SUPERIOR WELL SERVICES

SUPERIOR
Hays,
Kansas

DUAL INDUCTION LOG

Company	PHILLIPS EXPLORATION CO., LC.
Well	SCHOOT #1-7
Field	
County	MORRIS
State	KANSAS

Company PHILLIPS EXPLORATION COMPANY, LC

Well SCHOOT #1-7

Field

County MORRIS State KANSAS

Location: API # : 15-127-20585-0000

2310 FSL & 2970' FEL

NE - NE - SW

SEC 7 TWP 15S RGE 8E

Permanent Datum GROUND LEVEL Elevation 1383

Log Measured From KELLY BUSHING 10' A.G.L.

Drilling Measured From KELLY BUSHING

Other Services
CDL/CNL
MEL

Elevation
K.B. 1393
D.F. 1391
G.L. 1383

Date	6-17-10			
Run Number	ONE			
Depth Driller	2750			
Depth Logger	2747			
Bottom Logged Interval	2745			
Top Log Interval	0			
Casing Driller	8 5/8" @ 229			
Casing Logger	227			
Bit Size	7 7/8			
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 250 PPM		
Density / Viscosity	9.3/42			
pH / Fluid Loss	10.5/9.2			
Source of Sample	FLOWLINE			
Rm @ Meas. Temp	.36 @ 83F			
Rmf @ Meas. Temp	.27 @ 83F			
Rmc @ Meas. Temp	.43 @ 83F			
Source of Rmf / Rmc	MEASURED			
Rm @ BHT	.26 @ 114F			
Time Circulation Stopped	3 HOURS			
Time Logger on Bottom				
Maximum Recorded Temperature	114F			
Equipment Number	680			
Location	HAYS, KANSAS			
Recorded By	JEFF GRONEWEG			
Witnessed By	BILL STOUT			

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Comments

THANK YOU FOR USING SUPERIOR WELL SERVICES HAYS, KANSAS (785)628-6395

DIRECTIONS

INTERSECTION OF I-70 & EXIT 313 - SOUTH TO MORRIS COUNTY LINE - SOUTH TO RD K

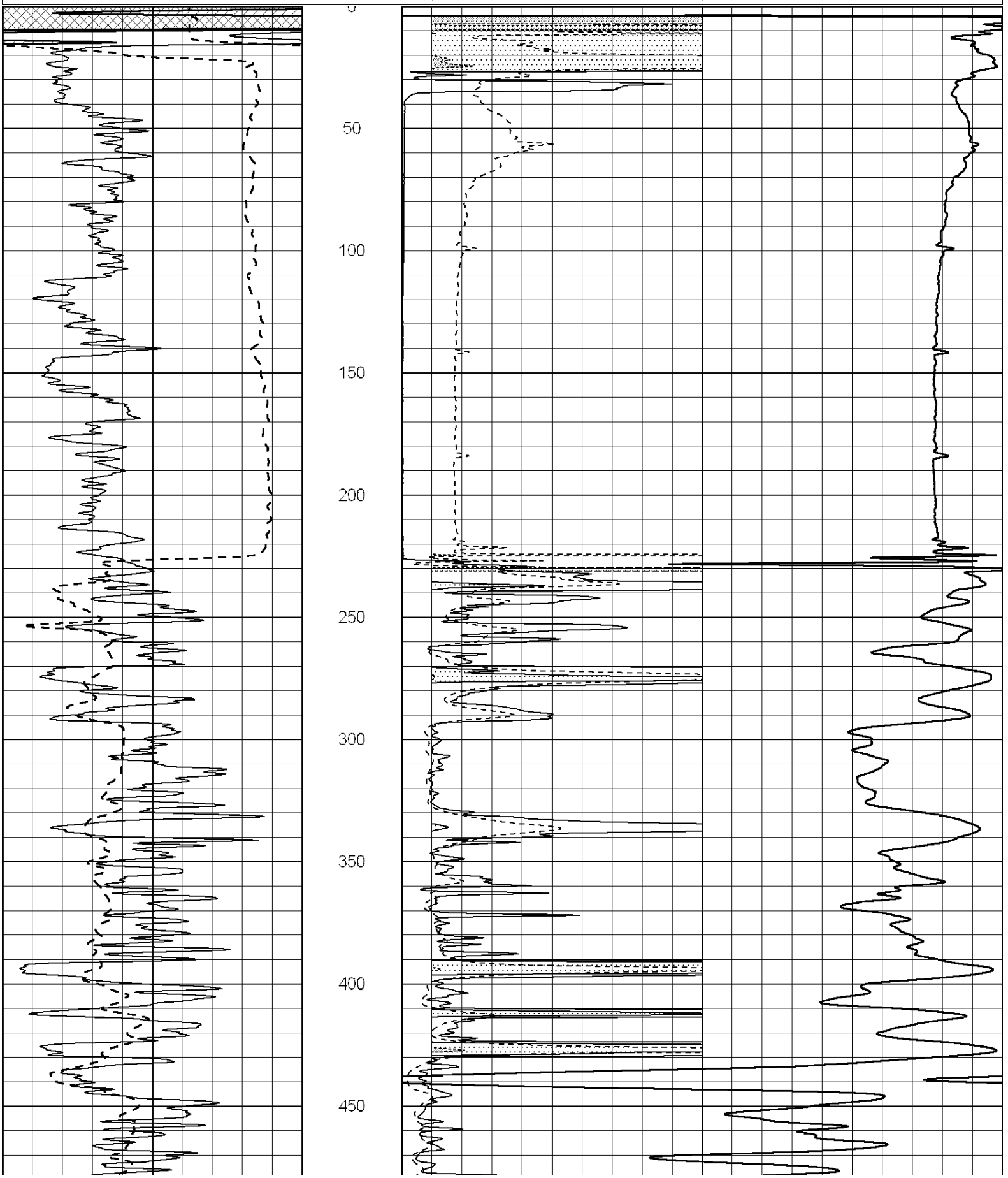
4 MILES WEST - 1/2 MILE NORTH - EAST INTO

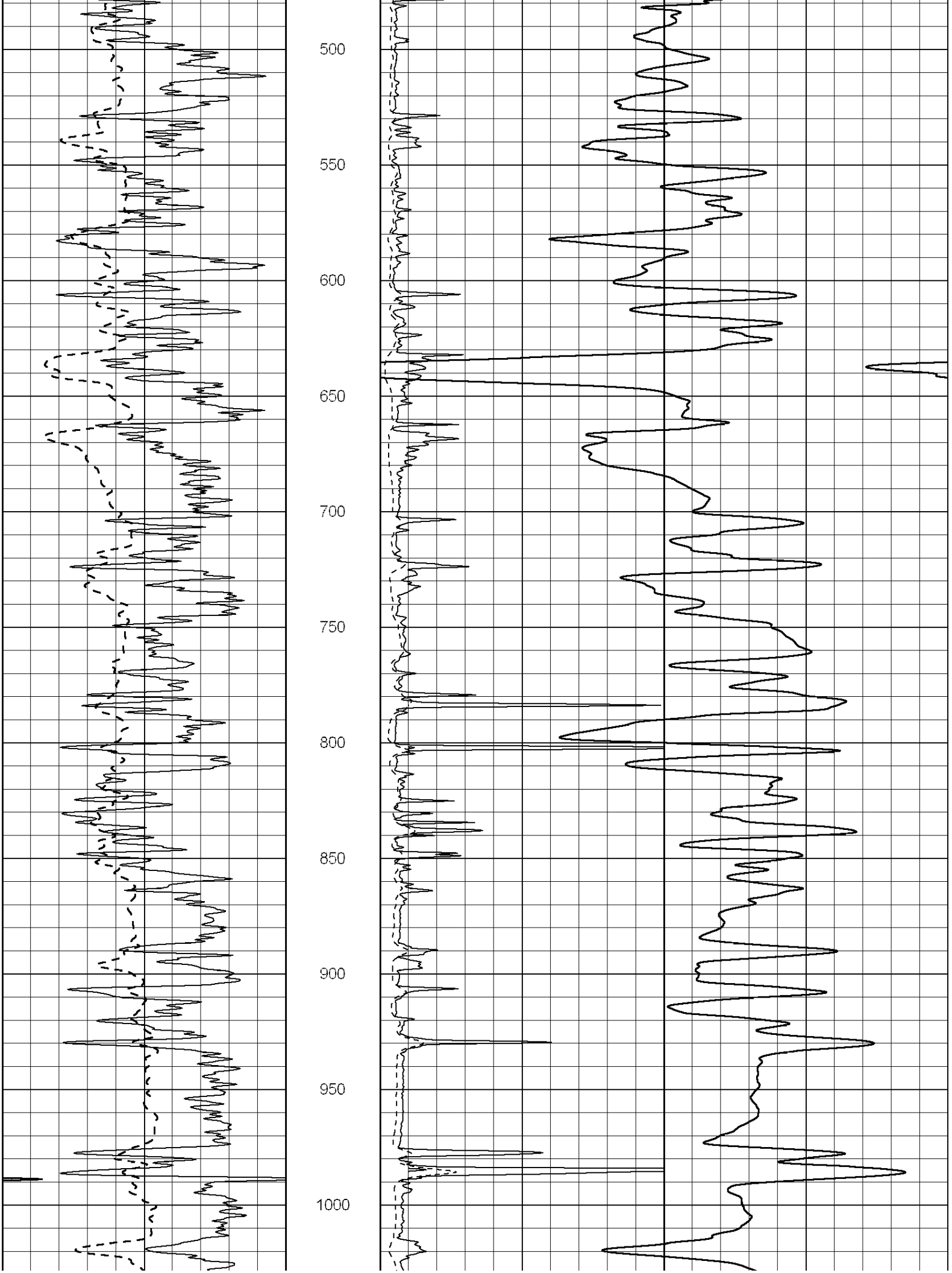
Database File:	005146ddn.db
Dataset Pathname:	pass3.2
Presentation Format:	_dil2
Dataset Creation:	Thu Jun 17 05:45:22 2010 by Calc Open-Cased 090629
Charted by:	Depth in Feet scaled 1:600

