



MIDWEST WIRELINE

DUAL COMP POROSITY LOG

Company **Ritchie Exploration, Inc.**
 Well **Tubbs Unit #1**
 Field **Wildcat**
 County **Logan** State **Kansas**

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Location: **API #: 15-109-21615-00-00**
218' FNL & 159' FEL
 SEC 19 TWP 11S RGE 35W
 Permanent Datum **Ground Level** Elevation **3273'**
 Log Measured From **Kelly Bushing**
 Drilling Measured From **Kelly Bushing**
 Other Services **DIL/MEL BHCs**
 Elevation **3278'**
 K.B. **Na/**
 D.F. **Na/**
 G.L. **3273'**

Date	4/30/2021						
Run Number	One						
Type Log	CNL/CDL						
Depth Driller	4950'						
Depth Logger	4950'						
Bottom Logged Interval	4918'						
Top Logged Interval	3400'						
Type Fluid In Hole	Chemical						
Salinity, PPM CL	5000						
Density	9.4						
Level	Full						
Max. Rec. Temp. F	126 Deg/F						
Operating Rig Time	4 Hours						
Equipment -- Location	P-24 HAYS						
Recorded By	J. Henrickson						
Witnessed By	Max Lovely						
Borehole Record							
Run No.	Bit	From	To	Size	Wgt.	From	To
One	12.25"	0	208'	8.625"	24#	0	208'
Two	7.875"	208'					
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.

Winona Kansas
 2 North, West Into

Log Measured From: Kelly Bushing 5 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: J. Henrickson	Primary Witness: Max Lovely
Operator:	Secondary Witness:
Operator:	Secondary Witness:
Operator: M. Hiss	Secondary Witness:

Log Variables

DatabaseC:\ProgramData\Warrior\Data\ritchie_tubbs_unit_1.db
Dataset field/well/stackml/pass4.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	126	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	No	0	0	285	61	Off	4950

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

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)	
GR	44.50		GR-M&W (233-M&W)	3.00	3.50	50.00	
CNLSC	41.40		CNT-M&W (207-MW)	5.50	3.50	100.00	
CNSSC	40.65						
LSD	32.35		CDL-M&W (817-947)	8.50	4.00	250.00	
DCAL	32.33						
SSD	31.85						
			ML-PSI UDM ML (UDM-01) Stackable Microlog Tools	11.50	4.00	215.00	
MCAL	20.87						
MI	20.87						
MN	20.87						
RLL3F	15.80						

RLL3 15.80

CILD 8.00

CILM 4.70

SP 0.20

DIL-PSI HIGH TEMP (952-828)

18.50

3.50

220.00

Dataset: ritchie_tubbs_unit_1.db: field/well/stackml/pass4.1
 Total length: 47.00 ft
 Total weight: 835.00 lb
 O.D.: 4.00 in



MIDWEST WIRELINE

2" SCALE BULK DENSITY

MAIN PASS

Database File ritchie_tubbs_unit_1.db
 Dataset Pathname stackml/pass3.1
 Presentation Format _cdl
 Dataset Creation Sat May 01 00:48:20 2021
 Charted by Depth in Feet scaled 1:600

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

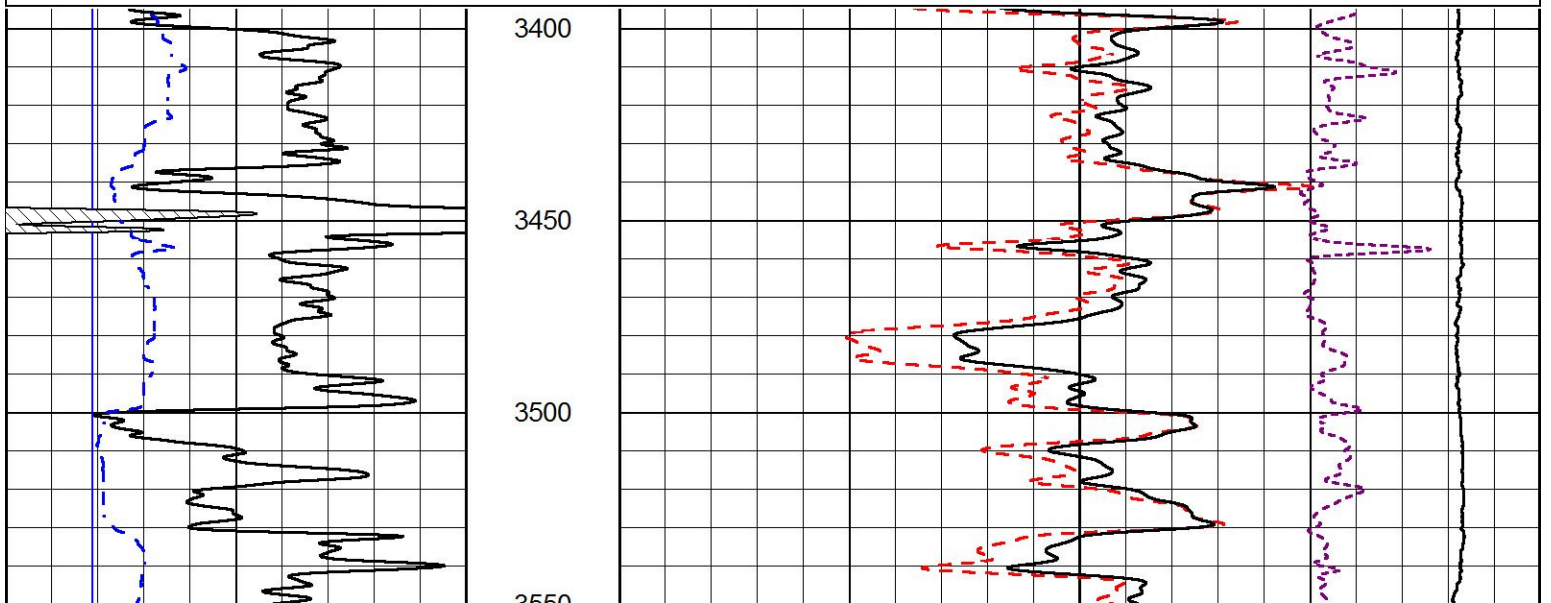
COMPENSATED DENSITY
(2.65 MA)

