



MIDWEST WIRELINE

DUAL INDUCTION
LOG

Company Canyon Operating LLC		Company Canyon Operating LLC	
Well Finley #19-1		Well Finley #19-1	
Field		Field	
County Graham		County Graham	
State Kansas		State Kansas	
Location: API #: 15-065-24221-00-00		Other Services	
NE SE SE NW 2261 FNL & 2337 FWL SEC 19 TWP 9S RGE 24W		CNU/CDL MEL/BHCS	
Permanent Datum	Ground Level	Elevation	2548
Log Measured From	Kelly Bushing	K.B.	2555
Drilling Measured From	Kelly Bushing	D.F.	
		G.L.	2548
Date	7/28/2022		
Run Number	One		
Depth Driller	4210		
Depth Logger	4208		
Bottom Logged Interval	4207		
Top Log Interval	200		
Casing Driller	8.625 @ 219		
Casing Logger	218		
Bit Size	7.875		
Type Fluid in Hole	Chemical		
Salinity, ppm CL	4400		
Density / Viscosity	9.1 82		
pH / Fluid Loss	10.5 8.0		
Source of Sample	Flowline		
Rm @ Meas. Temp	0.75 @ 72		
Rmf @ Meas. Temp	0.56 @ 72		
Rmc @ Meas. Temp	1.01 @ 72		
Source of Rmf / Rmc	Charts		
Rm @ BHT	0.46 @ 118		
Operating Rig Time	4 Hours		
Max Rec. Temp. F	118		
Equipment Number	P-24		
Location	Hays		
Recorded By	T. Martin		
Witnessed By	Clayton Erickson		

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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, KS, 6 N to K Rd,
1.5 E, S & E into 1.25 mi

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: T. Martin		Primary Witness: Clayton Erickson	
Operator:		Secondary Witness:	
Operator:		Secondary Witness:	
Operator:		Secondary Witness:	

Log Variables

DatabaseC:\ProgramData\Warrior\Data\canyon_finley #19-1.db
Dataset field/well/StkMI/pass3.1/_vars_

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in 7.875	degF 118	in 5.5	in 0	g/cc 1	2	g/cc 2.71
NPORSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
Limestone	0	mmho/m 0	mmho/m 0	mV 50	degF 70	Off	ft 4208

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

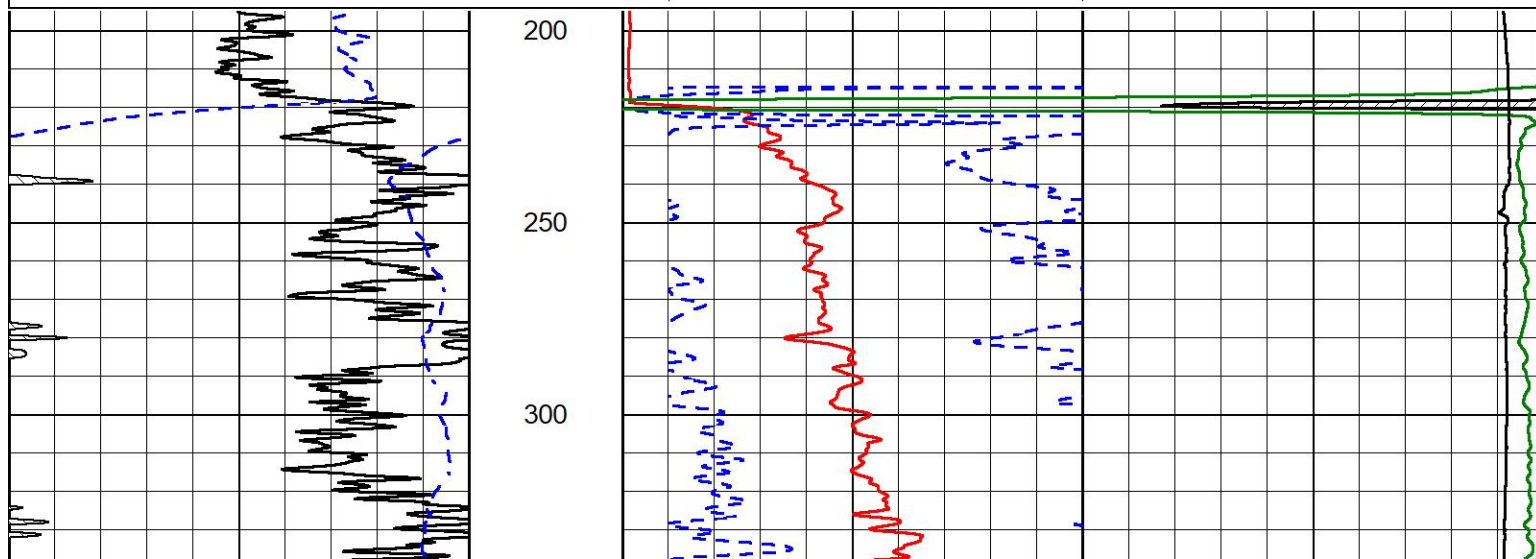


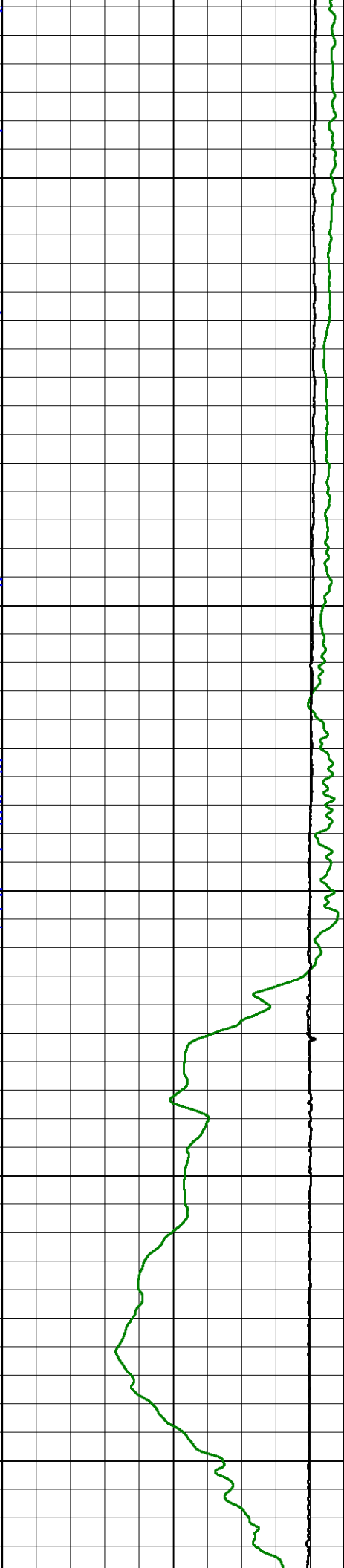
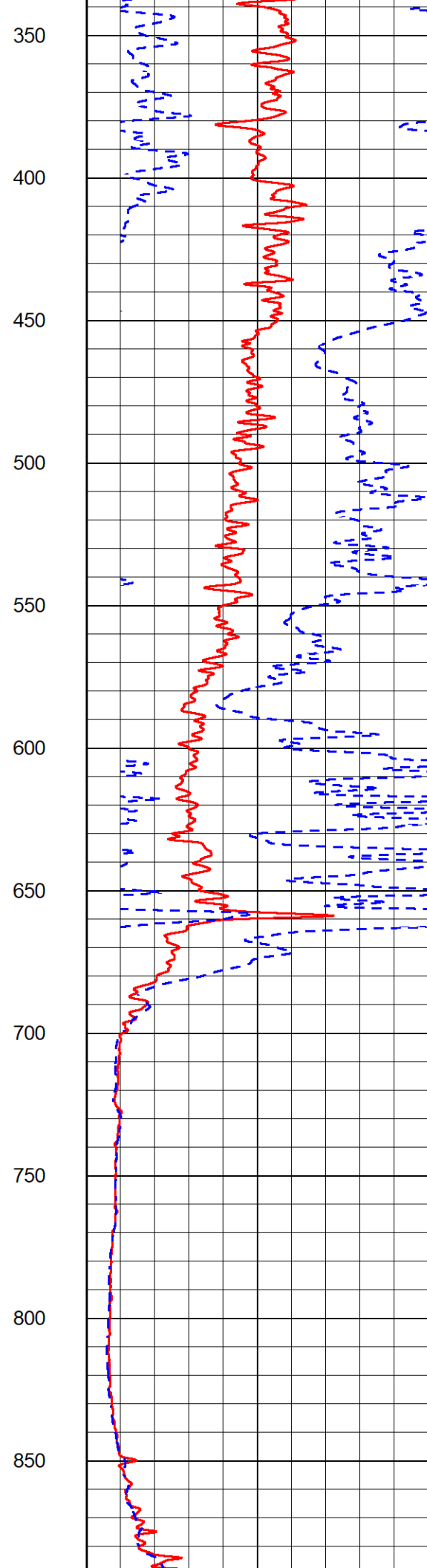
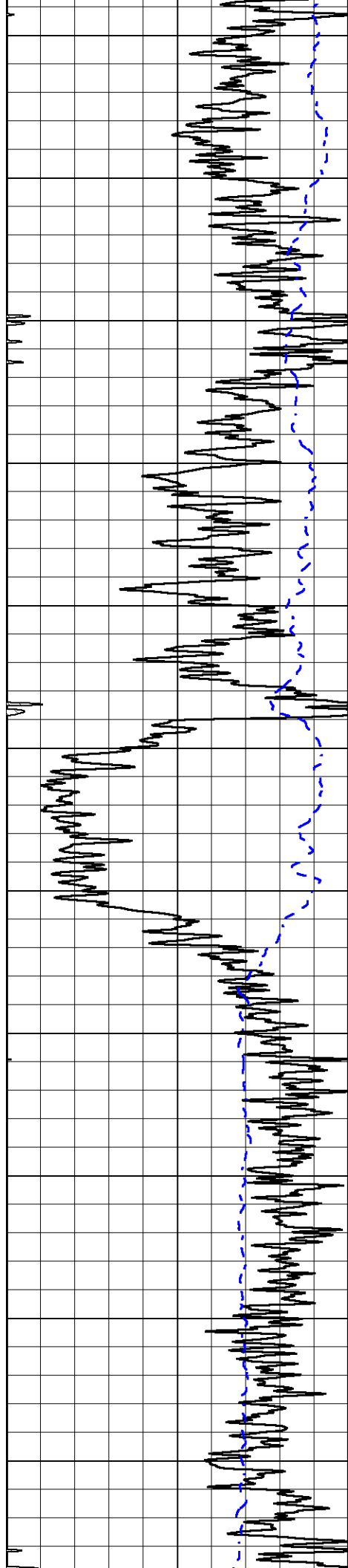
2" SCALE RESISTIVITY

