



PIONEER

Pioneer Energy Services

DUAL INDUCTION LOG

Company VAL ENERGY, INC.
Well SCHMADERER #1-23
Field WILDCAT
County RAWLINS State KANSAS

Location: API #: 15-153-21239-00-00

1983' FNL & 969' FEL

SEC 23 TWP 4S RGE 32W

Permanent Datum GROUND LEVEL Elevation 2944'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Other Services
CNL/CDL
MEL
Elevation
K.B. 2949'
D.F. N/A
G.L. 2944'

Date 9/5/2019

Run Number ONE

Depth Driller 4600'

Depth Logger 4600'

Bottom Logged Interval 4599'

Top Log Interval 250'

Casing Driller 8.625" @ 292'

Casing Logger 290'

Bit Size 7.875"

Type Fluid in Hole CHEMICAL

Salinity, ppm CL 2000

Density / Viscosity 9.5 58

pH / Fluid Loss 10.0 8.0

Source of Sample FLOWLINE

Rm @ Meas. Temp .85 @ 81

Rmt @ Meas. Temp .64 @ 81

Rmc @ Meas. Temp 1.15 @ 81

Source of Rmt / Rmc CHARTS

Rm @ BHT .56 @ 122

Operating Rig Time 2 HOURS

Max Rec. Temp. F 122 DEGF

Equipment Number P-108

Location HAYS

Recorded By J. HENRICKSON

Witnessed By WES HANSEN

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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.

GEM KANSAS

NORTH ON 27 RD TO C RD, 1 EAST, 6 NORTH,
1 EAST, 1/4 NORTH, WEST 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: WES HANSEN
Secondary Witness:
Secondary Witness:
Secondary Witness:

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in 7.875	degF 122	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 170	degF 0	Off	ft 4600

Sensor	Offset (ft)	Schematic		Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.58			GR-M&W (89-M&W)	3.00	3.50	50.00
CNLSC	37.48			CNT-M&W (tk10-MW)	5.50	3.50	100.00
CNSSC	36.73						
LSD DCAL SSD	28.43 28.42 27.93			CDL-M&W (979-229)	8.50	4.00	250.00
ML-PSI STKBL ML (PSI-02) Stackable Microlog Tools	7.58				7.58	4.00	65.00
MCAL	19.83						
MI	19.83						
MN	19.83						
RLL3	15.80						
RLL3F	15.79						
CILD	8.00			DIL-M&W (PSI 988)	18.50	3.50	220.00

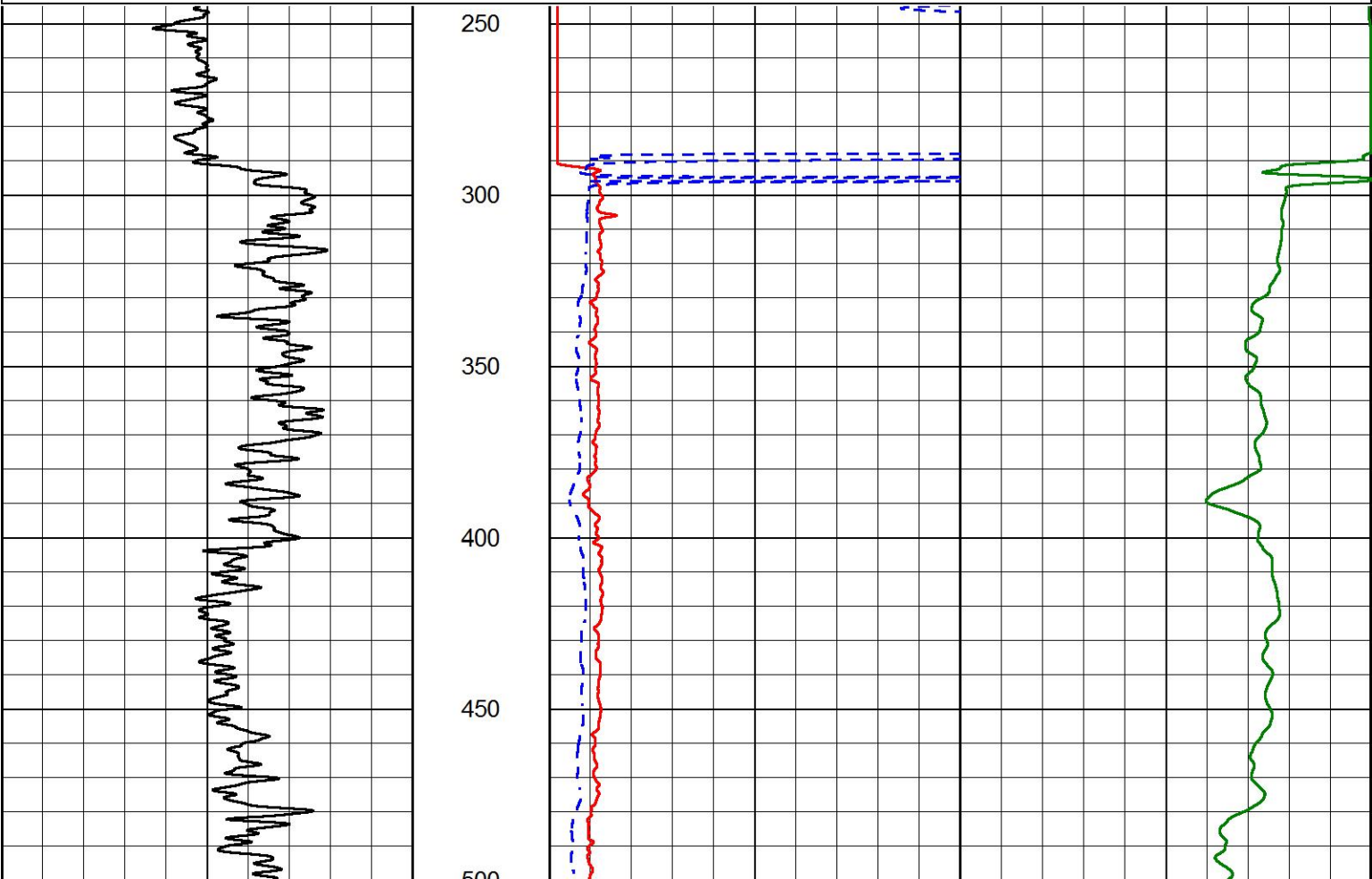
CILM	4.70								
SP	0.20								
Dataset: val_schmaderer_1_23.db: field/well/stackml/pass3.1 Total length: 43.08 ft Total weight: 685.00 lb O.D.: 4.00 in									

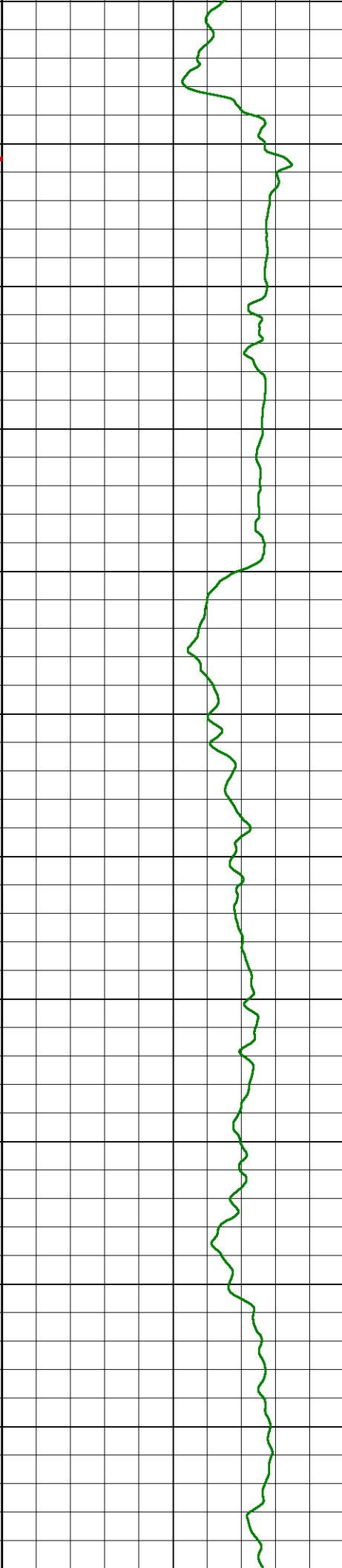
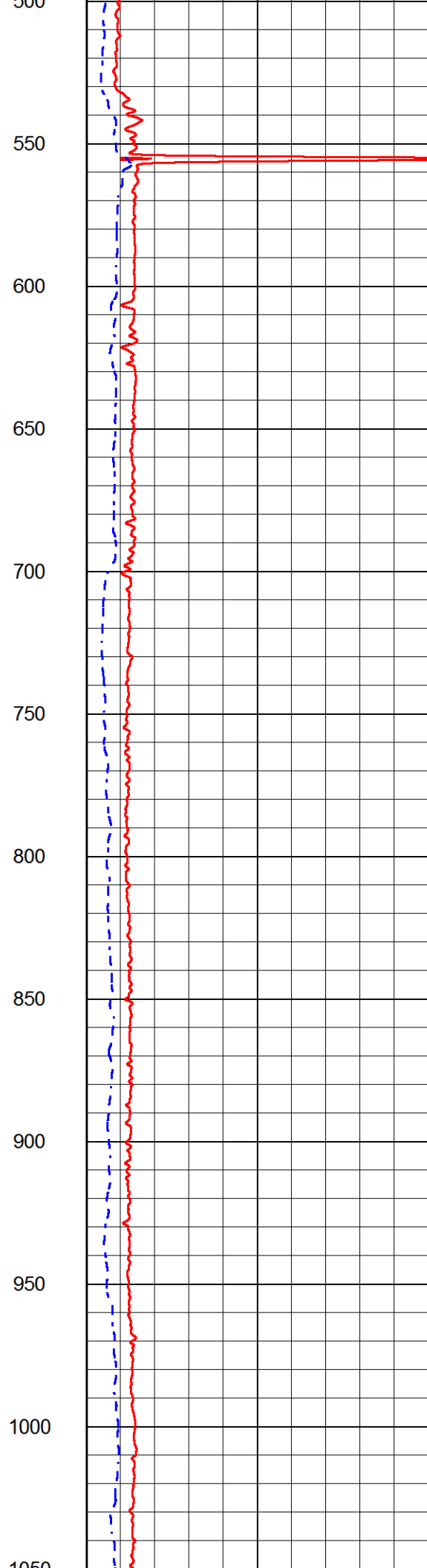
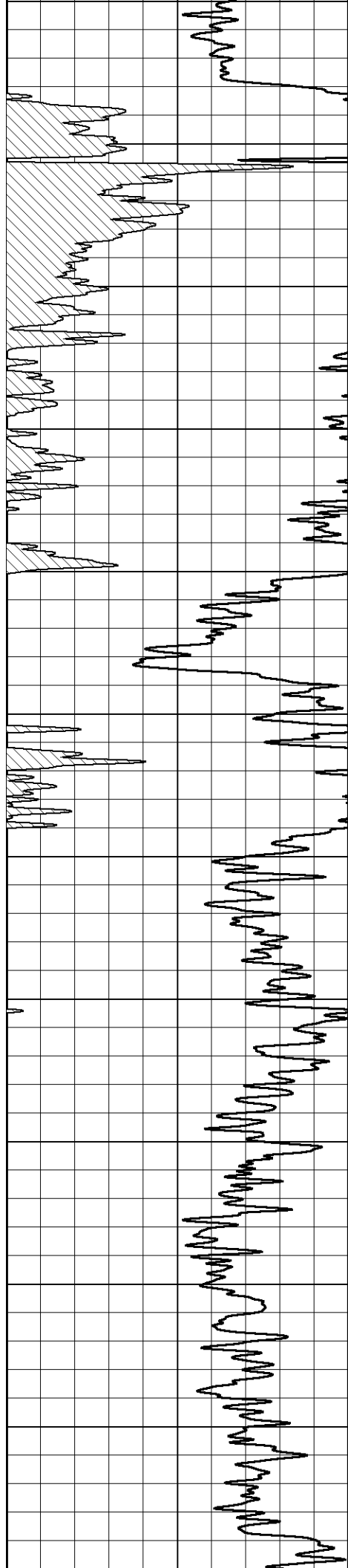


