SUPERIOR WELL SERVICES

SUPERIOR
Hays,
Kansas

DUAL INDUCTION LOG

Company RITCHIE EXPLORATION, INC.

Well MOORE D/P #8

Field

County NESS State KANSAS

Location: API # : 15-135-25355

1340' FNL & 600' FWL

SEC 30 TWP 19S RGE 21W

Other Services
CDL/CNL
BTM. GAMMA

Elevation
K.B. 2286
D.F.
G.L. 2276

Permanent Datum GROUND LEVEL Elevation 2276
Log Measured From KELLY BUSHING 10' A.G.L.
Drilling Measured From KELLY BUSHING

Company RITCHIE EXPLORATION, INC.
Well MOORE D/P #8
Field
County NESS
State KANSAS

Date	2-14-12		
Run Number	ONE		
Depth Driller	4450		
Depth Logger	4451		
Bottom Logged Interval	4449		
Top Log Interval	00		
Casing Driller	218		
Casing Logger	218		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.2 / 45		
pH / Fluid Loss	10.0 / 8.4		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.55 @ 81F		
Rmf @ Meas. Temp	0.41 @ 81F		
Rmc @ Meas. Temp	0.66 @ 81F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	.370 @ 119F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	3:30 P.M.		
Maximum Recorded Temperature	119F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	RUPP		
Witnessed By	MAX LOVELY		

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Comments

SUPERIOR WELL SERVICES
785-628-6395
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: BAZINE 5 1/2S, 1/4E, S INTO.