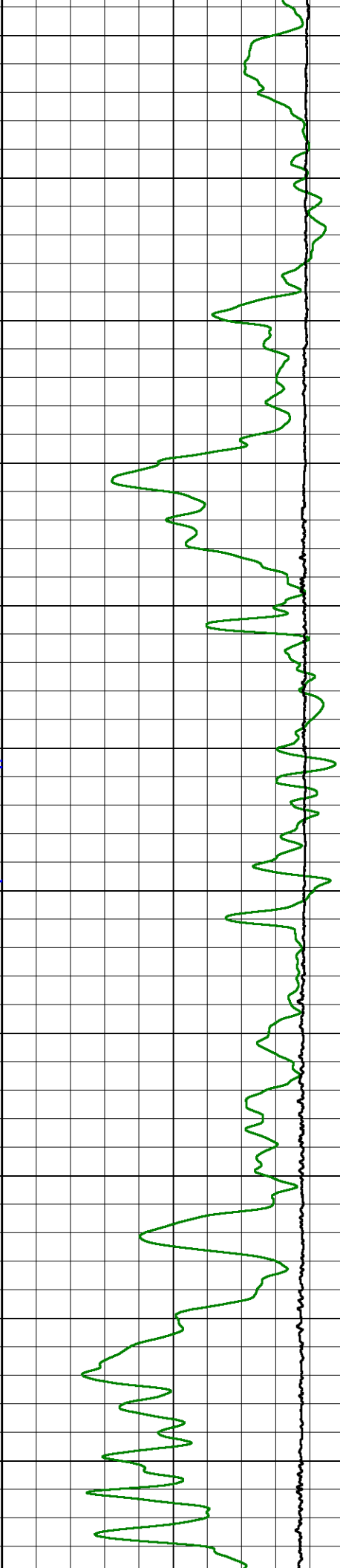
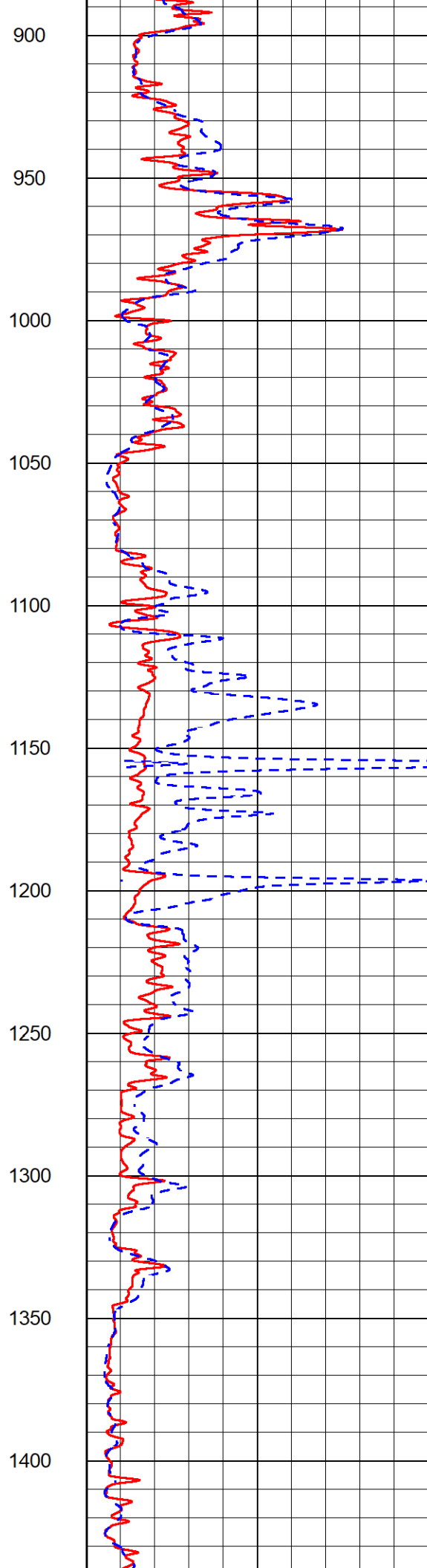
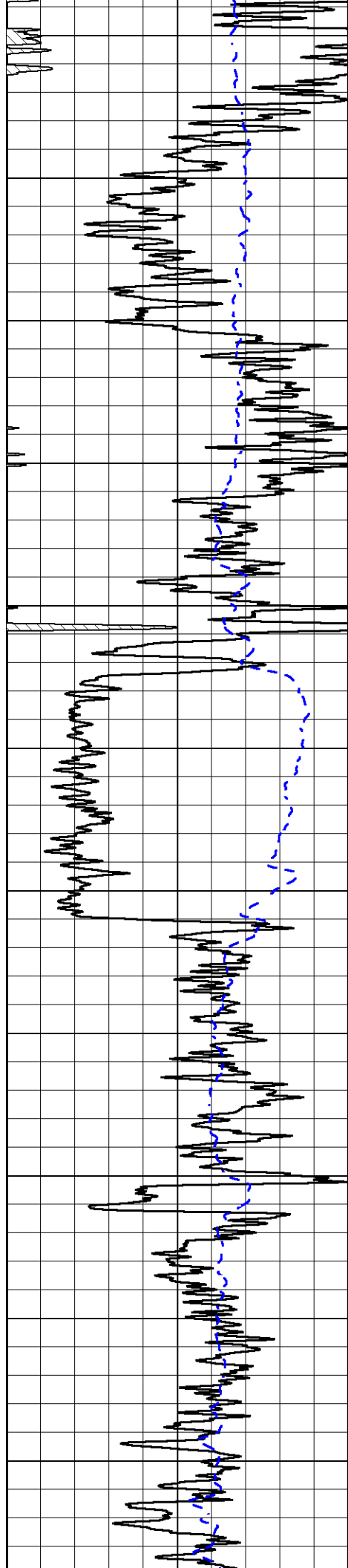
MAIN PASS

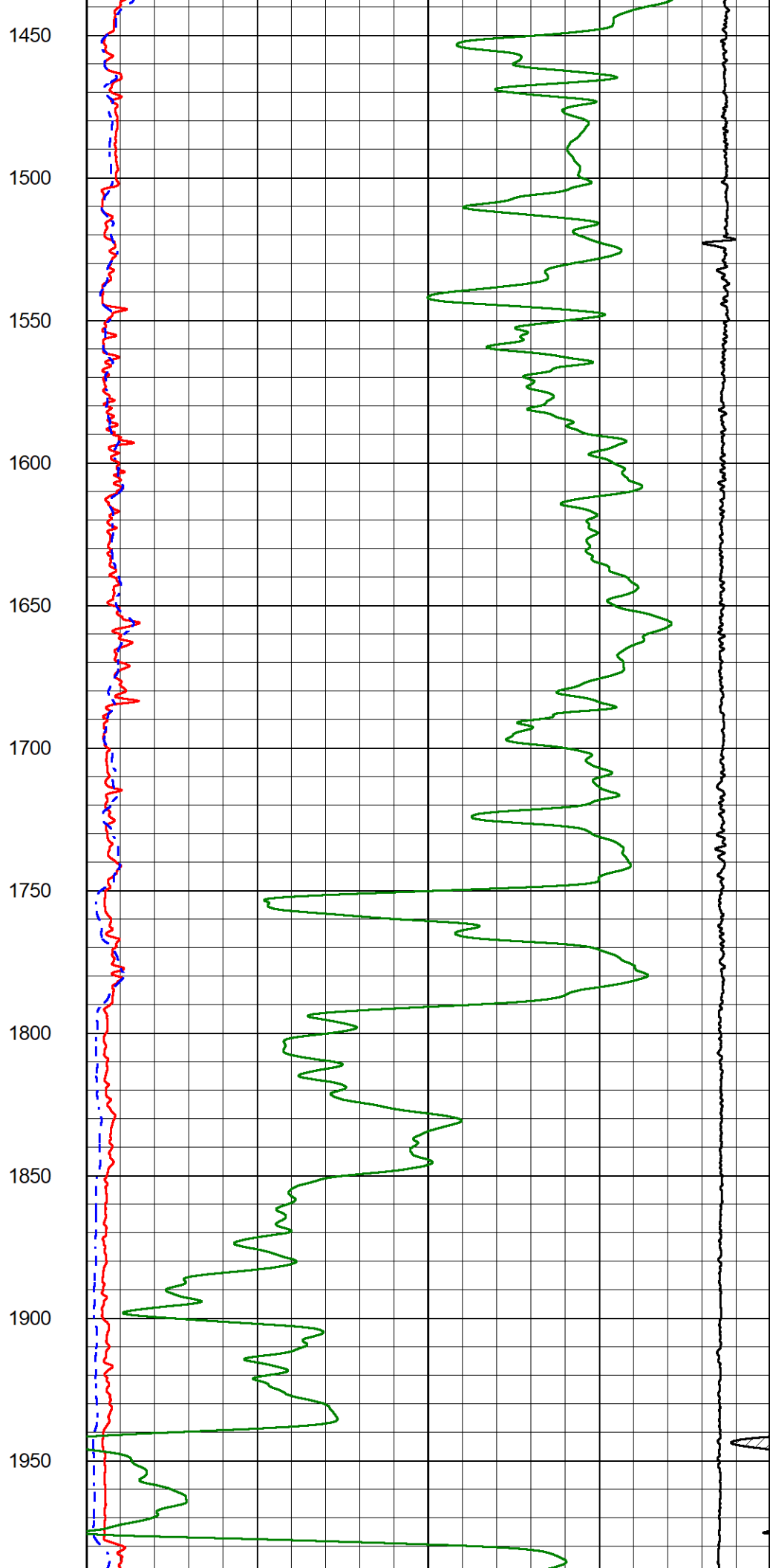
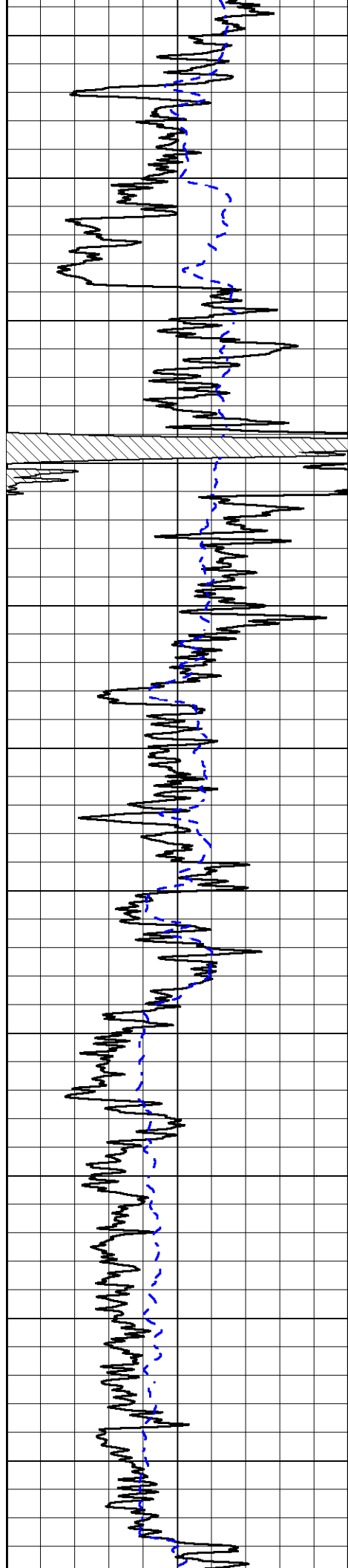
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Presentation Format _dil2in
Dataset Creation Fri Jul 29 00:48:02 2022
Charted by Depth in Feet scaled 1:600

