



PIONEER

Pioneer Energy Services

DUAL COMP POROSITY LOG

Company **TDI, INC.**
Well **VIRGINIA #2**
Field **VIRGINIA**
County **ELLIS** State **KANSAS**

Location: API #: 15-051-26878-00-00

Other Services

1005' FNL & 755' FEL

DIL/MEL

SEC 16 TWP 15S RGE 19W

Permanent Datum **GROUND LEVEL** Elevation **2009'**
Log Measured From **KELLY BUSHING**
Drilling Measured From **KELLY BUSHING**

K.B. **2019'**
D.F. **N/A**
G.L. **2009'**

Company **TDI, INC.**
Well **VIRGINIA #2**
Field **VIRGINIA**
County **ELLIS**
State **KANSAS**

Date **7/17/2017**

Run Number **ONE**

Type Log **CNL/CDL**

Depth Driller **3638'**

Depth Logger **3637'**

Bottom Logged Interval **3627'**

Top Logged Interval **2800'**

Type Fluid In Hole **CHEMICAL**

Salinity, PPM CL **5700**

Density **9.1**

Level **FULL**

Max. Rec. Temp. F **112**

Operating Rig Time **3 1/2 HOURS**

Equipment -- Location **91 HAYS**

Recorded By **D. SCHMIDT**

Witnessed By **TOM DENNING**

Borehole Record

Casing Record

Run No.	Bit	From	To	Size	Wgt.	From	To
ONE	12.25"	0'	1250'	8.625"	23#	0'	1250'
TWO	7.875"	1250'	TD				

<<< Fold Here >>>

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.

ANTONINO,
2 WEST, 2 SOUTH, 1/8 WEST,
SOUTH INTO

Log Measured From: **KELLY BUSHING**

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: **TOM DENNING**

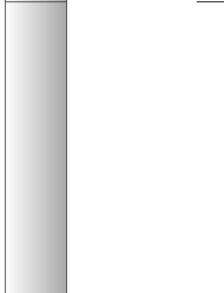
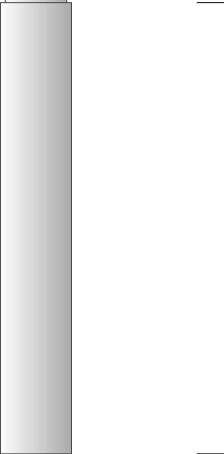
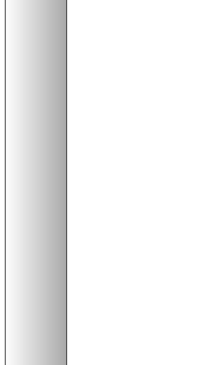
Secondary Witness: **HERB DEINES**

Secondary Witness:

Secondary Witness:

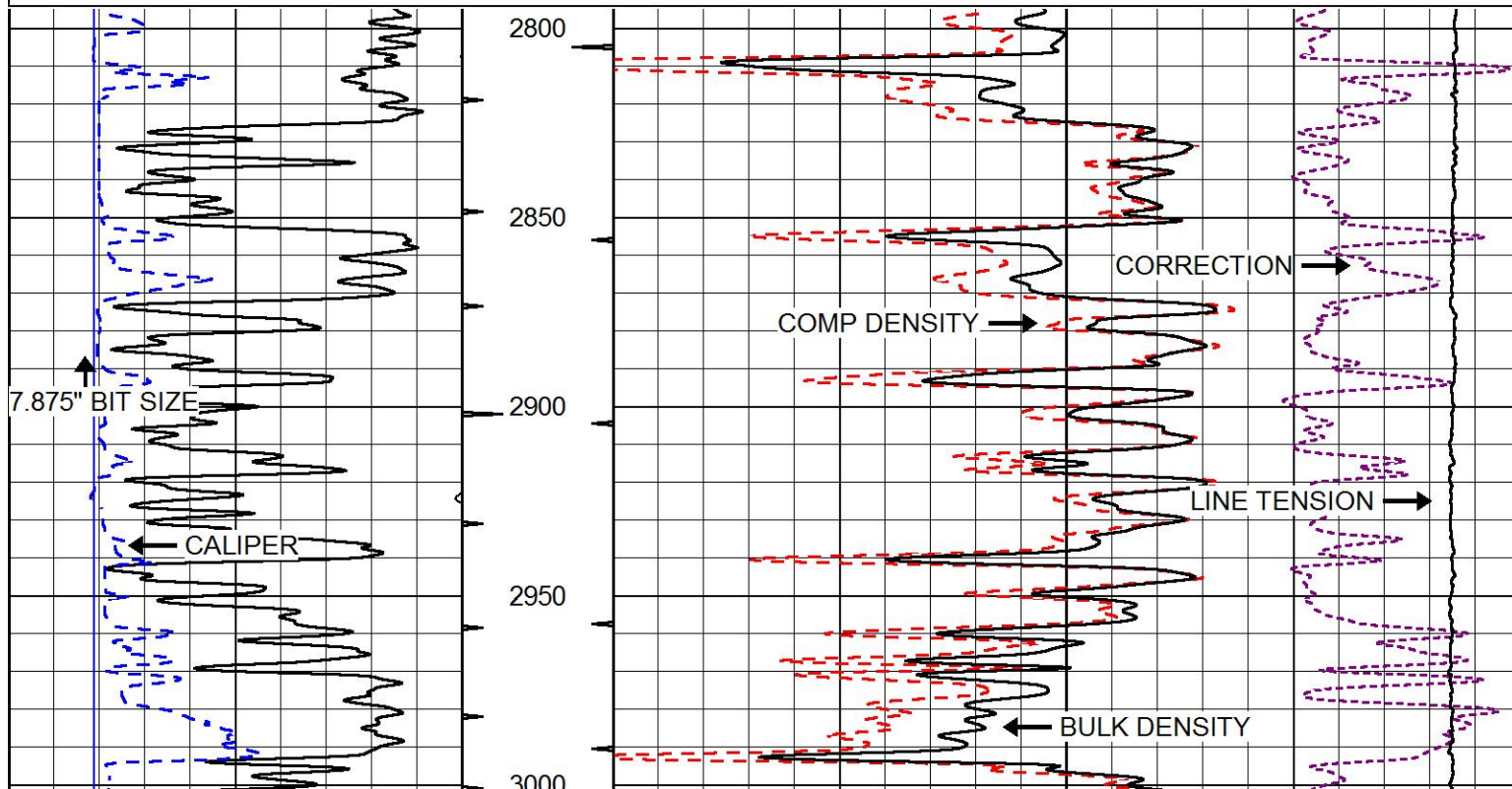
Top - Bottom

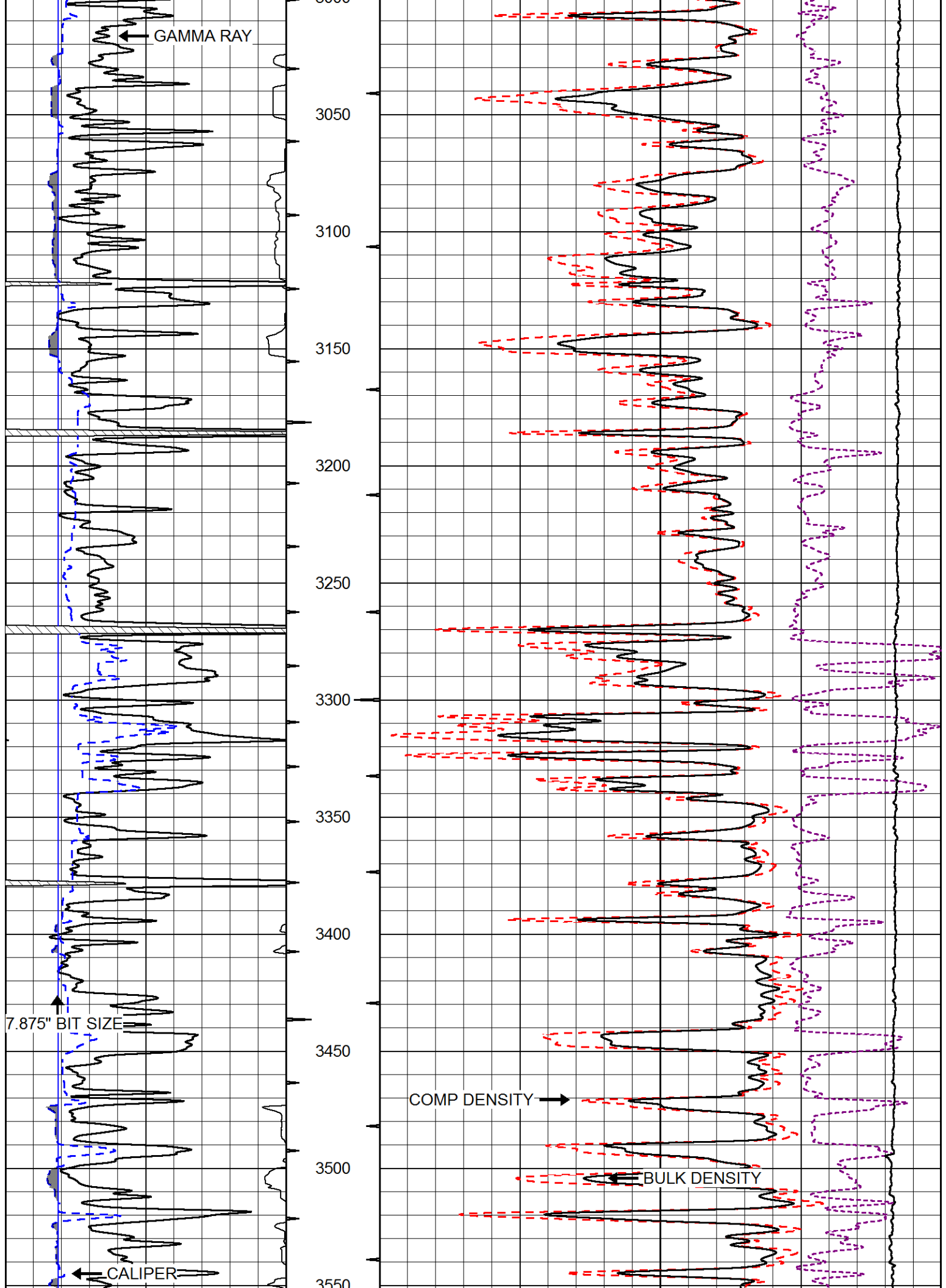
M	A	SZCOR	NPORSEL	FLUIDDEN g/cc	MATRXDEN g/cc	SPSHIFT mV	SNDERRM mmho/m
2	1	Off	Limestone	1	2.71	105	0
SNDERR mmho/m	SRFTEMP degF	CASETHCK in	CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF	BOREID in
0	80	0	5.5	0	3637	112	7.875

