

COMPENSATED DENSITY/NEUTRON LOG

Company	BEAR PETROLEUM	Company	BEAR PETROLEUM
Well	RYAN A #1	Well	RYAN A #1
Field	UNNAMED	Field	UNNAMED
County	PAWNEE	County	PAWNEE
State	KANSAS	State	KANSAS
Location:	API # : 15-145-21844-00-00	Other Services	
	2240 FSL & 400 FWL	DIL/MEL	SON
	SEC 15 TWP 22S RGE 20W	Elevation	
Permanent Datum	GROUND LEVEL	Elevation	2223
Log Measured From	KELLY BUSHING 6' A.G.L.	D.F.	2227
Drilling Measured From	KELLY BUSHING	G.L.	2223
Date	02/01/19		
Run Number	ONE		
Depth Driller	4800		
Depth Logger	4799		
Bottom Logged Interval	4779		
Top Log Interval	2100		
Casing Driller	8 5/8" @ 1355		
Casing Logger	1355		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.364		
pH / Fluid Loss	8.5/11.6		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.9@60		
Rmt @ Meas. Temp	1.43@60		
Rmc @ Meas. Temp	2.28@60		
Source of Rmt / Rmc	MEASURED		
Rm @ BHT	.94@121		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	///		
Maximum Recorded Temperature	121F		
Equipment Number	1523		
Location	HAYS, KANSAS		
Recorded By	GUS PFANENSTIEL		
Witnessed By	ROD ANDERSON		

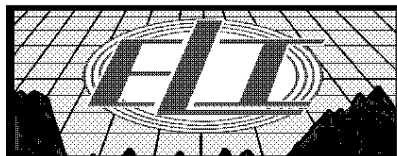
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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on 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 ELI WIRELINE, HAYS, KS. (785) 628-6395

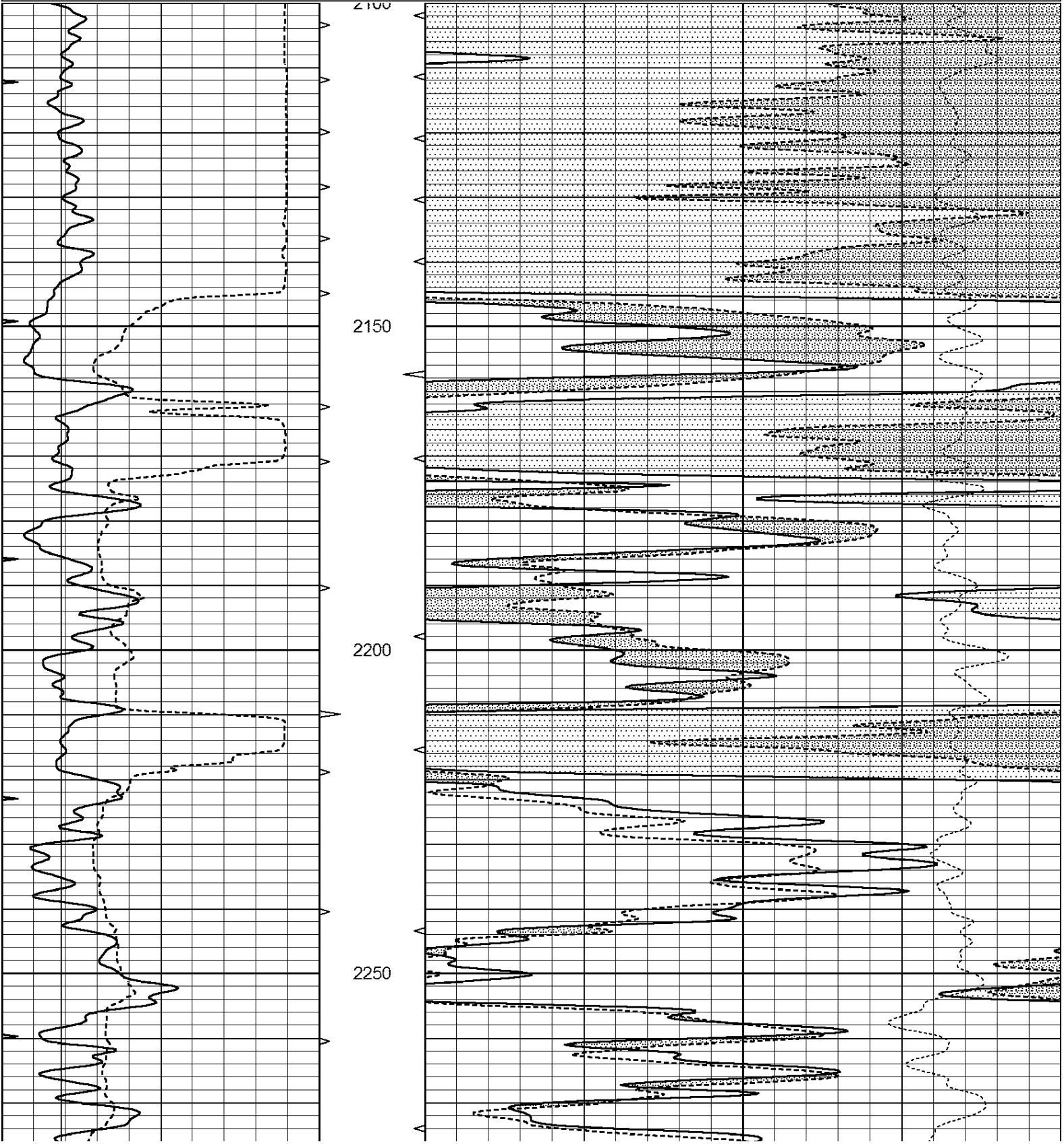
DIRECTIONS
BURDETT EAST TO 340 SOUTH TO N RD.
EAST INTO.

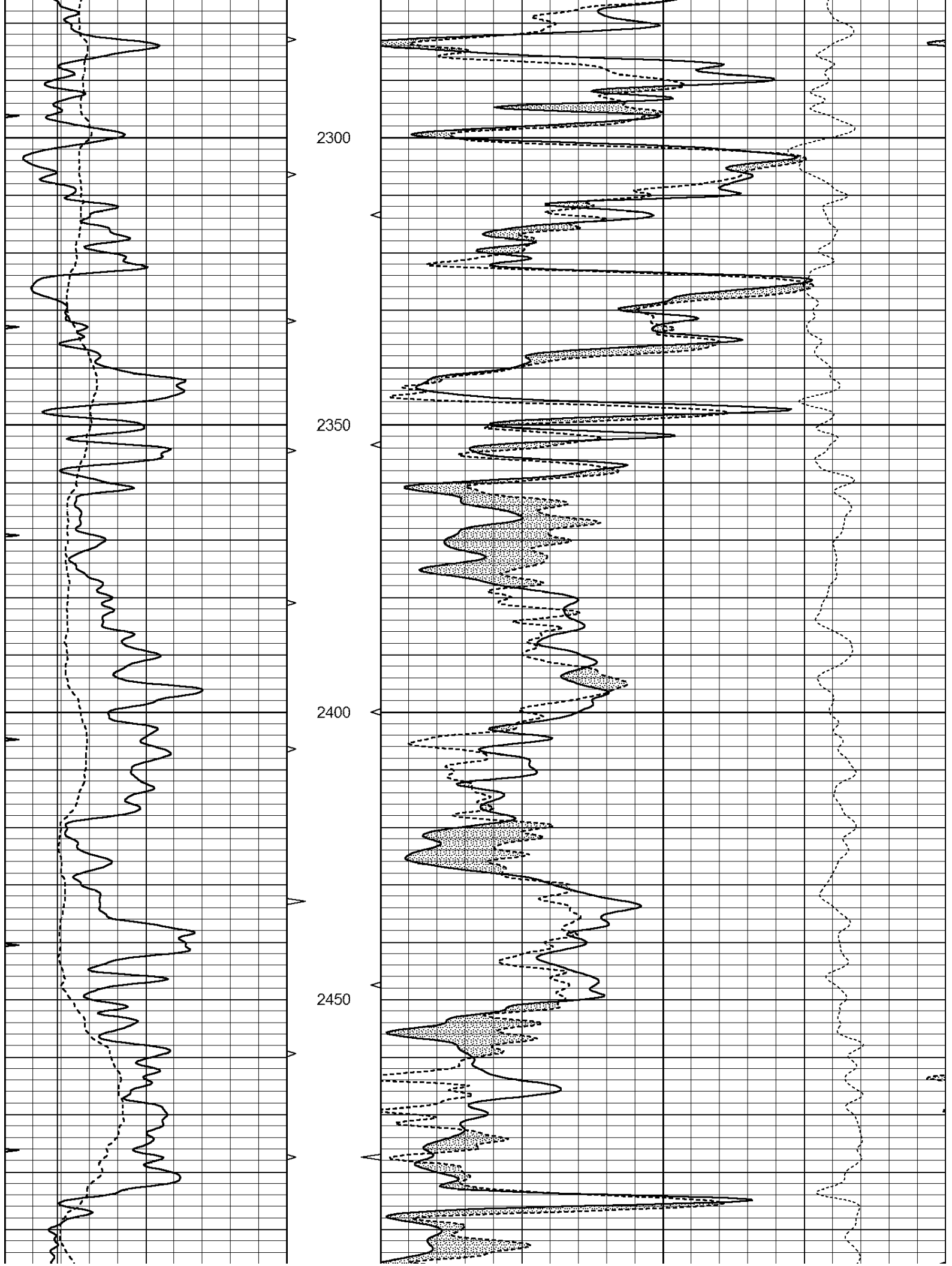


DOLOMITE MATRIX 2.81

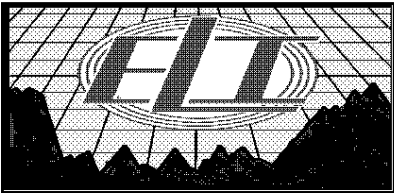
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Dataset Pathname: pass3DOL
Presentation Format: den_neu
Dataset Creation: Fri Feb 01 06:36:47 2019
Charted by: Depth in Feet scaled 1:240

