



PIONEER
Pioneer Energy Services

DUAL INDUCTION LOG

Company **MAREXCO, INC.**
Well **STUCKY #14-2**
Field **WILDCAT**
County **SCOTT** State **KANSAS**

Location: API #: 15-171-21243-00-00

Other Services

SEC 2 TWP 19S RGE 31W
875' FSL & 920' FWL

CNL/CDL
MEL/BHCS

Permanent Datum GROUND LEVEL Elevation 2928'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Elevation
K.B. 2933'
D.F. N/A
G.L. 2928'

Date 5/1/2019

Run Number ONE

Depth Driller 4670'

Depth Logger 4668'

Bottom Logged Interval 4667'

Top Log Interval 200'

Casing Driller 8.625" @ 219'

Casing Logger 224'

Bit Size 7.875"

Type Fluid in Hole CHEMICAL

Salinity, ppm CL 3000

Density / Viscosity 8.9 54

pH / Fluid Loss 8.0 12.6

Source of Sample FLOWLINE

Rm @ Meas. Temp .80 @ 74

Rmt @ Meas. Temp .60 @ 74

Rmc @ Meas. Temp 1.08 @ 74

Source of Rmt / Rmc CHARTS

Rm @ BHT .48 @ 123

Operating Rig Time 4 HOURS

Max Rec. Temp. F 123 DEGF

Equipment Number P-108

Location HAYS

Recorded By J. HENRICKSON

Witnessed By RICK HALL

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer 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.

DIGHTON KANSAS

14 WEST TO VENISON ROAD, 3 SOUTH, EAST INTO

Log Measured From: KELLY BUSHING 5 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES

www.pioneerenergy.com

785-625-3858

Your Pioneer Energy Services Crew

Engineer: J. HENRICKSON

Operator:

Operator:

Operator:

This Log Record Was Witnessed By

Primary Witness: RICK HALL

Secondary Witness:

Secondary Witness:

Secondary Witness:

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in 7.875	degF 123	in 5.5	in 0	g/cc 1	2	g/cc 2.71
NPORSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
Limestone	0	mmho/m 0	mmho/m 0	mV 143	degF 53	Off	ft 4668

Sensor	Offset (ft)	Schematic		Description	Length (ft)	O.D. (in)	Weight (lb)
GR	33.00			GR-M&W (89-M&W)	3.00	3.50	50.00
CNLSC CNSSC	29.90			CNT-M&W (tk10-MW)	5.50	3.50	100.00
	29.15						
LSD DCAL SSD	20.85			CDL-M&W (144-84)	8.50	4.00	250.00
	20.83						
	20.35						
RLL3 RLL3F	15.80 15.79			DIL-M&W (PSI 988)	18.50	3.50	220.00
CILD	8.00						

CILM 4.70

SP 0.20

Dataset: marexco_stucky_14_2.db: field/well/stack/pass3.1
Total length: 35.50 ft
Total weight: 620.00 lb
O.D.: 4.00 in



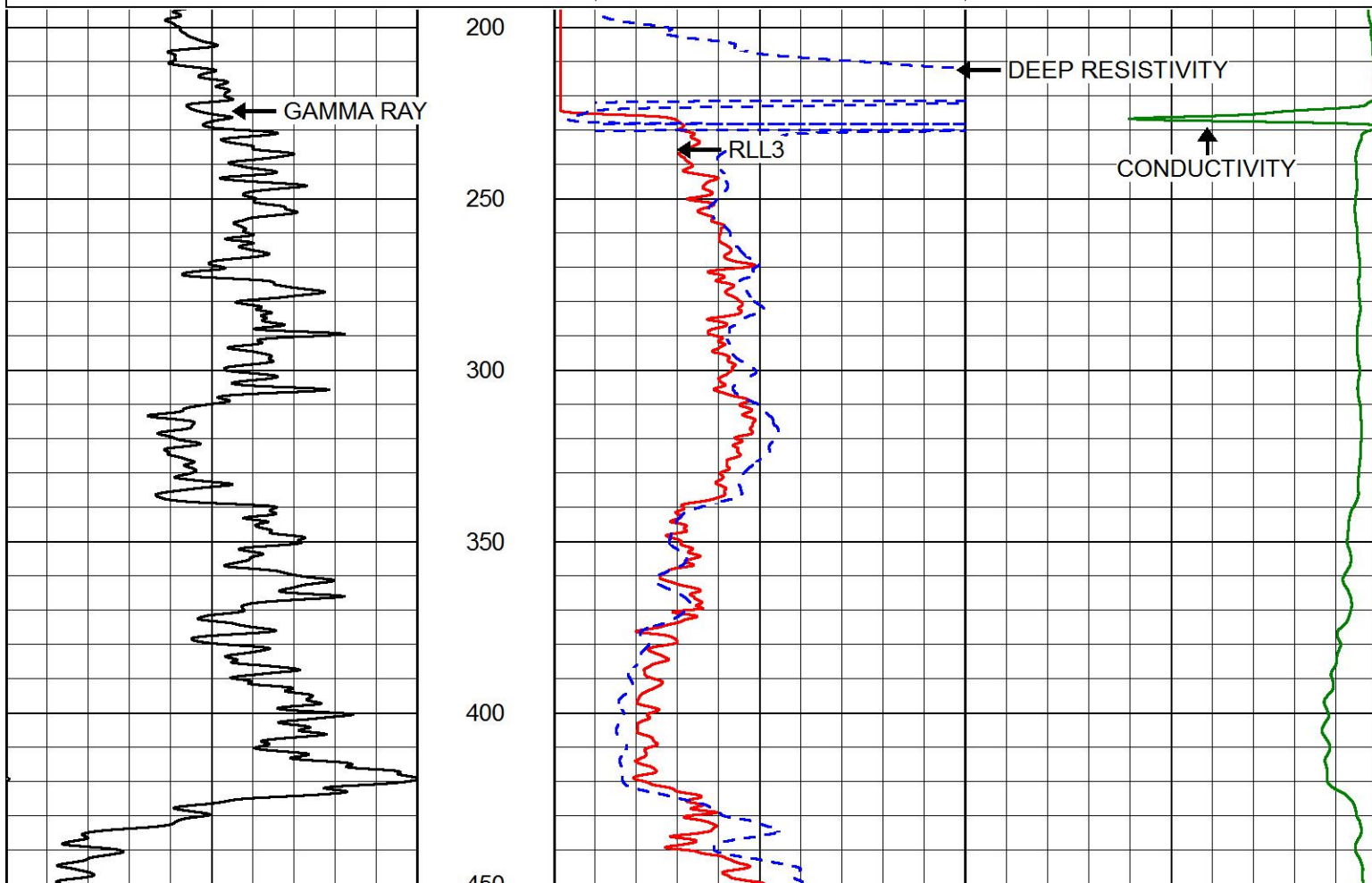
MAIN PASS

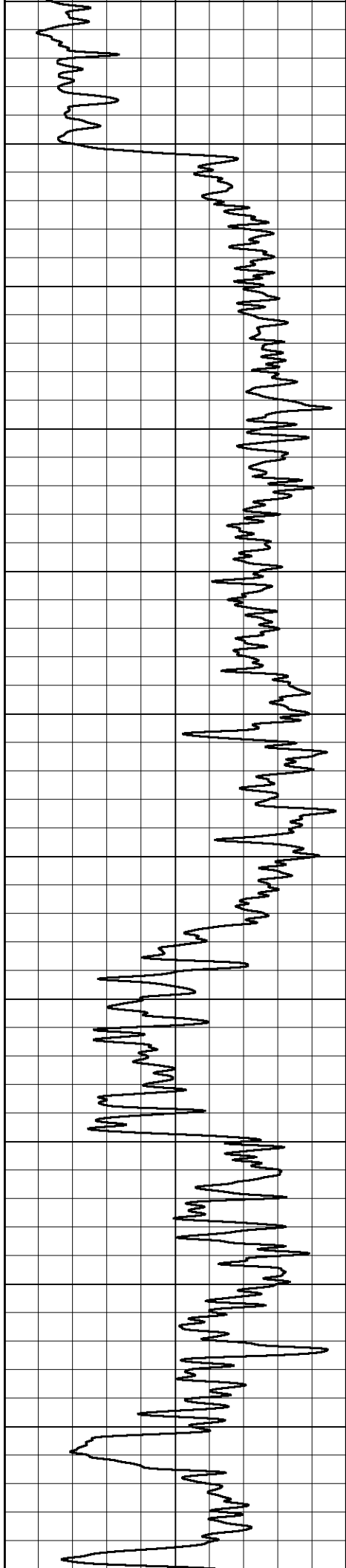
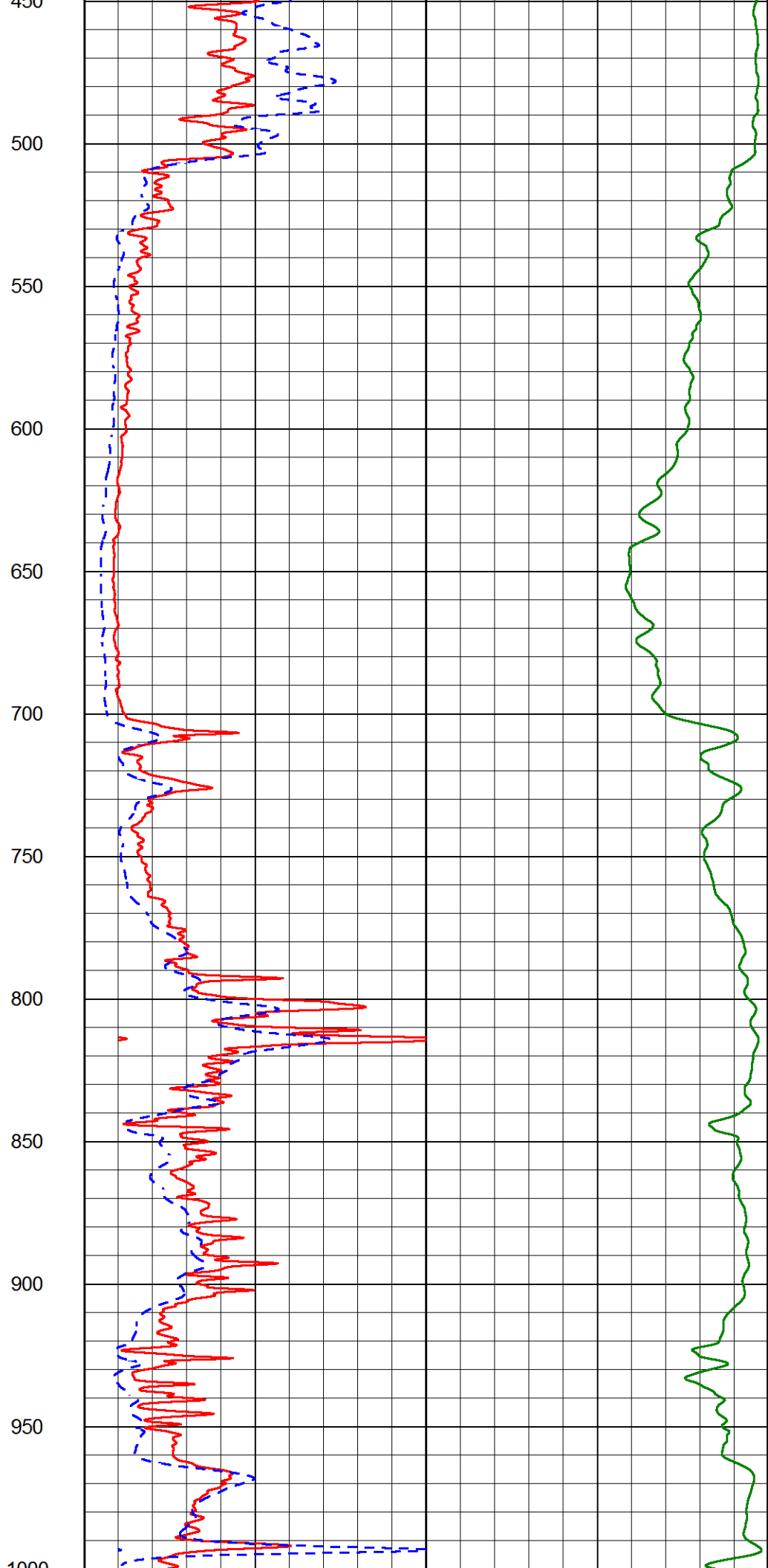
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Presentation Format dil2in
Dataset Creation Wed May 01 13:59:50 2019
Charted by Depth in Feet scaled 1:600

