



MIDWEST WIRELINE

DUAL INDUCTION LOG

Company Mike Kelso Oil, Inc.
Well Thomas Farms C-4
Field Chase-Sillica
County Barton
State Kansas

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Location: API #: 15-009-26385-00-00
 886 FSL & 2017
 SEC 34 TWP 19S RGE 11W
 Permanent Datum Ground Level Elevation 1771
 Log Measured From Kelly Bushing
 Drilling Measured From Kelly Bushing
 Other Services
 CNL/CDL
 MEL
 Elevation
 K.B. 1779
 D.F.
 G.L. 1771

Date	3/13/2023
Run Number	One
Depth Driller	3420
Depth Logger	3416
Bottom Logged Interval	3415
Top Log Interval	250
Casing Driller	8.625 @ 250
Casing Logger	265
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	6800
Density / Viscosity	8.9 46
pH / Fluid Loss	9.0 7.2
Source of Sample	FLOWLINE
Rm @ Meas. Temp	0.50 @ 54
Rmt @ Meas. Temp	0.38 @ 54
Rmc @ Meas. Temp	0.68 @ 54
Source of Rmf / Rmc	CHARTS
Rm @ BHT	0.25 @ 110
Operating Rig Time	3 Hours
Max Rec. Temp. F	110
Equipment Number	P-108
Location	HAYS
Recorded By	D. Schmidt
Witnessed By	Mike Kelso

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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.

Ellinwood,
East to 130 Rd, 1/4 North,
East 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		This Log Record Was Witnessed By	
Engineer: D. Schmidt	Operator:	Primary Witness: Mike Kelso	Secondary Witness:
Operator:	Operator:	Secondary Witness:	Secondary Witness:
Operator:		Secondary Witness:	

Operator	Offset (ft)	Substrate	Description	Length (ft)	C.D. (in)	Weight (lb)
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Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.33		GR-M&W (103)	3.00	3.50	50.00
CNLSC CNSSC	37.23 36.48		CNT-M&W (210)	5.00	3.50	100.00
LSD DCAL SSD	28.18 28.17 27.68		CDL-M&W (303-03)	8.50	4.00	250.00
			ML-PSI STKBL ML (402)	7.58	4.00	65.00
MCAL MI MN	19.58 19.58 19.58					
RLL3F RLL3	15.50 15.50					
CILD	8.33		DIL-M&W (505 HT)	18.25	3.50	220.00
CILM	4.50					
SP	0.20					

Dataset: mike kelso_thomas farms c-4.db: field/well/stkml/pass4.1
 Total length: 42.33 ft
 Total weight: 685.00 lb
 O.D.: 4.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\mike kelso_thomas farms c-4.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	108	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	220	40	Off	3416

