

<div><div>PIONEER</div><div><div>DUAL INDUCTION</div><div>Pe-DENSITY</div><div>COMPENSATED NEUTRON</div><div>GAMMA RAY</div></div></div>		<div>COMPANY: GRIZZLY OPERATING,LLC</div> <div>WELL: GOZA 18-2Ae</div> <div>FIELD: WATTENBERG</div> <div>COUNTY: WELD</div> <div>STATE: CO.</div>	
<div>Company:GRIZZLY OPERATING,LLC</div> <div>Well: GOZA 18-2Ae</div> <div>Field: WATTENBERG</div> <div>County: WELD</div> <div>State: CO.</div>		<div>Location</div> <div>SHL: 1728' FSL X 711' FEL NESE SEC18 T6N R65W</div> <div>BHL: 5' FNL x 1312' FEL NENE SEC19 T6N R65W</div> <div>API# 05-123-38401</div>	<div>Other Services</div>
<div>Permanent Datum: GL</div> <div>Elevation: 4756 FT</div>	<div>Log Meas. From: KB</div> <div>, 16 FT ABOVE PERM. DATUM</div>	<div>Elevations</div> <div>K.B.: 4770 FT</div> <div>D.F.: 4769 FT</div> <div>G.L.: 4756 FT</div>	
<div>Drill. Meas. From: KB</div>			
<div>Date</div> <div>11 NOV 2015</div>			
<div>Run Number</div> <div>1</div>			
<div>Depth Driller</div> <div>7640 FT</div>			
<div>Depth Logger</div> <div>7656 FT</div>			
<div>Bottom Logged Interval</div> <div>7654 FT</div>			
<div>Top Logged Interval</div> <div>7650 FT</div>			
<div>Casing Driller</div> <div>8.625 IN. @ 564 FT</div>			
<div>Casing Logger</div> <div>550 FT</div>			
<div>Bit size</div> <div>7.875 IN.</div>			
<div>Type Fluid in Hole</div> <div>FW MUD</div>			
<div>Density / Viscosity</div> <div>9.2 #/GAL</div> <div>42\ S</div>			
<div>pH / Water Loss</div> <div>9.0</div> <div>6.0 CC</div>			
<div>Source of Sample</div> <div>BOREHOLE</div>			
<div>Rm @ Meas. Temp.</div> <div>1.2 Ohm-m @ 135 F</div>			
<div>Rmf @ Meas. Temp.</div> <div>0.9 Ohm-m @ 135 F</div>			
<div>Rmc @ Meas. Temp.</div> <div>1.5 Ohm-m @ 135 F</div>			
<div>Source Rmf/Rmc</div> <div>CALC</div> <div>CALC</div>			
<div>Rm at BHT</div> <div>0.79 Ohm-m @ 205 F</div>			
<div>End Circulation</div> <div>2200 10 NOV</div>			
<div>Logger on Bottom</div> <div>0730 11 NOV</div>			
<div>Max. Recorded Temp.</div> <div>205</div>			
<div>Equip. No / Location</div> <div>110 FORT MORGAN</div>			
<div>Recorded by</div> <div>D TRAVIS</div>			
<div>Witnessed by</div> <div>GEORGE HINE</div>	<div>MARK SCANNIELLO</div>		

----Fold Here----

All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services cannot and do not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services will 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 the Pioneer Wireline Services general terms and conditions as set out in our current Price Schedule.

REMARKS

SO 2-014083

SP NOISEY, COULD HAVE BEEN DUE TO RIG NOISE, OK PER CUSTOMER

NO REPEAT PASS DUE TO STICKY 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	None	1809CableHead	0.000 ft
		TCMRT	024	1831A	2.690 ft
		Telemetry	021	0930A	7.562 ft
		Orientation	013	1211	11.860 ft
		Compensated Neutro	015	1468A	18.839 ft
		PE Density Microlog	016	1486A	26.388 ft
		DIL	013	1141A	37.162 ft
		Bull Plug	None	BP	61.736 ft

Asset Number : None
Length : 2.690 ft
Diameter : 3.4 inch
Weight : 37.3 lbs

TCMRT

Identifier : 1831A
Asset Number : 024
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

Tension 58.72 ft
Mud 57.16 ft
BHT 56.90 ft

Telemetry

Identifier : 0930A
Asset Number : 021
Length : 4.298 ft
Diameter : 3.4 inch
Weight : 75.4 lbs
Measure Point : 1.329 ft : GR

GR 51.35 ft

Orientation

Identifier : 1211
Asset Number : 013
Length : 6.978 ft
Diameter : 3.4 inch
Weight : 101.4 lbs
Measure Point : 0.000 ft : Orientation

Orientation 43.04 ft





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

Long 38.06 ft
Short 37.66 ft

PE Density Microlog

Identifier : 1486A
Asset Number : 016
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

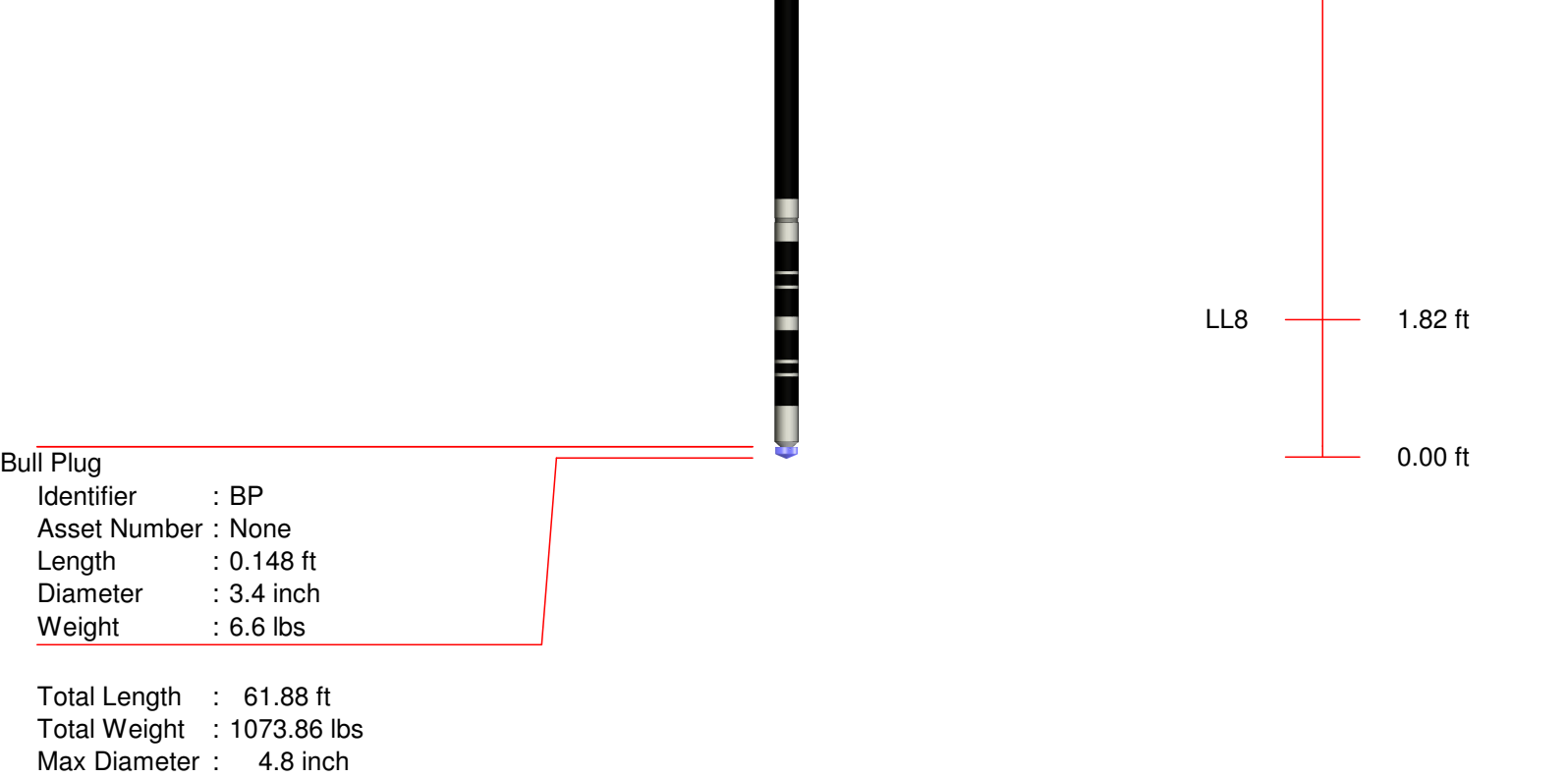
Short		28.20 ft
Long		27.85 ft
RLML		27.66 ft
RNML		27.58 ft

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

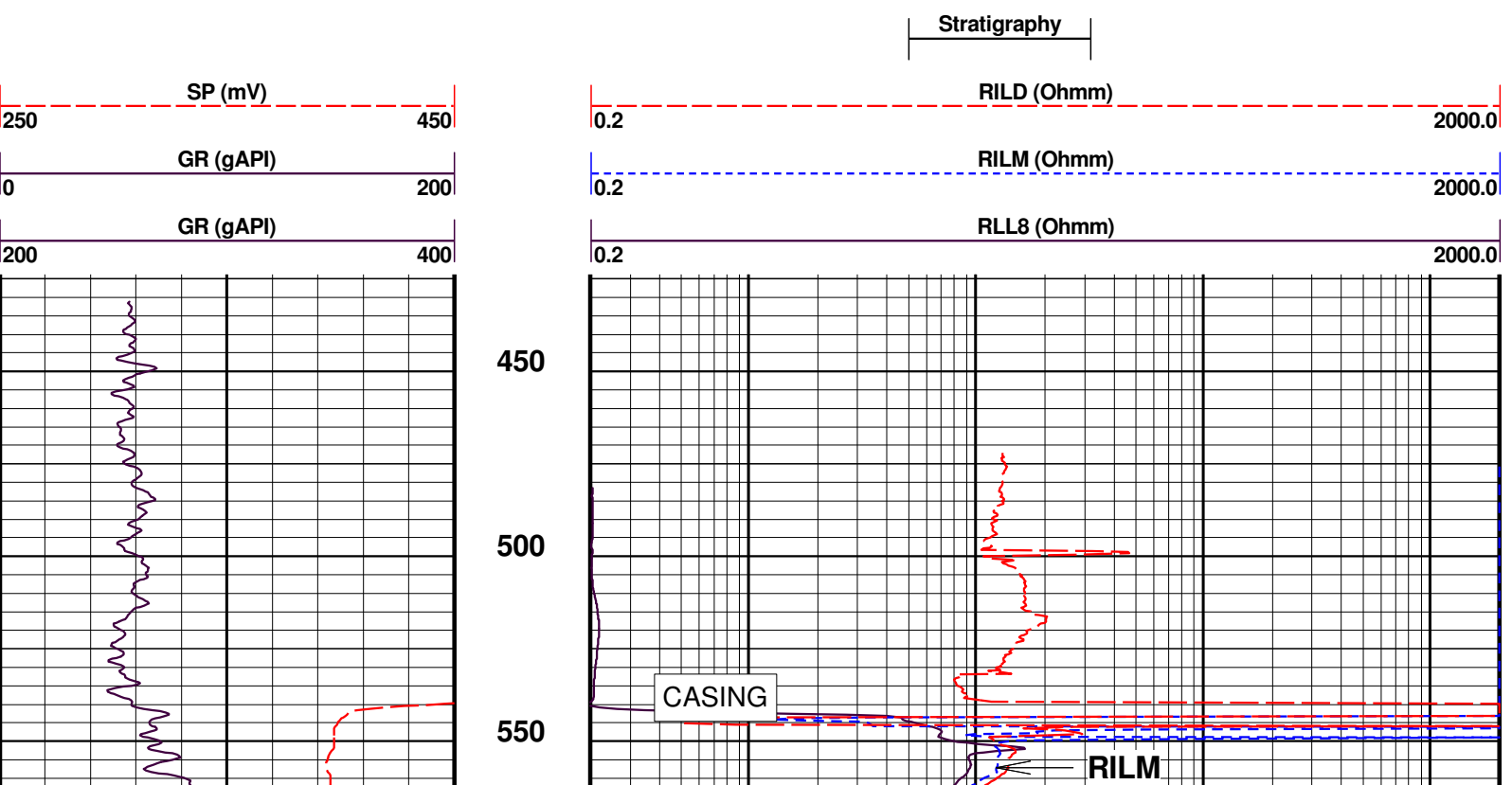
SP		11.11 ft
Deep		11.11 ft

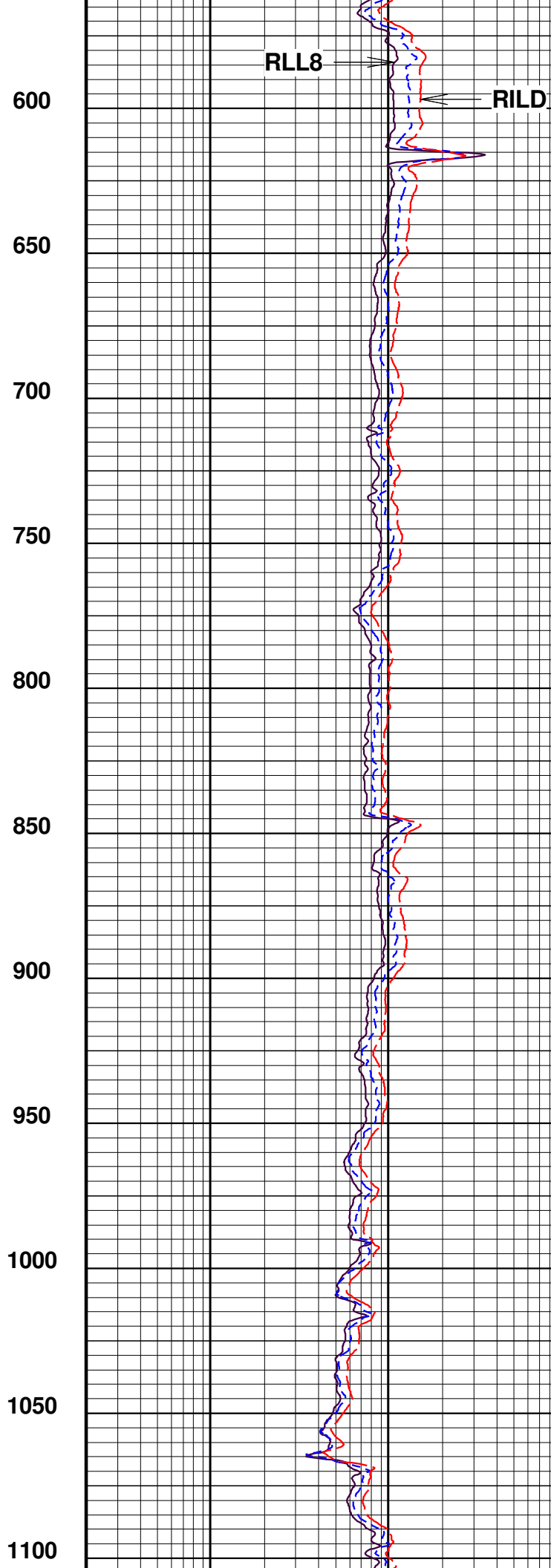
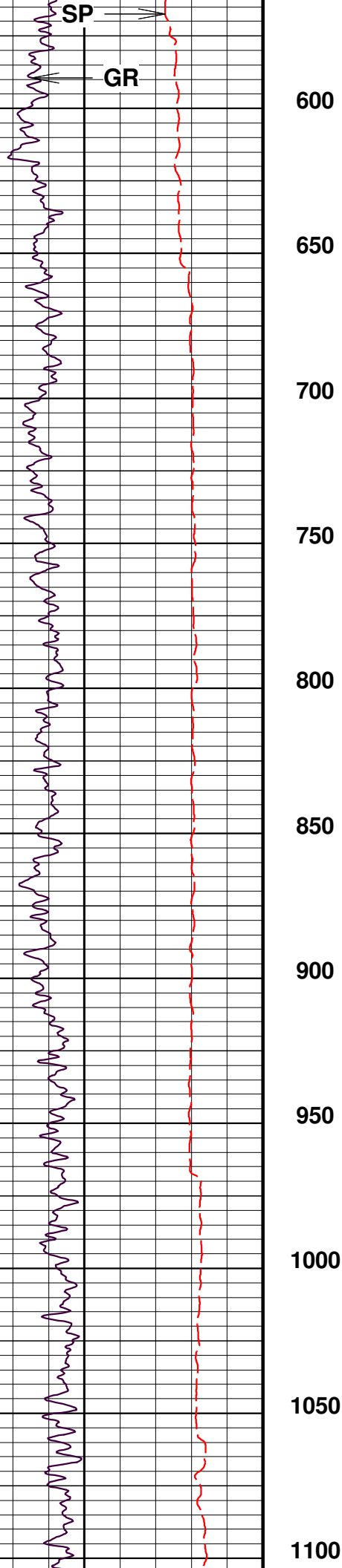
Medium		7.66 ft
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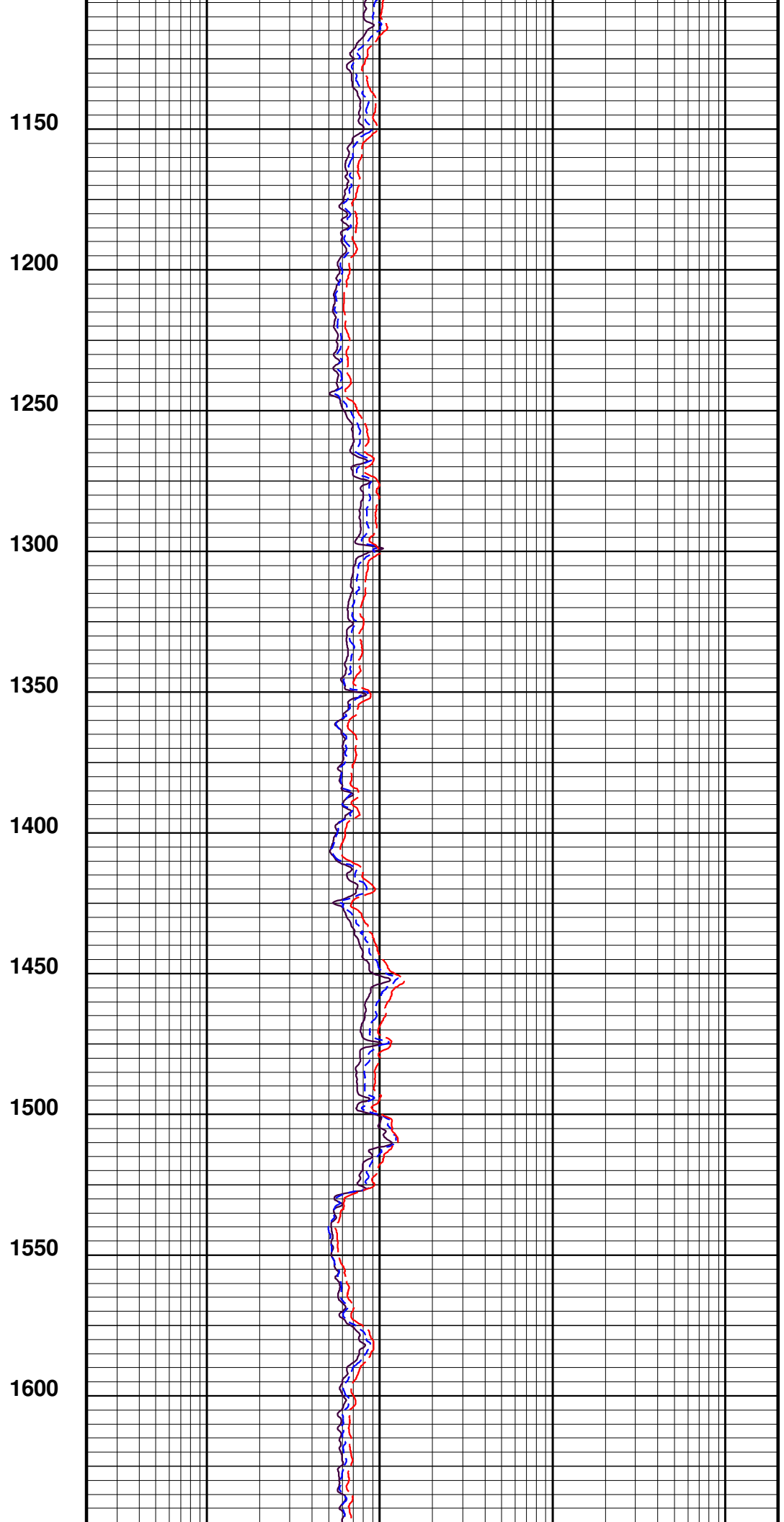
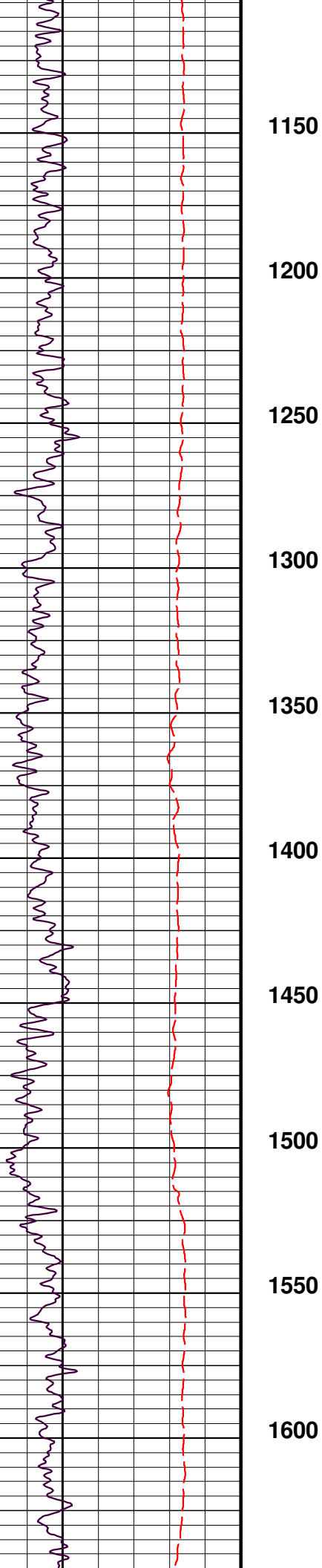


