



PIONEER

Pioneer Energy Services

BOREHOLE COMPENSATED SONIC LOG

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

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

Other Services

SEC 13 TWP 19S RGE 13W
1460' FNL & 560' FWL

CNL/CDL
DIL/MEL

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

Elevation
K.B. 1898'
D.F. N/A
G.L. 1890'

Date **10/6/2016**

Run Number **TWO**

Type Log **BHCS**

Depth Driller **3490'**

Depth Logger **3492'**

Bottom Logged Interval **3480'**

Top Logged Interval **300'**

Type Fluid In Hole **CHEMICAL**

Salinity, PPM CL **6000**

Density **9.4**

Level **FULL**

Max. Rec. Temp. F **111**

Operating Rig Time **5 HOURS**

Equipment -- Location **91 COLBY**

Recorded By **D. SCHMIDT**

Witnessed By **WYATT URBAN**

Borehole Record

Casing Record

Run No.	Bit	From	To	Size	Wgt.	From	To
ONE	12.25"	0'	320'	8.625"	23#	0'	320'
TWO	7.875"	320'	TD				

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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

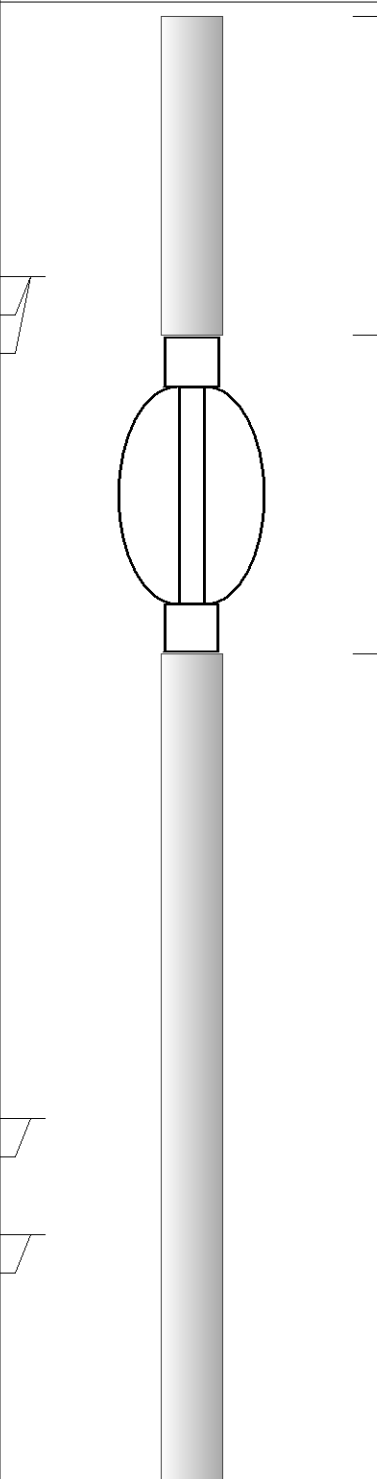
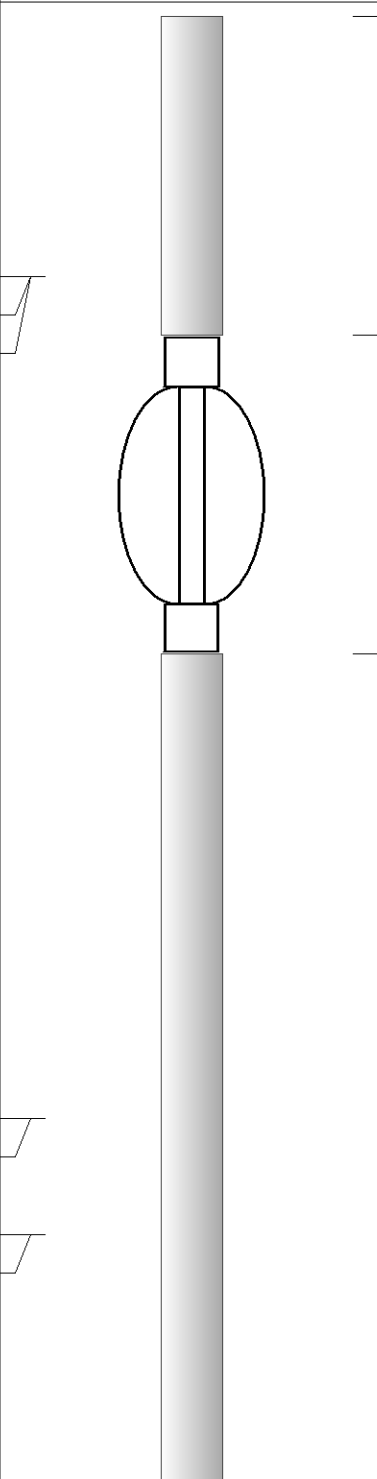
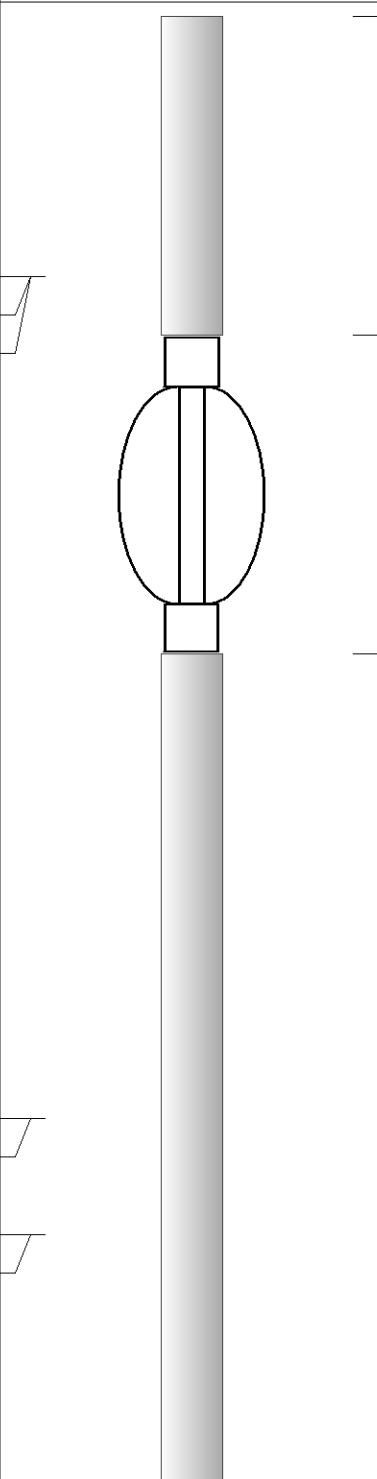
Engineer: **D. SCHMIDT**
Operator:
Operator:
Operator:

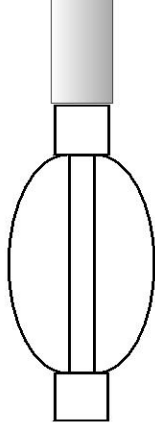
This Log Record Was Witnessed By

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)
MCAL MI MN	28.00		ML-Armadillo (ARM001) Pengo Mandrel & Armadillo ML Electronics (2014)	5.50	3.50	100.00
	28.00					
	28.00					
WVF4 WVF1	13.50		CENT-PENGO (4-PENGO)	5.50	3.00	70.00
	13.50					
	13.50					
WVF3 WVF2	11.50		SLT-PENGO (0001)	16.00	3.50	300.00
	11.50					
	11.50					



CENT-PENGO (3-PENGO)

5.50

3.00

70.00

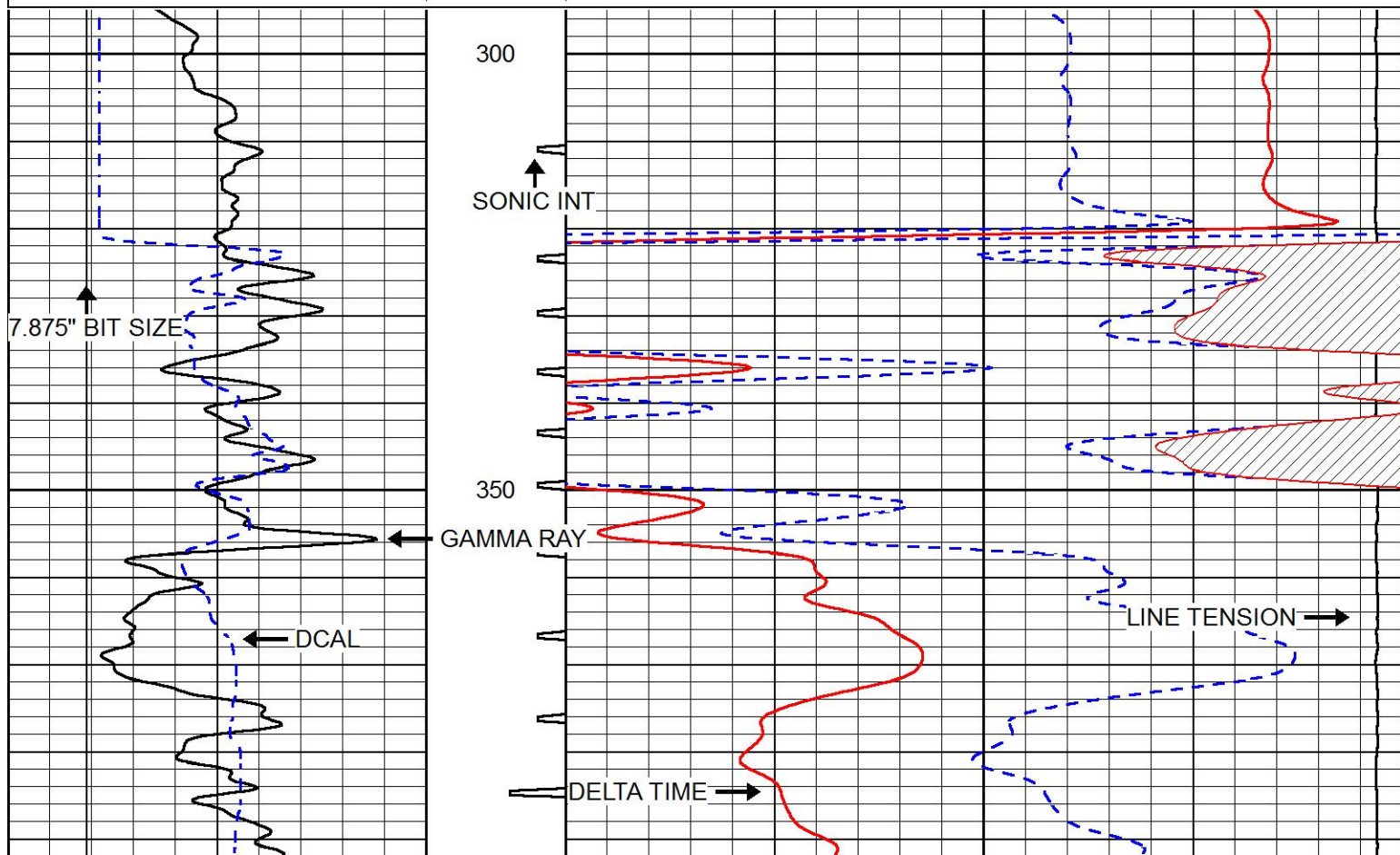
Dataset: rjm_fury farms_1.db: field/well/SONMEL/pass2
Total length: 32.50 ft
Total weight: 540.00 lb
O.D.: 3.50 in

