

COMPENSATED DENSITY / NEUTRON PE LOG

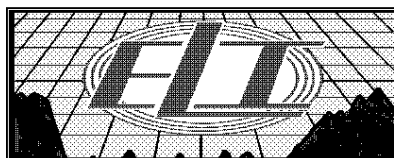
Company	C & K OPERATING, LLC.		
Well	ALAMEDA #3-10		
Field	ALAMEDA		
County	KINGMAN	State	KANSAS
Company	C & K OPERATING, LLC.		
Well	ALAMEDA #3-10		
Field	ALAMEDA		
County	KINGMAN	State	KANSAS
Location:	API # : 15-095-22332-0000 330' FSL & 1150' FEL W/2 - SW - SE - SE		Other Services DIL/MEL SONIC
Permanent Datum	GROUND LEVEL	Elevation	1601
Log Measured From	KELLY BUSHING 10' A.G.L.		
Drilling Measured From	KELLY BUSHING		
SEC 28 TWP 28S RGE 7W			
Date	12/20/19		
Run Number	ONE		
Depth Driller	4430		
Depth Logger	4428		
Bottom Logged Interval	4404		
Top Log Interval	2700		
Casing Driller	13 3/8" @ 246'		
Casing Logger	246		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 5,500 PPM	
Density / Viscosity	9.4/50		
pH / Fluid Loss	10.5/8.8		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	.800 @ 62F		
Rmf @ Meas. Temp	.600 @ 62F		
Rmc @ Meas. Temp	.960 @ 62F		
Source of Rmf / Rmc	MEASUREMENT		
Rim @ BHT	.413 @ 120F		
Time Circulation Stopped	2.5 HOURS		
Time Logger on Bottom	10:30 P.M.		
Maximum Recorded Temperature	120F		
Equipment Number	922339		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	WYATT URBAN		

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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, KANSAS (785) 628-6395
DIRECTIONS
KINGMAN, KS., 5S. TO "RD. 50" 1E., N. INTO

