



MIDWEST WIRELINE

DUAL COMP POROSITY LOG

Company Castle Resources, Inc.

Well Hund #1

Field Newberry

County Wabaunsee State Kansas

Location: API #: 15-197-20322-00-00

2260 FNL & 1300 FEL

SEC 2 TWP 11S RGE 11E

DIL/MEL
BHCS

Permanent Datum Ground Level Elevation 1133
 Log Measured From Kelly Bushing
 Drilling Measured From Kelly Bushing

Other Services
 Elevation
 K.B. 1138
 D.F.
 G.L. 1133

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Run Number One

Type Log CNL/CDL

Depth Driller 3203

Depth Logger 3205

Bottom Logged Interval 3176

Top Logged Interval 2100

Type Fluid In Hole Chemical

Salinity, PPM CL 4000

Density 9.6

Level Full

Max. Rec. Temp. F 108

Operating Rig Time 4 Hours

Equipment -- Location P-108 HAYS

Recorded By D. Schmidt

Witnessed By Jerry Green

Borehole Record

Casing Record

Run No.	Bit	From	To	Size	Wgt.	From	To
One	12.25	0	300	8.625	23	0	300
Two	7.875	300	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.

I-70 and Paxico Rd,
 5 North to Homestead Rd, 1 East,
 1/4 North, West and North to location

Log Measured From: Kelly Bushing 5 Ft. Above Permanent Datum

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

Your Midwest Wireline Crew

This Log Record Was Witnessed By

Engineer: D. Schmidt
 Operator:
 Operator:
 Operator:

Primary Witness: Jerry Green
 Secondary Witness:
 Secondary Witness:
 Secondary Witness:

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.33		GR-M&W (103)	3.00	3.50	50.00
CNLSC CNSSC	37.23 36.48		CNT-M&W (210)	5.00	3.50	100.00
LSD DCAL SSD	28.18 28.17 27.68		CDL-M&W (303-03)	8.50	4.00	250.00
ML-PSI STKBL ML (402)			7.58	4.00	65.00	
MCAL MI MN	19.58 19.58 19.58					
RLL3F RLL3	15.50 15.50					
DIL-M&W (505 HT)			18.25	3.50	220.00	
CILD	8.33					
CILM	4.50					
SP	0.20					

Dataset: castle_hund1.db: field/well/stkml/pass3.1
 Total length: 42.33 ft
 Total weight: 685.00 lb
 O.D.: 4.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\castle_hund1.db
 Dataset field/well/stkml/pass3.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	108	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	No	-8	-0.2	250	50	Off	3203

