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BOREHOLE COMPENSATED SONIC LOG

Company MURFIN DRILLING COMPANY, INC.
Well BANISTER 'A' NO. 1-22
Field WILDCAT
County CHEYENNE State KANSAS
Location: API #: 15-023-21479-00-00
2310' FSL & 2310' FWL
SEC 22 TWP 2S RGE 37W
Permanent Datum GROUND LEVEL Elevation 3409'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Other Services: DIL/MEL, CNL/CDL

Elevation: K.B. 3414', D.F. N/A, G.L. 3409'

Company	MURFIN DRILLING COMPANY, INC.
Well	BANISTER 'A' NO. 1-22
Field	WILDCAT
County	CHEYENNE
State	KANSAS
Location:	API #: 15-023-21479-00-00
	2310' FSL & 2310' FWL
	SEC 22 TWP 2S RGE 37W
Permanent Datum	GROUND LEVEL
Elevation	3409'
Log Measured From	KELLY BUSHING
Drilling Measured From	KELLY BUSHING

Date	4/15/2018
Run Number	TWO
Type Log	BHCS
Depth Driller	5101'
Depth Logger	5102'
Bottom Logged Interval	5091'
Top Logged Interval	350'
Type Fluid In Hole	CHEMICAL
Salinity, PPM CL	1000
Density	9.5
Level	FULL
Max. Rec. Temp. F	127 DEG/F
Operating Rig Time	5 HOURS
Equipment -- Location	108 HAYS
Recorded By	J. HENRICKSON
Witnessed By	SAMAN SHARIFAIE

Borehole Record

Run No.	Bit	From	To
ONE	12.25"	0	385'
TWO	7.875"	385'	TD

Casing Record

Size	Wgt.	From	To
8.625"	23#	0	385'

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

BIRD CITY KANSAS
EAST TO 32 RD, 7 1/2 NORTH TO V RD, EAST INTO

Log Measured From: KELLY BUSHING 5 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES
www.pioneeres.com 785-625-3858

Your Pioneer Energy Services Crew	This Log Record Was Witnessed By
Engineer: J. HENRICKSON	Primary Witness: SAMAN SHARIFAIE
Operator:	Secondary Witness:
Operator:	Secondary Witness:
Operator:	Secondary Witness:

Log Variables

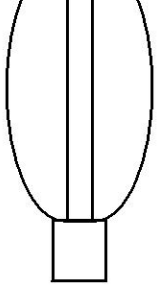
DatabaseC:\ProgramData\Warrior\Data\murfin_banister_a_1_22.db
Dataset field/well/stack/pass3.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	127	5.5	0	1	2	2.71

NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	0	-1	2	-155	34	Off	5102

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb
			ML-Armadillo (Armadillo-1) Pengo micro log tool mandrel with Armadillo Electronics	5.00	3.50	100.00
MCAL	22.50					
MI	22.50					
MN	22.50					
WVF4	13.50		SLT-PENGO (0001)	16.00	3.50	300.00
WVF1	13.50					
WVF3	11.50					
WVF2	11.50					



CENT-PENGO	5.50	3.00	70.00

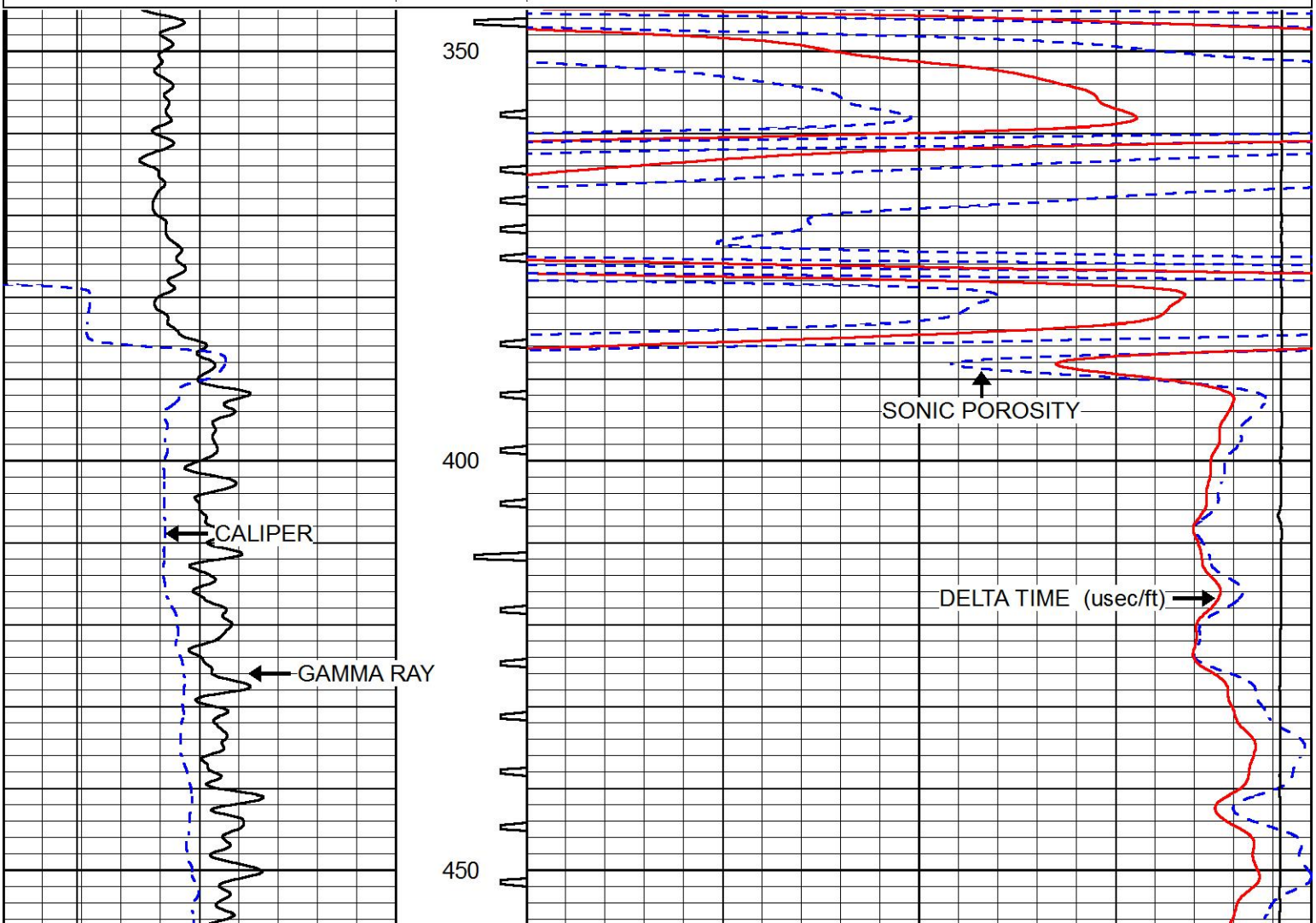
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Total length: 26.50 ft
Total weight: 470.00 lb
O.D.: 3.50 in

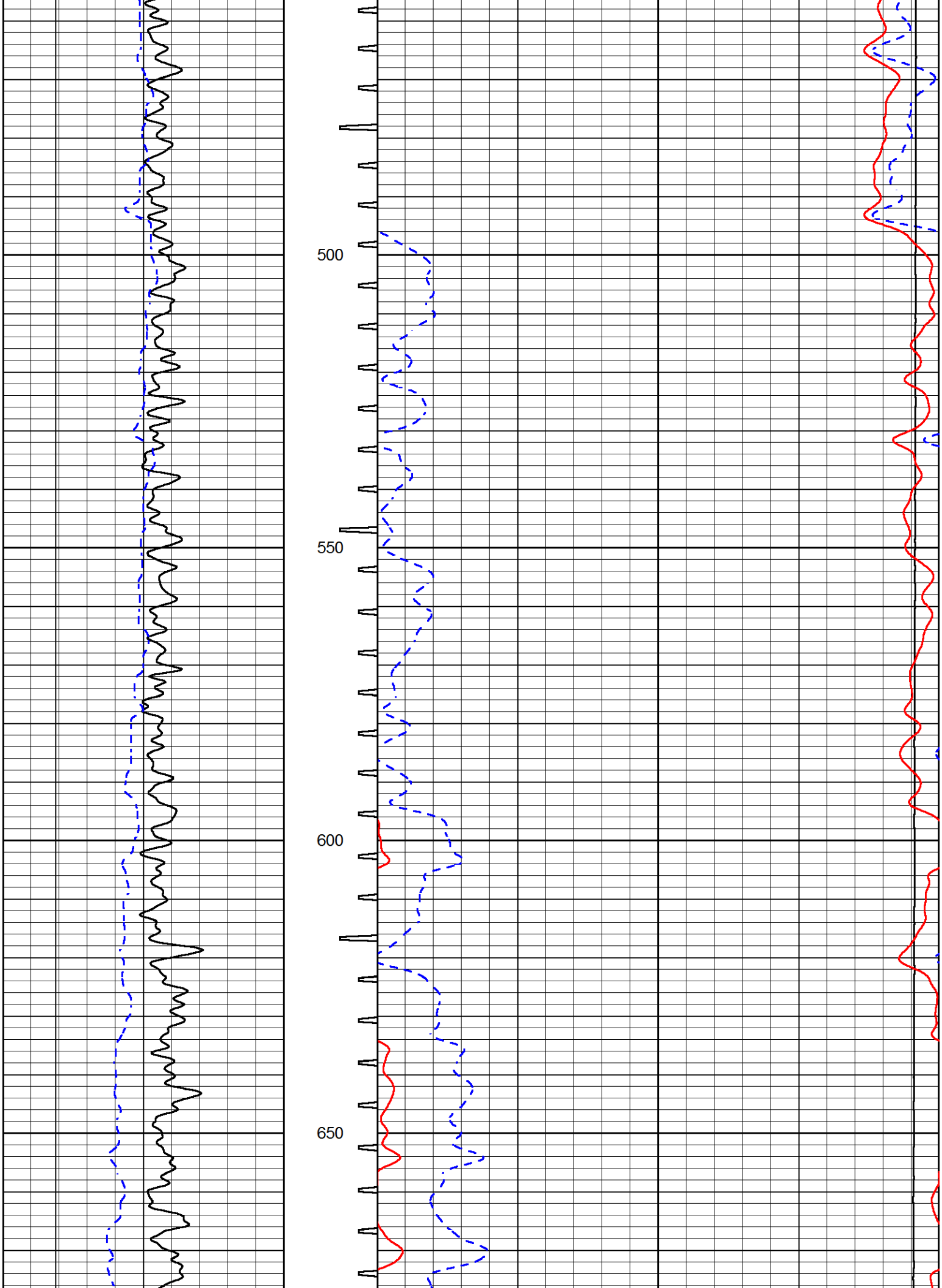
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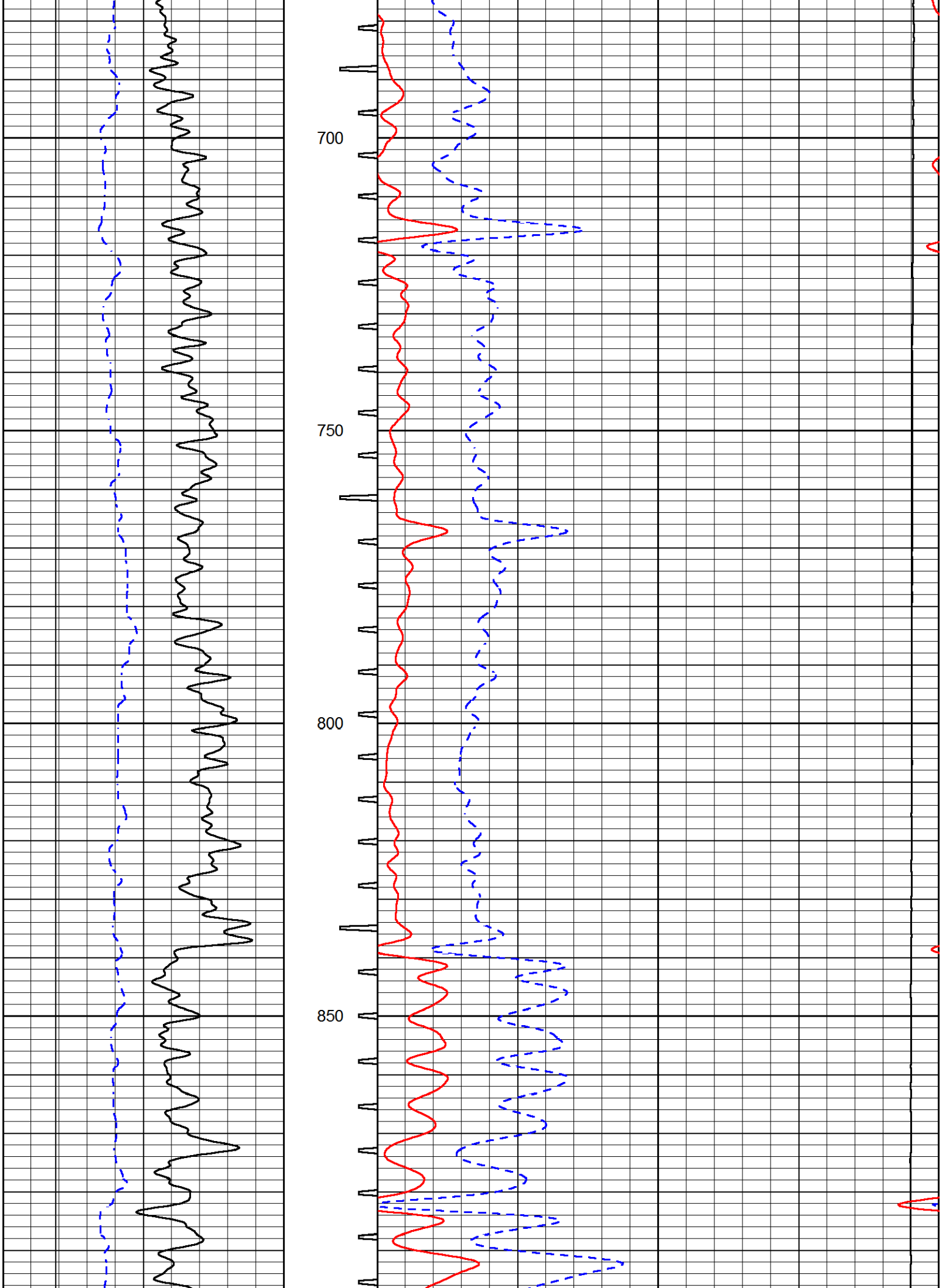
MAIN PASS

