



MIDWEST WIRELINE

DUAL INDUCTION
LOG

Company Herman L. Loeb, LLC		Well Olson Farm # 1-16		Field Fralick West Ext.		County Kiowa		State Kansas	
Company Herman L. Loeb, LLC		Well Olson Farm # 1-16		Field Fralick West Ext.		County Kiowa		State Kansas	
Location:		API #: 15-097-21860-00-00		Other Services					
SEC 16 TWP 28S RGE 20W		671 FNL & 918 FEL		CDL/CNL MEL					
Permanent Datum		Ground Level		Elevation		2312		Elevation	
Log Measured From		Kelly Bushing		K.B.		2325		D.F.	
Drilling Measured From		Kelly Bushing		G.L.		2312			
Date		5/18/2022							
Run Number		One							
Depth Driller		5000							
Depth Logger		5000							
Bottom Logged Interval		4999							
Top Log Interval		550							
Casing Driller		8.625 @ 585							
Casing Logger		585							
Bit Size		7.875							
Type Fluid in Hole		Chemical							
Salinity, ppm CL		4400							
Density / Viscosity		9.5		60					
pH / Fluid Loss		10.0		9.2					
Source of Sample		FLOWLINE							
Rm @ Meas. Temp		0.4 @ 65							
Rmt @ Meas. Temp		0.3 @ 65							
Rmc @ Meas. Temp		0.54 @ 65							
Source of Rmt / Rmc		CHARTS							
Rm @ BHT		0.21 @ 126							
Operating Rig Time		3 Hours							
Max Rec. Temp. F		126							
Equipment Number		P-108							
Location		HAYS							
Recorded By		D. Schmidt							
Witnessed By		Jon Christensen							

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All interpretations are opinions based on inferences from electrical or other measurements and Midwest Wireline LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Midwest Wireline 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.

Mullinville,
North to I5 Avenue, 1 1/2 West, 1/4 North, West Into

Log Measured From: Kelly Bushing 13 Ft. Above Permanent Datum

THANK YOU FOR USING MIDWEST WIRELINE LLC
785-625-3858

Your Midwest Wireline Crew		This Log Record Was Witnessed By	
Engineer: D. Schmidt		Primary Witness: Jon Christensen	
Operator:		Secondary Witness:	
Operator:		Secondary Witness:	
Operator:		Secondary Witness:	

Log Variables

DatabaseC:\ProgramData\Warrior\Data\herman loeb_olson farm#1-16.db
Dataset field/well/stkml/pass3.1/_vars_

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in	degF	in	in	g/cc	2	g/cc
	7.875	126	5.5	0	1		2.71
NPORSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
Limestone	0	mmho/m	mmho/m	mV	degF	Off	ft
		0	0	520	60		5000

Variable Description

A : Cement Factor (a)
BOREID : Borehole I.D.
BOTTEMP : Bottom Hole Temperature
CASEOD : Casing O.D.
CASETHCK : Casing Thickness
FLUIDDEN : Fluid Density
M : Cement Exp (m)
MATRXDEN : Matrix Density

NPORSEL : Neutron Porosity Curve Select
PERFS : Perforation Flag
SNDERR : Deep Sonde Error Correction
SNDERRM : Medium Sonde Error Correction
SPSHIFT : S.P. Baseline Offset
SRFTEMP : Surface Temperature
SZCOR : CN Size Cor. ?
TDEPTH : Total Depth

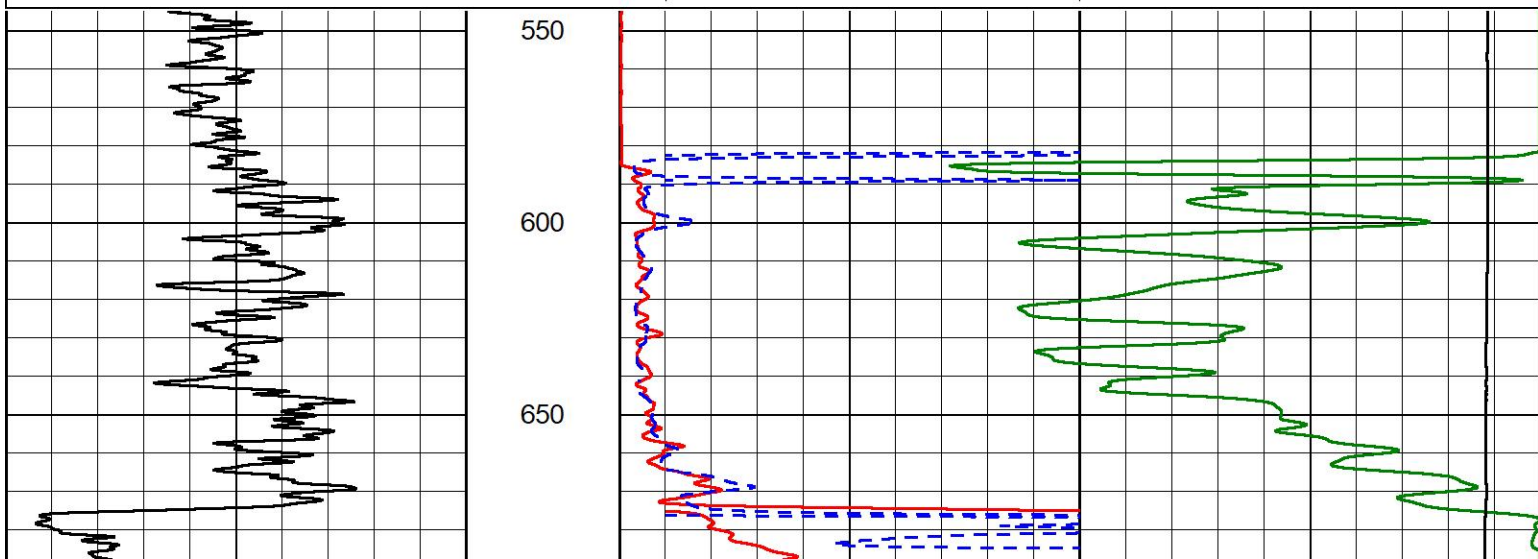


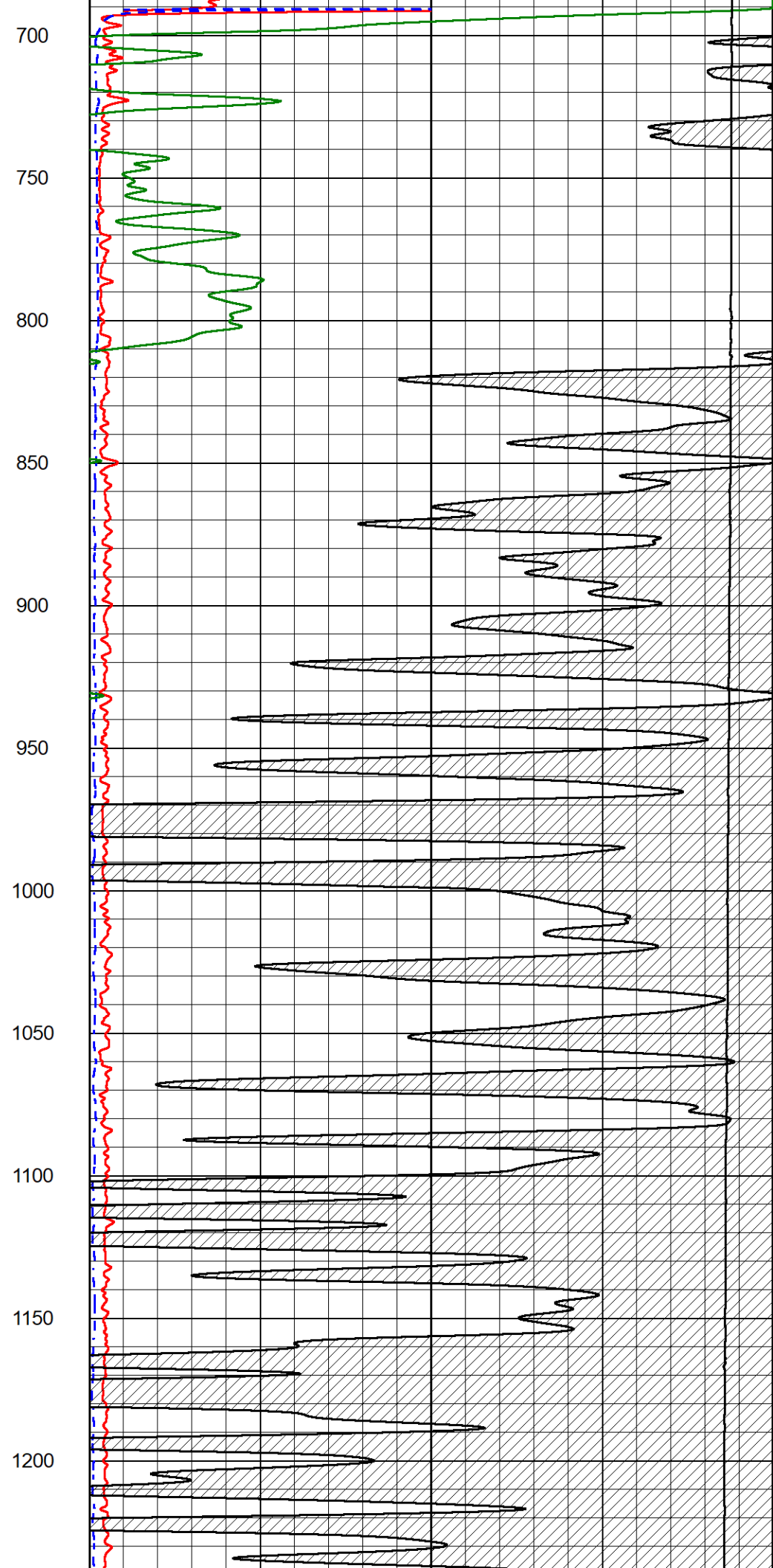
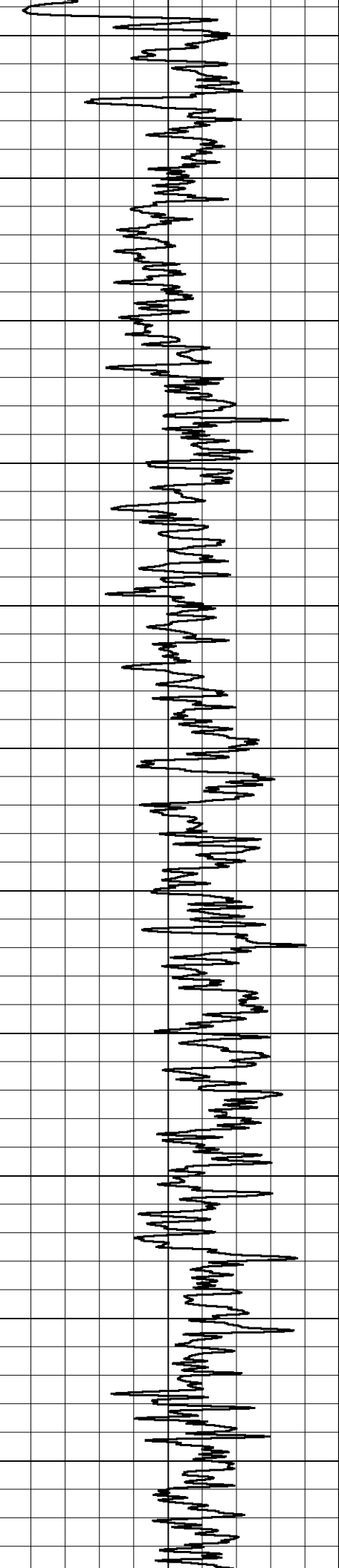
2" SCALE RESISTIVITY