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



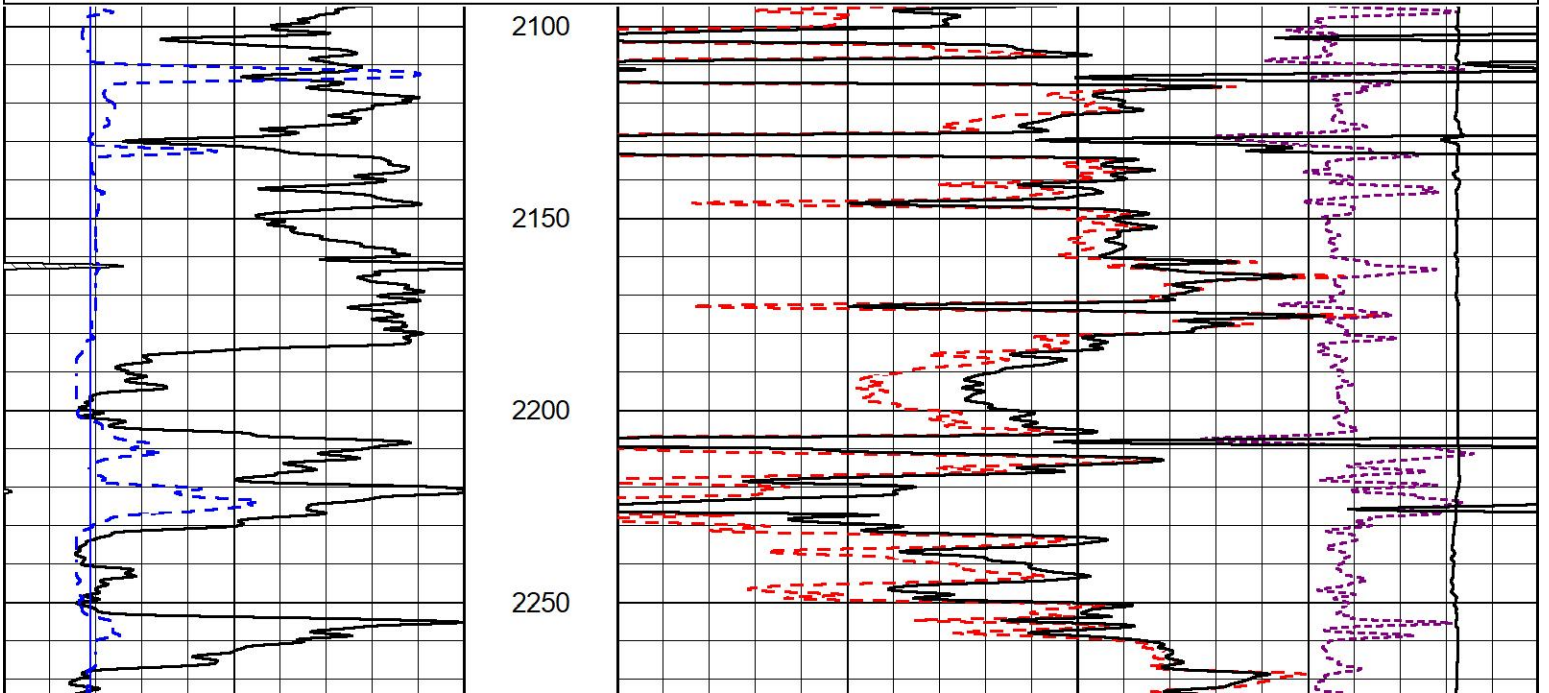
2" SCALE BULK DENSITY

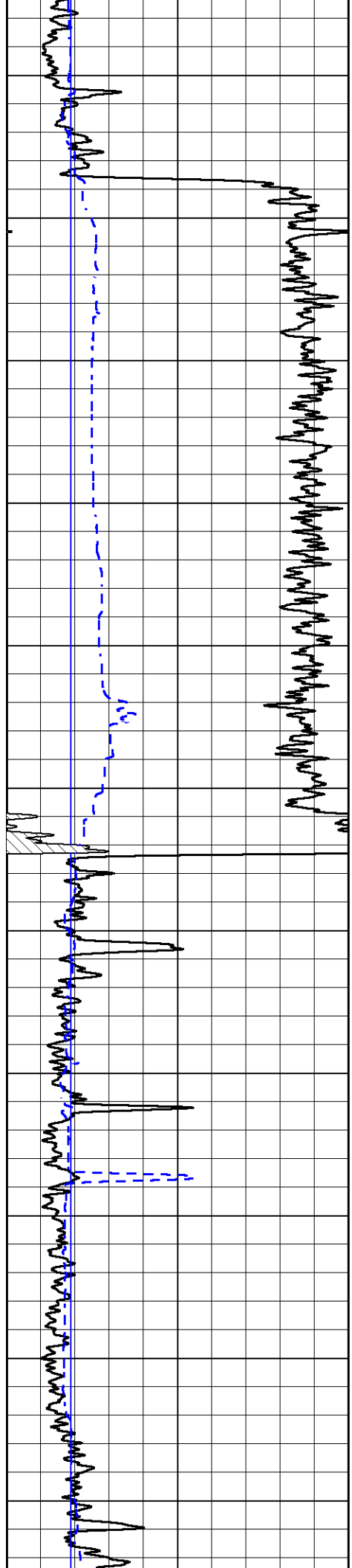
MAIN PASS

Database File castle_hund1.db
 Dataset Pathname stkml/pass3.2
 Presentation Format _cdl
 Dataset Creation Tue Mar 28 19:51:15 2023
 Charted by Depth in Feet scaled 1:600

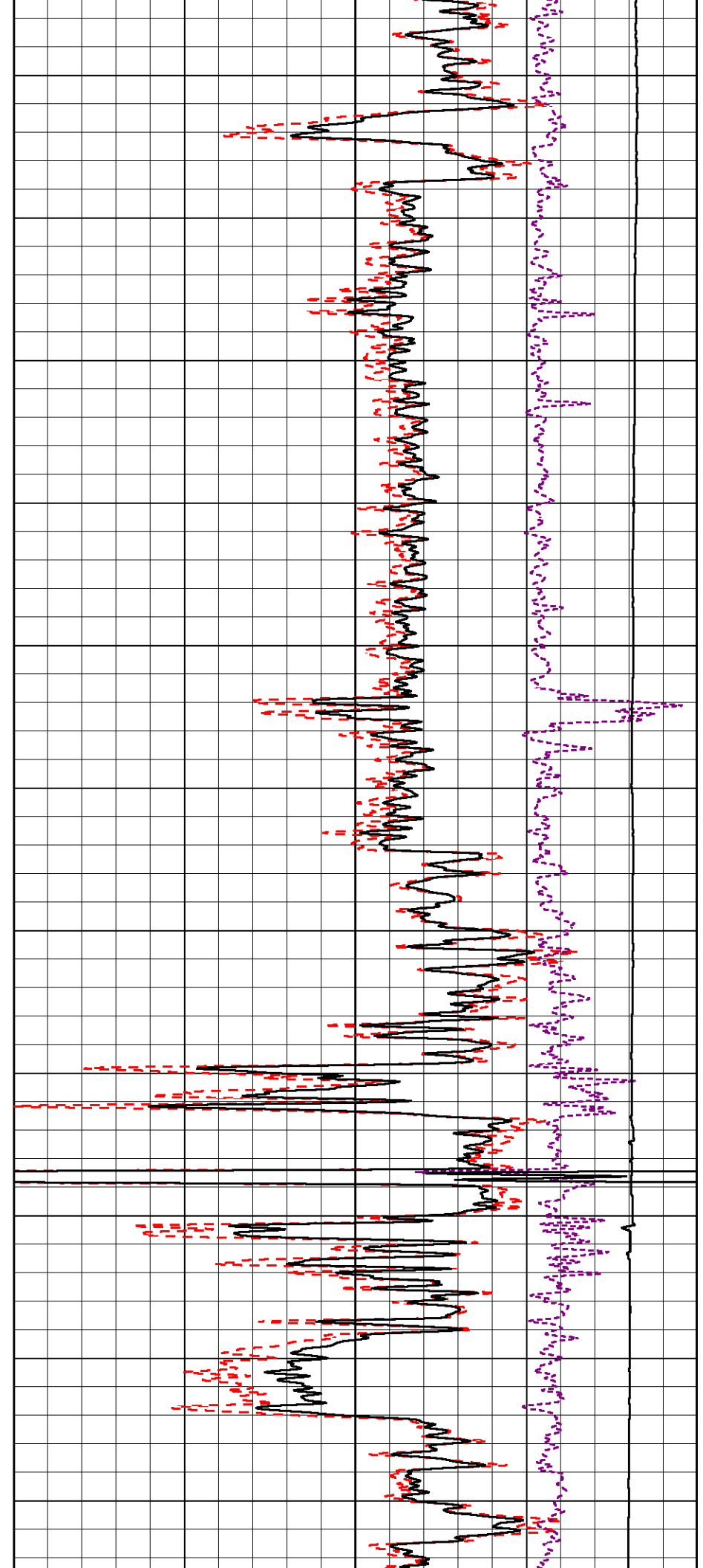
0	Gamma Ray (GAPI)	150
6	Caliper (in)	16

