



MIDWEST WIRELINE

DUAL COMP POROSITY LOG

Company IGWT, Inc.

Well S&W #1

Field

County

Butler

State

Kansas

Location:

API #: 15-015-24201-00-00

Other Services

SEC 31 TWP 23S RGE 4E
660 FNL & 660 FWL
NWNW

DIL/MEL

Company IGWT, Inc.
Well S&W #1
Field
County Butler
State Kansas

Permanent Datum
Log Measured From
Drilling Measured From

Ground Level
Kelly Bushing
Kelly Bushing

Elevation
1367

K.B. 1376
D.F.
G.L. 1367

Date 4/7/2023

Run Number One

Type Log CNL/CDL

Depth Driller 2520

Depth Logger 2522

Bottom Logged Interval 2493

Top Logged Interval 200

Type Fluid In Hole Chemical

Salinity, PPM CL 1100

Density 9.4

Level Full

Max. Rec. Temp. F 101

Operating Rig Time 2 Hours

Borehole Record				Casing Record			
Run No.	Bit	From	To	Size	Wgt.	From	To
One	12.25	00	224	8.625	23	00	224
Two	7.875	224	TD				

Witnessed By Bill Stout

T. Martin
Hays

<<< Fold Here >>>

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.

Newton, KS, E on 1st St ~12 mi to Meadowlark Rd,
2 S, 2 E, 1/2 S, E into

Log Measured From: Kelly Bushing 9 Ft. Above Permanent Datum

THANK YOU FOR USING MIDWEST WIRELINE LLC
785-625-3858

Your Midwest Wireline Crew

Engineer: T. Martin
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: Bill Stout
Secondary Witness:
Secondary Witness:
Secondary Witness:

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.33		GR-M&W (103)	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 (307-08)	8.50	4.00	250.00
			ML-PSIML (401)	7.58	4.00	65.00
MCAL MI MN	19.58 19.58 19.58					
RLL3F RLL3	15.50 15.50					
CILD	8.33		DIL-M&W (507)	18.25	3.50	220.00
CILM	4.50					
SP	0.20					

Dataset: igwt_s&w #1.db: field/well/StkMI/pass3.1
 Total length: 42.33 ft
 Total weight: 685.00 lb
 O.D.: 4.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\igwt_s&w #1.db
 Dataset field/well/StkMI/pass3.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	101	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	460	30	Off	2522

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

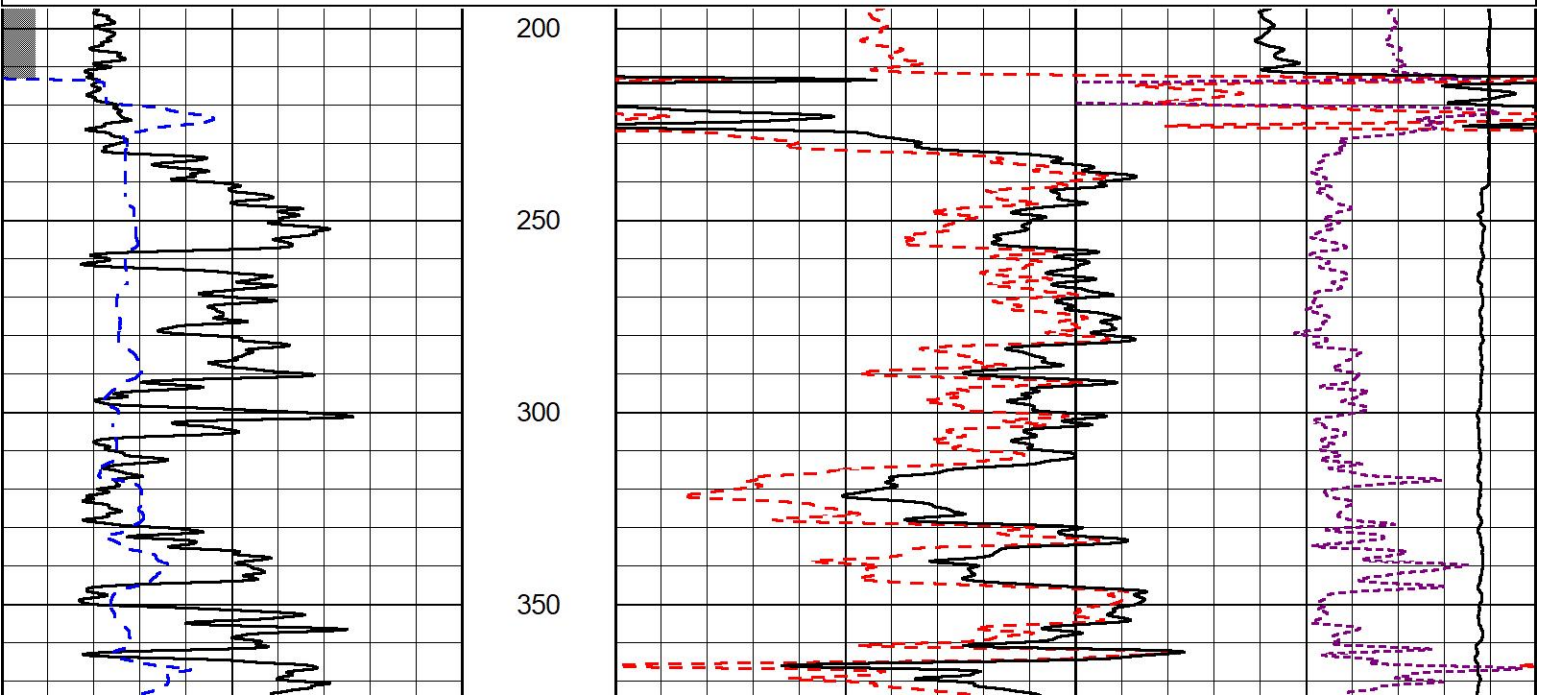


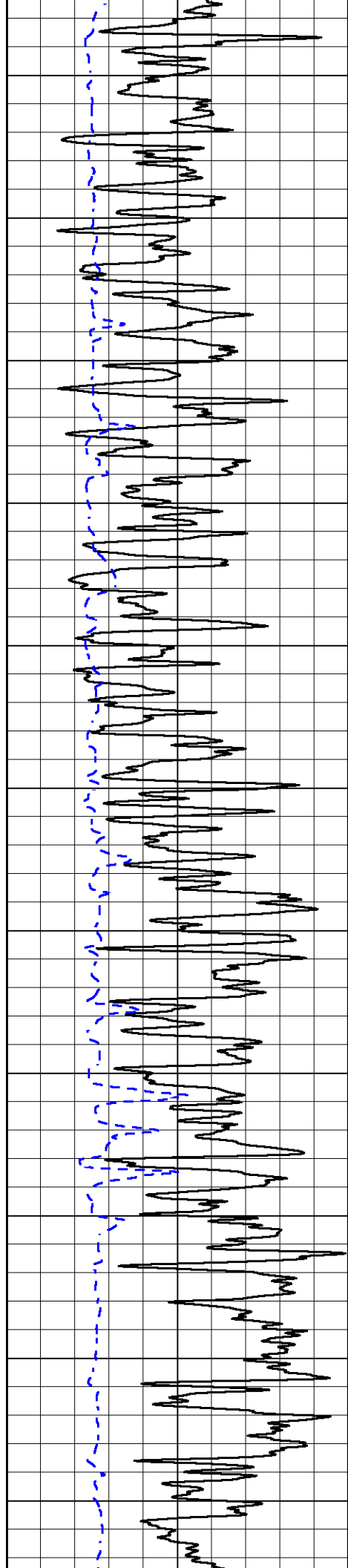
2" SCALE BULK DENSITY

MAIN PASS

Database File igwt_s&w #1.db
 Dataset Pathname StkMI/pass3.3
 Presentation Format _cdl
 Dataset Creation Fri Apr 07 05:26:30 2023
 Charted by Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150	30	Compensated Density (pu)	-10	
6	Caliper (in)	16	2	Bulk Density (g/cc)	3	
			10000	Line Tension (lb)	0	
				-0.25	Correction (g/cc)	0.25





