



PIONEER

Pioneer Energy Services

DUAL COMP POROSITY LOG

Company **AMERICAN WARRIOR, INC.**

Well **HAWK #2-35**

Field **KISMET**

County **SEWARD** State **KANSAS**

Location: API #: 15-175-22248-00-00

Other Services

NE SW SW NE
2208' FNL & 2121' FEL
SEC 35 TWP 32S RGE 31W

DIL/MEL

Permanent Datum **GROUND LEVEL** Elevation **2767'**
Log Measured From **KELLY BUSHING**
Drilling Measured From **KELLY BUSHING**

Elevation
K.B. 2779'
D.F. N/A
G.L. 2767'

Company **AMERICAN WARRIOR, INC.**
Well **HAWK #2-35**
Field **KISMET**
County **SEWARD**
State **KANSAS**

Date **8/5/2016**

Run Number **ONE**

Type Log **CNL/CDL**

Depth Driller **6100'**

Depth Logger **6108'**

Bottom Logged Interval **6080'**

Top Logged Interval **1700'**

Type Fluid In Hole **CHEMICAL**

Salinity, PPM CL **3800**

Density **9.4**

Level **FULL**

Max. Rec. Temp. F **136**

Operating Rig Time **3 1/2 HOURS**

Equipment -- Location **108 COLBY**

Recorded By **T. MARTIN**

Witnessed By **KEVIN TIMSON**

Borehole Record

Casing Record

Run No.	Bit	From	To	Size	Wgt.	From	To
ONE	12.25"	00'	1739'	8.625"	23#	00'	1739'
TWO	7.875"	1739'	TD				

<<< Fold Here >>>

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

KISMET, KS, 2 MI NE ON HWY 54,
S INTO OFF HWY

Log Measured From: **KELLY BUSHING** 12 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES
www.pioneerenergy.com 785-625-3858

Your Pioneer Energy Services Crew

Engineer: **T. MARTIN**
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: **KEVIN TIMSON**
Secondary Witness:
Secondary Witness:
Secondary Witness:

DatabaseC:\ProgramData\Warrior\Data\amwar_hawk_#2-35.db
Dataset field/well/stkml/pass3.1/_vars_

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in 7.875	degF 136	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 -240	degF 76	Off	ft 6108

Sensor	Offset (ft)	Schematic		Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.58			GR-M&W (89-M&W)	3.00	3.50	50.00
CNLSC CNSSC	37.48 36.73			CNT-M&W (tk10-MW)	5.50	3.50	100.00
LSD DCAL SSD	28.43 28.42 27.93			CDL-M&W (71-914)	8.50	4.00	250.00
ML-PSI STKBL ML (PSI-02) Stackable Microlog Tools					7.58	4.00	65.00
MCAL MI MN	19.83 19.83 19.83						
RLL3 RLL3F	15.80 15.79						
CILD	8.00			DIL-M&W (1987)	18.50	3.50	220.00

CILM

4.70

SP

0.20

Dataset: amwar_hawk_#2-35.db: field/well/stkml/pass3.1
Total length: 43.08 ft
Total weight: 685.00 lb
O.D.: 4.00 in

PIONEER

Pioneer Energy Services

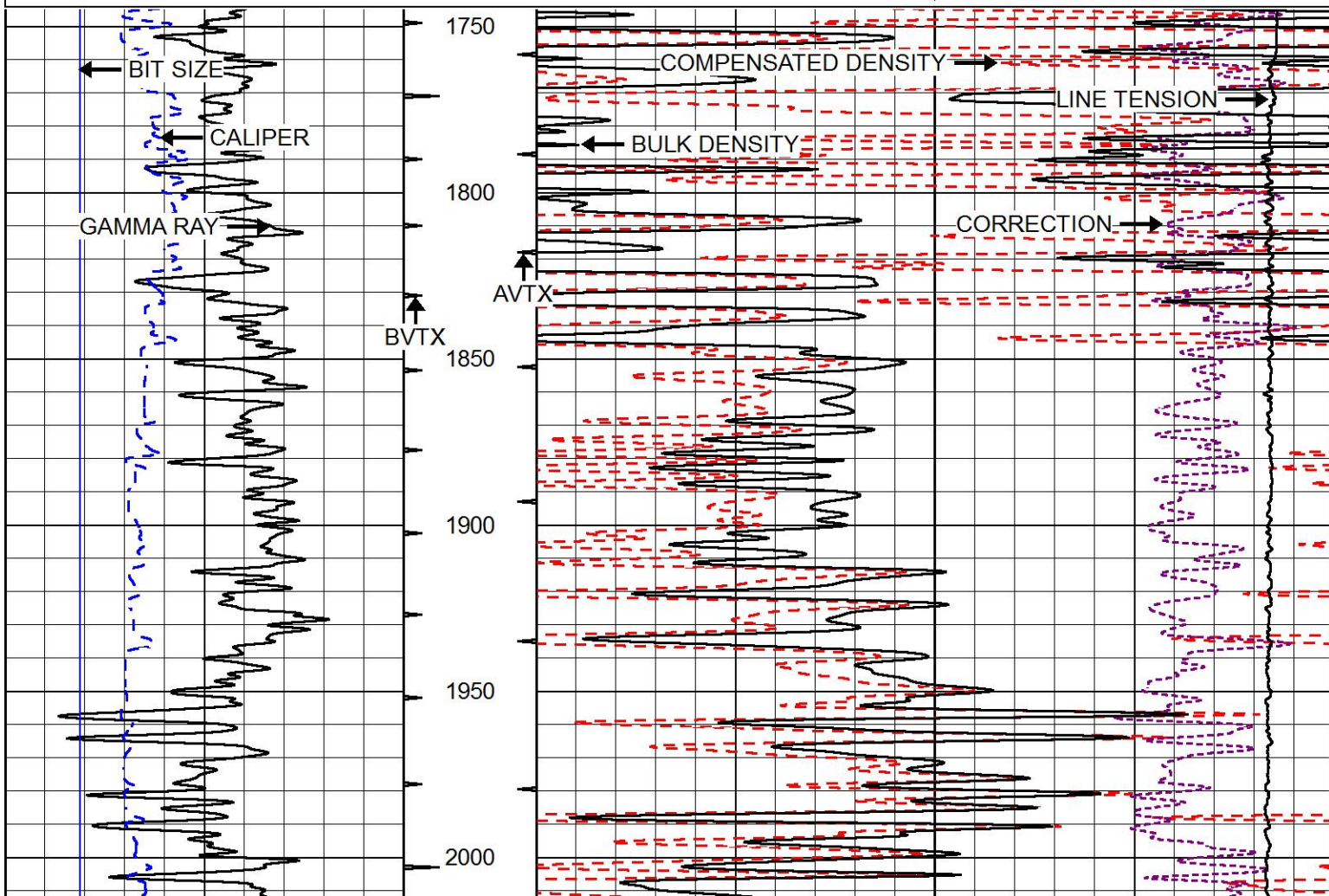
2" SCALE BULK DENSITY

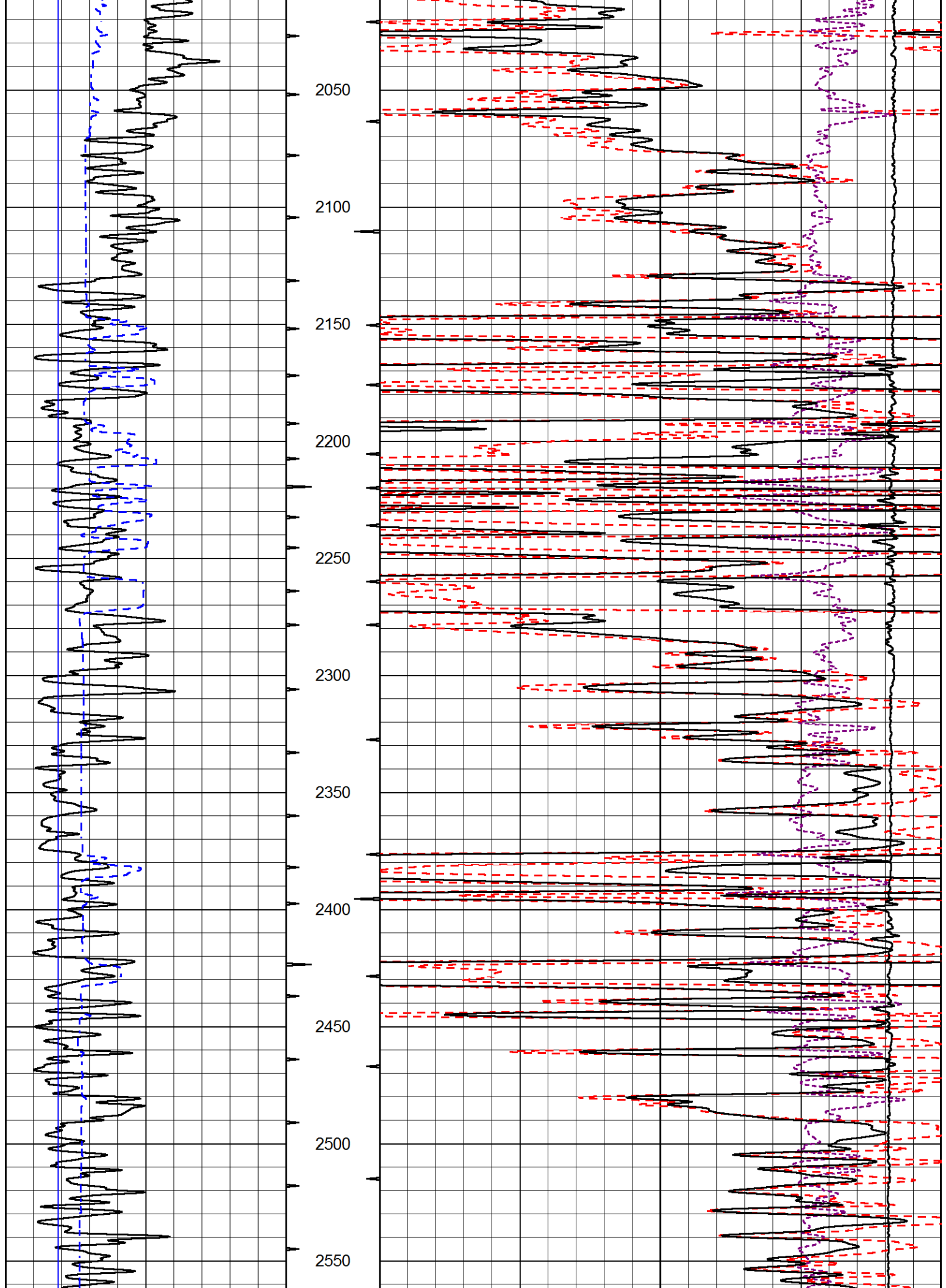
MAIN PASS

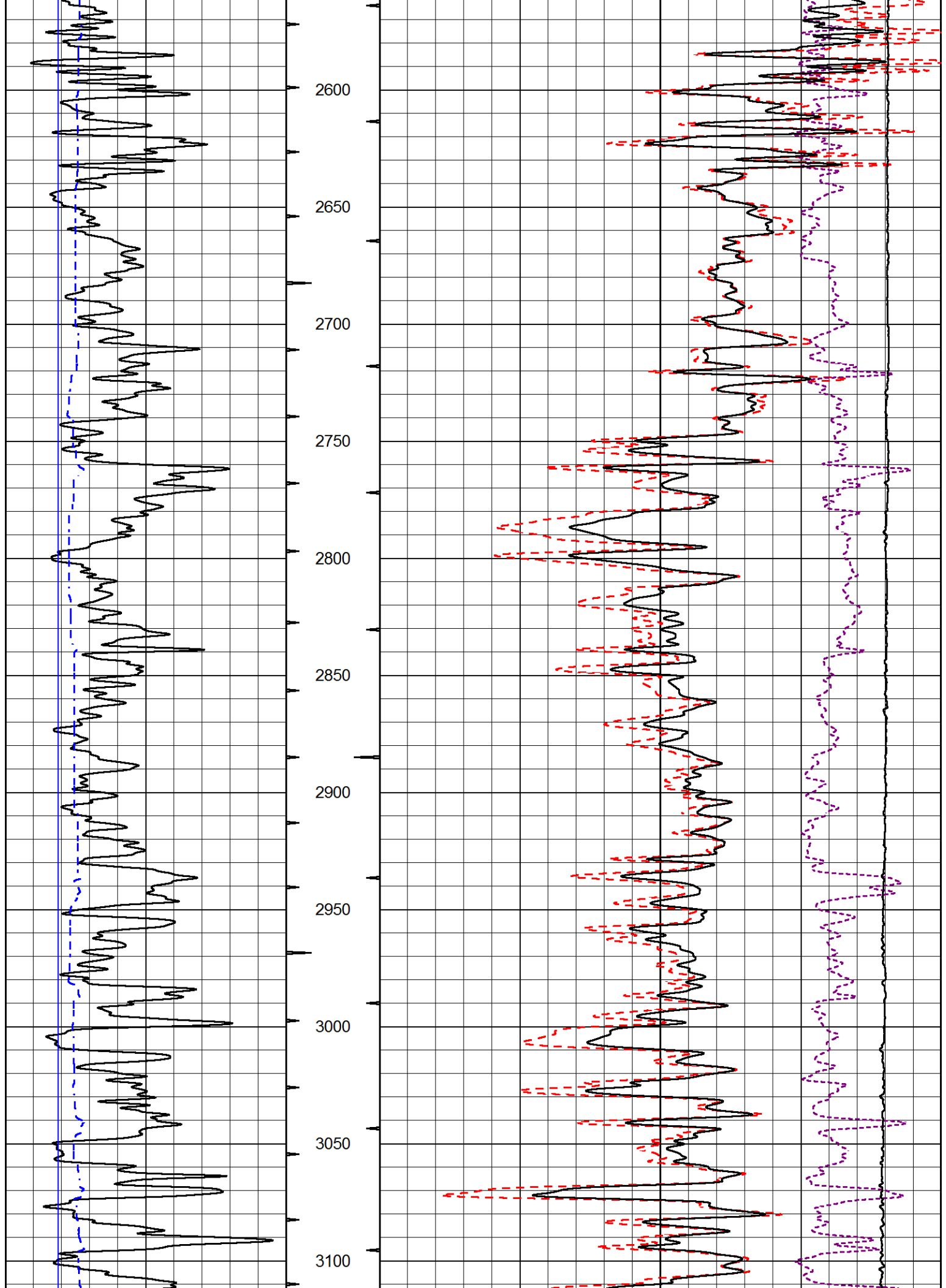
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Presentation Format cdl
Dataset Creation Sat Aug 06 01:14:53 2016
Charted by Depth in Feet scaled 1:600