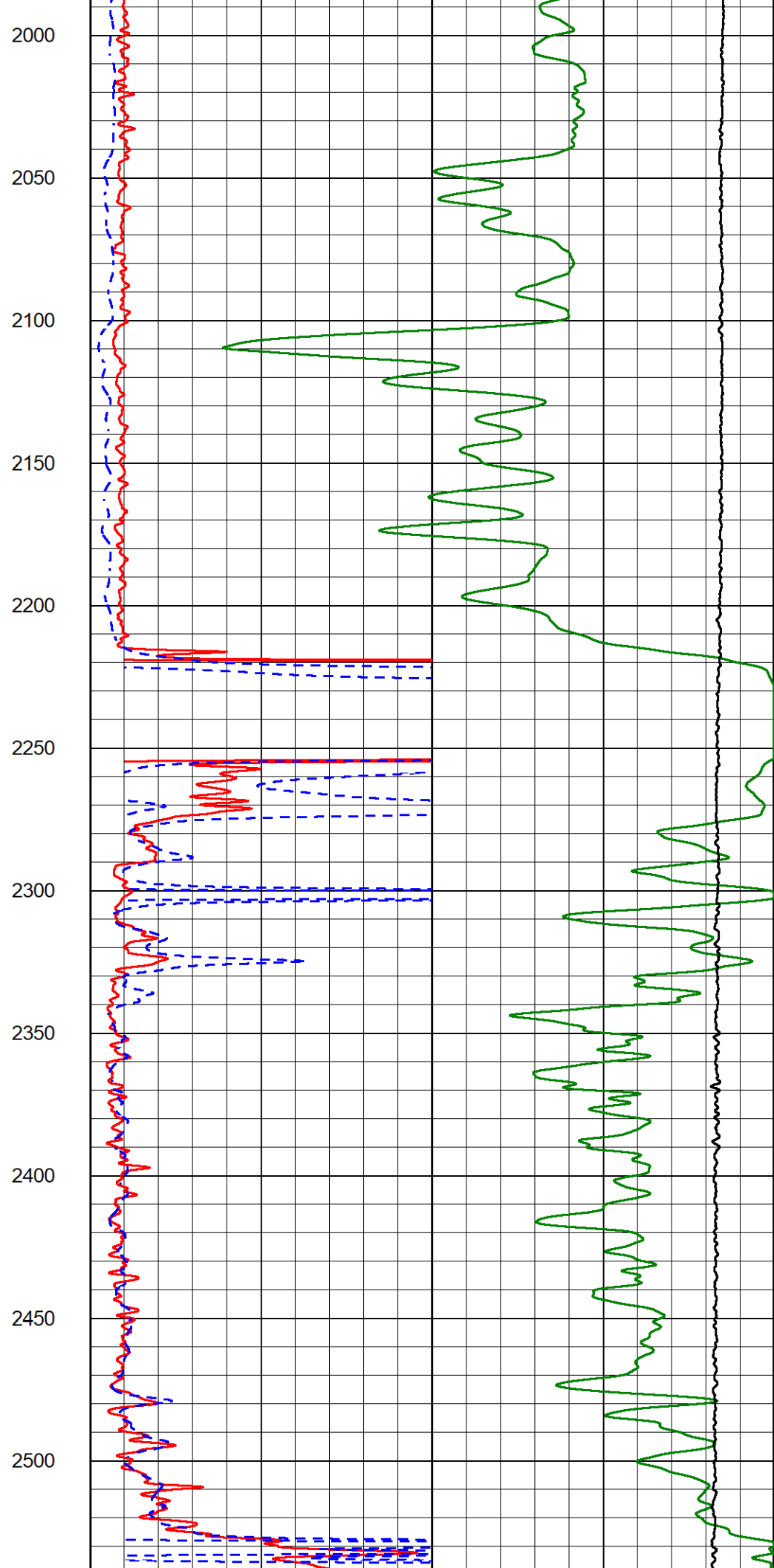
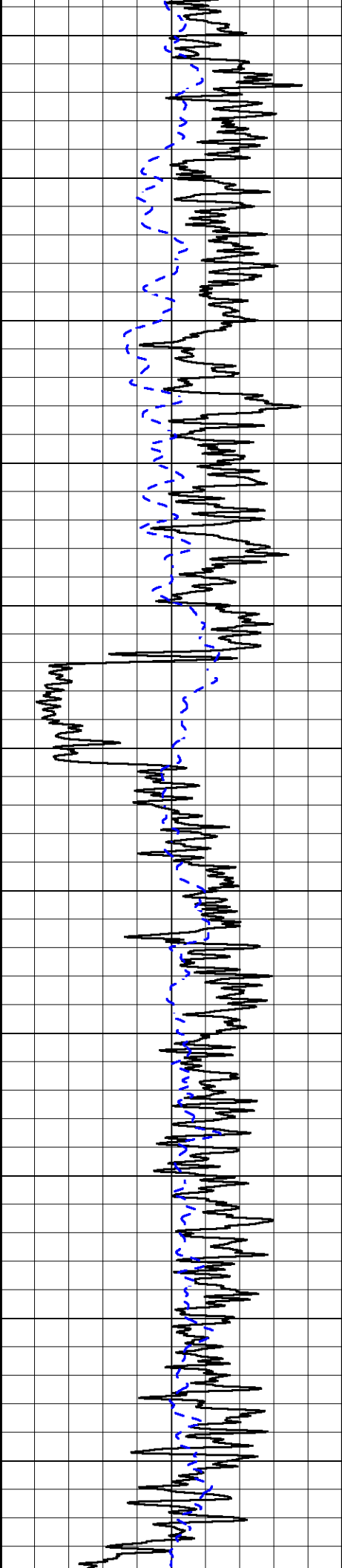
0	Gamma Ray (GAPI)	150	1000	Conductivity (mmho/m)	0
-200	SP (mV)	0	15000	Line Tension (lb)	0
			0	Shallow Resistivity (Ohm-m)	50
			0	Deep Resistivity (Ohm-m)	50
			Shallow Resistivity		
			50	(Ohm-m)	200
			50	Deep Resistivity (Ohm-m)	200

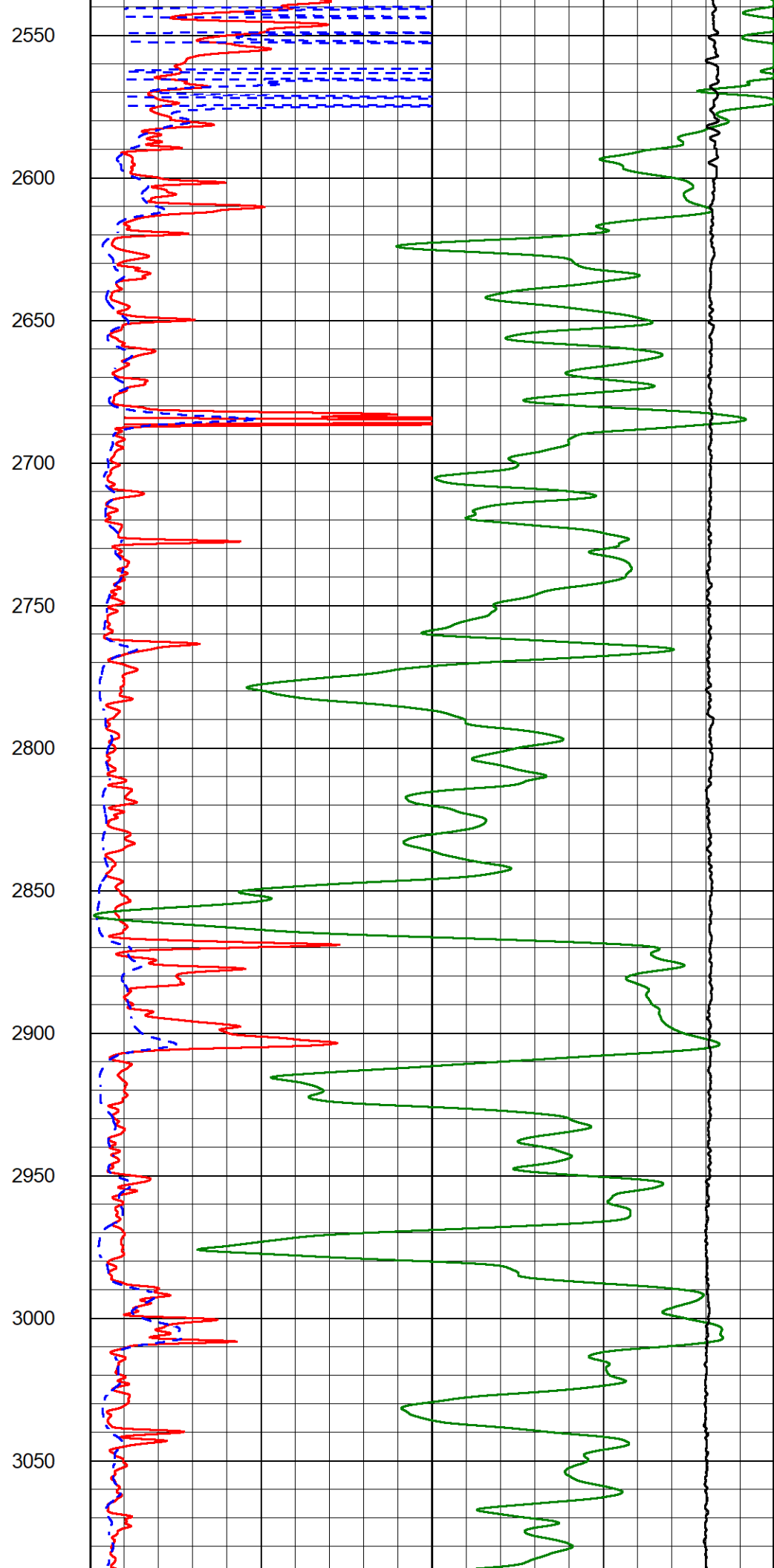
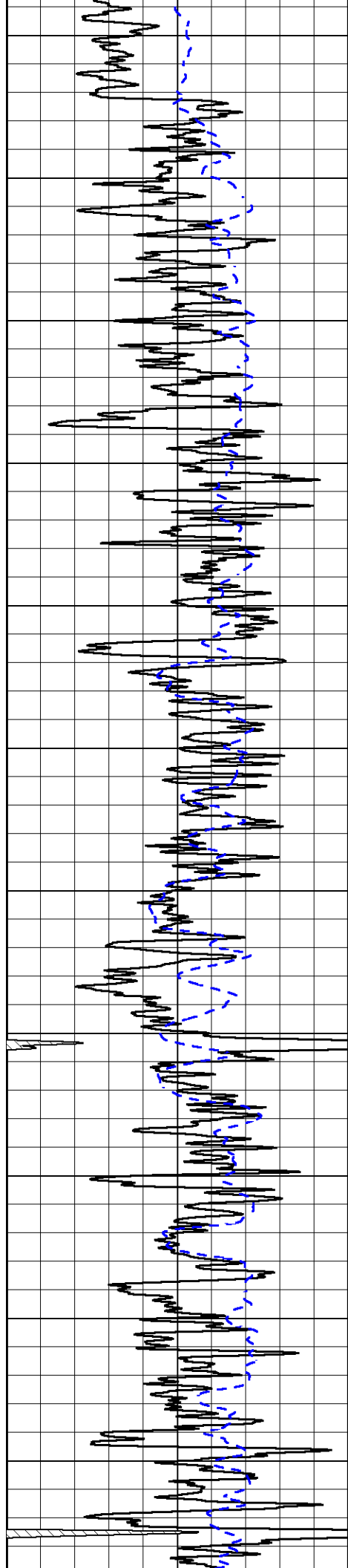


