PIONEER

DUAL INDUCTION FOCUSED LOG COMPENSATED NEUTRON GAMMA RAY LOG

COMPANY: EXTRACTION OIL & GAS LLC
WELL: WIND 6
FIELD: WATTENBERG
COUNTY: WELD STATE: CO.

Company:EXTRACTION OIL & GAS LLC
Well: WIND 6
Field: WATTENBERG
County: WELD
State: CO.

Location
1686'FSL & 240'FWL NWSW

SEC 31 T5N R67W API# 05 123 40459

Other Services
NONE

Permanent Datum: GL Elevation: 4927 FT
Log Meas. From: KB , 20 FT ABOVE PERM. DATUM
Drill. Meas. From: KB

Elevations
K.B.: 4947 FT
D.F.: 4946 FT
G.L.: 4927 FT

Date	JUNE 29 2015		
Run Number	1		
Depth Driller	11741 FT		
Depth Logger	6508 FT		
Bottom Logged Interval	6508 FT		
Top Logged Interval	1532 FT		
Casing Driller	9.625 IN. @ 1522 FT		
Casing Logger	1532 FT		
Bitsize	8.75 IN.		
Type Fluid in Hole	OIL BASE MUD		
Density / Viscosity	9.4 l #/GAL	43 S	
pH / Water Loss	N/A	N/A CC	
Source of Sample	BOREHOLE		
Rm @ Meas. Temp.	N/A Ohm-m @ 72 F		
Rmf @ Meas. Temp.	N/A Ohm-m @ 72 F		
Rmc @ Meas. Temp.	N/A Ohm-m @ 72 F		
Source Rmf/Rmc	CALC	CALC	
Rm at BHT	N/A Ohm-m @ 222 F		
End Circulation	1930 JUNE 28 2015		
Logger on Bottom	0445 JUNE 29 2015		
Max. Recorded Temp.	222		
Equip. No / Location	110	FORT MORGAN	
Recorded by	S STUMP	C CHRISTENSEN	
Witnessed by	S MACINYRE		

----Fold Here----

REMARKS

S0 NUMBER 2-014104
DUE TO OIL BASE MUD NO FOCUS TOOL!!!!

NO REPEAT DONE BECAUSE OF BOREHOLE CONDITIONS, OK PER CUSTOMER

THANK YOU FOR USING PIONEER WIRELINE SERVICES.

EQUIPMENT DATA

Run	Trip	Instrument	Instrument Type No.	Serial No.	Distance to Reference
		Cable Head		1809CableHead	0.000 ft
		TCMRT	024	1831A	2.690 ft
		Telemetry	021	0930A	7.562 ft
		Compensated Neutro	015	1468A	11.860 ft
		DIL	014	1141A	19.409 ft
		Bull Plug		BP	43.983 ft

54.90 ft

Cable Head
Identifier : 1809CableHead
Asset Number : None

Length : 2.690 ft
Diameter : 3.4 inch
Weight : 37.3 lbs

TCMRT
Identifier : 1831A
Asset Number : 023
Length : 4.872 ft
Diameter : 3.4 inch
Weight : 103.6 lbs
Measure Point : 2.575 ft : BHT
Measure Point : 2.838 ft : Mud
Measure Point : 4.396 ft : Tension

Telemetry
Identifier : 0930A
Asset Number : 024
Length : 4.298 ft
Diameter : 3.4 inch
Weight : 75.4 lbs
Measure Point : 1.329 ft : GR

Compensated Neutron
Identifier : 1468A
Asset Number : 015
Length : 7.549 ft
Diameter : 3.4 inch
Weight : 104.7 lbs
Measure Point : 2.165 ft : Short
Measure Point : 2.562 ft : Long

Decentralizer
Identifier : 0582
Weight : 6.6 lbs

PE Density Microlog
Identifier : 1486A
Asset Number : 014
Length : 10.774 ft
Diameter : 4.8 inch
Weight : 349.4 lbs
Measure Point : 2.854 ft : RNML
Measure Point : 2.936 ft : RLML
Measure Point : 3.133 ft : Long
Measure Point : 3.481 ft : Short

Tension 51.74 ft
Mud 50.18 ft
BHT 49.92 ft
GR 44.37 ft
Long 38.06 ft
Short 37.66 ft
Short 28.20 ft
Long 27.85 ft
RLML 27.66 ft
RNML 27.58 ft

DIL
- Identifier : 1141A
- Asset Number : 013
- Length : 24.573 ft
- Diameter : 3.6 inch
- Weight : 295.4 lbs
- Measure Point : 1.673 ft : LL8
- Measure Point : 7.513 ft : Medium
- Measure Point : 10.958 ft : Deep
- Measure Point : 10.958 ft : SP

SP 11.11 ft
Deep 11.11 ft

Medium 7.66 ft

LL8 1.82 ft

0.00 ft

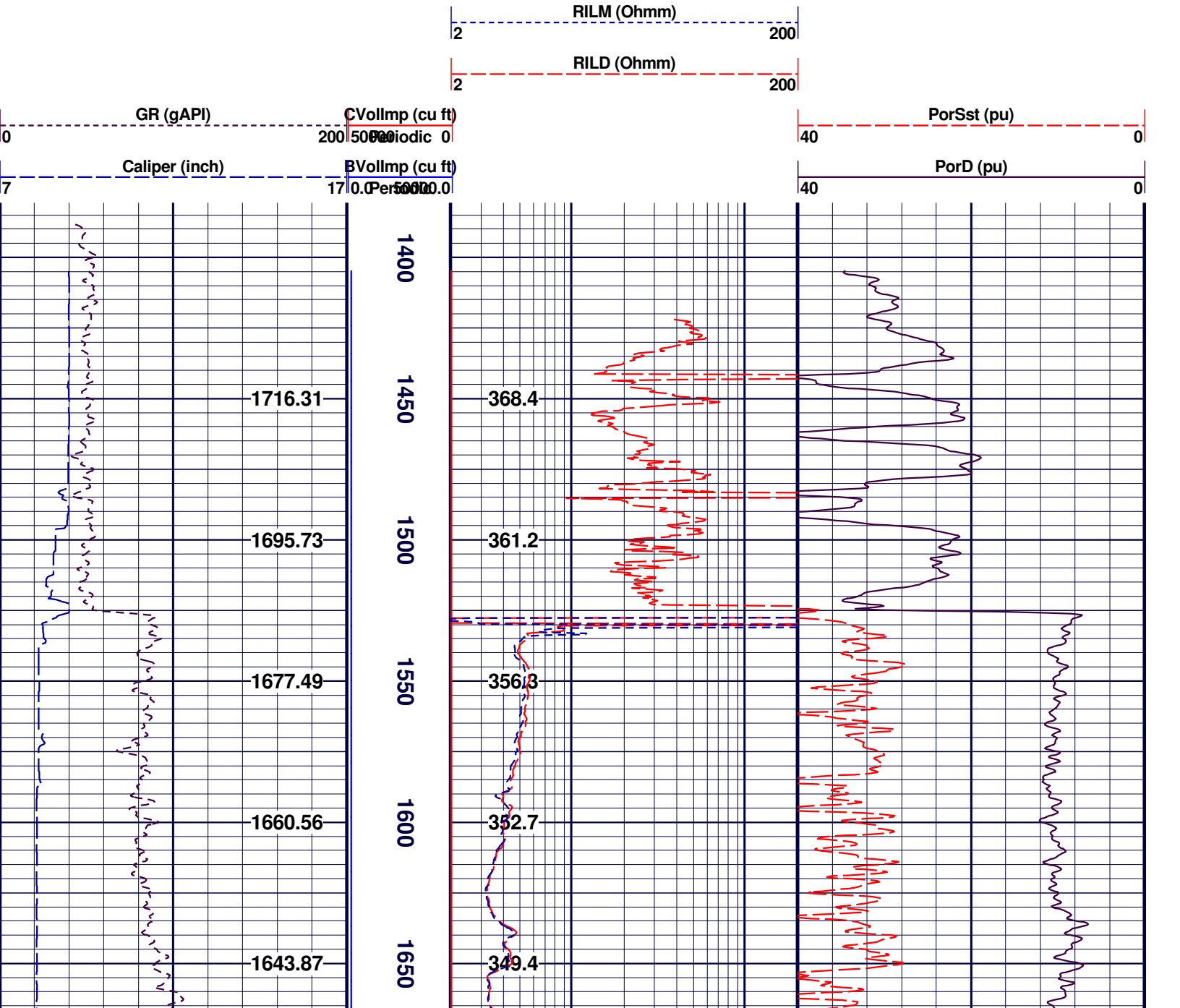
Bull Plug
- Identifier : BP
- Asset Number : None
- Length : 0.148 ft

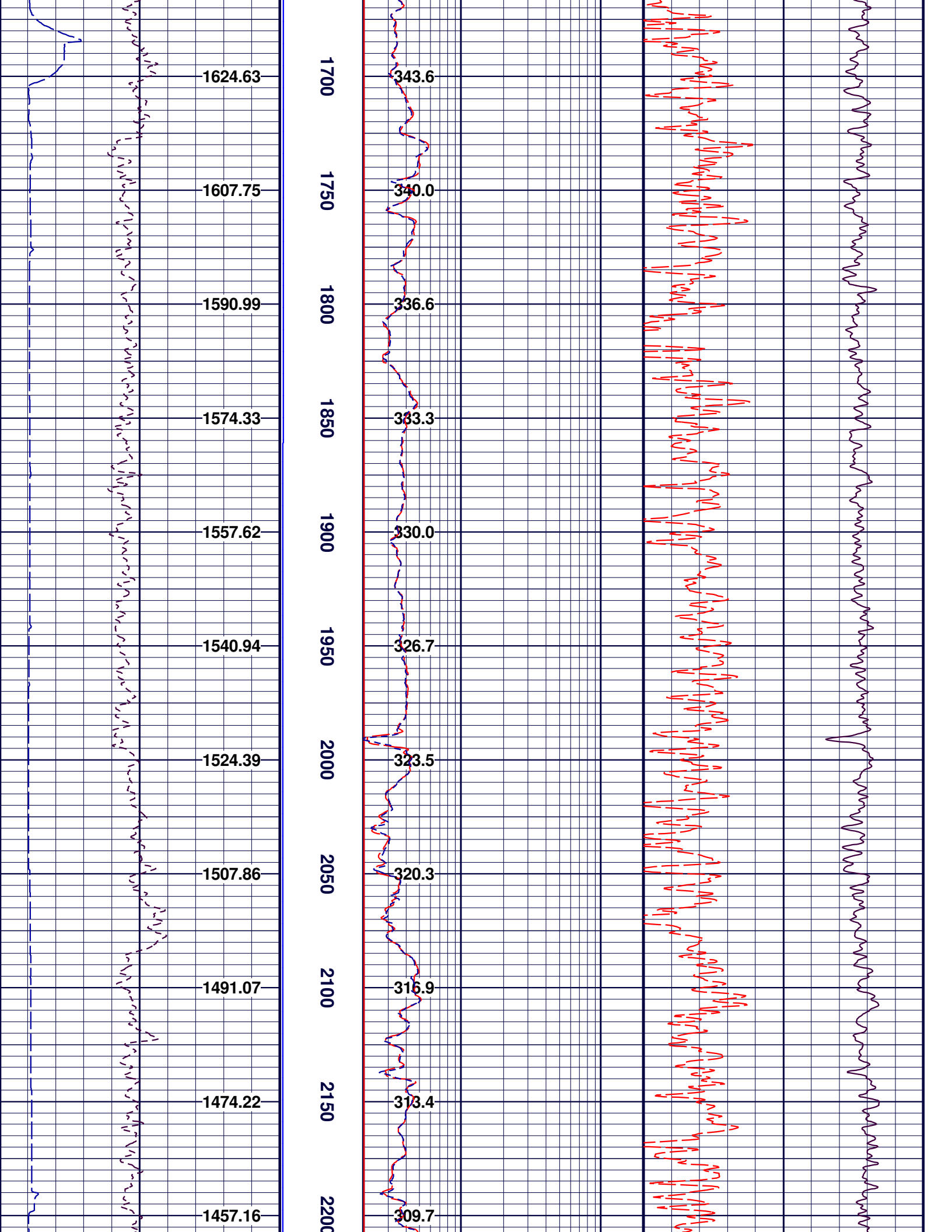
Diameter : 3.4 inch
Weight : 6.6 lbs

Total Length : 54.90 ft
Total Weight : 979.06 lbs
Max Diameter : 4.8 inch

MAIN PASS

Company	**: EXTRACTION OIL & GAS LLC**	**Date**	**: 29.06.2015**
Well	**: WIND 6**	**Time**	**: 06:26:35**
Scale	**: 1 : 600**	**Remarks**	**:**
Depth in	**: Feet**		
Software	**: WinAPlot Ver. 5, 91, 4, 0**	**File Name**	**: New Log4**

