



PIONEER

Pioneer Energy Services

DUAL COMP POROSITY LOG

Company **K&N PETROLEUM, INC.**
Well **NORMAN KLEPPER A NO.1**
Field **UNKNOWN**
County **STAFFORD** State **KANSAS**

Location: API #: 15-185-24000-00-00

Other Services

NE-SW-SE-SW
475' FSL & 1801' FWL
SEC 17 TWP 22S RGE 11W

DIL/MEL
BHCS

Permanent Datum GROUND LEVEL Elevation 1830'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Elevation
K.B. 1839'
D.F. N/A
G.L. 1830'

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Date 10/31/2017

Run Number ONE

Type Log CNL/CDL

Depth Driller 3700'

Depth Logger 3694'

Bottom Logged Interval 3673'

Top Logged Interval 2900'

Type Fluid In Hole CHEMICAL

Salinity, PPM CL 12000

Density 9.5

Level FULL

Max. Rec. Temp. F 113 DEG/F

Operating Rig Time 4 HOURS

Equipment -- Location 108 HAYS

Recorded By J. HENRICKSON

Witnessed By WYATT URBAN

Borehole Record

Casing Record

Run No.	Bit	From	To	Size	Wgt.	From	To
ONE	12.25"	0	371'	8.625"	23#	0	371'
TWO	7.875"	371'	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.

GREAT BEND KANSAS

SOUTH TO HWY 19, EAST TO STAFFORD ROAD, 1 SOUTH
1 3/4 EAST, SOUTH INTO(FOLLOW CURVY ROAD TO WELL)

Log Measured From: KELLY BUSHING 9 Ft. Above Permanent Datum

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

Your Pioneer Energy Services Crew

Engineer: J. HENRICKSON
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

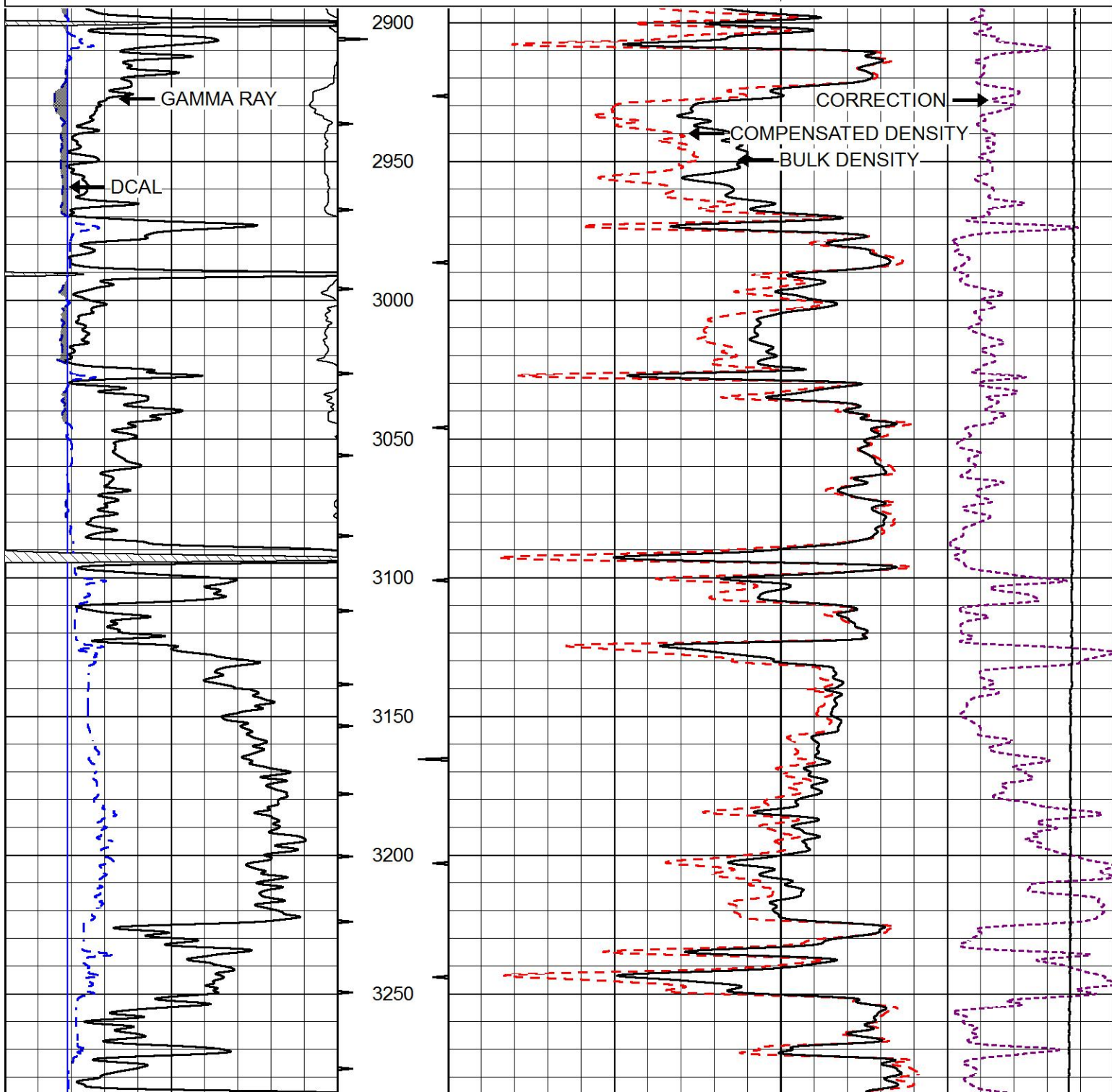
Primary Witness: WYATT URBAN
Secondary Witness:
Secondary Witness:
Secondary Witness:

