



PIONEER
Pioneer Energy Services

DUAL INDUCTION LOG

Company **CASINO PETROLEUM, LLC**
Well **UKENS #2**
Field **WELCH-BORNHOLDT**
County **MCPHERSON** State **KANSAS**

Location: API #: 15-113-21391-00-00

Permanent Datum **GROUND LEVEL** Elevation **1553'**

Log Measured From **KELLY BUSHING** Elevation **1563'**

Drilling Measured From **KELLY BUSHING** Elevation **1553'**

SEC 18 TWP 20S RGE 5W

CNL/CDL
MEL

Date 2/18/2018

Run Number ONE

Depth Driller 3350'

Depth Logger 3350'

Bottom Logged Interval 3349'

Top Log Interval 250'

Casing Driller 8.625" @ 273'

Casing Logger 272'

Bit Size 7.875"

Type Fluid in Hole CHEMICAL

Salinity, ppm CL 6900

Density / Viscosity 9.2 53

pH / Fluid Loss 9.5 8.0

Source of Sample FLOWLINE

Rm @ Meas. Temp 0.40 @ 50

Rmf @ Meas. Temp 0.30 @ 50

Rmc @ Meas. Temp 0.54 @ 50

Source of Rmf / Rmc CHARTS

Rm @ BHT 0.18 @ 110

Operating Rig Time 3 HOURS

Max Rec. Temp. F 110

Equipment Number 91

Location HAYS

Recorded By D. SCHMIDT

Witnessed By TODD MORGENSTERN

<<< 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.

LYONS,
EAST TO PLUM AVE (31ST RD),
5 SOUTH TO P AVE, 1/4 EAST,
NORTH INTO

Log Measured From: KELLY BUSHING

Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES
www.pioneerenergy.com 785-625-3858

Your Pioneer Energy Services Crew

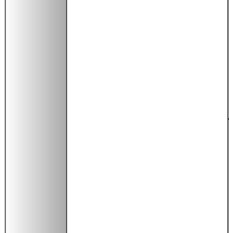
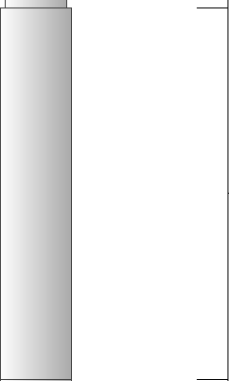
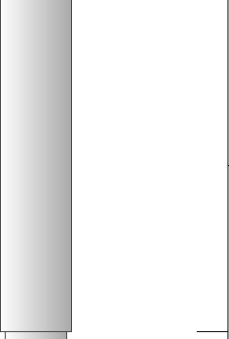
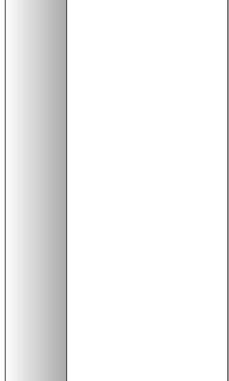
Engineer: D. SCHMIDT
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: TODD MORGENSTERN
Secondary Witness:
Secondary Witness:
Secondary Witness:

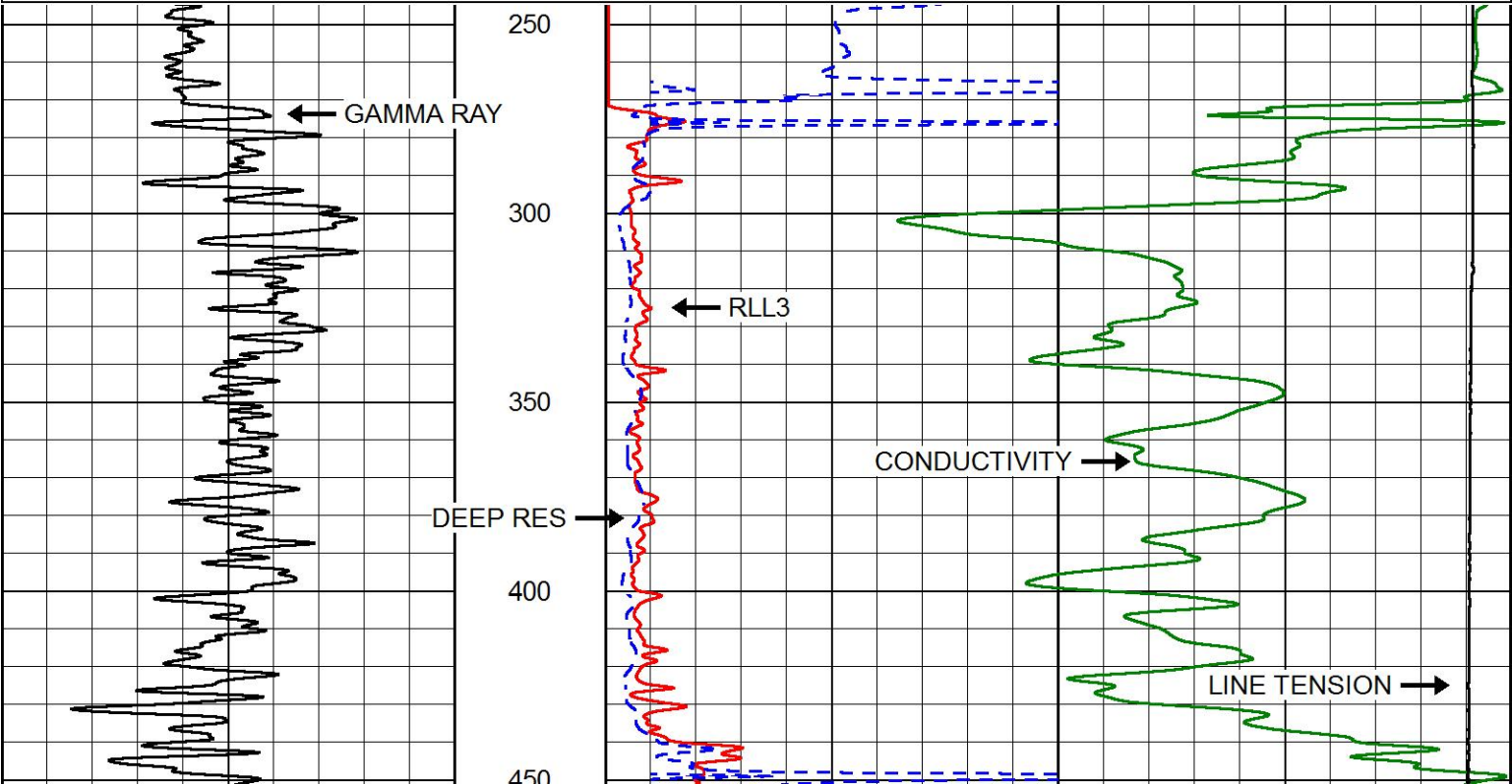
Top - Bottom

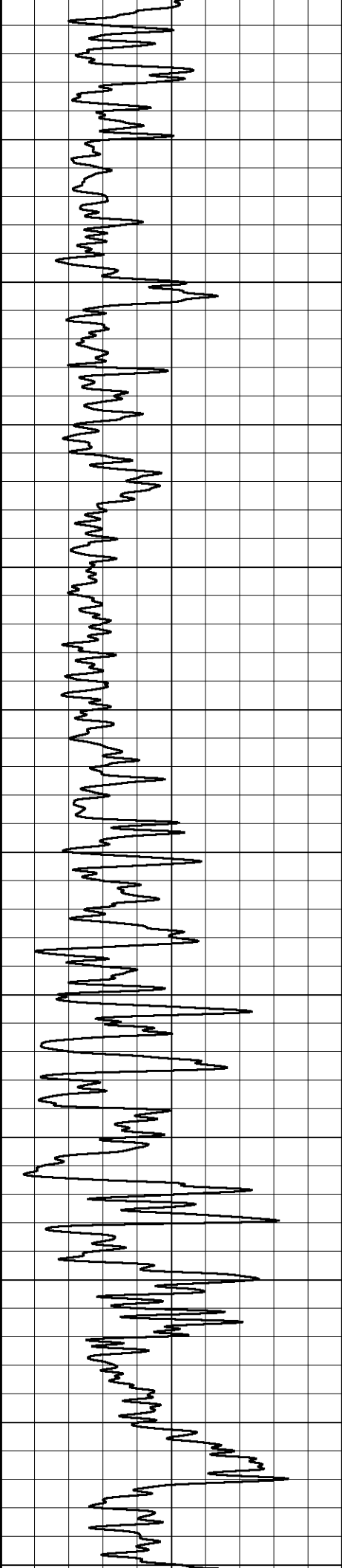
M	A	SZCOR	NPORSEL	FLUIDDEN g/cc	MATRXDEN g/cc	SPSHIFT mV	SNDERRM mmho/m
2	1	Off	Limestone	1	2.71	-225	0
SNDERR mmho/m	SRFTEMP degF	CASETHCK in	CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF	BOREID in
0	40	0	5.5	0	3350	110	7.875