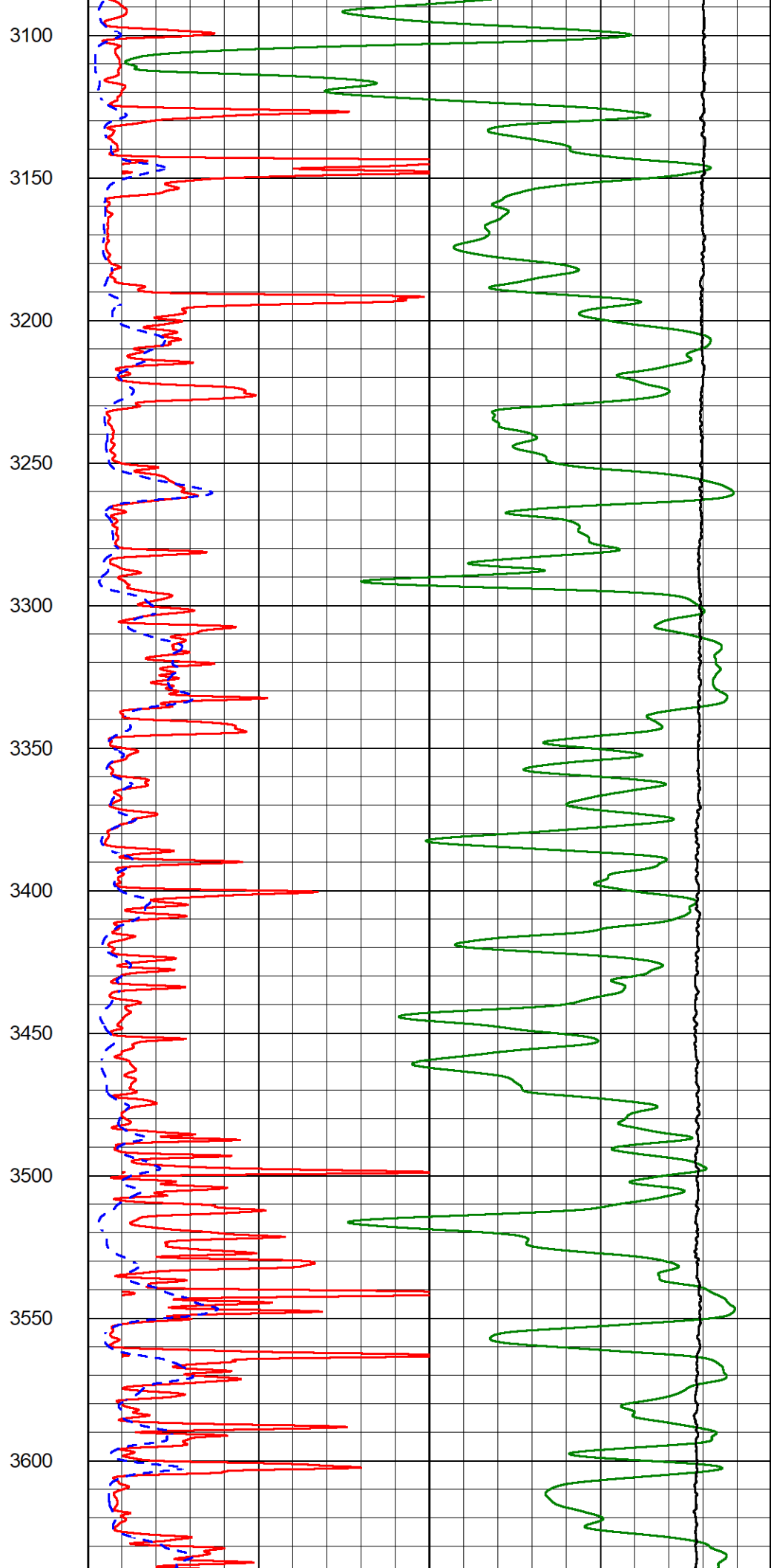
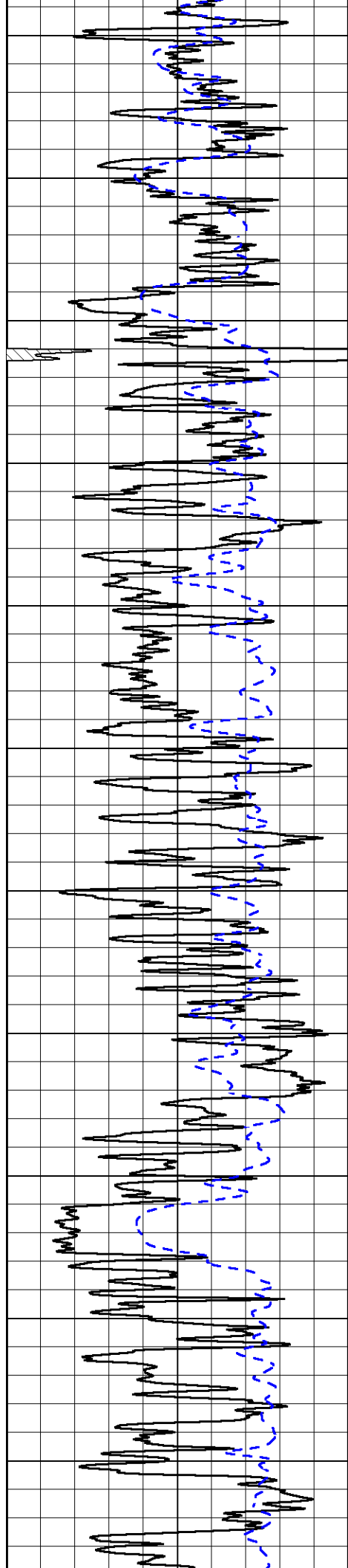