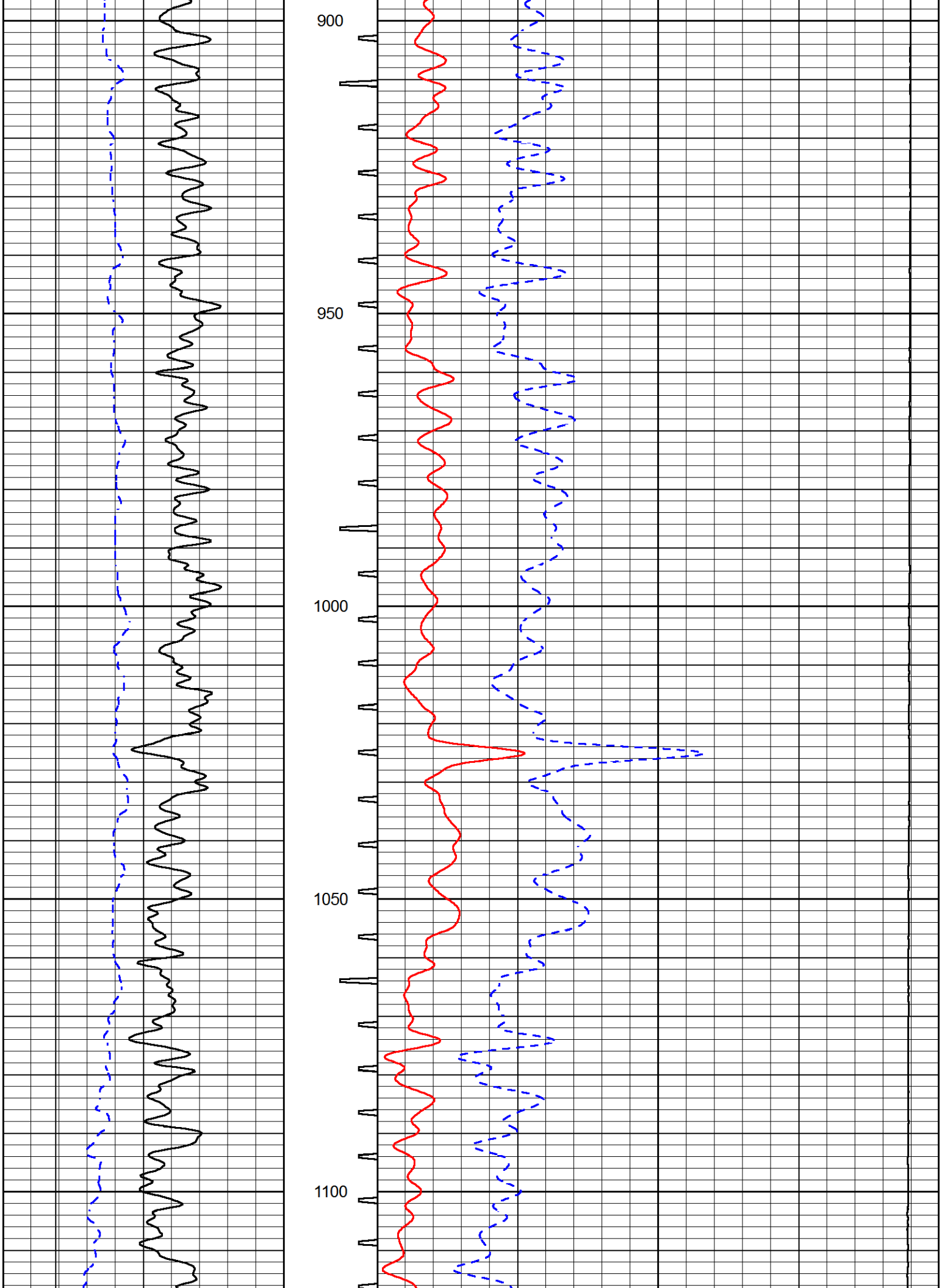
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Dataset Pathname	stack/pass3.1
Presentation Format	sonic
Dataset Creation	Sun Apr 15 10:58:00 2018
Charted by	Depth in Feet scaled 1:240

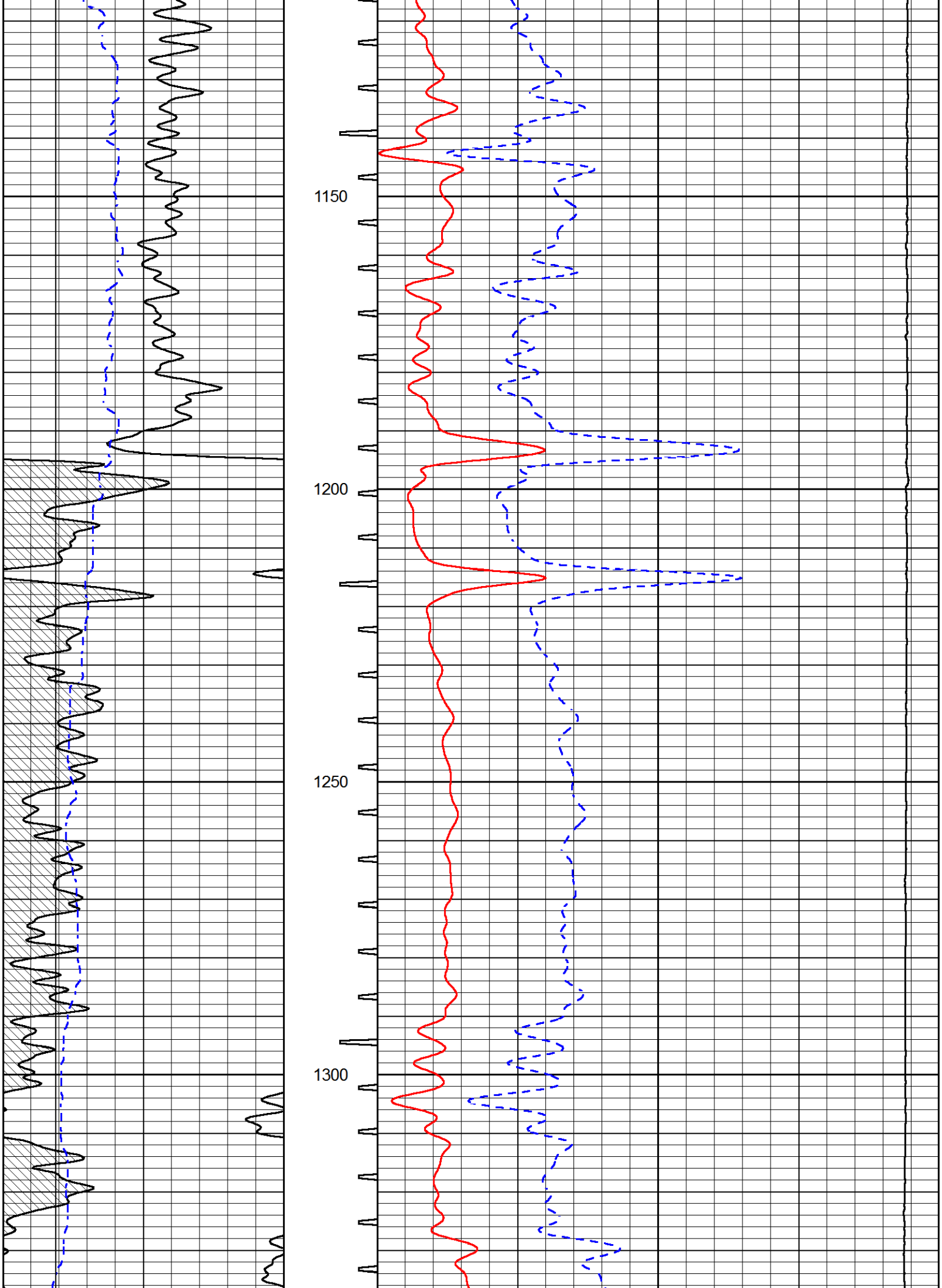
0	GAMMA RAY (GAPI)	150	SONIC INT TRAVEL TIME (msec)	140	DELTA TIME (usec/ft) (usec/ft) 40
6	CALIPER (in)	16		30	SONIC POROSITY (pu) -10
6	BIT SIZE	16		15000	LINE TENSION (lb) 0

