



DUAL COMP POROSITY LOG

Pioneer Energy Services

Company **LARSON ENGINEERING, INC.**
Well **PARIS #2-11**
Field **WILDCAT**
County **LANE** State **KANSAS**

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Location: API #: 15-101-22587-00-00
Other Services
Permanent Datum **GROUND LEVEL** Elevation **2800'**
Log Measured From **KELLY BUSHING**
Drilling Measured From **KELLY BUSHING**
Elevation
K.B. 2810'
D.F. N/A
G.L. 2800'

NW NE NW SE
2550' FSL & 1690' FEL
SEC 11 TWP 19S RGE 29W

D/L/MEL

Date **2/25/2017**

Run Number	ONE
Type Log	CNL/CDL
Depth Driller	4650'
Depth Logger	4660'
Bottom Logged Interval	4631'
Top Logged Interval	3600'
Type Fluid In Hole	CHEMICAL
Salinity, PPM CL	2400
Density	9.2
Level	FULL
Max. Rec. Temp. F	123
Operating Rig Time	3 HOURS
Equipment -- Location	91 COLBY
Recorded By	D. SCHMIDT
Witnessed By	VERN SCHRAG

Borehole Record

Casing Record

Run No.	Bit	From	To	Size	Wgt.	From	To
ONE	12.25"	0'	266'	8.625"	20#	0'	266'
TWO	7.875"	266'	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,
6 SOUTH ON HWY 23 TO 90 RD,
1 WEST TO KAW RD, 1 1/2 NORTH,
1/4 WEST TO LOCATION

Log Measured From: KELLY BUSHING 10 Ft. Above Permanent Datum

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

Your Pioneer Energy Services Crew

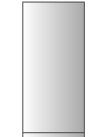
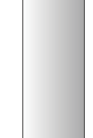
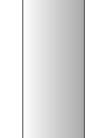
Engineer: D. SCHMIDT
Operator:
Operator:
Operator:

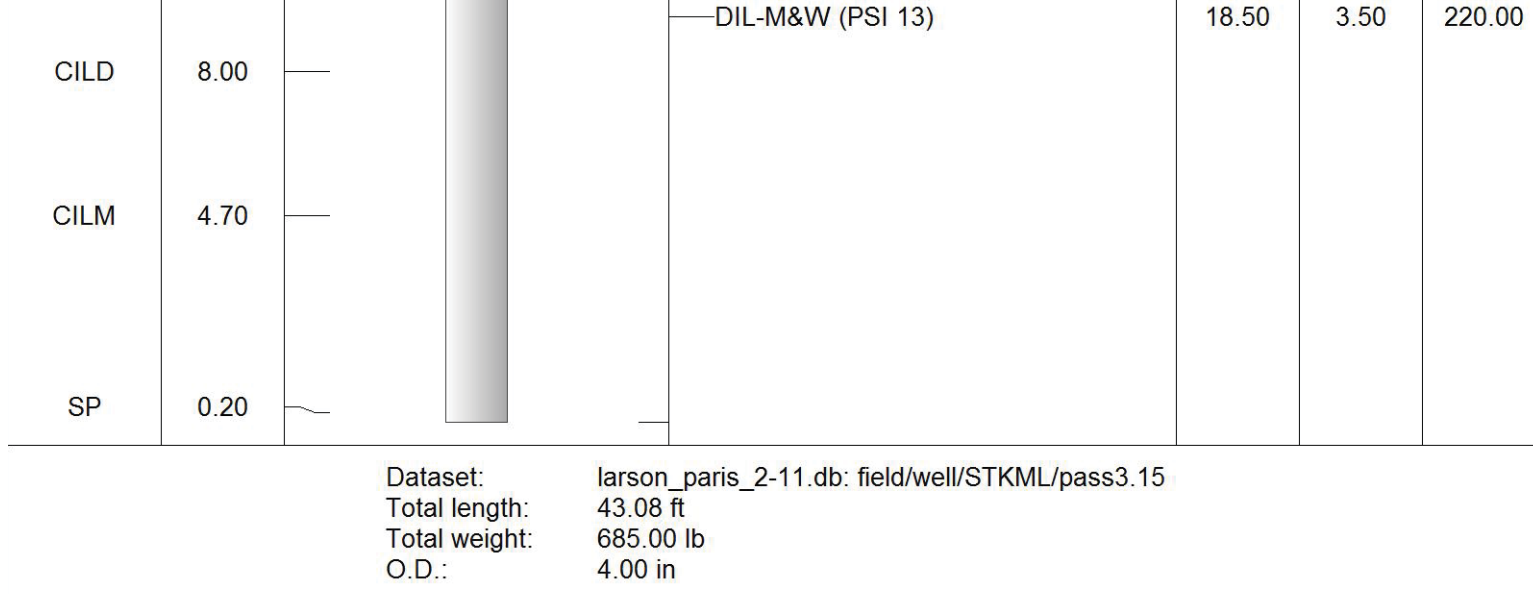
This Log Record Was Witnessed By

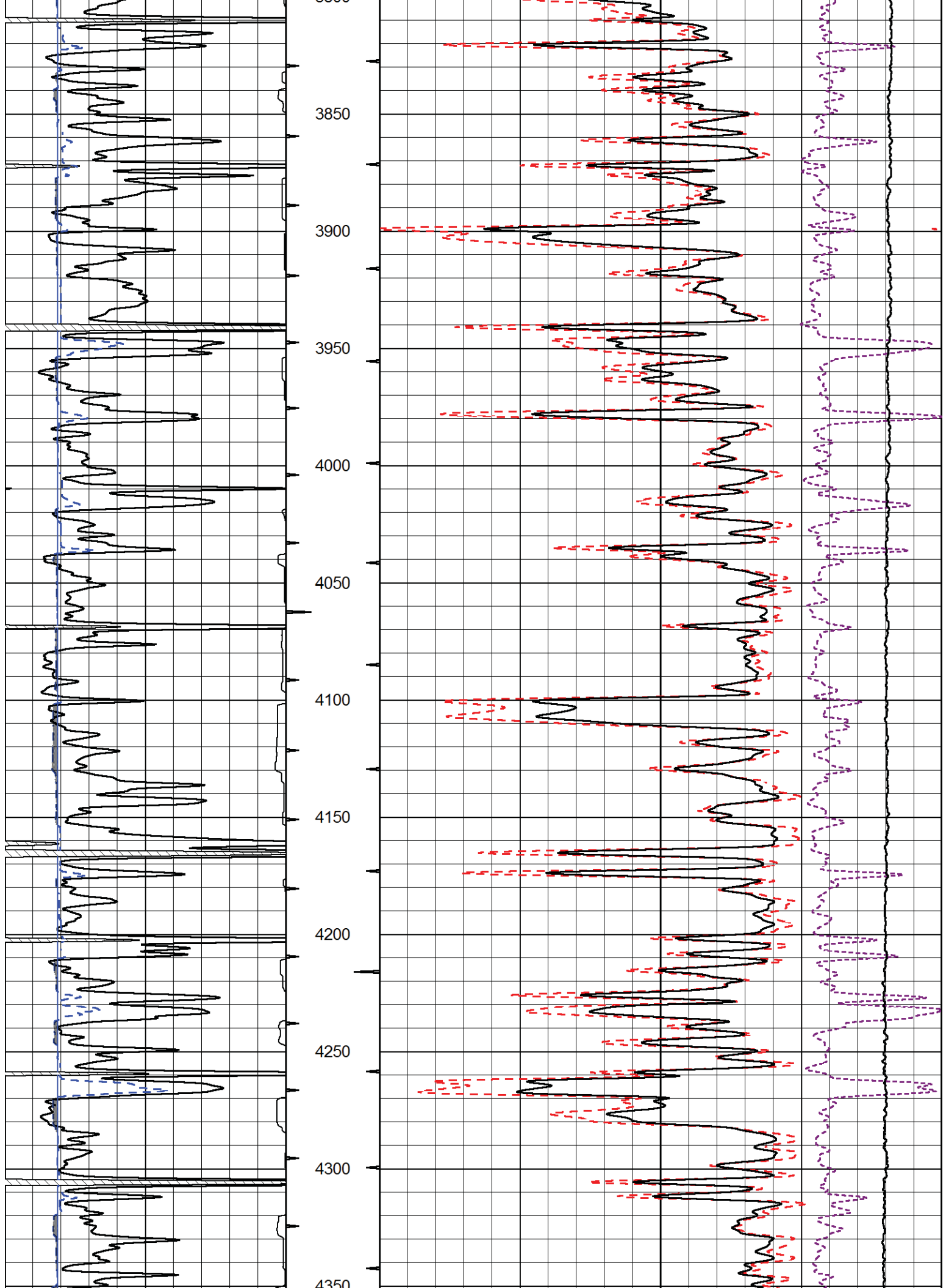
Primary Witness: VERN SCHRAG
Secondary Witness:
Secondary Witness:
Secondary Witness:

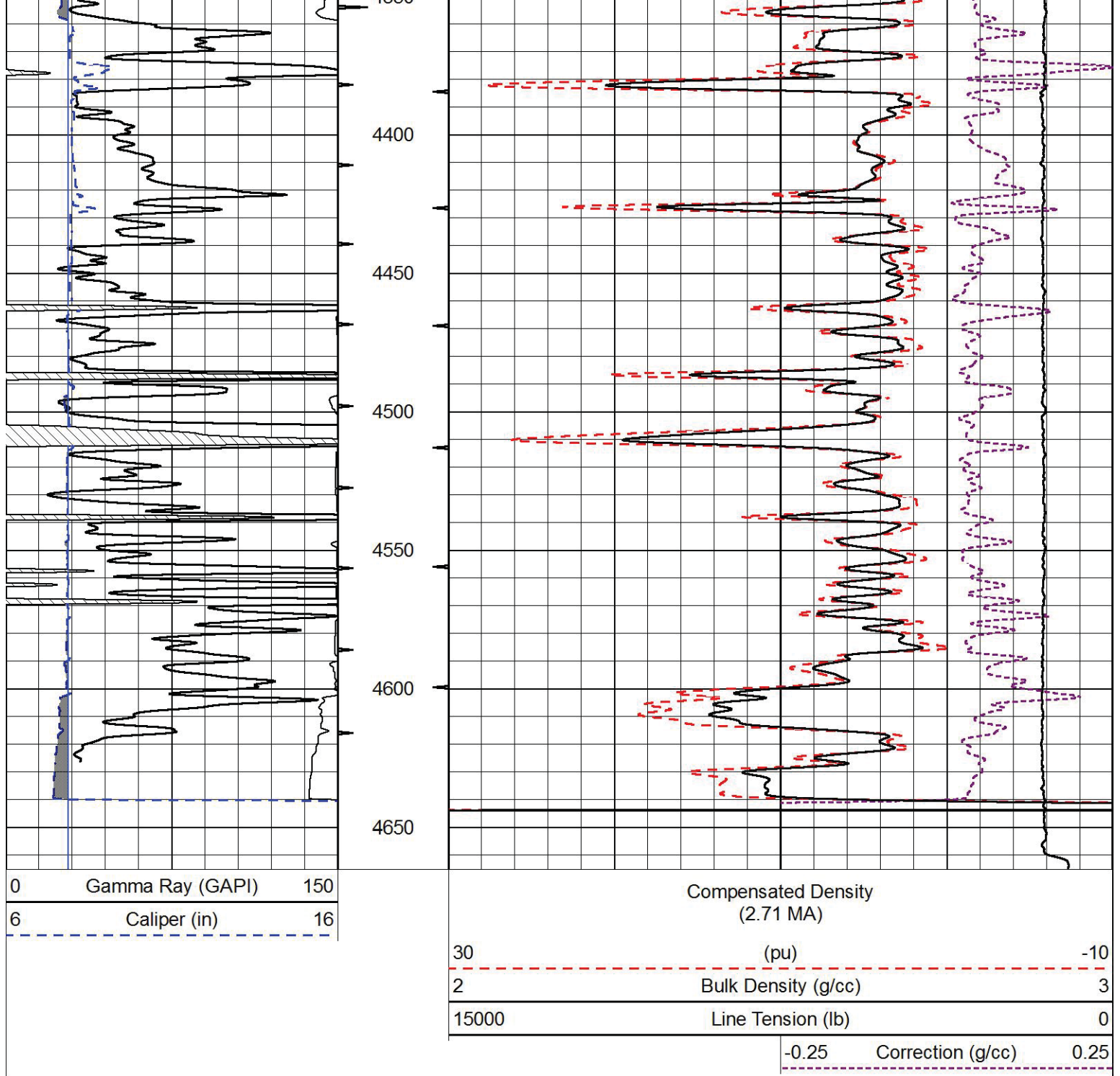
DatabaseC:\ProgramData\Warrior\Data\larson_paris_2-11.db
Dataset field/well/STKML/pass3.15/_vars_

Top - Bottom

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	37.48					CNT-M&W (207-MW)	5.50	3.50	100.00
CNSSC	36.73								
LSD	28.43			CDL-M&W (90-1031)	8.50	4.00	250.00		
DCAL	28.42								
SSD	27.93								
MCAL	19.83			ML-PSIML (PSI-01) GO Micro log tools converted to Simplec electronics	7.58	4.00	65.00		
MI	19.83								
MN	19.83								
RLL3F	15.80			RLL3	15.80				
RLL3	15.80								









