DUAL INDUCTION LOG

Company DOWNING NELSON OIL COMPANY, INC.
Well FLEMMING #1-24
Field WILDCAT
County CHEYENNE State KANSAS

Location: API # : 15-023-21521-0000

1640' FNL & 990' FEL

SEC 24 TWP 5S RGE 37W

Other Services
CDL/CNL
MEL/SON

Elevation
K.B. 3307
D.F. 3305
G.L. 3299

Permanent Datum GROUND LEVEL Elevation 3299
Log Measured From KELLY BUSHING 8' A.G.L
Drilling Measured From KELLY BUSHING

Date	10/6/19		
Run Number	ONE		
Depth Driller	4940		
Depth Logger	4941		
Bottom Logged Interval	4939		
Top Log Interval	00		
Casing Driller	8 5/8" @ 474'		
Casing Logger	474'		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 5000 PPM	
Density / Viscosity	8.9/56		
pH / Fluid Loss	10.0/7.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.30 @ 76F		
Rmf @ Meas. Temp	0.97 @ 76F		
Rmc @ Meas. Temp	1.56 @ 76F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	0.79 @ 124F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	////		
Maximum Recorded Temperature	124F		
Equipment Number	3802		
Location	HAYS, KANSAS		
Recorded By	JASON CAPPELLUCCI		
Witnessed By	MARC DOWNING		

Company DOWNING NELSON OIL COMPANY, INC.
Well FLEMMING #1-24
Field WILDCAT
County CHEYENNE
State KANSAS

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Comments

THANK YOU FOR USING ELI WIRELINE SERVICES, HAYS, KS. (785) 628-6395

DIRECTIONS

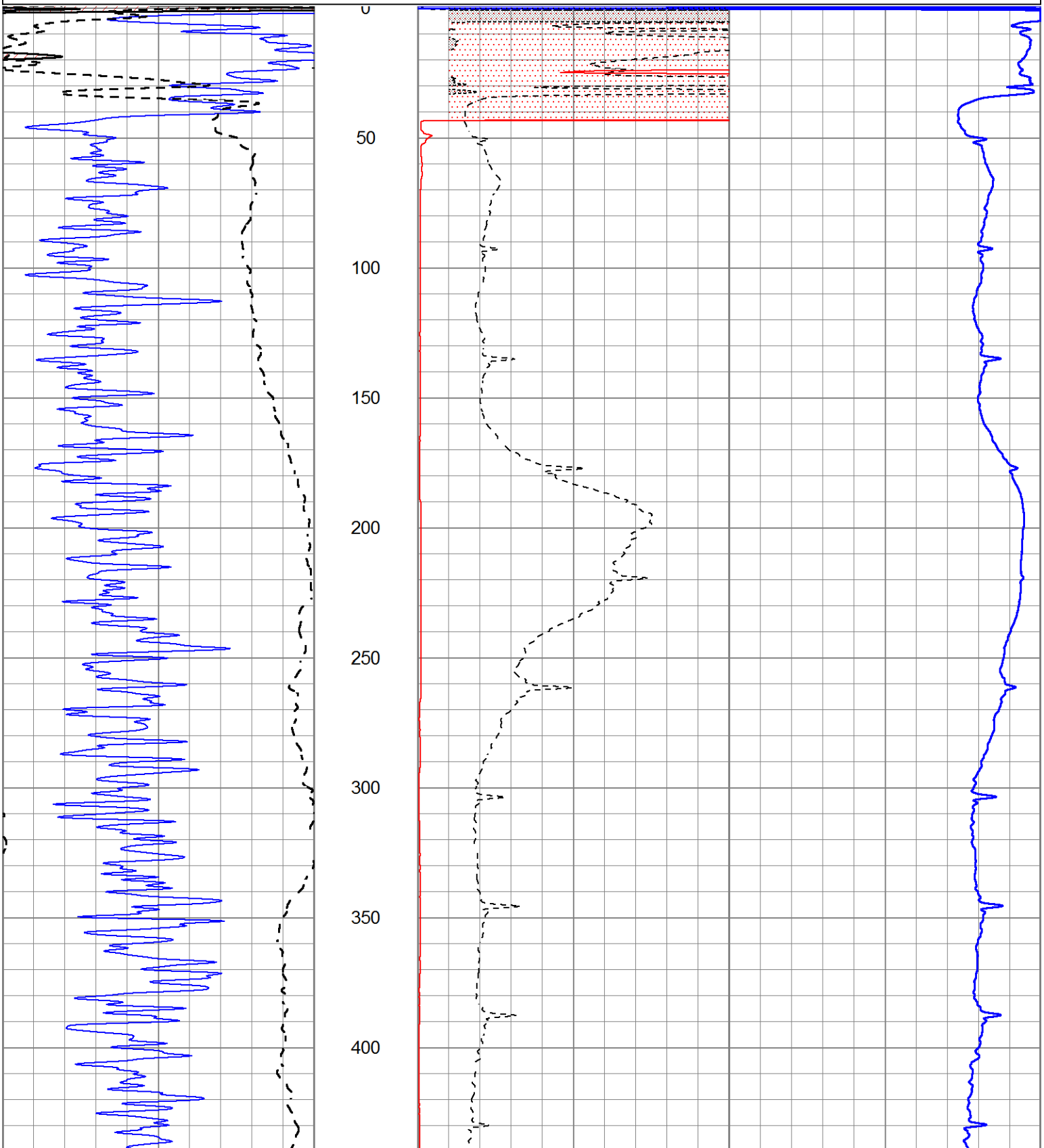
BREWSTER, KS. - 16 NORTH TO THE T - WEST TO RD. 34 - NORTH 3 MILES
JUST PAST RD. D - EAST INTO

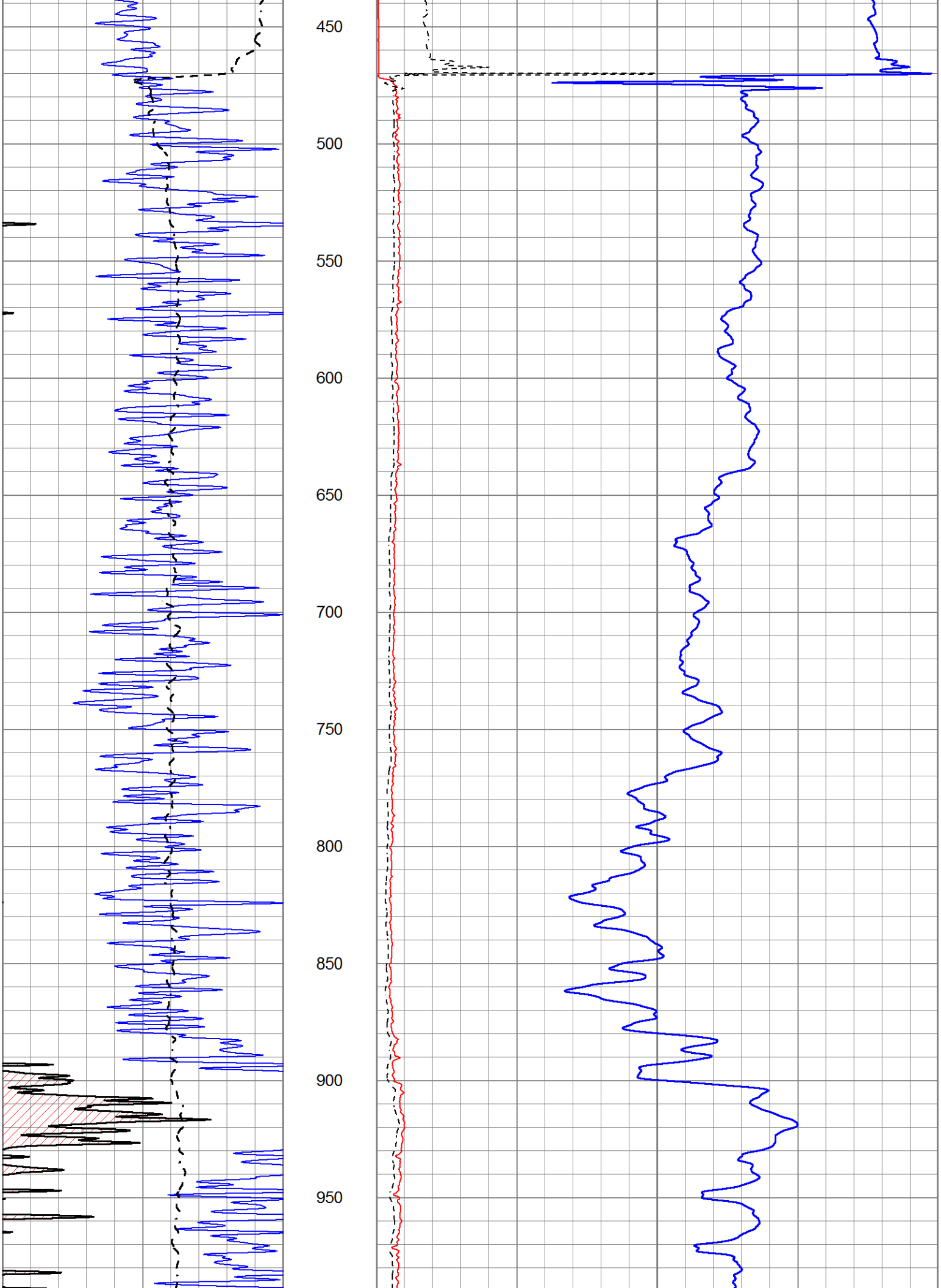
MAIN SECTION

Database File	3997ddn8.db
Dataset Pathname	pass6.3
Presentation Format	_dil2
Dataset Creation	Sun Oct 06 07:51:04 2019
Charted by	Depth in Feet scaled 1:600

