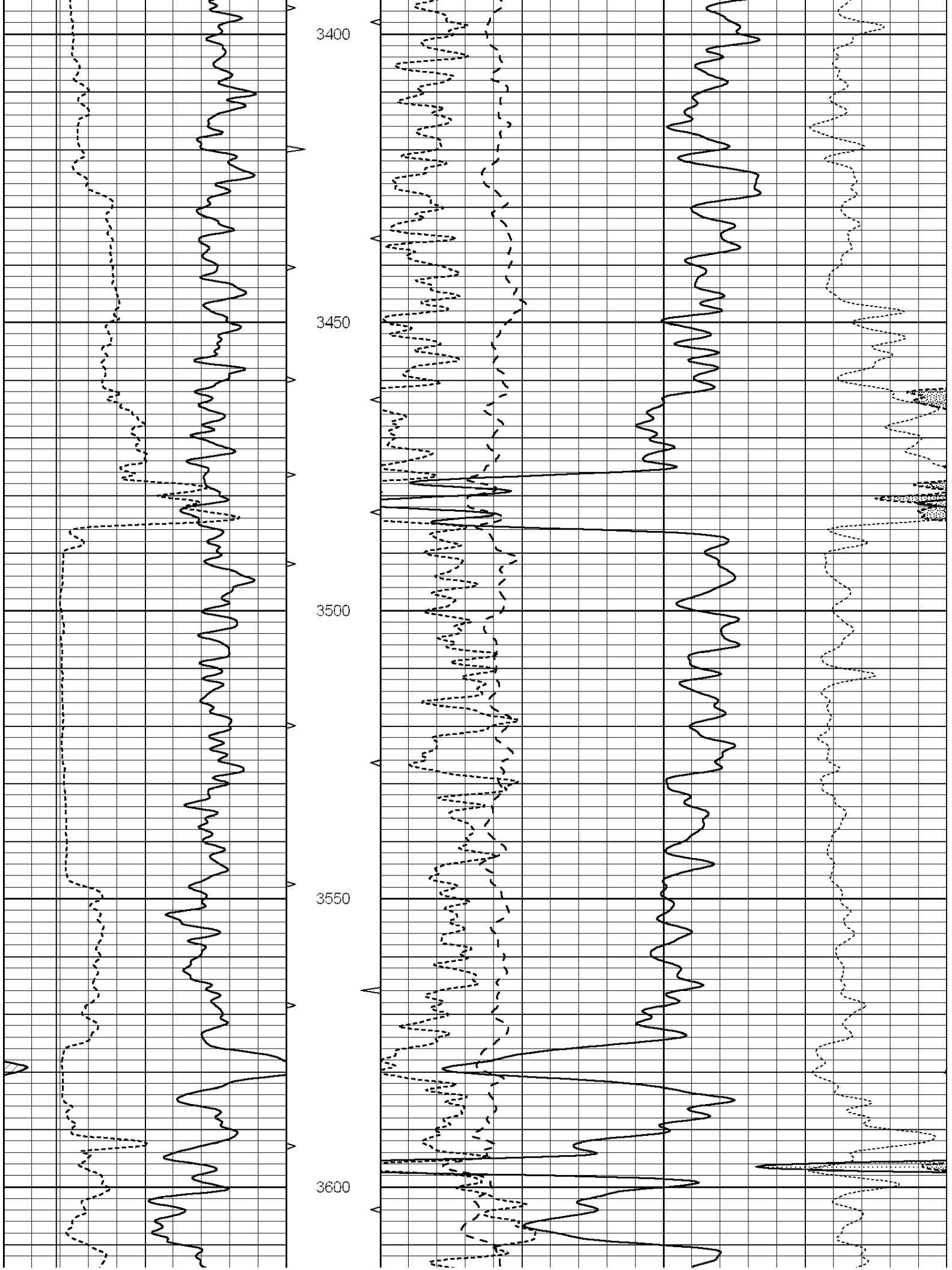

2300
2350
2400
2450
2500

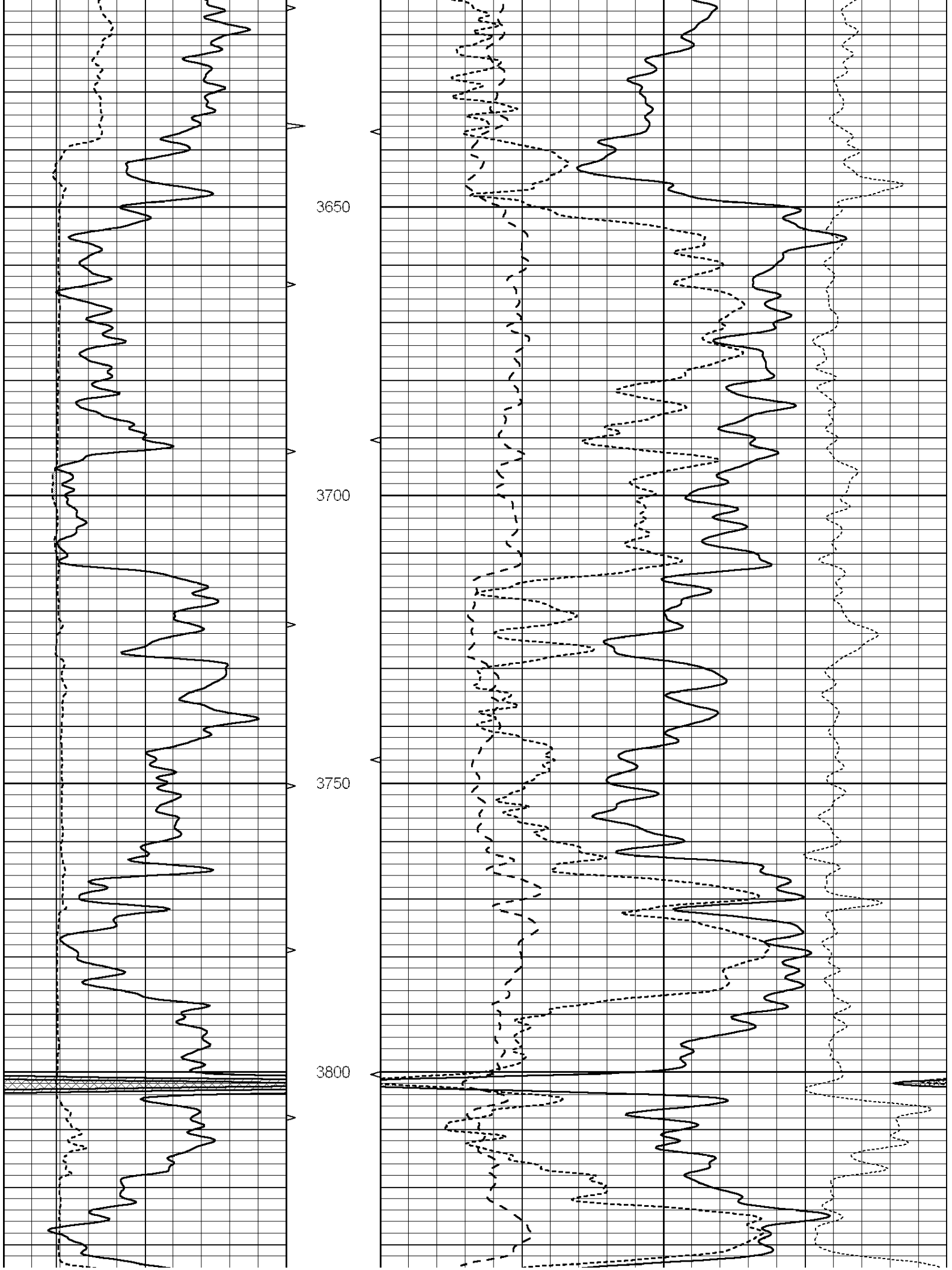

2550
2600
2650
2700

