



PIONEER
Pioneer Energy Services

DUAL INDUCTION LOG

Company **RJM COMPANY**
Well **FURY FARMS #1**
Field **UNKNOWN**
County **BARTON** State **KANSAS**

Location: API #: 15-009-26153-00-00

SEC 13 TWP 19S RGE 13W

Permanent Datum **GROUND LEVEL** Elevation **1890'**
Log Measured From **KELLY BUSHING**
Drilling Measured From **KELLY BUSHING**

Other Services
CNL/CDL
MEL/BHCS
Elevation
K.B. 1898'
D.F. N/A
G.L. 1890'

Company **RJM COMPANY**
Well **FURY FARMS #1**
Field **UNKNOWN**
County **BARTON**
State **KANSAS**

Date	10/6/2016		
Run Number	ONE		
Depth Driller	3490'		
Depth Logger	3492'		
Bottom Logged Interval	3491'		
Top Log Interval	300'		
Casing Driller	8.625" @ 320'		
Casing Logger	321'		
Bit Size	7.875"		
Type Fluid in Hole	CHEMICAL		
Salinity, ppm CL	6000		
Density / Viscosity	9.4 48		
pH / Fluid Loss	9.5 9.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.56 @ 68		
Rmt @ Meas. Temp	0.42 @ 68		
Rmc @ Meas. Temp	0.76 @ 68		
Source of Rmt / Rmc	CHARTS		
Rm @ BHT	0.34 @ 111		
Operating Rig Time	5 HOURS		
Max Rec. Temp. F	111		
Equipment Number	91		
Location	COLBY		
Recorded By	D. SCHMIDT		
Witnessed By	WYATT URBAN		

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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.

GREAT BEND,
NORTH ON HWY 281 TO 30 RD,
2 1/2 EAST TO 30 AVE, 1/2 SOUTH,
EAST INTO

Log Measured From: KELLY BUSHING 8 Ft. Above Permanent Datum

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

Your Pioneer Energy Services Crew

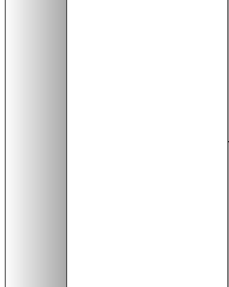
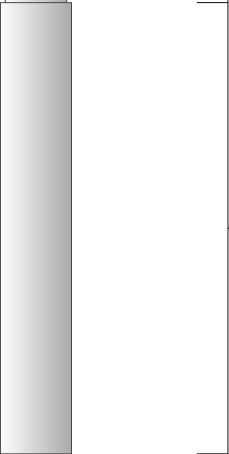
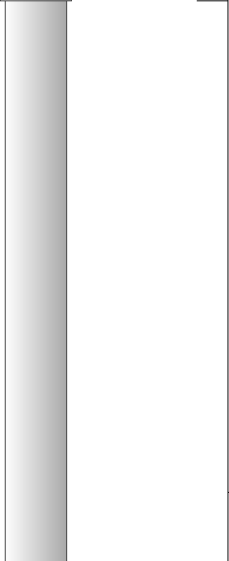
Engineer: D. SCHMIDT
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: WYATT URBAN
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	-138	0
SNDERR mmho/m	SRFTEMP degF	CASETHCK in	CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF	BOREID in
0	68	0	5.5	0	3491	111	7.875

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	33.00		GR-M&W (89)	3.00	3.50	50.00
CNLSC CNSSC	29.90 29.15		CNT-M&W (207-MW)	5.50	3.50	100.00
LSD DCAL SSD	20.85 20.83 20.35		CDL-M&W (90-1031)	8.50	4.00	250.00
RLL3F RLL3	15.80 15.80		DIL-M&W (PSI 13)	18.50	3.50	220.00
CILD	8.00					

CILM	4.70								
SP	0.20								
Dataset: rjm_fury farms_1.db: field/well/STACK/pass3.6 Total length: 35.50 ft Total weight: 620.00 lb O.D.: 4.00 in									



