



MIDWEST WIRELINE

DUAL COMP POROSITY LOG

Company Castle Resources, Inc.

Well Hartwich #1

Field

County

Wabaunsee

State

Kansas

Location:

API #: 15-197-20323-00-00

Other Services

SEC 12 TWP 11S RGE 10E

Permanent Datum Ground Level Elevation 1246

Log Measured From Kelly Bushing

K.B. 1251

Drilling Measured From Kelly Bushing

D.F. G.L. 1246

Date 1/27/2024

Run Number One

Type Log CNL/CDL

Depth Driller 2845

Depth Logger 2844

Bottom Logged Interval 2815

Top Logged Interval 1000

Type Fluid In Hole Chemical

Salinity, PPM CL 1000

Density 9.3

Level Full

Max. Rec. Temp. F 104

Operating Rig Time 5 Hours

Equipment -- Location 110 HAYS

Recorded By D. Schmidt

Witnessed By Jerry Green

Borehole Record

Casing Record

Run No. Bit From To Size Wgt. From To

One 12.25 0 307 8.625 23 0 307

Two 7.875 307 TD

<<< 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.

I-70 & Wabaunsee Exit,
4 North to Homestead,
2 1/4 East, South and West to location

Log Measured From: Kelly Bushing

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:

Operator:

Operator:

Primary Witness: Jerry Green

Secondary Witness:

Secondary Witness:

Secondary Witness:

Sensor	Offset (ft)	Schematic		Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.33			GR-M&W (105)	3.00	3.50	50.00
CNLSC CNSSC	37.23 36.48			CNT-M&W (210)	5.00	3.50	100.00
LSD DCAL SSD	28.18			CDL-M&W (303-03)	8.50	4.00	250.00
	28.17			ML-PSI STKBL ML (402)	7.58	4.00	65.00
	27.68						
MCAL MI MN	19.58						
	19.58						
	19.58						
RLL3F RLL3	15.50			DIL-M&W (504 HT)	18.25	3.50	220.00
	15.50						
CILD	8.33						
	4.50						
CILM	4.50						
SP	0.20						
Dataset:		castle_hartwich 1.db: field/well/stkml/pass5.1					
Total length:		42.33 ft					
Total weight:		685.00 lb					
O.D.:		4.00 in					

Log Variables

DatabaseC:\ProgramData\Warrior\Data\castle_hartwich 1.db
Dataset field/well/stkml/pass5.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	100	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	No	8	-4	-185	40	Off	0

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



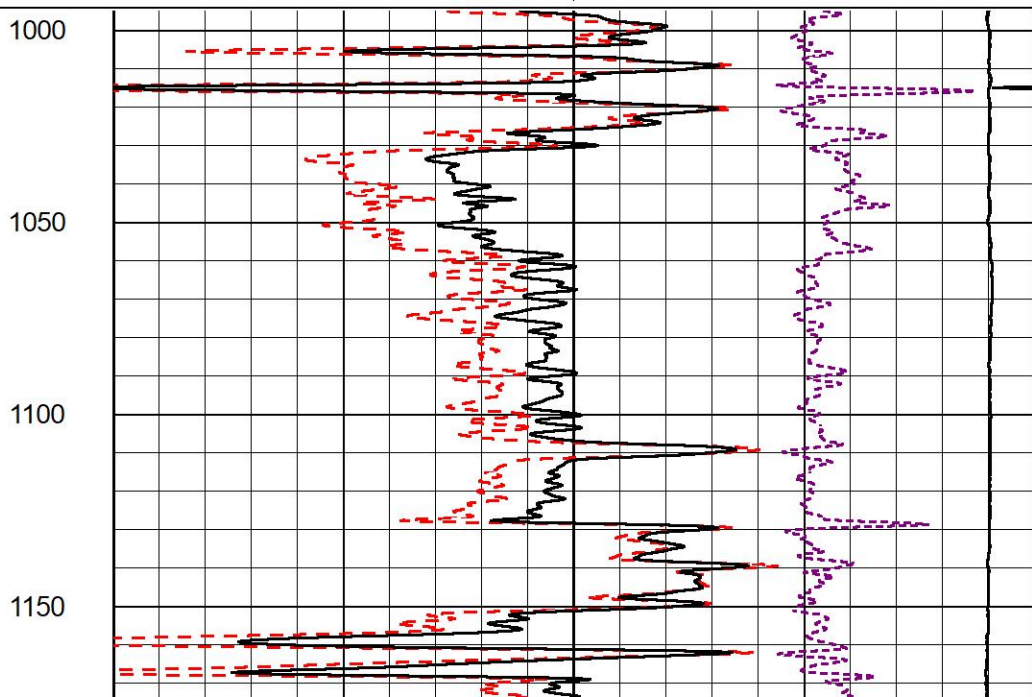
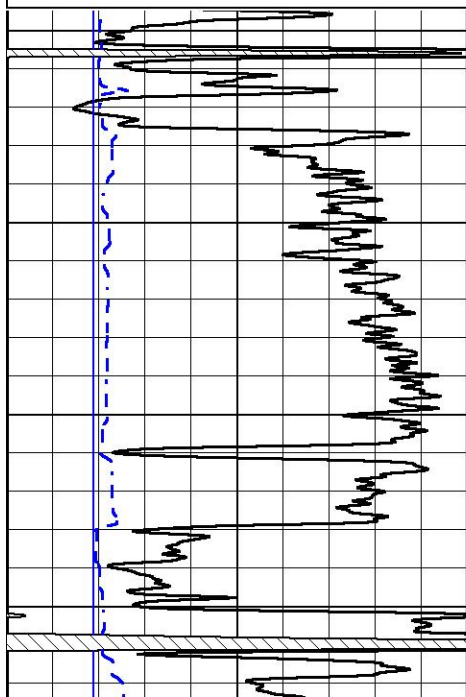
2" SCALE BULK DENSITY