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		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10		





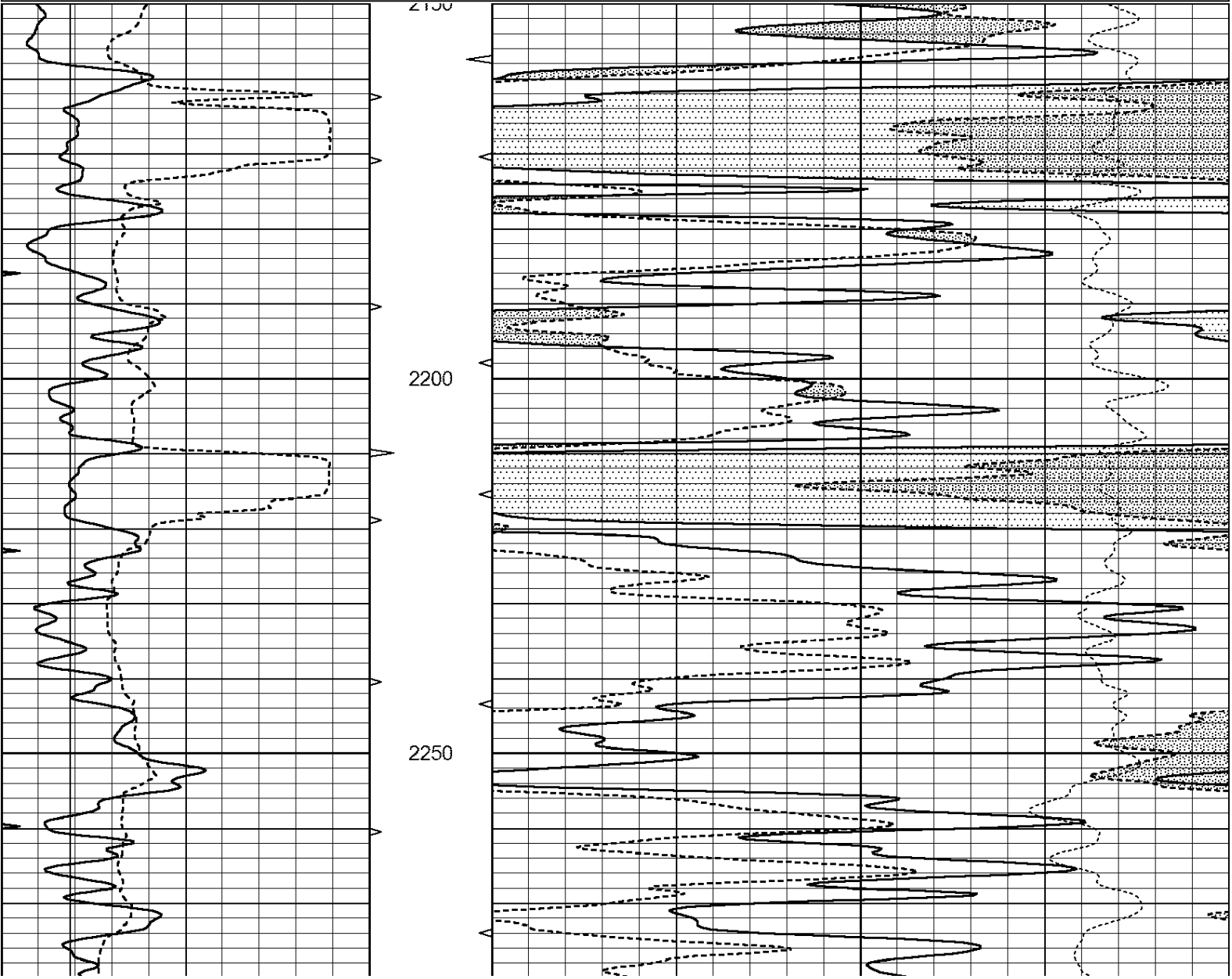
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6	CALIPER (in)	16	10 (ft3)	0	30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV			-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10			

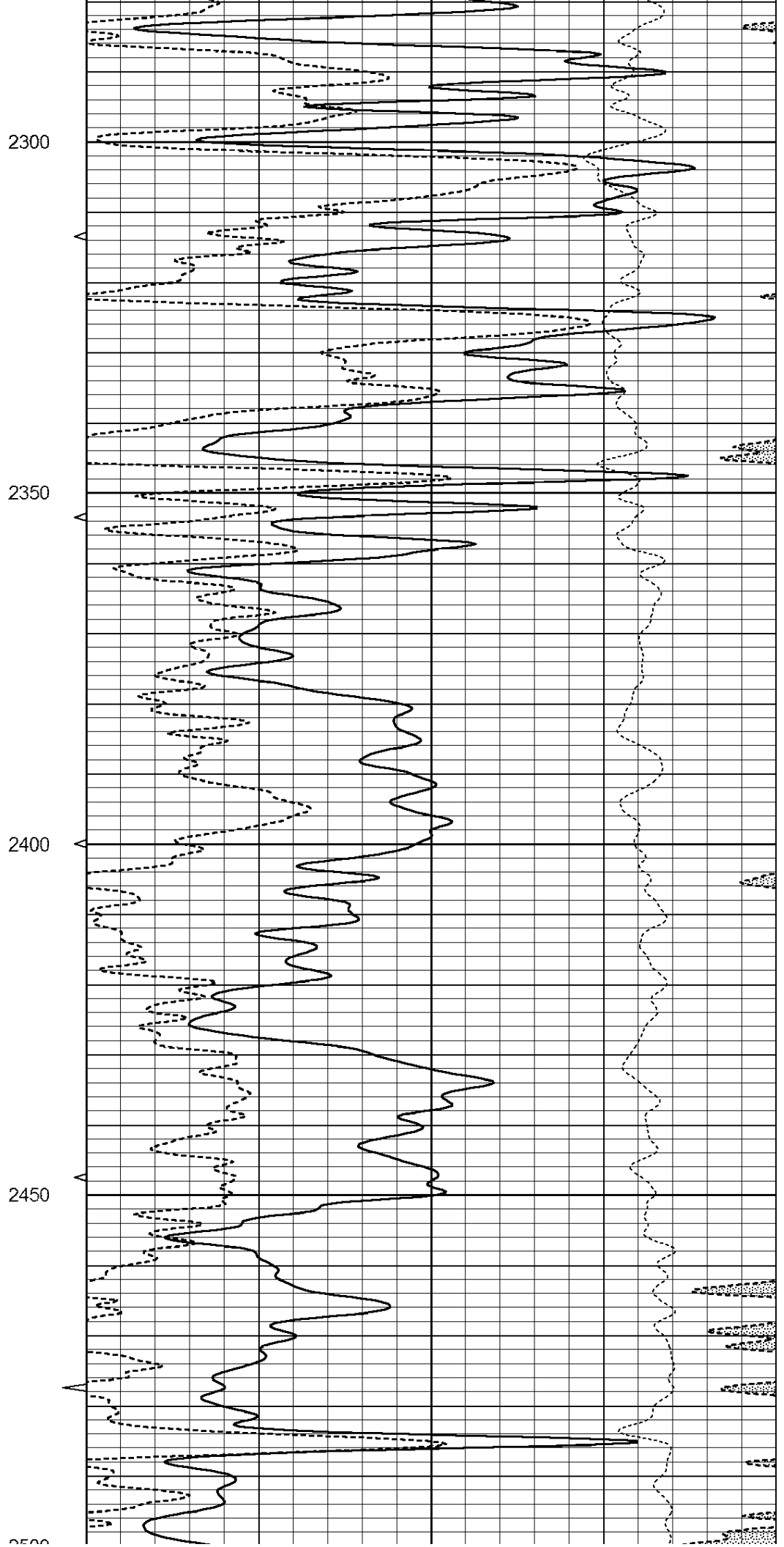
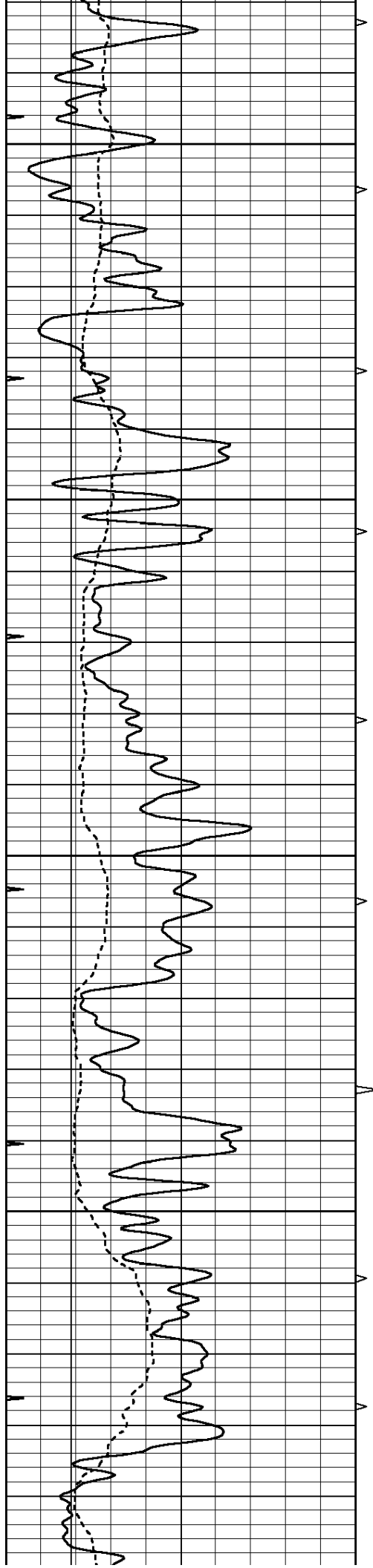


