



# DUAL COMP POROSITY LOG

**Company** VAL ENERGY, INC.  
**Well** GMK KRISS UNIT #1-18  
**Field** UNKNOWN  
**County** THOMAS **State** KANSAS

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**Location:** API #: 15-193-20990-00-00  
 2618' FNL & 1660' FEL  
 SEC 8 TWP 8S RGE 35W  
 Permanent Datum GROUND LEVEL Elevation 3329'  
 Log Measured From KELLY BUSHING  
 Drilling Measured From KELLY BUSHING  
 Other Services DIL/MEL BHCS

Date	3/27/2017	
Run Number	ONE	
Type Log	CNL/CDL	
Depth Driller	4900'	
Depth Logger	4900'	
Bottom Logged Interval	4879'	
Top Logged Interval	3800'	
Type Fluid In Hole	CHEMICAL	
Salinity, PPM CL	6000	
Density	9.3	
Level	FULL	
Max. Rec. Temp. F	125	
Operating Rig Time	5 HOURS	
Equipment -- Location	91 COLBY	
Recorded By	D. SCHMIDT	
Witnessed By	TIM PRIEST	

Run No.	Bit	Borehole Record		Casing Record	
		From	To	From	To
ONE	12.25"	0'	260'	8.625"	23#
TWO	7.875"	260'	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.

LEVANT,  
 WEST ON OLD 24 TO 9 RD, 1/2 NORTH,  
 WEST INTO

Log Measured From: KELLY BUSHING 5 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES  
[www.pioneerenergy.com](http://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: TIM PRIEST  
 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	287	0
SNDERR mmho/m	SRFTEMP degF	CASETHCK in	CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF	BOREID in
0	40	0	5.5	0	4900	125	7.875

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	33.00		GR-M&W (89)	3.00	3.50	50.00
CNLSC CNSSC	29.90 29.15		CNT-M&W (207-MW)	5.50	3.50	100.00
LSD DCAL SSD	20.85 20.83 20.35		CDL-M&W (90-1031)	8.50	4.00	250.00
RLL3F RLL3	15.80 15.80					
CILD	8.00		DIL-M&W (PSI 13)	18.50	3.50	220.00

CILM 4.70

SP 0.20

Dataset: val\_gmk kriss\_1-18.db: field/well/STACK/pass3.6  
 Total length: 35.50 ft  
 Total weight: 620.00 lb  
 O.D.: 4.00 in

