



PIONEER

Pioneer Energy Services

DUAL INDUCTION LOG

Company **PALOMINO PETROLEUM, INC.**
Well **UEHLING-SCHWIEN #1**
Field **WILDCAT**
County **NESS** State **KANSAS**

Location: API #: 15-135-25992-00-00

587' FNL & 2477' FEL

SEC 11 TWP 20S RGE 22W

Permanent Datum **GROUND LEVEL** Elevation **2235'**
Log Measured From **KELLY BUSHING**
Drilling Measured From **KELLY BUSHING**

Other Services
CNL/CDL
MEL/BHCS
Elevation
K.B. 2240'
D.F. N/A
G.L. 2235'

Date 2/21/2018

Run Number ONE

Depth Driller 4545'

Depth Logger 4546'

Bottom Logged Interval 4545'

Top Log Interval 200'

Casing Driller 8.625" @ 218'

Casing Logger 217'

Bit Size 7.875"

Type Fluid in Hole CHEMICAL

Salinity, ppm CL 11,700

Density / Viscosity 9.35 47

pH / Fluid Loss 10.0 9.6

Source of Sample FLOWLINE

Rm @ Meas. Temp 0.30 @ 40

Rmf @ Meas. Temp 0.23 @ 40

Rmc @ Meas. Temp 0.41 @ 40

Source of Rmf / Rmc CHARTS

Rm @ BHT 0.10 @ 121

Operating Rig Time 5 HOURS

Max Rec. Temp. F 121

Equipment Number 91

Location HAYS

Recorded By D. SCHMIDT

Witnessed By ANDREW STENZEL

<<< 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.

BAZINE,
8 SOUTH TO ROAD 50, 1 1/2 WEST
SOUTH 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

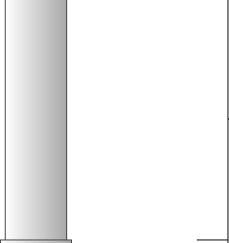
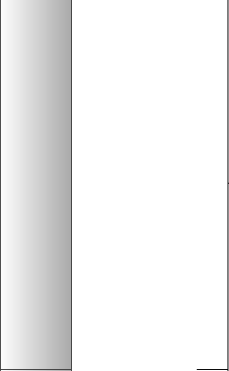
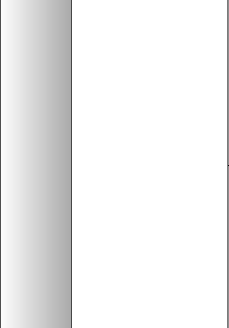
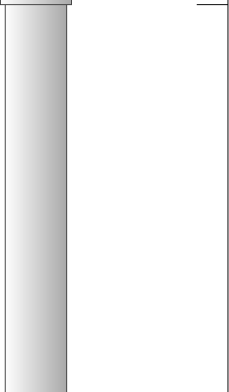
Engineer: D. SCHMIDT
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: ANDREW STENZEL
Secondary Witness:
Secondary Witness:
Secondary Witness:

Top - Bottom

M	A	SZCOR	NPORSEL	FLUIDDEN g/cc	MATRXDEN g/cc	SPSHIFT mV	SNDERRM mmho/m
2	1	Off	Limestone	1	2.71	-143	0
SNDERR mmho/m	SRFTEMP degF	CASETHCK in	CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF	BOREID in
0	20	0	5.5	0	4546	121	7.875

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.58		GR-M&W (89)	3.00	3.50	50.00
CNLSC CNSSC	37.48 36.73		CNT-M&W (207-MW)	5.50	3.50	100.00
LSD DCAL SSD	28.43 28.42 27.93		CDL-M&W (182-152)	8.50	4.00	250.00
MCAL MI MN	19.83 19.83 19.83		ML-PSIML (PSI-01) GO Micro log tools converted to Simplec electronics	7.58	4.00	65.00
RLL3F RLL3	15.80 15.80					

			DIL-PSI HIGH TEMP (933 (HT))	18.50	3.50	220.00
CILD	8.00					
CILM	4.70					
SP	0.20					
Dataset: palomino_uehling-schwien#1.db: field/well/STACKML/pass3.1 Total length: 43.08 ft Total weight: 685.00 lb O.D.: 4.00 in						



