

MIDWEST WIRELINE

# DUAL INDUCTION LOG

Company American Warrior, Inc.  
 Well Schroeder #1-9  
 Field Wildcat  
 County Hodgeman State Kansas

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 Field Wildcat  
 County Hodgeman  
 State Kansas

Location: API #: 15-083-22032-00-00  
 1379 FSL & 611 FWL  
 SEC 9 TWP 23S RGE 23W  
 Permanent Datum Ground Level Elevation 2341  
 Log Measured From Kelly Bushing  
 Drilling Measured From Kelly Bushing  
 Other Services  
 CNL/CDL  
 MEL/BHCS  
 Elevation  
 K.B. 2354  
 D.F.  
 G.L. 2341

Date	10/2/2023
Run Number	One
Depth Driller	4775
Depth Logger	4781
Bottom Logged Interval	4781
Top Log Interval	600
Casing Driller	8:625 @ 647
Casing Logger	647
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	5700
Density / Viscosity	9.3 56
pH / Fluid Loss	9.5 10.0
Source of Sample	FLOWLINE
Rm @ Meas. Temp	0.40 @ 85
Rmt @ Meas. Temp	0.30 @ 85
Rmc @ Meas. Temp	0.54 @ 85
Source of Rmf / Rmc	CHARTS
Rm @ BHT	0.27 @ 124
Operating Rig Time	4 Hours
Max Rec. Temp. F	124
Equipment Number	P-108
Location	HAYS
Recorded By	D. Schmidt
Witnessed By	Kevin Timson

<<< Fold Here >>>

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.

Jetmore,  
 East to 219 Rd, 2 South, 1 1/2 East,  
 North and 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

Engineer: D. Schmidt  
 Operator:  
 Operator:  
 Operator:

This Log Record Was Witnessed By

Primary Witness: Kevin Timson  
 Secondary Witness:  
 Secondary Witness:  
 Secondary Witness:

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.33		GR-M&W (105)	3.00	3.50	50.00
CNLSC CNSSC	37.23 36.48		CNT-M&W (210)	5.00	3.50	100.00
LSD DCAL SSD	28.18 28.17 27.68		CDL-M&W (303-03)	8.50	4.00	250.00
MCAL MI MN	19.58 19.58 19.58		ML-PSIML (401)	7.58	4.00	65.00
RLL3F RLL3	15.50 15.50					
CILD	8.33		DIL-M&W (505 HT)	18.25	3.50	220.00
CILM	4.50					
SP	0.20					

Dataset: am war\_schroeder 1-9.db: field/well/stkml/pass3.5  
 Total length: 42.33 ft  
 Total weight: 685.00 lb  
 O.D.: 4.00 in

# Log Variables

DatabaseC:\ProgramData\Warrior\Data\am war\_schroeder 1-9.db  
 Dataset field/well/stkml/pass3.5/\_vars\_

## Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	124	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	No	-18	-25	322	80	Off	4781

## 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

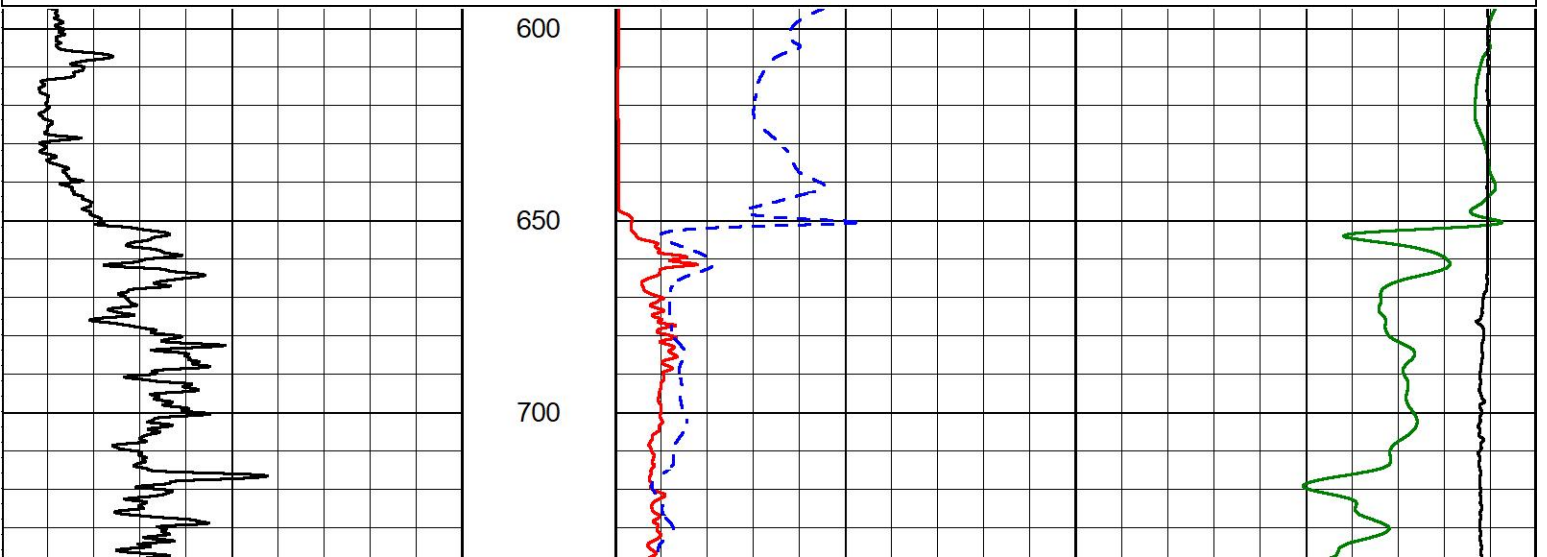


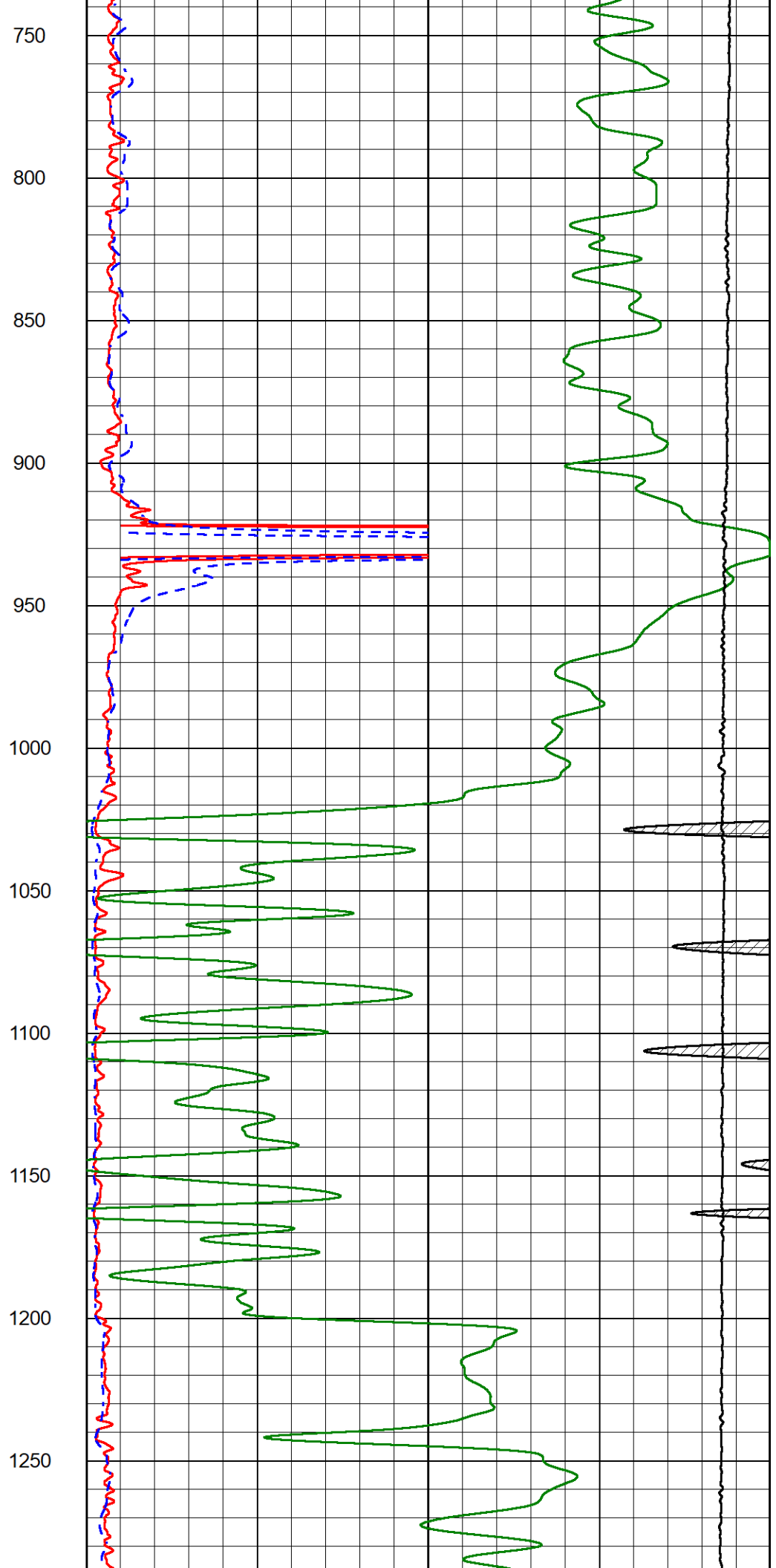
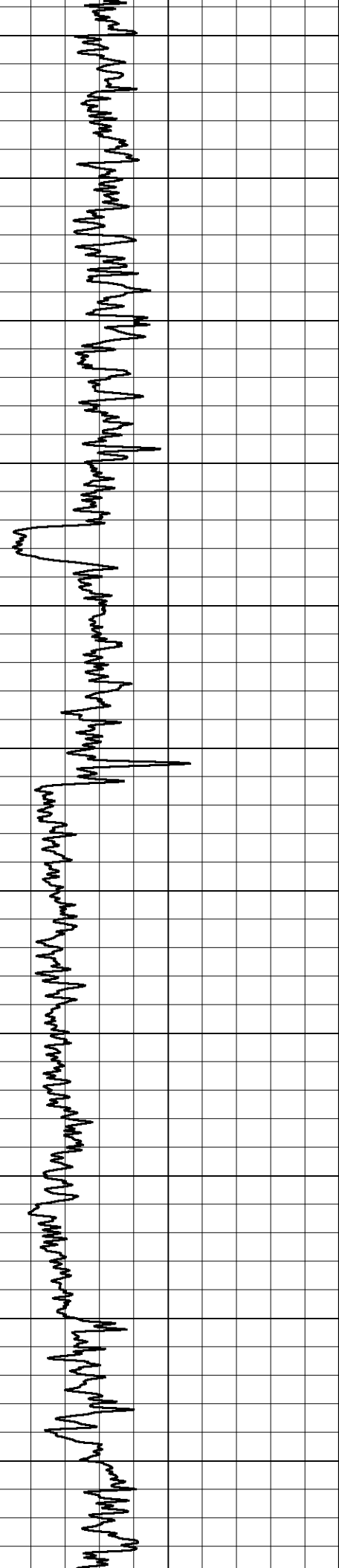
## 2" SCALE RESISTIVITY

