



MIDWEST WIRELINE

DUAL INDUCTION LOG

Company Carmen Schmitt Inc.
 Well Rolfs #2
 Field Gregory
 County Ellsworth
 State Kansas

Company Carmen Schmitt Inc.
 Well Rolfs #2
 Field Gregory
 County Ellsworth State Kansas

Location: 2045 FNL 1850 FWL
 API #: 15-053-21378-00-00
 SEC 36 TWP 16S RGE 9W
 Permanent Datum Ground Level Elevation 1764
 Log Measured From Kelly Bushing
 Drilling Measured From Kelly Bushing
 Other Services
 CNL/CDL
 MEL
 Elevation
 K.B. 1774
 D.F.
 G.L. 1764

Date	12/21/2021
Run Number	One
Depth Driller	3340
Depth Logger	3341
Bottom Logged Interval	3340
Top Log Interval	200
Casing Driller	8.625 @ 249
Casing Logger	250
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	6000
Density / Viscosity	9.1 58
pH / Fluid Loss	9.5 8.0
Source of Sample	FLOWLINE
Rm @ Meas. Temp	0.40 @ 50
Rmt @ Meas. Temp	0.30 @ 50
Rmc @ Meas. Temp	0.54 @ 50
Source of Rmf / Rmc	CHARTS
Rm @ BHT	0.18 @ 109
Operating Rig Time	3 Hours
Max Rec. Temp. F	109
Equipment Number	P-24
Location	Hays
Recorded By	D. Schmidt
Witnessed By	Brad Rine

<<< 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.

Ellsworth,
 SW on Hwy 156 to 10 Rd, South to R Rd,
 1 /2 East, 1/2 South, 1/2 East,
 North and East to location

Log Measured From: Kelly Bushing 10 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: Brad Rine
 Secondary Witness:
 Secondary Witness:
 Secondary Witness:

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.33		GR-M&W (101)	3.00	3.50	50.00
CNLSC CNSSC	37.23 36.48		CNT-M&W (207-MW)	5.00	3.50	100.00
LSD DCAL SSD	28.18 28.17 27.68		CDL-M&W (305-05)	8.50	4.00	250.00
MCAL MI MN	19.58 19.58 19.58		ML-PSIML (402)	7.58	4.00	65.00
RLL3F RLL3	15.50 15.50					
CILD	8.33		DIL-M&W (501 HT)	18.25	3.50	220.00
CILM	4.50					
SP	0.20					

Dataset: carmen schmitt_rolfs 2.db: field/well/stkml/pass3.12
 Total length: 42.33 ft
 Total weight: 685.00 lb
 O.D.: 4.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\carmen schmitt_rolfs 2.db
 Dataset field/well/stkml/pass3.12/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	109	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	310	30	Off	3341

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

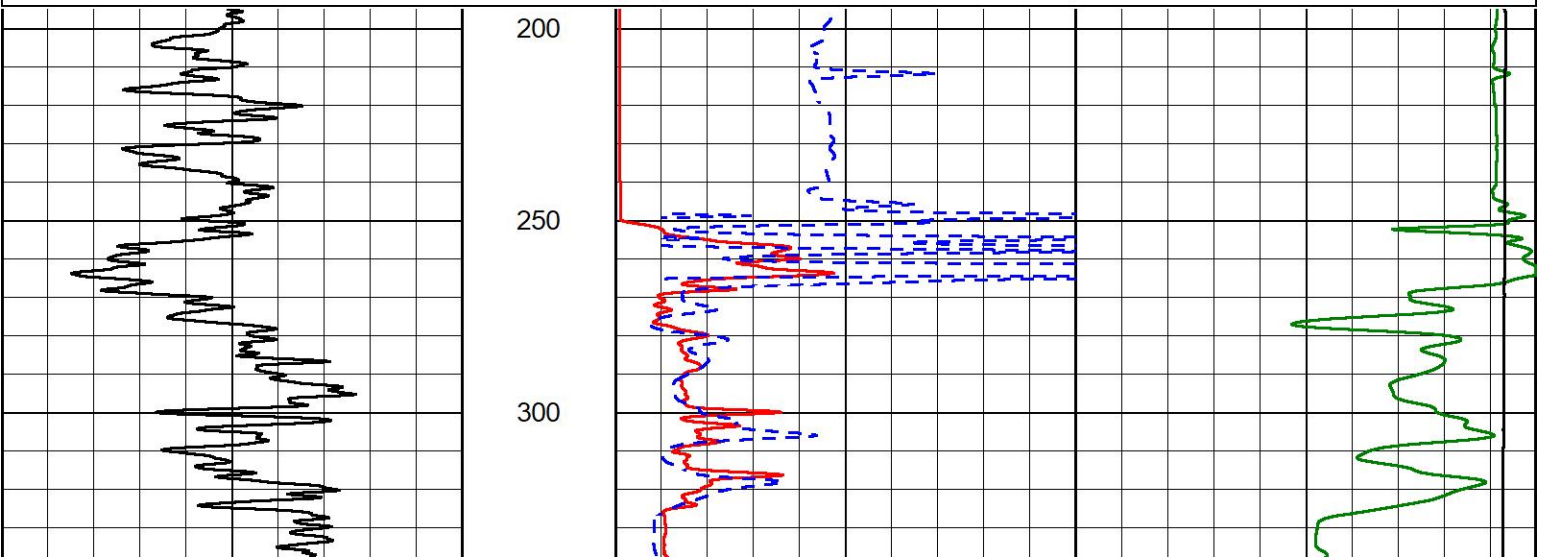


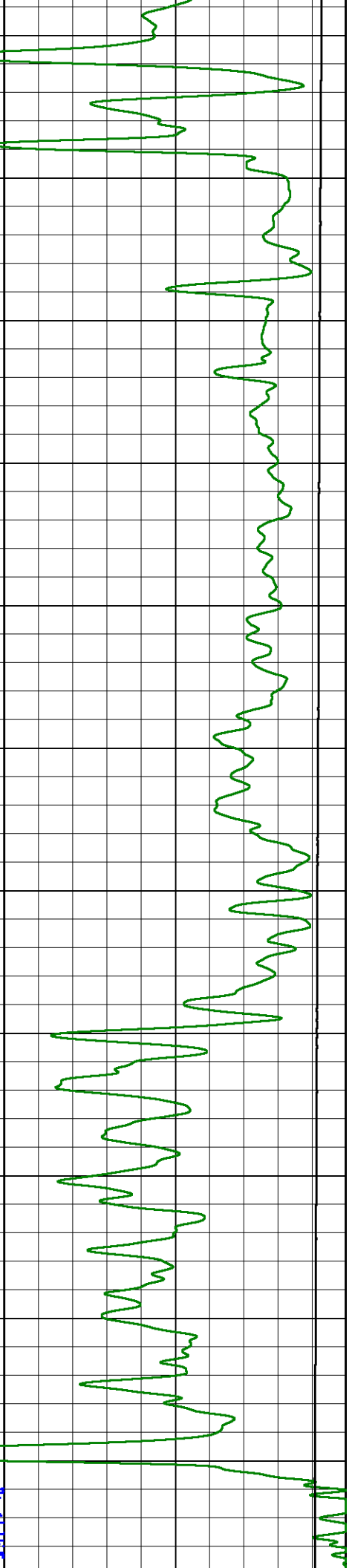
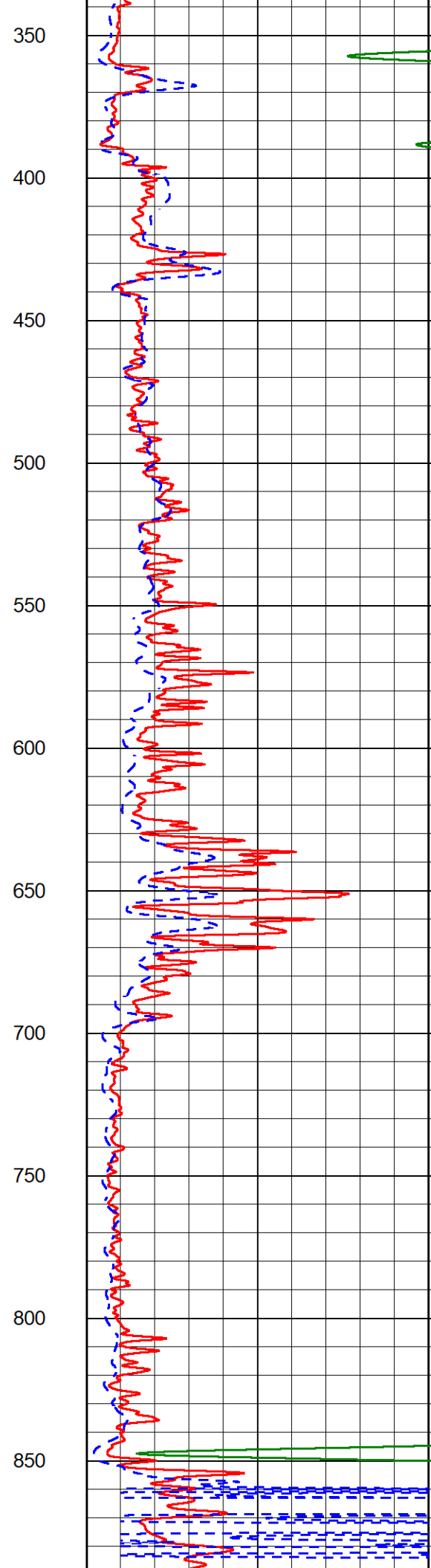
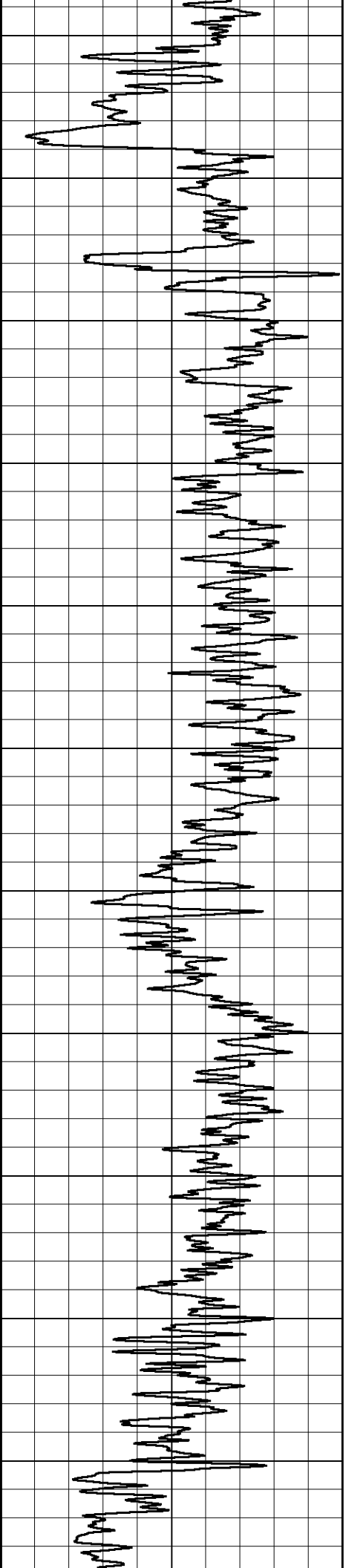
2" SCALE RESISTIVITY

