NABORS COMPLETION & PRODUCTION SERVICES CO.

DUAL INDUCTION LOG

Company	O'BRIEN RESOURCES, LLC.
Well	STEFFENS 19 #1
Field	JENNISON
County	LANE
State	KANSAS

Company O'BRIEN RESOURCES, LLC.

Well STEFFENS 19 #1

Field JENNISON

County LANE State KANSAS

Location: API # : 15-101-22376-0000

513' FSL & 2017' FEL

NE - SW - SW - SE

SEC 19 TWP 16S RGE 29W

Other Services: CDL/CNL/PE, MEL

Permanent Datum	GROUND LEVEL	Elevation 2779	Elevation: K.B. 2788
Log Measured From	KELLY BUSHING 9' A.G.L.		D.F. 2786
Drilling Measured From	KELLY BUSHING		G.L. 2779

Date	12/3/12		
Run Number	ONE		
Depth Driller	4514		
Depth Logger	4516		
Bottom Logged Interval	4514		
Top Log Interval	00		
Casing Driller	8 5/8"@263'		
Casing Logger	263		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 800 PPM	
Density / Viscosity	9.5/50		
pH / Fluid Loss	10.5/7.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.50@80F		
Rmf @ Meas. Temp	1.13@80F		
Rmc @ Meas. Temp	1.80@80F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.992@121F		
Time Circulation Stopped	2.5 HOURS		
Time Logger on Bottom	8:15 P.M.		
Maximum Recorded Temperature	121F		
Equipment Number	4854		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	KURT TALBOTT		

<<< Fold Here >>>

Comments

THANK YOU FOR USING "NABORS" HAYS, KANSAS (785) 628-6395

DIRECTIONS

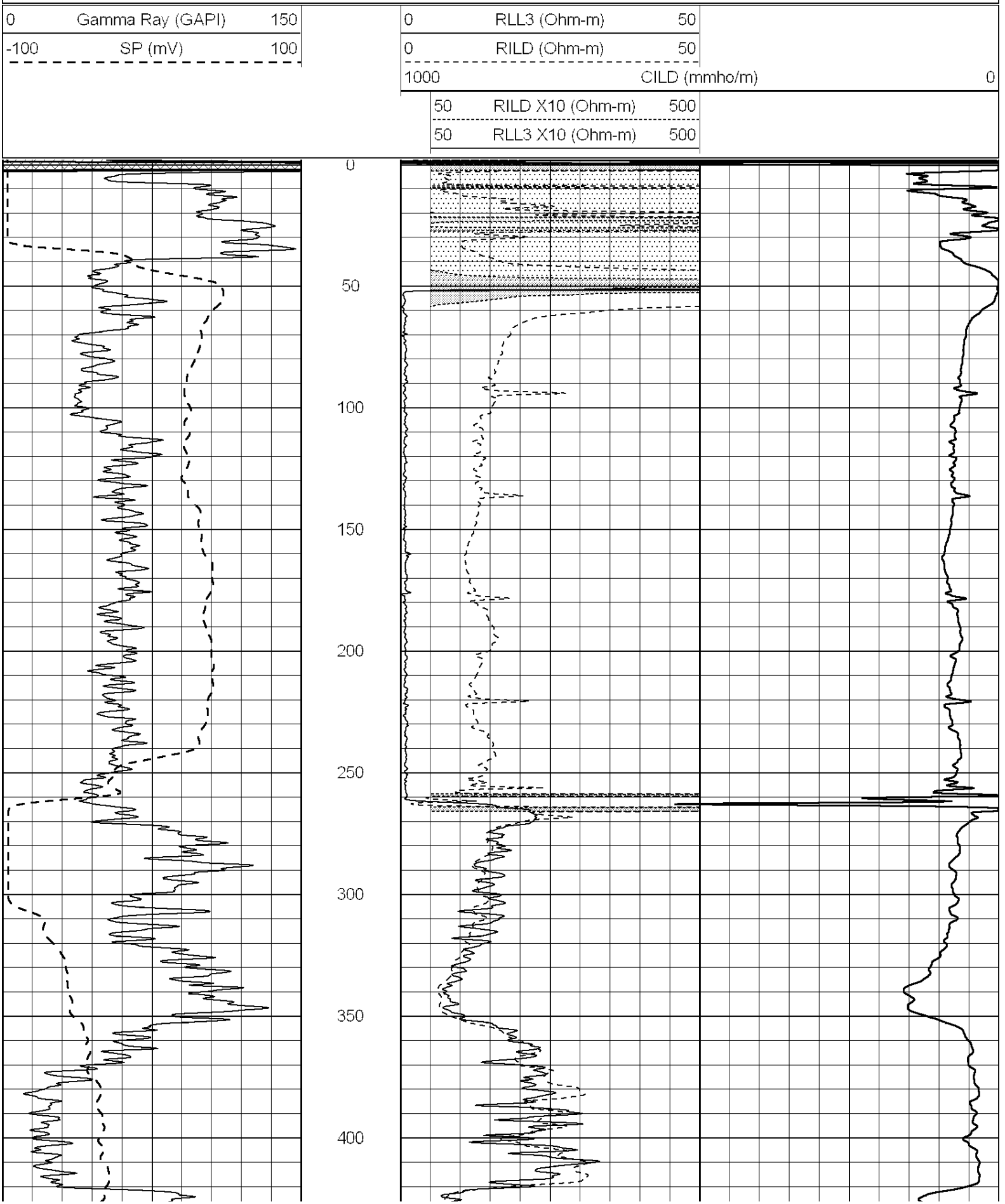
HEALY, KS. 1E. ON HWY 4 TO "EAGLE RD.", 3N. TO "RD. 260", 2 1/2E., N. INTO

