



**SUPERIOR
Hays,
Kansas**

**COMPENSATED
DENSITY / NEUTRON
LOG**

Company	PHILLIPS EXPLORATION CO., LC.	Company	PHILLIPS EXPLORATION CO., LC.
Well	DAUBERT #1-20	Well	DAUBERT #1-20
Field	REICHEL	Field	REICHEL
County	RUSH	County	RUSH
State	KANSAS	State	KANSAS
Location:	API # : 15-165-21975 1980' FNL & 1320' FEL	Other Services DIL MICRO	
Permanent Datum Log Measured From Drilling Measured From	GROUND LEVEL KELLY BUSHING 5' A.G.L. KELLY BUSHING	Elevation K.B. 2077 D.F. G.L. 2072	
Date	7-3-12		
Run Number	ONE		
Depth Driller	3775		
Depth Logger	3775		
Bottom Logged Interval	3751		
Top Log Interval	1800		
Casing Driller	1190		
Casing Logger	1190		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.5 / 59		
pH / Fluid Loss	10.0 / 9.2		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	0.70 @ 88F		
Rmf @ Meas. Temp	0.53 @ 88F		
Rmc @ Meas. Temp	0.84 @ 88F		
Source of Rmf / Rmc	MEASURED		
Rim @ BHT	.550 @ 113F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	7:00 A.M.		
Maximum Recorded Temperature	113F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	RUPP		
Witnessed By	KIM SHOEMAKER		

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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

SUPERIOR WELL SERVICES
785-628-6395
THANK YOU FOR YOUR BUISNESS
DIRECTIONS: OTIS & HIGHWAY #4, 3W TO RD. #360, 1 1/2N, W INTO.

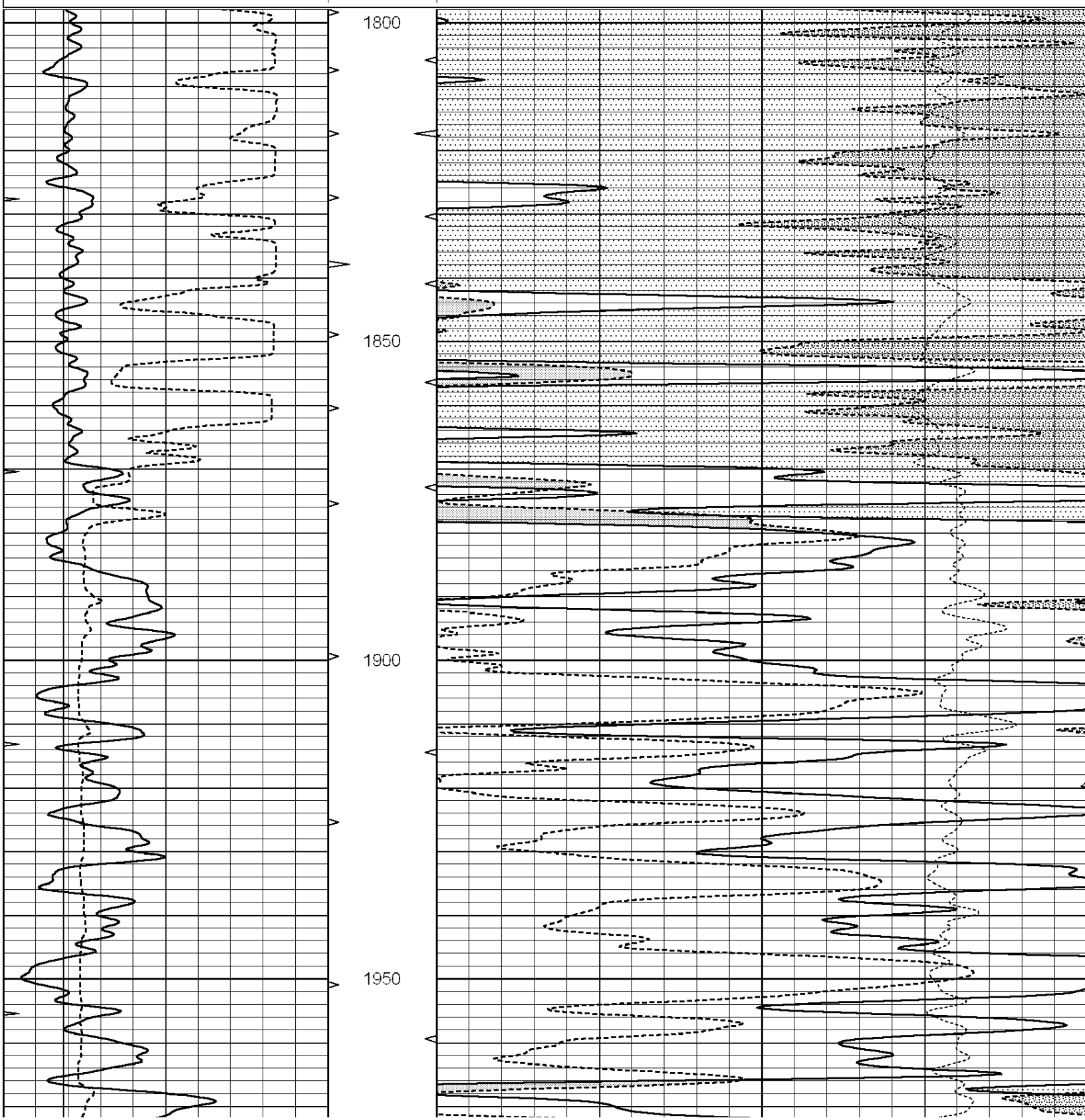


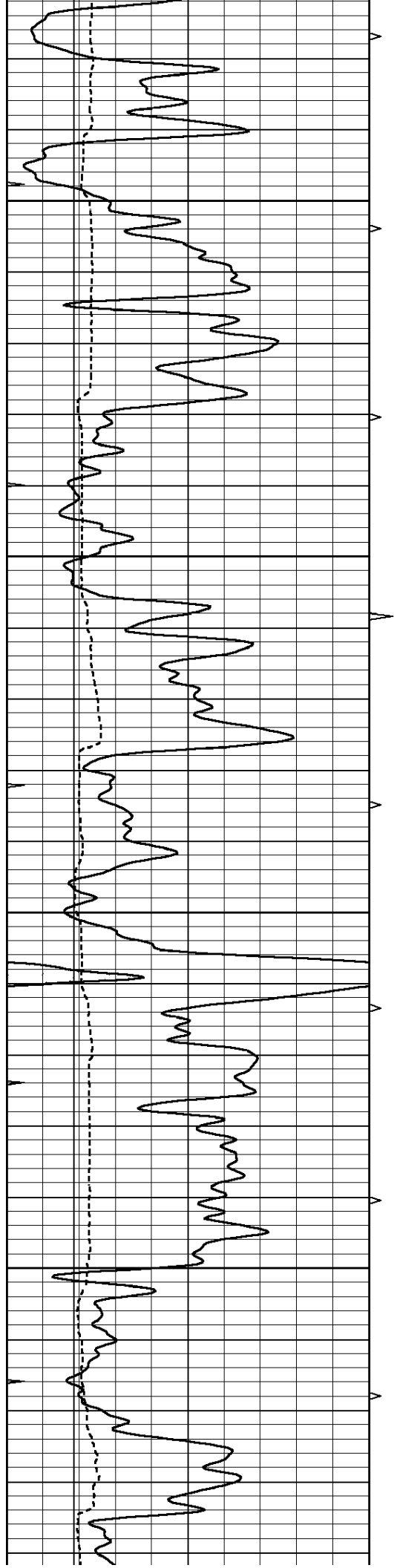
**SUPERIOR
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MAIN SECTION

