



PIONEER

Pioneer Energy Services

DUAL COMP POROSITY LOG

Company **RITCHIE EXPLORATION, INC.**

Well **#1 BEATON 6D**

Field **WILDCAT**

County **LANE** State **KANSAS**

Location: API #: 15-101-22598-0000

2225' FSL & 2035' FEL

Other Services

SEC 6 TWP 20S RGE 30W

DIL/MEL

Permanent Datum GROUND LEVEL Elevation 2901'

Log Measured From KELLY BUSHING

Elevation

K.B. 2909'

D.F. N/A

G.L. 2901'

Date 01/16/2018

Run Number ONE

Type Log CNL/CDL

Depth Driller 4750'

Depth Logger 4749'

Bottom Logged Interval 4720'

Top Logged Interval 3400'

Type Fluid In Hole CHEMICAL

Salinity, PPM CL 3500

Density 9.2

Level FULL

Max. Rec. Temp. F 124

Operating Rig Time 3 HOURS

Equipment -- Location 91 HAYS

Recorded By D. SCHMIDT

Witnessed By MAX LOVELY

Borehole Record

Casing Record

Run No.	Bit	From	To	Size	Wgt.	From	To
ONE	12.25"	0'	222'	8.625"	23#	0'	222'
TWO	7.875"	222'	TD				

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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.

DIGHTON,
WEST TO ARAPAHOE ROAD, 9 1/2 SOUTH,
WEST INTO

Log Measured From: KELLY BUSHING 8 Ft. Above Permanent Datum

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

Your Pioneer Energy Services Crew

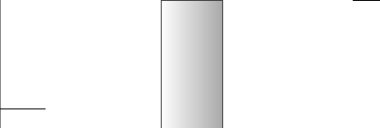
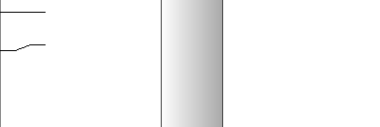
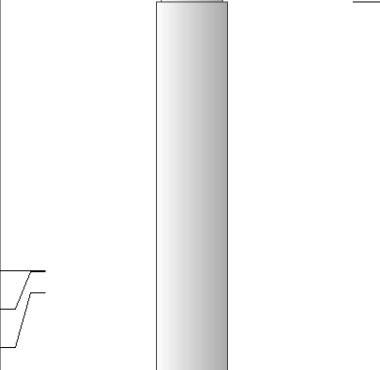
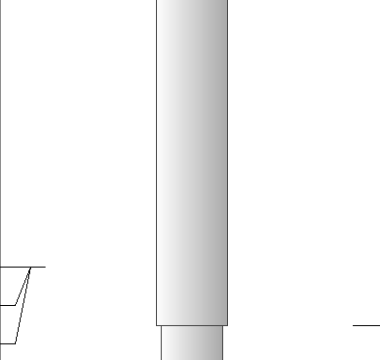
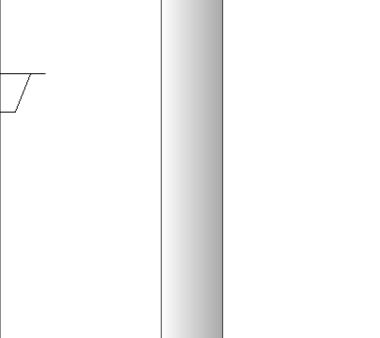
Engineer: D. SCHMIDT
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: MAX LOVELY
Secondary Witness:
Secondary Witness:
Secondary Witness:

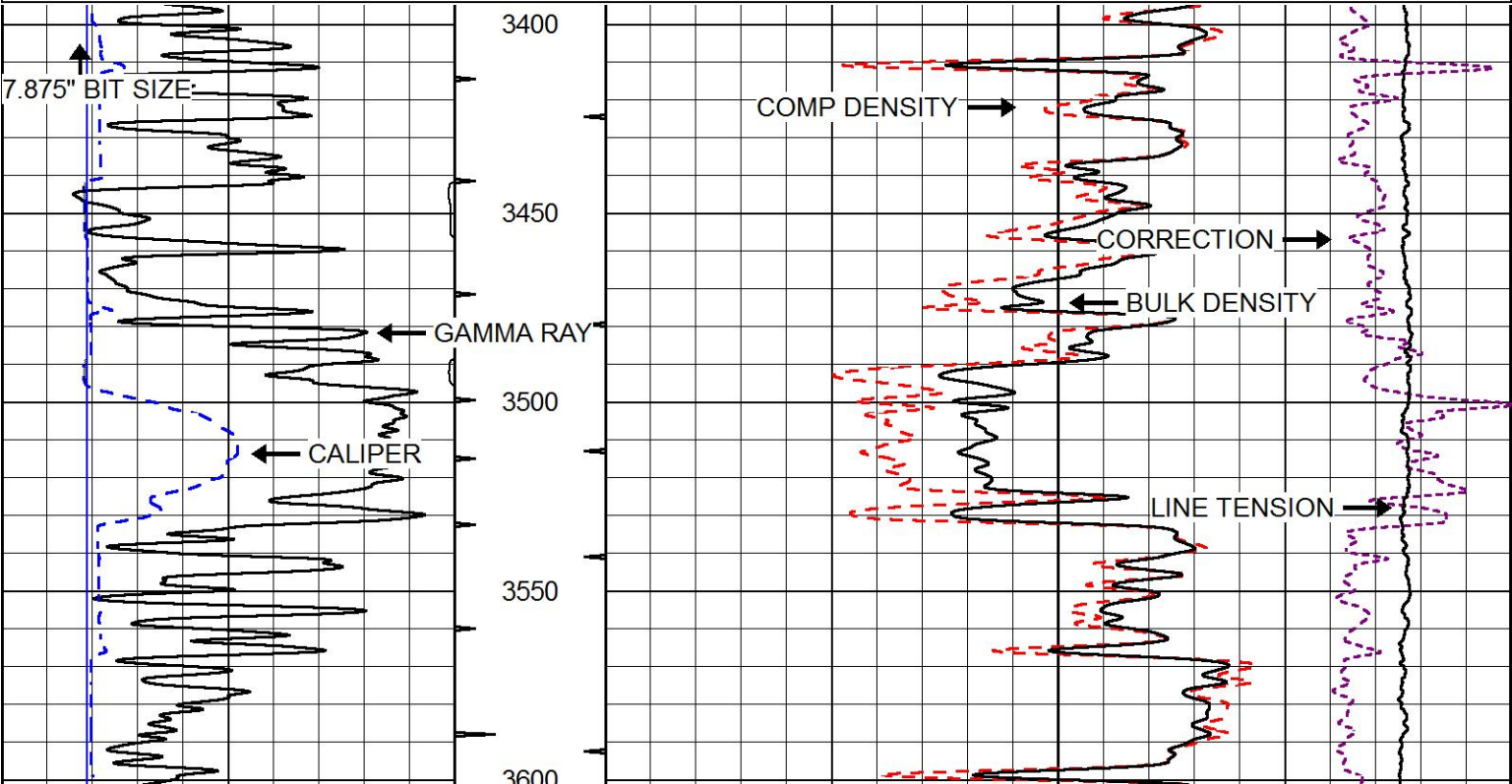
Top - Bottom

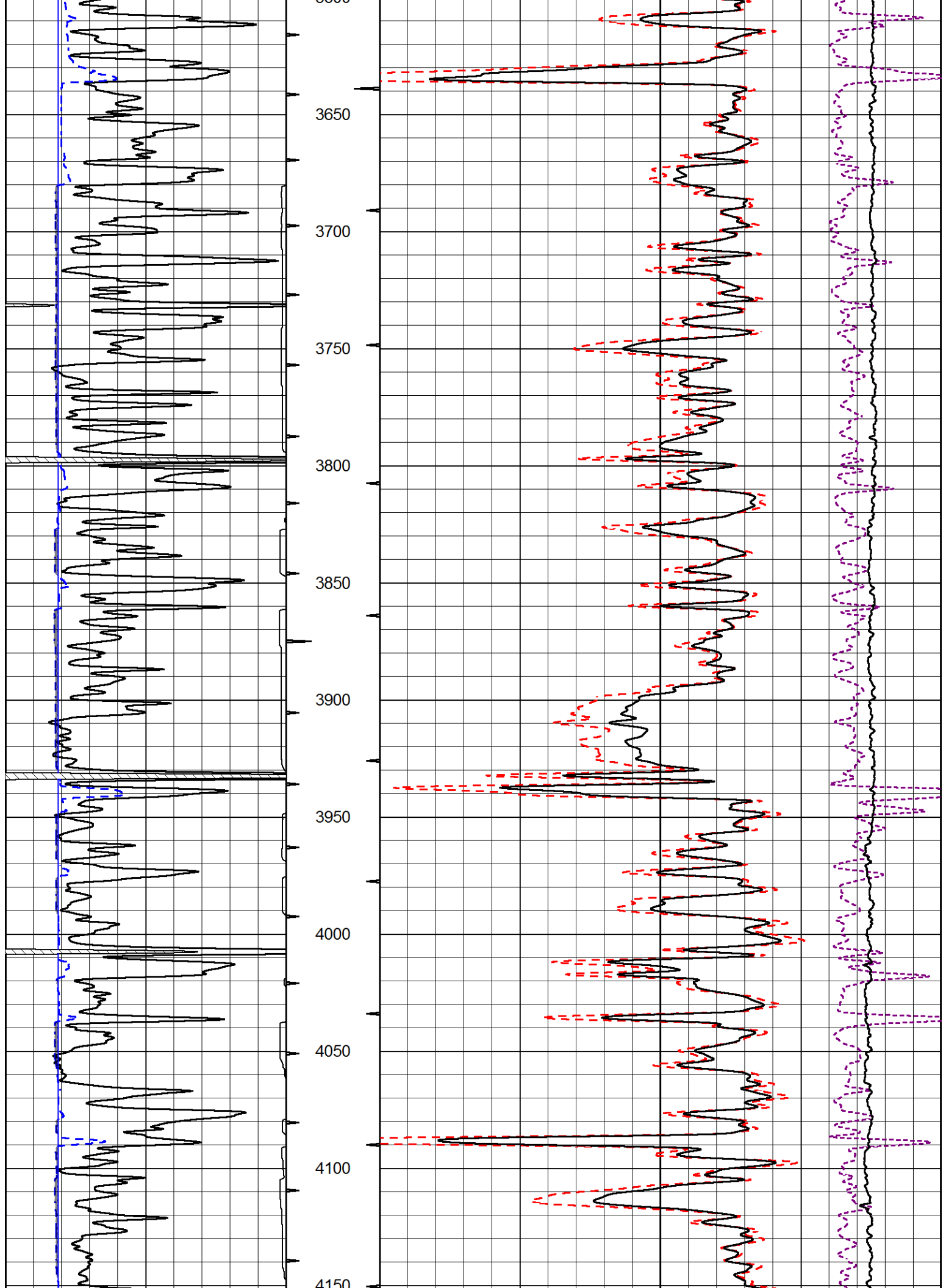
M	A	SZCOR	NPORSEL	FLUIDDEN g/cc	MATRXDEN g/cc	SPSHIFT mV	SNDERRM mmho/m
2	1	Off	Limestone	1	2.71	250	0
SNDERR mmho/m	SRFTEMP degF	CASETHCK in	CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF	BOREID in
0	1	0	5.5	0	4749	124	7.875

