



MIDWEST WIRELINE

DUAL INDUCTION LOG

Company TDI, Inc.
 Well Schuster Unit #1
 Field Unnamed
 County Ellis State Kansas

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 Field Unnamed
 County Ellis
 State Kansas

Location: API #: 15-051-27000-00-00
 780' FSL & 2535' FWL
 SEC 1 TWP 13S RGE 20W
 Permanent Datum Ground Level Elevation 2103'
 Log Measured From Kelly Bushing
 Drilling Measured From Kelly Bushing
 Other Services
 CNL/CDL
 MEL
 Elevation
 K.B. 2113'
 D.F. N/A
 G.L. 2103'

Date	6/16/2021	
Run Number	One	
Depth Driller	3900'	
Depth Logger	3898'	
Bottom Logged Interval	3897'	
Top Log Interval	200'	
Casing Driller	8.625" @ 214'	
Casing Logger	211'	
Bit Size	7.875"	
Type Fluid in Hole	Chemical	
Salinity, ppm CL	5000	
Density / Viscosity	9.3	54
pH / Fluid Loss	10.5	6.0
Source of Sample	FLOWLINE	
Rm @ Meas. Temp	0.45 @ 80	
Rmt @ Meas. Temp	0.34 @ 80	
Rmc @ Meas. Temp	0.61 @ 80	
Source of Rmf / Rmc	CHARTS	
Rm @ BHT	0.31 @ 115	
Operating Rig Time	3 Hours	
Max Rec. Temp. F	115	
Equipment Number	P-24	
Location	HAYS	
Recorded By	D. Schmidt	
Witnessed By	Tom Denning	

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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.

Ellis,
 3 1/2 East on 6th St. (Feedlot),
 North 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: Tom Denning	Secondary Witness: Herb Deines
Operator:	Operator:	Secondary Witness:	Secondary Witness:

Core	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	44.50		GR-M&W (233-M&W)	3.00	3.50	50.00	
CNLSC CNSSC	41.40 40.65		CNT-M&W (207-MW)	5.50	3.50	100.00	
LSD DCAL SSD	32.35 32.33 31.85		CDL-M&W (817-947)	8.50	4.00	250.00	
ML-PSI UDM ML (UDM-01) Stackable Microlog Tools				11.50	4.00	215.00	
MCAL MI MN	20.87 20.87 20.87						
RLL3F RLL3	15.80 15.80						
CILD	8.00			DIL-PSI HIGH TEMP (952-828)	18.50	3.50	220.00
CILM	4.70						
SP	0.20						

Dataset: tdj_schuster unit 1.db: field/well/Stkml/pass4.1
 Total length: 47.00 ft
 Total weight: 835.00 lb
 O.D.: 4.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\tdi_schuster unit 1.db
 Dataset field/well/Stkml/pass4.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	115	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	325	80	Off	3898

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

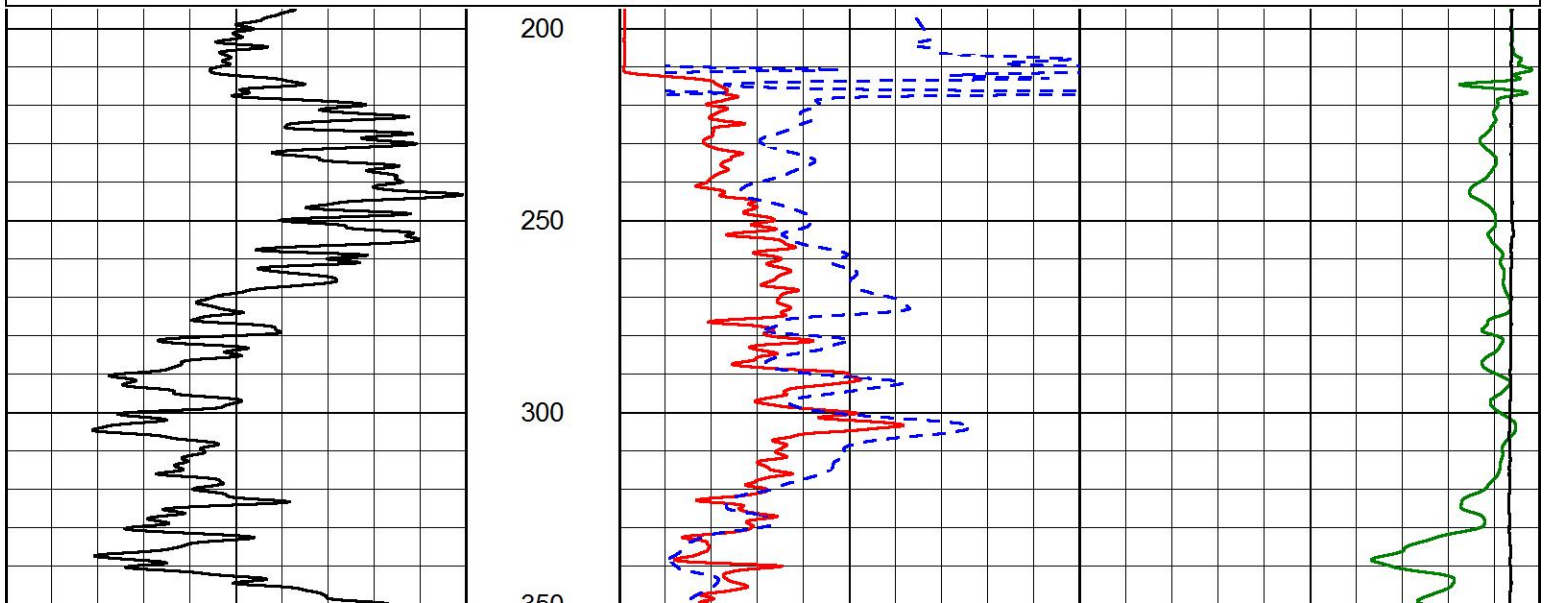


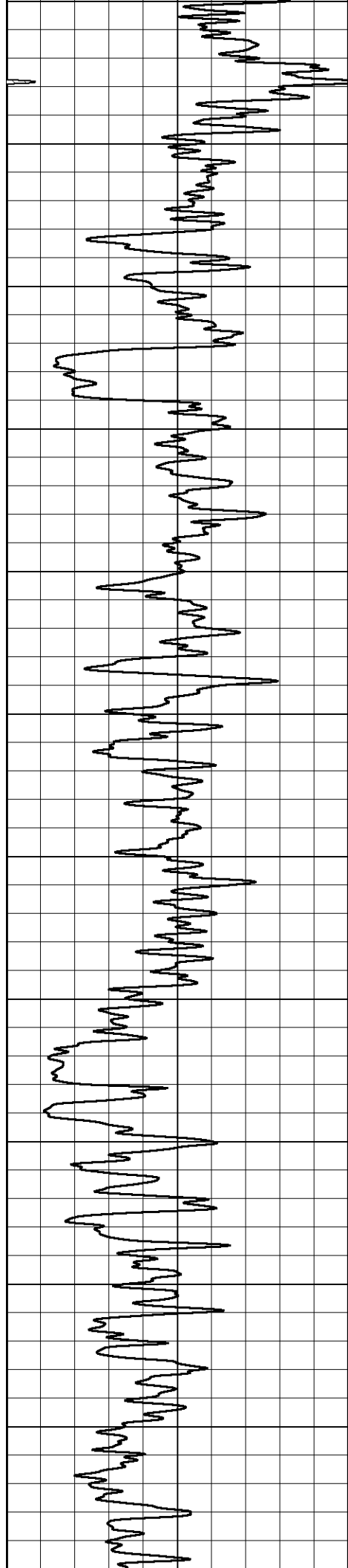
2" SCALE RESISTIVITY

MAIN PASS

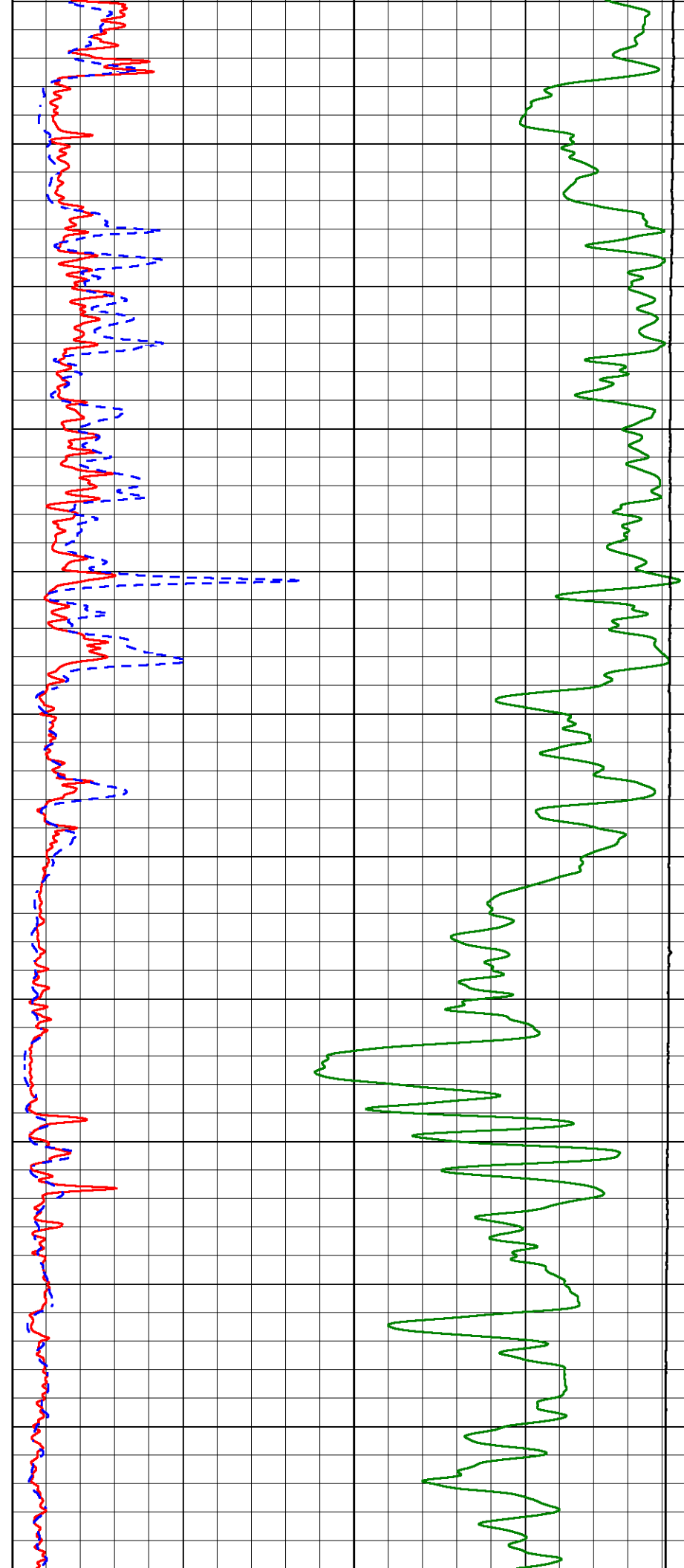
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 Charted by Depth in Feet scaled 1:600

