



MIDWEST WIRELINE

DUAL INDUCTION
LOG

Company MTM Petroleum, Inc. Well Leslie #2 Field Spivey-Grabs-Basil County Kingman State Kansas		Company MTM Petroleum, Inc. Well Leslie #2 Field Spivey-Grabs-Basil County Kingman State Kansas	
Location: API #: 15-095-22336-00-00 NE - NE - SE 2310' FSL & 330' FEL SEC 13 TWP 30S RGE 8W		Other Services CNL/CDL MEL	
Permanent Datum Log Measured From Drilling Measured From	Ground Level Kelly Bushing Kelly Bushing	Elevation 1477' Elevation 1484' D.F. N/A G.L. 1477'	
Date	3/9/2021		
Run Number	One		
Depth Driller	4235'		
Depth Logger	4233'		
Bottom Logged Interval	4232'		
Top Log Interval	200'		
Casing Driller	8.625" @ 218'		
Casing Logger	218'		
Bit Size	7.875"		
Type Fluid in Hole	Chemical		
Salinity, ppm CL	5000		
Density / Viscosity	9.2 55		
pH / Fluid Loss	11.0 8.8		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.40 @ 50		
Rmt @ Meas. Temp	0.30 @ 50		
Rmc @ Meas. Temp	0.54 @ 50		
Source of Rmt / Rmc	CHARTS		
Rm @ BHT	0.17 @ 118		
Operating Rig Time	3 Hours		
Max Rec. Temp. F	118		
Equipment Number	P-24		
Location	HAYS		
Recorded By	D. Schmidt		
Witnessed By	Marvin Miller	Jerry Smith	

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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.

Rago,
2 South to 150th, 3 West, North into

Log Measured From: Kelly Bushing 7 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: Marvin Miller	
Operator:		Secondary Witness: Jerry Smith	
Operator:		Secondary Witness:	
Operator:		Secondary Witness:	

Sensor	Offset (ft)	Schematic		Description	Length (ft)	O.D. (in)	Weight (lb)	
GR	40.58			GR-M&W (233-M&W)	3.00	3.50	50.00	
CNLSC CNSSC	37.48 36.73			CNT-M&W (207-MW)	5.50	3.50	100.00	
LSD DCAL SSD	28.43 28.42 27.93			CDL-M&W (817-947)	8.50	4.00	250.00	
MCAL MI MN	19.83 19.83 19.83			ML-PSIML (PSI-01) GO Micro log tools converted to Simplec electronics	7.58	4.00	65.00	
RLL3F RLL3	15.80 15.80							
CILD	8.00			DIL-PSI HIGH TEMP (952-828)	18.50	3.50	220.00	
CILM	4.70							
SP	0.20							
Dataset: mtm_leslie 2.db: field/well/STKML/pass5.6								
Total length: 43.08 ft								
Total weight: 685.00 lb								
O.D.: 4.00 in								

Log Variables

DatabaseC:\ProgramData\Warrior\Data\mtm_leslie 2.db
Dataset field/well/STKML/pass5.6/_vars_

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in	degF	in	in	g/cc	2	g/cc
	7.875	100	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	250	0		0

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

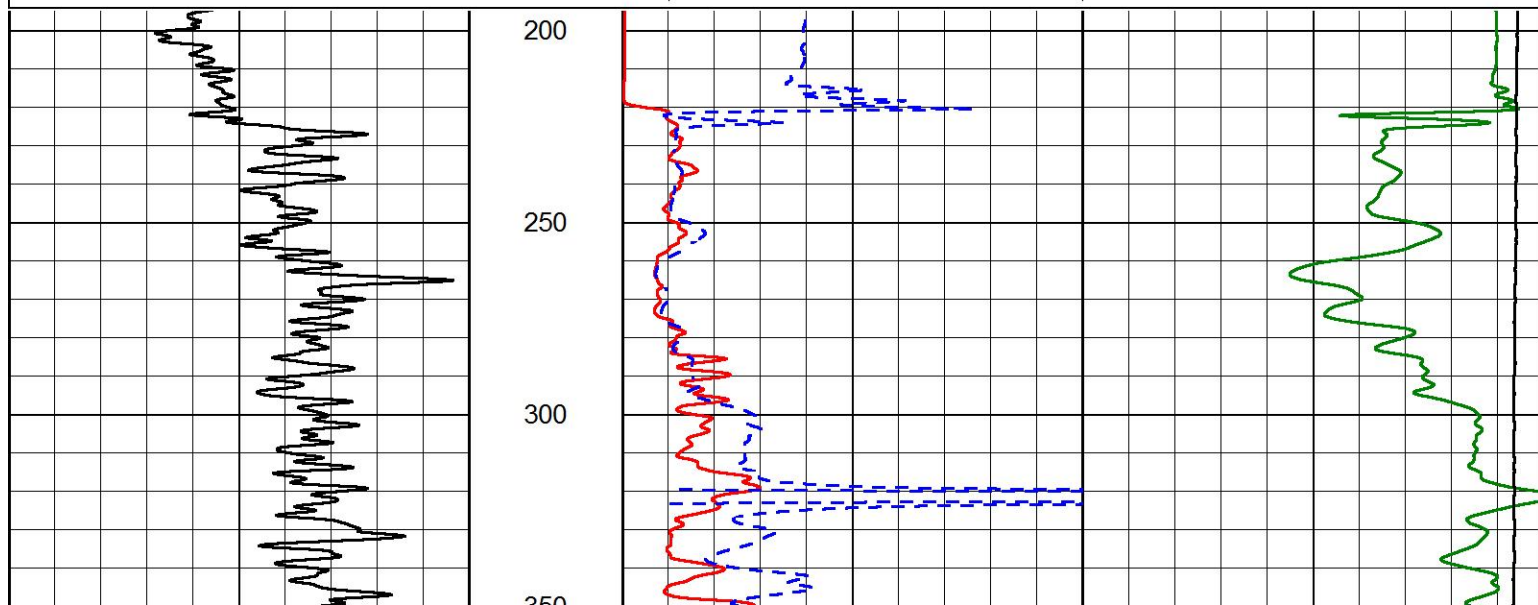


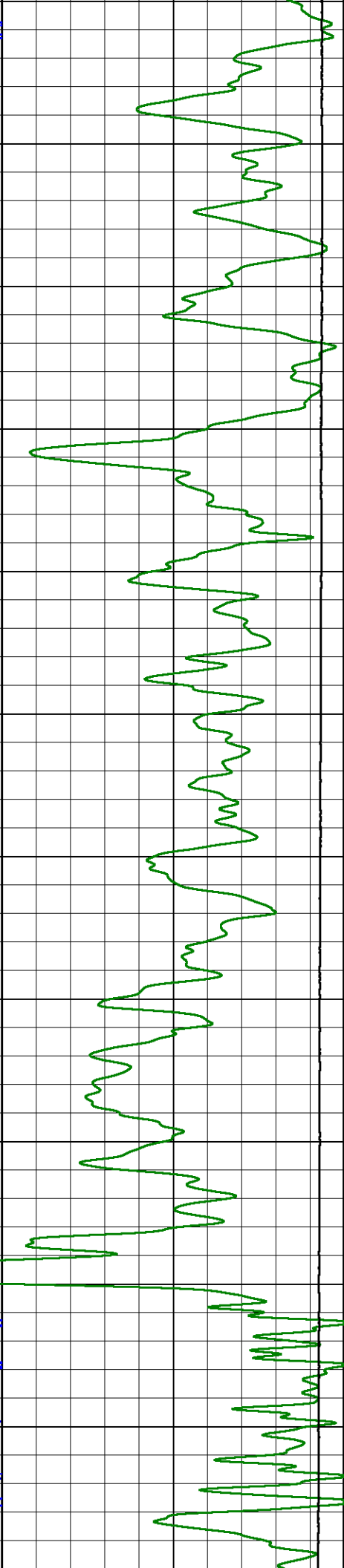
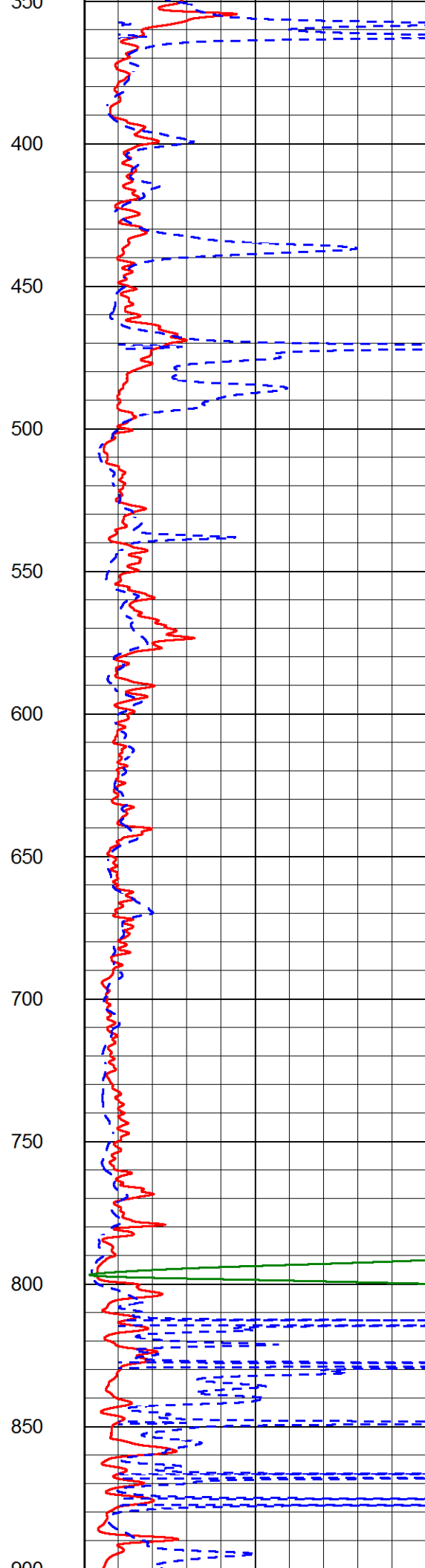
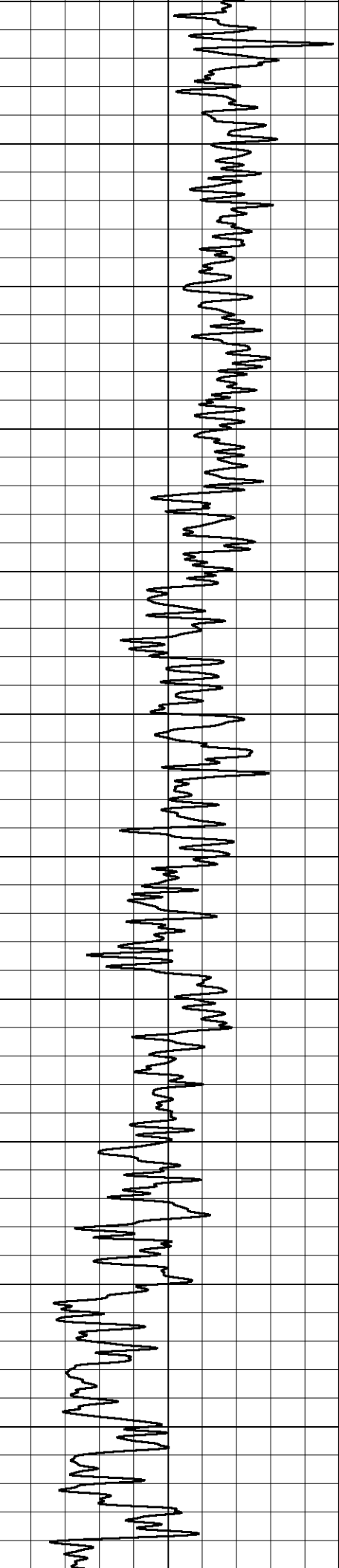
MIDWEST WIRELINE