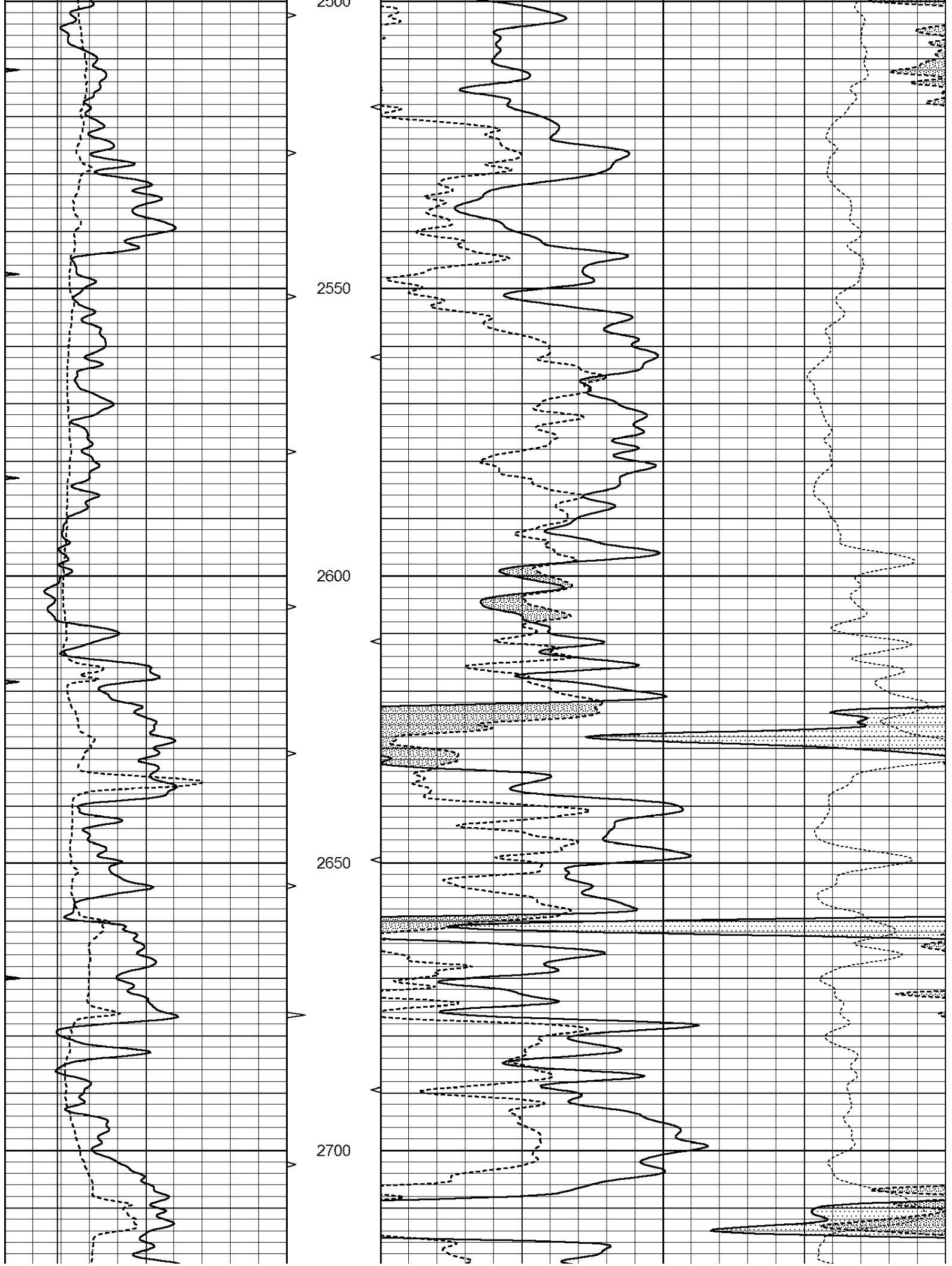
MAIN PASS

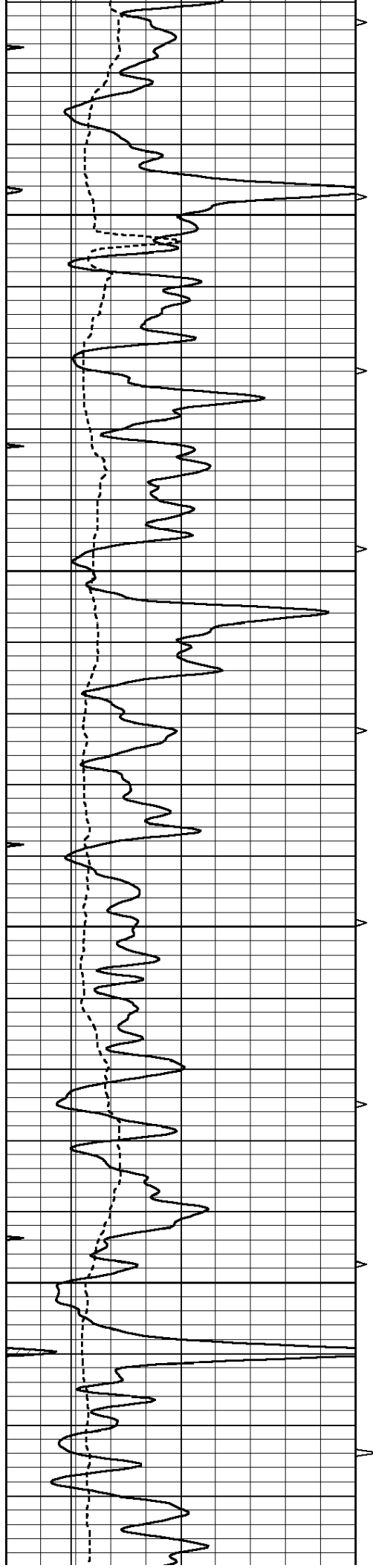
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 Dataset Pathname: pass3.1
 Presentation Format: den_neu
 Dataset Creation: Fri Feb 01 06:06:52 2019 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

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			-0.25	CORRECTION (g/cc)	0.25
			0 (ft3)	10				