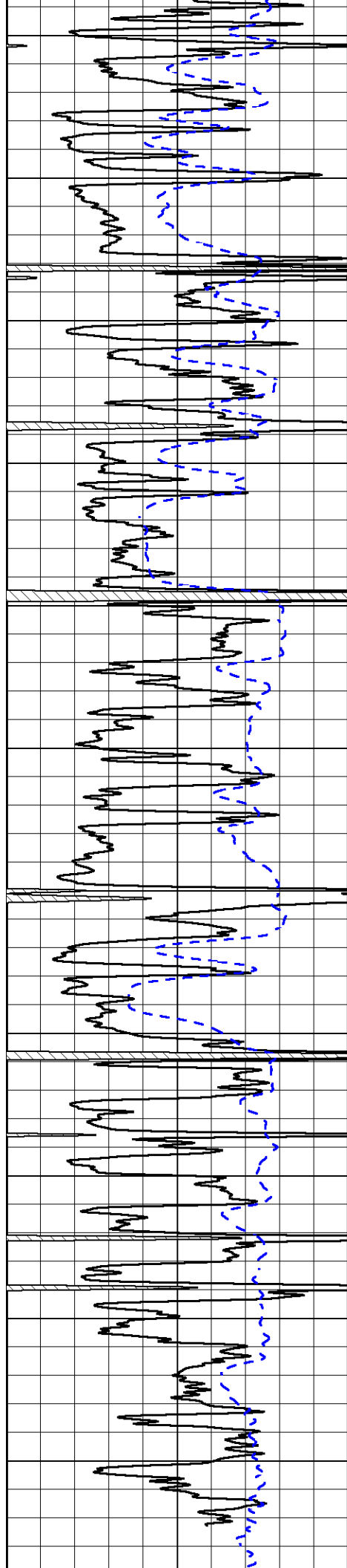












3650

3700

3750

3800

3850

3900

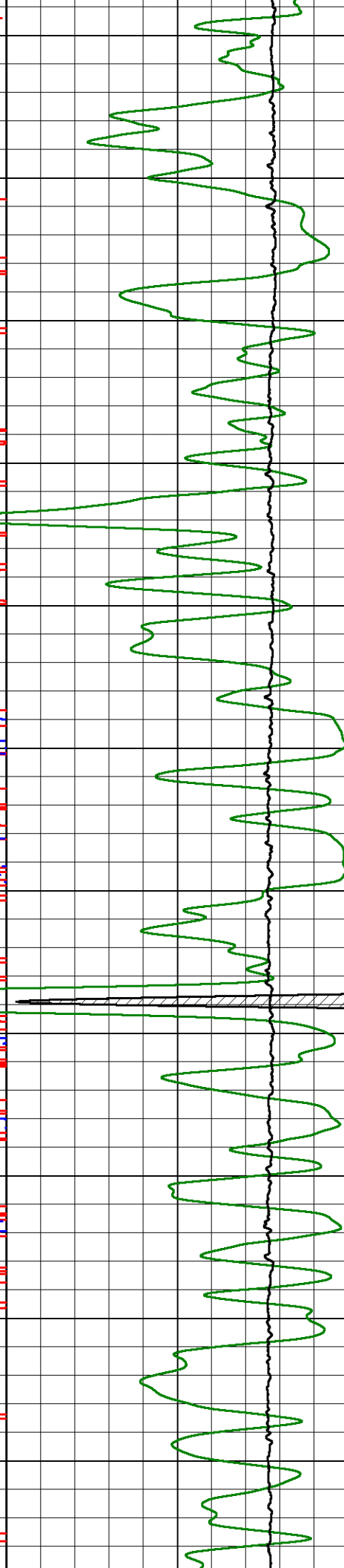
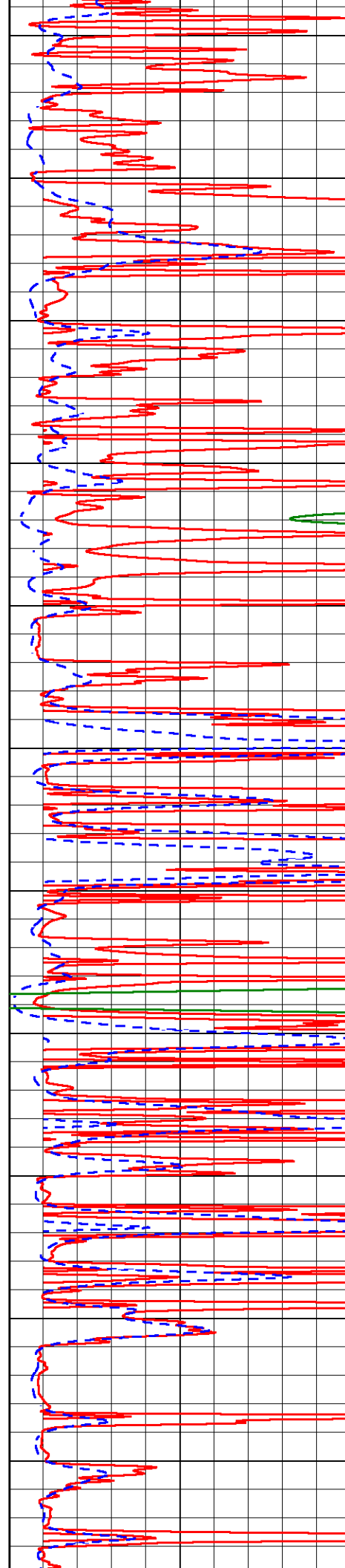
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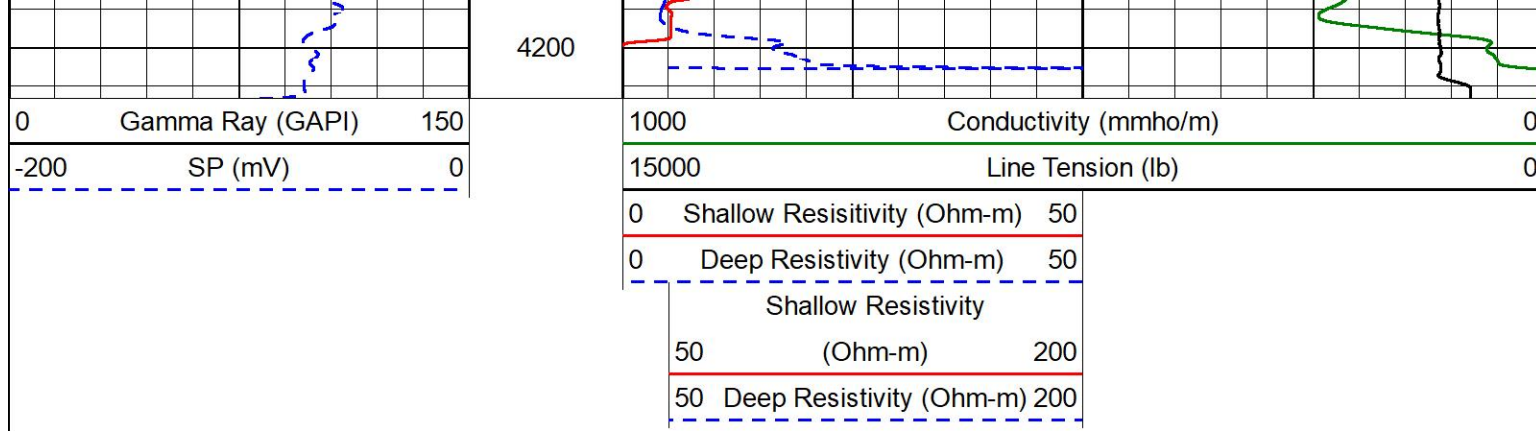
4000

4050

4100

4150



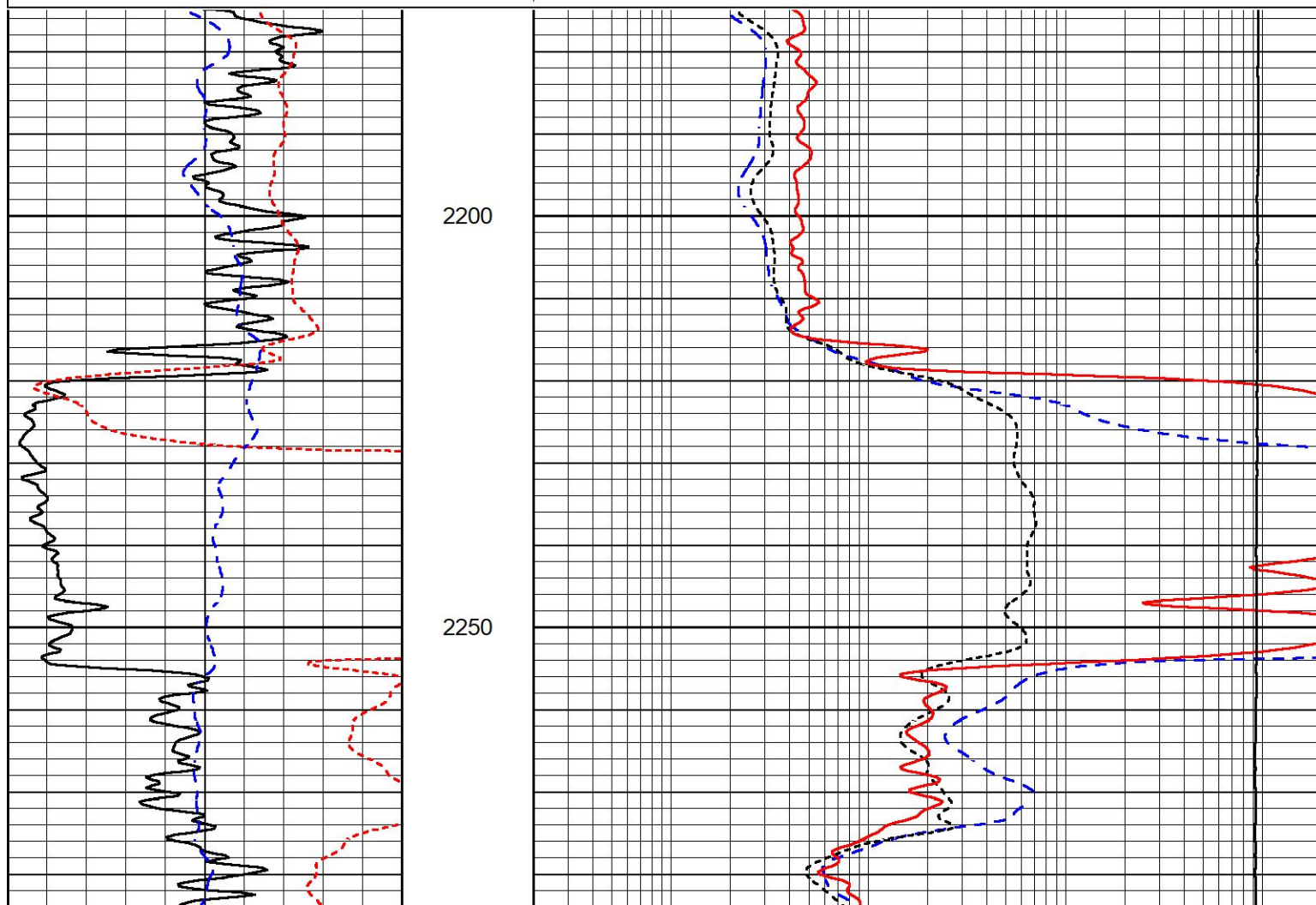
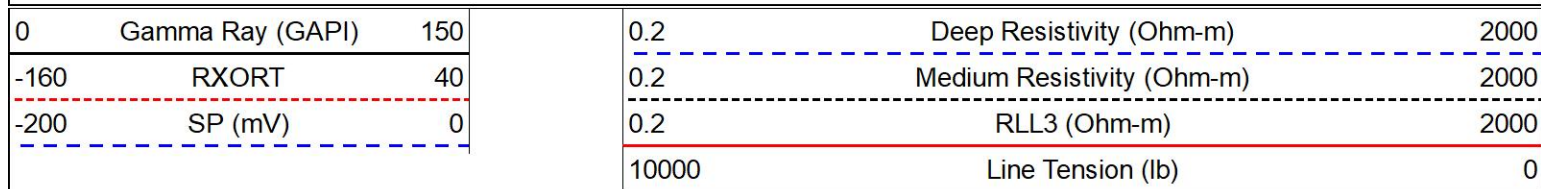