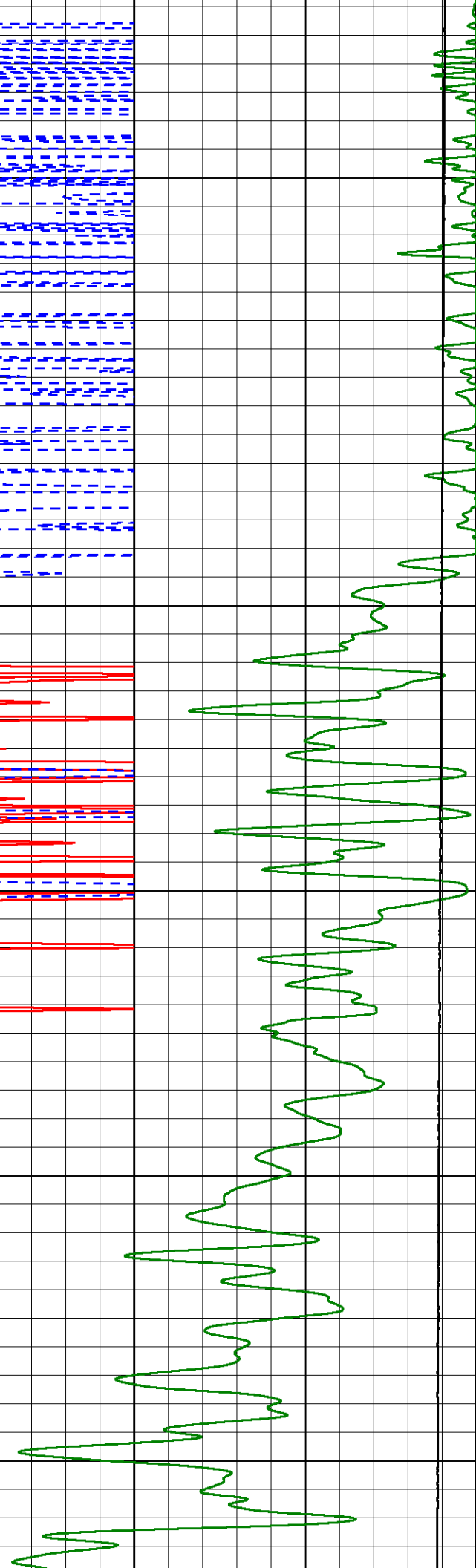
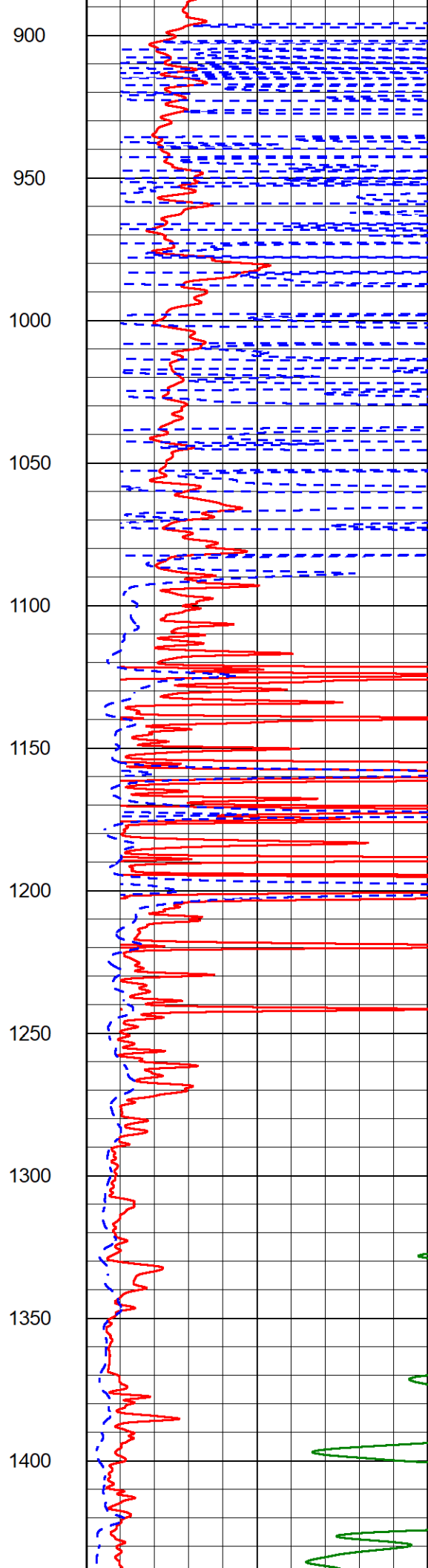
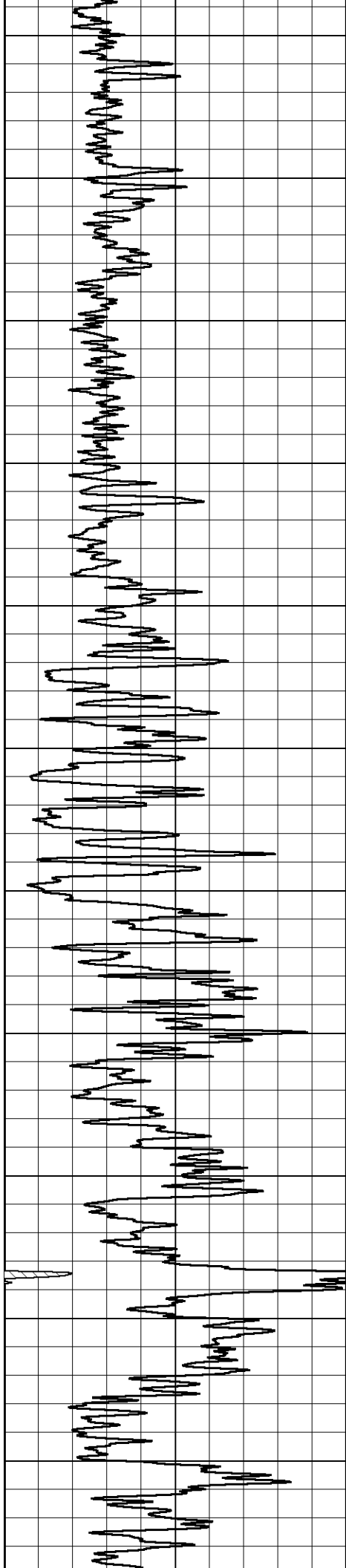
MAIN PASS