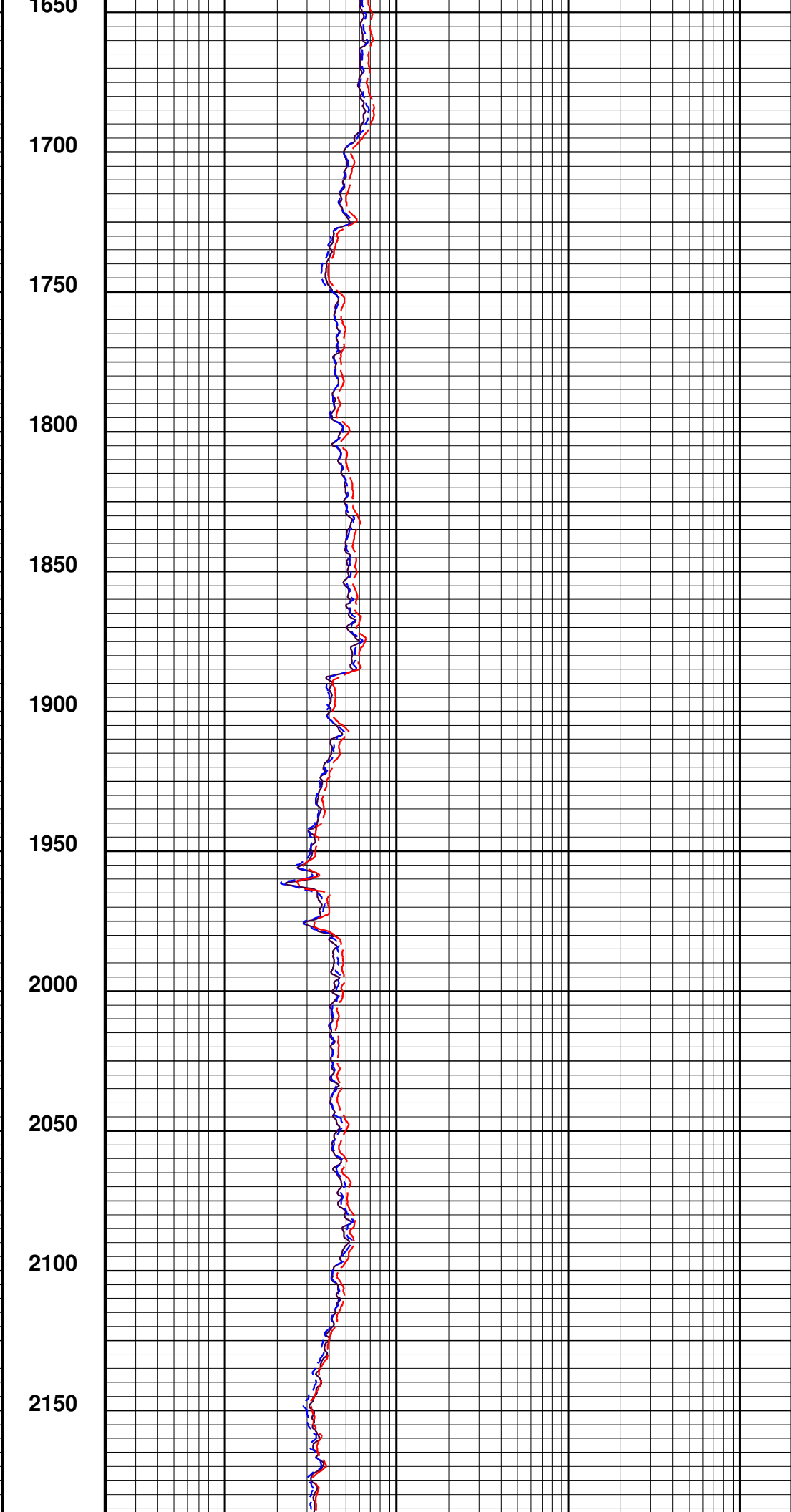
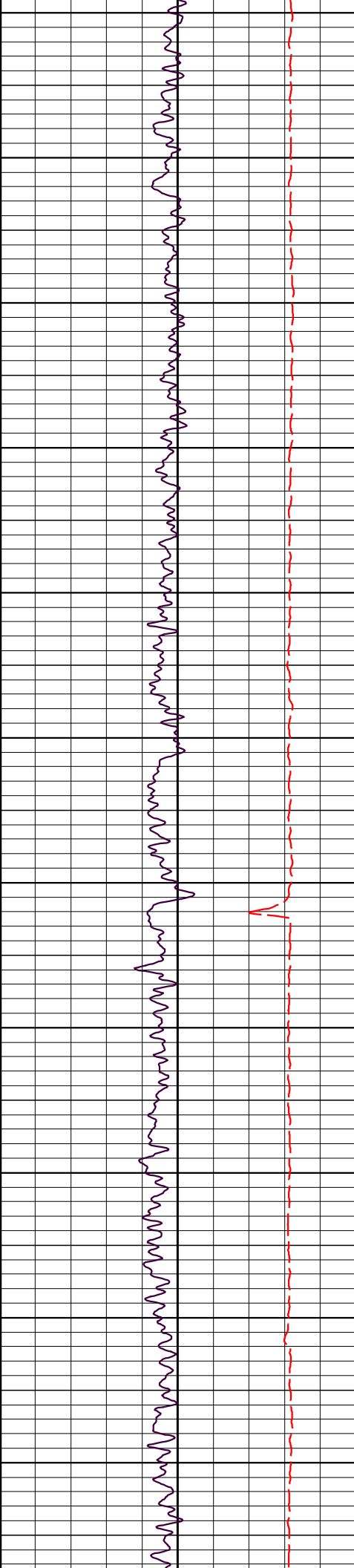
2"/100' MAIN PASS

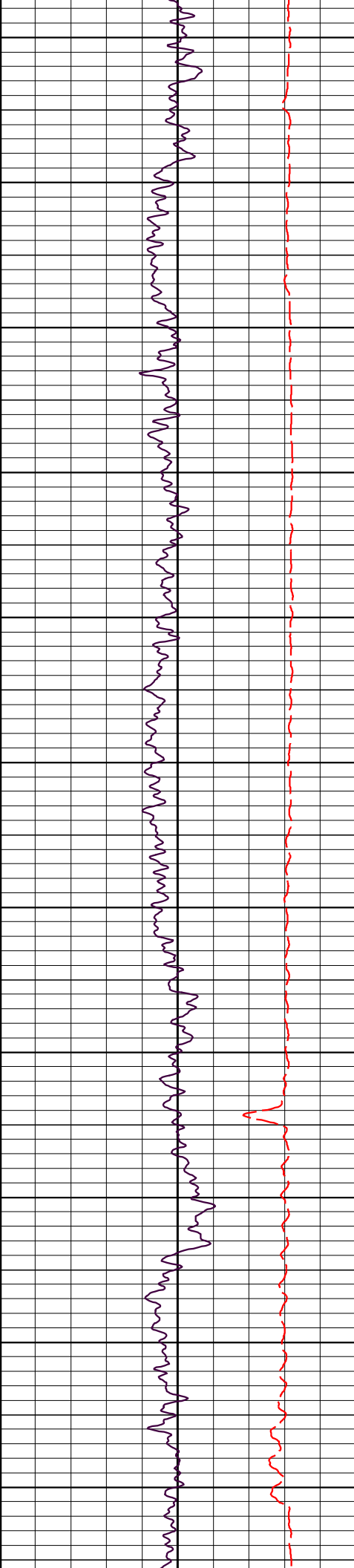
Company	: GRIZZLY OPERATING,LLC	Date	: 11.11.2015
Well	: GOZA 18-2Ae	Time	: 10:14:06
Scale	: 1 : 600	Remarks	: SO 2-014083
Depth in	: ft		
Software	: WinAPIot Ver. 5, 91, 4, 0	File Name	: original log











2200

2250

2300

2350

2400

2450

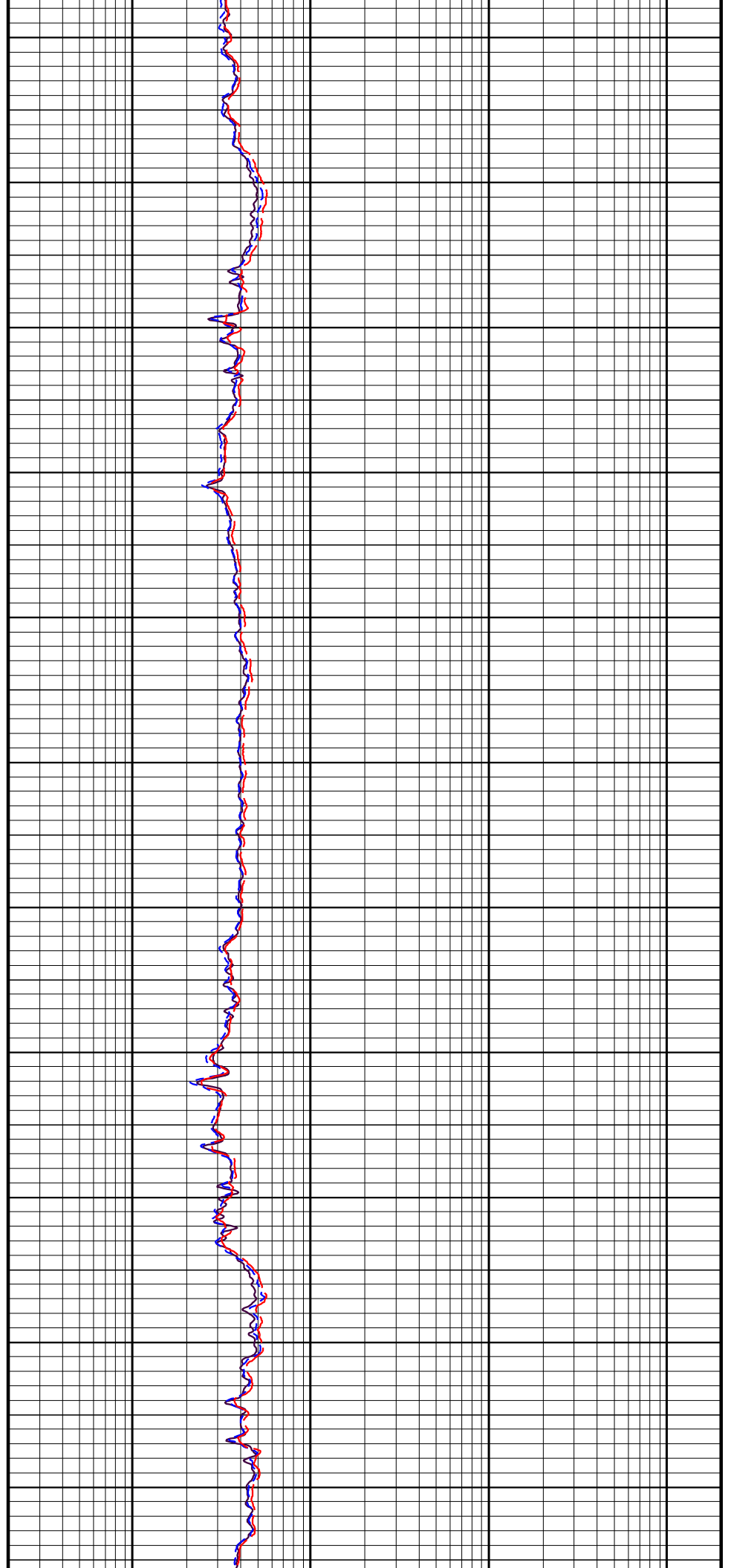
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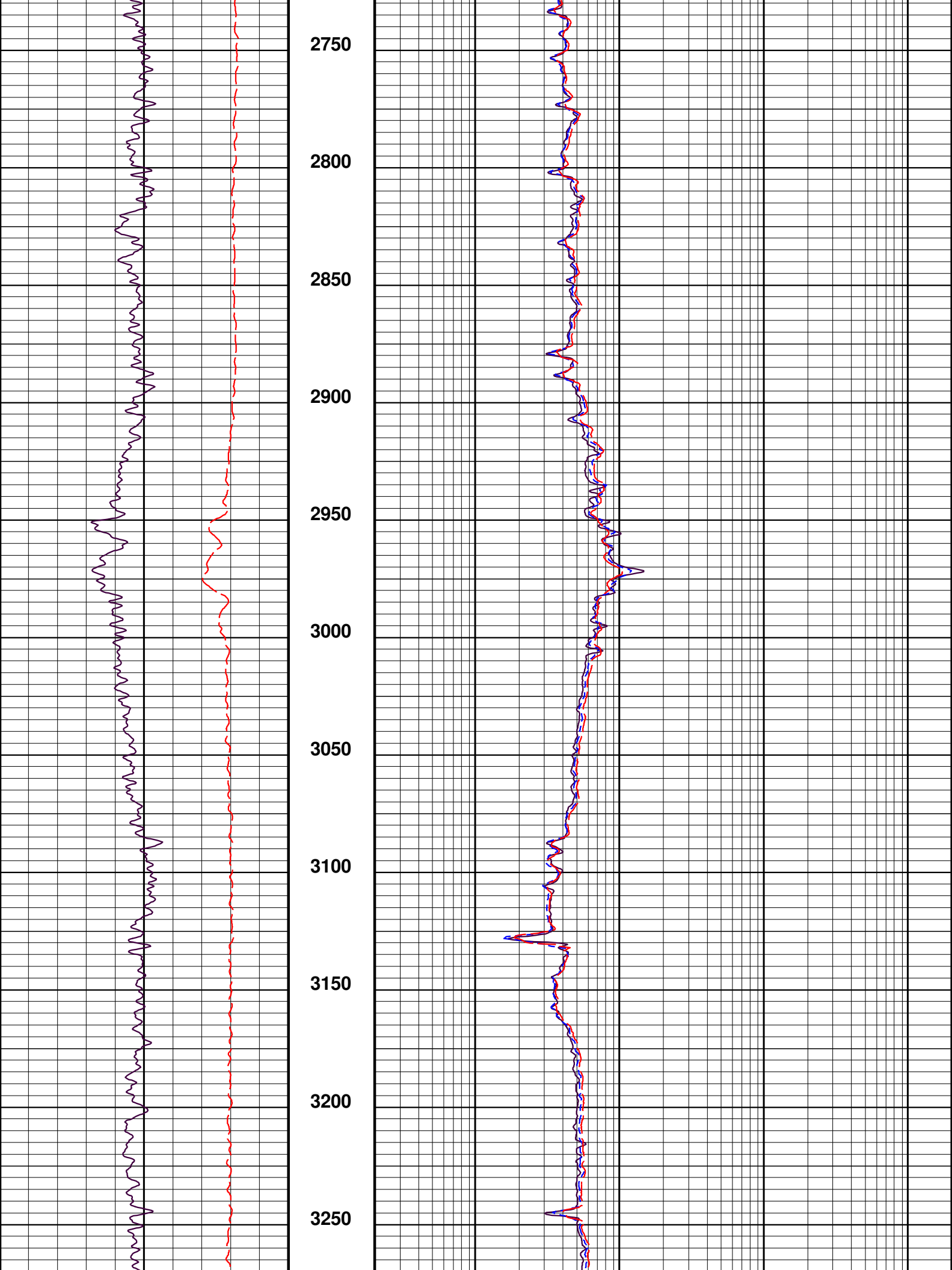
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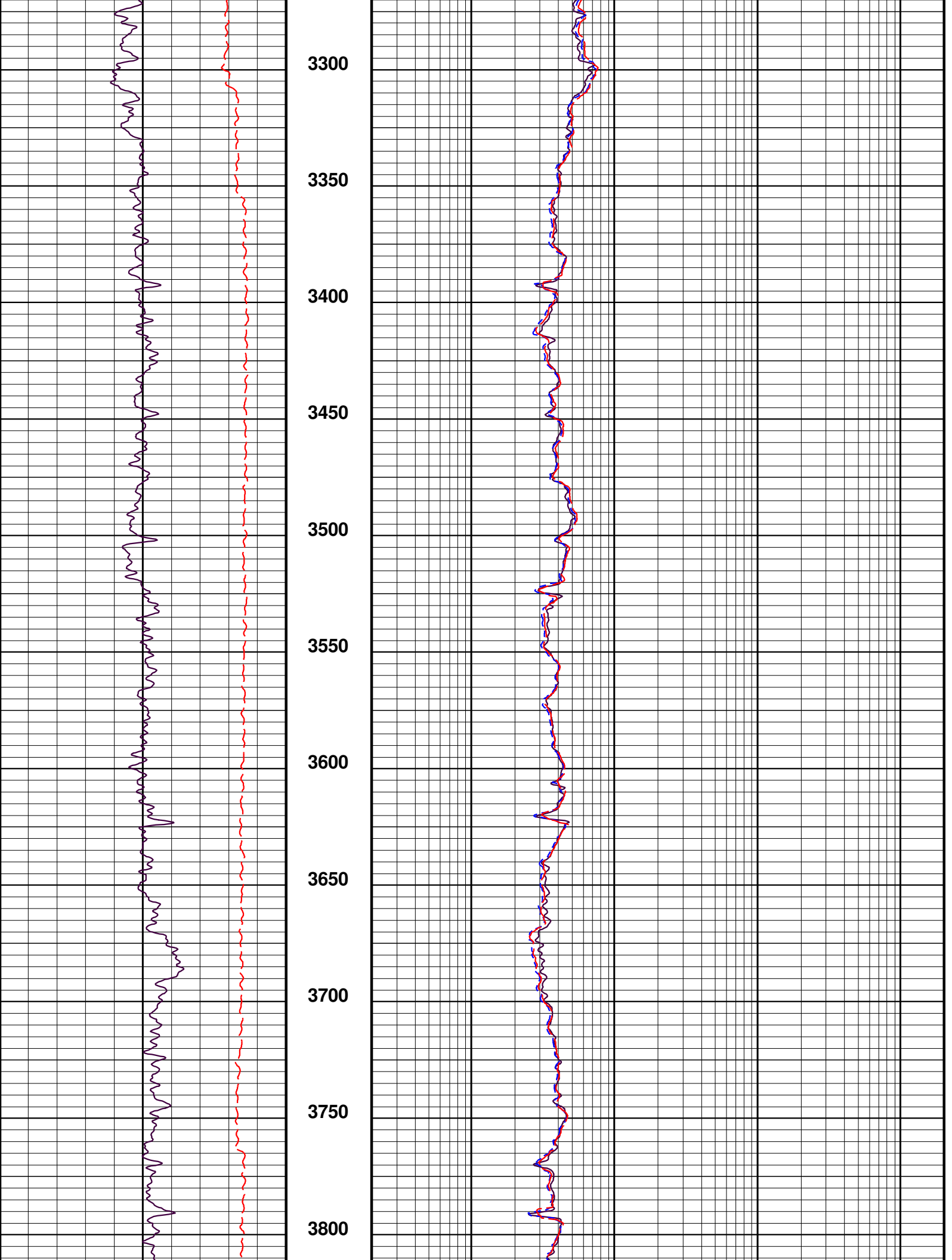
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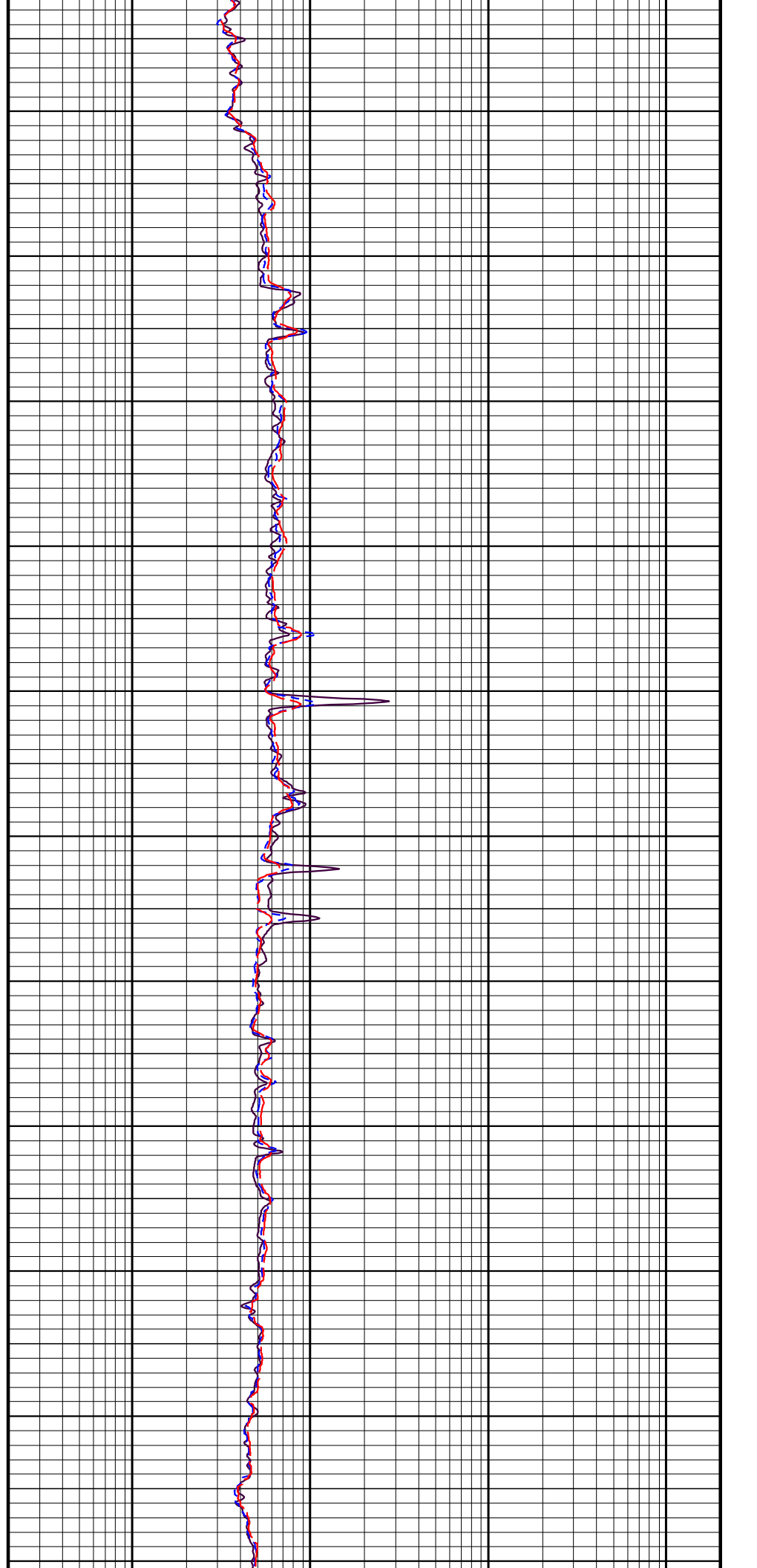
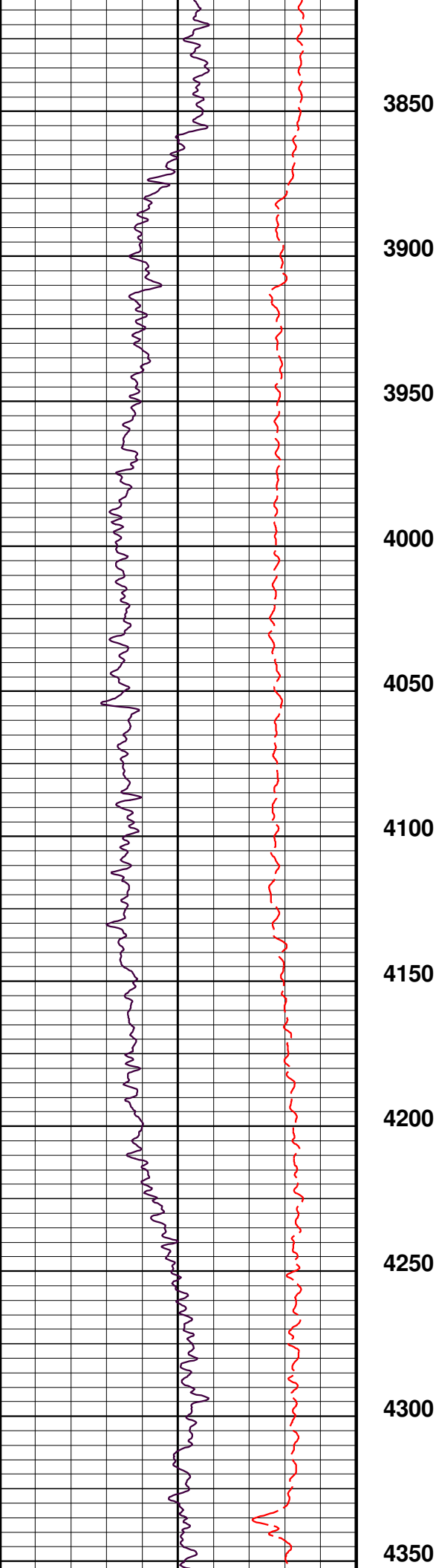
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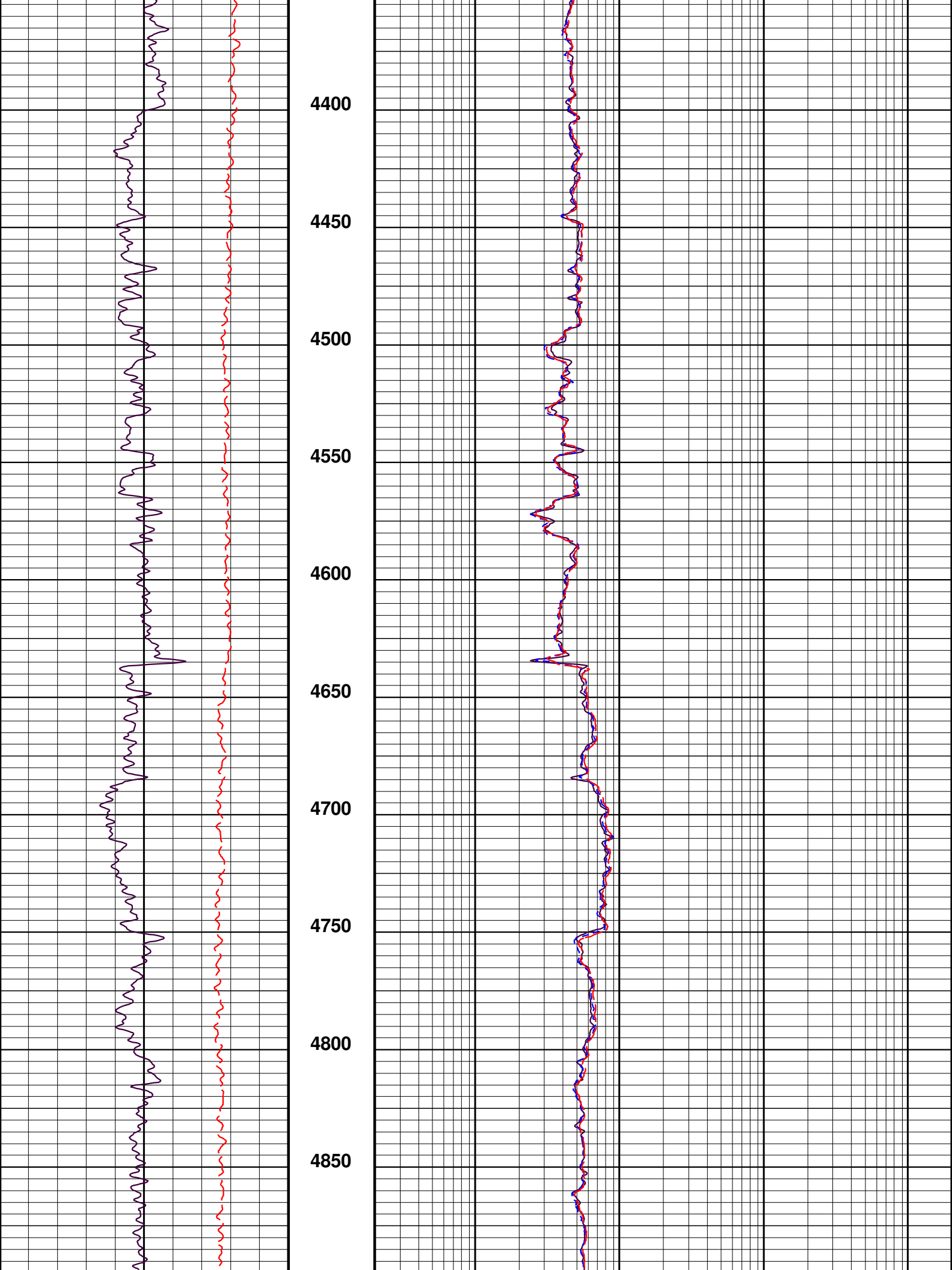
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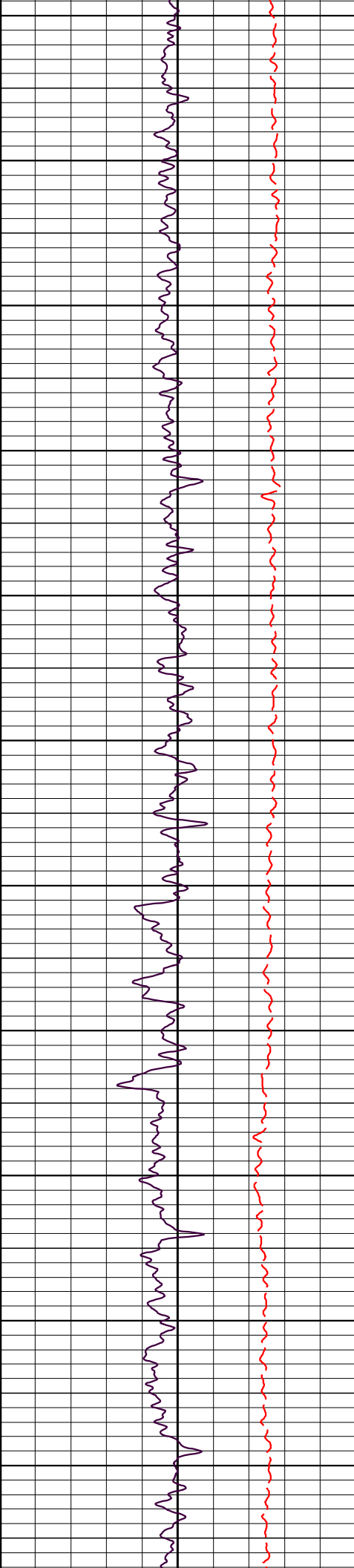