Charted by: Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150
-100	SP (mV)	100

0	RLL3 (Ohm-m)	50
0	Deep Induction (Ohm-m)	50
1000	CILD (mmho/m)	0
50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500

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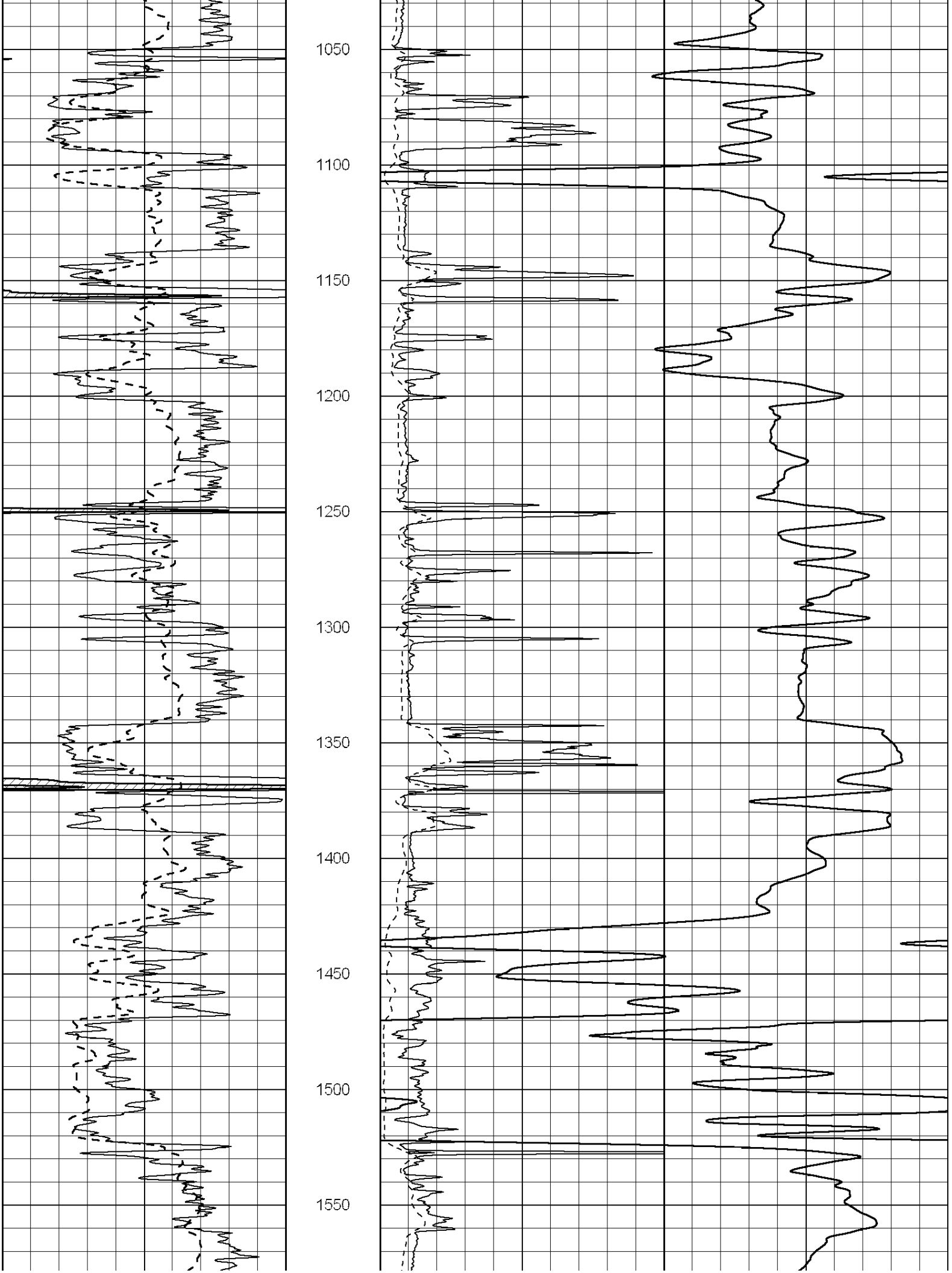
750
800
850
900
950
