



MIDWEST WIRELINE

DUAL INDUCTION LOG

Company Cholla Production, LLC
 Well Wrangler #1-24
 Field Nicholson
 County Trego State Kansas

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 Field Nicholson
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 State Kansas

Location: API #: 15-195-23116-00-00
 1203' FSL & 2493' FEL
 SEC 24 TWP 11S RGE 21W
 Other Services: CNL/CDL MEL/BHCS

Date	8/30/2021
Run Number	One
Depth Driller	3875'
Depth Logger	3875'
Bottom Logged Interval	3874'
Top Log Interval	300'
Casing Driller	8.625" @ 305'
Casing Logger	302'
Bit Size	7.875"
Type Fluid in Hole	Chemical
Salinity, ppm CL	4900
Density / Viscosity	9.4 60
pH / Fluid Loss	10.0 7.6
Source of Sample	FLOWLINE
Rm @ Meas. Temp	0.50 @ 74
Rmt @ Meas. Temp	0.38 @ 74
Rmc @ Meas. Temp	0.68 @ 74
Source of Rmf / Rmc	CHARTS
Rm @ BHT	0.32 @ 115
Operating Rig Time	4 Hours
Max Rec. Temp. F	115
Equipment Number	P-24
Location	HAYS
Recorded By	D. Schmidt
Witnessed By	Charlie Sturdavant

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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,
 North to Sleepy Hollow Rd,
 West to county line, 1.6 North,
 West into

Log Measured From: Kelly Bushing 8 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: Charlie Sturdavant Secondary Witness: Secondary Witness: Secondary Witness:
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Case No	Offset (ft)	Depth (ft)	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	33.00		GR-M&W (233-M&W)	3.00	3.50	50.00
CNLSC CNSSC	29.90 29.15		CNT-M&W (207-MW)	5.50	3.50	100.00
LSD DCAL SSD	20.85 20.83 20.35		CDL-M&W (934-226)	8.50	4.00	250.00
RLL3F RLL3	15.80 15.80		DIL-PSI HIGH TEMP (952-828)	18.50	3.50	220.00
CILD	8.00		CILD	8.00		
CILM	4.70		CILM	4.70		
SP	0.20		SP	0.20		

Dataset: cholla_wrangler 1-24.db: field/well/stack/pass4.1
 Total length: 35.50 ft
 Total weight: 620.00 lb
 O.D.: 4.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\cholla_wrangler 1-24.db
 Dataset field/well/stack/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	0	0	0	355	80	Off	3875

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

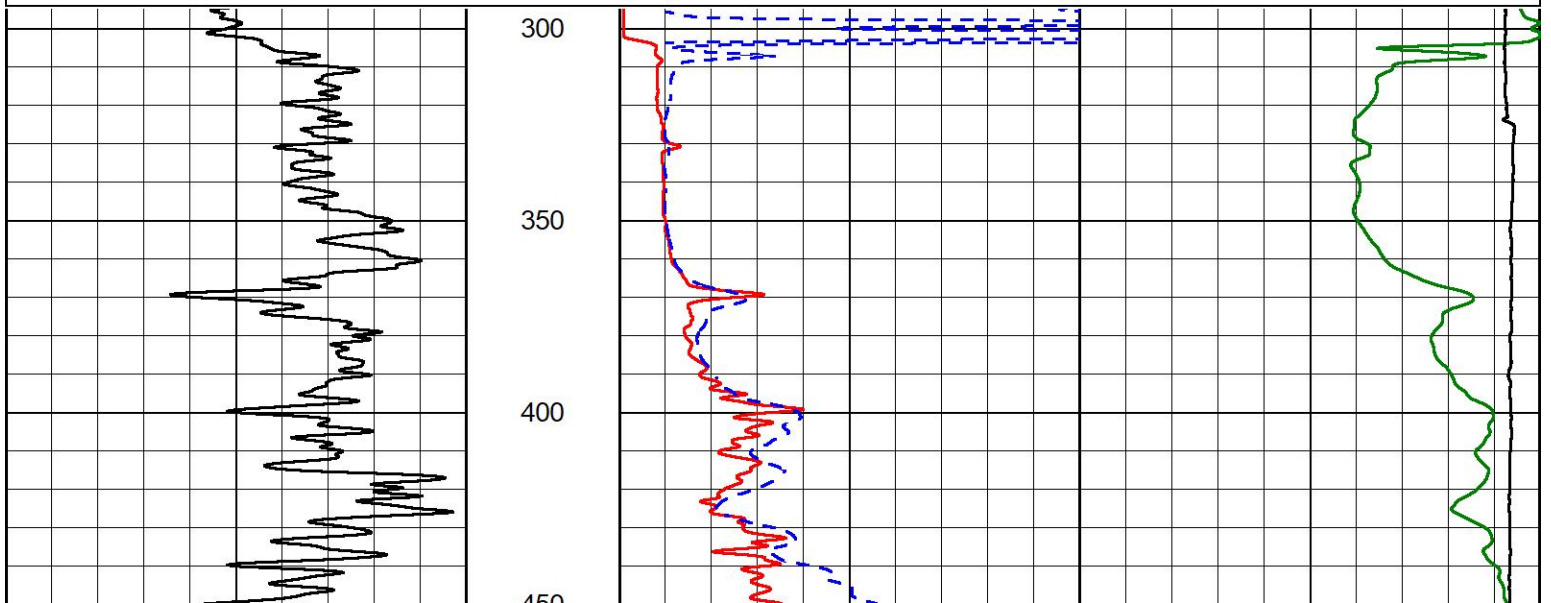


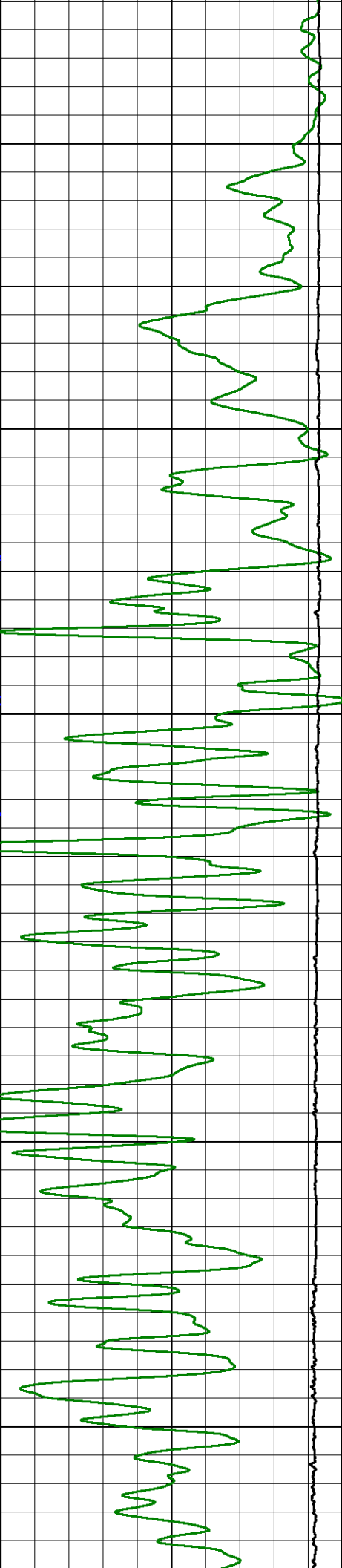
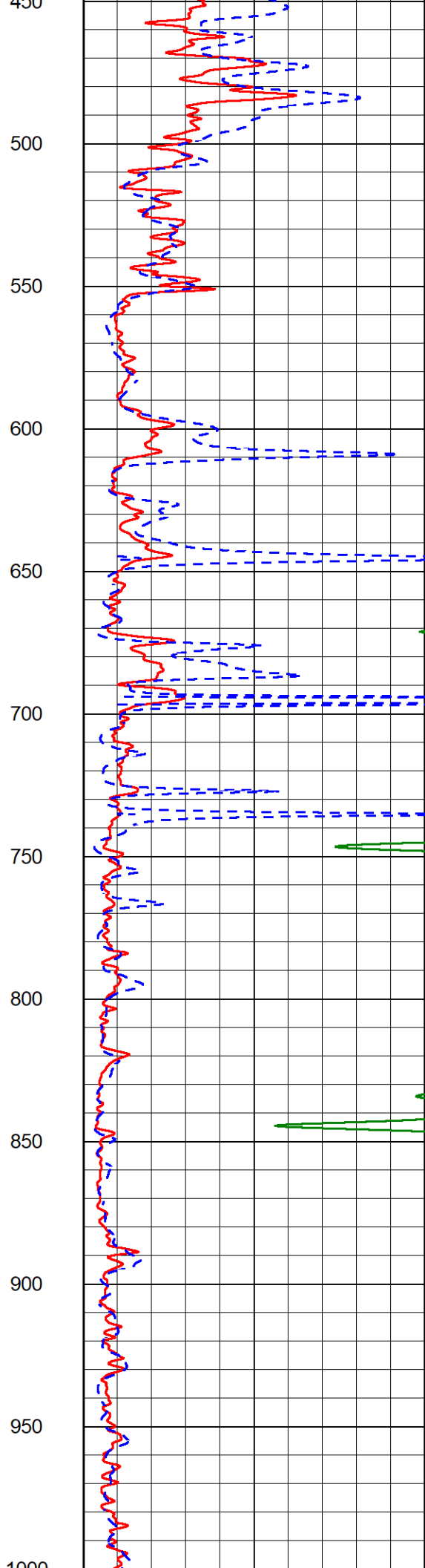
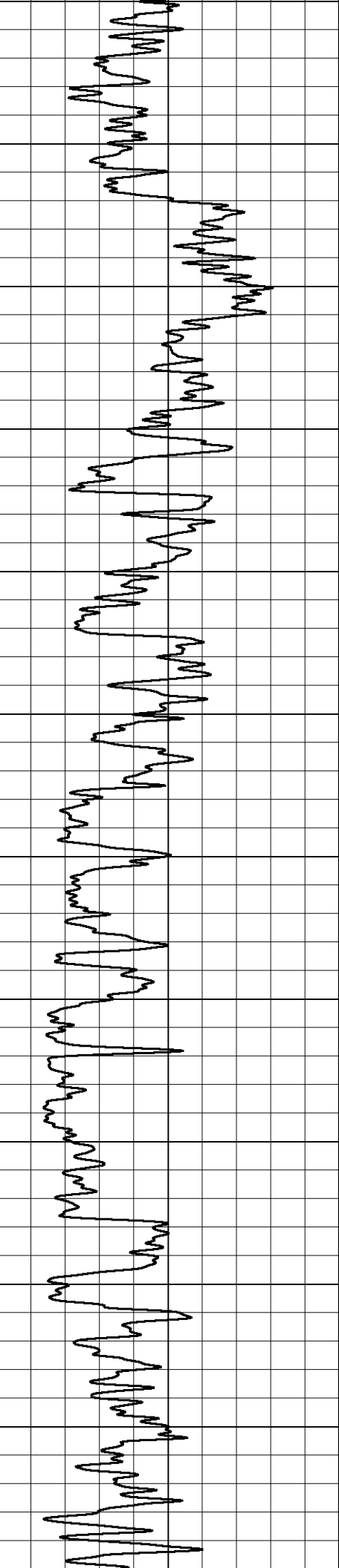
2" SCALE RESISTIVITY

