



DUAL INDUCTION LOG

PIONEER
Pioneer Energy Services

Company PHILLIPS OIL COMPANY, LLC
Well CAMPIE NO. 1-15
Field MCGAUGHEY
County NESS
State KANSAS

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County NESS State KANSAS

Location: API #: 15-135-26005-00-00

2200' FSL & 1950' FWL

SEC 15 TWP 7S RGE 21W

Permanent Datum GROUND LEVEL Elevation 2193'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Other Services
CNL/CDL
Elevation
K.B. 2200'
D.F. N/A
G.L. 2193'

Date 6/2/2018

Run Number ONE

Depth Driller 4200'

Depth Logger 4196'

Bottom Logged Interval 4195'

Top Log Interval 300'

Casing Driller 8.625" @ 297'

Casing Logger 301'

Bit Size 7.875"

Type Fluid in Hole CHEMICAL

Salinity, ppm CL 6000

Density / Viscosity 9.4 55

pH / Fluid Loss 9.5 9.2

Source of Sample FLOWLINE

Rm @ Meas. Temp .45 @ 72

Rmt @ Meas. Temp .34 @ 72

Rmc @ Meas. Temp .61 @ 72

Source of Rmt / Rmc CHARTS

Rm @ BHT .27 @ 118

Operating Rig Time 2 HOURS

Max Rec. Temp. F 118 DEGF

Equipment Number 108

Location HAYS

Recorded By J. HENRICKSON

Witnessed By PAT DEENIHAN

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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.

MCRACKEN KANSAS

WEST ON ELM AVE TO HH ROAD, 1 SOUTH, 1/2 WEST, NORTH INTO

Log Measured From: KELLY BUSHING 7 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: PAT DEENIHAN
Secondary Witness:
Secondary Witness:
Secondary Witness:

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in 7.875	degF 118	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 -100	degF 82	Off	ft 4196

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 (168-986)	8.50	4.00	250.00
	20.83						
	20.35						
RLL3 RLL3F	15.80 15.79						
CILD	8.00			DIL-M&W (1987)	18.50	3.50	220.00

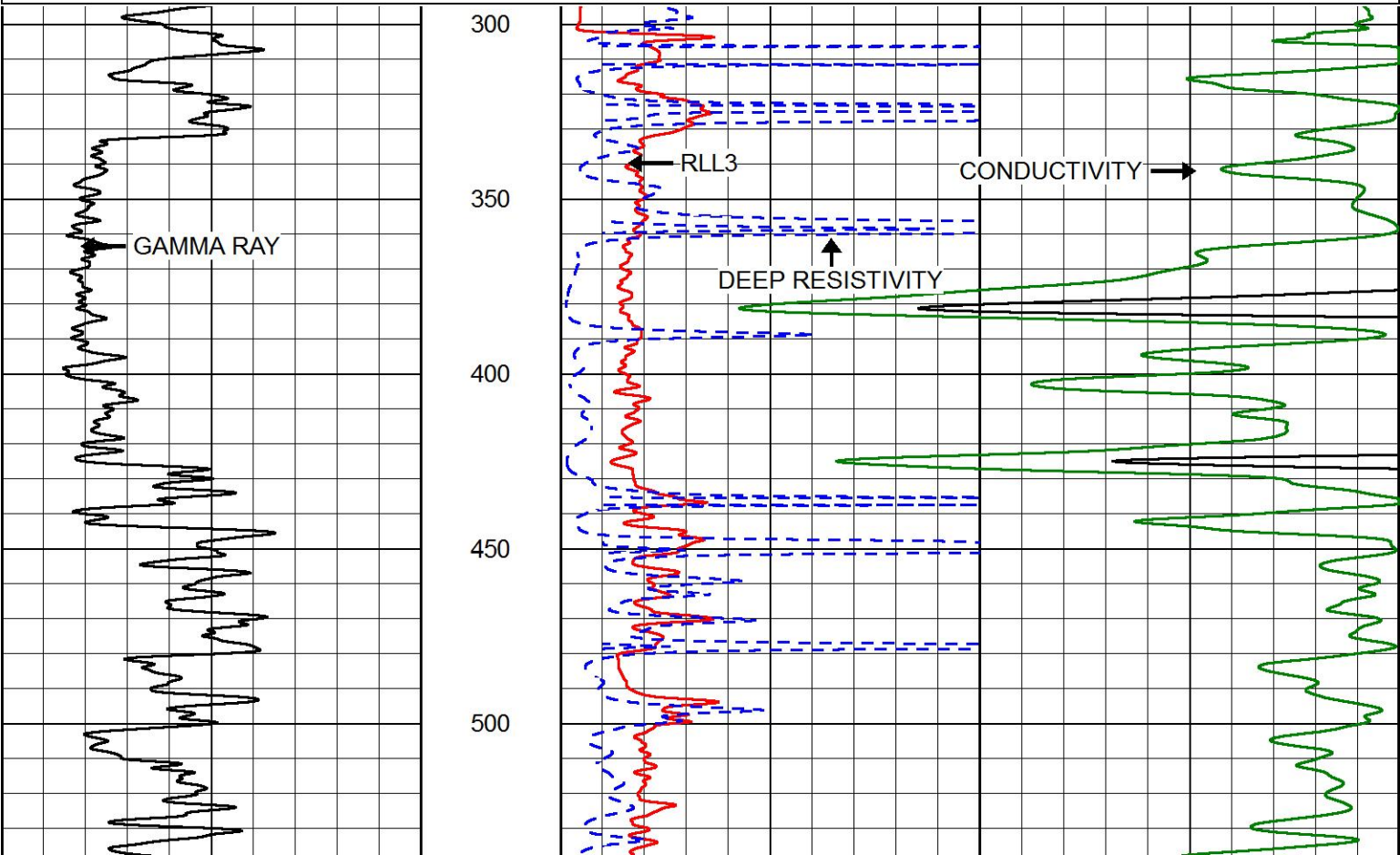
CILM	4.70								
SP	0.20								
Dataset: phillips_campie_1_15.db: field/well/stack/pass3.1 Total length: 35.50 ft Total weight: 620.00 lb O.D.: 4.00 in									