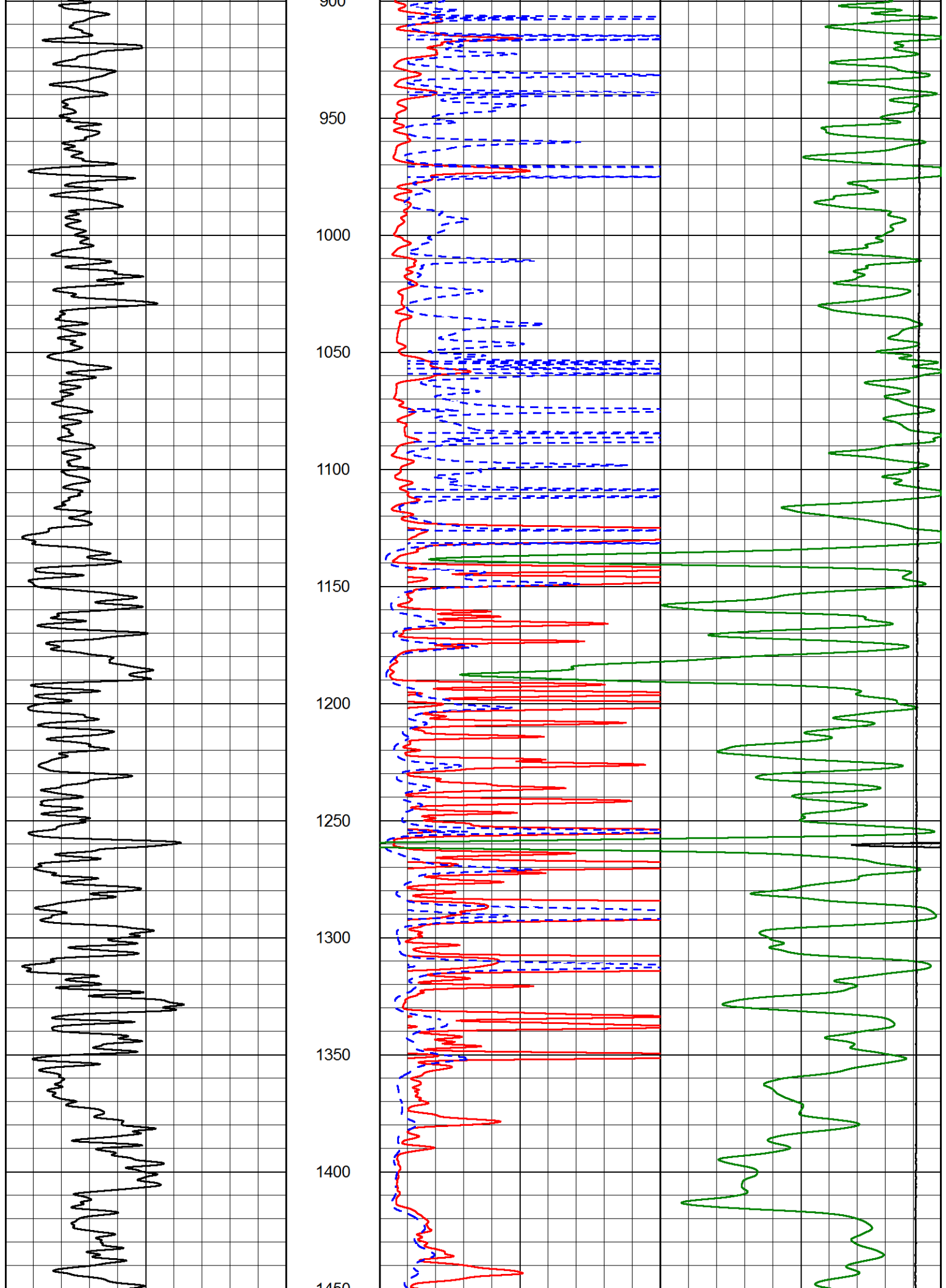
MAIN PASS

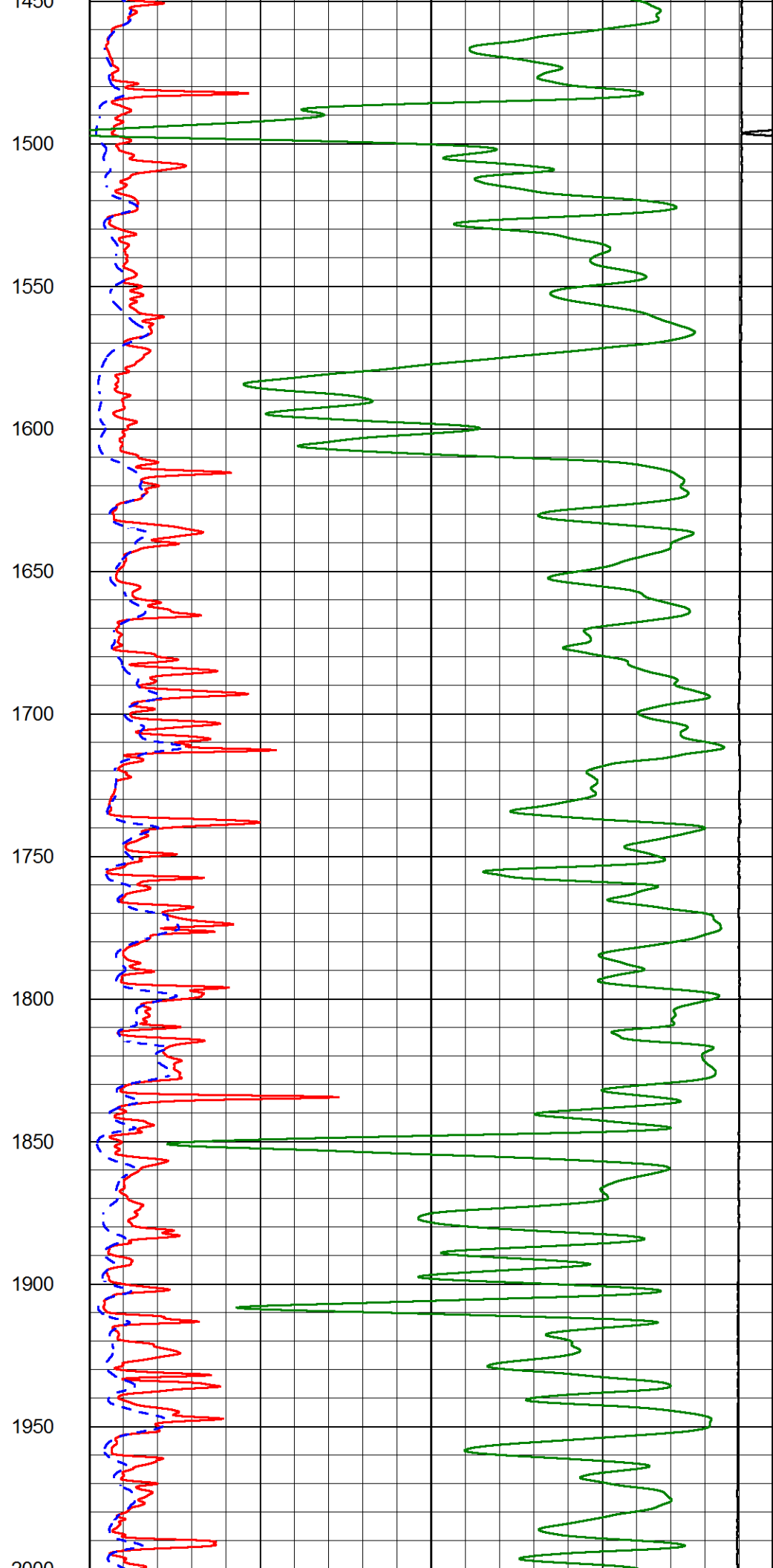
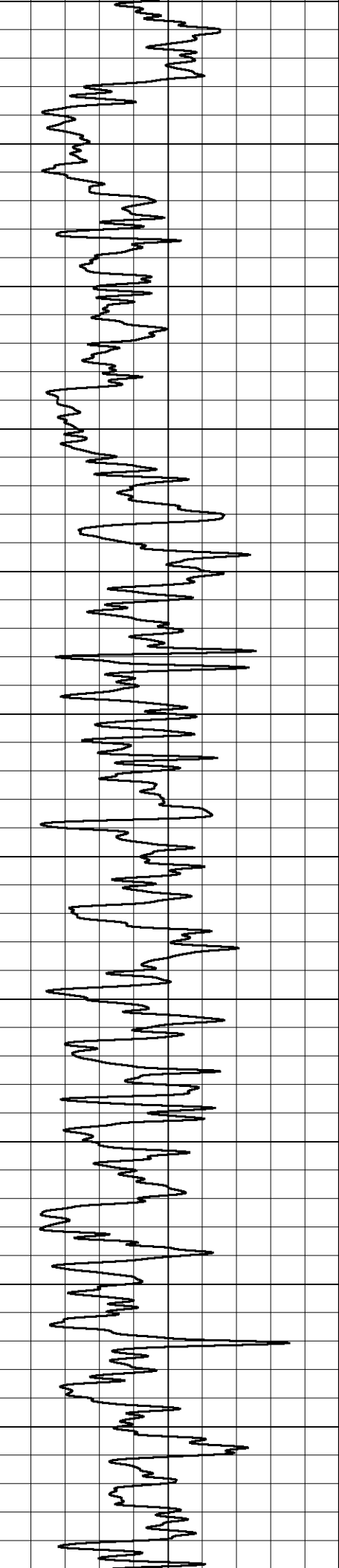
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Dataset Pathname STKML/pass6.1
Presentation Format _dil2in
Dataset Creation Tue Mar 09 07:26:29 2021
Charted by Depth in Feet scaled 1:600