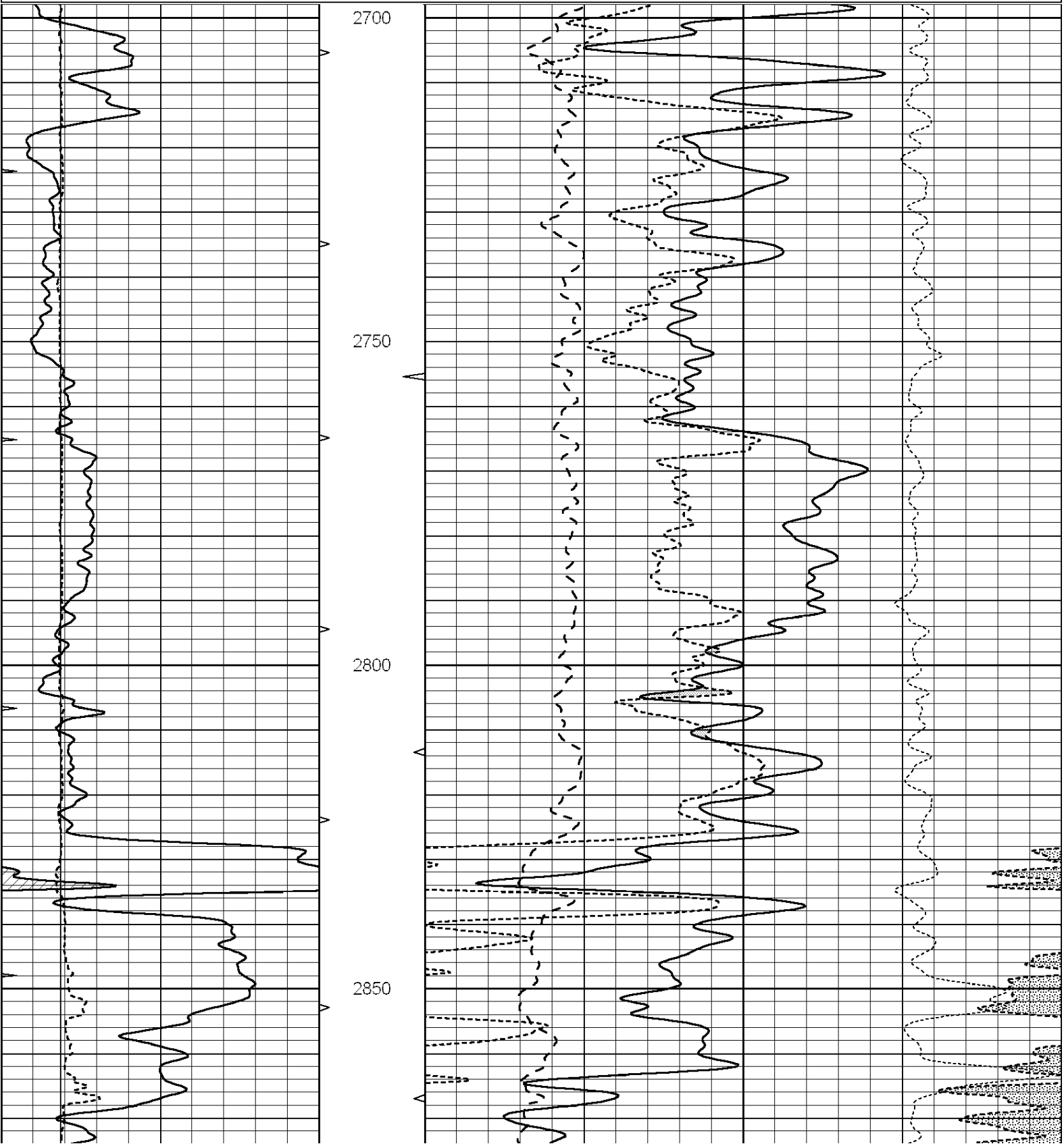


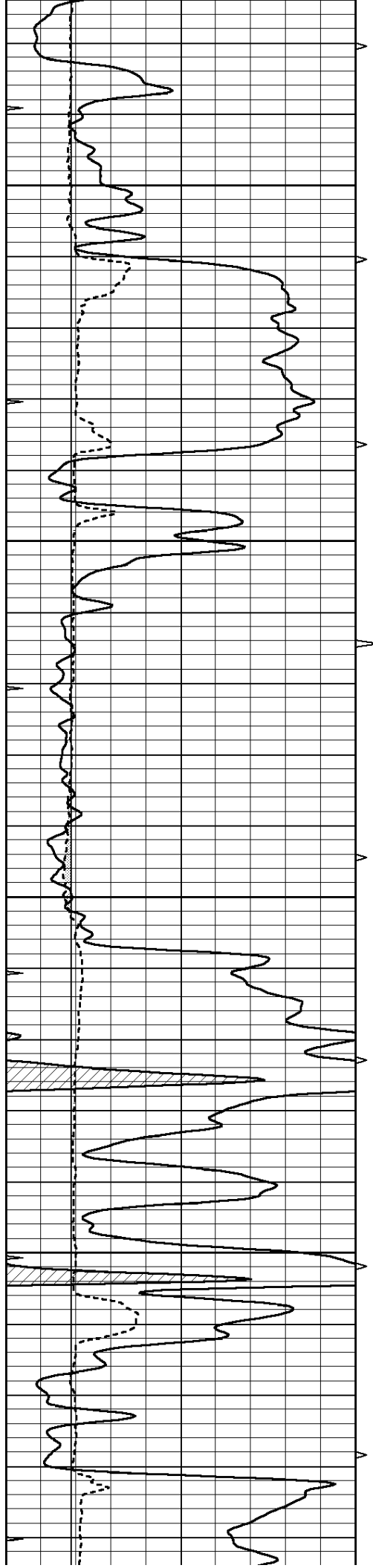
MAIN SECTION

Database File: 4394pe.db
Dataset Pathname: pass3.4
Presentation Format: ldt_neu
Dataset Creation: Fri Dec 20 23:58:12 2019 by Calc SOC 120430
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	-----				