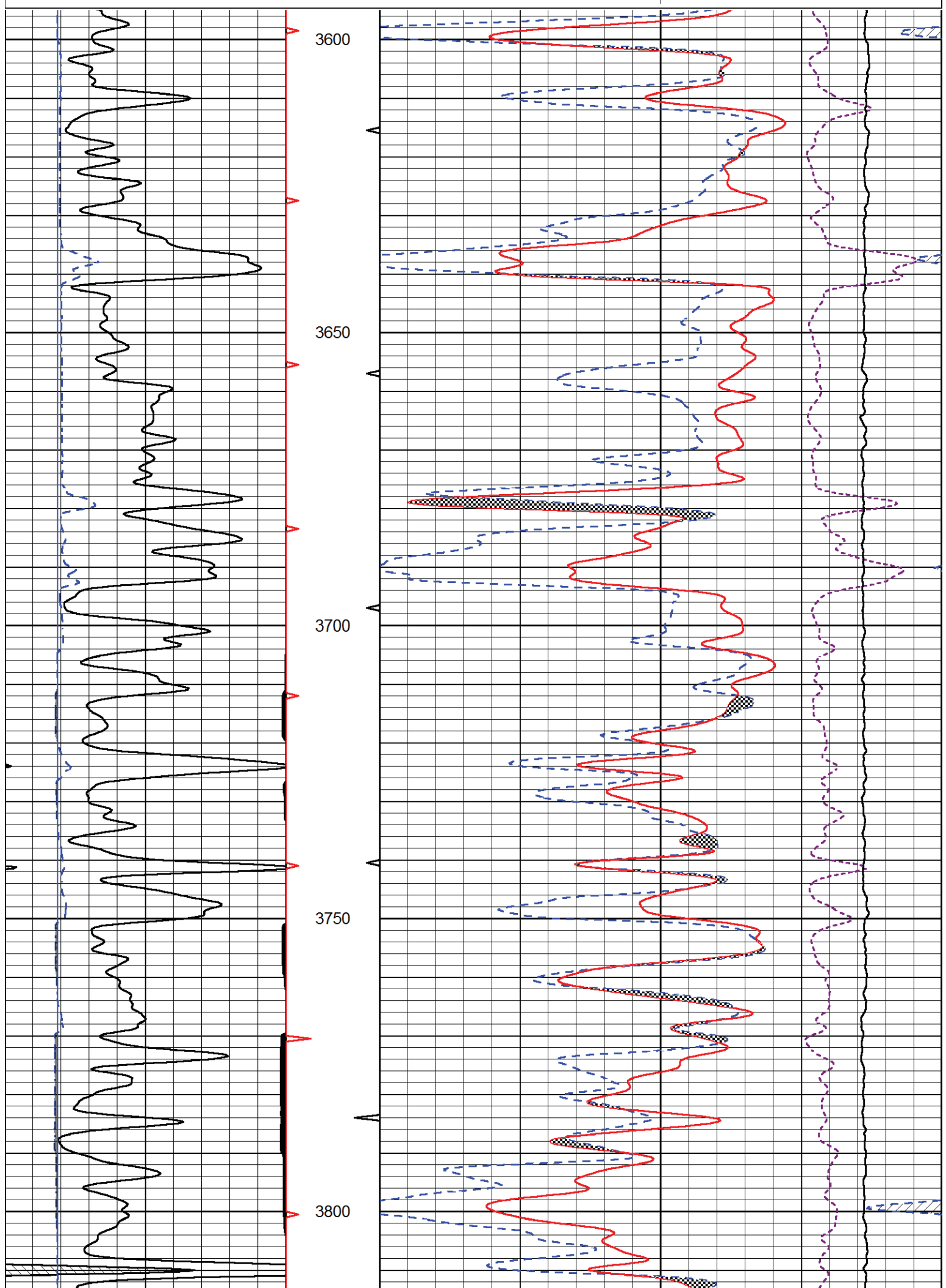
PIONEER
Pioneer Energy Services

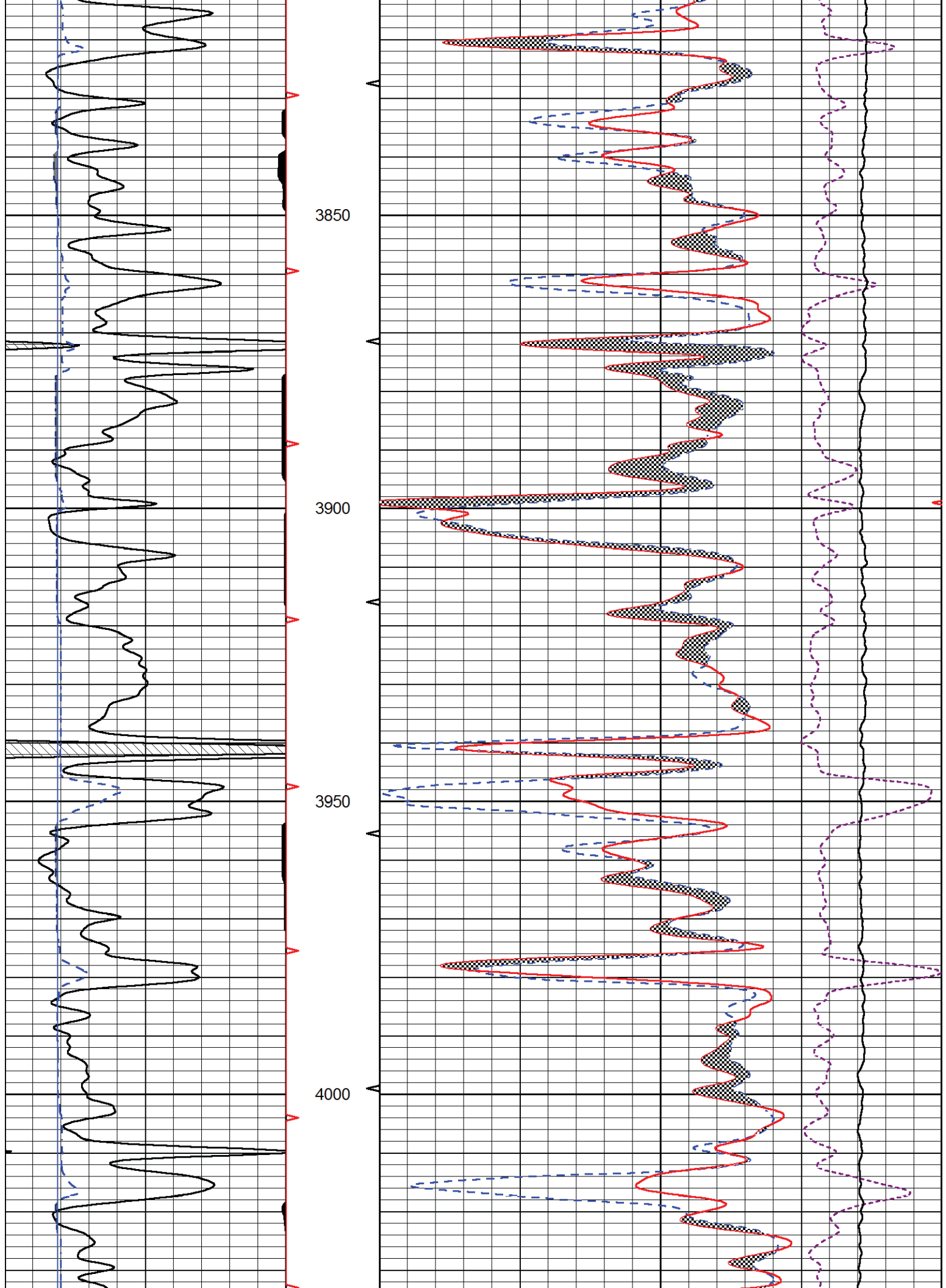
MAIN PASS

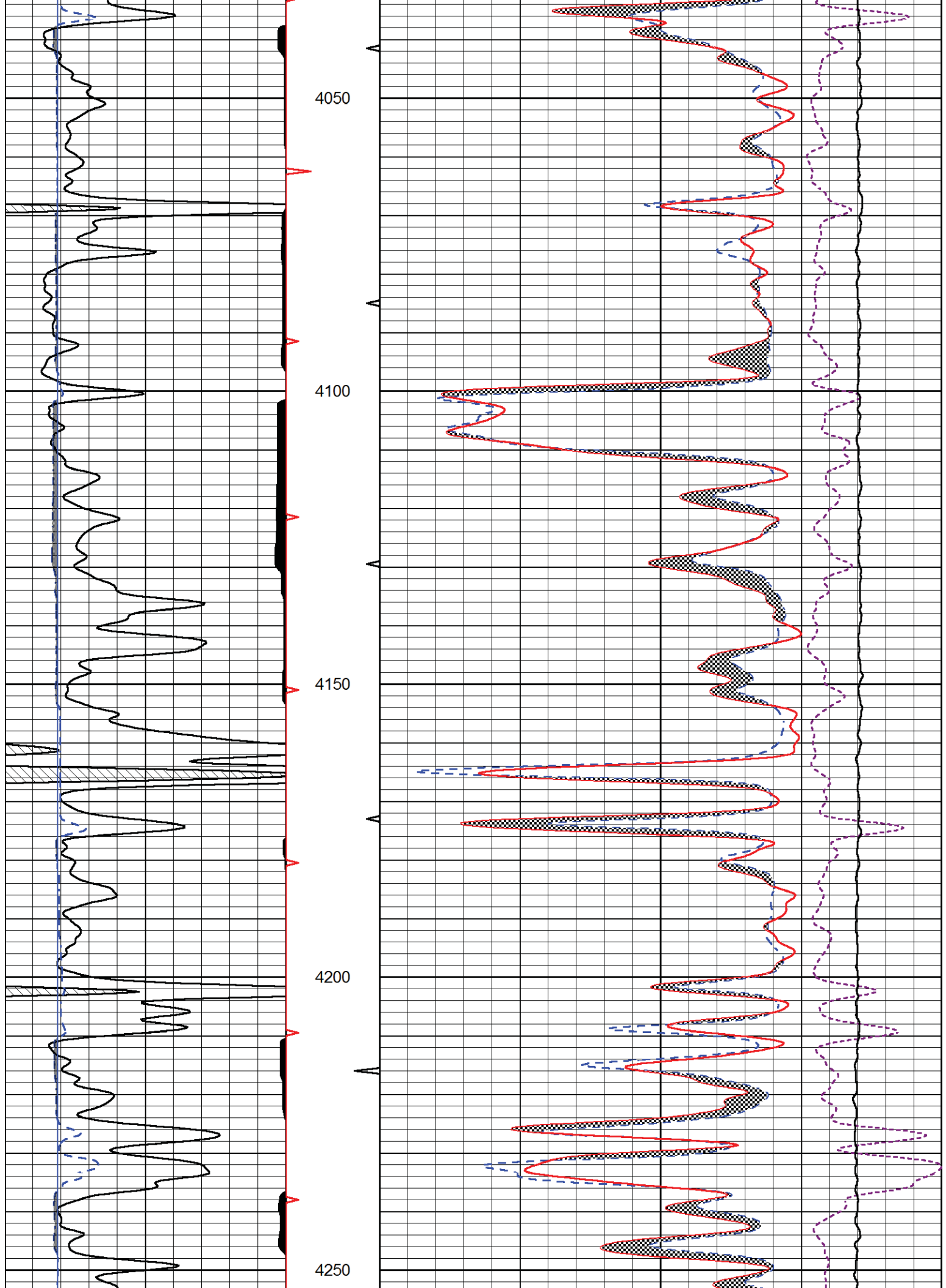
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 Dataset Pathname: STKML/pass3.15
 Presentation Format: cndlspec
 Dataset Creation: Sat Feb 25 02:52:27 2017
 Charted by: Depth in Feet scaled 1:240