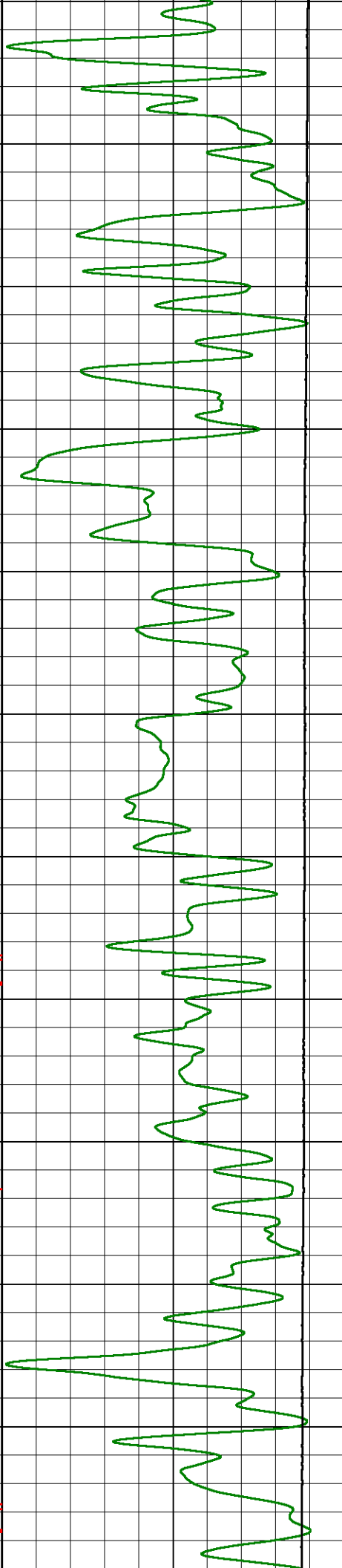
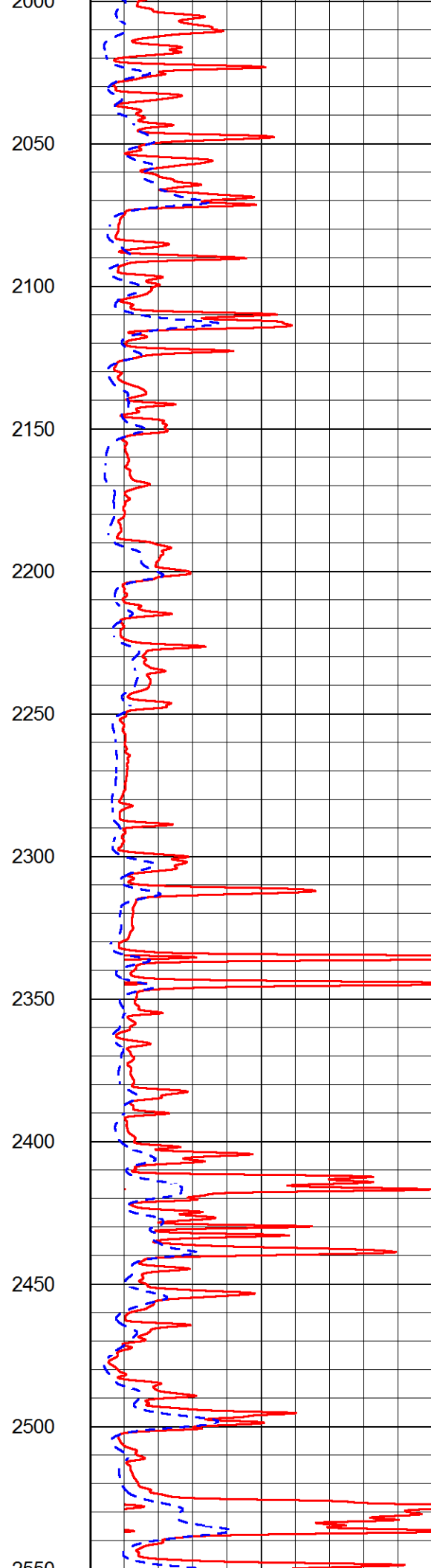
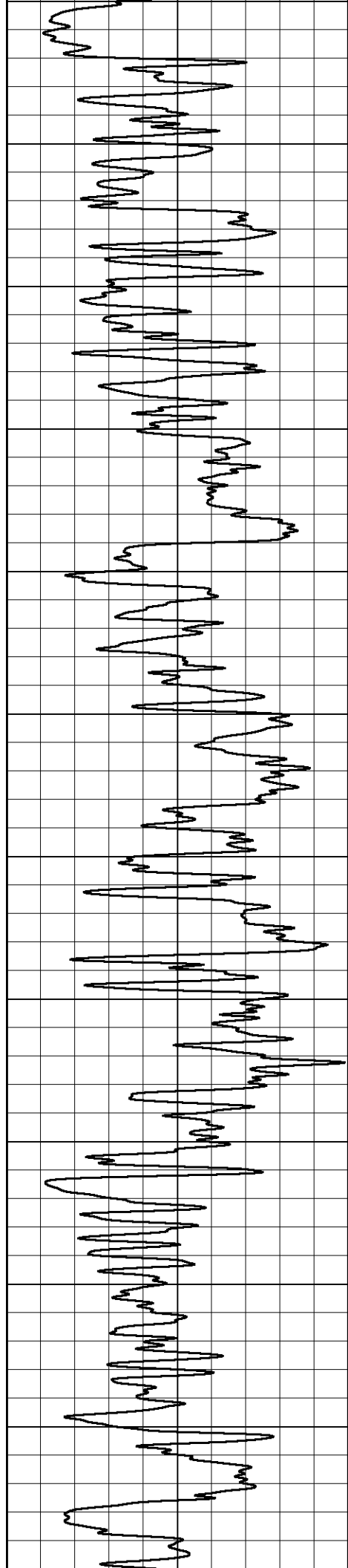
GAMMA RAY		1000	CONDUCTIVITY (mmho/m)	0
		15000	Line Tension (lb)	0
0	(GAPI)	150	0	RLL3 (Ohm-m) 50
			0	RILD (Ohm-m) 50
			50	RLL3 (Ohm-m) 200
			50	Deep Resistivity (Ohm-m) 200

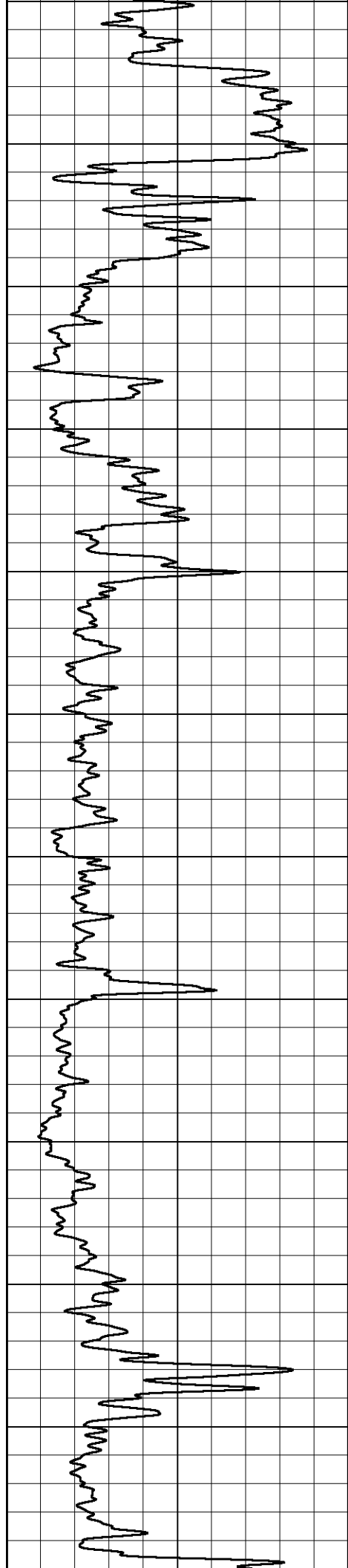




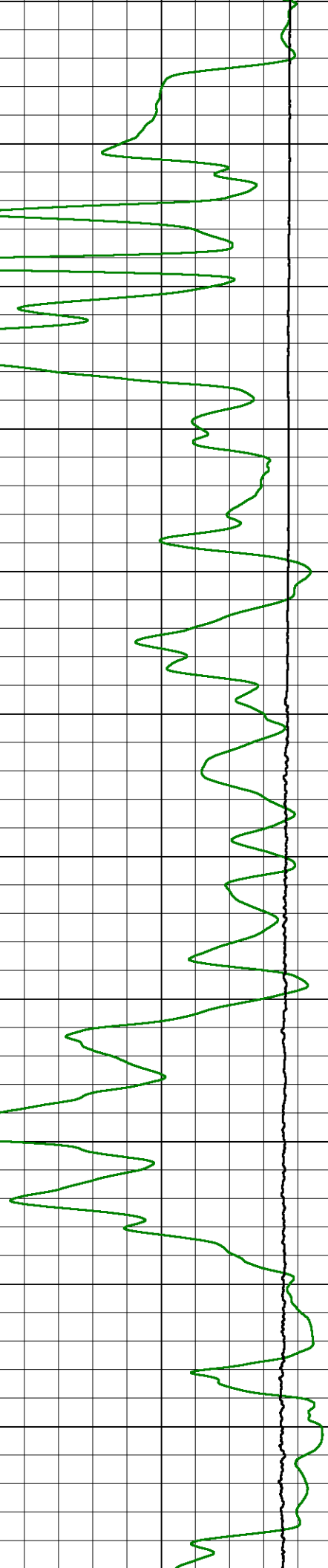
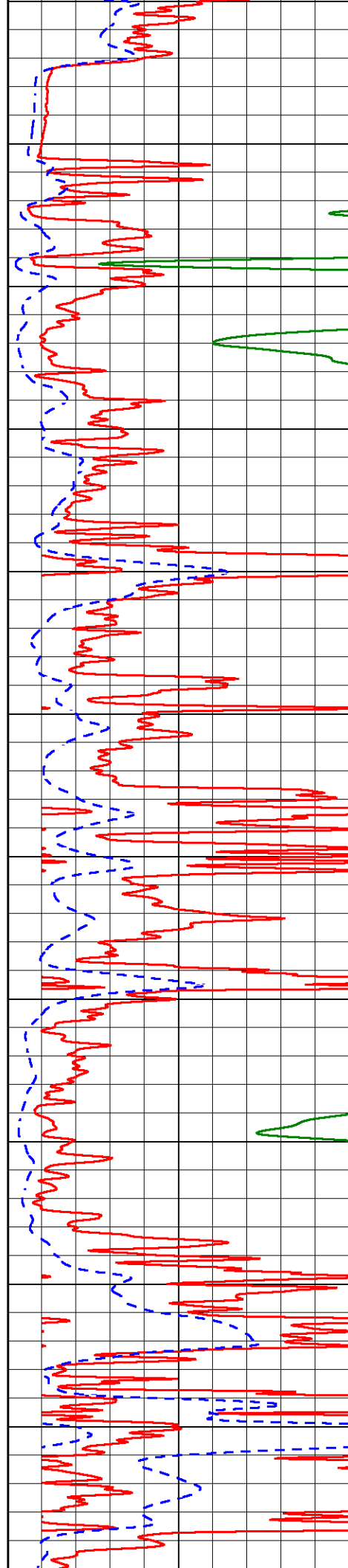