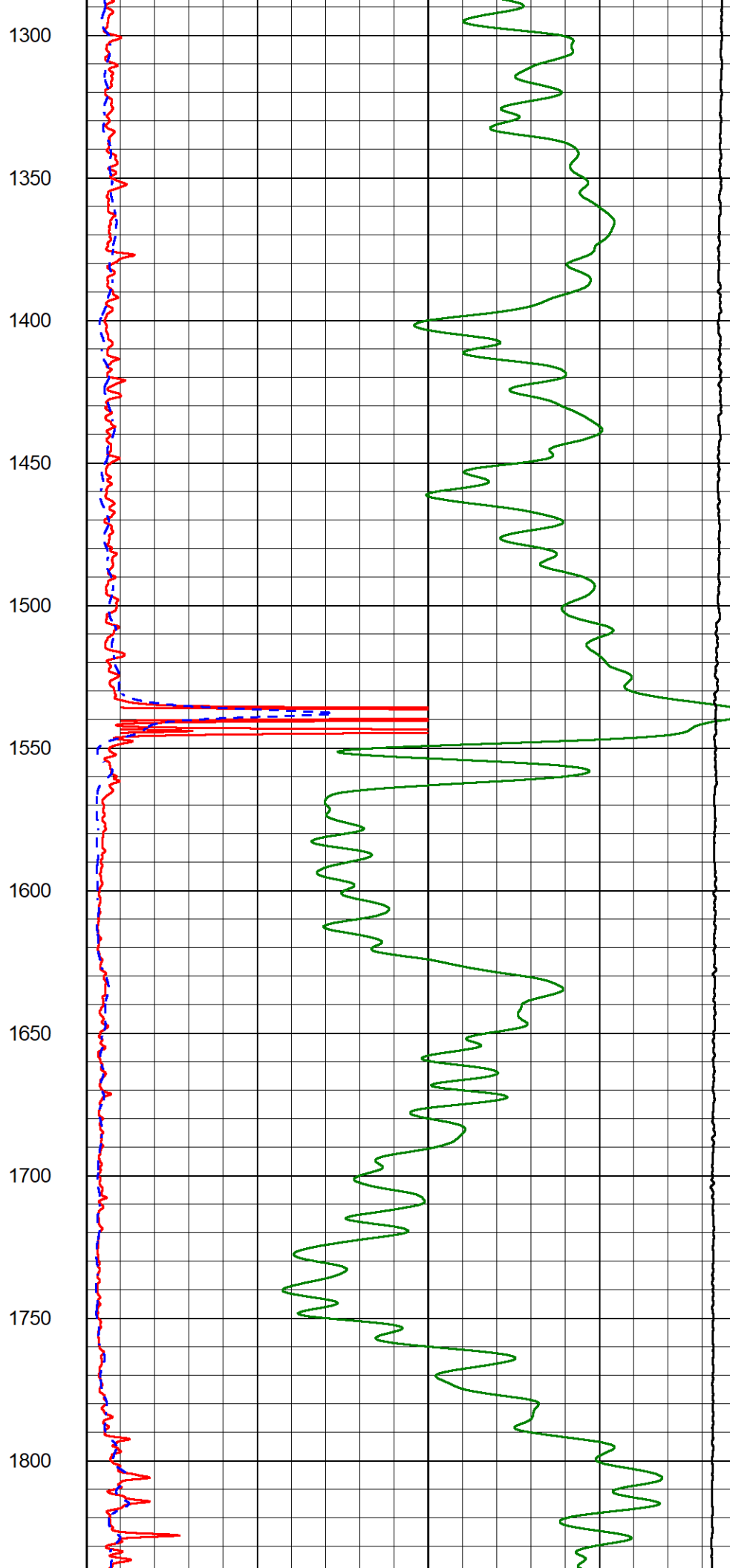
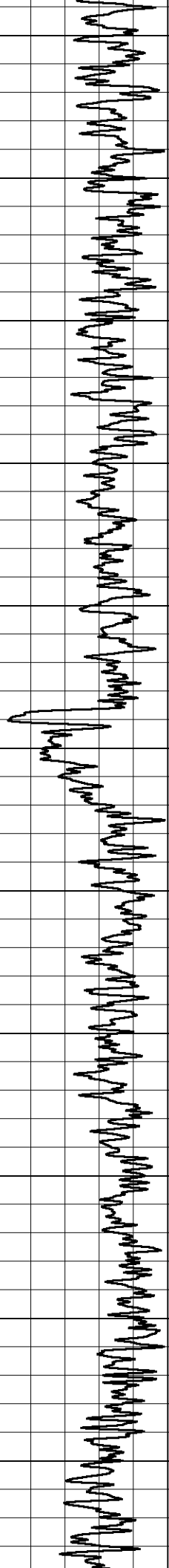
### MAIN PASS

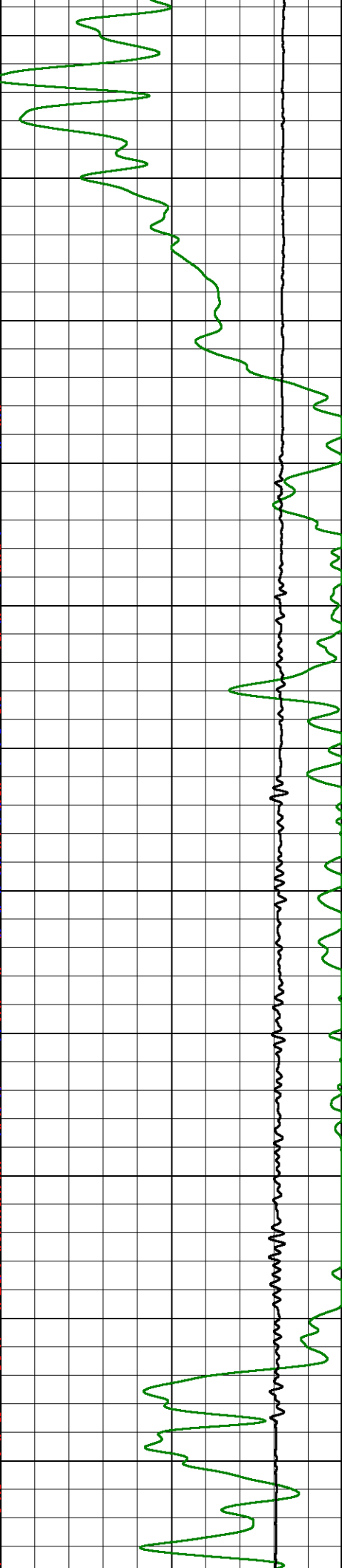
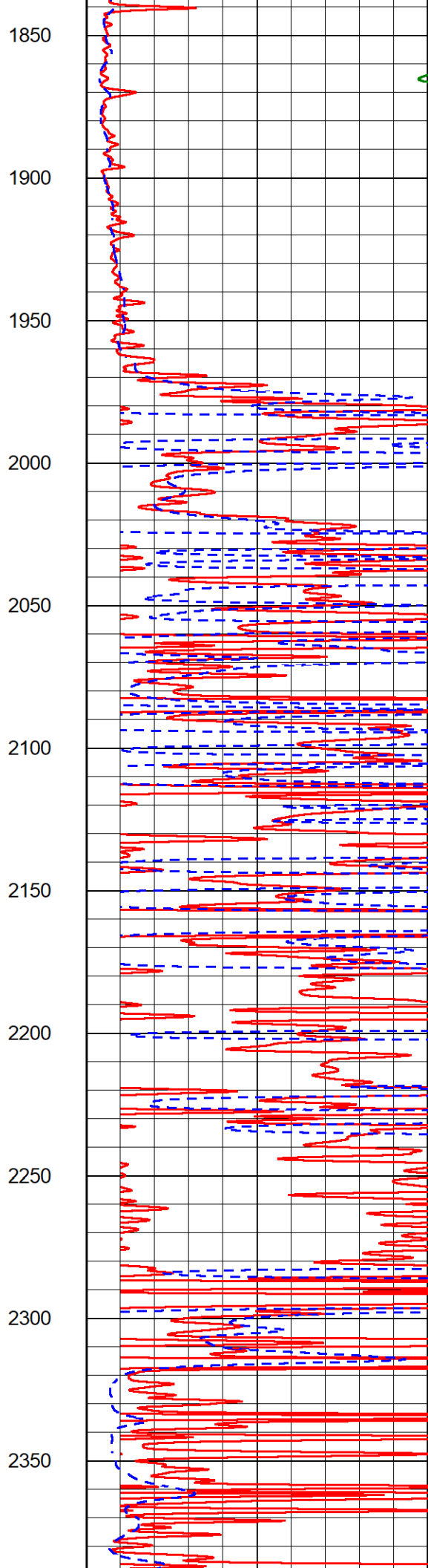
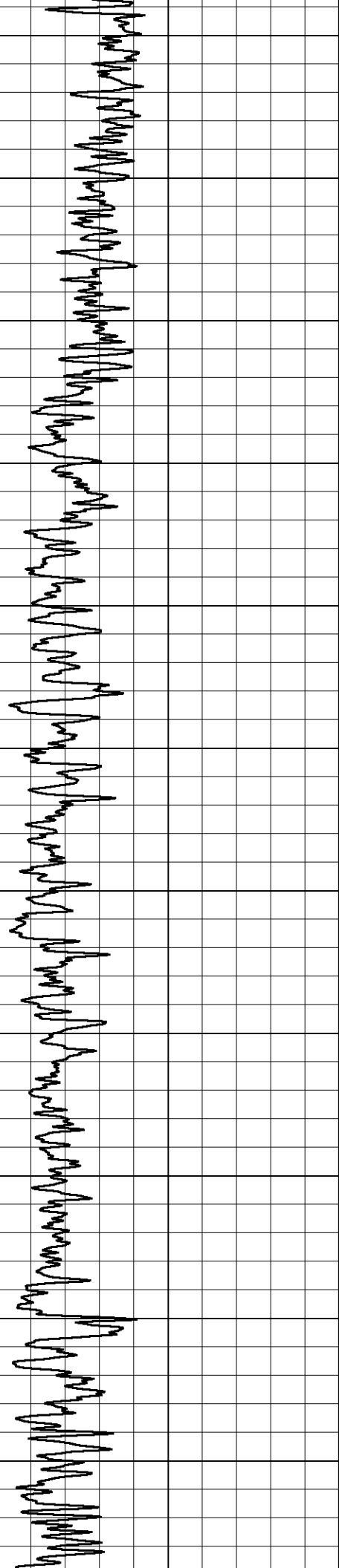
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 Dataset Creation Mon Oct 02 18:47:42 2023  
 Charted by Depth in Feet scaled 1:600