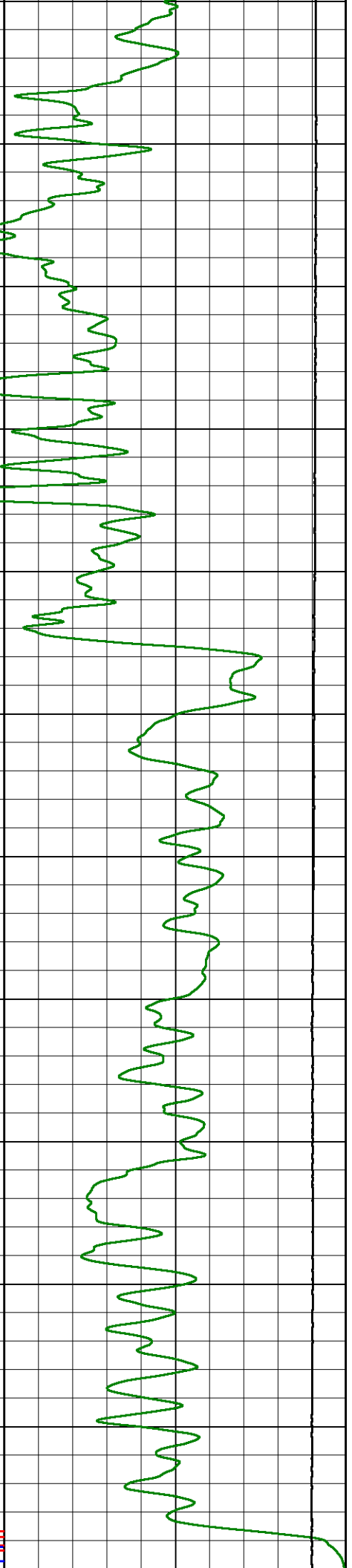
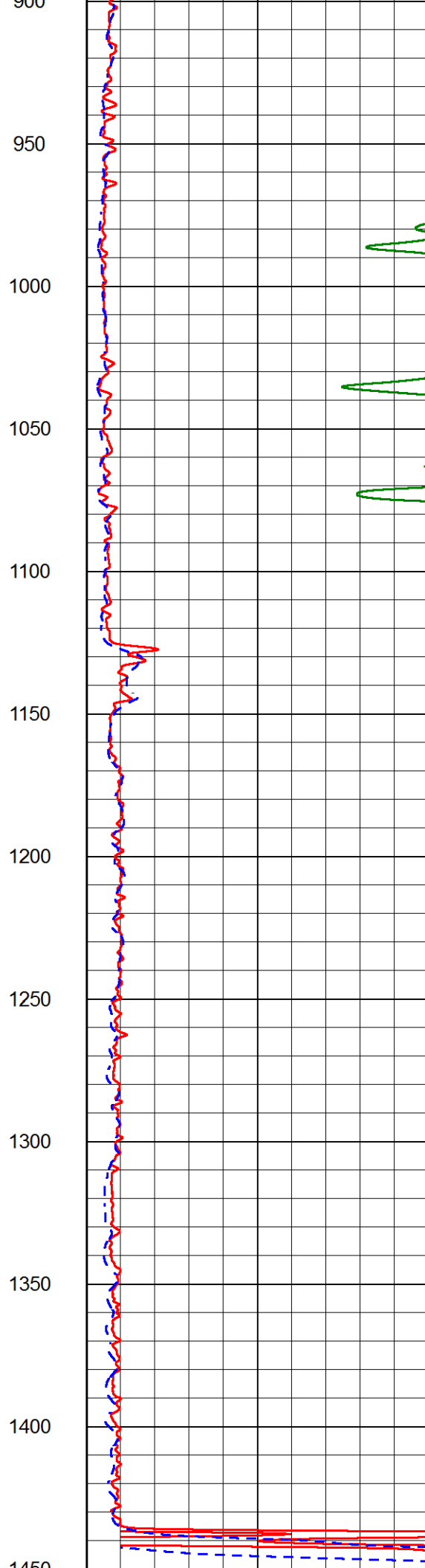
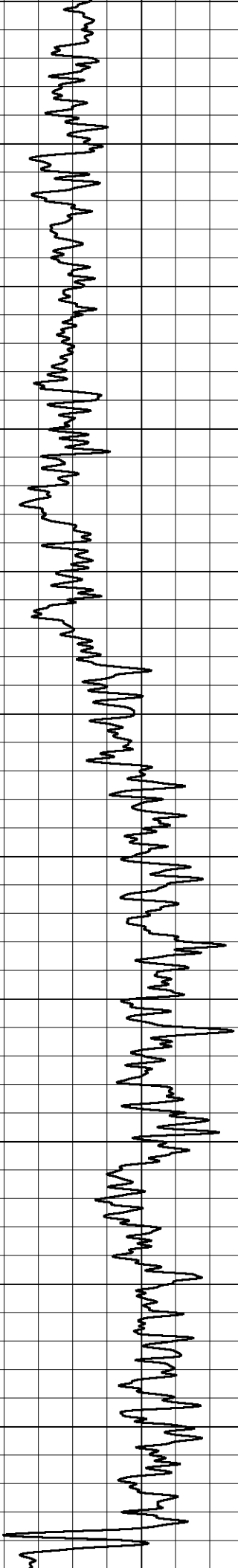
GAMMA RAY (GAPI)	1000	CONDUCTIVITY (mmho/m)	0
	15000	Line Tension (lb)	0
	0	RLL3 (Ohm-m)	50
	0	RILD (Ohm-m)	50
	50	RLL3 (Ohm-m)	100
	50	Deep Resistivity (Ohm-m)	200

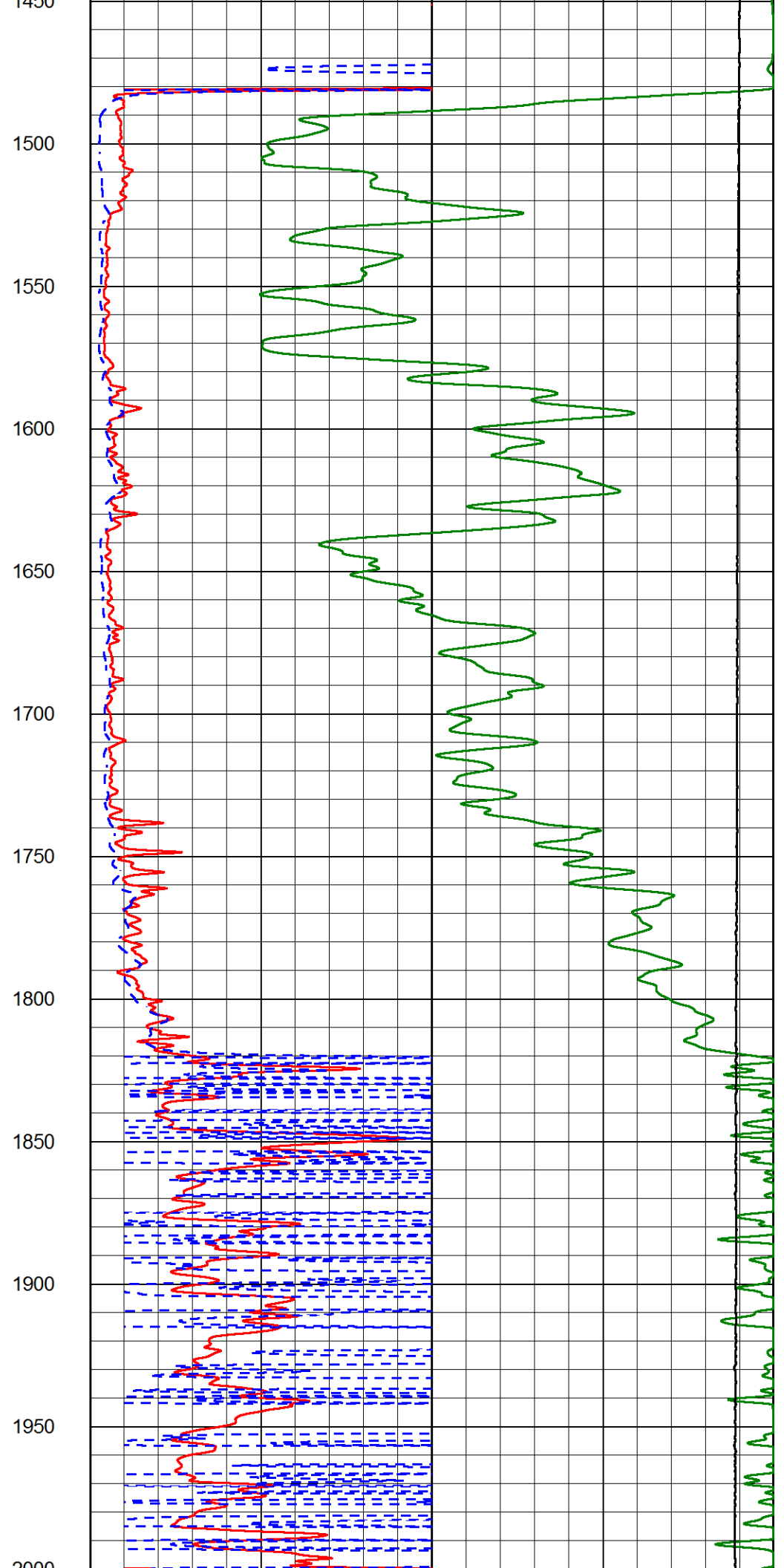
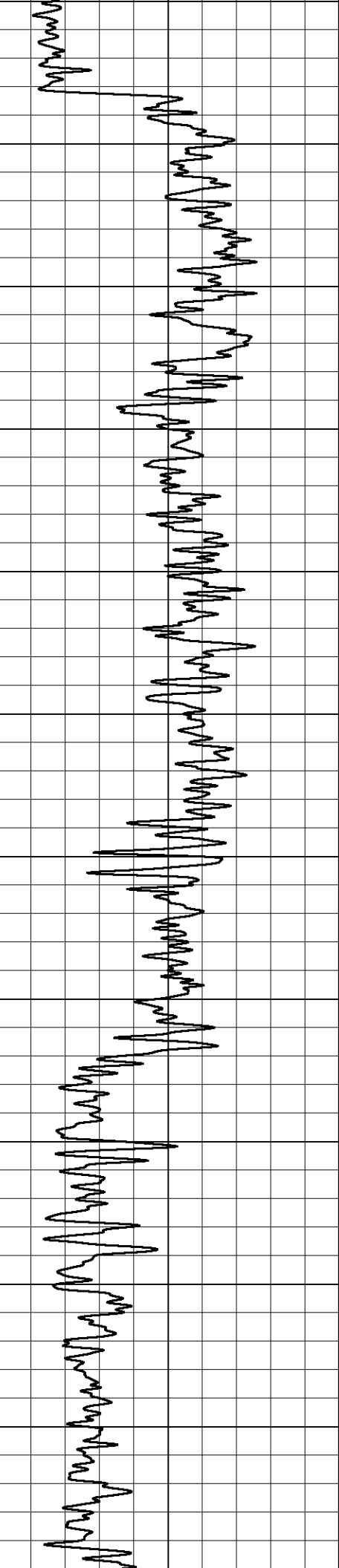