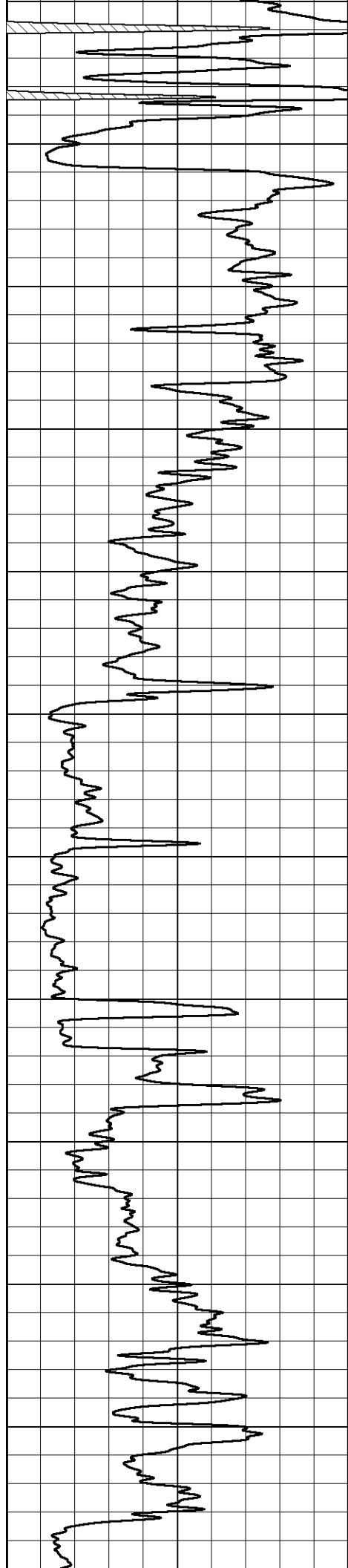




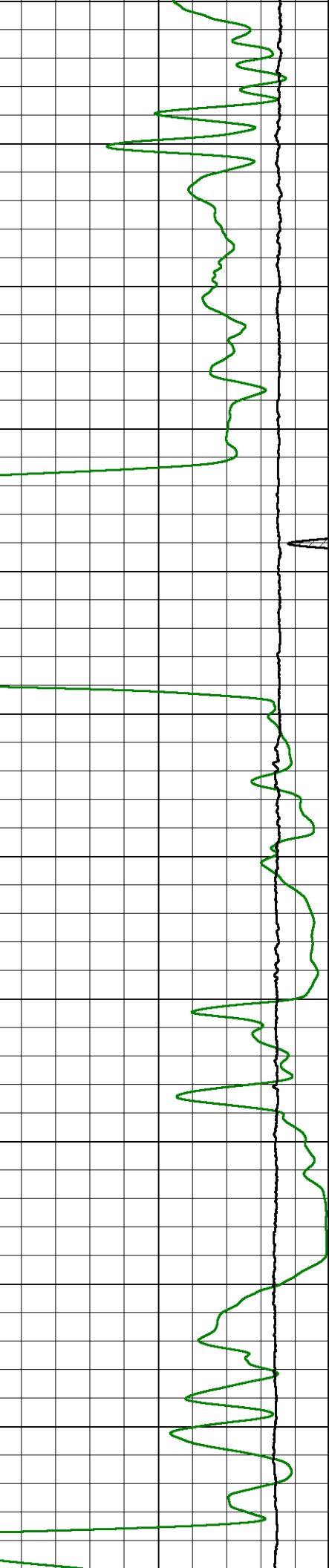
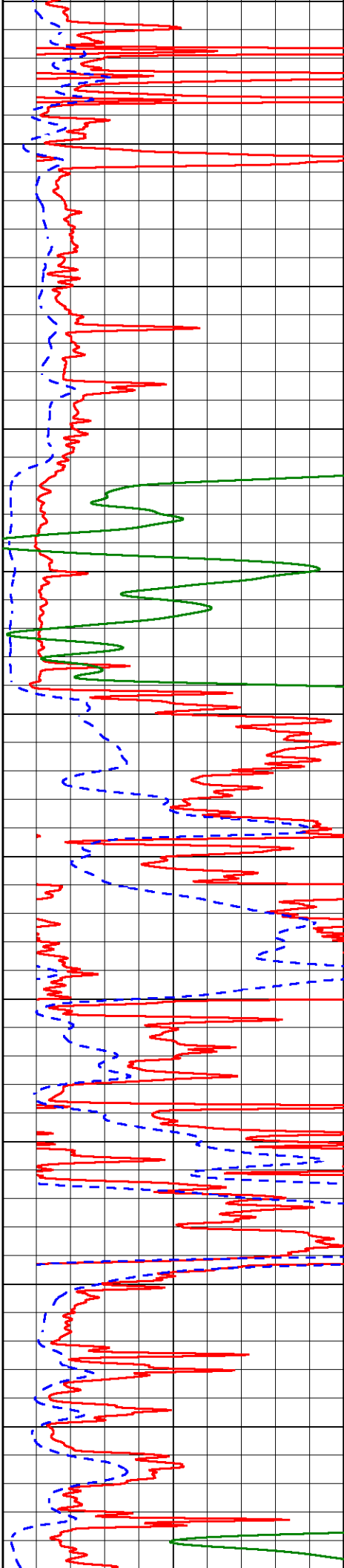


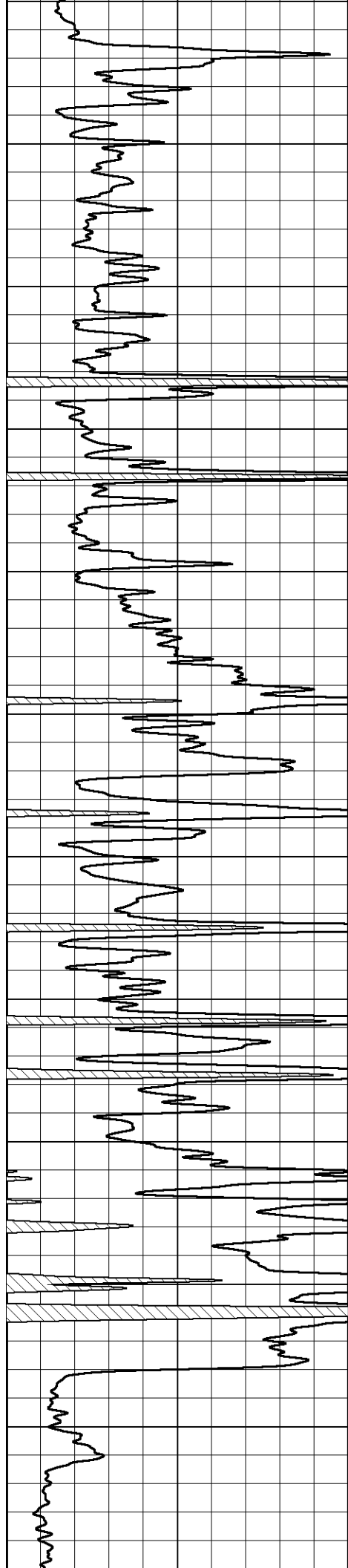
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2950
3000
3050
3100