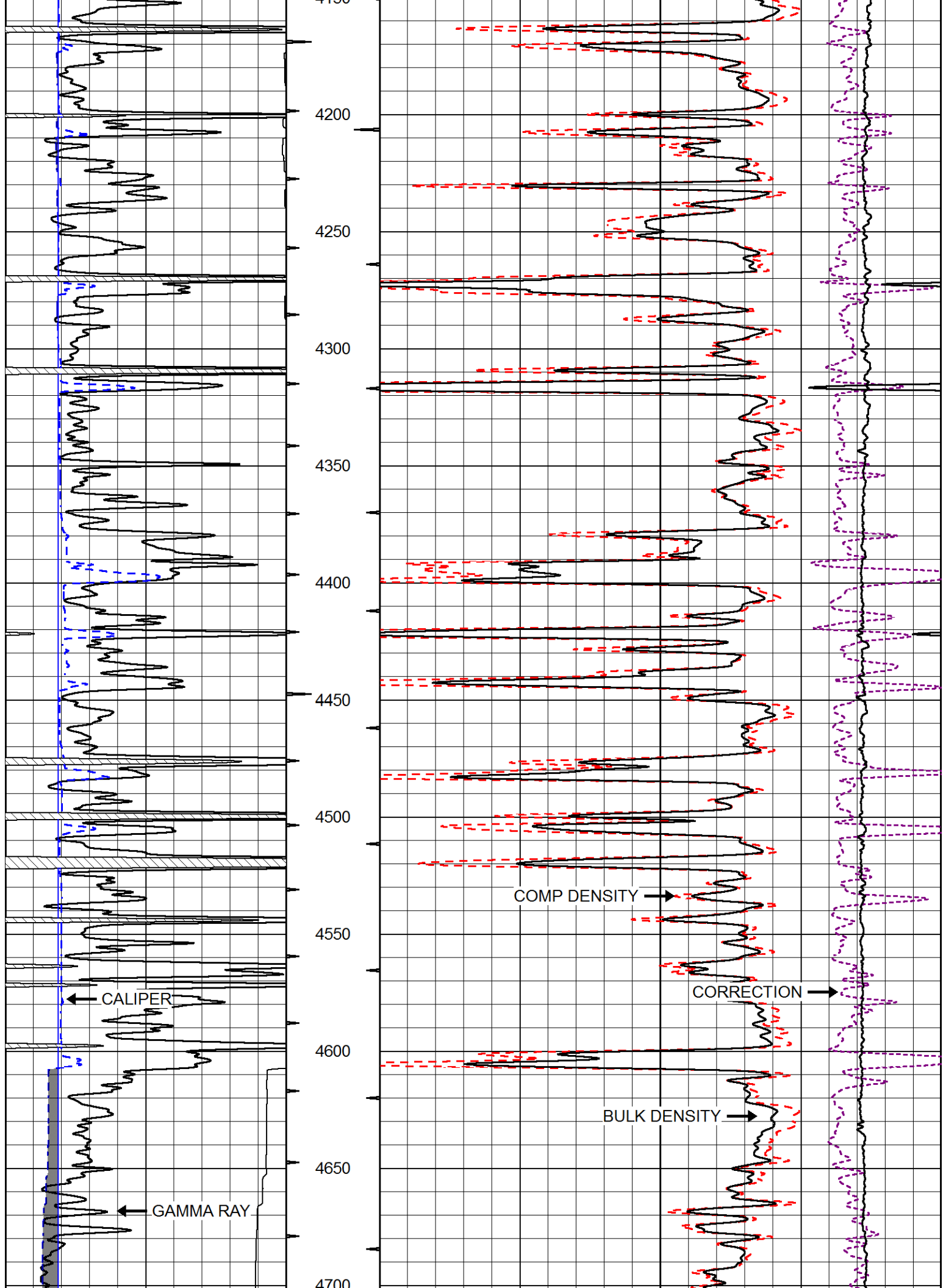
Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.58		GR-M&W (89)	3.00	3.50	50.00
CNLSC CNSSC	37.48 36.73		CNT-M&W (207-MW)	5.50	3.50	100.00
LSD DCAL SSD	28.43 28.42 27.93		CDL-M&W (90-1031)	8.50	4.00	250.00
MCAL MI MN	19.83 19.83 19.83		ML-PSIML (PSI-01) GO Micro log tools converted to Simplec electronics	7.58	4.00	65.00
RLL3F RLL3	15.80 15.80					

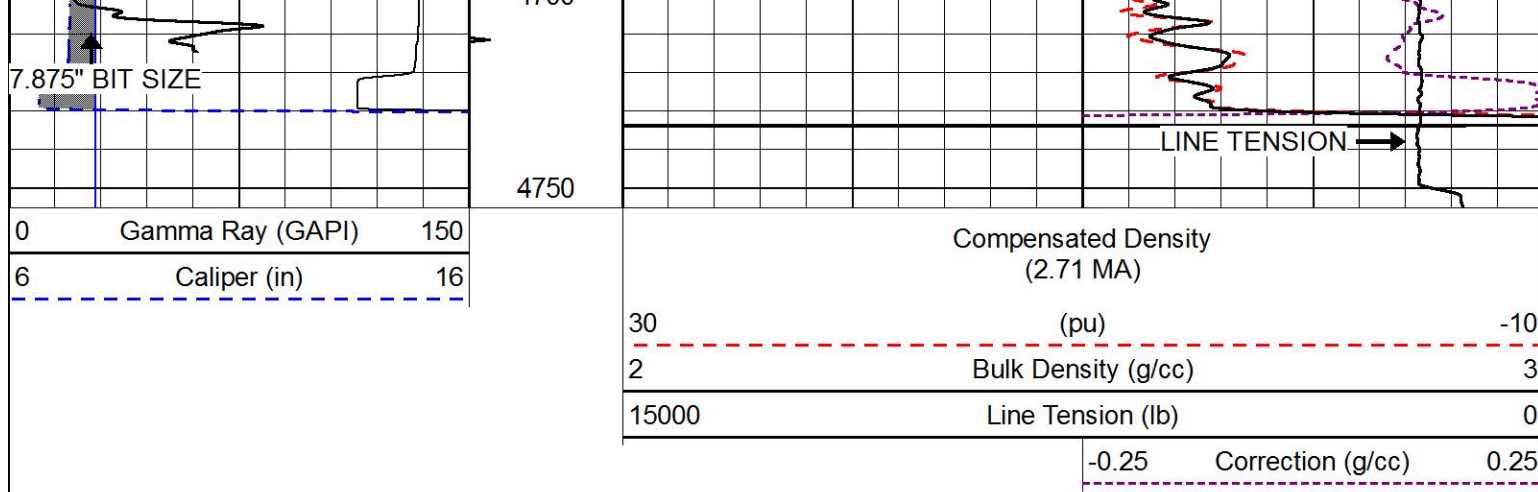
				DIL-M&W (PSI 91)	18.50	3.50	220.00
CILD	8.00						
CILM	4.70						
SP	0.20						
Dataset: ritchie_#1beaton6d.db: field/well/STKML/pass3.6 Total length: 43.08 ft Total weight: 685.00 lb O.D.: 4.00 in							

		MAIN PASS	
Database File	ritchie_#1beaton6d.db		
Dataset Pathname	STKML/pass3.1		
Presentation Format	cdl		
Dataset Creation	Tue Jan 16 04:49:43 2018		
Charted by	Depth in Feet scaled 1:600		
0	Gamma Ray (GAPI)	150	
6	Caliper (in)	16	
		Compensated Density (2.71 MA)	
		30 (pu)	-10
		2 Bulk Density (g/cc)	3
		15000 Line Tension (lb)	0
		-0.25 Correction (g/cc)	0.25



