



MIDWEST WIRELINE

# DUAL COMP POROSITY LOG

Company Carmen Schmitt, Inc.

Well Heyen Trust #1-27

Field Heyen Trust #1-27

County Ford State Kansas

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 Well Heyen Trust #1-27  
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 County Ford  
 State Kansas

Location: API #: 15-057-21062-00-00  
 1750 FNL 1800 FWL  
 SEC 27 TWP 28S RGE 26W  
 Permanent Datum Ground Level Elevation 2666  
 Log Measured From Kelly Bushing  
 Drilling Measured From Kelly Bushing  
 Other Services  
 DIL/MEL  
 K.B. 2674  
 D.F. G.L. 2666

Date	12/14/2021						
Run Number	One						
Type Log	CNL/CDL						
Depth Driller	5405						
Depth Logger	5402						
Bottom Logged Interval	5373						
Top Logged Interval	4100						
Type Fluid In Hole	Chemical						
Salinity, PPM CL	5800						
Density	9.15						
Level	Full						
Max. Rec. Temp. F	130						
Operating Rig Time	3 Hours						
Equipment -- Location	P-24 Hays						
Recorded By	D. Schmidt						
Witnessed By	Brad Rine						
Borehole Record							
Run No.	Bit	From	To	Size	Wgt.	From	To
One	12.25	0	1234	8.625	23	0	1234
Two	7.875	1234	TD				
Casing Record							

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All interpretations are opinions based on inferences from electrical or other measurements and Midwest Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Midwest Wireline Services, 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.

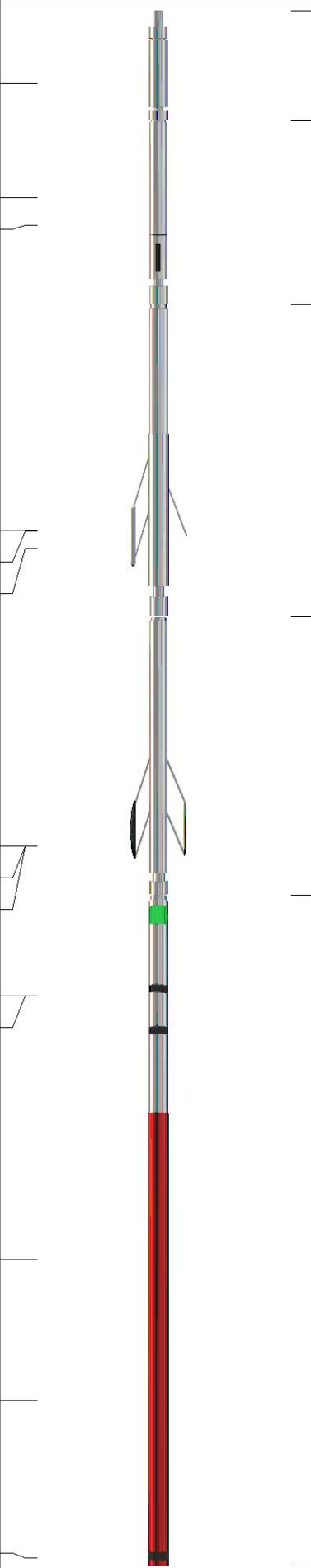
Dodge City,  
 Intersection of Hwy 400 and Hwy 283,  
 5 South to Saddle Road, 6 West to Rd 105,  
 4 South to Warrior Rd, 1 5/8 West,  
 South into

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)	Schematic	Description	Length (ft)	O.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