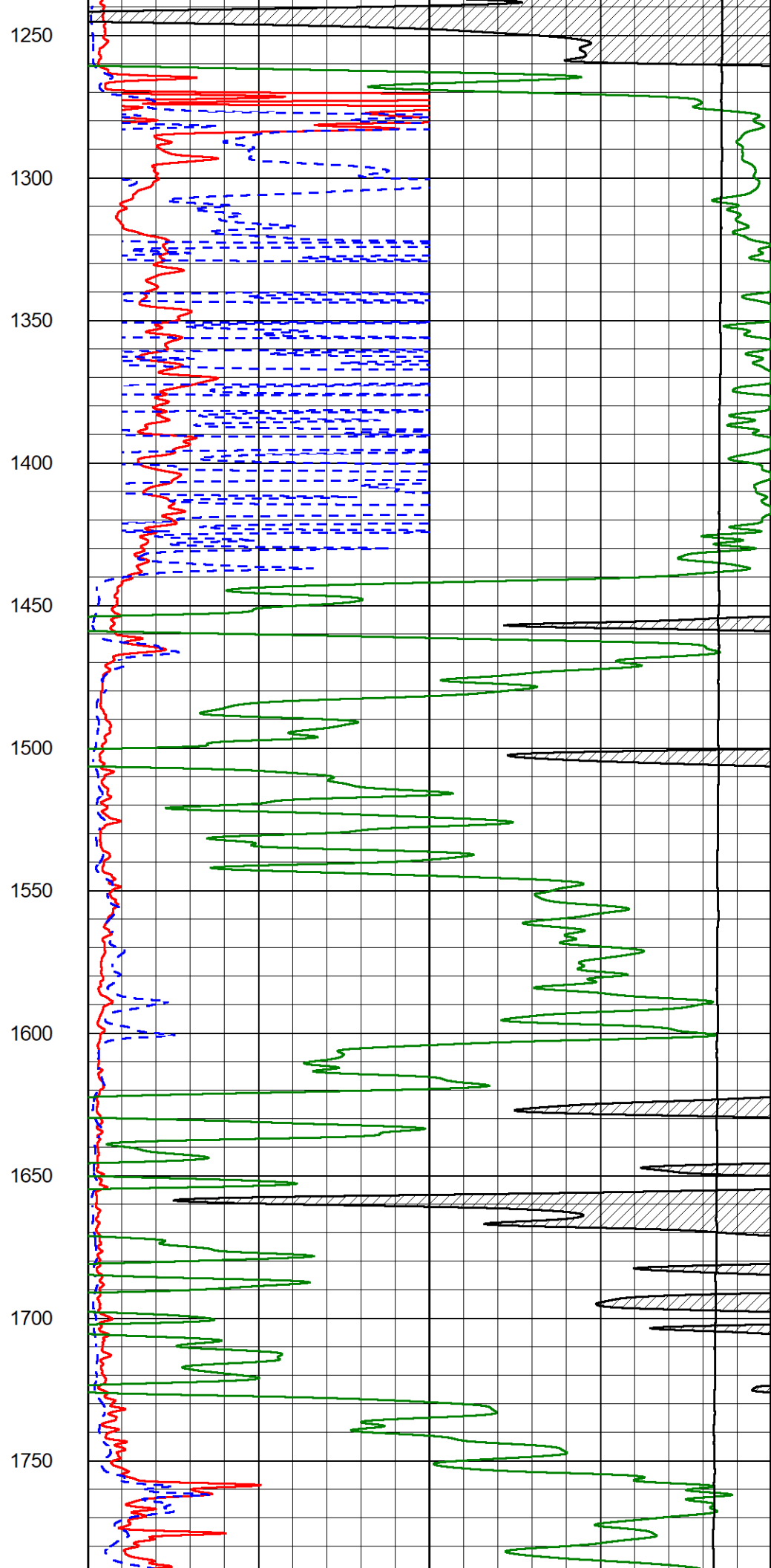
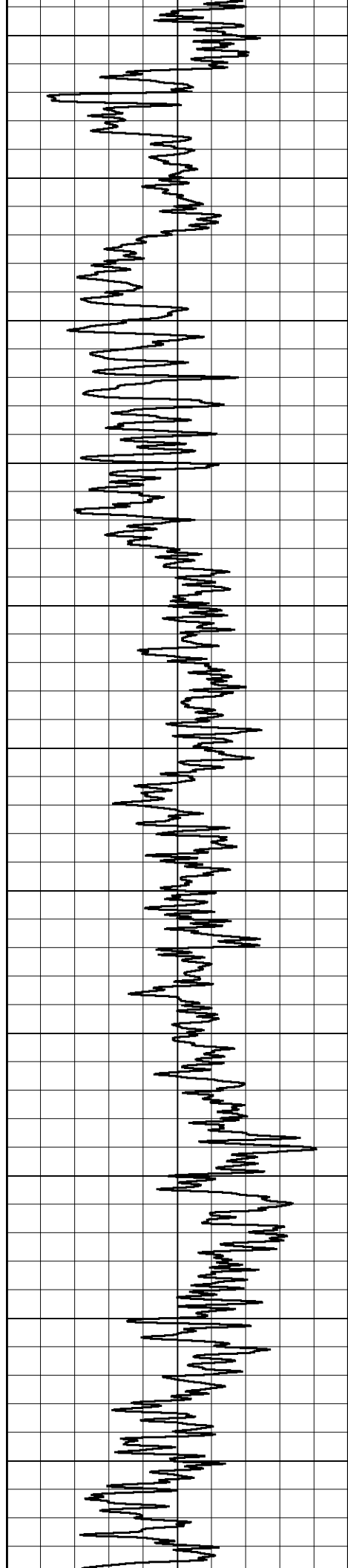
MAIN PASS

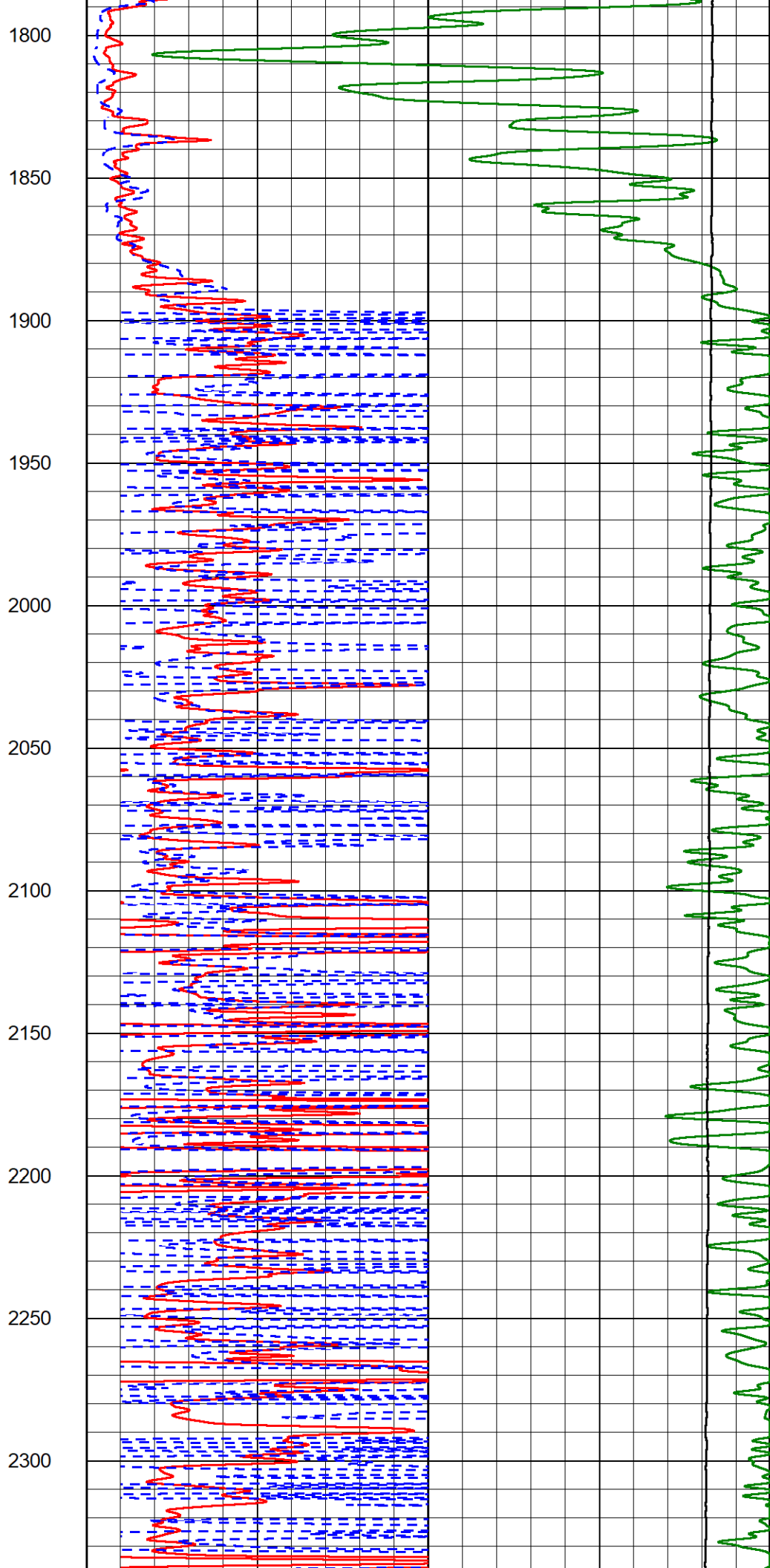
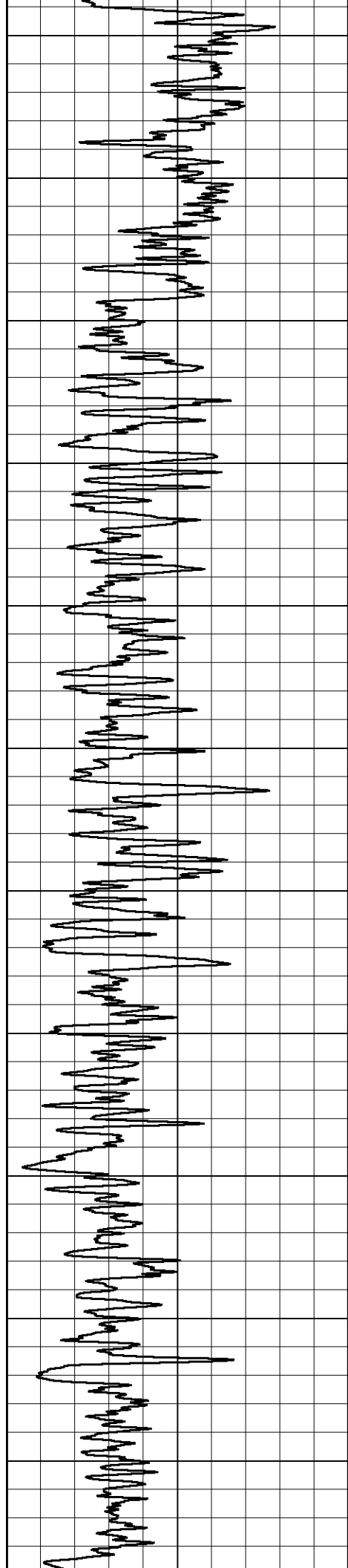
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Dataset Pathname stkml/pass3.3
Presentation Format _dil2in
Dataset Creation Wed May 18 09:21:26 2022
Charted by Depth in Feet scaled 1:600