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1800
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1900
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2100
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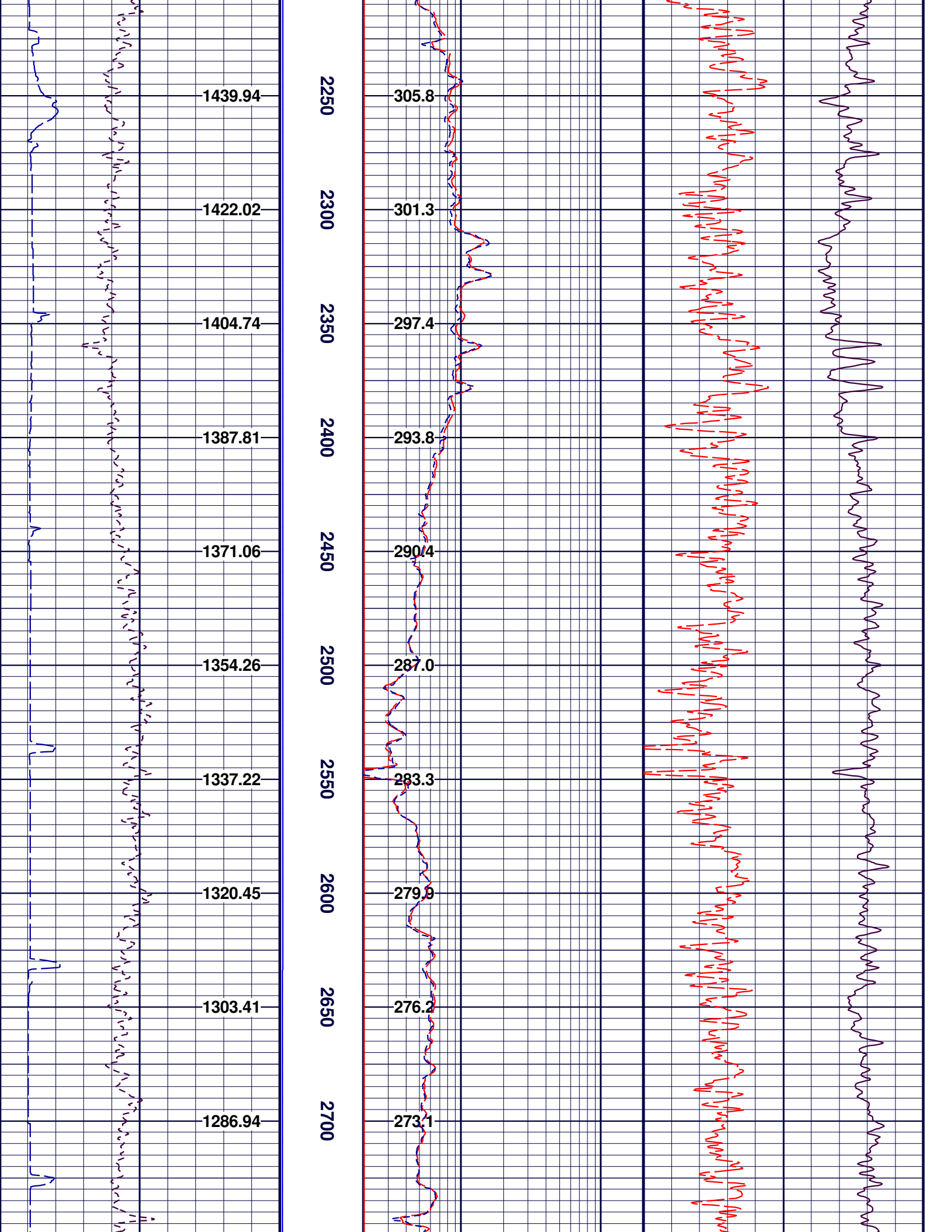
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2500
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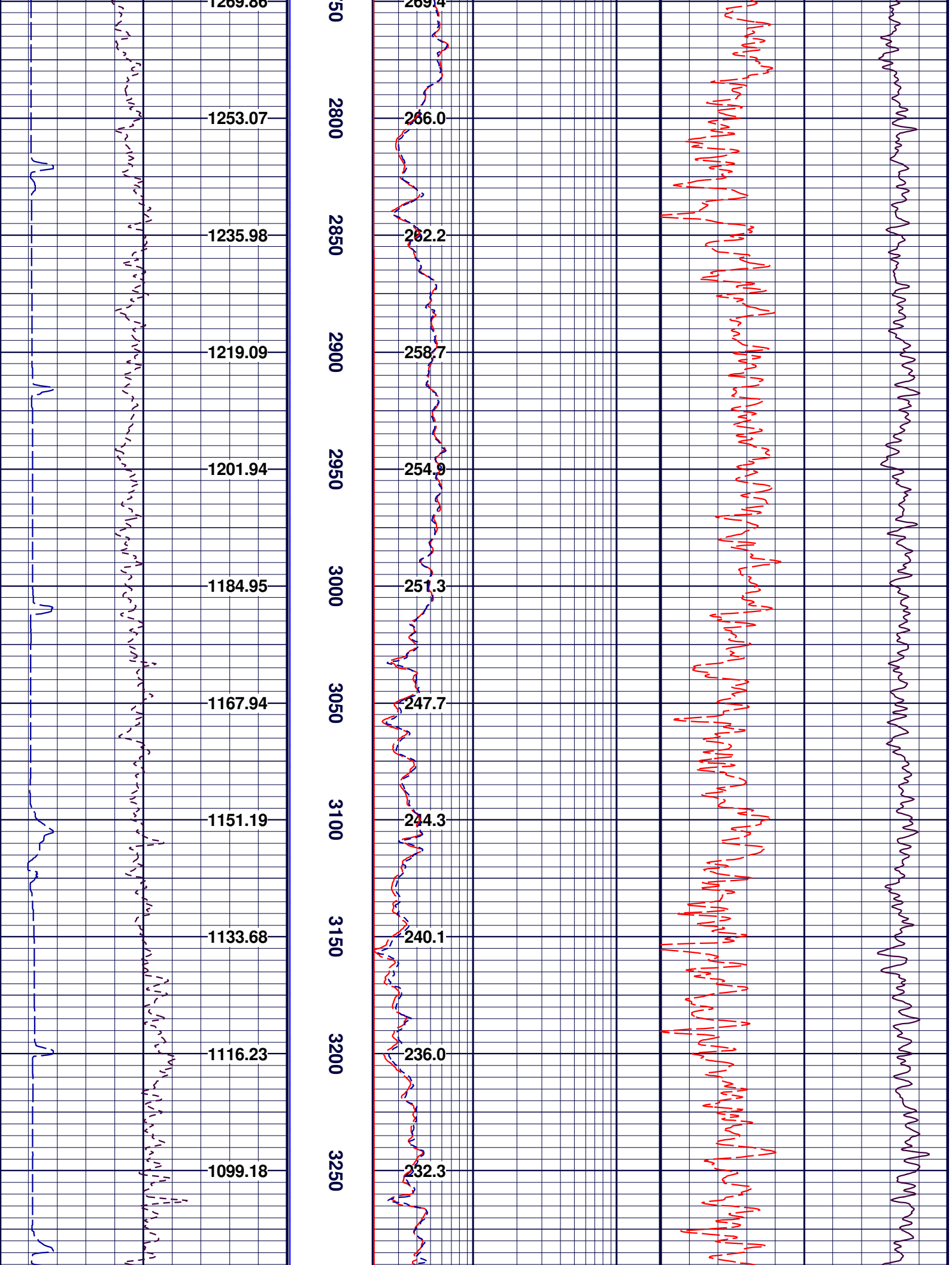
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2900
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3000
3050
3100
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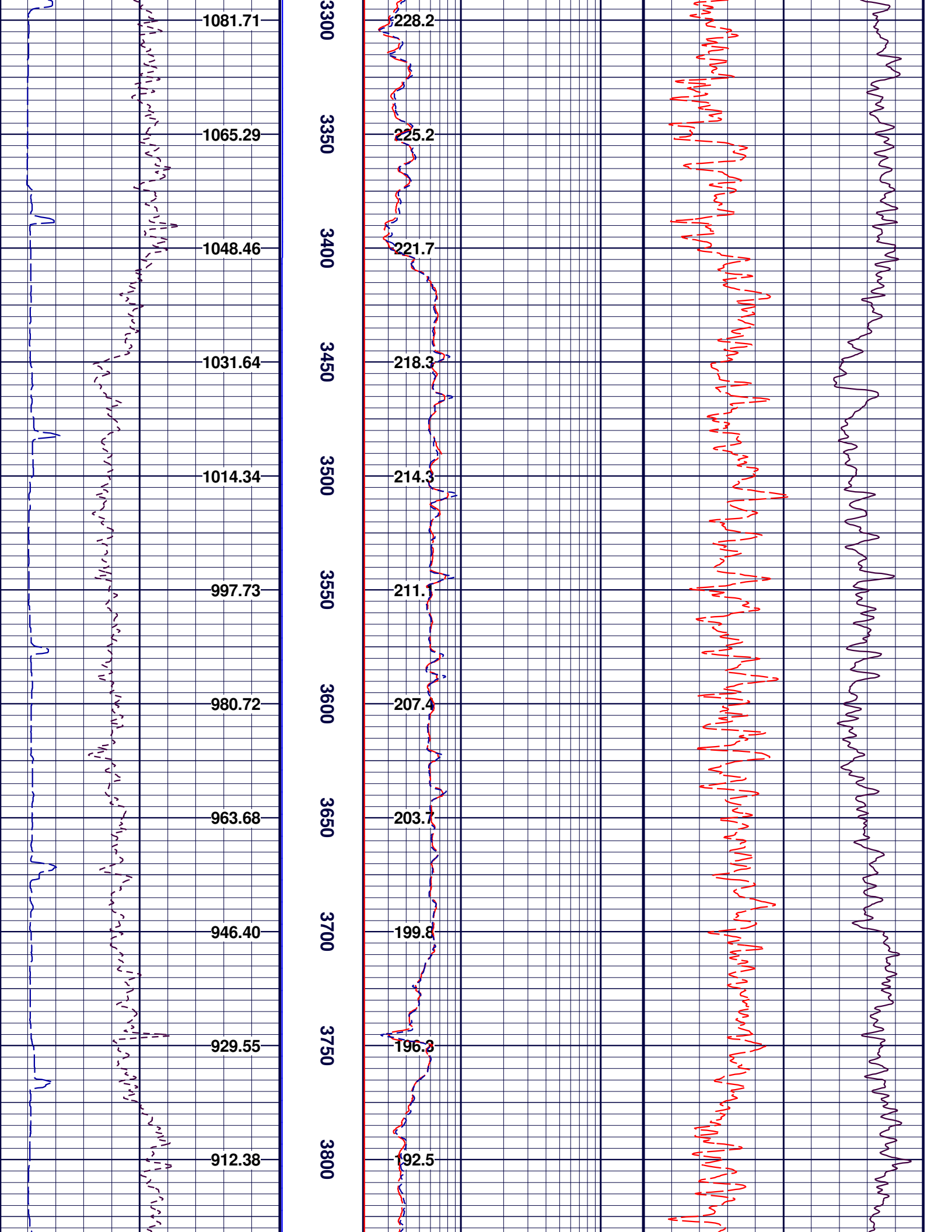
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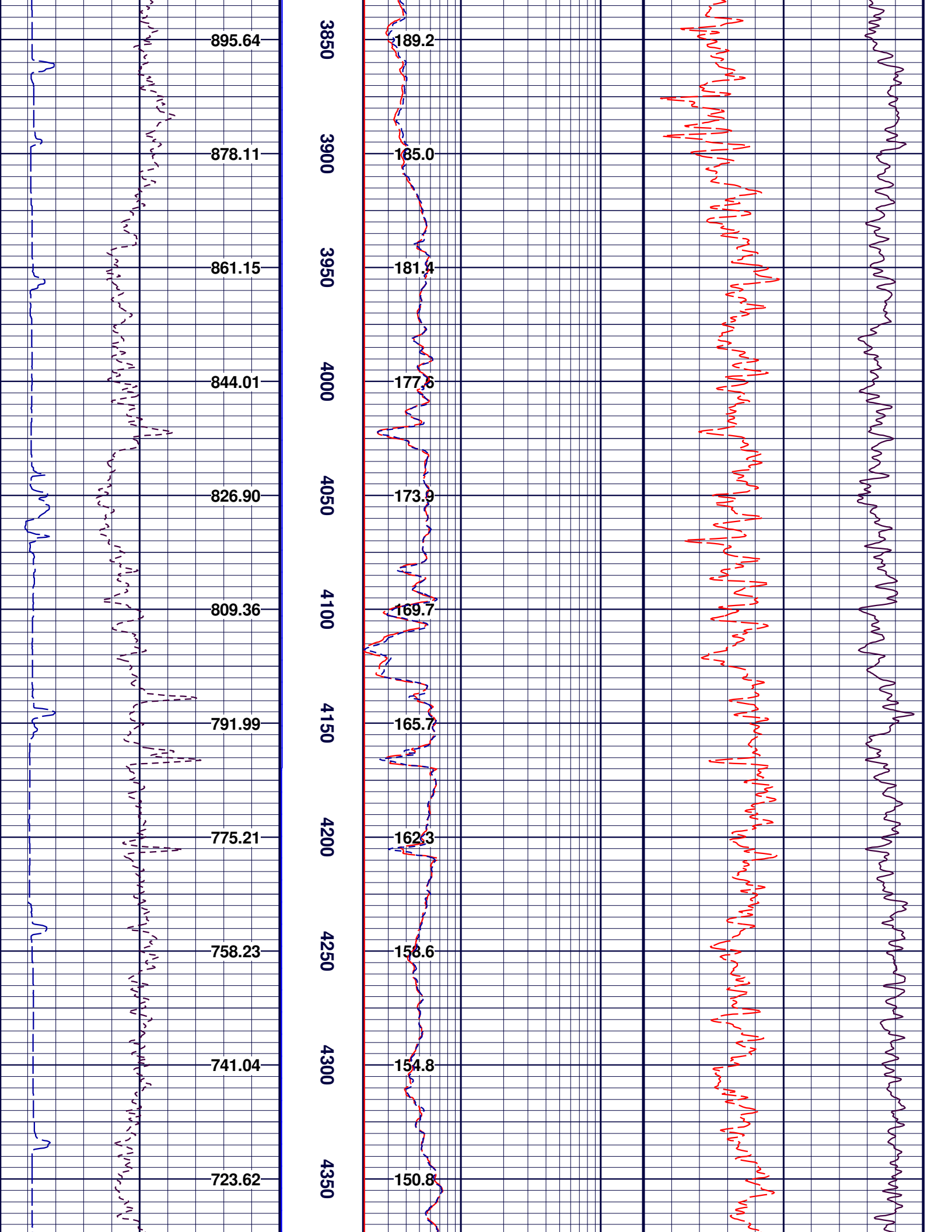
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3950
4000
4050
4100
4150
4200
4250
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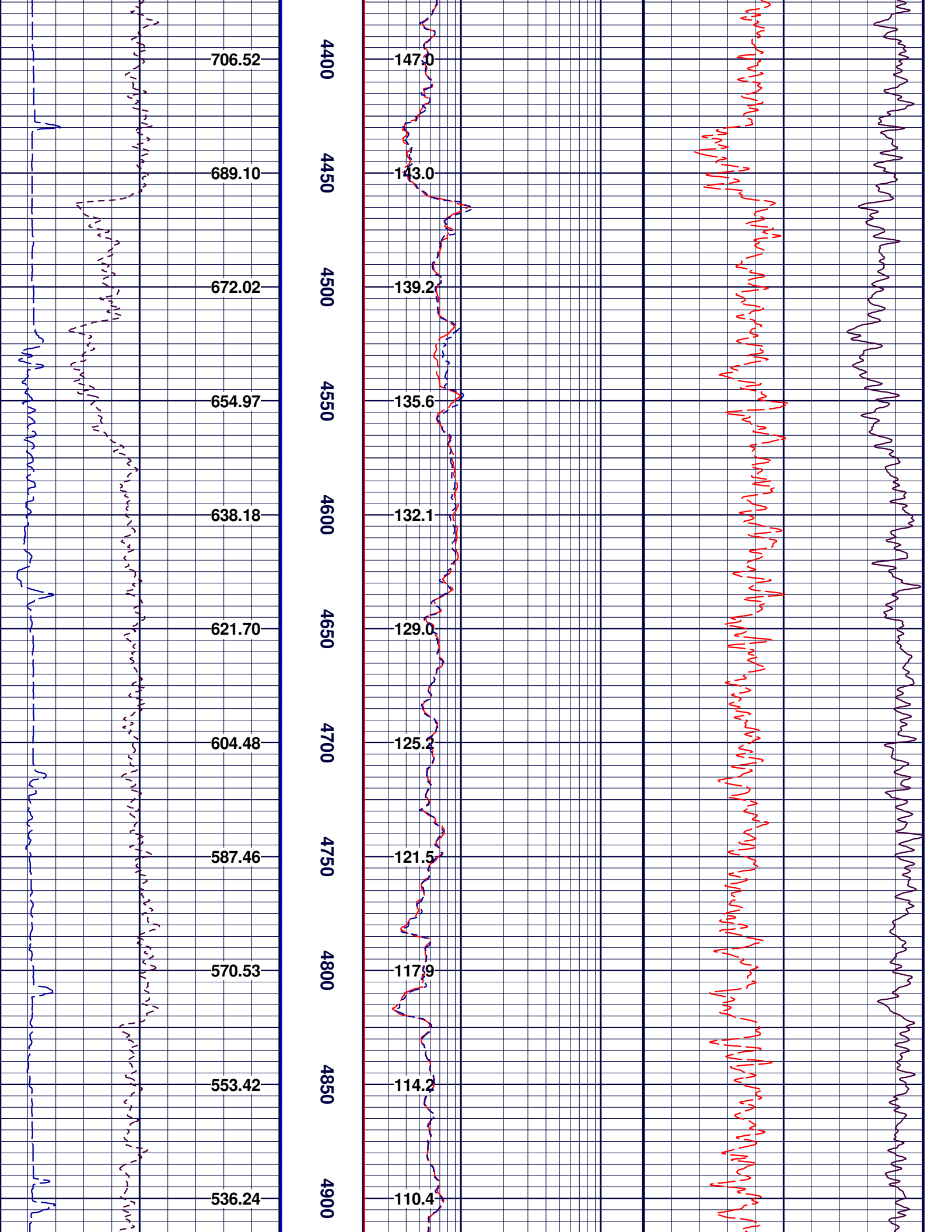
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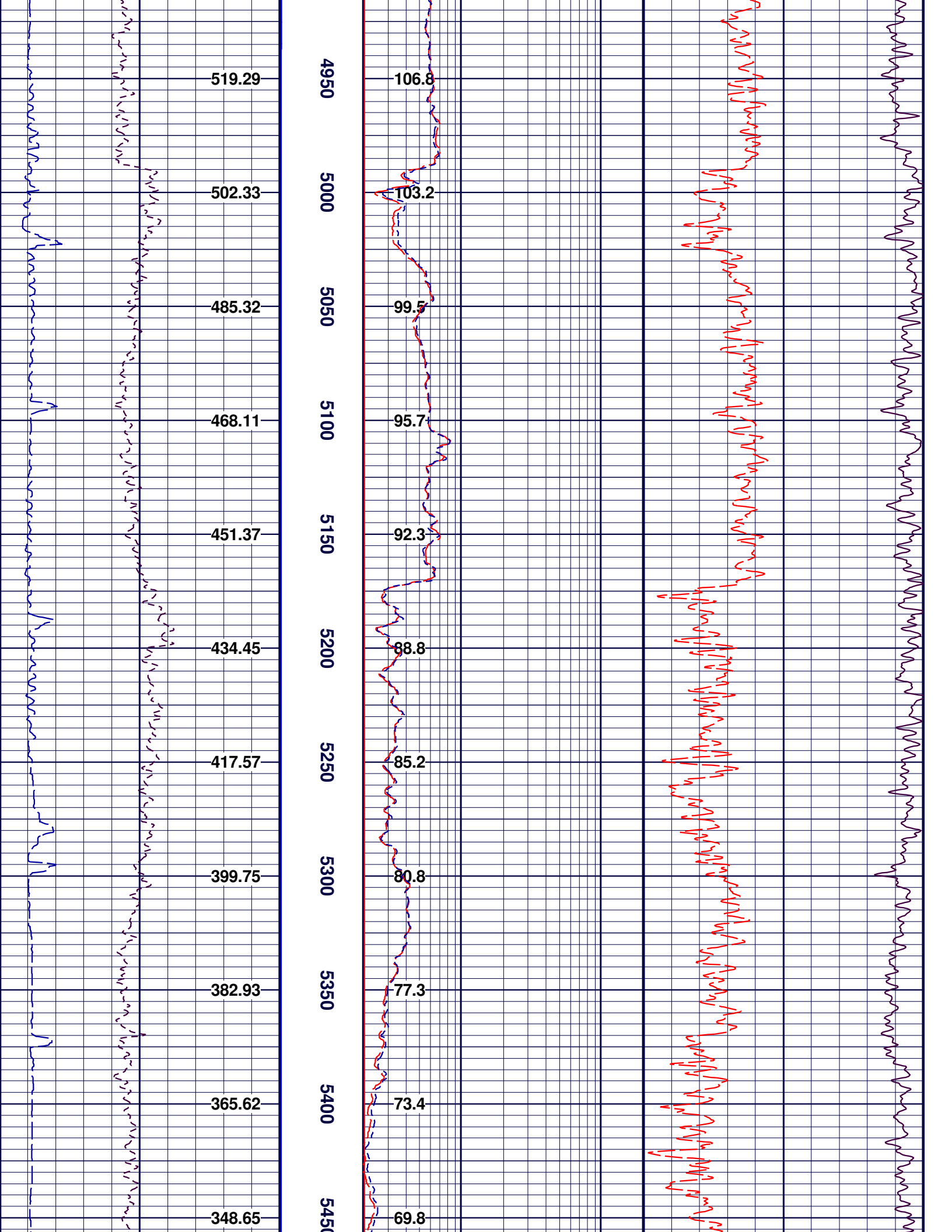
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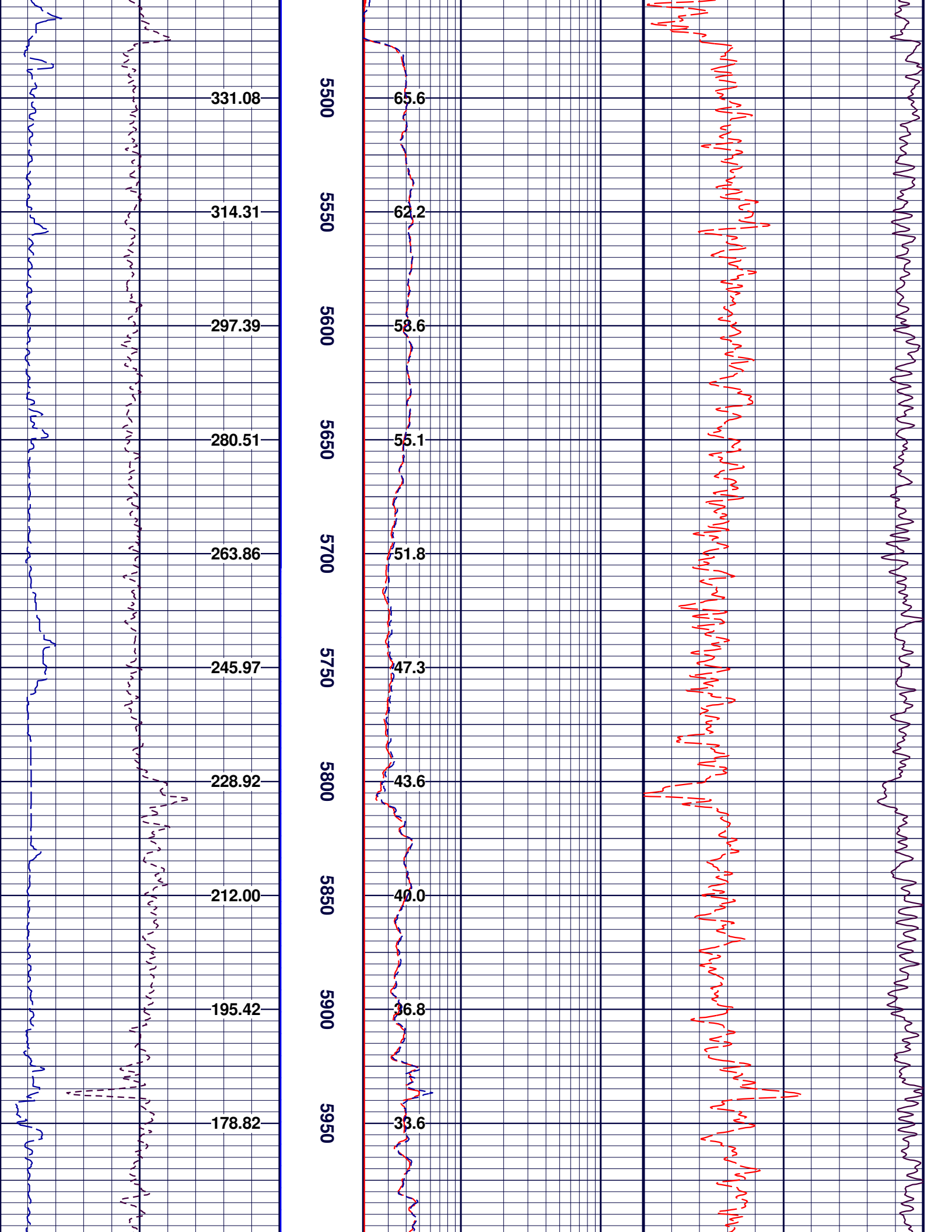
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5700
5750
5800
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43.6
40.0
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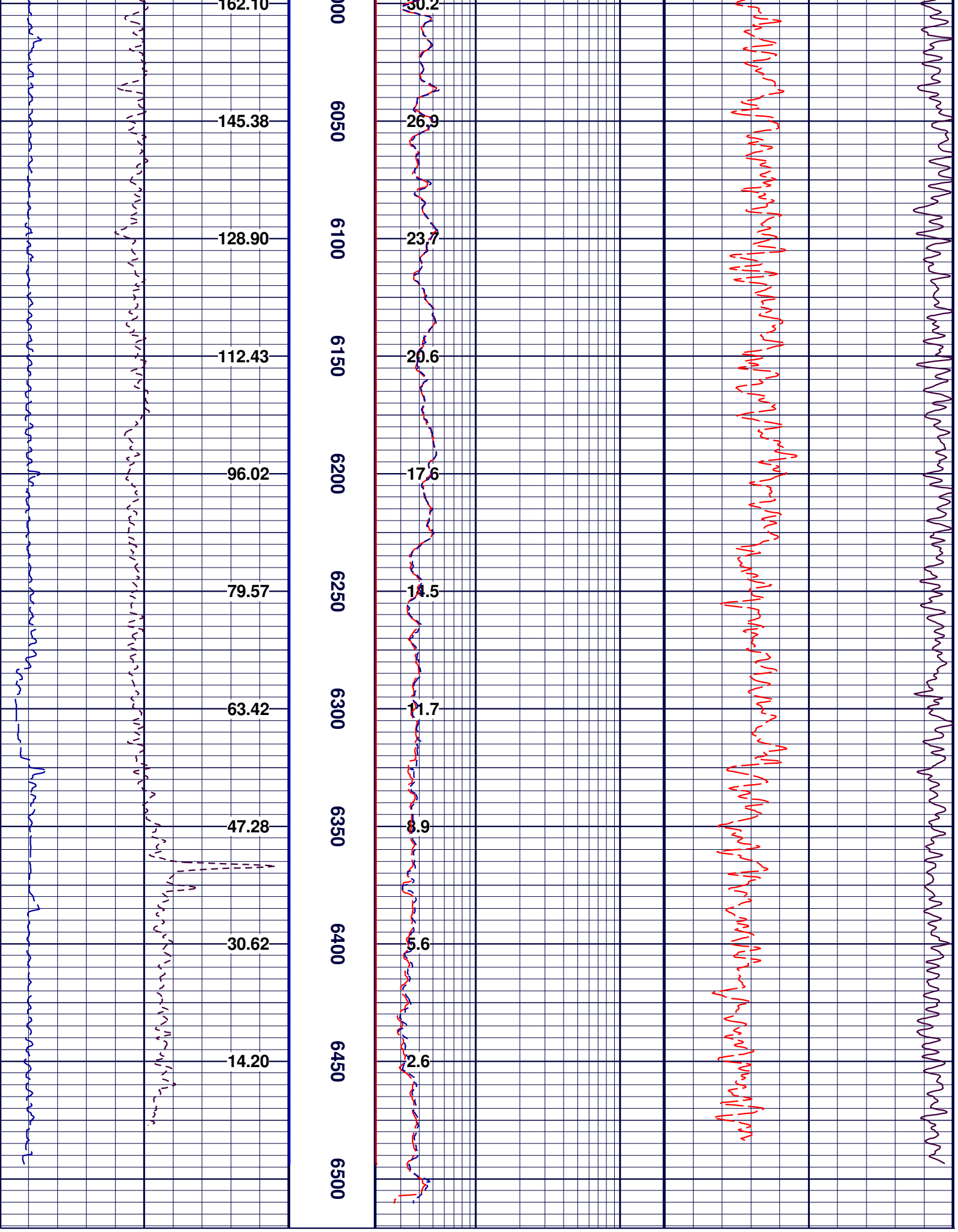
33.6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6350
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6450
6500
30.2
26.9
23.7
20.6
17.6
14.5
11.7
8.9
5.6
2.6
Caliper (inch)
BVolImp (cu ft)
PorD (pu)