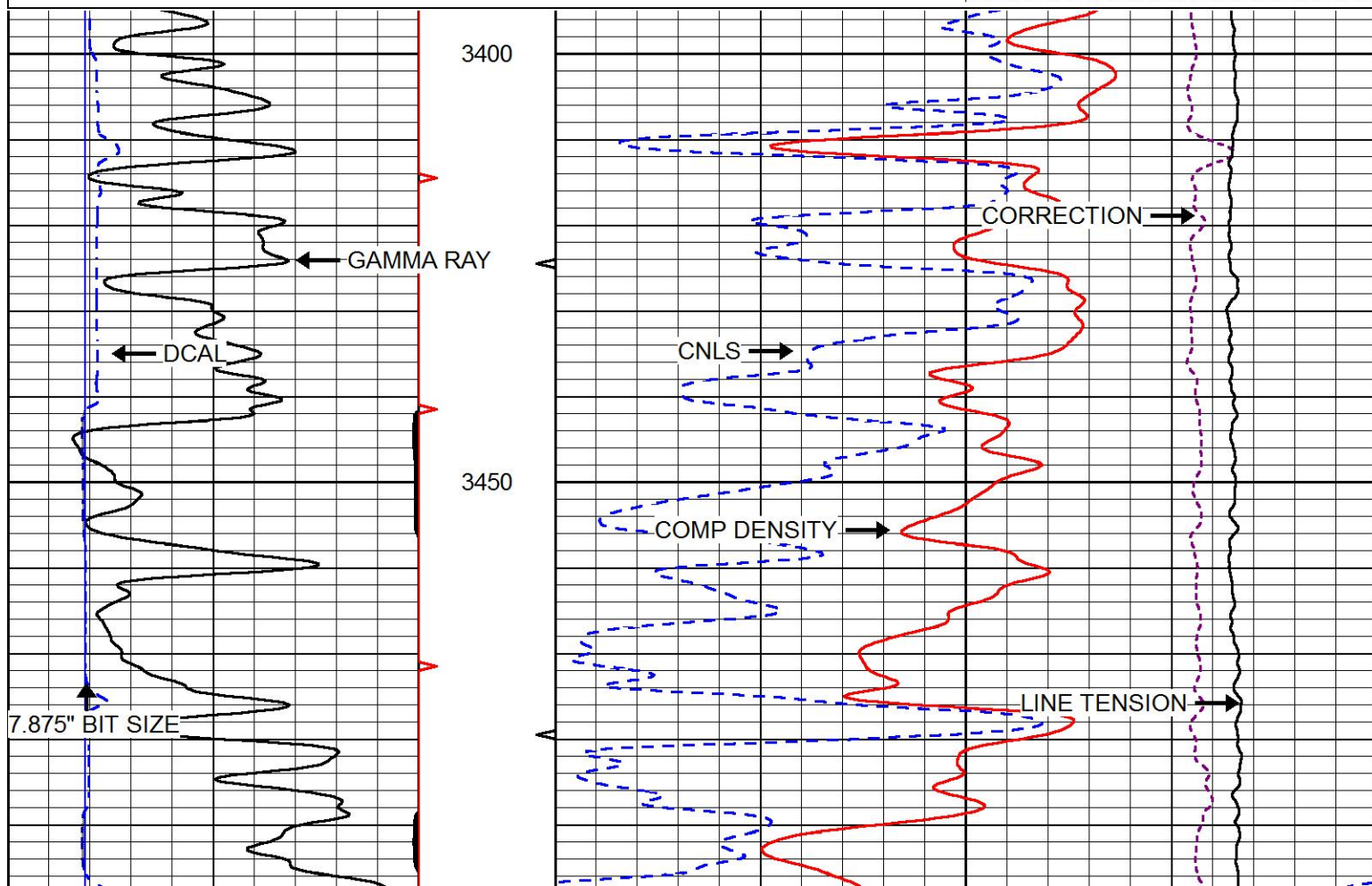
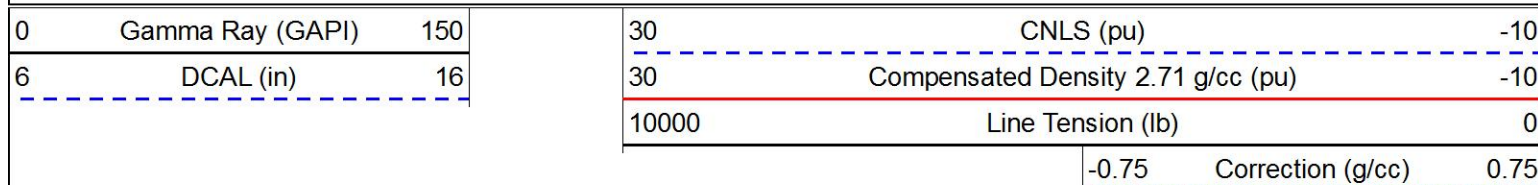