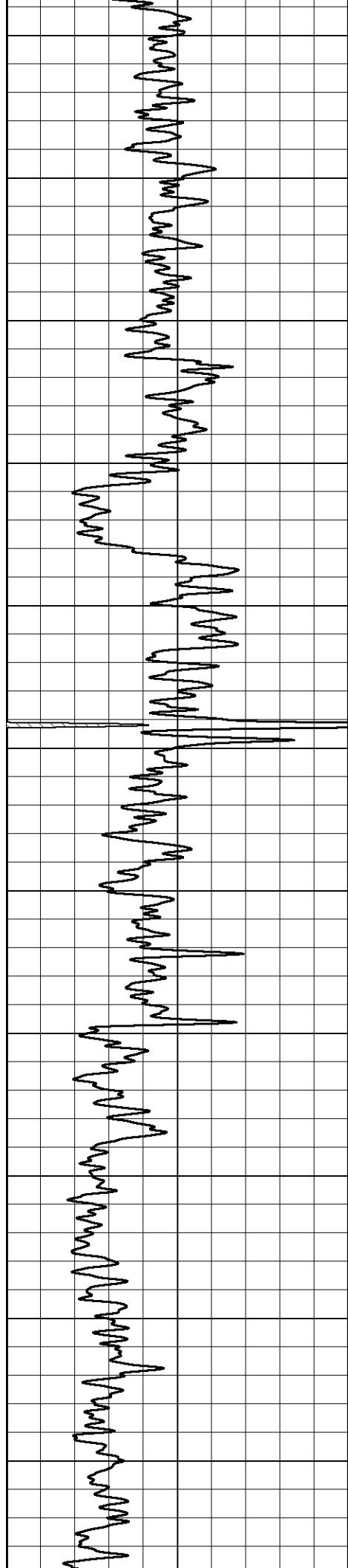


MAIN PASS

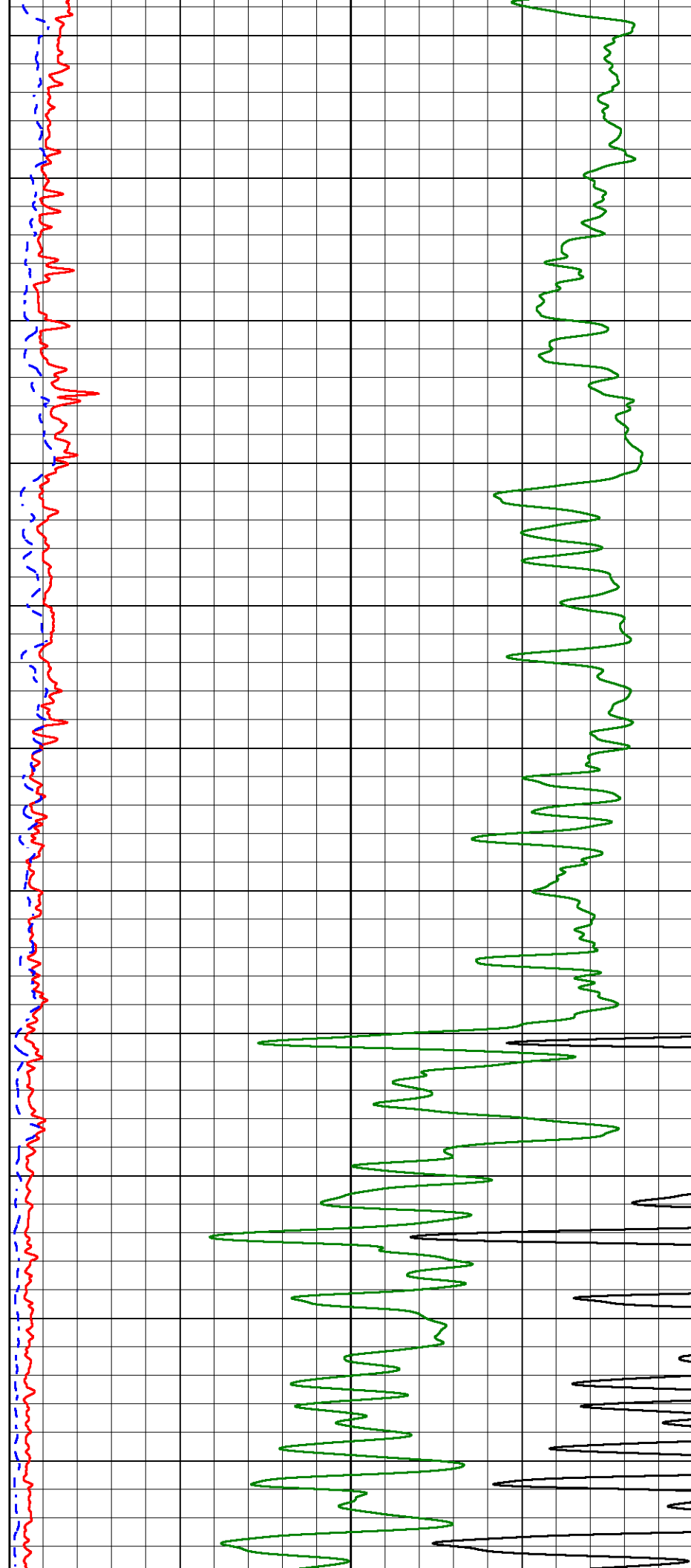
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Dataset Pathname	stack/pass3.1
Presentation Format	dil2in
Dataset Creation	Sat Jun 02 18:09:41 2018
Charted by	Depth in Feet scaled 1:600

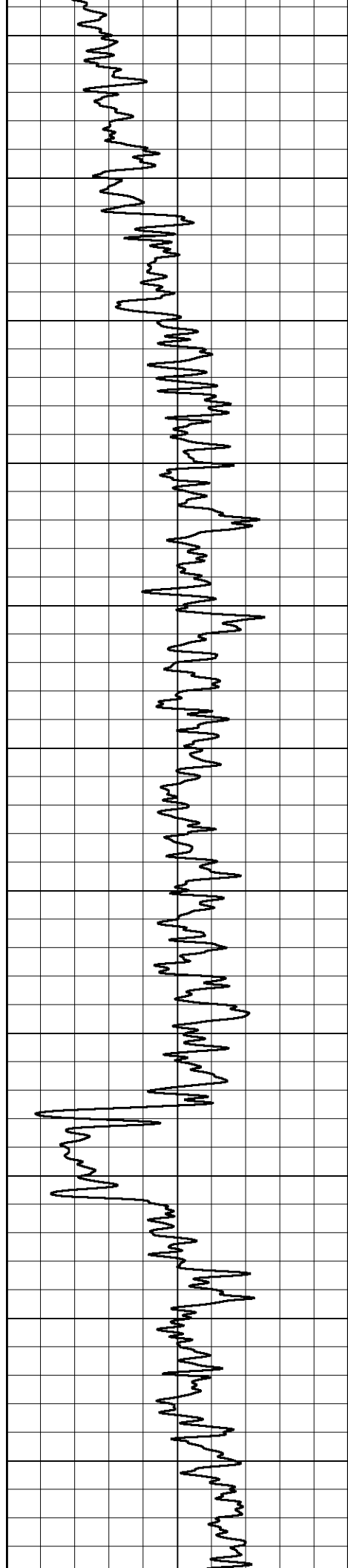
0	GAMMA RAY (GAPI)	150	2000	CONDUCTIVITY (mmho/m)	0
			0	RLL3 (Ohm-m)	50
			0	DEEP RESISTIVITY (Ohm-m)	50
			50	RLL3 (Ohm-m)	500
				DEEP RESISTIVITY	
			50	(Ohm-m)	500



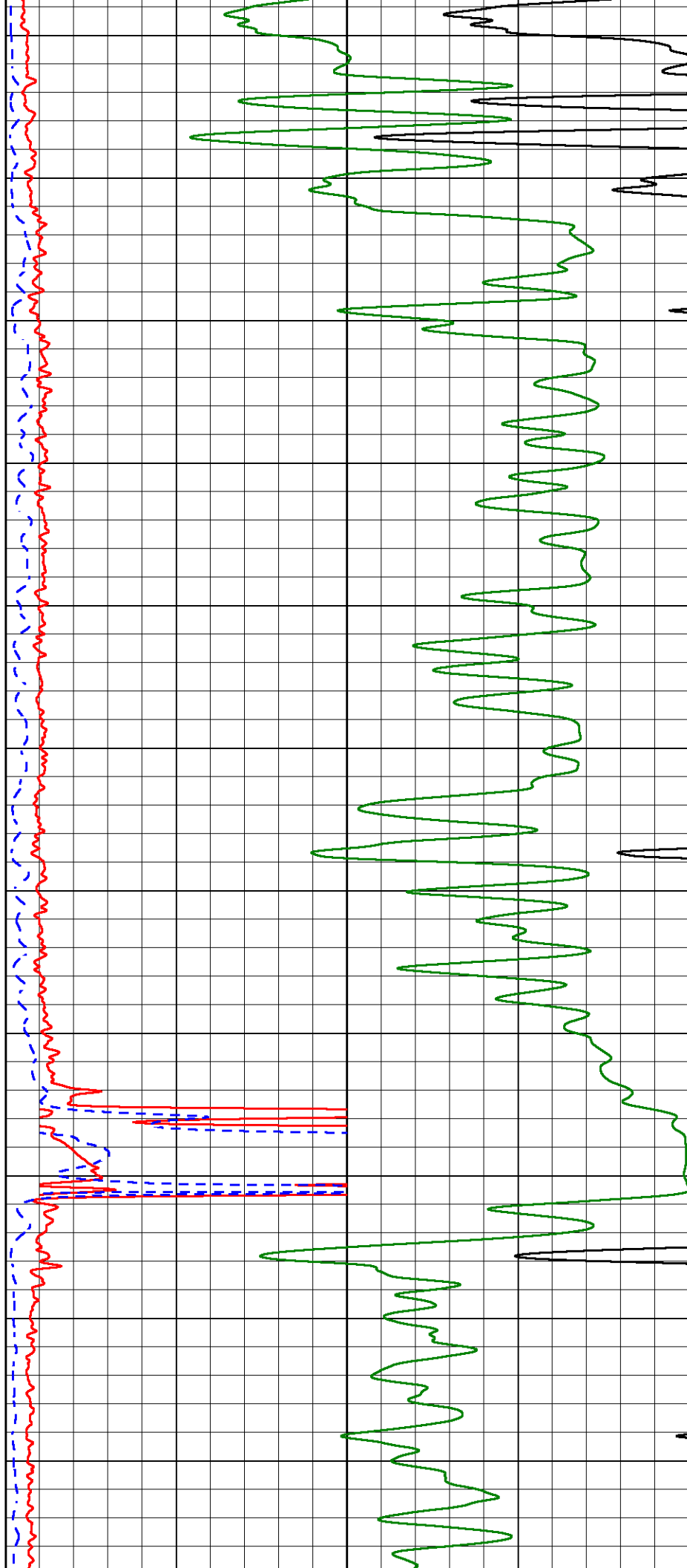


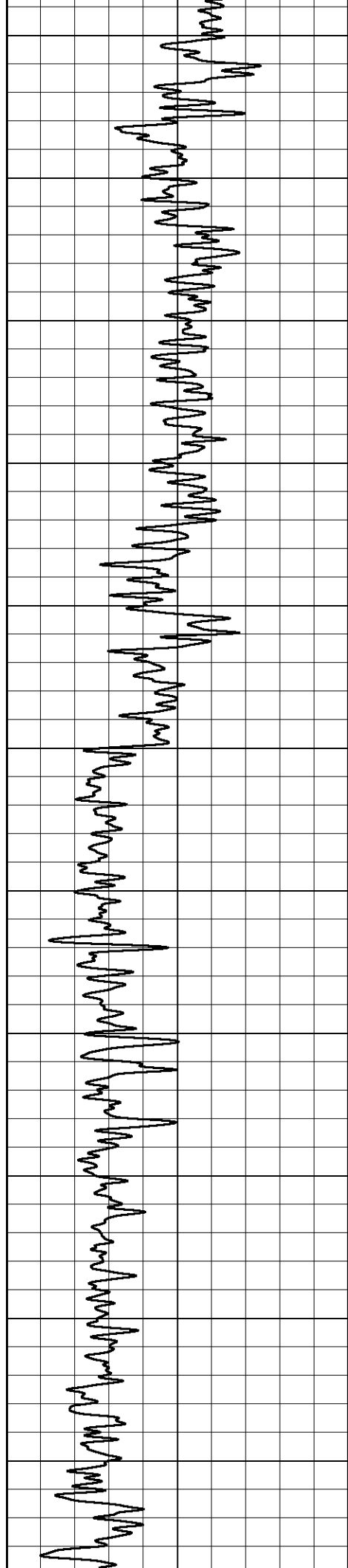
550
600
650
700
750
800
850
900
950
1000
1050





