



MIDWEST WIRELINE

# MICRORESISTIVITY LOG

Company Carmen Schmitt, Inc.

Well Heyen Trust #1-27

Field

County Ford

State Kansas

Location:

1750 FNL 1800 FWL

SEC 27 TWP 28S RGE 26W

API #: 15-057-21062-00-00

Other Services  
CNL/CDL  
DIL

Permanent Datum	Ground Level	Elevation	2666	Elevation	
Log Measured From	Kelly Bushing			K.B.	2674
Drilling Measured From	Kelly Bushing			D.F.	
				G.L.	2666

Date	12/14/2021
Run Number	One
Depth Driller	5405
Depth Logger	5402
Bottom Logged Interval	5401
Top Log Interval	4100
Casing Driller	8.625 @ 1234
Casing Logger	1234
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	5800
Density / Viscosity	9.15 56
pH / Fluid Loss	9.5 8.8
Source of Sample	FLOWLINE
Rm @ Meas. Temp	0.30 @ 50
Rmt @ Meas. Temp	0.23 @ 50
Rmc @ Meas. Temp	0.41 @ 50
Source of Rmf / Rmc	CHARTS
Rm @ BHT	0.12 @ 130
Operating Rig Time	3 Hours
Max Rec. Temp. F	130
Equipment Number	P-24
Location	Hays
Recorded By	D. Schmidt
Witnessed By	Brad Rine

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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.

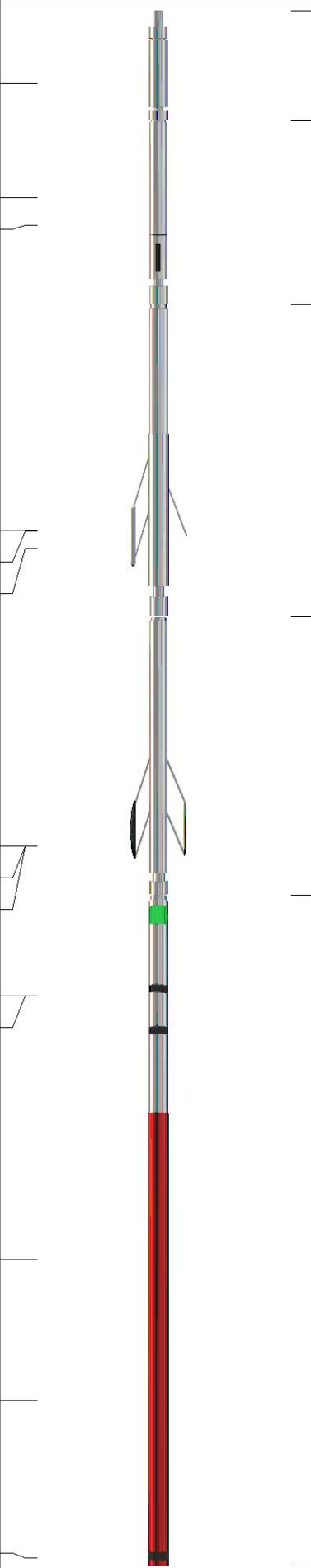
Dodge City,  
Intersection of Hwy 400 and Hwy 283,  
5 South to Saddle Road, 6 West to Rd 105,  
4 South to Warrior Rd, 1 5/8 West,  
South into

Log Measured From: Kelly Bushing 8 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	Operator:	Primary Witness: Brad Rine	Secondary Witness:
Operator:	Operator:	Secondary Witness:	Secondary Witness:
Operator:		Secondary Witness:	

Operator	Offset (ft)	Substrate	Description	Length (ft)	C.D. (in)	Weight (lb)
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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 (401)	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\_heyen trust 1-27.db: field/well/stkml/pass3.3  
 Total length: 42.33 ft  
 Total weight: 685.00 lb  
 O.D.: 4.00 in

# Log Variables

DatabaseC:\ProgramData\Warrior\Data\carmen schmitt\_heyen trust 1-27.db  
 Dataset field/well/stkml/pass3.3/\_vars\_

## Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	130	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	270	50	Off	5402

## 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



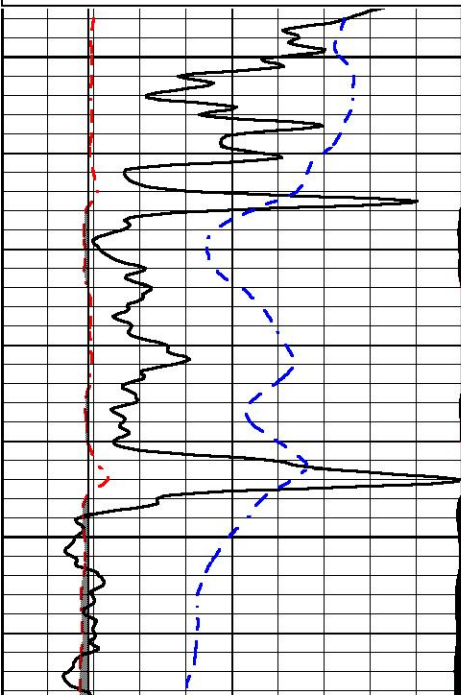
## DETAIL SECTION

### MAIN PASS

Database File carmen schmitt\_heyen trust 1-27.db  
 Dataset Pathname stkml/pass3.1  
 Presentation Format \_micro  
 Dataset Creation Wed Dec 15 00:06:46 2021  
 Charted by Depth in Feet scaled 1:240

