



MIDWEST WIRELINE

DUAL COMP POROSITY LOG

Company Herman L. Loeb, LLC
Well Olson Farm # 1-16
Field Fralick West Ext.
County Kiowa
State Kansas

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Location: API #: 15-097-21860-00-00

671 FNL & 918 FEL

SEC 16 TWP 28S RGE 20W

DIL/MEL

Permanent Datum Ground Level Elevation 2312
Log Measured From Kelly Bushing
Drilling Measured From Kelly Bushing

K.B. 2325
D.F. G.L. 2312

Date 5/18/2022

Run Number One

Type Log CNL/CDL

Depth Driller 5000

Depth Logger 5000

Bottom Logged Interval 4971

Top Logged Interval 4000

Type Fluid In Hole Chemical

Salinity, PPM CL 4400

Density 9.5

Level Full

Max. Rec. Temp. F 126

Operating Rig Time 3 Hours

Equipment -- Location P-108 HAYS

Recorded By D. Schmidt

Witnessed By Jon Christensen

Borehole Record

Casing Record

Run No.	Bit	From	To	Size	Wgt.	From	To
One	12.25	0	585	8.625	23	0	585
Two	7.875	585	TD				

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All interpretations are opinions based on inferences from electrical or other measurements and Midwest Wireline LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Midwest Wireline 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.

Mullinville,
North to I5 Avenue, 1 1/2 West, 1/4 North, West Into

Log Measured From: Kelly Bushing 13 Ft. Above Permanent Datum

THANK YOU FOR USING MIDWEST WIRELINE LLC
785-625-3858

Your Midwest Wireline Crew

Engineer: D. Schmidt
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: Jon Christensen
Secondary Witness:
Secondary Witness:
Secondary Witness:

Log Variables

DatabaseC:\ProgramData\Warrior\Data\herman loeb_olson farm#1-16.db
Dataset field/well/stkml/pass3.1/_vars_

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in	degF	in	in	g/cc	2	g/cc
	7.875	126	5.5	0	1		2.71
NPORSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
Limestone	0	mmho/m	mmho/m	mV	degF	Off	ft
		0	0	520	60		5000

Variable Description

A : Cement Factor (a)
BOREID : Borehole I.D.
BOTTEMP : Bottom Hole Temperature
CASEOD : Casing O.D.
CASETHCK : Casing Thickness
FLUIDDEN : Fluid Density
M : Cement Exp (m)
MATRXDEN : Matrix Density

NPORSEL : Neutron Porosity Curve Select
PERFS : Perforation Flag
SNDERR : Deep Sonde Error Correction
SNDERRM : Medium Sonde Error Correction
SPSHIFT : S.P. Baseline Offset
SRFTEMP : Surface Temperature
SZCOR : CN Size Cor. ?
TDEPTH : Total Depth



MIDWEST WIRELINE

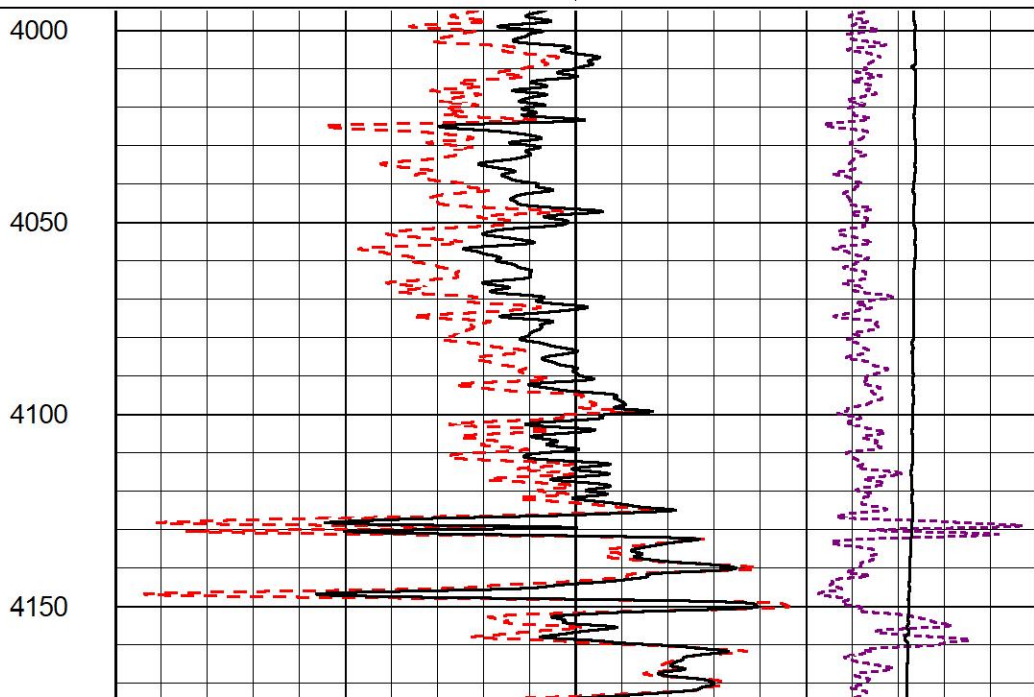
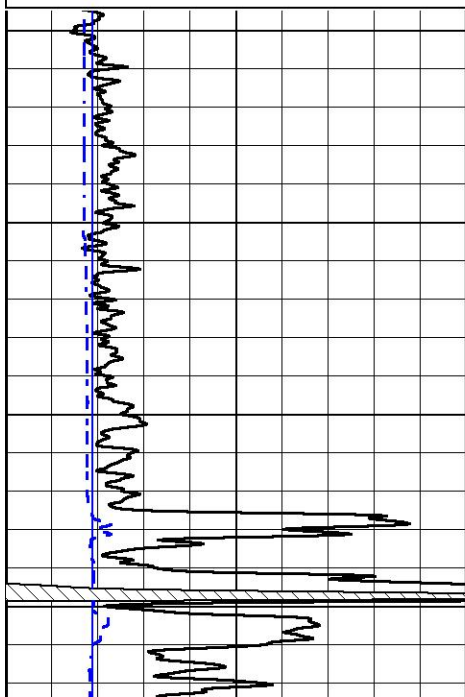
2" SCALE BULK DENSITY