1100
1150
1200
1250
1300
1350
1400
1450
1500
1550
1600





1650

1700

1750

1800

1850

1900

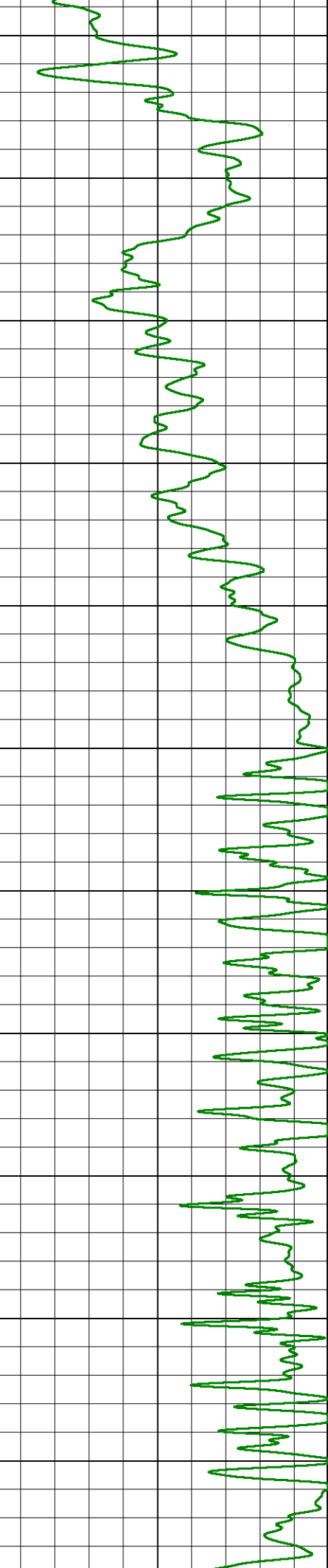
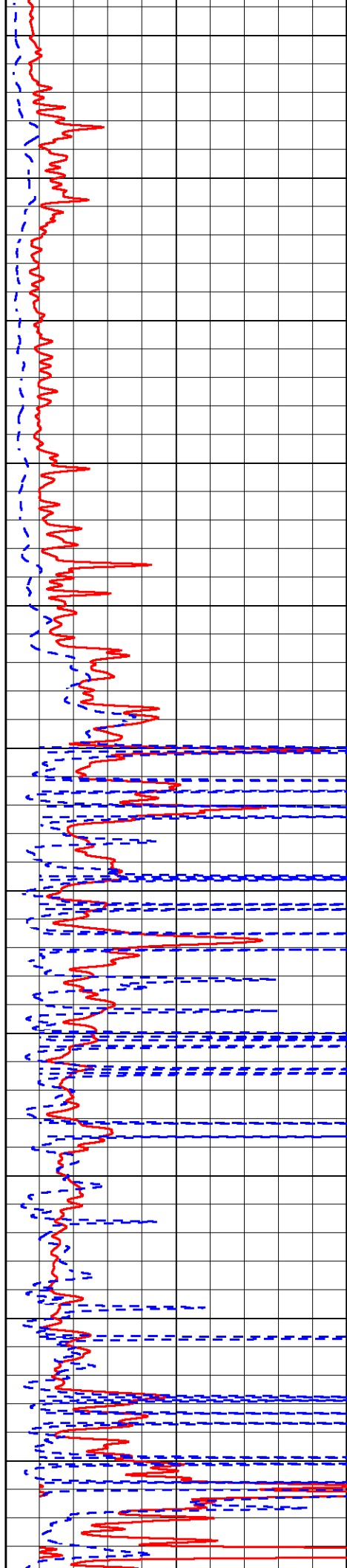
1950