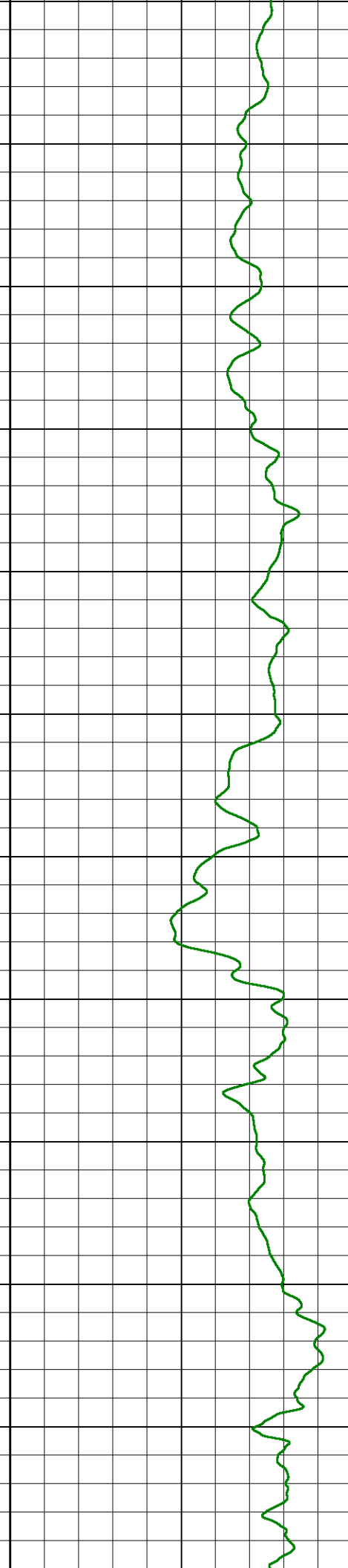
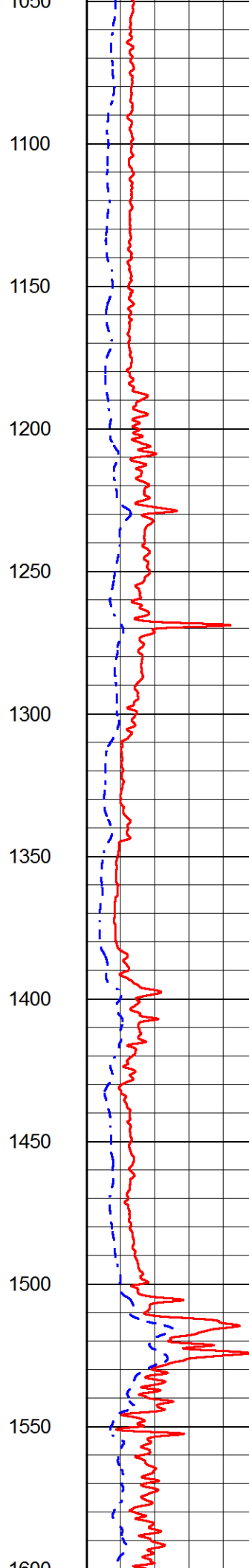
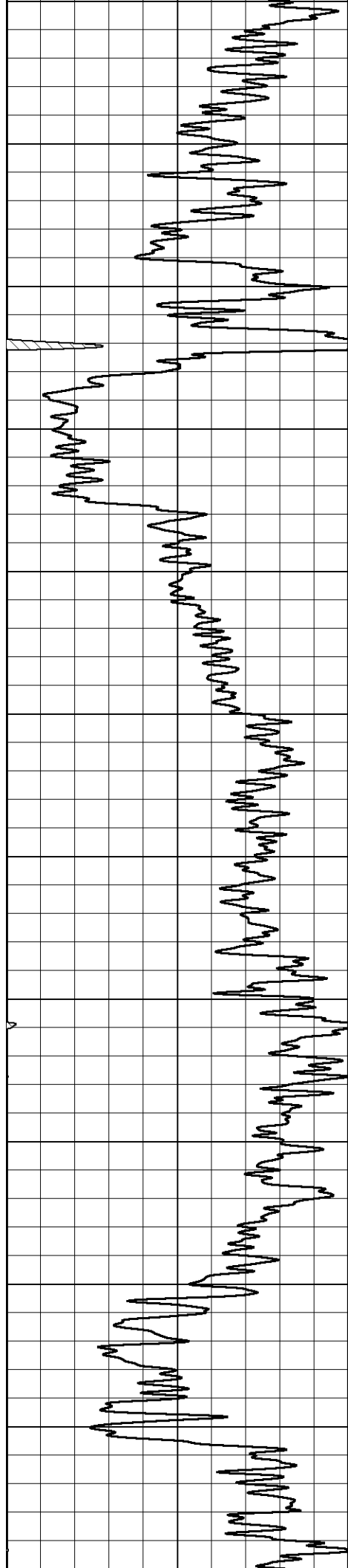
MAIN PASS

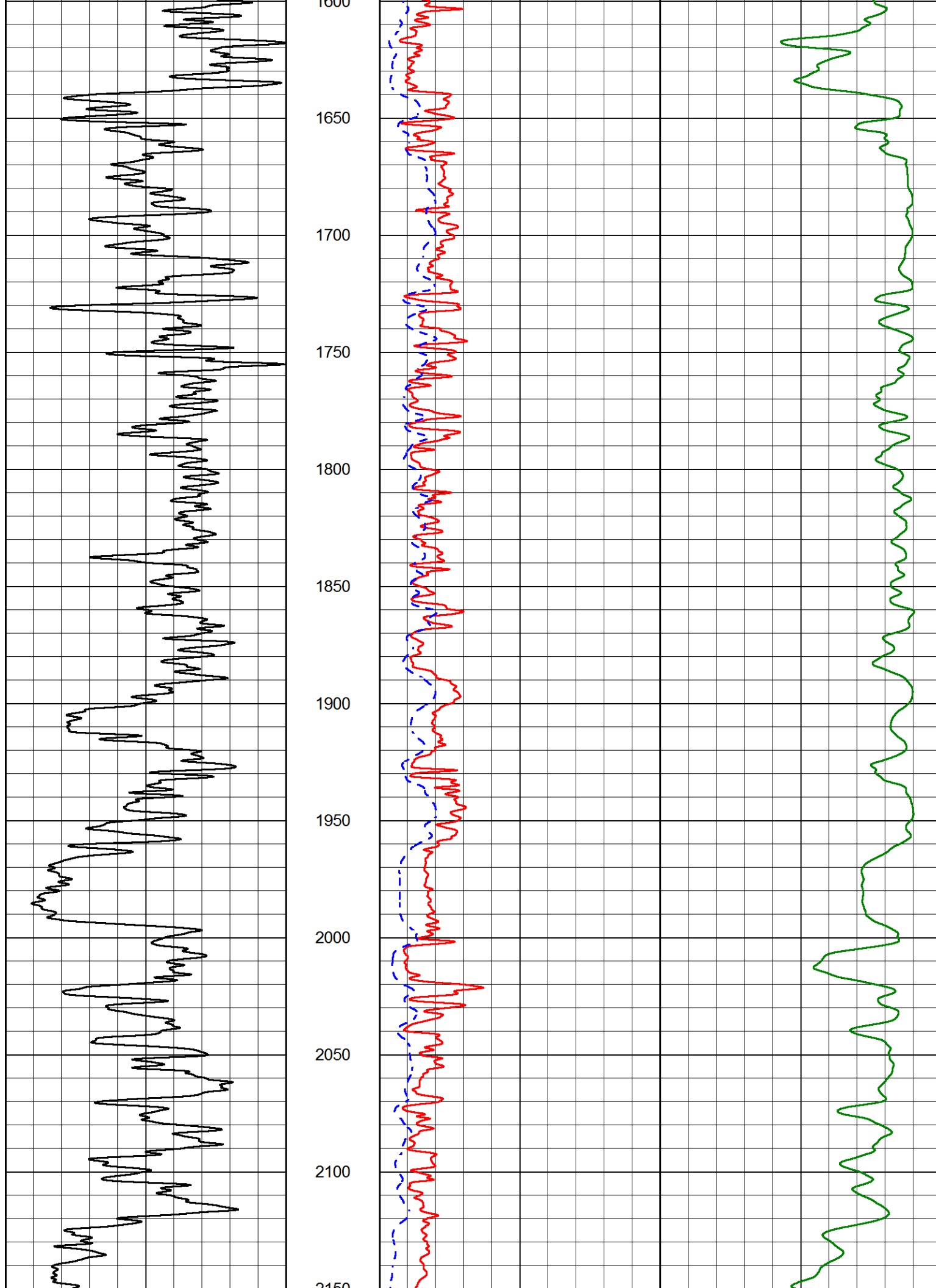
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Dataset Pathname	stackml/pass3.1
Presentation Format	dil2in
Dataset Creation	Thu Sep 05 17:49:38 2019
Charted by	Depth in Feet scaled 1:600

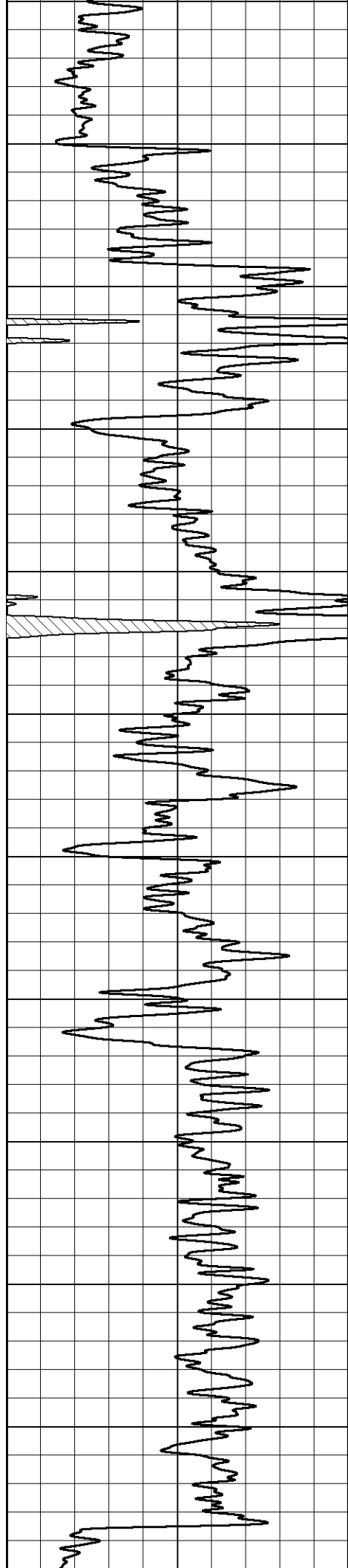
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0	RLL3 (Ohm-m)	50	0	DEEP RESISTIVITY (Ohm-m)	50
50	RLL3 (Ohm-m)	200	50	RILD (Ohm-m)	200
50	RILD (Ohm-m)	200			