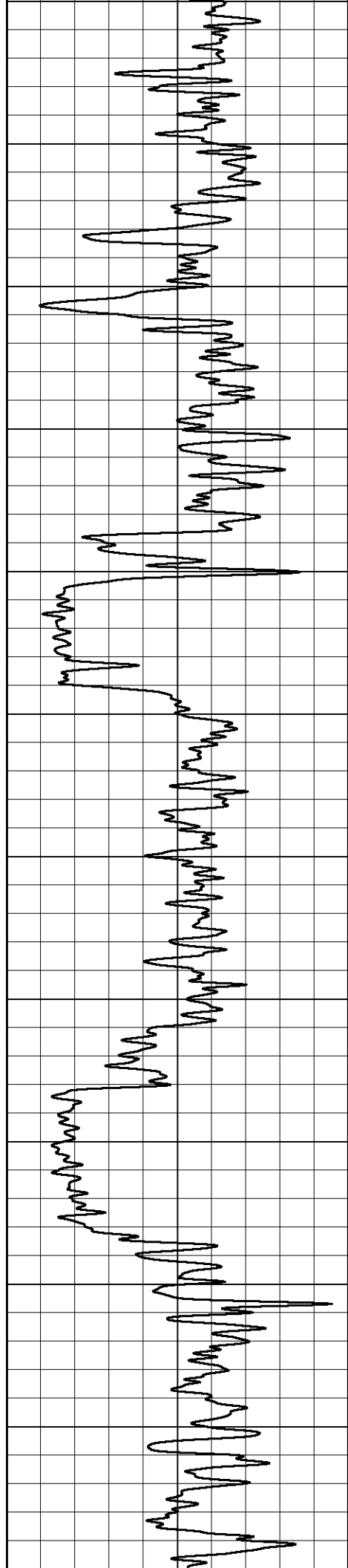
0 GAMMA RAY (GAPI) 150

2000 CILD (mmho/m) 0

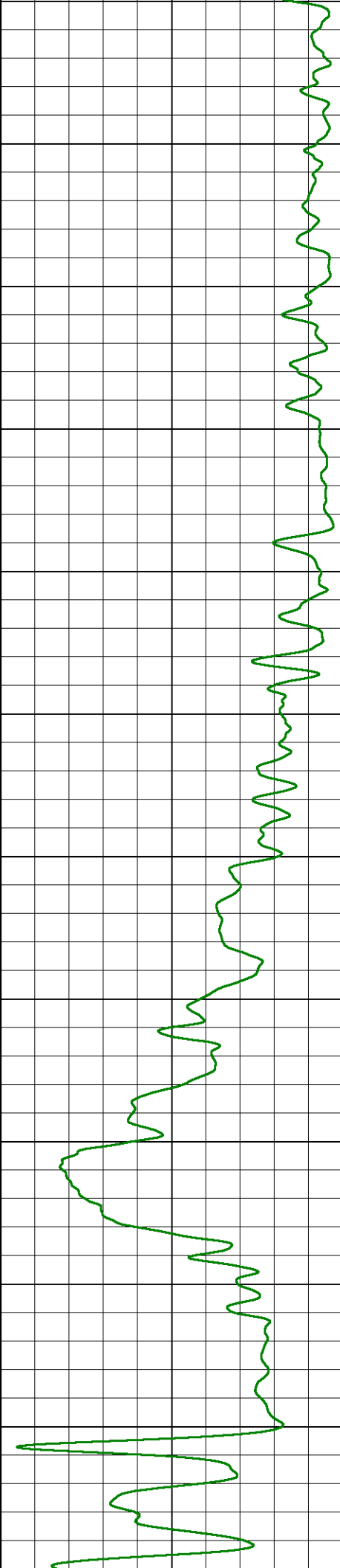
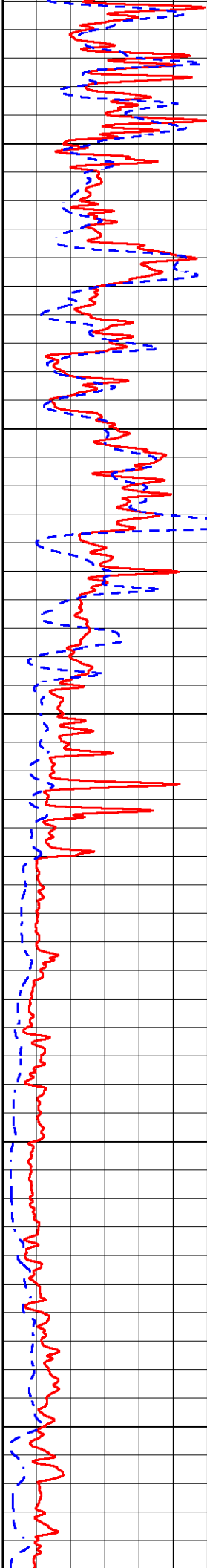
0	RLL3 (Ohm-m)	50
0	DEEP RESISTIVITY (Ohm-m)	50
50	RLL3 (Ohm-m)	200
50	RILD (Ohm-m)	200

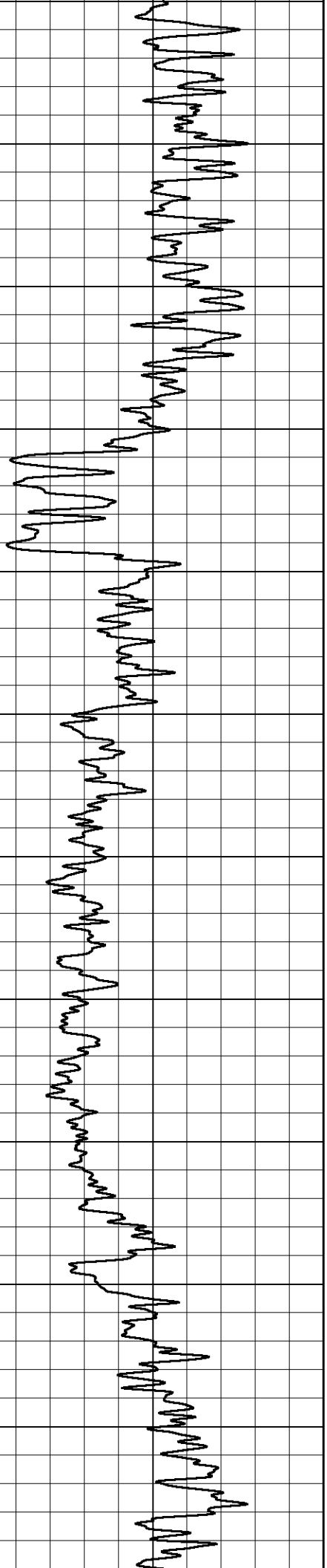
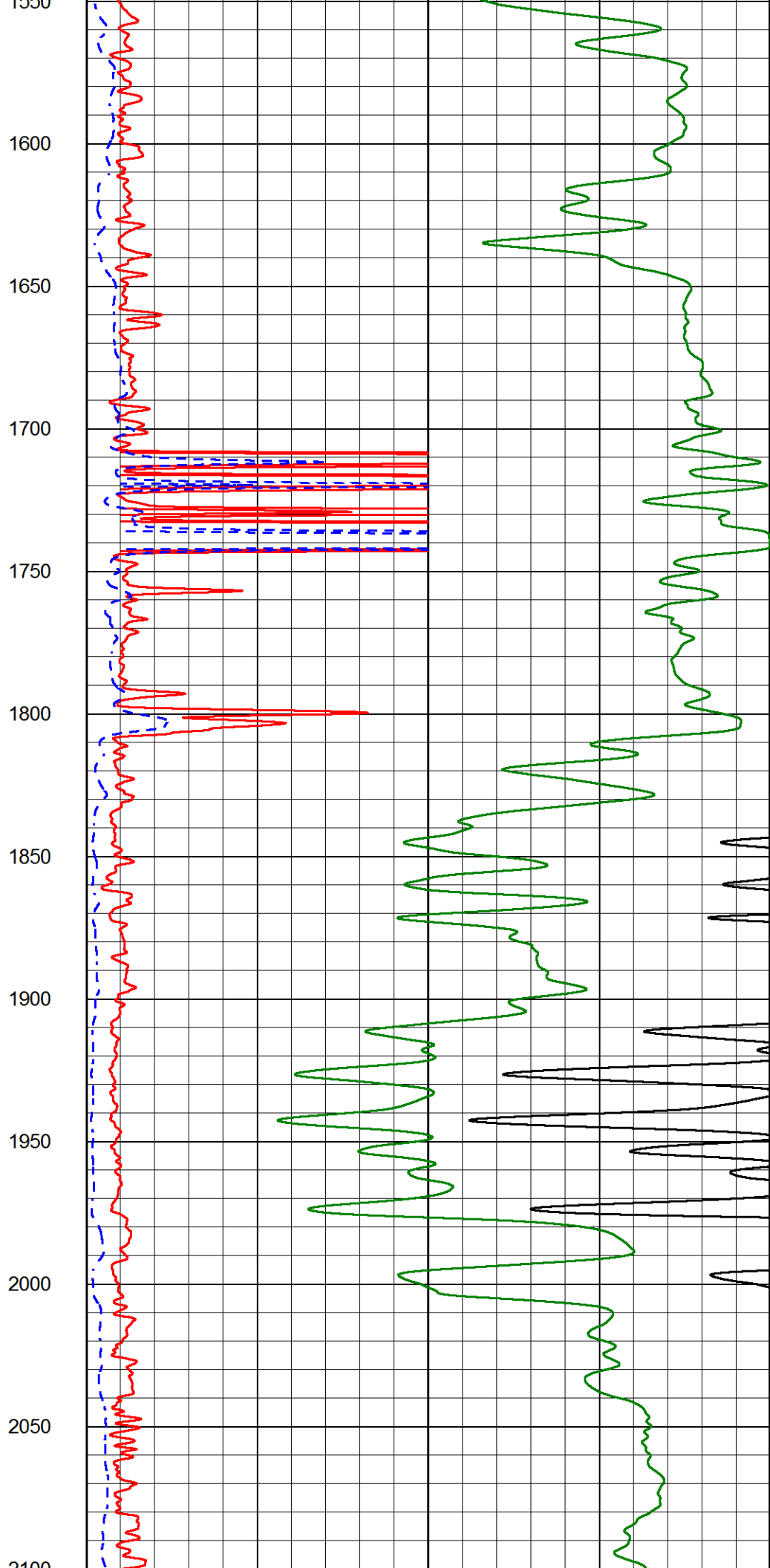