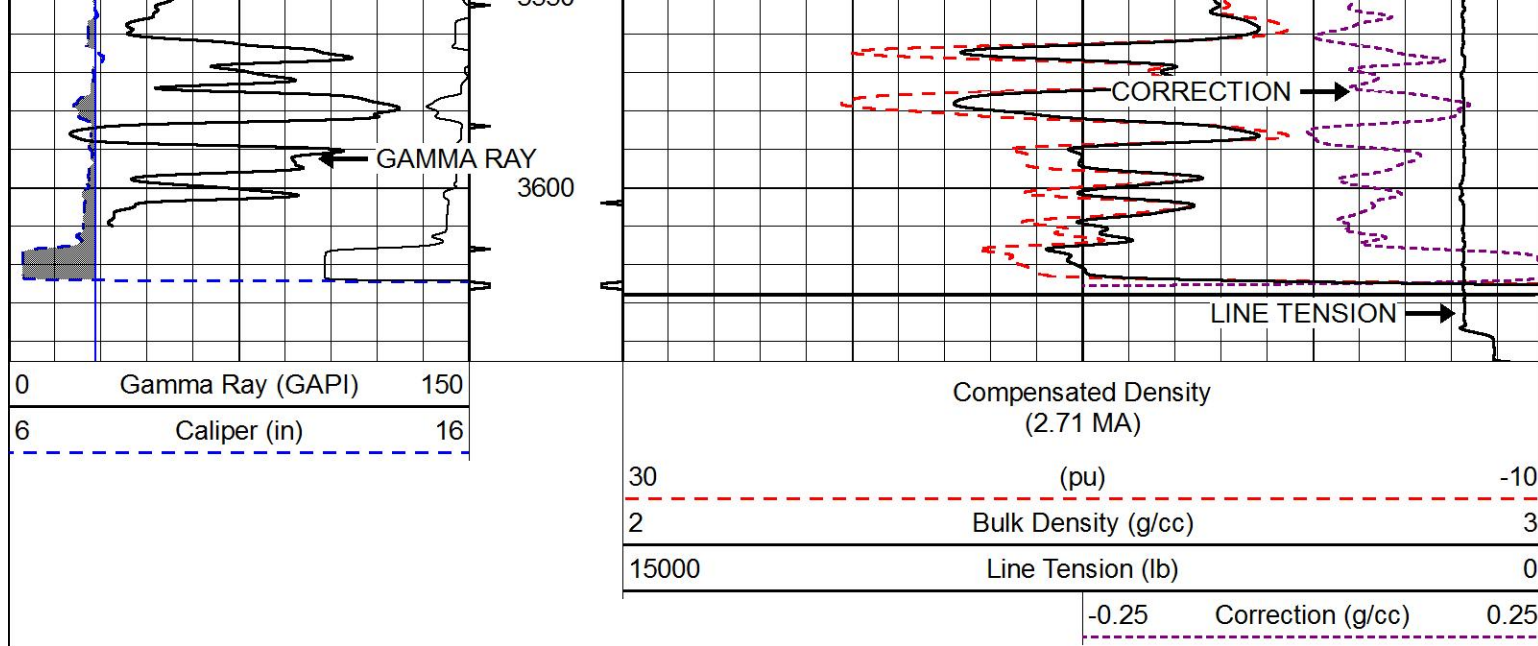
Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	33.00		GR-M&W (89)	3.00	3.50	50.00
CNLSC CNSSC	29.90 29.15		CNT-M&W (207-MW)	5.50	3.50	100.00
LSD DCAL SSD	20.85 20.83 20.35		CDL-M&W (90-1031)	8.50	4.00	250.00
RLL3F RLL3	15.80 15.80					
CILD	8.00		DIL-M&W (PSI 91)	18.50	3.50	220.00

CILM	4.70								
SP	0.20								
Dataset: tdi_virginia_2.db: field/well/STACK/pass3.5 Total length: 35.50 ft Total weight: 620.00 lb O.D.: 4.00 in									

 MAIN PASS		
Database File tdi_virginia_2.db Dataset Pathname STACK/pass3.1 Presentation Format cdl Dataset Creation Mon Jul 17 07:29:27 2017 Charted by Depth in Feet scaled 1:600		
0	Gamma Ray (GAPI)	150
6	Caliper (in)	16
		Compensated Density (2.71 MA) (pu) Bulk Density (g/cc) Line Tension (lb) Correction (g/cc)
		30 2 15000 -0.25 0.25
		-10 3 0