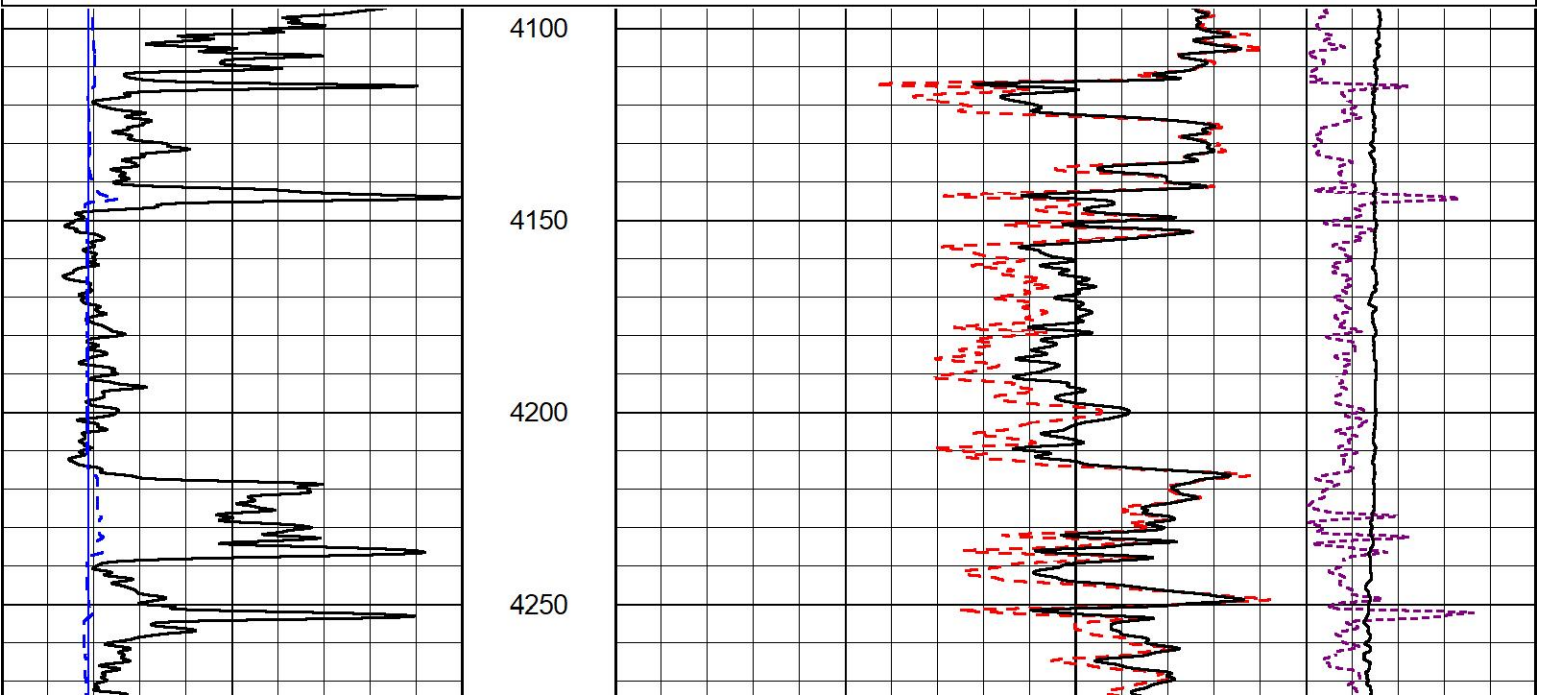
## 2" SCALE BULK DENSITY

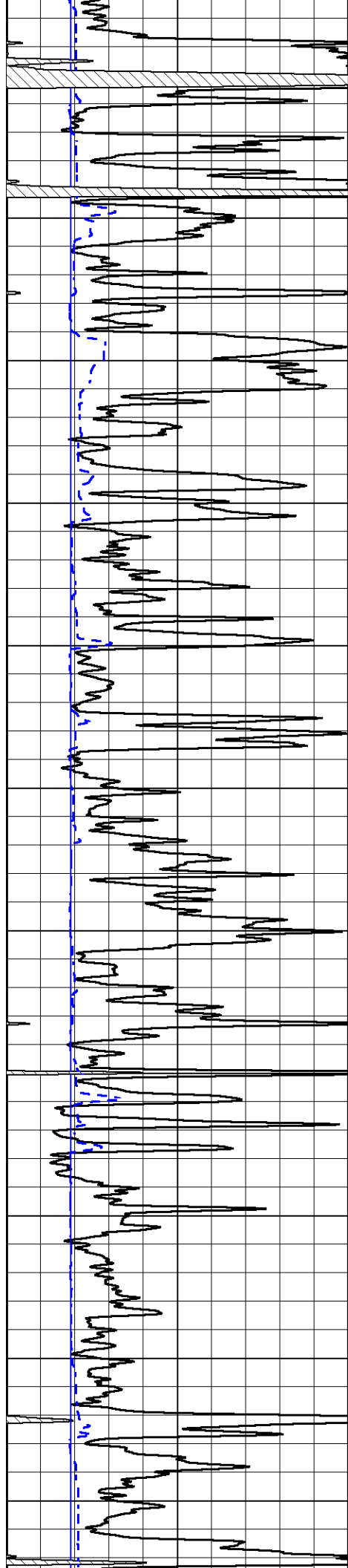
### MAIN PASS

Database File carmen schmitt\_heyen trust 1-27.db  
 Dataset Pathname stkml/pass4.1  
 Presentation Format \_cdl  
 Dataset Creation Wed Dec 15 00:10:24 2021  
 Charted by Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150
6	Caliper (in)	16

30	Compensated Density (pu)	-10
2	Bulk Density (g/cc)	3
10000	Line Tension (lb)	0
-0.25	Correction (g/cc)	0.25





4300

4350

4400

4450

4500

4550

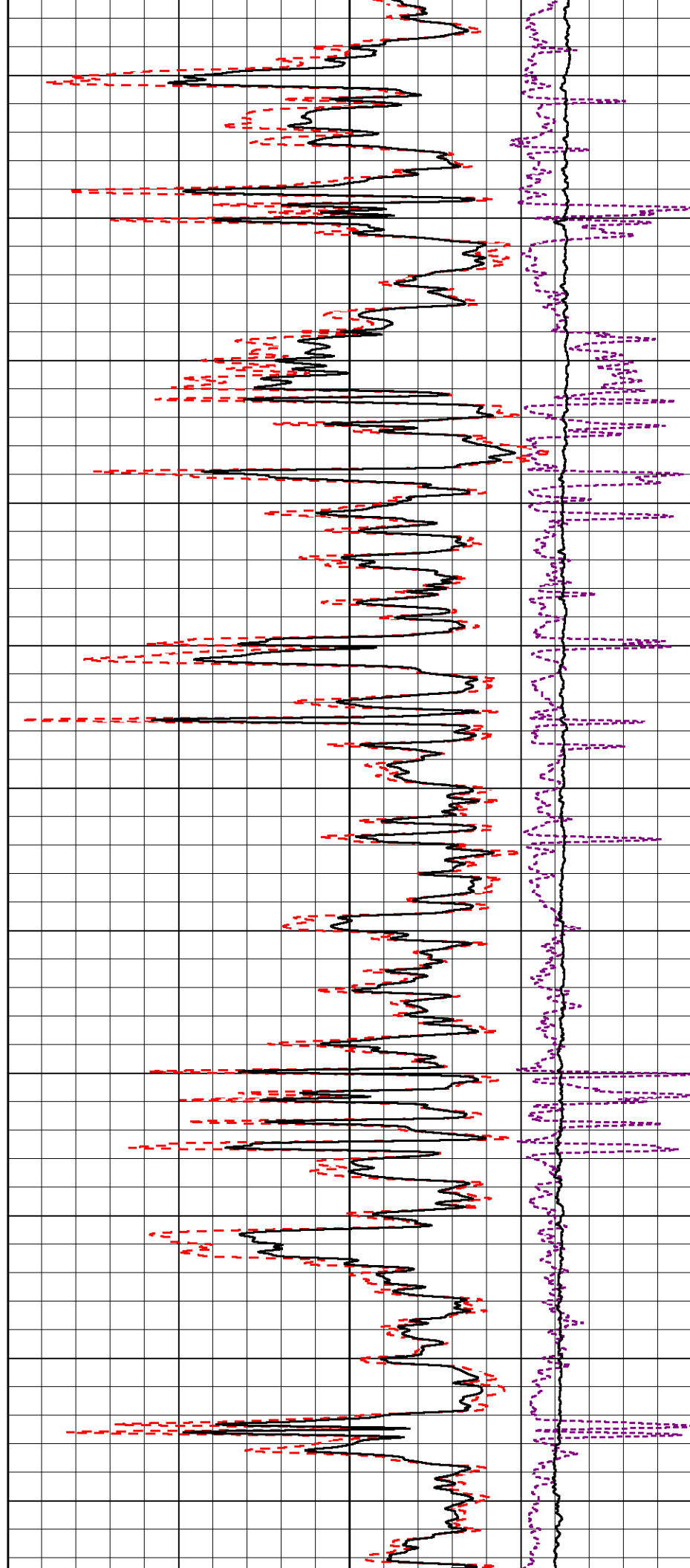
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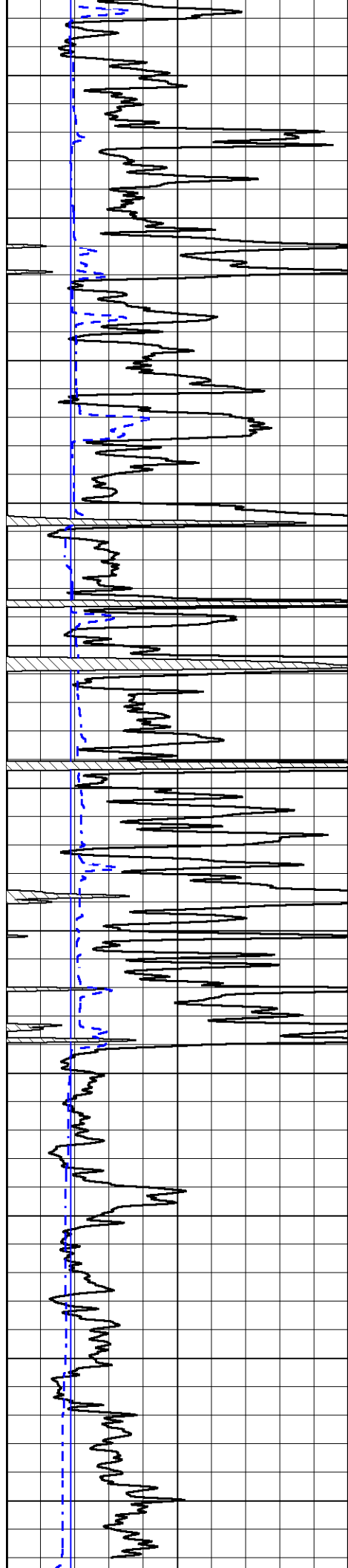
4650