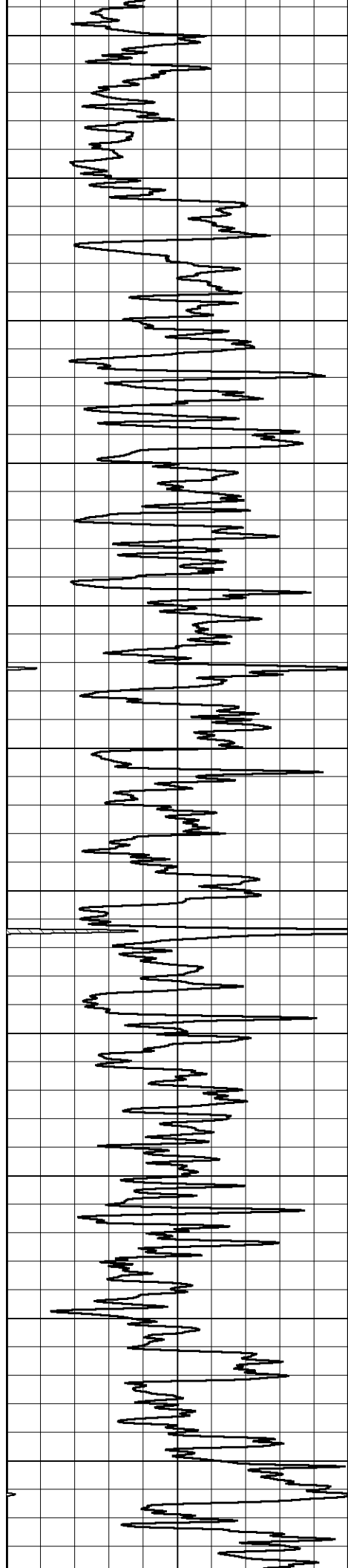
Database File carmen schmitt_rolfs 2.db
 Dataset Pathname stkml/pass5.1
 Presentation Format _dil2in
 Dataset Creation Tue Dec 21 11:44:02 2021
 Charted by Depth in Feet scaled 1:600