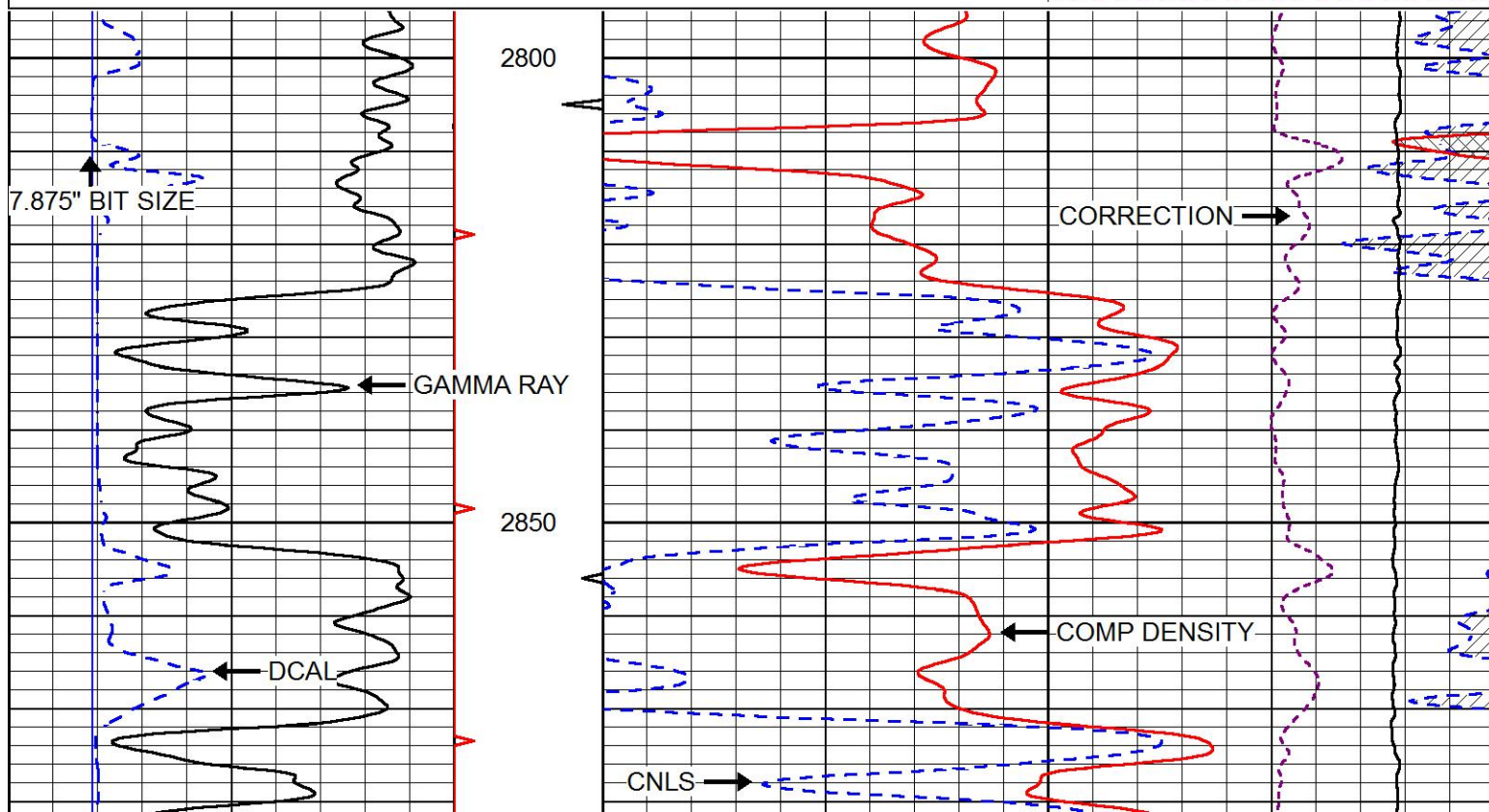


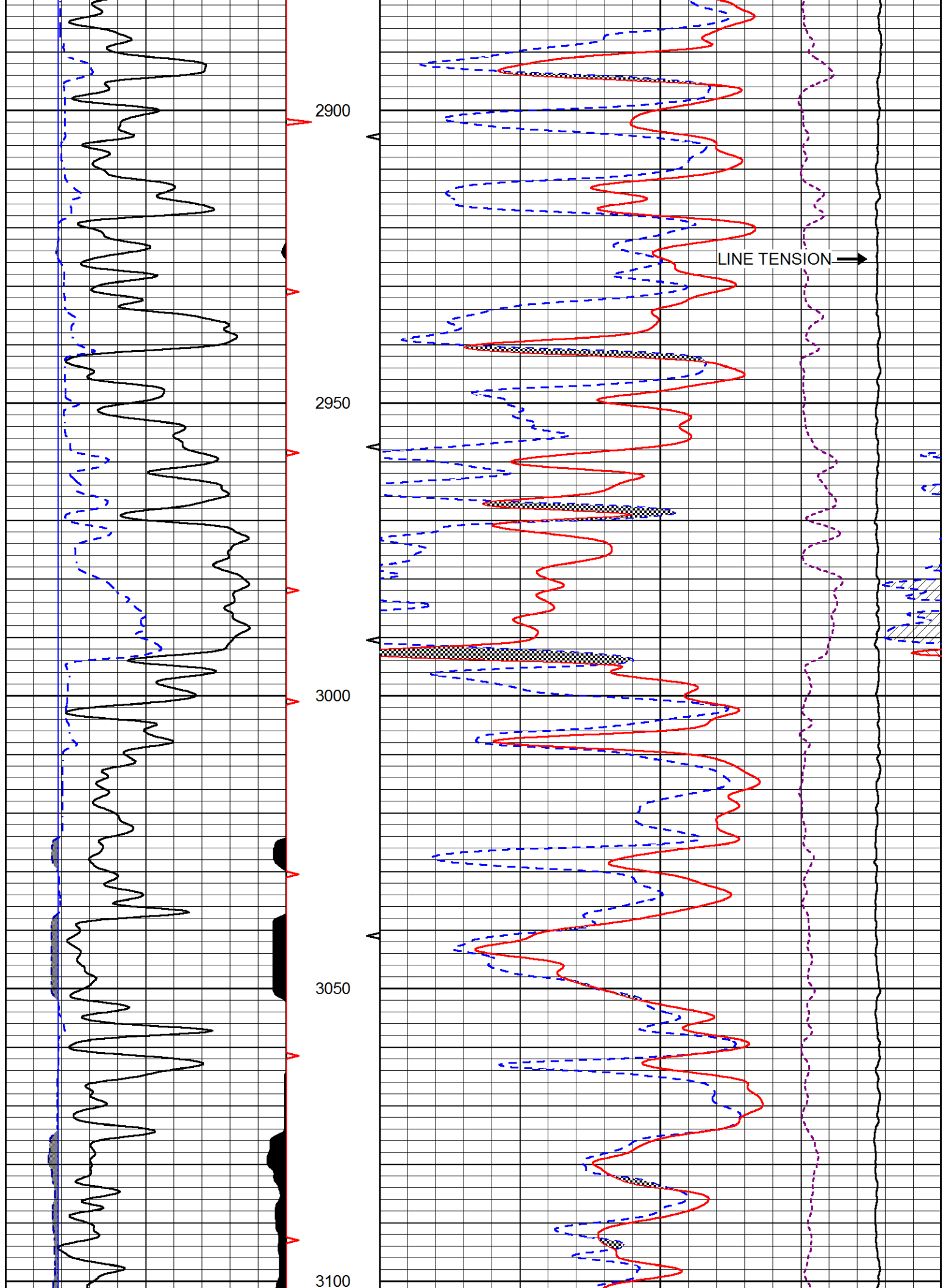


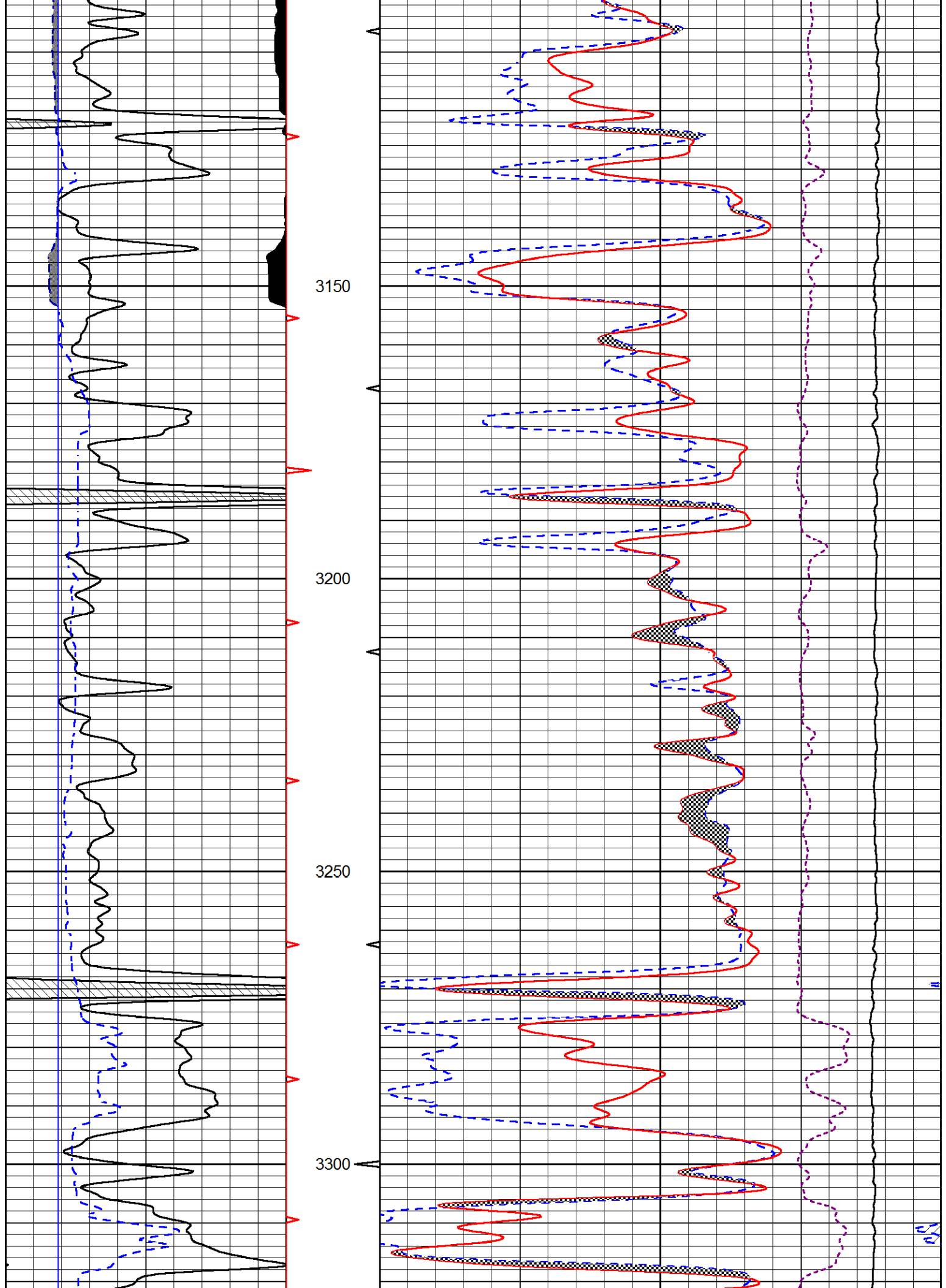


