



MIDWEST WIRELINE

DUAL INDUCTION LOG

Company: Carmen Schmitt, Inc.
 Well: H&V Farms #2-35
 Field: Schwartz North
 County: Thomas
 State: Kansas

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 Well: H&V Farms #2-35
 Field: Schwartz North
 County: Thomas
 State: Kansas

Location: API #: 15-193-21083-00-00
 720' FNL & 2210' FEL
 SEC 35 TWP 8S RGE 31W
 Permanent Datum: Ground Level Elevation 2970'
 Log Measured From: Kelly Bushing
 Drilling Measured From: Kelly Bushing
 Other Services: CNL/CDL MEL
 Elevation: K.B. 2980', D.F. N/A, G.L. 2970'

Date	4/1/2021
Run Number	One
Depth Driller	4635'
Depth Logger	4635'
Bottom Logged Interval	4634'
Top Log Interval	250'
Casing Driller	8.625" @ 263'
Casing Logger	262'
Bit Size	7.875"
Type Fluid in Hole	Chemical
Salinity, ppm CL	3500
Density / Viscosity	9.4 61
pH / Fluid Loss	10.5 8.0
Source of Sample	FLOWLINE
Rm @ Meas. Temp	0.60 @ 60
Rmt @ Meas. Temp	0.45 @ 60
Rmc @ Meas. Temp	0.81 @ 60
Source of Rmf / Rmc	CHARTS
Rm @ BHT	0.29 @ 122
Operating Rig Time	3 Hours
Max Rec. Temp. F	122
Equipment Number	P-24
Location	HAYS
Recorded By	D. Schmidt
Witnessed By	Brad Rine

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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.

Menlo,
 South to O Rd, West to 35 Rd,
 1 South, 1/2 East,
 South into

Log Measured From: Kelly Bushing 10 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:	Primary Witness: Brad Rine	Secondary Witness:
Operator:	Operator:	Secondary Witness:	Secondary Witness:
Operator:		Secondary Witness:	

Company	Offset (ft)	Depth	Description	Length (ft)	O.D. (in)	Weight (lb)
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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 (PSI 971 HT)	18.50	3.50	220.00
CILM	4.70					
SP	0.20					

Dataset: carmen schmitt_h v farms 2-35.db: field/well/stkml/pass3.1
 Total length: 43.08 ft
 Total weight: 685.00 lb
 O.D.: 4.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\carmen schmitt_h v farms 2-35.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	100	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	No	0	0	46	0	Off	0

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

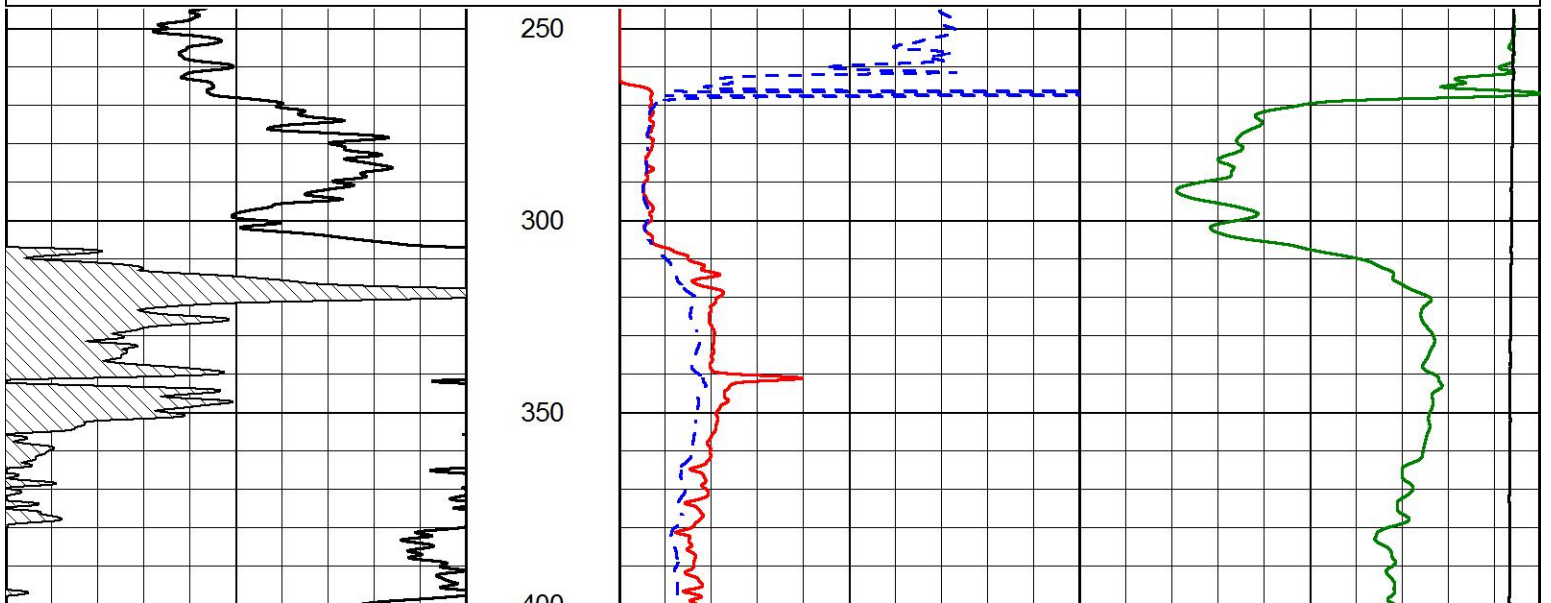


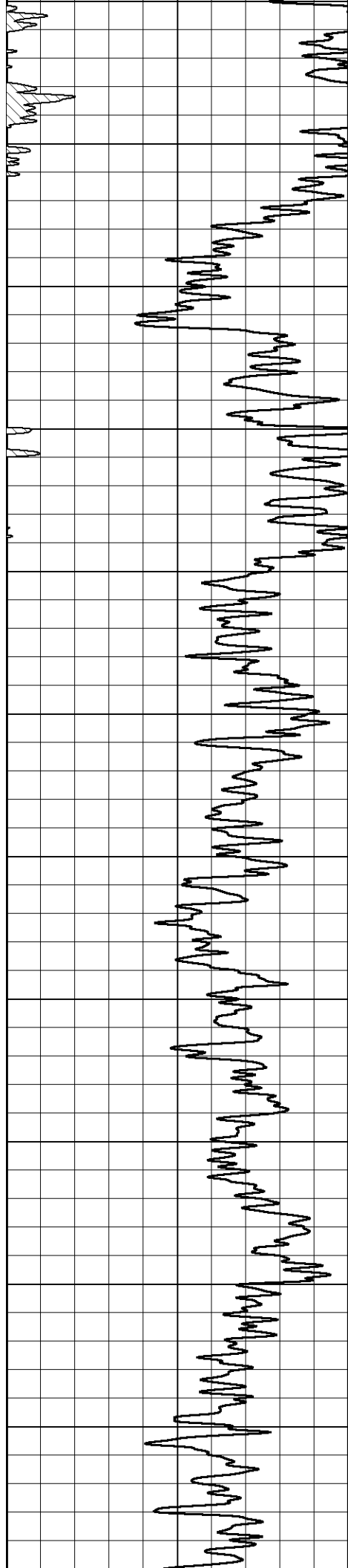
2" SCALE RESISTIVITY

MAIN PASS

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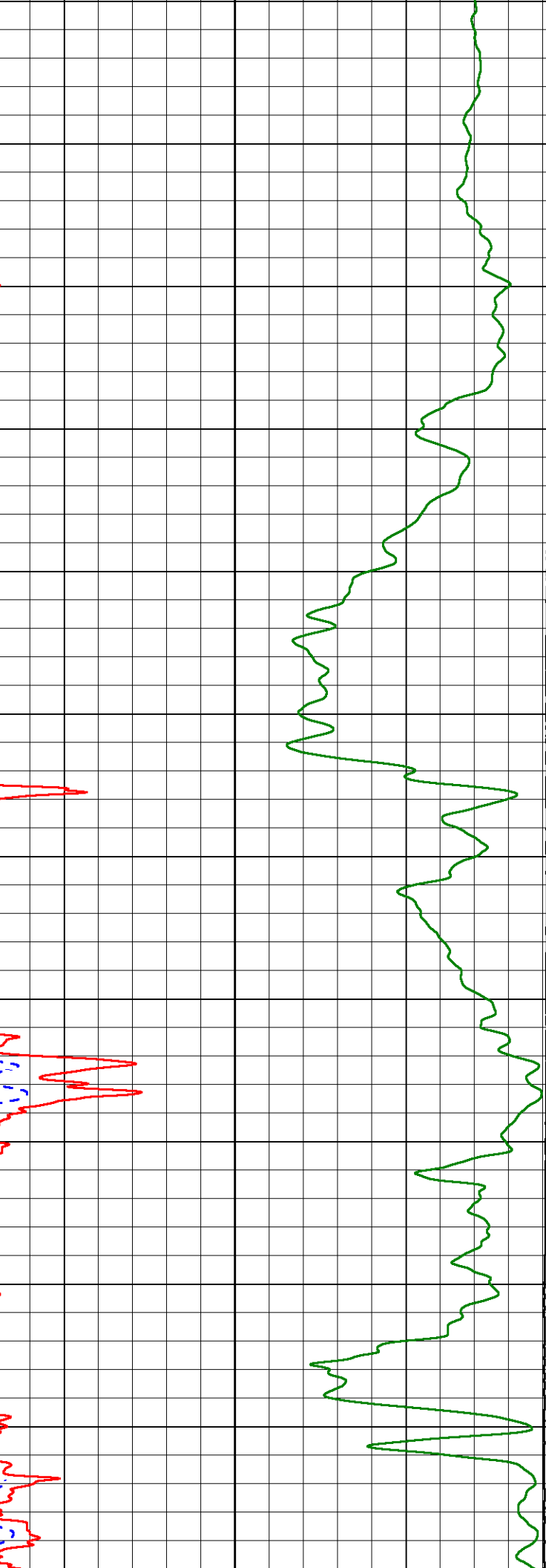
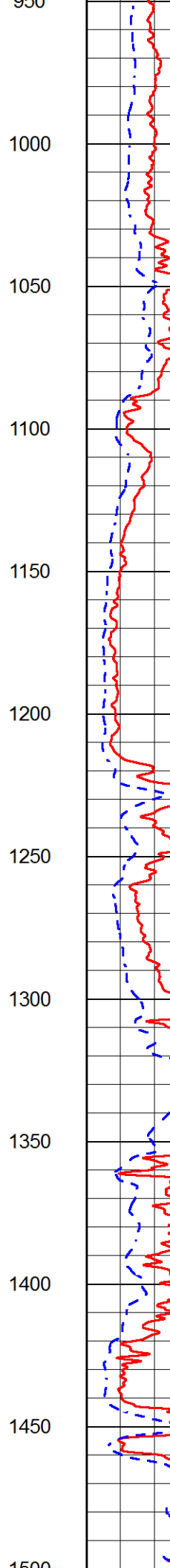
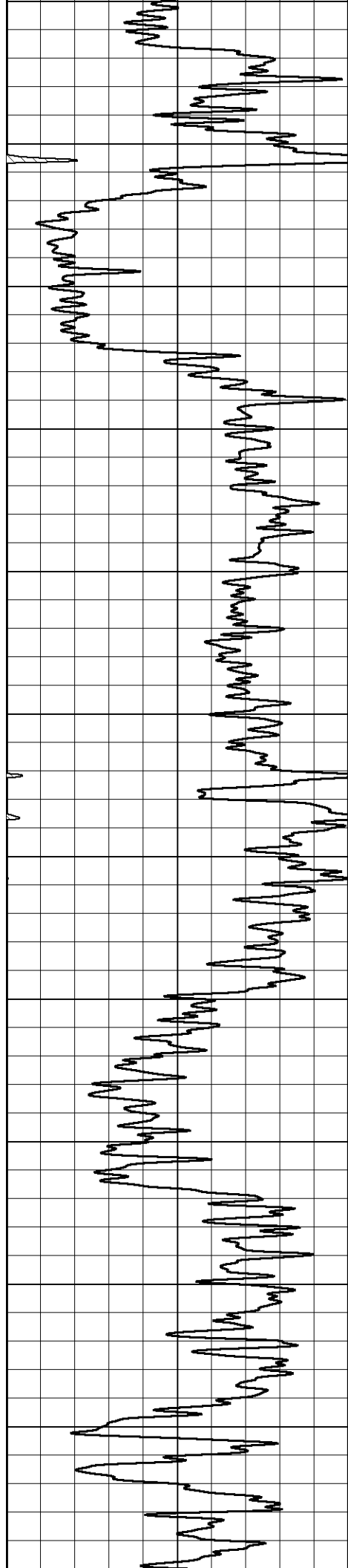
GAMMA RAY (GAPI)	1000	CONDUCTIVITY (mmho/m)	0
	15000	Line Tension (lb)	0
	0	RLL3 (Ohm-m)	50
	0	RILD (Ohm-m)	50
	50	RLL3 (Ohm-m)	200
	50	Deep Resistivity (Ohm-m)	200