PIONEER

Pioneer Energy Services

MAIN PASS

Database File

rjm_fury farms_1.db

Dataset Pathname

STACK/pass4.1

Presentation Format

dil2in

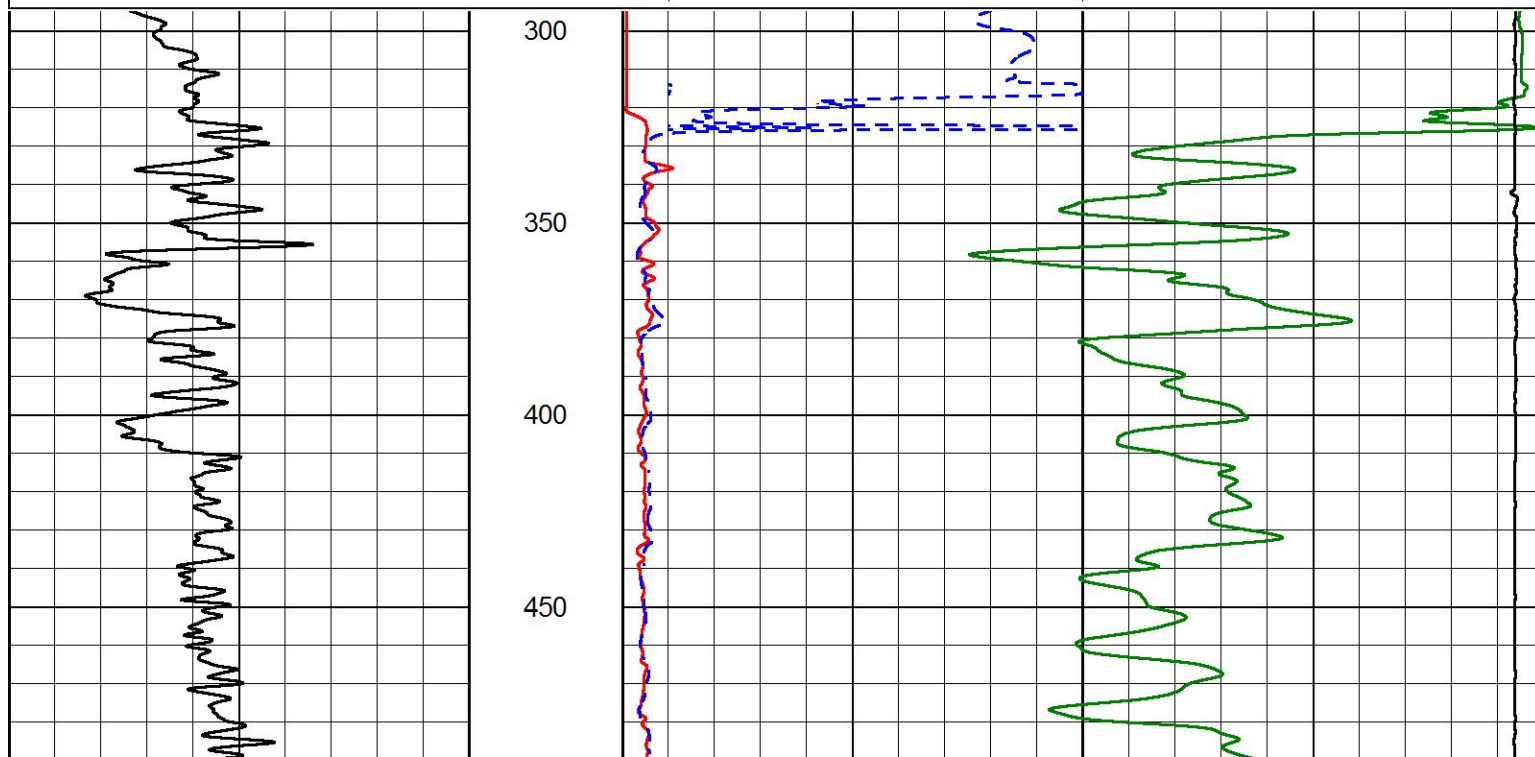
Dataset Creation

Thu Oct 06 07:17:29 2016

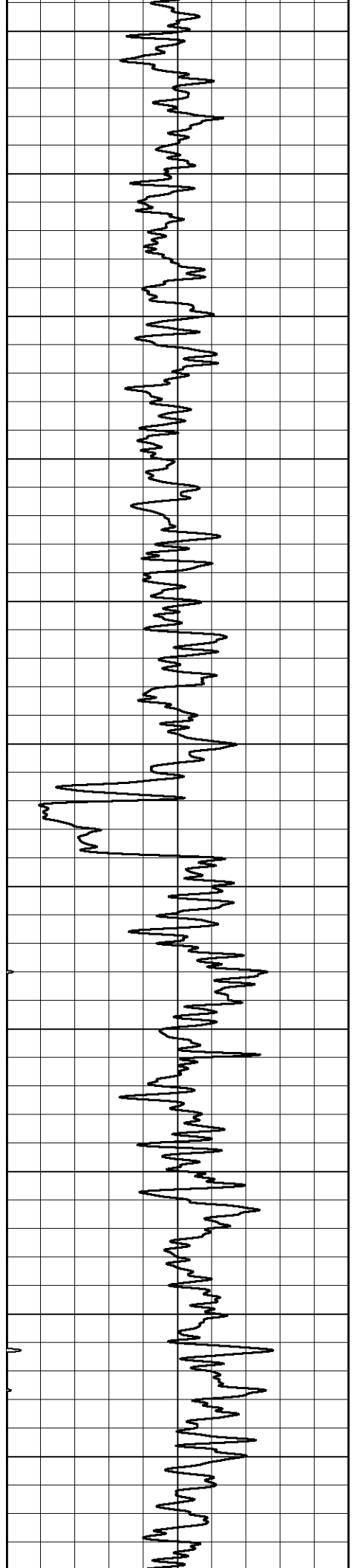
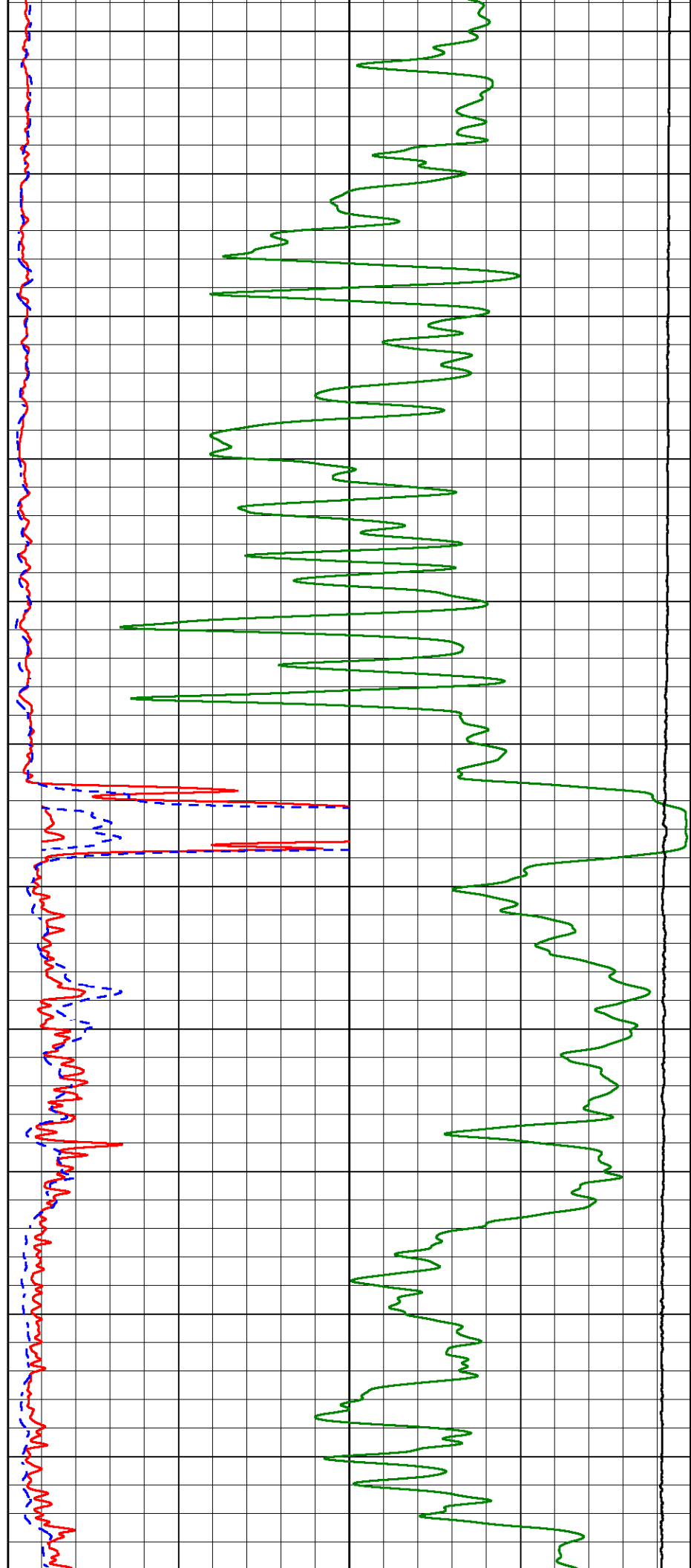
Charted by

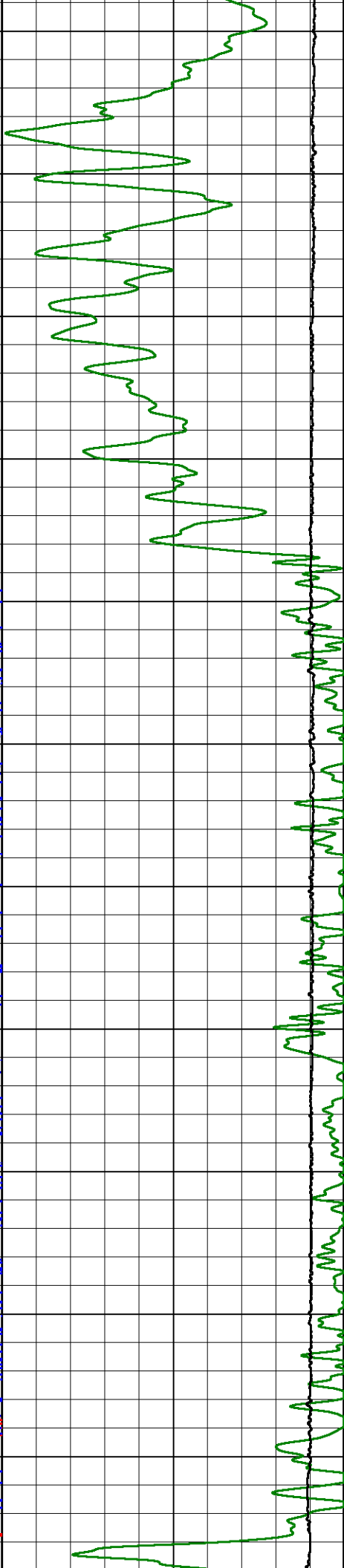
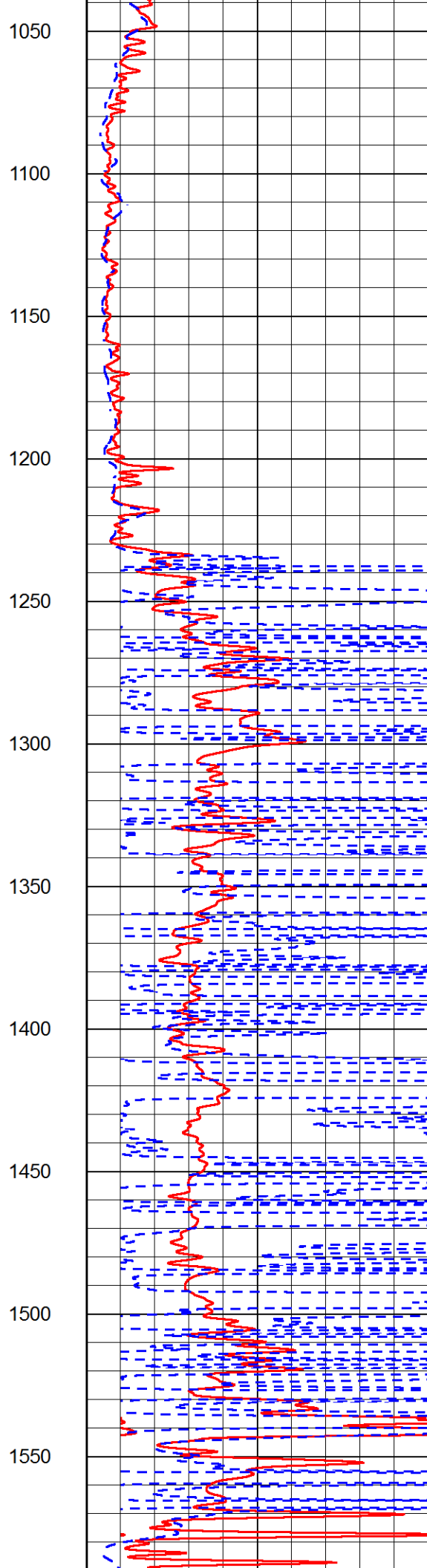
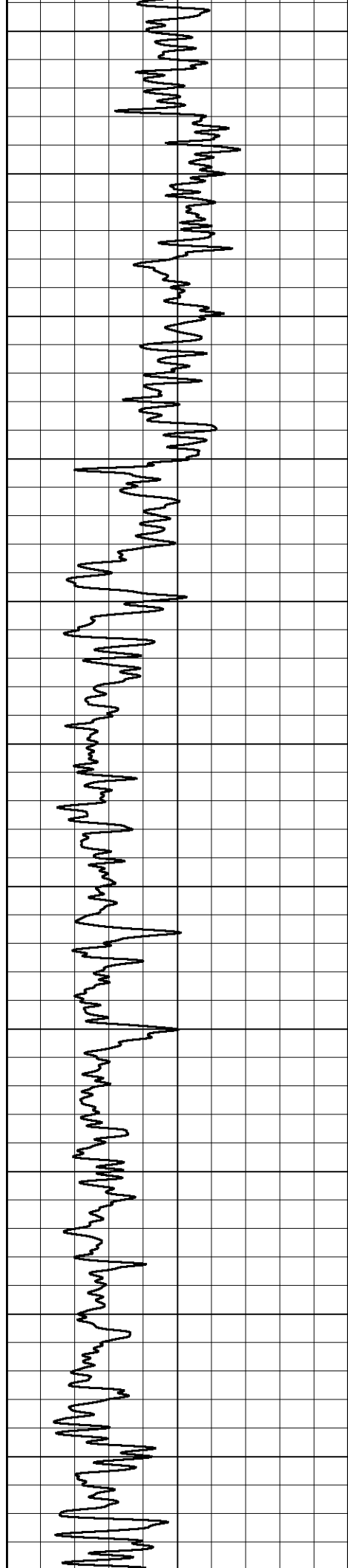
Depth in Feet scaled 1:600

