



PIONEER
Pioneer Energy Services

DUAL INDUCTION LOG

CompanyRJM COMPANY		Company	RJM COMPANY
Well	ELVITA #1	Well	ELVITA #1
Field	UNKNOWN	Field	UNKNOWN
County	BARTON	County	BARTON
State	KANSAS	State	KANSAS
Location:		API # : 15-009-26281-00-00	Other Services
Permanent Datum		GROUND LEVEL	Elevation 1849'
Log Measured From		KELLY BUSHING	K.B. 1858'
Drilling Measured From		KELLY BUSHING	D.F. N/A
			G.L. 1849'
Date	11/10/2019		
Run Number	ONE		
Depth Driller	3430'		
Depth Logger	3432'		
Bottom Logged Interval	3431'		
Top Log Interval	300'		
Casing Driller	8.625" @ 347'		
Casing Logger	346'		
Bit Size	7.875"		
Type Fluid in Hole	CHEMICAL		
Salinity ,ppm CL	10,000		
Density / Viscosity	9.1 45		
pH / Fluid Loss	10.0 8.4		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.30 @ 67		
Rmt @ Meas. Temp	.26 @ 67		
Rmc @ Meas. Temp	.47 @ 67		
Source of Rmt / Rmc	CHARTS		
Rm @ BHT	.21 @ 110		
Operating Rig Time	2 HOURS		
Max Rec. Temp. F	110 DEGF		
Equipment Number	P-108		
Location	HAYS		
Recorded By	J. HENRICKSON		
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.

CLAFLIN KANSAS

3 WEST TO 100 RD, 2 NORTH, 1/8 EAST, NORTH INTO

Log Measured From: KELLY BUSHING 9 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: WYATT URBAN

Secondary Witness:

Secondary Witness:

Secondary Witness:

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in 7.875	degF 100	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 305	degF 0	Off	ft 0

