



**BOREHOLE
COMPENSATED
SONIC
LOG**

Company Coachman Energy Operating
 Well Penney 1-14-15-20
 Field Wildcat
 County Ellis
 State Kansas

Company Coachman Energy Operating Company, LLC
 Well Penney 1-14-15-20
 Field Wildcat
 County Ellis State Kansas

Location: API #: 15 051 26867
 125' FSL & 555' FEL
 SEC 14 TWP 15S RGE 20W
 Permanent Datum Ground Level Elevation 2044'
 Log Measured From KB 8' AGL
 Drilling Measured From KB
 Other Services
 DIL
 CDNL
 ML
 Elevation
 K.B. 2052'
 D.F. 2051'
 G.L. 2044'

Date	3-27-17
Run Number	TWO
Depth Driller	3770'
Depth Logger	3772'
Bottom Logged Interval	3764'
Top Log Interval	200
Casing Driller	8 5/8" @ 221'
Casing Logger	221'
Bit Size	7 7/8"
Type Fluid in Hole	Chemical
Density / Viscosity	9.4/55
pH / Fluid Loss	10.5/8.8
Source of Sample	Pit
Rm @ Meas. Temp	2.9@72degf
Rmf @ Meas. Temp	2.17@72degf
Rmc @ Meas. Temp	3.48@72degf
Source of Rmf / Rmc	Calculated
Rm @ BHT	1.86@112degf
Time Circulation Stopped	2:00 p.m.
Time Logger on Bottom	6:30 p.m
Maximum Recorded Temperature	112degf
Equipment Number	T-127
Location	Hays, KS
Recorded By	Casey Patterson
Witnessed By	Mr. Bob Plante
	Mr. Charlie Sturdavant

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, 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. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

Antonino Rd. West to 180th Ave., then 3 mi. South to Chetolah Gold Rd.,
 then 1mi West to cattle Guard on county Rd.,
 Continue West through cattle guard this is cattle guard #1,
 West on this Rd. to the Third Cattle Guard(approx. 2 mi.)
 Approximatley 900' West of Third Cattle Guard to Ingress Path on South Side of County Rd.
 Follow path South to Location(about 1 mi South)

Thanks for using Gemini Wireline LLC
 785-625-1182

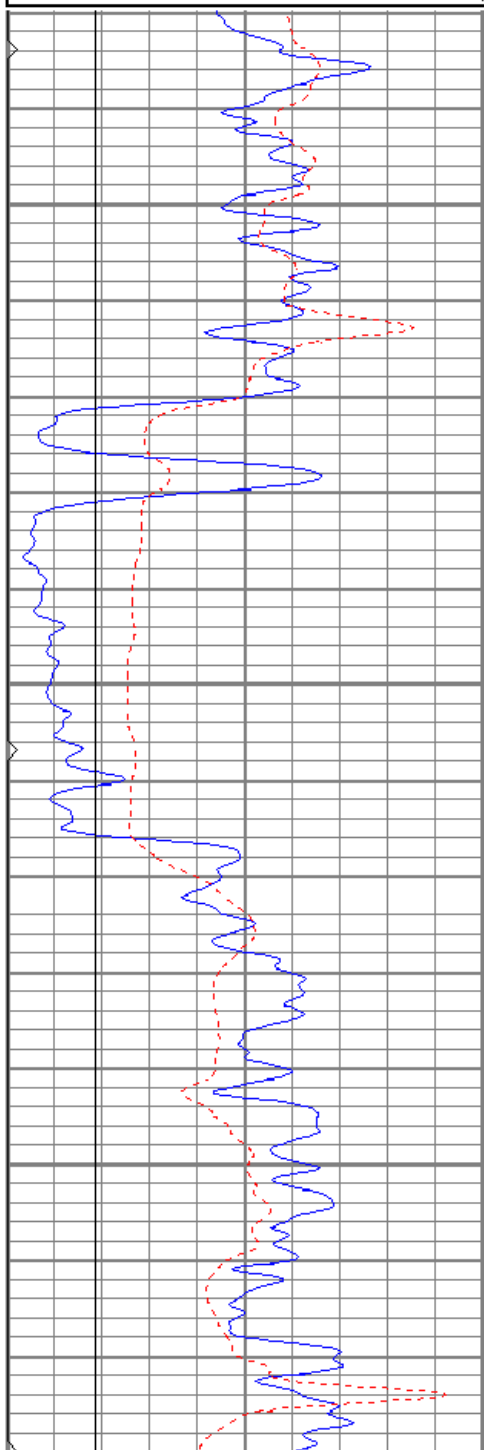


Main Pass

Database File cepenny1-14-15-20h.db
 Dataset Pathname pass5
 Presentation Format kbcs
 Dataset Creation Mon Mar 27 19:02:21 2017
 Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150
6	MCAL (in)	16
6	BOREID (in)	16
0	MINMK	50

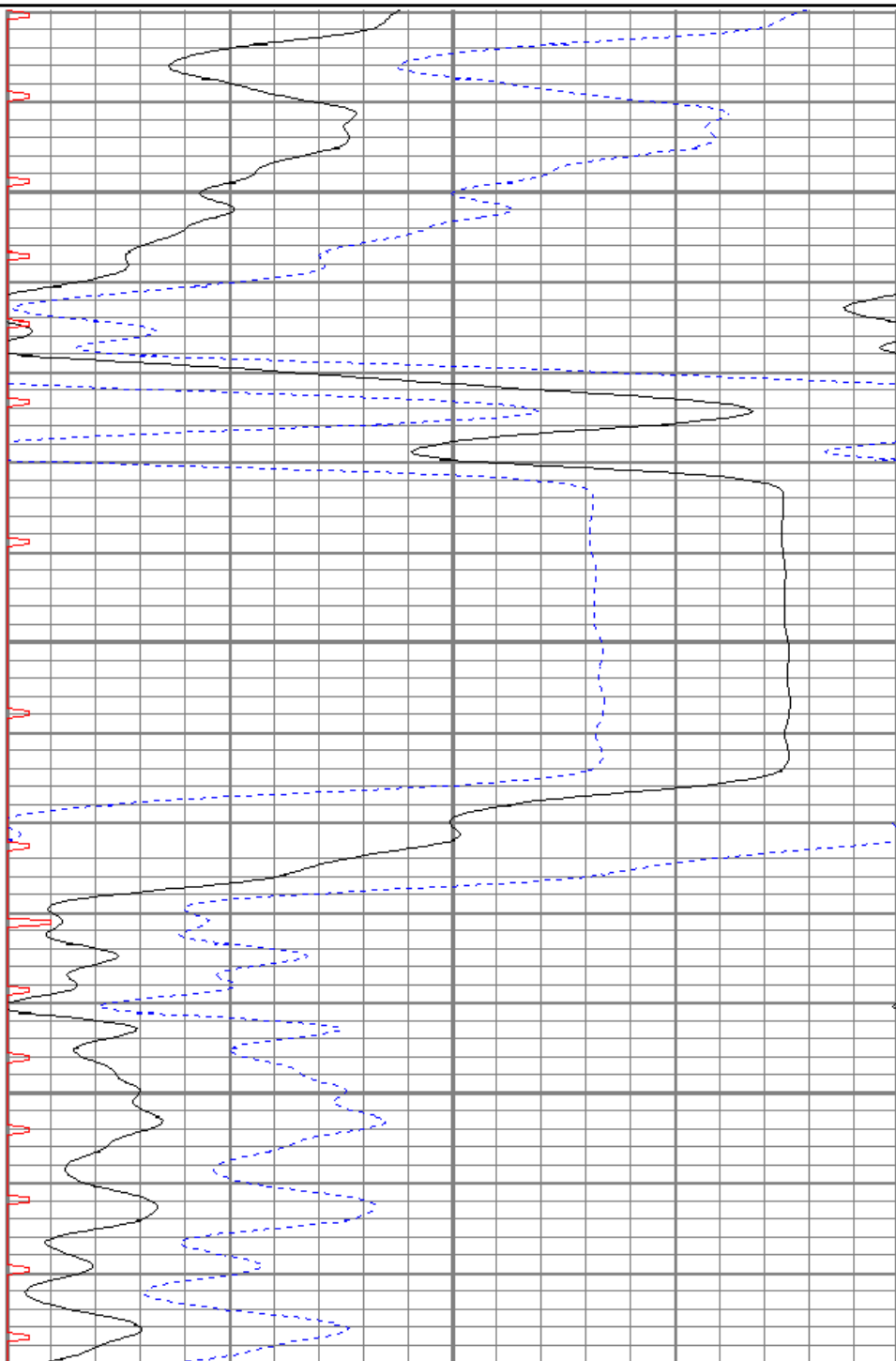
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30	SPOR (pu)	-10
0	ITT (msec)	20



1250

1300

1350



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6	MCAL (in)	16
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0	MINMK	50