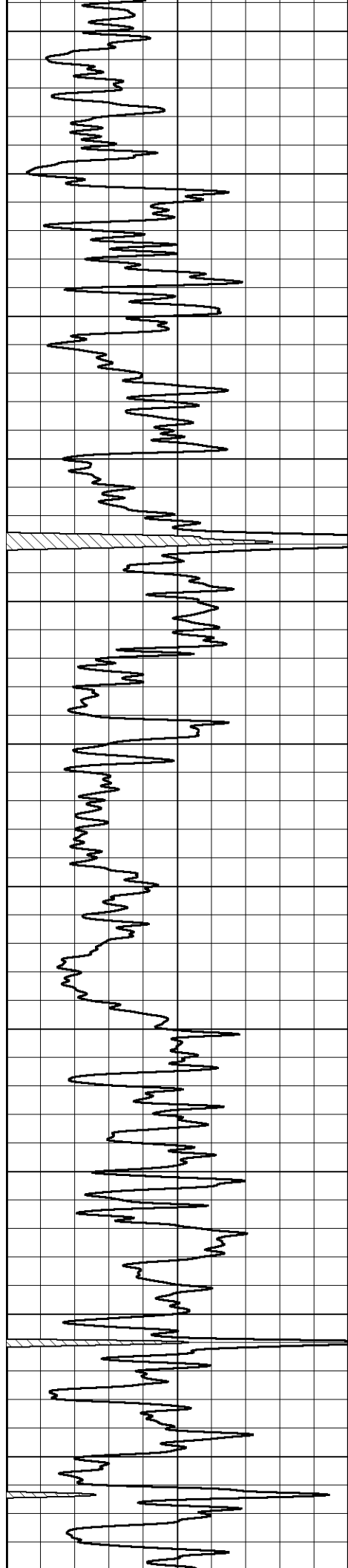
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			15000	Line Tension (lb)	0
			0	Shallow Resistivity (Ohm-m)	50
			0	Deep Resistivity (Ohm-m)	50
				Shallow Resistivity	
			50	(Ohm-m)	500
			50	Deep Resistivity (Ohm-m)	500



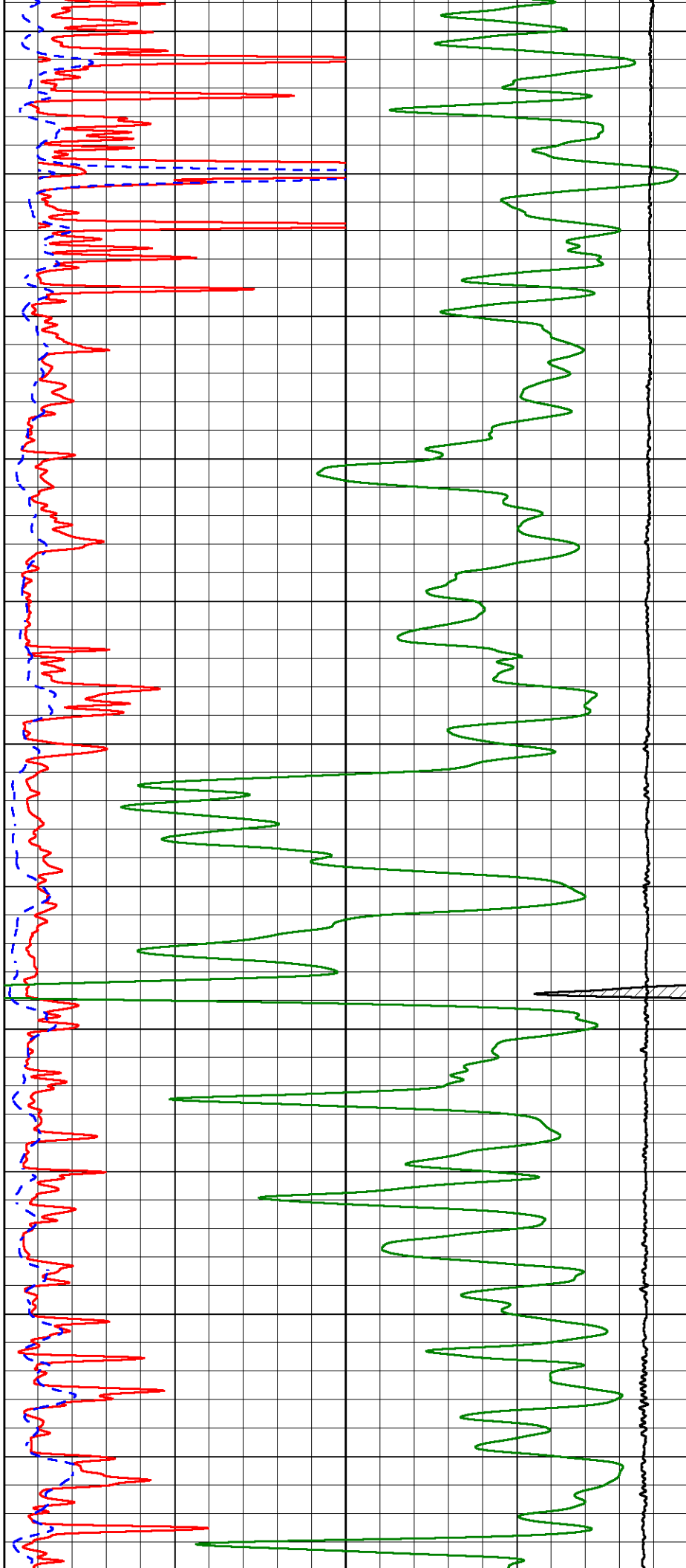
500 550 600 650 700 750 800 850 900 950 1000

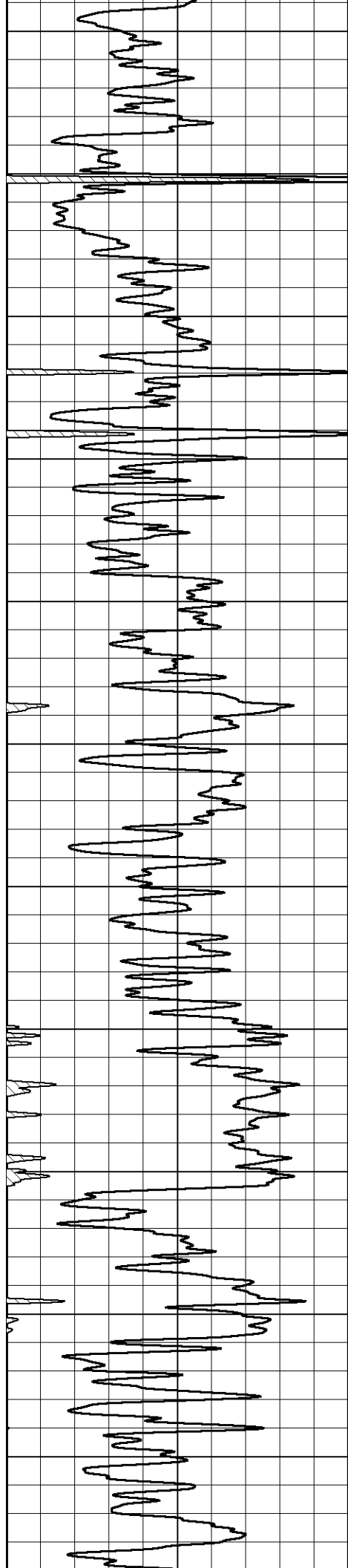




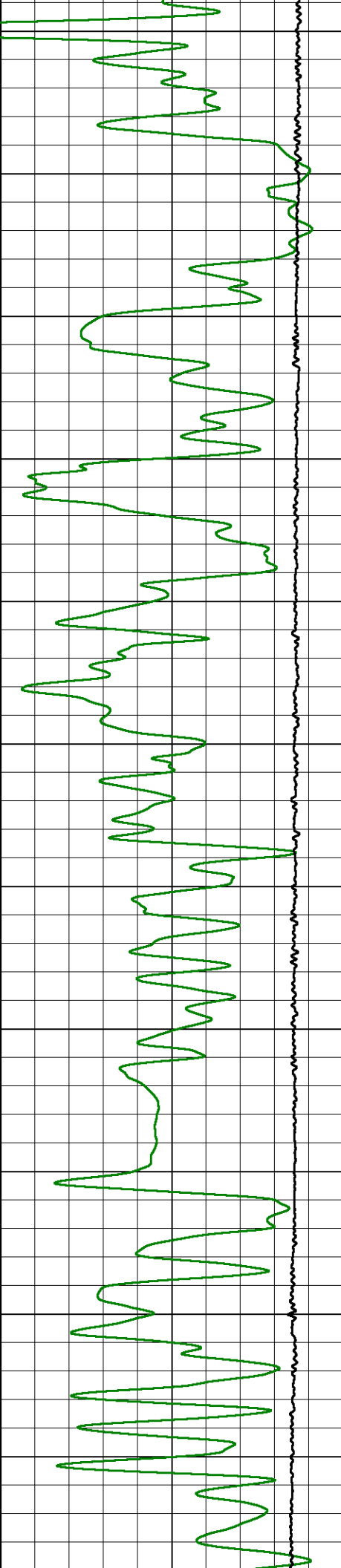
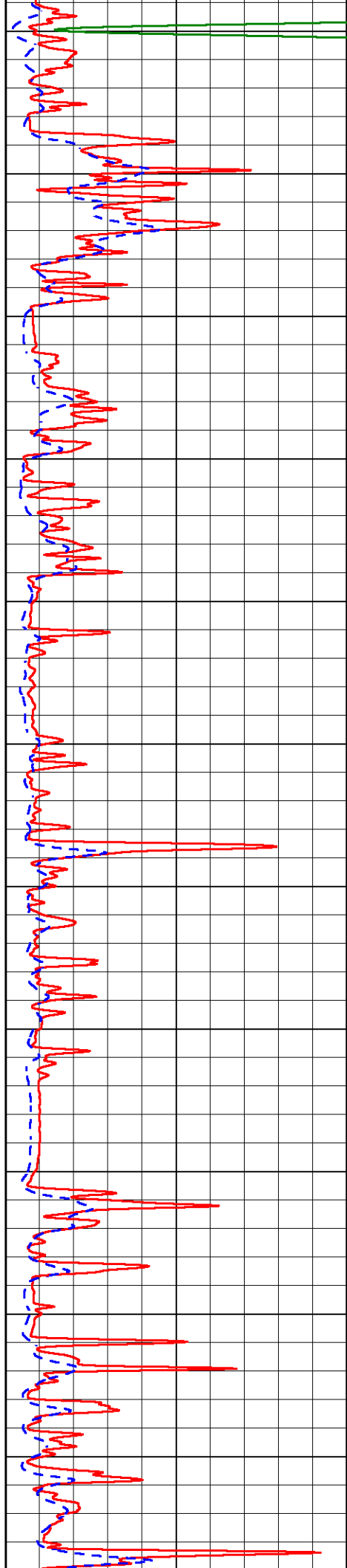