1000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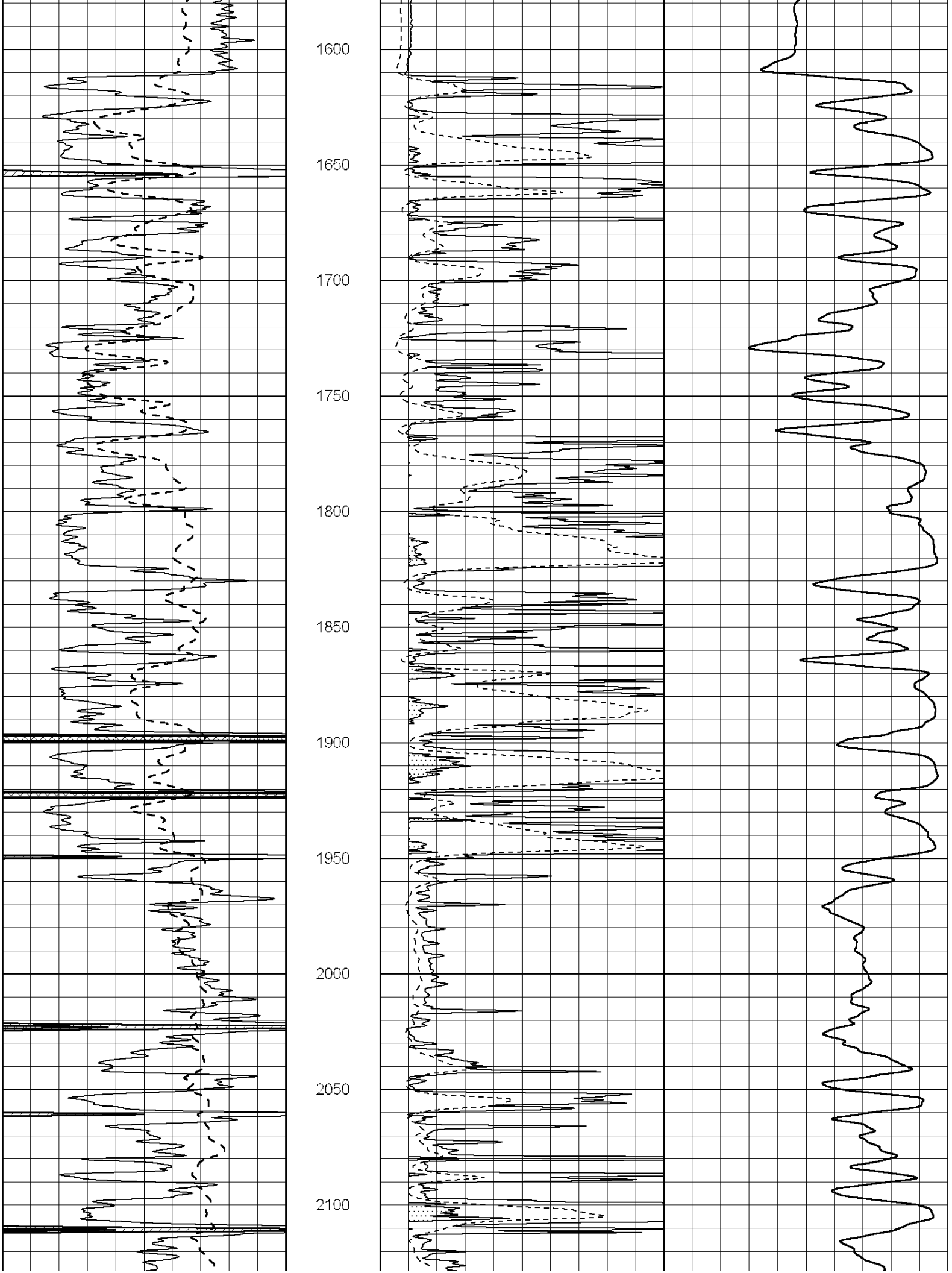
1500
1550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1700
1750
1800
1850
1900
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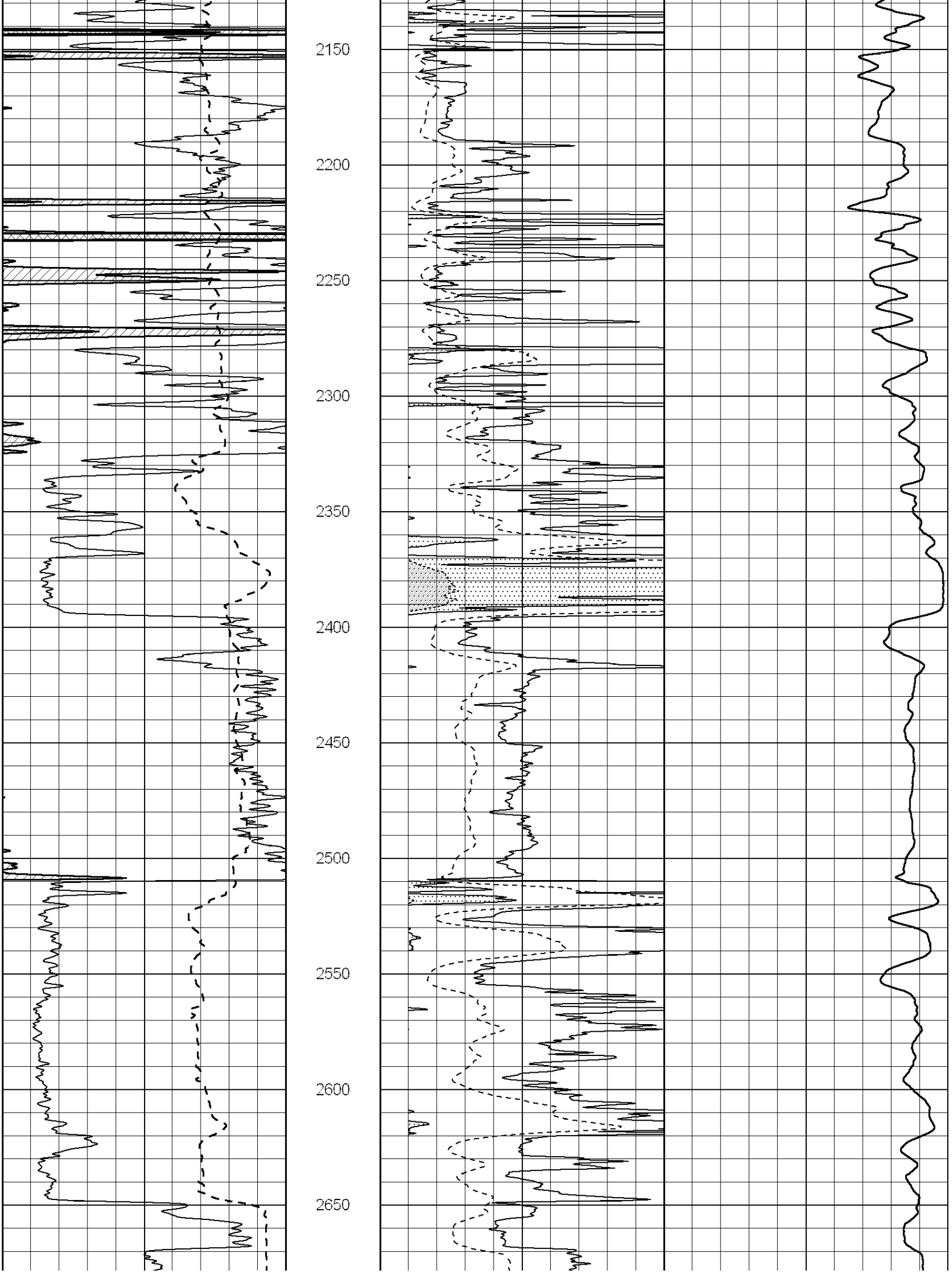
2050
2100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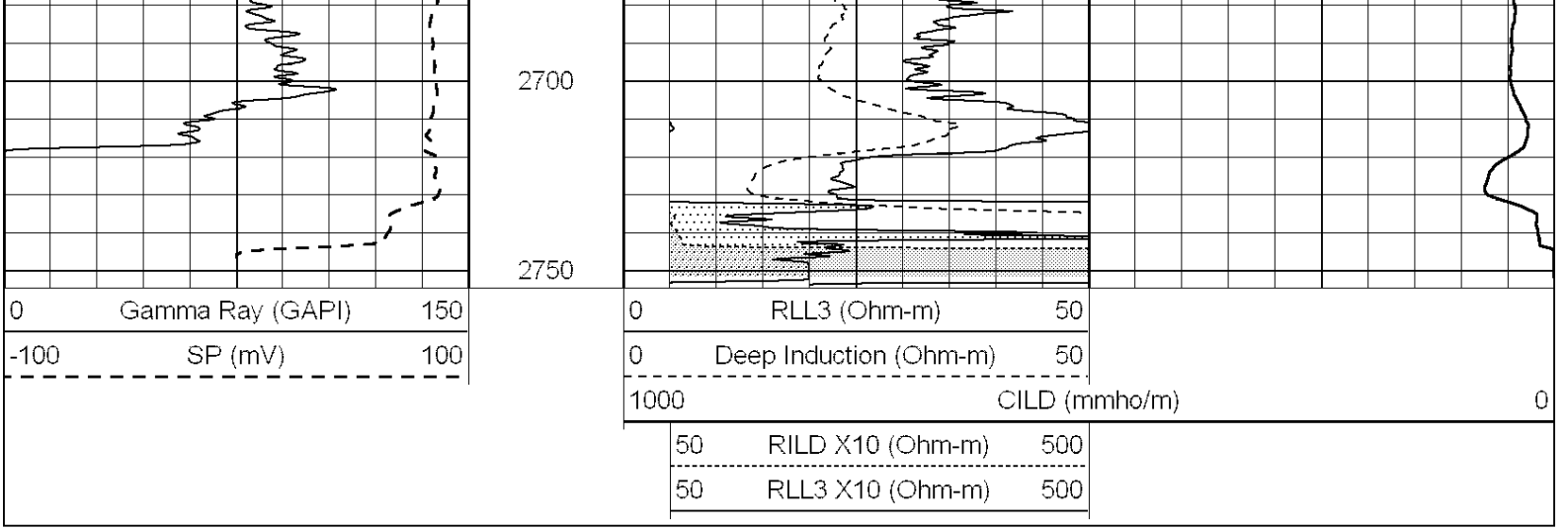
2300
2350
2400
2450
2500
2550
2600
2650