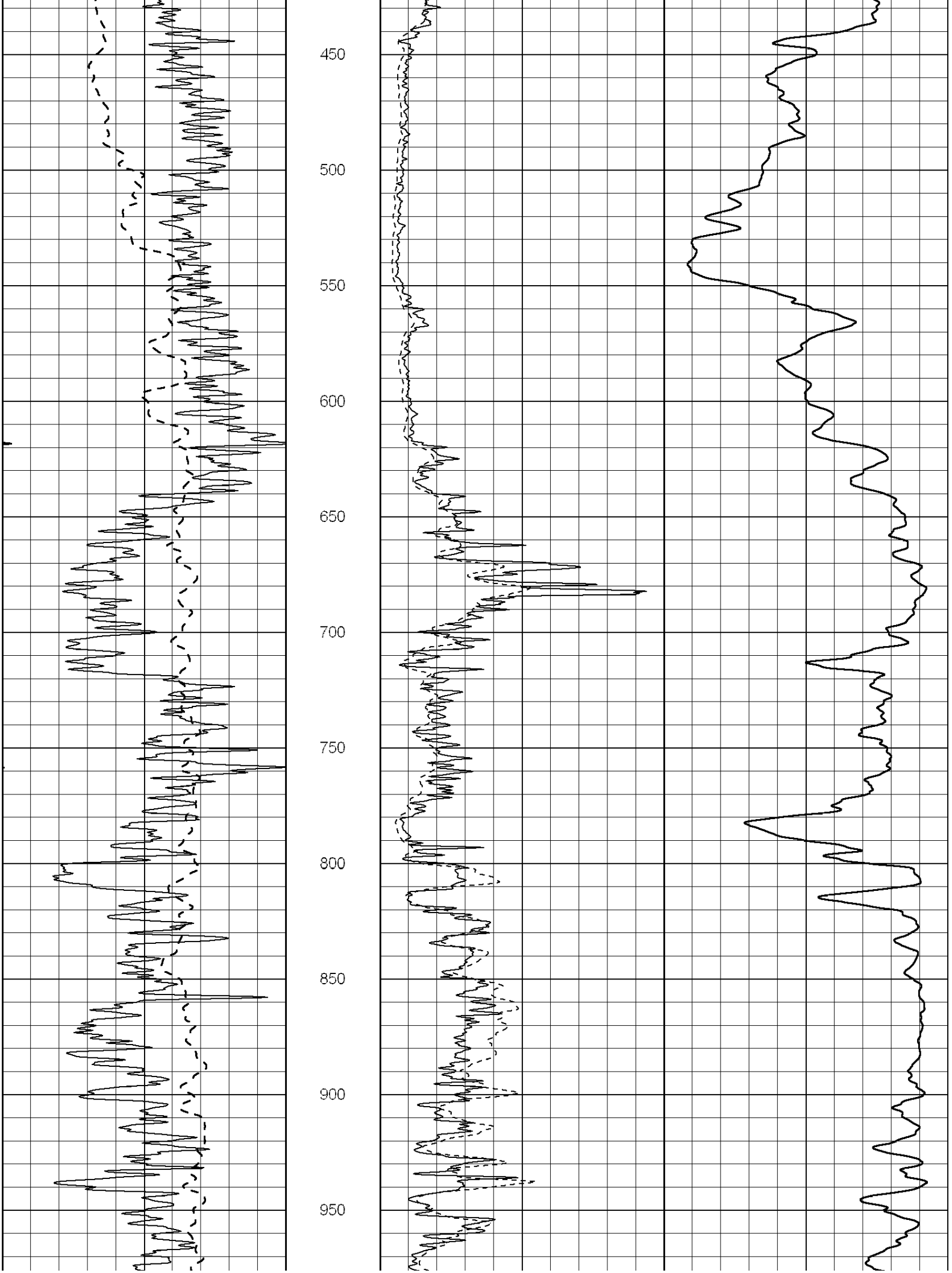
NABORS COMPLETION & PRODUCTION

MAIN SECTION

SERVICES CO.

Database File: 010026pe.db
Dataset Pathname: pass3.3
Presentation Format: dil2
Dataset Creation: Mon Dec 03 21:55:56 2012 by Calc SOC 120430
Charted by: Depth in Feet scaled 1:600

