



DUAL COMP POROSITY LOG

MIDWEST WIRELINE

Company RAMA Operating Co., Inc.
Well HJB #1-20
Field Mueller
County Stafford
State Kansas

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Location: API #: 15-185-24082-00-00

Other Services

SE - NE - NW - NW
595' FNL & 1233' FWL
SEC 20 TWP 21S RGE 12W

DIL/MEL

Permanent Datum Ground Level Elevation 1856'
Log Measured From Kelly Bushing
Drilling Measured From Kelly Bushing

K.B. 1867'
D.F. N/A
G.L. 1856'

Date 7/21/2021

Run Number One

Type Log CNL/CDL

Depth Driller 3700'

Depth Logger 3700'

Bottom Logged Interval 3671'

Top Logged Interval 2700'

Type Fluid In Hole Chemical

Salinity, PPM CL 7500

Density 9.2

Level Full

Max. Rec. Temp. F 113

Operating Rig Time 3 Hours

Equipment -- Location P-24 HAYS

Recorded By D. Schmidt

Witnessed By Josh Austin

Borehole Record

Casing Record

Run No.	Bit	From	To	Size	Wgt.	From	To
One	12.25"	0'	330'	8.625"	23#	0'	330'
Two	7.875"	330'	TD				

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All interpretations are opinions based on inferences from electrical or other measurements and Midwest Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Midwest 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,
South to County Line, South to 180th,
4 1/4 East, South into

Log Measured From: Kelly Bushing

11 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: Josh Austin
Secondary Witness:
Secondary Witness:
Secondary Witness:

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 (934-226)	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			DIL-PSI HIGH TEMP (952-828)	18.50	3.50	220.00
CILD	8.00						
CILM	4.70						
SP	0.20						
		Dataset: rama_hjb 1-20.db: field/well/stkml/pass3.3 Total length: 43.08 ft Total weight: 685.00 lb O.D.: 4.00 in					

Log Variables

DatabaseC:\ProgramData\Warrior\Data\rama_hjb 1-20.db
Dataset field/well/stkml/pass3.3/_vars_

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in	degF	in	in	g/cc	2	g/cc
	7.875	113	5.5	0	1		2.71
NPORSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
Limestone	No	mmho/m	mmho/m	mV	degF	Off	ft
		0	0	268	70		3700

