SUPERIOR WELL SERVICES

SUPERIOR
Hays,
Kansas

DUAL INDUCTION LOG

Company MULL DRILLING COMPANY, INC.

Well KENT "A" #1-28

Field

County LANE State KANSAS

Location: API # : 15-101-22263

2158' FSL & 2582' FEL

SEC 28 TWP 17S RGE 29W

Other Services
CDL/CNL
SONIC/MEL

Elevation
K.B. 2816
D.F.
G.L. 2811

Permanent Datum	GROUND LEVEL	Elevation	2811
Log Measured From	KELLY BUSHING 5' A.G.L.		
Drilling Measured From	KELLY BUSHING		

Date	12-4-10		
Run Number	ONE		
Depth Driller	4650		
Depth Logger	4652		
Bottom Logged Interval	4650		
Top Log Interval	00		
Casing Driller	226		
Casing Logger	226		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.3 / 53		
pH / Fluid Loss	9.5 / 6.4		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.50 @ 73F		
Rmf @ Meas. Temp	1.13 @ 73F		
Rmc @ Meas. Temp	1.80 @ 73F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	.900 @ 121F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	1:15 P.M.		
Maximum Recorded Temperature	121F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	RUPP		
Witnessed By	KEVIN KESSLER		

Company MULL DRILLING COMPANY, INC.
Well KENT "A" #1-28
Field
County LANE
State KANSAS

<<< Fold Here >>>

Comments

SUPERIOR WELL SERVICES
785-628-6395
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: DIGHTON, 4N TO RD. #190, 2W, 1/2N, W INTO.