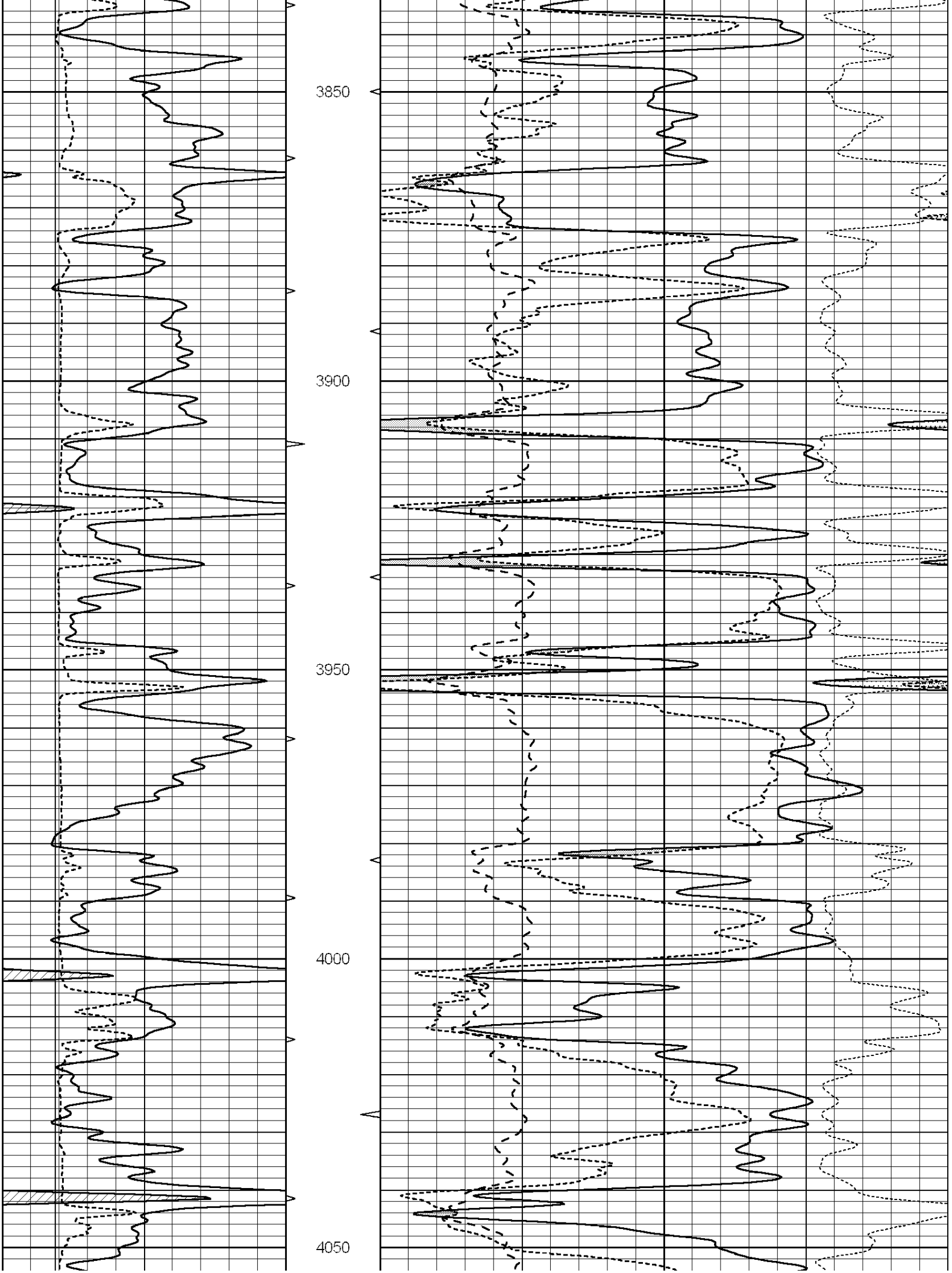

2750
2800
2850
2900
2950

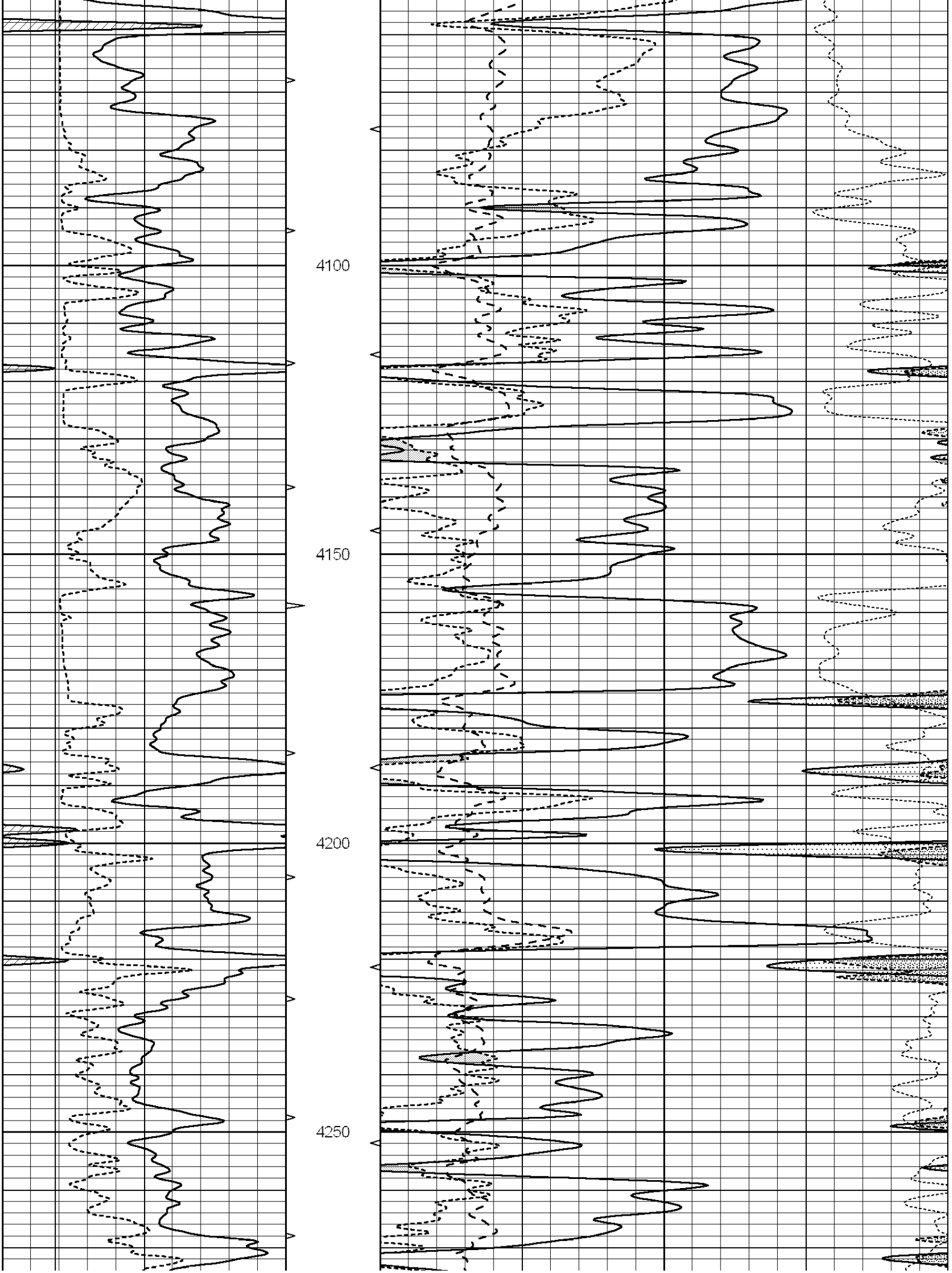

3000
3050
3100
3150

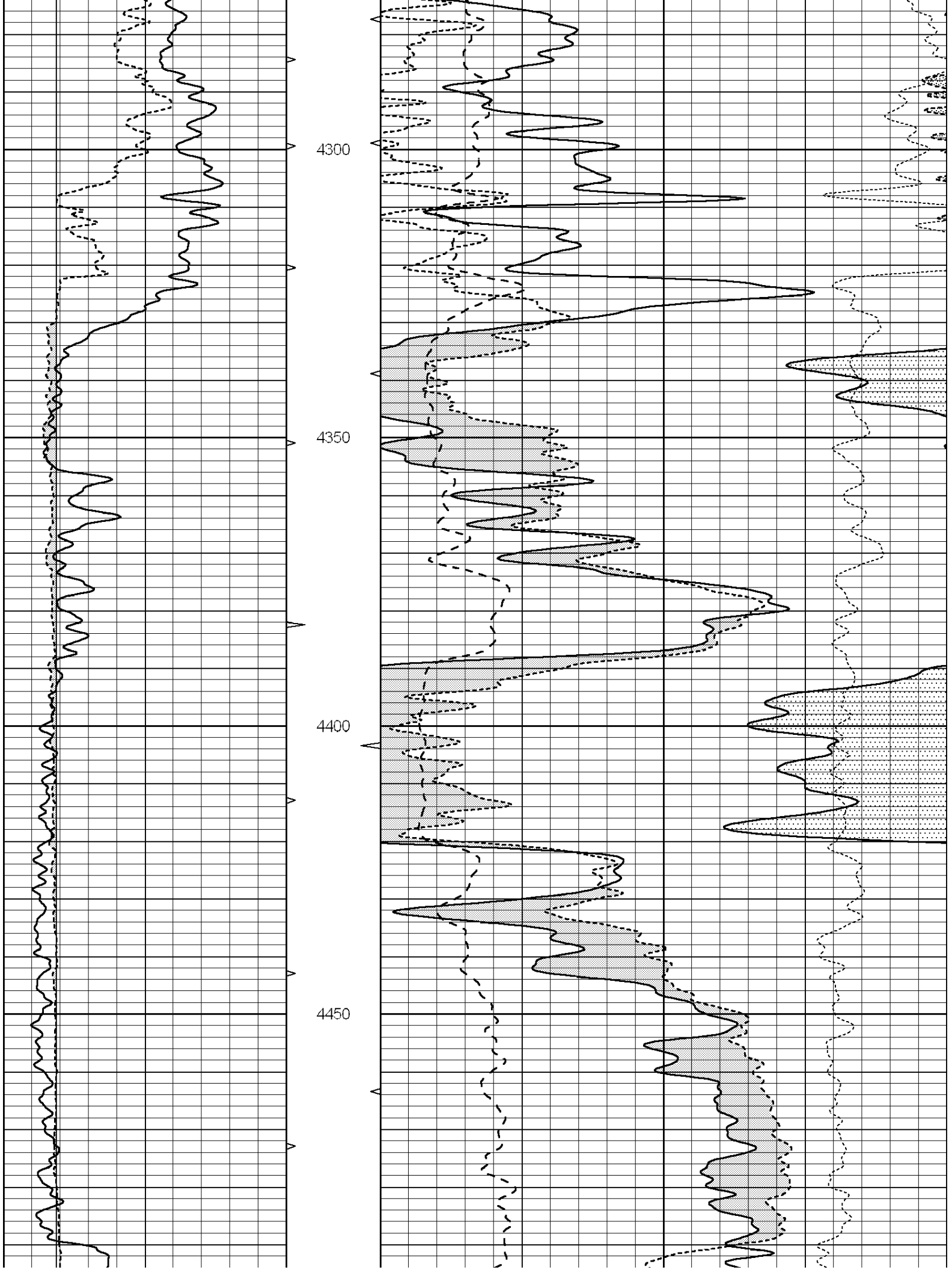