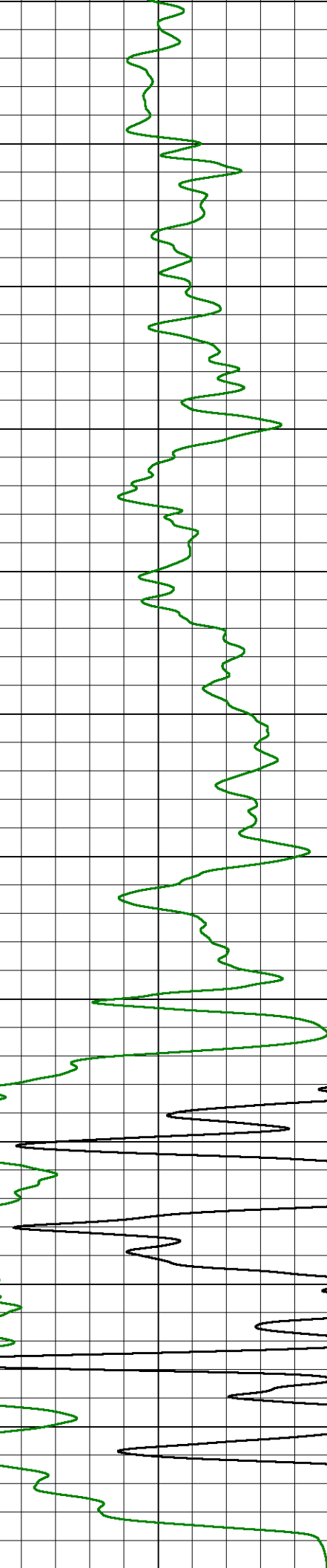
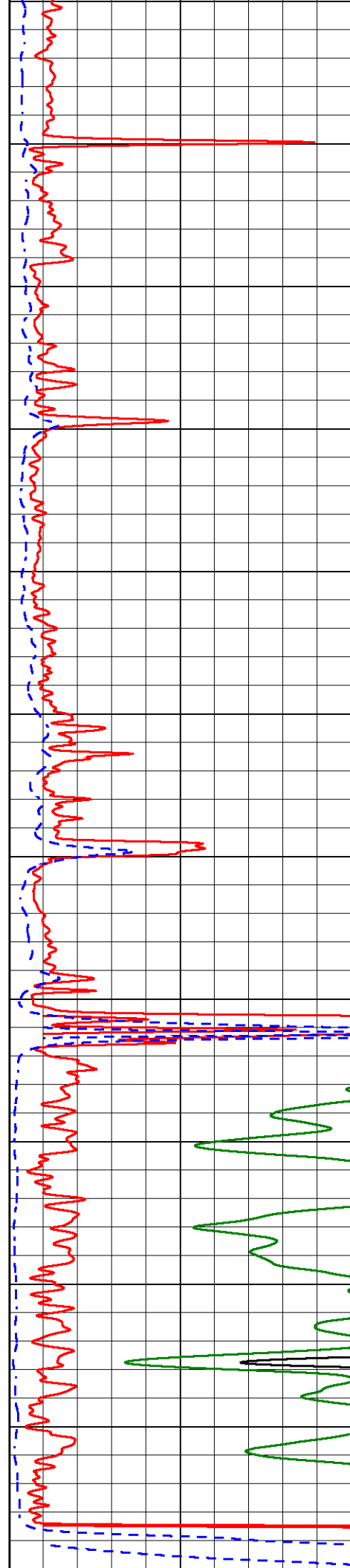


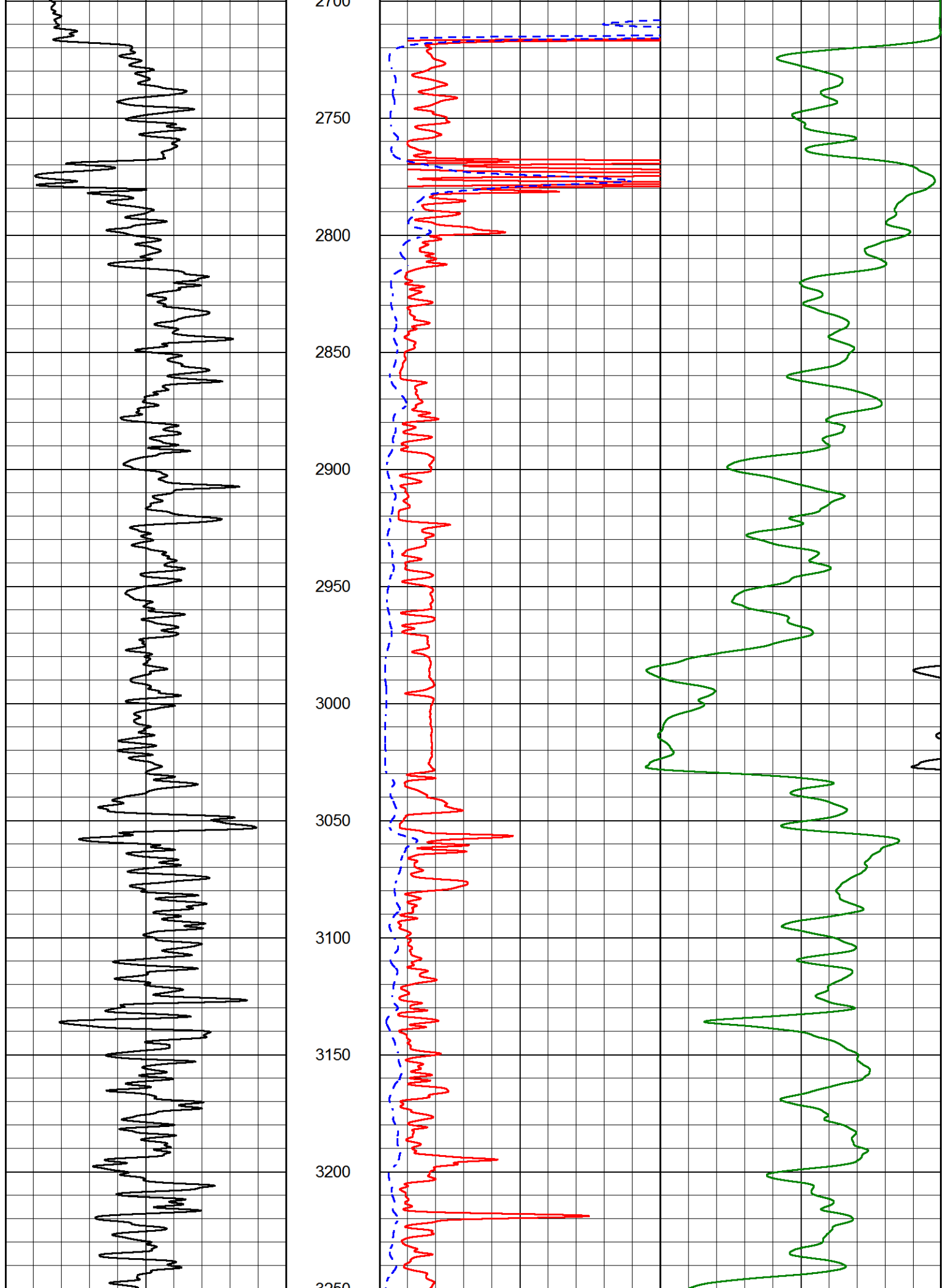


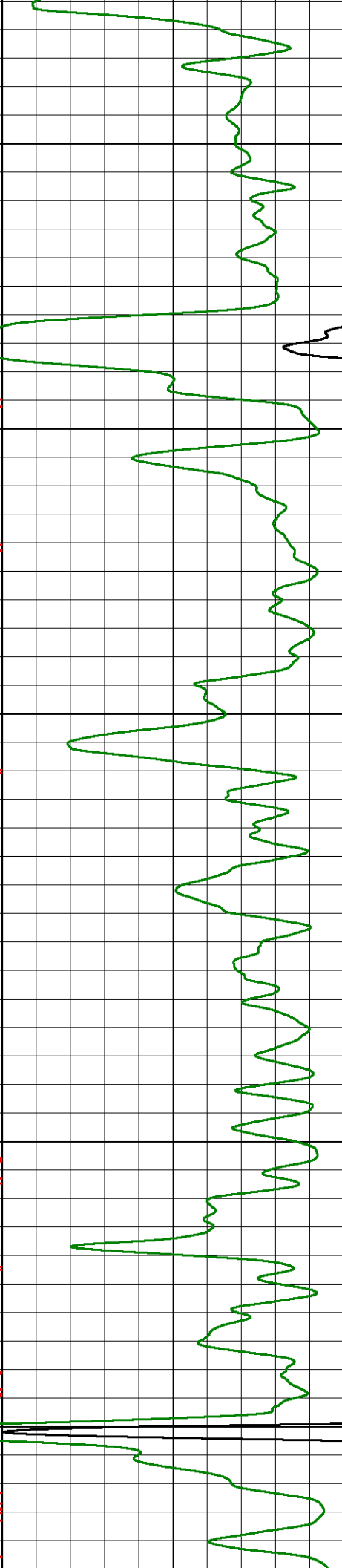
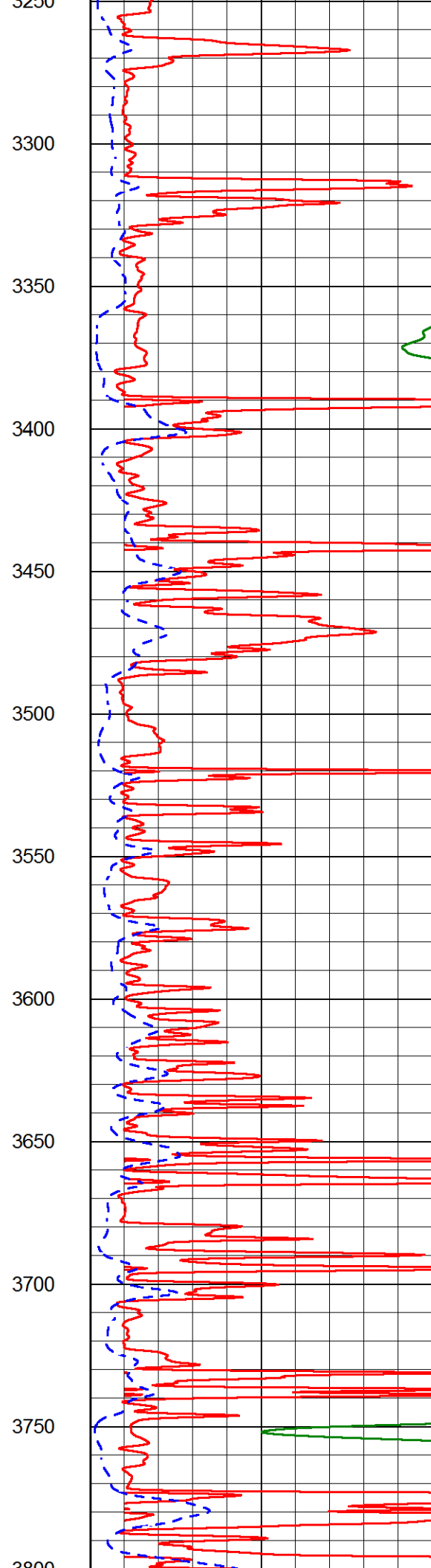
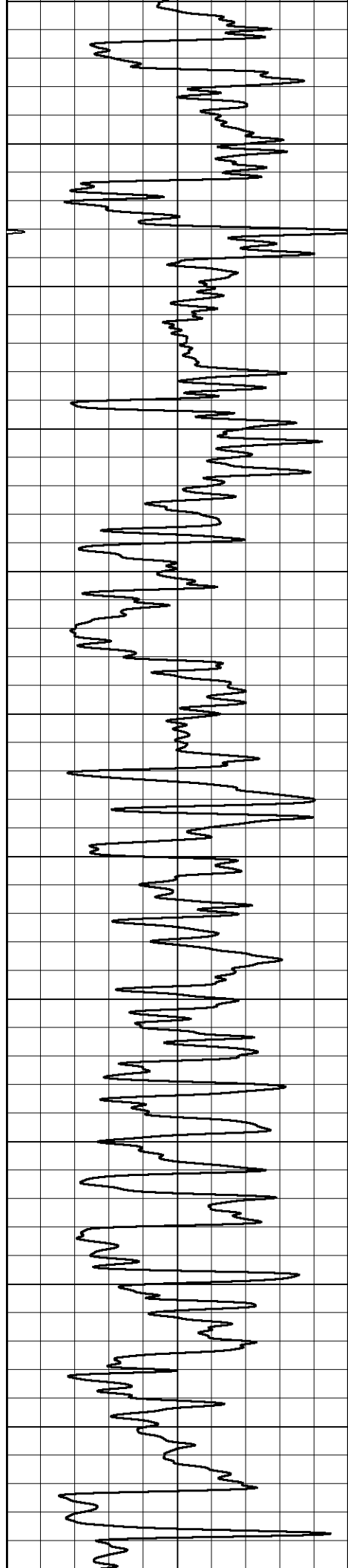