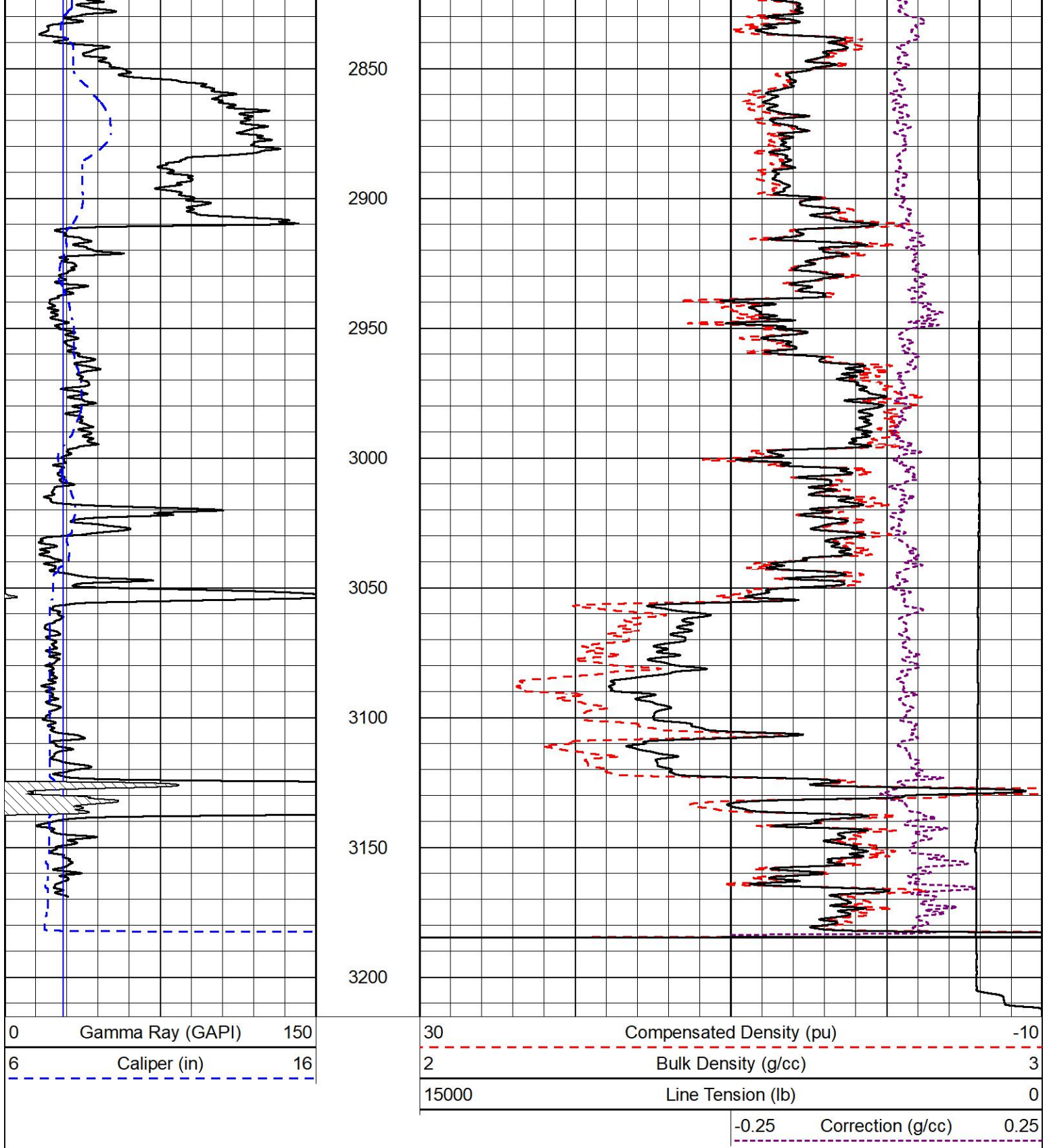
30	Compensated Density (pu)	-10
2	Bulk Density (g/cc)	3
15000	Line Tension (lb)	0
-0.25	Correction (g/cc)	0.25