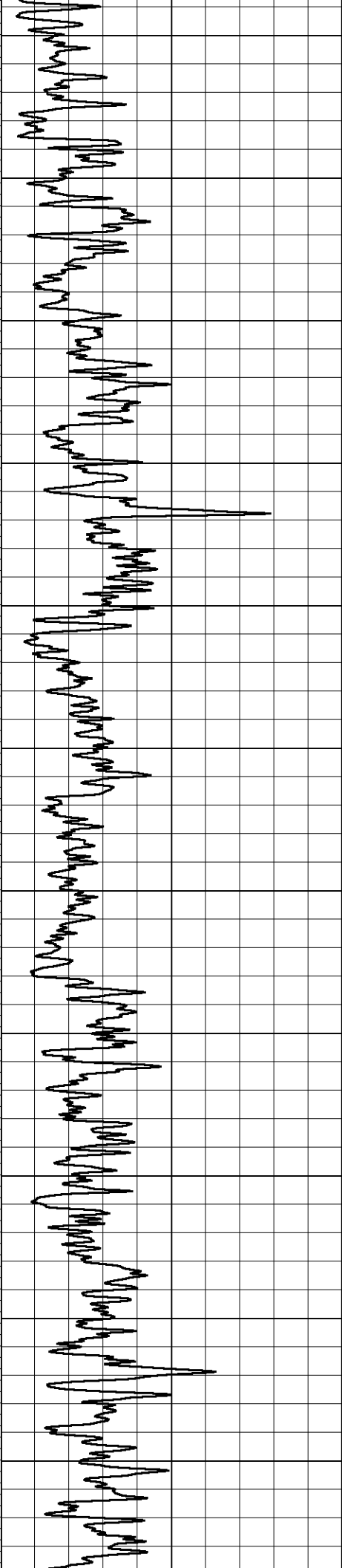
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			15000	Line Tension (lb)	0
0	Shallow Resistivity (Ohm-m)	50			
0	Deep Resistivity (Ohm-m)	50			
	Shallow Resistivity				
50	(Ohm-m)	200			
50	Deep Resistivity (Ohm-m)	200			



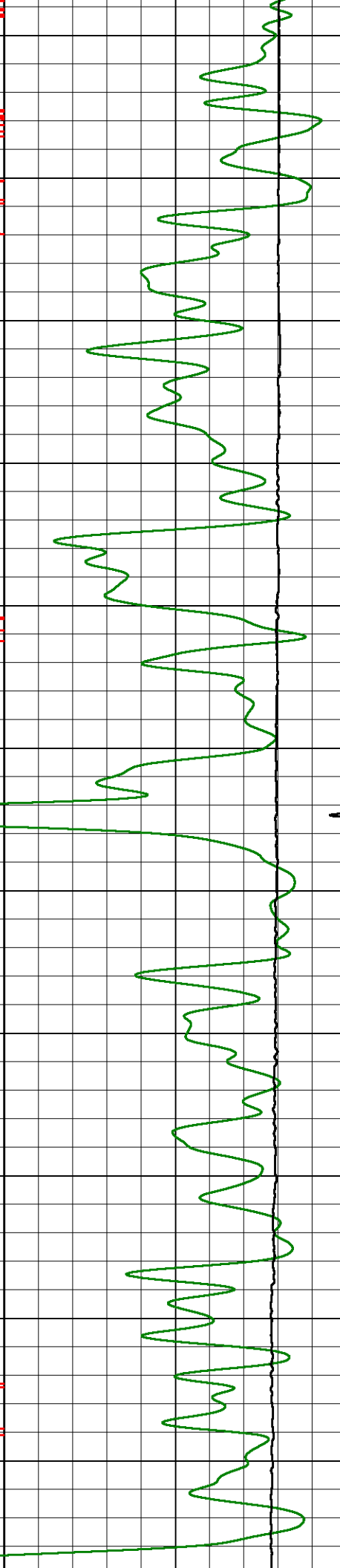
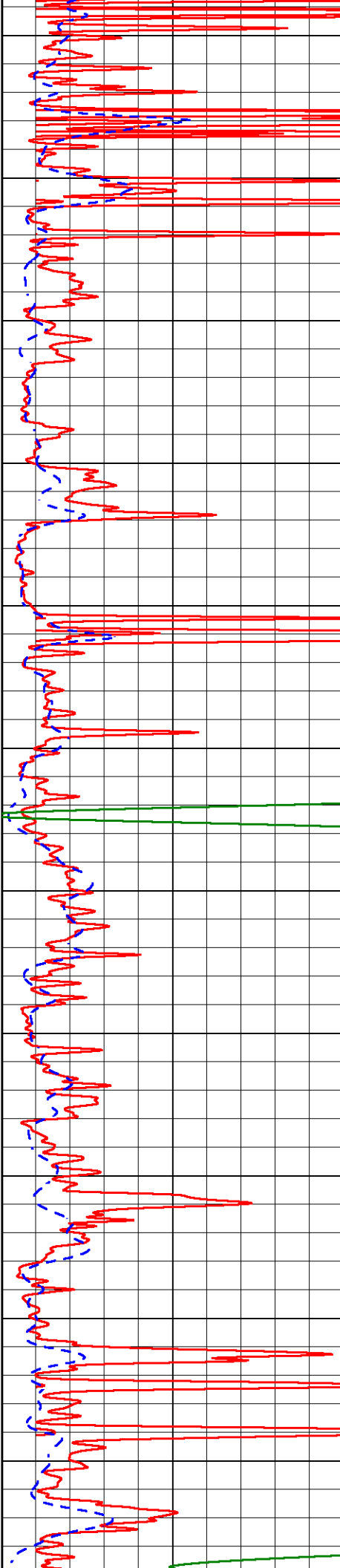


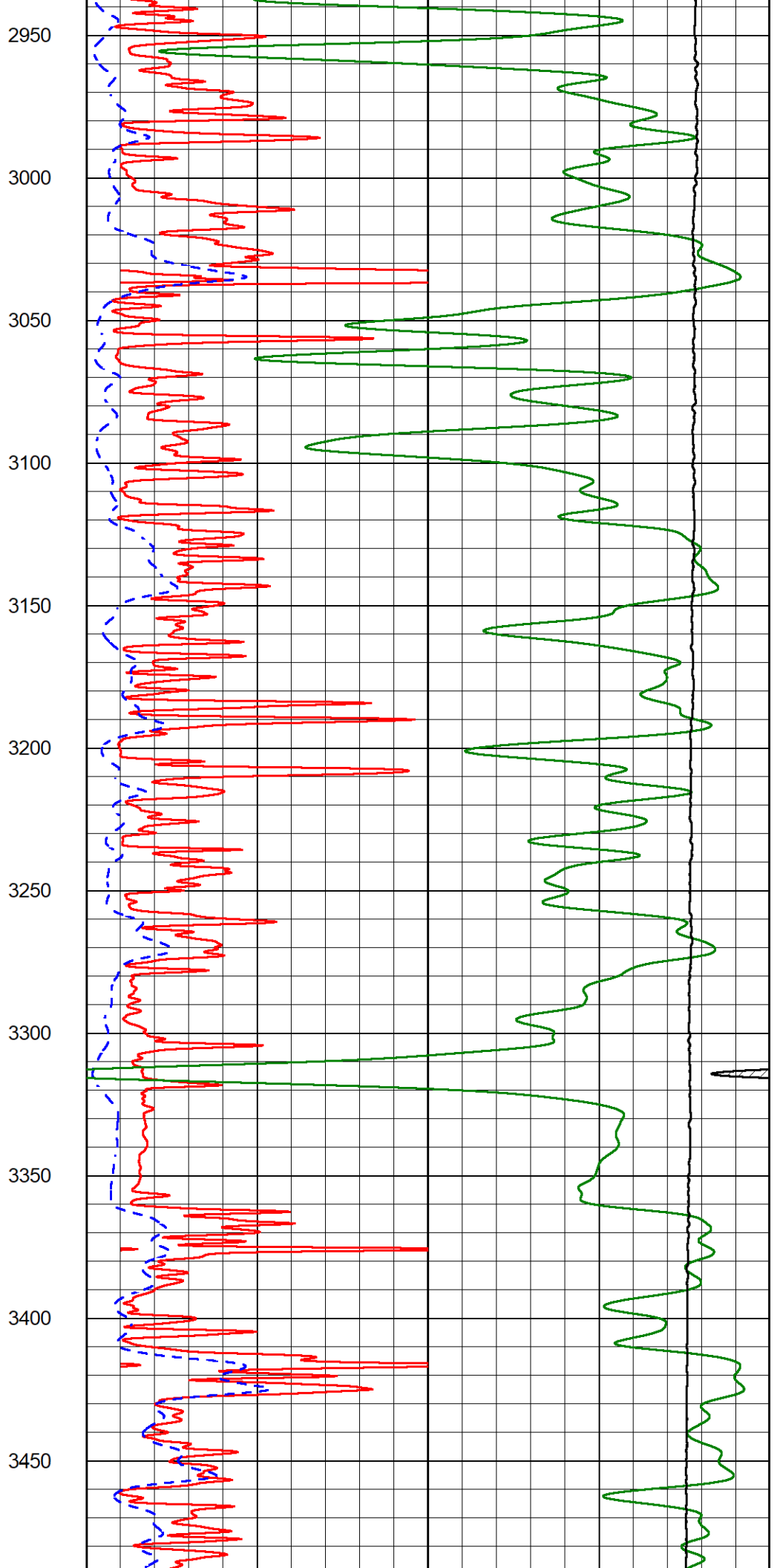
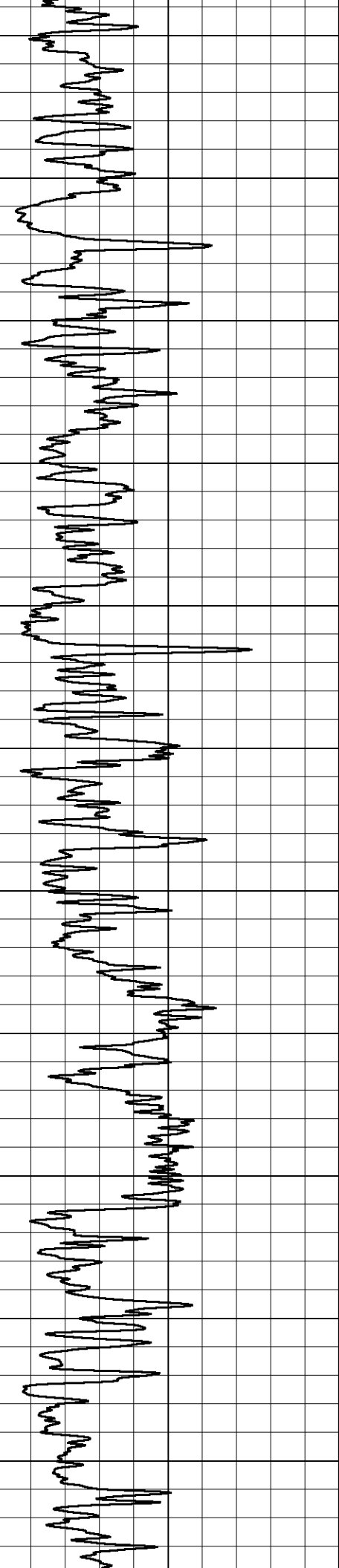