Database File

Dataset Pathname

Presentation Format

Dataset Creation

Charted by

palomino_uehling-schwien#1.db

STACKML/pass3.1

dil2in

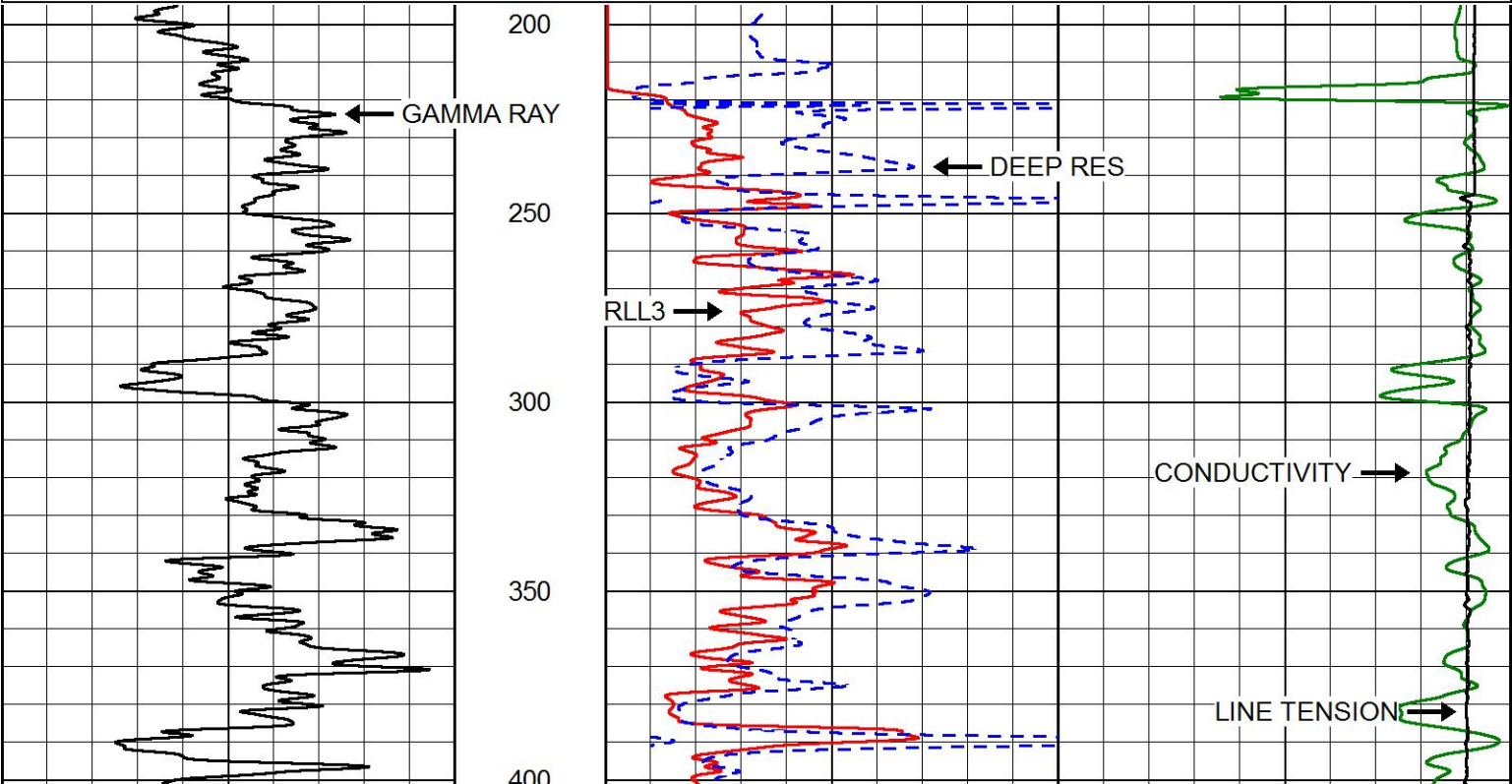
Wed Feb 21 04:27:39 2018

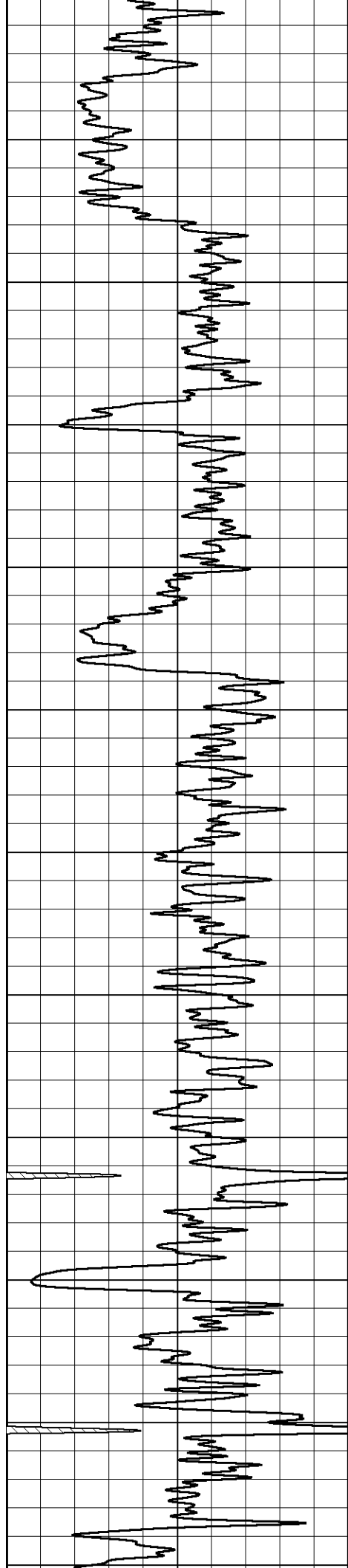
Depth in Feet scaled 1:600

MAIN PASS

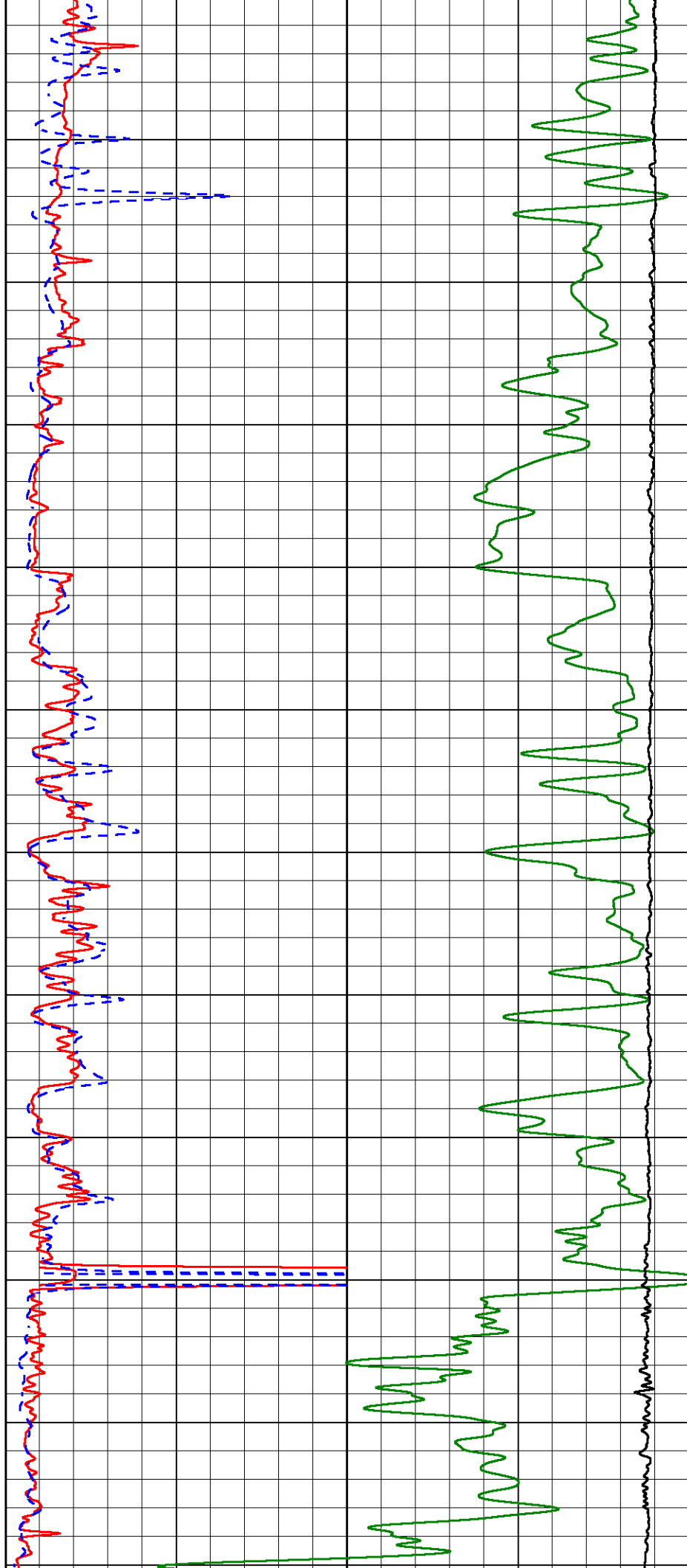
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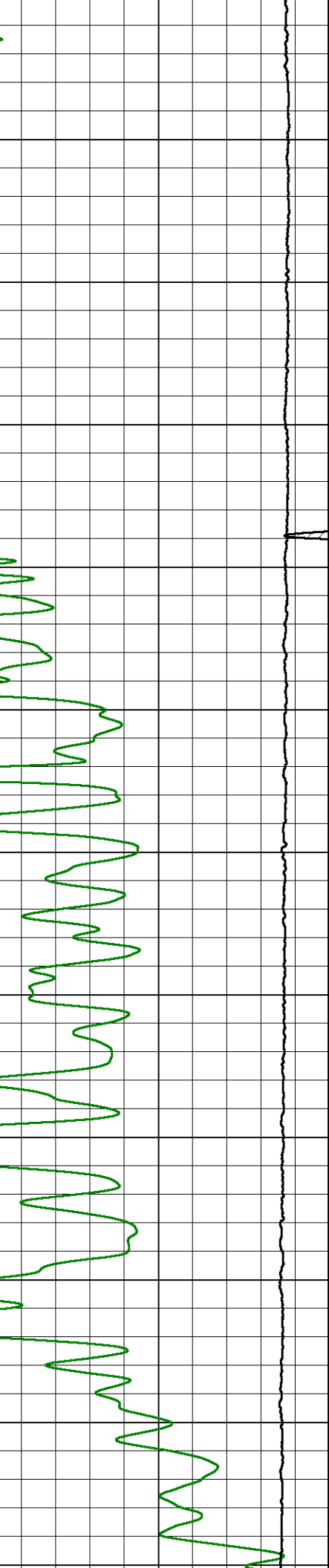
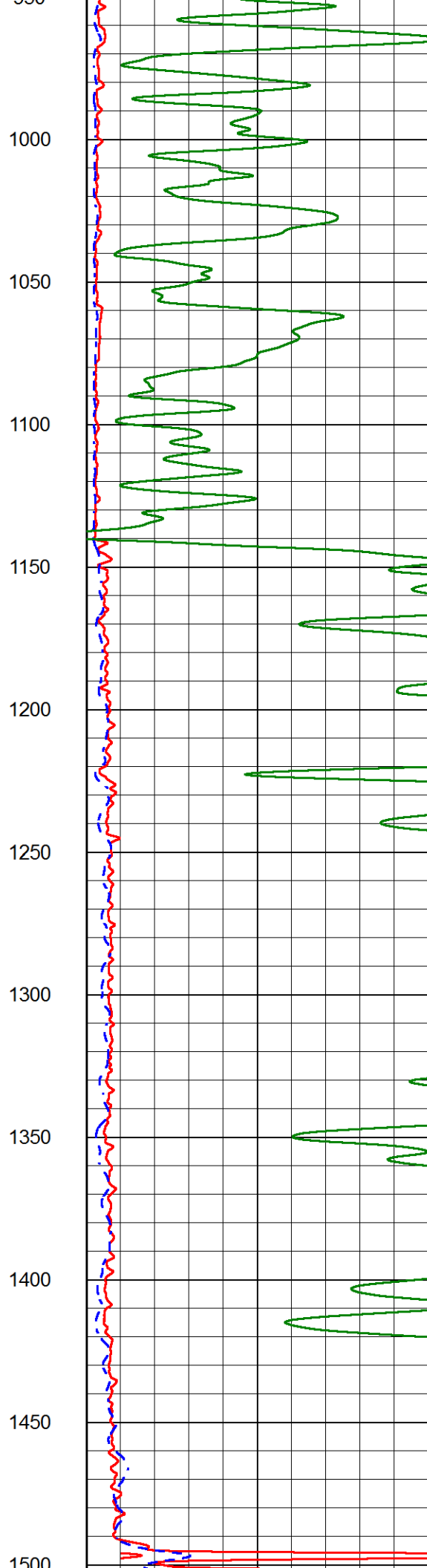
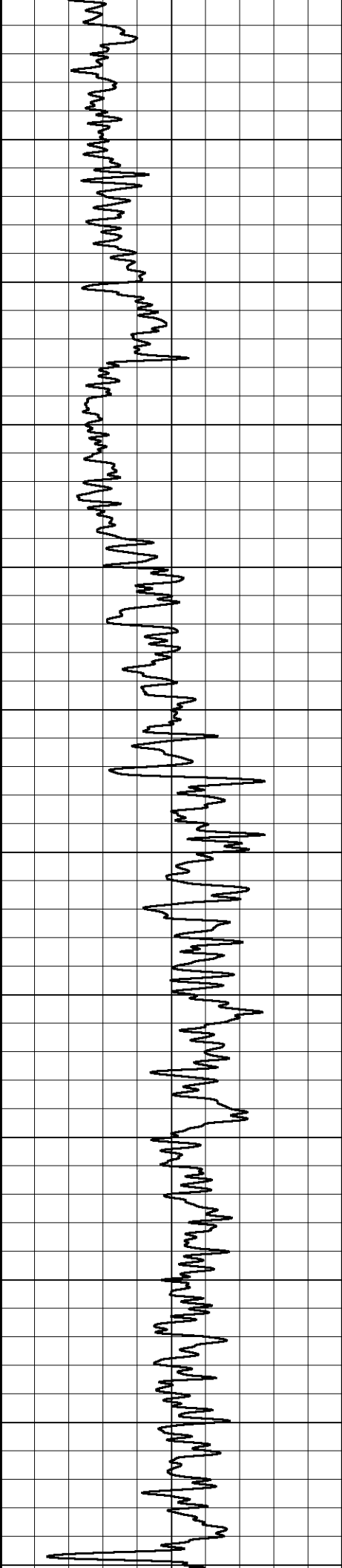
1000	Conductivity (mmho/m)	0
15000	Line Tension (lb)	0
0	RLL3 (Ohm-m)	50
0	Deep Resistivity (Ohm-m)	50
50	RLL3 (Ohm-m)	500
50	Deep Resistivity (Ohm-m)	500

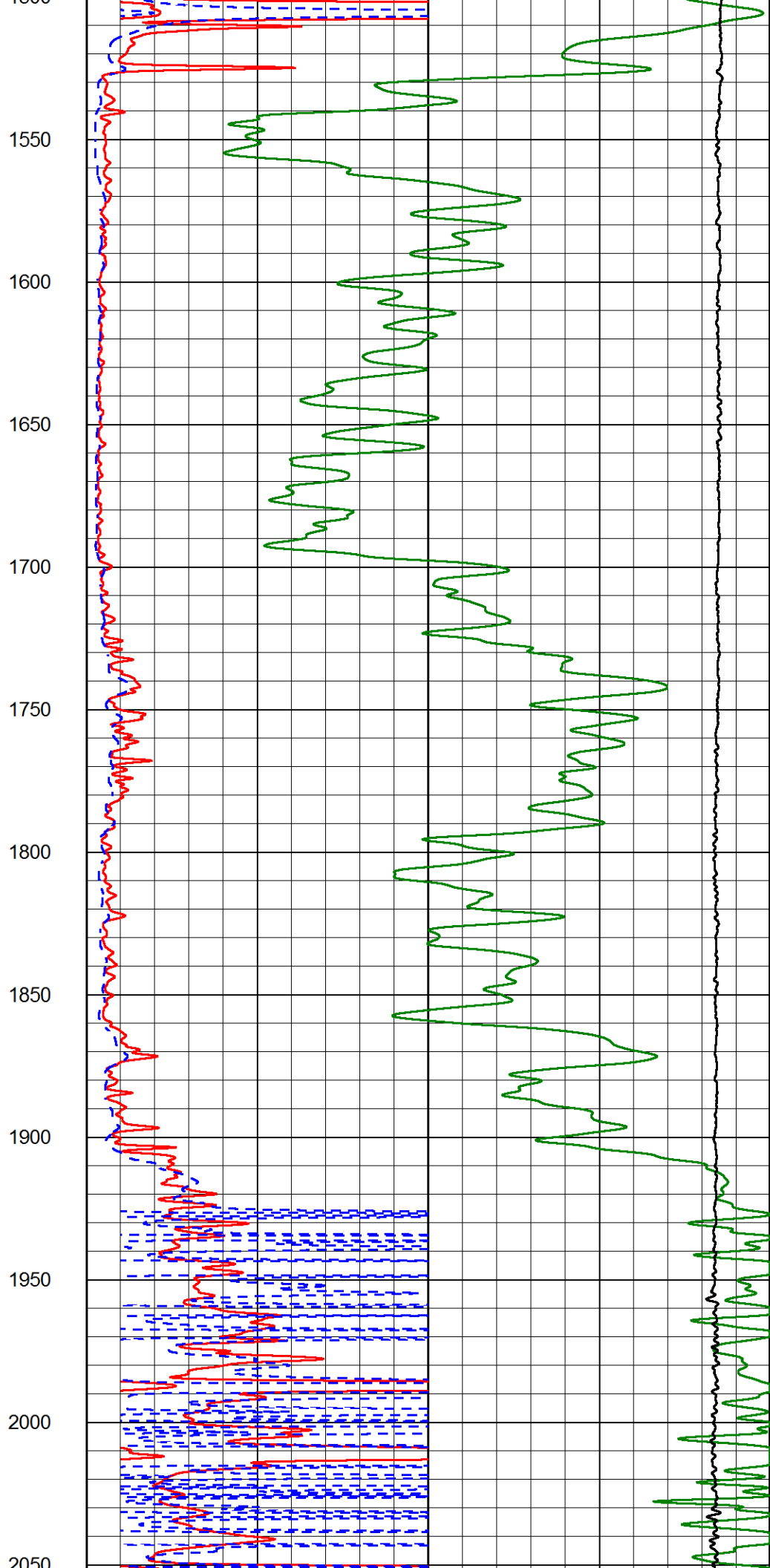
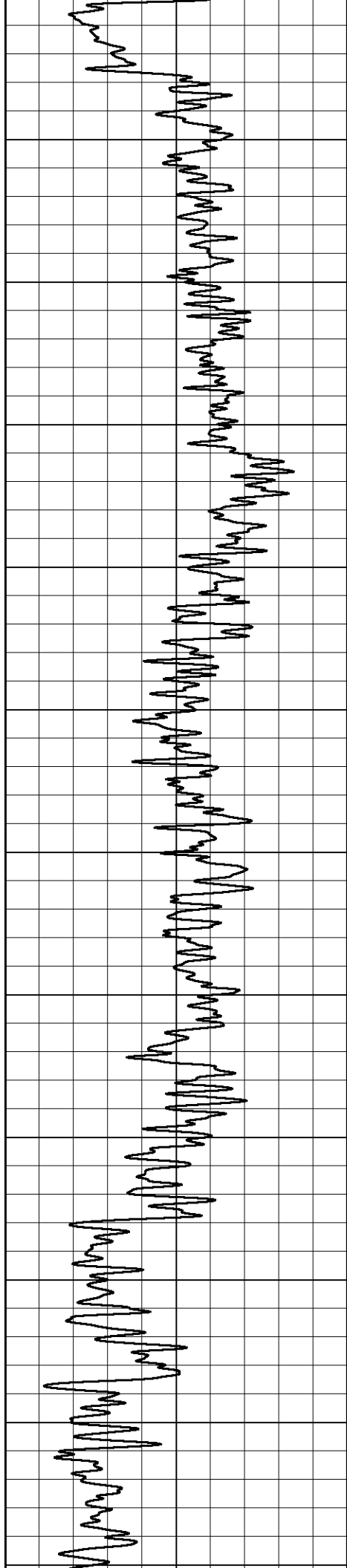