GR (gAPI)
0 200

CVolImp (cu ft)
0.0Periodic 0

PorSst (pu)
40 0

RILD (Ohmm)
2 200

RILM (Ohmm)
2 200

crossover

MAIN PASS

Company	: EXTRACTION OIL & GAS LLC	Date	: 29.06.2015
Well	: WIND 6	Time	: 06:26:35
Scale	: 1 : 240	Remarks	:
Depth in	: Feet		
Software	: WinAPlot Ver. 5, 91, 4, 0	File Name	: New Log4

RILM (Ohmm)
0.2 2000.0

RILD (Ohmm)
0.2 2000.0

GR (gAPI)
0 200

CVolImp (cu ft)
0.0Periodic 0

PorSst (pu)
40 0

Caliper (inch)
7 17

BVolImp (cu ft)
0.0Periodic 0

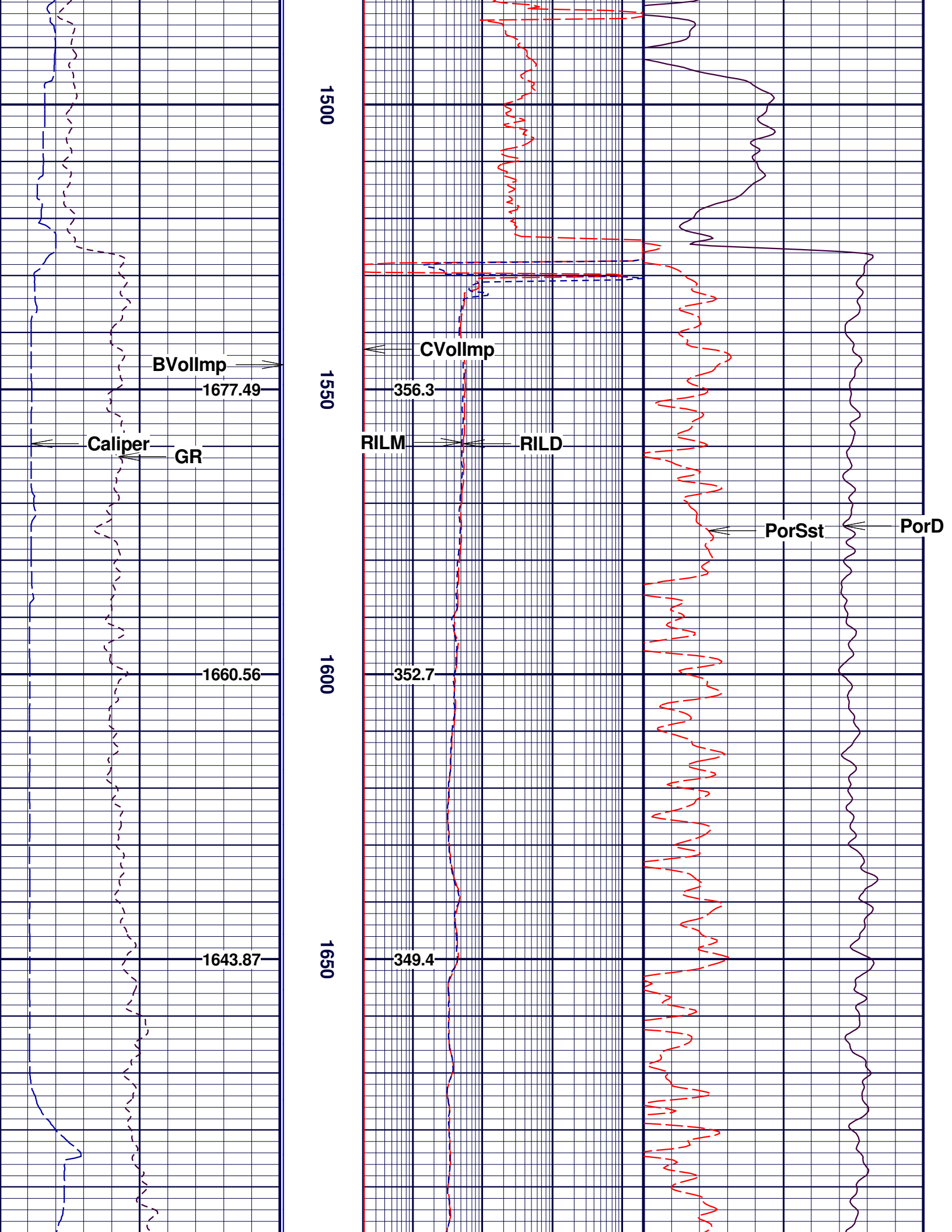