MAIN SECTION

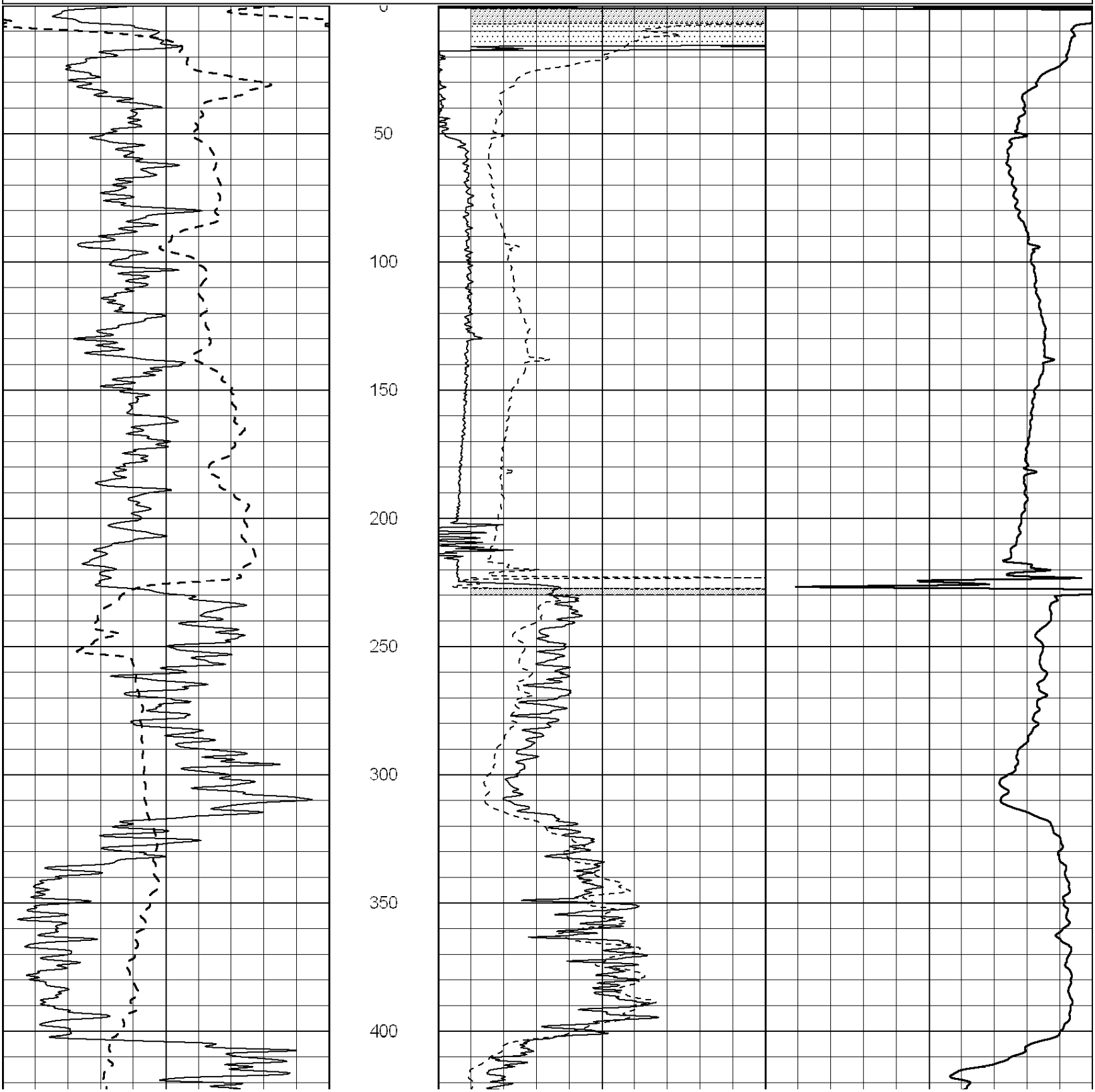
SUPERIOR
Hays,
SUPERIOR WELL SERVICES

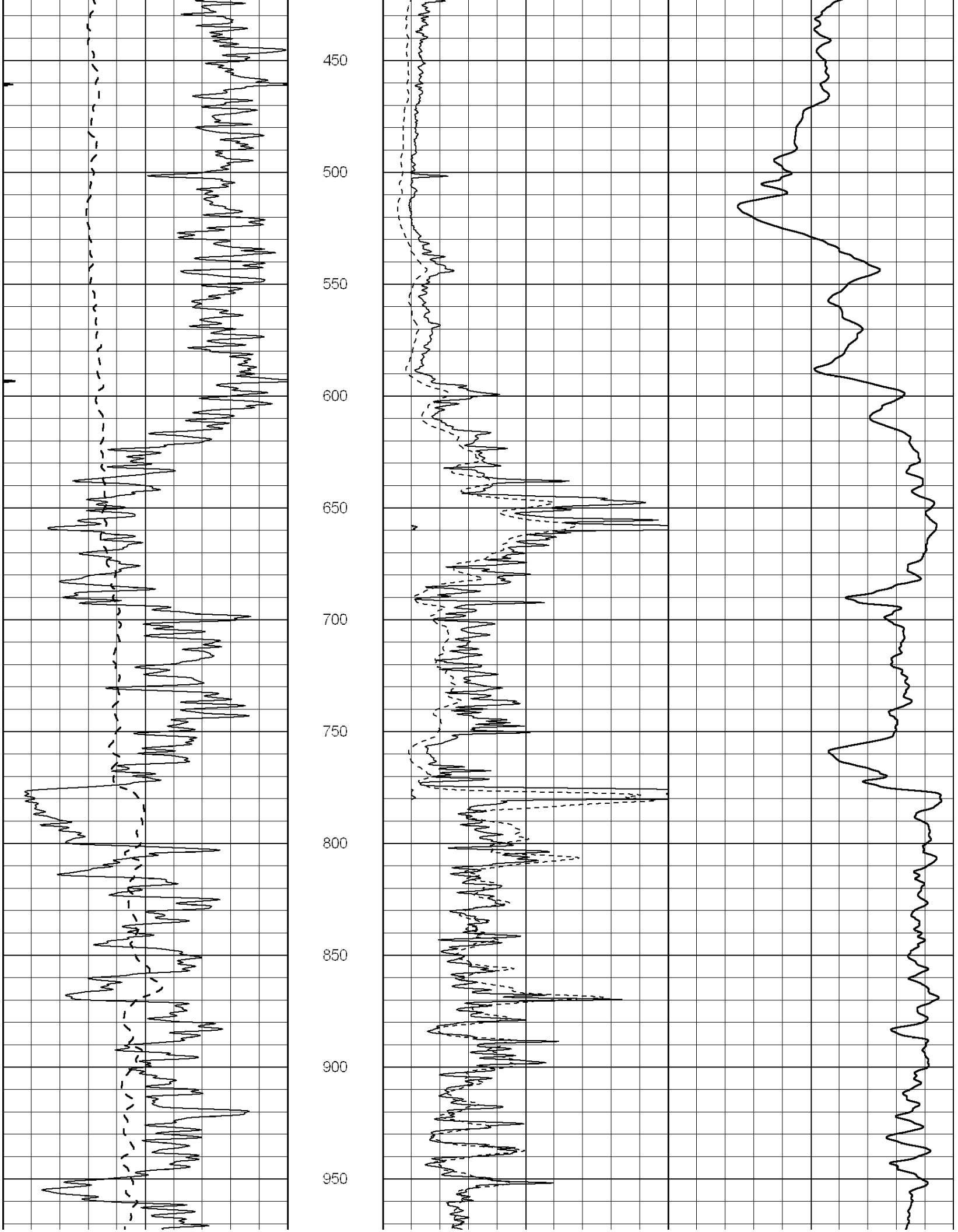
Kansas

Database File:	006304ddn.db
Dataset Pathname:	pass3.1A
Presentation Format:	dil2
Dataset Creation:	Sat Dec 04 04:46:50 2010
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