



DUAL COMP POROSITY LOG

Company VAL ENERGY, INC.
 Well FRAHM UNIT # 1-16
 Field WILDCAT
 County THOMAS
 State KANSAS

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Location: API #: 15-193-21023-00-00
 872' FNL & 94' FWL
 SEC 16 TWP 8S RGE 35W
 Permanent Datum GROUND LEVEL Elevation 3328'
 Log Measured From KELLY BUSHING
 Drilling Measured From KELLY BUSHING
 Other Services DIL/MEL
 Elevation K.B. 3333'
 D.F. N/A
 G.L. 3328'

Date	7/28/2018						
Run Number	ONE						
Type Log	CNL/CDL						
Depth Driller	4890'						
Depth Logger	4890'						
Bottom Logged Interval	4861'						
Top Logged Interval	3900'						
Type Fluid In Hole	CHEMICAL						
Salinity, PPM CL	7000						
Density	9.2						
Level	FULL						
Max. Rec. Temp. F	125						
Operating Rig Time	3 HOURS						
Equipment -- Location	91 HAYS						
Recorded By	IAN MABB						
Witnessed By	TIM PRIEST						
Borehole Record							
Run No.	Bit	From	To	Size	Wgt.	From	To
ONE	12.25"	0'	261'	8.625"	23#	0'	261'
TWO	7.875"	261'					
Casing Record							

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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, KS.
 2 MILES WEST , SOUTH UNDER I-70 1/4 MILE - EAST INTO

Log Measured From: KELLY BUSHING Ft. Above Permanent Datum

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

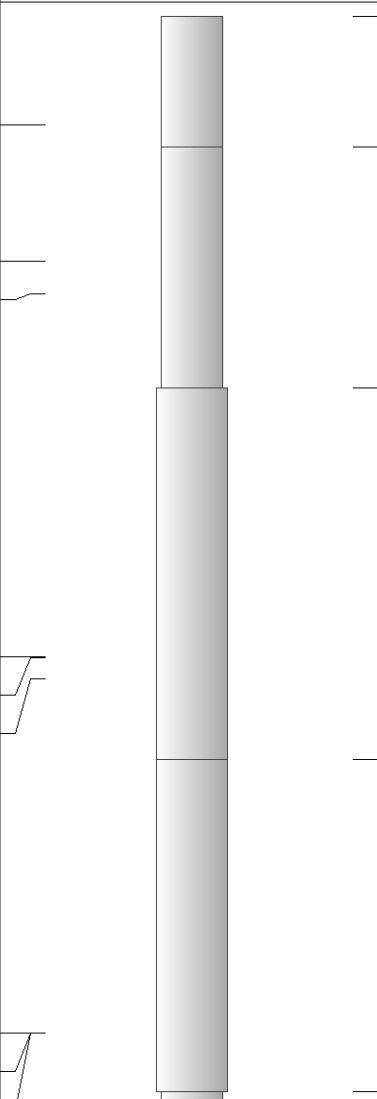
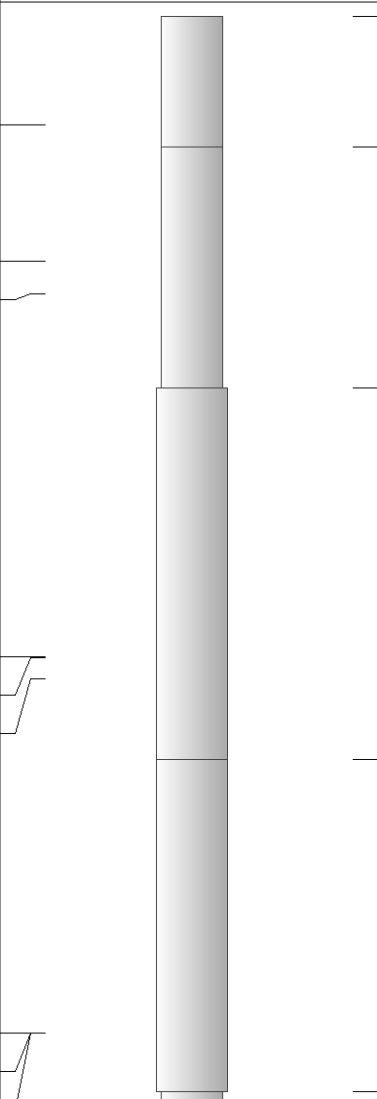
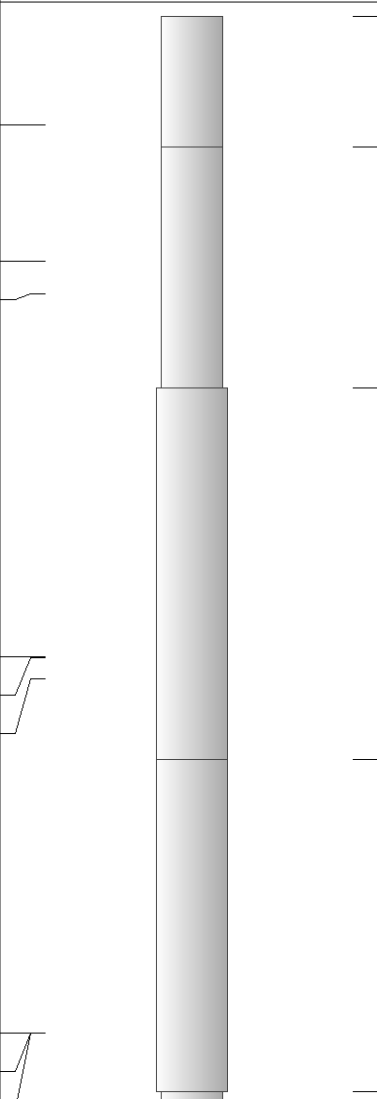
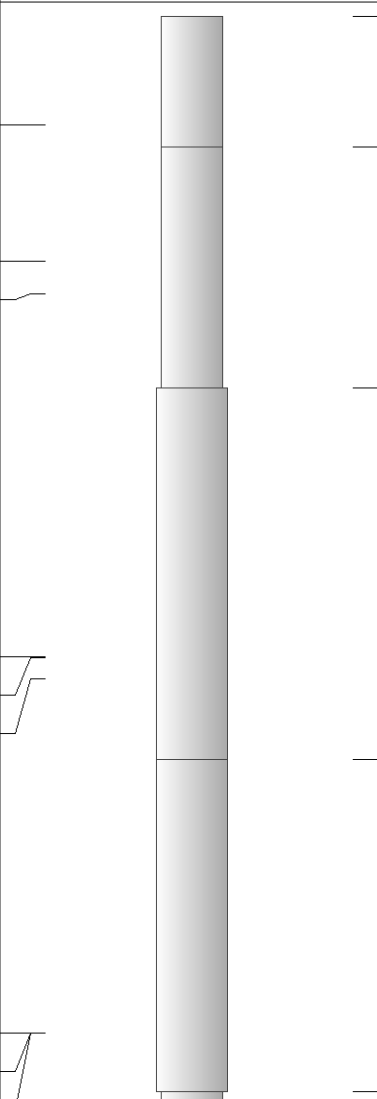
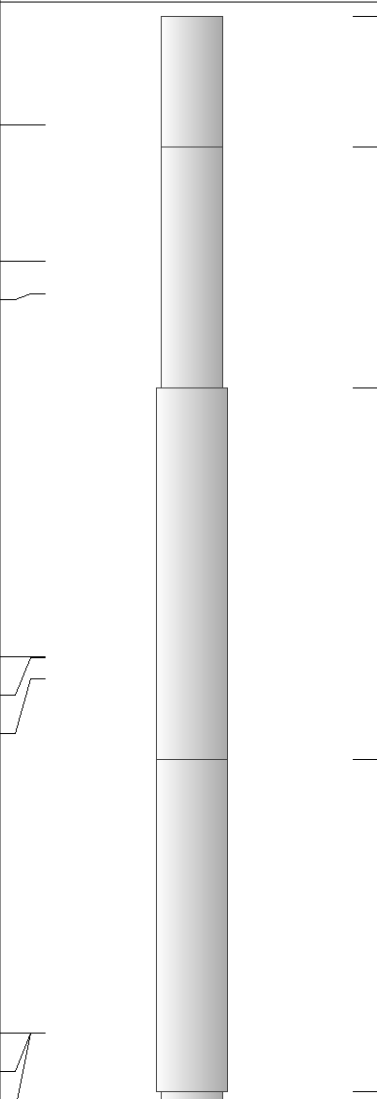
Your Pioneer Energy Services Crew		This Log Record Was Witnessed By	
Engineer: IAN MABB	Operator:	Primary Witness: TIM PRIEST	Secondary Witness:
Operator:	Operator:	Secondary Witness:	Secondary Witness:
Operator:		Secondary Witness:	