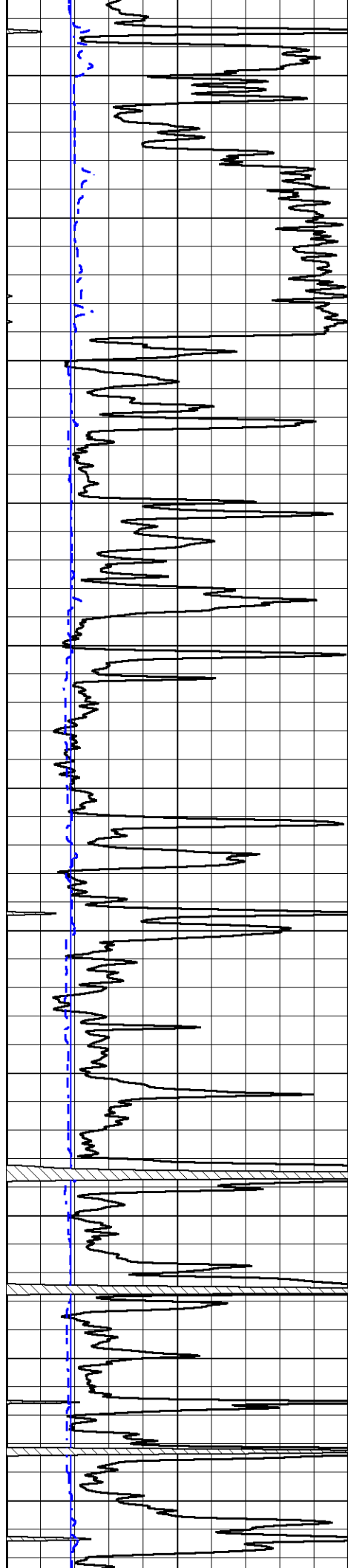
MAIN PASS

Database File herman loeb_olson farm#1-16.db
Dataset Pathname stkml/pass3.2
Presentation Format _cdl
Dataset Creation Wed May 18 09:21:16 2022
Charted by Depth in Feet scaled 1:600