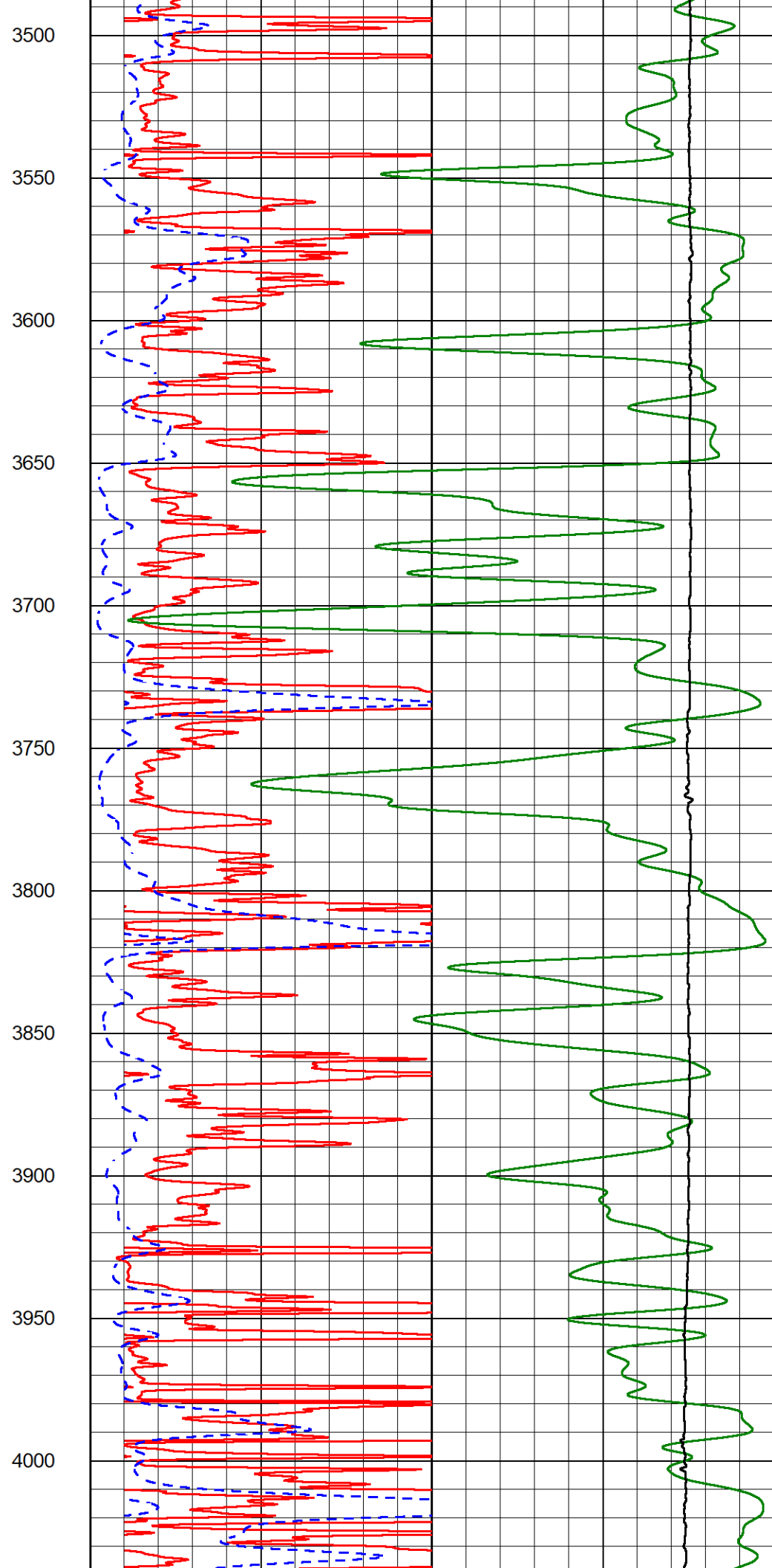
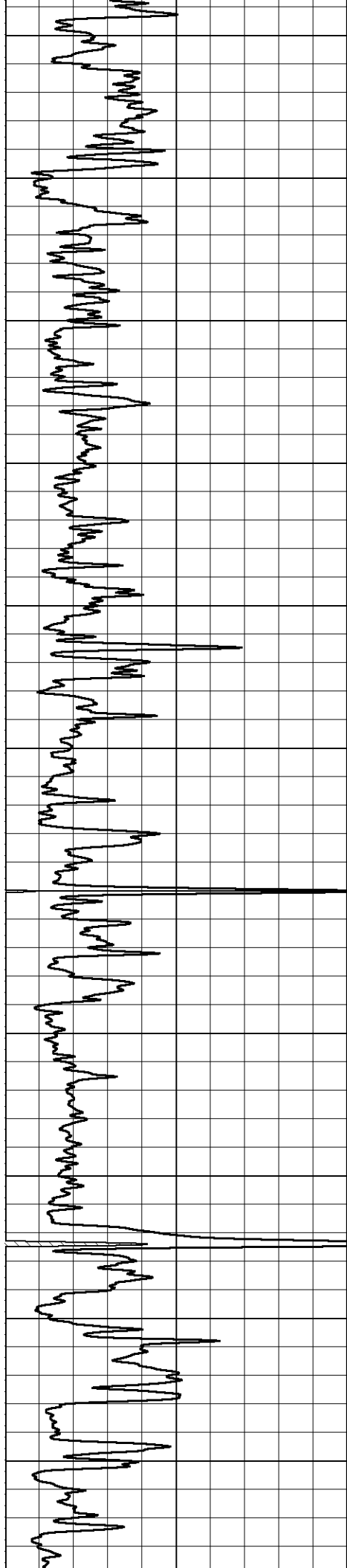


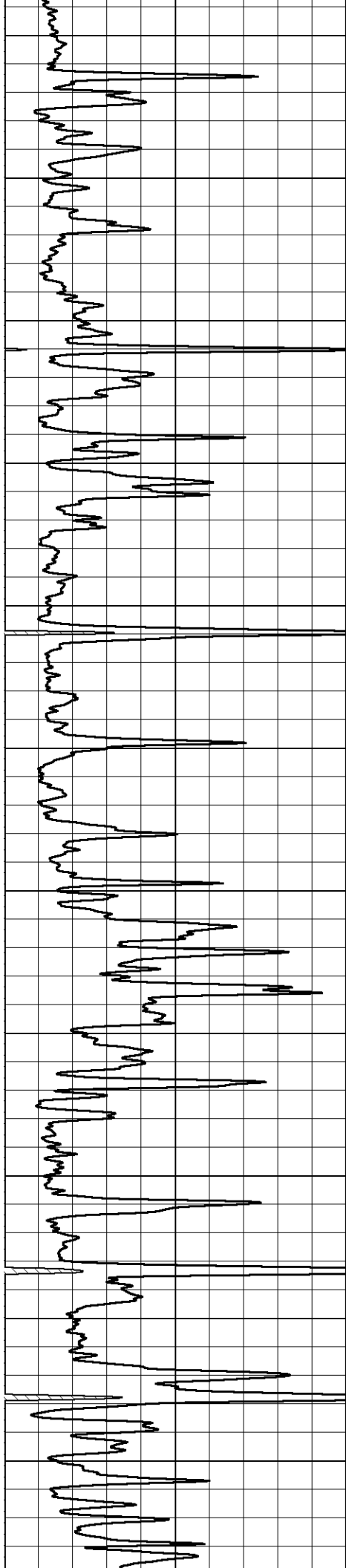


2400  
2450  
2500  
2550  
2600  
2650  
2700  
2750  
2800  
2850  
2900









4050

4100

4150

4200

4250

4300

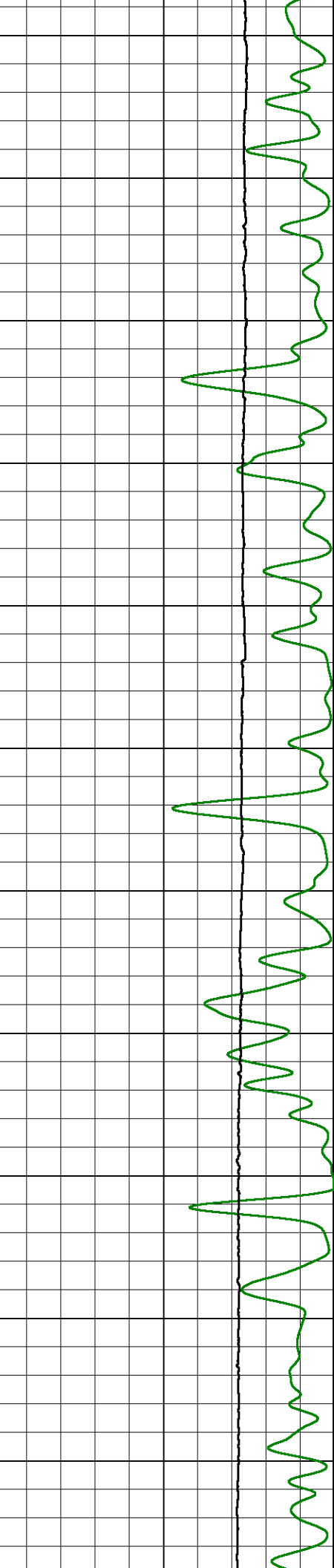
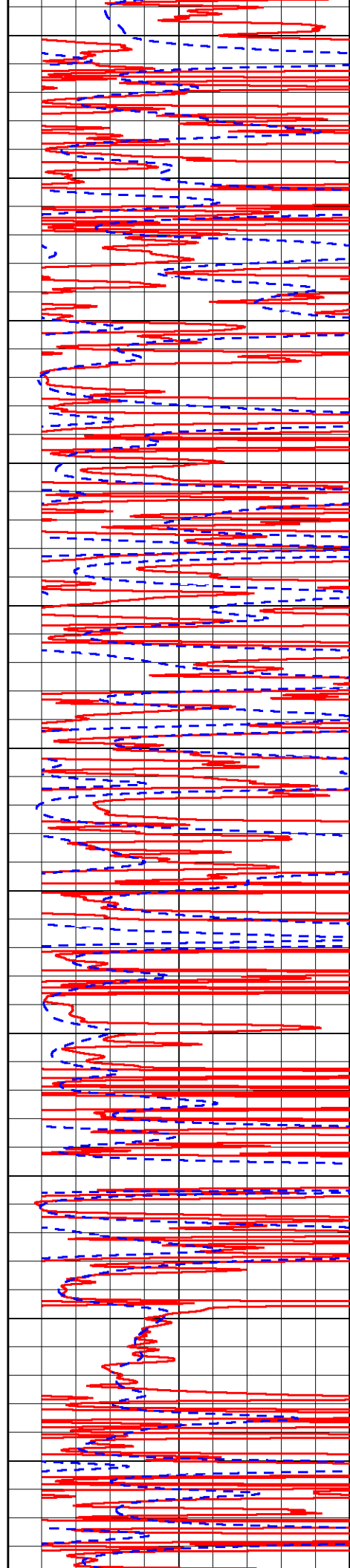
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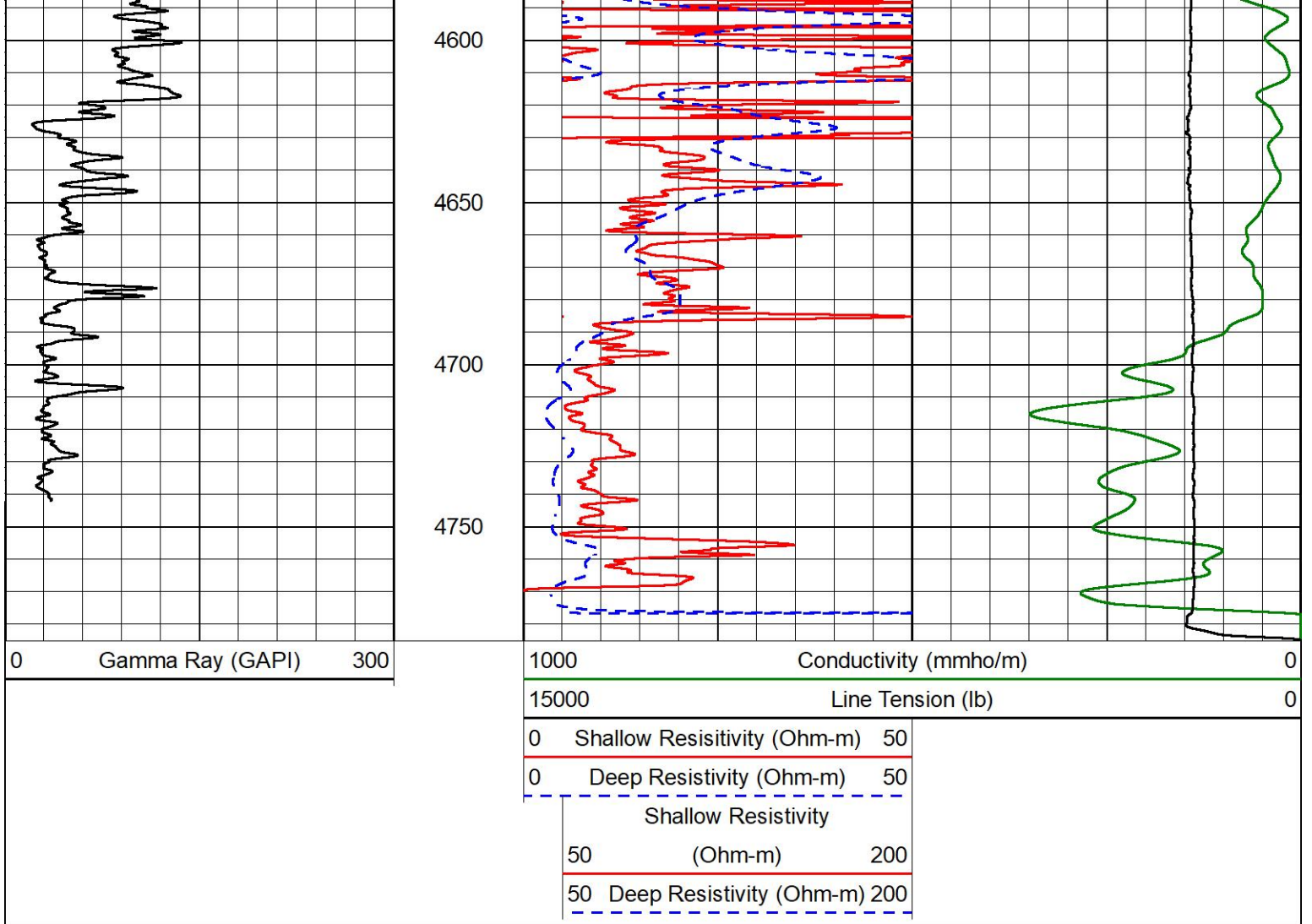
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4450