PorD (pu)
40 0

1400

1716.31

1450

368.4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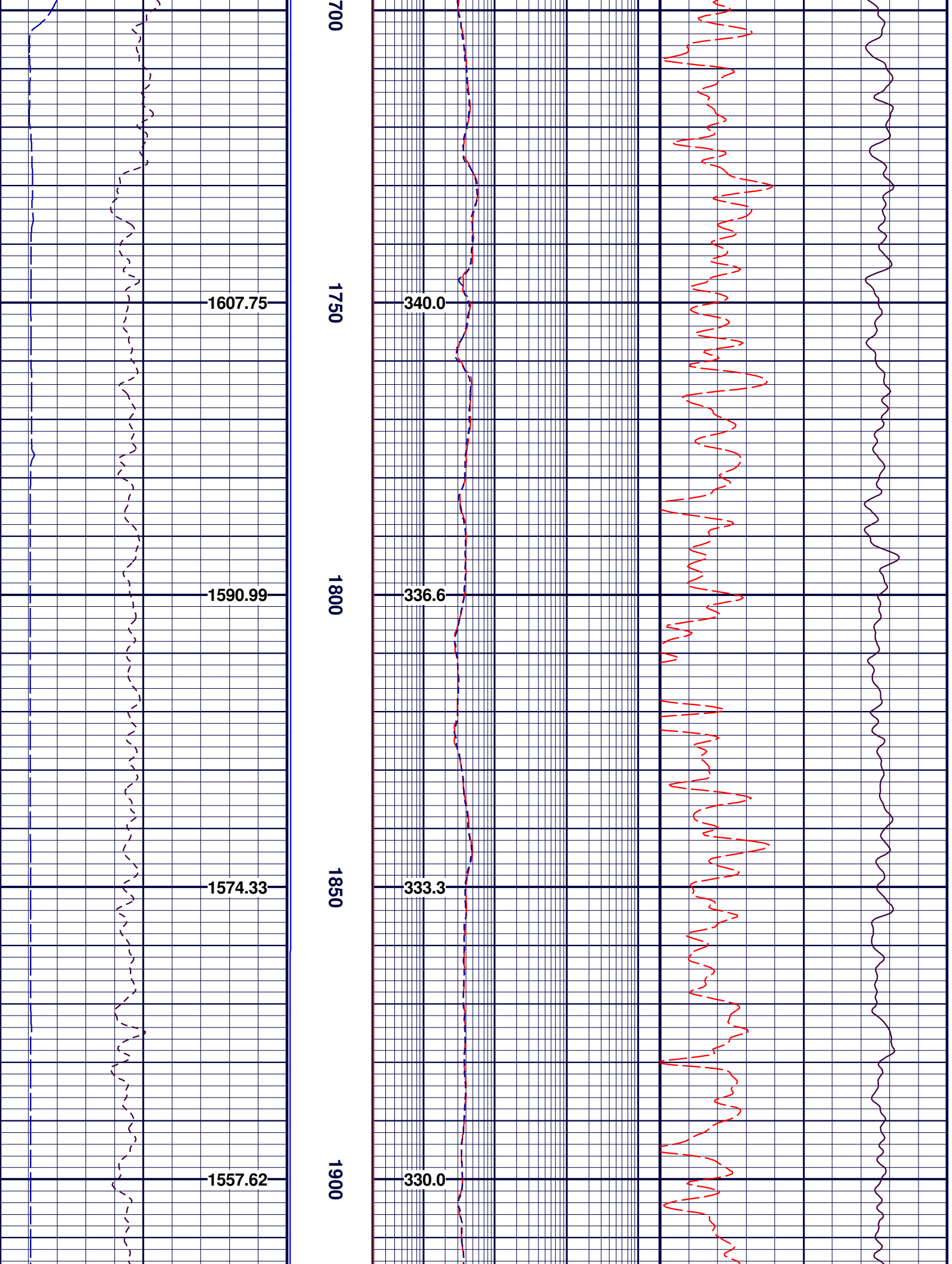
RILD
352.7
349.4
PorSst
PorD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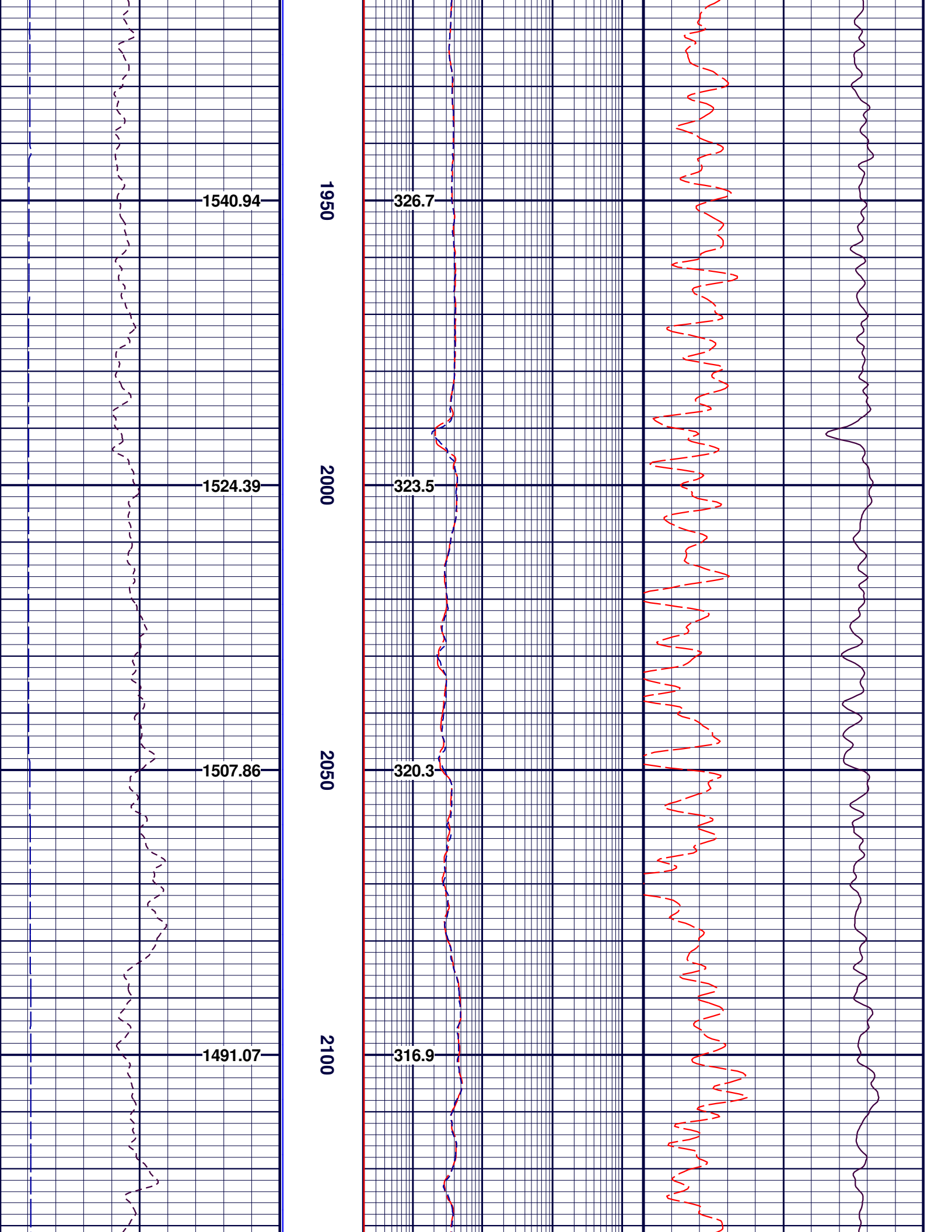
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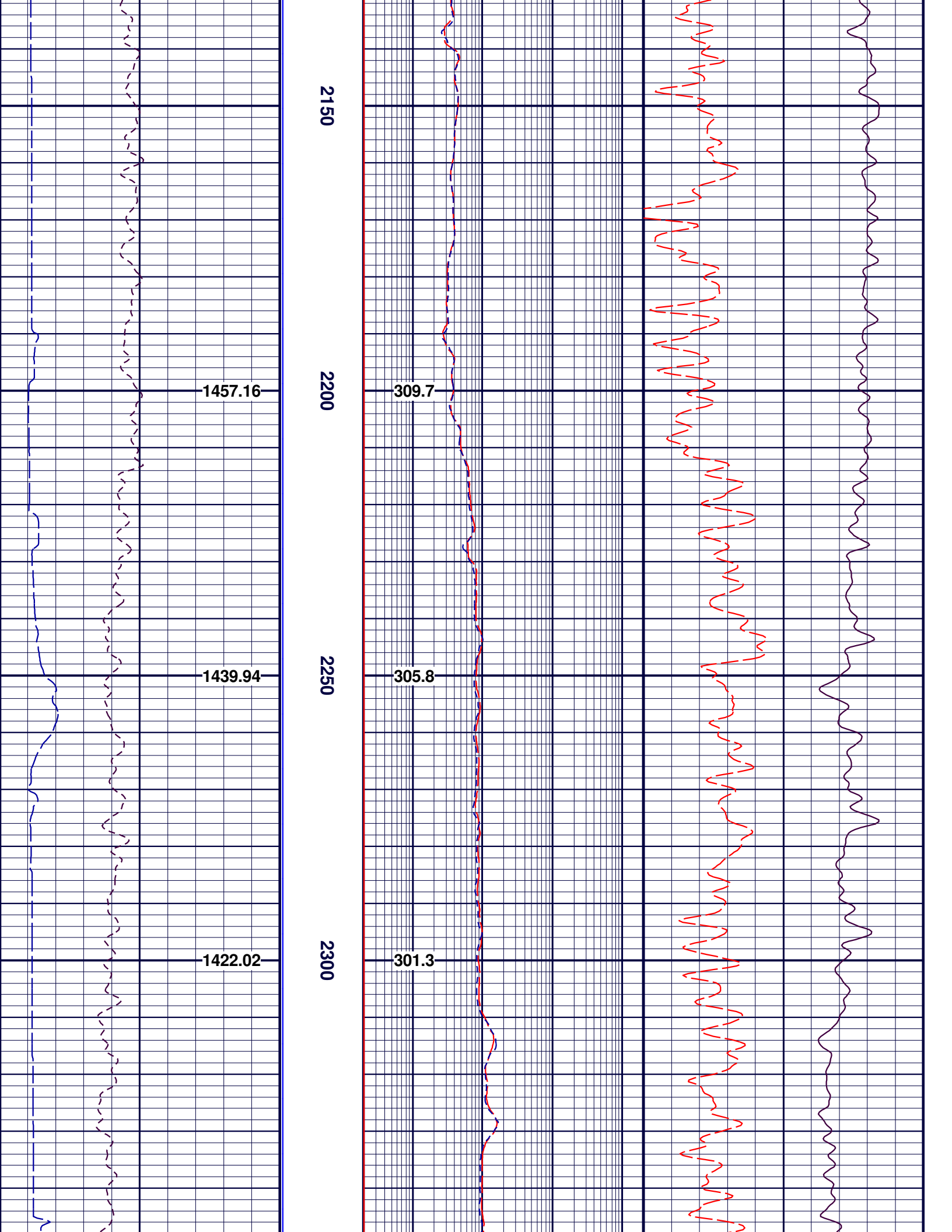
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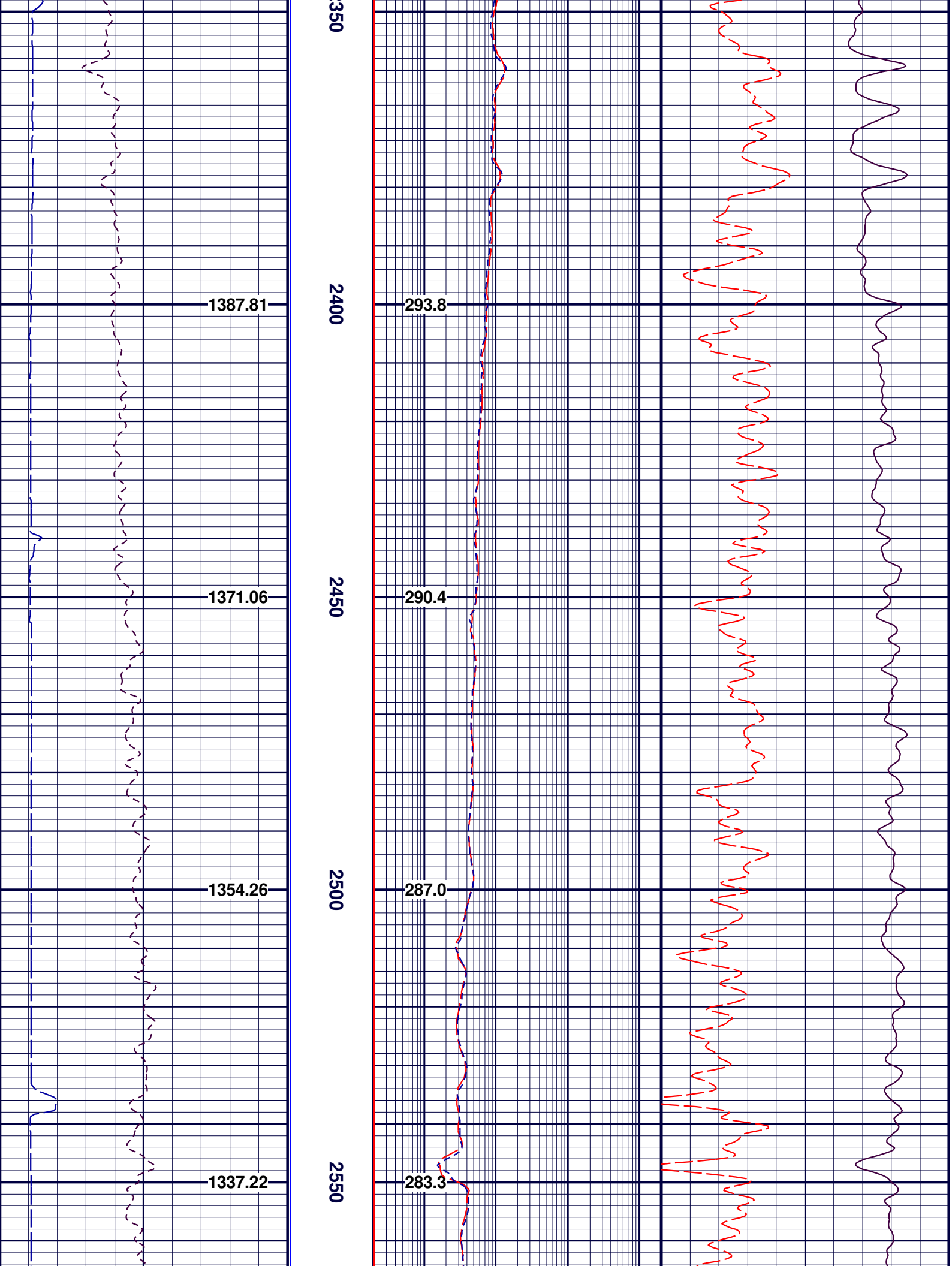
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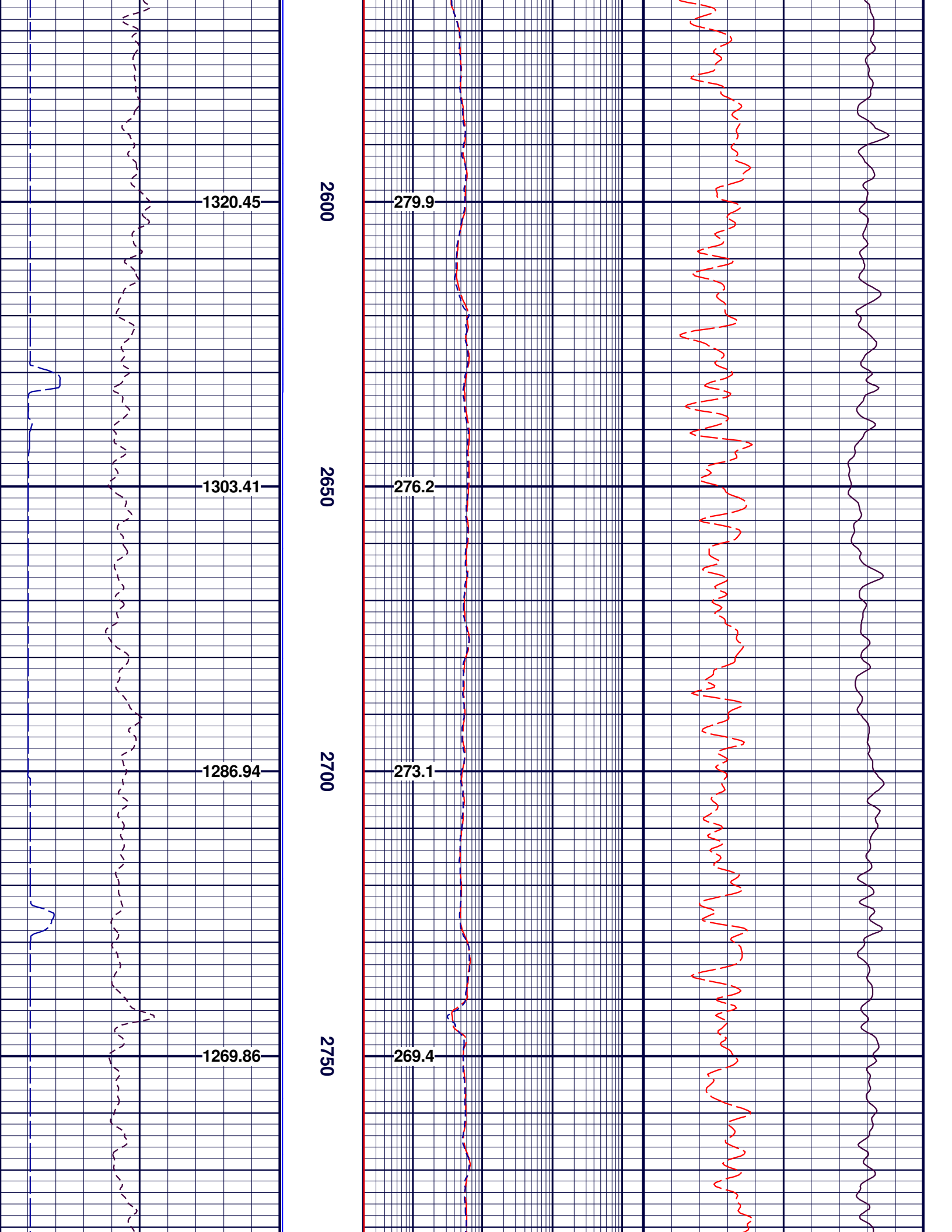