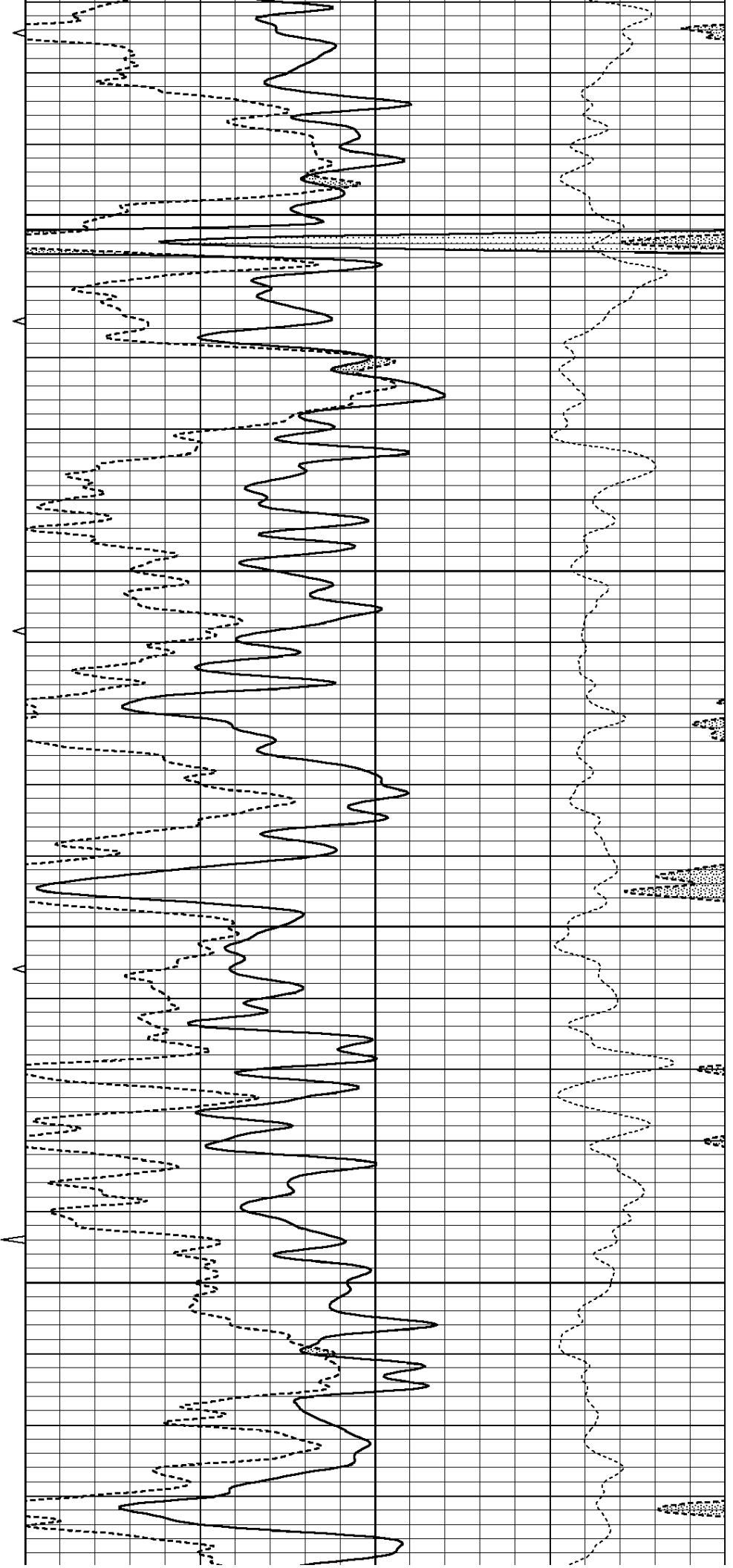


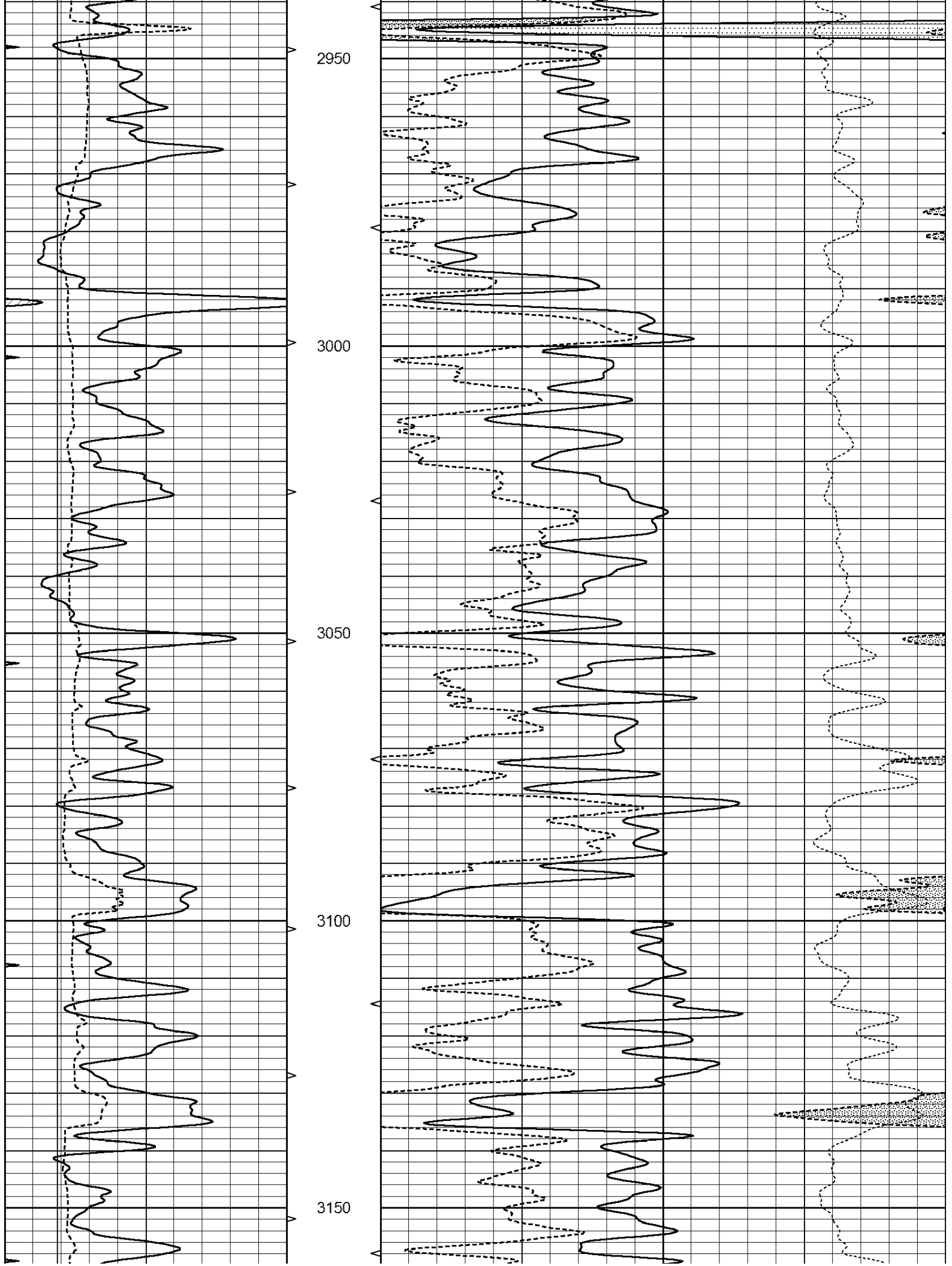
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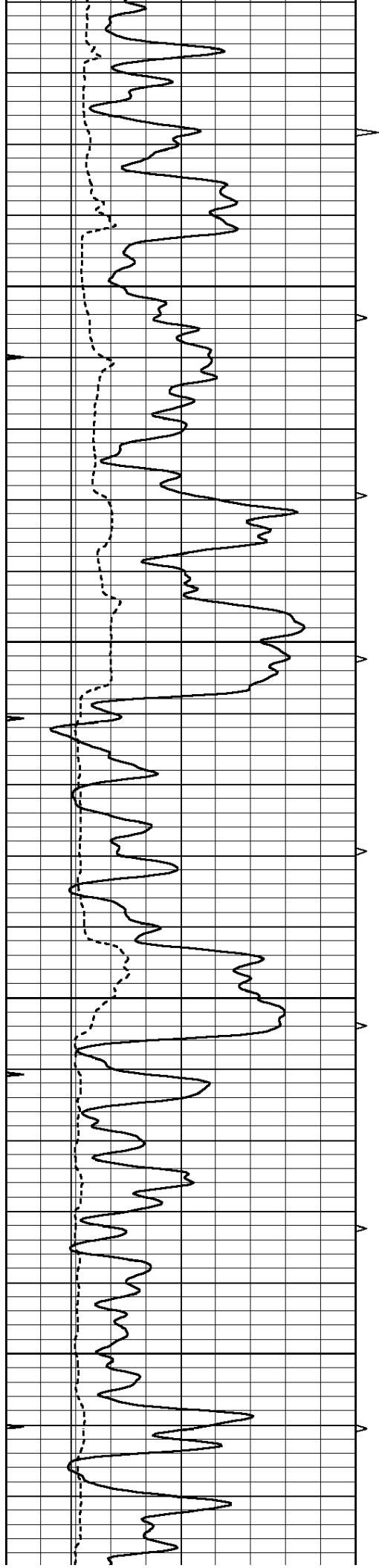
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2850