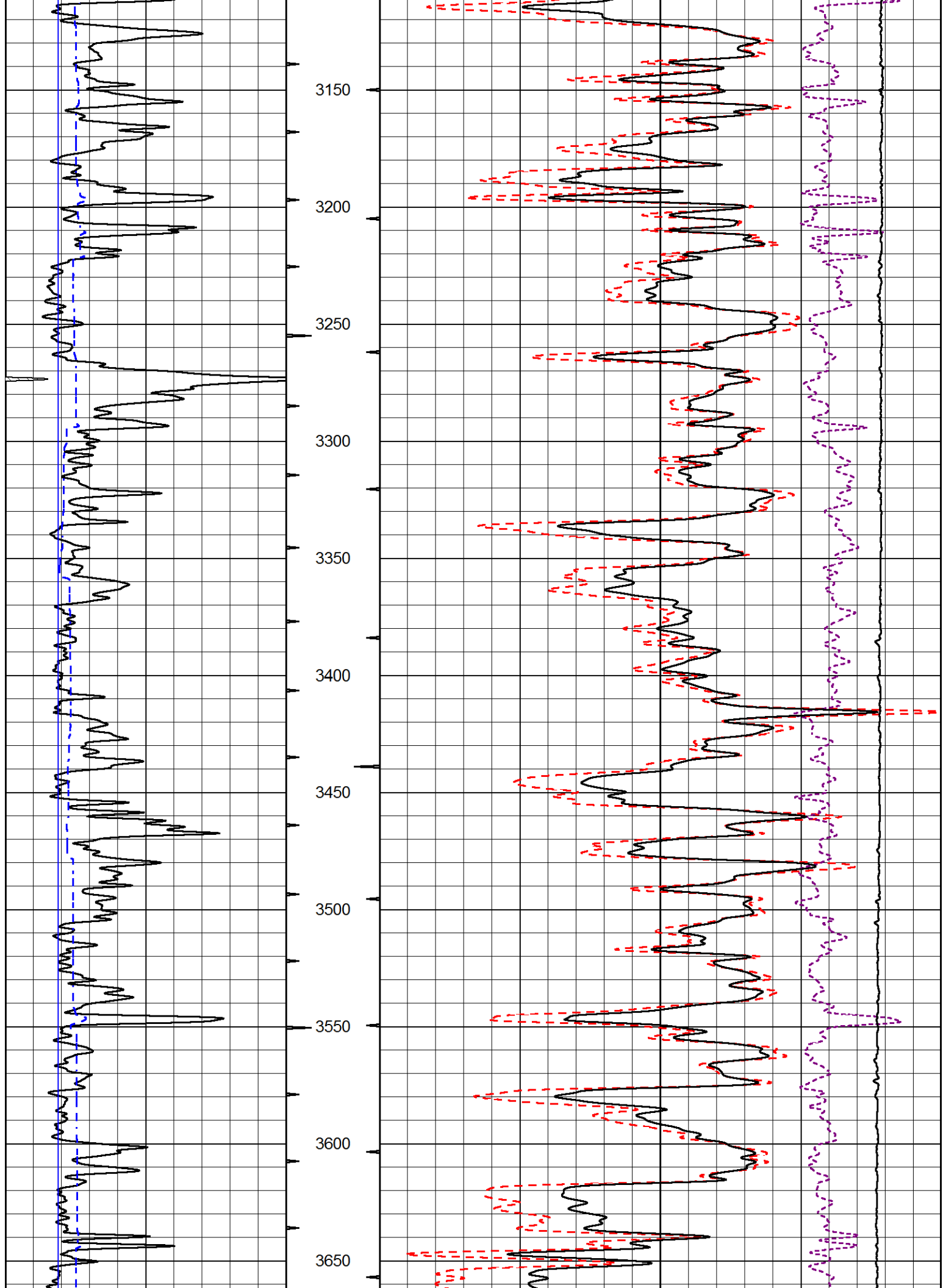
0	GAMMA RAY (GAPI)	150
6	CALIPER (in)	16

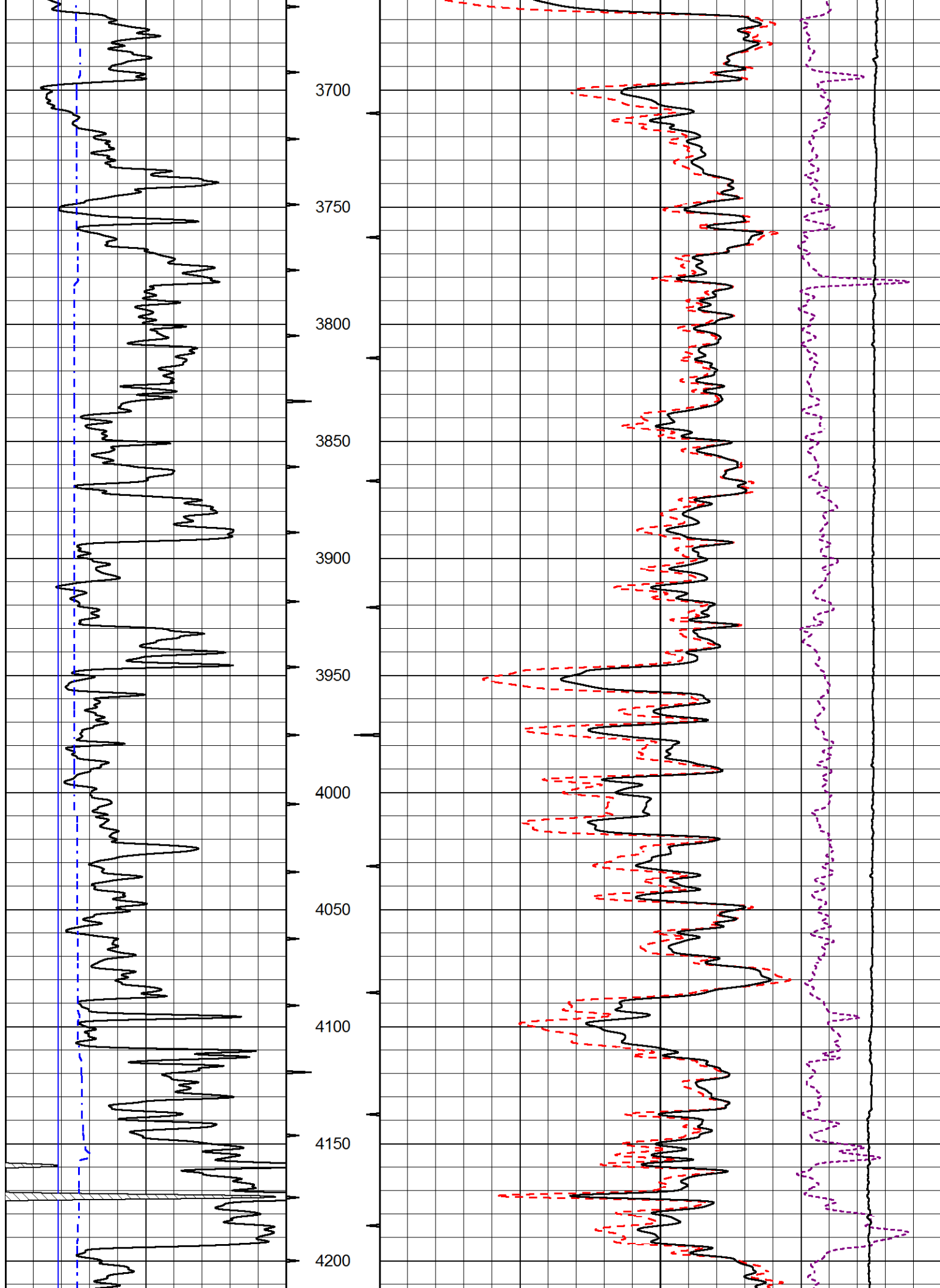
30	COMPENSATED DENSITY (pu)	-10
2	BULK DENSITY (g/cc)	3
15000	LINE TENSION (lb)	0
-0.25	CORRECTION (g/cc)	0.25