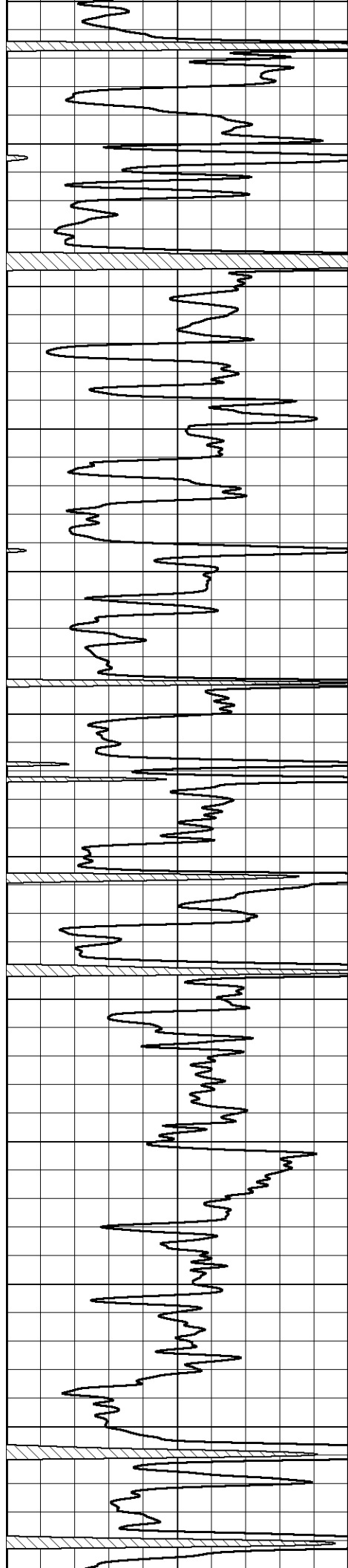


2150
2200
2250
2300
2350
2400
2450
2500
2550
2600
2650
2700

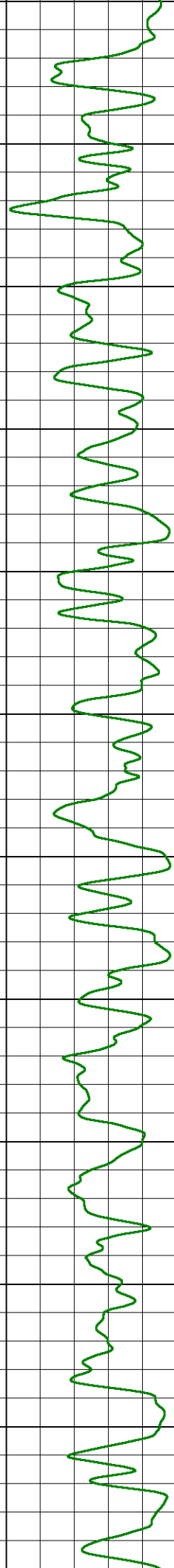
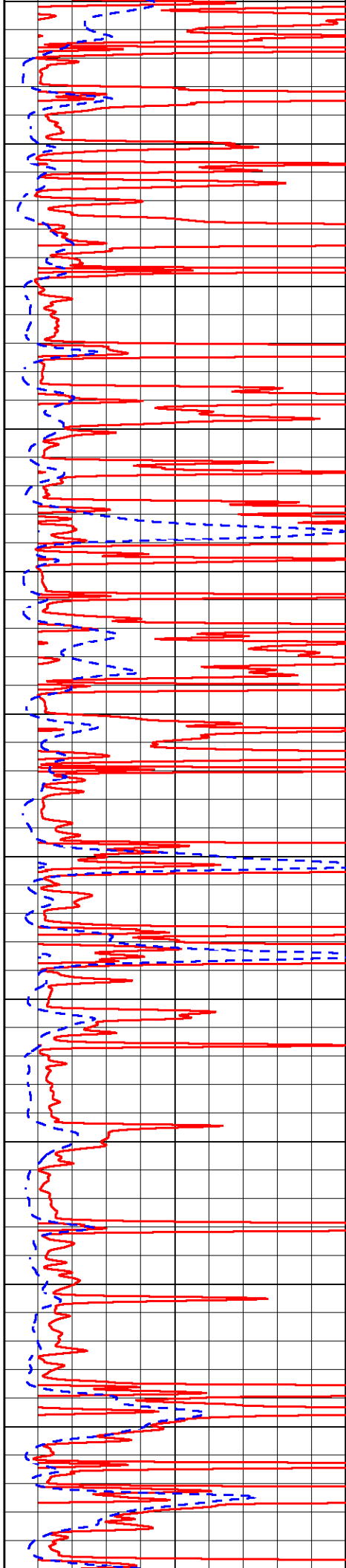


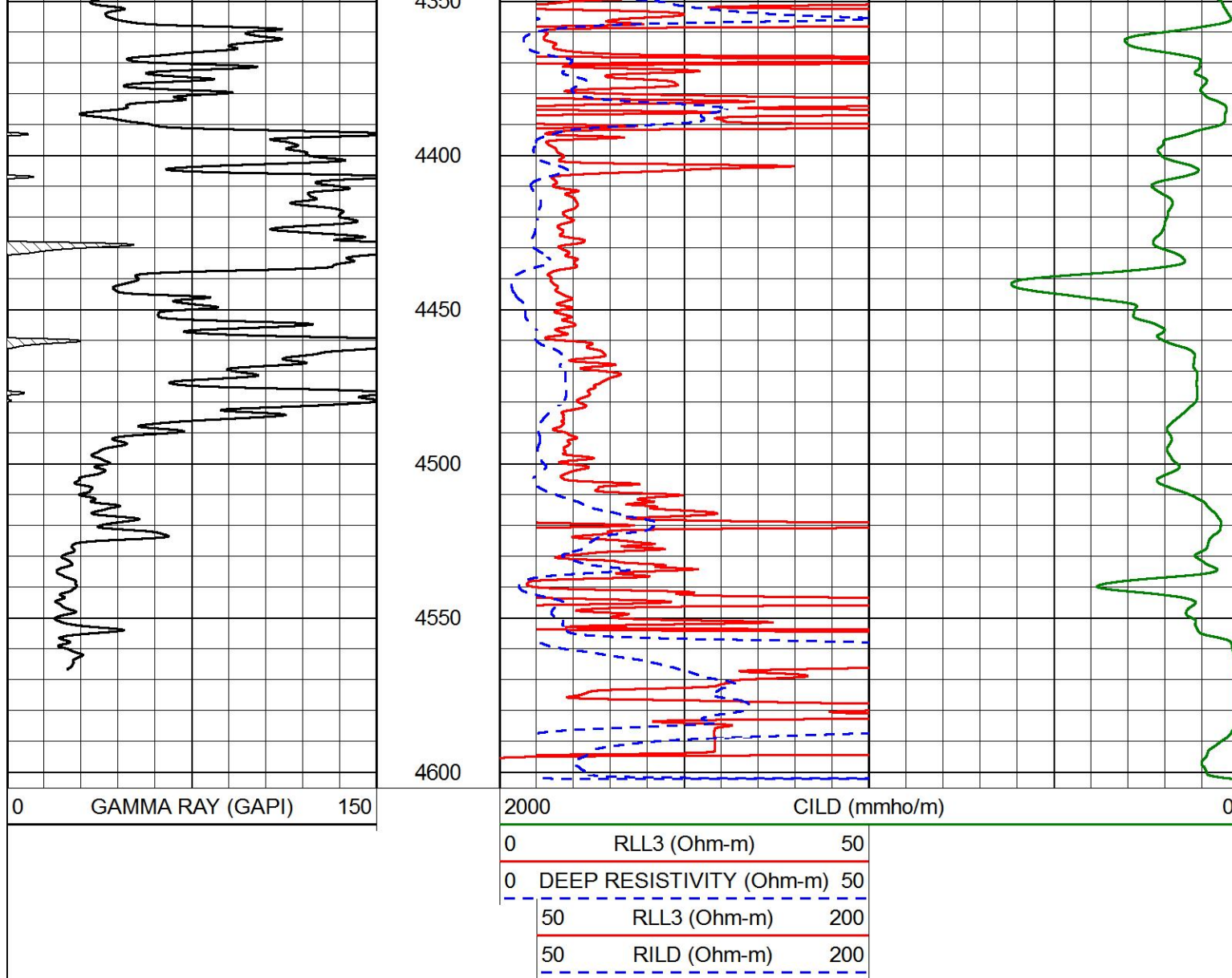






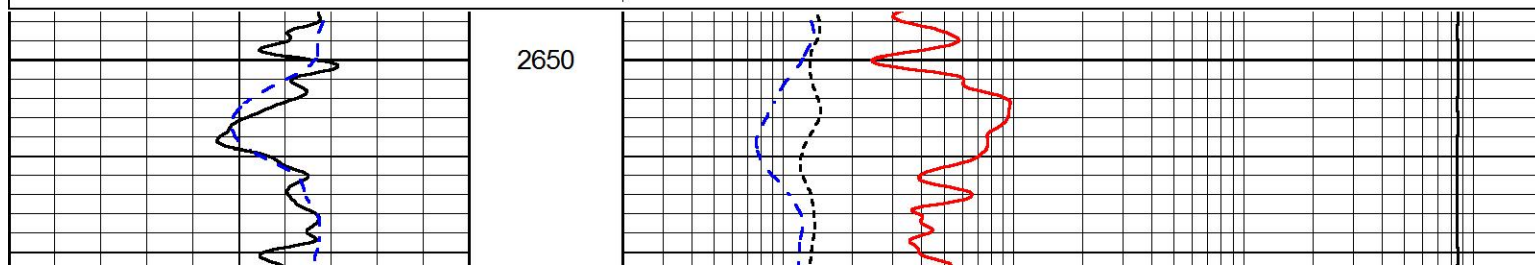
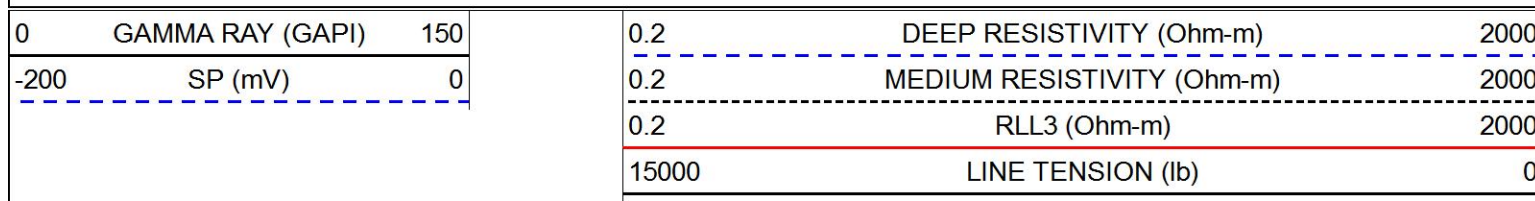
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3850
3900
3950
4000
4050
4100
4150
4200
4250
4300
4350