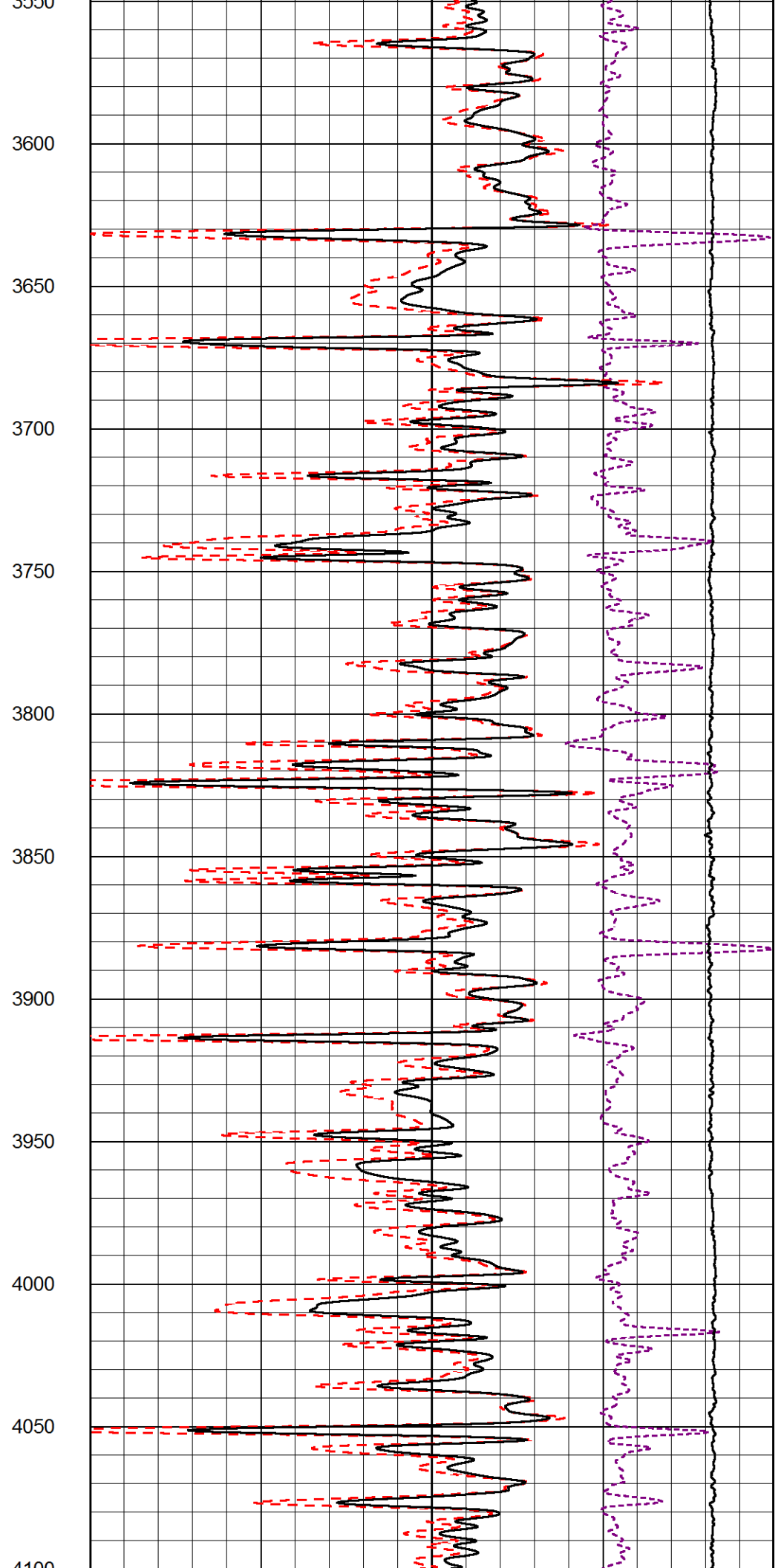
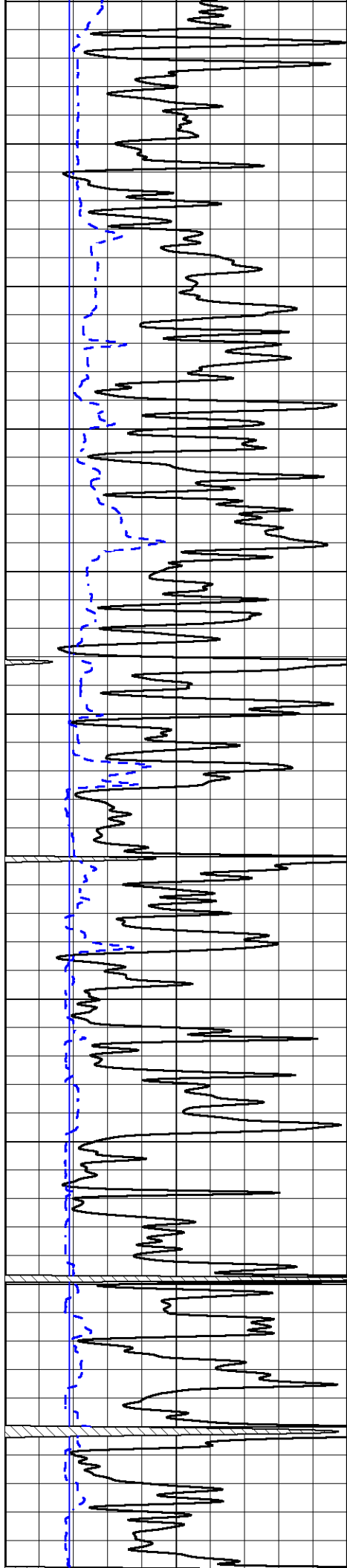
30 (pu) -10