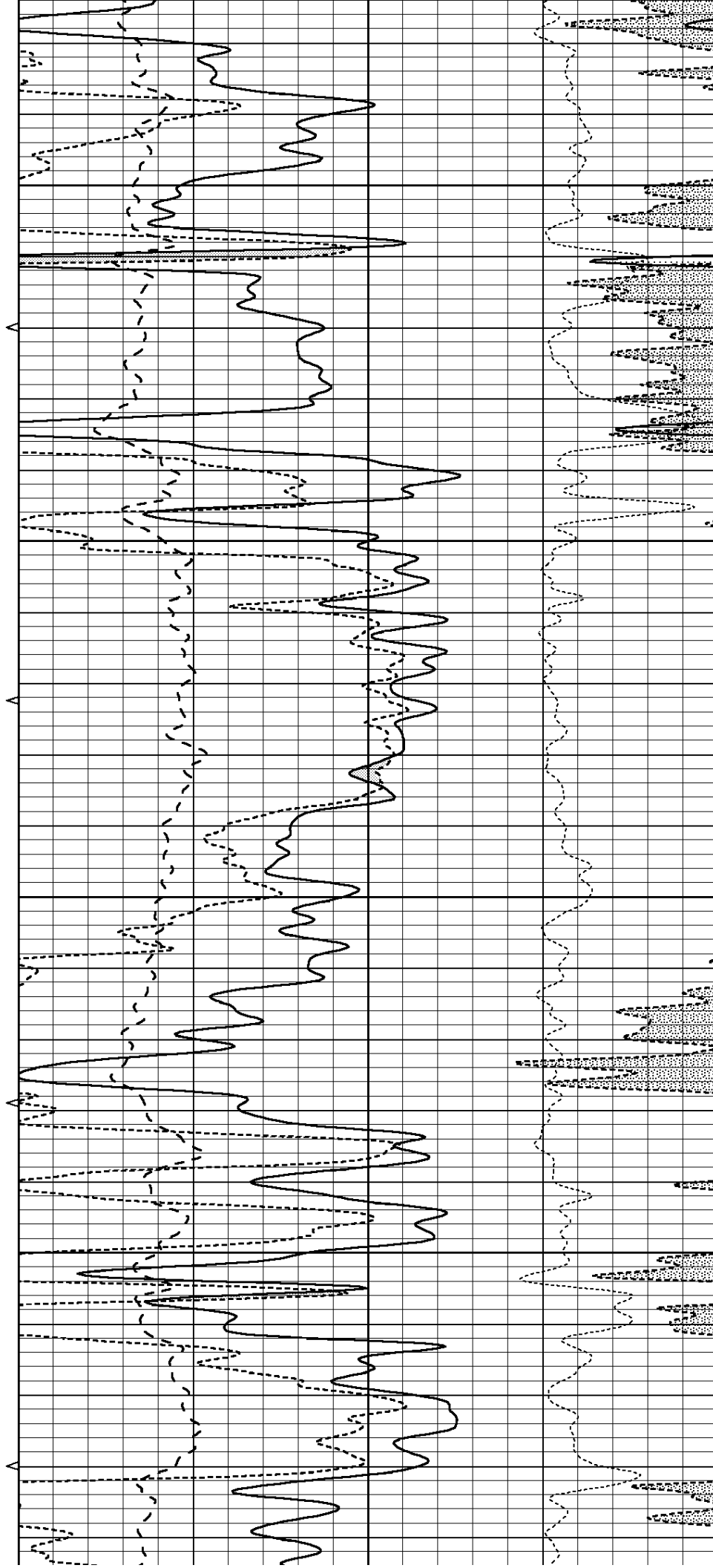


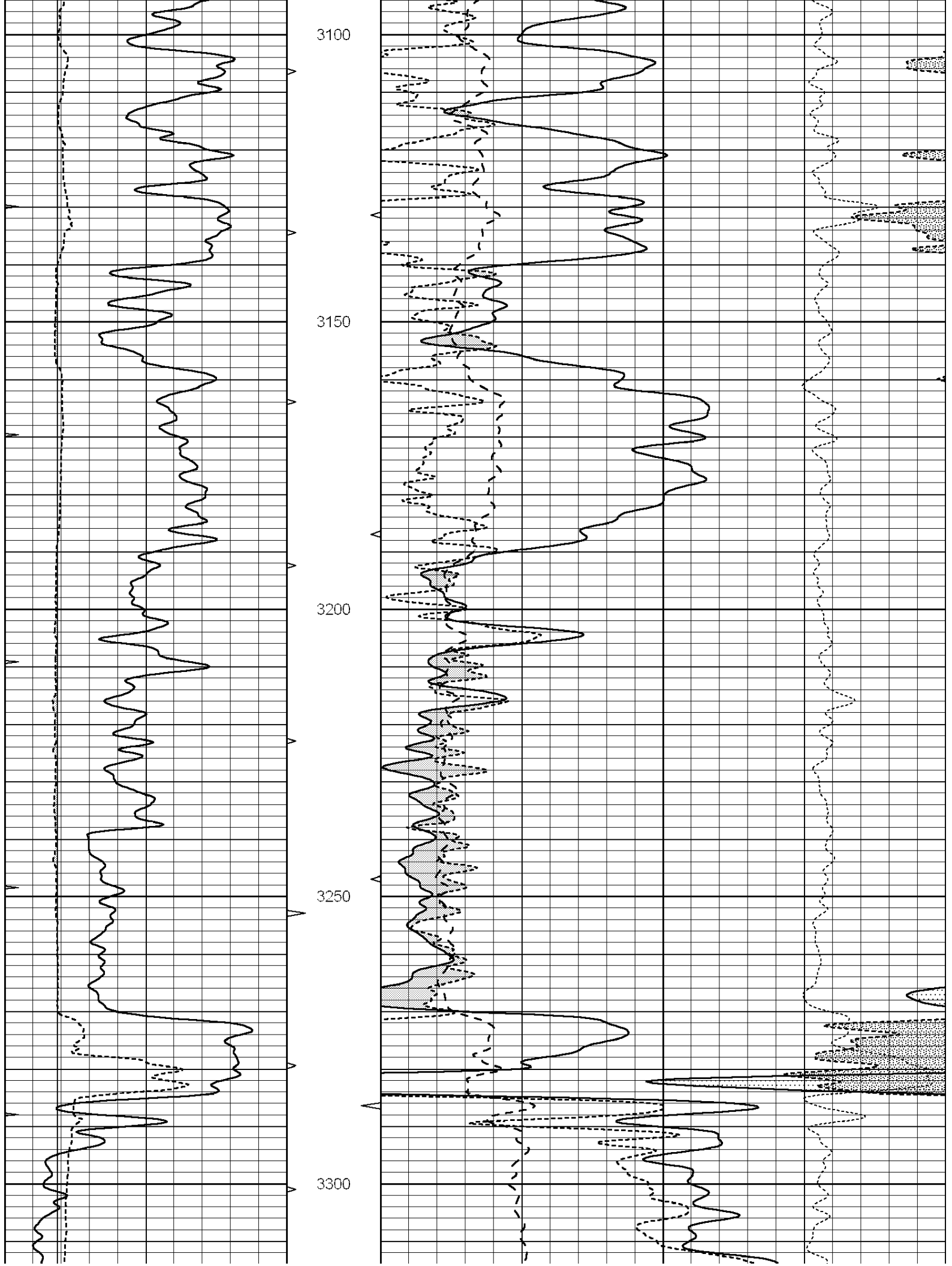
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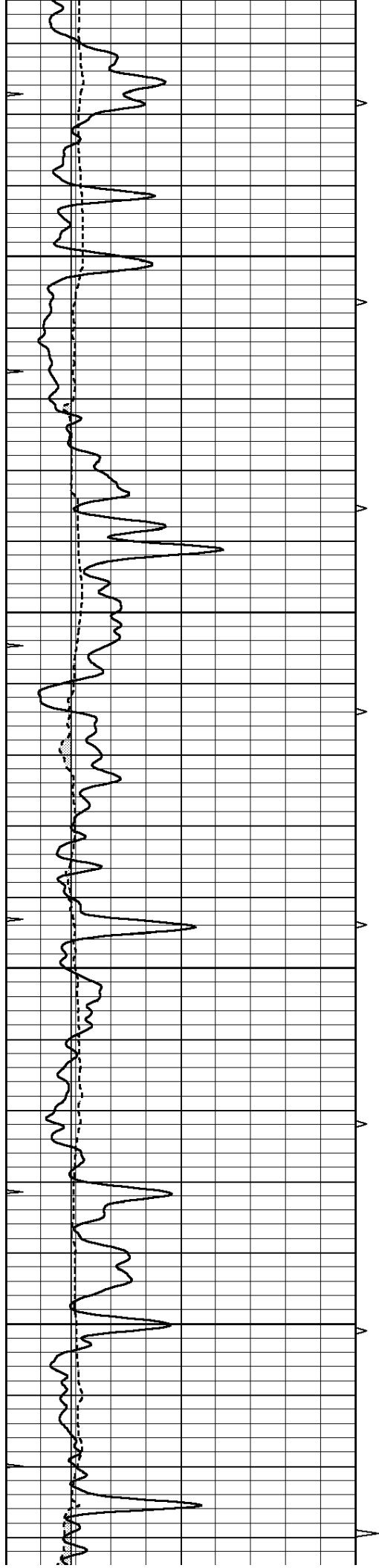
2950