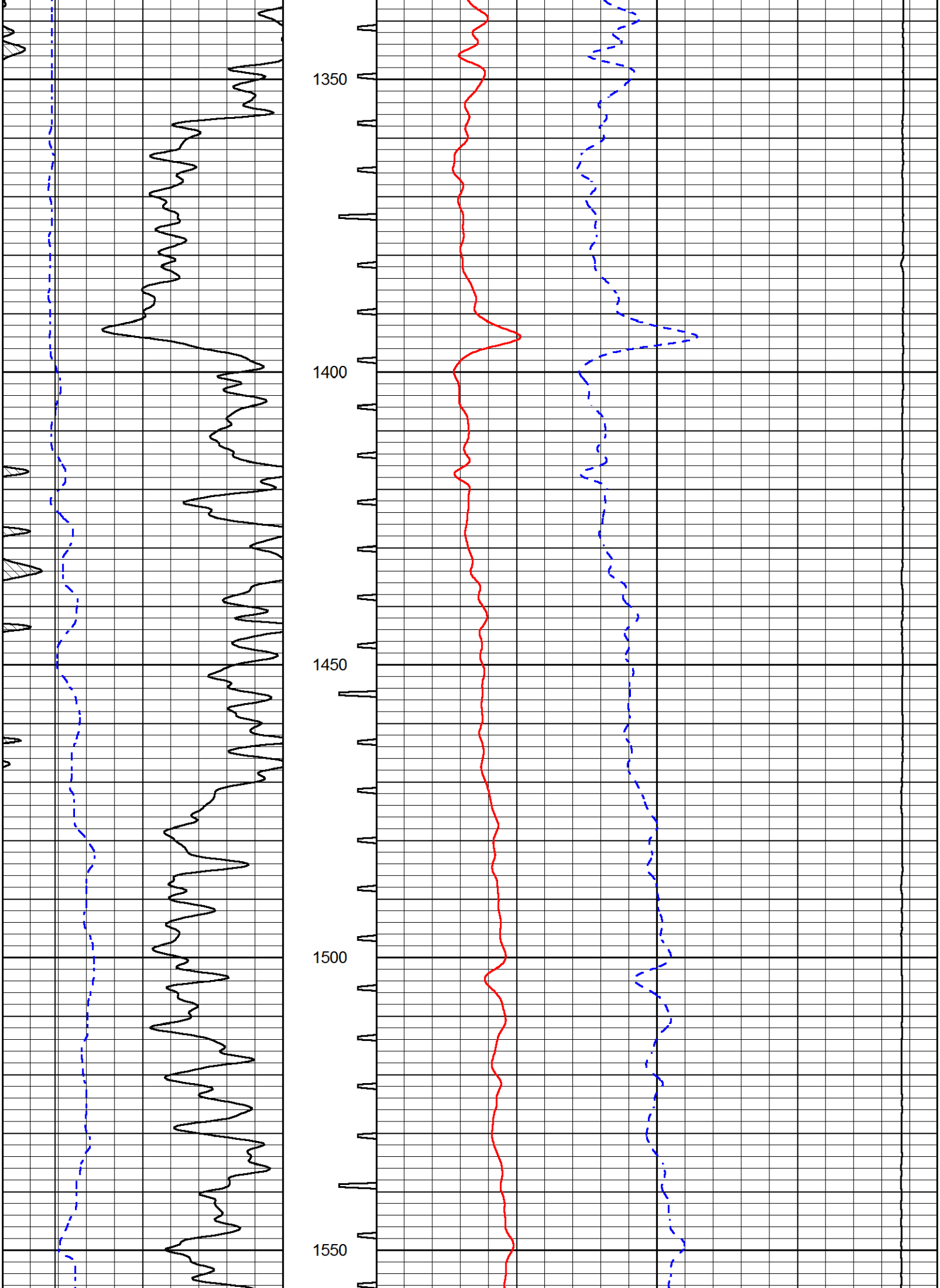


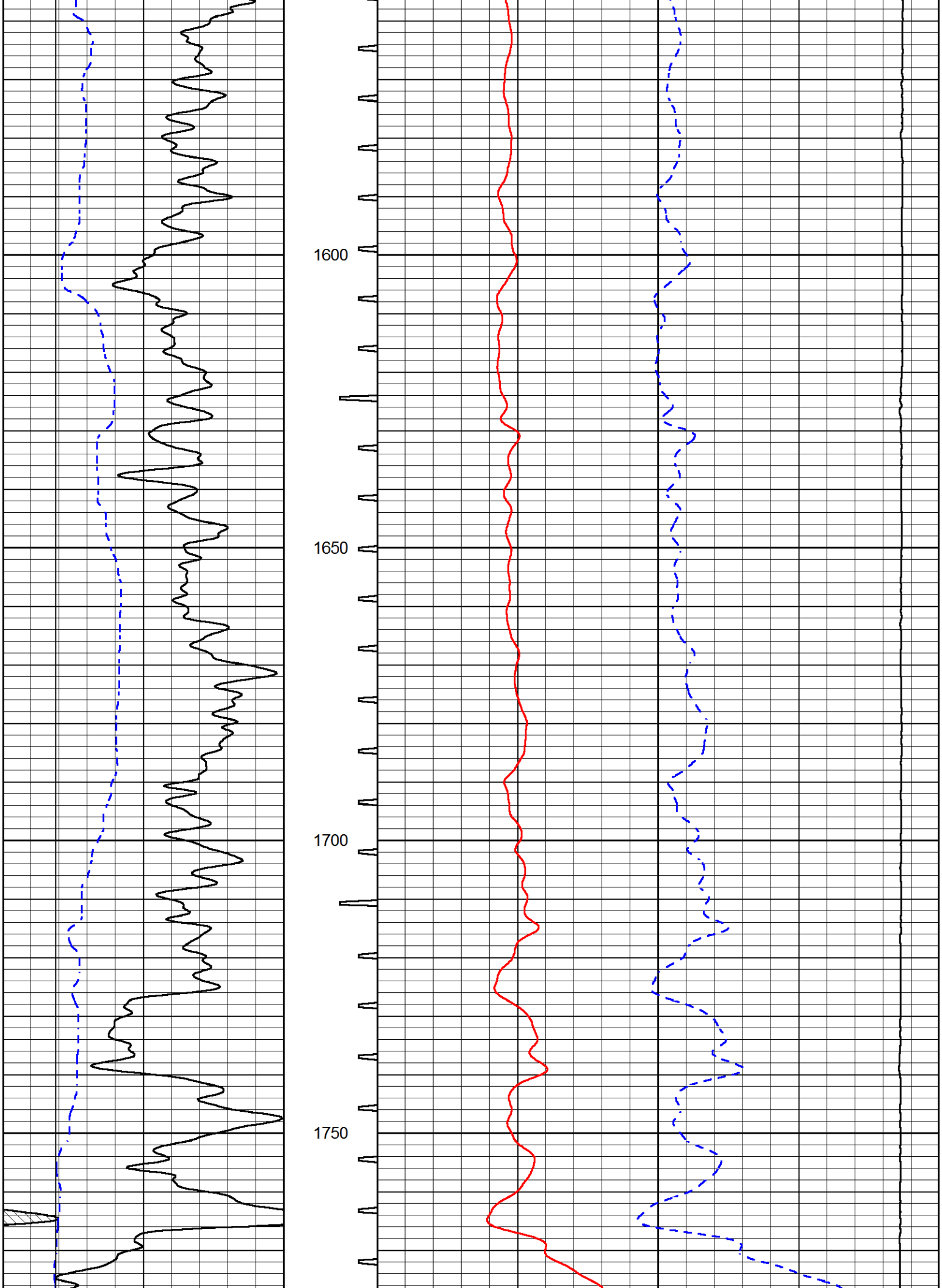

500
550
600
650

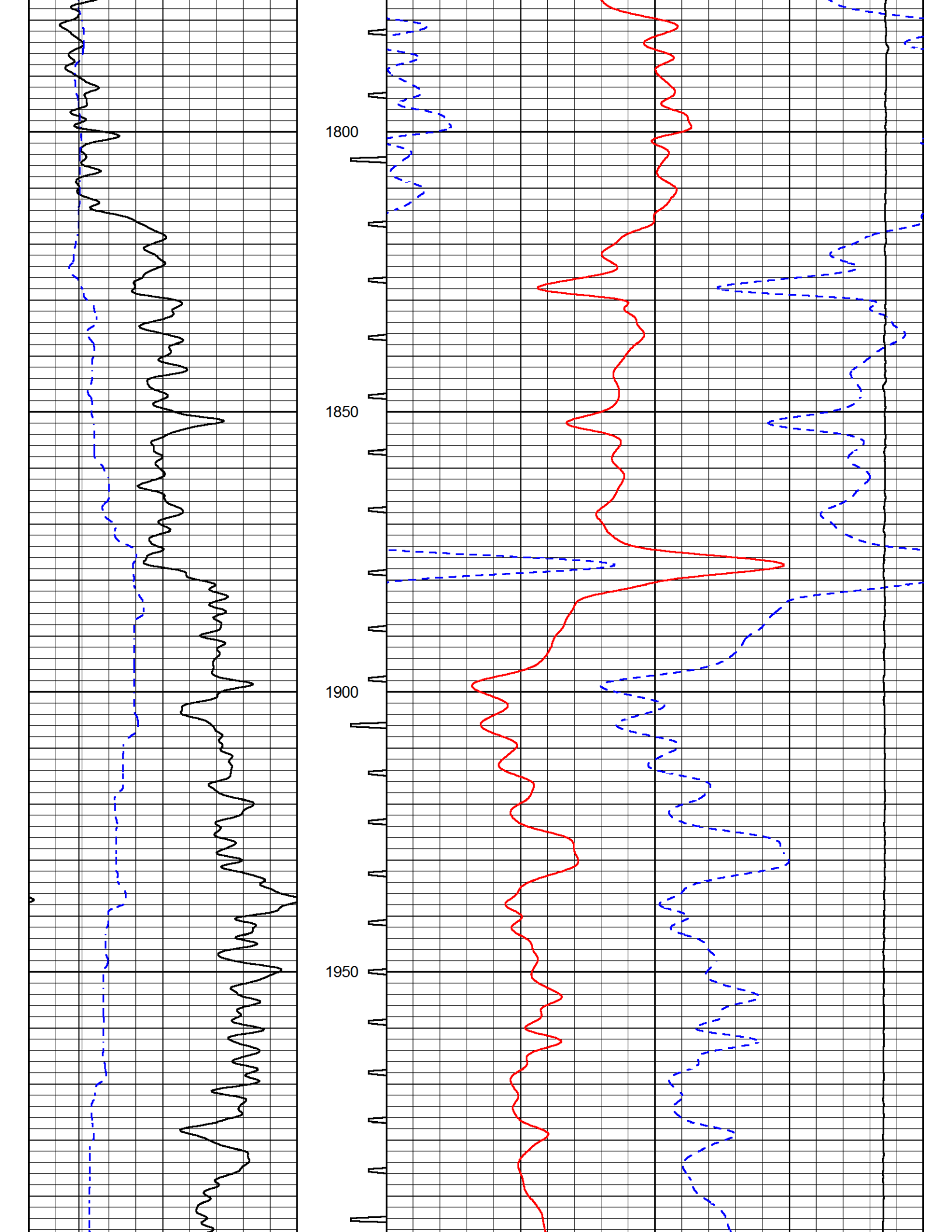

700
750
800
850

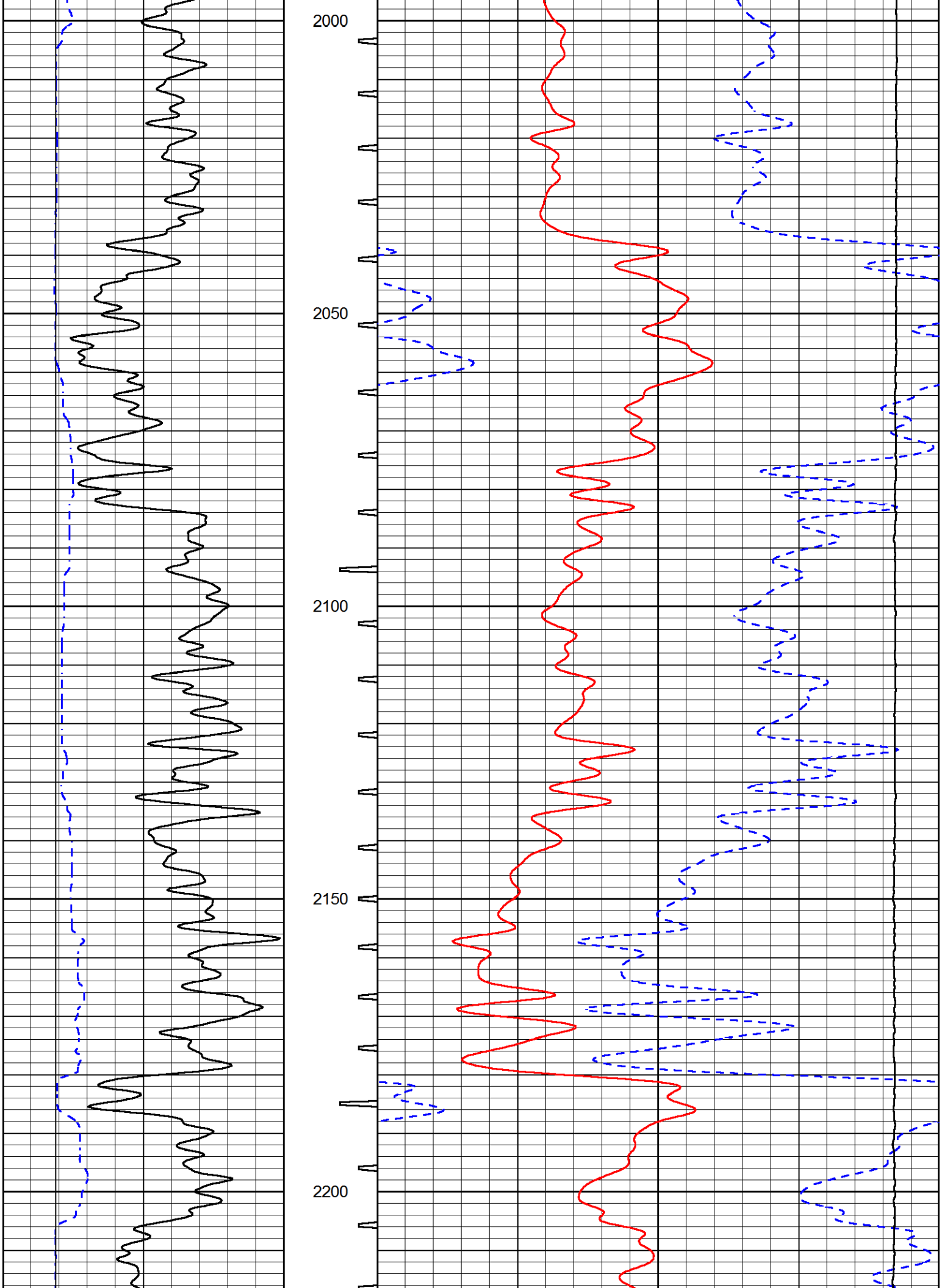

900
950
1000
1050
1100