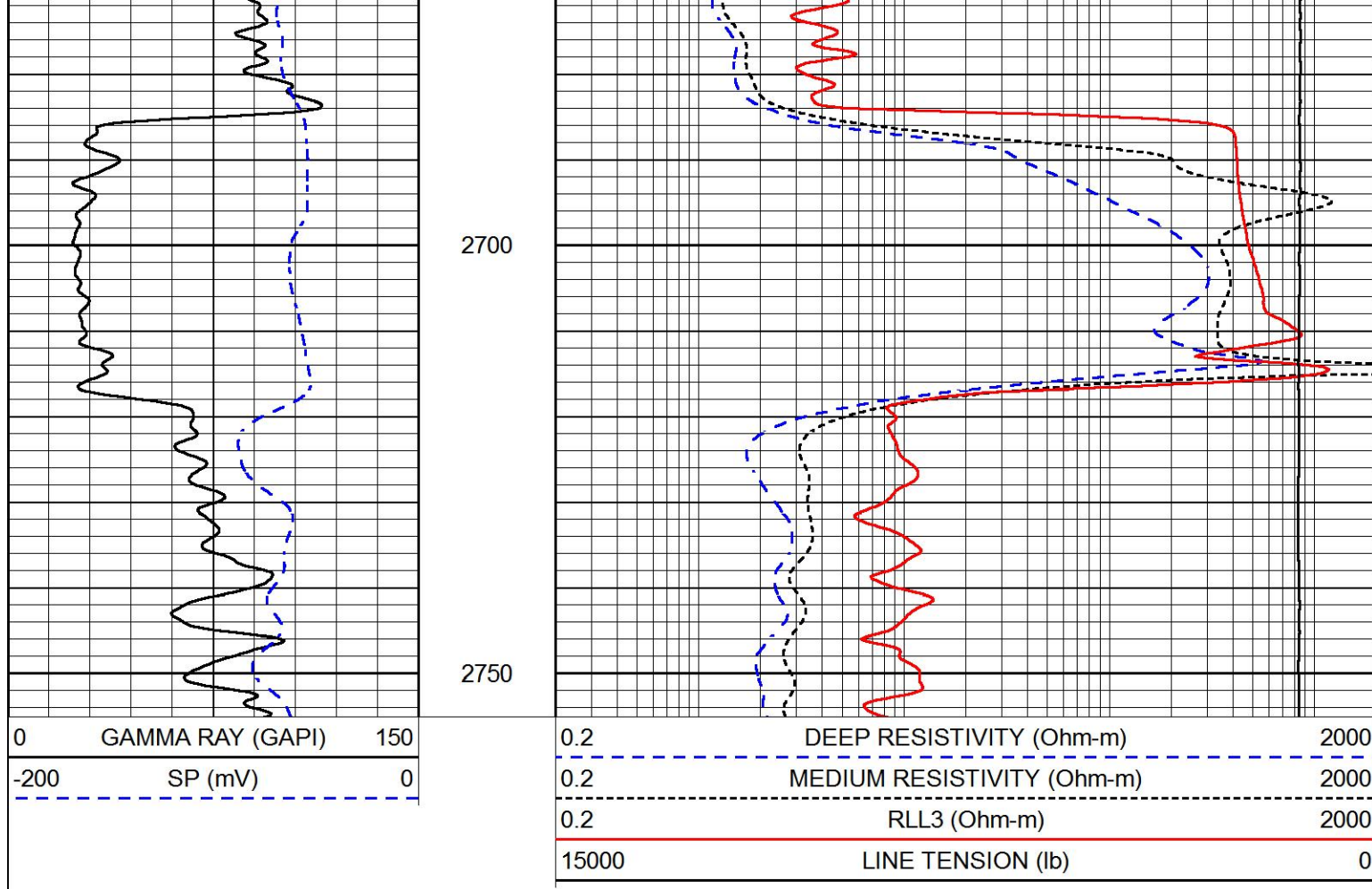




MAIN PASS

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Dataset Pathname	stackml/pass3.1
Presentation Format	dil
Dataset Creation	Thu Sep 05 17:49:38 2019
Charted by	Depth in Feet scaled 1:240



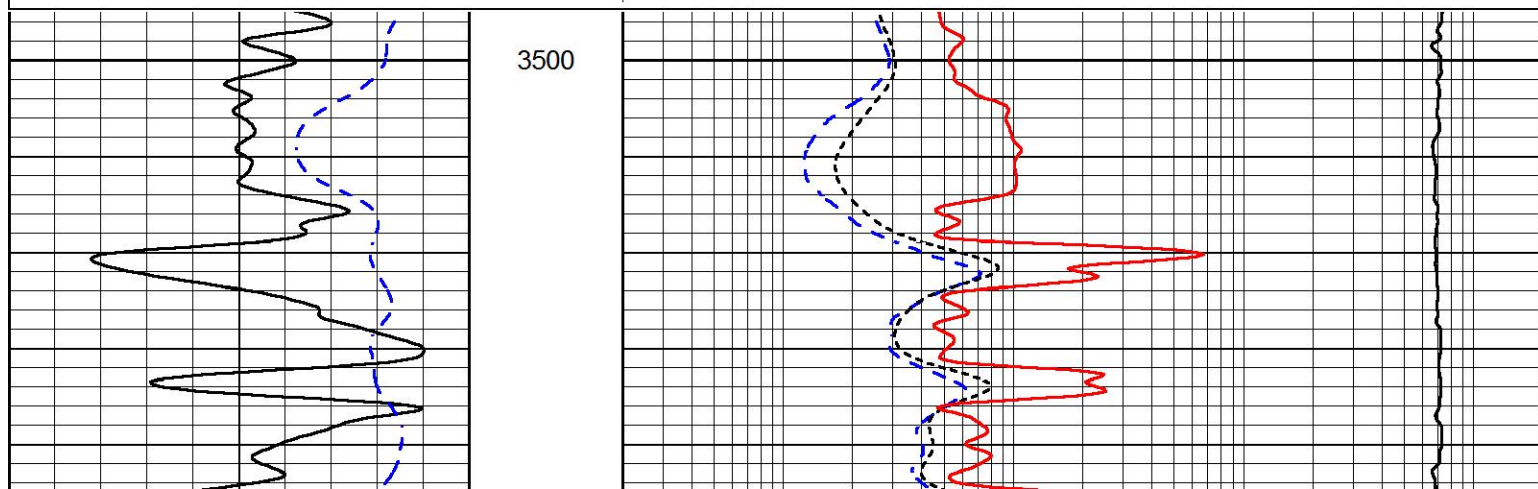
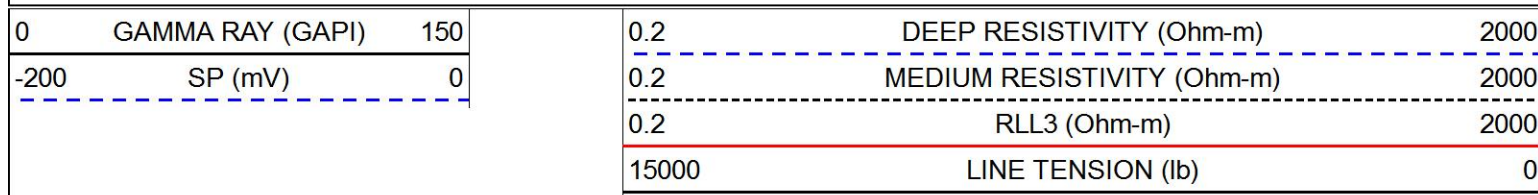


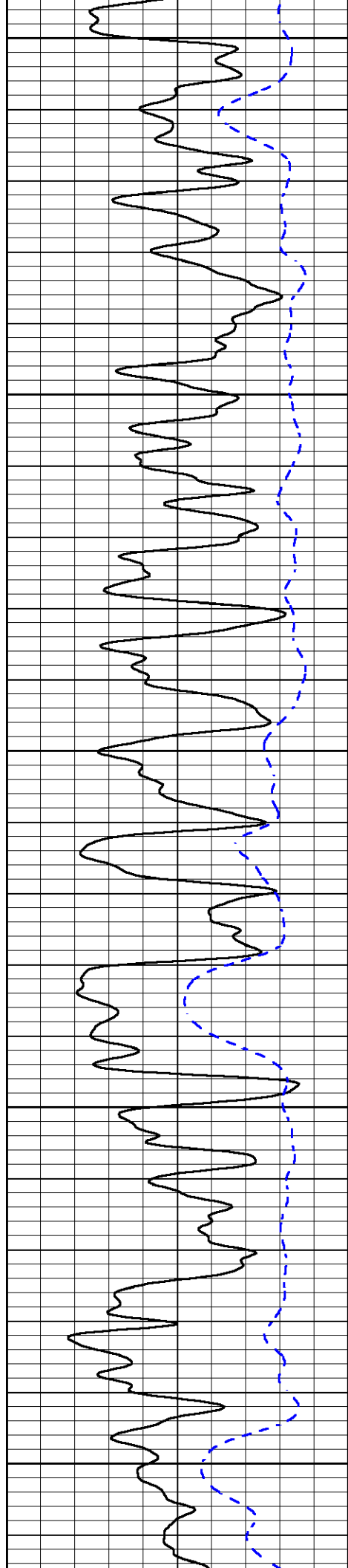


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Database File val_schmaderer_1_23.db
 Dataset Pathname stackml/pass3.1
 Presentation Format dil
 Dataset Creation Thu Sep 05 17:49:38 2019
 Charted by Depth in Feet scaled 1:240