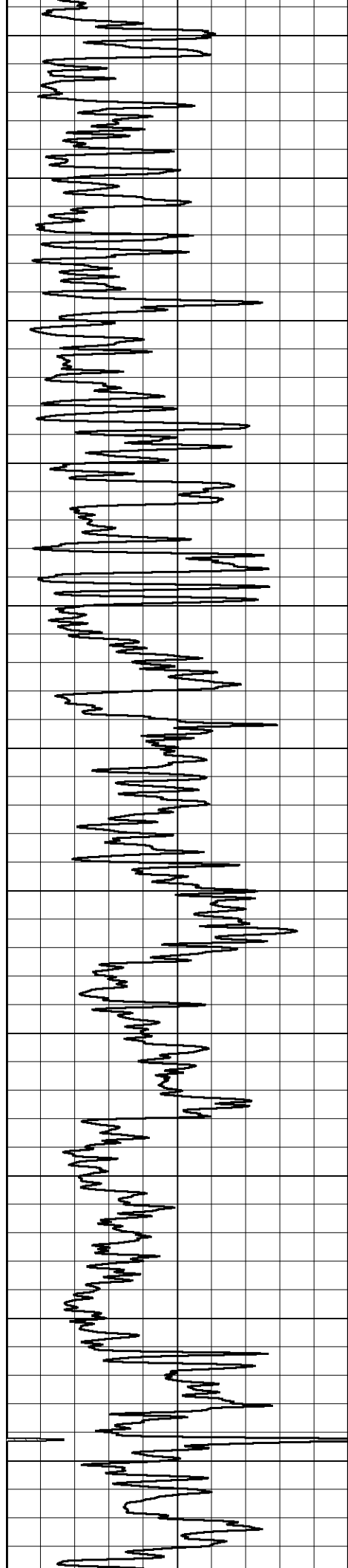
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			15000	Line Tension (lb)	0
			0	Shallow Resistivity (Ohm-m)	50
			0	Deep Resistivity (Ohm-m)	50
				Shallow Resistivity	
			50	(Ohm-m)	200
			50	Deep Resistivity (Ohm-m)	200











