



**COMPENSATED  
DENSITY/NEUTRON  
PE LOG**

Company INDIAN OIL COMPANY, INC.  
 Well WARREN #5-35  
 Field MEAIRS  
 County BARBER State KANSAS

Location: API #: 15-007-24431-0000  
 330' FNL & 2890' FWL  
 W/2 - NW - NW - NE  
 SEC 35 TWP 30S RGE 12W  
 Permanent Datum GROUND LEVEL Elevation 1629  
 Log Measured From KELLY BUSHING 12' A.G.L.  
 Drilling Measured From KELLY BUSHING  
 Other Services  
 DILMEL  
 SON/FF  
 Elevation  
 K.B. 1641  
 D.F. 1639  
 G.L. 1629

Date	7/21/22	
Run Number	ONE	
Depth Driller	4757	
Depth Logger	4755	
Bottom Logged Interval	4731	
Top Log Interval	2500	
Casing Driller	8 5/8"@225'	13 3/8"@55'
Casing Logger	225	
Bit Size	7 7/8"	
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES: 7,000 PPM
Density / Viscosity	9.5/10.8	
pH / Fluid Loss	9.5/10.8	
Source of Sample	FLOWLINE	
Rm @ Meas. Temp	.600@94F	
Rmf @ Meas. Temp	.450@94F	
Rmc @ Meas. Temp	.720@94F	
Source of Rmf / Rmc	MEASURED	
Rm @ BHT	.459@123F	
Time Circulation Stopped	3 HOURS	
Time Logger on Bottom	11:45 P.M.	
Maximum Recorded Temperature	123F	
Equipment Number	8916	
Location	HAYS, KANSAS	
Recorded By	JEFF LUEBBERS	
Witnessed By	AARON YOUNG	ANTHONY FARRAR

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, 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. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

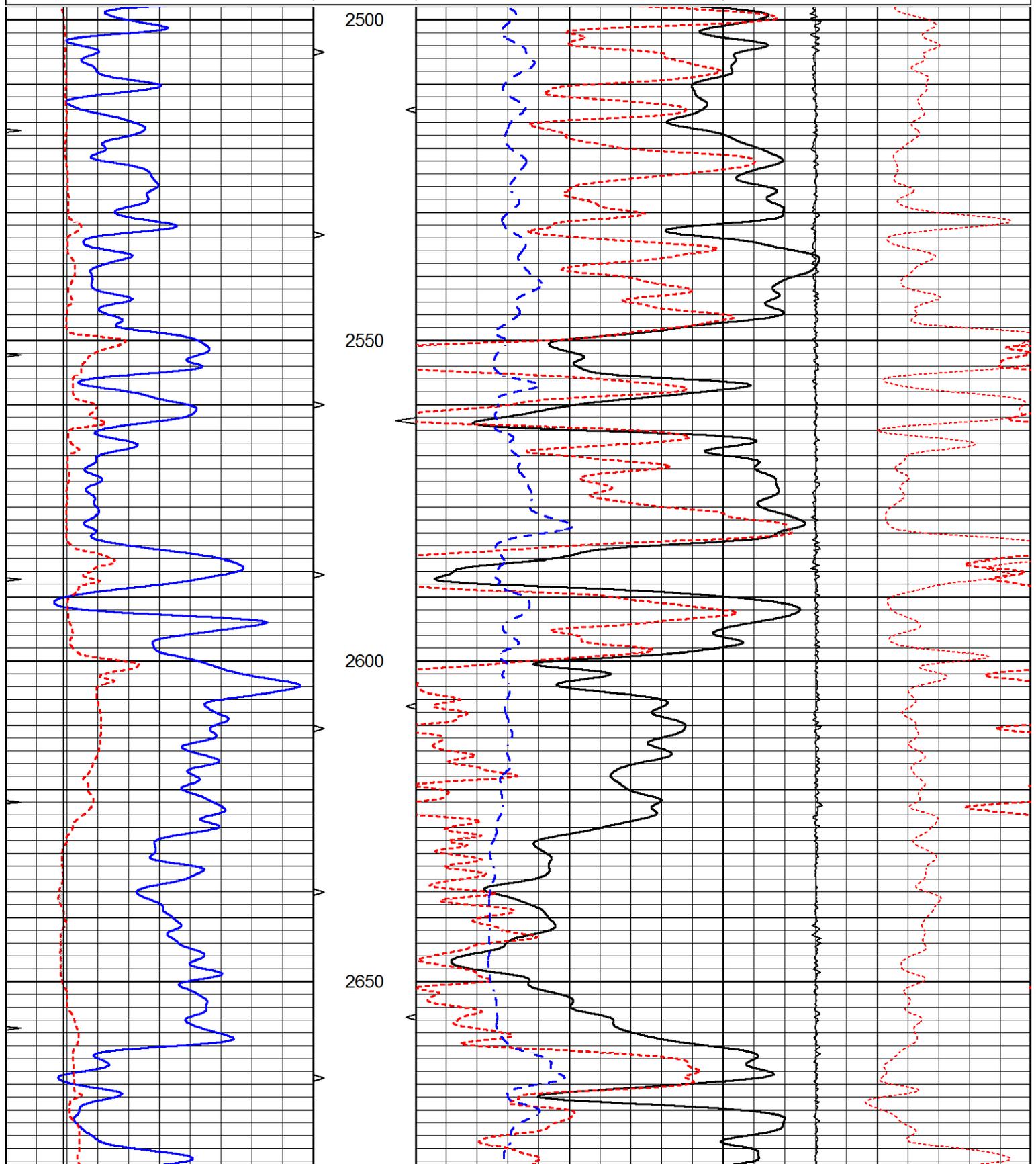
THANK YOU FOR USING ELI WIRELINE, HAYS, KS. (785) 628-6395  
 DIRECTIONS:  
 MEDICINE LODGE, KS., N. ON HWY 281 TO "AMBER RD.", 1E., N. ON TRAIL