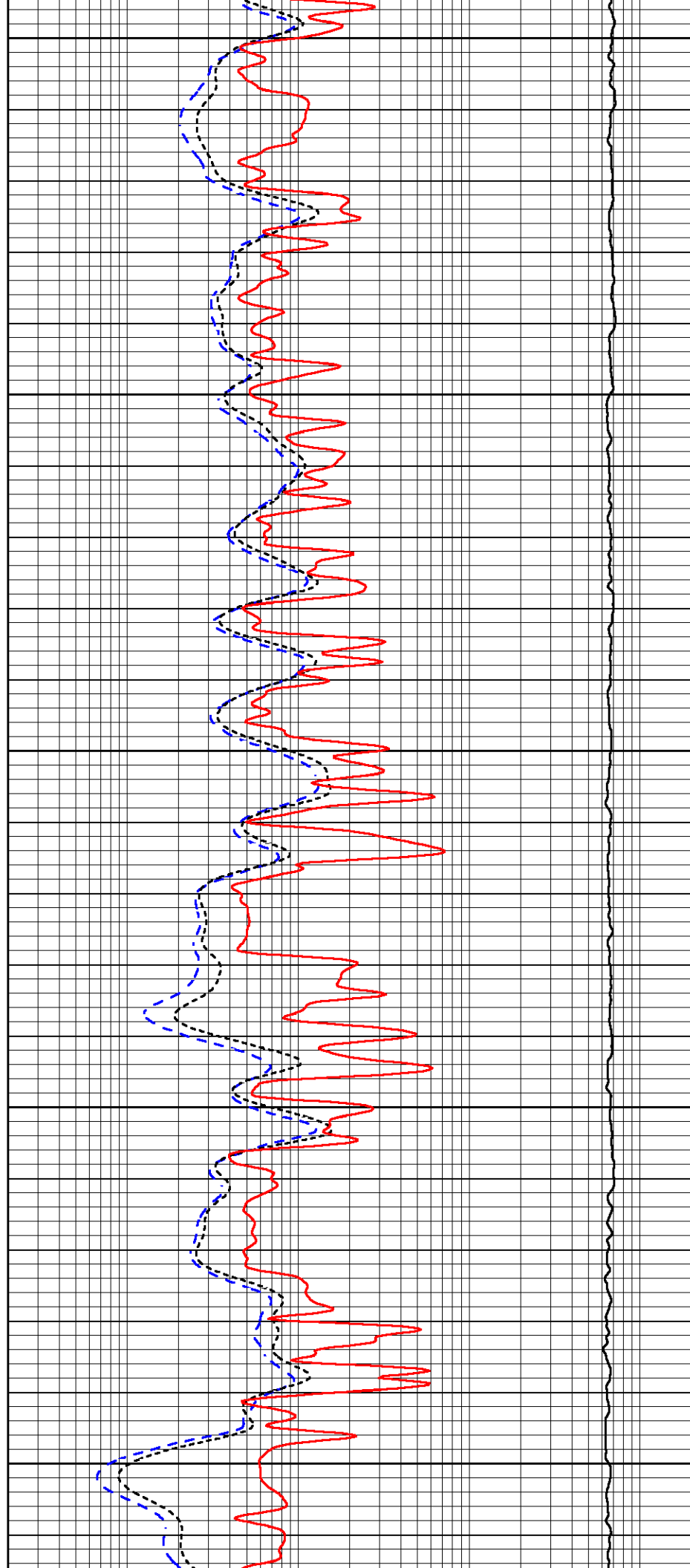
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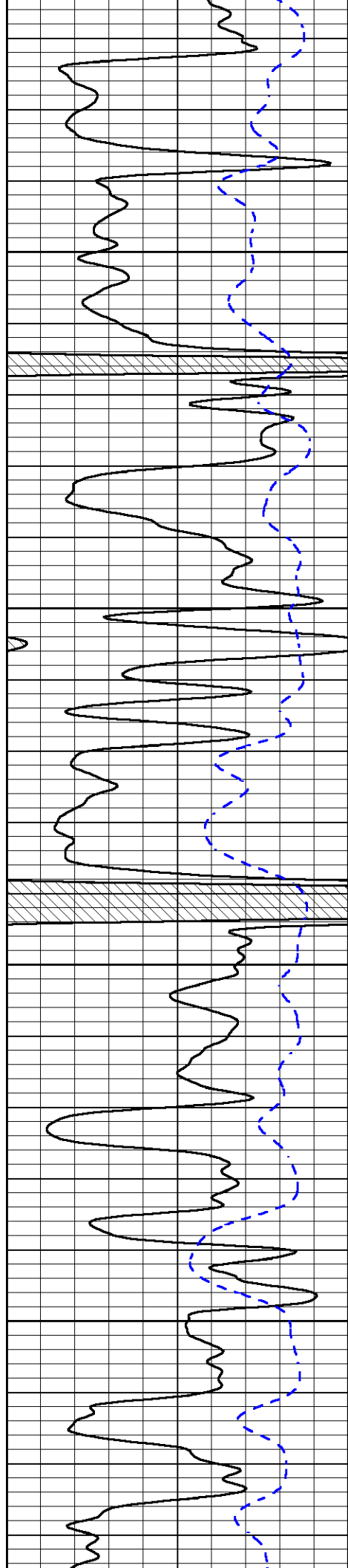
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3700

3750



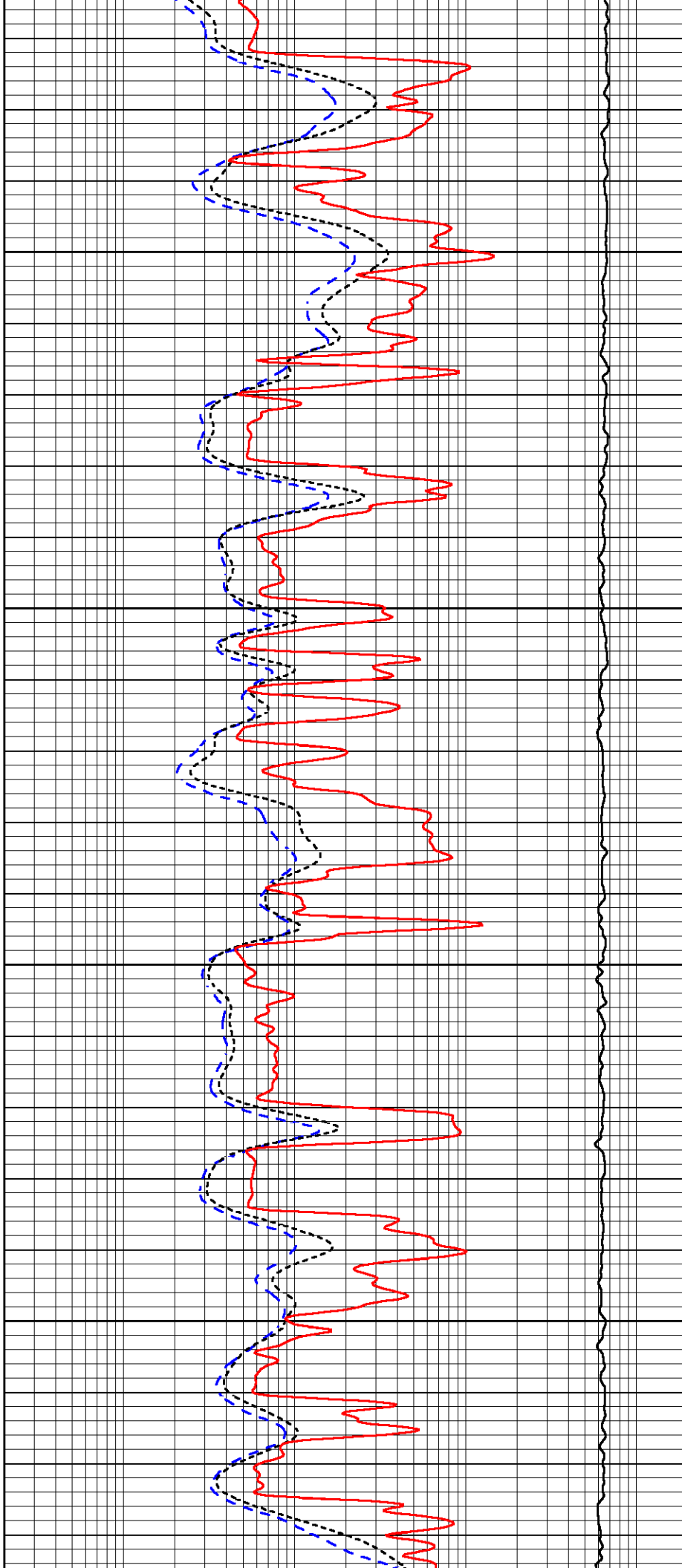


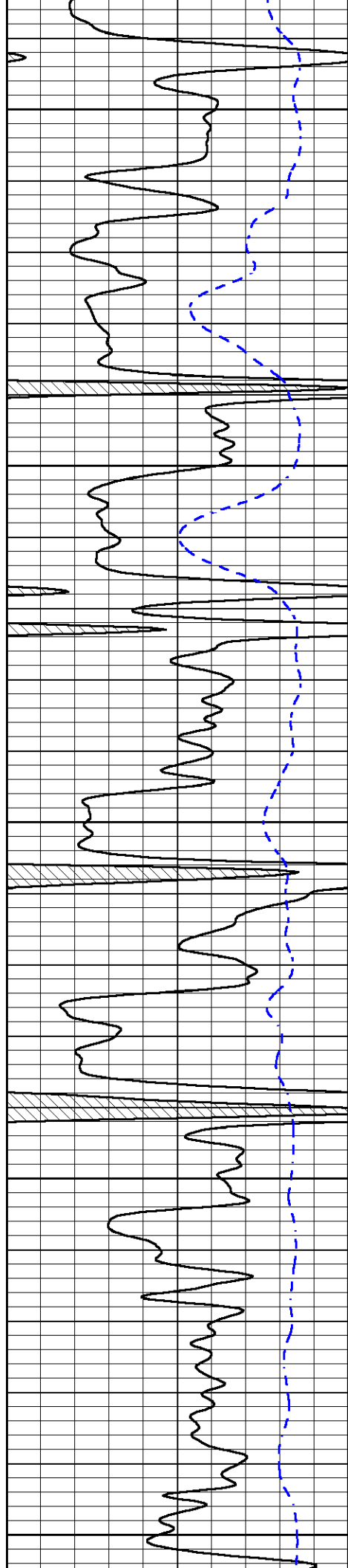
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3900