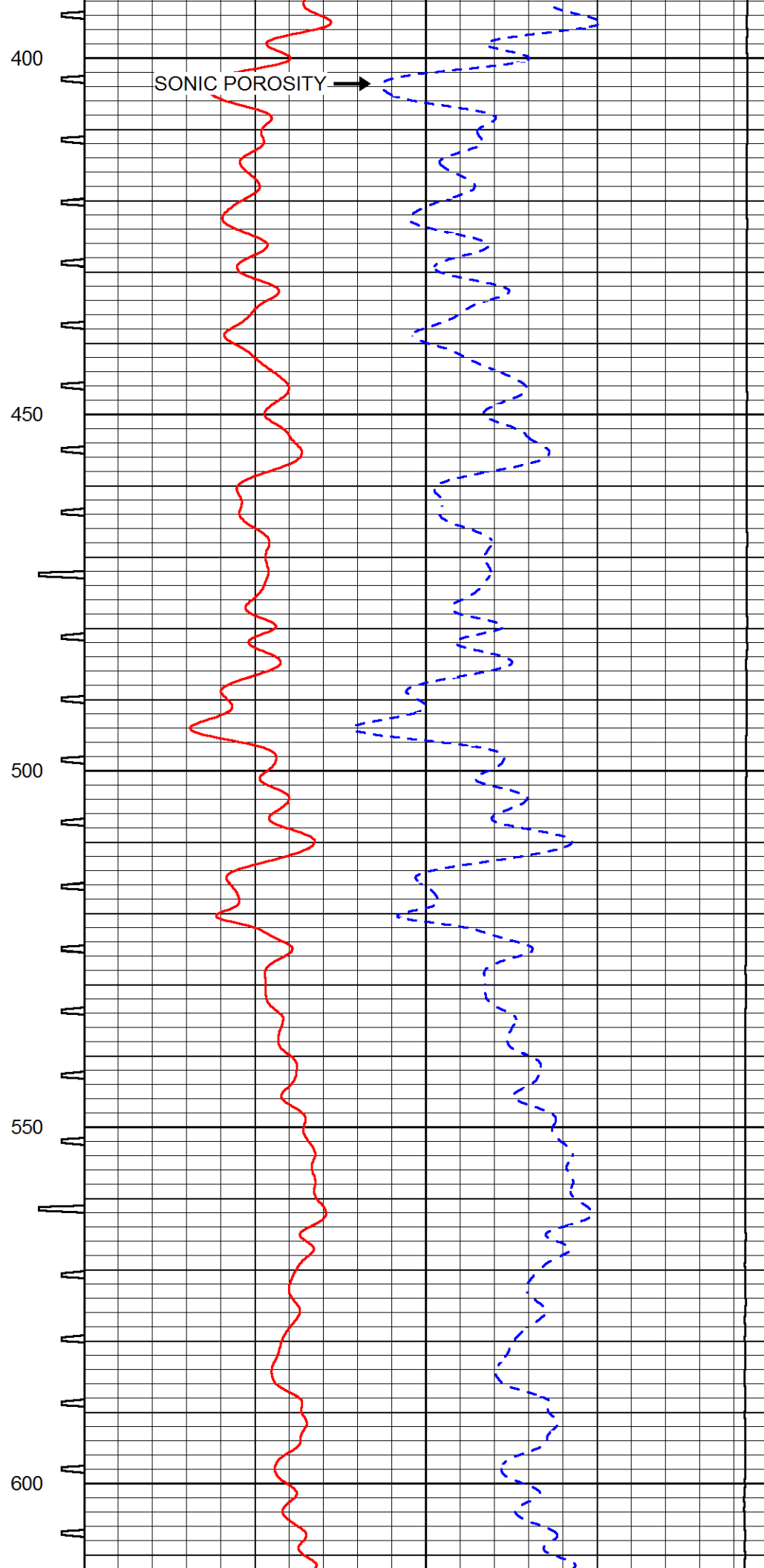
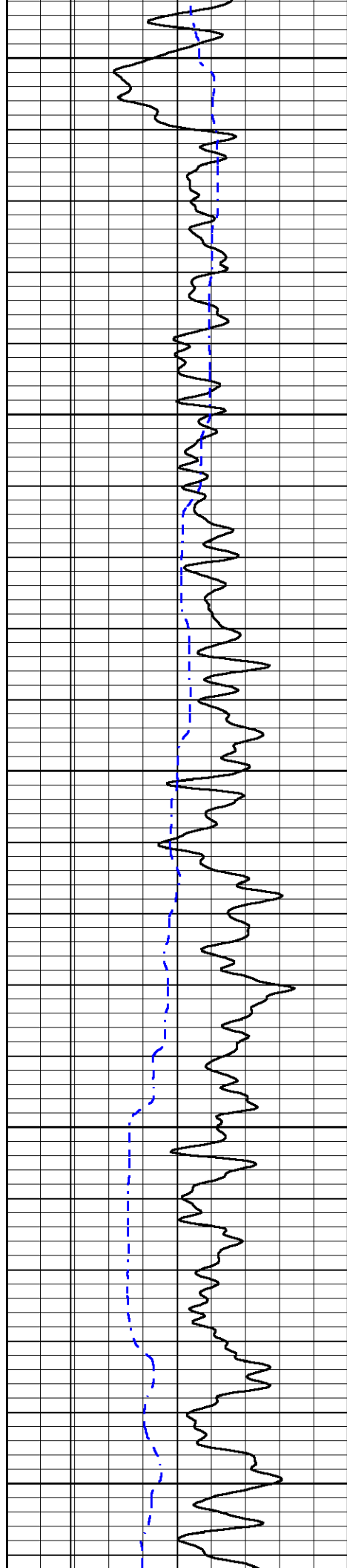


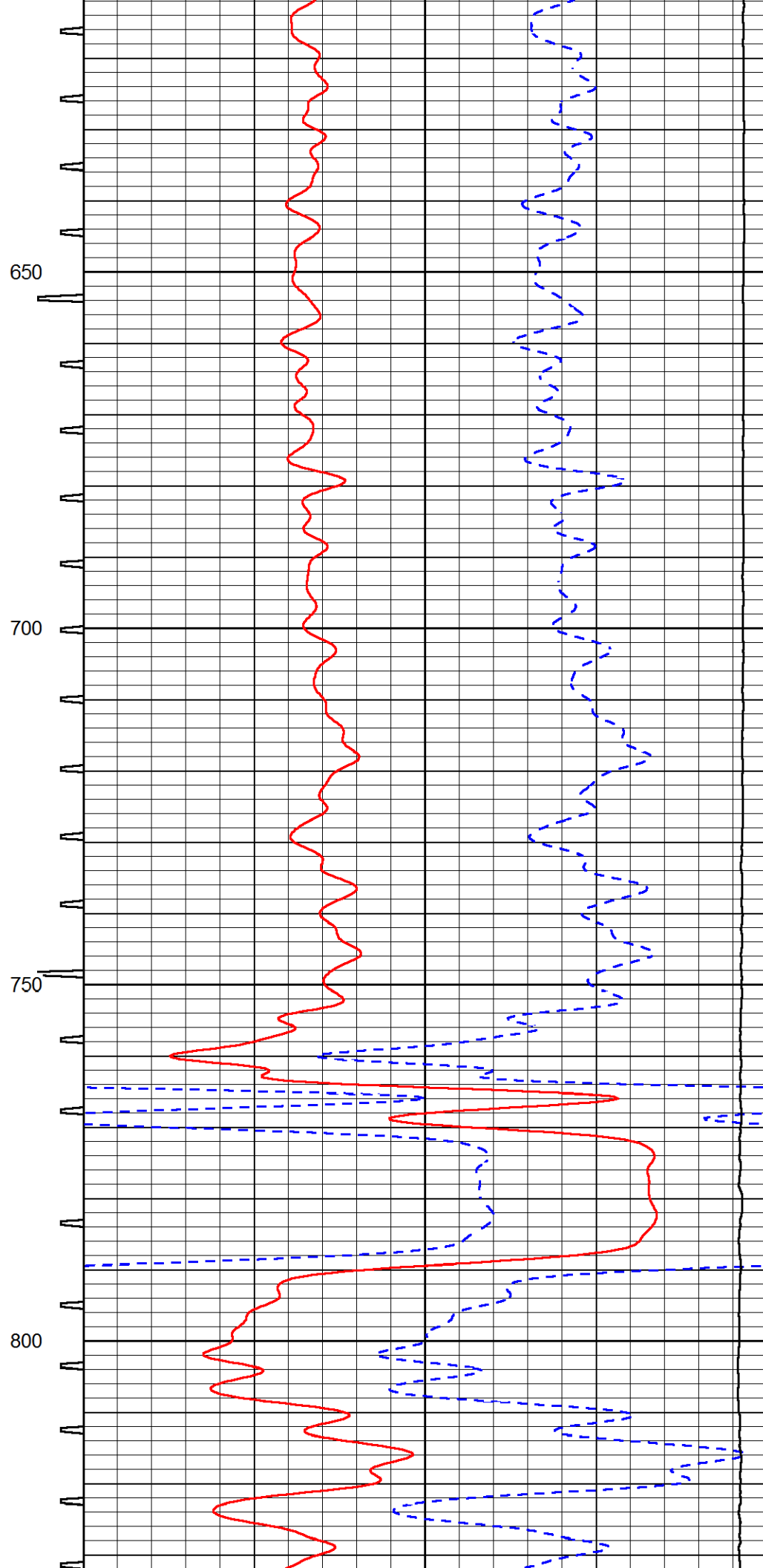
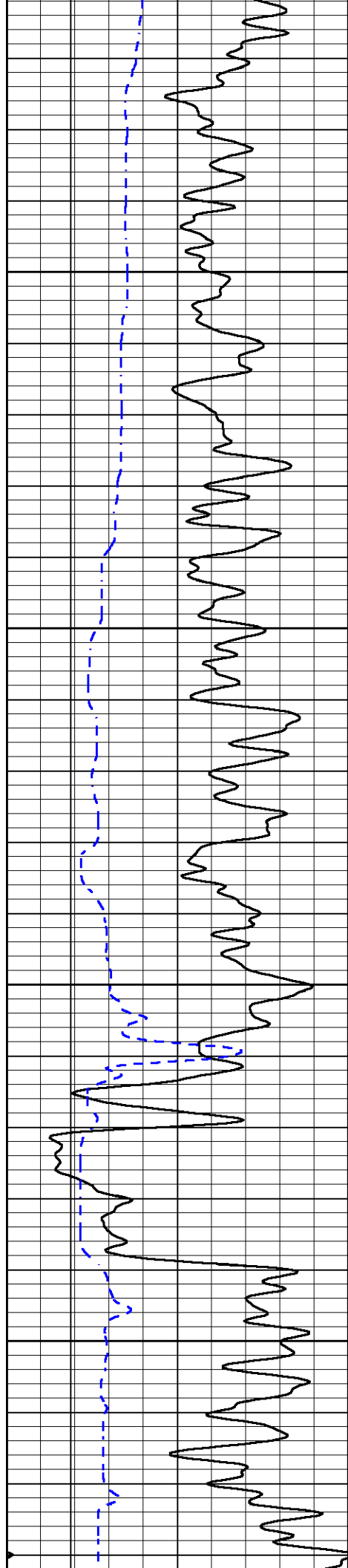
MAIN PASS