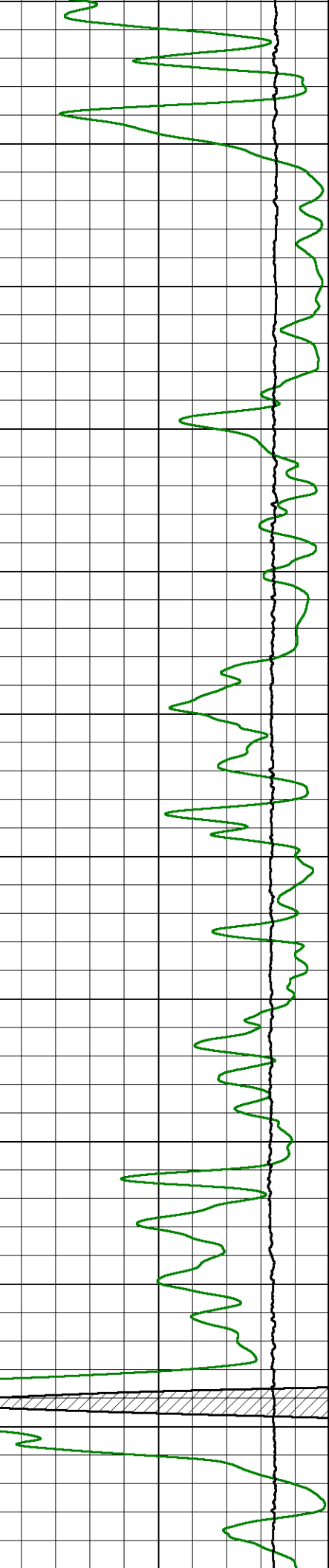
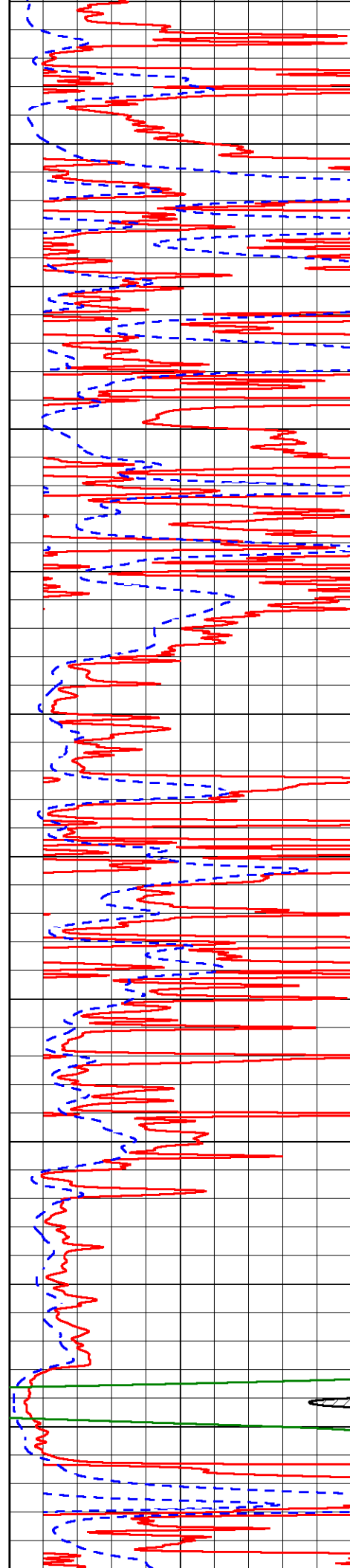


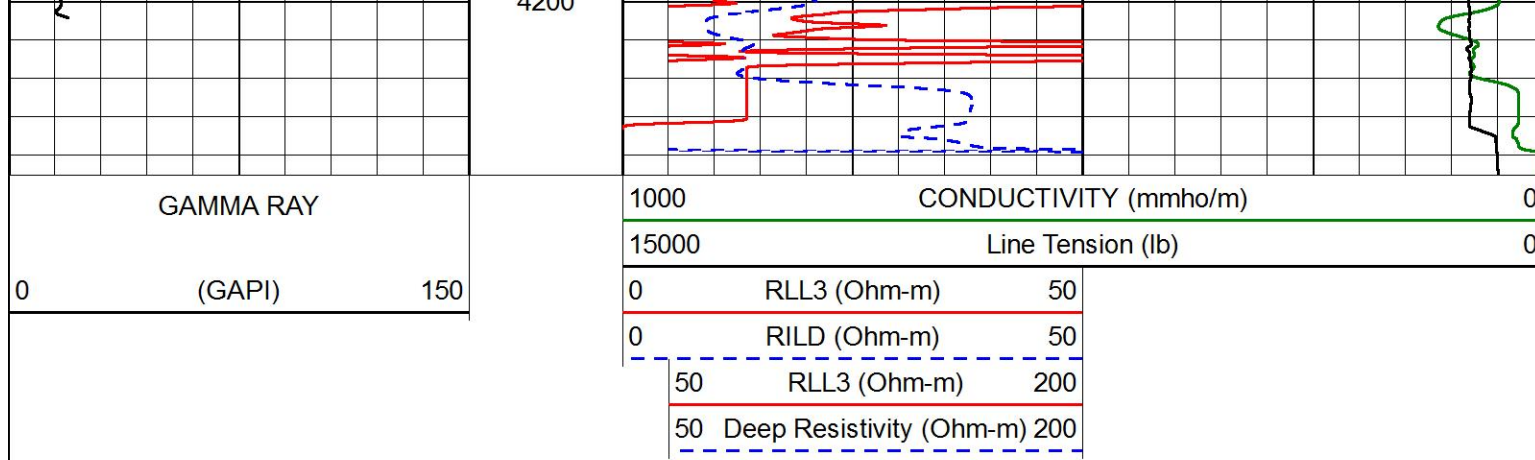
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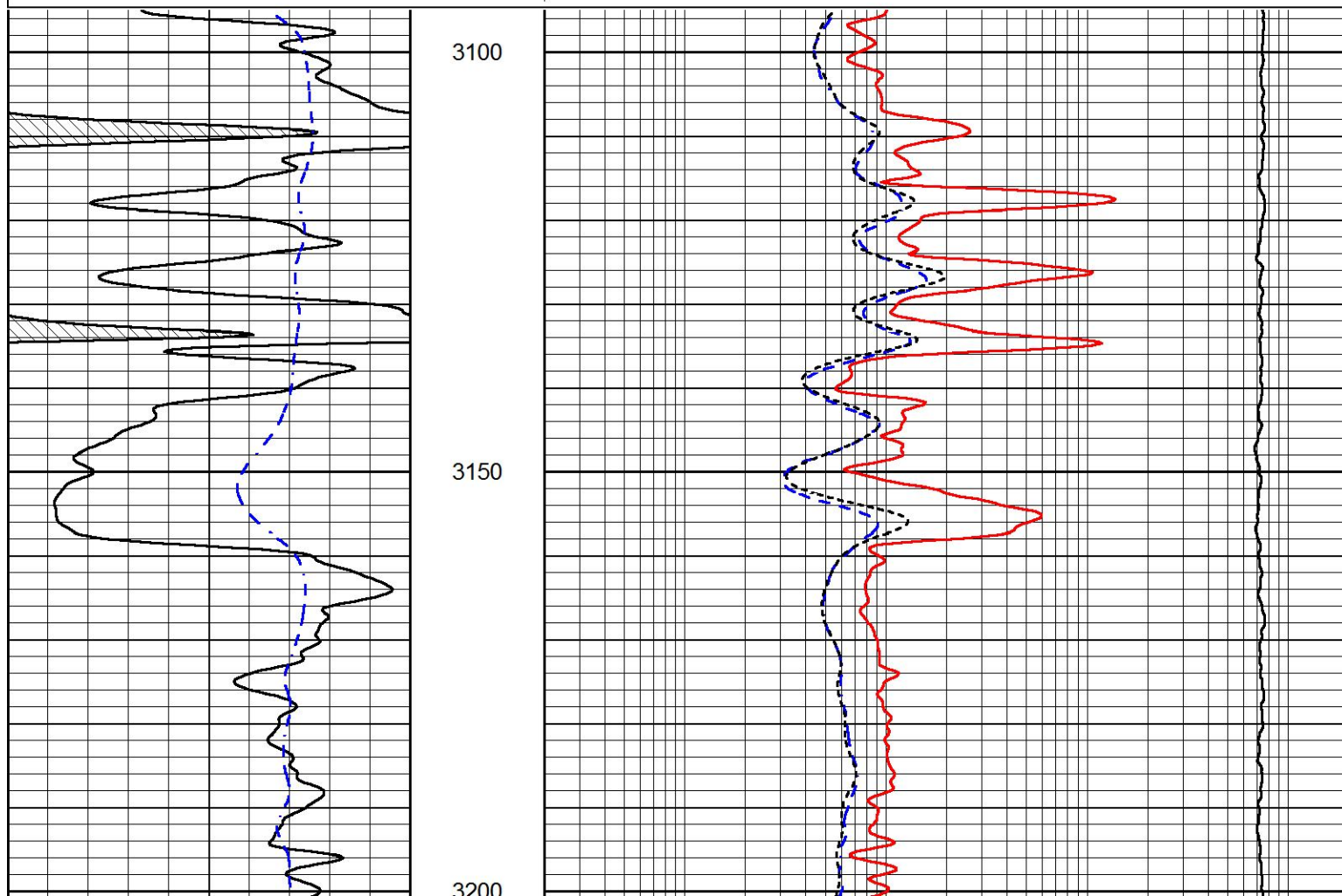


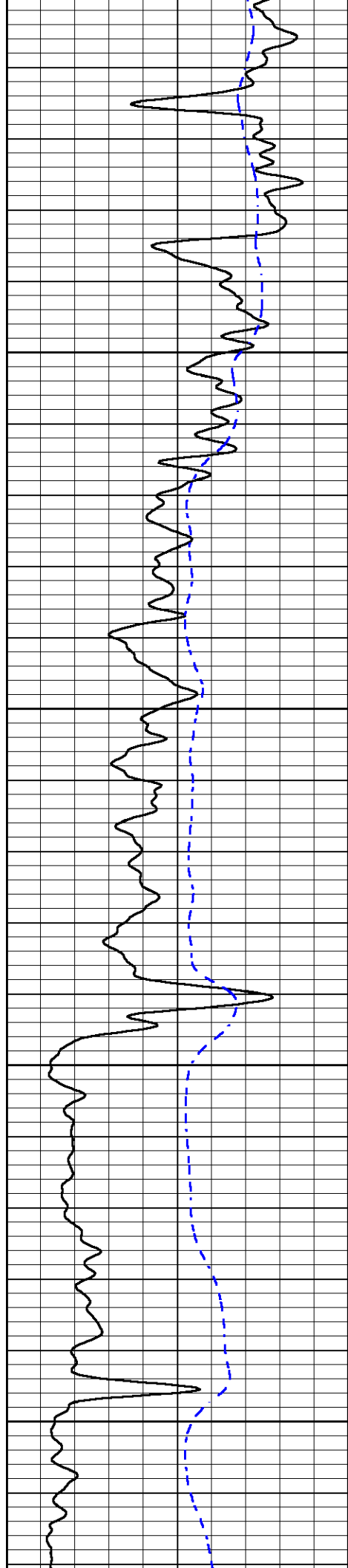
MIDWEST WIRELINE

MAIN PASS

Database File mtm_leslie 2.db
 Dataset Pathname STKML/pass5.1
 Presentation Format _dil
 Dataset Creation Tue Mar 09 07:26:10 2021
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	0.2	DEEP RESISTIVITY (Ohm-m)	2000
-200	SP (mV)	0	0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
			0.2	RLL3 (Ohm-m)	2000
			10000	LINE TENSION (lb)	0





