



DUAL INDUCTION LOG

MIDWEST WIRELINE

Company Canyon Operating, LLC		Company Canyon Operating, LLC	
Well	Rush Trust #17-1	Well	Rush Trust #17-1
Field	High Hill	Field	High Hill
County	Graham	County	Graham
State	Kansas	State	Kansas
Location: API #: 15-065-24205-00-00		Other Services	
SEC 17 TWP 10S RGE 24W		CNL/CDL MEL/BHCS	
Permanent Datum	Ground Level	Elevation	2467
Log Measured From	Kelly Bushing	K.B.	2474
Drilling Measured From	Kelly Bushing	D.F.	
		G.L.	2467
Date	5/25/2022		
Run Number	One		
Depth Driller	4120		
Depth Logger	4122		
Bottom Logged Interval	4121		
Top Log Interval	200		
Casing Driller	8.625 @ 221		
Casing Logger	217		
Bit Size	7.875		
Type Fluid in Hole	Chemical		
Salinity, ppm CL	5000		
Density / Viscosity	9.2 54		
pH / Fluid Loss	10.5 8.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.40 @ 70		
Rmt @ Meas. Temp	0.30 @ 70		
Rmc @ Meas. Temp	0.54 @ 70		
Source of Rmt / Rmc	CHARTS		
Rm @ BHT	0.24 @ 117		
Operating Rig Time	4 Hours		
Max Rec. Temp. F	117		
Equipment Number	P-108		
Location	HAYS		
Recorded By	D. Schmidt		
Witnessed By	Macklin Armstrong		

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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.

St. Peter,
3 East on Cemetery Rd, 1 South, 1/2 East,
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

Engineer: D. Schmidt
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: Macklin Armstrong
Secondary Witness:
Secondary Witness:
Secondary Witness:

Log Variables

DatabaseC:\ProgramData\Warrior\Data\canyon_rush trust 17-1.db
Dataset field/well/stkml/pass3.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	117	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	570	50	Off	4122

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

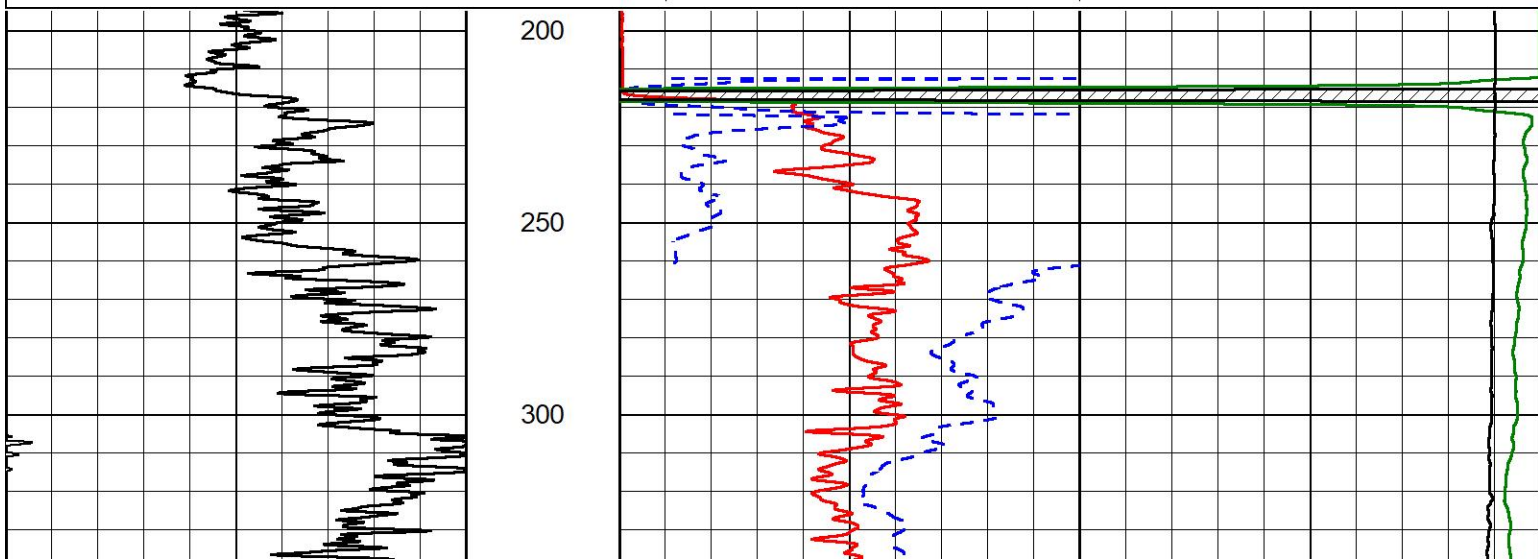


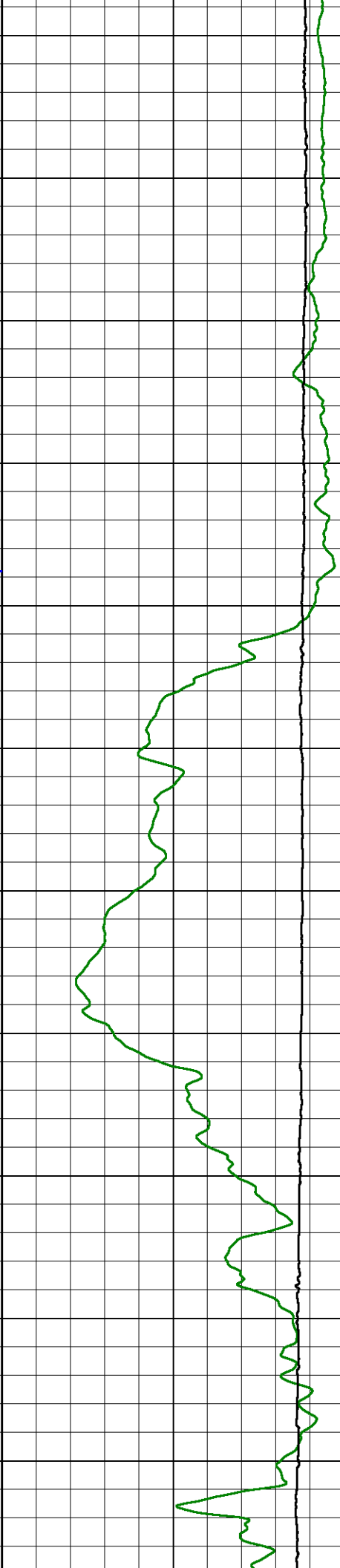
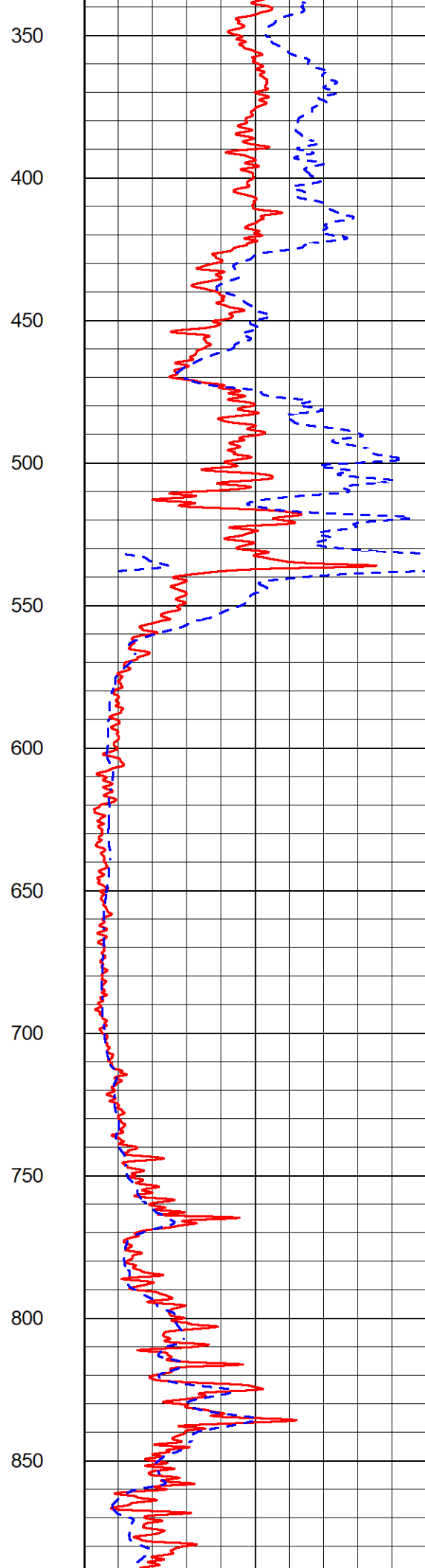
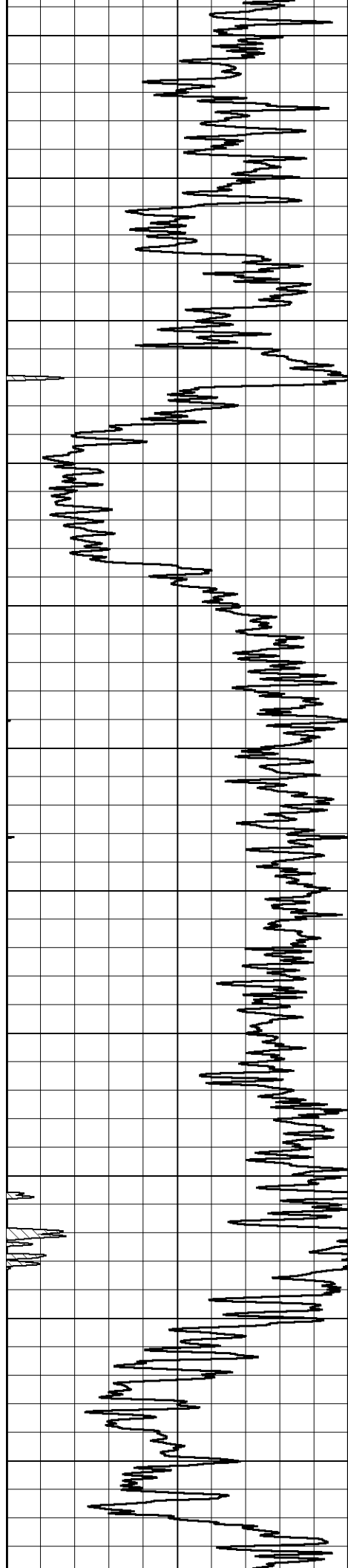
2" SCALE RESISTIVITY