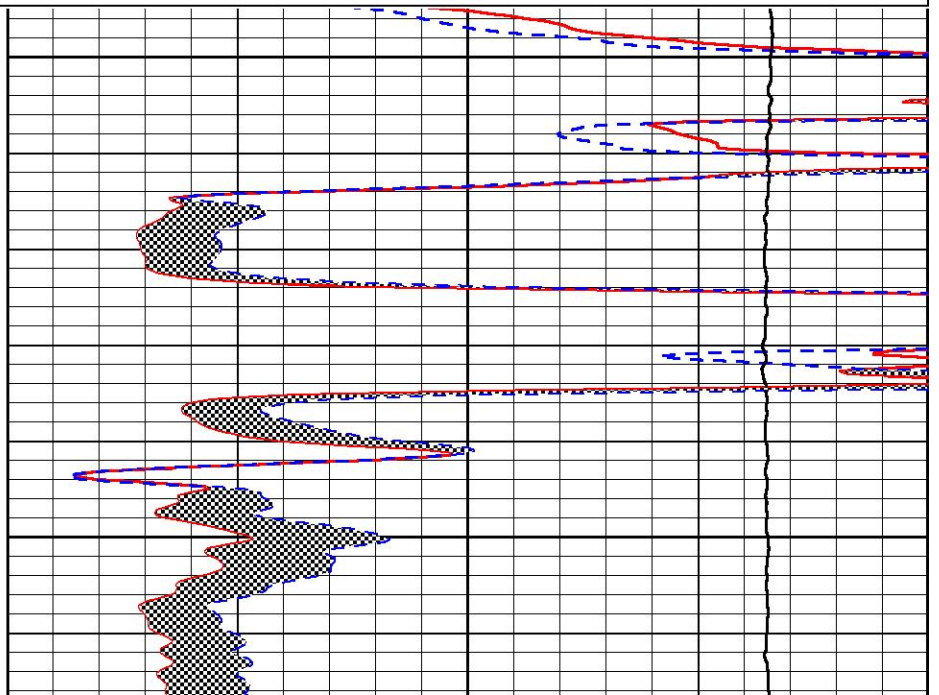
0	Gamma Ray (GAPI)	150
6	Caliper (in)	16
-2.875	mcal (in)	7.875
-200	SP (mV)	0

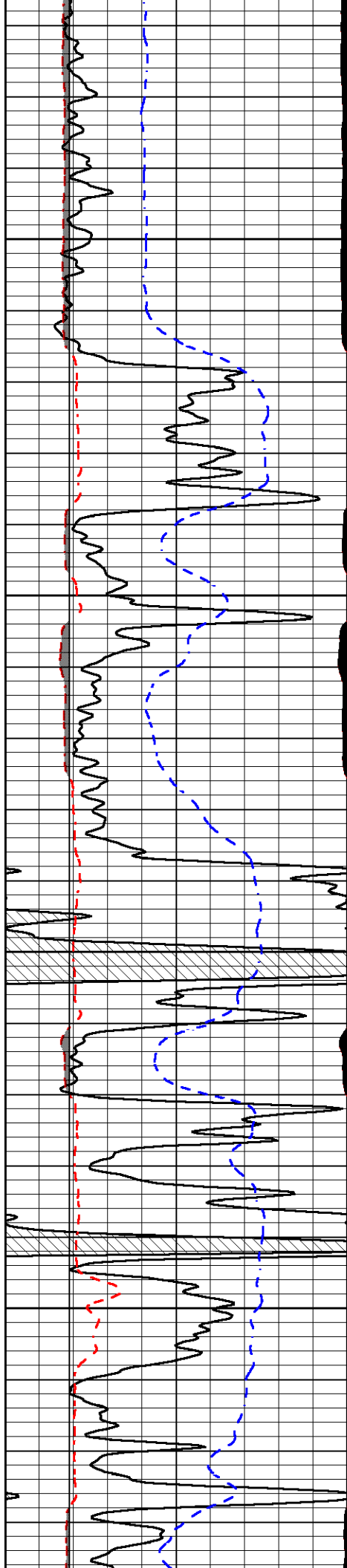
0	Micro Inverse 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0