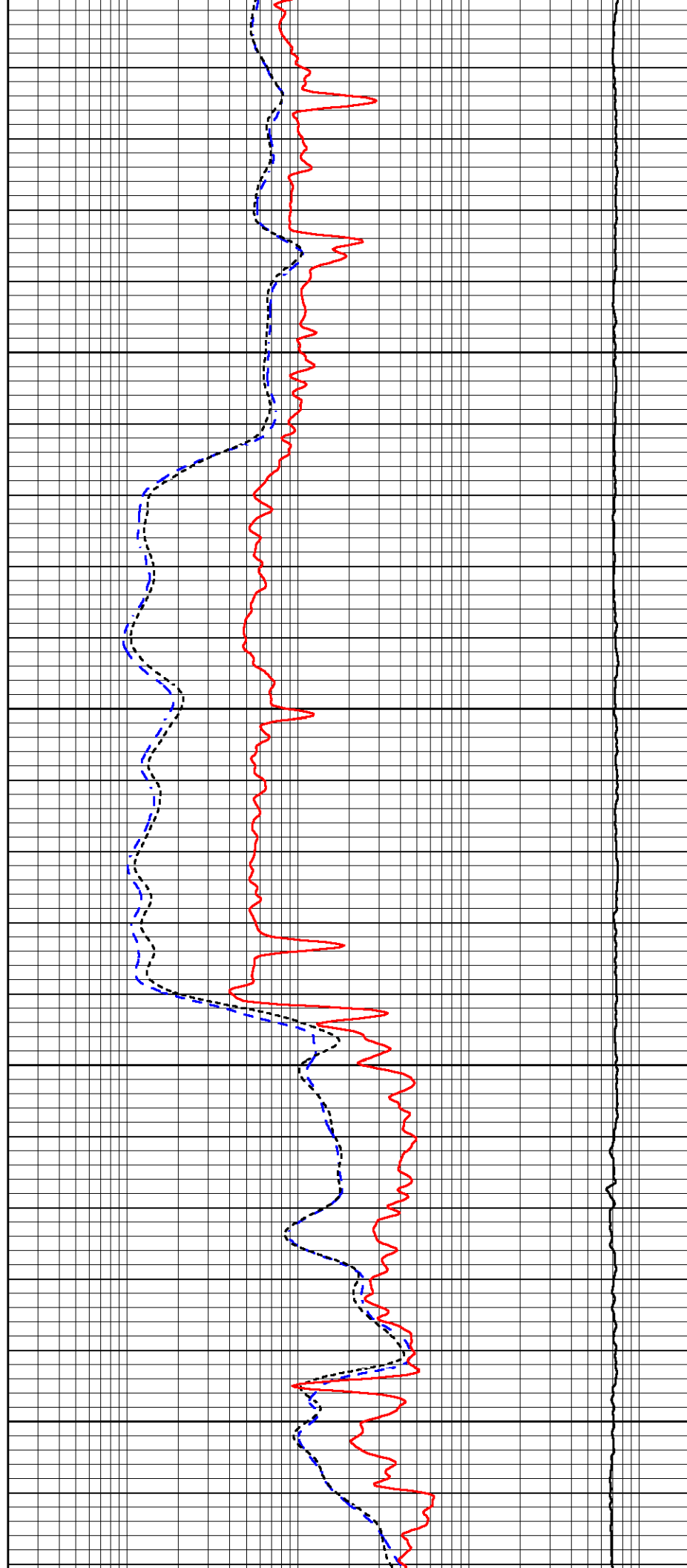
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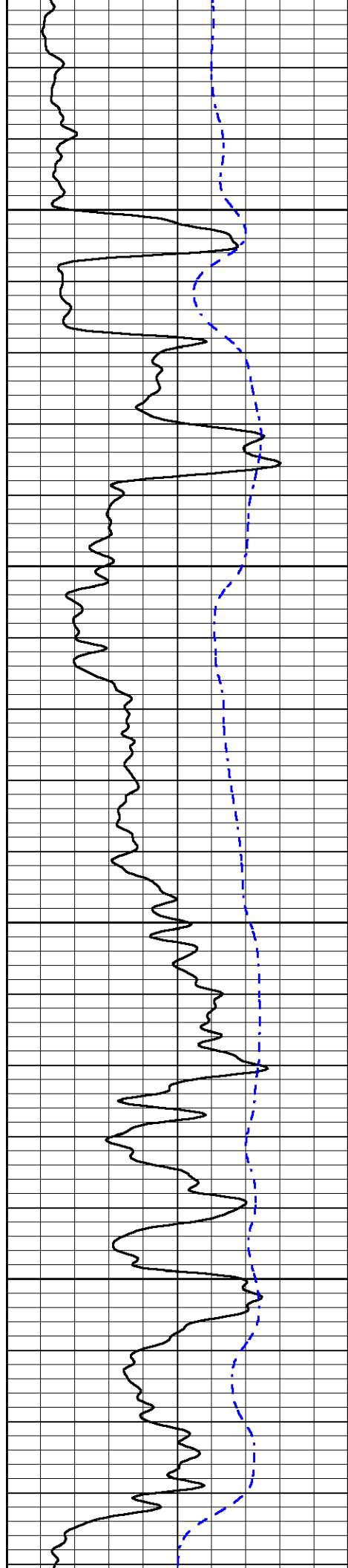
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3350

3400



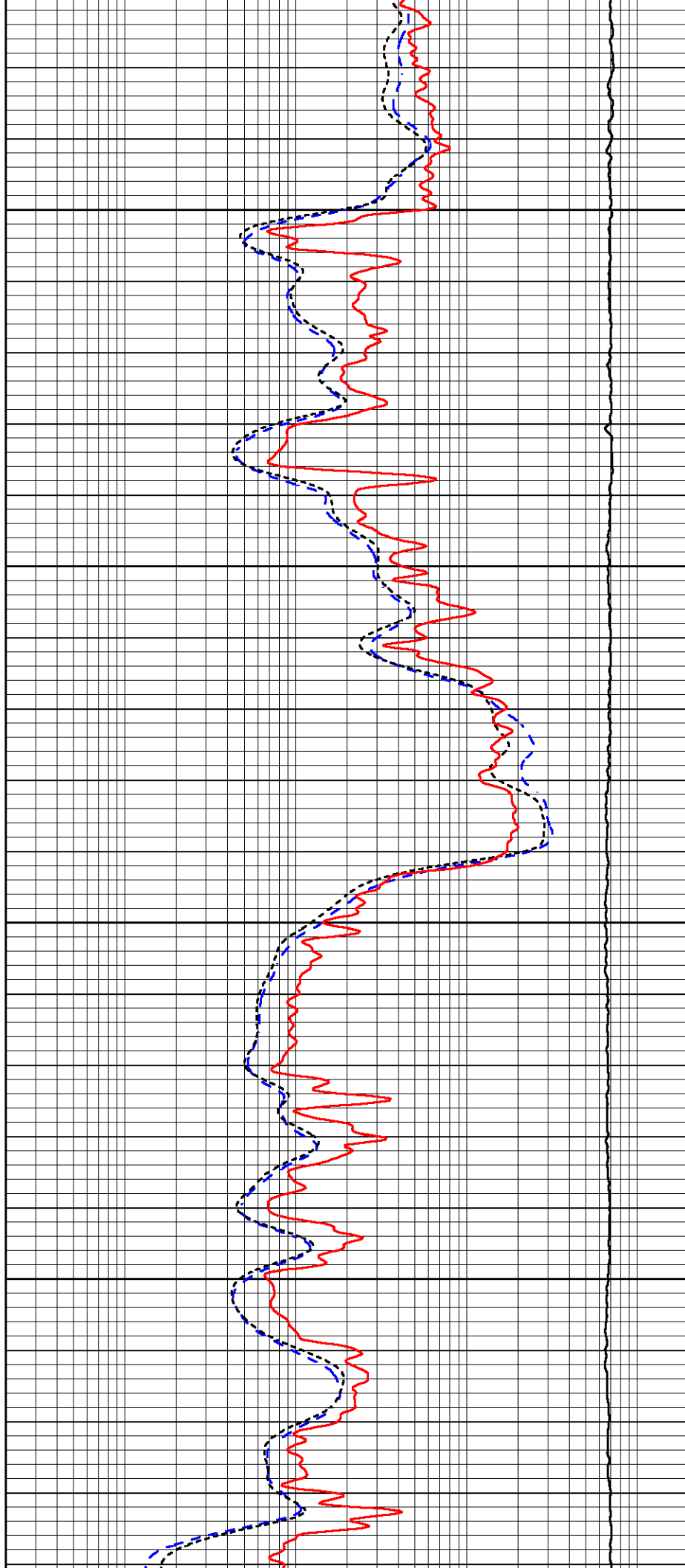


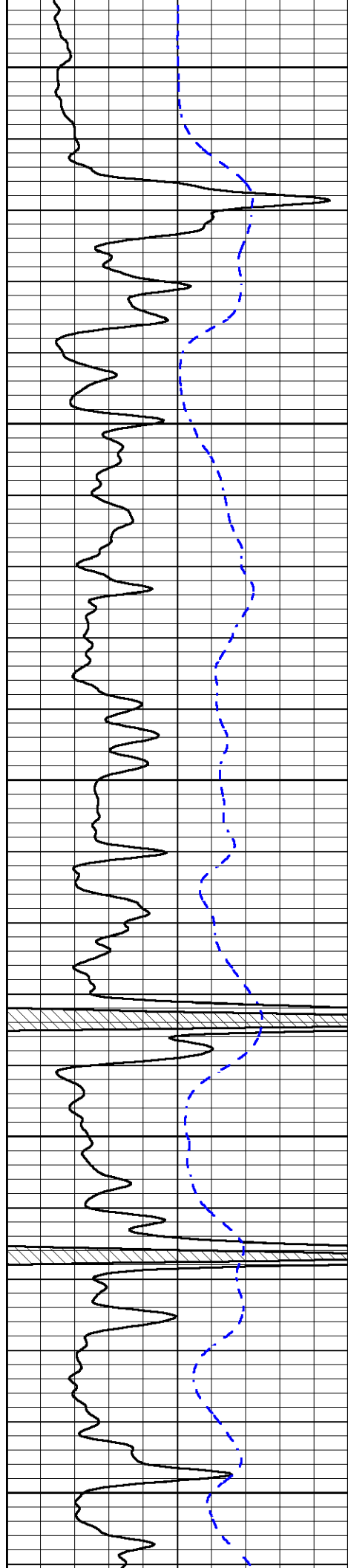
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3600