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

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

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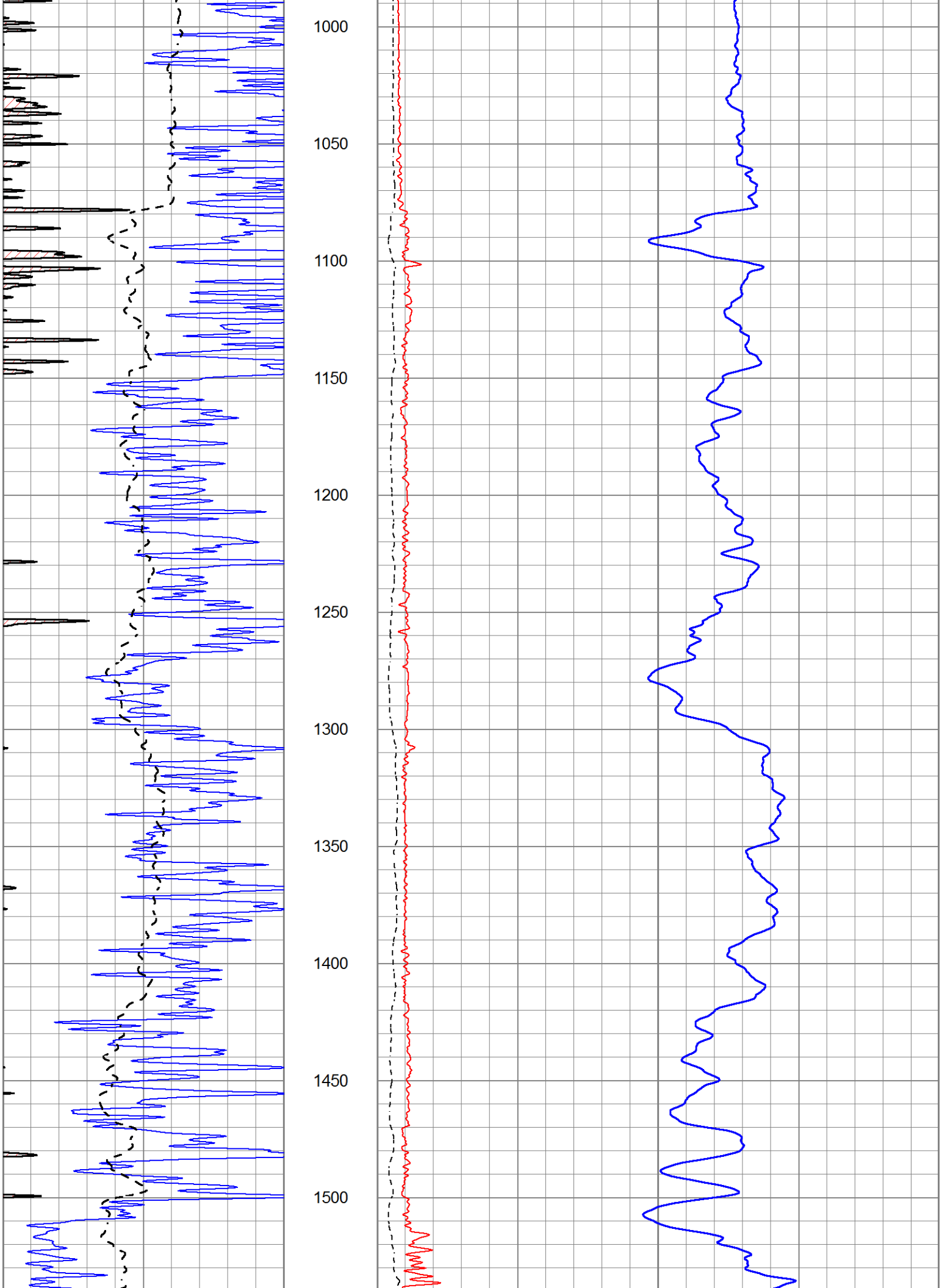
950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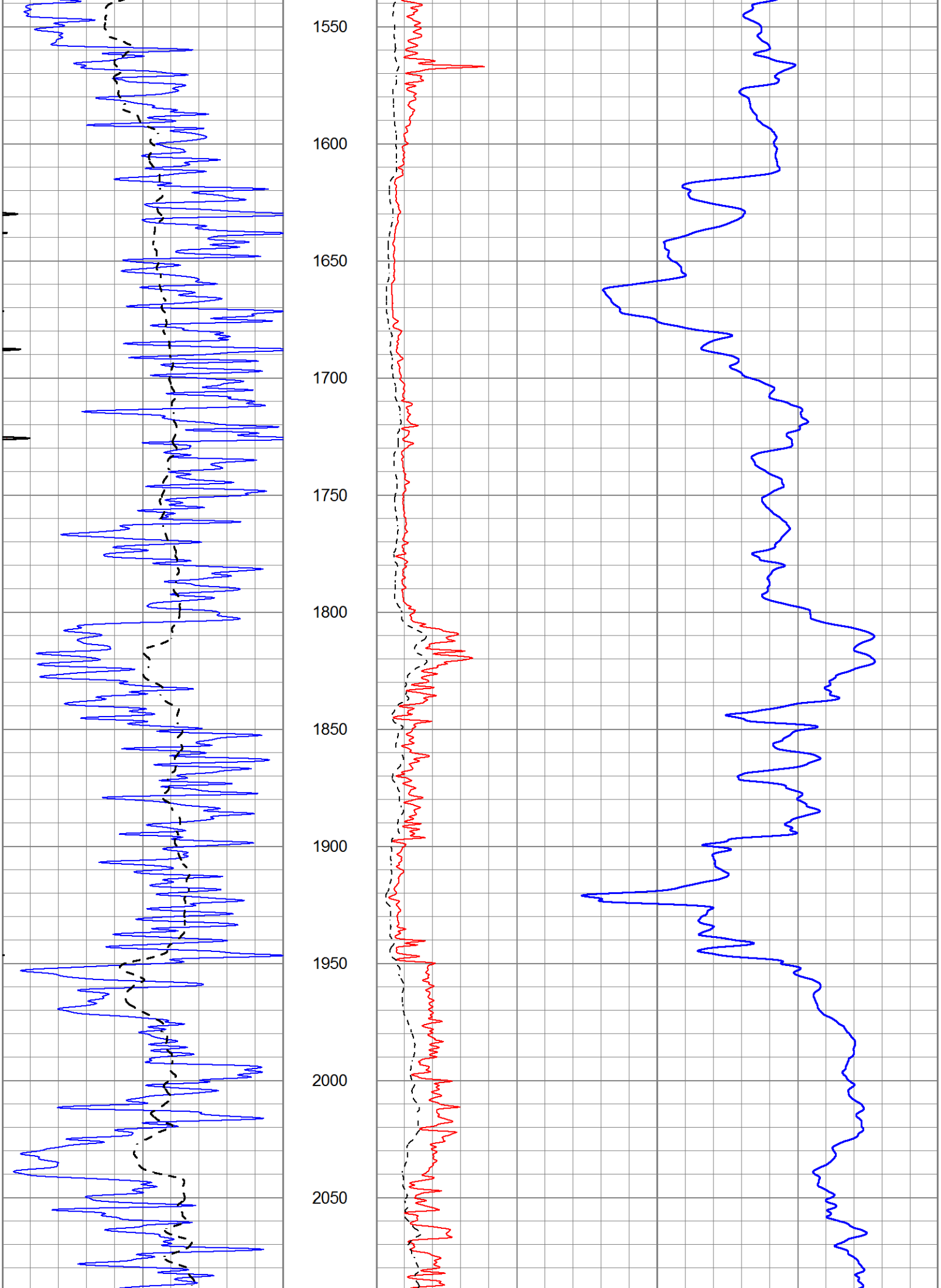
1200
1250
1300
1350
1400
1450
1500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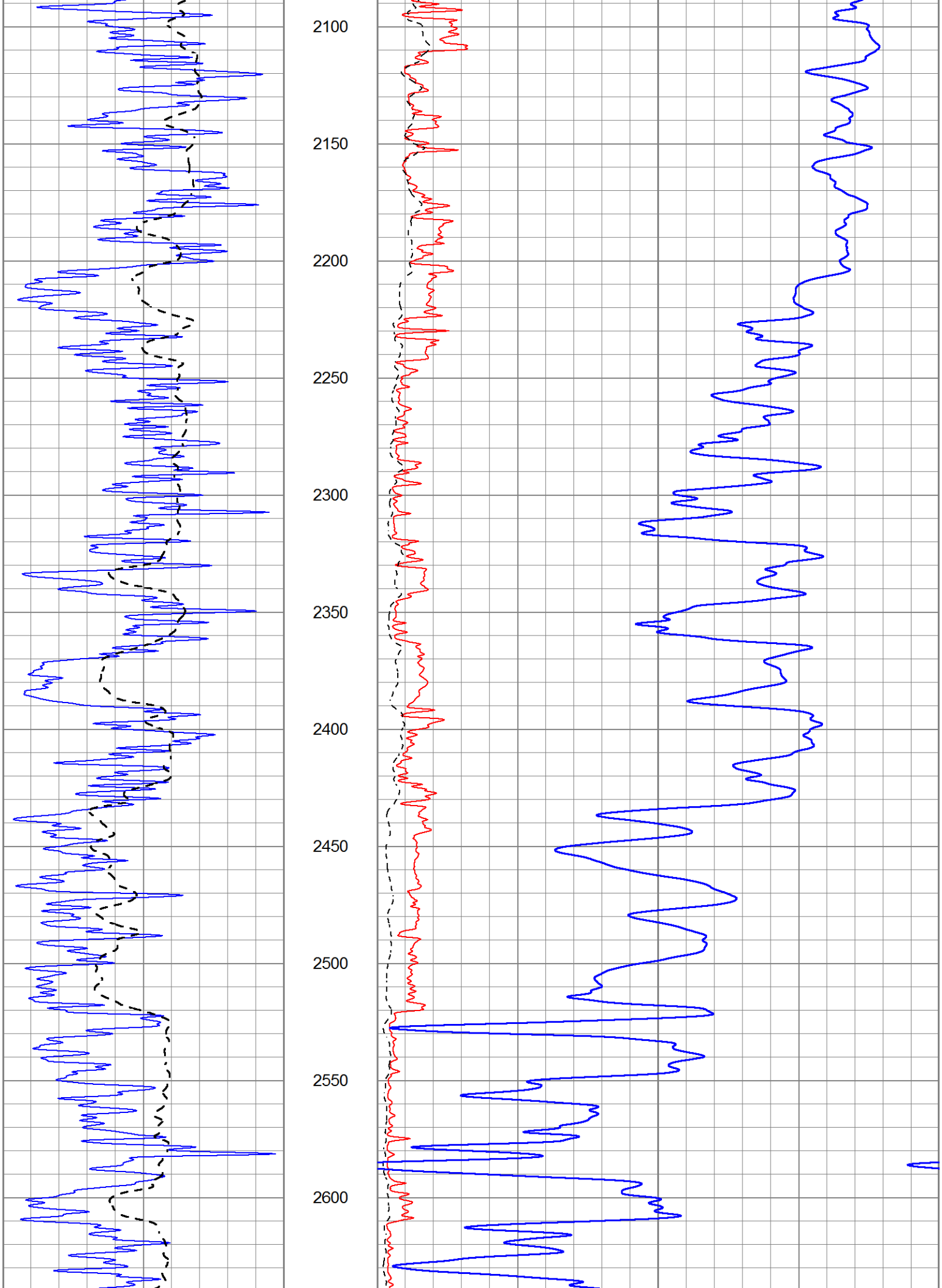