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

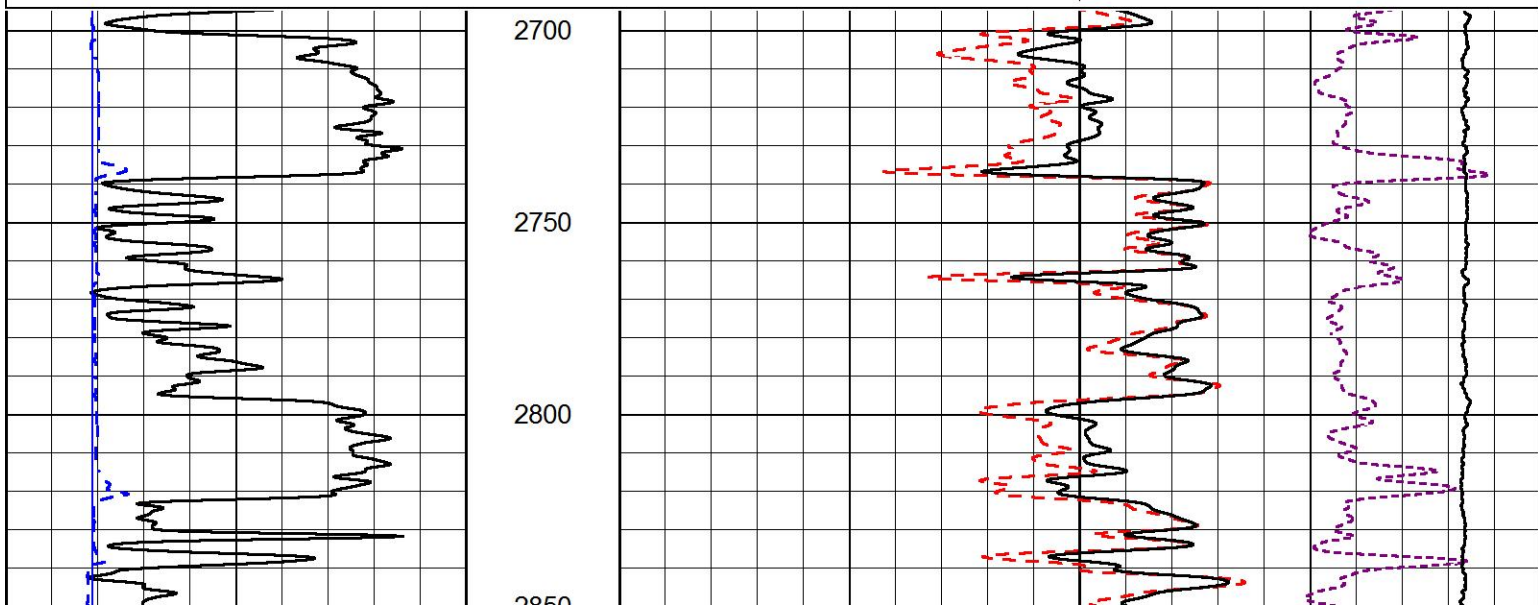


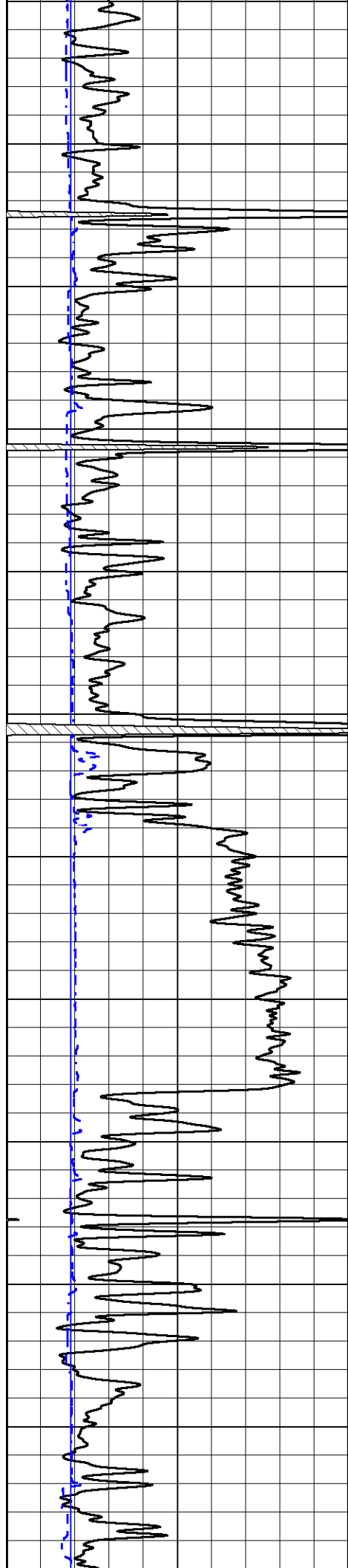
2" SCALE BULK DENSITY

MAIN PASS

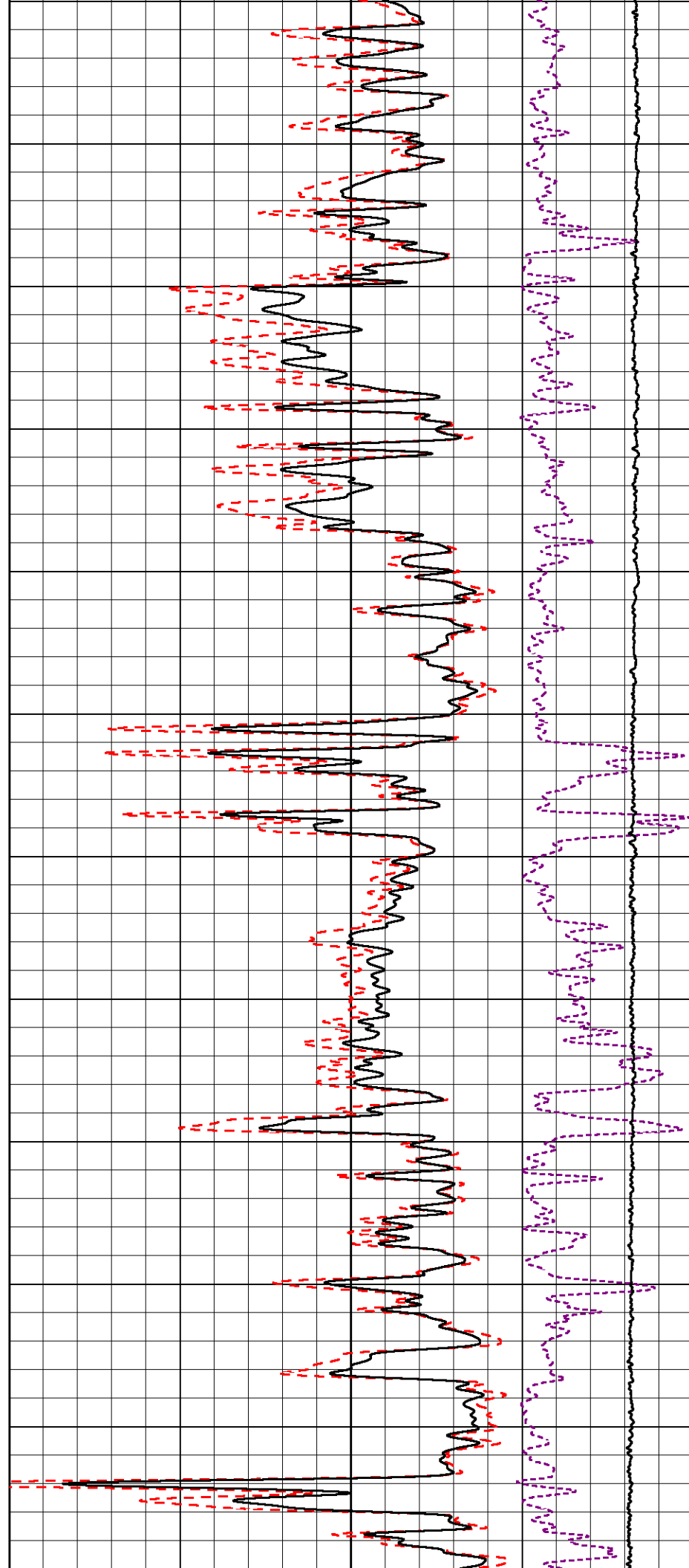
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Dataset Pathname stkml/pass4.1
Presentation Format _cdl
Dataset Creation Wed Jul 21 02:24:46 2021
Charted by Depth in Feet scaled 1:600

