MIDWEST WIRELINE

DUAL COMP POROSITY LOG

Company Thomas Garner, Inc.
Well Tiger Unit #1
Field
County Stafford State Kansas

Location: API # : 15-185-24116-00-00
NE NW NW NE
86 FNL & 2010 FWL
SEC 17 TWP 24S RGE 13W

Other Services
DIL
MEL/BHCS

Elevation
K.B. 1935
D.F.
G.L. 1922

Permanent Datum Ground Level Elevation 1922
Log Measured From Kelly Bushing
Drilling Measured From Kelly Bushing

Company	Thomas Garner, Inc.
Well	Tiger Unit #1
Field	
County	Stafford
State	Kansas
Date	8/19/2022
Run Number	One
Type Log	CNL/CDL
Depth Driller	4117
Depth Logger	4116
Bottom Logged Interval	4088
Top Logged Interval	3300
Type Fluid In Hole	Chemical
Salinity, PPM CL	5500
Density	9.3
Level	Full
Max. Rec. Temp. F	117
Operating Rig Time	4.5 Hours
Equipment -- Location	P-24 | Hays
Recorded By	T. Martin
Witnessed By	Keath Reavis

Borehole Record

Run No.	Bit	From	To
One	12.25	00	396
Two	7.875	396	TD

Casing Record

Size	Wgt.	From	To
8.625	23	00	396
		Tom Garner	

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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.

St. John, KS, S to NW 110th,
1.5 W, S 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	This Log Record Was Witnessed By
Engineer: T. Martin	Primary Witness: Keath Reavis
Operator:	Secondary Witness: Tom Garner
Operator:	Secondary Witness:
Operator:	Secondary Witness:

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb
GR	40.33		GR-M&W (106)	3.00	3.50	50.00
CNLSC	37.23		CNT-M&W (207-MW)	5.00	3.50	100.00
CNSSC	36.48					
			CDL-M&W (307-01)	8.50	4.00	250.00
LSD	28.18					
DCAL	28.17					
SSD	27.68					
			ML-PSIML (402)	7.58	4.00	65.00
MCAL	19.58					
MI	19.58					
MN	19.58					
RLL3F	15.50					
RLL3	15.50					
			DIL-M&W (502 HT)	18.25	3.50	220.00
CILD	8.33					
CILM	4.50					
SP	0.20					

Dataset: garner_tiger unit #1.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\garner_tiger unit #1.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	117	5.5	0	1	2	2.71
NPORSEL	**PERFS**	**SNDERR mmho/m**	**SNDERRM mmho/m**	**SPSHIFT mV**	**SRFTEMP degF**	**SZCOR**	**TDEPTH ft**
Limestone	0	0	0	140	80	Off	4116

Variable Description

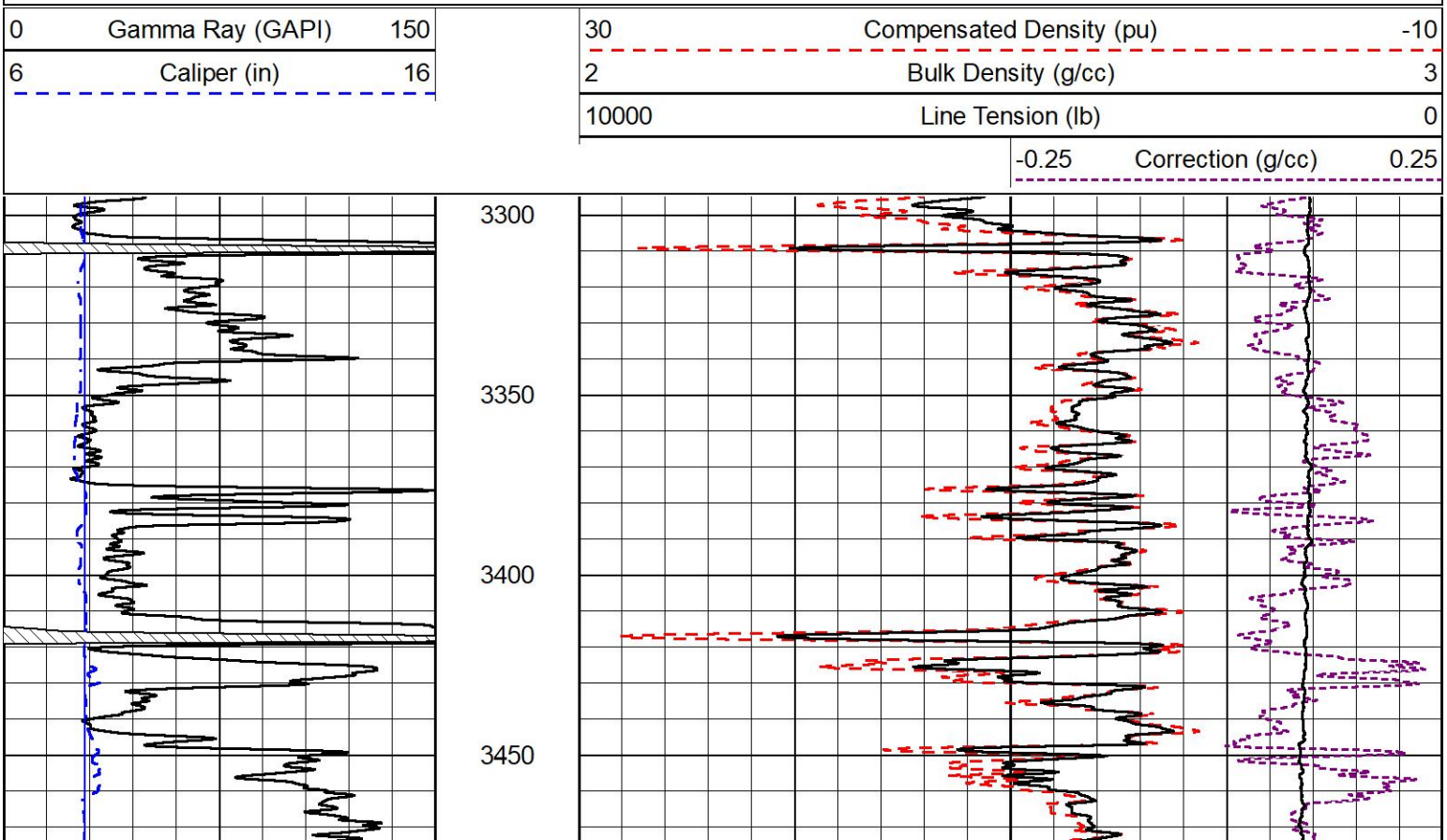
A : Cement Factor (a)
BOREID : Borehole I.D.
BOTTEMP : Bottom Hole Temperature
CASEOD : Casing O.D.
CASETHCK : Casing Thickness
FLUIDDEN : Fluid Density
M : Cement Exp (m)
MATRXDEN : Matrix Density
NPORSEL : Neutron Porosity Curve Select
PERFS : Perforation Flag
SNDERR : Deep Sonde Error Correction
SNDERRM : Medium Sonde Error Correction
SPSHIFT : S.P. Baseline Offset
SRFTEMP : Surface Temperature
SZCOR : CN Size Cor. ?
TDEPTH : Total Depth