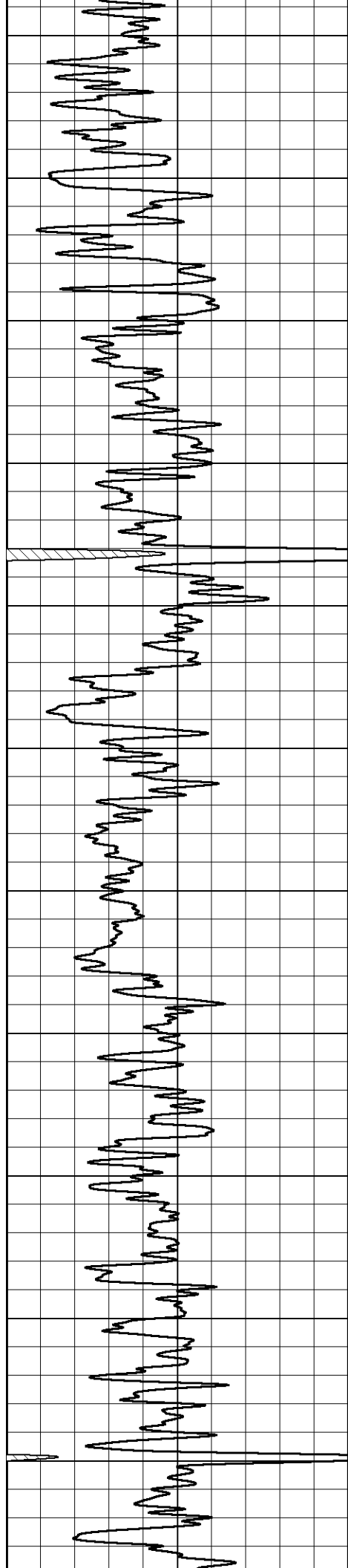
2000

2050

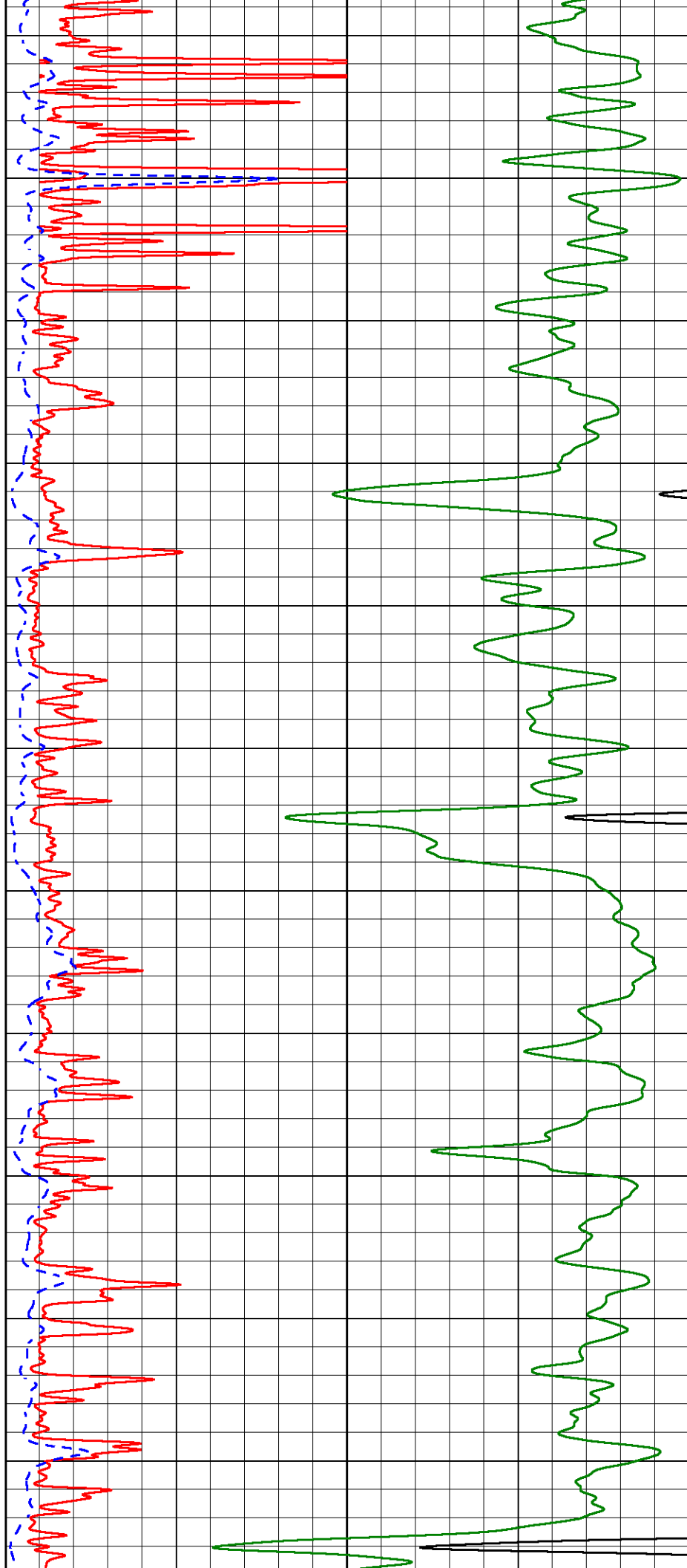
2100

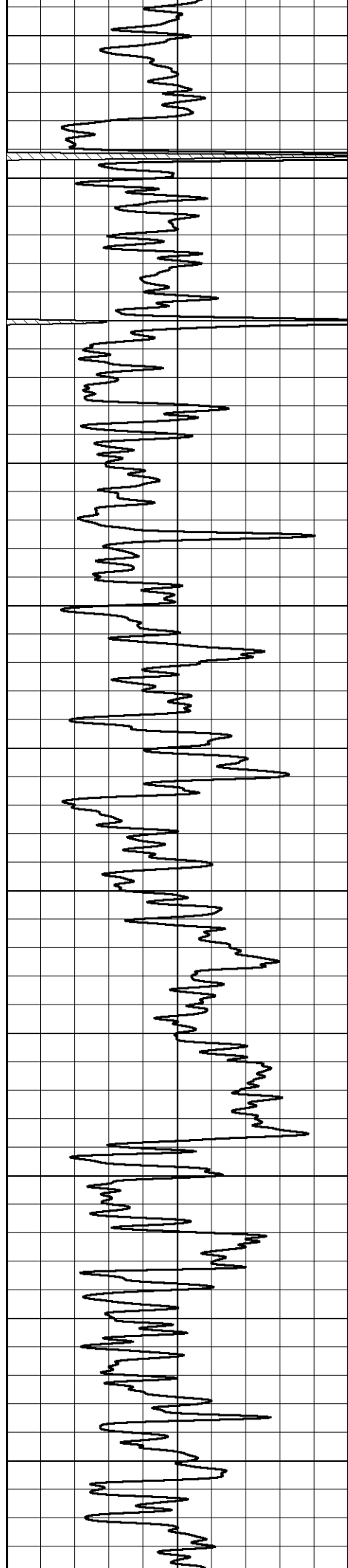
2150





2200
2250
2300
2350
2400
2450
2500
2550
2600
2650
2700





2750

2800

2850

2900

2950

3000

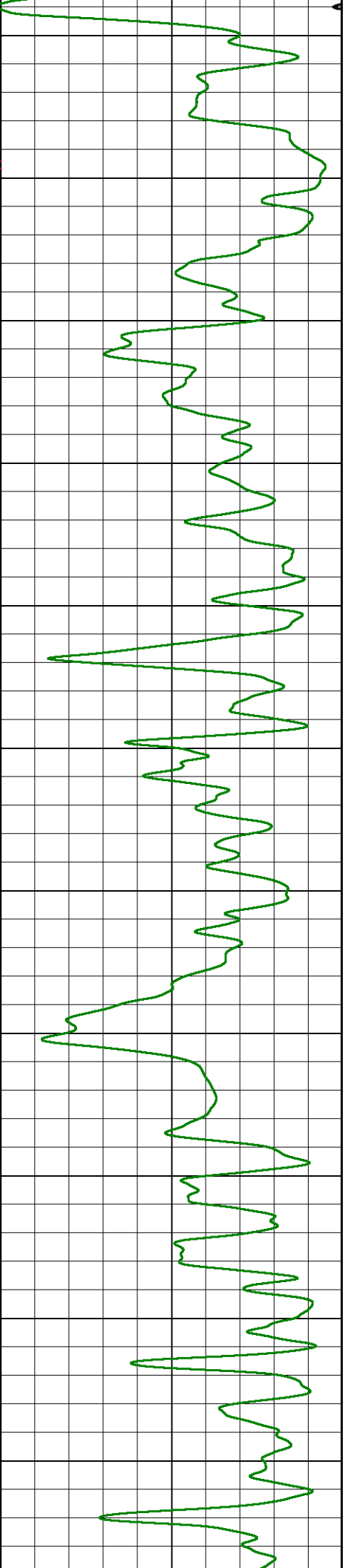
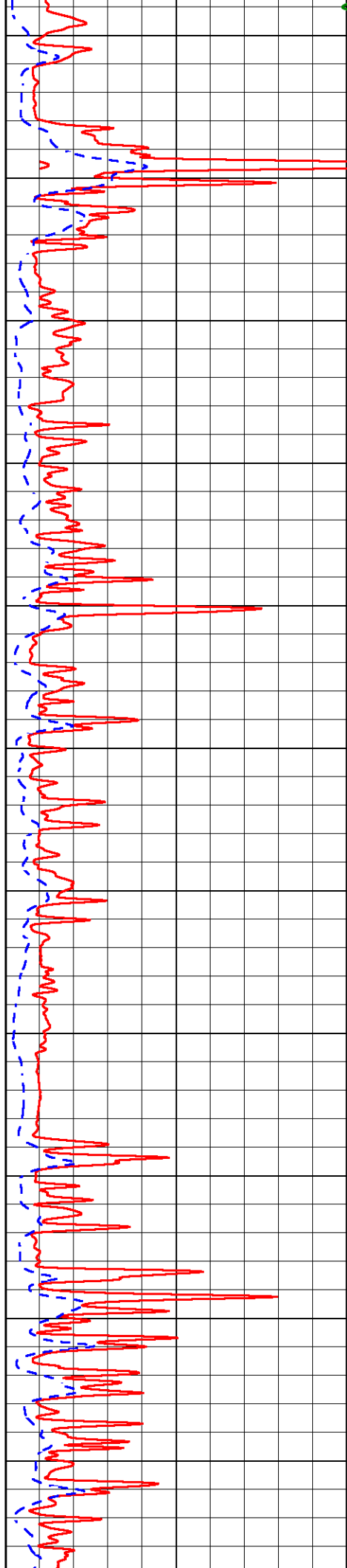
3050