3000

3050





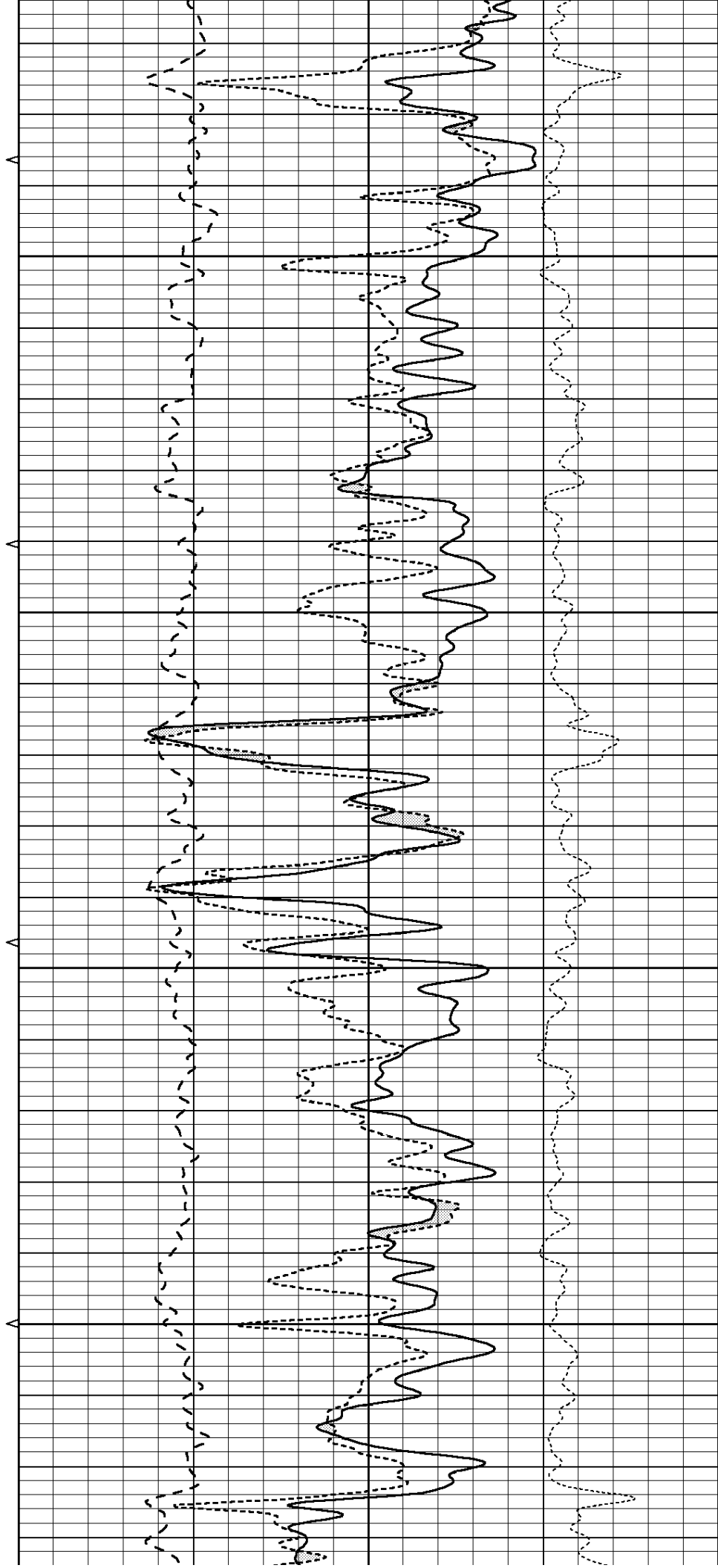


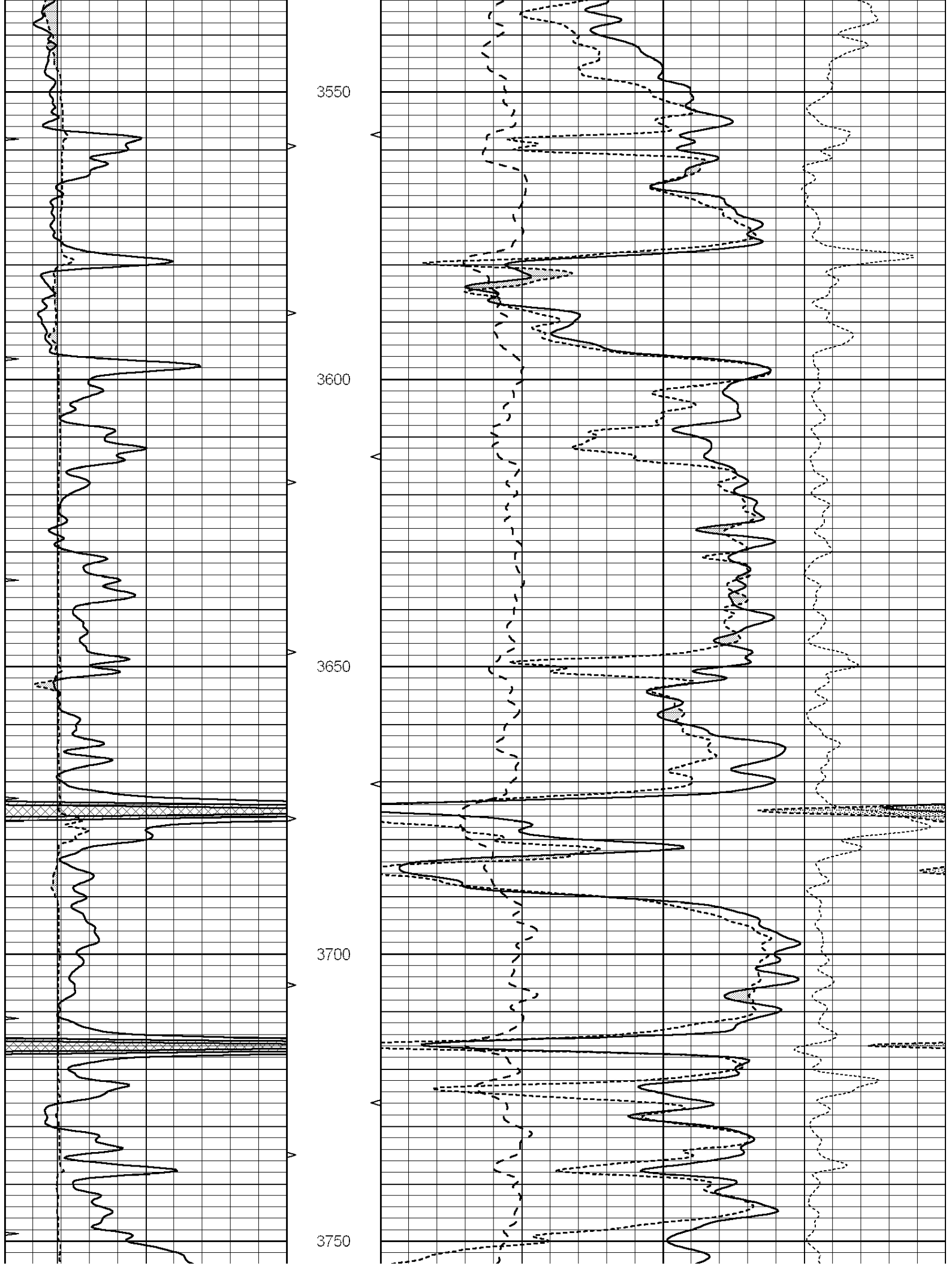
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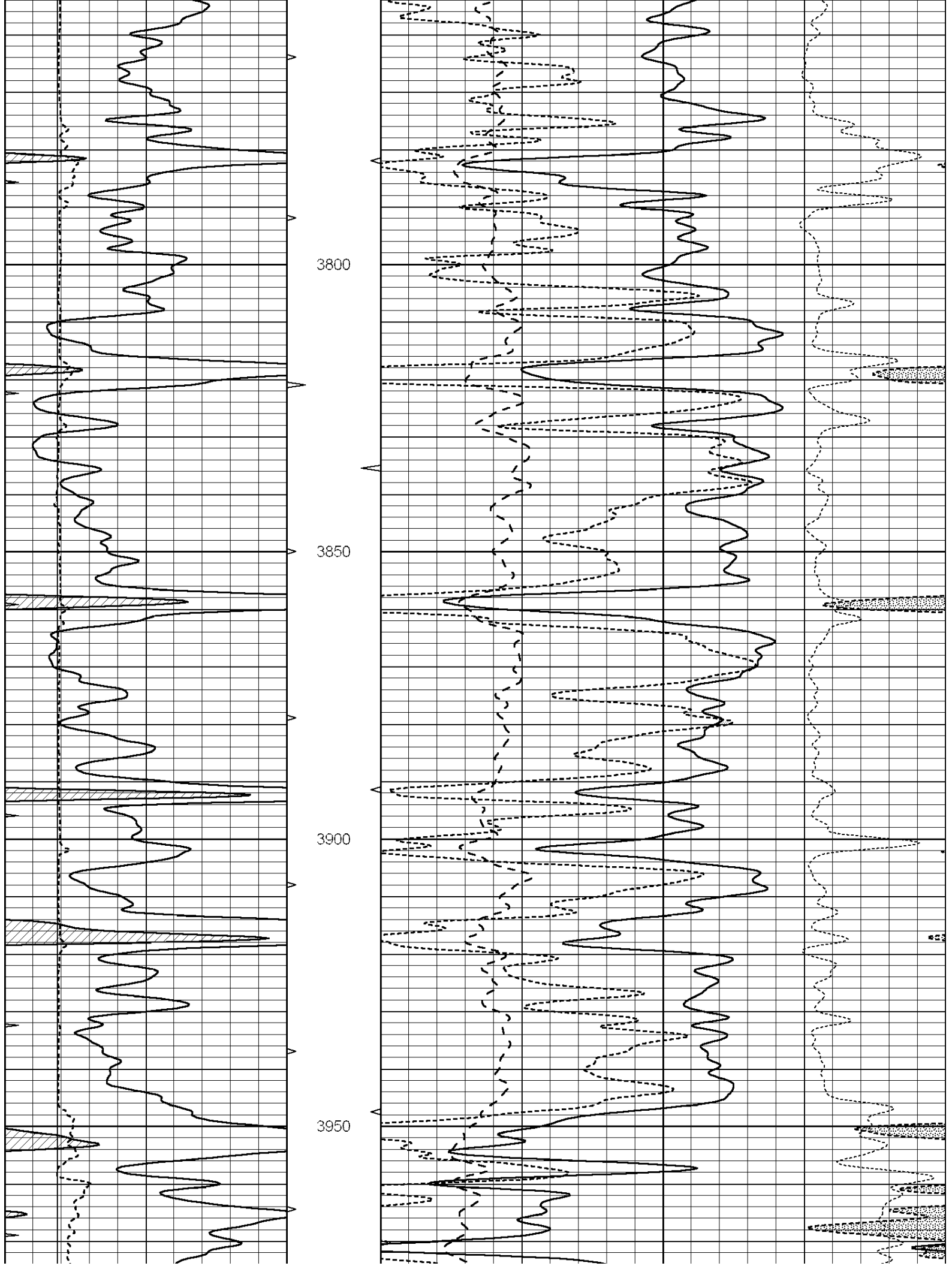