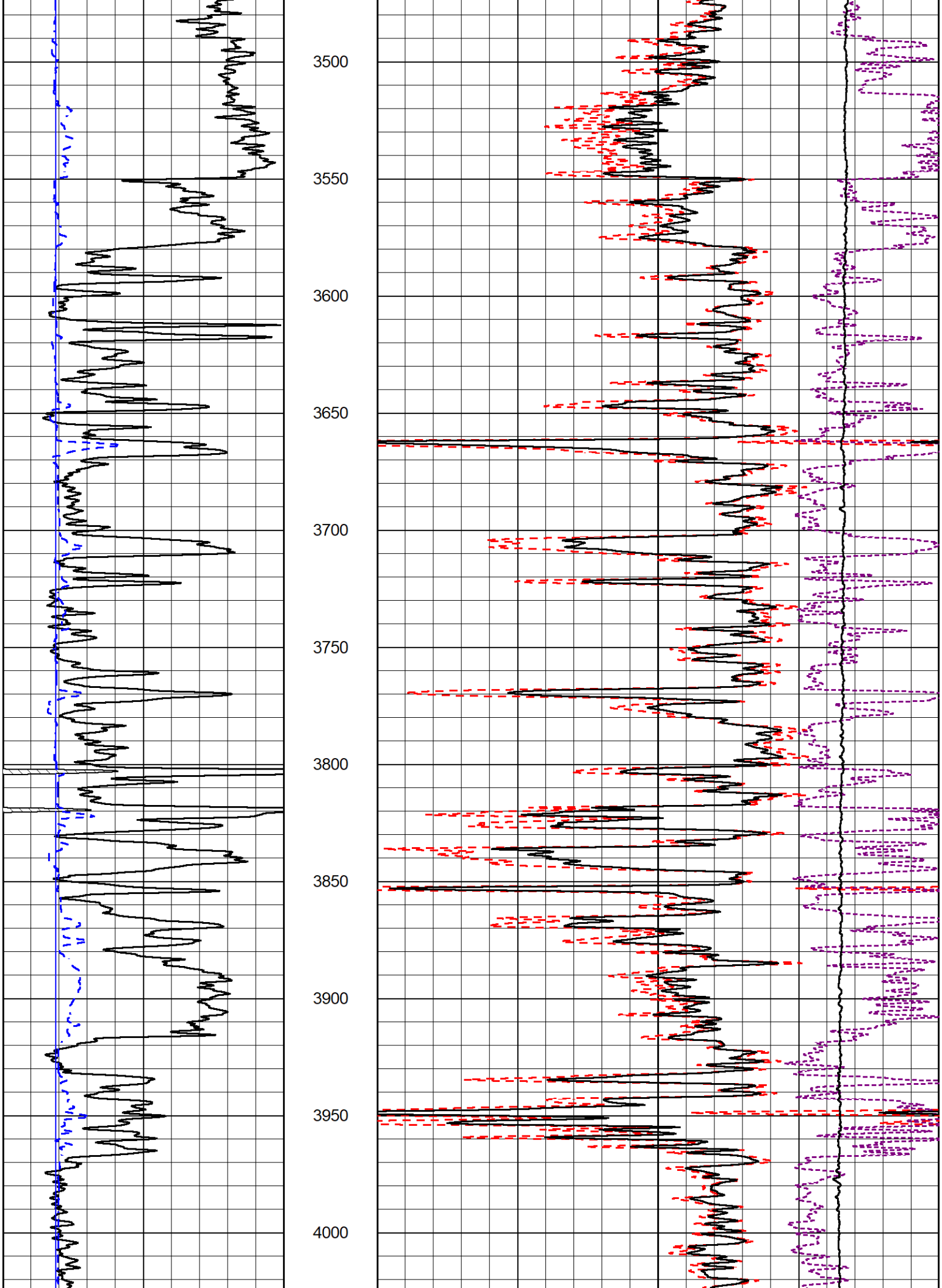
MIDWEST WIRELINE

2" SCALE BULK DENSITY

MAIN PASS

Database File	garner_tiger unit #1.db
Dataset Pathname	StkMl/pass3.3
Presentation Format	_cdl
Dataset Creation	Fri Aug 19 19:47:50 2022
Charted by	Depth in Feet scaled 1:600