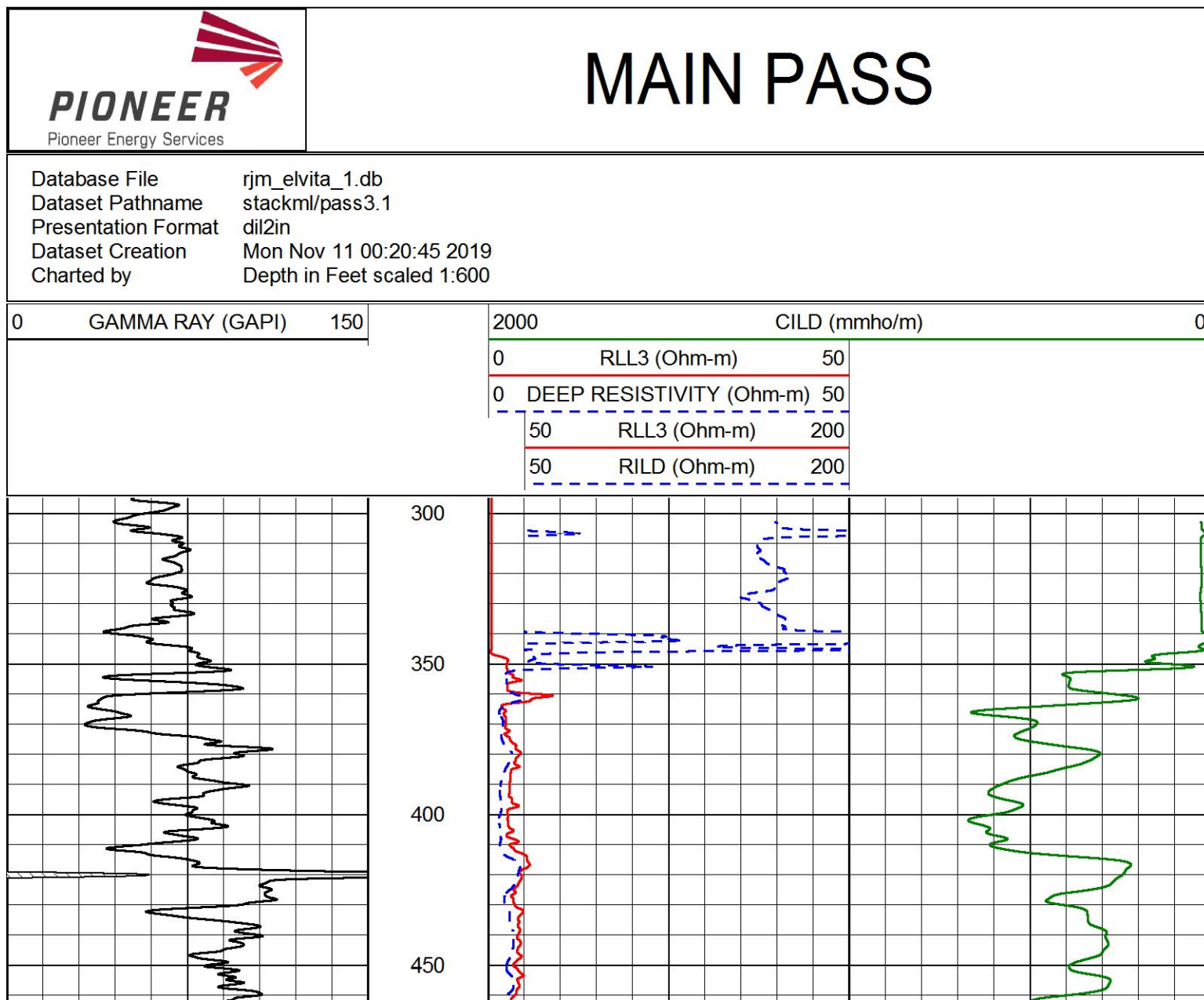
Variable Description

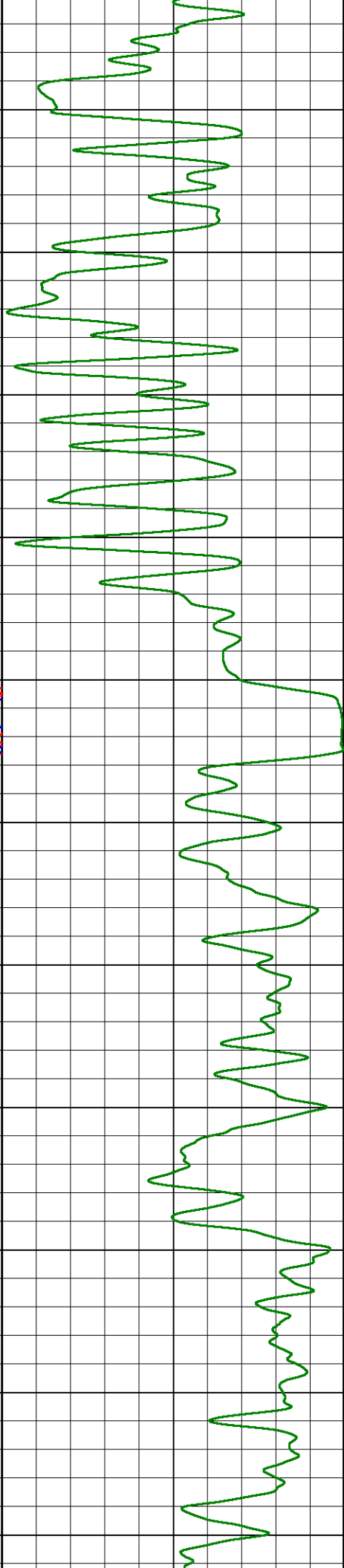
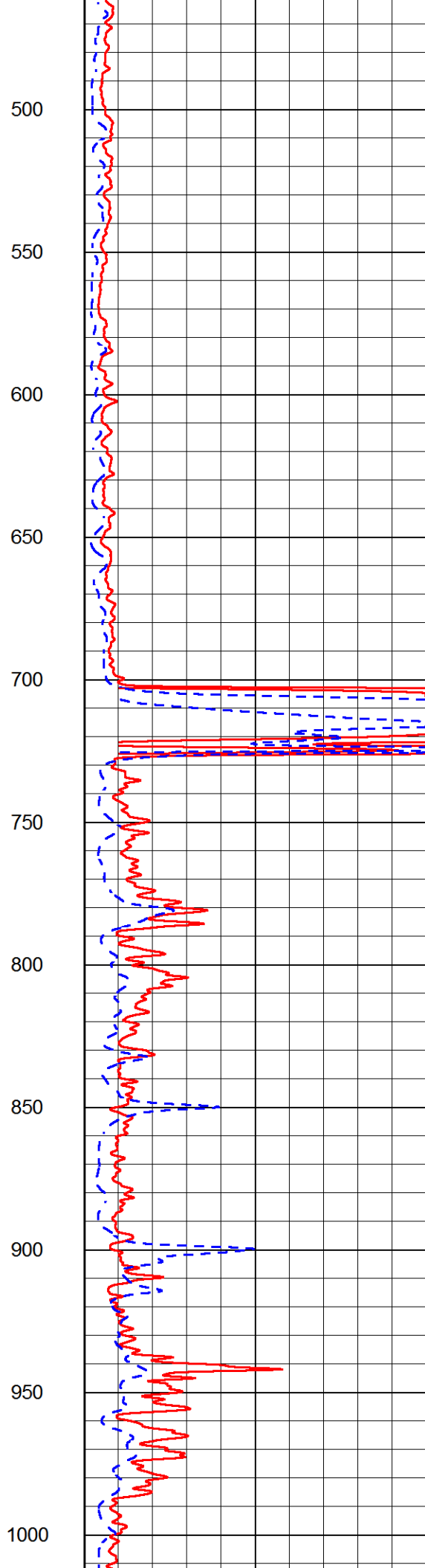
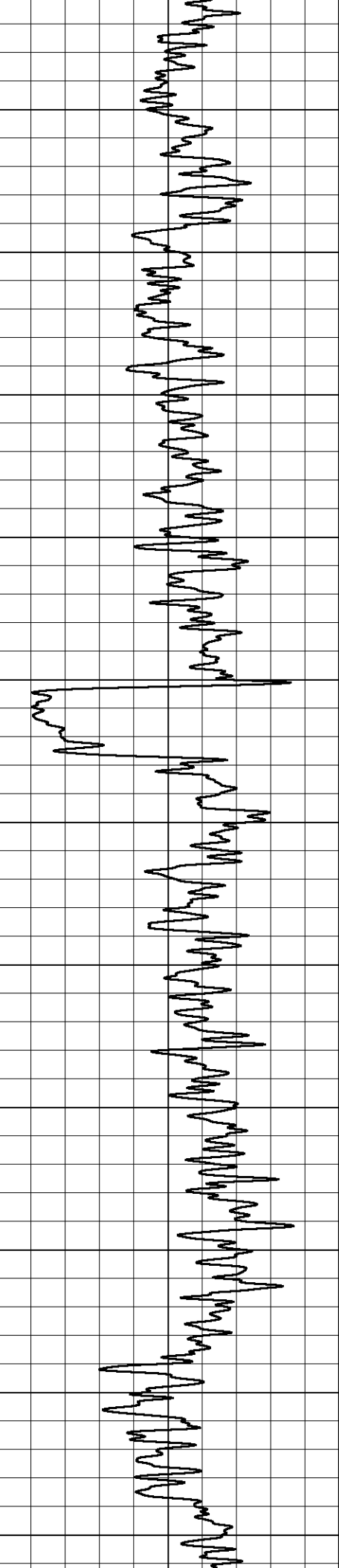
A : Cement Factor (a)
BOREID : Borehole I.D.
BOTTEMP : Bottom Hole Temperature
CASEOD : Casing O.D.
CASETHCK : Casing Thickness
FLUIDDEN : Fluid Density
M : Cement Exp (m)
MATRXDEN : Matrix Density