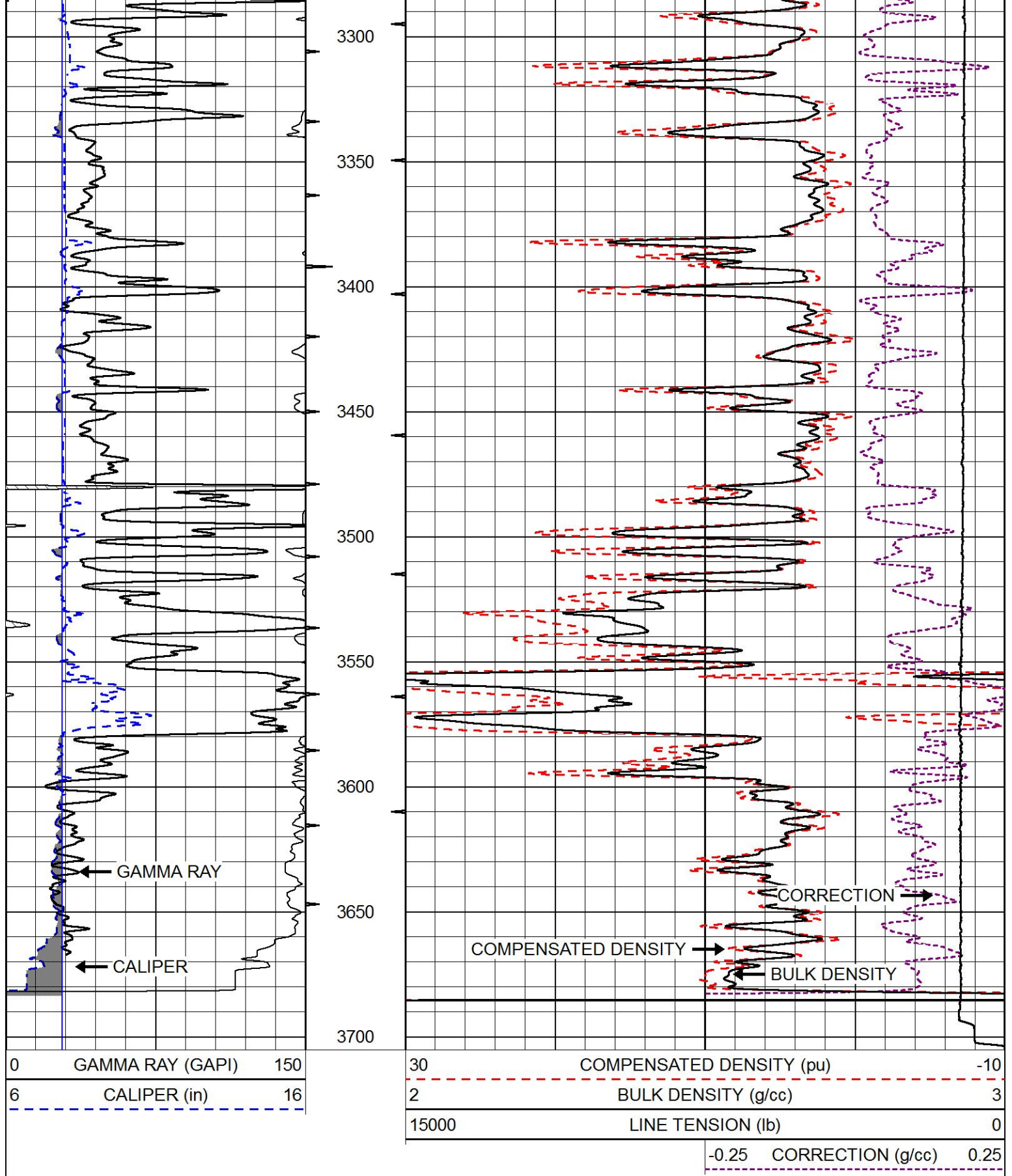
MAIN PASS

Database File k&n_norman_klepper_a_1.db
Dataset Pathname stack/pass3.1
Presentation Format cdl
Dataset Creation Tue Oct 31 02:20:02 2017
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