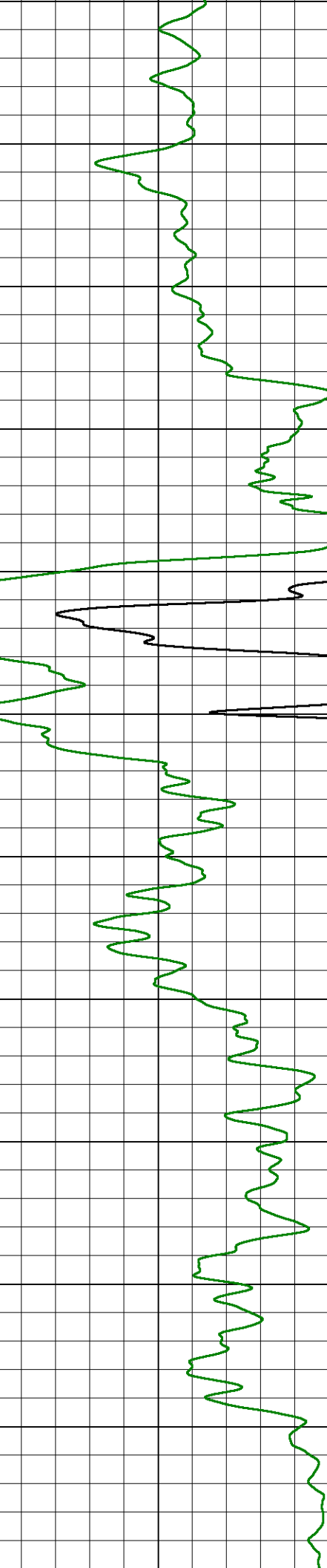
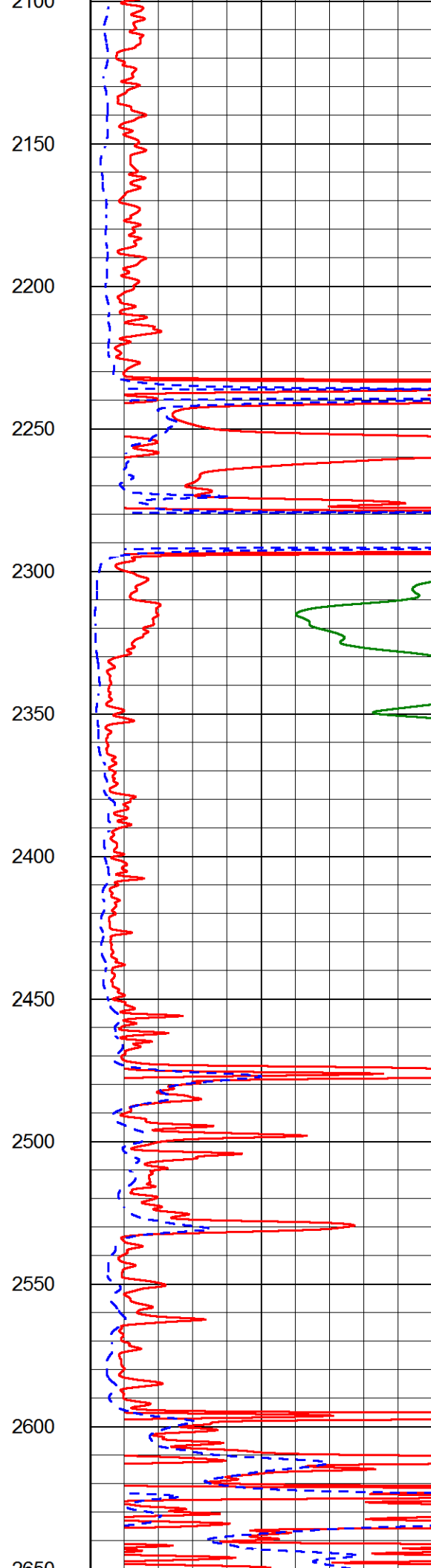
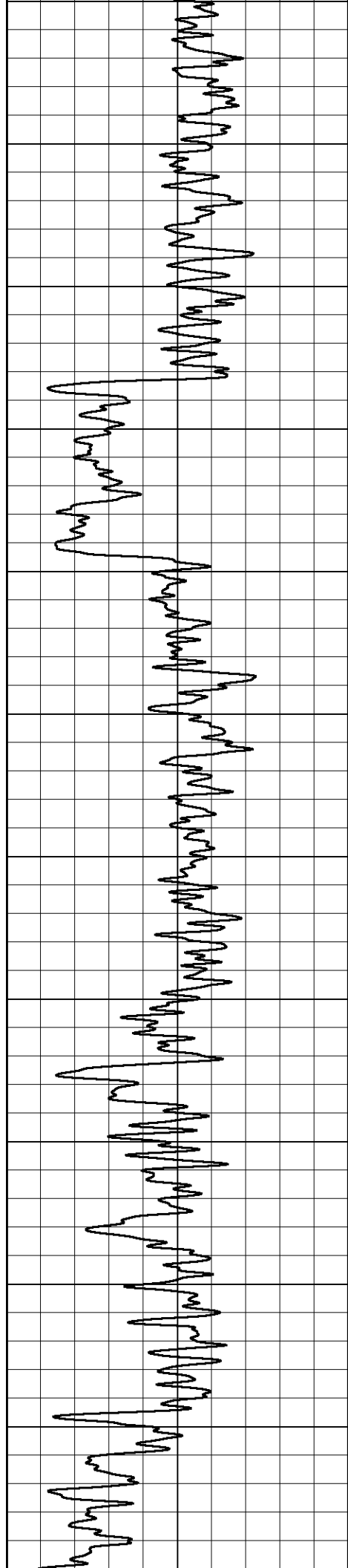


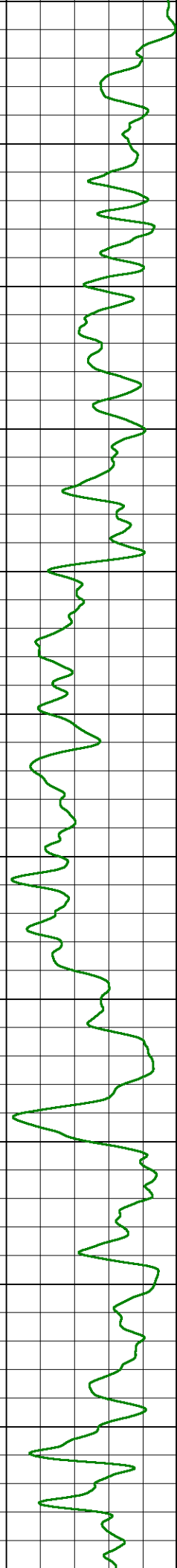
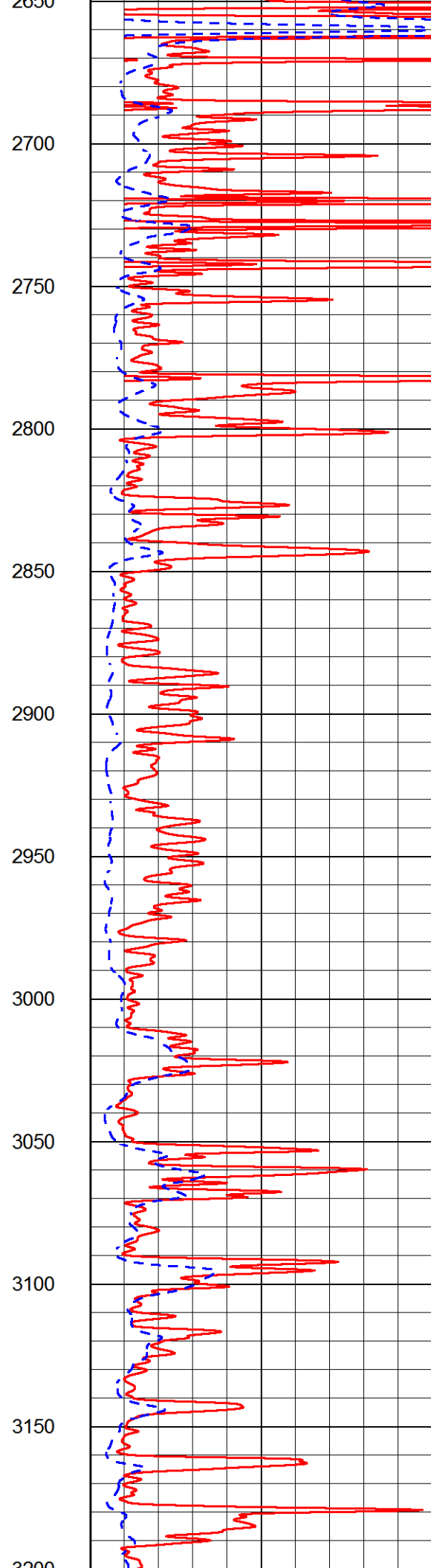
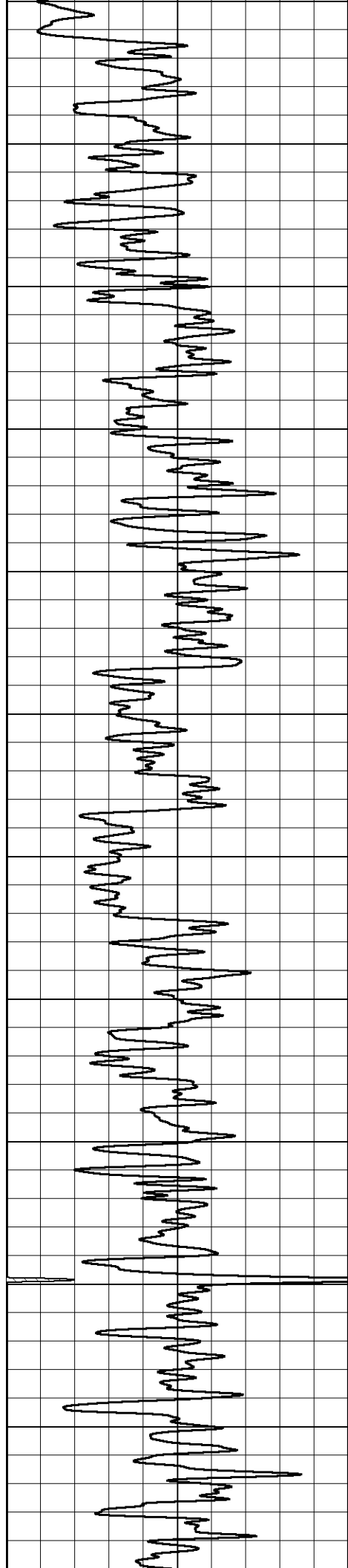