400

450

500

550

600

650

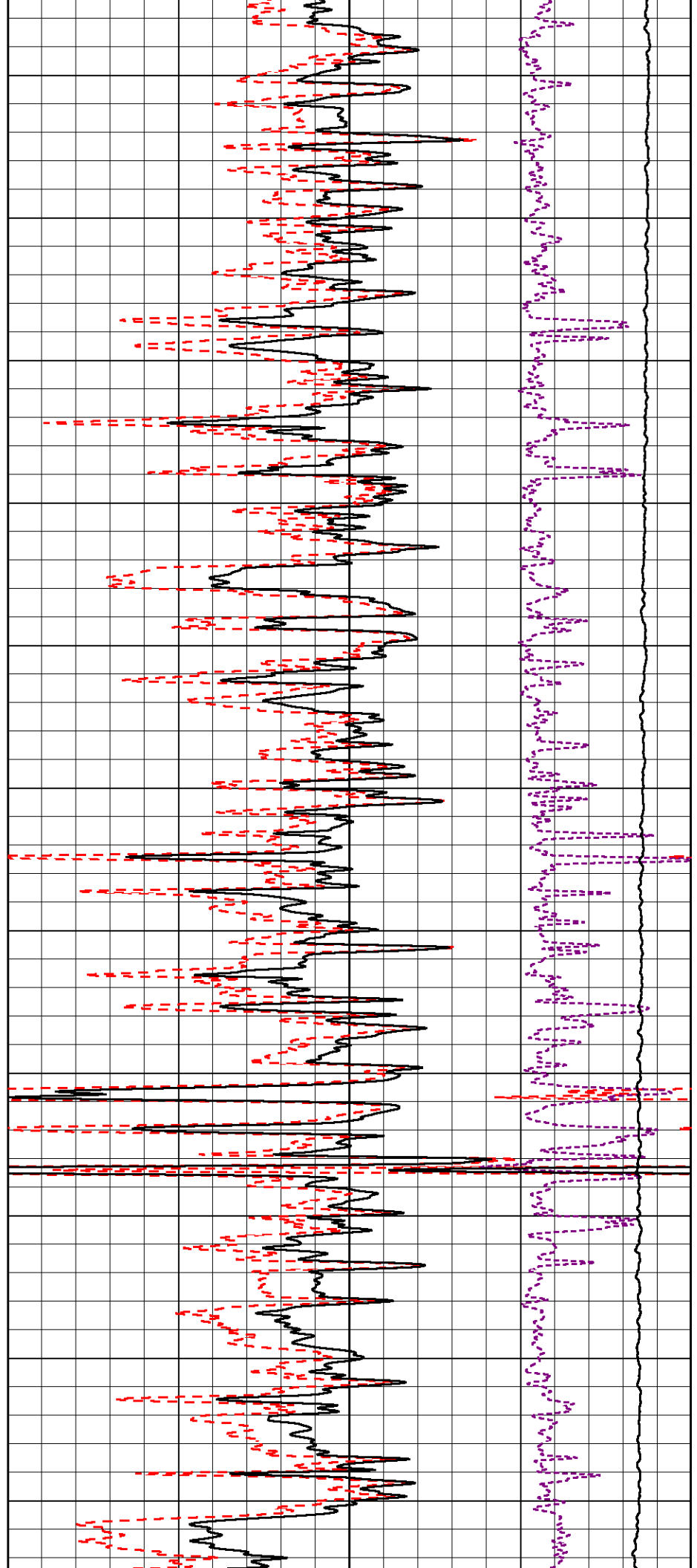
700

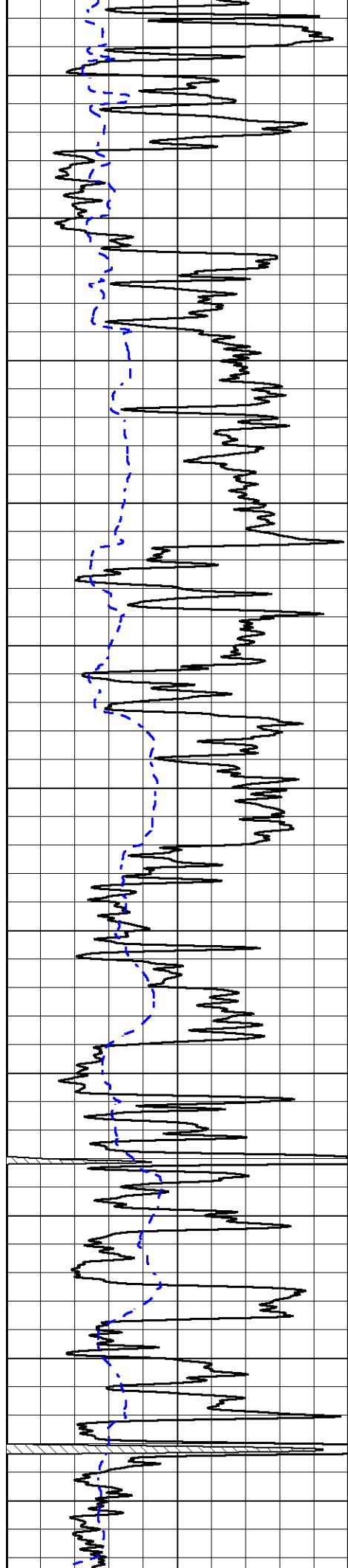
750

800

850

900





950

1000

1050

1100

1150

1200

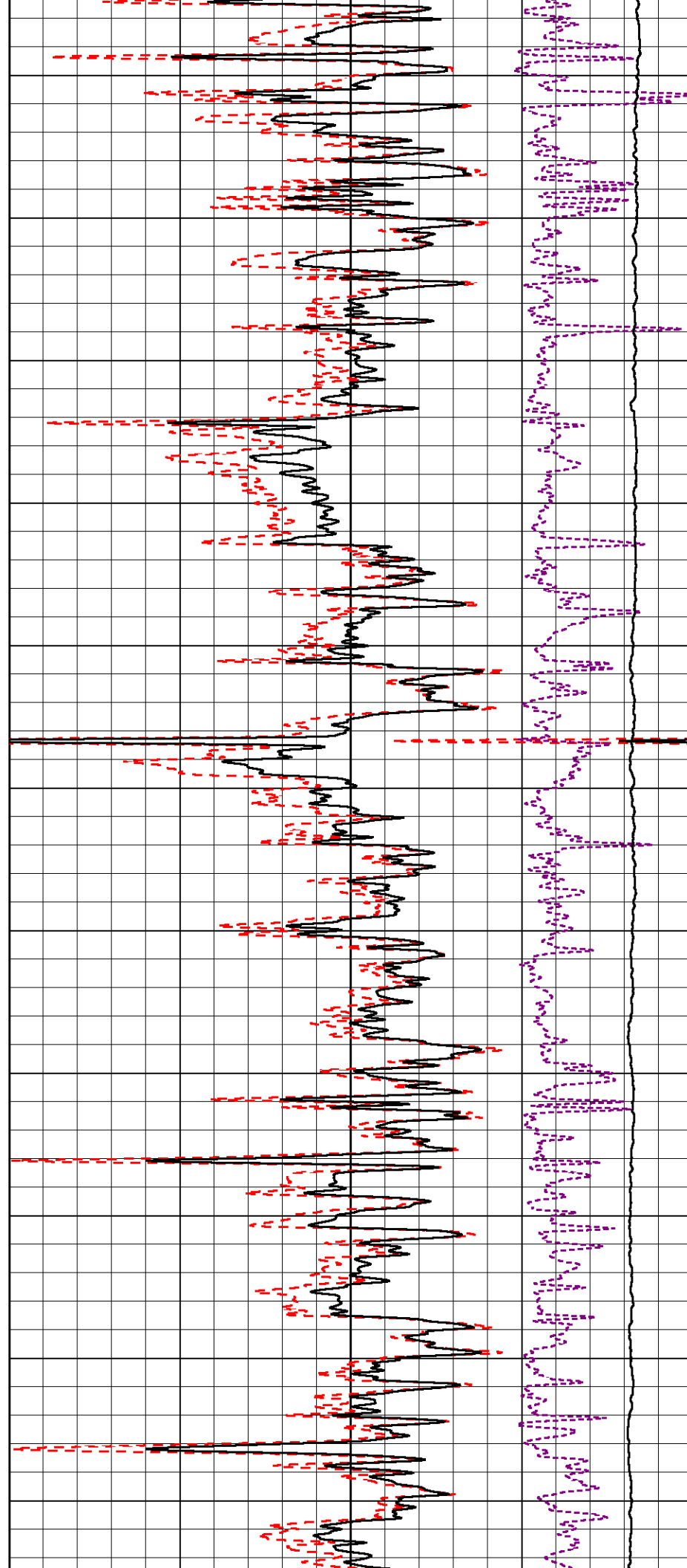
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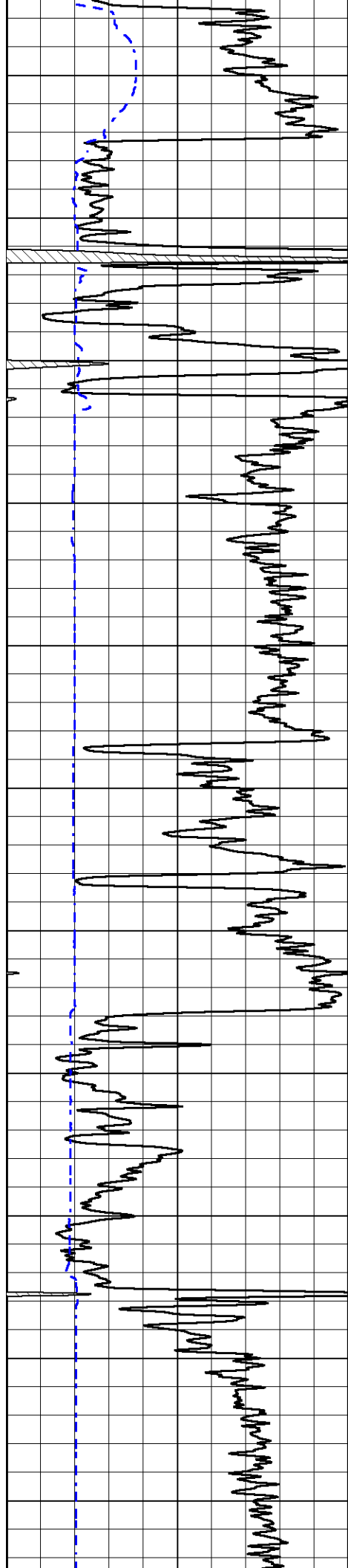
1300