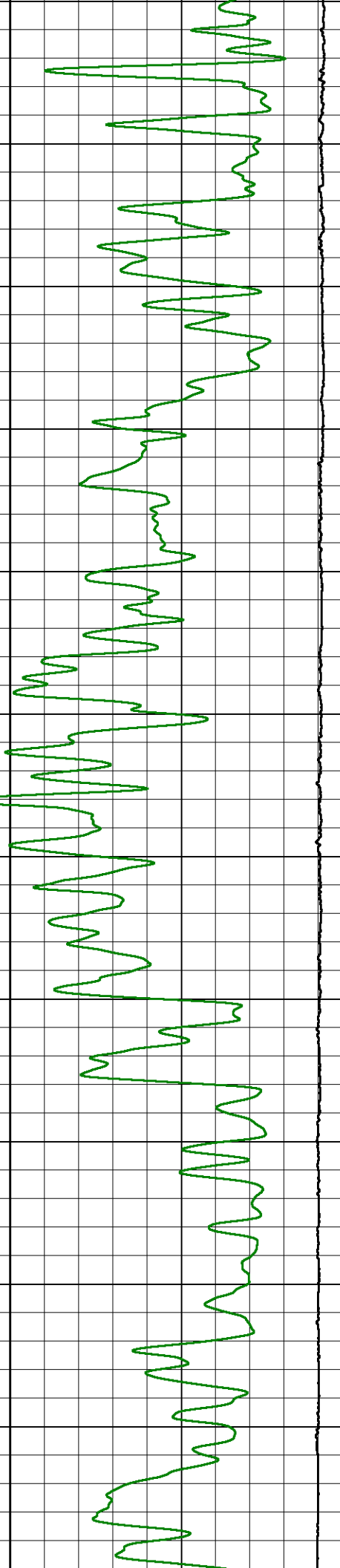
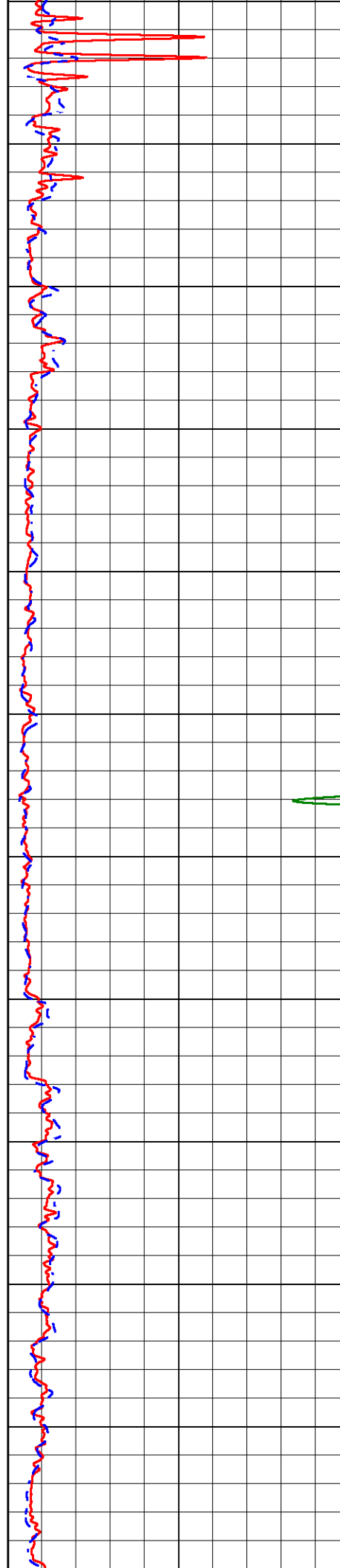
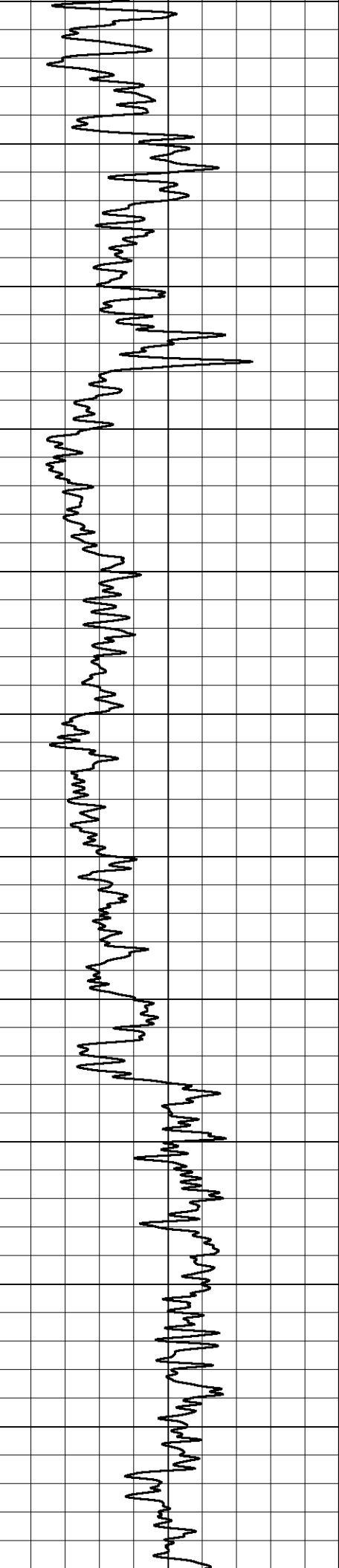
MAIN PASS

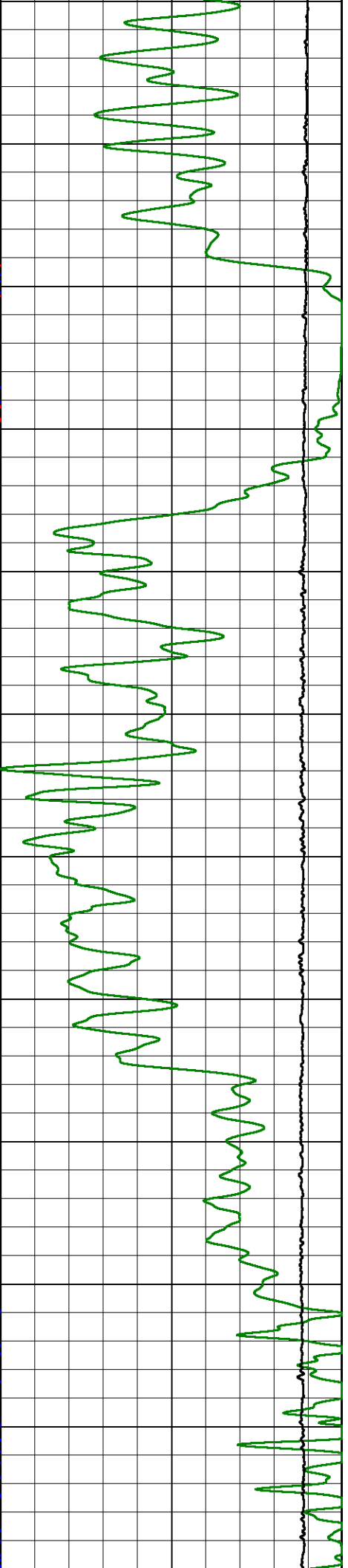
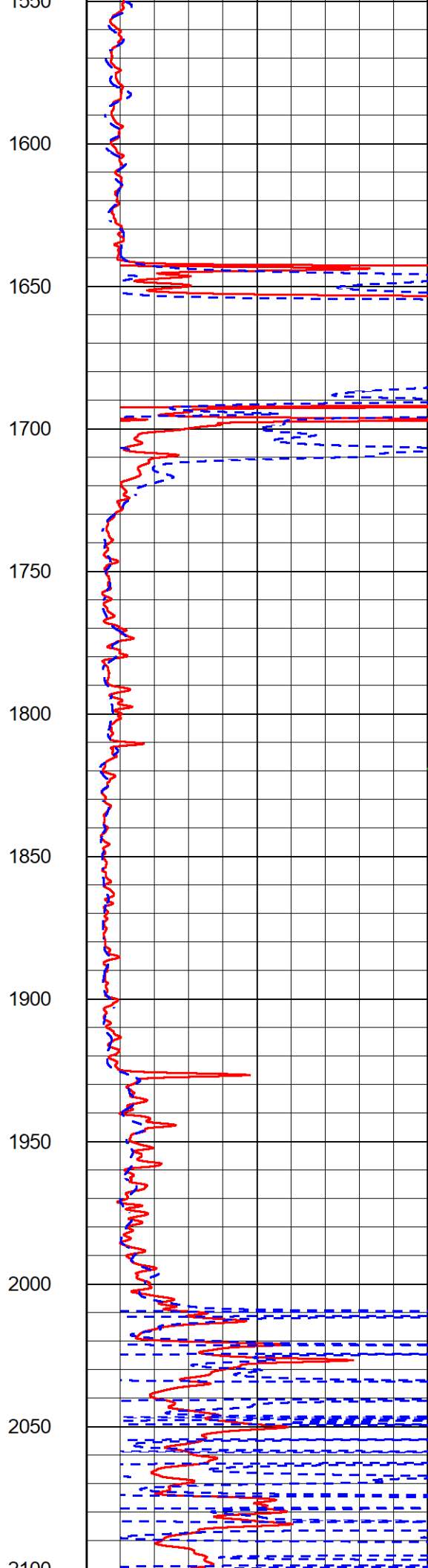
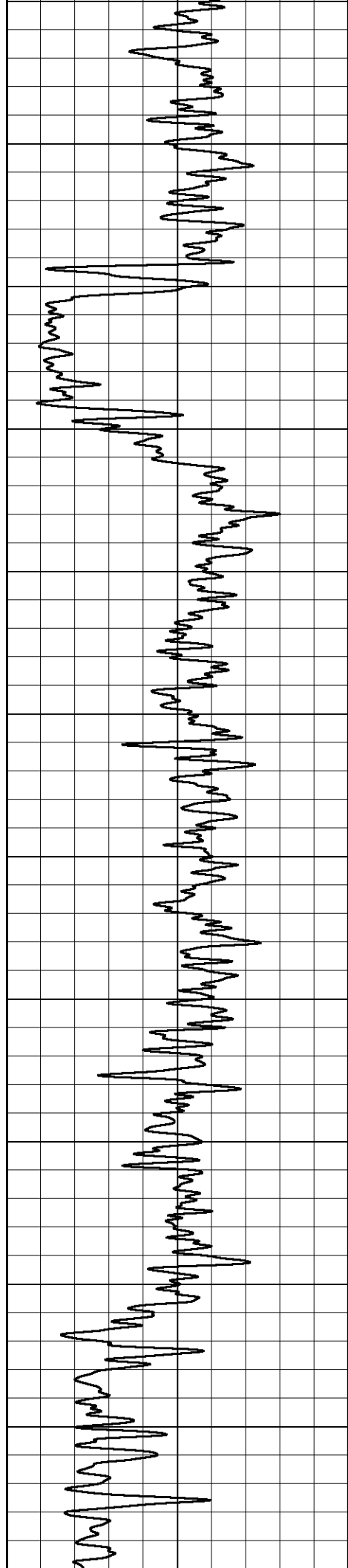
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 Dataset Creation Mon Aug 30 08:10:53 2021
 Charted by Depth in Feet scaled 1:600