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

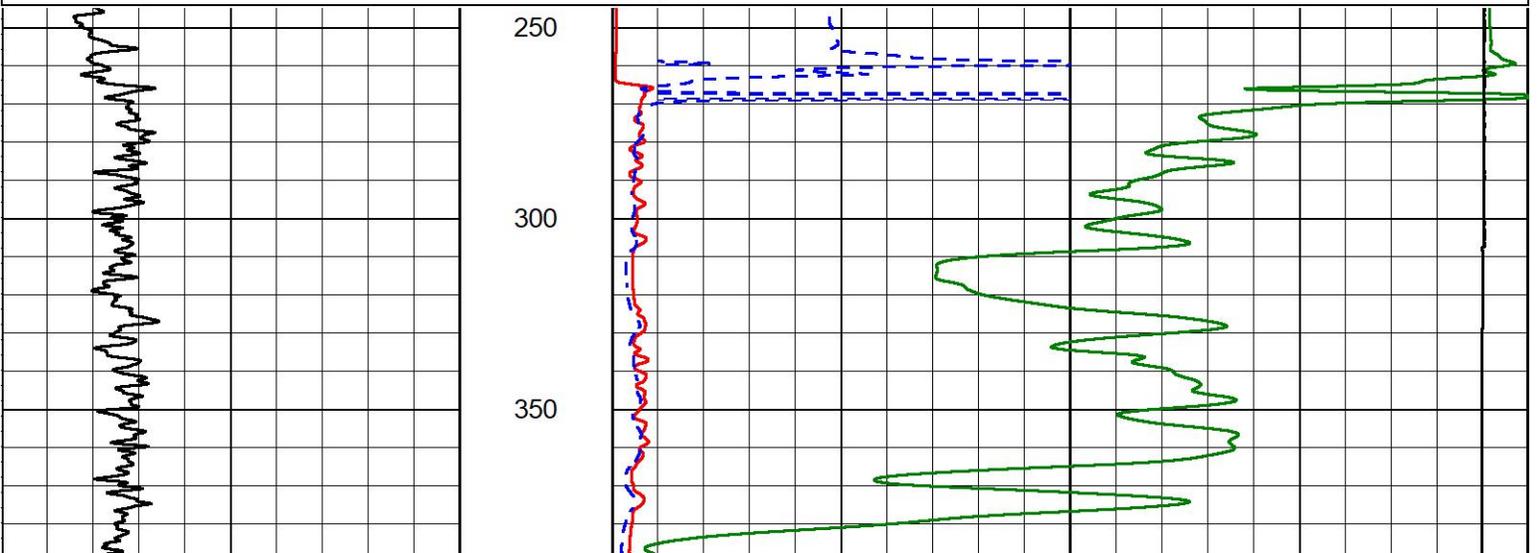


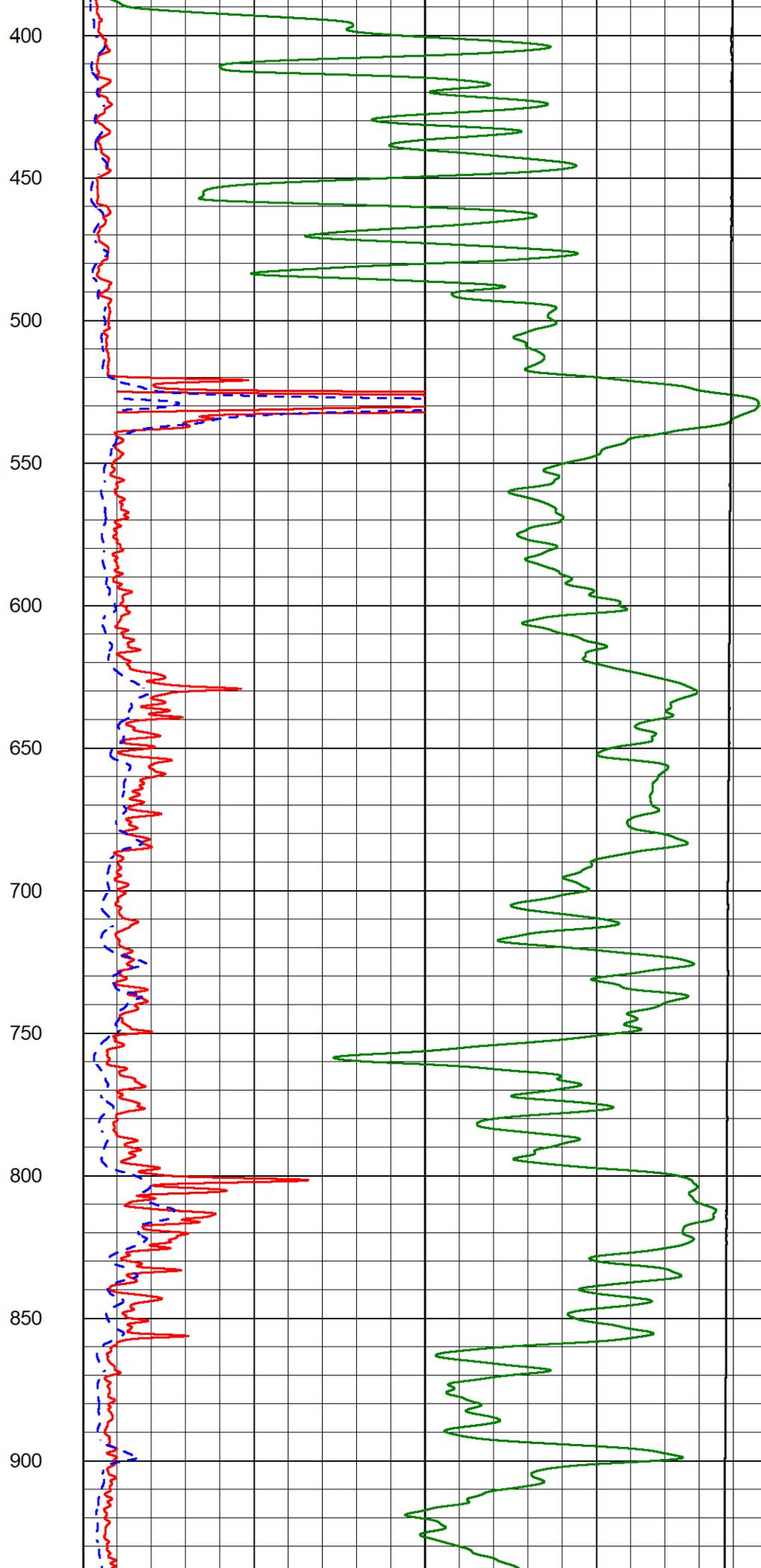
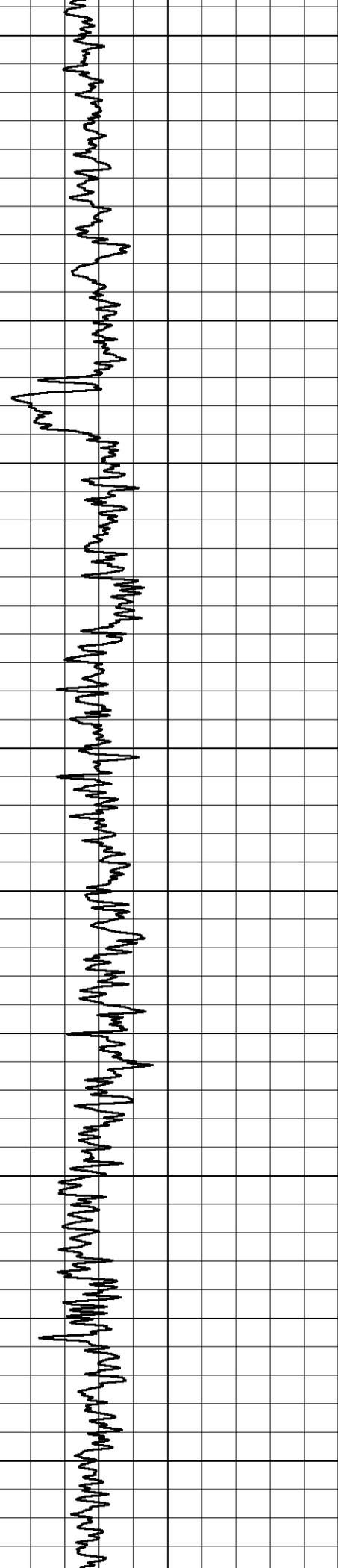
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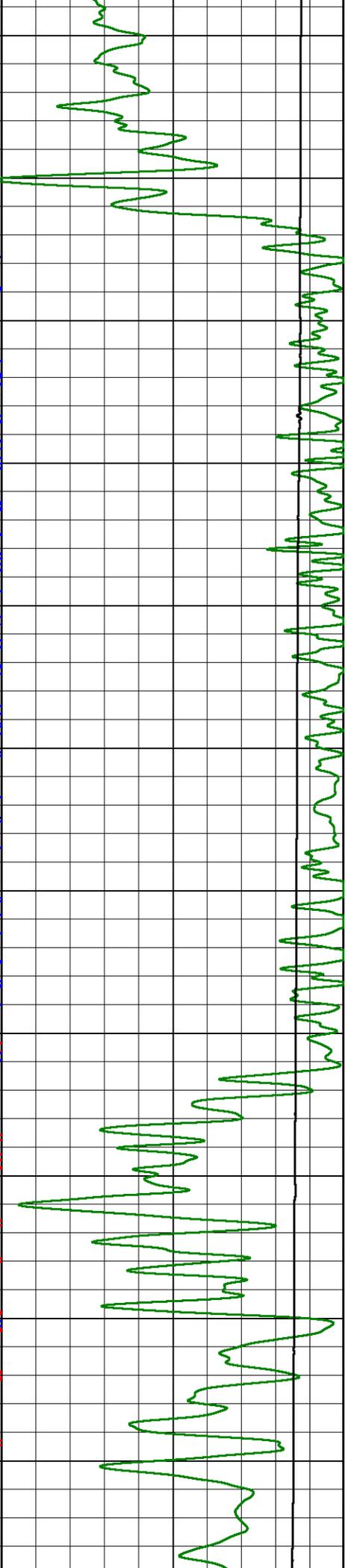
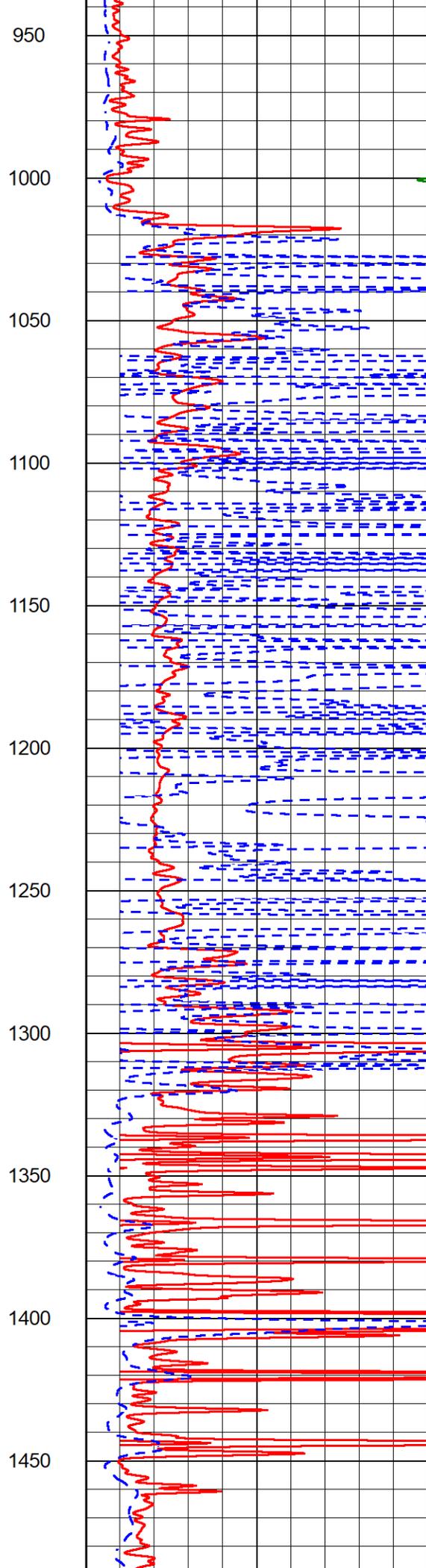
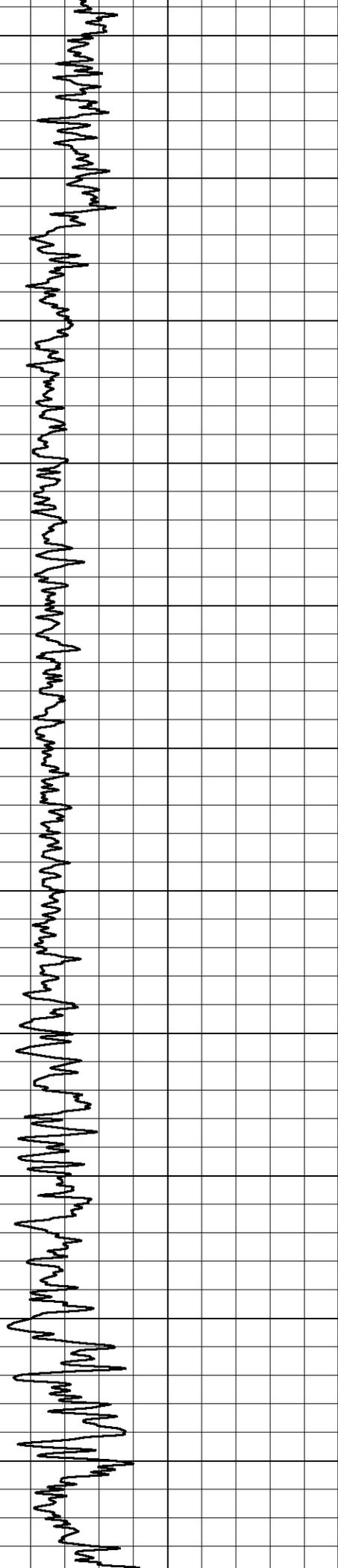
MAIN PASS