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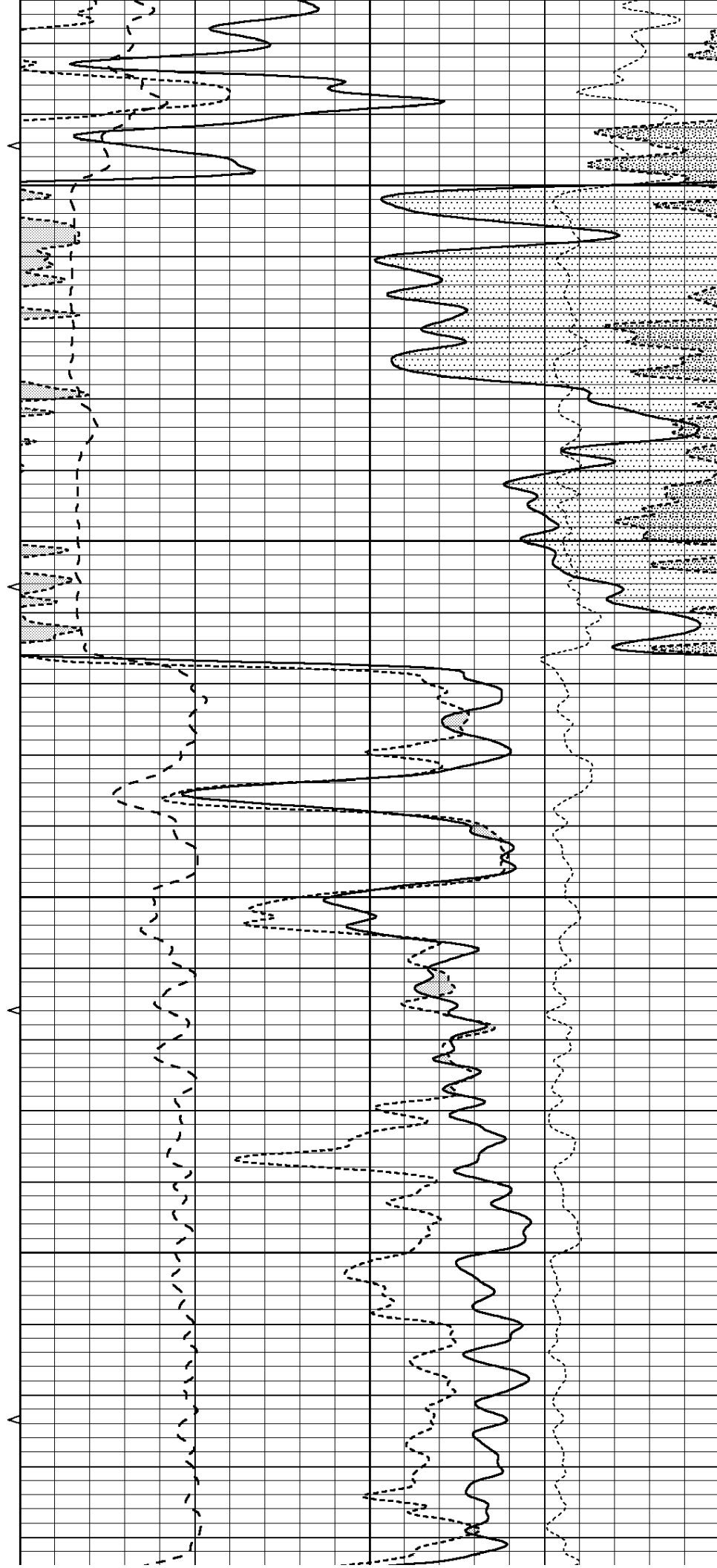
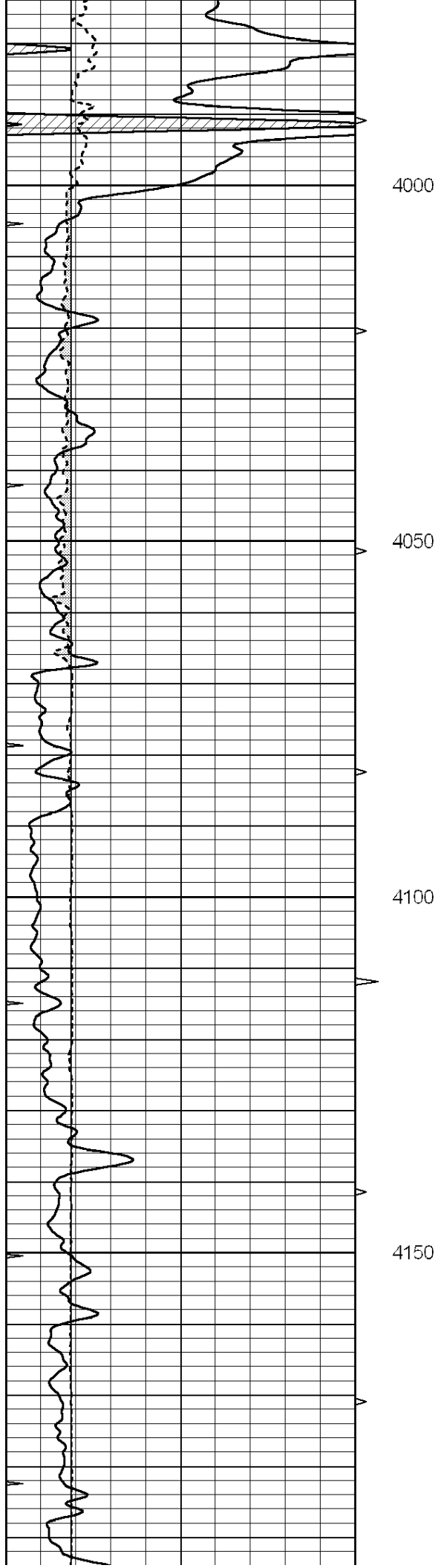
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