1950
2000
2050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2250
2300
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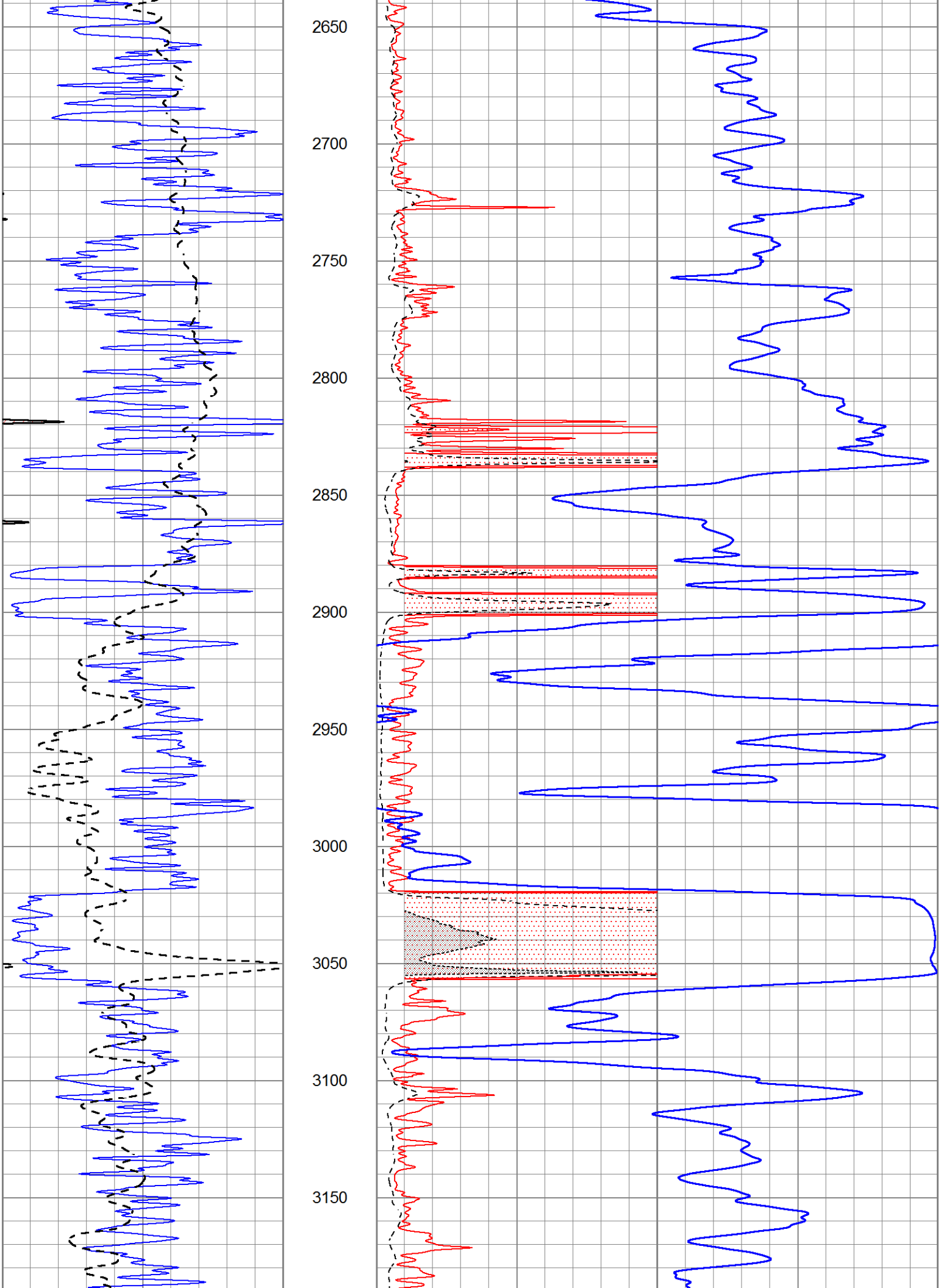
2400
2450
2500
2550
2600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2900
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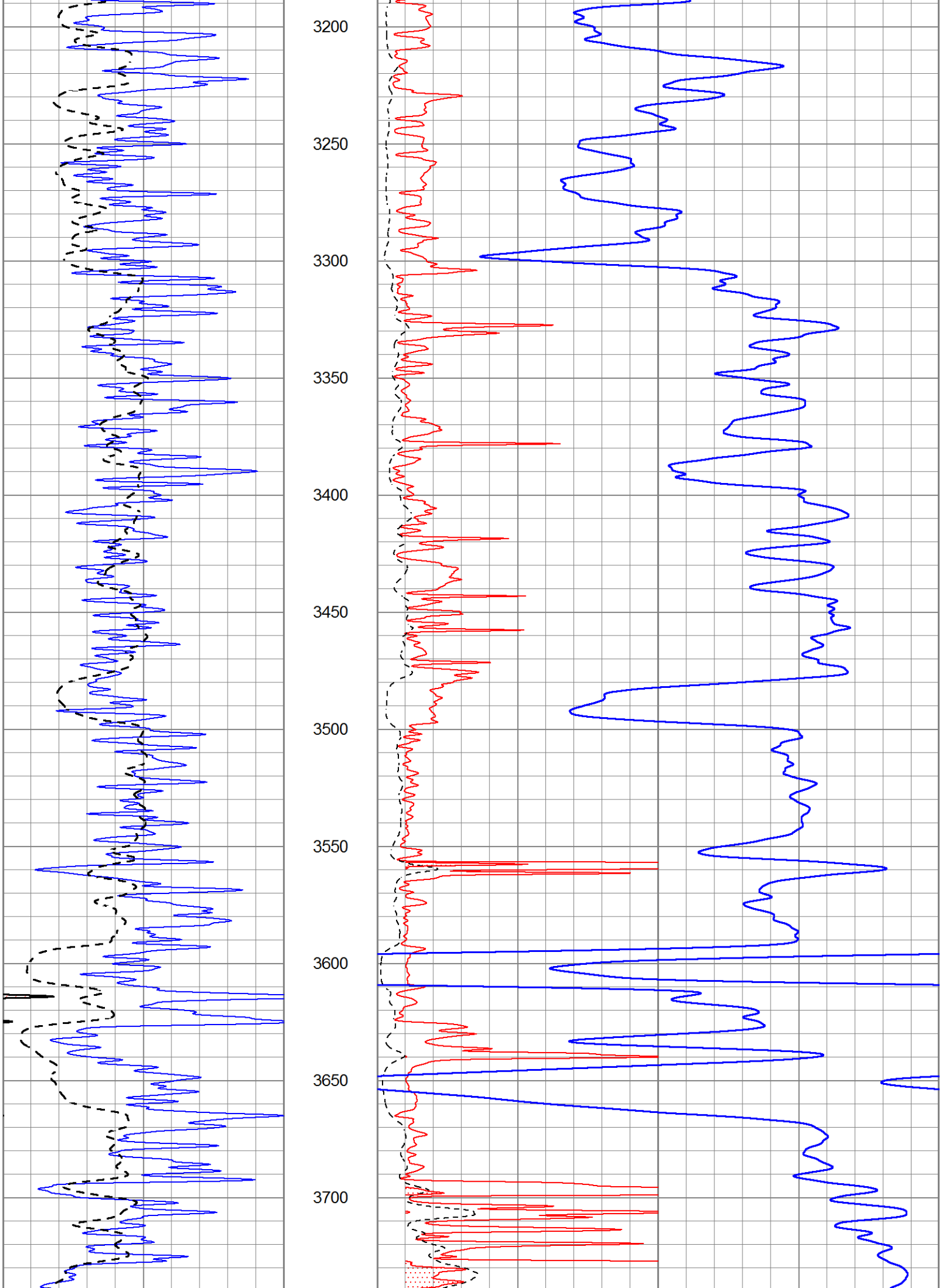
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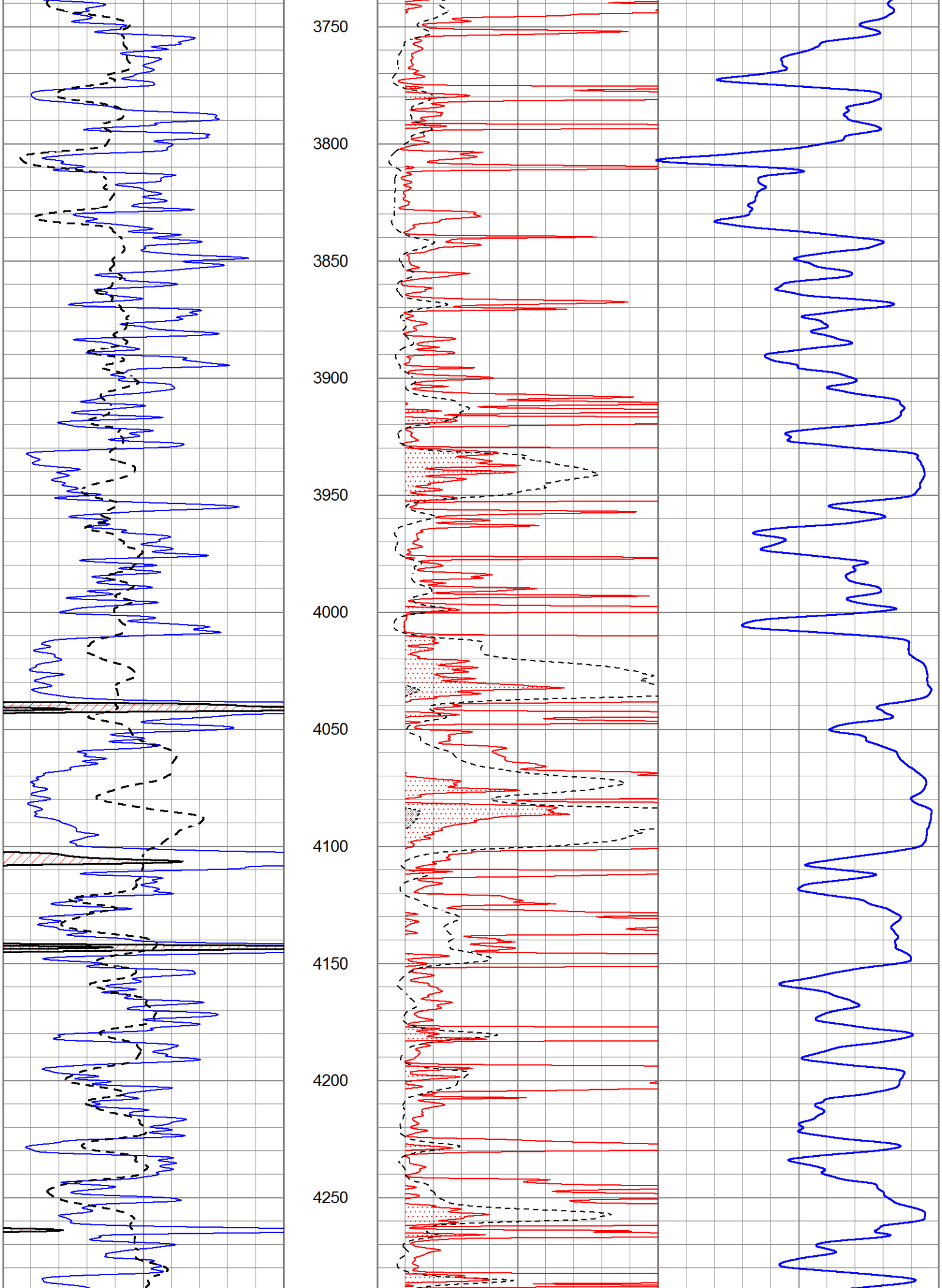