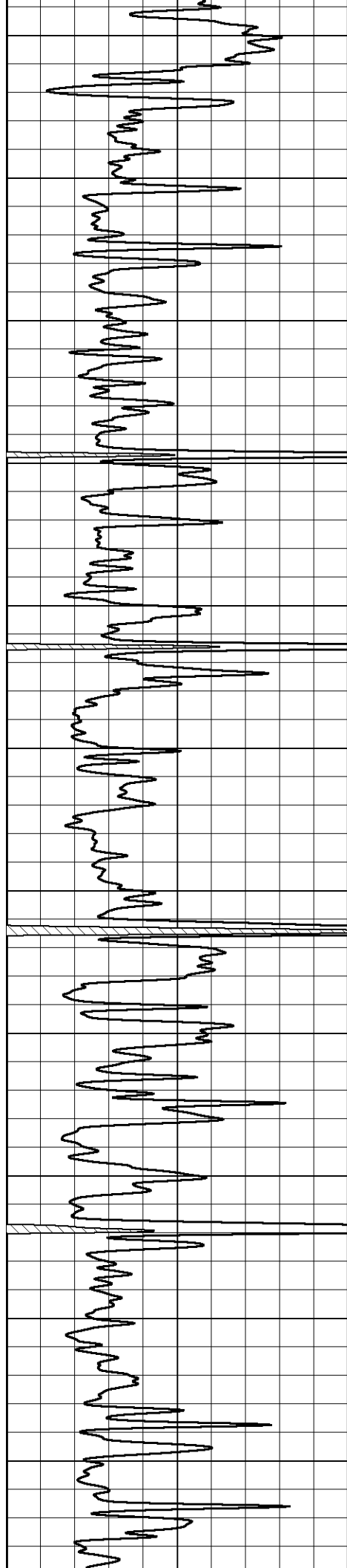
3100

3150

3200

3250





3300

3350

3400

3450

3500

3550

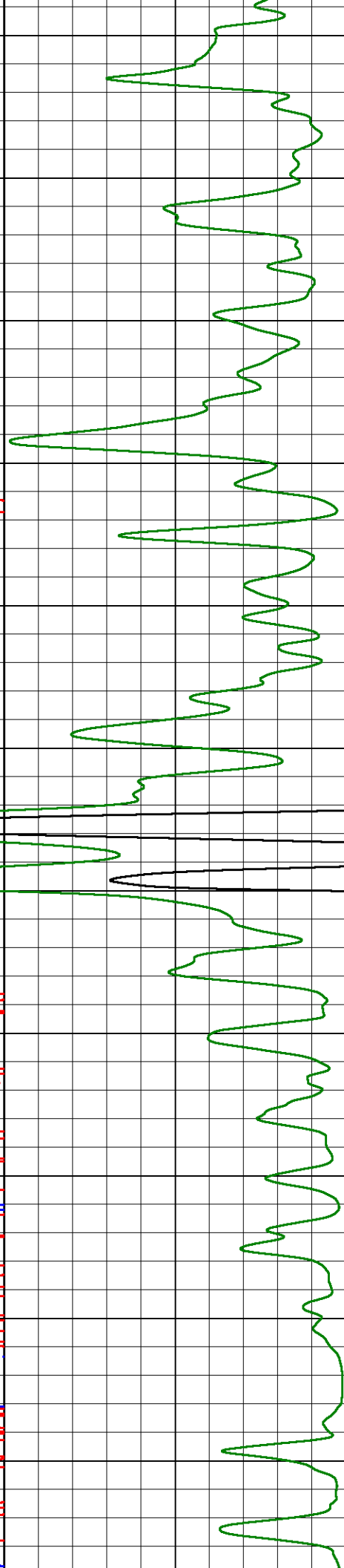
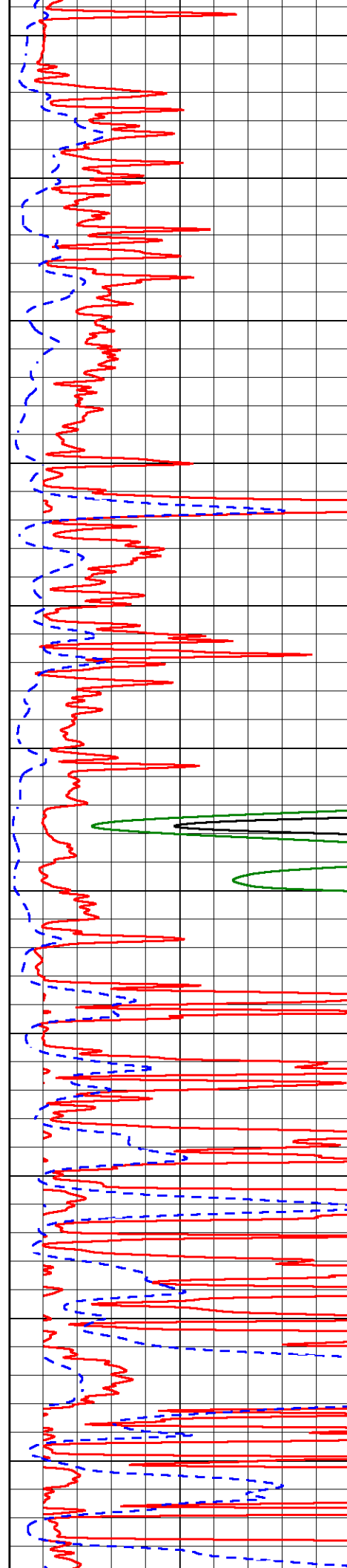
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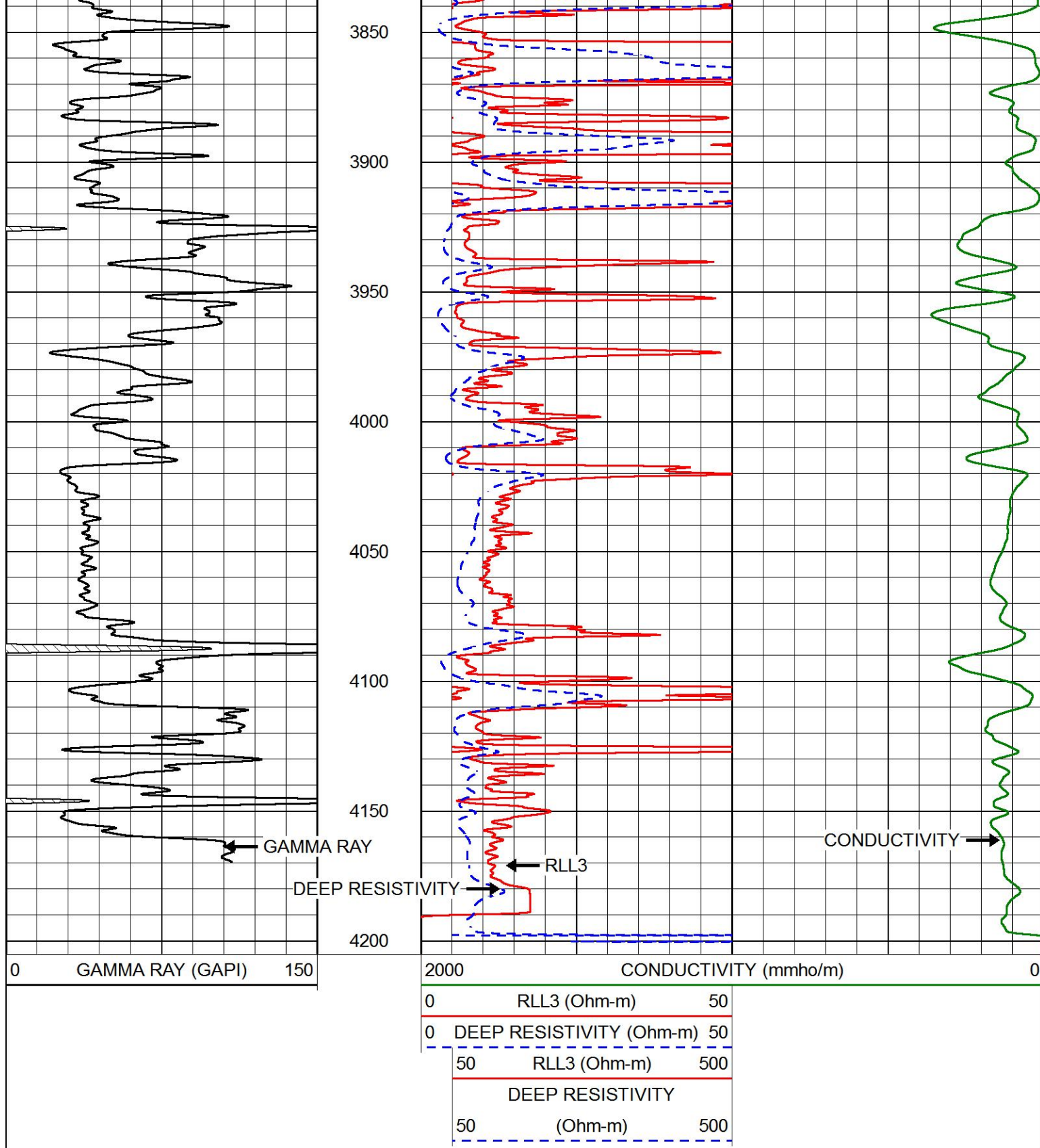
3650

3700

3750

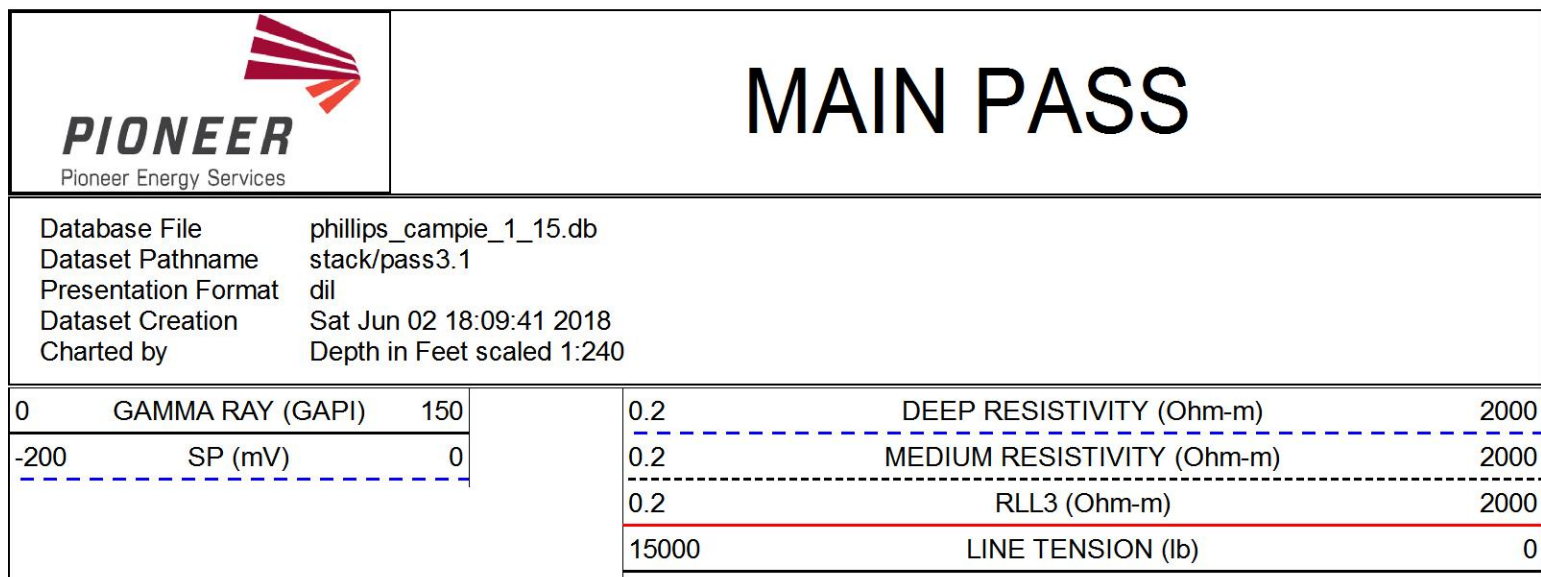
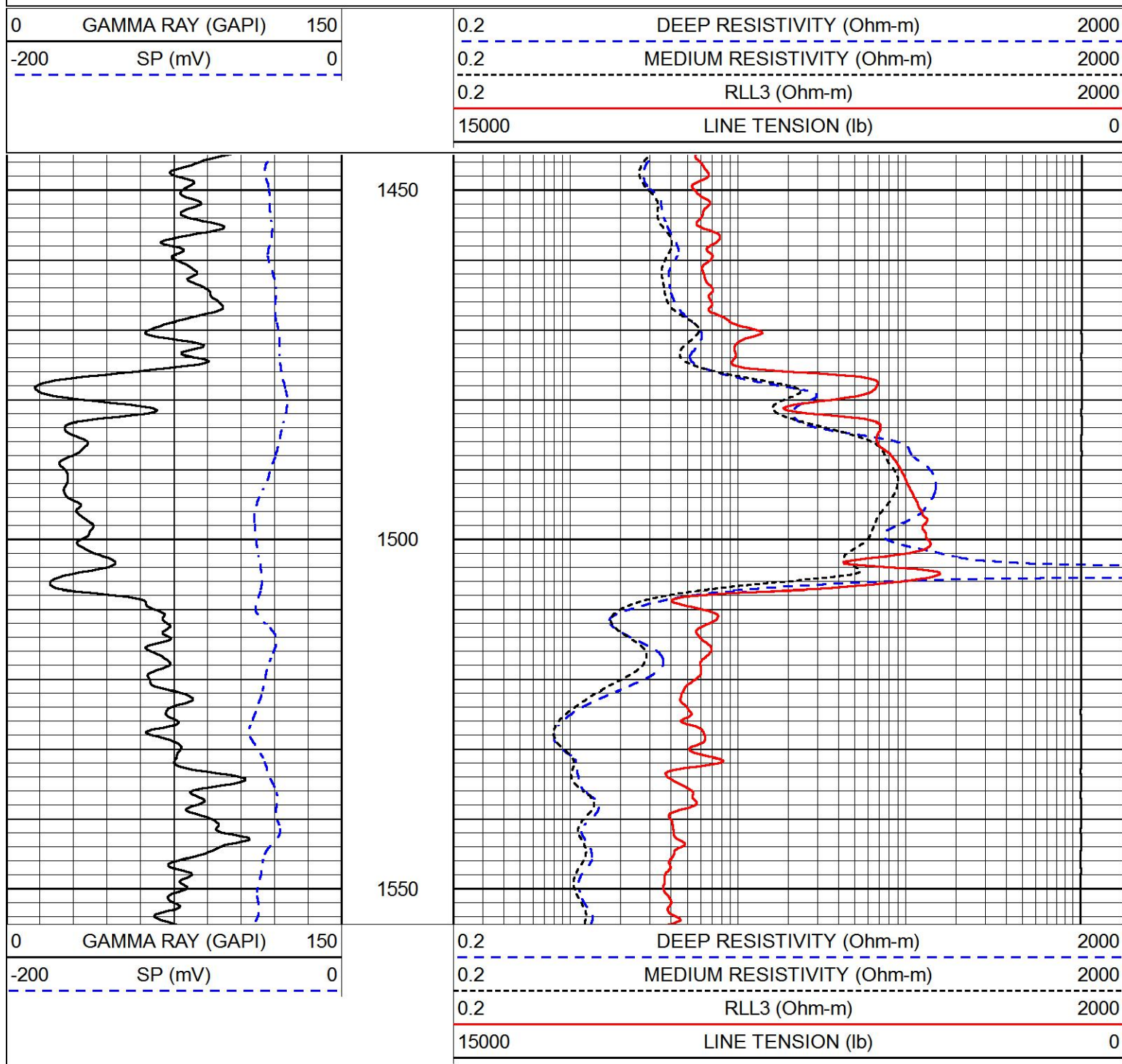
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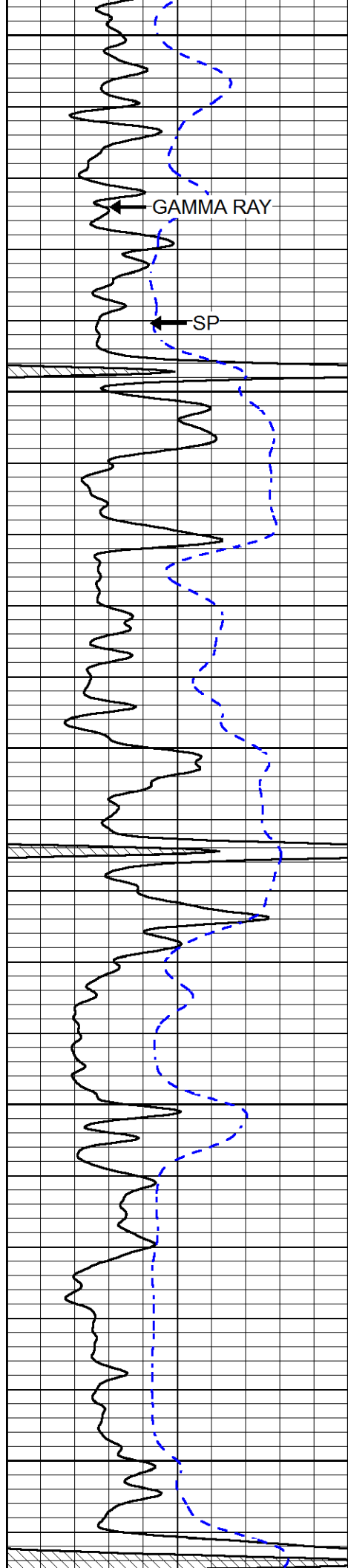




