



DUAL COMP POROSITY LOG

Company MURFIN DRILLING CO., INC.
 Well GEYER #6-35
 Field WILDCAT
 County GRAHAM
 State KANSAS

Company MURFIN DRILLING CO., INC.
 Well GEYER #6-35
 Field WILDCAT
 County GRAHAM State KANSAS

Location: API #: 15-065-24172-00-00
 330' FSL & 475' FWL
 SEC 35 TWP 10S RGE 24W
 Permanent Datum GROUND LEVEL Elevation 2351'
 Log Measured From KELLY BUSHING
 Drilling Measured From KELLY BUSHING
 Other Services
 DIL/MEL
 BHCS
 Elevation
 K.B. 2356'
 D.F. N/A
 G.L. 2351'

Date	9/24/2019	
Run Number	ONE	
Type Log	CNL/CDL	
Depth Driller	4000'	
Depth Logger	4002'	
Bottom Logged Interval	3973'	
Top Logged Interval	3400'	
Type Fluid In Hole	CHEMICAL	
Salinity, PPM CL	1500	
Density	9.2	
Level	FULL	
Max. Rec. Temp. F	116	
Operating Rig Time	5 HOURS	
Equipment -- Location	P-24 HAYS	
Recorded By	IAN MABB	
Witnessed By	SAMAN SHARIFAIE	

Run No.	Bit	Borehole Record		Casing Record	
		From	To	From	To
ONE	12.25"	0'	260'	8.625"	23#
TWO	7.875"	260'	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.
 WAKEENEY, KS.
 6 MILES NORTH TO RD B, 5 MILES WEST TO RD 210,
 1 MILE NORTH TO RD A , 2/3 MILE WEST & NORTH INTO

Log Measured From: KELLY BUSHING 5 Ft. Above Permanent Datum

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

Your Pioneer Energy Services Crew

Engineer: IAN MABB
 Operator:
 Operator:
 Operator:

This Log Record Was Witnessed By

Primary Witness: SAMAN SHARIFAIE
 Secondary Witness:
 Secondary Witness:
 Secondary Witness:

Log Variables

DatabaseC:\ProgramData\Warrior\Data\murfin_geyer_6_35.db
Dataset field/well/stackmel/pass4.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	116	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	0	6	10	220	0	Off	4002

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.58		GR-M&W (233-M&W)	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		DIL-PSI HIGH TEMP (1039)	18.50	3.50	220.00

CILM 4.70

SP 0.20

Dataset: murfin_geyer_6_35.db: field/well/stackmel/pass4.1
 Total length: 43.08 ft
 Total weight: 685.00 lb
 O.D.: 4.00 in

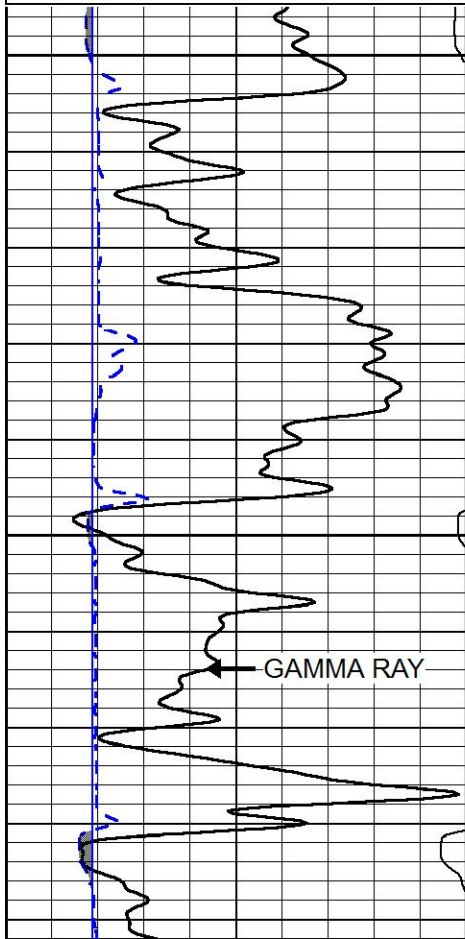


MAIN PASS

Database File murfin_geyer_6_35.db
 Dataset Pathname stackmel/pass4.1
 Presentation Format _cdl
 Dataset Creation Tue Sep 24 08:14:32 2019
 Charted by Depth in Feet scaled 1:240