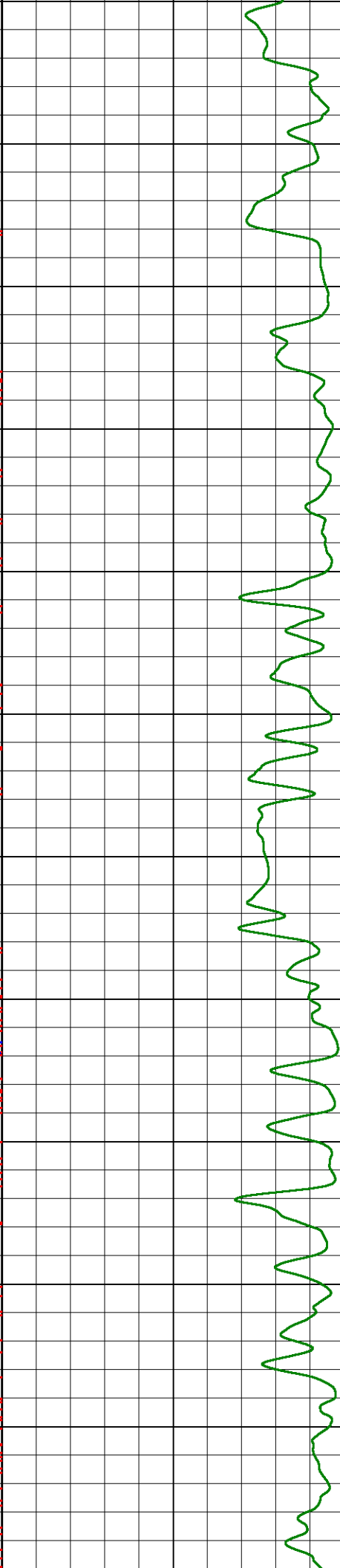
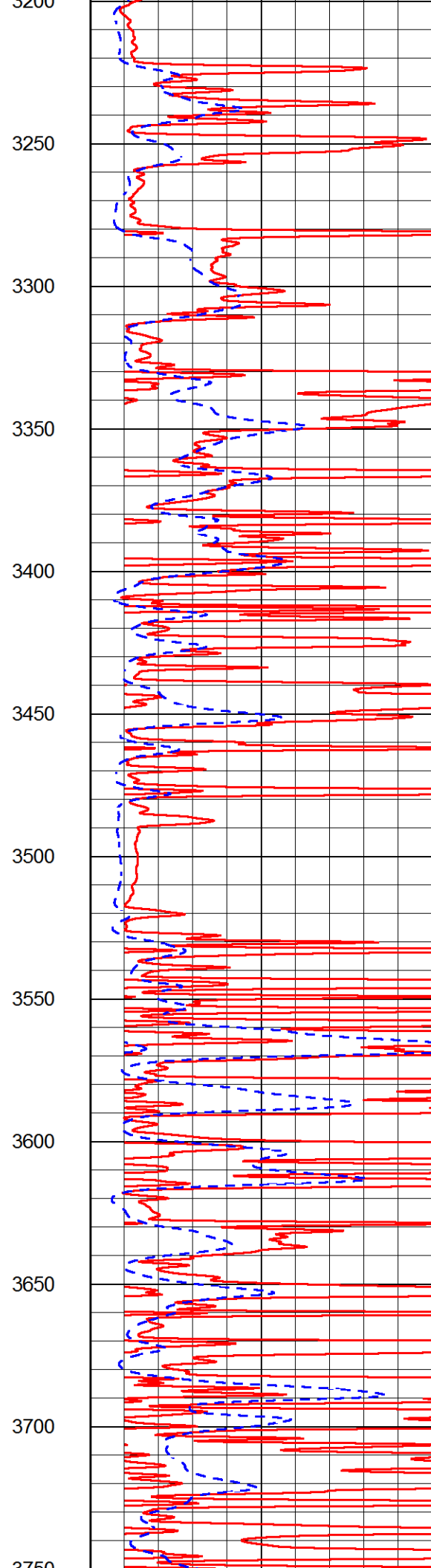
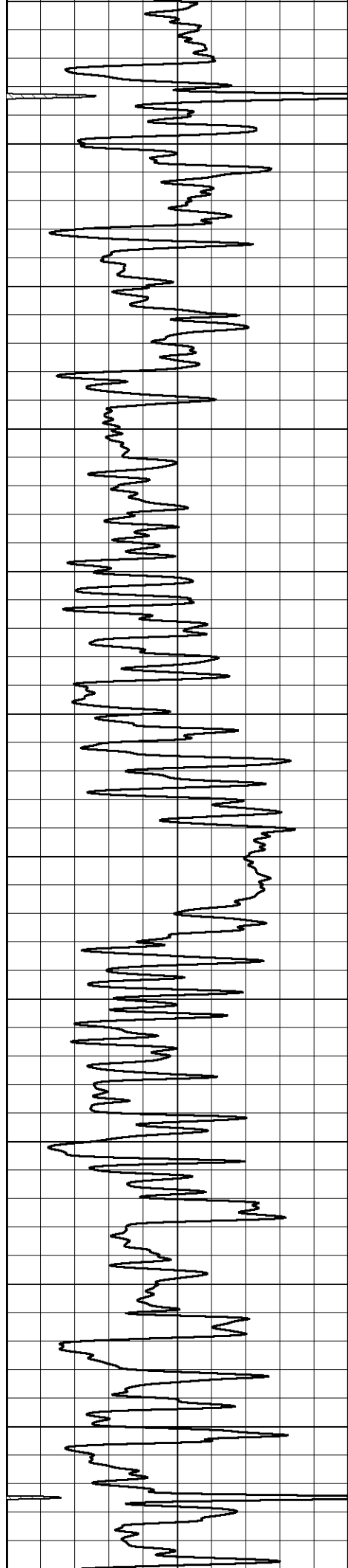
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1100
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1200
1250
1300
1350
1400
1450
1500
1550