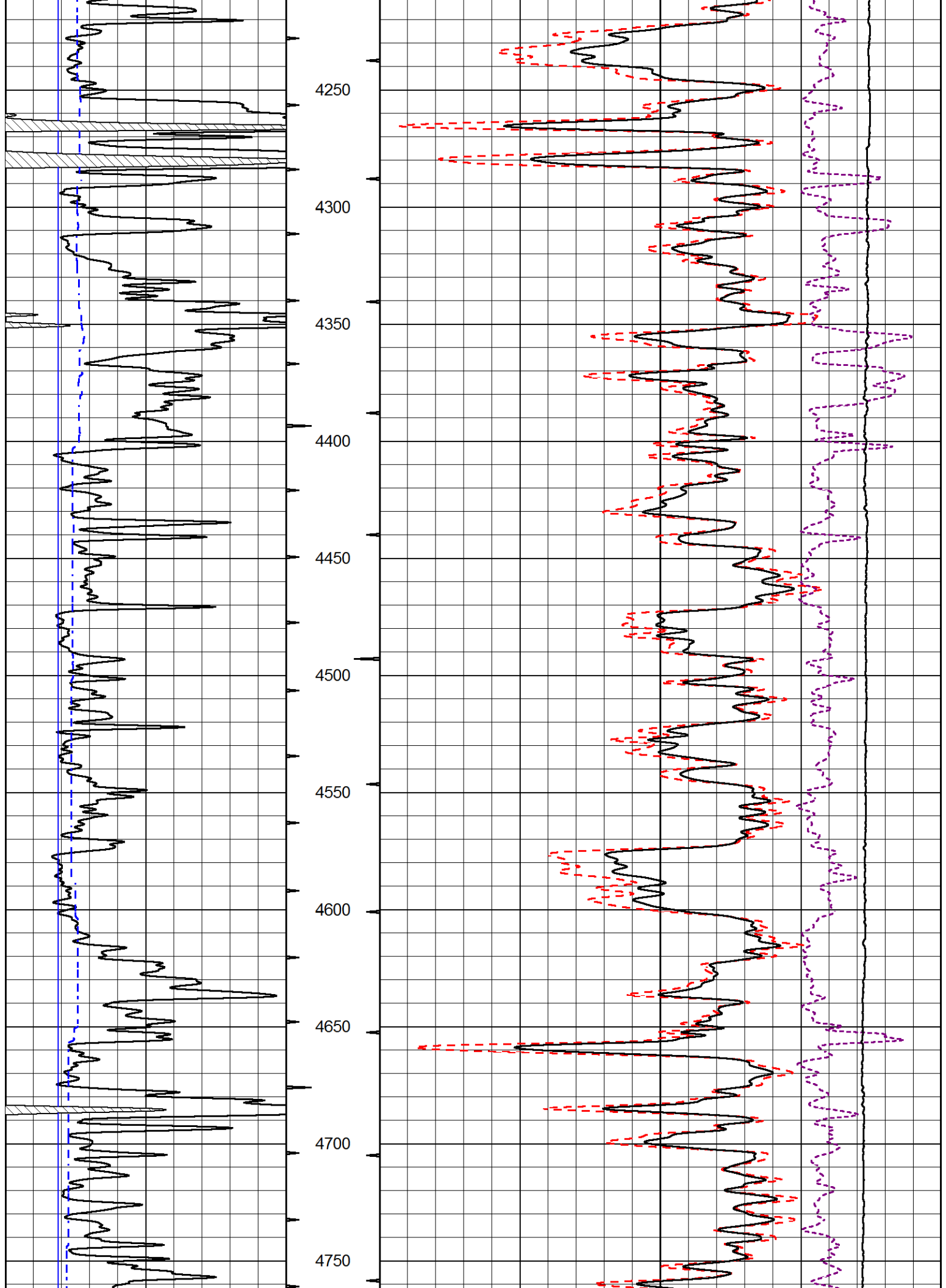


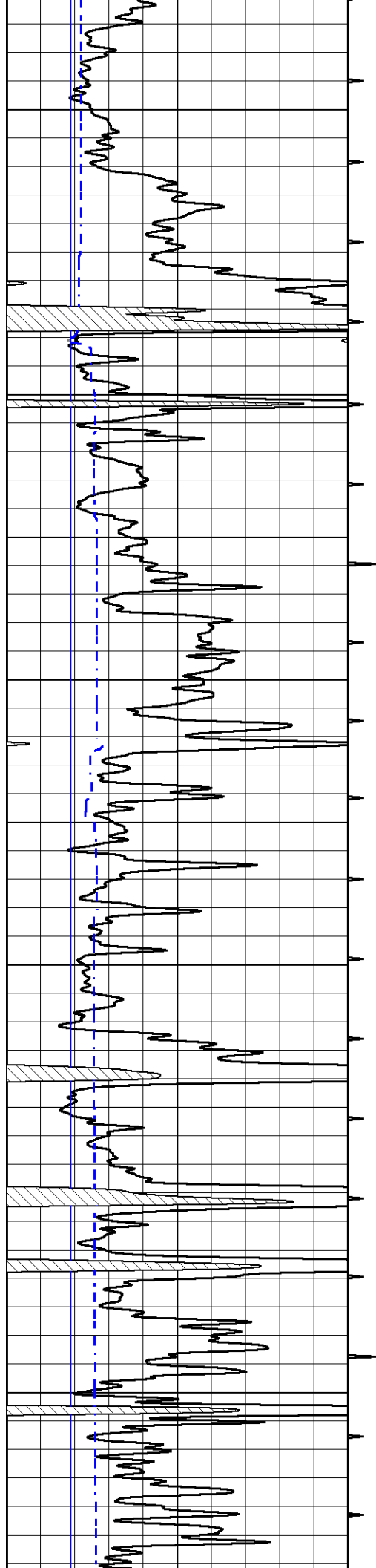




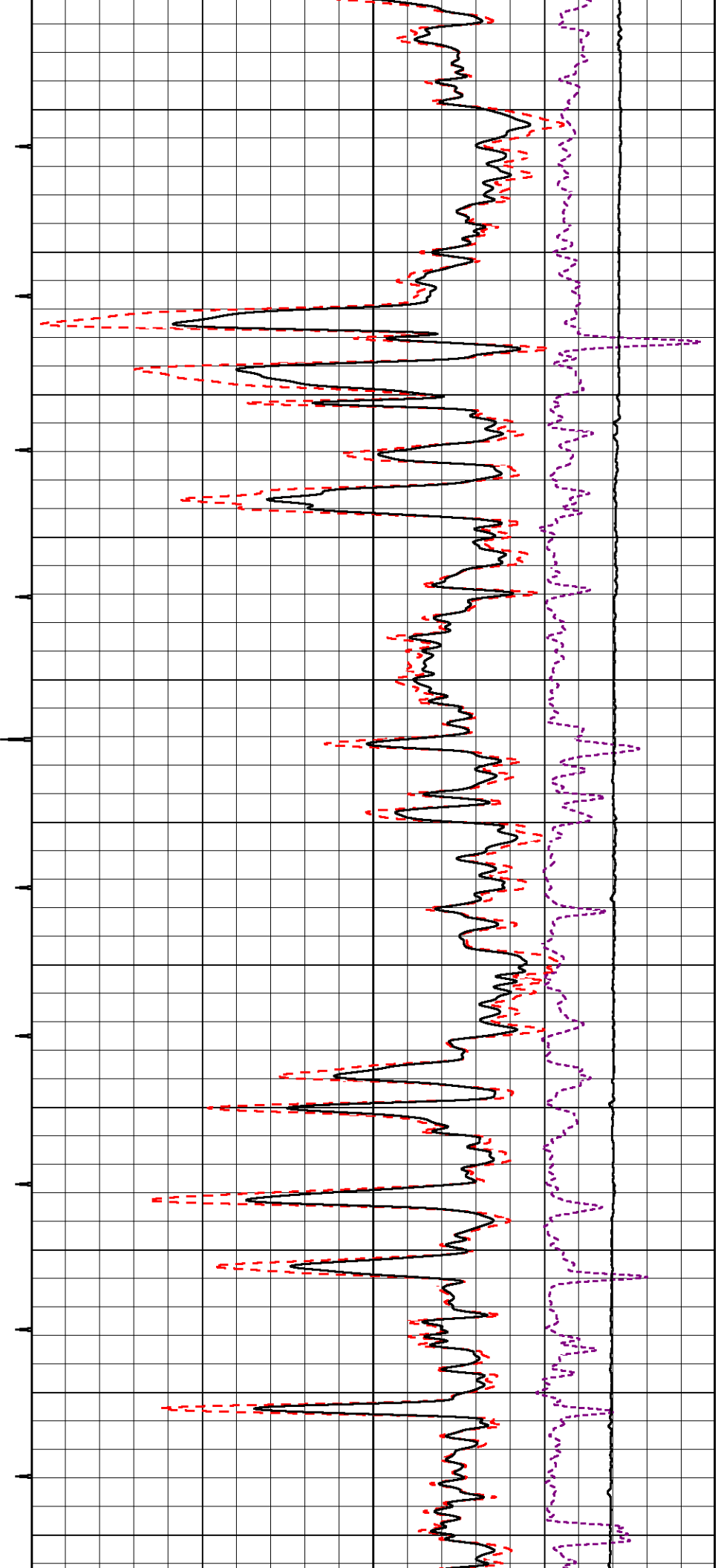


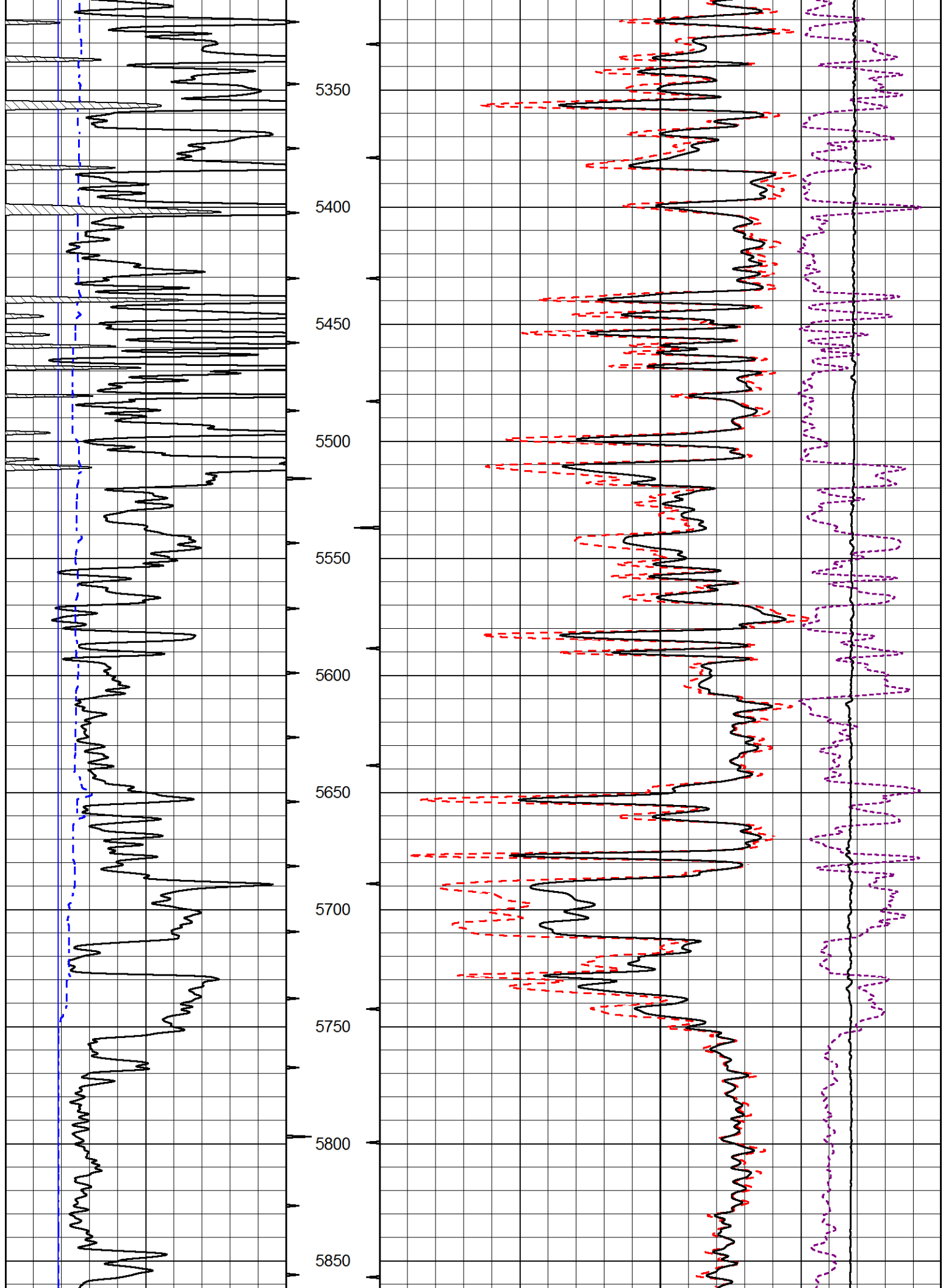


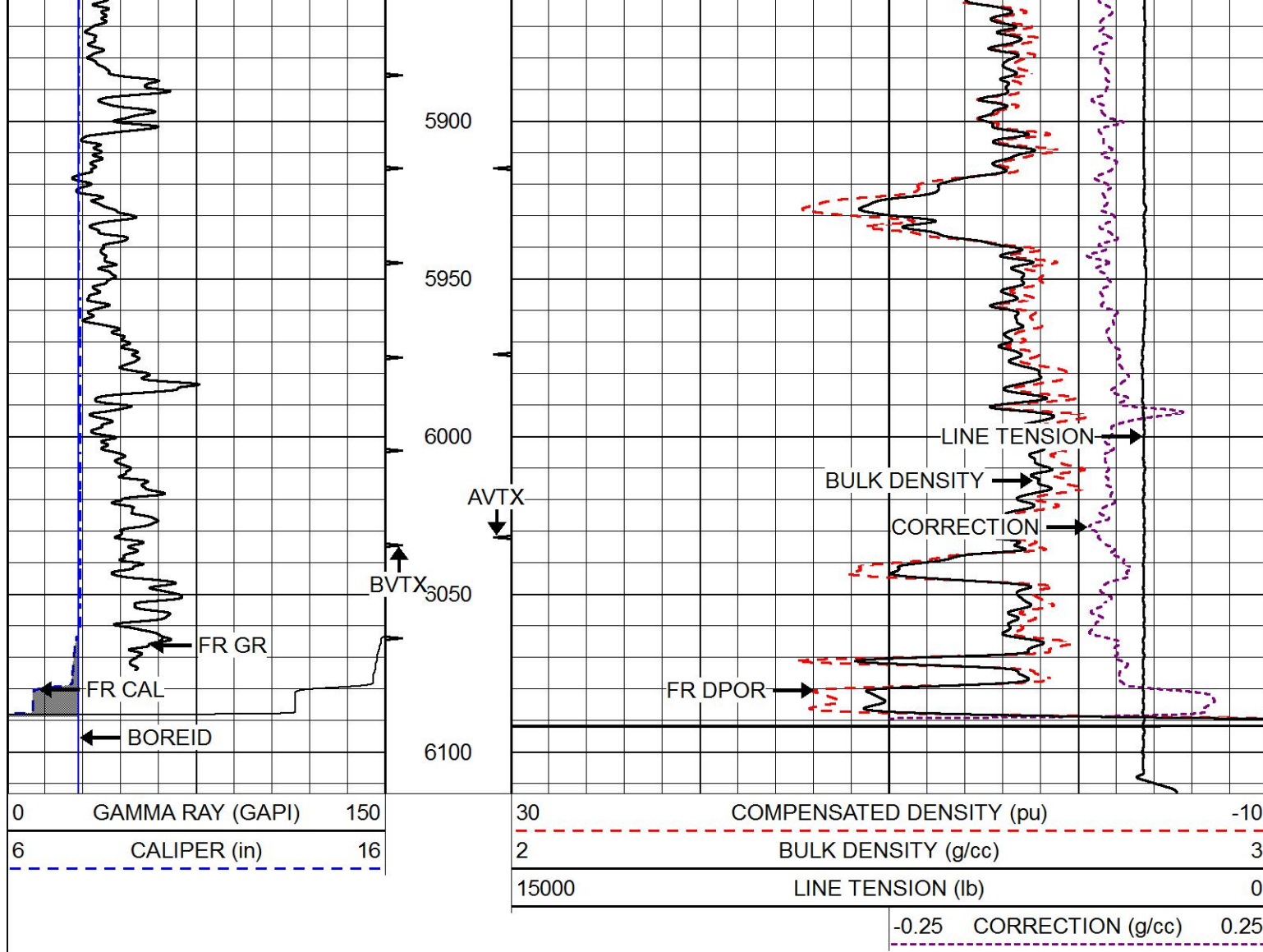




4800
4850
4900
4950
5000
5050
5100
5150
5200
5250
5300

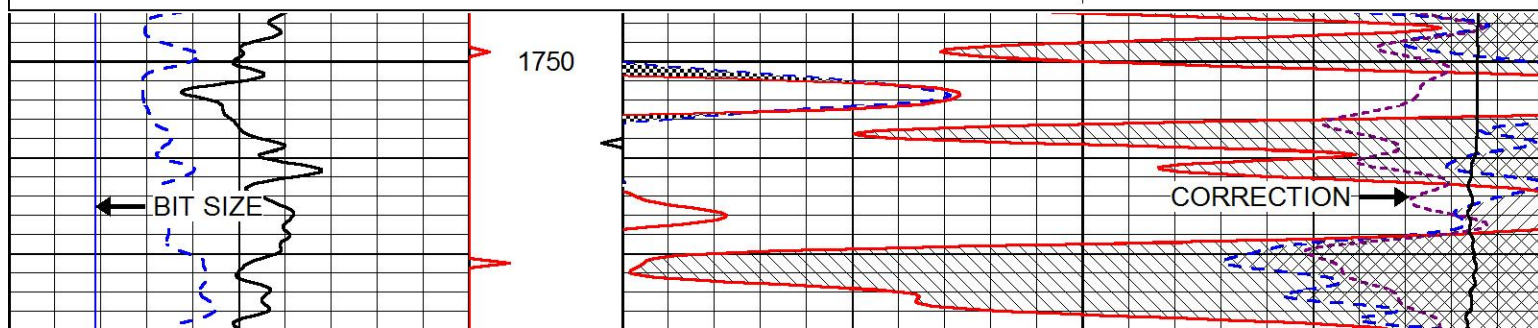
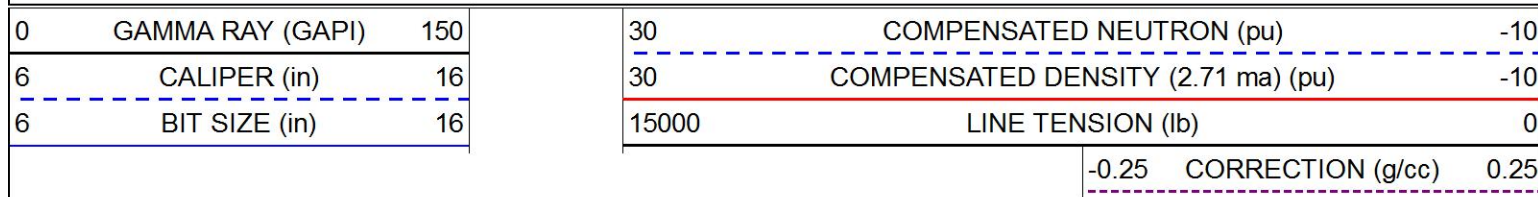