MAIN PASS

Database File phillips_campie_1_15.db
 Dataset Pathname stack/pass3.1
 Presentation Format dil
 Dataset Creation Sat Jun 02 18:09:41 2018
 Charted by Depth in Feet scaled 1:240





3400

GAMMA RAY

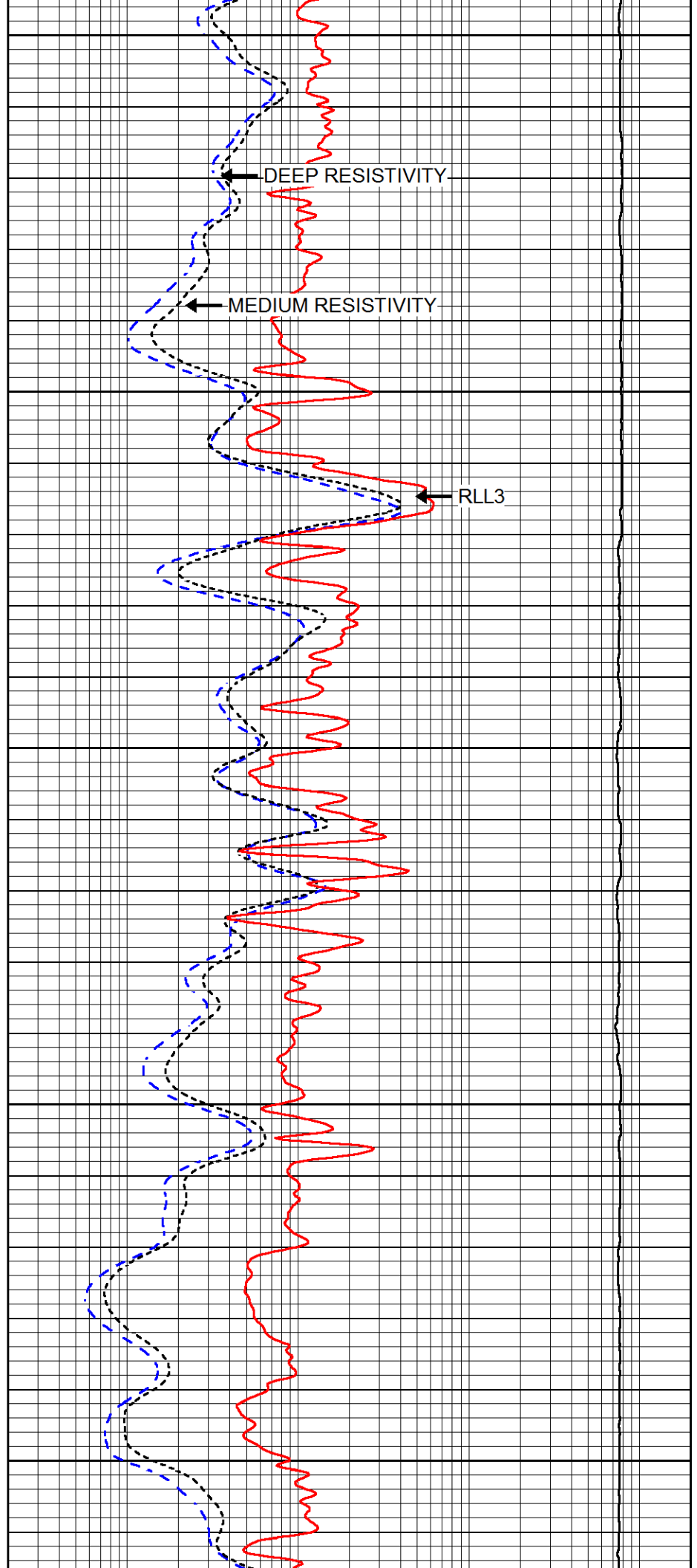
SP

3450

3500

3550

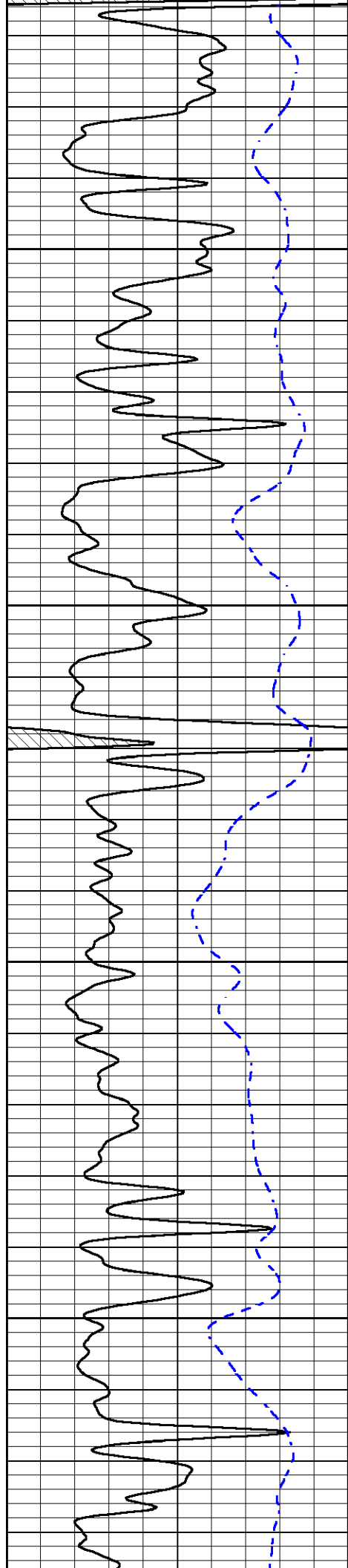