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

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





4200

4250

4300

4350

4400

4450

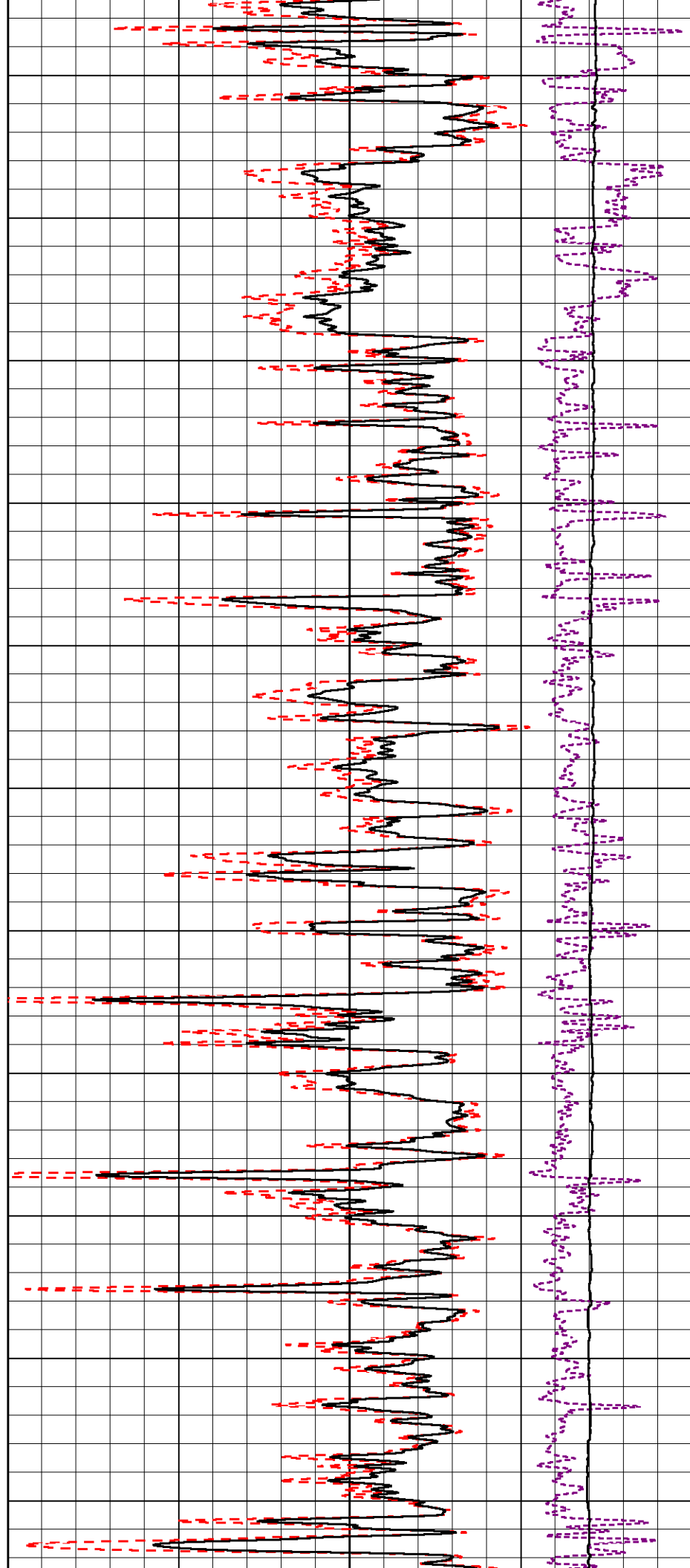
4500

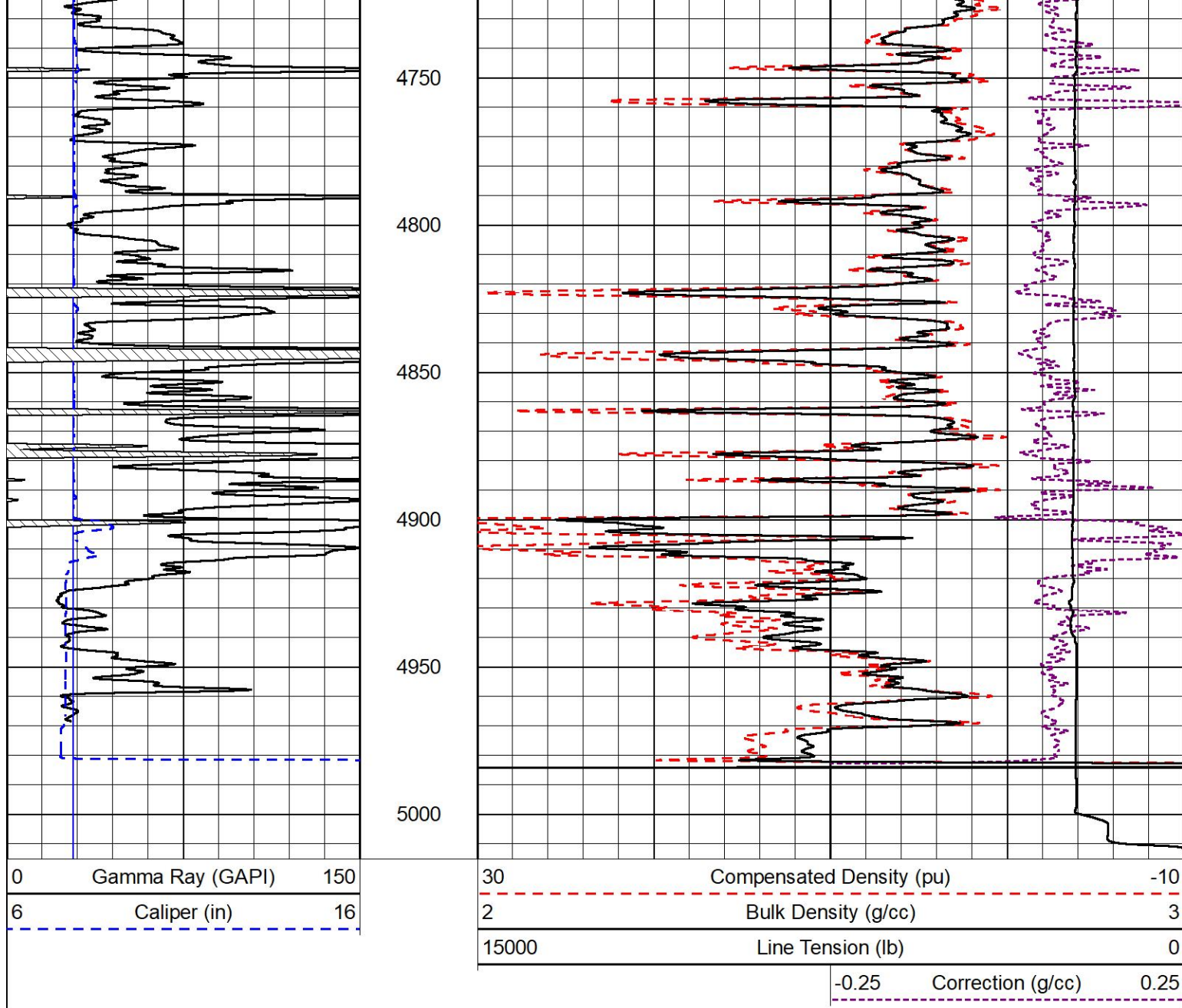
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4600

4650

4700

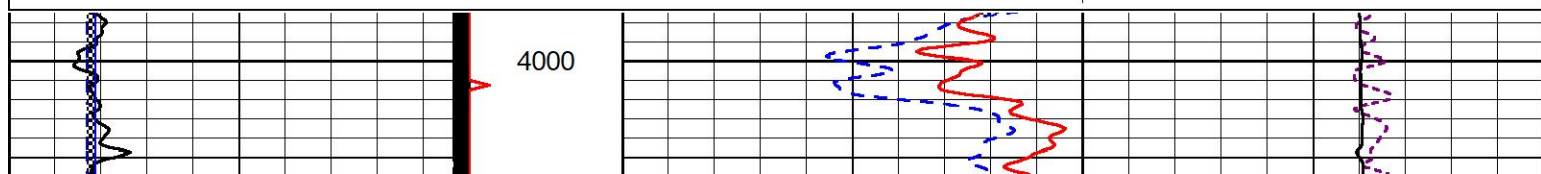
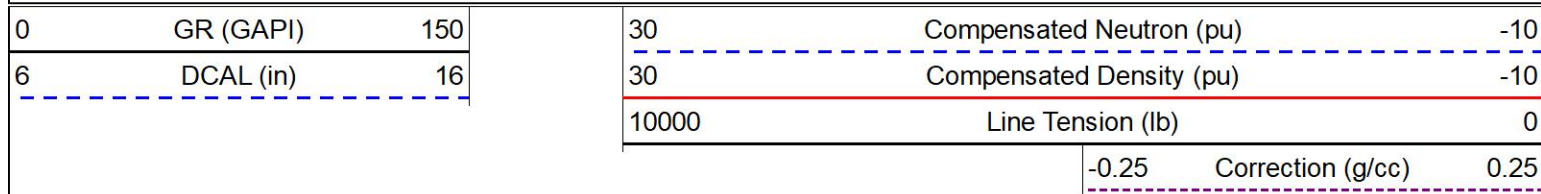