140	DT (usec/ft)	40
30	SPOR (pu)	-10
0	ITT (msec)	20

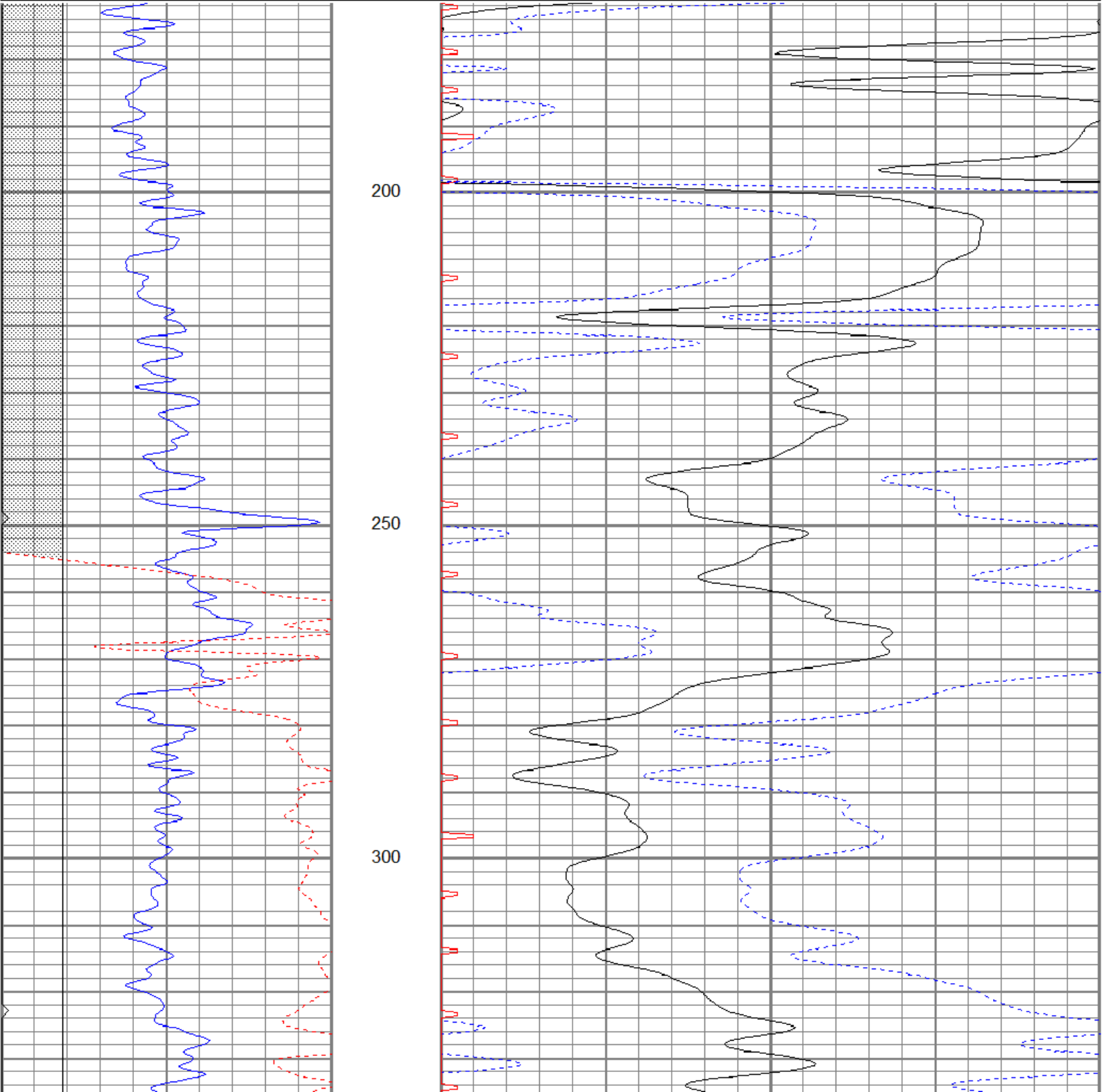


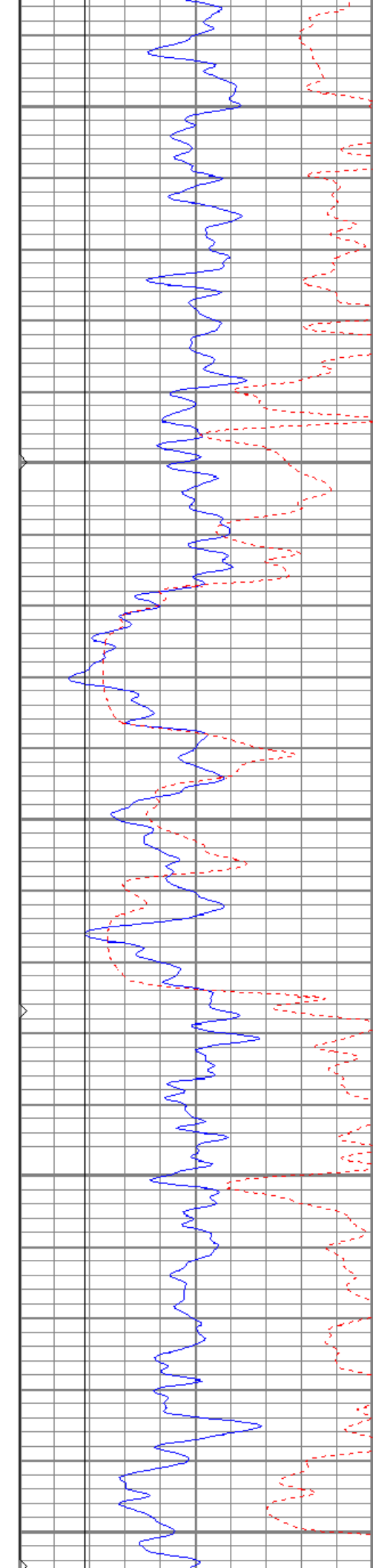
Main Pass

Database File cepenny1-14-15-20oh.db
 Dataset Pathname pass5
 Presentation Format kbc
 Dataset Creation Mon Mar 27 19:02:21 2017
 Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150
6	MCAL (in)	16
6	BOREID (in)	16
0	MINMK	50

140	DT (usec/ft)	40
30	SPOR (pu)	-10
0	ITT (msec)	20





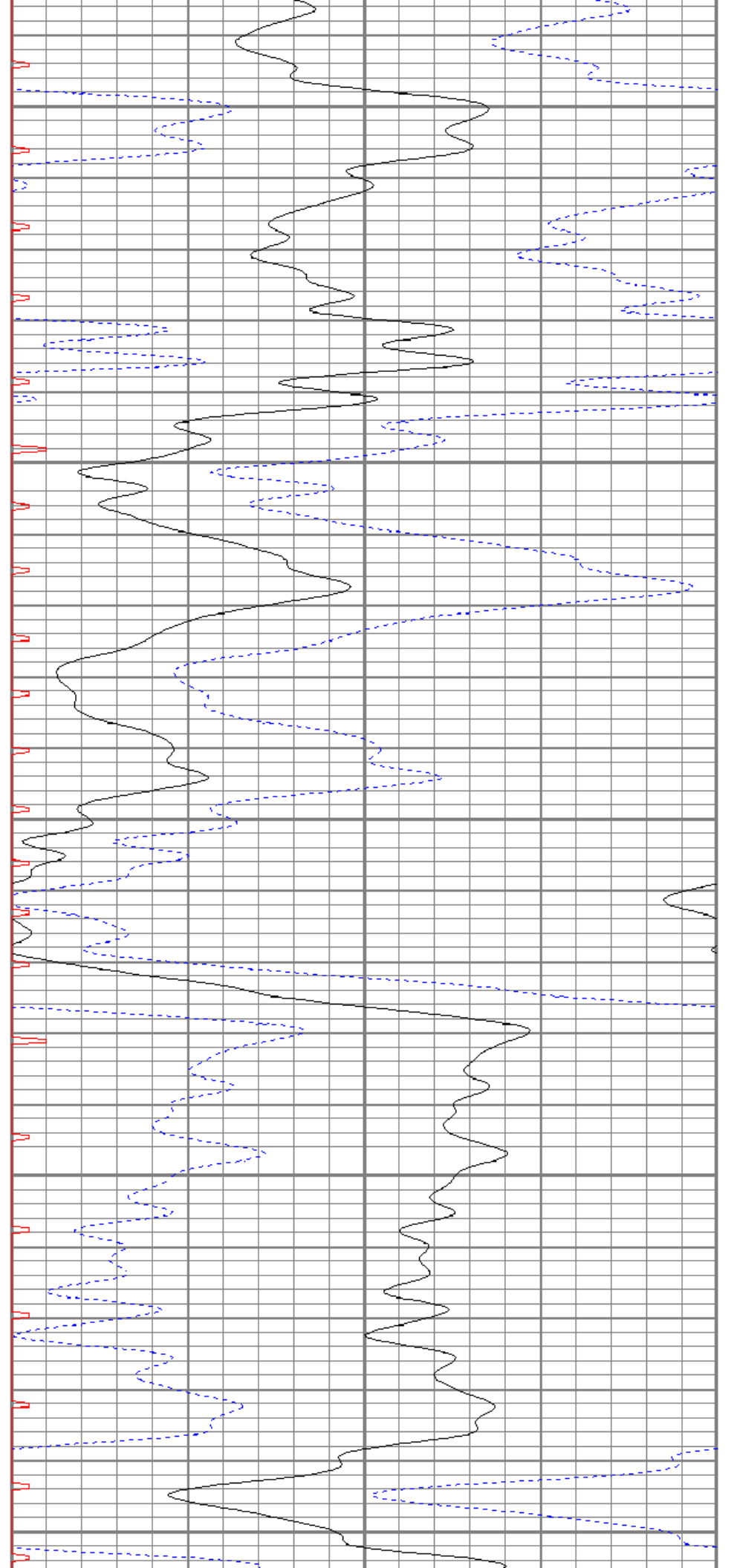
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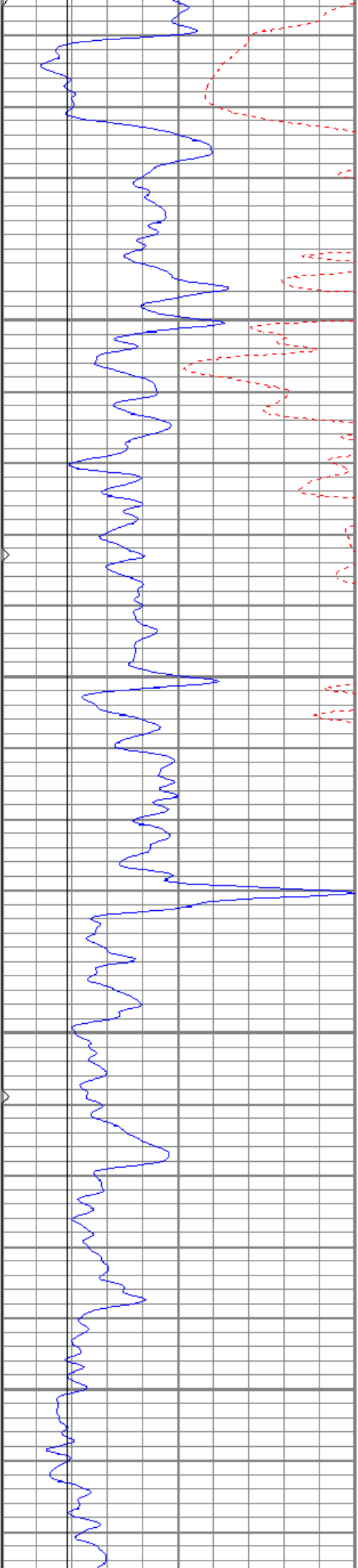
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450