4700

4750

4800





4850

4900

4950

5000

5050

5100

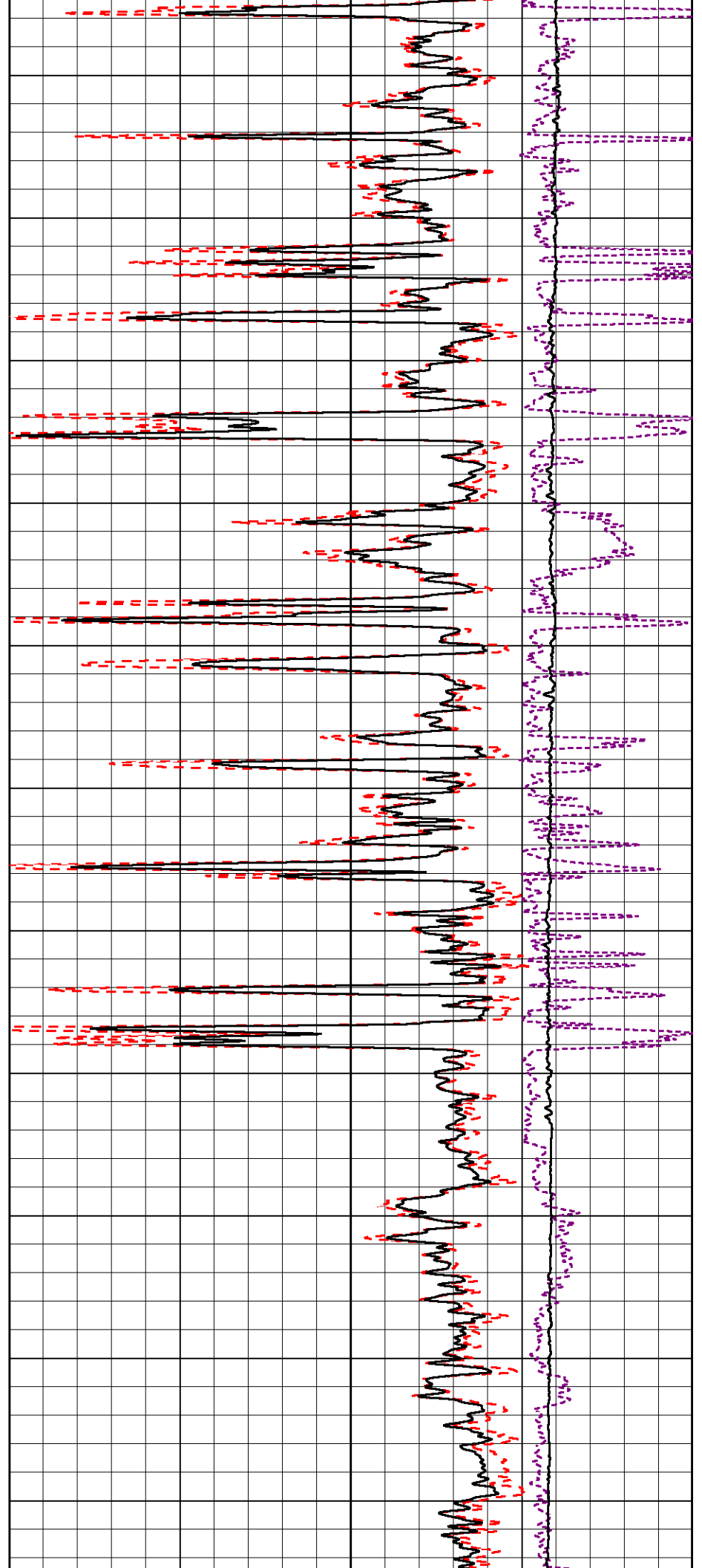
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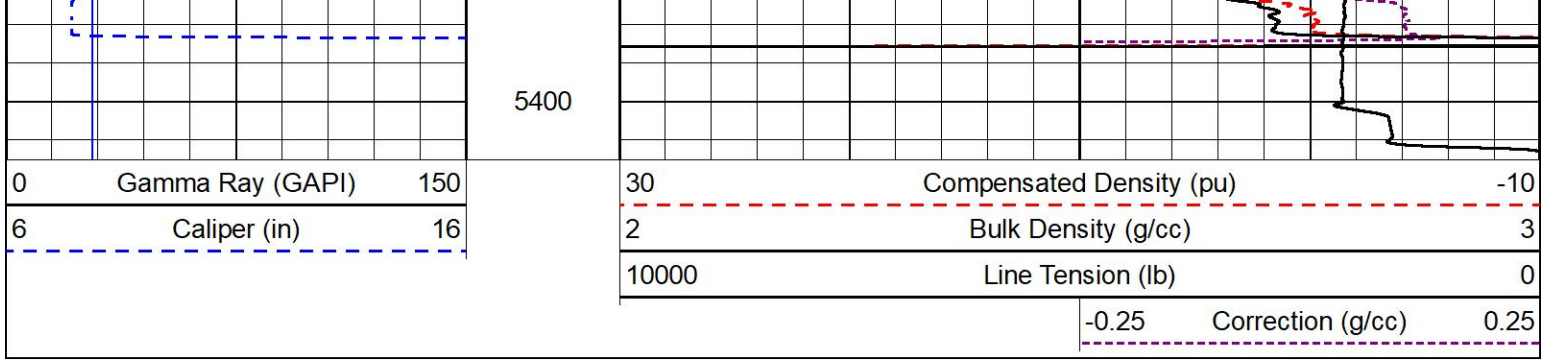
5200