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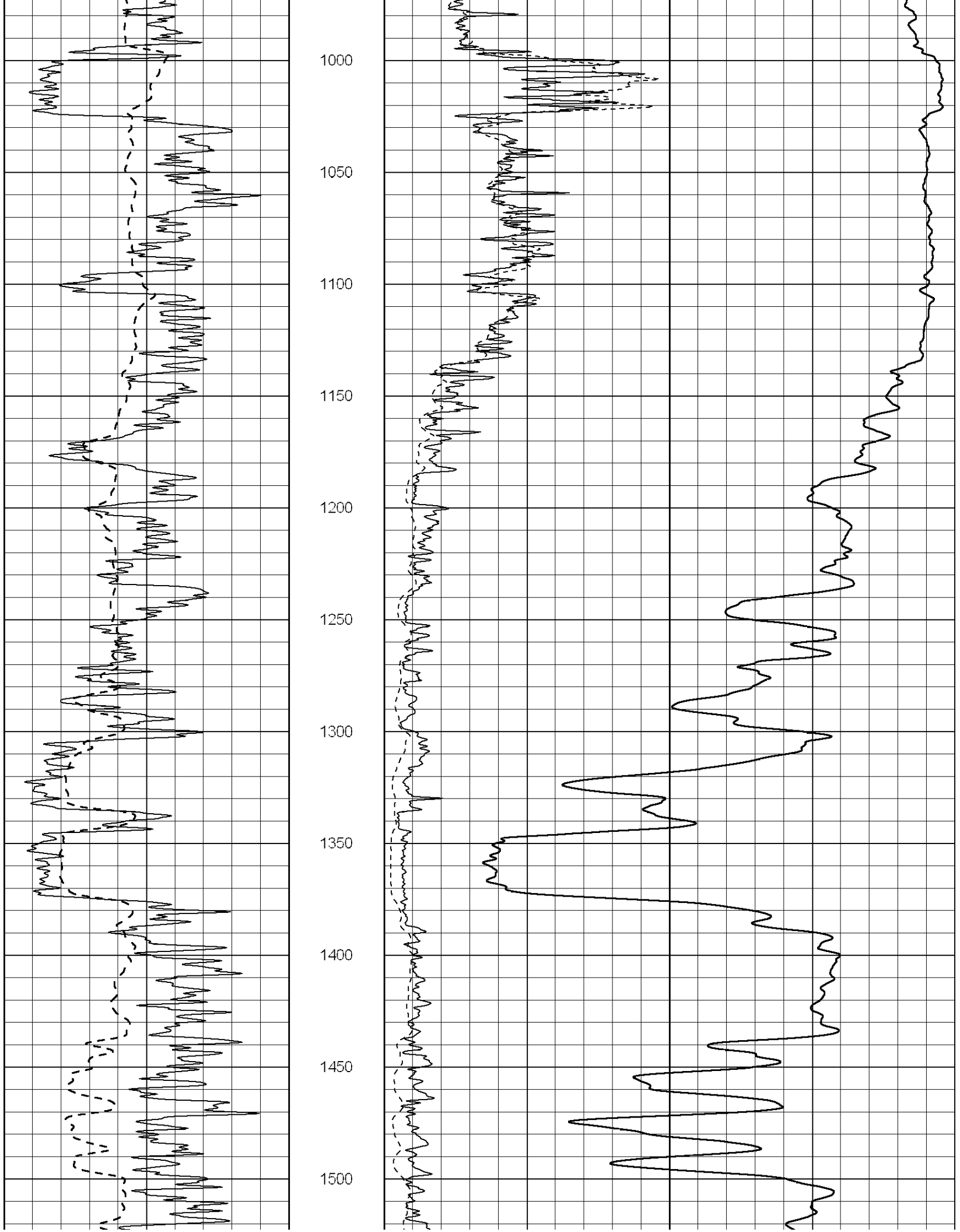
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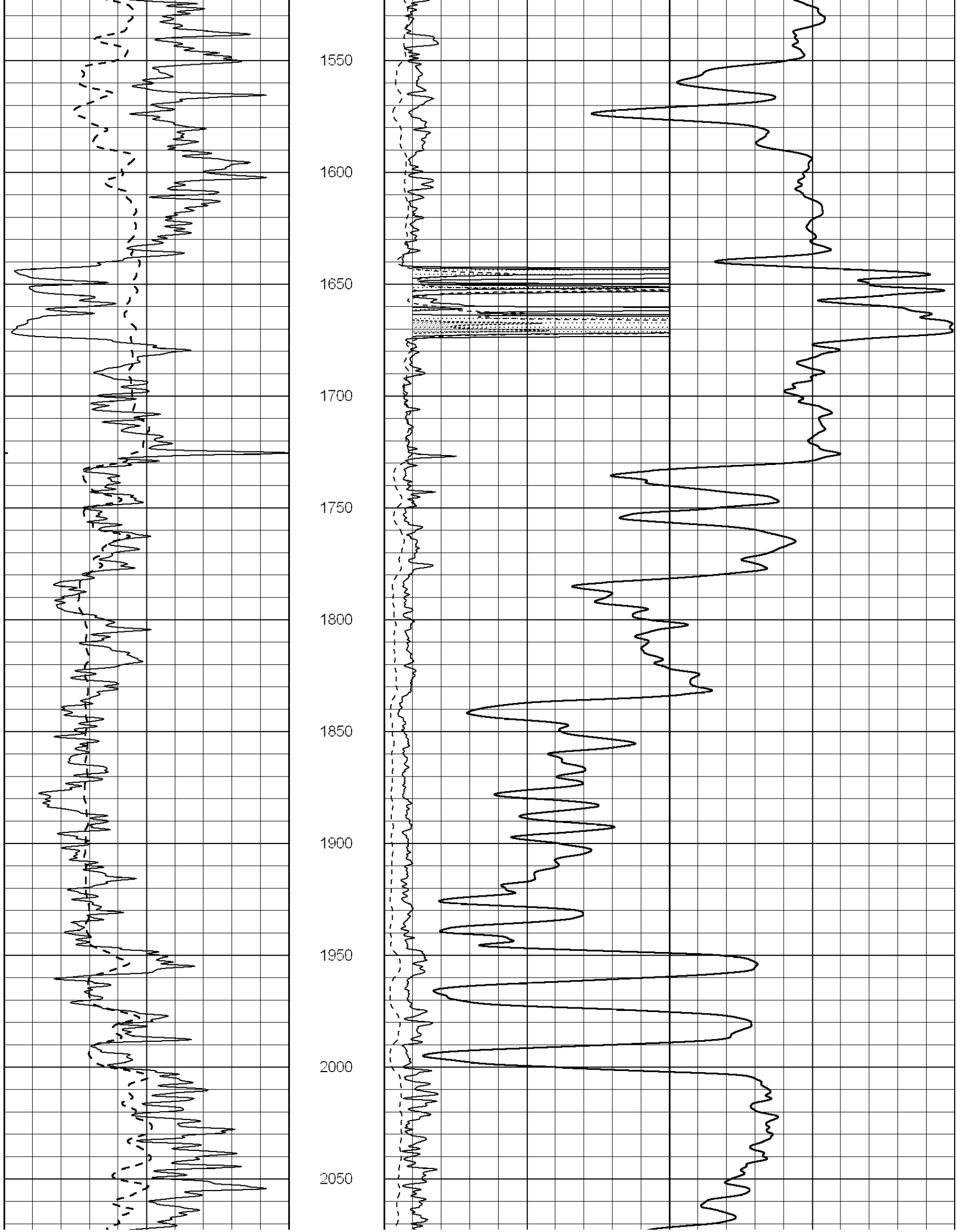
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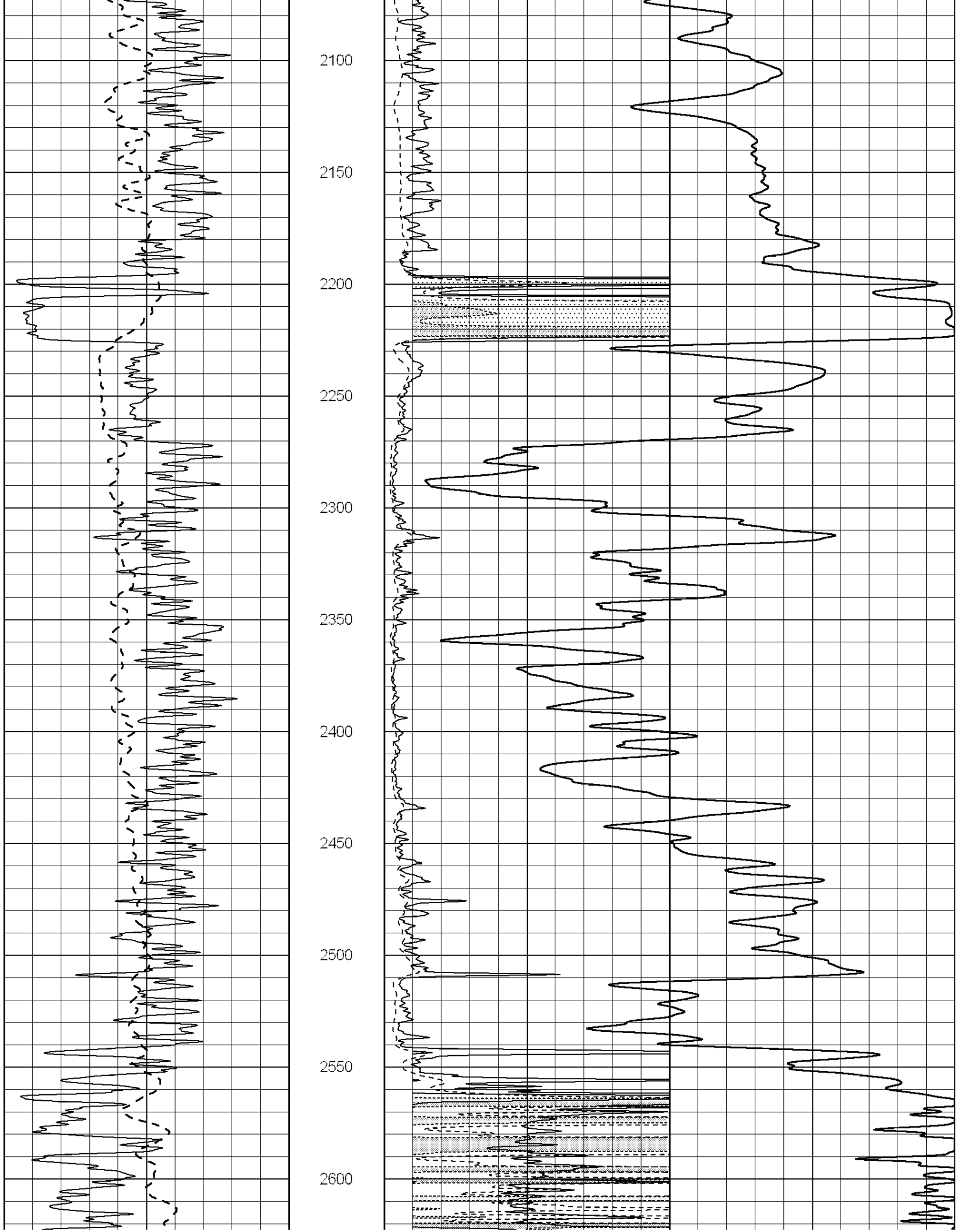
2000
2050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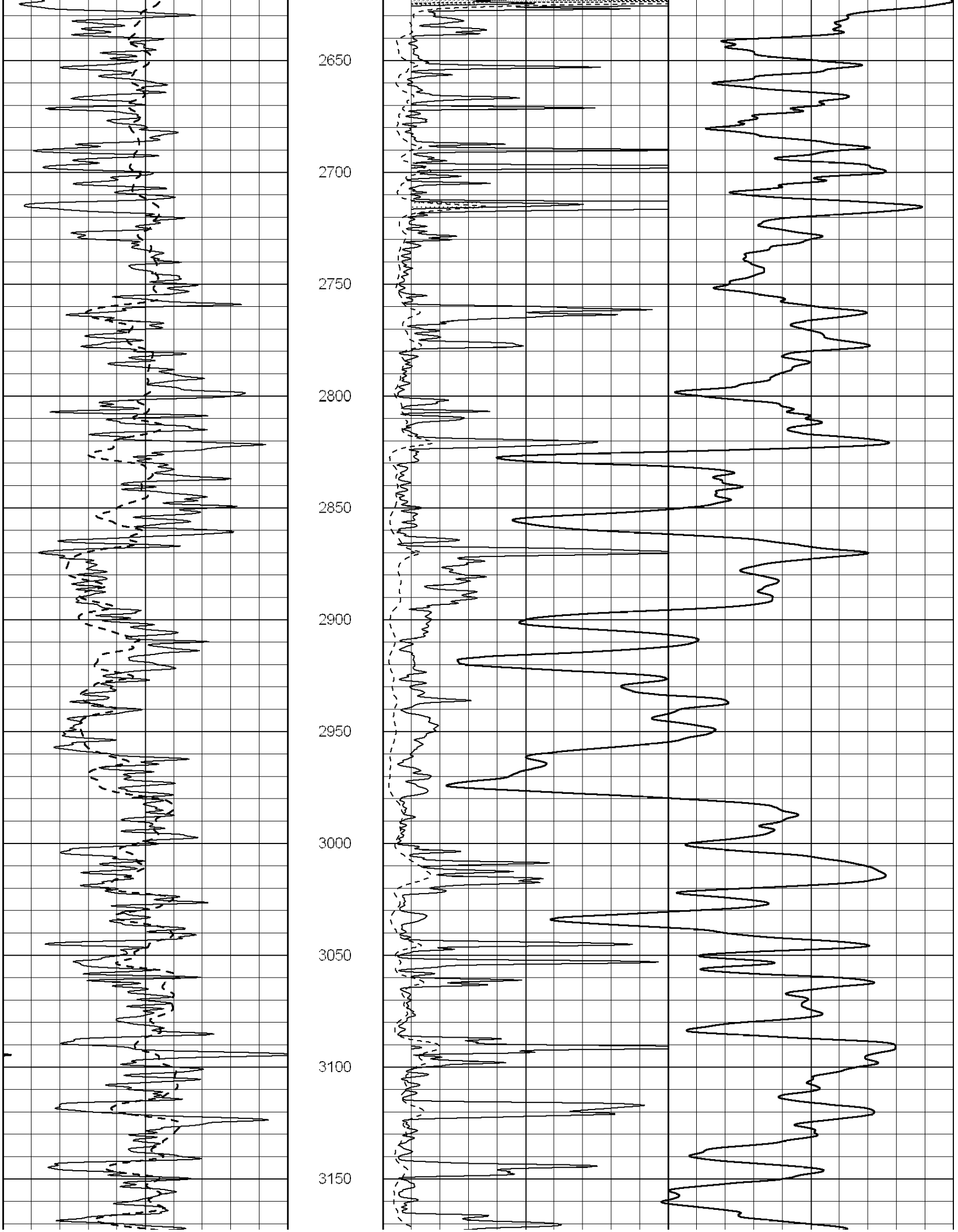