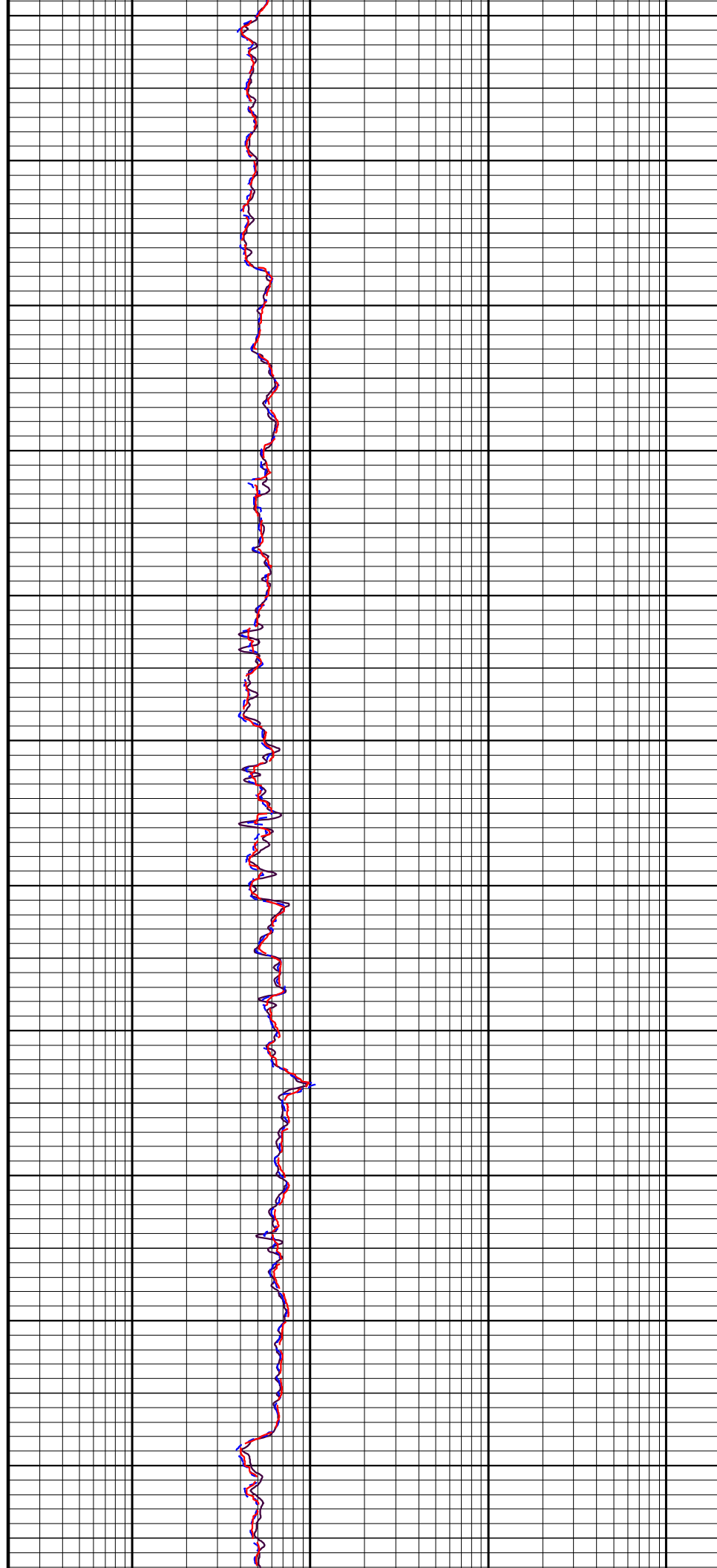


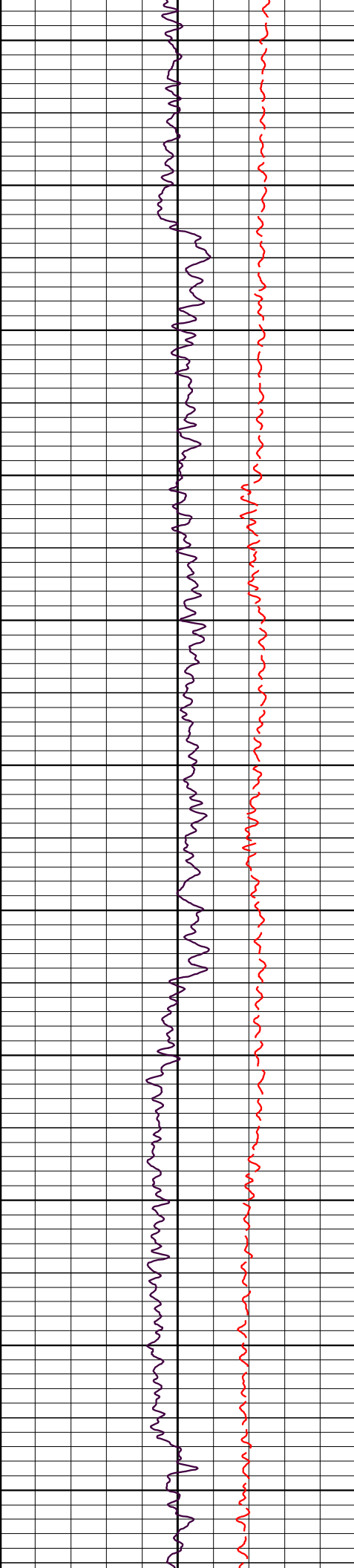






4900
4950
5000
5050
5100
5150
5200
5250
5300
5350
5400





5450

5500

5550

5600

5650

5700

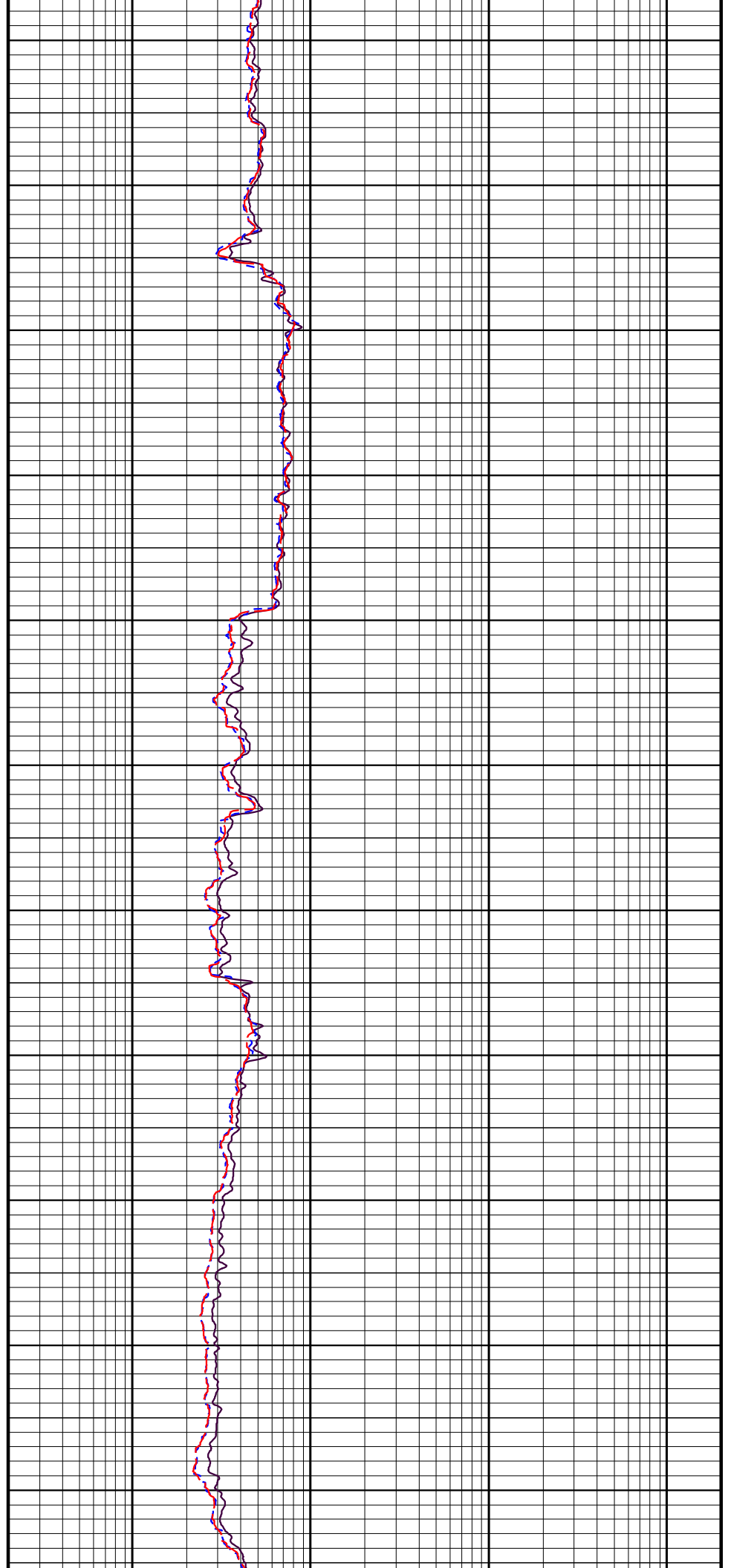
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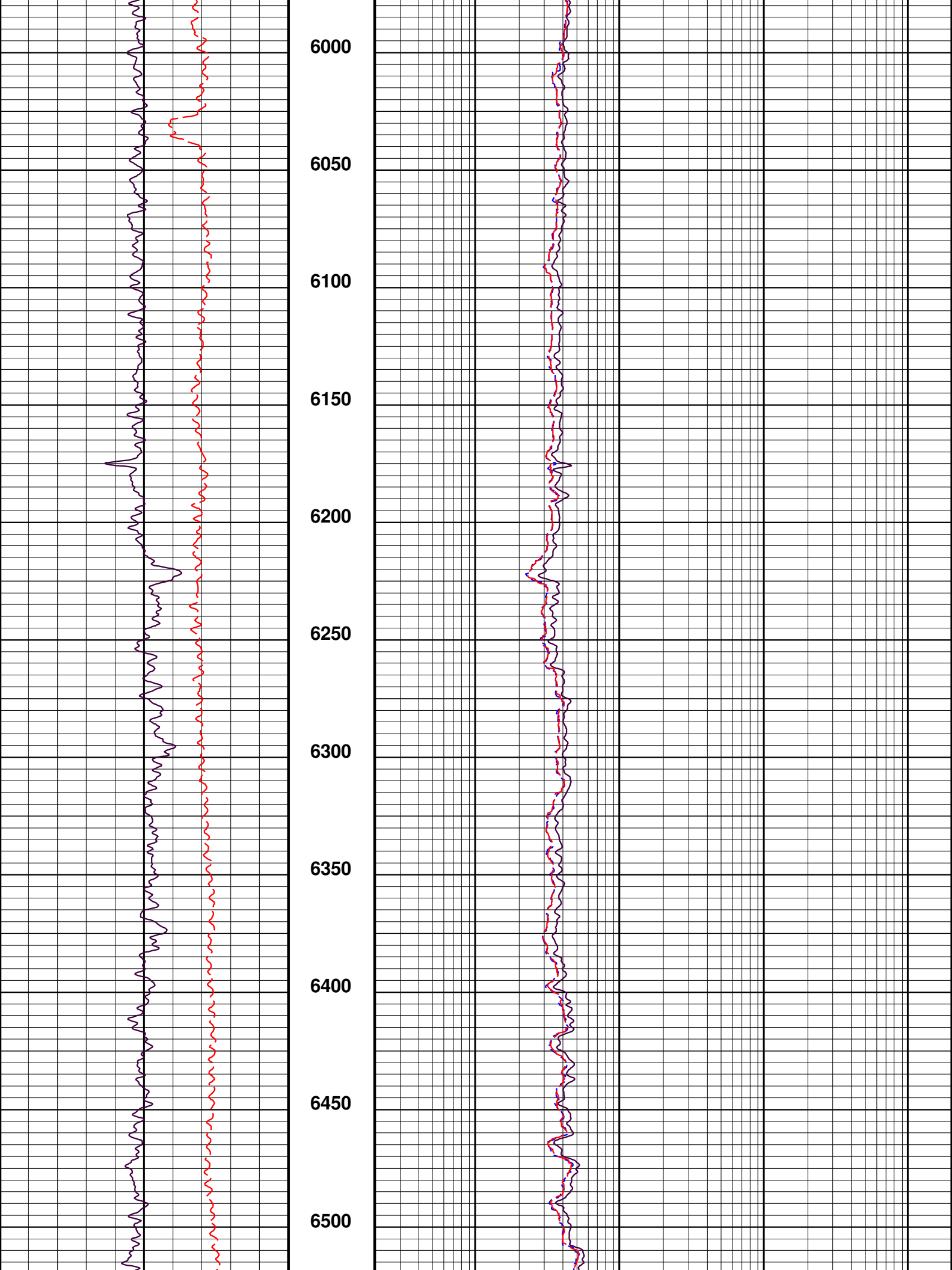
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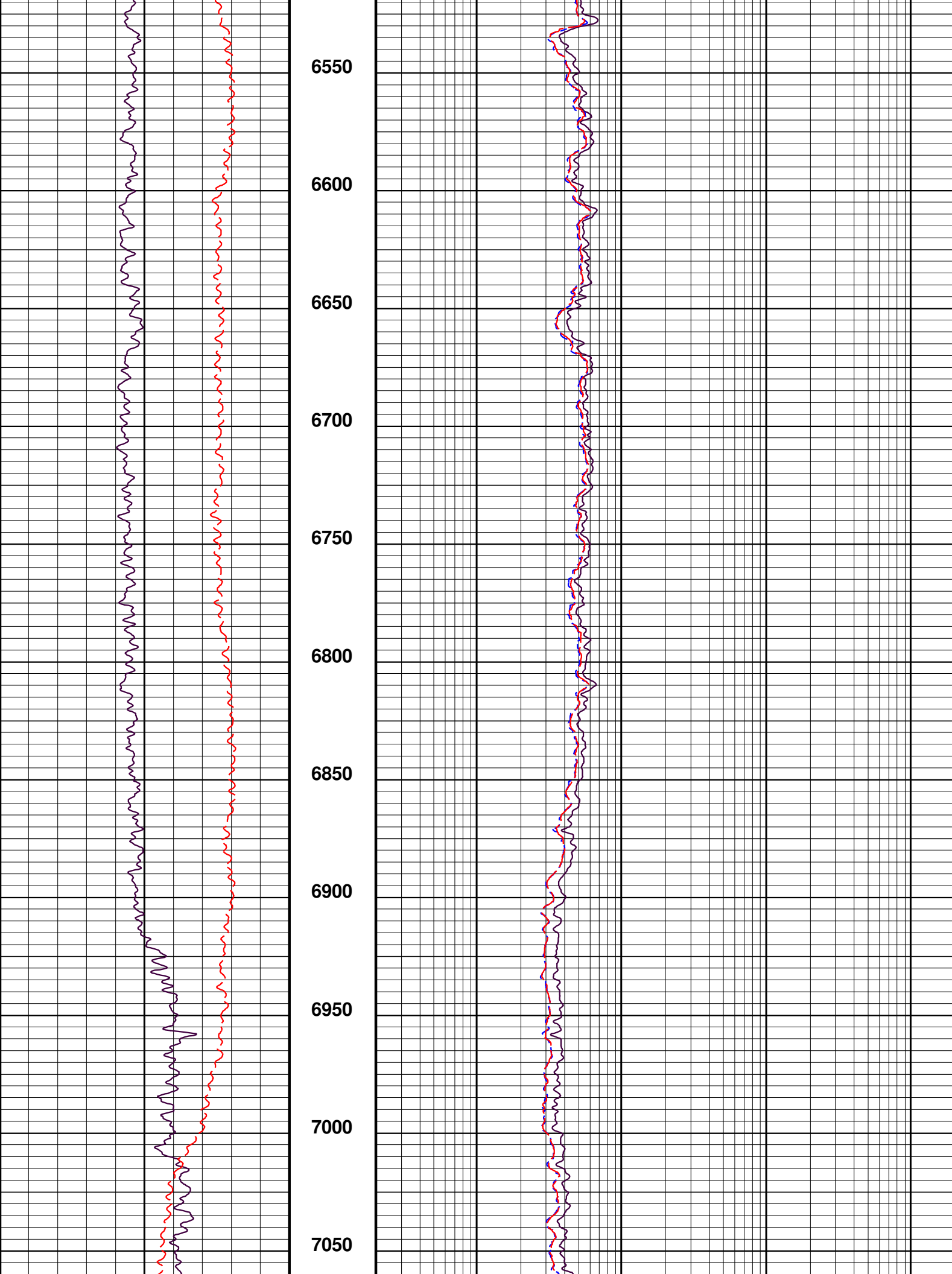
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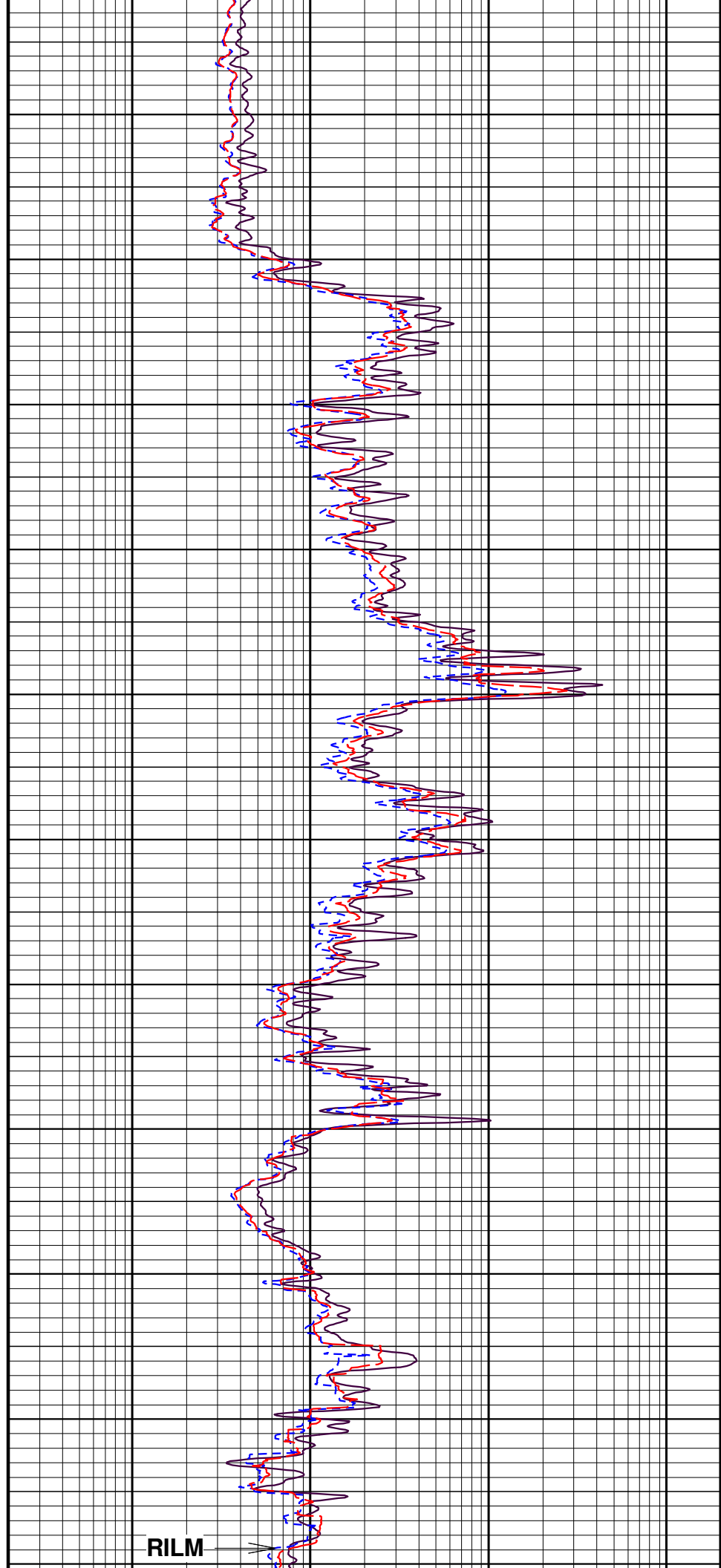
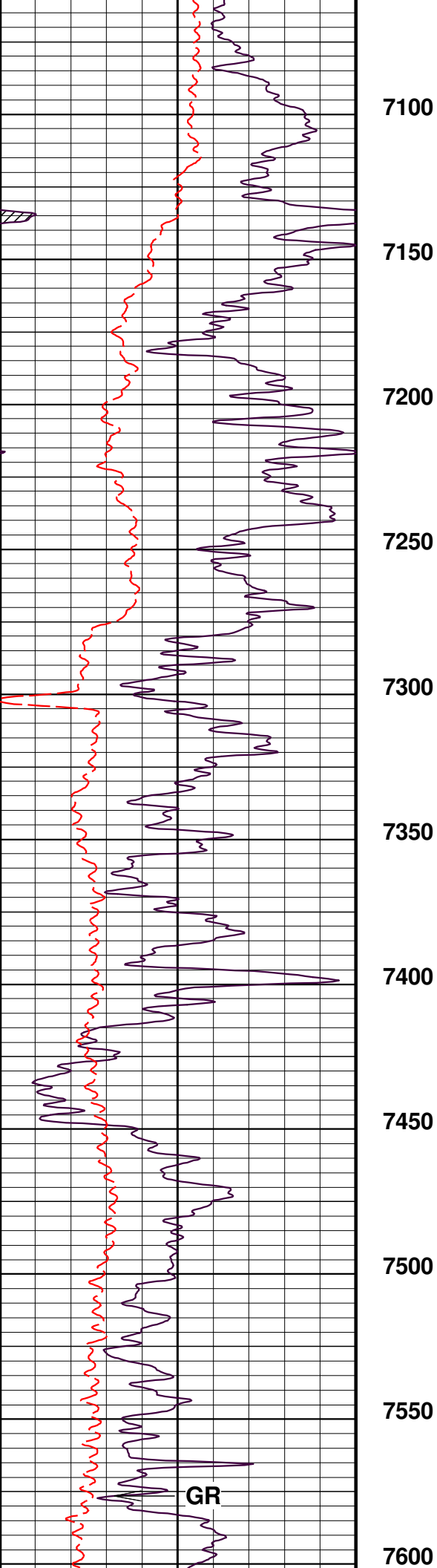
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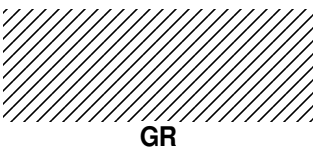
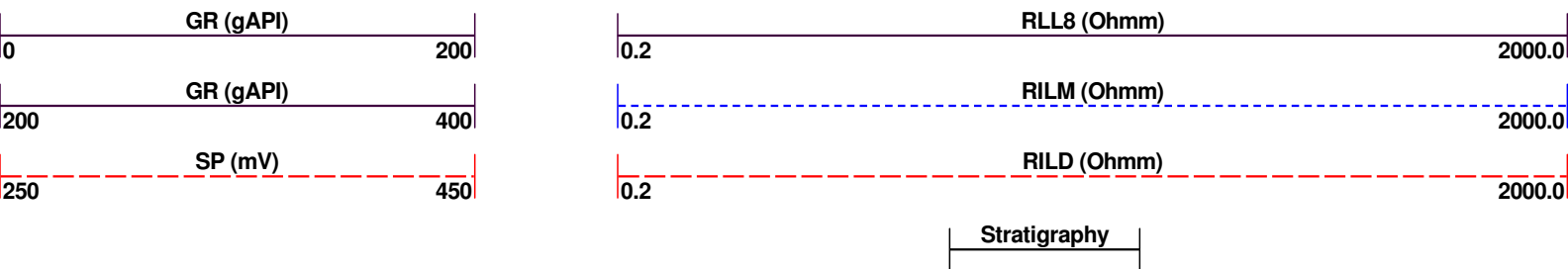
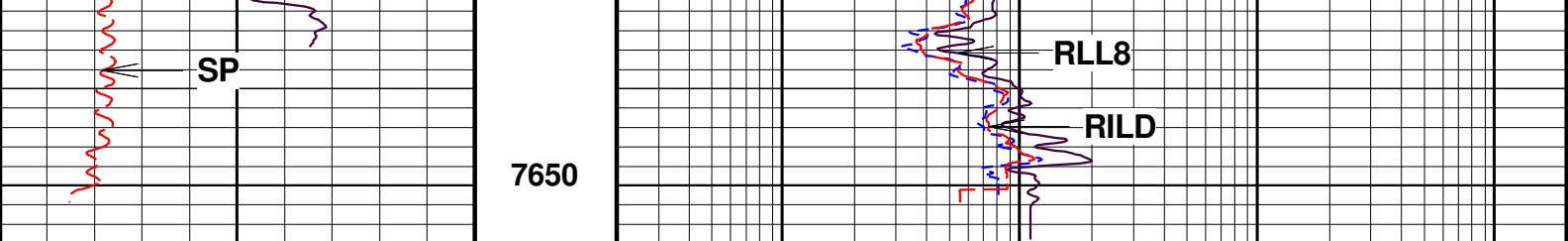
5950