5250

5300

5350

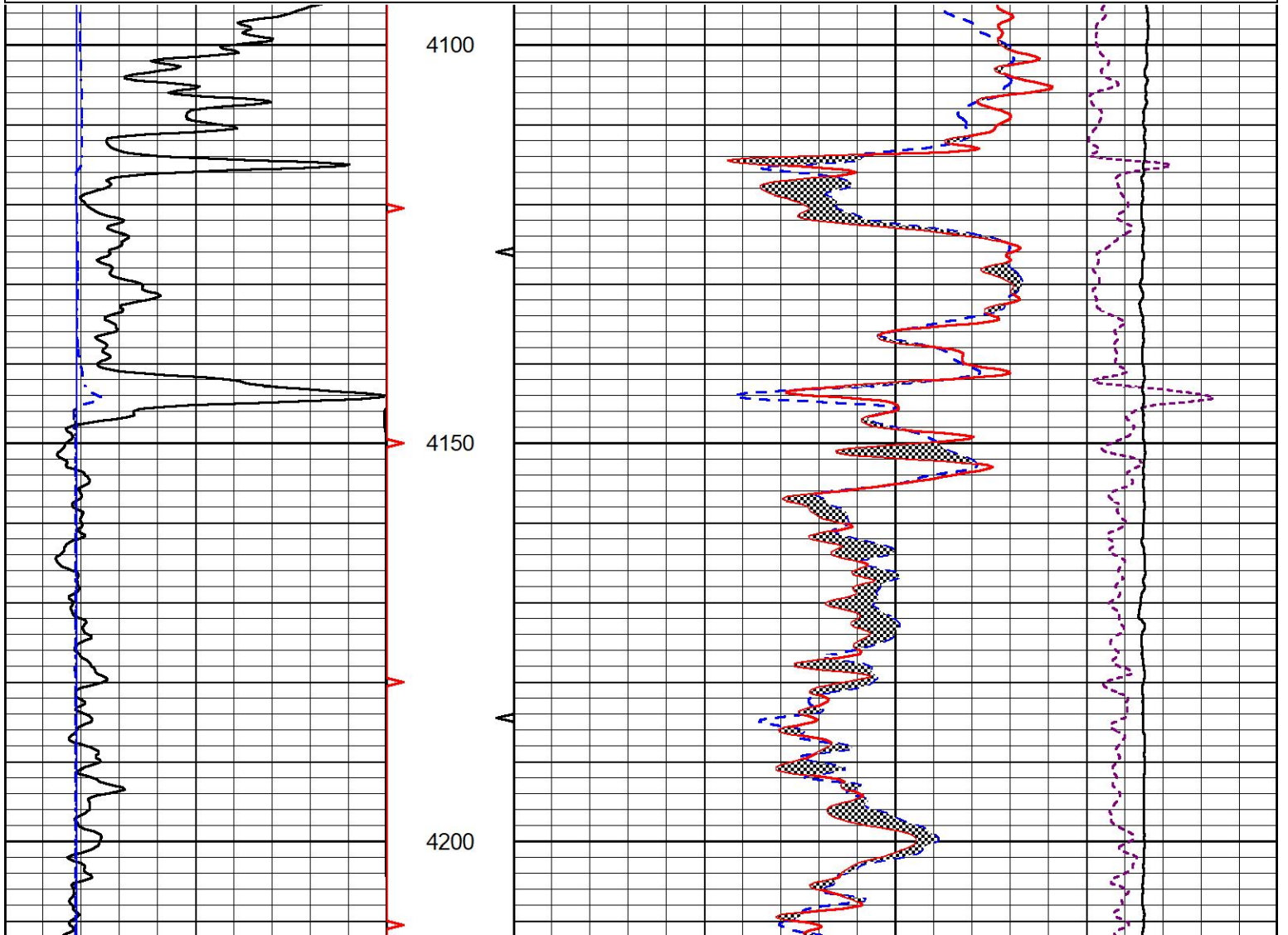
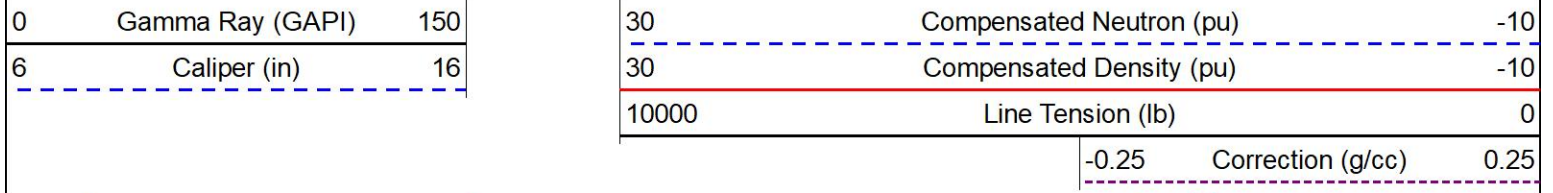