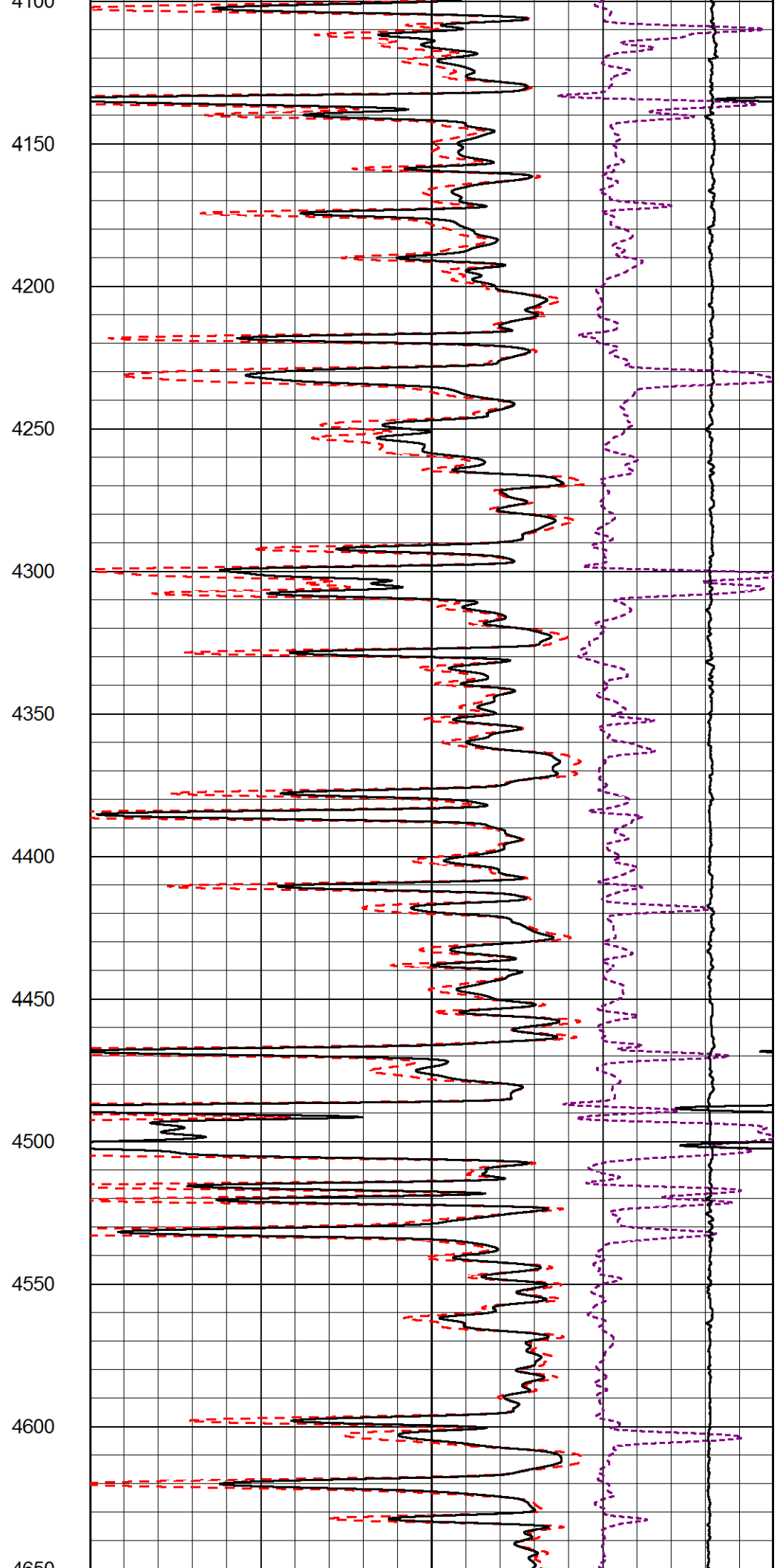
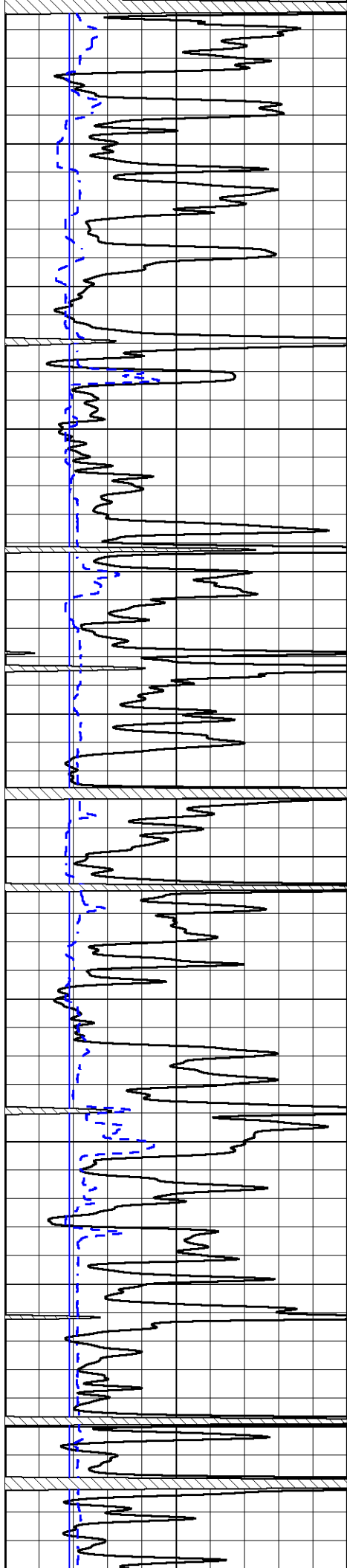
2 BULK DENSITY (g/cc) 3