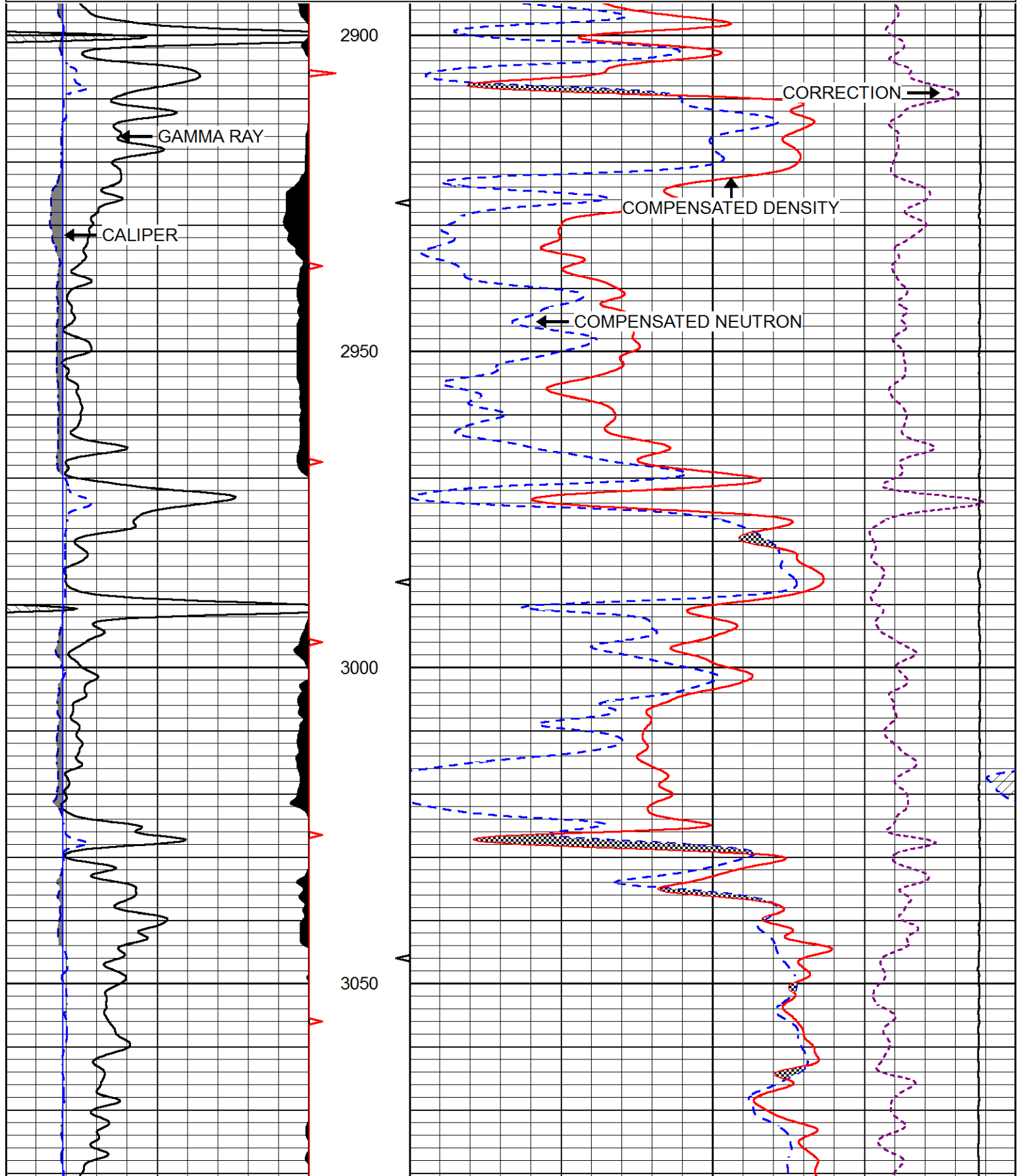


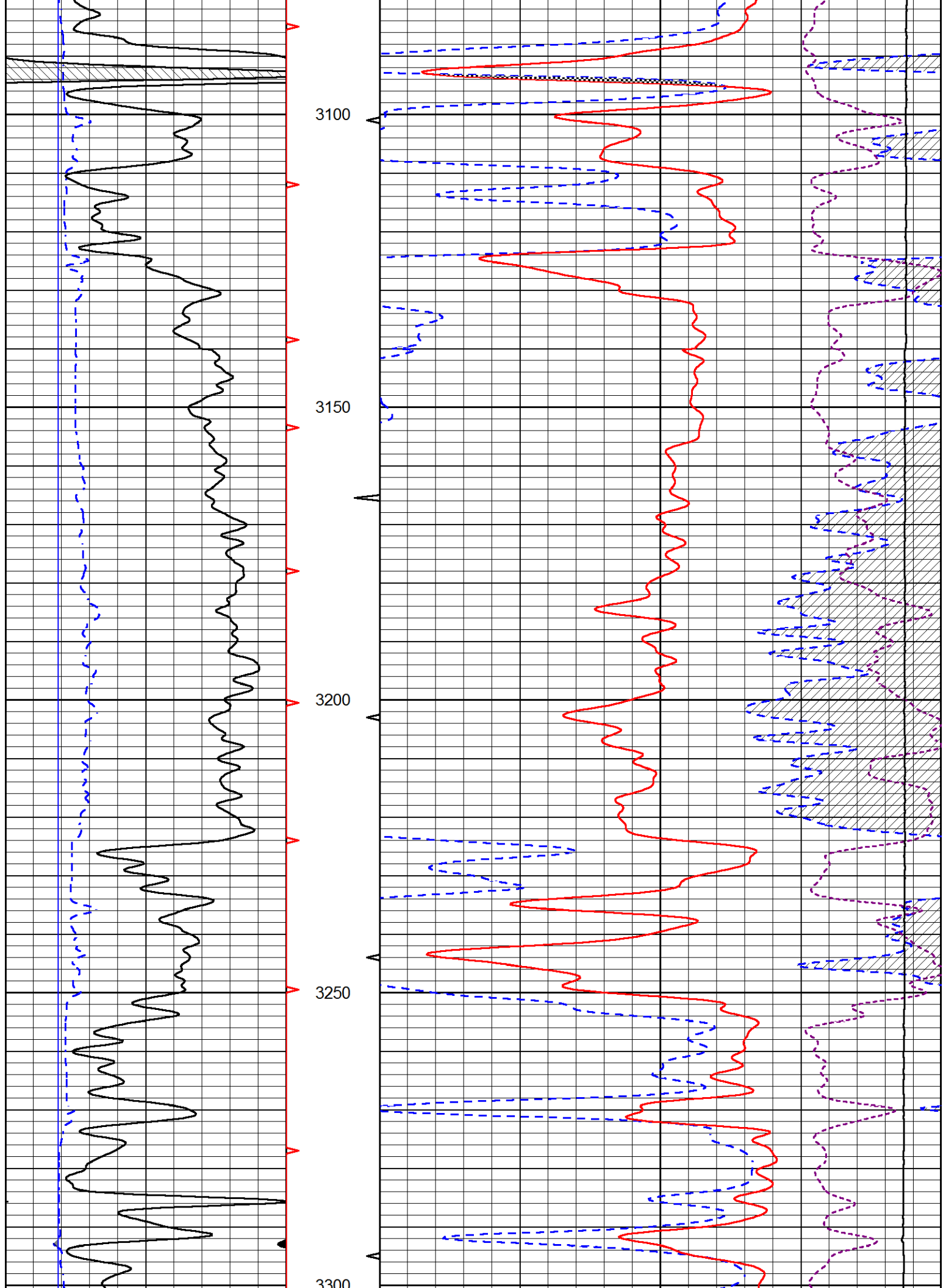