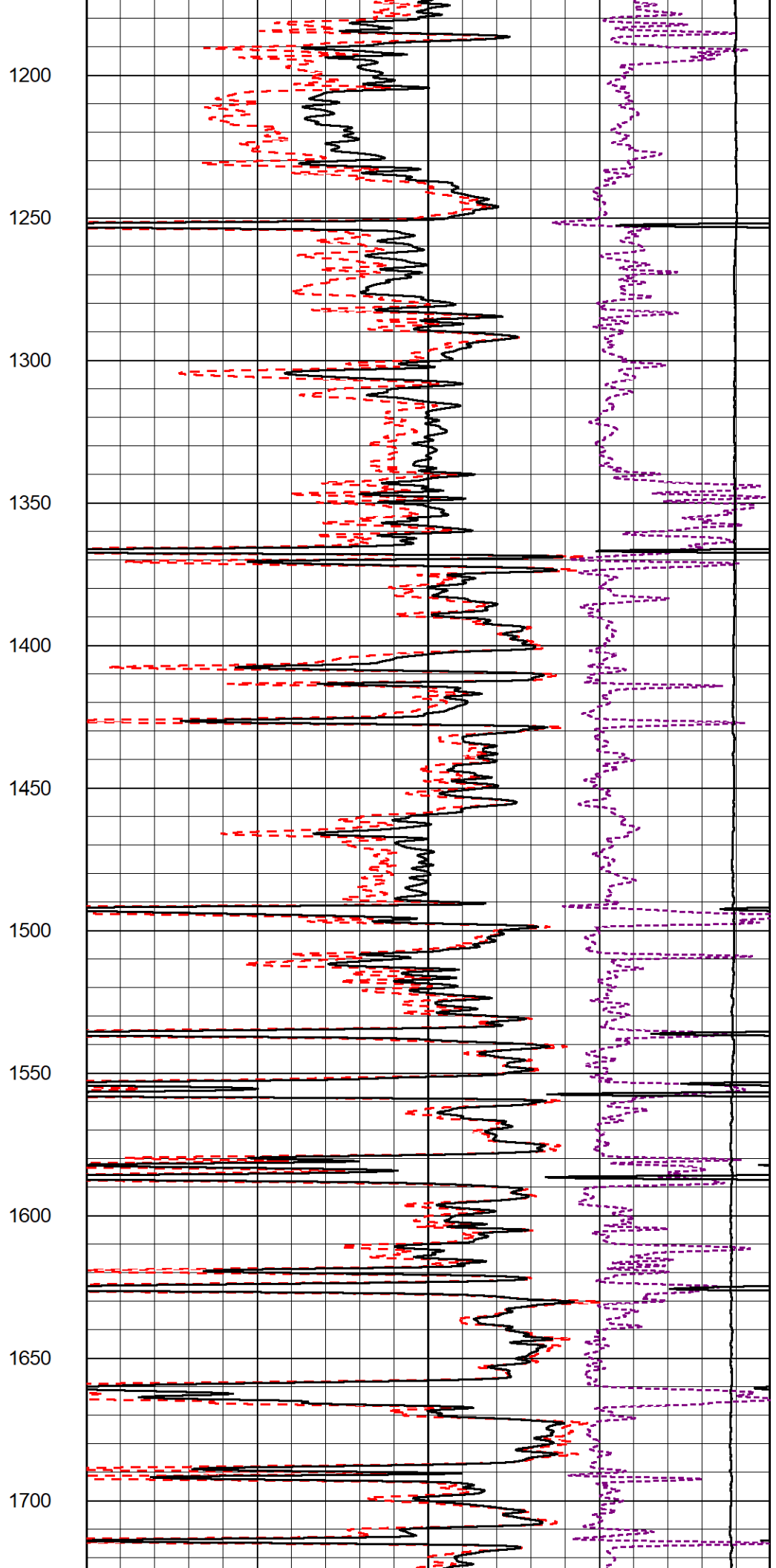
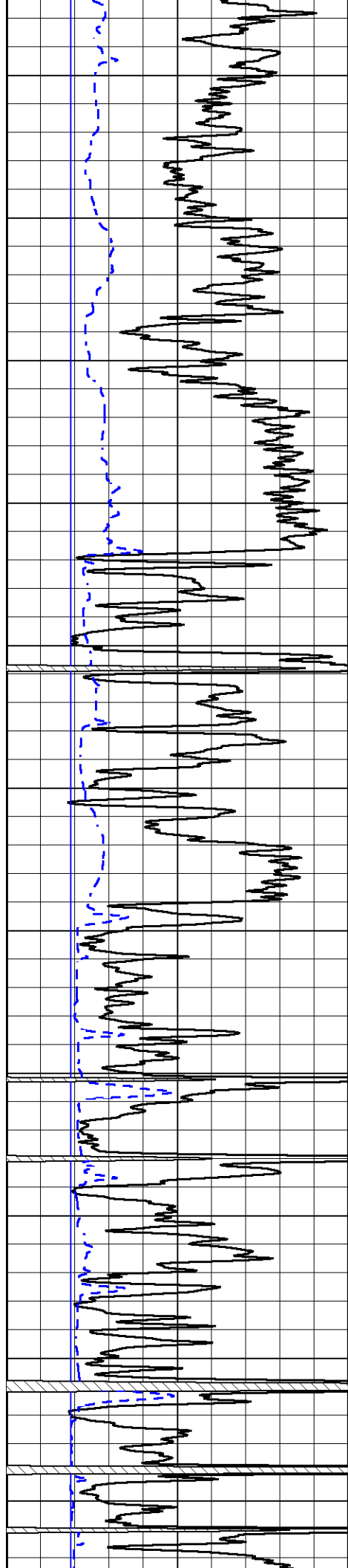
MAIN PASS

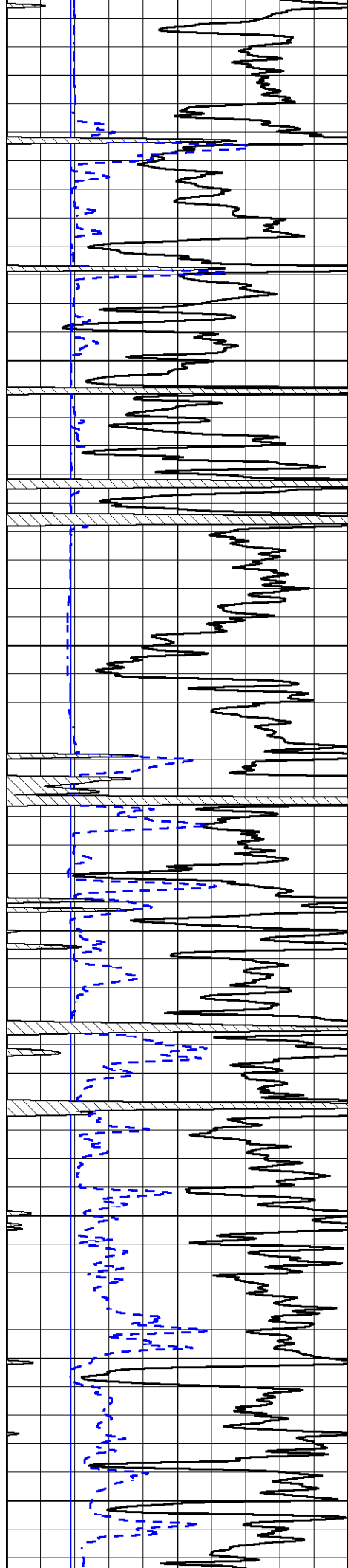
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Presentation Format _cdl
Dataset Creation Sat Jan 27 16:32:23 2024
Charted by Depth in Feet scaled 1:600