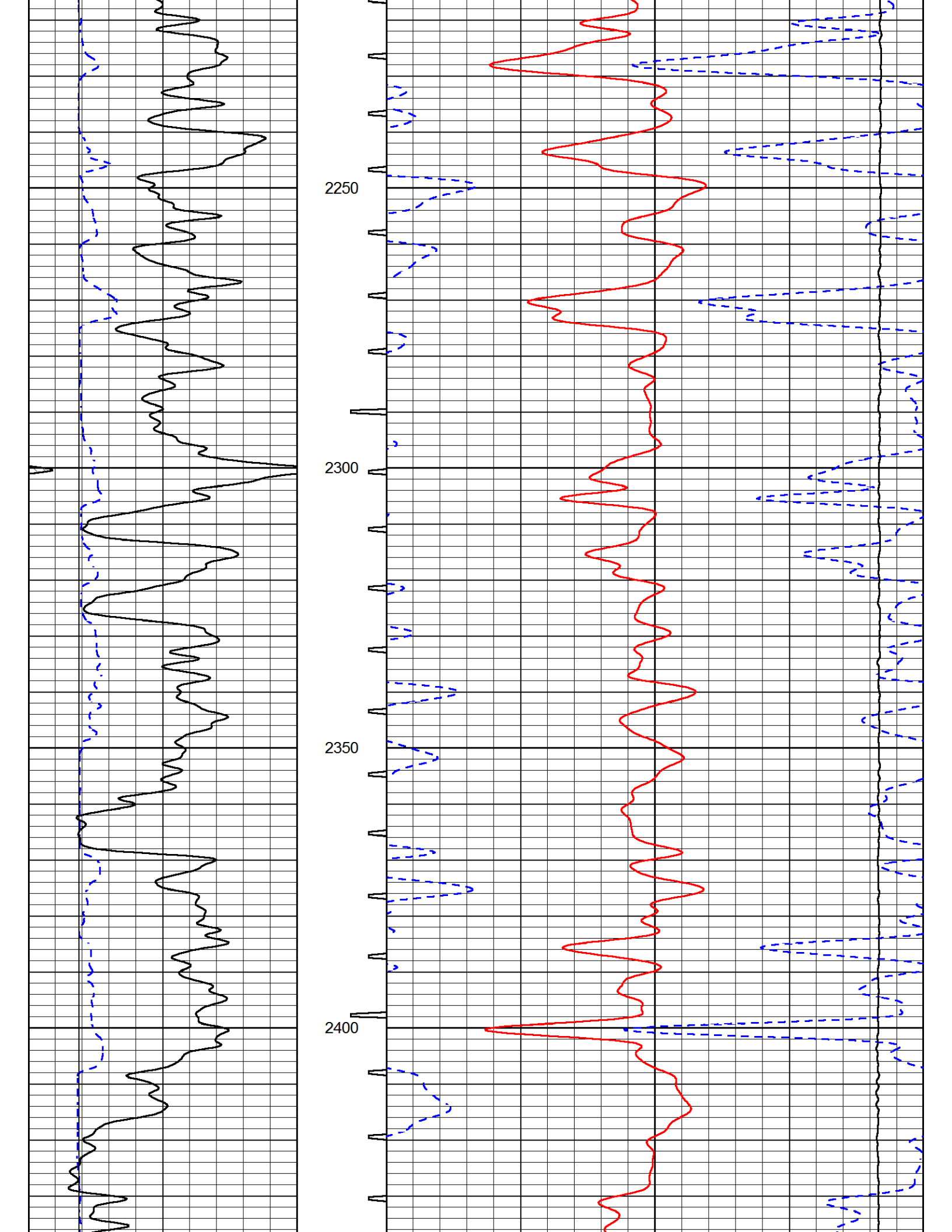

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1200
1250
1300

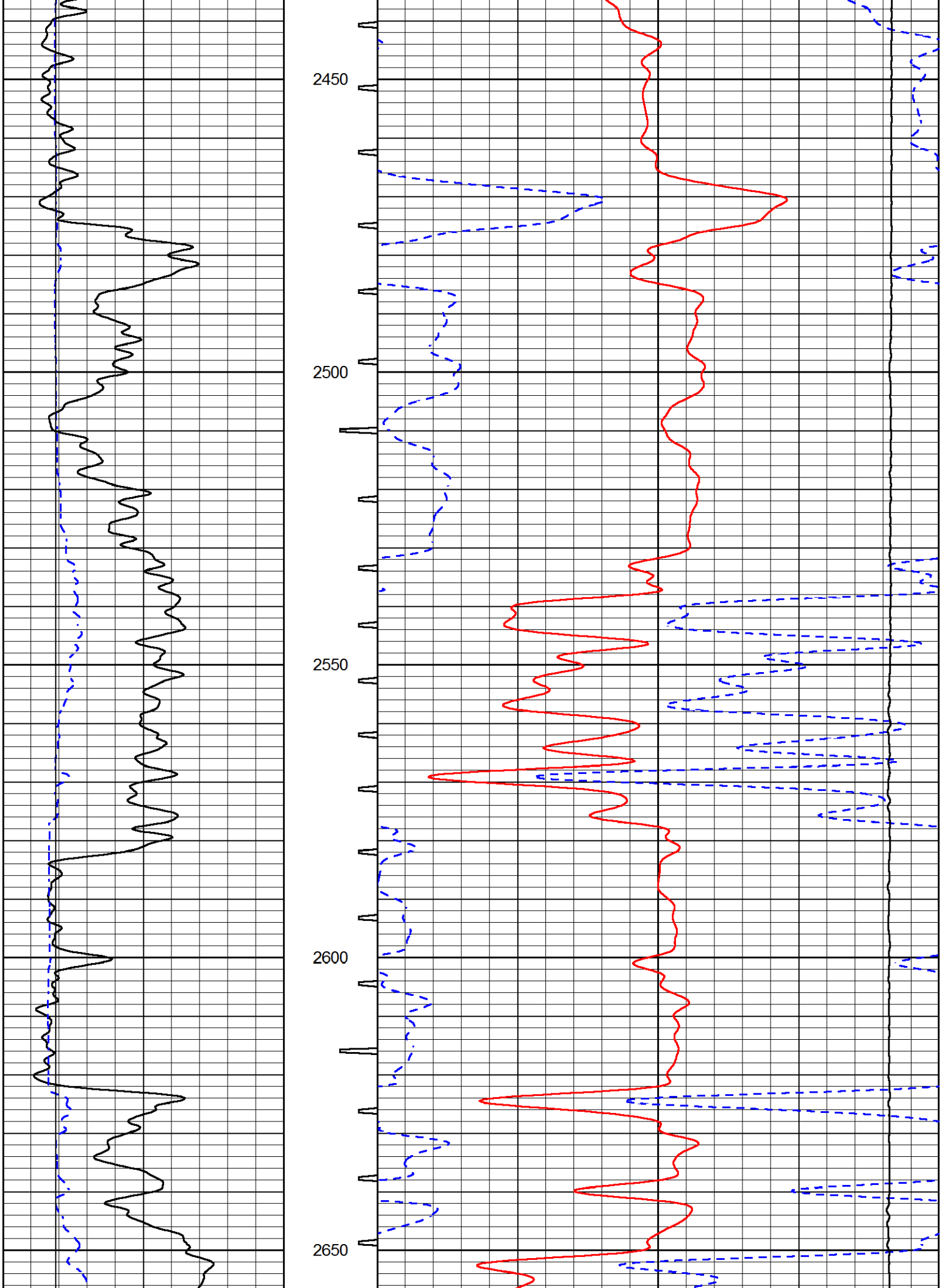

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1400
1450
1500
1550

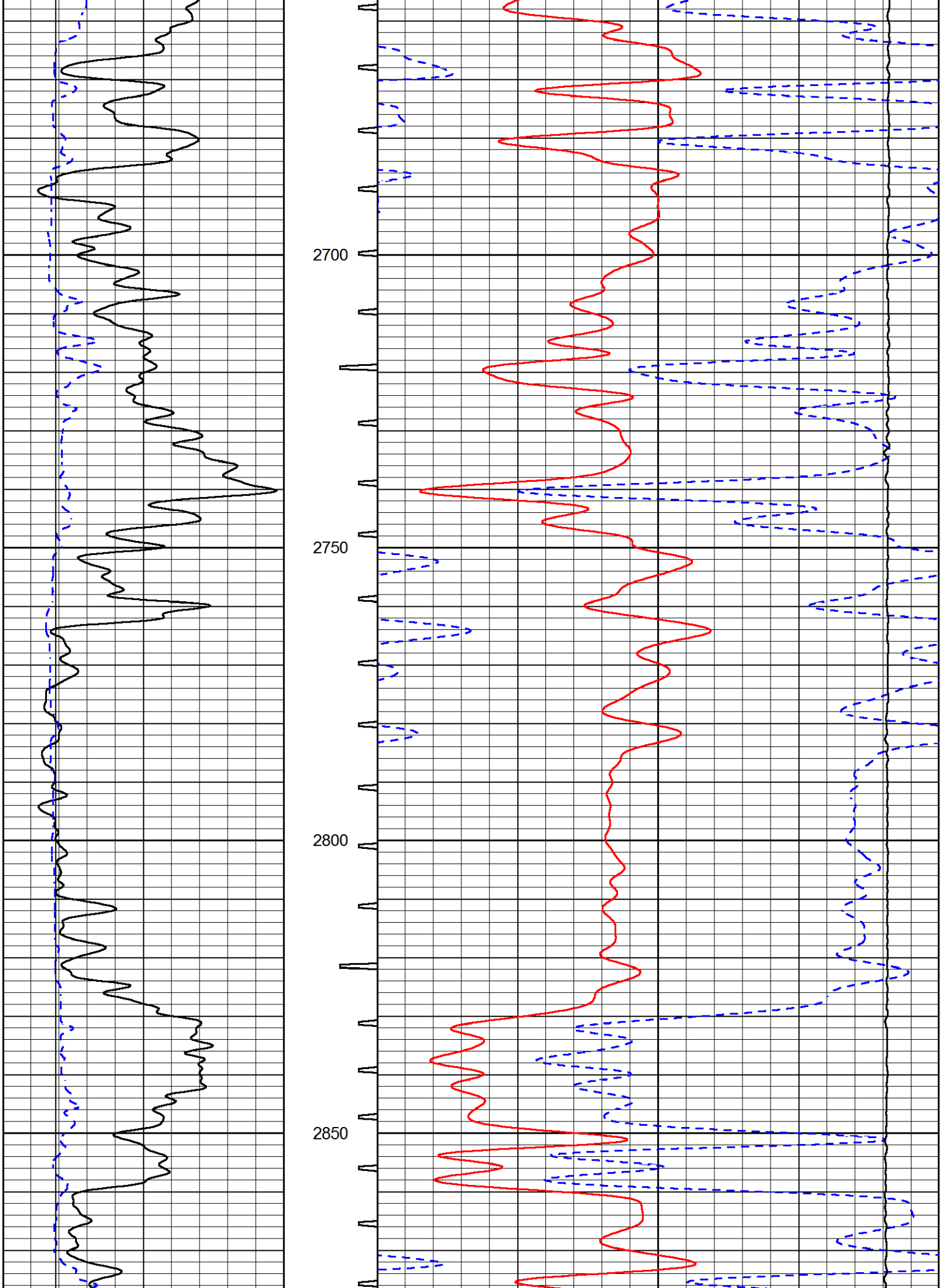