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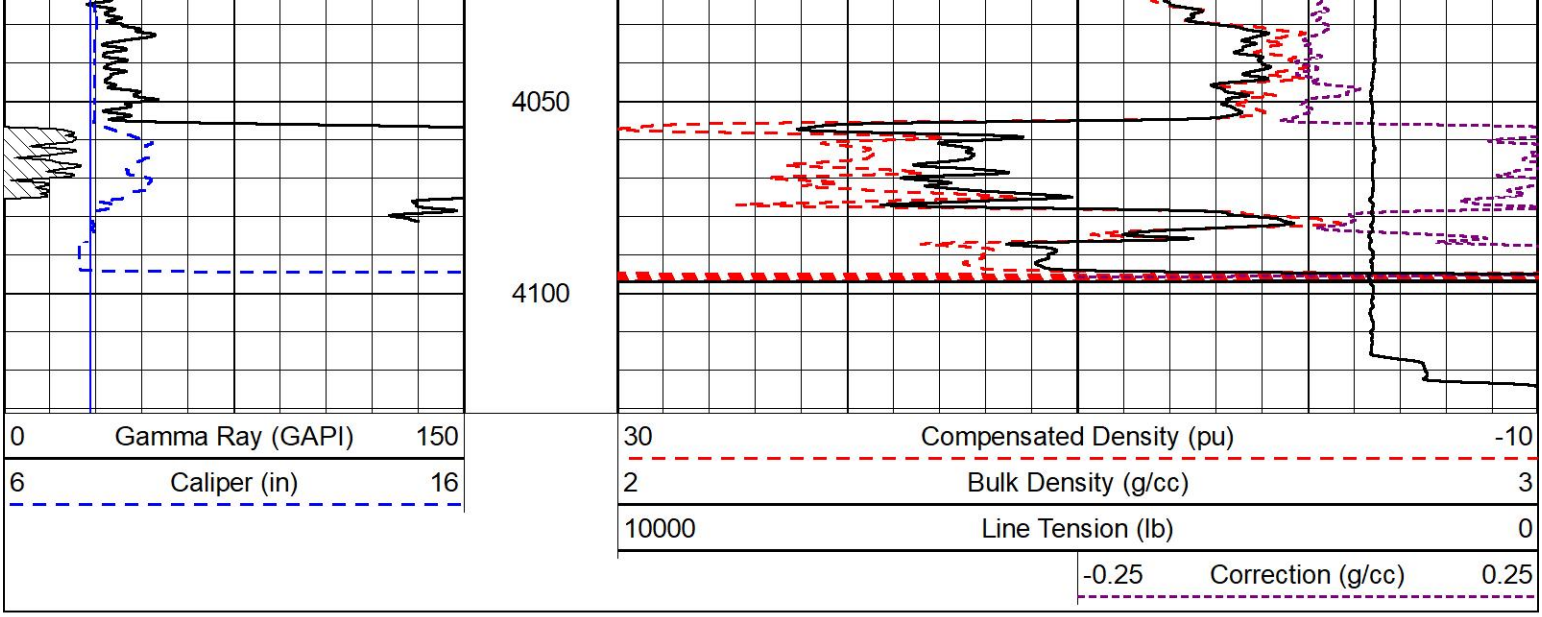
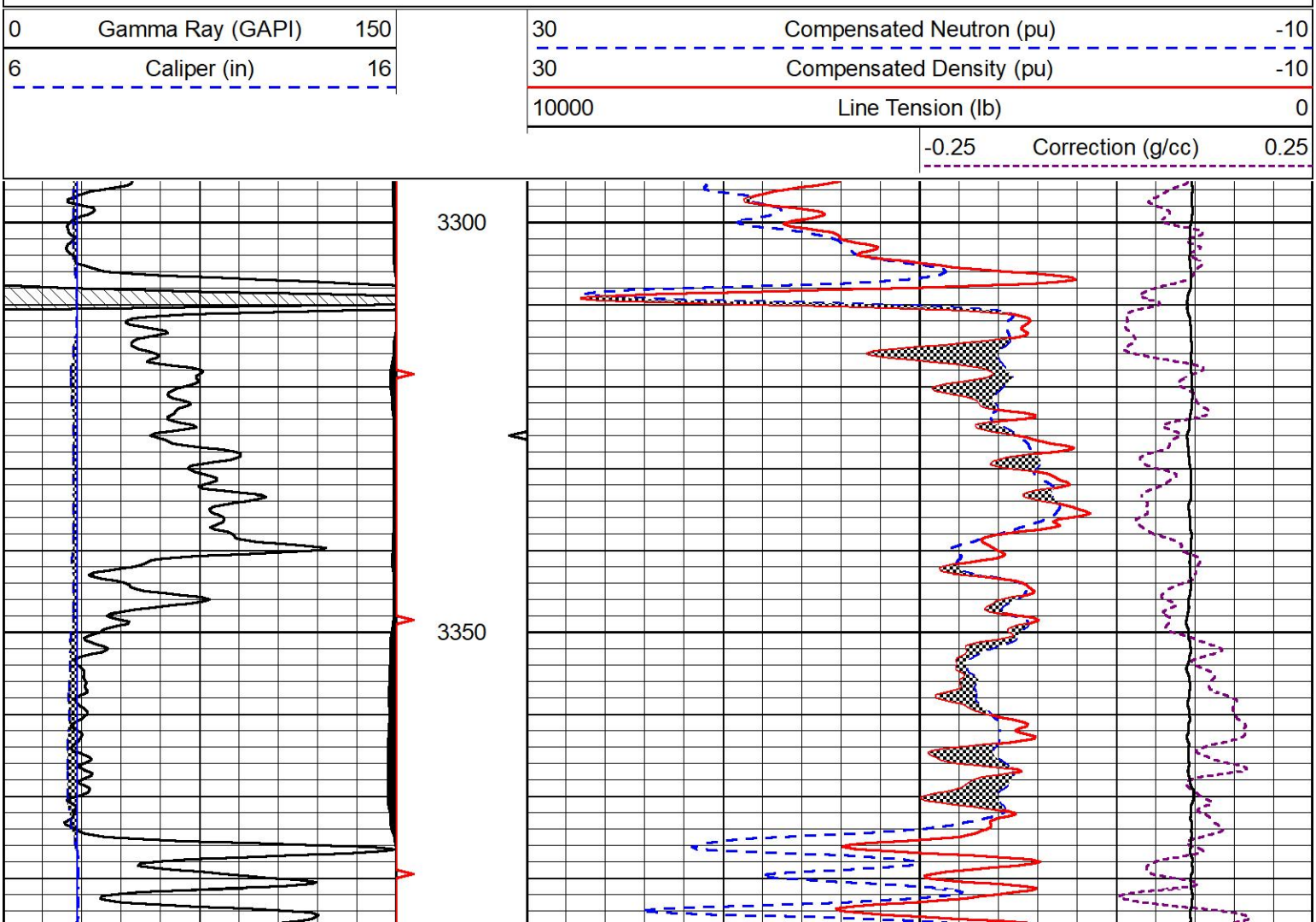