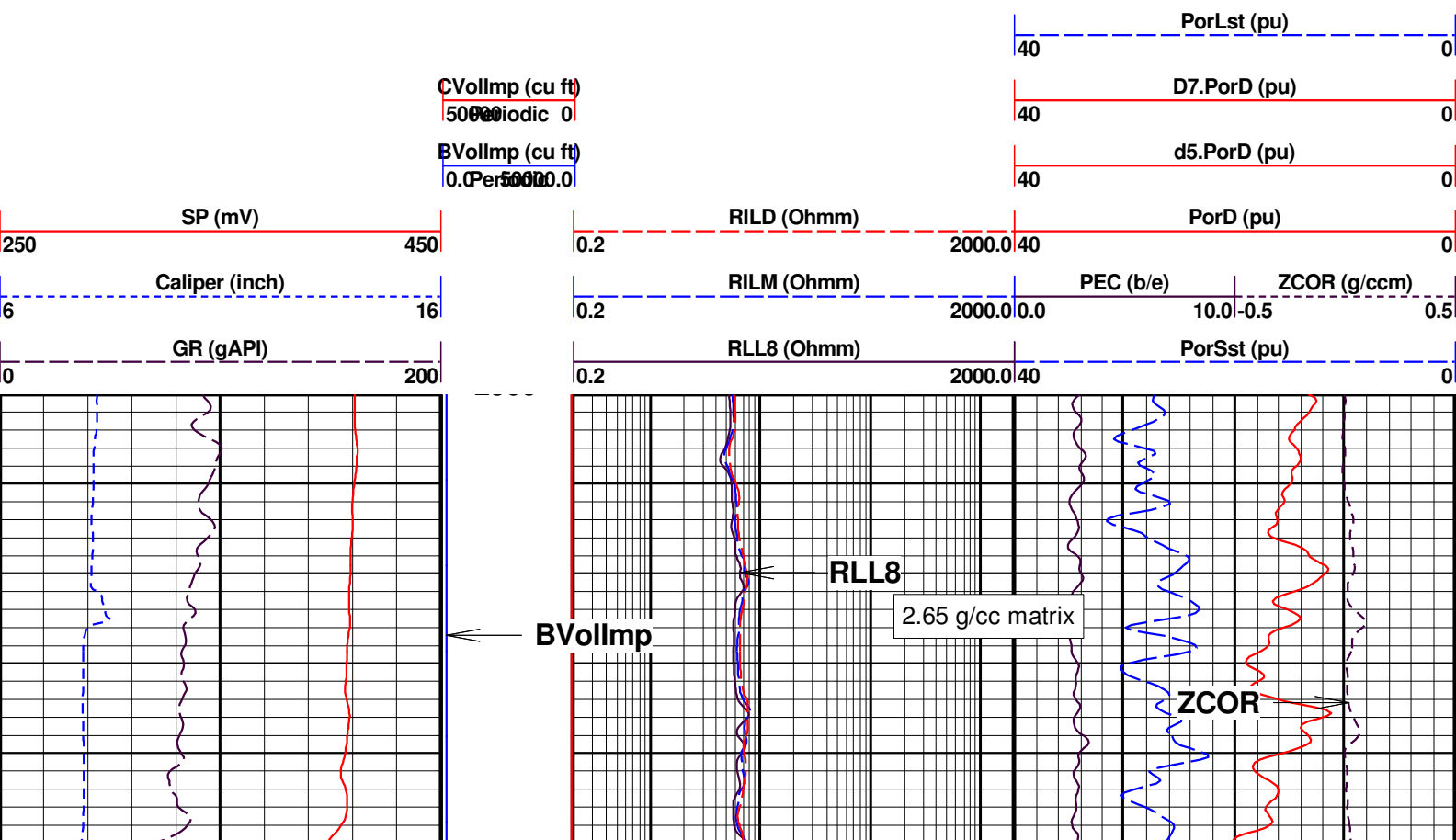


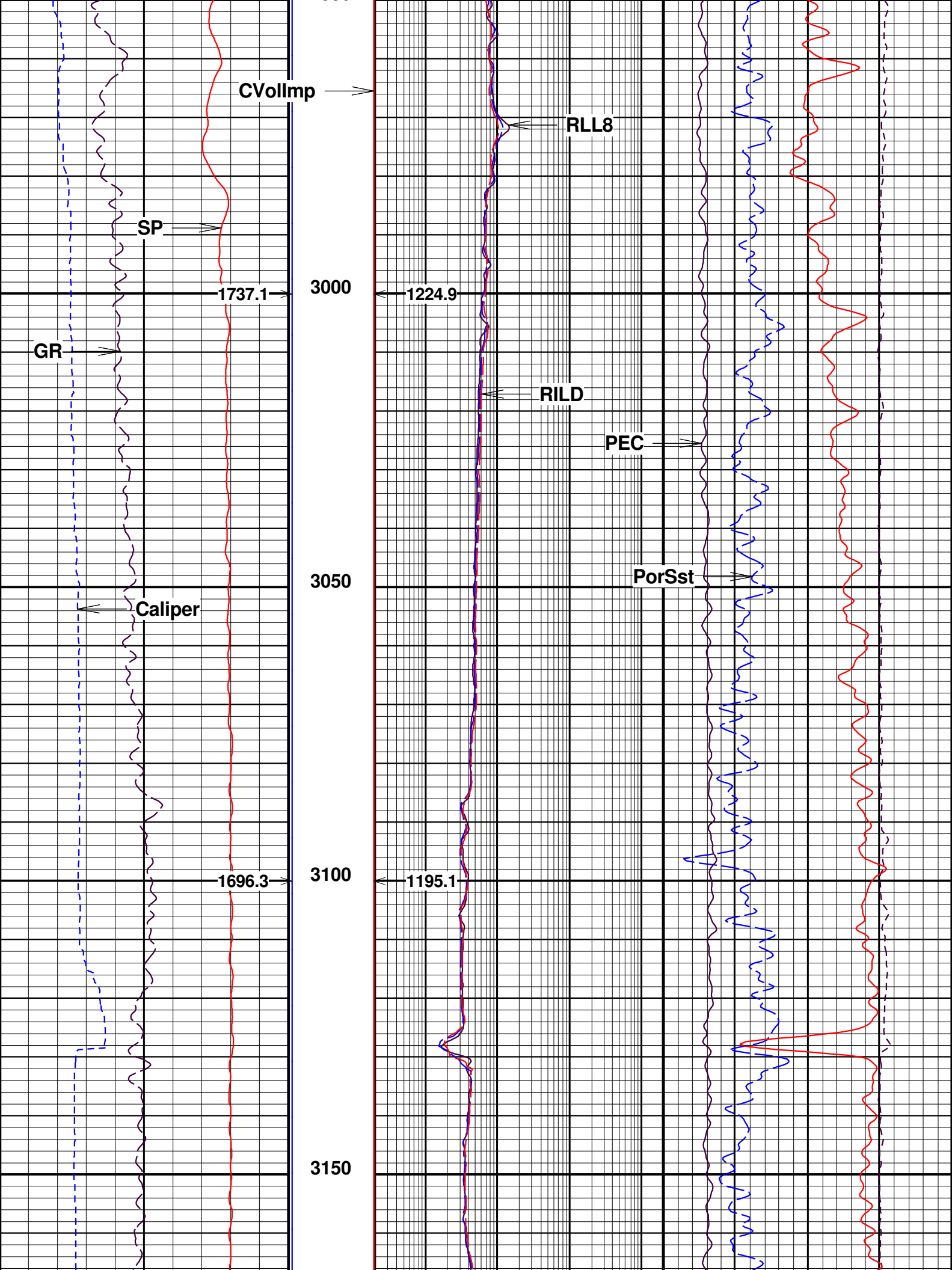
5" / 100' MAIN PASS

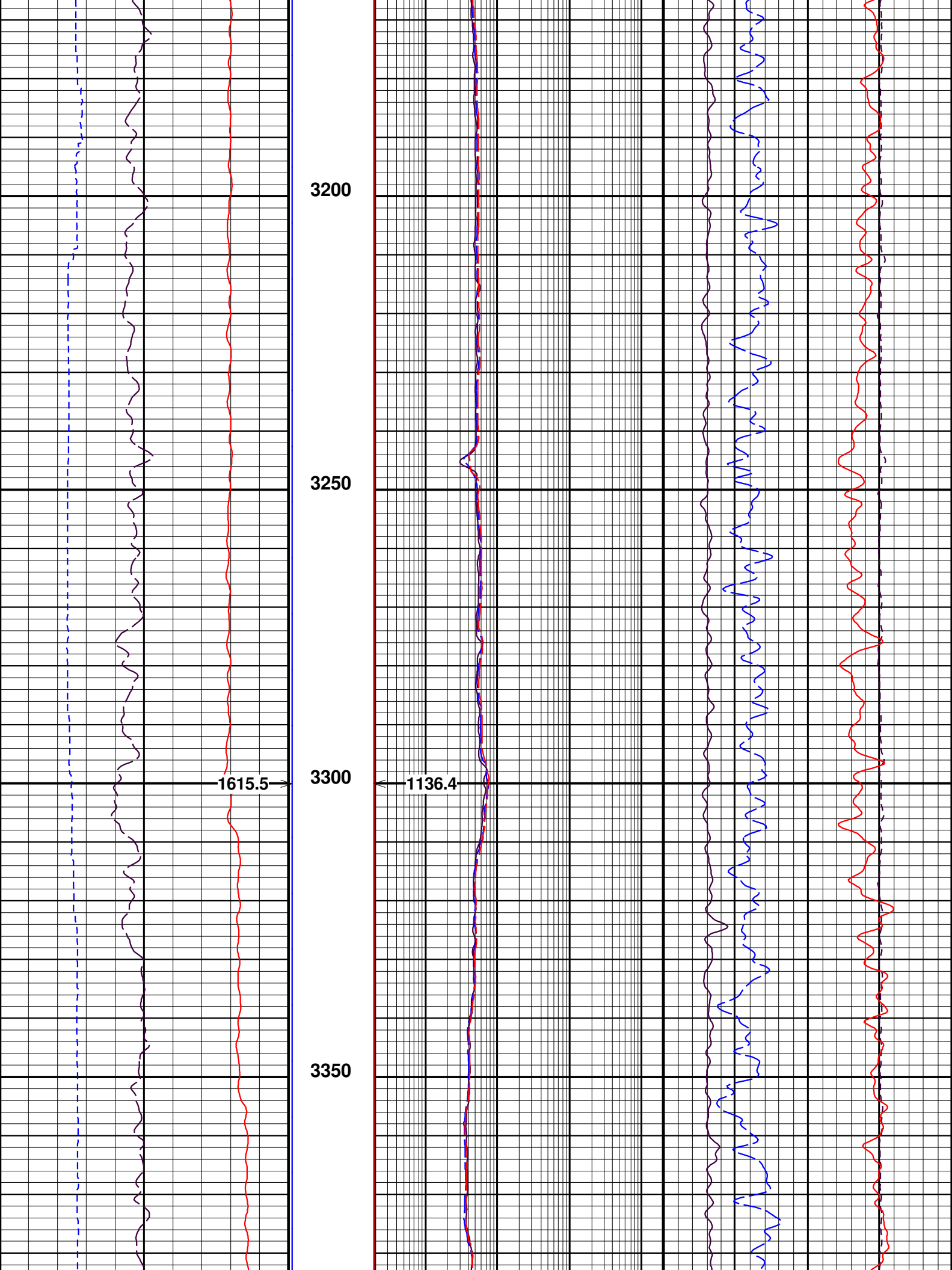
Company : GRIZZLY OPERATING,LLC
Well : GOZA 18-2Ae
Scale : 1 : 240
Depth in : ft
Software : WinAPlot Ver. 5, 91, 4, 0

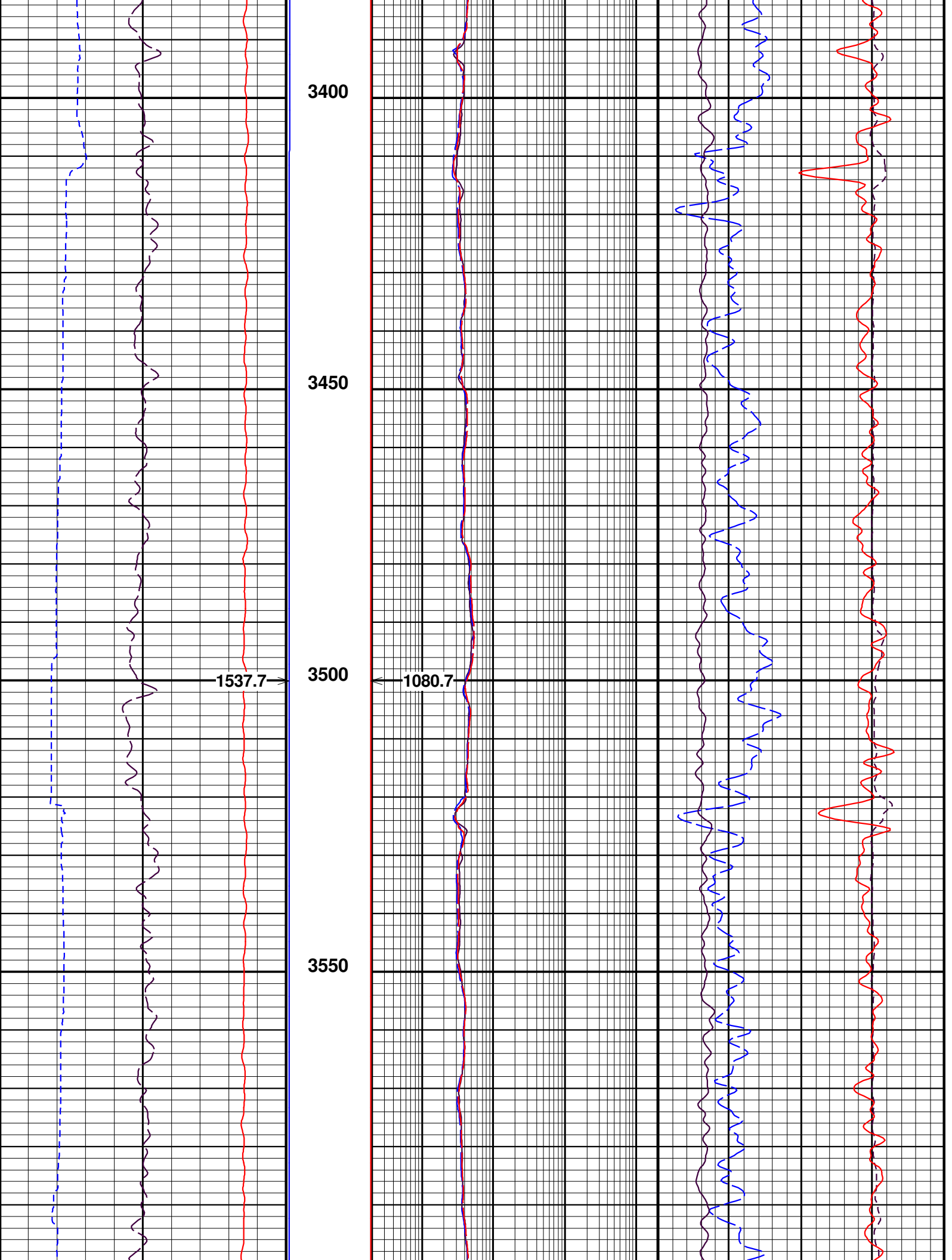
Date : 11.11.2015
Time : 10:14:06
Remarks : SO 2-014083

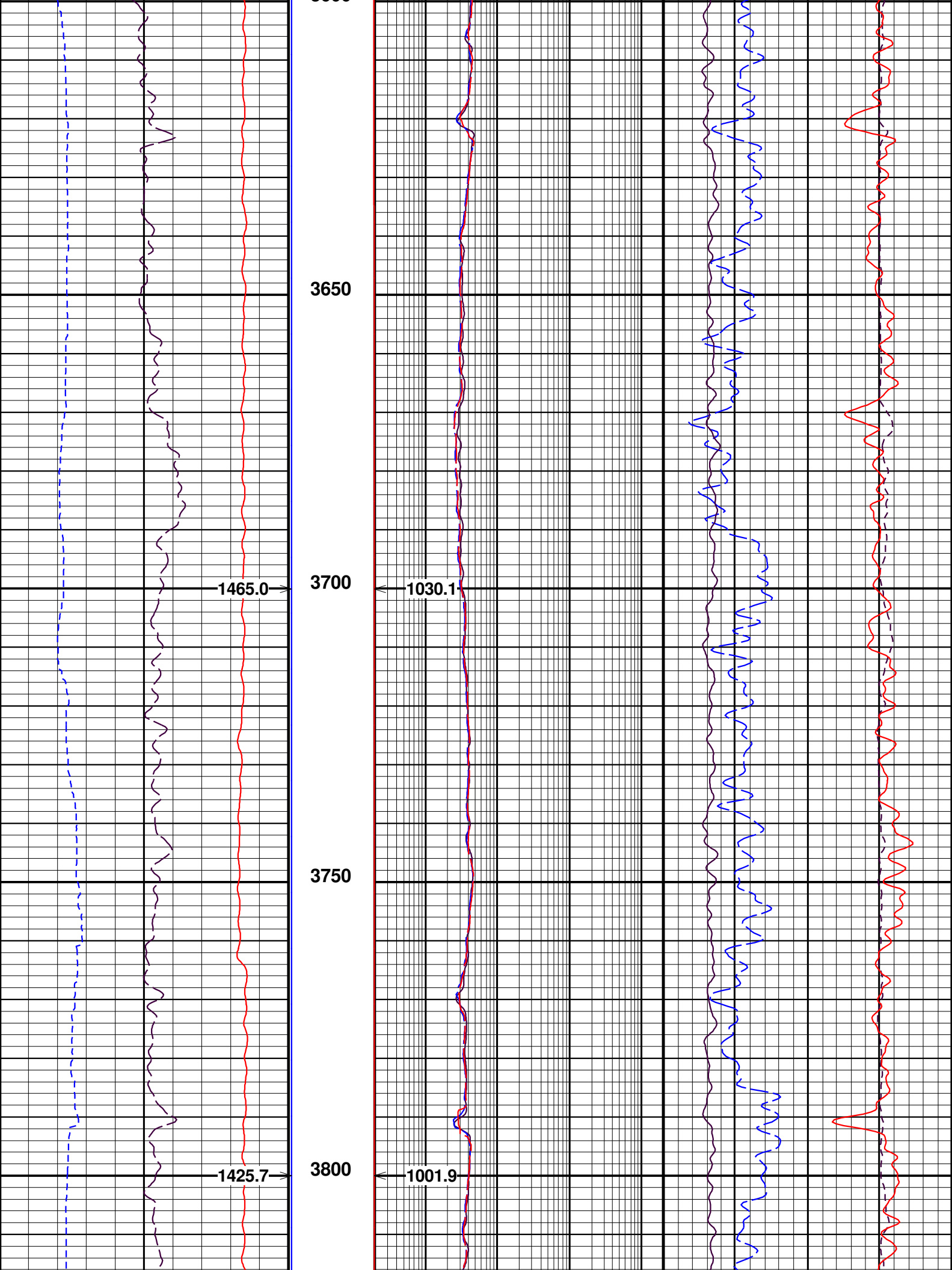
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: original with volume