4100

4150



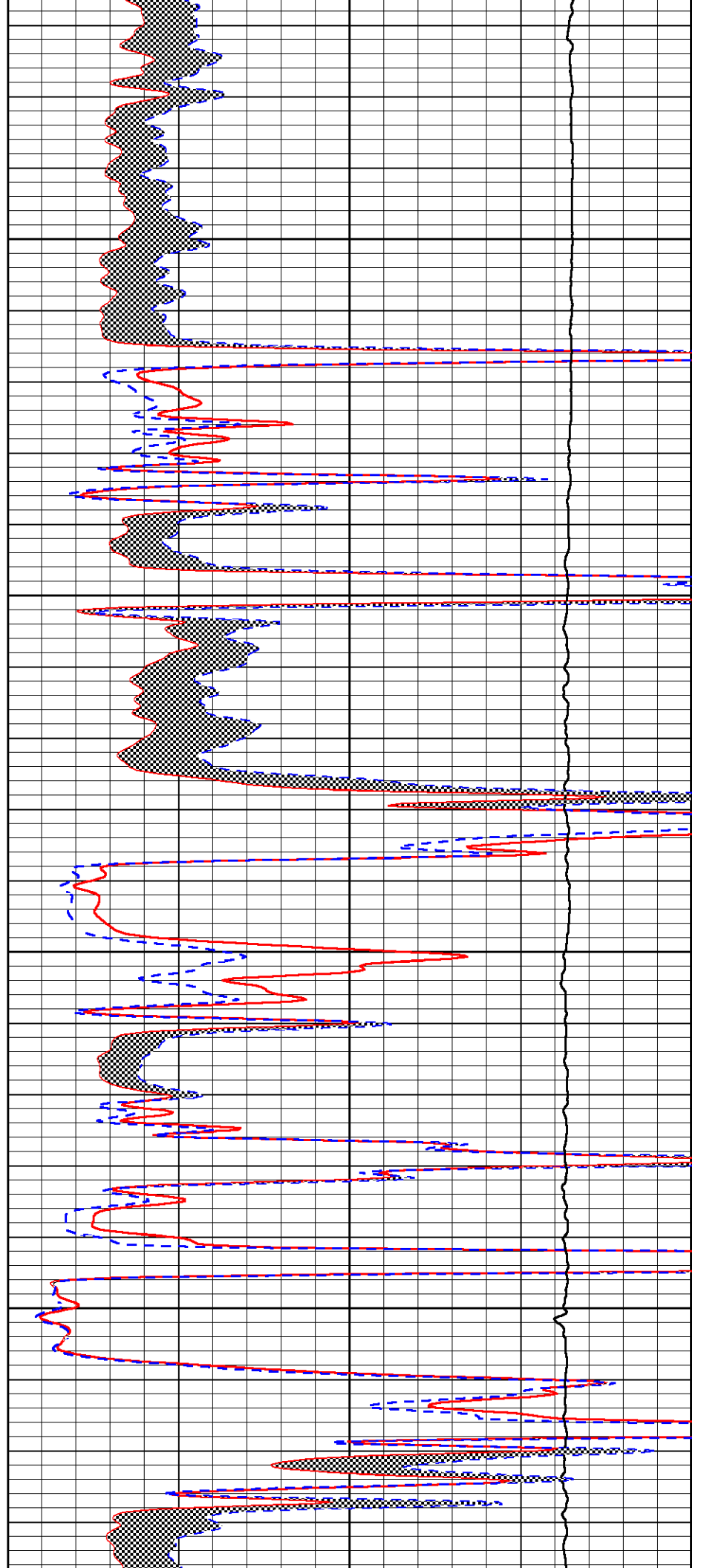


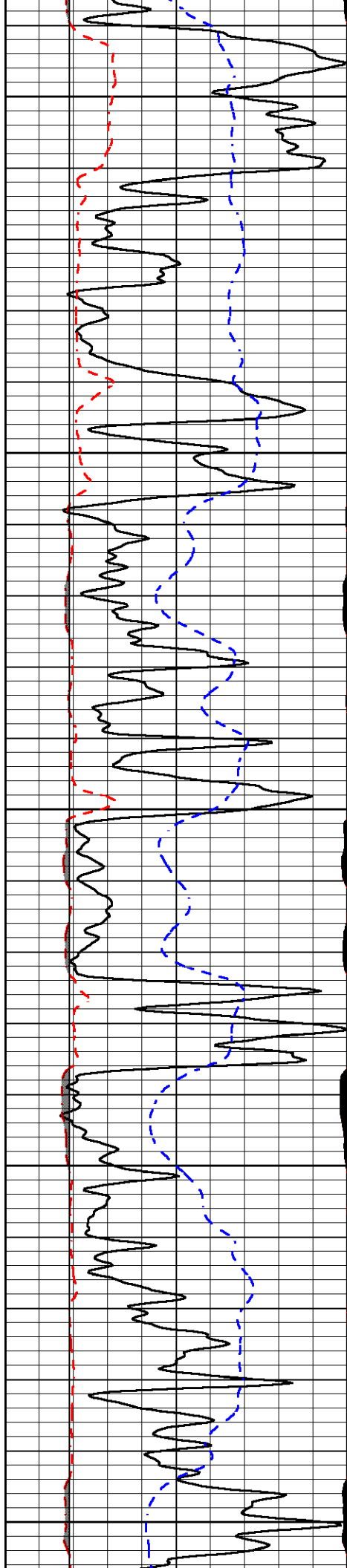
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4250

4300

4350





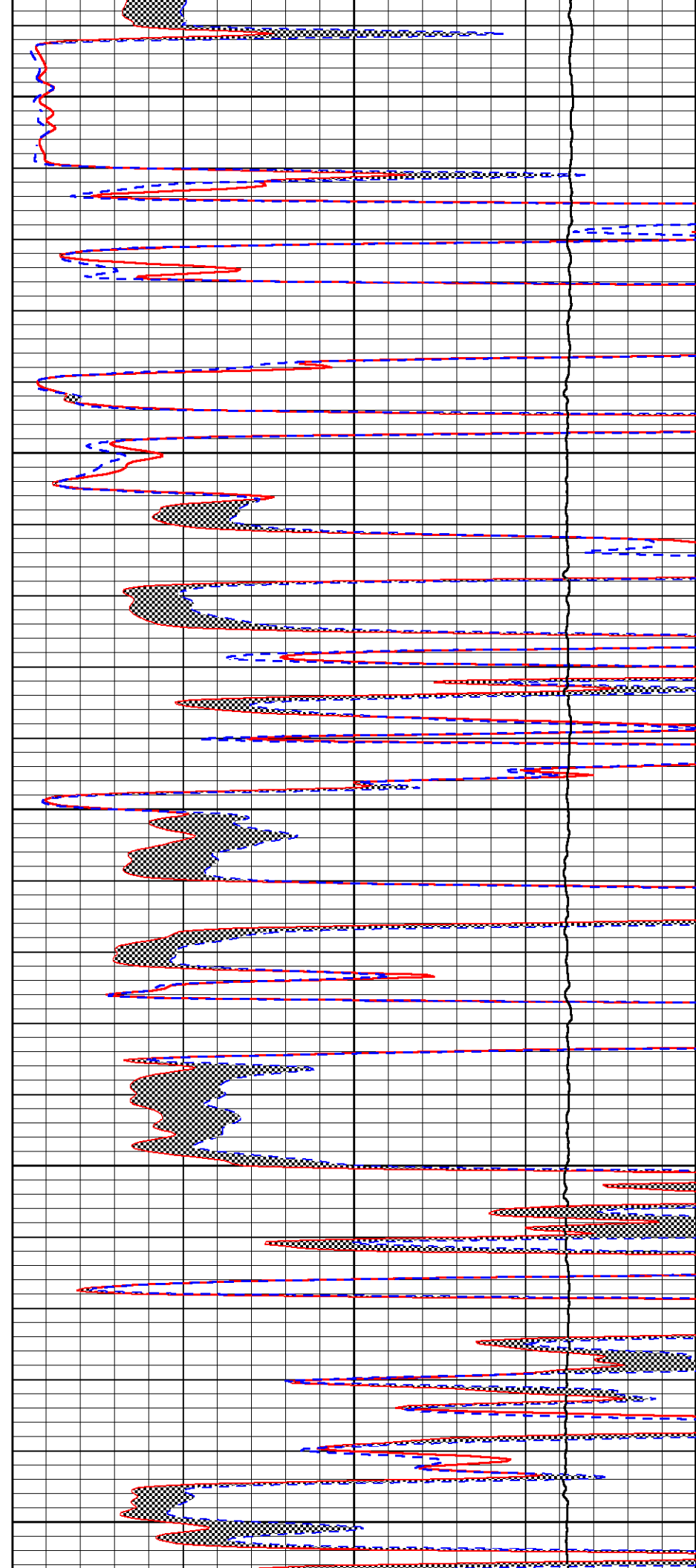
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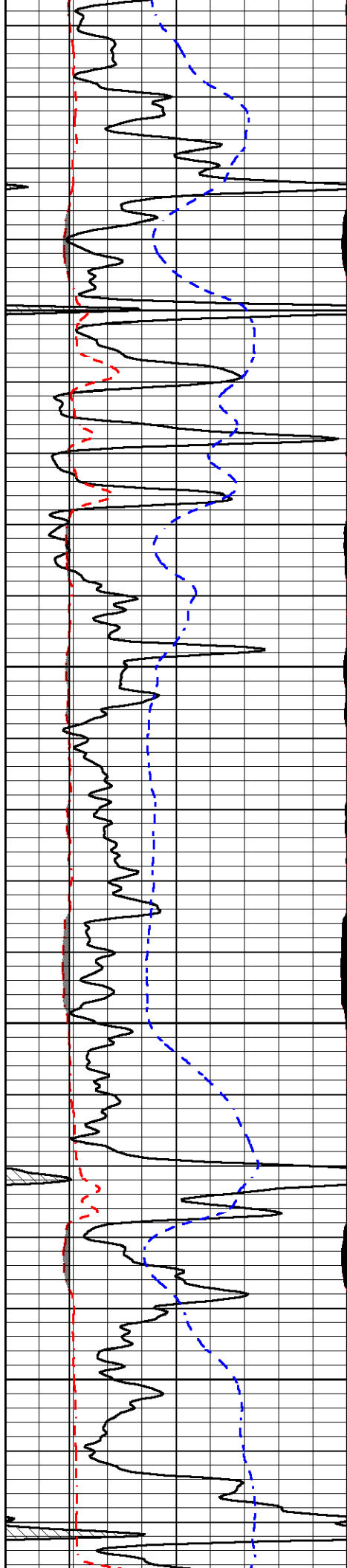
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4500