2350

2400

2450

2500

2550

2600

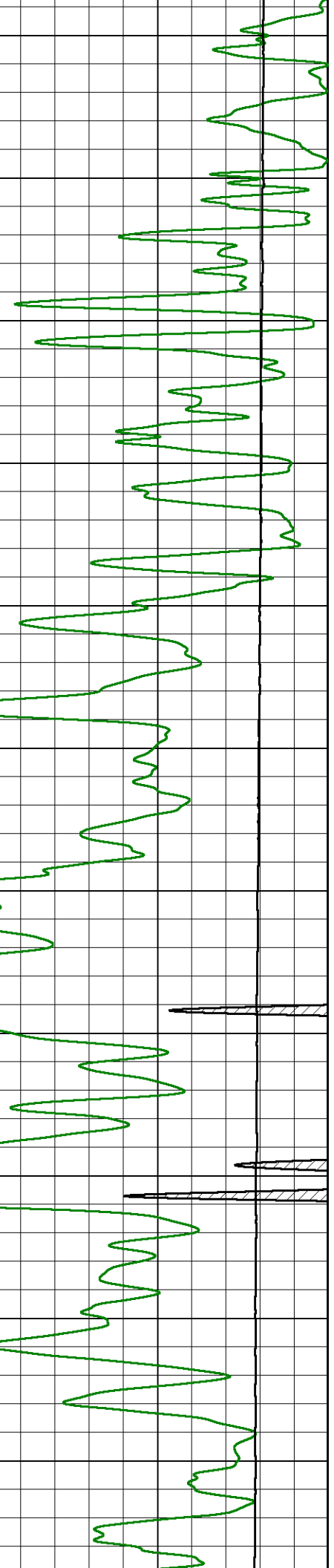
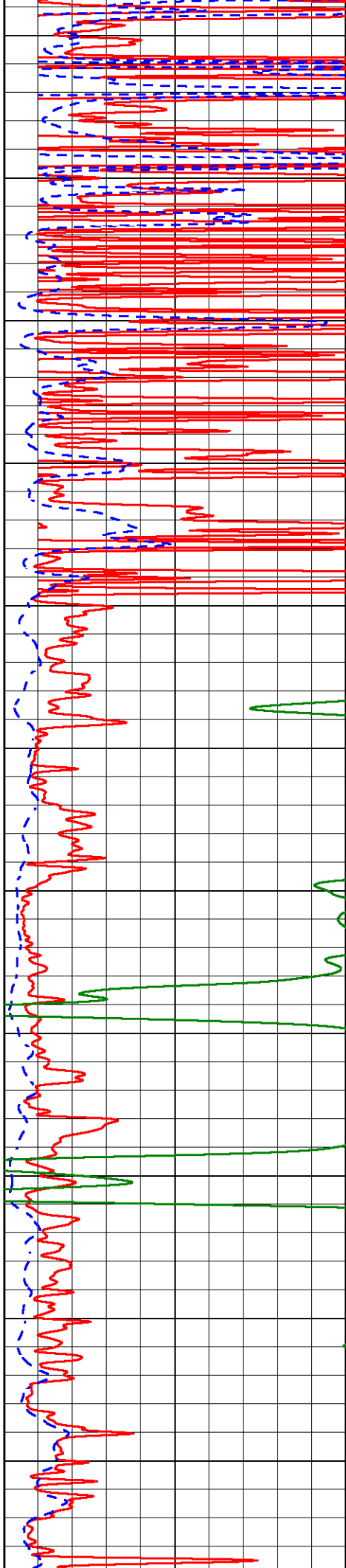
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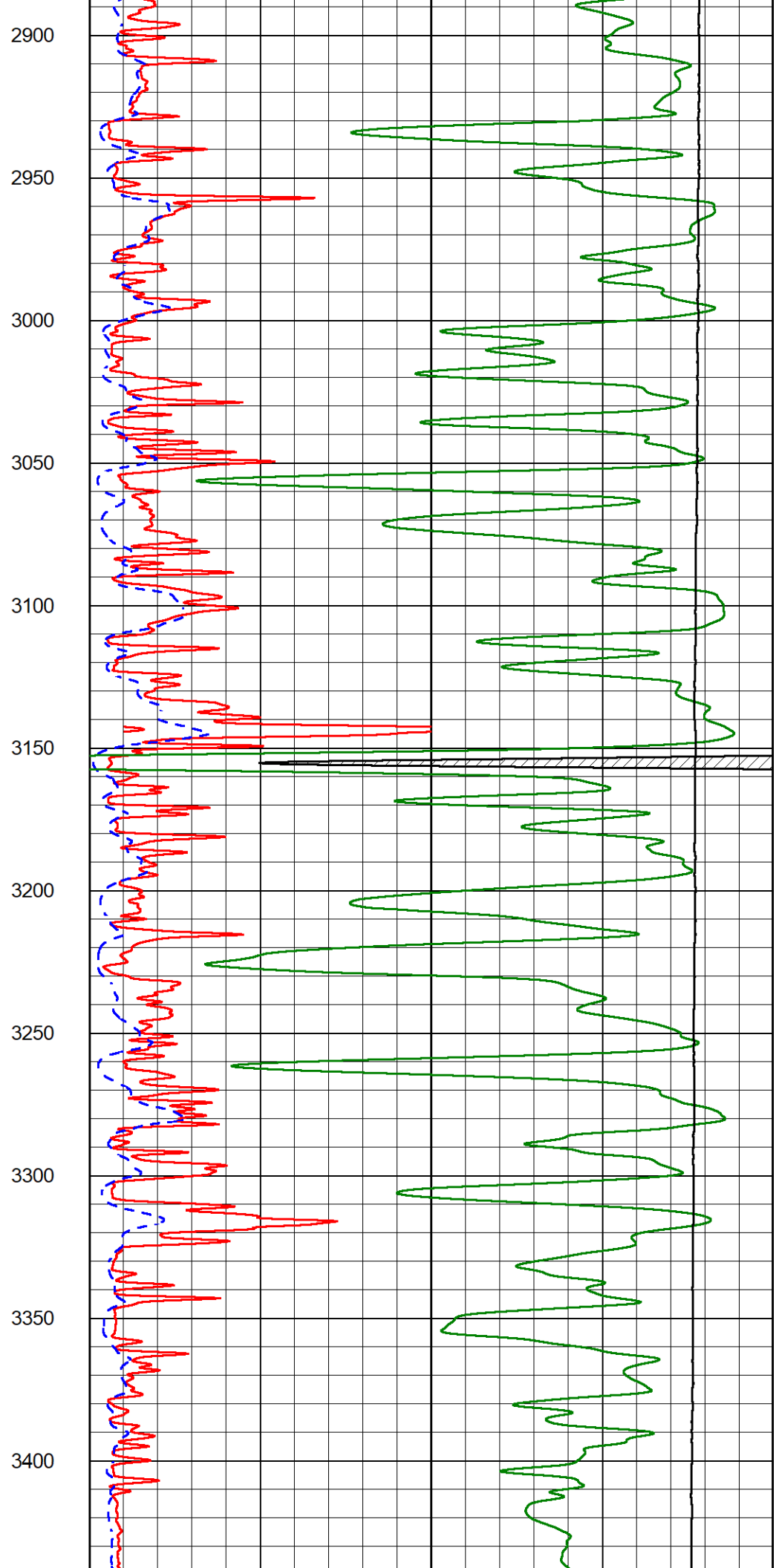
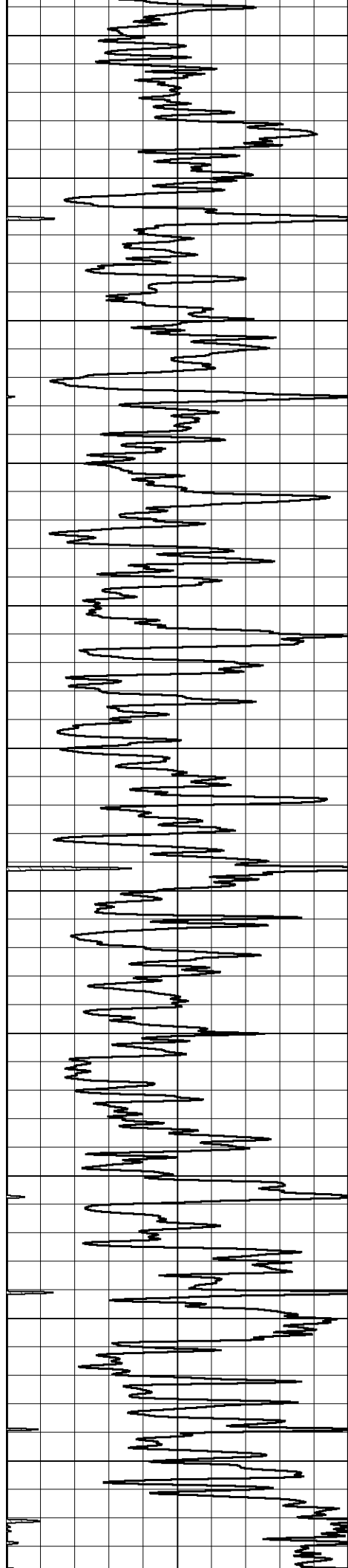
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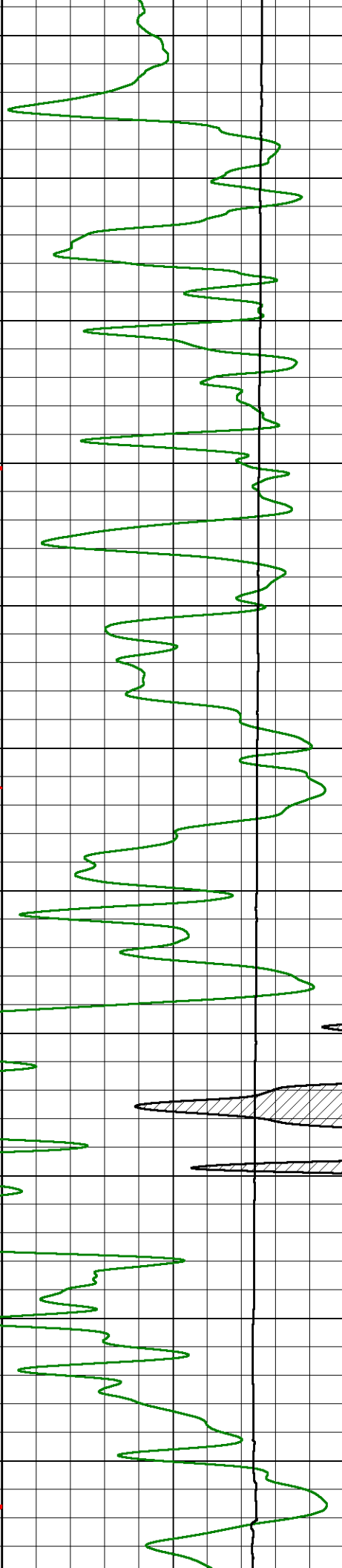
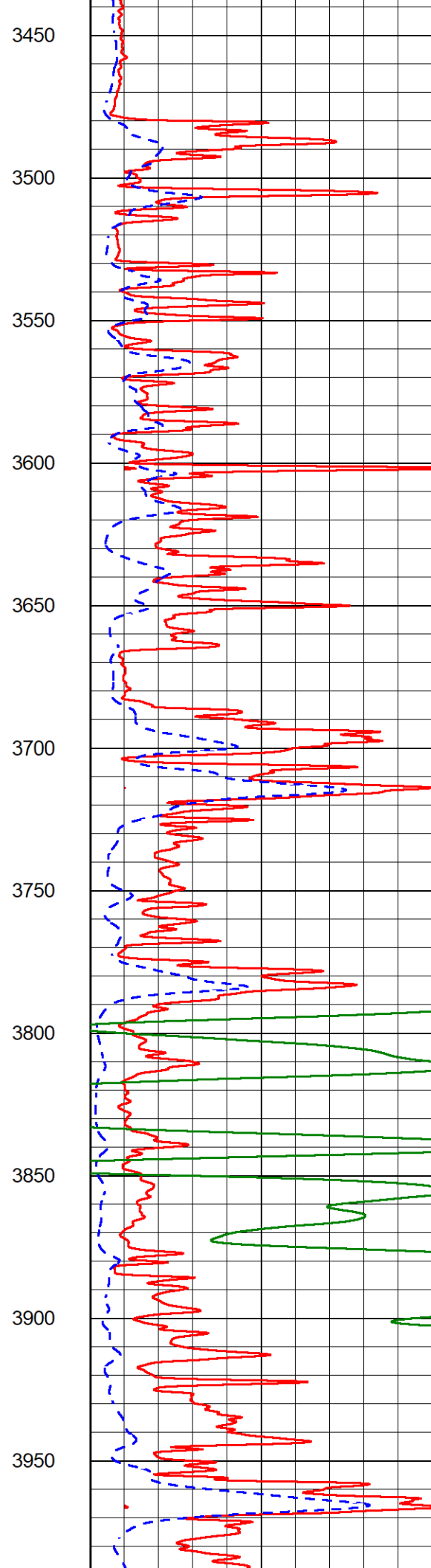
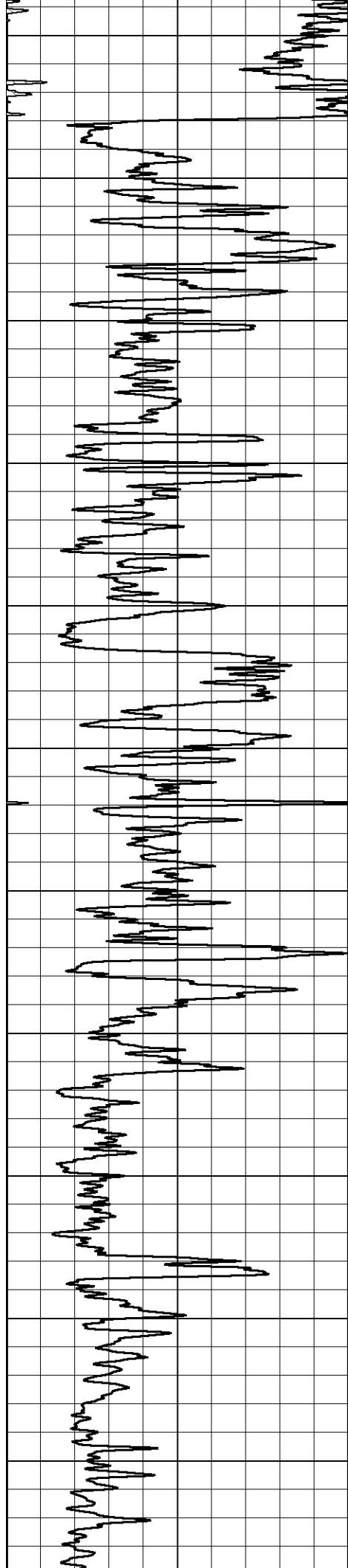
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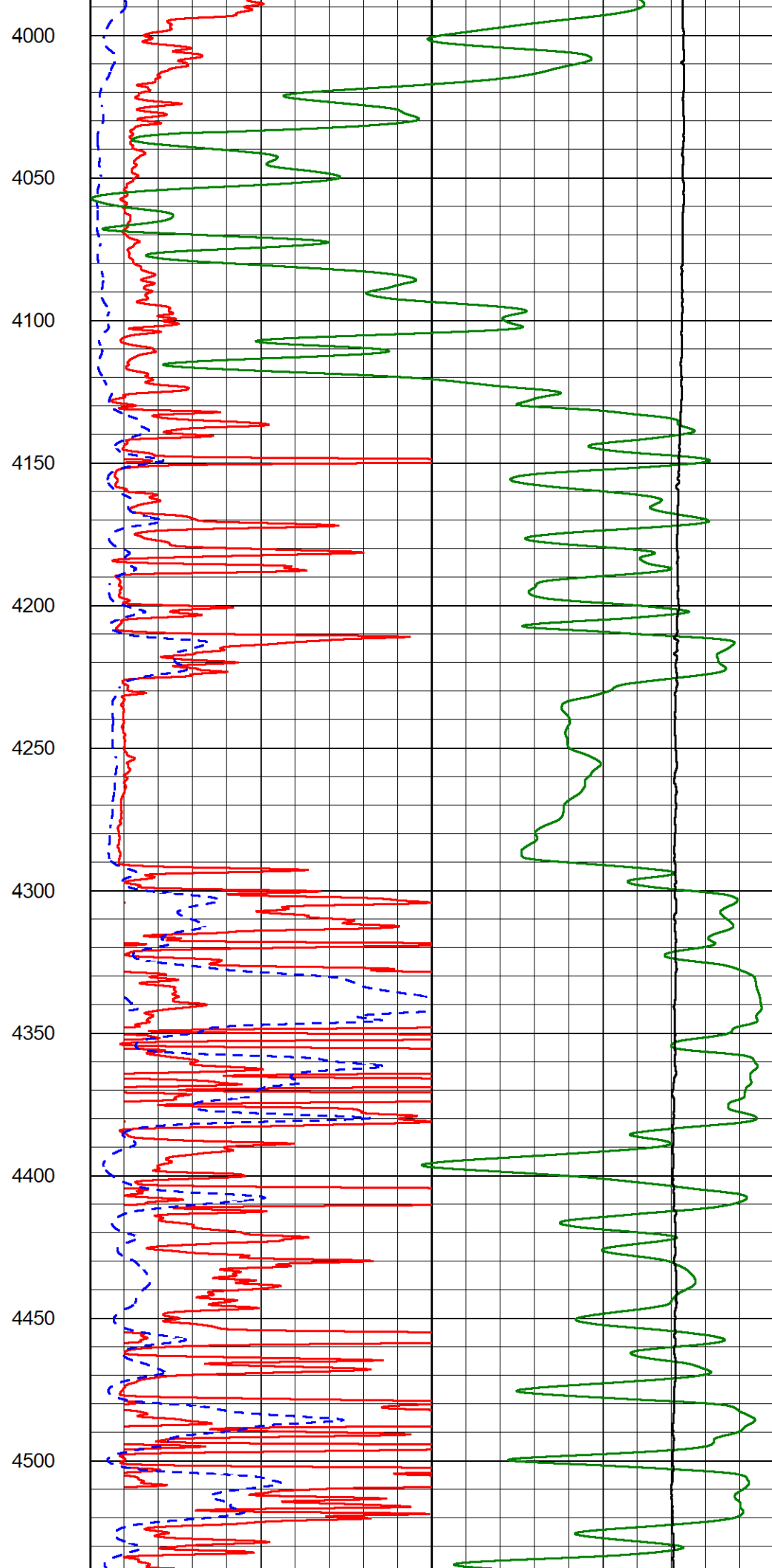
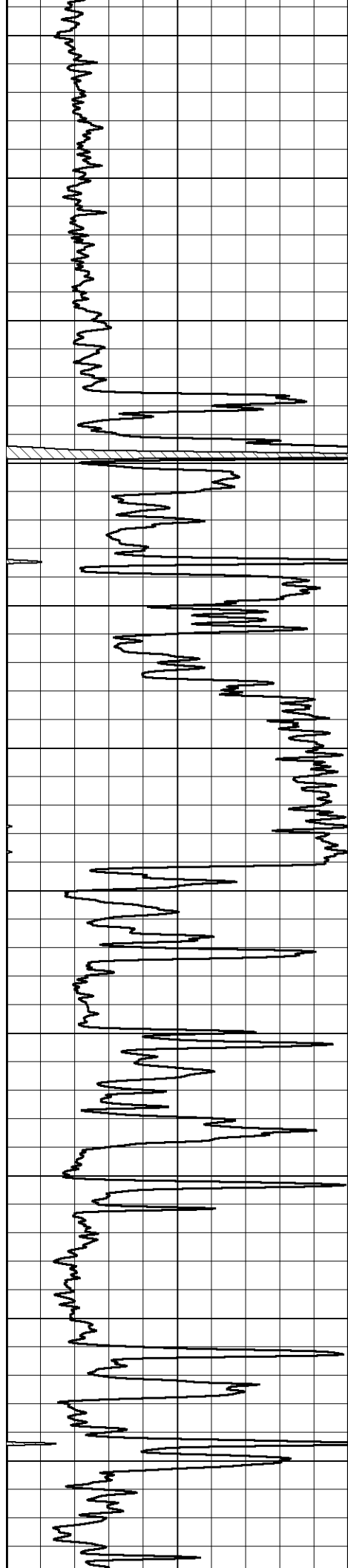
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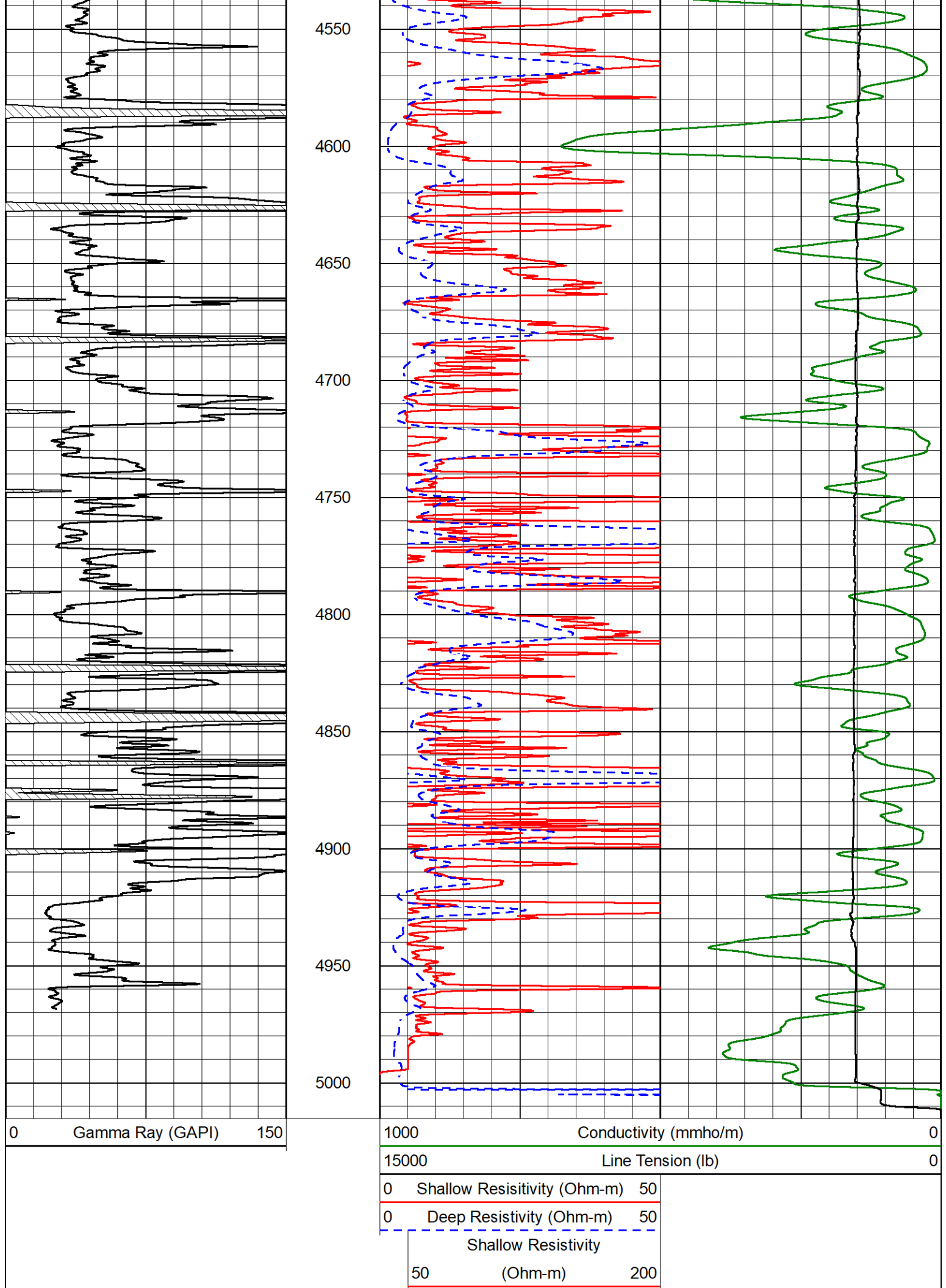
2850