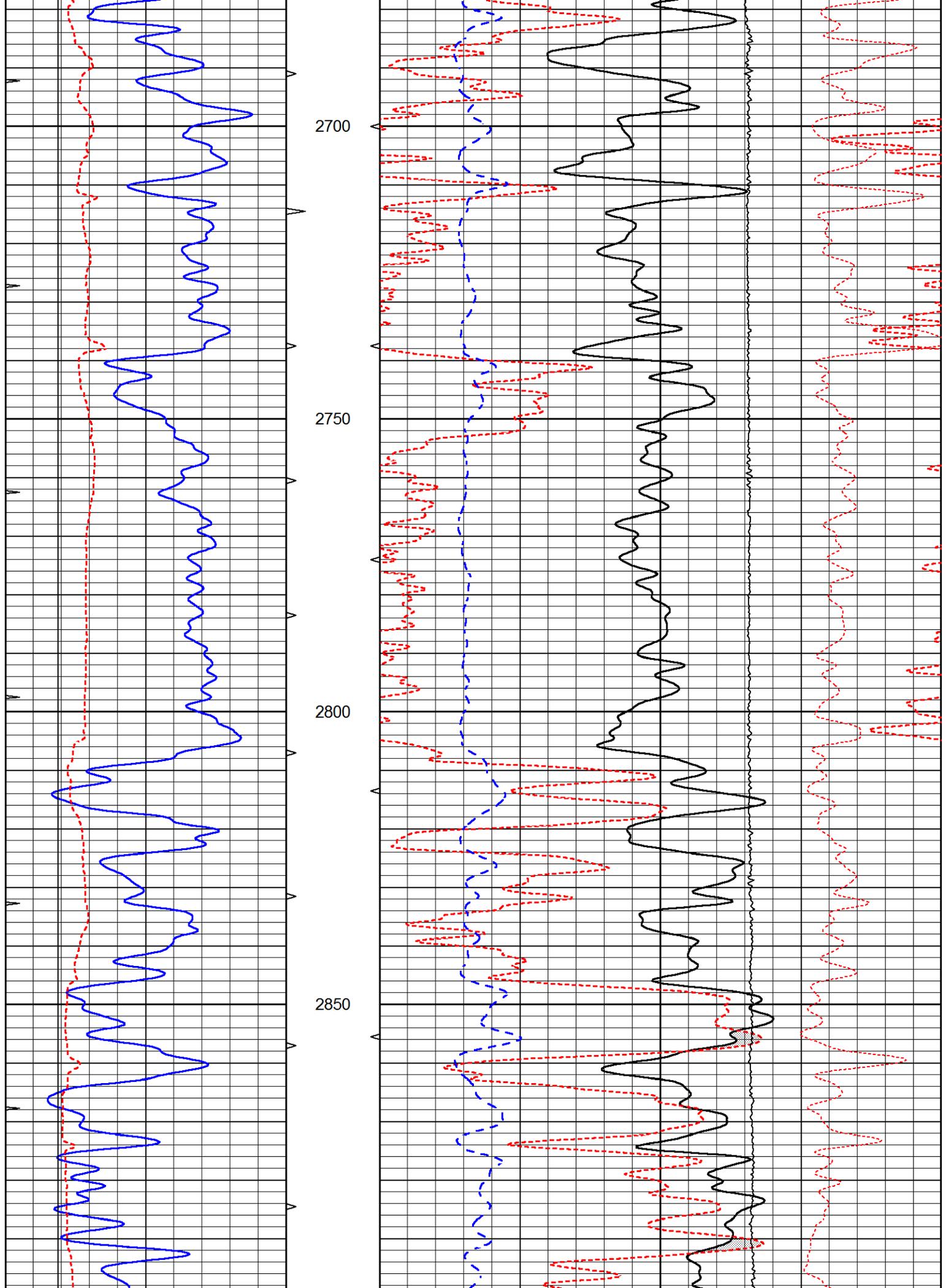


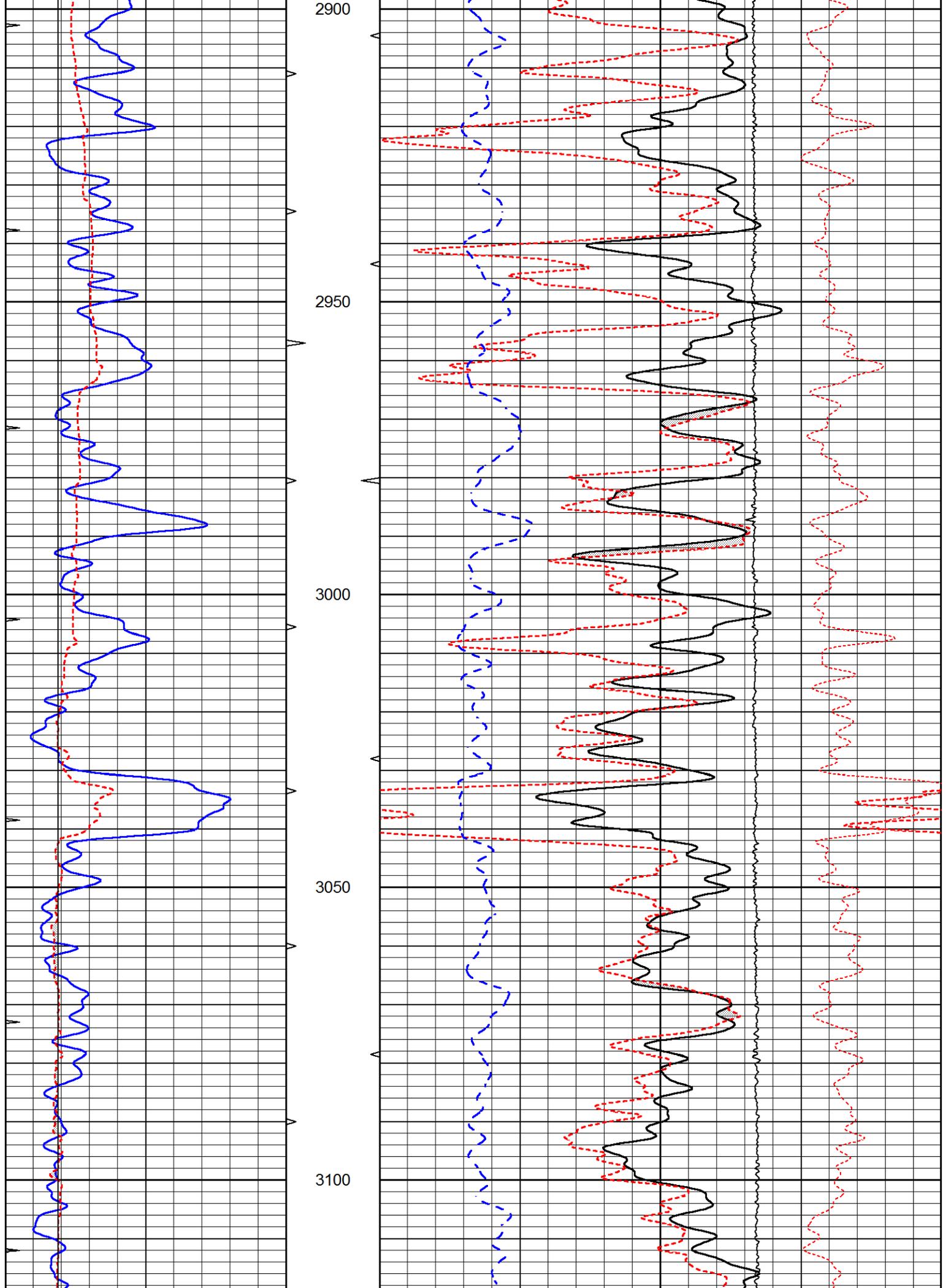
**MAIN SECTION**

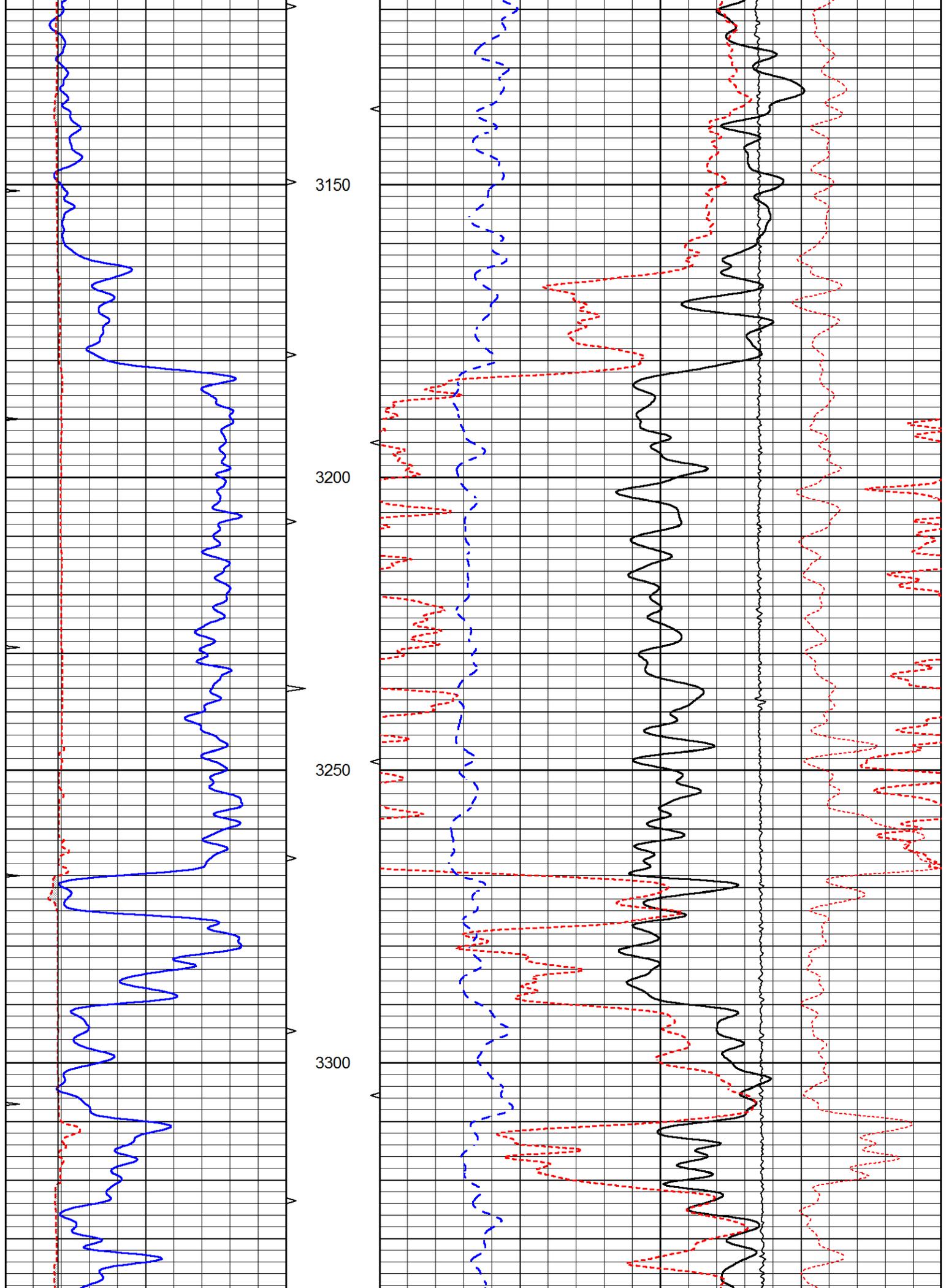
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 Dataset Pathname pass3.1M  
 Presentation Format \_ldt\_neu  
 Dataset Creation Fri Jul 22 02:00:40 2022  