2300
2350
2400
2450
2500
2550
2600
2650
2700
2750
2800





MIDWEST WIRELINE

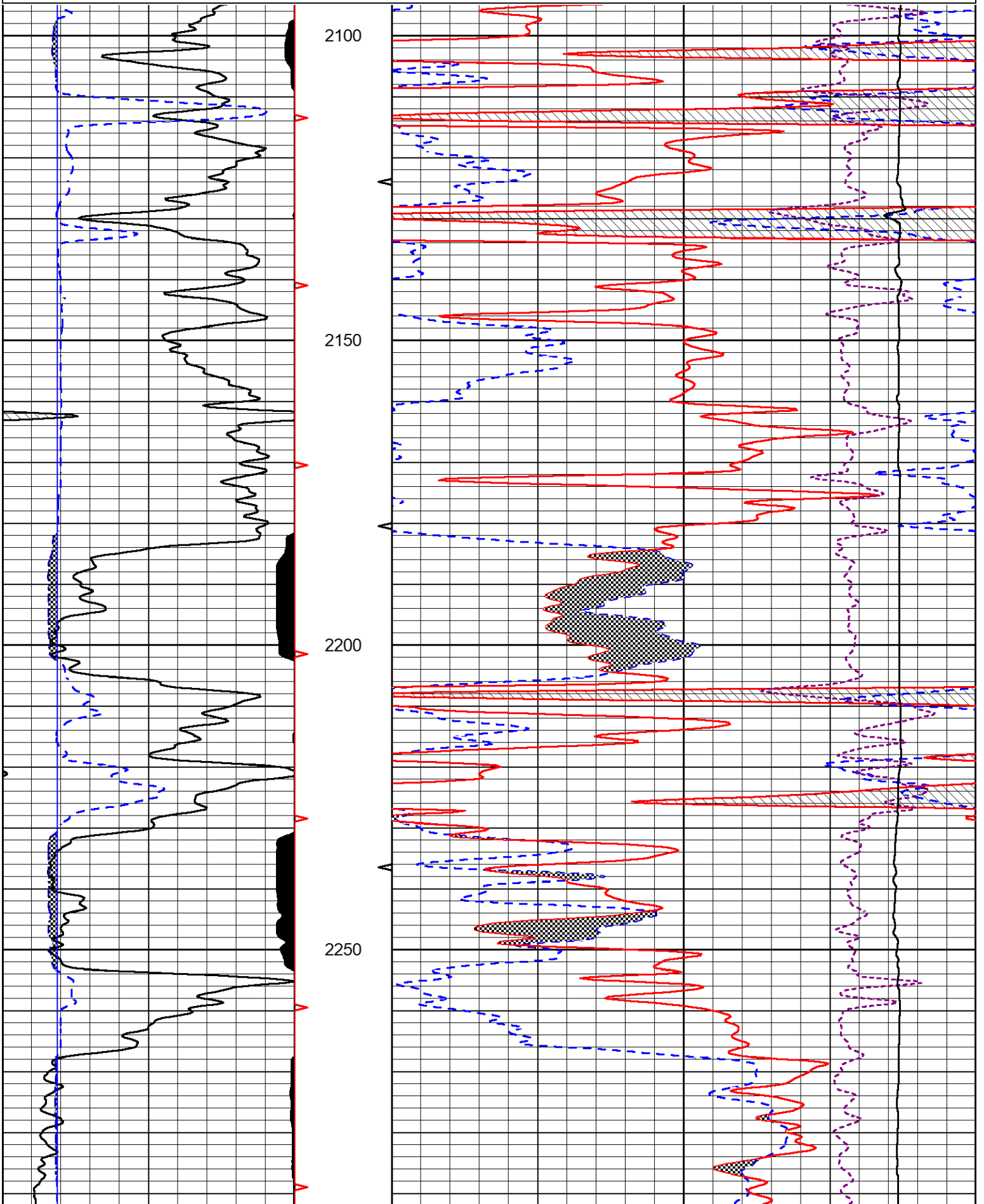
DETAIL SECTION

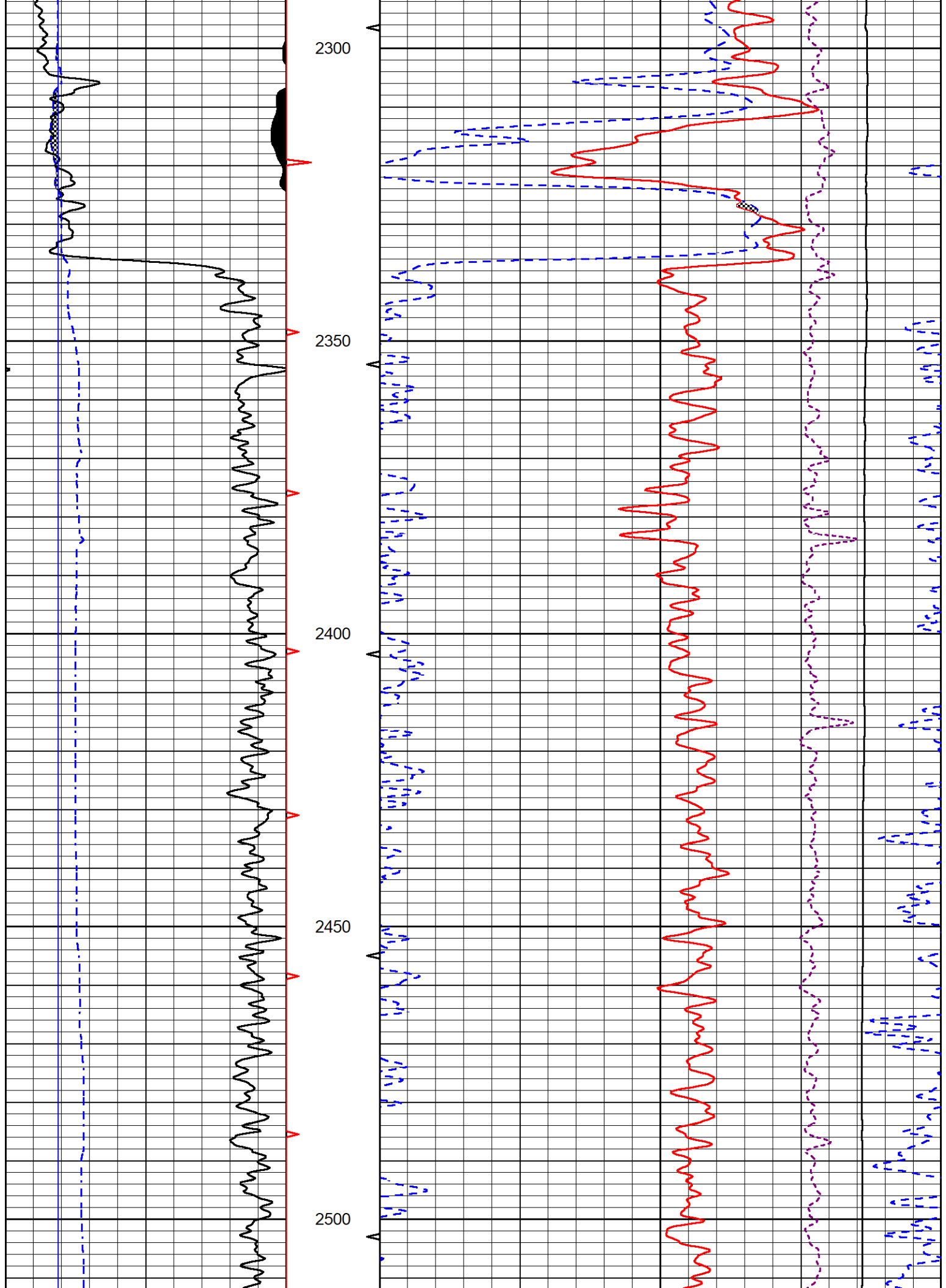
MAIN PASS