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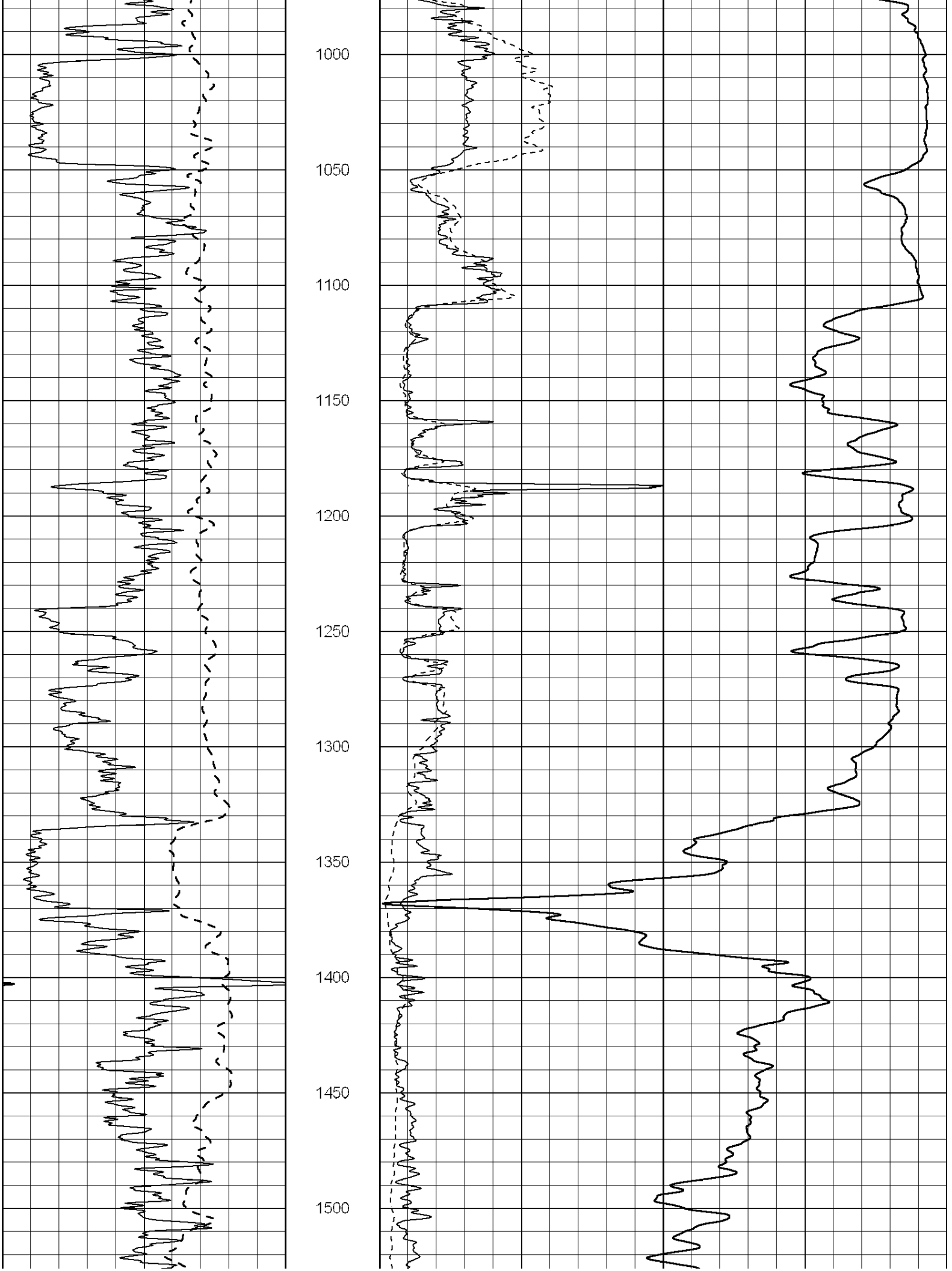
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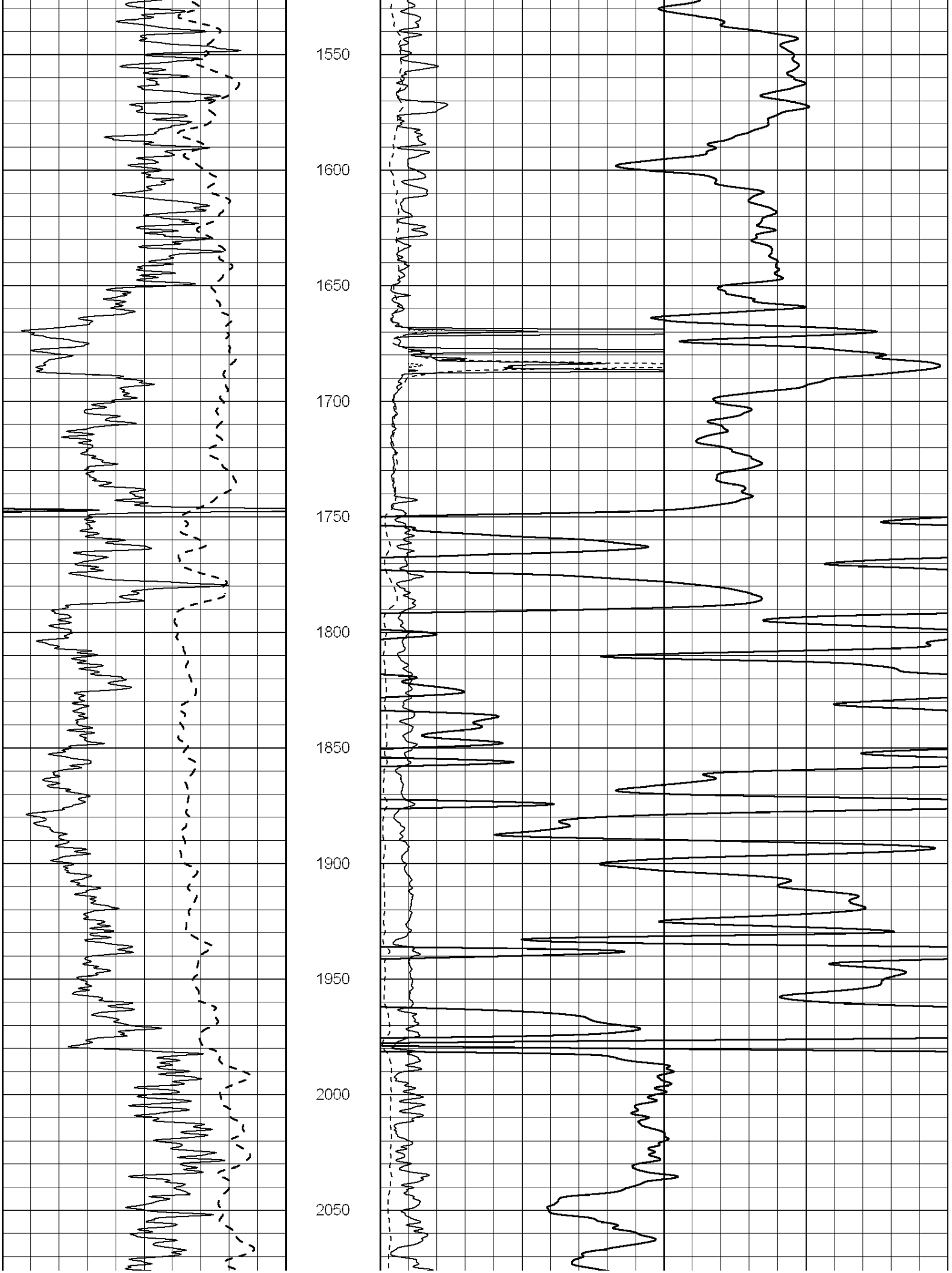
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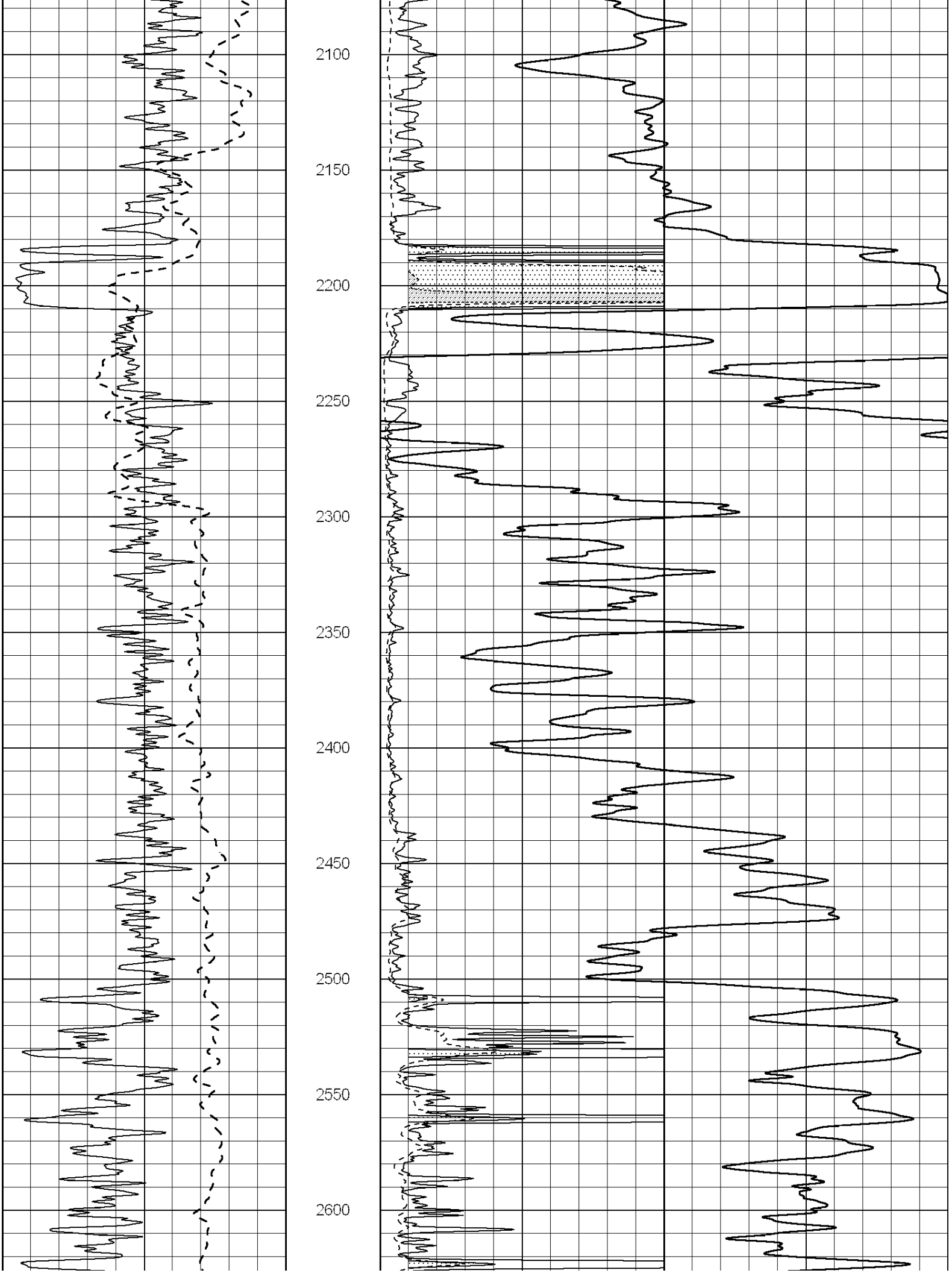
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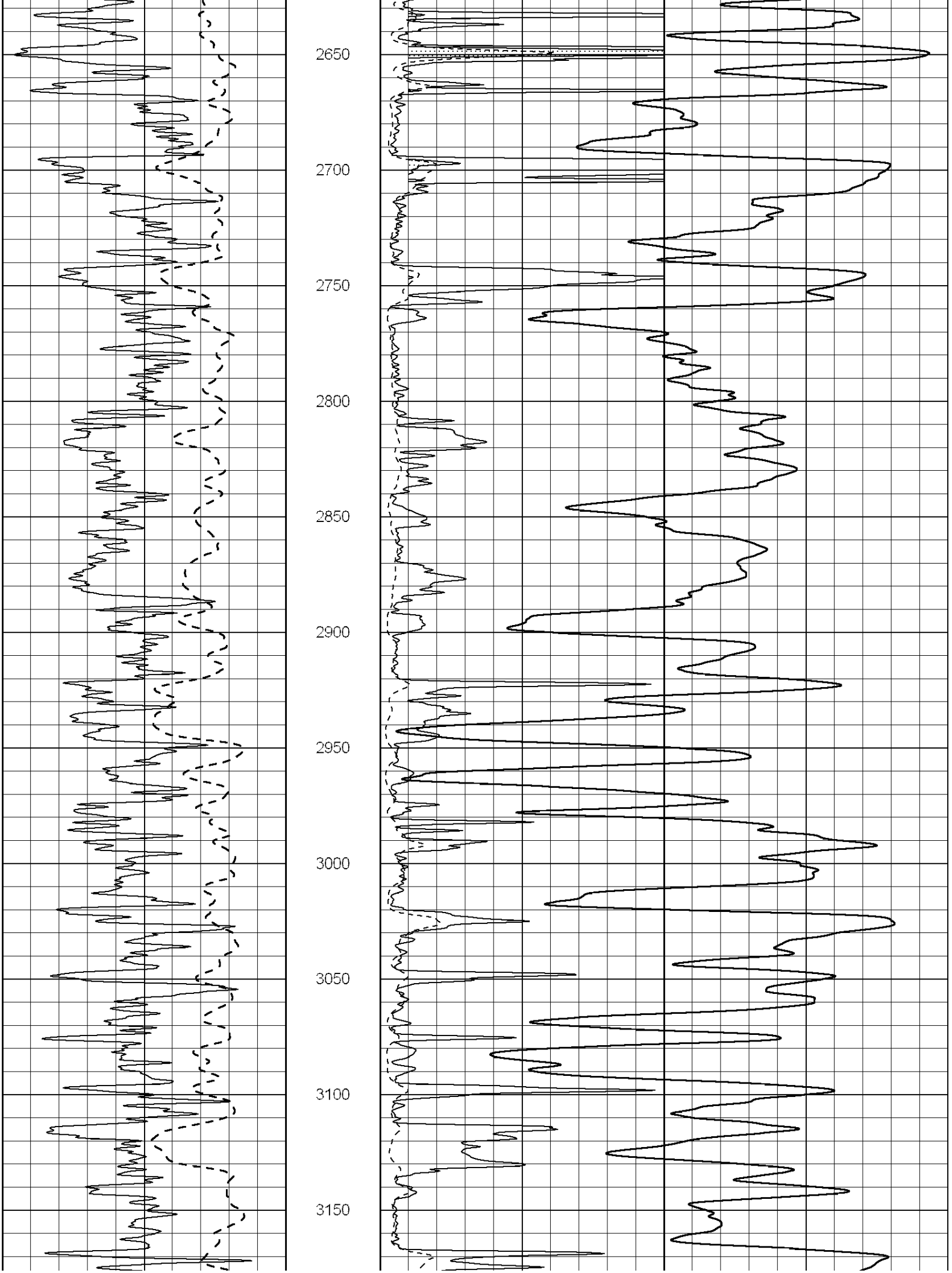
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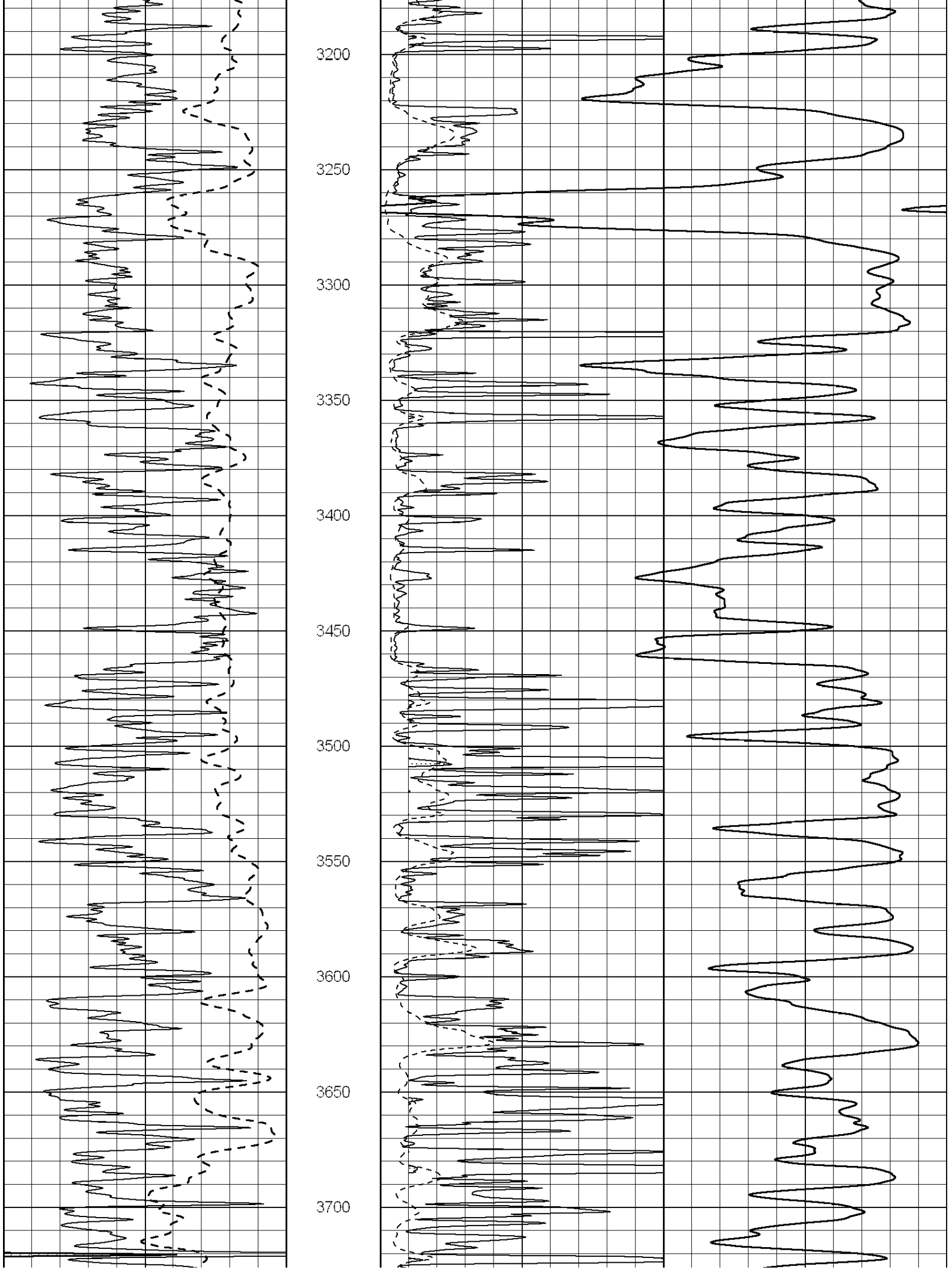
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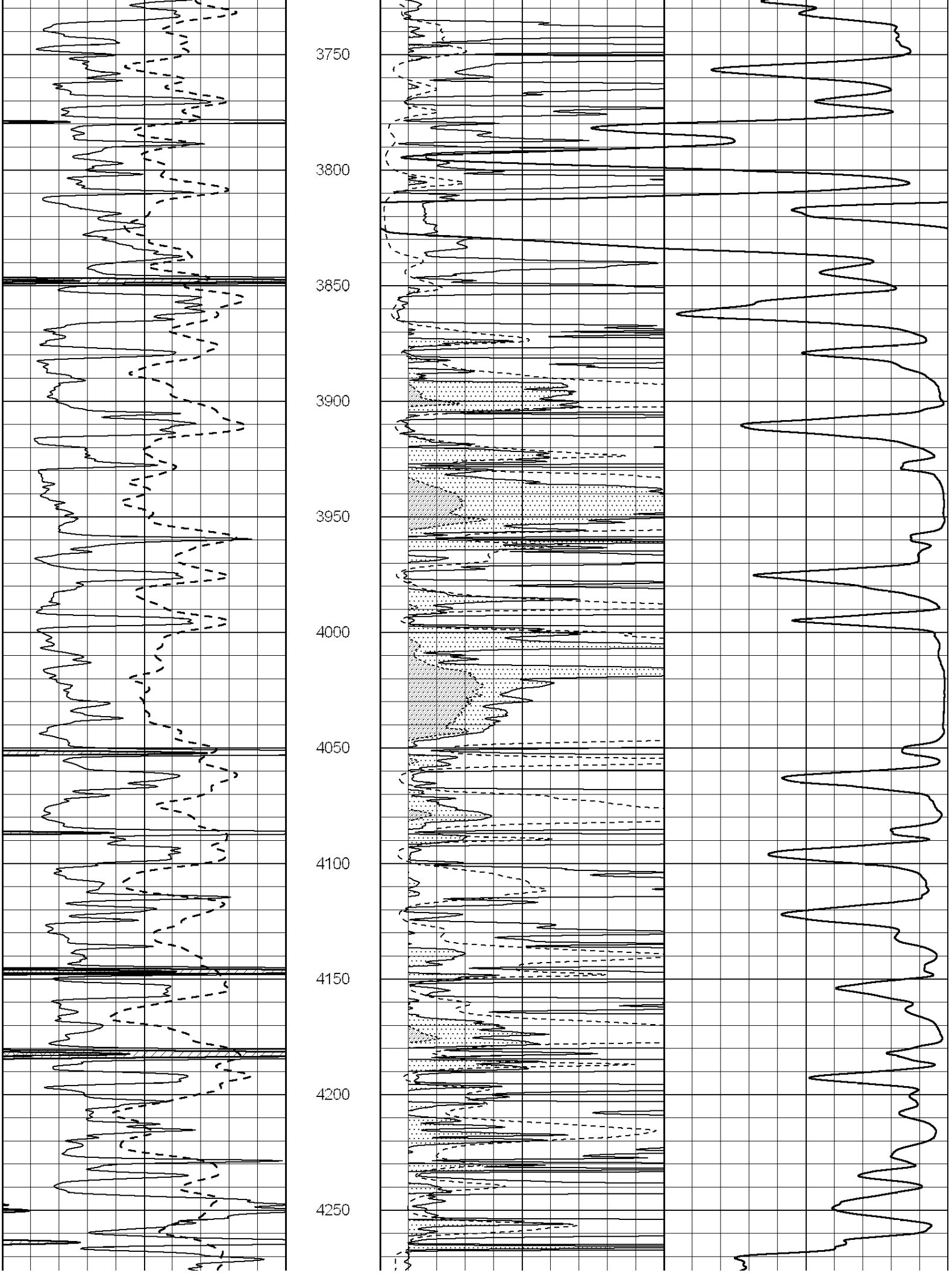
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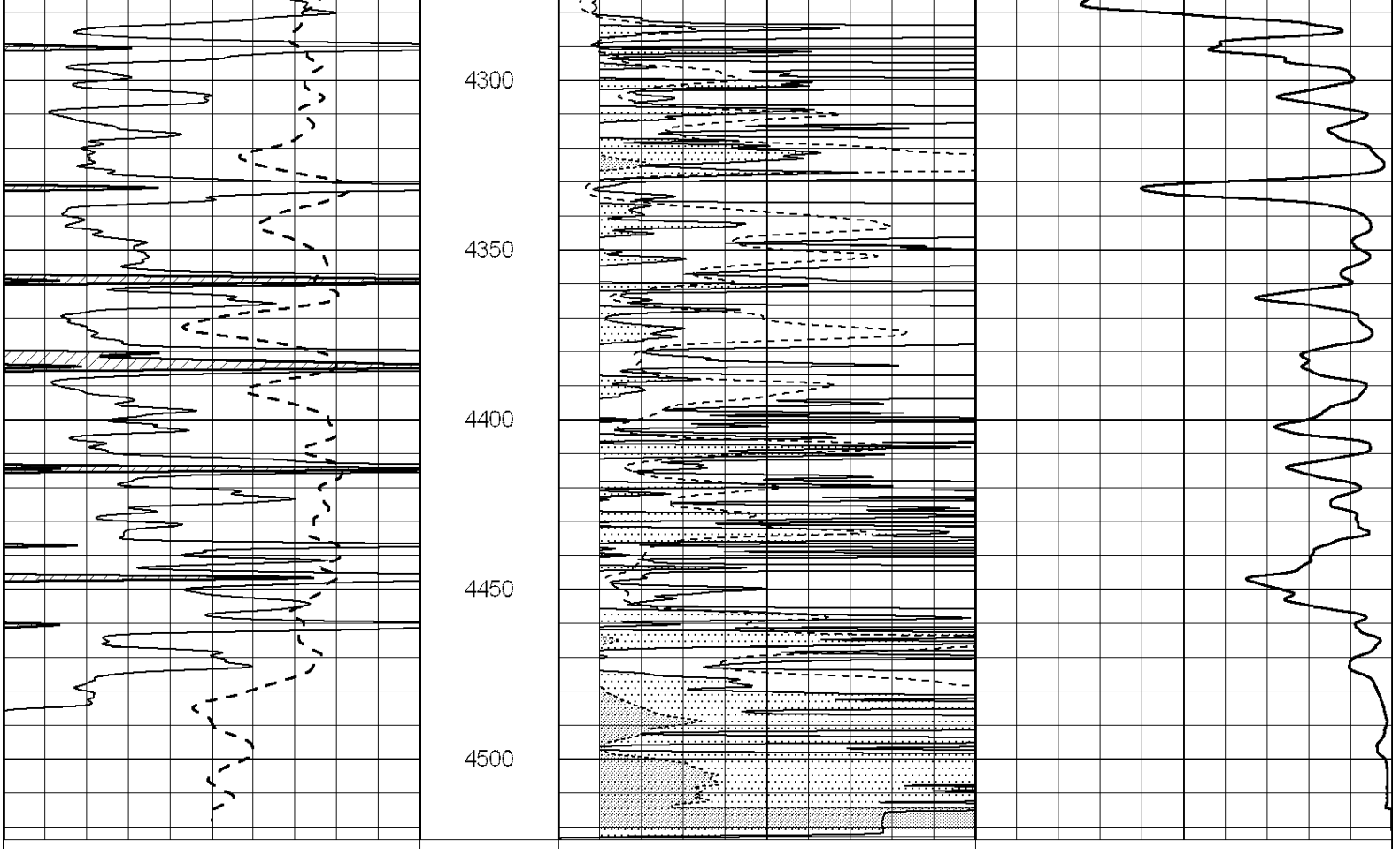