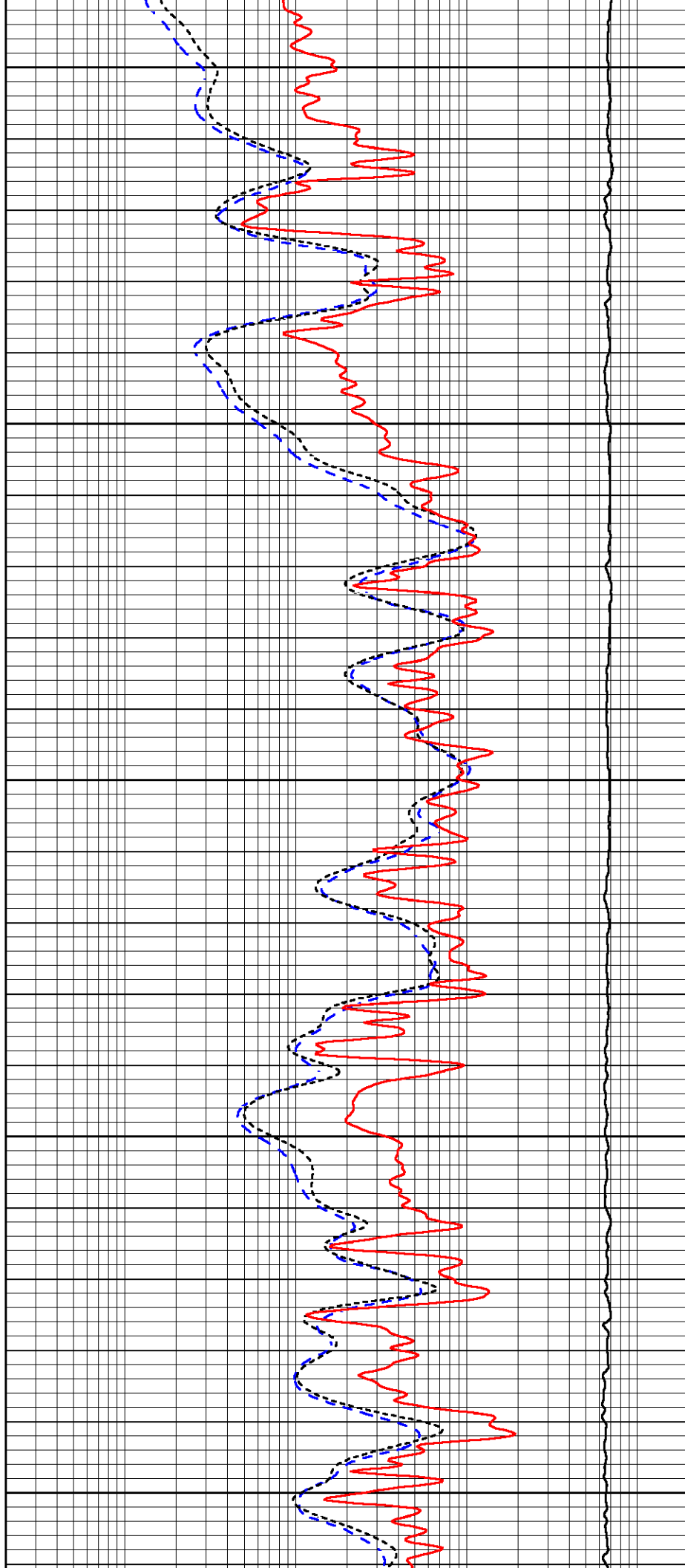
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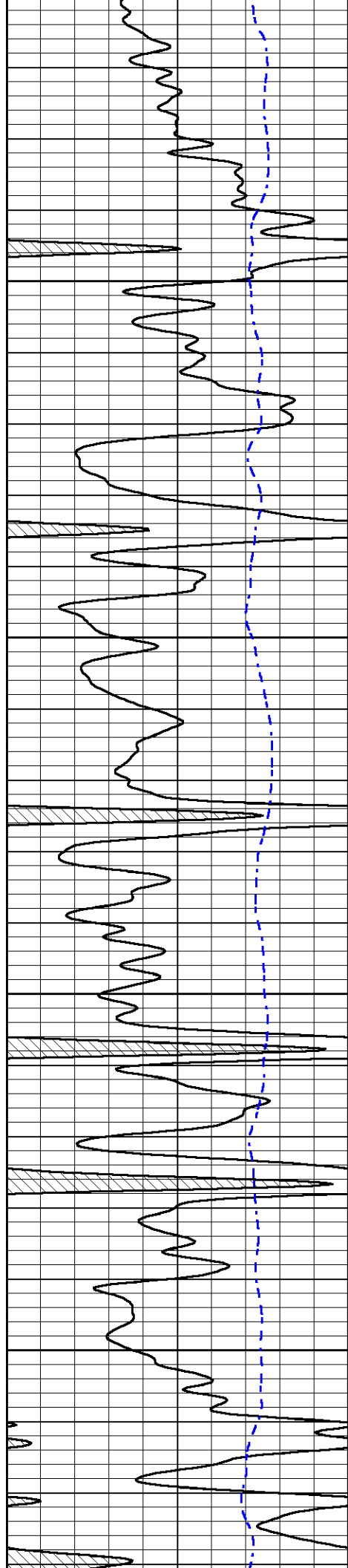
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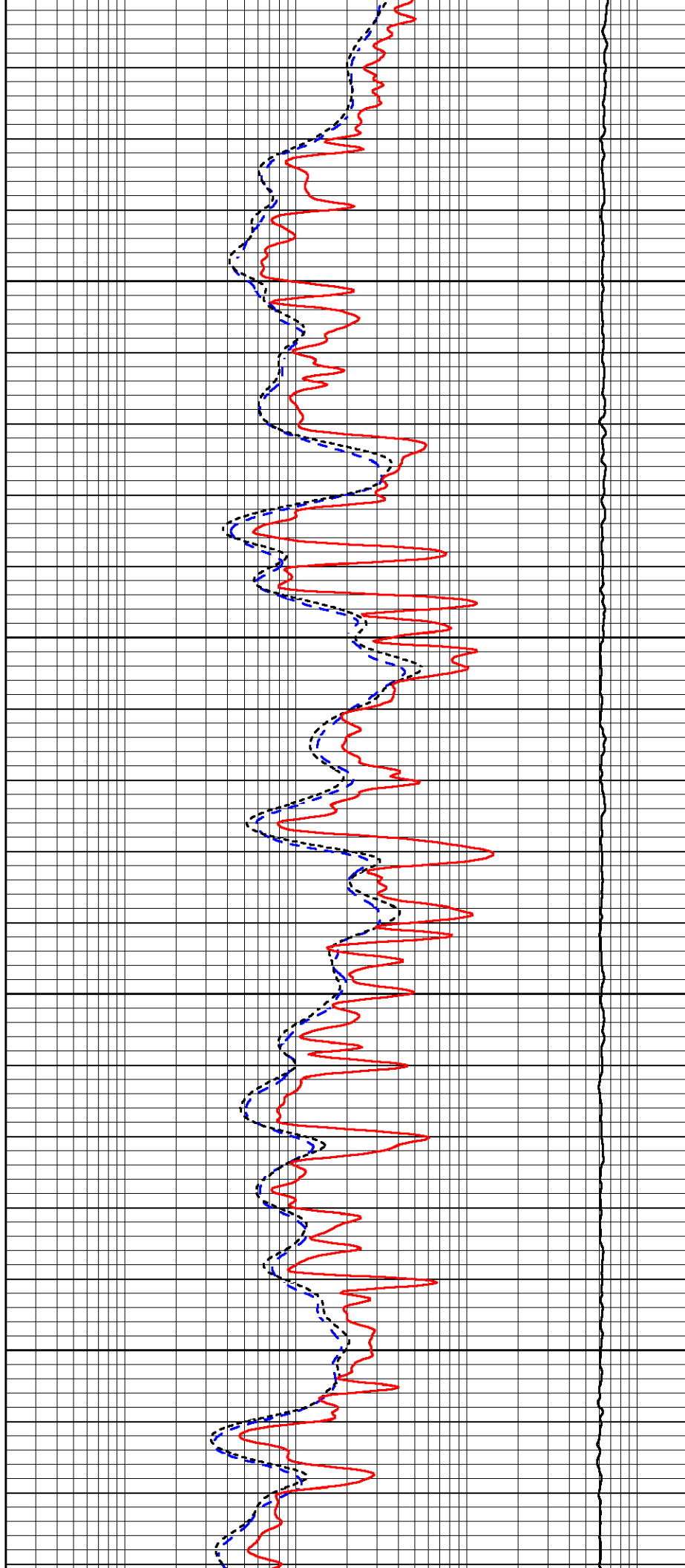


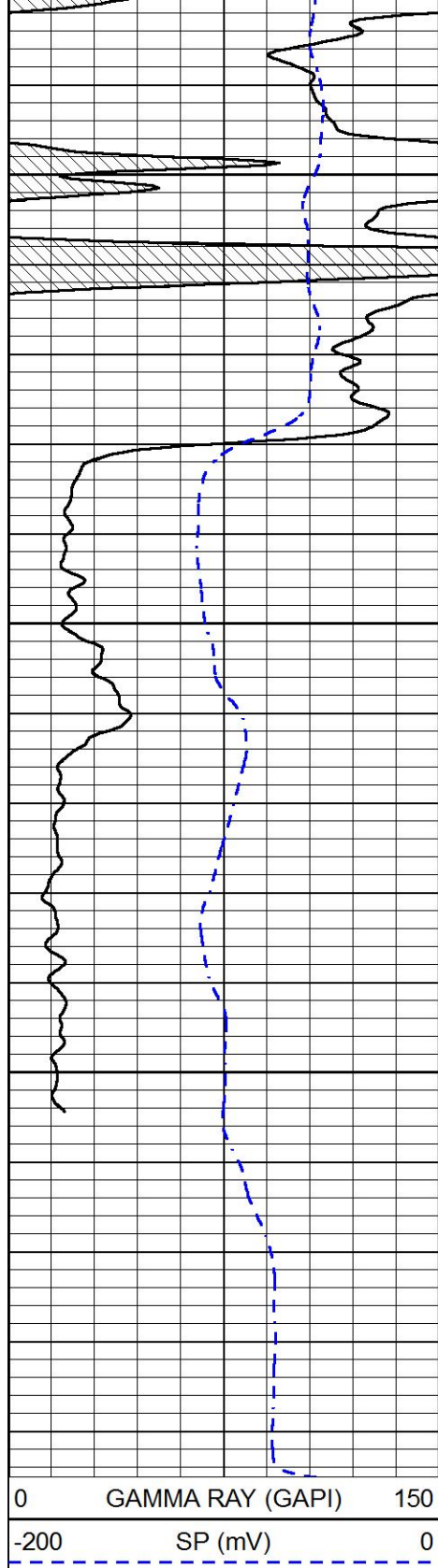
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4050