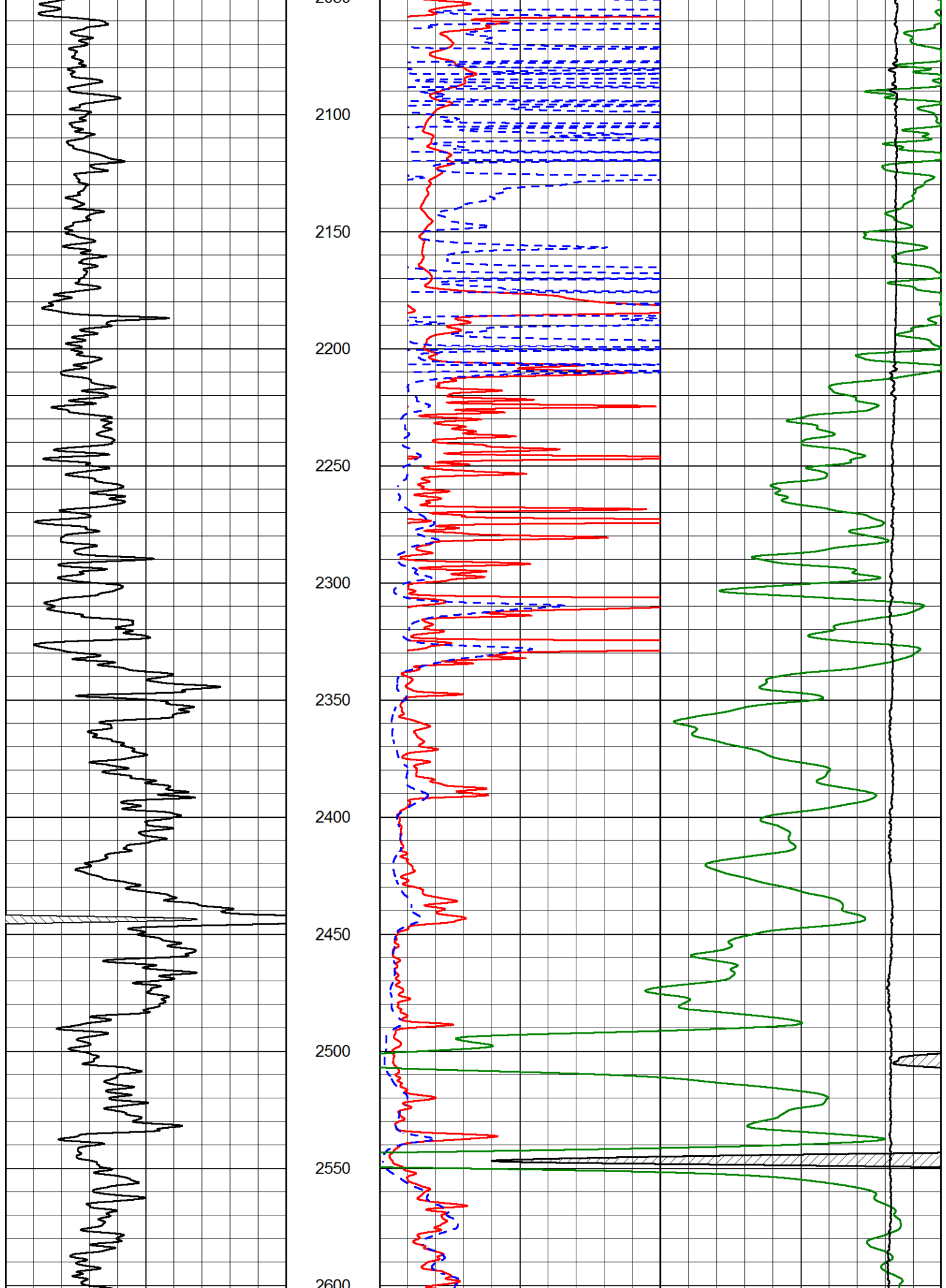


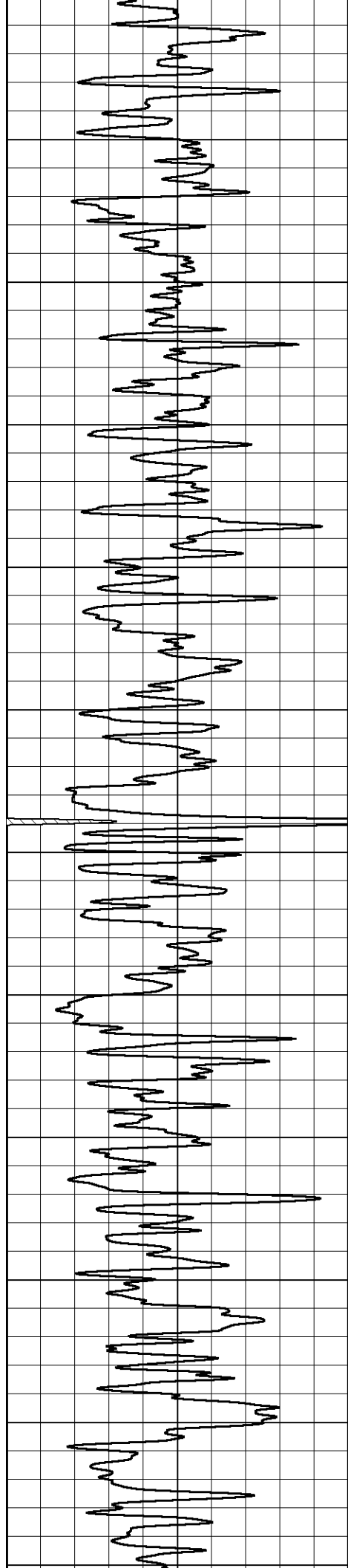
100
450
500
550
600
650
700
750
800
850
900
950