MAIN SECTION

SUPERIOR
Hays,

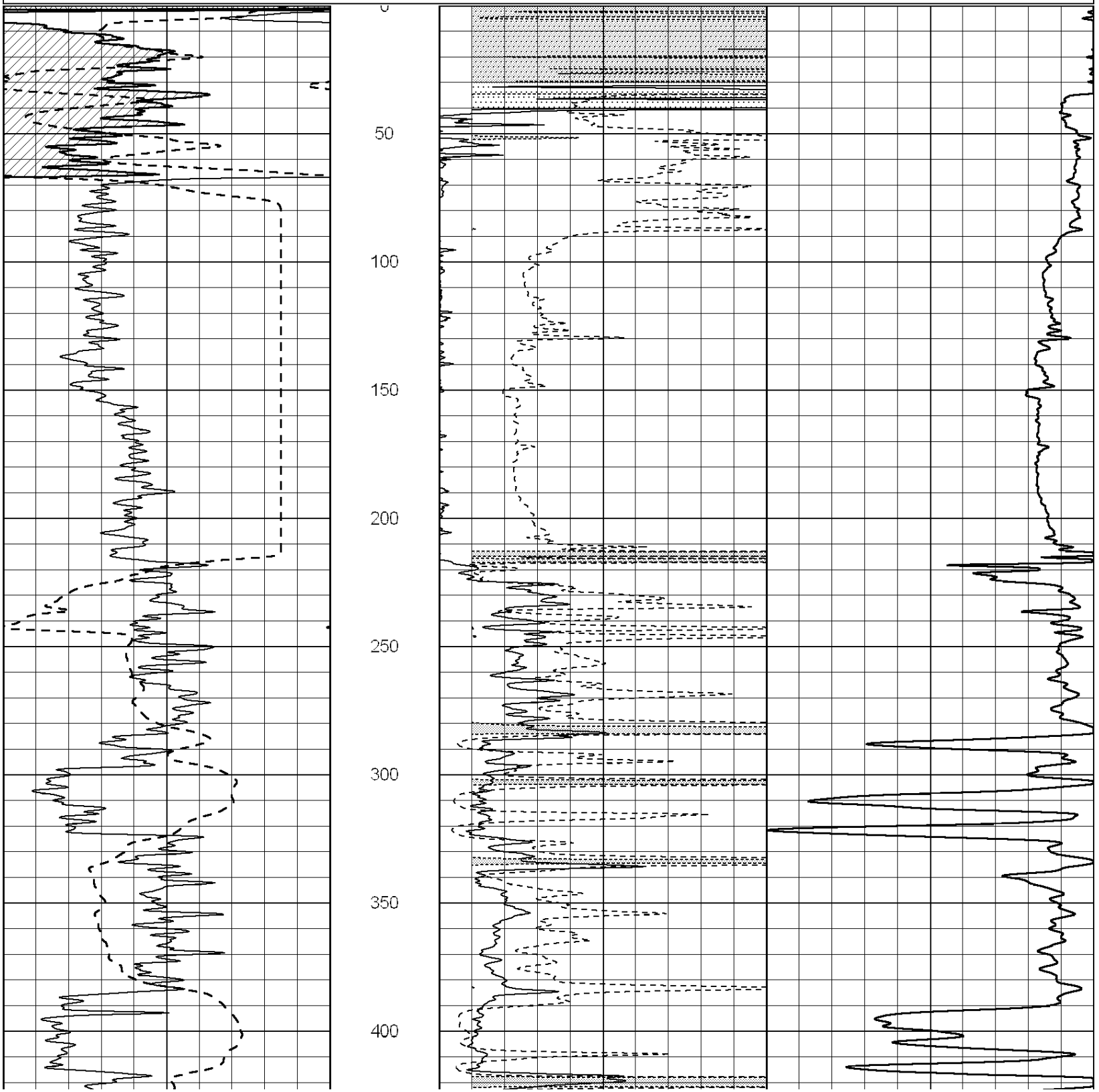
SUPERIOR WELL SERVICES

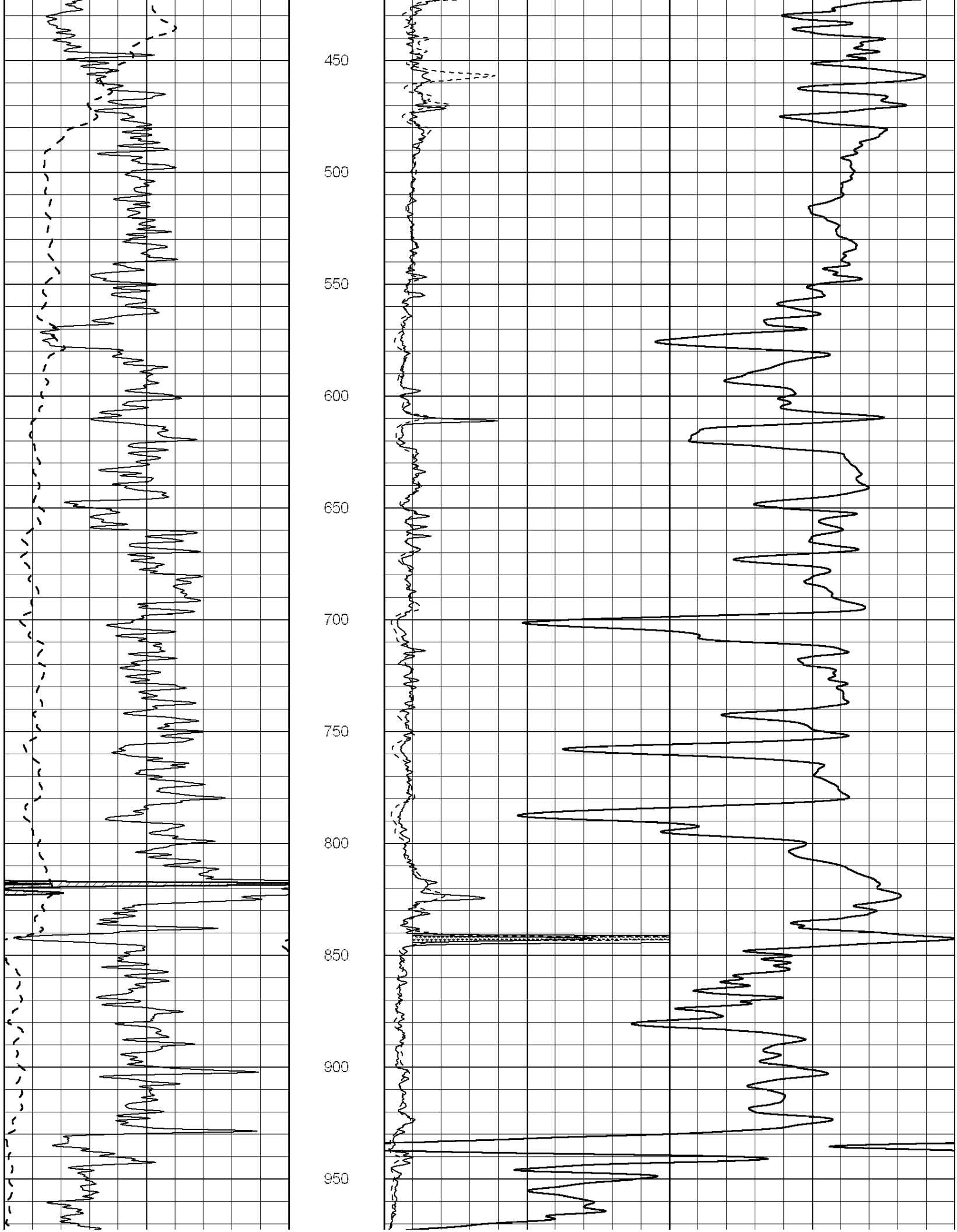
Kansas

Database File:	008476ddn.db
Dataset Pathname:	pass3.A
Presentation Format:	dil2
Dataset Creation:	Tue Feb 14 17:49:01 2012
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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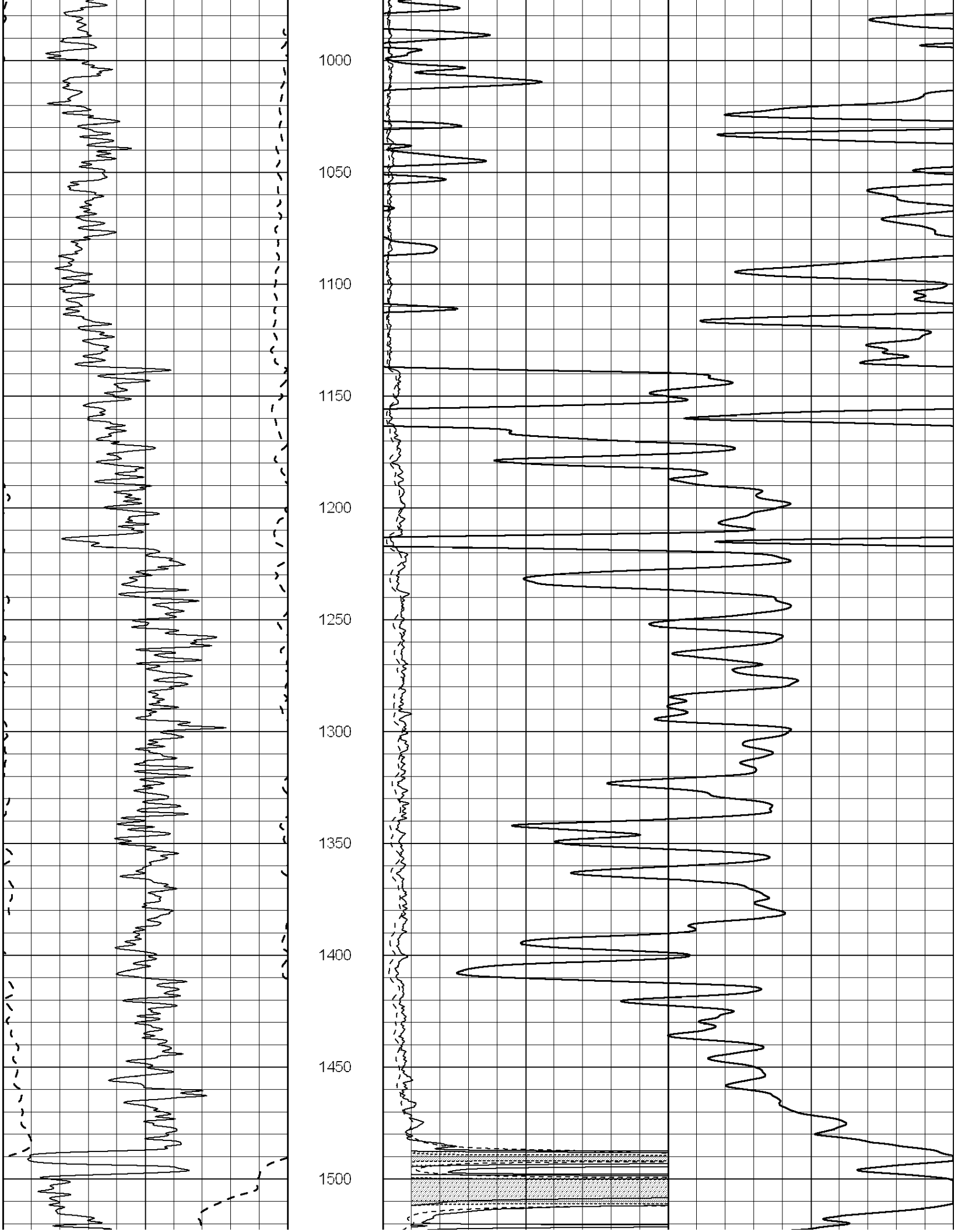