3600



DEEP RESISTIVITY

MEDIUM RESISTIVITY

RLL3

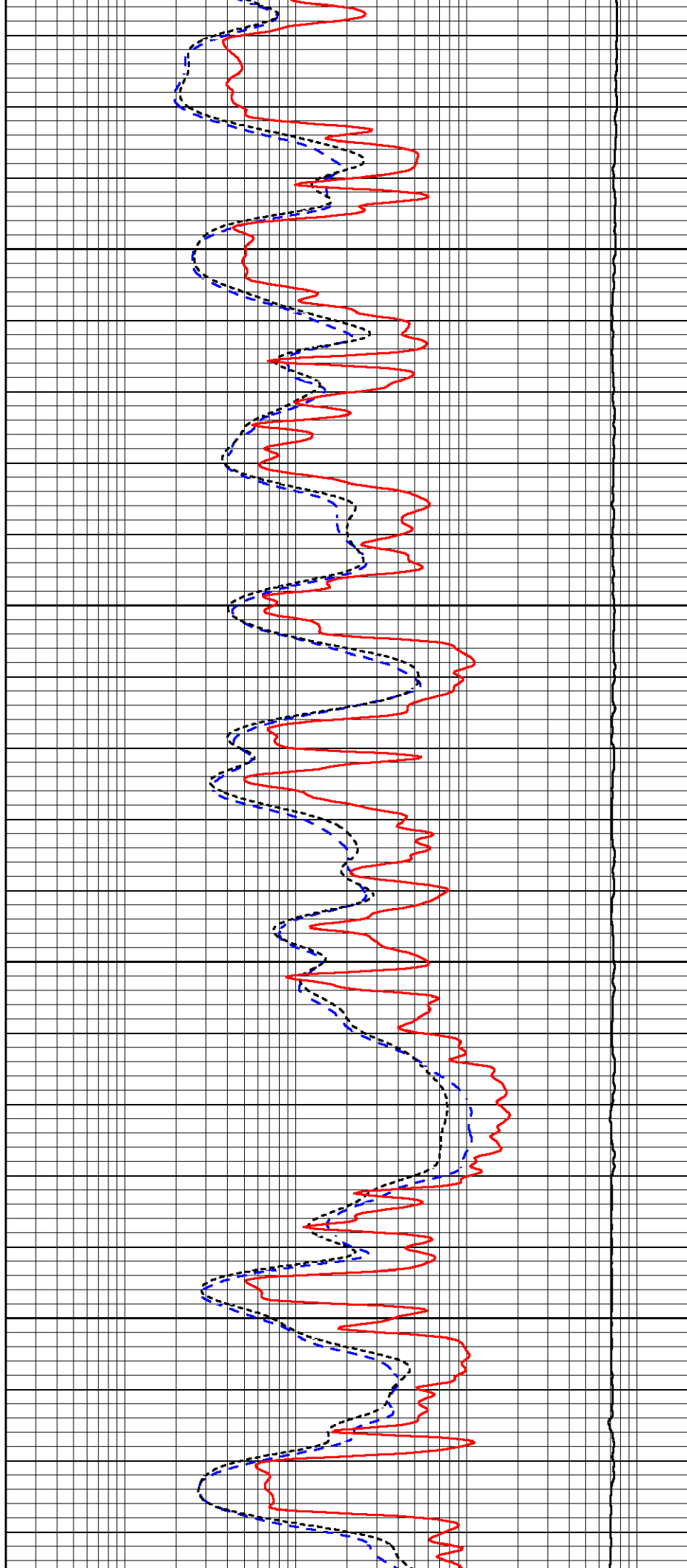


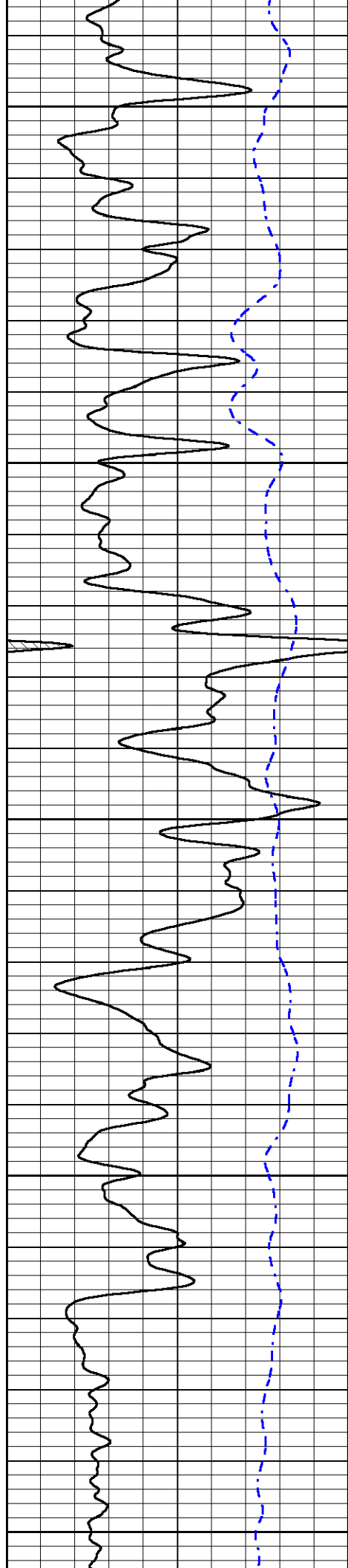
3650

3700

3750

3800





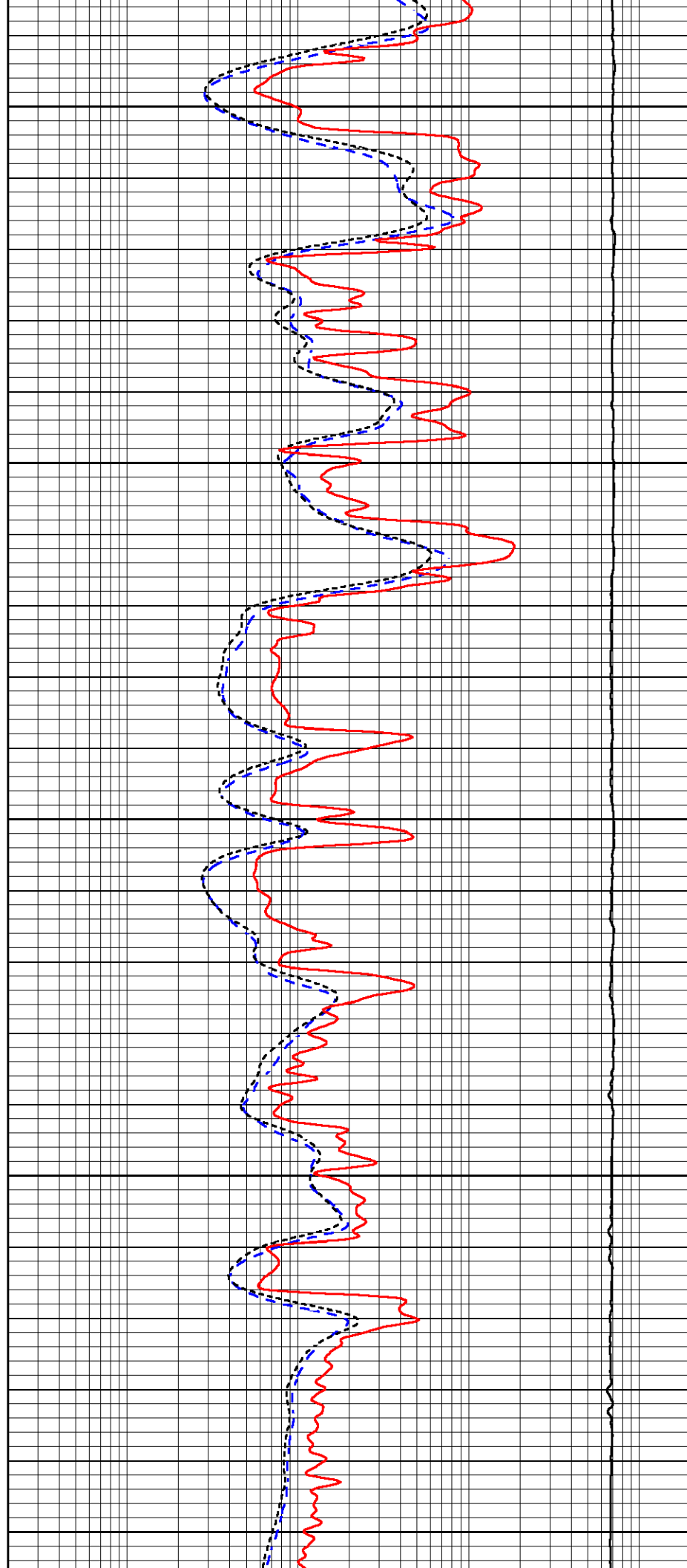
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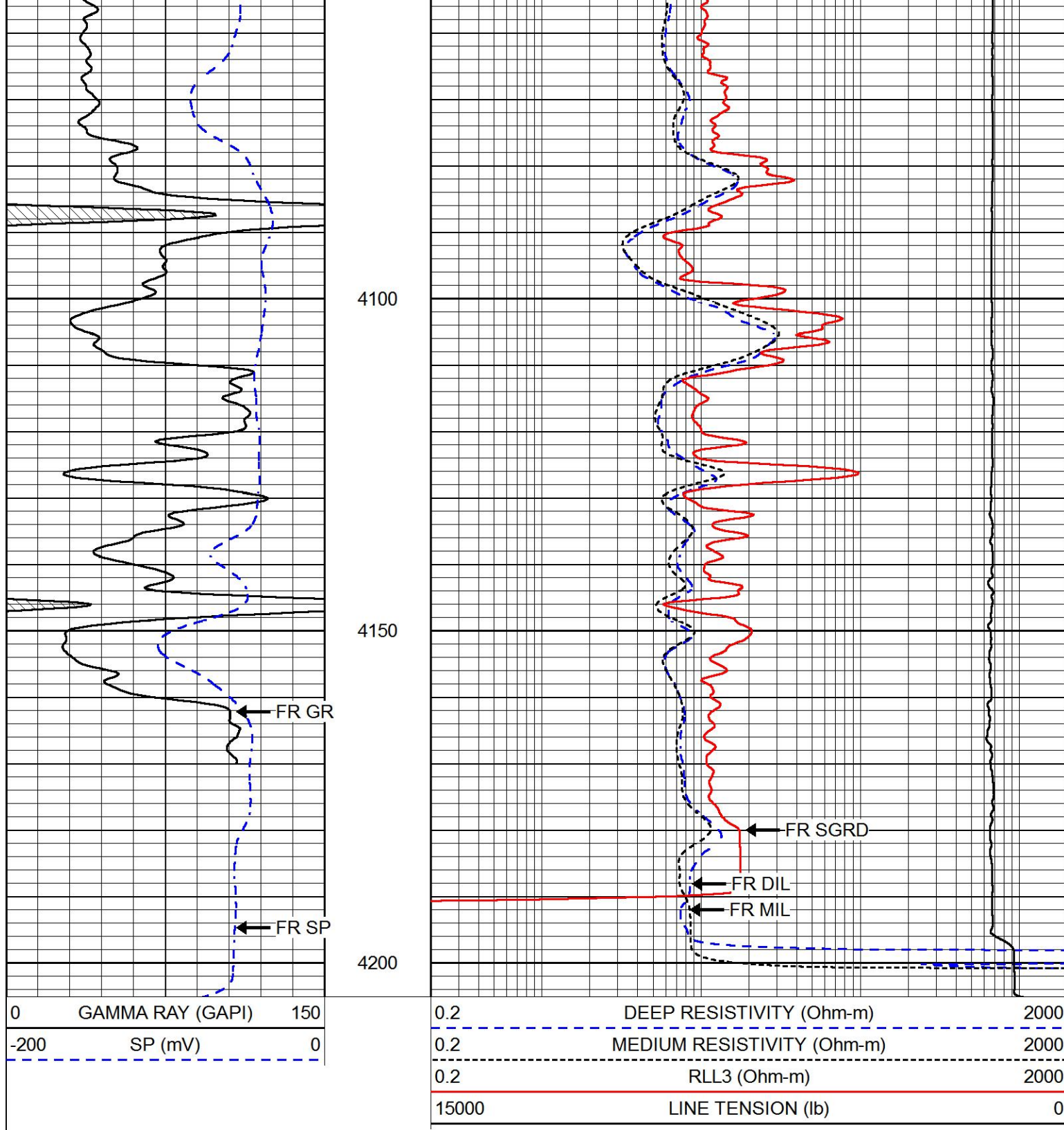
3900