4550

4600



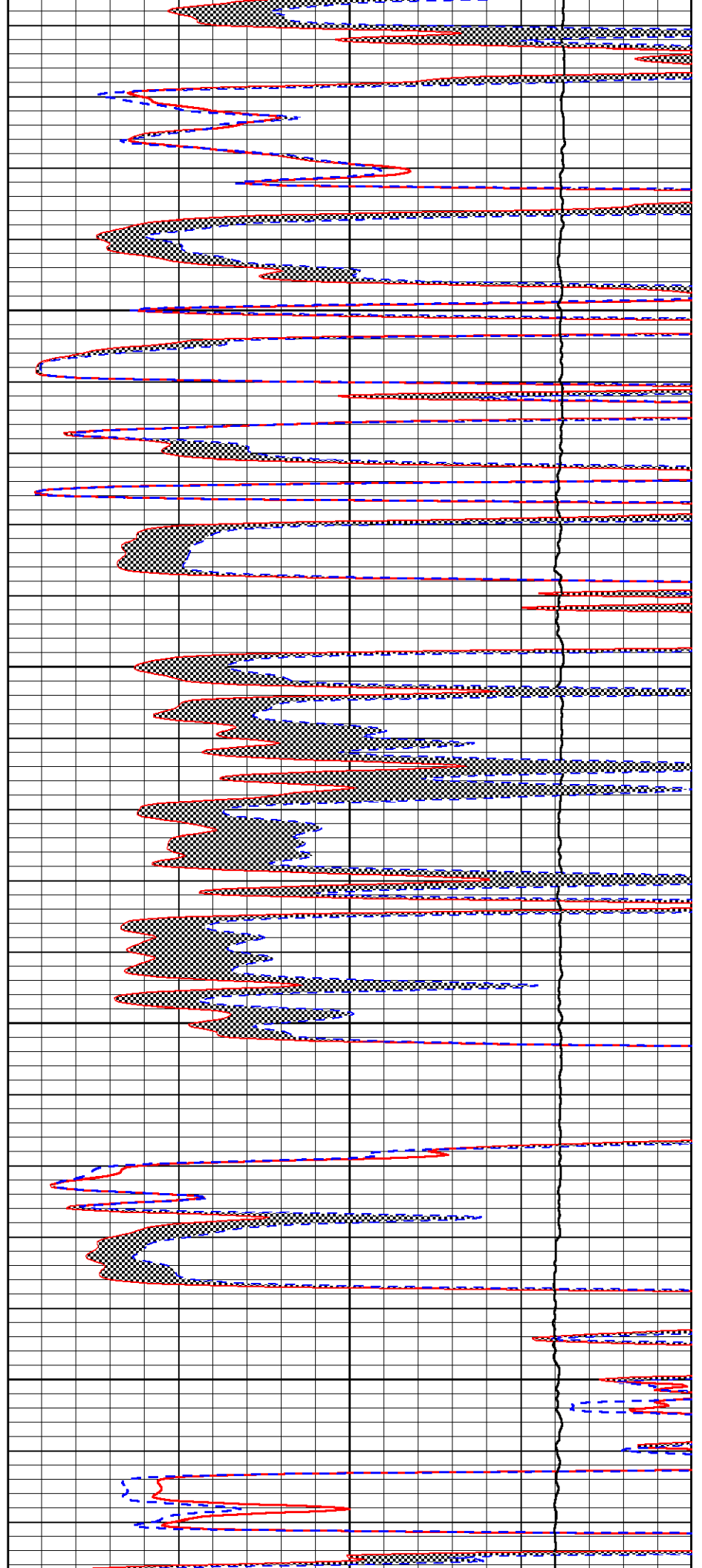


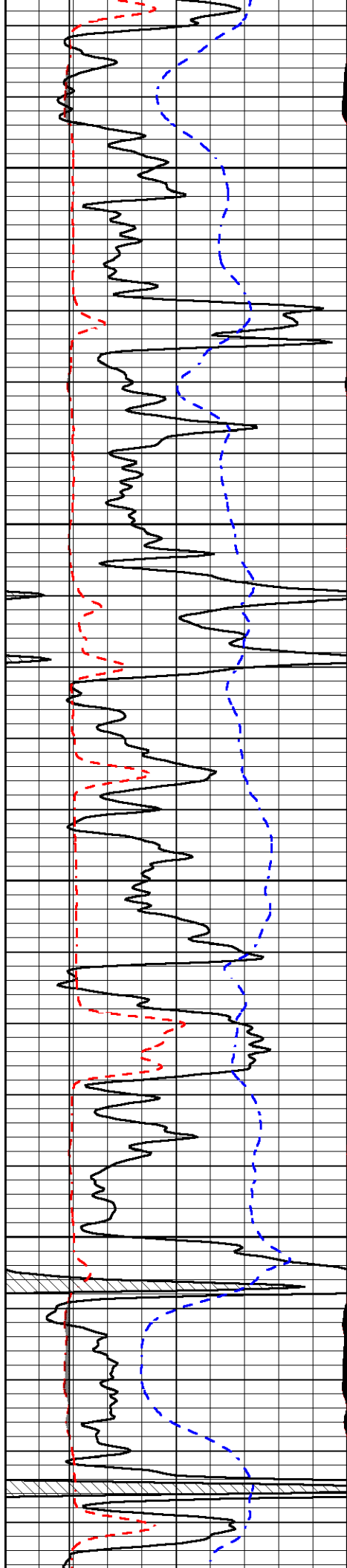
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4700