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					

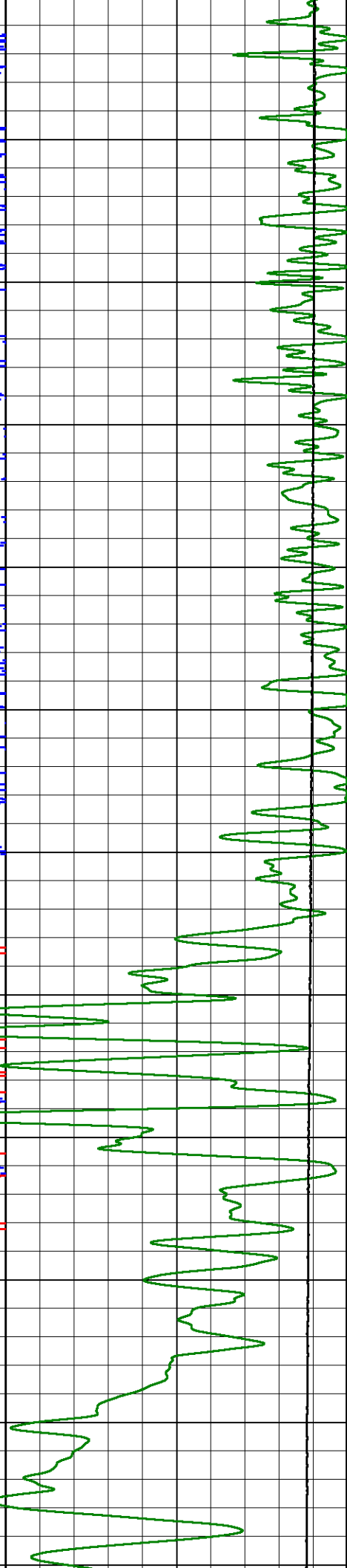
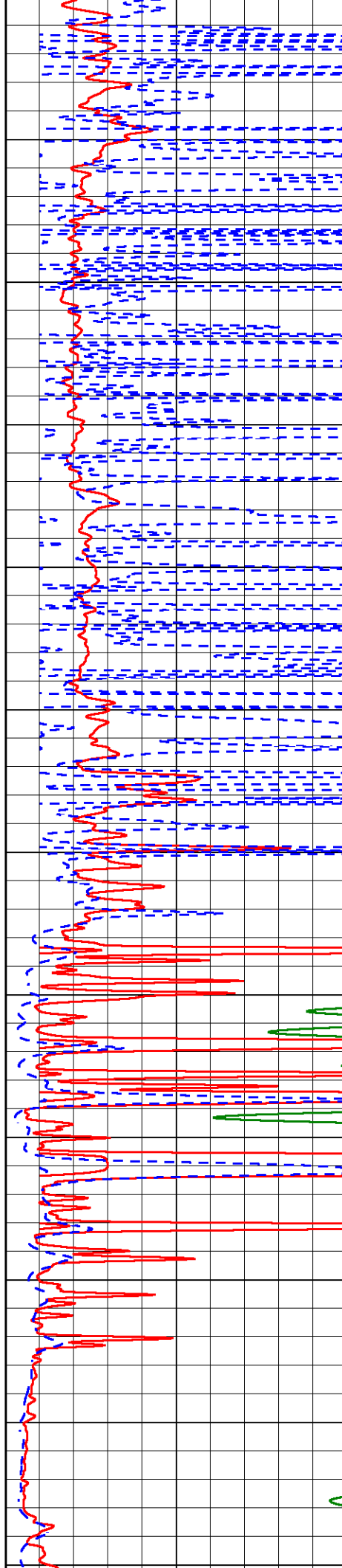
CILD	8.00		DIL-PSI HIGH TEMP (933 (HT))	18.50	3.50	220.00
CILM	4.70					
SP	0.20					
Dataset: casino_ukens 2.db: field/well/STKML/pass3.2 Total length: 43.08 ft Total weight: 685.00 lb O.D.: 4.00 in						

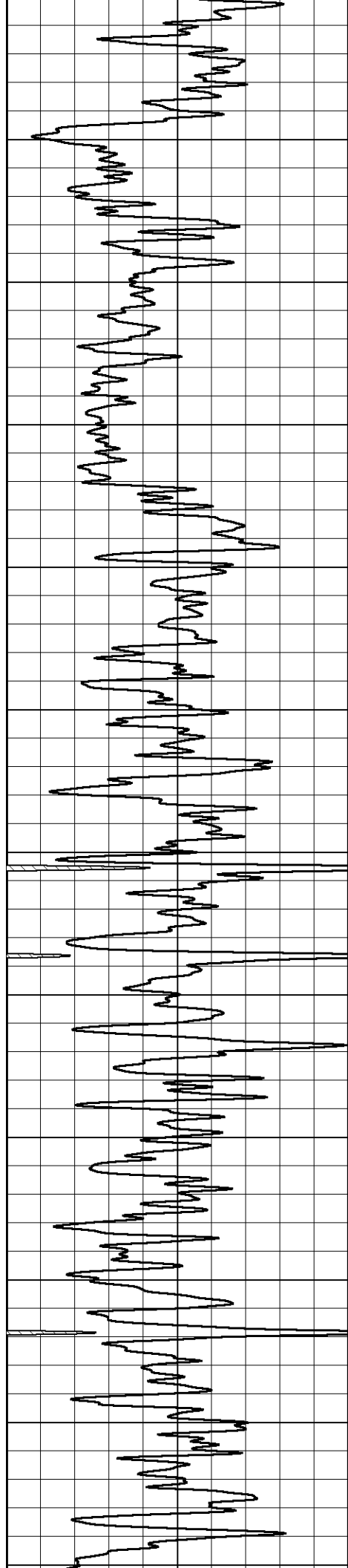
		MAIN PASS			
Database File	casino_ukens 2.db				
Dataset Pathname	STKML/pass3.1				
Presentation Format	dil2in				
Dataset Creation	Sun Feb 18 08:57:26 2018				
Charted by	Depth in Feet scaled 1:600				
0	Gamma Ray (GAPI)	150	1000	Conductivity (mmho/m)	0
			15000	Line Tension (lb)	0
			0	RLL3 (Ohm-m)	50
			0	Deep Resistivity (Ohm-m)	50
			50	RLL3 (Ohm-m)	500
			50	Deep Resistivity (Ohm-m)	500