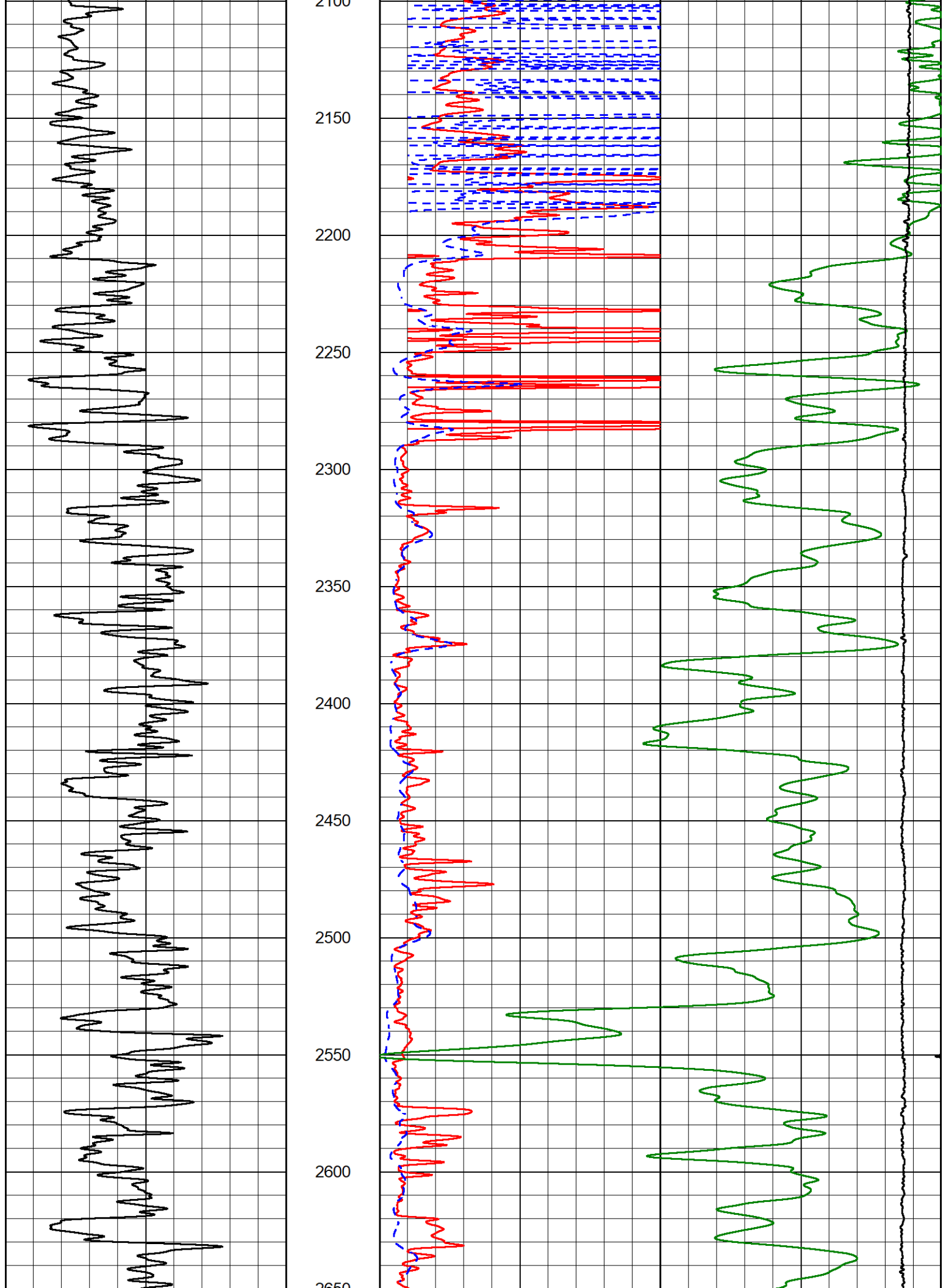
GAMMA RAY (GAPI)	1000	CONDUCTIVITY (mmho/m)	0
	15000	Line Tension (lb)	0
	0	RLL3 (Ohm-m)	50
	0	RILD (Ohm-m)	50
	50	RLL3 (Ohm-m)	200
	50	Deep Resistivity (Ohm-m)	200

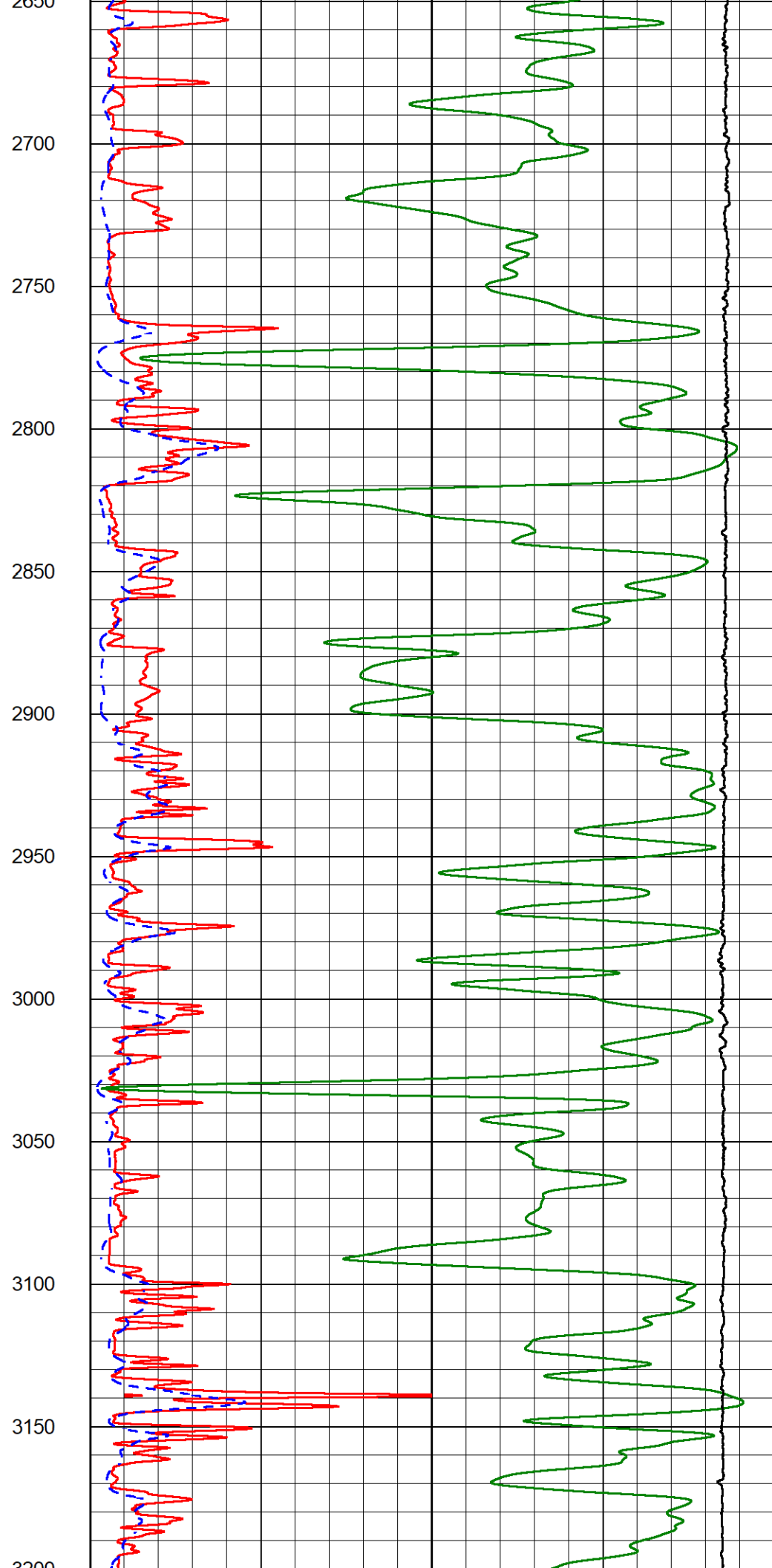
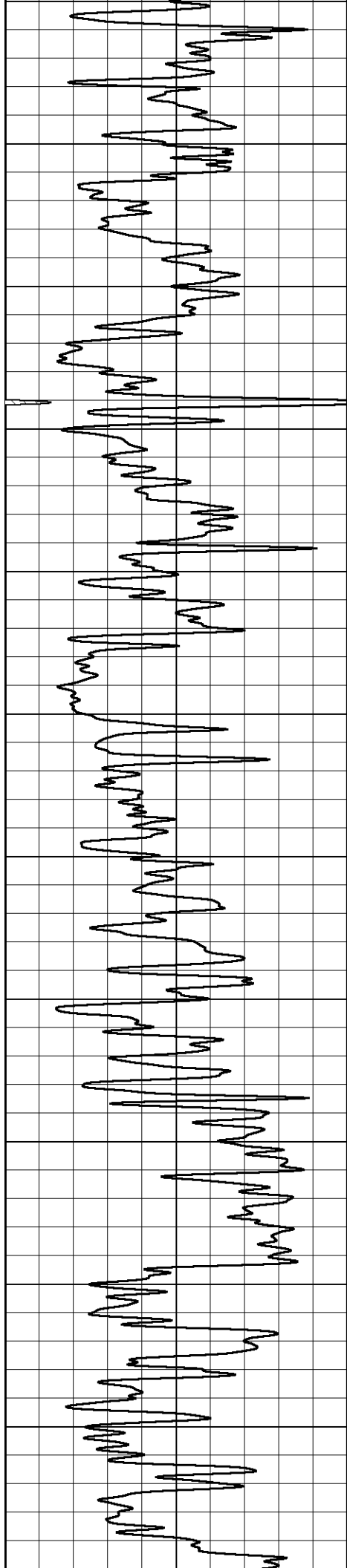