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4800



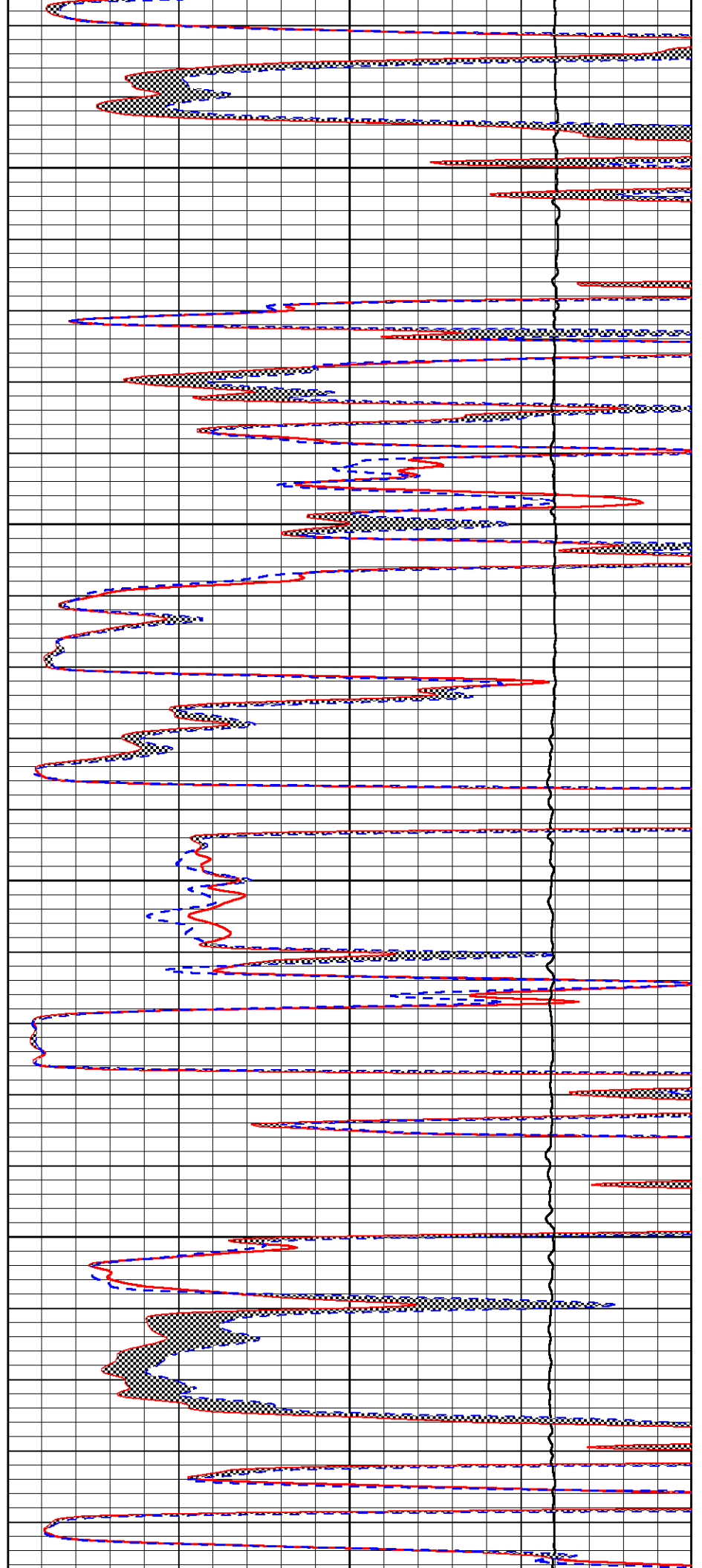


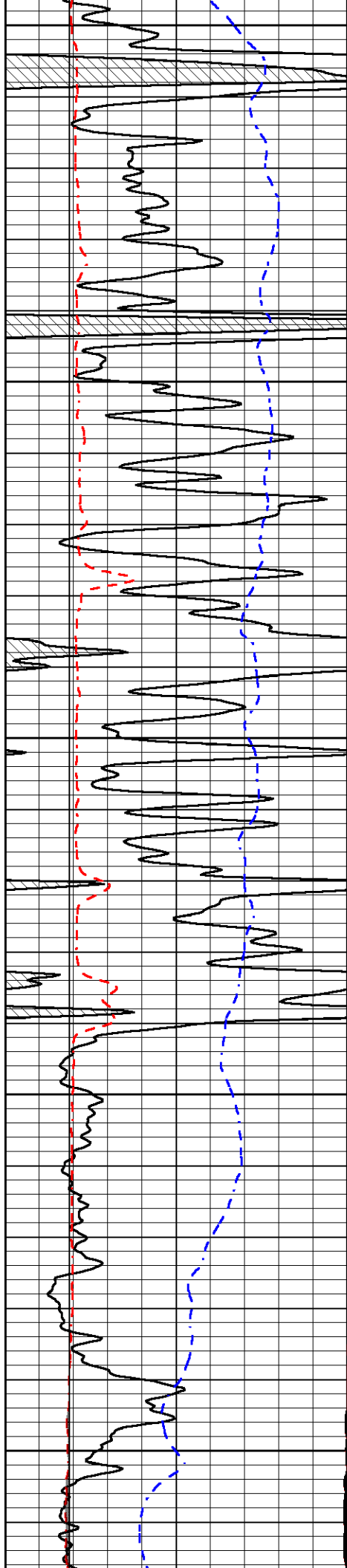
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4900