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			

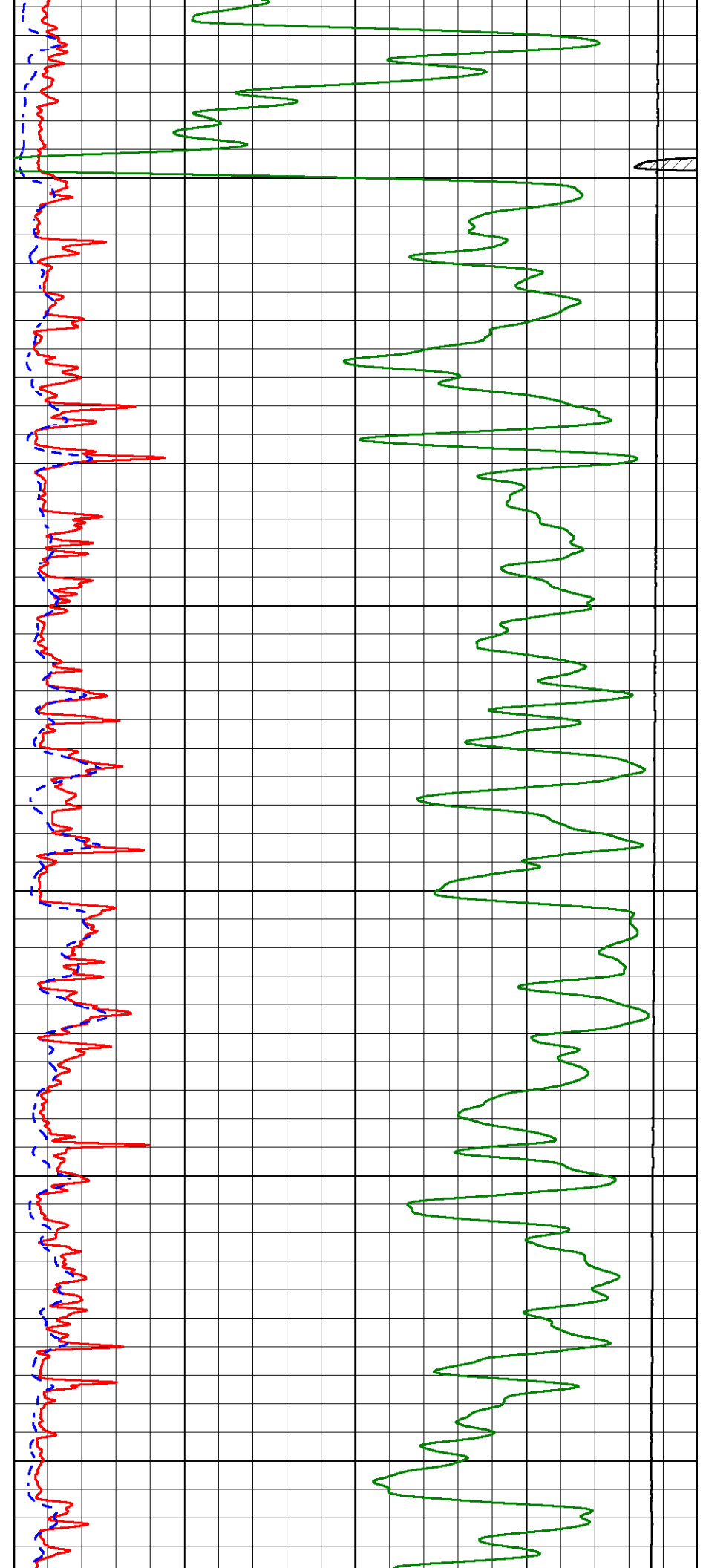


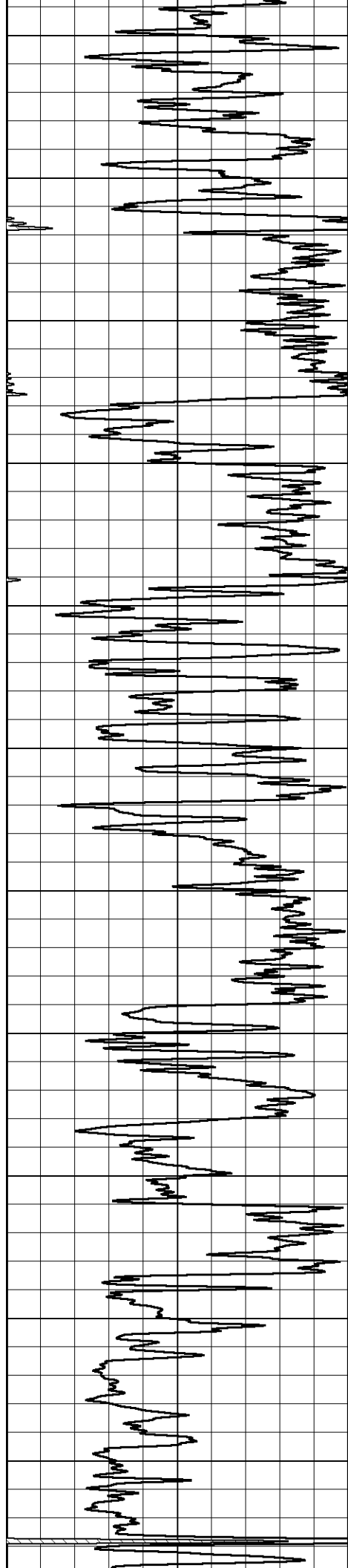




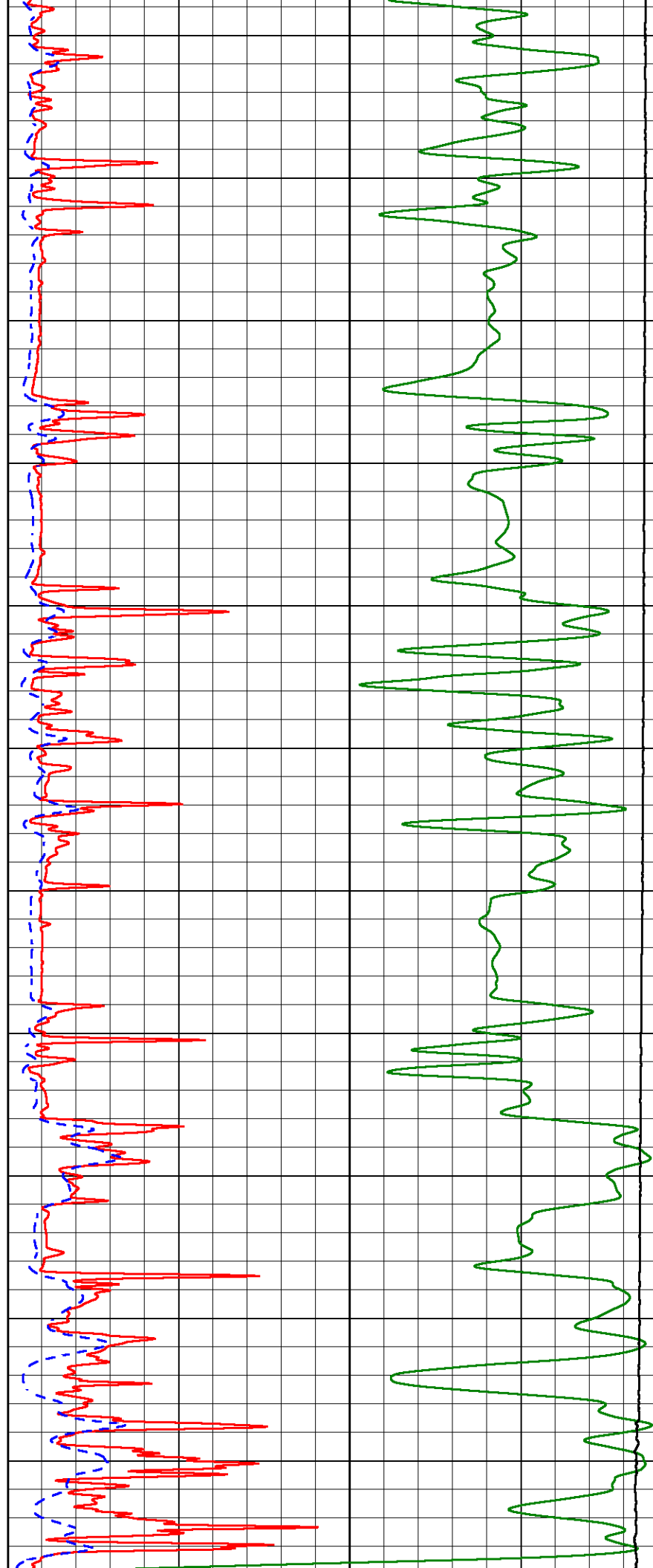


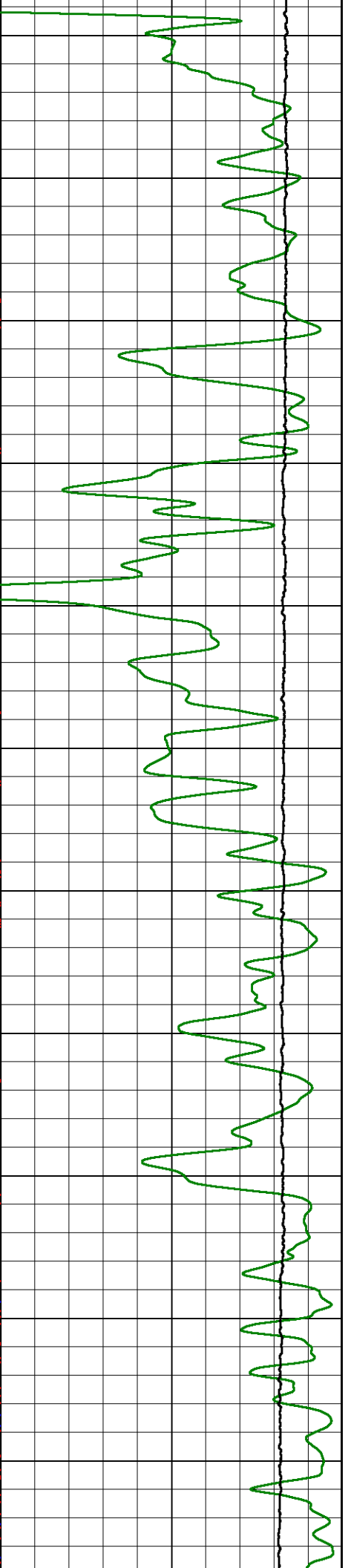
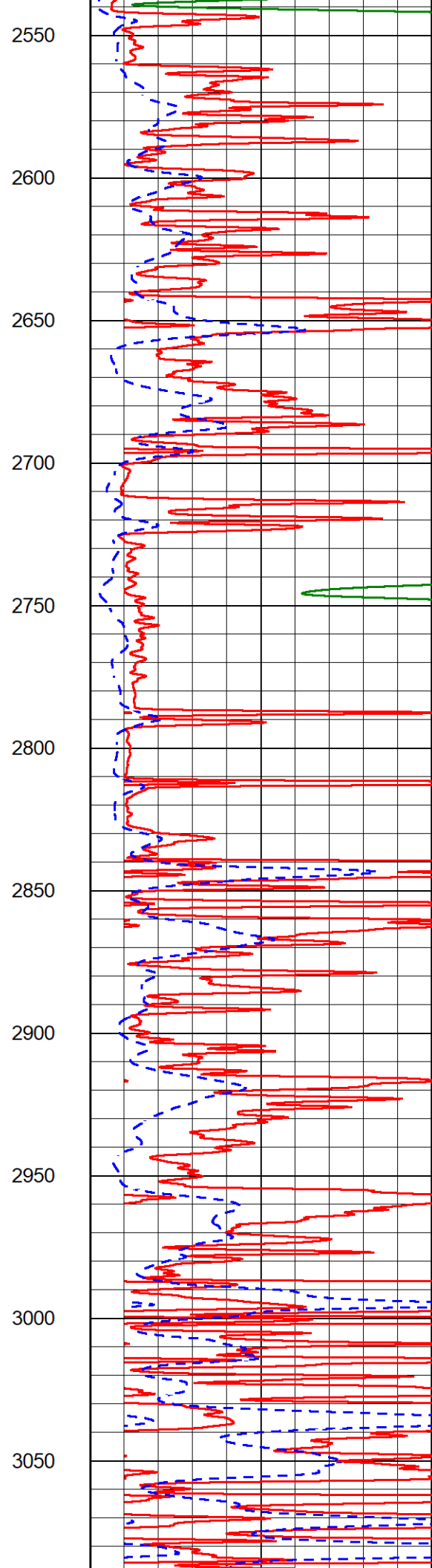
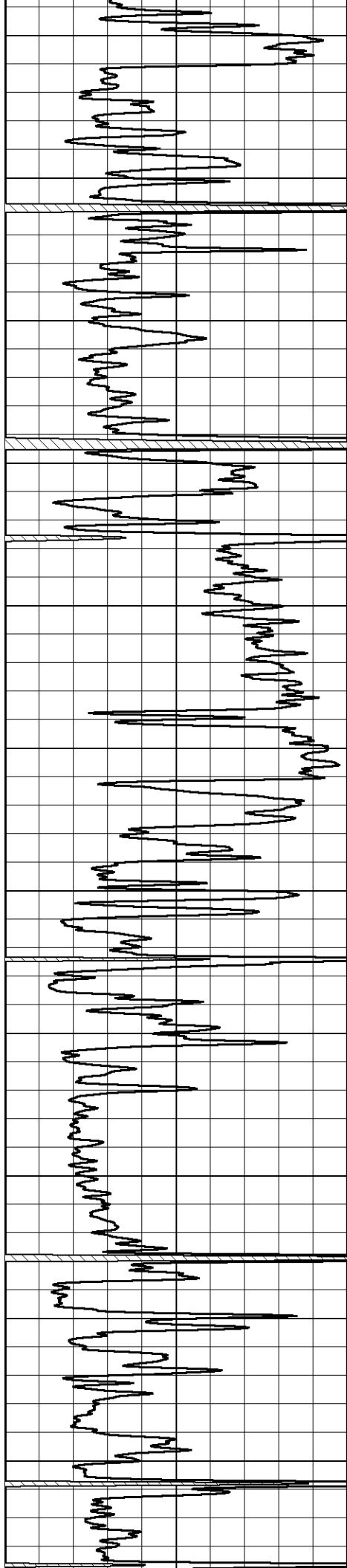
1450
1500
1550
1600
1650
1700
1750
1800
1850
1900
1950