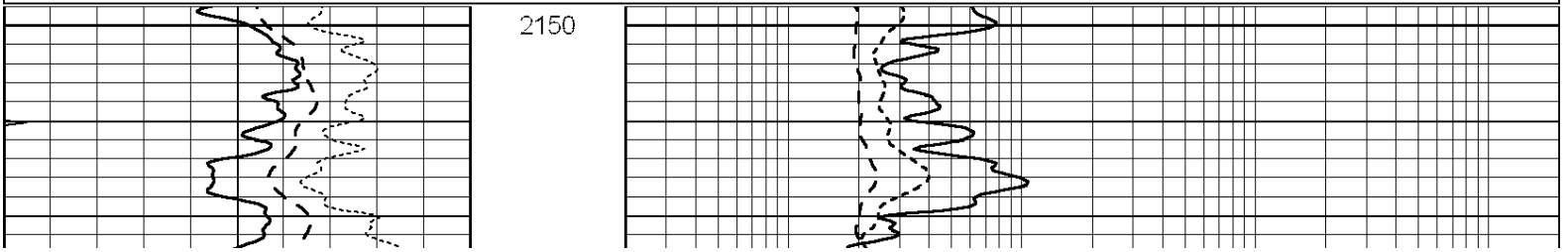
NABORS
COMPLETION & PRODUCTION SERVICES CO.