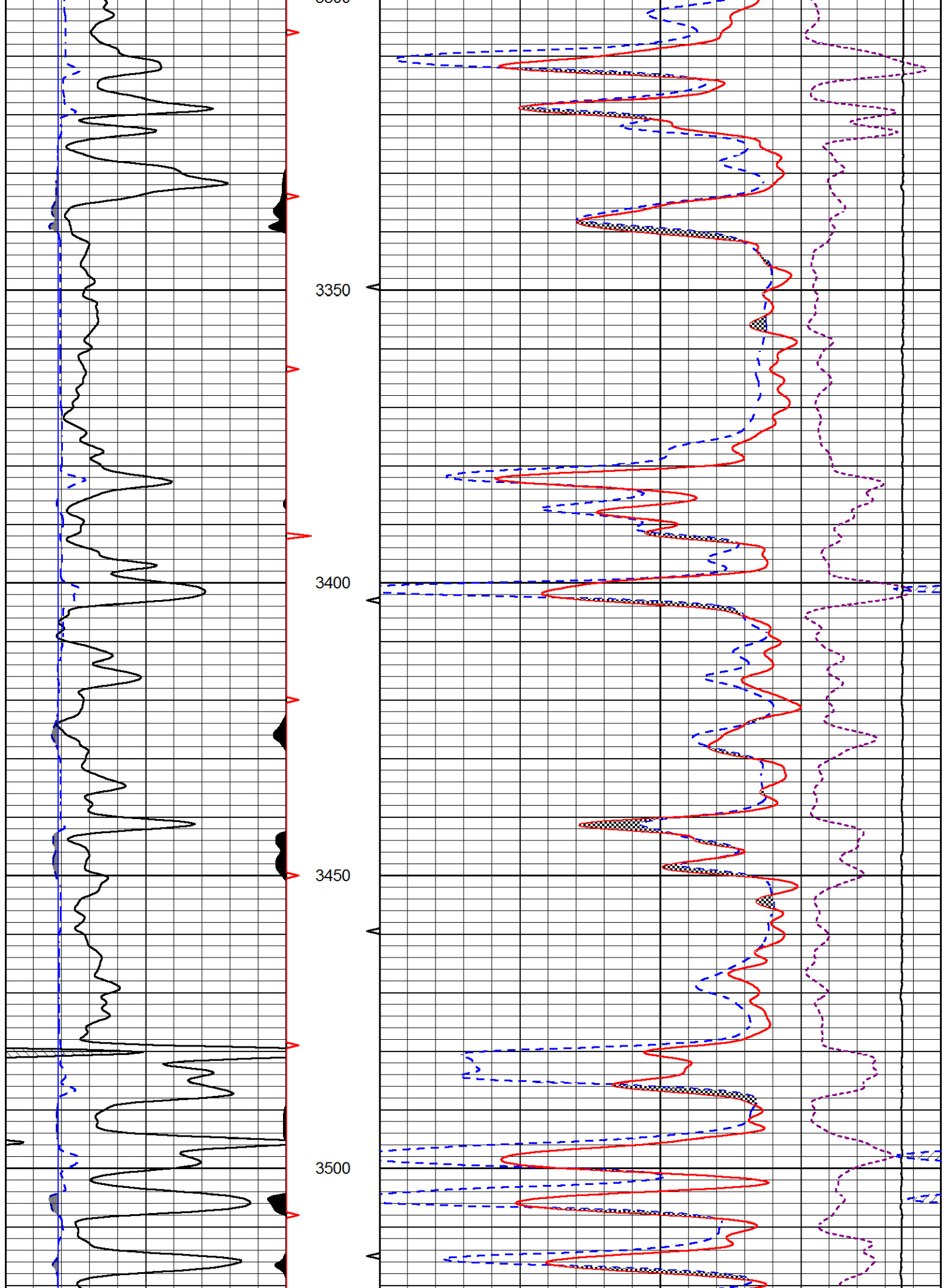