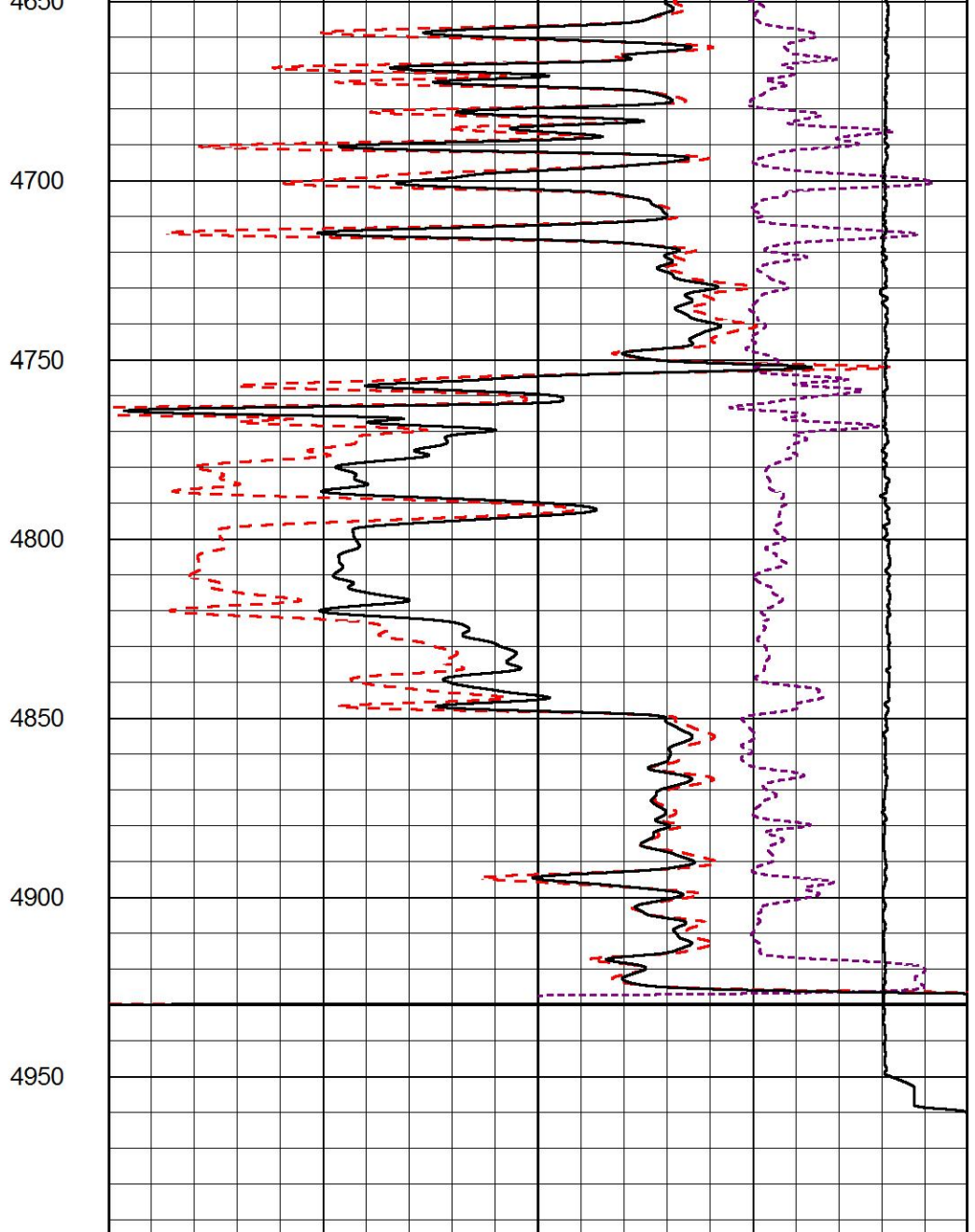
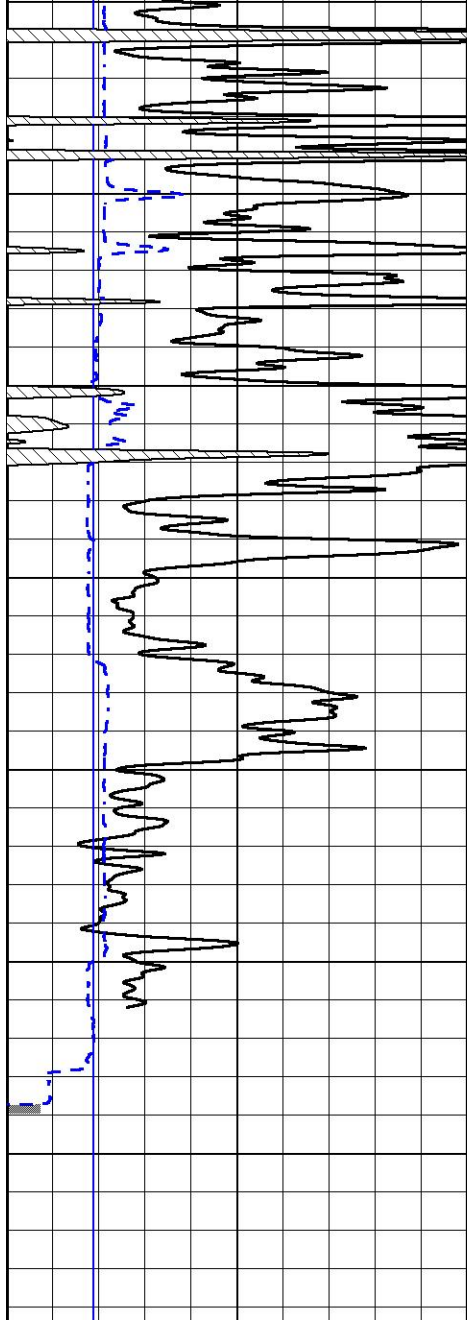
15000 LINE TENSION (lb) 0

-0.25 CORRECTION (g/cc) 0.25









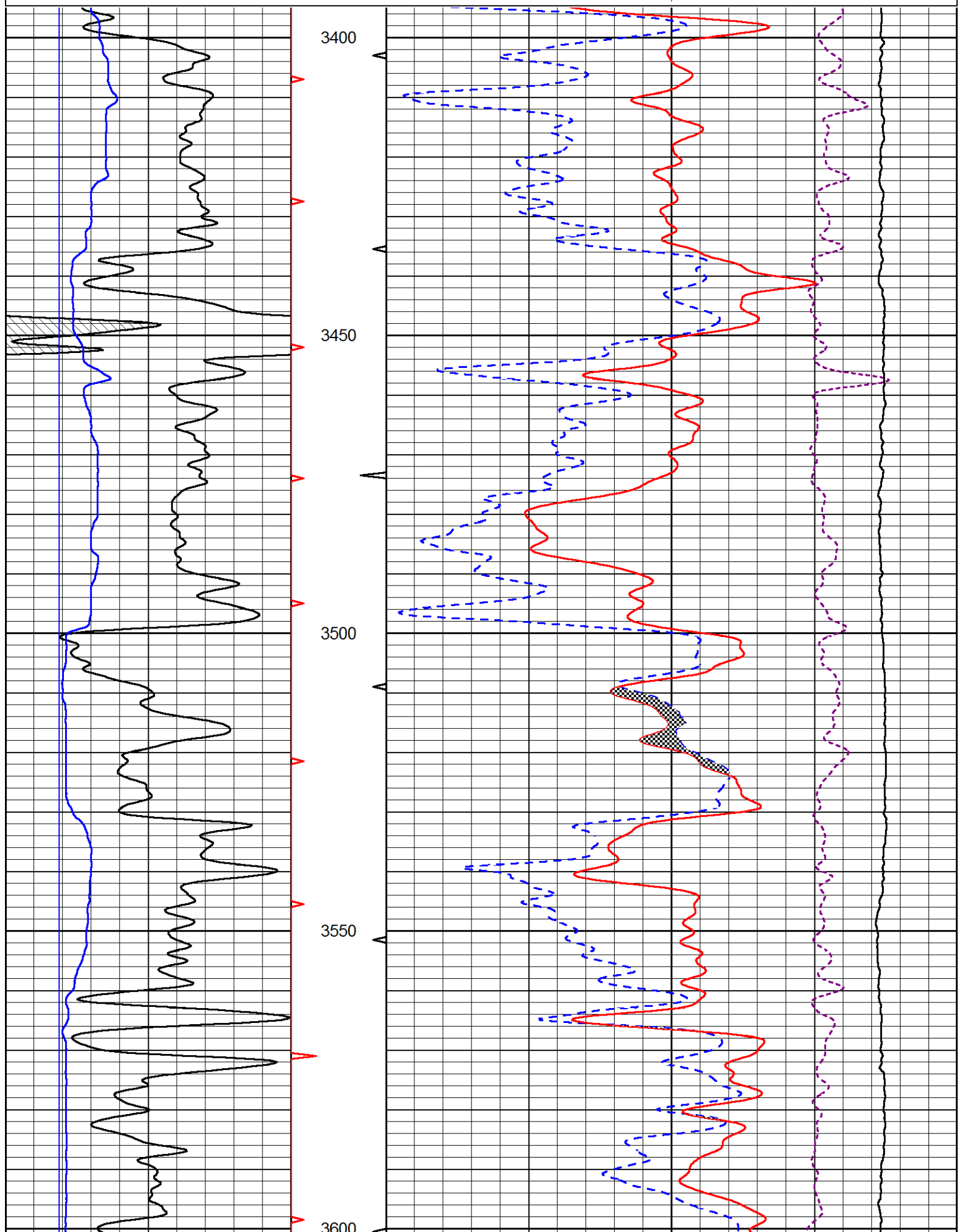
0	GAMMA RAY (GAPI)	150	30	COMPENSATED DENSITY (2.65 MA)	-10
6	DCAL (in)	16	2	BULK DENSITY (g/cc)	3
			15000	LINE TENSION (lb)	0
				-0.25 CORRECTION (g/cc)	0.25