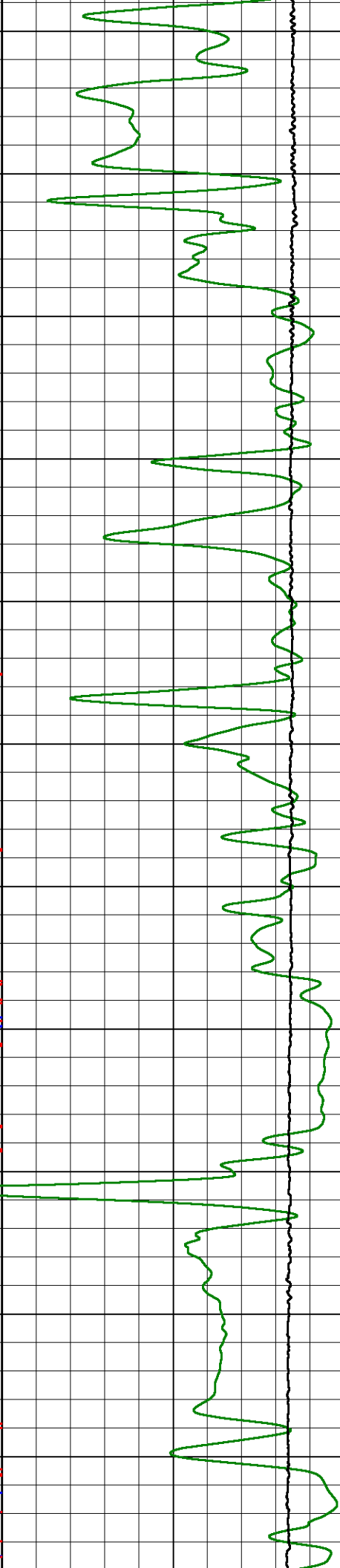
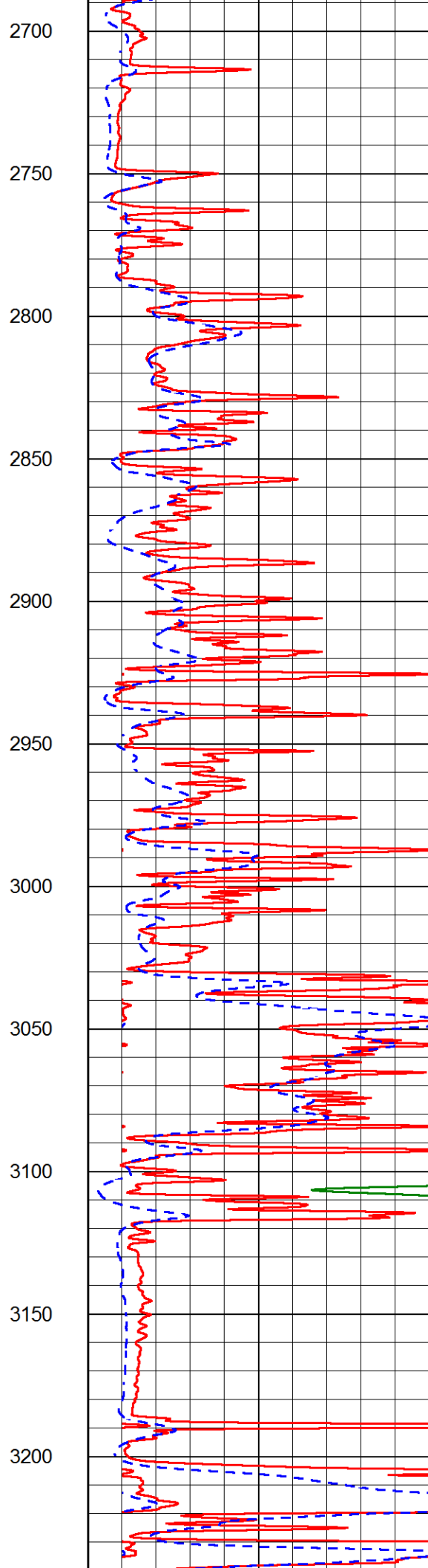
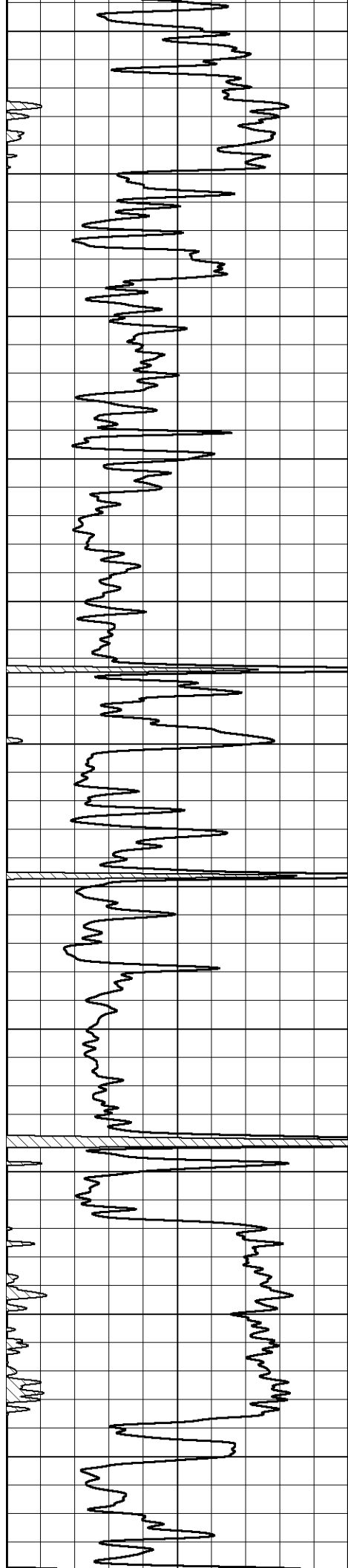
1600
1650
1700
1750
1800
1850
1900
1950
2000
2050
2100