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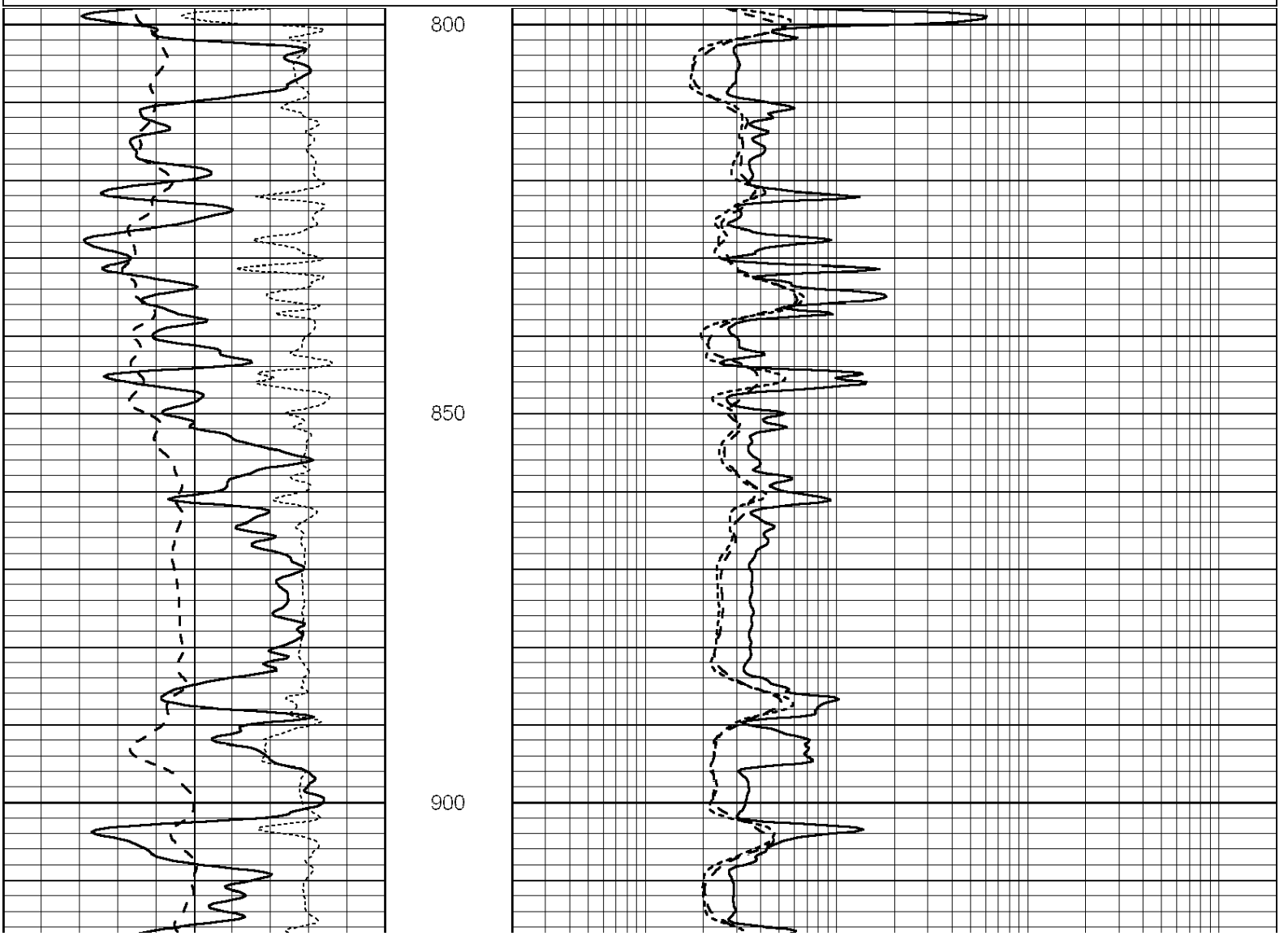
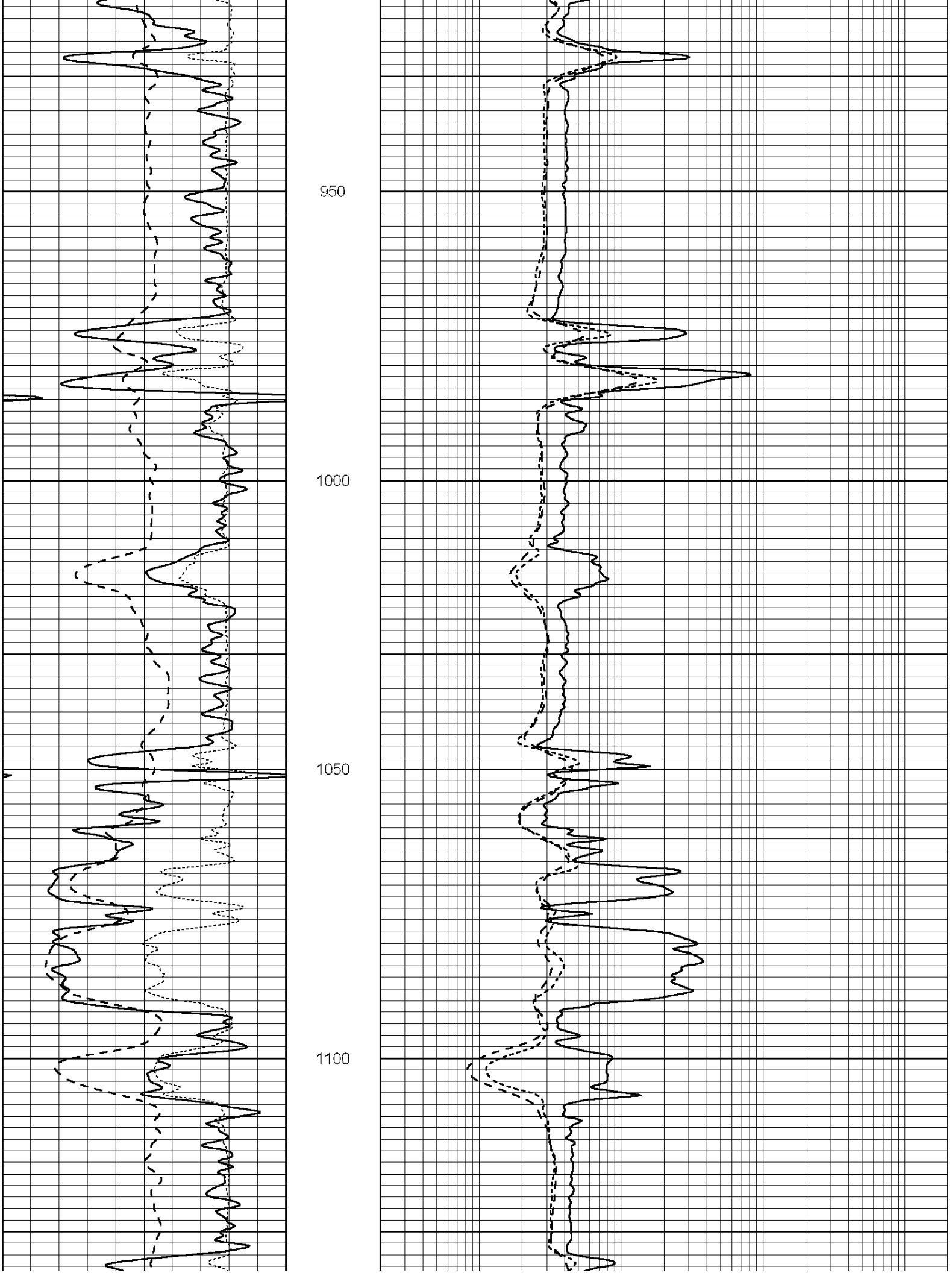
Presentation Format: _dil
Dataset Creation: Thu Jun 17 04:54:08 2010 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