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1650
1700
1750

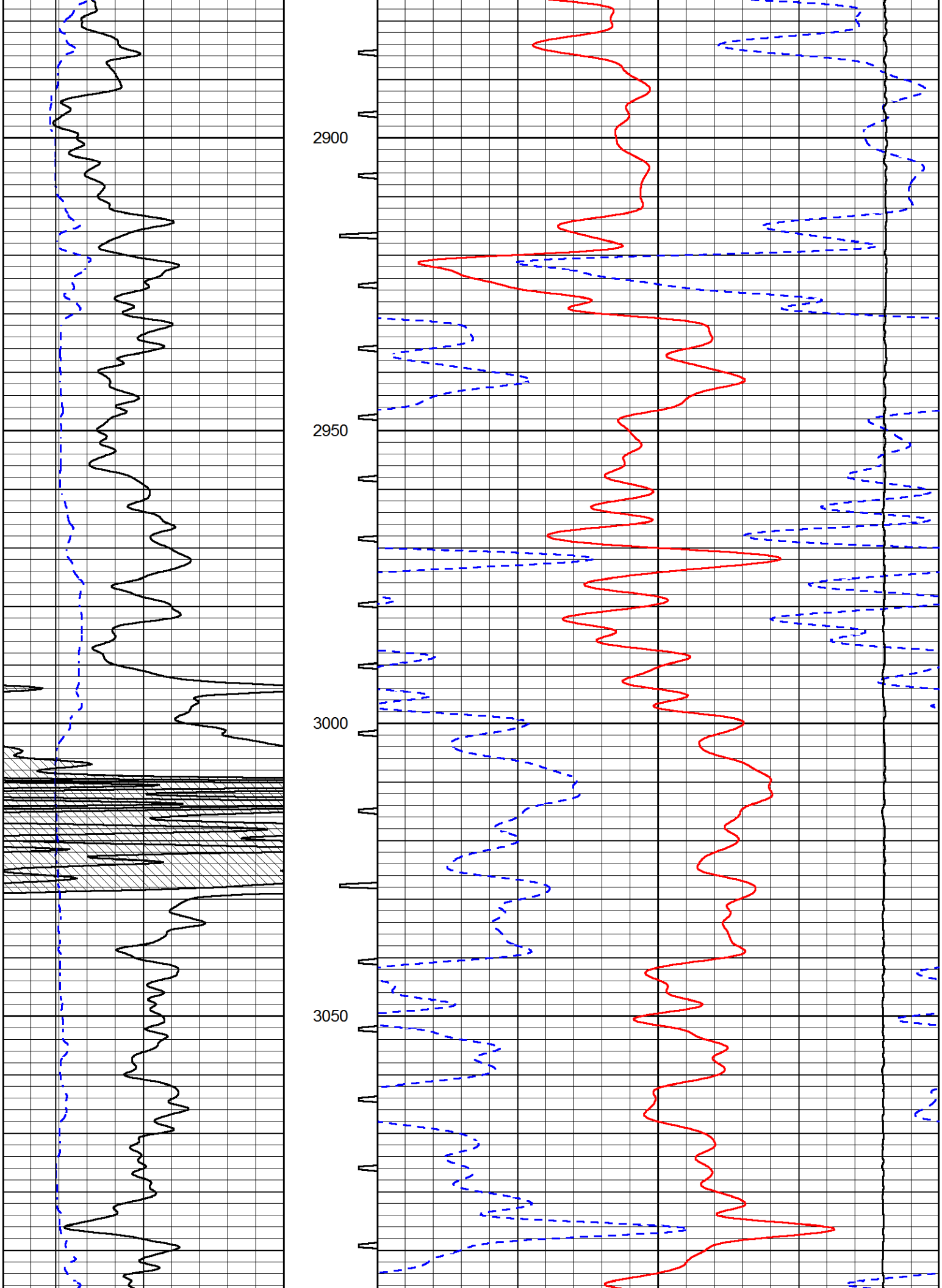

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1850
1900
1950

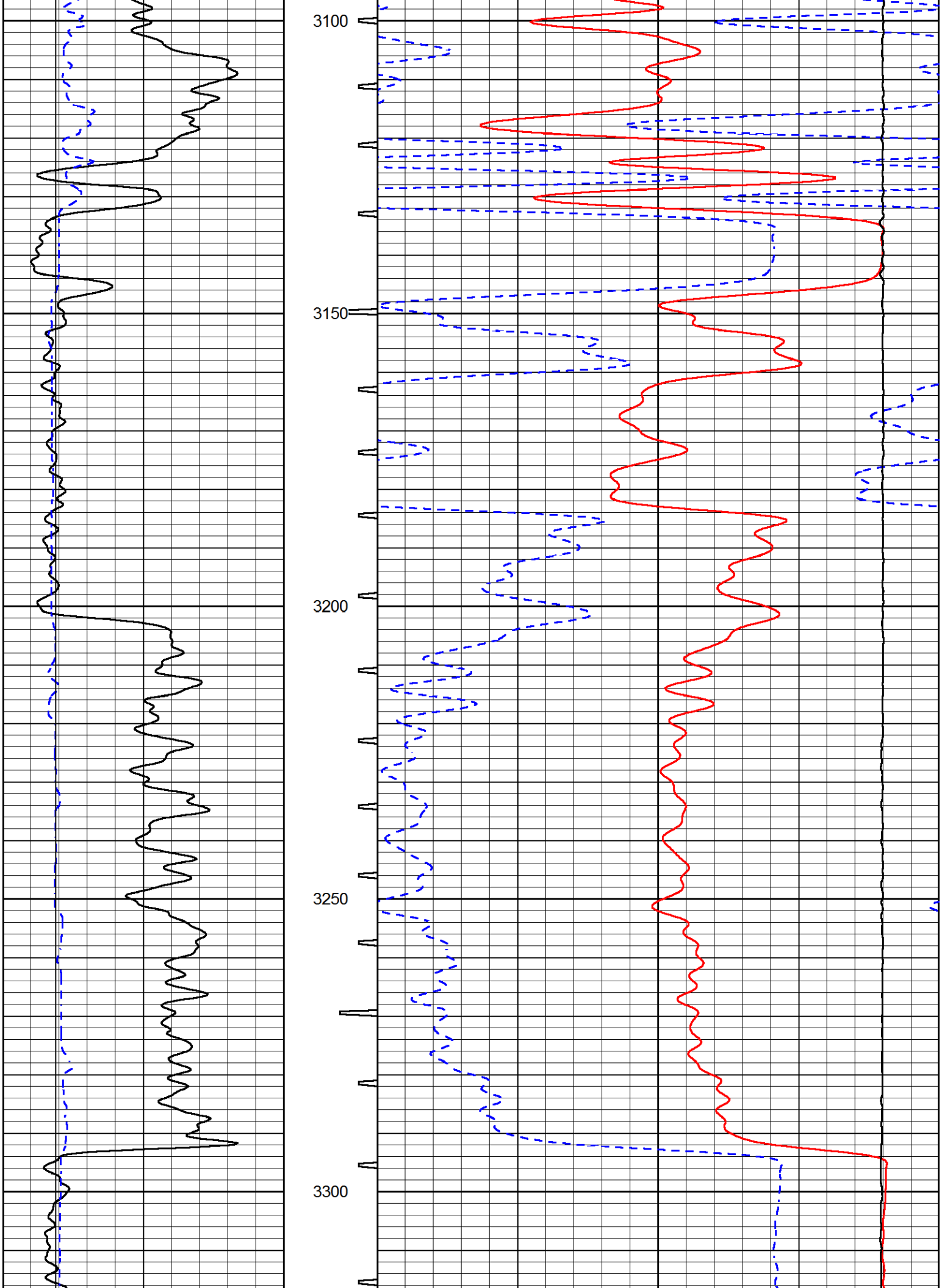