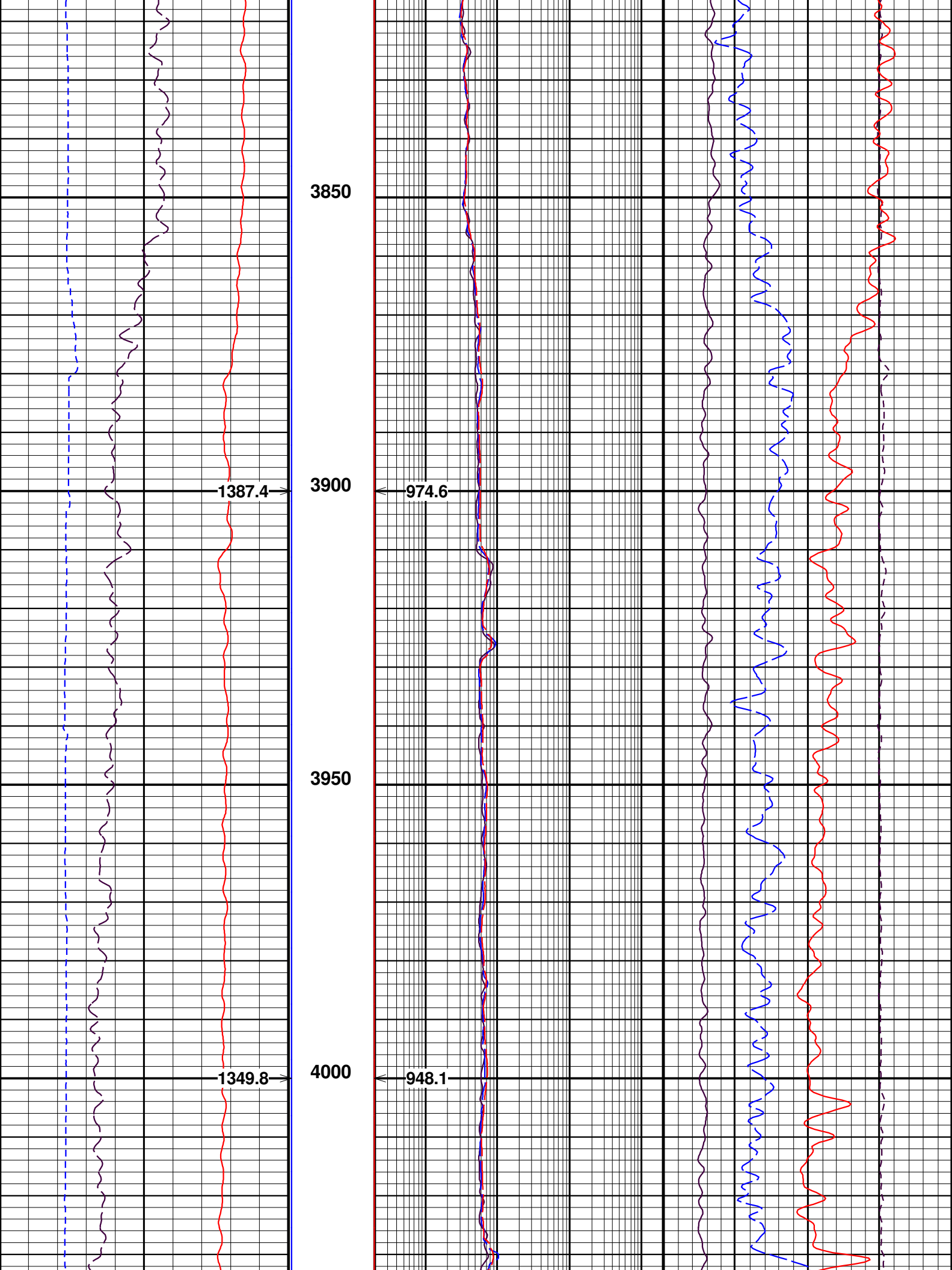


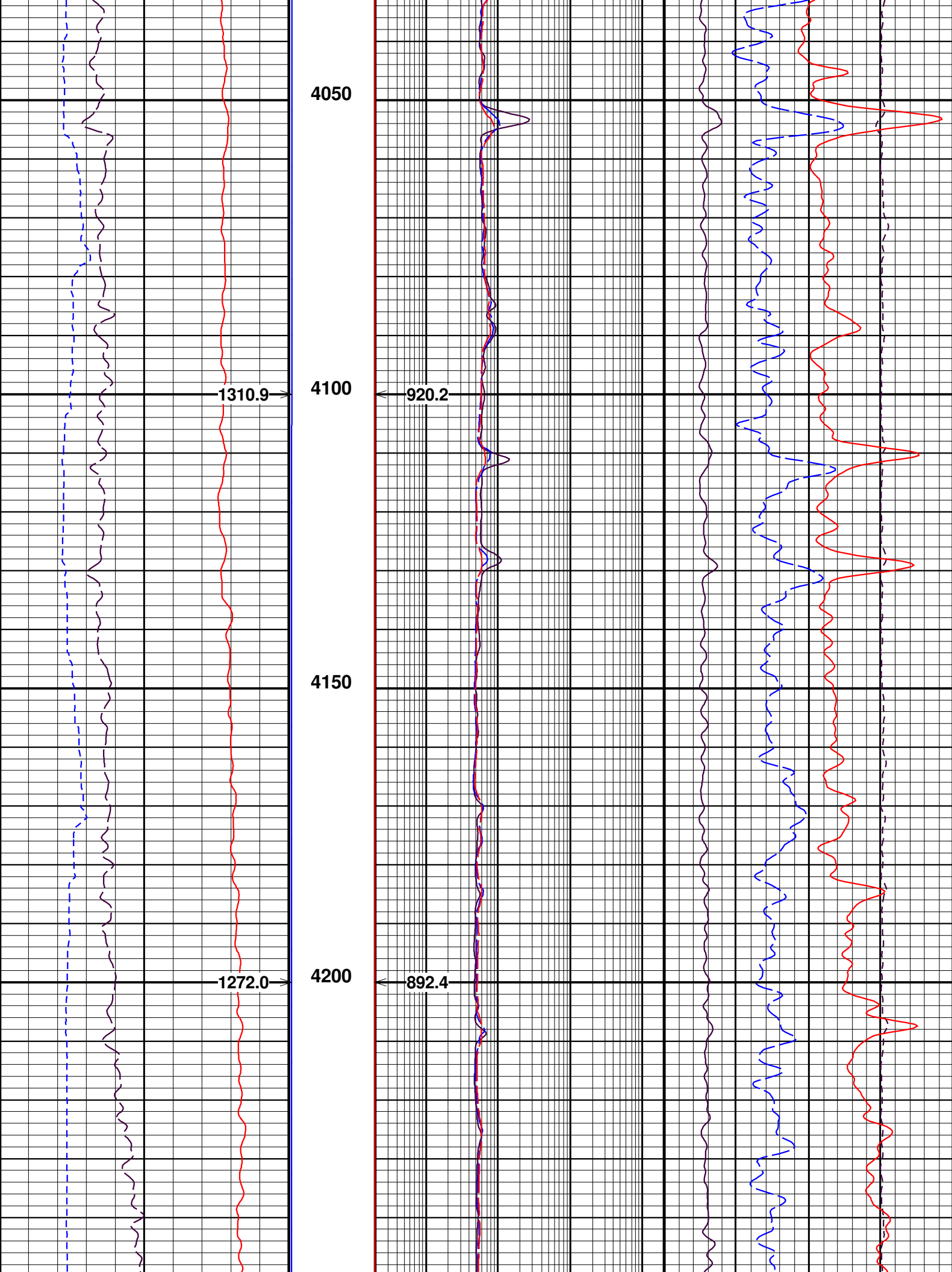


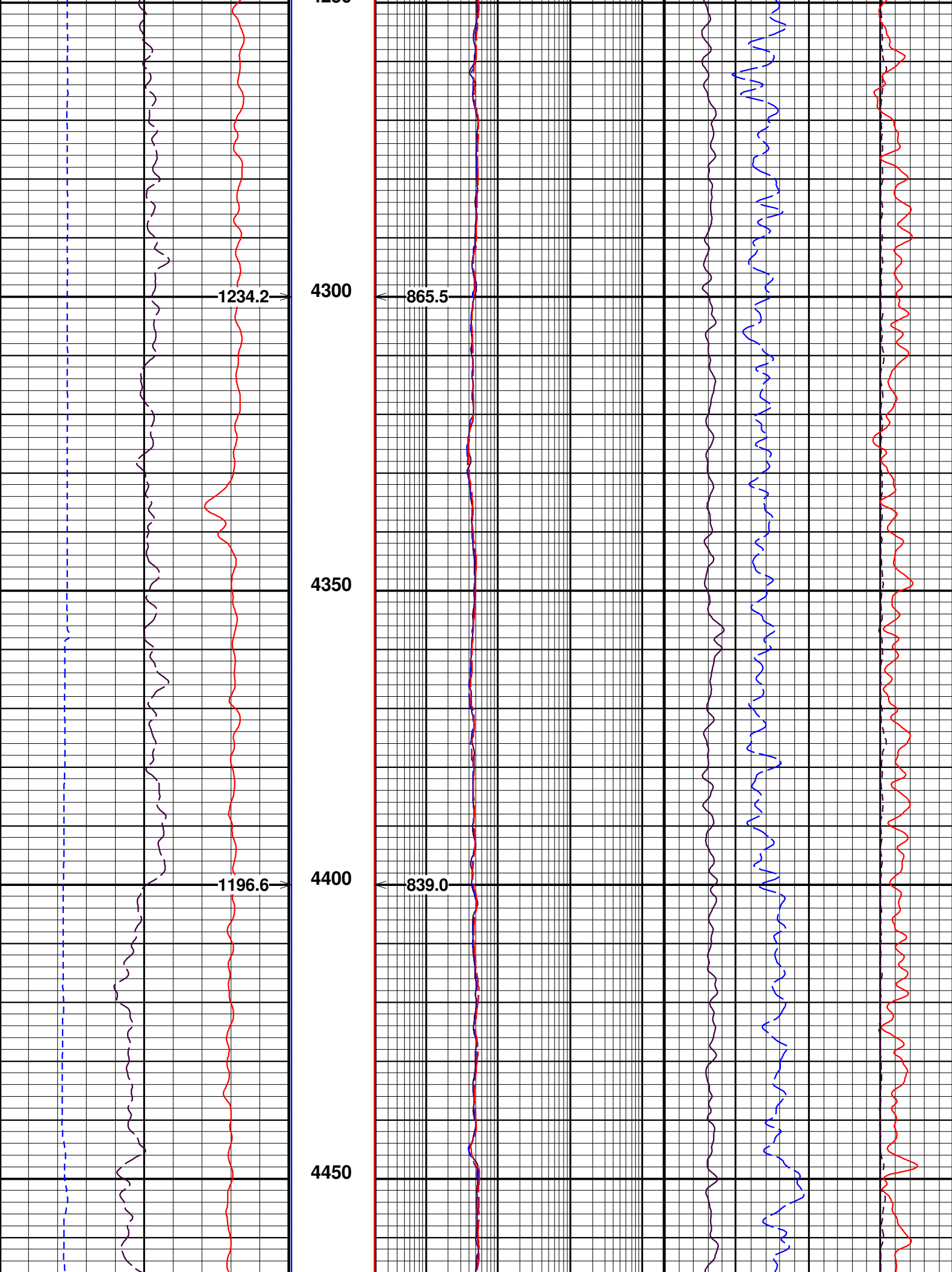


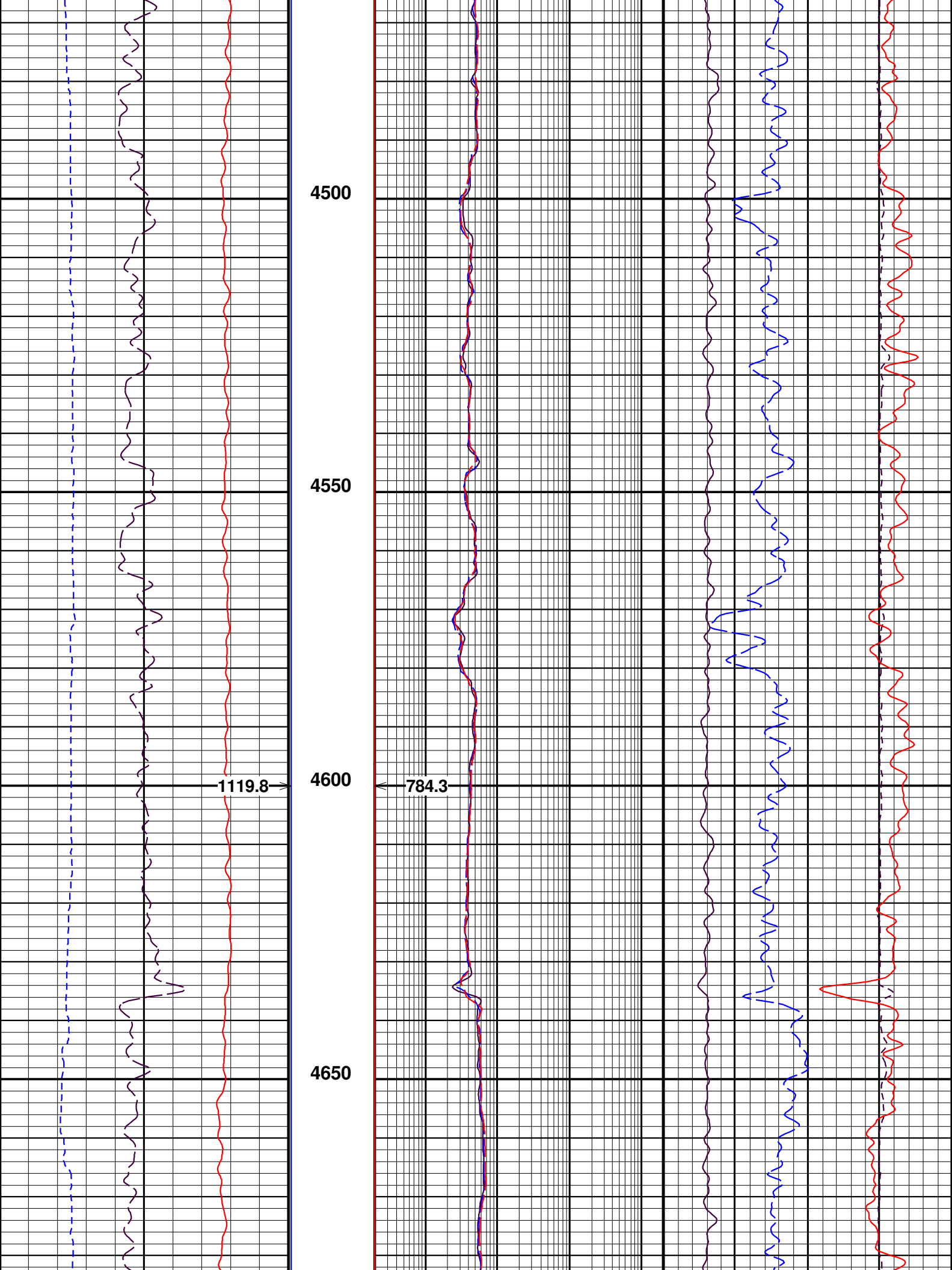


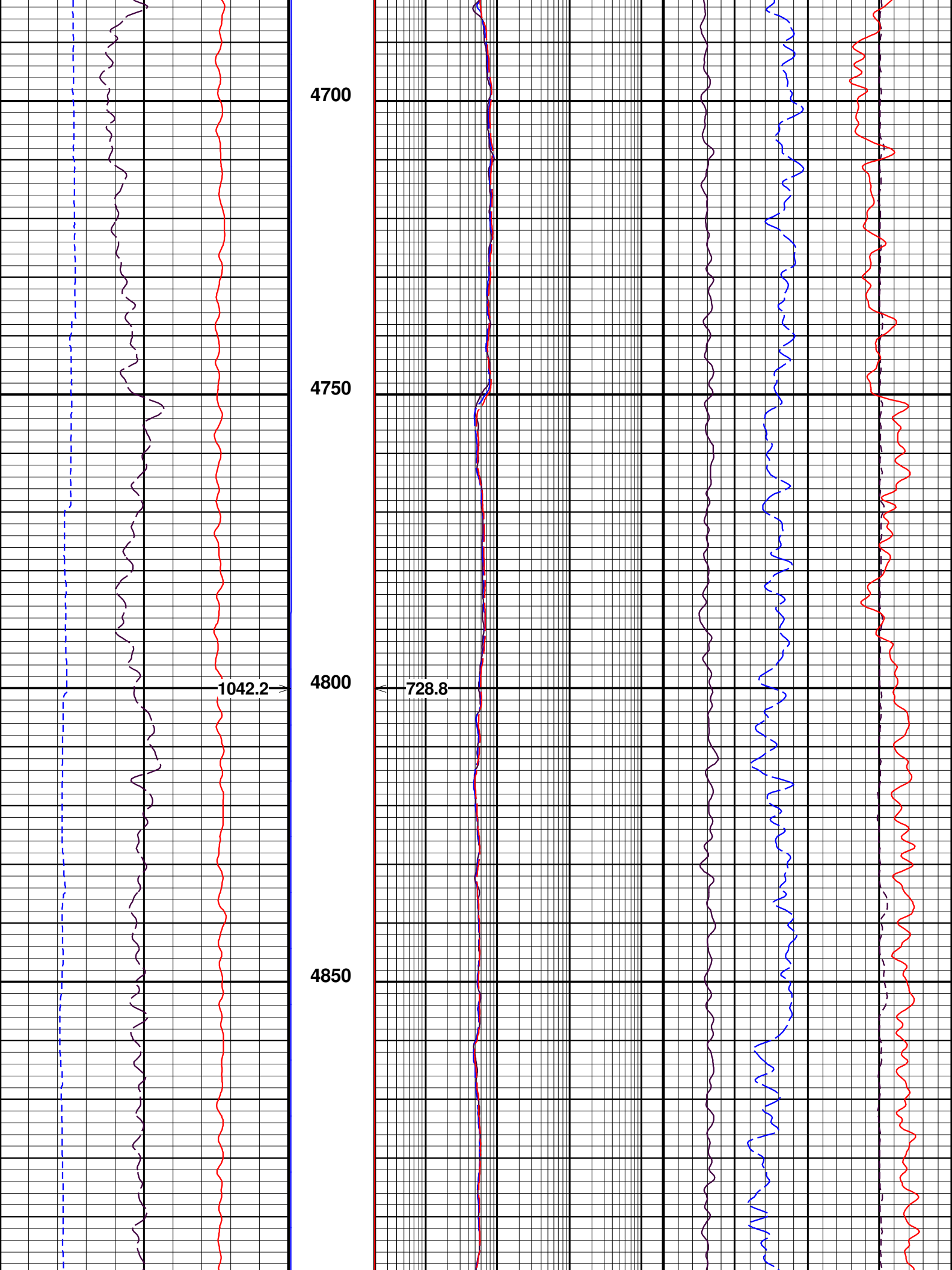


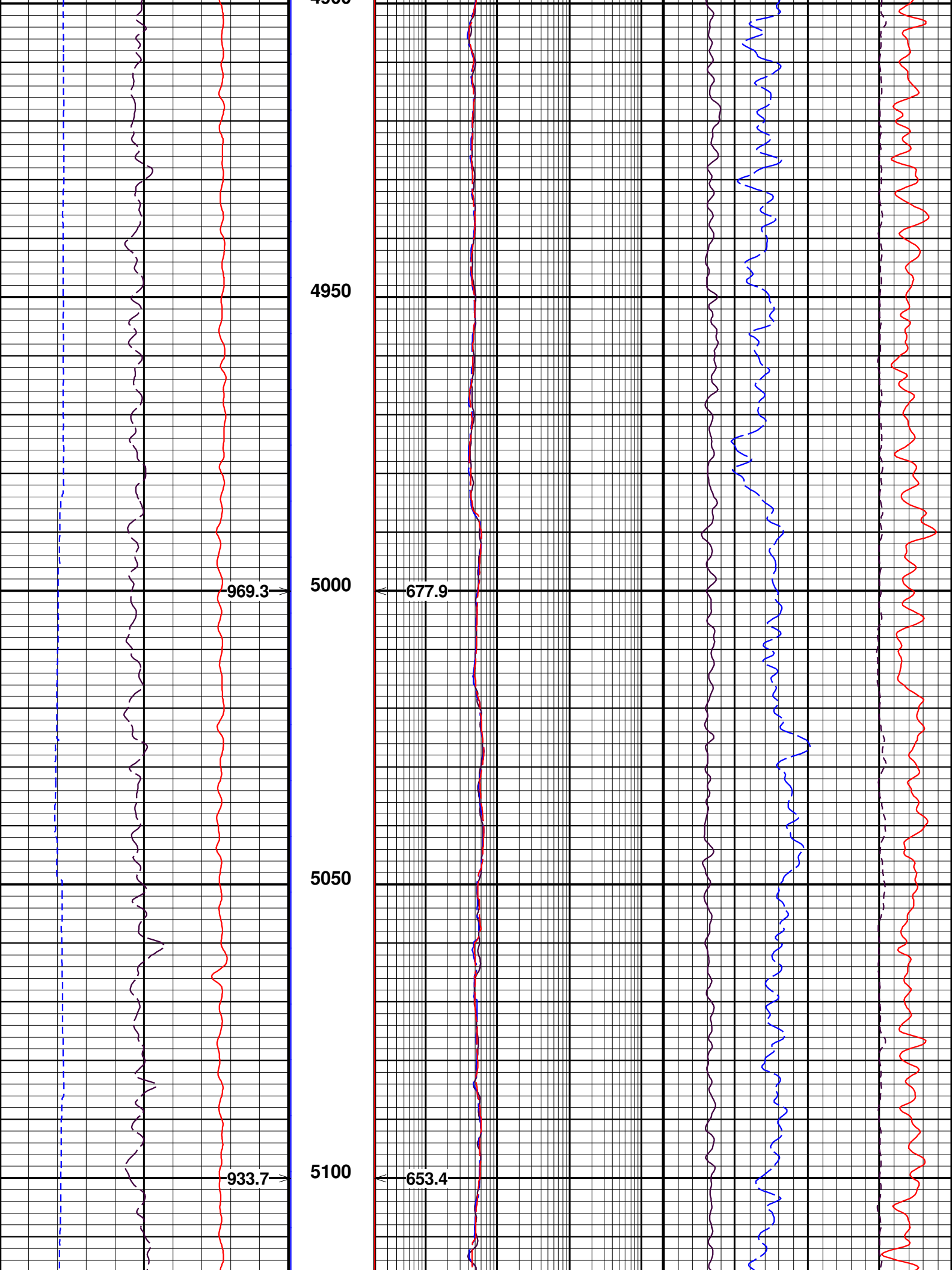


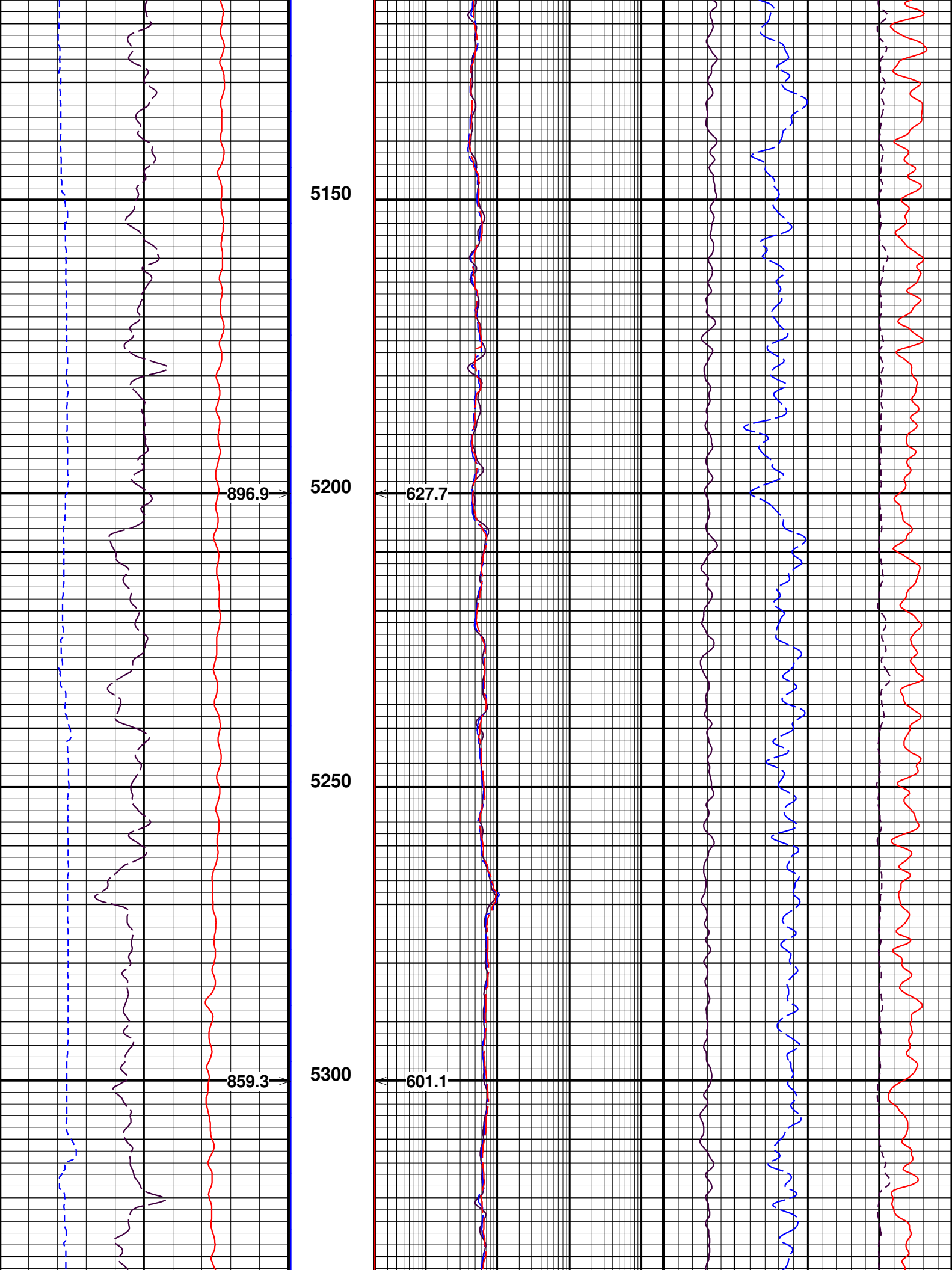


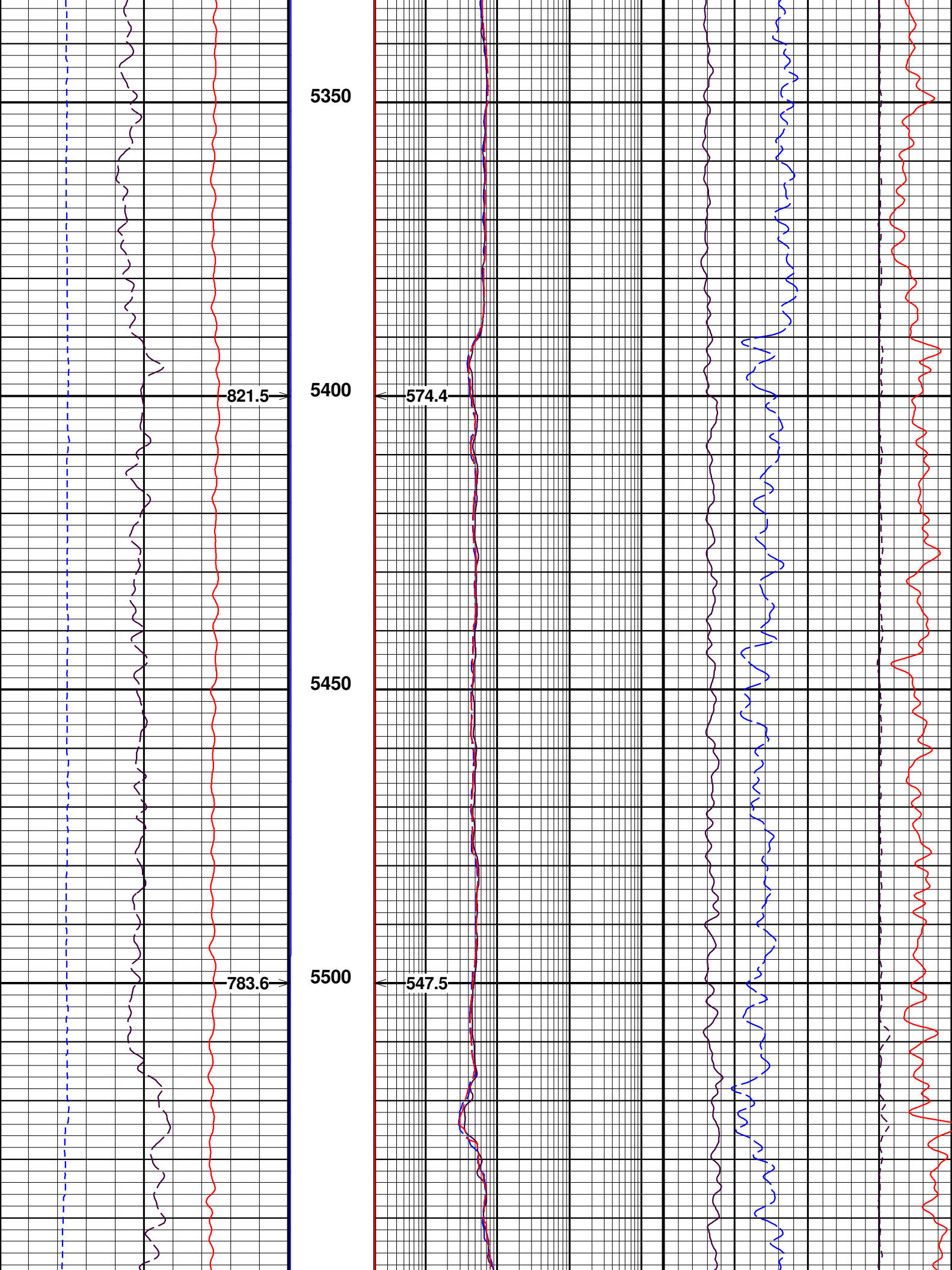


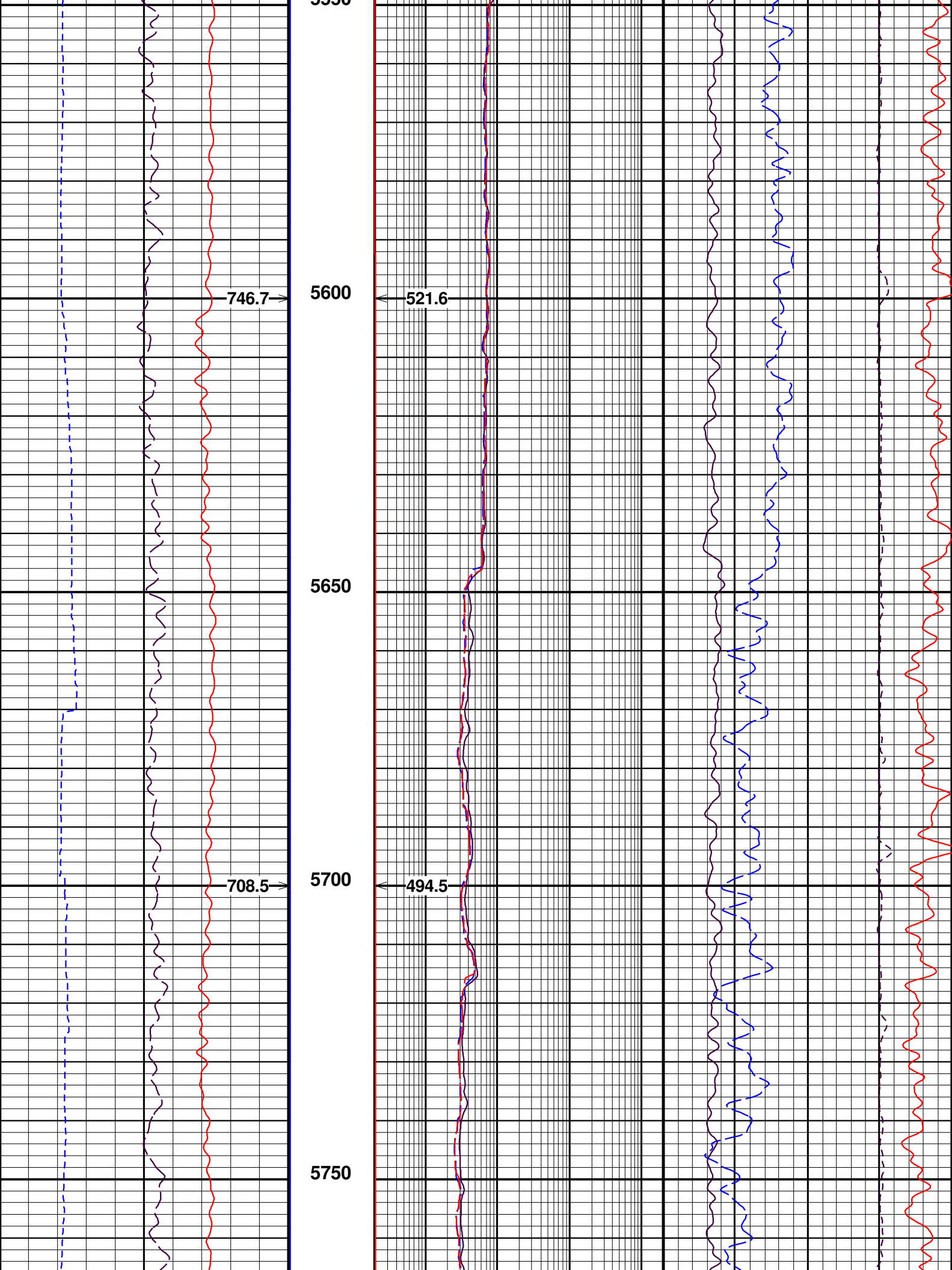


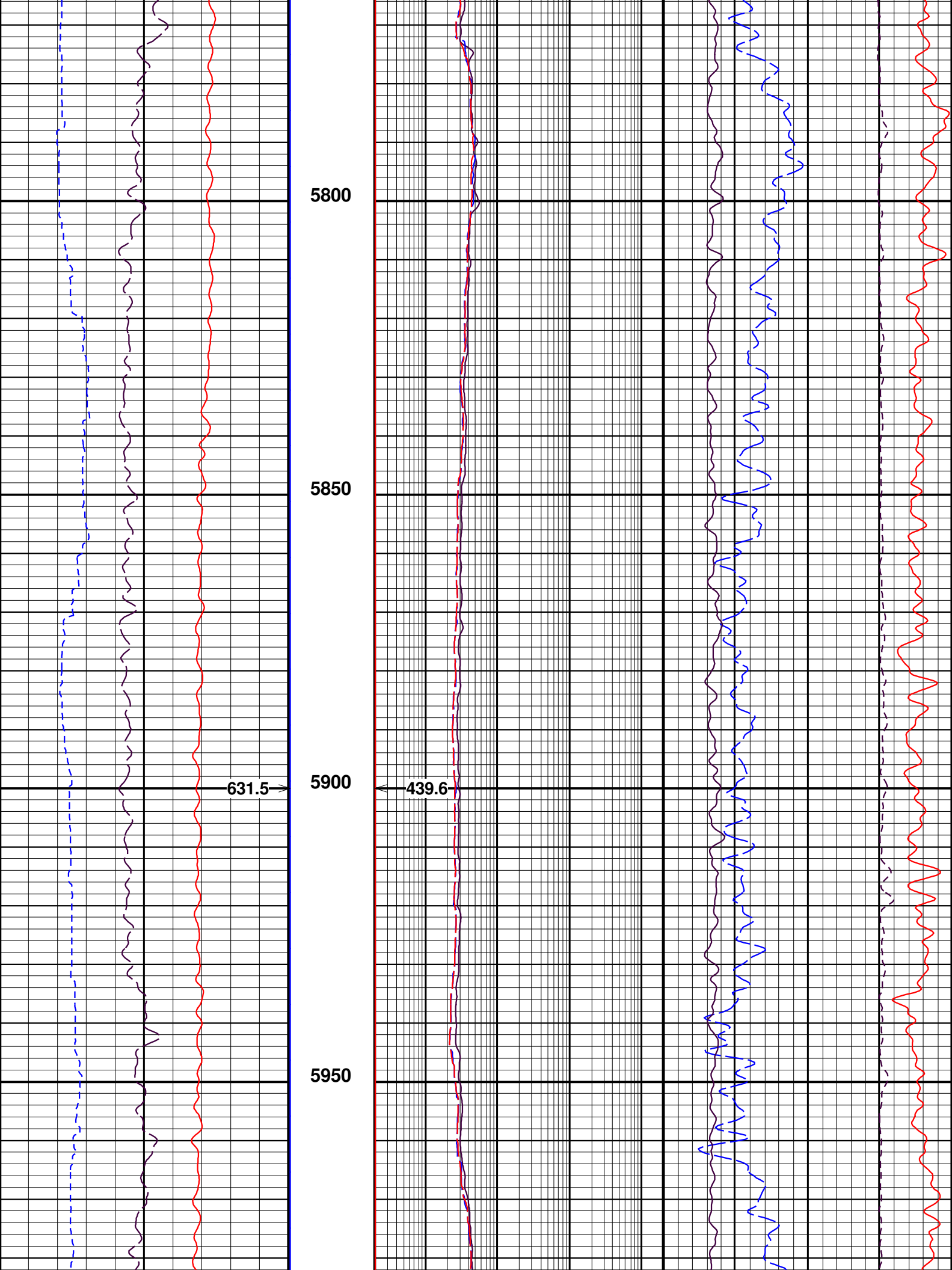


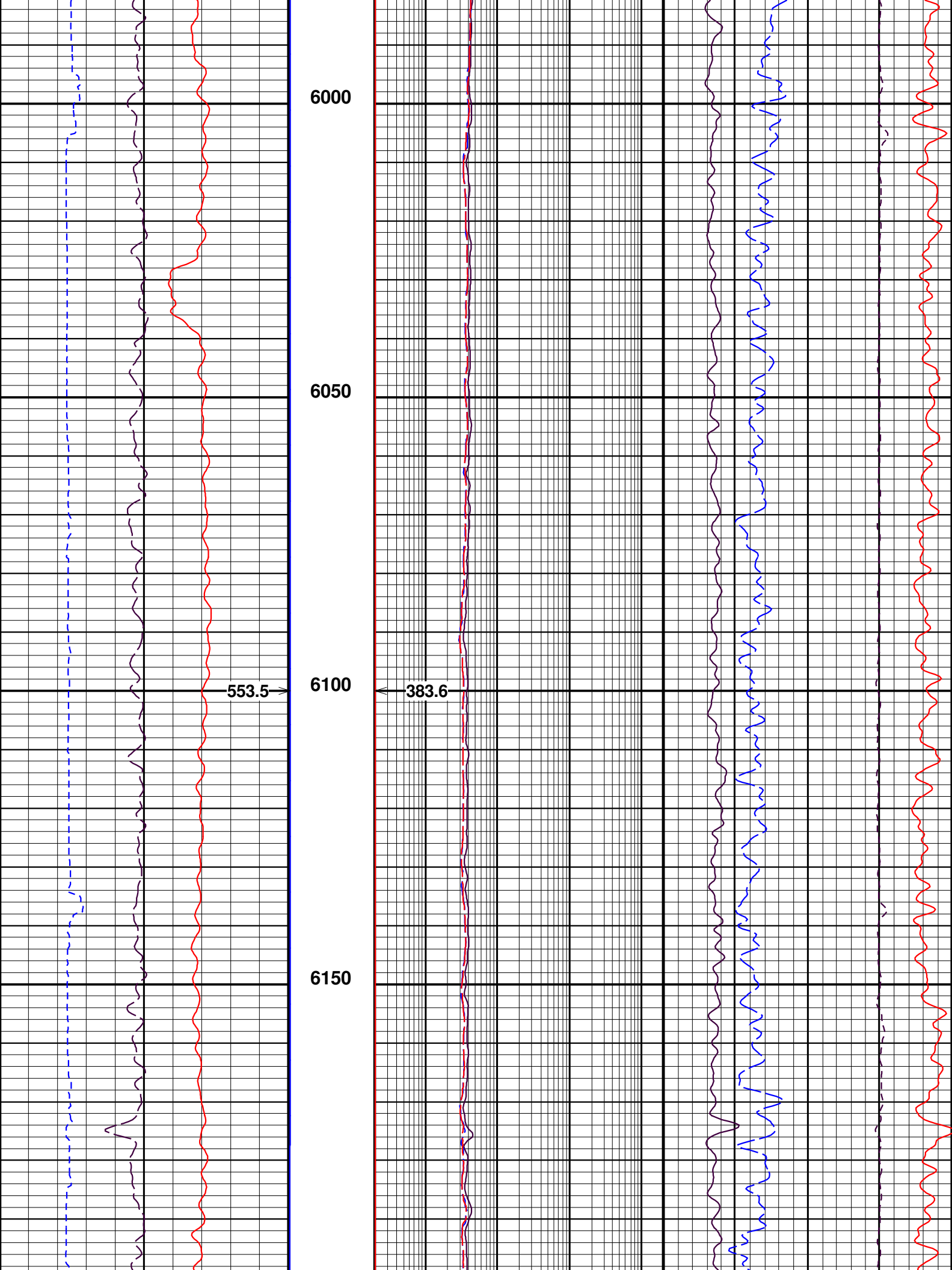


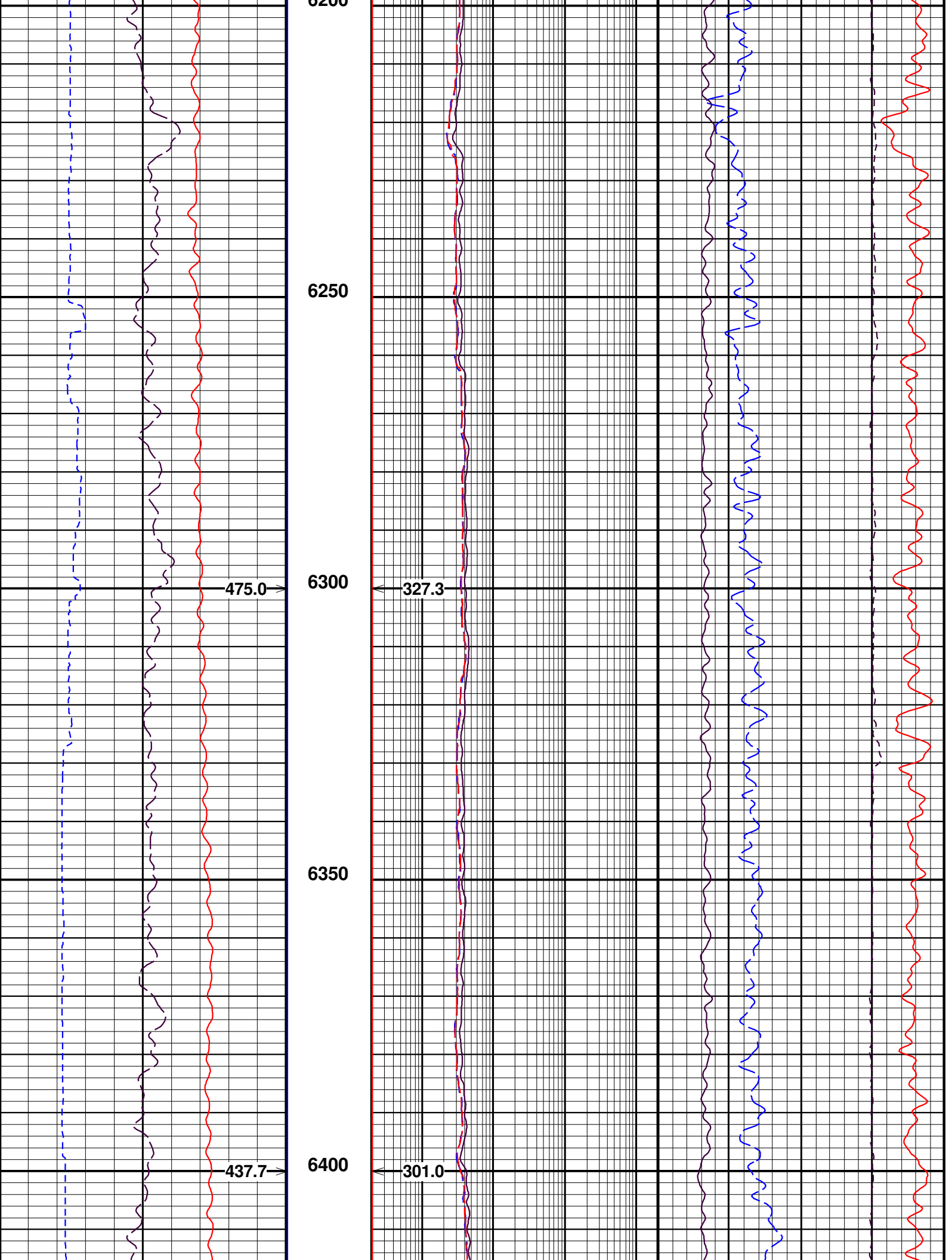


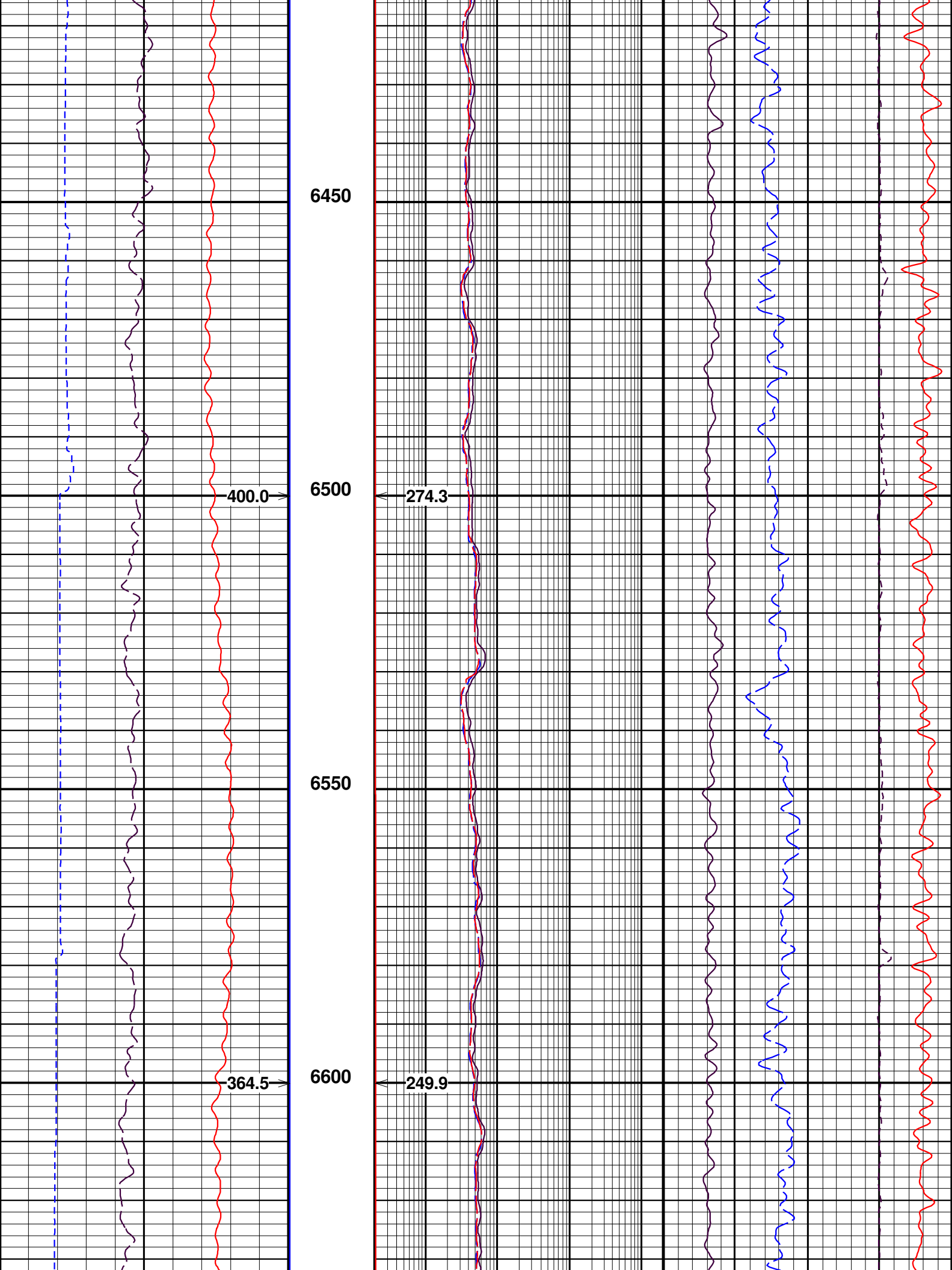


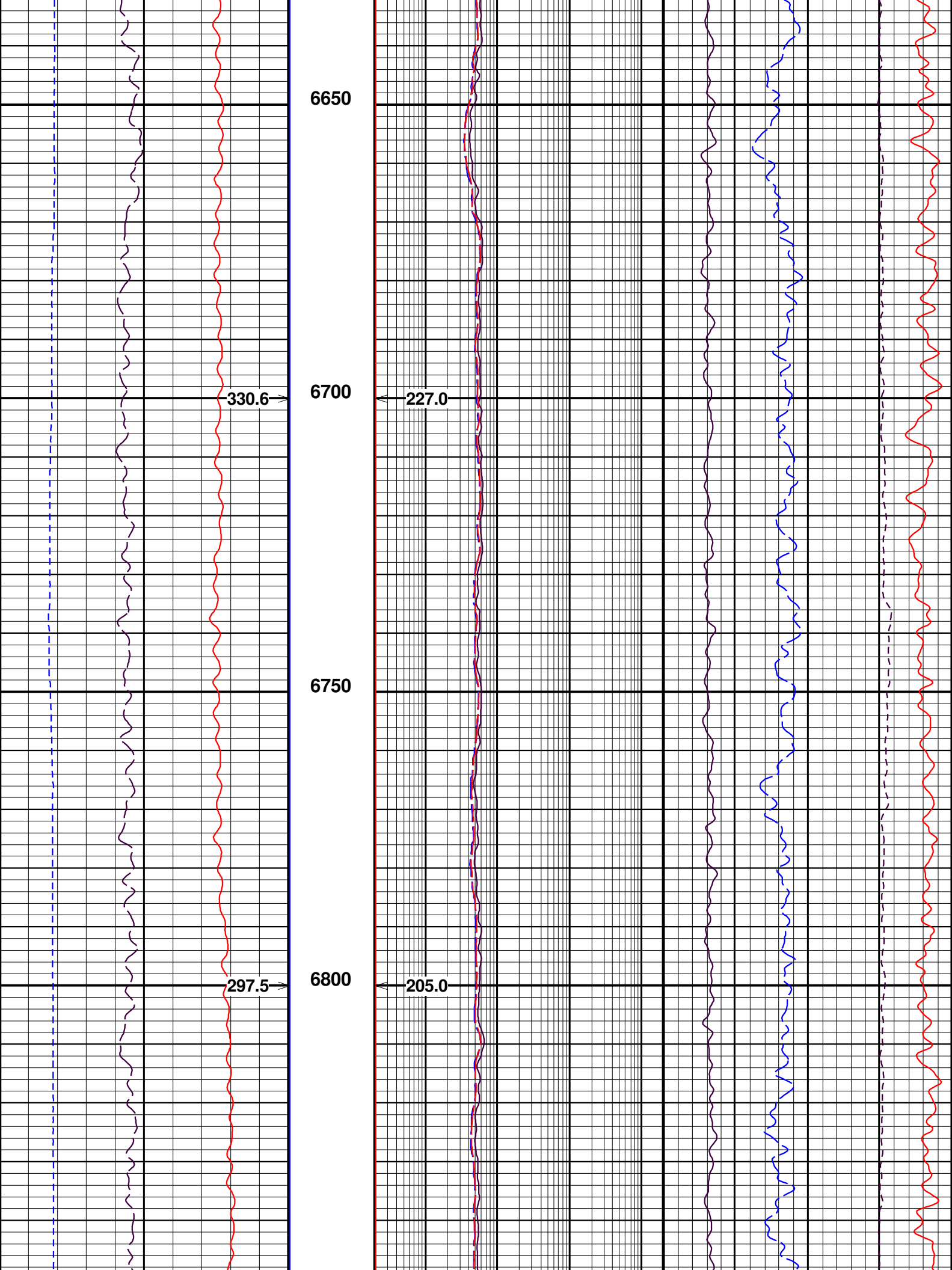


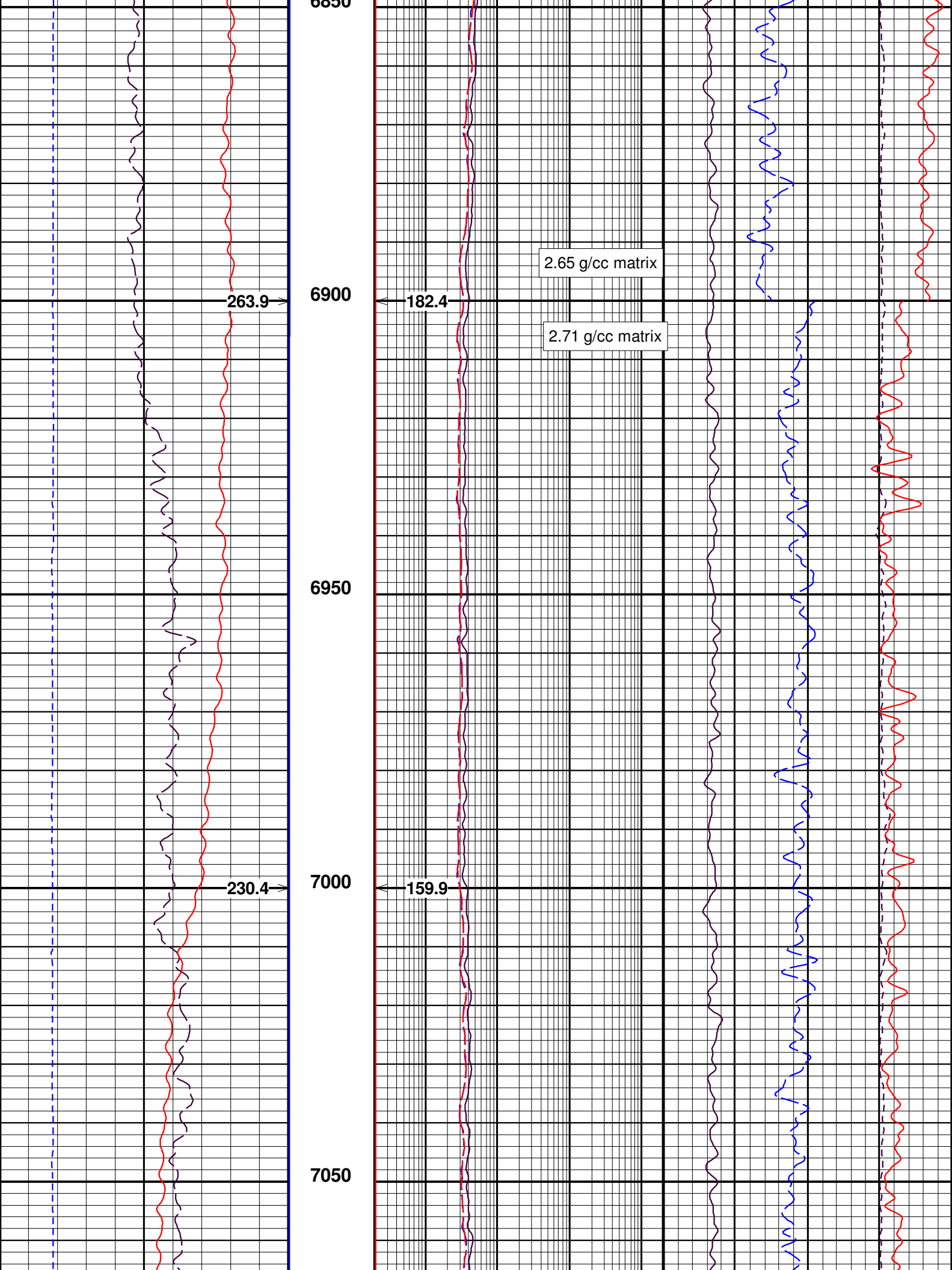


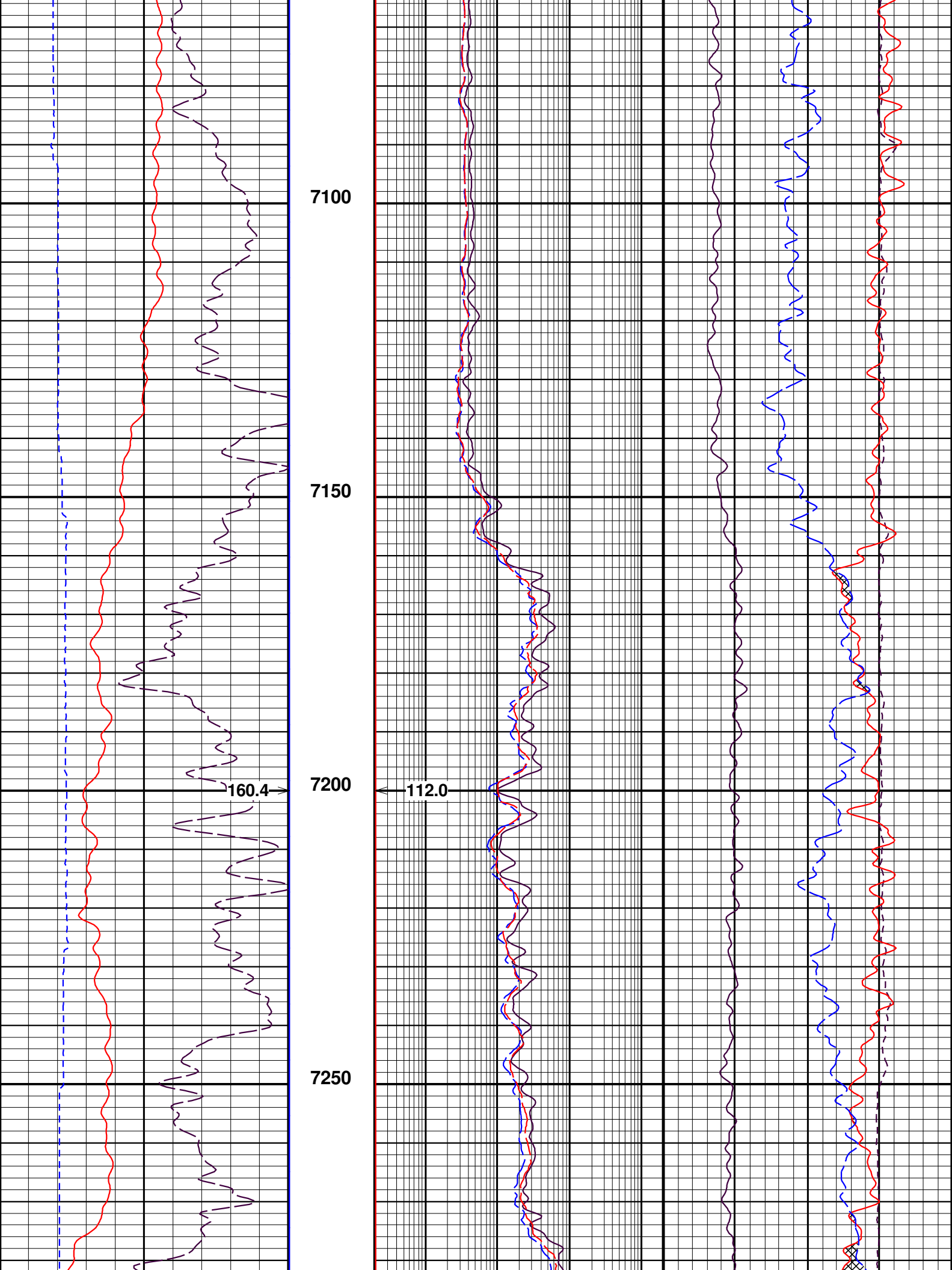


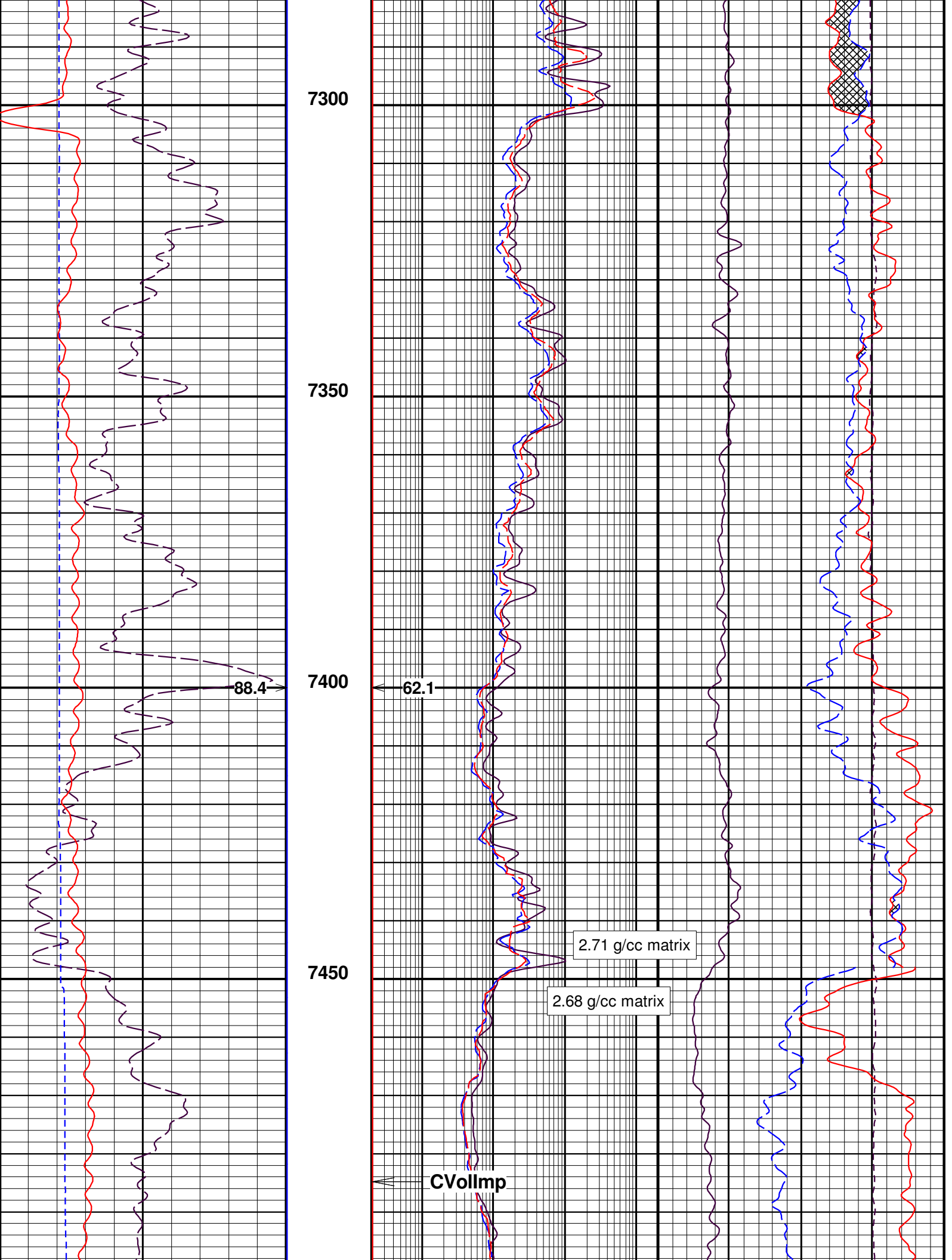


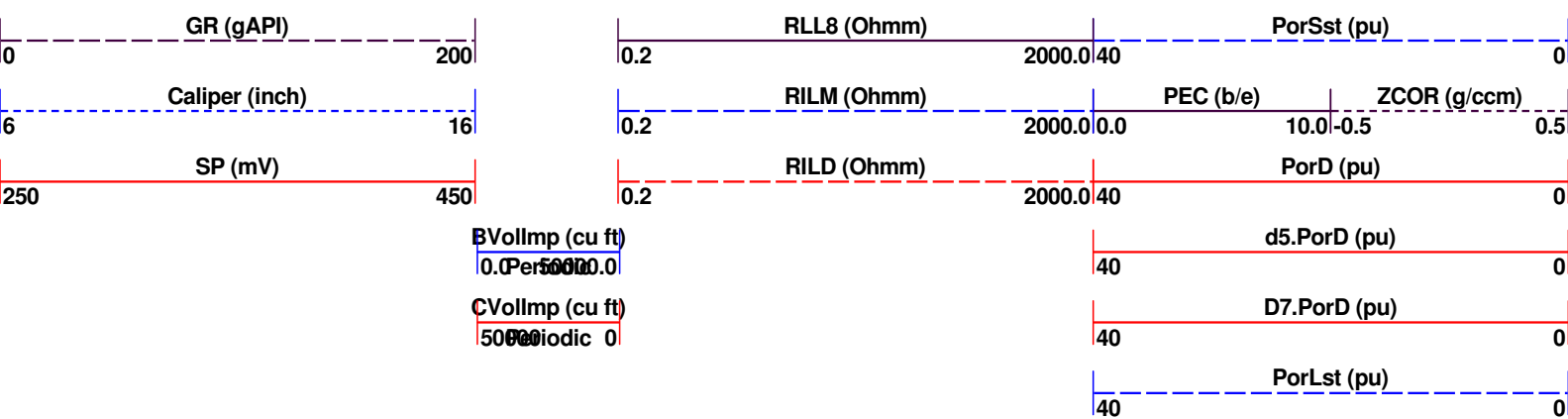
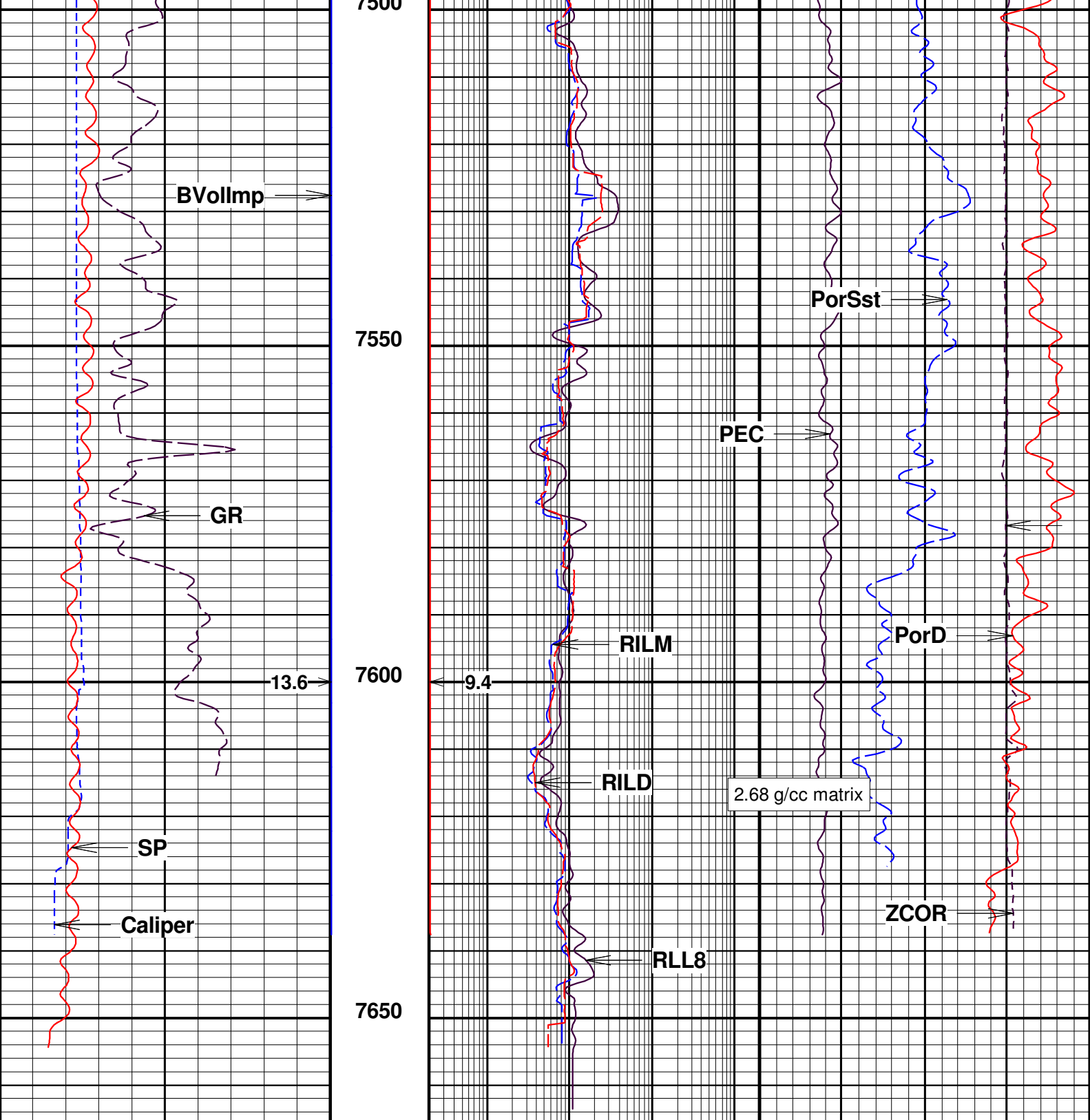












density

File : C:\Welldata\2-014083_GRIZZLY OPERATING, LLC\2015183.cvf

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

Source ID :

Tension**Two Point Calibration**

Time Oct / 01 / 2015 15:06:00

Setup

Description

Setup Version 00000

Curve Name	pt	Raw Value	User Value	Device
Tension	1	800	0 N	
Tension	2	24375.3	44482 N	

Mult.

Add.