Log Variables

Database C:\ProgramData\Warrior\Data\val_energy_frahm_unit_1_16.db
 Dataset field/well/stackmel/pass3.1/_vars_

Top - Bottom

M	A	SZCOR	NPORSEL	FLUIDDEN g/cc	MATRXDEN g/cc	SPSHIFT mV	SNDERRM mmho/m
2	1	Off	Limestone	1	2.71	-40	3
SNDERR mmho/m	SRFTEMP degF	CASETHCK in	CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF	BOREID in
4	92	0	5.5	0	4890	125	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 (817-947)	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					

CILD 8.00

CILM 4.70

SP 0.20

DIL-PSI HIGH TEMP (933 (HT))

18.50

3.50

220.00

Dataset: val_energy_frahm_unit_1_16.db: field/well/stackmel/pass3.1
 Total length: 43.08 ft
 Total weight: 685.00 lb
 O.D.: 4.00 in



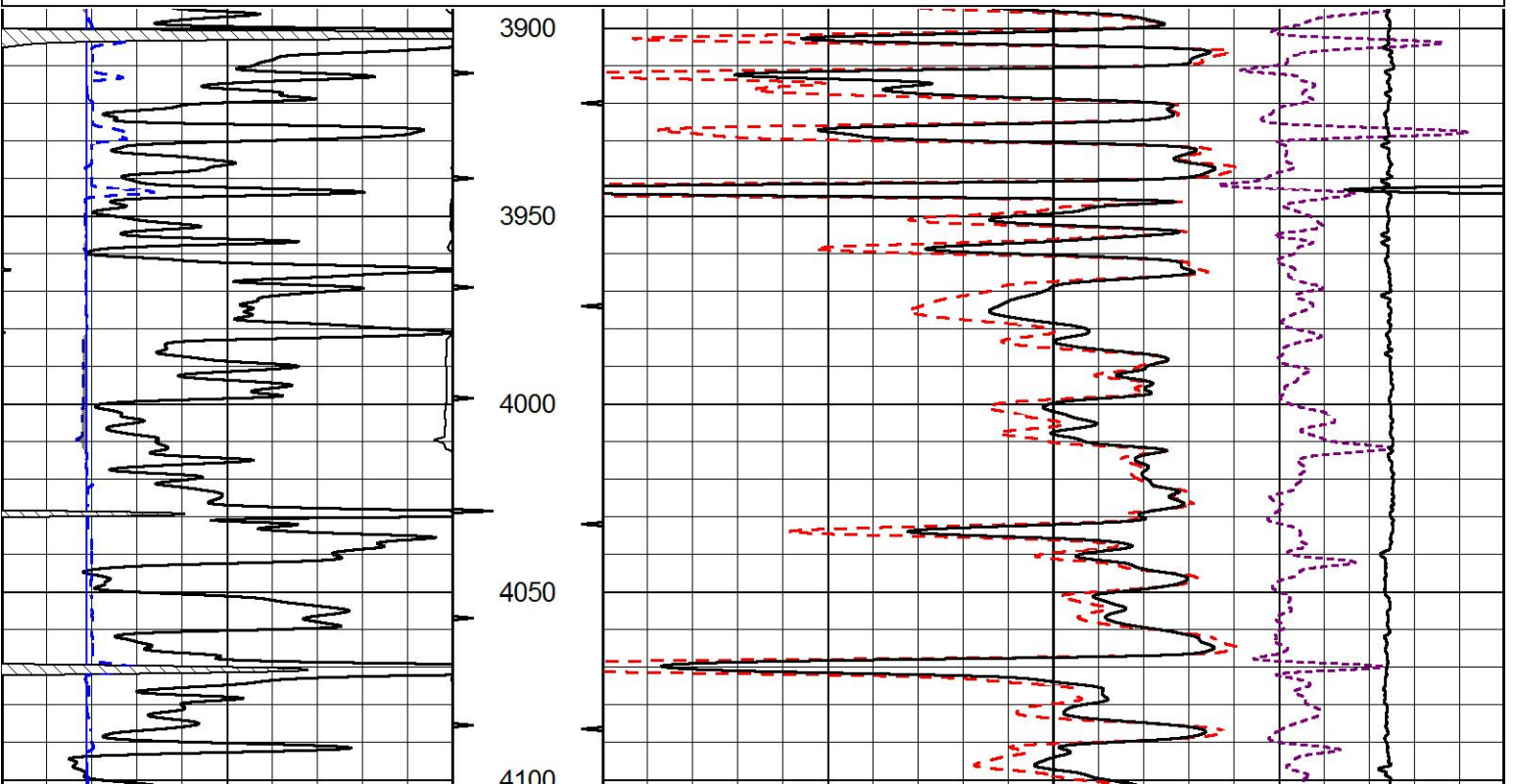
MAIN PASS

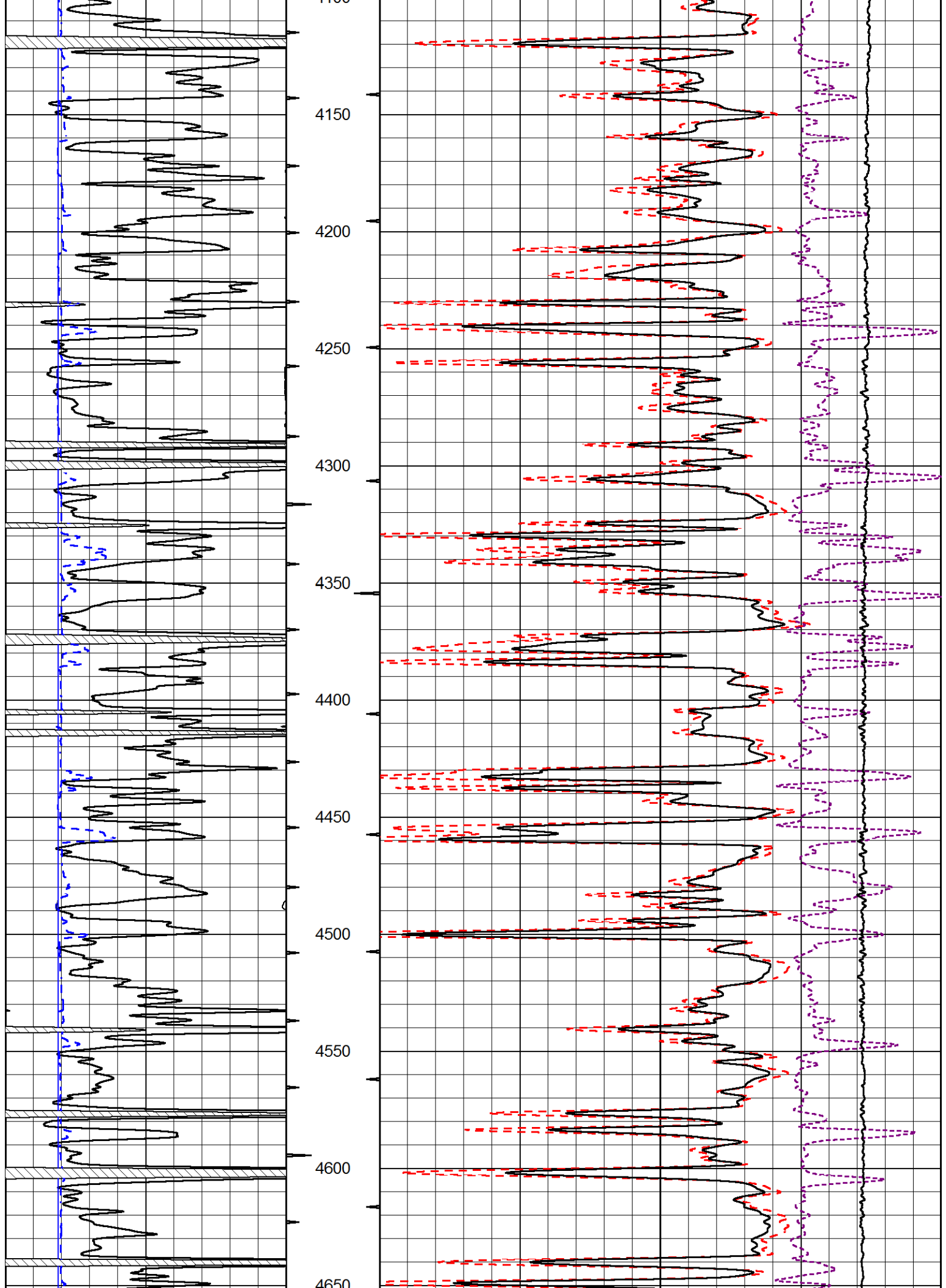
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 Dataset Pathname stackmel/pass3.1
 Presentation Format cdl
 Dataset Creation Sat Jul 28 18:51:20 2018
 Charted by Depth in Feet scaled 1:600