2900





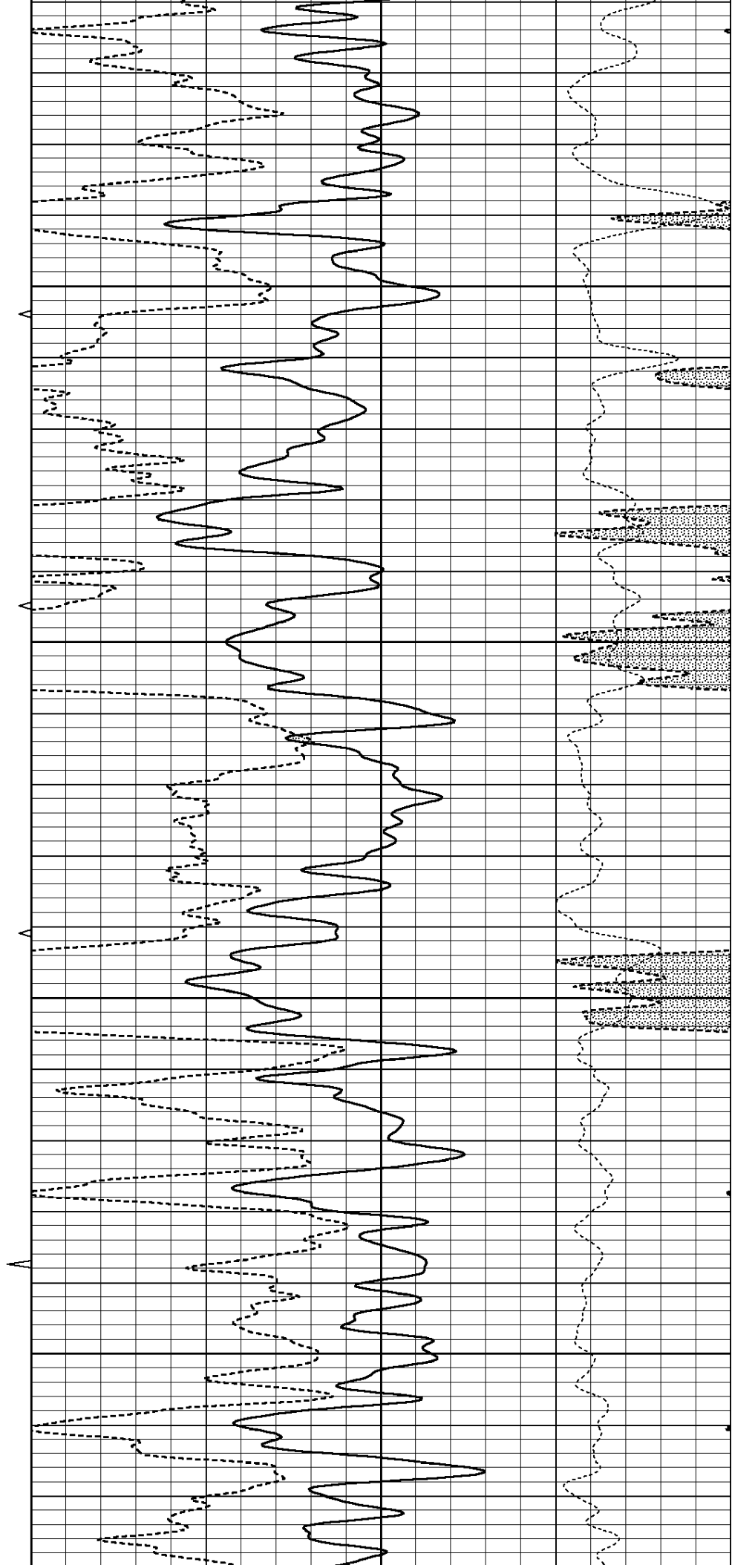


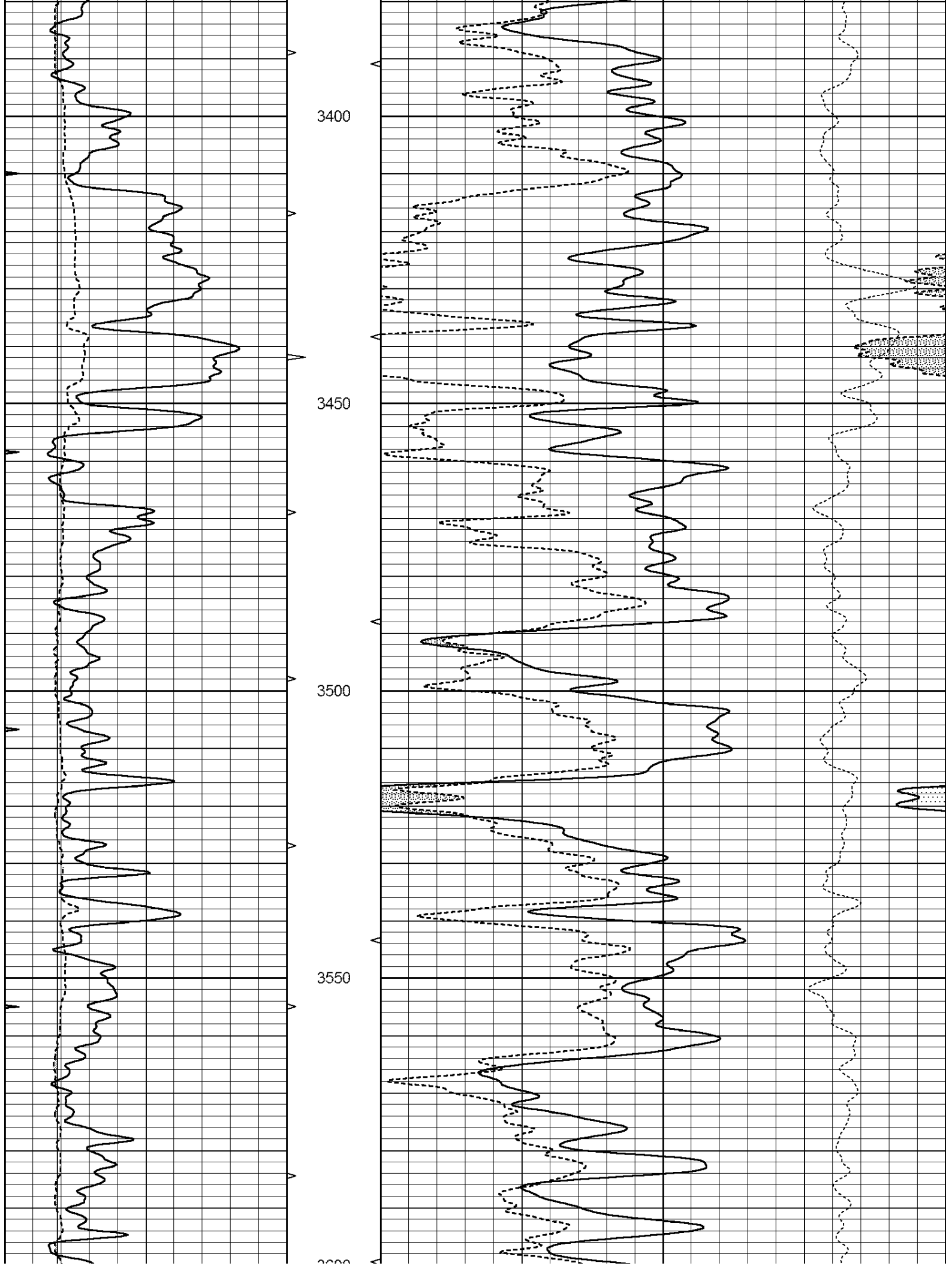
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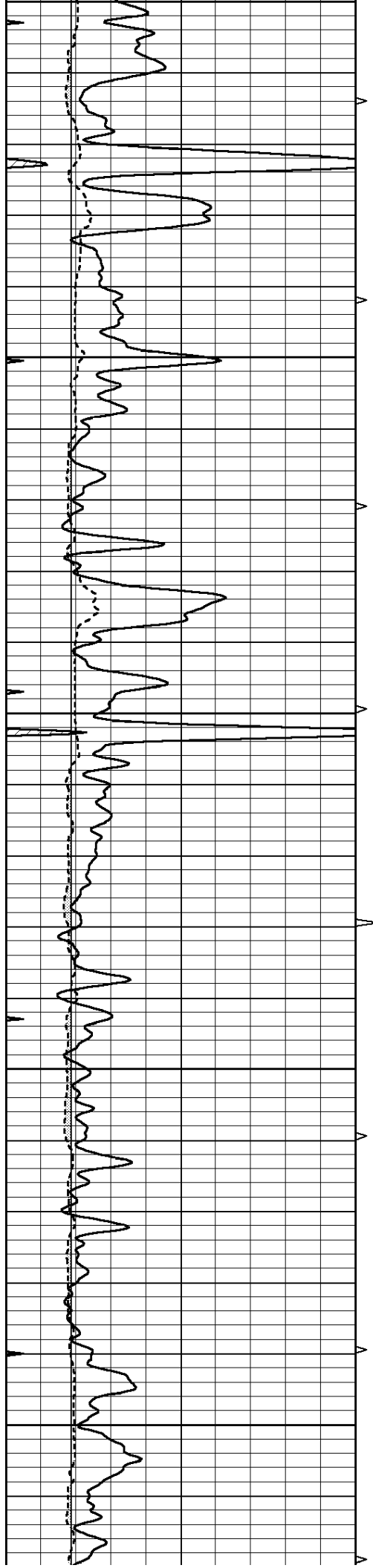