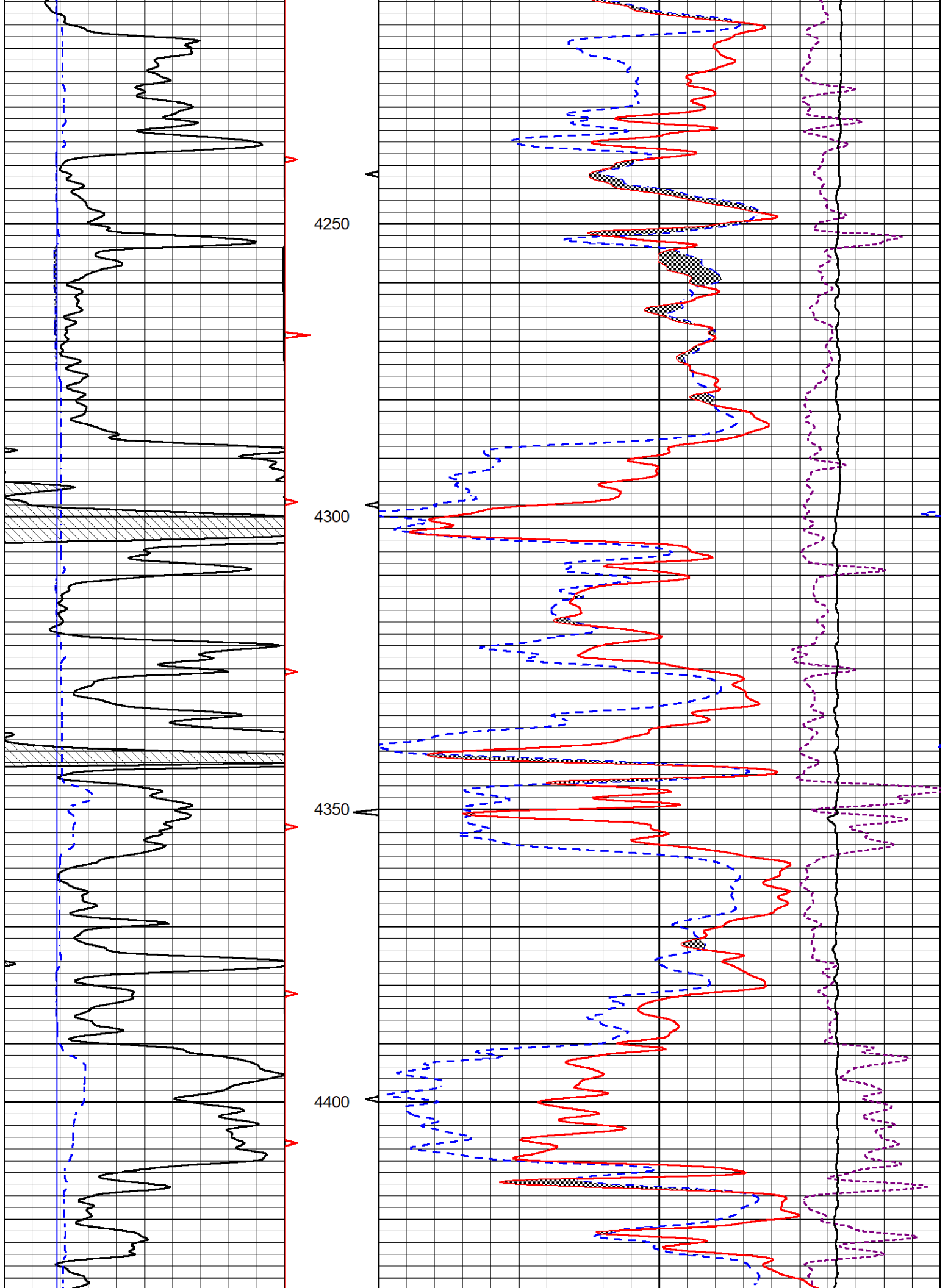


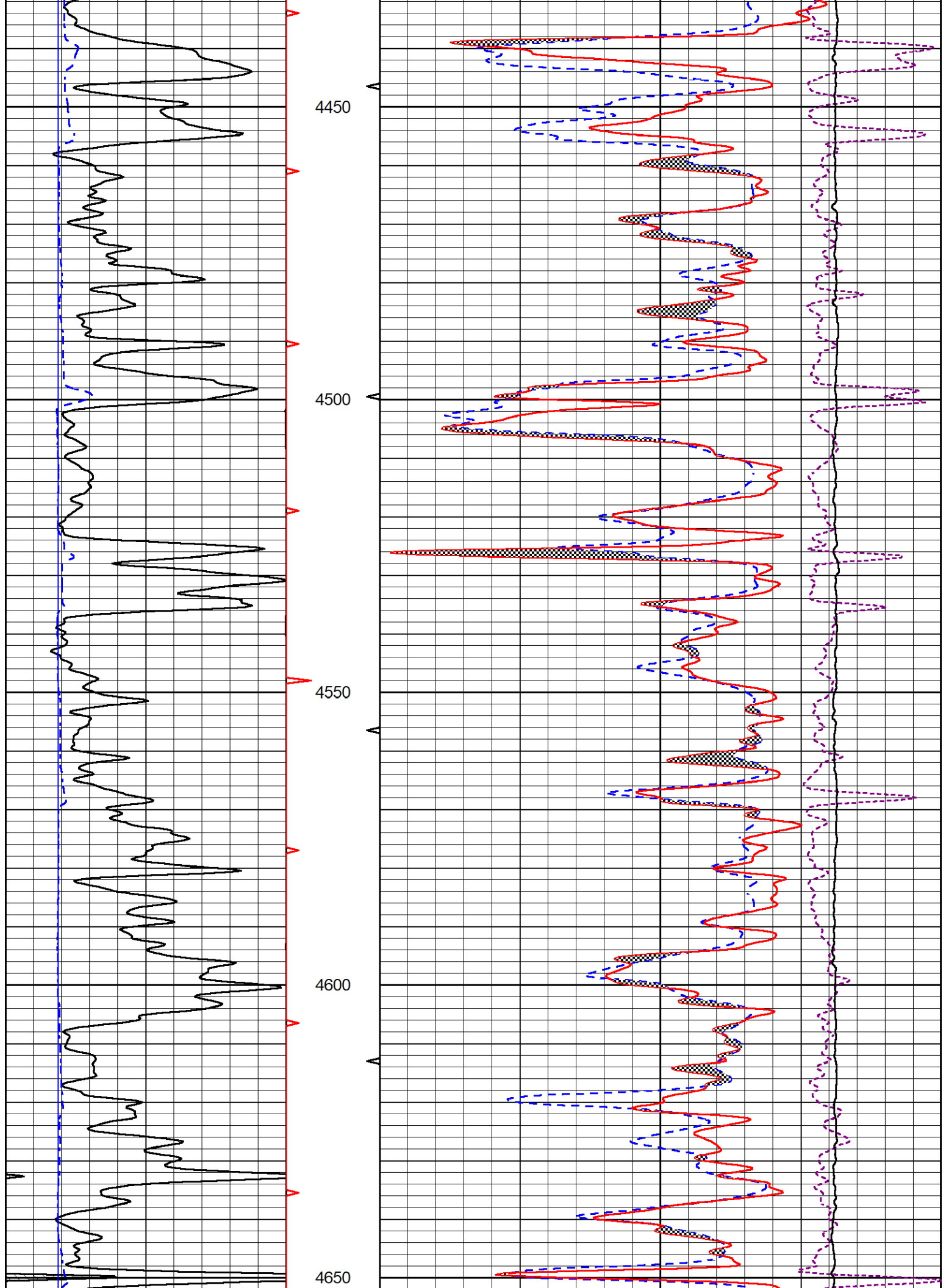
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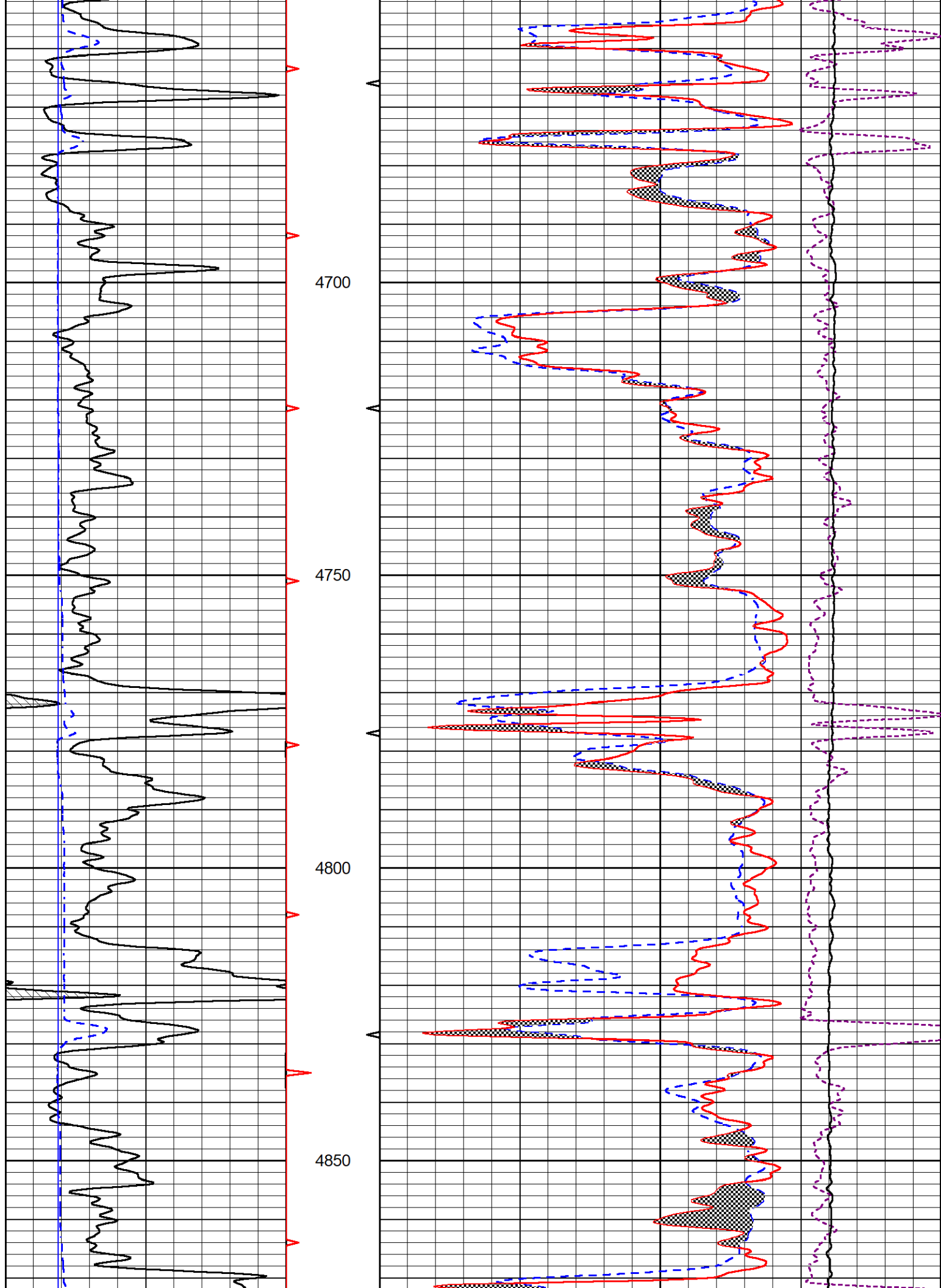
## MAIN PASS