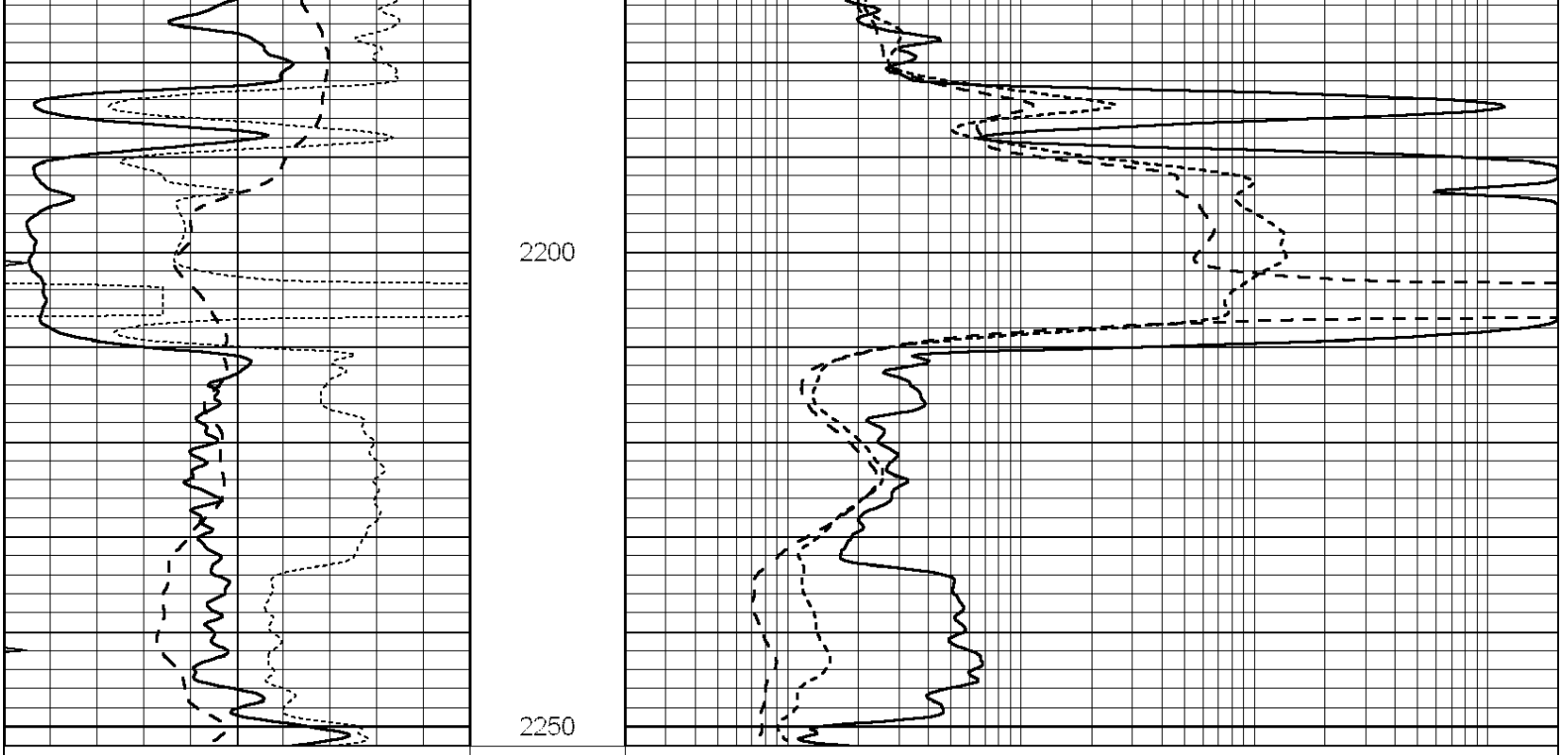
ANHYDRITE

Database File: 010026pe.db
Dataset Pathname: pass3.4
Presentation Format: _dil
Dataset Creation: Mon Dec 03 21:57:11 2012 by Calc SOC 120430
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000