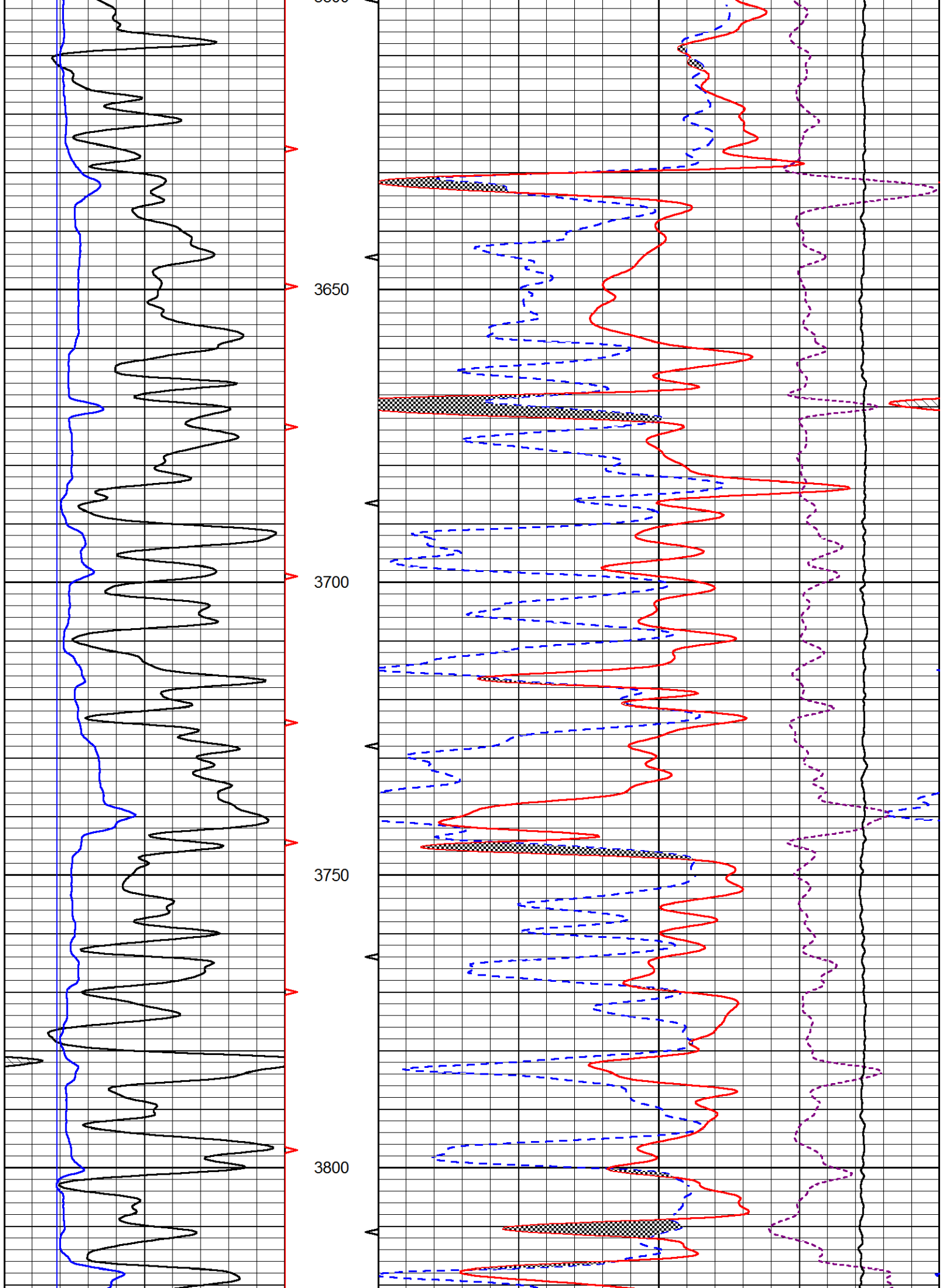


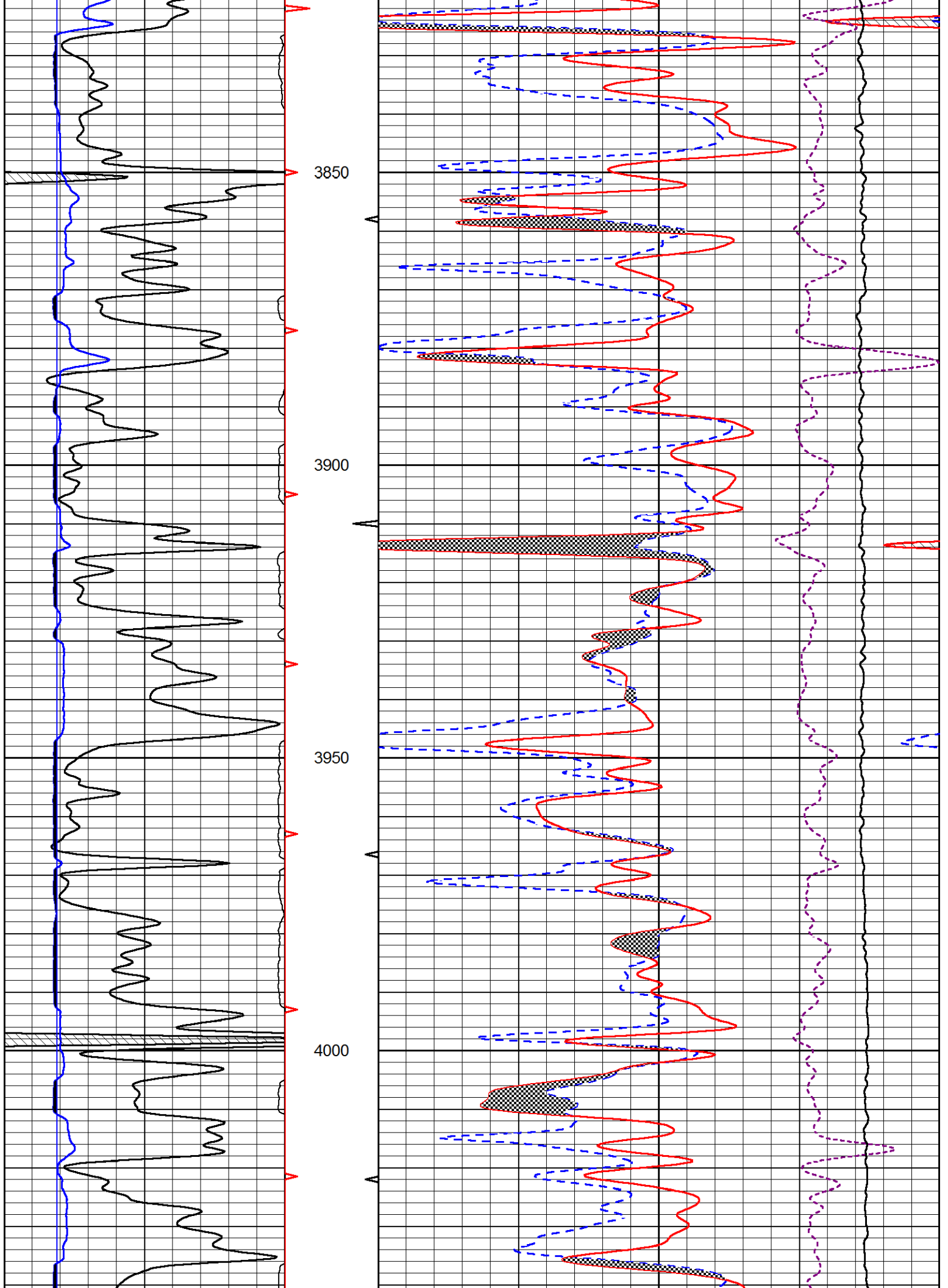
MAIN PASS

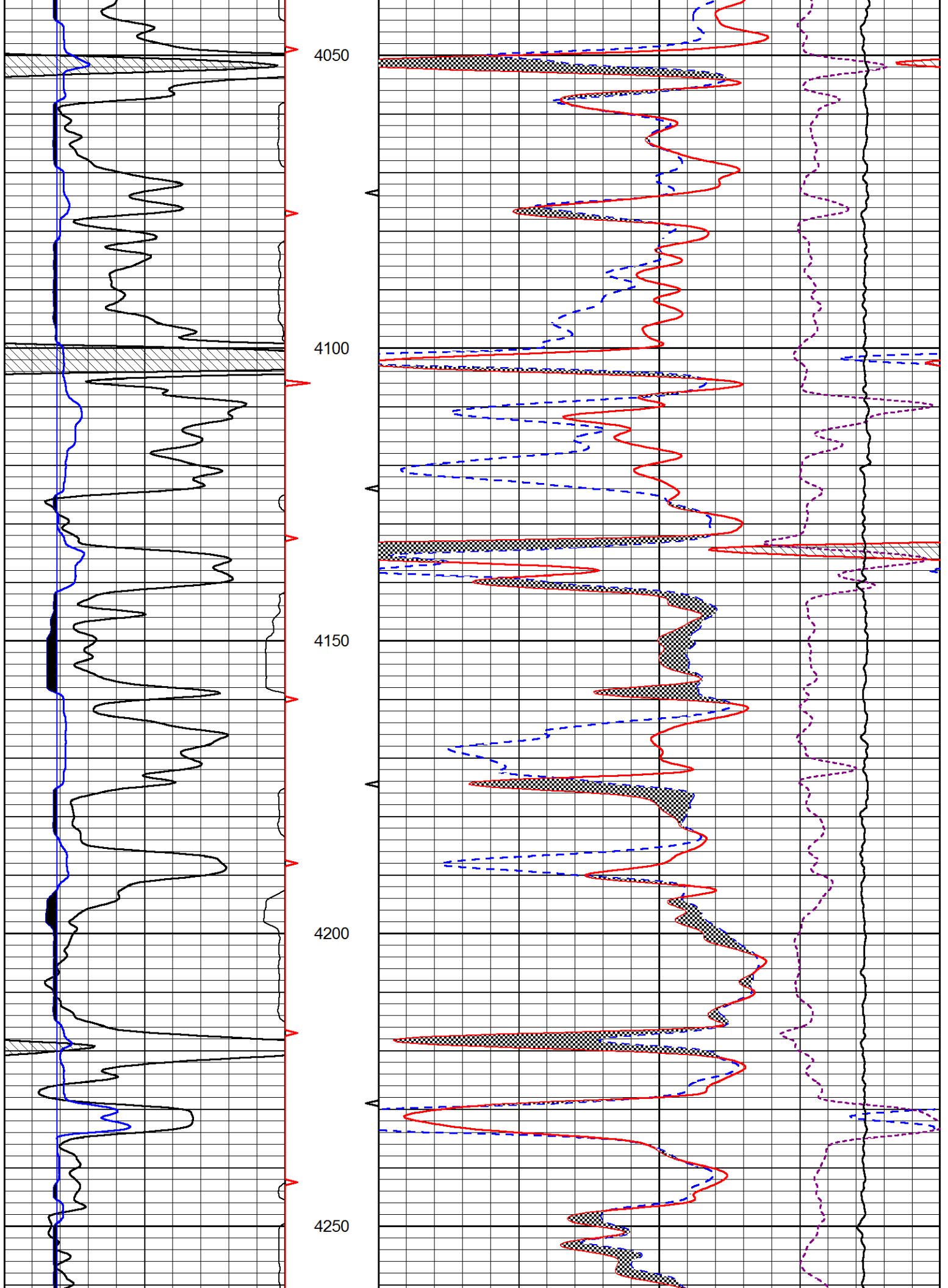
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 Dataset Pathname stackml/pass4.1
 Presentation Format _CNDLS~1
 Dataset Creation Sat May 01 00:48:56 2021
 Charted by Depth in Feet scaled 1:240