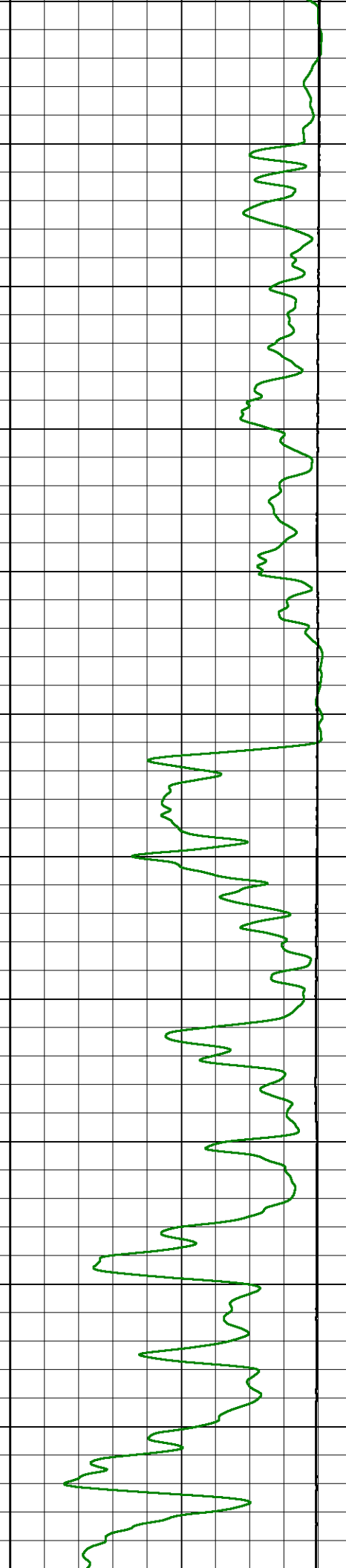
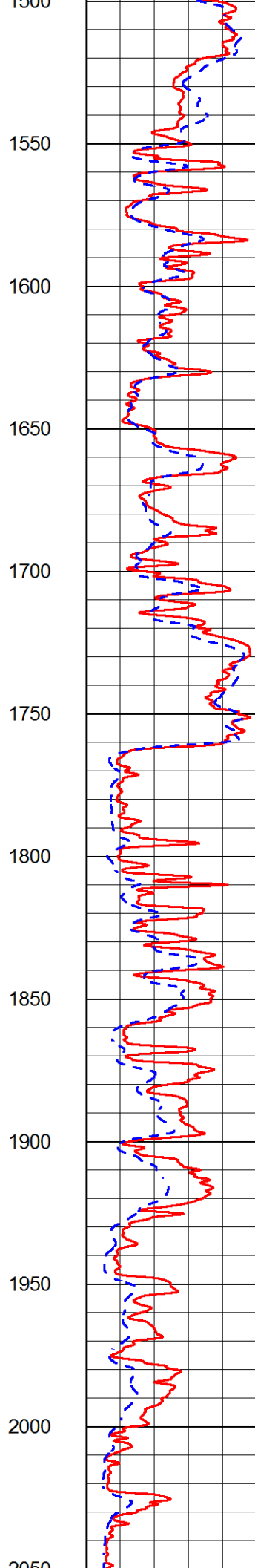
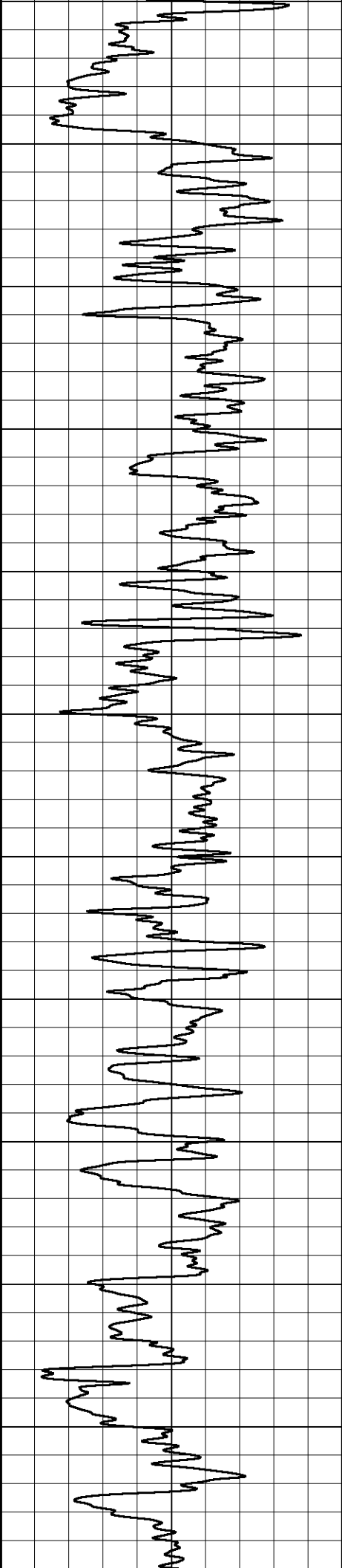


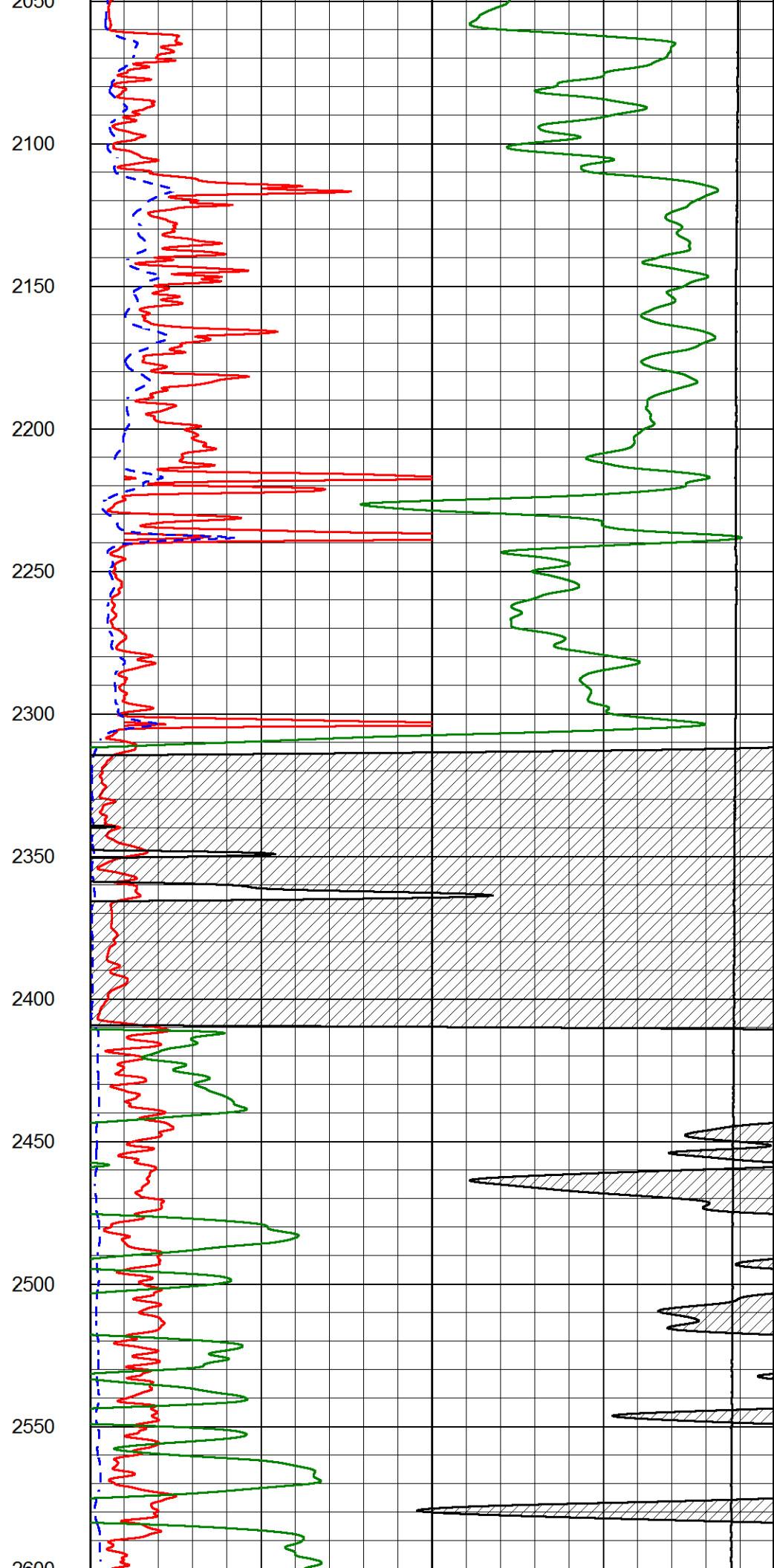
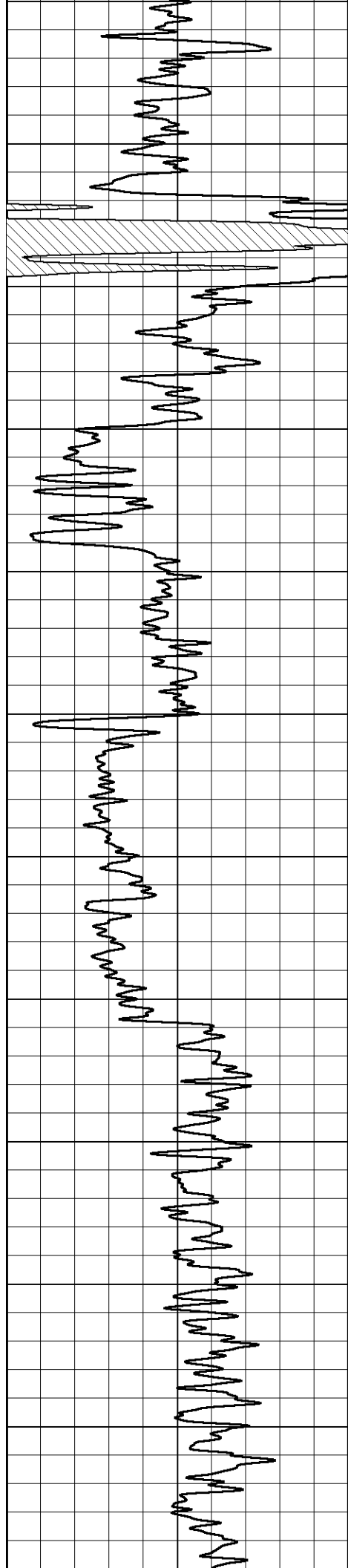