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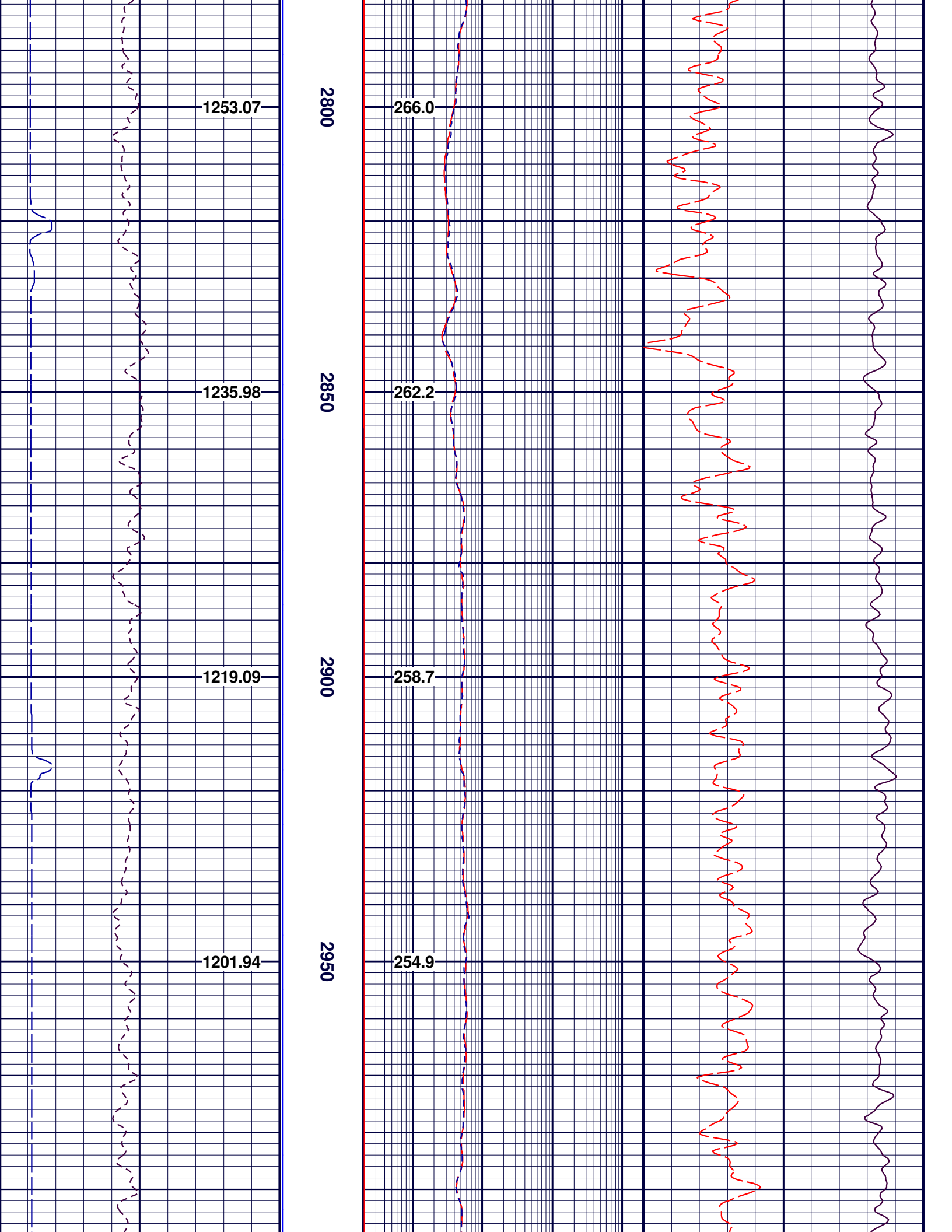
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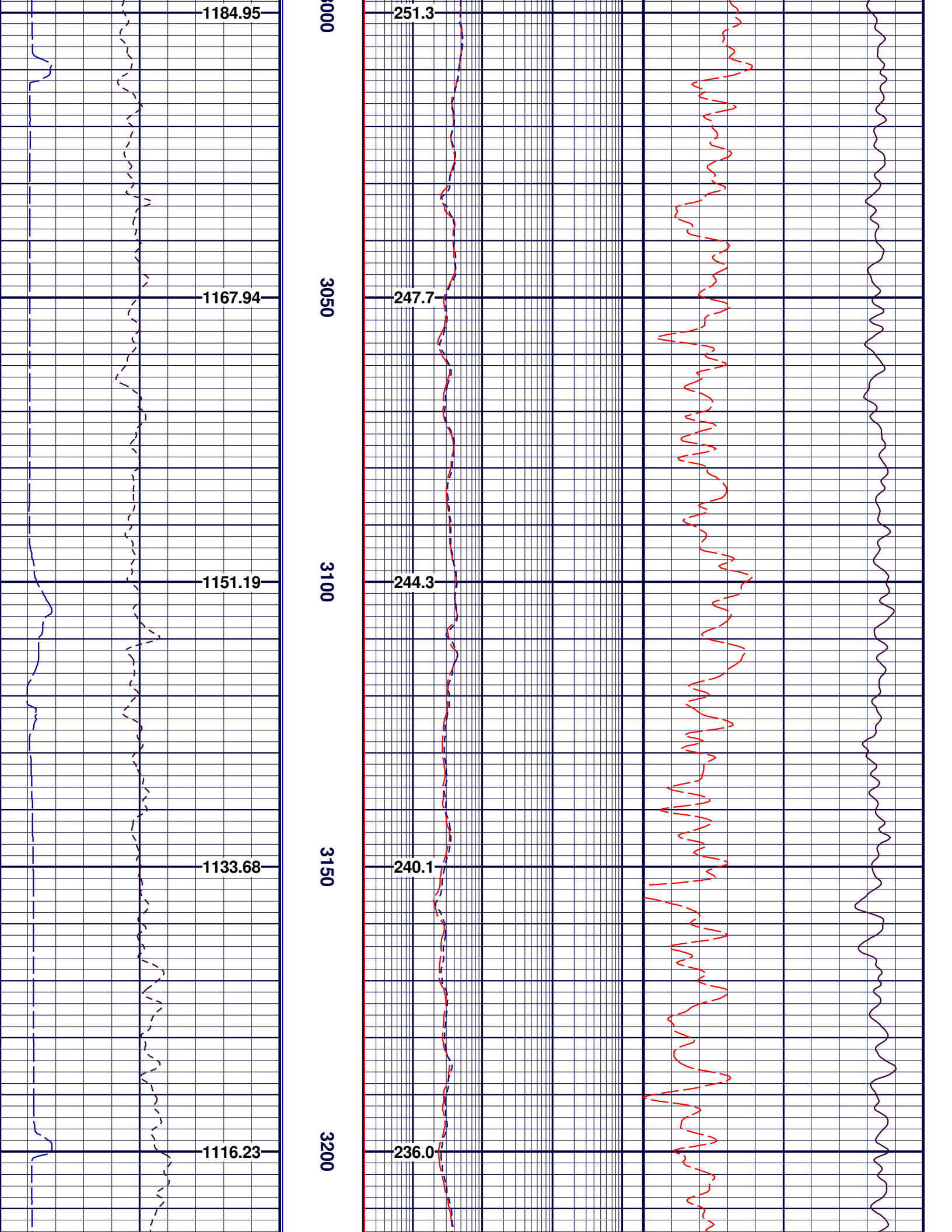
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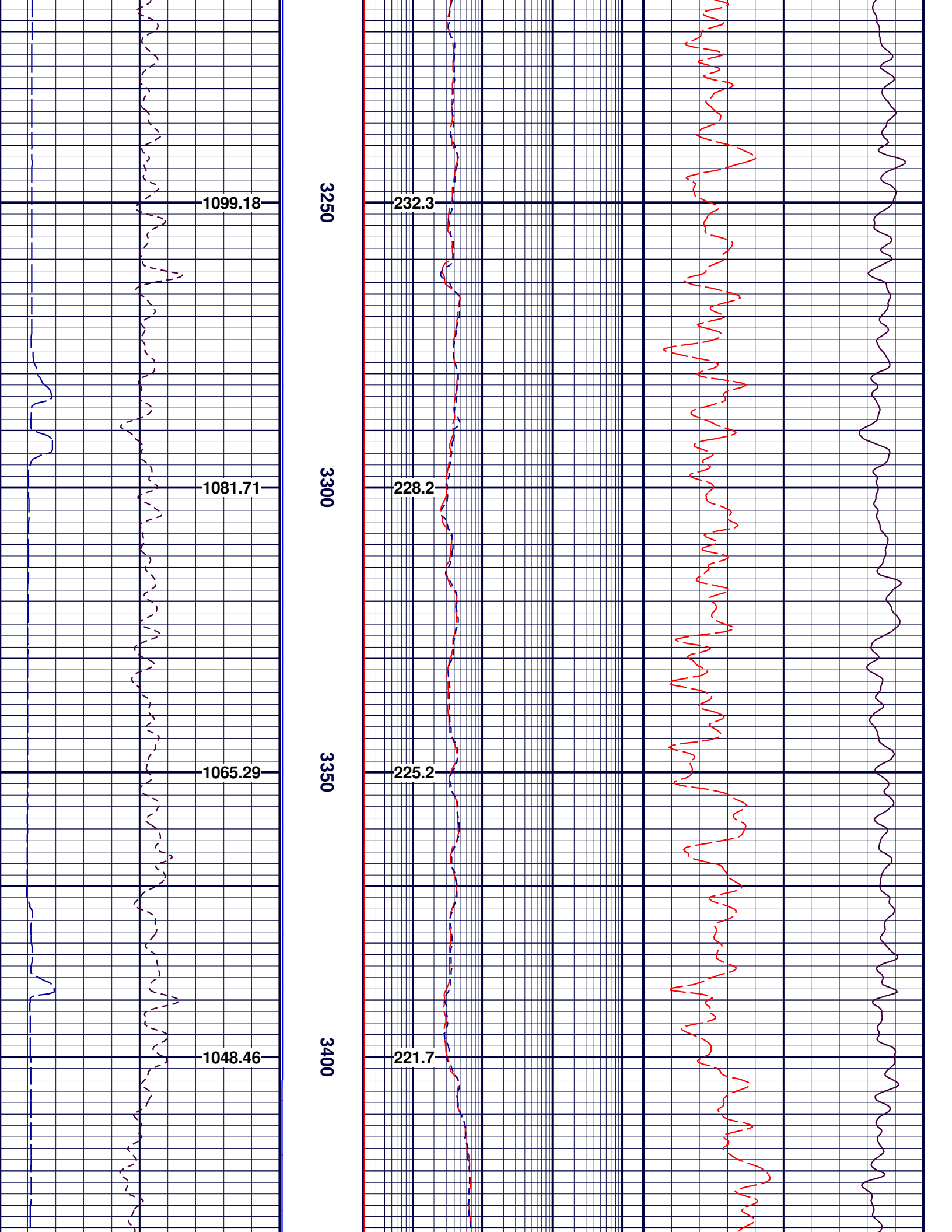
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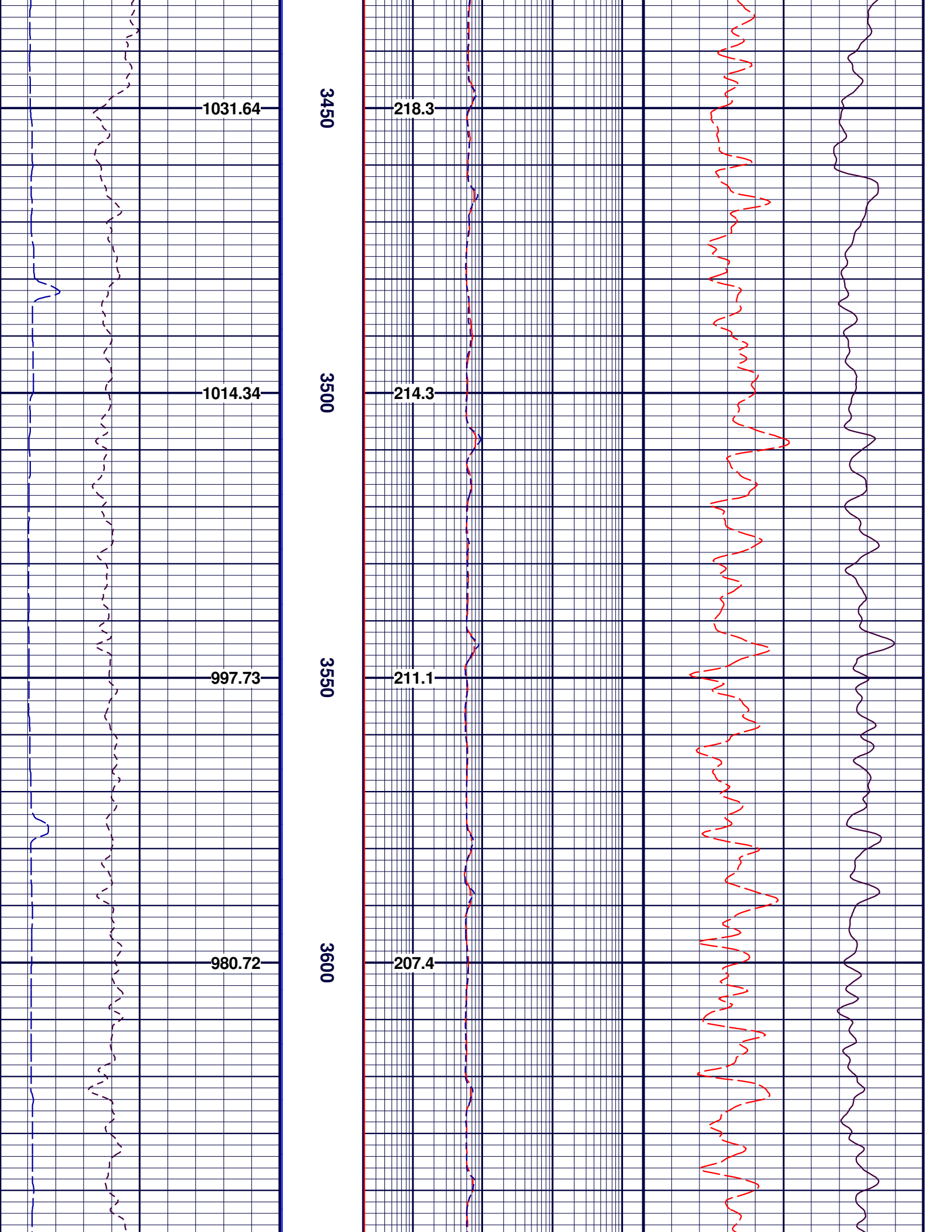
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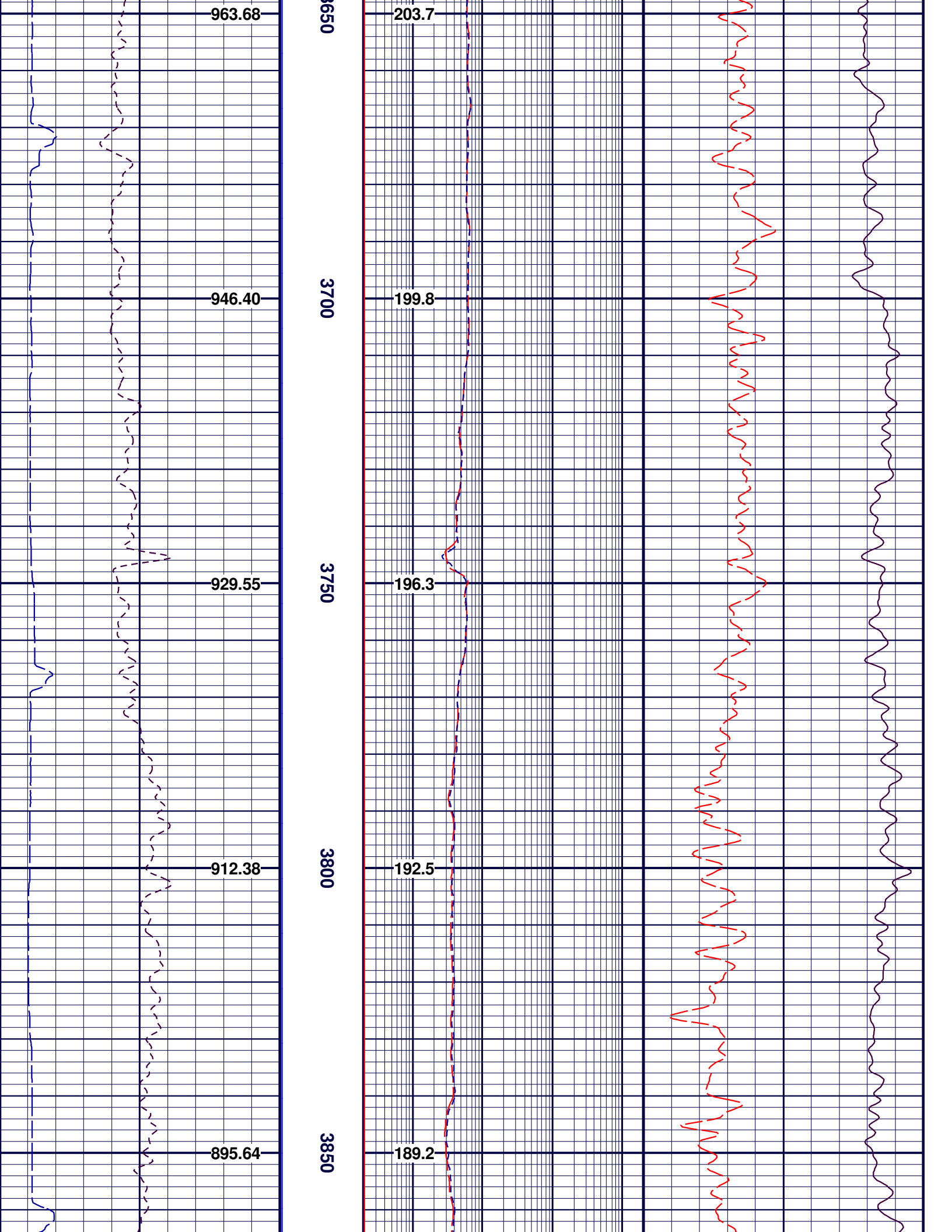