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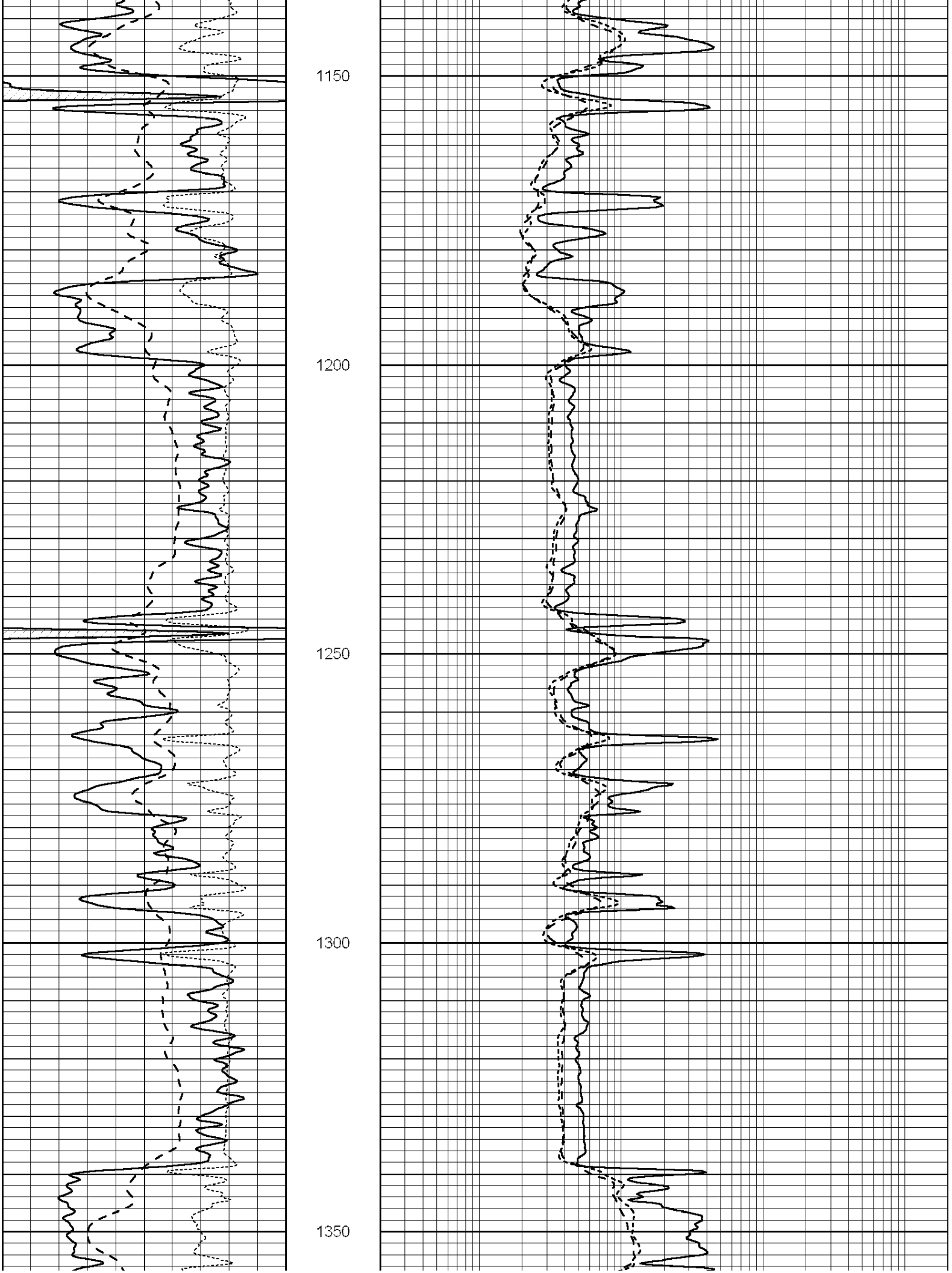
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1300
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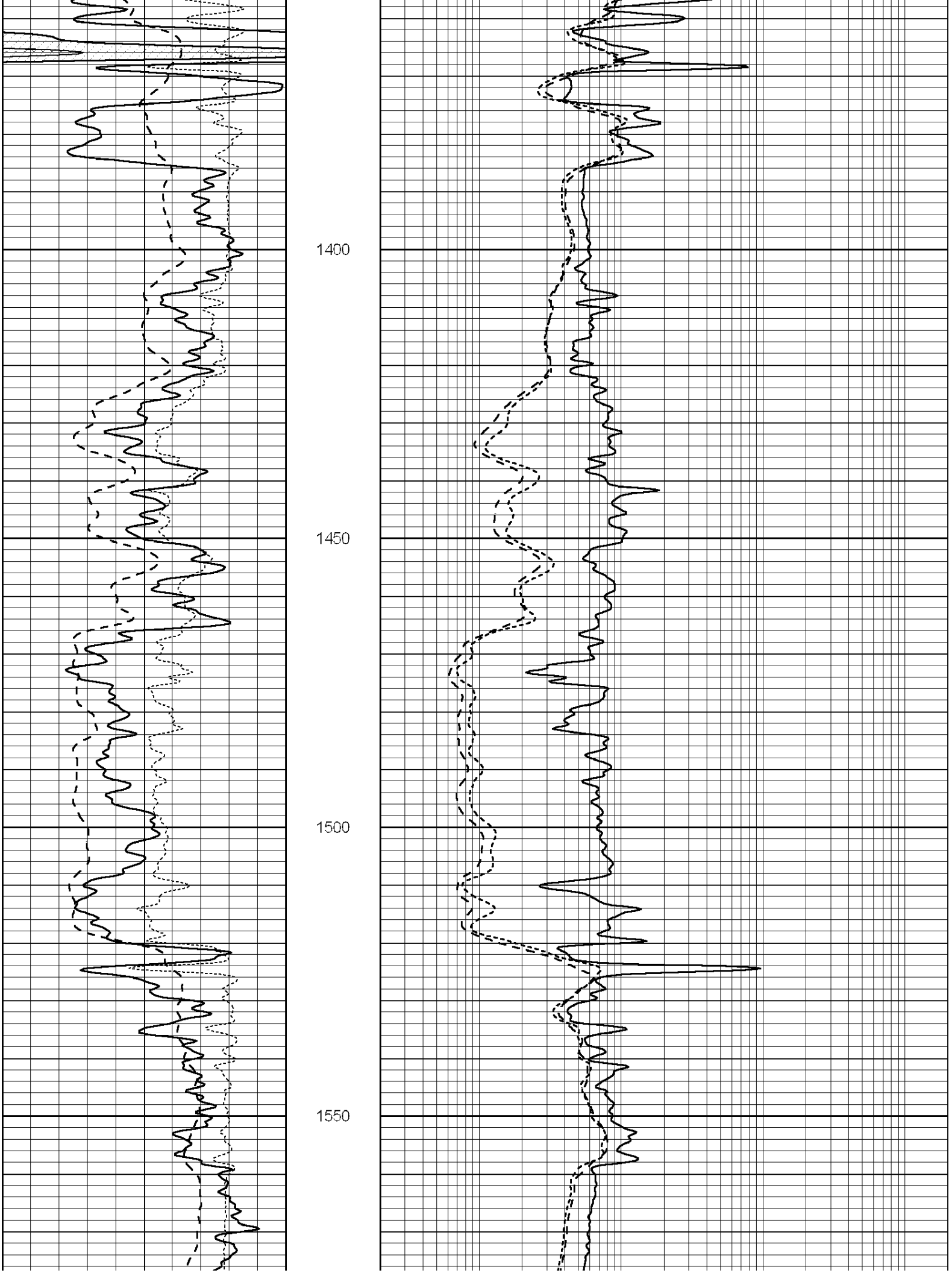