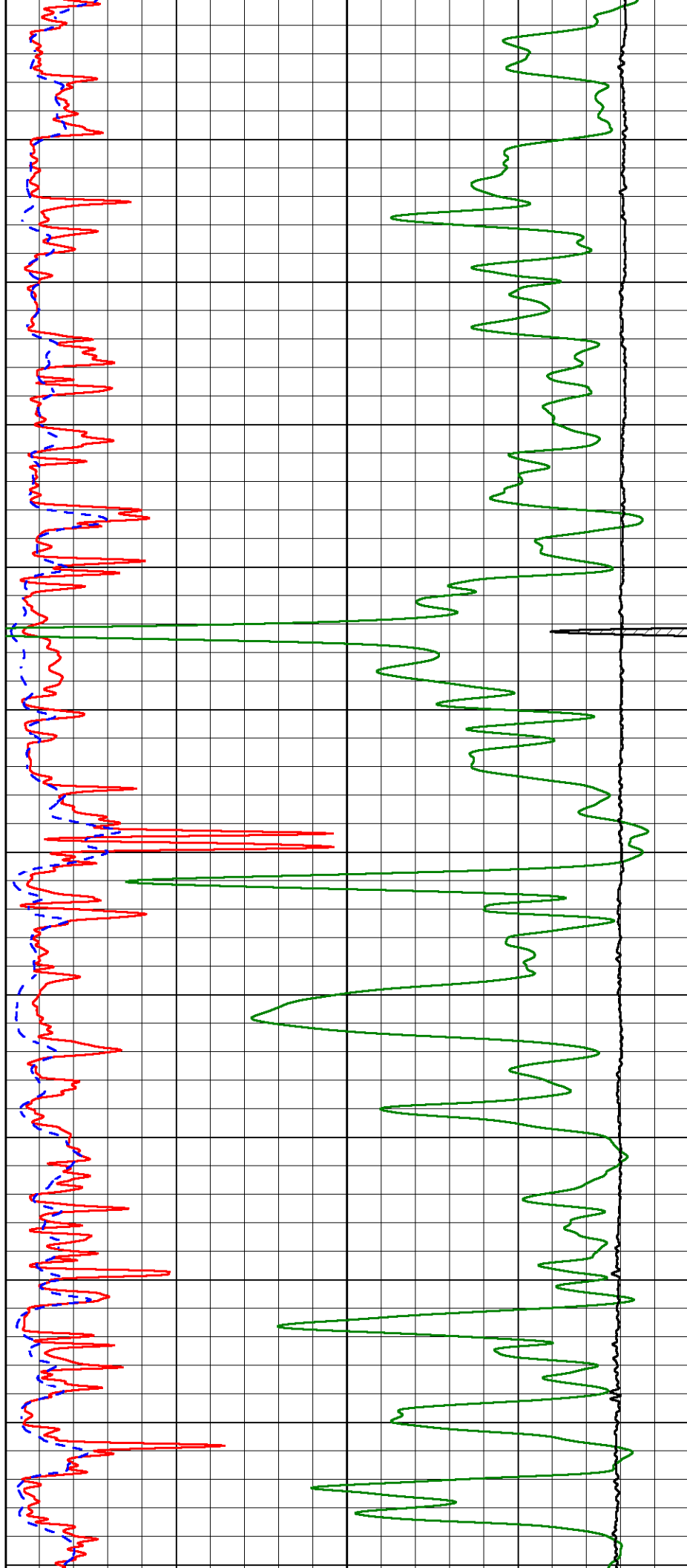


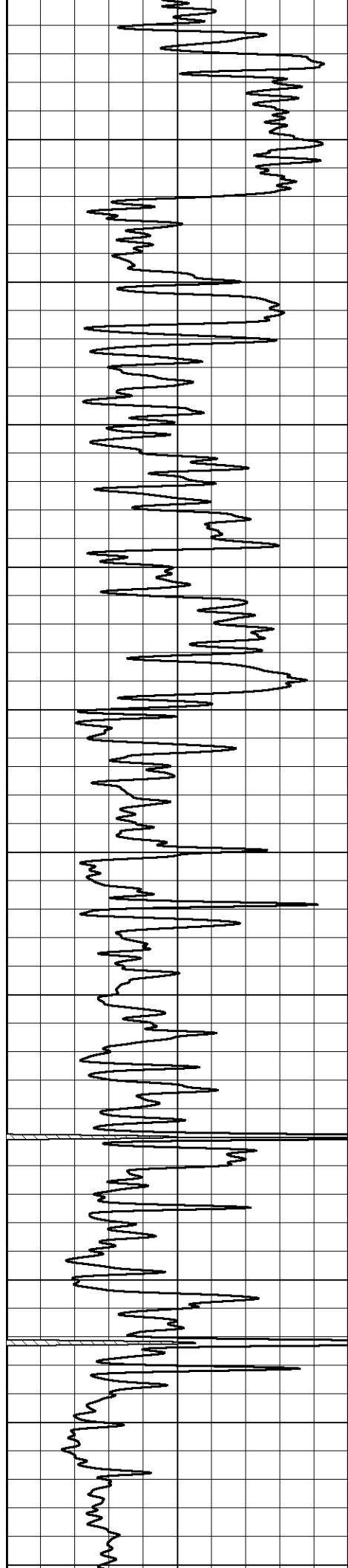




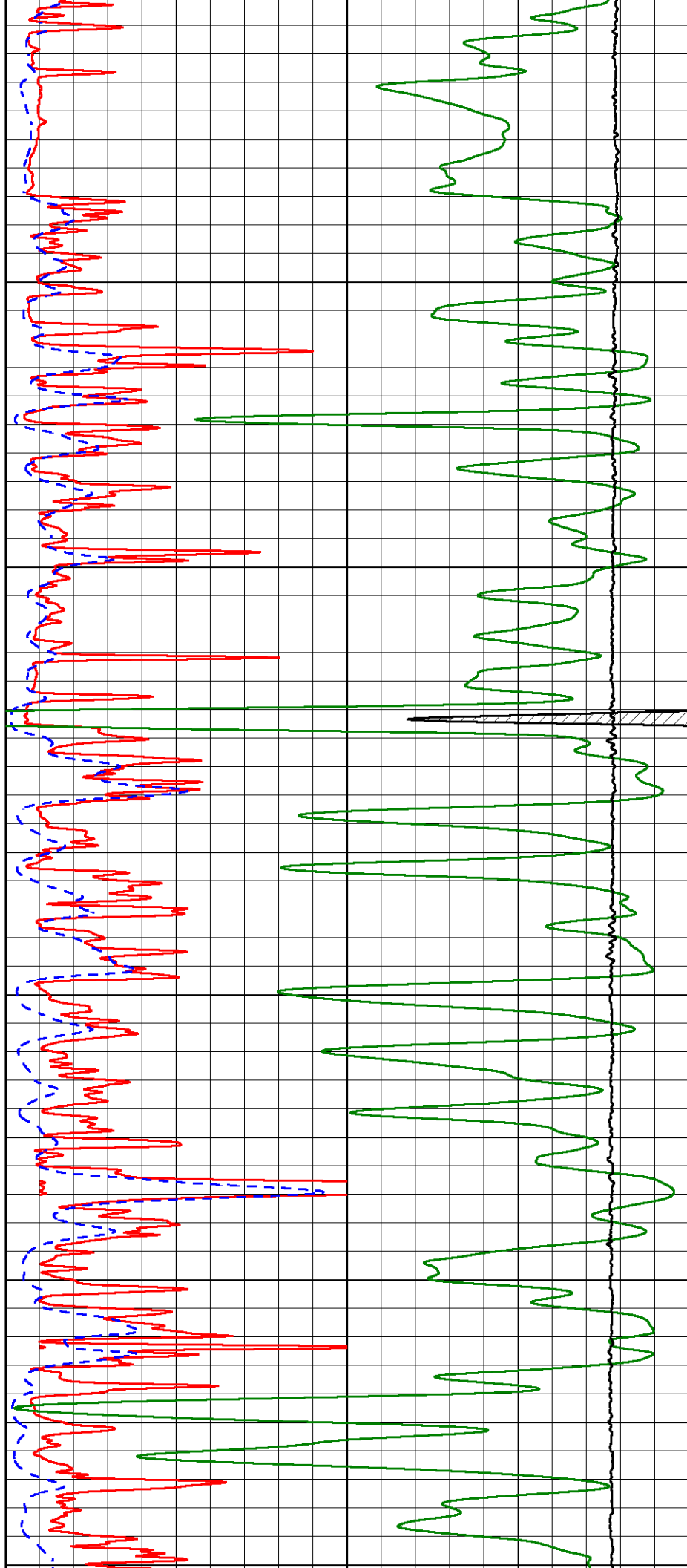


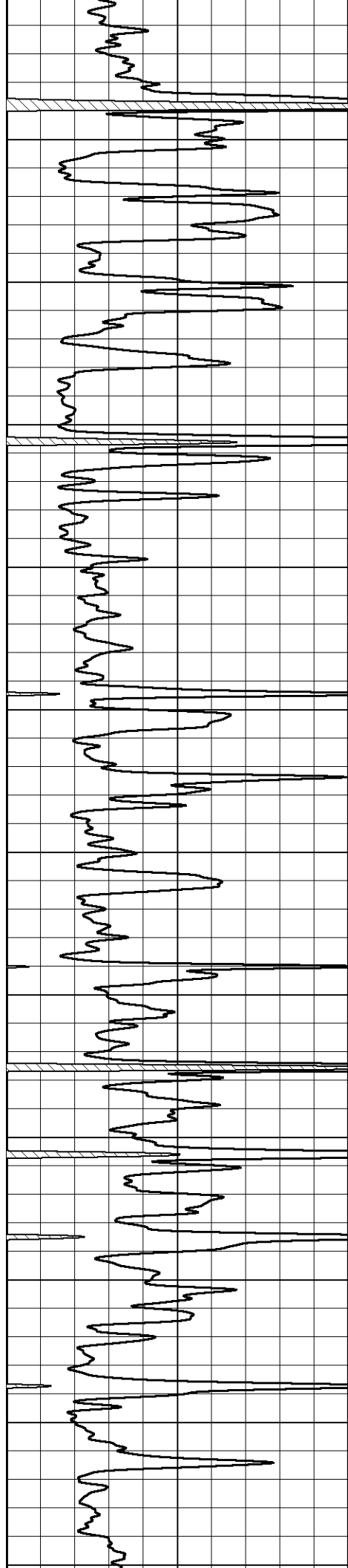
2600
2650
2700
2750
2800
2850
2900
2950
3000
3050
3100
3150



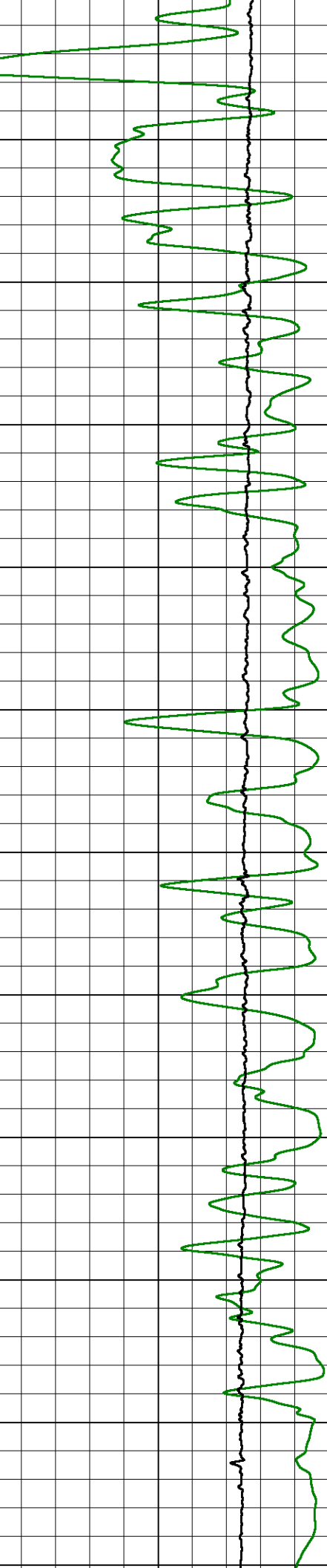
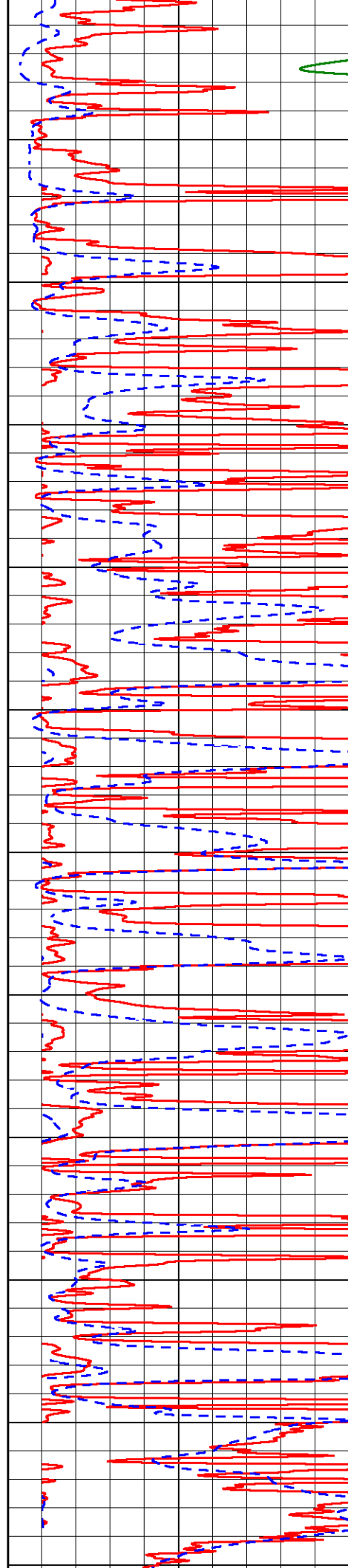