 Charted by Depth in Feet scaled 1:240

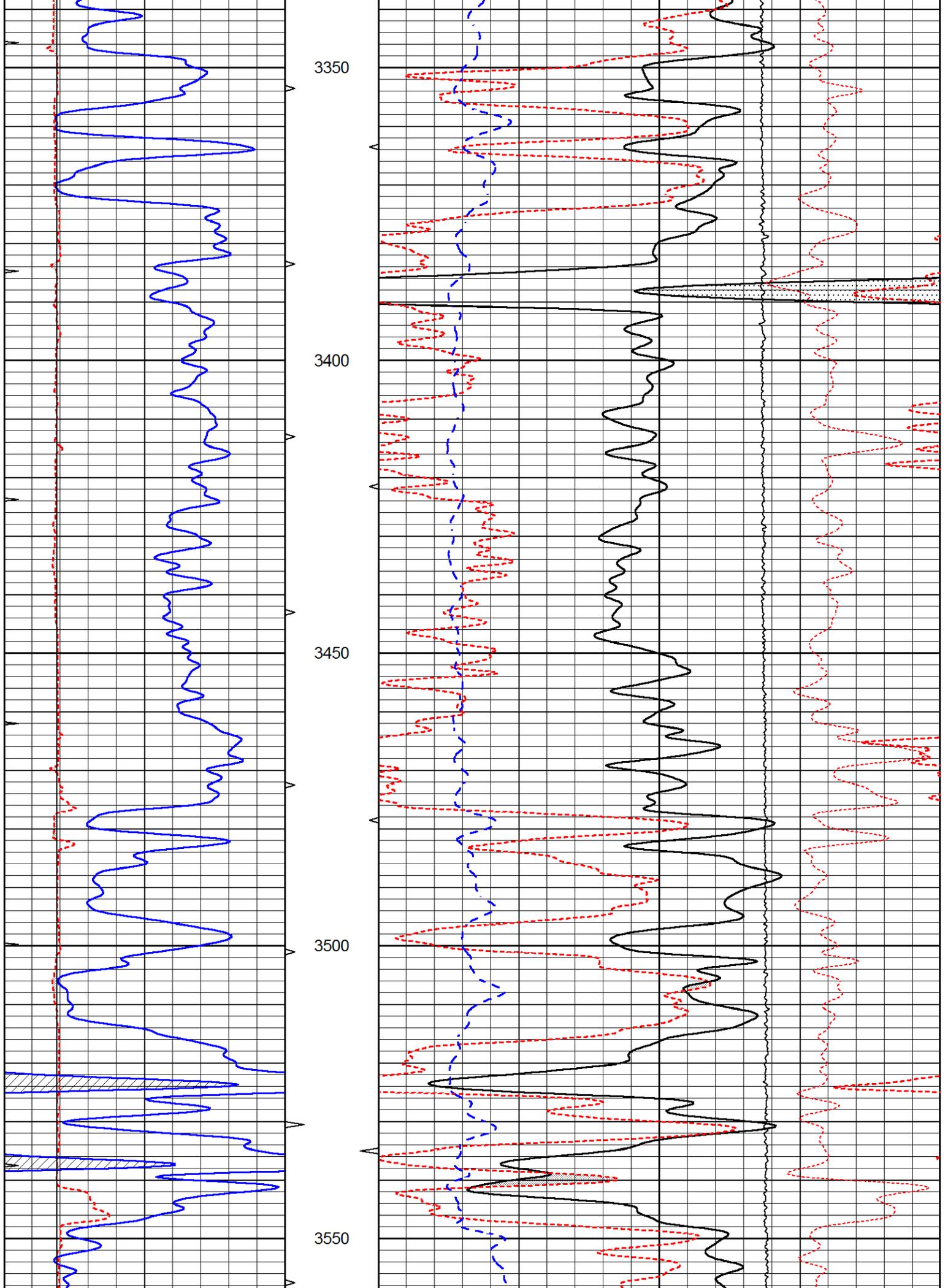
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)		-10		
6	CALIPER (in)	16	10 (ft3)	0	COMPENSATED NEUTRON (pu)		-10		
0	MINMK	20	TBHV	0	PE	10	0	LTEN (lb)	5000
			0 (ft3)	10			-0.25	CORRECTION (g/cc)	0.25