3200
3250
3300
3350

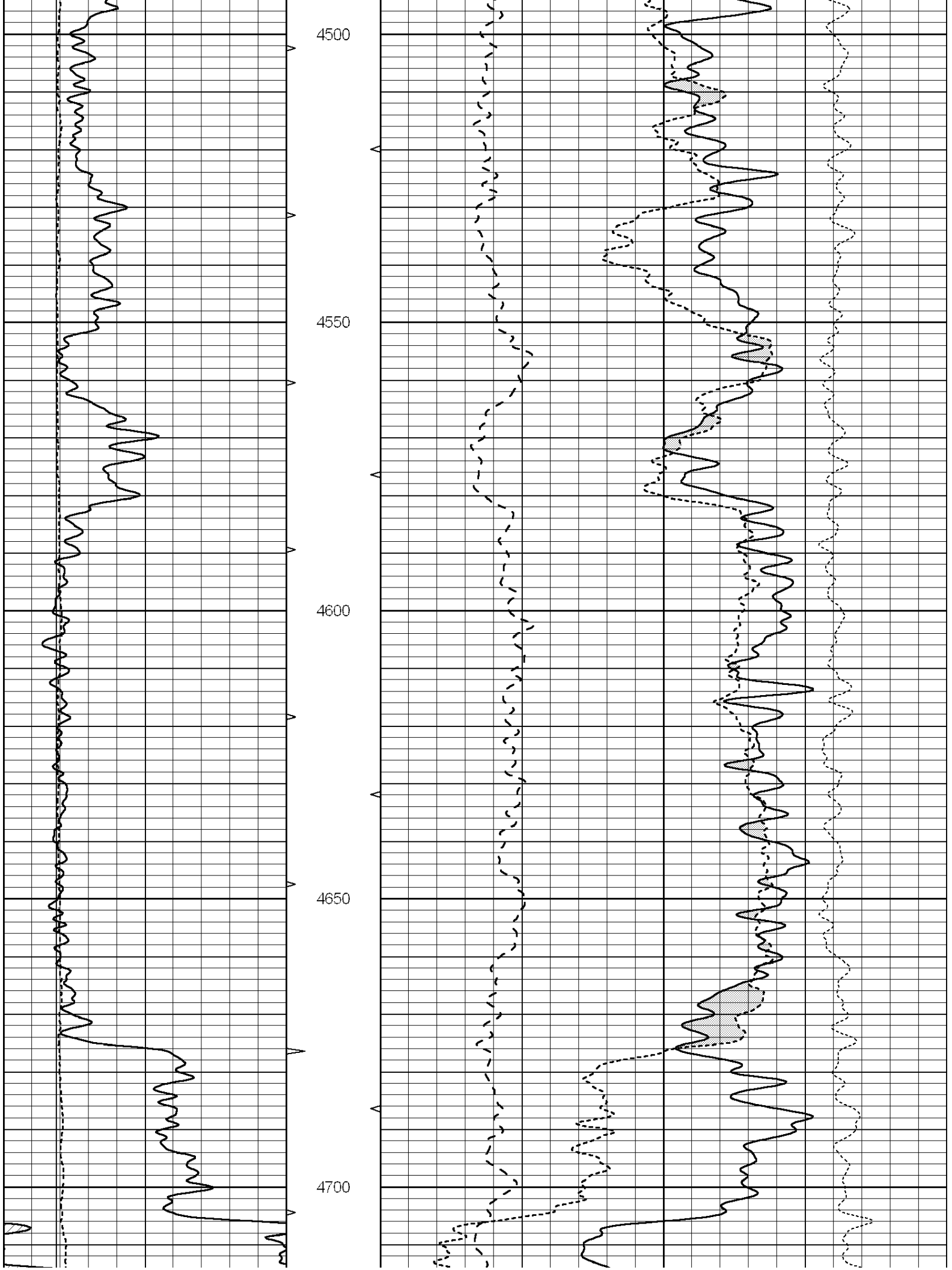

3400
3450
3500
3550
3600

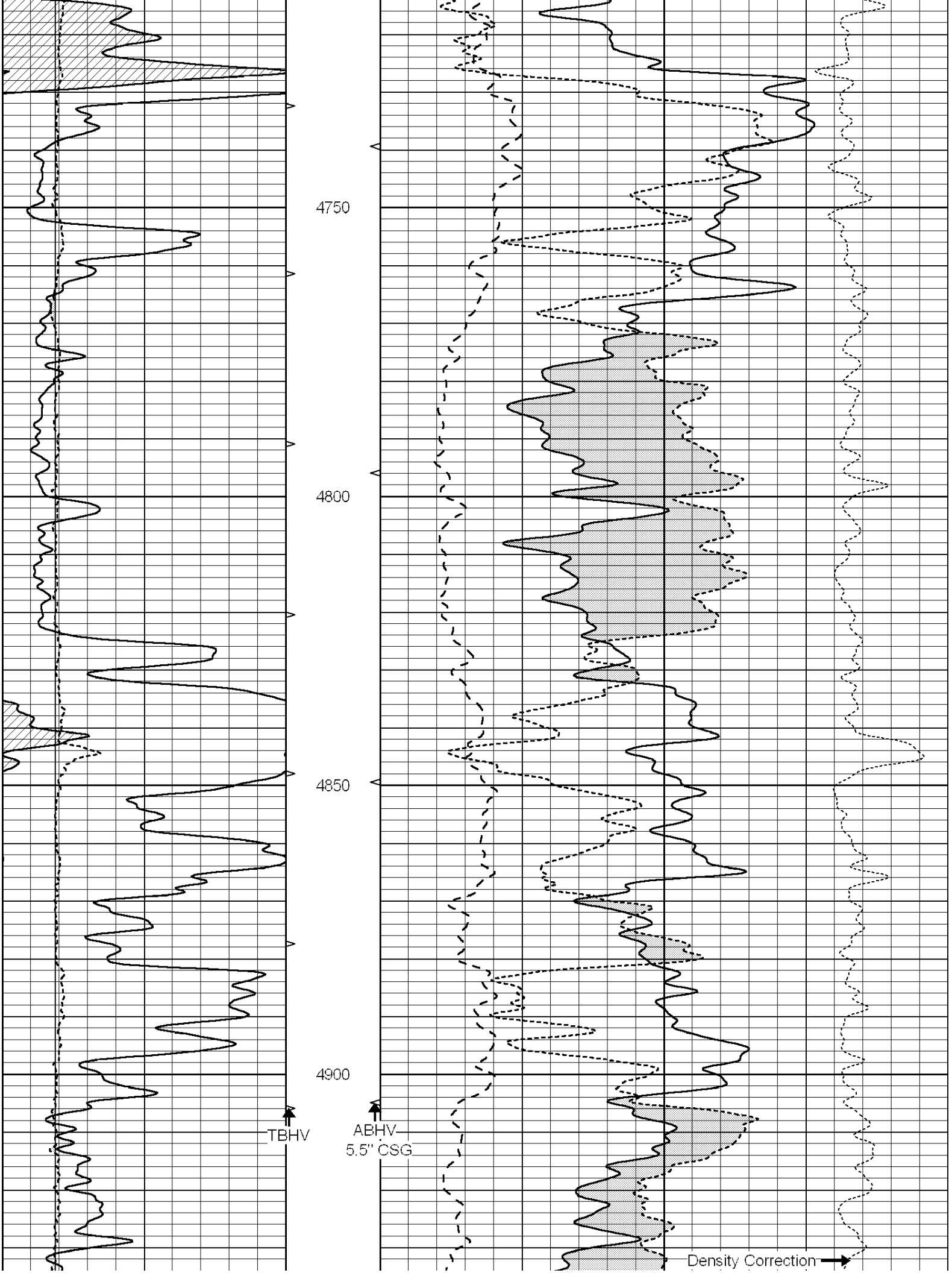

3650