Database File: 008800ddn.db
 Dataset Pathname: pass3.1
 Presentation Format: ldt_neu
 Dataset Creation: Tue Jul 03 08:35:01 2012 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		



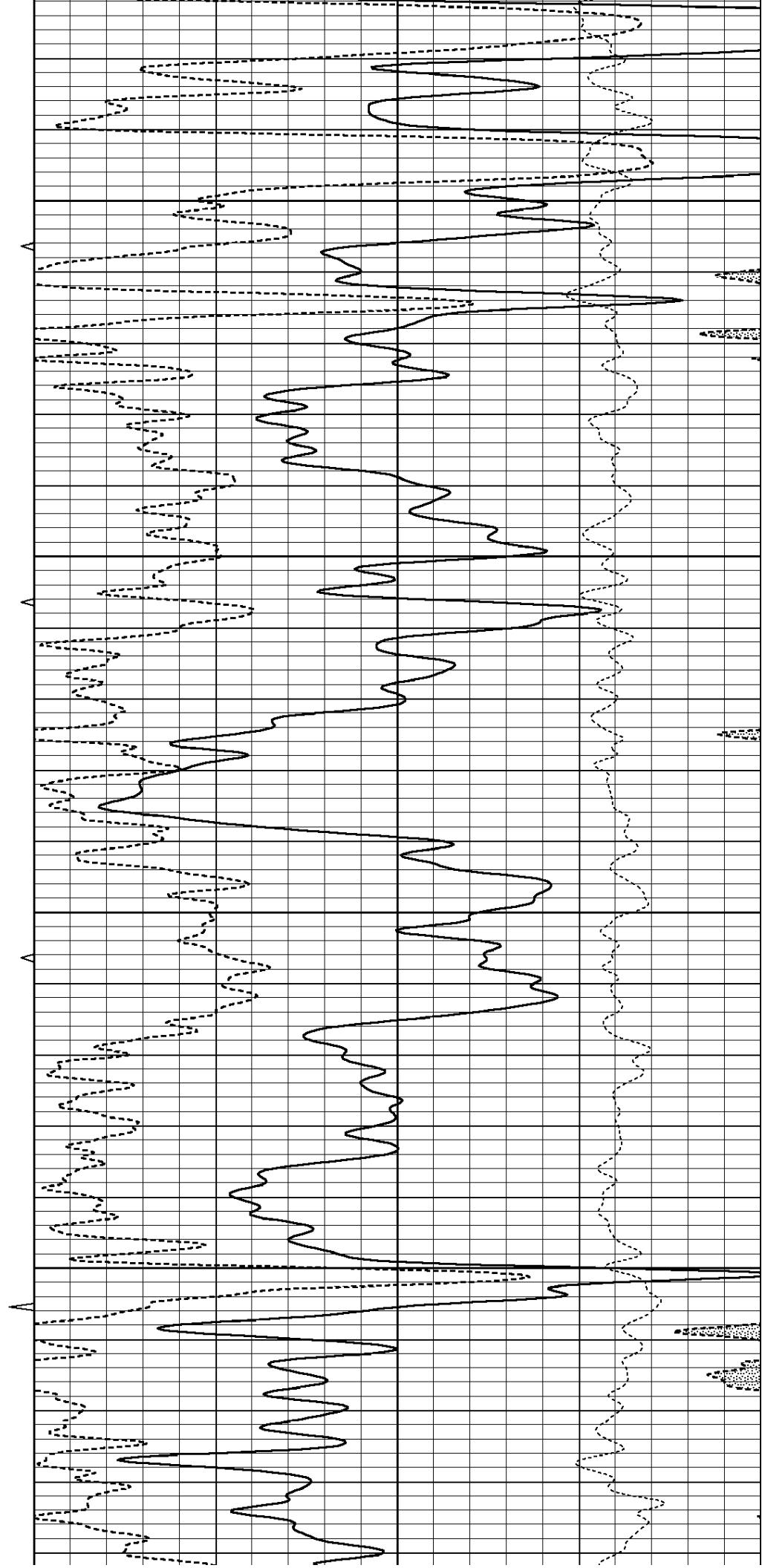