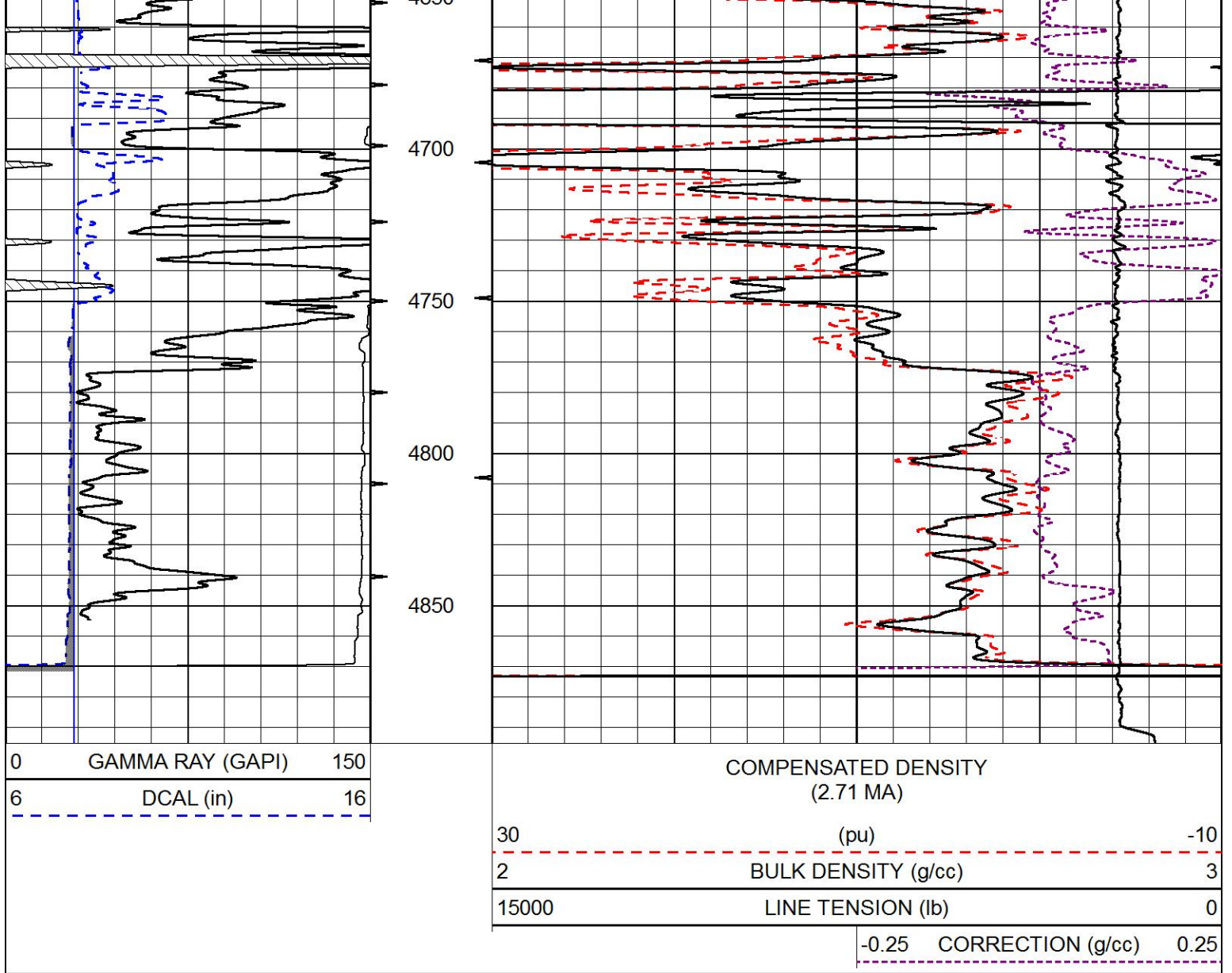
0	GAMMA RAY (GAPI)	150
6	DCAL (in)	16

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

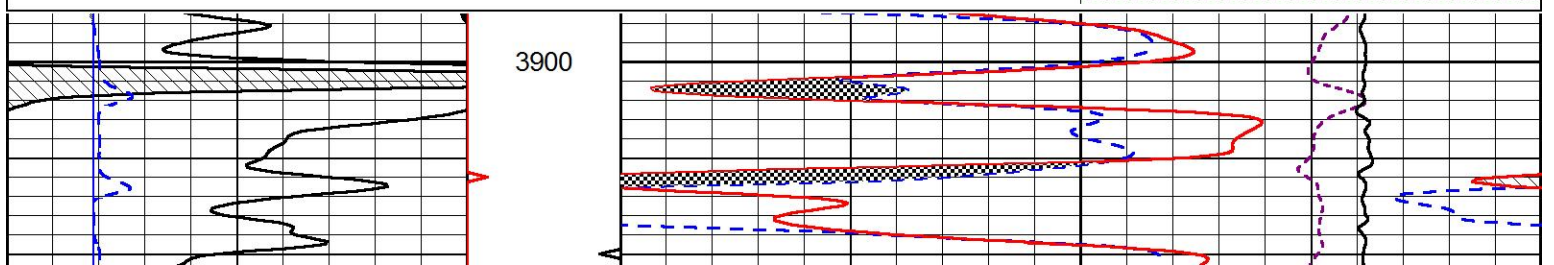
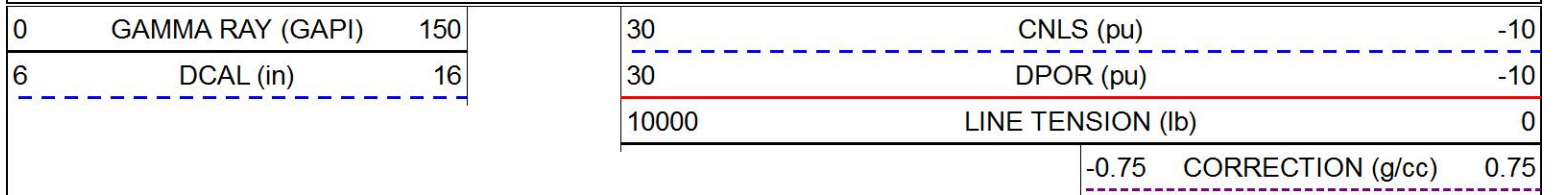