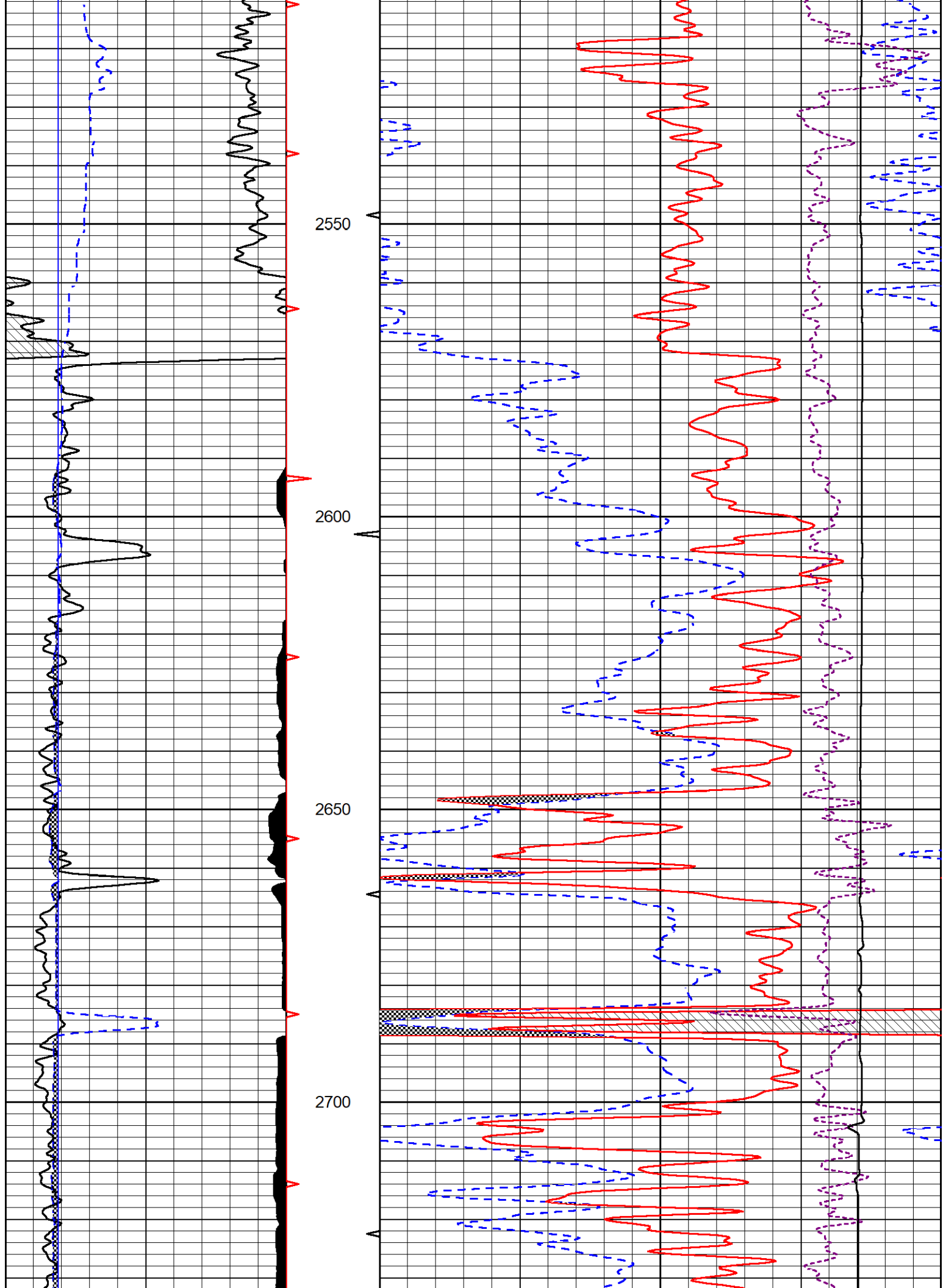
Database File castle_hund1.db
 Dataset Pathname stkml/pass3.1
 Presentation Format _CNDLS~1
 Dataset Creation Tue Mar 28 19:45:01 2023
 Charted by Depth in Feet scaled 1:240