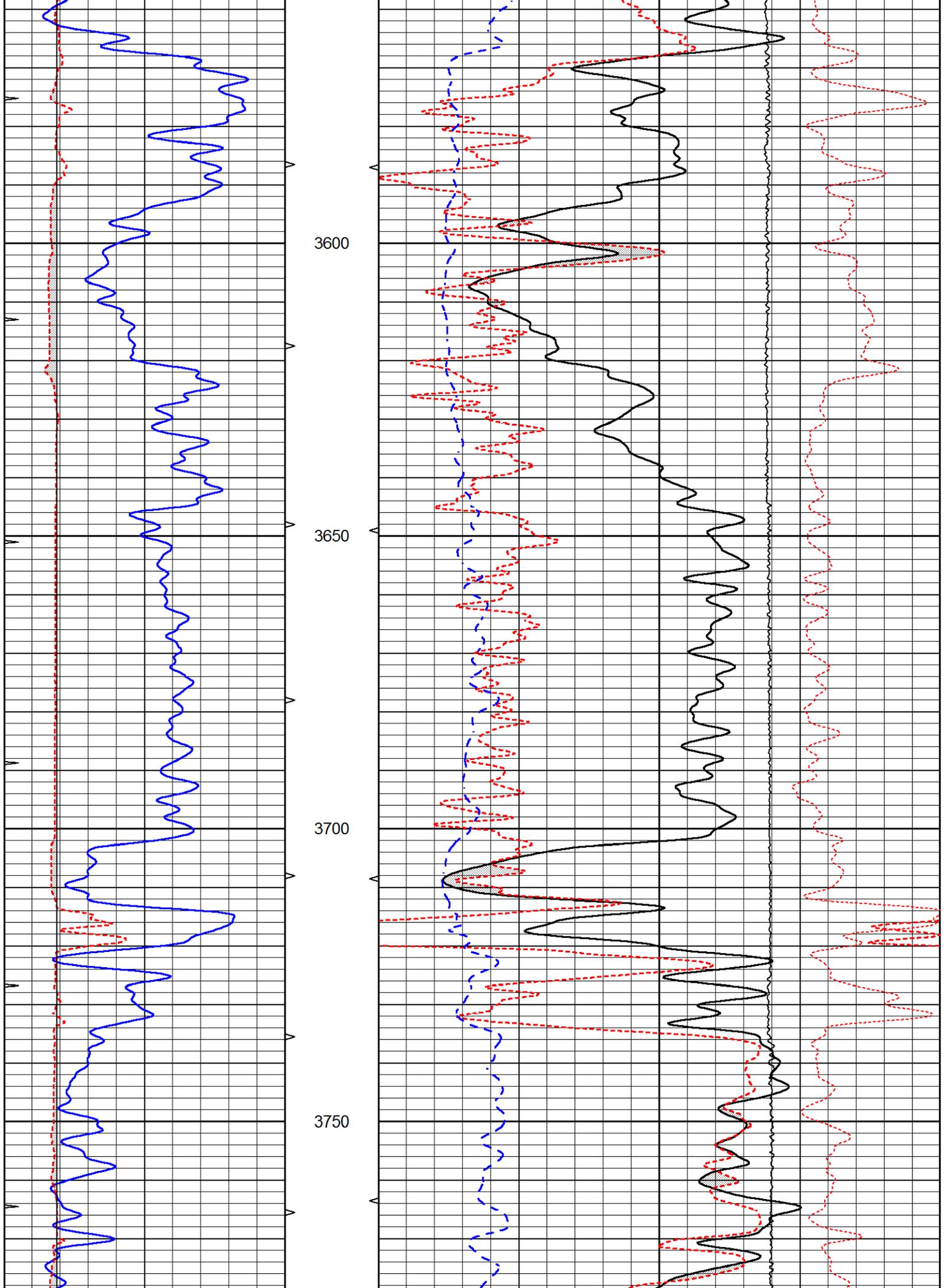


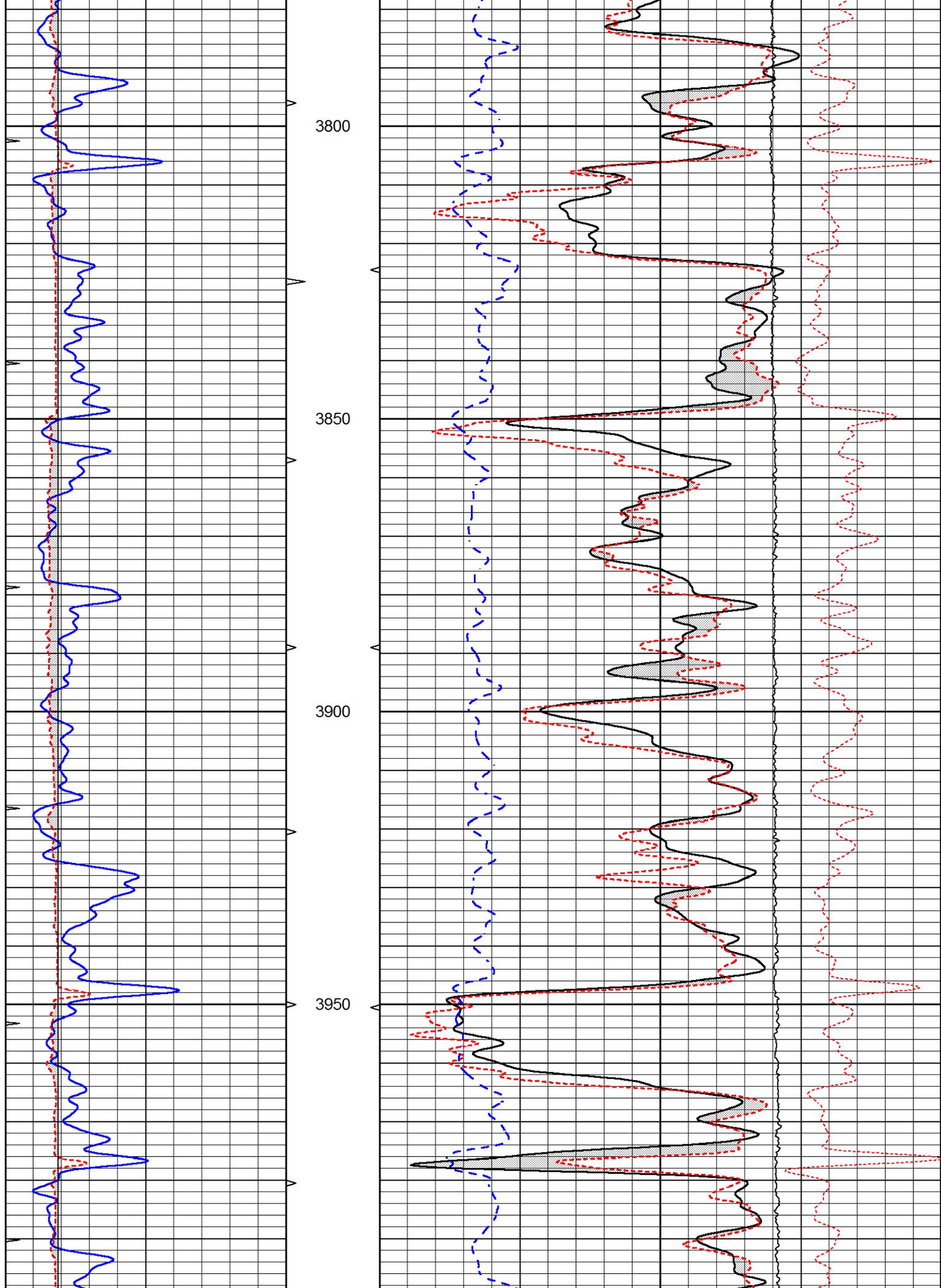


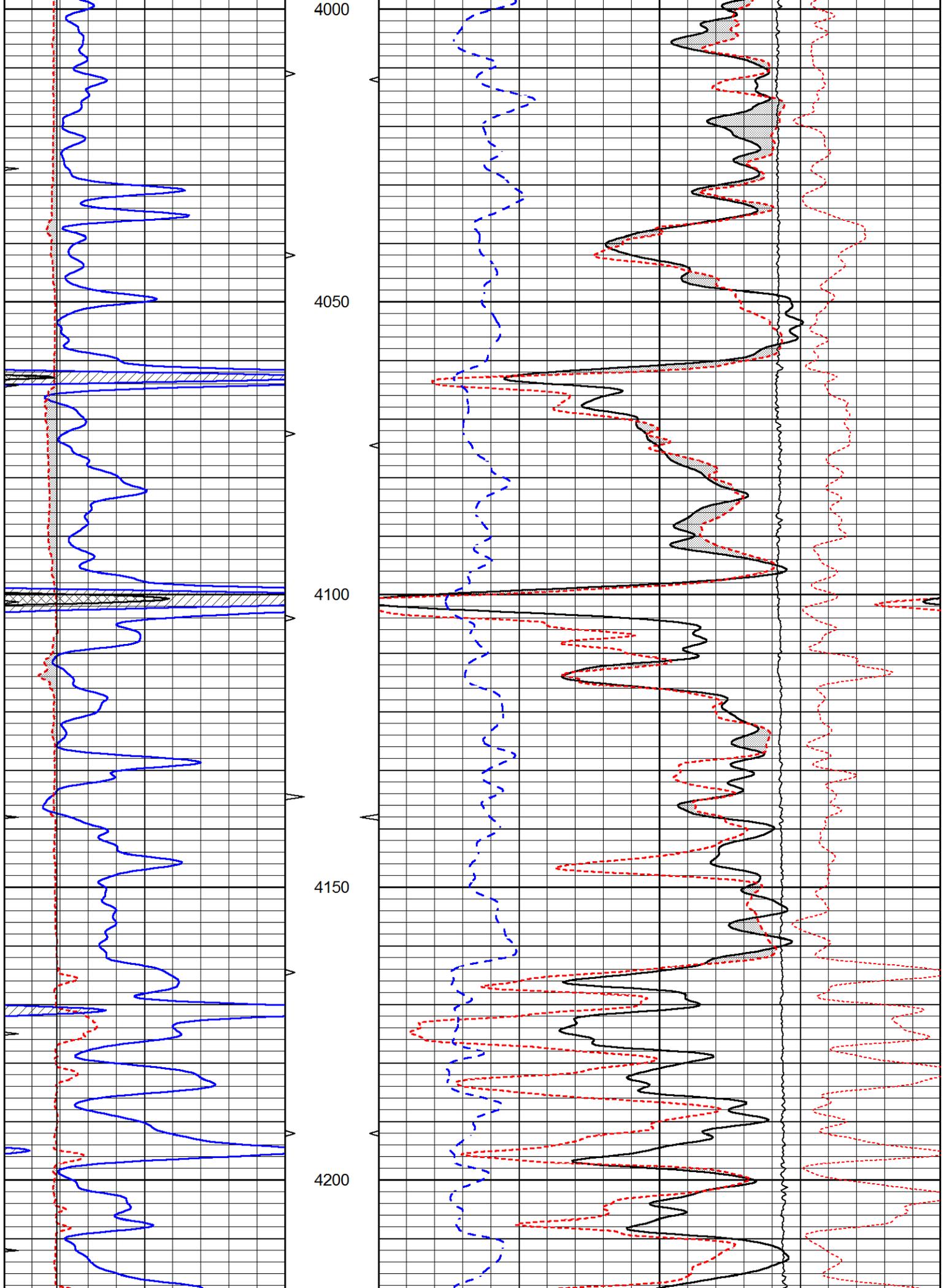


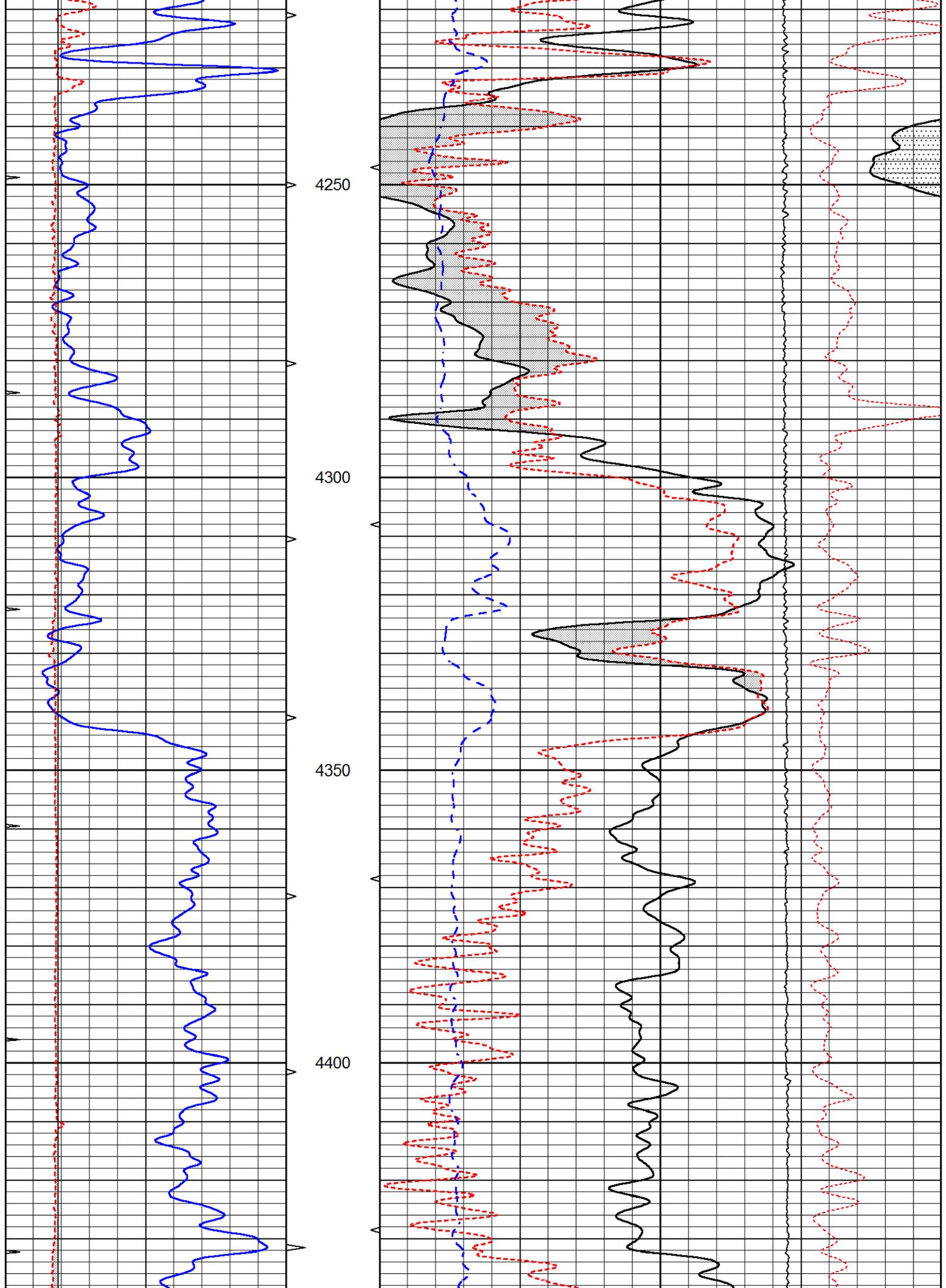


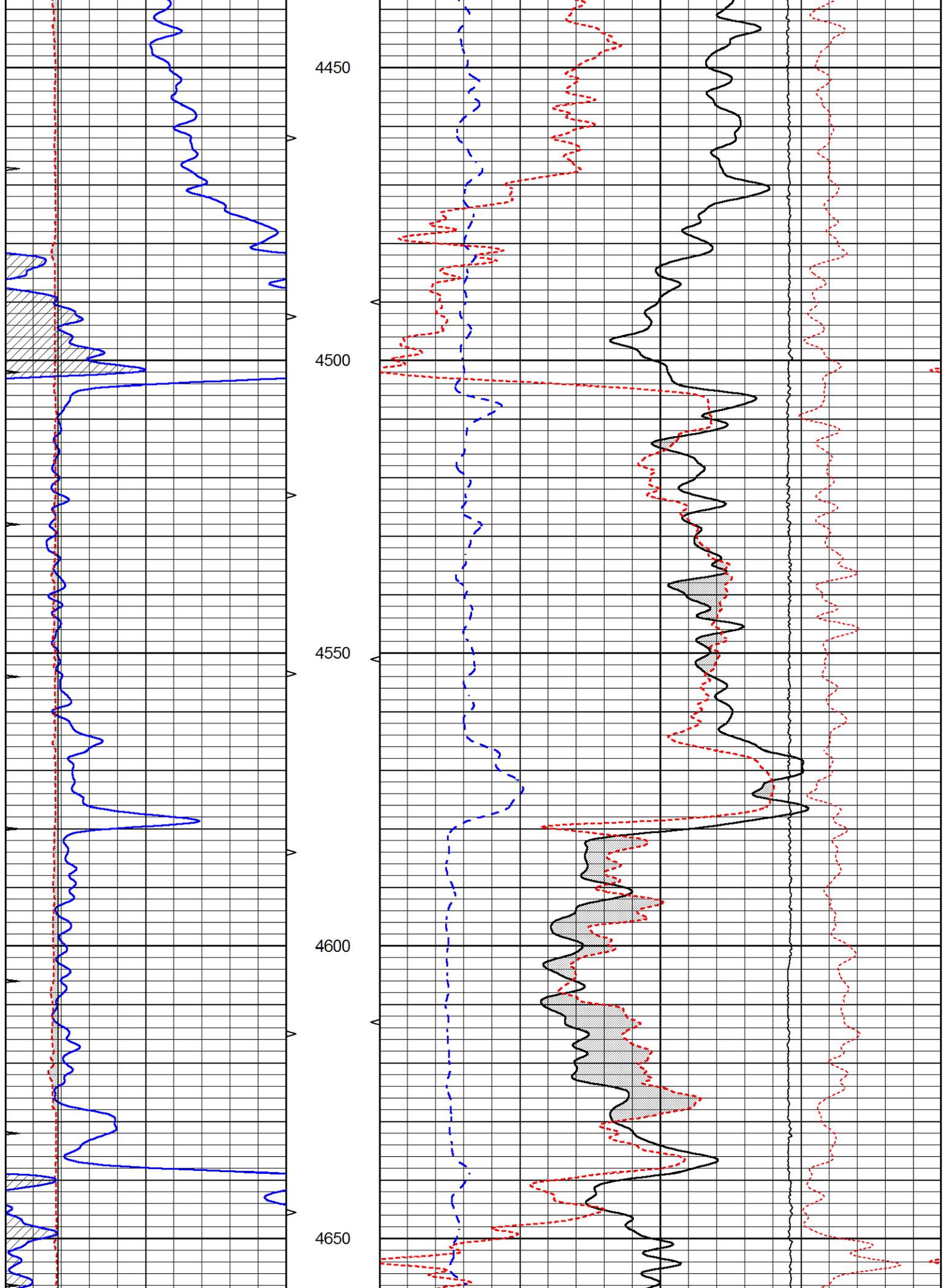


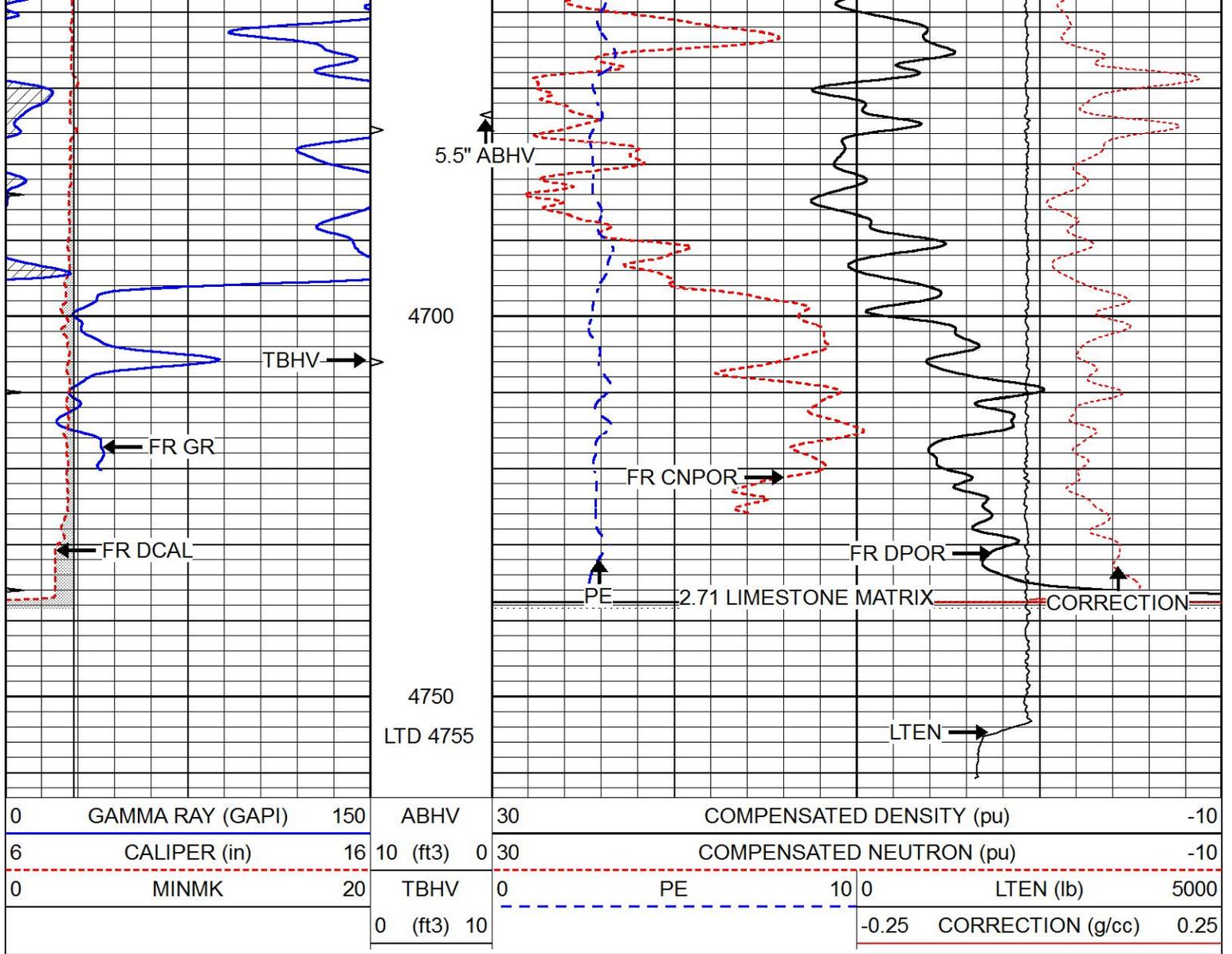








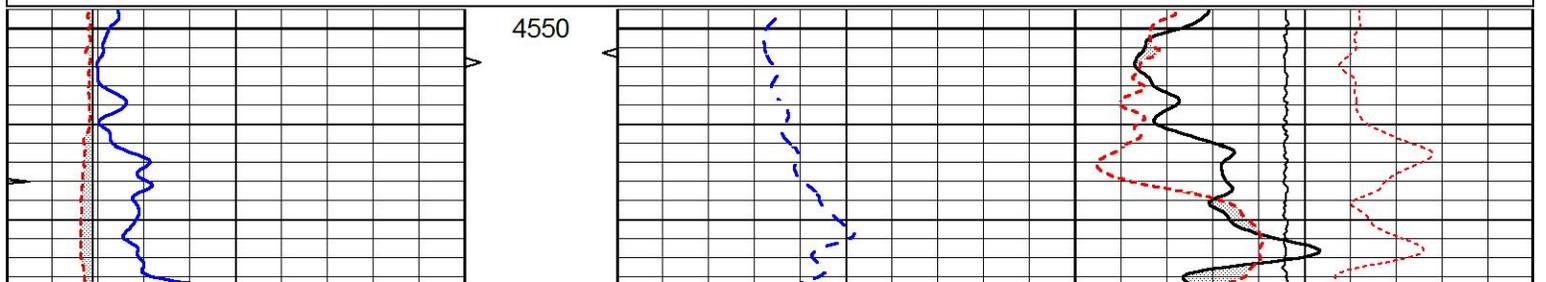


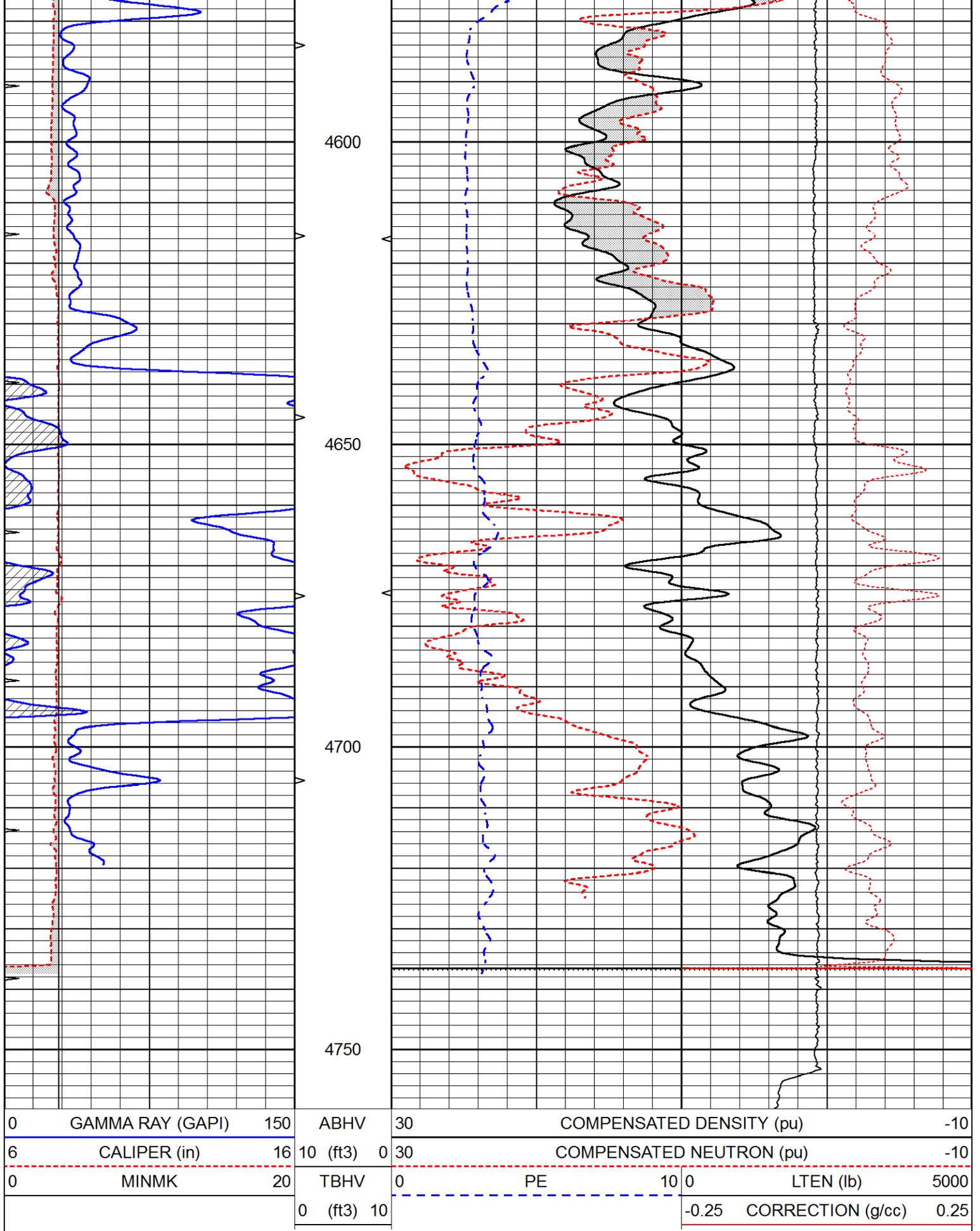


# REPEAT SECTION

Database File 6716pe.db  
 Dataset Pathname pass2.1R  
 Presentation Format \_ldt\_neu  
 Dataset Creation Fri Jul 22 01:45:08 2022  
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10		
6	CALIPER (in)	16	10 (ft3) 0	30	COMPENSATED NEUTRON (pu)	-10		
0	MINMK	20	TBHV	0	PE	10 0		
			0 (ft3) 10			LTEN (lb)	5000	
						-0.25	CORRECTION (g/cc)	0.25