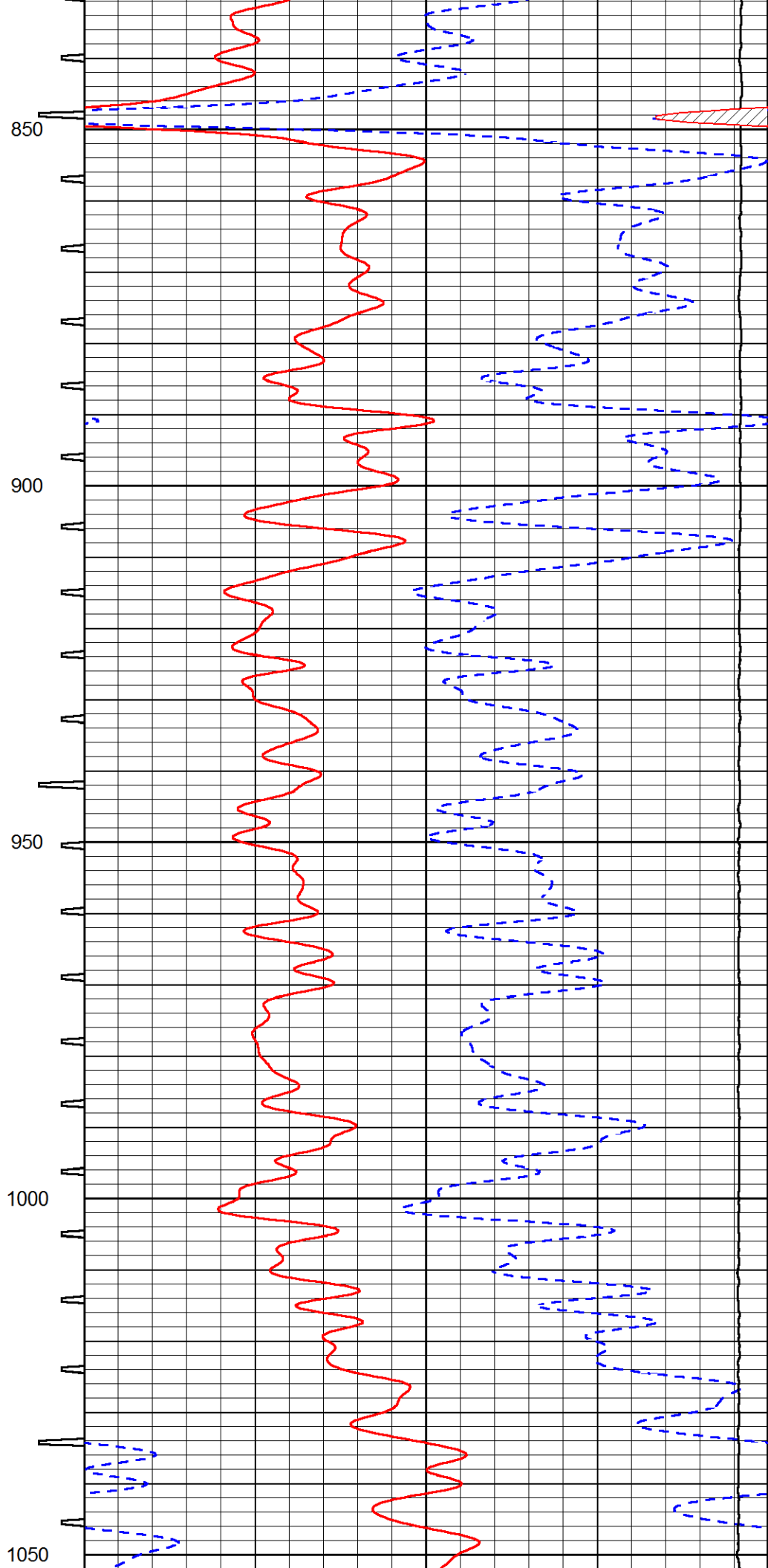
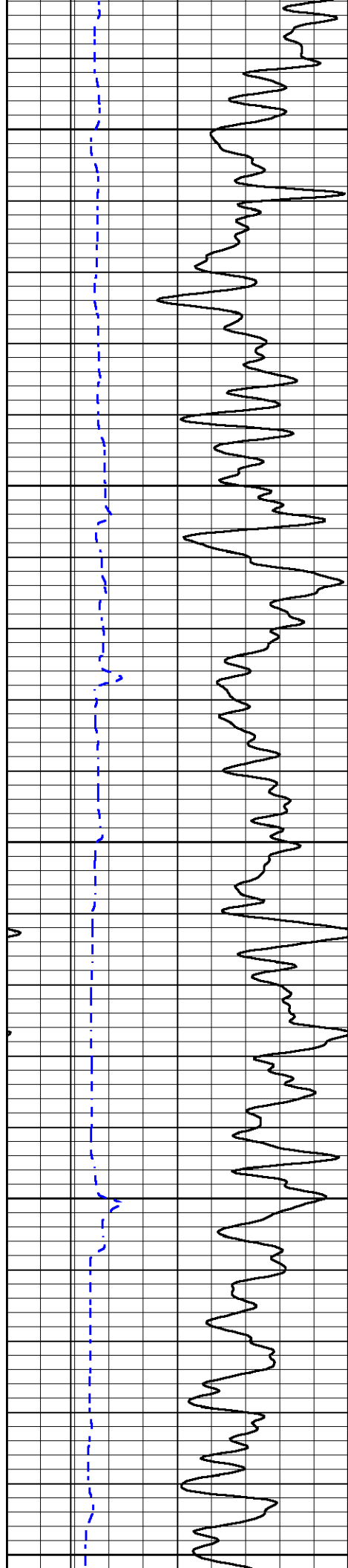
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Dataset Pathname STACK/pass4.1
Presentation Format sonic
Dataset Creation Thu Oct 06 07:17:29 2016
Charted by Depth in Feet scaled 1:240

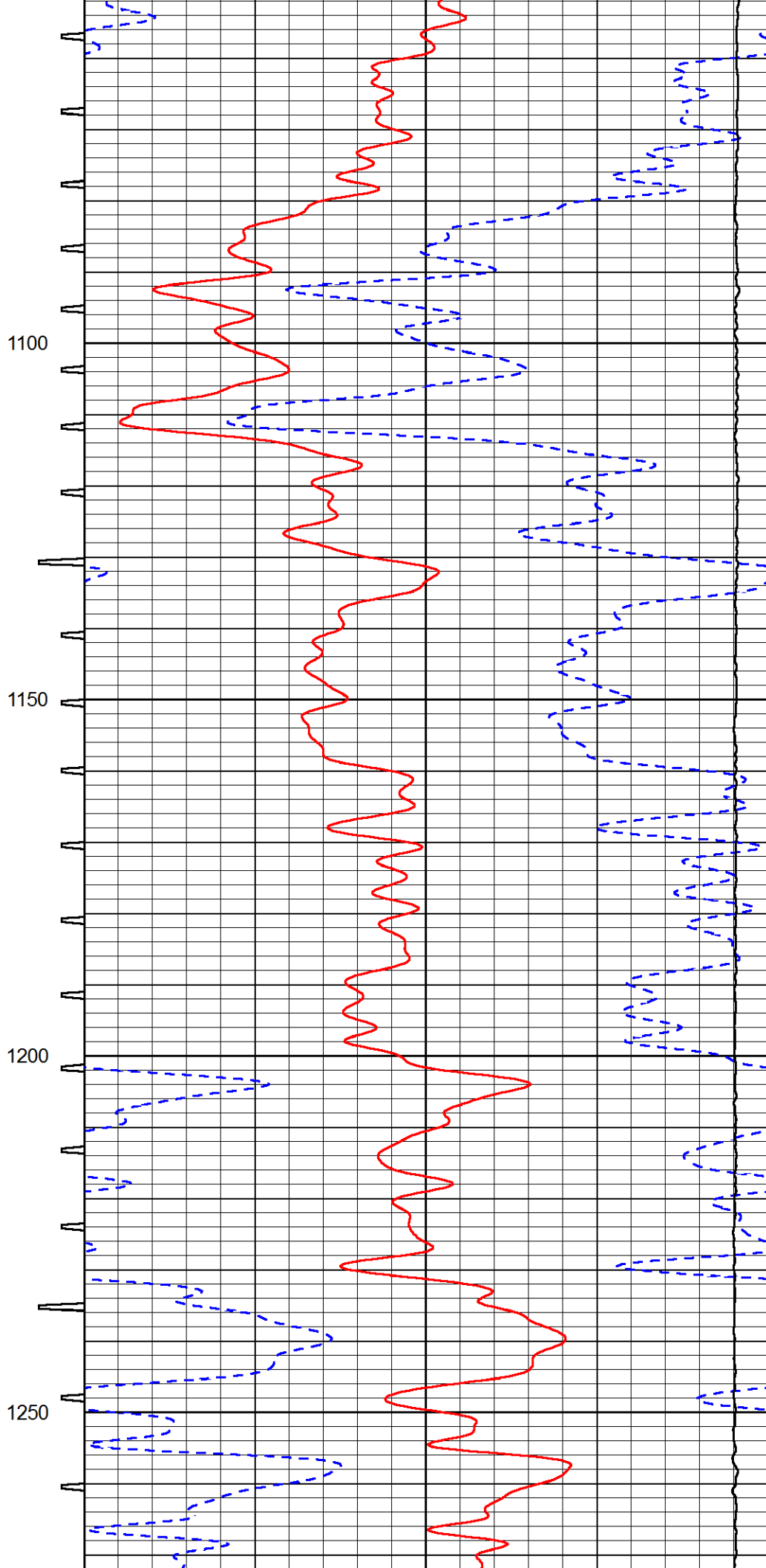
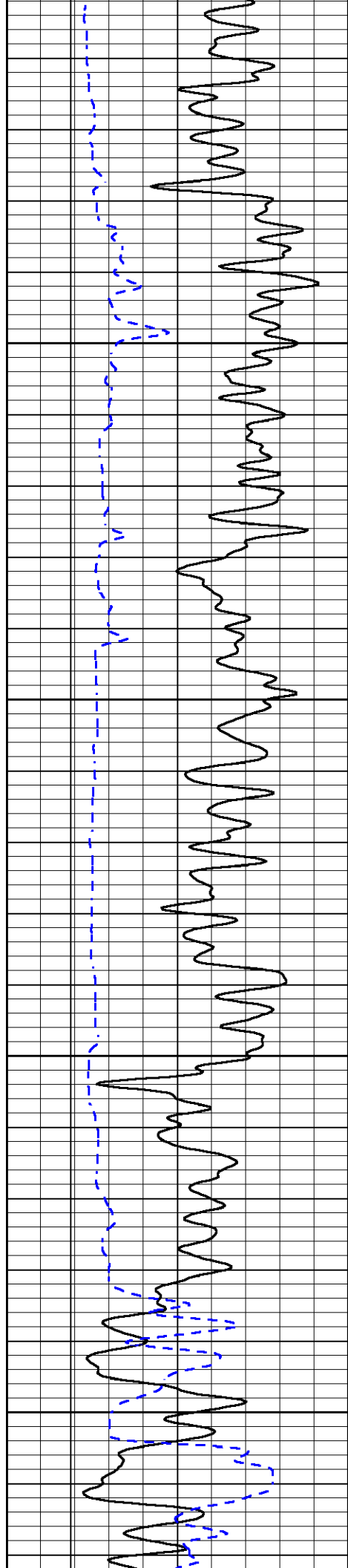
0	Gamma Ray (GAPI)	150	Sonic Int	140	Delta Time (usec/ft) (usec/ft)	40
150	GR (GAPI)	300	5 (msec) 0	30	Sonic Porosity (pu)	-10
6	DCAL (in)	16		15000	LTEN (lb) (lb)	0

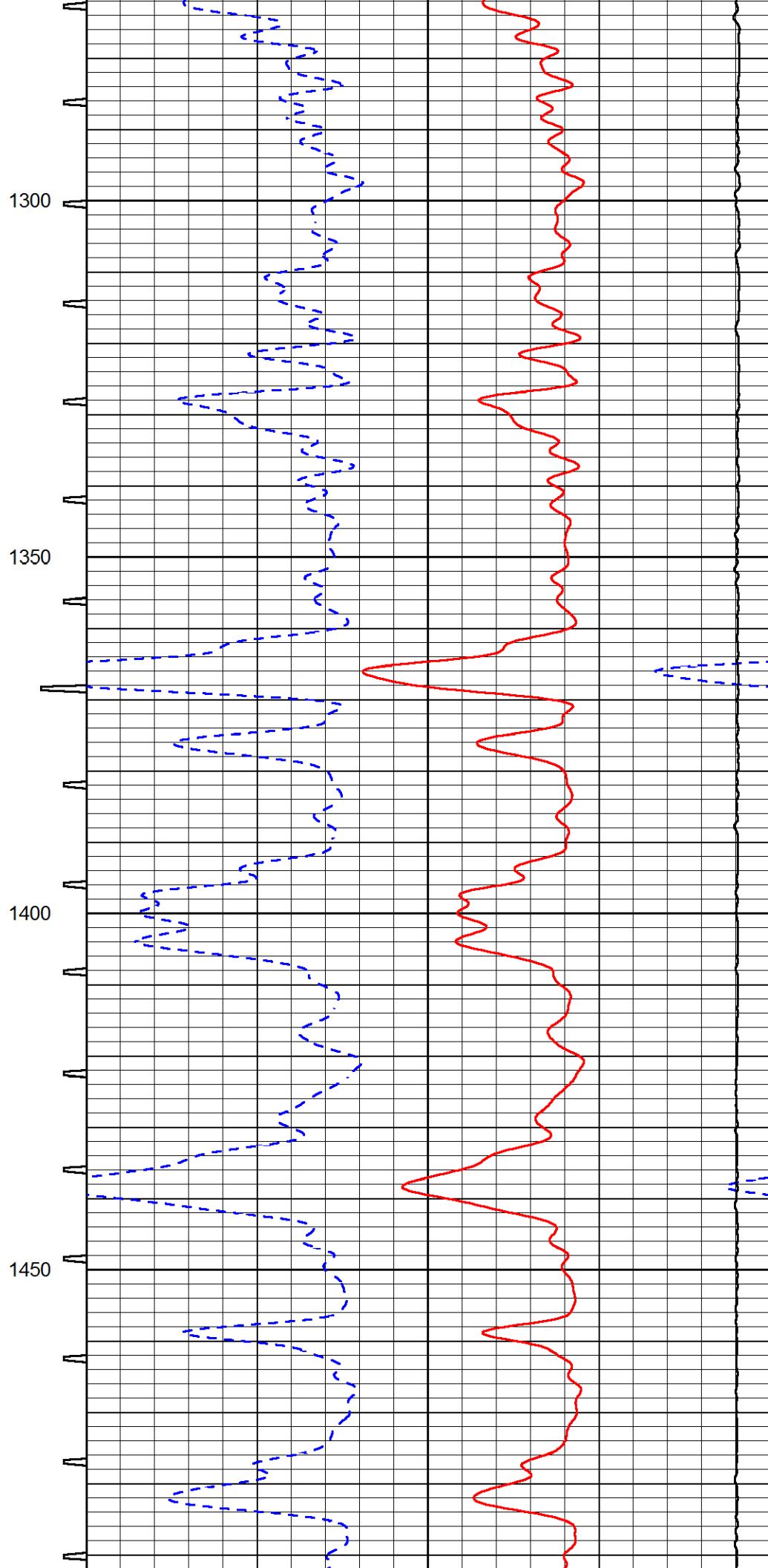
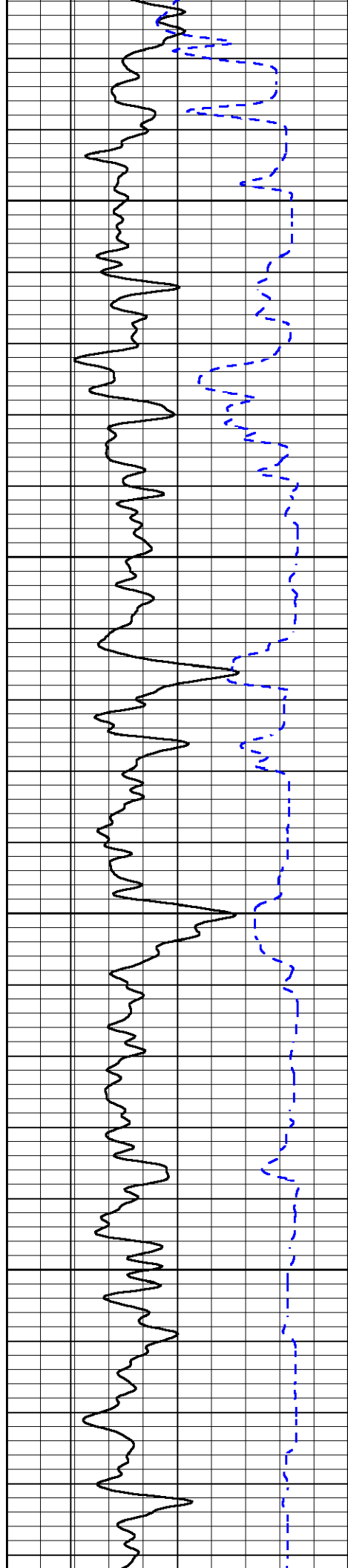