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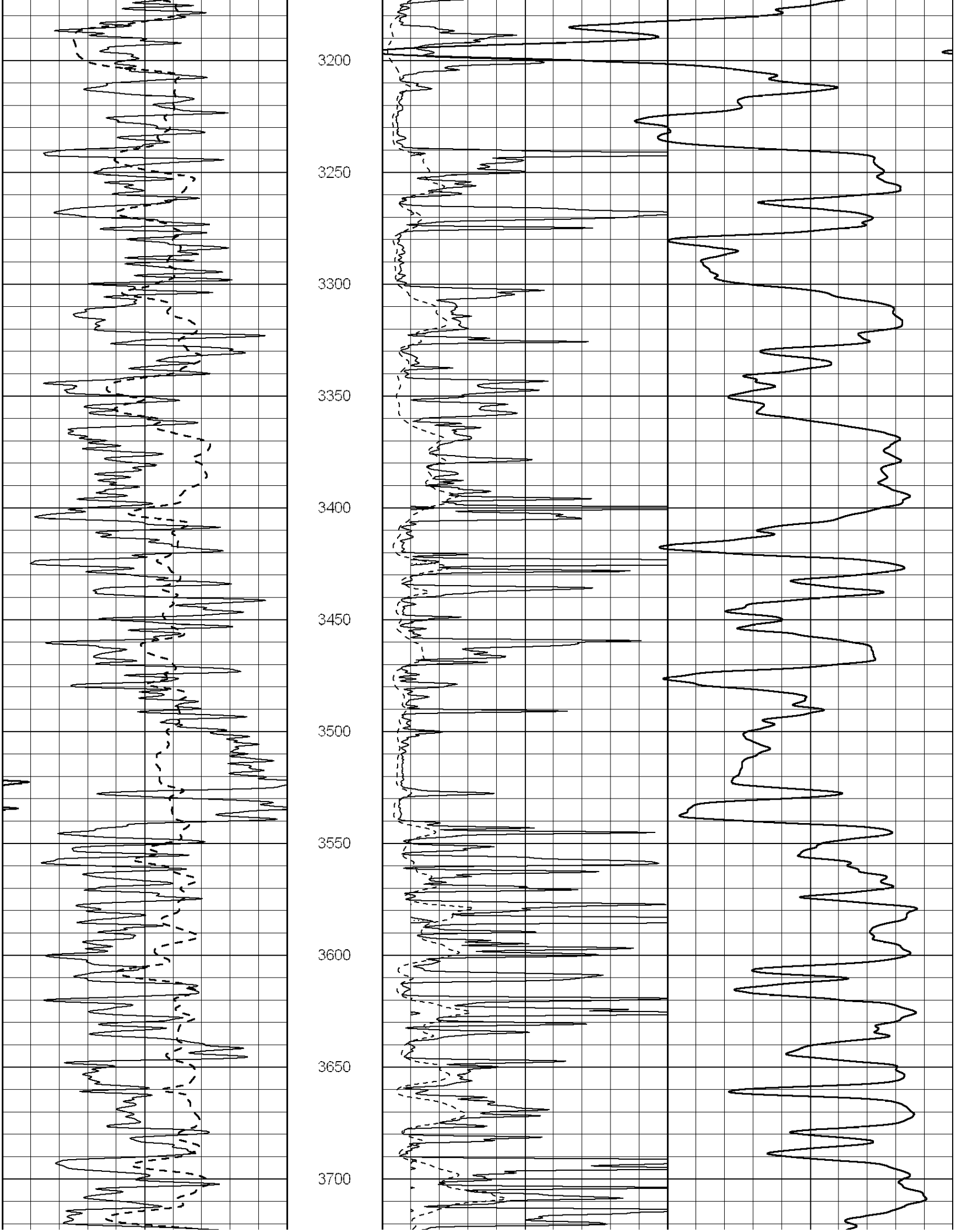
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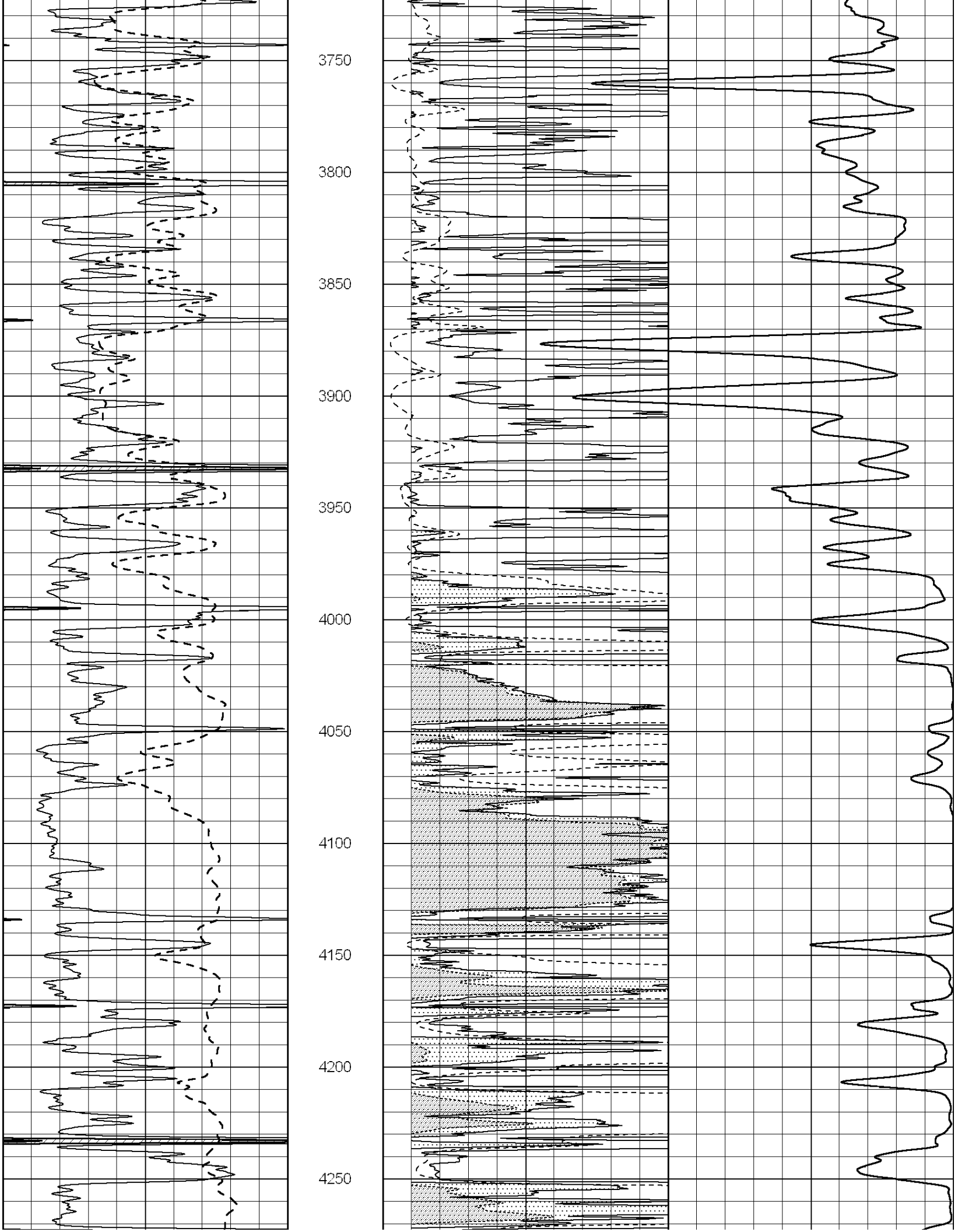
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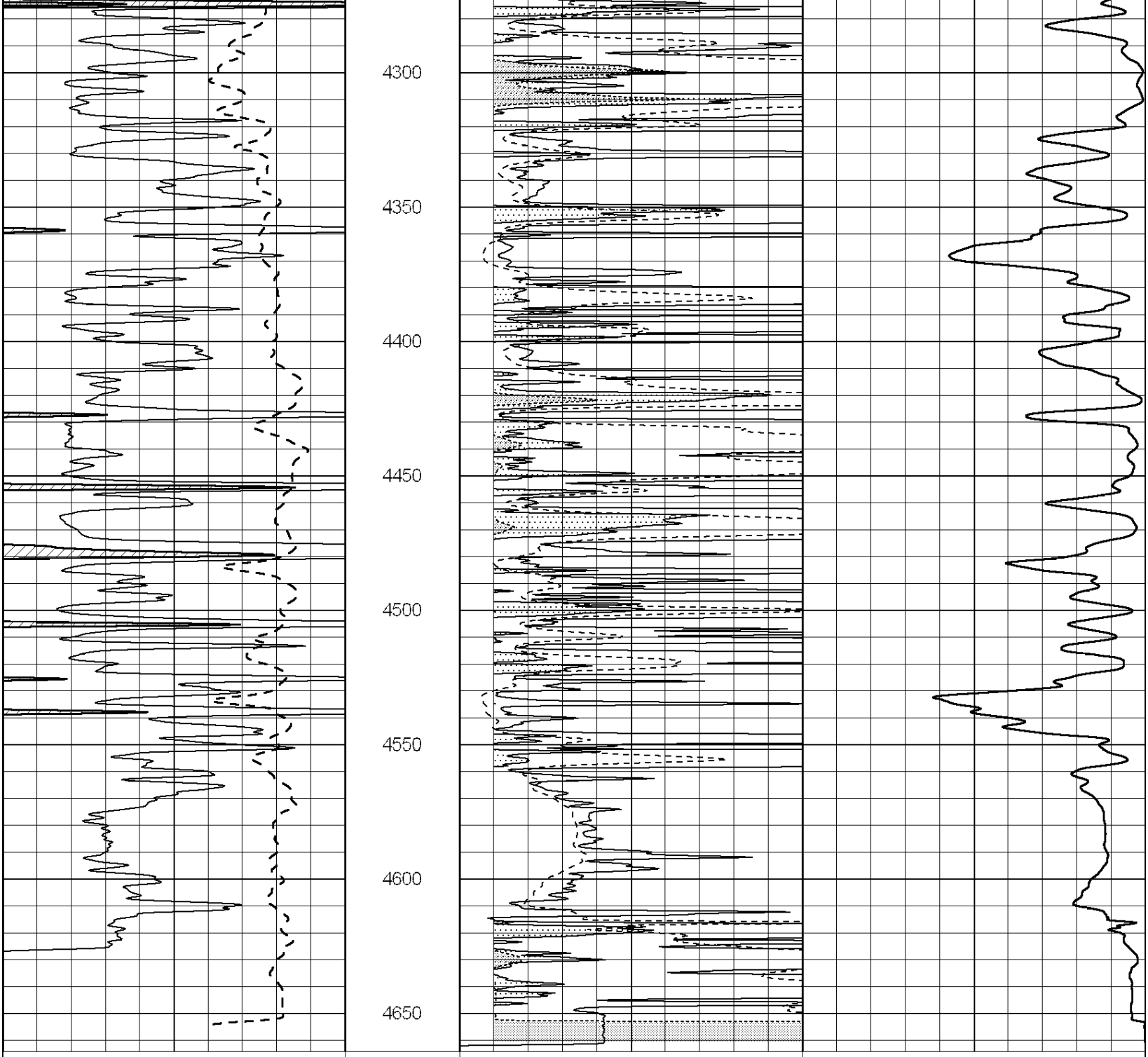