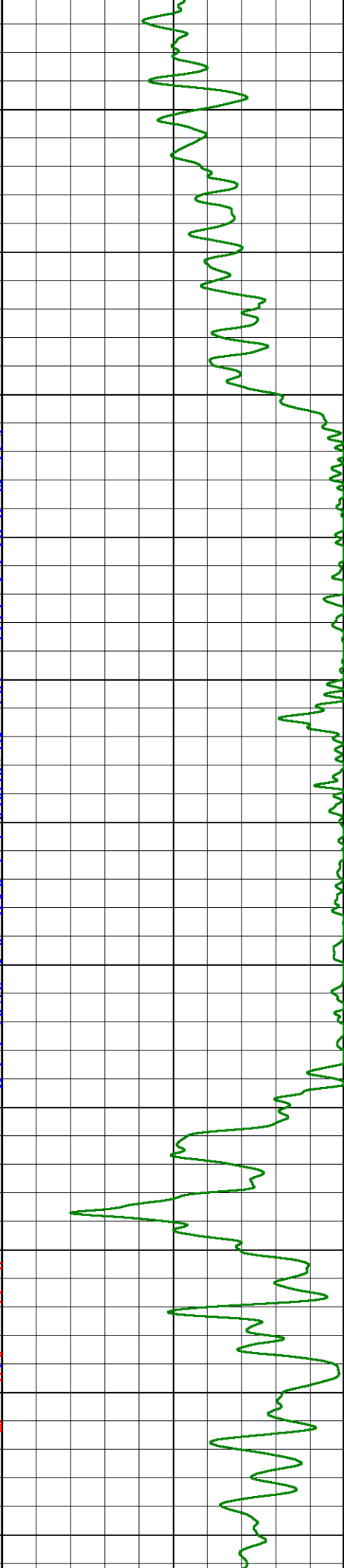
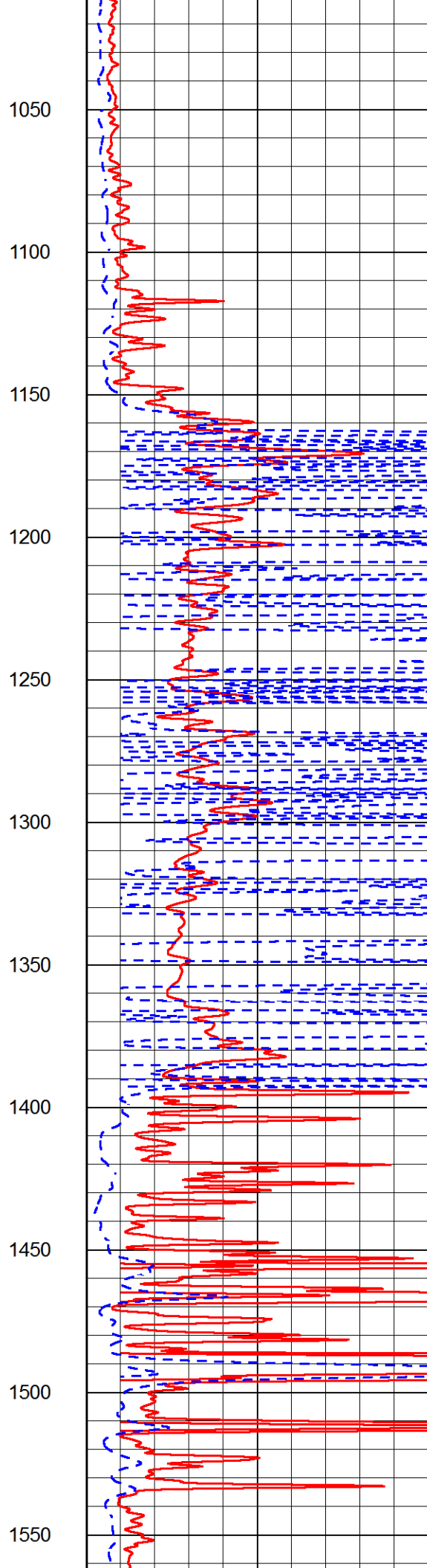
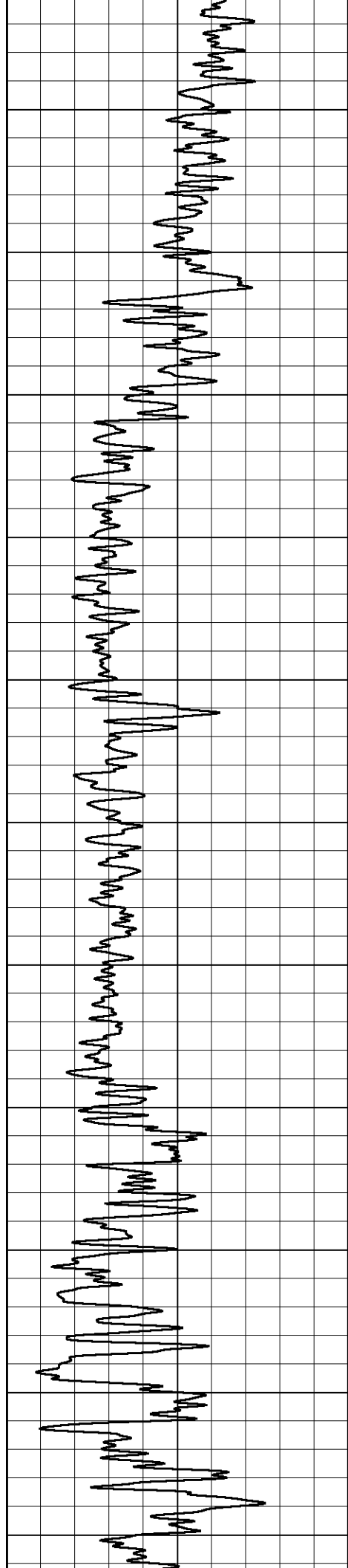
NPORSEL : Neutron Porosity Curve Select
PERFS : Perforation Flag
SNDERR : Deep Sonde Error Correction
SNDERRM : Medium Sonde Error Correction
SPSHIFT : S.P. Baseline Offset
SRFTEMP : Surface Temperature
SZCOR : CN Size Cor. ?
TDEPTH : Total Depth