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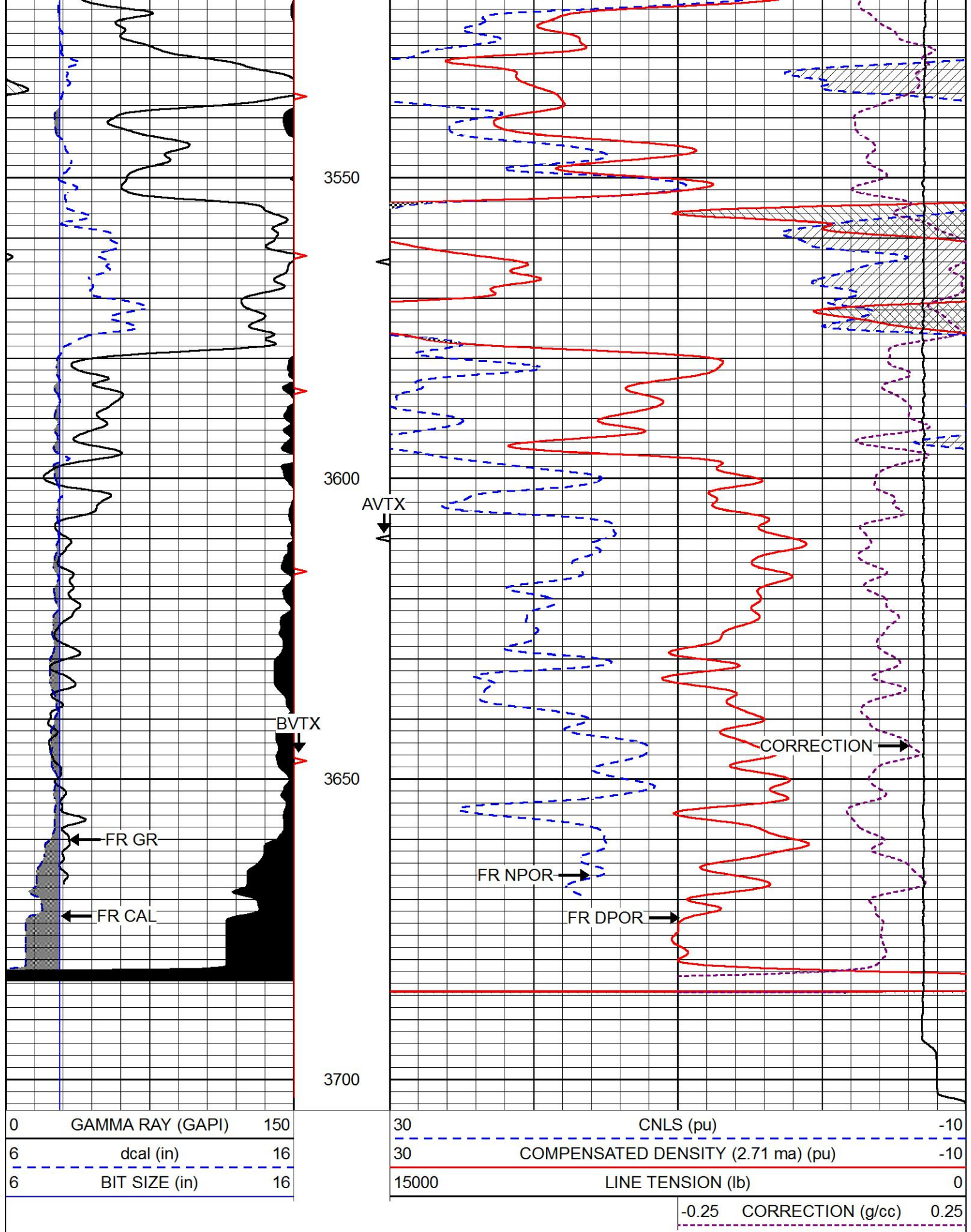
0	GAMMA RAY (GAPI)	150
6	dcal (in)	16
6	BIT SIZE (in)	16