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2050
2100
2150
2200

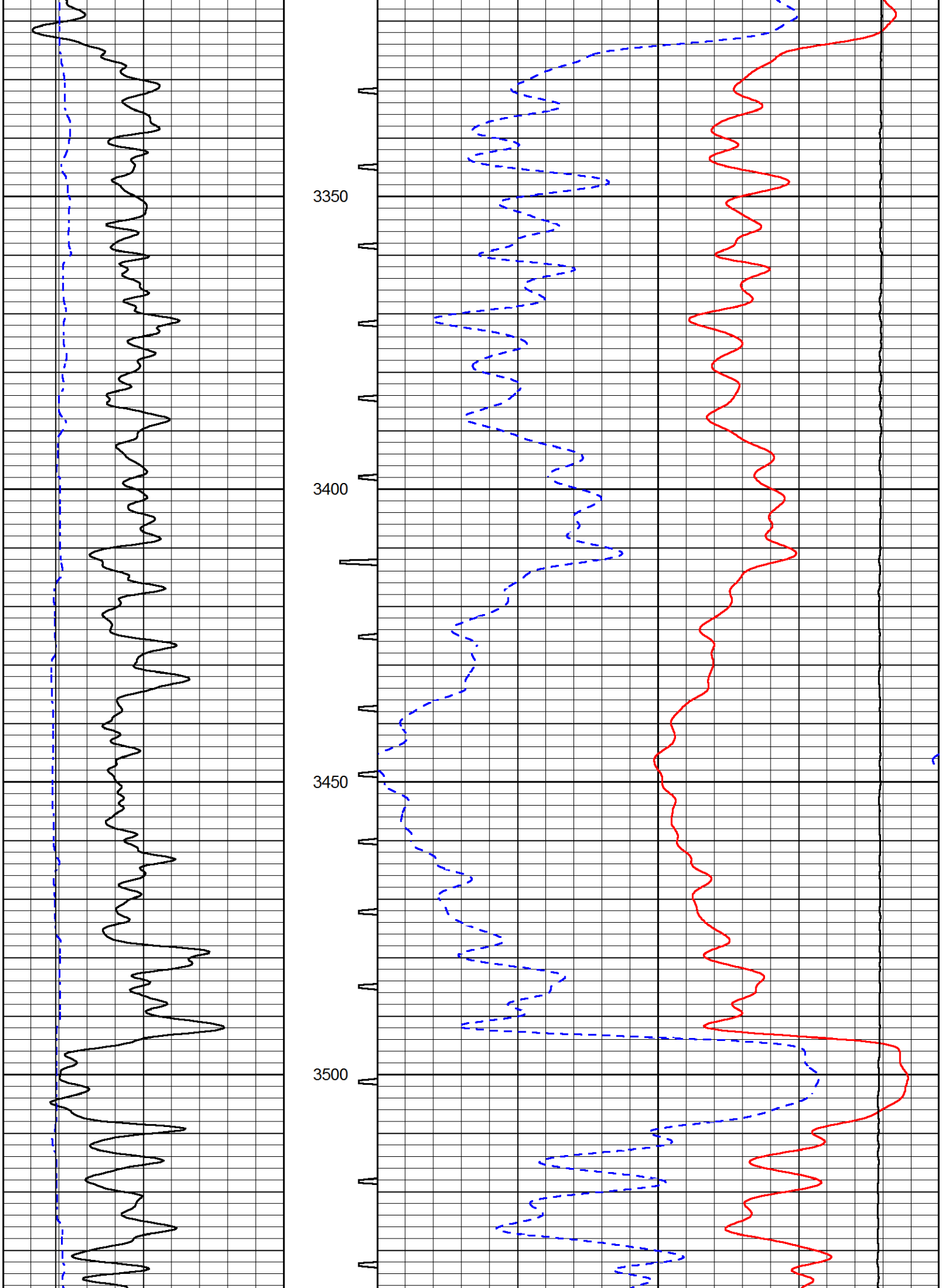

2250
2300
2350
2400

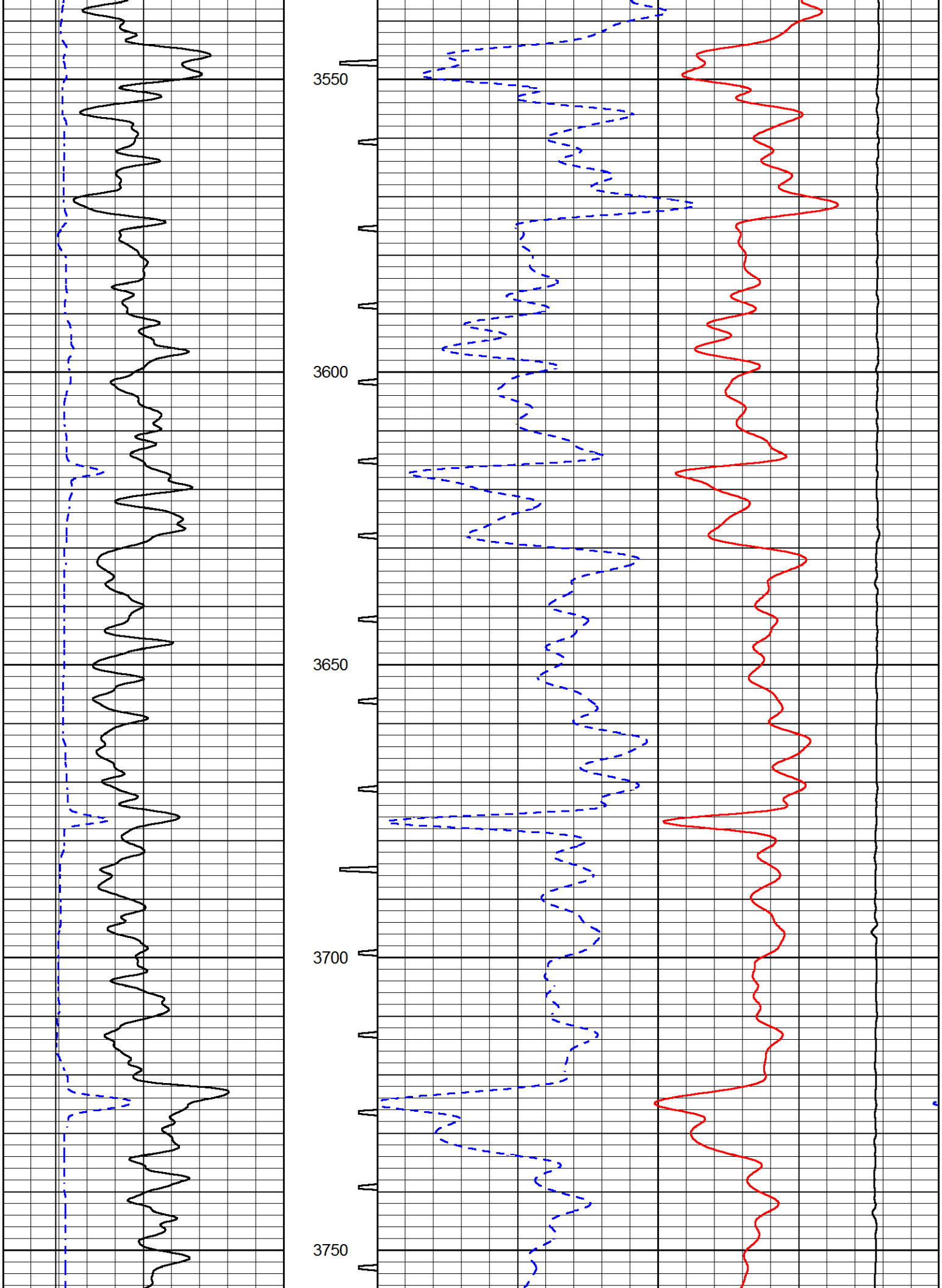

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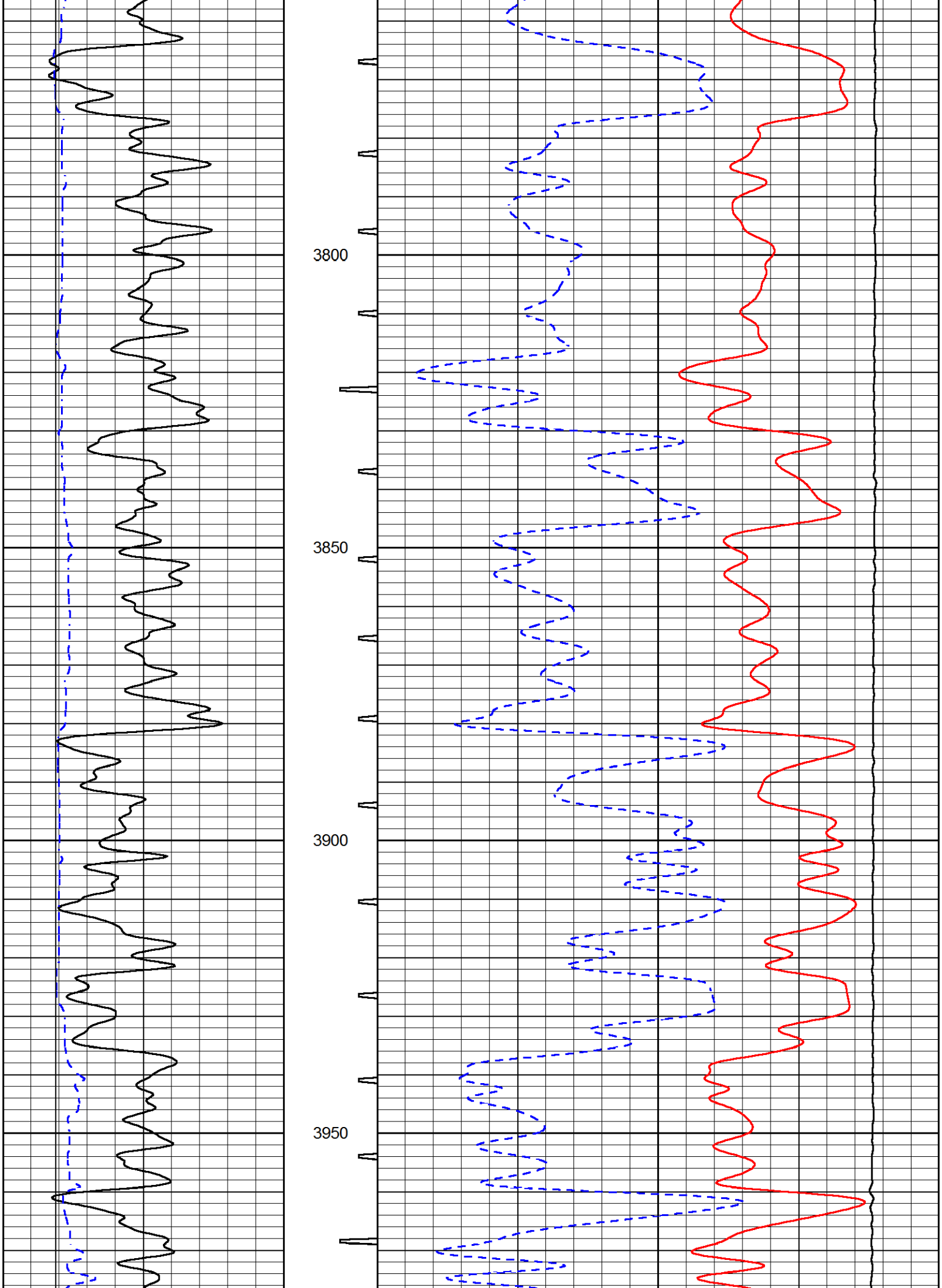