500

550



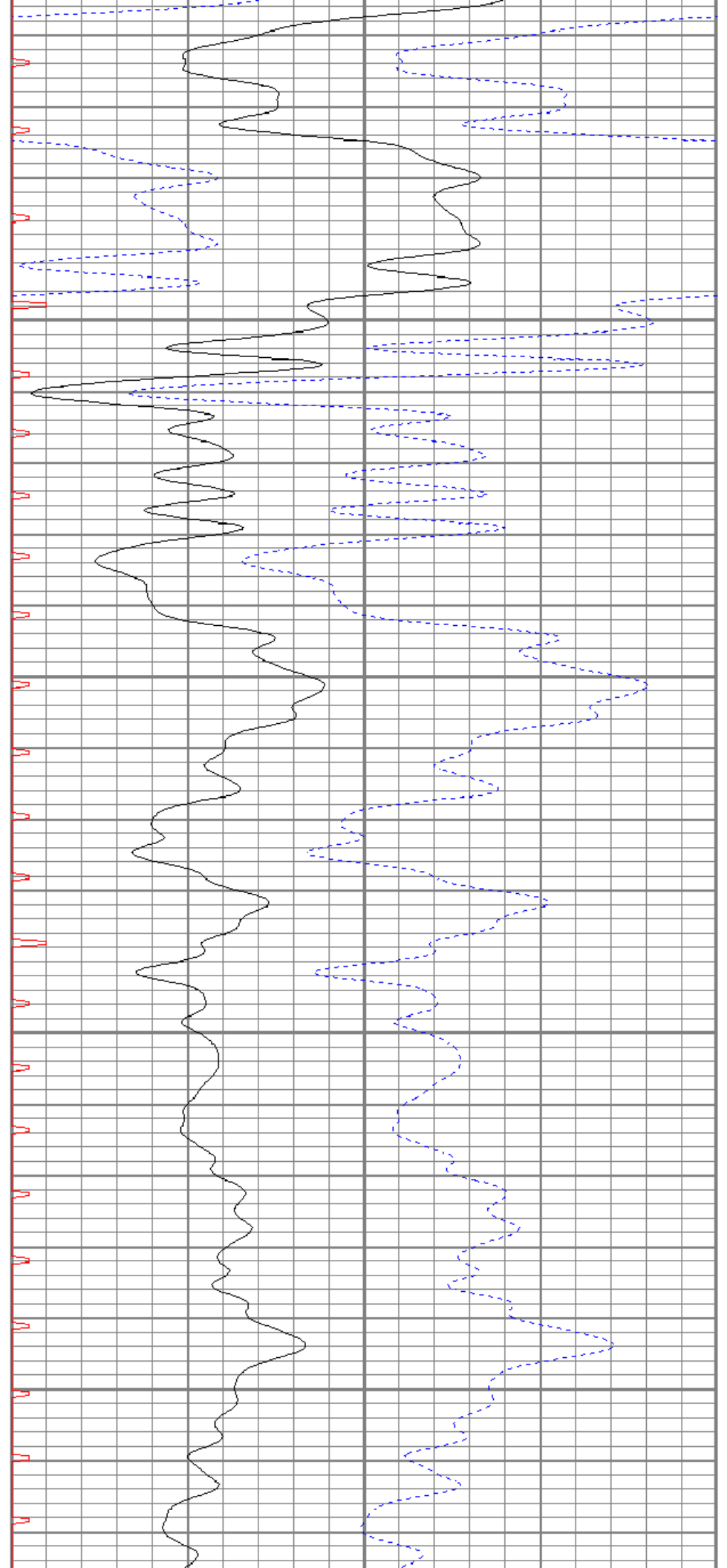


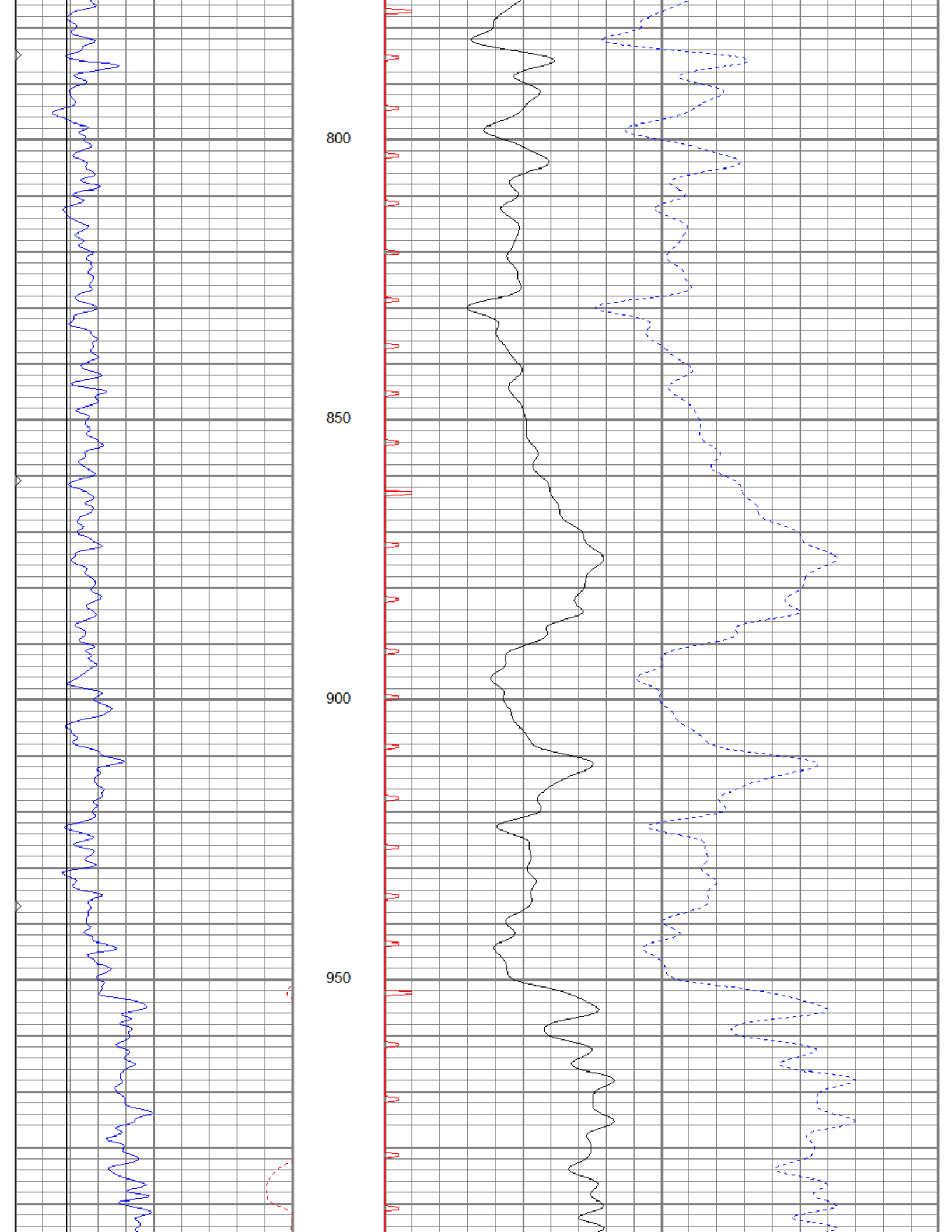
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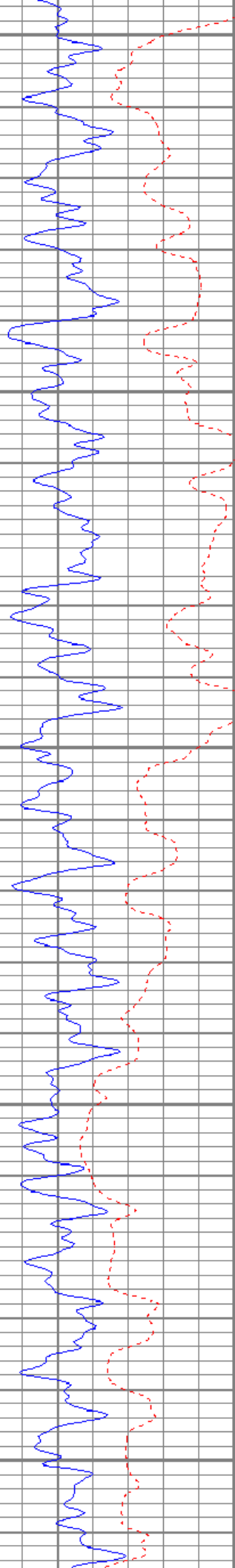
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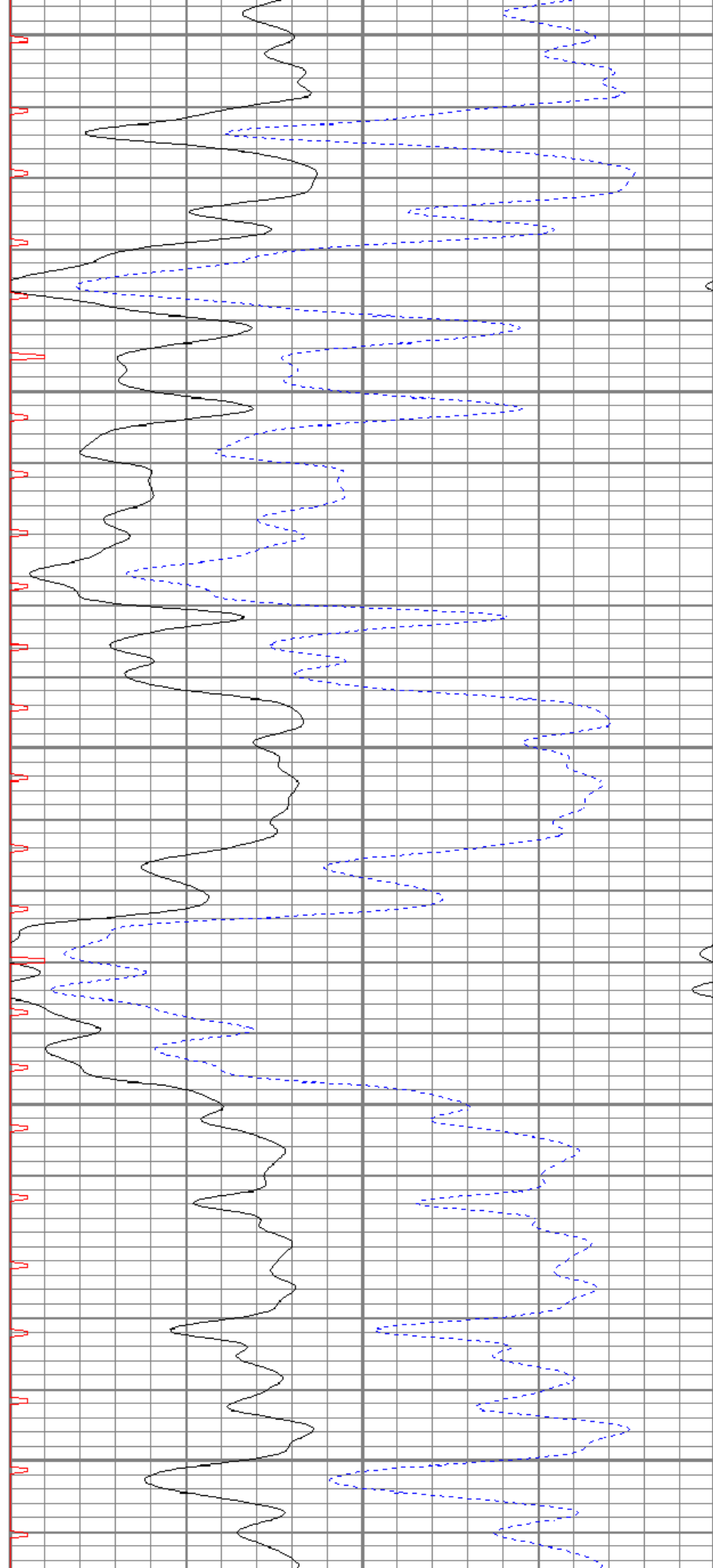
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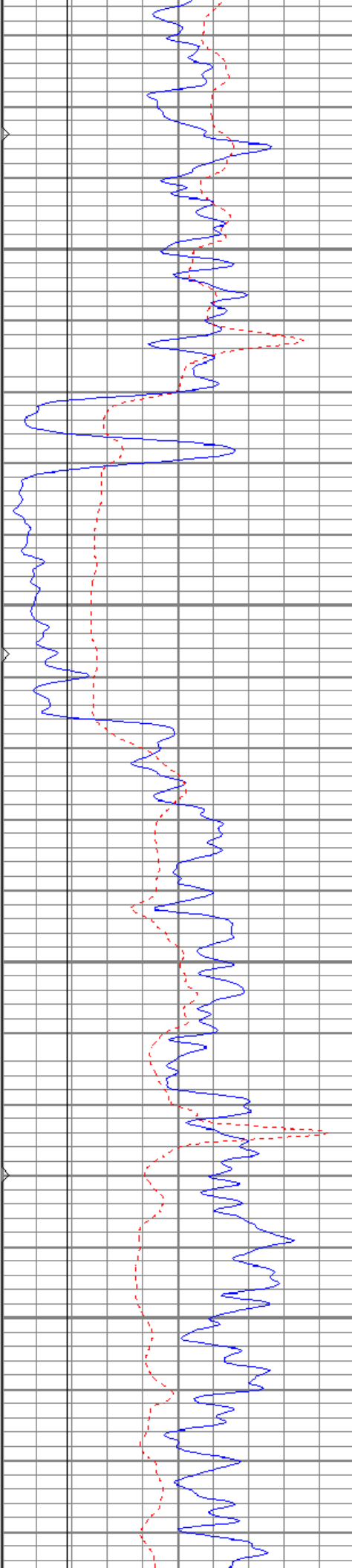
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1200



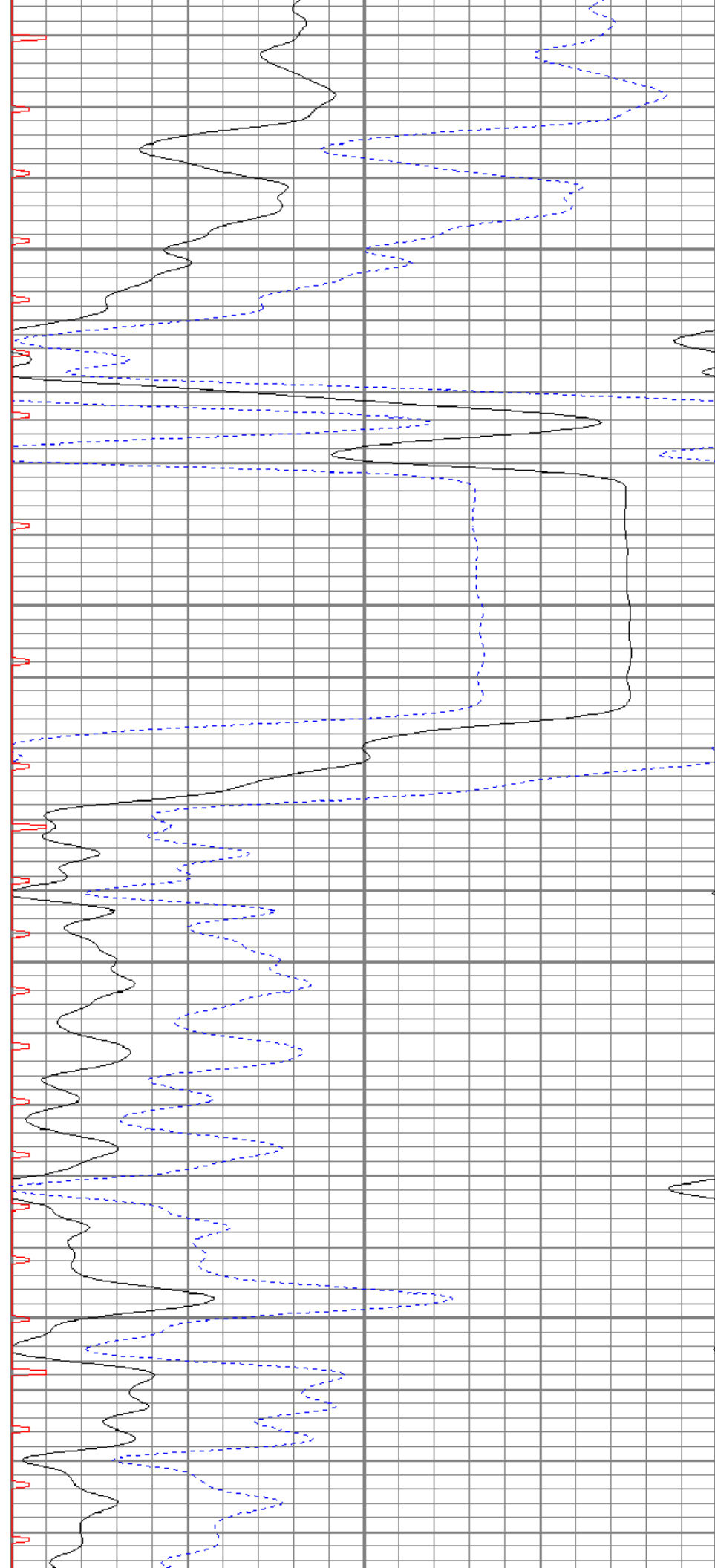


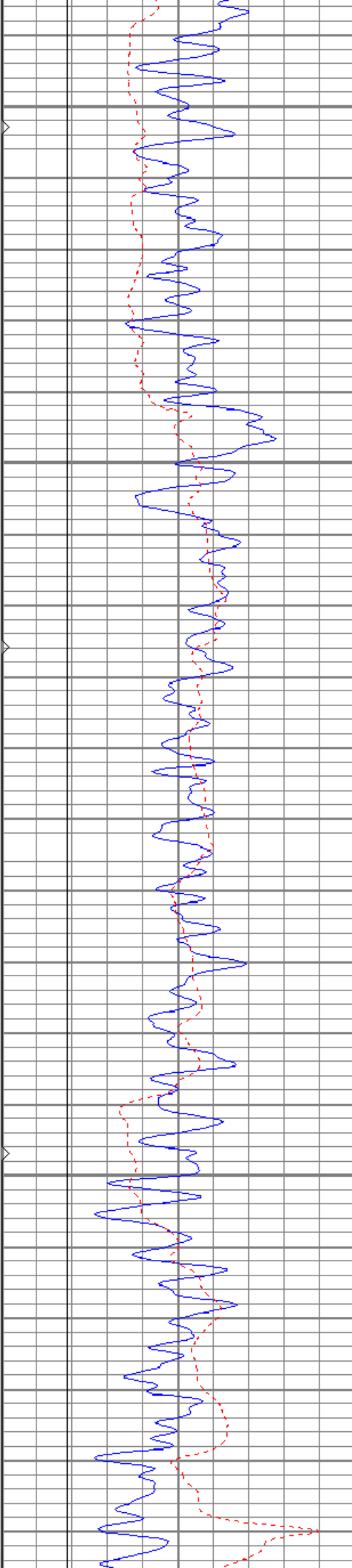
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1300