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1300
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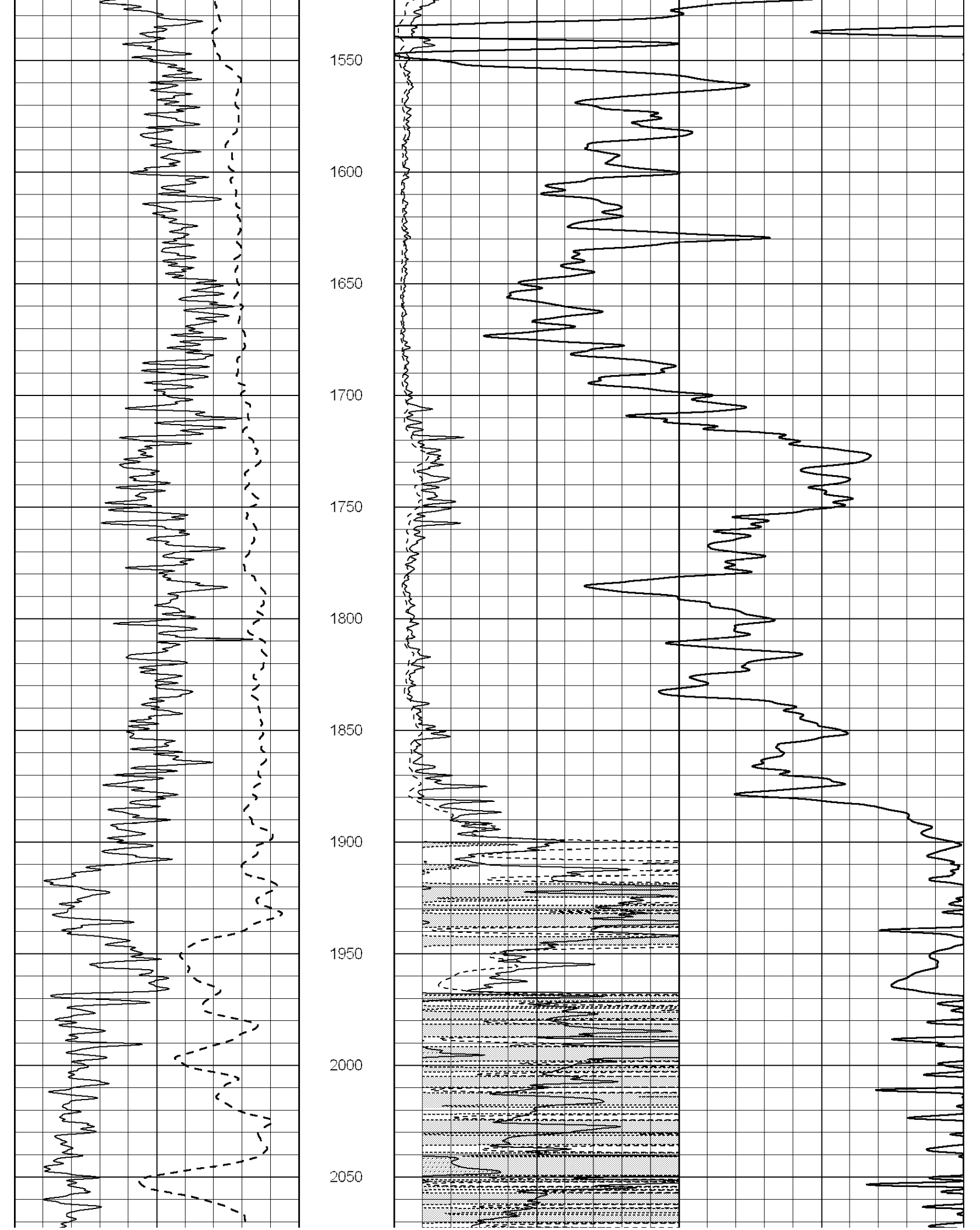
1400
1450
1500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1850
1900
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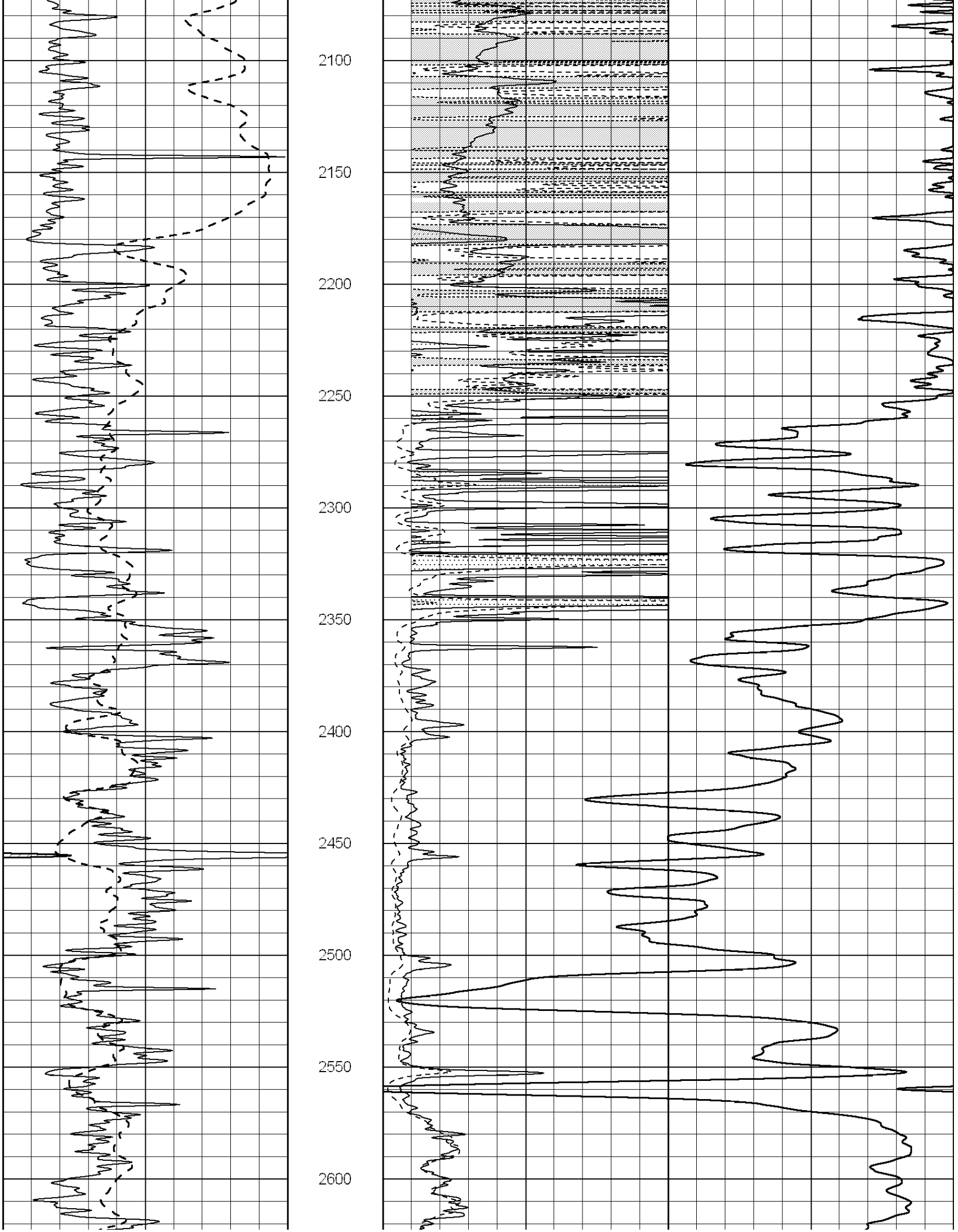
2000
2050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2550