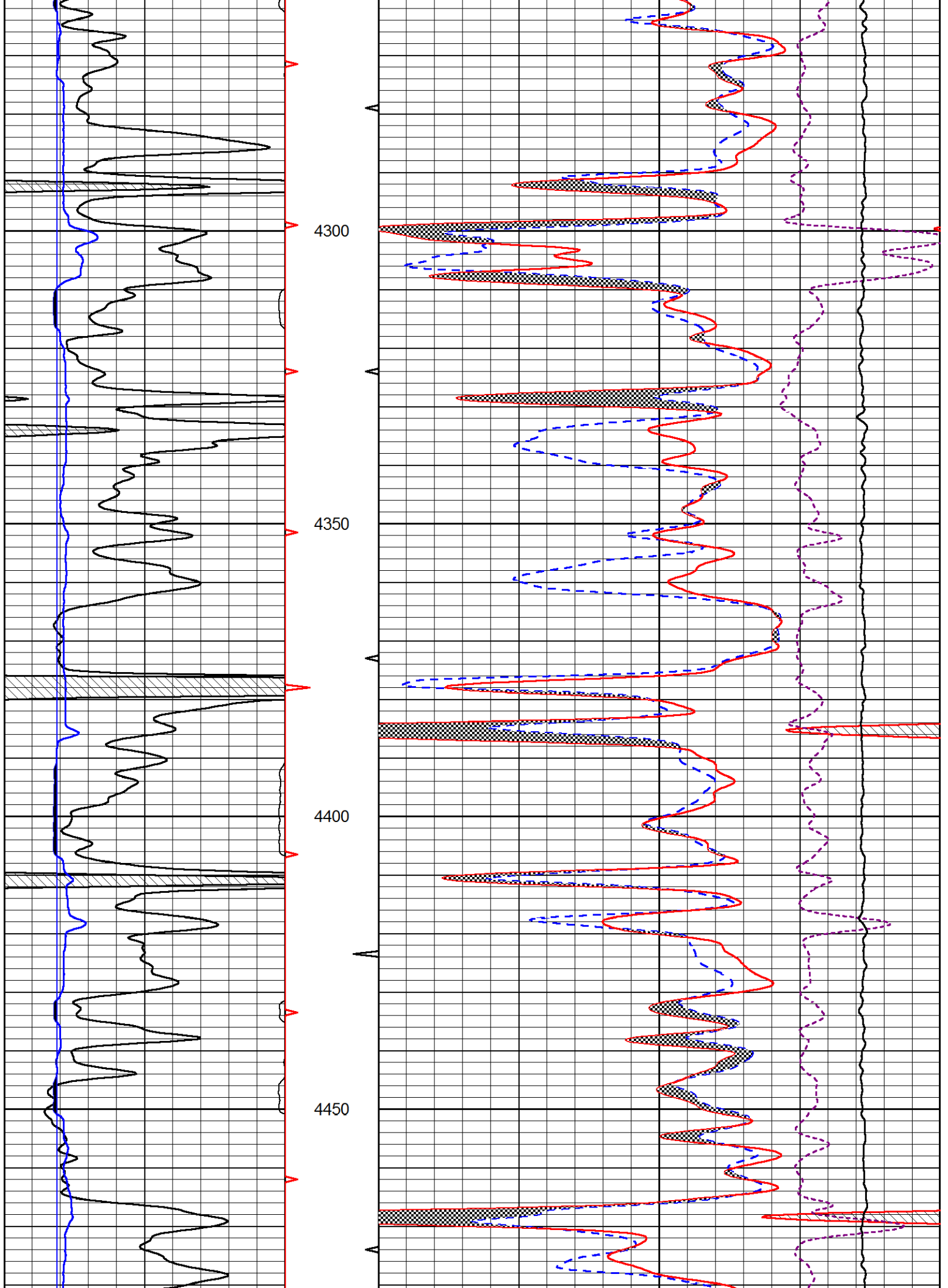
0	GAMMA RAY (GAPI)	150	30	CNPOR (pu)	-10
6	DCAL (in)	16	2	BULK DENSITY (g/cc)	3
			15000	LINE TENSION (lb)	0
				-0.25 CORRECTION (g/cc)	0.25