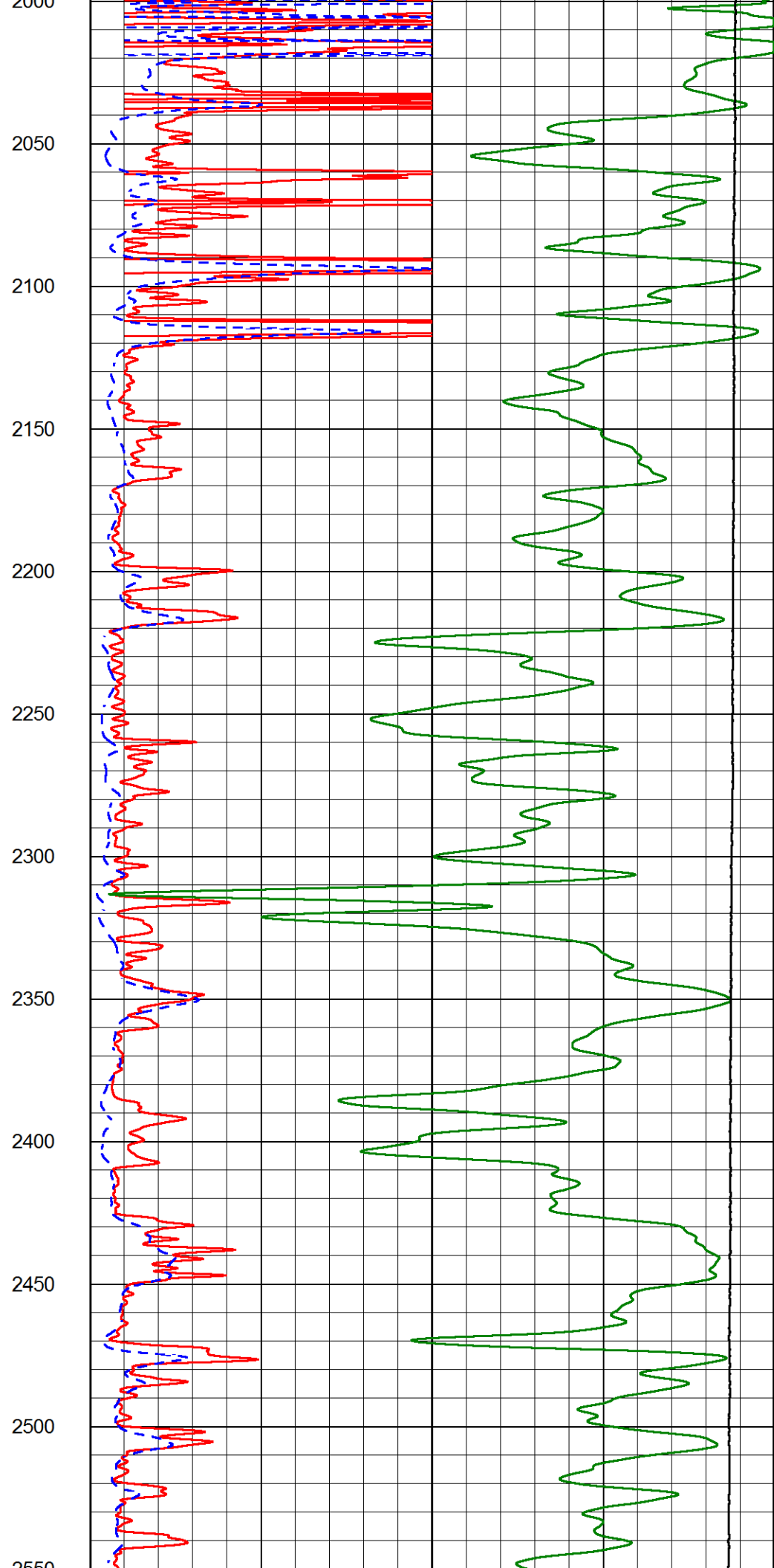
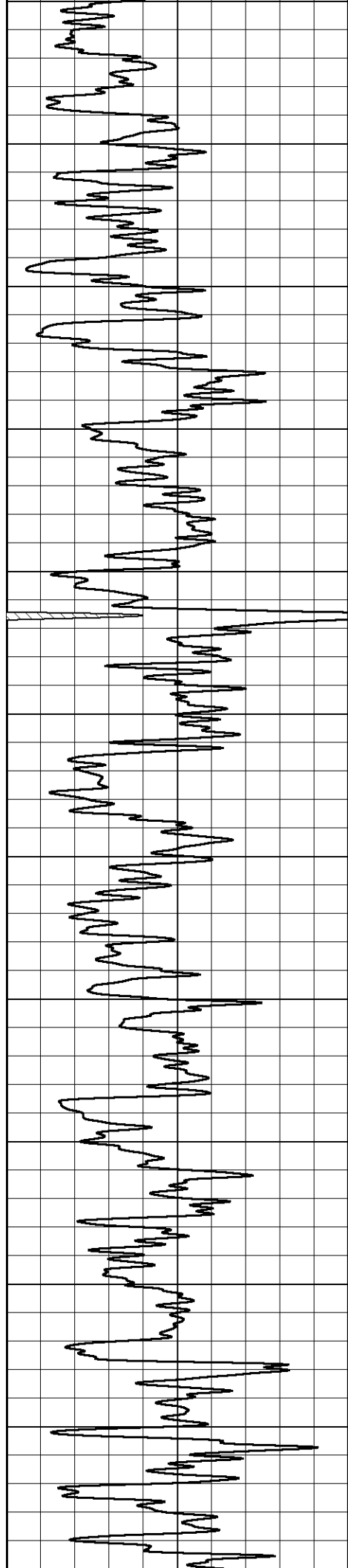


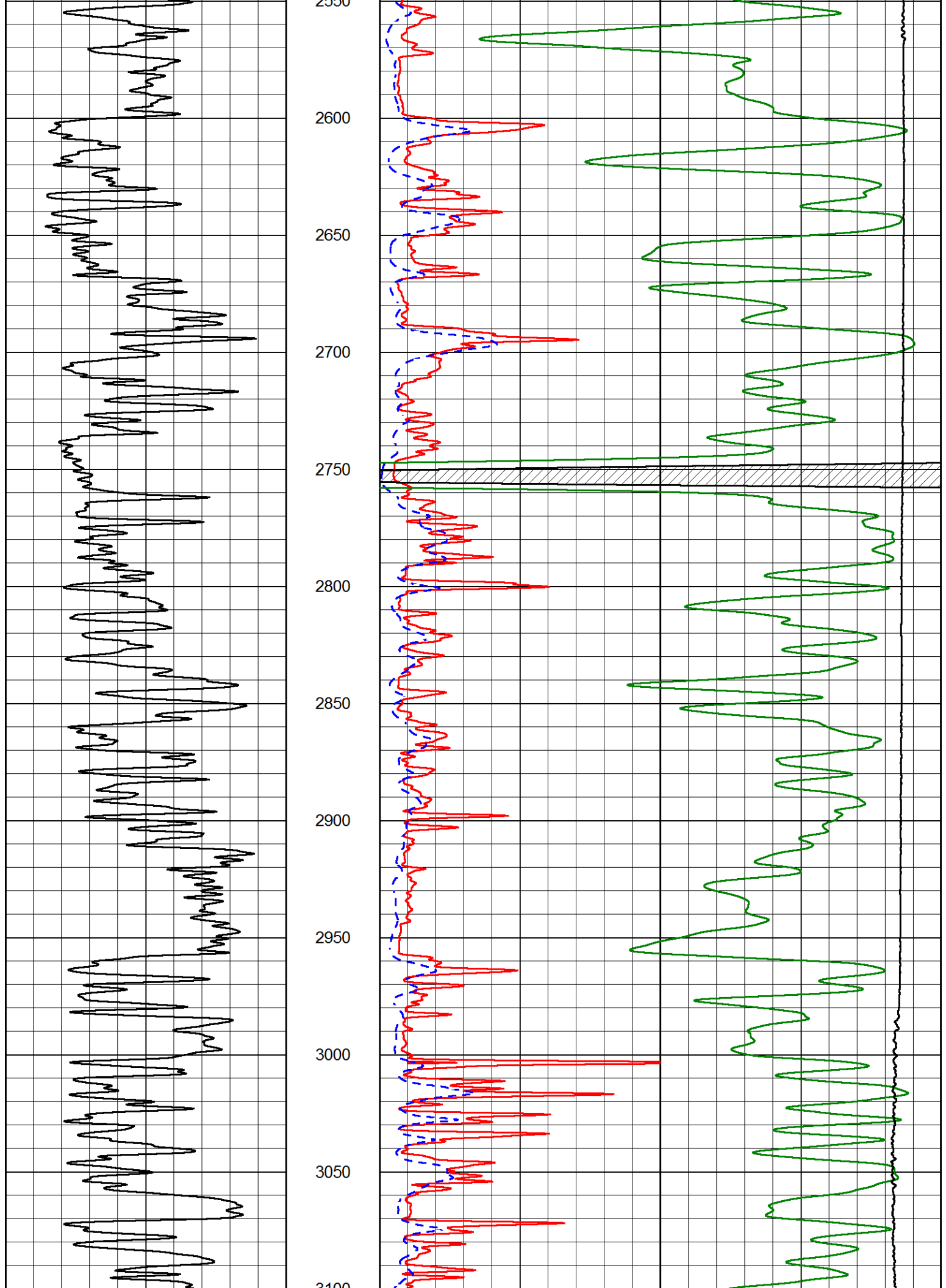
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400
450
500
550
600
650
700
750
800
850
900