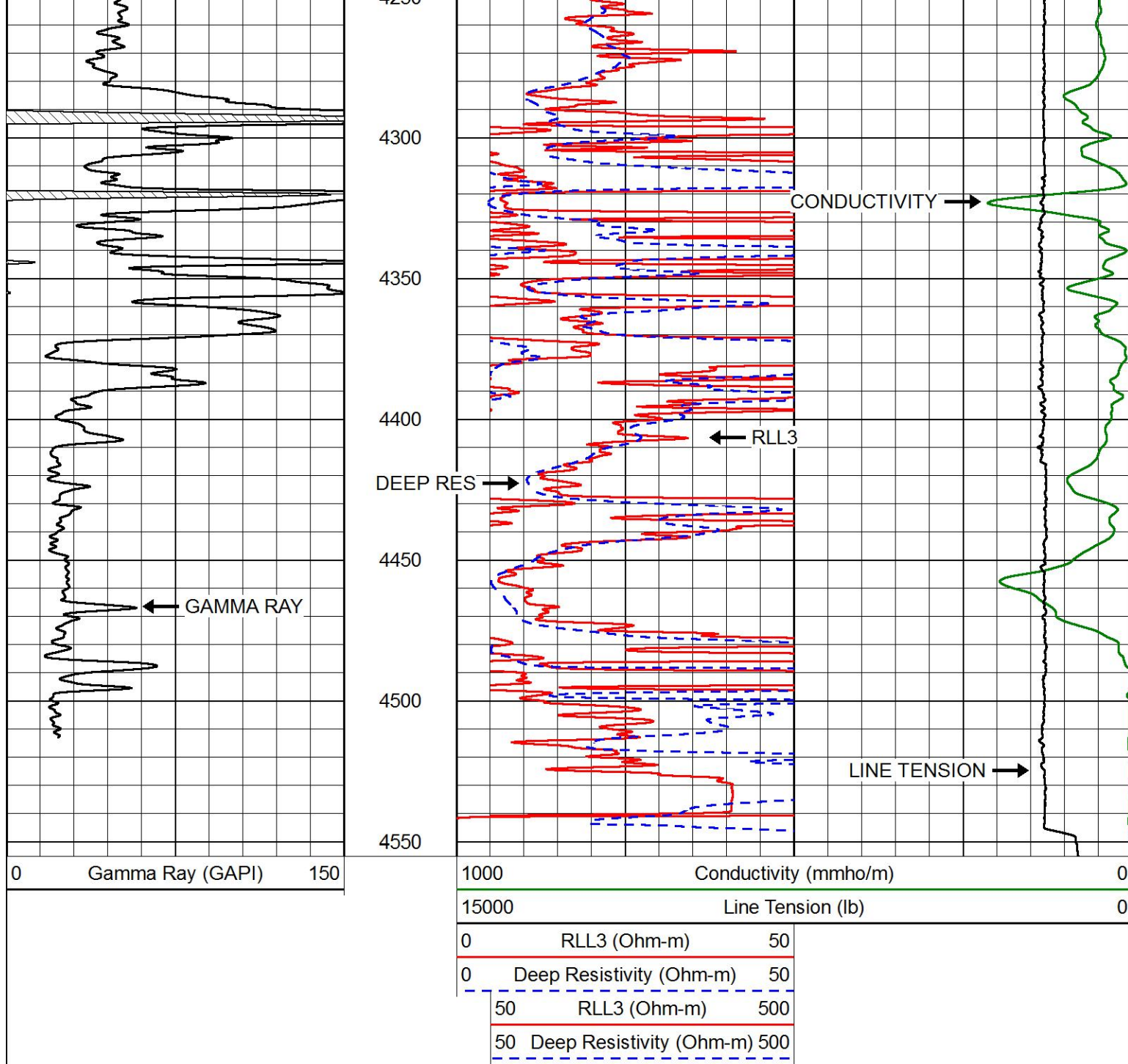
3100
3200
3250
3300
3350
3400
3450
3500
3550
3600
3650
3700





3700
3750
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3850
3900
3950
4000
4050
4100
4150
4200
4250







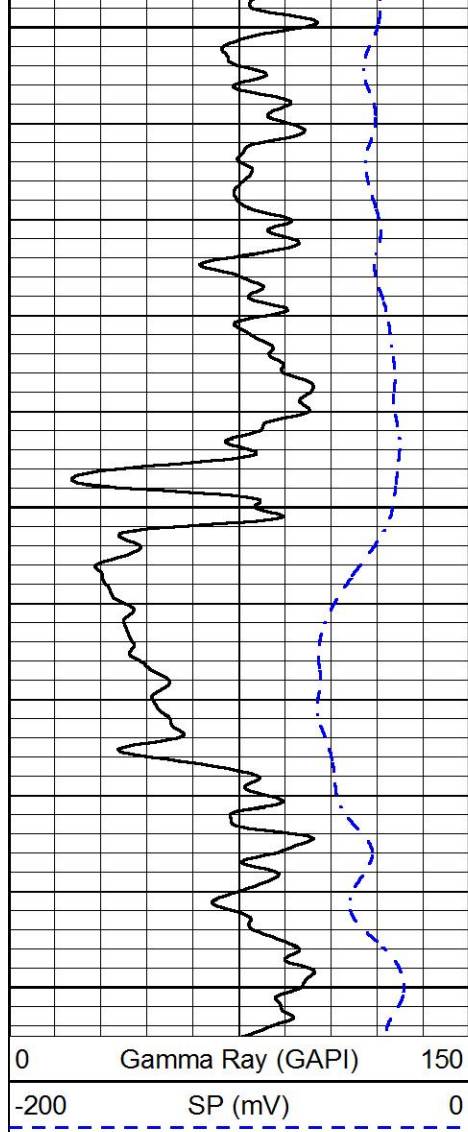
PIONEER
Pioneer Energy Services

MAIN PASS

Database File	palomino_uehling-schwien#1.db		
Dataset Pathname	STACKML/pass3.1		
Presentation Format	dil		
Dataset Creation	Wed Feb 21 04:27:39 2018		
Charted by	Depth in Feet scaled 1:240		

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

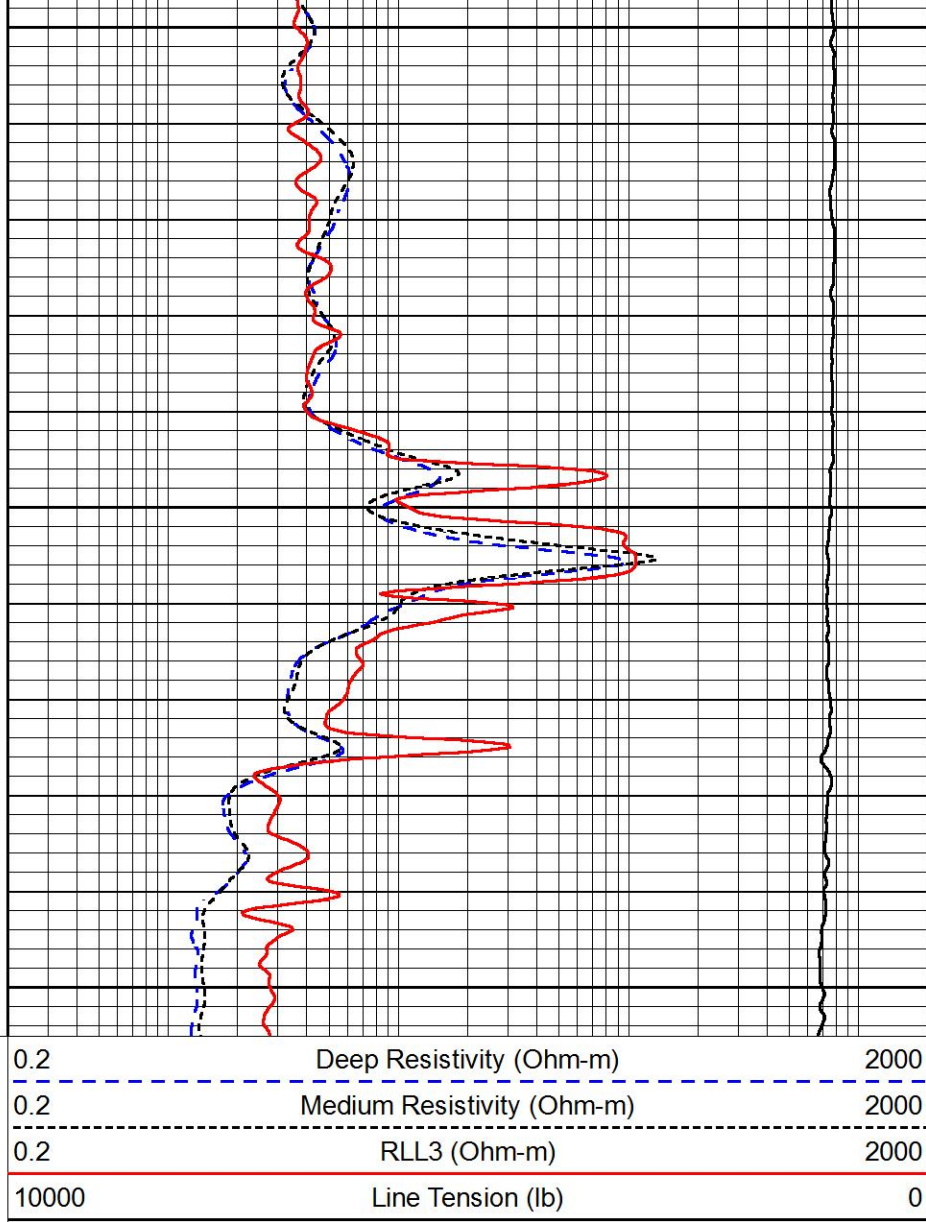
0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
10000	Line Tension (lb)	0



1450

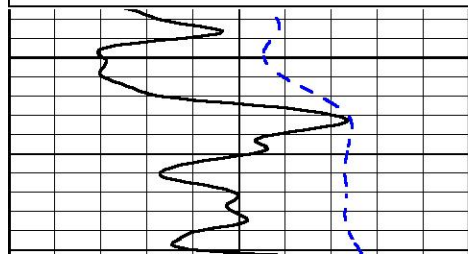
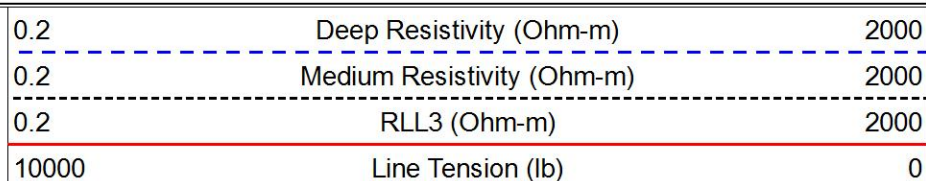
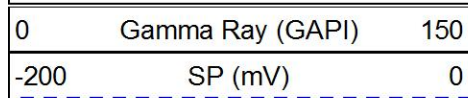
1500

1550

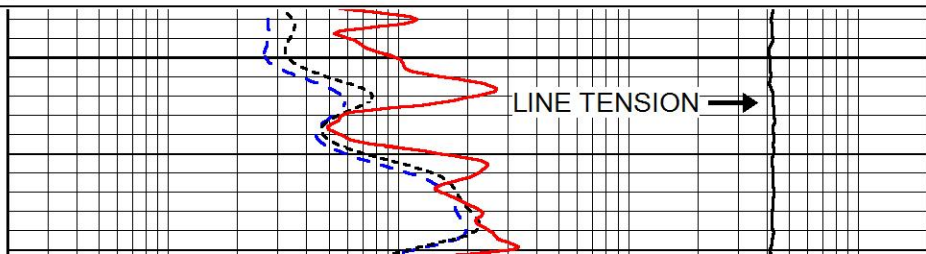


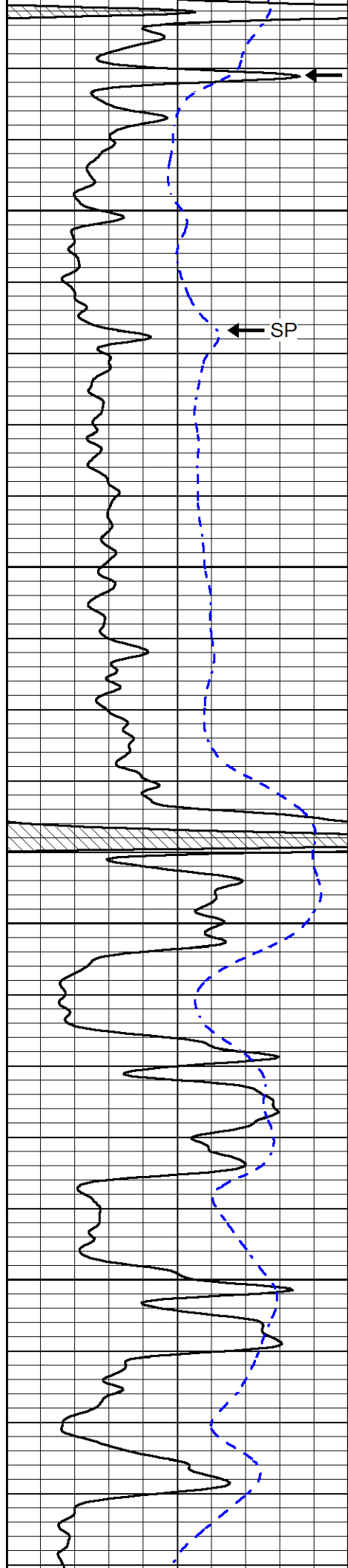
MAIN PASS

Database File palomino_uehling-schwien#1.db
Dataset Pathname STACKML/pass3.1
Presentation Format dil
Dataset Creation Wed Feb 21 04:27:39 2018
Charted by Depth in Feet scaled 1:240