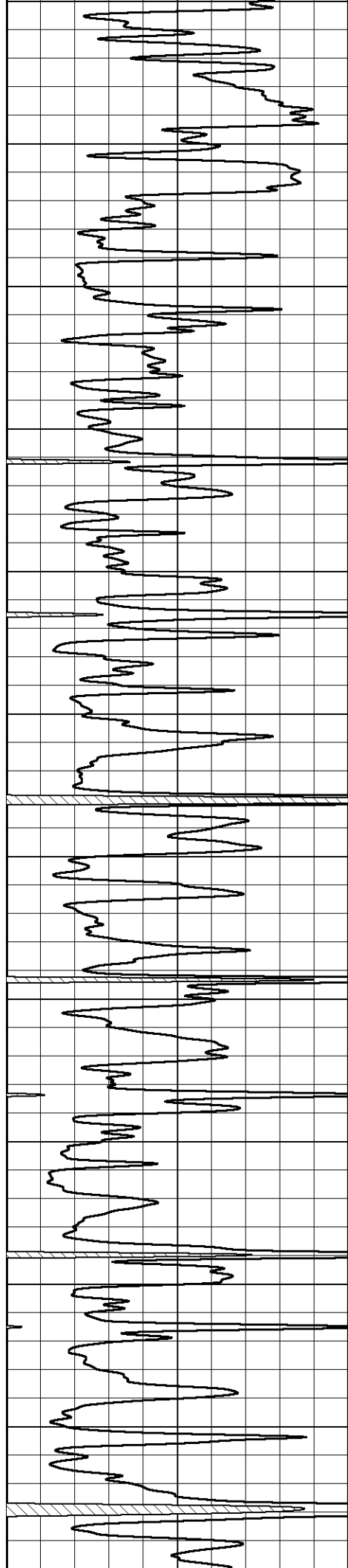




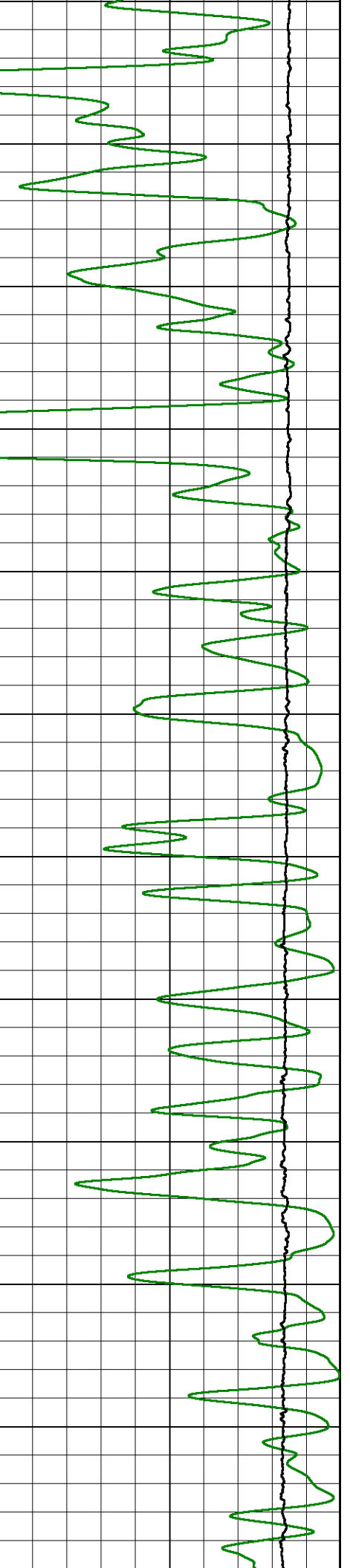
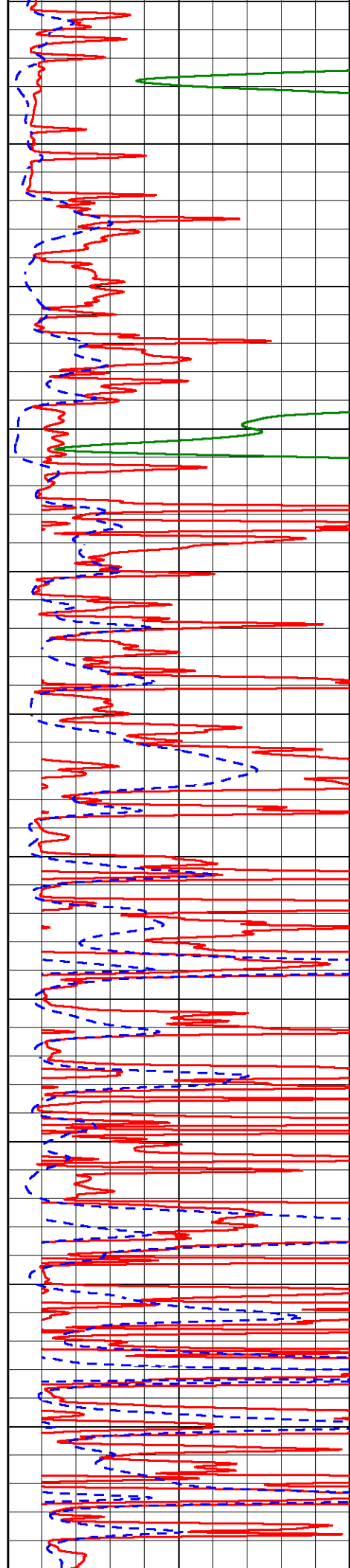