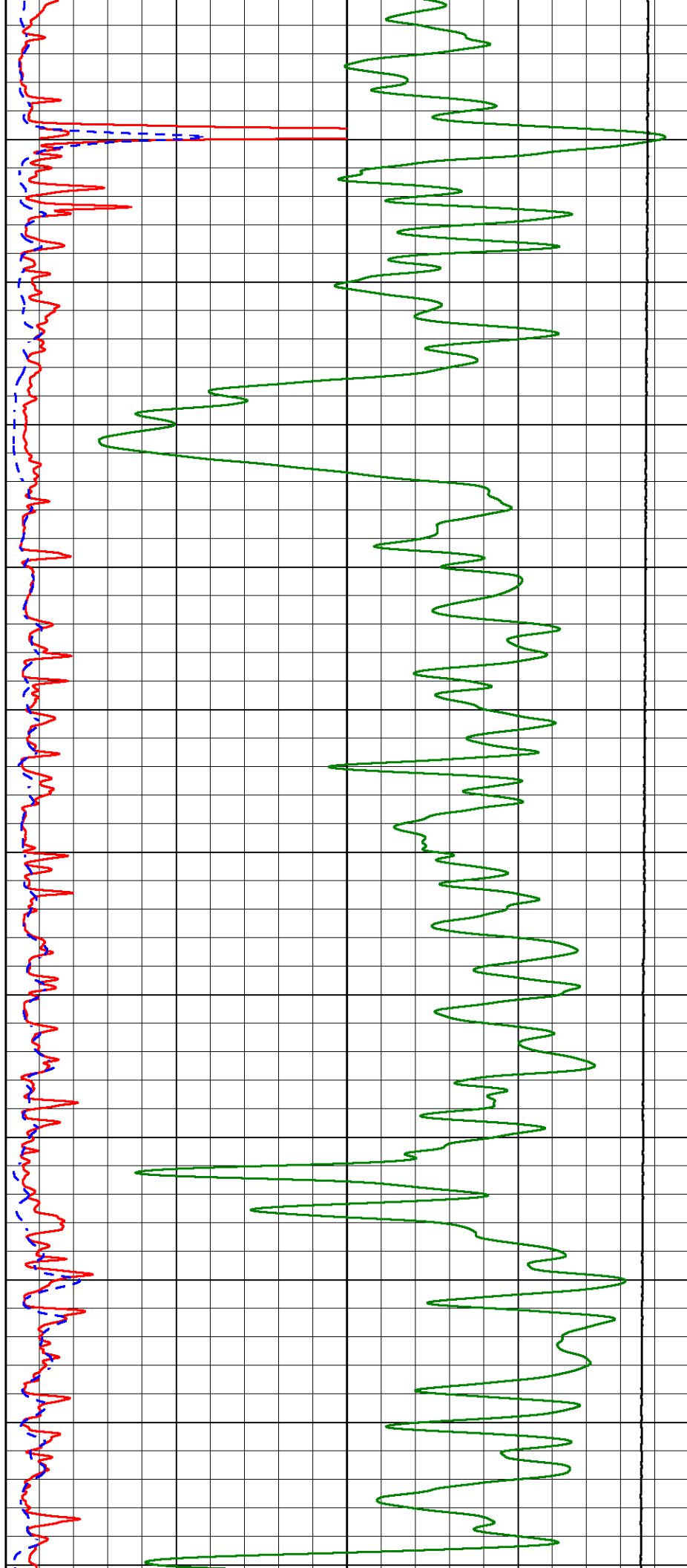


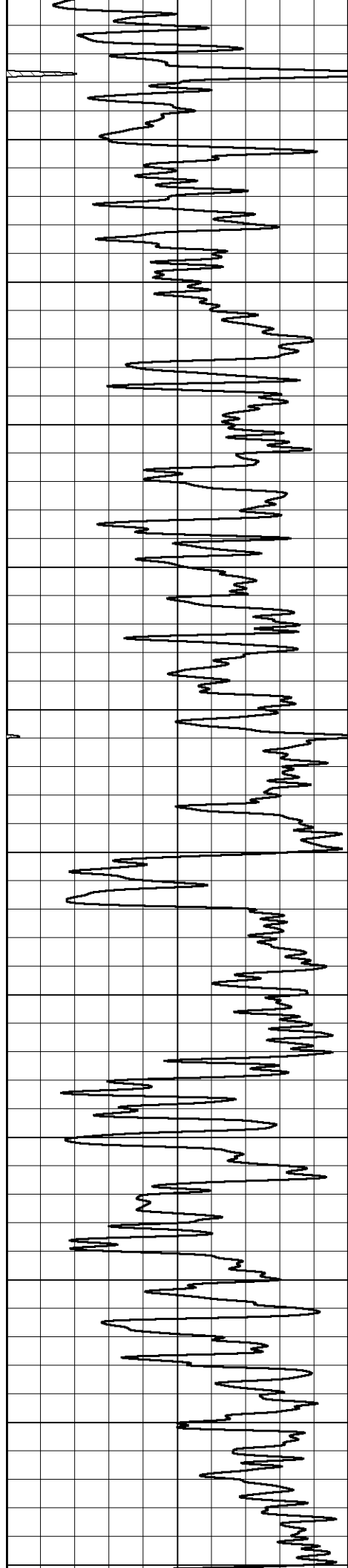
100
500
550
600
650
700
750
800
850
900
950
1000