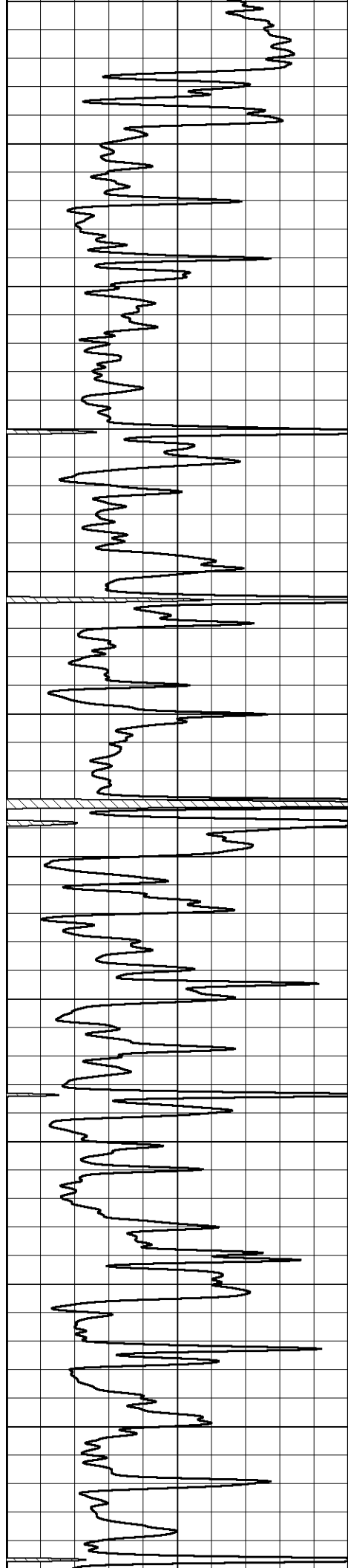




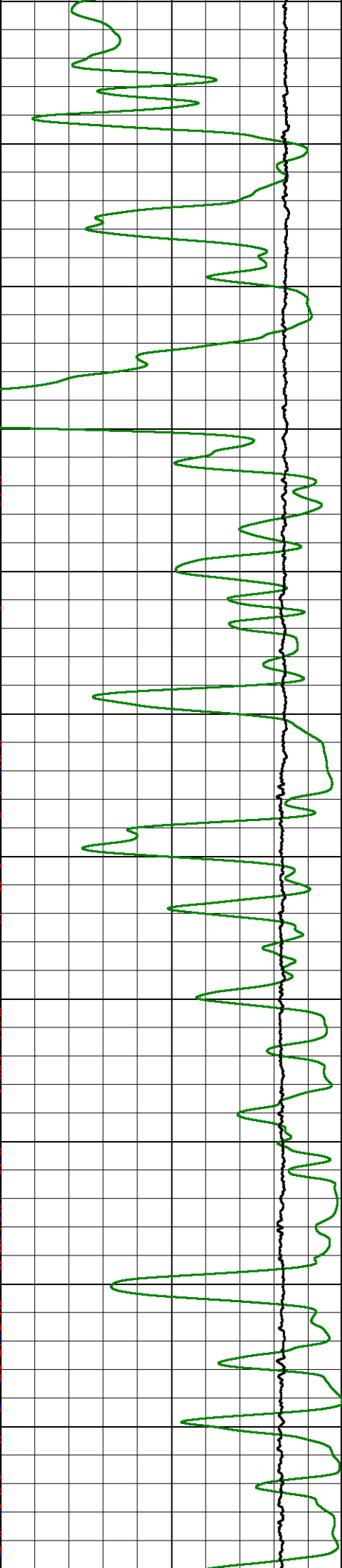
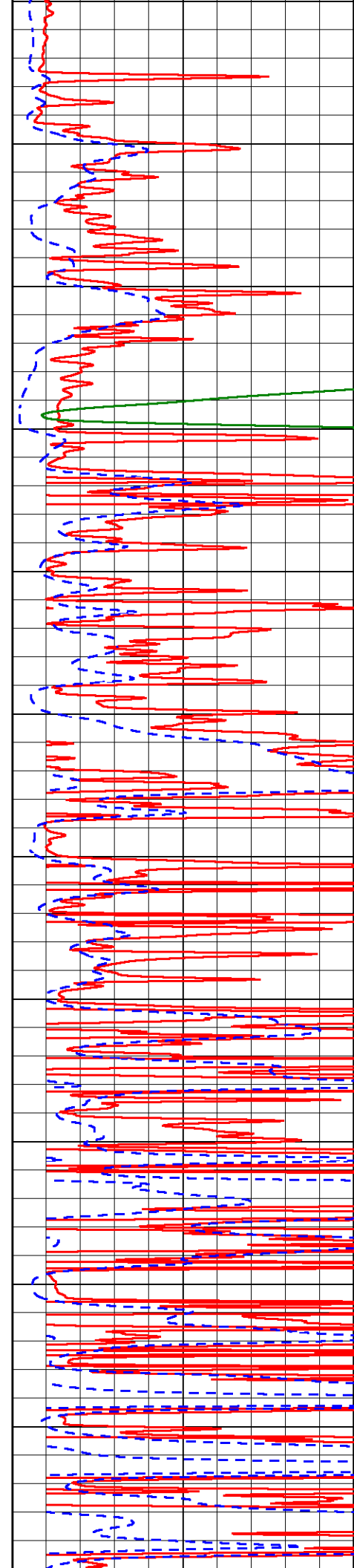


