



DUAL INDUCTION LOG

MIDWEST WIRELINE

Company Eternity Exploration LLC		Company Eternity Exploration LLC	
Well Harold Jr & Lous Werth #1		Well Harold Jr & Lous Werth #1	
Field Custer Northwest		Field Custer Northwest	
County Sheridan		County Sheridan	
State Kansas		State Kansas	
Location: API #: 15-179-2397-00-01		Other Services	
SEC 2 TWP 10S RGE 26W		CNL/CDL MEL	
Permanent Datum	Ground Level	Elevation	2584
Log Measured From	Kelly Bushing	K.B.	2589
Drilling Measured From	Kelly Bushing	D.F.	
		G.L.	2584
Date	3/17/2022		
Run Number	One		
Depth Driller	4150		
Depth Logger	4151		
Bottom Logged Interval	4150		
Top Log Interval	150		
Casing Driller	8.625 @ 153		
Casing Logger	154		
Bit Size	7.875		
Type Fluid in Hole	Chemical		
Salinity, ppm CL	4400		
Density / Viscosity	9.0 55		
pH / Fluid Loss	10.5 7.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.9 @ 62		
Rmf @ Meas. Temp	0.68 @ 62		
Rmc @ Meas. Temp	1.22 @ 62		
Source of Rmf / Rmc	CHARTS		
Rm @ BHT	0.47 @ 118		
Operating Rig Time	2.5		
Max Rec. Temp. F	118		
Equipment Number	P-24		
Location	Hays		
Recorded By	T. Martin		
Witnessed By	Kim Shoemaker		

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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.

Collyer, KS, 4 W on 40 to Rd 78,
10.5 N, W into

Log Measured From: Kelly Bushing 5 Ft. Above Permanent Datum

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

Your Midwest Wireline Crew

Engineer: T. Martin
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: Kim Shoemaker
Secondary Witness:
Secondary Witness:
Secondary Witness:

Log Variables

DatabaseC:\ProgramData\Warrior\Data\eternity_harld jr lous werth #1.db
Dataset field/well/StkMI/pass3.1/_vars_

Top - 2350.00 ft

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	100	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	0	0	0	-195	0	Off	0

2350.00 ft - Bottom

BOTTEMP degF	SPSHIFT mV	SRFTEMP degF	TDEPTH ft
118	-210	50	4151

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

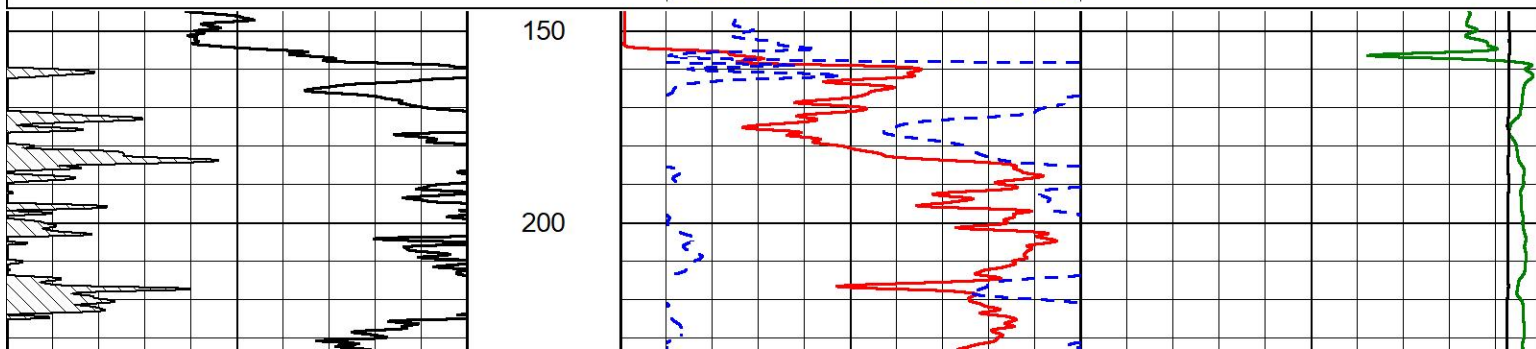


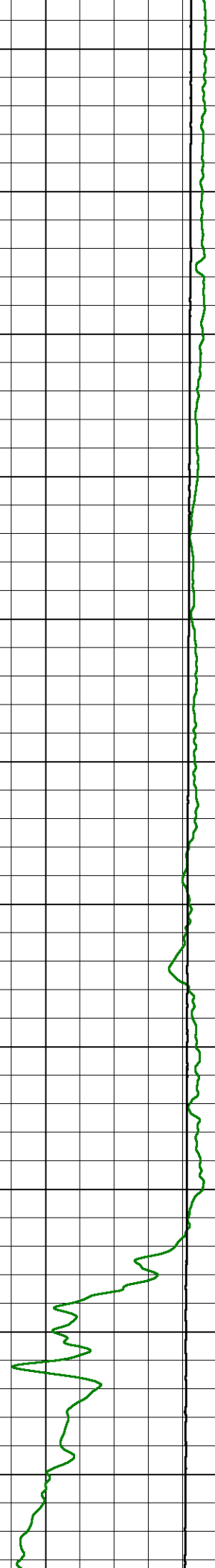
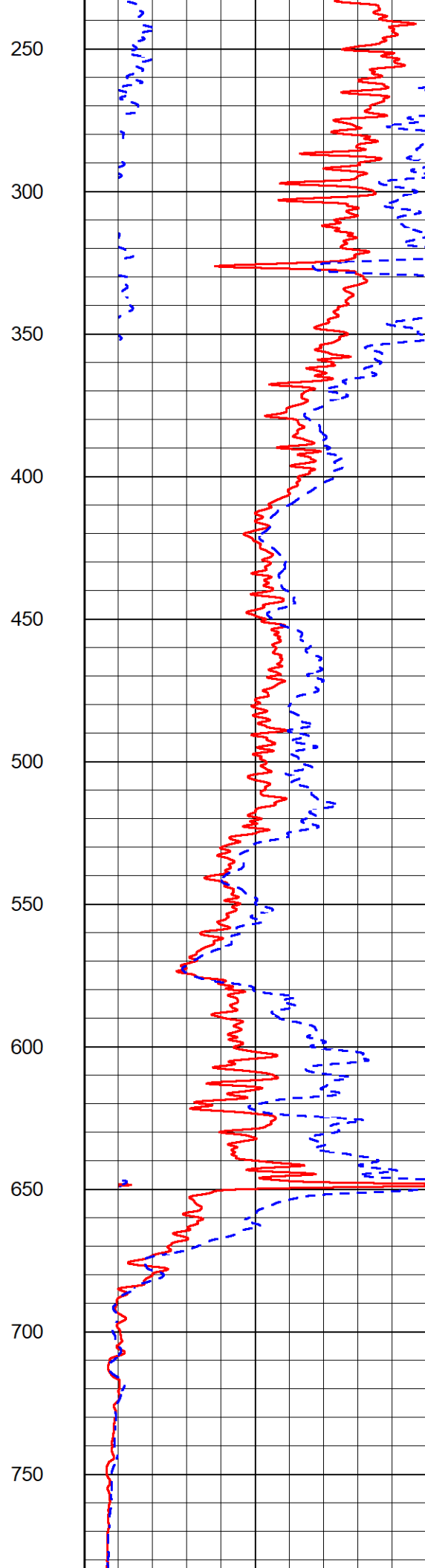
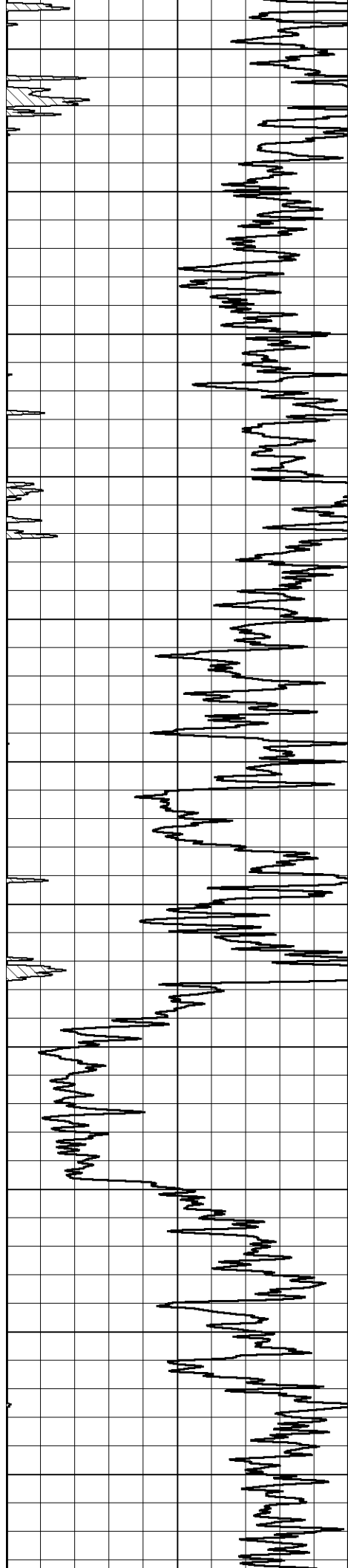
2" SCALE RESISTIVITY