4950

5000





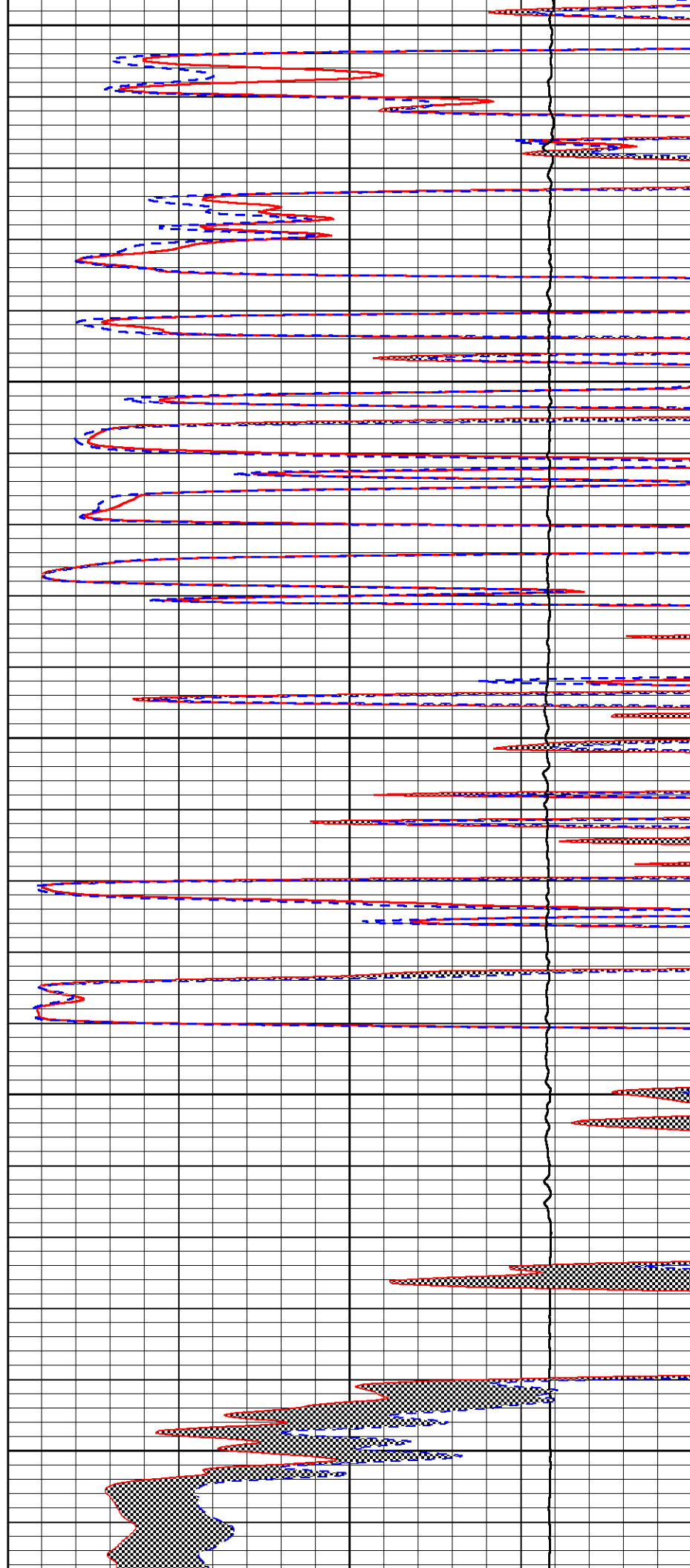
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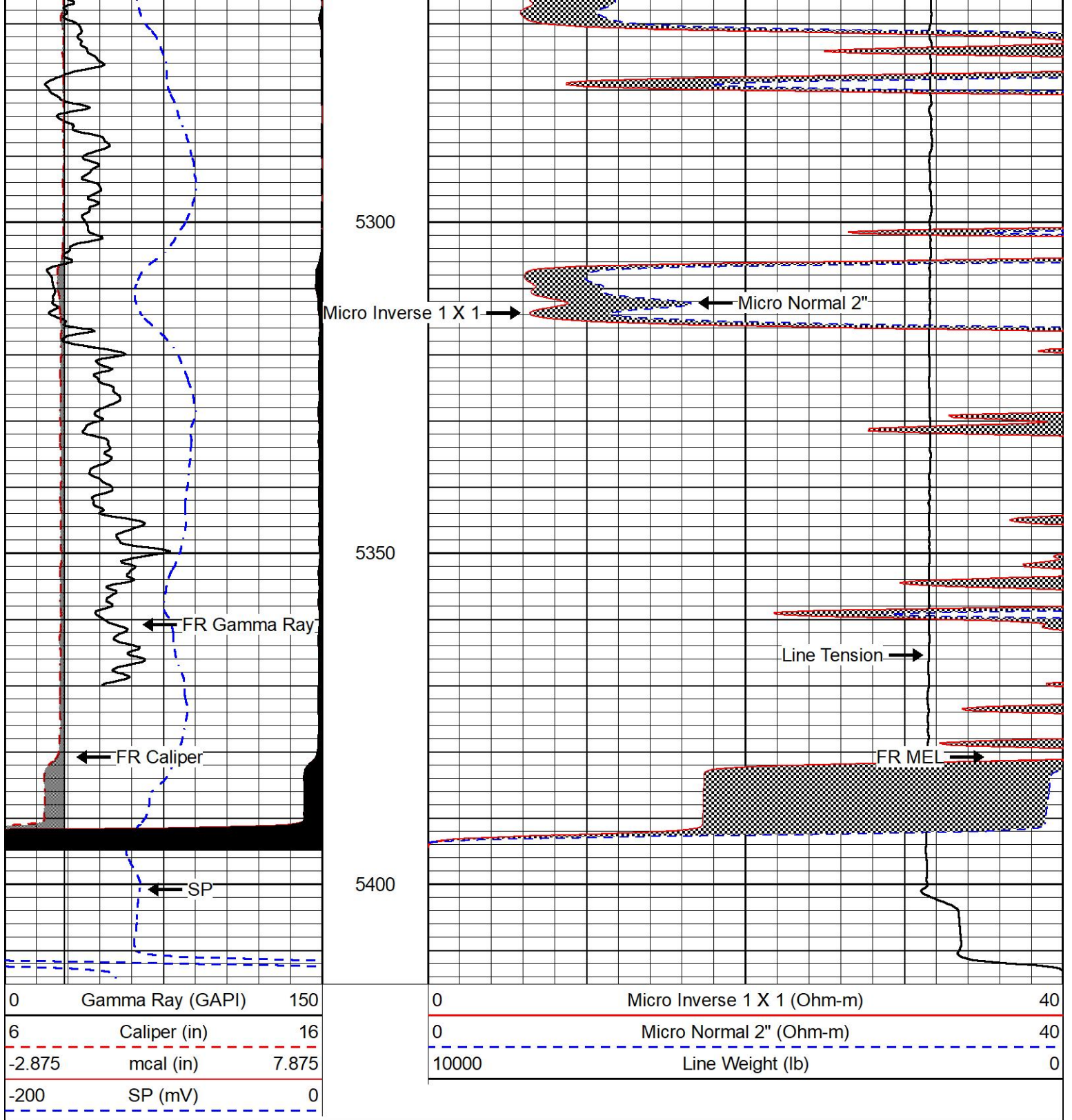
5100