1350

1400

1450





1500

1550

1600

1650

1700

1750

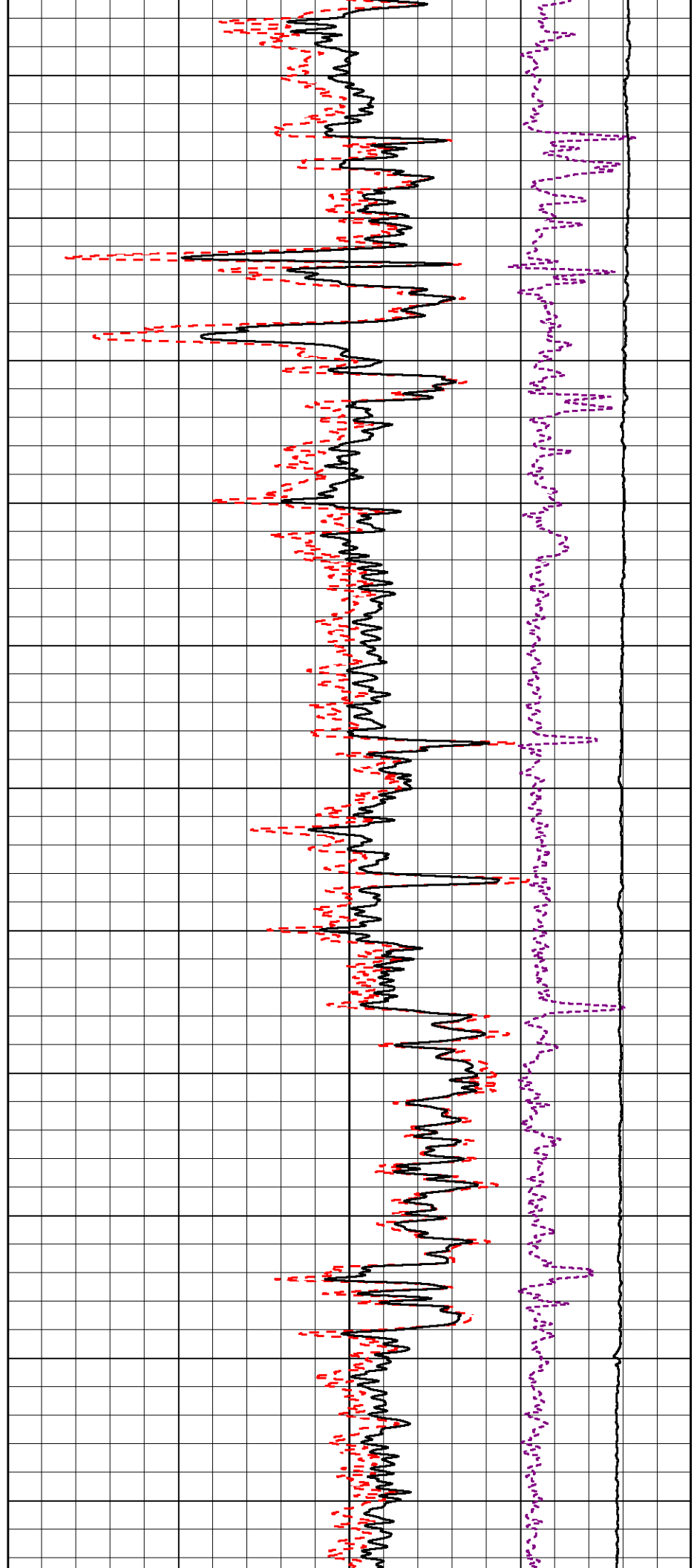
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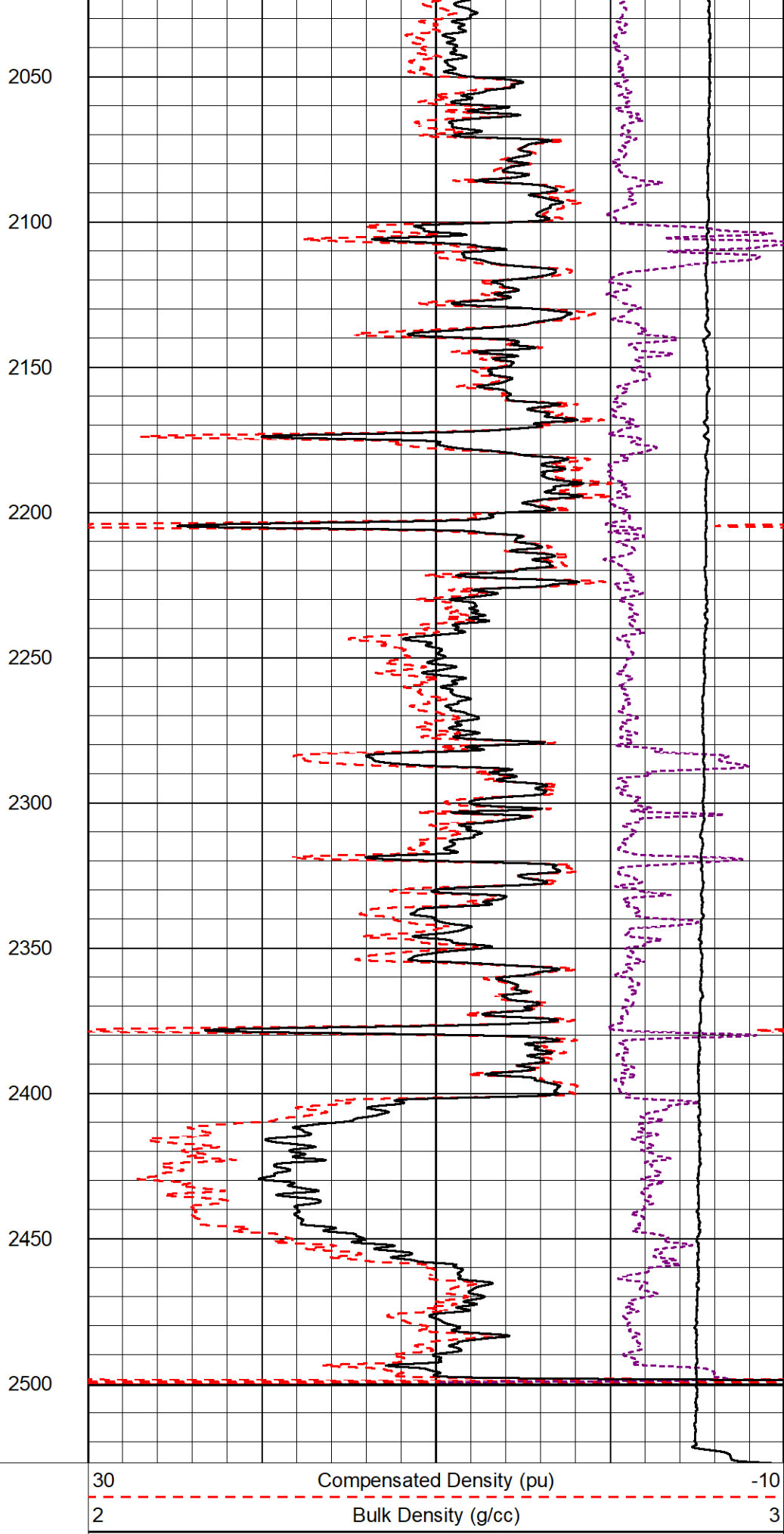
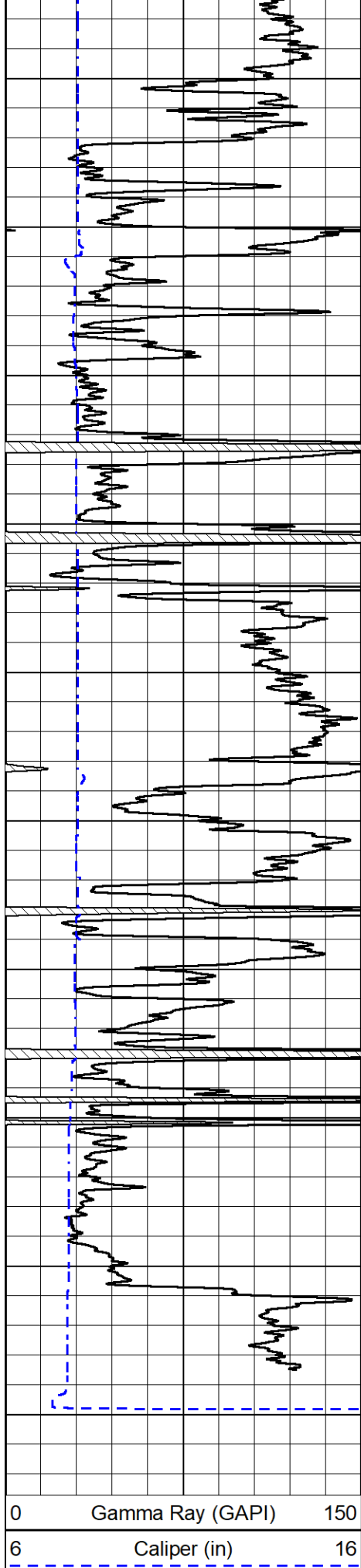
1850