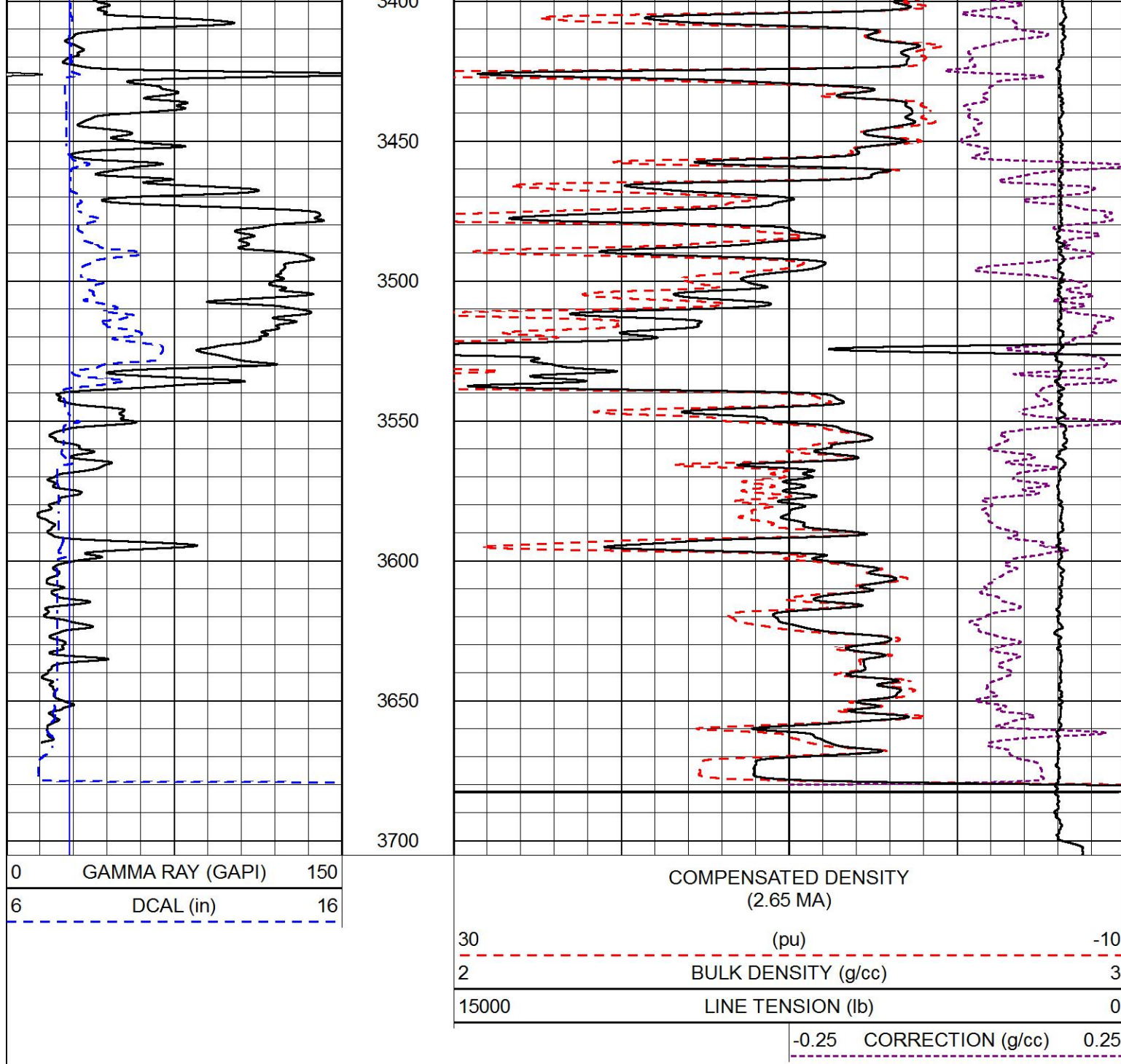
0	GAMMA RAY (GAPI)	150
6	DCAL (in)	16
COMPENSATED DENSITY (2.65 MA)		
30	(pu)	-10
2	BULK DENSITY (g/cc)	3
15000	LINE TENSION (lb)	0
-0.25 CORRECTION (g/cc) 0.25		