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







1750

1800

1850

1900

1950

2000

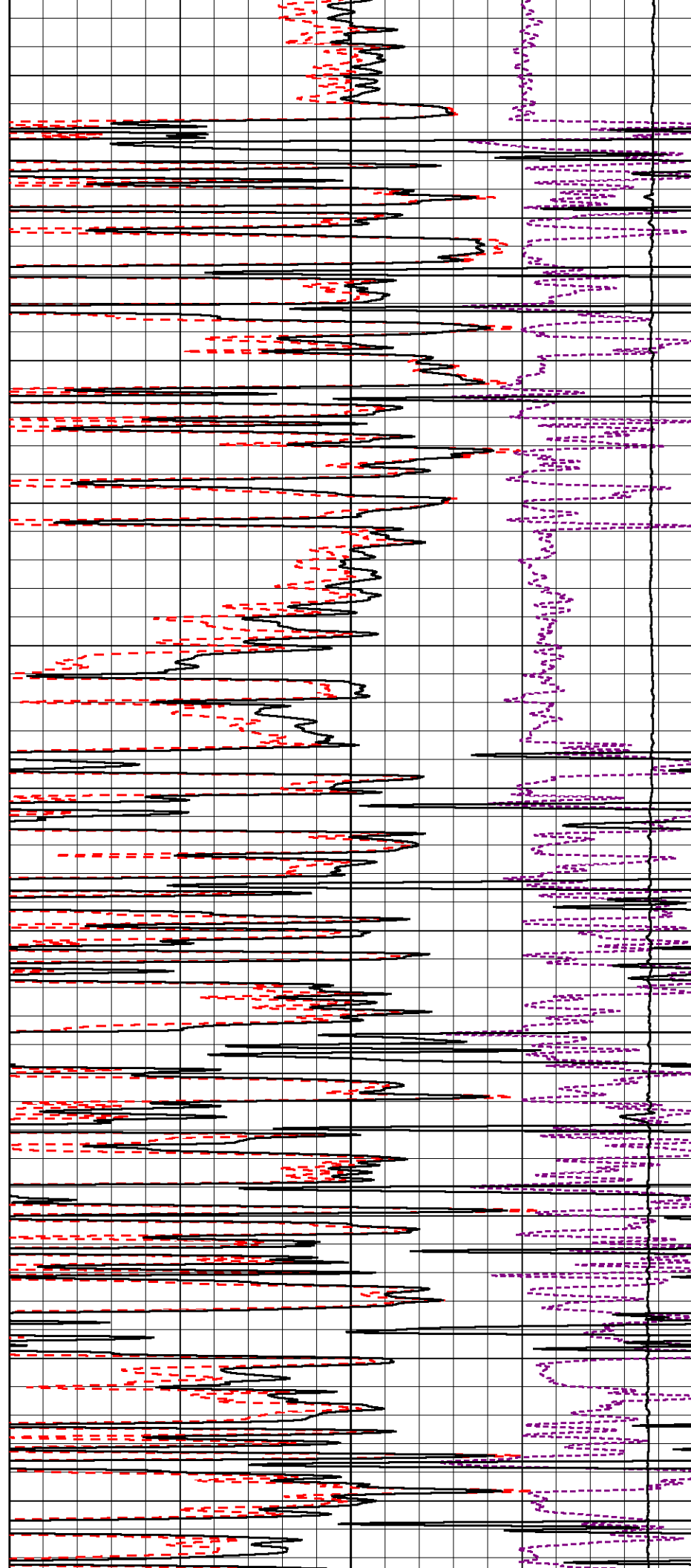
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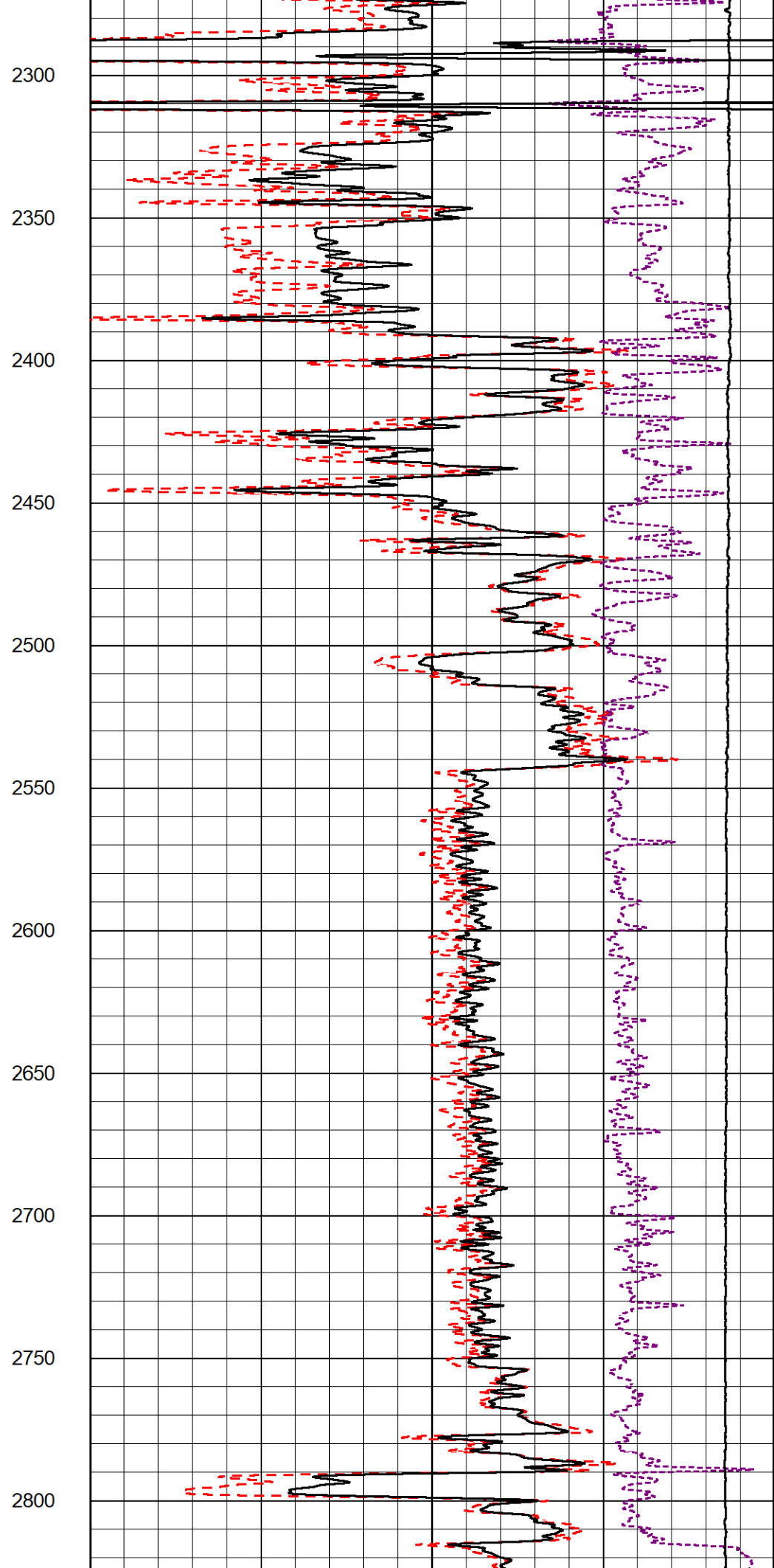
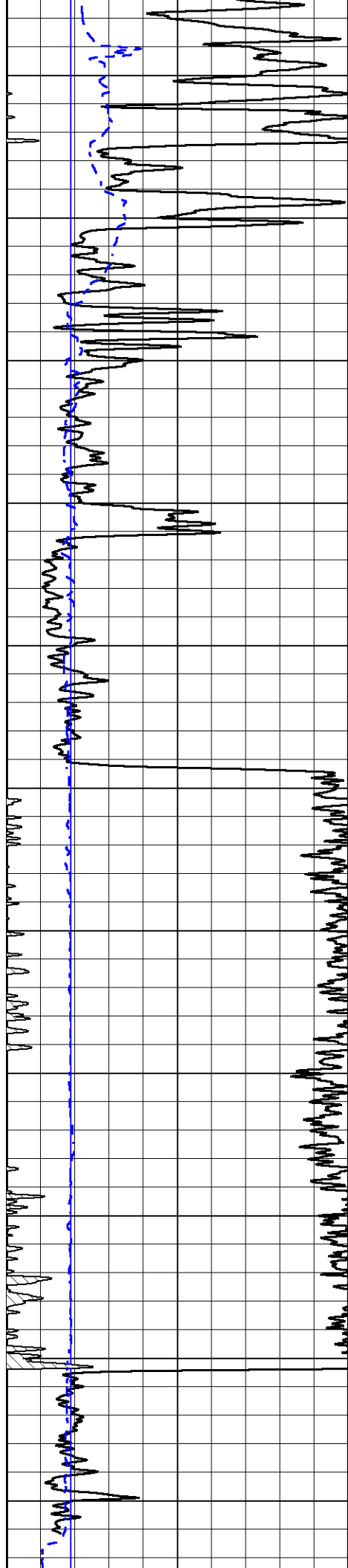
2100

2150

2200

2250





2850					
0	Gamma Ray (GAPI)	150	30	Compensated Density (pu)	-10
6	Caliper (in)	16	2	Bulk Density (g/cc)	3
			15000	Line Tension (lb)	0
			-0.25 Correction (g/cc)		0.25