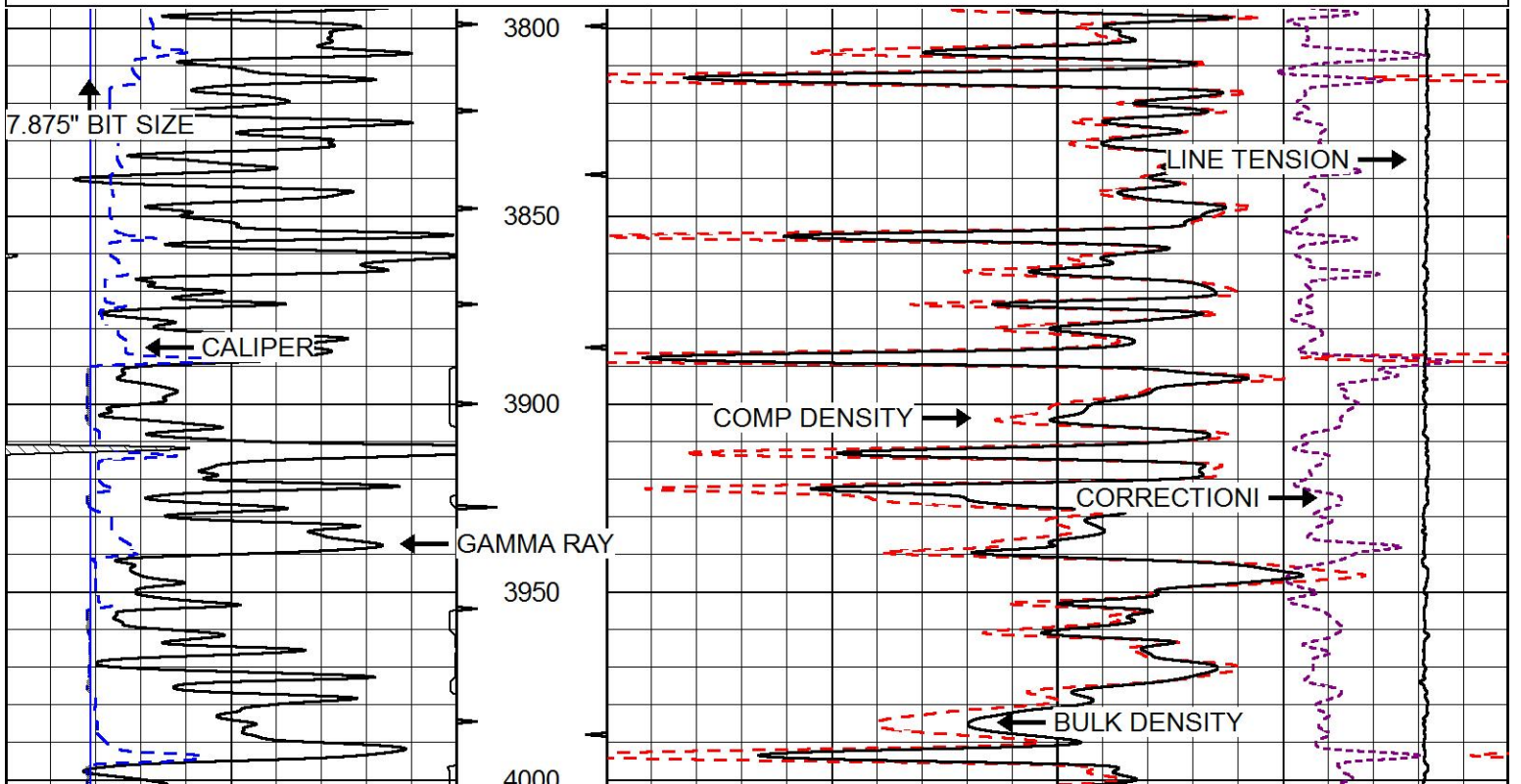


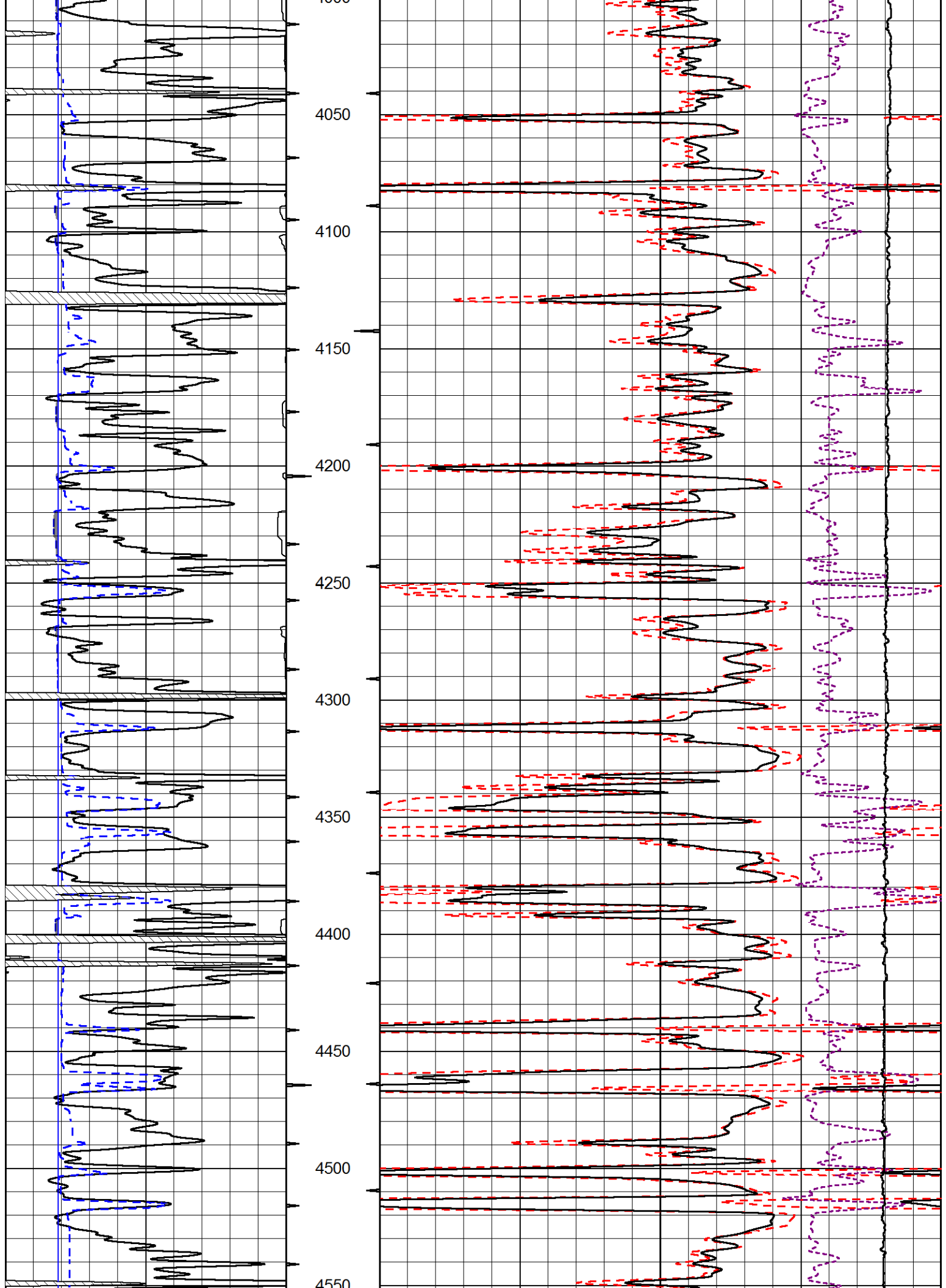
# MAIN PASS

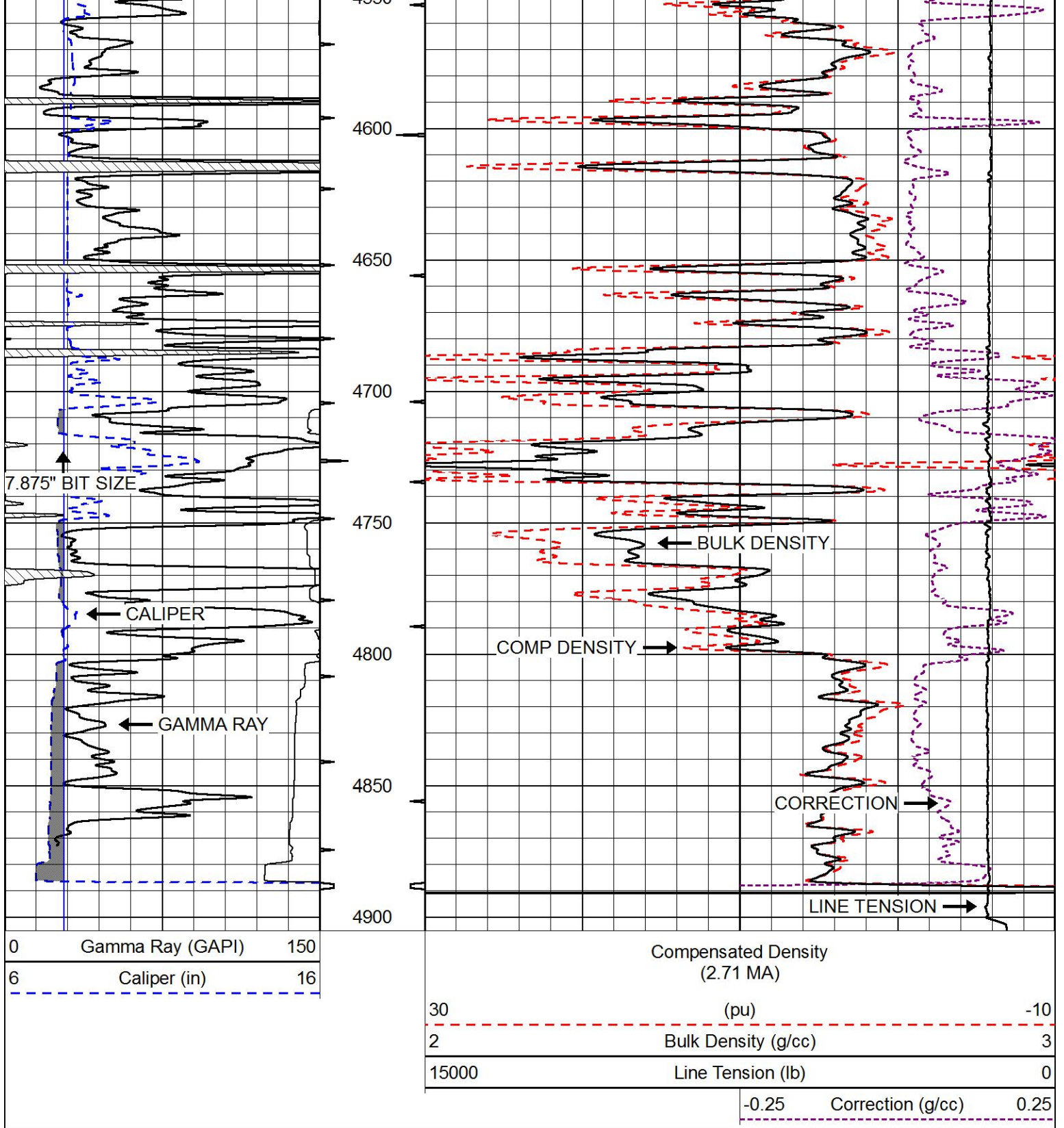
Database File val\_gmk kriss\_1-18.db  
 Dataset Pathname STACK/pass3.1  
 Presentation Format cdl  
 Dataset Creation Mon Mar 27 10:47:33 2017  
 Charted by Depth in Feet scaled 1:600

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