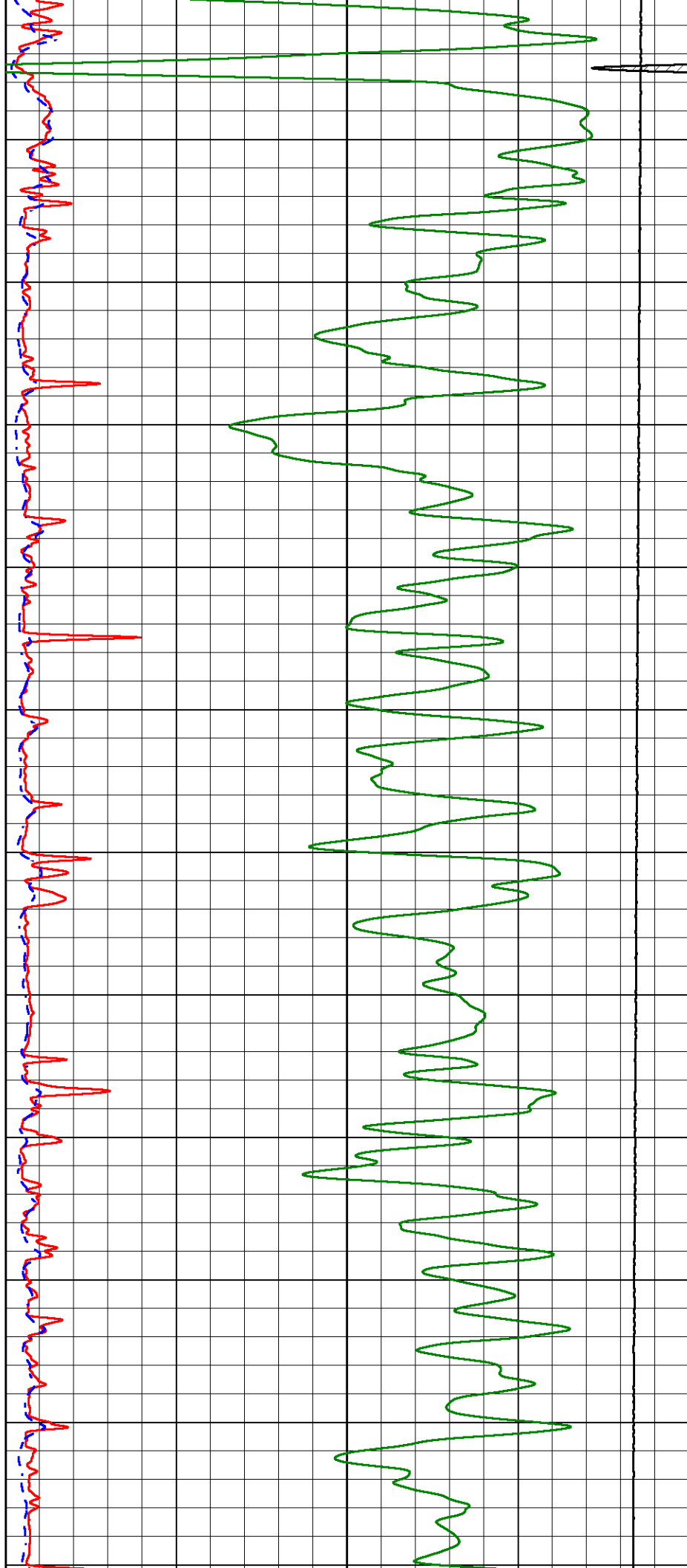


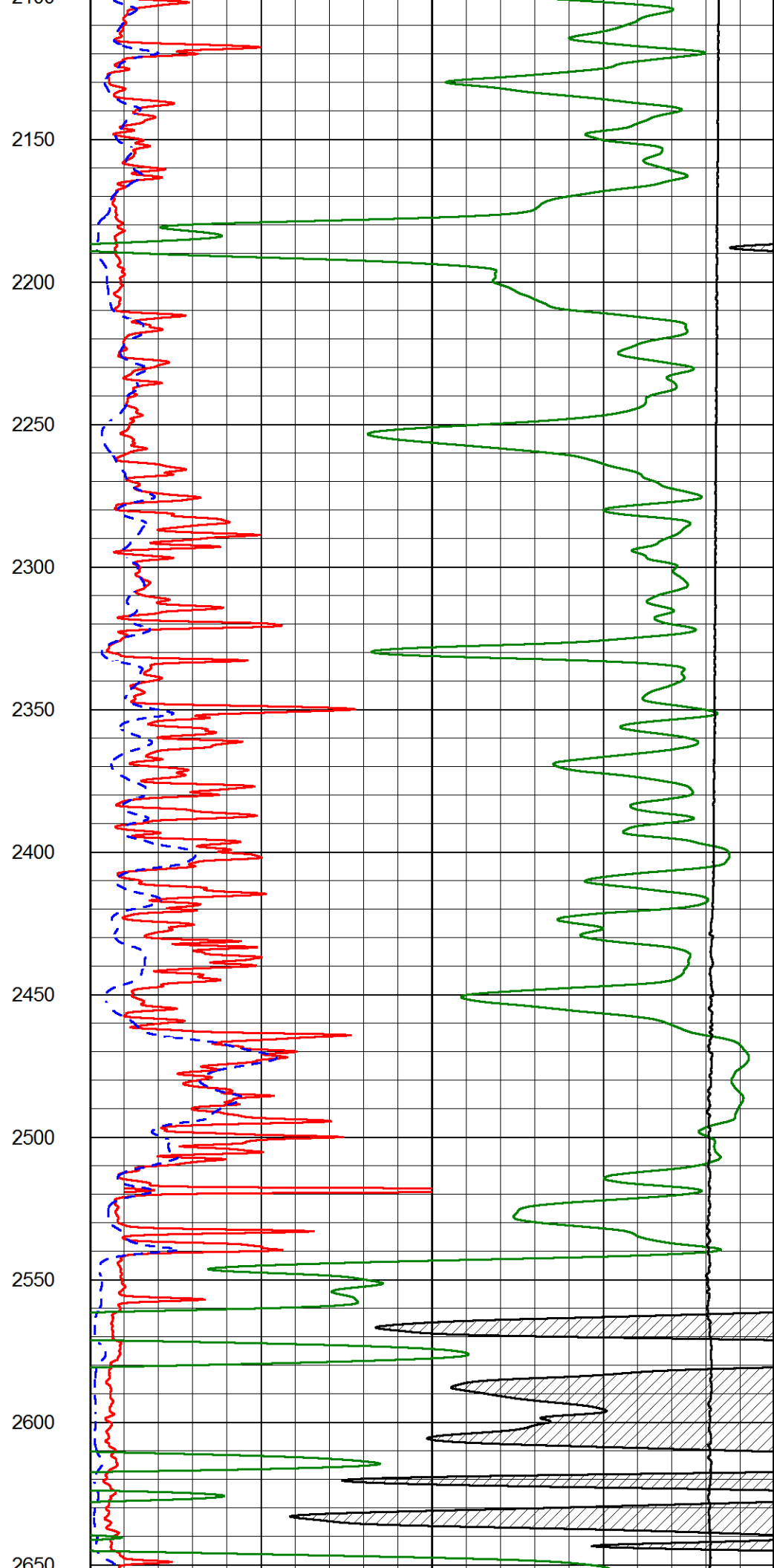
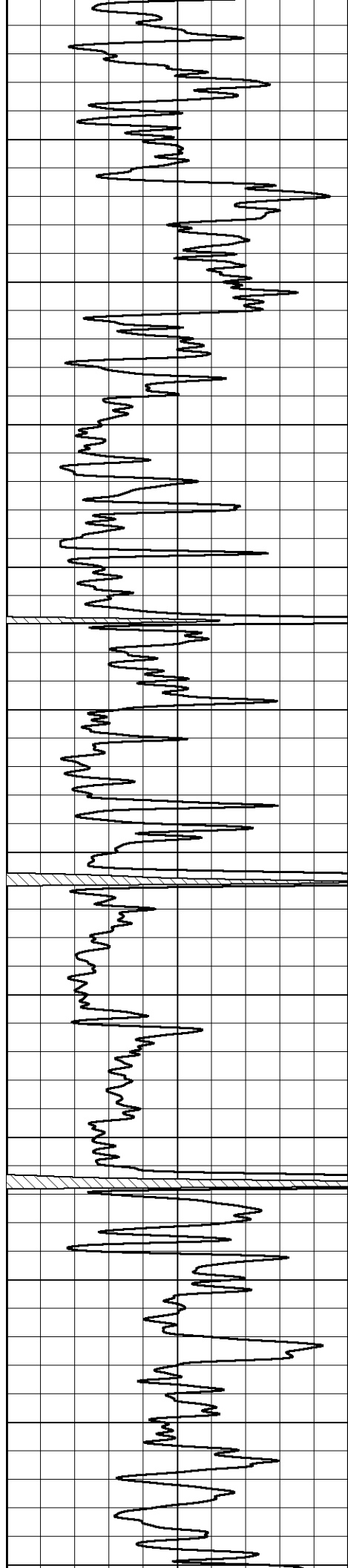
1000
1050
1100
1150
1200
1250
1300
1350
1400
1450
1500
1550

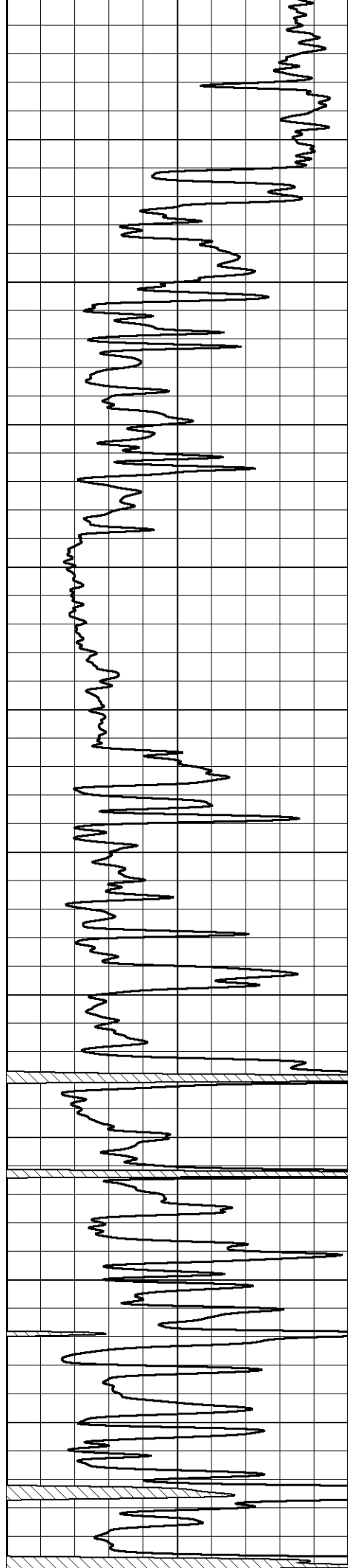




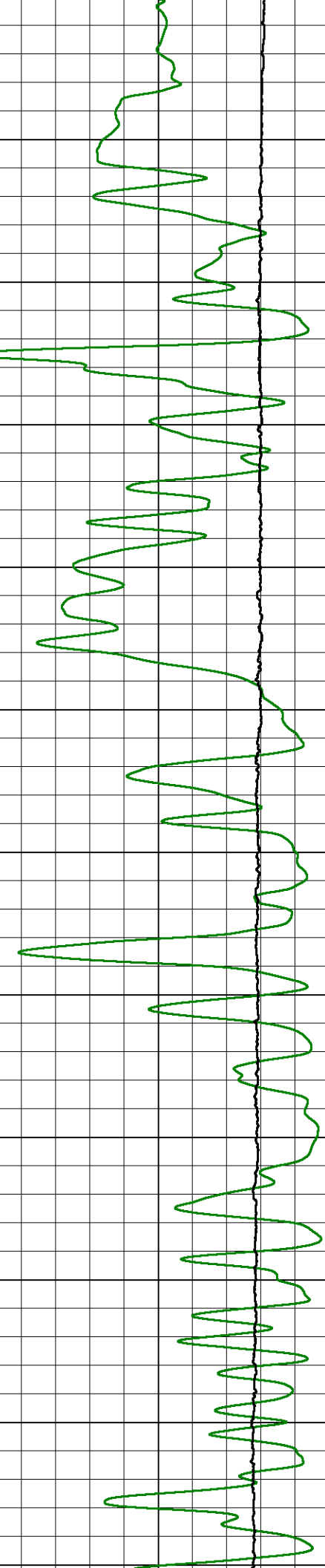
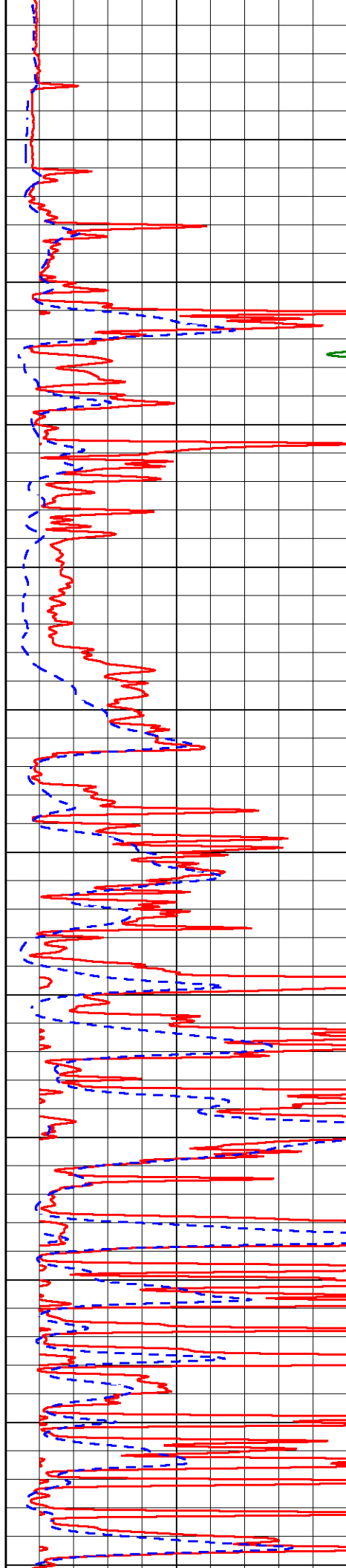
2100
2050
2000
1950
1900
1850
1800
1750
1700
1650
1600
1550