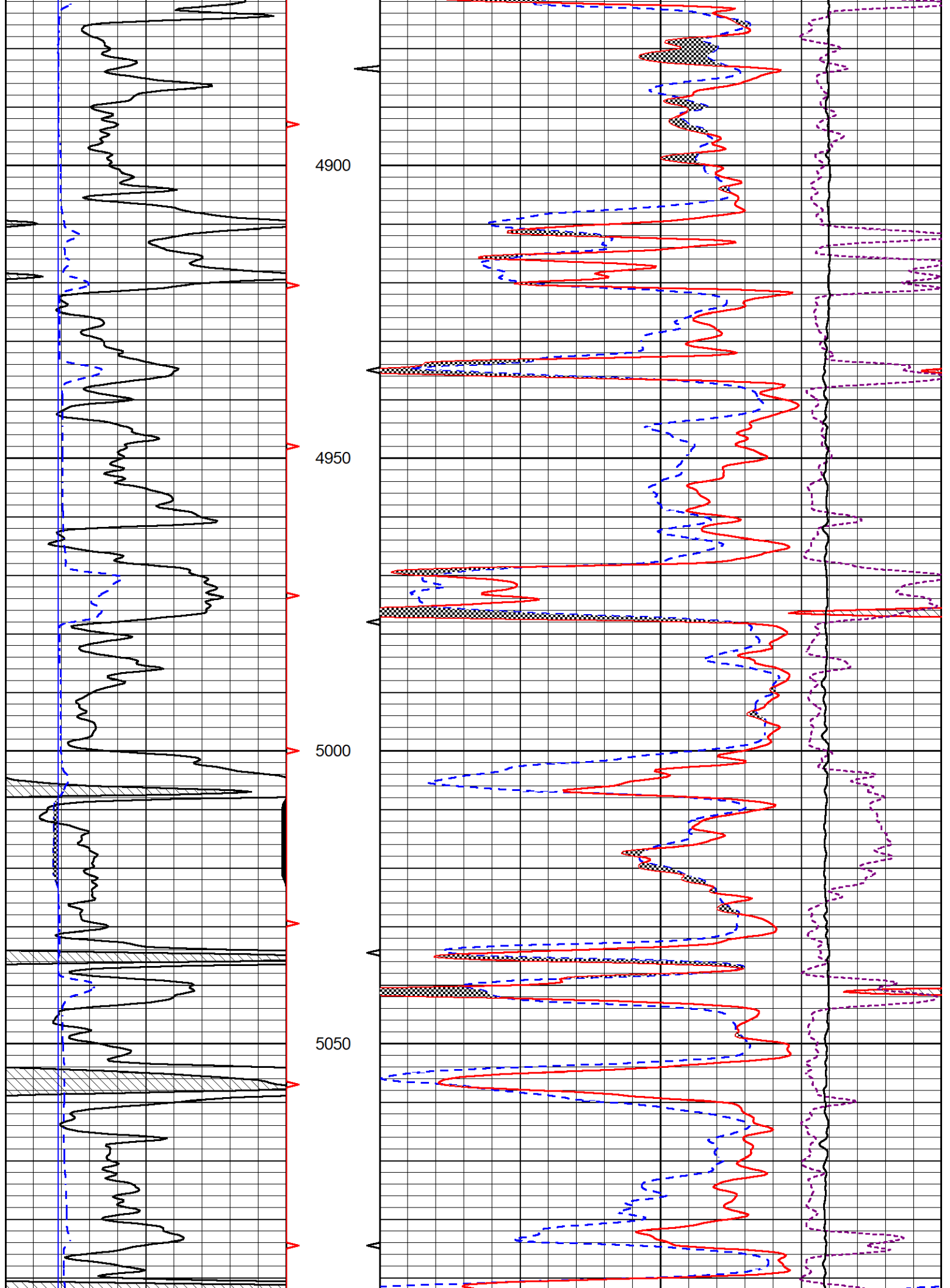
Database File: carmen schmitt\_heyen trust 1-27.db  
 Dataset Pathname: stkml/pass3.1  
 Presentation Format: \_CNDLS~1  
 Dataset Creation: Wed Dec 15 00:06:46 2021  
 Charted by: Depth in Feet scaled 1:240