30	Compensated Density (2.71 MA)	(pu)	-10	
2	Bulk Density (g/cc)		3	
15000	Line Tension (lb)		0	
		-0.25	Correction (g/cc)	0.25







# MAIN PASS

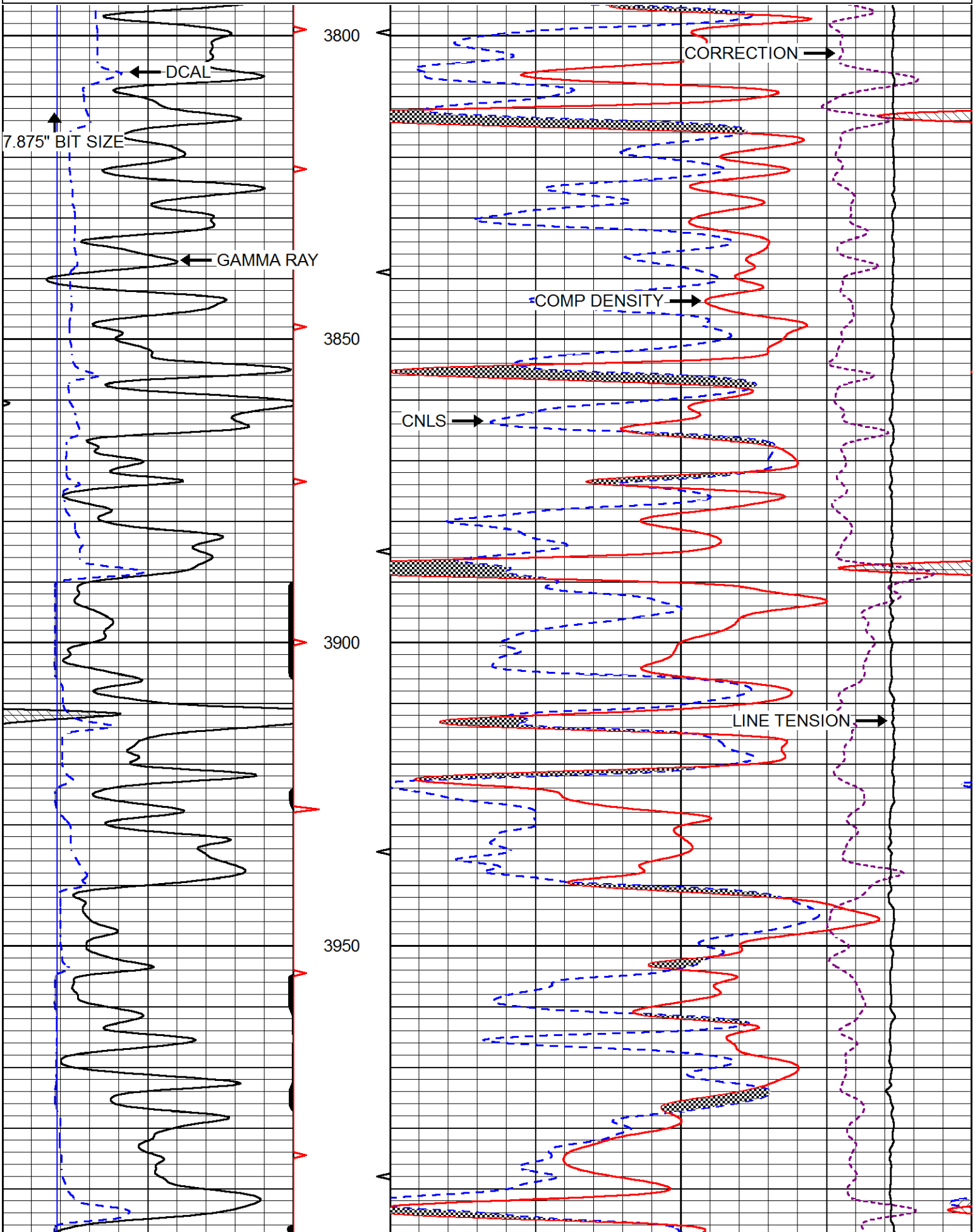
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 Dataset Pathname STACK/pass3.1  
 Presentation Format cndlspec  
 Dataset Creation Mon Mar 27 10:47:33 2017  
 Charted by Depth in Feet scaled 1:240