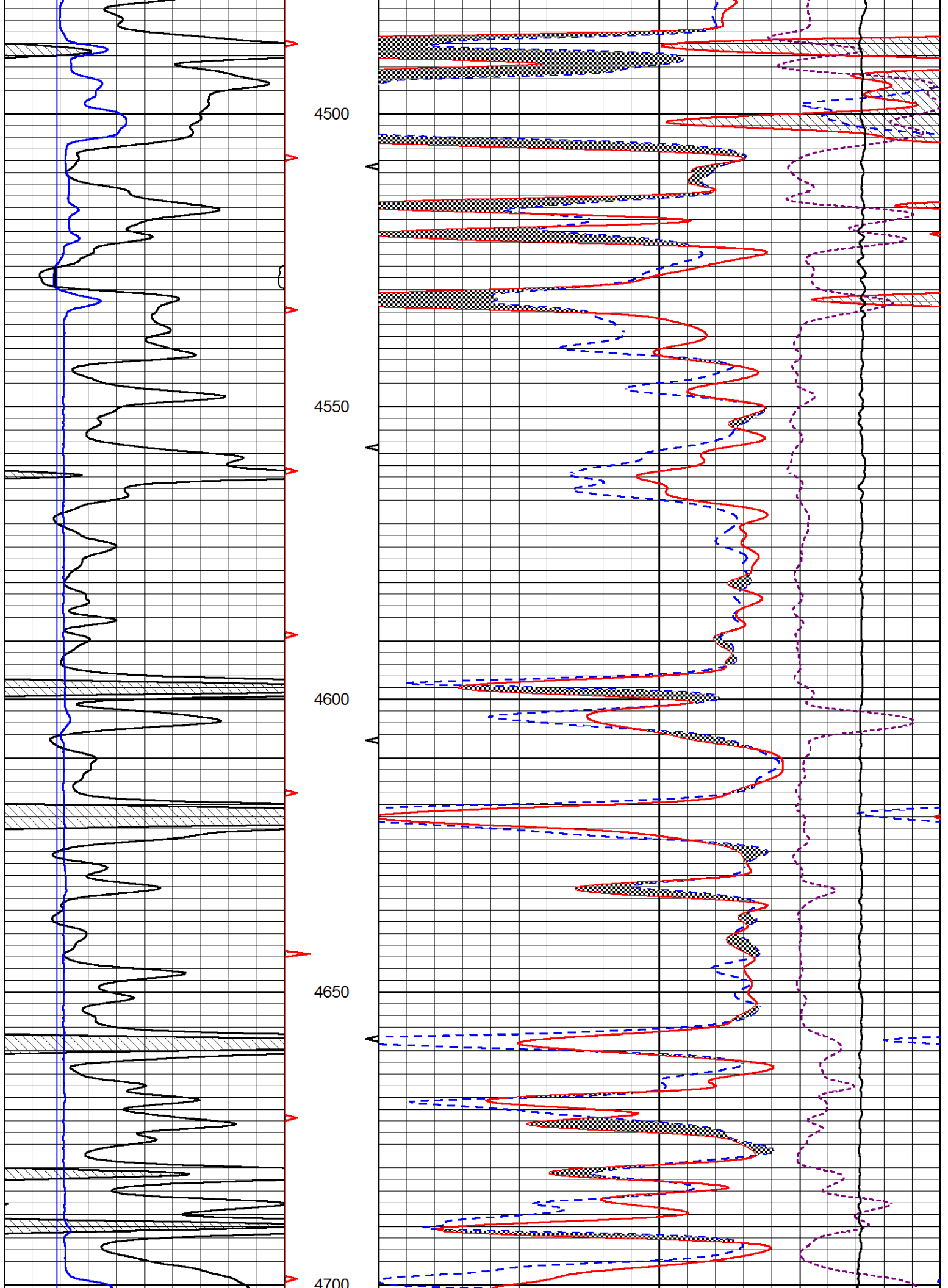


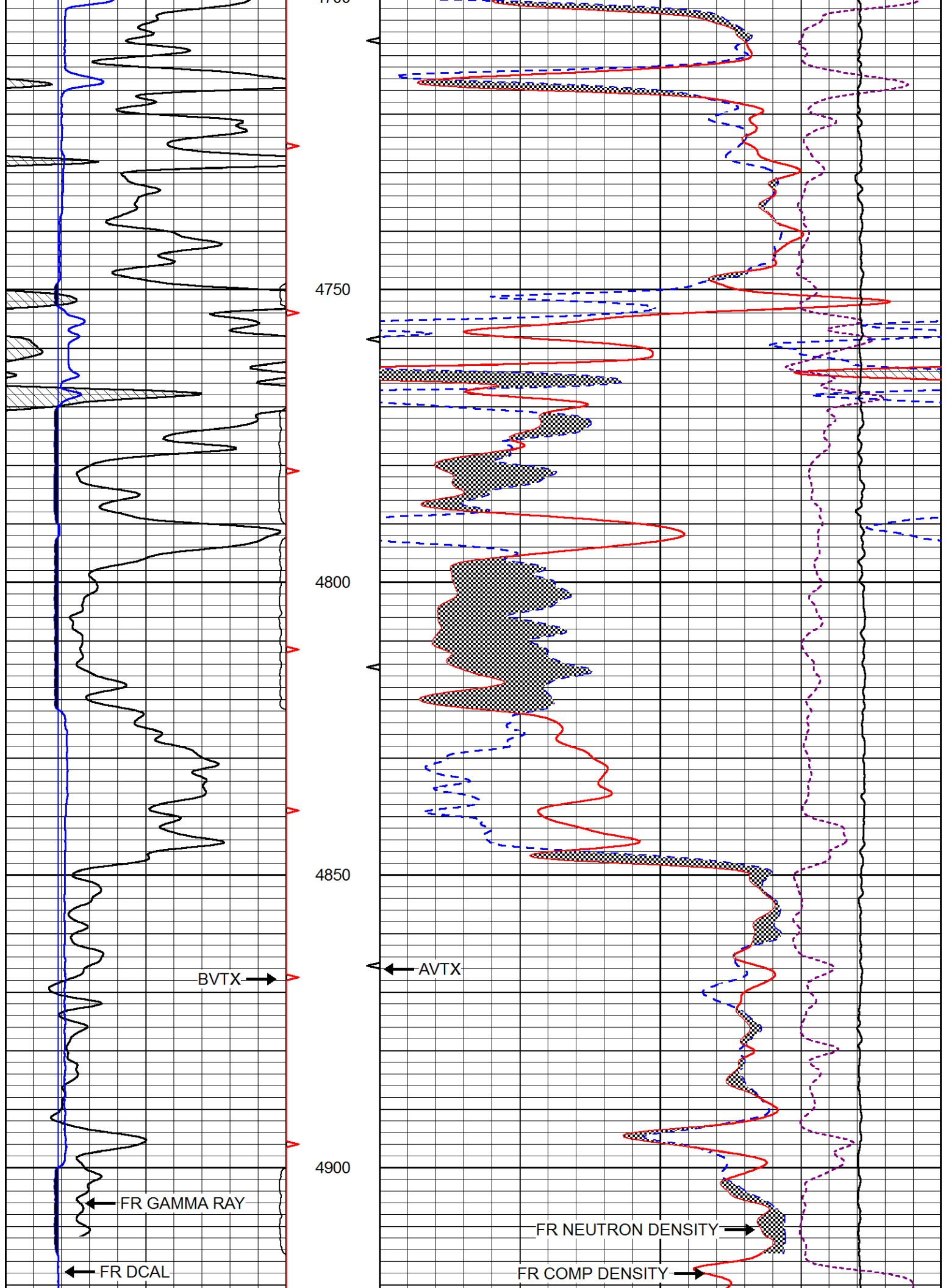


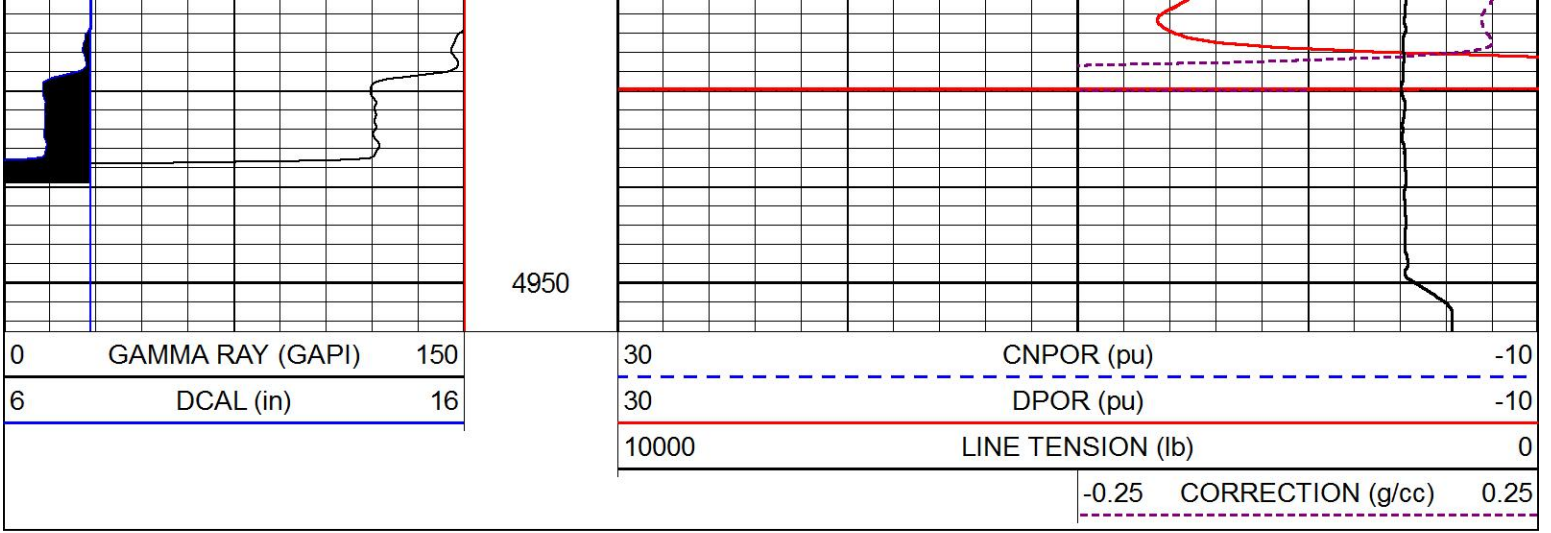












MIDWEST WIRELINE

REPEAT SECTION

Database File ritchie_tubbs_unit_1.db
 Dataset Pathname stackml/pass2.1
 Presentation Format _cndlspec
 Dataset Creation Sat May 01 00:14:25 2021
 Charted by Depth in Feet scaled 1:240