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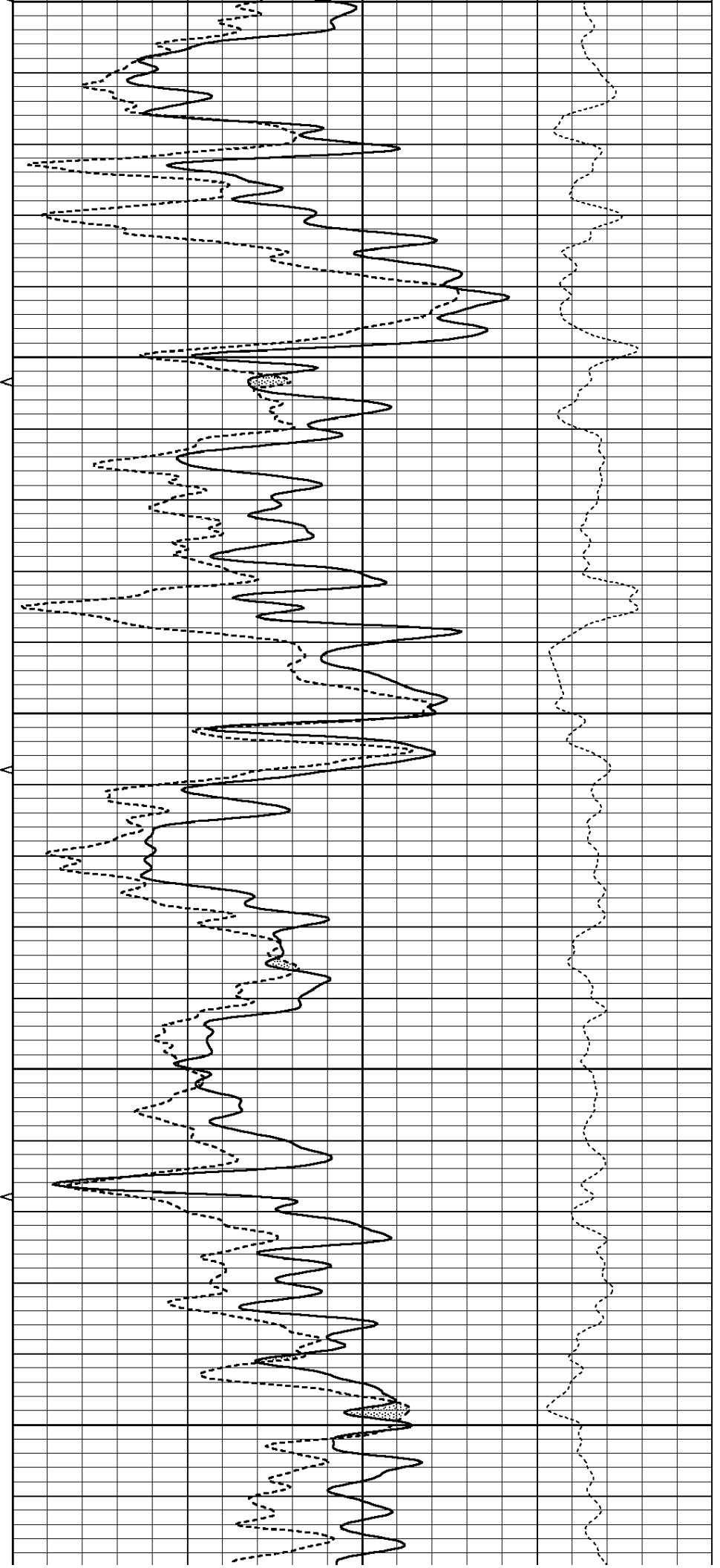
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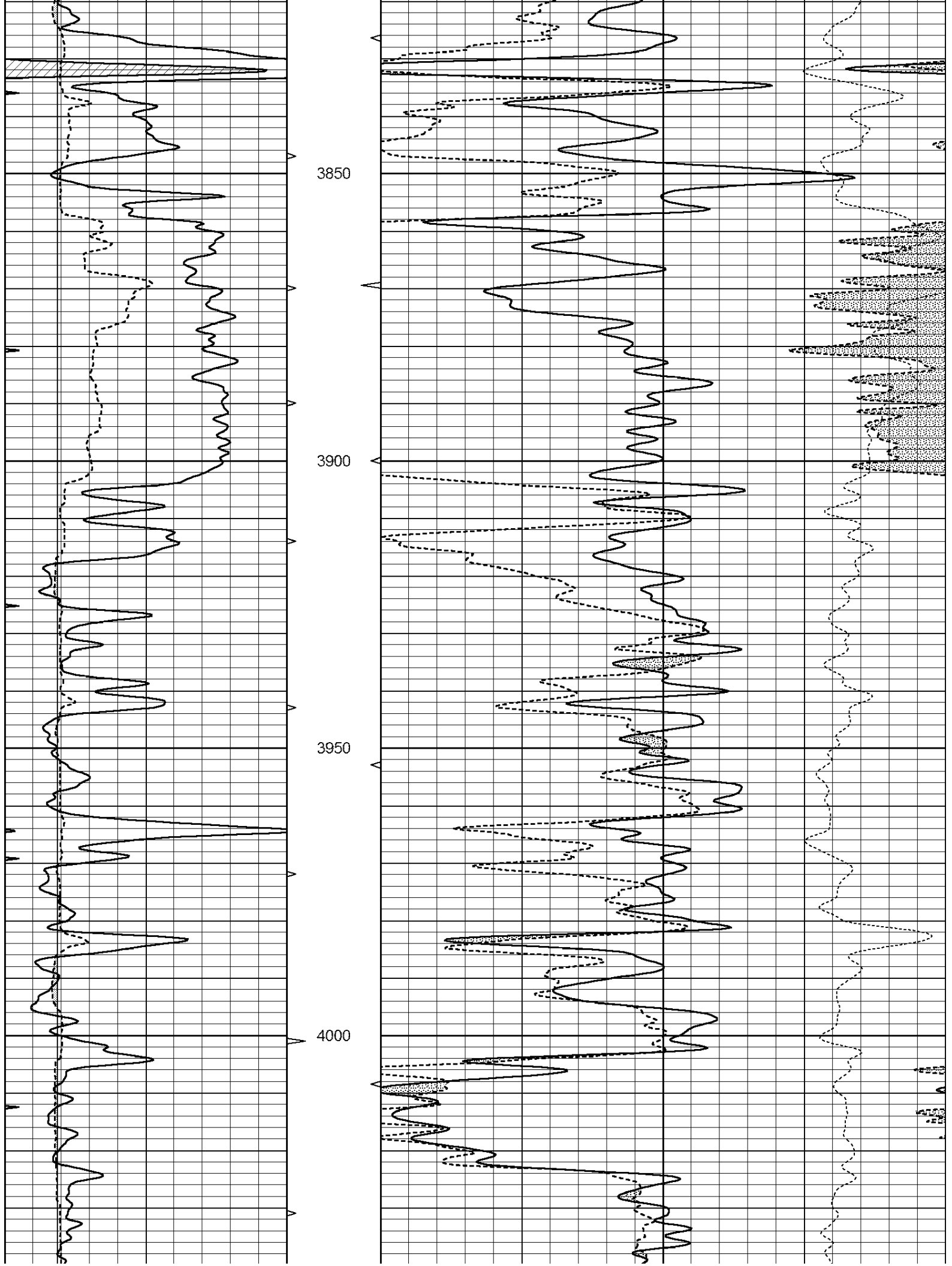