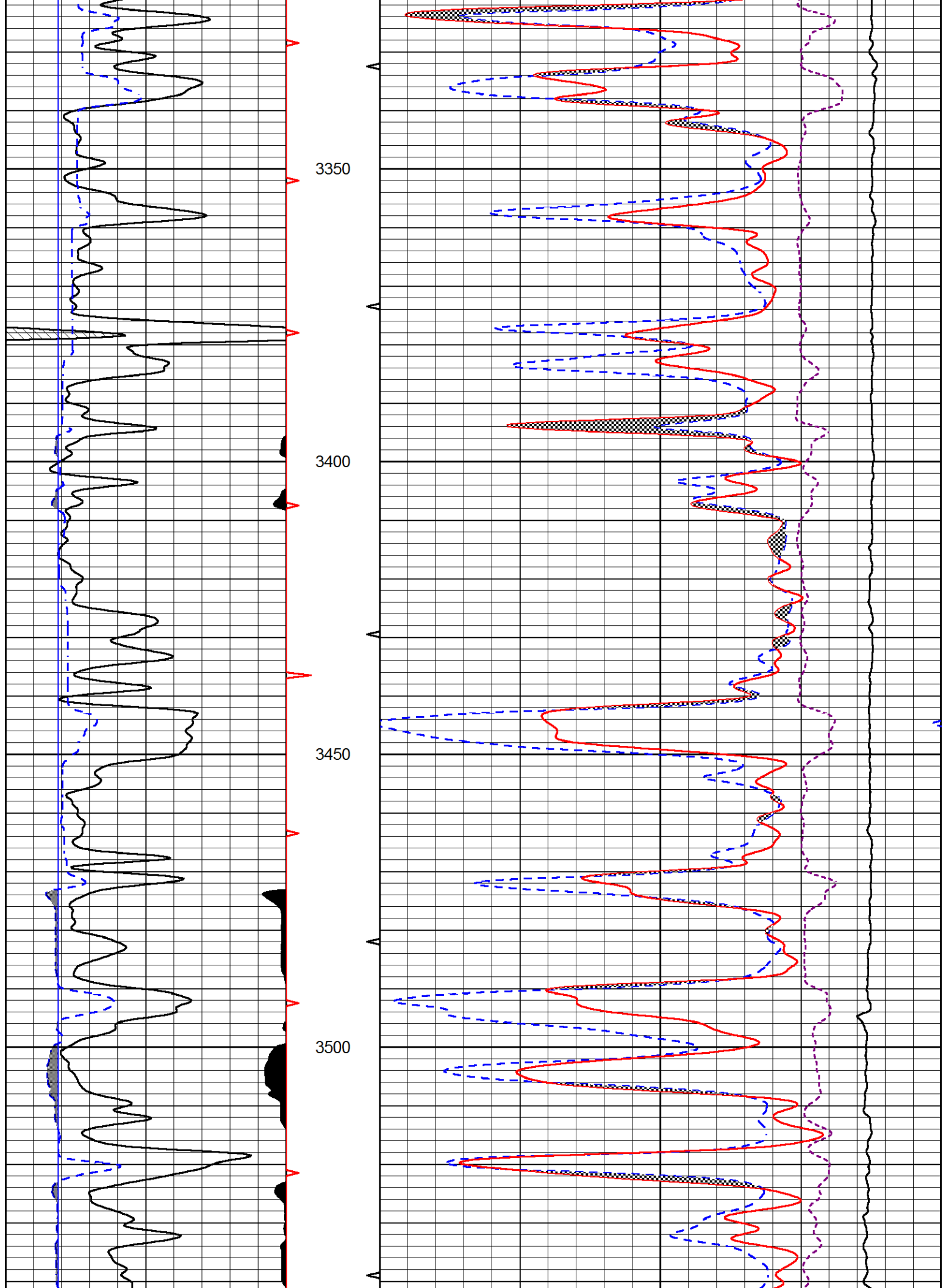
Database File tdi_virginia_2.db
 Dataset Pathname STACK/pass3.1
 Presentation Format cndlspec
 Dataset Creation Mon Jul 17 07:29:27 2017
 Charted by Depth in Feet scaled 1:240