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2850

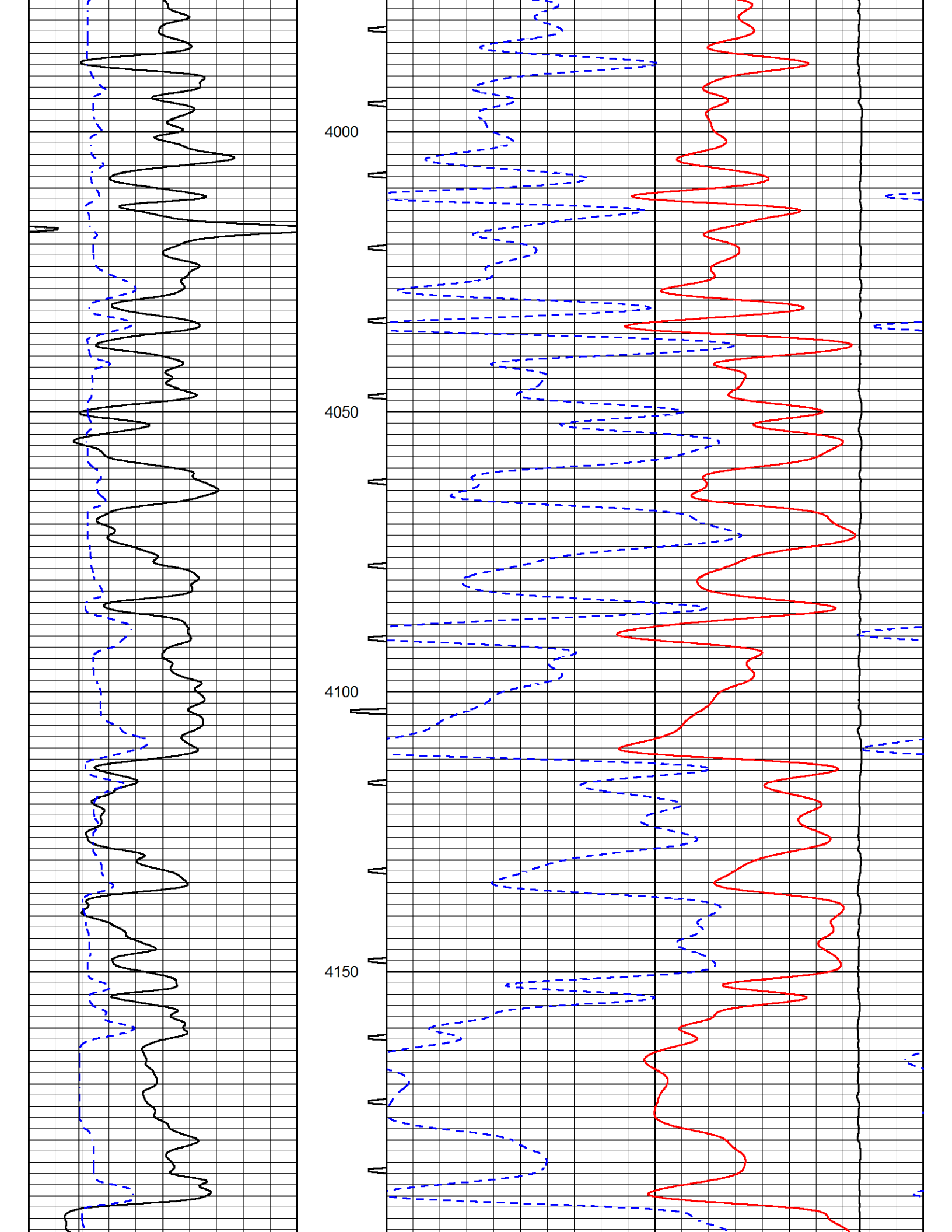

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3000
3050

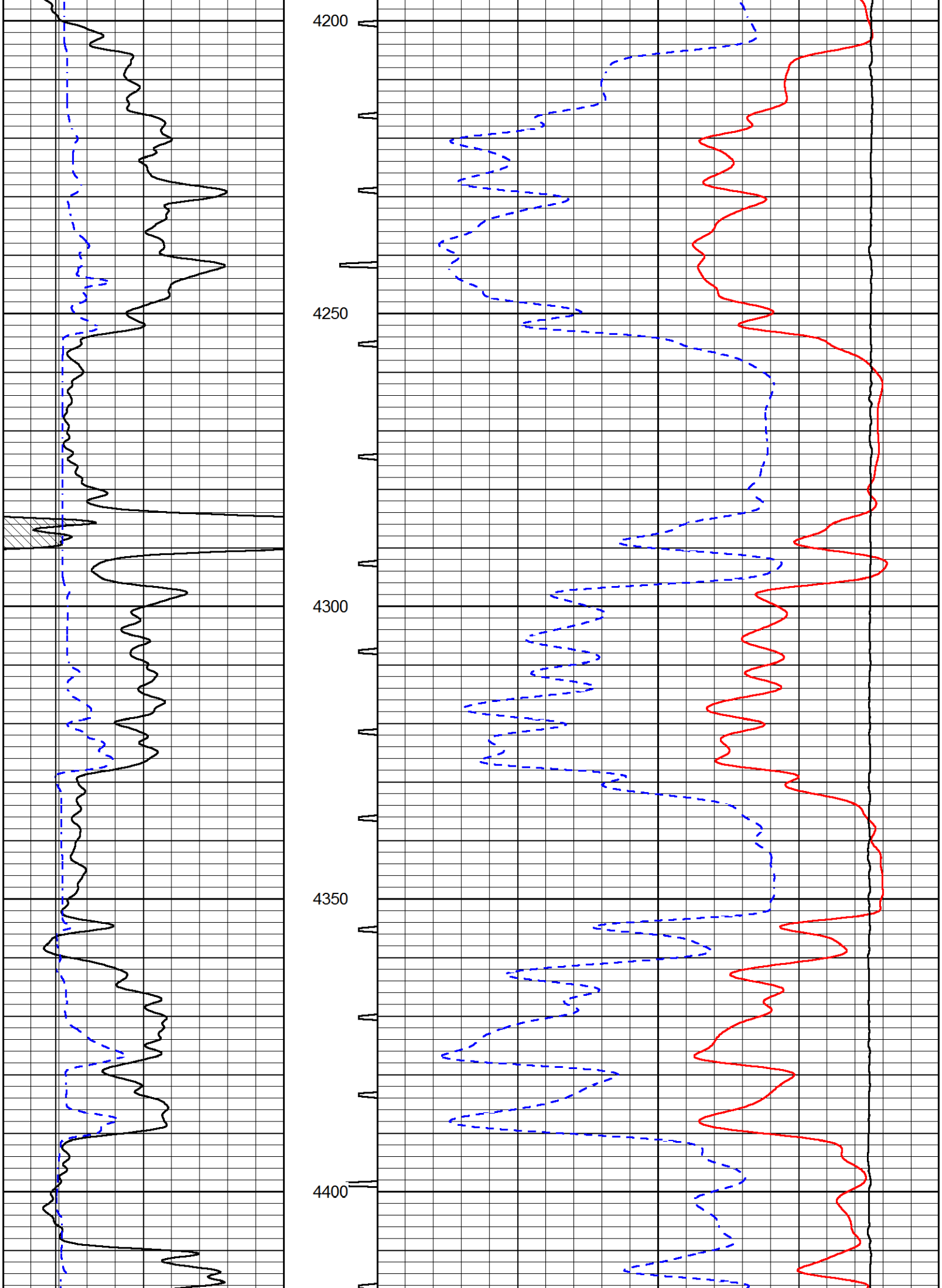

3100
3150
3200
3250
3300

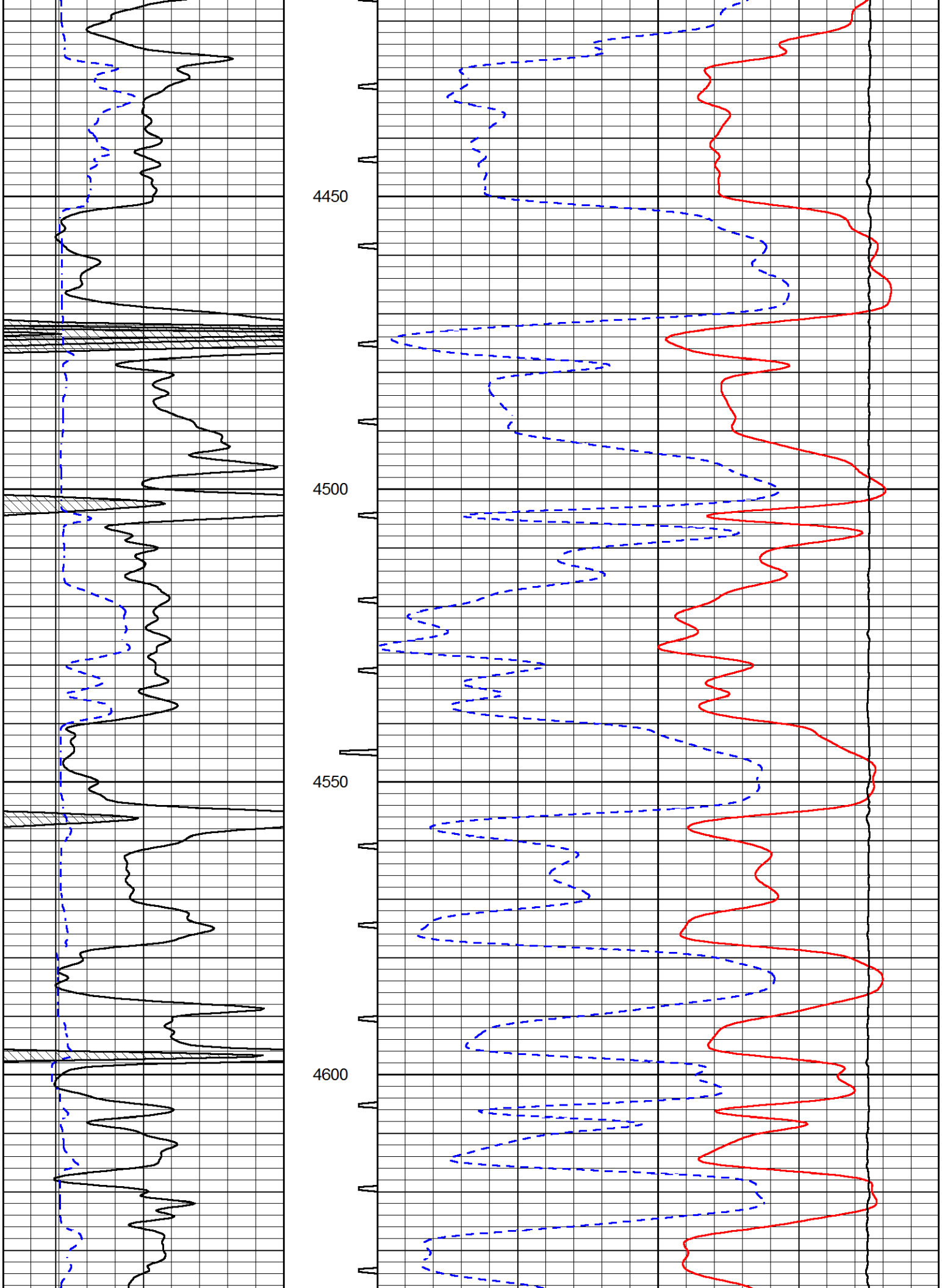

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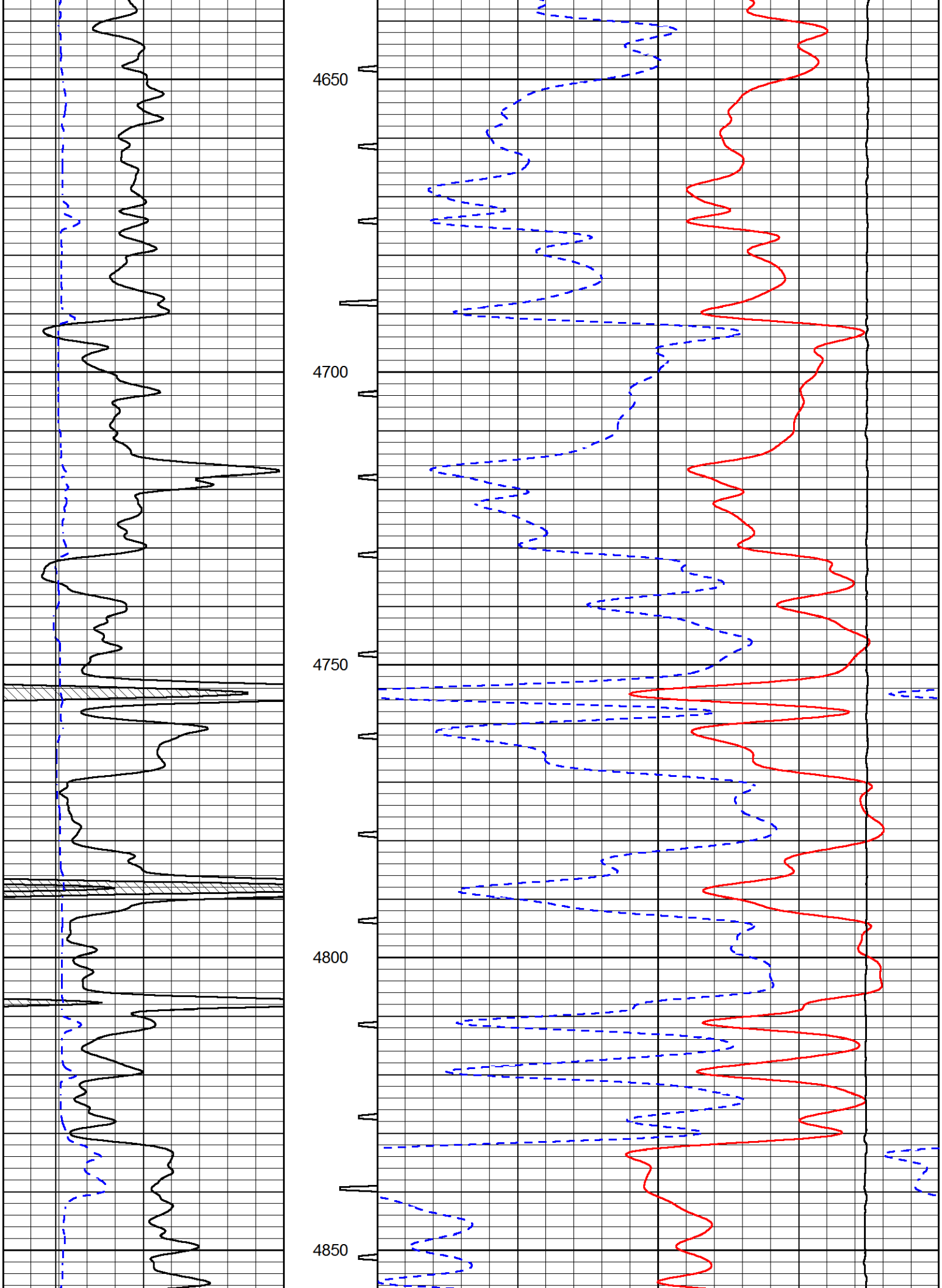

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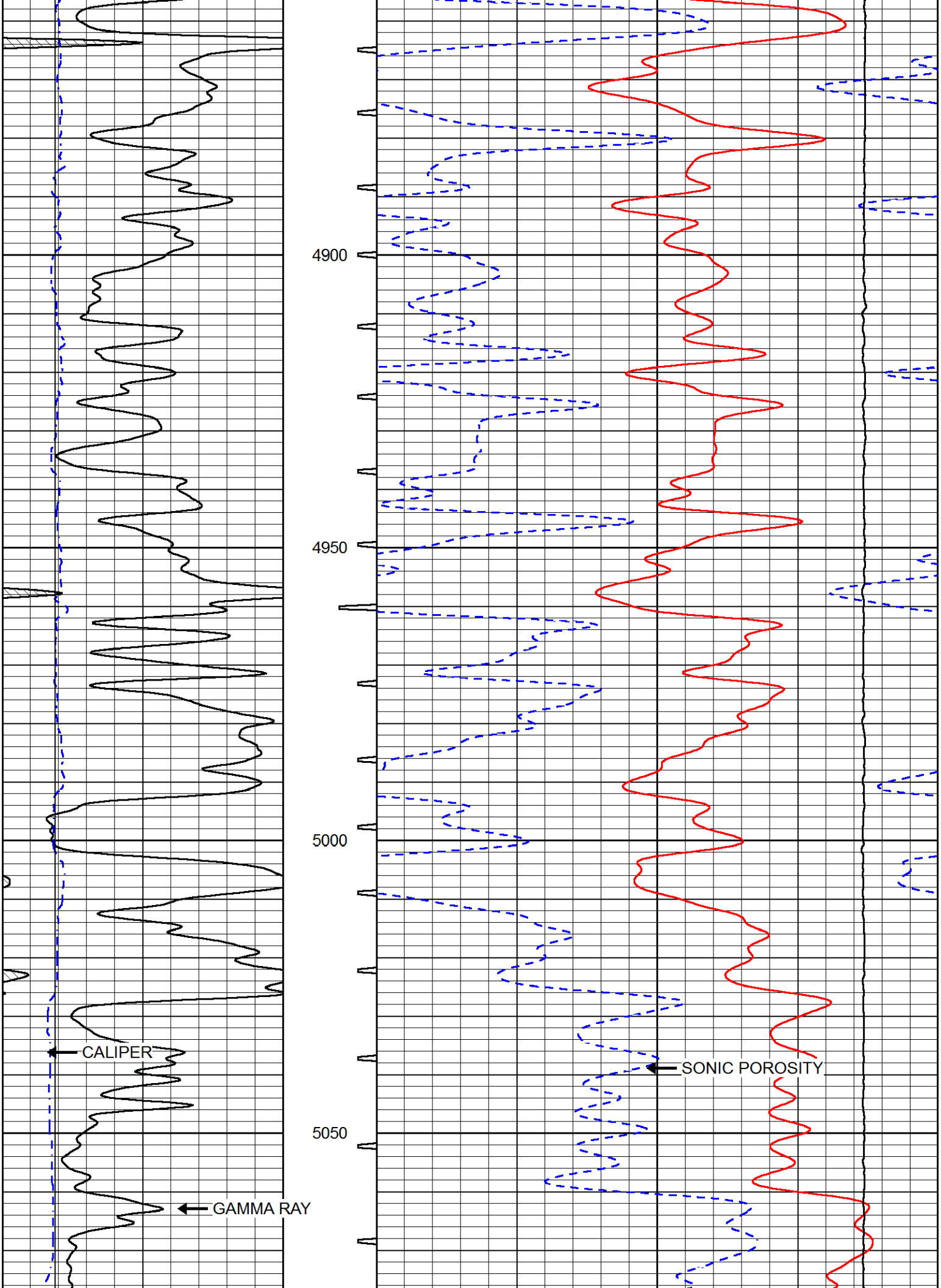