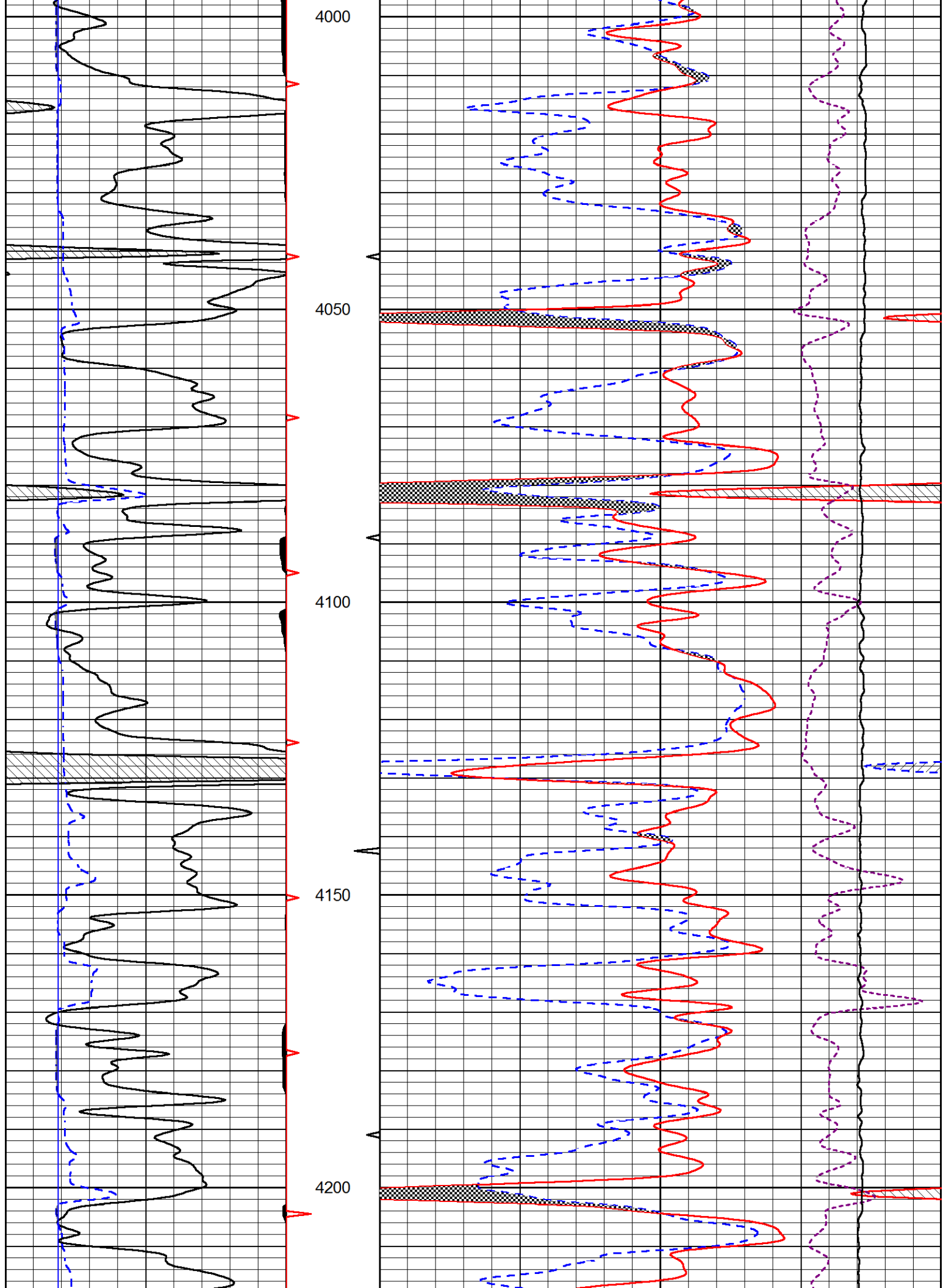


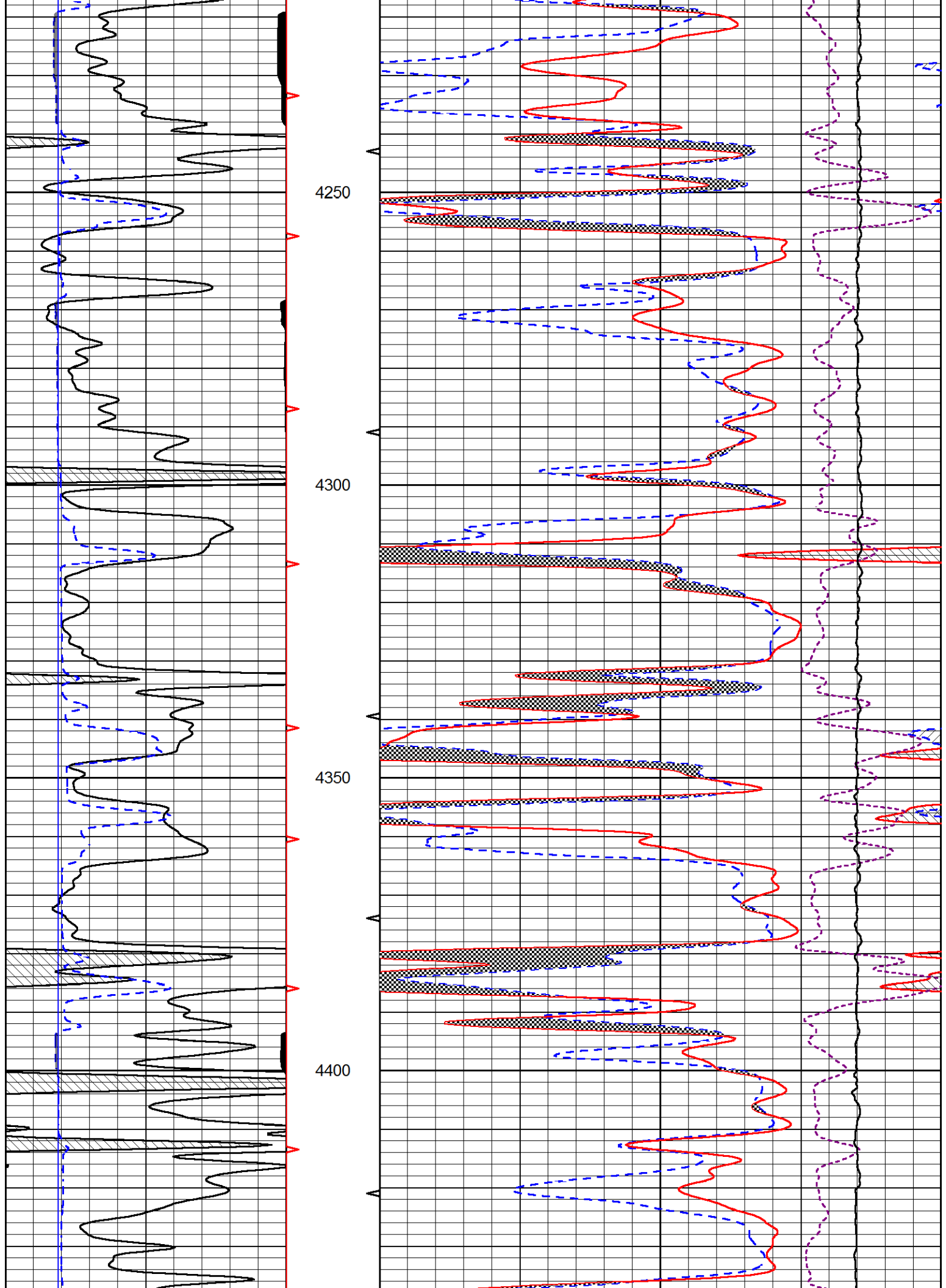
6 DCAL (in) 16