1350

1400





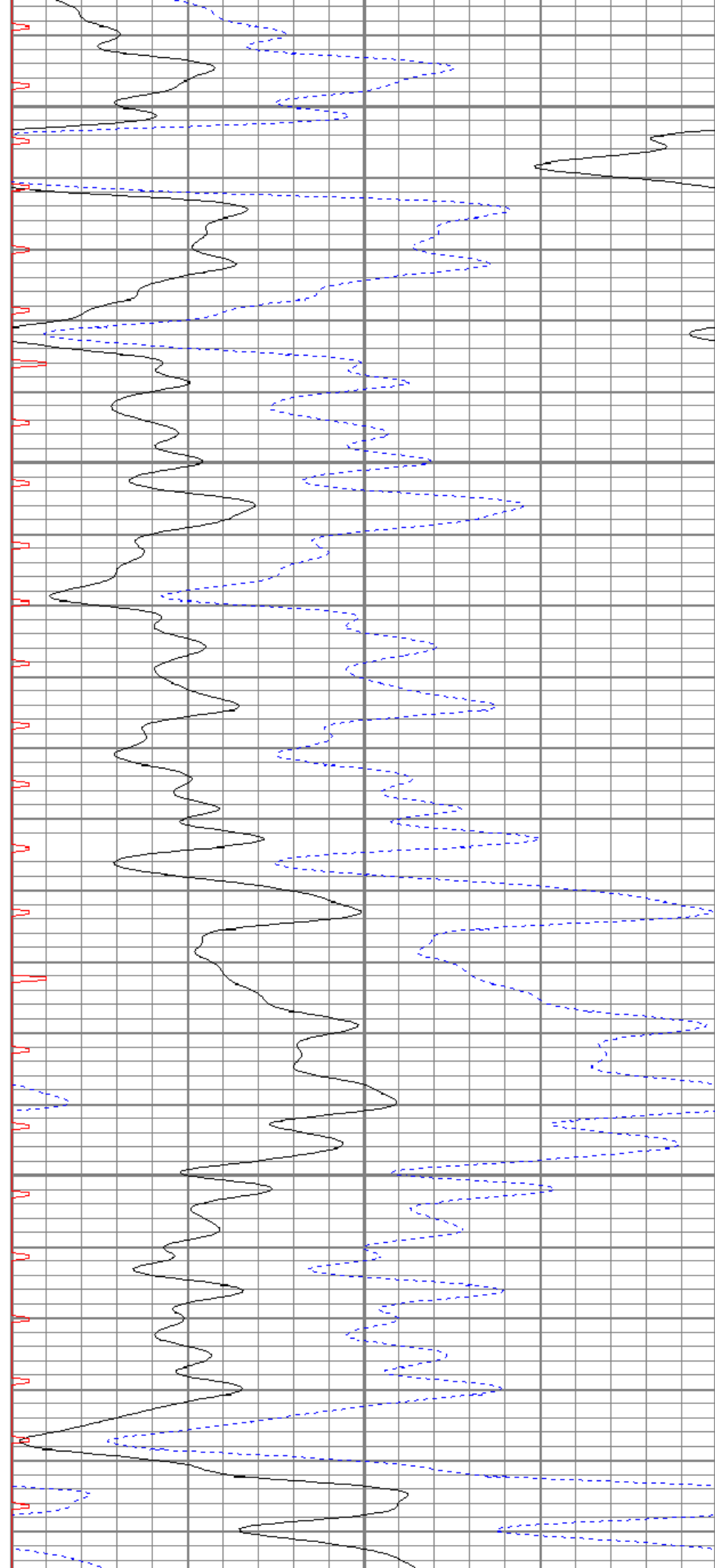
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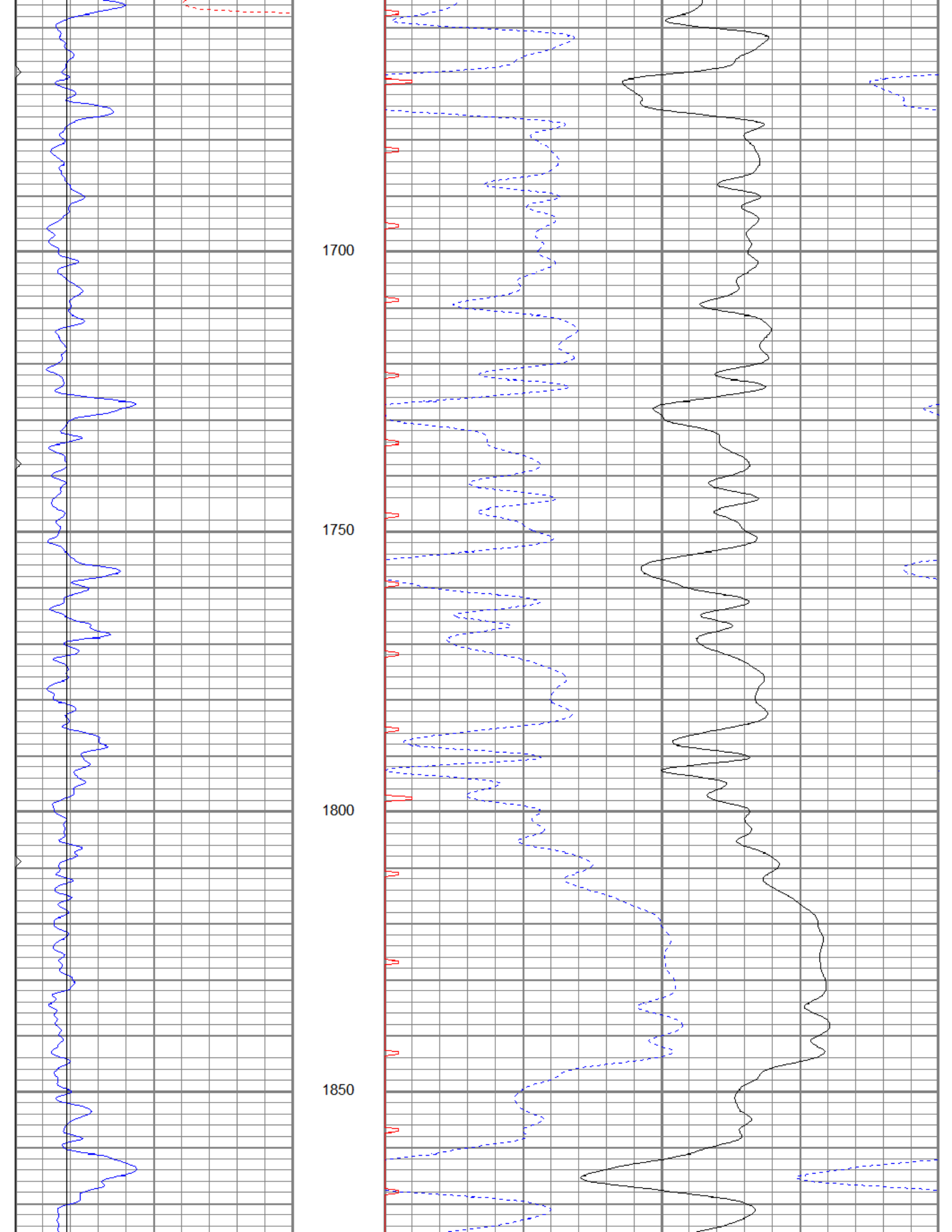
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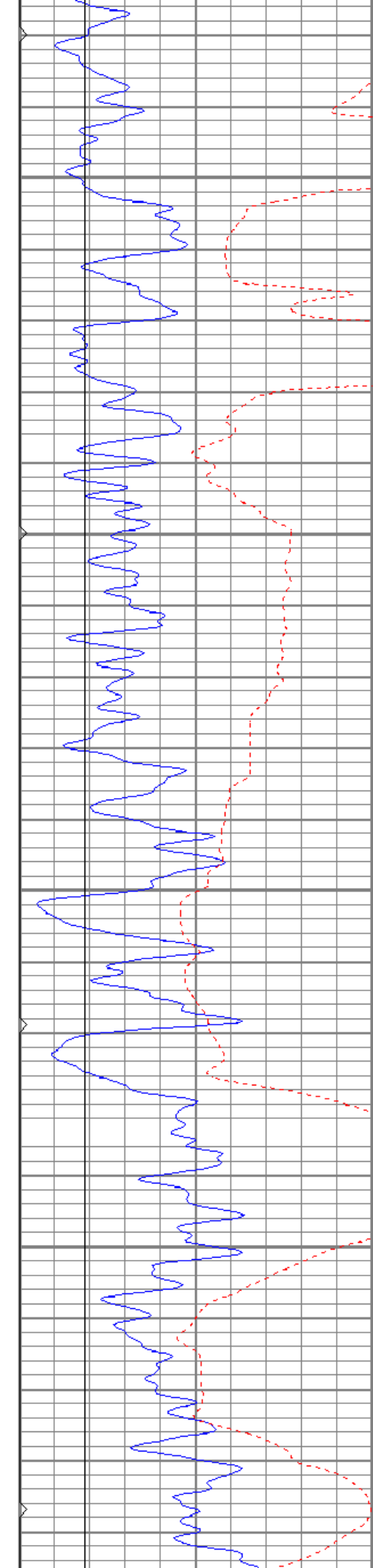
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1650