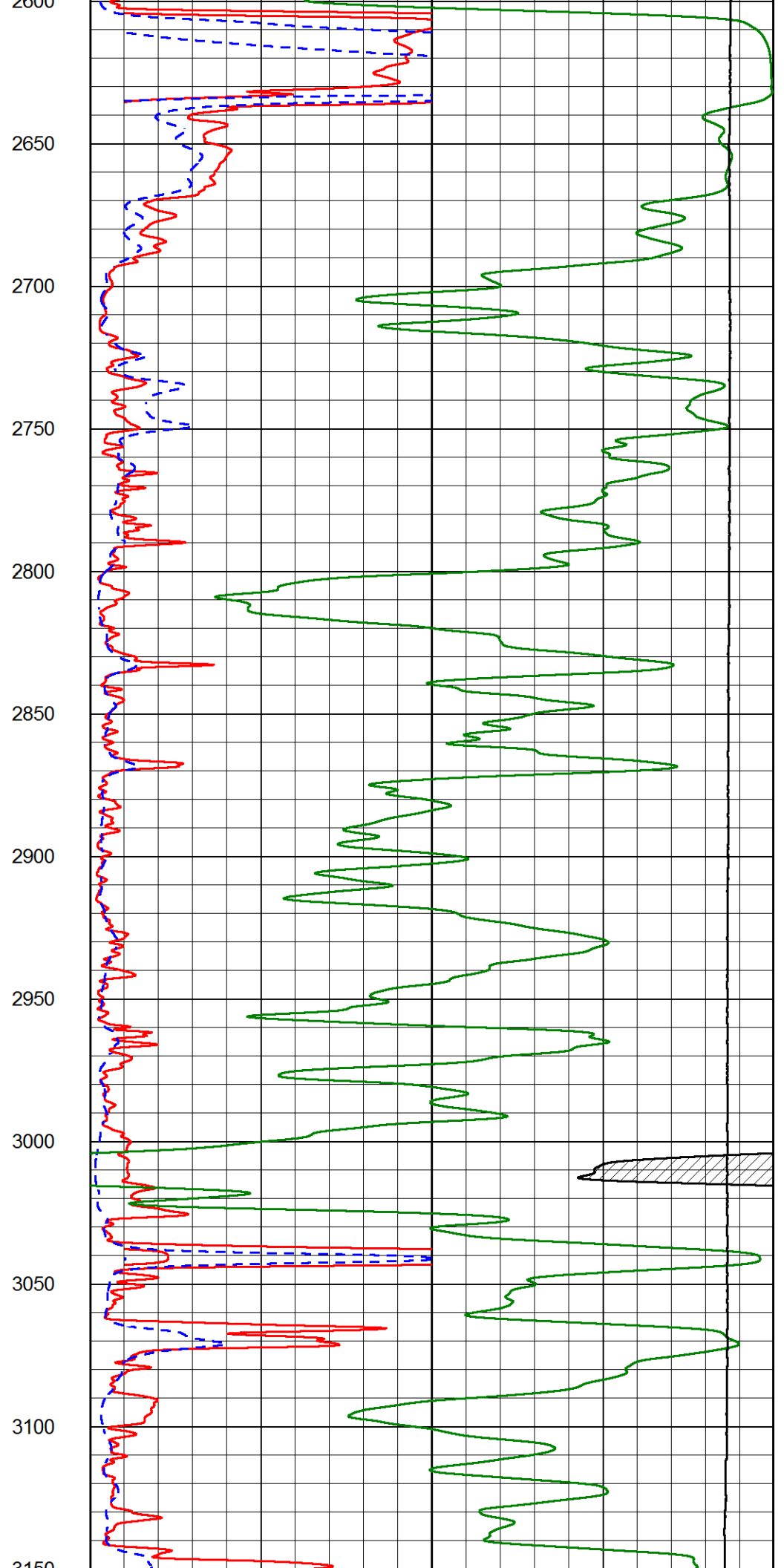
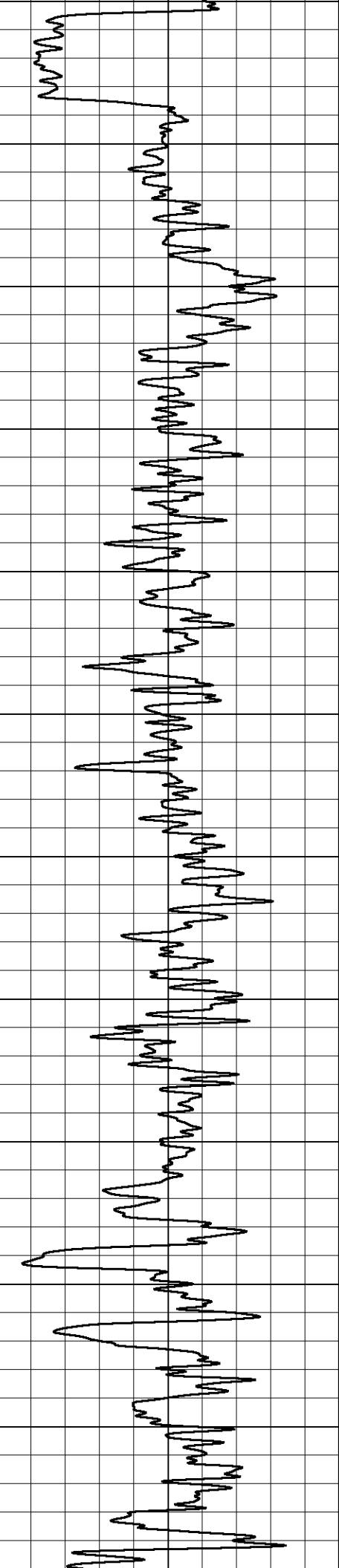
400
450
500
550
600
650
700
750
800
850
900
950

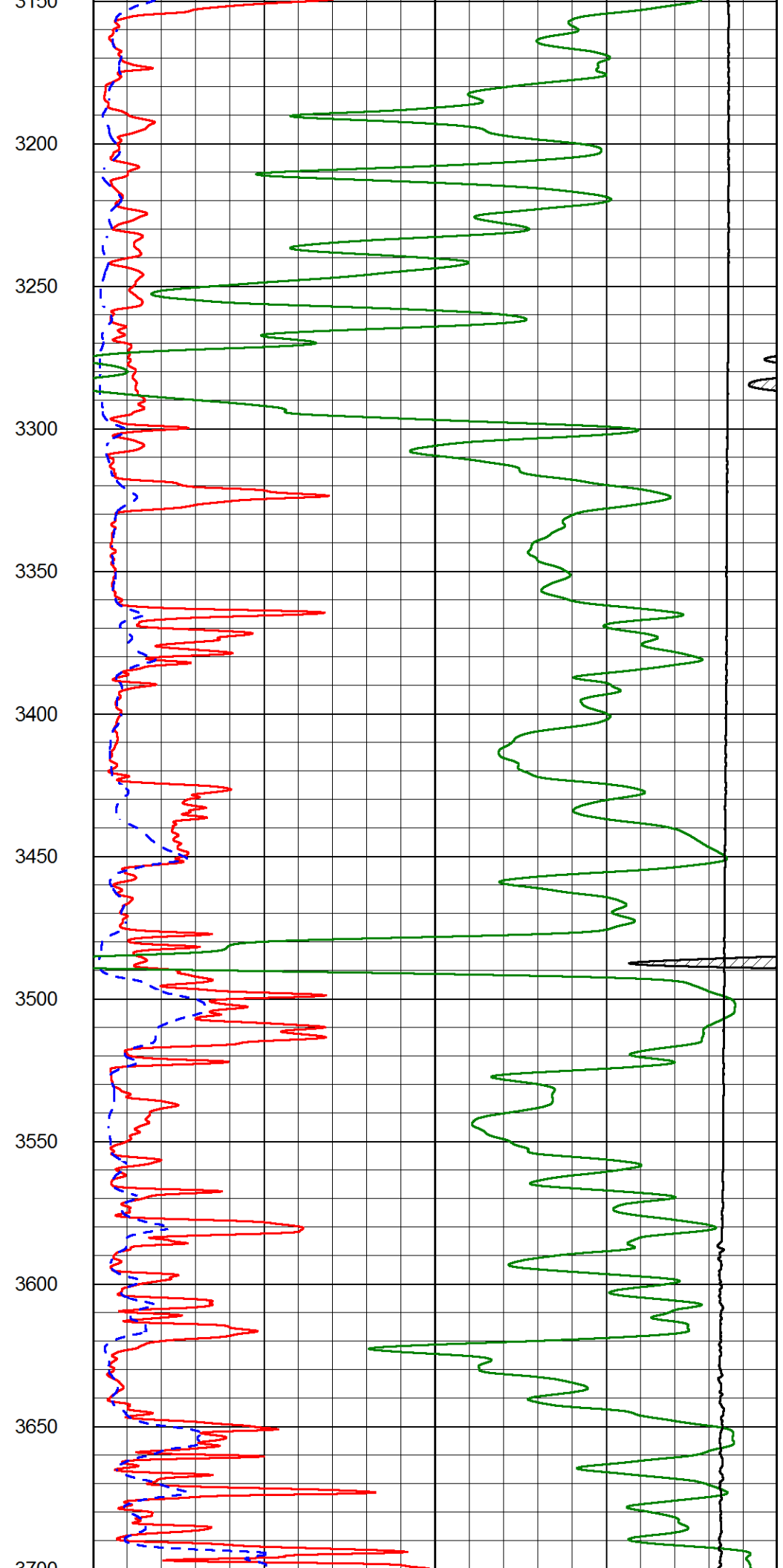
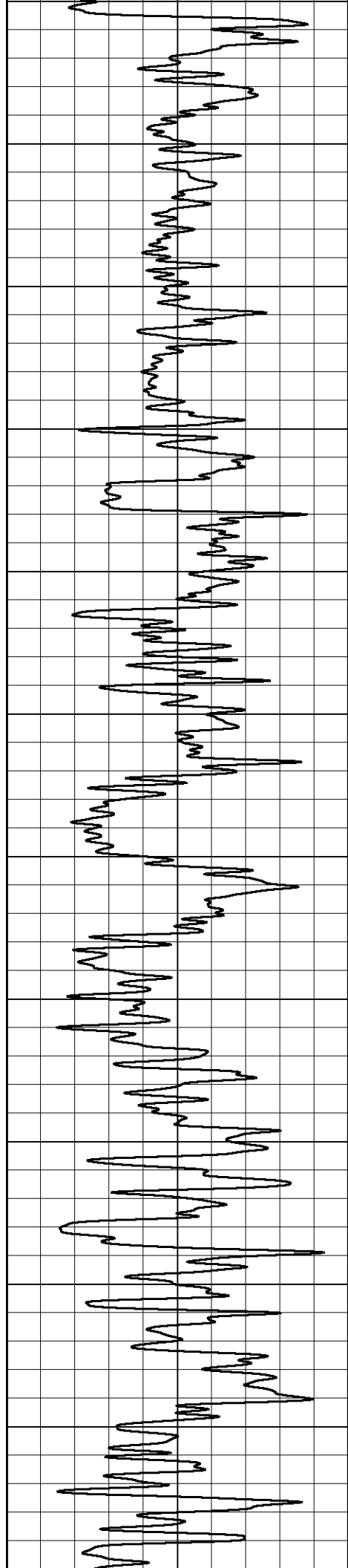