0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

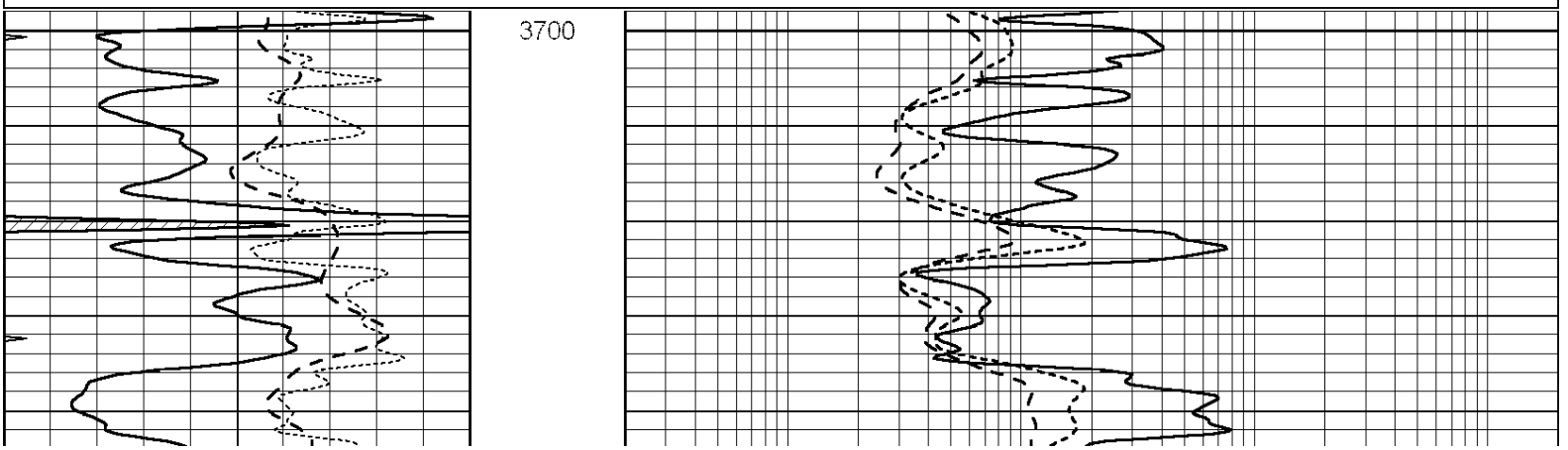
NABORS
COMPLETION & PRODUCTION SERVICES CO.

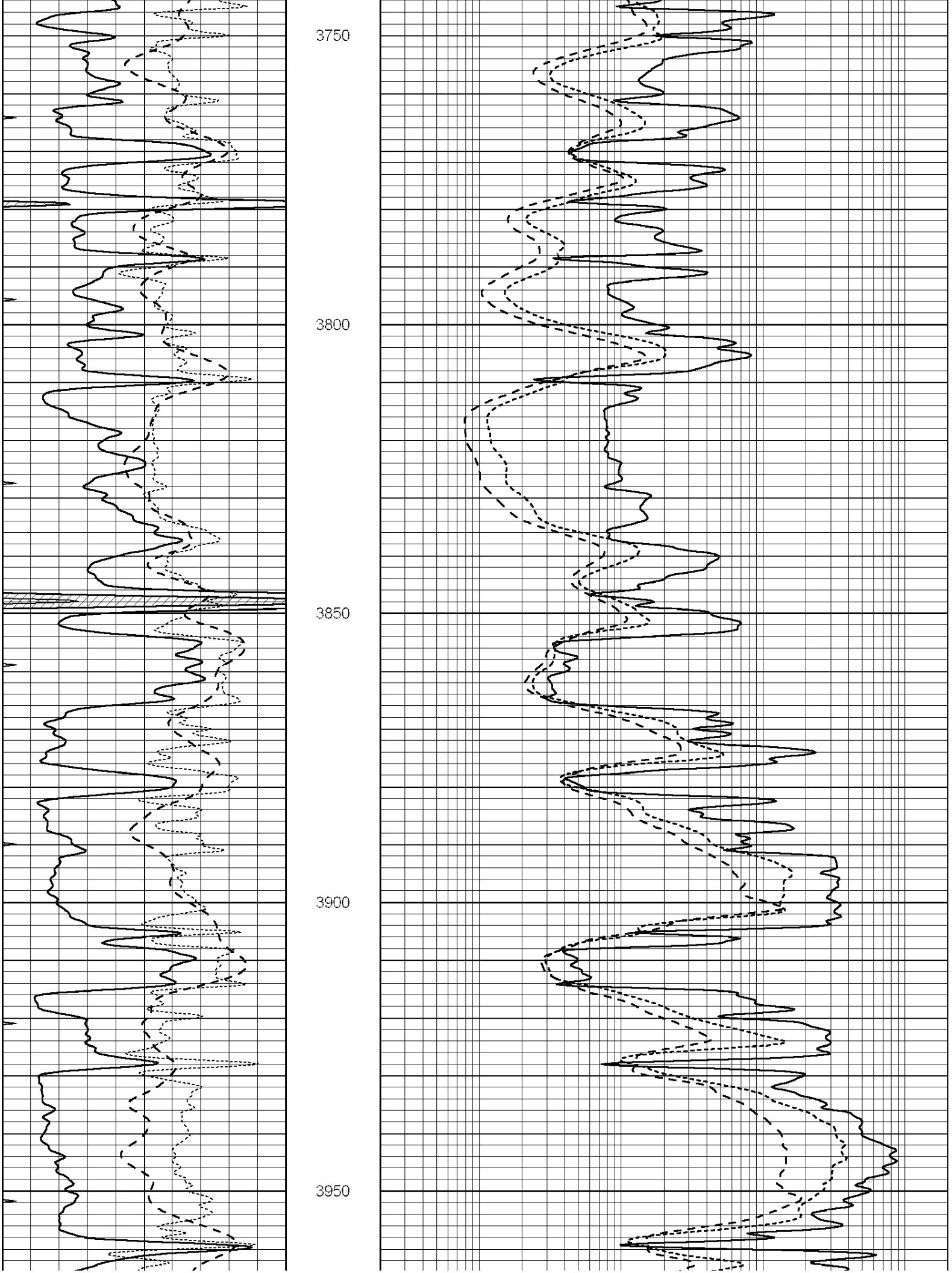
MAIN SECTION

Database File: 010026pe.db
Dataset Pathname: pass3.3
Presentation Format: dil
Dataset Creation: Mon Dec 03 21:55:56 2012 by Calc SOC 120430
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