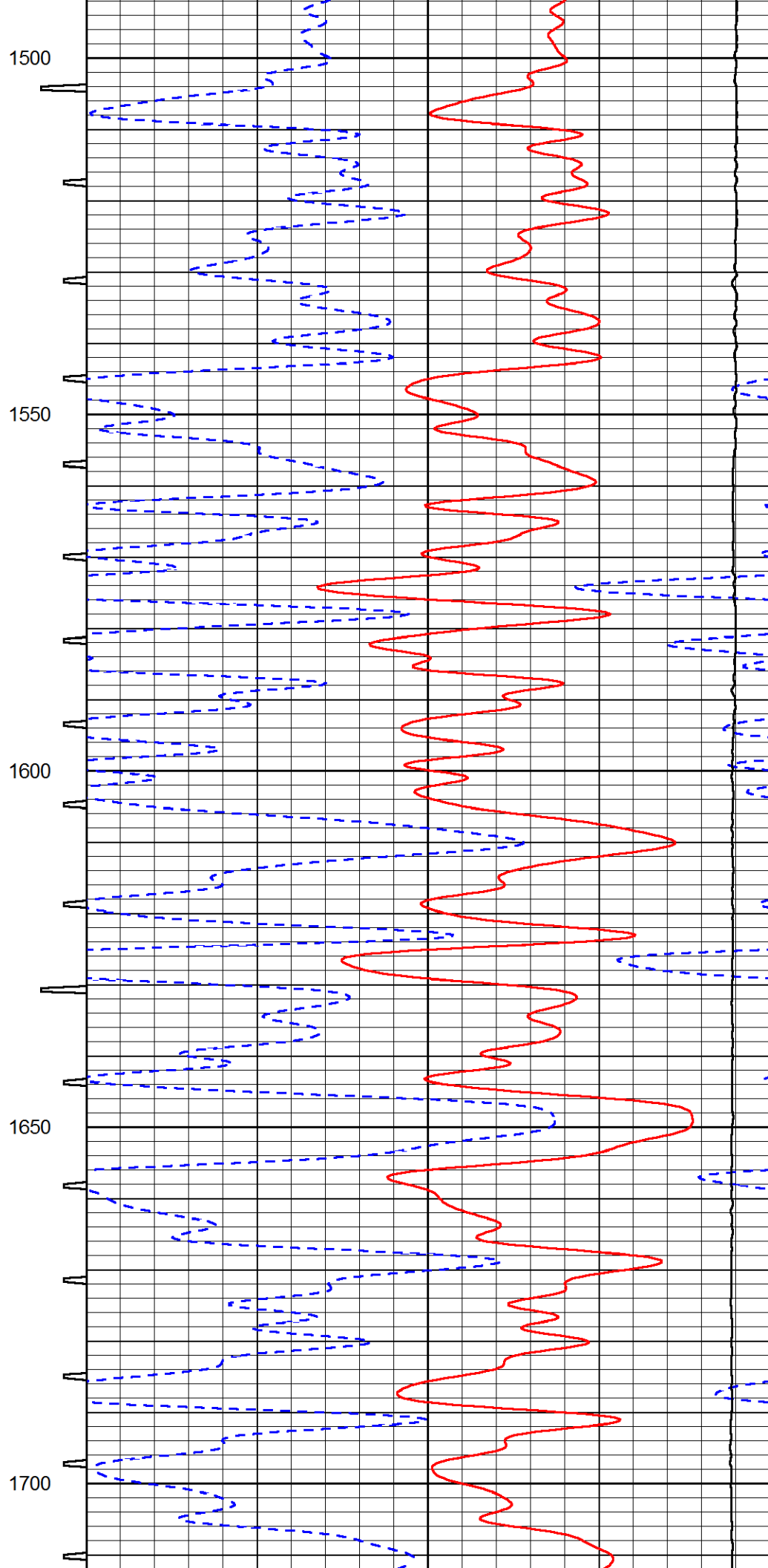
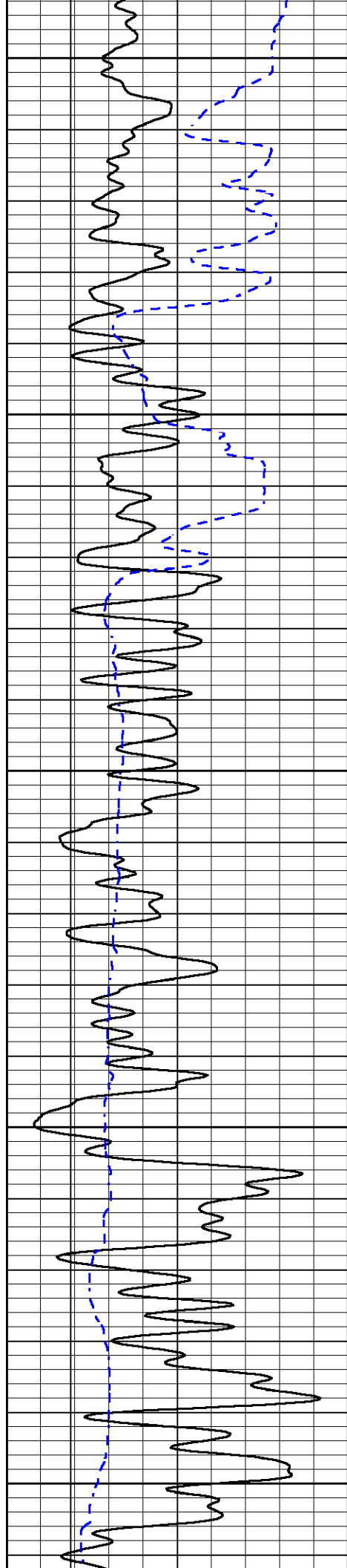


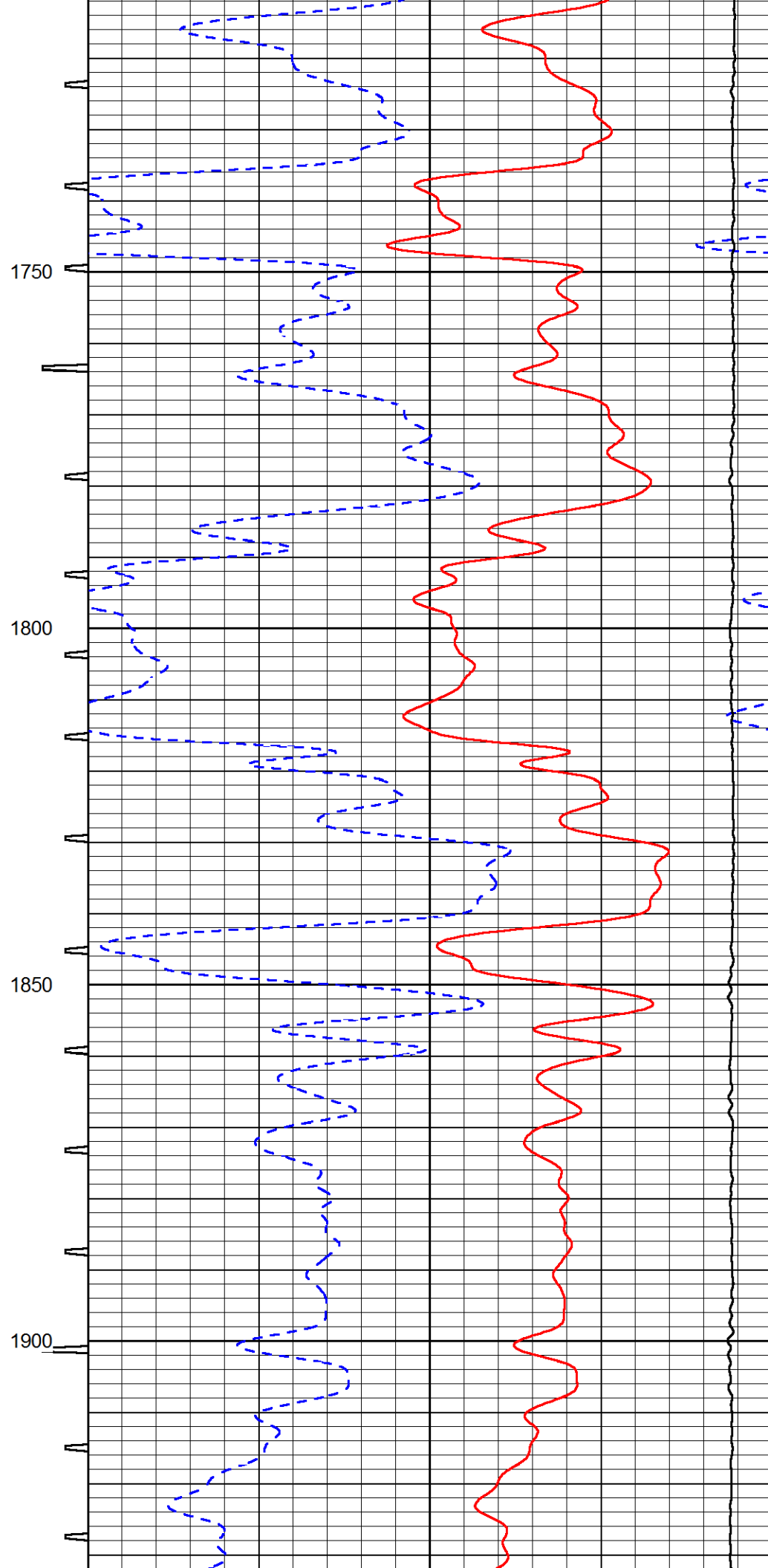
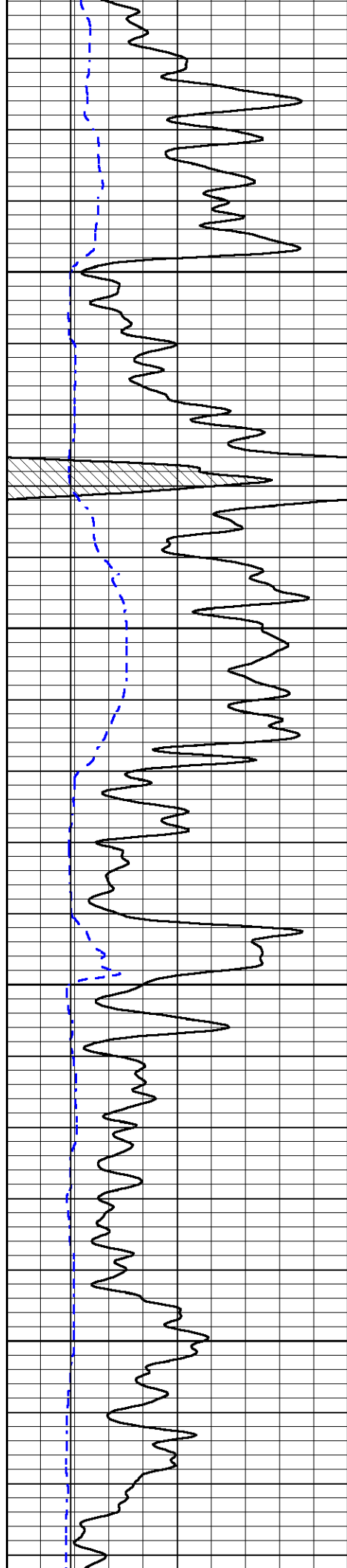