MIDWEST WIRELINE

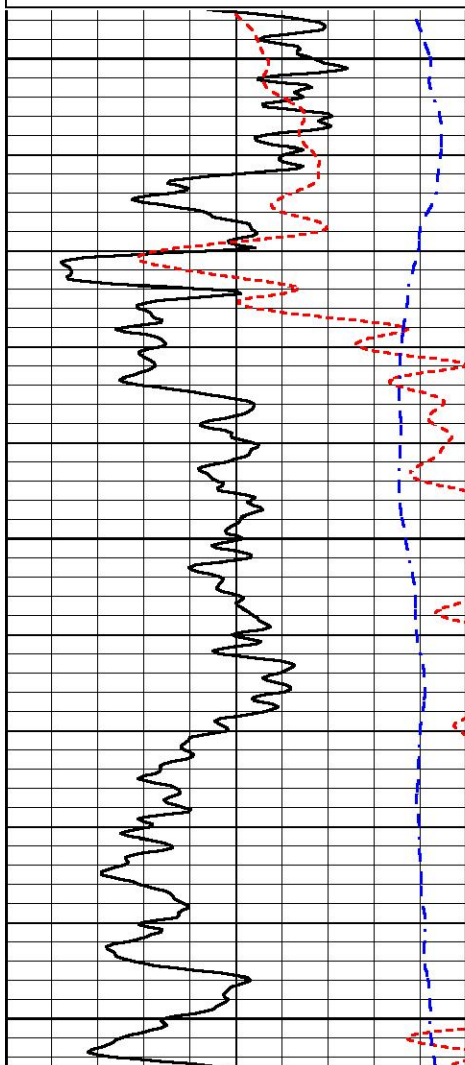
ANHYDRITE SECTION

MAIN PASS

Database File herman loeb_olson farm#1-16.db
 Dataset Pathname stkml/pass3.4
 Presentation Format _dil
 Dataset Creation Wed May 18 09:21:32 2022
 Charted by Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
-160	RXORT	40
-200	SP (mV)	0

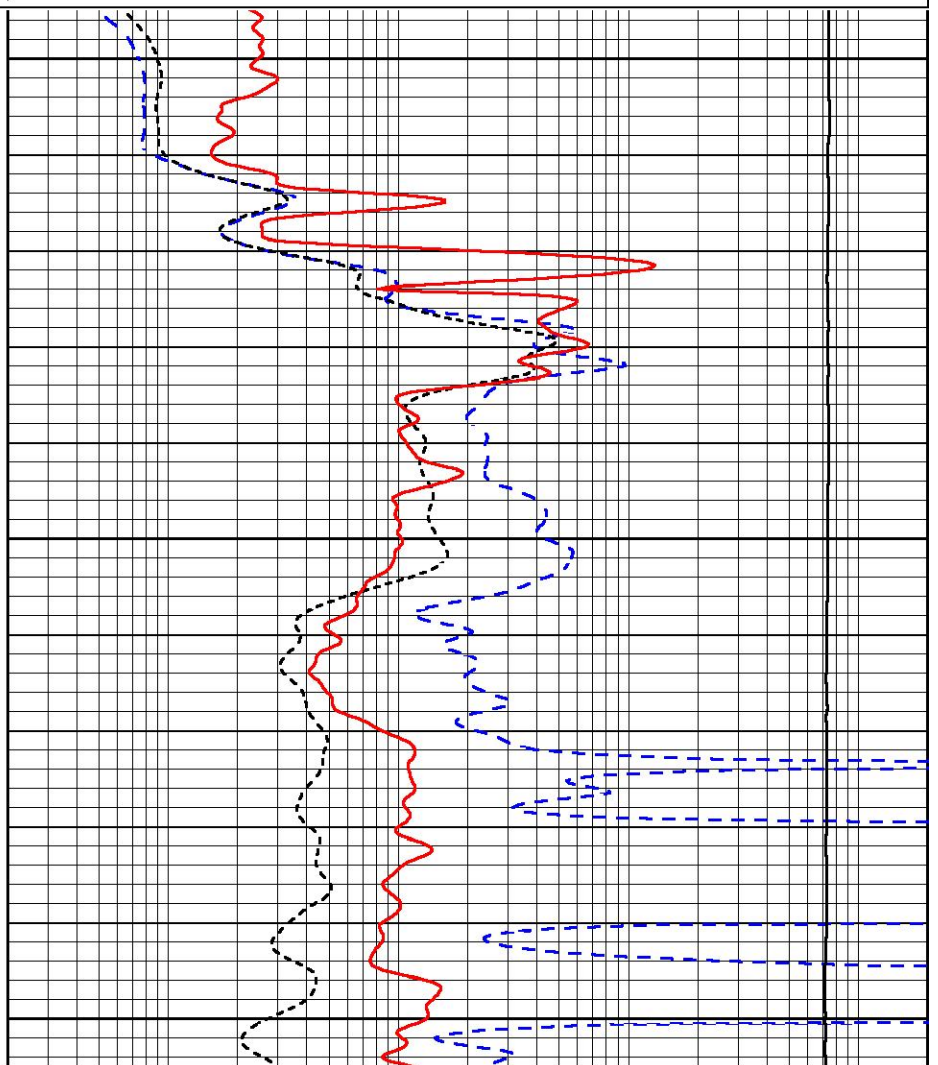
0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
10000	Line Tension (lb)	0