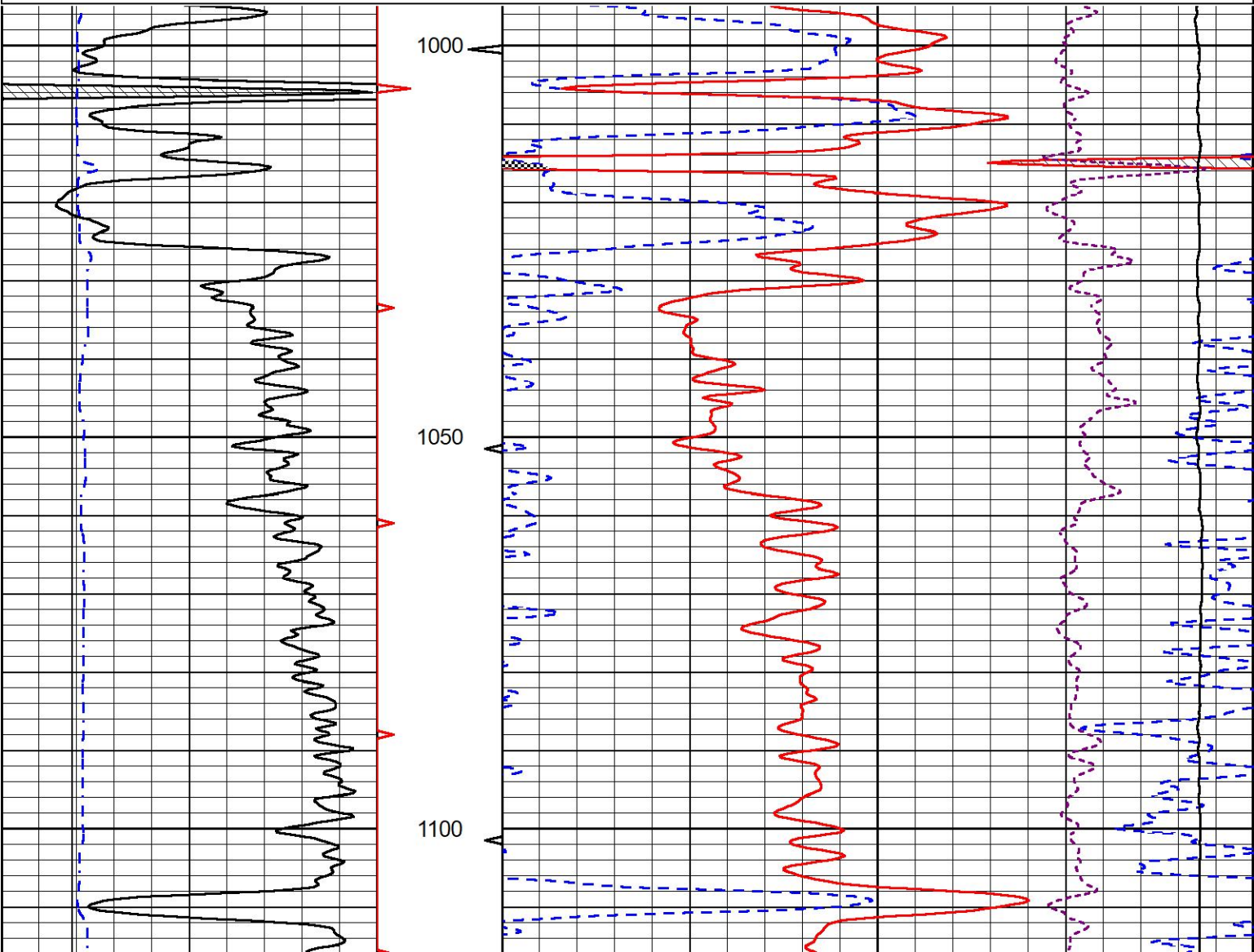
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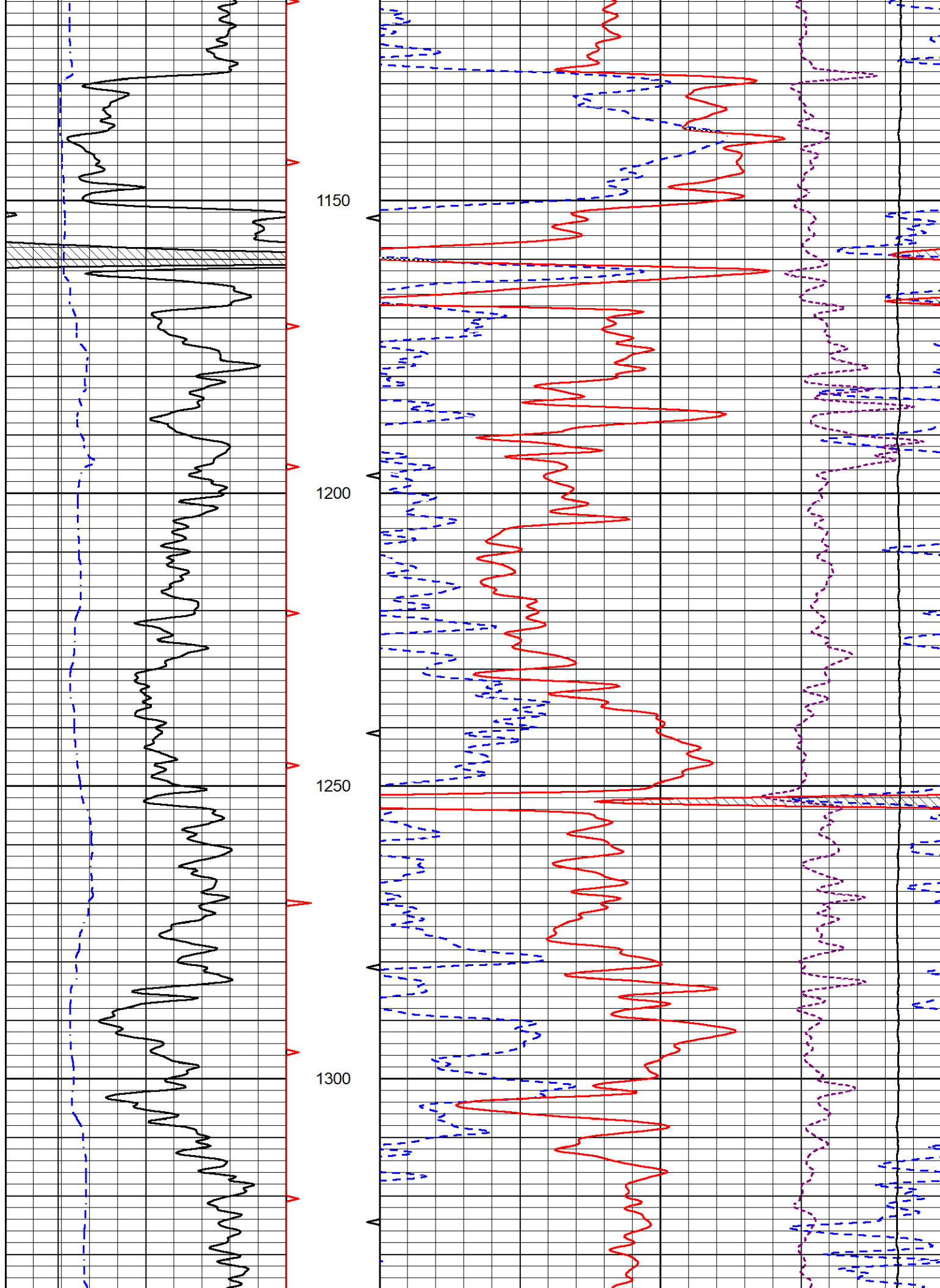
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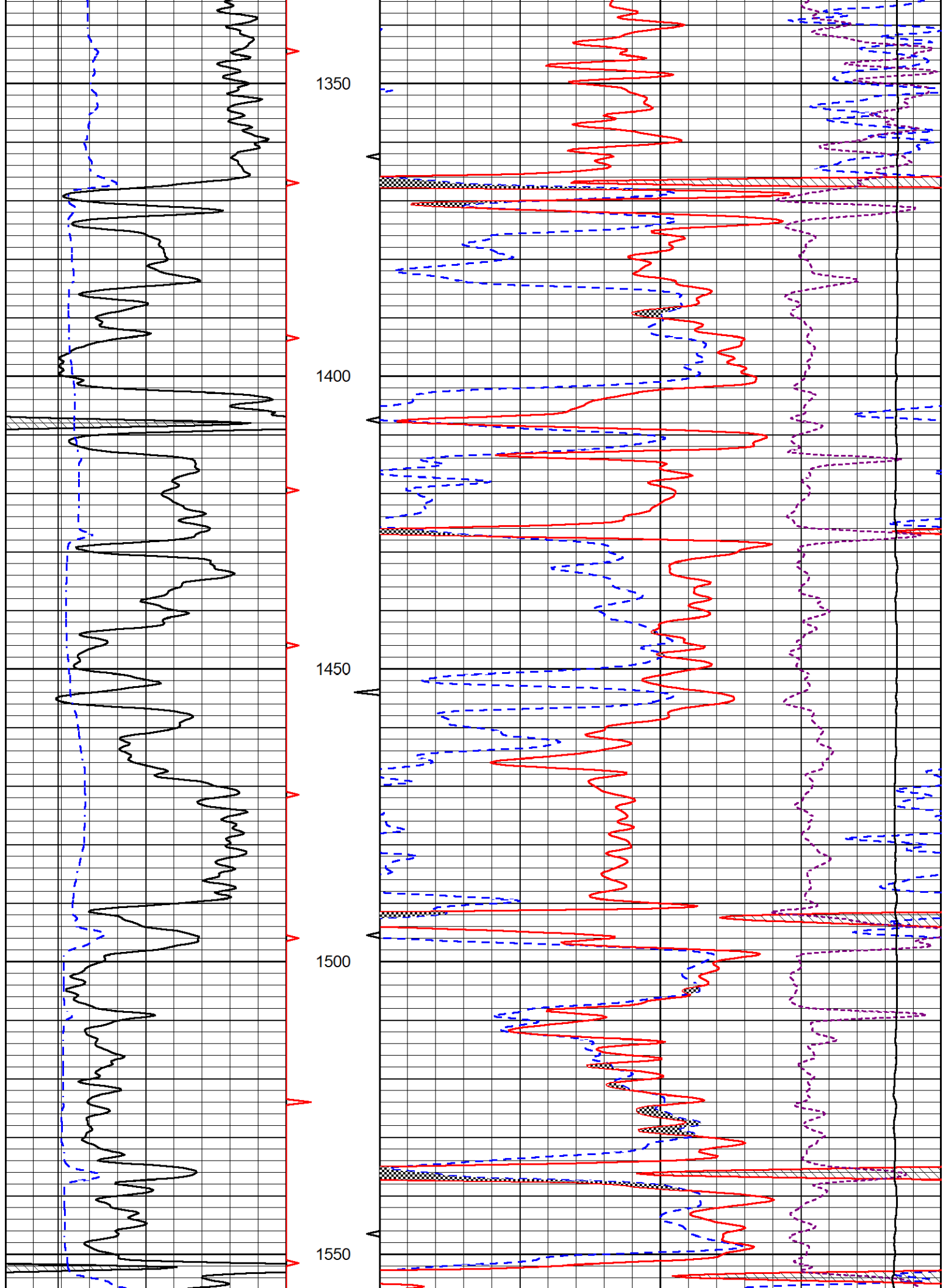
MIDWEST WIRELINE