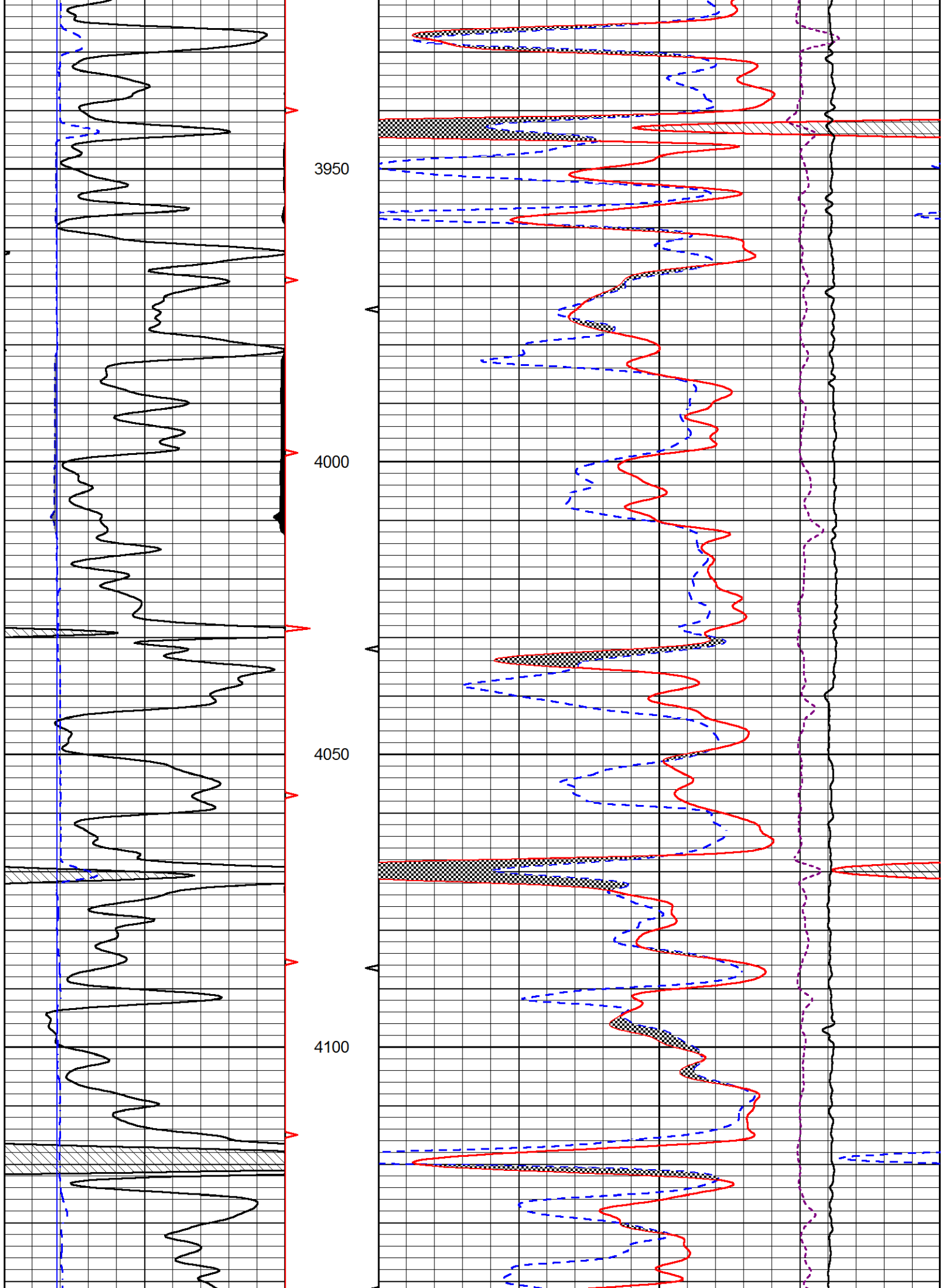


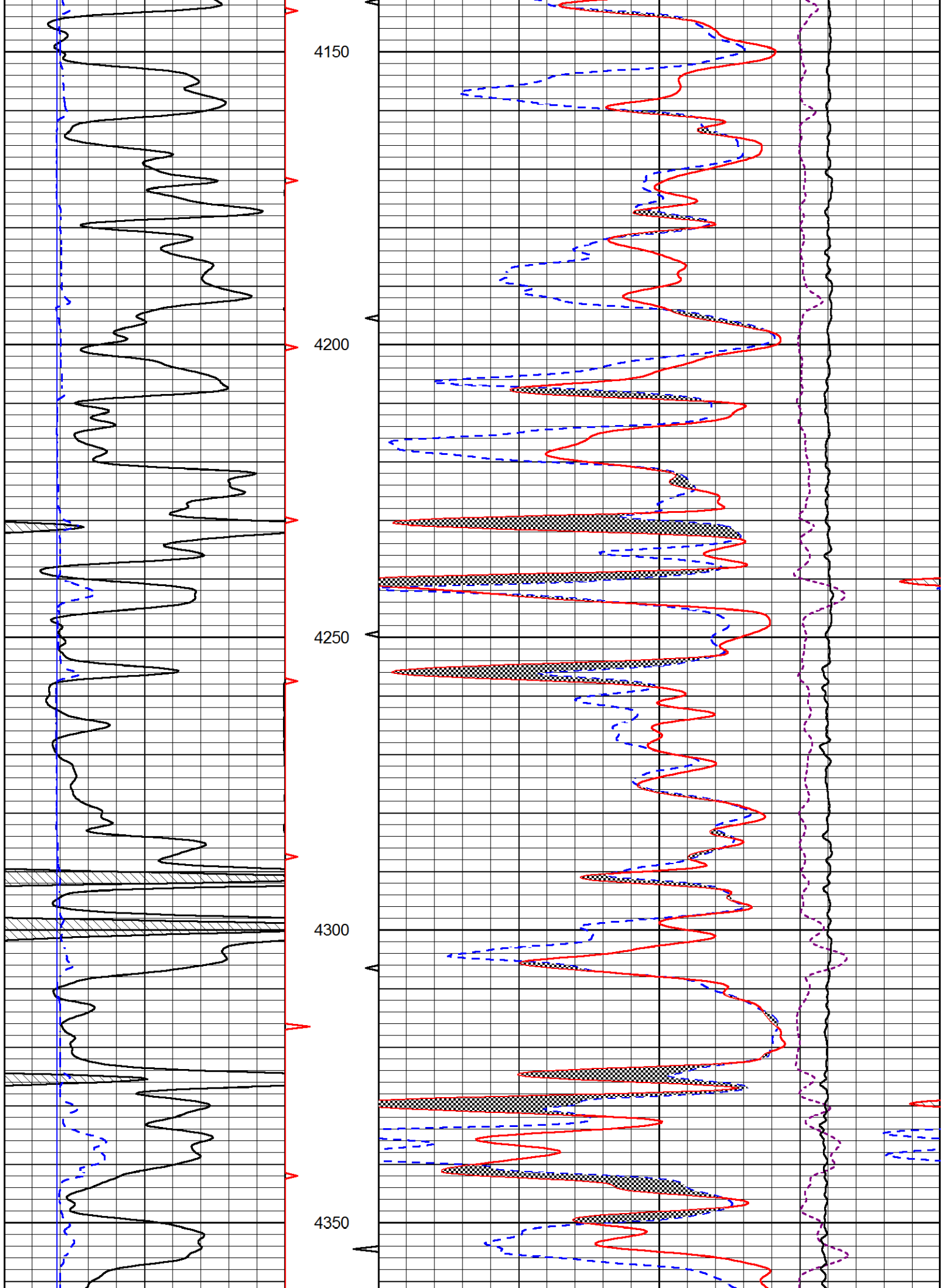


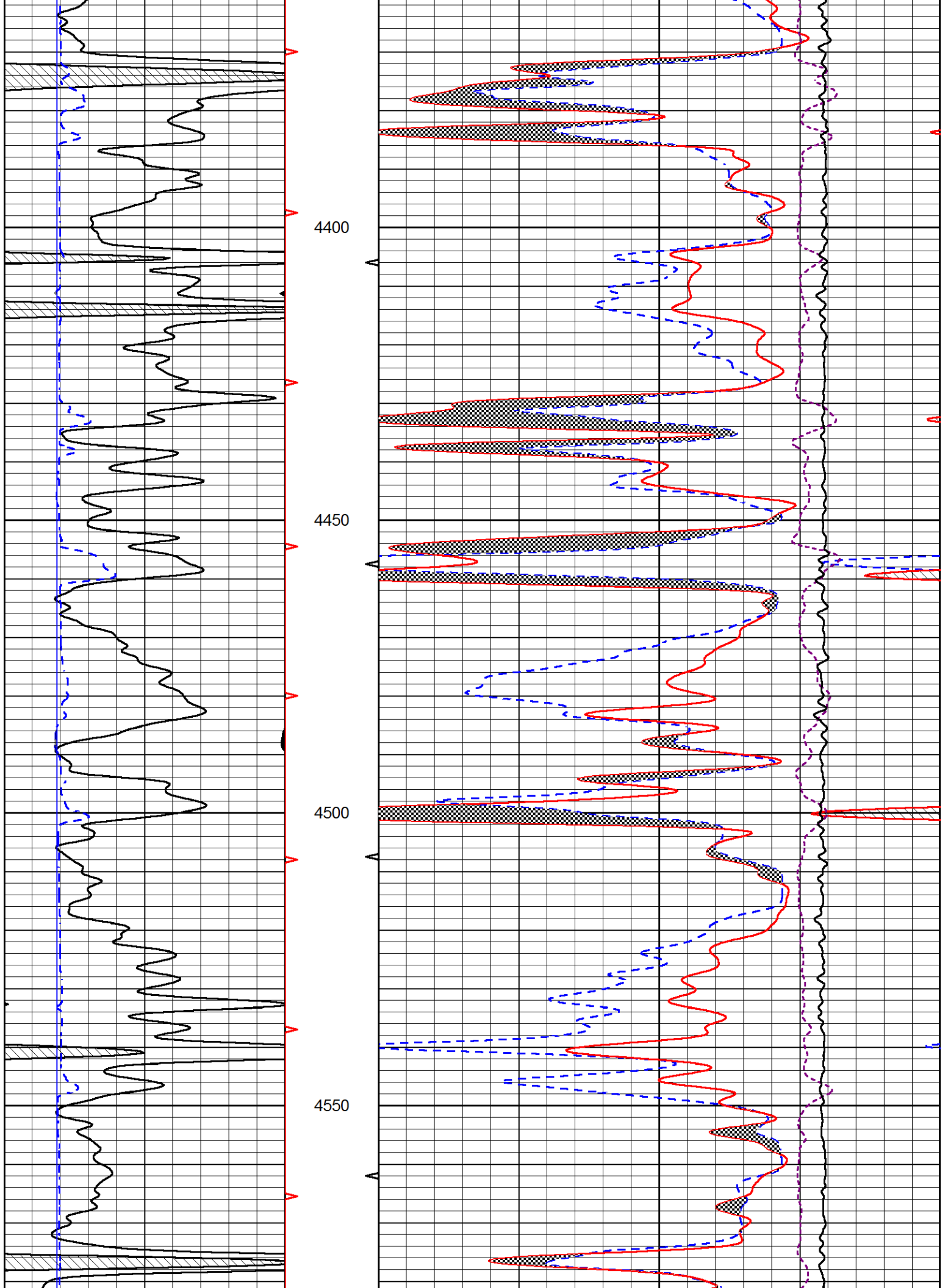