1250

1300

1350



0	Gamma Ray (GAPI)	150
-160	RXORT	40
-200	SP (mV)	0

0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
10000	Line Tension (lb)	0

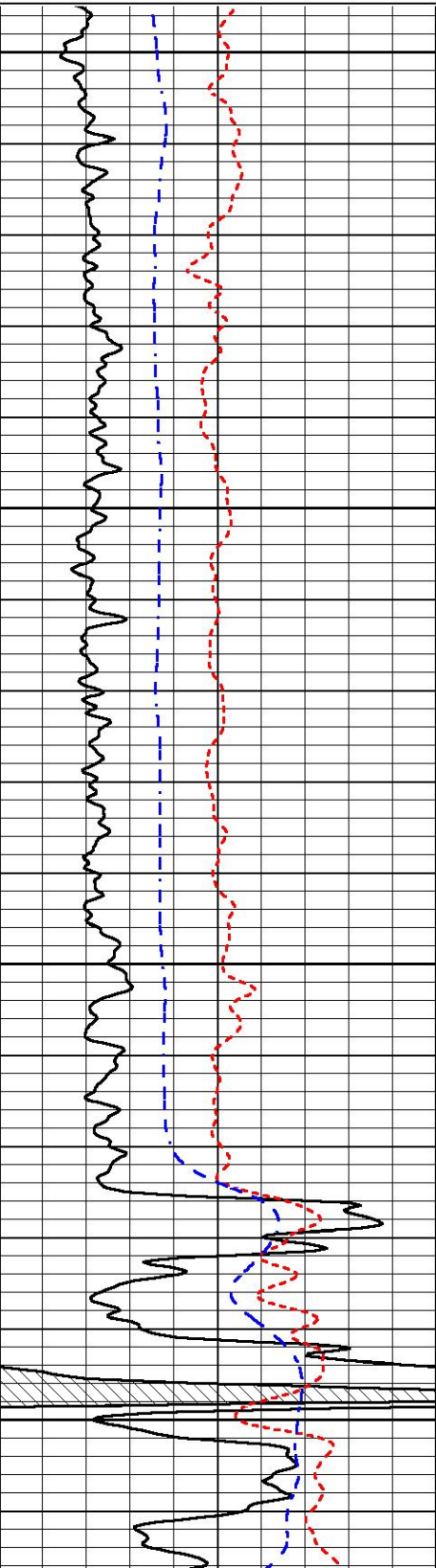


DETAIL SECTION

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 Dataset Pathname stkml/pass3.1
 Presentation Format _dil
 Dataset Creation Wed May 18 09:21:08 2022
 Charted by Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
-160	RXORT	40
-200	SP (mV)	0