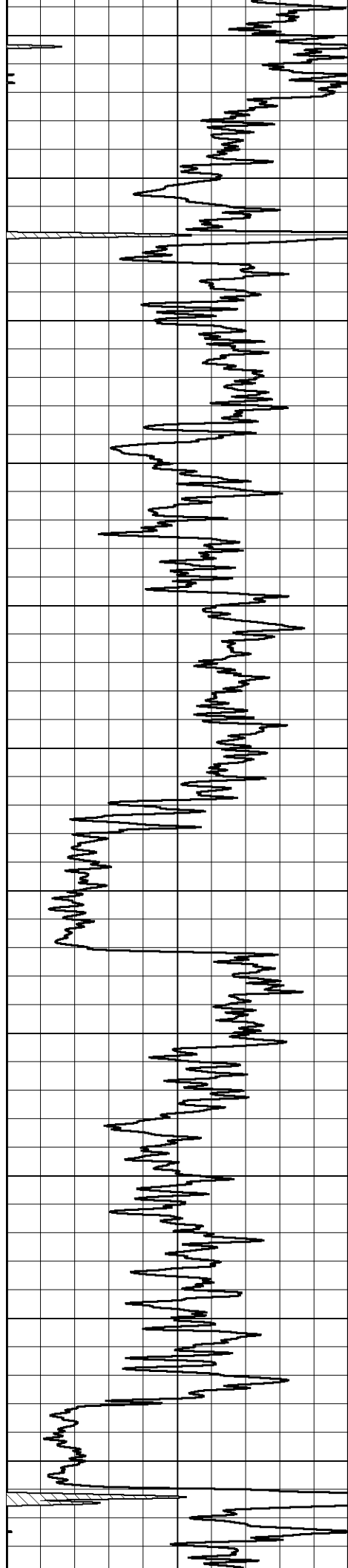
MAIN PASS

Database File canyon_rush trust 17-1.db
Dataset Pathname stkml/pass3.3
Presentation Format _dil2in
Dataset Creation Wed May 25 12:33:48 2022
Charted by Depth in Feet scaled 1:600

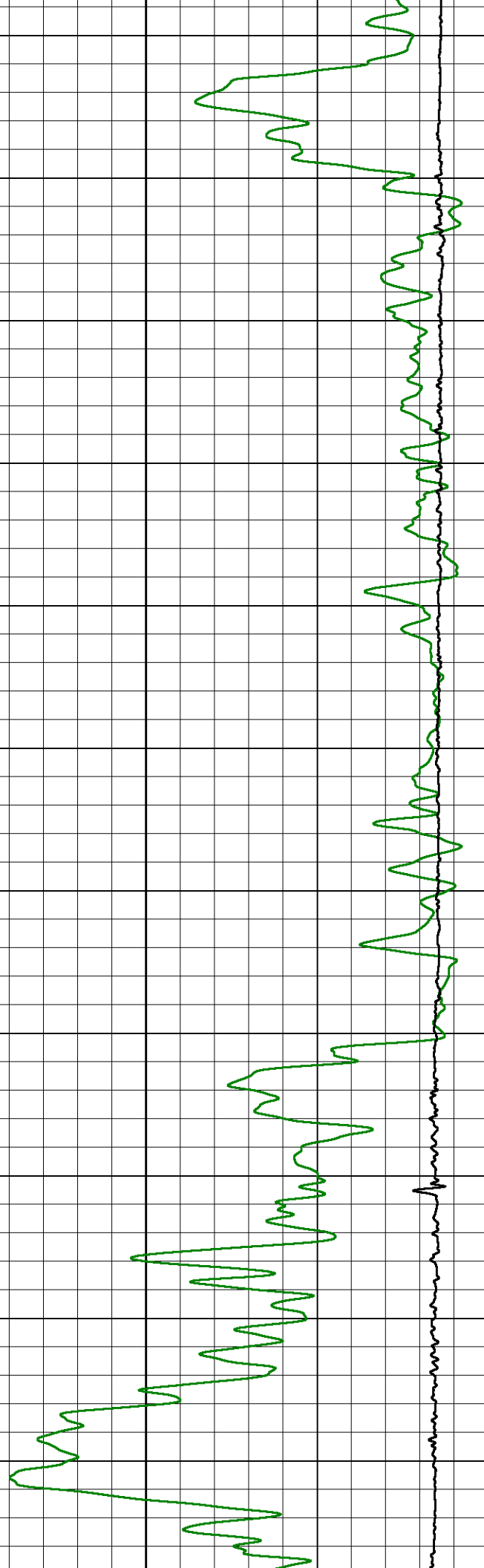
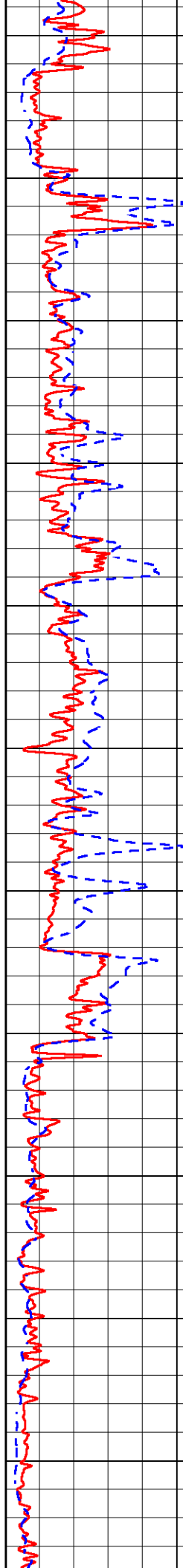
0	Gamma Ray (GAPI)	150	1000	Conductivity (mmho/m)	0
			15000	Line Tension (lb)	0
			0	Shallow Resistivity (Ohm-m)	50
			0	Deep Resistivity (Ohm-m)	50
				Shallow Resistivity	
			50	(Ohm-m)	200
			50	Deep Resistivity (Ohm-m)	200