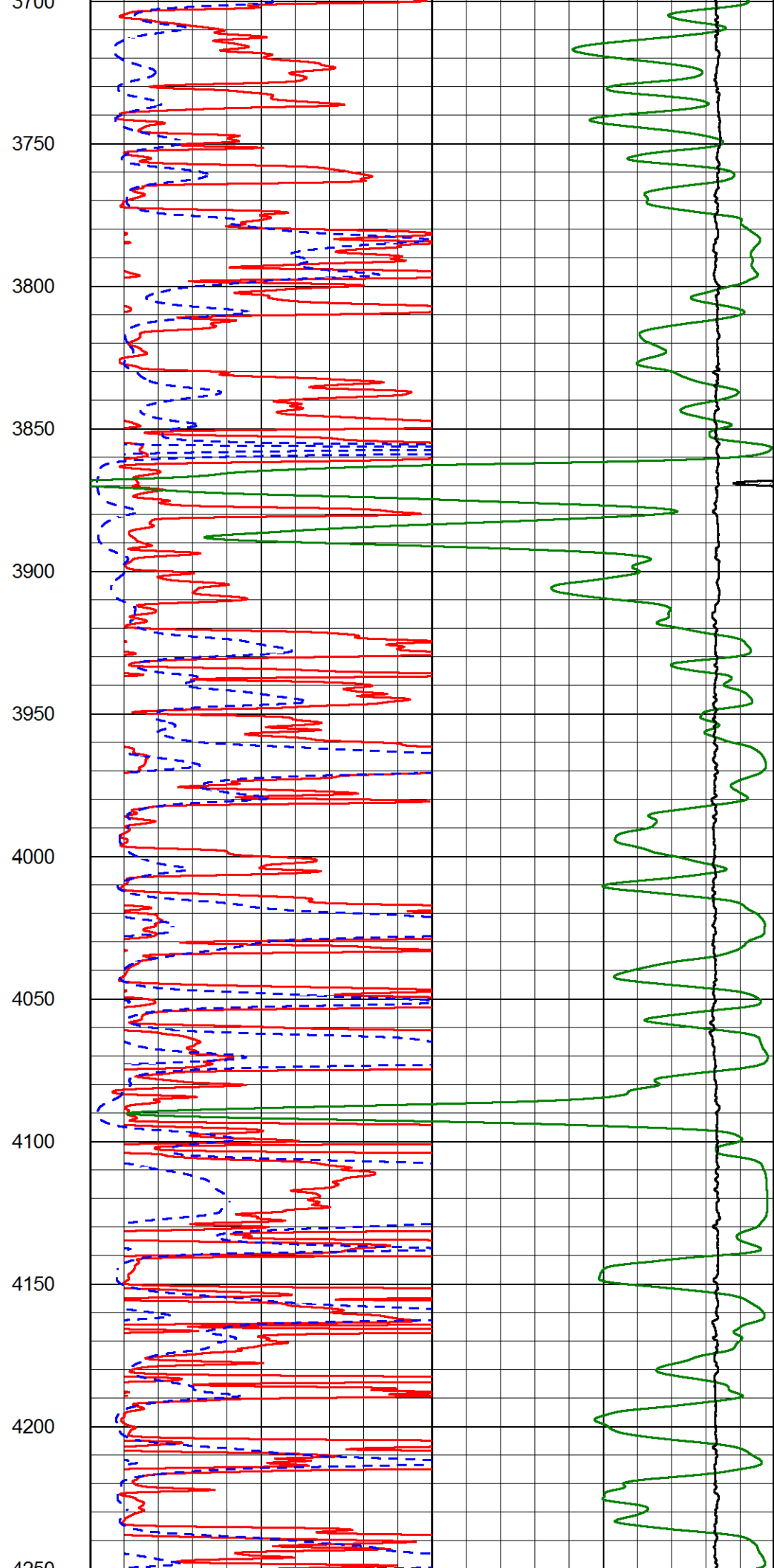
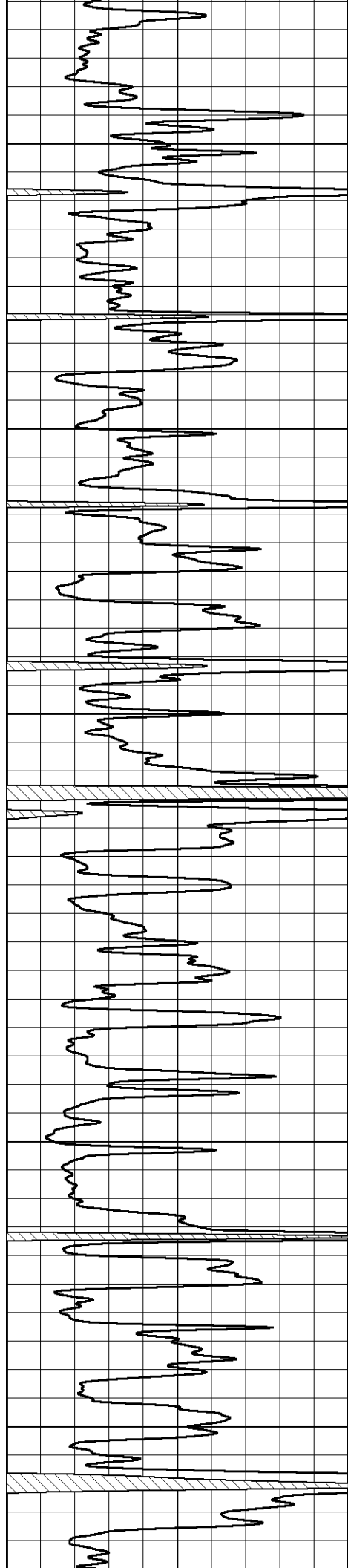