2830
2900
2950
3000
3050
3100
3150
3200
3250
3300
3350
3400

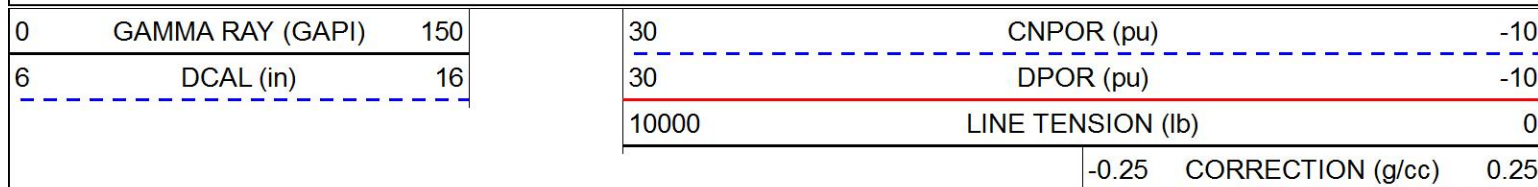


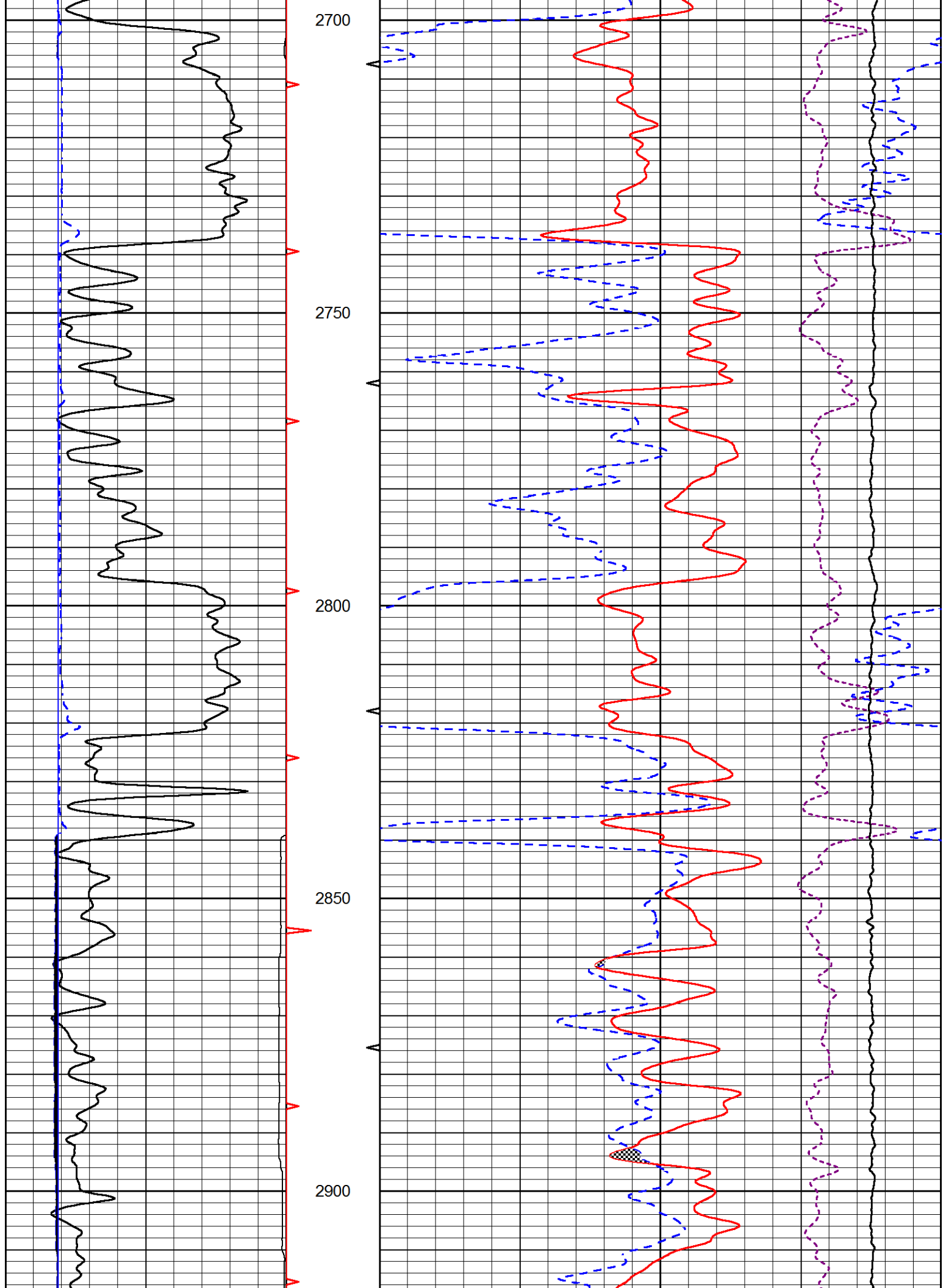