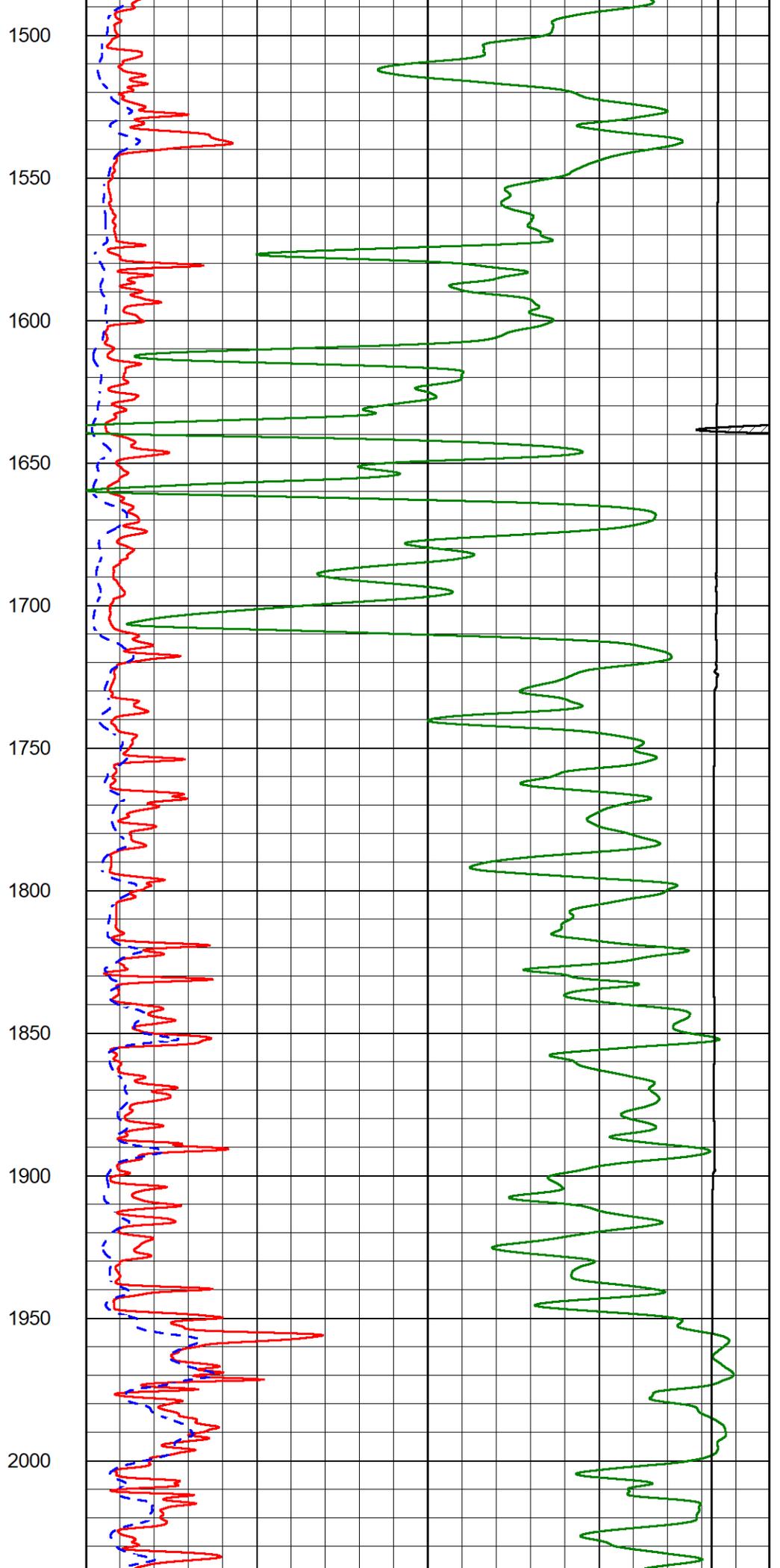
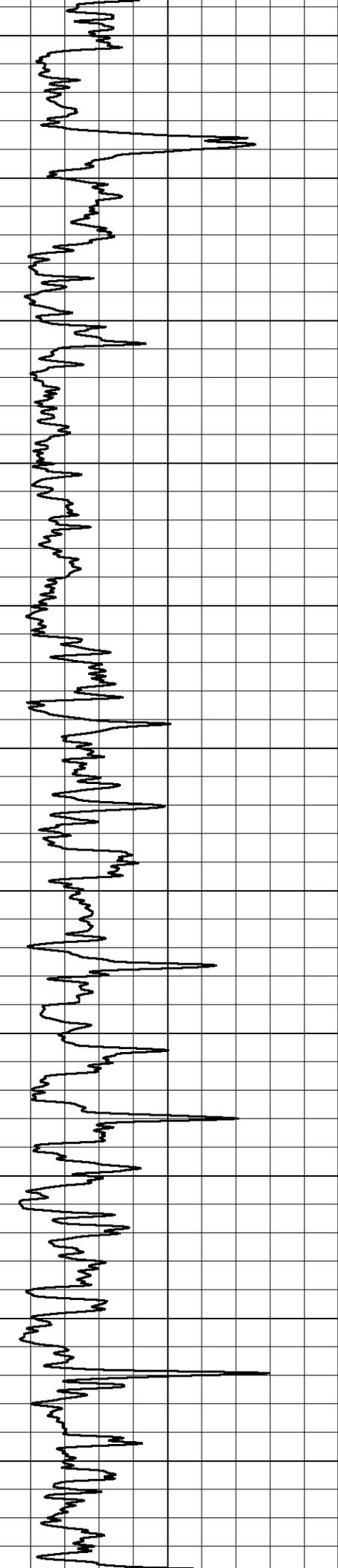
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 Dataset Pathname stkml/pass4.3
 Presentation Format _dil2in
 Dataset Creation Mon Mar 13 15:23:28 2023
 Charted by Depth in Feet scaled 1:600

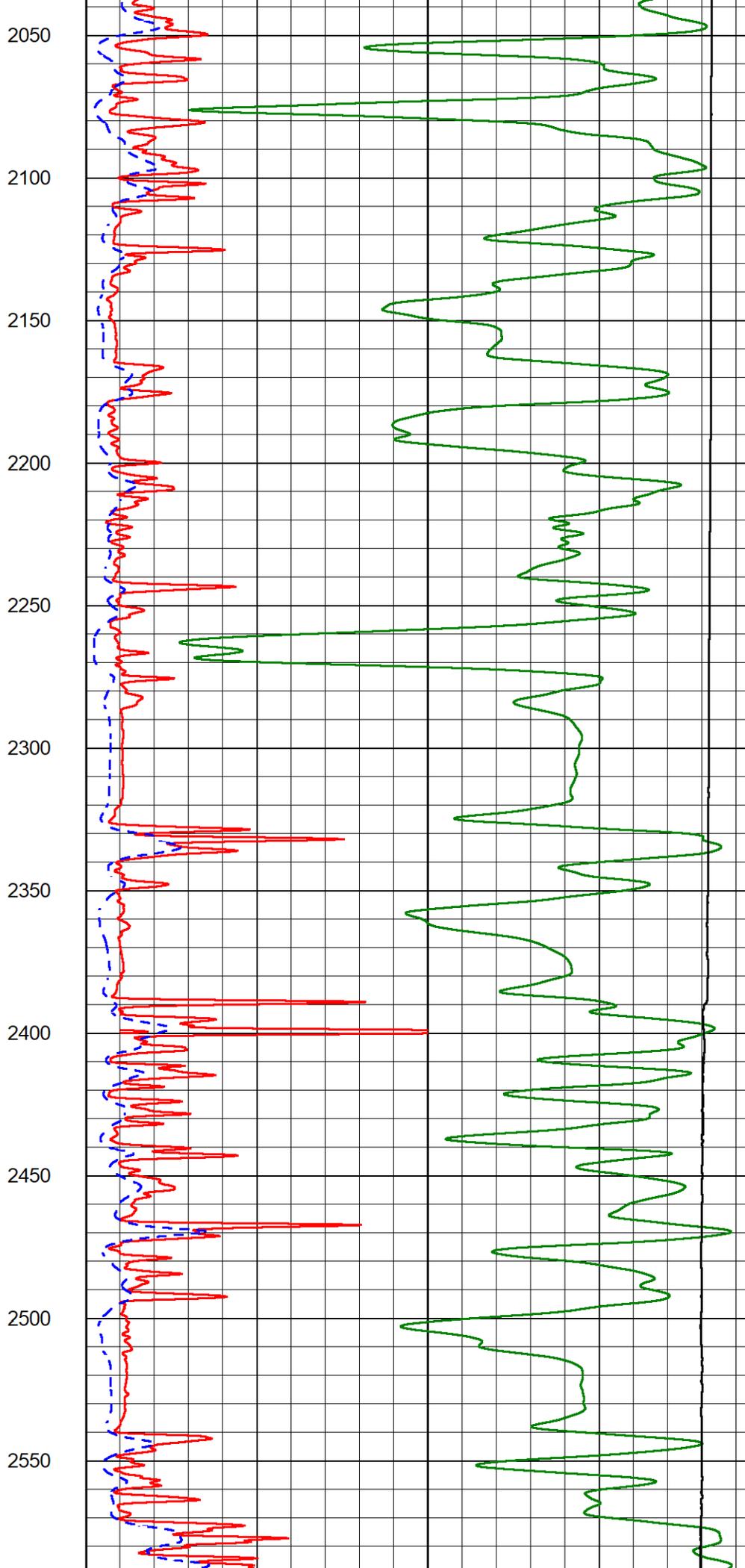
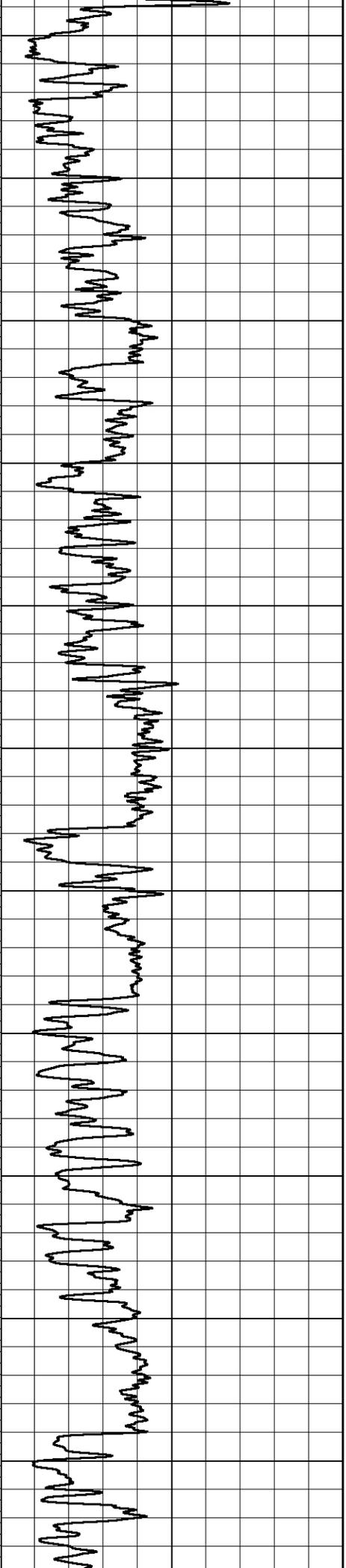
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			15000	Line Tension (lb)	0
0	Shallow Resistivity (Ohm-m)	50			
0	Deep Resistivity (Ohm-m)	50			
	Shallow Resistivity				
50	(Ohm-m)	200			
50	Deep Resistivity (Ohm-m)	200			