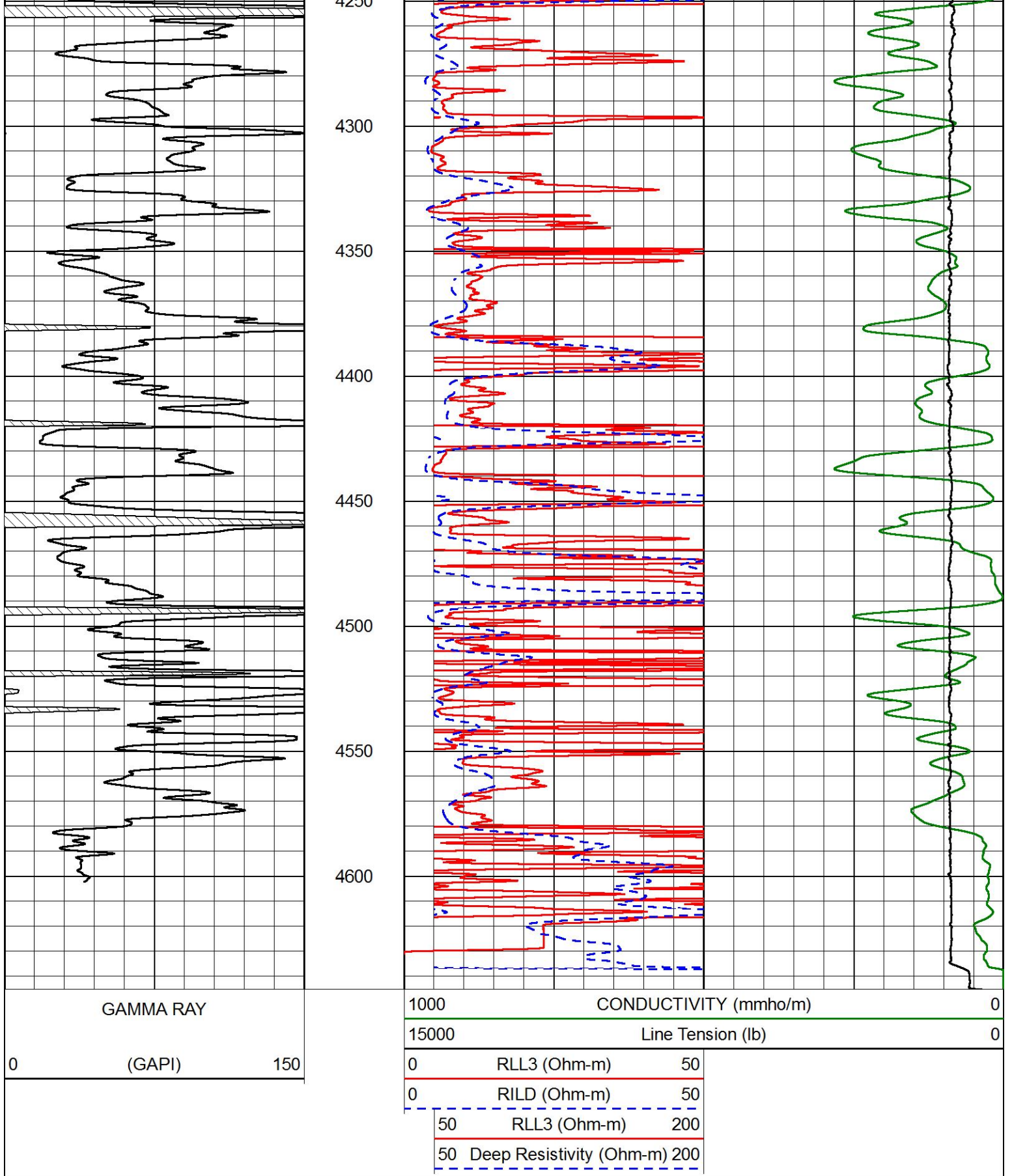










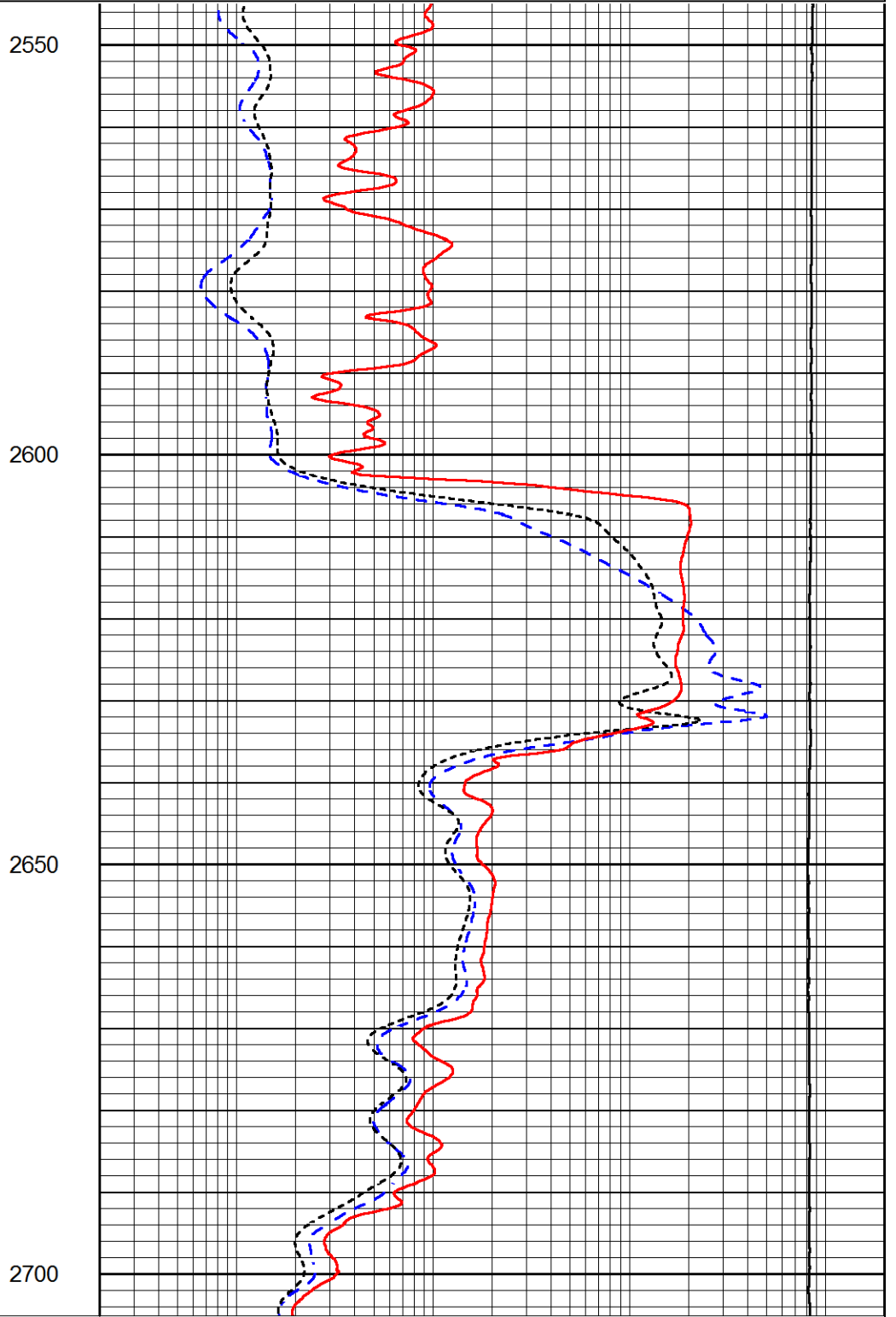
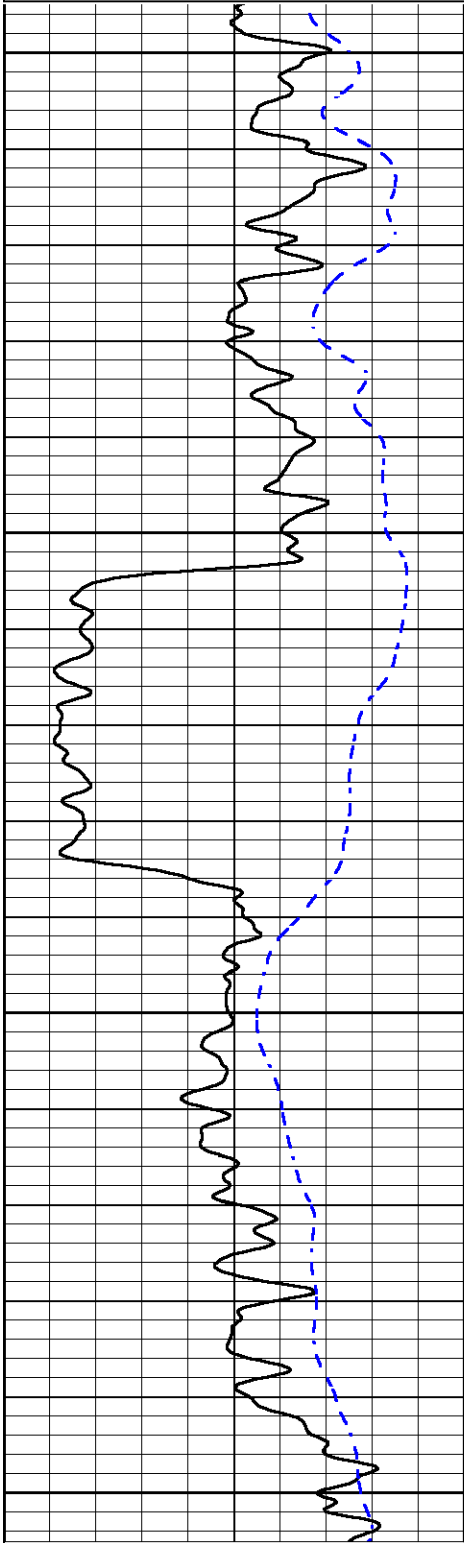


ANHYDRITE SECTION

MAIN PASS

0	GAMMA RAY (GAPI)	150
-200	SP (mV)	0

0.2	DEEP RESISTIVITY (Ohm-m)	2000
0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
10000	LINE TENSION (lb)	0



0	GAMMA RAY (GAPI)	150
-200	SP (mV)	0

0.2	DEEP RESISTIVITY (Ohm-m)	2000
0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
10000	LINE TENSION (lb)	0

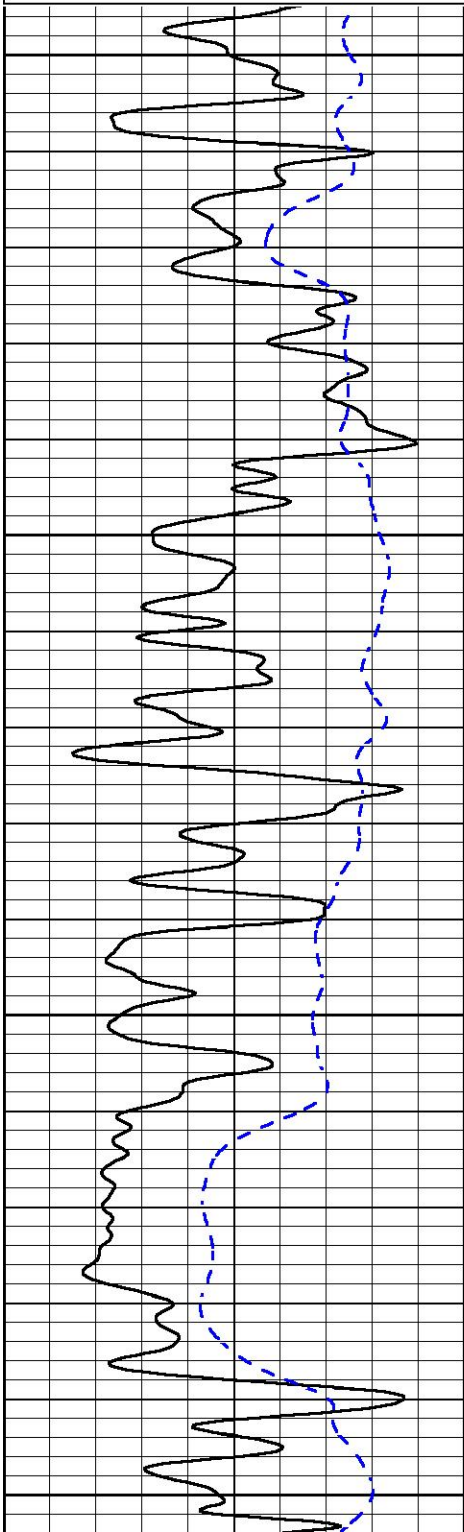


MAIN PASS

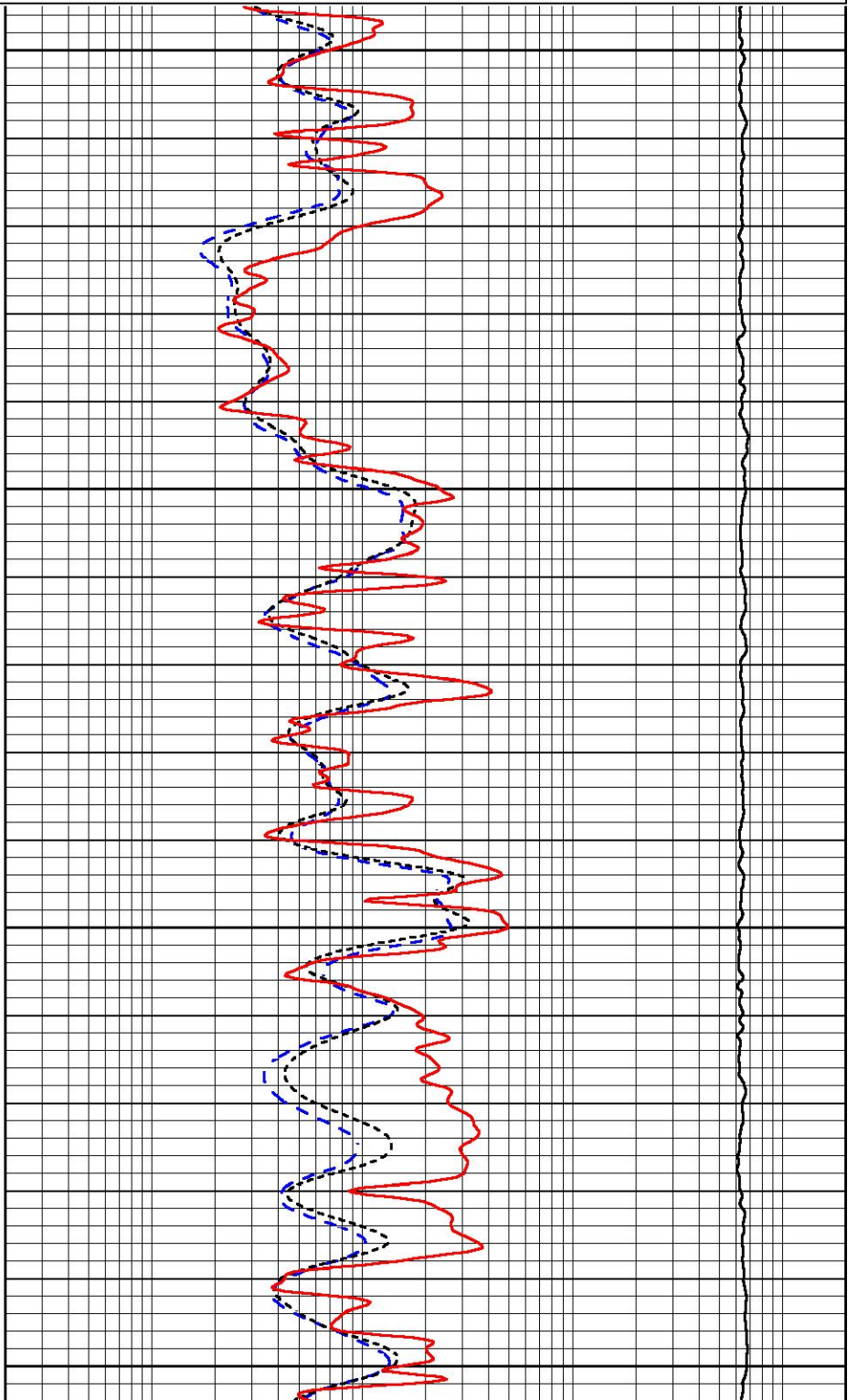
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 Dataset Creation Thu Apr 01 14:49:56 2021
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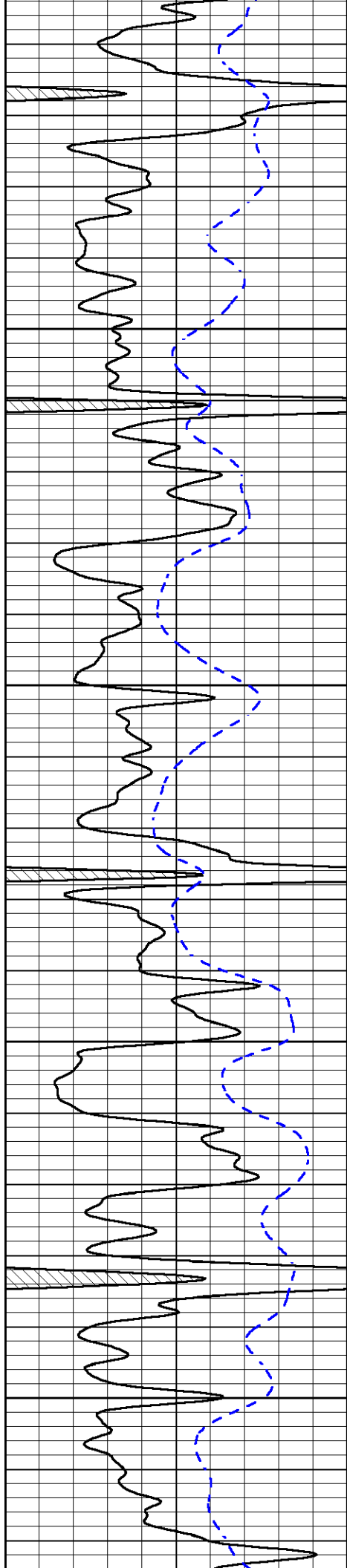
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-200	SP (mV)	0