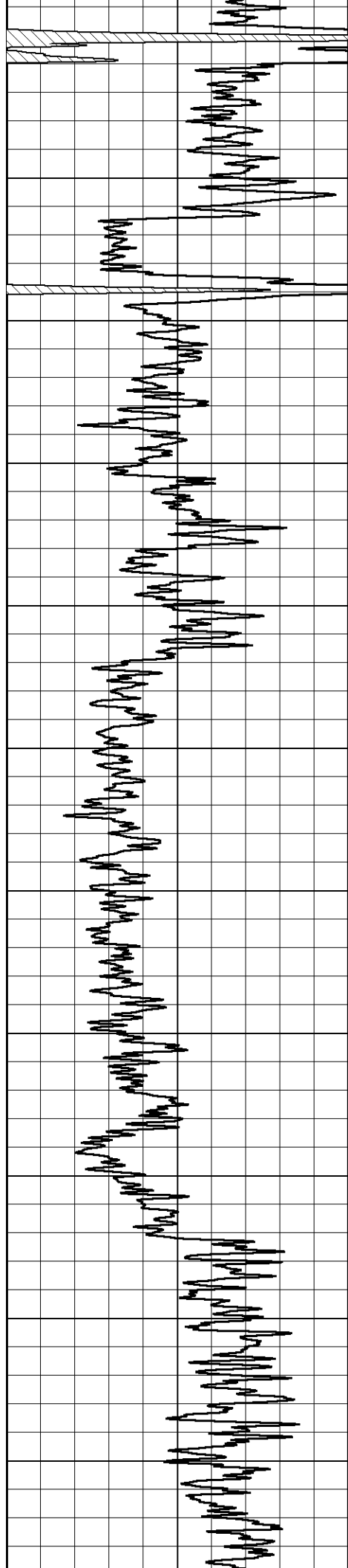






900
950
1000
1050
1100
1150
1200
1250
1300
1350
1400





1450

1500

1550

1600

1650

1700

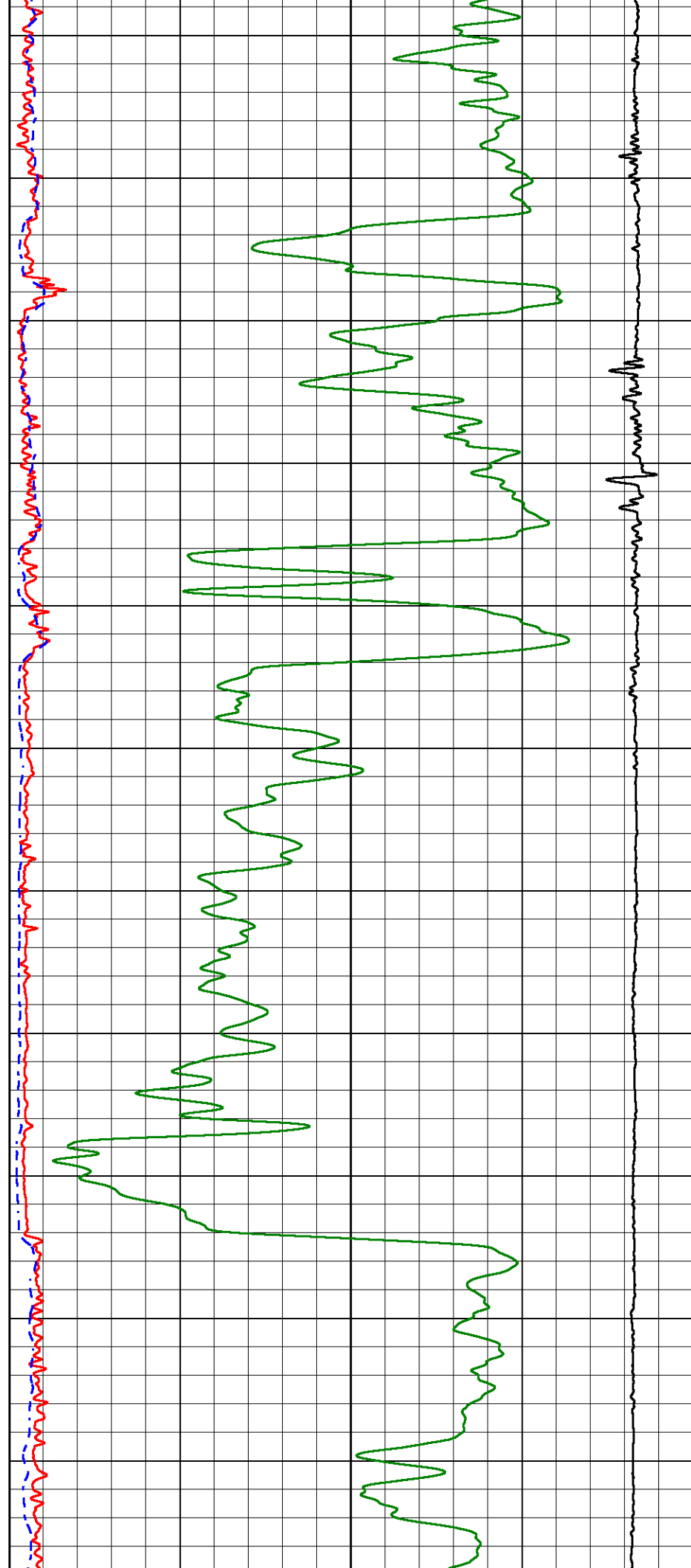
1750

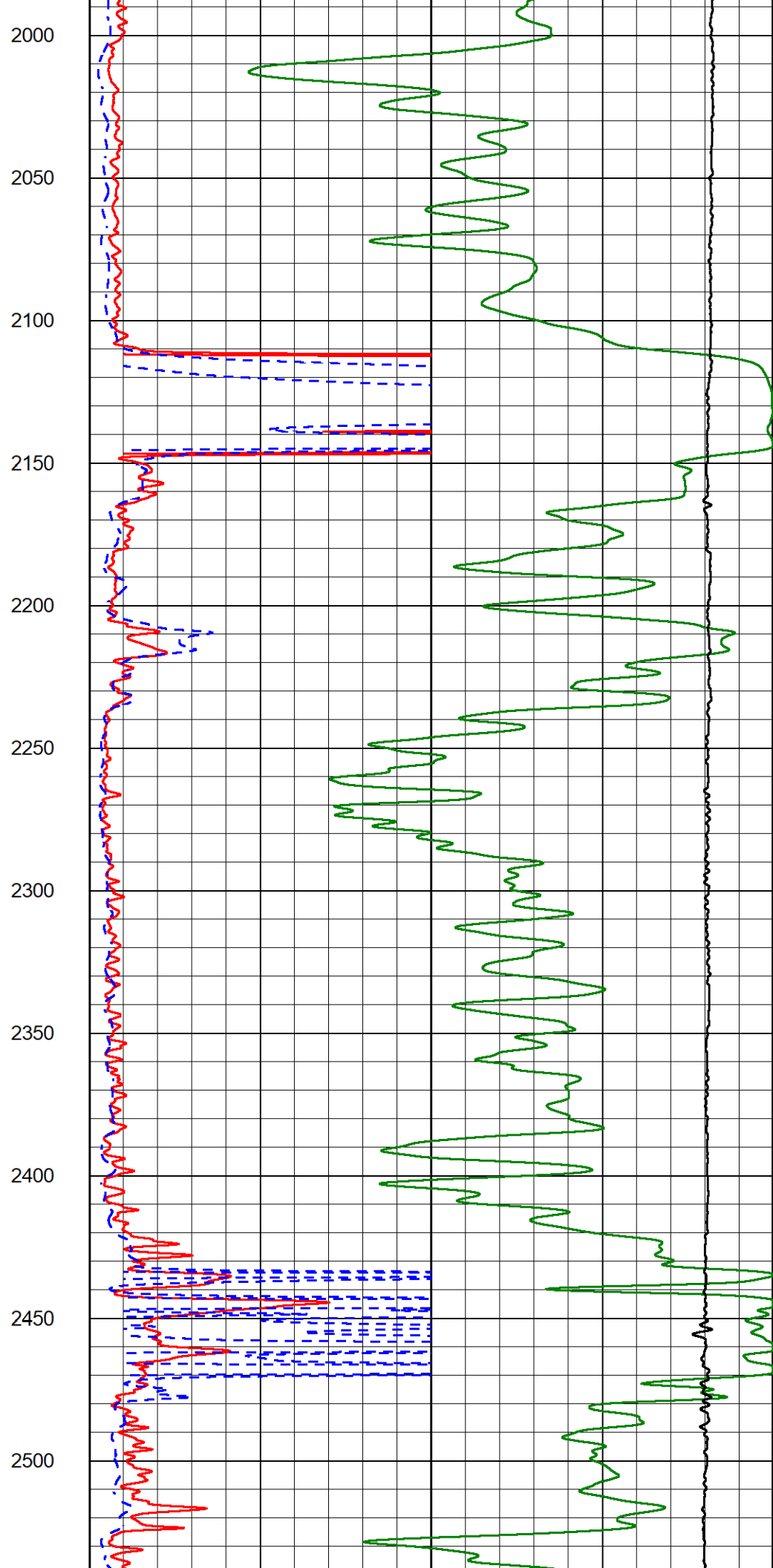
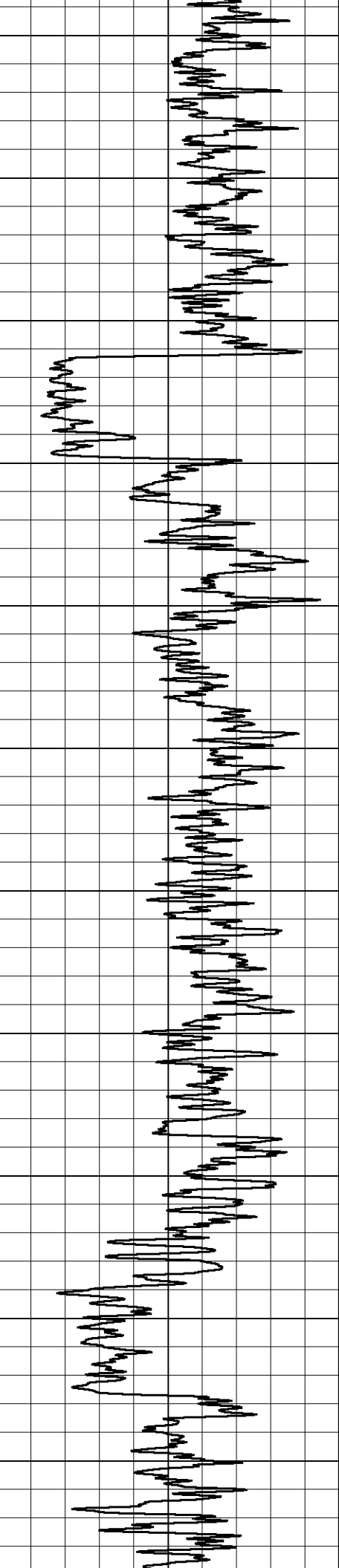
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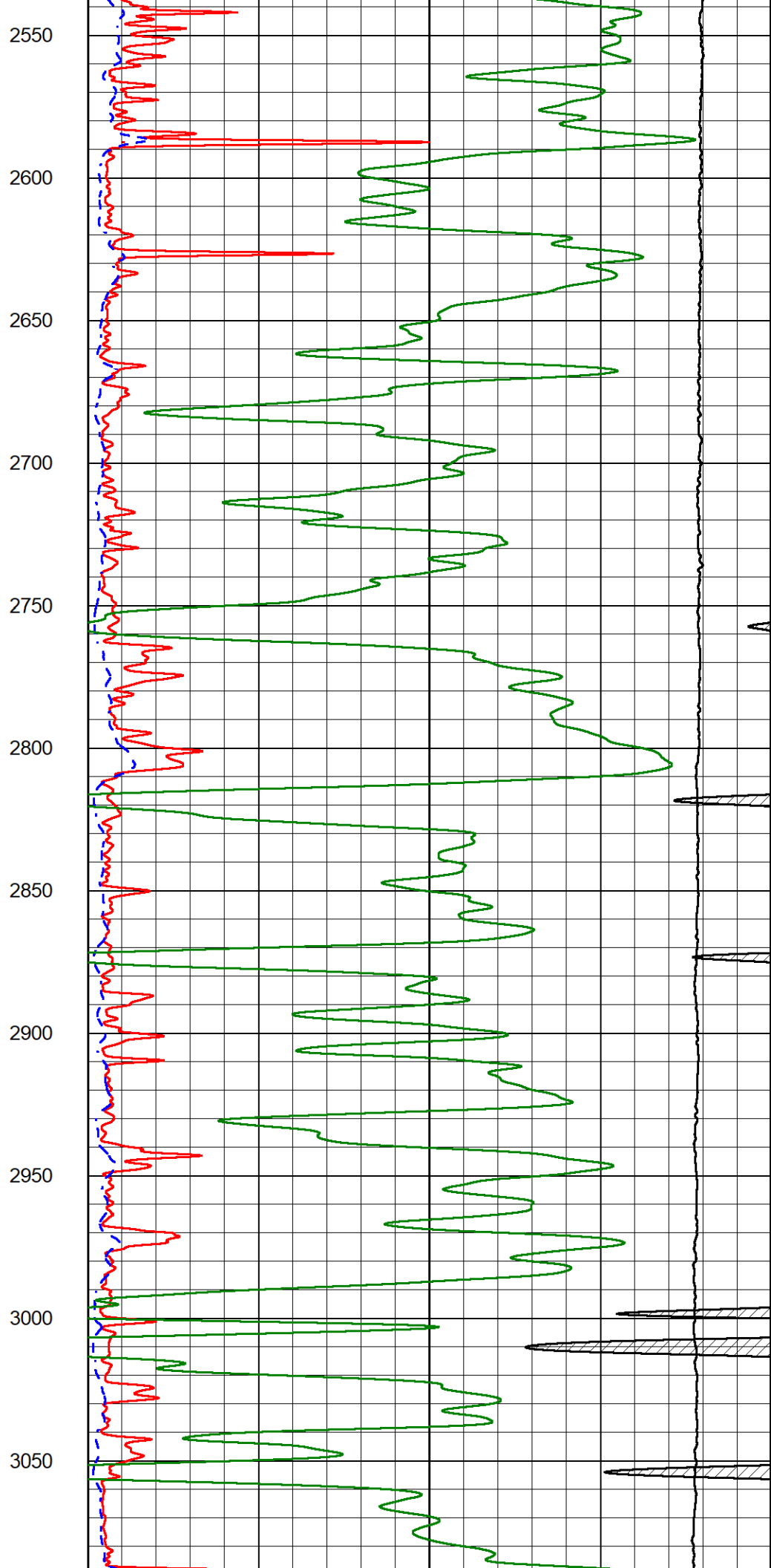
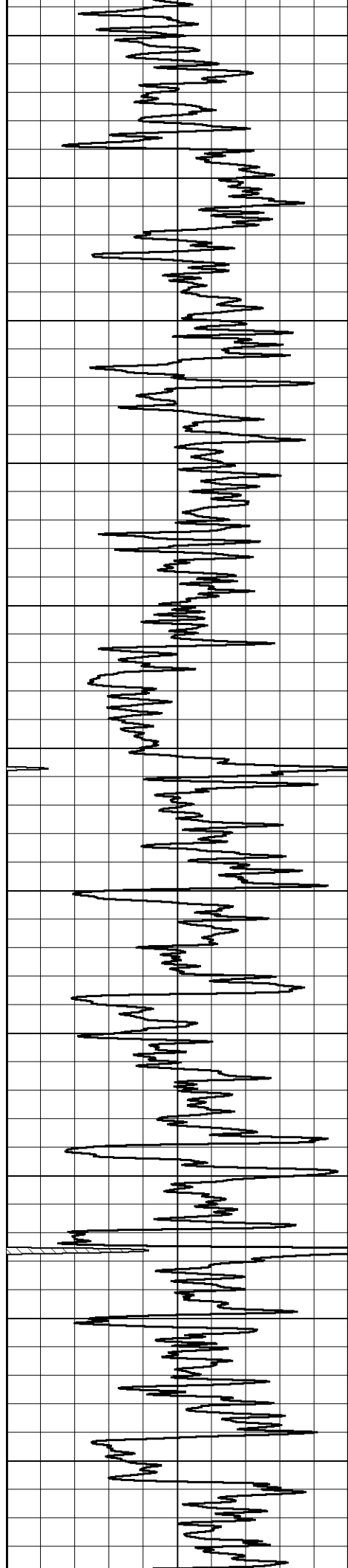
1850