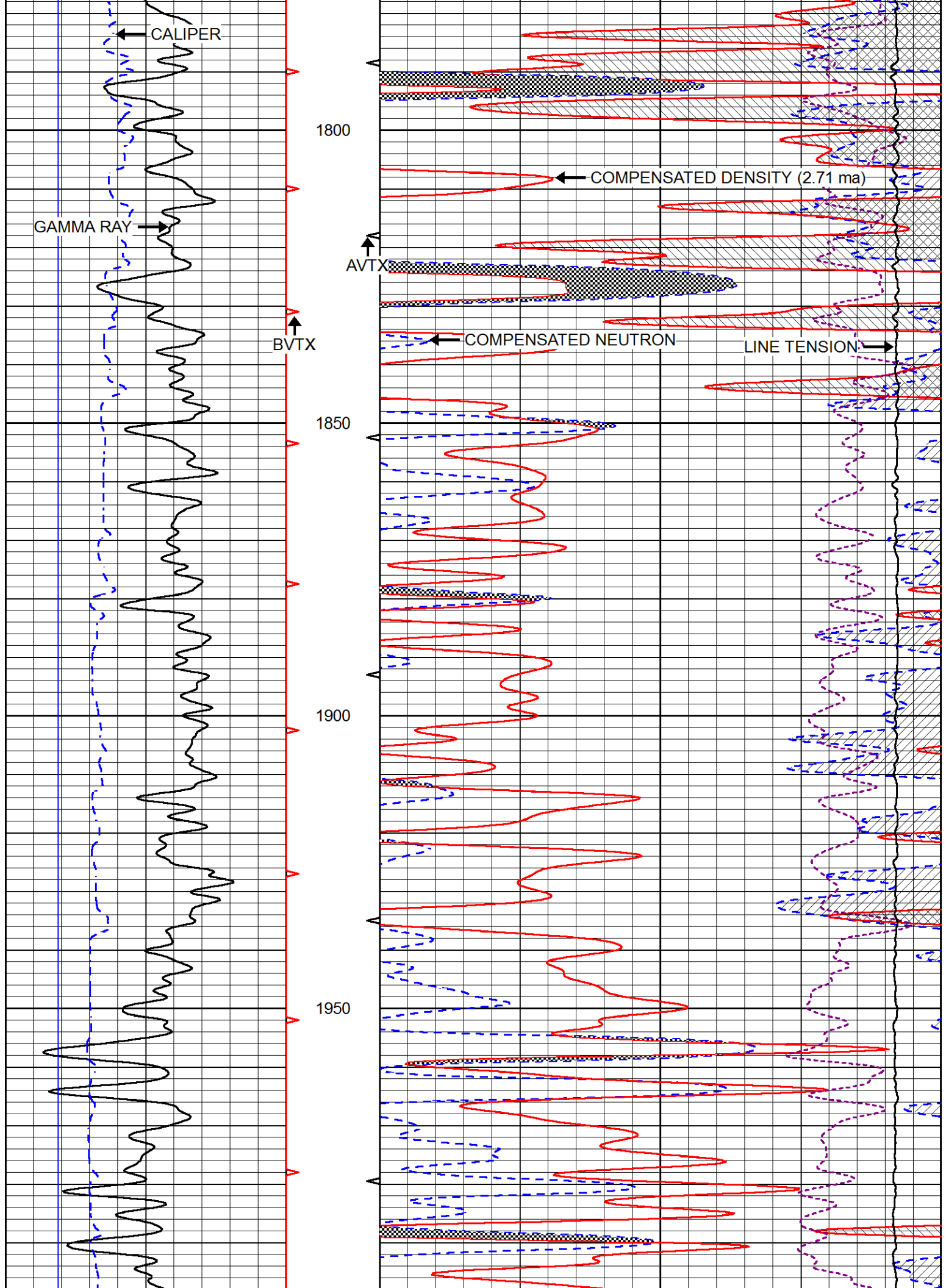


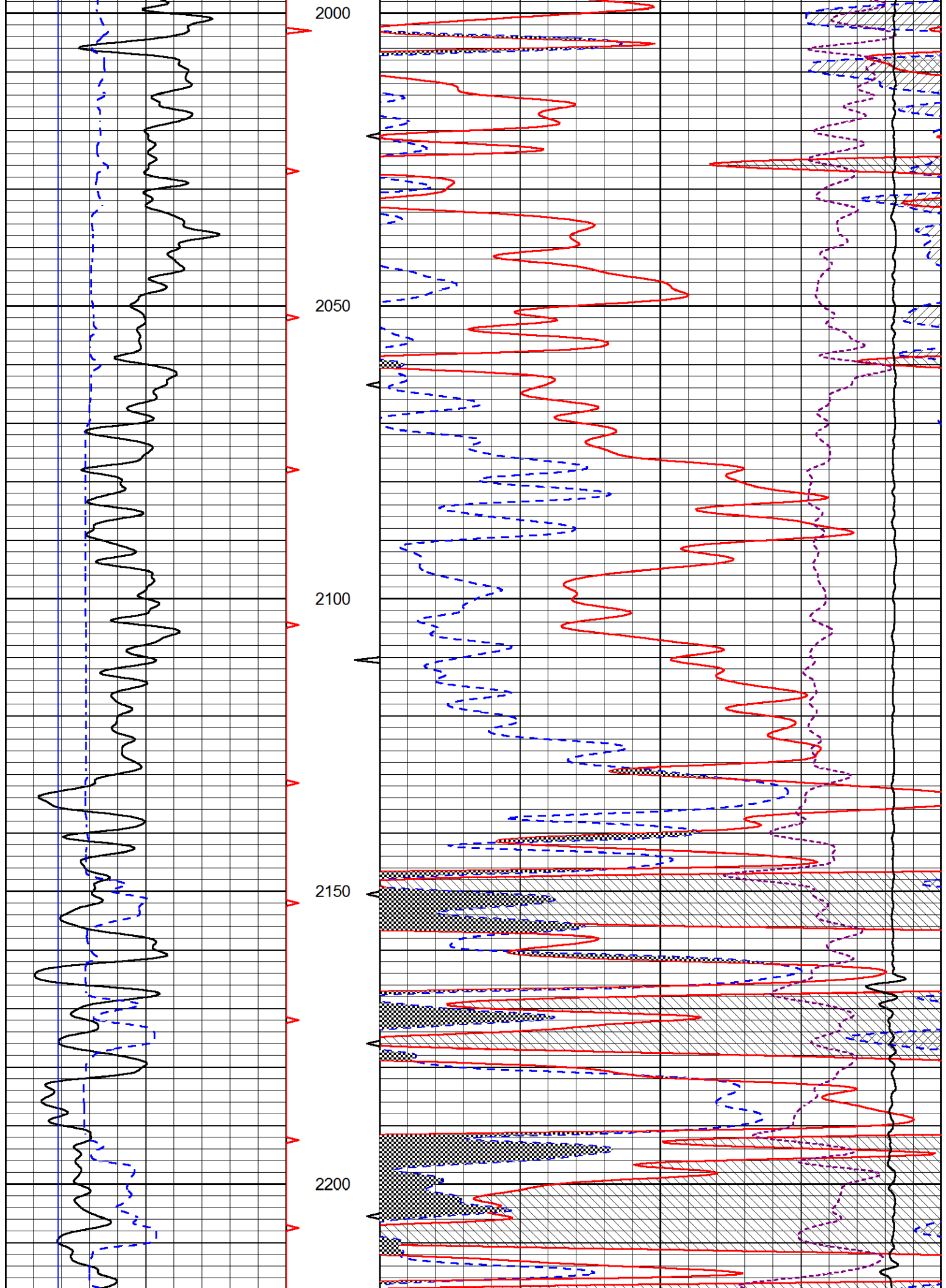


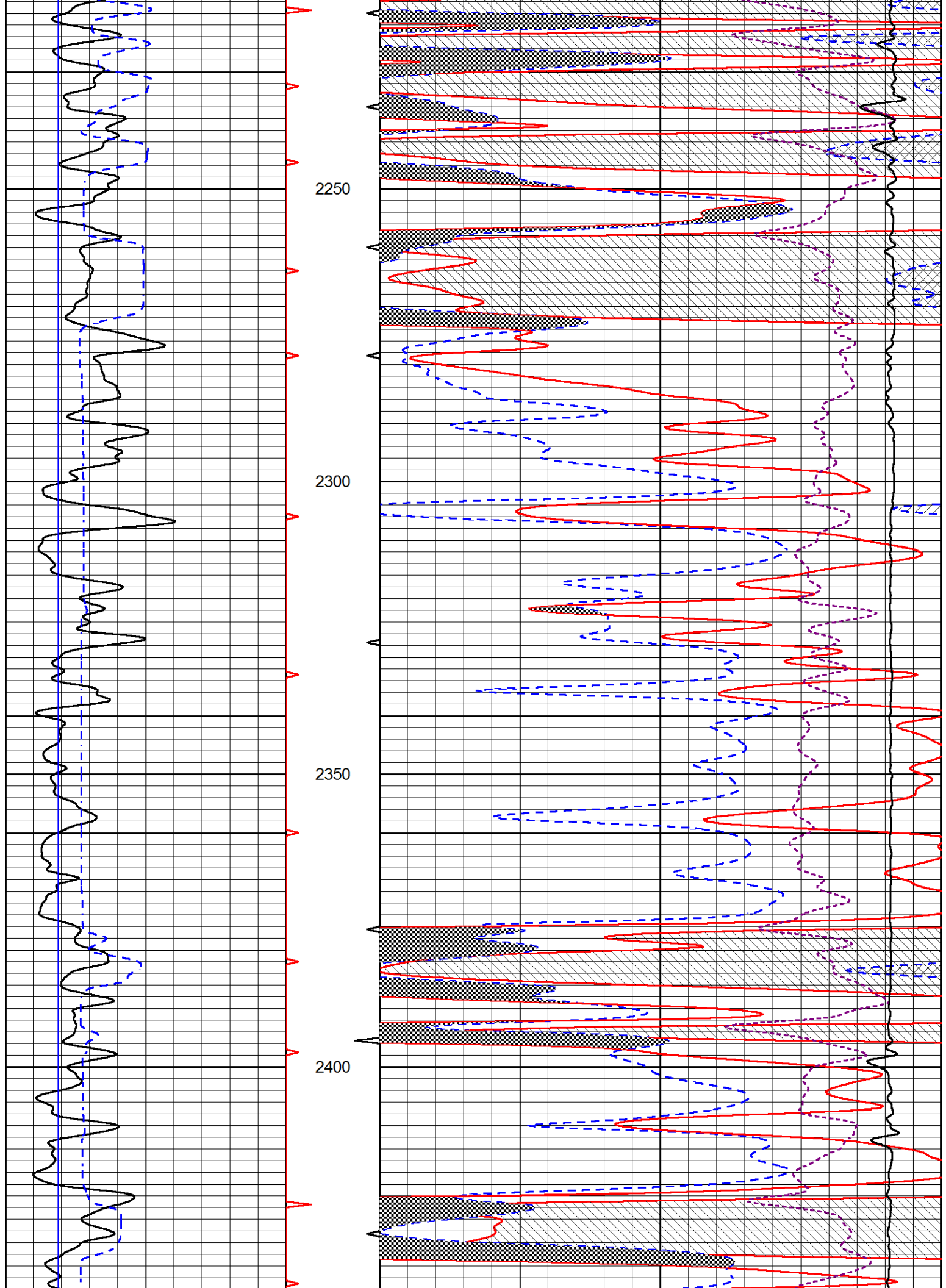
MAIN PASS

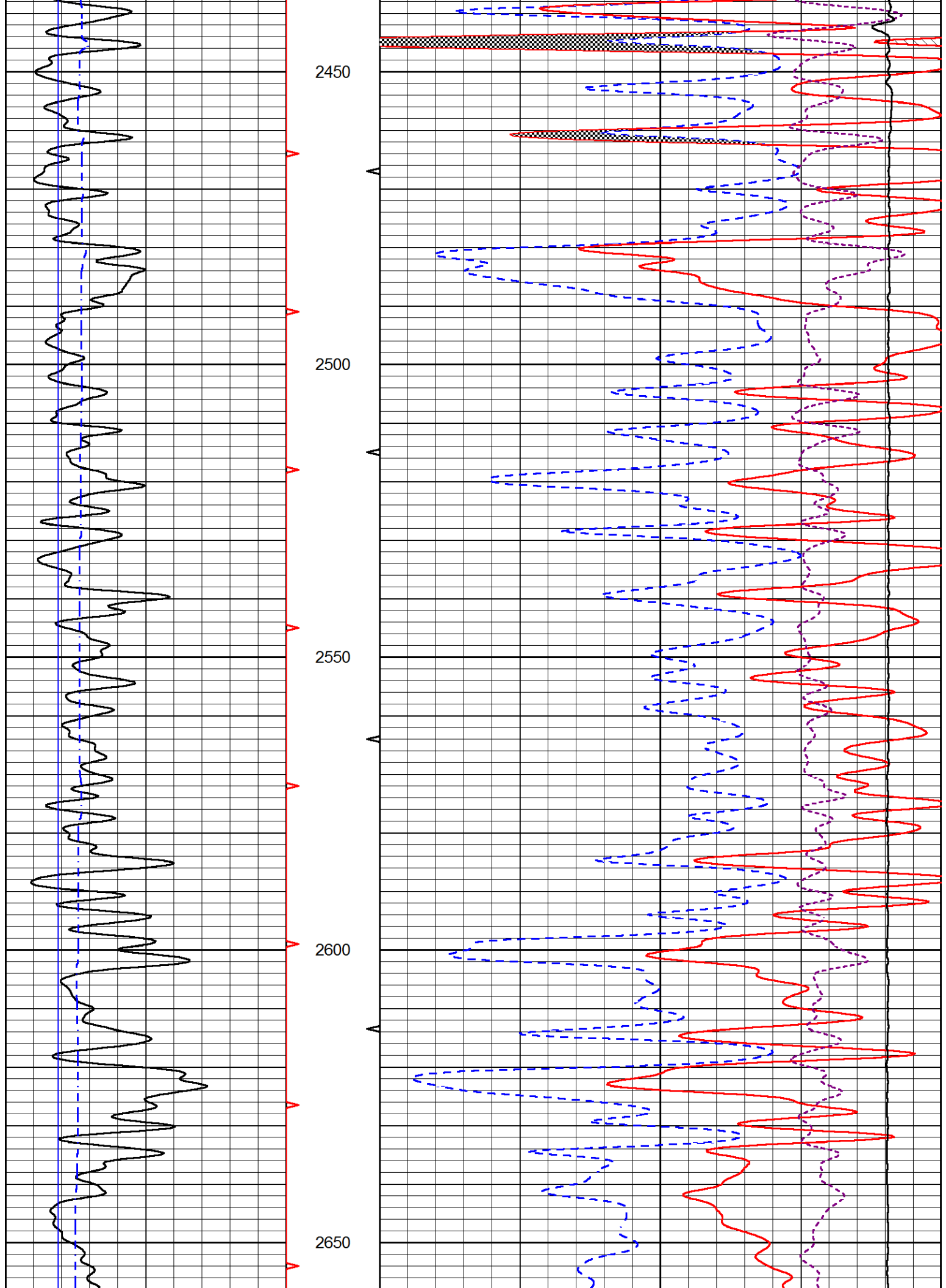
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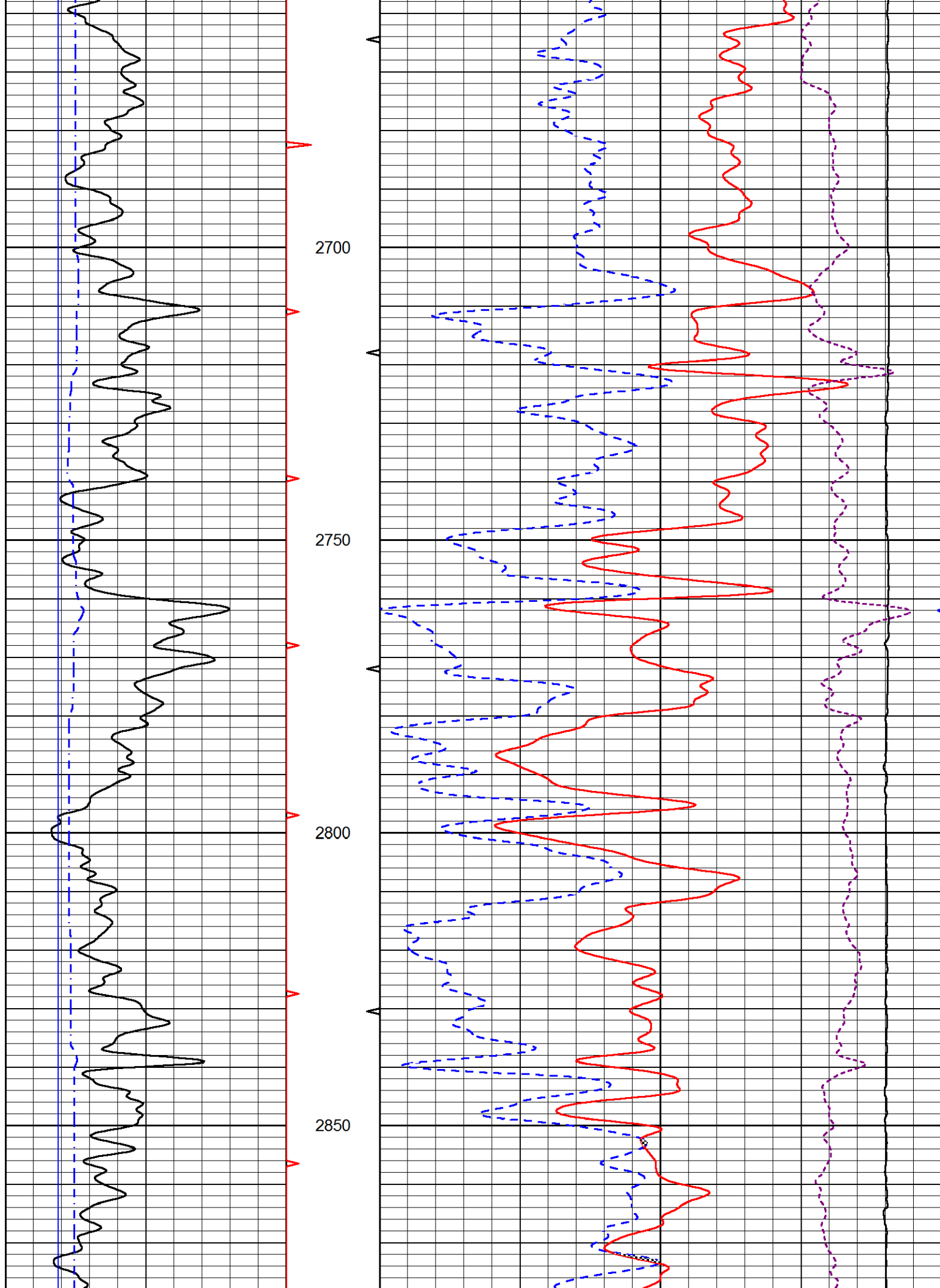