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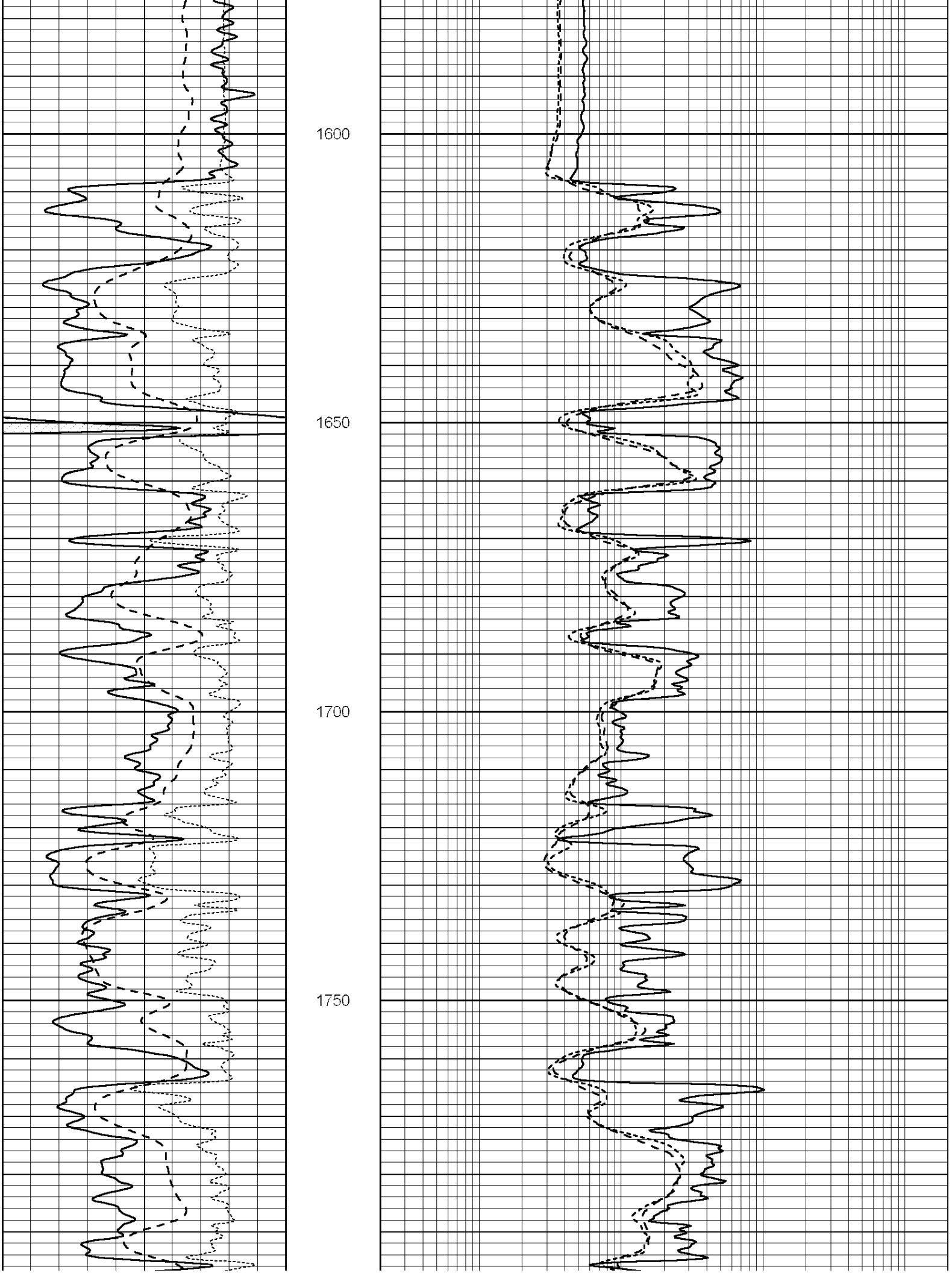
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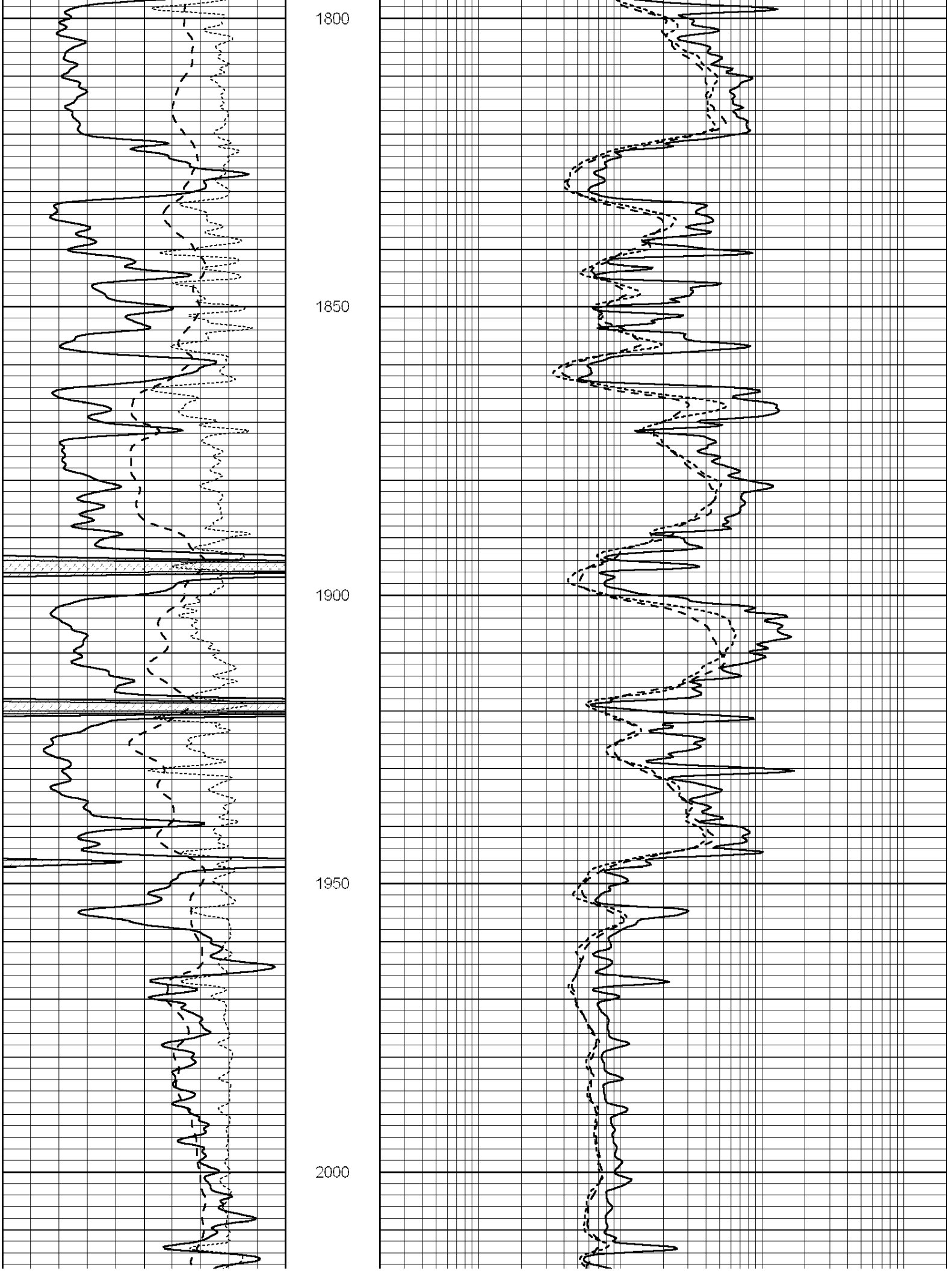
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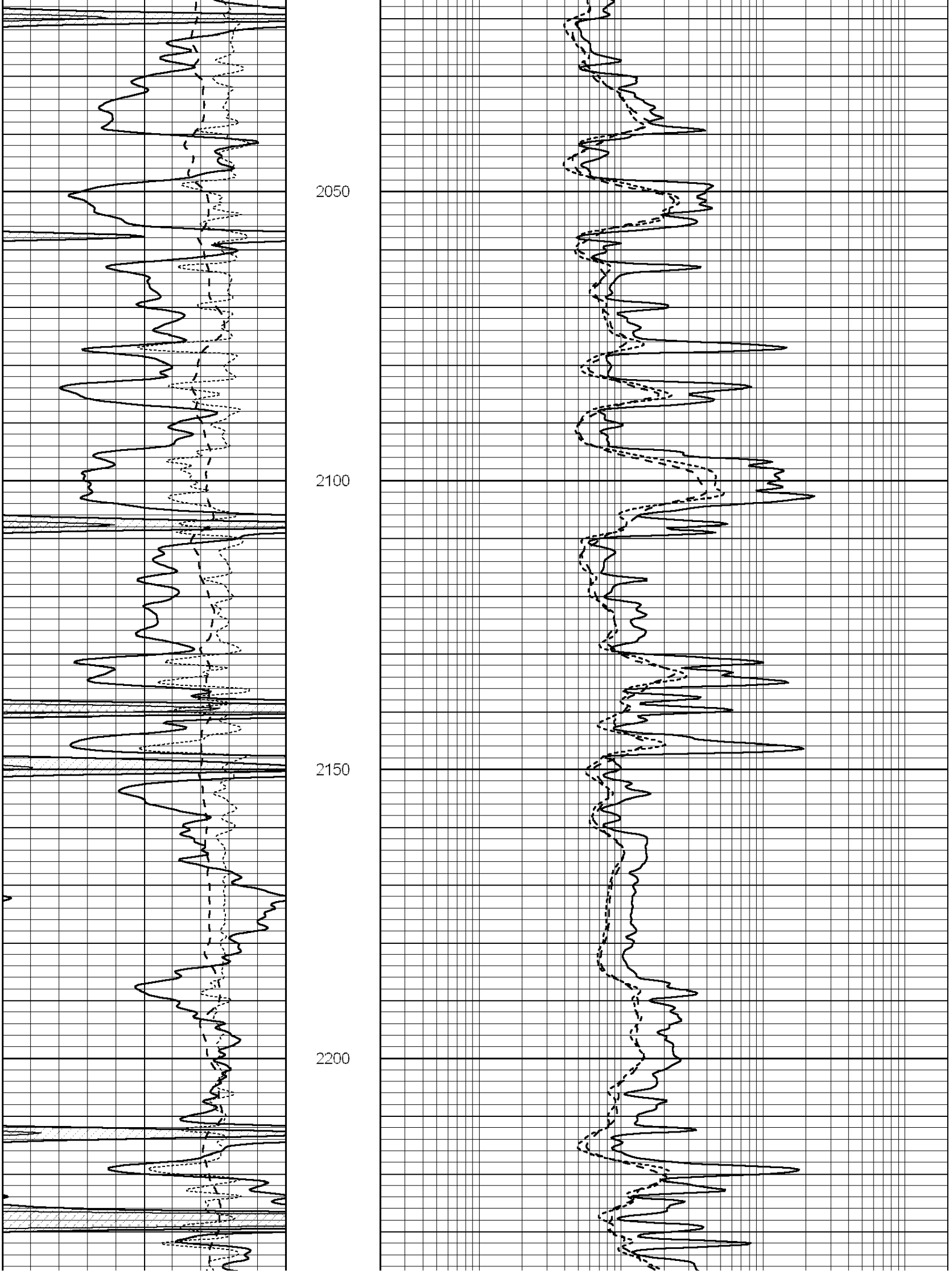