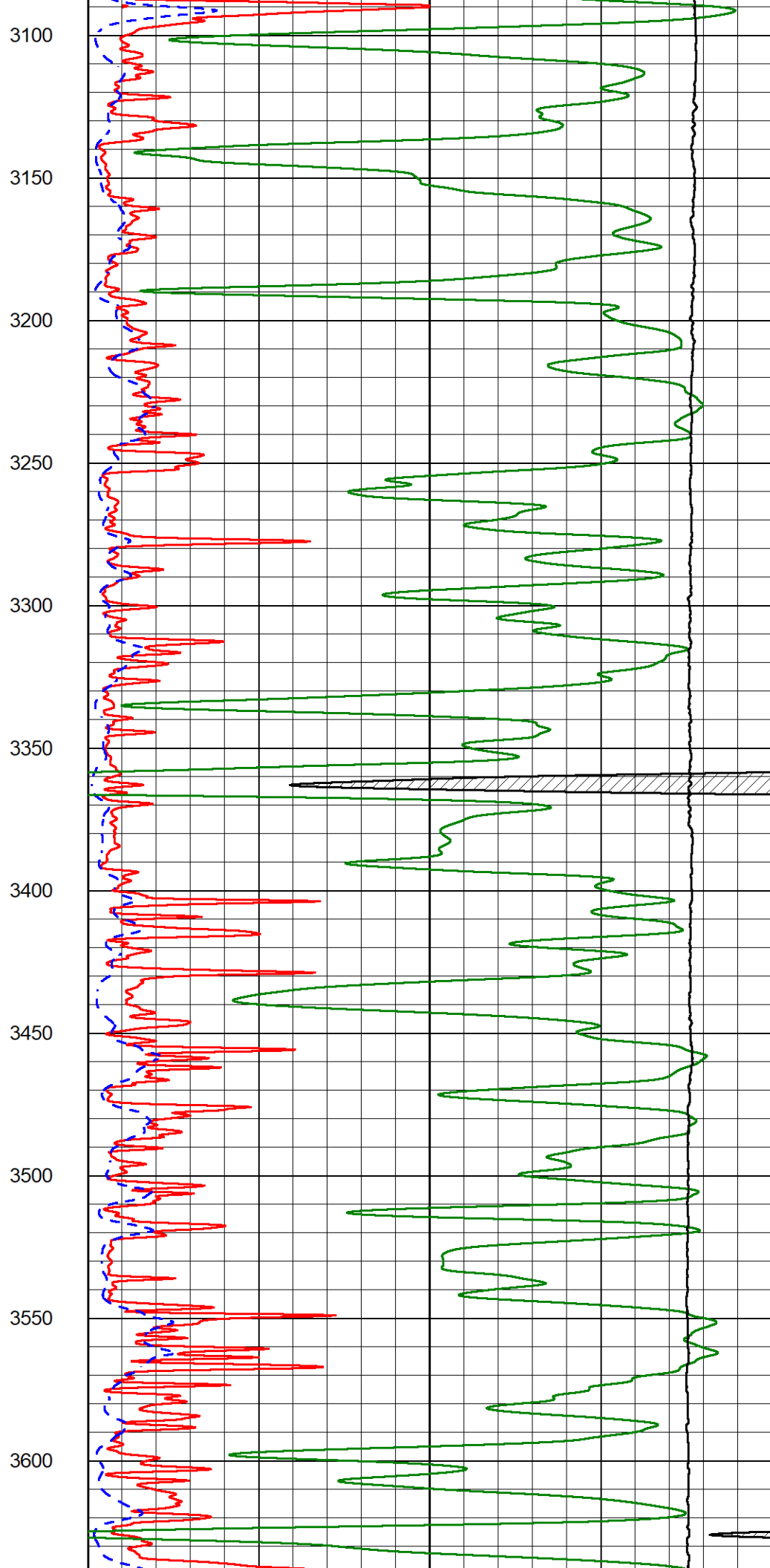
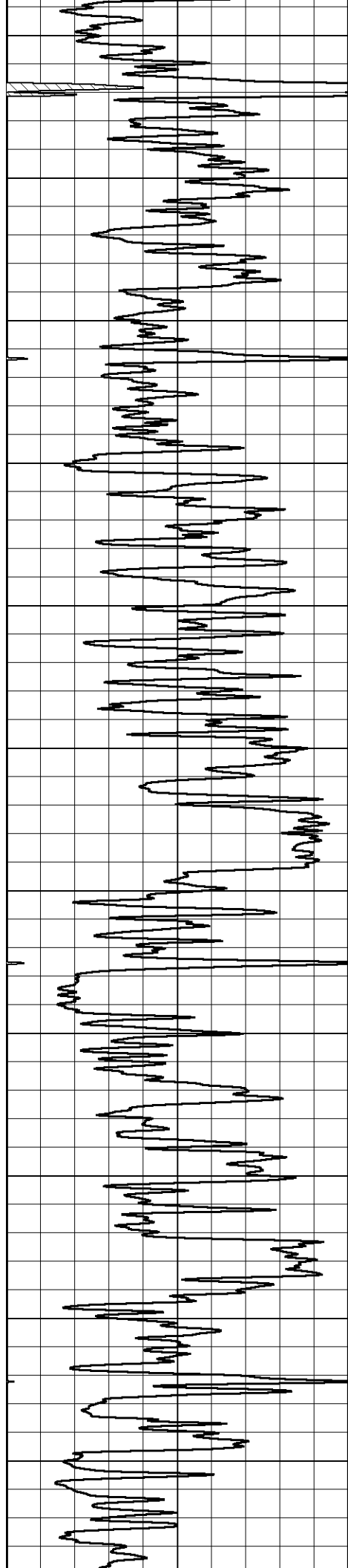
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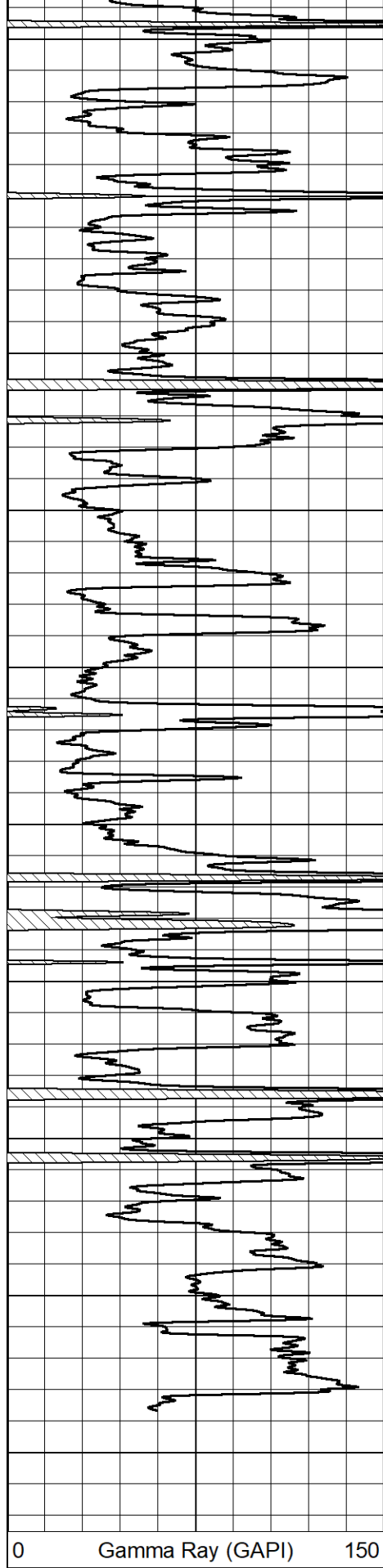
1950