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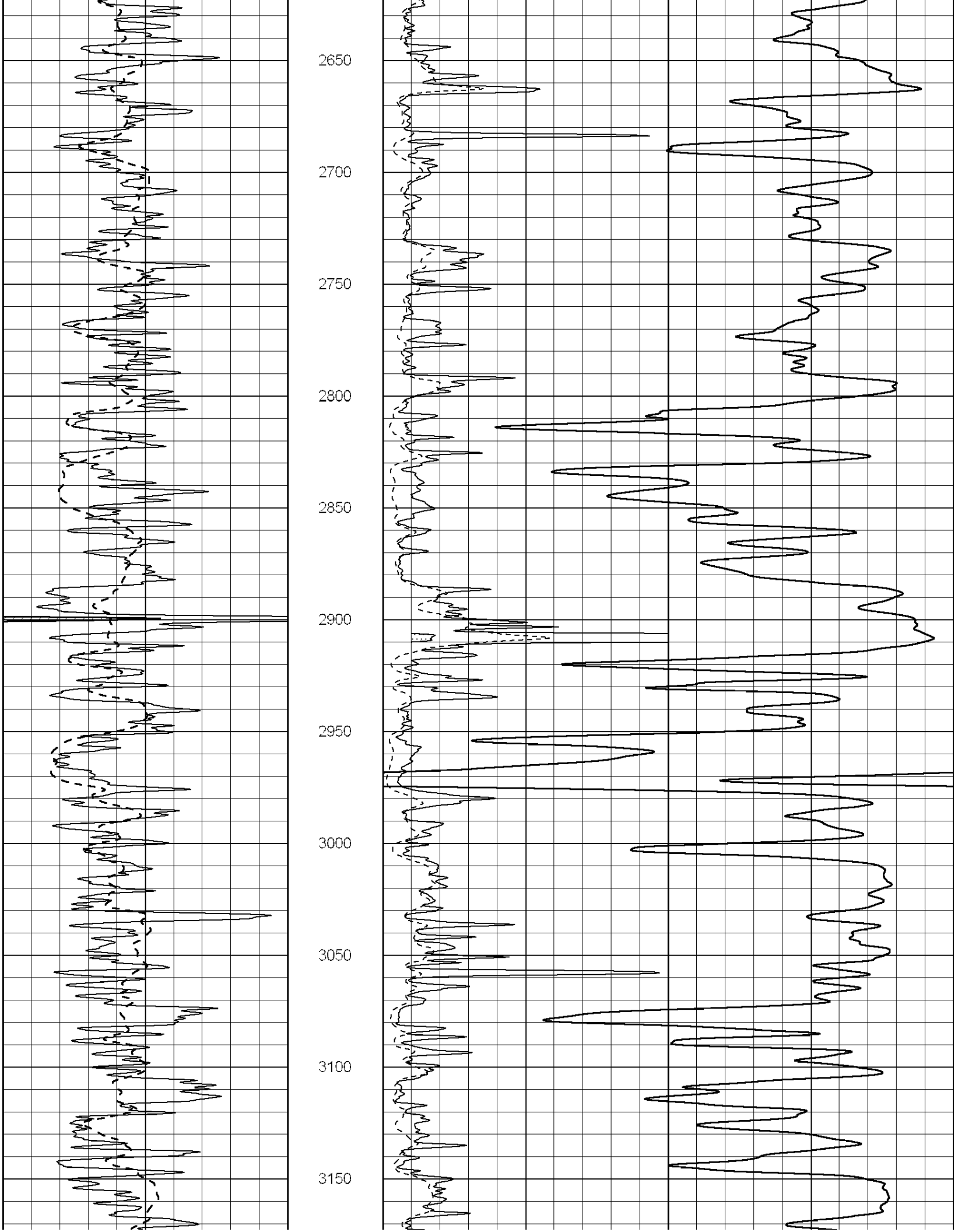
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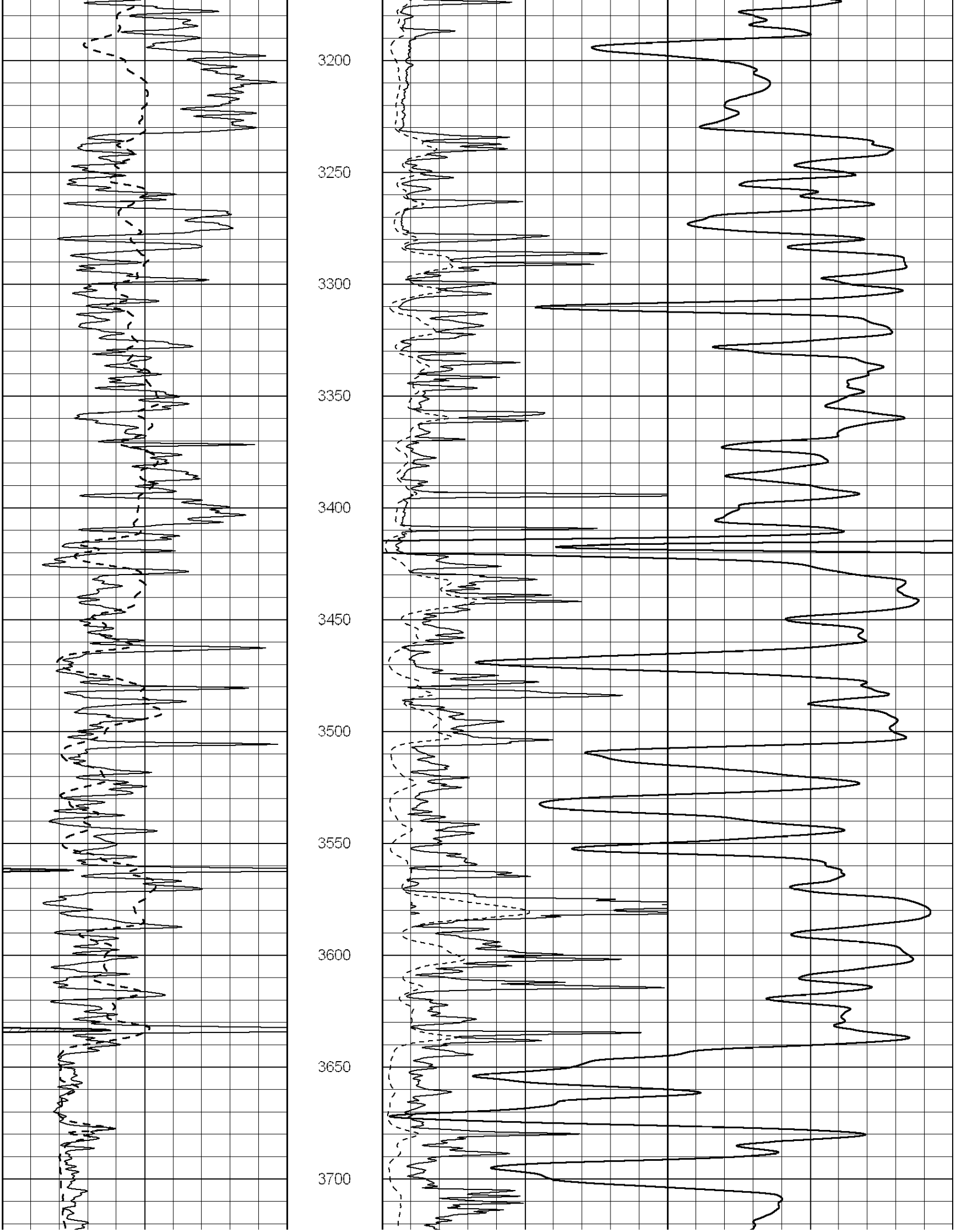
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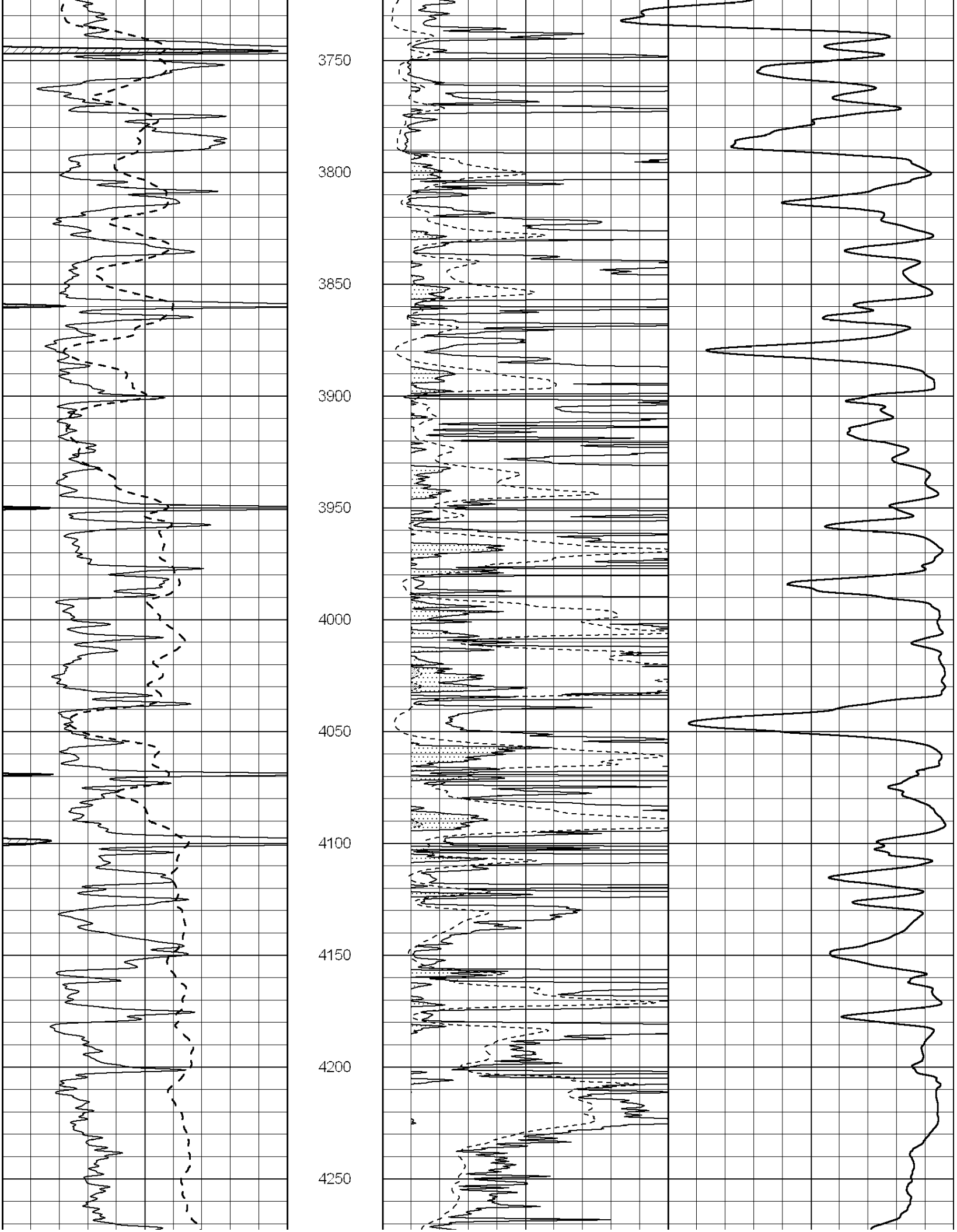
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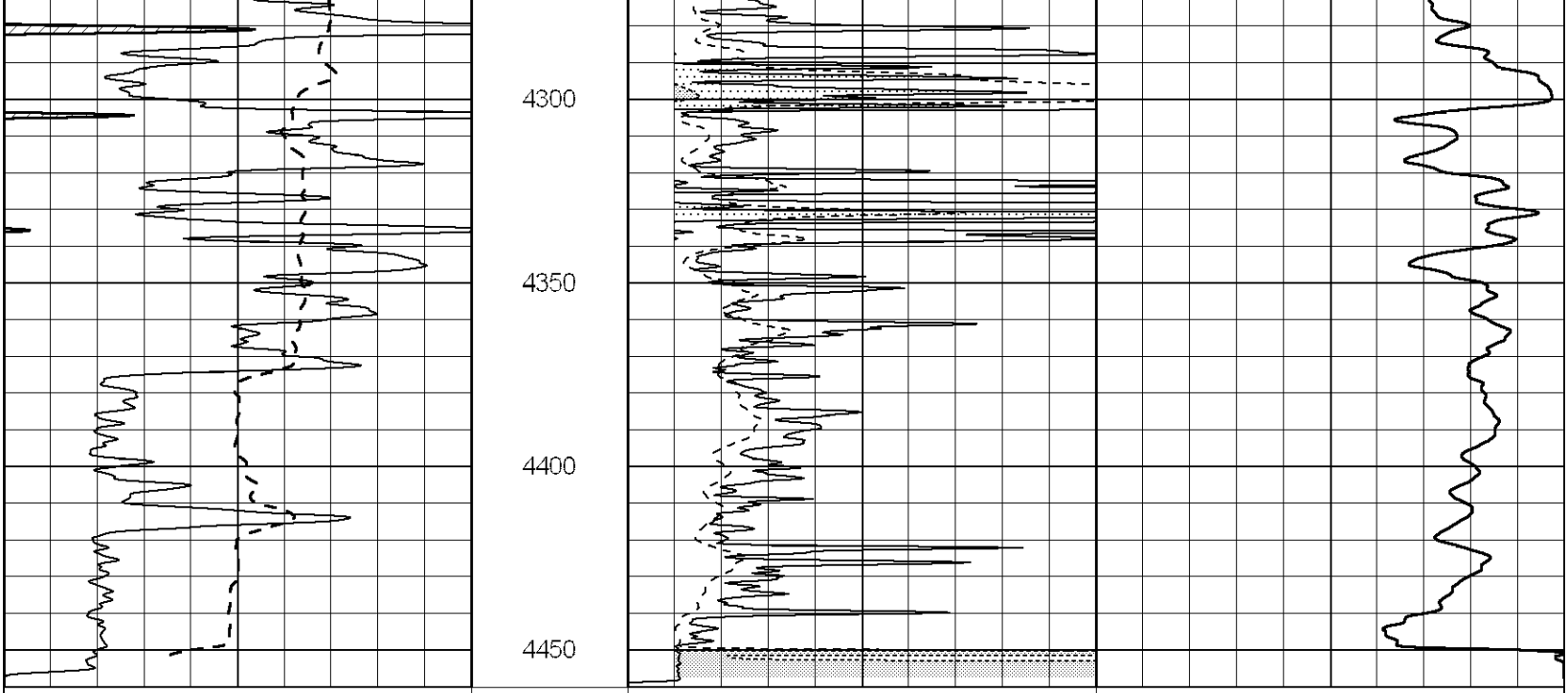