3600





GAMMA RAY

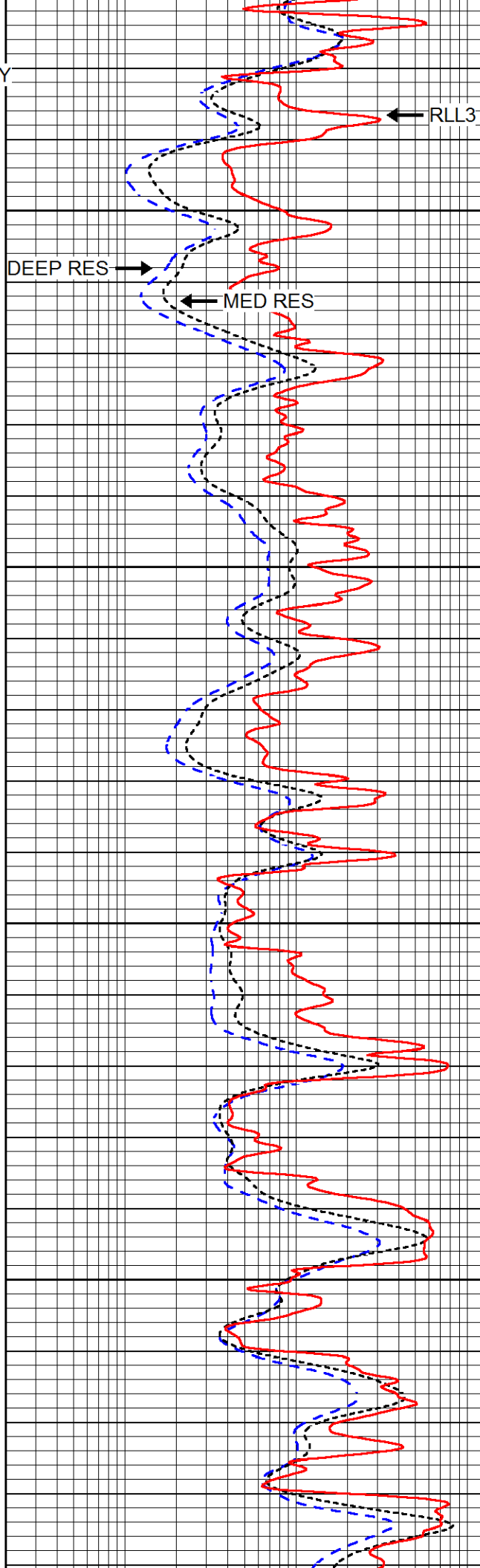
3650

SP

3700

3750

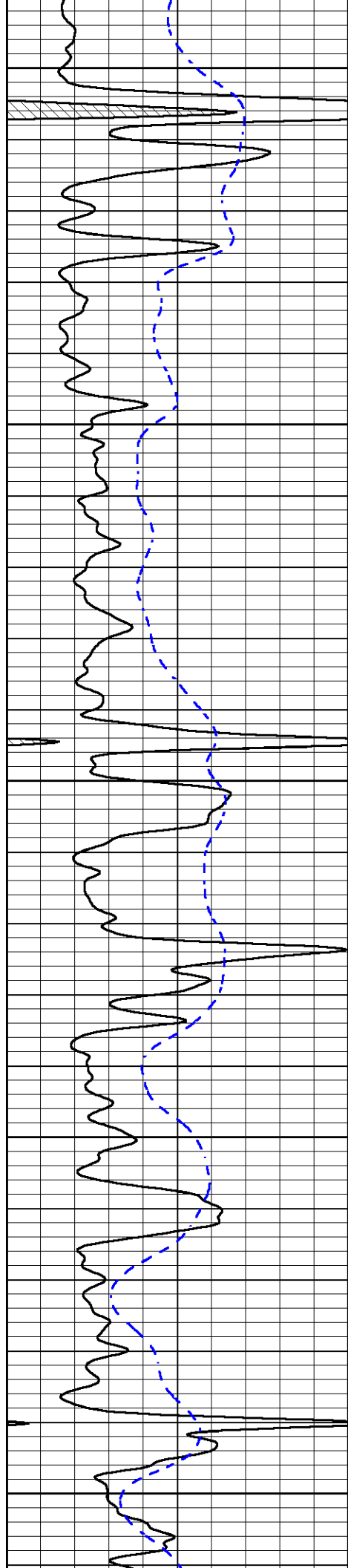
3800



RLL3

DEEP RES

MED RES



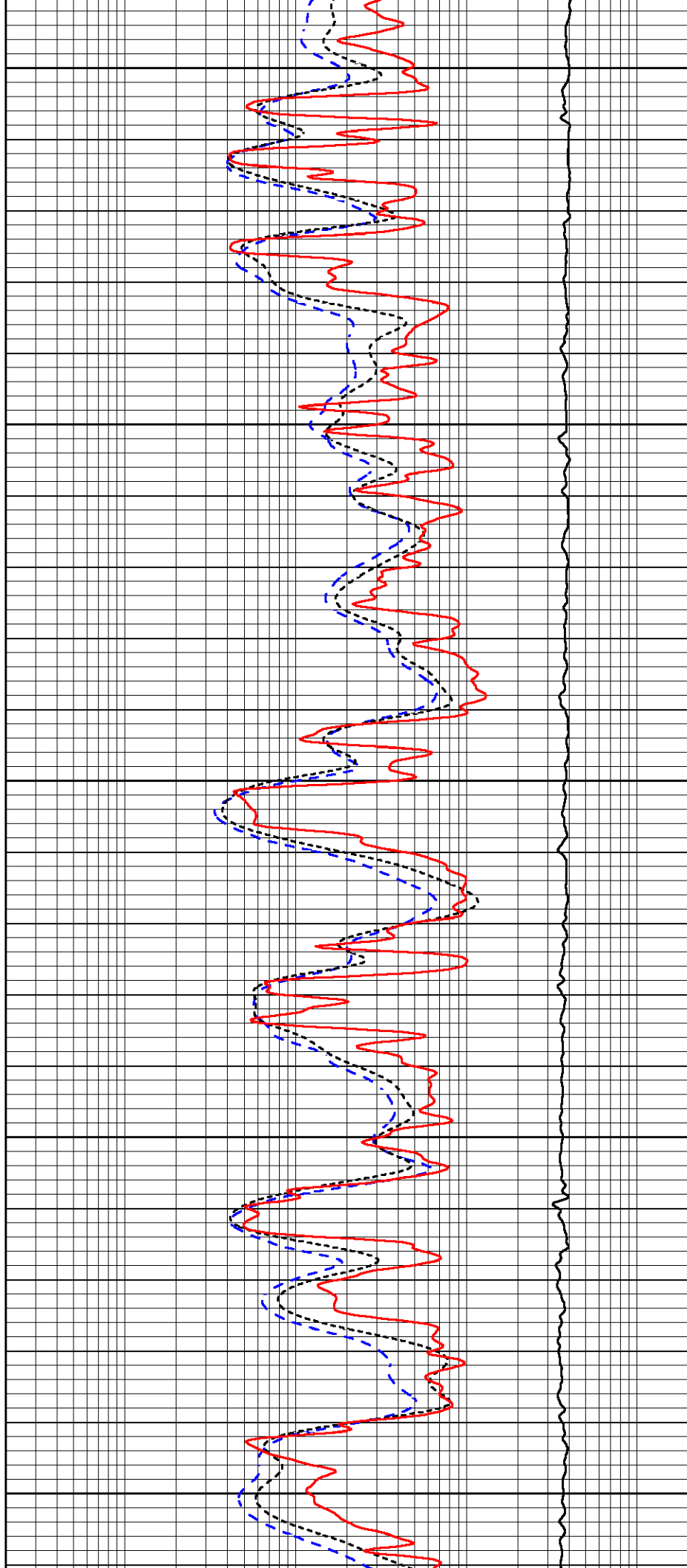
3850

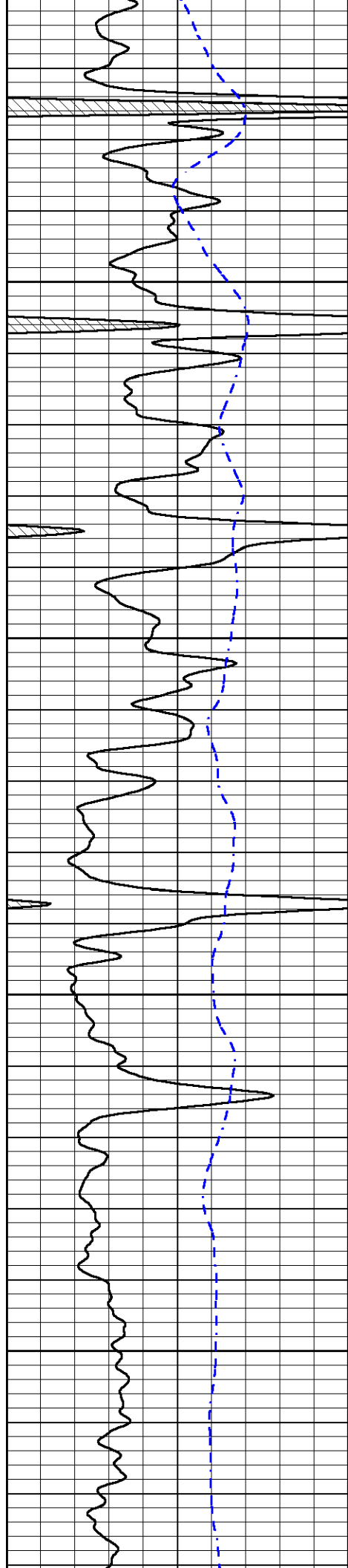
3900

3950

4000

4050



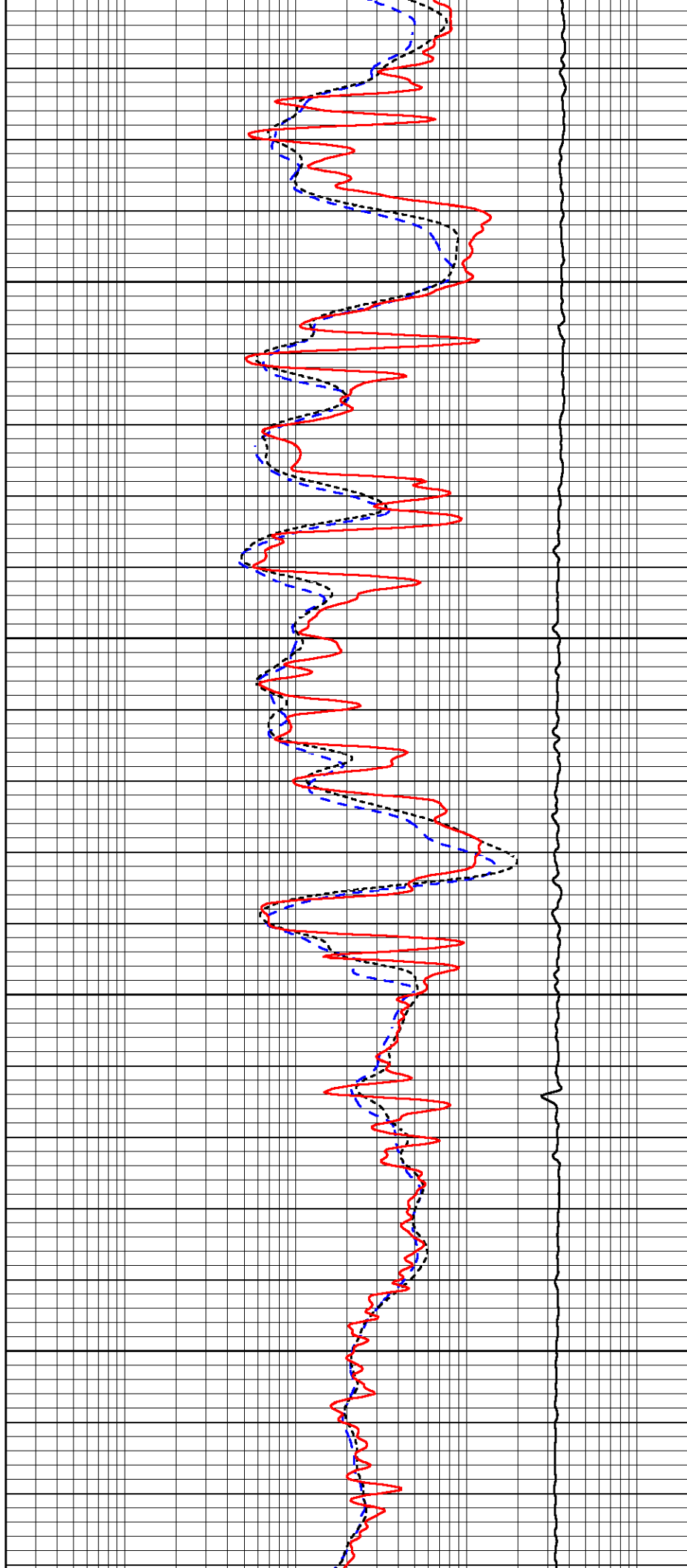


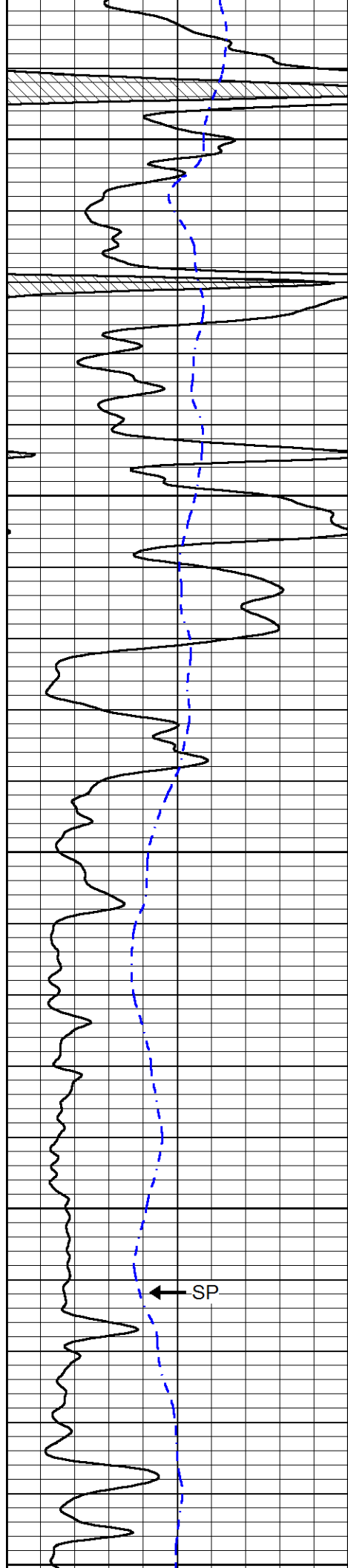
4100

4150

4200

4250





4300

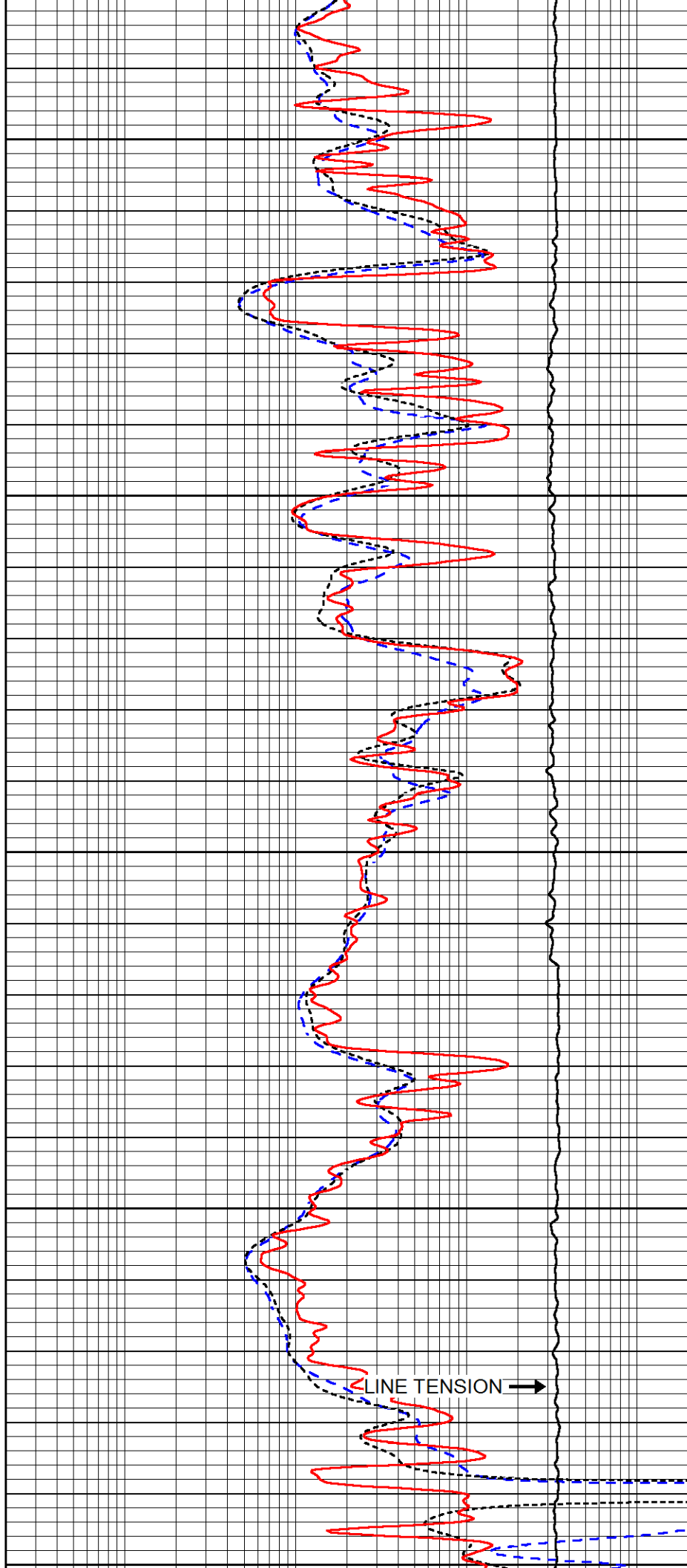
4350

4400

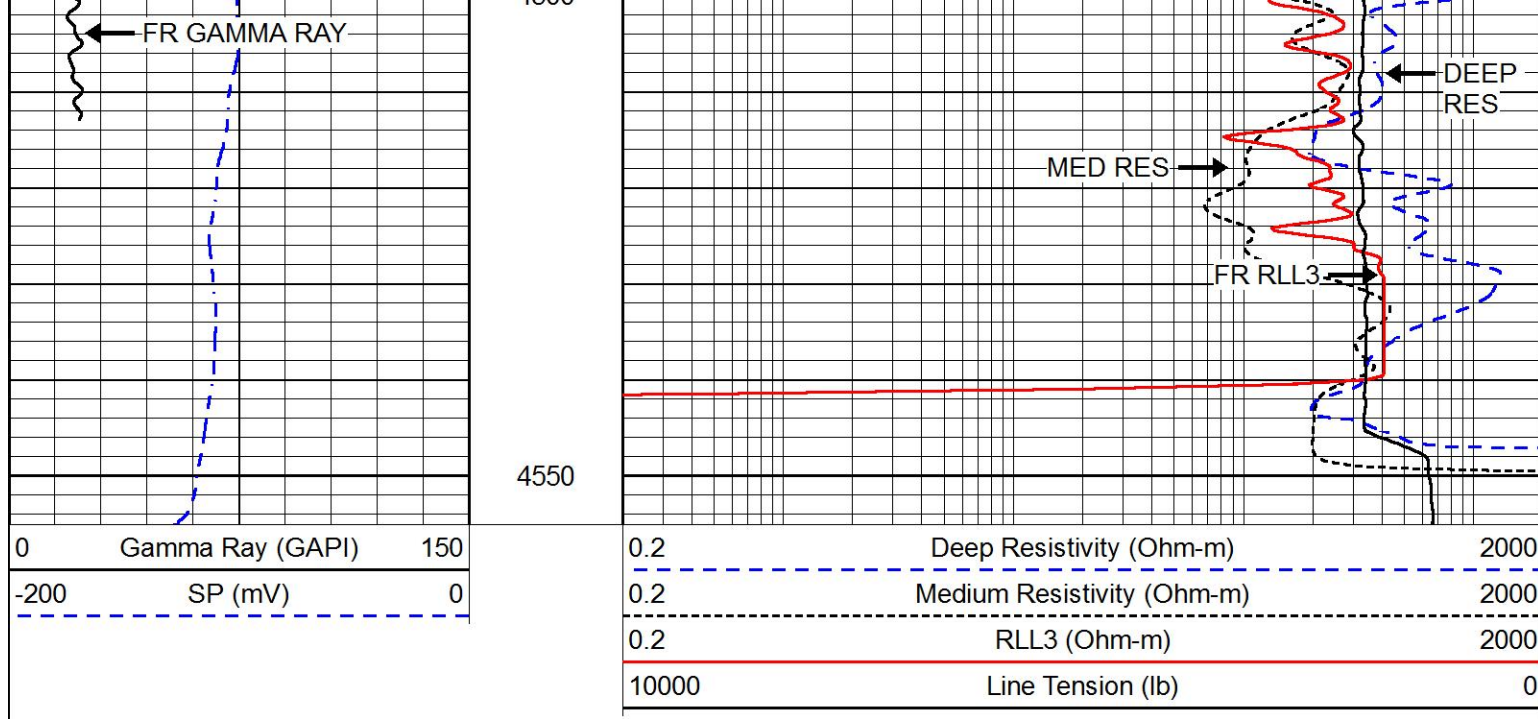
4450

← SP

4500

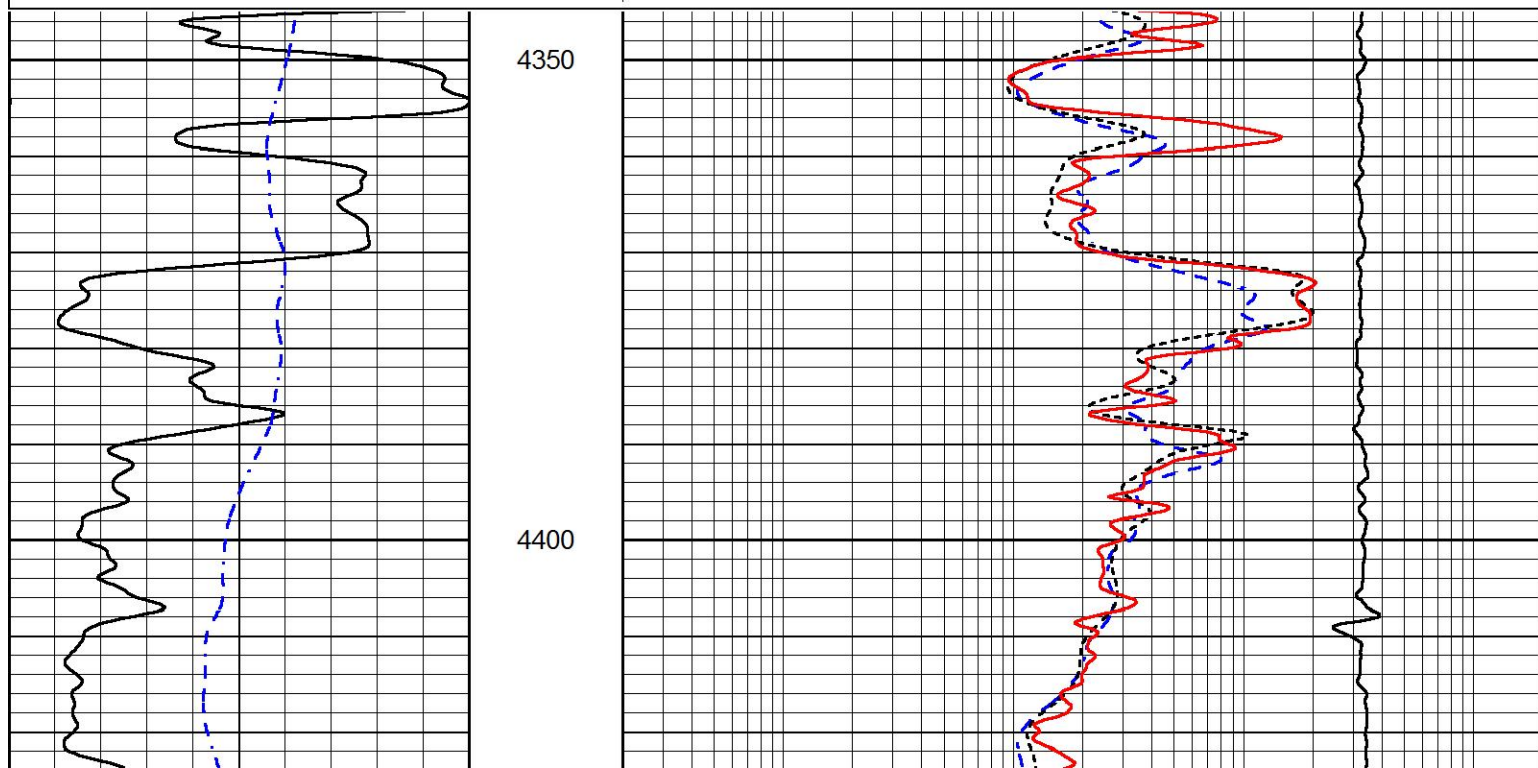
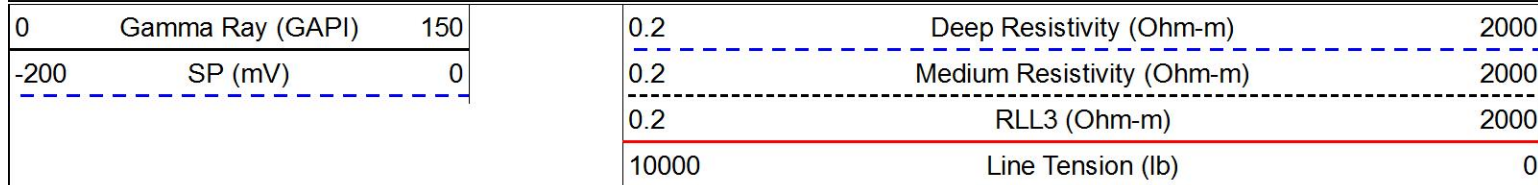


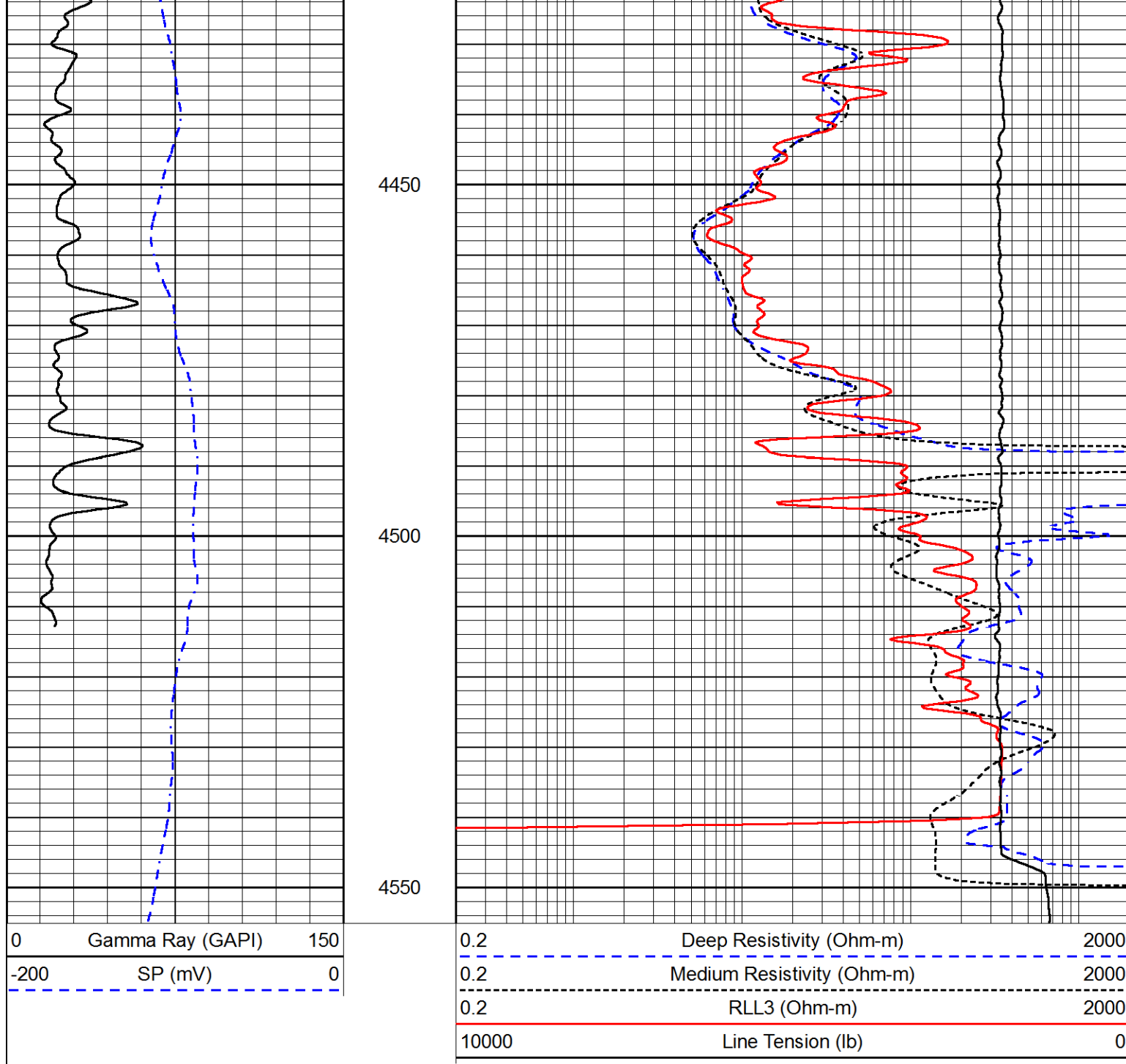
LINE TENSION →



REPEAT SECTION

Database File palomino_uehling-schwie#1.db
 Dataset Pathname STACKML/pass2.2
 Presentation Format dil
 Dataset Creation Wed Feb 21 04:00:29 2018
 Charted by Depth in Feet scaled 1:240





Calibration Report