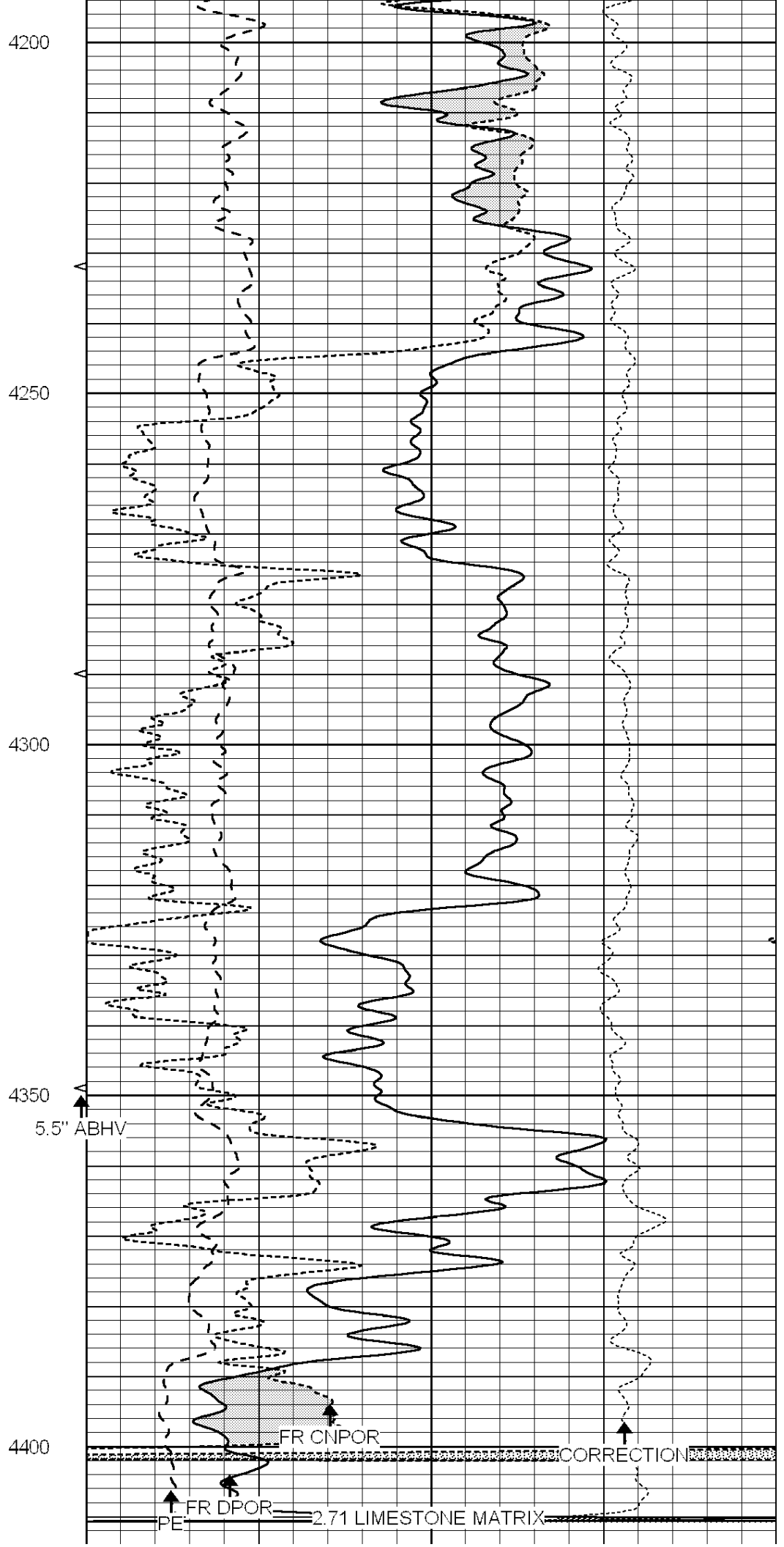
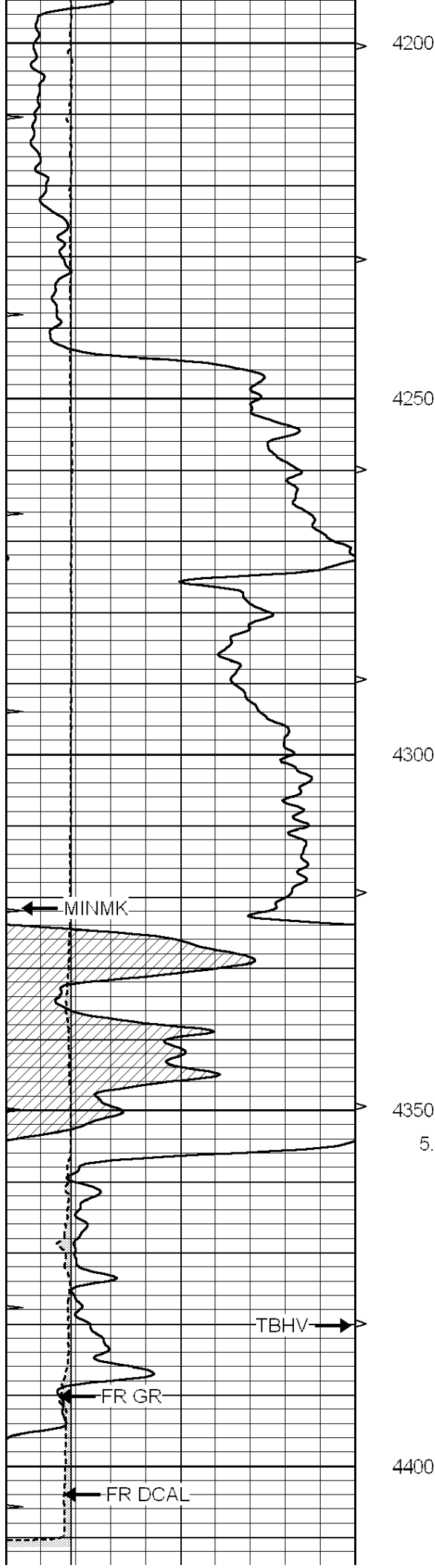
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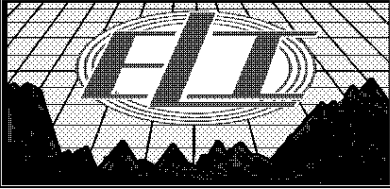