SUPERIOR WELL SERVICES

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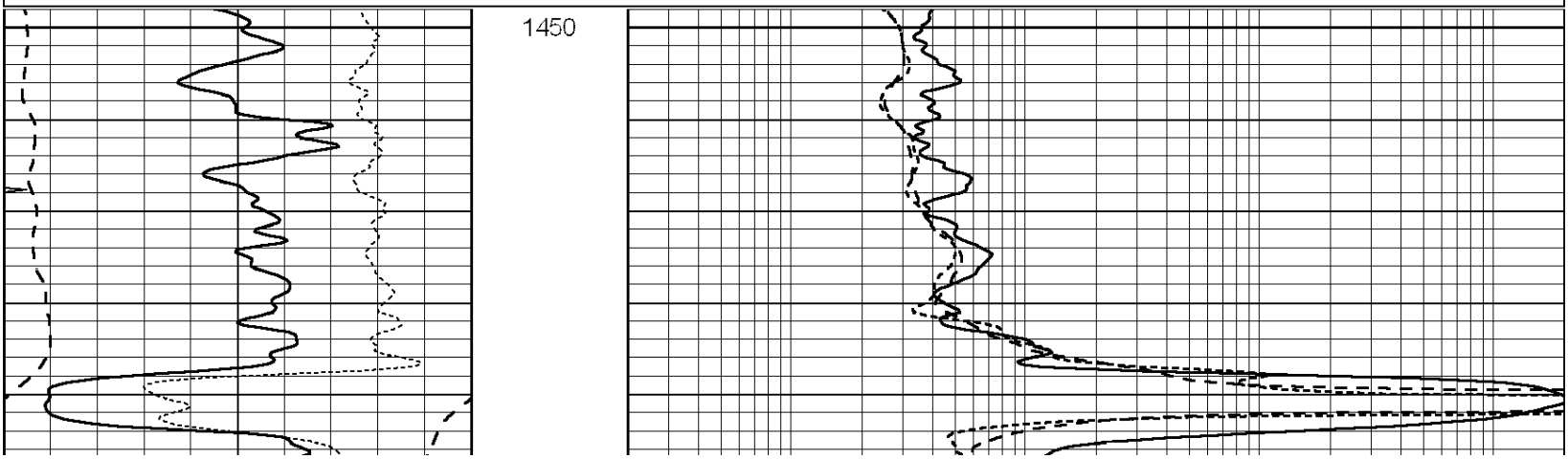
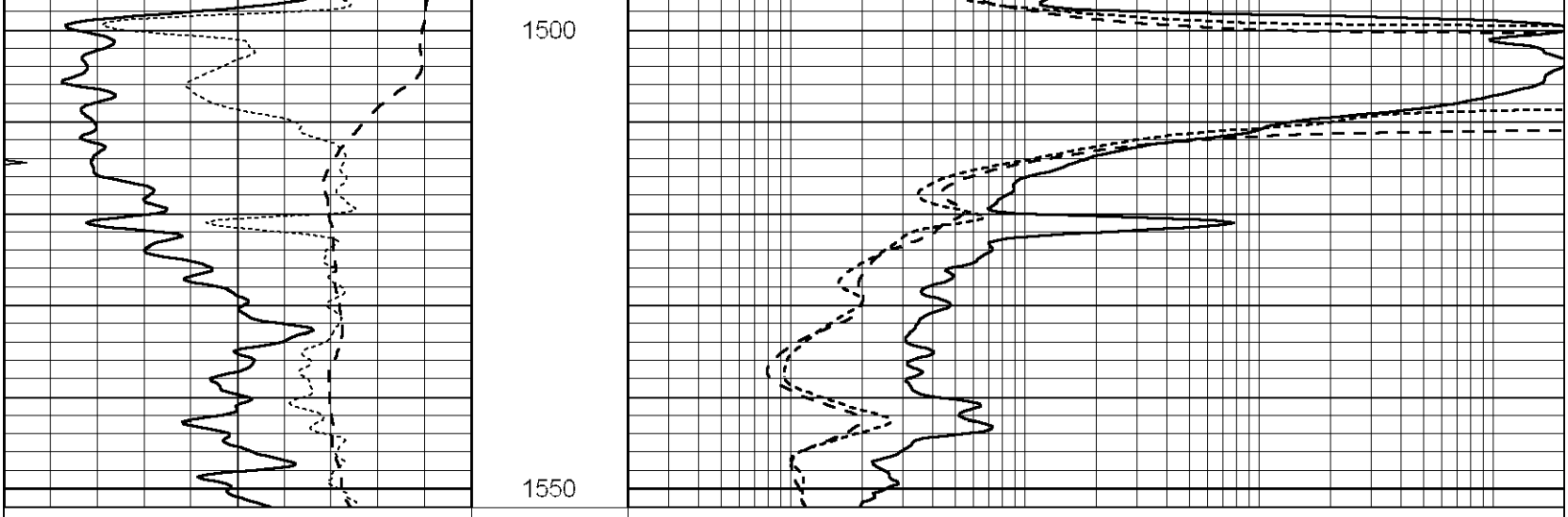
MAIN SECTION