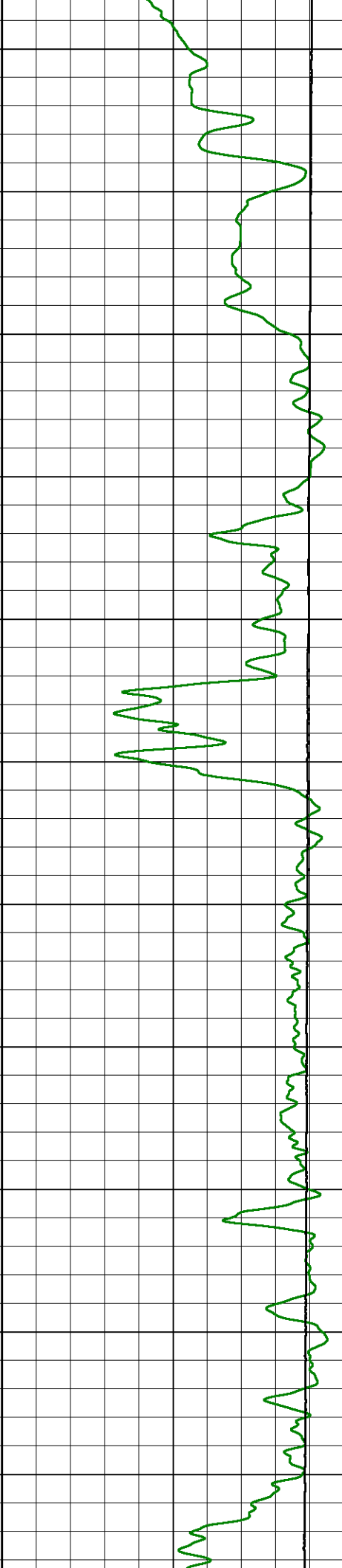
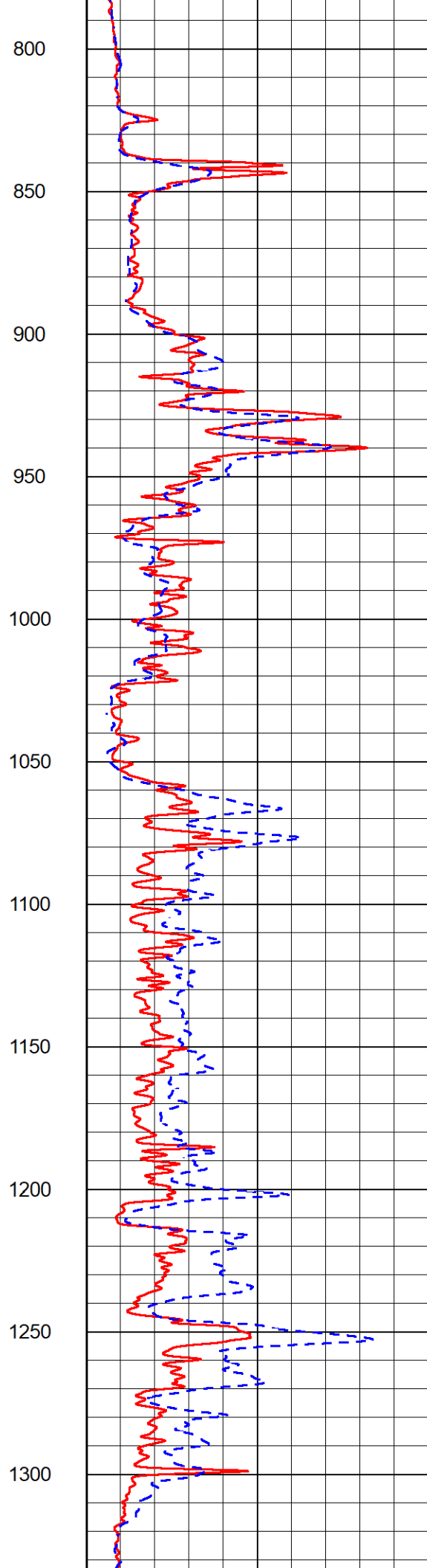
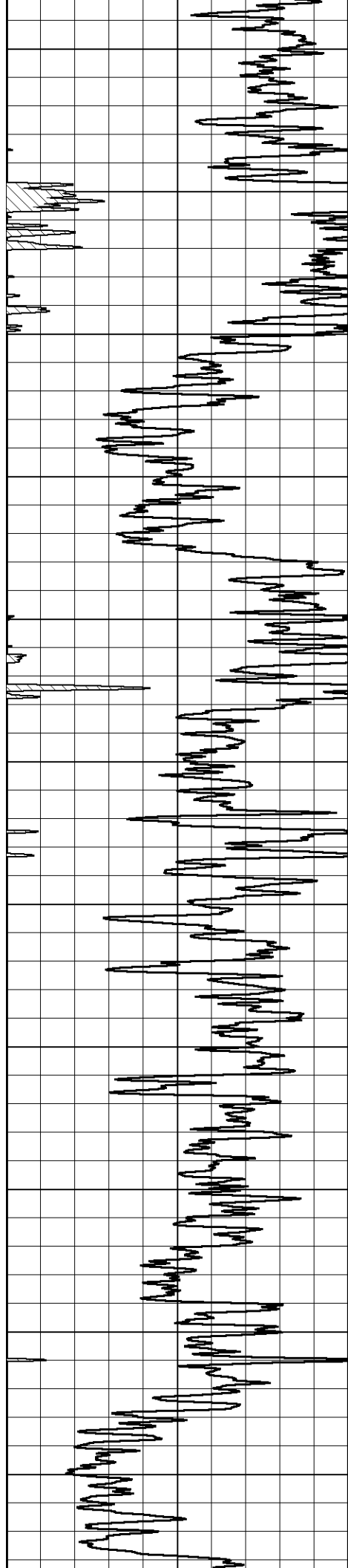
MAIN PASS

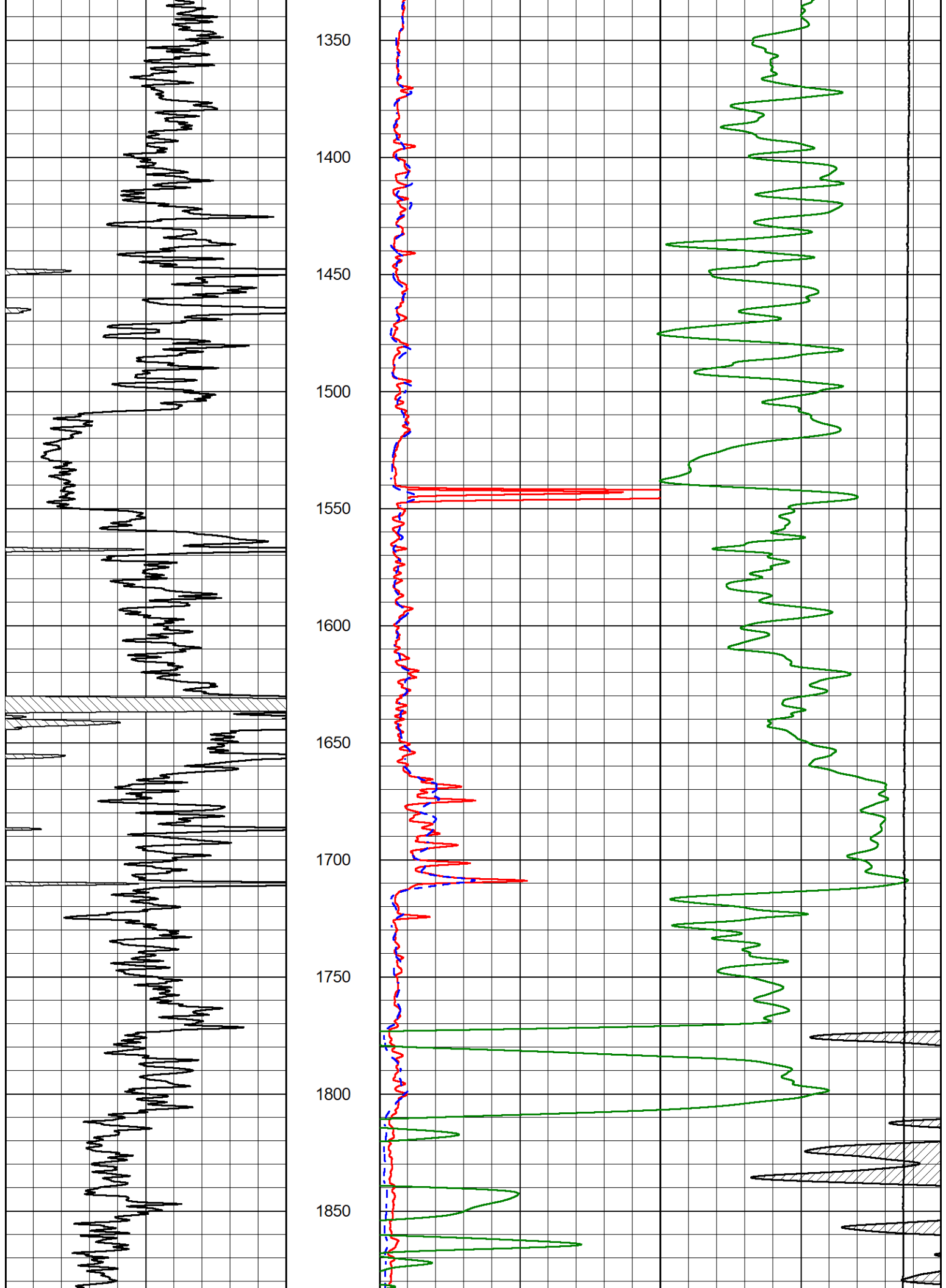
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Dataset Creation Thu Mar 17 23:21:26 2022
Charted by Depth in Feet scaled 1:600