0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
10000	Line Tension (lb)	0

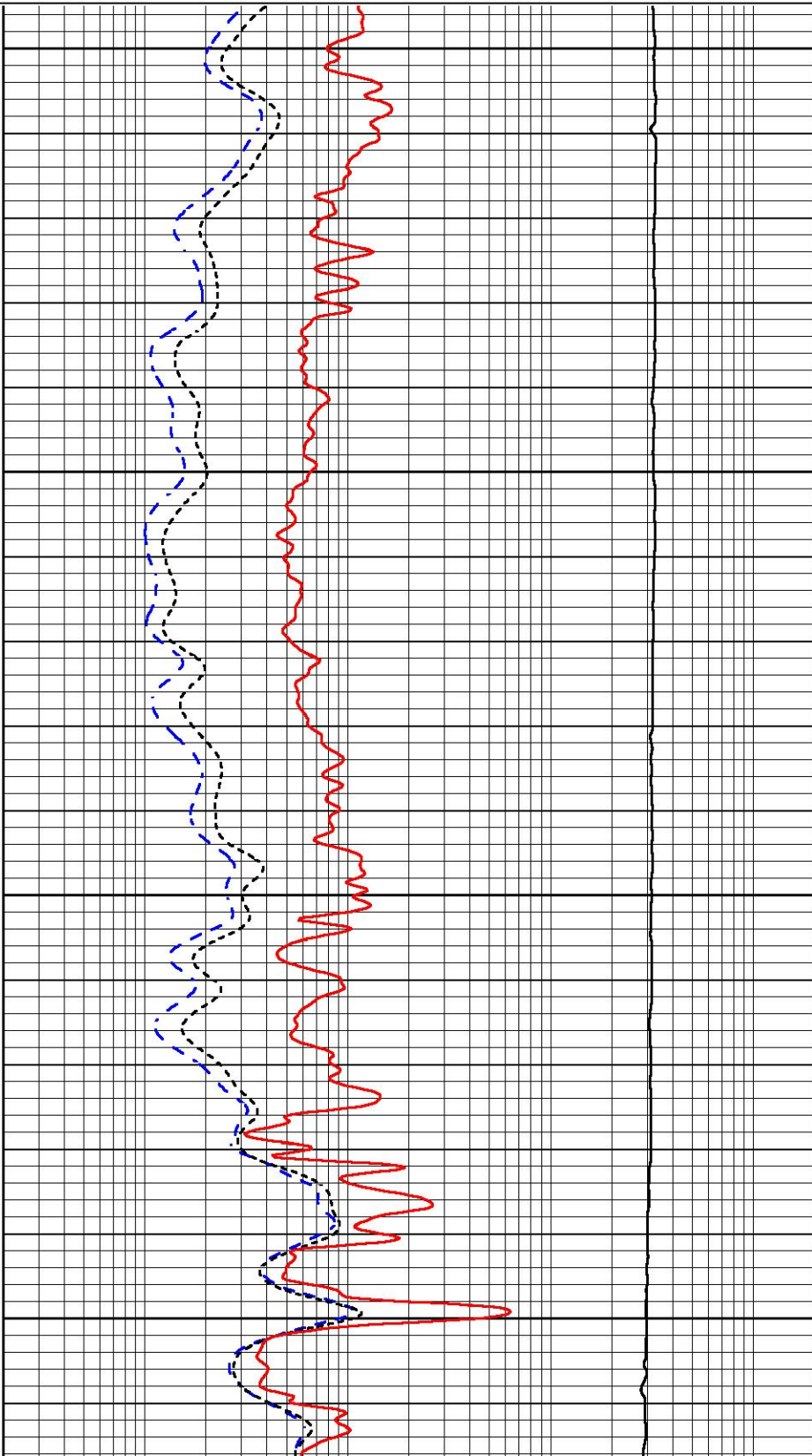


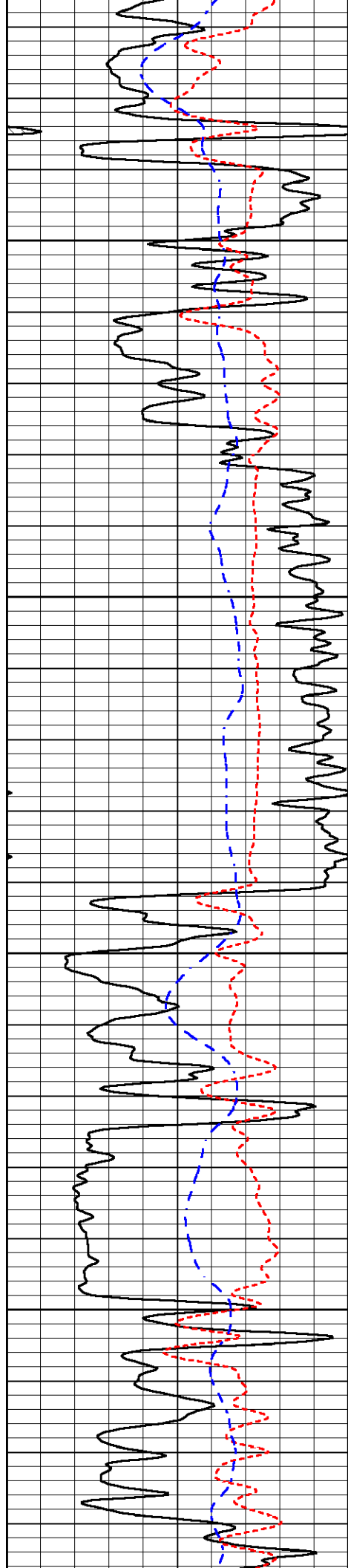
4000

4050

4100

4150



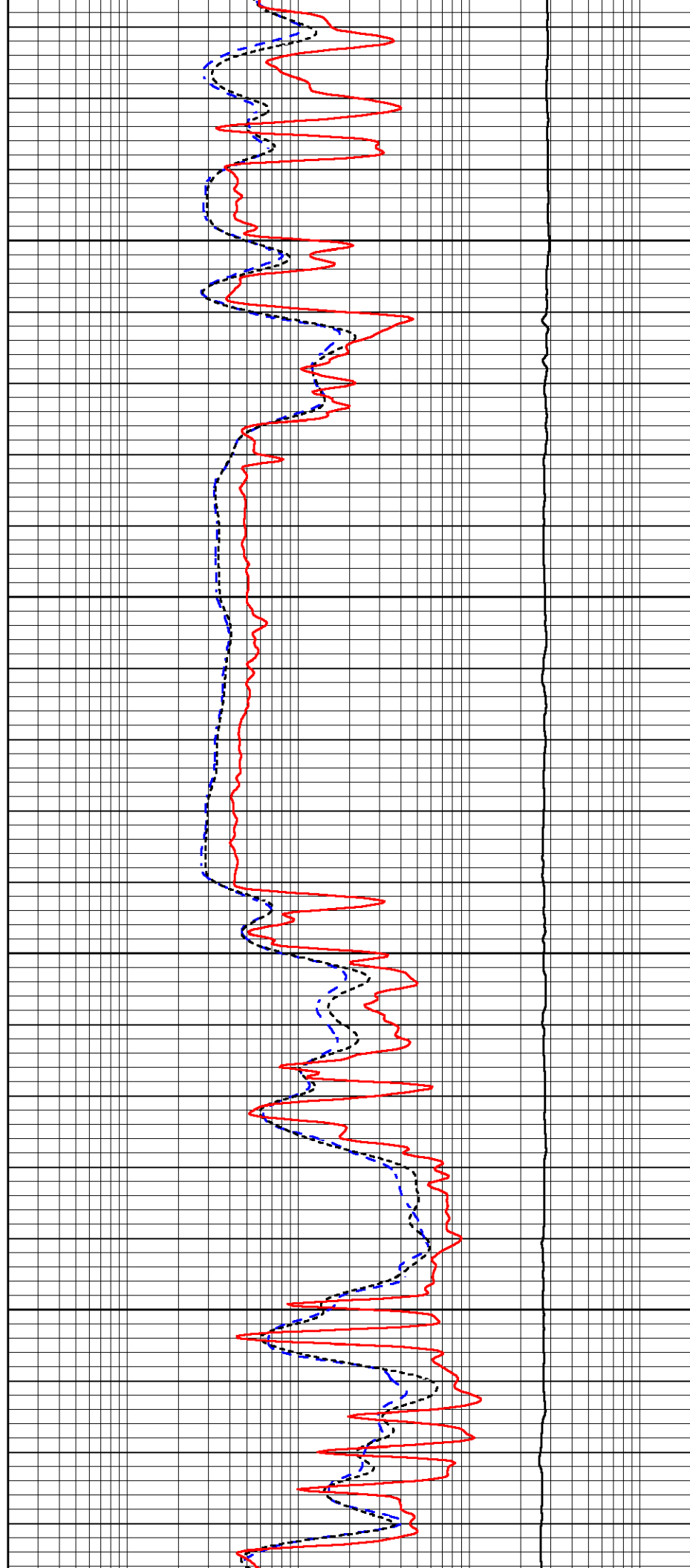


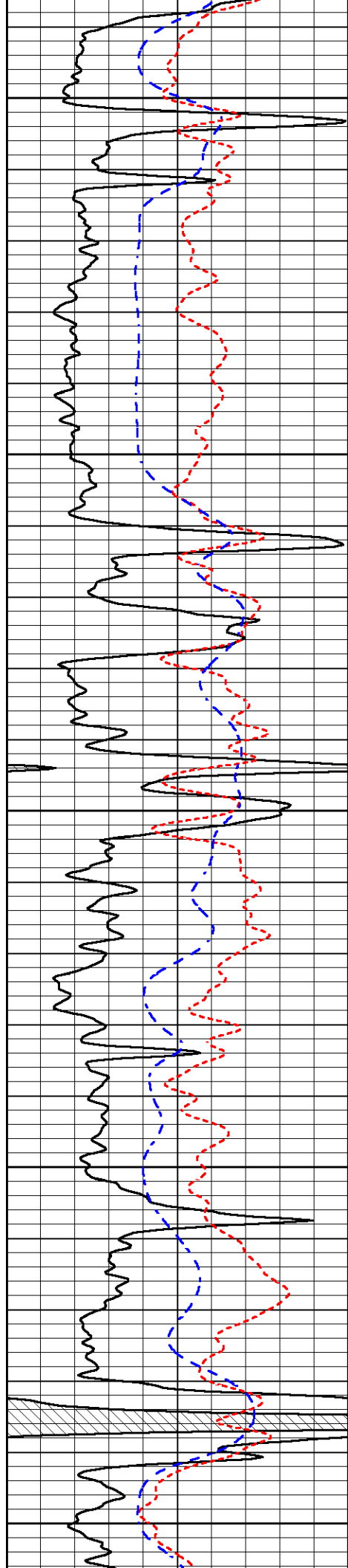
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4250

4300

4350





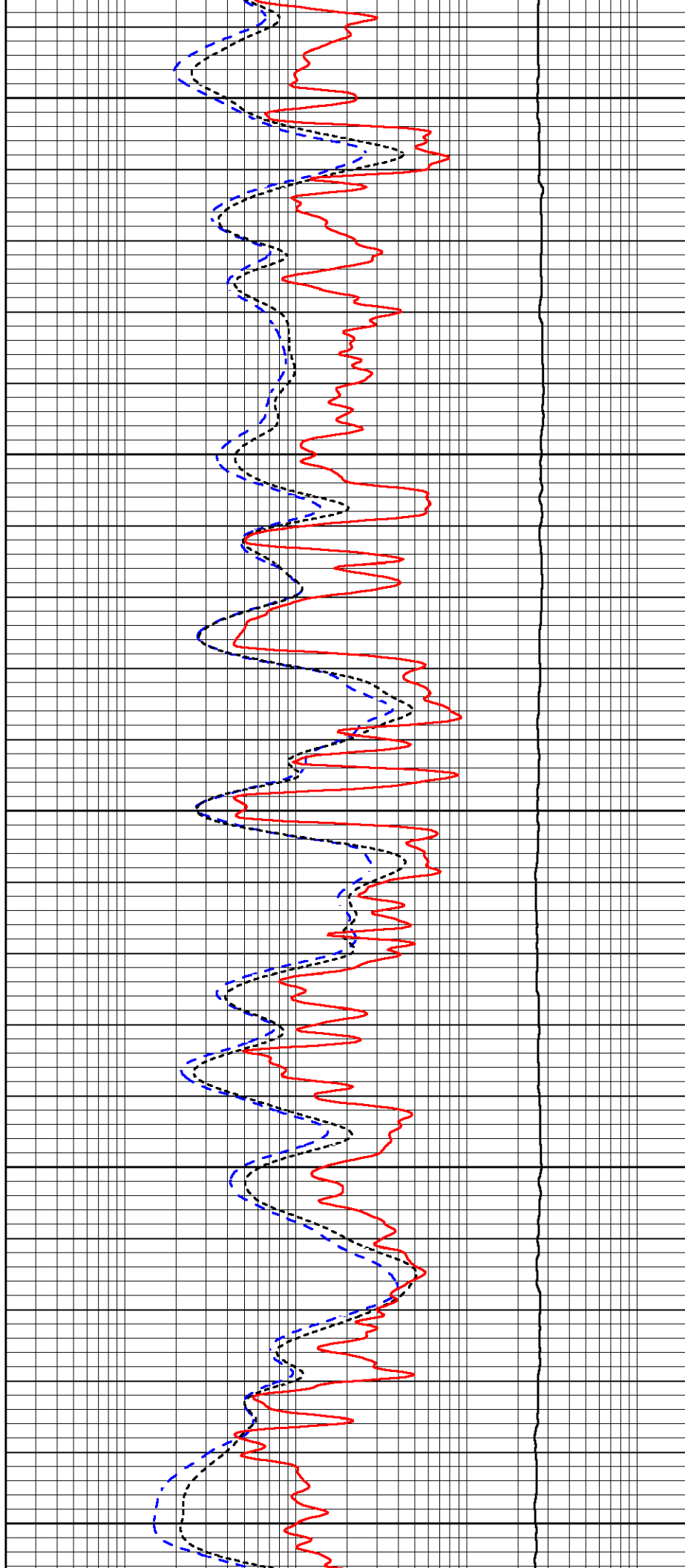
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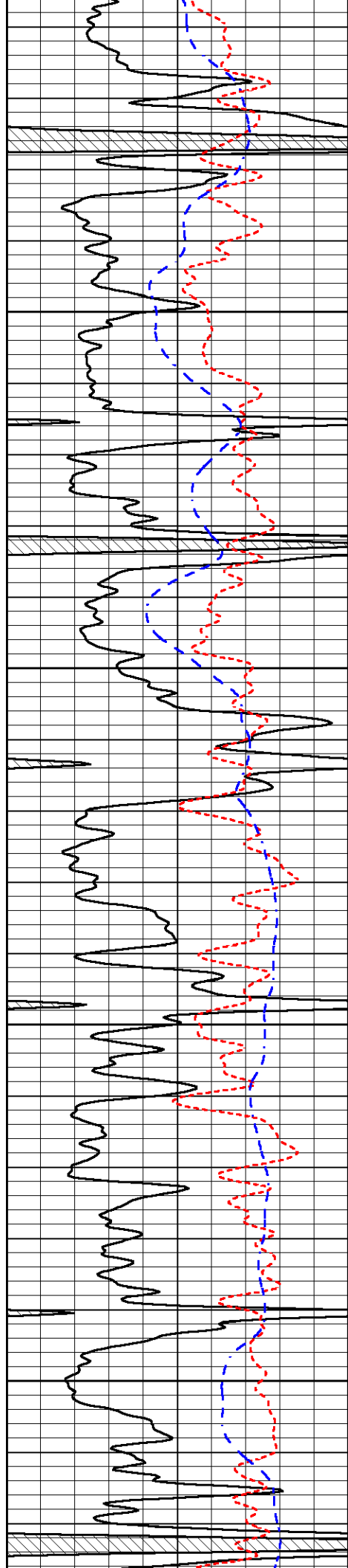
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4500