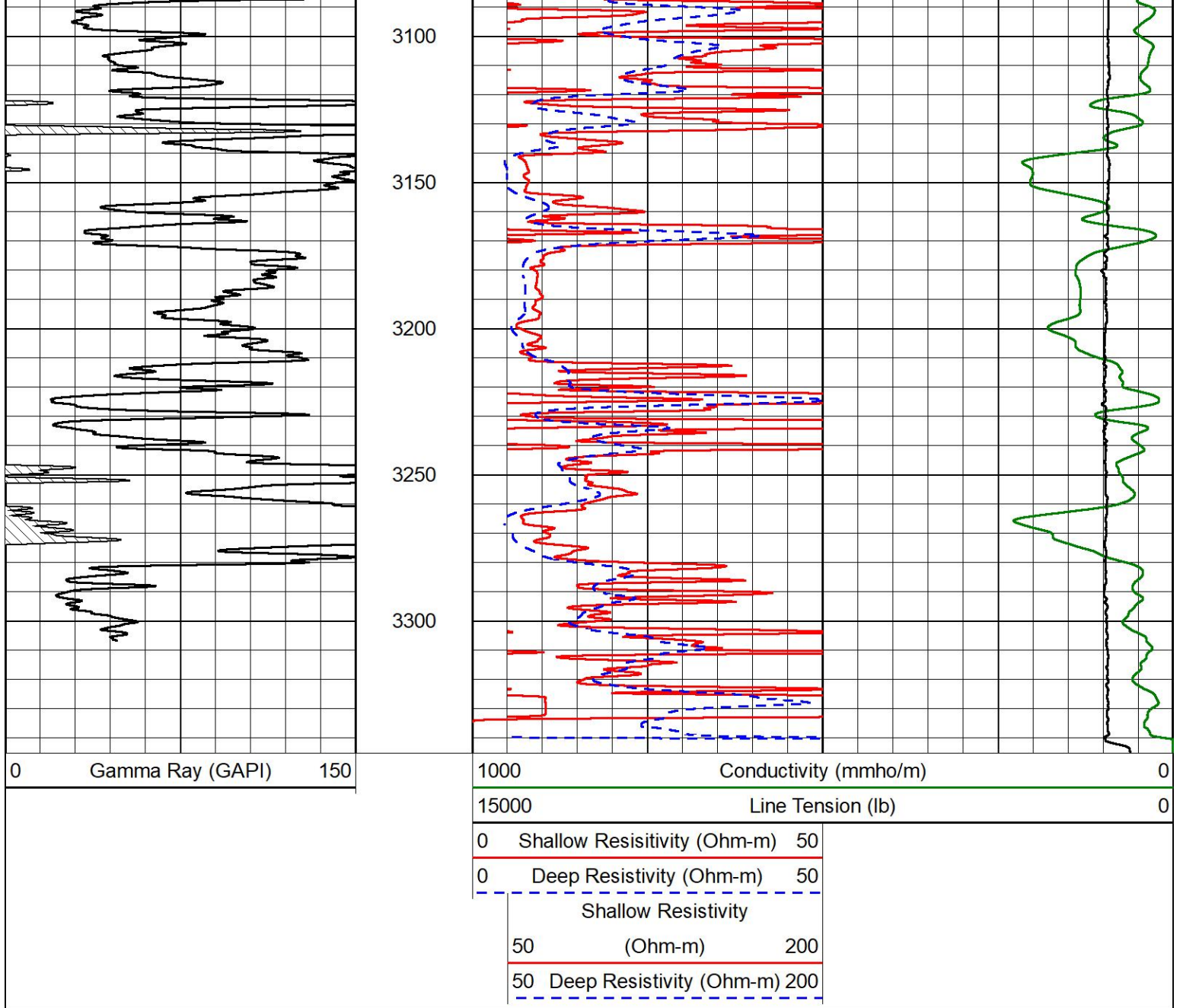




2000
2050
2100
2150
2200
2250
2300
2350
2400
2450
2500





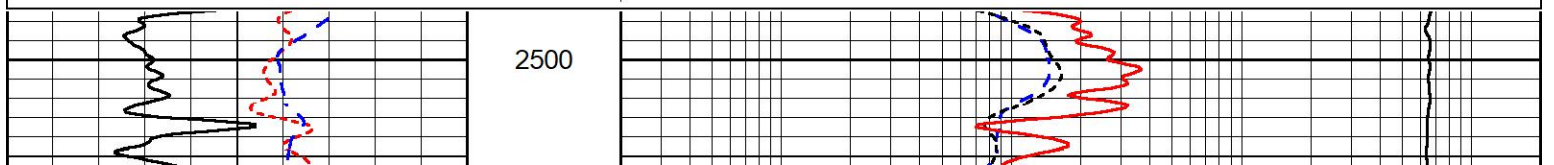


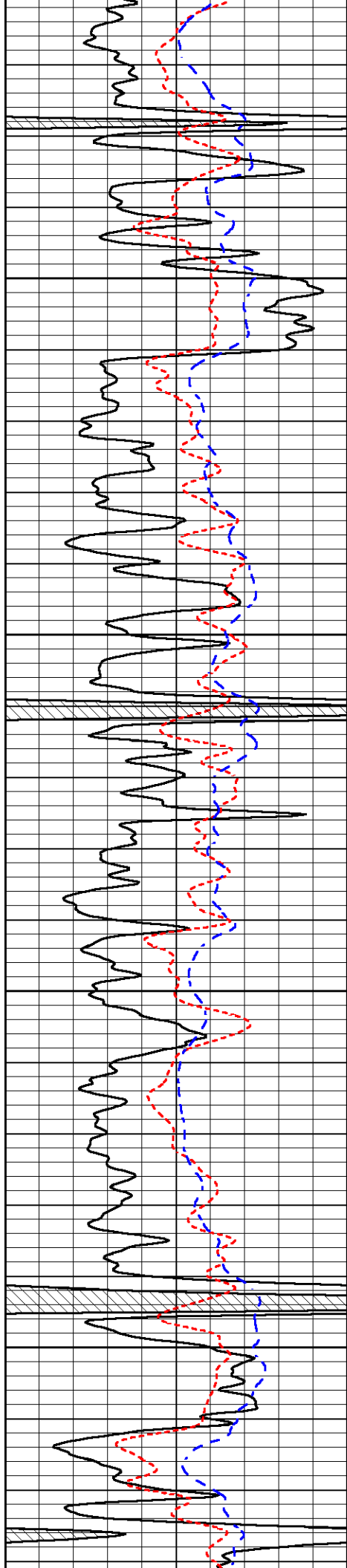
DETAIL SECTION

MAIN PASS

Database File carmen schmitt_rolfs 2.db
 Dataset Pathname stkml/pass3.1
 Presentation Format _dil
 Dataset Creation Tue Dec 21 11:36:39 2021
 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	Shallow Resistivity (Ohm-m)	2000
			10000	Line Tension (lb)	0