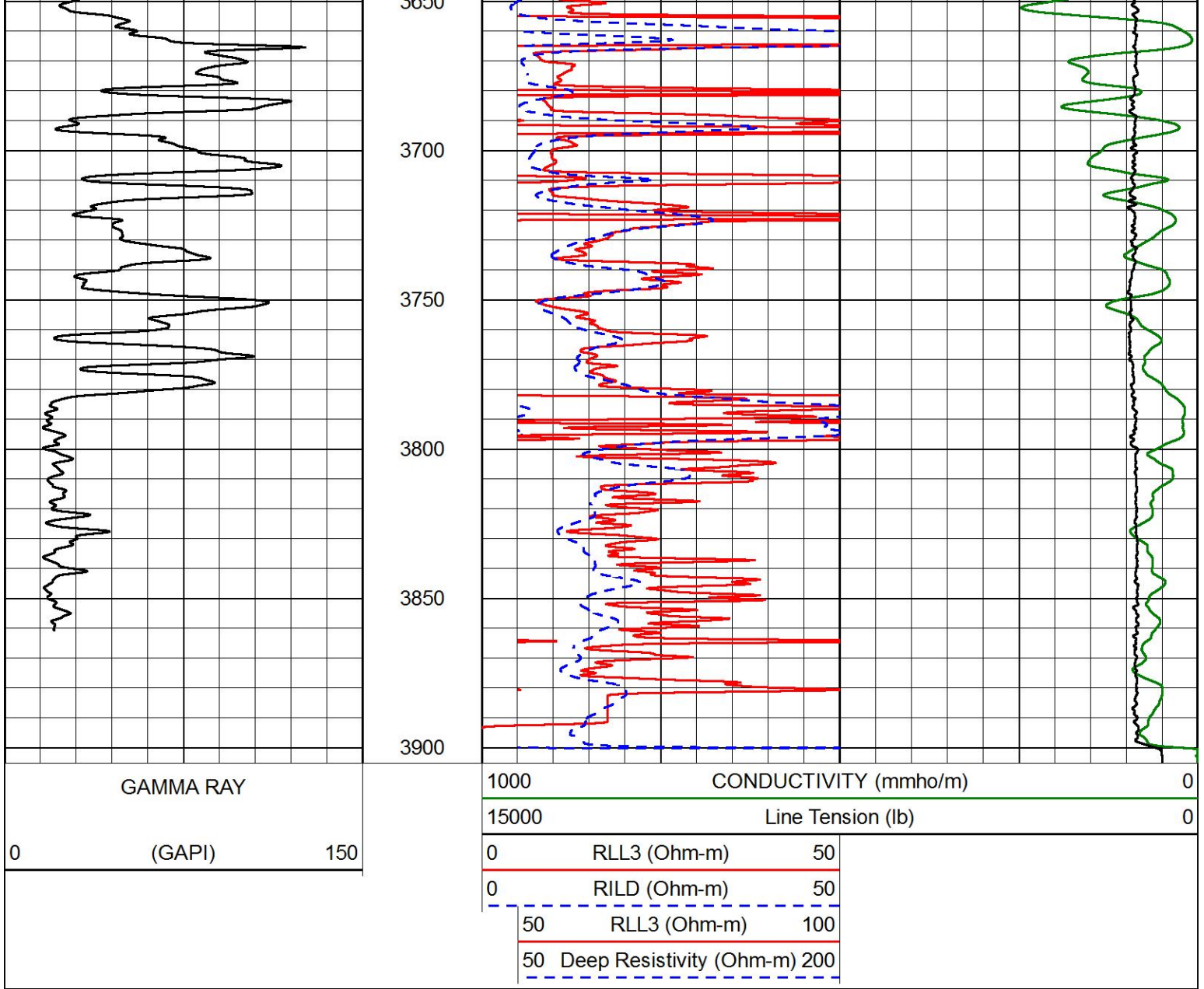






3100
3150
3200
3250
3300
3350
3400
3450
3500
3550
3600
3650



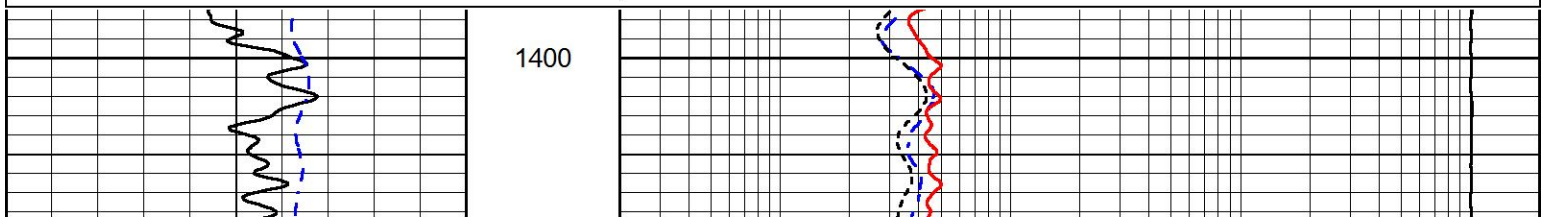


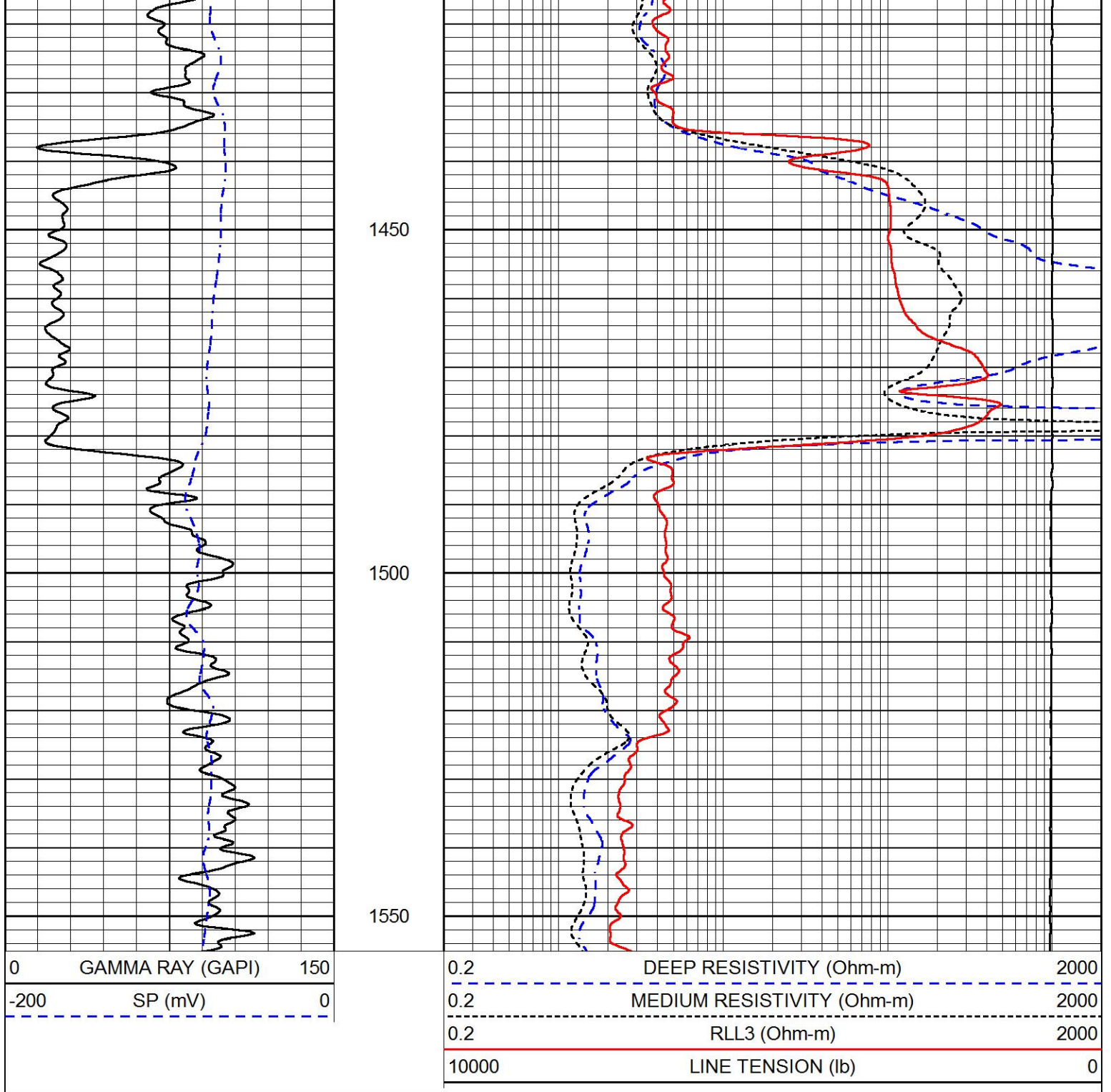
ANHYDRITE SECTION

MAIN PASS

Database File tdi_schuster unit 1.db
 Dataset Pathname Stkml/pass7.1
 Presentation Format _dil
 Dataset Creation Wed Jun 16 04:12:44 2021
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	0.2	DEEP RESISTIVITY (Ohm-m)	2000
-200	SP (mV)	0	0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
			0.2	RLL3 (Ohm-m)	2000
			10000	LINE TENSION (lb)	0

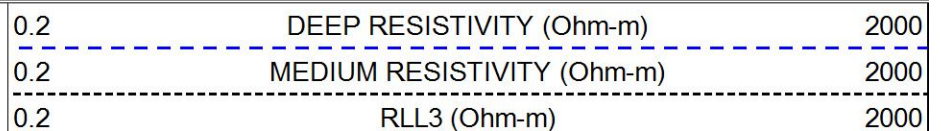
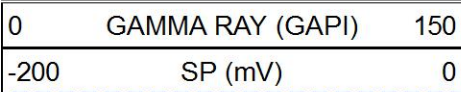


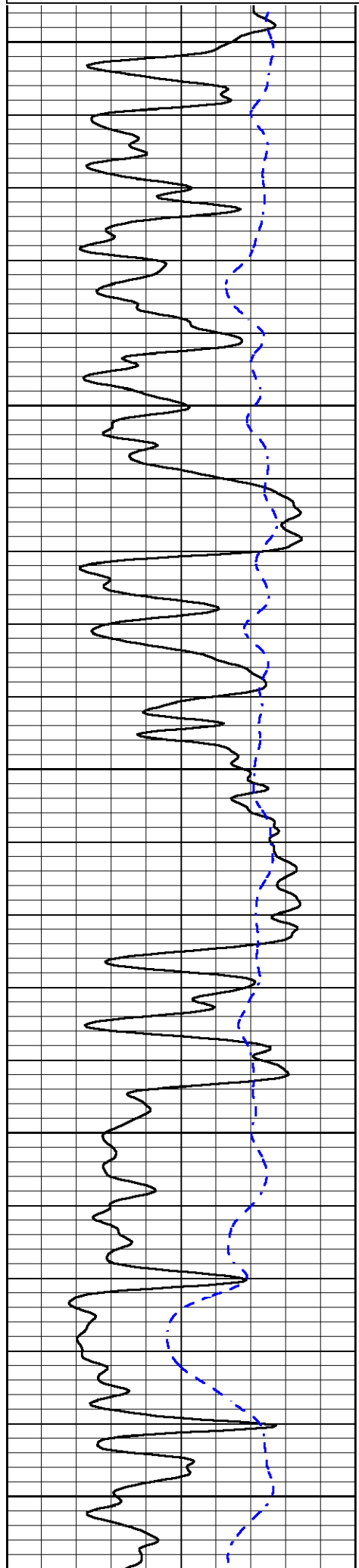


DETAIL SECTION

MAIN PASS

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 Presentation Format _dil
 Dataset Creation Wed Jun 16 03:11:37 2021
 Charted by Depth in Feet scaled 1:240