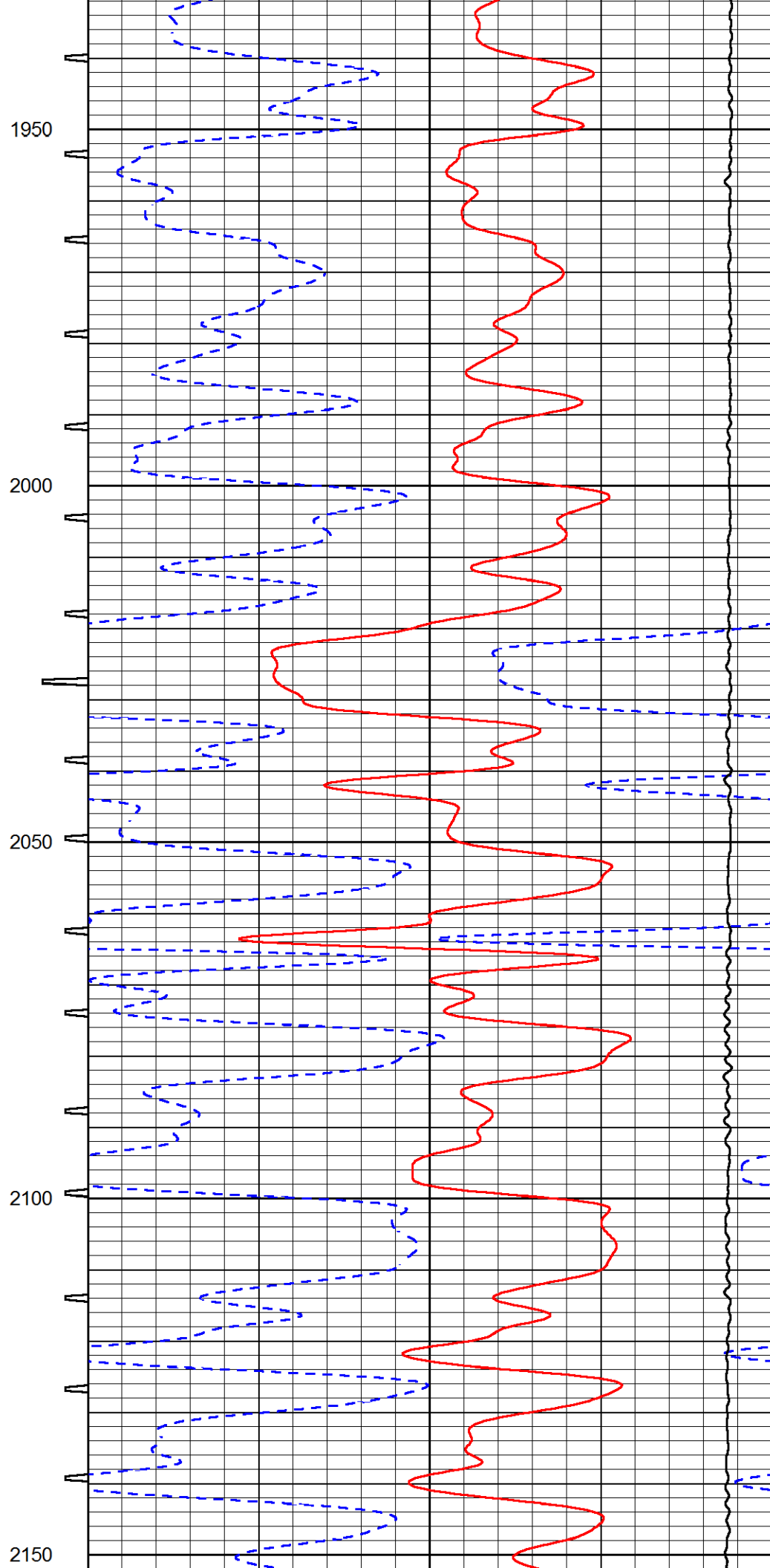
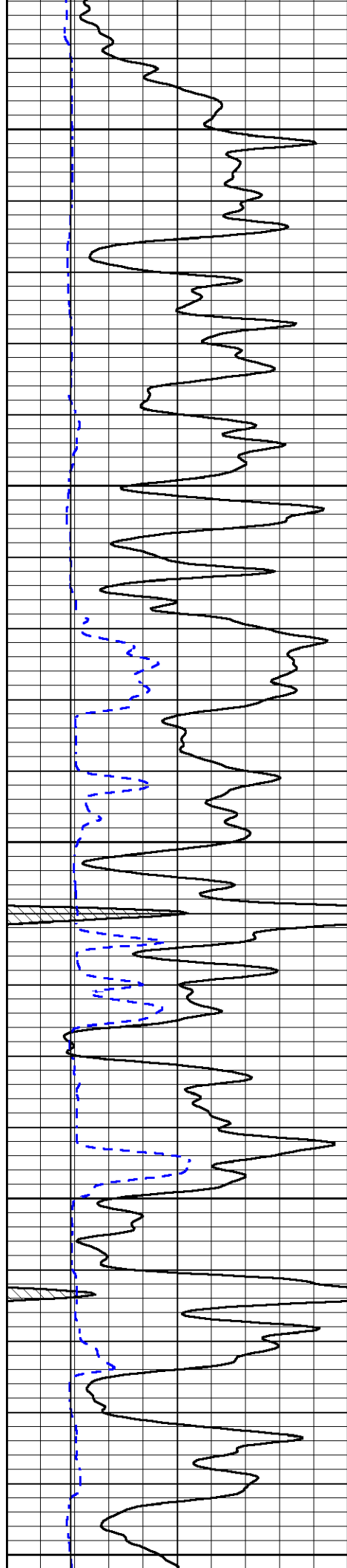


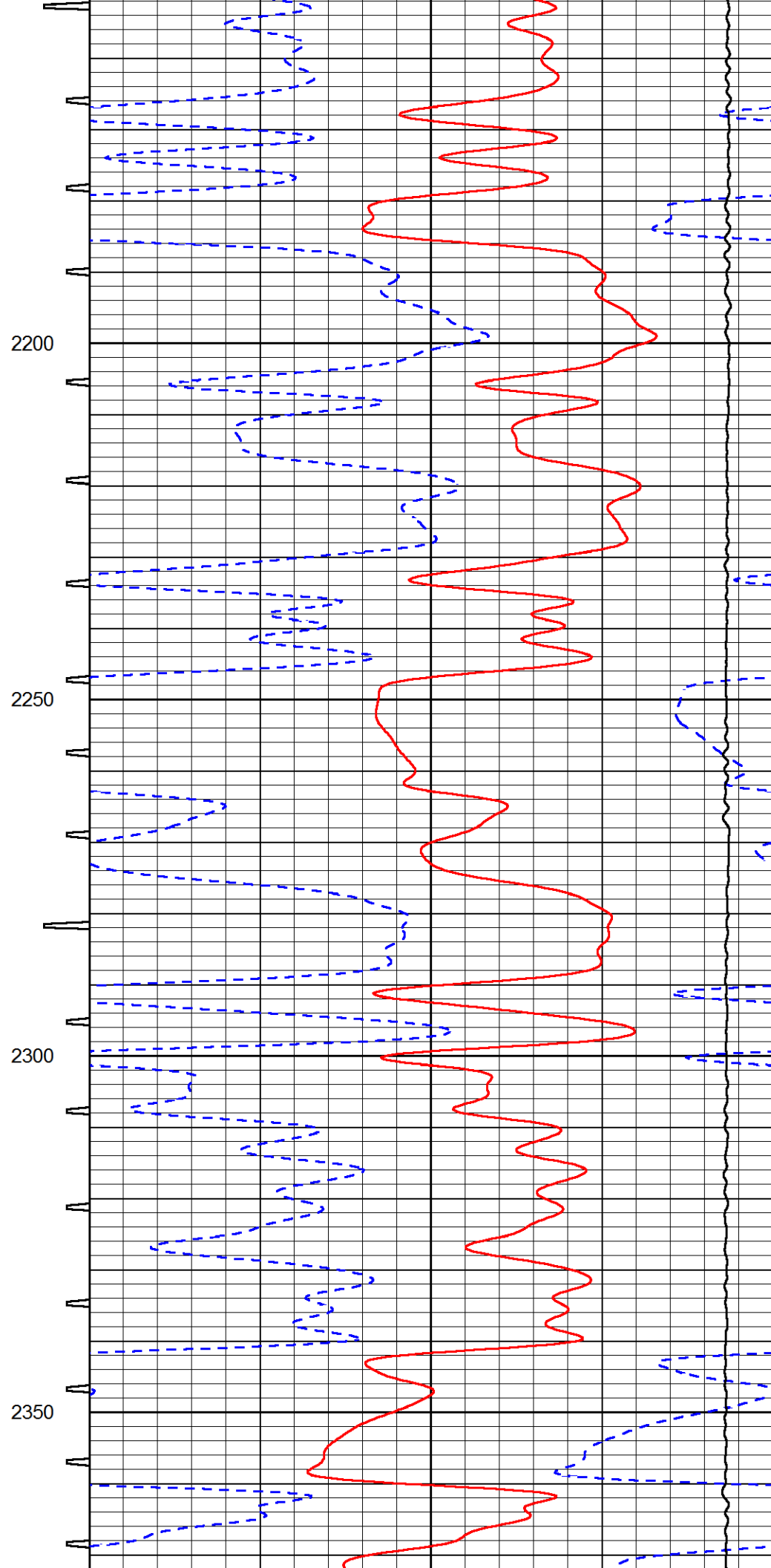
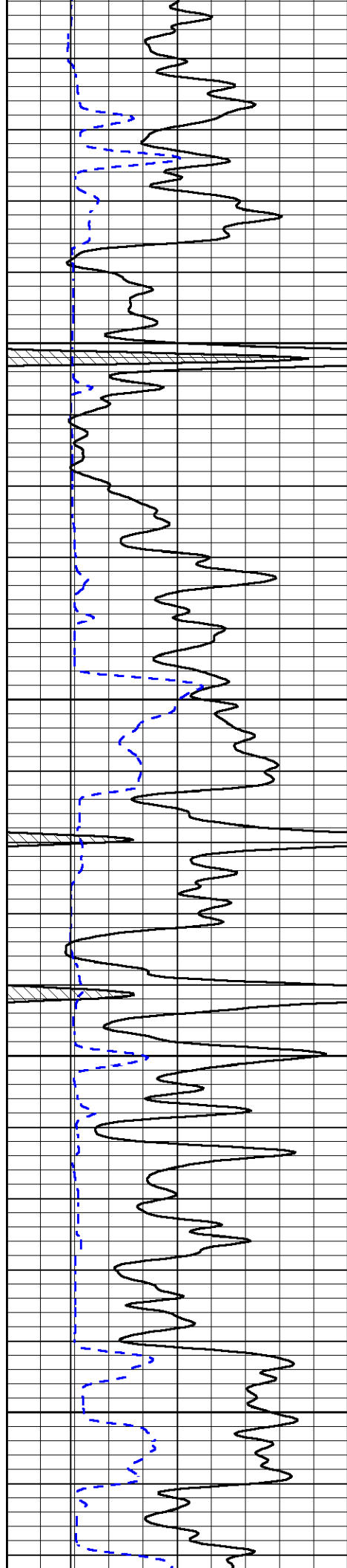