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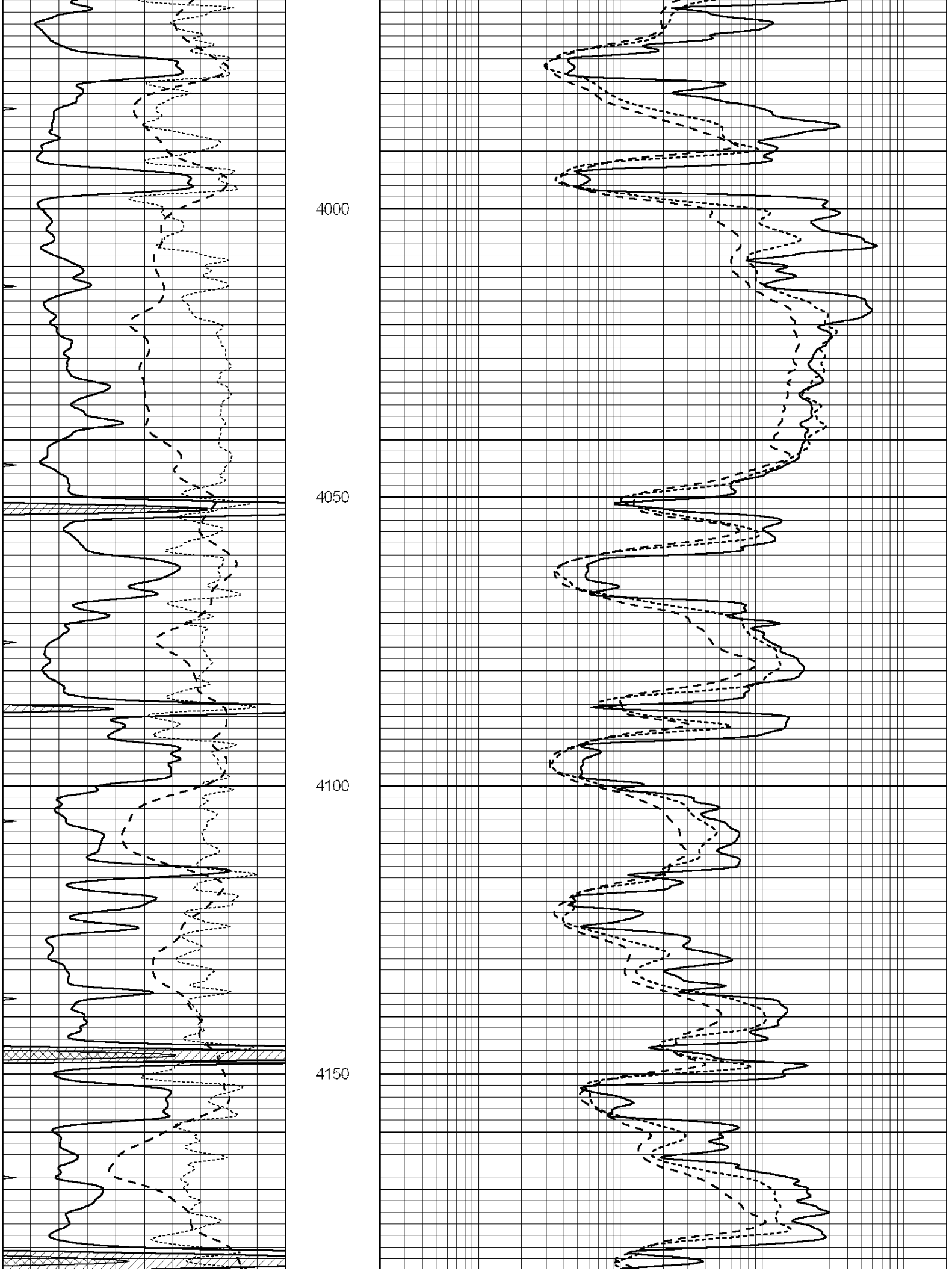
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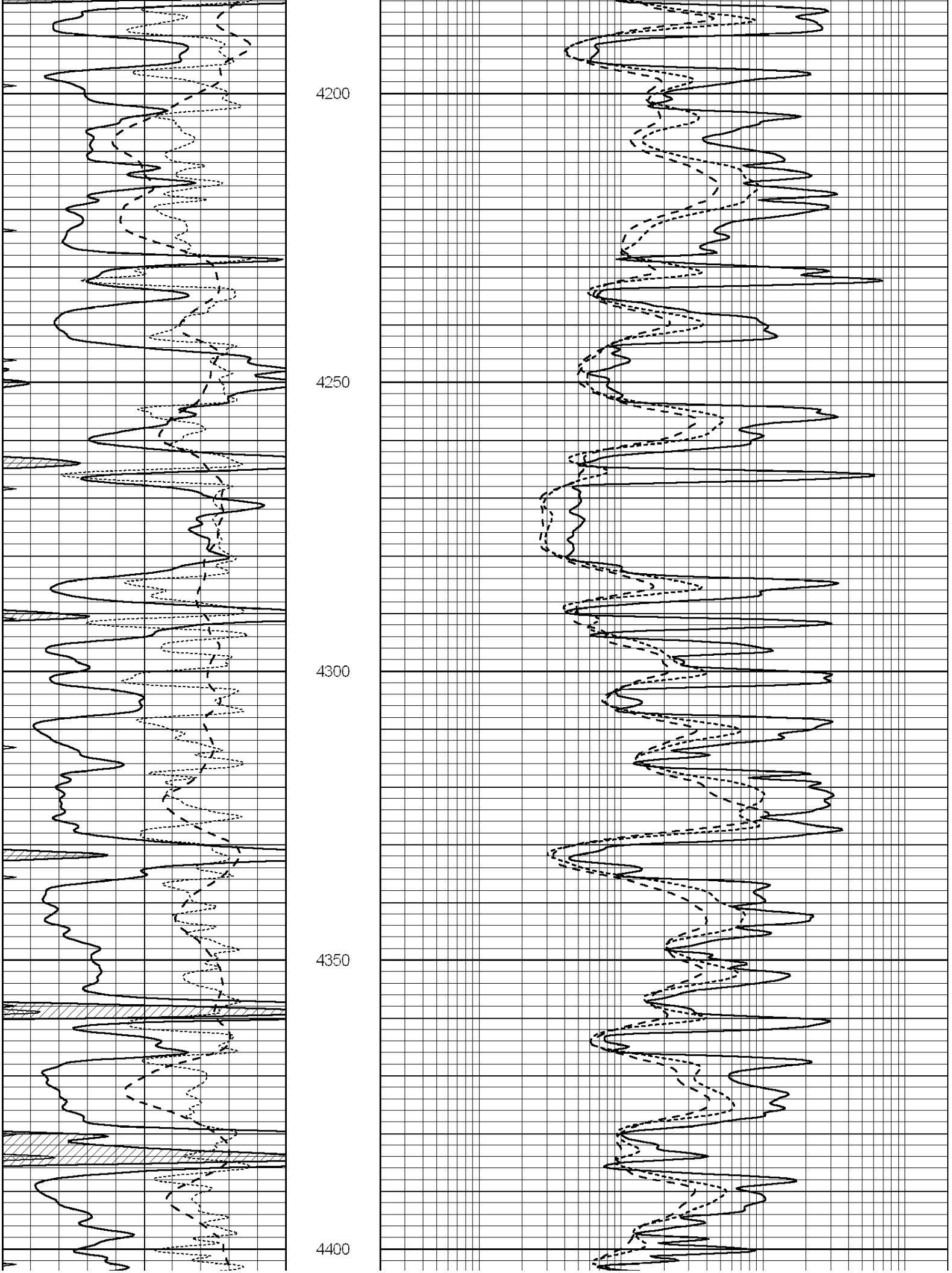
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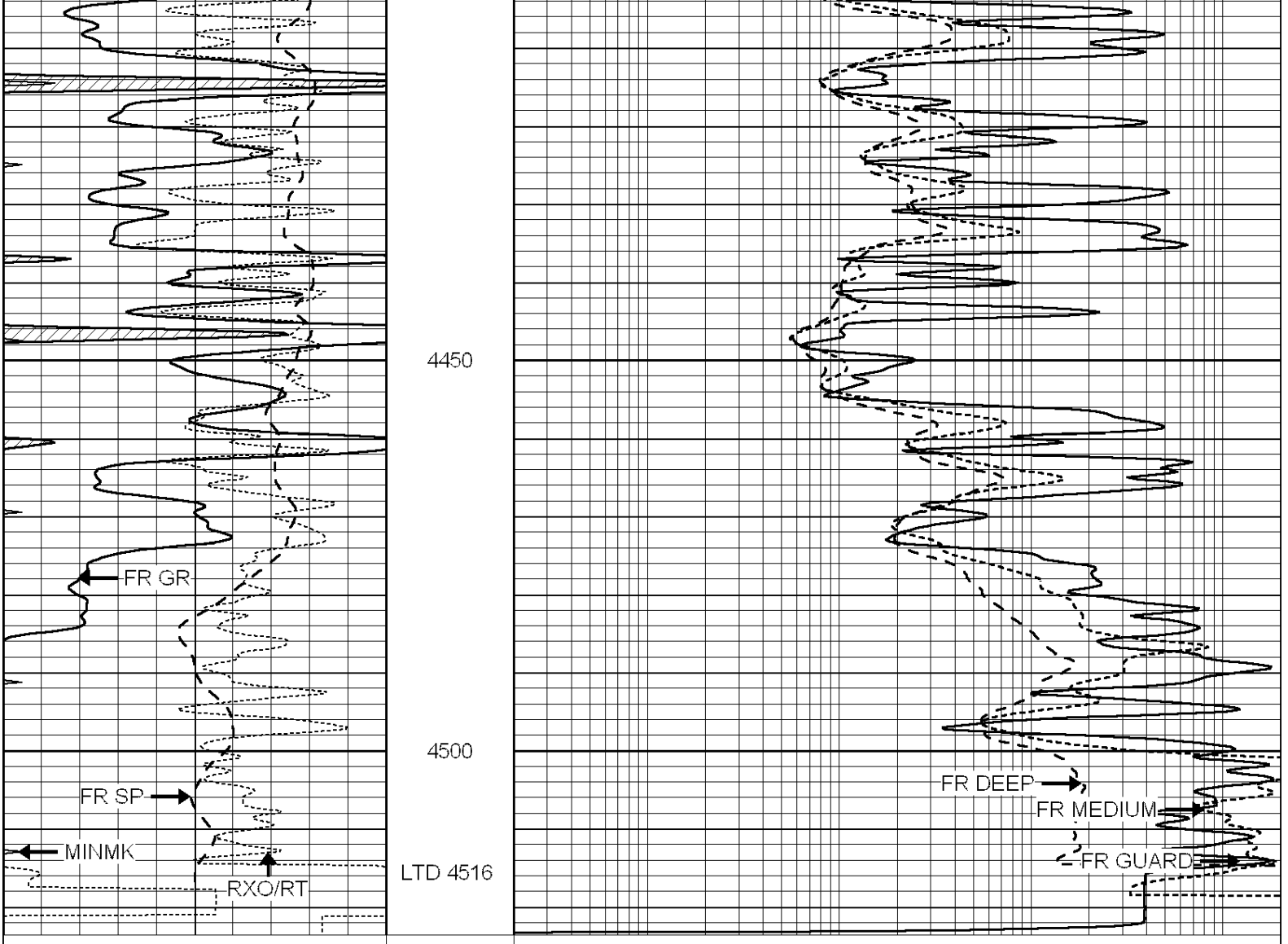