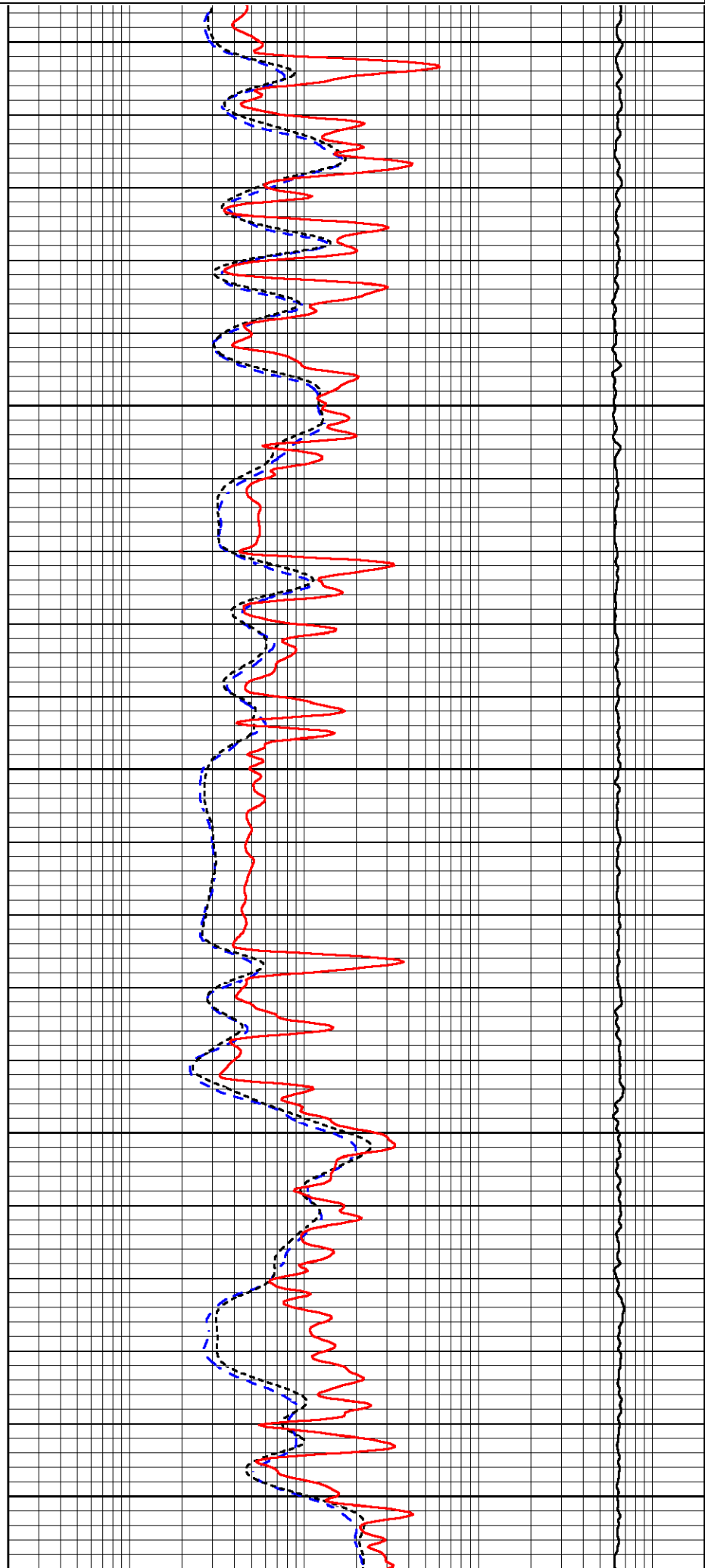
3000

3050

3100

3150

3200



3000

3050

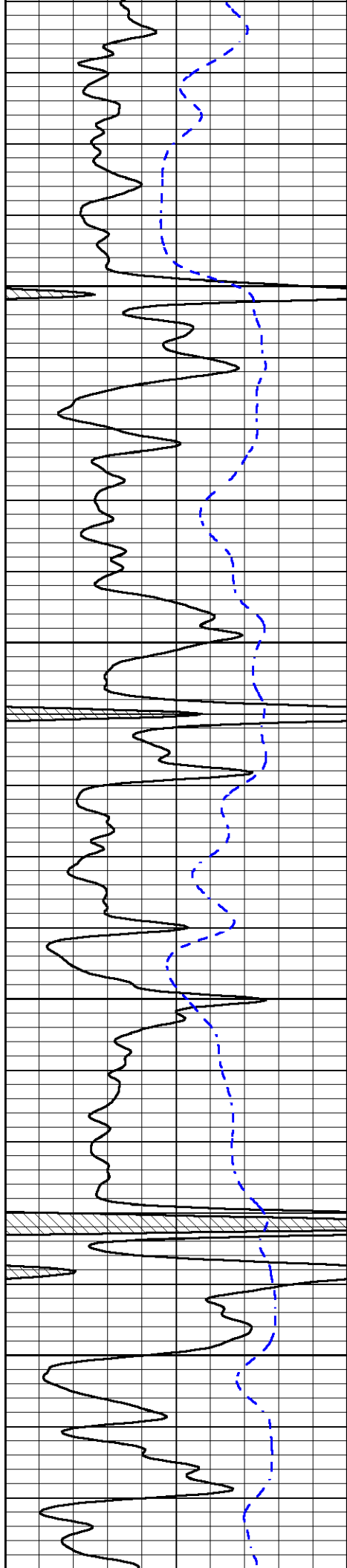
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3150

3200

10000

0

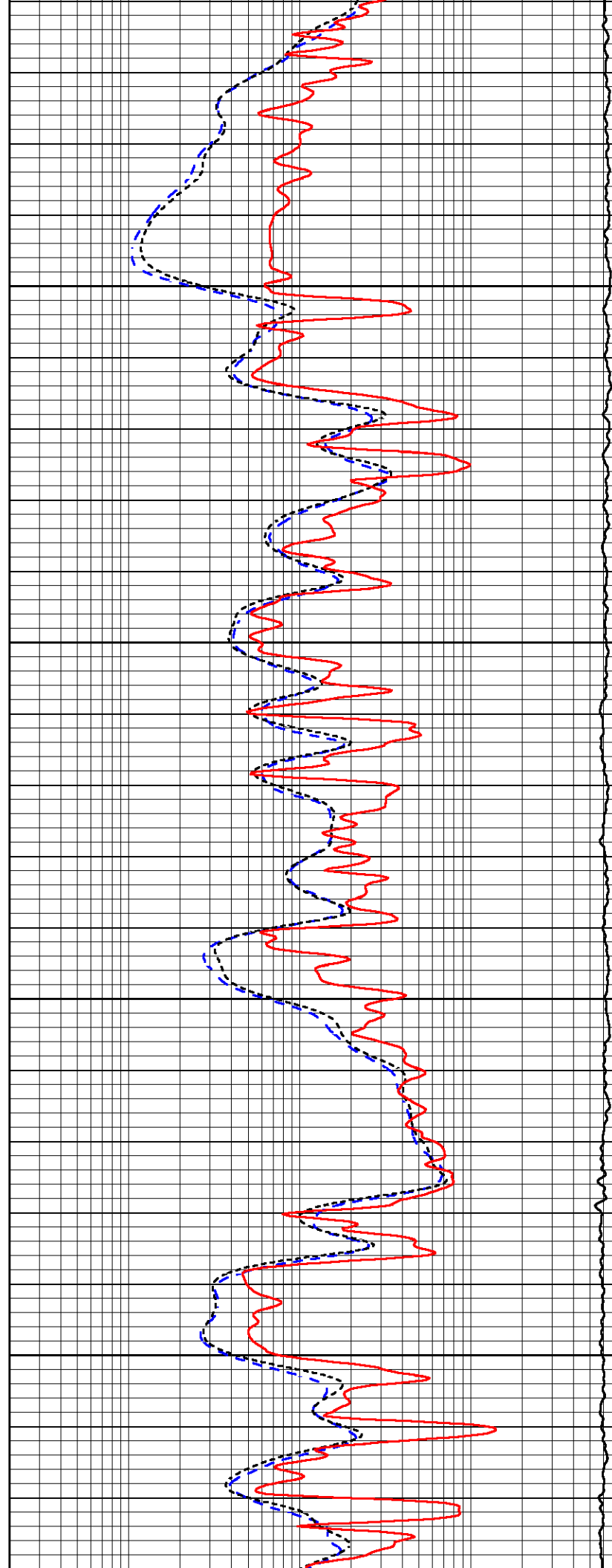


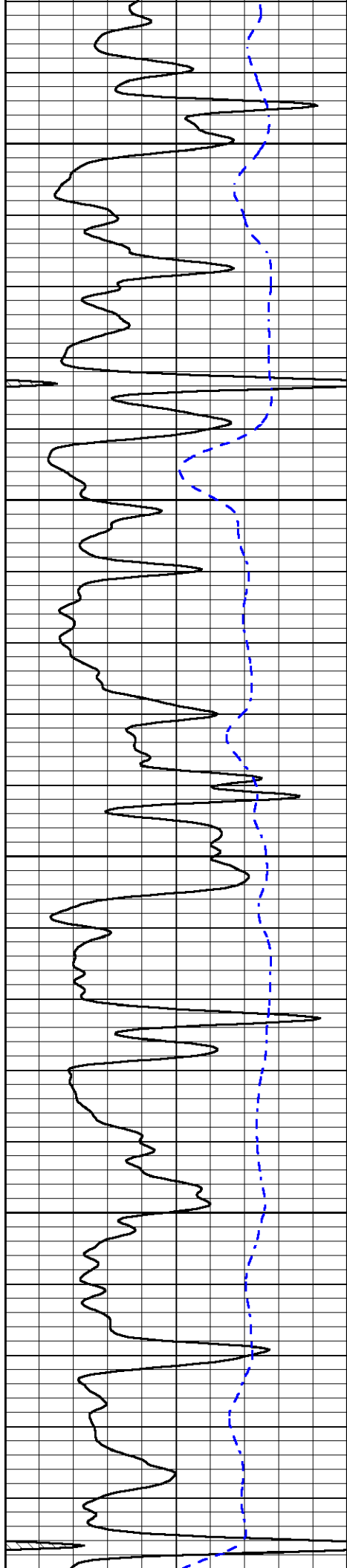
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3300