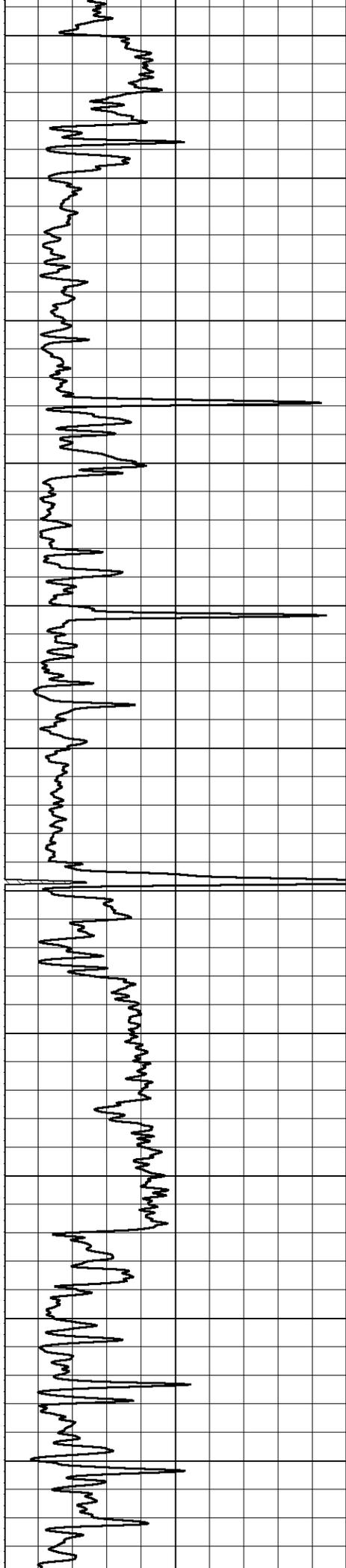












2600

2650

2700

2750

2800

2850

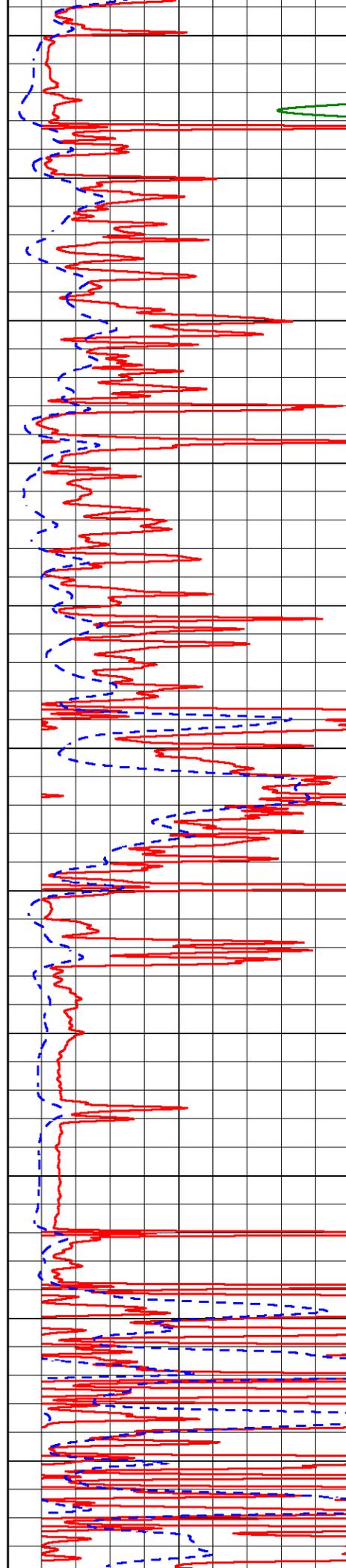
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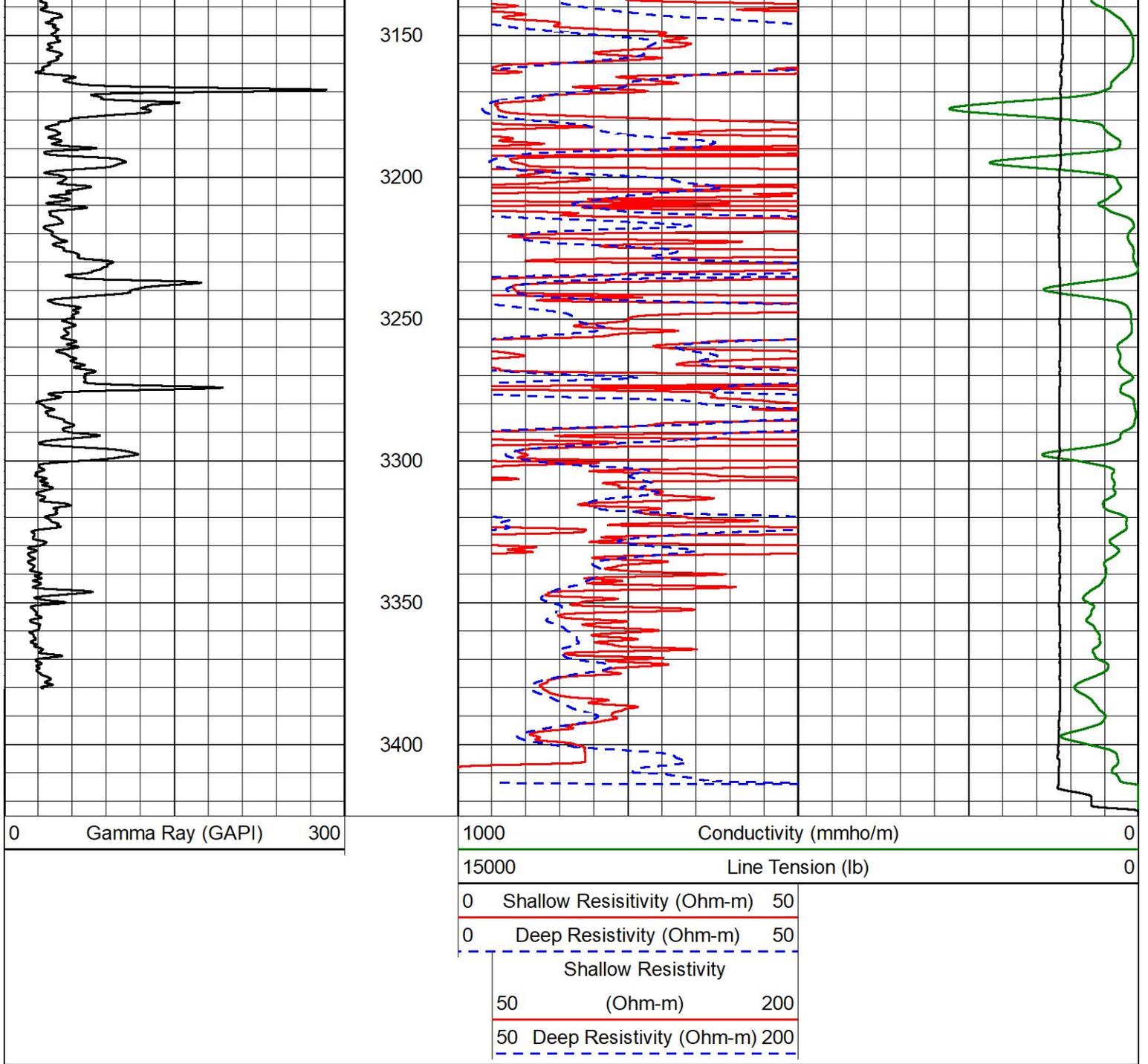
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3000