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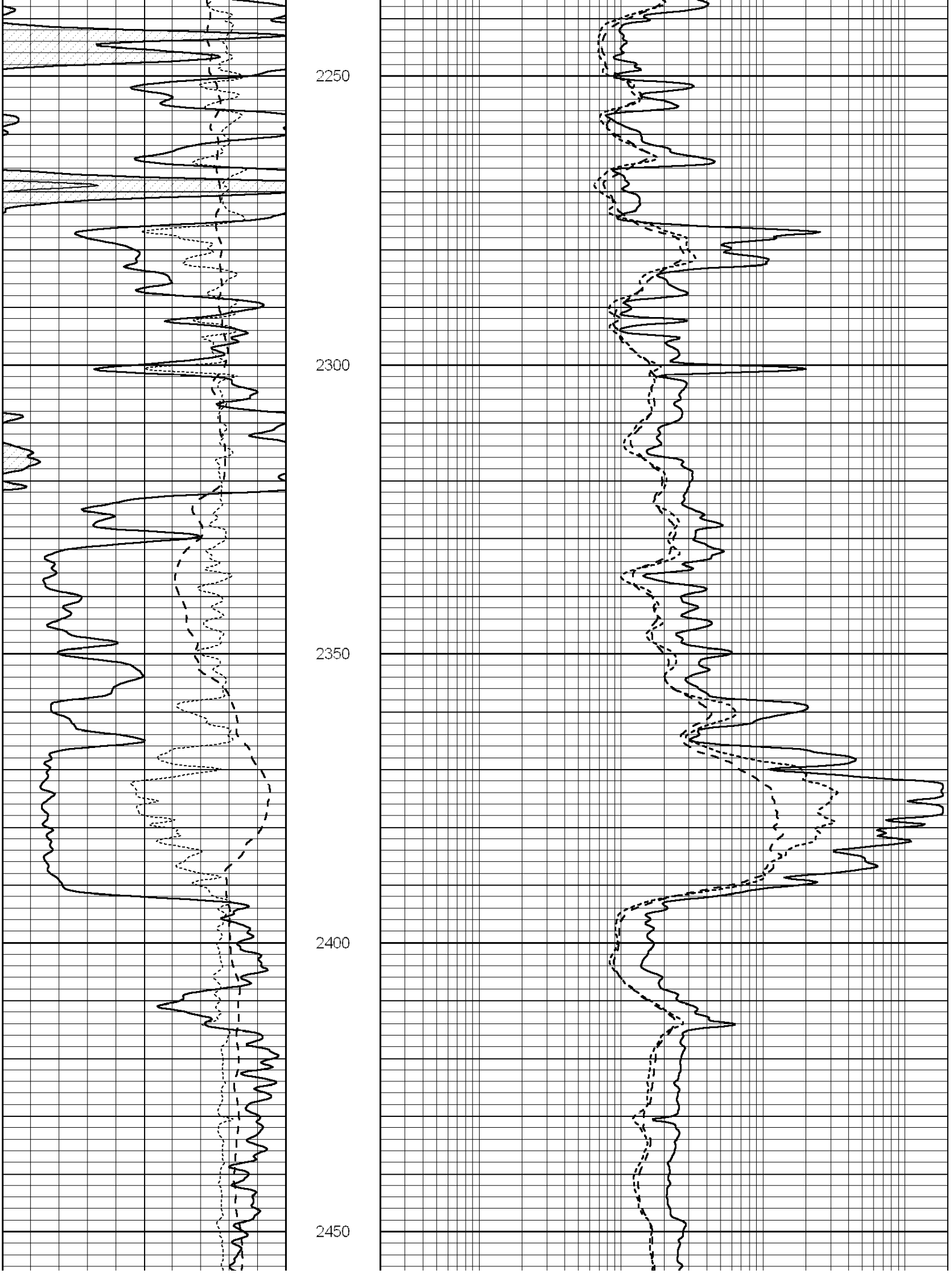
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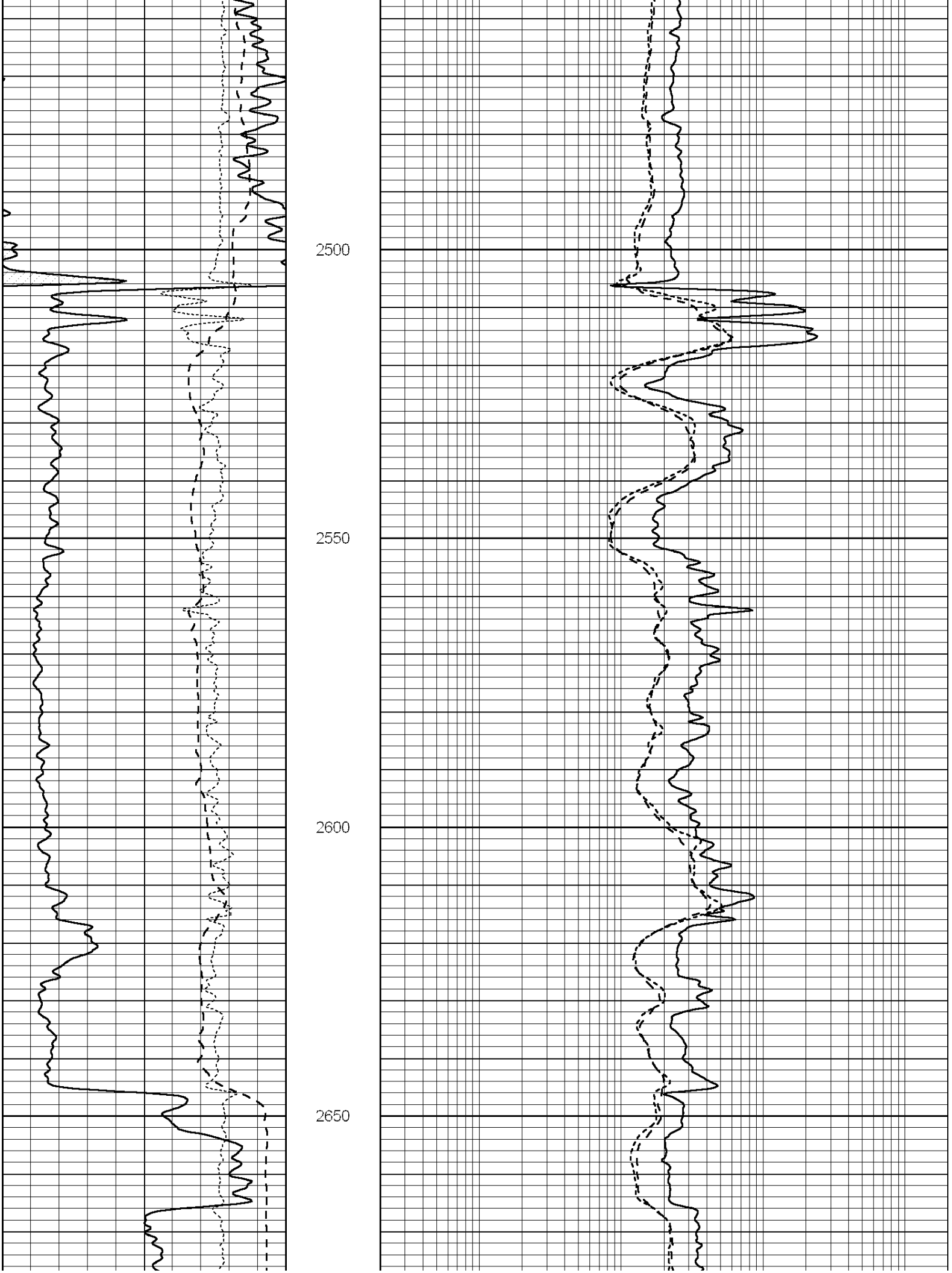
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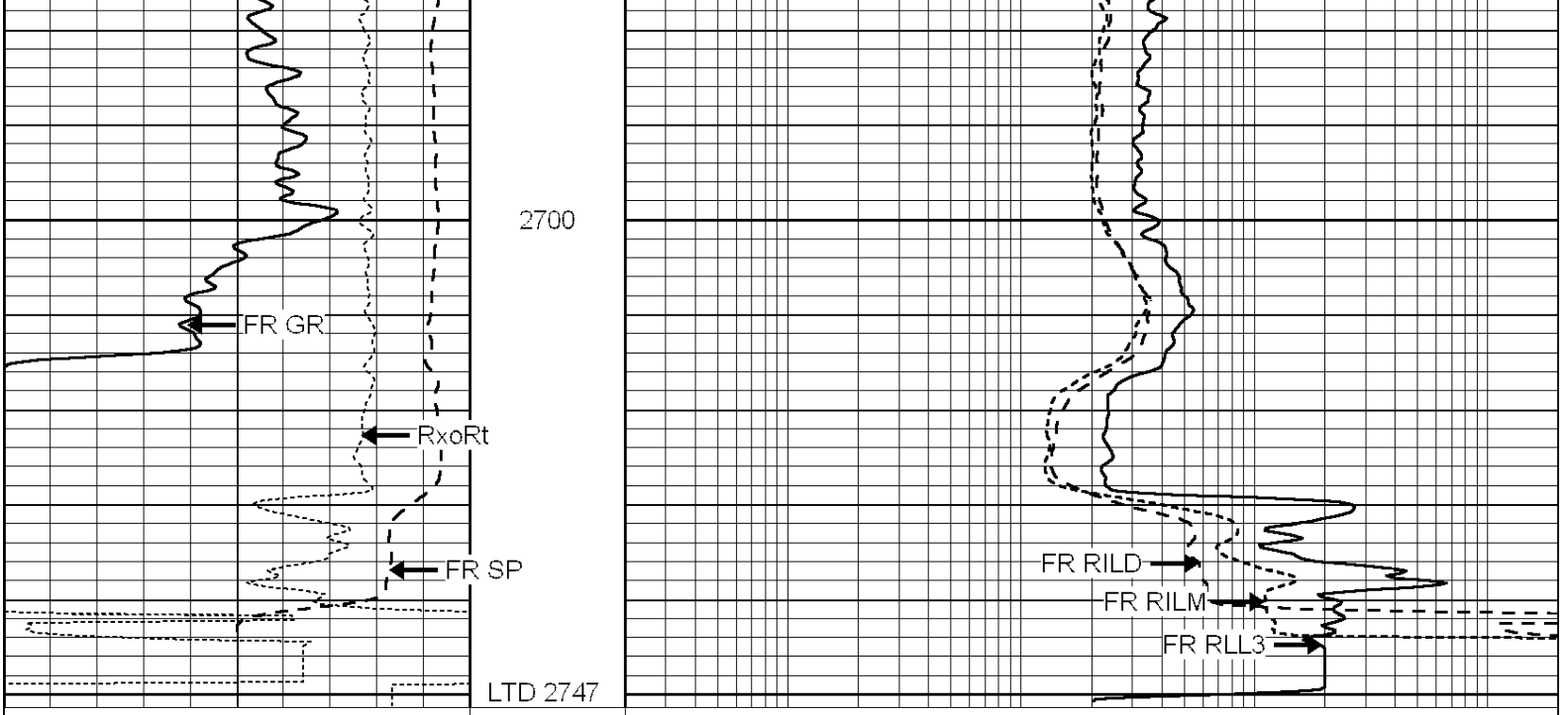