3700
3750
3800

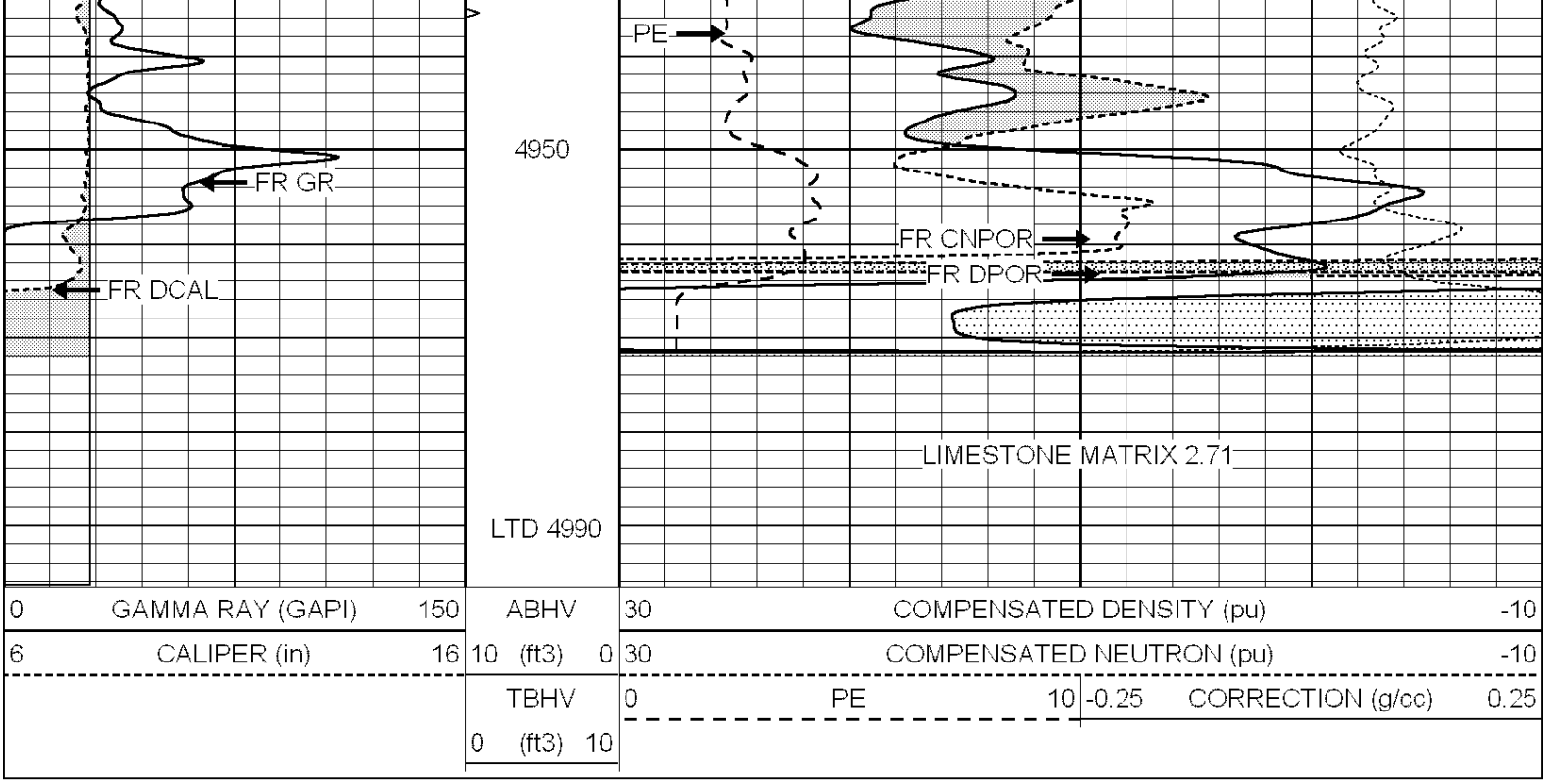

3850
3900
3950
4000
4050


4100
4150
4200
4250


4300
4350
4400
4450


4500
4550
4600