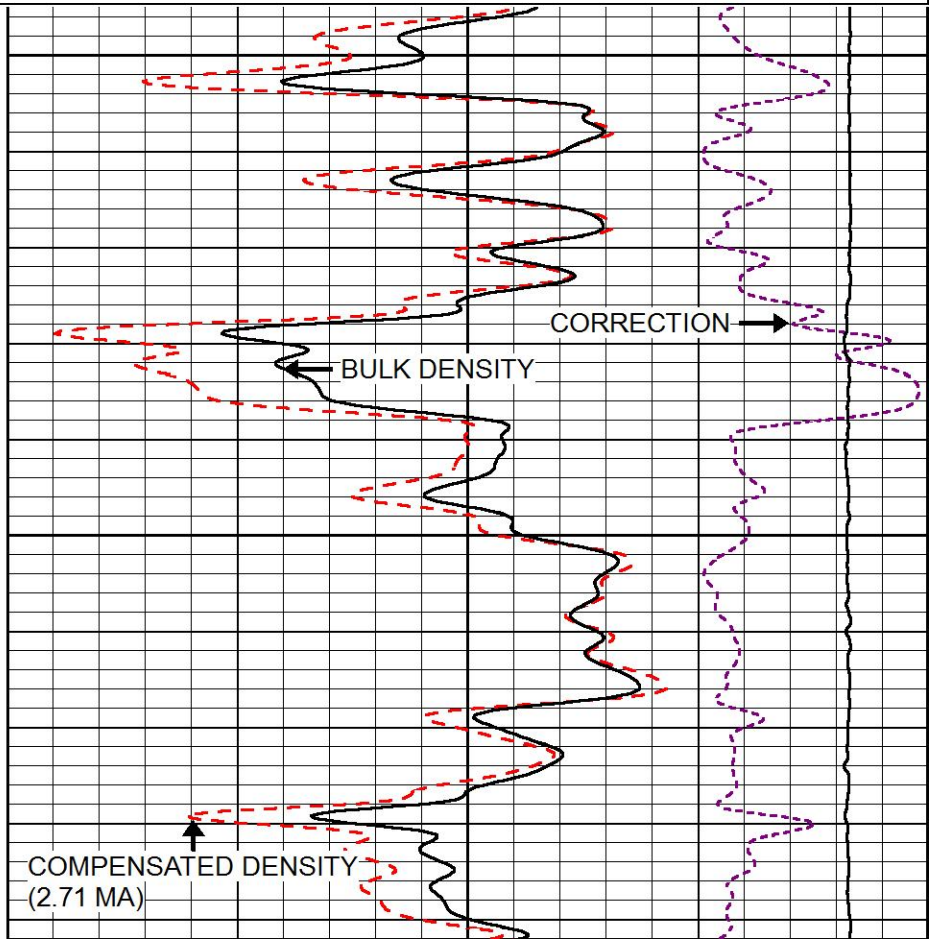
0	GAMMA RAY (GAPI)	150
6	DCAL (in)	16

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



3400

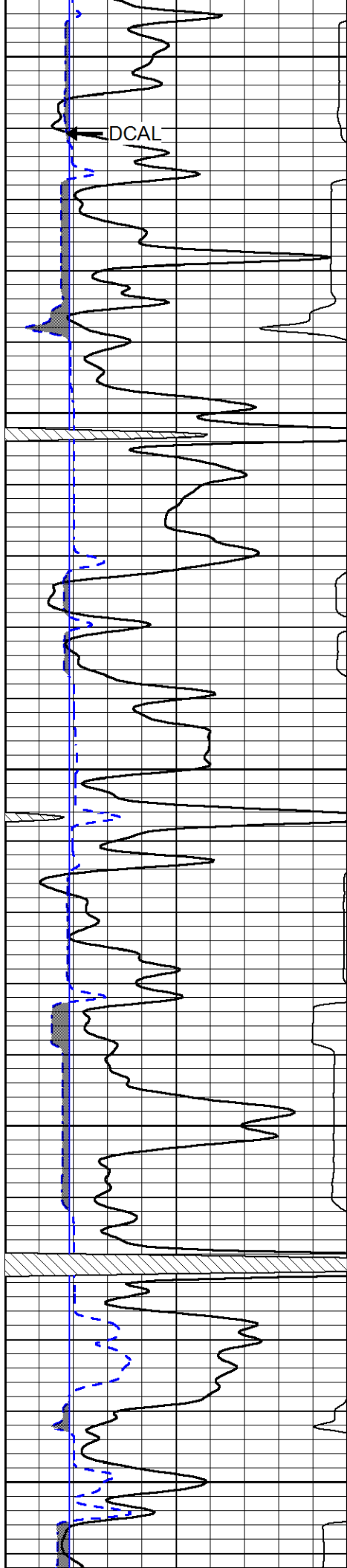
3450



COMPENSATED DENSITY (2.71 MA)