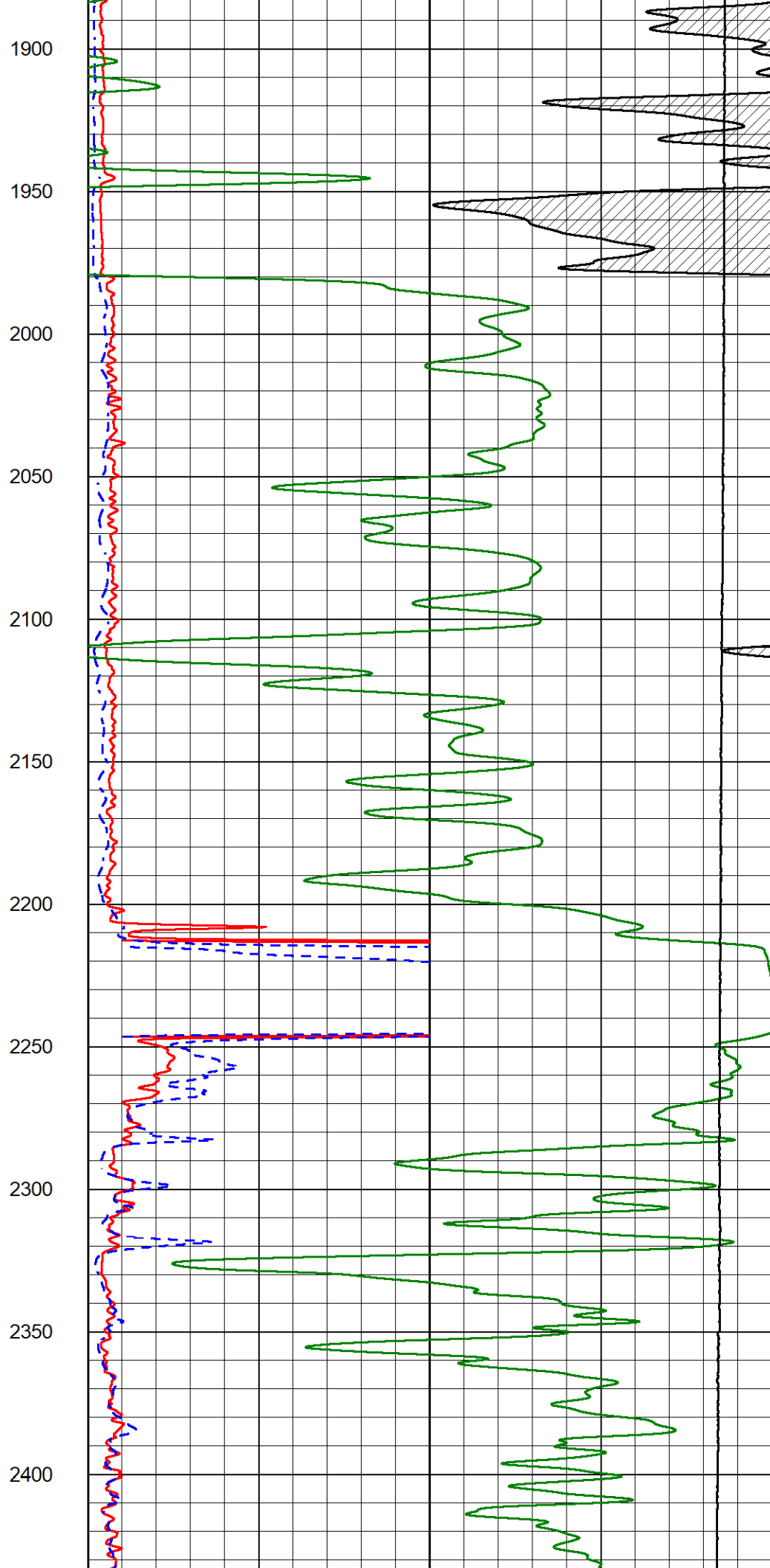
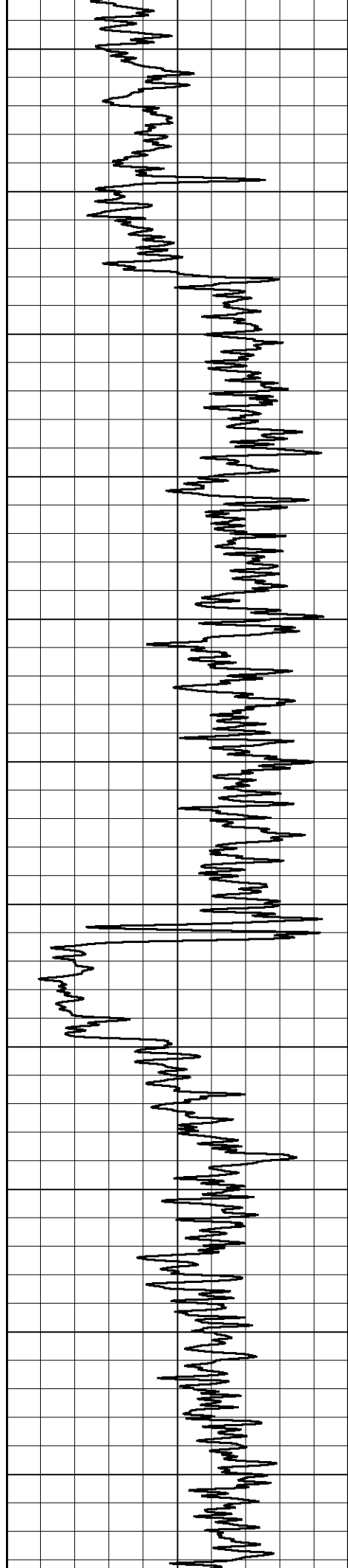
0	Gamma Ray (GAPI)	150	1000	Conductivity (mmho/m)	0
			15000	Line Tension (lb)	0
			0	Shallow Resistivity (Ohm-m)	50
			0	Deep Resistivity (Ohm-m)	50
				Shallow Resistivity	
			50	(Ohm-m)	200
			50	Deep Resistivity (Ohm-m)	200

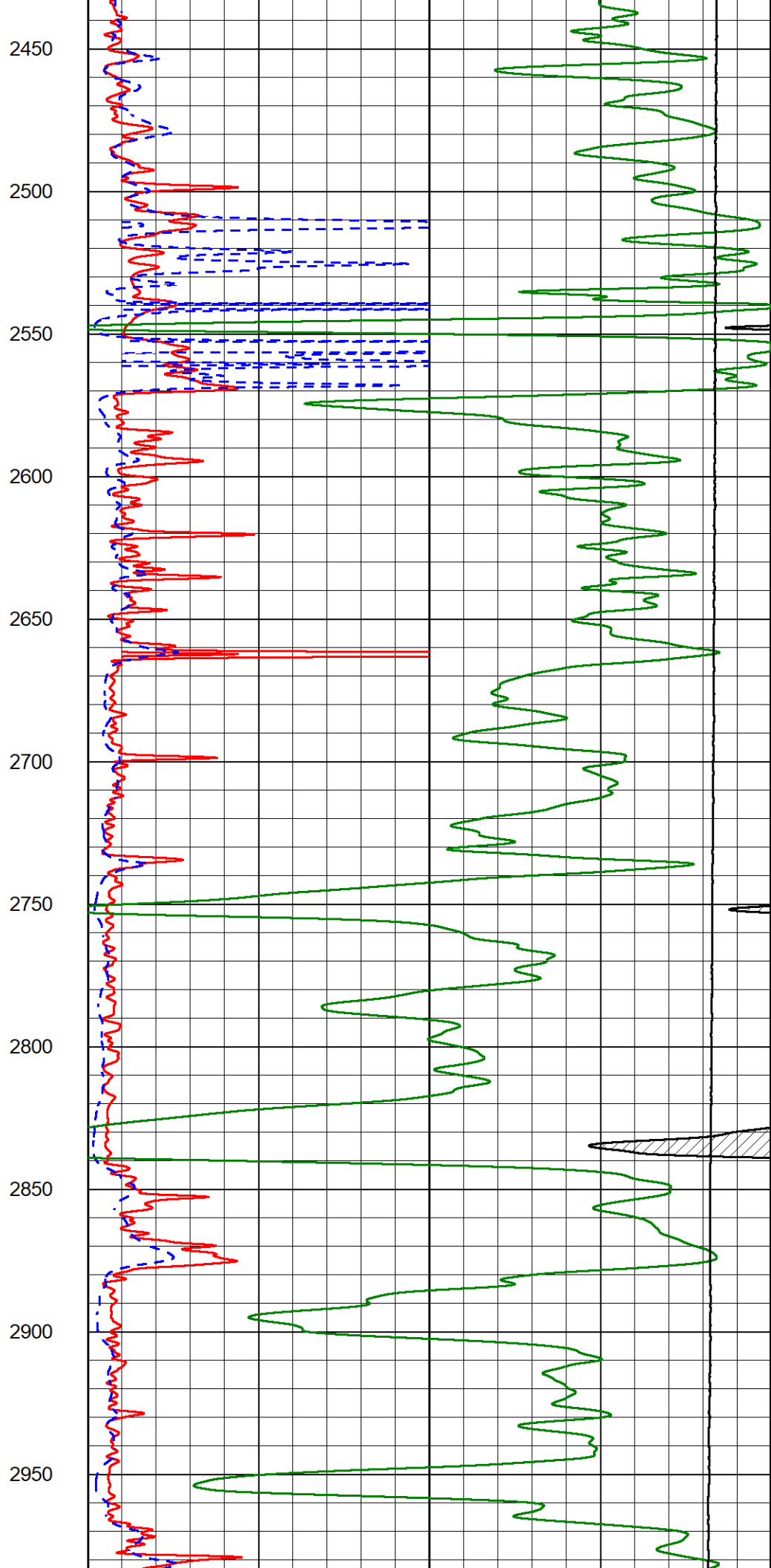
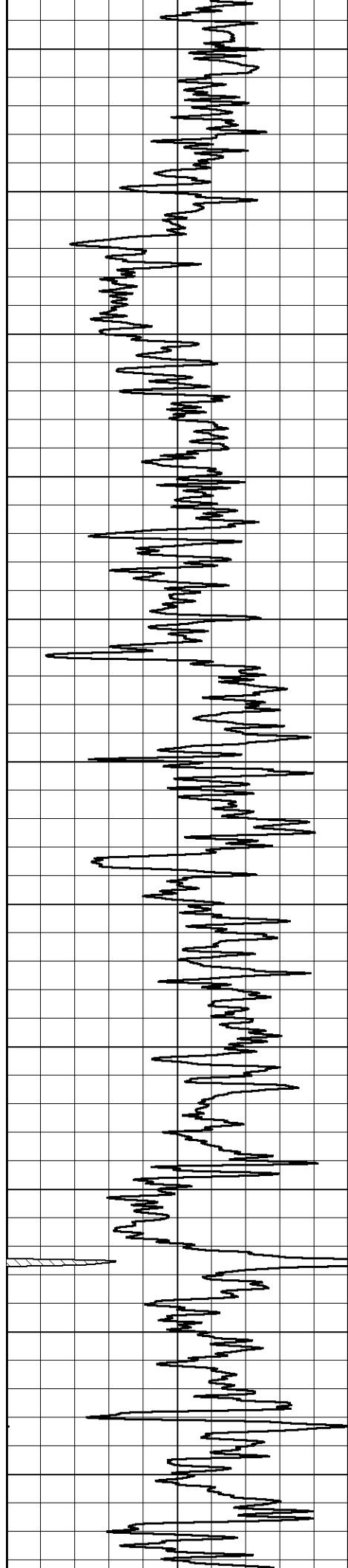