3050

3100



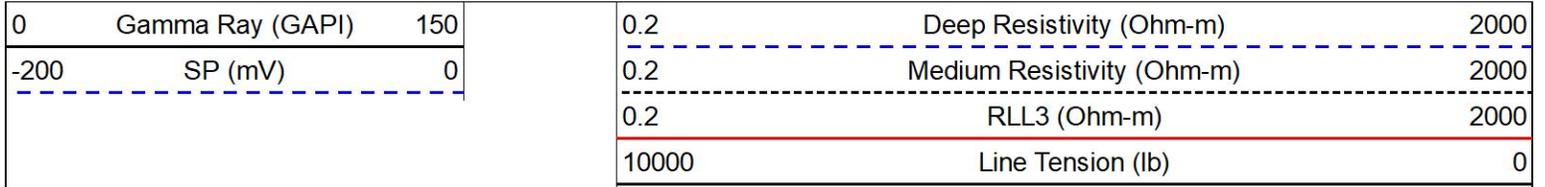


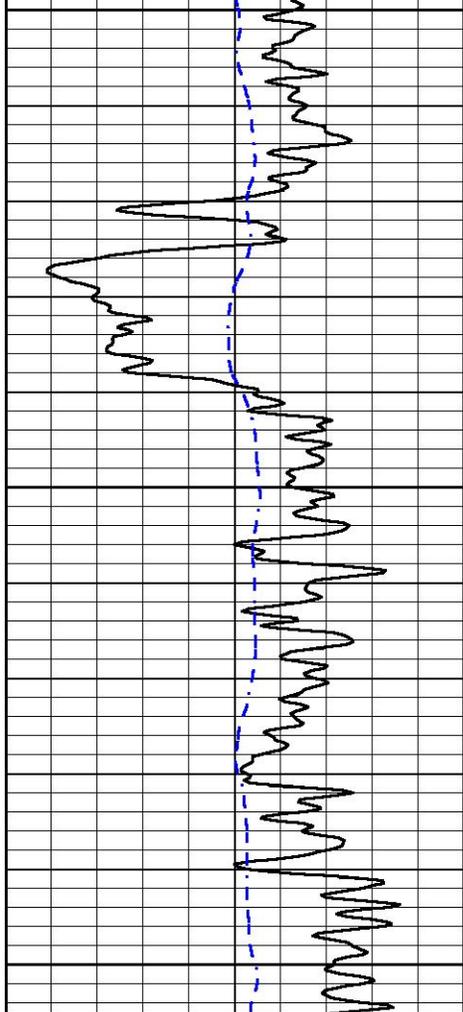
MIDWEST WIRELINE

ANHYDRITE SECTION

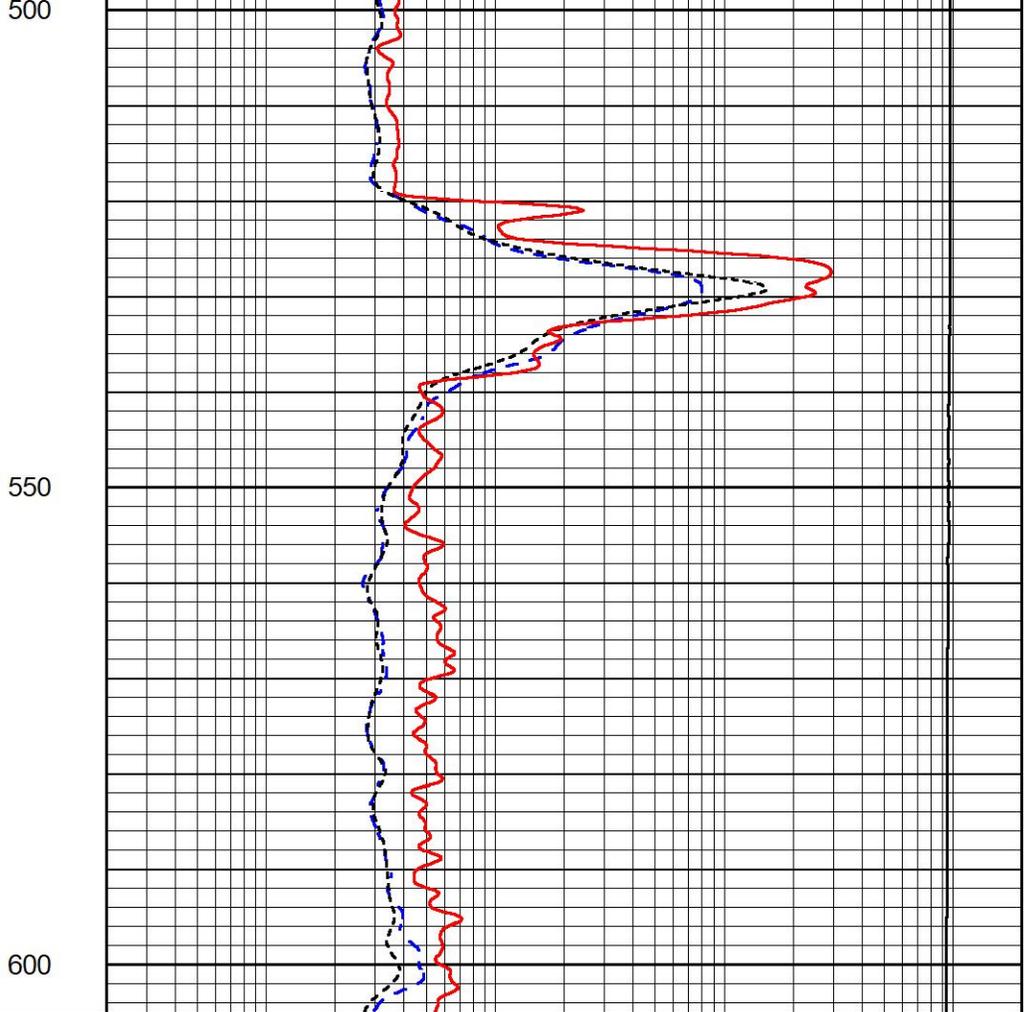
MAIN PASS

Database File	mike kelso_thomas farms c-4.db
Dataset Pathname	stkml/pass4.4
Presentation Format	_dil
Dataset Creation	Mon Mar 13 15:28:49 2023
Charted by	Depth in Feet scaled 1:240





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

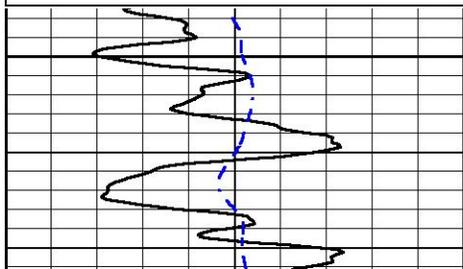
DETAIL SECTION

MAIN PASS

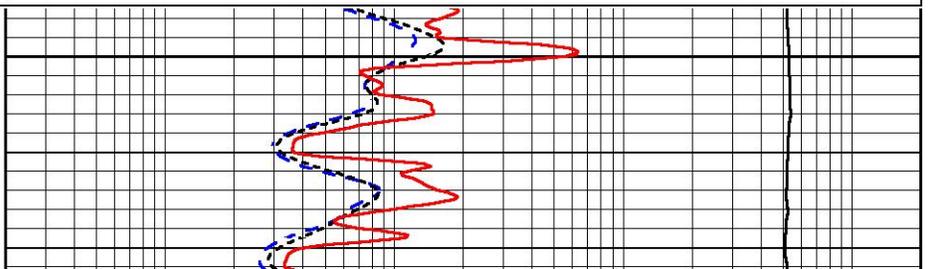
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Dataset Pathname	stkml/pass4.1
Presentation Format	_dil
Dataset Creation	Mon Mar 13 15:23:15 2023
Charted by	Depth in Feet scaled 1:240