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

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

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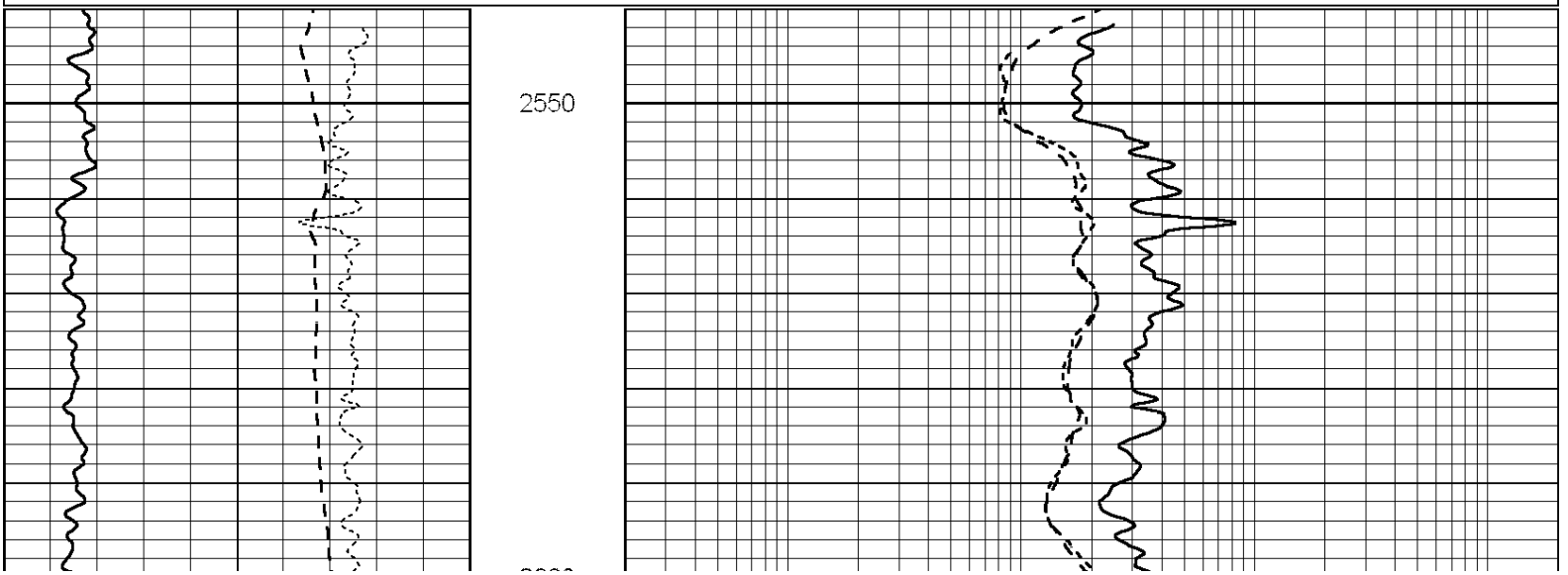
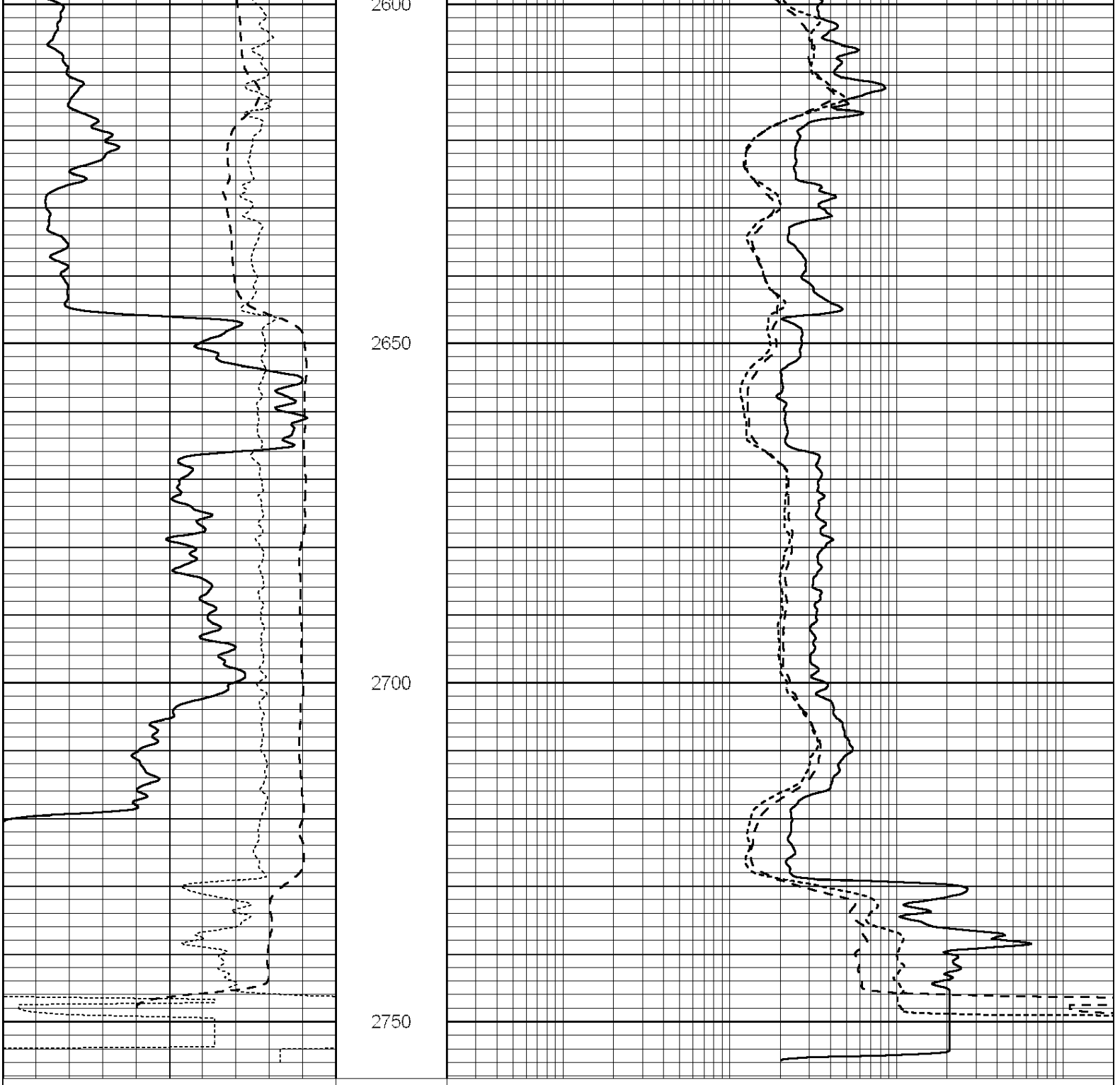
REPEAT SECTION

Database File:	005146ddn.db
Dataset Pathname:	pass2.2.1
Presentation Format:	_dil
Dataset Creation:	Thu Jun 17 04:57:11 2010
Charted by:	Depth in Feet scaled 1:240

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

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





Calibration Report

Database File:	005146ddn.db
Dataset Pathname:	pass3.2
Dataset Creation:	Thu Jun 17 05:45:22 2010 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model:	PROBE7-DILG
Surface Cal Performed:	Wed Jul 30 06:14:24 2008
Downhole Cal Performed:	Mon Jul 28 12:02:56 2008
After Survey Verification Performed:	Mon Jul 28 12:02:56 2008

After Survey Verification Performed: Mon Oct 25 12:52:30 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	621.923	8.759
Medium	0.039	0.728	V	0.000	464.000	mmho/m	673.322	-26.058
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		

Compensated Density Calibration Report

Serial-Model: GEAR4-GEARHART
Source / Verifier: 143 / 143
Master Calibration Performed: Tue May 11 10:59:10 2010

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1015.91	497.51	cps
Aluminum	2.600	g/cc	227.67	350.20	cps

Spine Angle = 76.79 Density/Spine Ratio = 0.579

	Size		Reading	
Small Ring	8.00	in	1.66	V
Large Ring	14.00	in	2.72	V

Compensated Neutron Calibration Report

Serial Number: 5I
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:	GR6	
Tool Model:	OPEN	
Performed:	Tue Nov 10 08:32:36 2009	
Calibrator Value:	150.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	276.0	cps
Sensitivity:	0.5535	GAPI/cps