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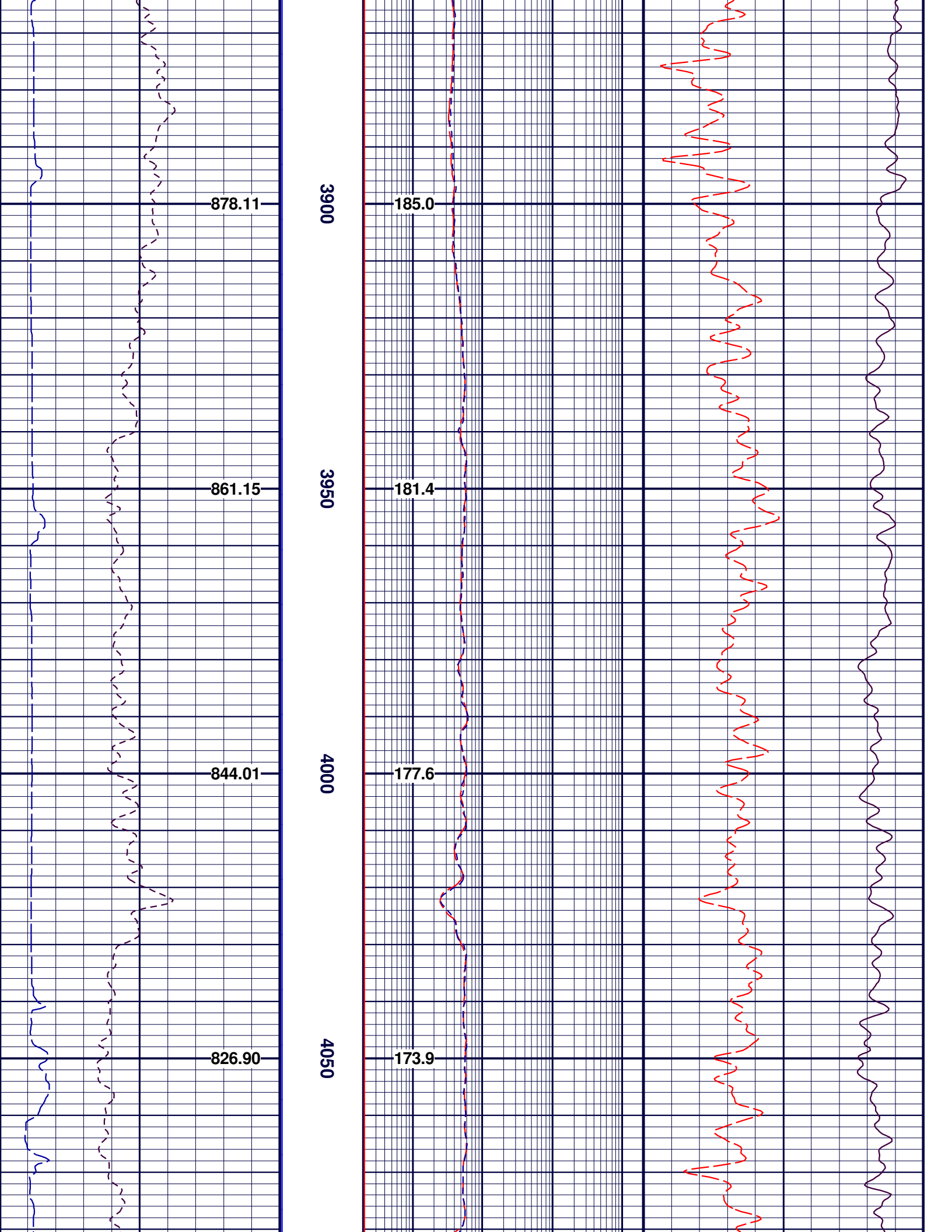
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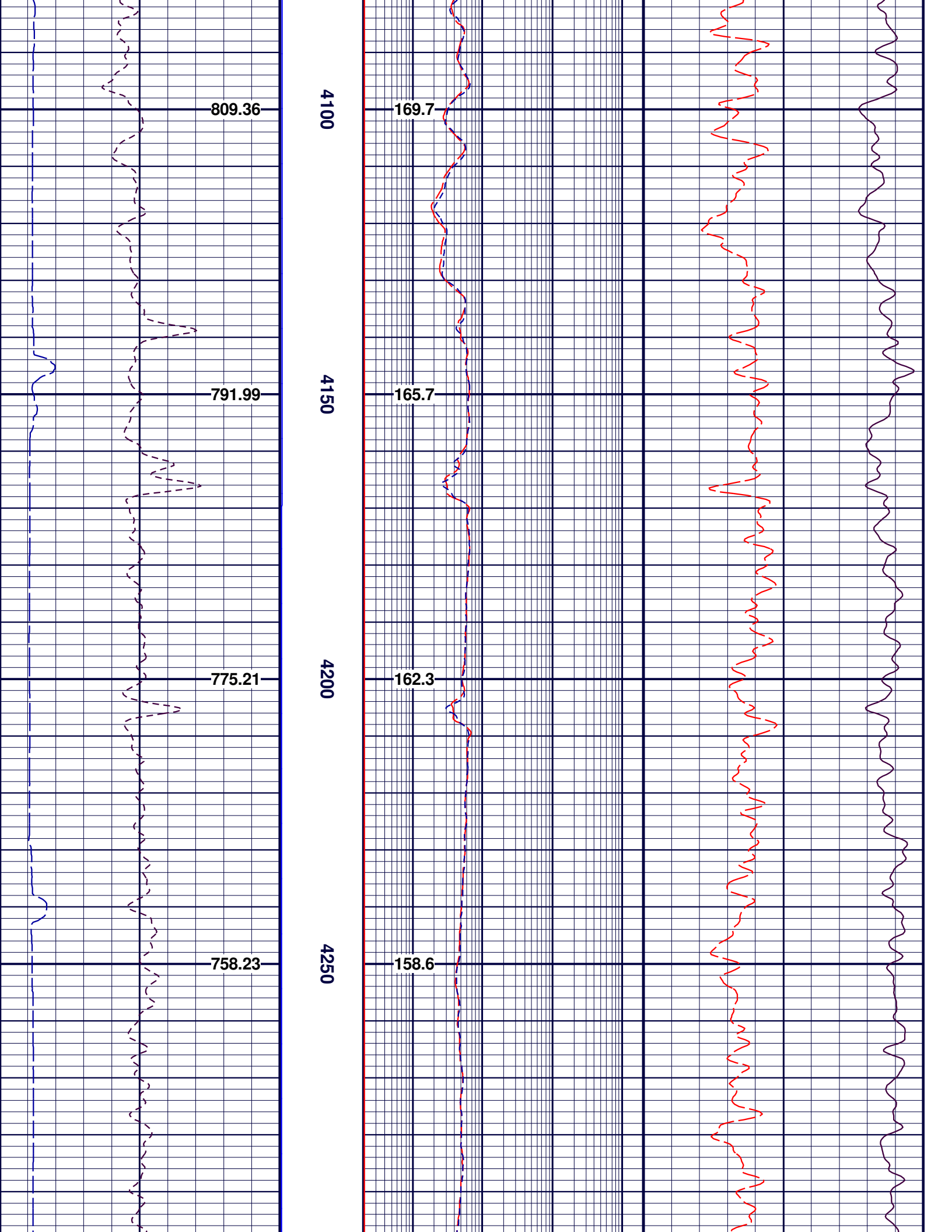
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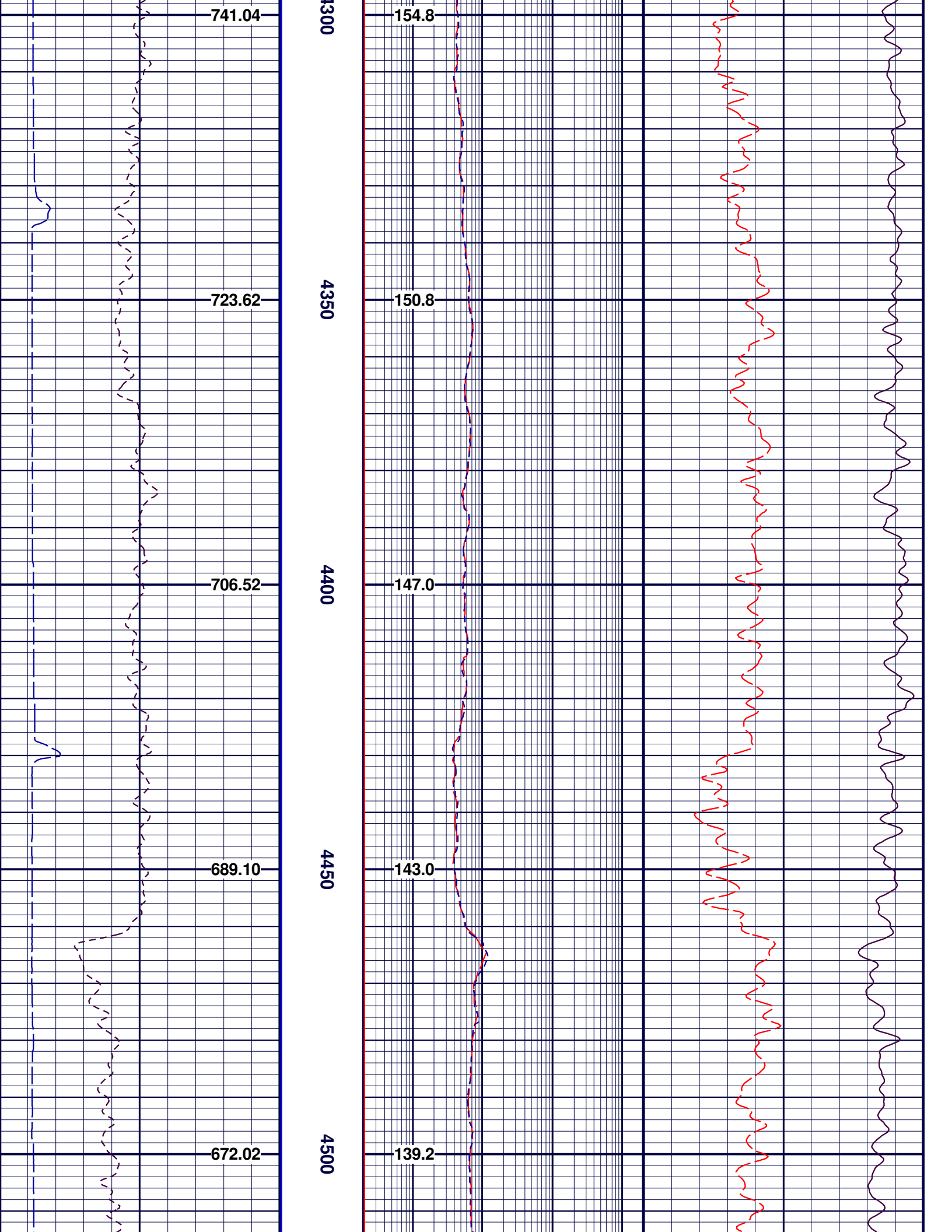
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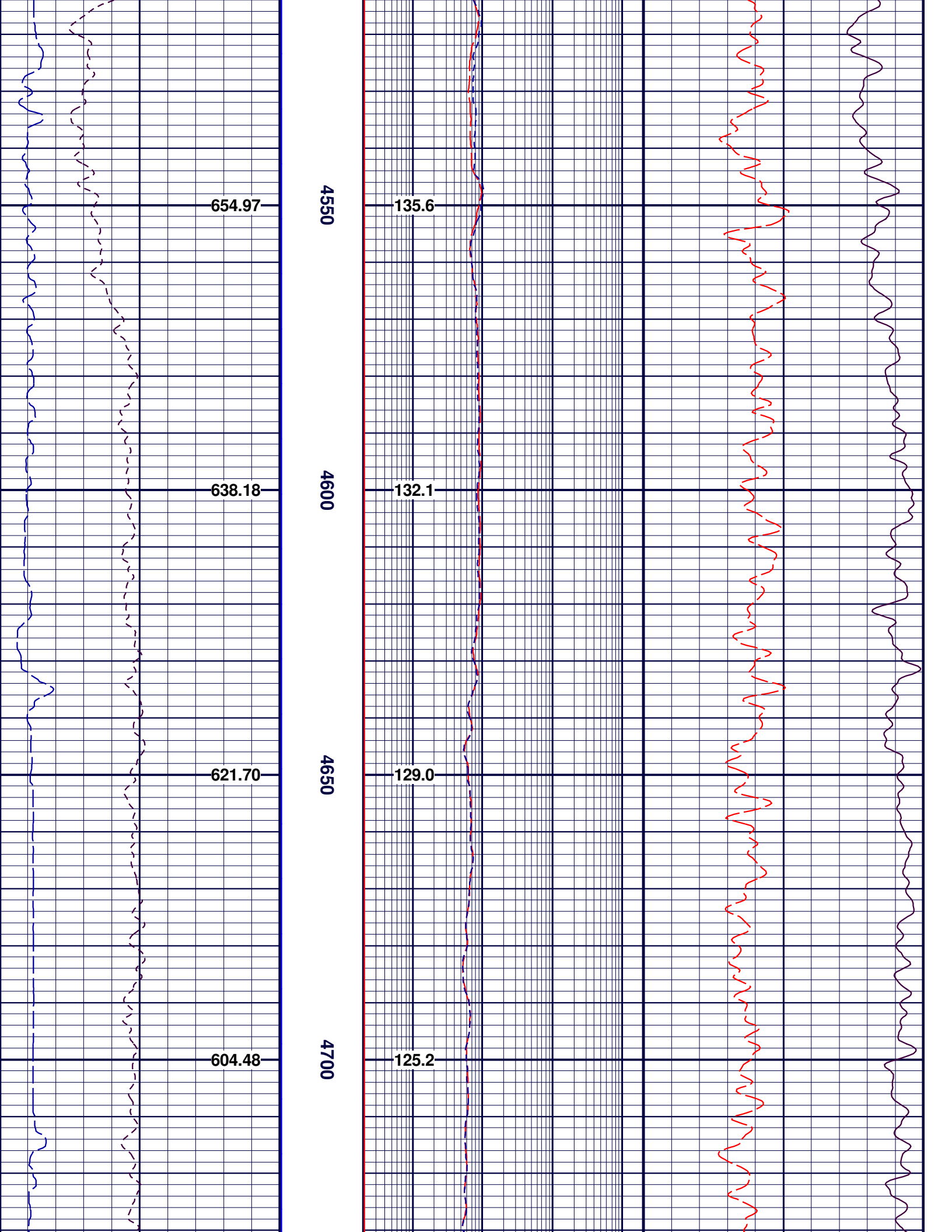
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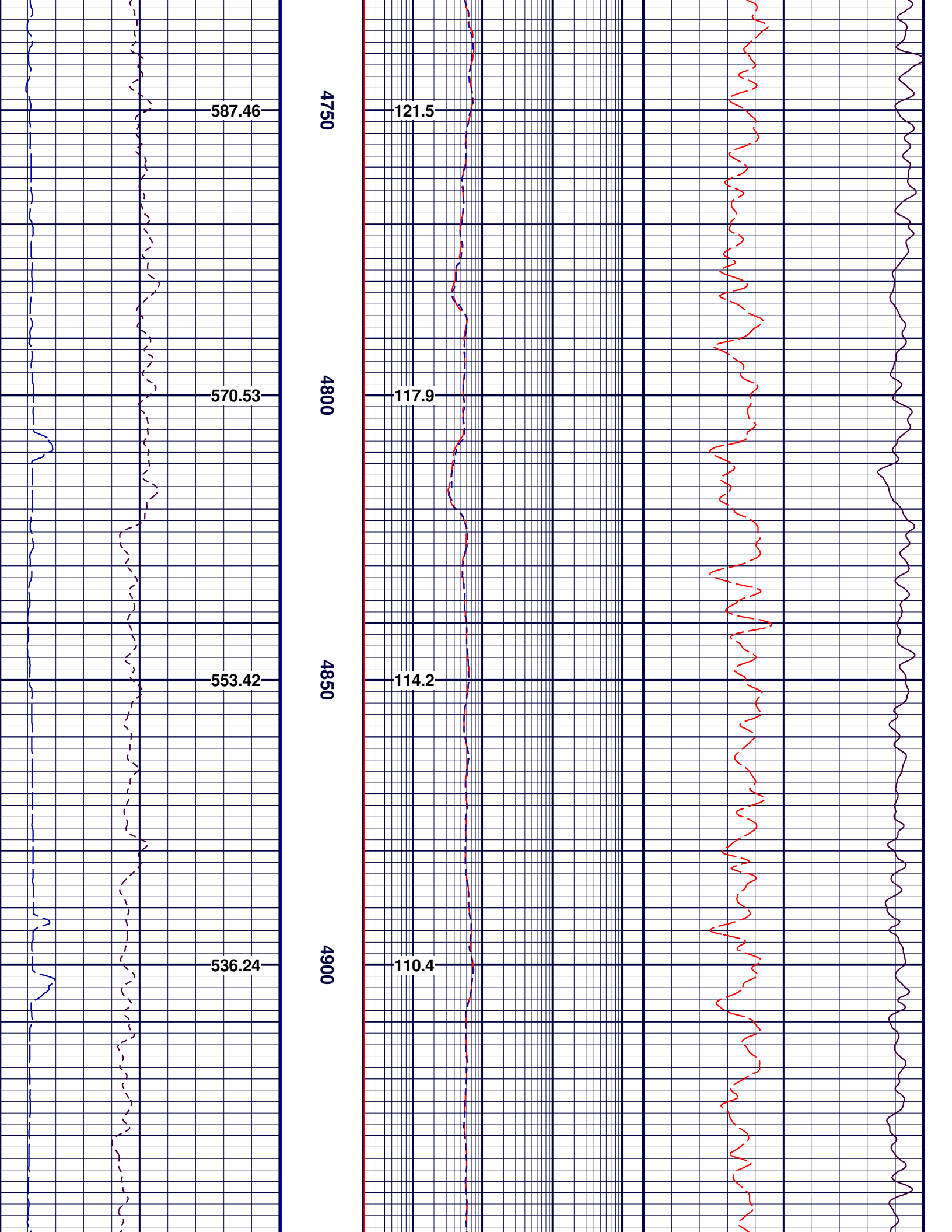
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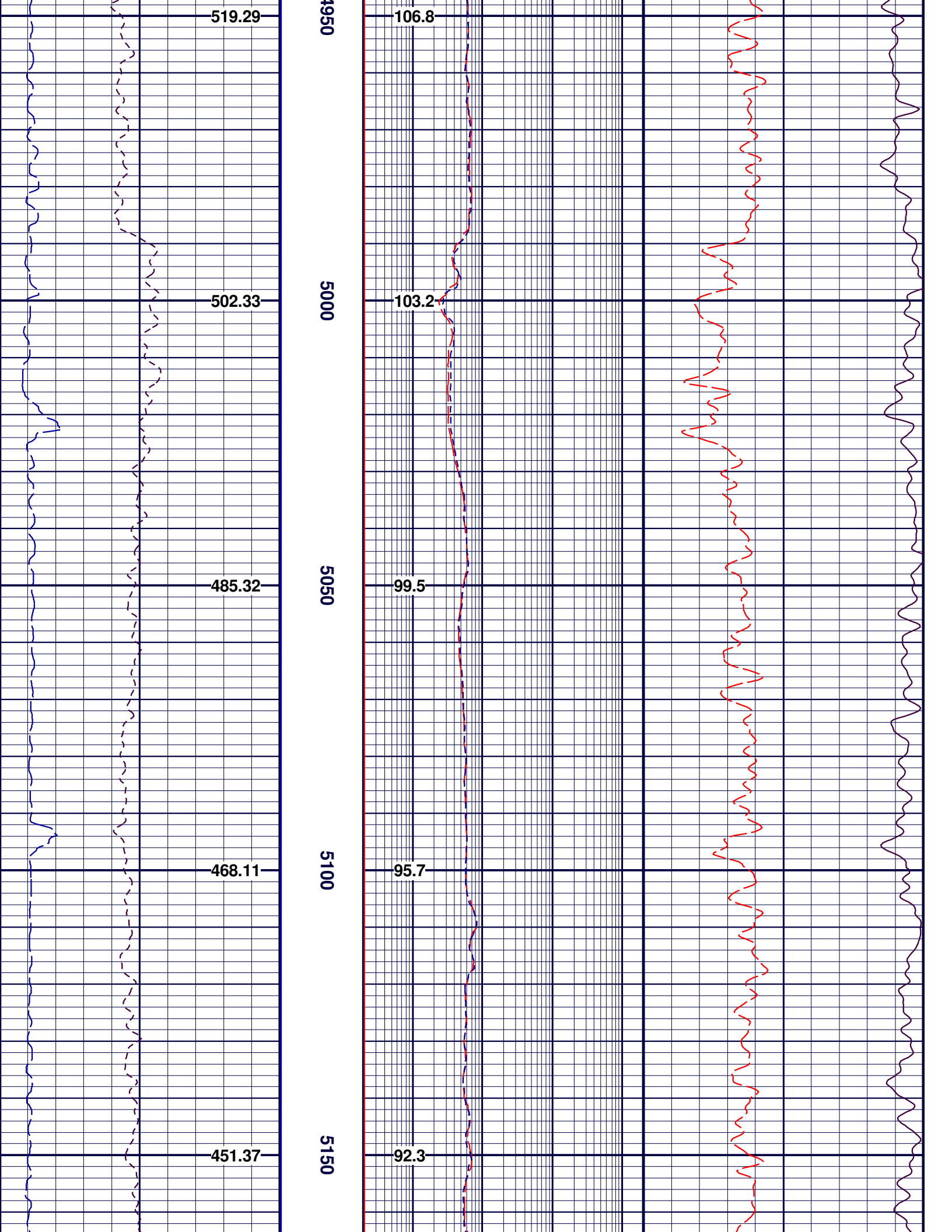