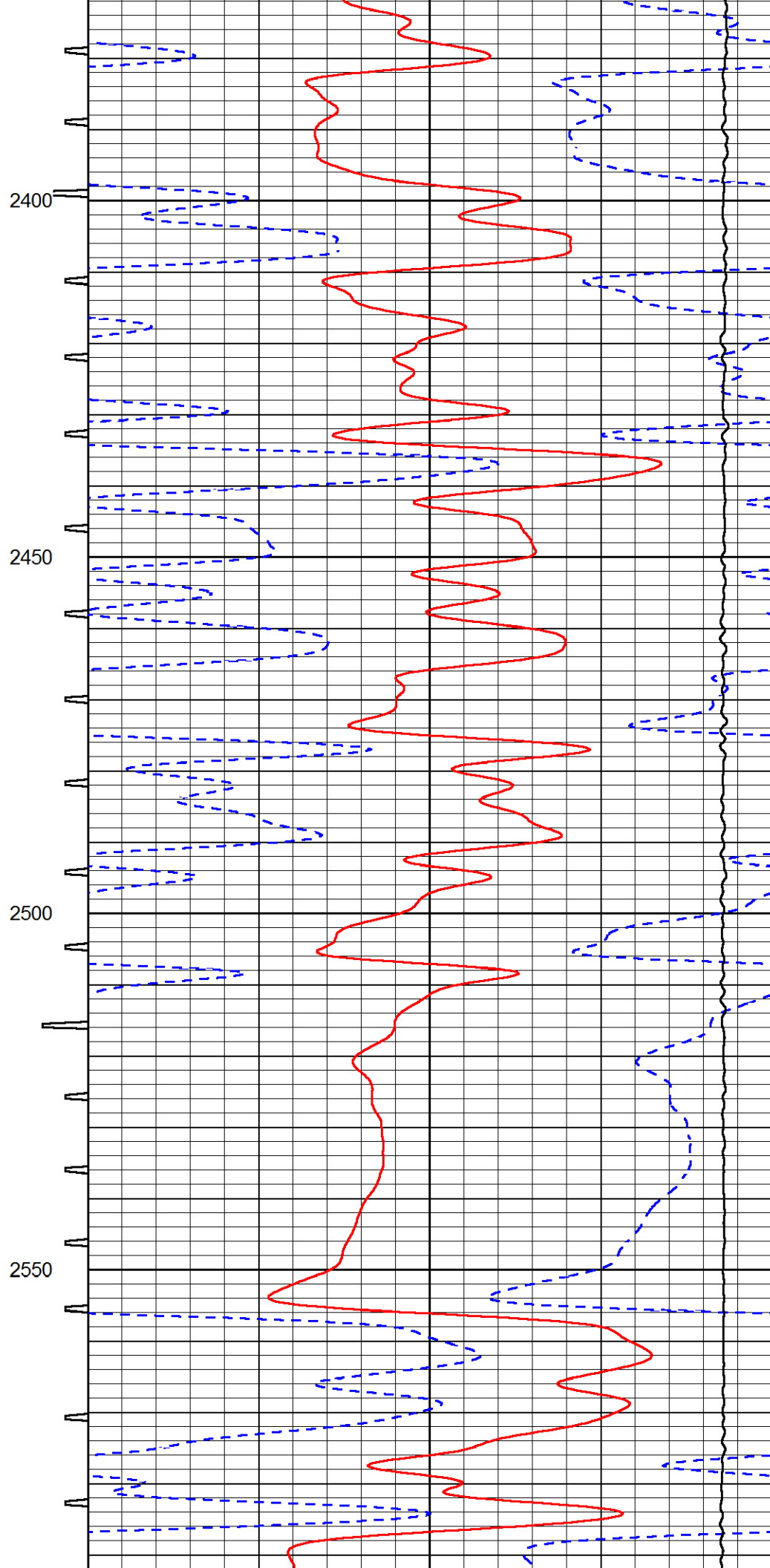
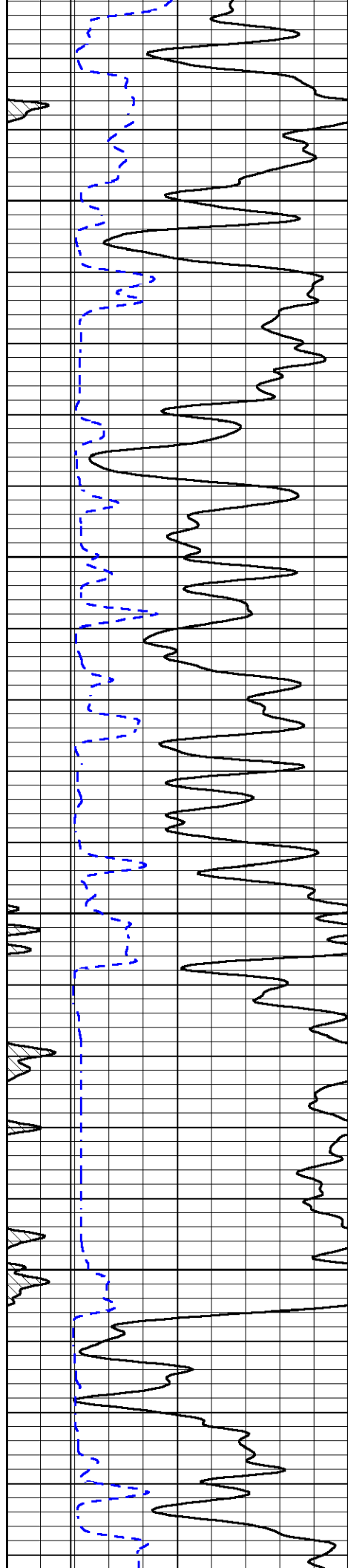


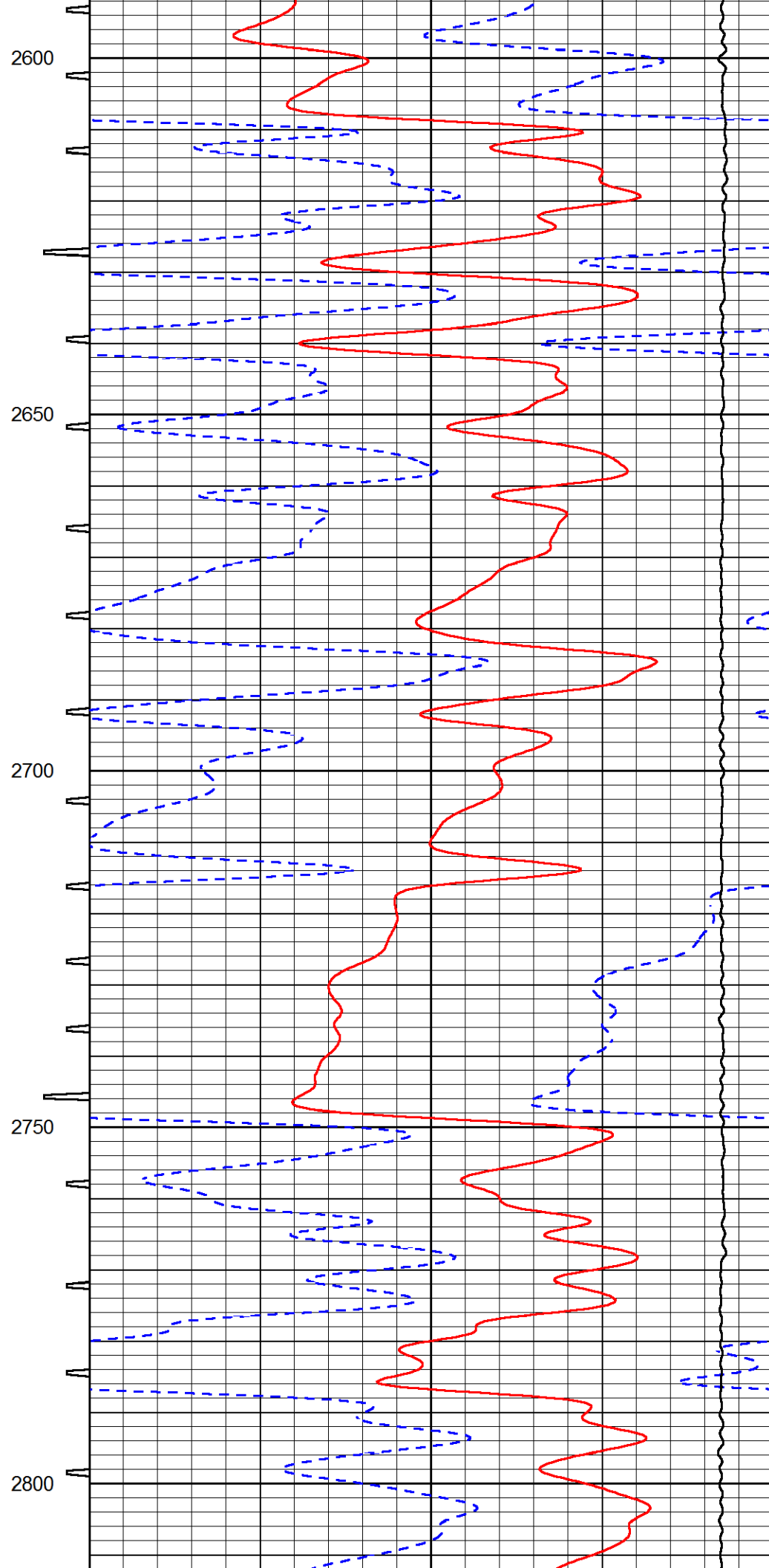
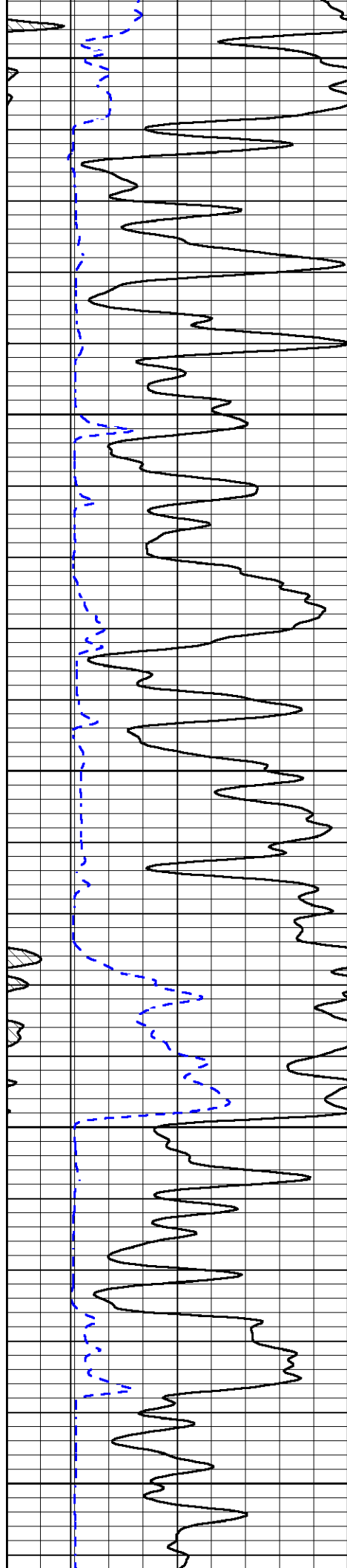