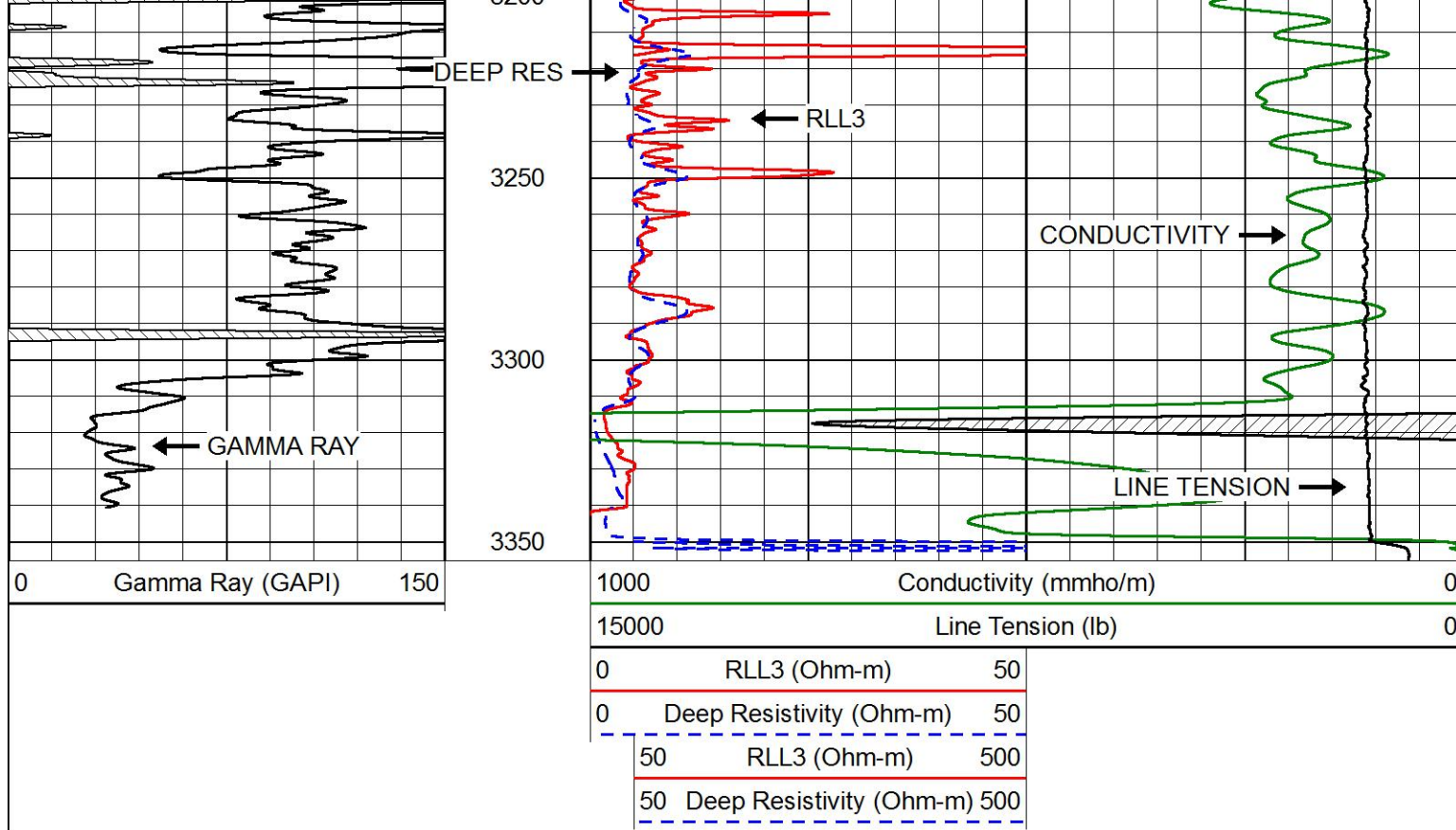






2650
2700
2750
2800
2850
2900
2950
3000
3050
3100
3150
3200

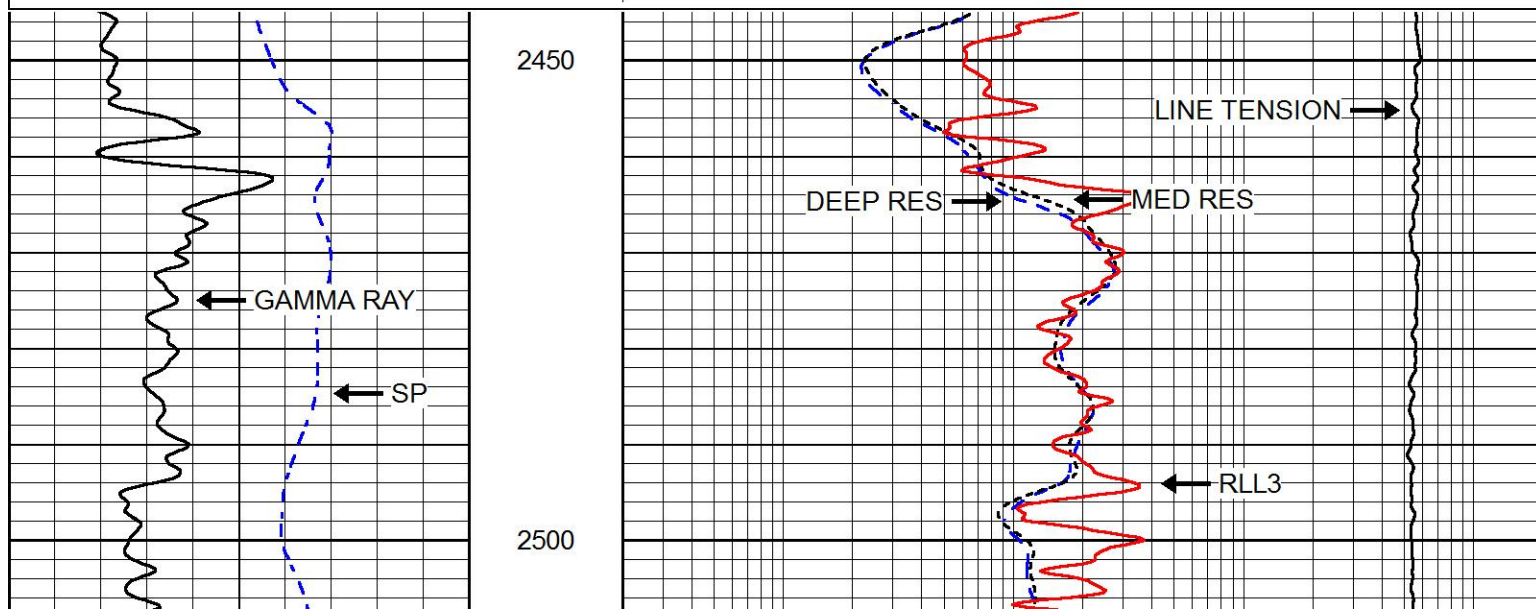


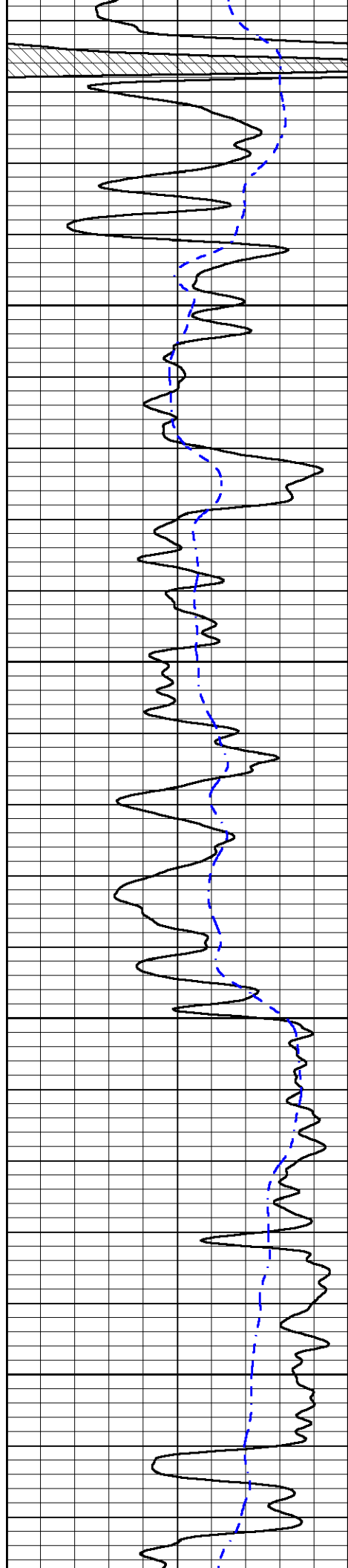


MAIN PASS

Database File: casino_ukens 2.db
 Dataset Pathname: STKML/pass3.1
 Presentation Format: dil
 Dataset Creation: Sun Feb 18 08:57:26 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