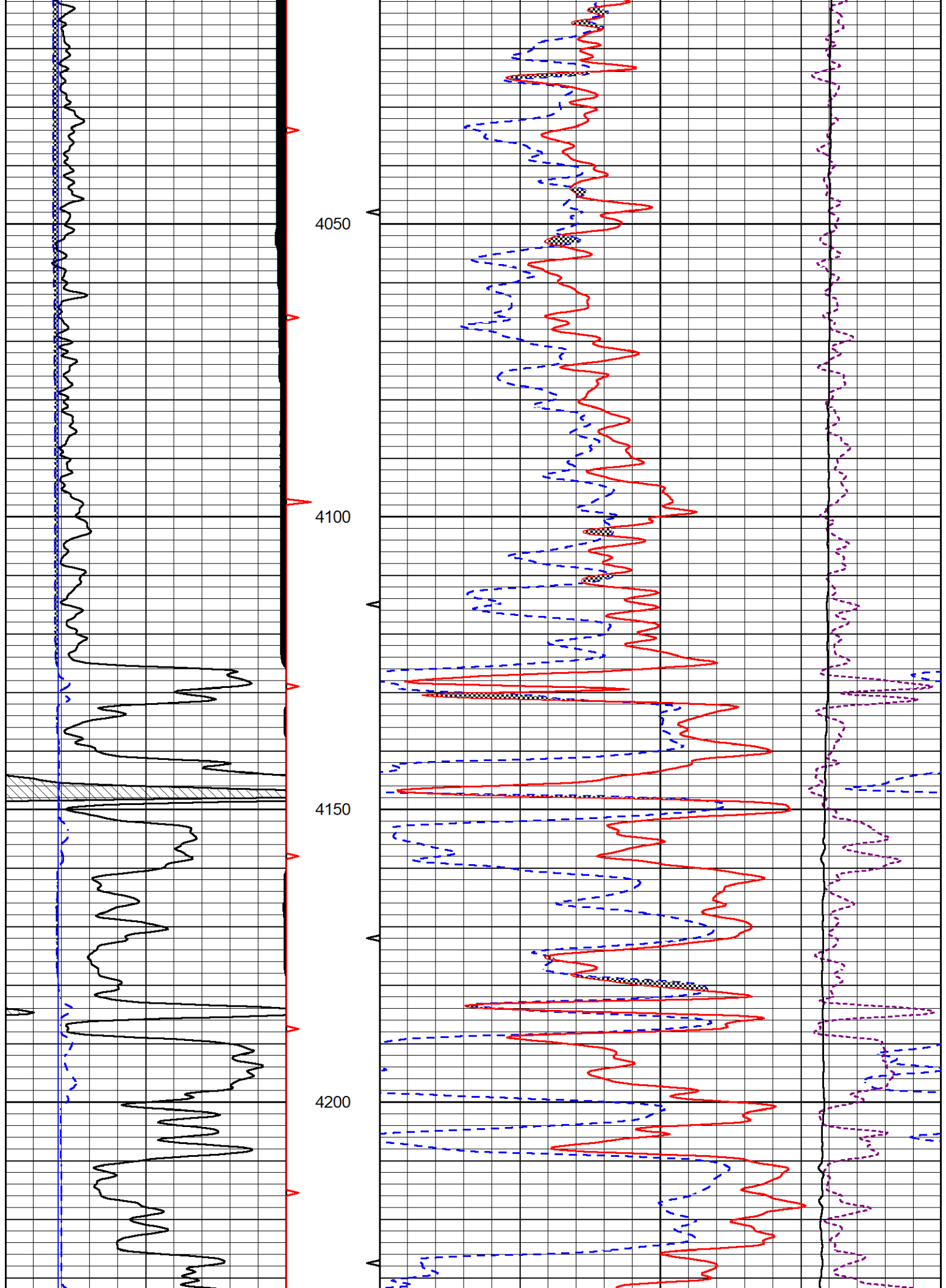


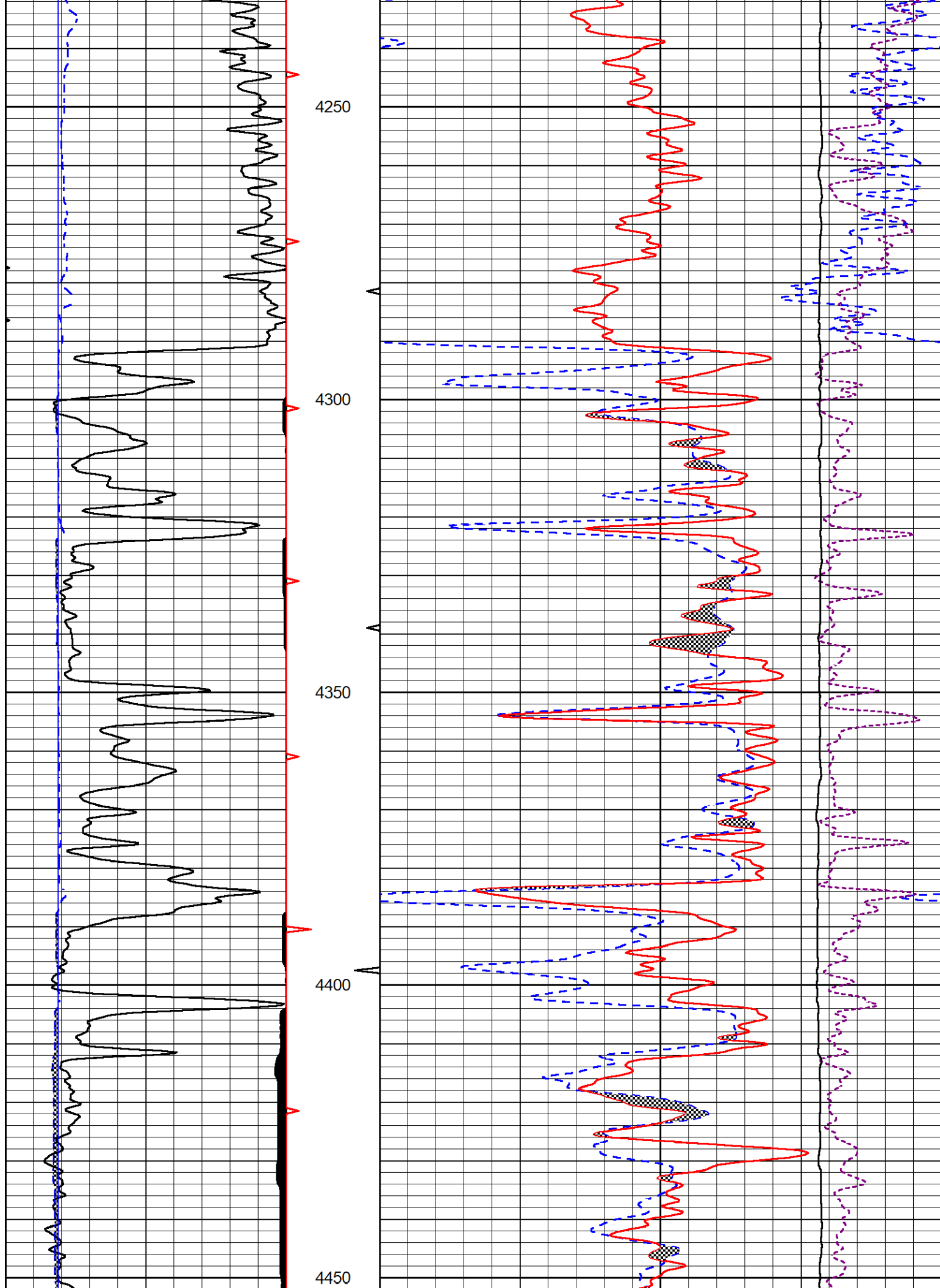
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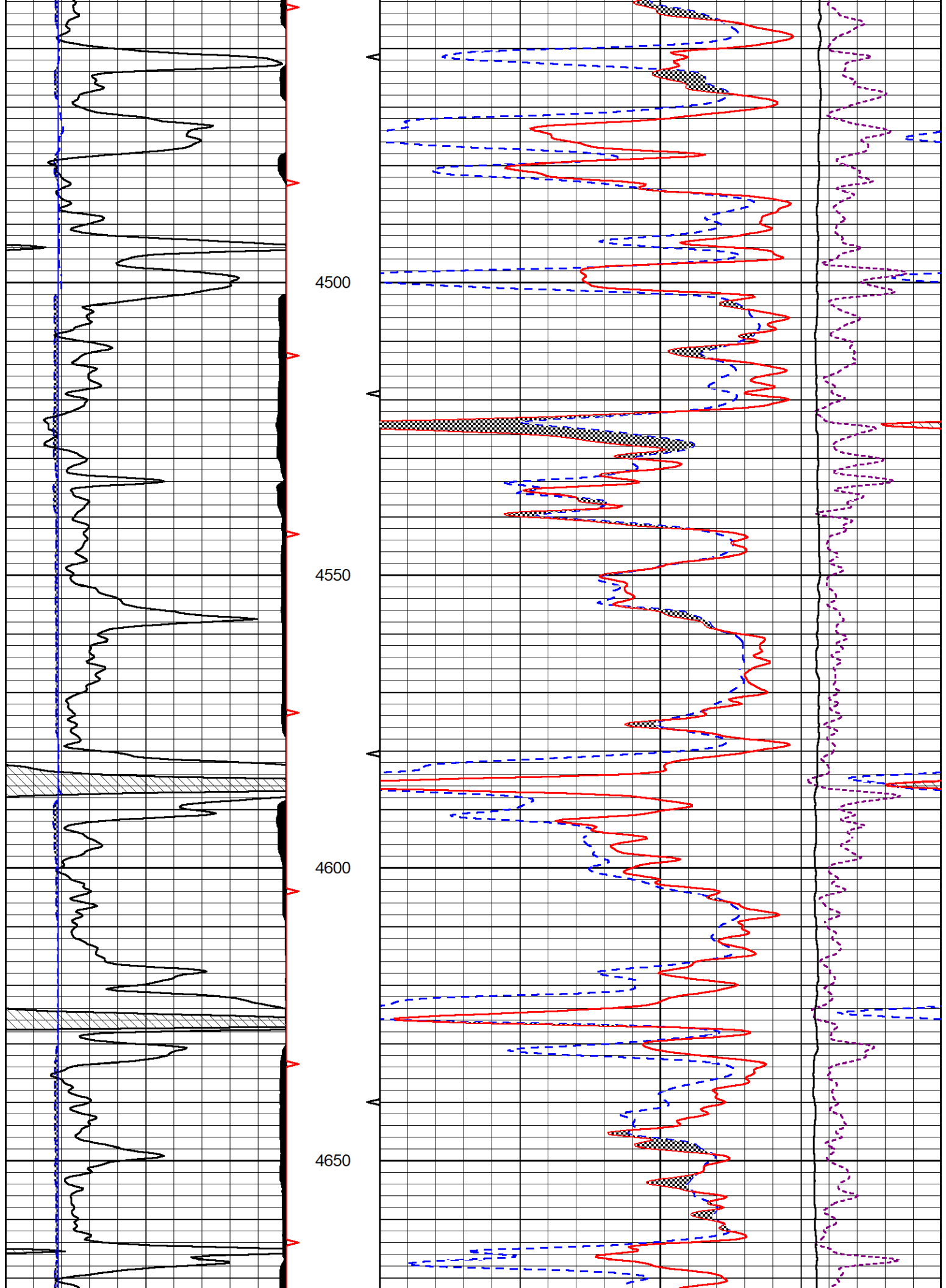