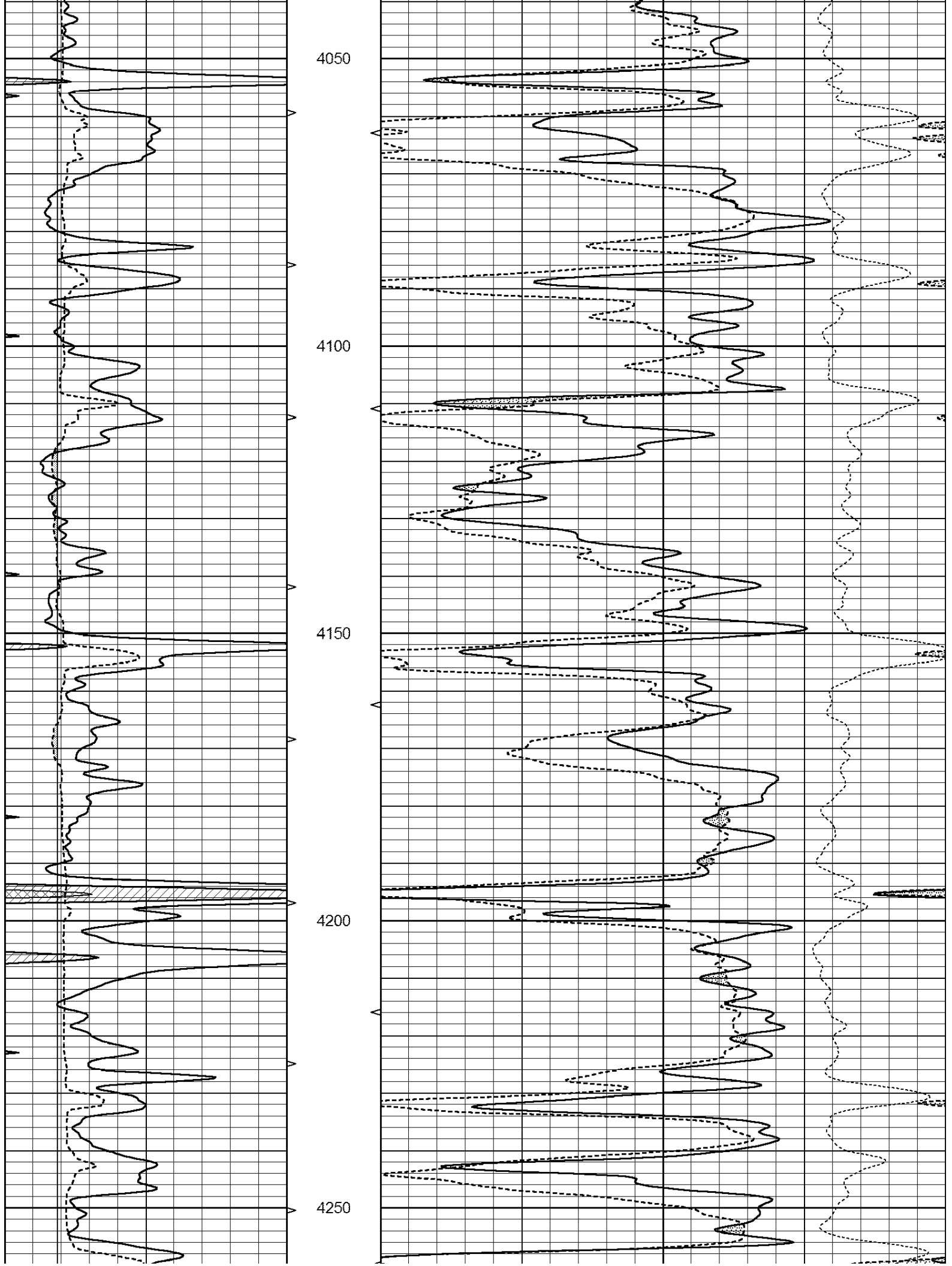


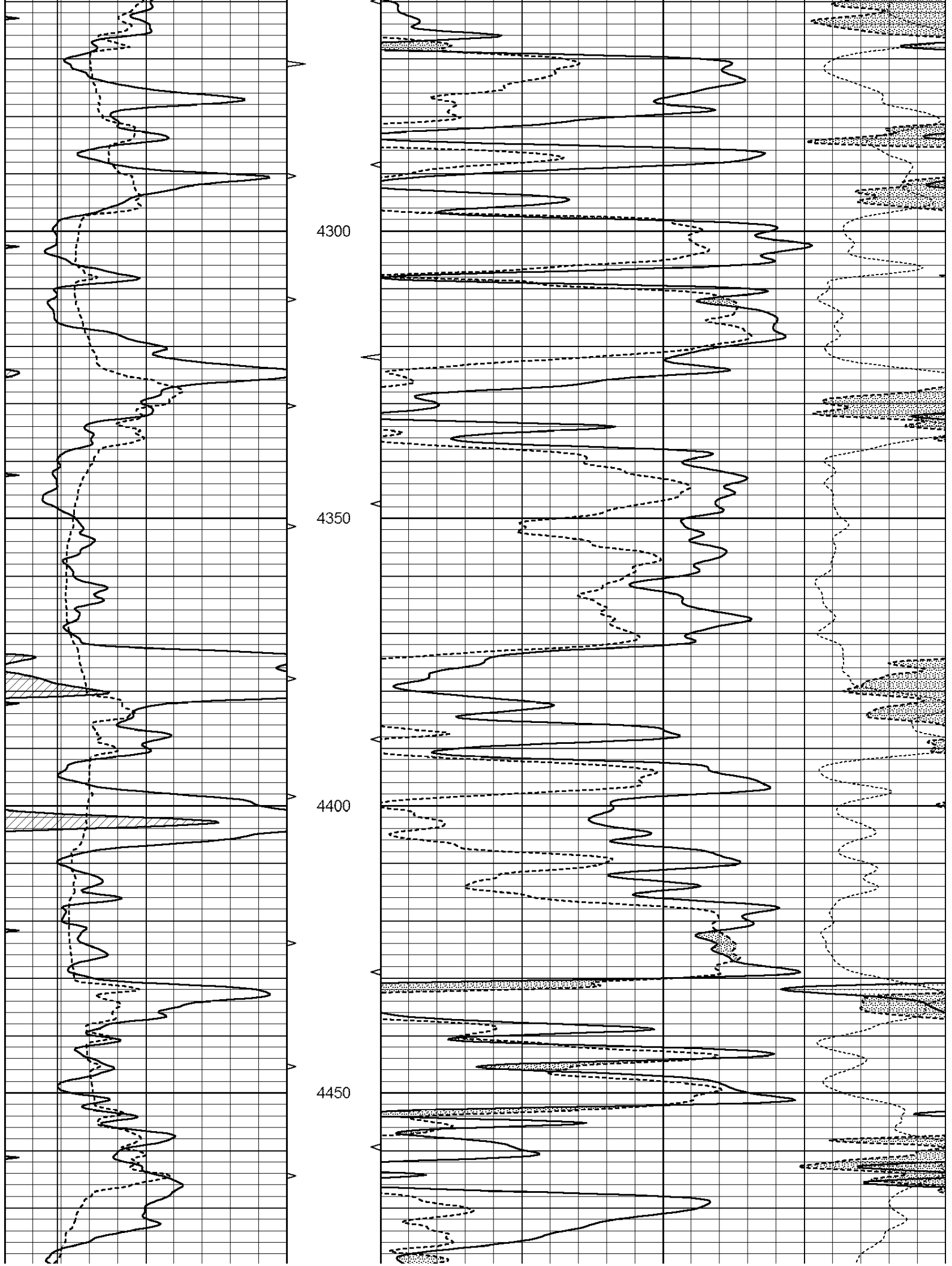


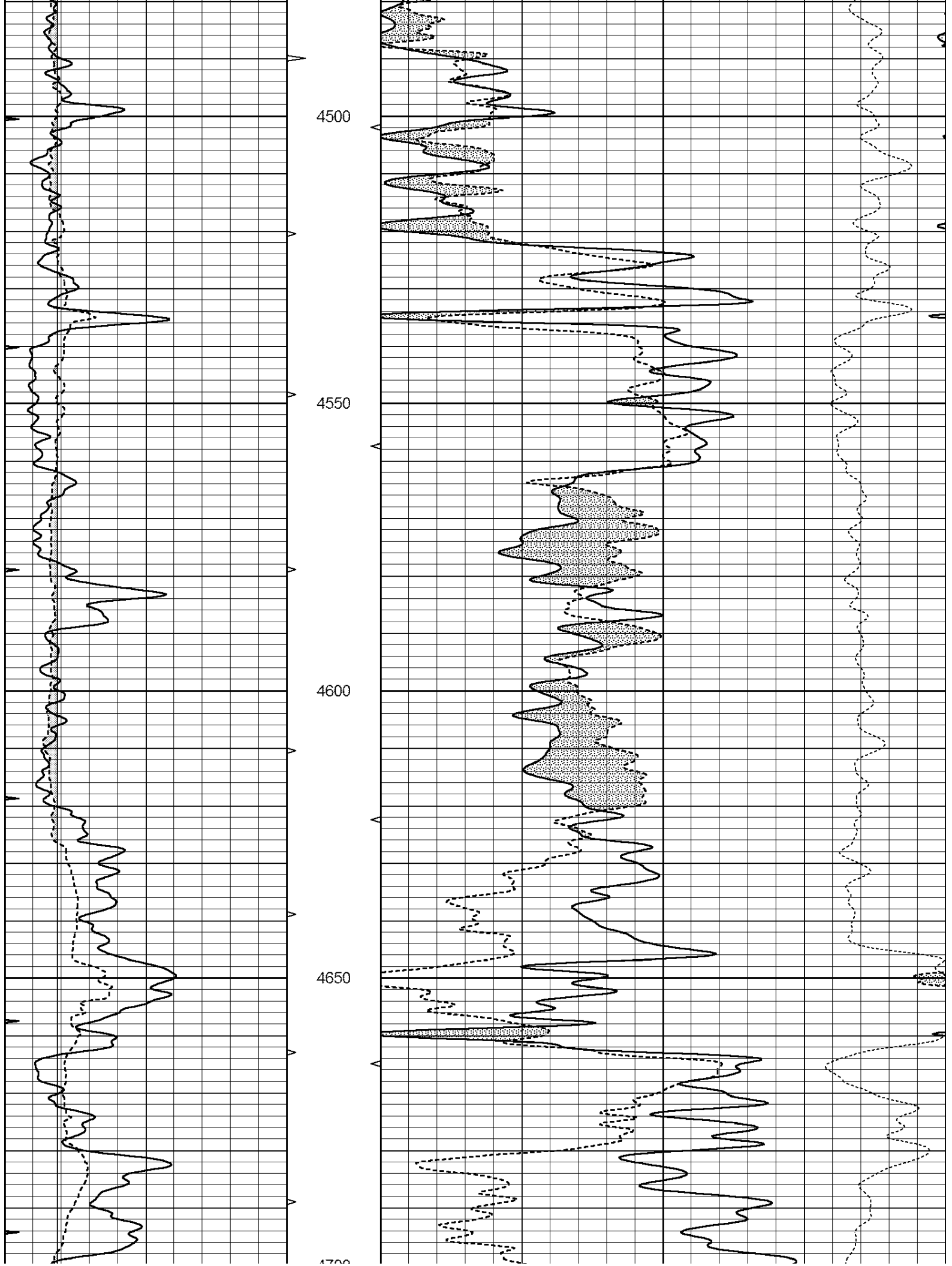
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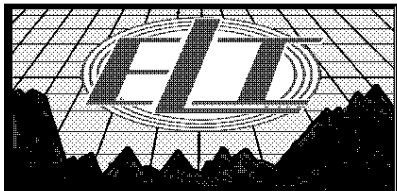
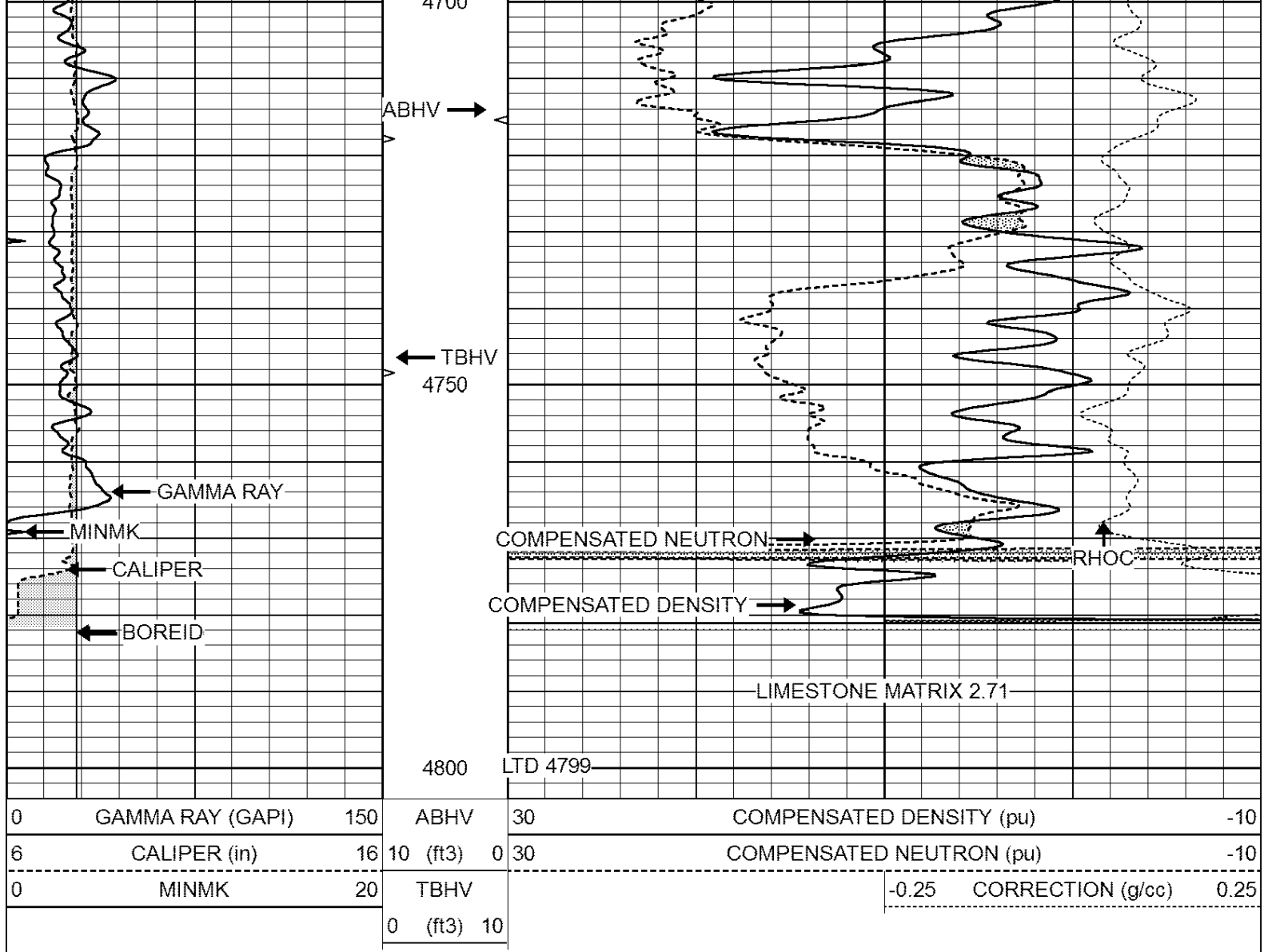