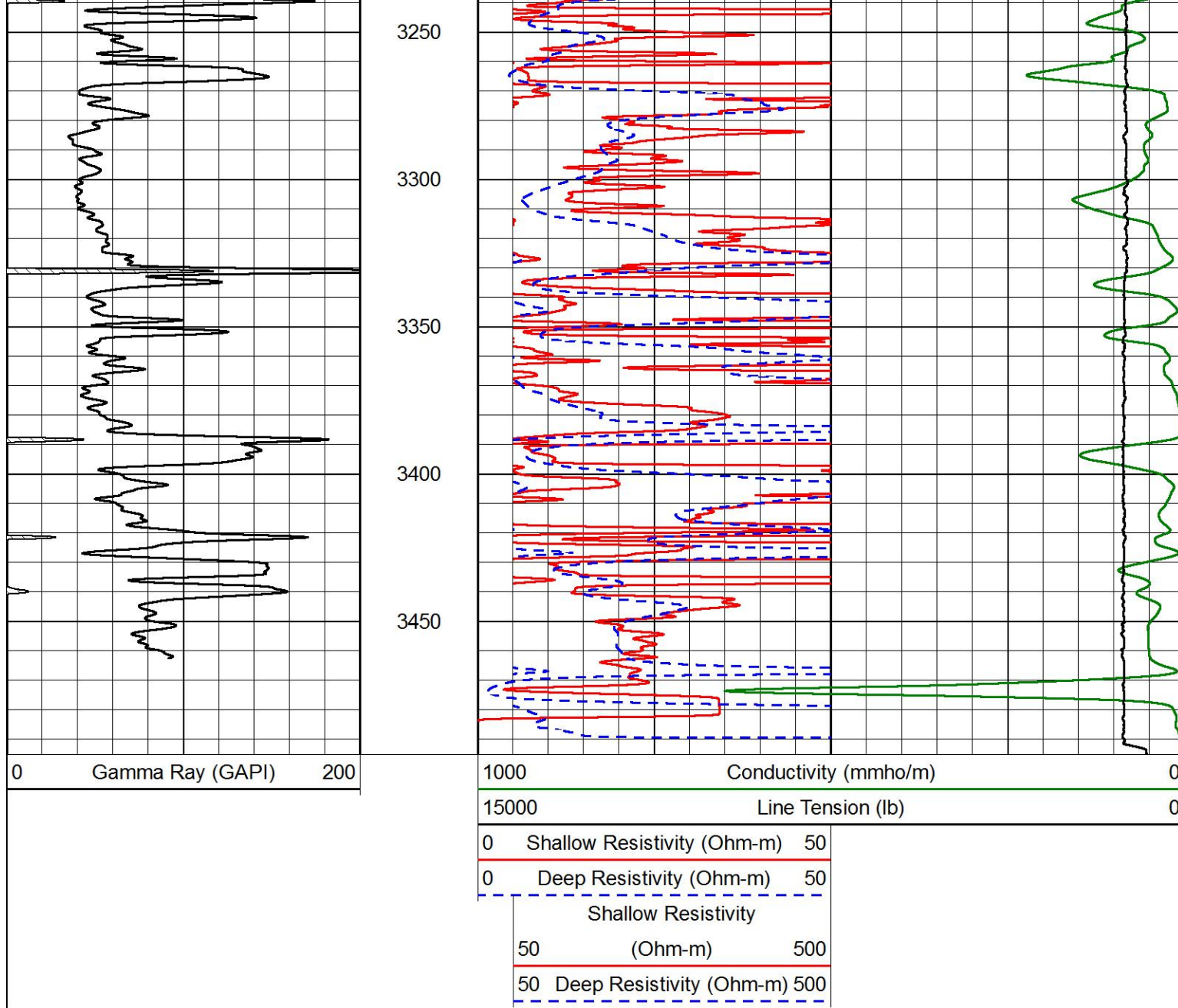




2150
2200
2250
2300
2350
2400
2450
2500
2550
2600
2650



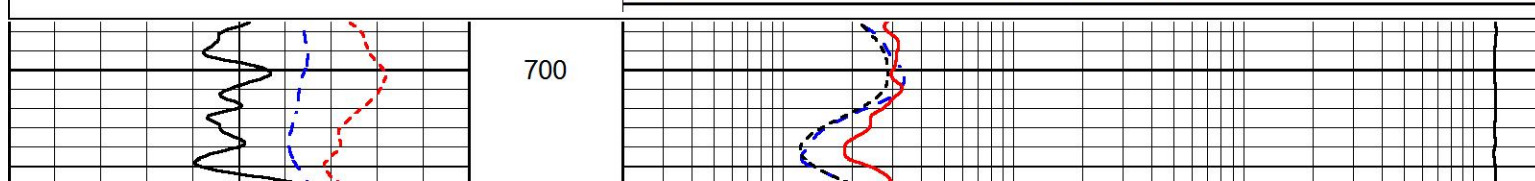


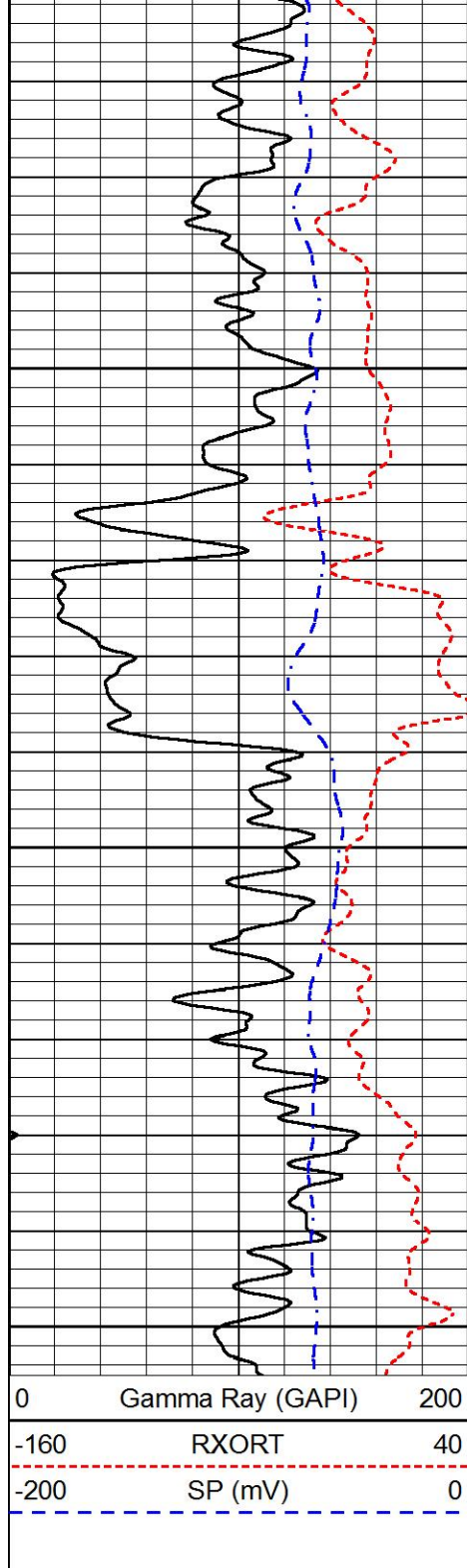


MAIN PASS

Database File	rjm_fury farms_1.db
Dataset Pathname	STACK/pass4.1
Presentation Format	dil
Dataset Creation	Thu Oct 06 07:17:29 2016
Charted by	Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	200
-160	RXORT	40
-200	SP (mV)	0
0.2	Deep Resistivity (Ohm-m)	2000
0.2	Medium Resistivity (Ohm-m)	2000
0.2	Shallow Resistivity (Ohm-m)	2000
10000	Line Tension (lb)	0

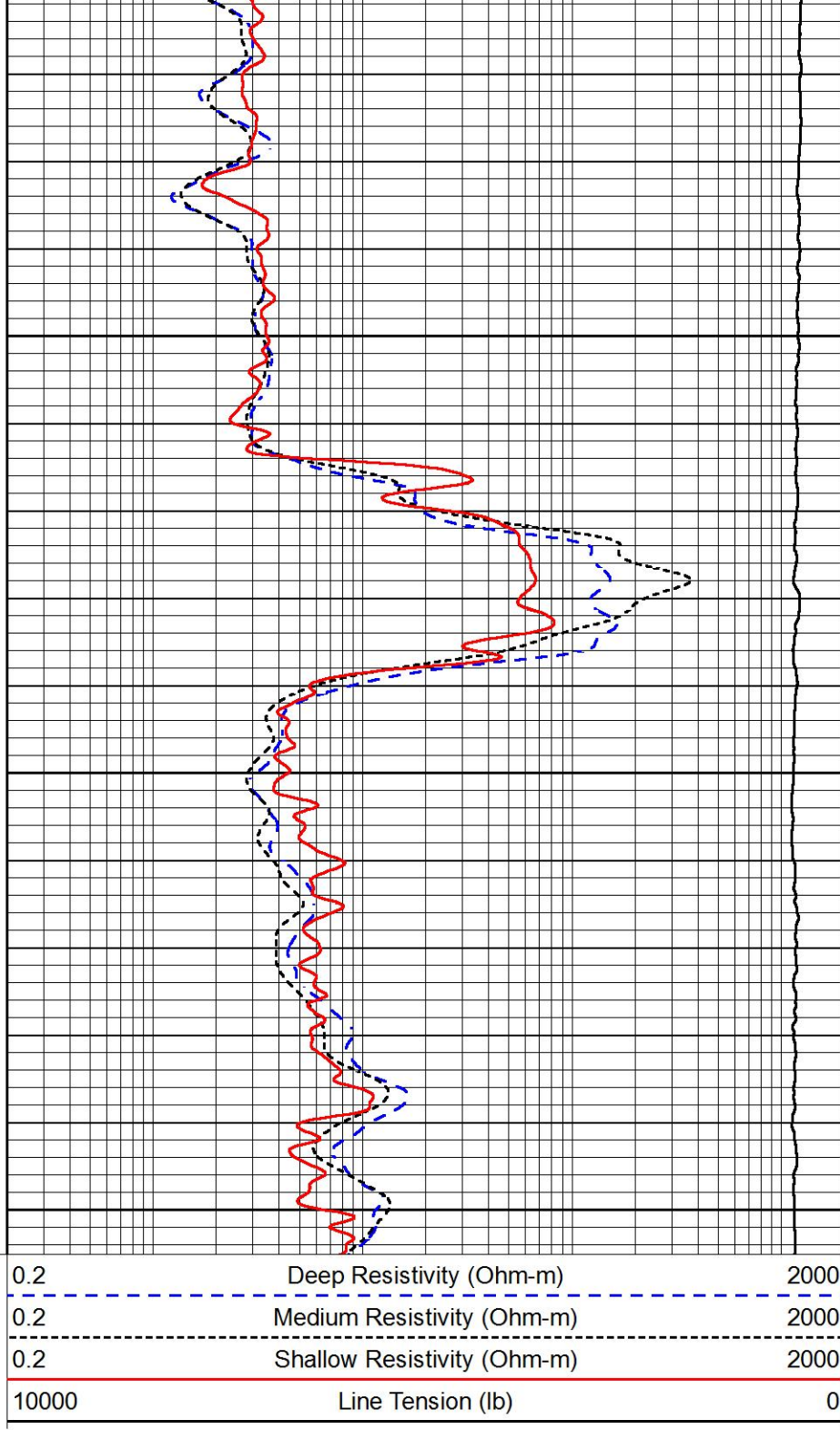




750

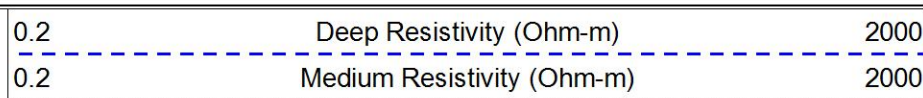
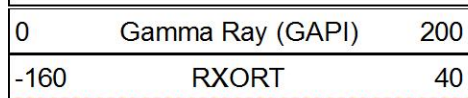
800