SUPERIOR WELL SERVICES

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Hays,
Kansas

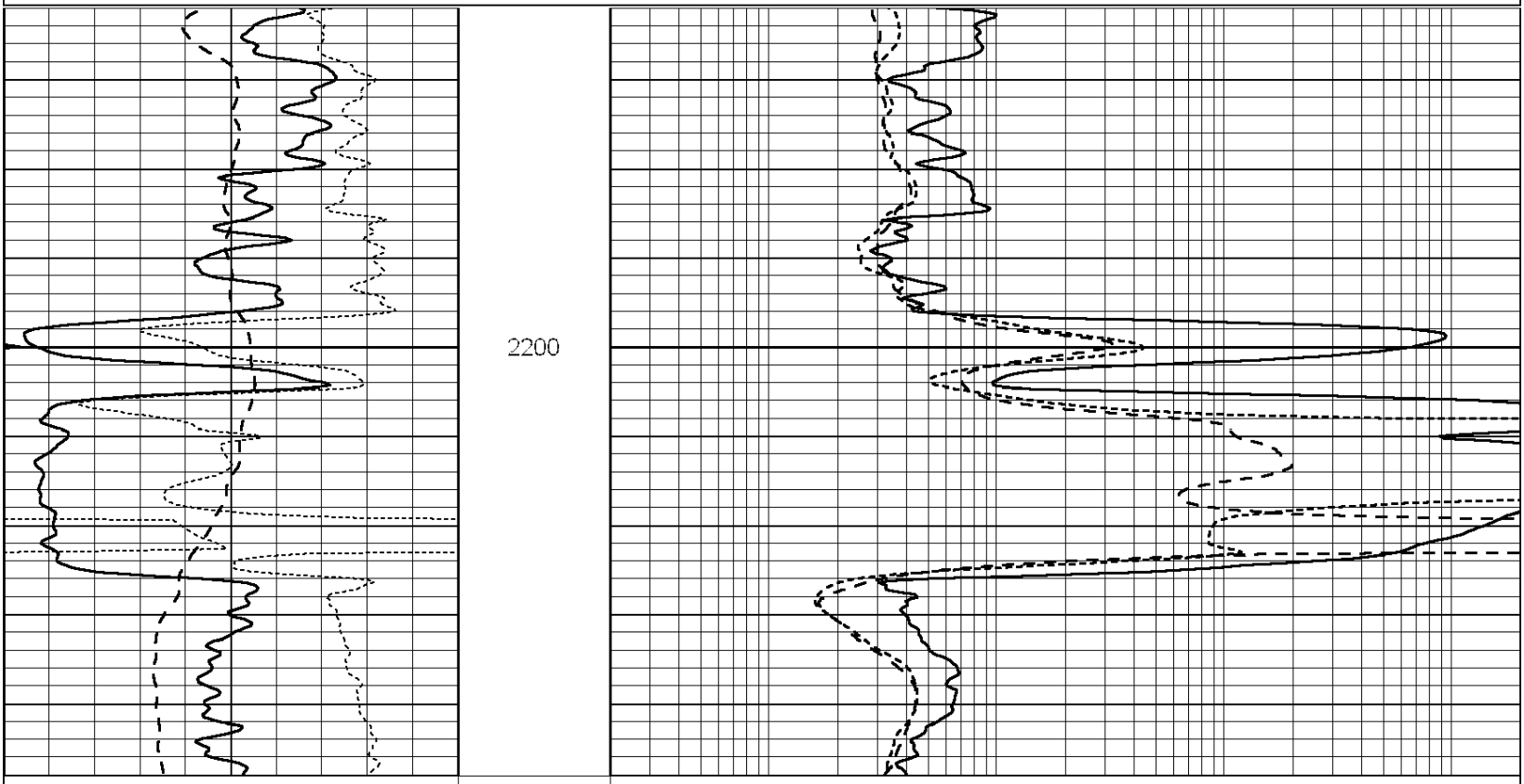
MAIN SECTION

Database File:	006304ddn.db
Dataset Pathname:	pass3.1A
Presentation Format:	dil

Dataset Creation: Sat Dec 04 04:46:50 2010
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