5150

5200

5250





## REPEAT SECTION

REPEAT PASS

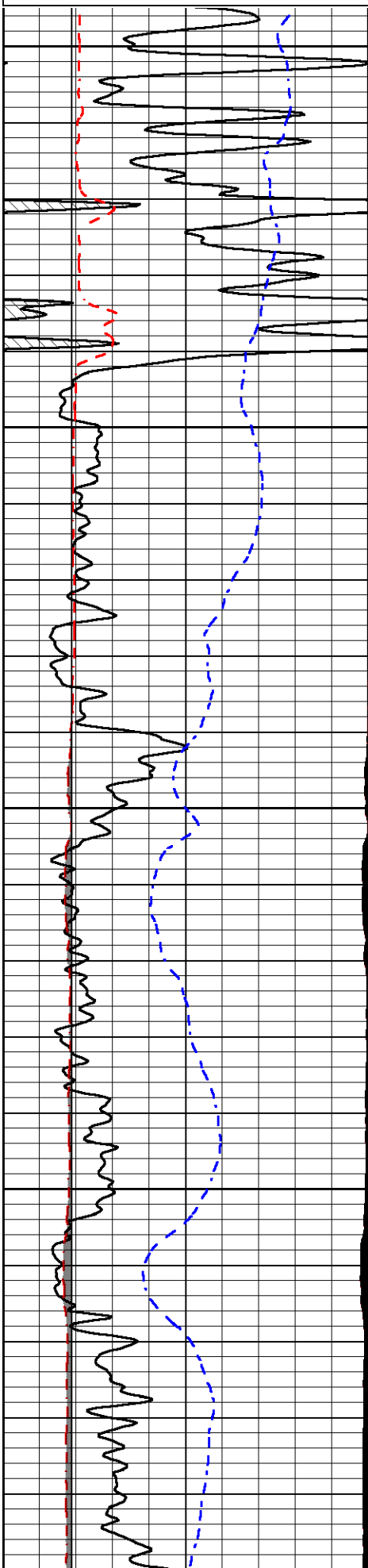
Database File carmen schmitt\_heyen trust 1-27.db  
 Dataset Pathname stkml/pass2.1  
 Presentation Format \_micro  
 Dataset Creation Tue Dec 14 23:13:26 2021  
 Charted by Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
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0	Micro Inverse 1 X 1 (Ohm-m)	40
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6 Caliper (in) 16  
-2.875 mcal (in) 7.875  
-200 SP (mV) 0