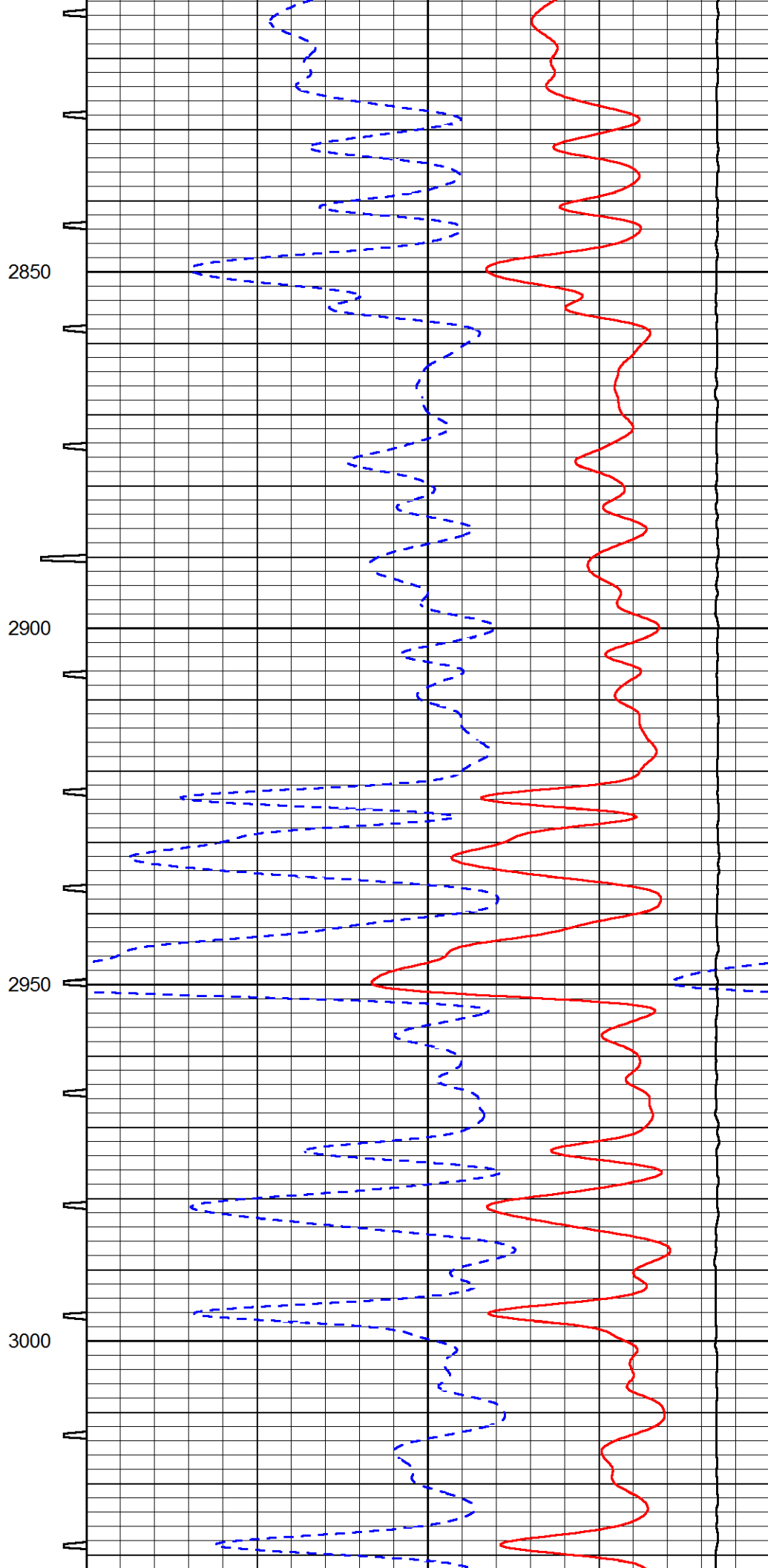
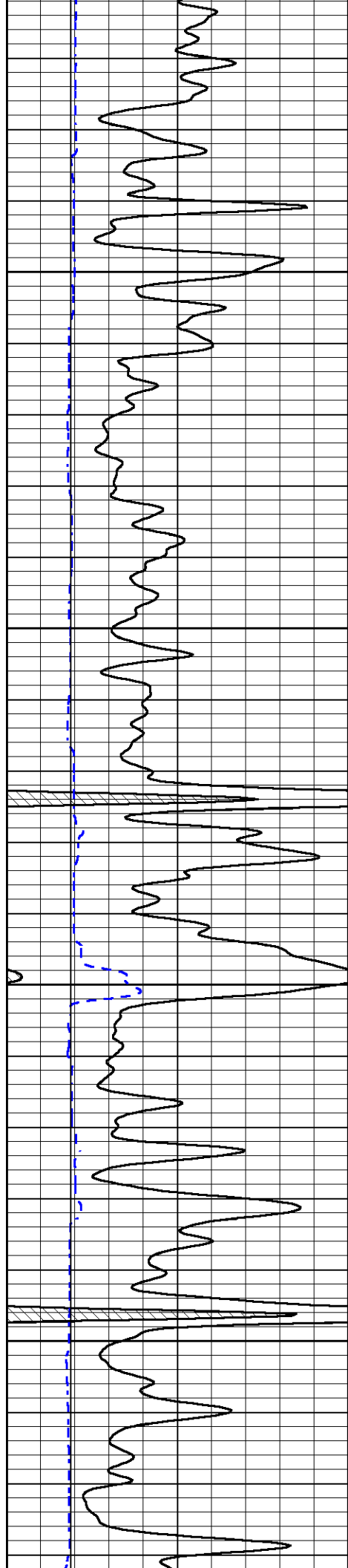


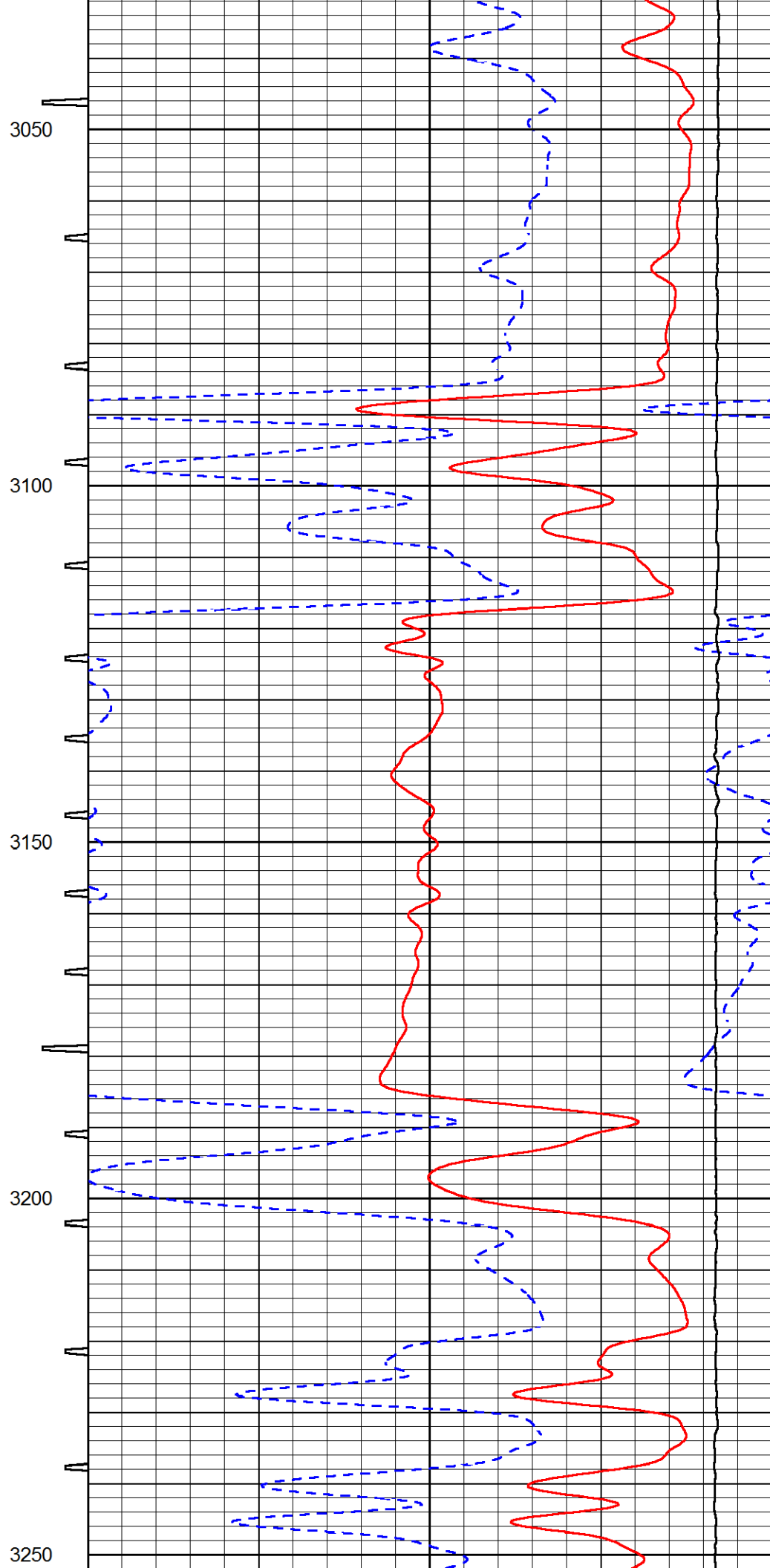
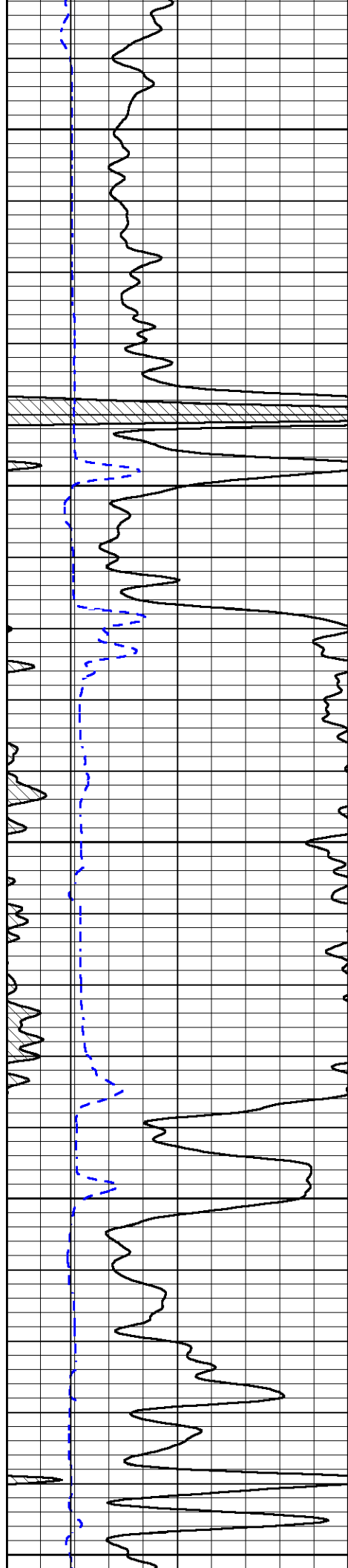


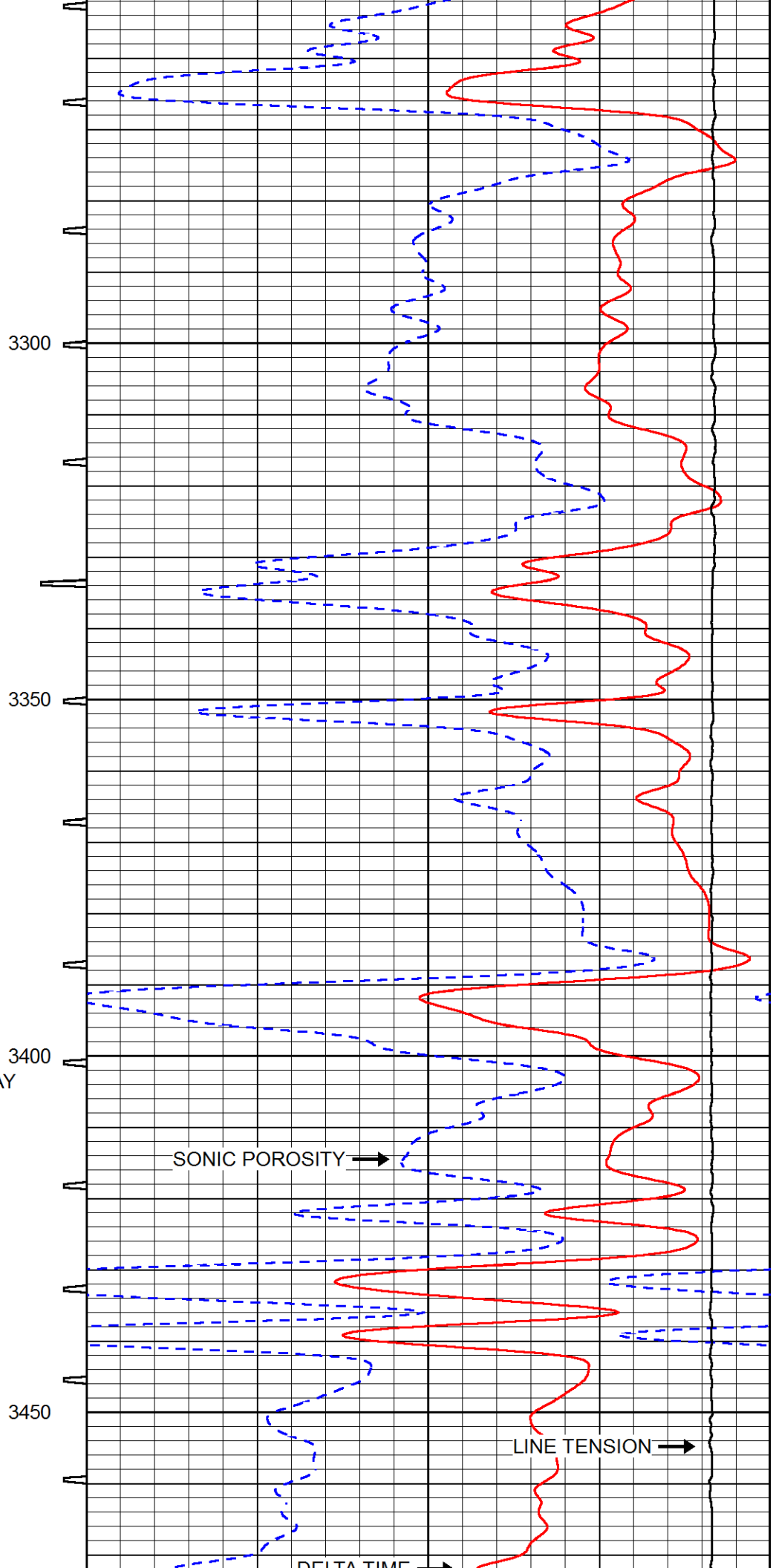
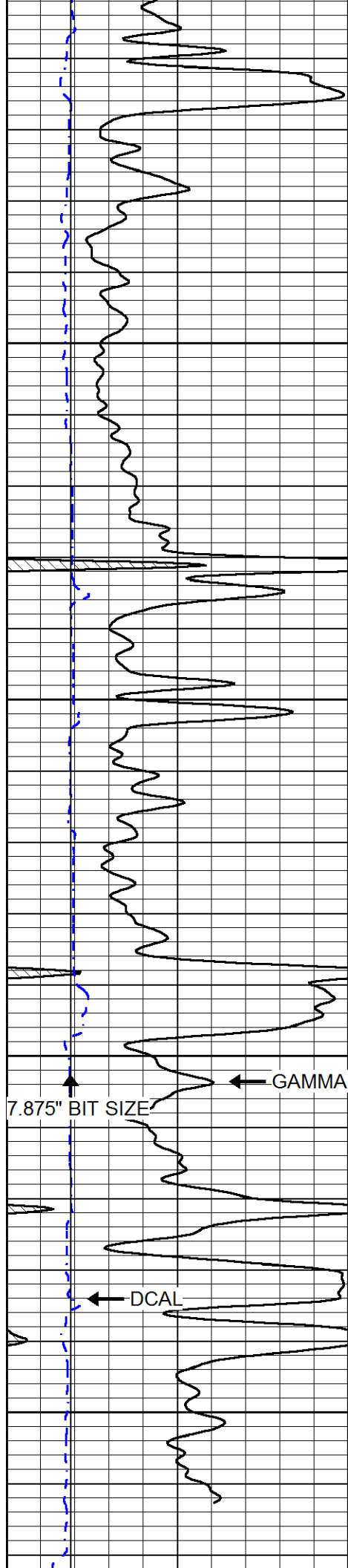