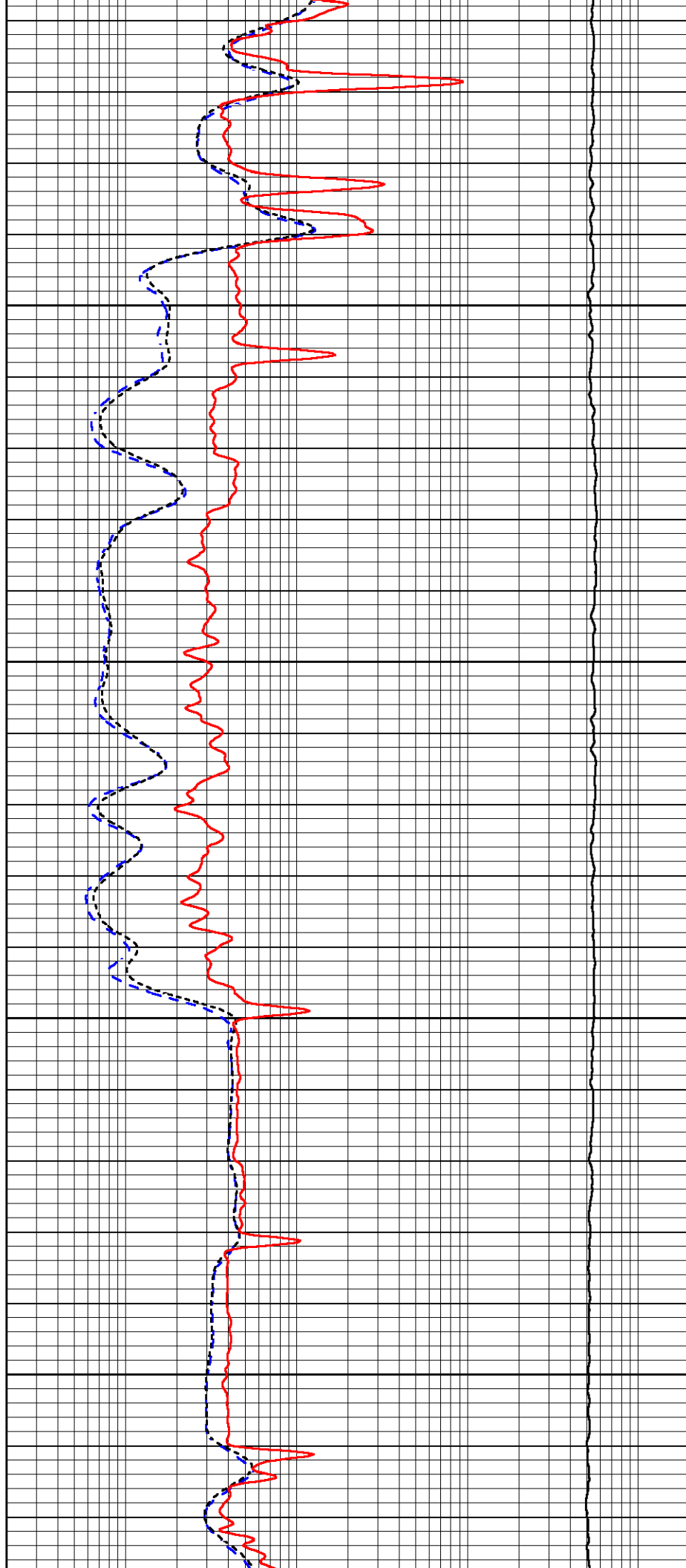


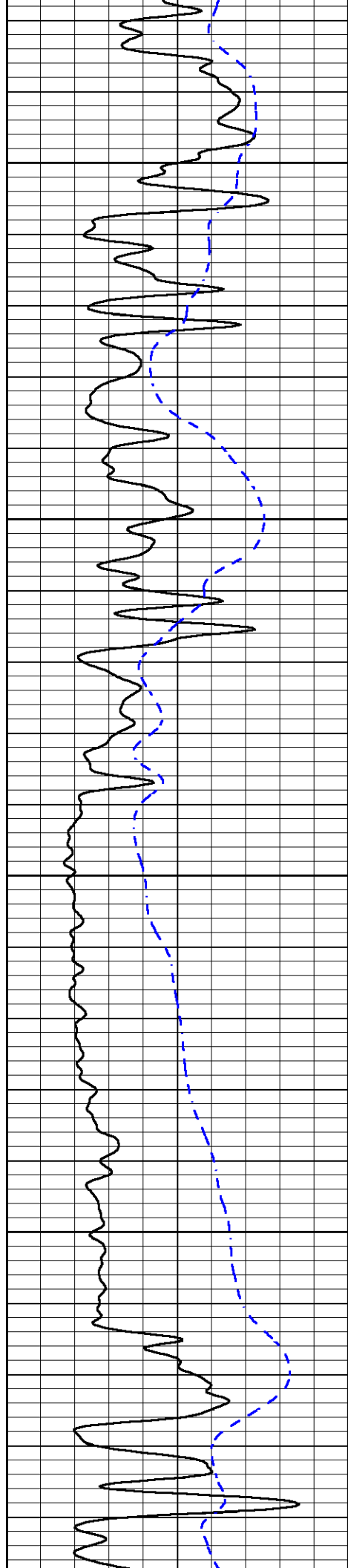
2550

2600

2650

2700



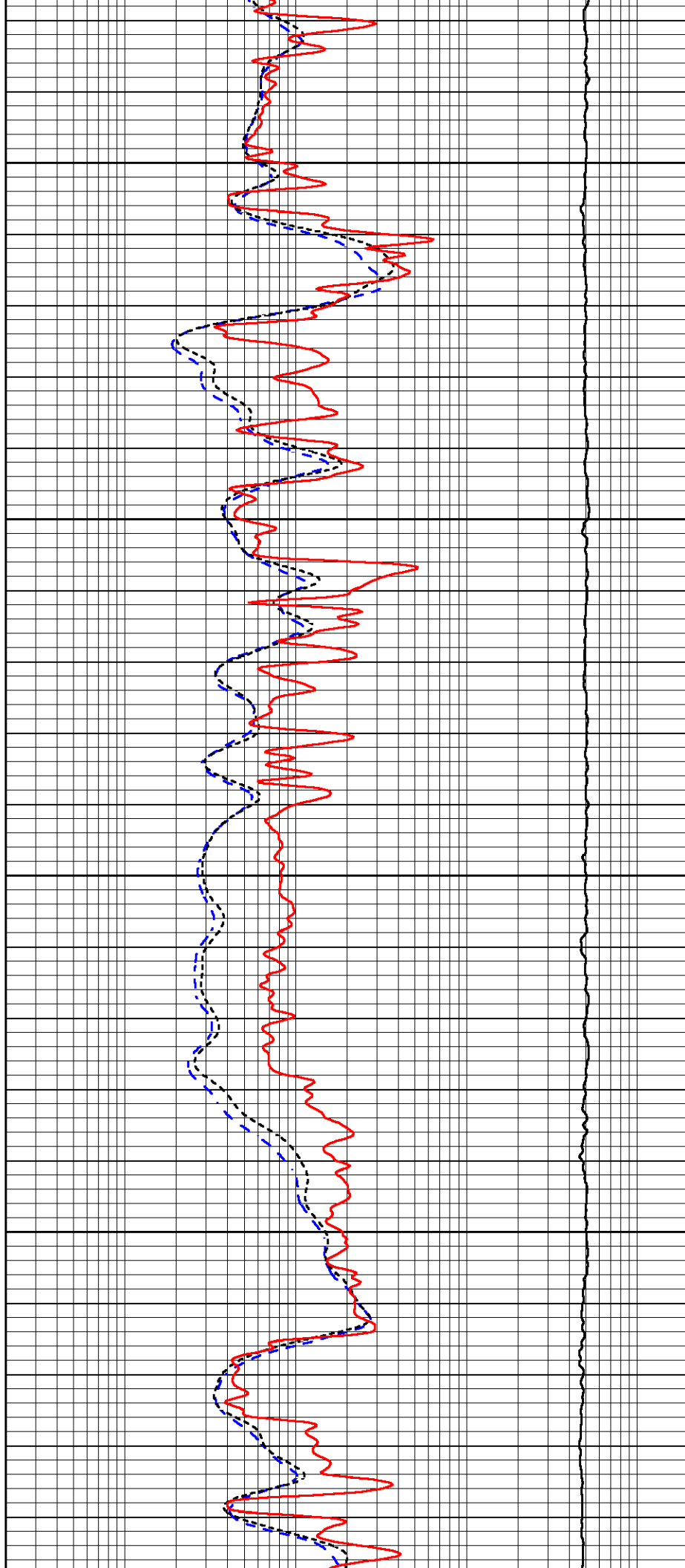


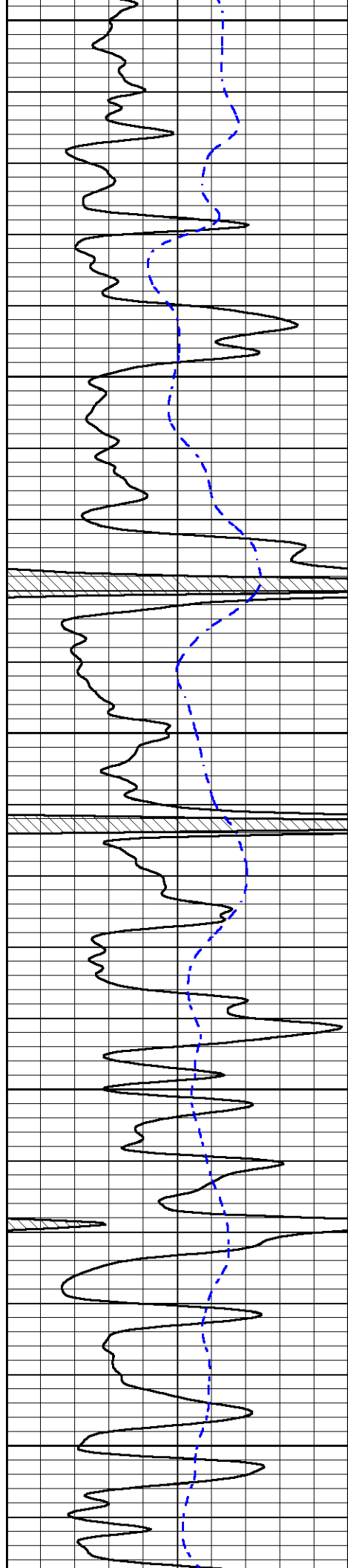