0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

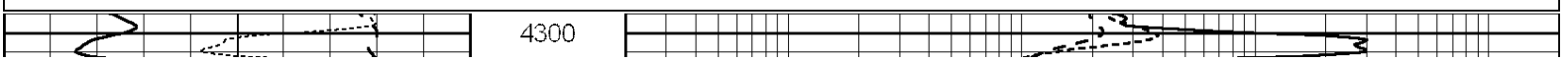
NABORS
COMPLETION & PRODUCTION SERVICES CO.

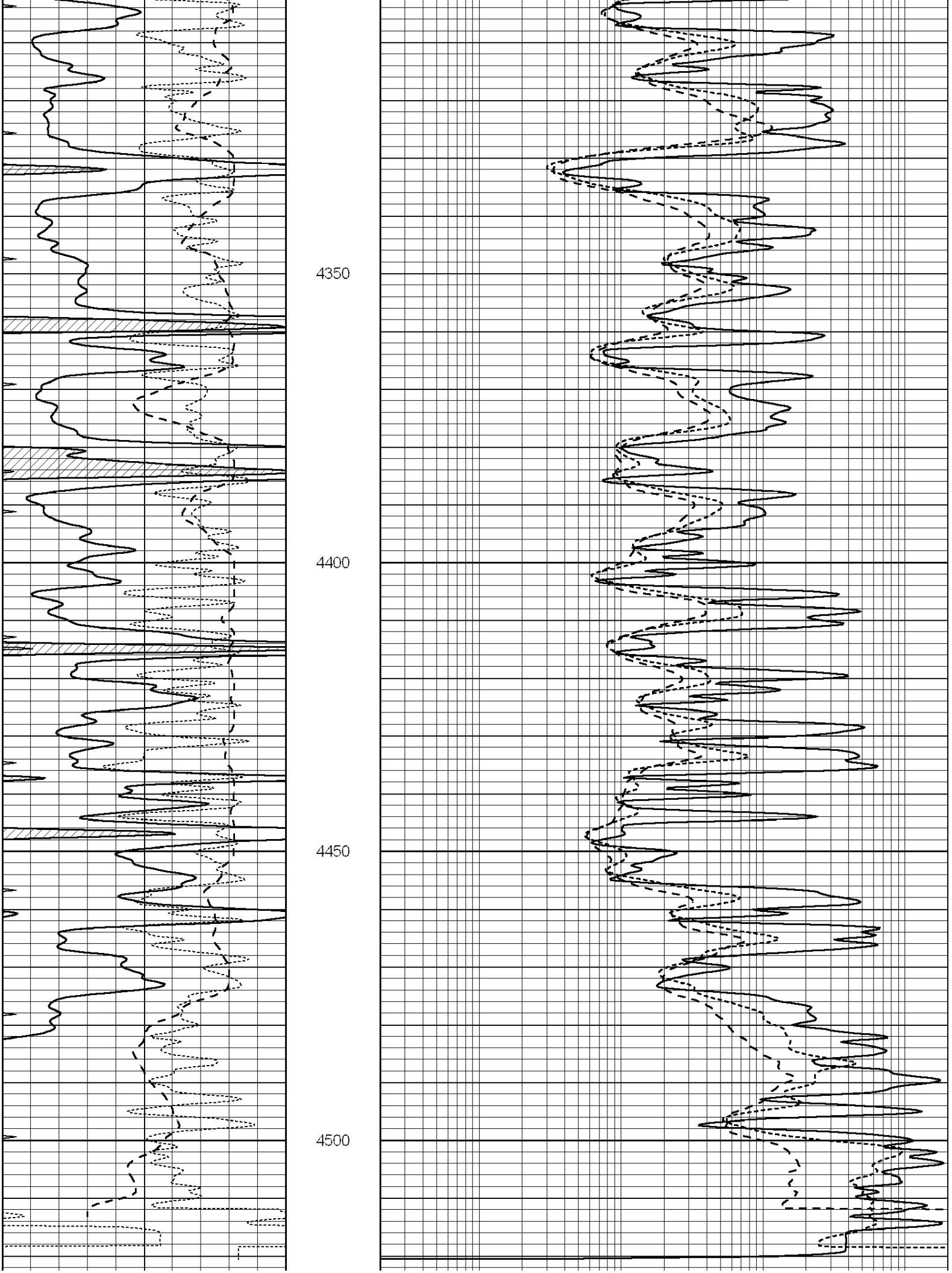
REPEAT SECTION

Database File: 010026pe.db
Dataset Pathname: pass2.8
Presentation Format: dil
Dataset Creation: Mon Dec 03 22:35:44 2012
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

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4500

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

Calibration Report

Database File: 010026pe.db
Dataset Pathname: pass3.3
Dataset Creation: Mon Dec 03 21:55:56 2012 by Calc SOC 120430

Dual Induction Calibration Report

Serial-Model: DIL3-GEAR
Performed: Mon Dec 03 20:26:59 2012

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	0.000	400.000	mmho/m	640.000	7.000
Medium	0.013	0.740	V	0.000	462.500	mmho/m	700.000	3.000
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: 006 Model: PRB
Performed Sun Aug 15 09:48:41 2010

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	1686.6	11612.8	3932.0	12718.8	cps
Window 2	1531.4	9204.7	3267.8	9851.9	cps
Window 3	1198.3	4733.6	1952.5	4920.6	cps
Window 4	317.3	321.2	325.9	303.6	cps
Long Space	0.0	7673.3	1736.4	8320.4	cps
Short Space	1.7	2548.5	1657.2	2628.8	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	

Rib Angle	: 43.8	Rib Slope	: 0.961	Density/Spine Ratio	: 0.569
Spine Angle	: 73.8	Spine Slope	: 3.453	Spine Intercept	: -18.1

Caliper

	Readings	Reference
Low Ref	3.5	6.5
High Ref	5.5	15.0
	Gain: 4.4	Offset: -9.1

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:	070559	
Tool Model:	OPEN_GR	
Performed:	Wed Nov 28 18:32:17 2012	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.3000	GAPI/cps