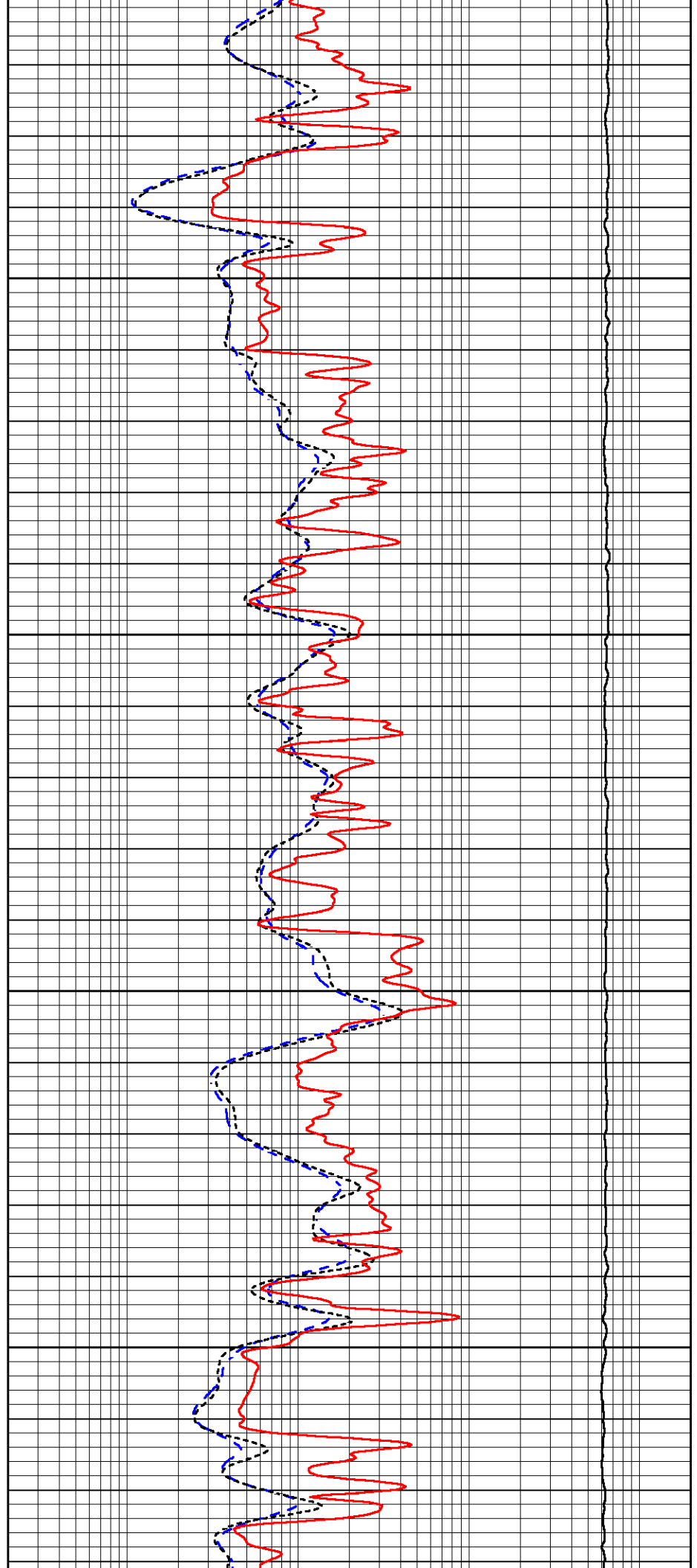


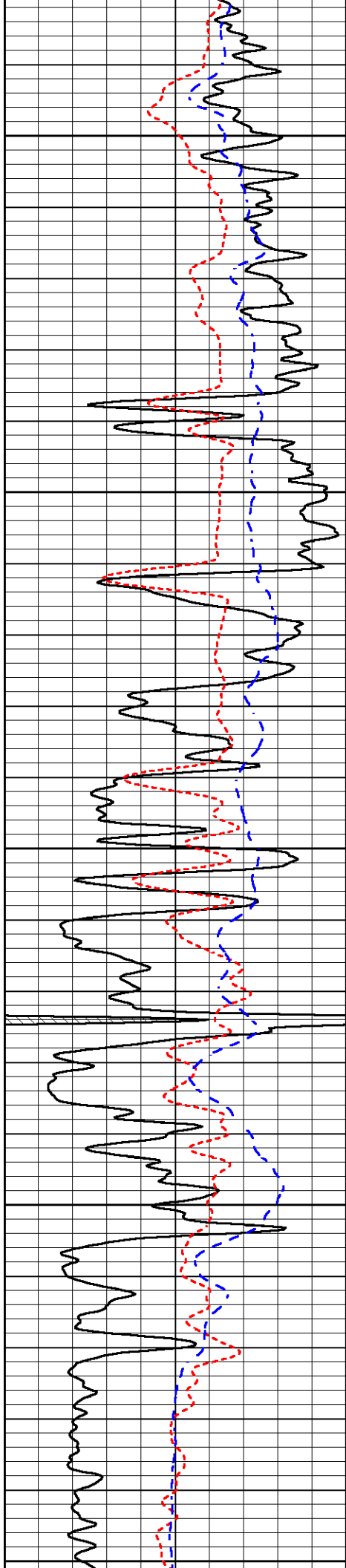
2550

2600

2650

2700





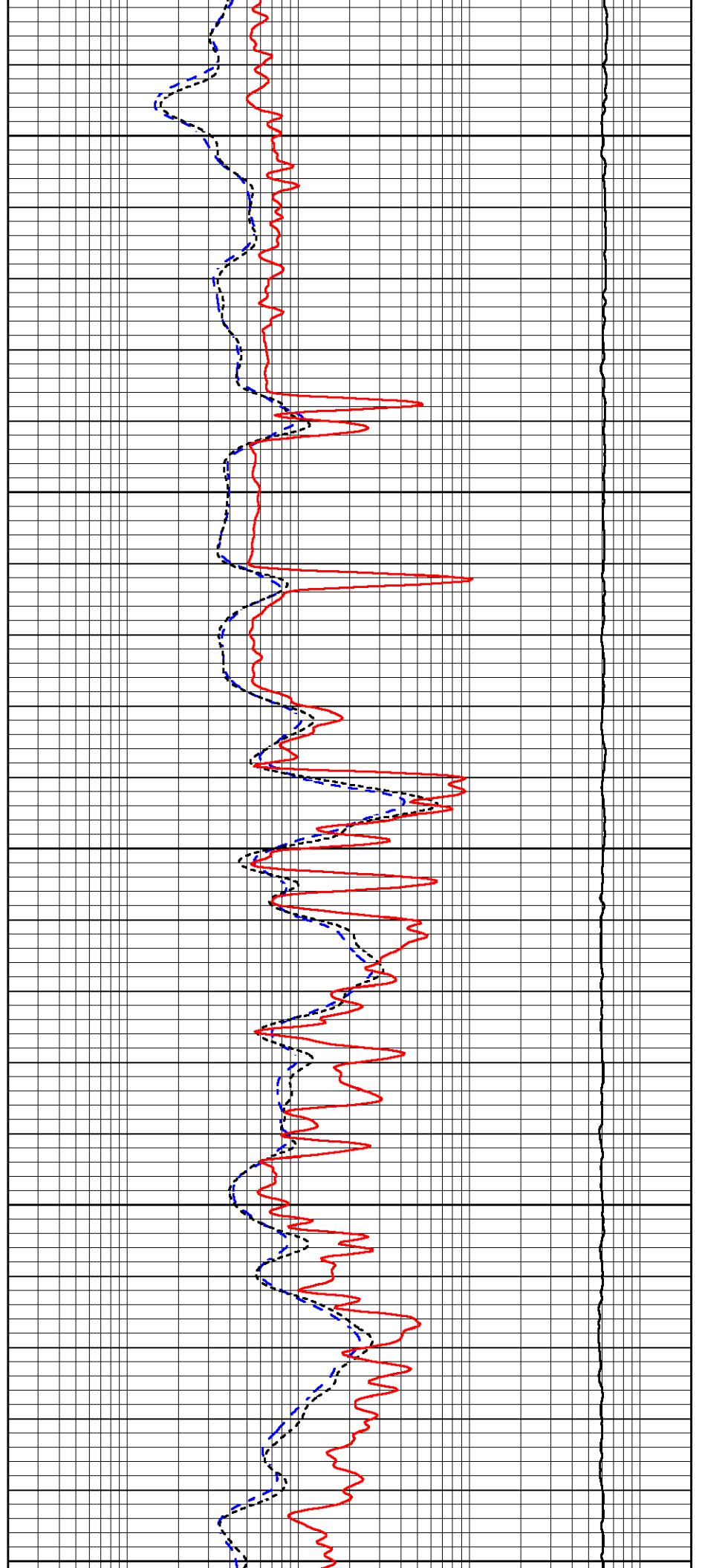
2750

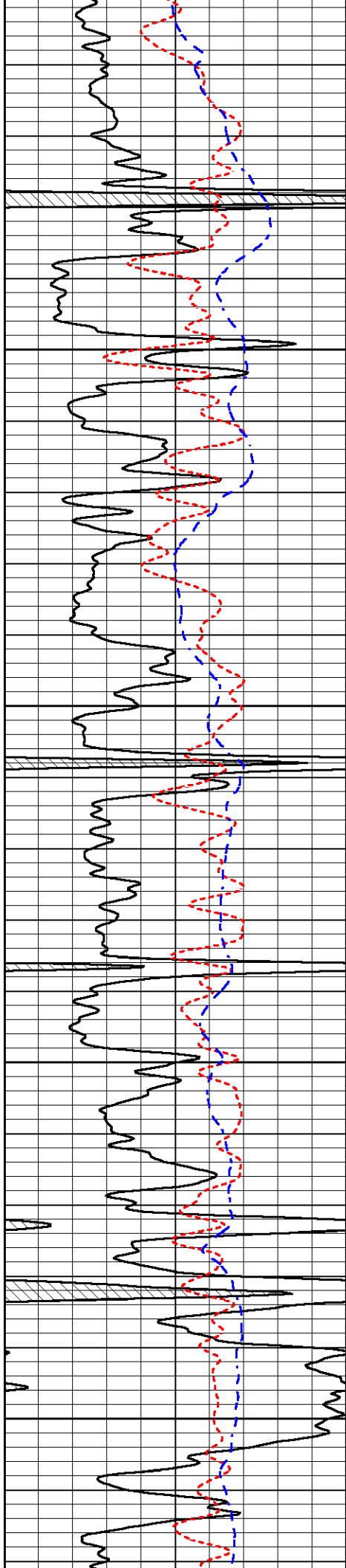
2800

2850

2900

2950



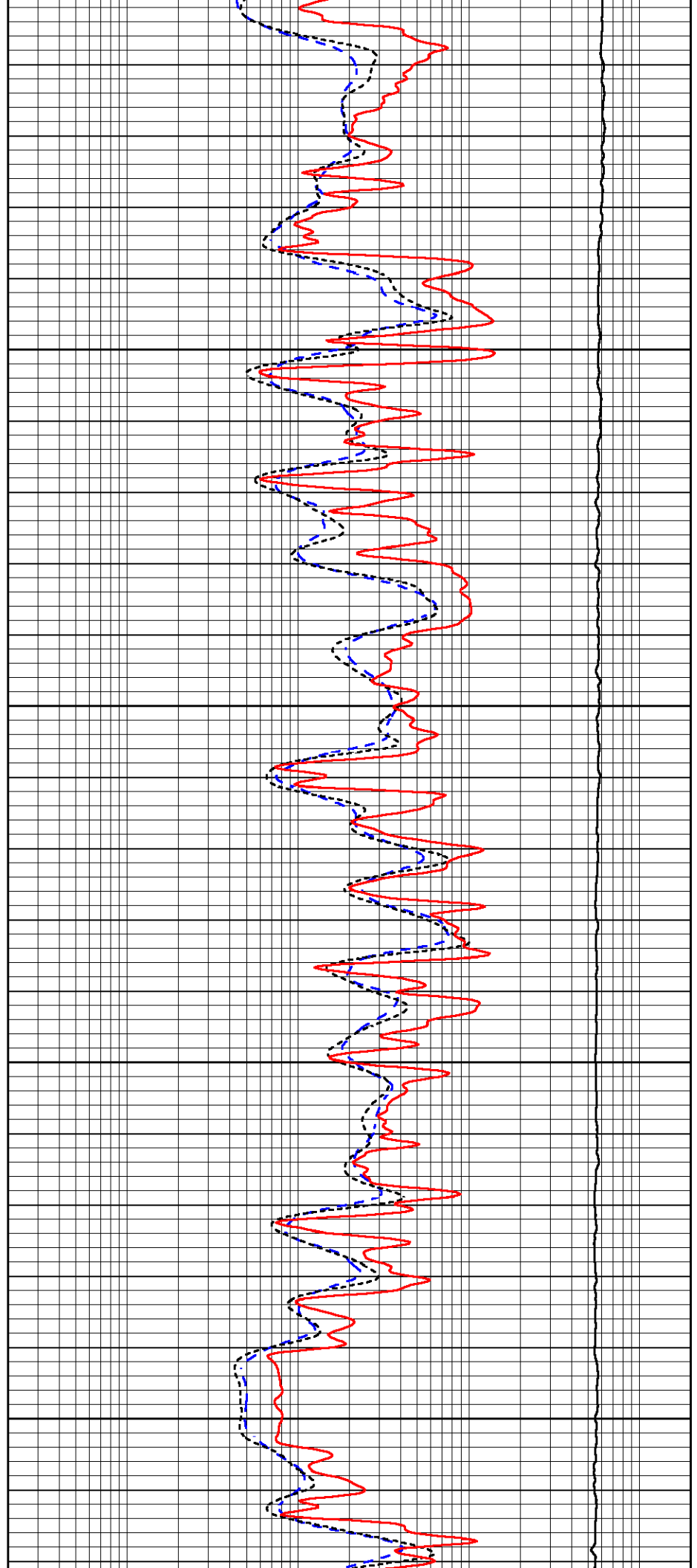


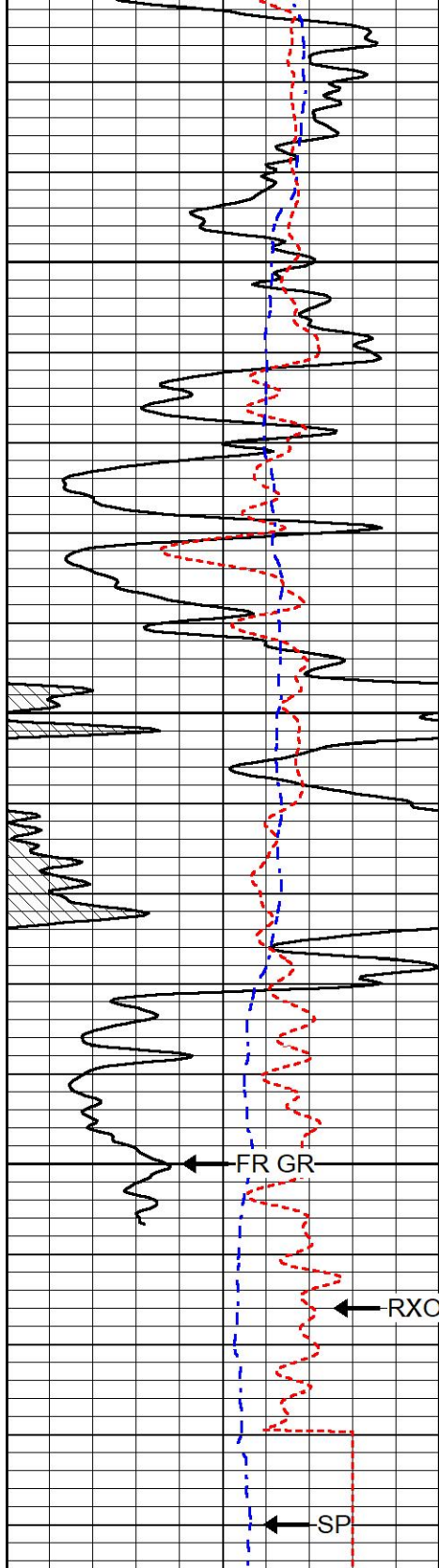
3000

3050

3100

3150





3200

3250

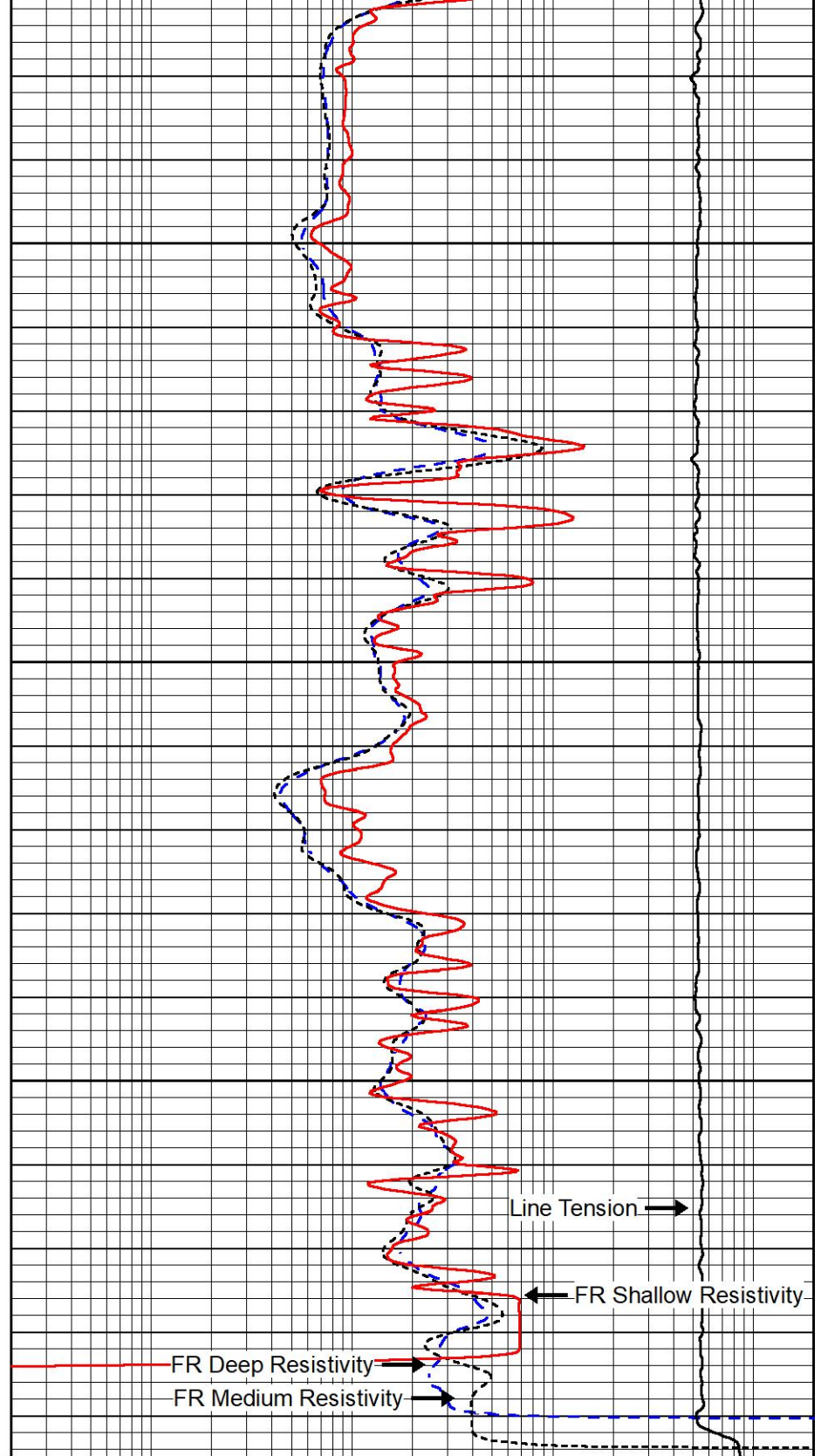
3300

FR GR

RXORT

SP

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



Line Tension

FR Shallow Resistivity

FR Deep Resistivity

FR Medium Resistivity

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



MIDWEST WIRELINE

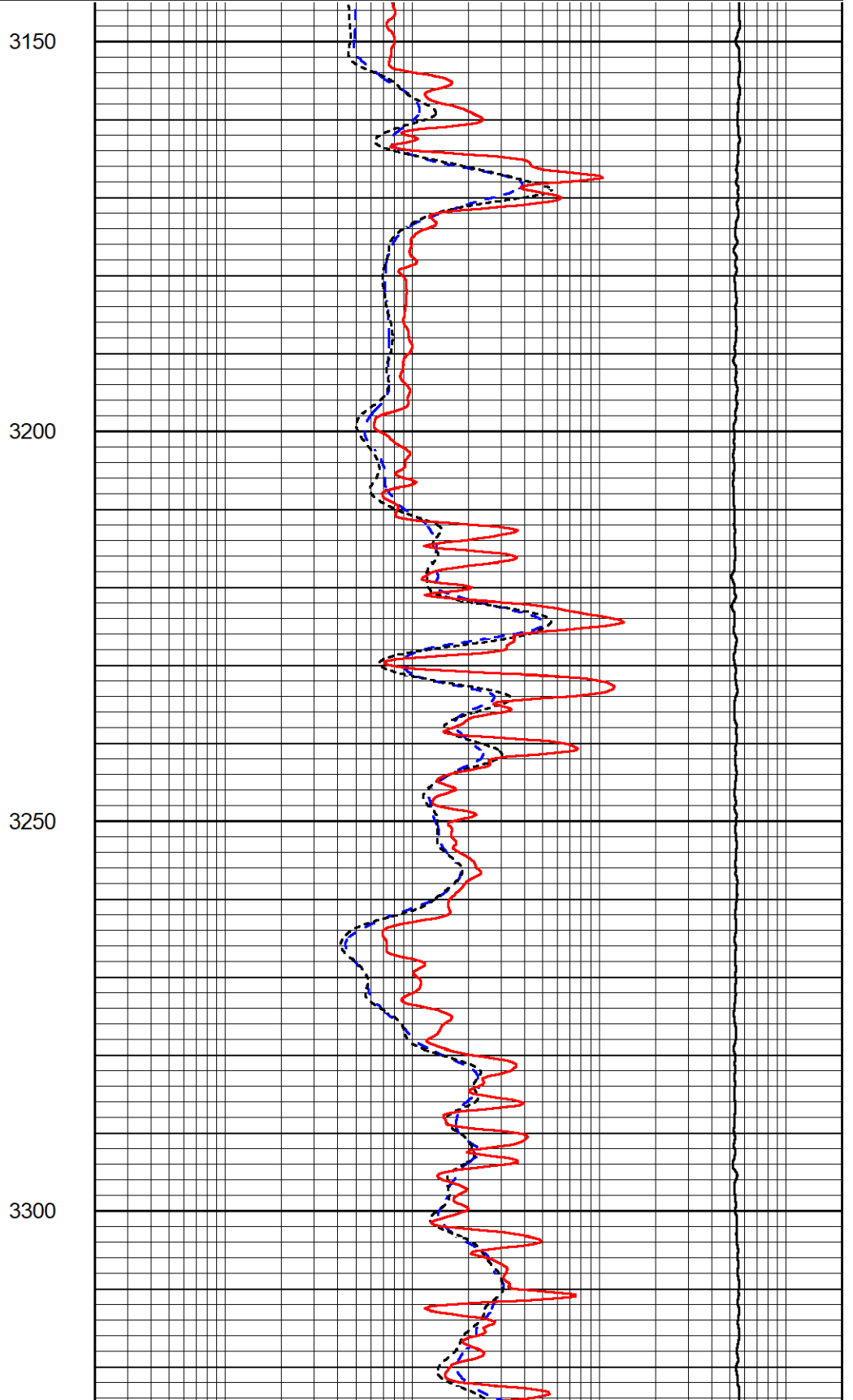
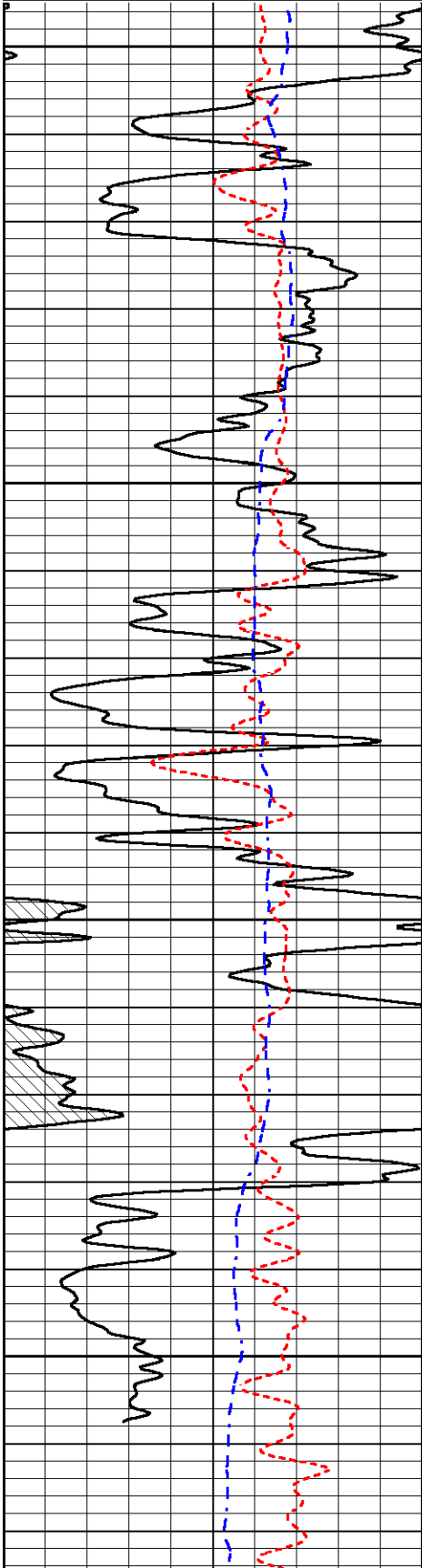
REPEAT SECTION

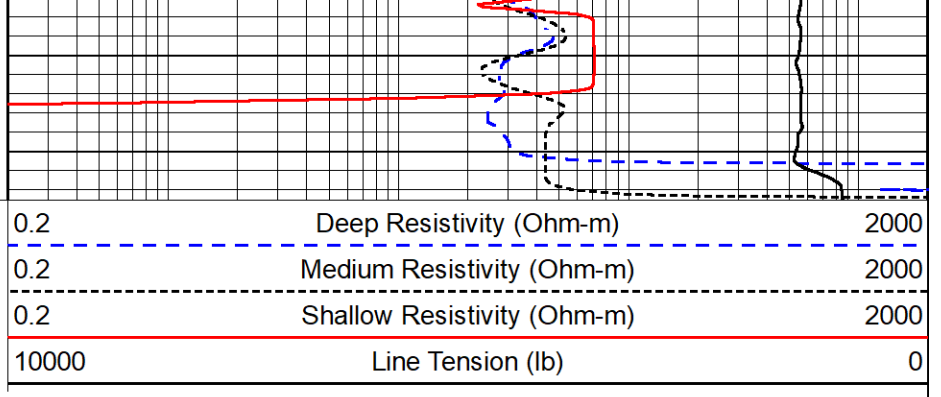
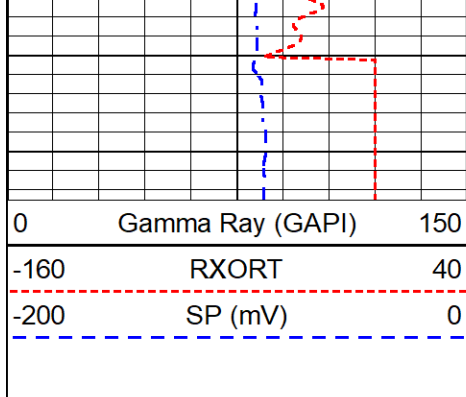
REPEAT PASS