1.886805**-1509.444**

File : C:\Welldata\2-014083_GRIZZLY OPERATING, LLC\AFC_1831A_024.cvf

Tool name : **TCMRT**Asset : **024**Series : **1831A**

Source ID :

Tension**Tension Calibration**

Time

Setup

Description

Setup Version 00000

Curve Name	pt	Raw Value	User Value	Device
CHT	1	0 N	0 N	
	2	1 N	1 N	

Mult.

Add.

1.000000**0.000**

File : C:\Welldata\2-014083_GRIZZLY OPERATING, LLC\AFC_0930A_021.cvf

Tool name : **Telemetry**Asset : **021**Series : **0930A**

Source ID :

GR**Gamma Calibration**

Time Oct / 22 / 2015 09:30:04

Setup

Description Oct 22

Setup Version 00001

Block	Raw Value	User Value	Device	Device SN	Mult.
Background	244.289				
Jig ON	795.21				
Gamma	550.921	150.0003 gAPI			0.2722719

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

Source ID :

CN**Compensated Neutron Calibration**

Time Sep / 30 / 2015 14:44:18

Setup

Description v5_91 Sep 30

Setup Version 00001

Curve Name	pt	Raw Value	User Value	Device	Mult.
Ratio	1	4.3927	4.94 none		1.124593

Tool name : **PE Density Microlog**Asset : **016**Series : **1486A**

Source ID :

Peak**ZDL Peak Calibration**

Time Oct / 19 / 2015 11:17:22

Setup

Description Oct 19

Setup Version 00001