LTD 4428

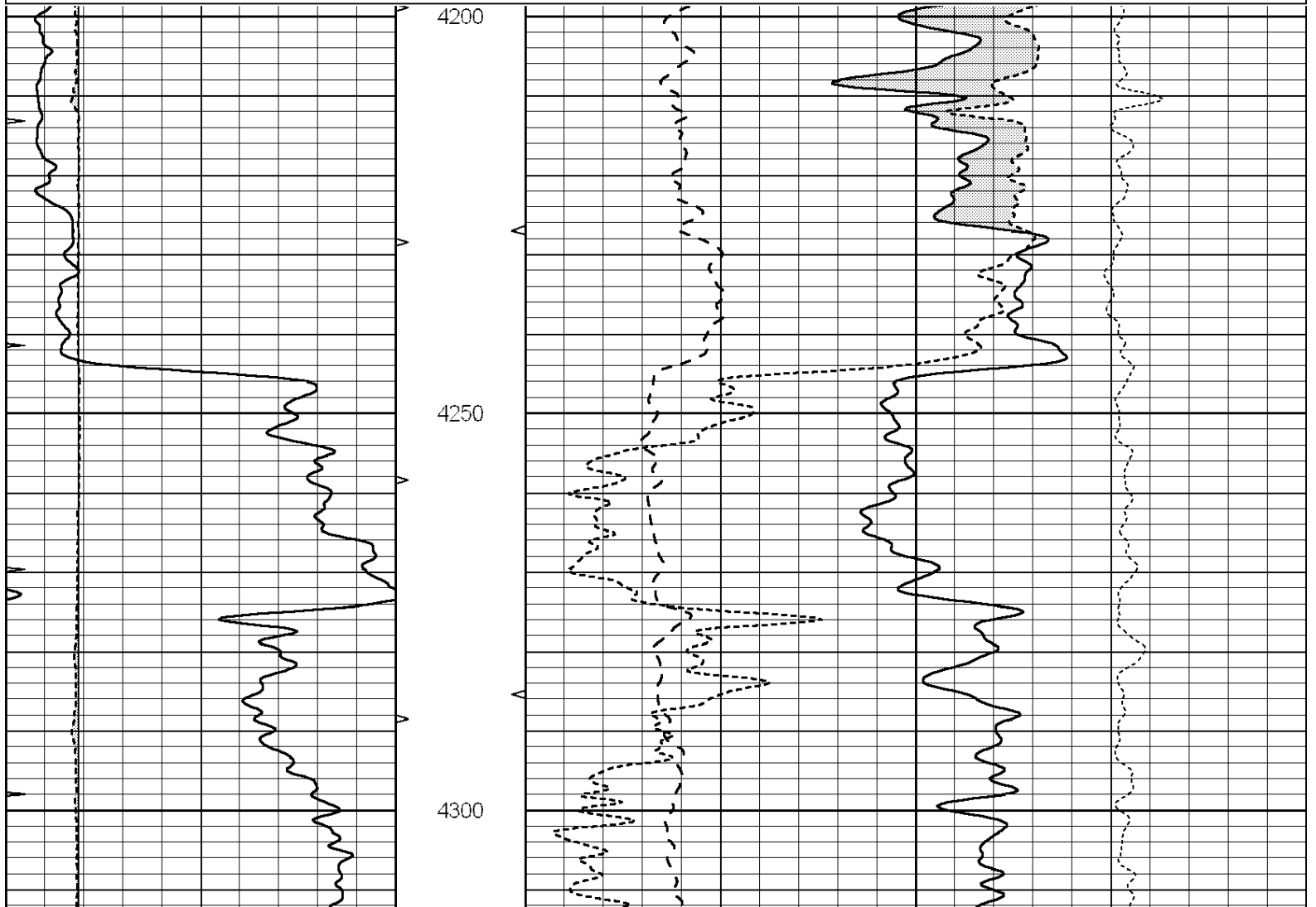
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)				-10
6	CALIPER (in)	16	10 (ft3)	0	30	COMPENSATED NEUTRON (pu)			-10
0	MINMK	20	TBHV	0	PE	10	-0.25	CORRECTION (g/cc)	0.25
			0 (ft3)	10					