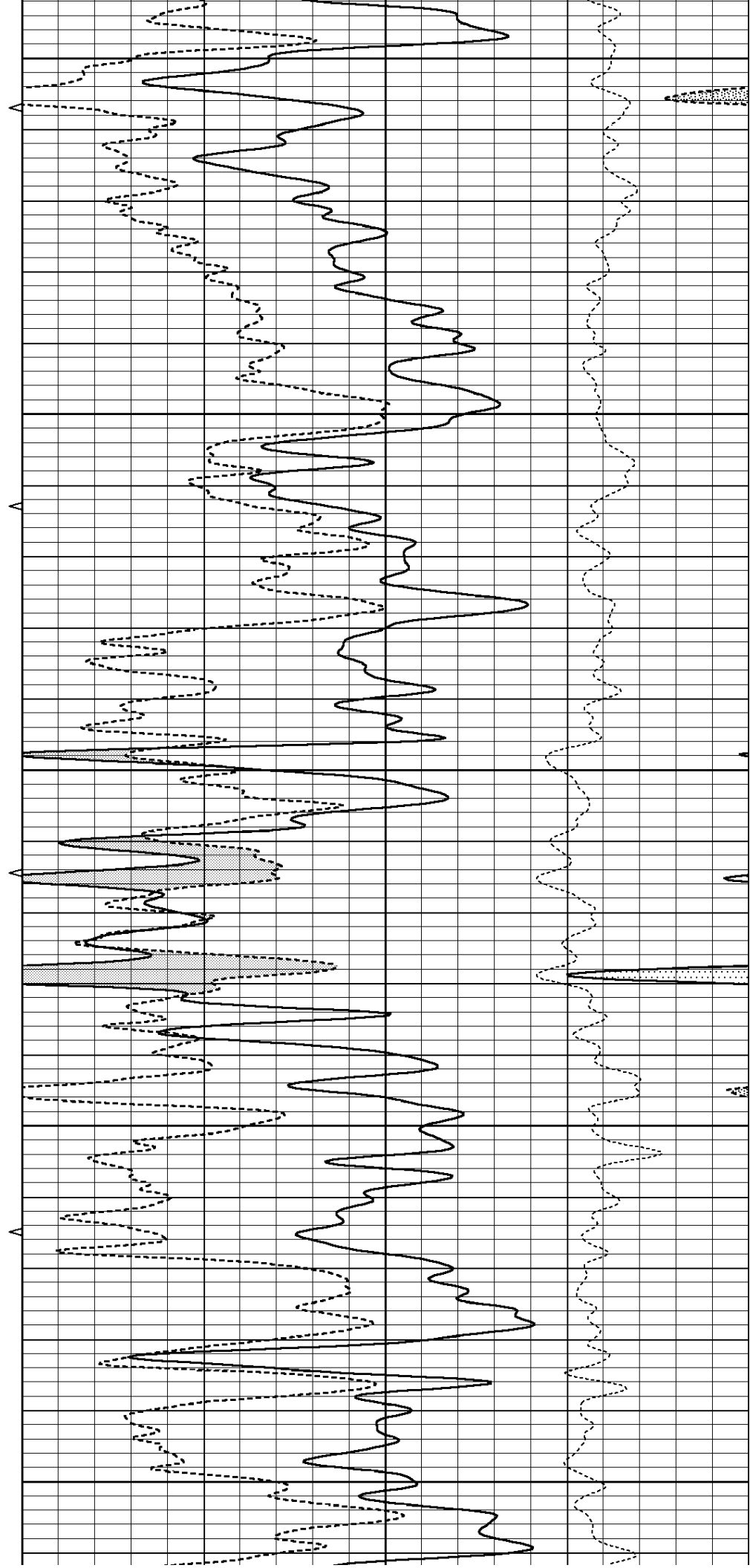
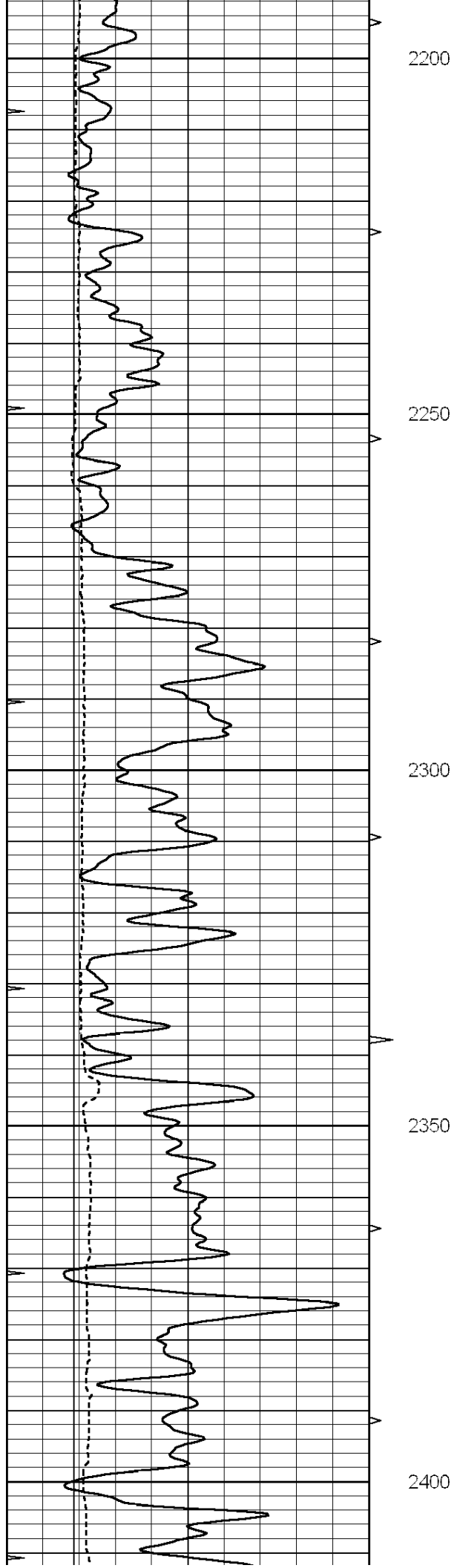
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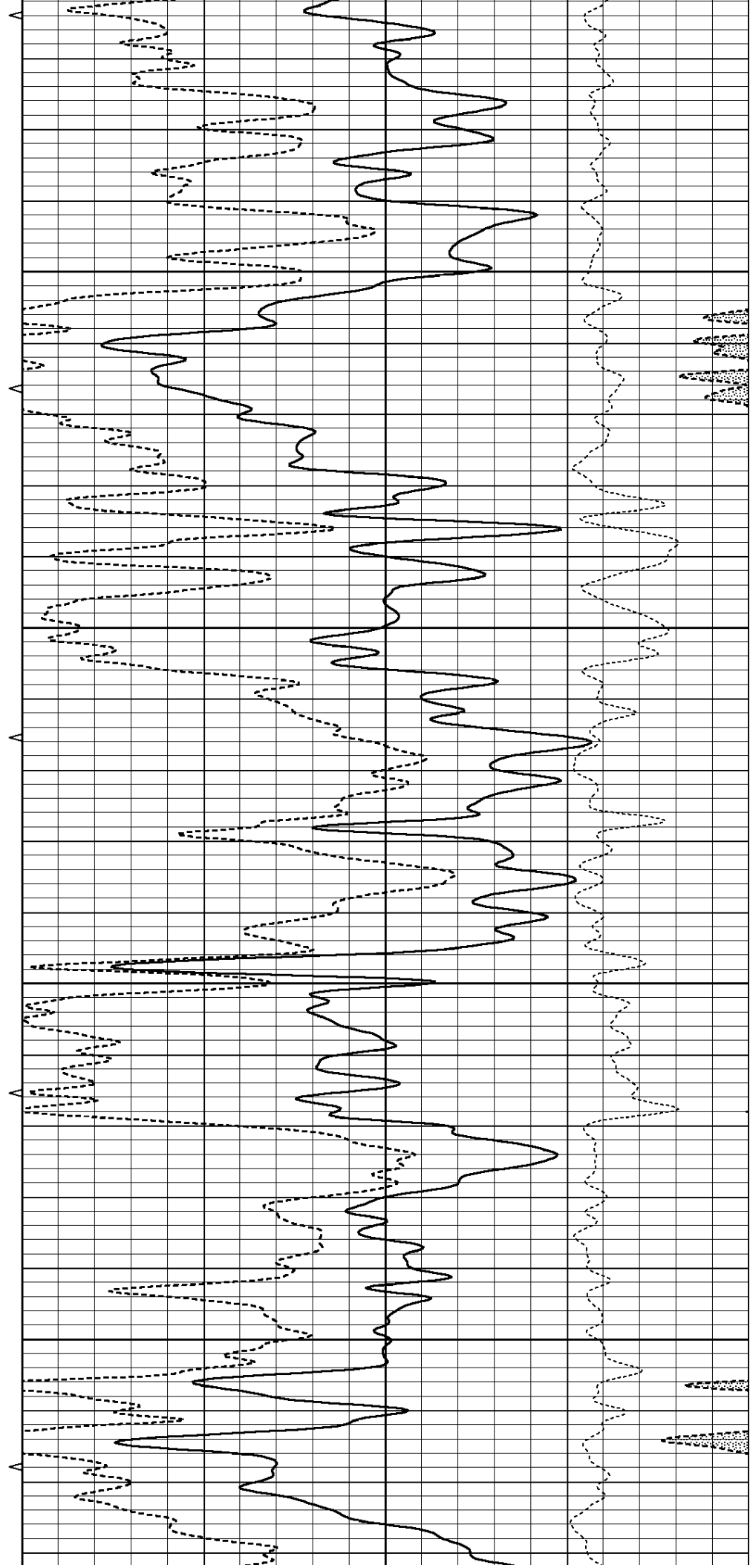
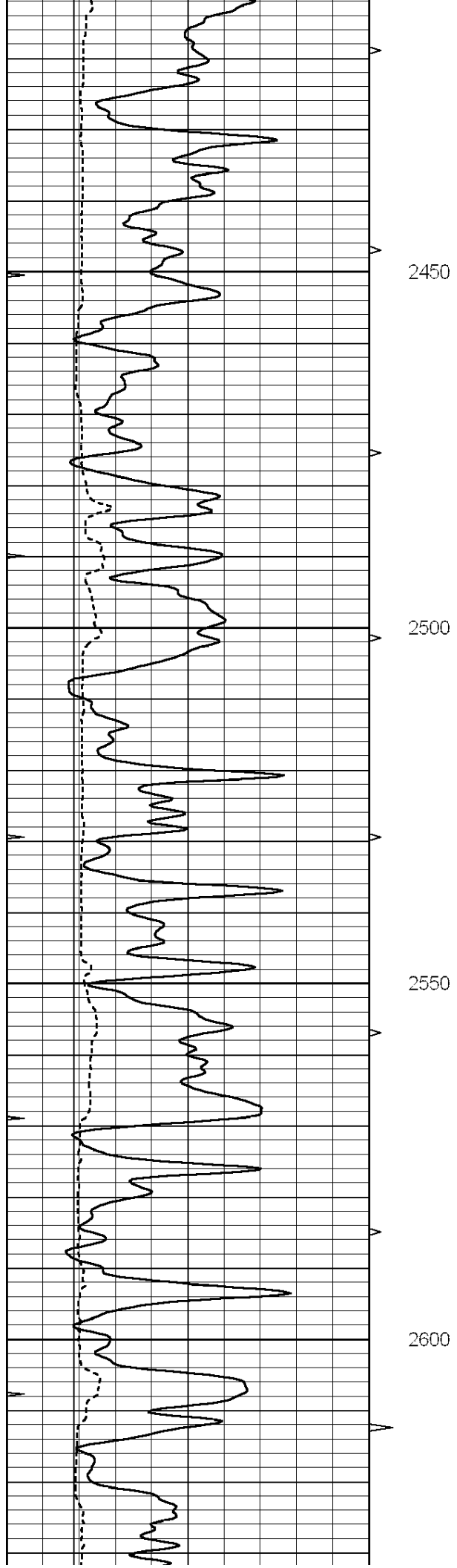
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