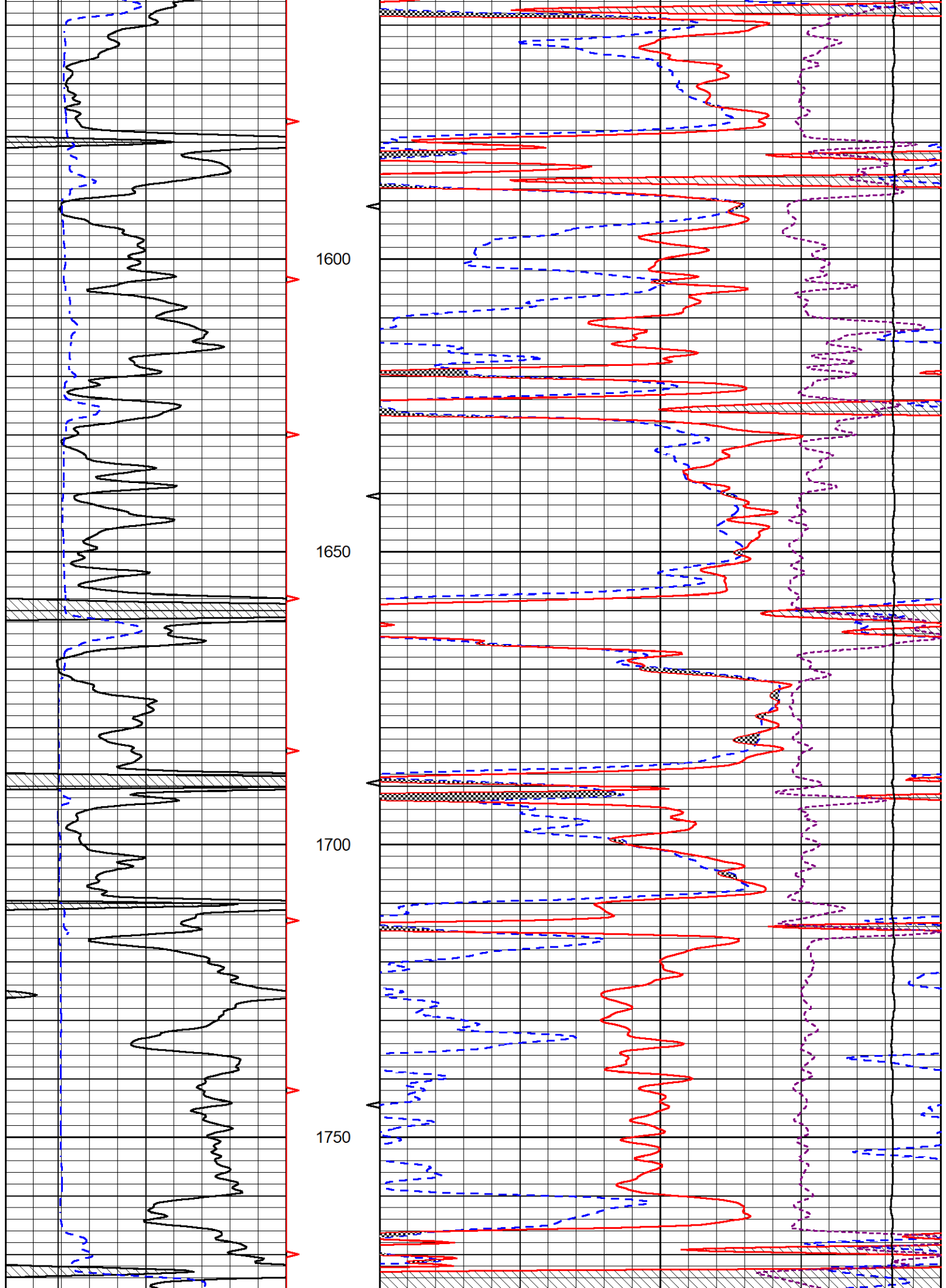
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Charted by	Depth in Feet scaled 1:240

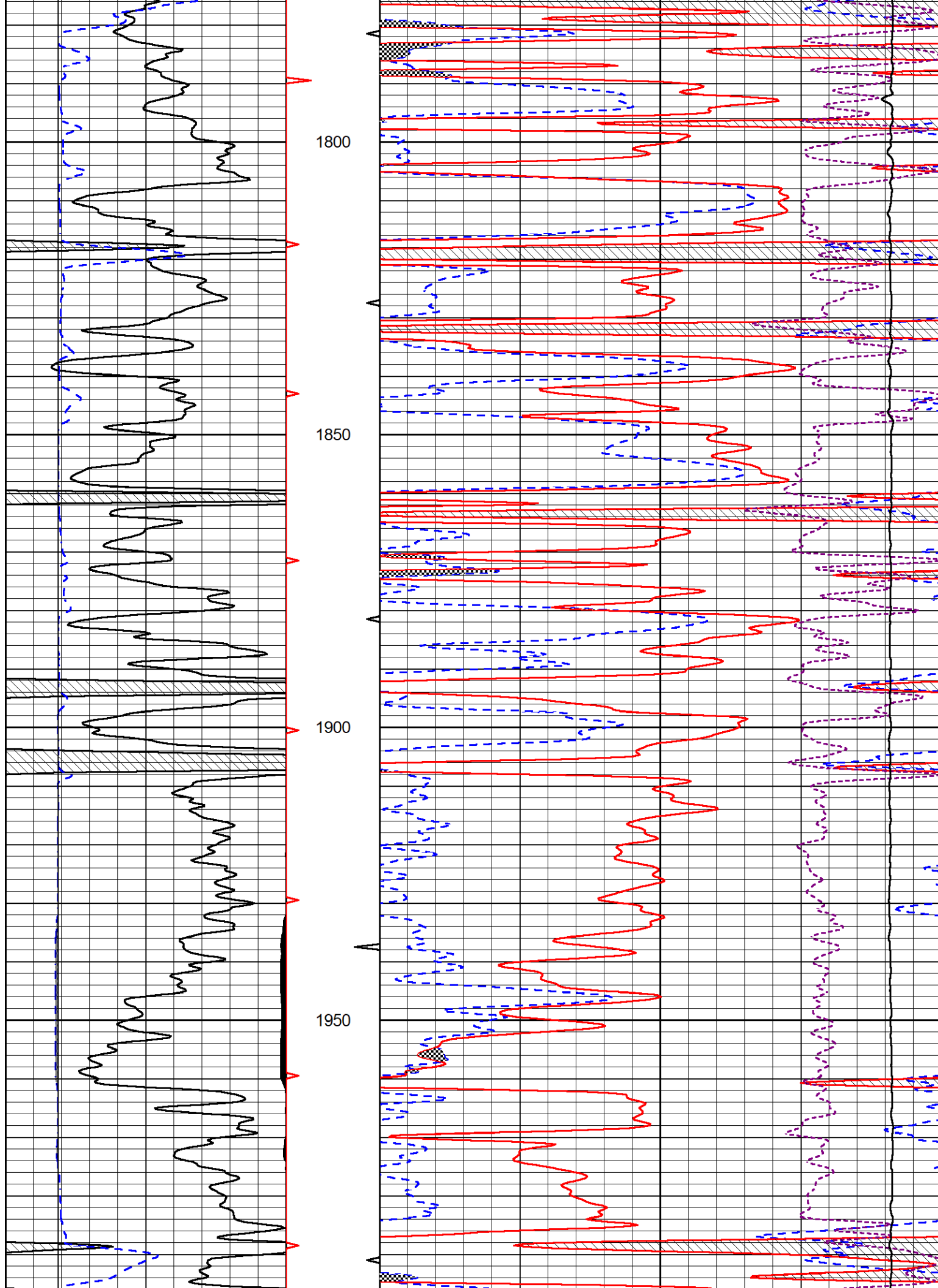
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6	Caliper (in)	16	30	Compensated Density (pu)	-10
			10000	Line Tension (lb)	0
			-0.25 Correction (g/cc)		0.25