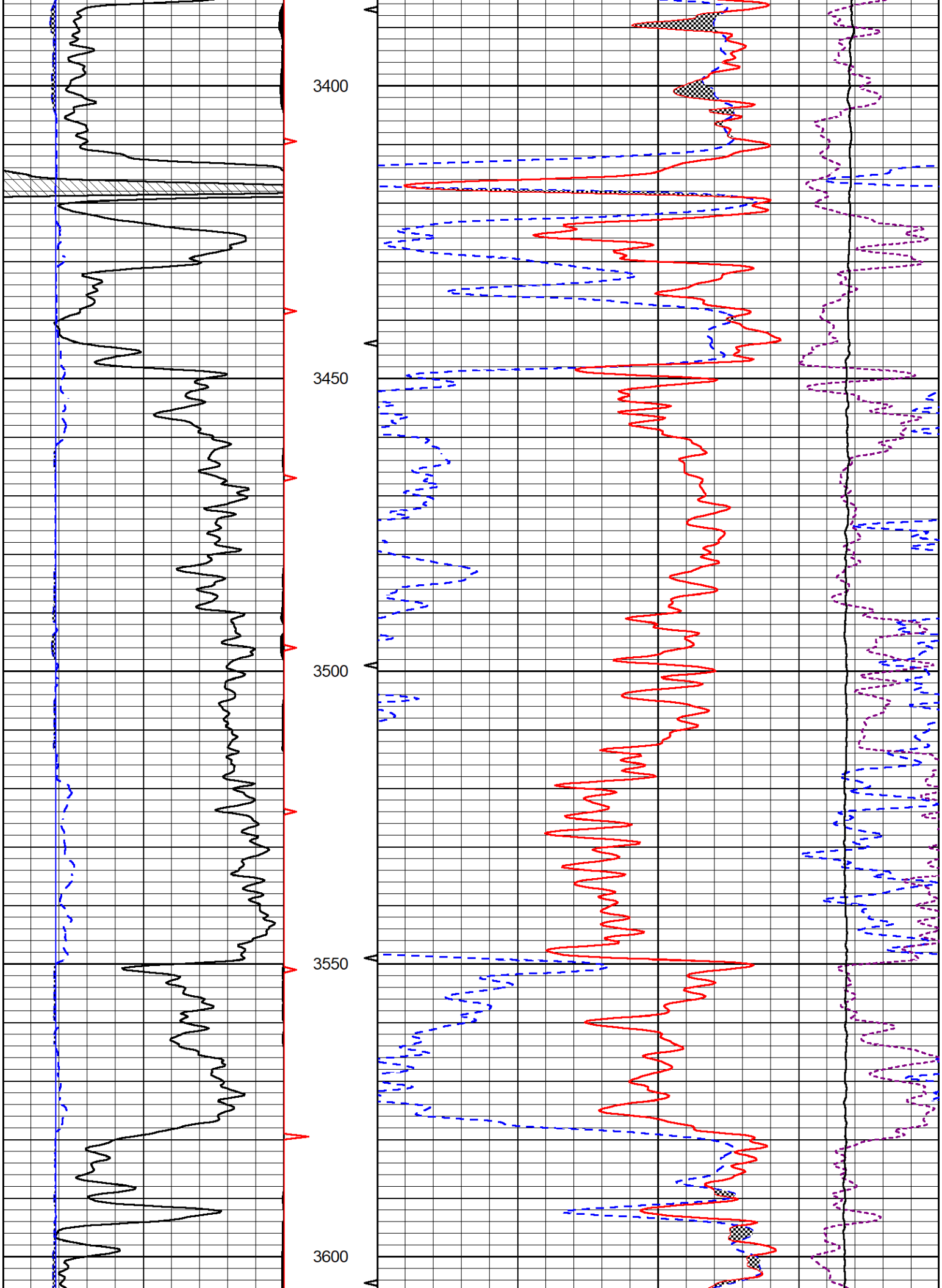
DETAIL SECTION

MAIN PASS

MIDWEST WIRELINE

Database File	garner_tiger unit #1.db
Dataset Pathname	StkMI/pass3.1
Presentation Format	_CNDLS~1
Dataset Creation	Fri Aug 19 20:16:46 2022
Charted by	Depth in Feet scaled 1:240