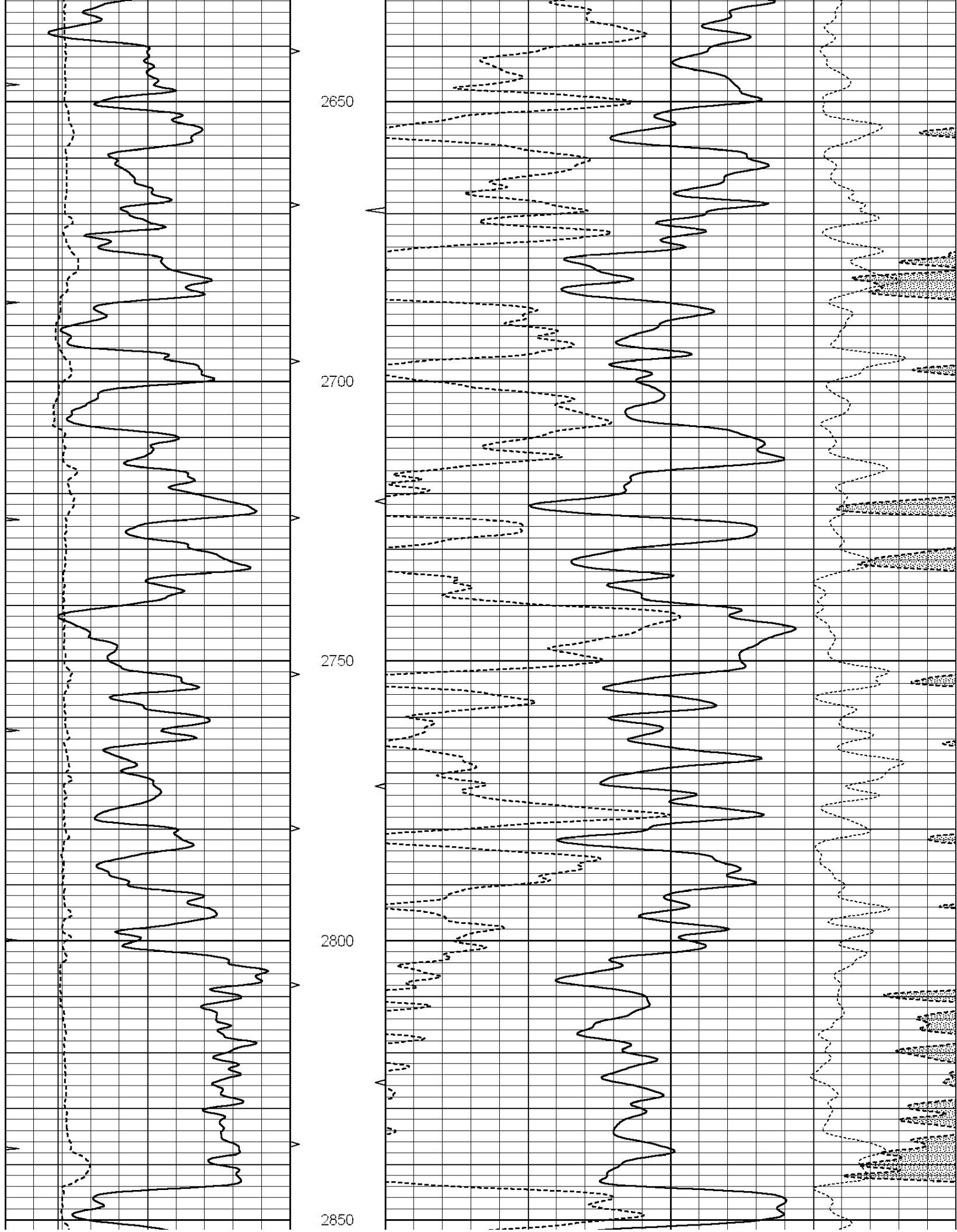
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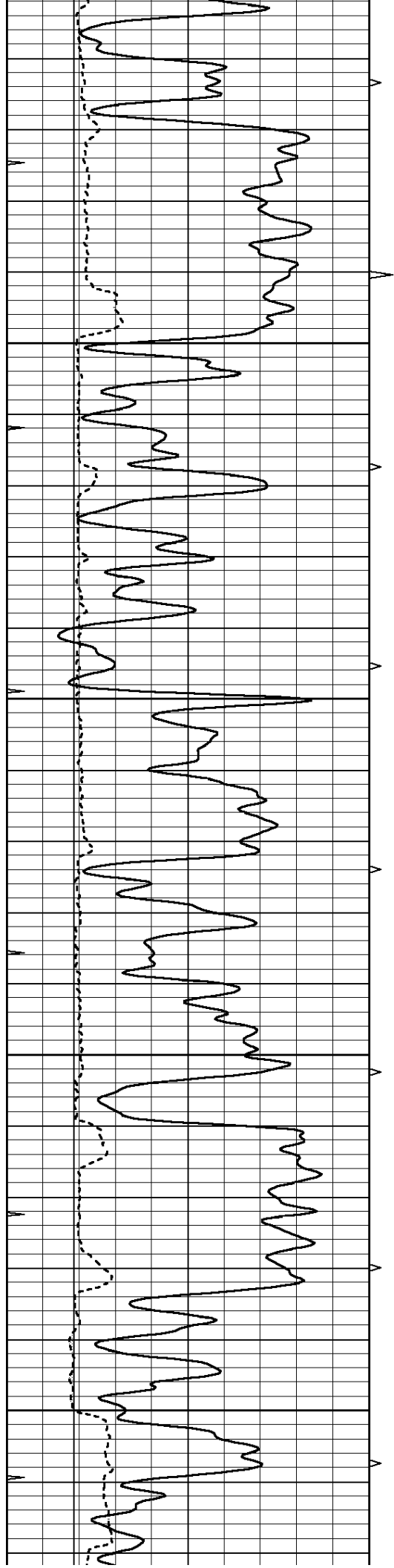
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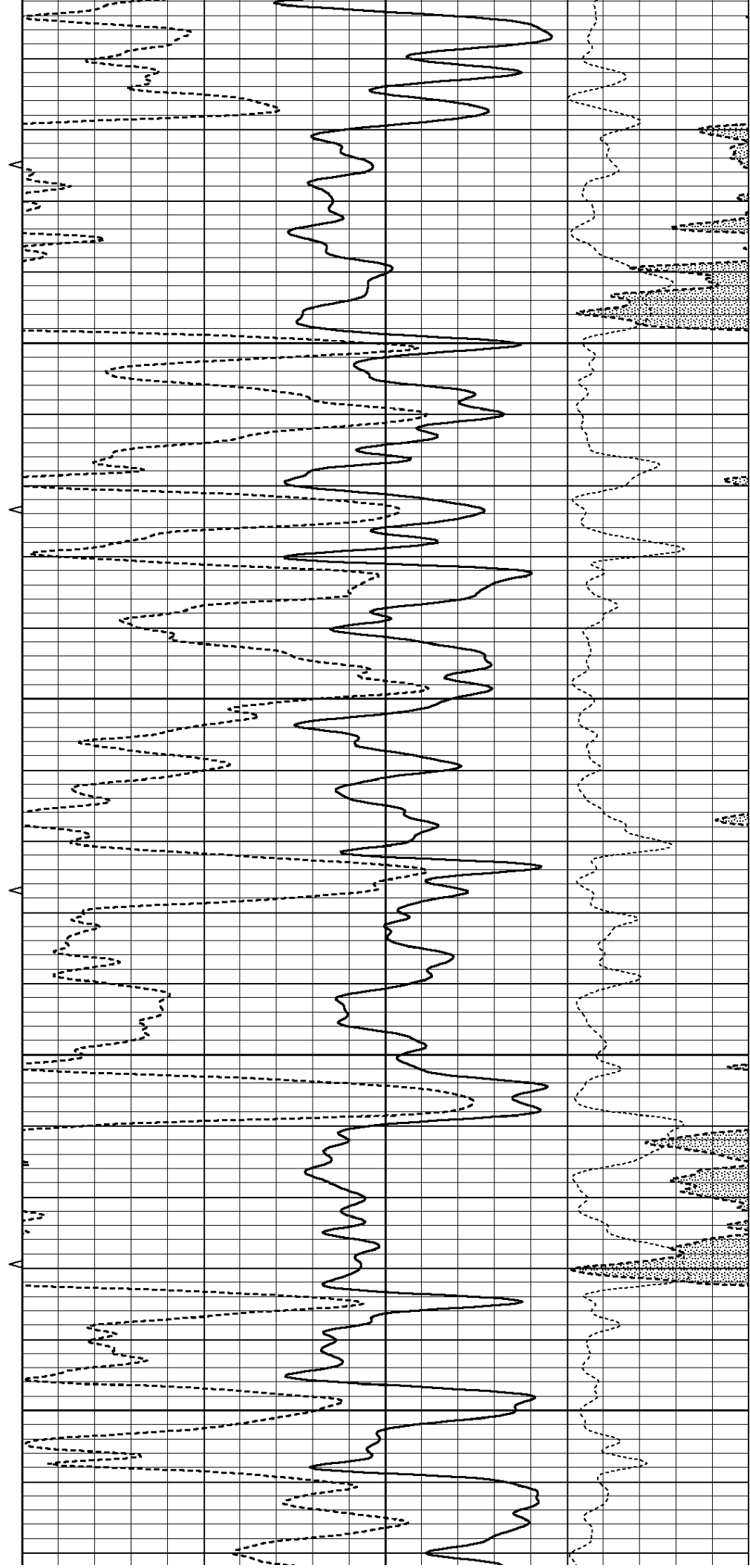