0.2	RLL3 (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	RxoRt	50
0	MINMK	20

0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

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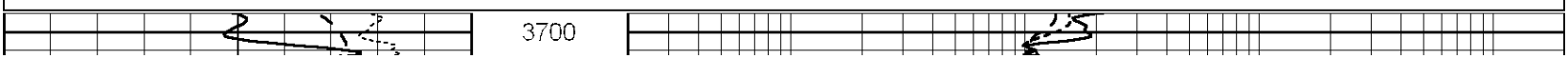
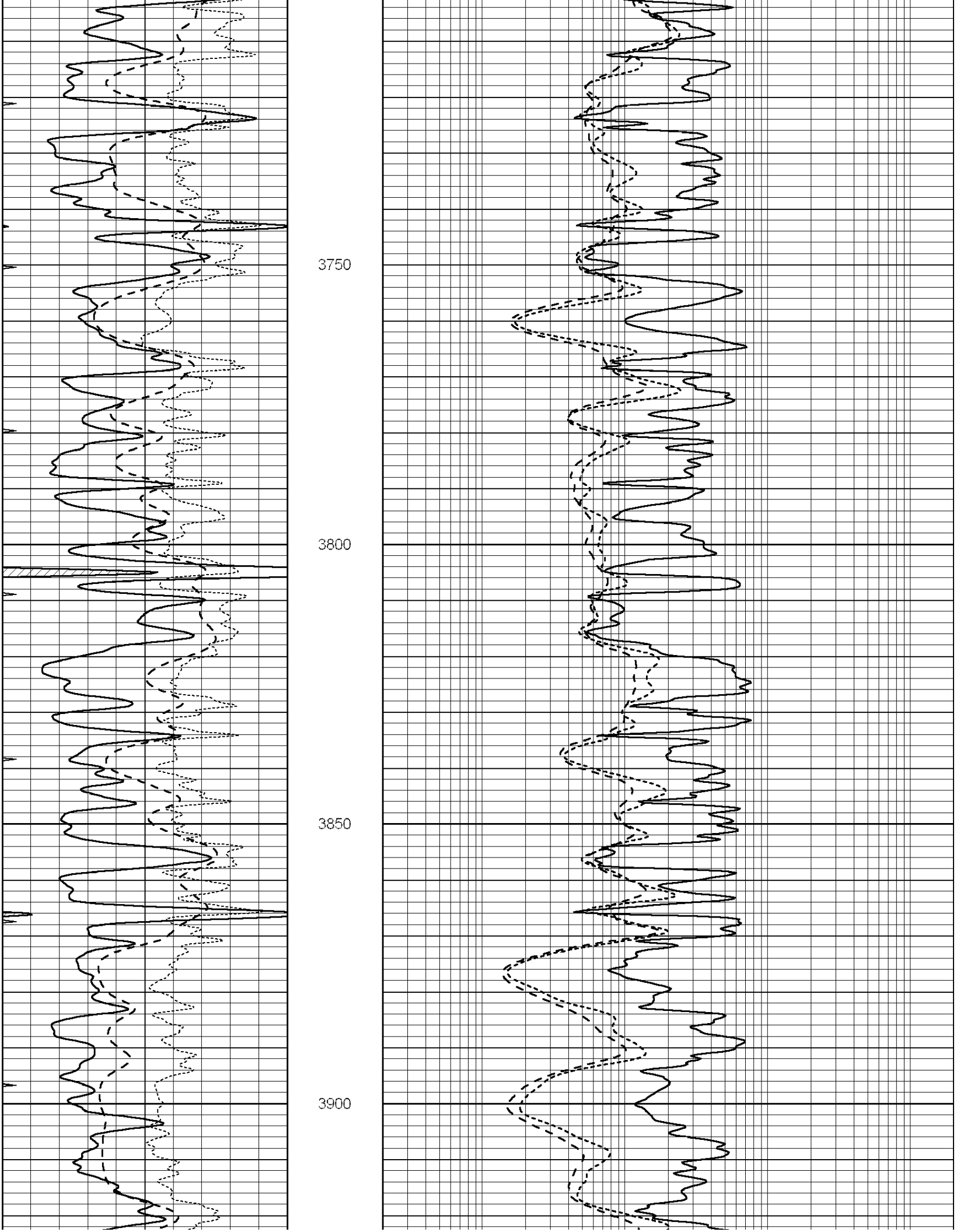
MAIN SECTION

Database File: 006304ddn.db
Dataset Pathname: pass3.1A
Presentation Format: dil
Dataset Creation: Sat Dec 04 04:46:50 2010
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