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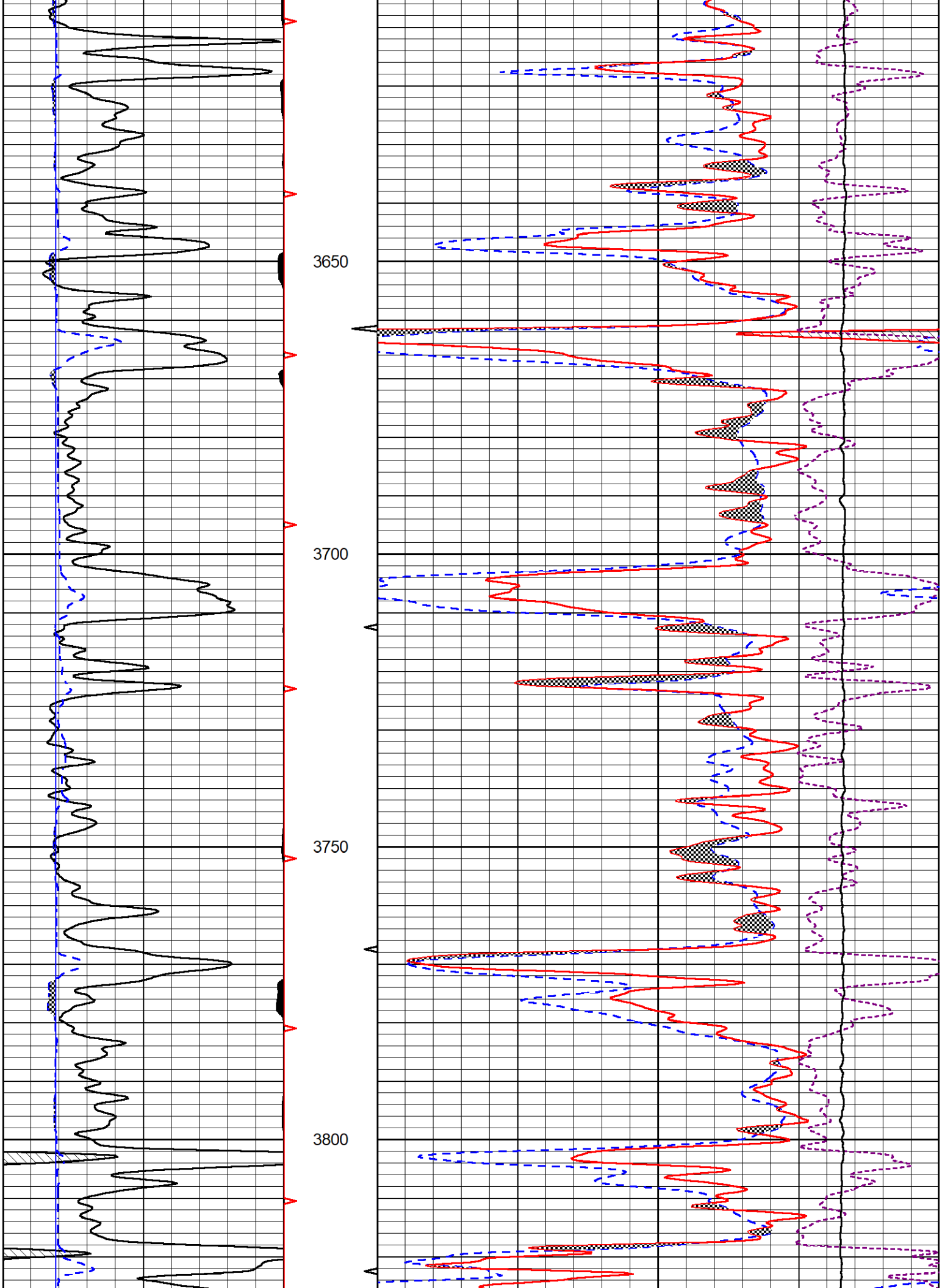