Database File carmen schmitt_rolfs 2.db
 Dataset Pathname stkml/pass2.1
 Presentation Format _dil
 Dataset Creation Tue Dec 21 11:03:31 2021
 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	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0





Calibration Report	
Database File	carmen schmitt_rolfs 2.db
Dataset Pathname	stkml/pass3.12
Dataset Creation	Tue Dec 21 10:59:49 2021

Dual Induction Calibration Report

Serial-Model:	501 HT-M&W
Surface Cal Performed:	Mon Dec 20 13:26:03 2021

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		m	b
Deep	83.639	487.104	0.000	183.000	mmho/m	0.420	-35.500
Medium	113.335	1585.690	0.000	442.000	mmho/m	0.300	-33.500

Microlog Calibration Report

Serial-Model:	402-PSIML
Performed:	Tue Dec 21 10:30:27 2021

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	39500.0000	-2.0000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	22000.0000	0.0000
Caliper	1.0052	1.0858	5.0000	16.5000	in	142.7190	-142.4000

Compensated Density Calibration Report

Serial-Model:	305-05-M&W
Source #:	20762B
Master Calibration Performed:	Mon Dec 13 15:18:29 2021

Master Calibration						
	Density		Far Detector	Near Detector		
Magnesium	1.755	g/cc	8758.11	9709.36	cps	
Aluminum	2.630	g/cc	1513.14	5652.54	cps	
Spine Angle = 72.88			Density/Spine Ratio = 0.476			
	Size		Reading			
Small Ring	4.00	in	1.75			
Large Ring	14.00	in	1.38			

Compensated Neutron Calibration Report

Serial-Model:	207-MW-M&W
Source #:	100046B
Master Calibration Performed:	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:	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	Carmen Schmitt Inc.
Well	Rolfs #2
Field	Gregory
County	Ellsworth
State	Kansas