1900

1950

2000





2050

2100

2150

2200

2250

2300

2350

2400

2450

2500

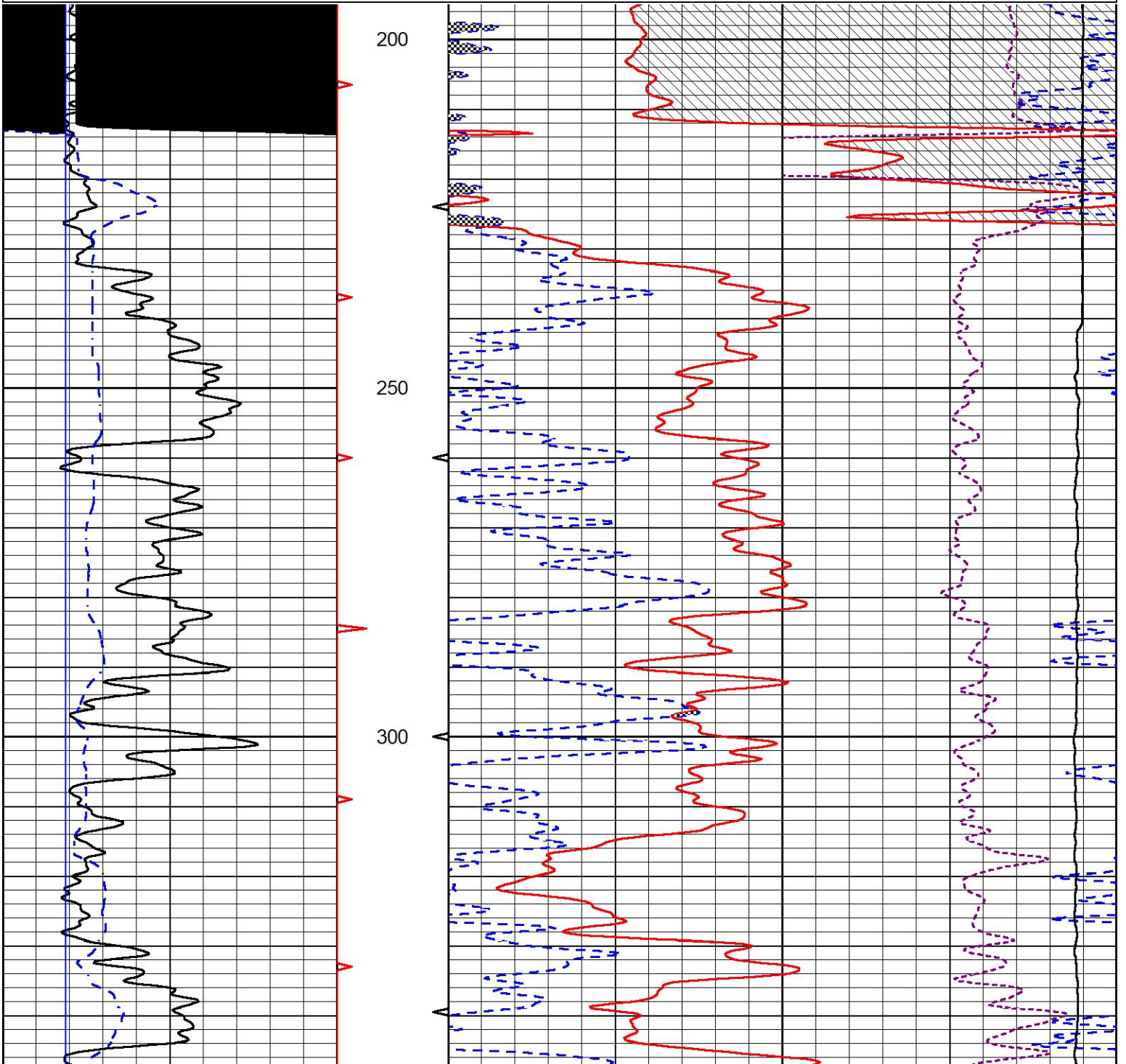


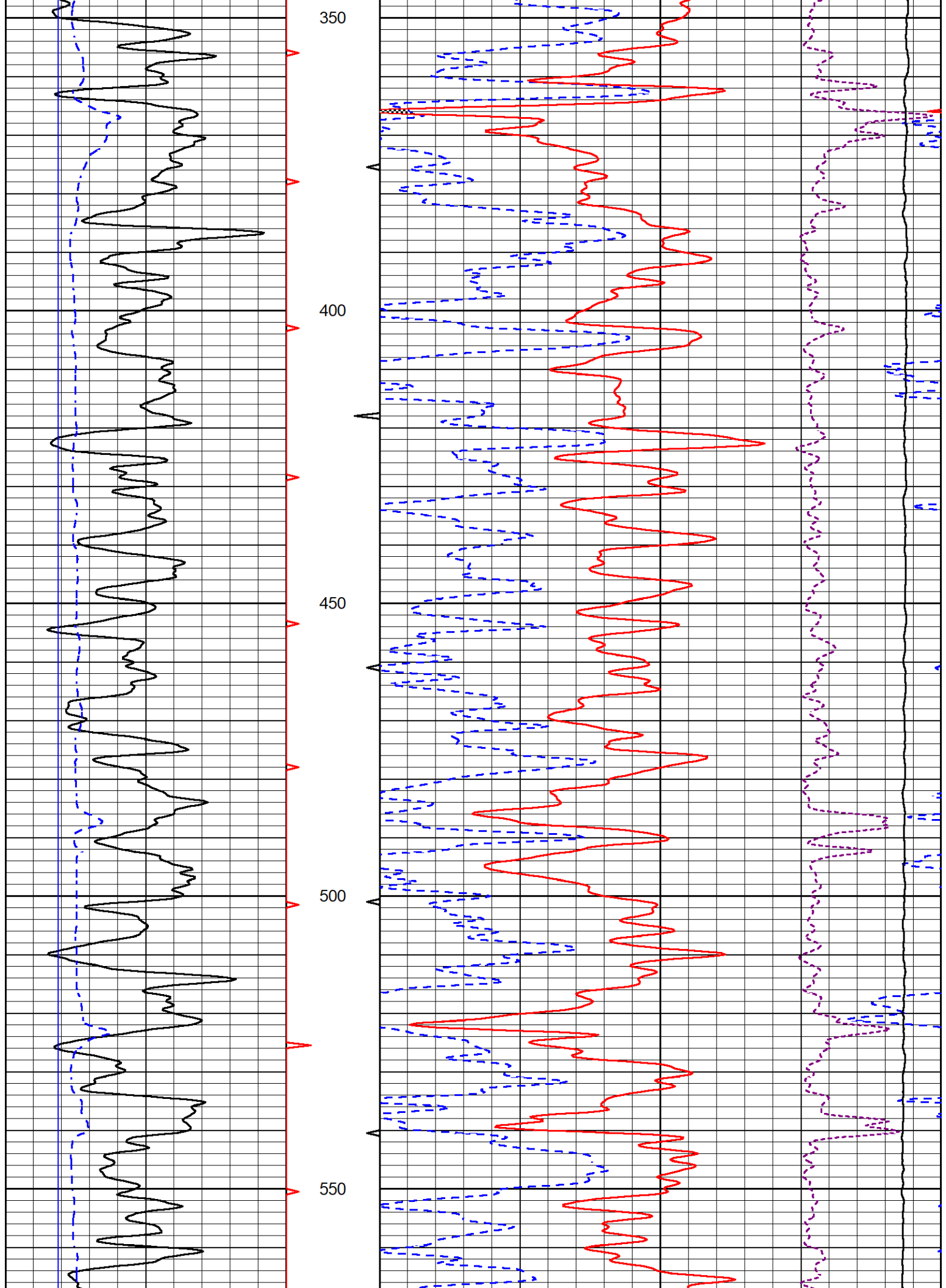
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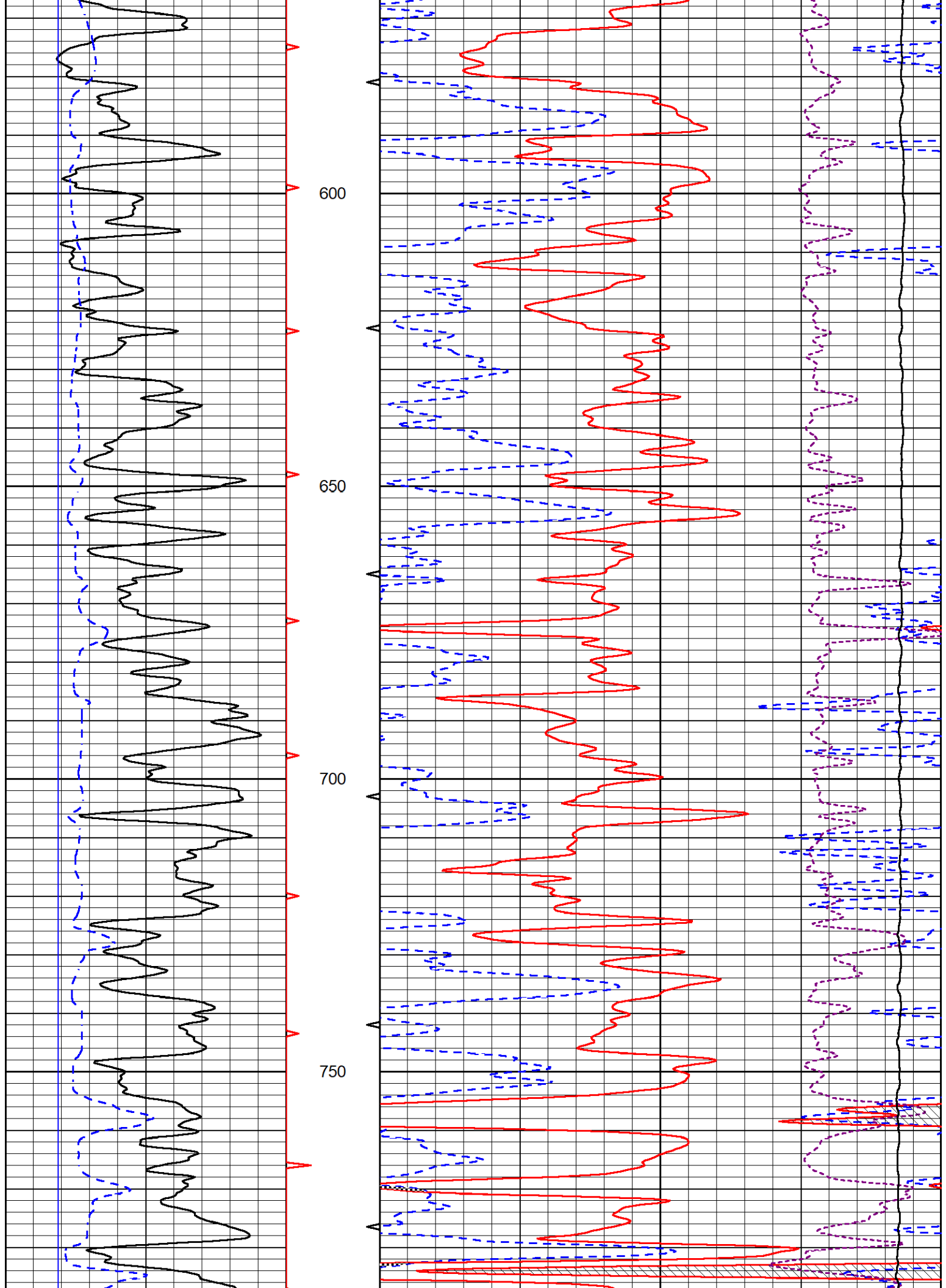
MAIN PASS