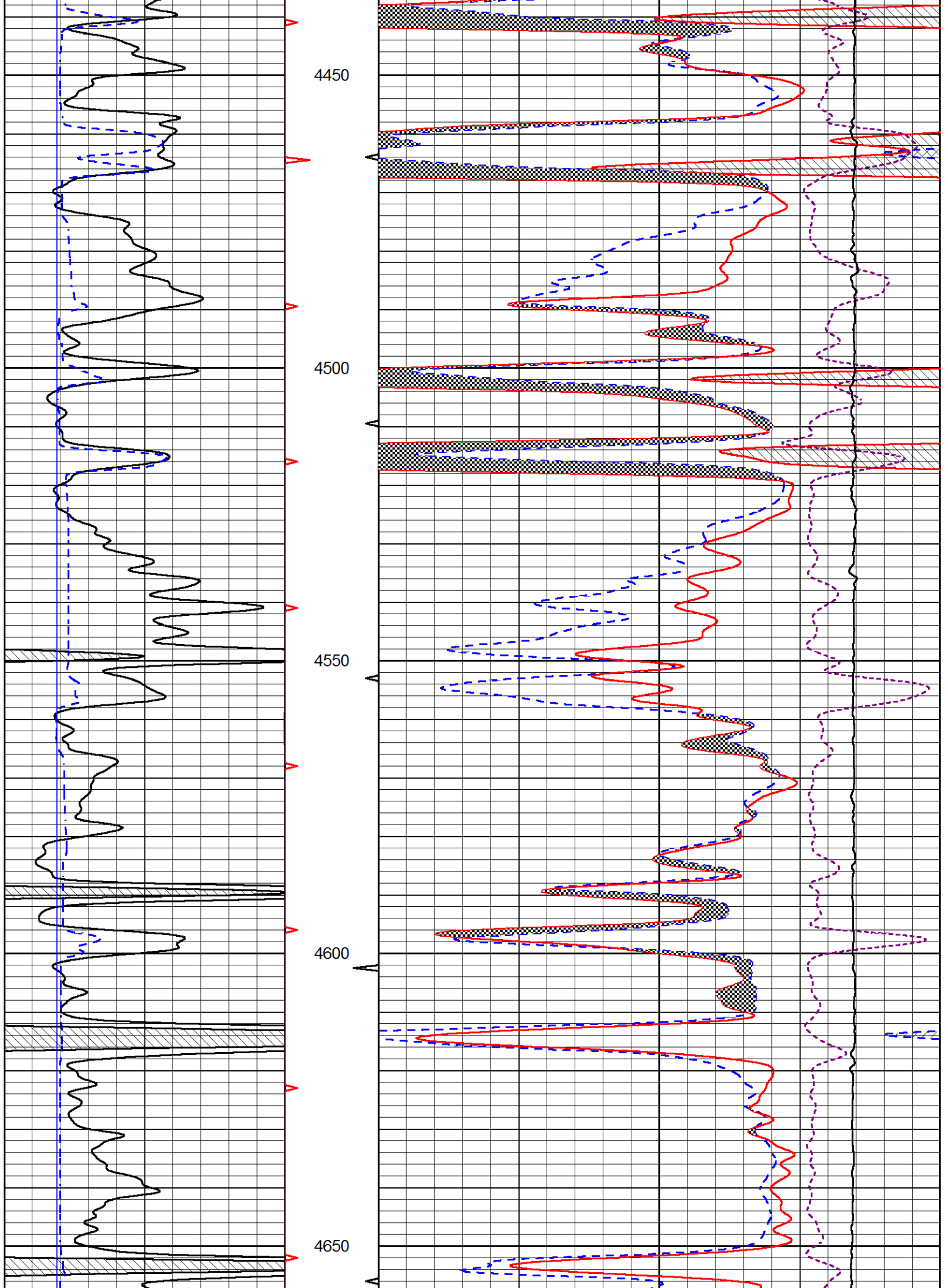
30 Compensated Density 2.71 g/cc (pu) -10  
10000 Line Tension (lb) 0