0 Micro Normal 2" (Ohm-m) 40  
10000 Line Weight (lb) 0



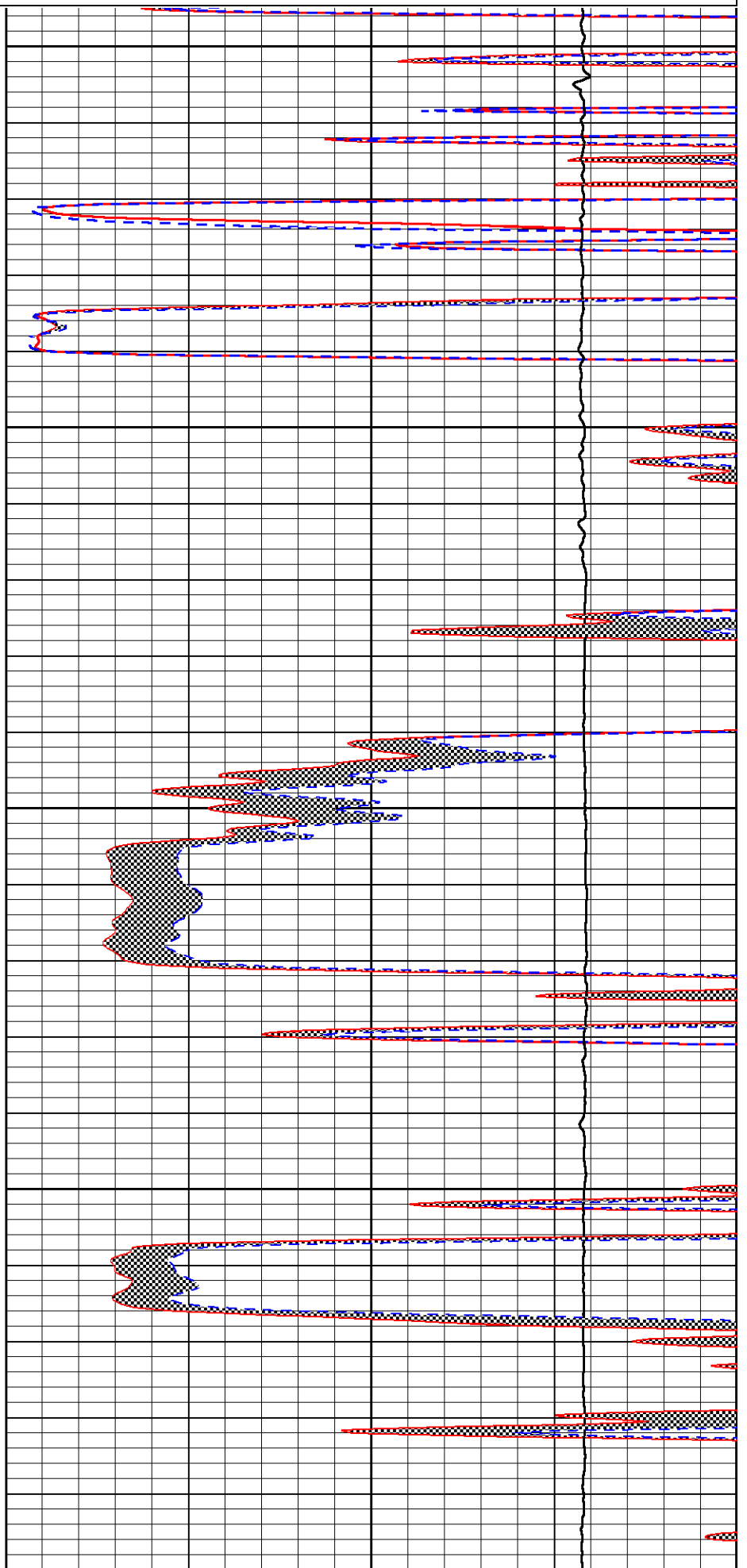
5150

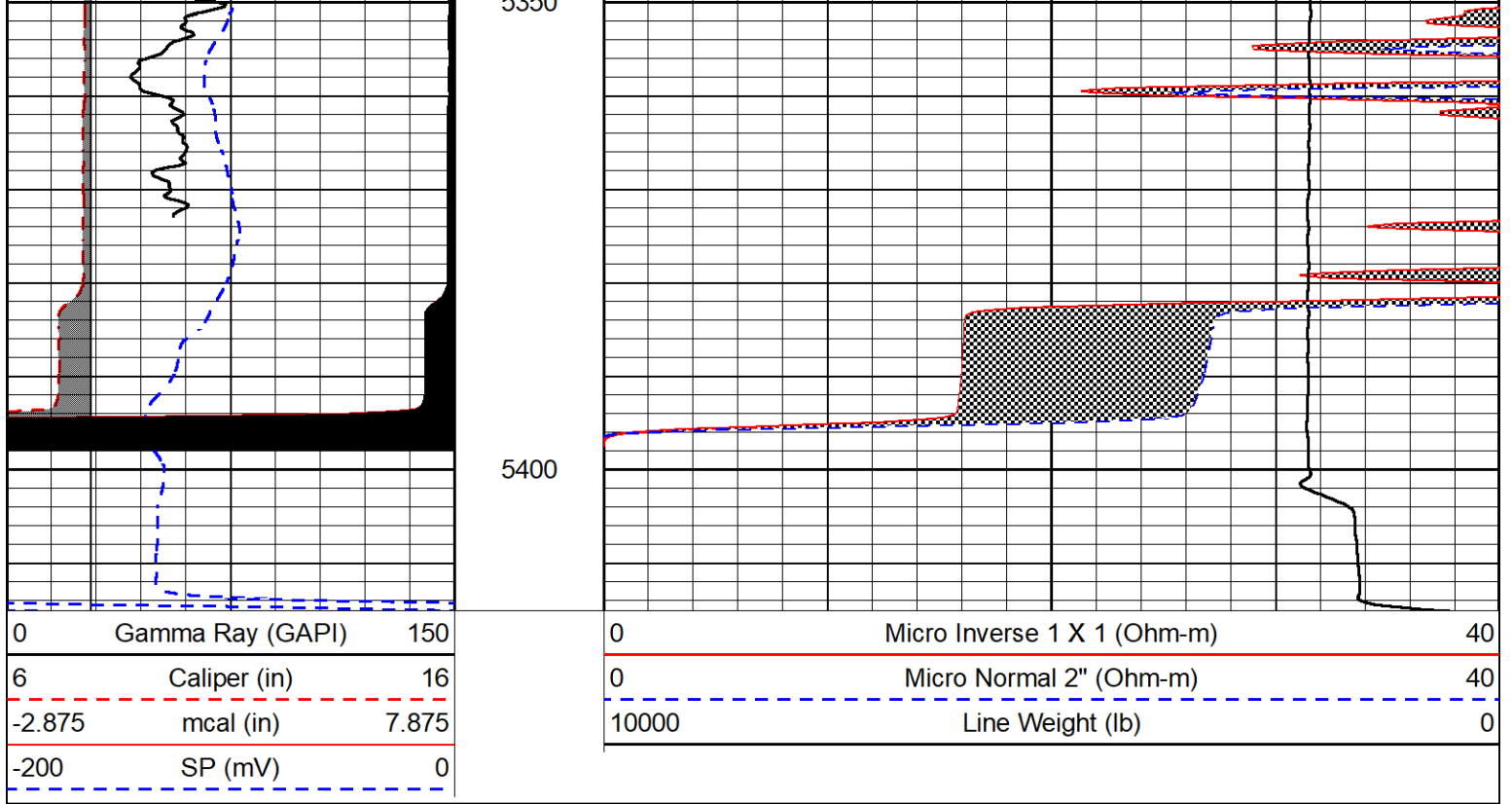
5200

5250

5300

5350





#### Calibration Report

Database File carmen schmitt\_heyen trust 1-27.db  
 Dataset Pathname stkml/pass3.3  
 Dataset Creation Tue Dec 14 23:11:57 2021

#### Dual Induction Calibration Report

Serial-Model: 501 HT-M&W  
 Surface Cal Performed: Tue Dec 14 22:36:29 2021

Loop:	Readings		References		Results		
	Air	Loop	Air	Loop	m	b	
Deep	83.639	487.104	0.000	183.000	mmho/m	0.435	-34.000
Medium	113.335	1585.690	0.000	442.000	mmho/m	0.300	-33.500

#### Microlog Calibration Report

Serial-Model: 401-PSIML  
 Performed: Wed Dec 1 16:06:14 2021

	Readings		References		Results		
	Zero	Cal	Zero	Cal	m	b	
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	13500.0000	-0.5000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	11000.0000	0.0000
Caliper	1.0052	1.0858	5.0000	16.5000	in	142.7190	-139.1000

#### 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

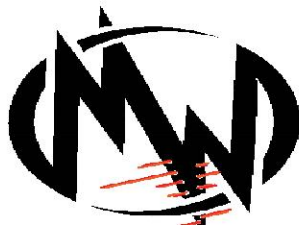
Gamma Ray Calibration Report

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



MIDWEST WIRELINE

Company Carmen Schmitt, Inc.  
 Well Heyen Trust #1-27  
 Field  
 County Ford  
 State Kansas