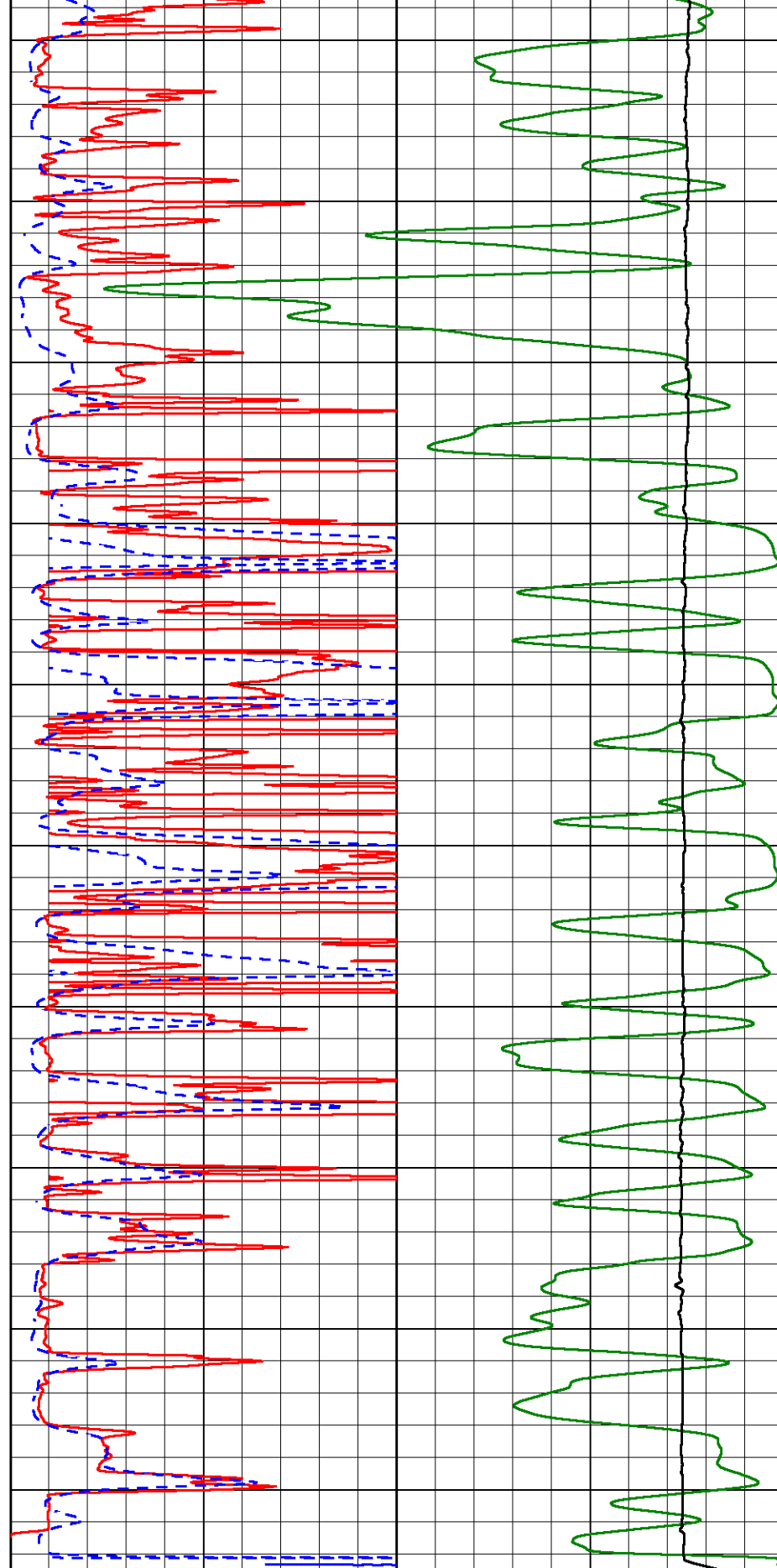








3650
3700
3750
3800
3850
3900
3950
4000
4050
4100



1000 Conductivity (mmho/m) 15000

0 Line Tension (lb) 50

0 Shallow Resistivity (Ohm-m) 50

0 Deep Resistivity (Ohm-m) 50

Shallow Resistivity



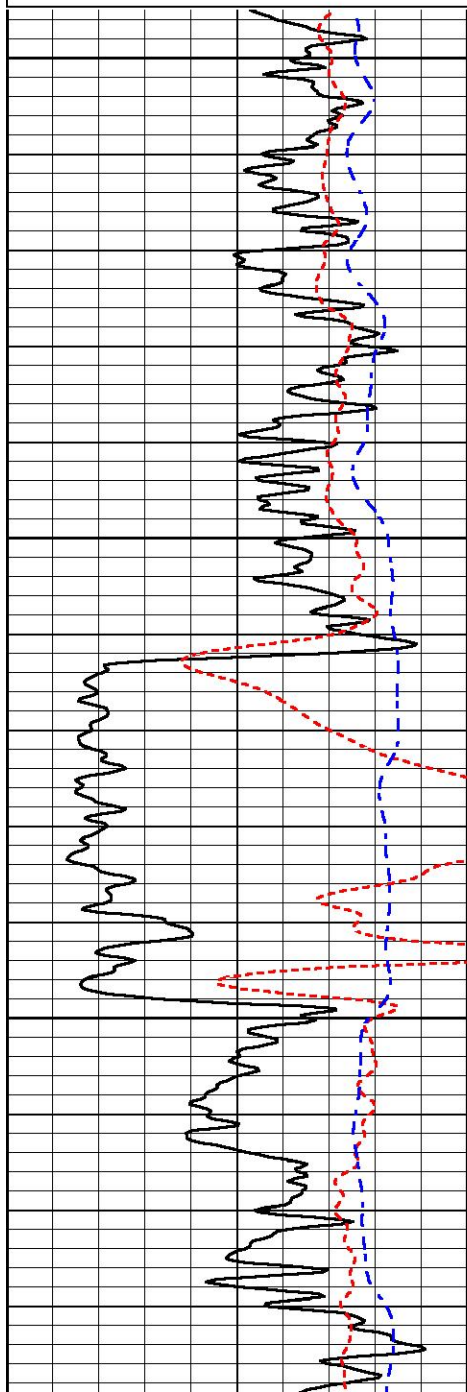
ANHYDRITE SECTION

MAIN PASS

Database File canyon_rush trust 17-1.db
Dataset Pathname stkml/pass3.4
Presentation Format _dil
Dataset Creation Wed May 25 12:33:59 2022
Charted by Depth in Feet scaled 1:240