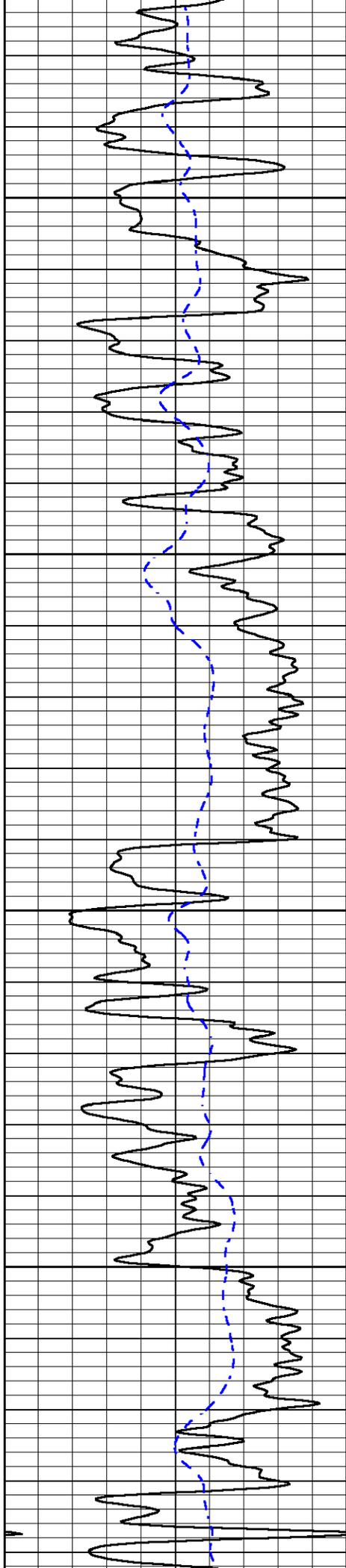
0	Gamma Ray (GAPI)	150
-200	SP (mV)	0

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



2400



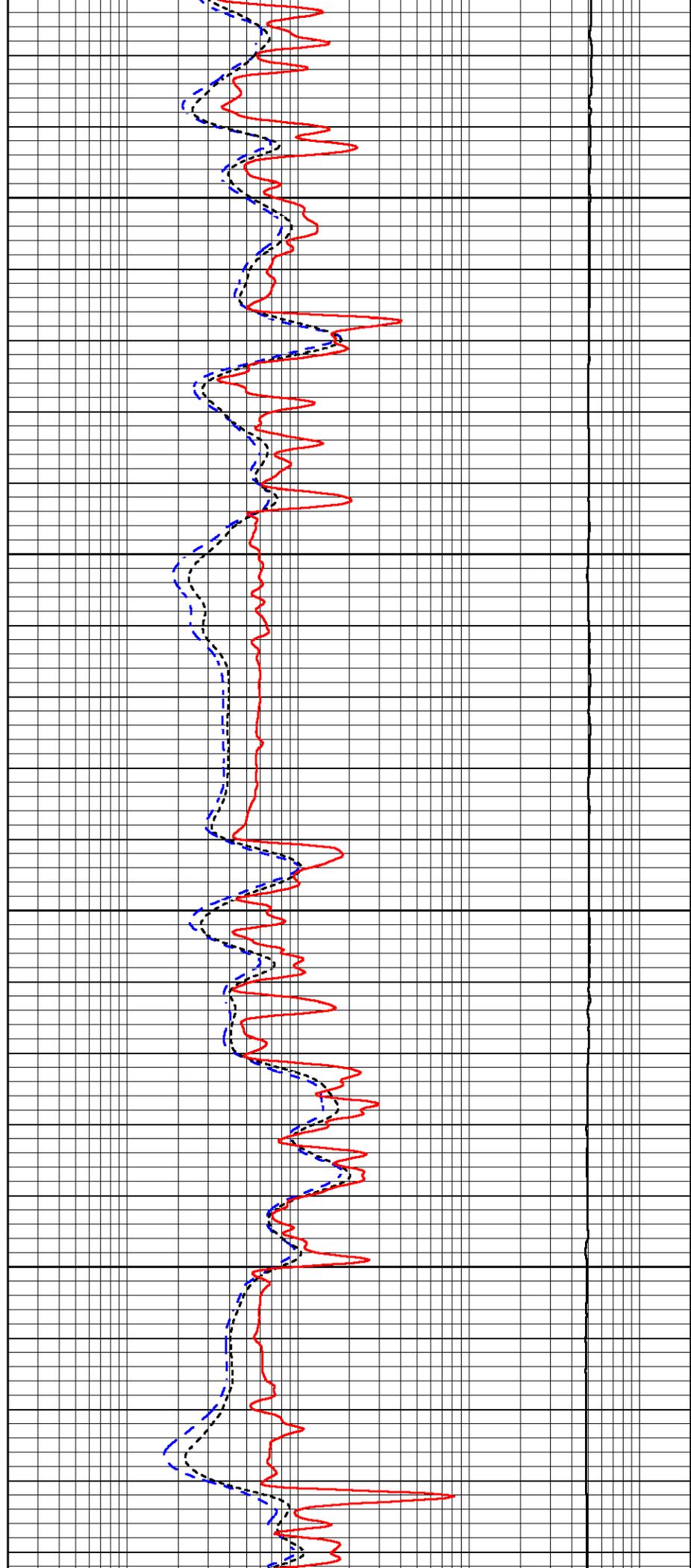


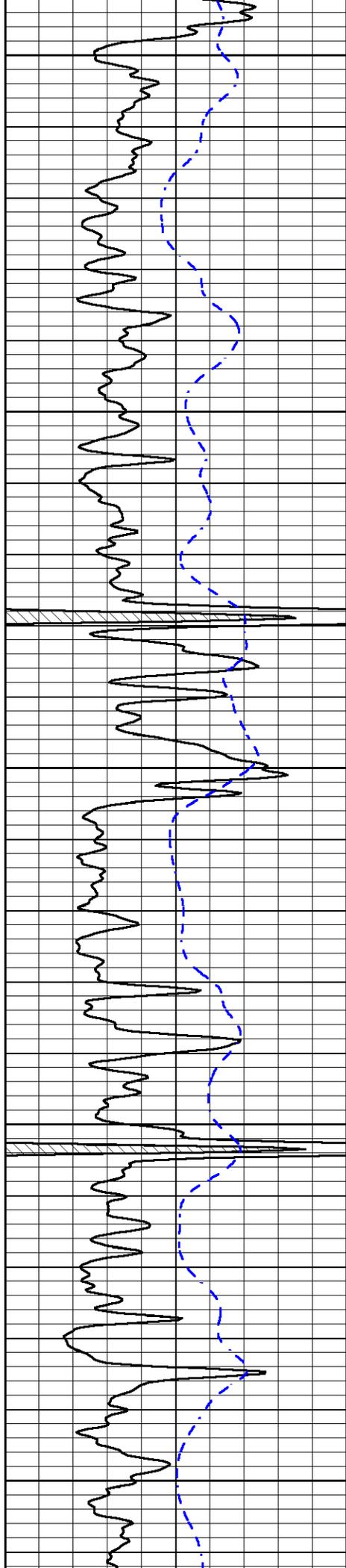
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2500

2550

2600





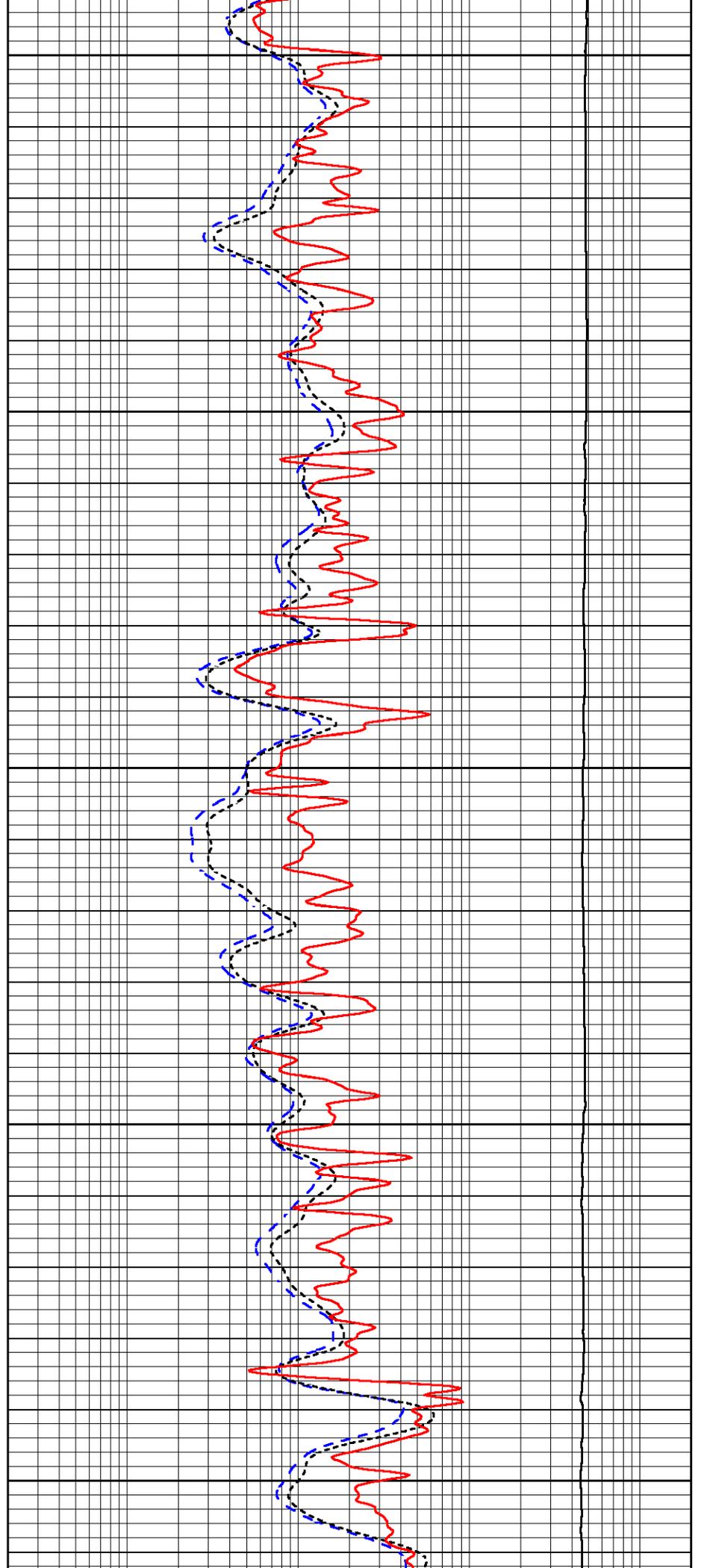
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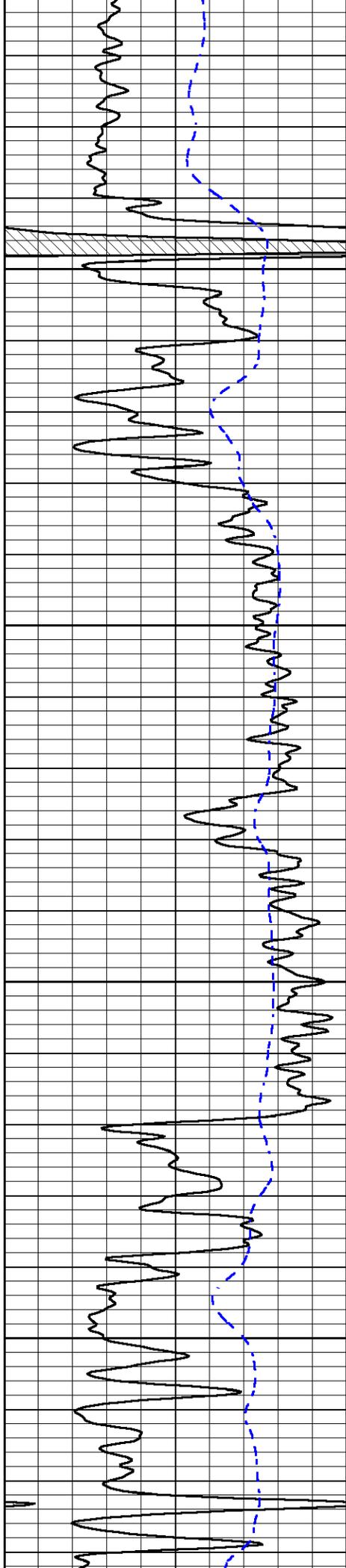
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2750