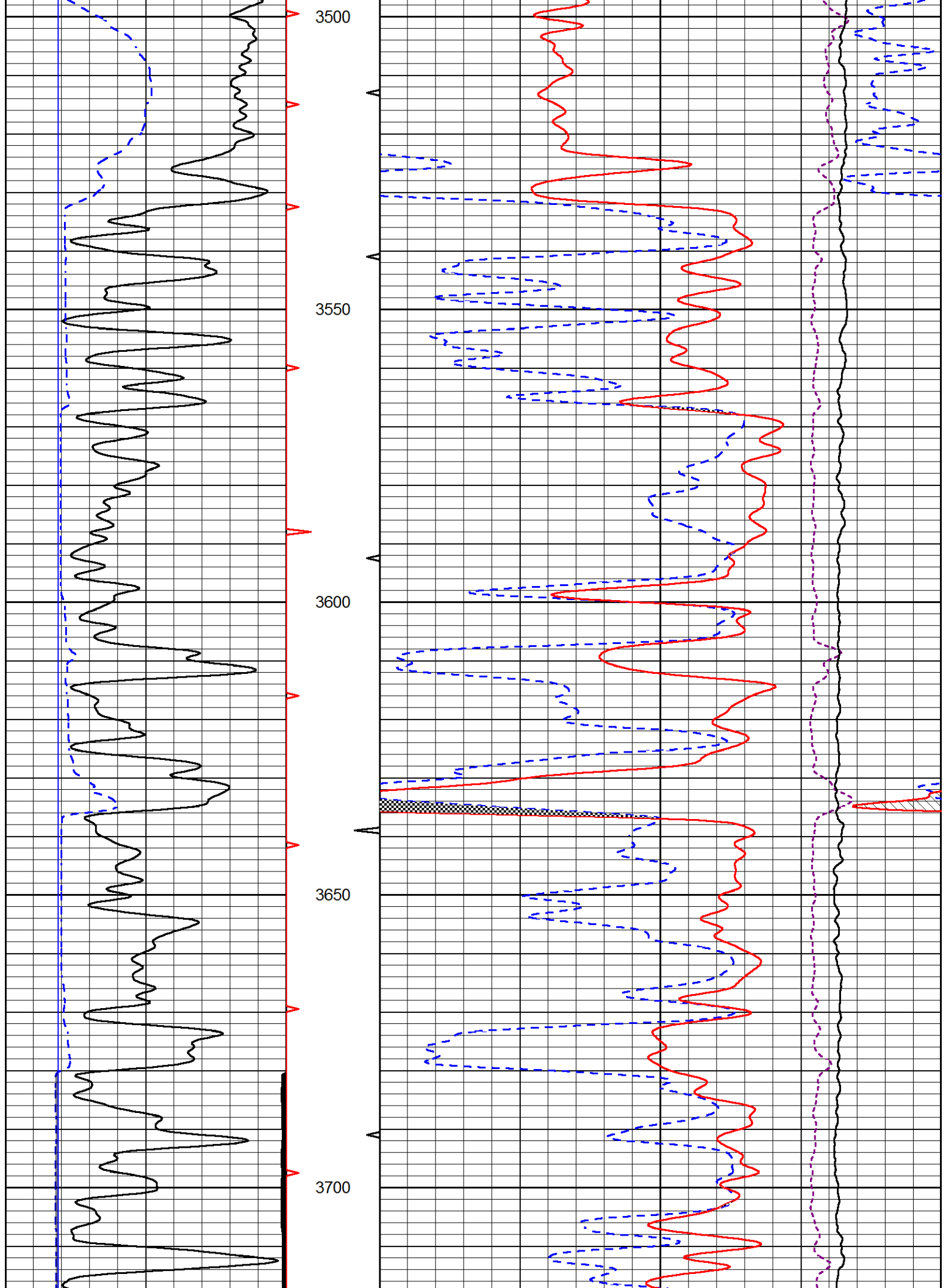


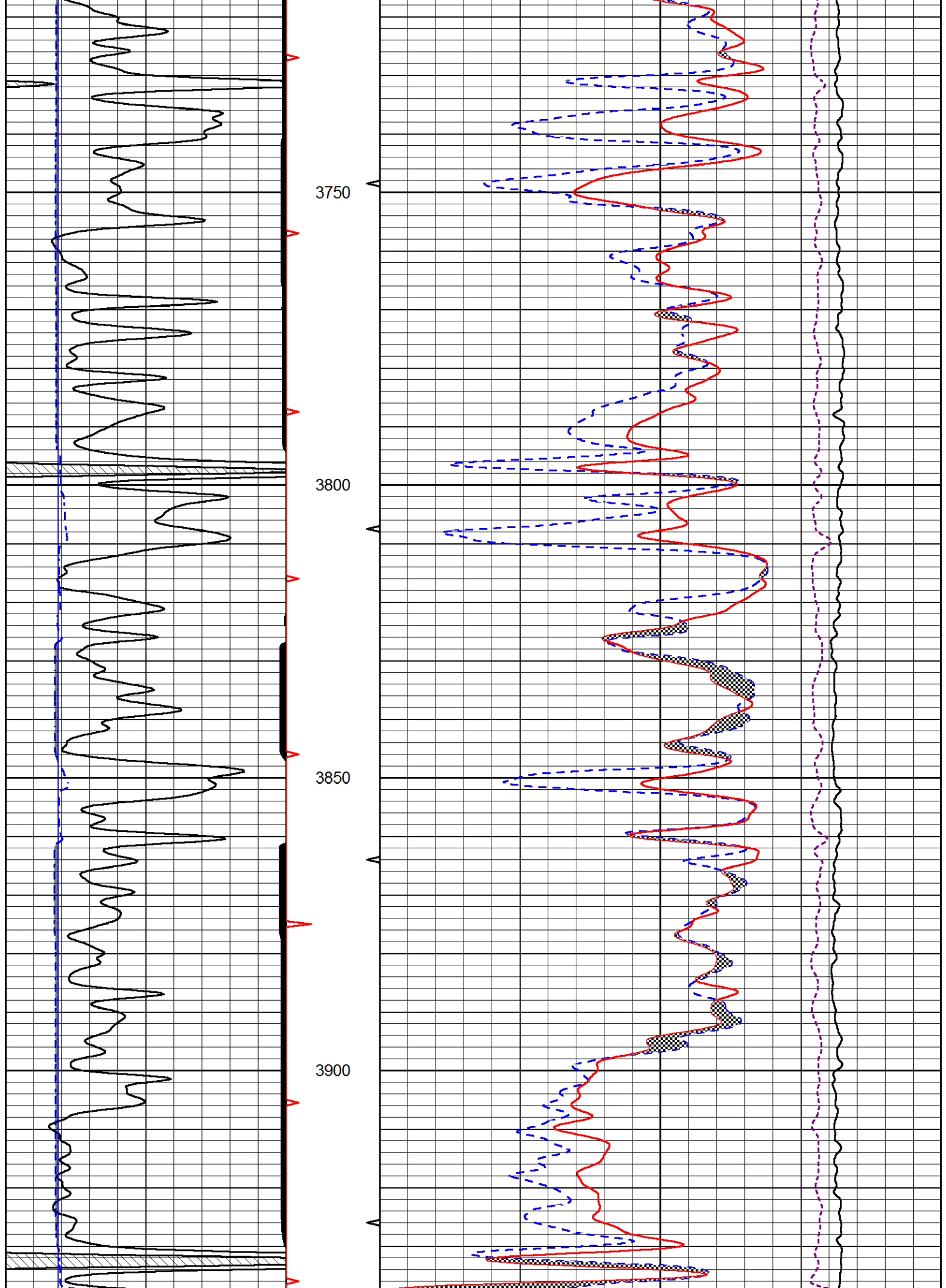


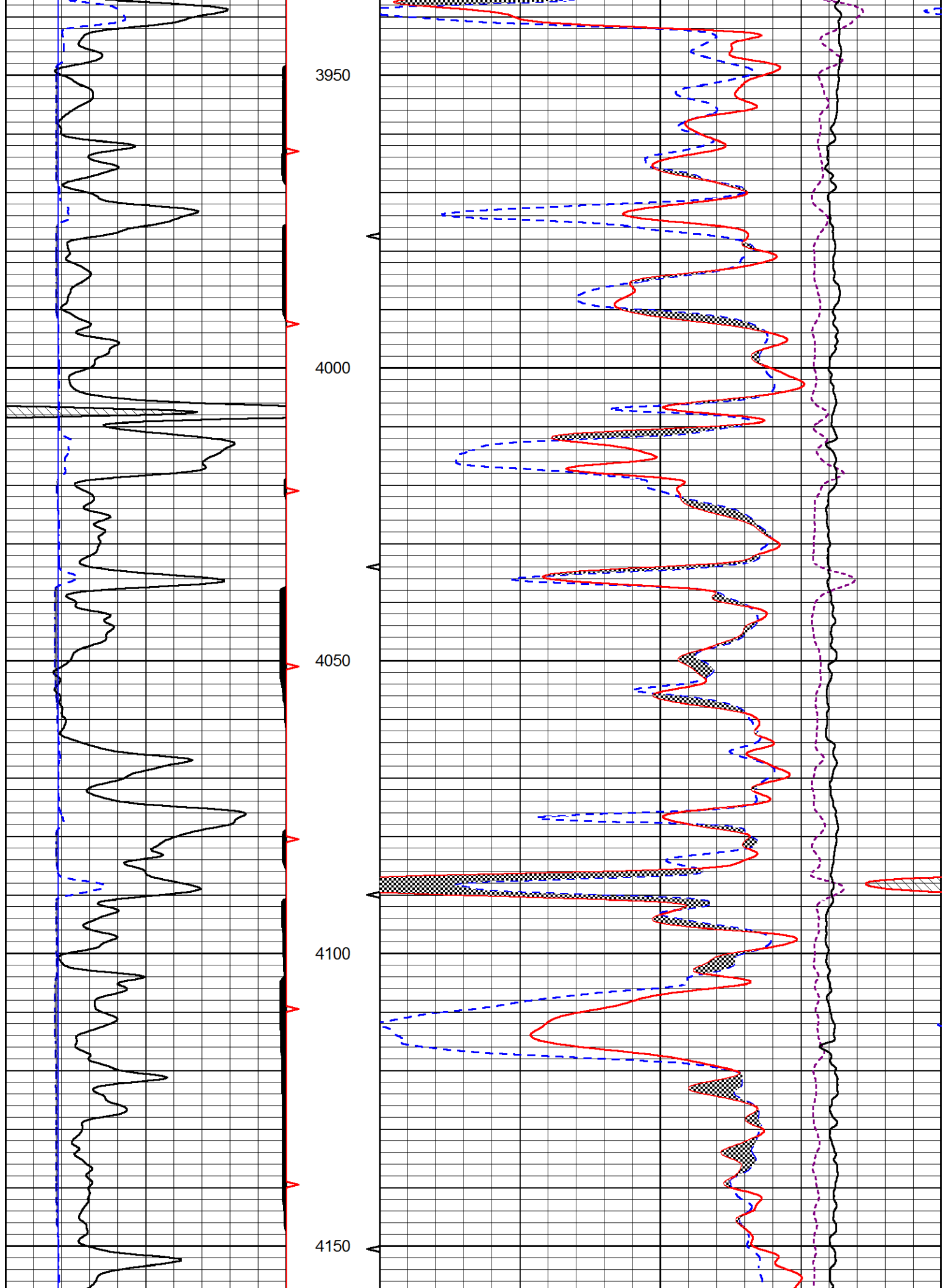
MAIN PASS

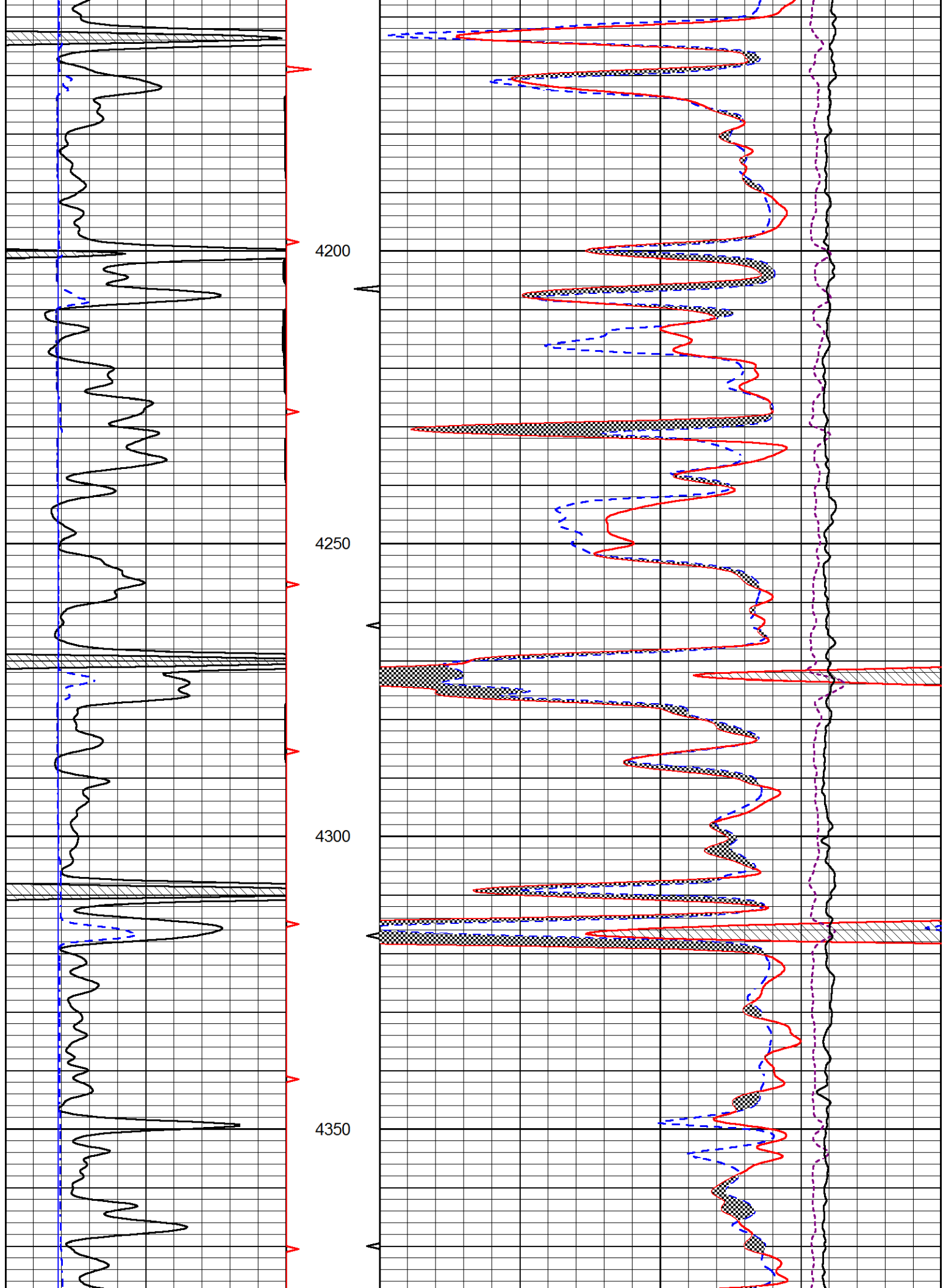
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Dataset Pathname STKML/pass3.1
Presentation Format cndlspec
Dataset Creation Tue Jan 16 04:49:43 2018
Charted by Depth in Feet scaled 1:240