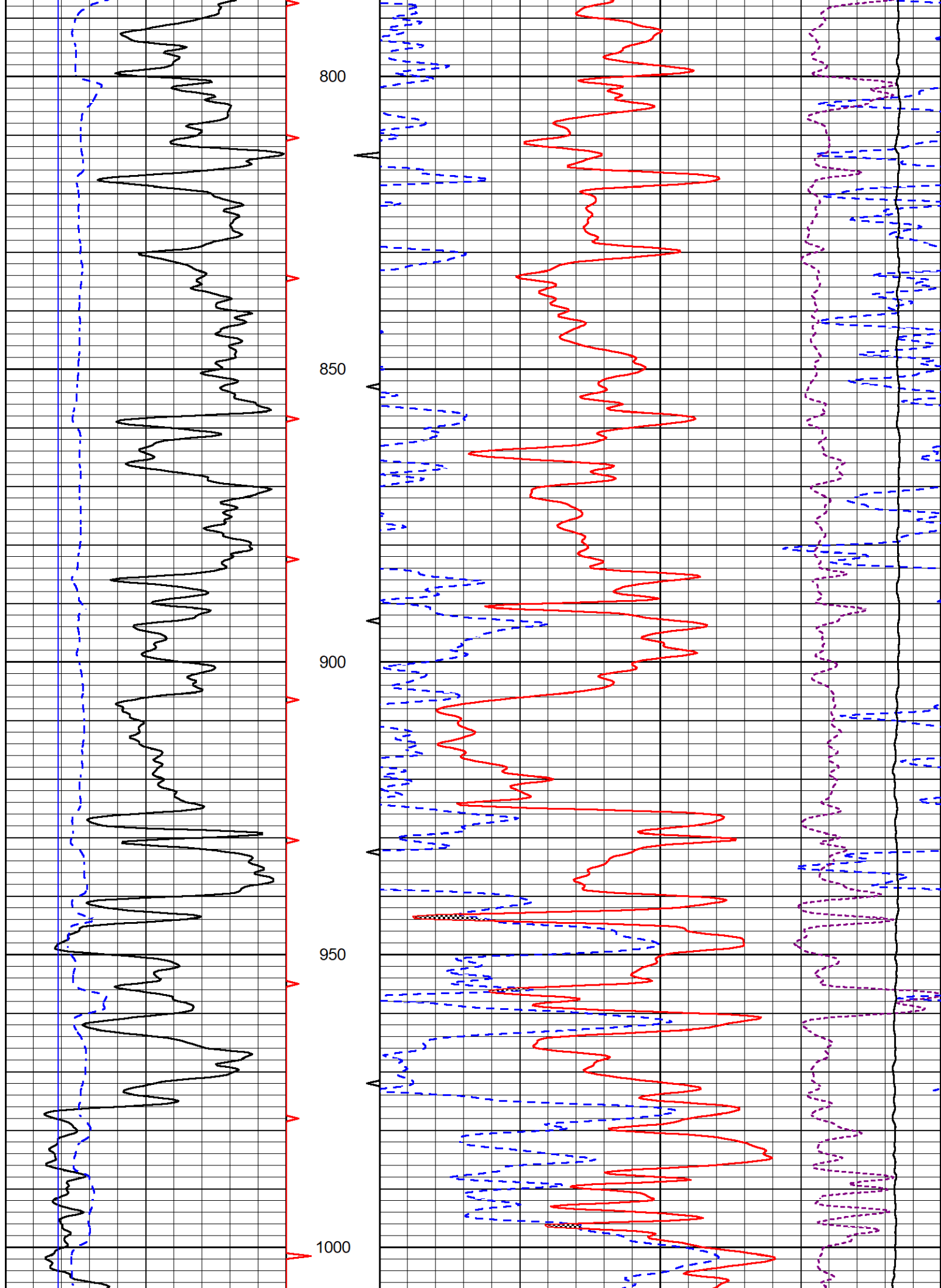
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 Dataset Pathname StkMI/pass3.1
 Presentation Format _CNDLS~1
 Dataset Creation Fri Apr 07 05:26:55 2023
 Charted by Depth in Feet scaled 1:240

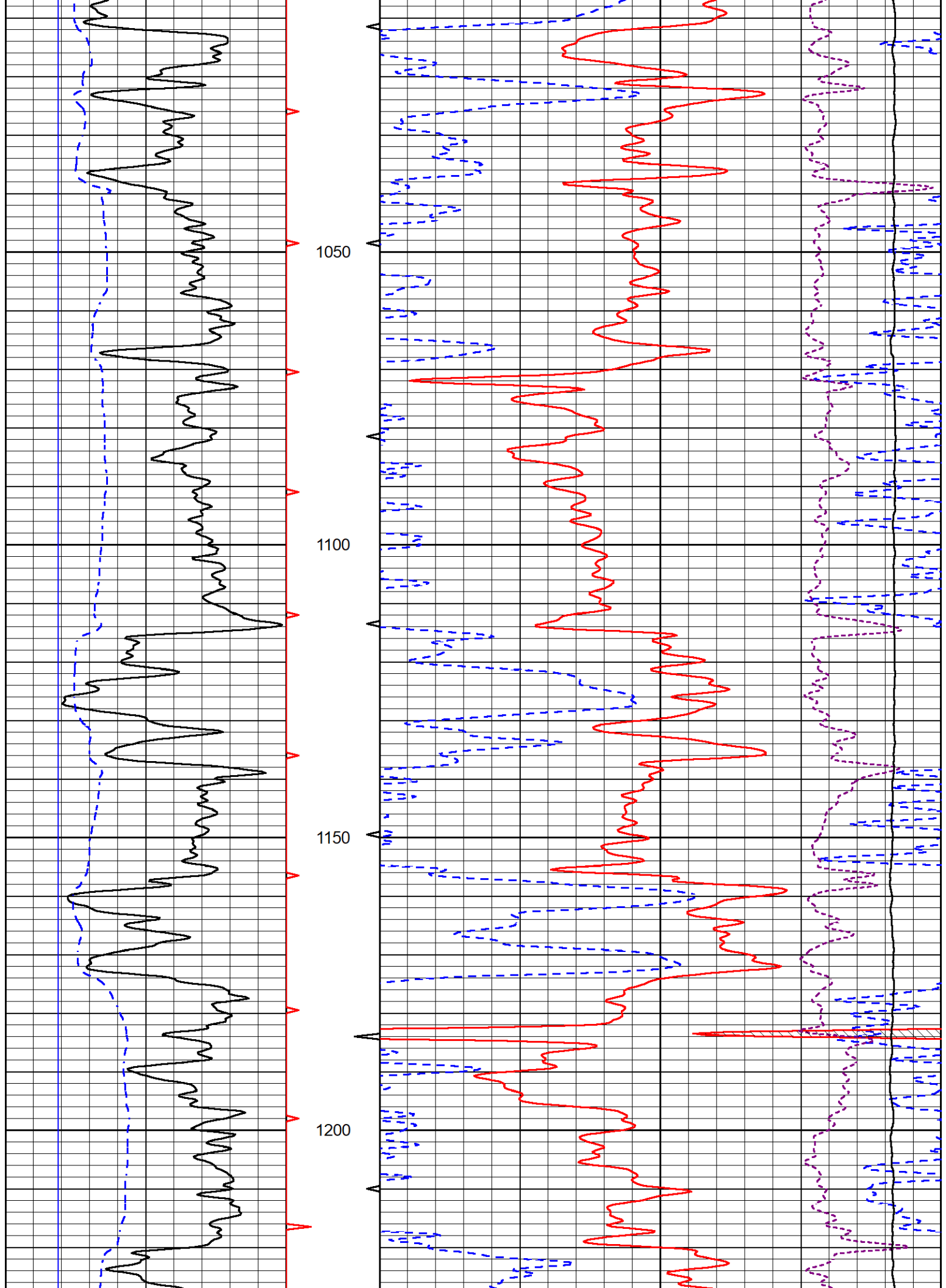
0	Gamma Ray (GAPI)	150	30	Compensated Neutron (pu)	-10	
6	Caliper (in)	16	30	Compensated Density (pu)	-10	
2.875	DCAL (in)	7.875	10000	Line Tension (lb)	0	
				-0.25	Correction (g/cc)	0.25