2750

2800

2850

2900





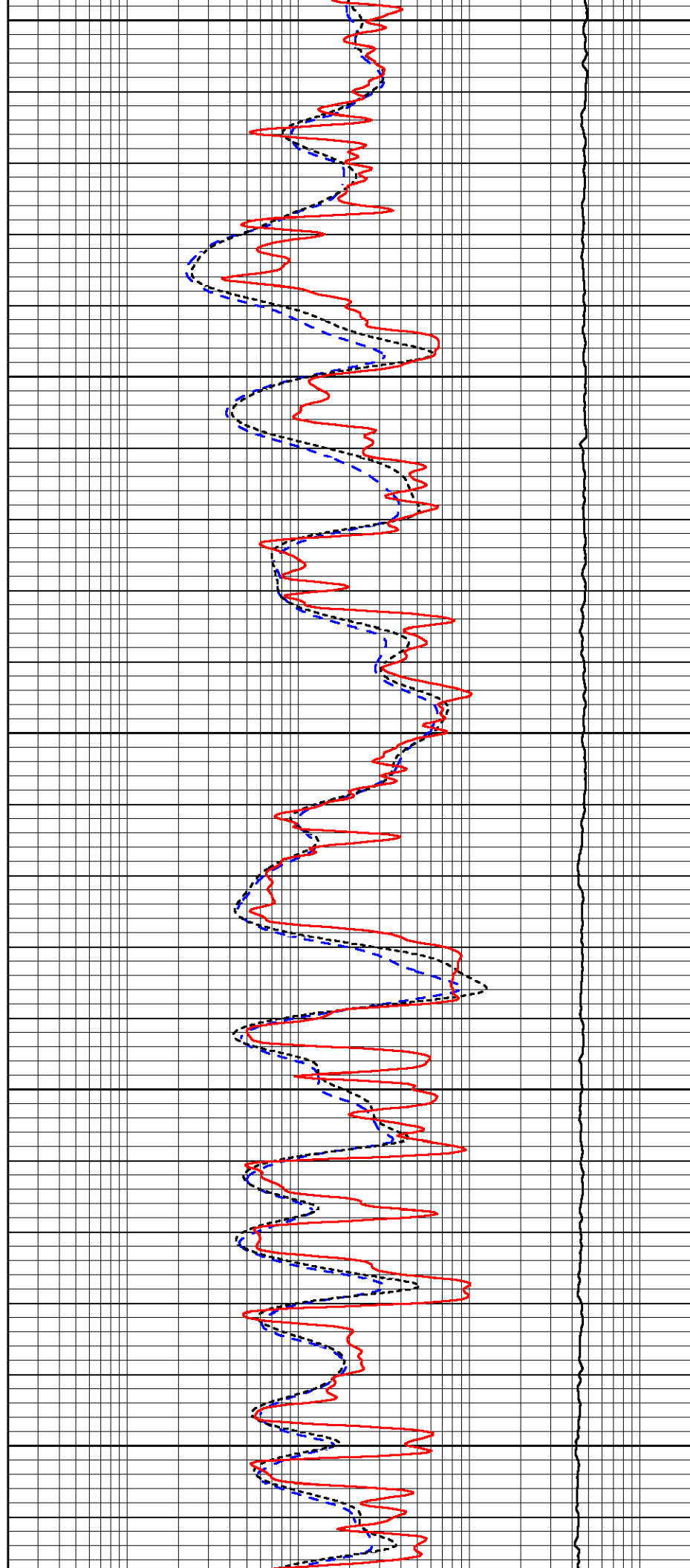
2950

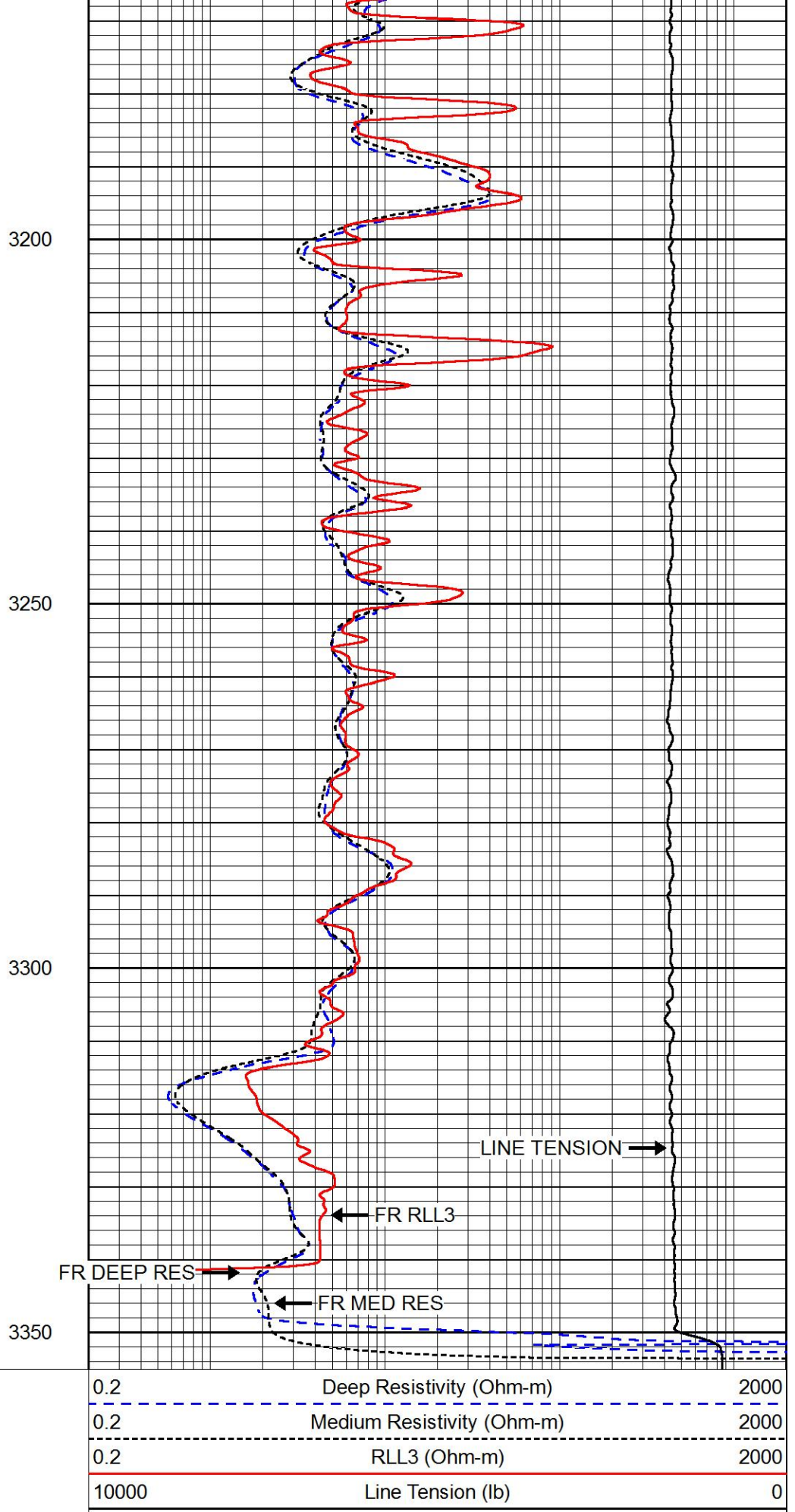
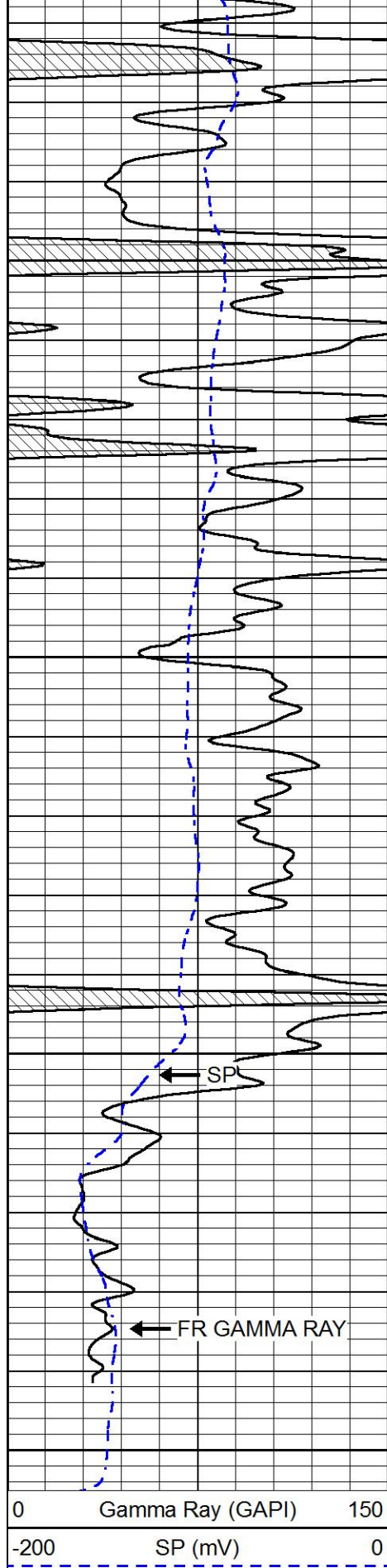
3000