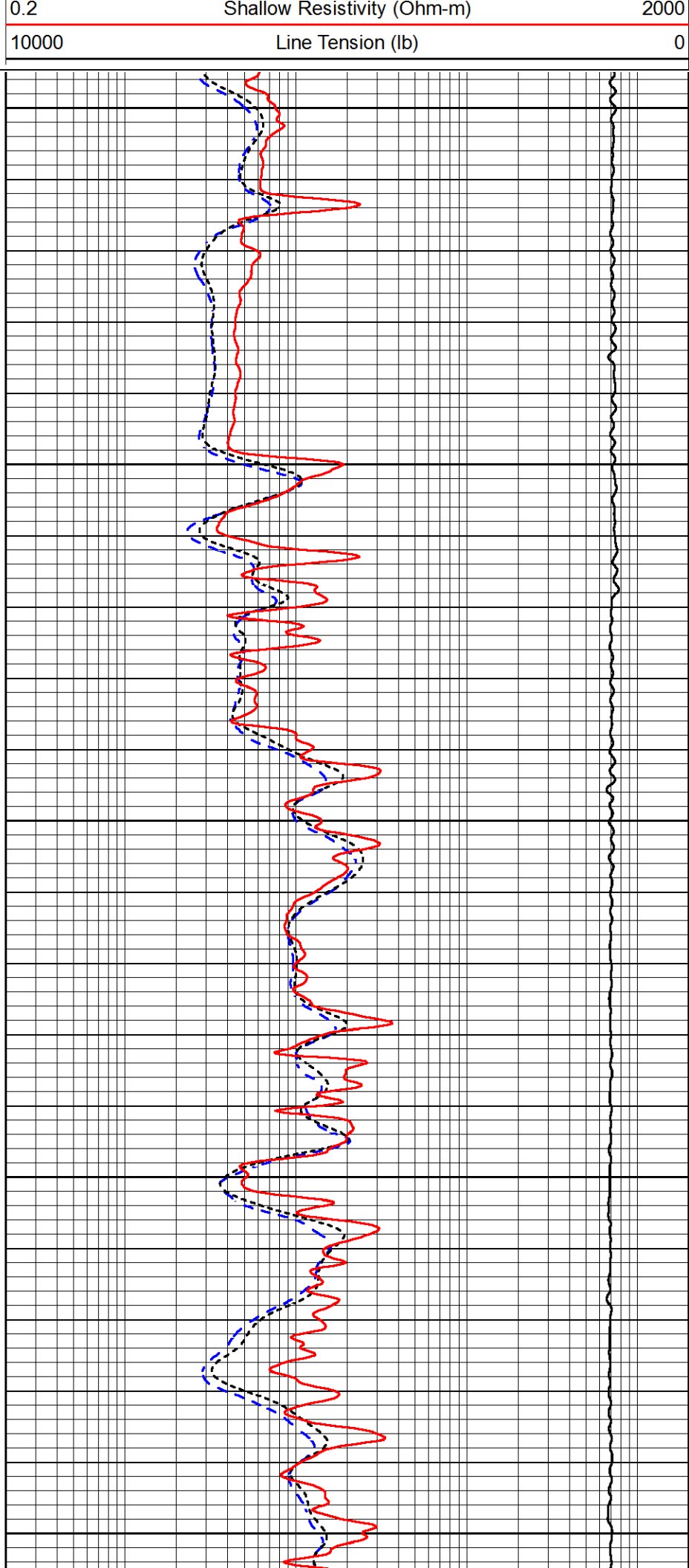
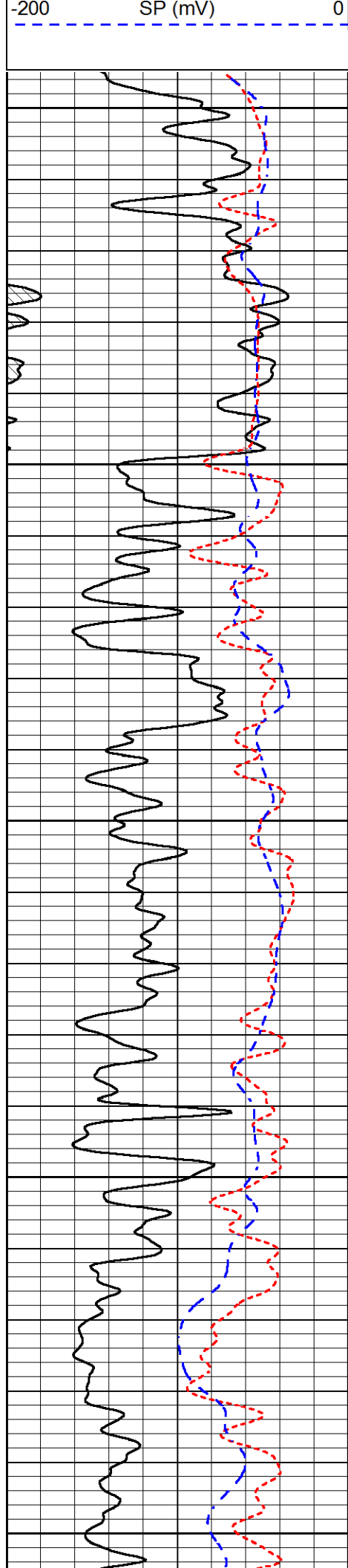
850

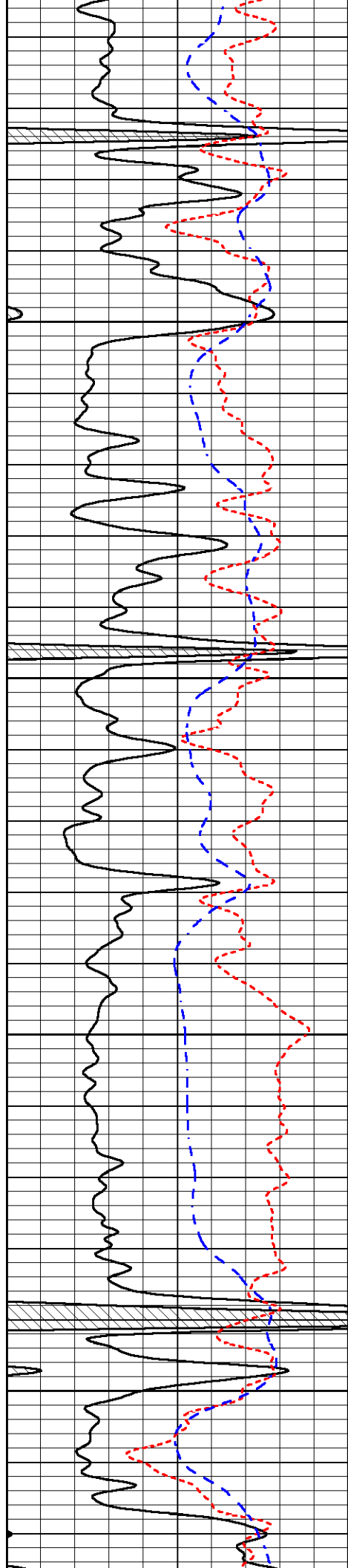


MAIN PASS

Database File rjm_fury farms_1.db
 Dataset Pathname STACK/pass3.6
 Presentation Format dil
 Dataset Creation Thu Oct 06 06:54:13 2016
 Charted by Depth in Feet scaled 1:240