3350

3400





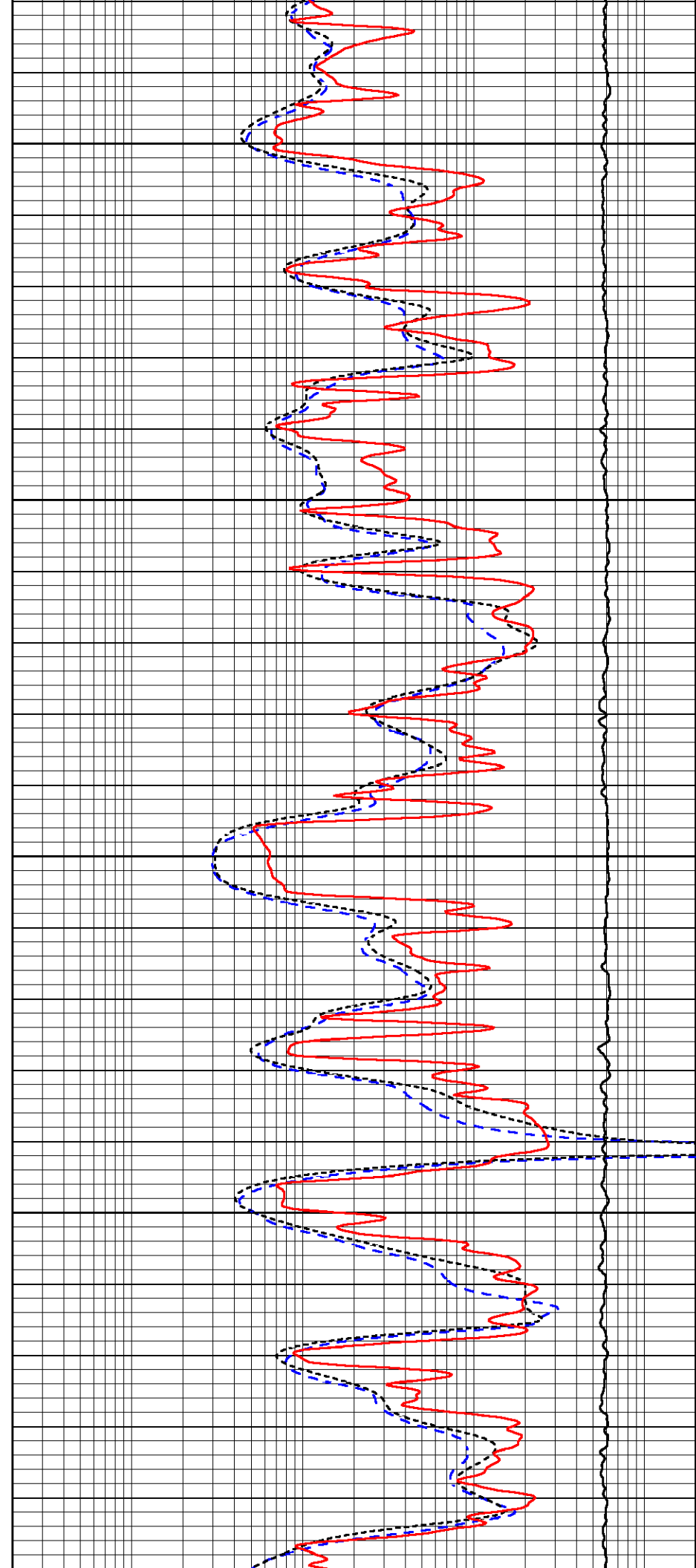
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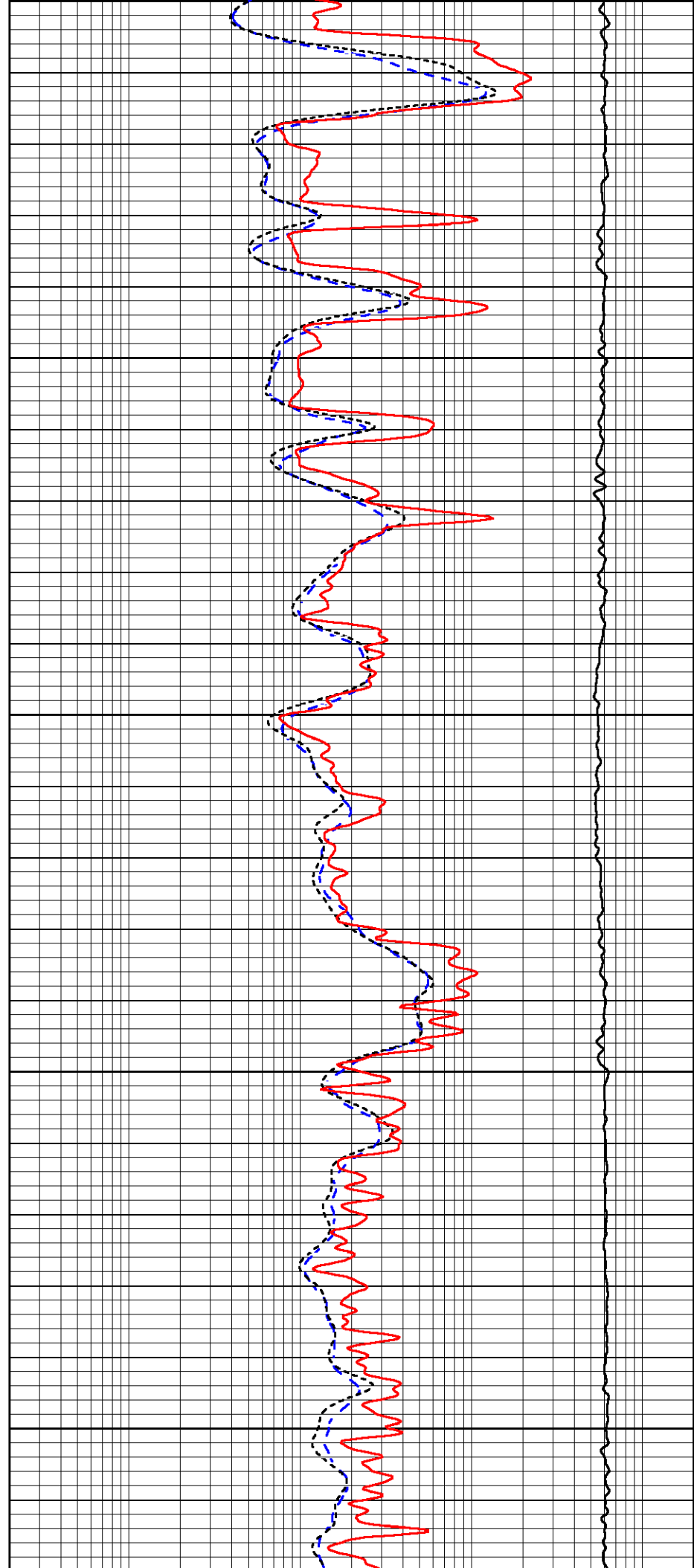
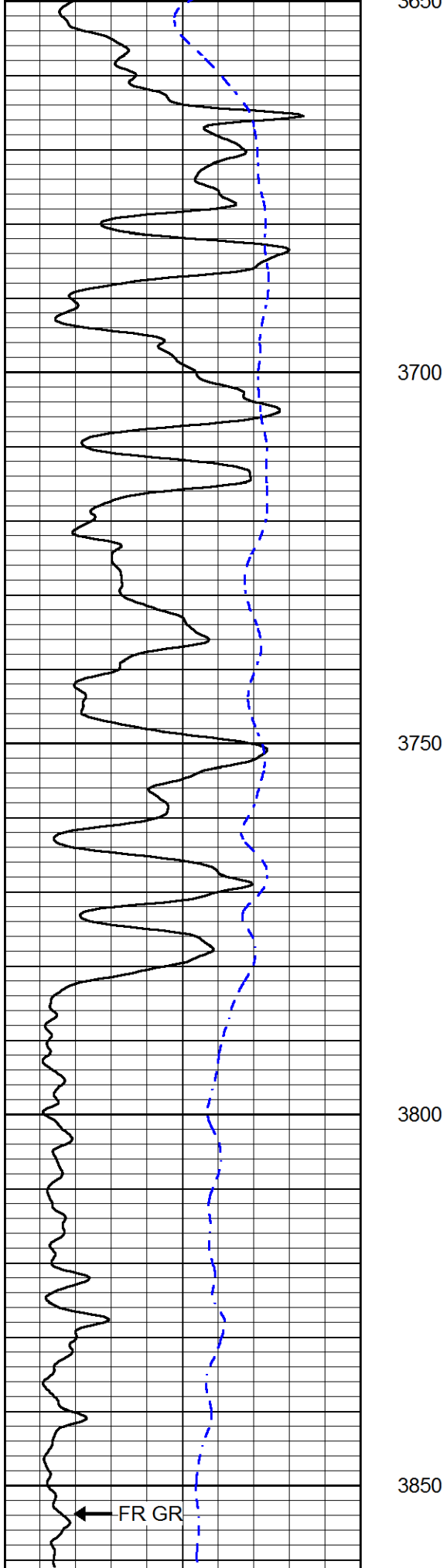
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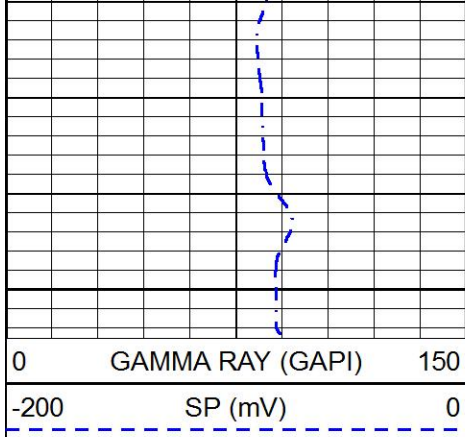
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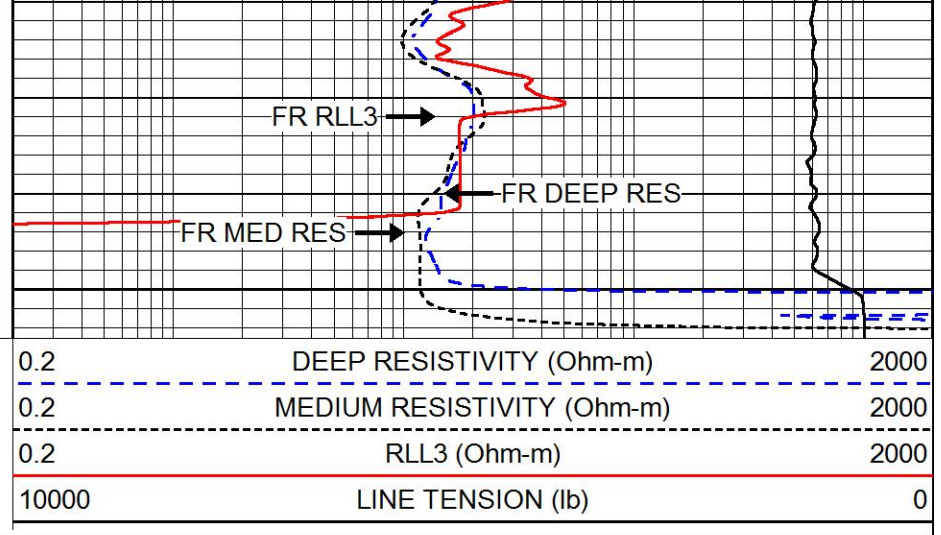
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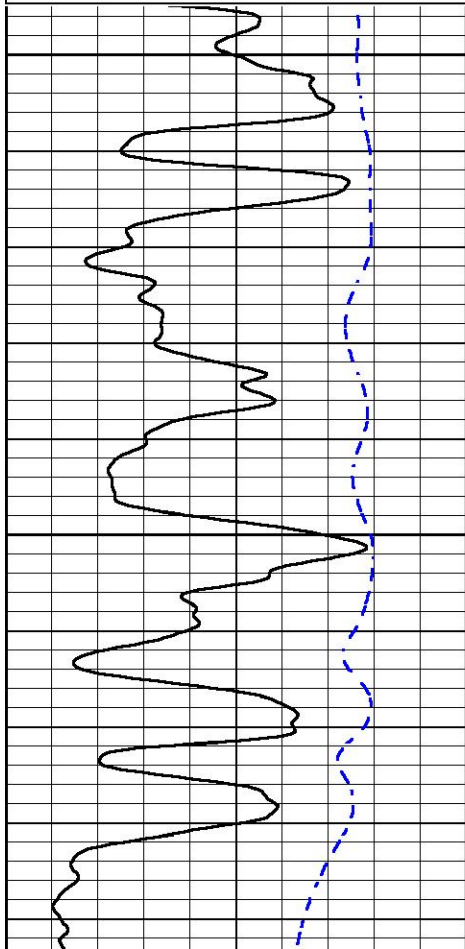
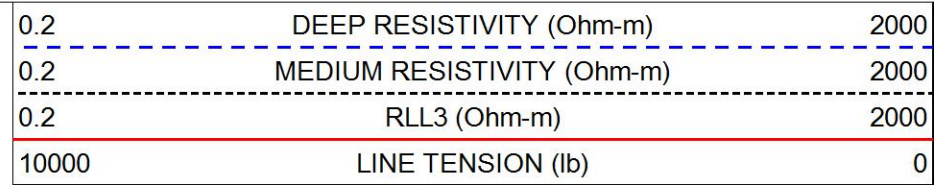
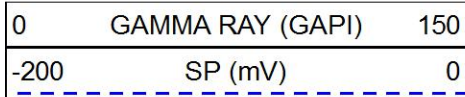