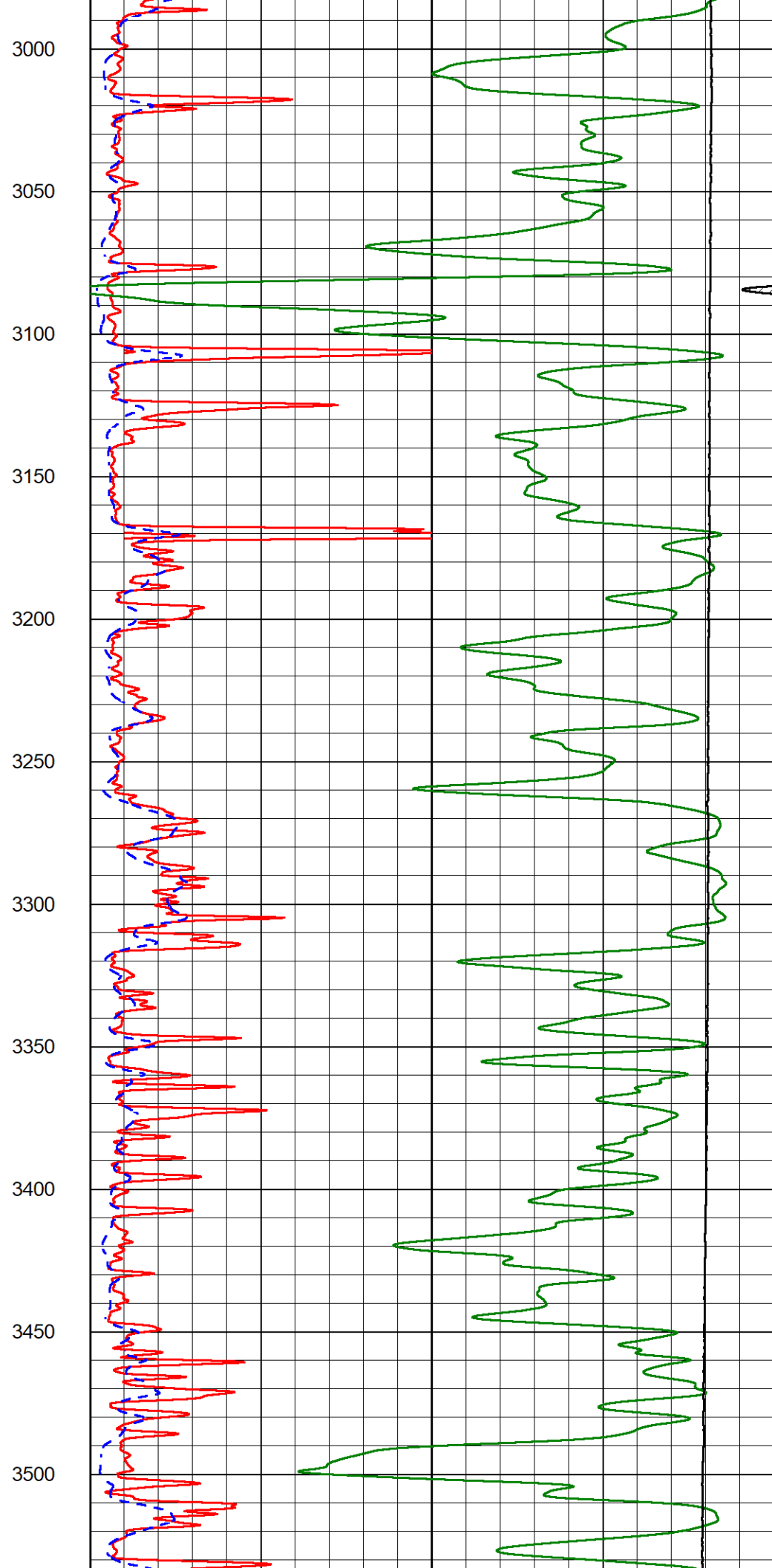
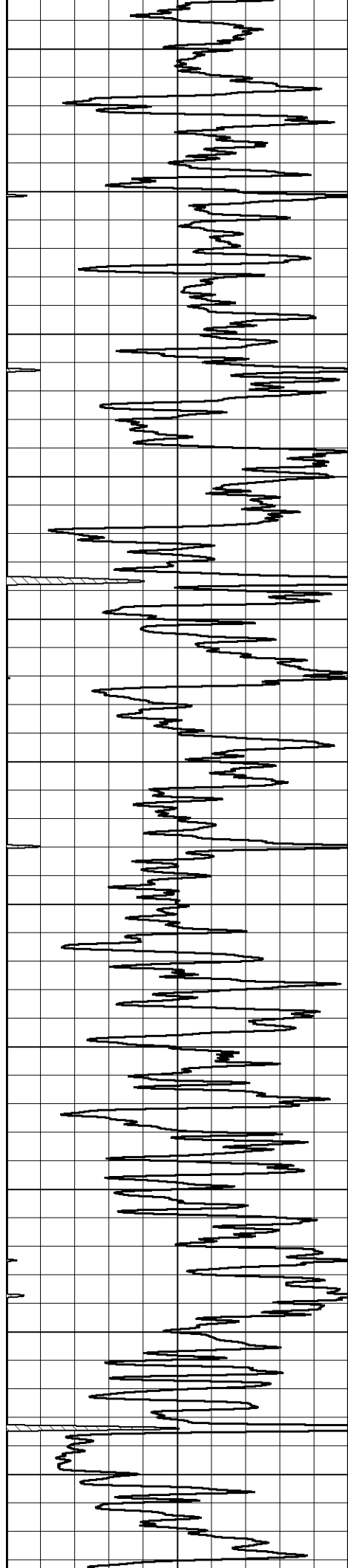