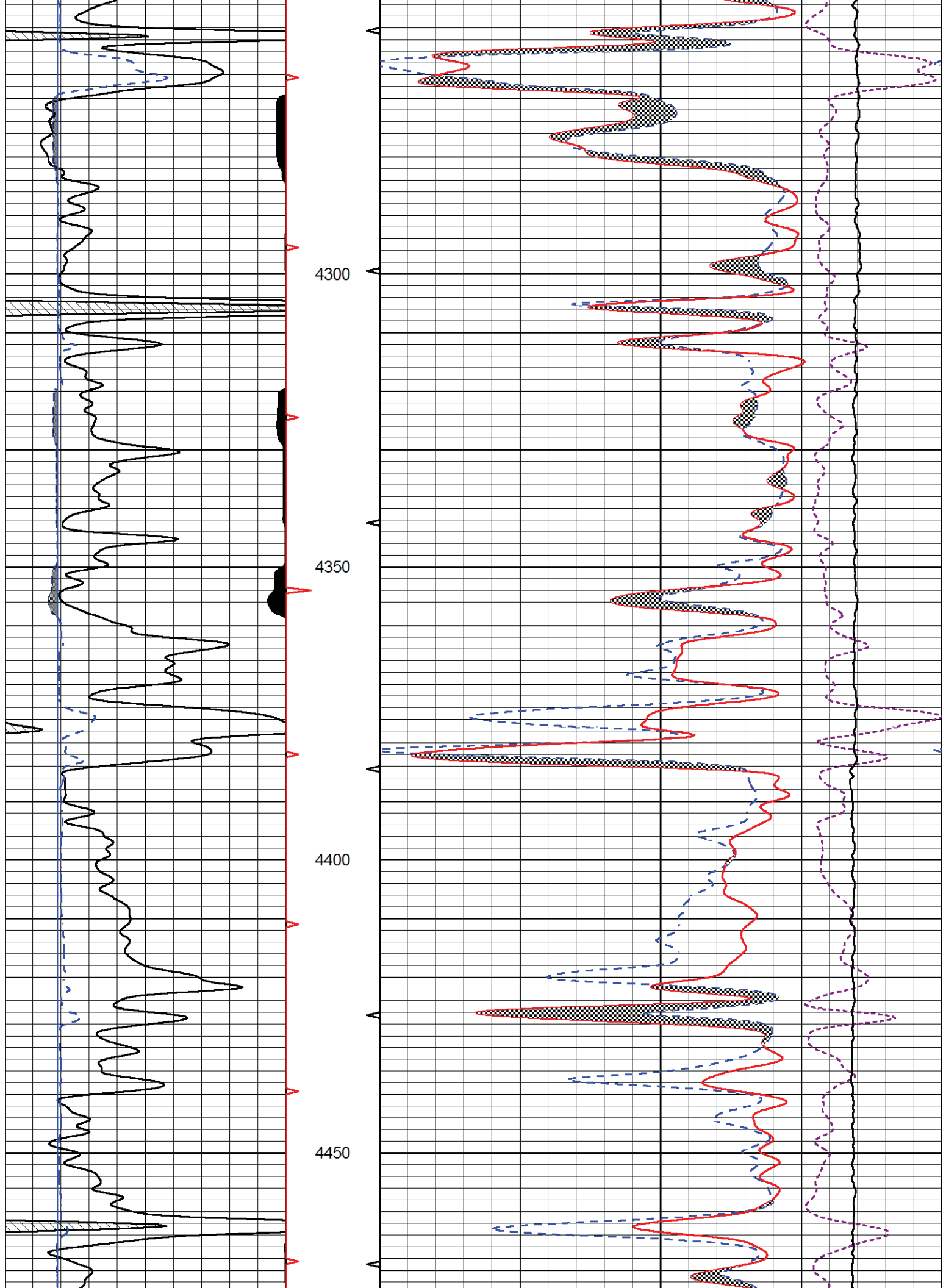
0	Gamma Ray (GAPI)	150
6	DCAL (in)	16

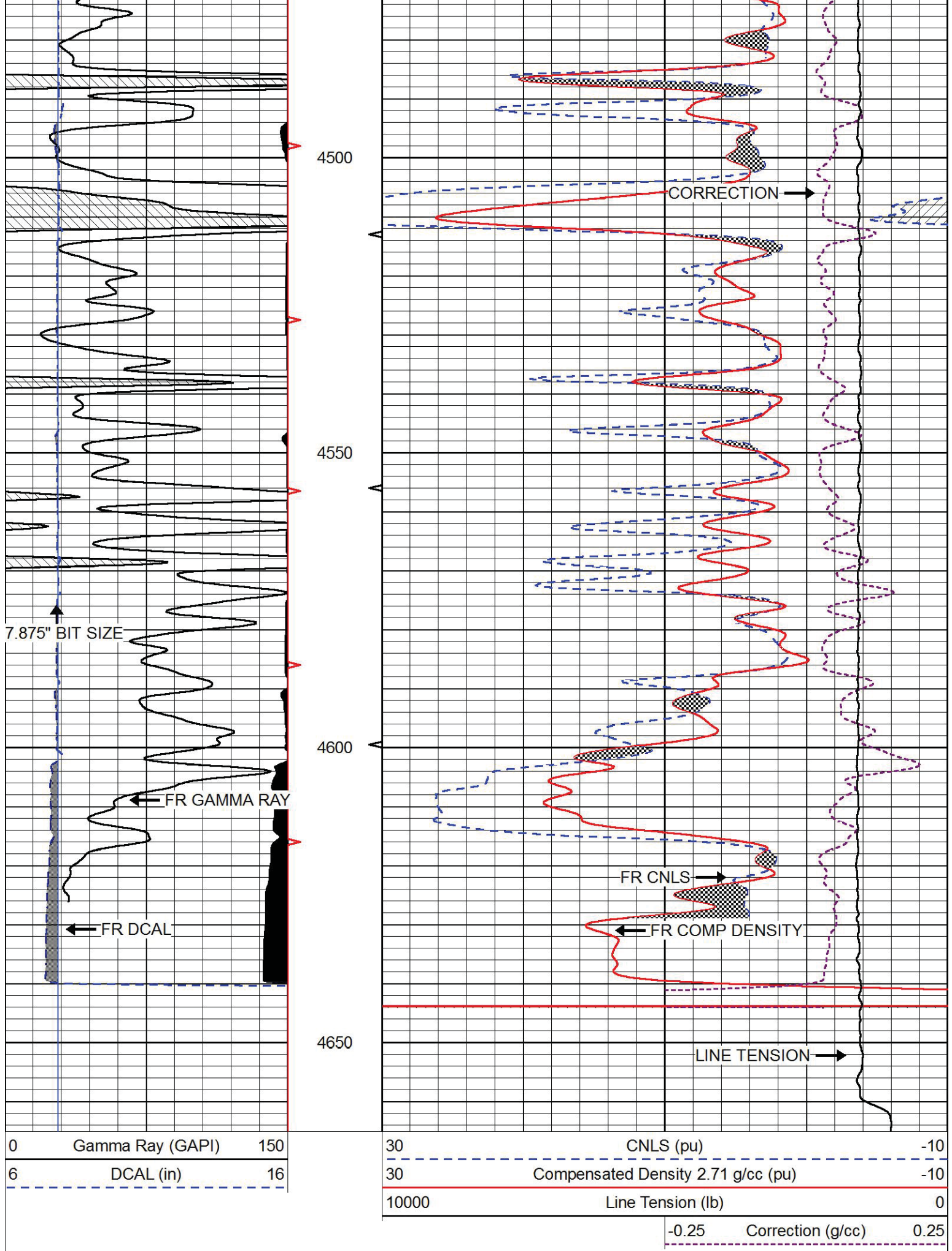
30	CNLS (pu)	-10
30	Compensated Density 2.71 g/cc (pu)	-10
10000	Line Tension (lb)	0
	-0.25 Correction (g/cc)	0.25