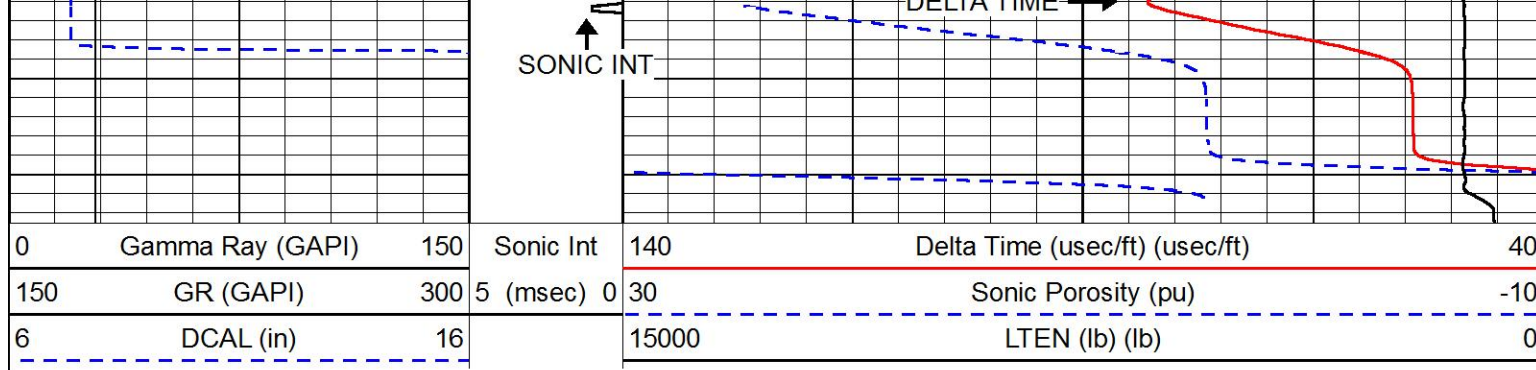






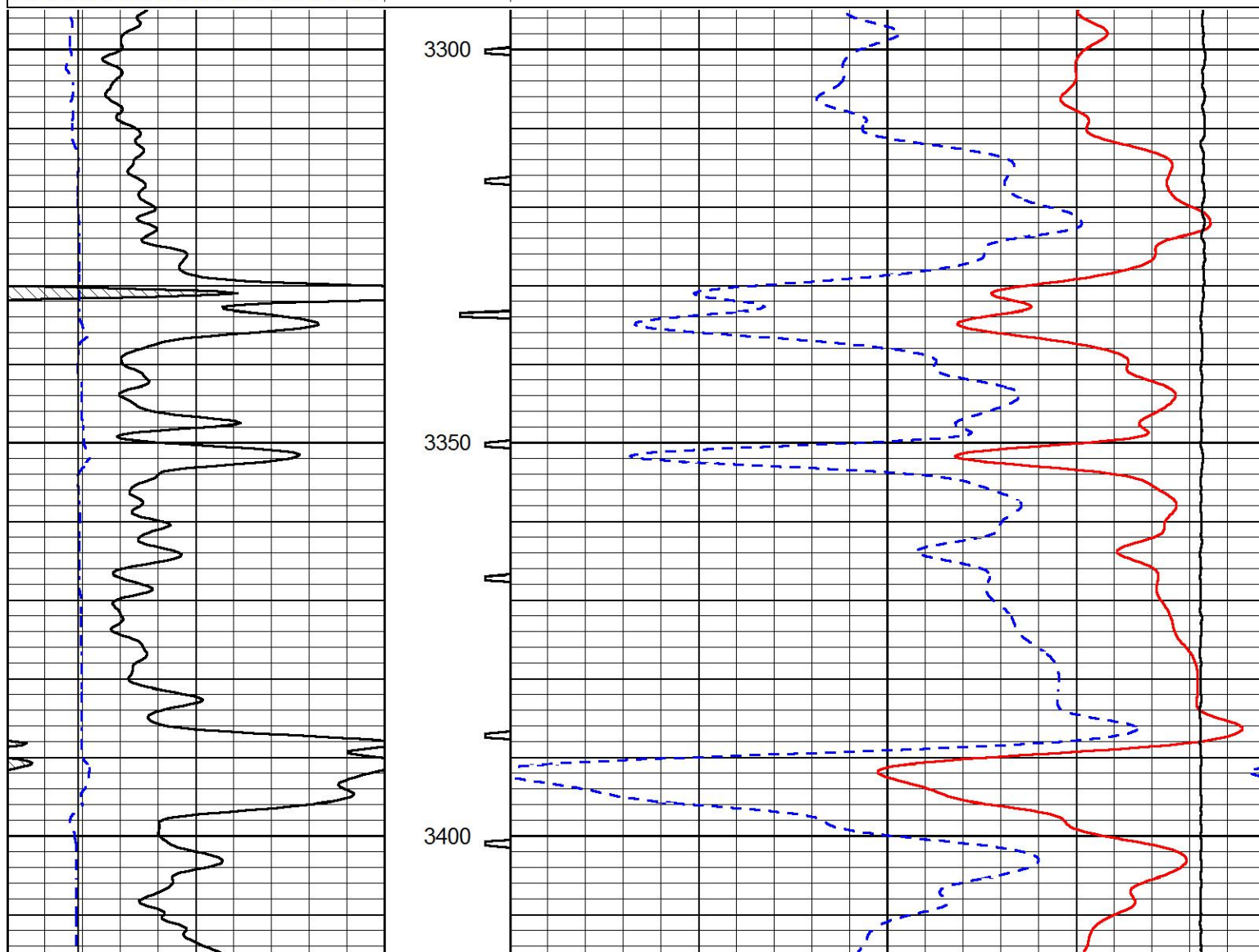
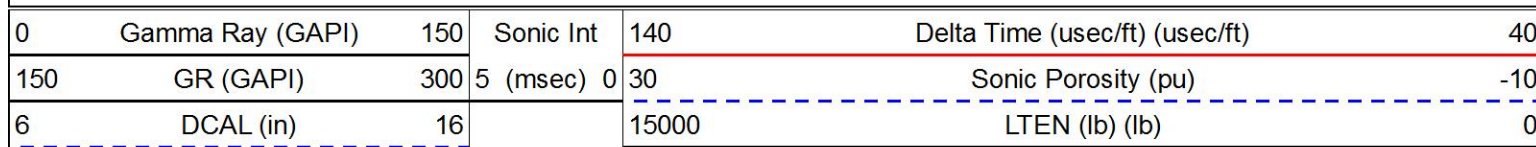


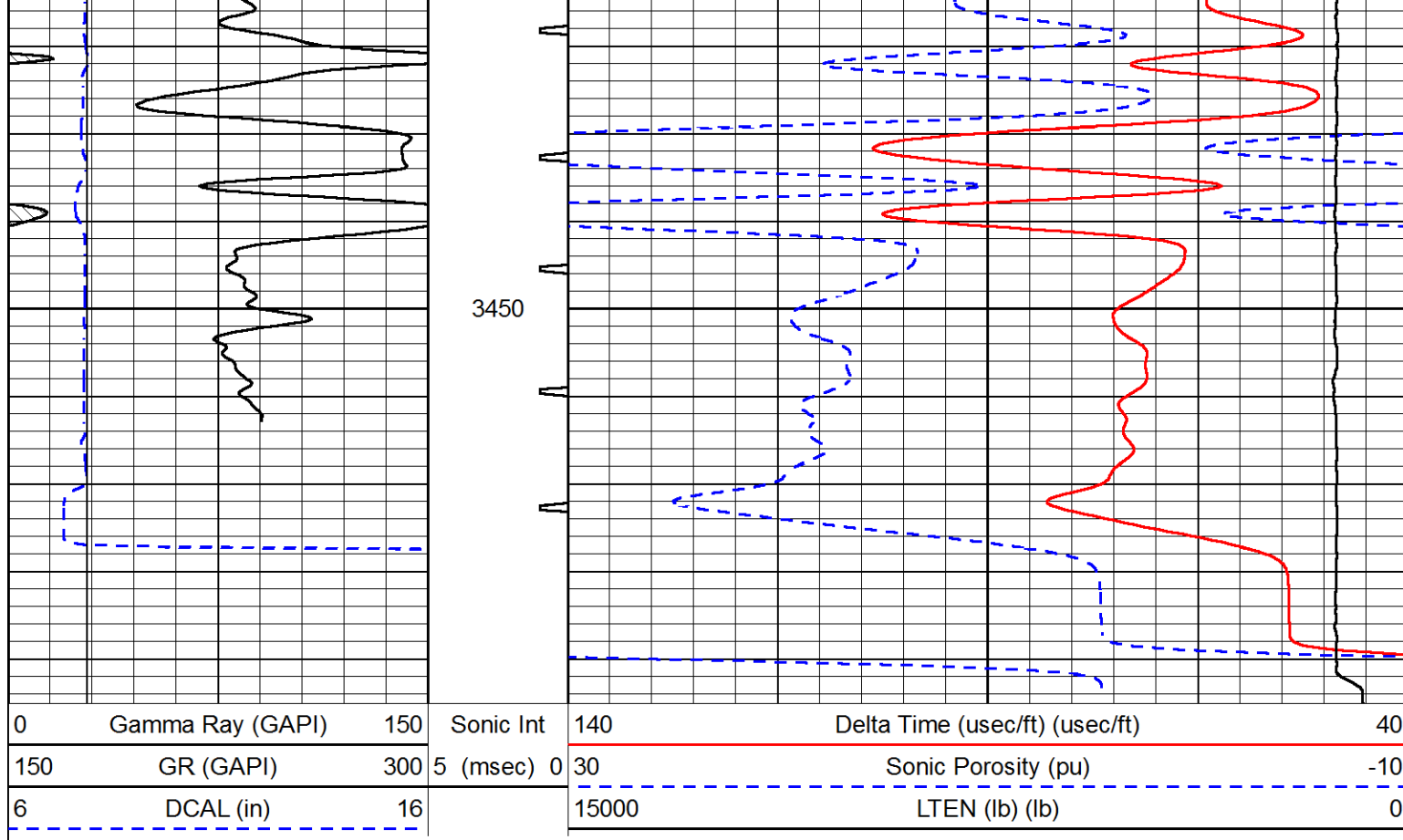




REPEAT SECTION

Database File rjm_fury farms_1.db
 Dataset Pathname STACK/pass2.3
 Presentation Format sonic
 Dataset Creation Thu Oct 06 06:58:44 2016
 Charted by Depth in Feet scaled 1:240





Calibration Report	
Database File	rjm_fury farms_1.db
Dataset Pathname	STACK/pass4.1
Dataset Creation	Thu Oct 06 07:17:29 2016

Dual Induction Calibration Report	
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	
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

Serial Number:	89	
Tool Model:	M&W	
Calibration Performed:	Thu Sep 29 18:47:18 2016	
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