2800

2850



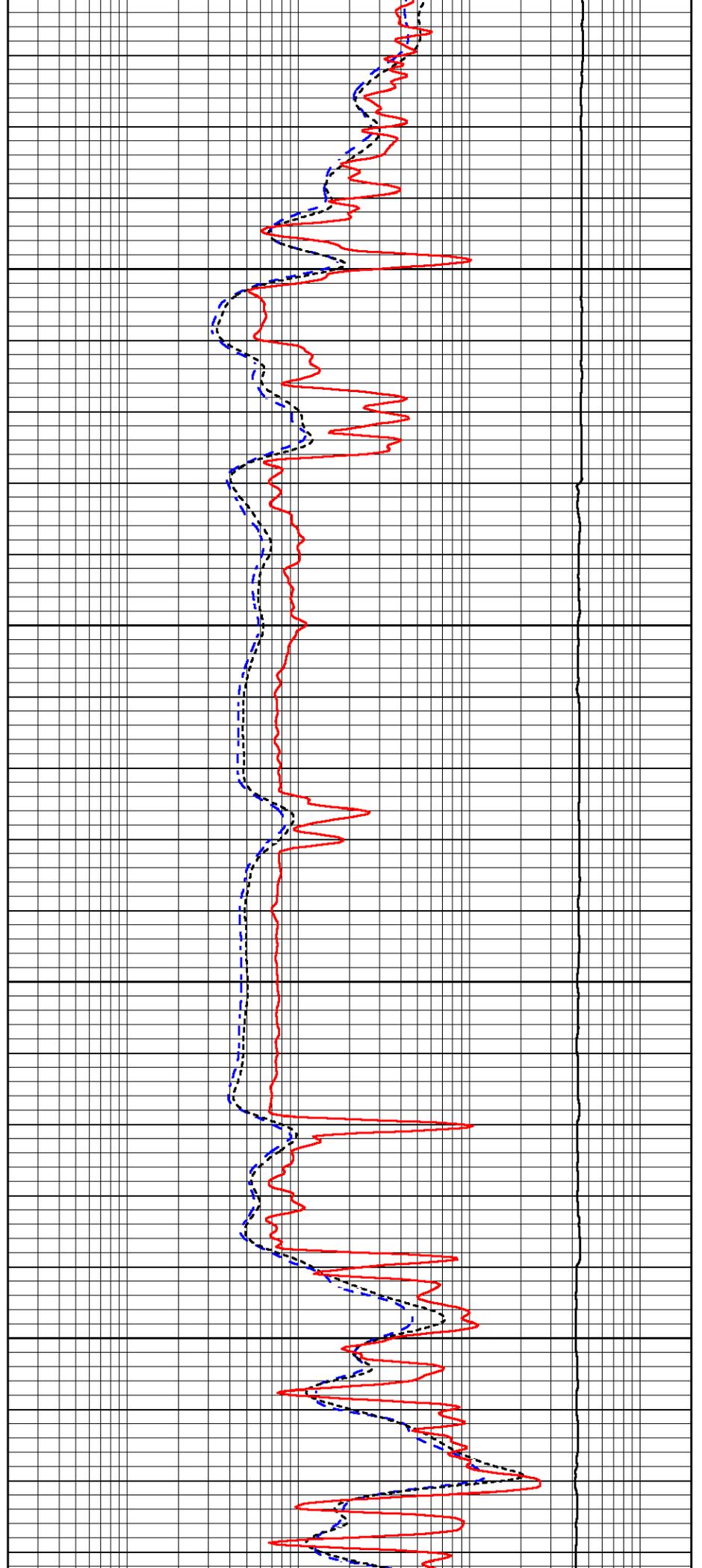


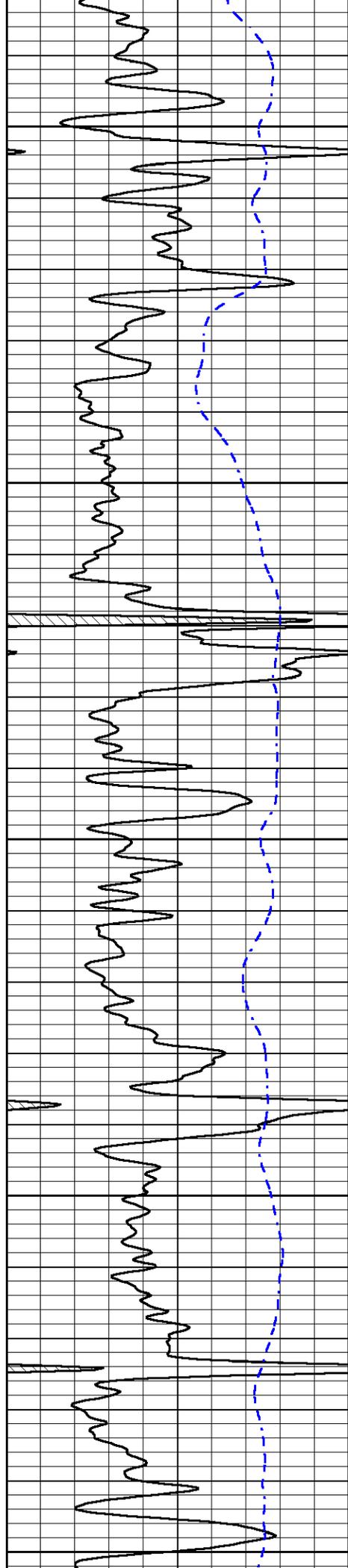
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2950

3000

3050





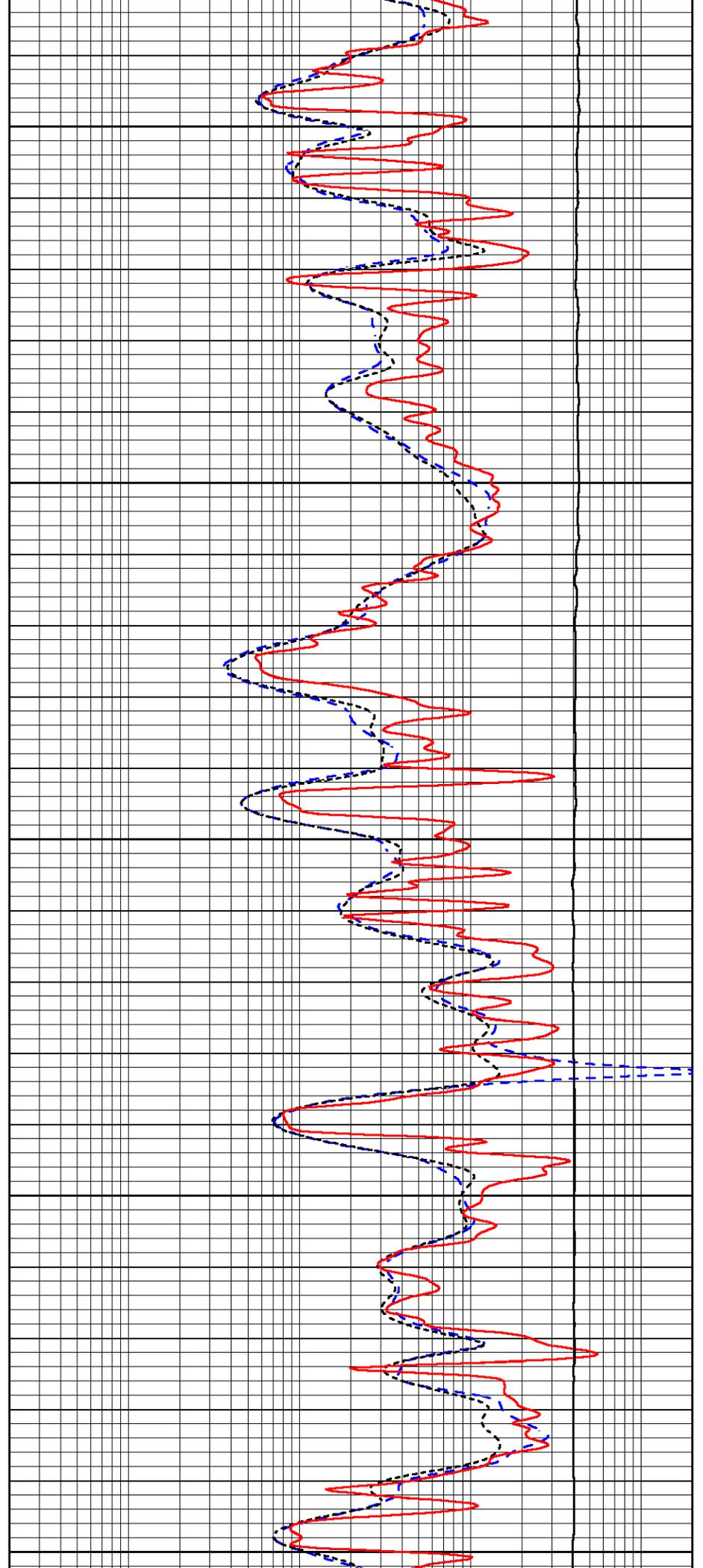
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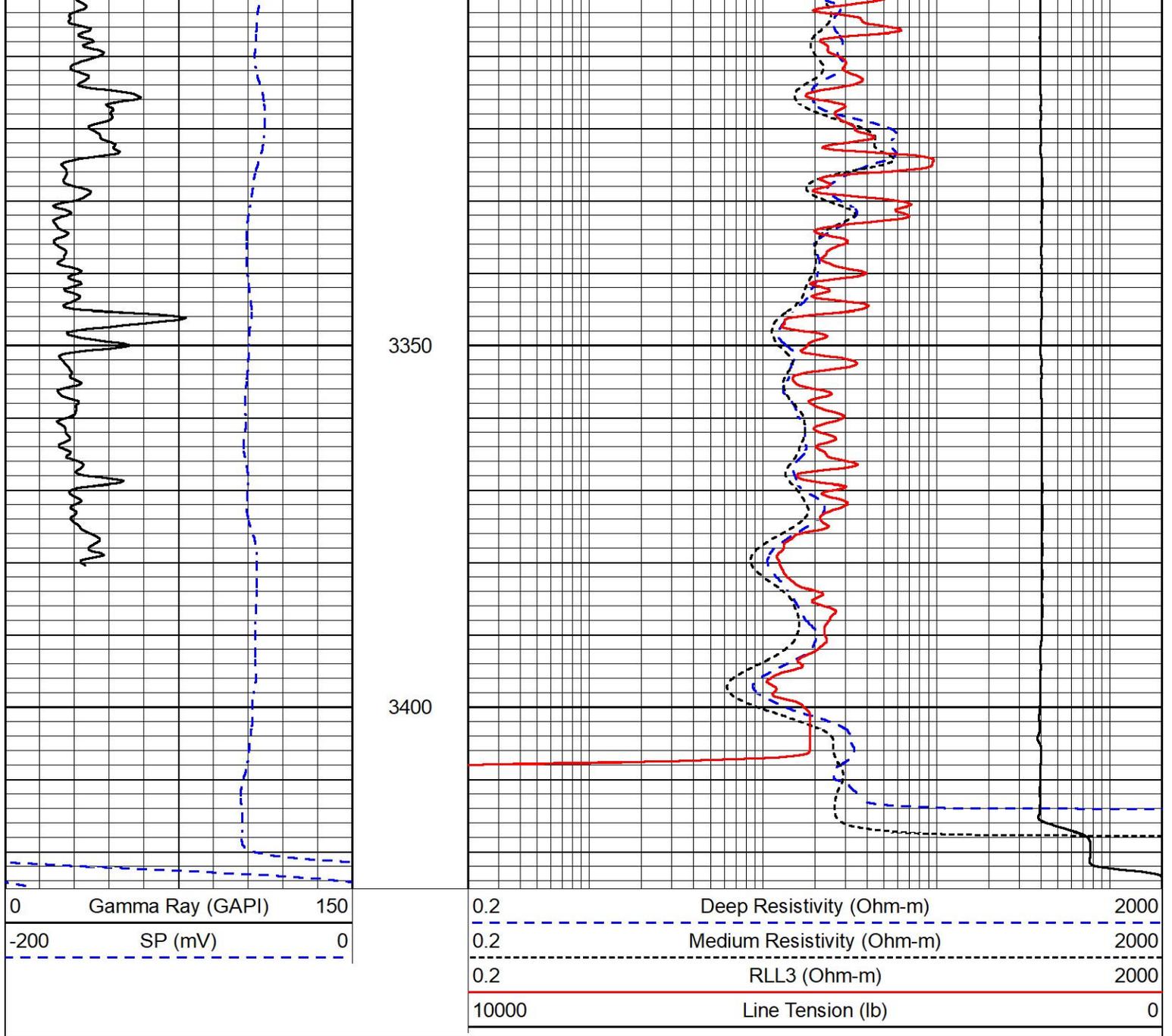
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3200