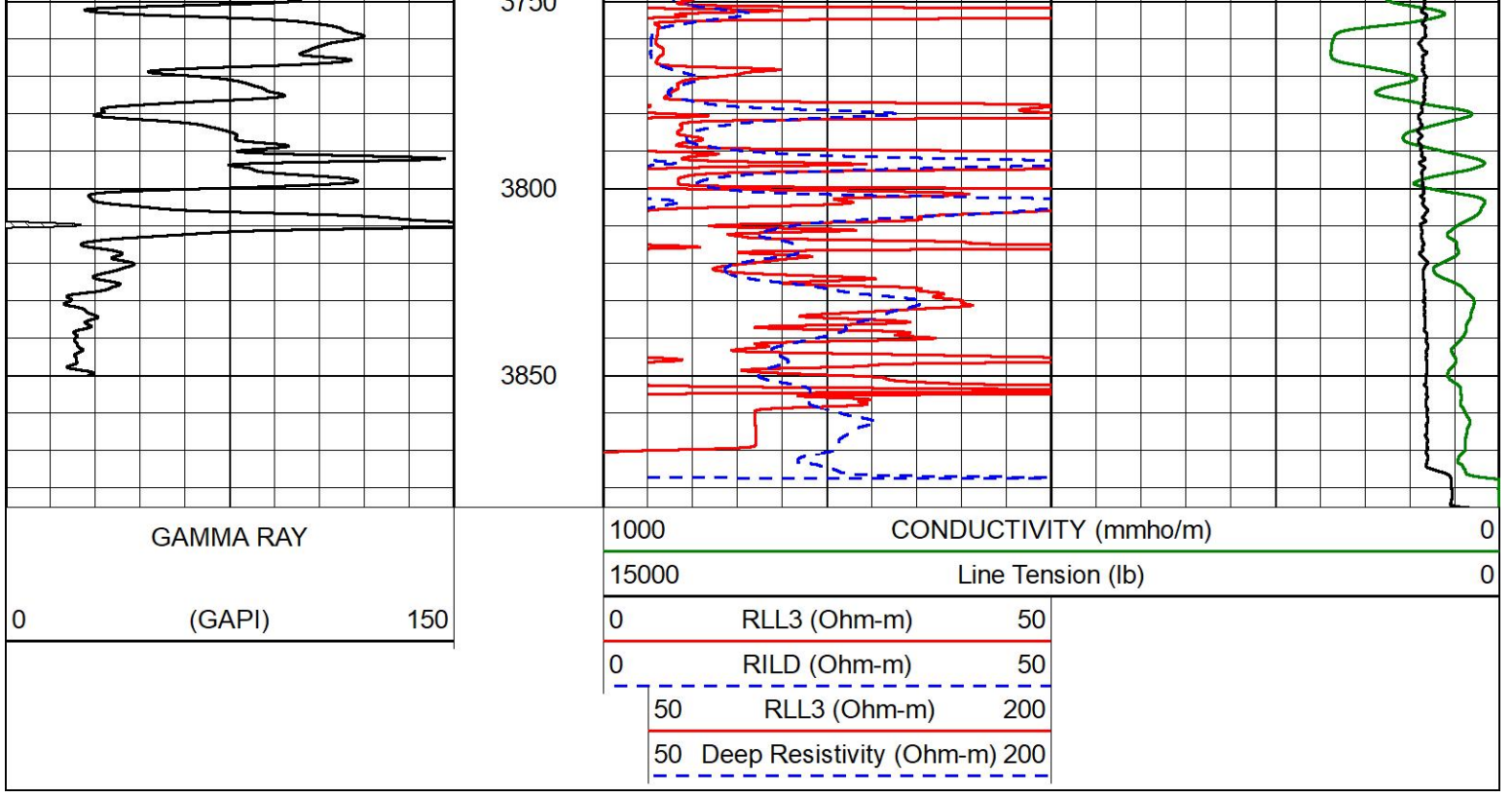






3200
3250
3300
3350
3400
3450
3500
3550
3600
3650
3700
3750



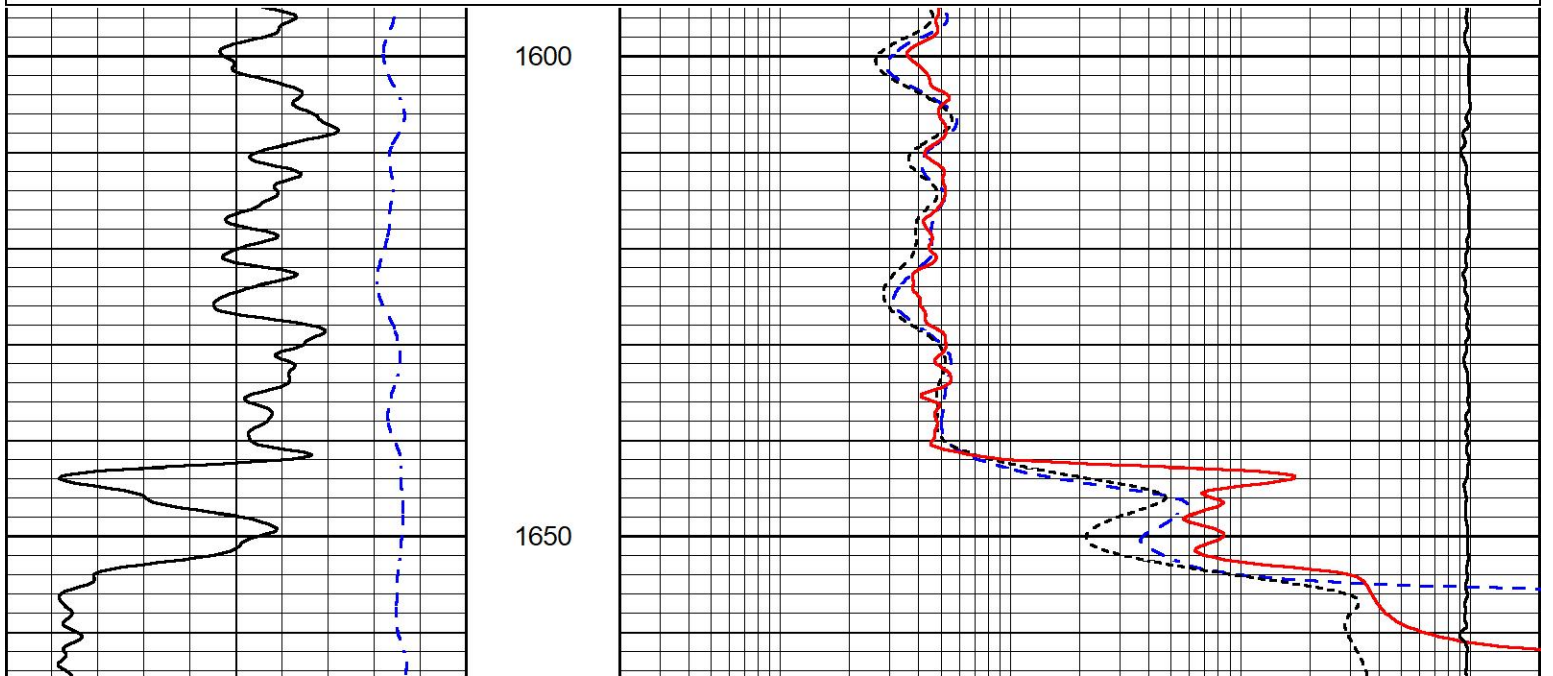


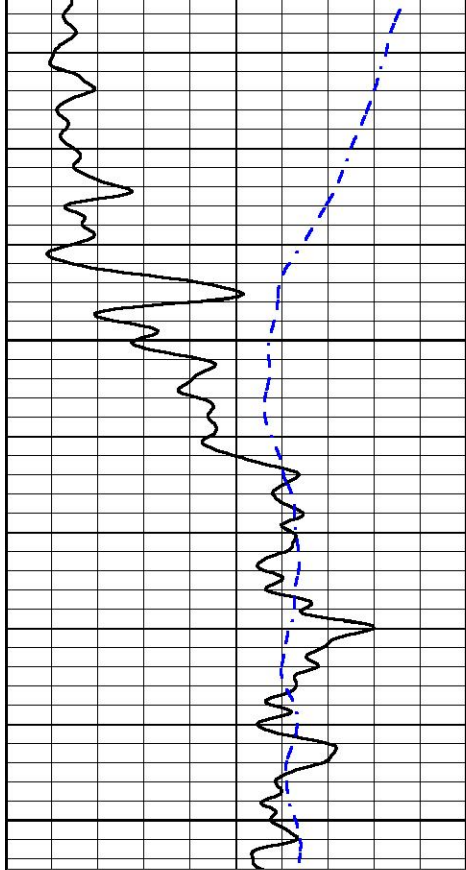
ANHYDRITE SECTION

MAIN PASS

Database File cholla_wrangler 1-24.db
 Dataset Pathname stack/pass7.1
 Presentation Format _dil
 Dataset Creation Mon Aug 30 08:12:23 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

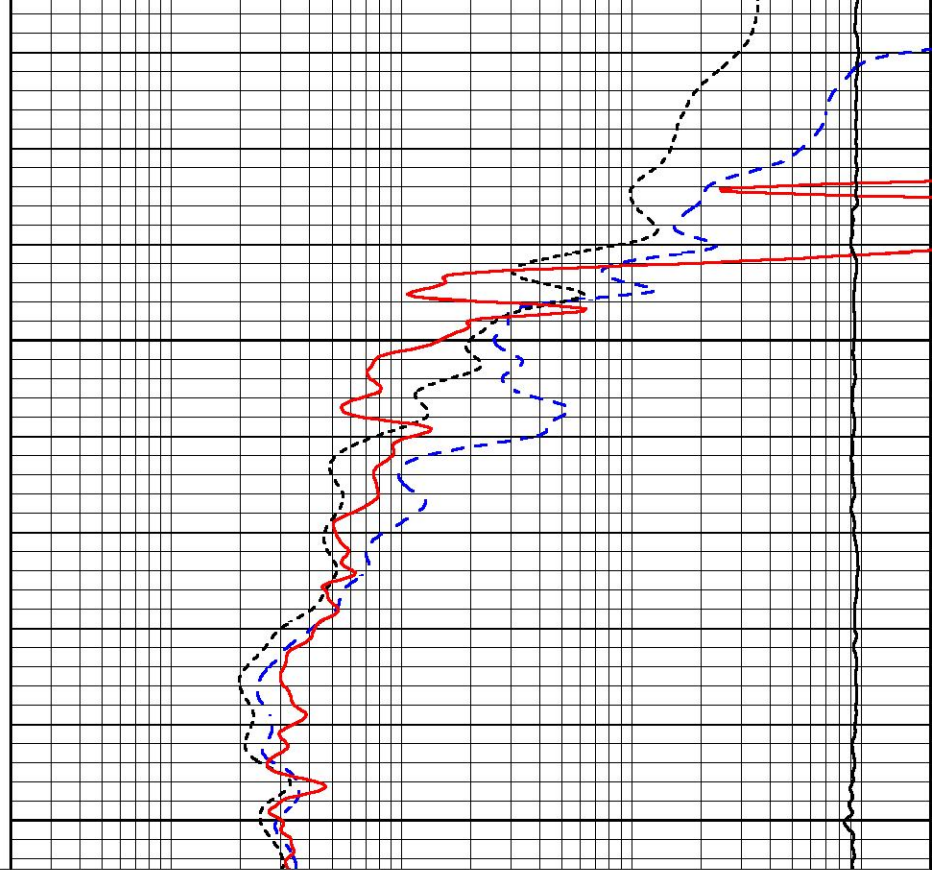




1700

1750

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



MIDWEST WIRELINE

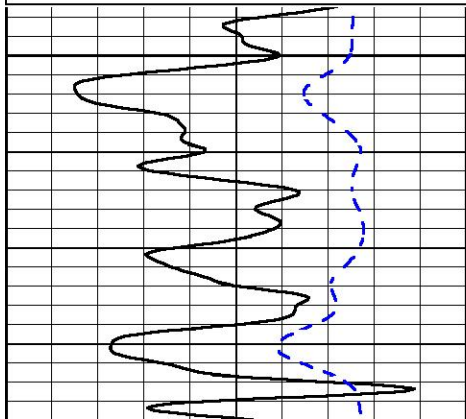
DETAIL SECTION

MAIN PASS

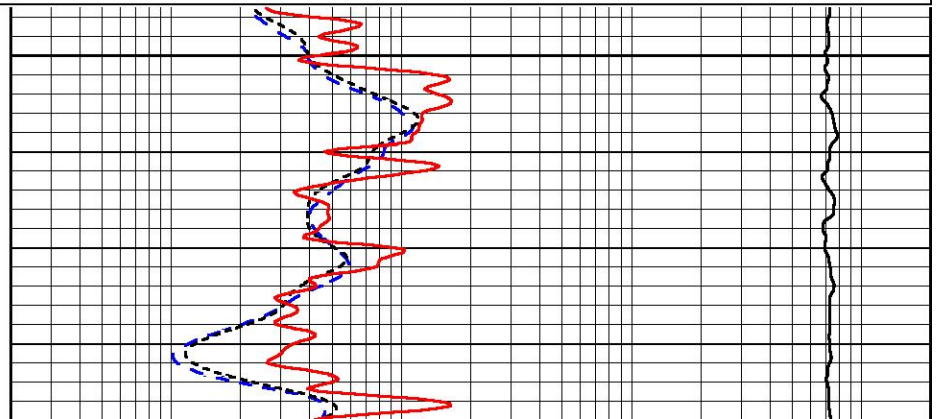
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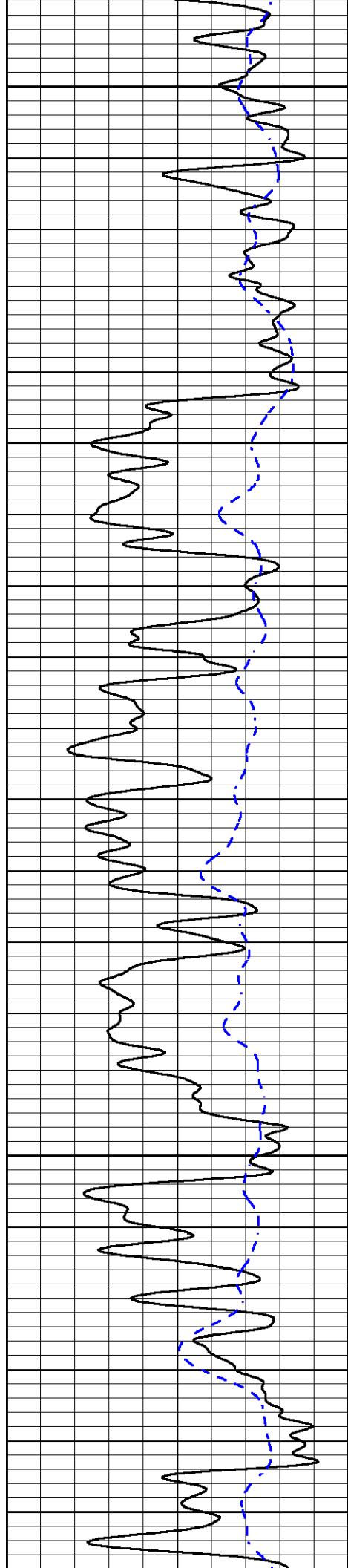
0 GAMMA RAY (GAPI) 150
 -200 SP (mV) 0