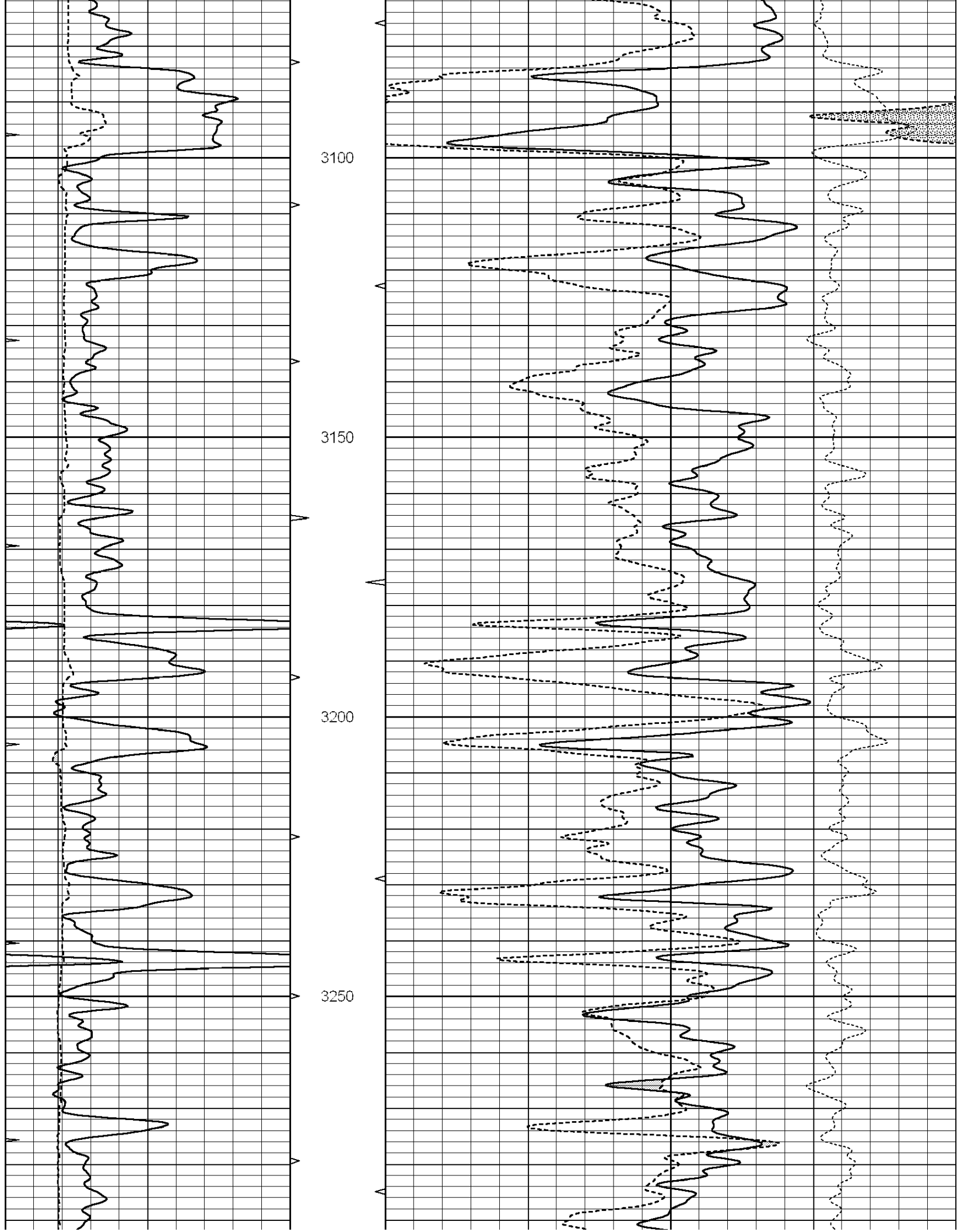
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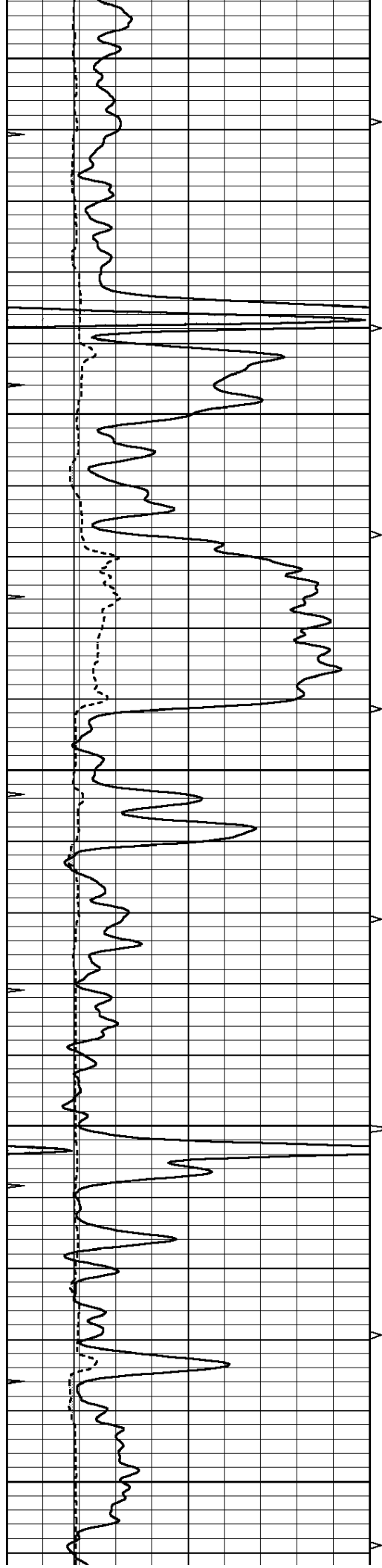
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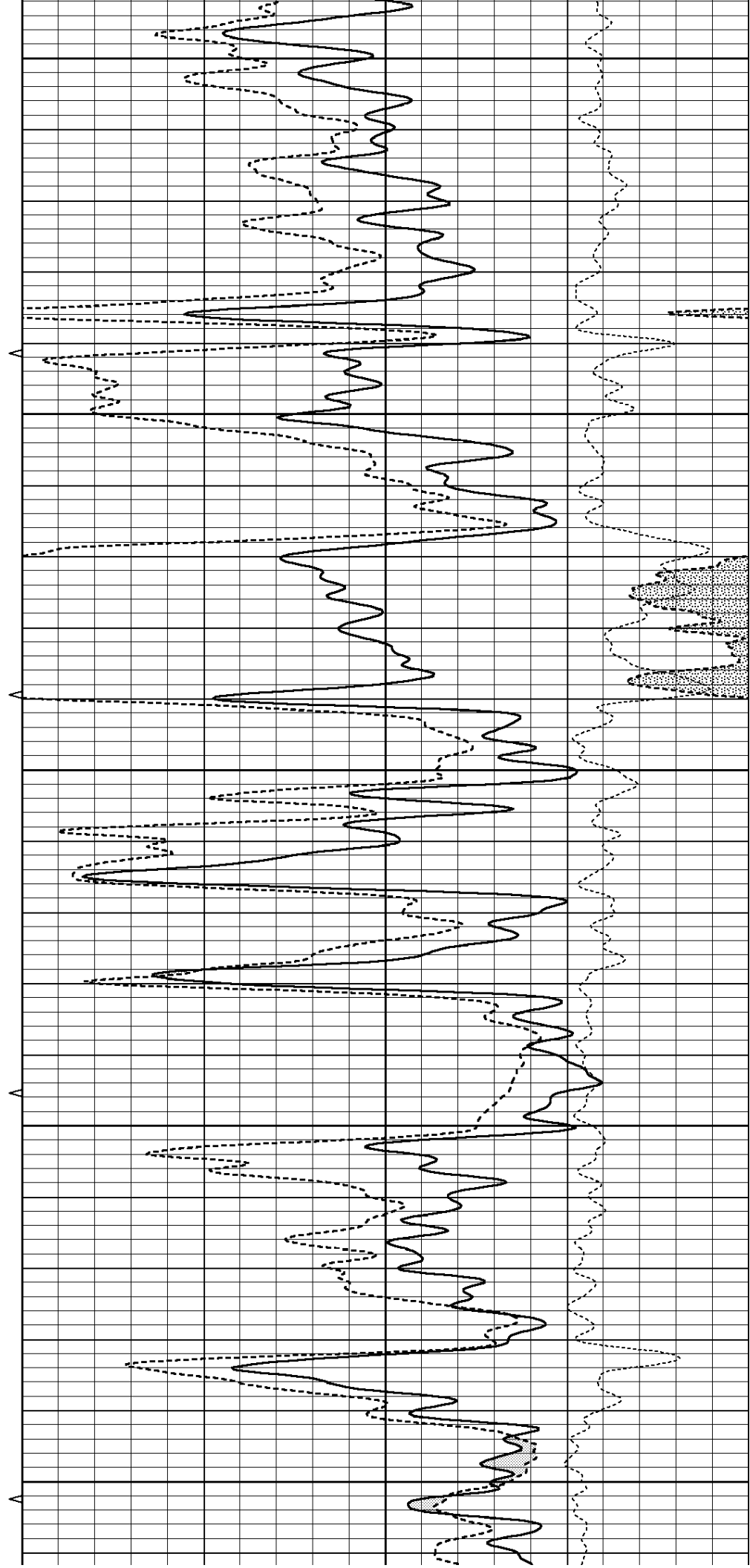