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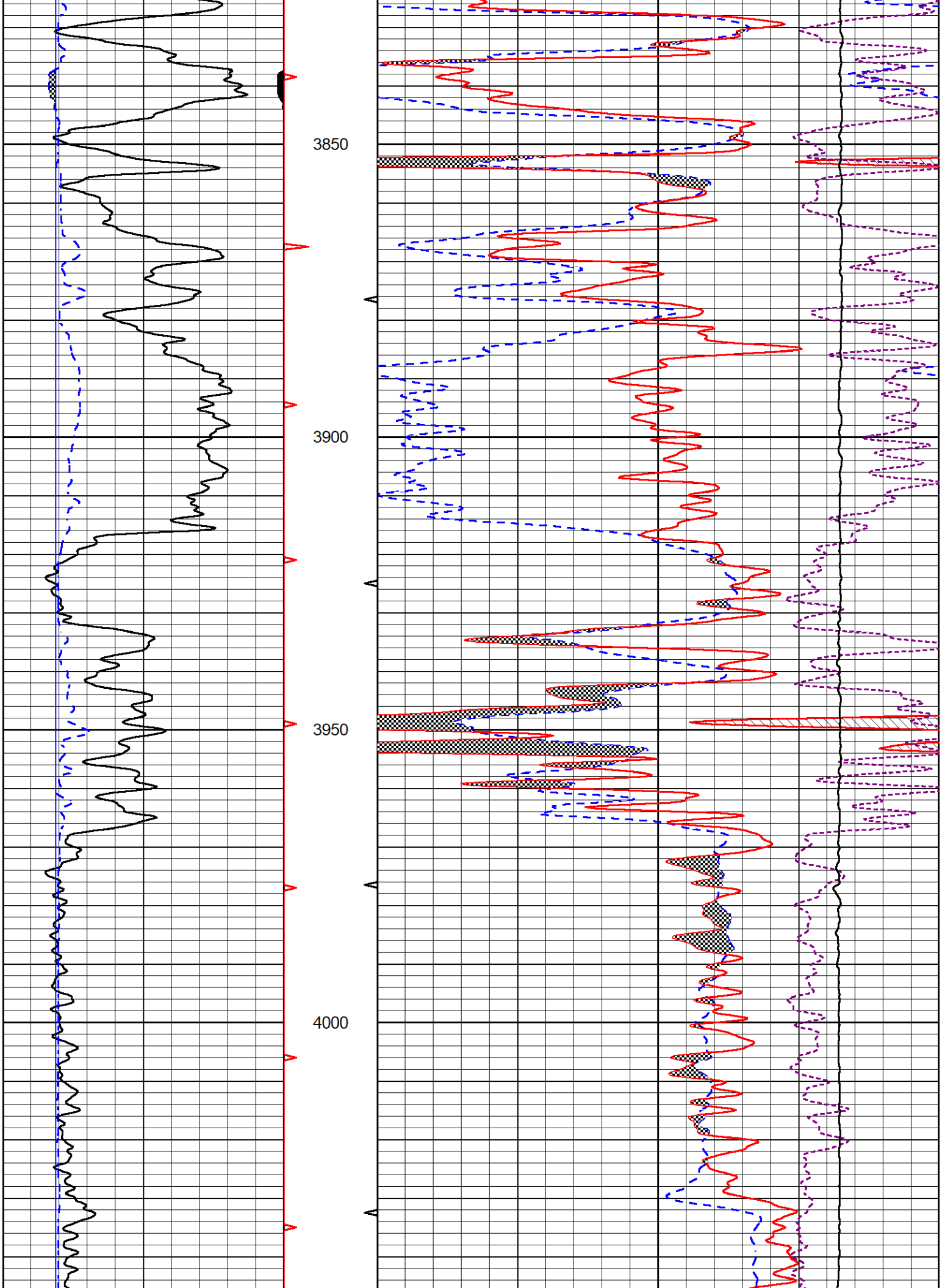
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