4550

4600



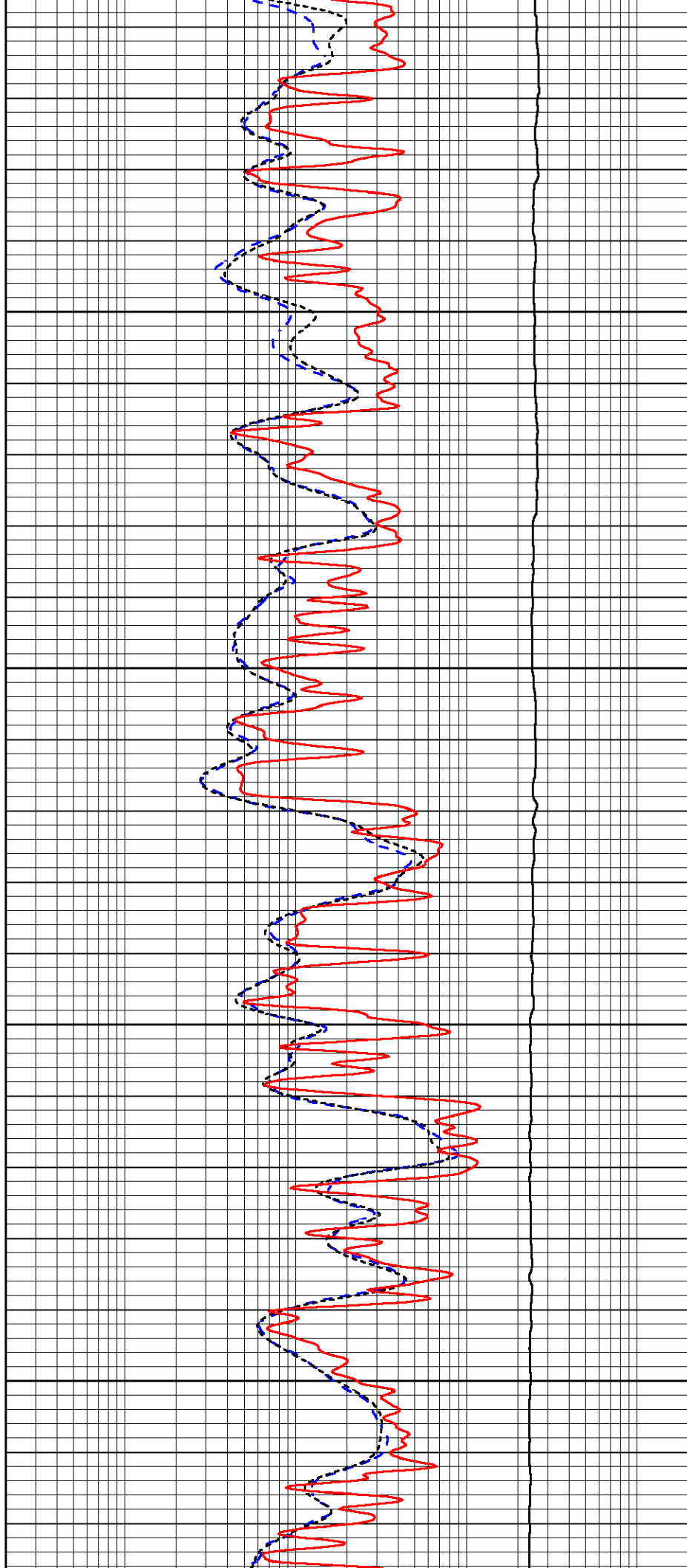


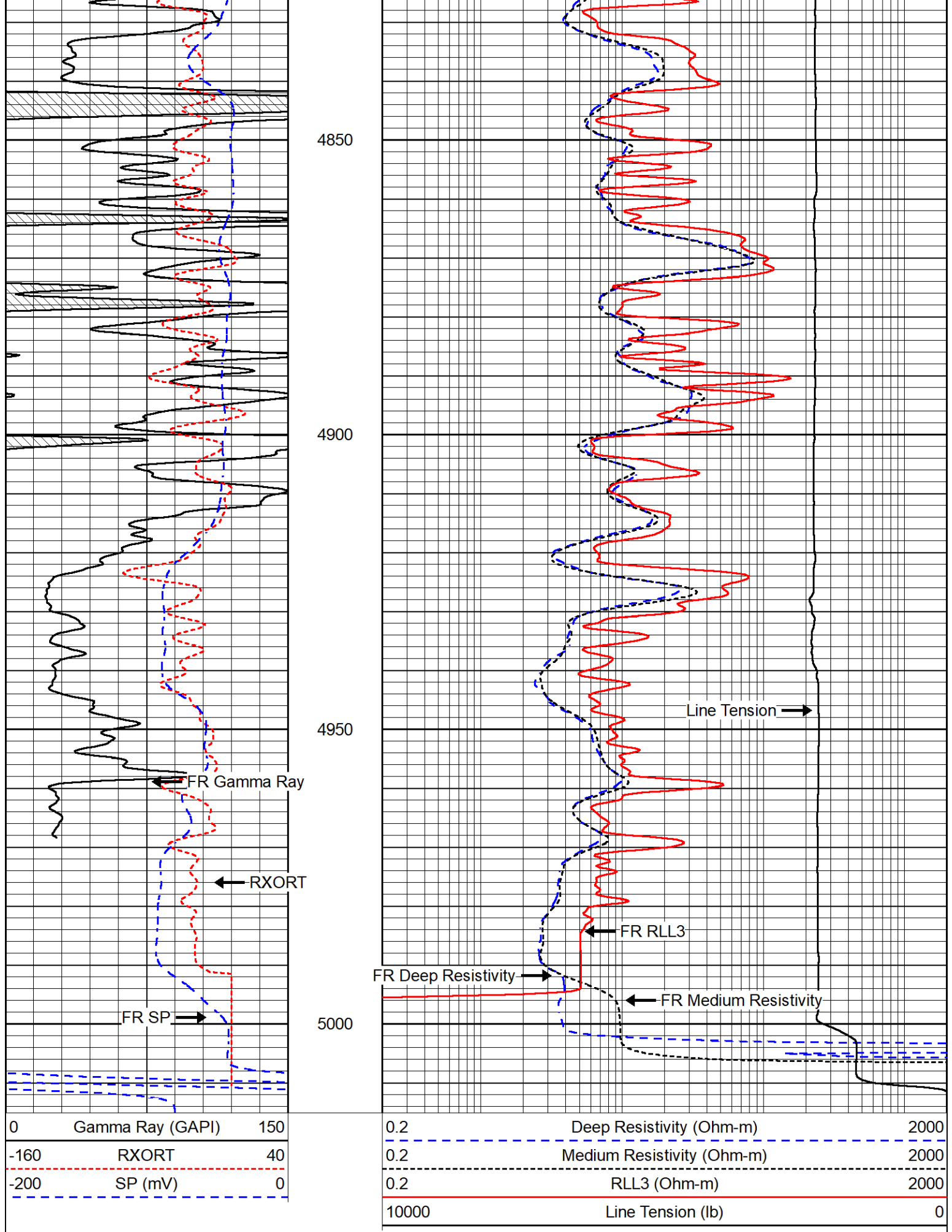
4650

4700

4750

4800





REPEAT SECTION



MIDWEST WIRELINE

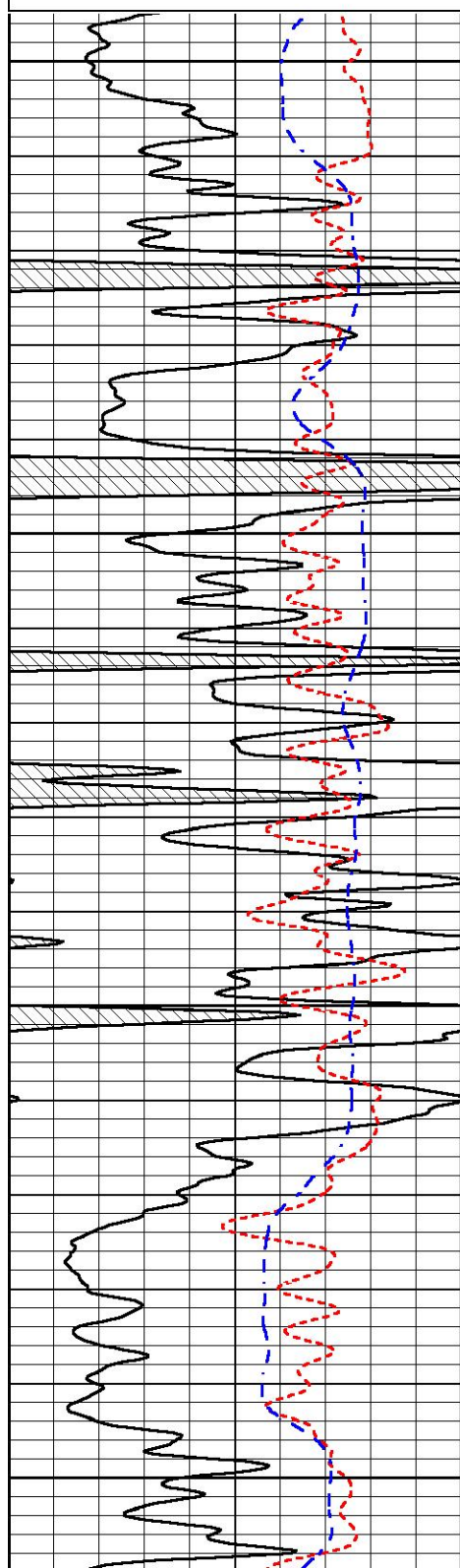
REPEAT SECTION

REPEAT PASS

Database File herman loeb_olson farm#1-16.db
Dataset Pathname stkml/pass2.1
Presentation Format _dil
Dataset Creation Wed May 18 08:29:17 2022
Charted by Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
-160	RXORT	40
-200	SP (mV)	0

0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
10000	Line Tension (lb)	0

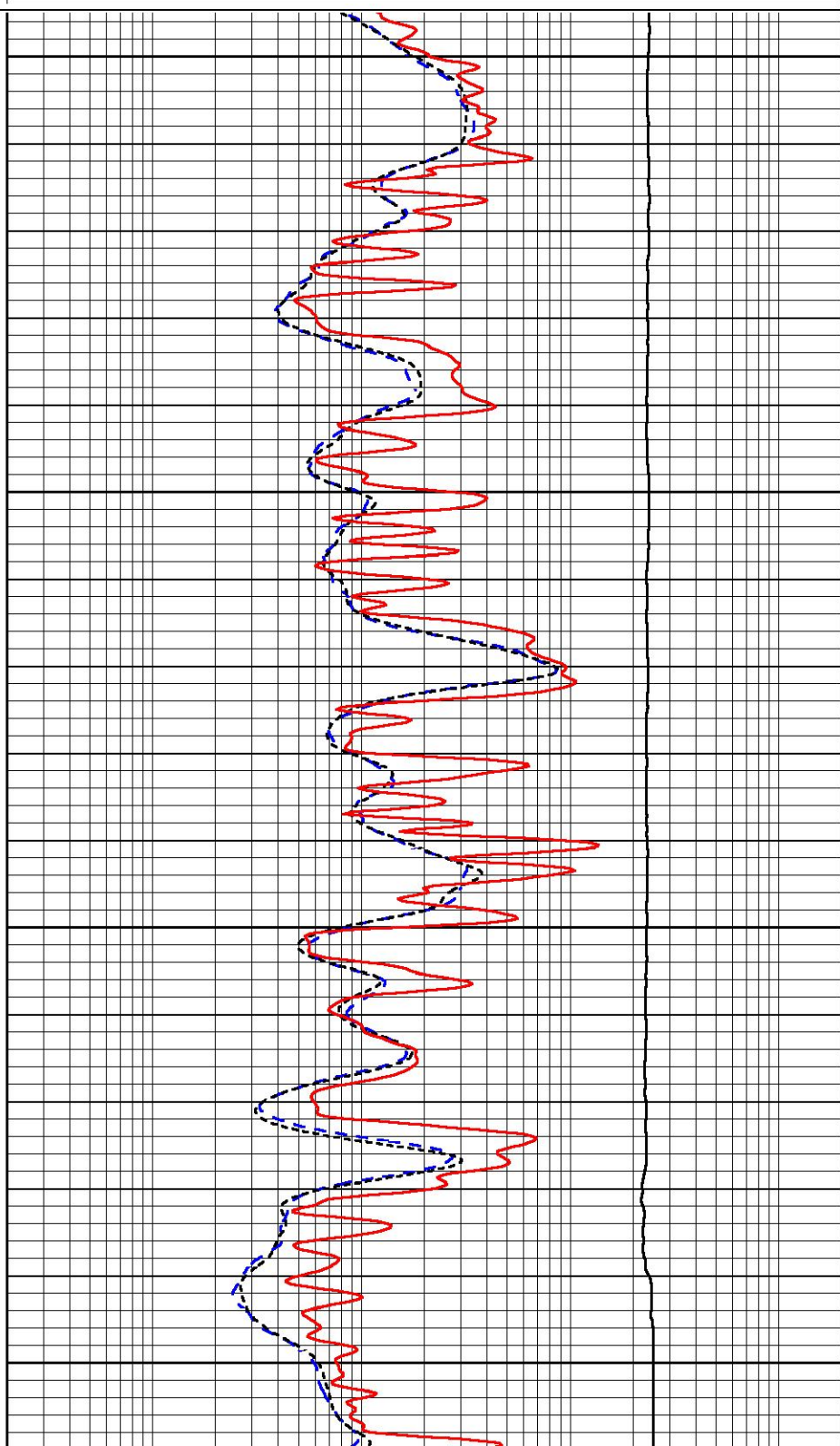


4800

4850

4900

4950



	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	3841.78	5151.73	cps
Aluminum	2.670	g/cc	700.98	3068.49	cps
Spine Angle = 73.06			Density/Spine Ratio = 0.515		
	Size		Reading		
Small Ring	4.00	in	1.17		
Large Ring	14.00	in	1.04		

Compensated Neutron Calibration Report
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Serial-Model:	210-M&W
Source #:	N-1238
Master Calibration Performed:	Fri Dec 3 09:16:24 2021

Master Calibration					
Detector	Readings		Target		Normalization
Short Space	6240.00	cps	1000.00	cps	1.6025
Long Space	460.00	cps	1000.00	cps	1.9500

Gamma Ray Calibration Report

Serial Number:	103	
Tool Model:	M&W	
Performed:	Fri Dec 3 12:13:24 2021	
Calibrator Value:	500.0	GAPI
Background Reading:	28.0	cps
Calibrator Reading:	986.0	cps
Sensitivity:	0.5700	GAPI/cps

	Company	Herman L. Loeb, LLC
	Well	Olson Farm # 1-16
	Field	Fralick West Ext.
	County	Kiowa
	State	Kansas