3950





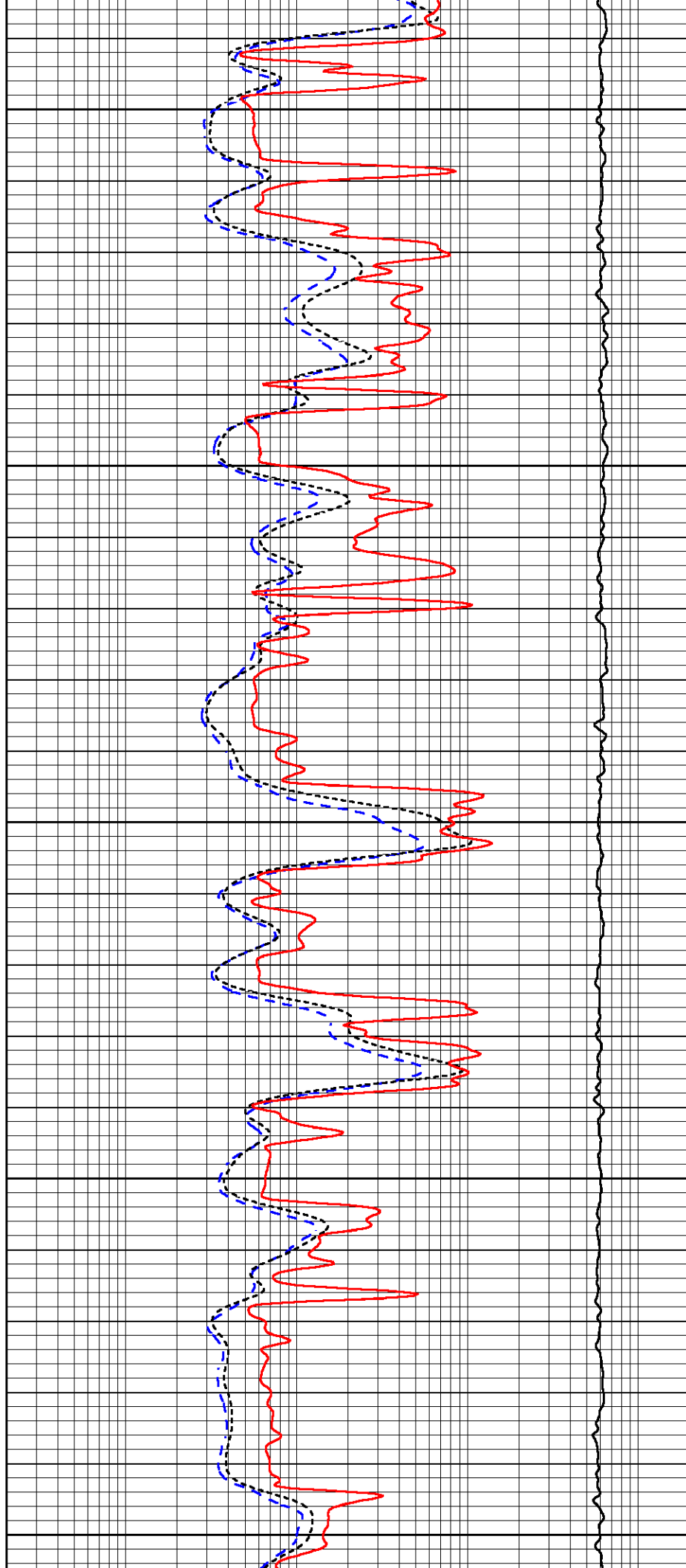
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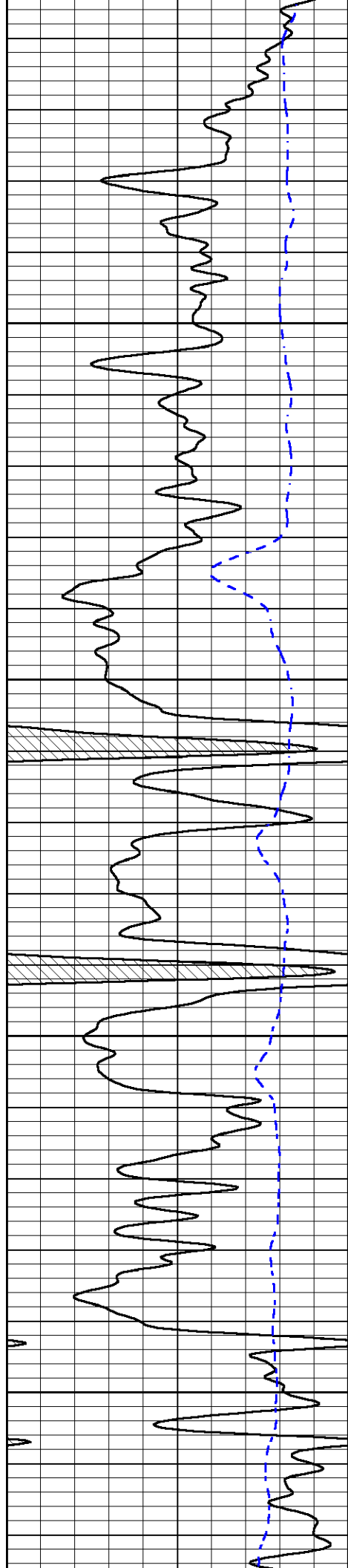
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4100

4150

4200



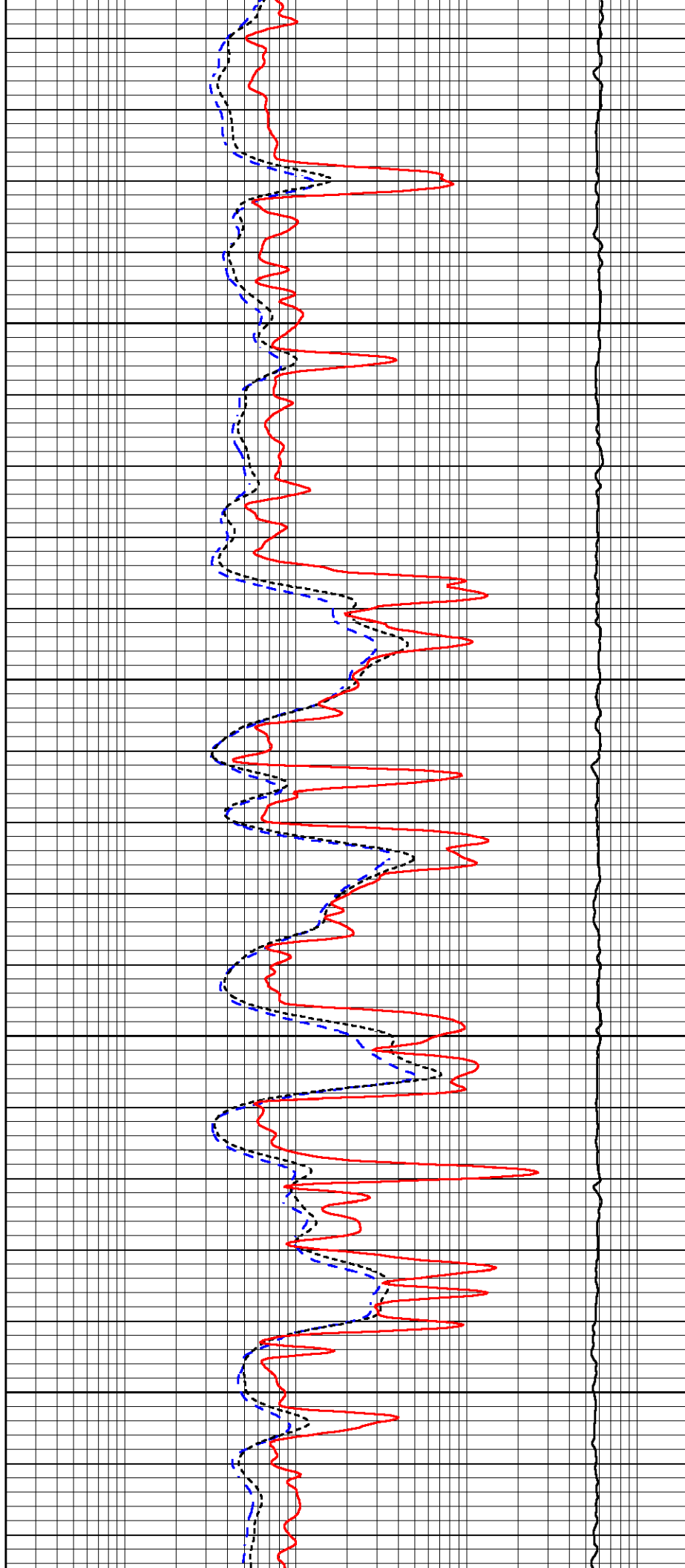


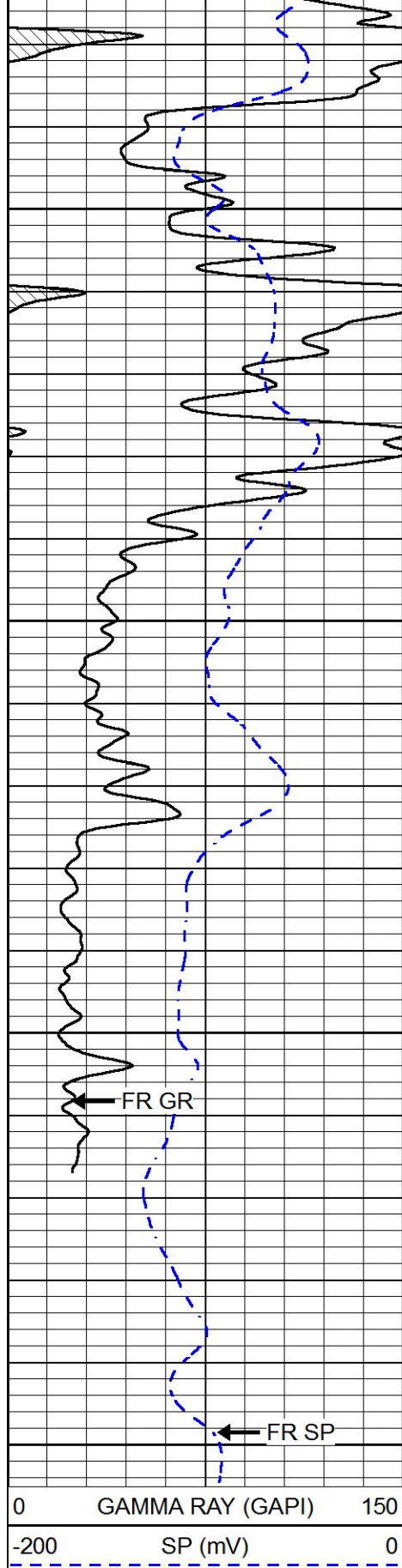
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4350