### Calibration Report

Database File 6716pe.db  
 Dataset Pathname pass3.1M

## Dual Induction Calibration Report

Serial-Model: PROBE8-DILG  
 Surface Cal Performed: Fri Jul 22 00:17:24 2022  
 Downhole Cal Performed: Mon Sep 10 14:28:38 2018  
 After Survey Verification Performed: Mon Sep 10 14:28:40 2018

## Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop	V	Air	Loop	mmho/m	m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	620.000	4.000
Medium	0.029	0.796	V	0.000	464.000	mmho/m	600.000	-10.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.017	0.657	V	0.000	400.000	mmho/m	625.153	-10.619
Medium	0.016	0.757	V	0.000	464.000	mmho/m	625.992	-9.739

## Downhole Calibration

	Readings			References			Results	
	Zero	Cal	mmho/m	Zero	Cal	mmho/m	m'	b'
Deep	0.000	0.000	mmho/m	2.011	405.777	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	7.590	503.393	mmho/m	1.000	0.000
LL3		7.500	V		1500.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		3800.000	mmho-m		

## After Survey Verification

	Readings			Targets			Results	
	Zero	Cal	mmho/m	Zero	Cal	mmho/m	m'	b'
Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
LL3		1.000	Ohm-m		1.000	Ohm-m		
		0.000	Ohm-m		0.000	Ohm-m		
		1.000	mmho-m		1.000	mmho-m		

## Litho Density Calibration Report

Serial: 002N Model: PRB

## Master Calibration

Performed Tue Mar 10 15:08:00 2020

	Background	Magnesium	Aluminum	Aluminum+Fe	
Window 1	780.1	6981.9	2088.6	1871.2	cps
Window 2	718.6	5898.2	1813.8	1664.1	cps
Window 3	580.0	2989.5	1088.0	1039.1	cps