Database File:	008476ddn.db
Dataset Pathname:	pass3.A
Presentation Format:	dil
Dataset Creation:	Tue Feb 14 17:49:01 2012
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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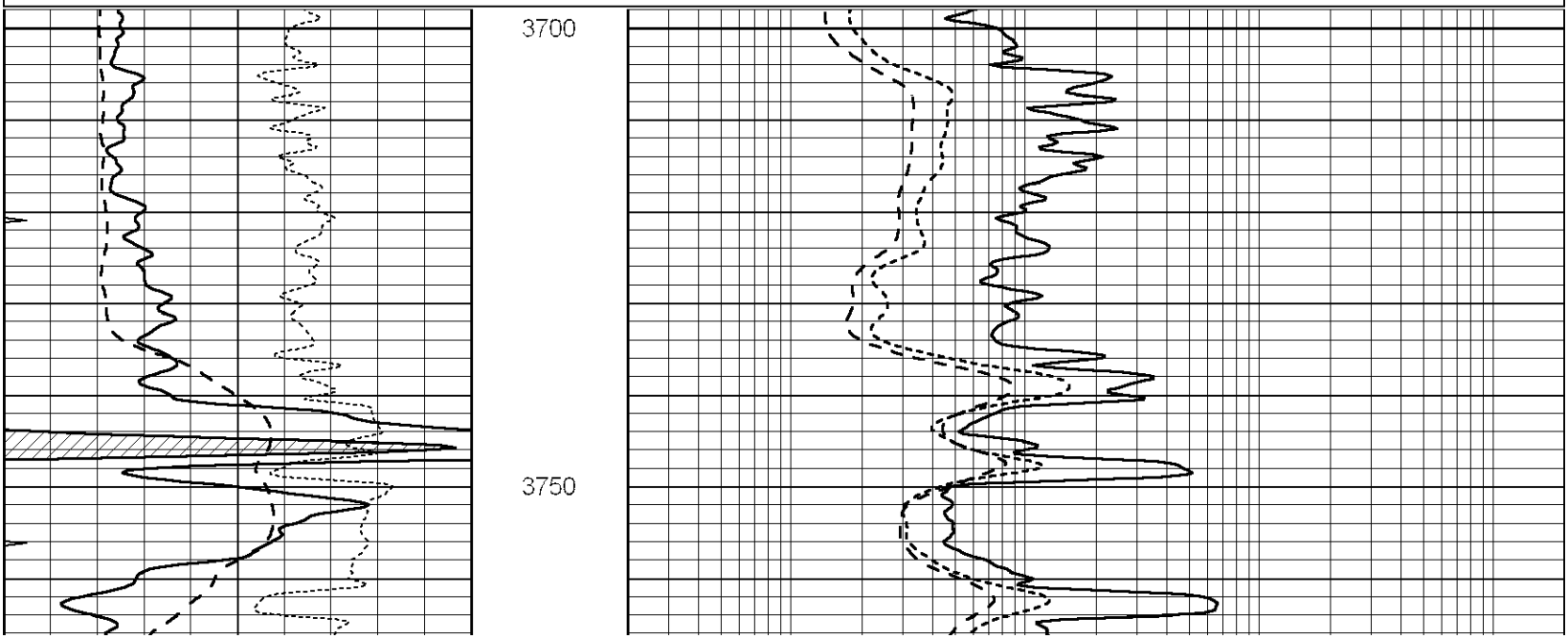
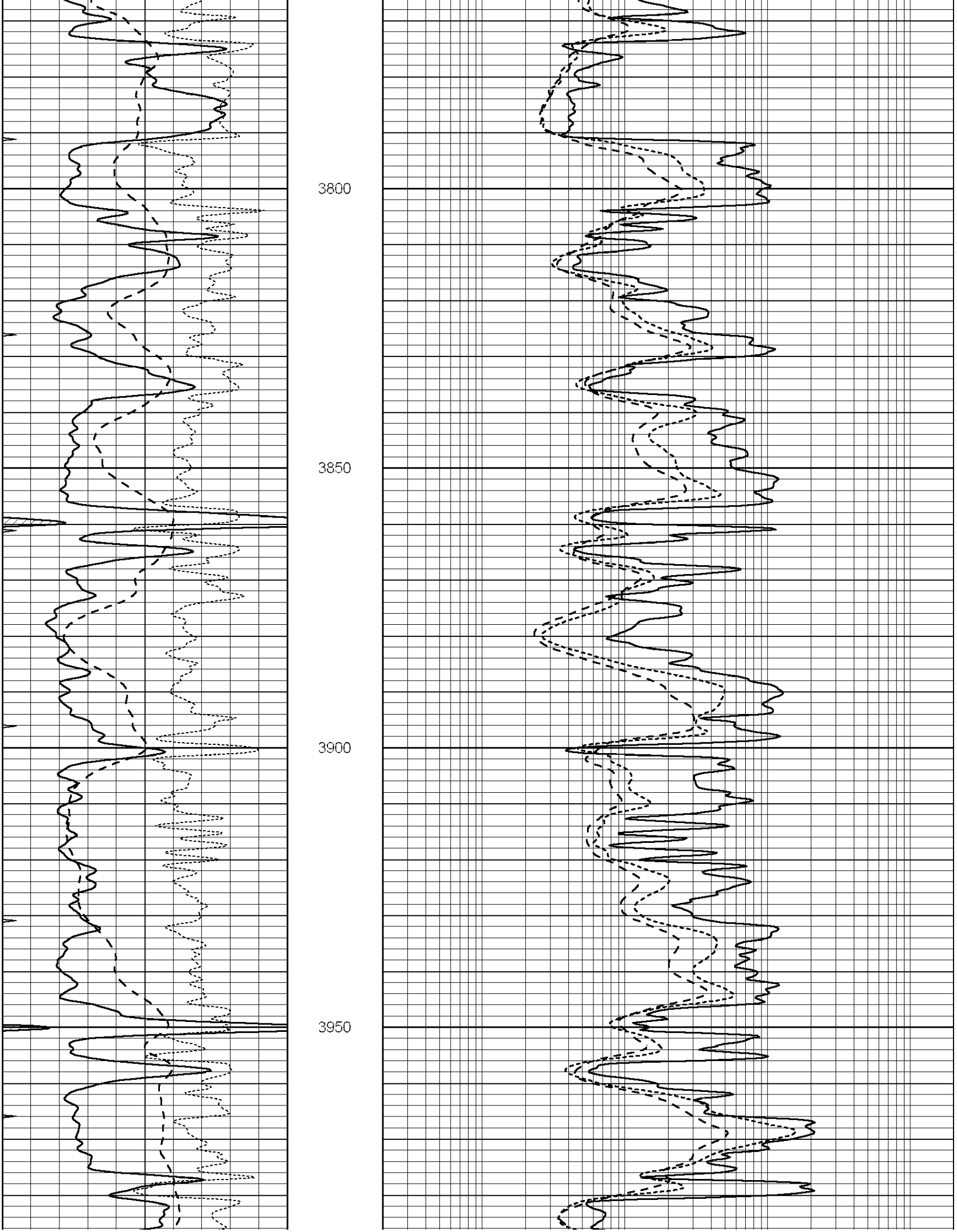
MAIN SECTION