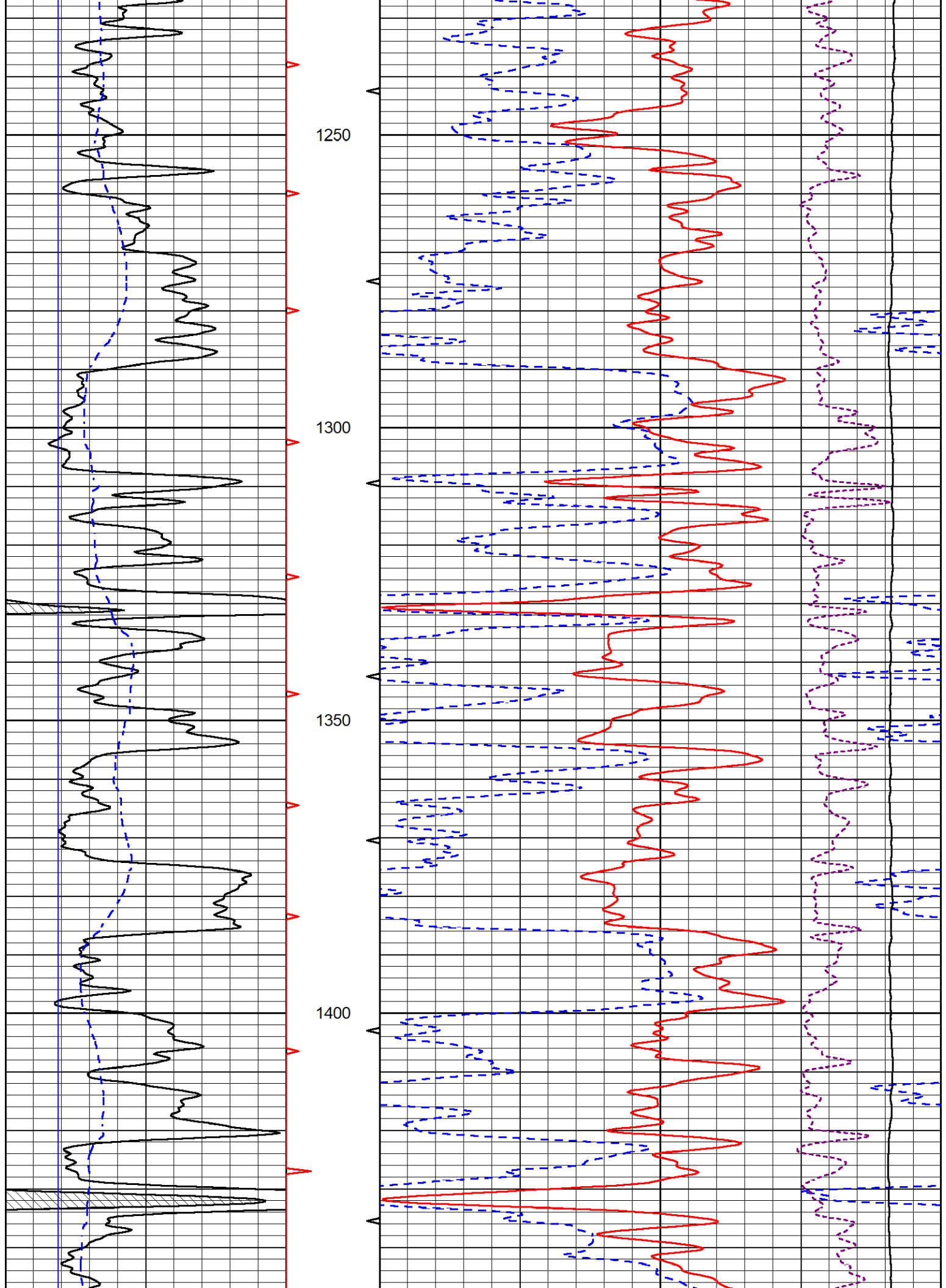


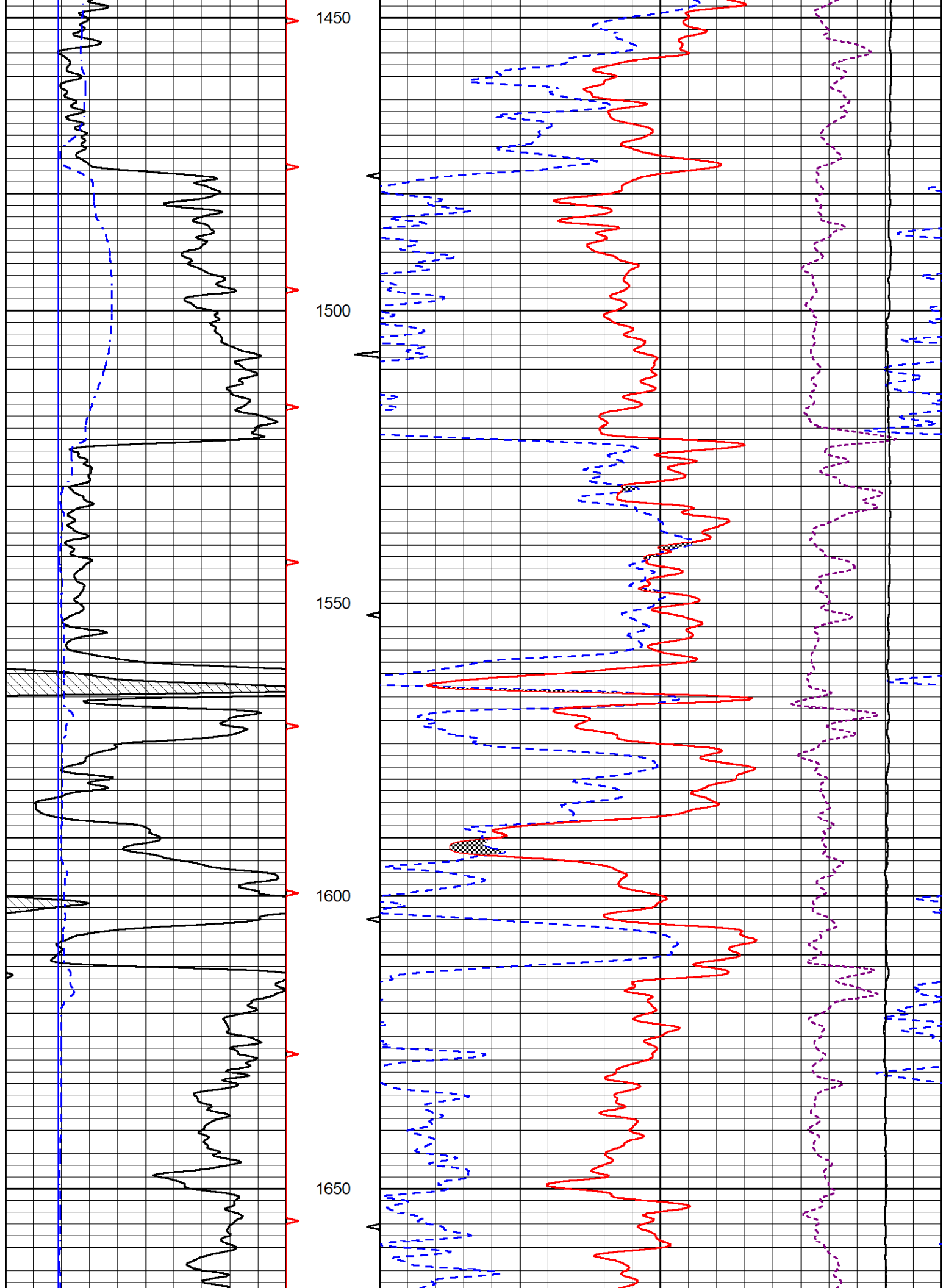


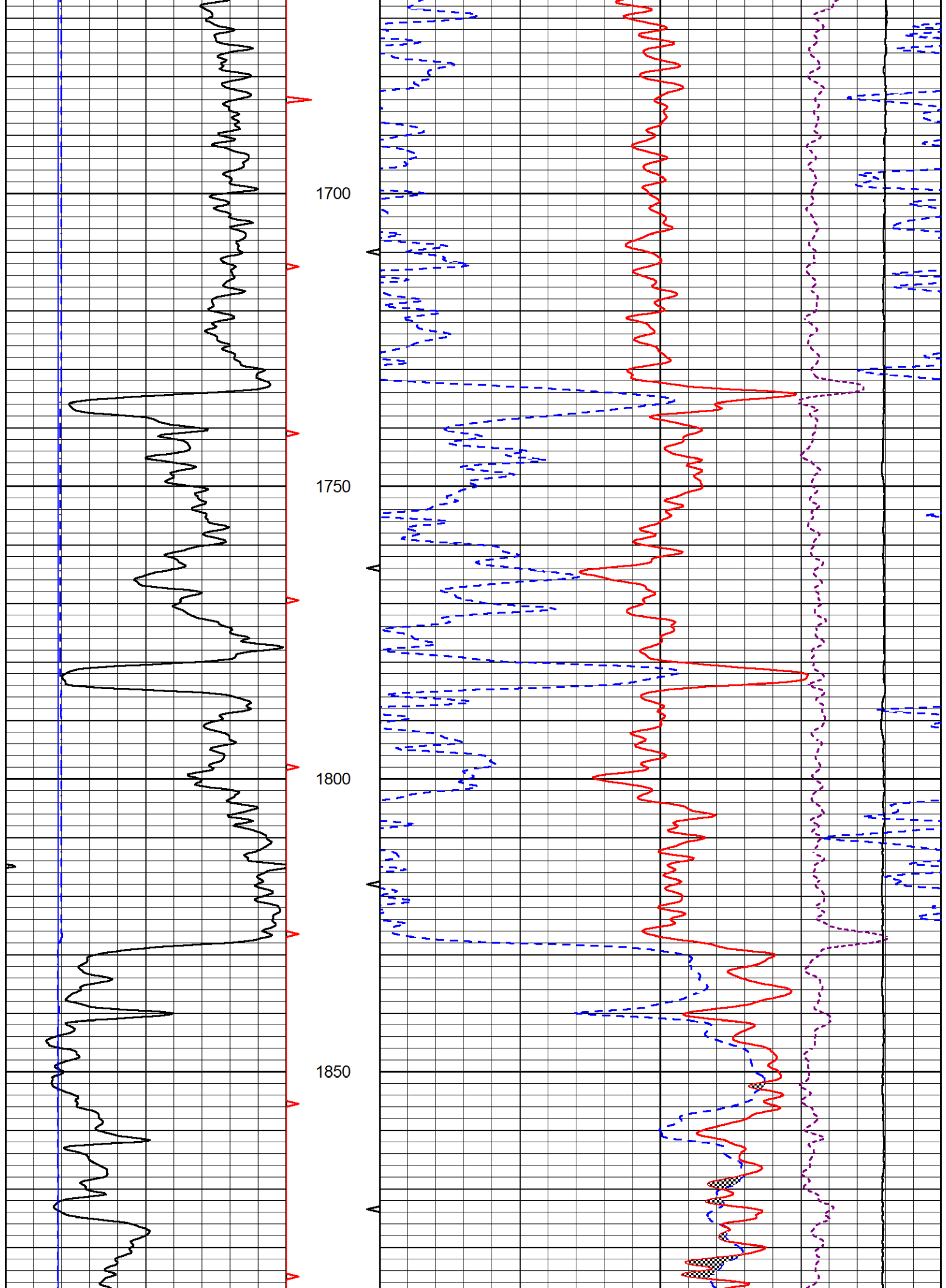


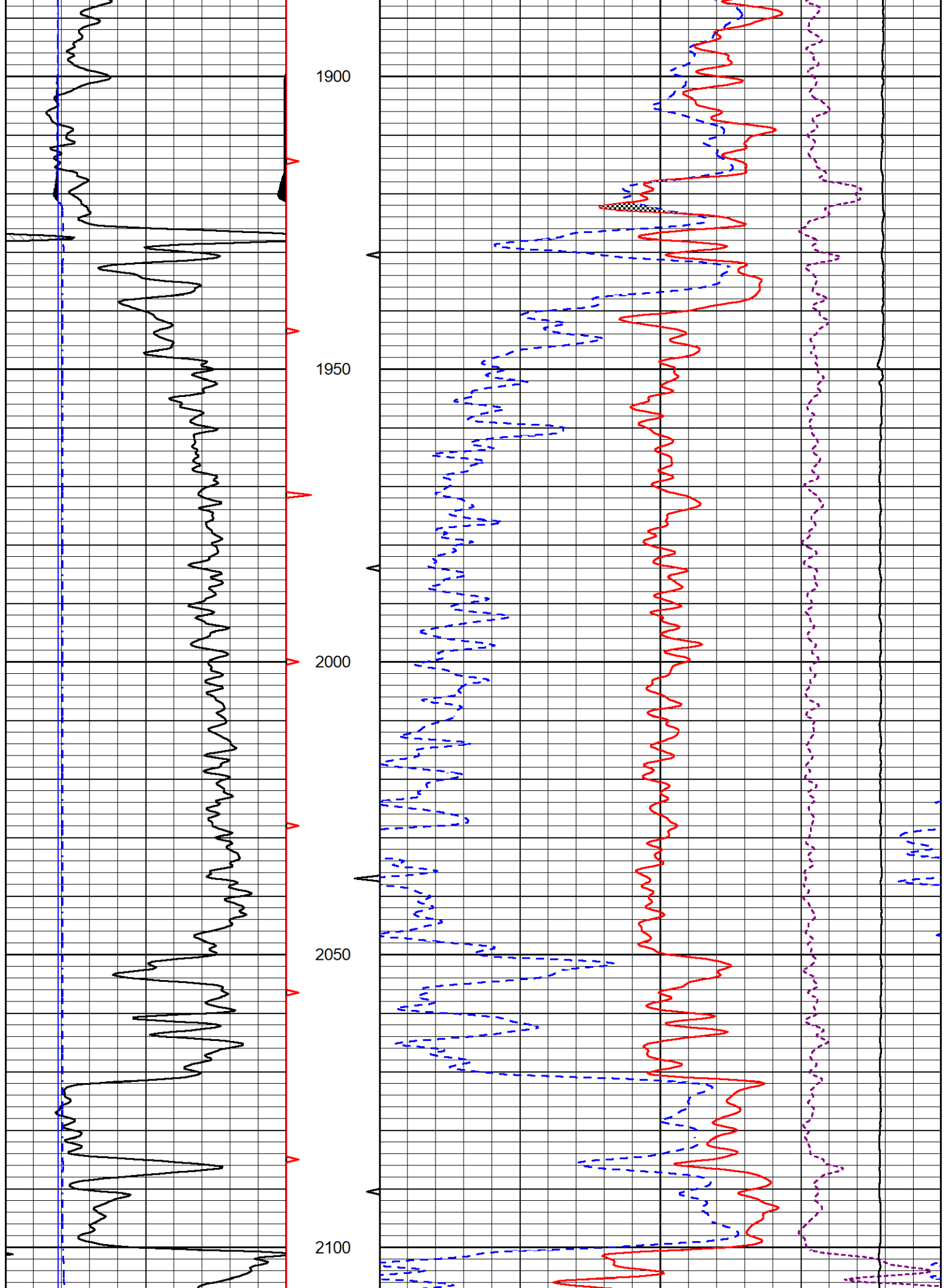


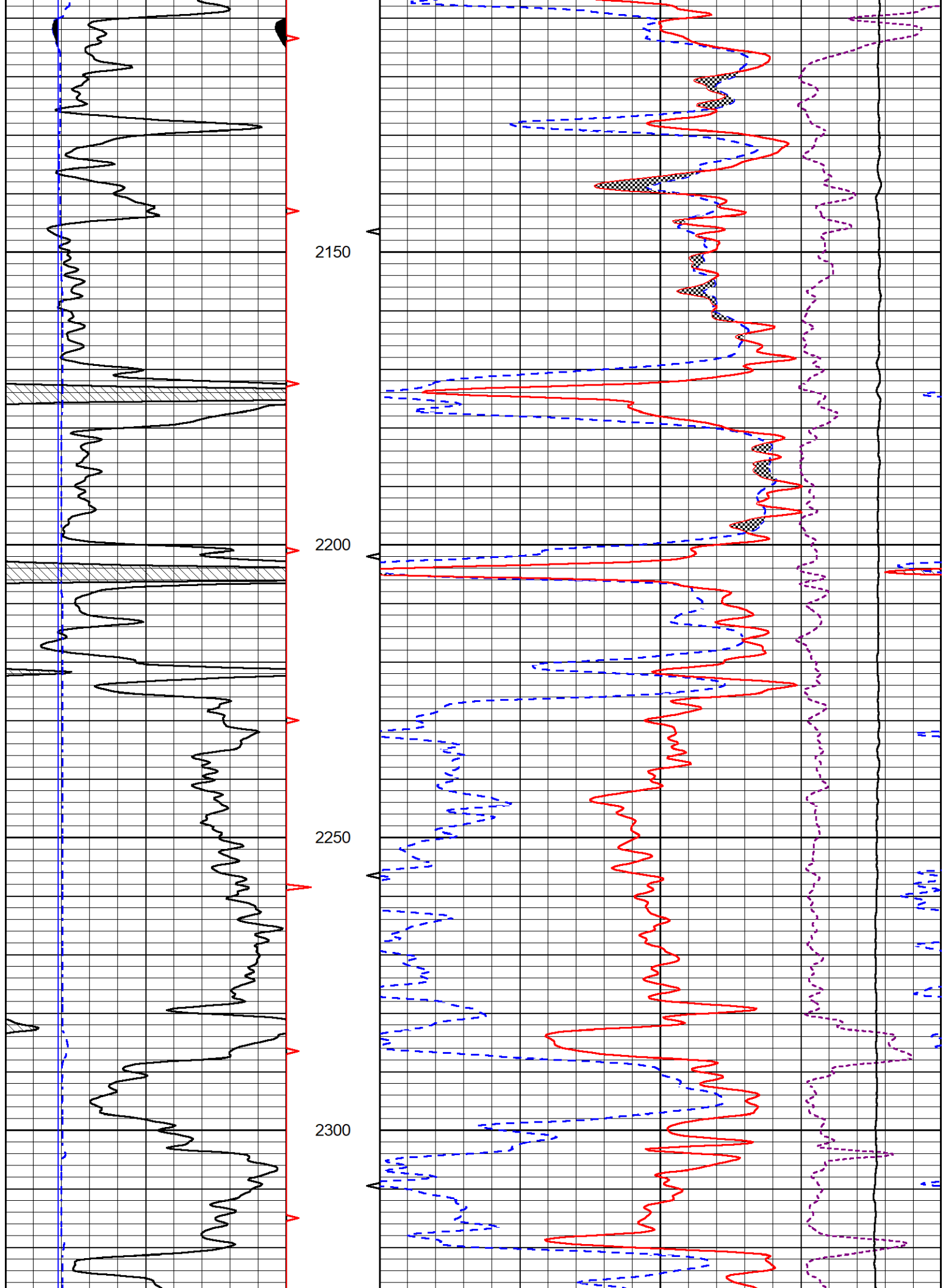


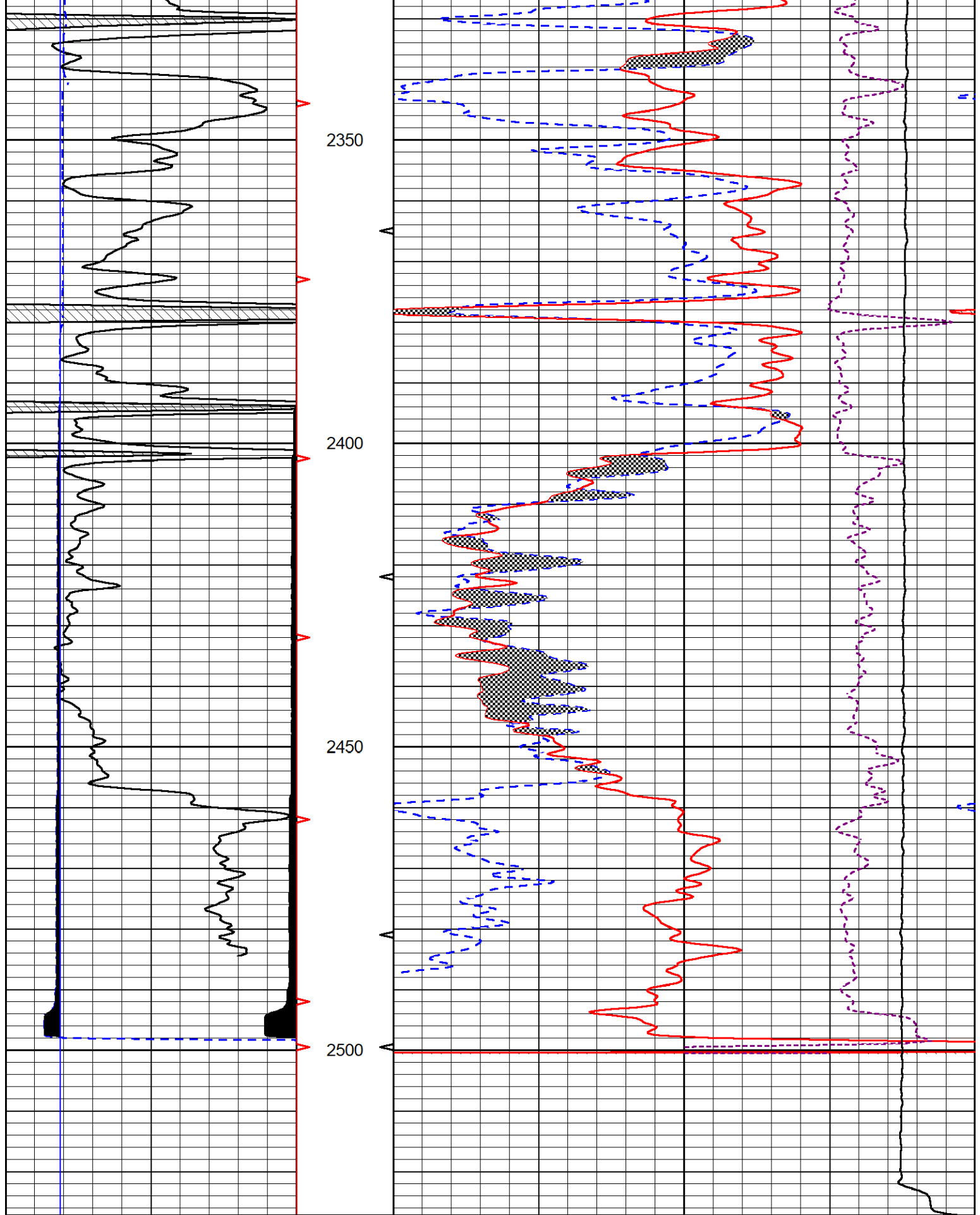












0	Gamma Ray (GAPI)	150
6	Caliper (in)	16
2.875	DCAL (in)	7.875

30	Compensated Neutron (pu)	-10
30	Compensated Density (pu)	-10
10000	Line Tension (lb)	0

-0.25 Correction (g/cc) 0.25

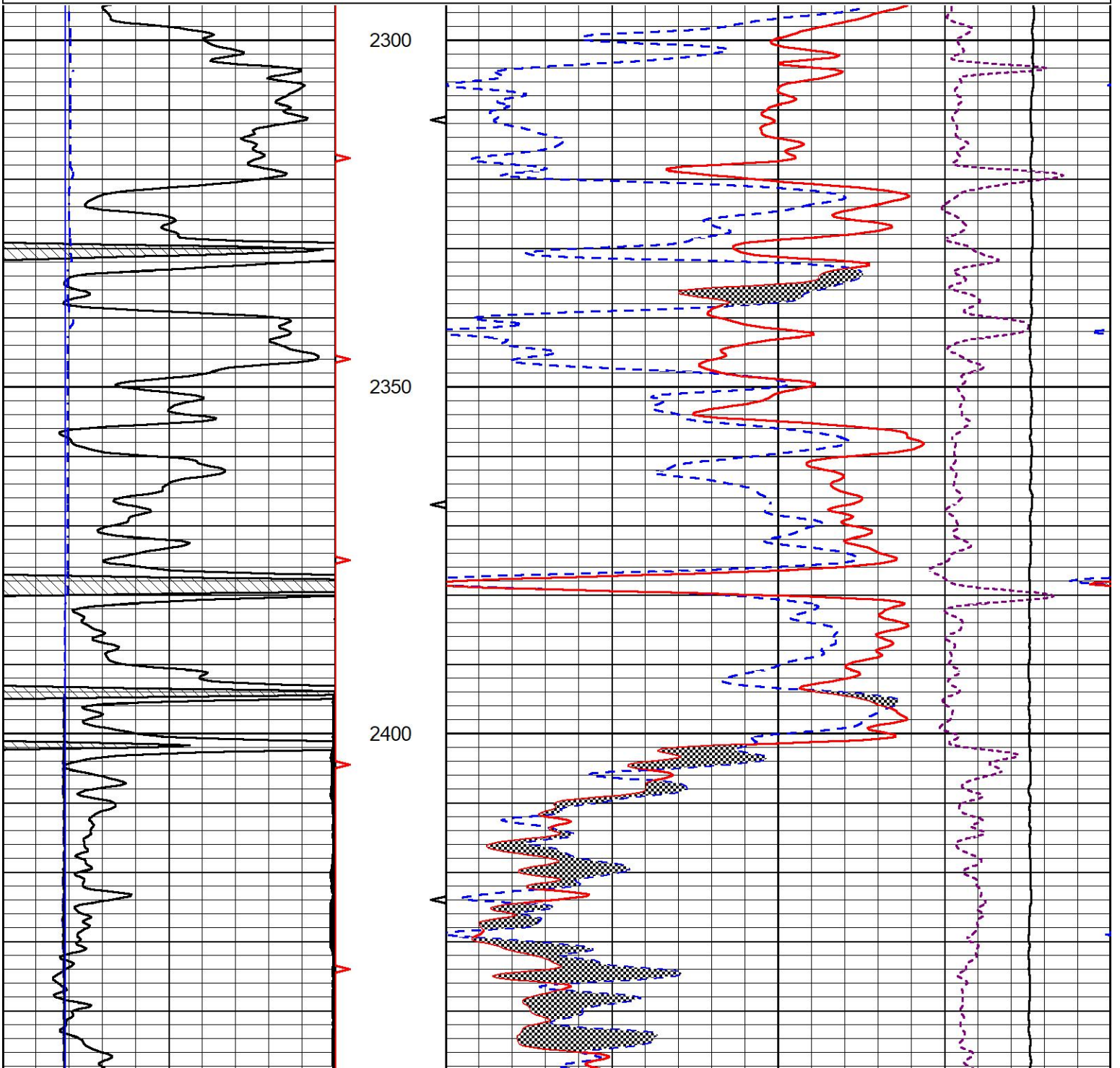


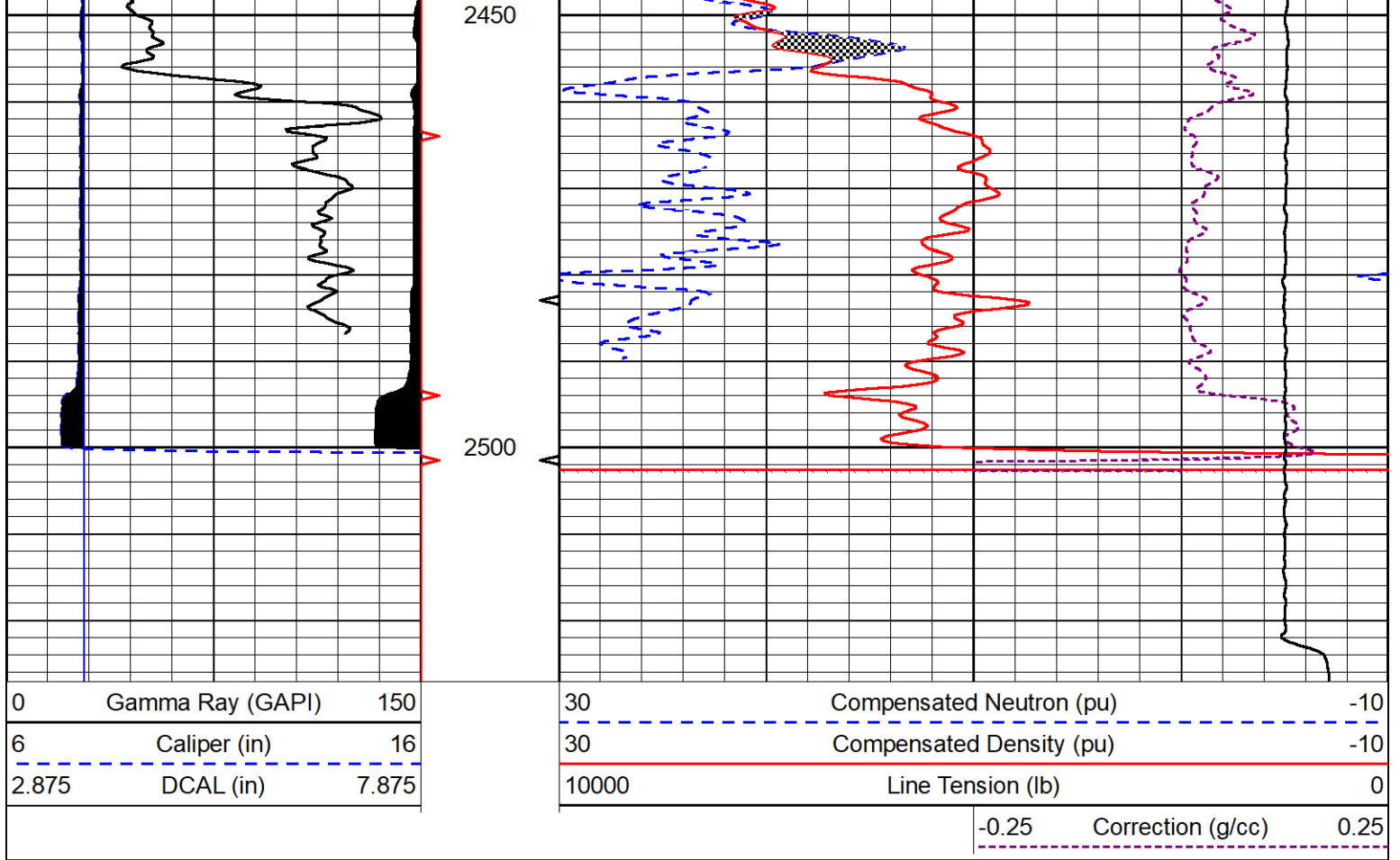
REPEAT SECTION

REPEAT PASS

Database File igwt_s&w #1.db
 Dataset Pathname StkMI/pass2.1
 Presentation Format _CNDLS~1
 Dataset Creation Fri Apr 07 04:37:41 2023
 Charted by Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150	30	Compensated Neutron (pu)	-10	
6	Caliper (in)	16	30	Compensated Density (pu)	-10	