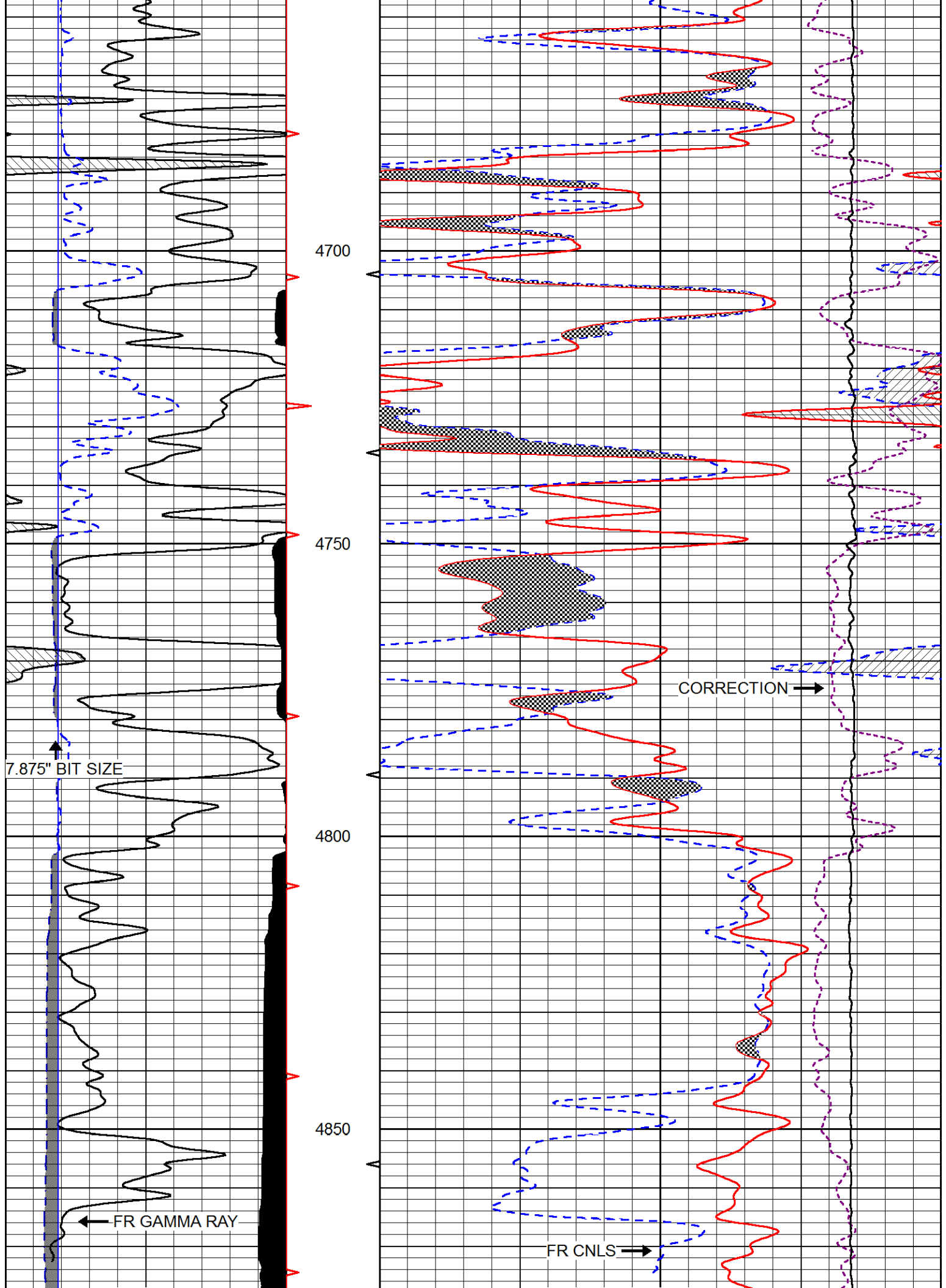
-0.25 Correction (g/cc) 0.25

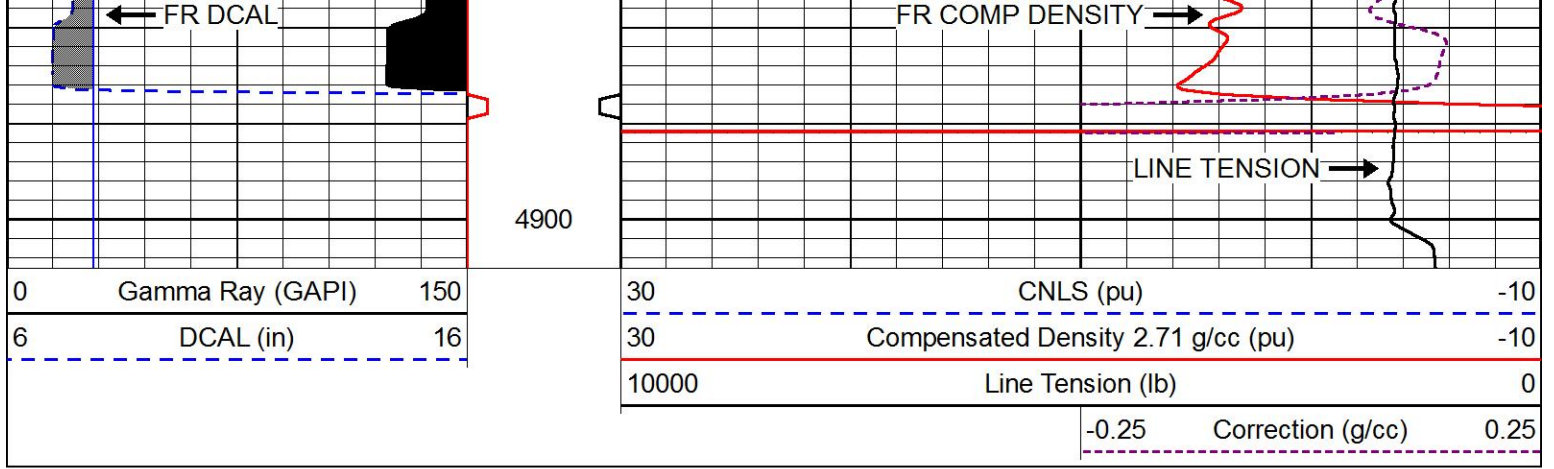