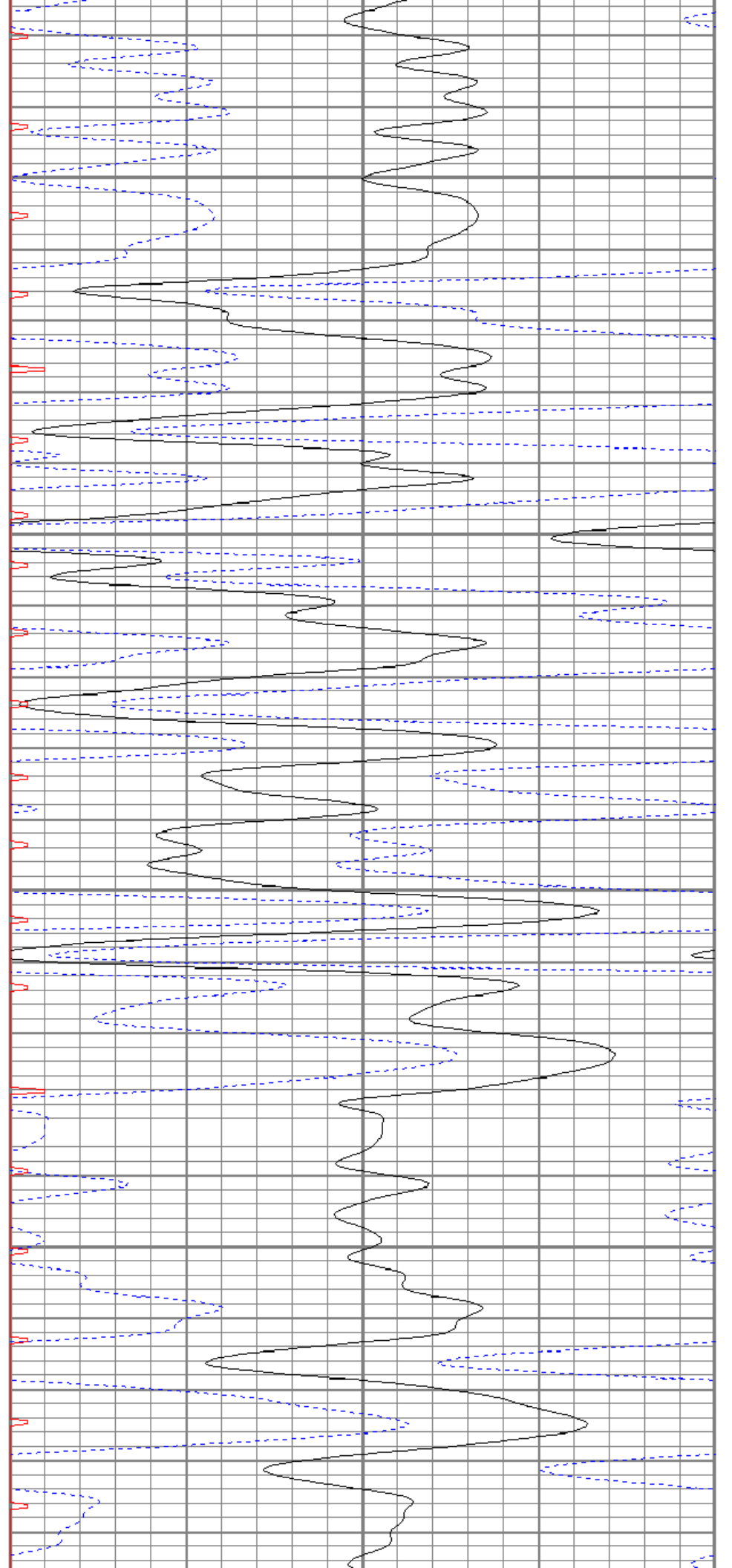


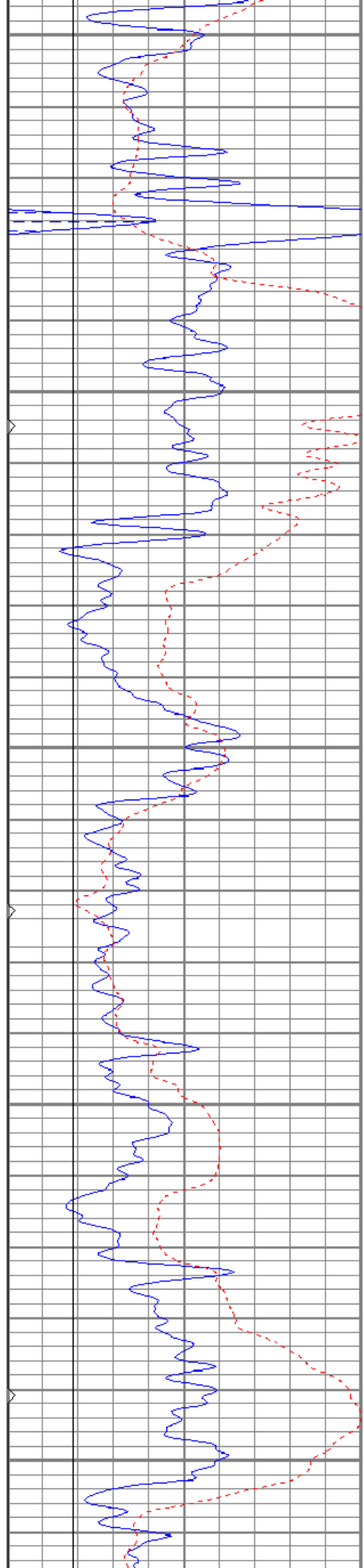
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2050





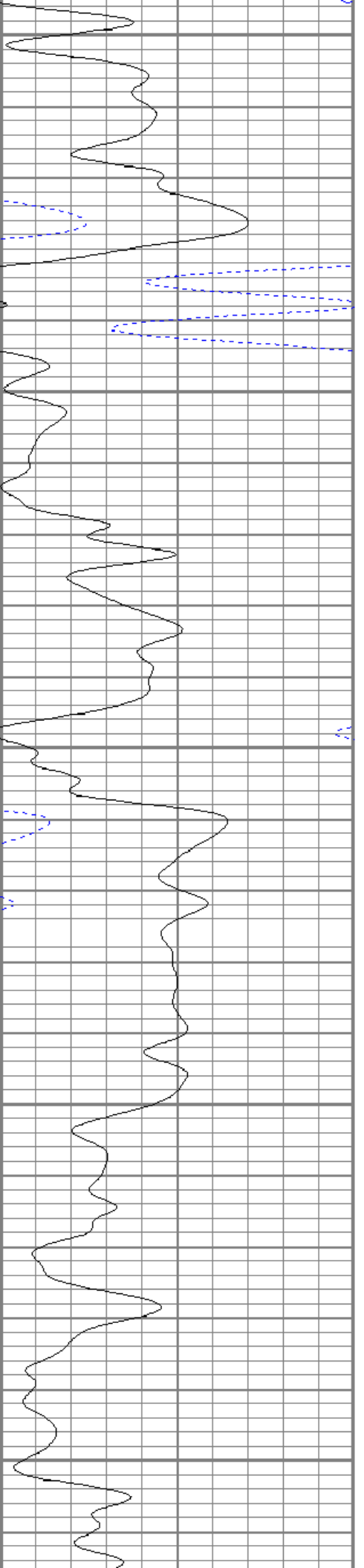
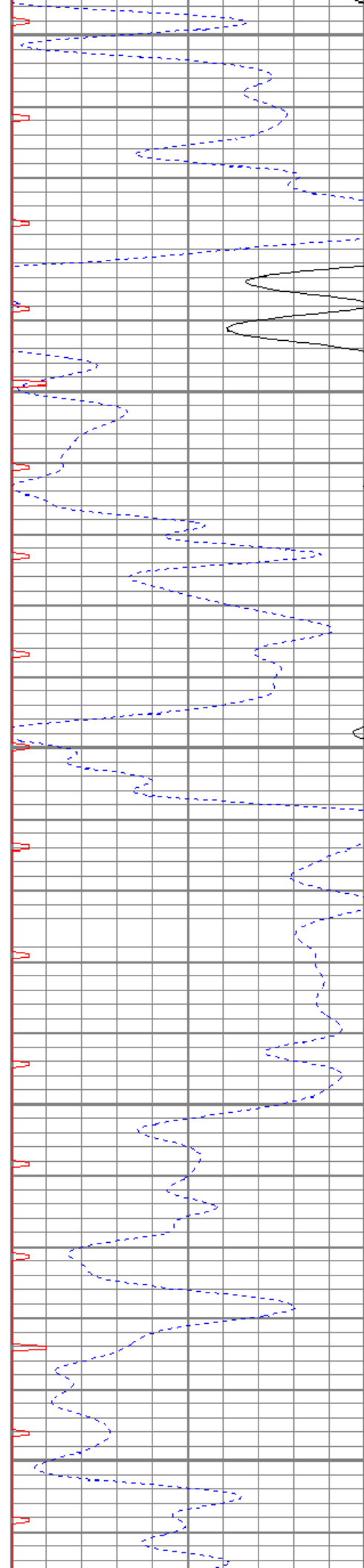
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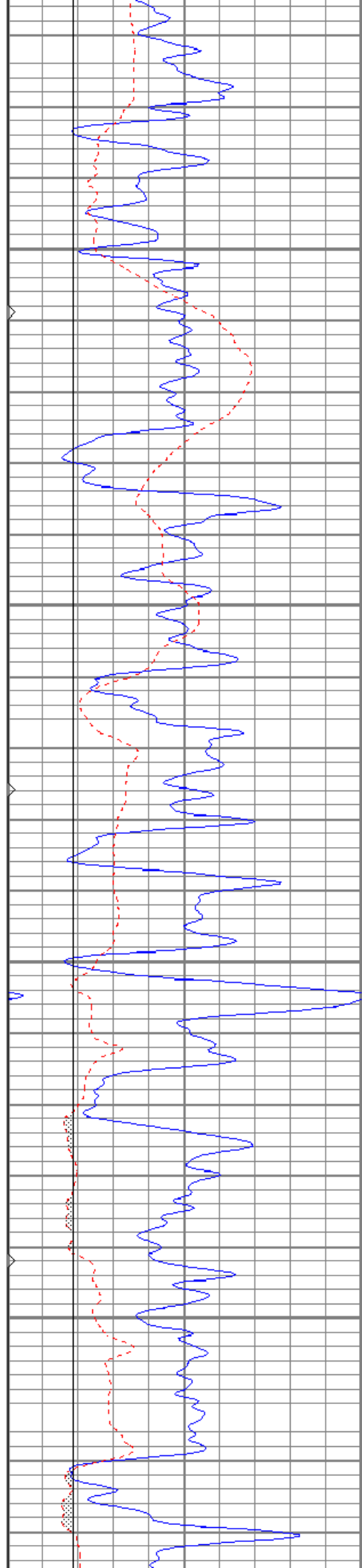
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2200