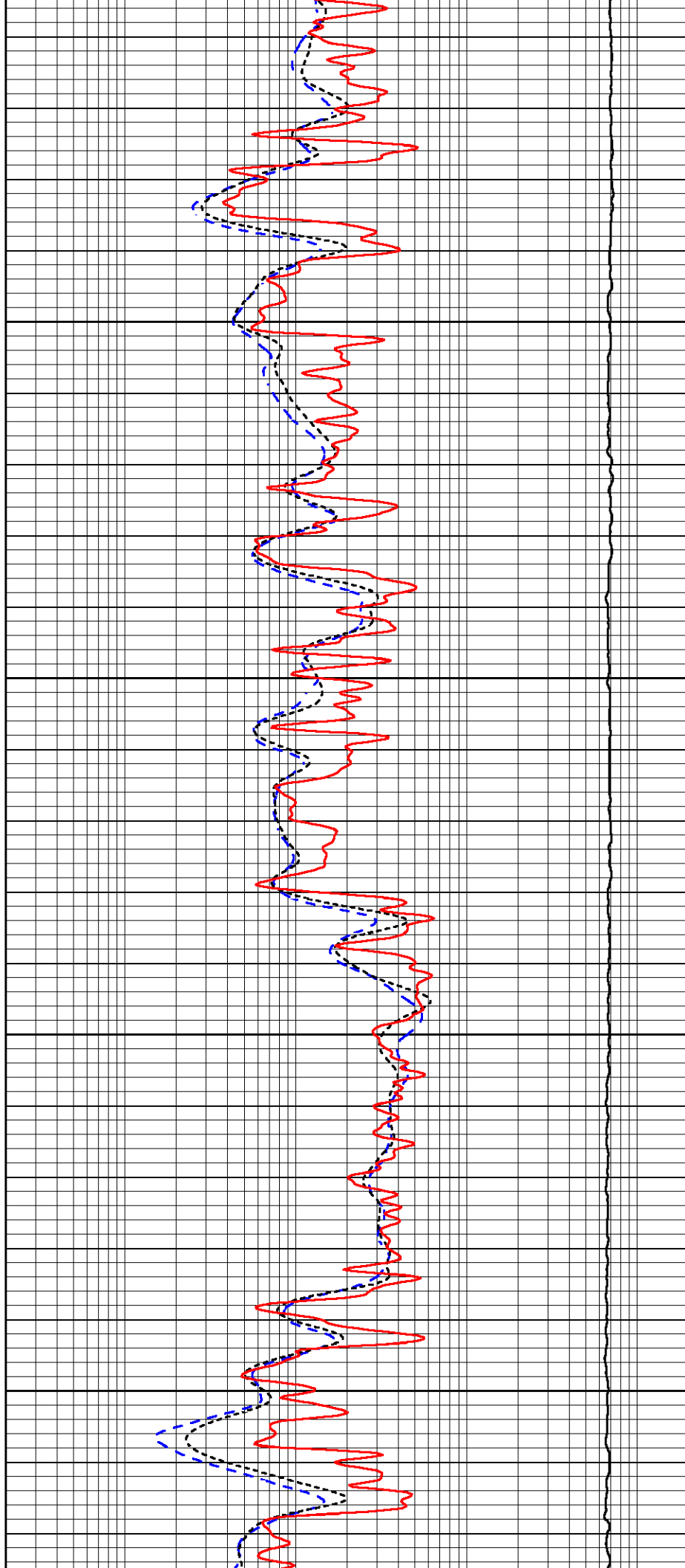


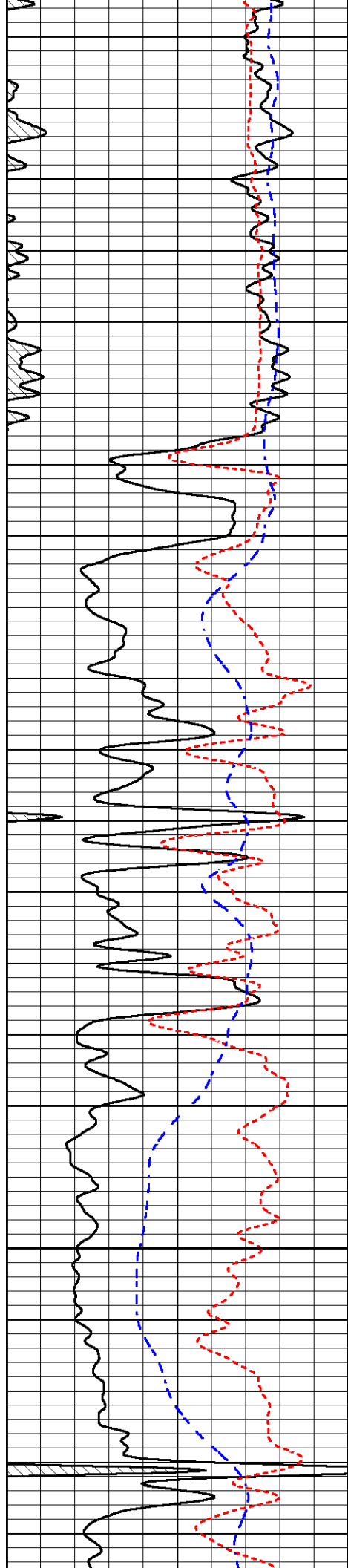
2950

3000

3050

3100



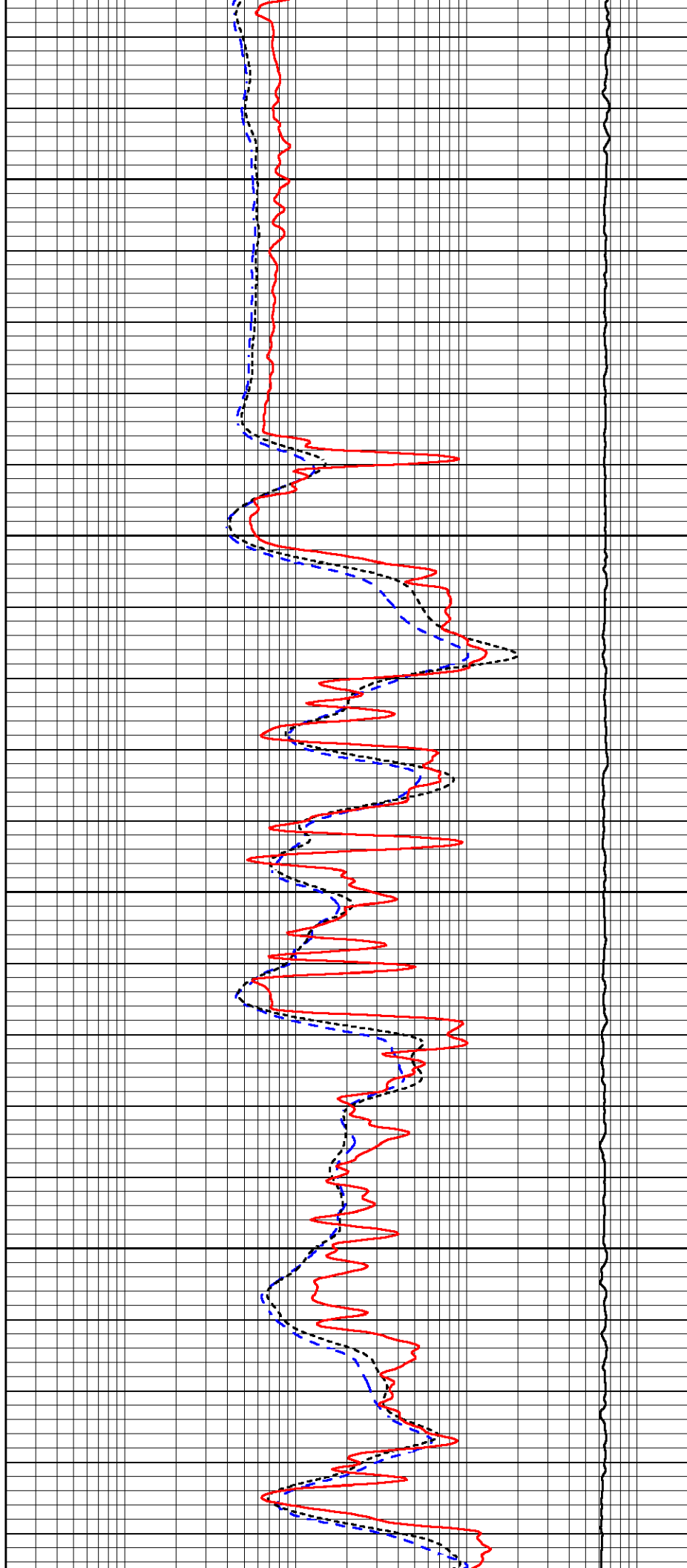


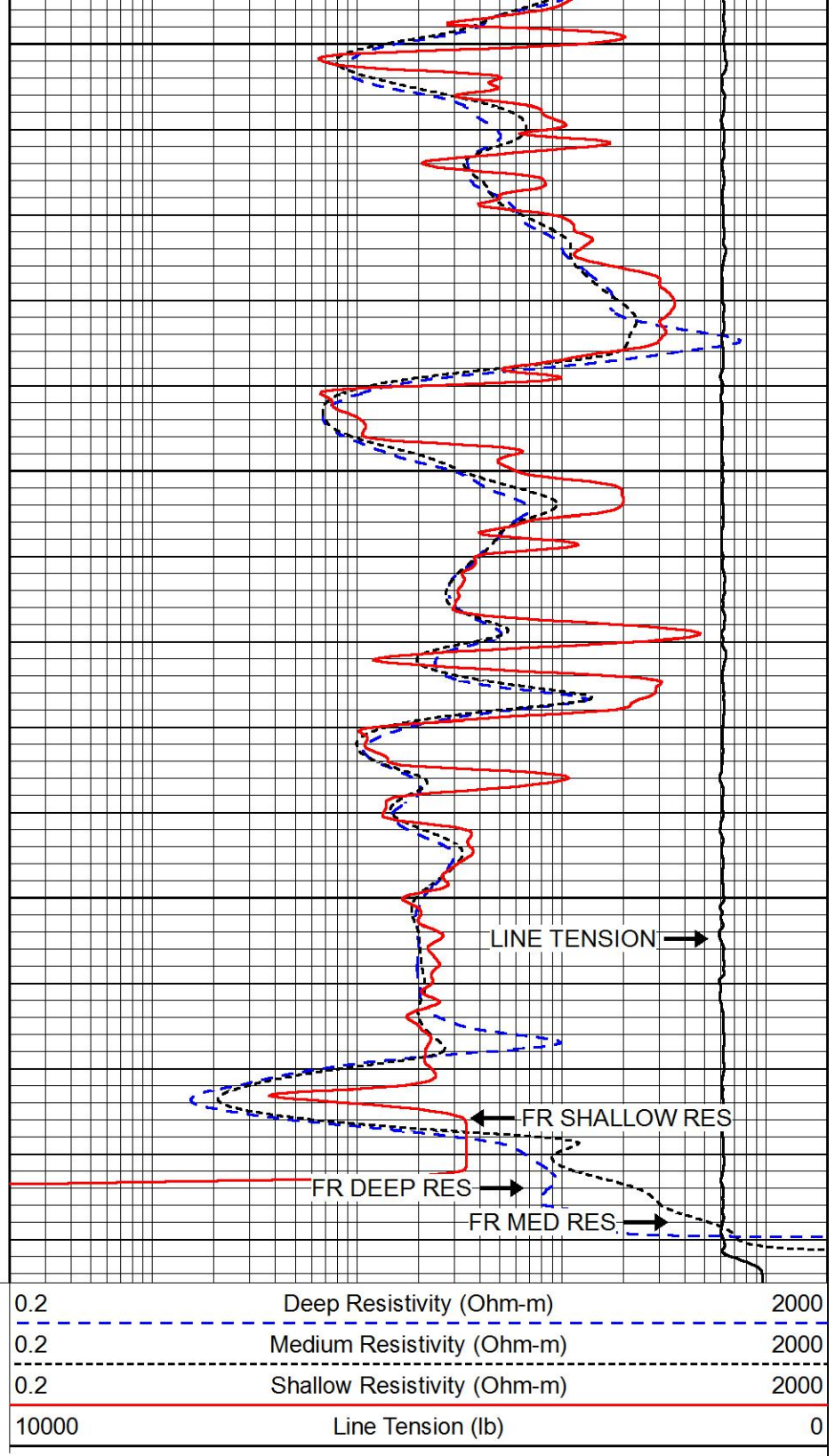
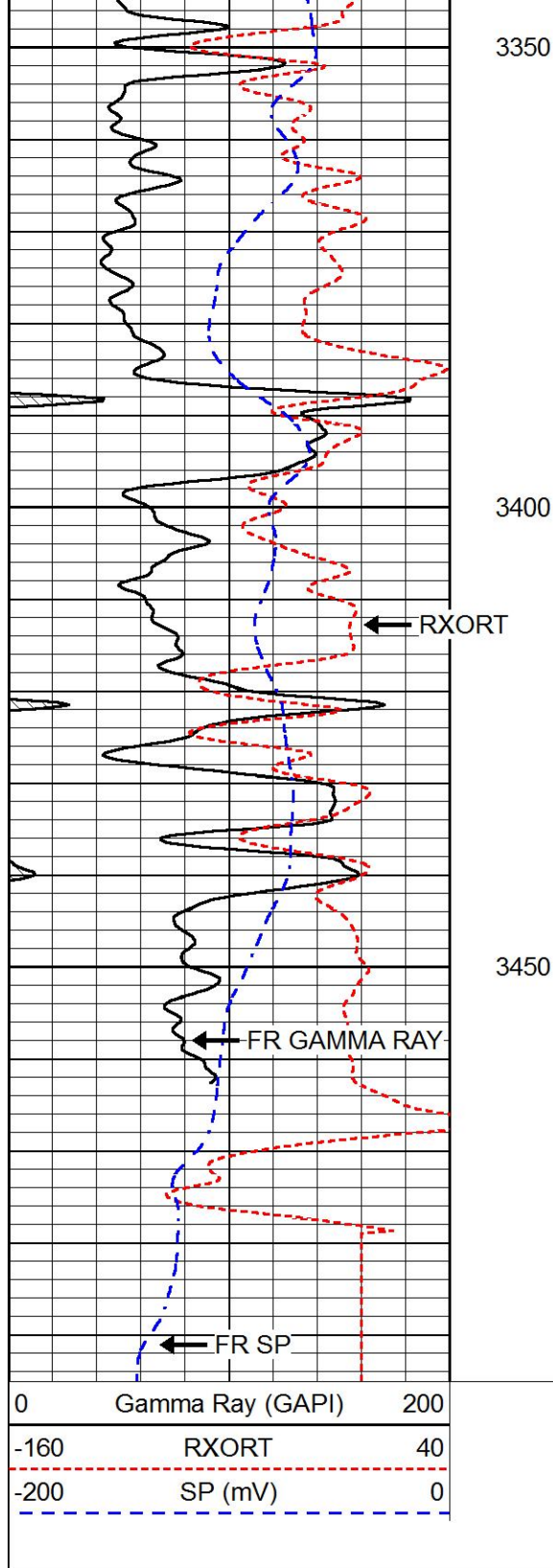
3150