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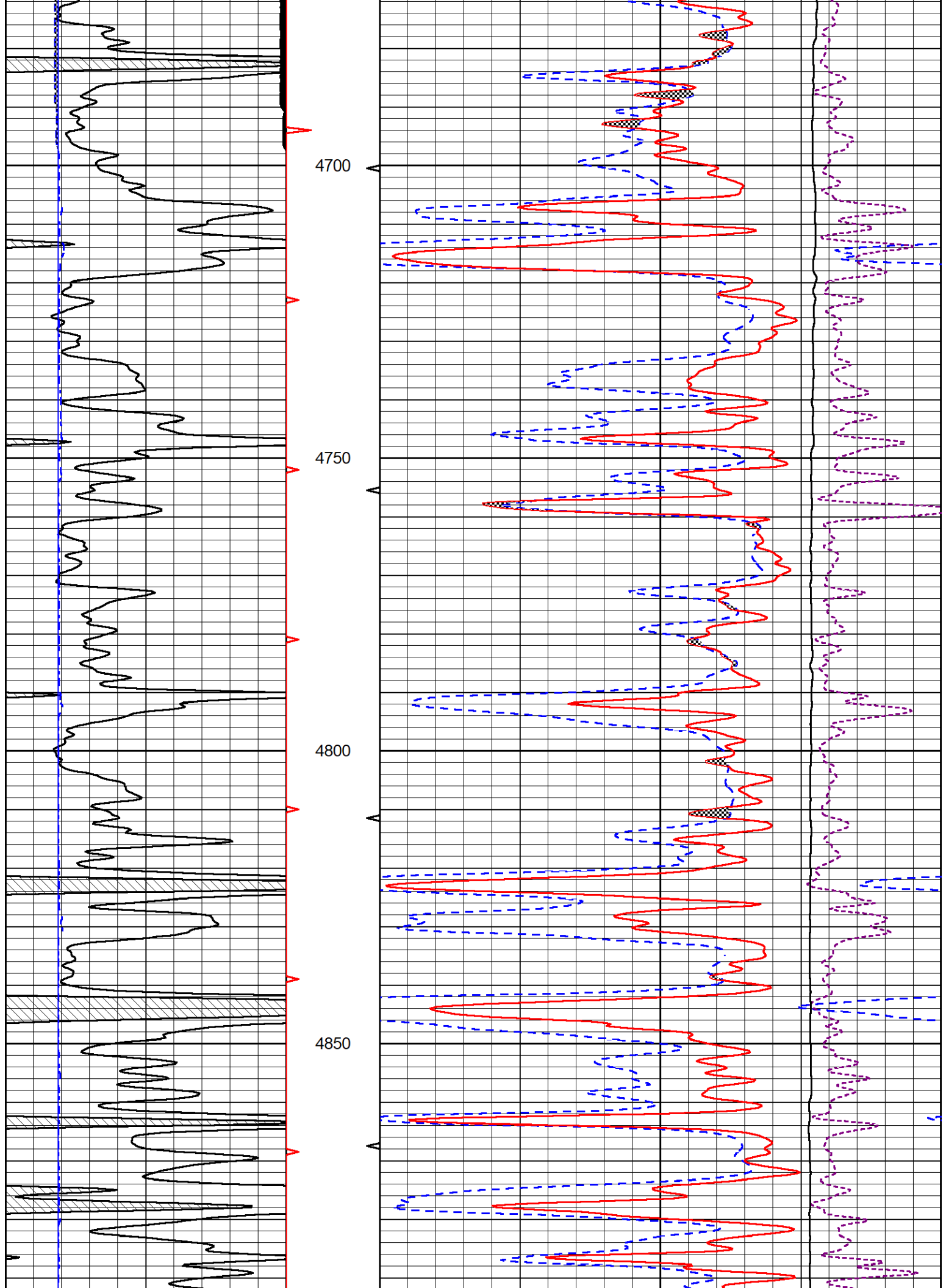
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 Dataset Pathname stkml/pass3.1
 Presentation Format _CNDLS~1
 Dataset Creation Wed May 18 09:21:08 2022
 Charted by Depth in Feet scaled 1:240