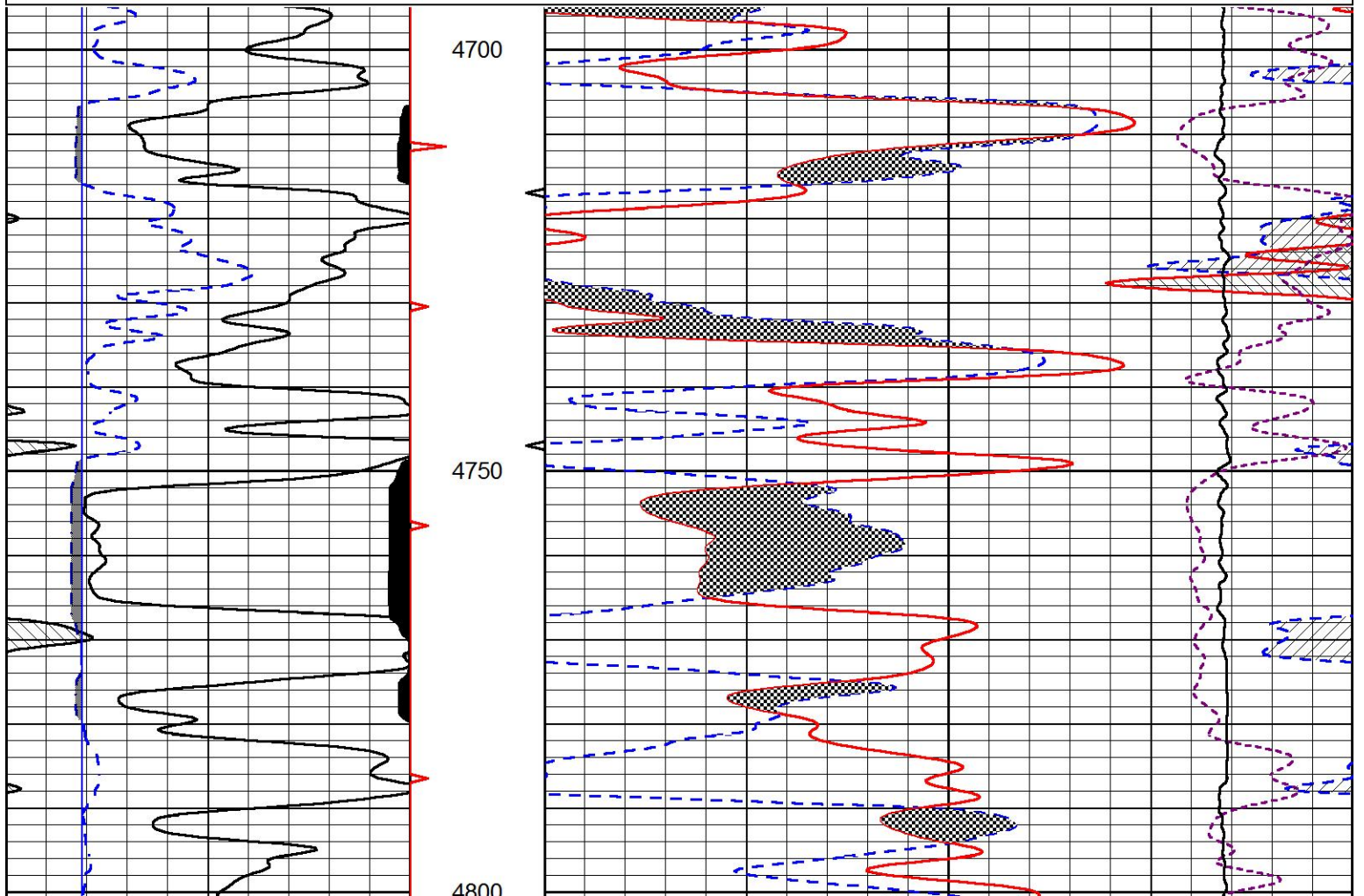
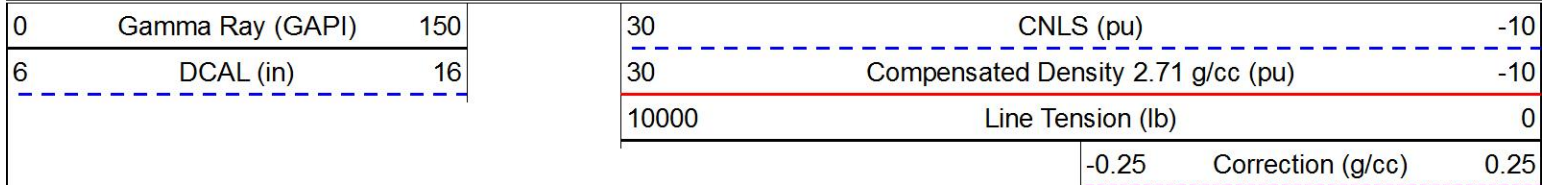