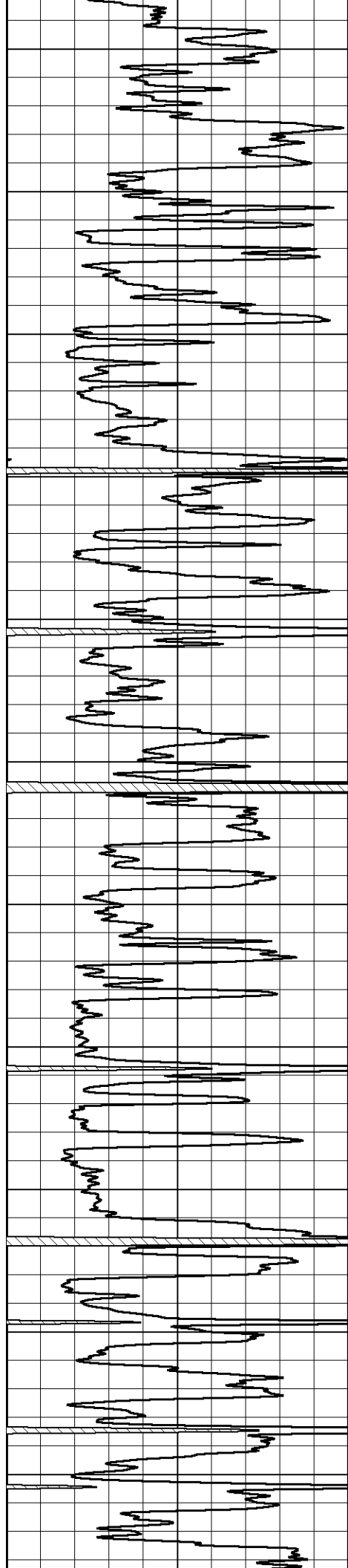












3550

3600

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3800

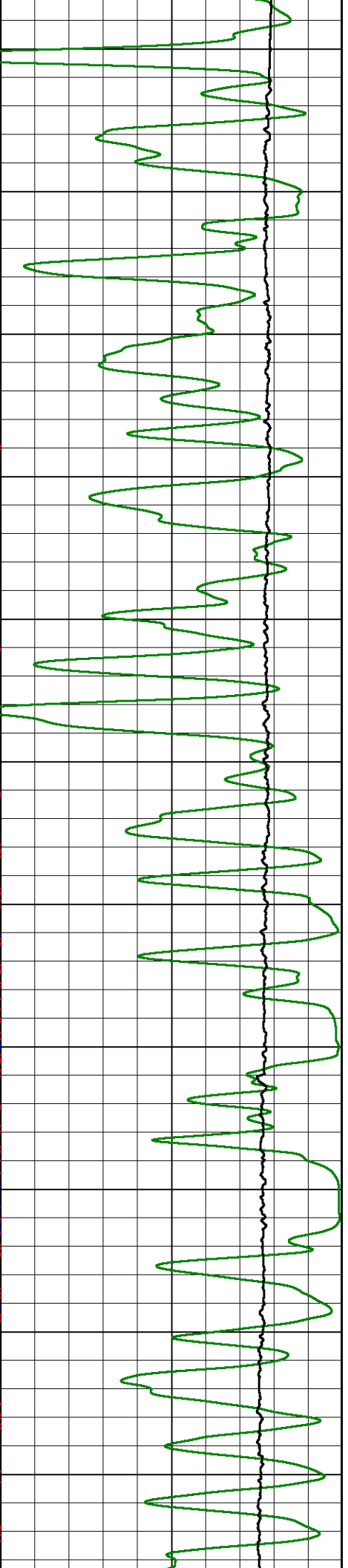
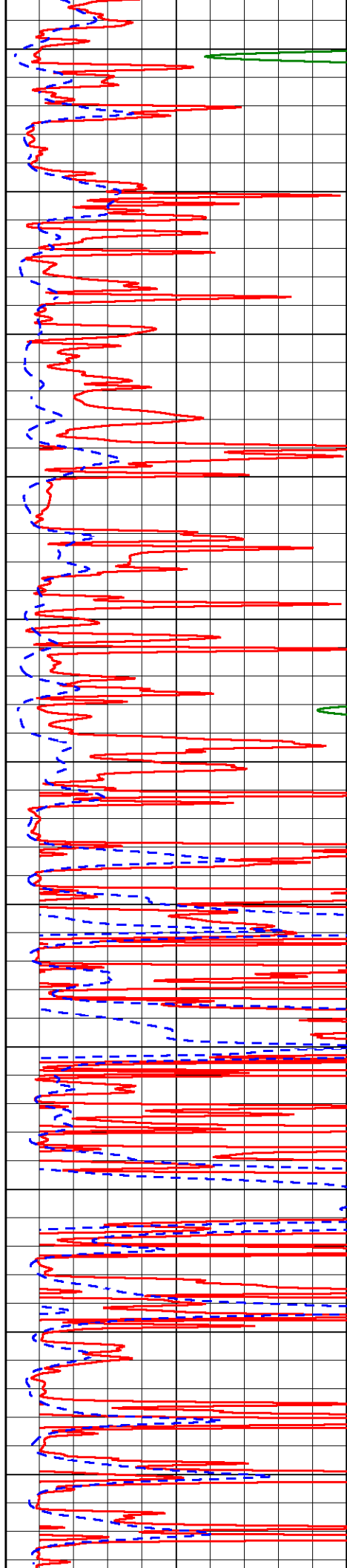
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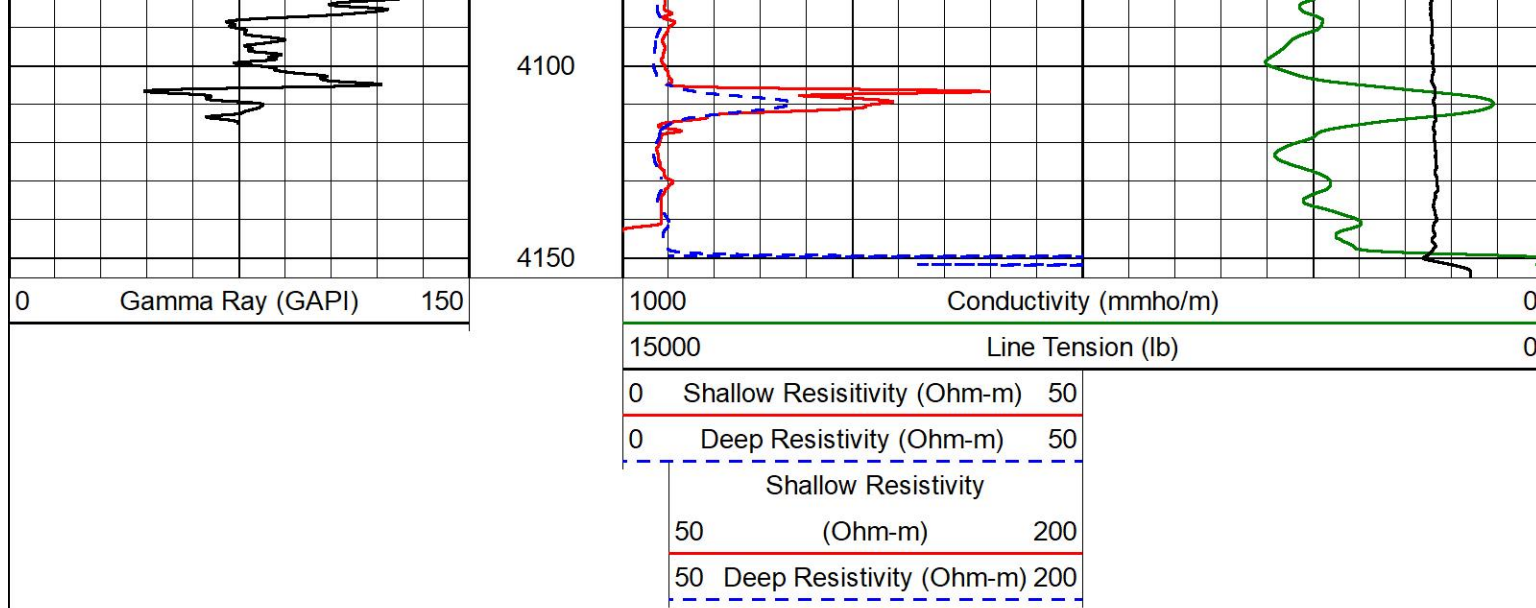
3900

3950

4000

4050



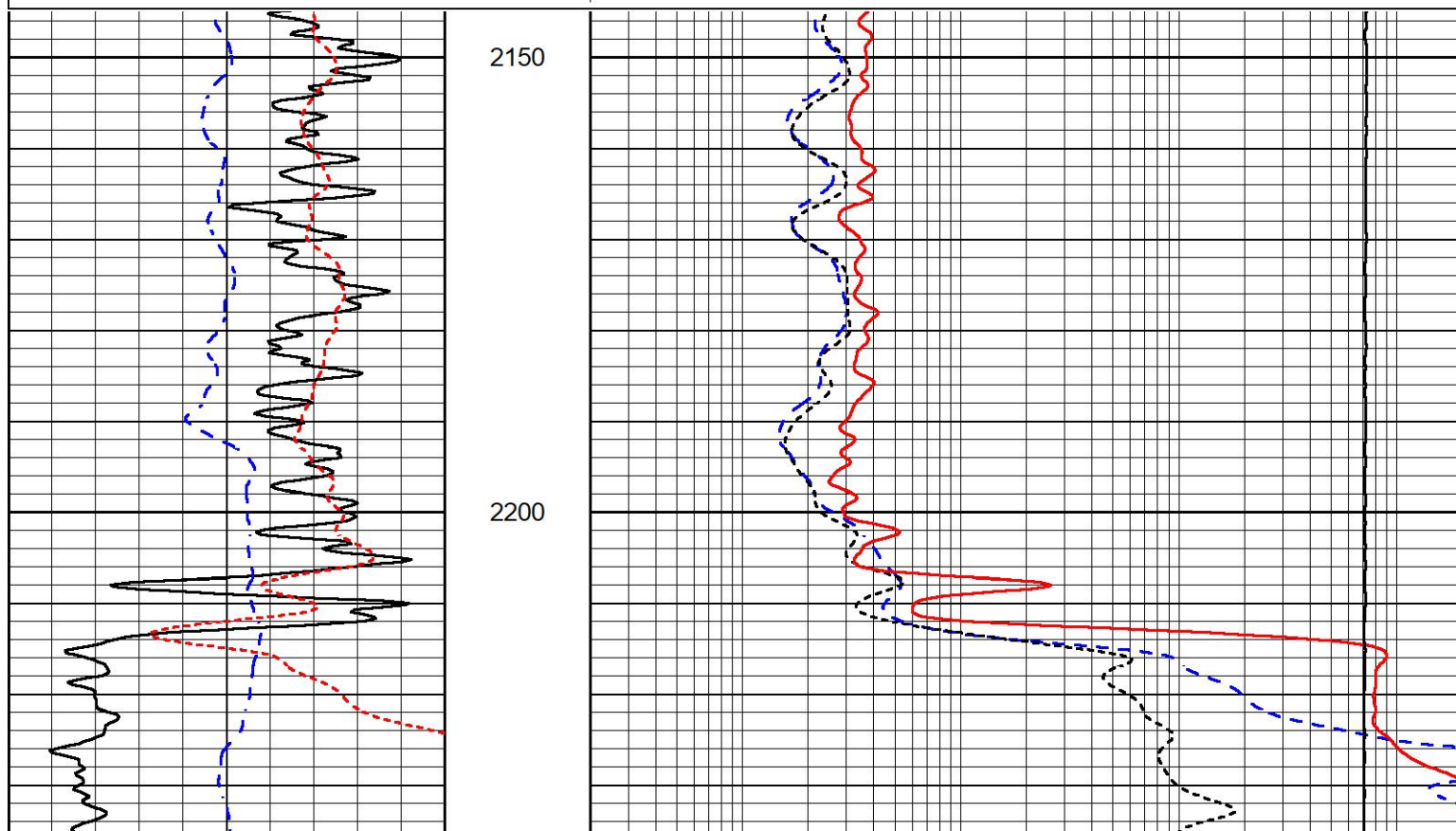
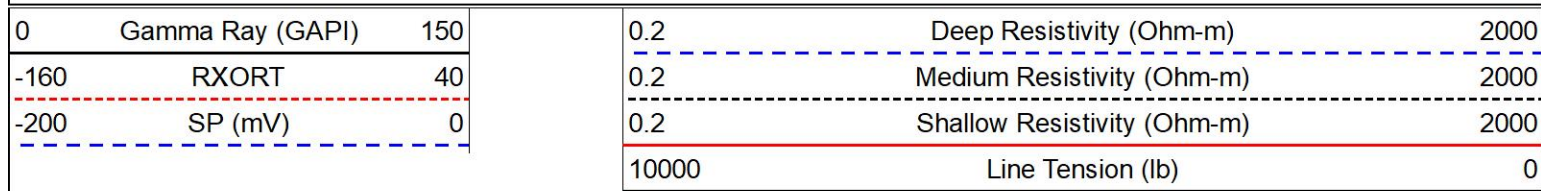