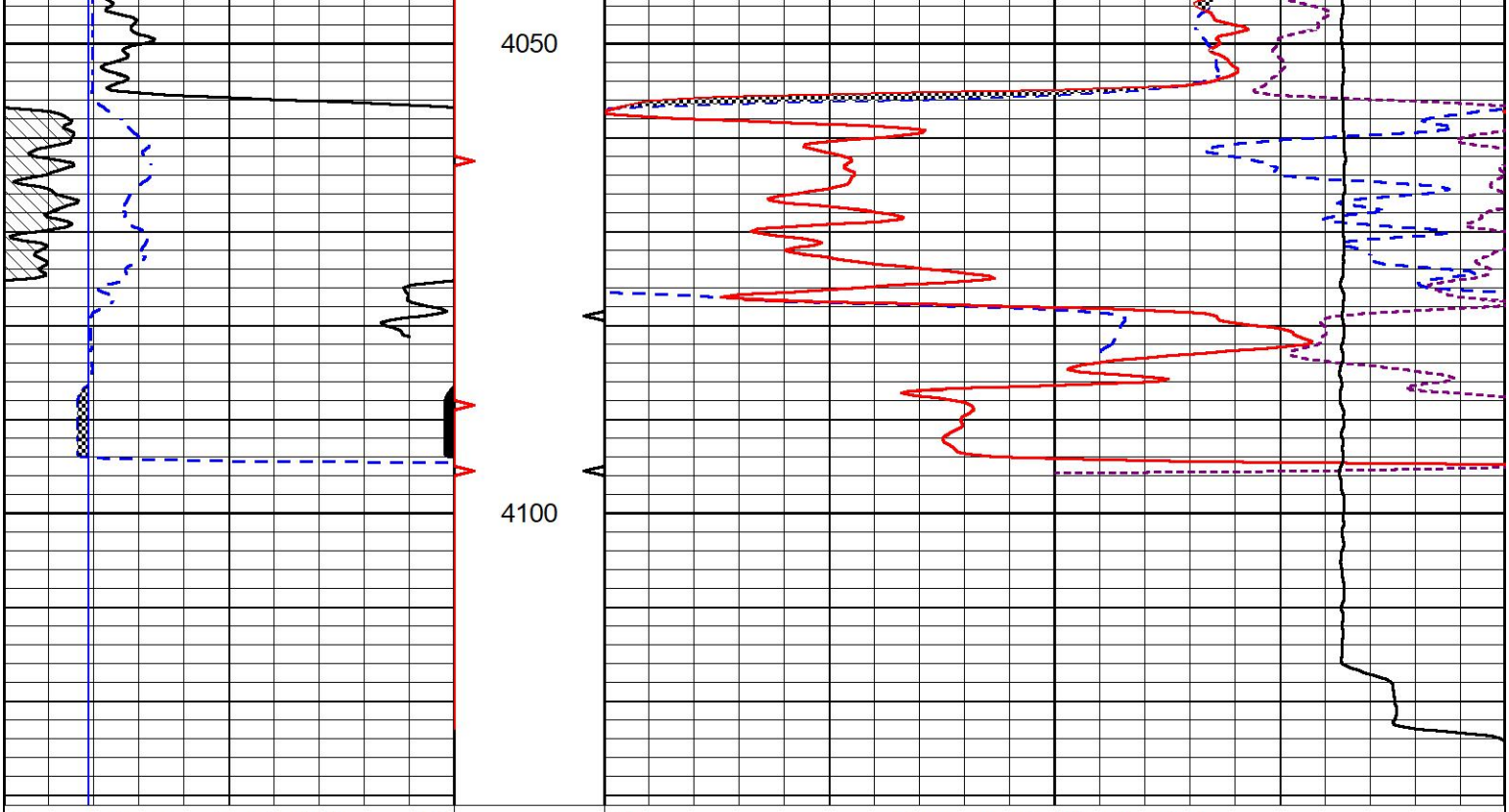
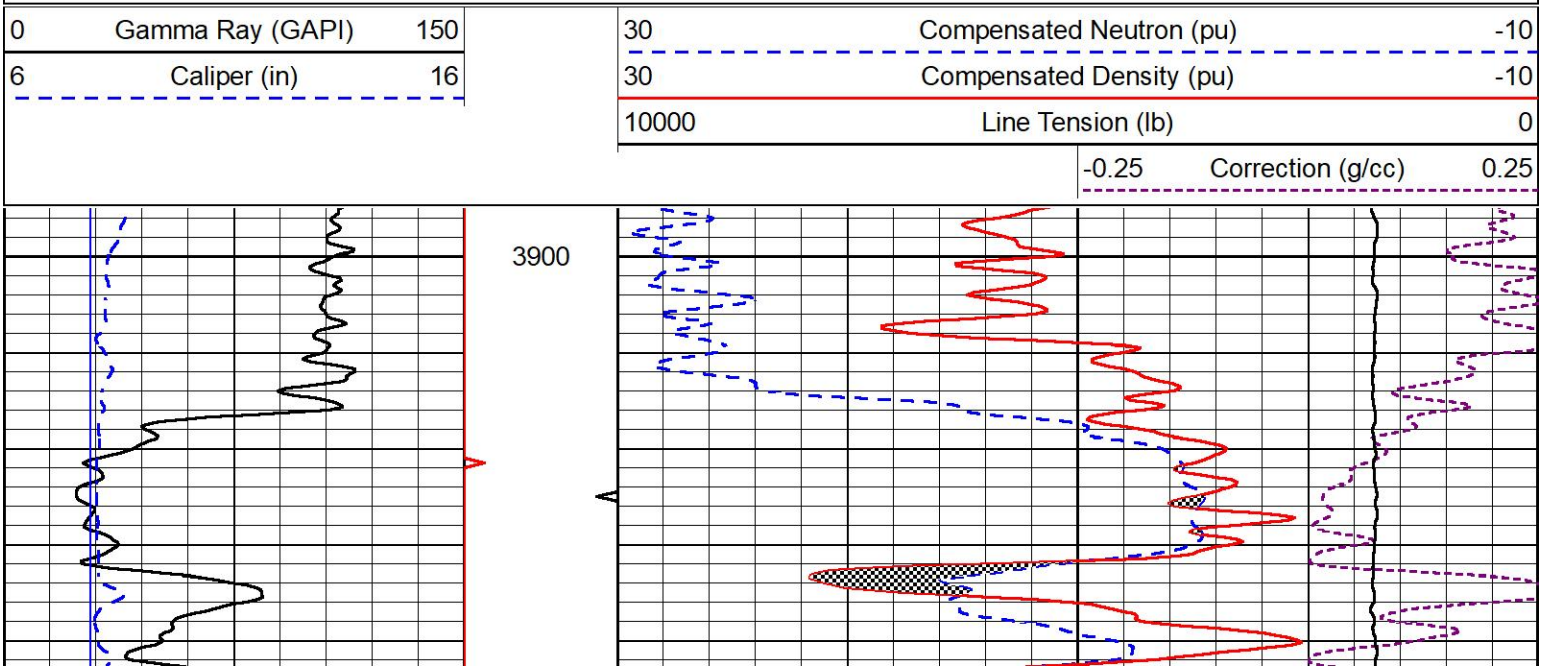