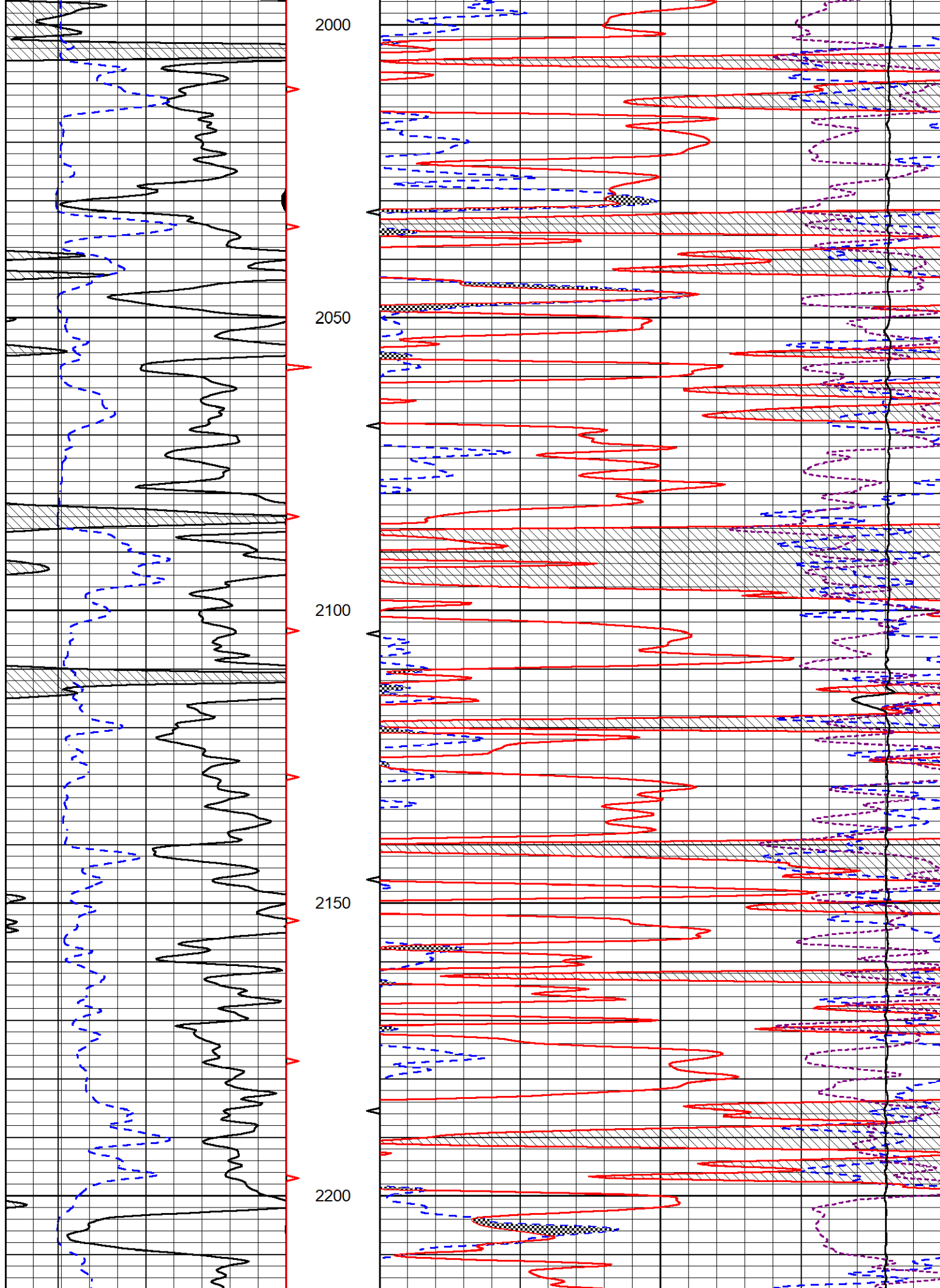


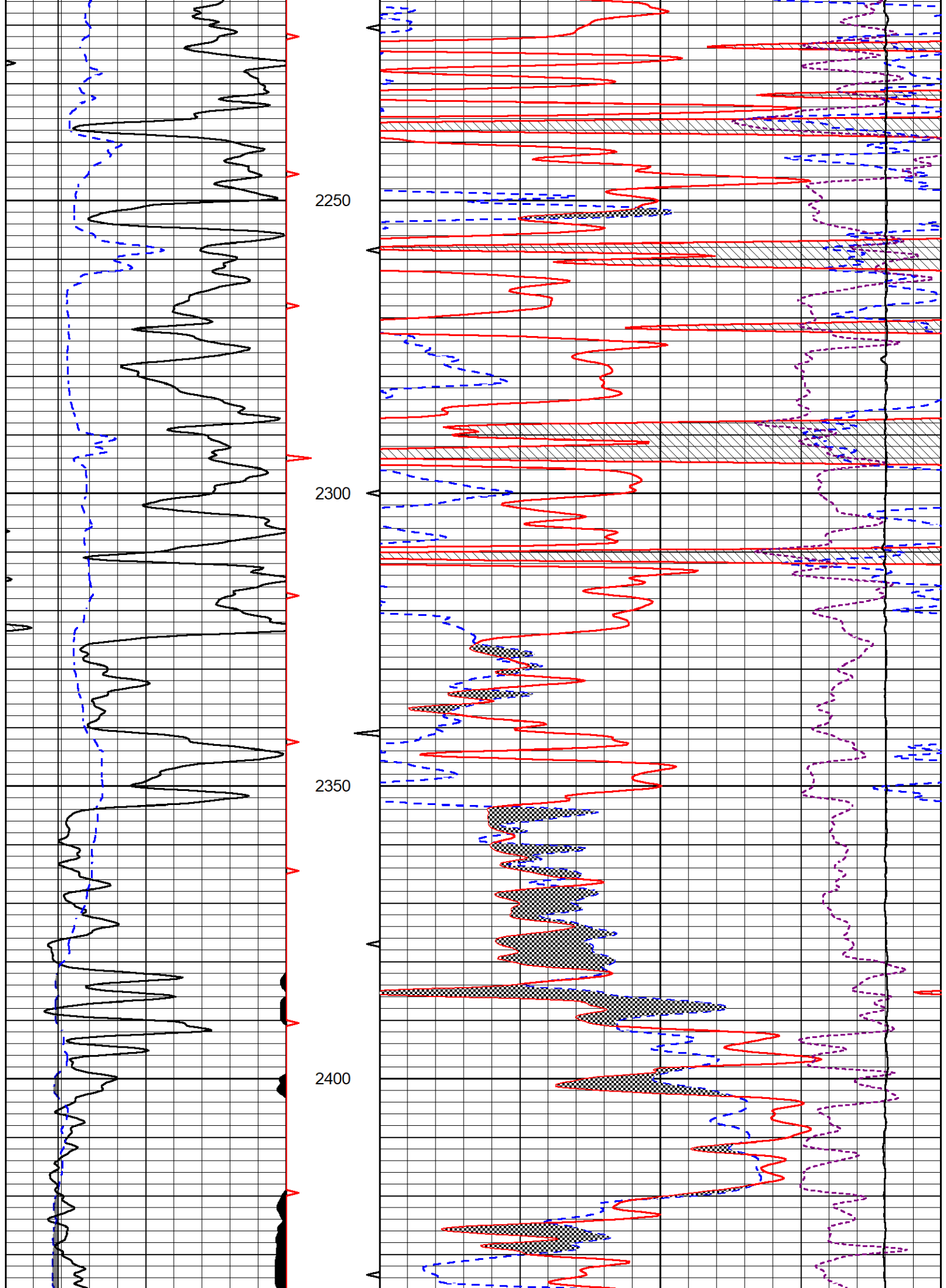


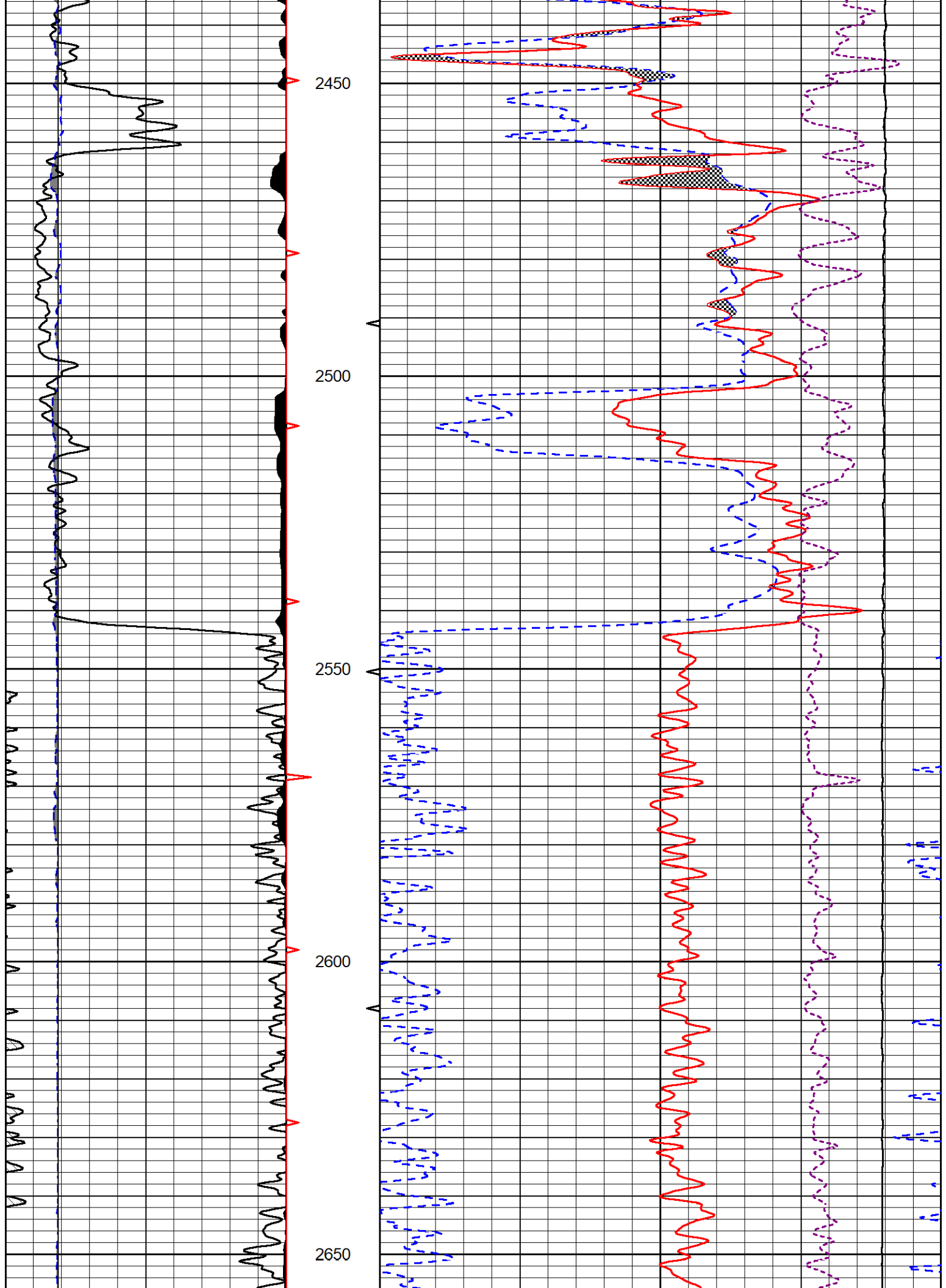


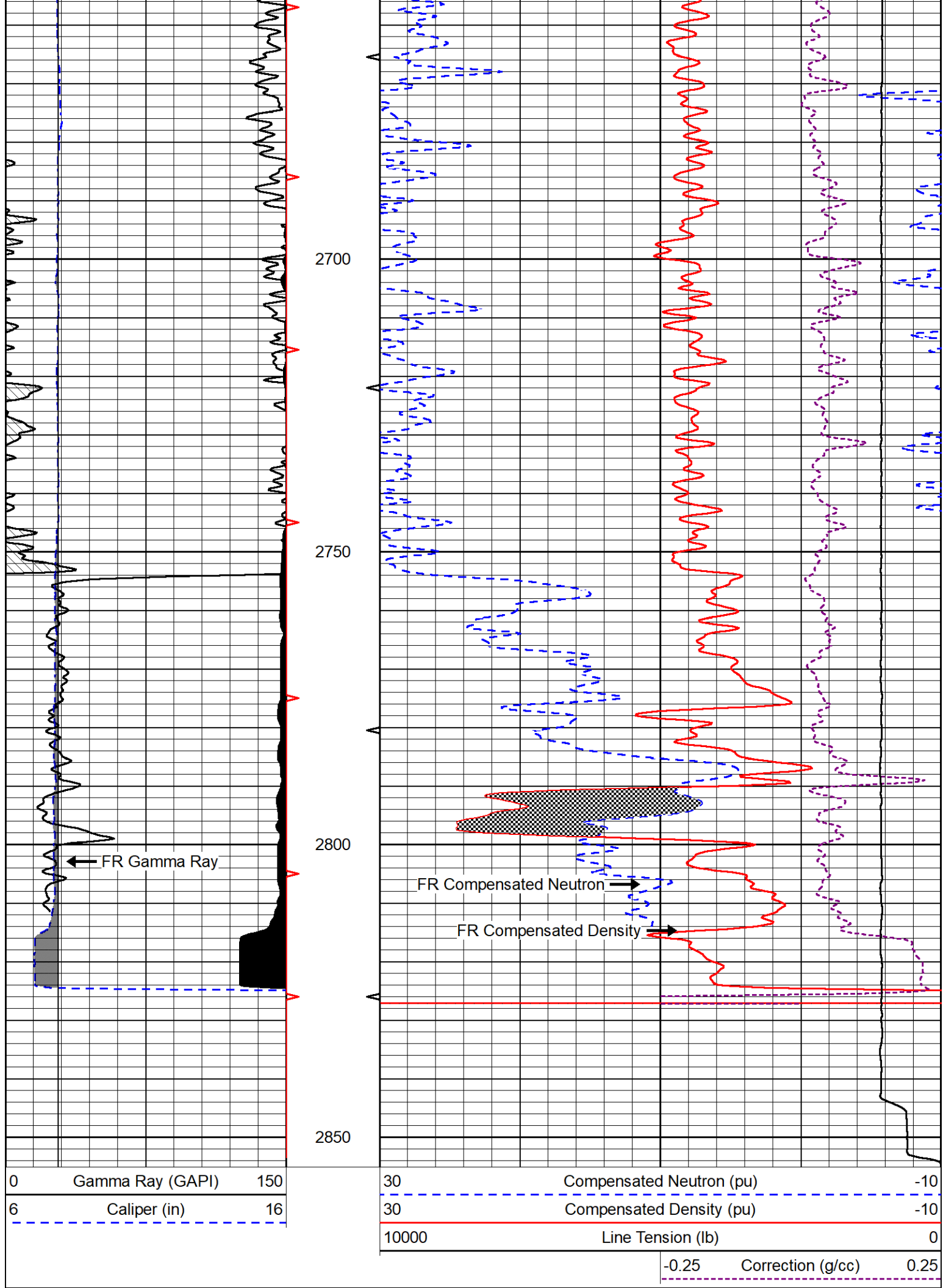














MIDWEST WIRELINE

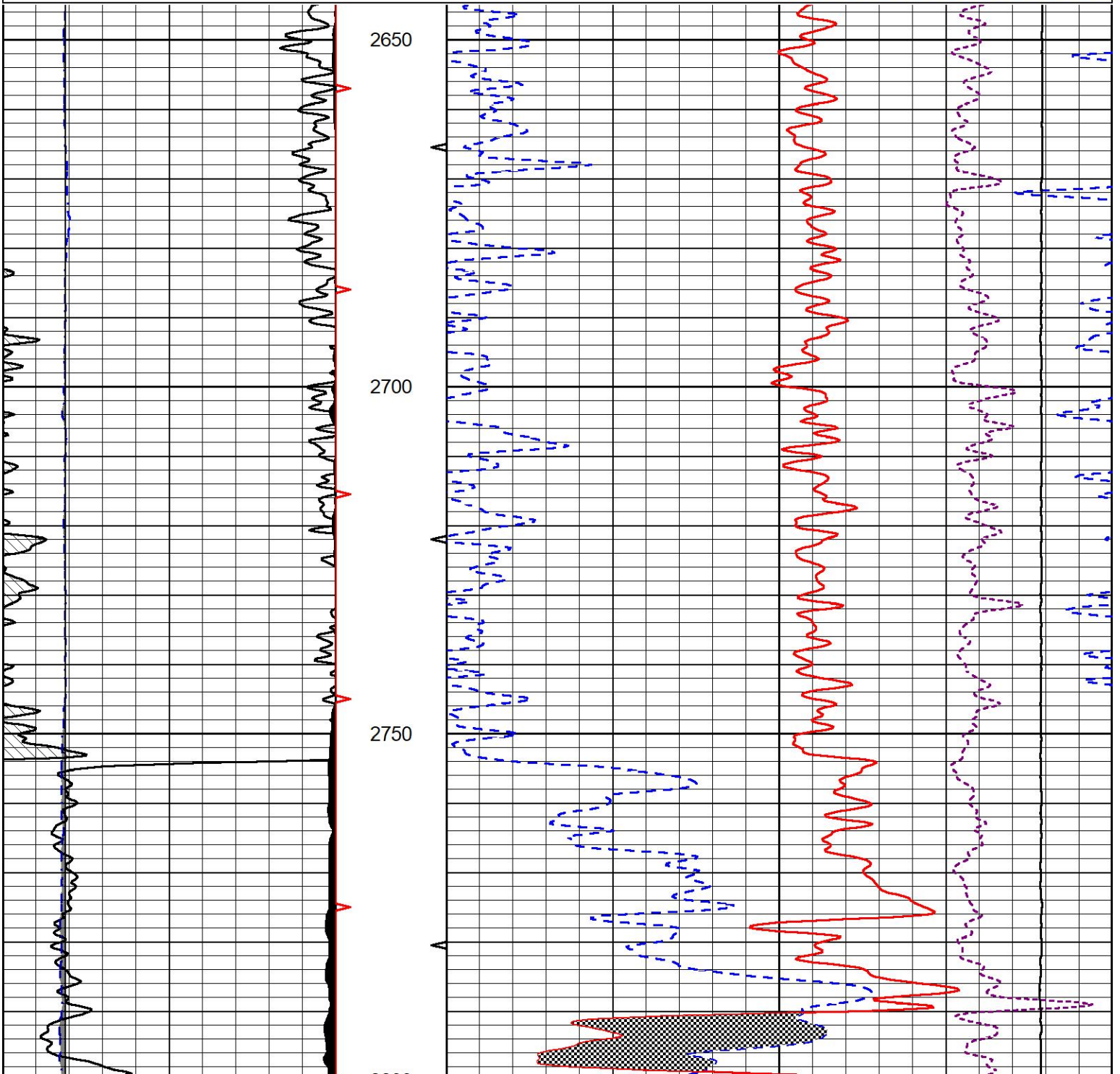
REPEAT SECTION

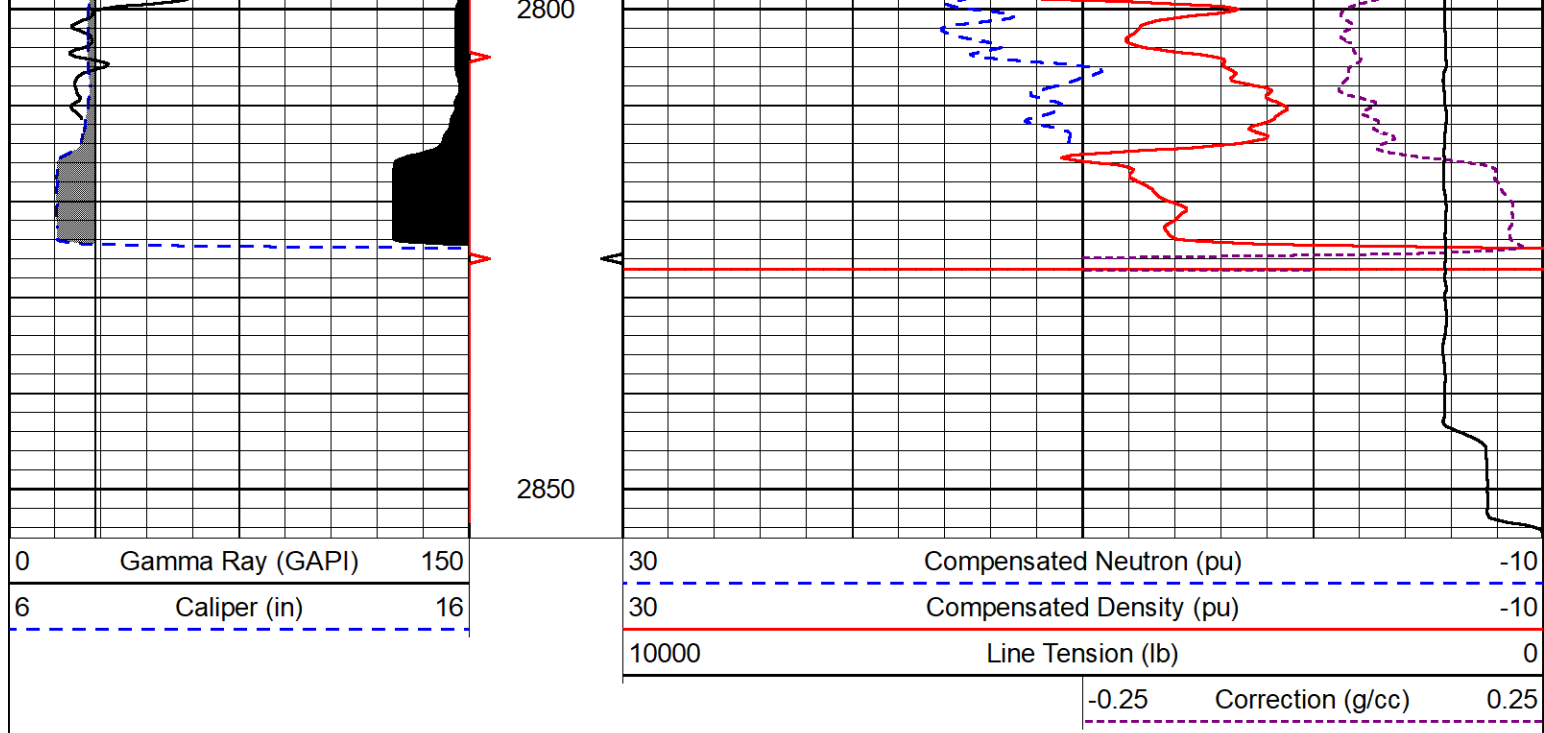
REPEAT PASS

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Presentation Format _CNDLS~1
Dataset Creation Sat Jan 27 15:56:38 2024
Charted by Depth in Feet scaled 1:240

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

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





	Density			Far Detector	Near Detector	
Magnesium	1.680	g/cc		5466.68	7555.42	cps
Aluminum	2.585	g/cc		1173.67	5050.86	cps
Spine Angle = 75.33			Density/Spine Ratio = 0.569			
	Size			Reading		
Small Ring	4.00	in		1.17		
Large Ring	14.00	in		1.07		

Compensated Neutron Calibration Report
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Serial Number:	210
Tool Model:	M&W

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:	105	
Tool Model:	M&W	
Performed:	Sat Oct 21 23:48:19 2023	
Calibrator Value:	500.0	GAPI
Background Reading:	24.0	cps
Calibrator Reading:	637.0	cps
Sensitivity:	0.6000	GAPI/cps

 MIDWEST WIRELINE	Company	Castle Resources, Inc.
	Well	Hartwich #1
	Field	
	County	Wabaunsee
	State	Kansas