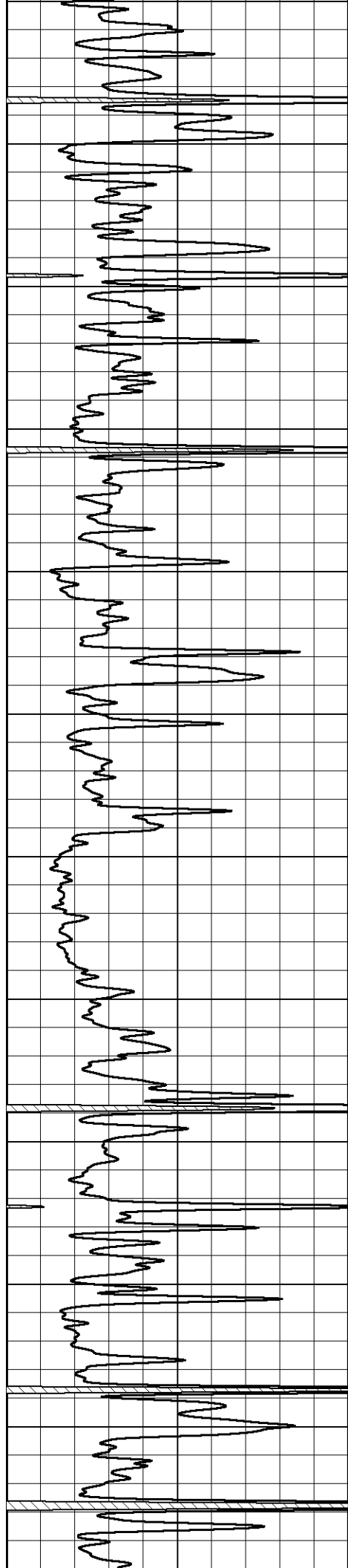




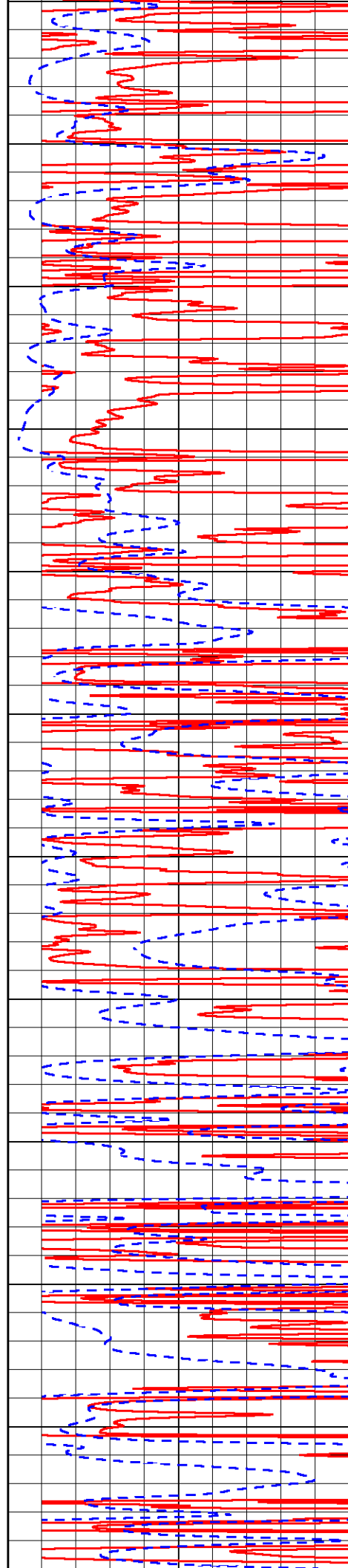


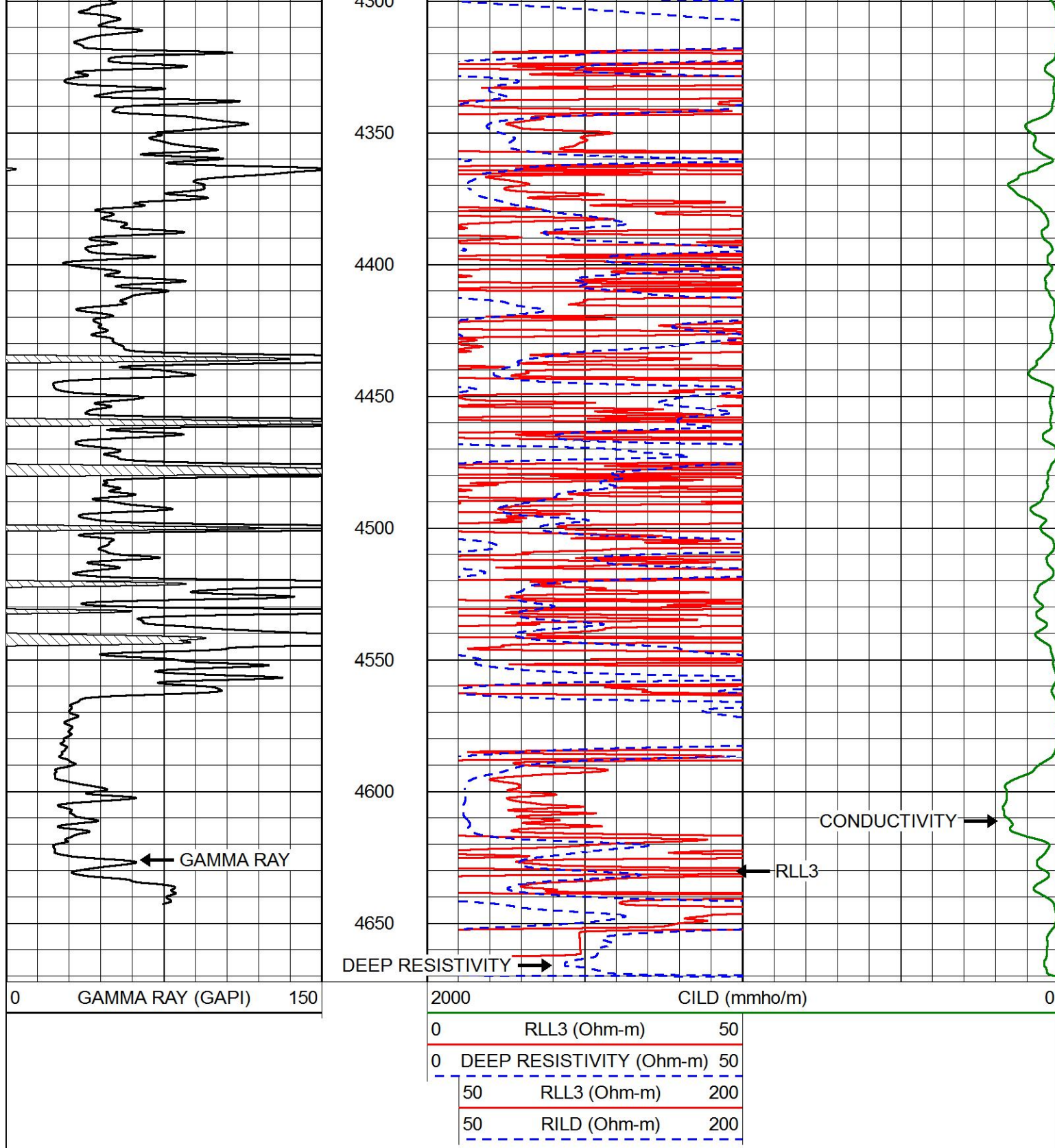






3750
3800
3850
3900
3950
4000
4050
4100
4150
4200
4250
4300

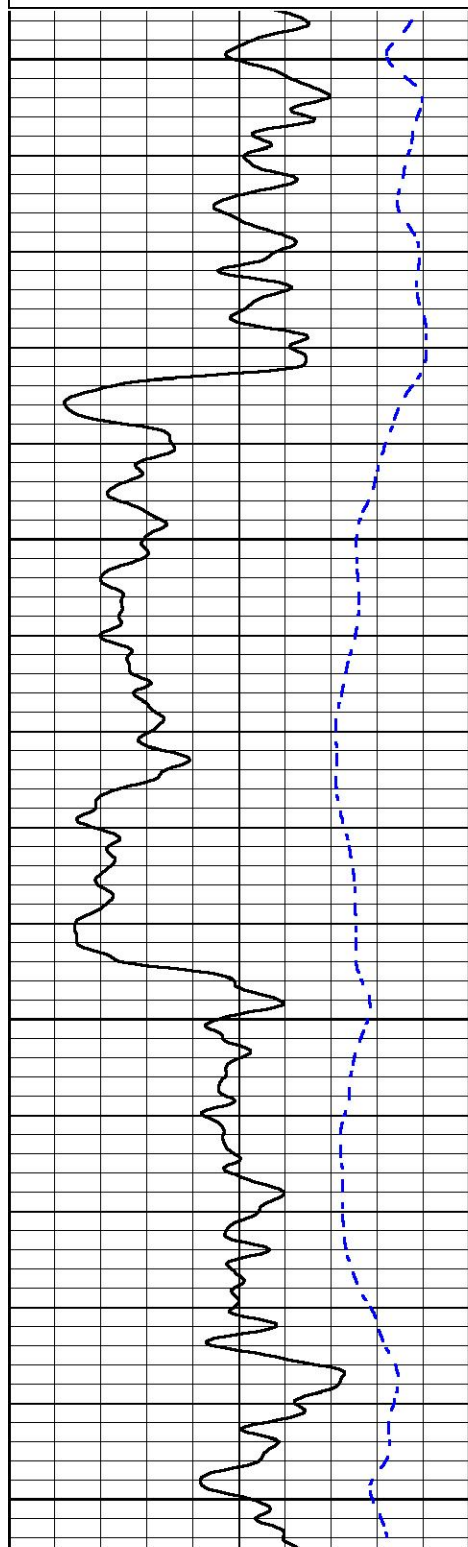




MAIN PASS

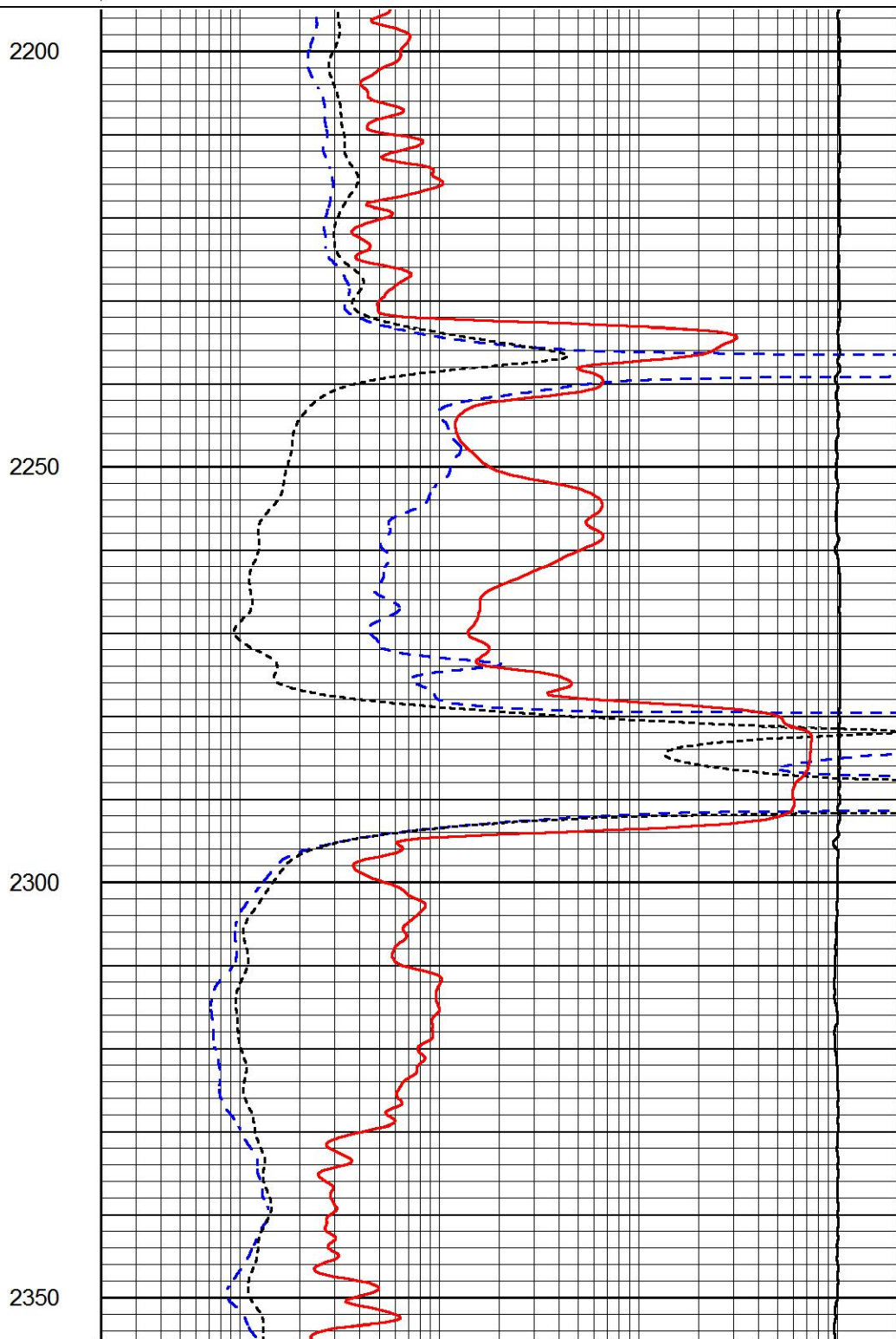
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 Dataset Pathname stack/pass3.1
 Presentation Format dil
 Dataset Creation Wed May 01 13:59:50 2019
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-200	SP (mV)	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
15000	LINE TENSION (lb)	0



0.2	DEEP RESISTIVITY (Ohm-m)	2000
0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
15000	LINE TENSION (lb)	0

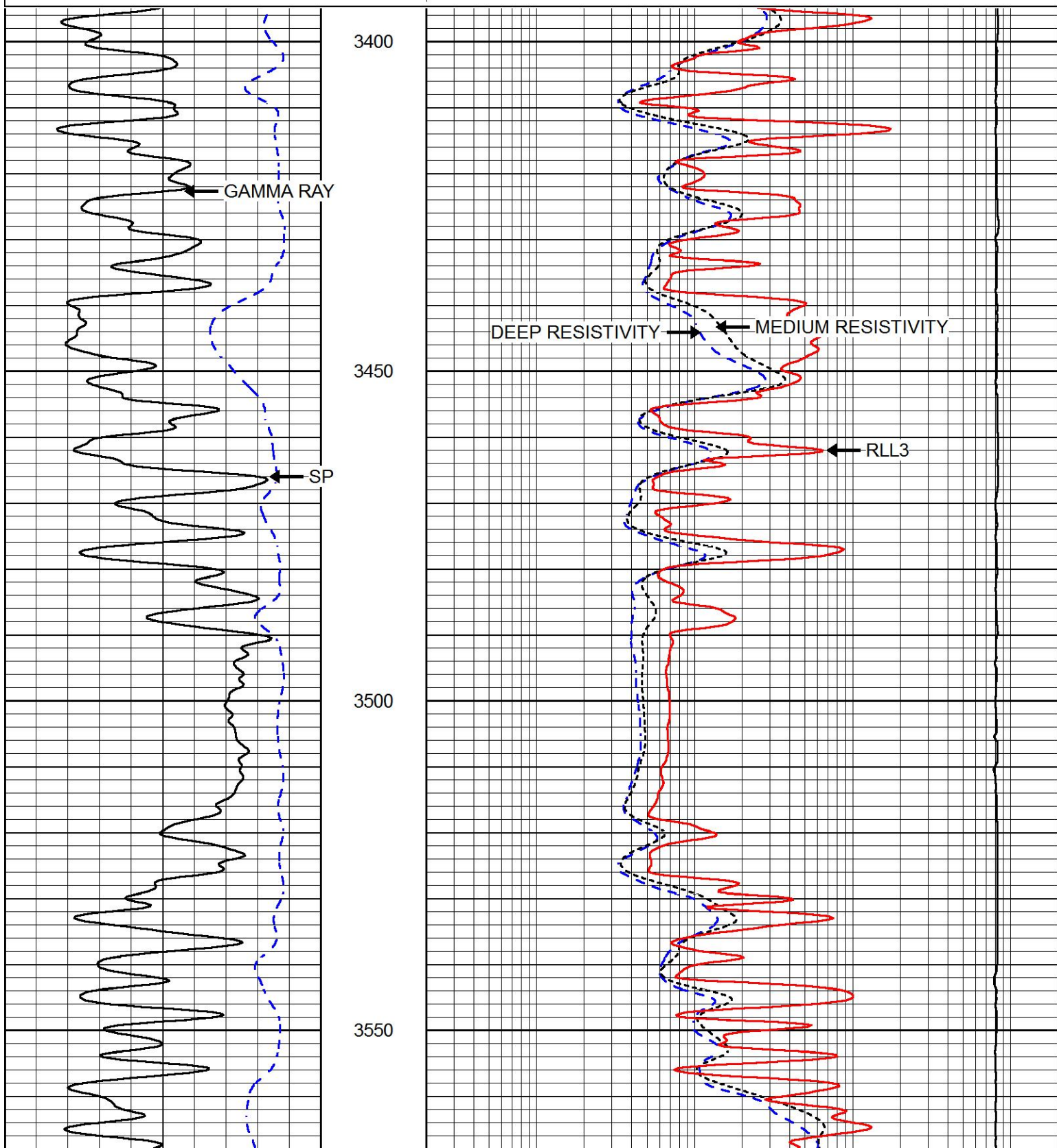


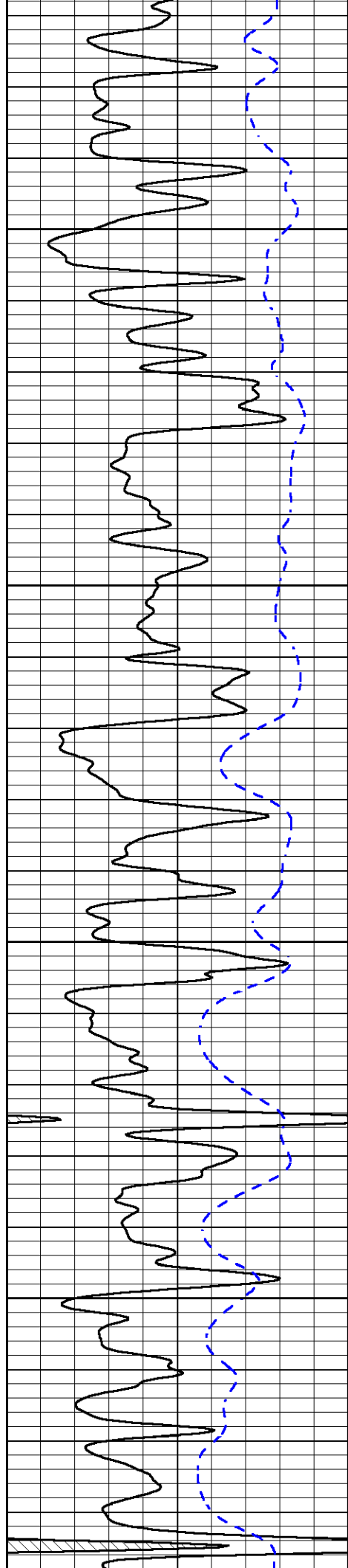
MAIN PASS

Database File marexco_stucky_14_2.db
Dataset Pathname stack/pass3.1
Presentation Format dil
Dataset Creation Wed May 01 13:59:50 2019
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
15000	LINE TENSION (lb)	0