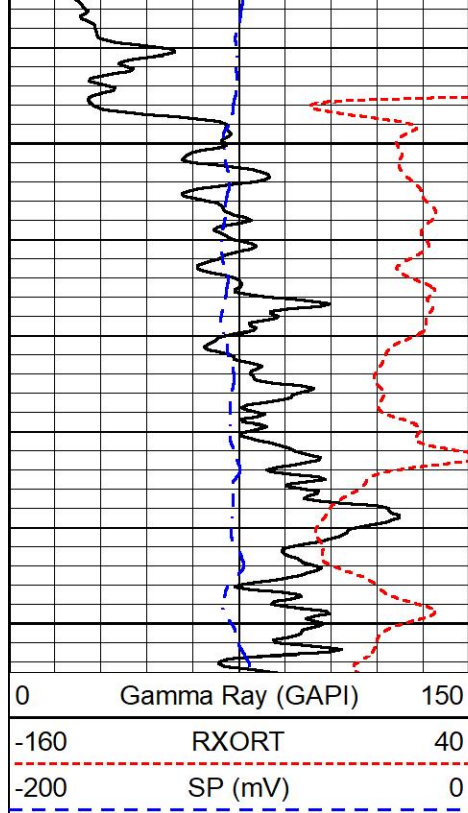
MIDWEST WIRELINE

ANHYDRITE SECTION

MAIN PASS

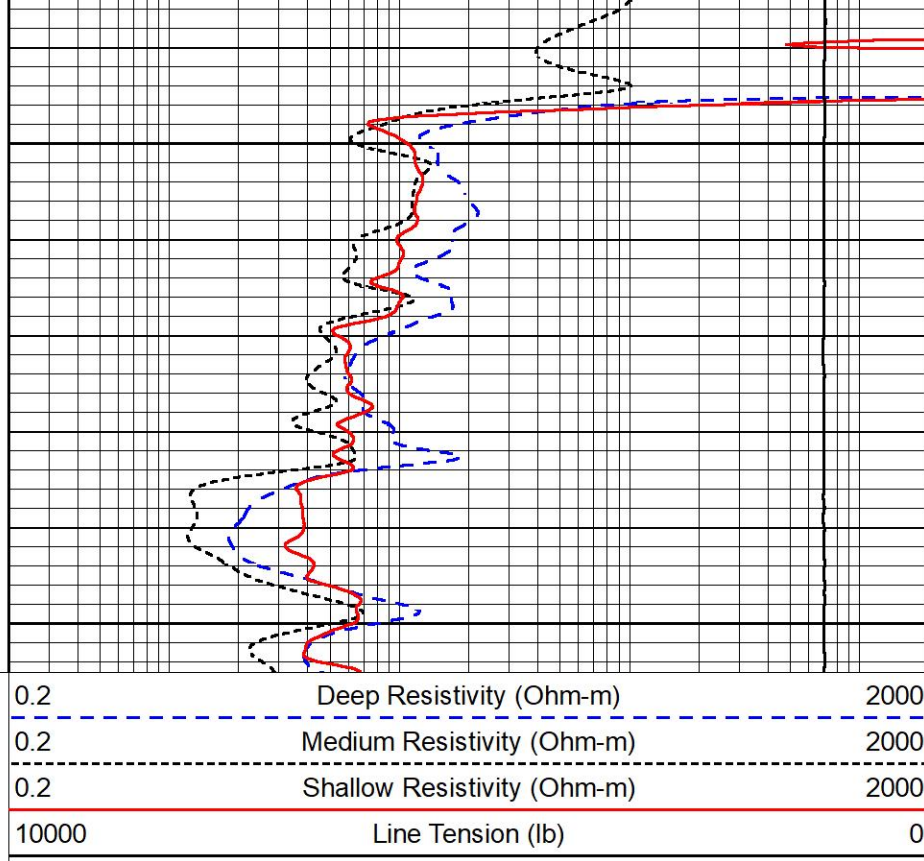
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2250

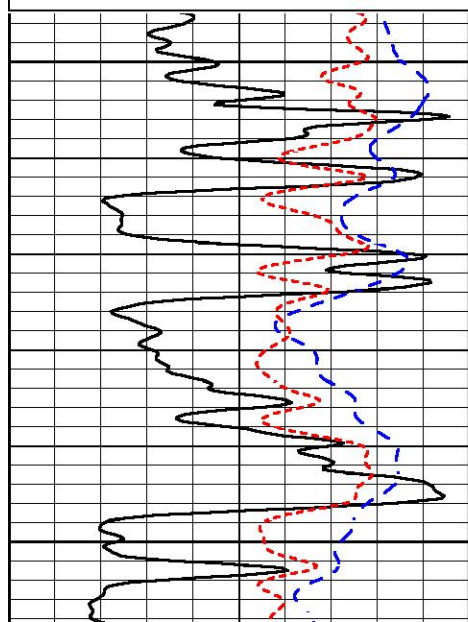
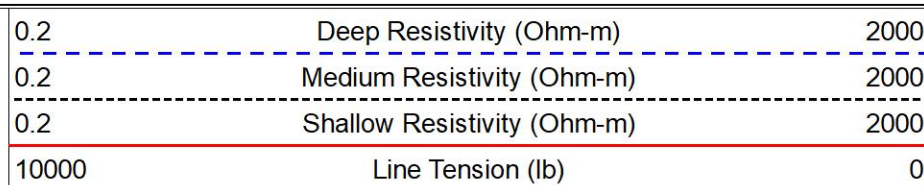
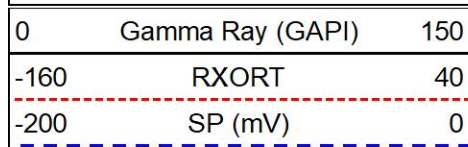
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DETAIL SECTION

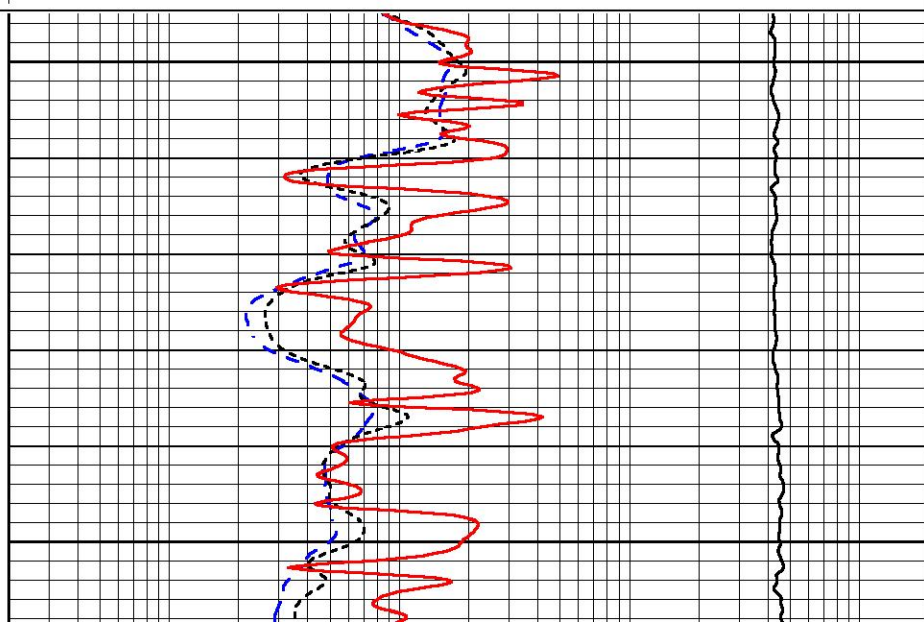
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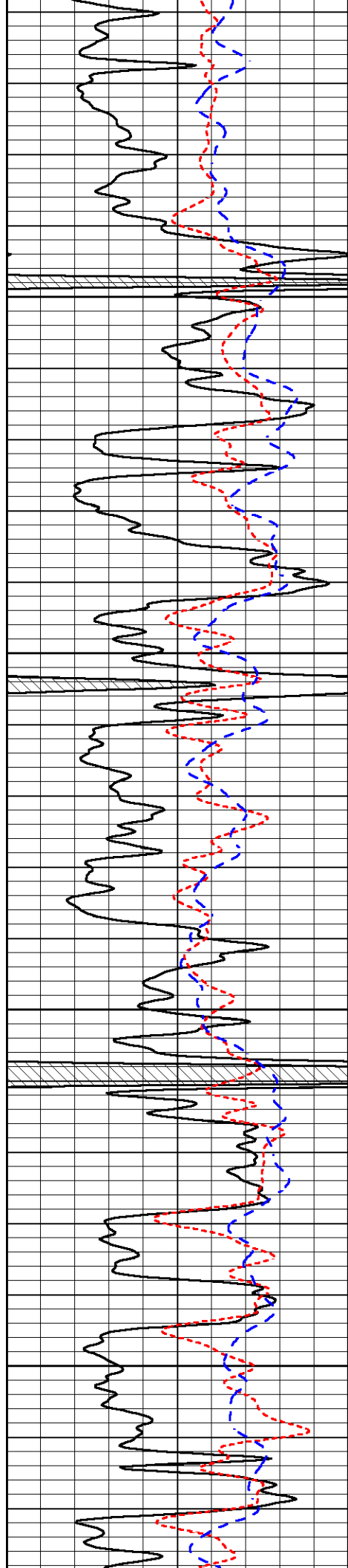
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3600