0.2	DEEP RESISTIVITY (Ohm-m)	2000
0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
10000	LINE TENSION (lb)	0



3600
3650
3700
3750



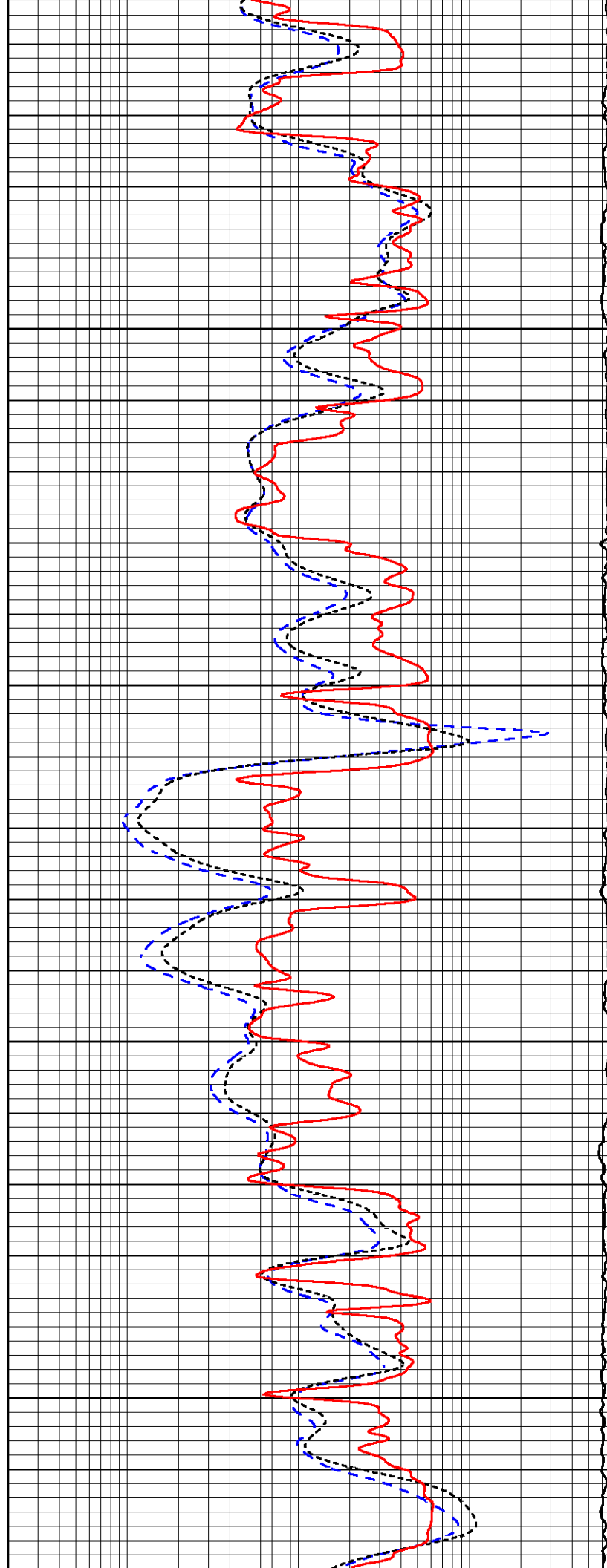


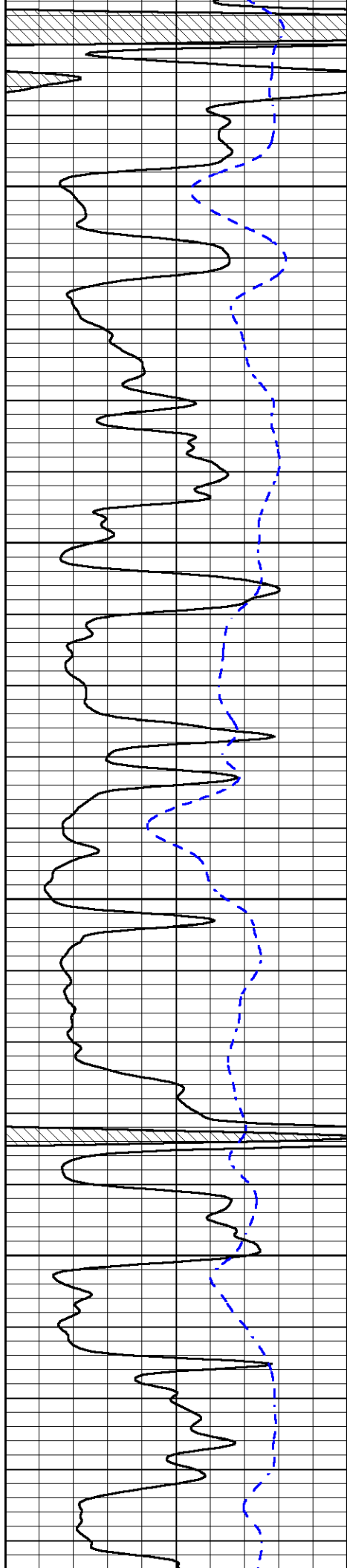
3800

3850

3900

3950



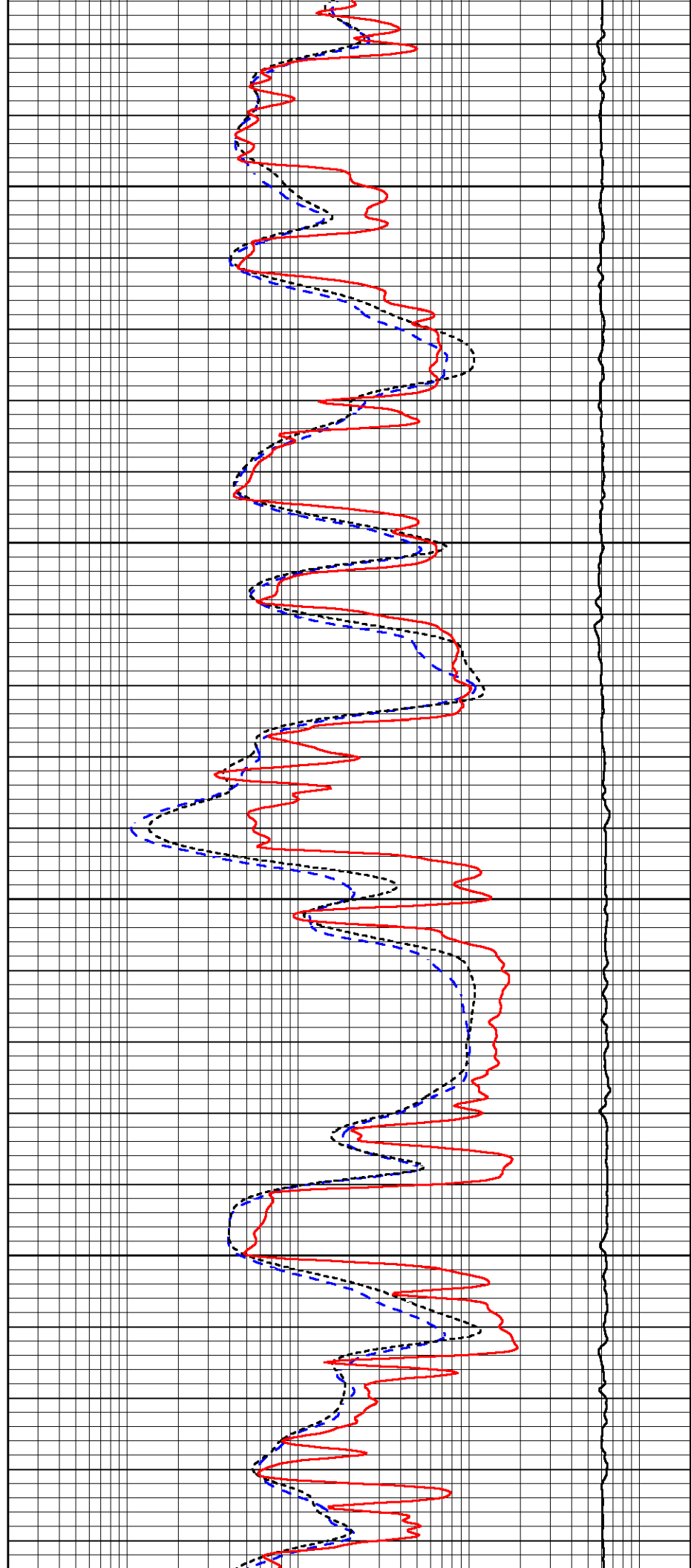


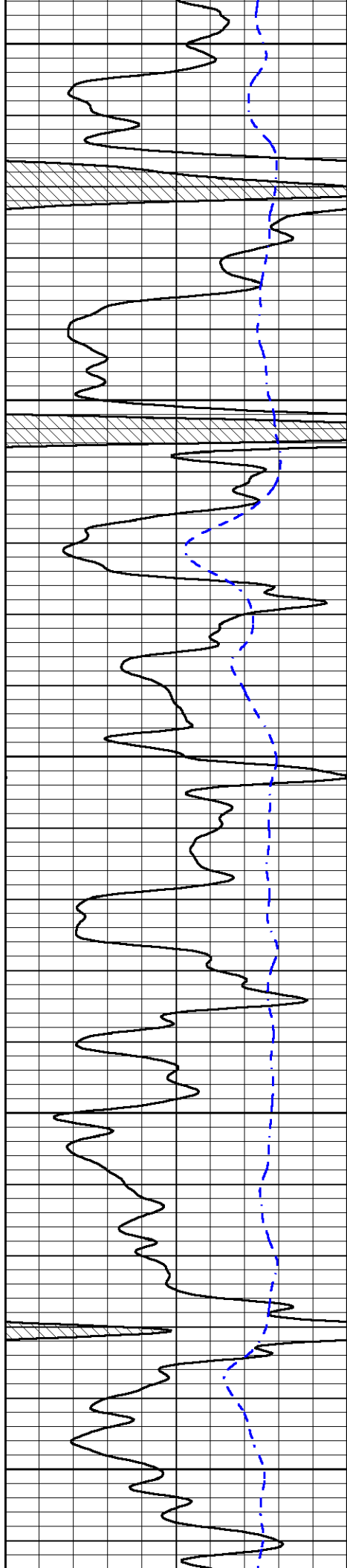
4000