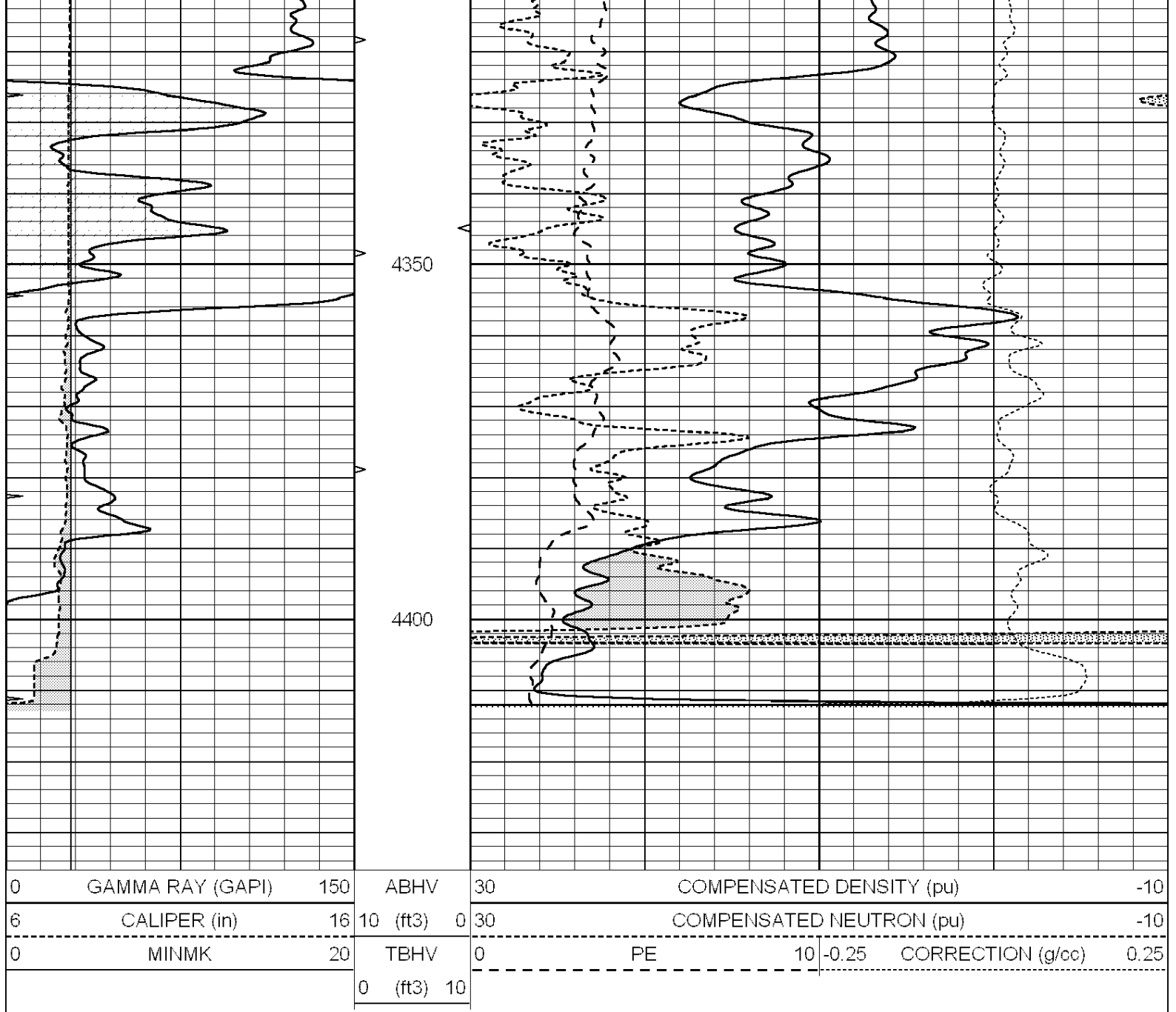


REPEAT SECTION

Database File: 4394pe.db
 Dataset Pathname: pass2.5
 Presentation Format: ldt_neu
 Dataset Creation: Fri Dec 20 22:50:14 2019 by Calc SOC 120430
 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					





Calibration Report

Database File: 1598ddn.db
 Dataset Pathname: pass4
 Dataset Creation: Wed Aug 30 02:13:00 2017 by Log SOC 120430

Dual Induction Calibration Report

Serial-Model: PROBE7-DILG
 Surface Cal Performed: Wed Aug 30 00:06:33 2017
 Downhole Cal Performed: Mon Jul 28 12:02:56 2008
 After Survey Verification Performed: Mon Jul 28 12:02:56 2008

Surface Calibration

Readings			References			Results	
Loop:	Air	Loop	Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000 mmho/m	620.000	0.000
Medium	0.039	0.728	V	0.000	464.000 mmho/m	675.000	-44.000
Internal:	Zero	Cal	Zero	Cal		m	b

Deep	0.011	0.610	V	0.000	400.000	mmho/m	667.135	-7.256
Medium	0.005	0.712	V	0.000	464.000	mmho/m	655.677	-3.102
Downhole Calibration								
Readings			References			Results		
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	14.508	388.384	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	166.367	504.400	mmho/m	1.000	0.000
LL3		7.500	V		1400.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		4000.000	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 Mon Aug 21 11:27:42 2017					
	Background	Magnesium	Aluminum	Sandstone				
Window 1	837.1	10632.5	2945.1	12110.1				cps
Window 2	772.0	9117.4	2570.1	10197.3				cps
Window 3	631.7	4669.0	1481.9	5042.9				cps
Window 4	187.0	187.5	185.9	189.9				cps
Long Space	0.0	8345.4	1798.1	9425.3				cps
Short Space	1.1	1927.9	1285.9	2050.2				cps
Rho		1.7100	2.5960	1.3800				g/cc
Pe		0.0000	2.5700	1.5500				
Rib Angle	: 45.2	Rib Slope	: 1.008	Density/Spine Ratio			: 0.558	
Spine Angle	: 75.2	Spine Slope	: 3.790	Spine Intercept			: -19.6	
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:		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:	070558			
Tool Model:	OPEN_GR			
Performed:	Wed May 31 00:09:32 2017			
Calibrator Value:	1.0	GAPI		
Background Reading:	0.0	cps		
Calibrator Reading:	1.0	cps		
Sensitivity:	0.2800	GAPI/cps		