3950

4000

4050





REPEAT SECTION

Database File phillips_campie_1_15.db
Dataset Pathname stack/pass2.1
Presentation Format dil
Dataset Creation Sat Jun 02 18:09:53 2018
Charted by Depth in Feet scaled 1:240

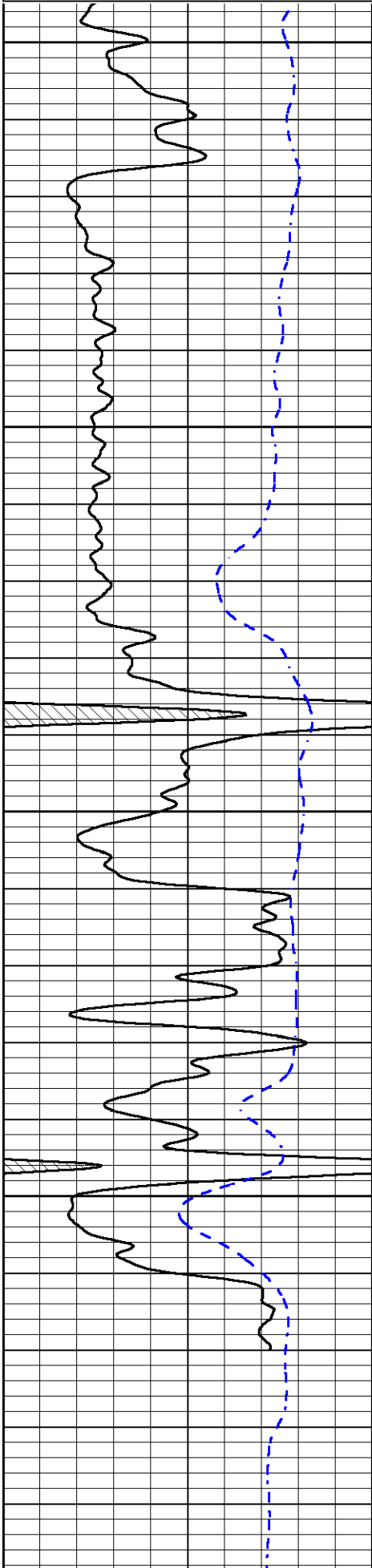


-200 SP (mV) 0

0.2 MEDIUM RESISTIVITY (Ohm-m) 2000

0.2 RLL3 (Ohm-m) 2000

15000 LINE TENSION (lb) 0

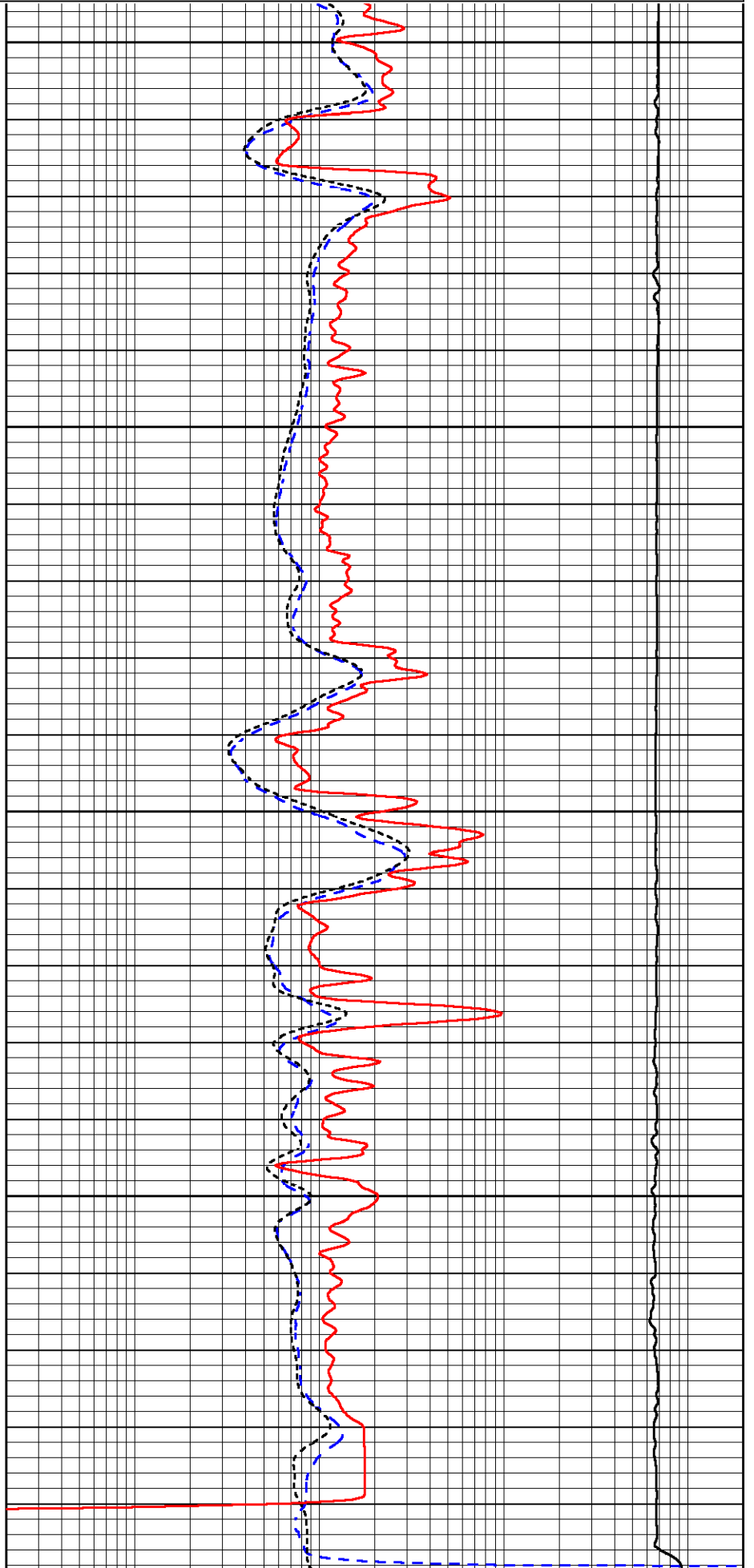


4000

4050

4100

4150



Database File		phillips_campie_1_15.db		Calibration Report			
Dataset Pathname		stack/pass3.1					
Dataset Creation		Sat Jun 02 18:09:41 2018					
Dual Induction Calibration Report							
Serial-Model:		1987-M&W					
Calibration Performed:		Tue Apr 11 17:07:38 2017					
		Readings		References		Results	
Loop:	Air	Loop		Air	Loop	Gain	Offset
Deep	178.615	710.235		0.000	255.800	mmho/m	0.530
Medium	161.982	1441.110		0.000	255.800	mmho/m	-36.500
							-110.500
Compensated Density Calibration Report							
Serial-Model:		168-986-M&W					
Source / Verifier:		/					
Master Calibration Performed:		Tue Apr 11 17:07:47 2017					
Master Calibration							
		Density		Far Detector		Near Detector	
Magnesium		1.755	g/cc	4691.86		4818.19	cps
Aluminum		2.645	g/cc	859.57		3020.22	cps
		Spine Angle = 74.61		Density/Spine Ratio = 0.506			
		Size		Reading			
Small Ring		4.00	in	0.91			
Large Ring		16.00	in	0.22			
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					

Tool Model:
Calibration Performed:

M&V
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 PHILLIPS OIL COMPANY, LLC

Well CAMPIE NO. 1-15

Field MCGAUGHEY

County NESS

State KANSAS