4500

4550





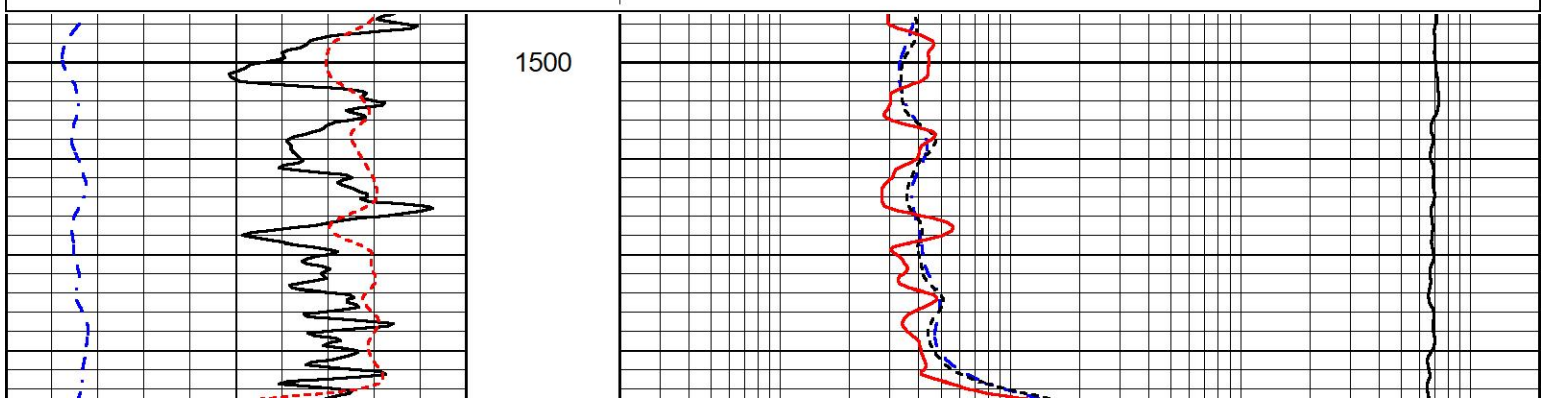
MIDWEST WIRELINE

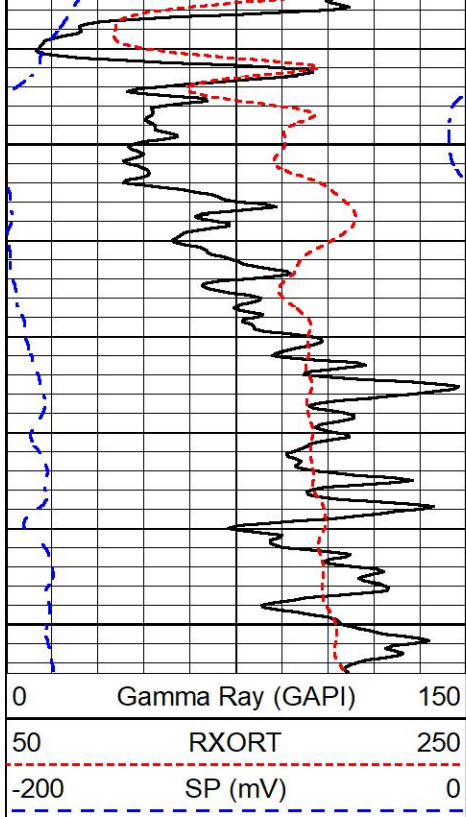
# ANHYDRITE SECTION

## MAIN PASS

Database File am war\_schroeder 1-9.db  
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 Presentation Format \_dil  
 Dataset Creation Mon Oct 02 18:48:06 2023  
 Charted by Depth in Feet scaled 1:240

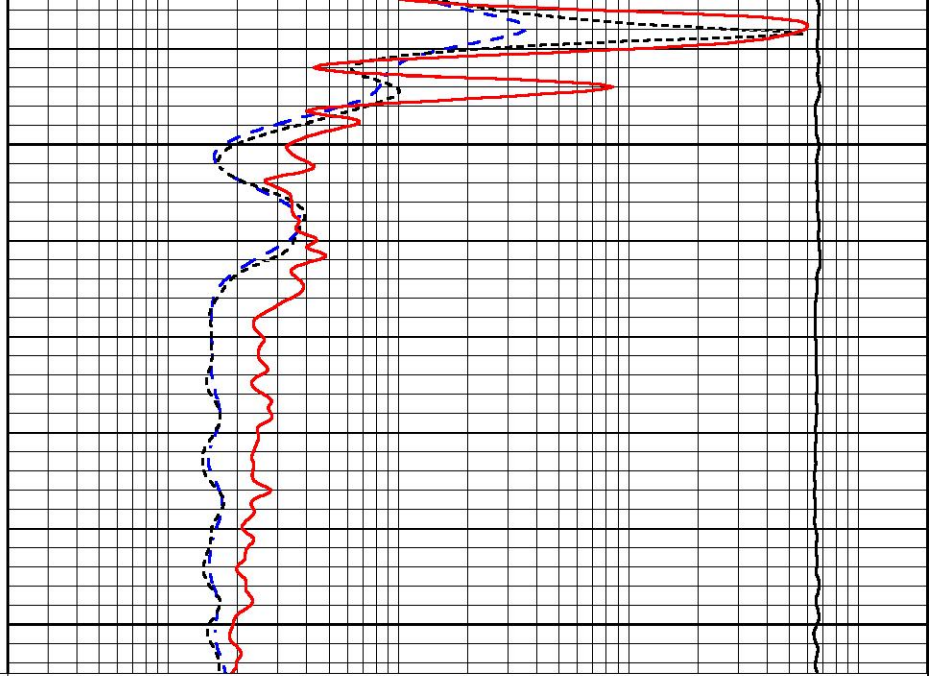
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50	RXORT	250	0.2	Medium Resistivity (Ohm-m)	2000
-200	SP (mV)	0	0.2	Shallow Resistivity (Ohm-m)	2000
			10000	Line Tension (lb)	0





1550

1600



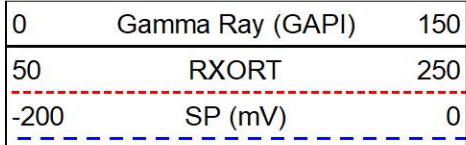
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0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0



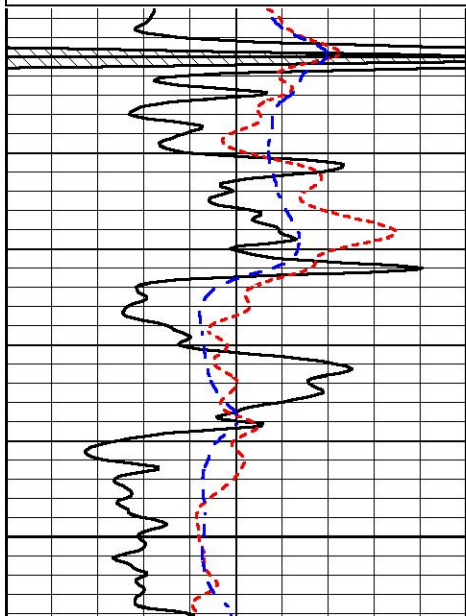
# DETAIL SECTION

## MAIN PASS

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 Dataset Creation Mon Oct 02 18:47:17 2023  
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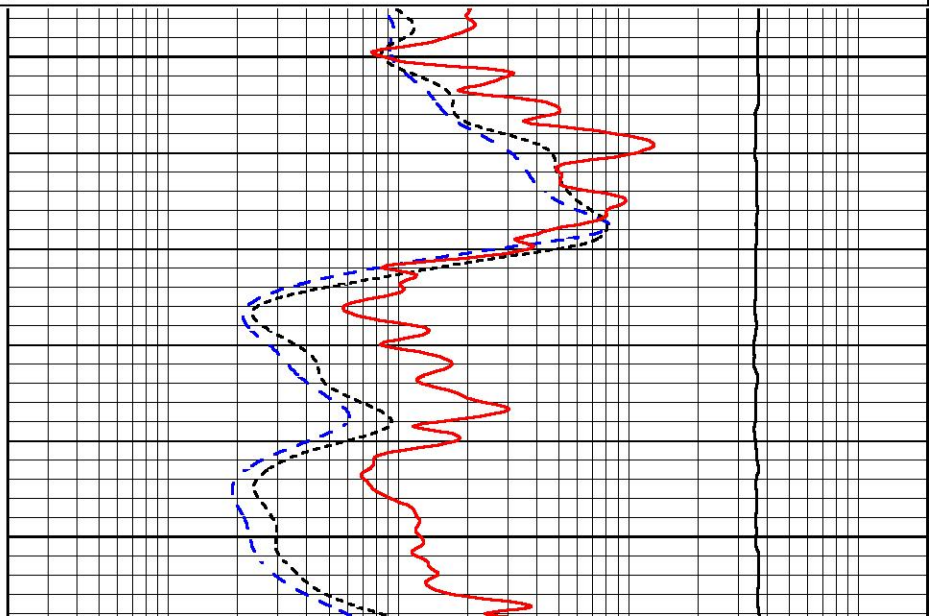