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

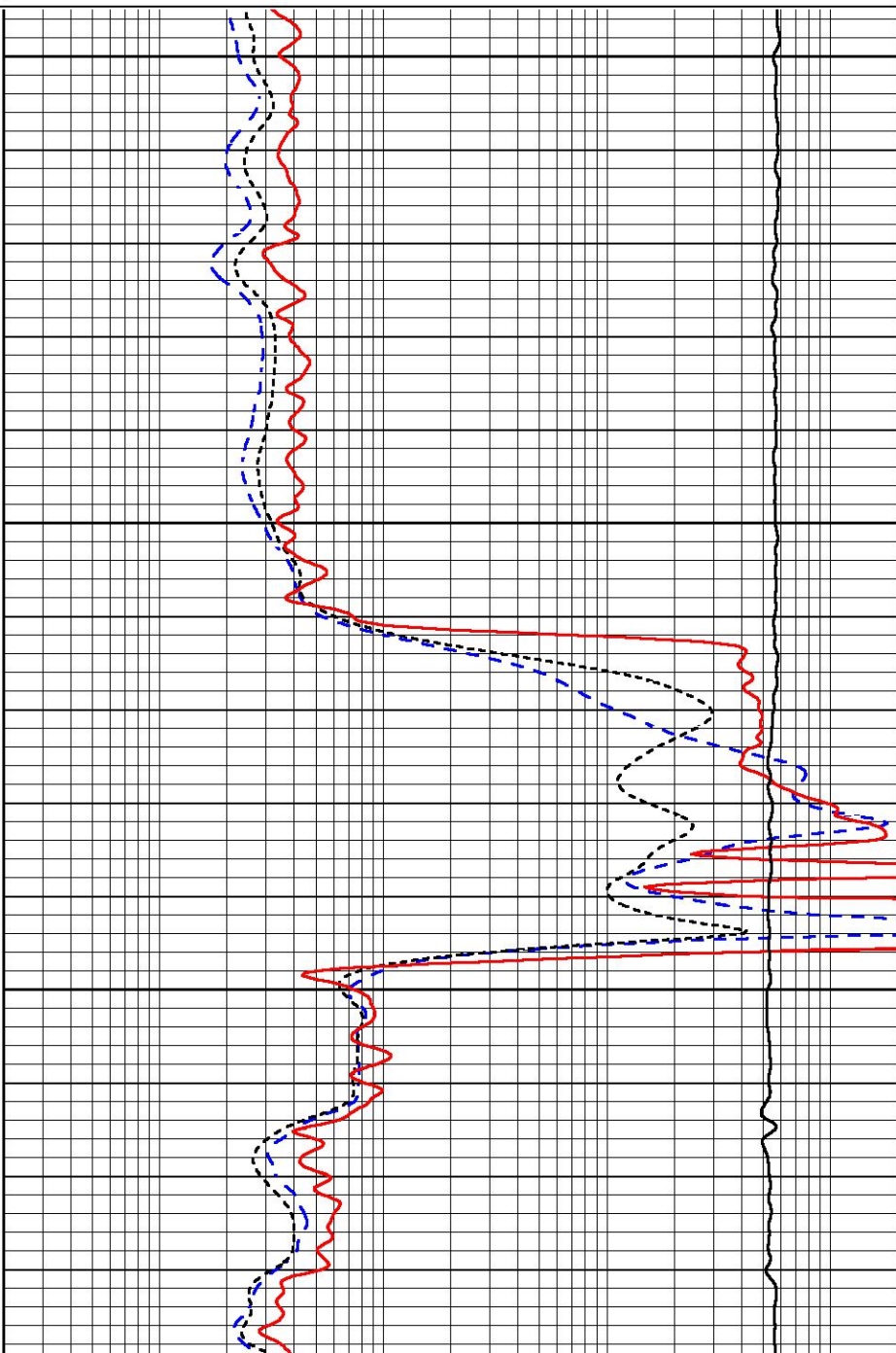
0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
10000	Line Tension (lb)	0

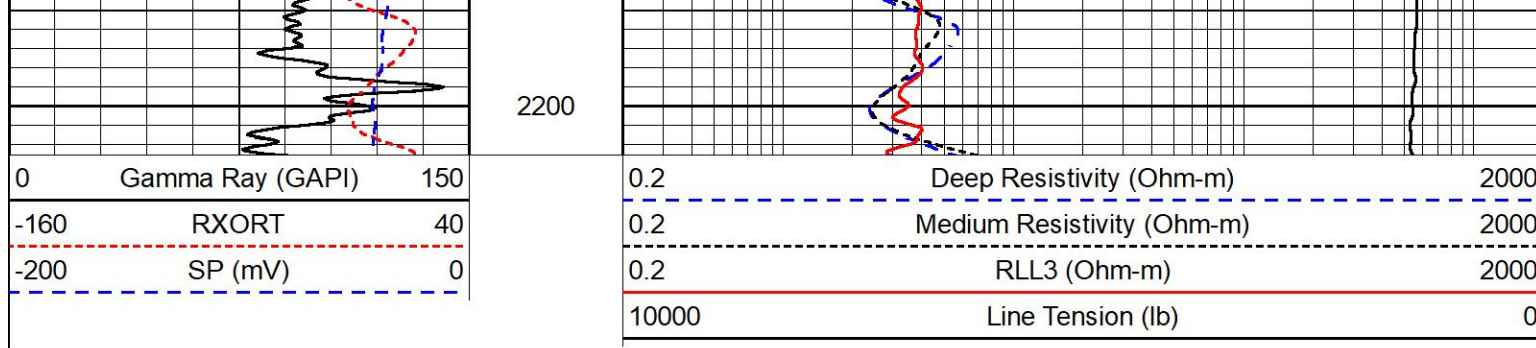


2050

2100

2150



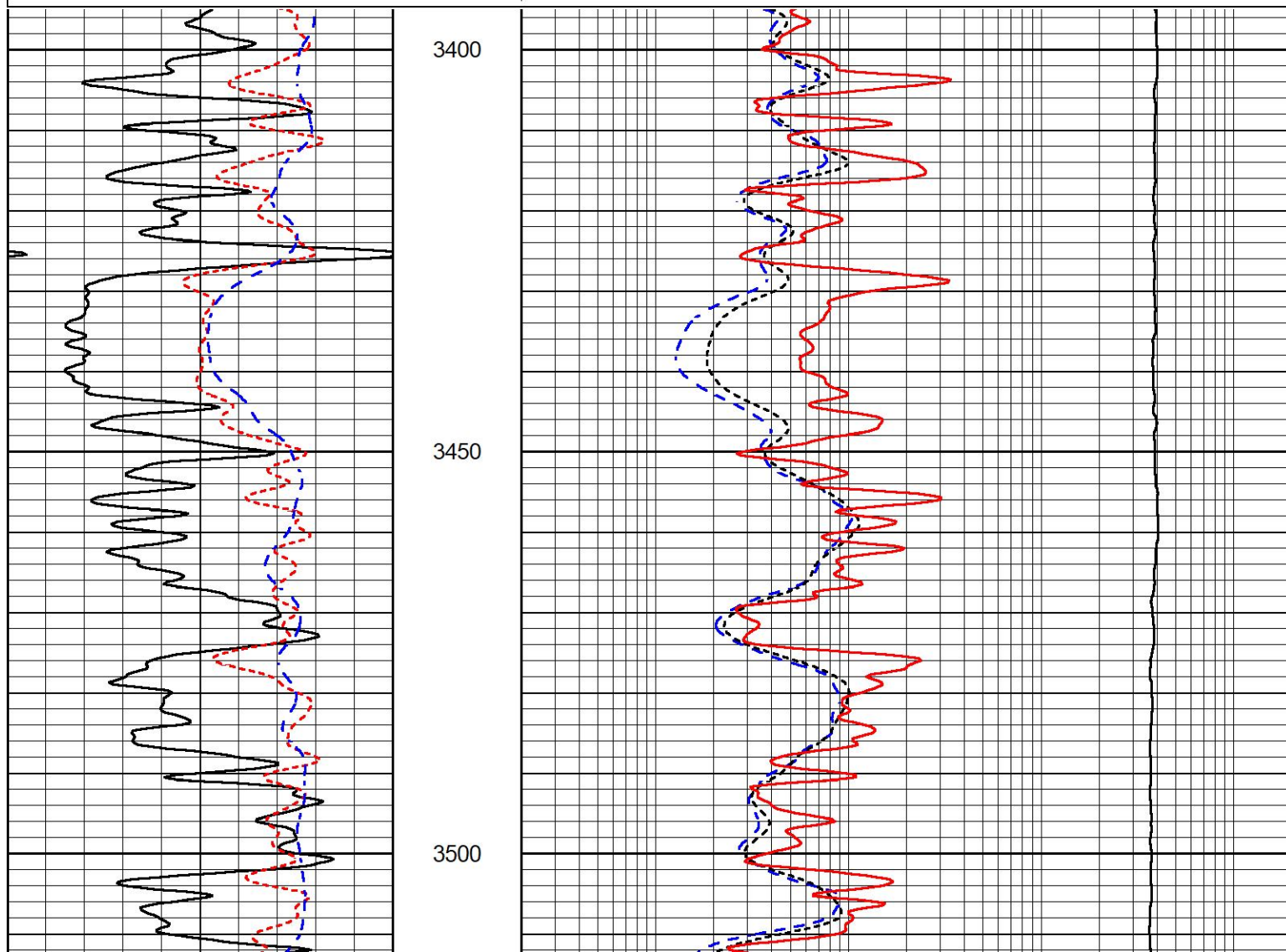
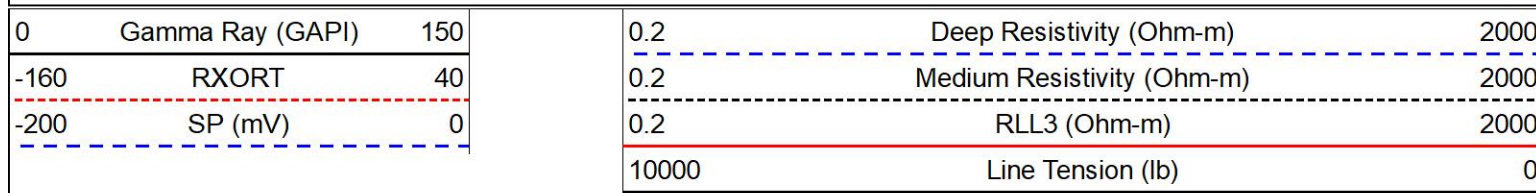


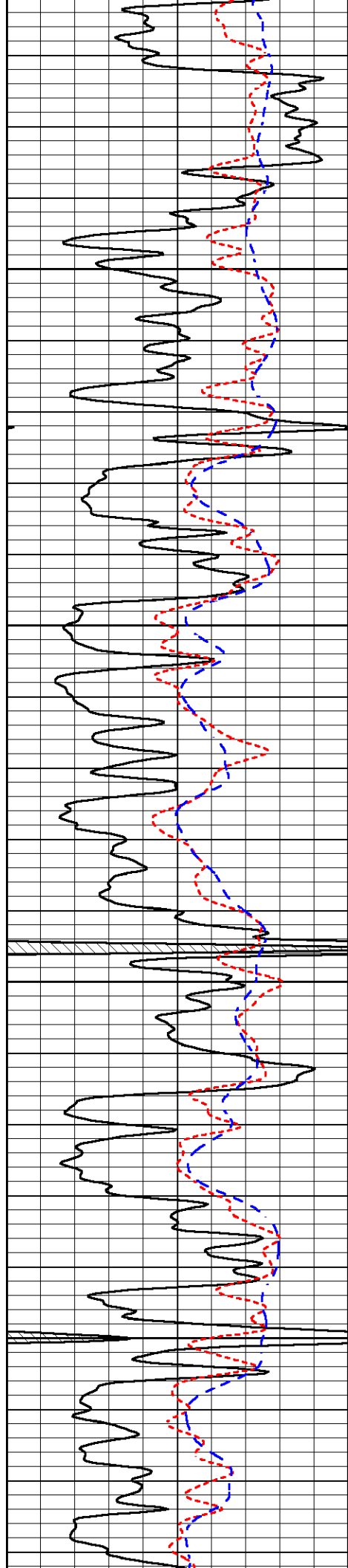
MIDWEST WIRELINE

DETAIL SECTION

MAIN PASS

Database File canyon_rush trust 17-1.db
 Dataset Pathname stkml/pass3.1
 Presentation Format _dil
 Dataset Creation Wed May 25 12:30:53 2022
 Charted by Depth in Feet scaled 1:240