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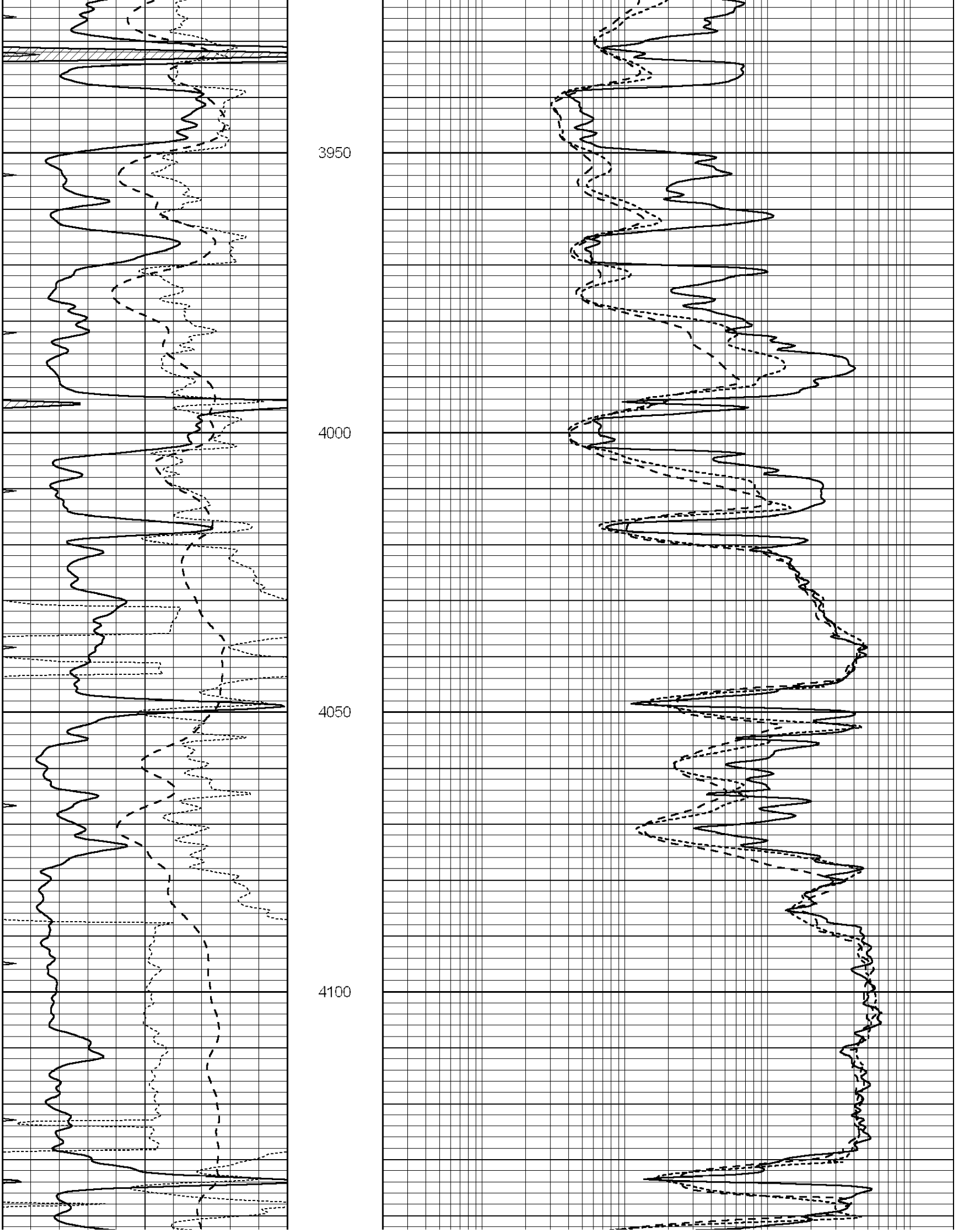
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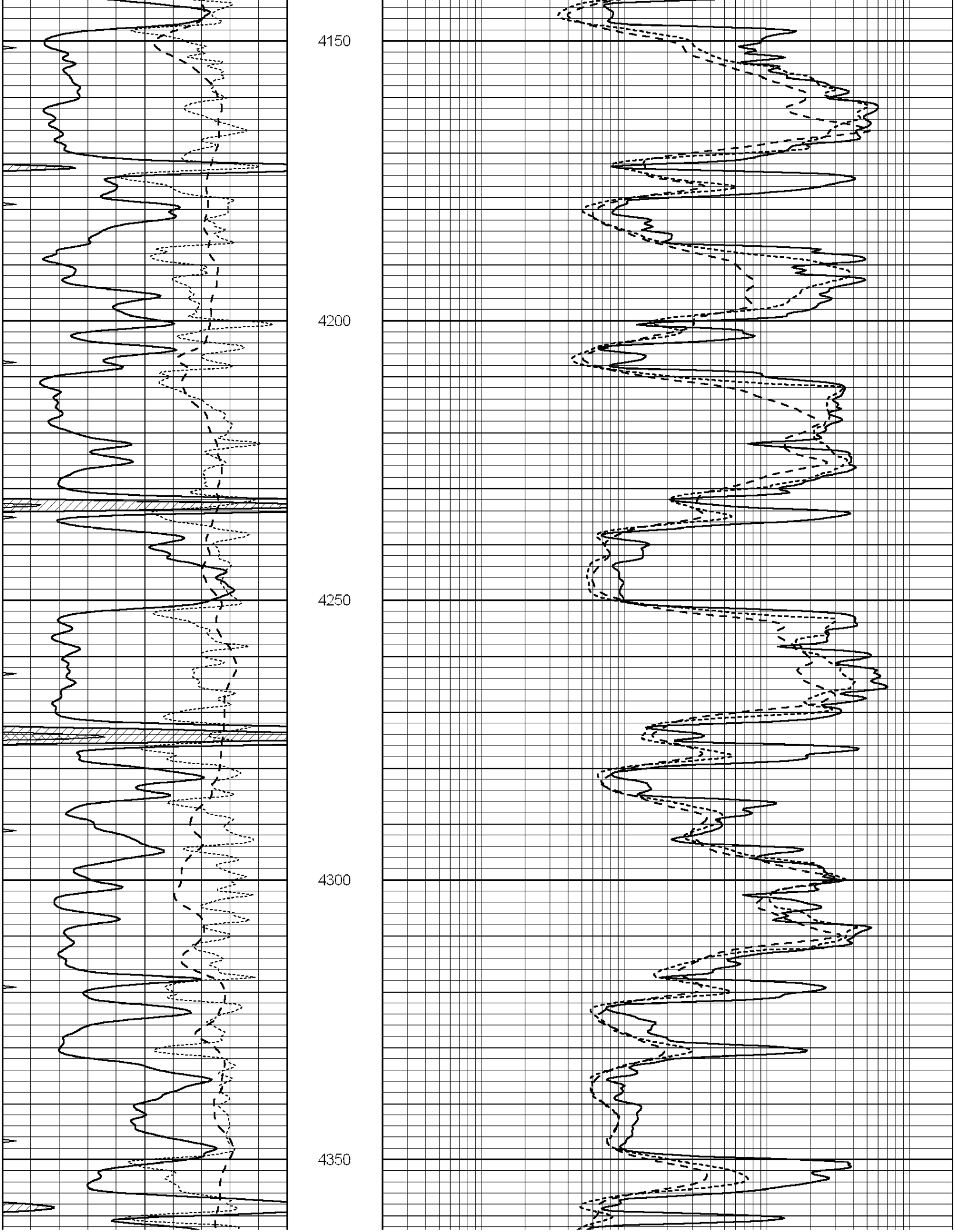
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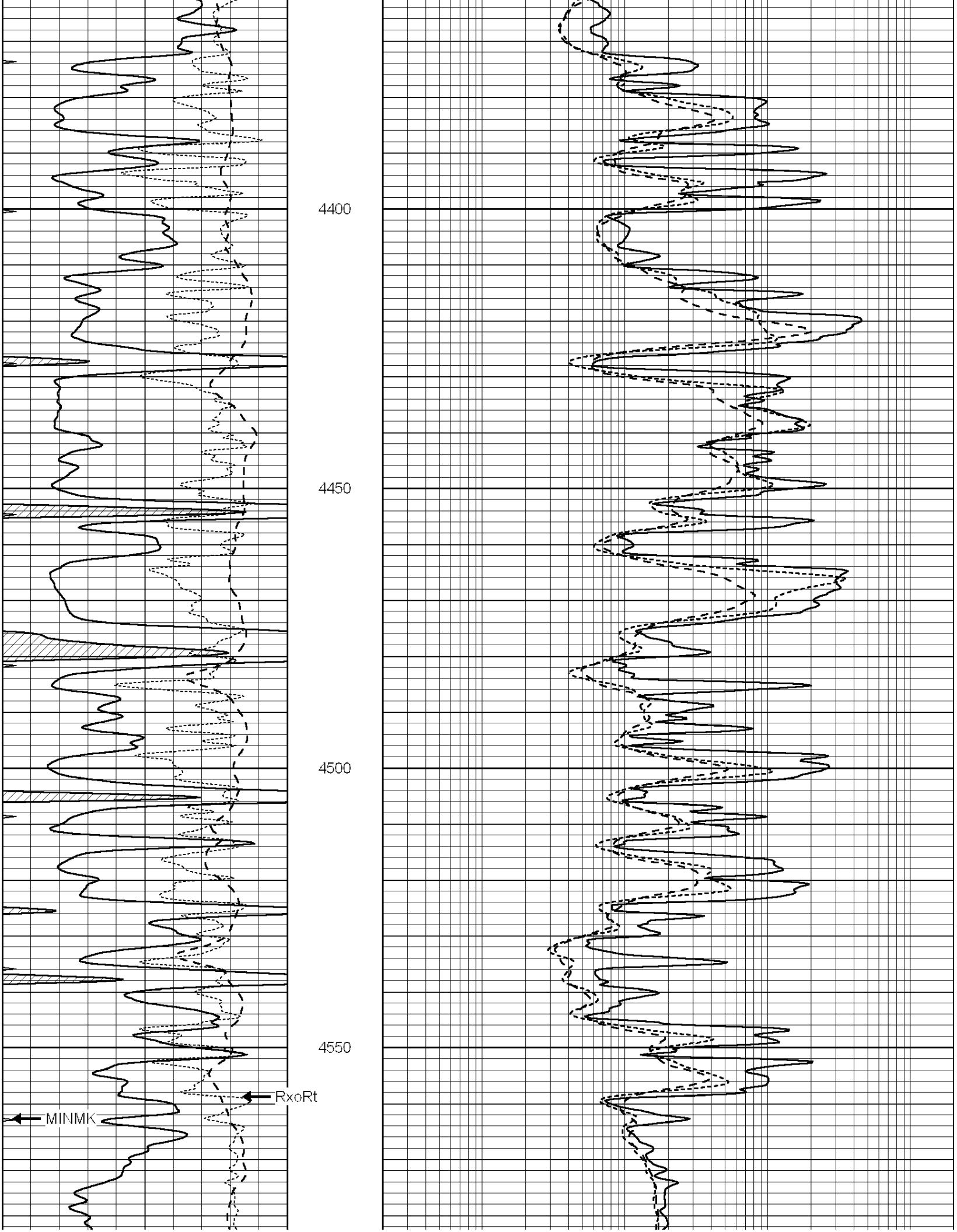
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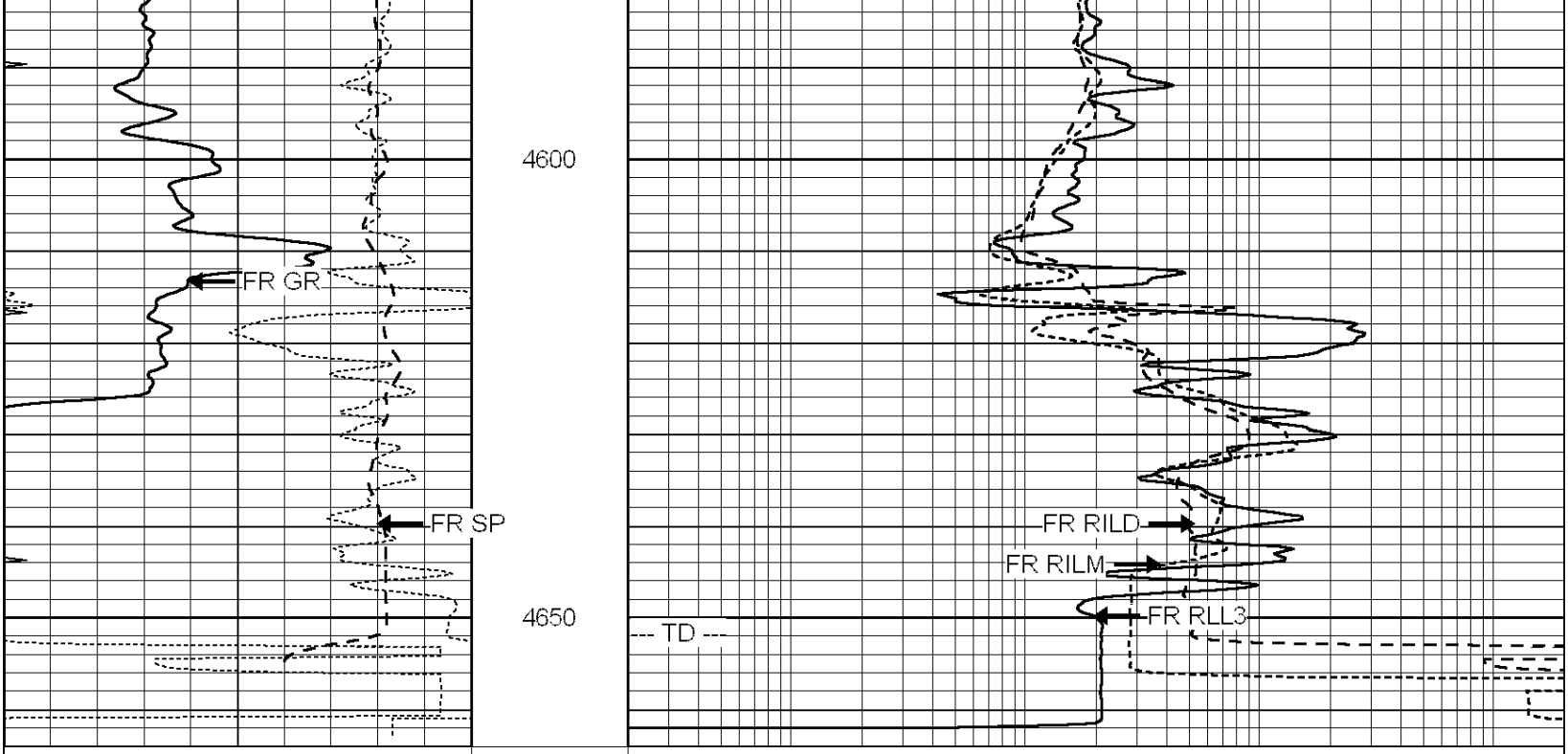
RxoRt
MINMK