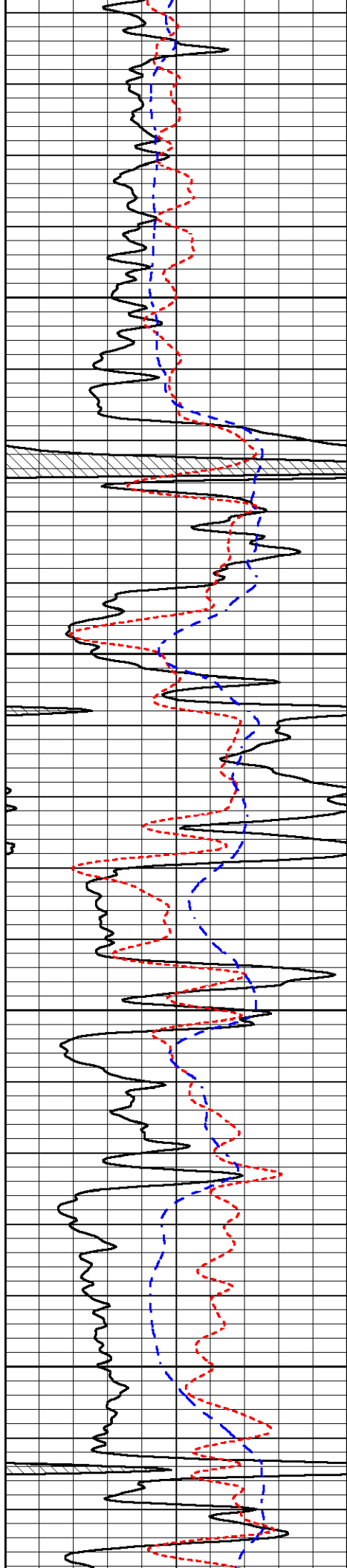
0.2	Deep Resistivity (Ohm-m)	2000
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0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0



3800

3850



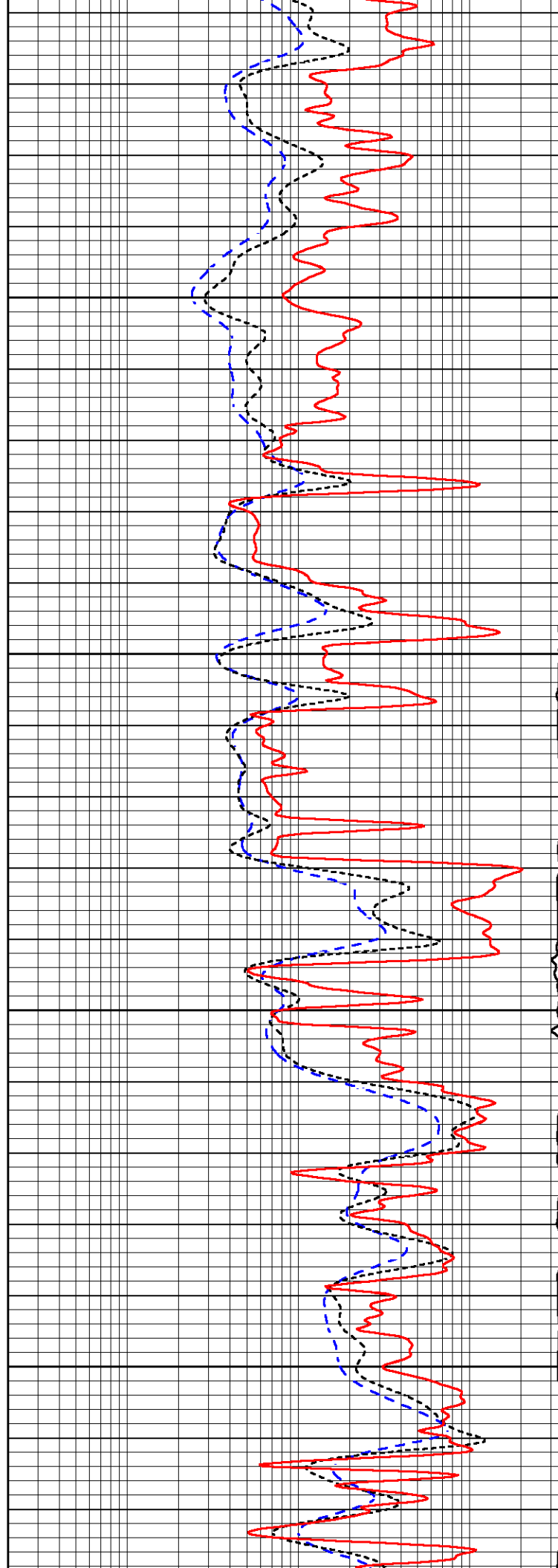


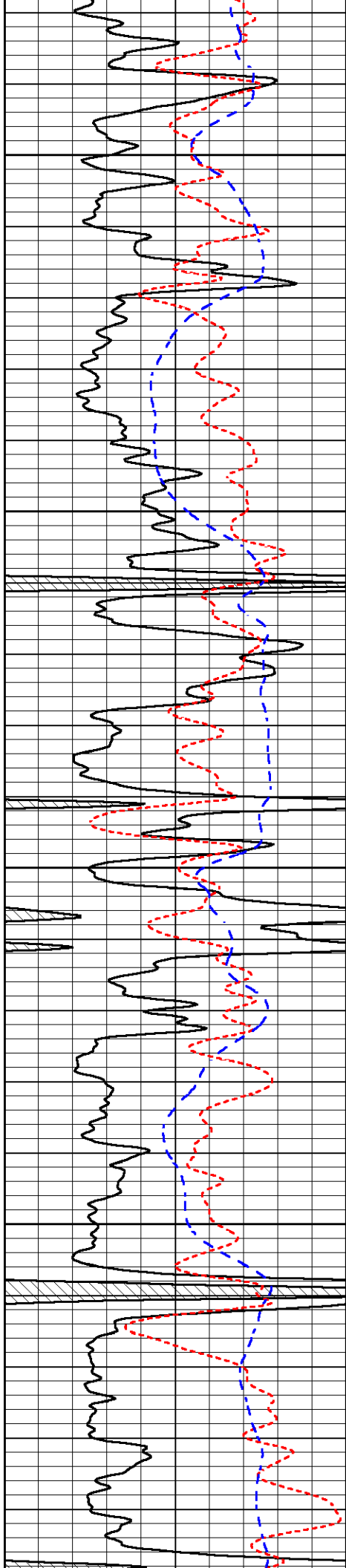
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3950

4000

4050



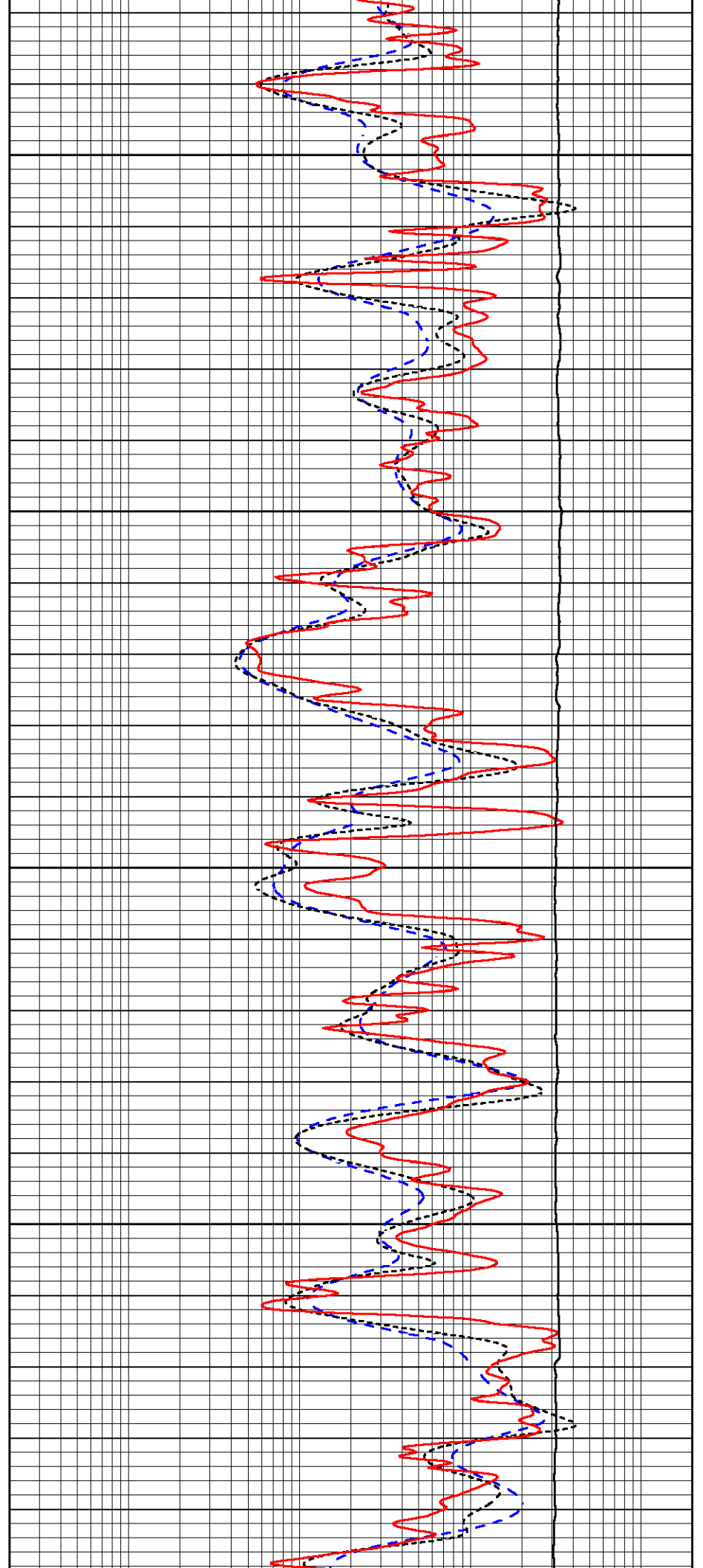


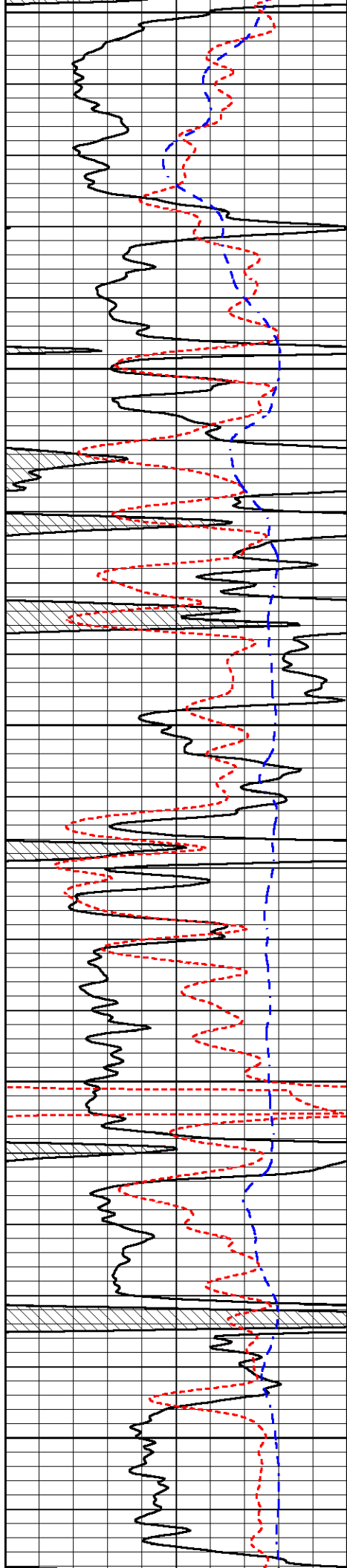
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4150