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



3000





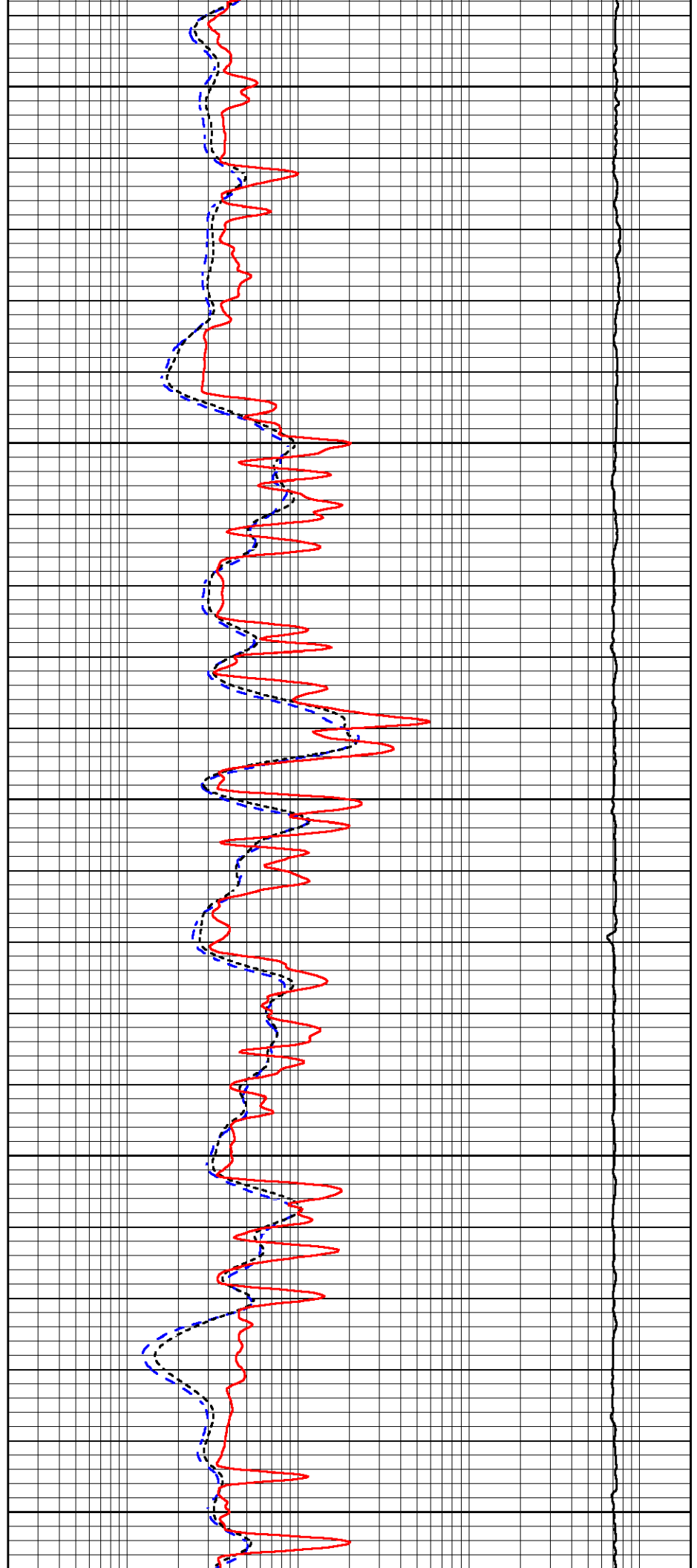
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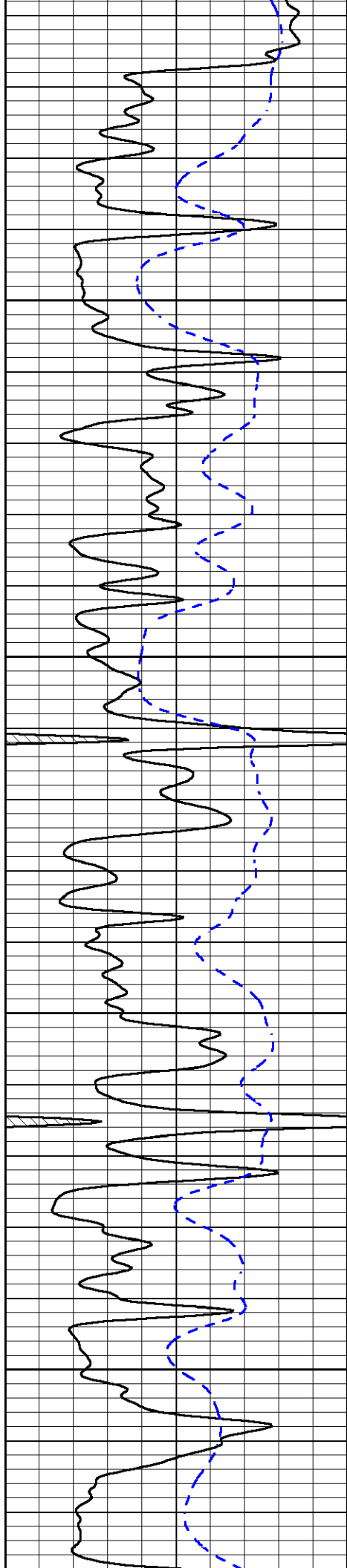
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3150