3650
3700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4200
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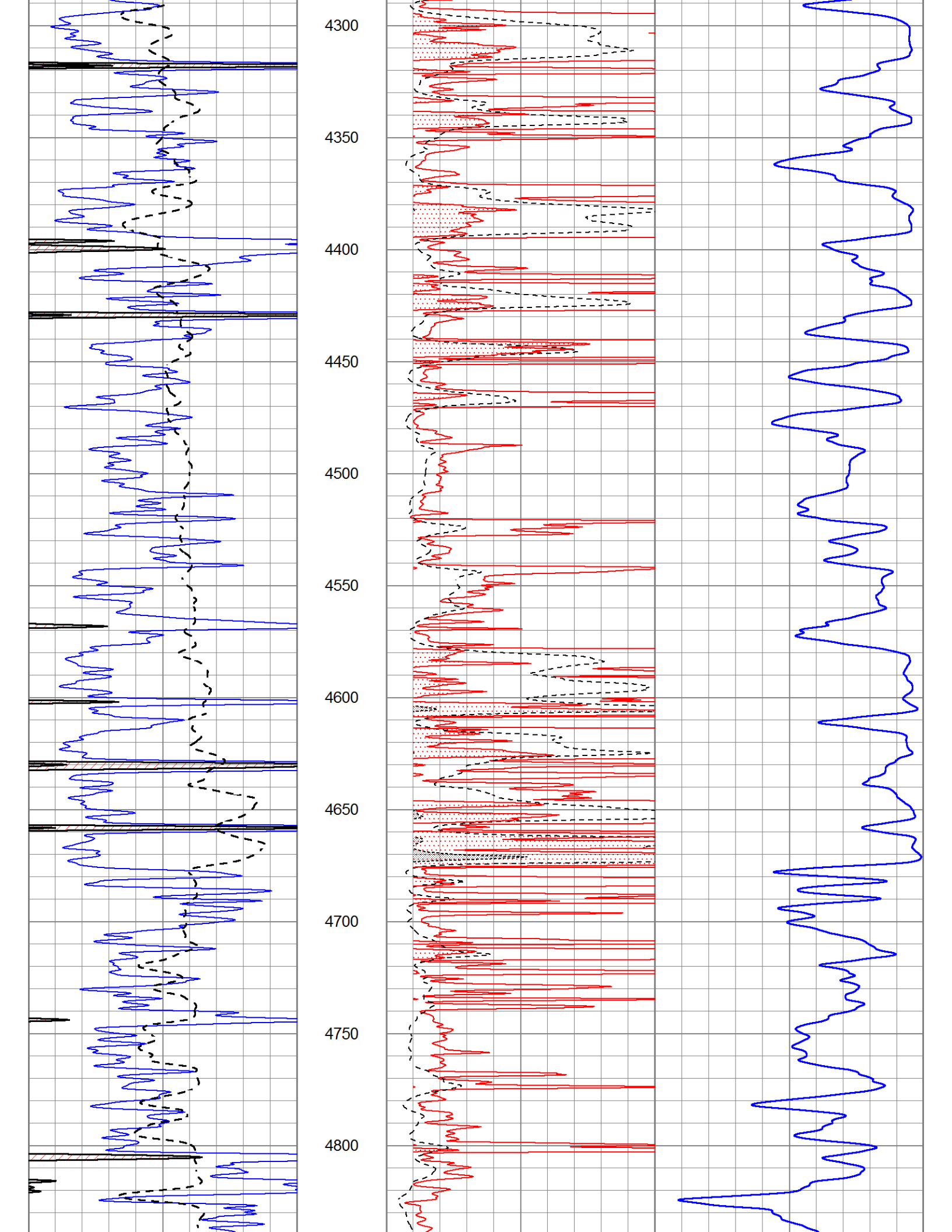
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4600
4650
4700
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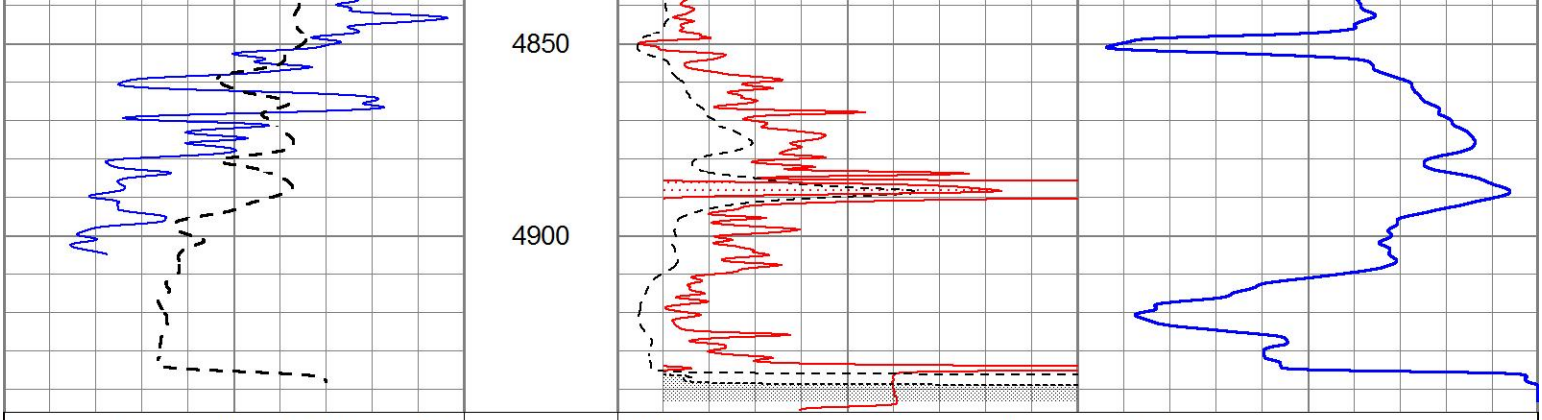
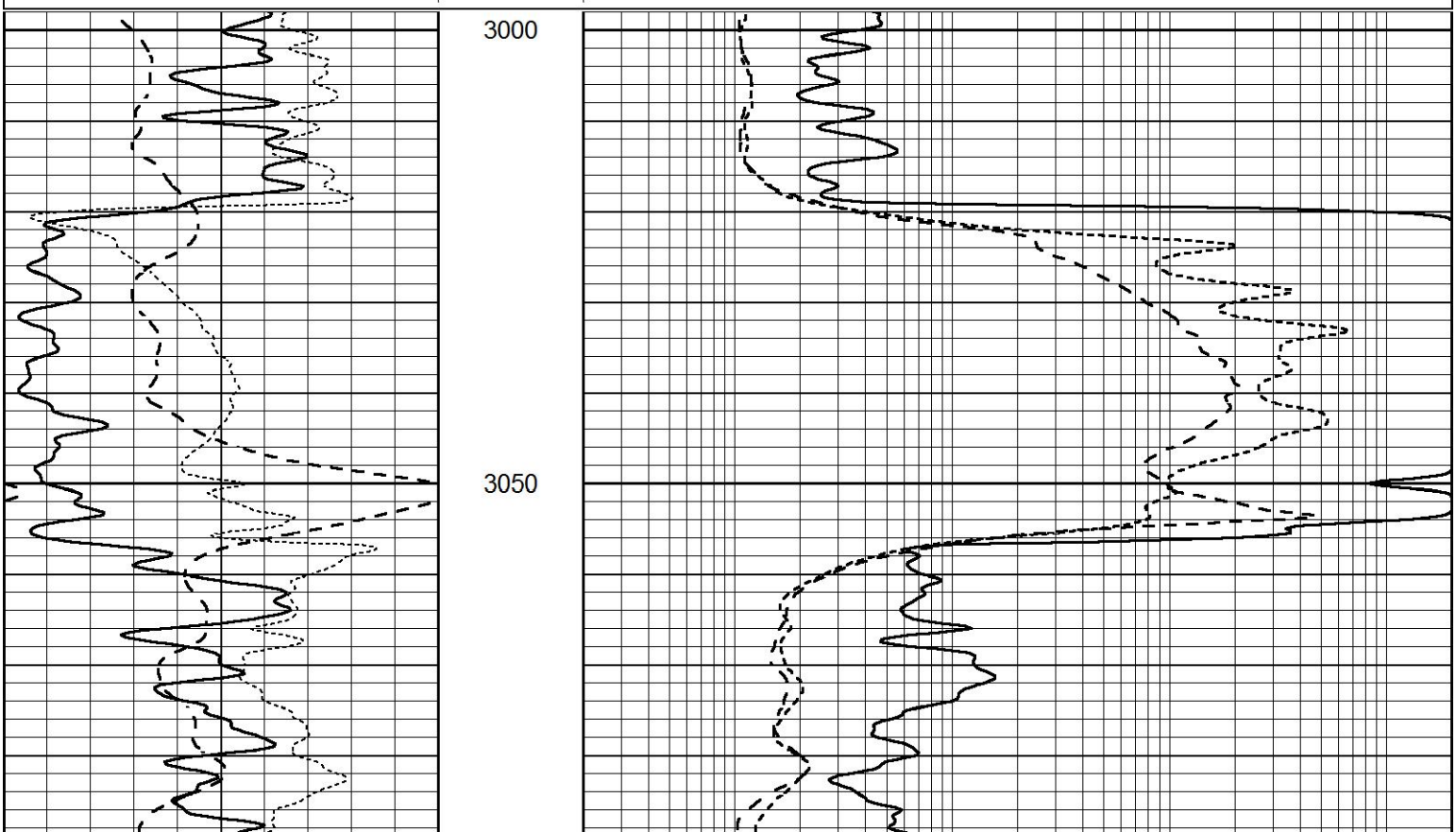
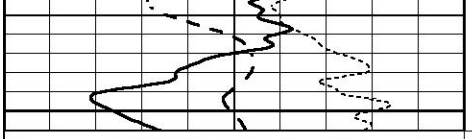
4800