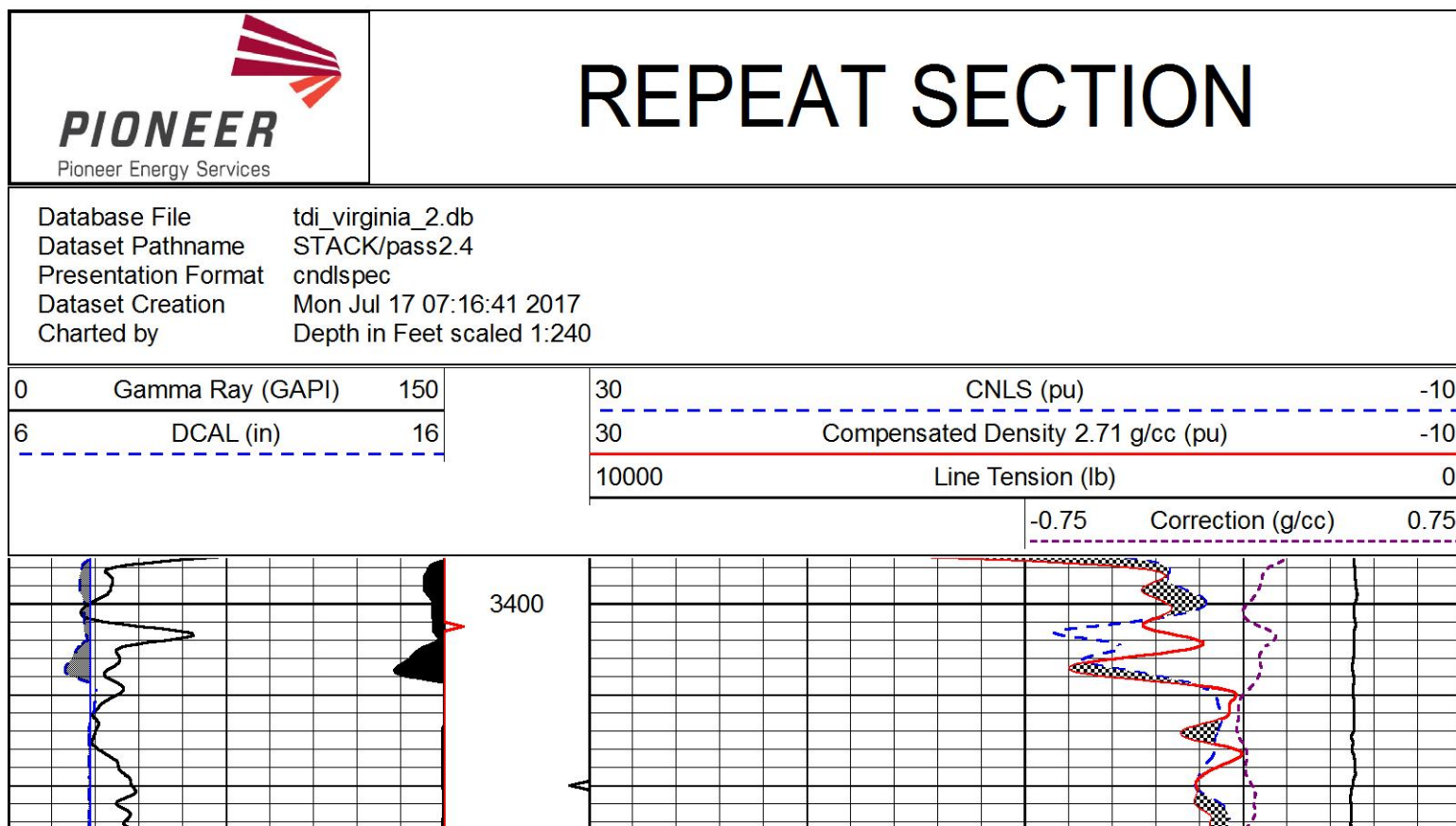
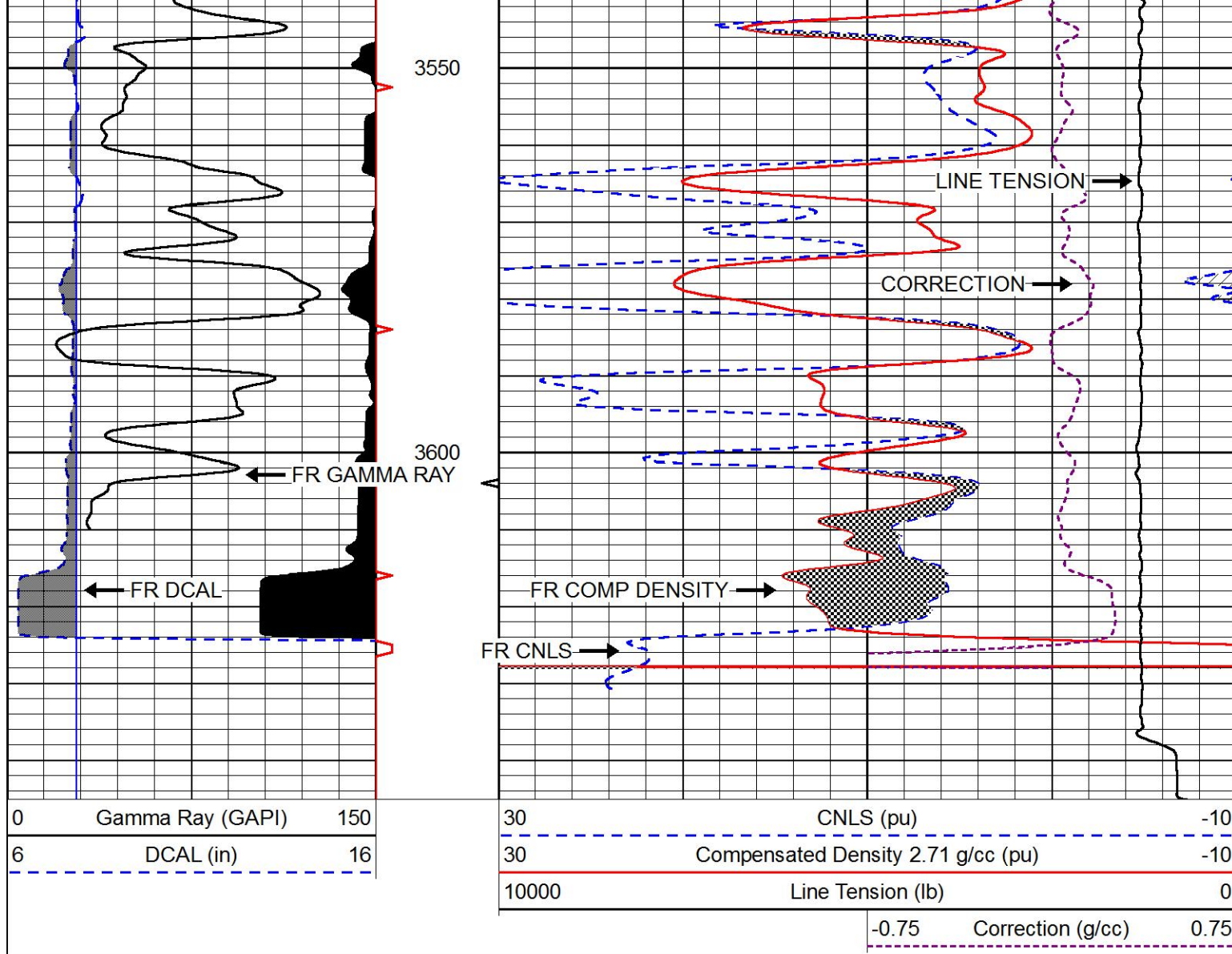
0	Gamma Ray (GAPI)	150	30	CNLS (pu)	-10
6	DCAL (in)	16	30	Compensated Density 2.71 g/cc (pu)	-10
			10000	Line Tension (lb)	0
				Correction (g/cc)	-0.75 0.75