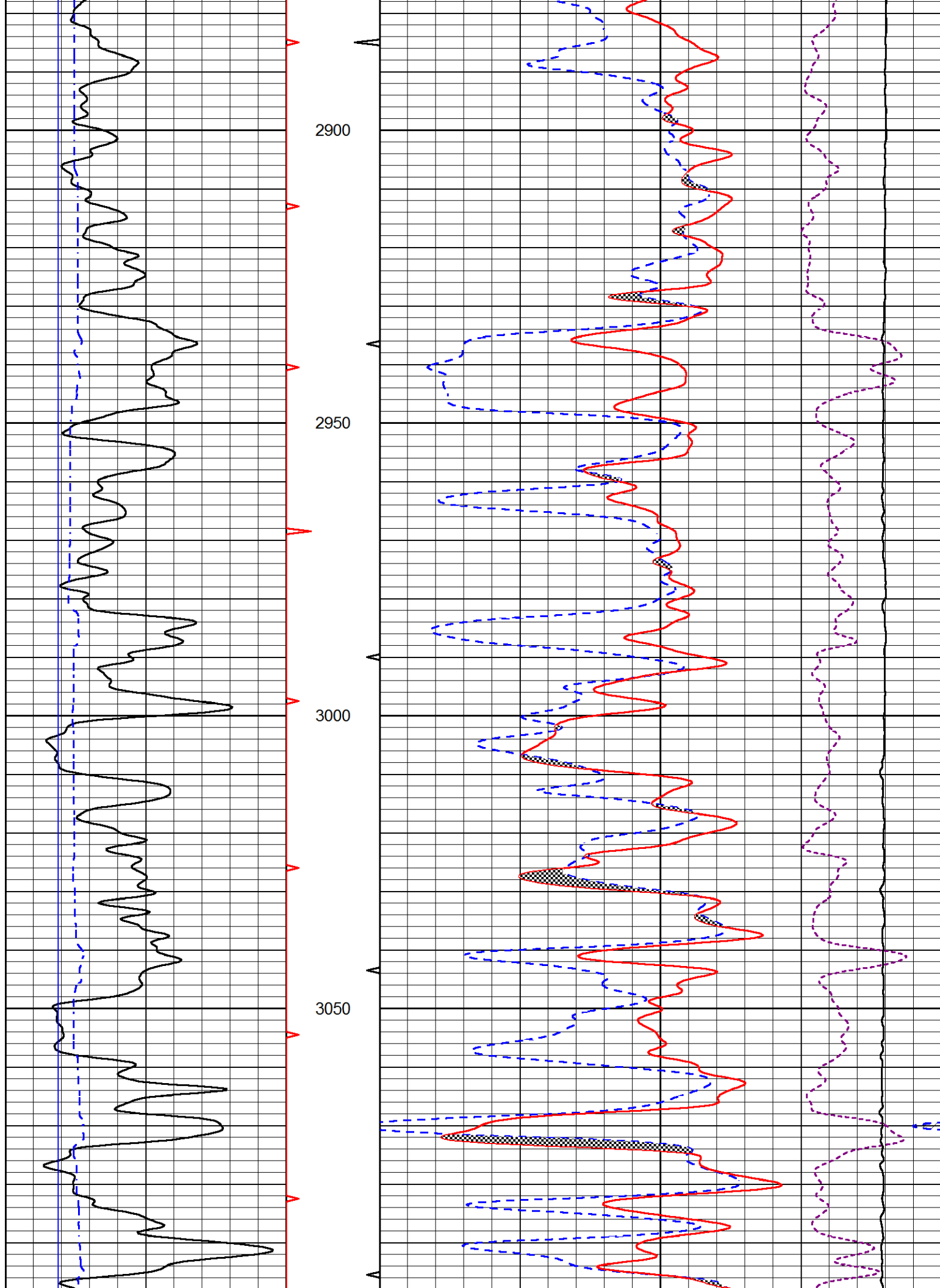


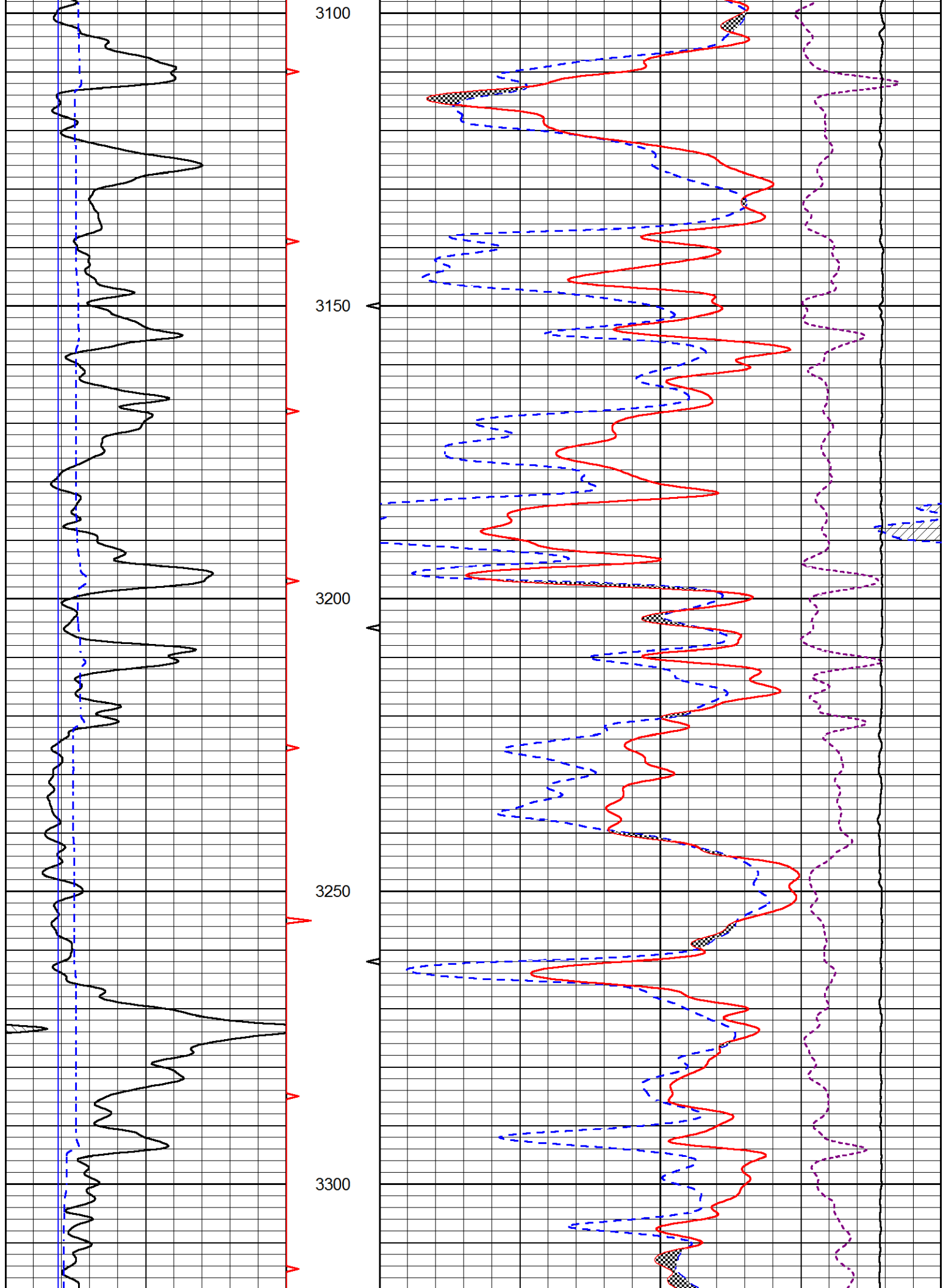


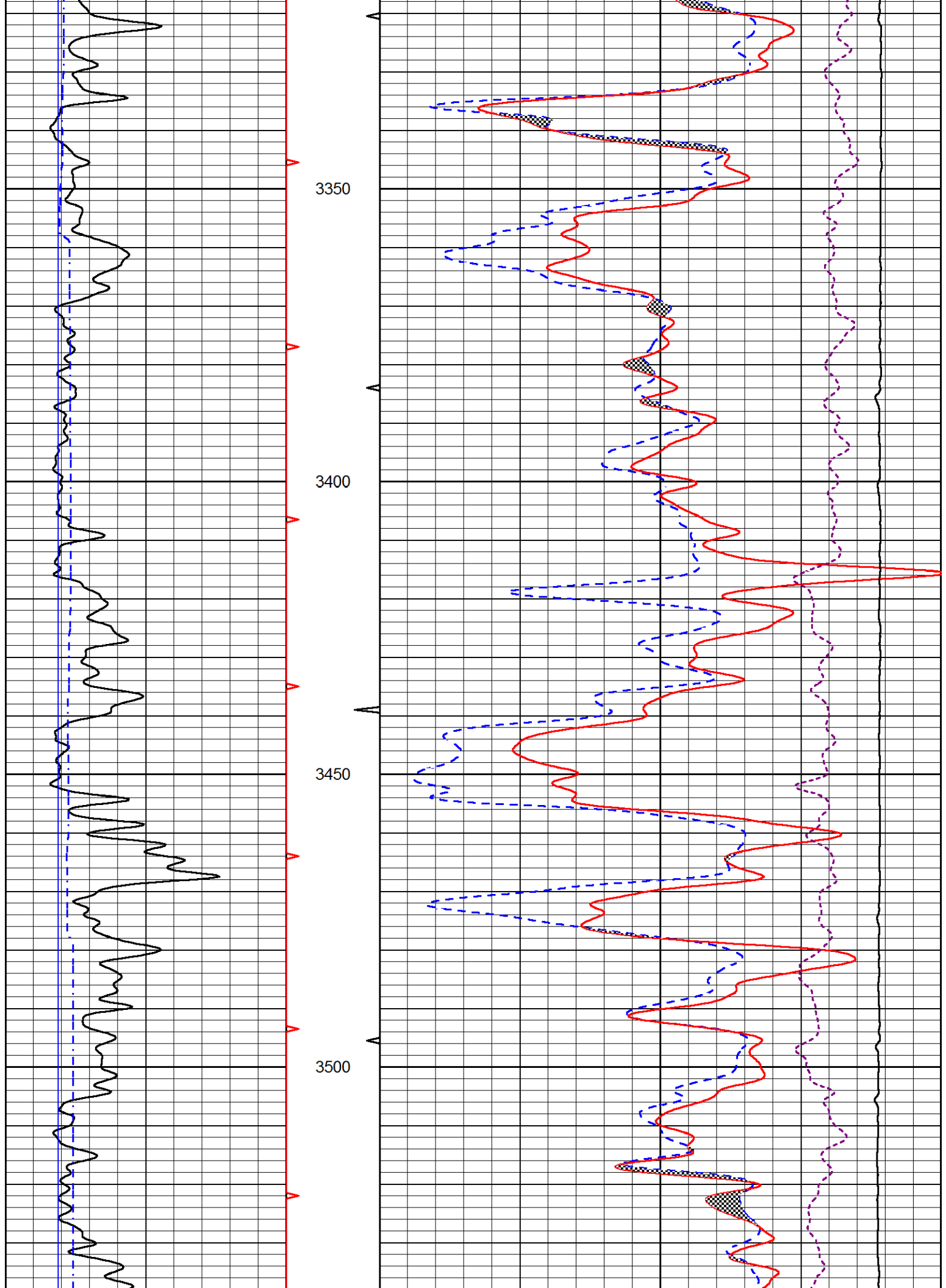


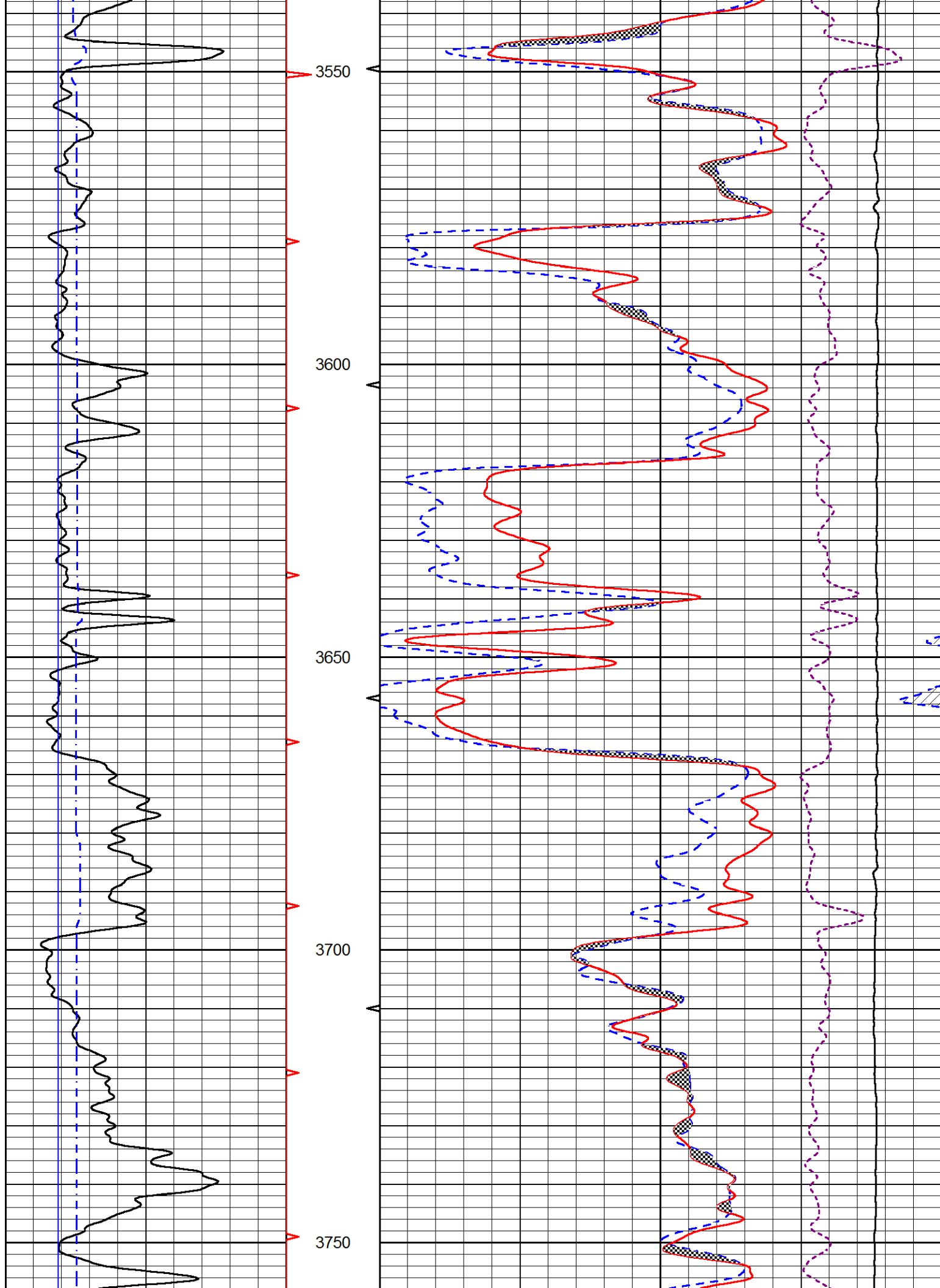


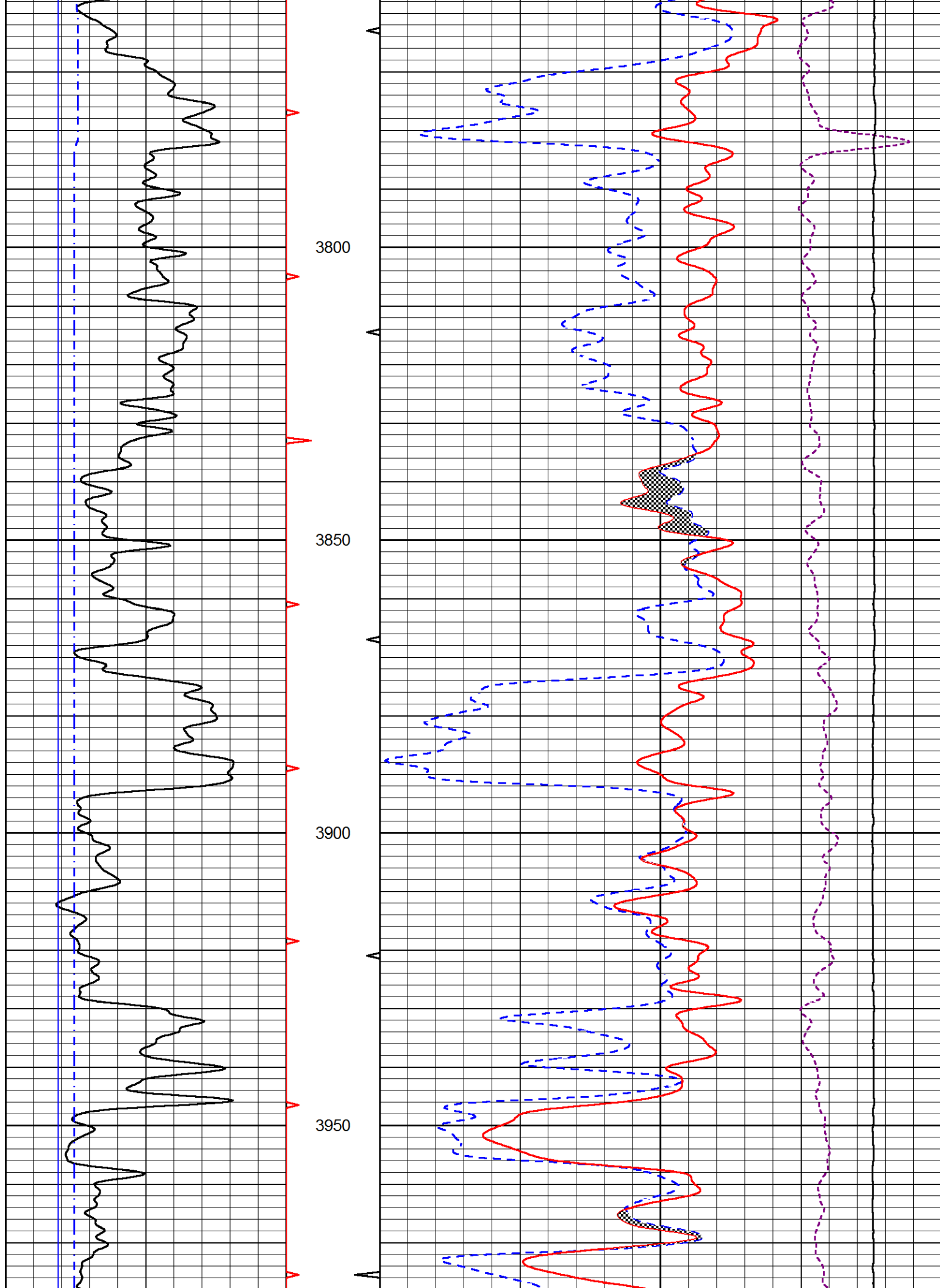


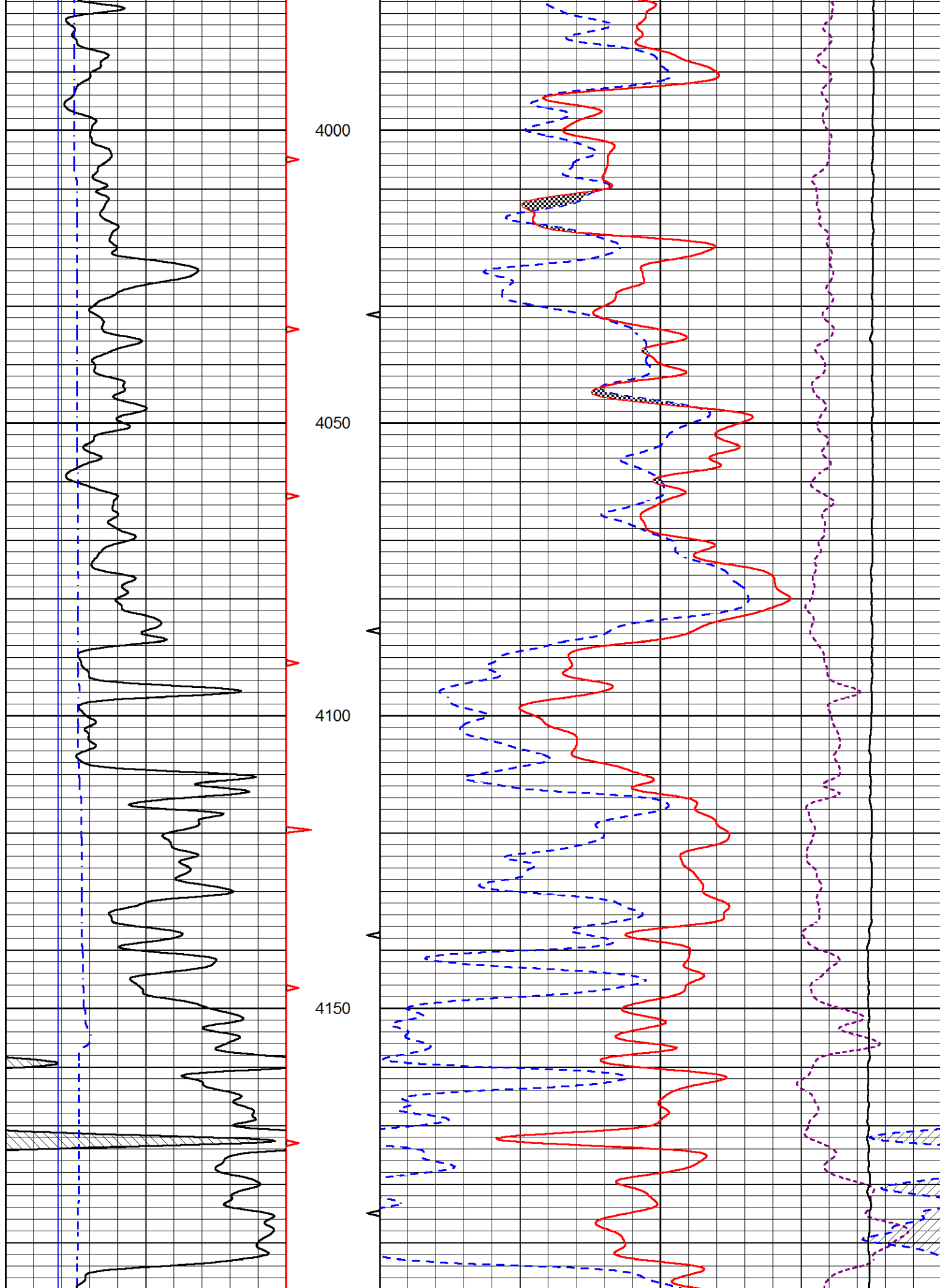


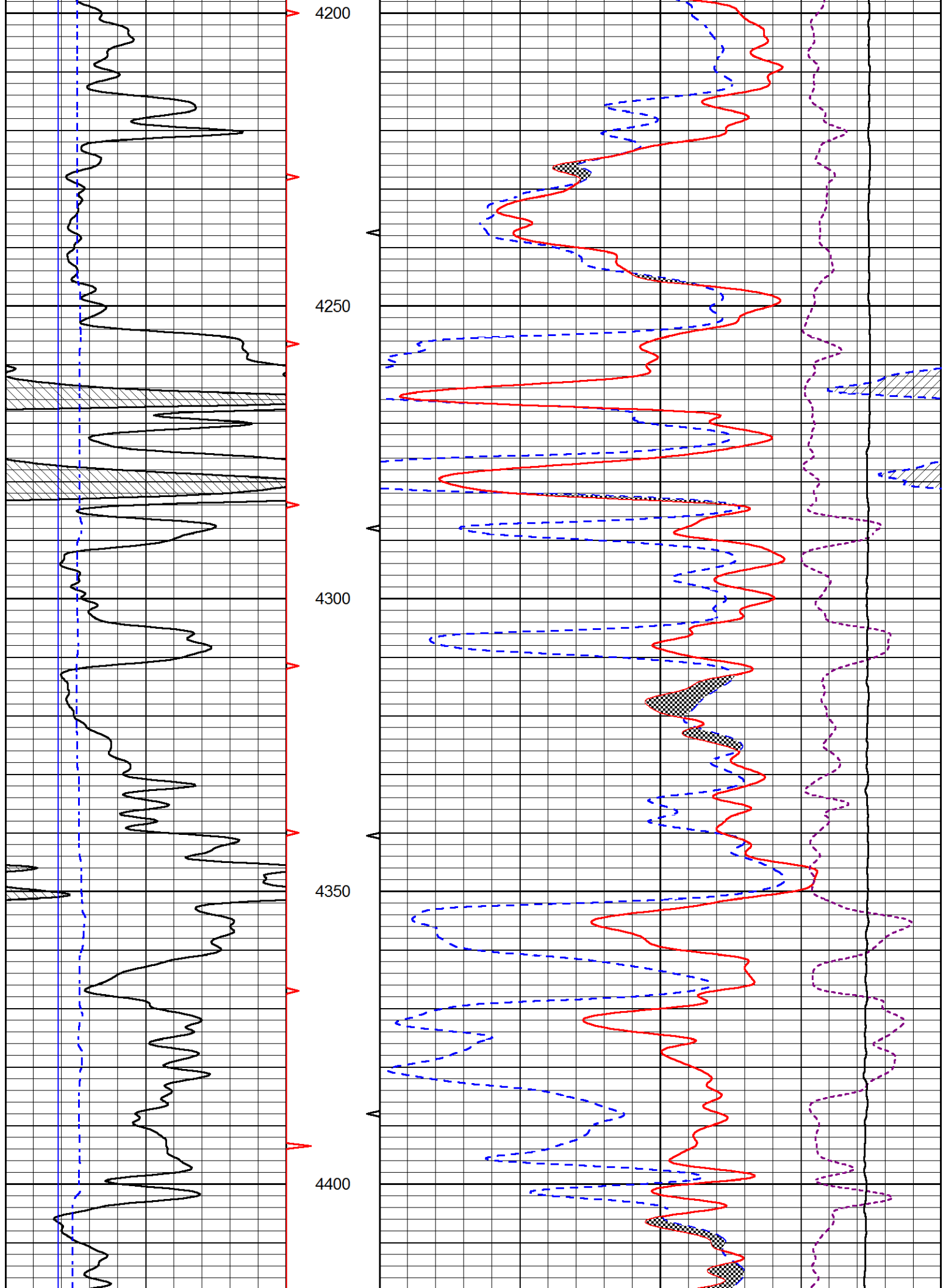


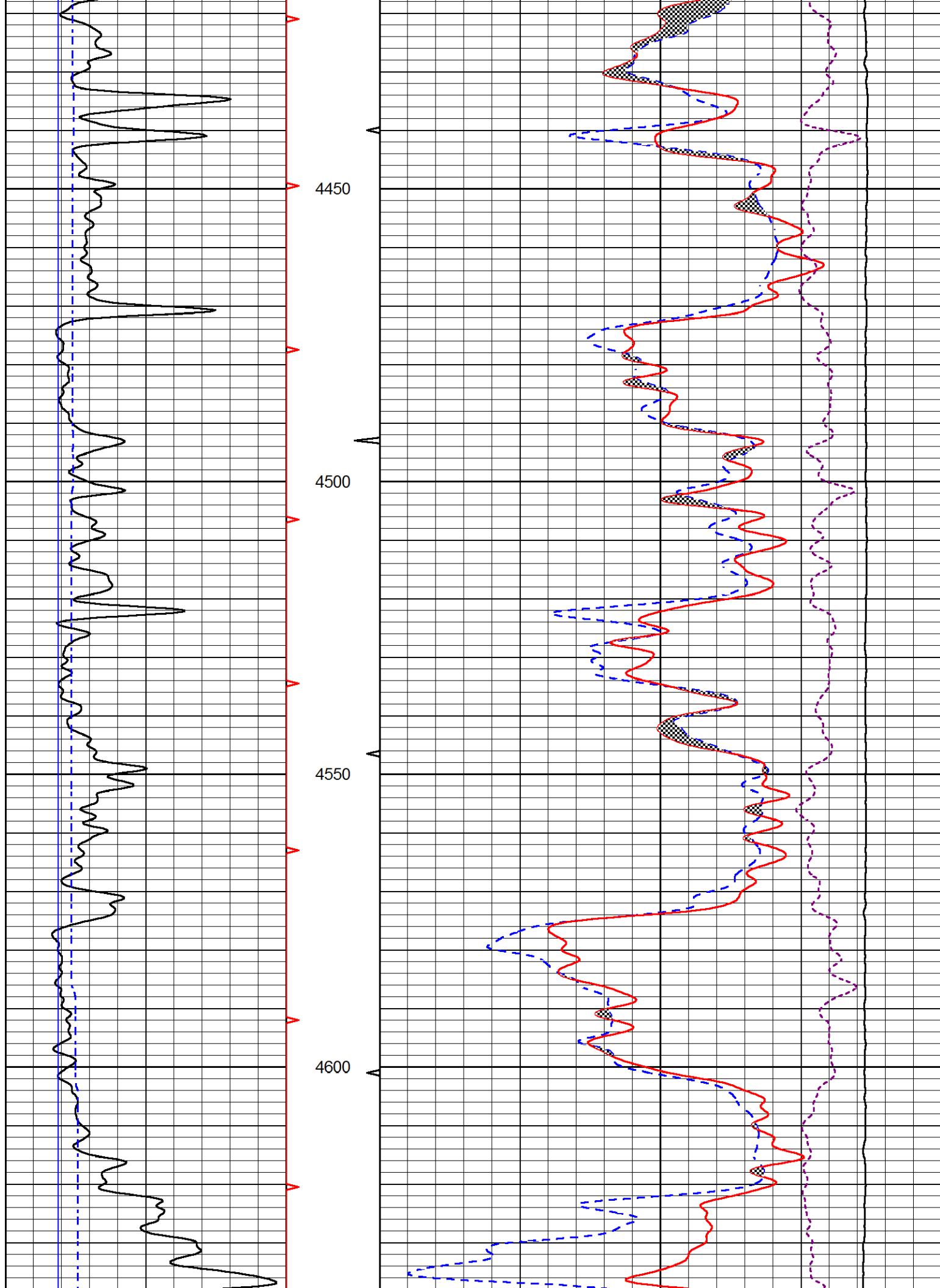


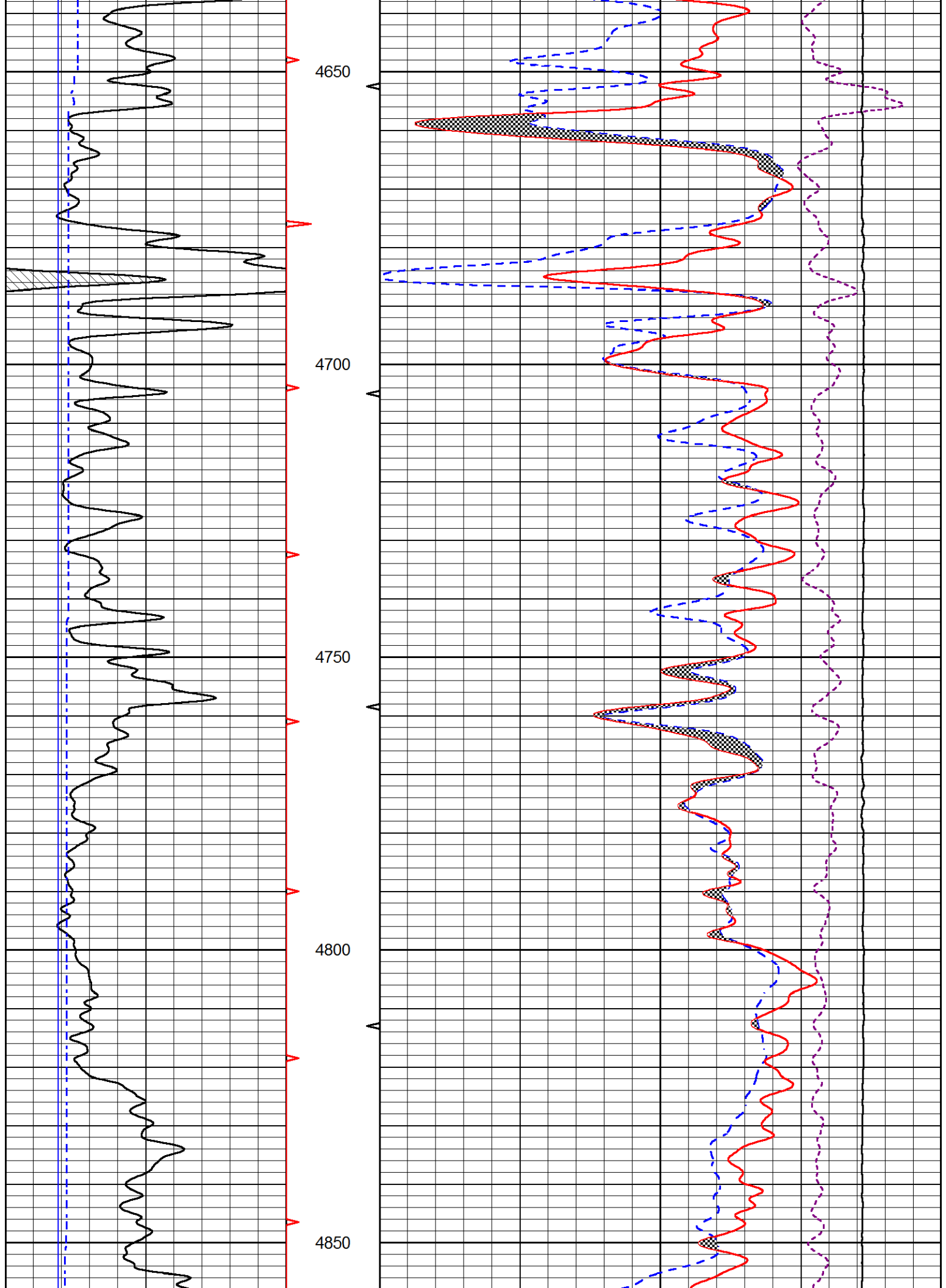


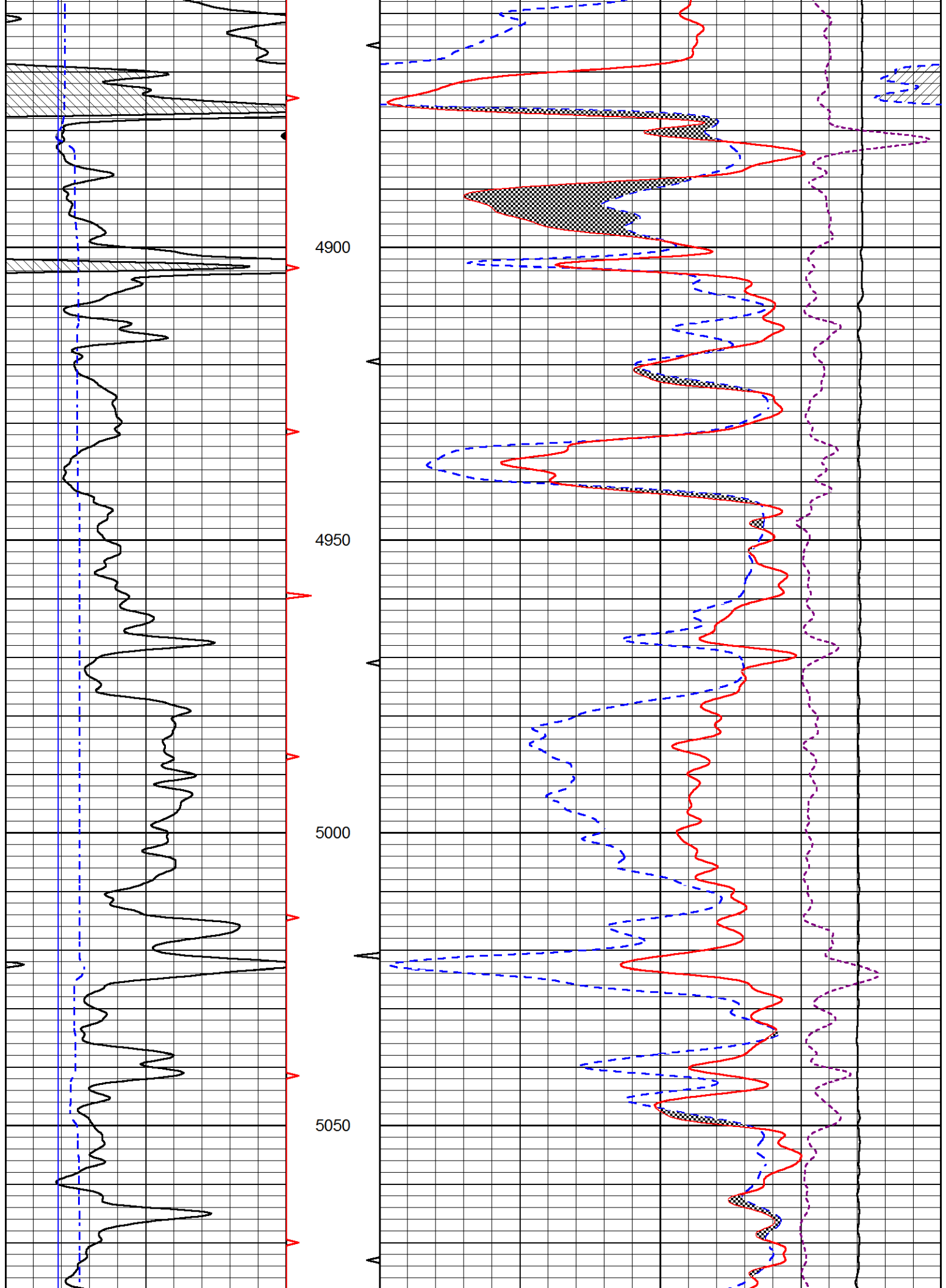


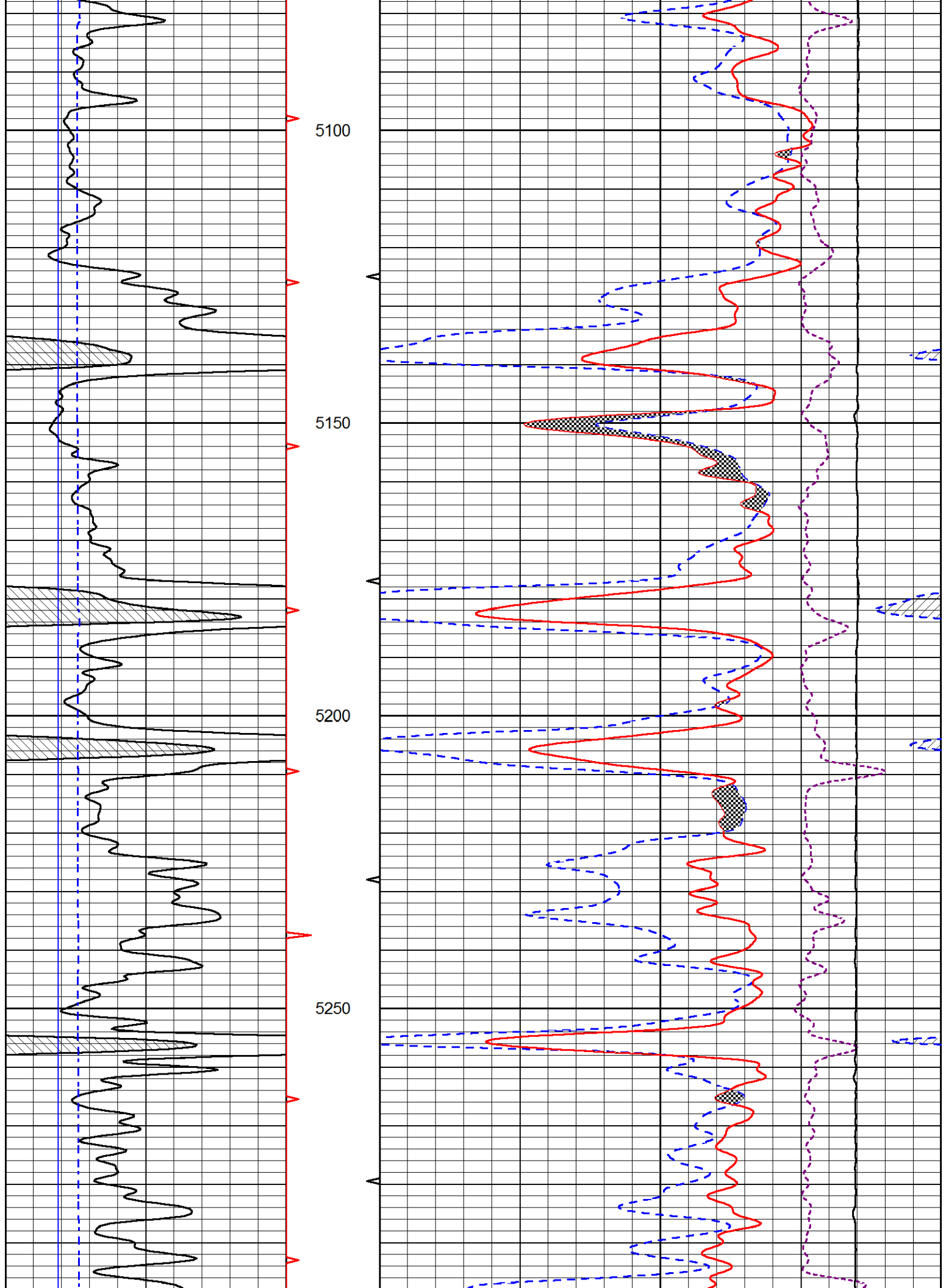


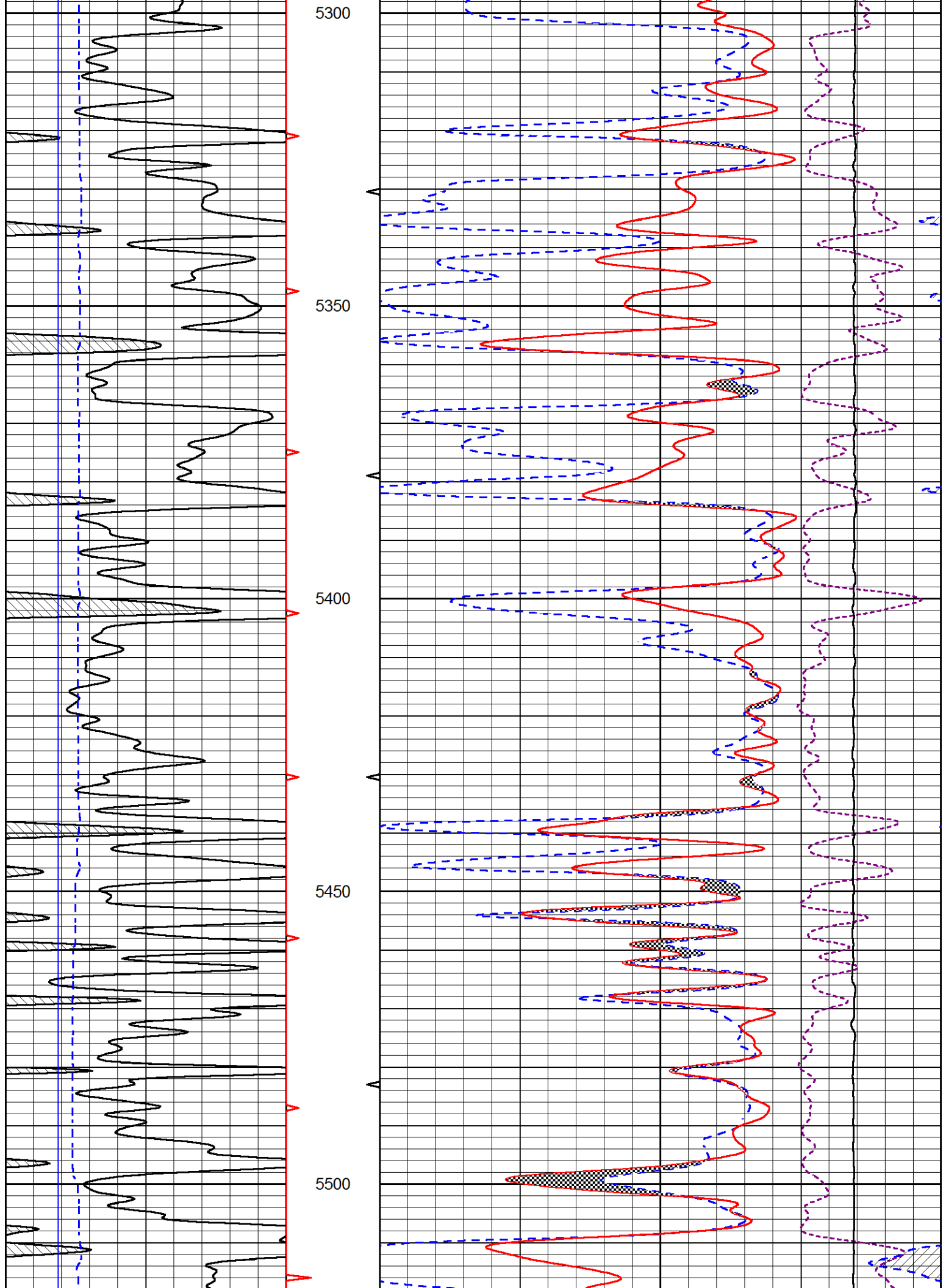


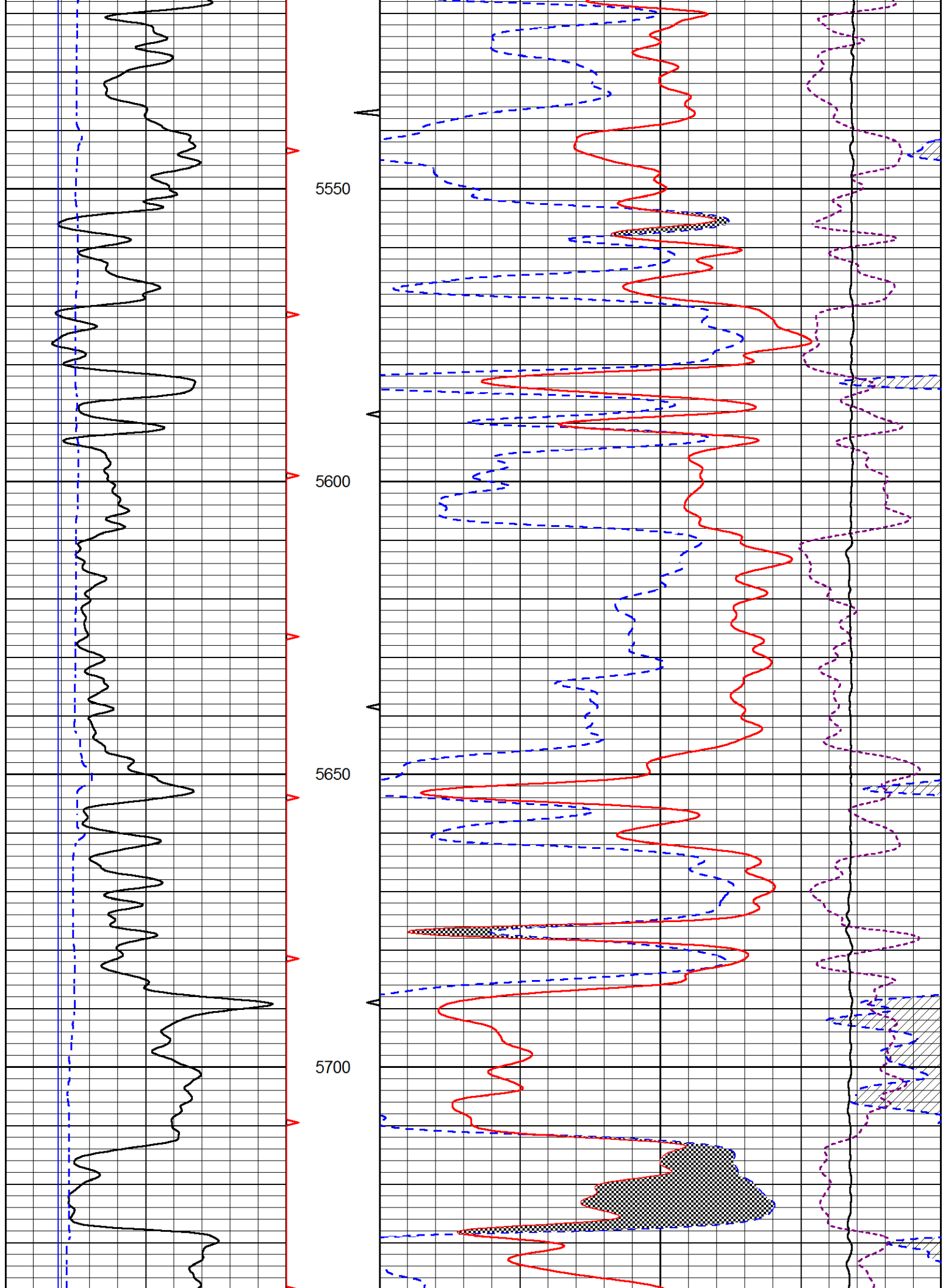


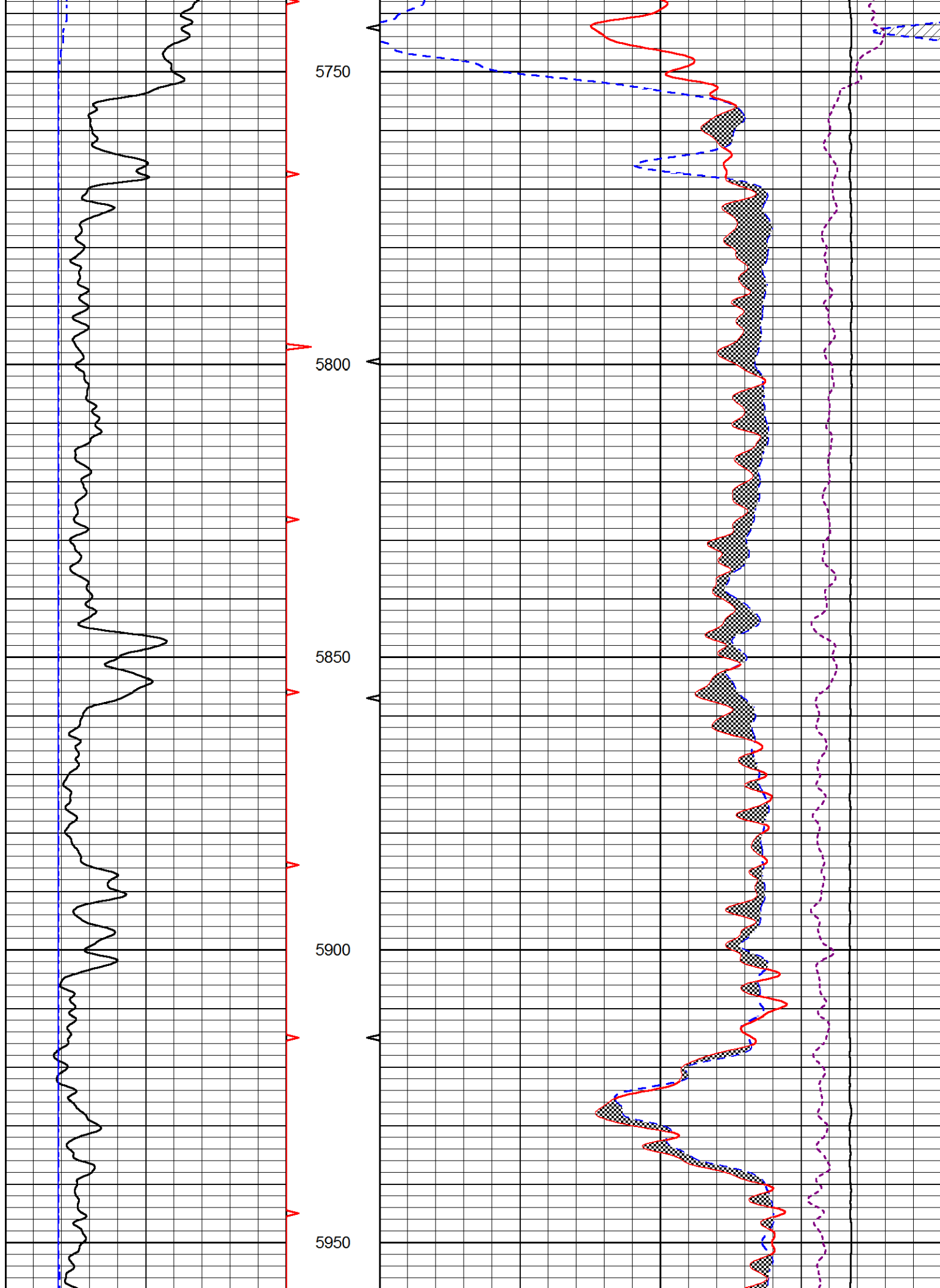


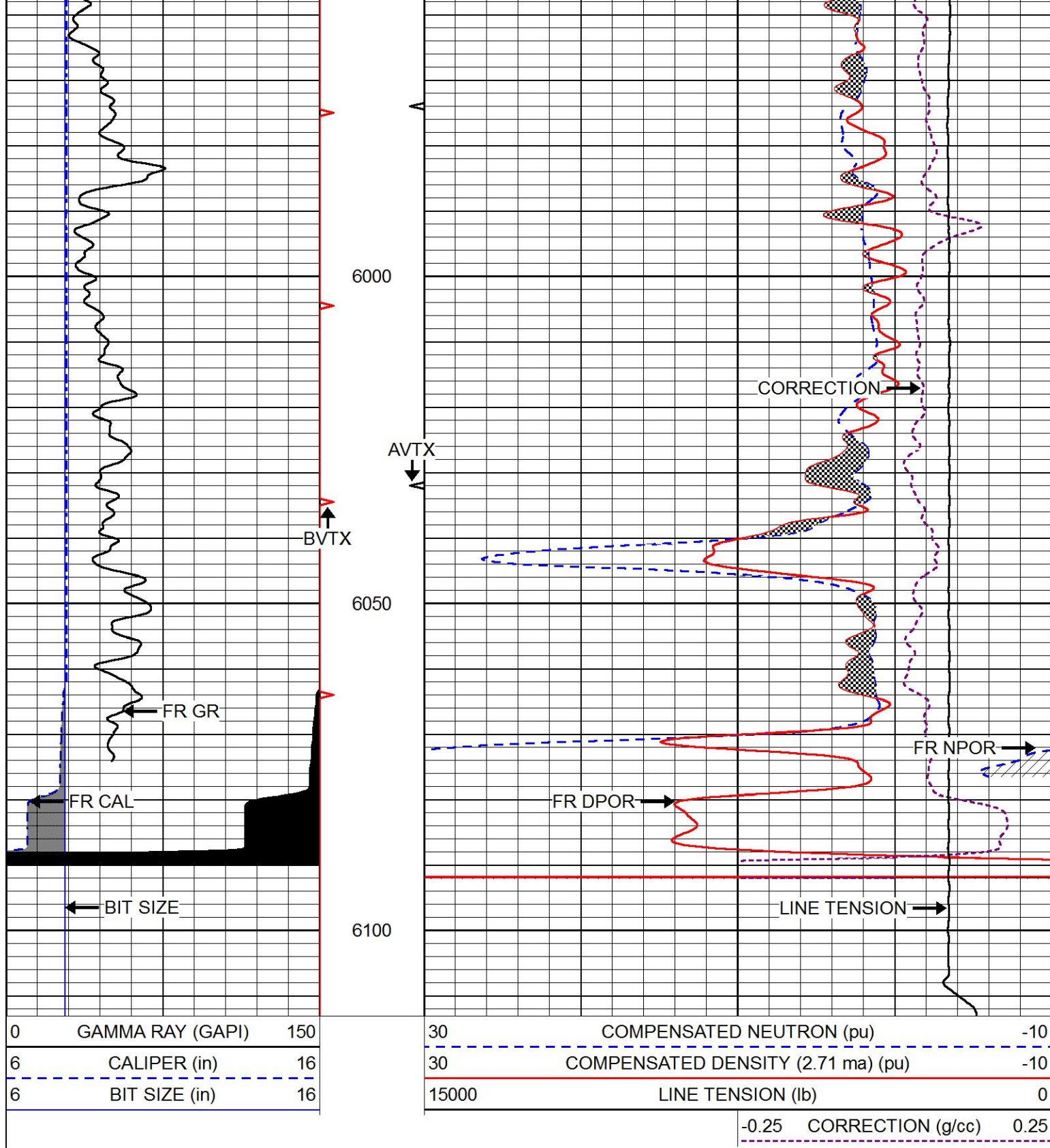












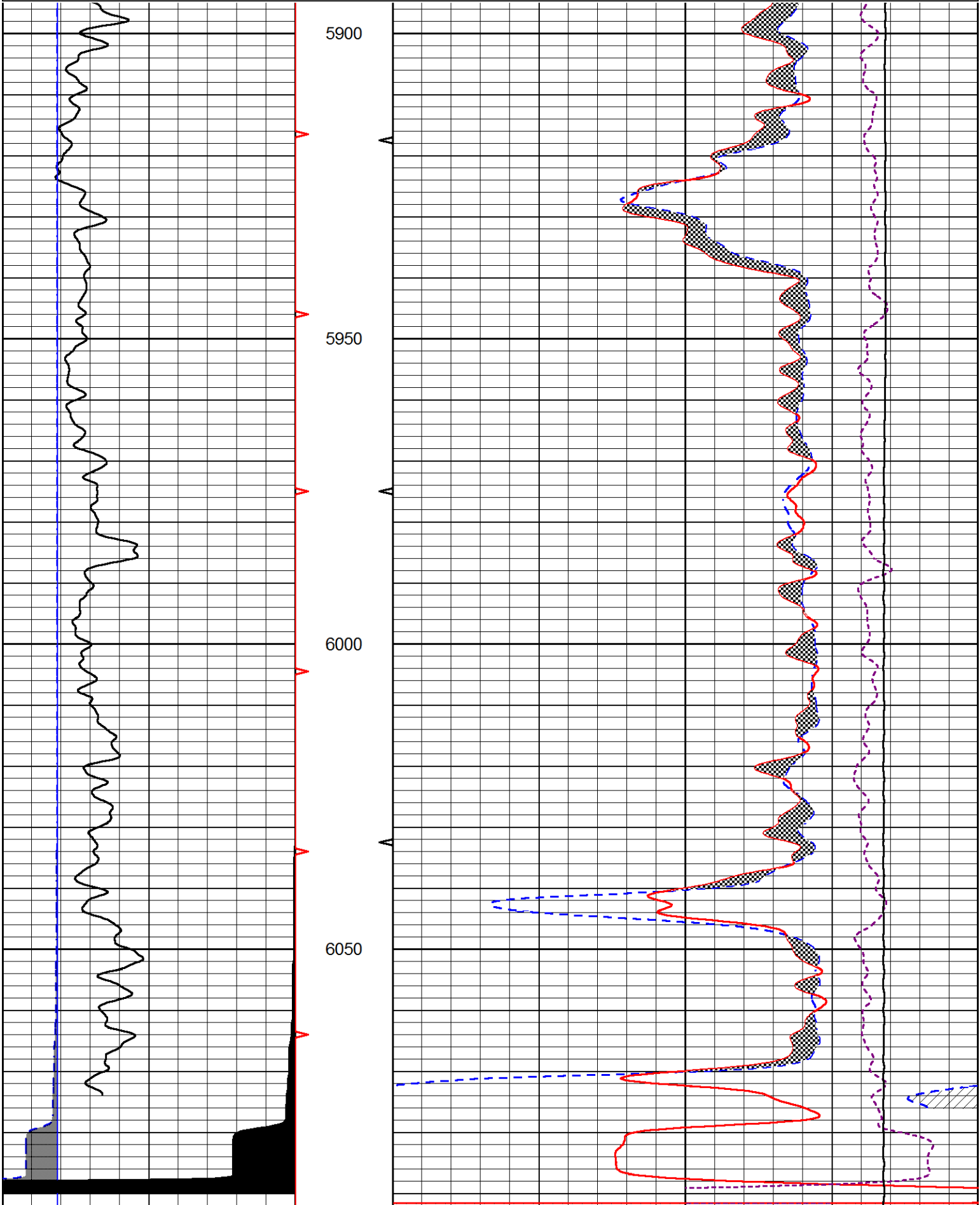
REPEAT SECTION