Database File:	008476ddn.db
Dataset Pathname:	pass3.A
Presentation Format:	dil
Dataset Creation:	Tue Feb 14 17:49:01 2012
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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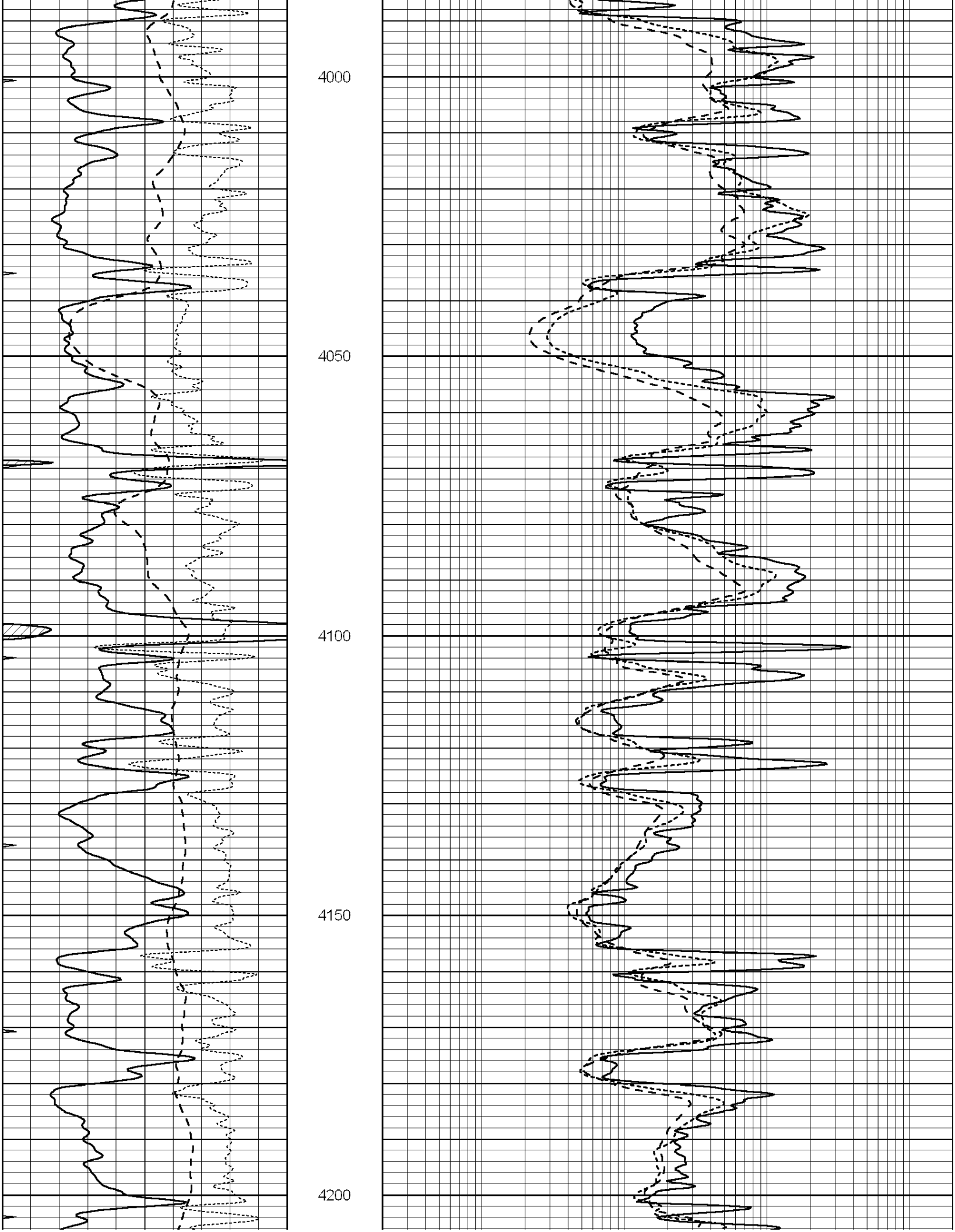
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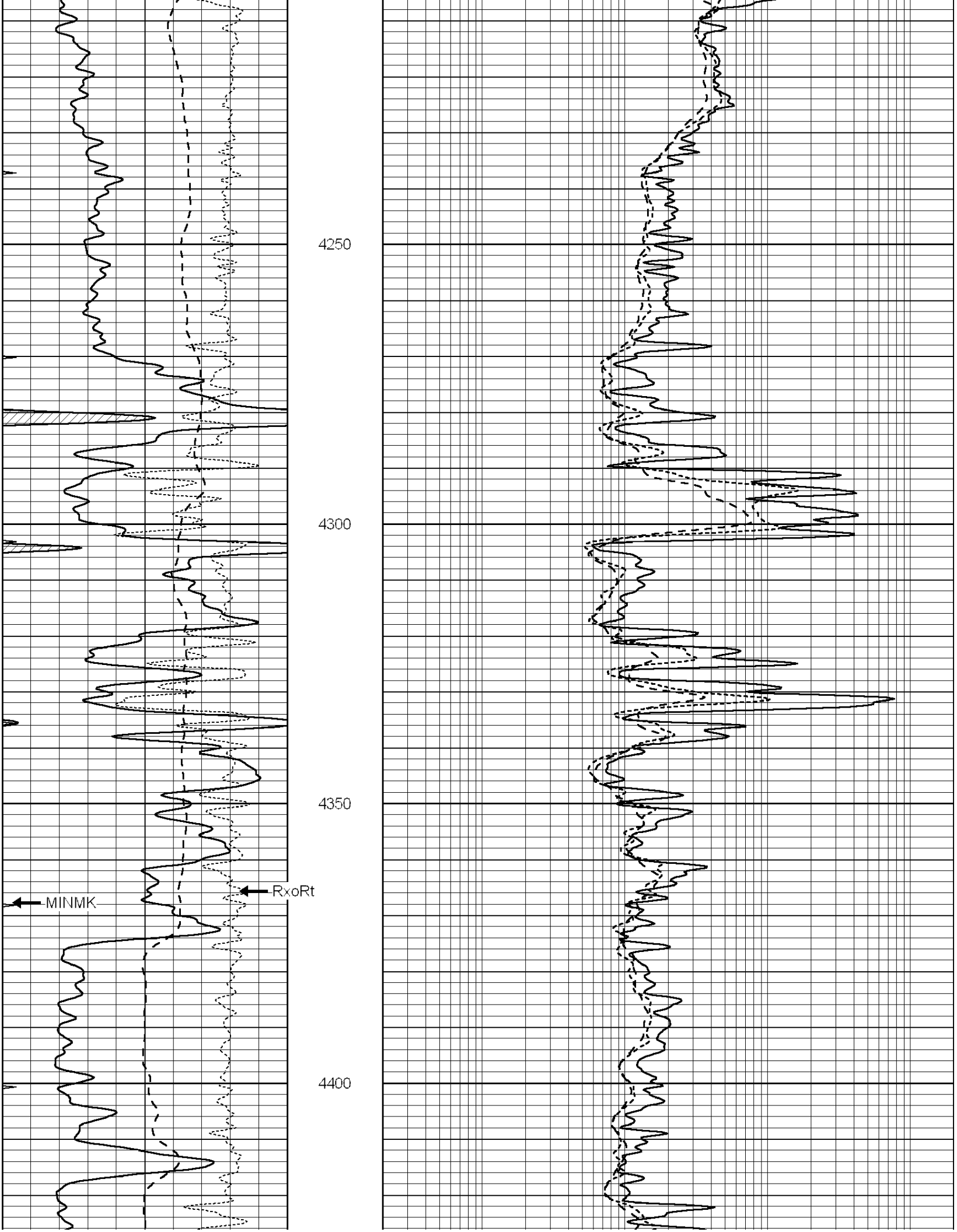
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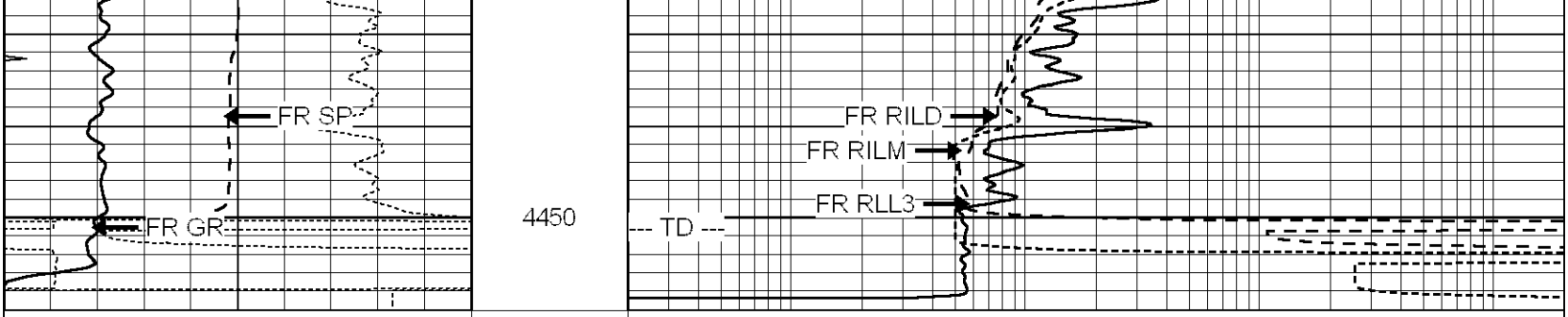
4300
4350
4400
MINMK
RxoRt