MAIN PASS

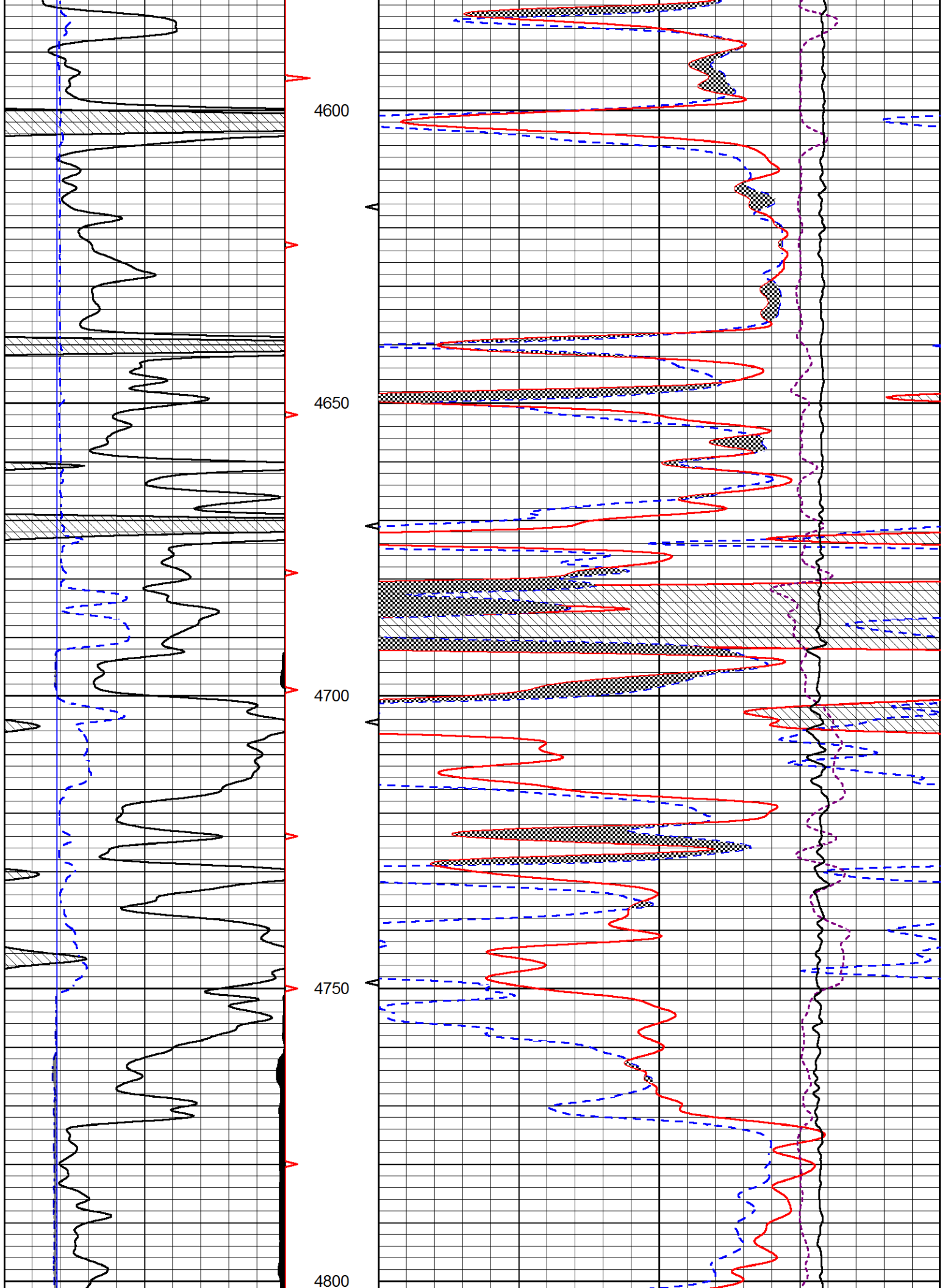
Database File val_energy_frahm_unit_1_16.db
 Dataset Pathname stackmel/pass3.1
 Presentation Format cndlspec
 Dataset Creation Sat Jul 28 18:51:20 2018
 Charted by Depth in Feet scaled 1:240