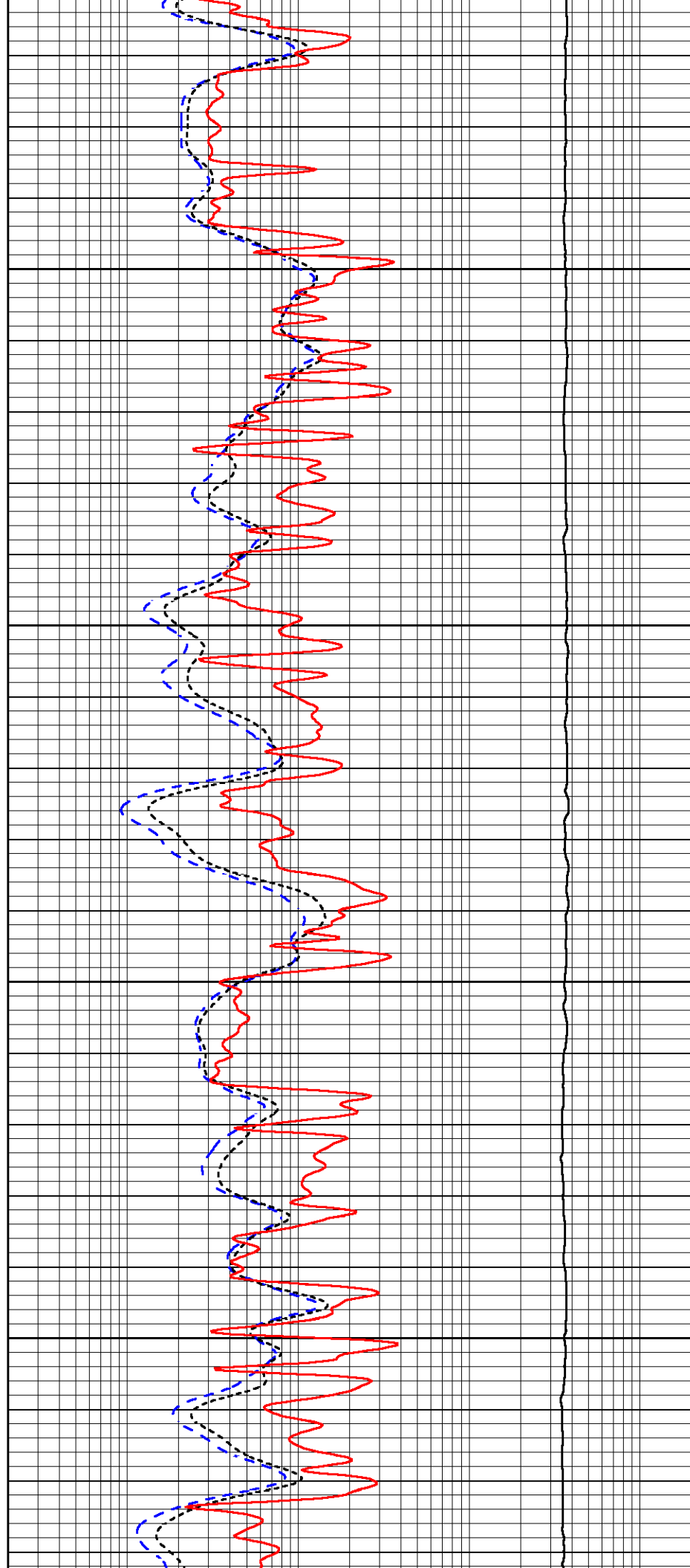


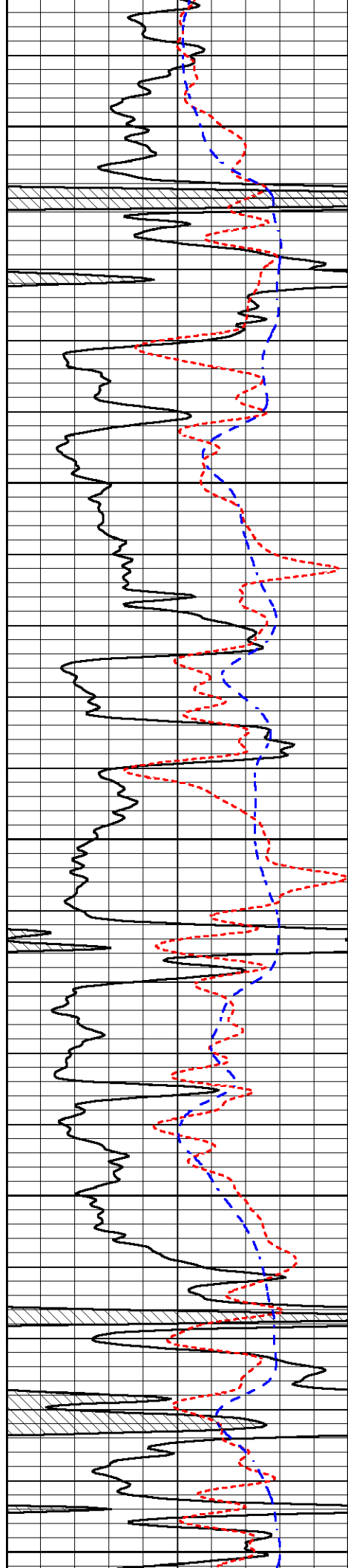
3550

3600

3650

3700





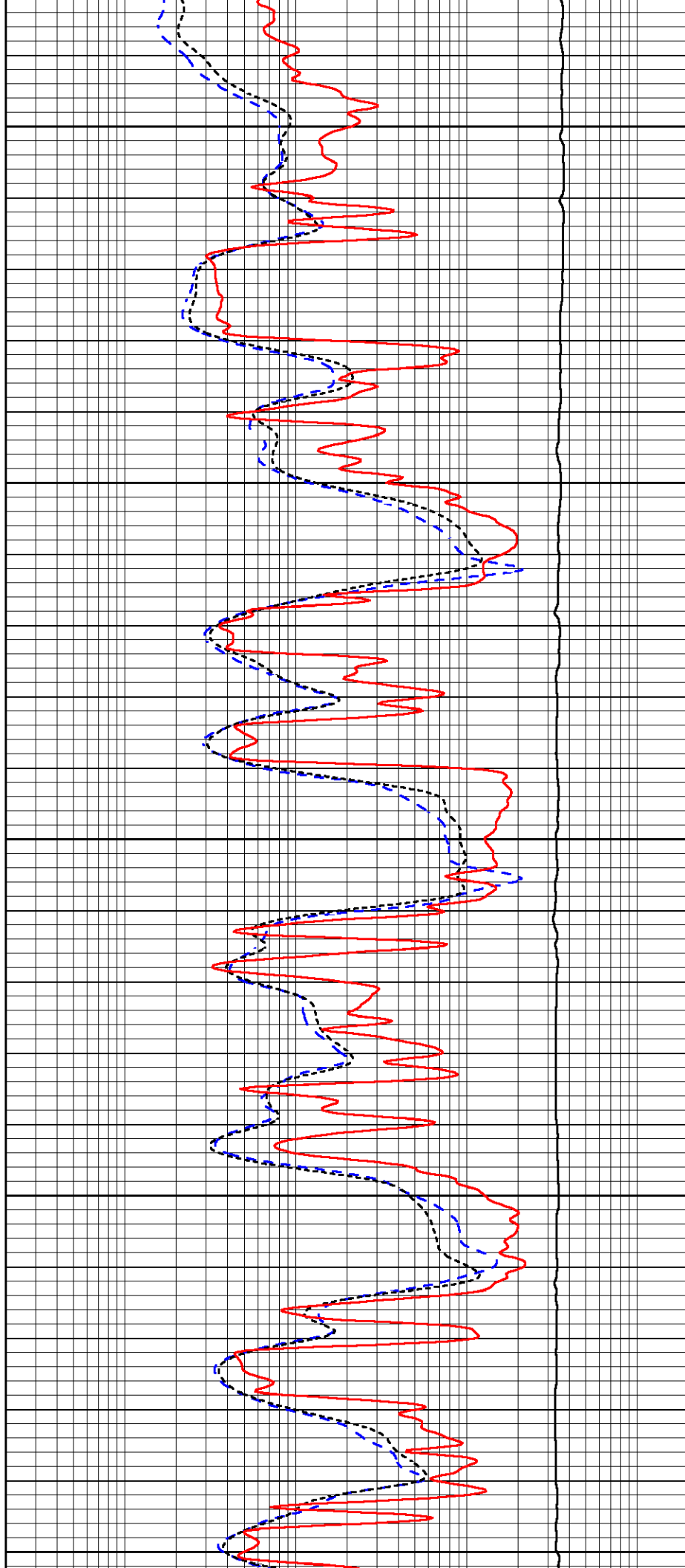
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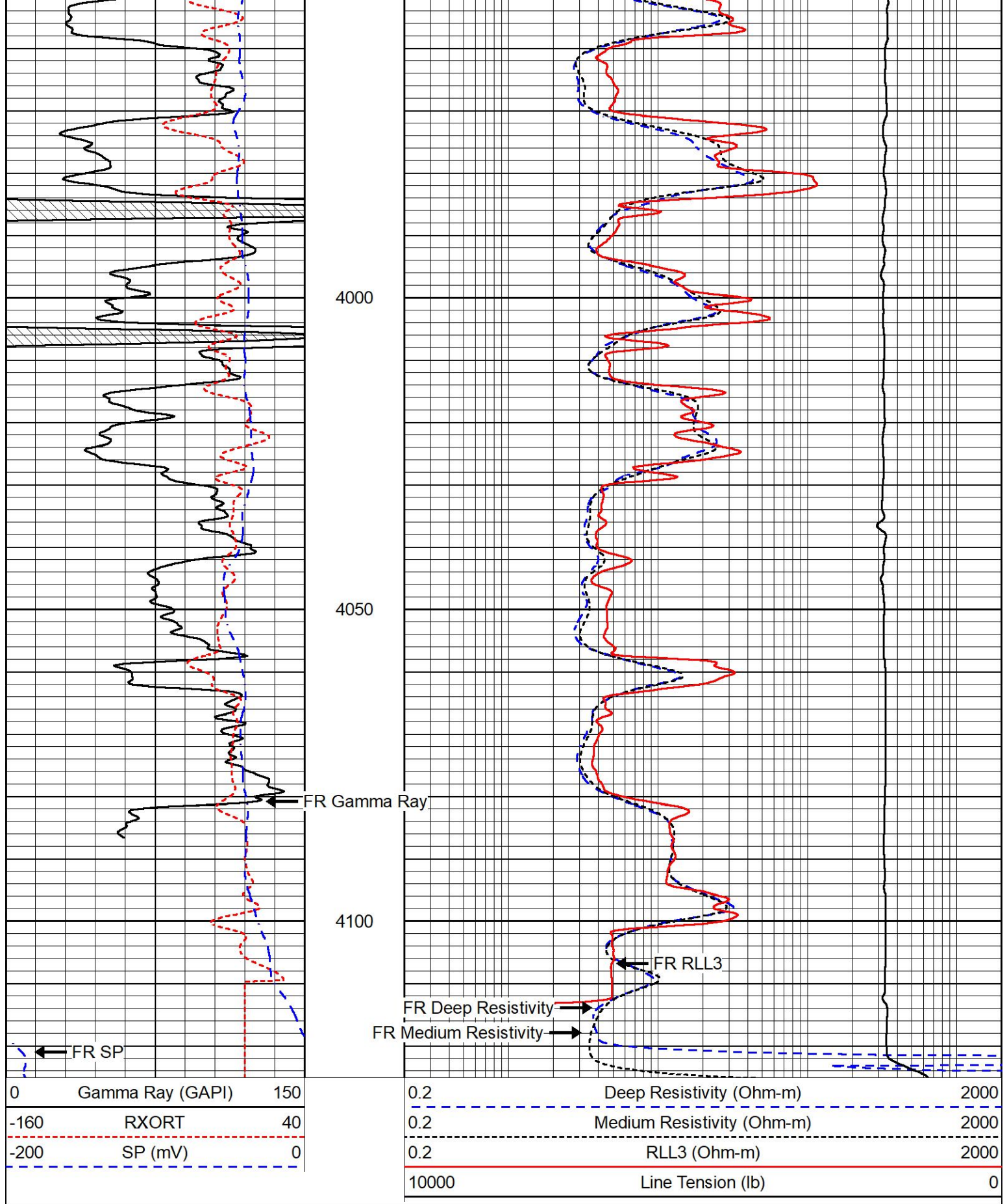
3800

3850

3900

3950



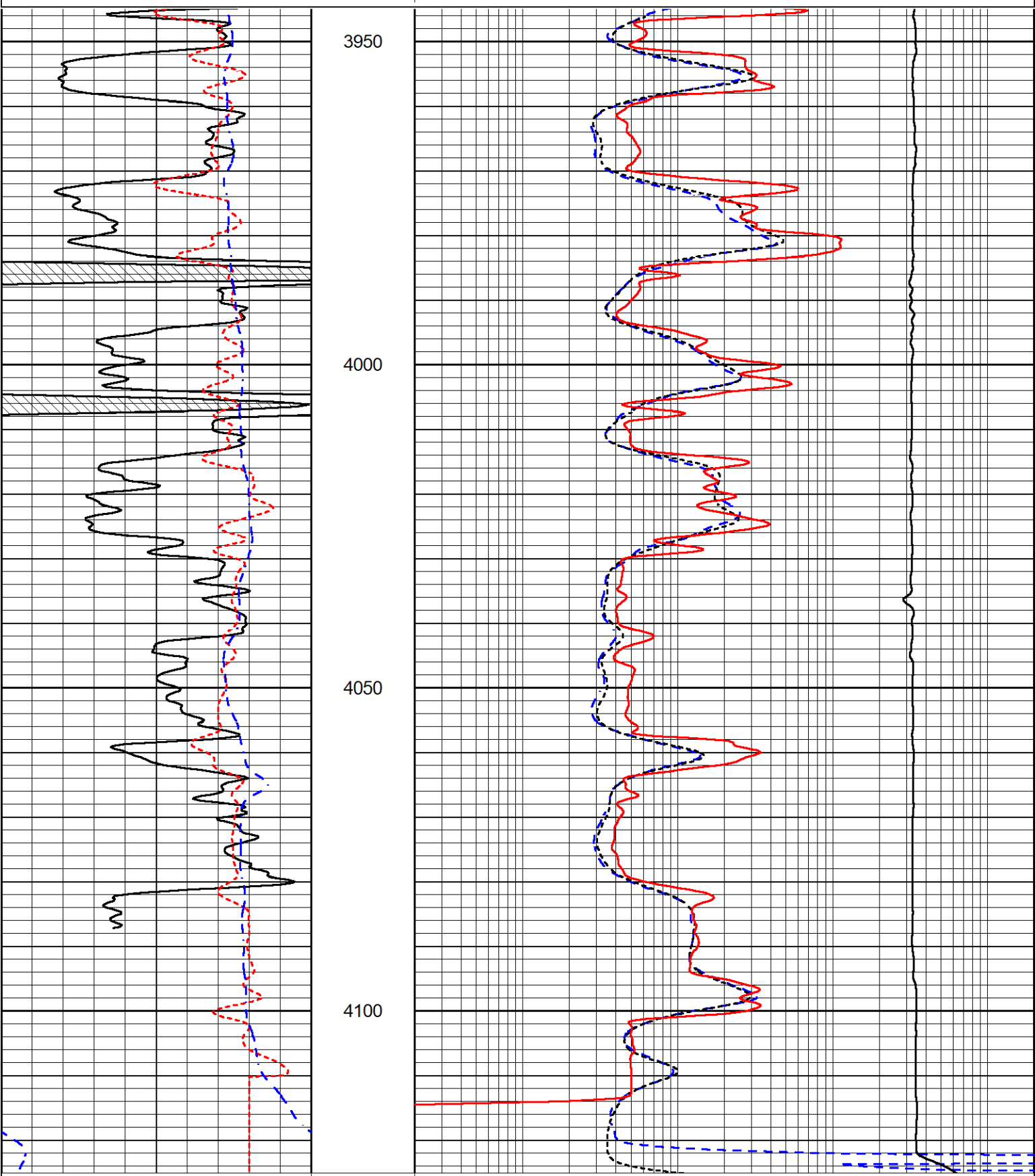


REPEAT SECTION

REPEAT PASS

Database File	canyon_rush trust 17-1.db
Dataset Pathname	stkml/pass2.1
Presentation Format	_dil
Dataset Creation	Wed May 25 11:38:42 2022
Charted by	Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150	0.2	Deep Resistivity (Ohm-m)	2000
-160	RXORT	40	0.2	Medium Resistivity (Ohm-m)	2000
-200	SP (mV)	0	0.2	RLL3 (Ohm-m)	2000
			10000	Line Tension (lb)	0



0	Gamma Ray (GAPI)	150	0.2	Deep Resistivity (Ohm-m)	2000
-160	RXORT	40	0.2	Medium Resistivity (Ohm-m)	2000
-200	SP (mV)	0	0.2	RLL3 (Ohm-m)	2000
			10000	Line Tension (lb)	0

Calibration Report							
Database File	canyon_rush trust 17-1.db						
Dataset Pathname	stkml/pass3.1						
Dataset Creation	Wed May 25 12:30:53 2022						
Dual Induction Calibration Report							
Serial-Model:		504 HT-M&W					
Surface Cal Performed:		Thu Dec 16 22:32:49 2021					
Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		m	b
	Deep	178.615 710.235	0.000	255.800	mmho/m	0.650	-18.000
	Medium	161.982 1441.110	0.000	255.800	mmho/m	0.450	-45.500
Microlog Calibration Report							
Serial-Model:		402-PSI STKBL ML					
Performed:		Mon May 23 16:31:54 2022					
	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
	Normal	0.0037 0.0043	0.0000	10.0000	Ohm-m	14000.0000	-0.9000
	Inverse	0.1208 0.0013	0.0000	10.0000	Ohm-m	12500.0000	0.0000
	Caliper	1.0020 1.0834	5.5000	16.5000	in	135.1520	-131.3550
Compensated Density Calibration Report							
Serial-Model:		303-03-M&W					
Source #:		21170B					
Master Calibration Performed:		Thu Dec 16 23:28:34 2021					
Master Calibration							
	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	1.03				
Compensated Neutron Calibration Report							
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 Canyon Operating, LLC
Well Rush Trust #17-1
Field High Hill
County Graham
State Kansas