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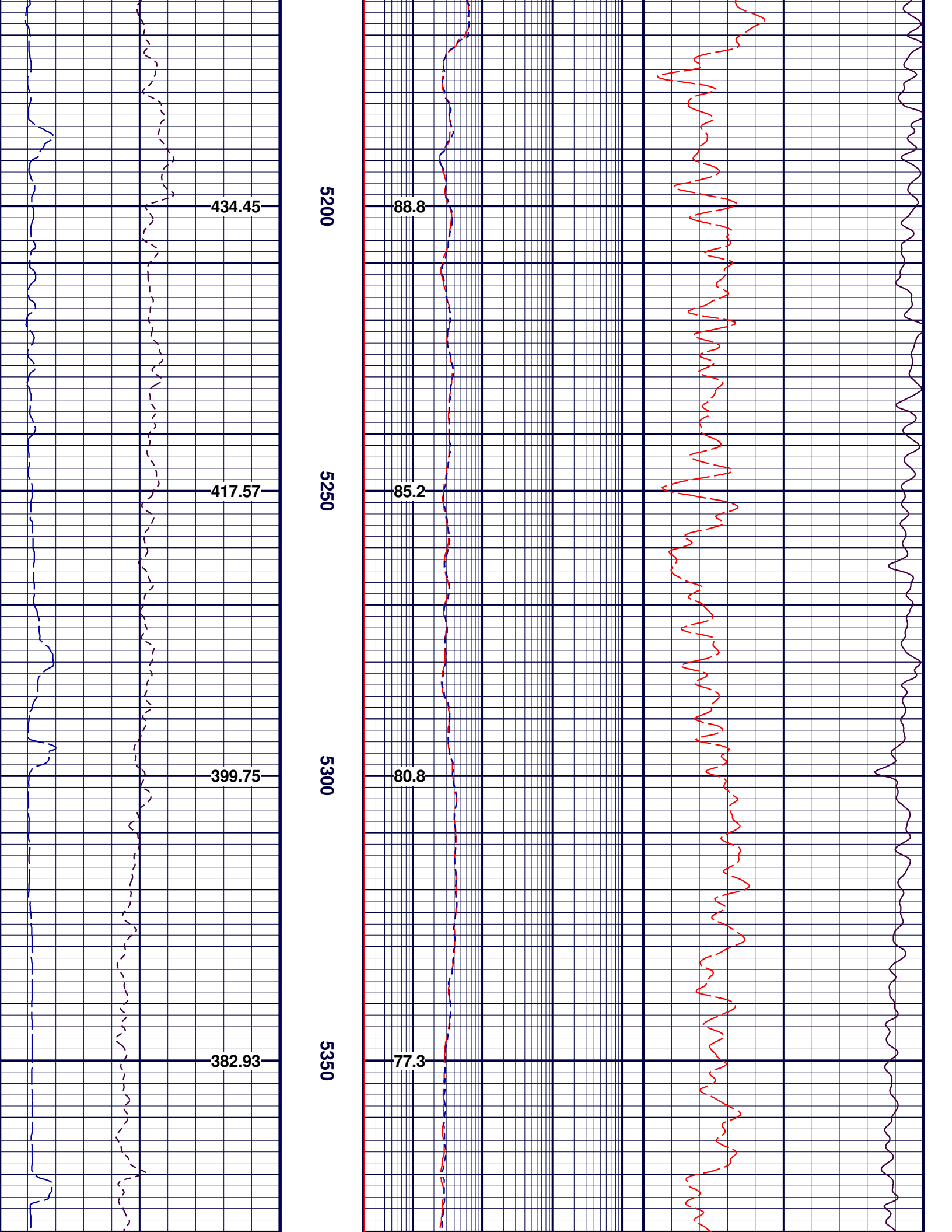
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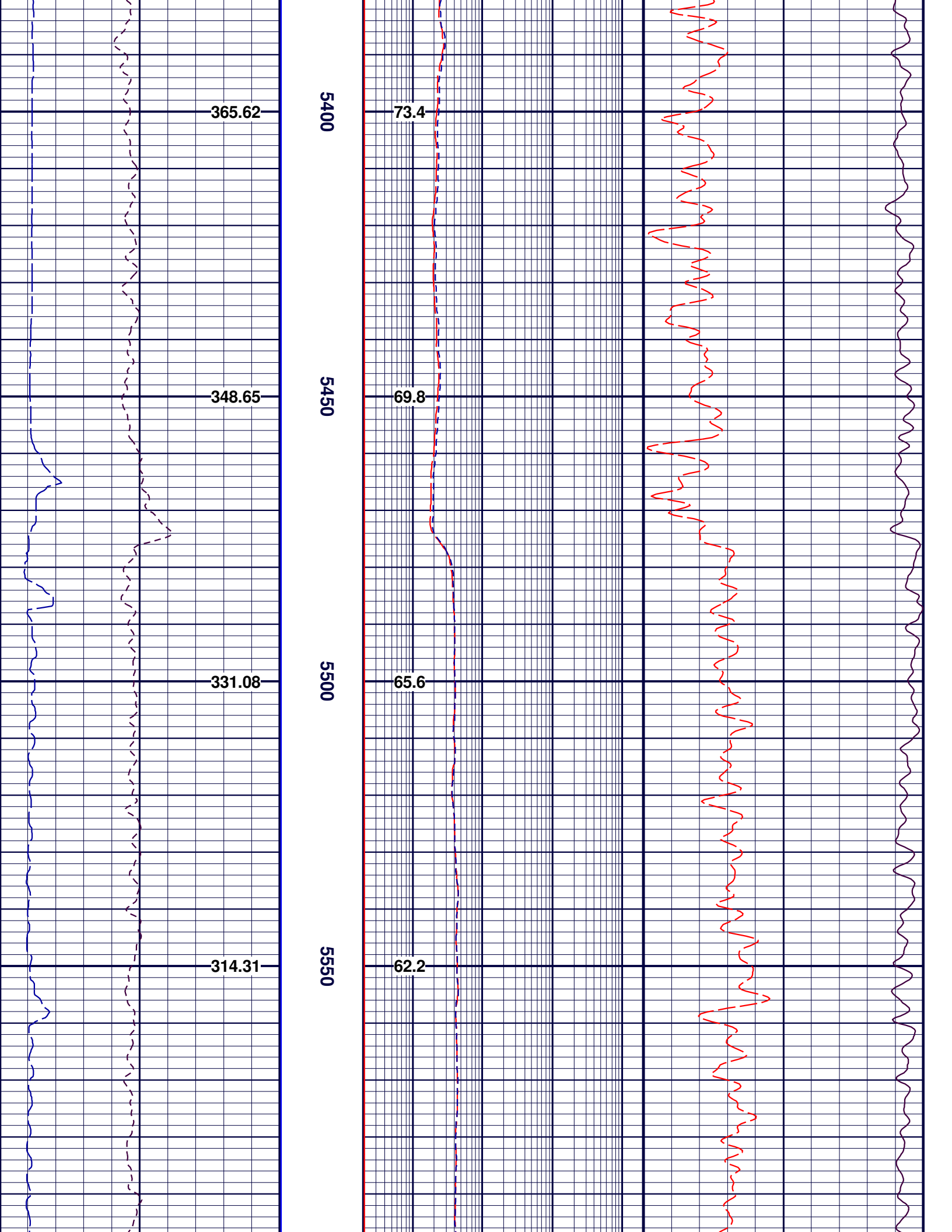
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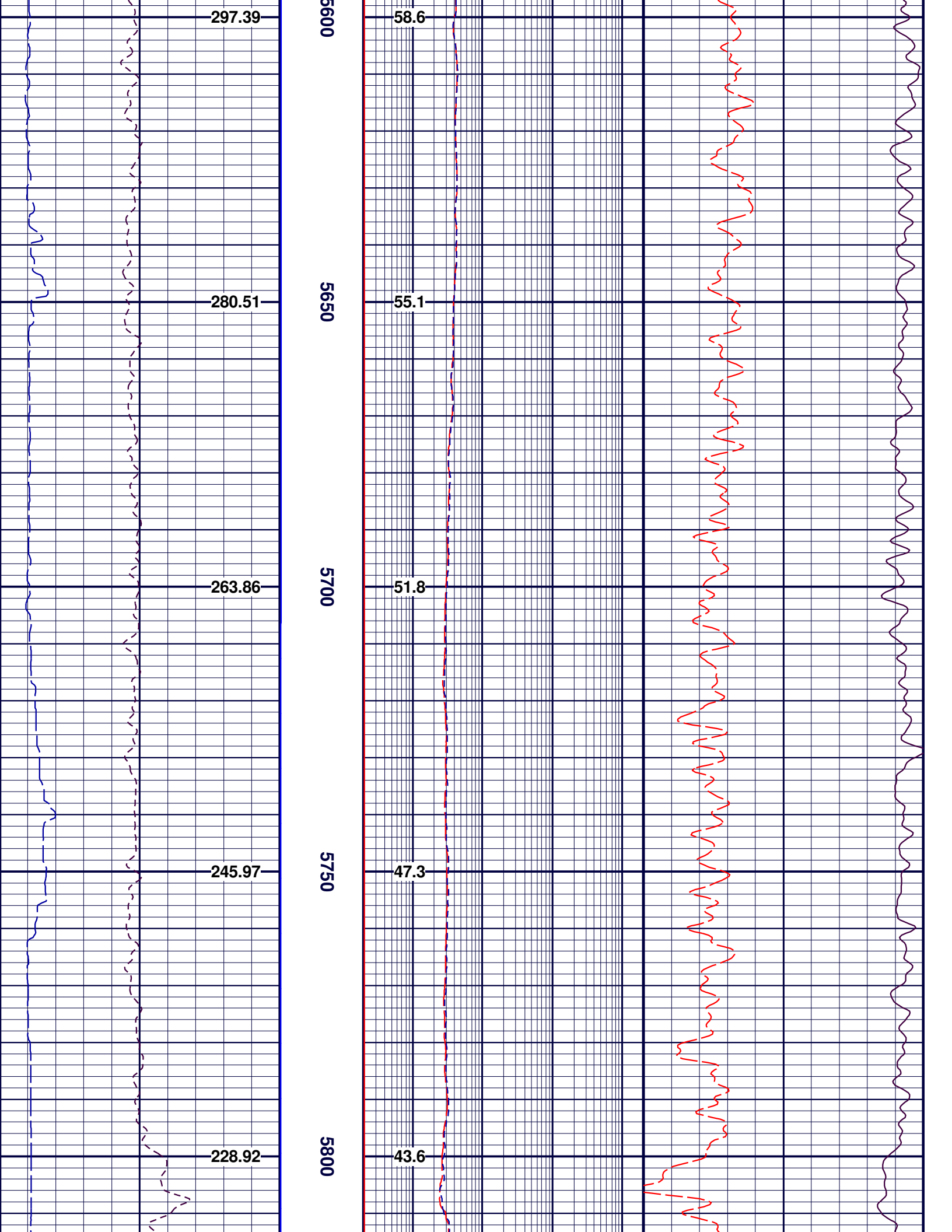
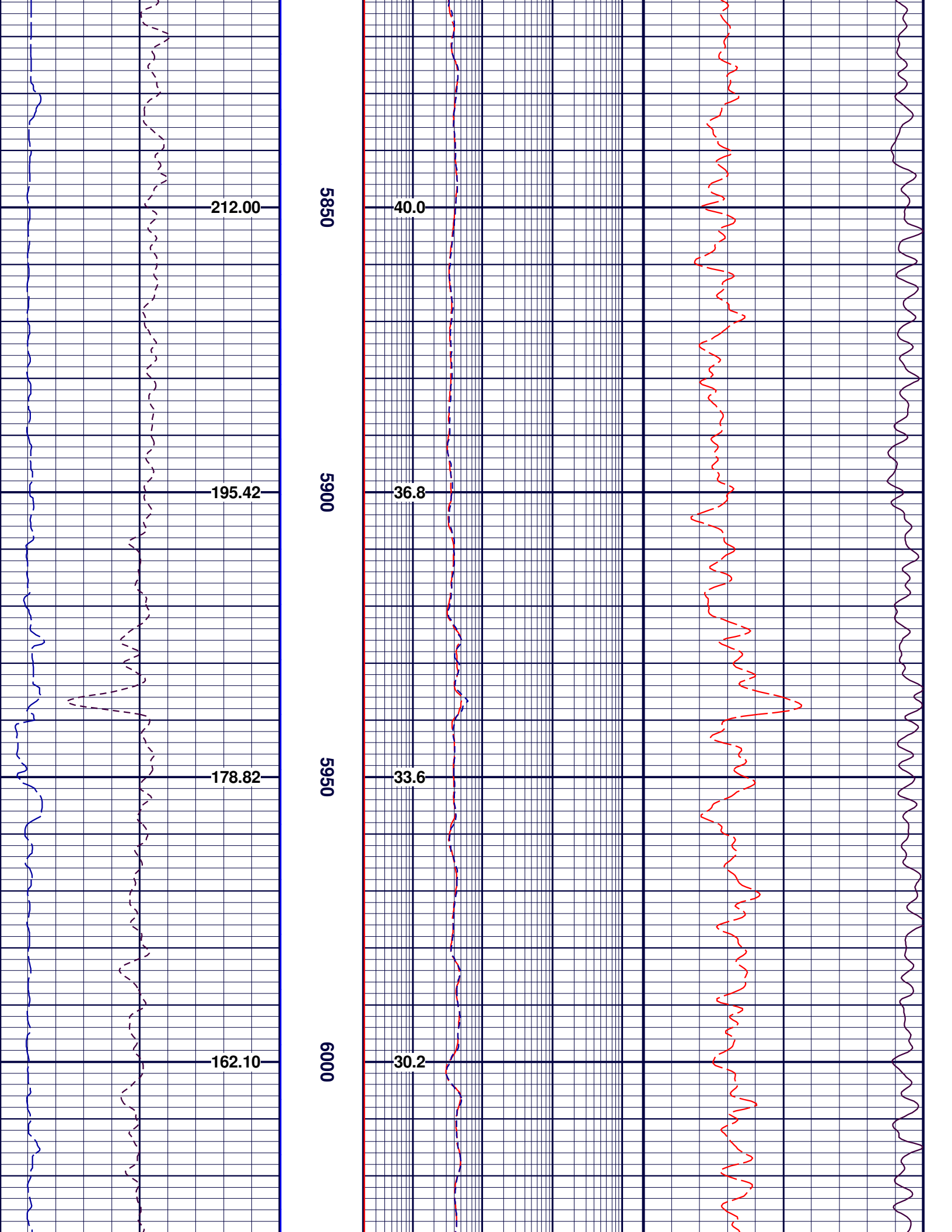
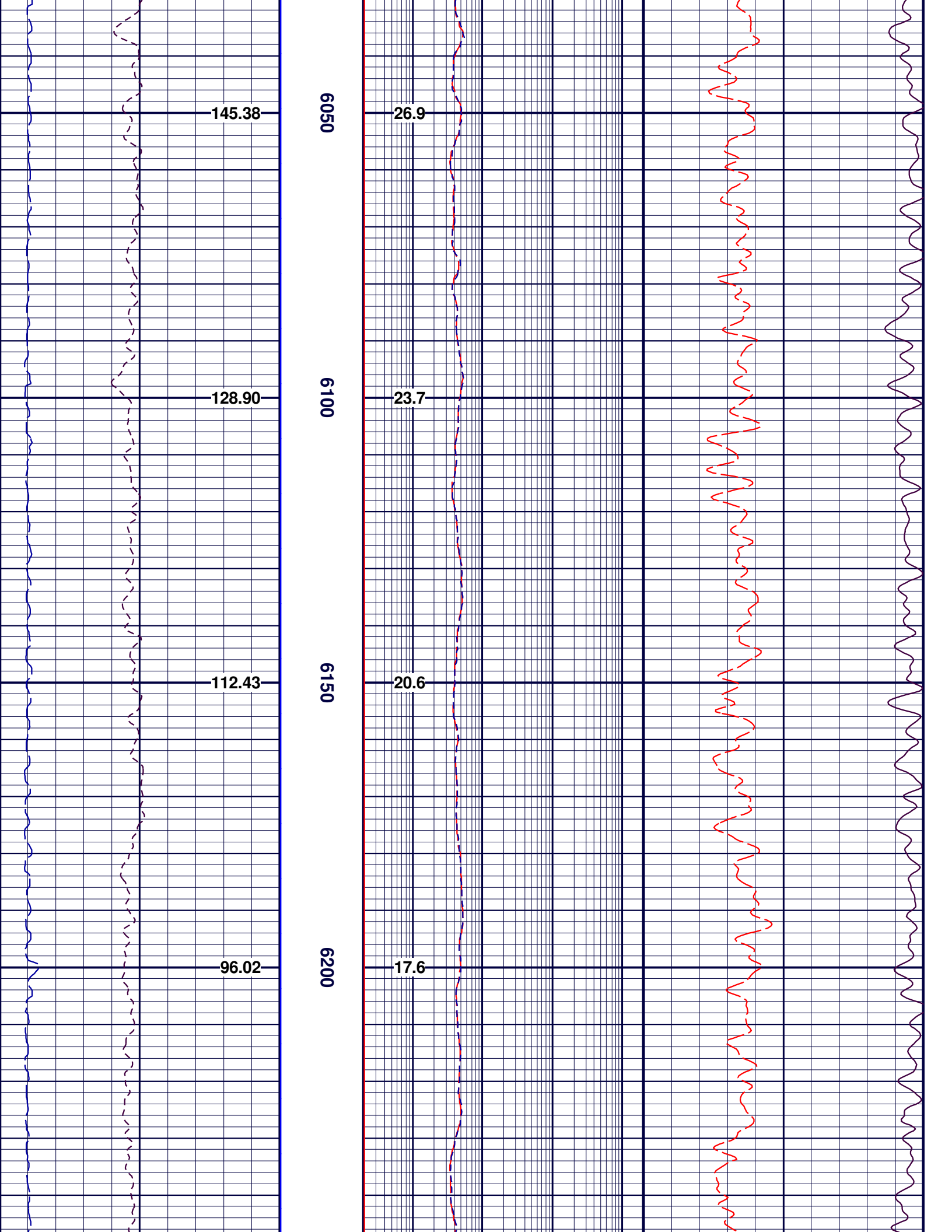
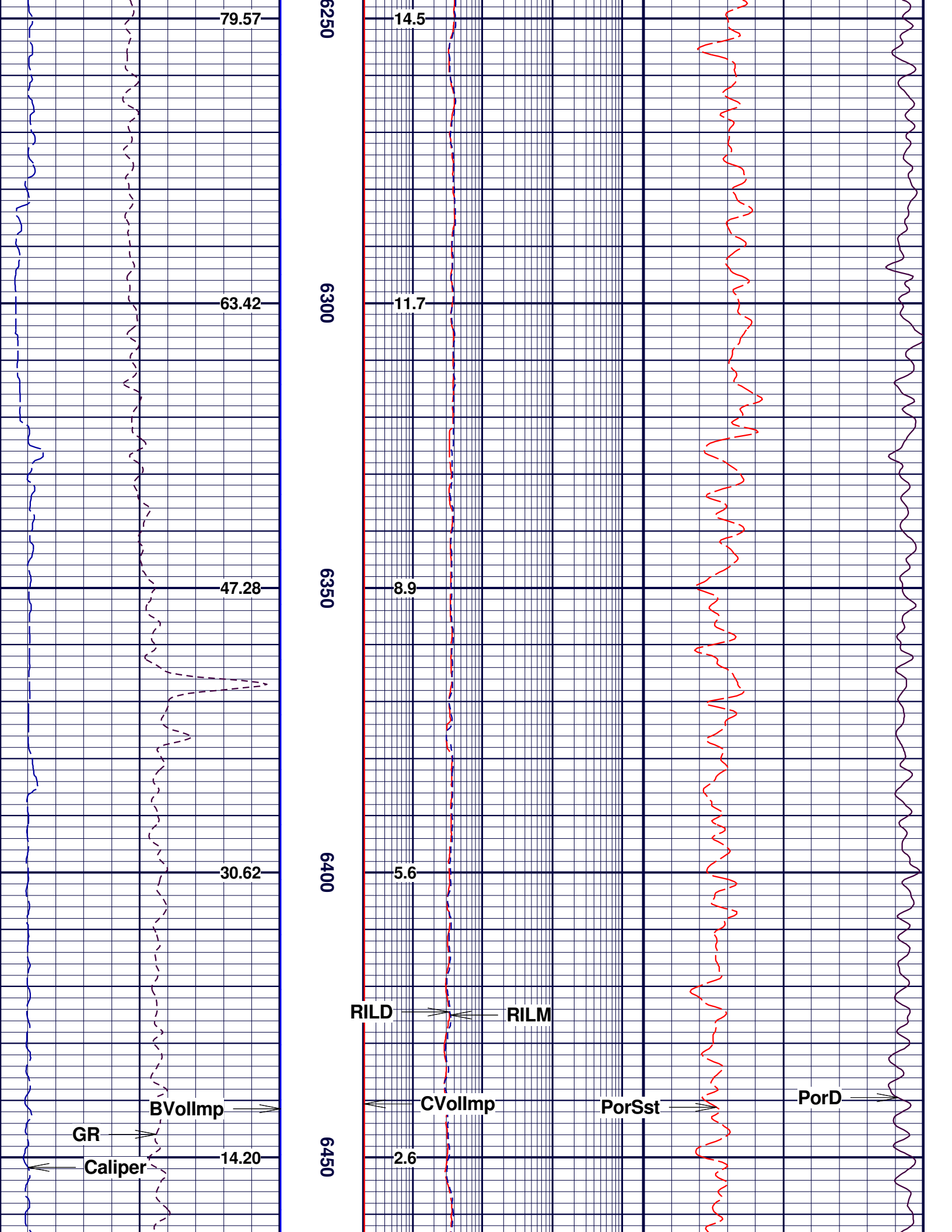
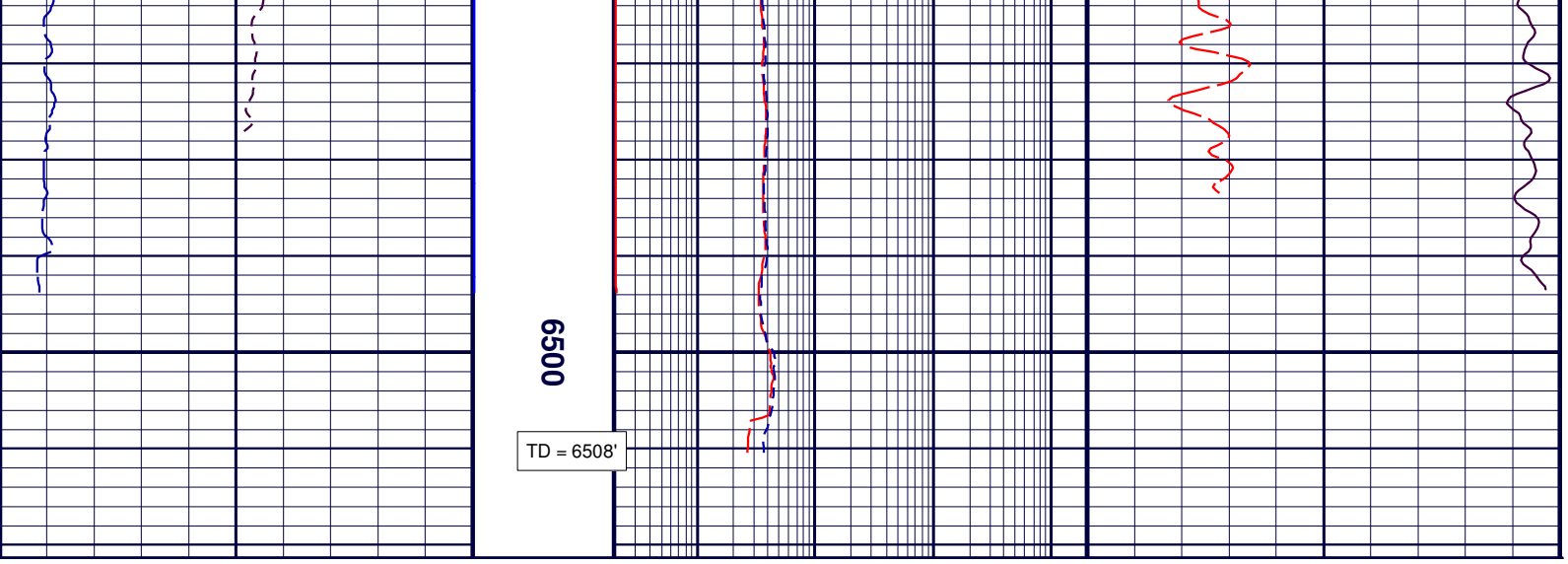
73.4
69.8
65.6
62.2