0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

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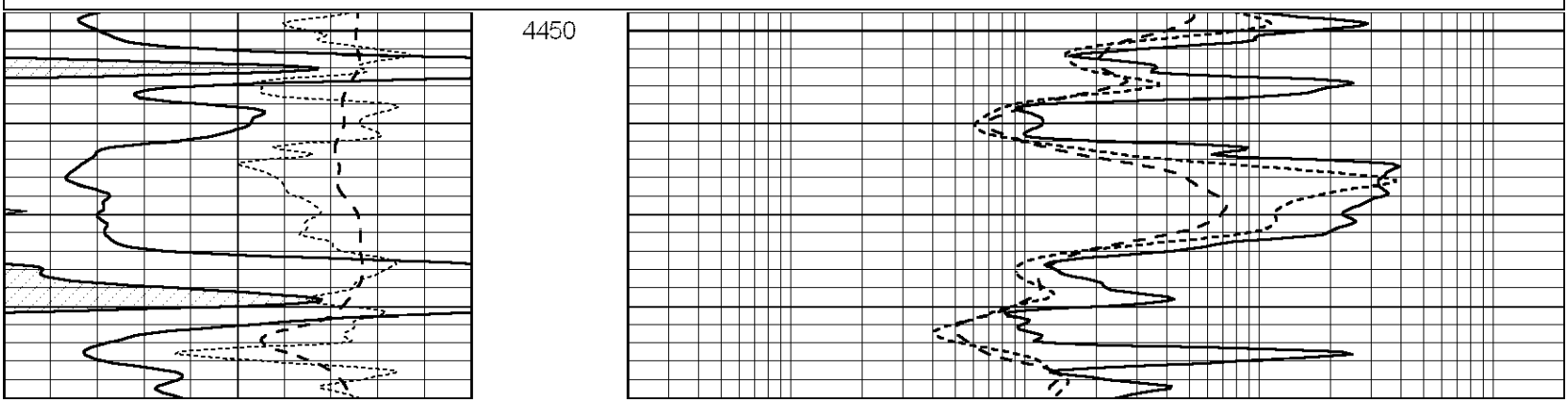
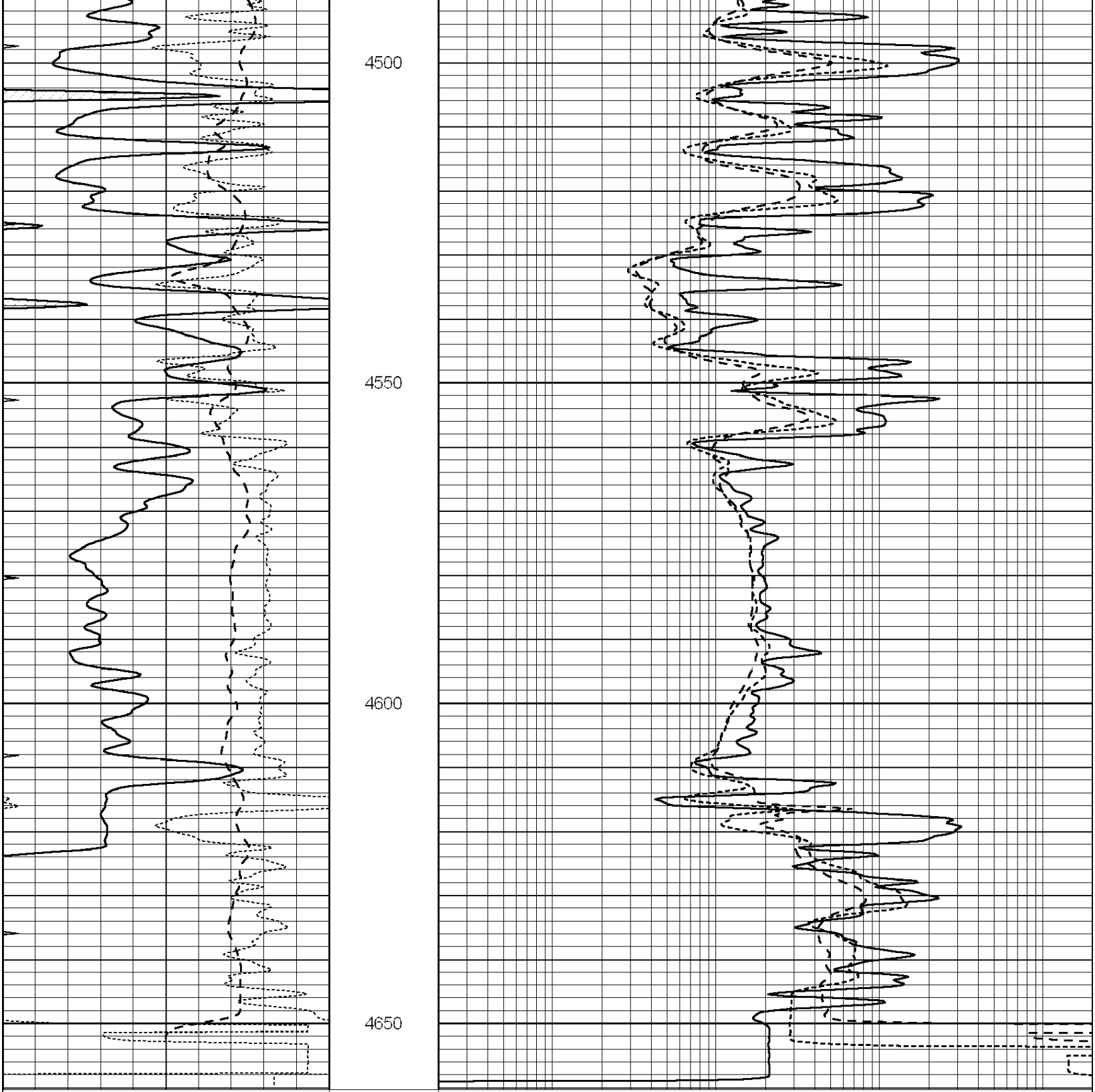
REPEAT SECTION

Database File:	006304ddn.db
Dataset Pathname:	pass2.1A
Presentation Format:	dil
Dataset Creation:	Sat Dec 04 03:55:18 2010 by Calc Open-Cased 090629
Charted by:	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

0.2	RLL3 (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	RxoRt	50
0	MINMK	20

0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

Calibration Report

Database File: 006304ddn.db
Dataset Pathname: pass3.1A
Dataset Creation: Sat Dec 04 04:46:50 2010

Dual Induction Calibration Report

Dual Induction Calibration Report

Serial-Model: DIL5-GEAR
Performed: Sat Dec 04 03:53:21 2010

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.004	0.654	V	0.000	400.000	mmho/m	540.000	-7.000
Medium	-0.005	0.737	V	0.000	462.500	mmho/m	520.000	-11.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.006	0.655	V	0.000	400.000	mmho/m	615.668	-3.483
Medium	0.010	0.747	V	0.000	462.500	mmho/m	627.607	-6.064

Compensated Density Calibration Report

Serial-Model: GEAR1-GEARHART
Source / Verifier: 147 / 147
Master Calibration Performed: Sat Dec 04 03:29:01 2010

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1243.76	629.14	cps
Aluminum	2.600	g/cc	282.16	435.01	cps

Spine Angle = 76.03 Density/Spine Ratio = 0.582

	Size		Reading	
Small Ring	7.70	in	3.82	V
Large Ring	14.00	in	6.37	V

Compensated Neutron Calibration Report

Serial Number: NEU_1I
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: GR5
Tool Model: OPEN
Performed: Sat Dec 04 03:51:59 2010

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.6500 GAPI/cps