ANHYDRITE

Database File	3997ddn8.db
Dataset Pathname	pass6.2
Presentation Format	_dil
Dataset Creation	Sun Oct 06 06:08:25 2019
Charted by	Depth in Feet scaled 1:240





3100

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

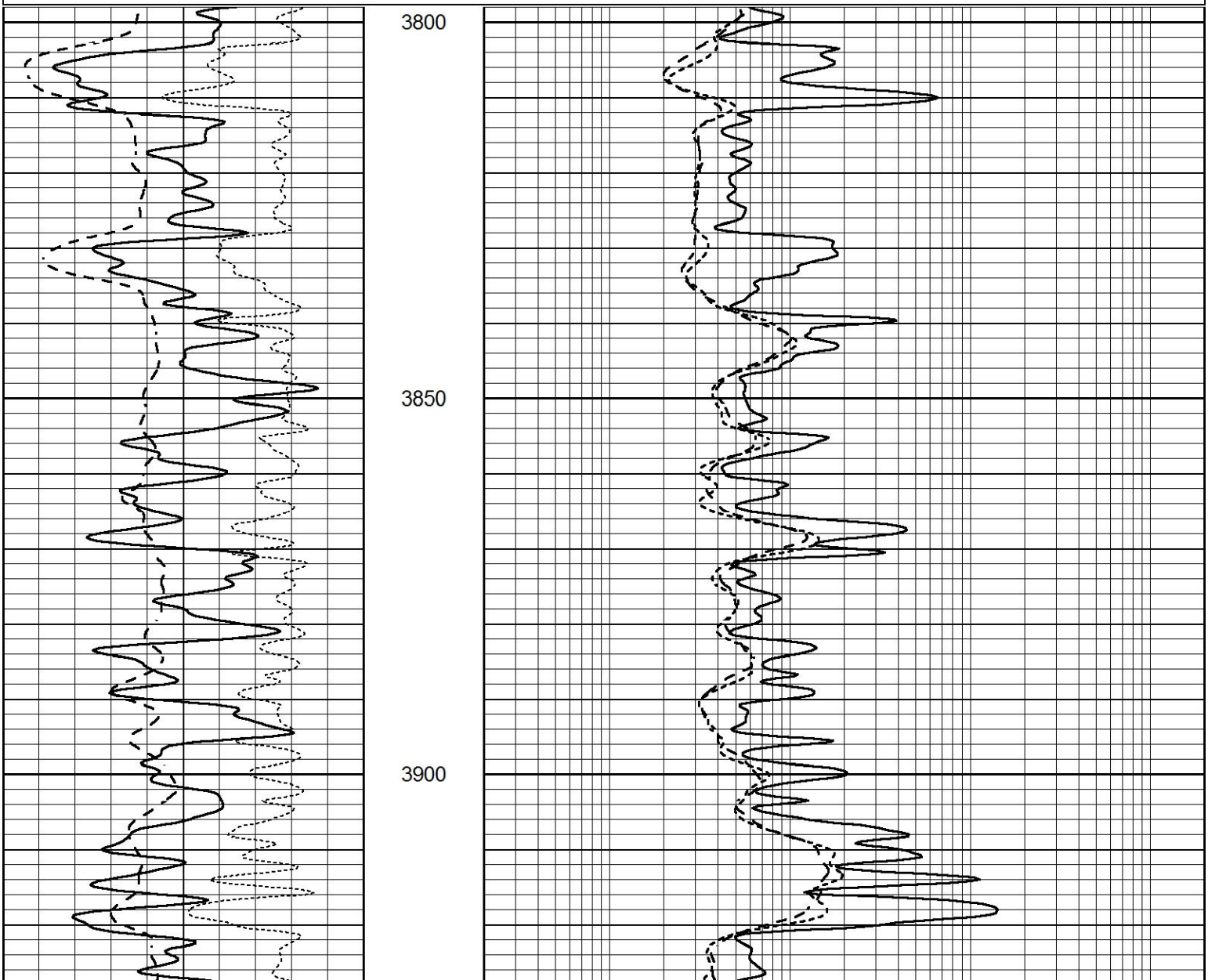
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000