3250

3300

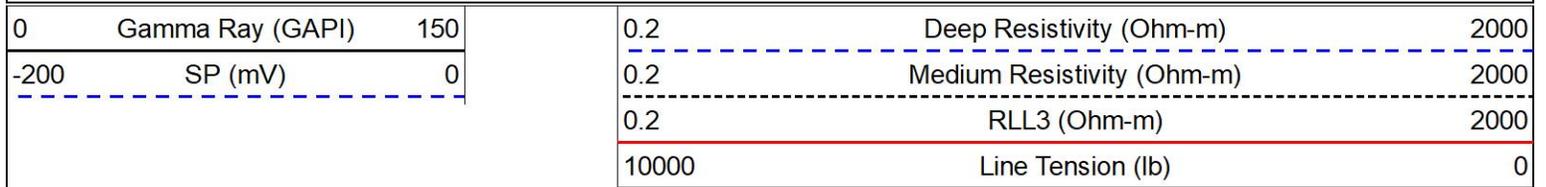


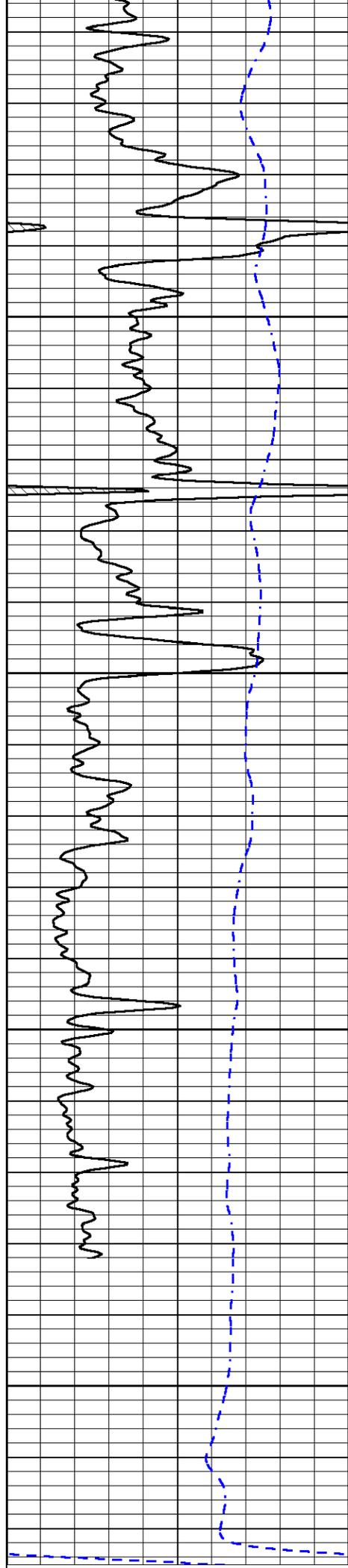


REPEAT SECTION

REPEAT PASS

Database File mike_kelso_thomas_farms_c-4.db
 Dataset Pathname stkml/pass3.1
 Presentation Format _dil
 Dataset Creation Mon Mar 13 15:13:04 2023
 Charted by Depth in Feet scaled 1:240



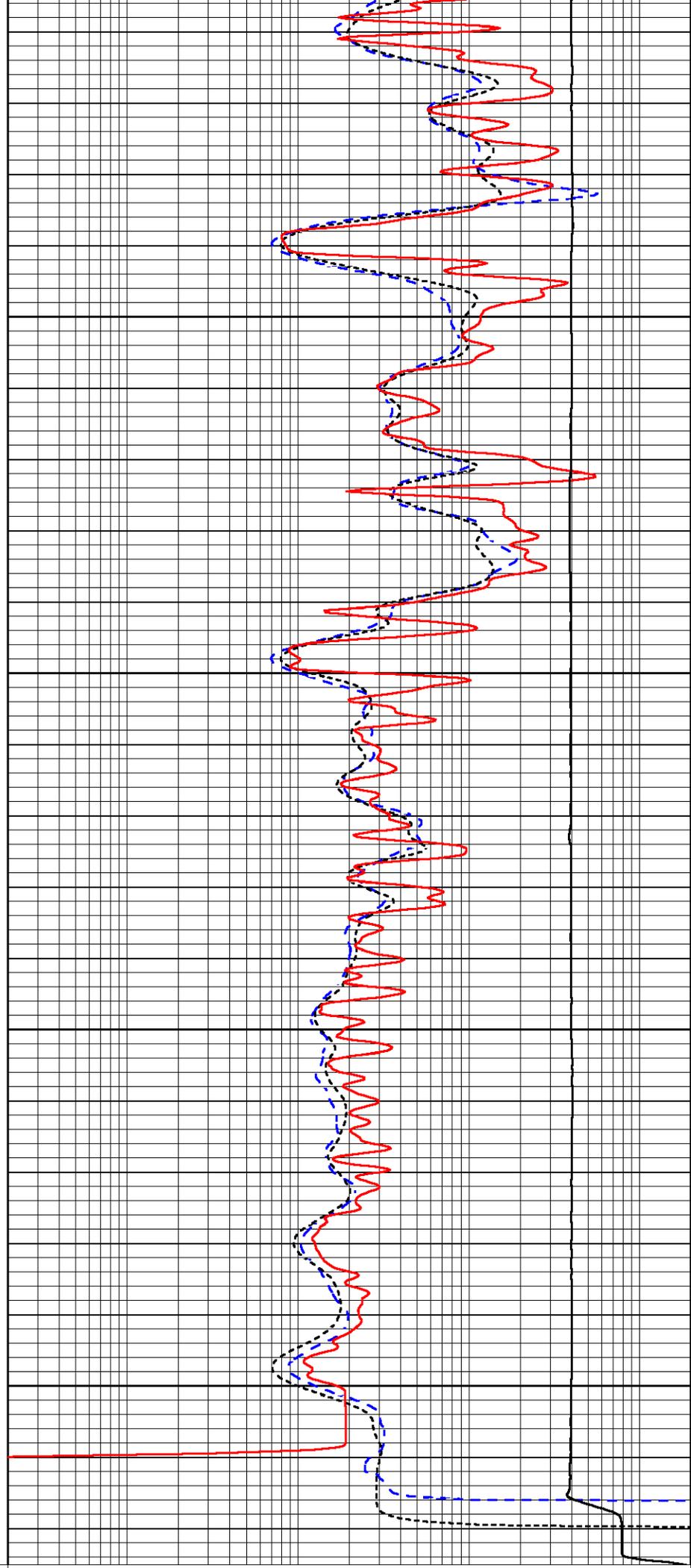


3250

3300

3350

3400



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

Calibration Report	
Database File	mike kelso_thomas farms c-4.db
Dataset Pathname	stkml/pass4.1
Dataset Creation	Mon Mar 13 15:23:15 2023

Dual Induction Calibration Report

Serial-Model:	505 HT-M&W
Surface Cal Performed:	Sun Mar 12 19:32:56 2023

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		m	b
Deep	167.000	835.000	0.000	255.800	mmho/m	0.480	-53.000
Medium	1348.000	1348.000	0.000	255.800	mmho/m	0.380	-50.000

Microlog Calibration Report

Serial-Model:	402-PSI STKBL ML
Performed:	Wed Jan 25 21:26:04 2023

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0037	0.0043	0.0000	10.0000	Ohm-m	26000.0000	-1.0000
Inverse	0.1208	0.0013	0.0000	10.0000	Ohm-m	30000.0000	-0.5000
Caliper	1.0046	1.1419	5.5000	20.0000	in	50.0000	-44.5200

Compensated Density Calibration Report

Serial-Model:	303-03-M&W
Source #:	21170B
Master Calibration Performed:	Wed Jan 25 21:25:40 2023

Master Calibration							
	Density			Far Detector	Near Detector		
Magnesium	1.755	g/cc		3841.78	5151.73	cps	
Aluminum	2.635	g/cc		700.98	3068.49	cps	
	Spine Angle = 73.06			Density/Spine Ratio = 0.495			
	Size			Reading			
Small Ring	4.00	in		1.17			
Large Ring	14.00	in		1.07			

Compensated Neutron Calibration Report

Serial-Model:	210-M&W
Source #:	N-1238
Master Calibration Performed:	Fri Dec 3 09:16:24 2021

Master 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

Gamma Ray Calibration Report

Serial Number:	103	
Tool Model:	M&W	
Performed:	Wed Jan 25 21:25:33 2023	
Calibrator Value:	500.0	GAPI
Background Reading:	28.0	cps
Calibrator Reading:	986.0	cps
Sensitivity:	0.5700	GAPI/cps



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Field	Chase-Silica
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State	Kansas