4050

4100

4150





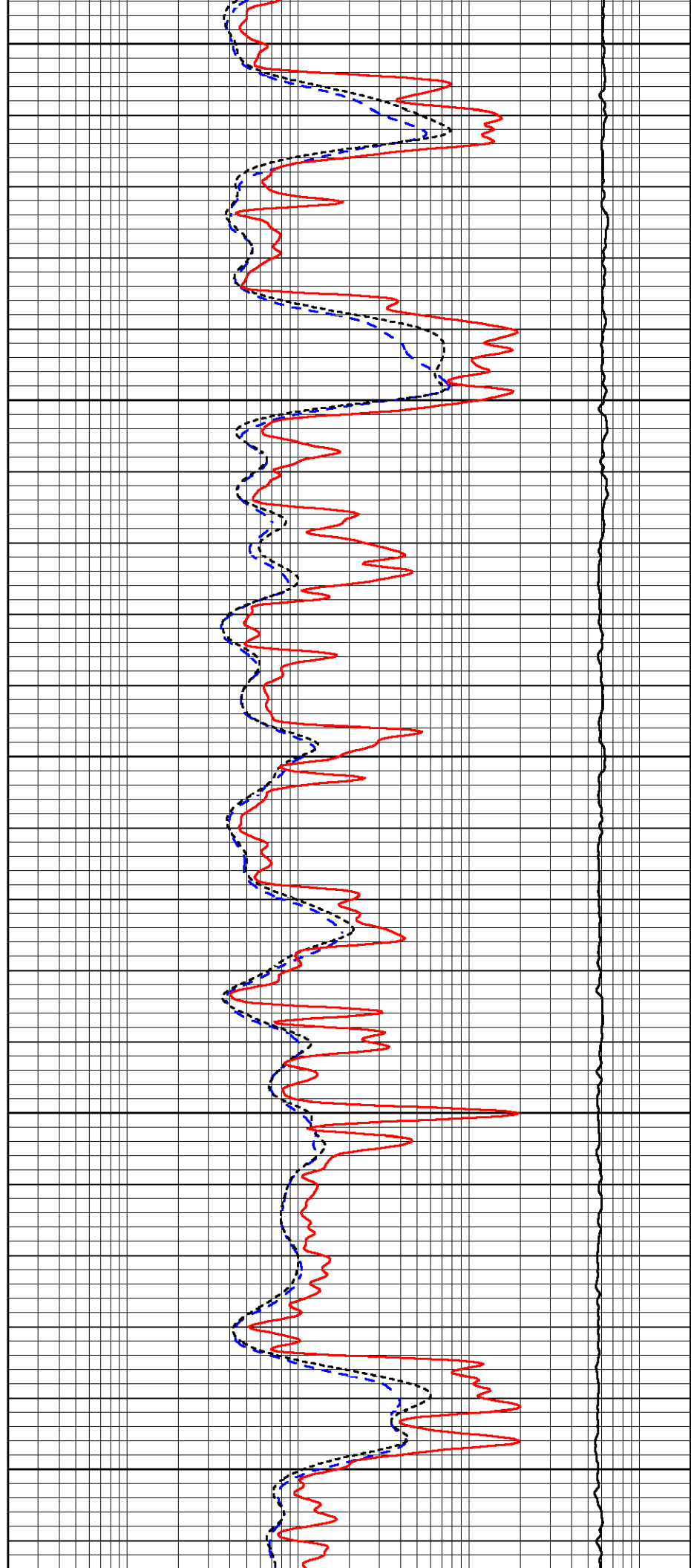
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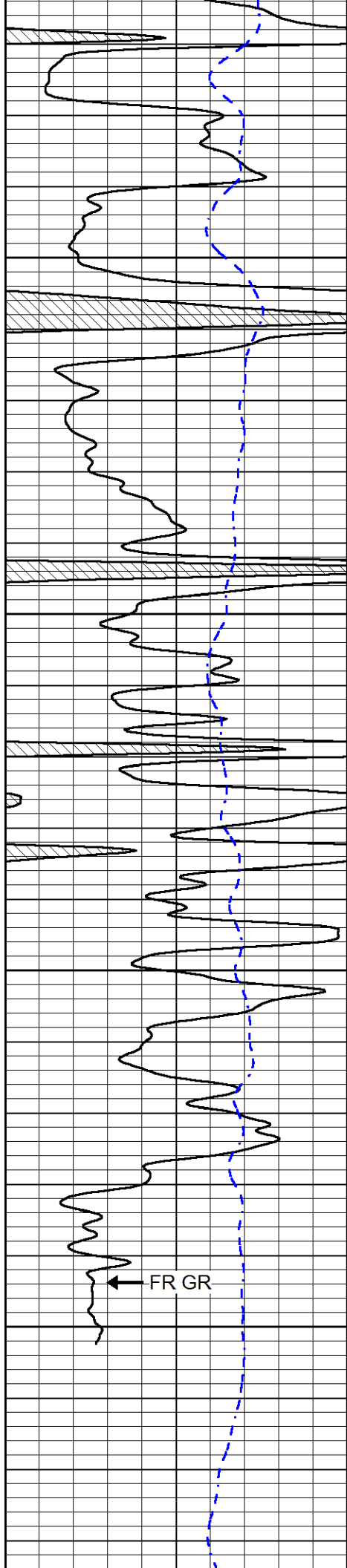
4250

4300

4350

4400





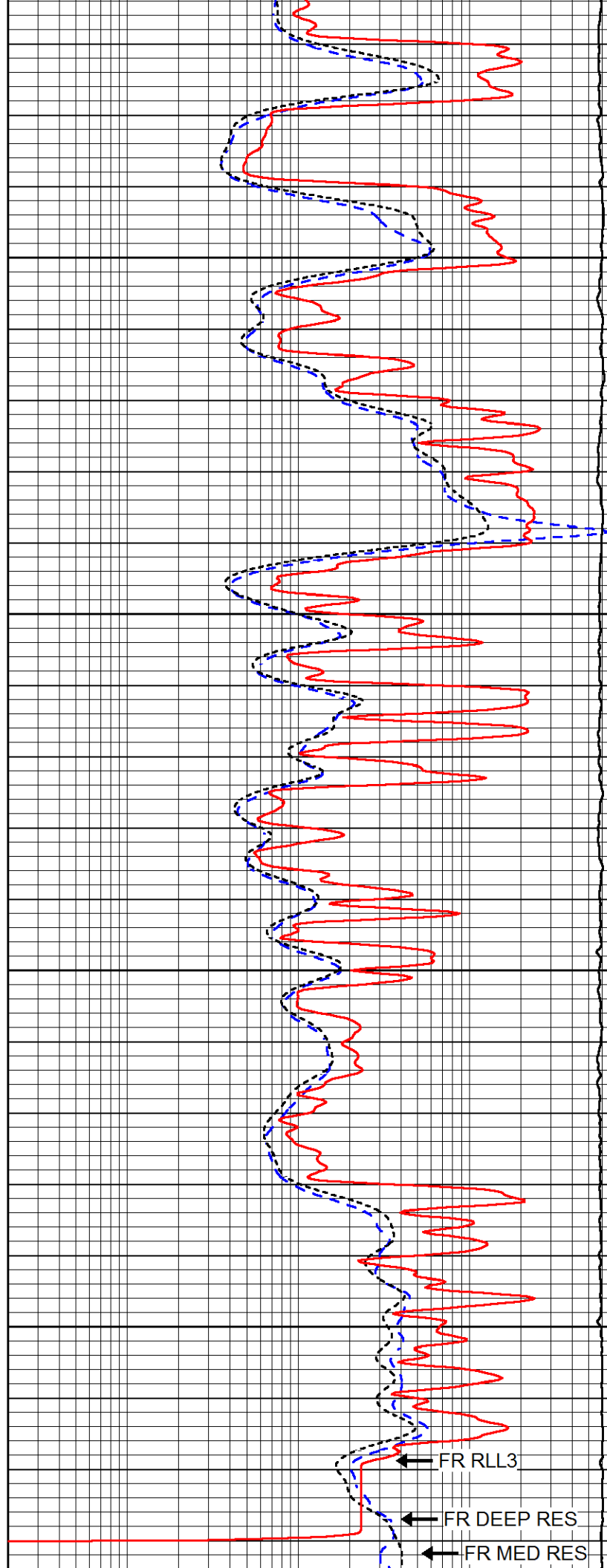
4450

4500

4550

4600

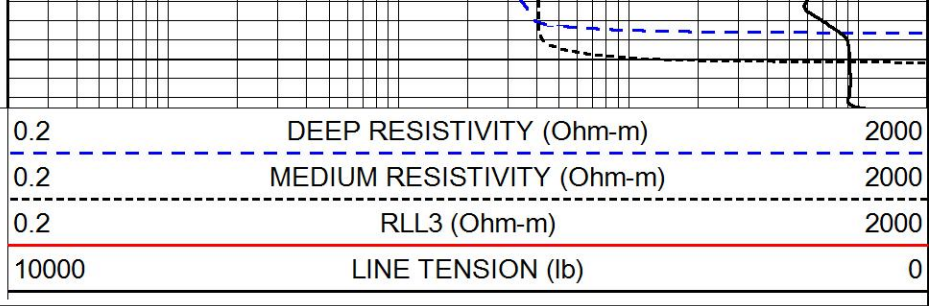
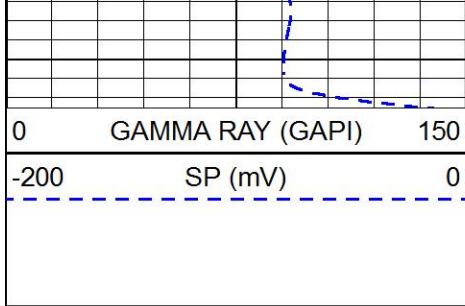
FR GR