30	CNLS (pu)	-10
30	COMPENSATED DENSITY (2.71 ma) (pu)	-10
15000	LINE TENSION (lb)	0
-0.25	CORRECTION (g/cc)	0.25







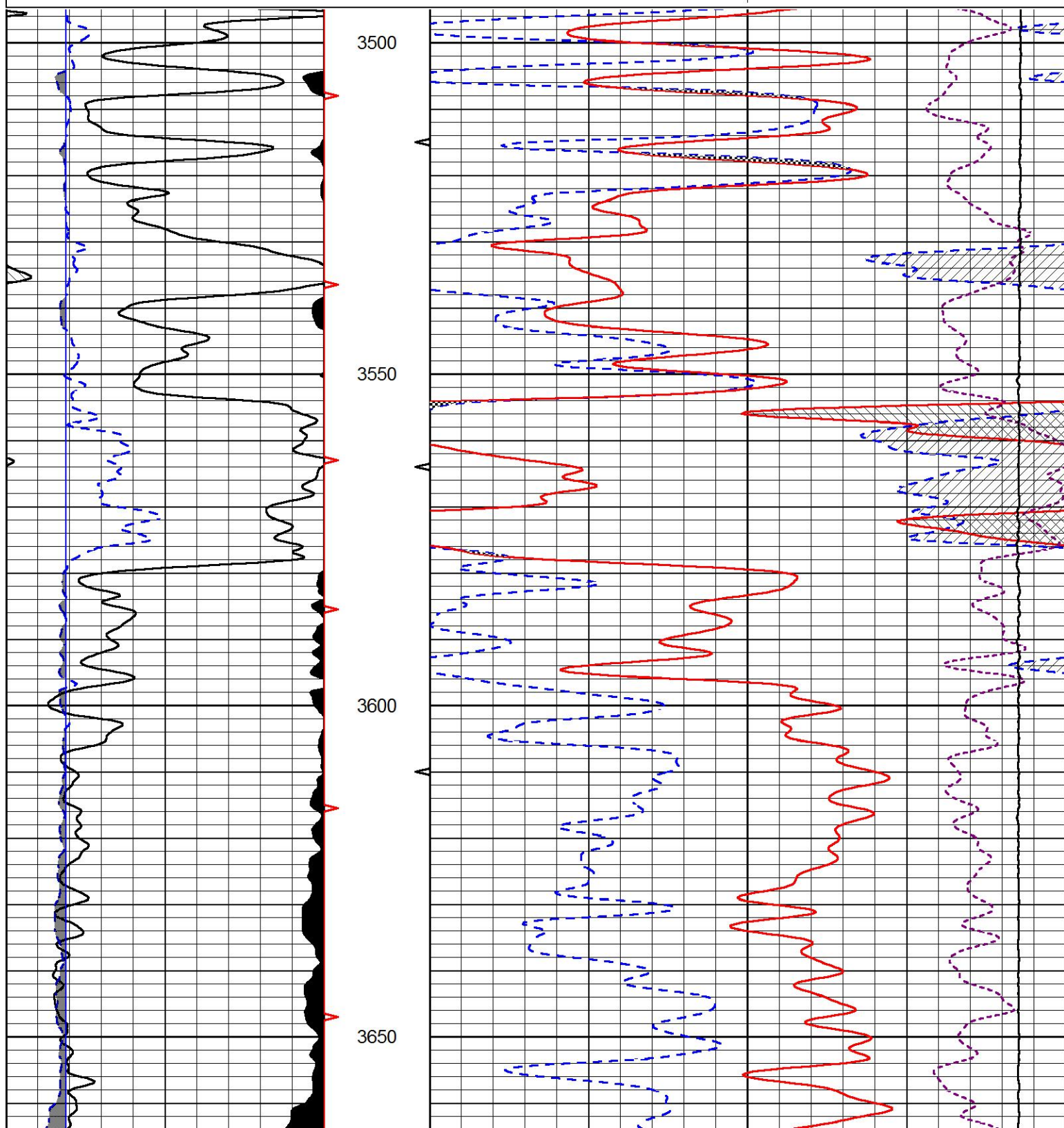


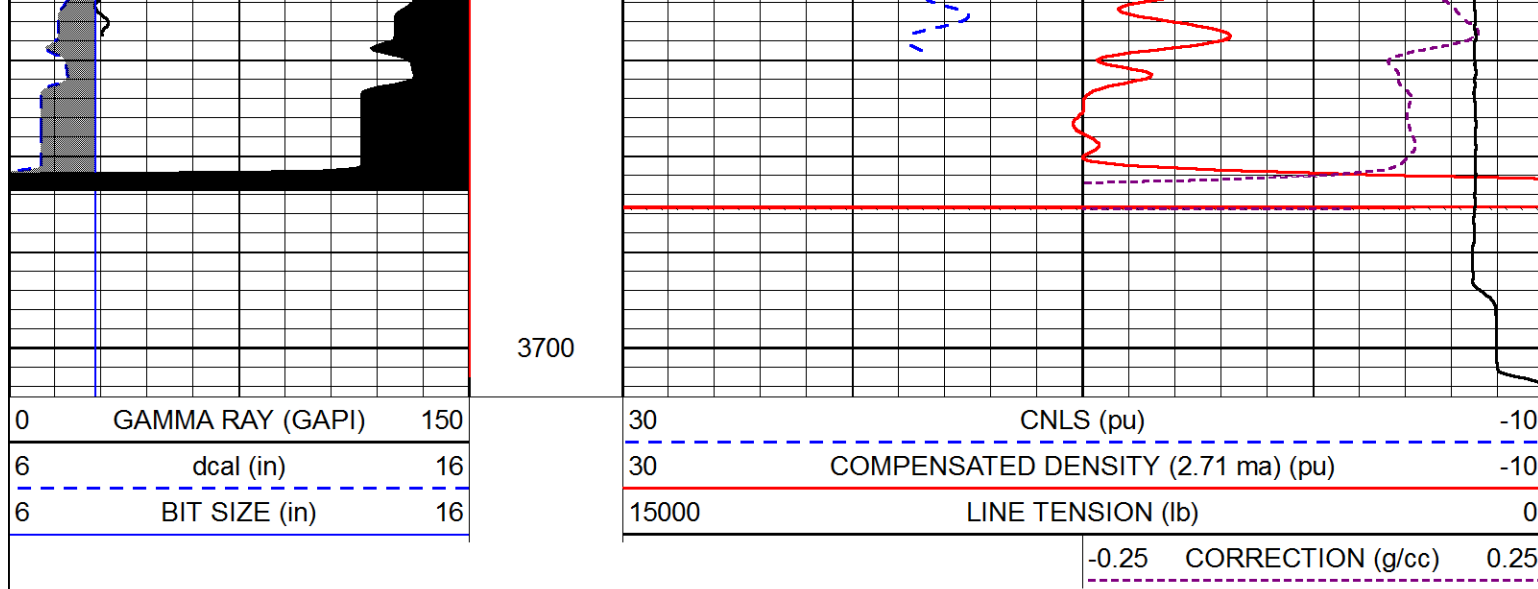
REPEAT SECTION

Database File k&n_norman_klepper_a_1.db
 Dataset Pathname stack/pass2.1
 Presentation Format cndlspec
 Dataset Creation Tue Oct 31 02:19:20 2017
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
6	dcal (in)	16
6	BIT SIZE (in)	16

30	CNLS (pu)	-10
30	COMPENSATED DENSITY (2.71 ma) (pu)	-10
15000	LINE TENSION (lb)	0
-0.25	CORRECTION (g/cc)	0.25





Calibration Report

Database File k&n_norman_klepper_a_1.db
 Dataset Pathname stack/pass3.1
 Dataset Creation Tue Oct 31 02:20:02 2017

Dual Induction Calibration Report

Serial-Model: PSI 216 HT-PSI HIGH TEMP
 Calibration Performed: Thu Aug 24 03:44:32 2017

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		Gain	Offset
Deep	75.411	495.929	4.000	250.000	mmho/m	0.750	-40.115
Medium	75.269	470.661	10.000	100.000	mmho/m	0.628	-22.133

Compensated Density Calibration Report

Serial-Model: 168-986-M&W
 Source / Verifier: /
 Master Calibration Performed: Tue Apr 11 16:07:47 2017

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	4691.86	4818.19	cps
Aluminum	2.675	g/cc	859.57	3020.22	cps
Spine Angle = 74.61			Density/Spine Ratio = 0.523		
	Size		Reading		
Small Ring	4.00	in	1.03		
Large Ring	14.00	in	1.23		

Compensated Neutron Calibration Report

Serial Number: tk10-MW
 Tool Model: M&W
 Calibration Performed: Wed Nov 16 11:21:36 2016

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-M&W		
Tool Model:	M&W		
Calibration Performed:	Tue Apr 11 16:08:01 2017		
Calibrator Value:	1000.0	GAPI	
Background Reading:	0.0	cps	
Calibrator Reading:	6.2	cps	
Sensitivity:	0.5200	GAPI/cps	

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