3200

3250

3300



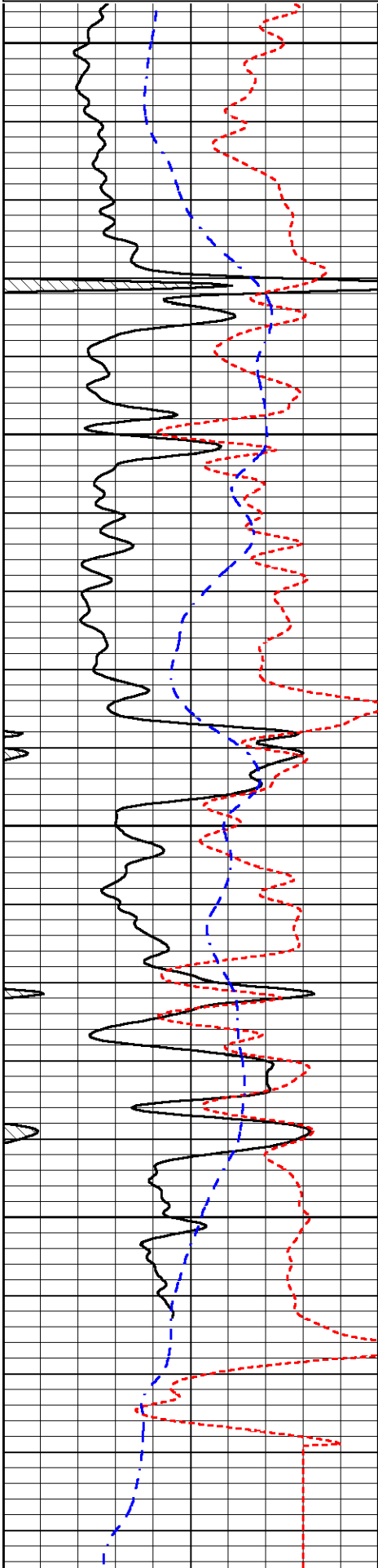


REPEAT SECTION

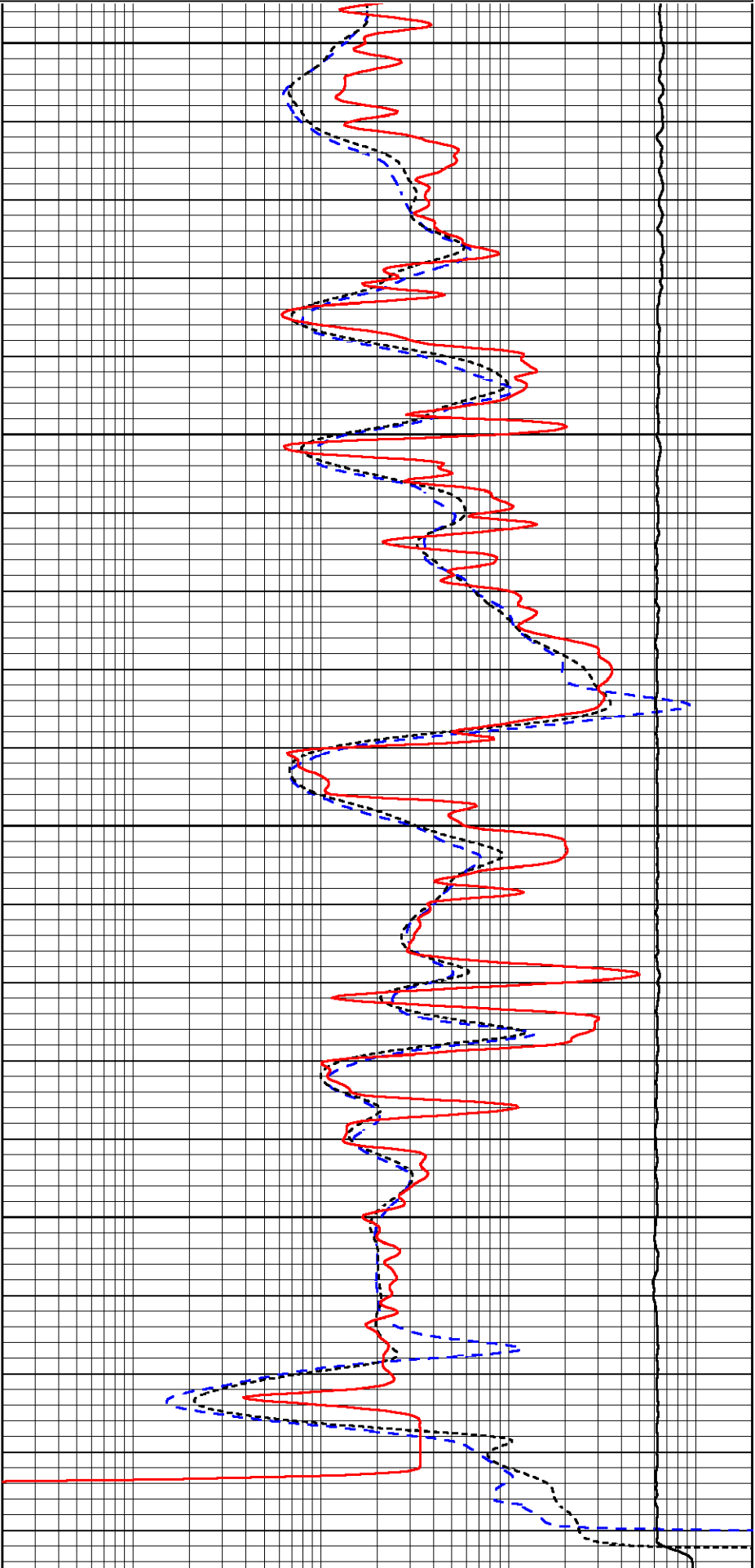
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Presentation Format dil
Dataset Creation Thu Oct 06 06:58:44 2016
Charted by Depth in Feet scaled 1:240



-160	RXORT	40
-200	SP (mV)	0



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



-160	RXORT	40
-200	SP (mV)	0

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

Calibration Report		
Database File	rjm_fury farms_1.db	
Dataset Pathname	STACK/pass3.6	
Dataset Creation	Thu Oct 06 06:54:13 2016	

Dual Induction Calibration Report		
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Serial-Model:	PSI 13-M&W
Calibration Performed:	Thu Oct 06 06:17:37 2016

		Readings		References		Results	
Loop:		Air	Loop	Air	Loop	Gain	Offset
Deep		166.796	835.089	0.000	255.800 mmho/m	0.430	-29.000
Medium		142.009	1348.560	0.000	255.800 mmho/m	0.370	-29.000

Compensated Density Calibration Report		
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Serial-Model:	90-1031-M&W
Source / Verifier:	16955B / 2ci
Master Calibration Performed:	Thu Sep 29 18:47:07 2016

Master Calibration						
		Density		Far Detector	Near Detector	
Magnesium		1.755	g/cc	5174.18	6425.27	cps
Aluminum		2.665	g/cc	963.17	4037.42	cps
Spine Angle = 74.55				Density/Spine Ratio = 0.522		
		Size		Reading		
Small Ring		6.00	in	1.83		
Large Ring		16.00	in	1.48		

Compensated Neutron Calibration Report		
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Serial Number:	207-MW
Tool Model:	M&W
Calibration Performed:	Wed Sep 28 10:30:30 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		
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Serial Number:	89
Tool Model:	M&W
Calibration Performed:	Thu Sep 29 18:47:18 2016
Calibrator Value:	1.0
	GAPI

Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.6500	GAPI/cps



Company	RJM COMPANY
Well	FURY FARMS #1
Field	UNKNOWN
County	BARTON
State	KANSAS