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3950

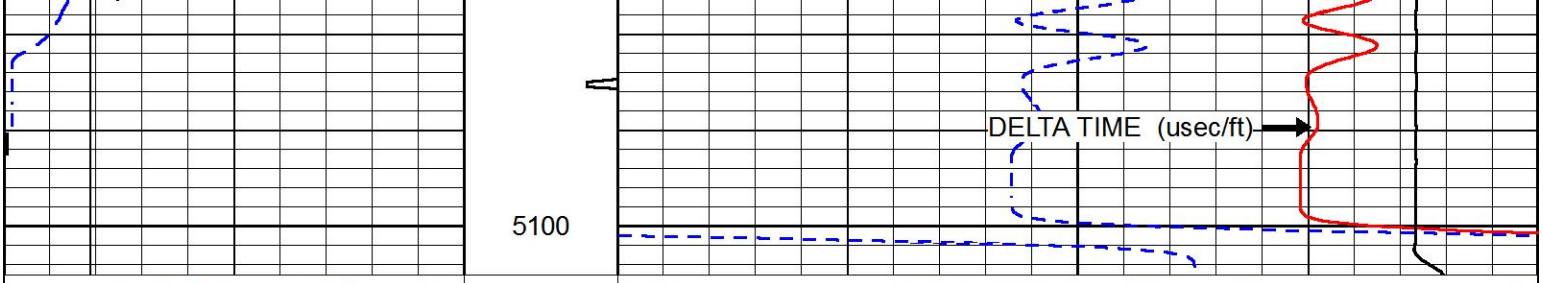

4000
4050
4100
4150


4200
4250
4300
4350
4400


4450
4500
4550
4600


4650
4700
4750
4800
4850


4900
4950
5000
5050
CALIPER
GAMMA RAY
SONIC POROSITY



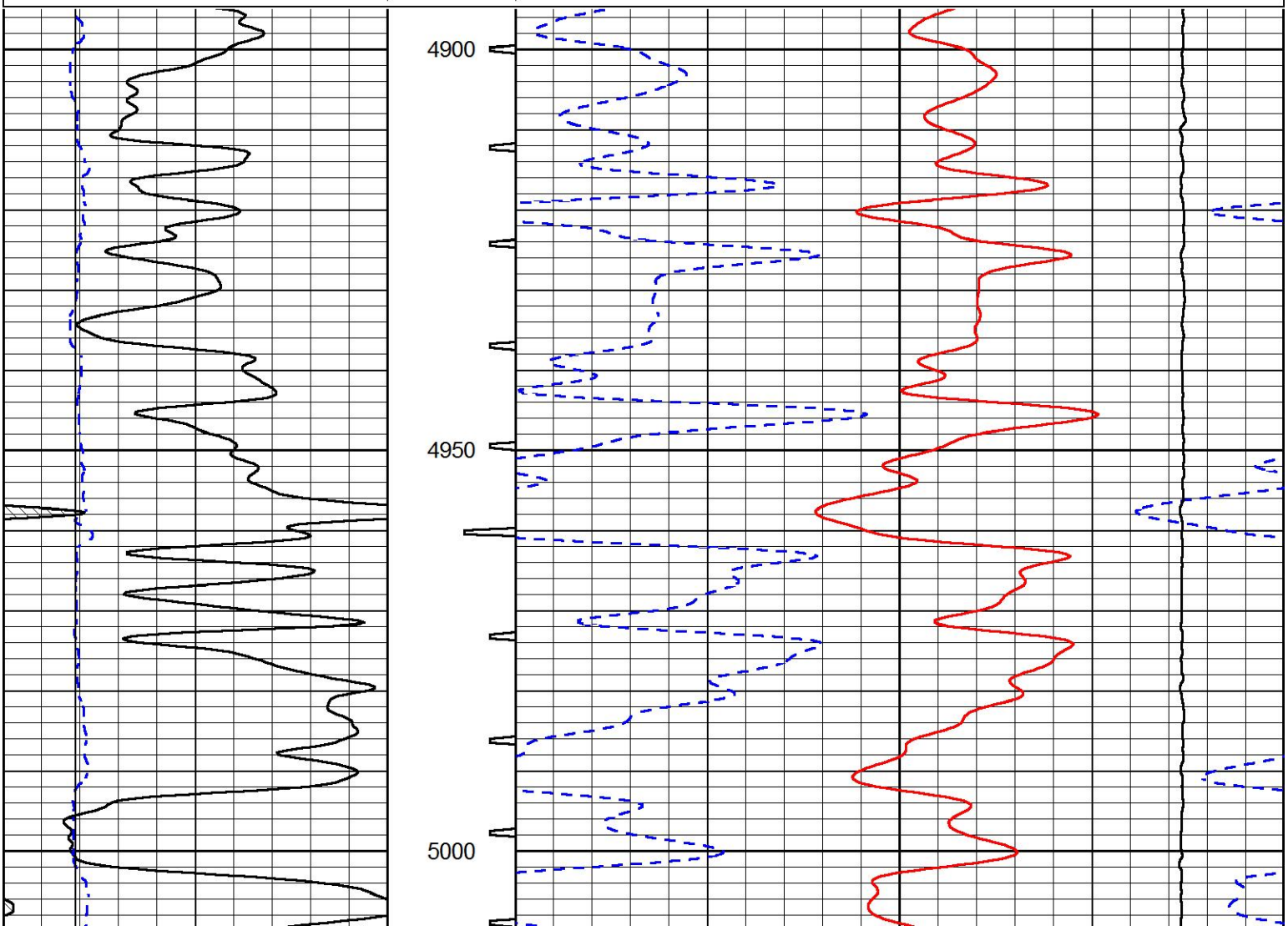
0	GAMMA RAY (GAPI)	150	SONIC INT	140	DELTA TIME (usec/ft) (usec/ft)	40
6	CALIPER (in)	16	TRAVEL TIME	30	SONIC POROSITY (pu)	-10
6	BIT SIZE	16	(msec)	15000	LINE TENSION (lb)	0

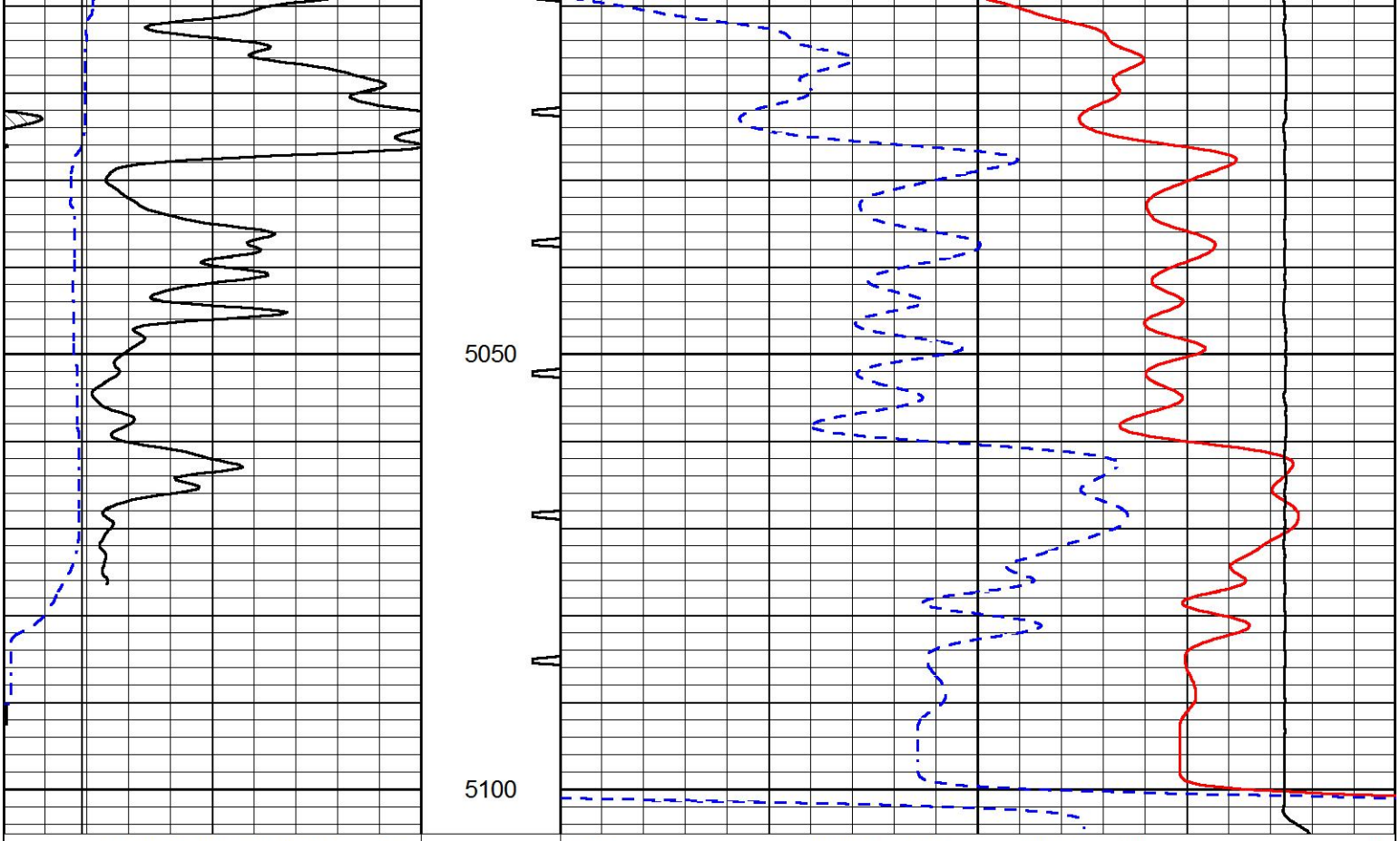
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REPEAT SECTION

Database File	murfin_banister_a_1_22.db
Dataset Pathname	stack/pass2.1
Presentation Format	sonic
Dataset Creation	Sun Apr 15 10:58:09 2018
Charted by	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	SONIC INT	140	DELTA TIME (usec/ft) (usec/ft)	40
6	CALIPER (in)	16	TRAVEL TIME	30	SONIC POROSITY (pu)	-10
6	BIT SIZE	16	(msec)	15000	LINE TENSION (lb)	0





0	GAMMA RAY (GAPI)	150	SONIC INT	140	DELTA TIME (usec/ft) (usec/ft) 40
6	CALIPER (in)	16	TRAVEL TIME	30	SONIC POROSITY (pu) -10
6	BIT SIZE	16	(msec)	15000	LINE TENSION (lb) 0

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