Window 4	172.8	175.7	175.3	173.5	cps
Long Space	0.0	5179.6	1095.2	945.5	cps
Short Space	1.1	1228.6	821.2	690.4	cps
Rho		1.7100	2.5900	0.0000	g/cc
Pe		2.0000	2.7500	5.7900	
Rib Angle	: 45.5	Rib Slope	: 1.016	Density/Spine Ratio	: 0.548
Spine Angle	: 75.5	Spine Slope	: 3.857	Spine Intercept	: -18.9

## Before Survey Verification

Performed Wed Dec 31 18:00:00 1969

	Background	Magnesium	Aluminum	Aluminum+Fe	
Window 1	0.0	0.0	0.0	0.0	cps

Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

After Survey Verification		Performed Wed Dec 31 18:00:00 1969			
Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

Compensated Neutron Calibration Report

Serial Number: 6I  
Tool Model: G

CALIBRATION						
	Detector	Readings		Target		Normalization
	Short Space	1.00	cps	1.00	cps	1.0000
	Long Space	1.00	cps	1.00	cps	1.0000

PRE-SURVEY VERIFICATION						
	Detector	Readings		Measured	Target	
1)	Short Space	cps			pu	
	Long Space	cps		pu	pu	
2)	Short Space	cps			pu	
	Long Space	cps		pu	pu	
3)	Short Space	cps			pu	
	Long Space	cps		pu	pu	

POST-SURVEY VERIFICATION						
	Detector	Readings		Measured	Target	
1)	Short Space	cps			pu	
	Long Space	cps		pu	pu	
2)	Short Space	cps			pu	
	Long Space	cps		pu	pu	
3)	Short Space	cps			pu	
	Long Space	cps		pu	pu	

Gamma Ray Calibration Report

Serial Number: GR6  
Tool Model: OPEN

Performed: Mon Jun 20 01:31:16 2022

Calibrator Value: 150.0 GAPI

Background Reading: 0.0 cps

Calibrator Reading: 276.0 cps

Sensitivity: 0.8500 GAPI/cps