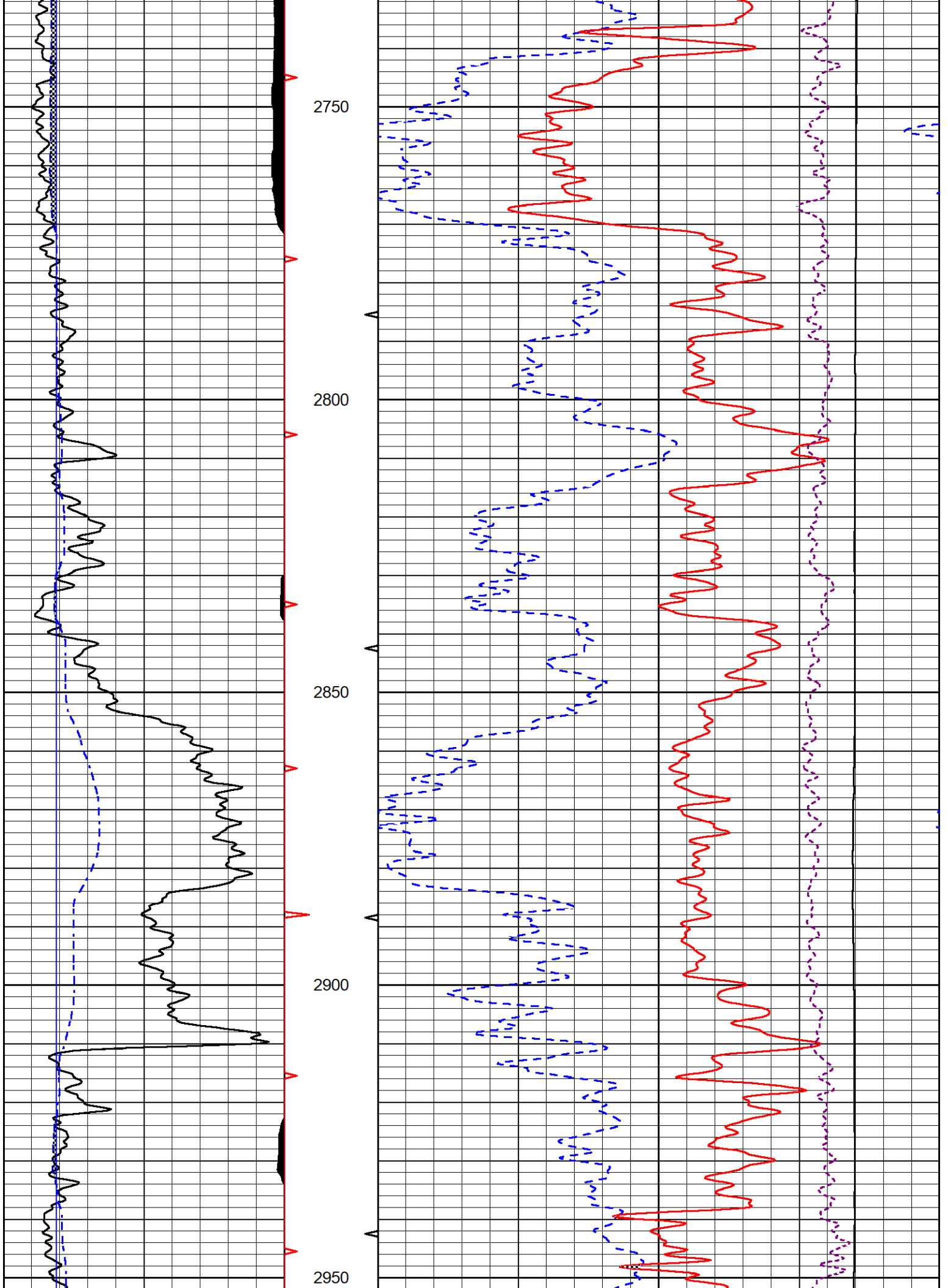
0	GR (GAPI)	150
6	DCAL (in)	16

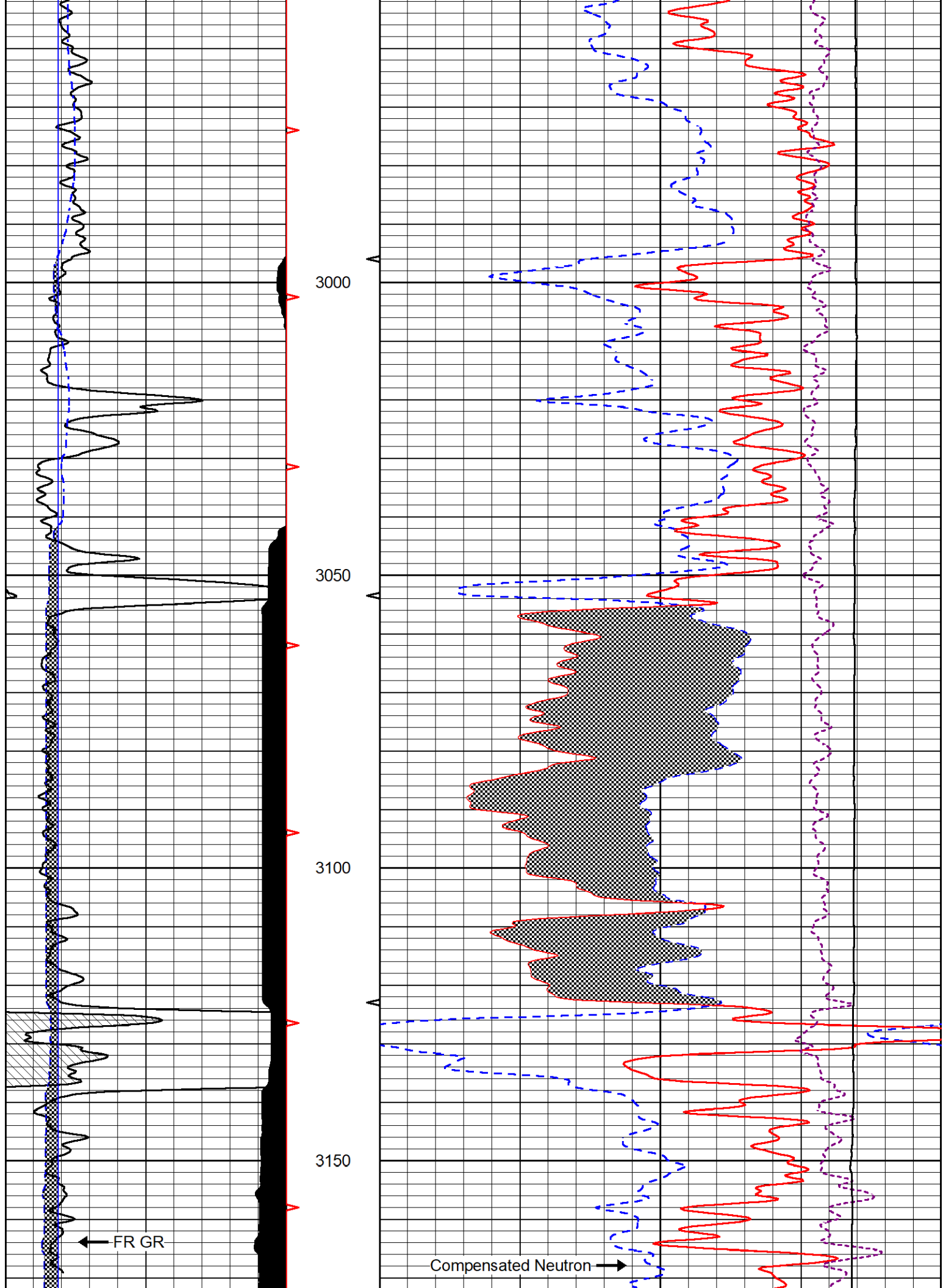
30	Compensated Neutron (pu)	-10
30	Compensated Density (pu)	-10
10000	Line Tension (lb)	0
-0.25	Correction (g/cc)	0.25