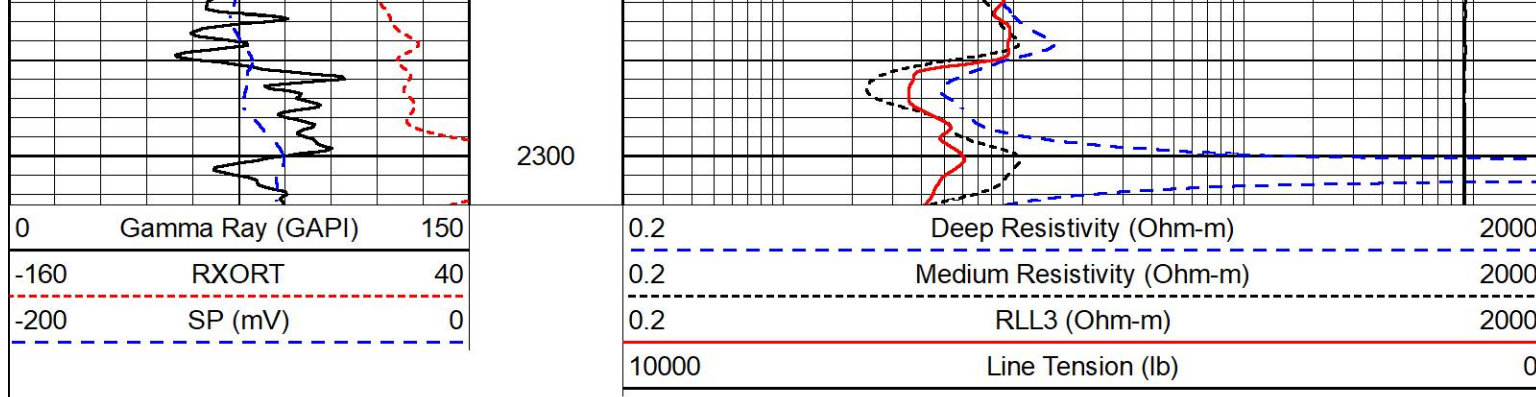
MIDWEST WIRELINE

ANHYDRITE SECTION

MAIN PASS

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 Presentation Format _dil
 Dataset Creation Fri Jul 29 02:06:34 2022
 Charted by Depth in Feet scaled 1:240



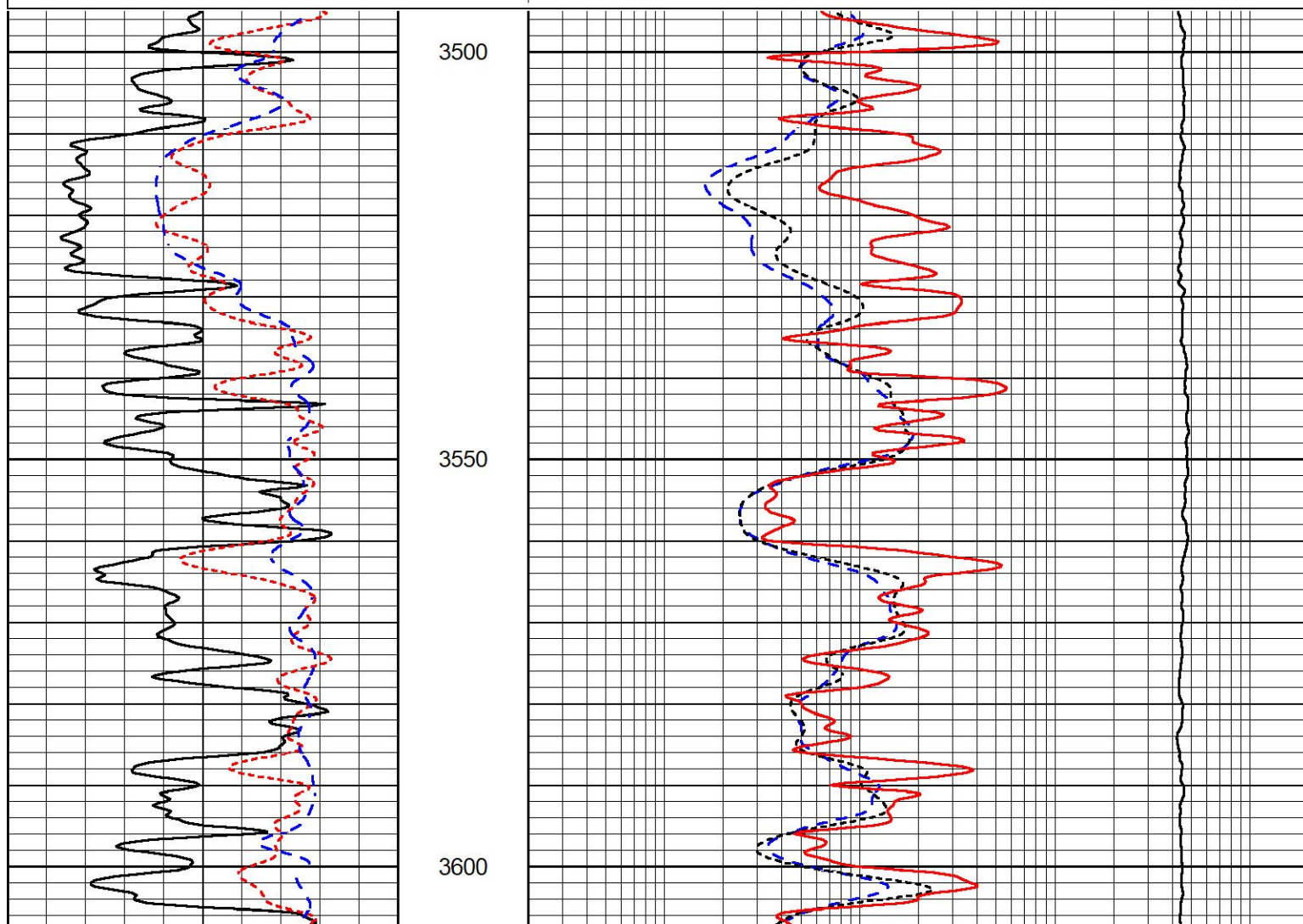
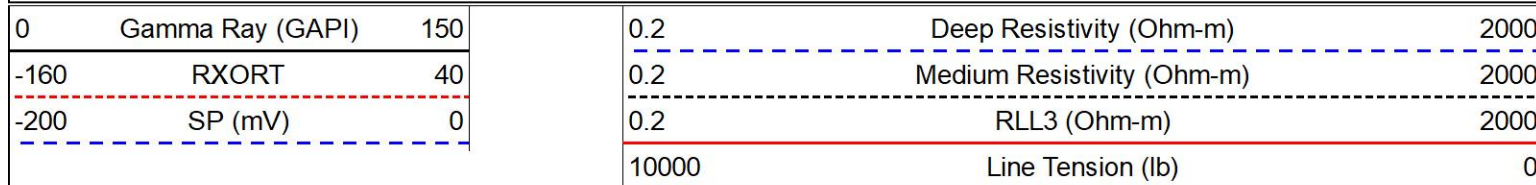


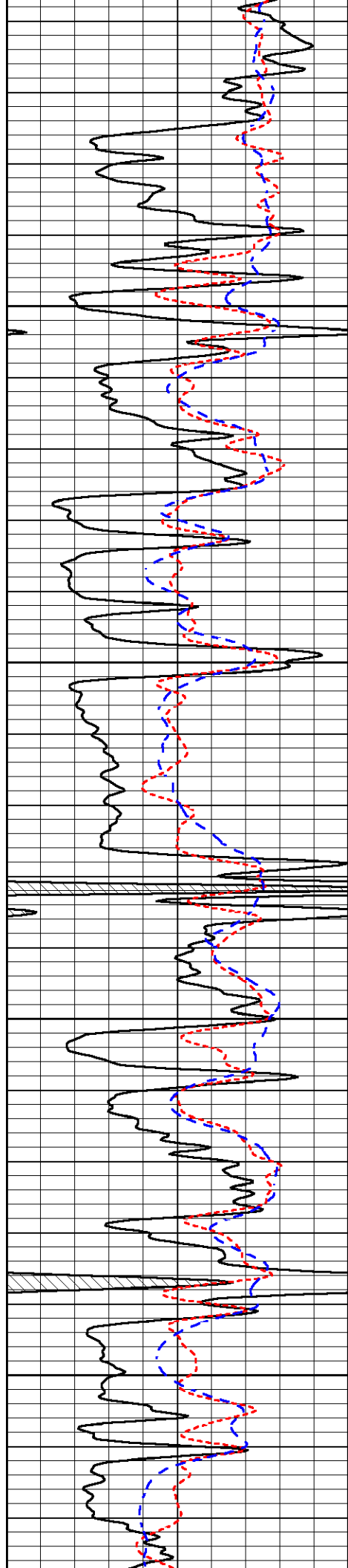
MIDWEST WIRELINE

DETAIL SECTION

MAIN PASS

Database File canyon_finley #19-1.db
 Dataset Pathname StkMI/pass3.1
 Presentation Format _dil
 Dataset Creation Fri Jul 29 00:48:12 2022
 Charted by Depth in Feet scaled 1:240