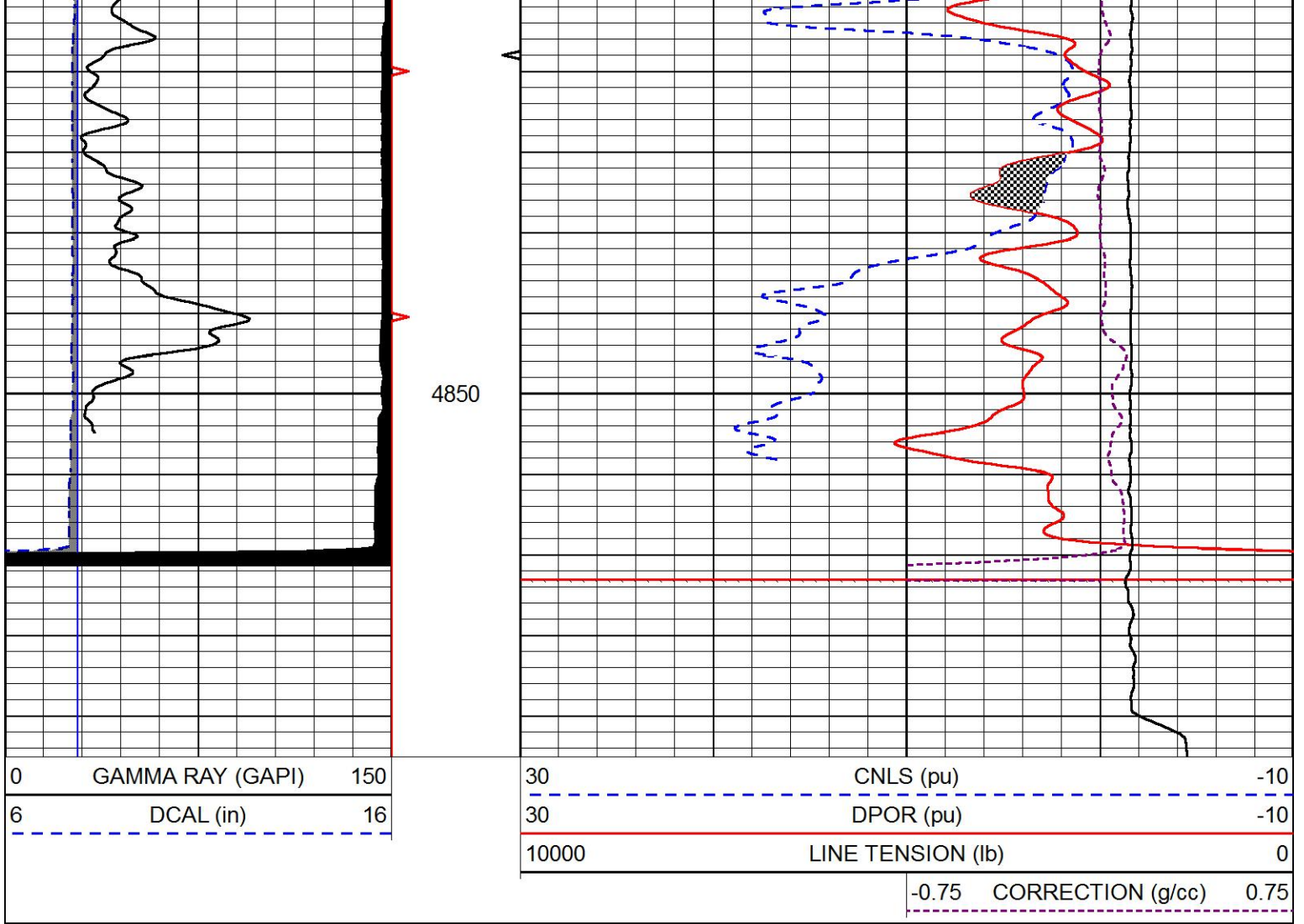






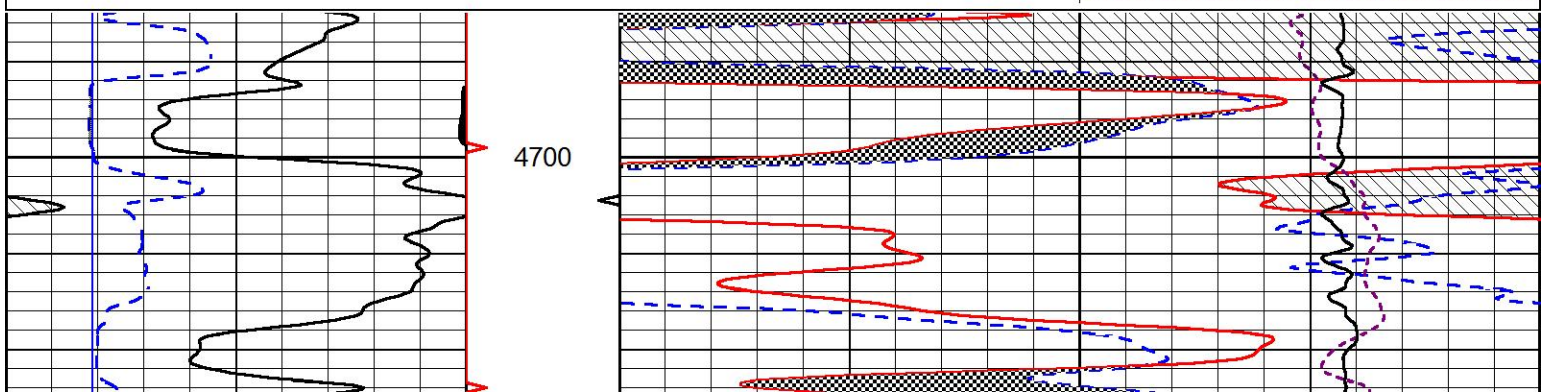
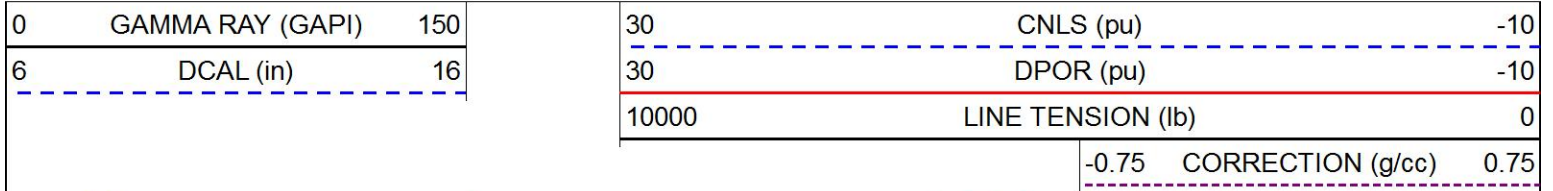