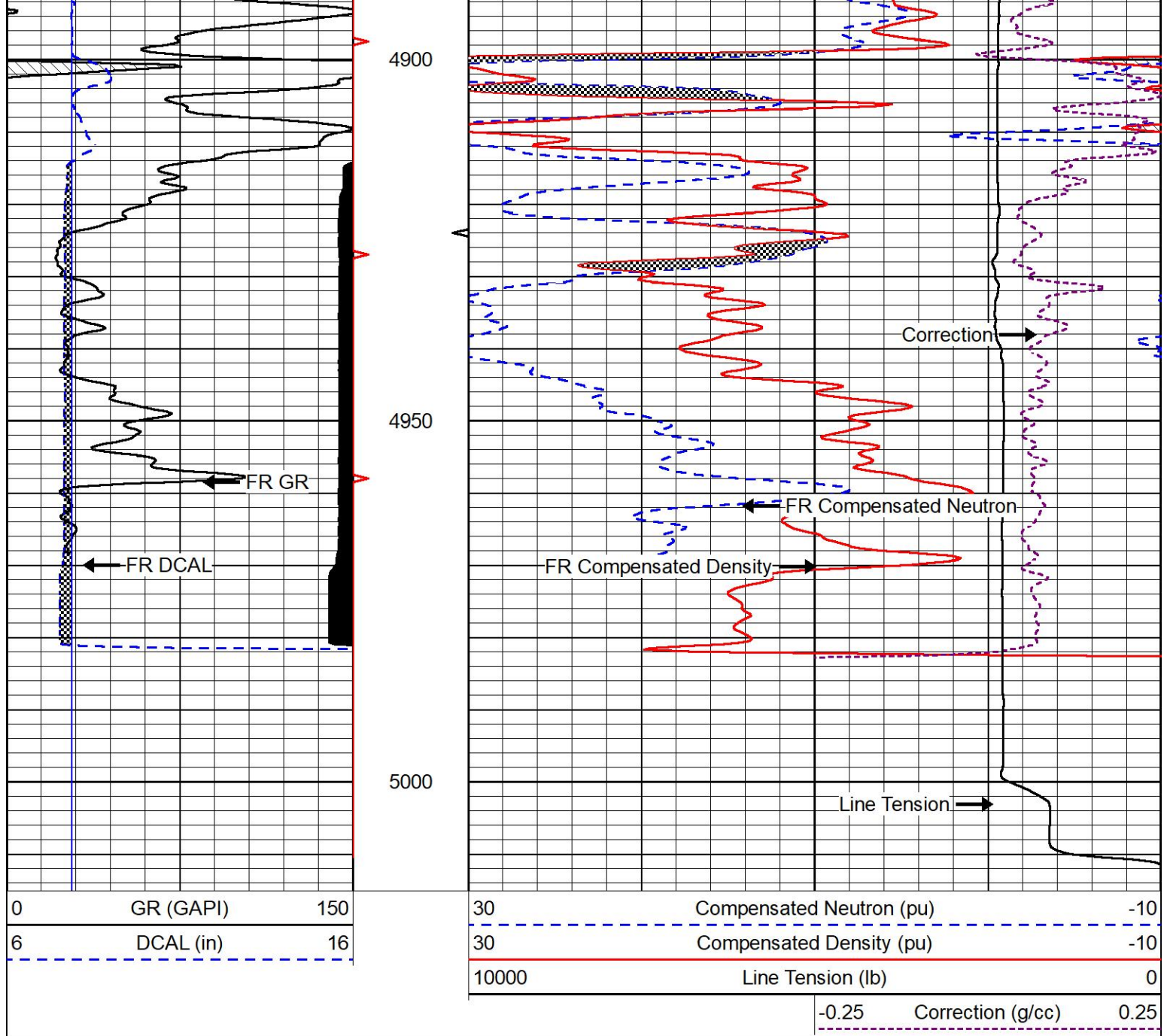










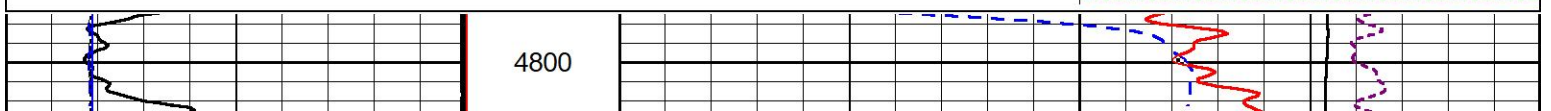


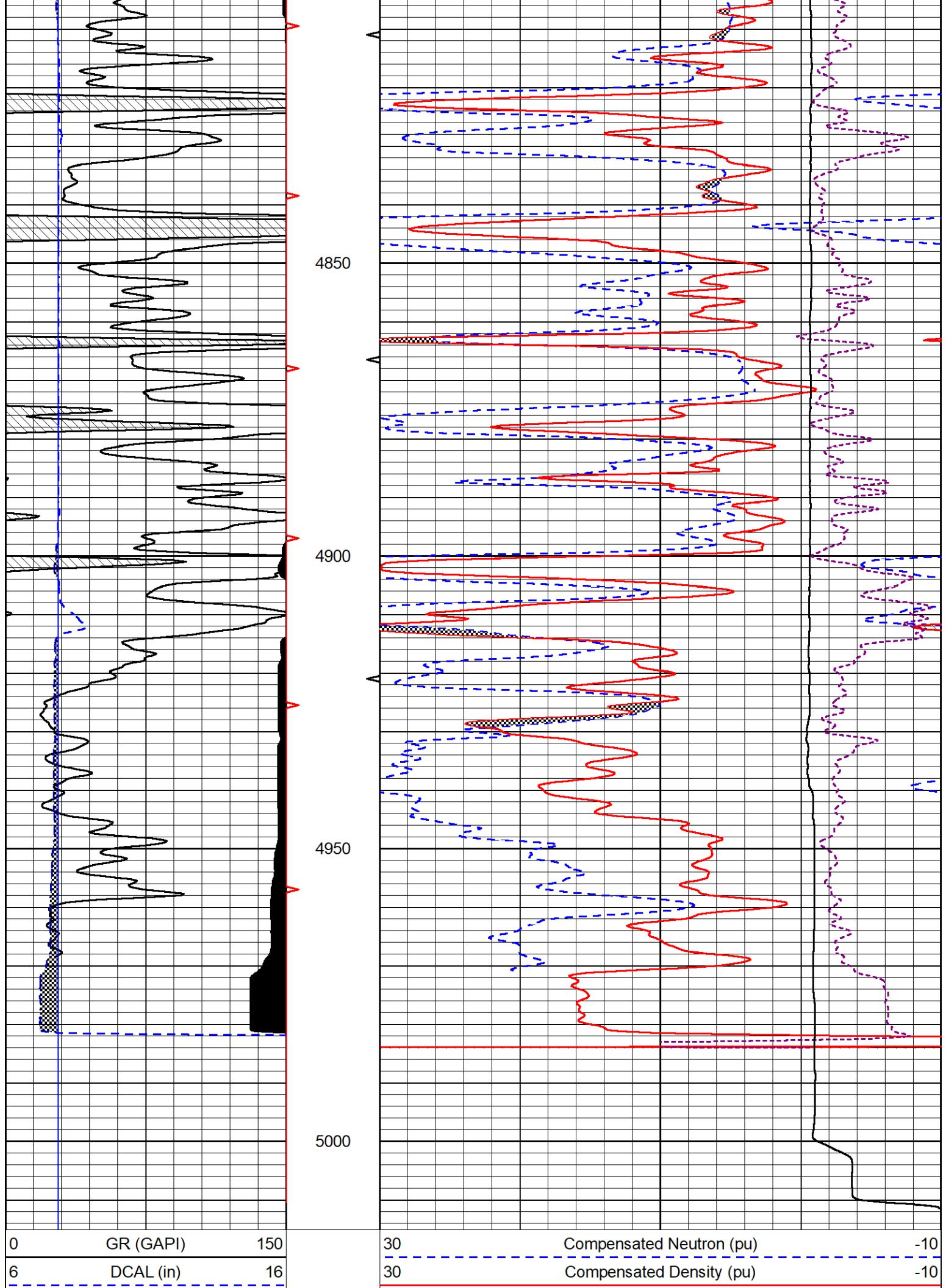
REPEAT SECTION

REPEAT PASS

Database File herman loeb_olson farm#1-16.db
 Dataset Pathname stkml/pass2.1
 Presentation Format _CNDLS~1
 Dataset Creation Wed May 18 08:29:17 2022
 Charted by Depth in Feet scaled 1:240

0	GR (GAPI)	150	30	Compensated Neutron (pu)	-10
6	DCAL (in)	16	30	Compensated Density (pu)	-10
			10000	Line Tension (lb)	0
				-0.25	Correction (g/cc)
					0.25





	10000	Line Tension (lb)	0
		-0.25	Correction (g/cc) 0.25

Calibration Report	
Database File	herman loeb_olson farm#1-16.db
Dataset Pathname	stkml/pass3.12
Dataset Creation	Wed May 18 08:22:31 2022

Dual Induction Calibration Report

Serial-Model:	504 HT-M&W
Surface Cal Performed:	Thu Dec 16 22:32:49 2021

Readings		References			Results	
Loop:	Air	Loop	Air	Loop	m	b
Deep	178.615	710.235	0.000	255.800	mmho/m	0.650
Medium	161.982	1441.110	0.000	255.800	mmho/m	-19.000
						-45.500

Microlog Calibration Report

Serial-Model:	402-PSI STKBL ML
Performed:	Sat Mar 19 19:10:40 2022

Readings		References			Results	
	Zero	Cal	Zero	Cal	m	b
Normal	0.0037	0.0043	0.0000	10.0000	Ohm-m	9000.0000