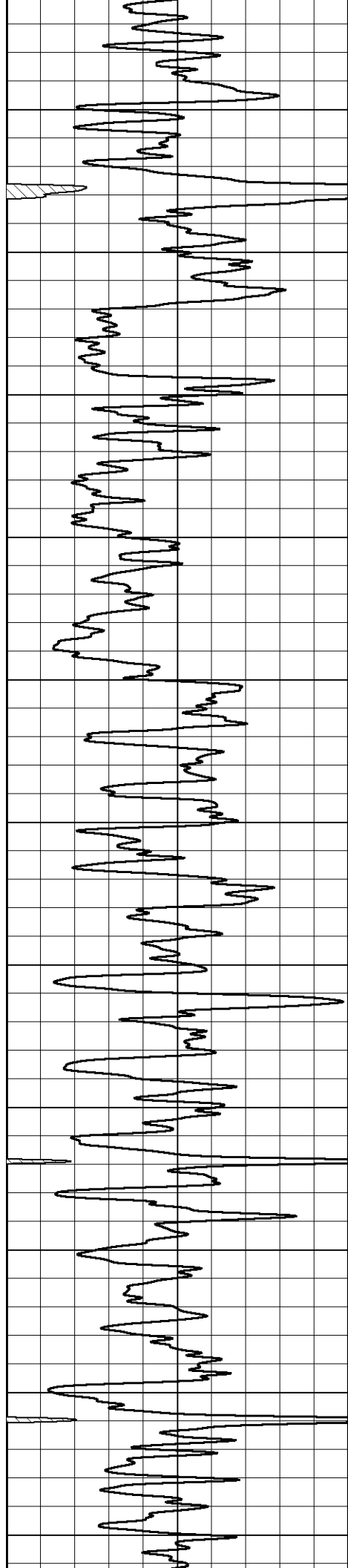
Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	44.50		GR-M&W (89-M&W)	3.00	3.50	50.00
CNLSC	41.40		CNT-M&W (tk10-MW)	5.50	3.50	100.00
CNSSC	40.65					
			CDL-M&W (979-229)	8.50	4.00	250.00
LSD	32.35					
DCAL	32.33					
SSD	31.85					
			ML-PSI UDM ML (UDM-01) Stackable Microlog Tools	11.50	4.00	215.00
MCAL	20.87					
MI	20.87					
MN	20.87					
RLL3	15.80					