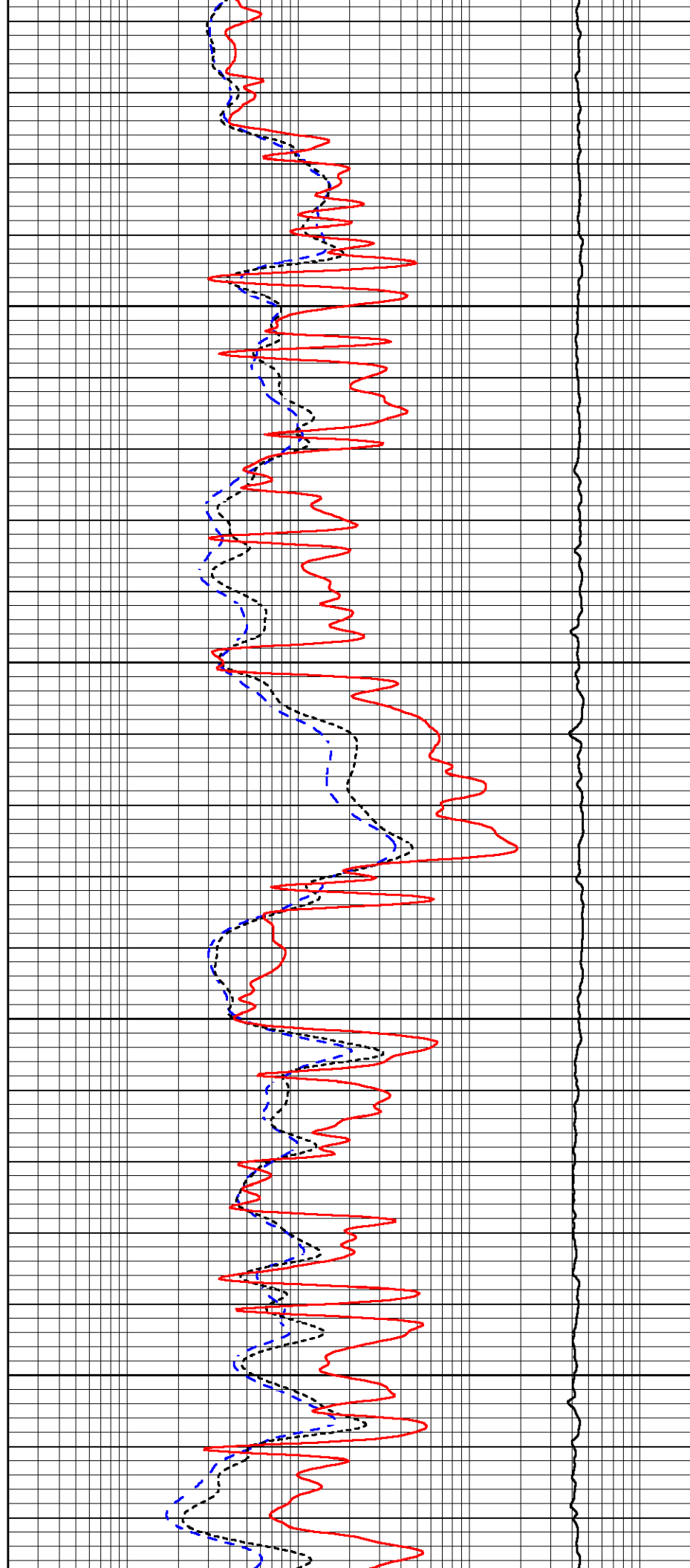


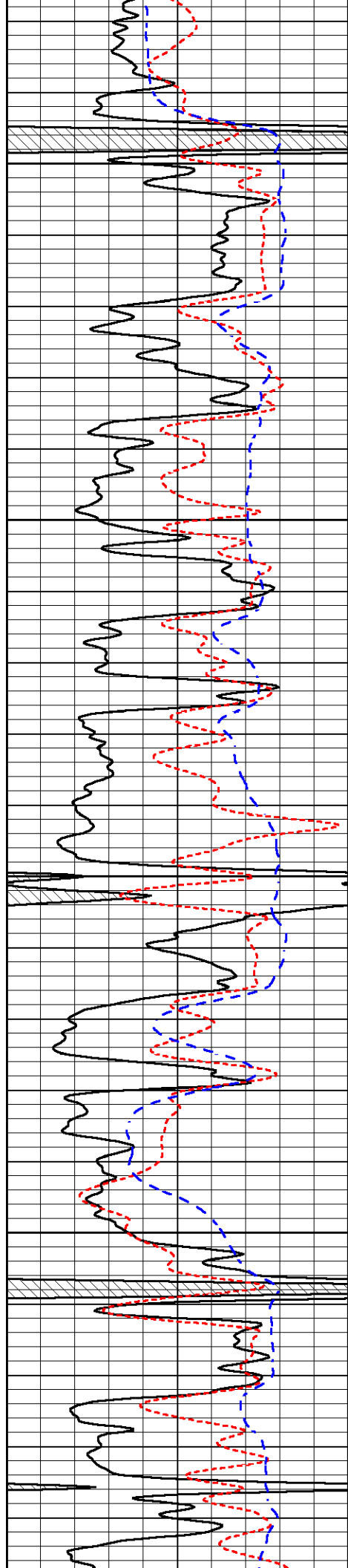
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3700

3750

3800



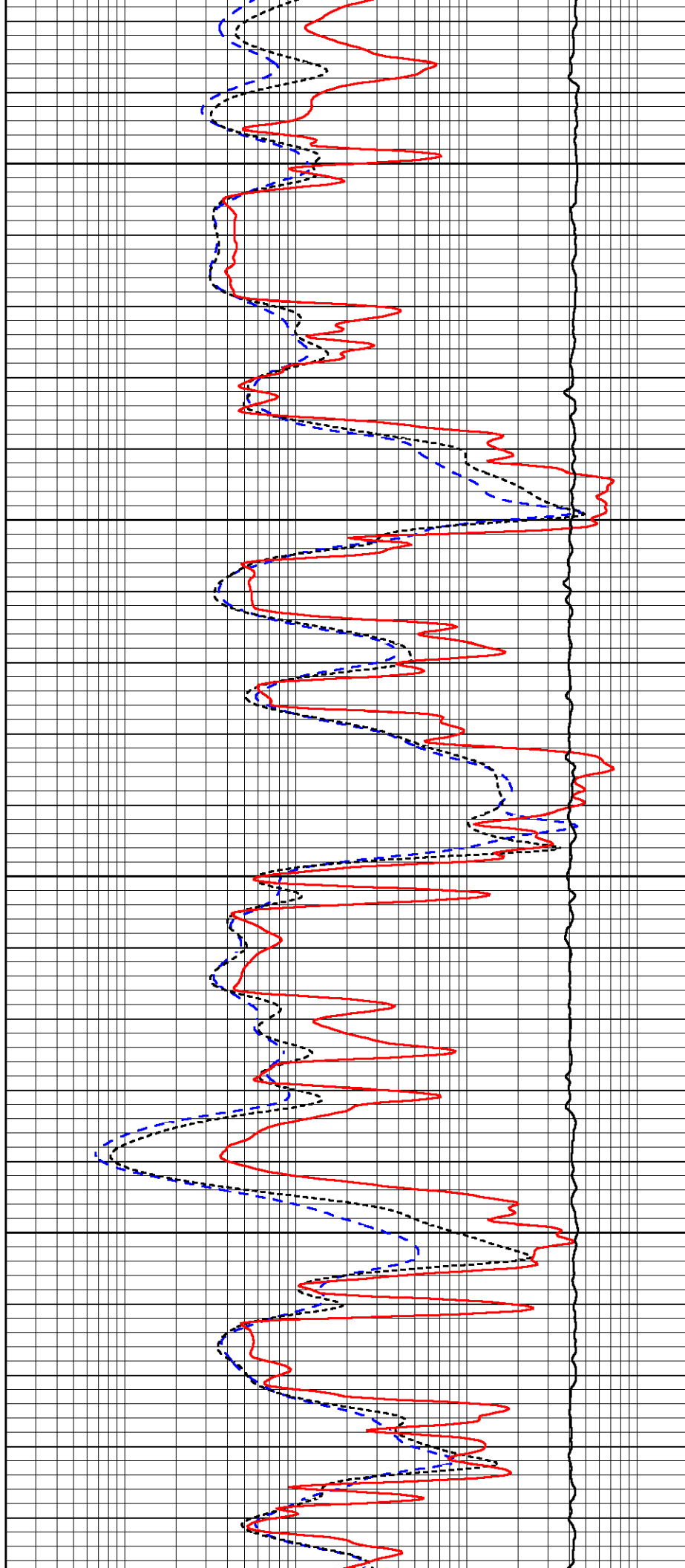


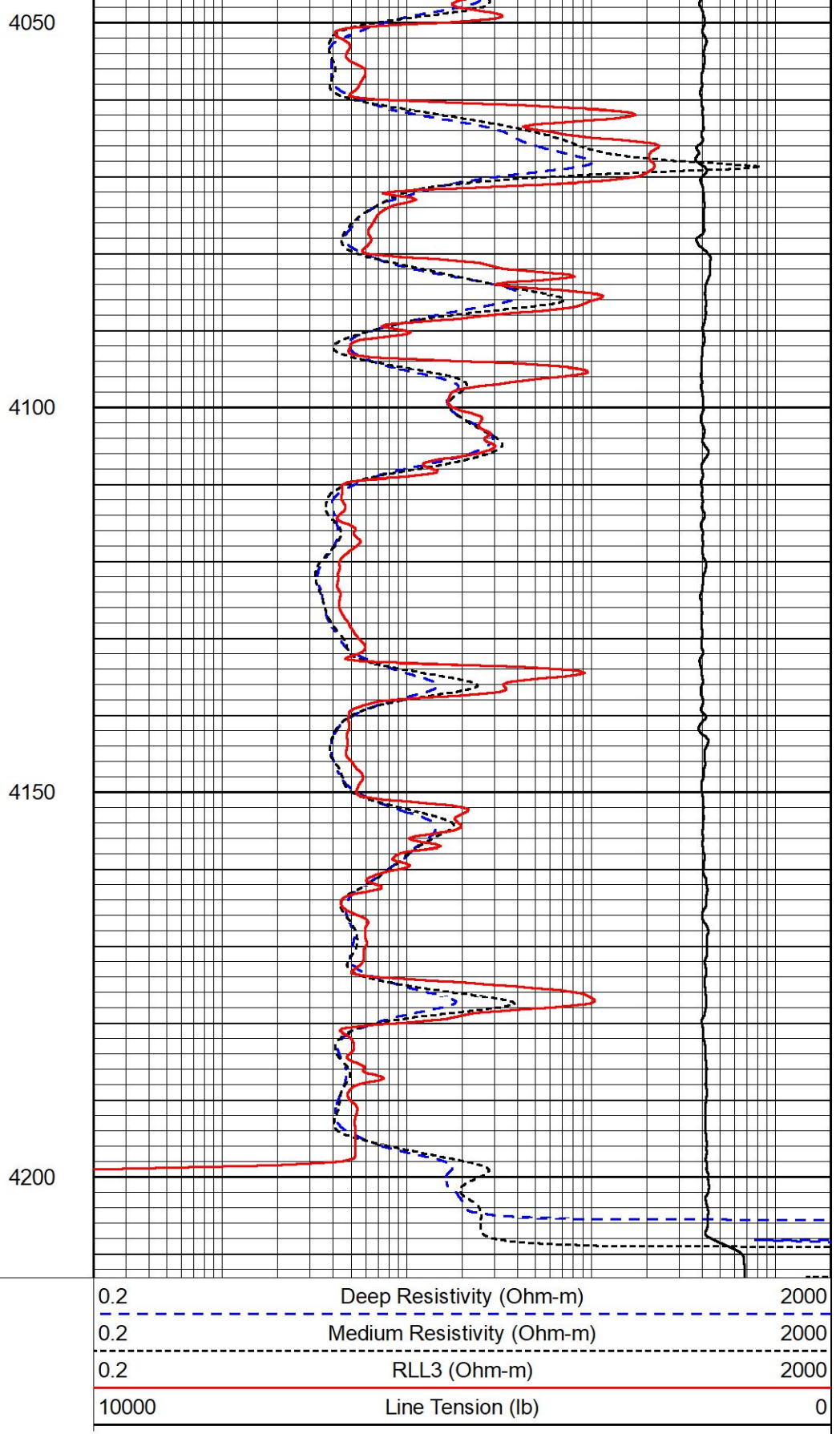
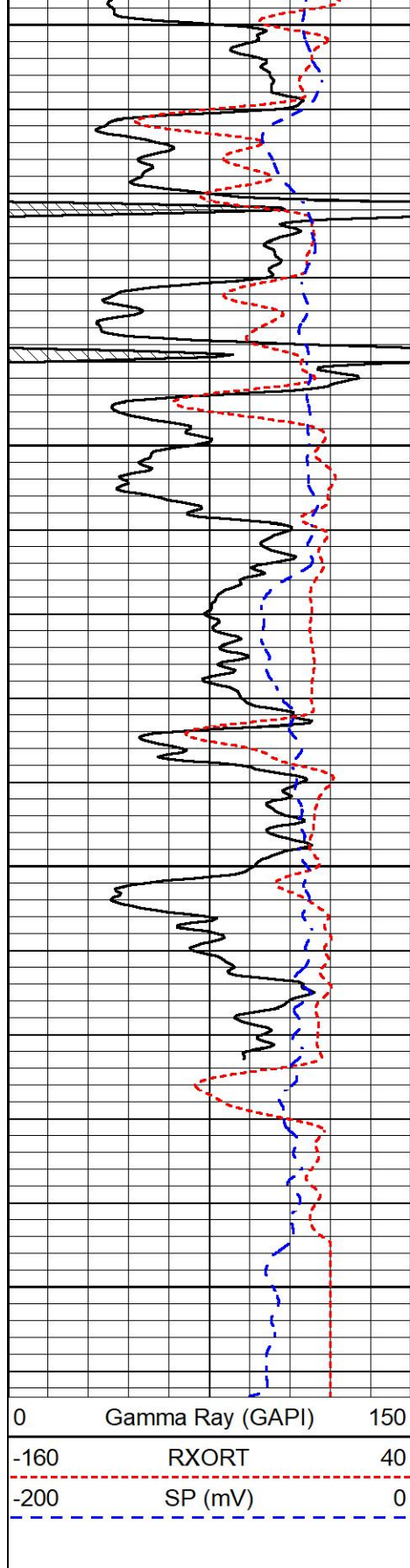
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3900