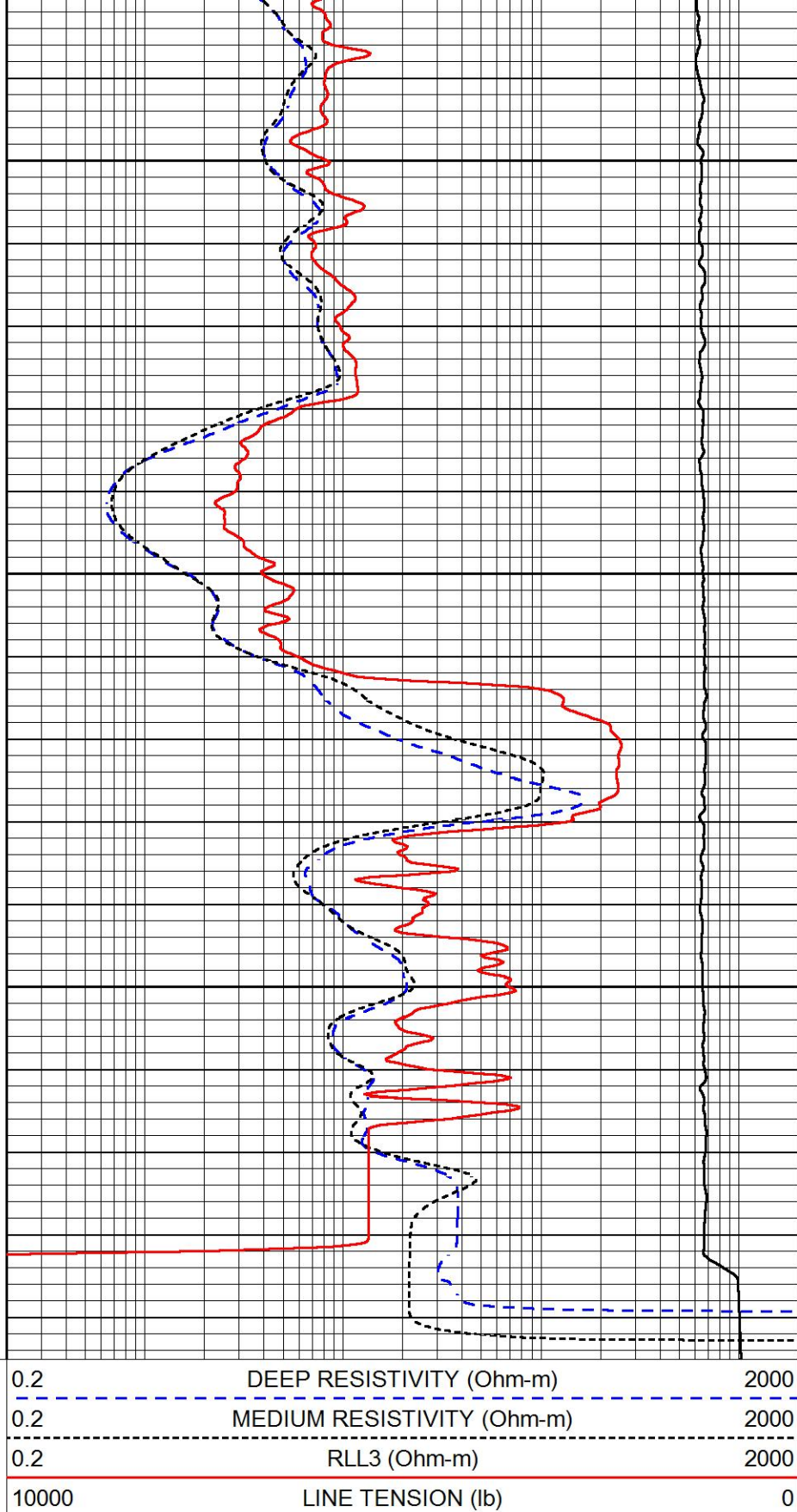




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4150

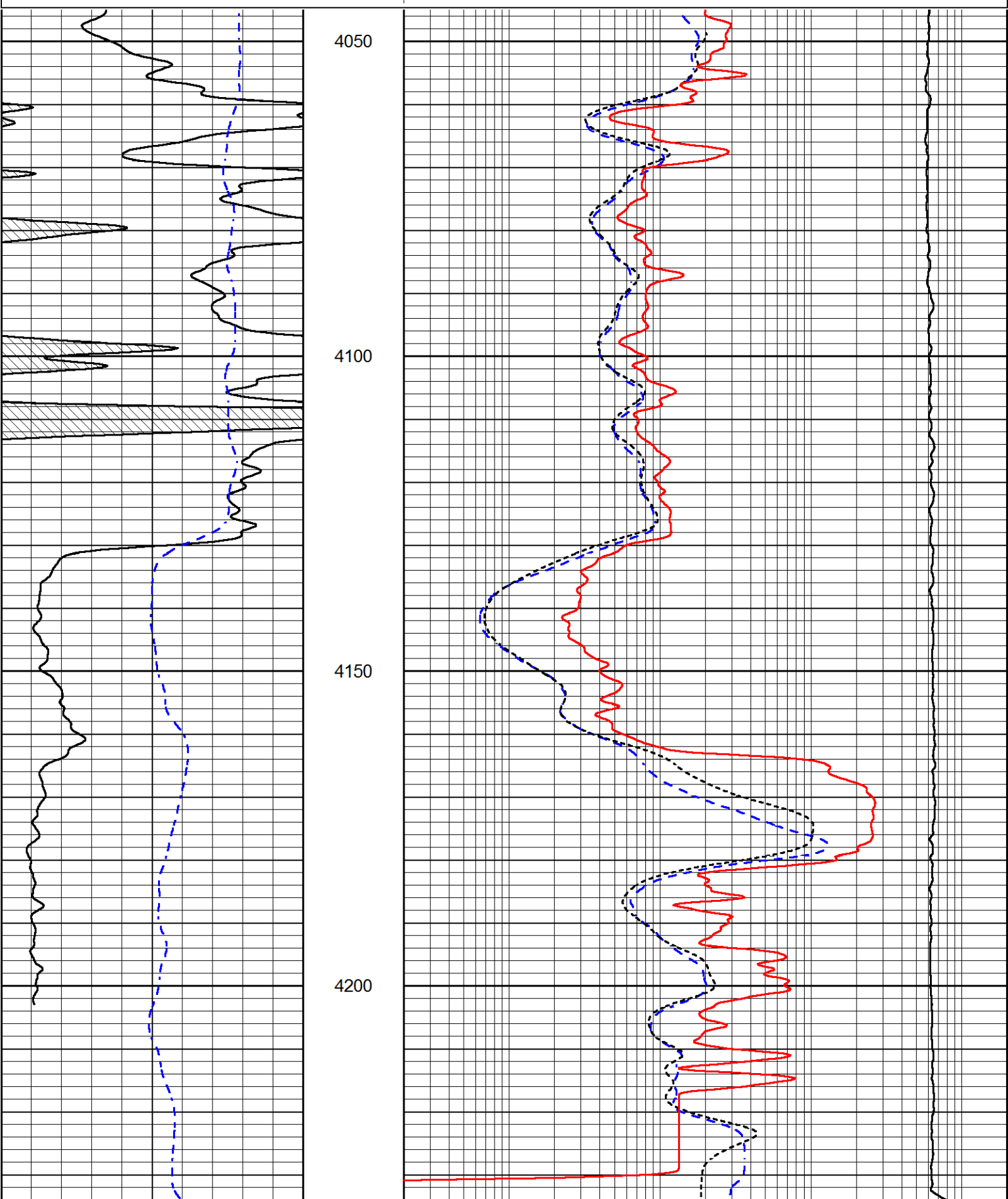
4200



REPEAT SECTION

Database File mtm_leslie 2.db
 Dataset Pathname STKML/pass3.1
 Presentation Format dil

0	GAMMA RAY (GAPI)	150	0.2	DEEP RESISTIVITY (Ohm-m)	2000
-200	SP (mV)	0	0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
			0.2	RLL3 (Ohm-m)	2000
			10000	LINE TENSION (lb)	0



0	GAMMA RAY (GAPI)	150	0.2	DEEP RESISTIVITY (Ohm-m)	2000
-200	SP (mV)	0	0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
			0.2	RLL3 (Ohm-m)	2000
			10000	LINE TENSION (lb)	0

Calibration Report	
Database File	mtm_leslie 2.db
Dataset Pathname	STKML/pass5.6
Dataset Creation	Tue Mar 09 06:47:33 2021

Dual Induction Calibration Report

Serial-Model:	952-828-PSI HIGH TEMP
Calibration Performed:	Wed Mar 03 05:24:49 2021

Readings			References			Results	
Loop:	Air	Loop	Air	Loop		Gain	Offset
Deep	167.000	835.000	0.000	255.000	mmho/m	0.455	-31.500
Medium	0.000	1348.000	142.000	255.000	mmho/m	0.325	-30.000

Microlog Calibration Report

Serial-Model:	PSI-01-PSIML
Performed:	Wed Mar 03 05:24:59 2021

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	19000.0000	-1.0000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	18500.0000	-0.3000
Caliper	1.0033	1.0841	5.0000	16.5000	in	142.3500	-138.6000

Compensated Density Calibration Report
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Serial-Model:	817-947-M&W
Source / Verifier:	16955B / 2ci
Master Calibration Performed:	Wed Mar 03 05:25:05 2021

Master Calibration					
Density			Far Detector	Near Detector	
Magnesium	1.755	g/cc	6127.15	5922.31	cps
Aluminum	2.670	g/cc	1141.85	3762.09	cps
Spine Angle = 74.89			Density/Spine Ratio = 0.526		
Size			Reading		
Small Ring	4.50	in	1.02		
Large Ring	14.50	in	1.23		

Compensated Neutron Calibration Report

Serial Number:	207-MW
Tool Model:	M&W
Calibration Performed:	WED MAR 3 7:30:30 2021

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:	233-M&W	
Tool Model:	M&W	
Calibration Performed:	Wed Mar 03 05:25:33 2021	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.5500	GAPI/cps