Database File palomino_uehling-schwien#1.db
 Dataset Pathname STACKML/pass3.1
 Dataset Creation Wed Feb 21 04:27:39 2018

Dual Induction Calibration Report

Serial-Model: 933 (HT)-PSI HIGH TEMP
 Calibration Performed: Sun Feb 18 17:32:17 2018

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		Gain	Offset
Deep	167.000	835.000	0.000	255.000	mmho/m	0.700	-17.500
Medium	142.000	1349.000	0.000	255.000	mmho/m	0.550	-61.000

Microlog Calibration Report

Serial-Model:
Performed:PSI-01-PSIML
Mon Jan 15 11:19:55 2018

Readings

References

Results

Zero

Cal

Zero

Cal

m

b

Normal

0.0000

1.0000

0.0000

1.0000

Ohm-m

24000.0000

-0.5000

Inverse

0.0000

1.0000

0.0000

1.0000

Ohm-m

25500.0000

0.1000

Caliper

1.0001

1.1397

6.5000

18.5000

in

70.0000

-65.9000

Compensated Density Calibration Report

Serial-Model:

182-152-M&W

Source / Verifier:

16955B / 2ci

Master Calibration Performed:

Mon Feb 12 16:20:26 2018

Master Calibration

Density

Far Detector

Near Detector

Magnesium

1.755

g/cc

4992.81

6098.44

cps

Aluminum

2.675

g/cc

945.67

3945.60

cps

Spine Angle = 75.33

Density/Spine Ratio = 0.535

Size

Reading

Small Ring

4.50

in

1.09

Large Ring

15.00

in

1.03

Compensated Neutron Calibration Report

Serial Number:

207-MW

Tool Model:

M&W

Calibration Performed:

MON JAN 15 10:30:30 2018

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

Tool Model:

M&W

Calibration Performed:

Mon Jan 15 11:20:44 2018

Calibrator Value:

1.0

GAPI

Background Reading:

0.0

cps

Calibrator Reading:

1.0

cps

Sensitivity:

0.6000

GAPI/cps



Company

PALOMINO PETROLEUM, INC.

Well

UEHLING-SCHWIEN #1

Field

WILDCAT

PIONEER

Pioneer Energy Services

County

NESS

State

KANSAS