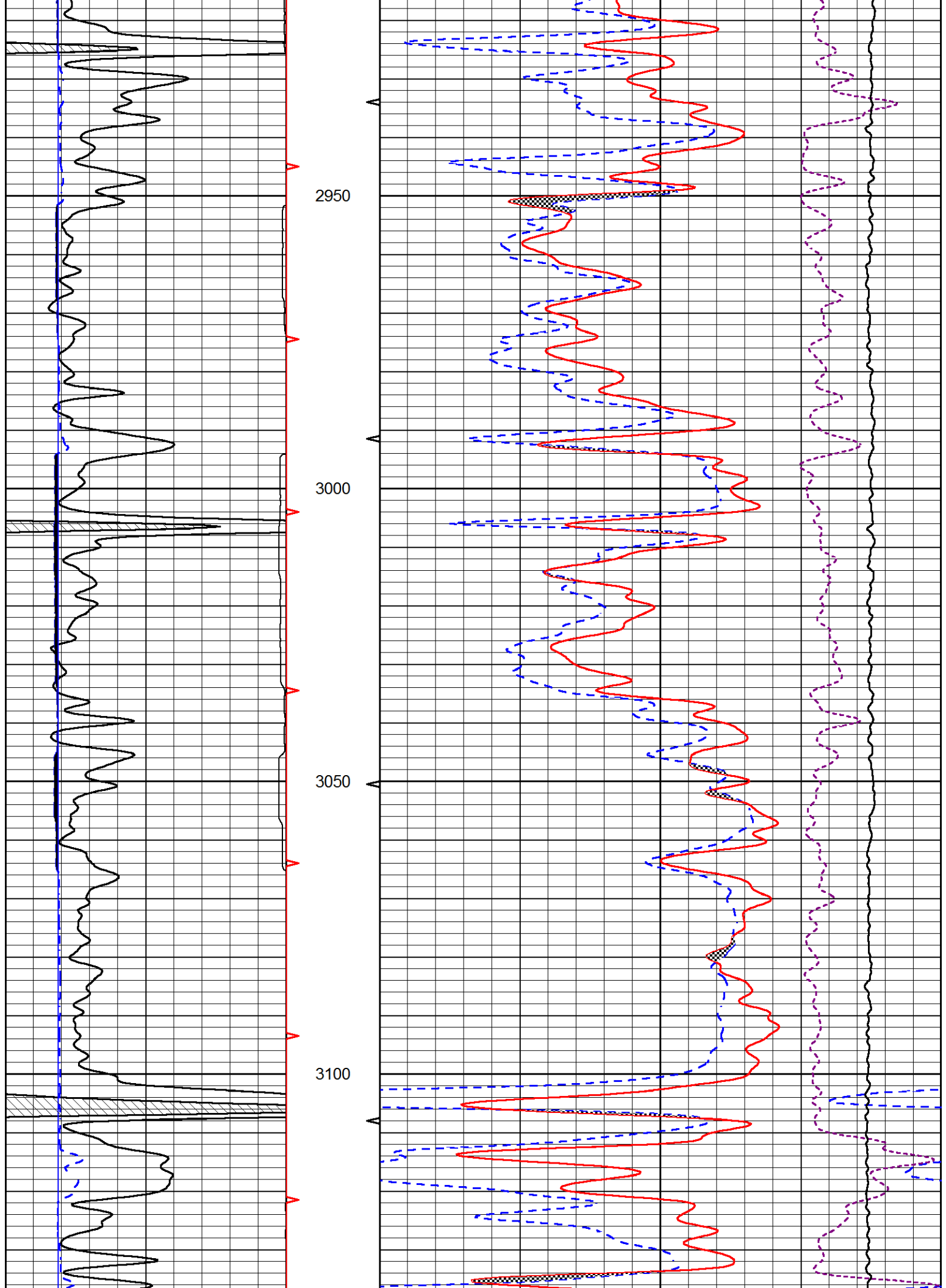
DETAIL SECTION

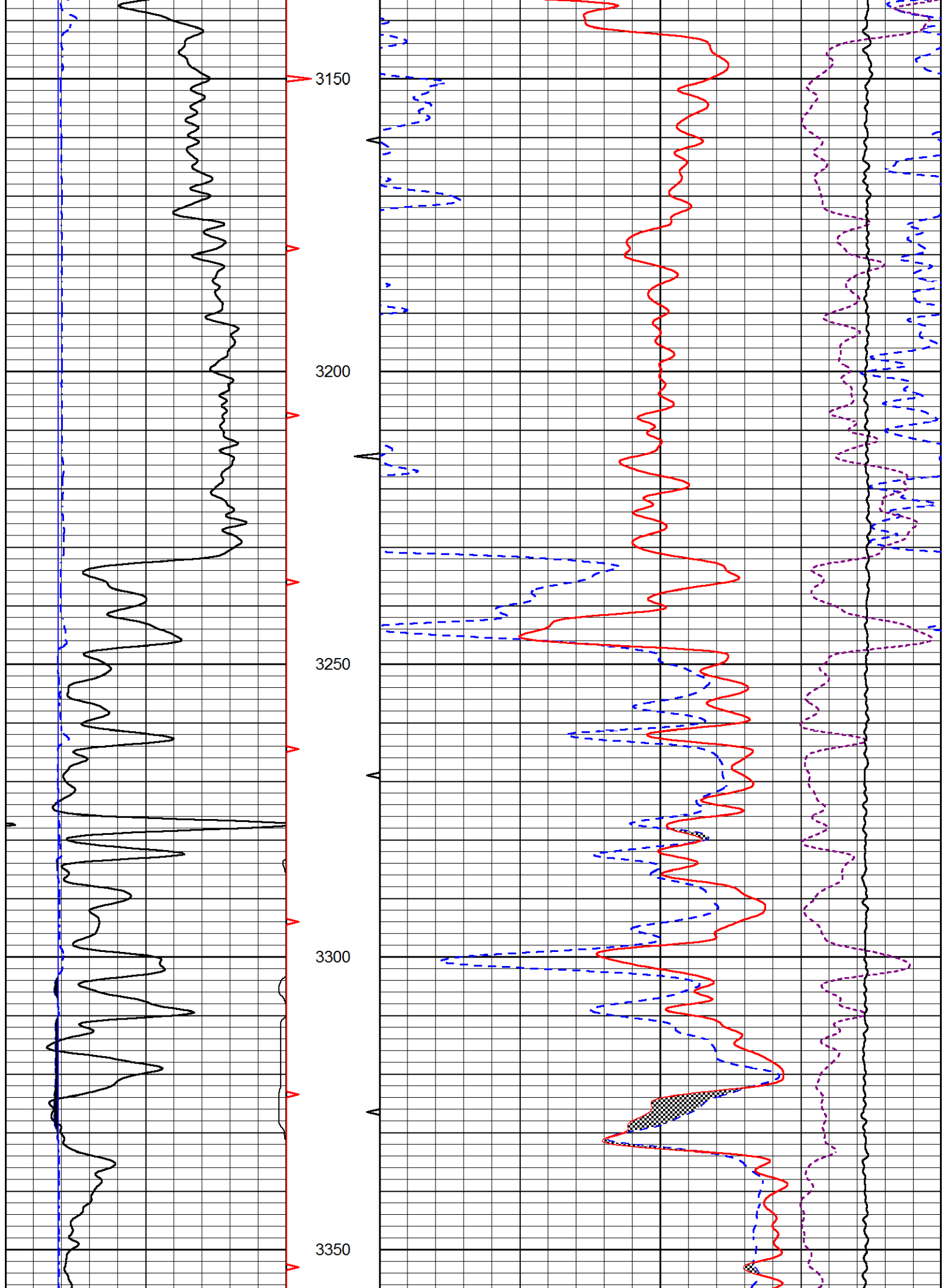
MAIN PASS