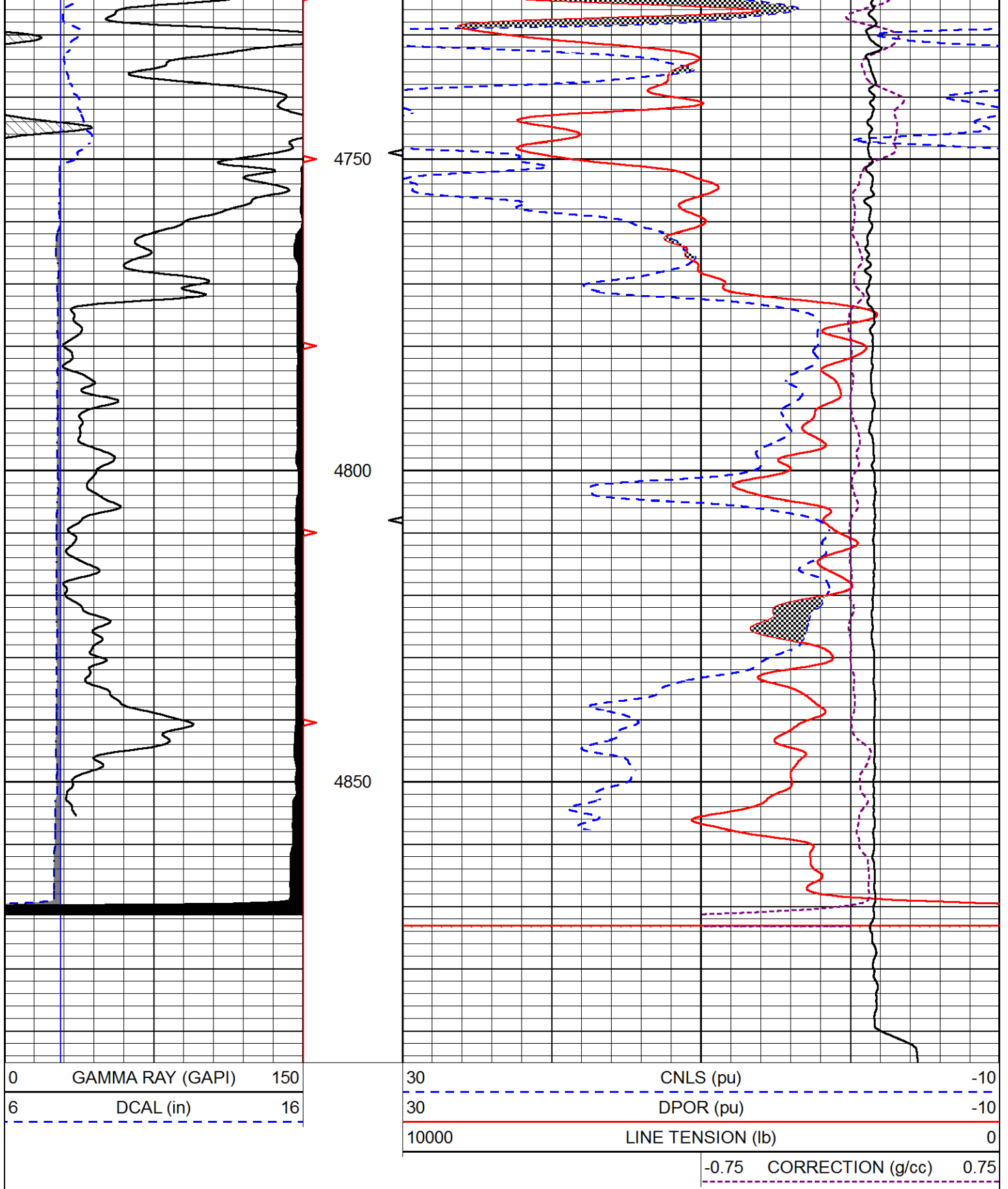




REPEAT SECTION

Database File val_energy_frahm_unit_1_16.db
 Dataset Pathname stackmel/pass2.1
 Presentation Format cndlspec
 Dataset Creation Sat Jul 28 18:47:02 2018
 Charted by Depth in Feet scaled 1:240





Calibration Report

Database File val_energy_frahm_unit_1_16.db
 Dataset Pathname stackmel/pass3.1
 Dataset Creation Sat Jul 28 18:51:20 2018

Serial-Model:
Calibration Performed:

933 (HT)-PSI HIGH TEMP
Sun Jul 15 05:36:29 2018

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		Gain	Offset
Deep	167.000	835.000	0.000	255.000	mmho/m	0.700	-17.000
Medium	142.000	1349.000	0.000	255.000	mmho/m	0.565	-60.500

Microlog Calibration Report

Serial-Model:
Performed:

PSI-01-PSIML
Sun Jul 15 07:40:28 2018

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	27000.0000	-0.5000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	30000.0000	-0.3000
Caliper	1.0001	1.1397	6.5000	18.5000	in	70.0000	-65.8500

Compensated Density Calibration Report

Serial-Model:
Source / Verifier:
Master Calibration Performed:

817-947-M&W
16955B / 2ci
Sun Jul 15 05:36:52 2018

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	6127.15	5922.31	cps
Aluminum	2.670	g/cc	1141.85	3762.09	cps
Spine Angle = 74.89			Density/Spine Ratio = 0.526		
	Size		Reading		
Small Ring	4.50	in	1.02		
Large Ring	15.00	in	1.15		

Compensated Neutron Calibration Report

Serial Number: 207-MW
Tool Model: M&W
Calibration Performed: SUN JUL 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: Sun Jul 15 05:37:08 2018

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.
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State	KANSAS