BULK DENSITY

CORRECTION



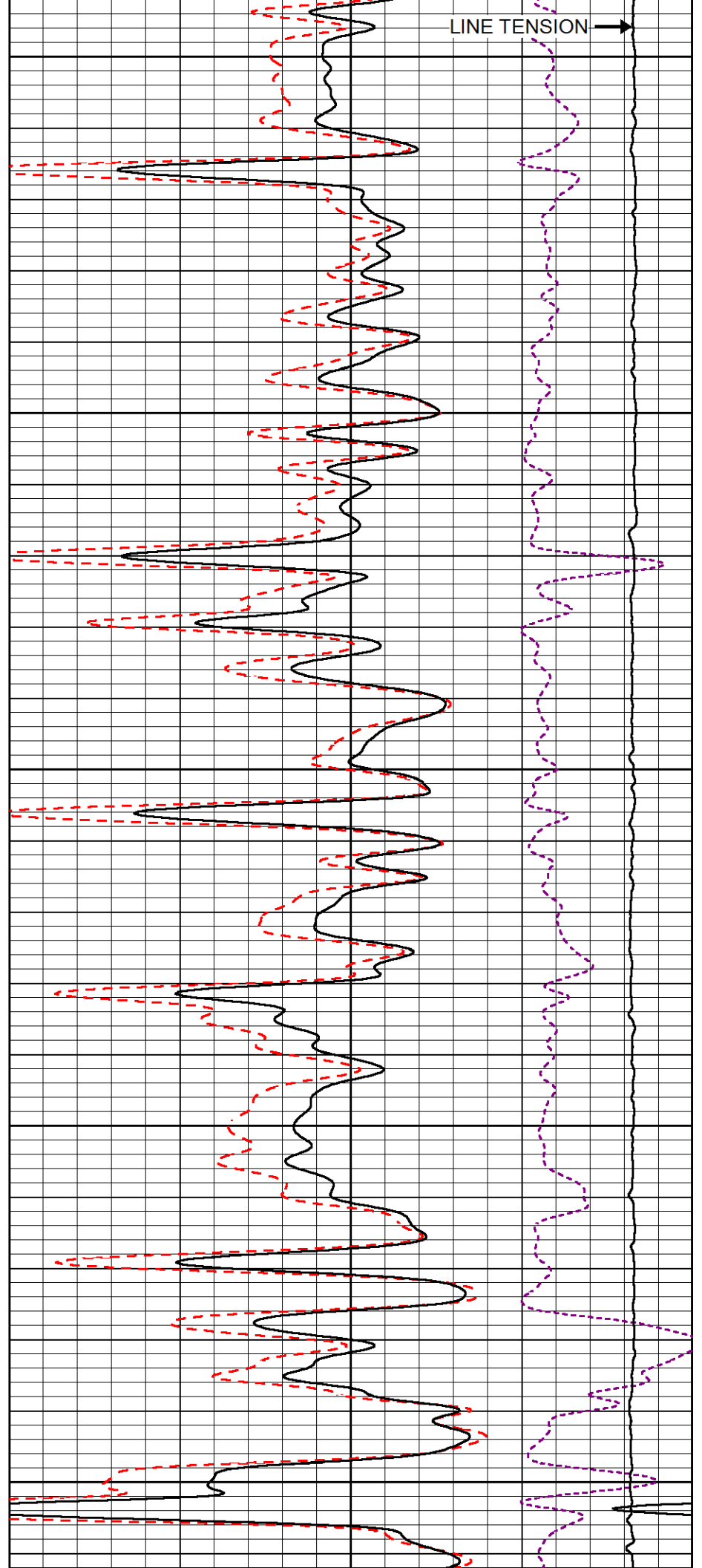
3500

3550

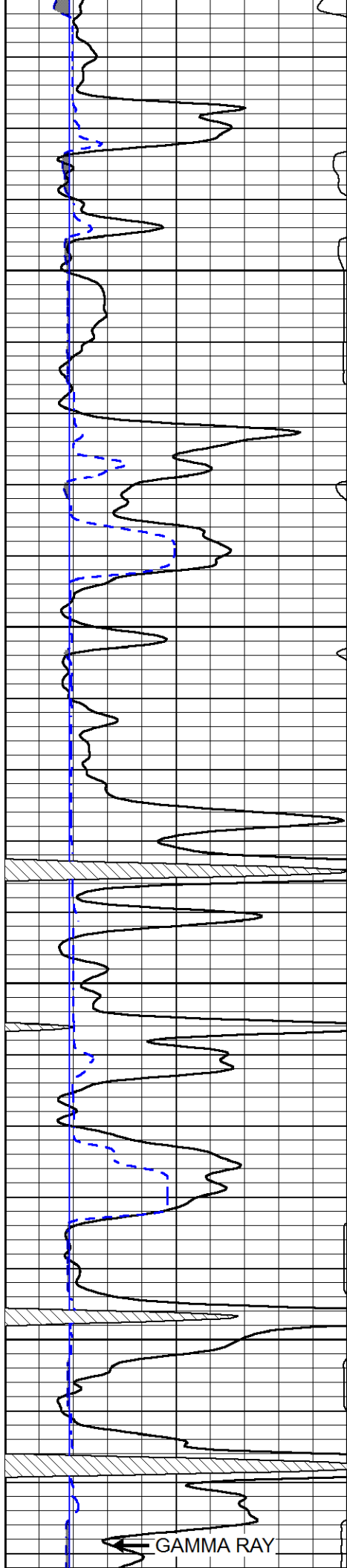
3600

3650

3700



LINE TENSION



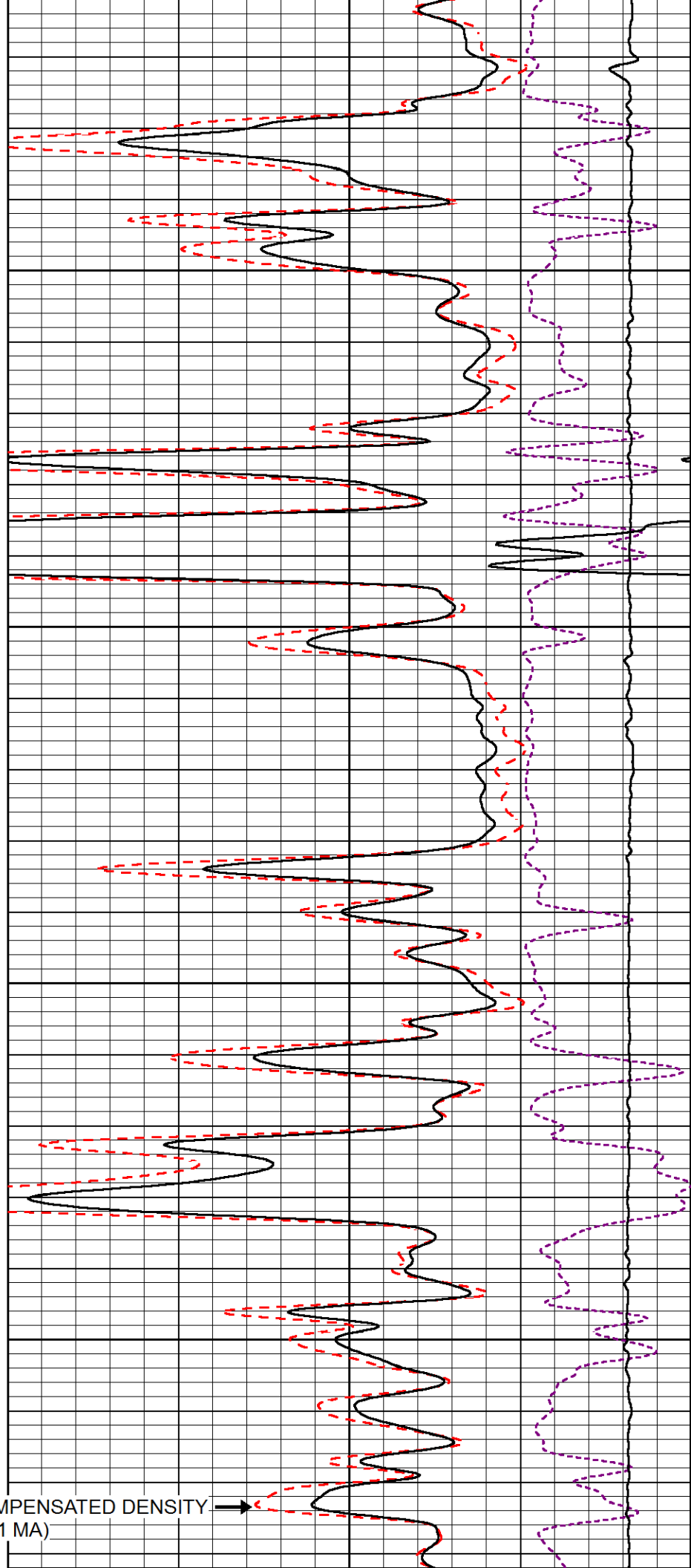
3750

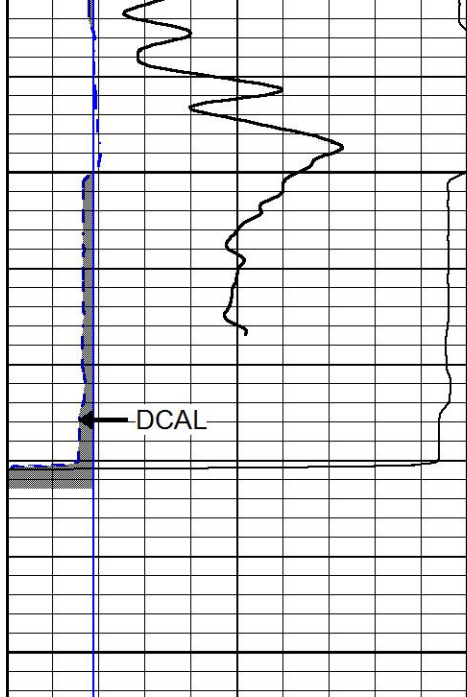
3800

3850

3900

COMPENSATED DENSITY (2.71 MA) →



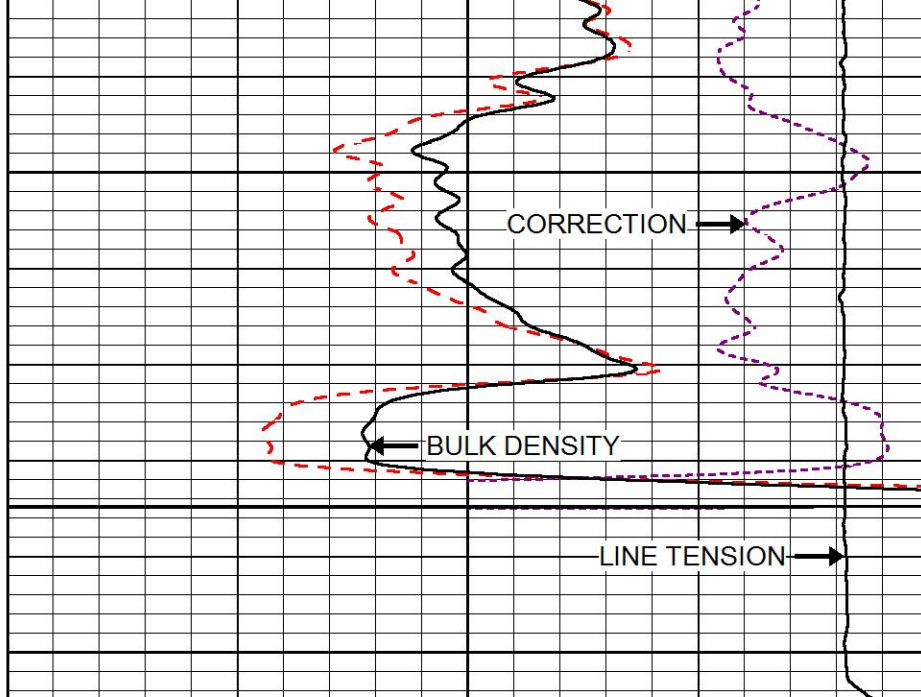


3950

DCAL

4000

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



CORRECTION

BULK DENSITY

LINE TENSION

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

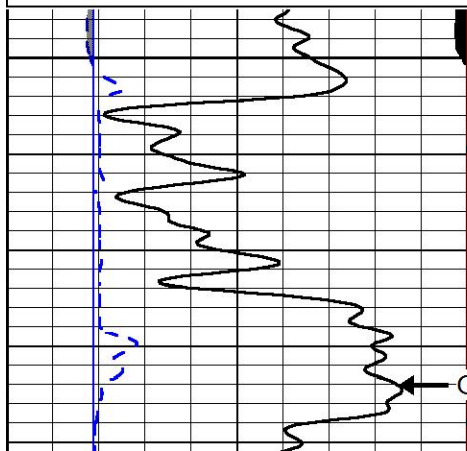


MAIN PASS

Database File murfin_geyer_6_35.db
 Dataset Pathname stackmel/pass4.1
 Presentation Format _CNDLS~1
 Dataset Creation Tue Sep 24 08:14:32 2019
 Charted by Depth in Feet scaled 1:240