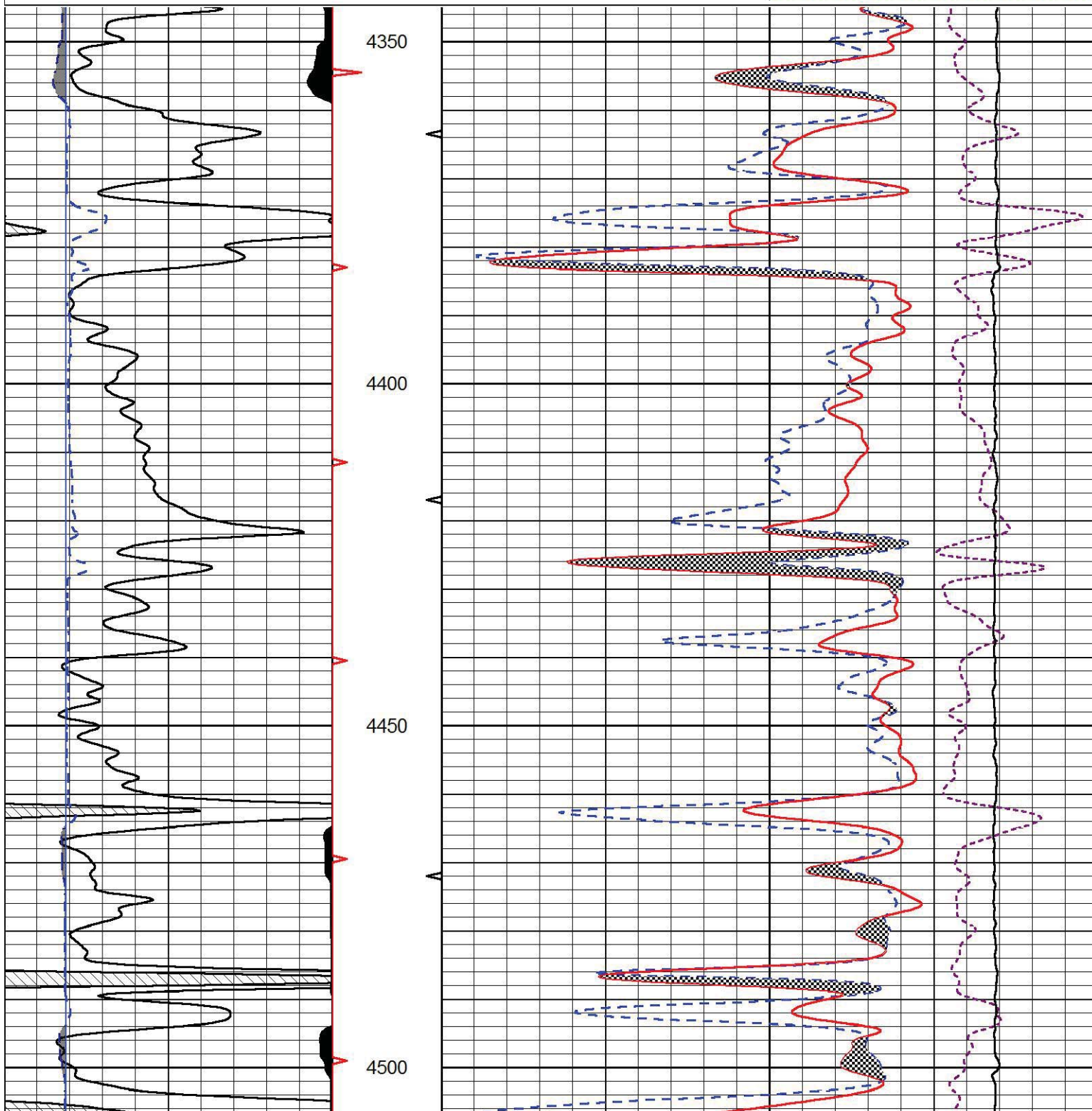


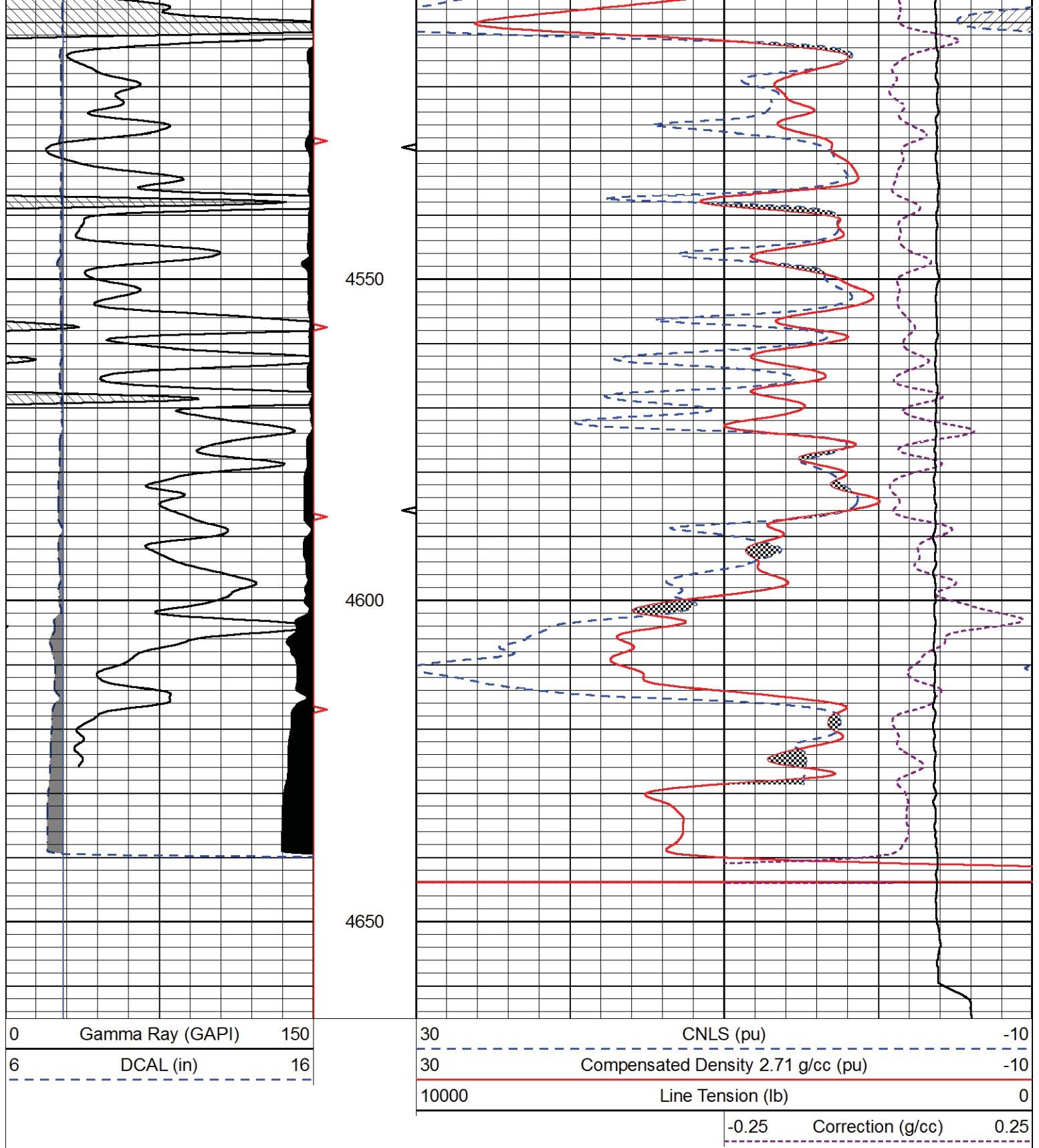
REPEAT SECTION

Database File larsen_paris_2-11.db
Dataset Pathname STKML/pass2.1
Presentation Format cndlspec
Dataset Creation Sat Feb 25 03:02:48 2017
Charted by Depth in Feet scaled 1:240

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

30	CNLS (pu)	-10
30	Compensated Density 2.71 g/cc (pu)	-10
10000	Line Tension (lb)	0
-0.25	Correction (g/cc)	0.25





Calibration Report

Database File larson_paris_2-11.db
Dataset Pathname STKML/pass3.15
Dataset Creation Sat Feb 25 02:52:27 2017

Dual Induction Calibration Report

Serial-Model:
Calibration Performed:

PSI 13-M&W
Wed Feb 08 13:10:25 2017

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		Gain	Offset
Deep	166.796	835.089	0.000	255.800	mmho/m	0.950	-35.000
Medium	142.009	1348.560	0.000	255.800	mmho/m	0.800	-30.000

Microlog Calibration Report

Serial-Model:	PSI-01-PSIML
Performed:	Sun Feb 05 10:12:43 2017

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	14000.0000	-1.1000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	20000.0000	-1.3000
Caliper	1.0001	1.1397	6.5000	18.5000	in	100.0000	-97.1000

Compensated Density Calibration Report

Serial-Model:	90-1031-M&W
Source / Verifier:	16955B / 2ci
Master Calibration Performed:	Wed Jan 25 06:09:31 2017

Master Calibration						
	Density		Far Detector		Near Detector	
Magnesium	1.755	g/cc	5174.18		6425.27	cps
Aluminum	2.675	g/cc	963.17		4037.42	cps
Spine Angle = 74.55			Density/Spine Ratio = 0.527			
	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:	Sun Feb 5 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:	Mon Jan 02 18:08:34 2017	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps

**PIONEER**

Pioneer Energy Services

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Well	PARIS #2-11
Field	WILDCAT
County	LANE
State	KANSAS