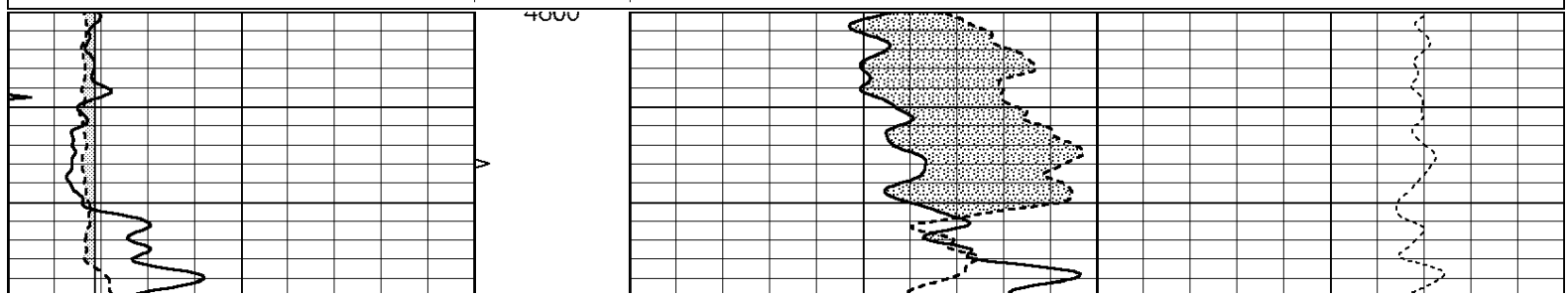


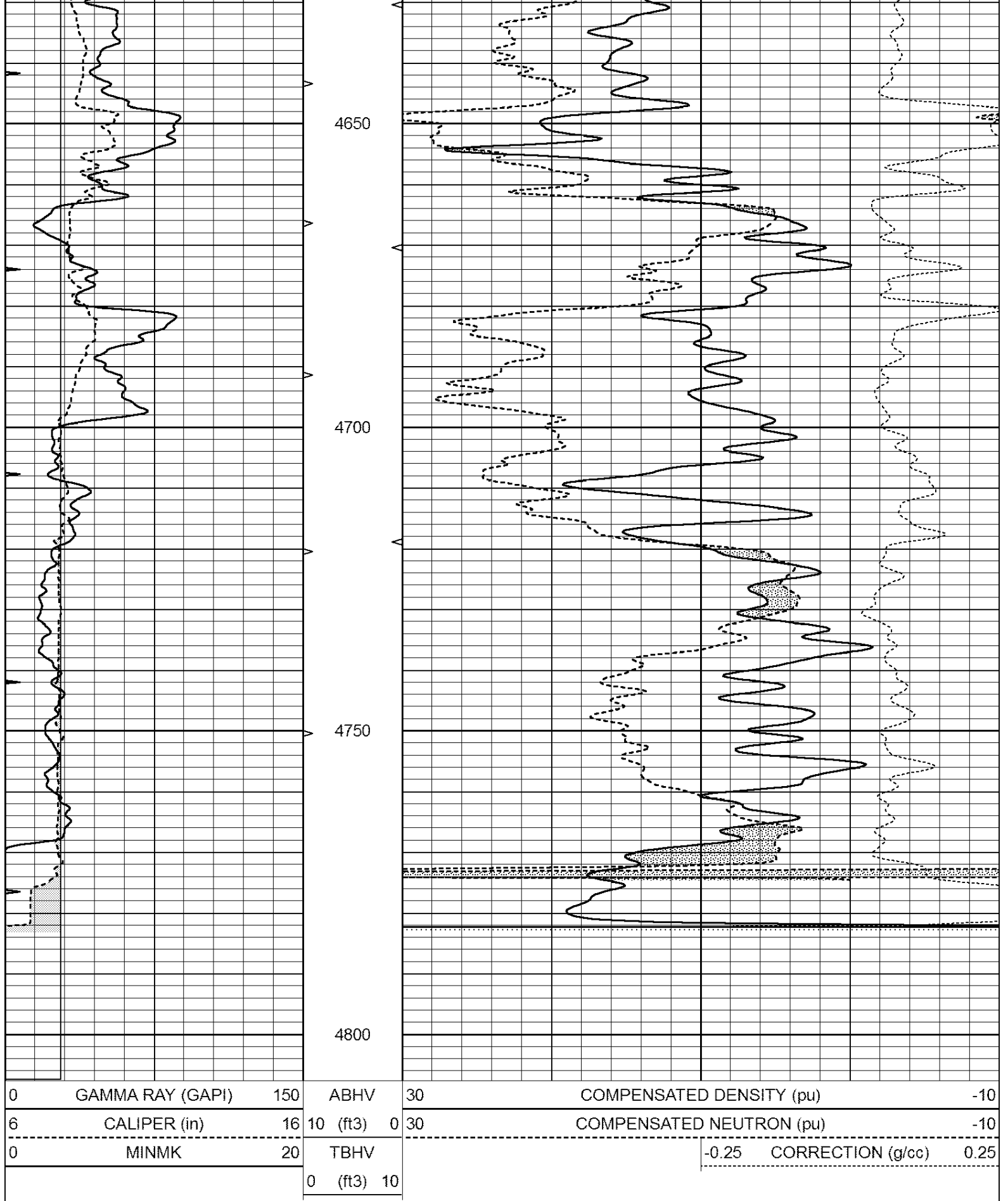


REPEAT SECTION

Database File: 3479ddn.db
 Dataset Pathname: pass2.1
 Presentation Format: den_neu
 Dataset Creation: Fri Feb 01 06:08:49 2019
 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
0	MINMK	20	TBHV		-0.25	CORRECTION (g/cc) 0.25
			0 (ft³)	10		





Calibration Report

Database File: 3479ddn.db
 Dataset Pathname: pass2.1
 Dataset Creation: Fri Feb 01 06:08:49 2019

Dual Induction Calibration Report

Serial-Model: PROBE8-DILG
 Surface Cal Performed: Mon Sep 10 14:28:35 2018
 Downhole Cal Performed: Mon Sep 10 14:28:38 2018
 After Survey Verification Performed: Mon Sep 10 14:28:40 2018

Surface Calibration

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	620.000	0.000
Medium	0.029	0.796	V	0.000	464.000	mmho/m	590.000	-12.000
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: 006 Model: PRB

Master Calibration

Performed Thu Sep 27 12:07:11 2018

	Background	Magnesium	Aluminum	Sandstone	
Window 1	1185.6	7077.4	2520.9	8182.4	cps
Window 2	1116.8	5910.1	2163.2	6739.4	cps
Window 3	880.1	3145.8	1325.0	3461.2	cps
Window 4	289.5	295.8	290.8	295.3	cps
Long Space	0.0	4793.3	1046.5	5622.7	cps
Short Space	2.9	1608.0	1038.9	1622.7	cps
Rho		1.7100	2.5960	1.3800	g/cc
Pe		0.0000	2.5700	1.5500	
Rib Angle	: 44.0	Rib Slope	: 0.965	Density/Spine Ratio	: 0.560
Spine Angle	: 74.0	Spine Slope	: 3.484	Spine Intercept	: -17.2

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
	Long Space	1.00	cps	1.00	cps

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		cps		
	Long Space		cps	pu	pu
2)	Short Space		cps		
	Long Space		cps	pu	pu
3)	Short Space		cps		
	Long Space		cps	pu	pu

Gamma Ray Calibration Report					
Serial Number:		GR6			
Tool Model:		OPEN			
Performed:		Mon Sep 10 14:29:23 2018			
Calibrator Value:		150.0		GAPI	

Background Reading:	0.0	cps
Calibrator Reading:	276.0	cps
Sensitivity:	0.5500	GAPI/cps