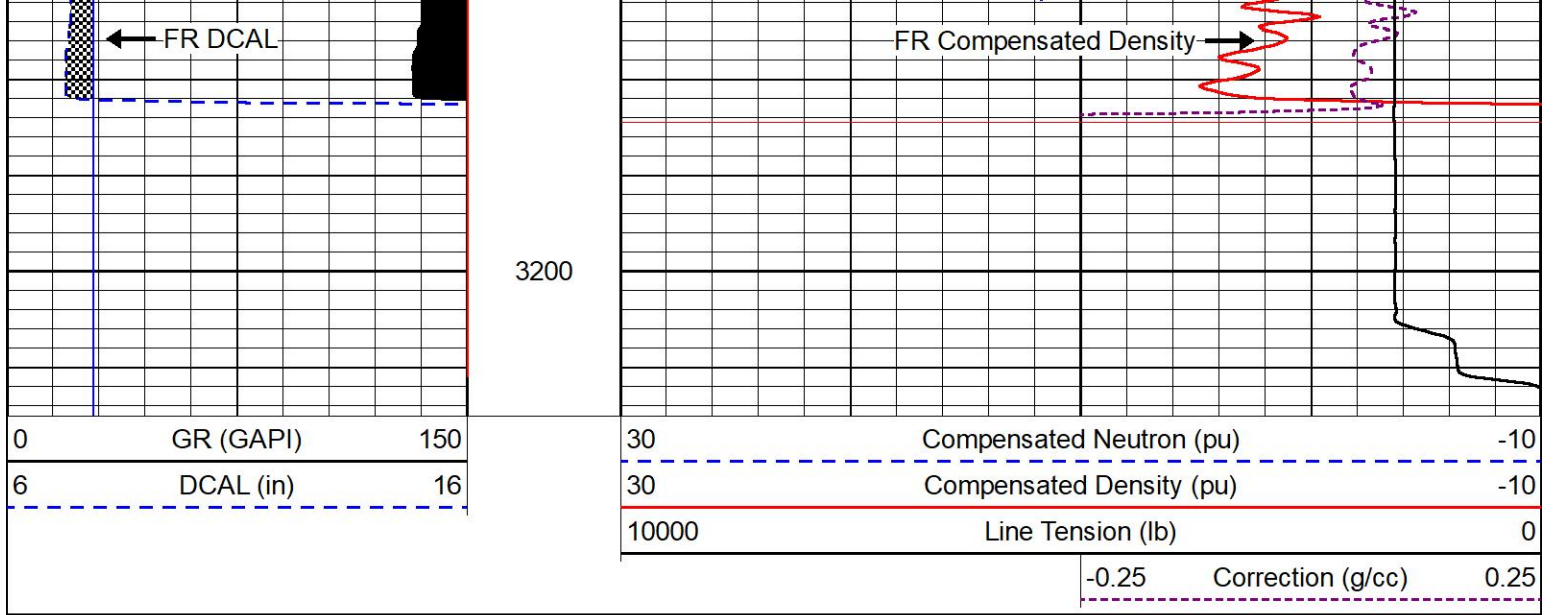








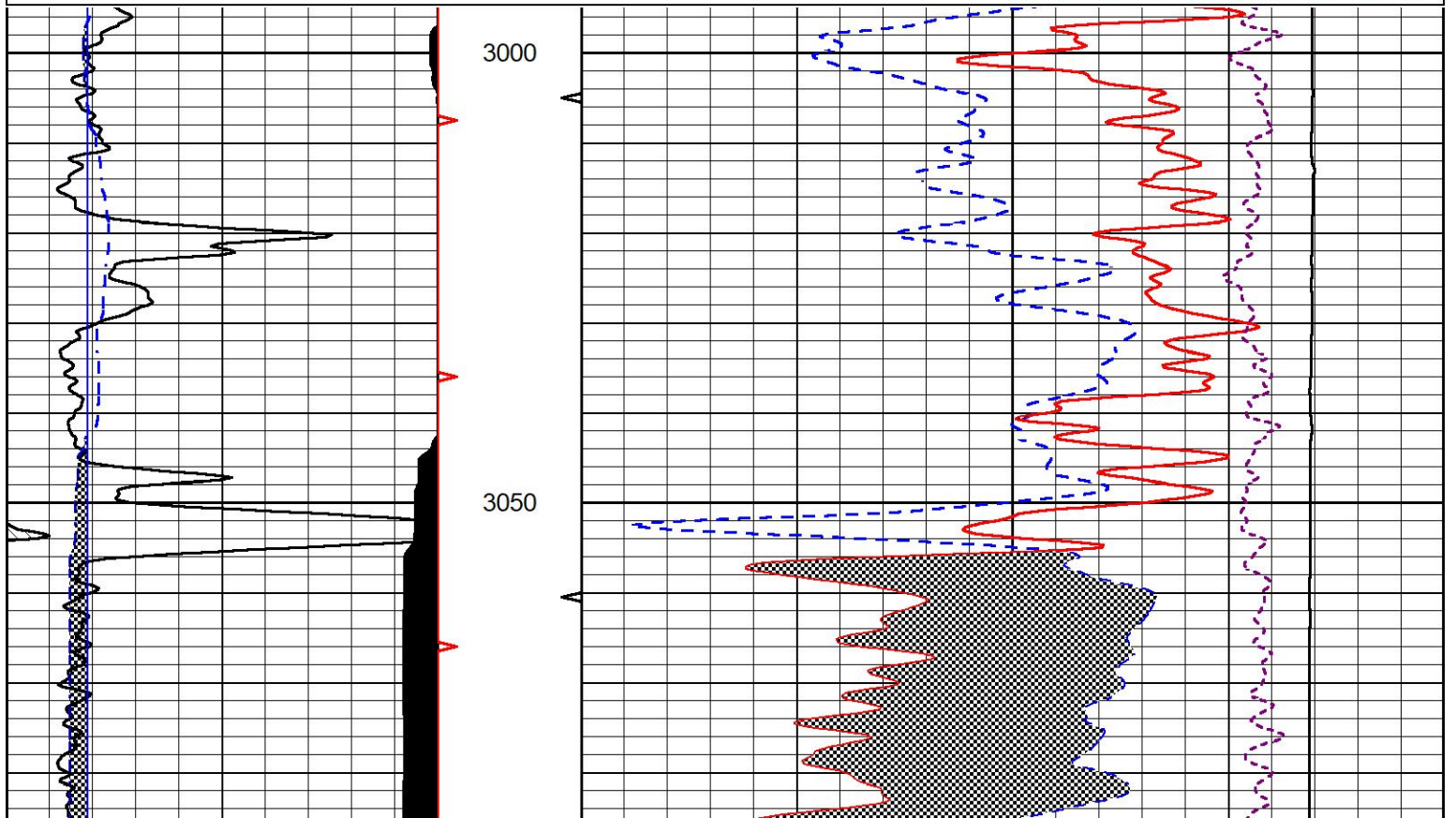
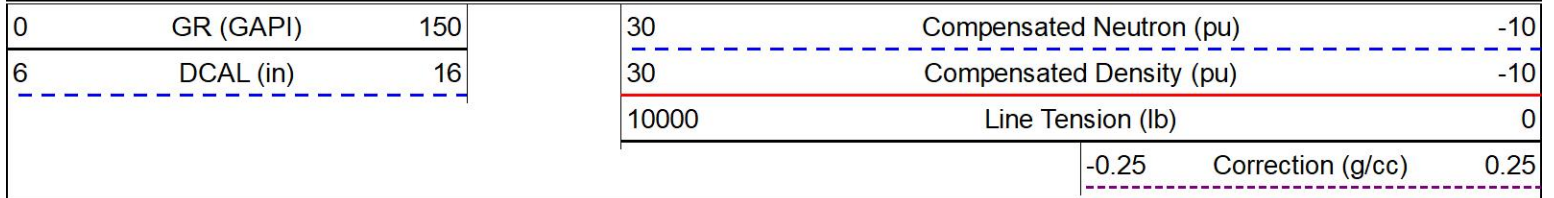