4400



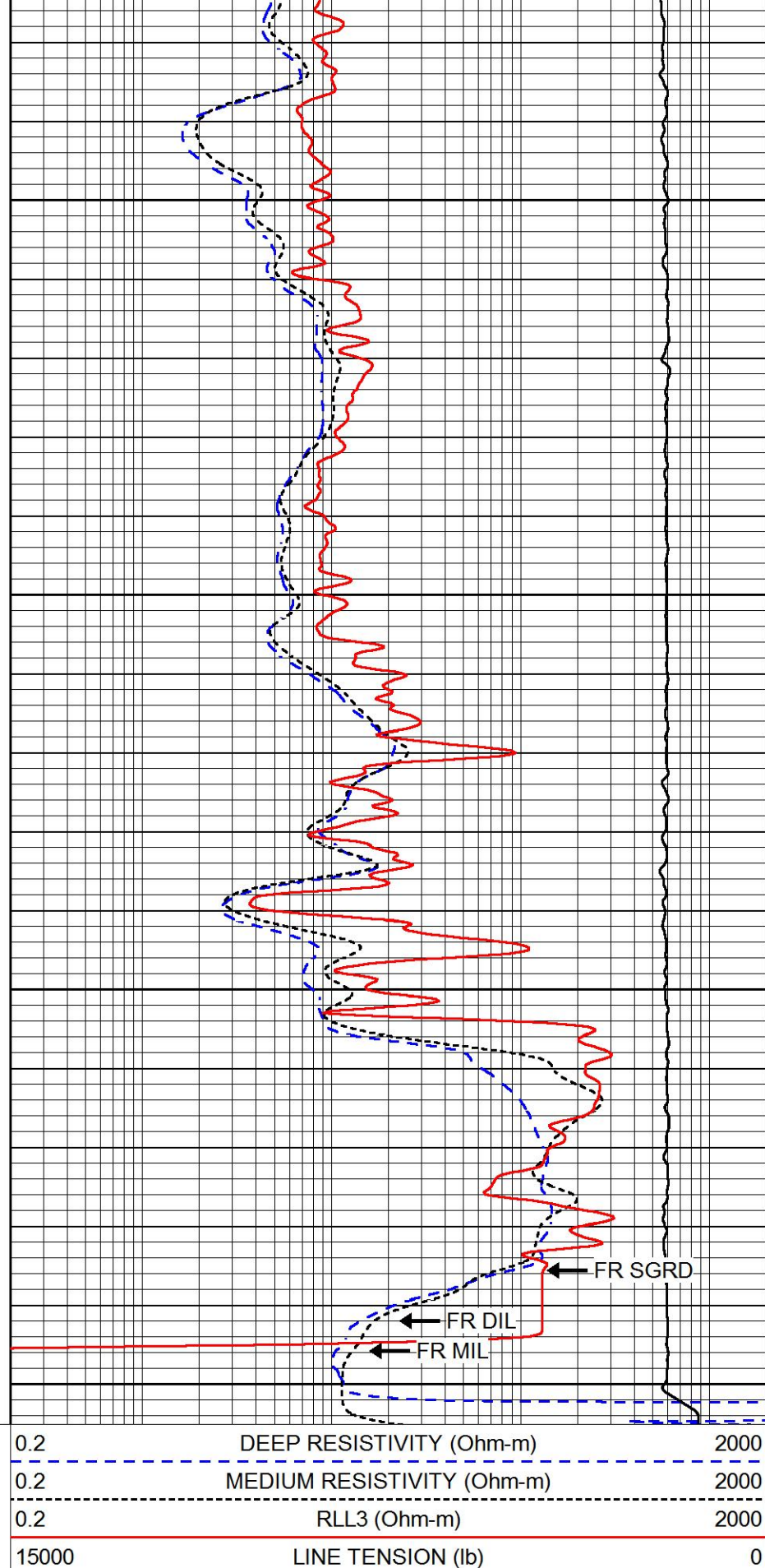


4450

4500

4550

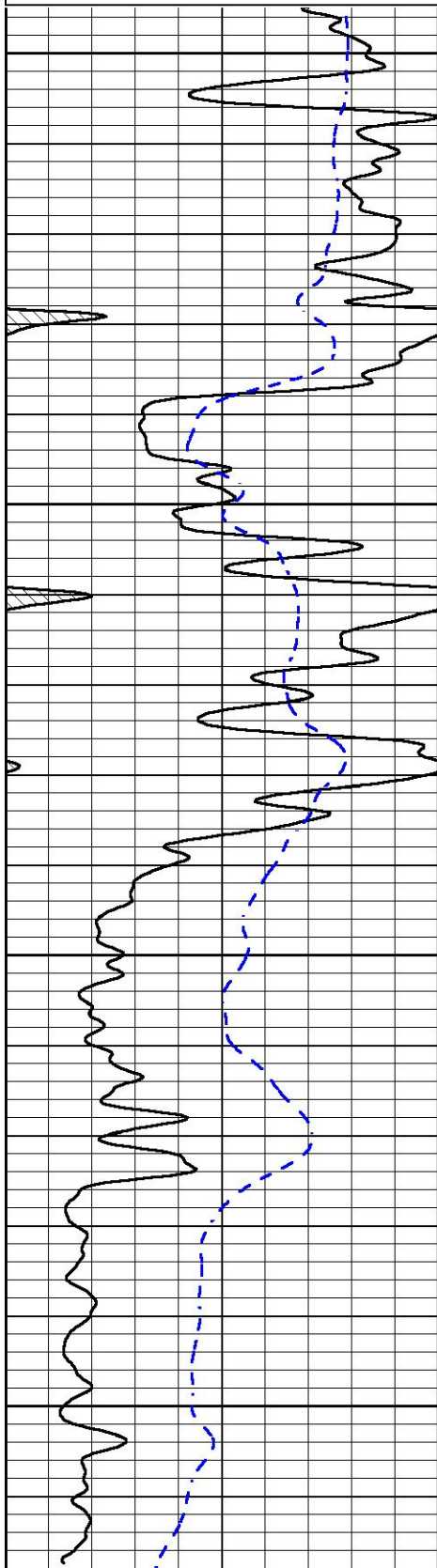
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Database File val_schmaderer_1_23.db
Dataset Pathname stackml/pass2.1
Presentation Format dil
Dataset Creation Thu Sep 05 17:49:52 2019
Charted by Depth in Feet scaled 1:240

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

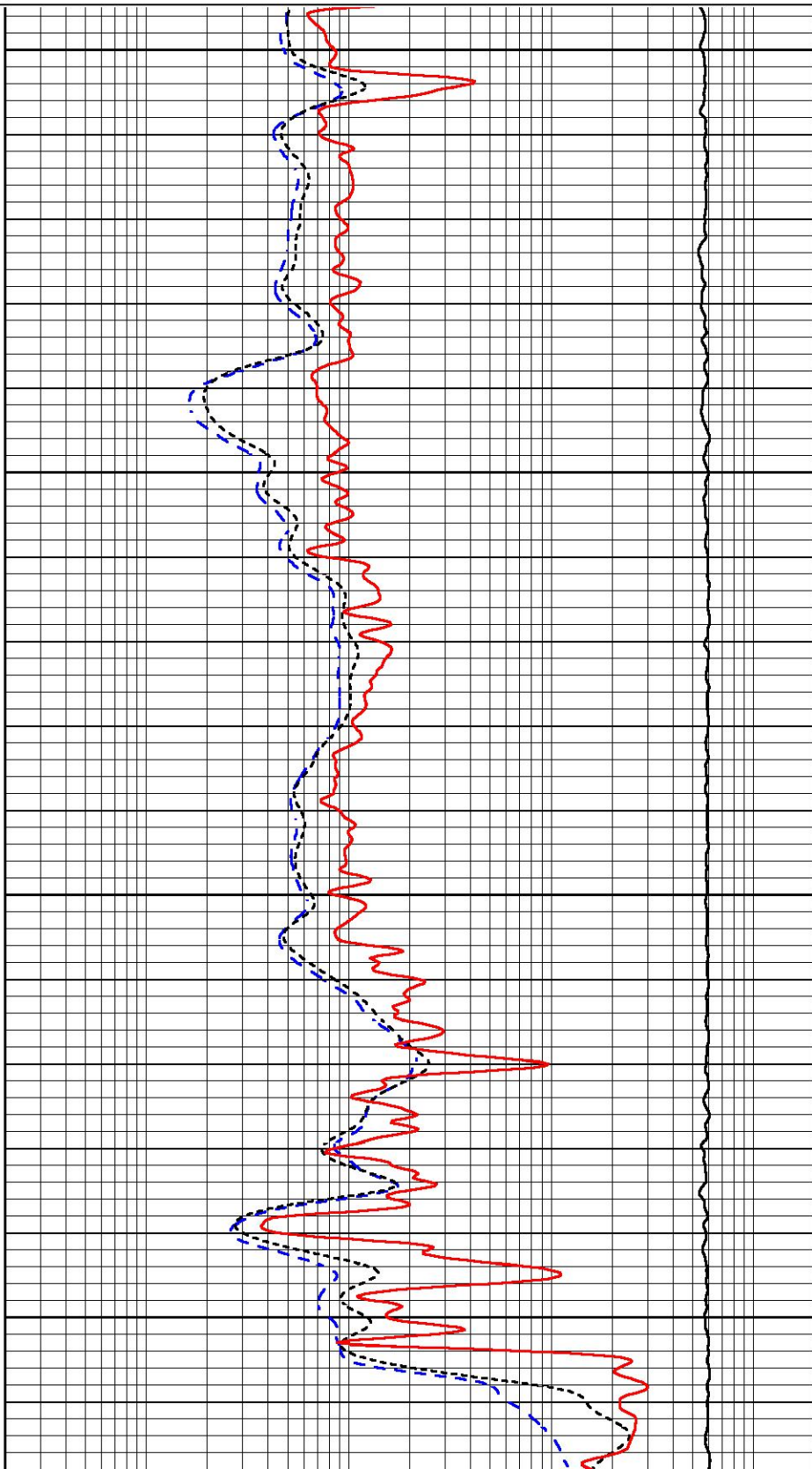


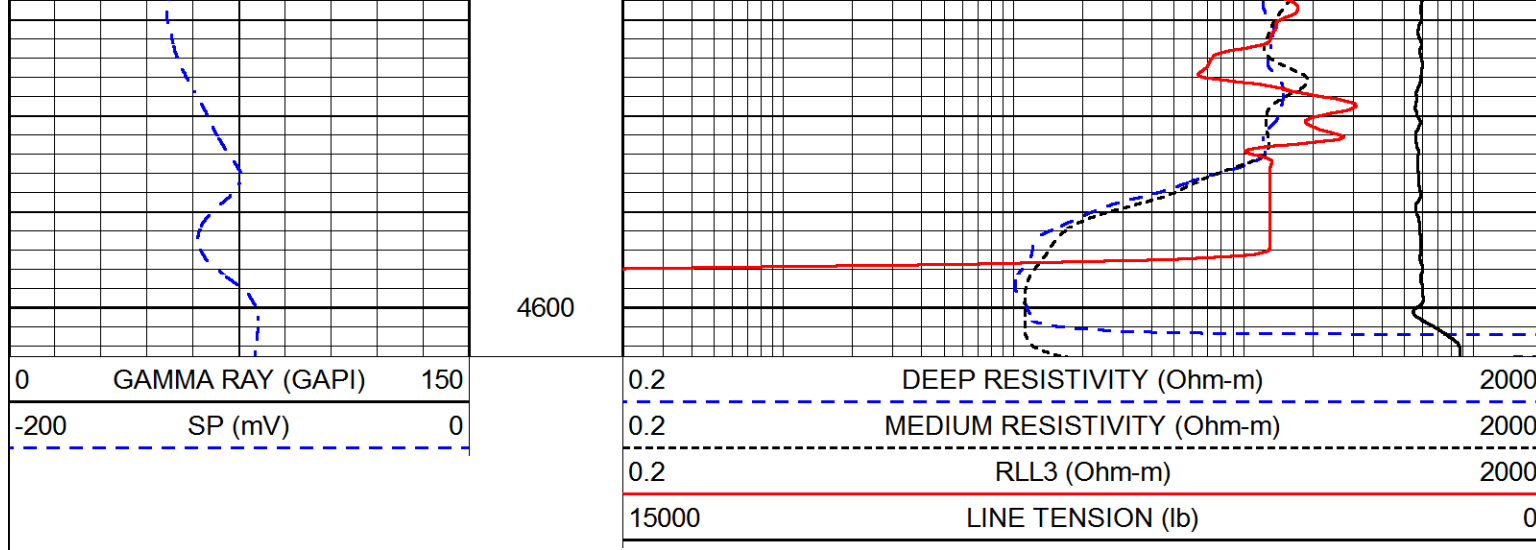
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4450

4500

4550





Calibration Report	
Database File	val_schmaderer_1_23.db
Dataset Pathname	stackml/pass3.1
Dataset Creation	Thu Sep 05 17:49:38 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

Microlog Calibration Report

Serial-Model:	PSI-02-PSI STKBL ML
Performed:	Sat Apr 07 12:01:20 2018

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0031	0.0043	0.0000	10.0000	Ohm-m	18000.0000	-1.4000
Inverse	0.0000	0.0013	0.0000	10.0000	Ohm-m	12000.0000	0.0000
Caliper	1.0020	1.0834	5.5000	16.5000	in	135.1560	-131.2000

Compensated Density Calibration Report

Serial-Model:	979-229-M&W
Source / Verifier:	21170B /
Master Calibration Performed:	Tue Jul 23 10:17:03 2019

Master Calibration						
	Density			Far Detector	Near Detector	
Magnesium	1.755	g/cc		7680.82	9959.08	cps
Aluminum	2.690	g/cc		1424.07	6427.19	cps

Spine Angle = 75.43

Density/Spine Ratio = 0.537

	Size		Reading
Small Ring	4.00	in	1.15
Large Ring	16.00	in	1.03

Compensated Neutron Calibration Report

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



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