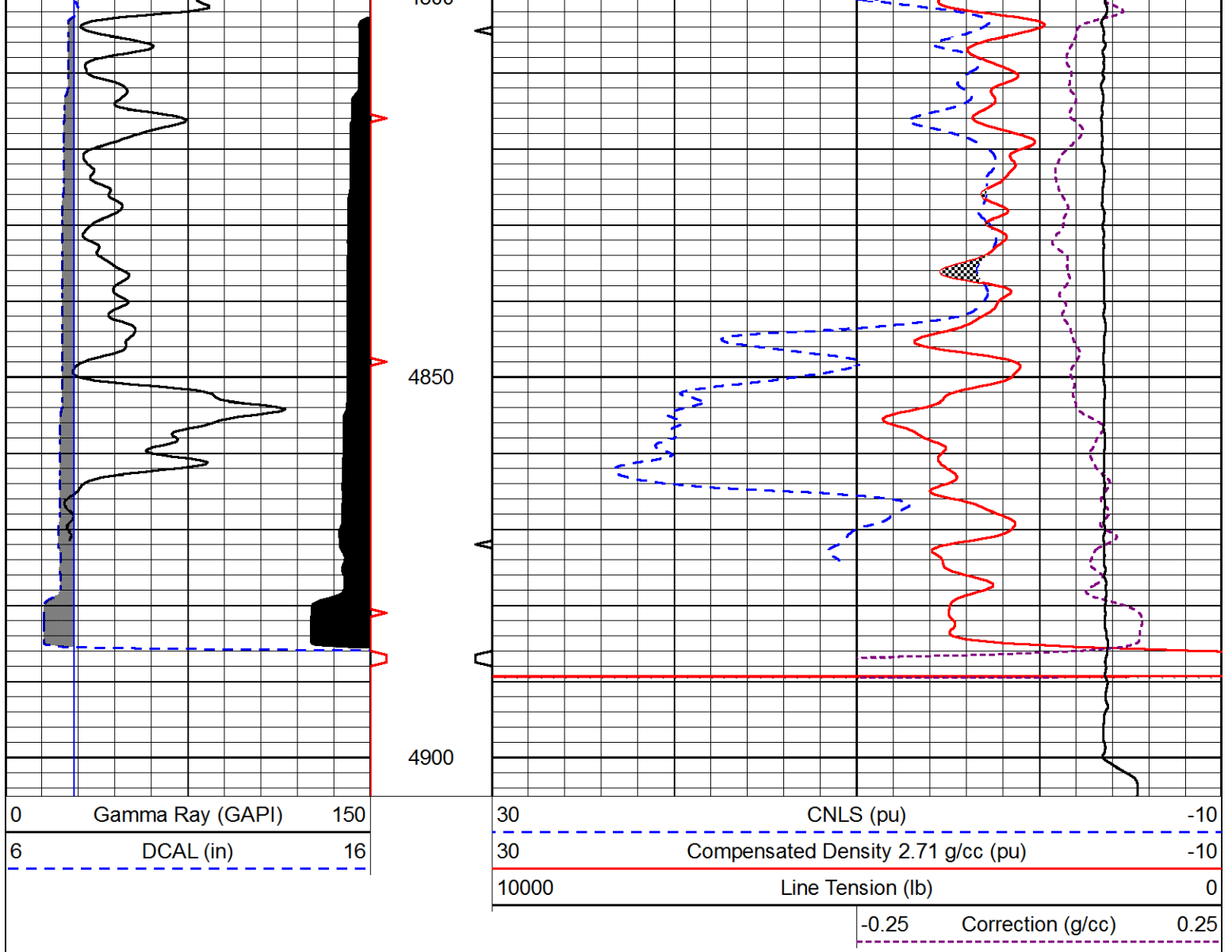




# REPEAT SECTION

Database File val\_gmk kriss\_1-18.db  
 Dataset Pathname STACK/pass2.1  
 Presentation Format cndlspec  
 Dataset Creation Mon Mar 27 10:37:25 2017  
 Charted by Depth in Feet scaled 1:240





### Calibration Report

Database File val\_gmk kriss\_1-18.db  
 Dataset Pathname STACK/pass3.6  
 Dataset Creation Mon Mar 27 10:35:01 2017

### Dual Induction Calibration Report

Serial-Model: PSI 13-M&W  
 Calibration Performed: Mon Mar 27 09:51:30 2017

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop	mmho/m	Gain	Offset
Deep	166.796	835.089	0.000	255.800	mmho/m	0.950	-33.000
Medium	142.009	1348.560	0.000	255.800	mmho/m	0.800	-30.000

### Compensated Density Calibration Report

Serial-Model: 90-1031-M&W  
 Source / Verifier: 16955B / 2ci  
 Master Calibration Performed: Mon Mar 27 09:51:50 2017

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	5174.18	6425.27	cps
Aluminum	2.665	g/cc	963.17	4037.42	cps
Spine Angle = 74.55			Density/Spine Ratio = 0.522		
	Size		Reading		
Small Ring	6.00	in	1.83		
Large Ring	16.00	in	1.48		

Compensated Neutron Calibration Report

Serial Number: 207-MW  
 Tool Model: M&W  
 Calibration Performed: Thu Mar 2 10:30:30 2017

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: Thu Mar 02 20:45:00 2017

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps  
 Calibrator Reading: 1.0 cps

Sensitivity: 0.6000 GAPI/cps



**PIONEER**  
 Pioneer Energy Services

Company VAL ENERGY, INC.  
 Well GMK KRISS UNIT #1-18  
 Field UNKNOWN  
 County THOMAS  
 State KANSAS