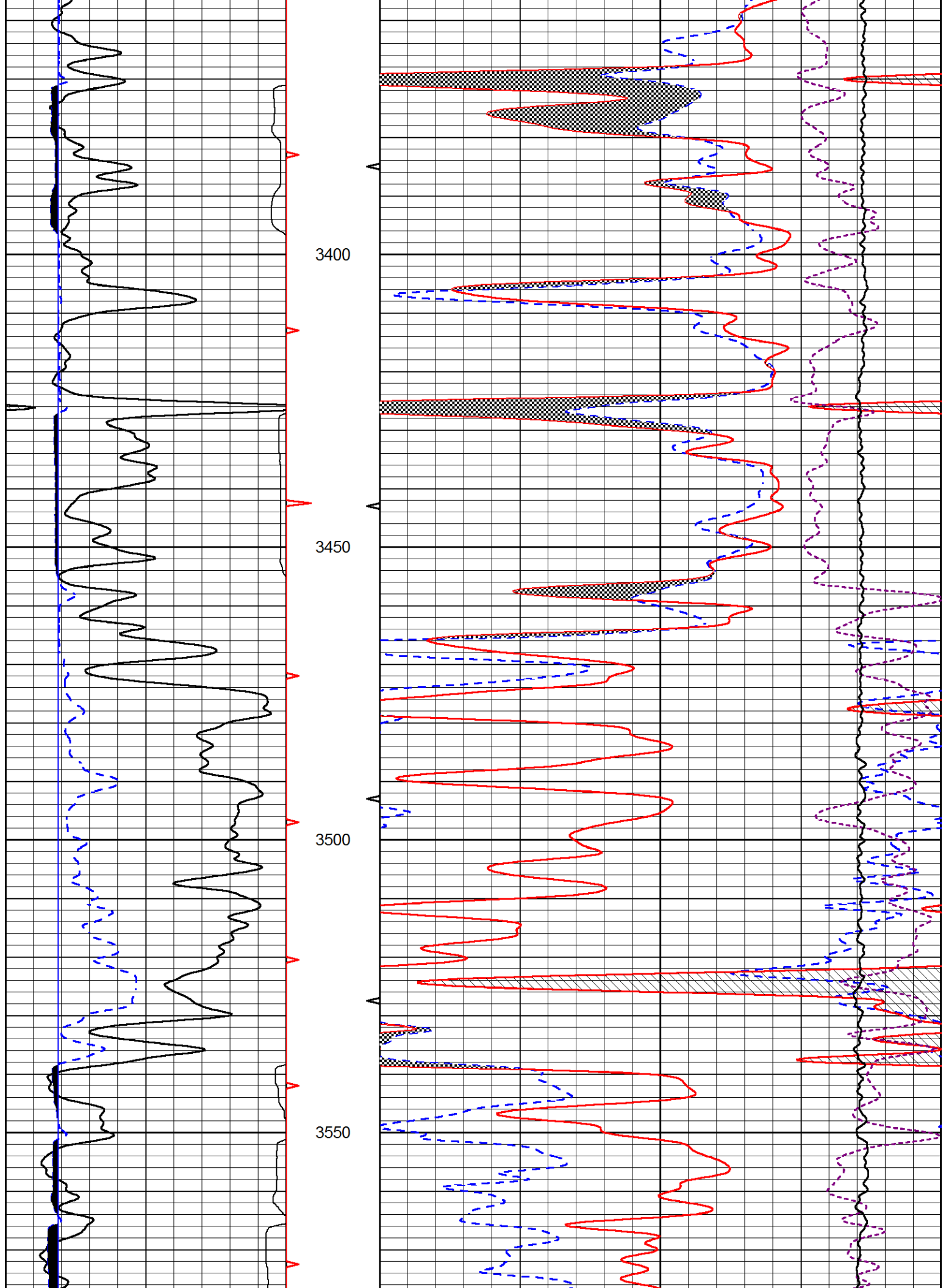
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 Charted by Depth in Feet scaled 1:240