Block	Channel	Energy (keV)	Device
<i>Am241</i>	20.218	59.5	
<i>Cs137</i>	191.45	661.6	

	60-100 keV	100-140 keV	140-200 keV	200-540 keV
<i>Background</i>	177.306	217.987	430.291	1309.79

Tool name : **PE Density Microlog**Asset : **016**Series : **1486A**

Source ID :

PeDen**PeDen Calibration**

Time Oct / 19 / 2015 11:00:30

Setup

Description Oct 19

Setup Version 00001

	Raw Values			Device Values		
	SSD	LSD	SHR	DEN	CORR	PE
<i>MG</i>	17947.6 cps	12670.0 cps	0.801 0.700 0.900	1.649 g/ccm	0.000 g/ccm	2.14 b/e
<i>AL</i>	9493.2 cps	1636.3 cps		2.550 g/ccm	0.000 g/ccm	
<i>AL + Mg Shim</i>	12788.6 cps	2625.7 cps		2.488 g/ccm	0.120 g/ccm	
<i>MG + St Shim</i>		5642.8 cps	0.310 0.250 0.320			10.31 b/e
<i>Ratio MG/AL</i>	1.89 none 1.50 2.00	7.74 none 6.80 8.50				
<i>Spine Angle</i>	72.7 deg 72.0 75.0	<i>Rib Angle</i>	52.6 deg 52.0 55.0			

Tool name : **PE Density Microlog**Asset : **016**Series : **1486A**

Source ID :

RNML

Resistivity Calibration

Time Oct / 01 / 2015 09:41:24

Setup

Description Fort Morgan

Setup Version 00001

Curve Name	pt	Raw Value	User Value	Device	Mult.	Add.
RNML	1	-0.0577092	0 Ohmm		5.988882	0.346
	2	24.9887	150 Ohmm			