REPEAT SECTION

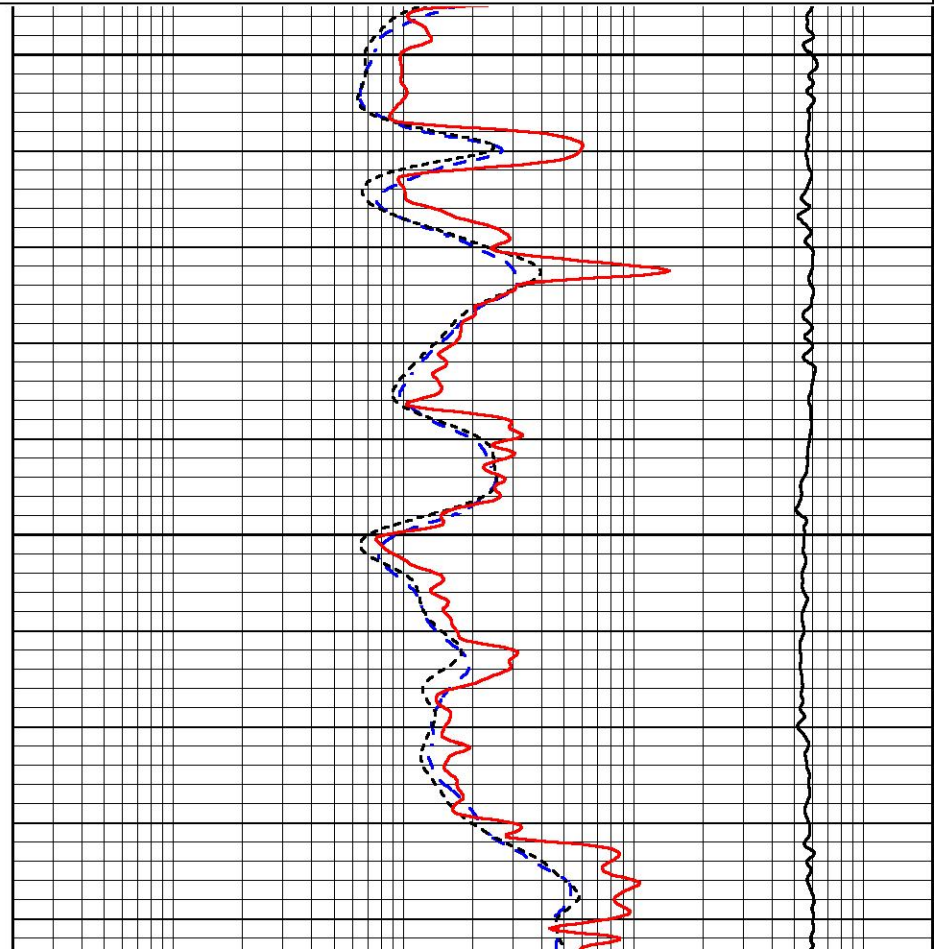
REPEAT PASS

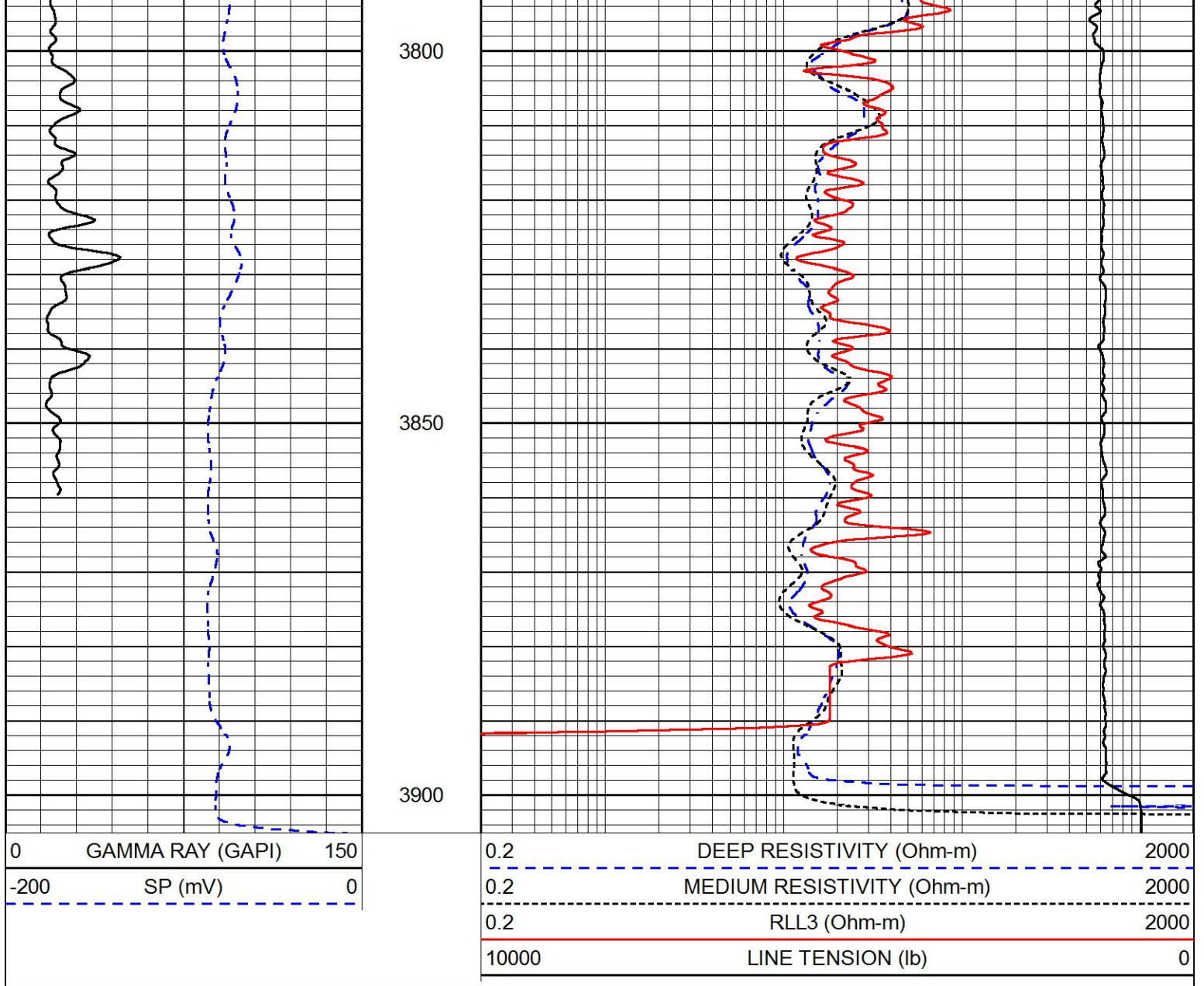
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 Presentation Format _dil
 Dataset Creation Wed Jun 16 03:06:45 2021
 Charted by Depth in Feet scaled 1:240



3700

3750





Company	TDI, Inc.
Well	Schuster Unit #1
Field	Unnamed
County	Ellis
State	Kansas