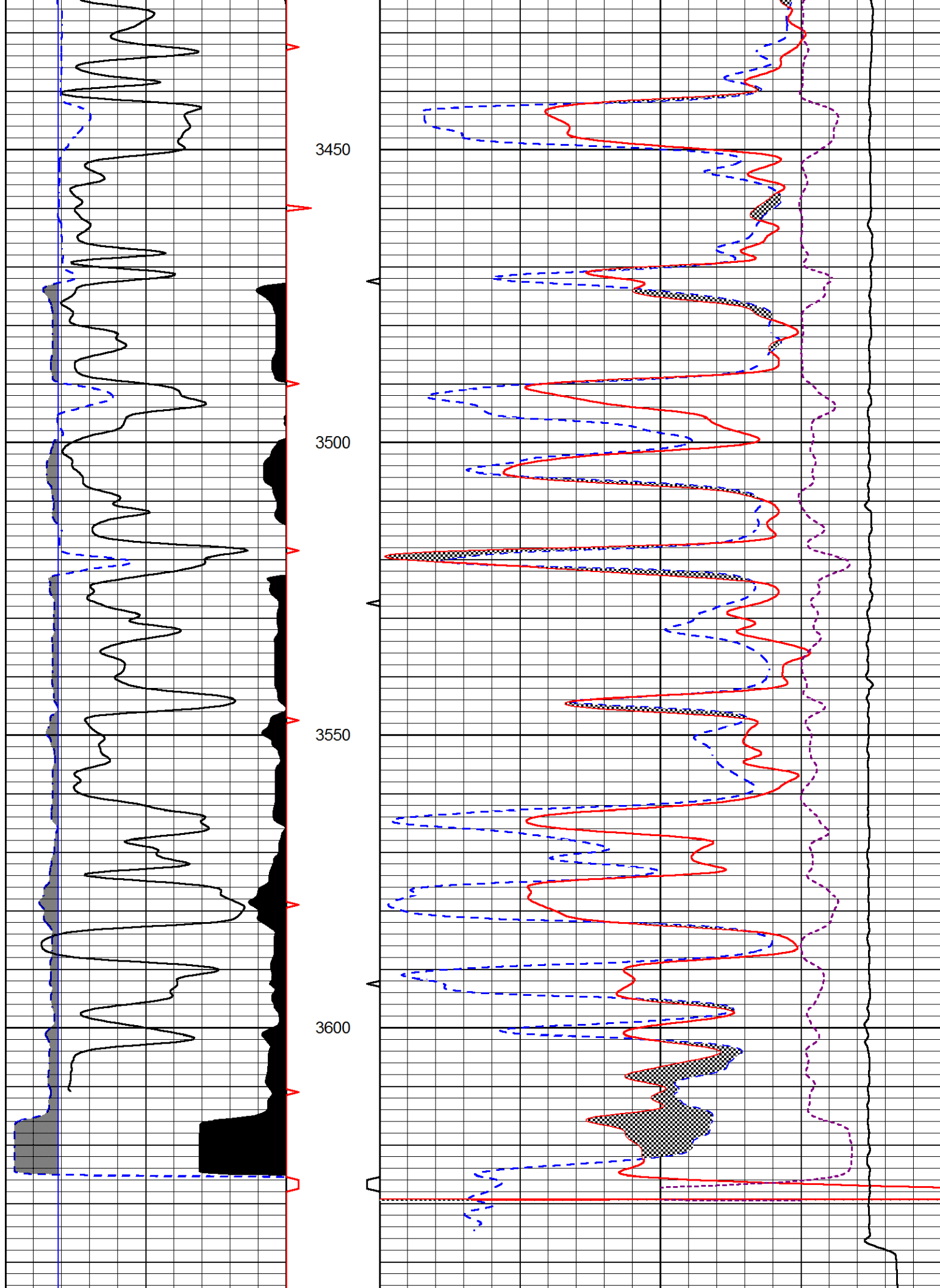












0	Gamma Ray (GAPI)	150	30	CNLS (pu)	-10
6	DCAL (in)	16	30	Compensated Density 2.71 g/cc (pu)	-10
			10000	Line Tension (lb)	0
				-0.75	Correction (g/cc) 0.75

Calibration Report							
Database File	tdi_virginia_2.db						
Dataset Pathname	STACK/pass3.5						
Dataset Creation	Mon Jul 17 07:15:58 2017						
Dual Induction Calibration Report							
Serial-Model:				PSI 91-M&W			
Calibration Performed:				Thu Jul 13 13:00:25 2017			
		Readings		References		Results	
Loop:	Air	Loop		Air	Loop	Gain	Offset
Deep	166.796	835.089		0.000	255.800	mmho/m	0.430
Medium	142.009	1348.560		0.000	255.800	mmho/m	0.360
							-32.000
							-31.000
Compensated Density Calibration Report							
Serial-Model:				90-1031-M&W			
Source / Verifier:				16955B / 2ci			
Master Calibration Performed:				Thu Jul 13 13:00:48 2017			
Master Calibration							
		Density		Far Detector		Near Detector	
Magnesium	1.755	g/cc		4903.44		6153.79	cps
Aluminum	2.675	g/cc		934.50		4021.31	cps
Spine Angle = 75.61			Density/Spine Ratio = 0.538				
		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:				Sat Jun 17 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 Jul 13 13:01:02 2017			

Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.6000	GAPI/cps



Company	TDI, INC.
Well	VIRGINIA #2
Field	VIRGINIA
County	ELLIS
State	KANSAS