Database File amwar_hawk_#2-35.db
 Dataset Pathname stkml/pass2.1
 Presentation Format cndlspec
 Dataset Creation Sat Aug 06 00:54:06 2016
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
6	CALIPER (in)	16
6	BIT SIZE (in)	16

30	COMPENSATED NEUTRON (pu)	-10
30	COMPENSATED DENSITY (2.71 ma) (pu)	-10
15000	LINE TENSION (lb)	0

-0.25	CORRECTION (g/cc)	0.25
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Calibration Report							
Database File	amwar_hawk_#2-35.db						
Dataset Pathname	stkml/pass3.1						
Dataset Creation	Sat Aug 06 01:14:27 2016						
Dual Induction Calibration Report							
Serial-Model:		1987-M&W					
Calibration Performed:		Fri Jul 22 02:17:58 2016					
Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		Gain	Offset
Deep	178.615	710.235	0.000	255.800	mmho/m	0.530	-36.500
Medium	161.982	1441.110	0.000	255.800	mmho/m	0.440	-110.500
Microlog Calibration Report							
Serial-Model:		PSI-02-PSI STKBL ML					
Performed:		Thu Jul 28 15:07:51 2016					
	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0031	0.0043	0.0000	10.0000	Ohm-m	8308.9400	0.0000
Inverse	0.0000	0.0013	0.0000	10.0000	Ohm-m	7967.2700	-0.0096
Caliper	1.0020	1.0834	5.5000	16.5000	in	135.1560	-131.0900
Compensated Density Calibration Report							
Serial-Model:		71-914-M&W					
Source / Verifier:		/					
Master Calibration Performed:		Thu Jul 28 15:08:02 2016					

Master Calibration					
	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	4314.49	5307.52	cps
Aluminum	2.670	g/cc	822.19	3456.36	cps
Spine Angle = 75.49			Density/Spine Ratio = 0.534		
	Size		Reading		
Small Ring	4.00	in	1.16		
Large Ring	14.00	in	1.57		

Large Ring

14.00

in

1.57

Compensated Neutron Calibration Report

Serial Number: tk10-MW
Tool Model: M&W
Calibration Performed: Wed July 20 08:04:05 2016

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: 89-M&W
Tool Model: M&W
Calibration Performed: Sun Jul 17 19:05:06 2016

Calibrator Value: 1000.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 6.2 cps

Sensitivity: 0.5200 GAPI/cps



Company AMERICAN WARRIOR, INC.
Well HAWK #2-35
Field KISMET
County SEWARD
State KANSAS