3200

3250



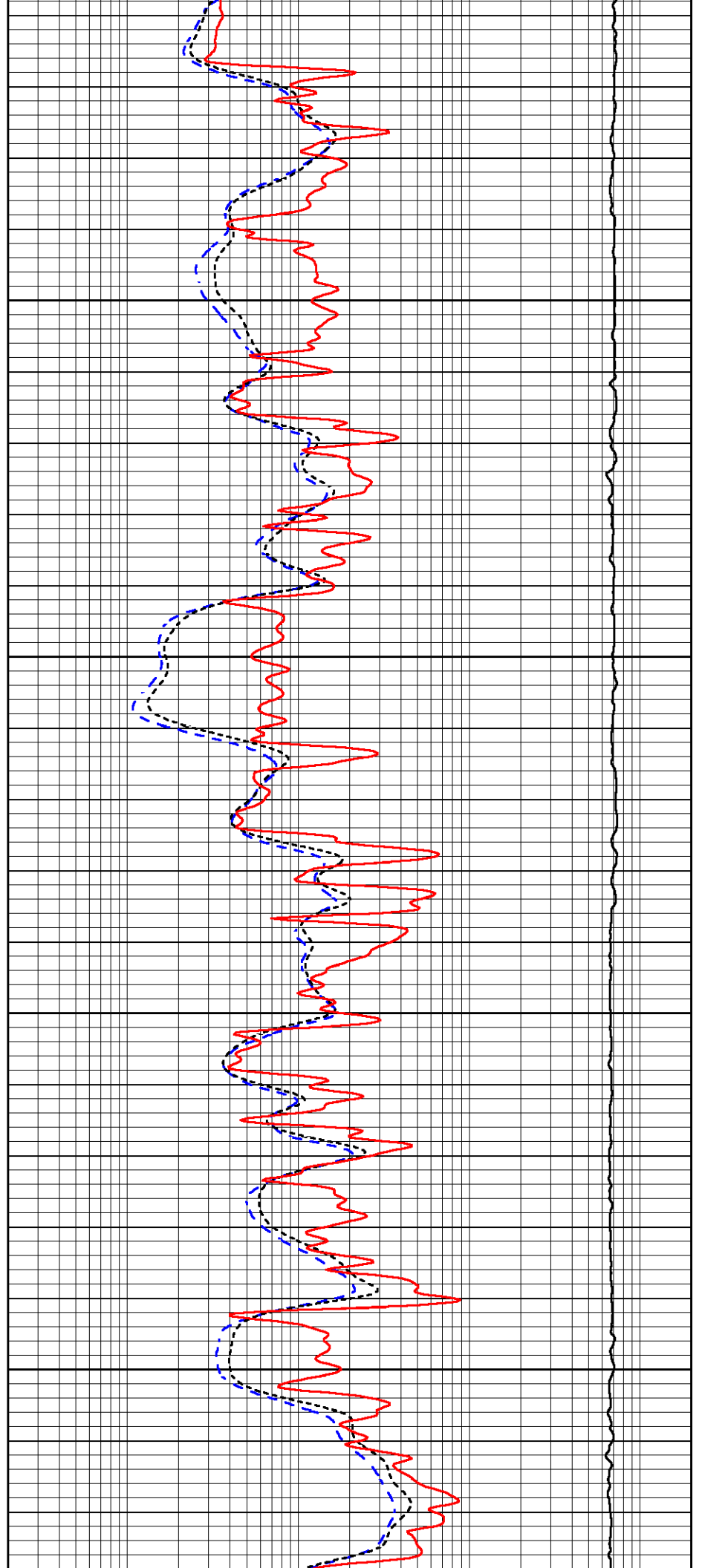


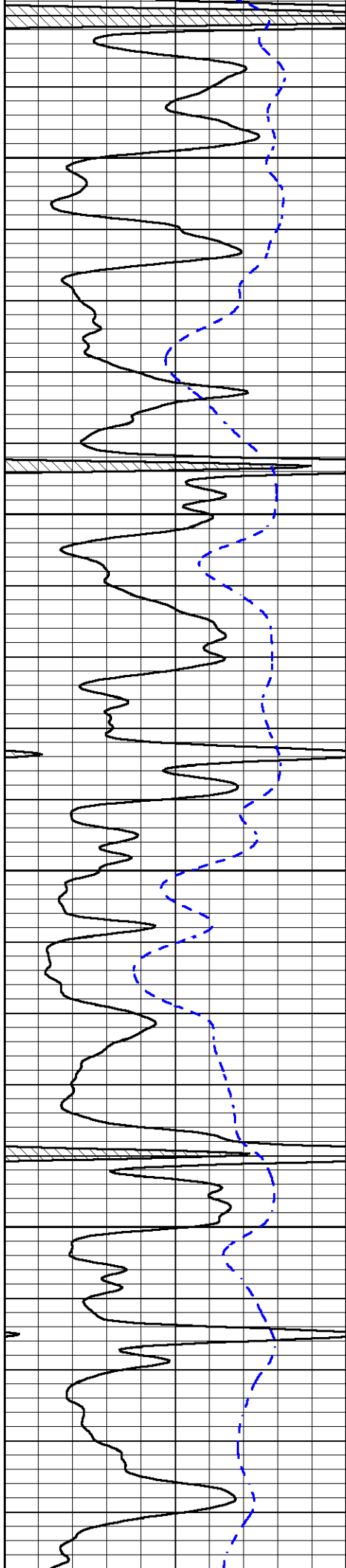
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3350

3400

3450



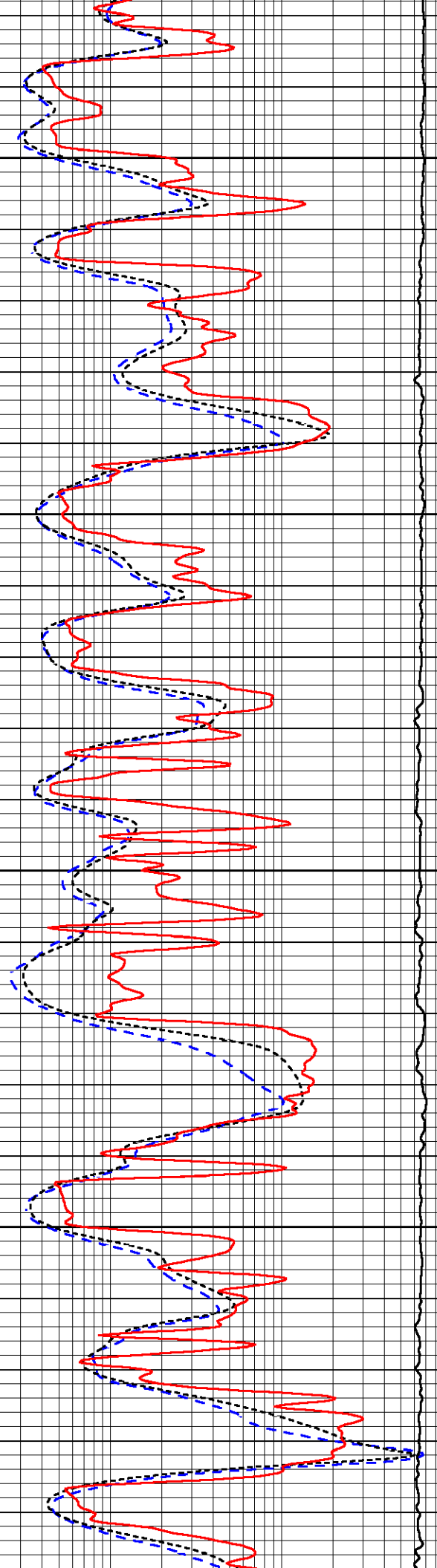


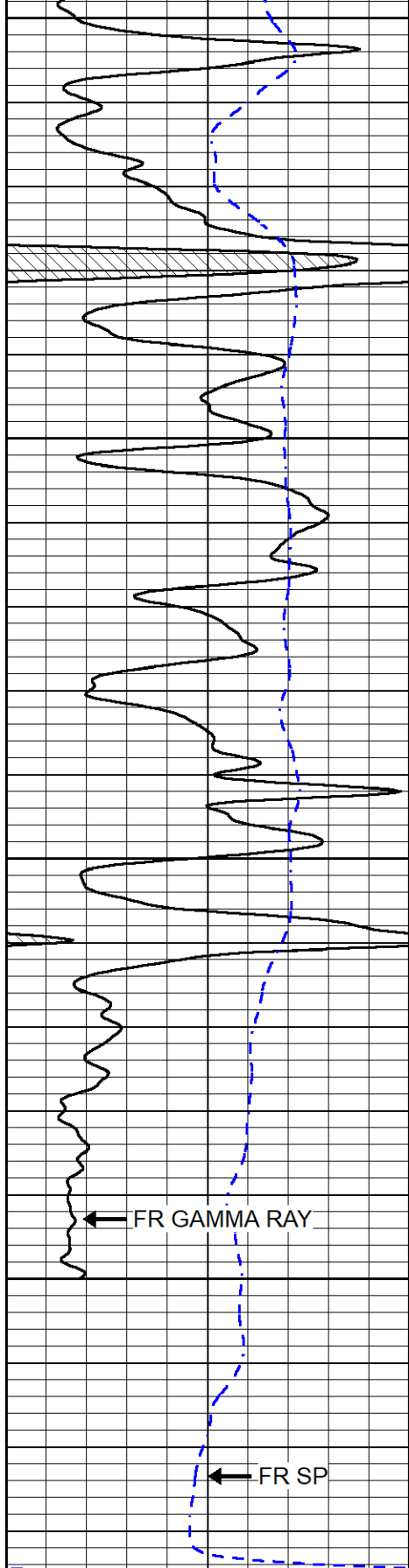
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3550

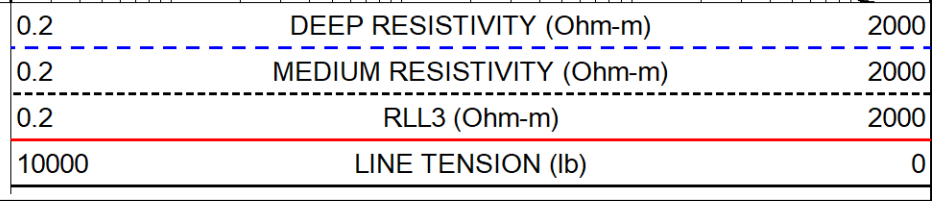
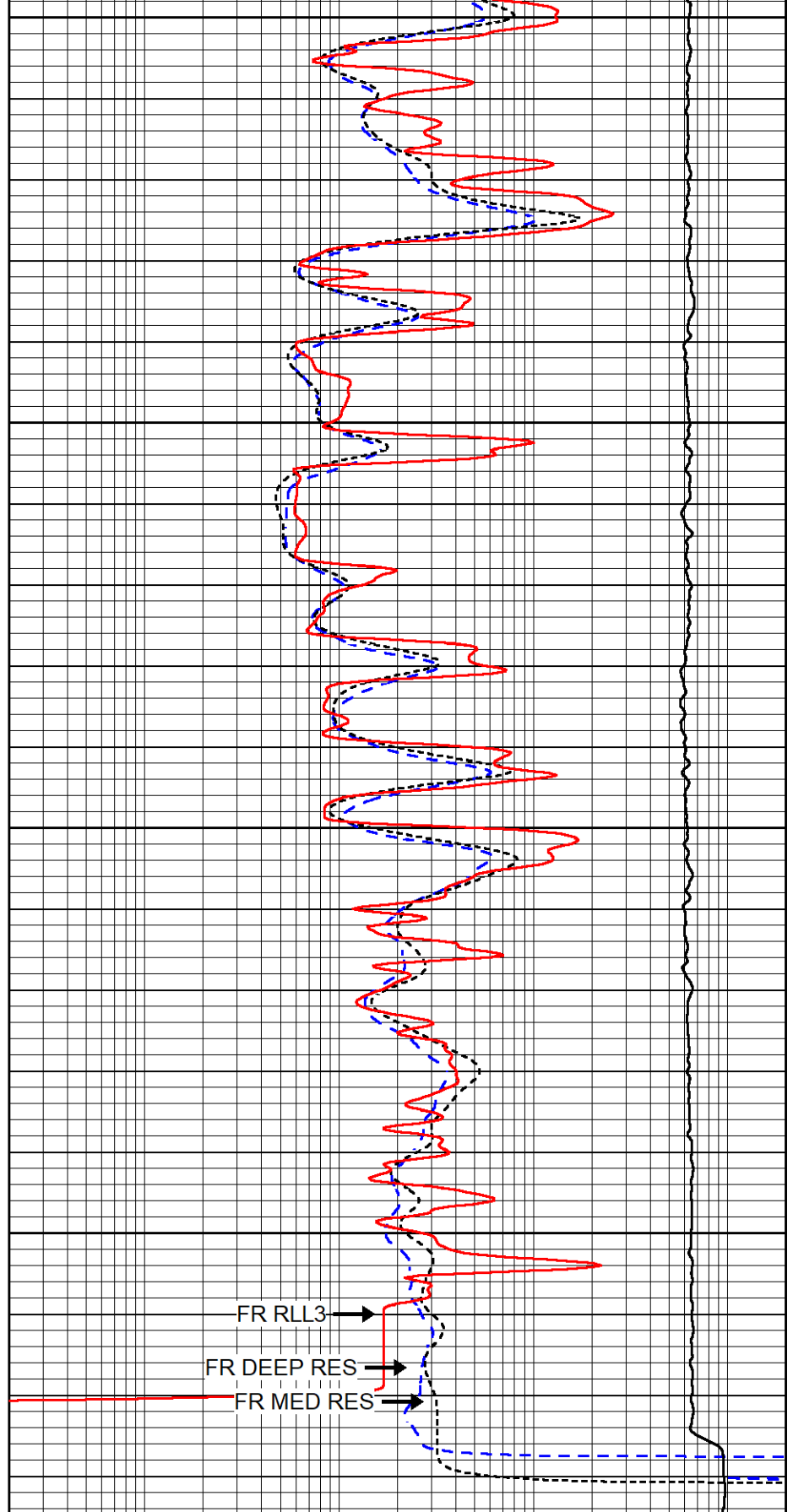
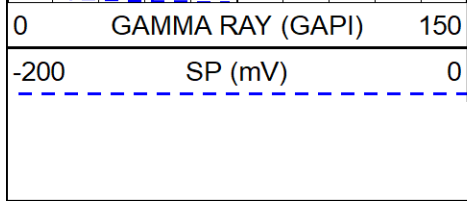
3600