3650



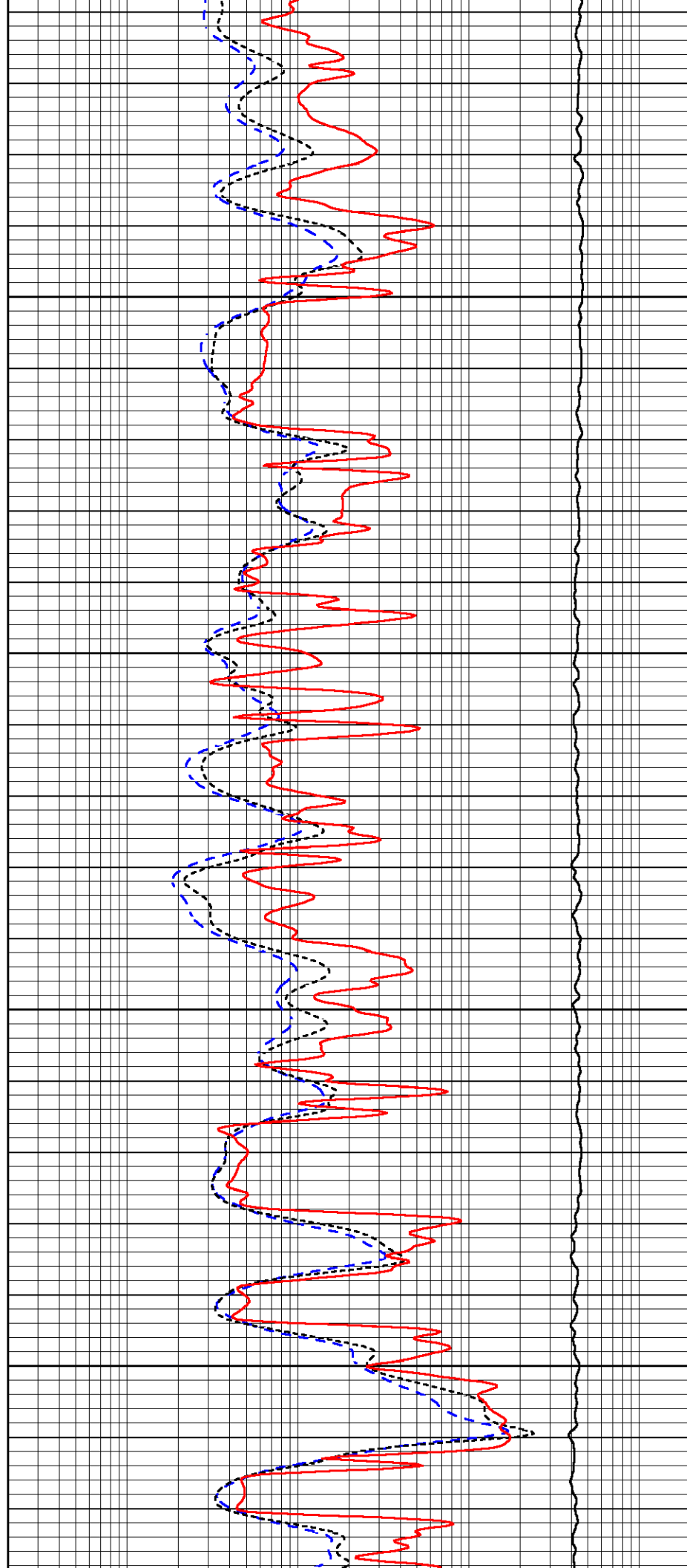


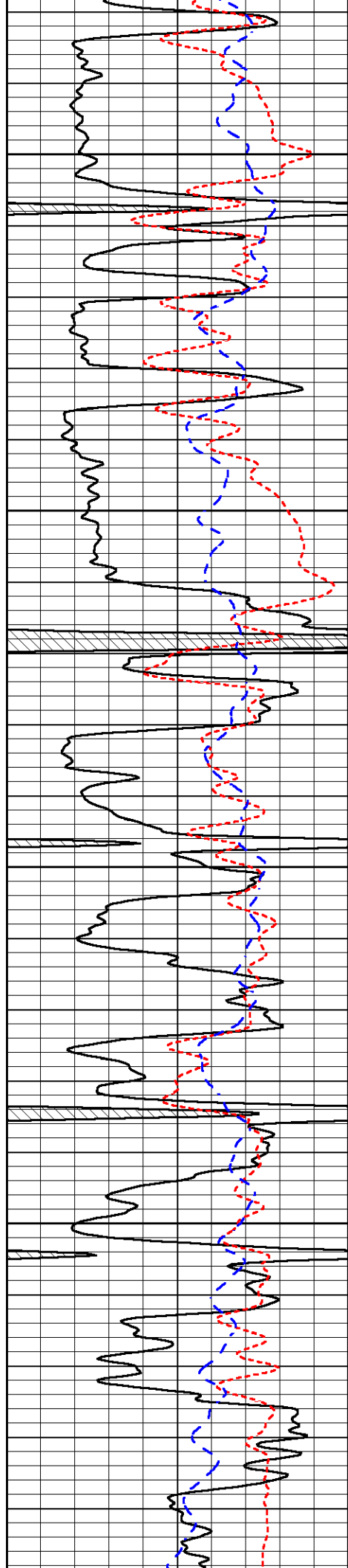
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3750