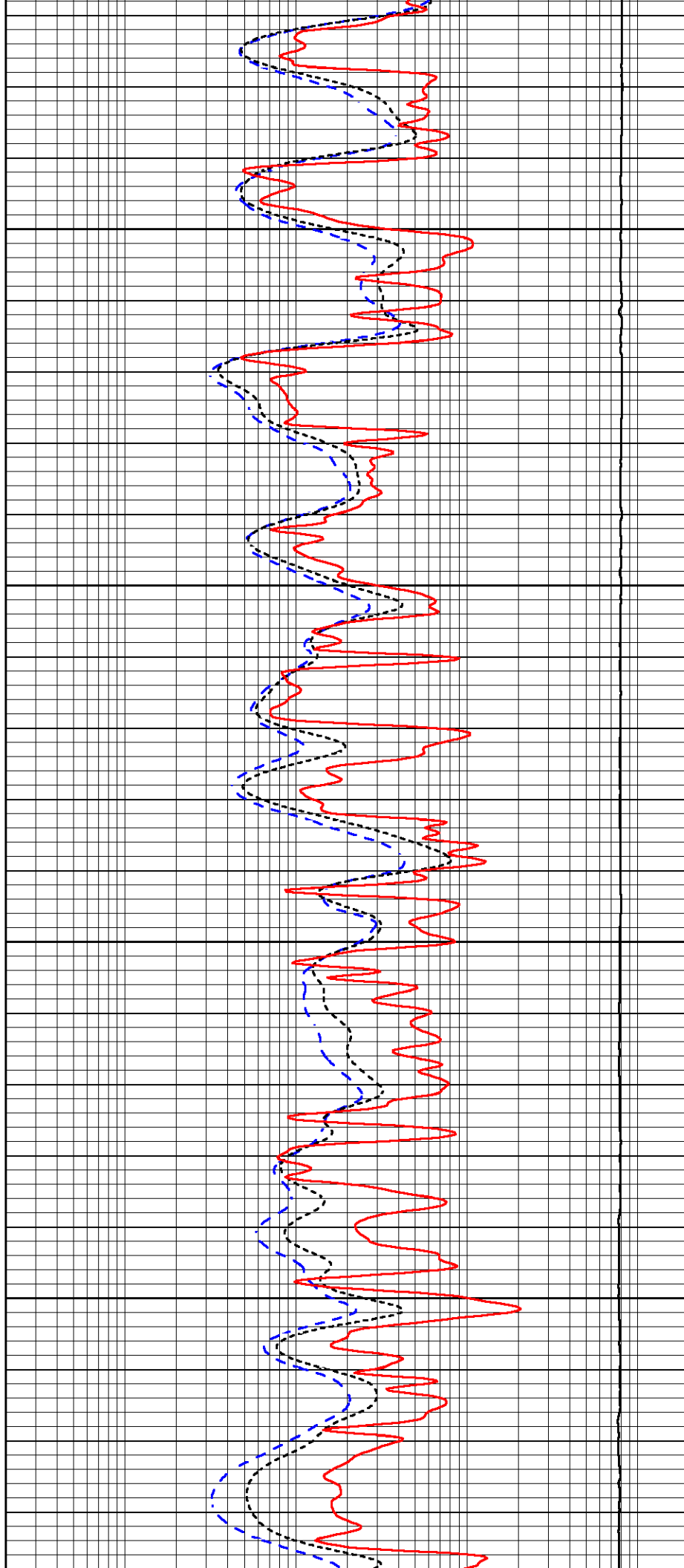


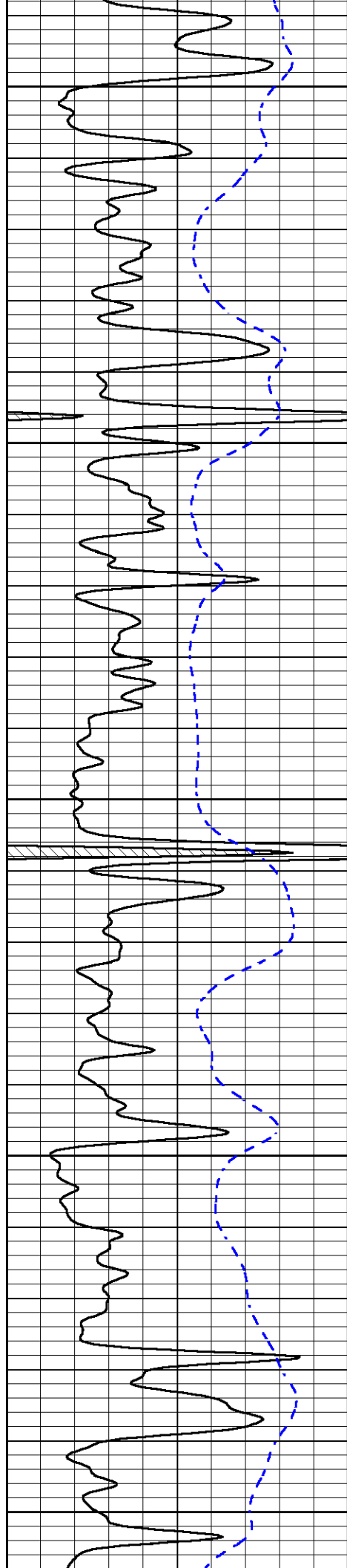
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3650

3700

3750





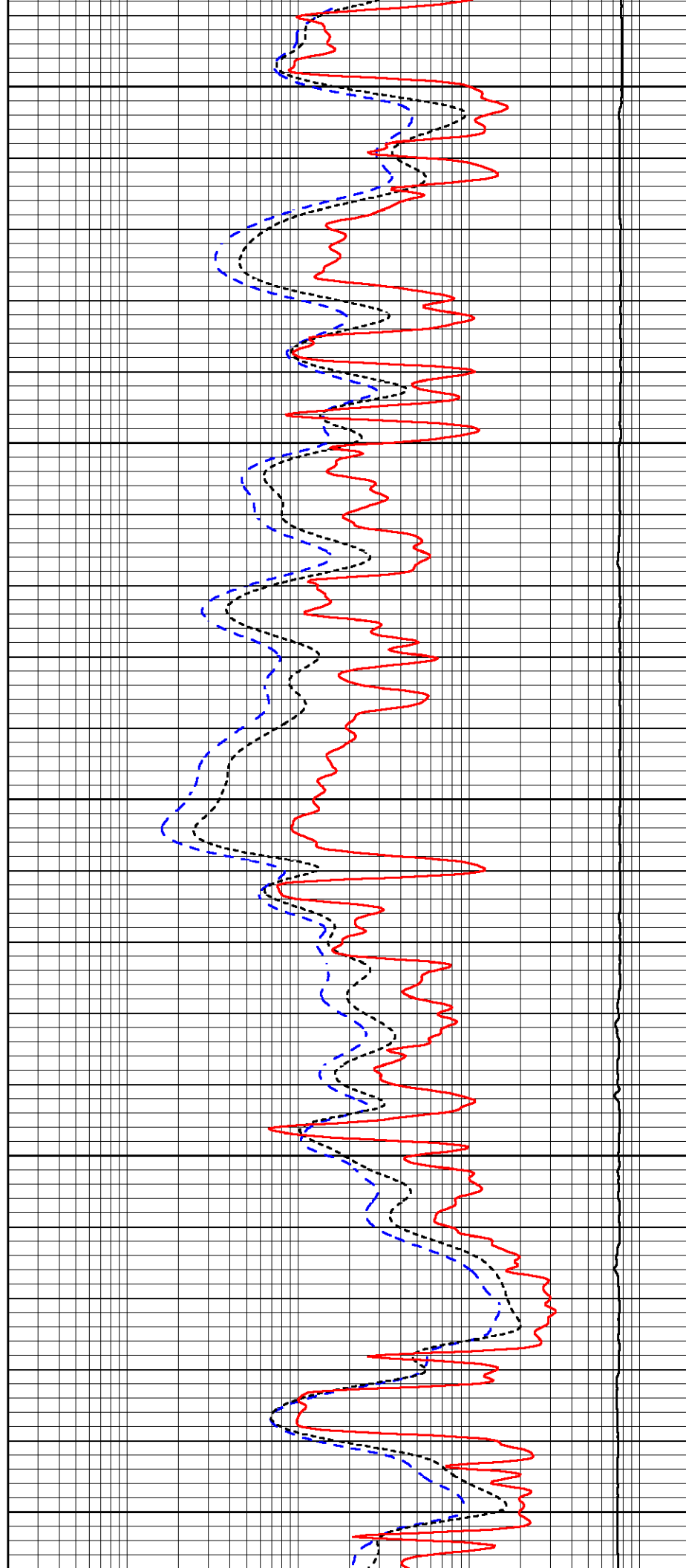
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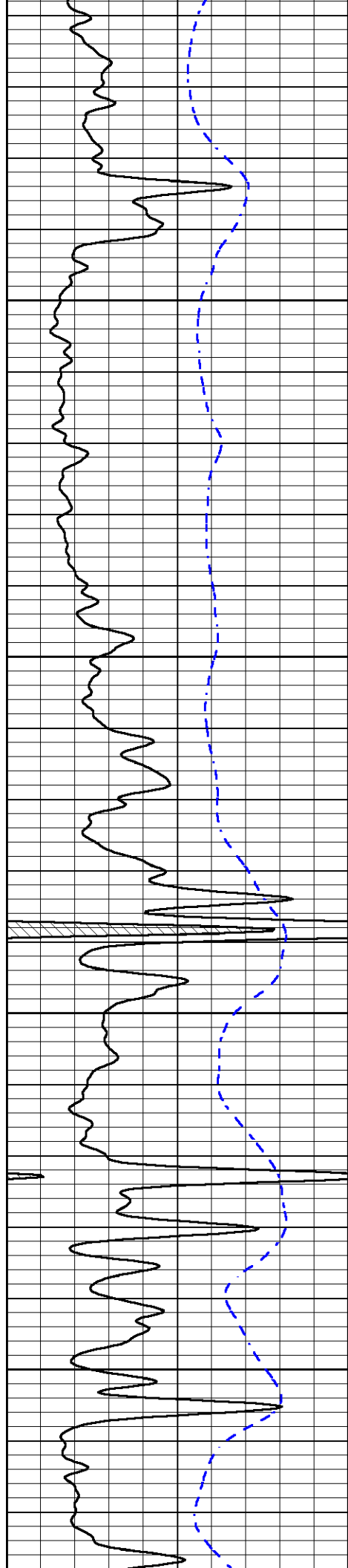
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3900