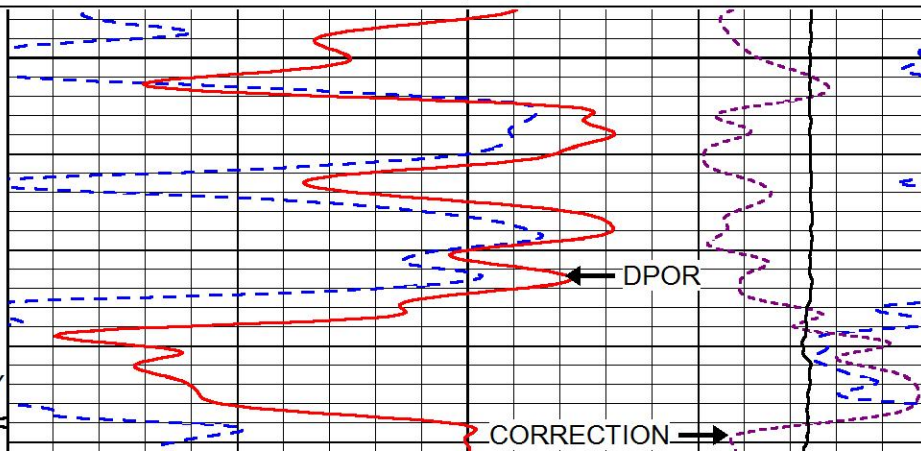
0	GAMMA RAY (GAPI)	150
6	DCAL (in)	16

30	CNPOR (pu)	-10
30	DPOR (pu)	-10
10000	LINE TENSION (lb)	0
30	spor (pu)	-10
-0.25	CORRECTION (g/cc)	0.25



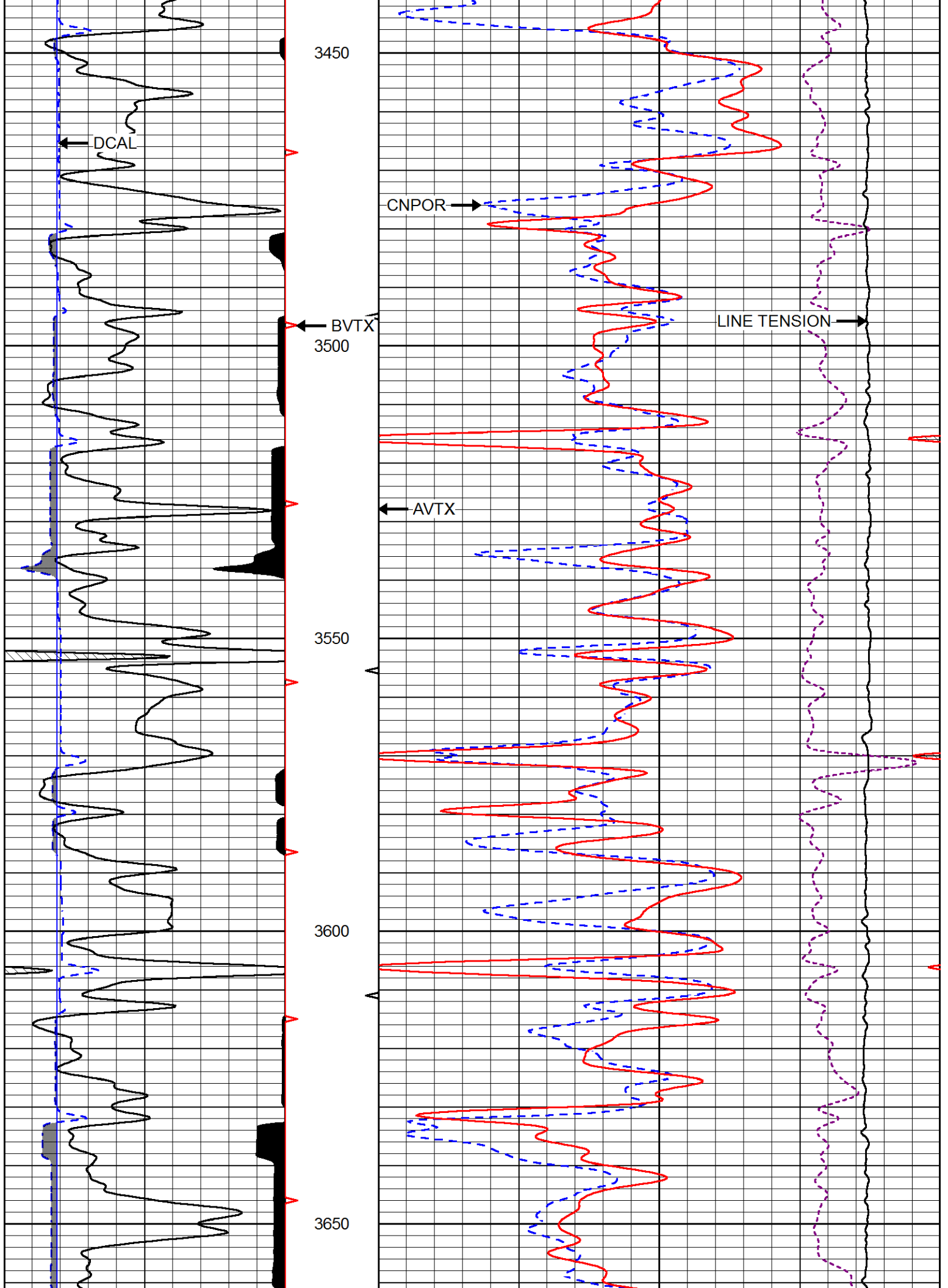
3400

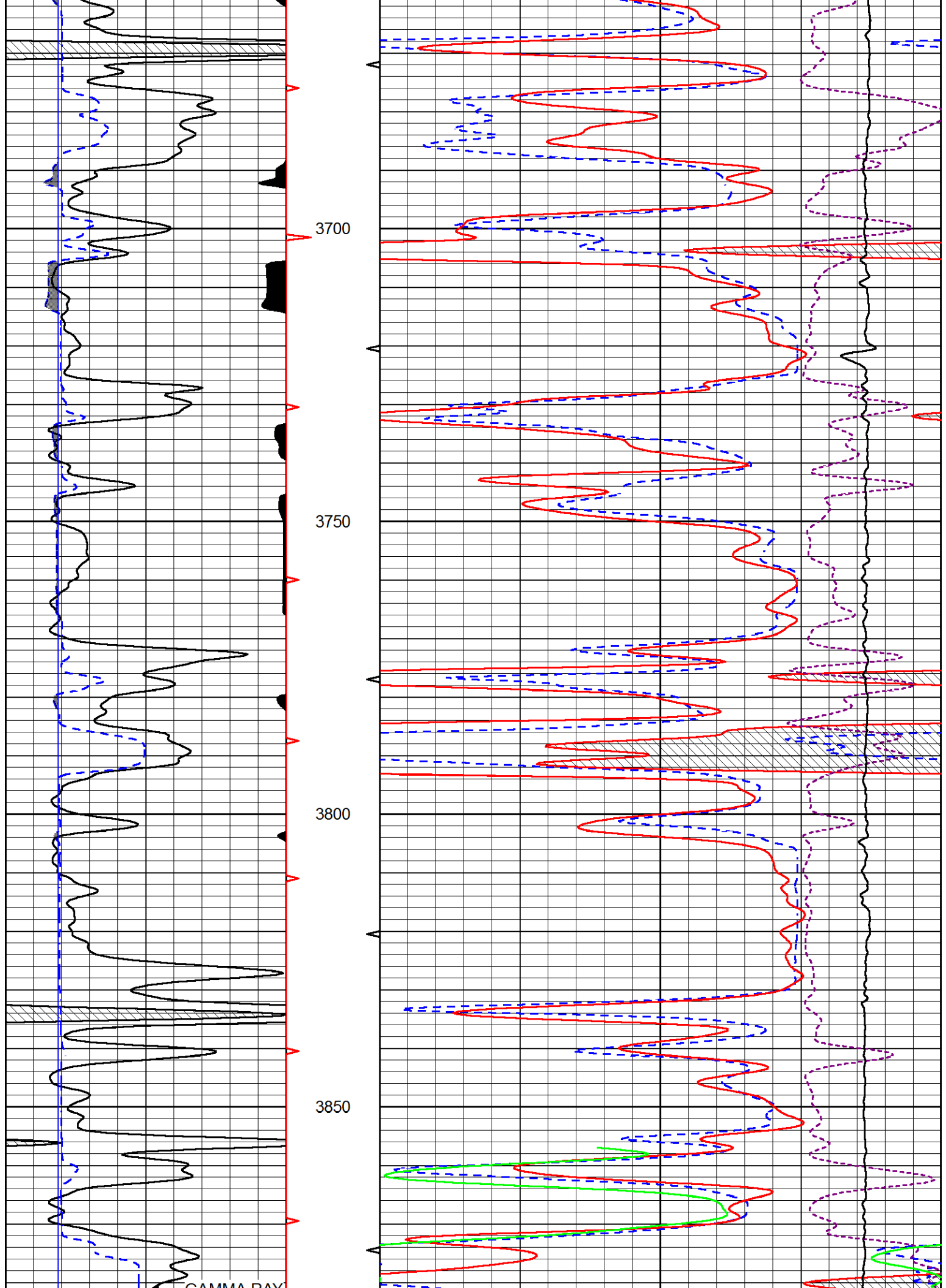
GAMMA RAY

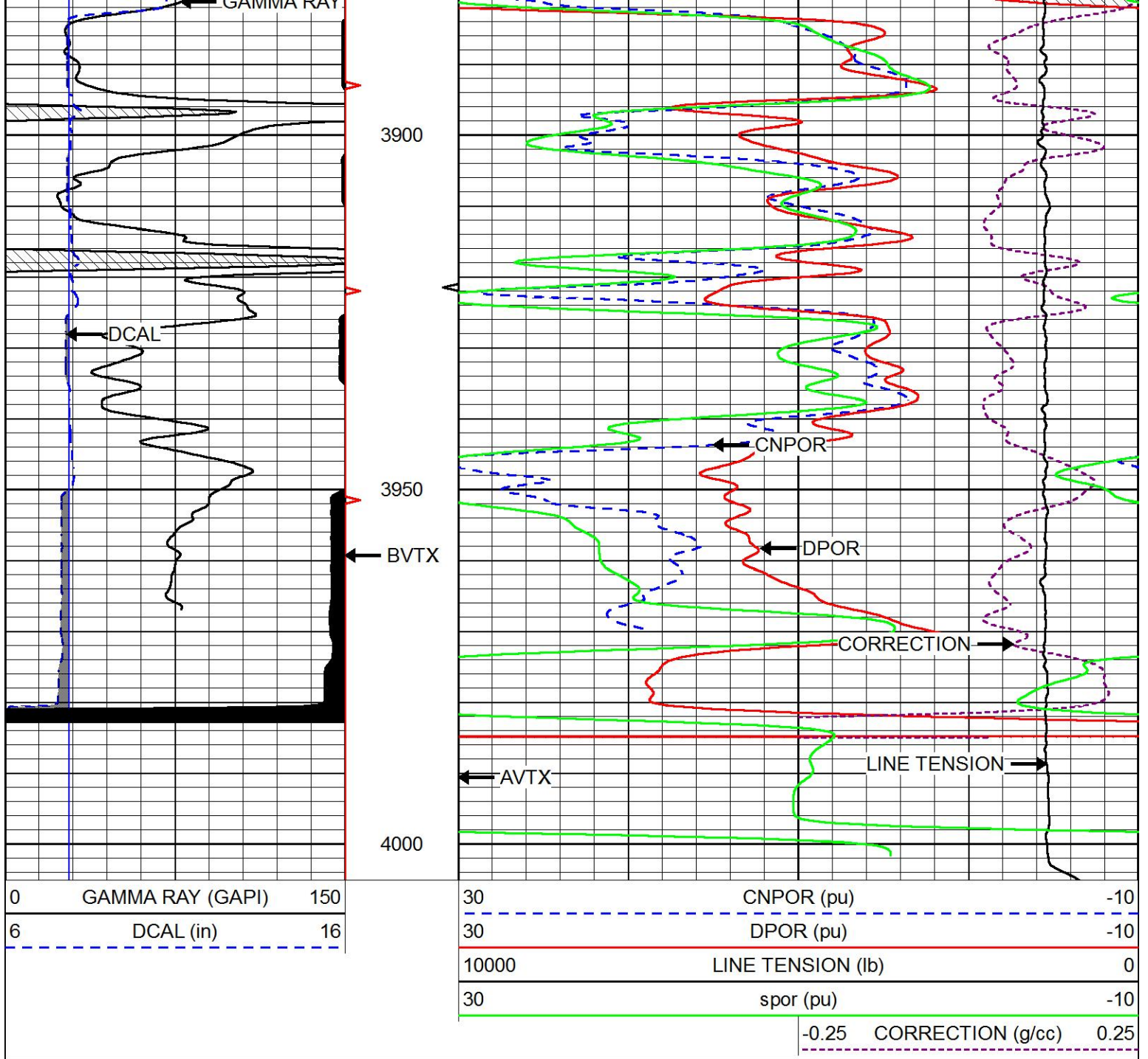


DPOR

CORRECTION

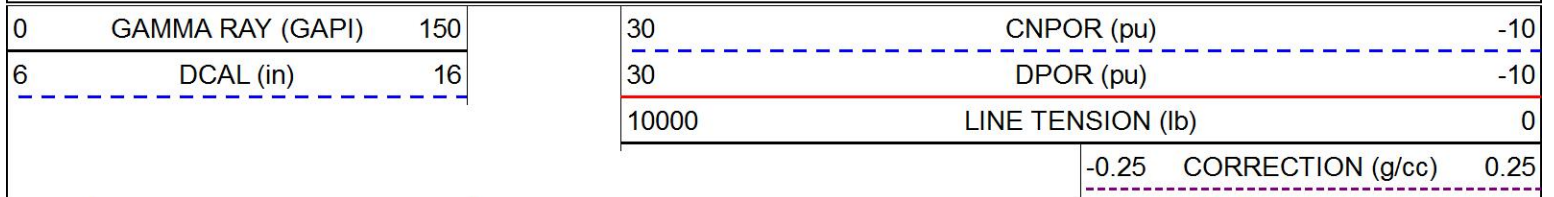


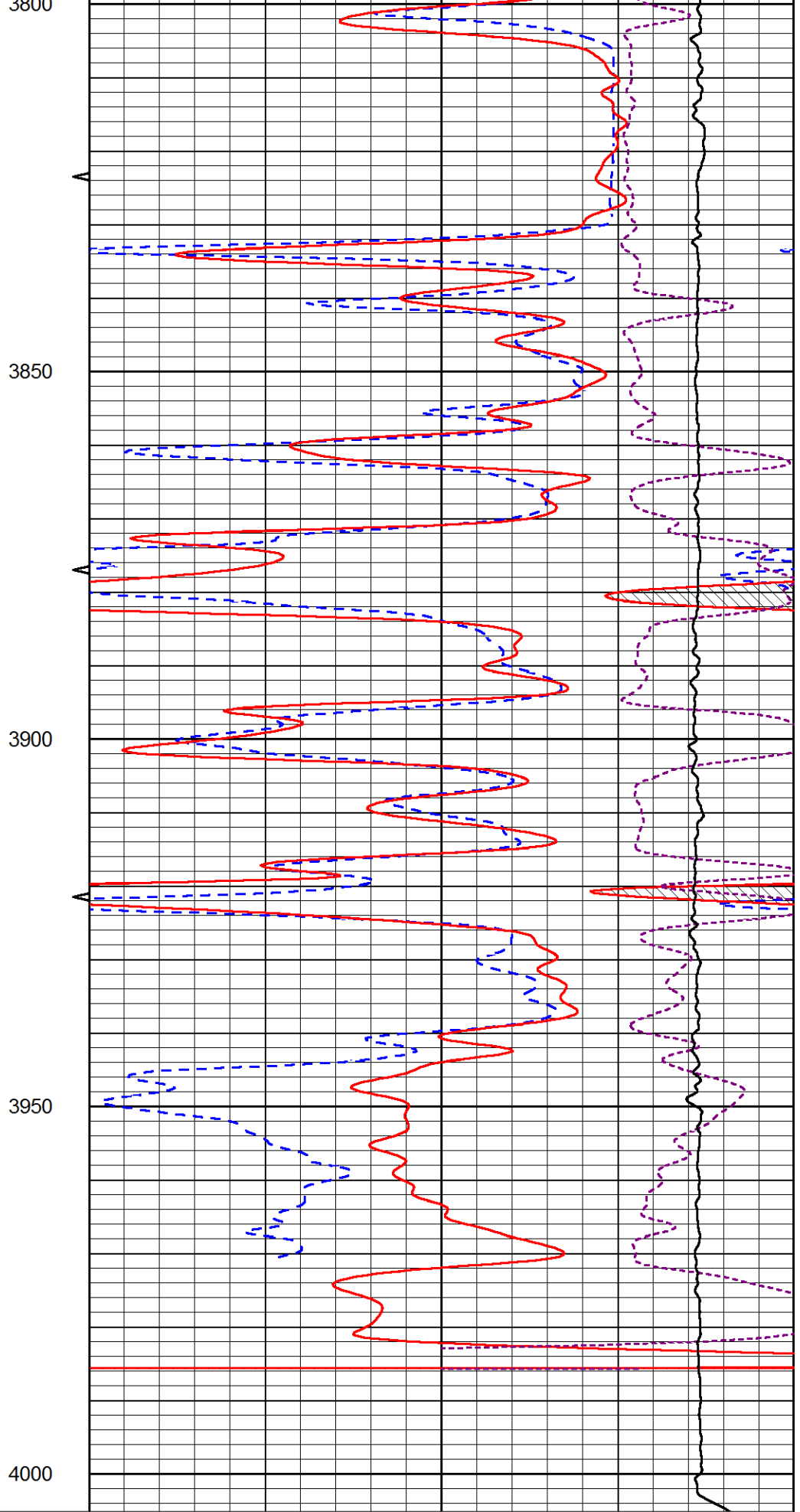
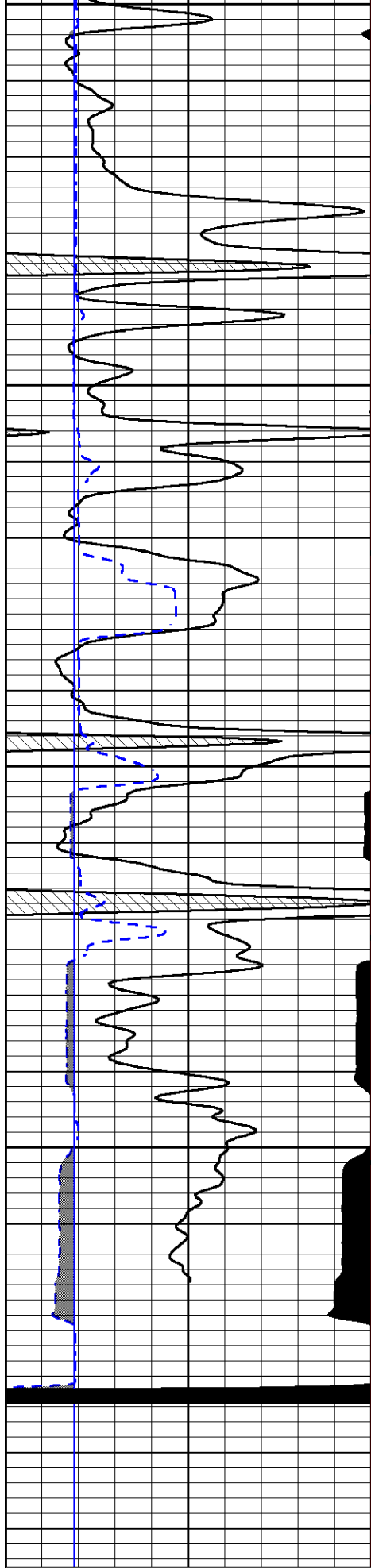




REPEAT SECTION

Database File: murfin_geyer_6_35.db
 Dataset Pathname: stackmel/pass3.1