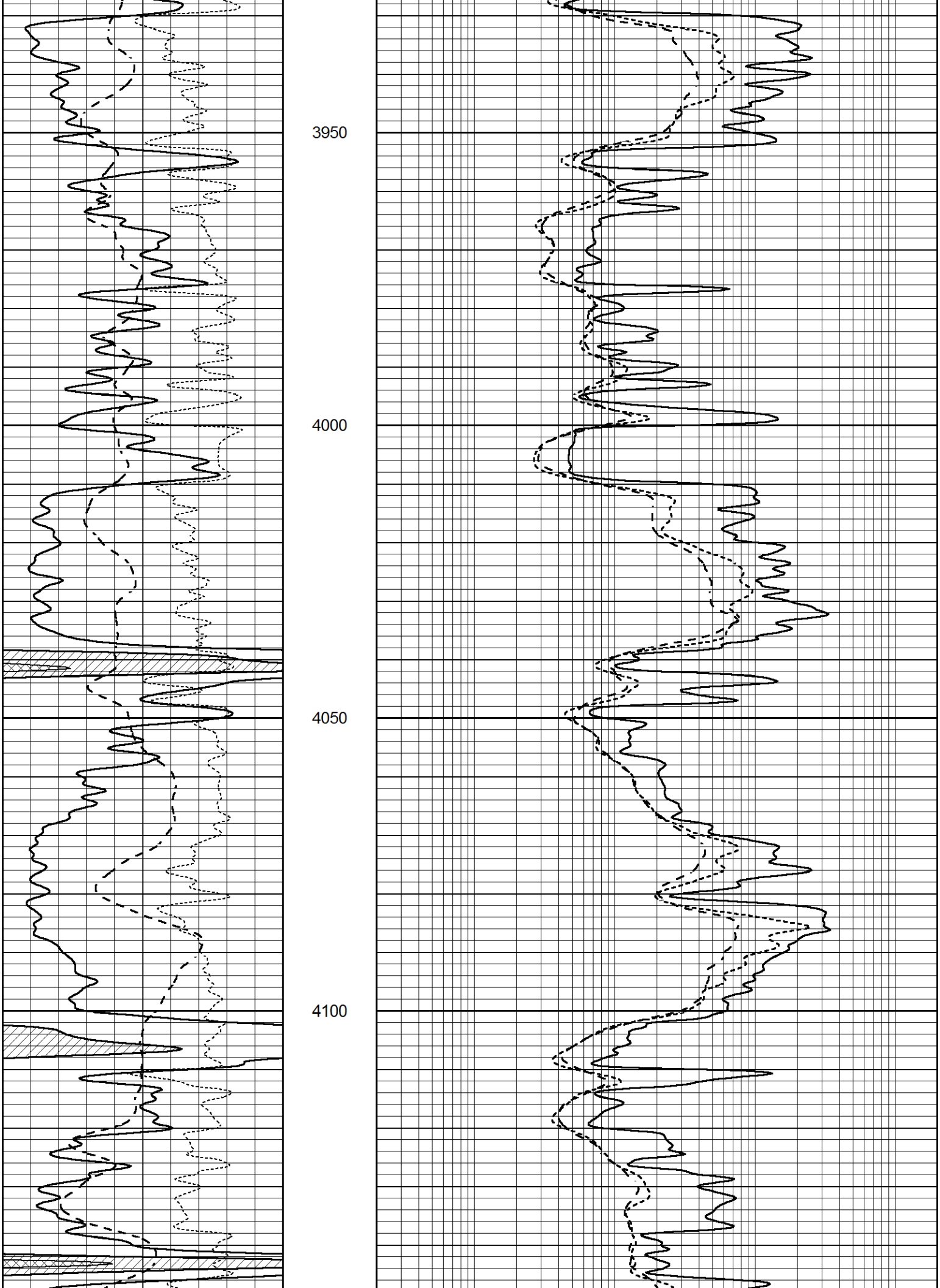
MAIN SECTION

Database File	3997ddn8.db
Dataset Pathname	pass6.1
Presentation Format	_dil
Dataset Creation	Sun Oct 06 06:01:28 2019
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