2250

2300



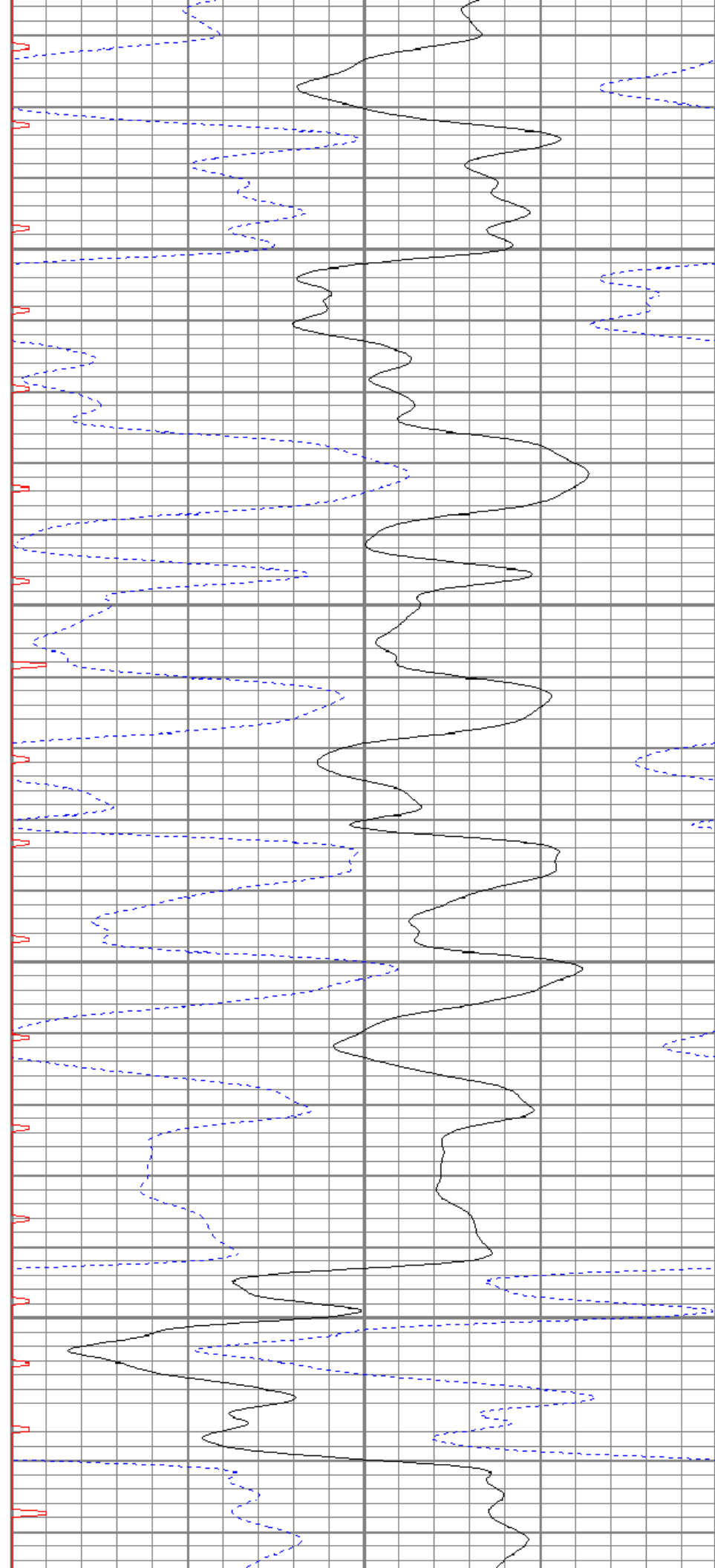


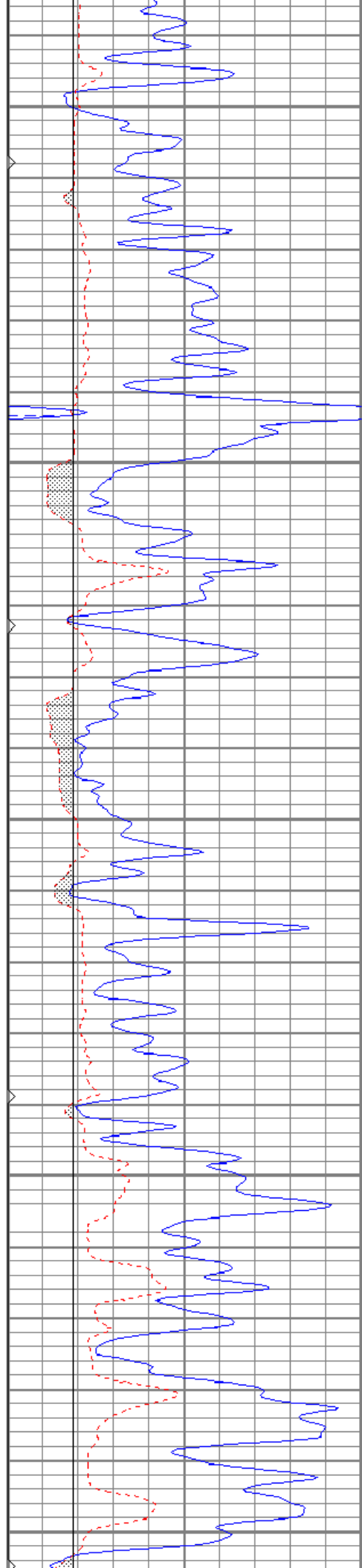
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2400

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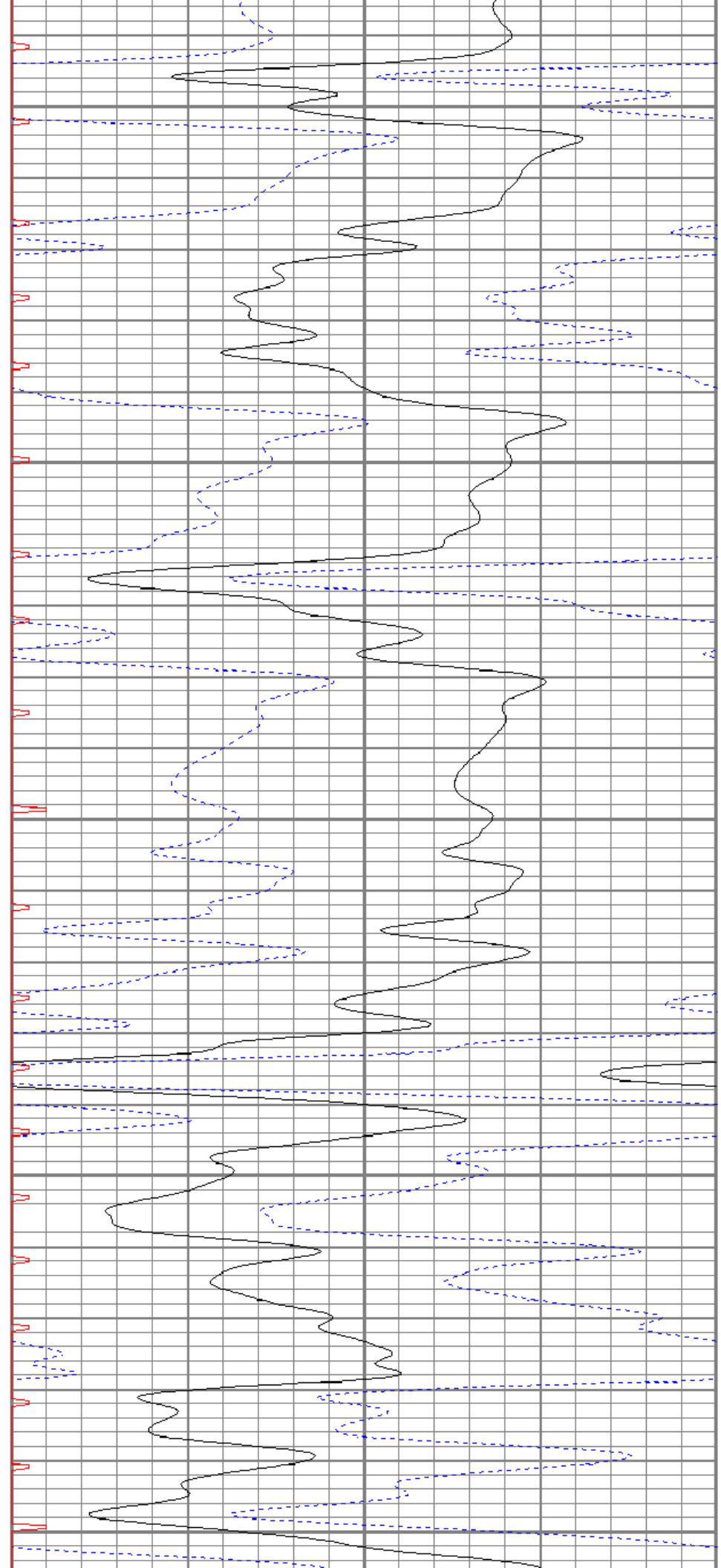
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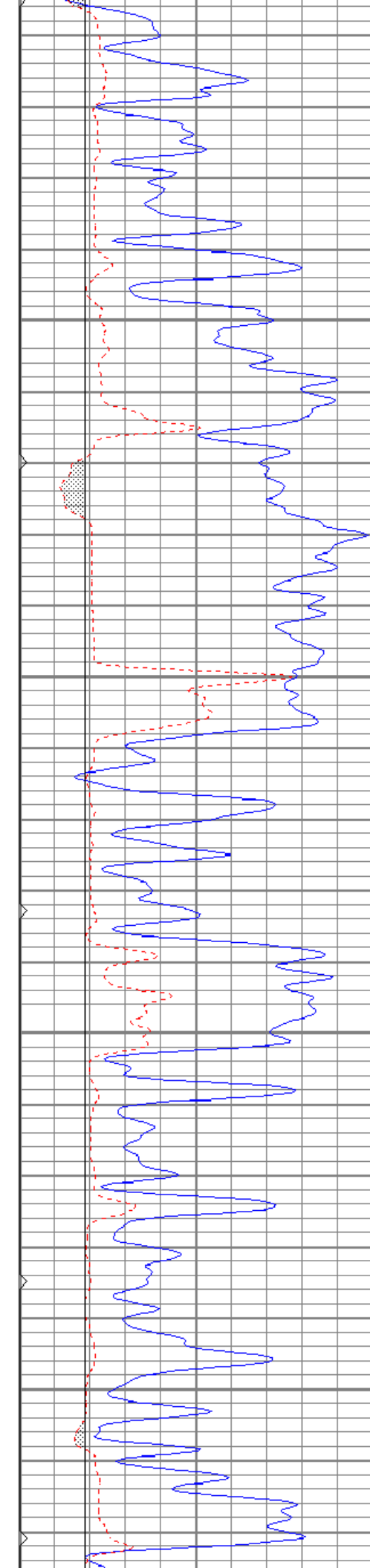
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2750



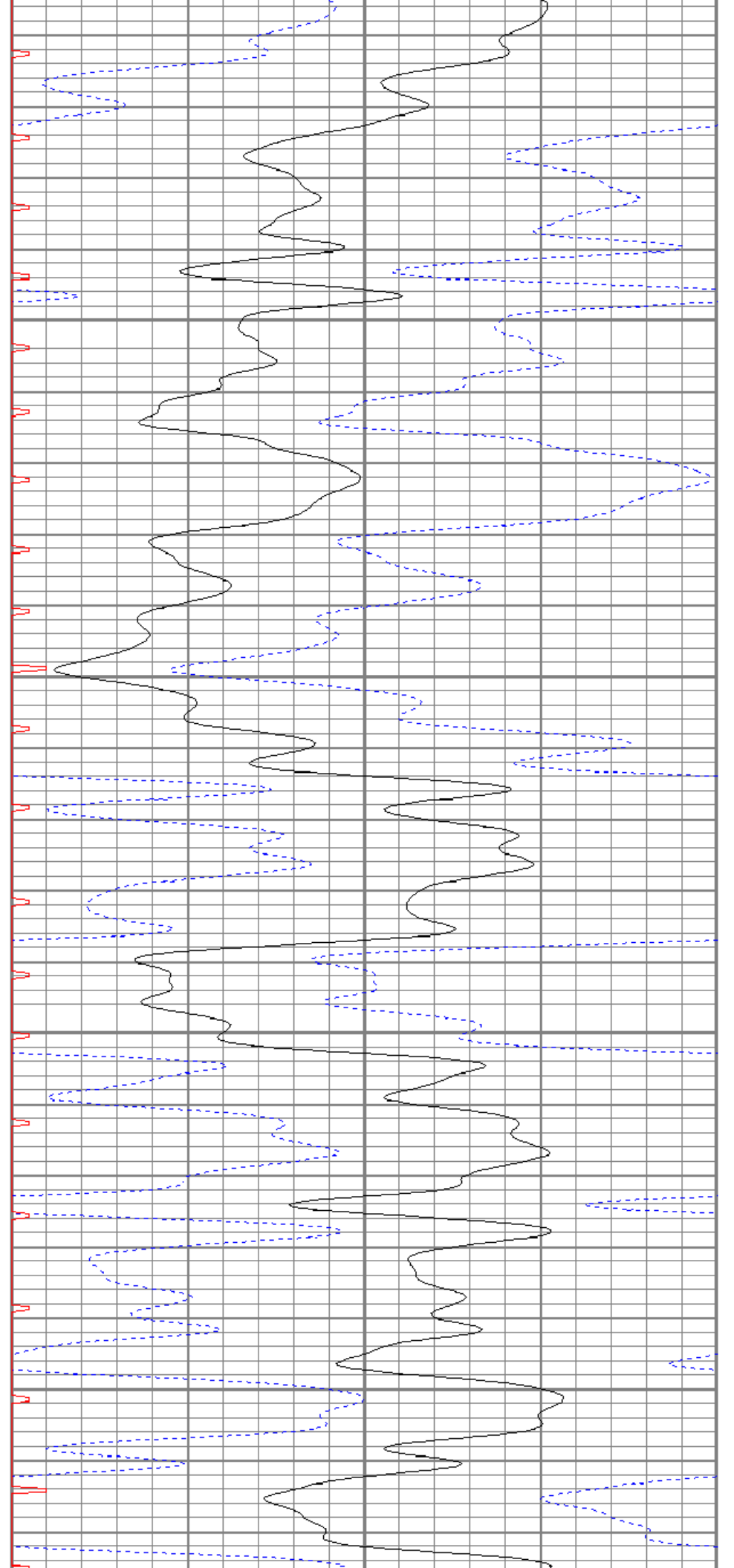


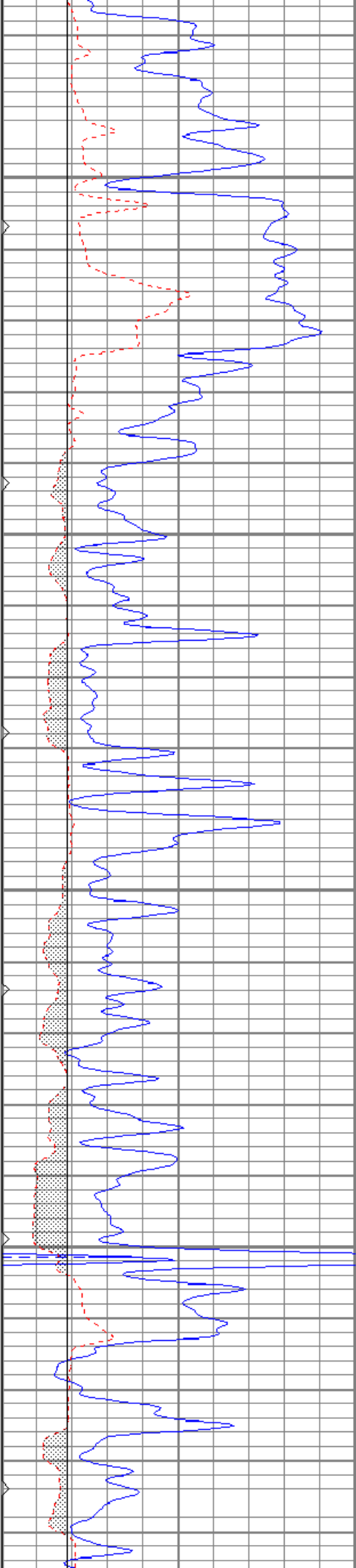
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2850