3050

3100

3150

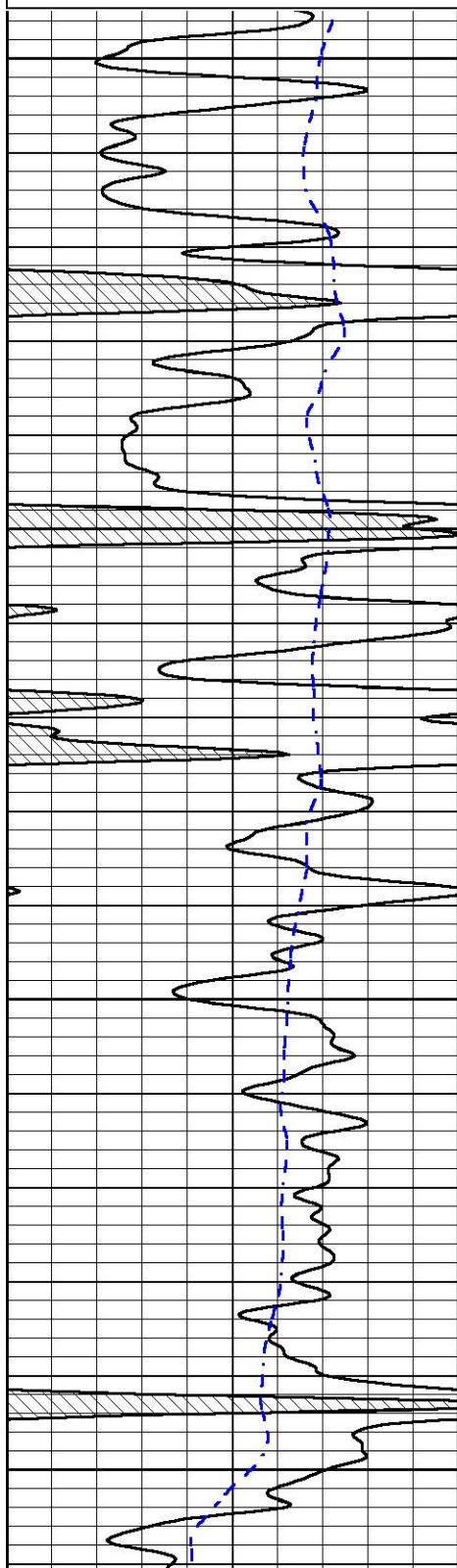




Database File casino_ukens 2.db
 Dataset Pathname STKML/pass2.1
 Presentation Format dil
 Dataset Creation Sun Feb 18 07:44:54 2018
 Charted by Depth in Feet scaled 1:240

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

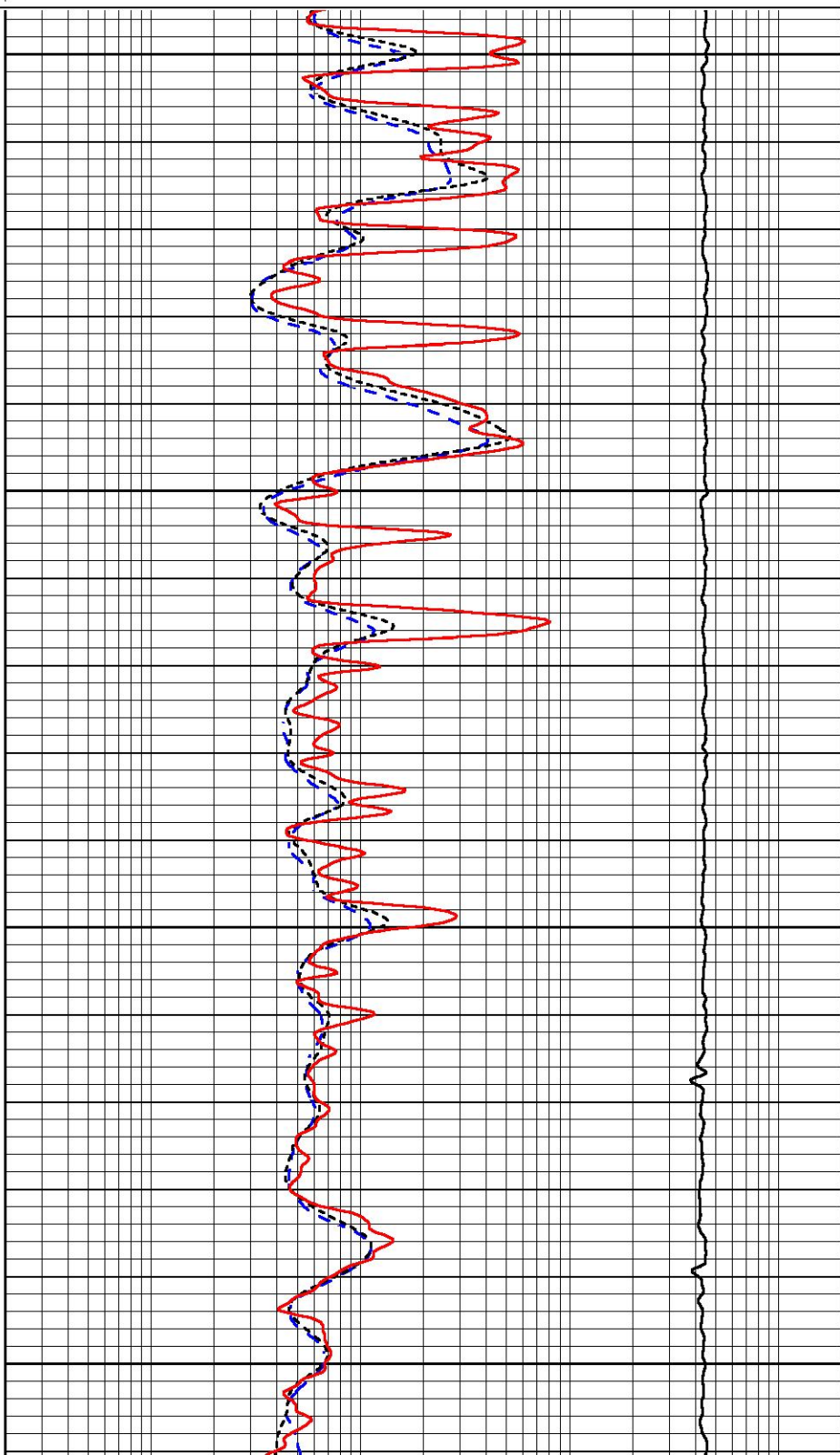


3150

3200

3250

3300



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
Long Space		460.00	cps	1000.00	cps
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	CASINO PETROLEUM, LLC
		Well	UKENS #2
		Field	WELCH-BORNHOLDT
		County	MCPHERSON
		State	KANSAS