Tool name : **PE Density Microlog**Asset : **016**Series : **1486A**

Source ID :

RLML**Resistivity Calibration**

Time Oct / 01 / 2015 09:41:38

Setup

Description Fort Morgan

Setup Version 00001

Curve Name	pt	Raw Value	User Value	Device	Mult.	Add.
RLML	1	-0.0162024	0 Ohmm		1.270483	0.021
	2	132.217	168 Ohmm			

Tool name : **PE Density Microlog**Asset : **016**Series : **1486A**

Source ID :

Caliper**Caliper Calibration**

Time Oct / 19 / 2015 11:24:33

Setup

Description Oct 19

Setup Version 00001

Curve Name	pt	Raw Value	User Value	Device	Mult.	Add.
Caliper	1	6.45196	6 inch		0.949330	-0.125
	2	16.9857	16 inch			

File : C:\Welldata\2-014083_GRIZZLY OPERATING, LLC\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 :

Conductivity Calibration

Time Jun / 18 / 2015 10:23:50

Setup

Description

Setup Version 00001

Curve Name	pt	Raw Value	User Value	Device
CLL8	1	518.032 mV	500 mmho	
	2	1.28921 mV	1 mmho	

Mult.

Add.

0.965664

-0.245

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
CILMRaw	1	-1.24249 mV	0 mS/m	
	2	468.664 mV	461 mS/m	

Mult.

Add.

0.981046

1.219



COMPANY: GRIZZLY OPERATING,LLC
 WELL: GOZA 18-2Ae
 FIELD: WATTENBERG
 COUNTY: USA
 STATE: CO