2900

2950



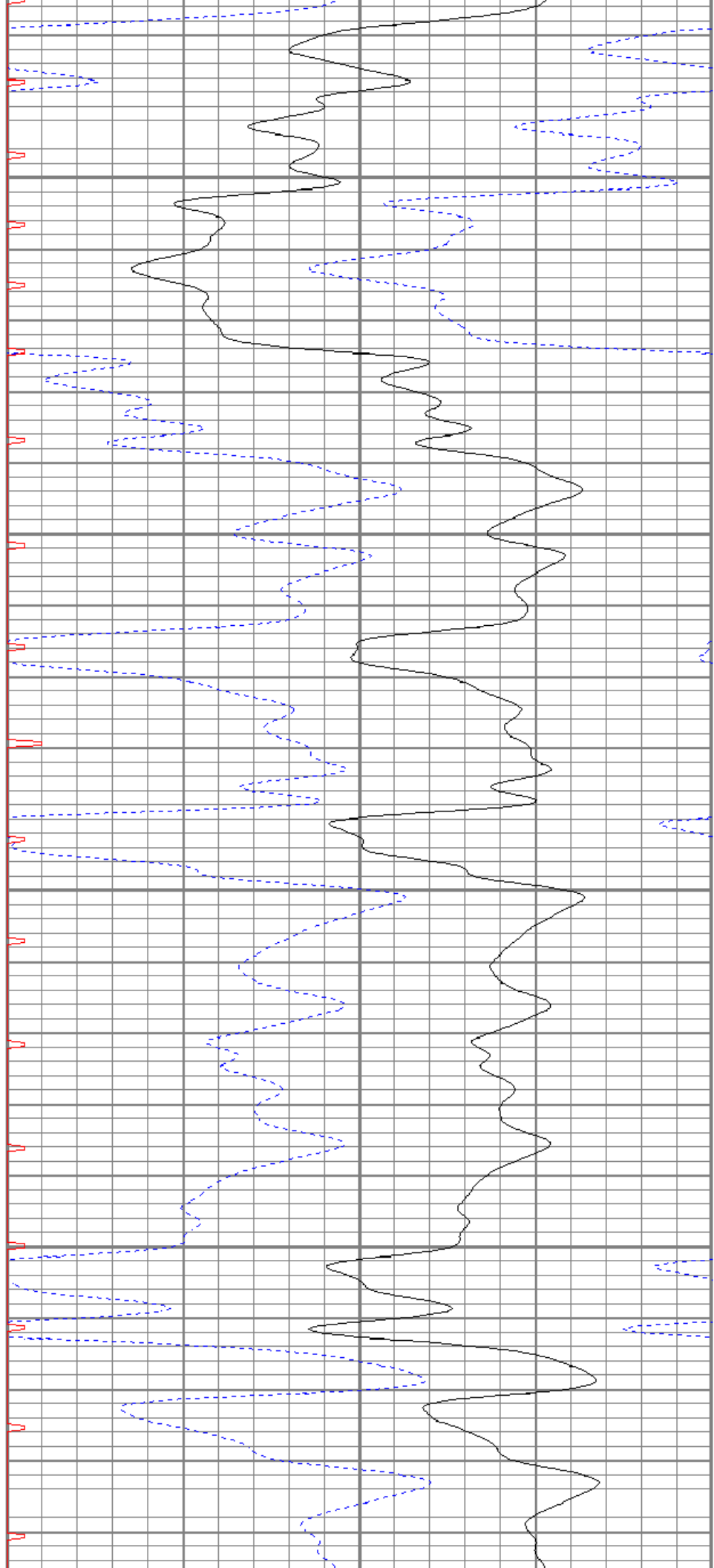


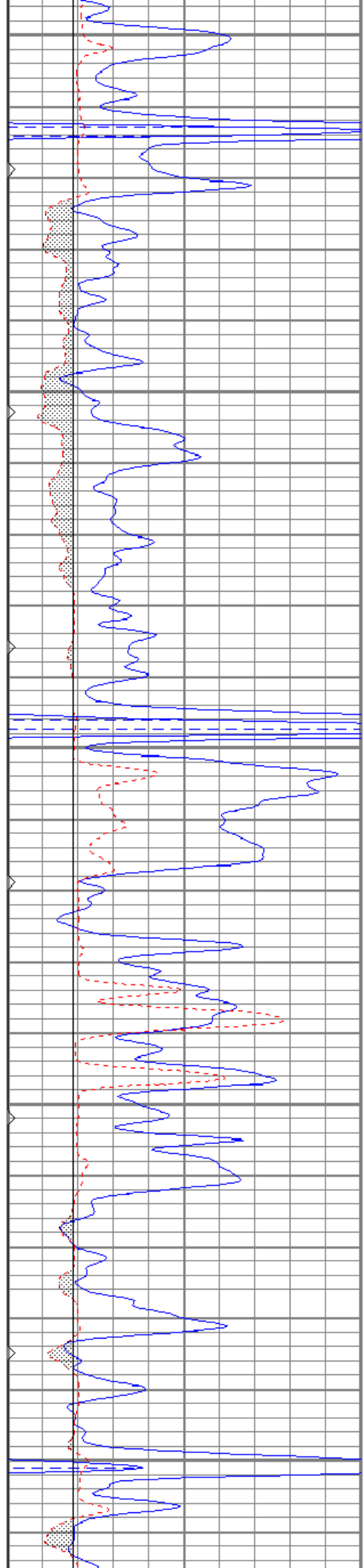
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3050

3100

3150





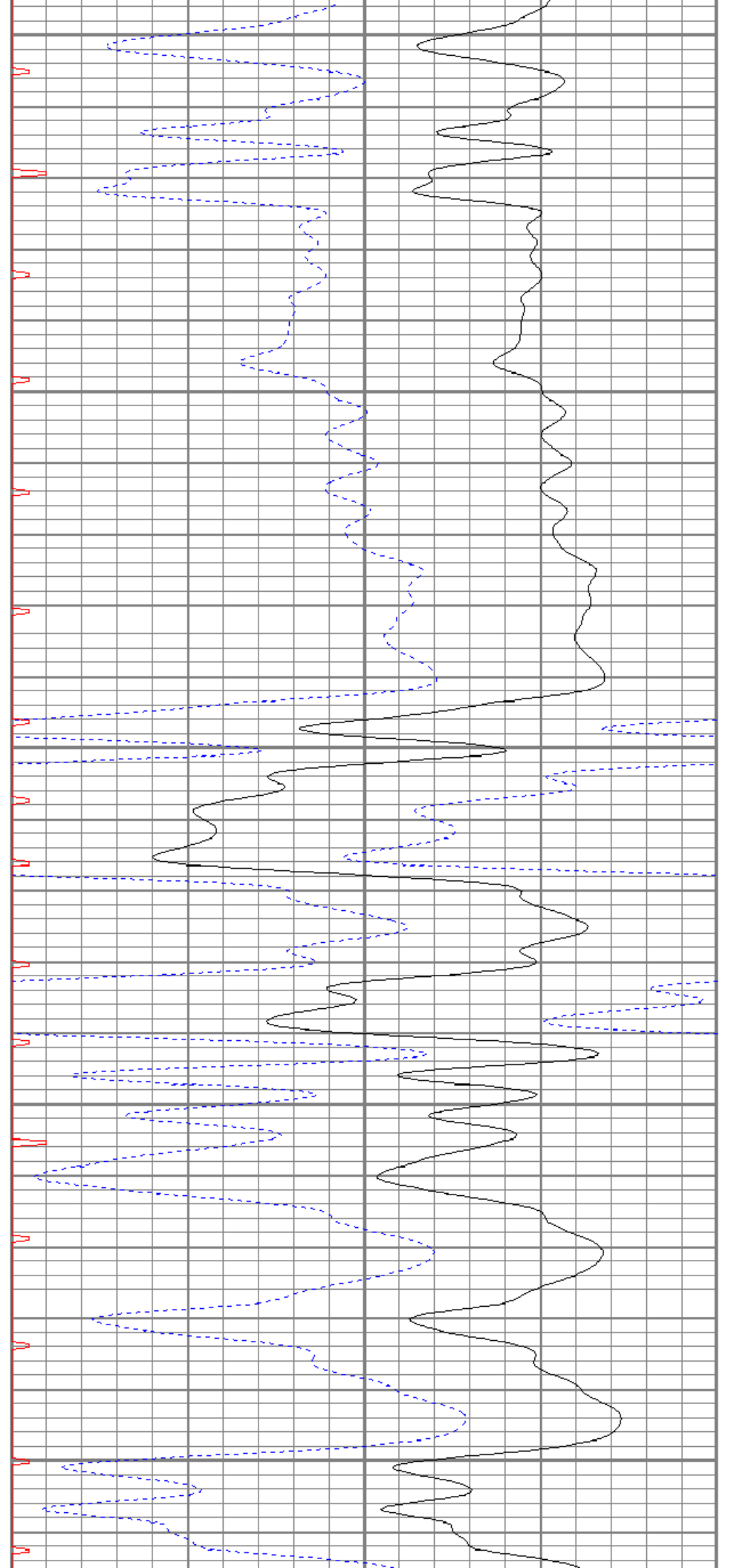
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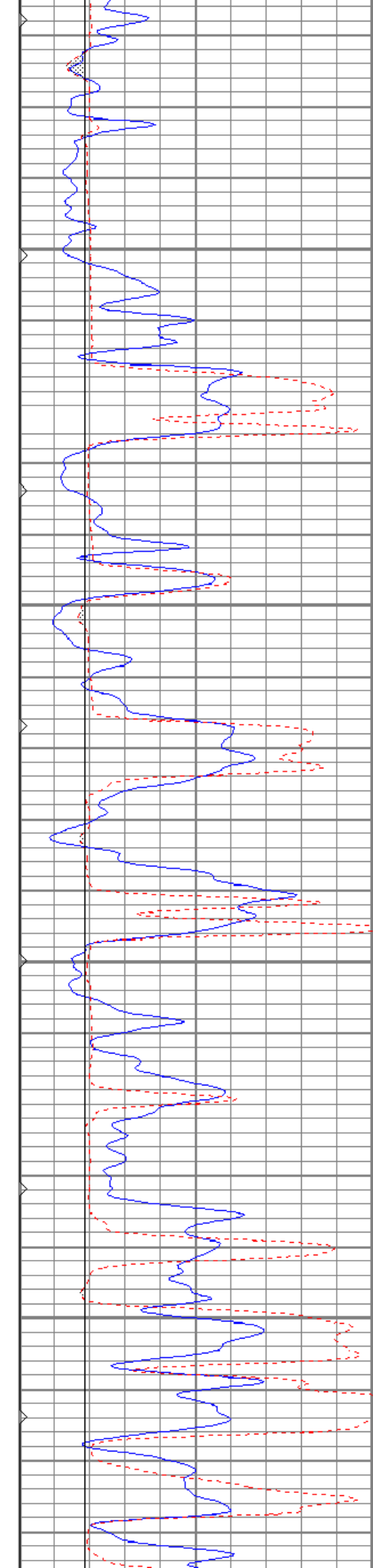
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3300