4200

4250





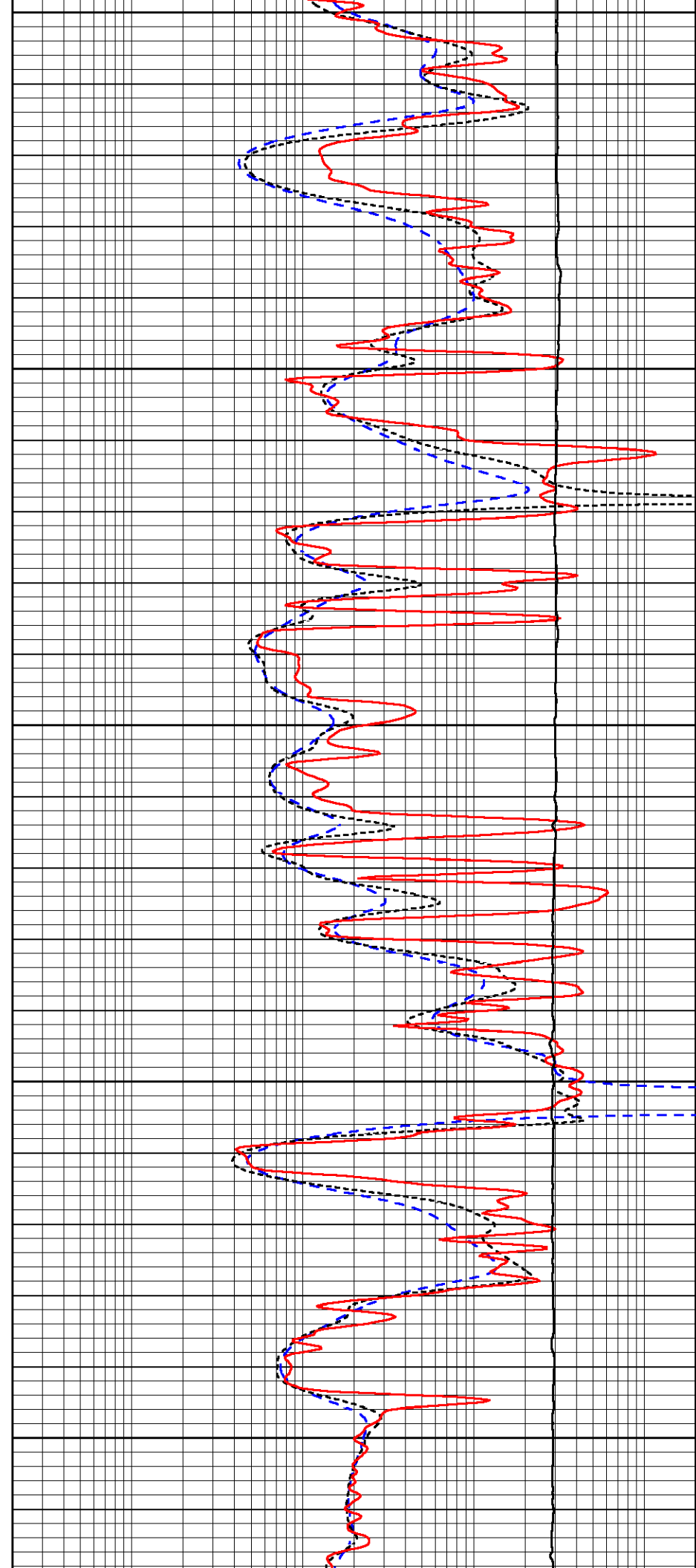
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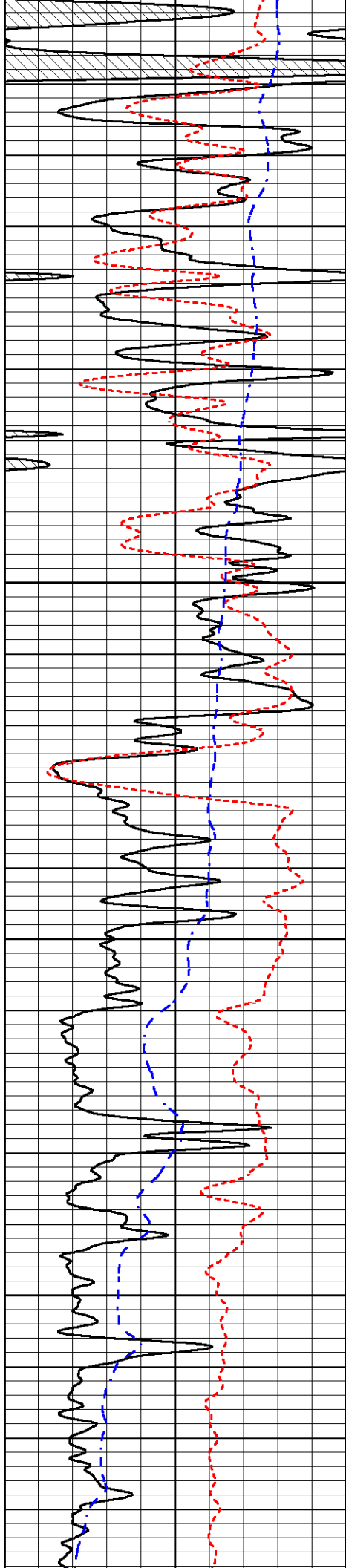
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4400

4450

4500



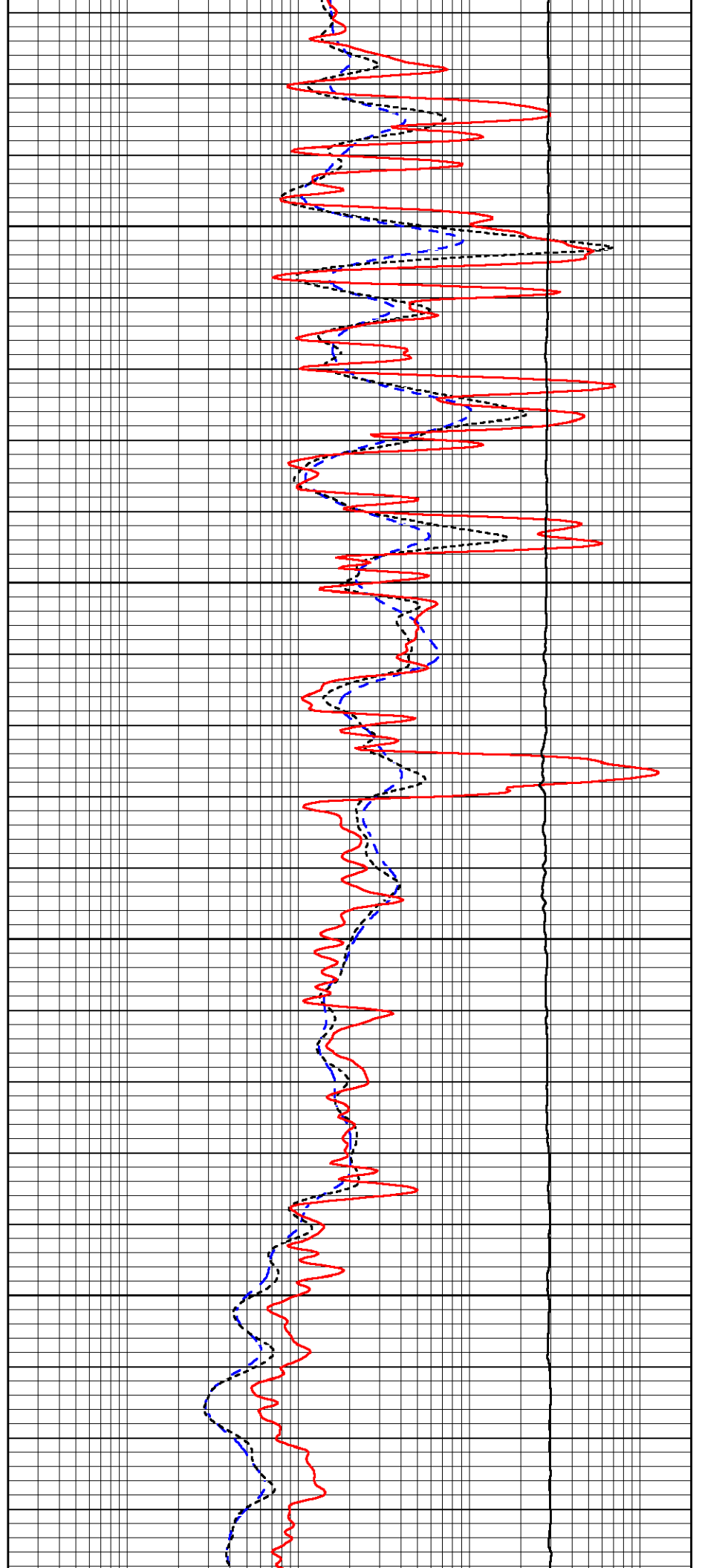


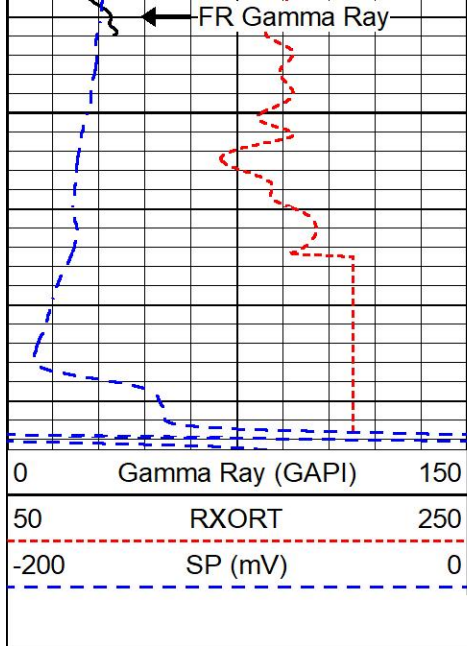
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4600

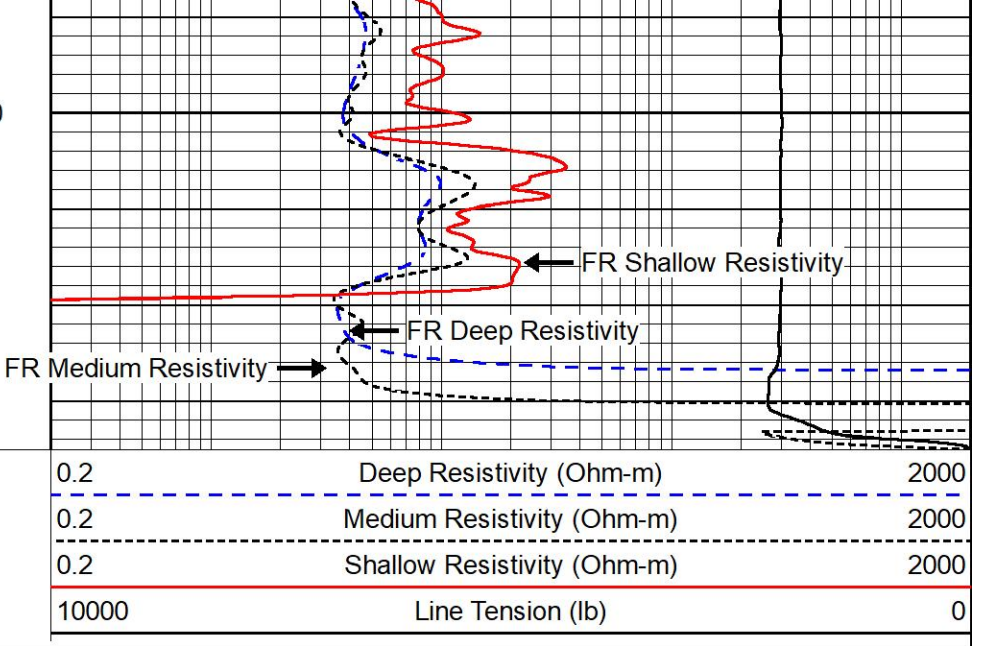
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4750