3950

4000



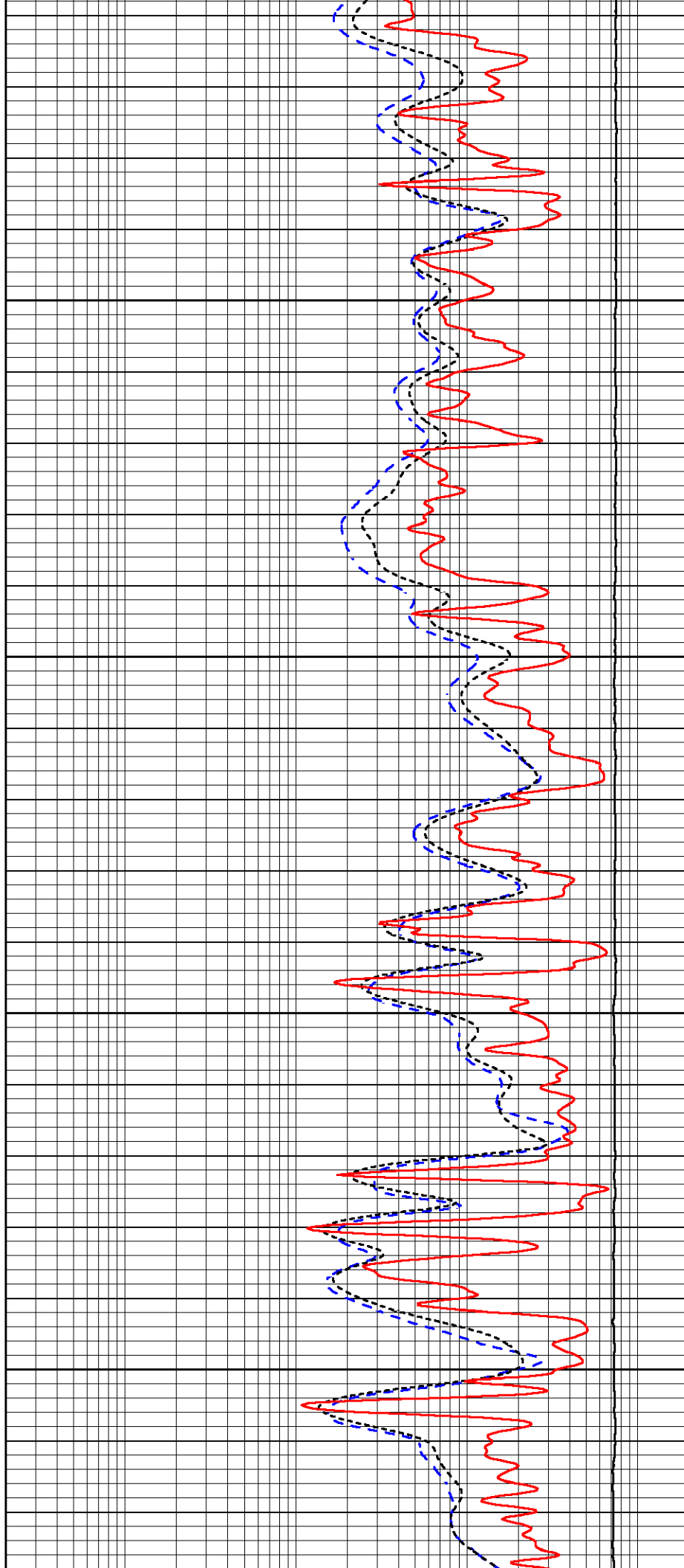


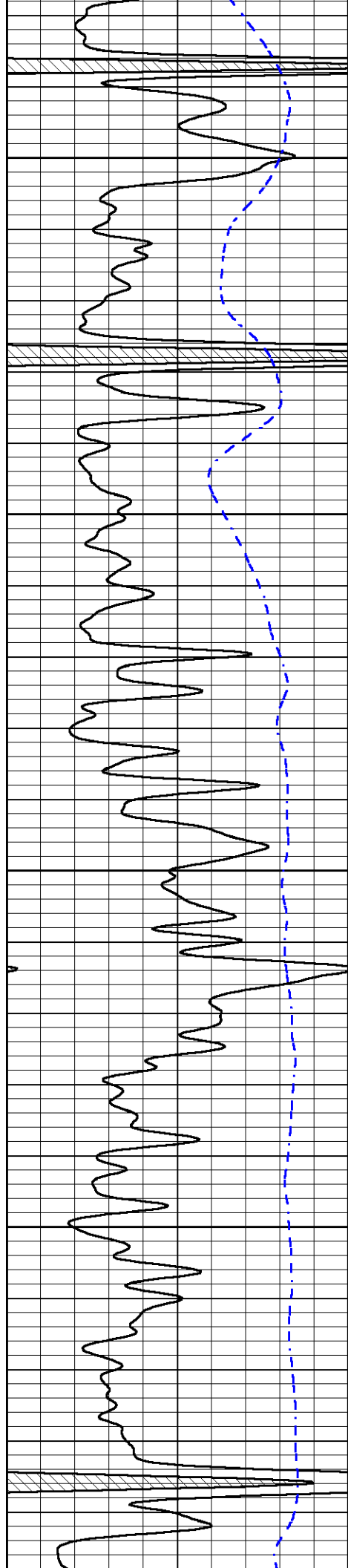
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4100

4150

4200



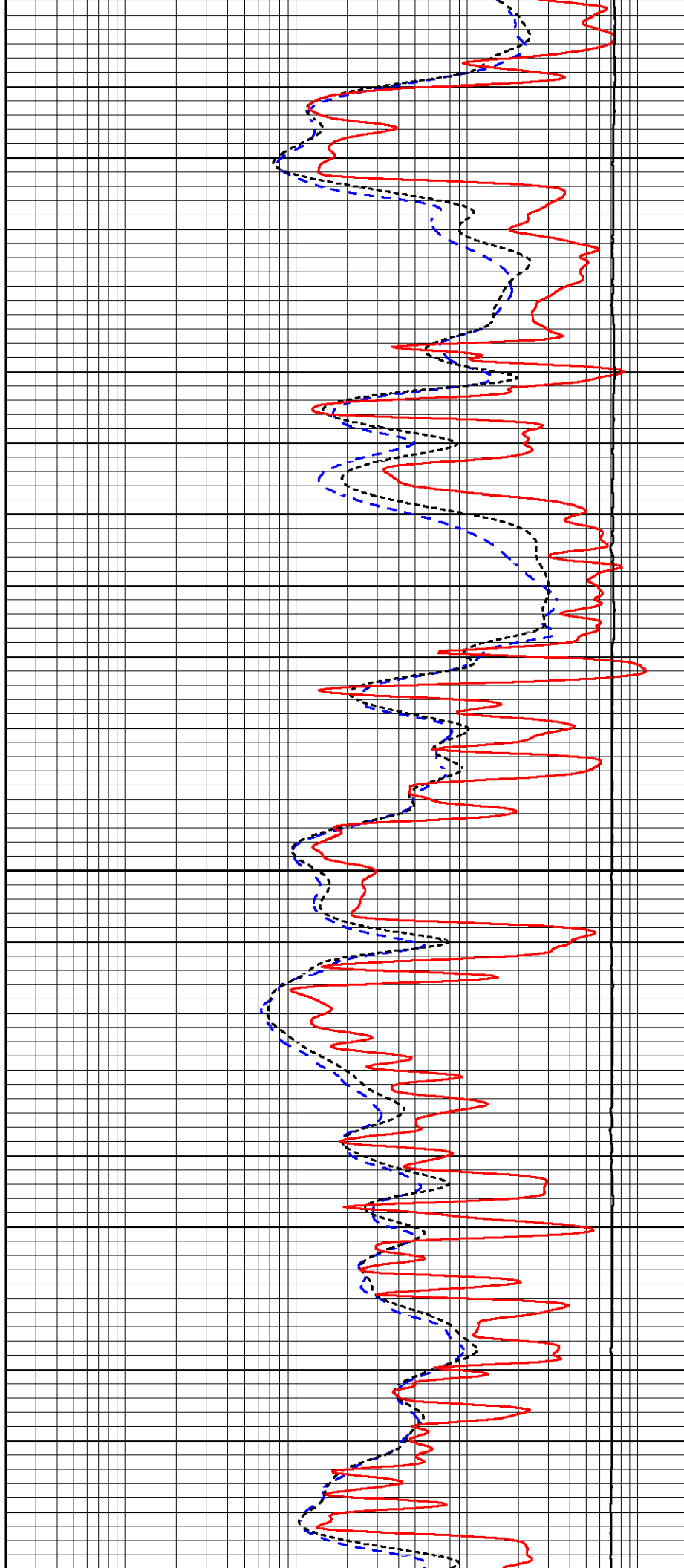


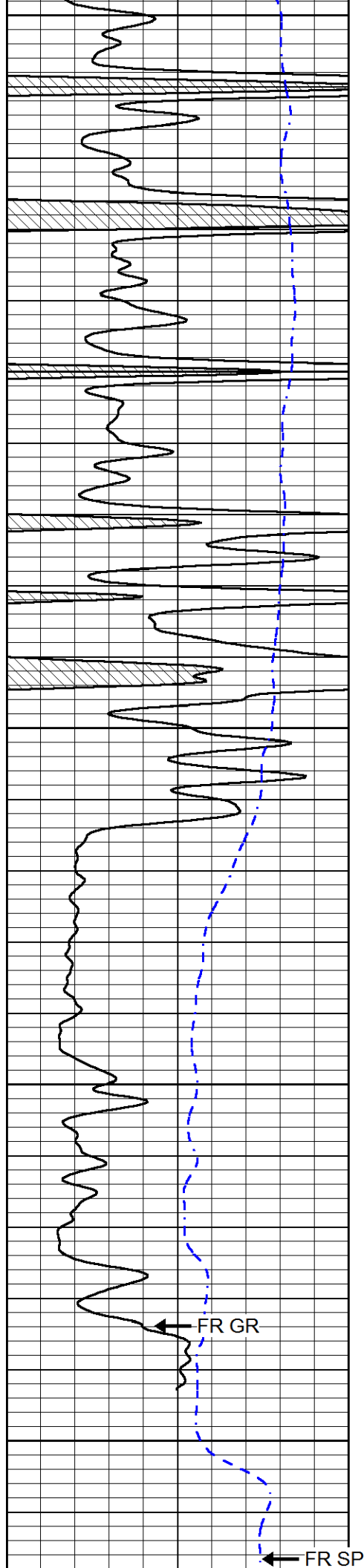
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4300