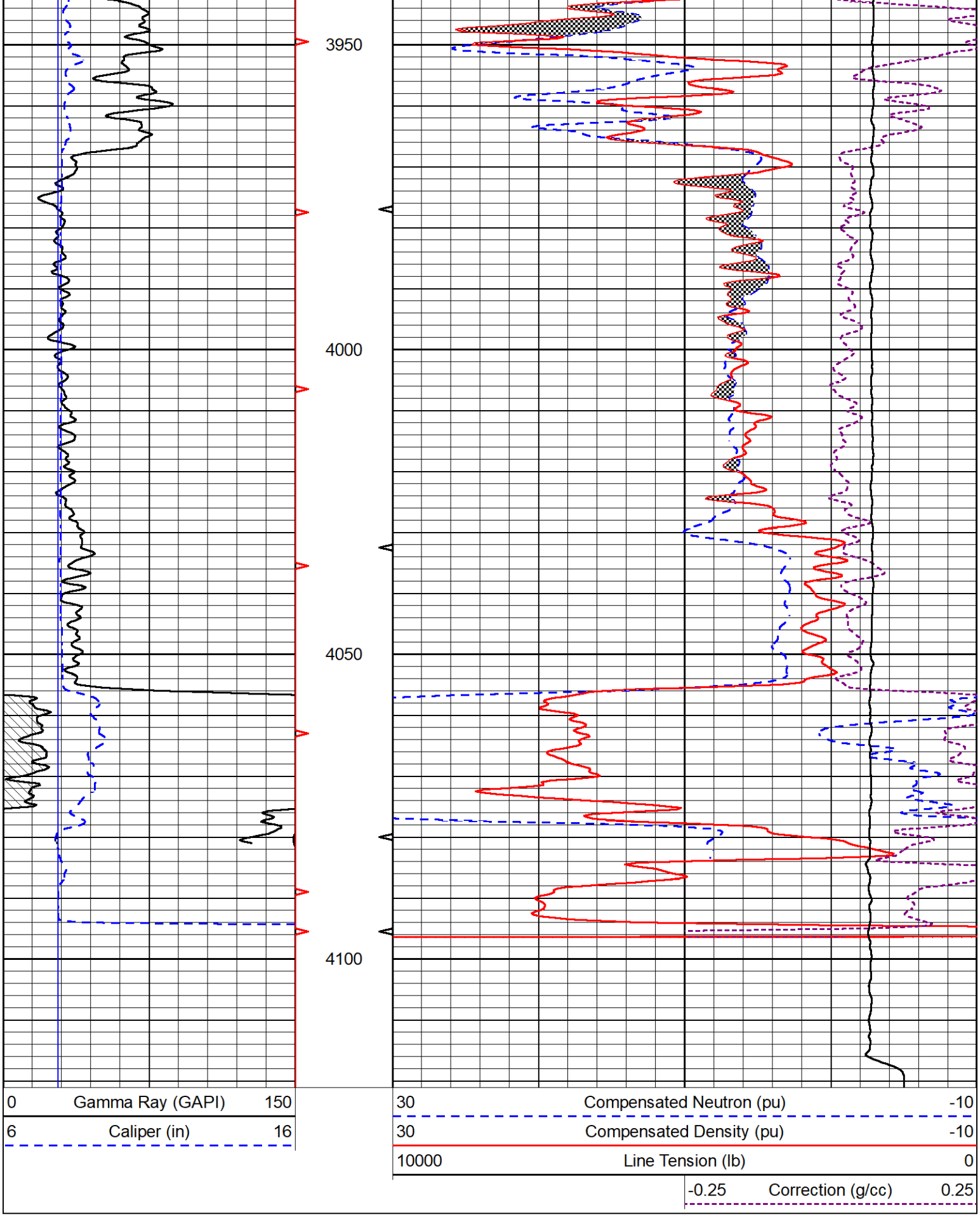
MIDWEST WIRELINE

REPEAT SECTION

REPEAT PASS

Database File	garner_tiger unit #1.db
Dataset Pathname	StkMI/pass2.1
Presentation Format	_CNDLS~1
Dataset Creation	Fri Aug 19 20:01:07 2022
Charted by	Depth in Feet scaled 1:240





Calibration Report

Database File	garner_tiger unit #1.db
Dataset Pathname	StkMl/pass3.1
Dataset Creation	Fri Aug 19 20:16:46 2022

Dual Induction Calibration Report

Serial-Model: 502 HT-M&W
Surface Cal Performed: Sun Jul 24 22:38:00 2022

Loop:	Readings Air	Readings Loop	References Air	References Loop		Results m	Results b
Deep	83.639	487.104	0.000	255.800	mmho/m	0.454	-32.000
Medium	113.335	1585.690	0.000	255.800	mmho/m	0.350	-7.000

Microlog Calibration Report

Serial-Model: 402-PSIML
Performed: Sun Jul 17 13:11:21 2022

	Readings Zero	Readings Cal	References Zero	References Cal		Results m	Results b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	21500.0000	-0.3000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	24000.0000	0.2000
Caliper	1.0052	1.0858	5.0000	16.5000	in	65.0000	-59.7500

Compensated Density Calibration Report

Serial-Model: 307-01-M&W
Source #: 20762B
Master Calibration Performed: Fri Aug 19 13:18:02 2022

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	3617.09	2548.77	cps
Aluminum	2.770	g/cc	687.19	1627.91	cps

Spine Angle = 74.89 Density/Spine Ratio = 0.590

	Size		Reading
Small Ring	6.00	in	1.16
Large Ring	18.00	in	1.01

Compensated Neutron Calibration Report

Serial Number: 207-MW
Tool Model: M&W

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

PRE-SURVEY VERIFICATION

	Detector	Readings		Measured	Target
1)	Short Space		cps		
	Long Space		cps	pu	pu

2)	Short Space	cps		
	Long Space	cps	pu	
3)	Short Space	cps		
	Long Space	cps	pu	

POST-SURVEY VERIFICATION

	Detector	Readings	Measured	Target
1)	Short Space	cps		
	Long Space	cps	pu	pu
2)	Short Space	cps		
	Long Space	cps	pu	pu
3)	Short Space	cps		
	Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number:	106	
Tool Model:	M&W	
Performed:	Fri Dec 3 15:10:46 2021	
Calibrator Value:	500.0	GAPI
Background Reading:	24.0	cps
Calibrator Reading:	637.0	cps
Sensitivity:	0.5500	GAPI/cps

MIDWEST WIRELINE

Company	Thomas Garner, Inc.
Well	Tiger Unit #1
Field	
County	Stafford
State	Kansas