FR RLL3

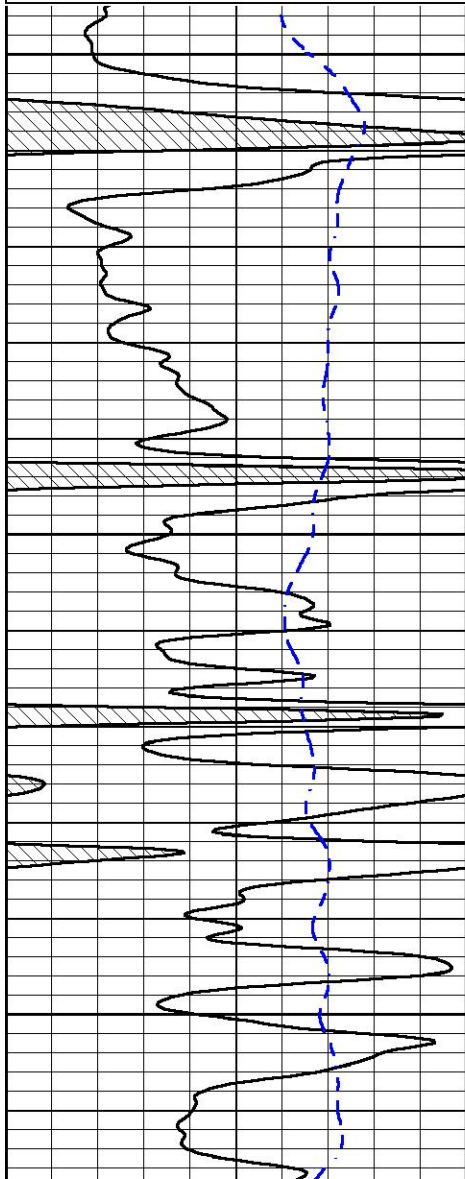
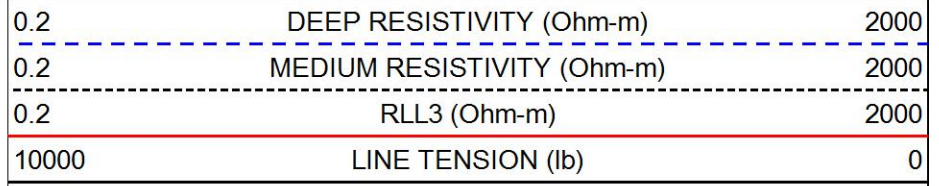
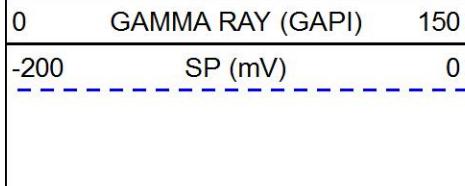
FR DEEP RES

FR MED RES



REPEAT SECTION

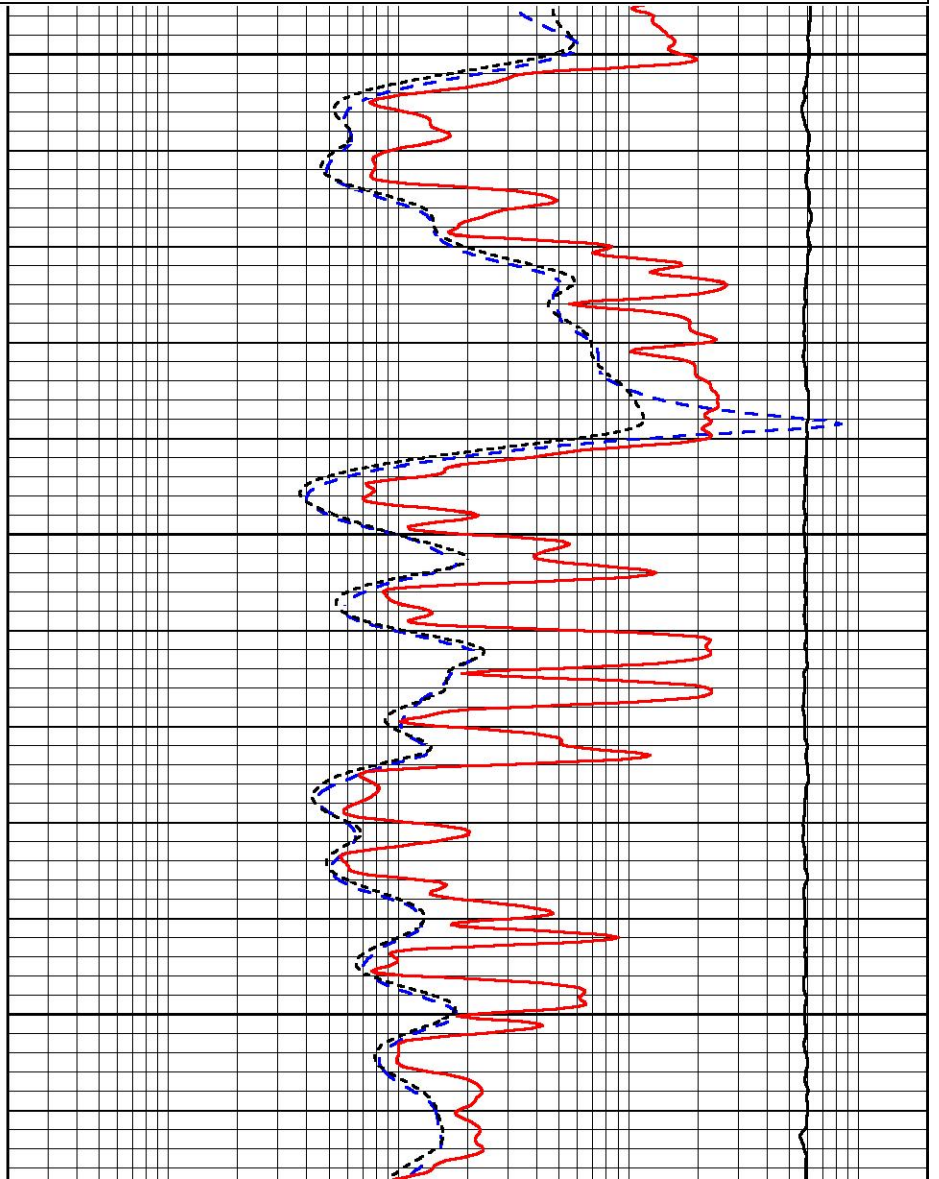
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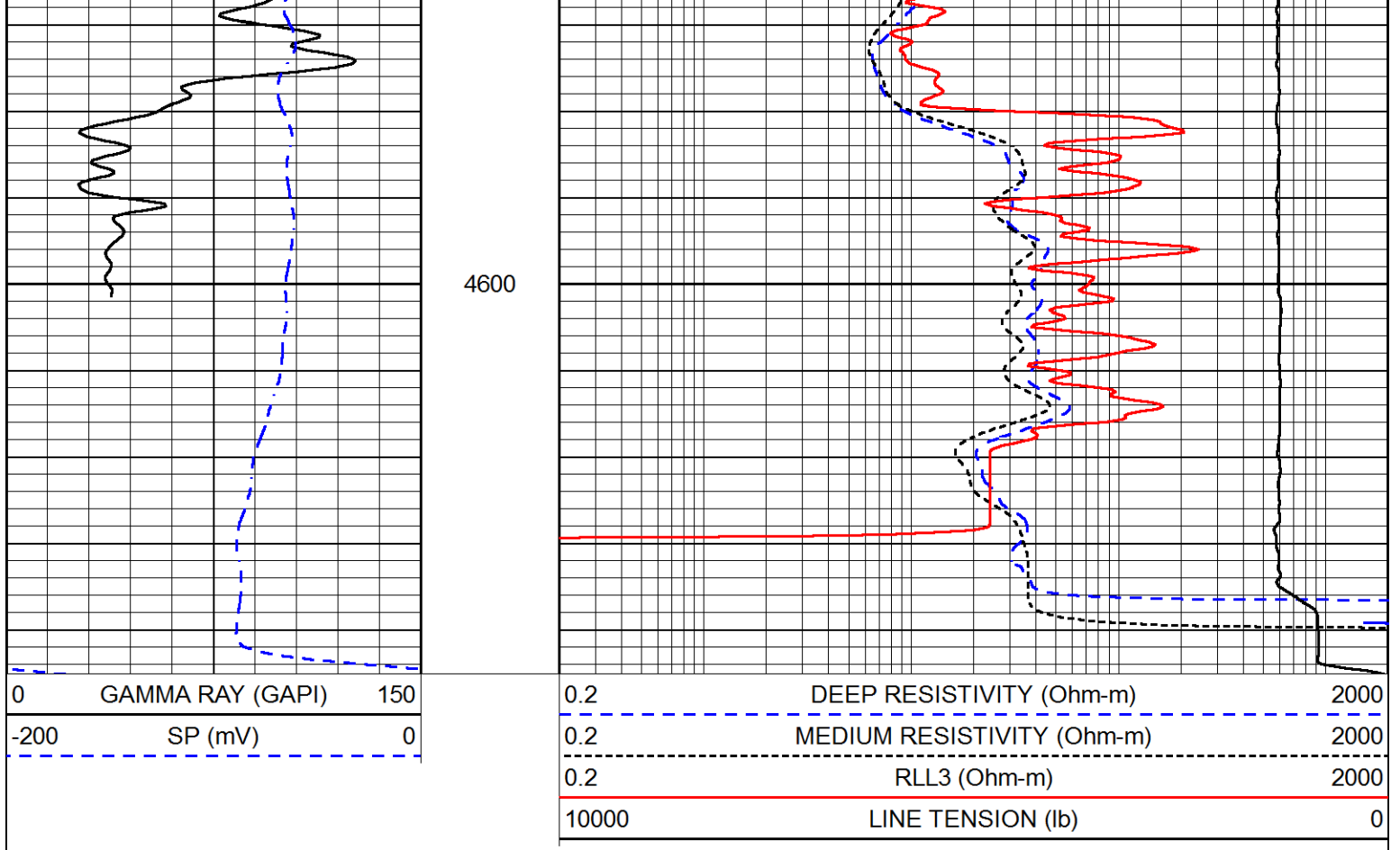


4450

4500

4550





Calibration Report

Database File carmen schmitt_h v farms 2-35.db
 Dataset Pathname stkml/pass3.1
 Dataset Creation Thu Apr 01 14:49:56 2021

Dual Induction Calibration Report

Serial-Model: PSI 971 HT-PSI HIGH TEMP
 Surface Cal Performed:

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop	mmho/m	m	b
Deep	167.000	835.000	0.000	255.800	mmho/m	0.430	-29.500
Medium	0.000	1348.000	142.000	255.800	mmho/m	0.375	-29.000

Microlog Calibration Report

Serial-Model: PSI-01-PSIML
 Performed: Wed Mar 3 05:24:59 2021

	Readings		References			Results	
	Zero	Cal	Zero	Cal	Ohm-m	m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	17000.0000	-1.8500
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	17000.0000	0.0000
Caliper	1.0033	1.0841	5.0000	16.5000	in	142.3500	-138.6500

Compensated Density Calibration Report

Serial-Model: 817-947-M&W
 Source / Verifier: 16055B / 2pi

Source / vendor:
 Master Calibration Performed:
 Before Survey Verification Performed:
 After Survey Verification Performed:

16955B / ZCI
 Mon Mar 15 12:10:28 2021

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	5708.83	5527.94	cps
Aluminum	2.680	g/cc	1049.66	3515.58	cps
Spine Angle = 75.04			Density/Spine Ratio = 0.528		
	Size		Reading		
Small Ring	4.50	in	1.02		
Large Ring	14.50	in	1.23		

Before Survey Verification

Target	Measured
g/cc	g/cc
g/cc	g/cc
g/cc	g/cc

After Survey Verification

Target	Measured
g/cc	g/cc
g/cc	g/cc
g/cc	g/cc

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
Long Space

cps
cps

pu

pu

Gamma Ray Calibration Report

Serial Number:	233-M&W	
Tool Model:	M&W	
Performed:	Wed Mar 3 05:25:33 2021	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.5500	GAPI/cps



Company	Carmen Schmitt, Inc.
Well	H&V Farms #2-35
Field	Schwartz North
County	Thomas
State	Kansas