3950

4000





MIDWEST WIRELINE

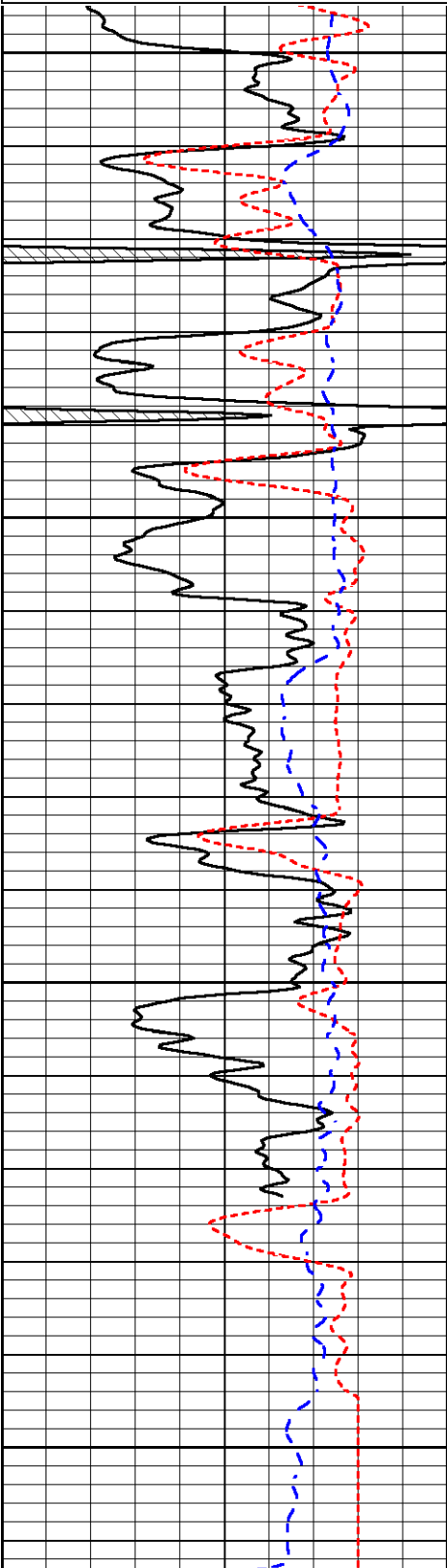
REPEAT SECTION

REPEAT PASS

Database File canyon_finley #19-1.db
Dataset Pathname StkMI/pass2.1

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

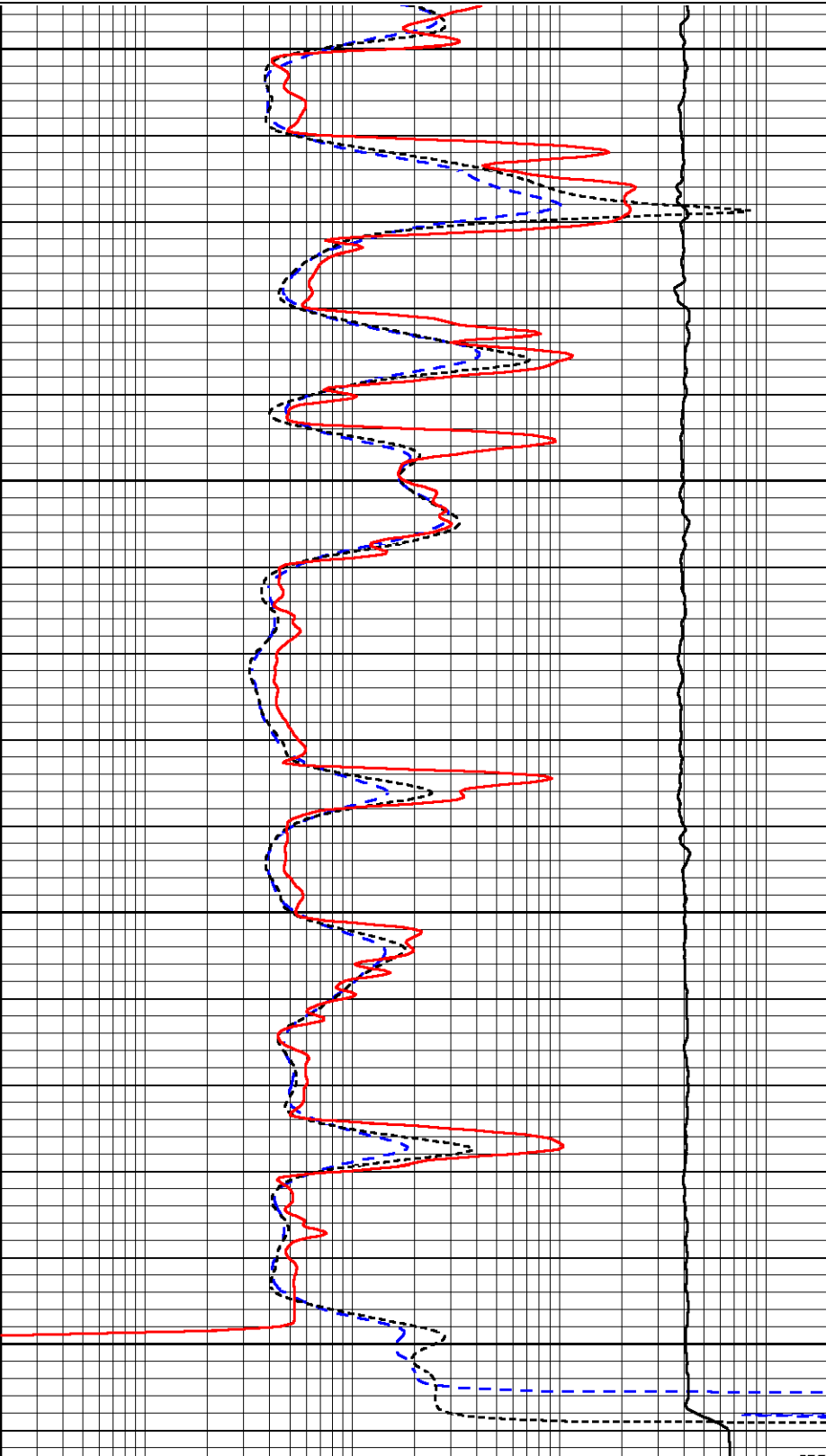


4050

4100

4150

4200



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

Calibration Report		
Database File	canyon_finley #19-1.db	
Dataset Pathname	StkMI/pass3.3	
Dataset Creation	Fri Jul 29 00:21:40 2022	

Dual Induction Calibration Report

Serial-Model:	501 HT-M&W
Surface Cal Performed:	Sat Apr 30 02:12:10 2022

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		m	b
Deep	83.639	487.104	0.000	183.000	mmho/m	0.455	-39.000
Medium	113.335	1585.690	0.000	442.000	mmho/m	0.305	-33.000

Microlog Calibration Report

Serial-Model:	402-PSIML
Performed:	Sun Jul 17 13:11:21 2022

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	24500.0000	0.0000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	28500.0000	0.3000
Caliper	1.0052	1.0858	5.0000	16.5000	in	65.0000	-59.8000

Compensated Density Calibration Report

Serial-Model:	302-02-M&W
Source #:	20762B
Master Calibration Performed:	Wed Jun 22 01:19:51 2022

Master Calibration							
	Density			Far Detector		Near Detector	
Magnesium	1.755	g/cc		4422.04		6163.44	cps
Aluminum	2.665	g/cc		835.14		3912.91	cps
Spine Angle = 74.75				Density/Spine Ratio = 0.527			
	Size			Reading			
Small Ring	8.00	in		0.53			
Large Ring	30.00	in		0.60			

Compensated Neutron Calibration Report

Serial Number:	207-MW
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	

PRE-SURVEY VERIFICATION				
	Detector	Readings	Measured	Target
1)	Short Space Long Space	cps cps	pu	pu
2)	Short Space Long Space	cps cps	pu	
3)	Short Space Long Space	cps cps	pu	
POST-SURVEY VERIFICATION				
	Detector	Readings	Measured	Target
1)	Short Space Long Space	cps cps	pu	pu
2)	Short Space Long Space	cps cps	pu	pu
3)	Short Space Long Space	cps cps	pu	pu
Gamma Ray Calibration Report				
Serial Number:		106		
Tool Model:		M&W		
Performed:		Fri Dec 3 15:10:46 2021		
Calibrator Value:		500.0	GAPI	
Background Reading:		24.0	cps	
Calibrator Reading:		637.0	cps	
Sensitivity:		0.5500	GAPI/cps	

	Company	Canyon Operating LLC
	Well	Finley #19-1
	Field	
	County	Graham
	State	Kansas