3350

3400



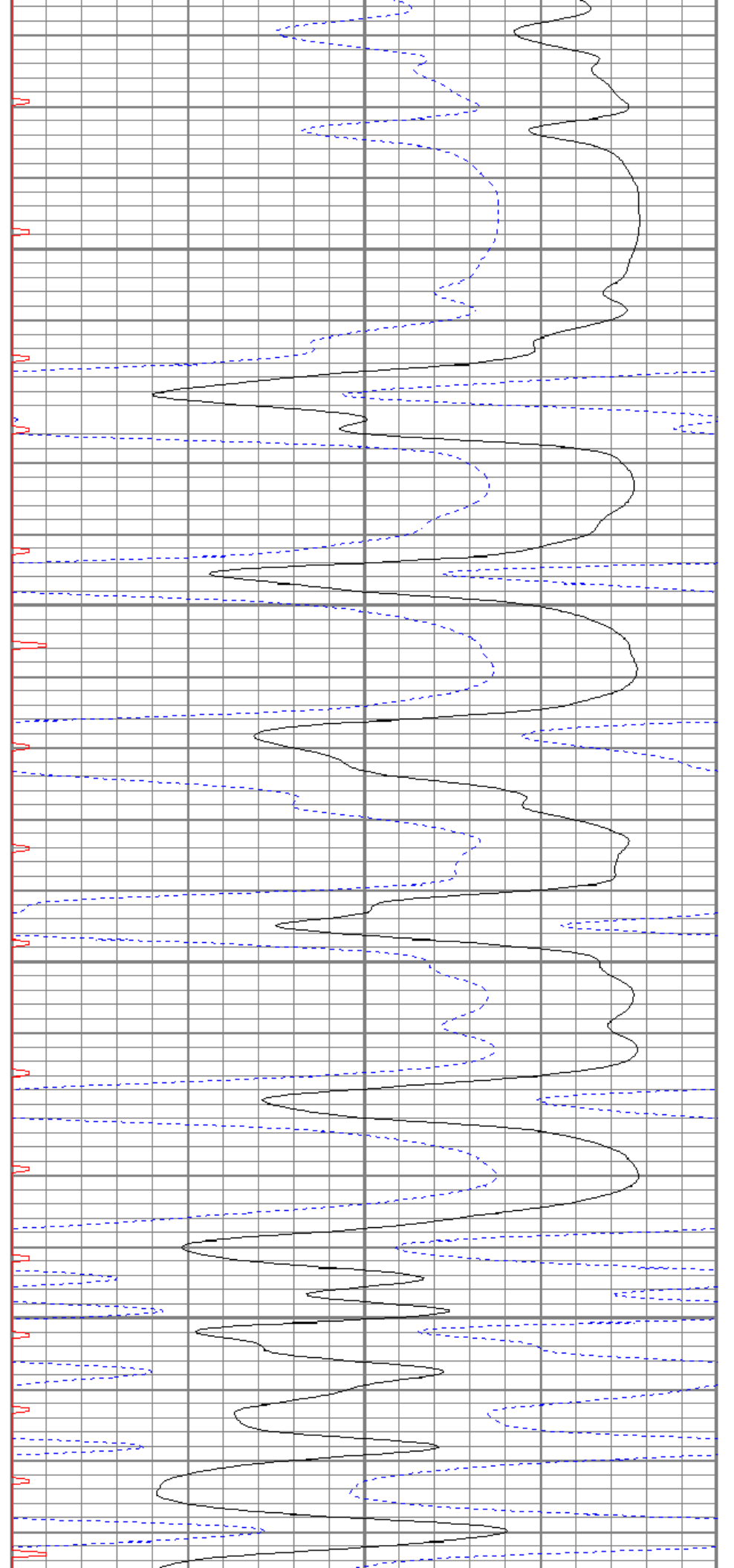


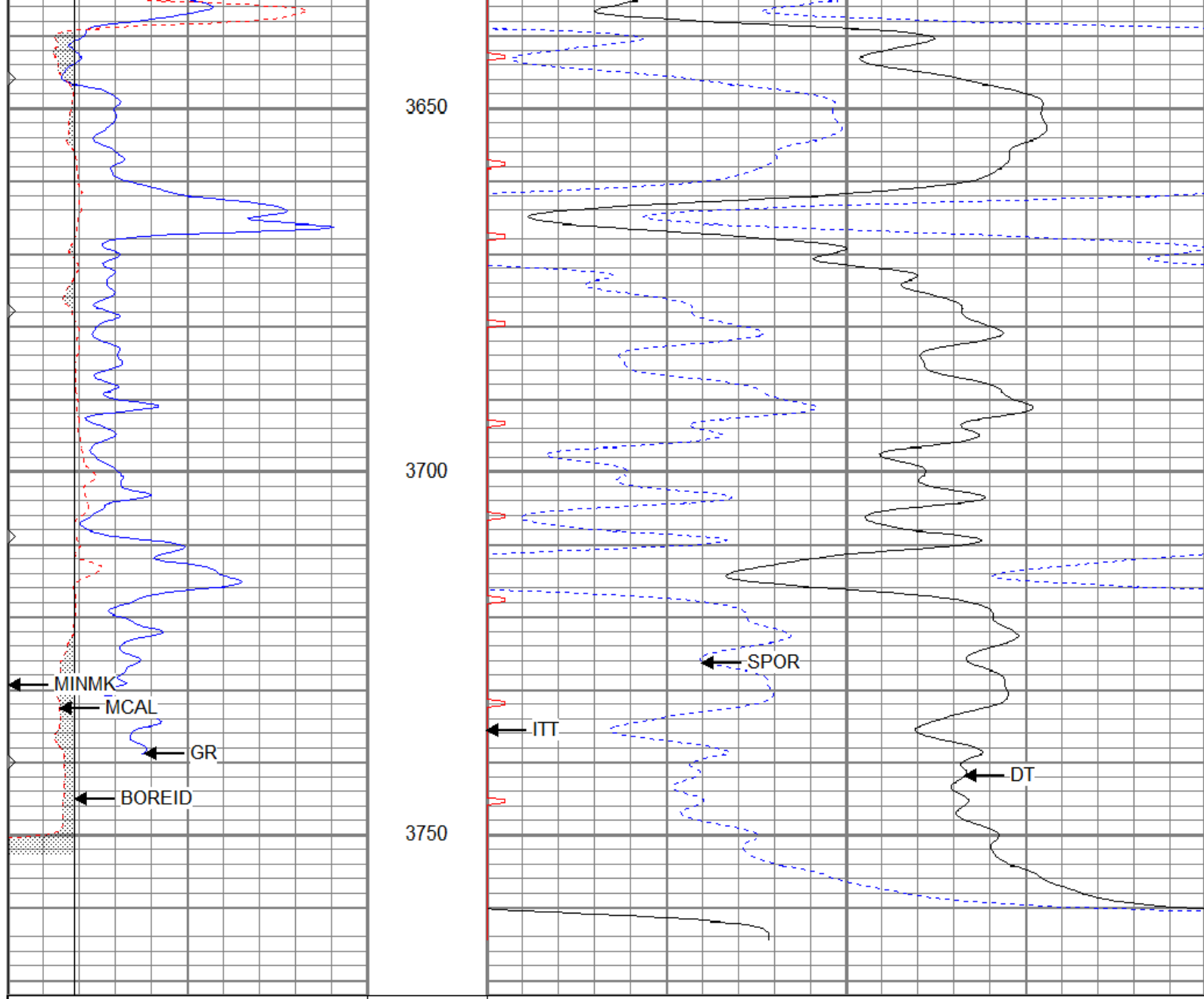
3450

3500

3550

3600





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6	MCAL (in)	16
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0	MINMK	50

140	DT (usec/ft)	40
30	SPOR (pu)	-10
0	ITT (msec)	20

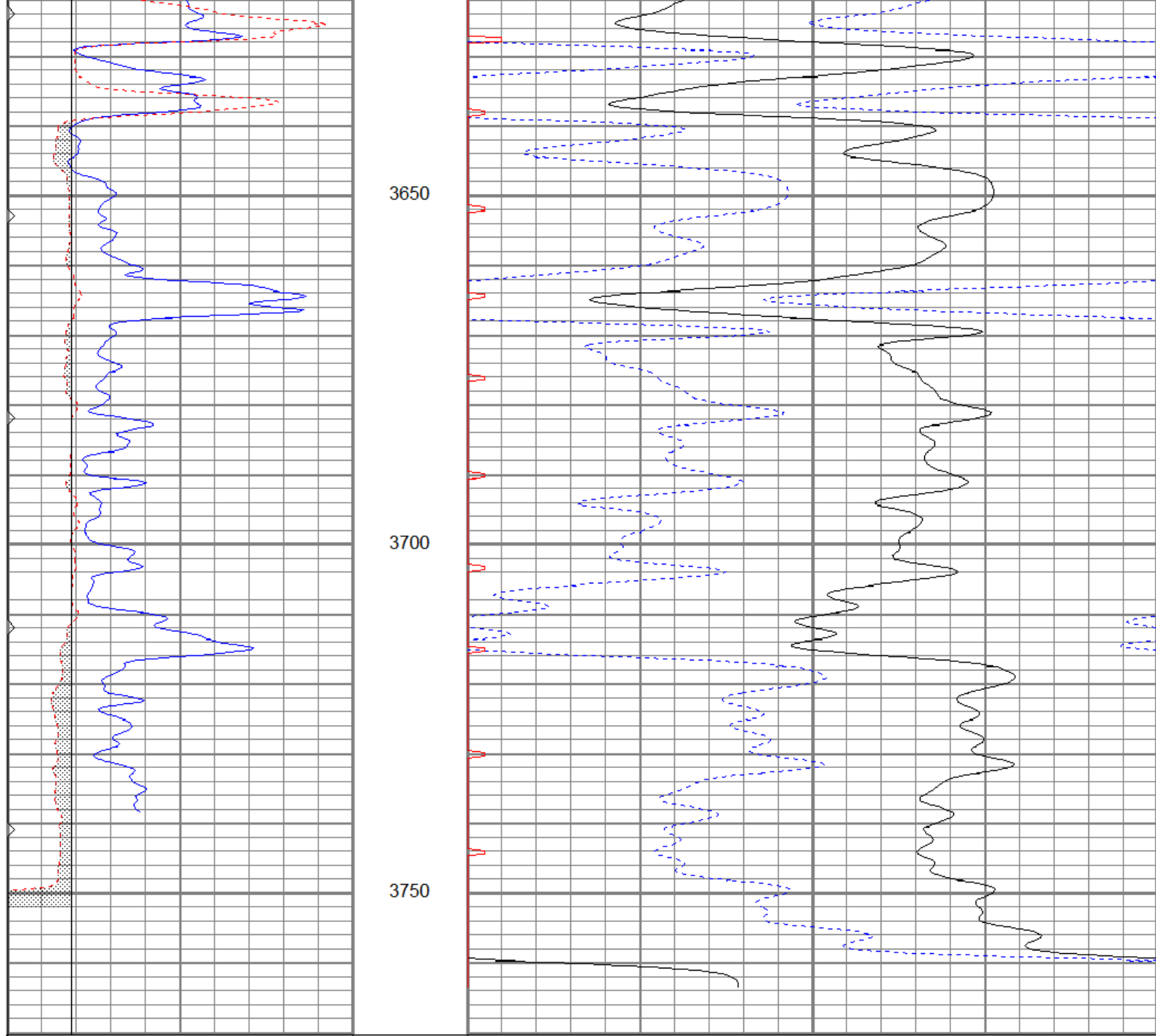


Repeat Section

Database File: cepenny1-14-15-20oh.db
 Dataset Pathname: pass4
 Presentation Format: kbcs
 Dataset Creation: Mon Mar 27 18:54:23 2017
 Charted by: Depth in Feet scaled 1:240

0	GR (GAPI)	150
6	MCAL (in)	16
6	BOREID (in)	16
0	MINMK	50

140	DT (usec/ft)	40
30	SPOR (pu)	-10
0	ITT (msec)	20



0	GR (GAPI)	150	140	DT (usec/ft)	40
6	MCAL (in)	16	30	SPOR (pu)	-10
6	BOREID (in)	16	0	ITT (msec)	20
0	MINMK	50			

Calibration Report

Database File cepenny1-14-15-20oh.db
Dataset Pathname pass5
Dataset Creation Mon Mar 27 19:02:21 2017

Microlog Calibration Report

Serial-Model: 1600-Pengo
Performed: Mon Mar 27 18:52:50 2017

	Readings		V	References		Ohm-m	Results	
	Zero	Cal		Zero	Cal		m	b
Normal	-0.0014	0.5917		0.0000	10.0000		16.8624	0.0233

Inverse	0.0007	0.7678	V	0.0000	8.2000	Ohm-m	10.6892	-0.0072
Caliper	1.3663	2.2079	V	7.3000	14.0000	in	7.9605	-3.5761

Gamma Ray Calibration Report

Serial Number:	804		
Tool Model:	2.75POH		
Performed:	Mon Feb 04 09:07:46 2013		
Calibrator Value:	1.0	GAPI	
Background Reading:	0.0	cps	
Calibrator Reading:	1.0	cps	
Sensitivity:	0.6000	GAPI/cps	

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	30.55		GR-2.75POH (804) Probe	3.73	2.75	43.00
			10pin-Probe	0.89	3.50	20.00
MCAL	21.05		ML-Pengo (1600)	6.97	3.50	100.00
MI	21.05					
MN	21.05					
WVF4	13.79		SLT-G (372) Sonic	15.71	3.50	250.00
WVF3	12.79					
WVF2	9.79					
WVF1	8.79		CENT-OHshort Open Hole short centralizer	4.04	3.50	50.00

Dataset:	cepenny1-14-15-20oh.db: field/well/run1/pass5
Total length:	31.33 ft
Total weight:	463.00 lb
O.D.:	3.50 in