 Presentation Format: _CNDLS~1
 Dataset Creation: Tue Sep 24 07:12:34 2019
 Charted by: Depth in Feet scaled 1:240





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

30 CNPOR (pu) -10
 30 DPOR (pu) -10
 10000 LINE TENSION (lb) 0

Calibration Report

Database File murfin_geyer_6_35.db
 Dataset Pathname stackmel/pass4.1
 Dataset Creation Tue Sep 24 08:14:32 2019

Dual Induction Calibration Report

Serial-Model: 1039-PSI HIGH TEMP
 Calibration Performed: Tue Sep 10 08:34:01 2019

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		Gain	Offset
Deep	167.000	835.000	0.000	255.800	mmho/m	0.450	-51.000
Medium	0.000	1348.000	142.000	255.800	mmho/m	0.365	-49.000

Microlog Calibration Report

Serial-Model: PSI-01-PSIML
 Performed: Thu Aug 01 07:57:13 2019

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	20000.0000	-0.7000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	60000.0000	-2.0000
Caliper	1.0195	1.1612	6.5000	18.5000	in	84.7023	-81.2000

Compensated Density Calibration Report

Serial-Model: 817-947-M&W
 Source / Verifier: 16955B / 2ci
 Master Calibration Performed: Fri Aug 24 11:16:00 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	1.34		

Compensated Neutron Calibration Report

Serial Number: 207-MW
 Tool Model: M&W
 Calibration Performed: WED FEB 13 10:30:30 2019

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:	233-M&W	
Tool Model:	M&W	
Calibration Performed:	Fri Feb 07 01:42:40 2014	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.5500	GAPI/cps



PIONEER
Pioneer Energy Services

Company	MURFIN DRILLING CO., INC.
Well	GEYER #6-35
Field	WILDCAT
County	GRAHAM
State	KANSAS