4650
4700


4750
4800
4850
4900
TBHV
ABHV
5.5" CSG
Density Correction

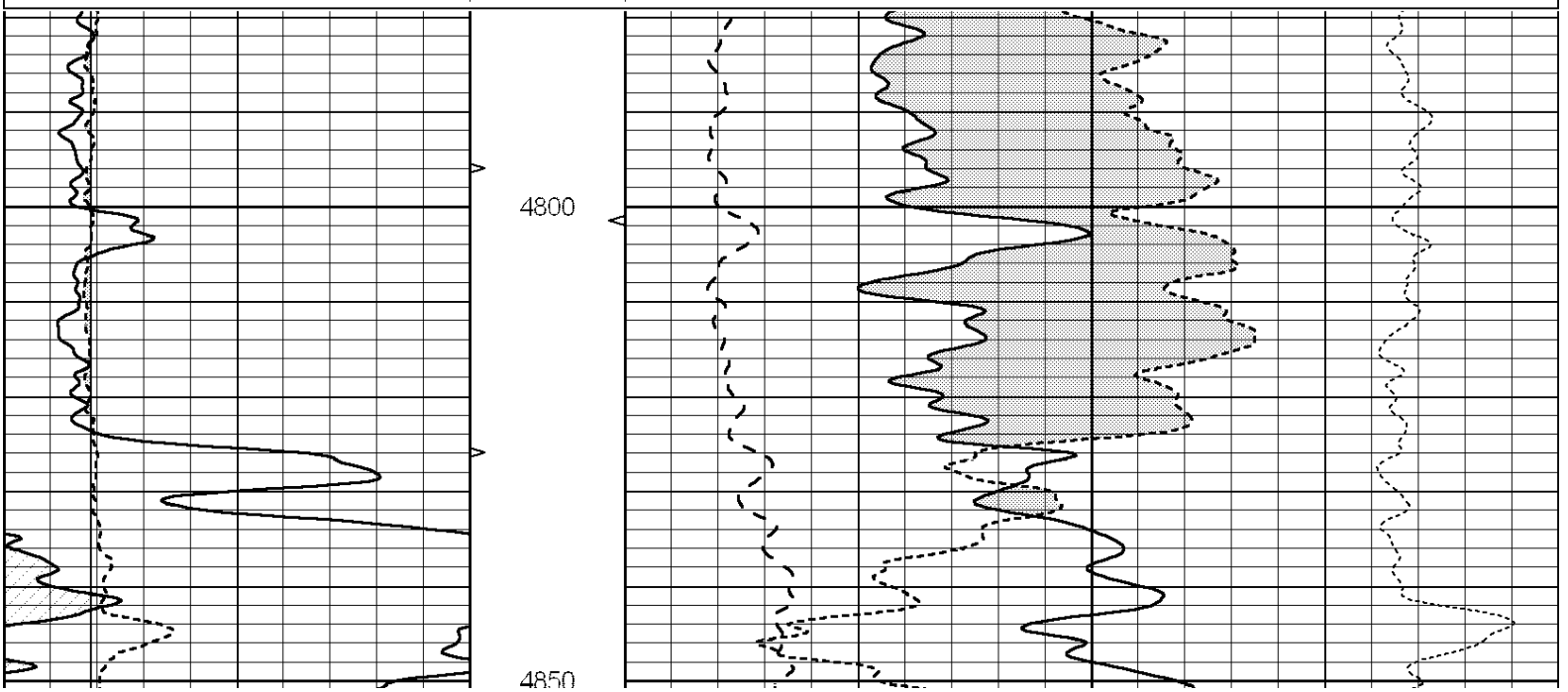


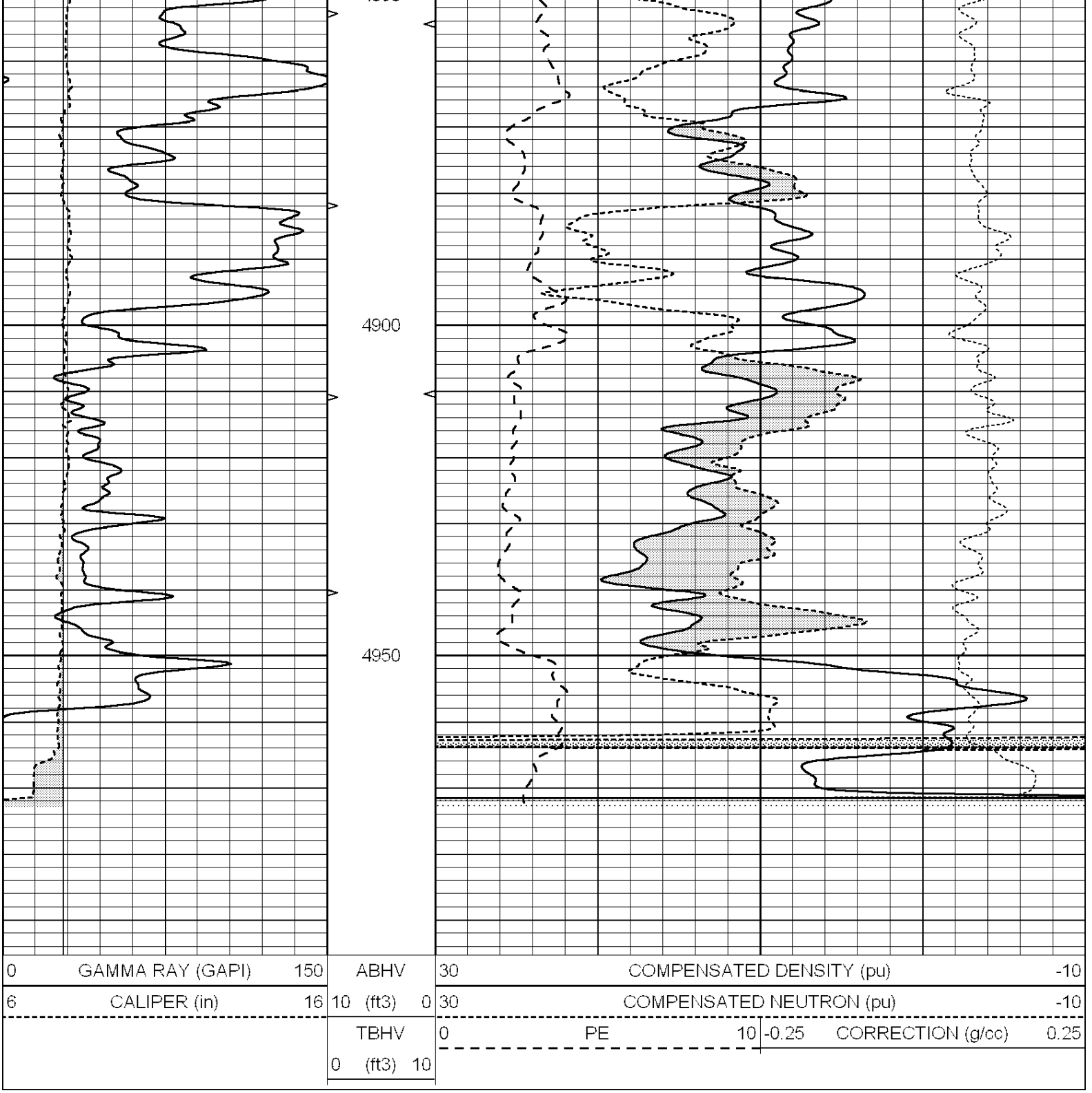
SUPERIOR
WELL SERVICES

SUPERIOR
Hays,
Kansas

REPEAT SECTION

Database File:	009209pe.db
Dataset Pathname:	pass2.2
Presentation Format:	_ldt_neu
Dataset Creation:	Tue May 29 19:40:50 2012 by Calc Open-Cased 090629
Charted by:	Depth in Feet scaled 1:240





Calibration Report

Database File: 009209pe.db
Dataset Pathname: pass4.3
Dataset Creation: Tue May 29 22:24:31 2012

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