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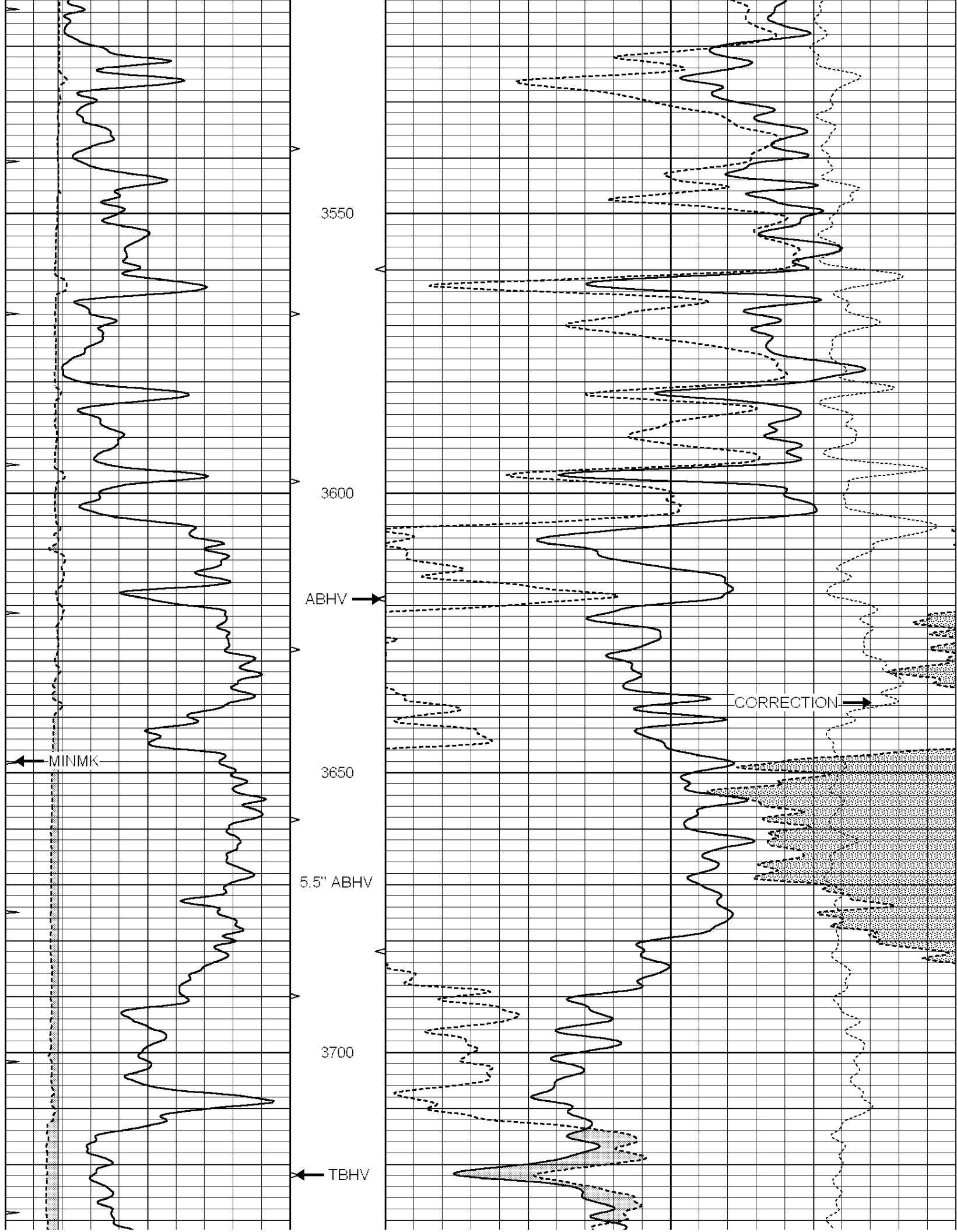
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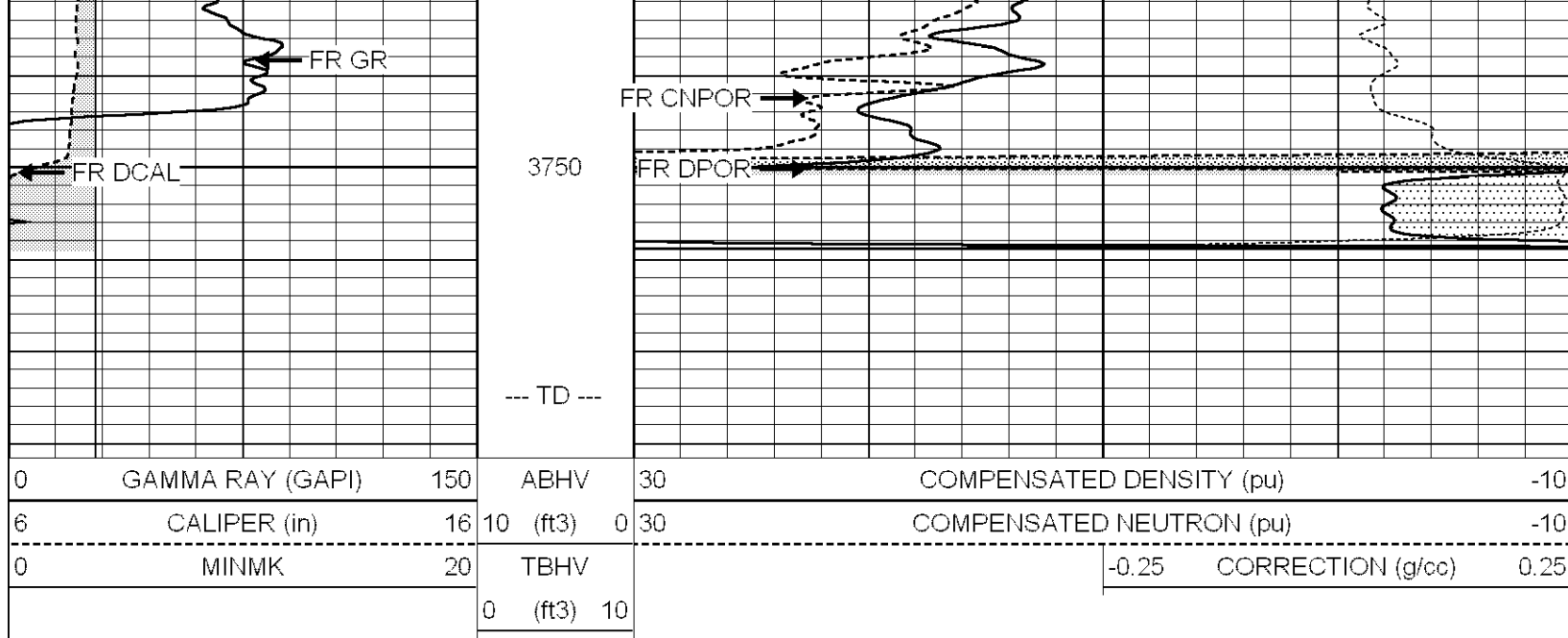
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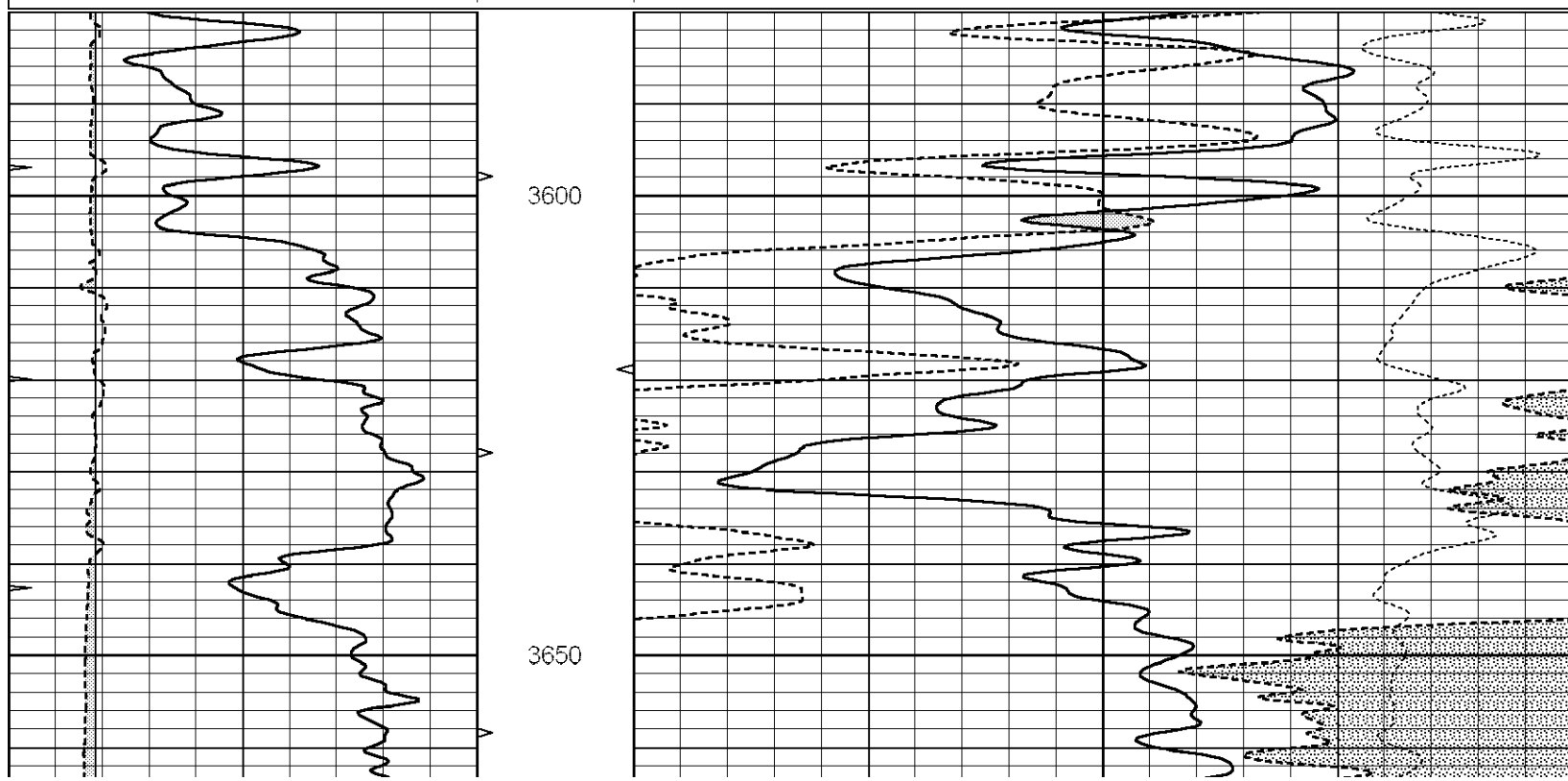