3650





3700
3750
3800
3850



REPEAT SECTION

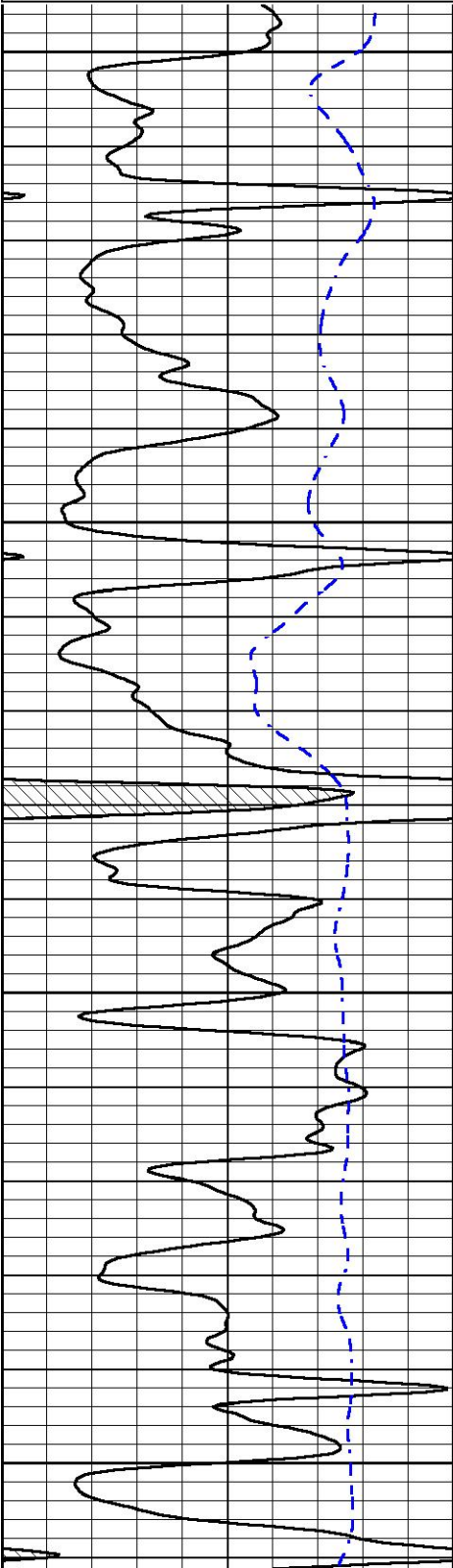


REPEAT PASS

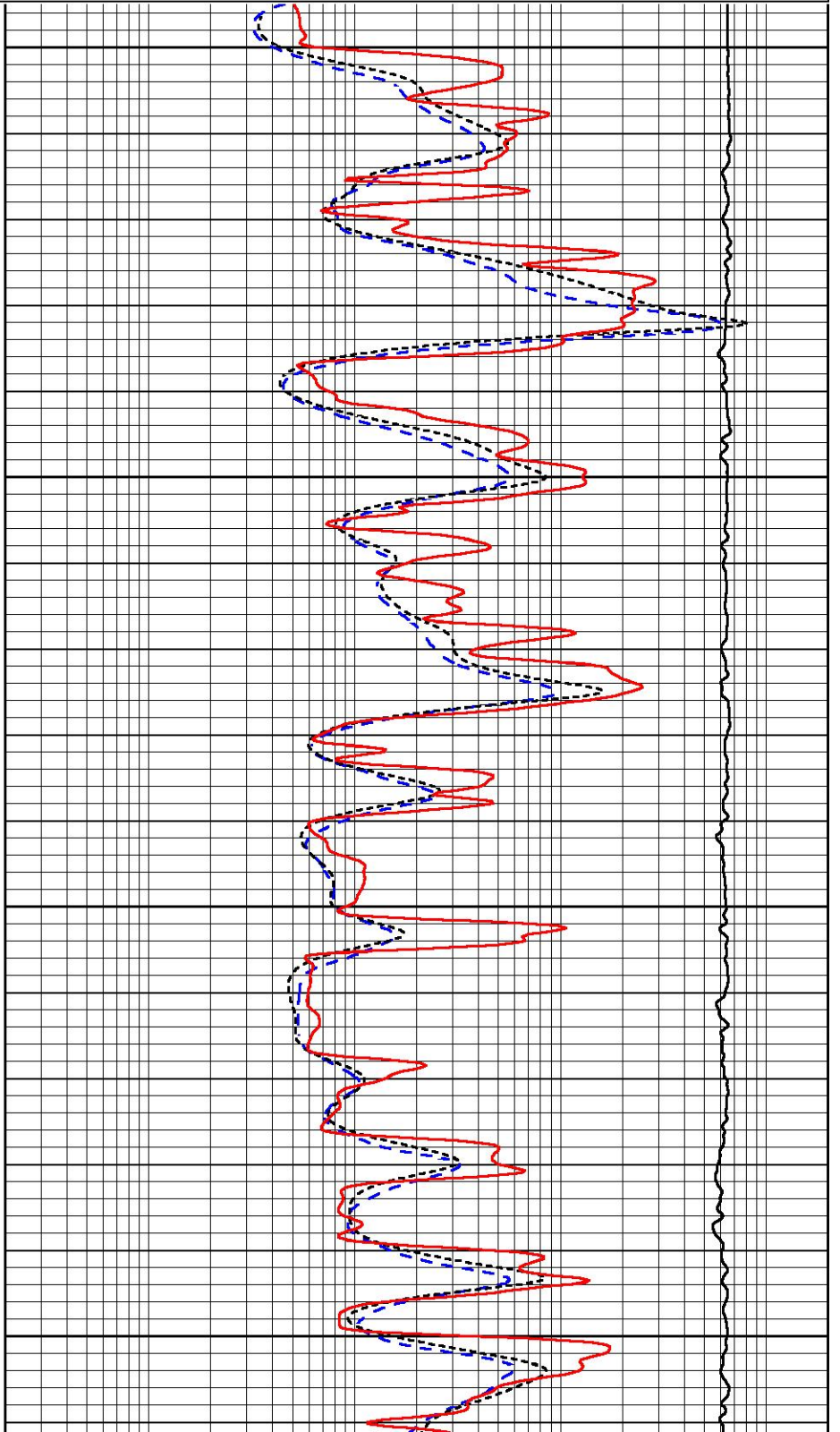
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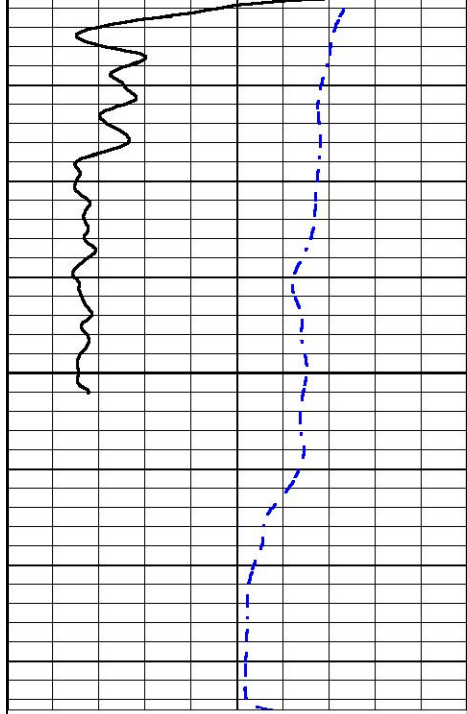
0	GAMMA RAY (GAPI)	150
-200	SP (mV)	0

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



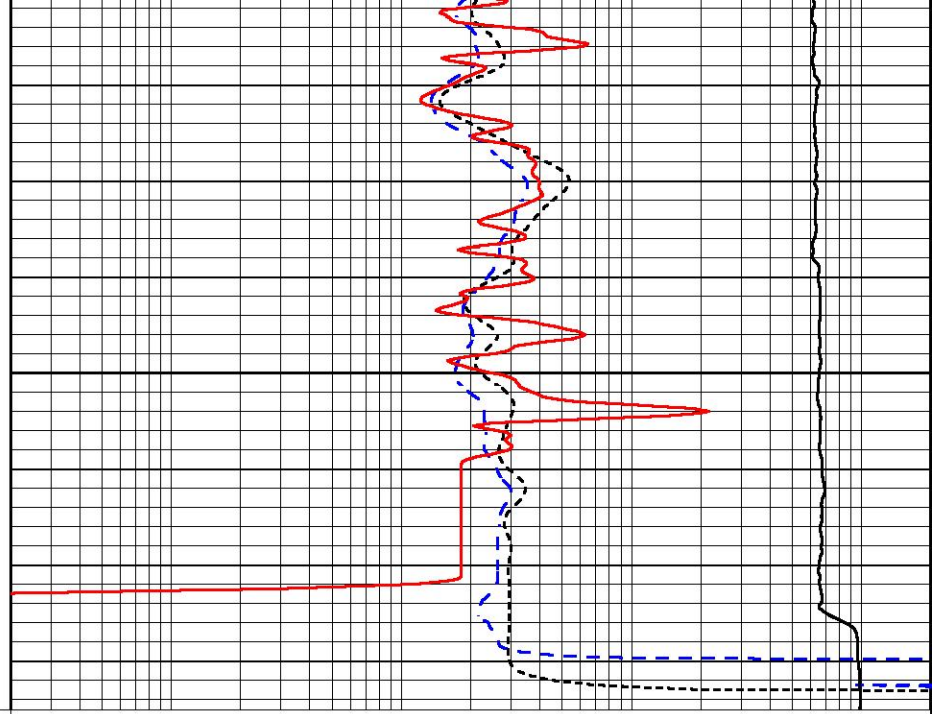
3650
3700
3750
3800





3850

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



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