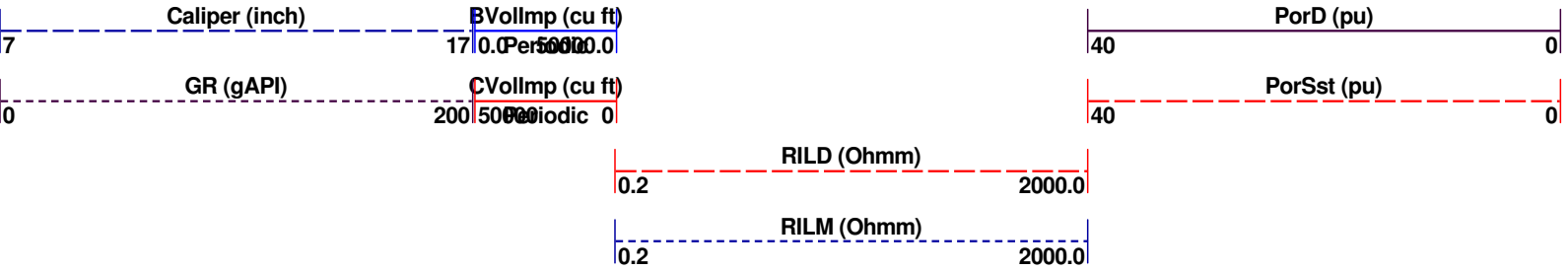

297.39
280.51
263.86
245.97
228.92
5600
5650
5700
5750
5800
58.6
55.1
51.8
47.3
43.6


212.00
195.42
178.82
162.10
5850
5900
5950
6000
40.0
36.8
33.6
30.2


145.38
128.90
112.43
96.02
6050
6100
6150
6200
26.9
23.7
20.6
17.6


79.57
63.42
47.28
30.62
14.20
6250
6300
6350
6400
6450
14.5
11.7
8.9
5.6
2.6
RILD
RILM
CVolImp
BVolImp
GR
Caliper
PorSst
PorD





crossover

File : C:\Welldata\2-014104_EXTRACTION_WIND_6\2015183.cvf

Tool name : ***Tension*** *Asset :* ***2015183*** *Series :* ***Tension*** *Source ID :*

Tension

Two Point Calibration

Time Jan / 11 / 2013 14:32:00
Setup
Description
Setup Version 00000

Curve Name	*pt*	*Raw Value*	*User Value*	*Device*	*Mult.*	*Add.*
Tension	***1***	***800***	***0 N***		***1.886805***	***-1509.444***
Tension	***2***	***24375.3***	***44482 N***			

File : C:\Welldata\2-014104_EXTRACTION_WIND_6\AFC_1831A_023.cvf

Tool name : ***TCMRT*** *Asset :* ***023*** *Series :* ***1831A*** *Source ID :*

Tension

Tension Calibration

Time
Setup
Description
Setup Version 00000

Curve Name	pt	Raw Value	User Value	Device	Mult.	Add.
CHT	1	0 N	0 N		1.000000	0.000
	2	1 N	1 N			

File : C:\Welldata\2-014104_EXTRACTION_WIND_6\AFC_0930A_024.cvf

Tool name : **Telemetry** Asset : **024** Series : **0930A** Source ID :

GR

Gamma Calibration

Time Feb / 03 / 2015 10:05:17
Setup
Description
Setup Version 00001

Block	Raw Value	User Value	Device	Device SN	Mult.
Background	99.7892				
Jig ON	616.692				
Gamma	516.9028	150.0002 gAPI			0.2901903

Gamma Primary Verification

Time Mar / 27 / 2015 17:51:40
Setup
Description API Test Pit
Setup Version 00001

Block	Device	Device SN	Raw Value	User Value
Background			68.7879	
Jig ON			586.86	
Gamma				150.3394 gAPI

File : C:\Welldata\2-014104_EXTRACTION_WIND_6\AFC_1468A_015.cvf

Tool name : **Compensated Neutron** Asset : **015** Series : **1468A** Source ID :

CN

Compensated Neutron Calibration

Time May / 25 / 2015 09:46:43
Setup
Description v5_91 May 25
Setup Version 00001

Curve Name	pt	Raw Value	User Value	Device	Mult.
Ratio	1	4.44222	4.94 none		1.112056

File : C:\Welldata\2-014104_EXTRACTION_WIND_6\AFC_1486A_014.cvf

Tool name : **PE Density Microlog** Asset : **014** Series : **1486A** Source ID :

Peak

ZDL Peak Calibration

Time Apr / 09 / 2015 11:03:08
Setup
Description PEAL CAL 9 APRIL
Setup Version 00001

Block	Channel	Energy (keV)	Device
Am241	23.156	59.5	
Cs137	217.966	661.6	

	60-100 keV	100-140 keV	140-200 keV	200-540 keV
Background	185.507	241.949	462.883	1336.43

Tool name : **PE Density Microlog** *Asset :* **014** *Series :* **1486A** *Source ID :*

PeDen

PeDen Calibration

Time Apr / 09 / 2015 12:15:49
Setup
Description
Setup Version 00001

	Raw Values			Device Values		
	SSD	LSD	SHR	DEN	CORR	PE
MG	17419.9 cps	11732.9 cps	0.709 (0.700 – 0.900)	1.649 g/ccm	0.000 g/ccm	2.14 b/e
AL	9273.0 cps	1593.8 cps		2.550 g/ccm	0.000 g/ccm	
AL + Mg Shim	12791.7 cps	2697.9 cps		2.488 g/ccm	0.120 g/ccm	
MG + St Shim		5333.6 cps	0.279 (0.250 – 0.320)			10.31 b/e
Ratio MG/AL	1.88 none (1.50 – 2.00)	7.36 none (6.80 – 8.50)				
Spine Angle	72.5 deg (72.0 – 75.0)	Rib Angle	54.4 deg (52.0 – 55.0)			

PeDen Primary Verification

Time Apr / 09 / 2015 16:29:56
Setup
Description
Setup Version 00001

Curve Name	pt	Device	Device Value	User Value
SSD	1			407.185 cps
LSD	1			255.834 cps
ZDEN	1			0.509153 g/cc
ZCOR	1			-1.96403 g/cc
SHR	1			0.229596 none
PE	1			13.3369 b/e

Tool name : **PE Density Microlog** *Asset :* **014** *Series :* **1486A** *Source ID :*

RNML

Resistivity Calibration

Time Mar / 12 / 2015 16:46:04

Setup

Description

Setup Version 00001

Curve Name	pt	Raw Value	User Value	Device	Mult.	Add.
RNML	1	-0.00171871	0 Ohmm		1.515284	0.003
	2	88.6945	134.4 Ohmm			

Tool name : **PE Density Microlog** Asset : **014** Series : **1486A** Source ID :

RLML

Resistivity Calibration

Time Mar / 12 / 2015 16:46:33

Setup

Description

Setup Version 00001

Curve Name	pt	Raw Value	User Value	Device	Mult.	Add.
RLML	1	0.0149555	1 Ohmm		0.893583	0.987
	2	186.903	168 Ohmm			

Tool name : **PE Density Microlog** Asset : **014** Series : **1486A** Source ID :

Caliper

Caliper Calibration

Time Apr / 09 / 2015 16:09:17

Setup

Description

Setup Version 00001

Curve Name	pt	Raw Value	User Value	Device	Mult.	Add.
Caliper	1	6.39051	6 inch		0.788563	0.961
	2	19.0718	16 inch			

File : C:\Welldata\2-014104_EXTRACTION_WIND_6\AFC_1141A_013.cvf

Tool name : **DIL** Asset : **013** Series : **1141A** Source ID :

Deep

Conductivity Calibration

Time Jun / 18 / 2015 09:46:51

Setup

Description shop_June17 13el_14man

Setup Version 00001

Curve Name	pt	Raw Value	User Value	Device	Mult.	Add.
CILDRaw	1	-2.69737 mV	0 mS/m		0.839323	2.264
	2	474.592 mV	400.6 mS/m			

Tool name : **DIL** Asset : **013** Series : **1141A** Source ID :

GwD

Array Calibration

Time

Setup

Description

Setup Version 00000

No	Value	No	Value	No	Value	No	Value	No	Value	No	Value
01:	0										

Tool name : ***DIL*** *Asset :* ***013*** *Series :* ***1141A*** *Source ID :*

CLL8

Conductivity Calibration

Time Jun / 18 / 2015 10:23:50

Setup

Description

Setup Version 00001

Curve Name	*pt*	*Raw Value*	*User Value*	*Device*	*Mult.*	*Add.*
CLL8	1	518.032 mV	500 mmho		0.965664	-0.245
	2	1.28921 mV	1 mmho			

Tool name : ***DIL*** *Asset :* ***013*** *Series :* ***1141A*** *Source ID :*

Medium

Conductivity Calibration

Time Jun / 18 / 2015 09:54:03

Setup

Description shop_Jun 9 14el_14mand

Setup Version 00001

Curve Name	*pt*	*Raw Value*	*User Value*	*Device*	*Mult.*	*Add.*
CILMRaw	1	-1.24249 mV	0 mS/m		0.981046	1.219
	2	468.664 mV	461 mS/m			

Tool name : ***DIL*** *Asset :* ***013*** *Series :* ***1141A*** *Source ID :*

GwM

Array Calibration

Time

Setup

Description

Setup Version 00000

No	Value	No	Value	No	Value	No	Value	No	Value	No	Value
01:	0										