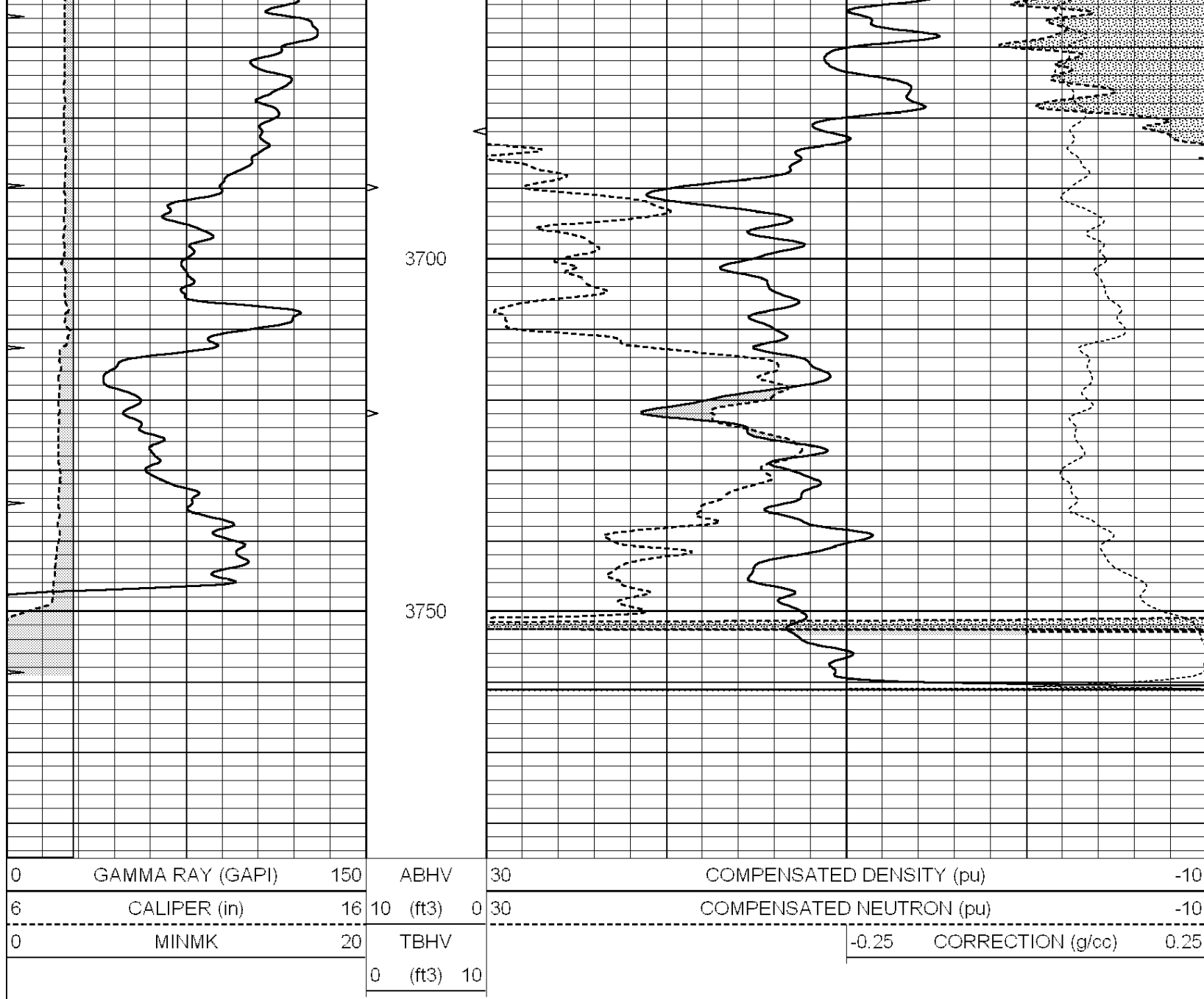
SUPERIOR
Hays,
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REPEAT SECTION