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

SUPERIOR WELL SERVICES

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Hays,
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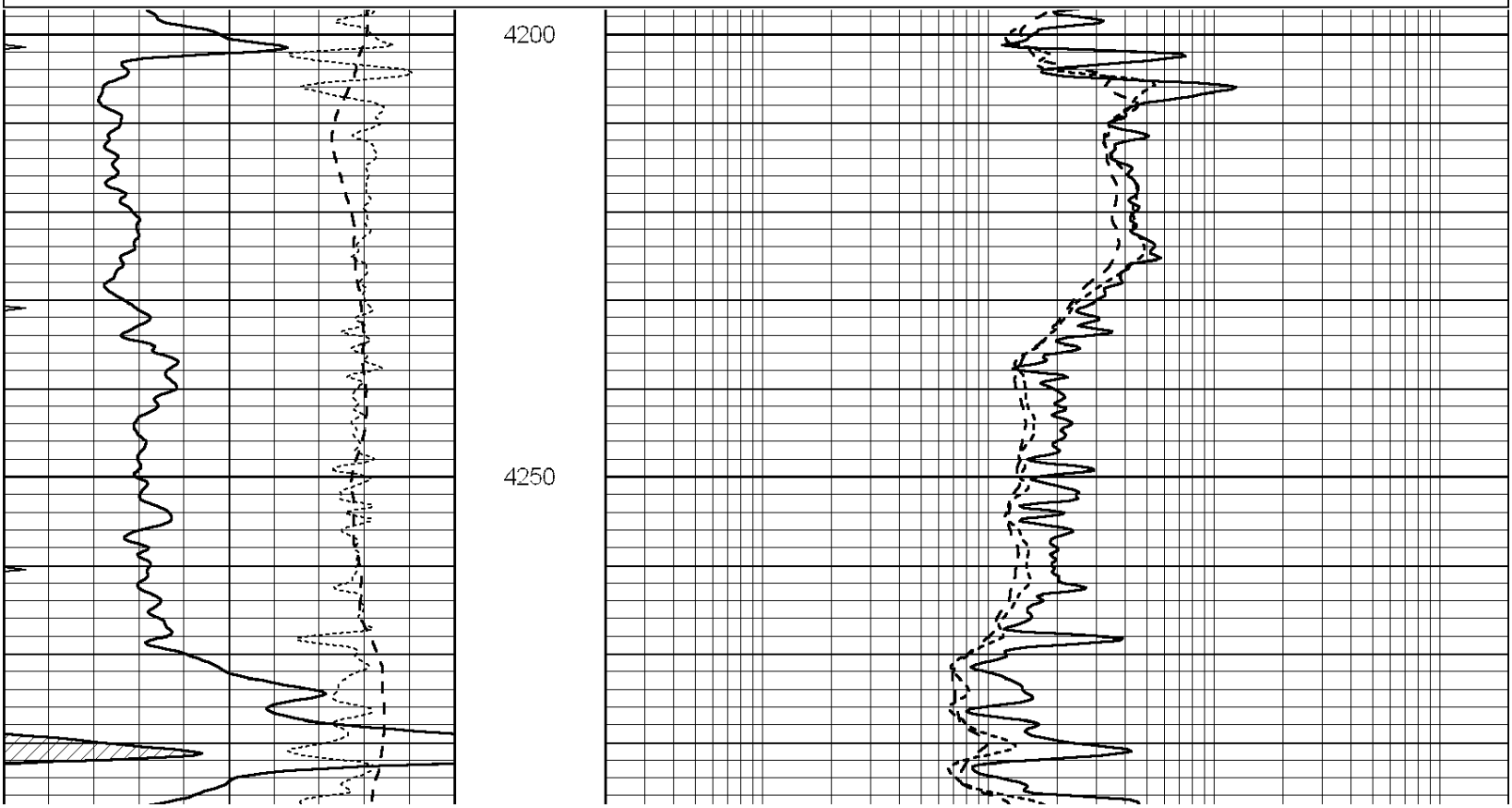
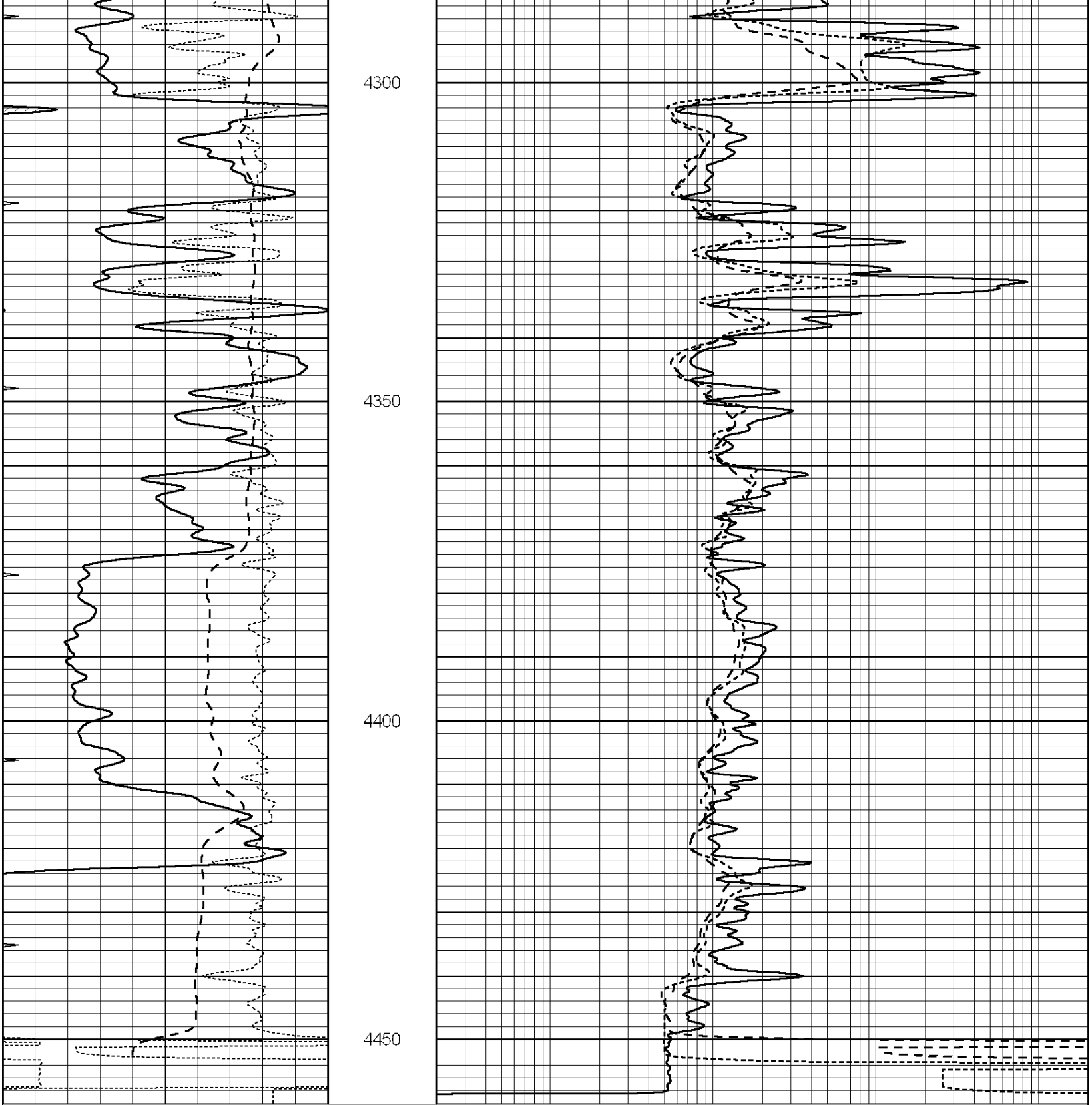
REPEAT SECTION

Database File:	008476ddn.db
Dataset Pathname:	pass2.A
Presentation Format:	dil
Dataset Creation:	Tue Feb 14 16:47:34 2012 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: 008476ddn.db
Dataset Pathname: pass3.A
Dataset Creation: Tue Feb 14 17:49:01 2012

Dual Induction Calibration Report

Serial-Model: DIL5-GEAR
Performed: Tue Feb 14 16:44:15 2012

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.004	0.654	V	0.000	400.000	mmho/m	510.000	-17.000
Medium	-0.005	0.737	V	0.000	462.500	mmho/m	530.000	-14.000
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: Tue Feb 14 15:19:14 2012

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1243.76	629.14	cps
Aluminum	2.590	g/cc	282.16	435.01	cps

Spine Angle = 76.03 Density/Spine Ratio = 0.576

	Size		Reading	
Small Ring	9.20	in	3.50	V
Large Ring	14.00	in	5.30	V

Compensated Neutron Calibration Report

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

Serial Number: GR5
Tool Model: OPEN
Performed: Tue Feb 14 16:18:46 2012

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.6500 GAPI/cps