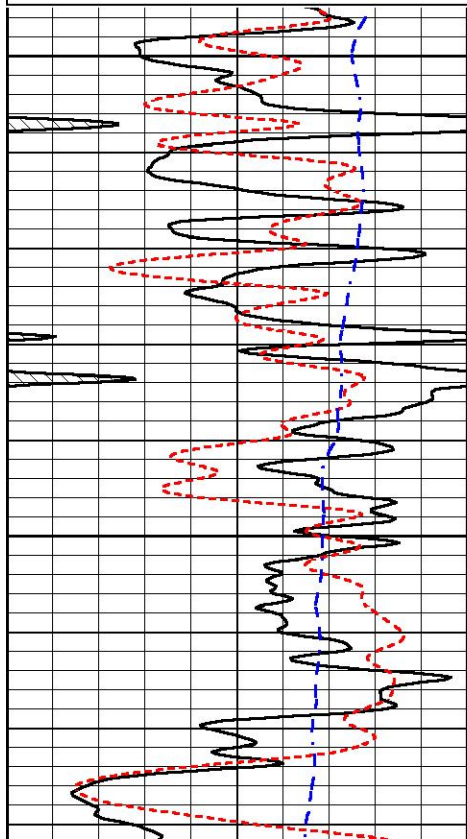
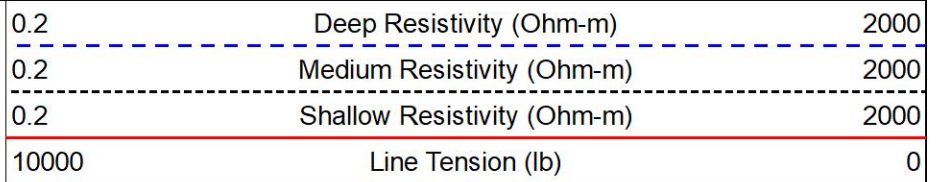
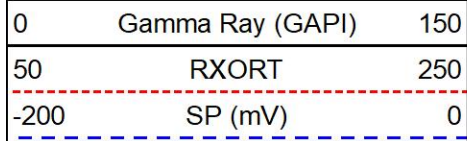


MIDWEST WIRELINE

# REPEAT SECTION

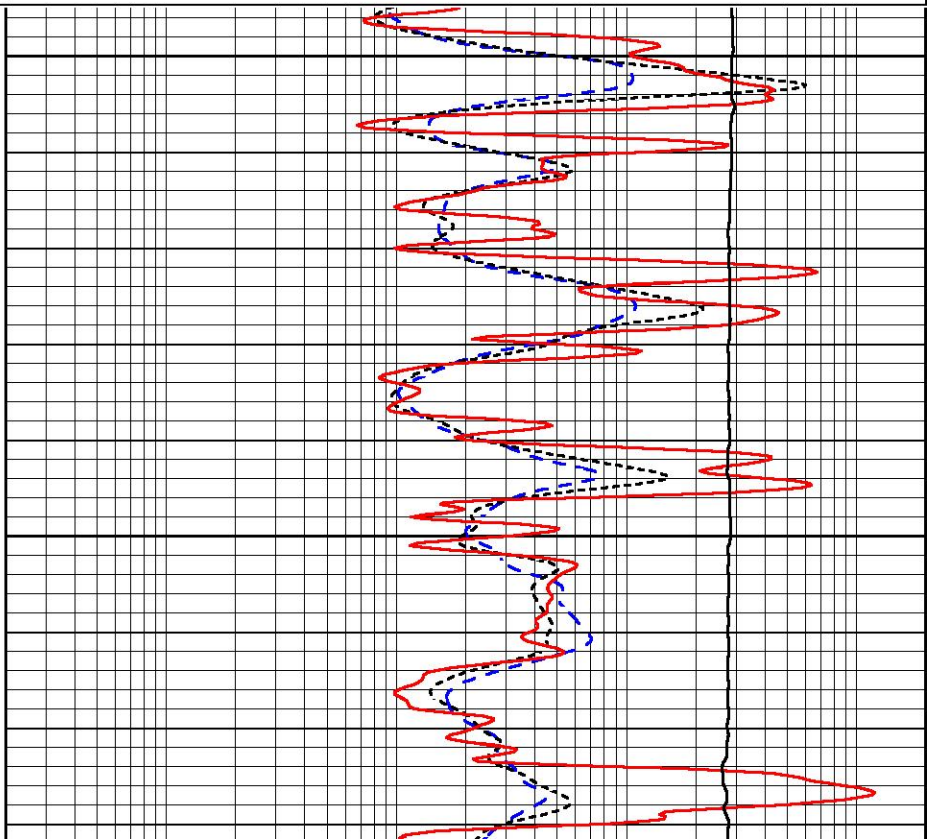
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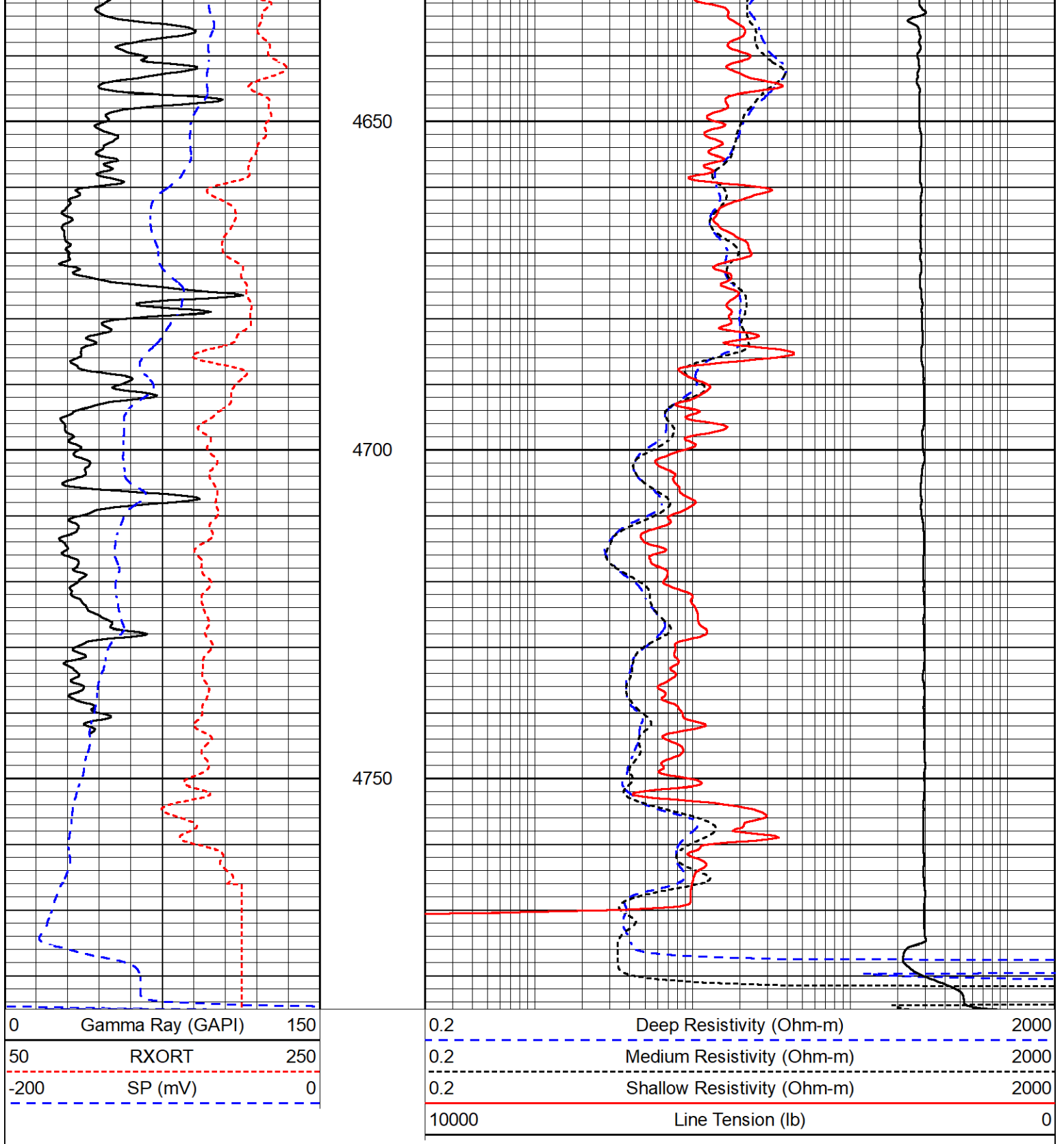
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 Presentation Format \_dil  
 Dataset Creation Mon Oct 02 17:58:50 2023  
 Charted by Depth in Feet scaled 1:240



4550

4600





Calibration Report

Database File      am war\_schroeder 1-9.db  
 Dataset Pathname    stkml/pass3.5  
 Dataset Creation    Mon Oct 02 18:01:02 2023

Dual Induction Calibration Report

Serial-Model:                      505 HT-M&W  
 Surface Cal Performed:            Fri Aug 11 21:22:17 2023

Readings

References

Results

Loop:	Air	Loop	Air	Loop		m	b
Deep	167.000	835.000	0.000	255.800	mmho/m	0.480	-42.000
Medium	1348.000	1348.000	0.000	255.800	mmho/m	0.390	-38.000

Microlog Calibration Report

Serial-Model: 401-PSIML  
 Performed: Tue Aug 15 17:34:08 2023

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	24000.0000	-1.5000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	17000.0000	-0.5000
Caliper	1.0052	1.0858	5.0000	16.5000	in	50.0000	-44.4500

Compensated Density Calibration Report

Serial-Model: 303-03-M&W  
 Source #: 21170B  
 Master Calibration Performed: Wed Jun 21 06:11:17 2023

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	4162.25	5570.06	cps
Aluminum	2.590	g/cc	913.18	3747.07	cps
Spine Angle = 75.35			Density/Spine Ratio = 0.533		
	Size		Reading		
Small Ring	4.00	in	1.17		
Large Ring	14.00	in	1.07		

Compensated Neutron Calibration Report

Serial Number: 210  
 Tool Model: M&W

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: 105  
 Tool Model: M&W  
 Performed: Wed Aug 30 12:31:03 2023

Calibrator Value: 500.0 GAPI

Background Reading: 24.0 cps  
 Calibrator Reading: 637.0 cps

Sensitivity: 0.6500 GAPI/cps



Company	American Warrior, Inc.
Well	Schroeder #1-9
Field	Wildcat
County	Hodgeman
State	Kansas