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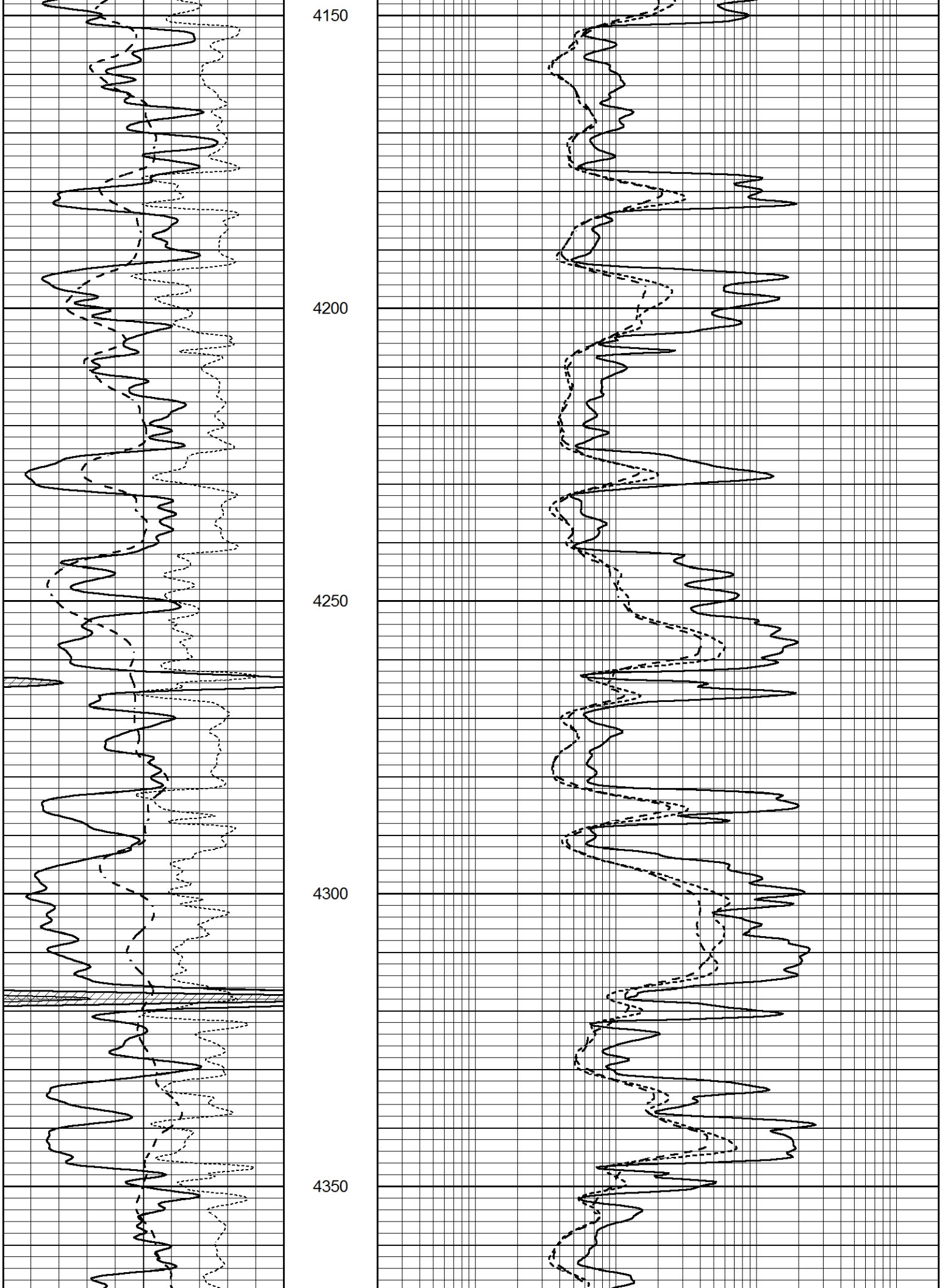
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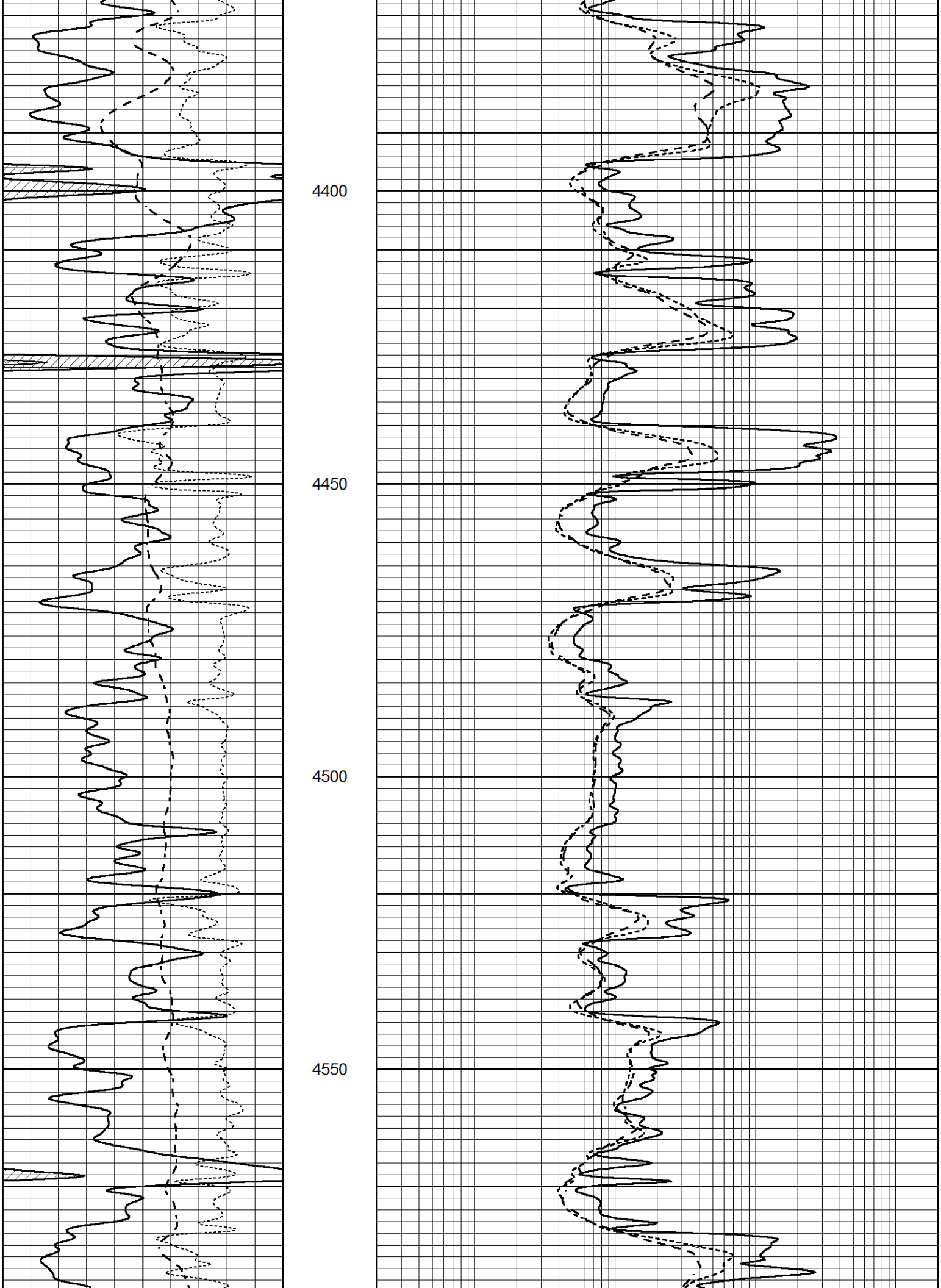
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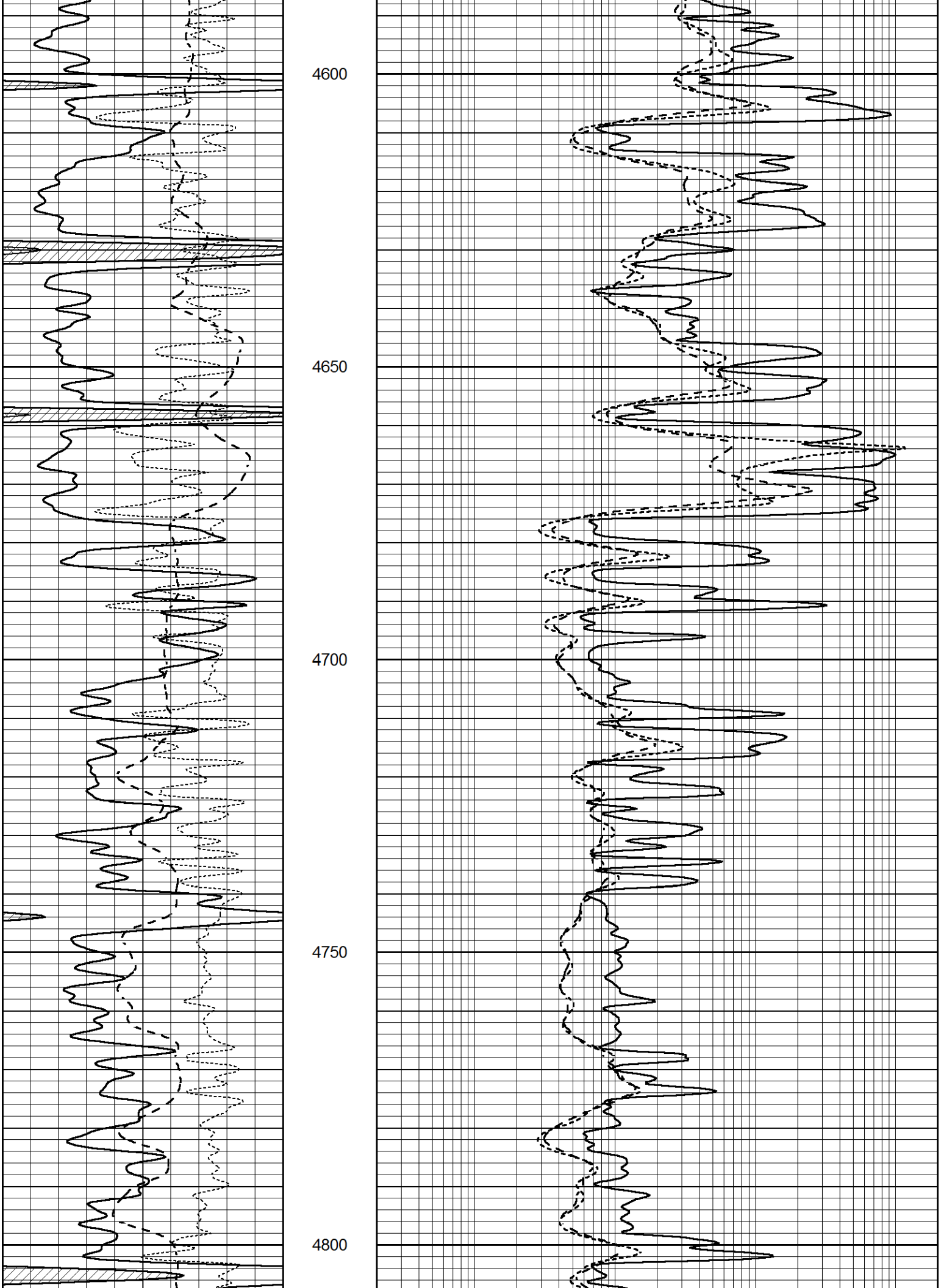
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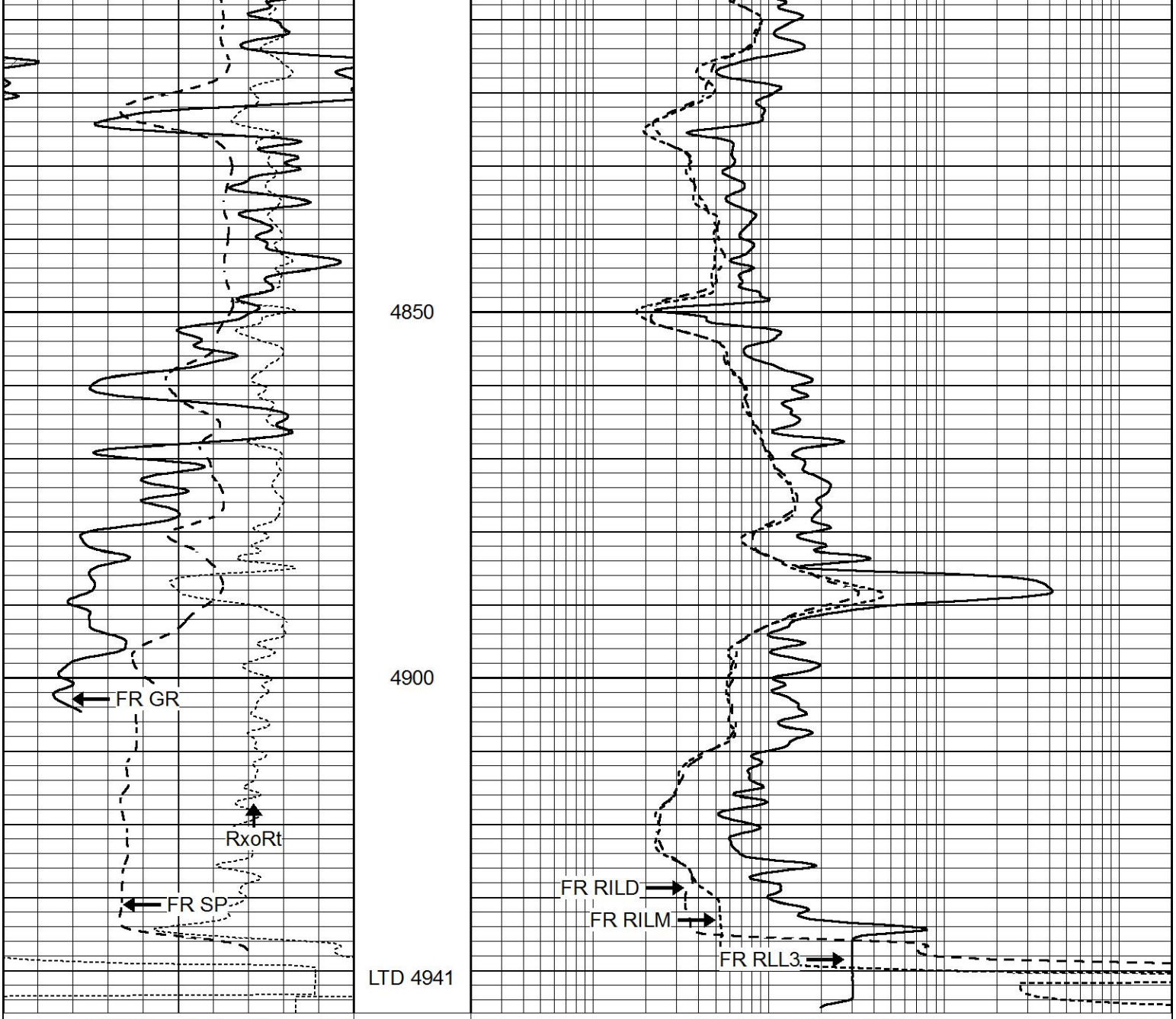