2.875	DCAL (in)	7.875	10000	Line Tension (lb)	0	
				-0.25	Correction (g/cc)	0.25





Calibration Report

Database File igwt_s&w #1.db
 Dataset Pathname StkMI/pass3.1
 Dataset Creation Fri Apr 07 05:26:55 2023

Dual Induction Calibration Report

Serial-Model: 507-M&W
 Surface Cal Performed: Sun Mar 19 18:02:16 2023

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		m	b
Deep	67.445	566.296	0.000	255.800	mmho/m	0.450	-35.000
Medium	192.026	839.715	0.000	255.800	mmho/m	0.420	-85.000

Microlog Calibration Report

Serial-Model: 401-PSIML
 Performed: Mon Mar 20 04:31:34 2023

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	9000.0000	-0.5000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	9000.0000	-0.5000
Caliper	1.0052	1.0858	5.0000	16.5000	in	142.7190	-138.9000

Compensated Density Calibration Report

Serial-Model: 307-08-M&W

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	4131.04	5675.82	cps
Aluminum	2.635	g/cc	781.38	3576.78	cps
Spine Angle = 74.50			Density/Spine Ratio = 0.509		
	Size		Reading		
Small Ring	6.00	in	1.16		
Large Ring	18.00	in	1.01		

Compensated Neutron Calibration Report

Serial Number: 207-MW
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

PRE-SURVEY VERIFICATION

	Detector	Readings	Measured	Target
1)	Short Space	cps		
	Long Space	cps	pu	pu
2)	Short Space	cps		
	Long Space	cps	pu	
3)	Short Space	cps		
	Long Space	cps	pu	

POST-SURVEY VERIFICATION

	Detector	Readings	Measured	Target
1)	Short Space	cps		
	Long Space	cps	pu	pu
2)	Short Space	cps		
	Long Space	cps	pu	pu
3)	Short Space	cps		
	Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number: 103
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	IGWT, Inc.
Well	S&W #1
Field	
County	Butler
State	Kansas