Inverse	0.1208	0.0013	0.0000	10.0000	Ohm-m	-0.5000
Caliper	1.0020	1.0834	5.5000	16.5000	in	8500.0000
						135.1520
						-131.3500

Compensated Density Calibration Report
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Serial-Model:	303-03-M&W
Source #:	21170B
Master Calibration Performed:	Thu Dec 16 23:28:34 2021

Master Calibration						
Density			Far Detector		Near Detector	
Magnesium	1.755	g/cc	3841.78	5151.73	cps	
Aluminum	2.670	g/cc	700.98	3068.49	cps	
Spine Angle = 73.06			Density/Spine Ratio = 0.515			
Size			Reading			
Small Ring	4.00	in	1.17			
Large Ring	14.00	in	1.04			

Compensated Neutron Calibration Report
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Serial-Model:	210-M&W
Source #:	N-1238
Master Calibration Performed:	Fri Dec 3 09:16:24 2021

Master Calibration

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:	103				
Tool Model:	M&W				
Performed:	Fri Dec 3 12:13:24 2021				
Calibrator Value:	500.0		GAPI		
Background Reading:	28.0		cps		
Calibrator Reading:	986.0		cps		
Sensitivity:	0.5700		GAPI/cps		

	Company	Herman L. Loeb, LLC
	Well	Olson Farm # 1-16
	Field	Fralick West Ext.
	County	Kiowa
	State	Kansas