3800

3850



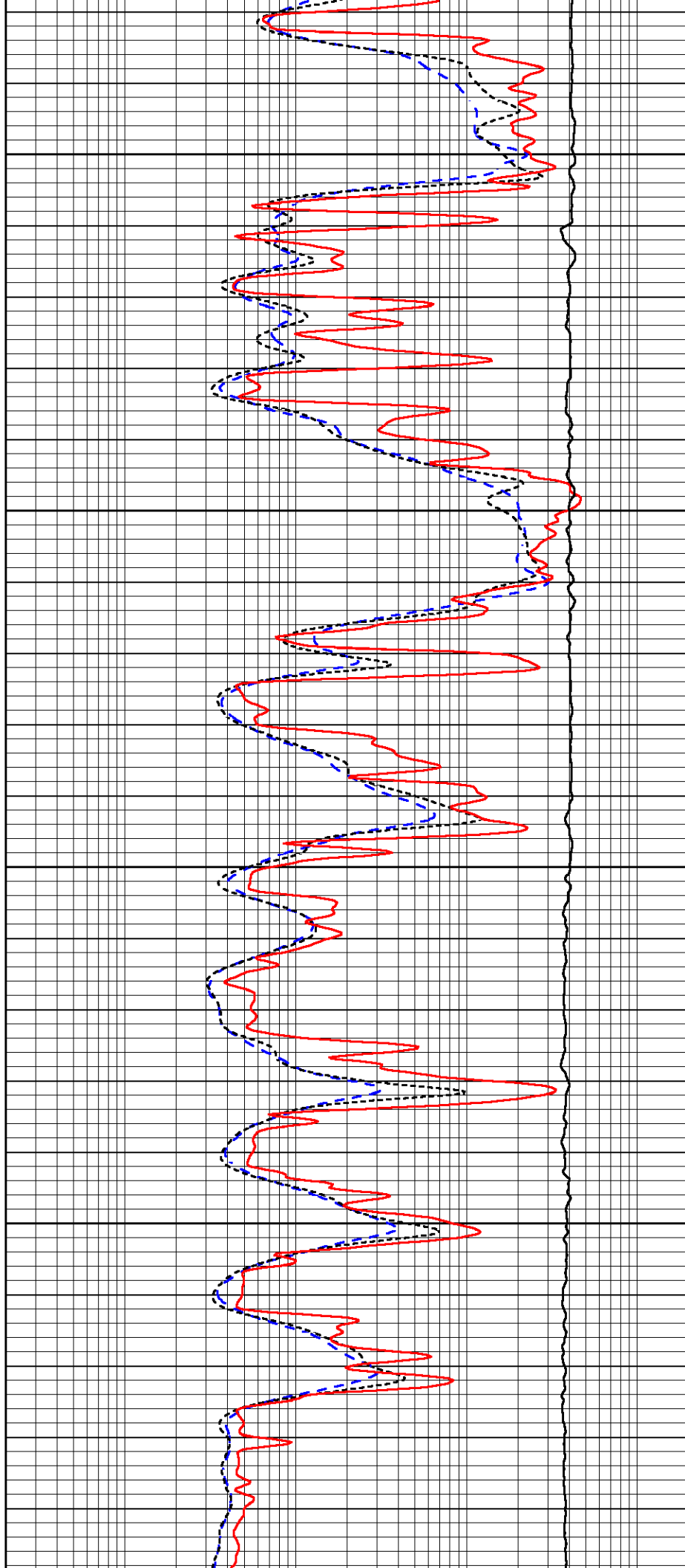


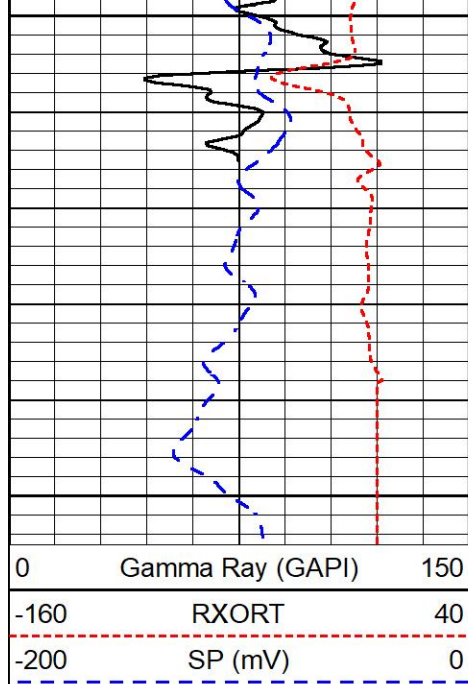
3900

3950

4000

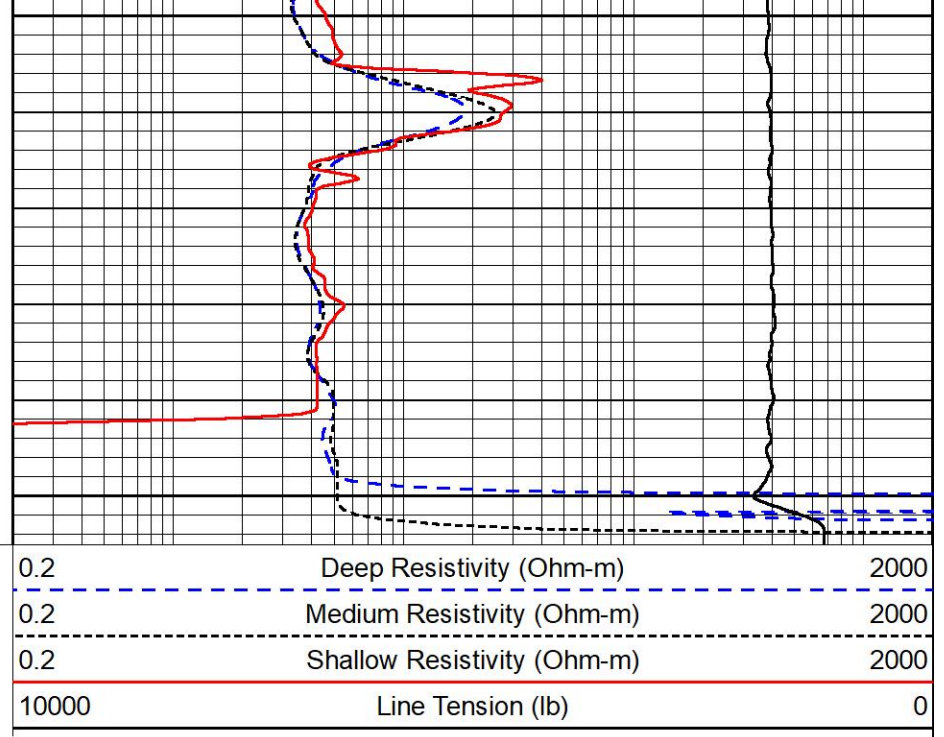
4050





4100

4150

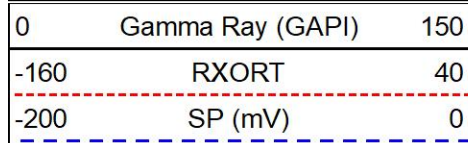


MIDWEST WIRELINE

REPEAT SECTION

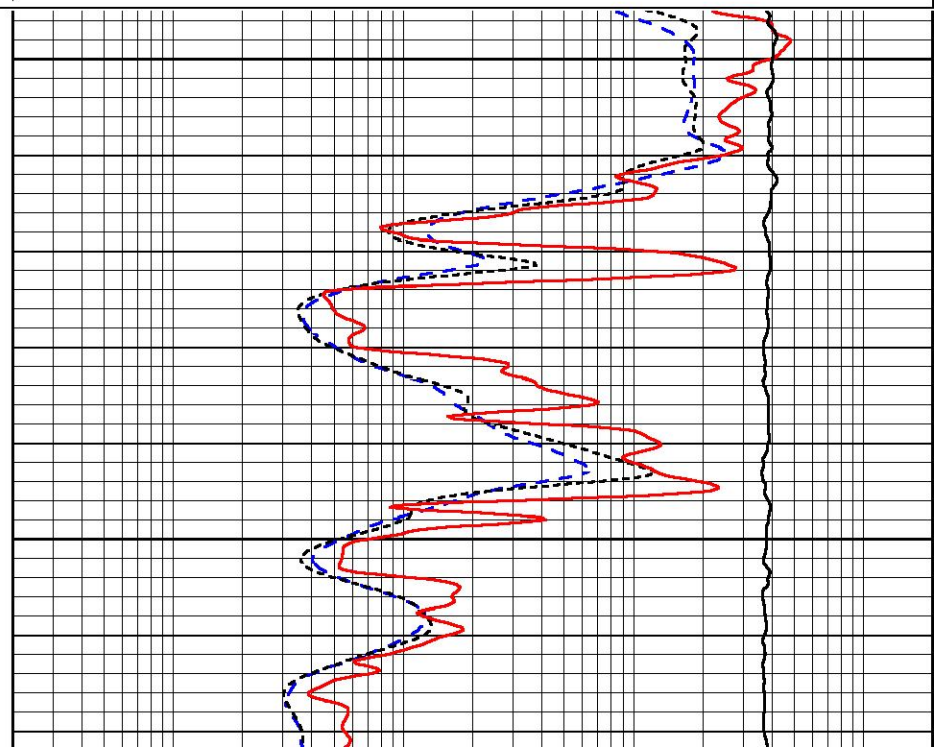
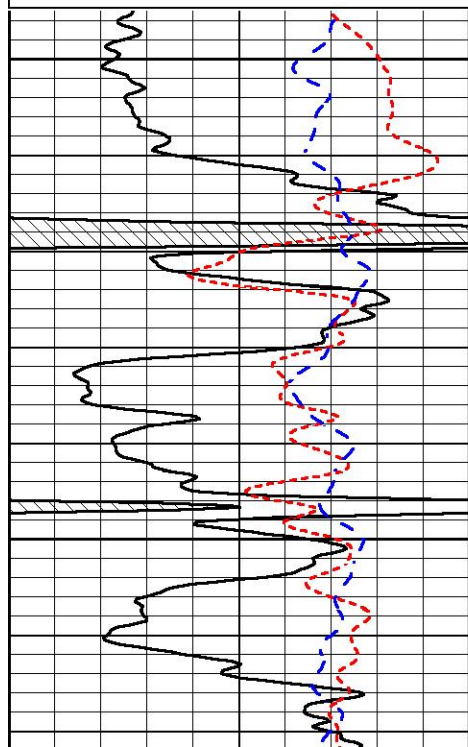
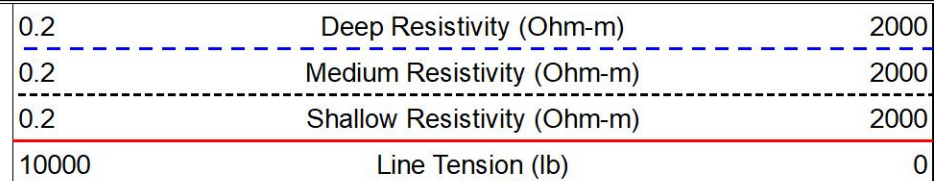
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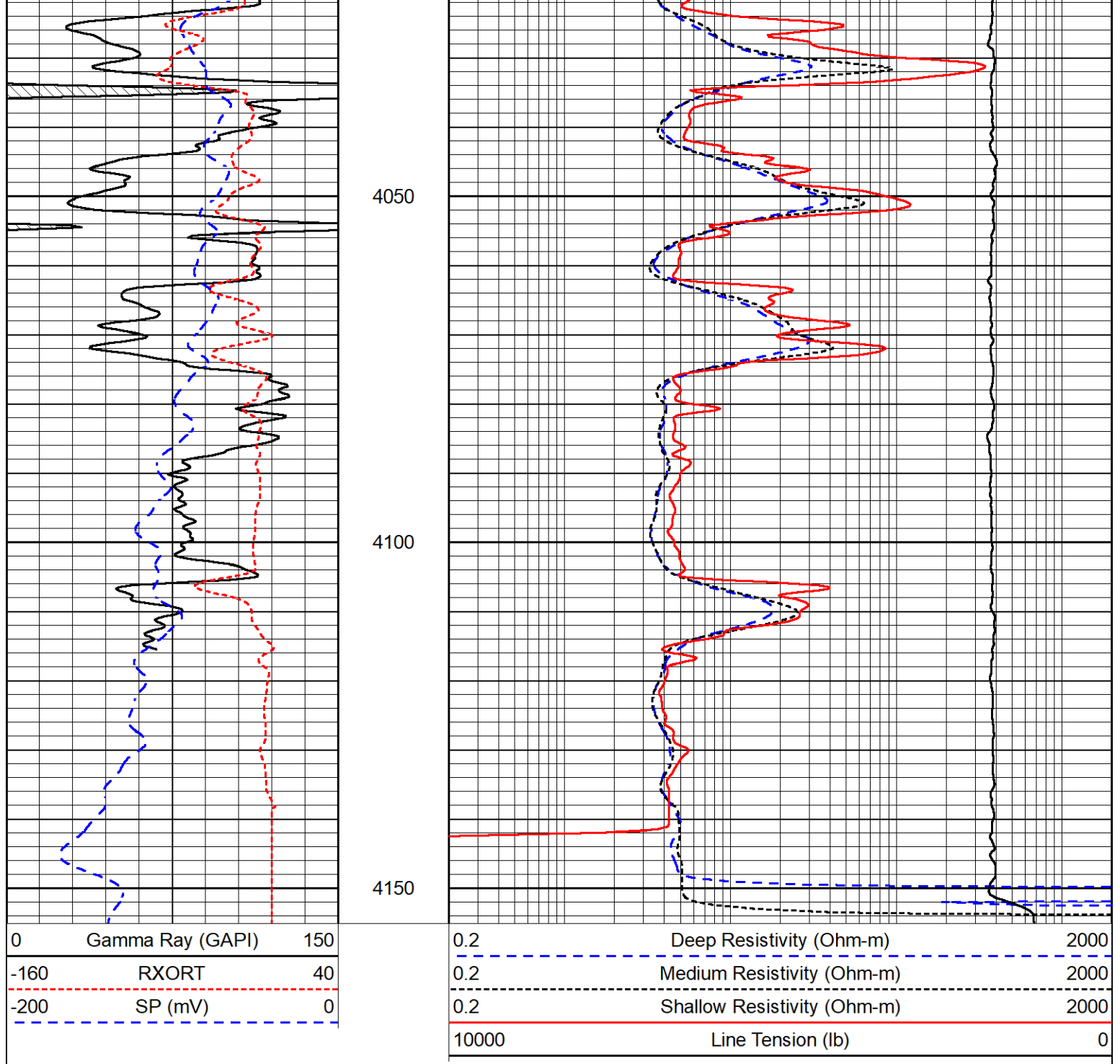
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 Charted by Depth in Feet scaled 1:240



3950

4000





Calibration Report

Database File eternity_harld jr lous werth #1.db
 Dataset Pathname StkMI/pass3.3
 Dataset Creation Thu Mar 17 22:33:37 2022

Dual Induction Calibration Report

Serial-Model: 501 HT-M&W
 Surface Cal Performed: Wed Feb 23 19:44:50 2022

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		m	b
Deep	83.639	487.104	0.000	183.000	mmho/m	0.455	-36.500
Medium	113.335	1585.690	0.000	442.000	mmho/m	0.320	-32.500

Microlog Calibration Report							
Serial-Model: Performed:			402-PSIML Mon Jan 24 20:31:16 2022				
Readings			References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	33000.0000	-0.8000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	27500.0000	0.0000
Caliper	1.0052	1.0858	5.0000	16.5000	in	125.0000	-122.0000
Compensated Density Calibration Report							
Serial-Model: Source #: Master Calibration Performed:			305-05-M&W 20762B Sat Mar 12 21:07:42 2022				
Master Calibration							
	Density		Far Detector		Near Detector		
Magnesium	1.755	g/cc	8862.47		9339.96	cps	
Aluminum	2.620	g/cc	1556.73		5707.29	cps	
Spine Angle = 74.19			Density/Spine Ratio = 0.479				
	Size		Reading				
Small Ring	4.00	in	1.75				
Large Ring	14.00	in	1.38				
Compensated Neutron Calibration Report							
Serial-Model: Source #: Master Calibration Performed:			207-MW-M&W 100046B Mon Nov 29 15:06:24 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:		101					
Tool Model:		M&W					
Performed:		Mon Jan 24 19:14:46 2022					
Calibrator Value:		500.0	GAPI				
Background Reading:		24.0	cps				
Calibrator Reading:		637.0	cps				
Sensitivity:		0.6000	GAPI/cps				



MIDWEST WIRELINE

Field	Custer Northwest
County	Sheridan
State	Kansas