Database File: 008800ddn.db
 Dataset Pathname: pass2.2
 Presentation Format: ldt_neu
 Dataset Creation: Tue Jul 03 09:08:40 2012
 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		





Calibration Report

Database File: 008800ddn.db
 Dataset Pathname: pass3.1
 Dataset Creation: Tue Jul 03 08:35:01 2012 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: PROBE9-DILG
 Surface Cal Performed: Tue Jul 03 07:02:50 2012
 Downhole Cal Performed: Mon Jul 28 12:02:56 2008
 After Survey Verification Performed: Fri Jun 01 07:32:39 2012

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	540.000	-12.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	540.000	-16.000

Internal:	Zero	Cal		Zero	Cal		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	540.000	-12.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	540.000	-16.000

Deep	0.011	0.610	V	0.000	400.000	mmho/m	667.153	-7.236
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		3970.000	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 Performed Mon Apr 02 17:56:53 2012								
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Litho Density Calibration								
	Background		Magnesium		Aluminum		Sandstone	
Window 1	872.3		7266.3		2292.6		7931.5	cps
Window 2	822.9		5957.5		1958.0		6389.6	cps
Window 3	670.4		3219.9		1211.9		3388.2	cps
Window 4	201.6		201.1		202.3		204.6	cps
Long Space	0.0		5134.6		1135.0		5566.6	cps
Short Space	1.1		994.2		674.4		1059.2	cps
Rho			1.7100		2.5960		1.3800	g/cc
Pe					2.5700		1.5500	
Rib Angle	: 45.6		Rib Slope	: 1.020	Density/Spine Ratio			: 0.569
Spine Angle	: 75.6		Spine Slope	: 3.888	Spine Intercept			: -18.3

Caliper								
	Readings		Reference					
Low Ref	3.0		9.0					
High Ref	4.9		14.0					
	Gain: 2.6				Offset: 1.2			

Compensated Neutron Calibration Report								
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Serial Number:			NUE_2I					
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								
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Serial Number:			GR5					
Tool Model:			OPEN					
Performed:			Tue Jul 03 07:18:40 2012					

Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.7500	GAPI/cps