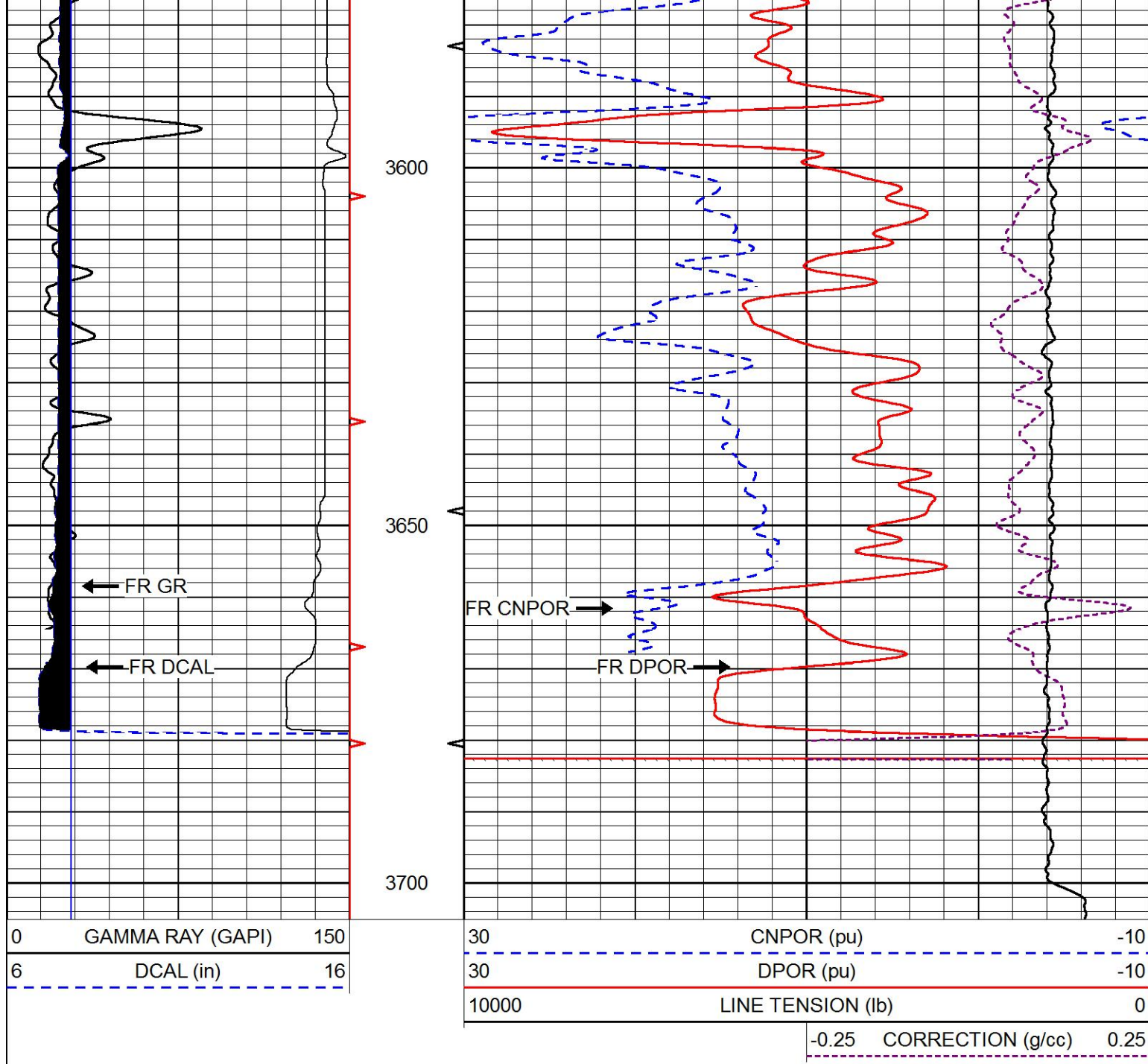










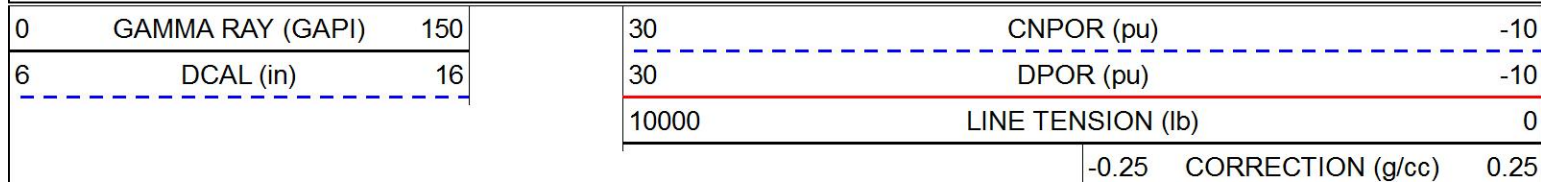


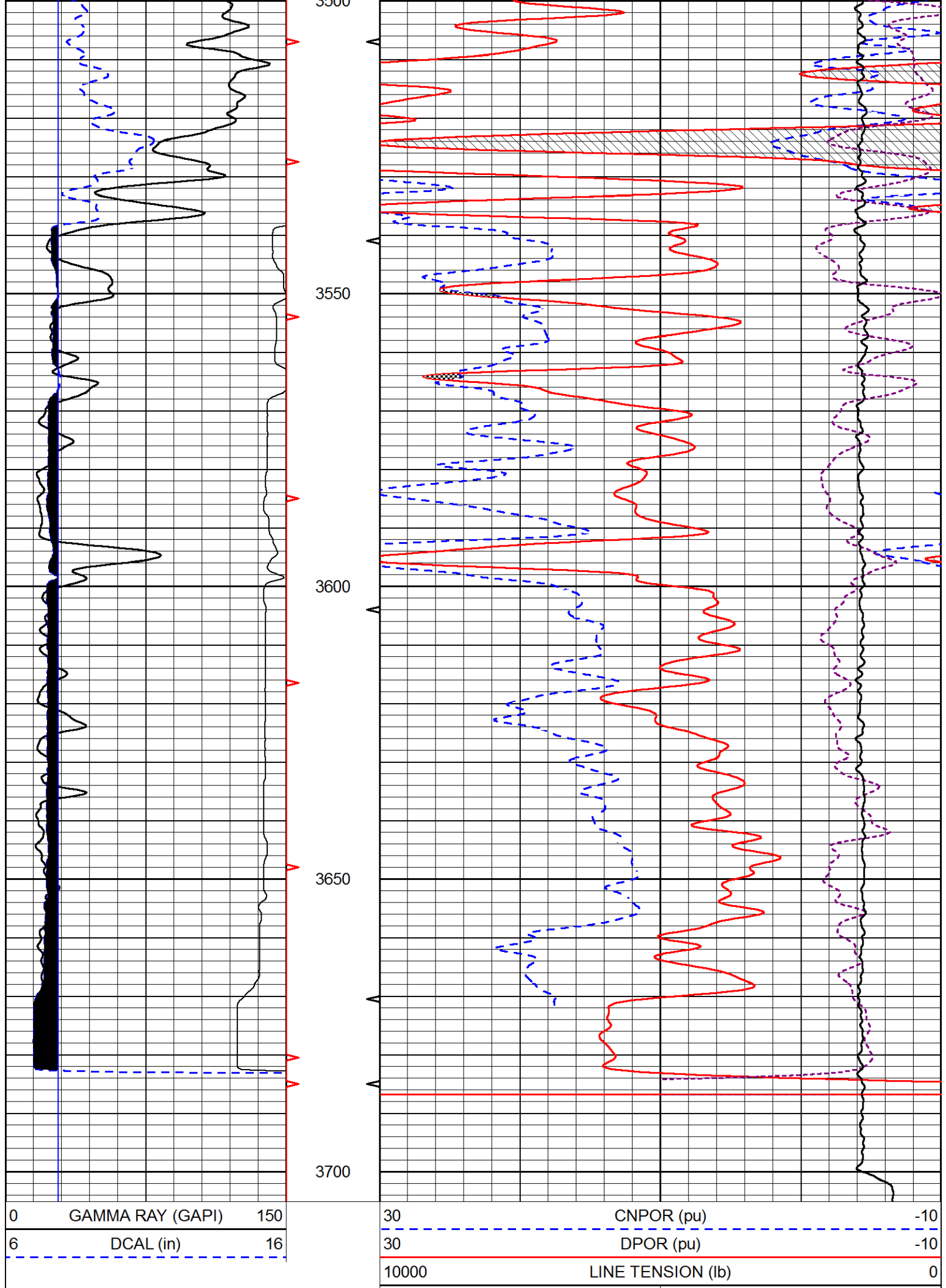
MIDWEST WIRELINE

REPEAT SECTION

REPEAT PASS

Database File rama_hjb 1-20.db
 Dataset Pathname stkml/pass2.1
 Presentation Format _CNDLS~1
 Dataset Creation Wed Jul 21 02:09:56 2021
 Charted by Depth in Feet scaled 1:240







Company	RAMA Operating Co., Inc.
Well	HJB #1-20
Field	Mueller
County	Stafford
State	Kansas