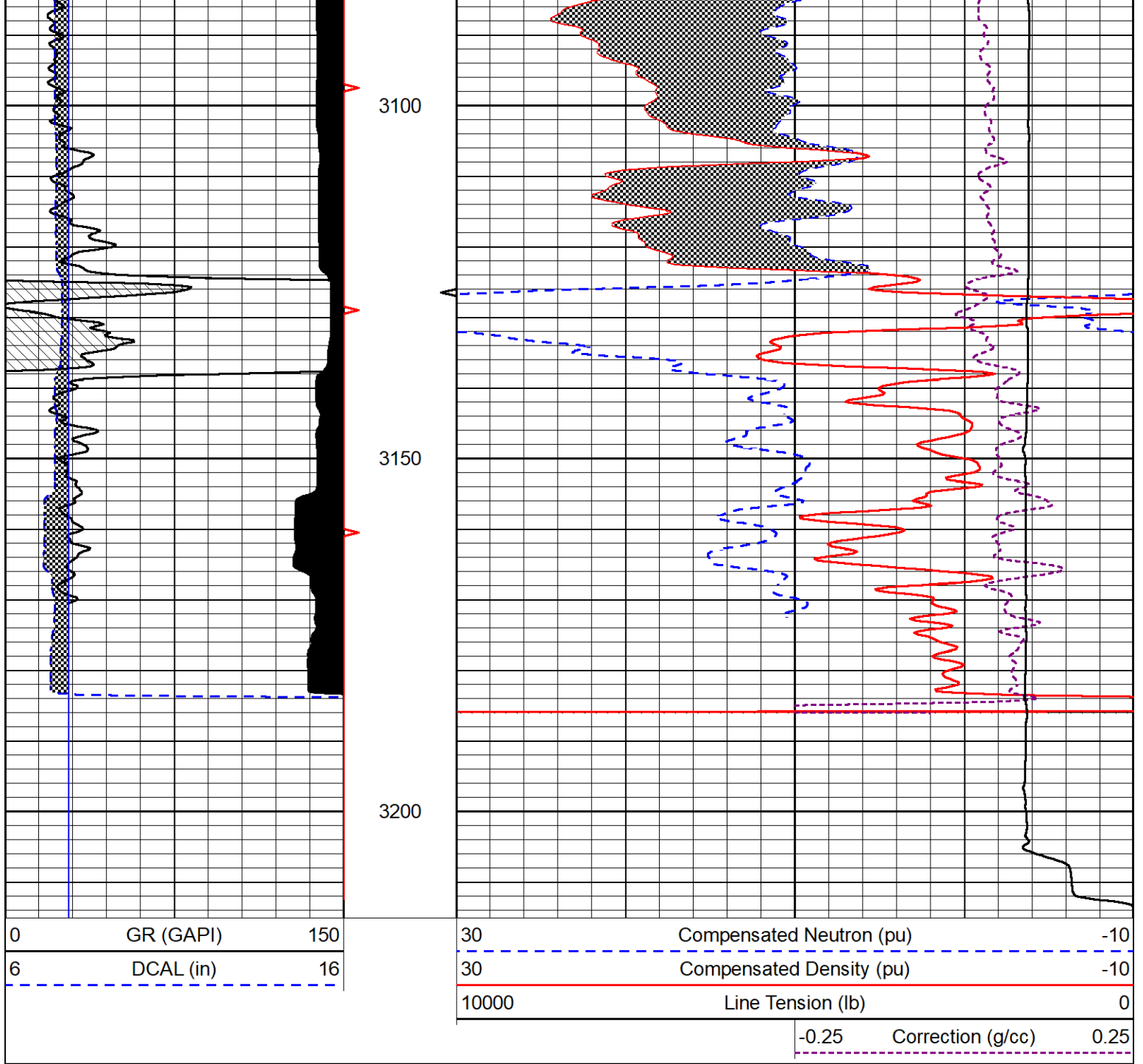


REPEAT SECTION

REPEAT PASS

Database File castle_hund1.db
 Dataset Pathname stkml/pass2.1
 Presentation Format _CNDLS~1
 Dataset Creation Tue Mar 28 19:39:18 2023
 Charted by Depth in Feet scaled 1:240





Calibration Report

Database File castle_hund1.db
 Dataset Pathname stkml/pass3.1
 Dataset Creation Tue Mar 28 19:45:01 2023

Dual Induction Calibration Report

Serial-Model: 505 HT-M&W
 Surface Cal Performed: Mon Mar 20 13:26:49 2023

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop	mmho/m	m	b
Deep	167.000	835.000	0.000	255.800	mmho/m	0.475	-43.000
Medium	1348.000	1348.000	0.000	255.800	mmho/m	0.410	-52.000

Microlog Calibration Report

Serial-Model: 402-PSI STKBL ML
 Performed: Wed Jan 25 21:26:04 2023

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0037	0.0043	0.0000	10.0000	Ohm-m	11000.0000	-1.5000
Inverse	0.1208	0.0013	0.0000	10.0000	Ohm-m	12000.0000	-1.0000
Caliper	1.0046	1.1419	5.5000	20.0000	in	50.0000	-44.7500

Compensated Density Calibration Report

Serial-Model: 303-03-M&W
 Source #: 21170B
 Master Calibration Performed: Mon Mar 20 13:27:55 2023

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	3841.78	5151.73	cps
Aluminum	2.655	g/cc	700.98	3068.49	cps
Spine Angle = 73.06			Density/Spine Ratio = 0.506		
	Size		Reading		
Small Ring	4.00	in	1.17		
Large Ring	16.00	in	1.03		

Compensated Neutron Calibration Report

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: Wed Jan 25 21:25:33 2023

Calibrator Value: 500.0 GAPI

Background Reading: 28.0 cps
 Calibrator Reading: 986.0 cps

Sensitivity: 0.5700 GAPI/cps



Company Castle Resources, Inc.
 Well Hund #1
 Field



Field	Newberry
County	Wabaunsee
State	Kansas