4350

4400





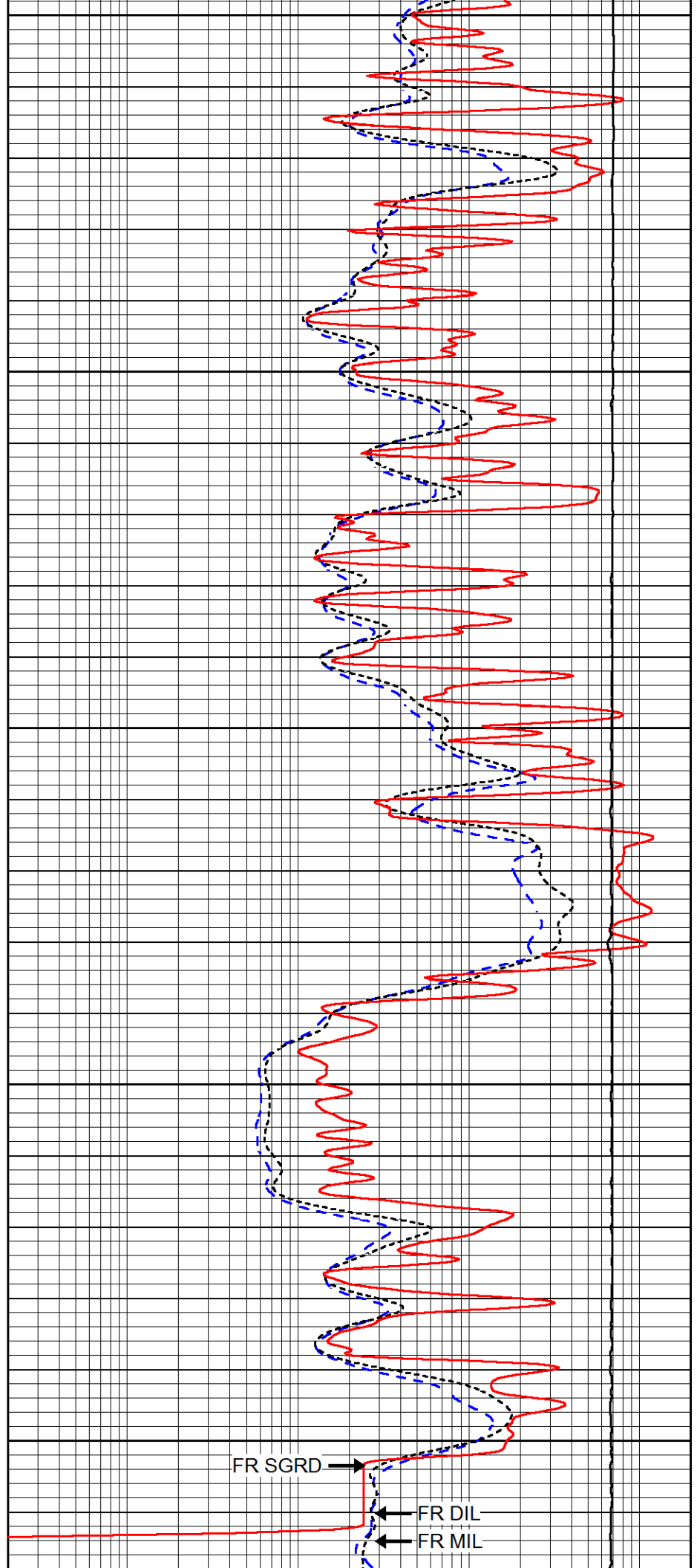
4450

4500

4550

4600

4650



FR SGRD

FR DIL

FR MIL

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
15000	LINE TENSION (lb)	0

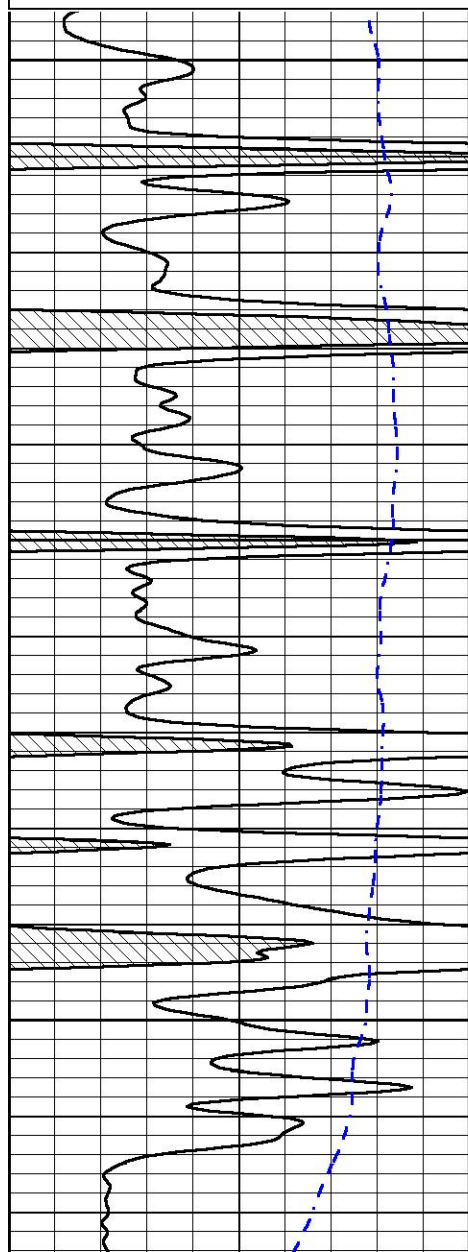


REPEAT SECTION

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Presentation Format dil
Dataset Creation Wed May 01 13:08:22 2019
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-200	SP (mV)	0

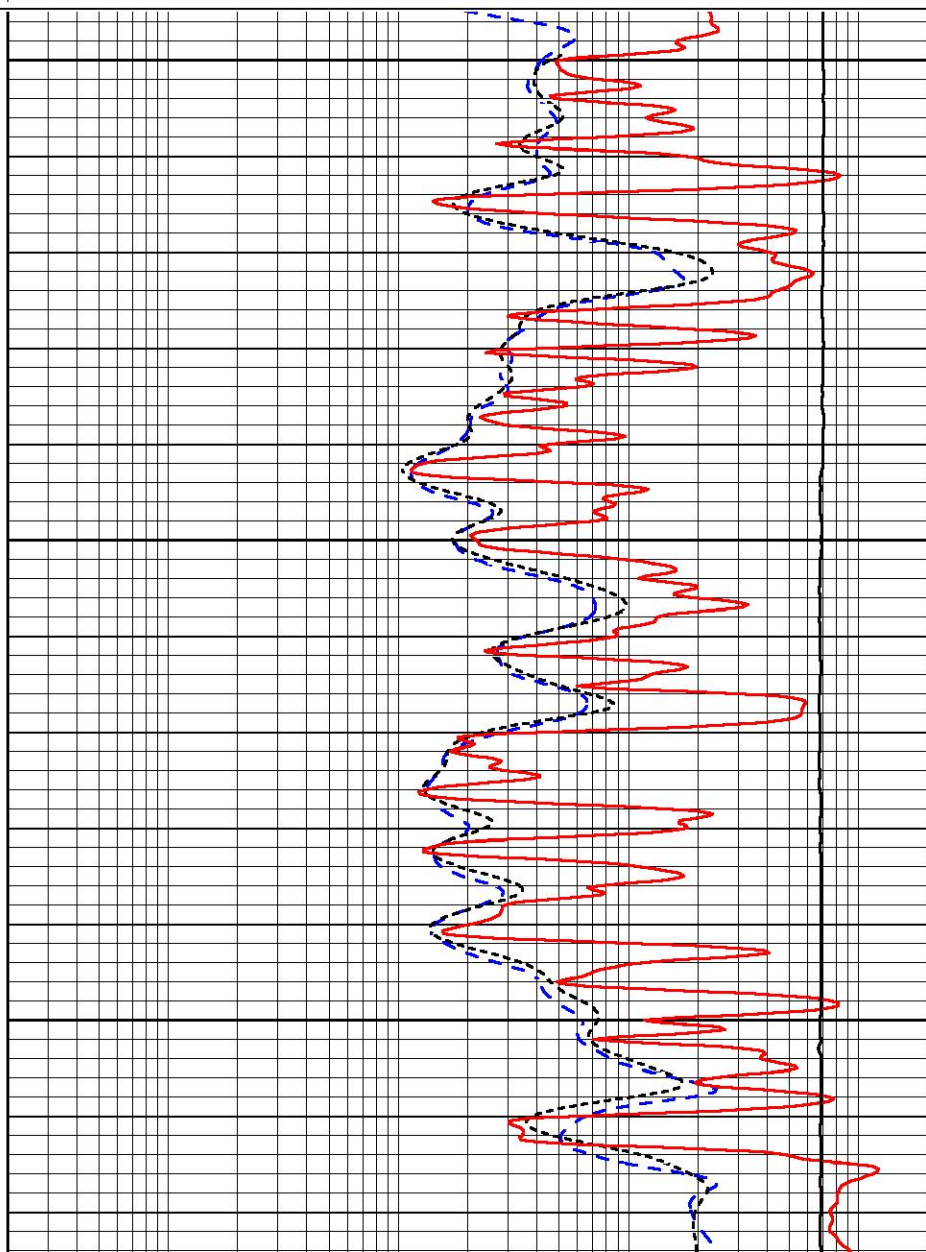
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0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
15000	LINE TENSION (lb)	0

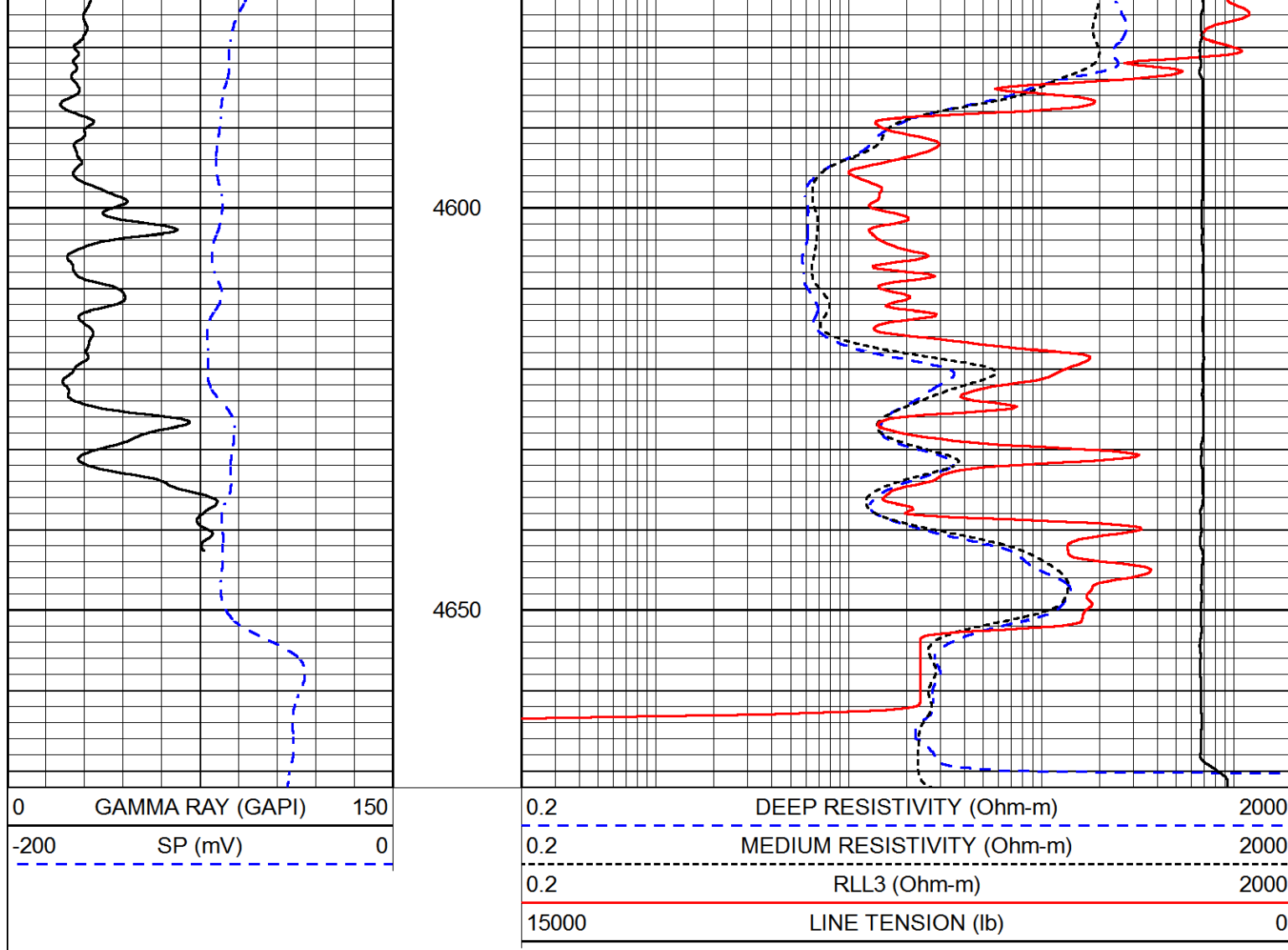


4450

4500

4550





Calibration Report

Database File marexco_stucky_14_2.db
 Dataset Pathname stack/pass3.1
 Dataset Creation Wed May 01 13:59:50 2019

Dual Induction Calibration Report

Serial-Model: PSI 988-M&W
 Calibration Performed: Tue Nov 20 10:50:19 2018

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		Gain	Offset
Deep	178.615	710.235	0.000	255.800	mmho/m	0.525	-44.000
Medium	161.982	1441.110	0.000	255.800	mmho/m	0.380	-17.000

Compensated Density Calibration Report

Serial-Model: 144-84-M&W
 Source / Verifier: /
 Master Calibration Performed: Mon Jan 07 15:00:31 2019

Master Calibration

	Density			Far Detector	Near Detector	
Magnesium	1.755	g/cc		4315.49	5309.89	cps
Aluminum	2.675	g/cc		825.26	3443.46	cps
Spine Angle = 75.33			Density/Spine Ratio = 0.538			
	Size			Reading		
Small Ring	4.00	in		0.69		
Large Ring	14.00	in		0.04		

Compensated Neutron Calibration Report
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Serial Number:	tk10-MW
Tool Model:	M&W
Calibration Performed:	Wed Nov 16 11:21:36 2016

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:	89-M&W	
Tool Model:	M&W	
Calibration Performed:	Tue Apr 11 17:08:01 2017	
Calibrator Value:	1000.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	6.2	cps
Sensitivity:	0.5200	GAPI/cps

	Company	MAREXCO, INC.
	Well	STUCKY #14-2
	Field	WILDCAT
	County	SCOTT
	State	KANSAS