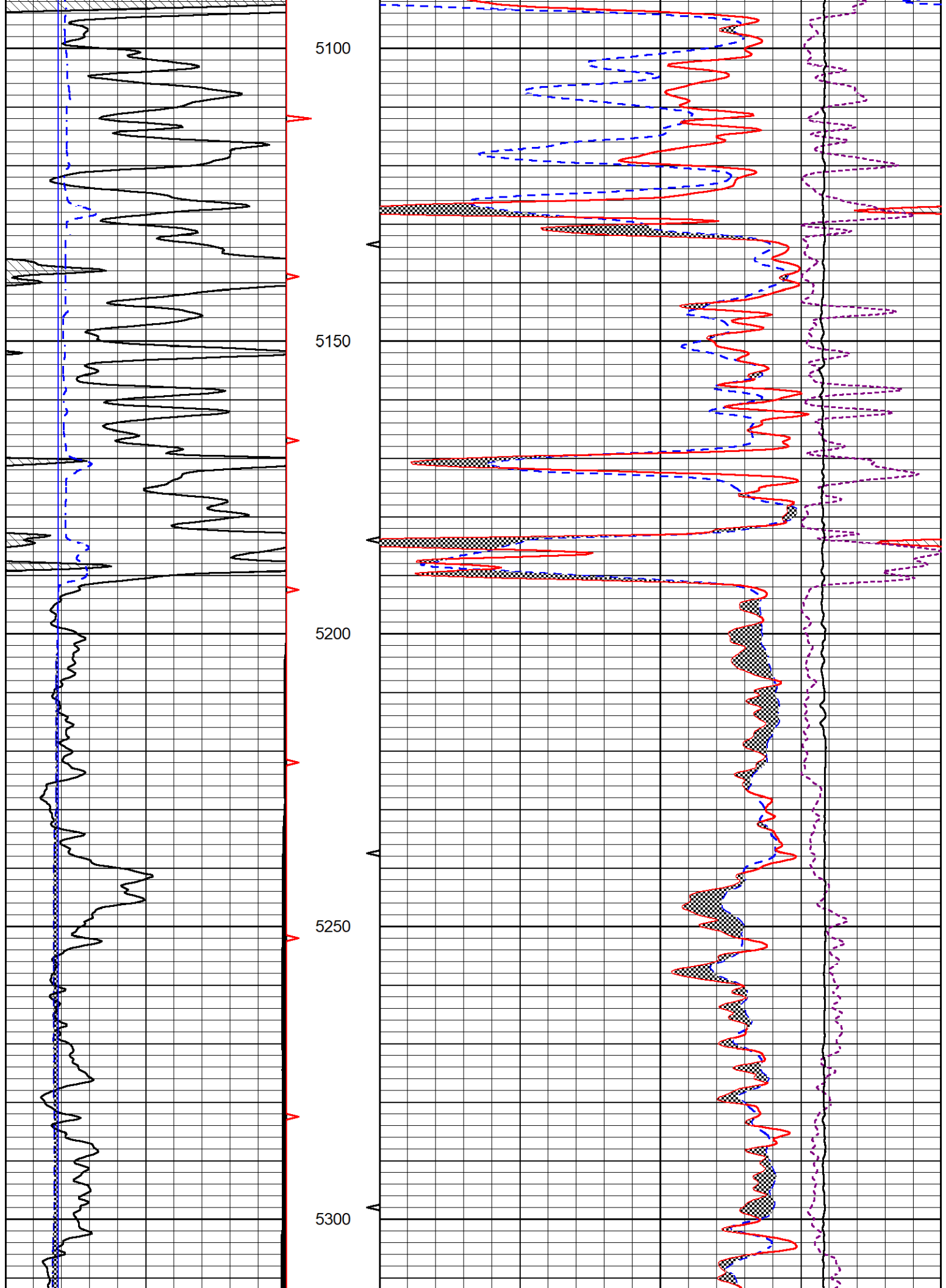


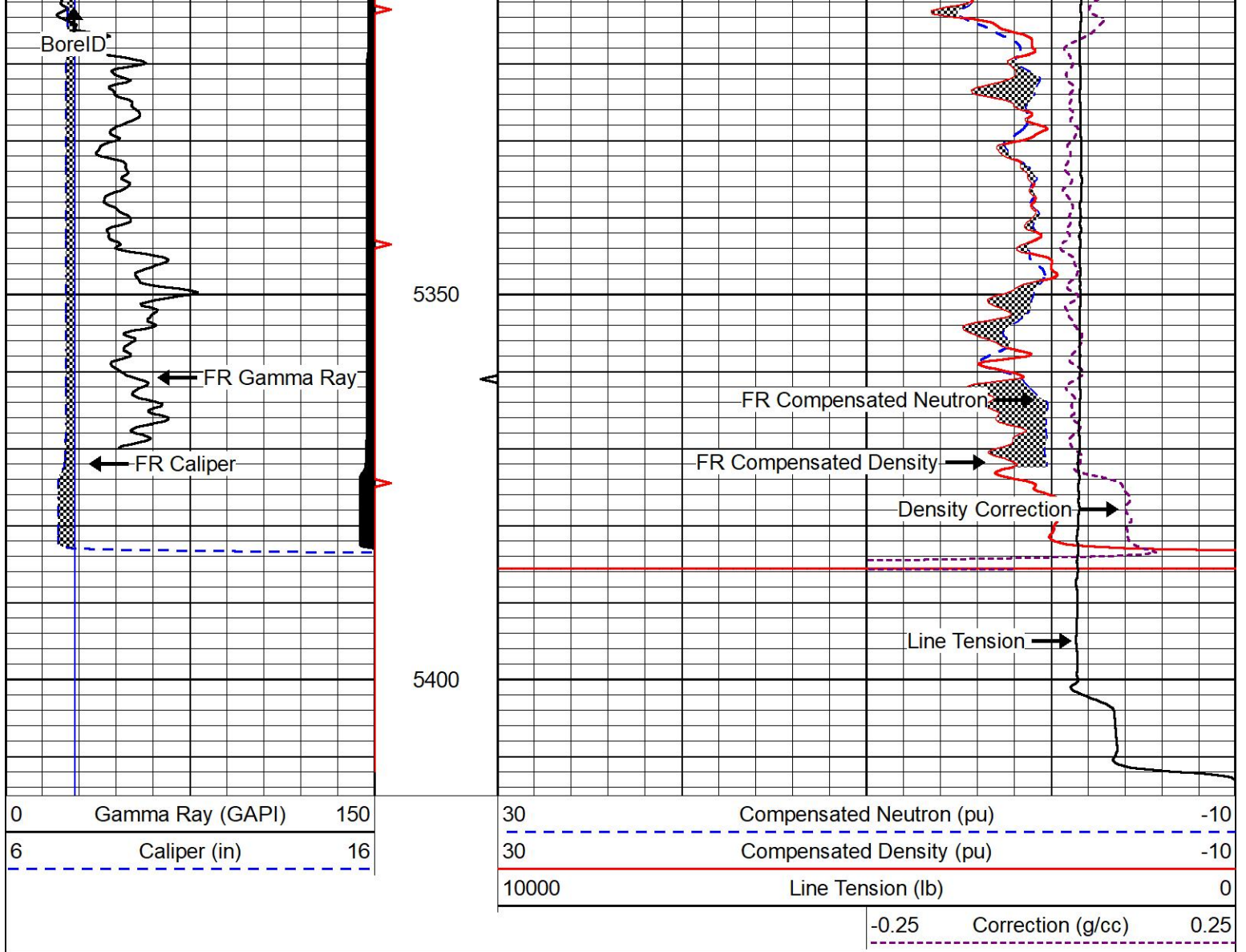








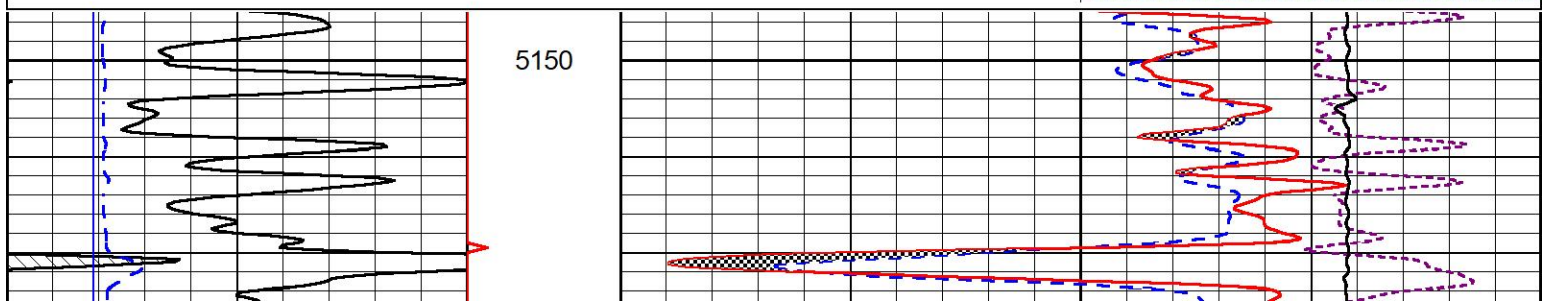


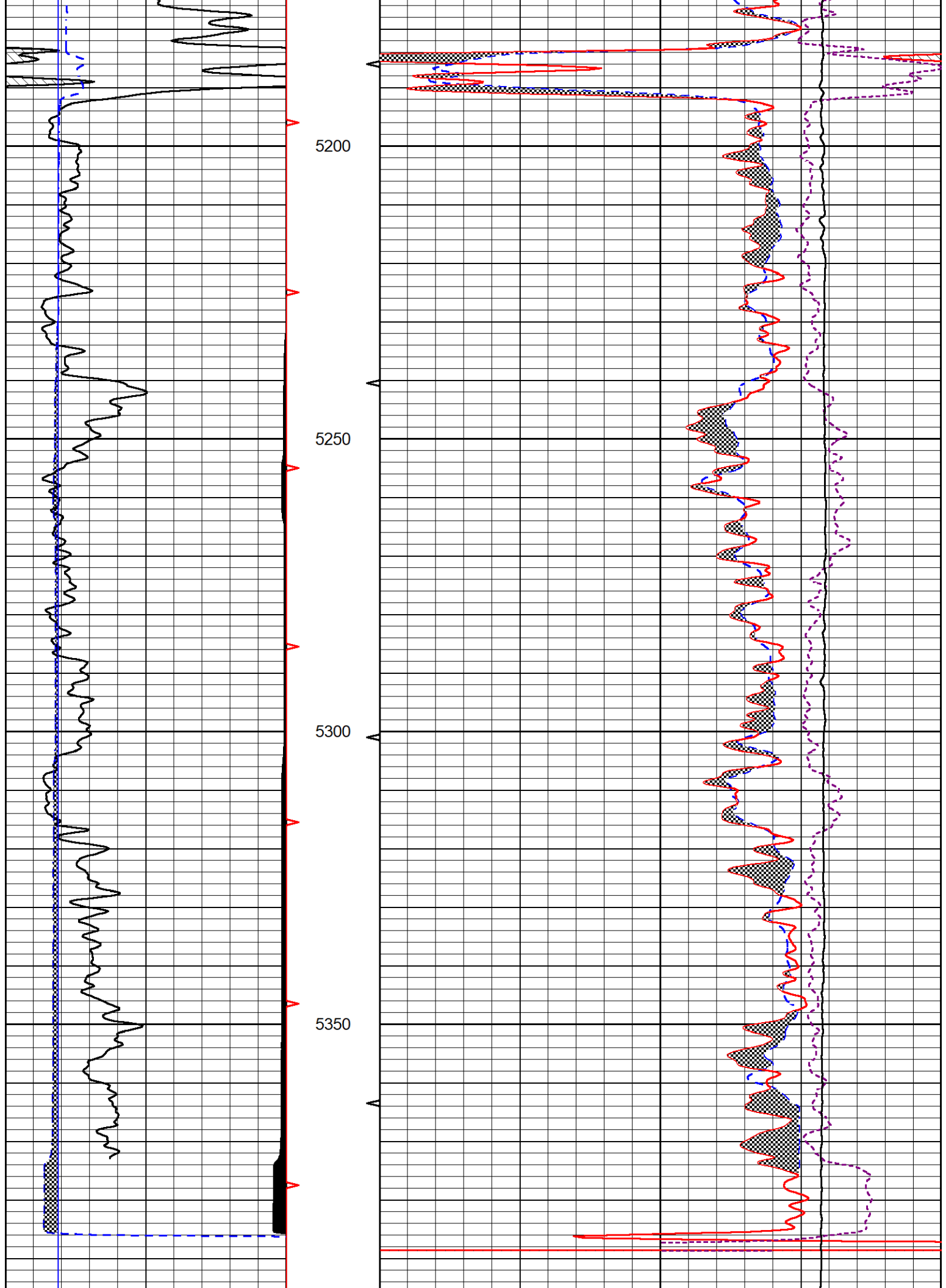


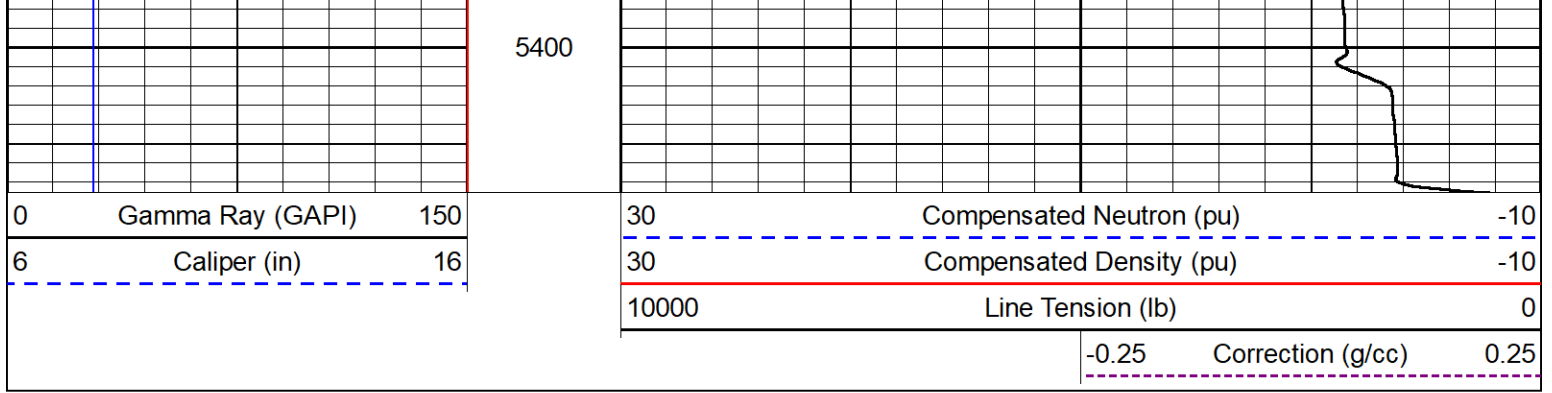
# REPEAT SECTION

## REPEAT PASS

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







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



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