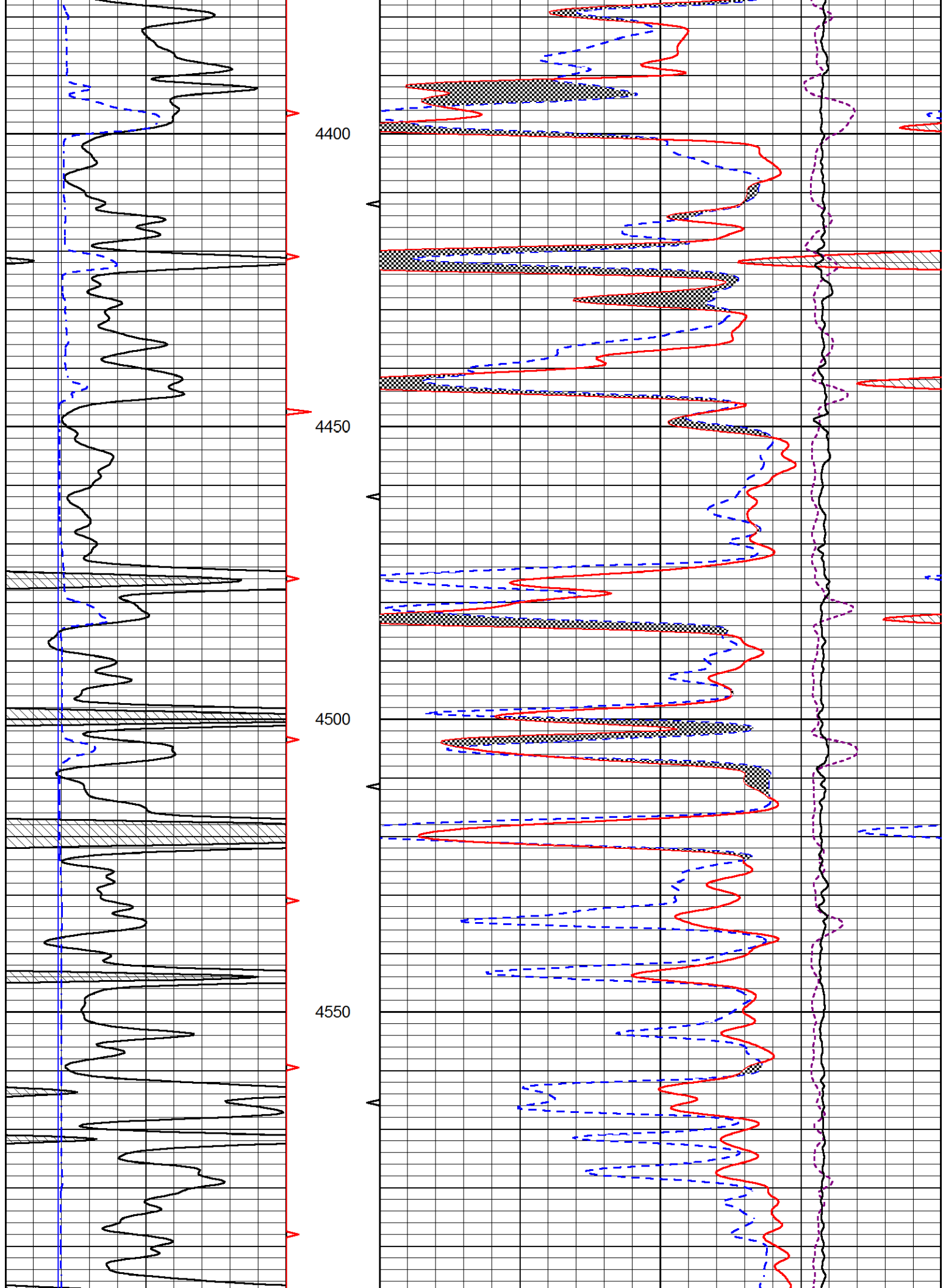


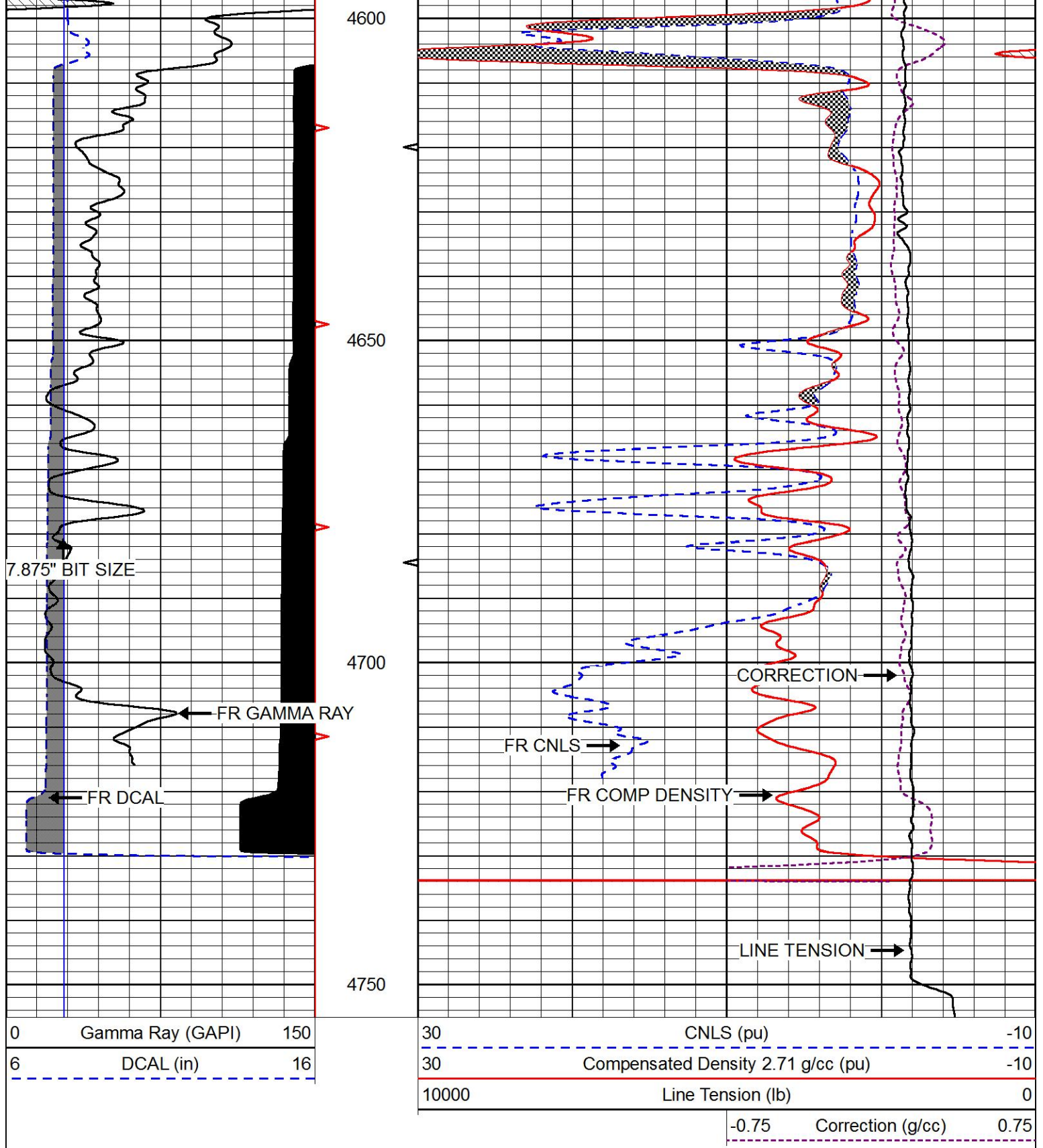








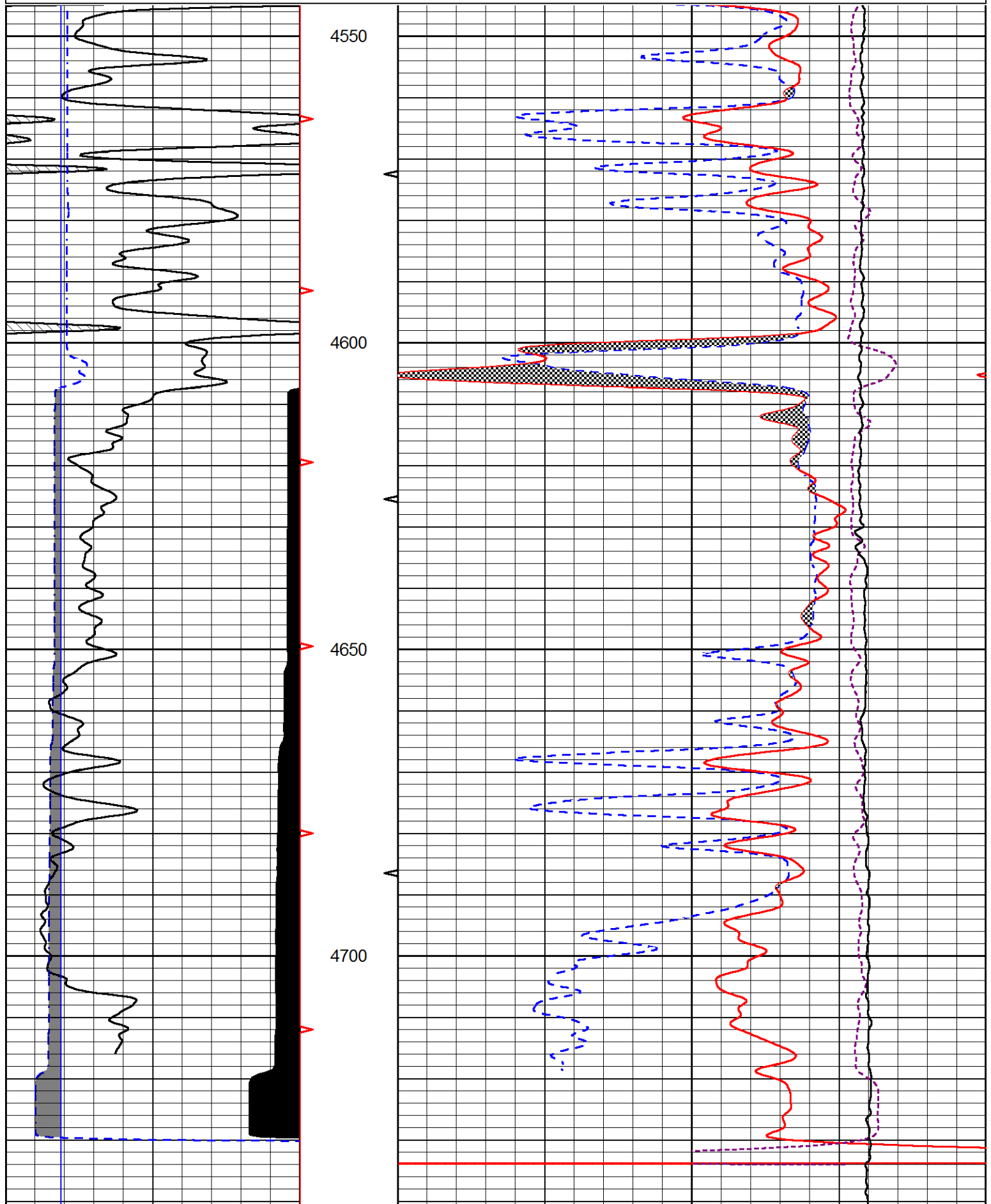




REPEAT SECTION

Database File ritchie_#1beaton6d.db
 Dataset Pathname STKML/pass2.4
 Presentation Format cndlspec
 Dataset Creation Tue Jan 16 04:13:32 2018
 Charted by Depth in Feet scaled 1:240

Charted by			Depth in feet scaled 1.240		
0	Gamma Ray (GAPI)	150	30	CNLS (pu)	-10
6	DCAL (in)	16	30	Compensated Density 2.71 g/cc (pu)	-10
			10000	Line Tension (lb)	0
			-0.75 Correction (g/cc) 0.75		



Master Calibration					
	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	4903.44	6153.79	cps
Aluminum	2.640	g/cc	934.50	4021.31	cps
Spine Angle = 75.61			Density/Spine Ratio = 0.517		
	Size		Reading		
Small Ring	8.00	in	1.84		
Large Ring	22.00	in	1.46		

Compensated Neutron Calibration Report

Serial Number: 207-MW
 Tool Model: M&W
 Calibration Performed: MON JAN 15 10:30:30 2018

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
 Tool Model: M&W
 Calibration Performed: Mon Jan 15 11:20:44 2018

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity: 0.6000 GAPI/cps



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 Field WILDCAT
 County LANE
 State KANSAS