0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

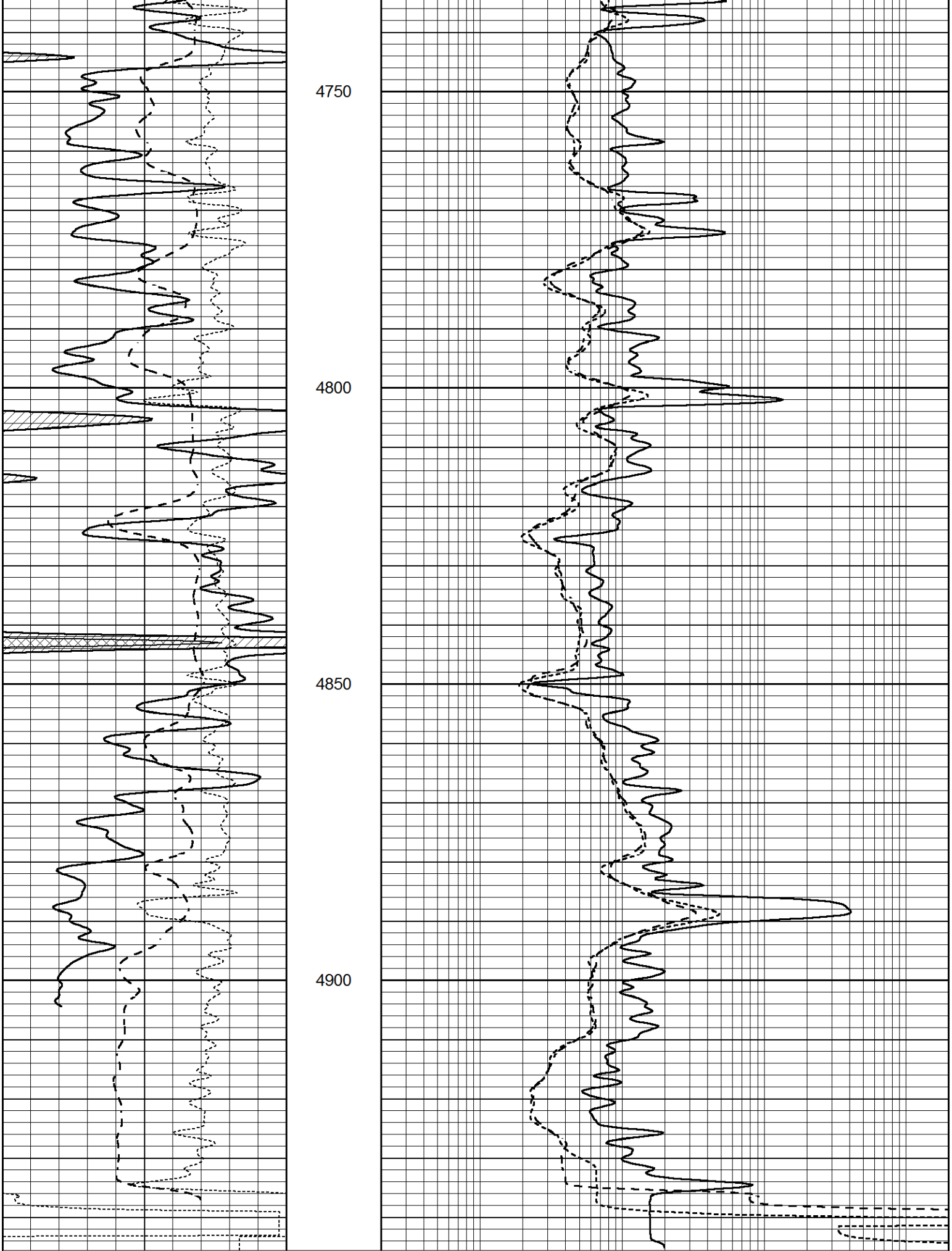
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000

REPEAT SECTION

Database File	3997ddn8.db
Dataset Pathname	pass5.1
Presentation Format	_dil
Dataset Creation	Sun Oct 06 05:59:43 2019
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


4750
4800
4850
4900
0
GAMMA RAY (GAPI)
150
-100
SP (mV)
100
0.2
SHALLOW GUARD (Ohm-m)
2000
0.2
MEDIUM INDUCTION (Ohm-m)
2000

-250	Rxo/Rt	50	0.2	DEEP INDUCTION (Ohm-m)	2000

Calibration Report

Database File 3997ddn8.db
Dataset Pathname pass5.1
Dataset Creation Sun Oct 06 05:59:43 2019

Dual Induction Calibration Report

Serial-Model: FW1410-55-Probe
Surface Cal Performed: Tue Feb 19 11:44:18 2019
Downhole Cal Performed: Tue Feb 19 11:44:24 2019
After Survey Verification Performed: Tue Feb 19 11:44:27 2019

Surface Calibration

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	1.000	400.000	mmho/m	618.595	-5.524
Medium	-0.000	0.731	V	1.000	464.000	mmho/m	632.856	1.197
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.007	0.649	V	0.000	400.000	mmho/m	623.784	-4.595
Medium	0.004	0.743	V	0.000	464.000	mmho/m	627.284	-2.251

Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	-0.824	395.917	mmho/m	-0.976	397.550	mmho/m	1.004	-0.149
Medium	3.565	471.327	mmho/m	3.468	471.590	mmho/m	1.001	-0.099
LL3		7.503	V		1500.000	Ohm-m		
		0.001	V		20.000	Ohm-m		
		-7.481	V		3745.000	mmho-m		

After Survey Verification

	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	-0.824	395.917	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	3.565	471.327	mmho/m	1.000	0.000
LL3		0.000	Ohm-m		1500.000	Ohm-m		
		0.000	Ohm-m		20.000	Ohm-m		
		0.000	mmho-m		3745.000	mmho-m		

Compensated Neutron Calibration Report

Serial Number: 080621PMC
Tool Model: NABORS

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:	7	
Tool Model:	Probe1	
Performed:	Tue Feb 19 11:45:10 2019	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.4300	GAPI/cps