RLL3F	15.79					
CILD	8.00		DIL-M&W (55-222)	18.50	3.50	220.00
CILM	4.70					
SP	0.20					
Dataset: rjm_elvita_1.db: field/well/stackml/pass3.1 Total length: 47.00 ft Total weight: 835.00 lb O.D.: 4.00 in						

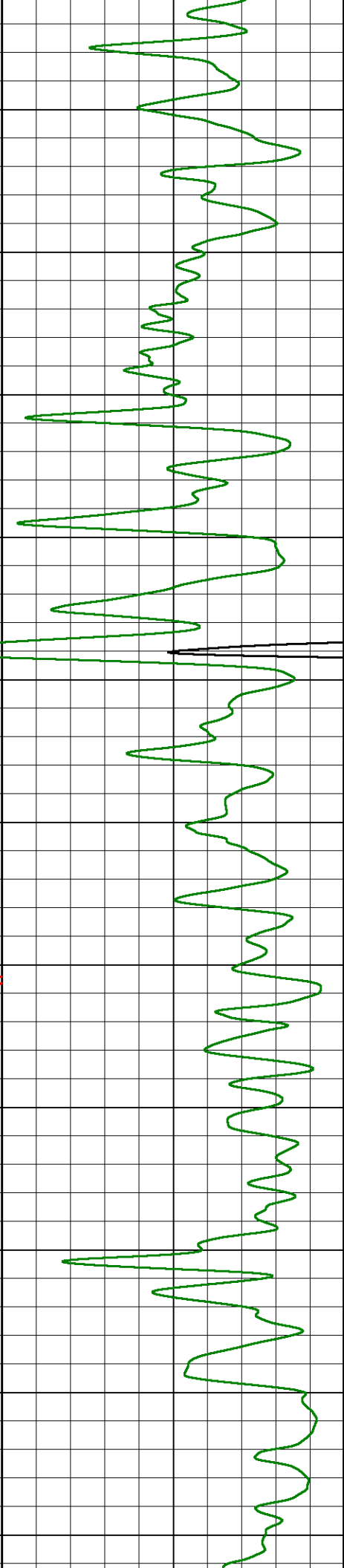
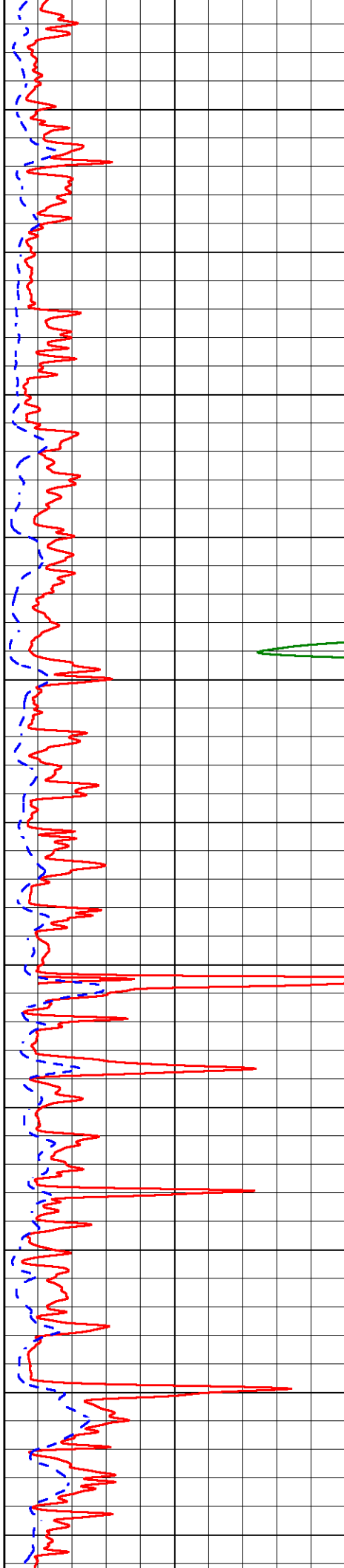


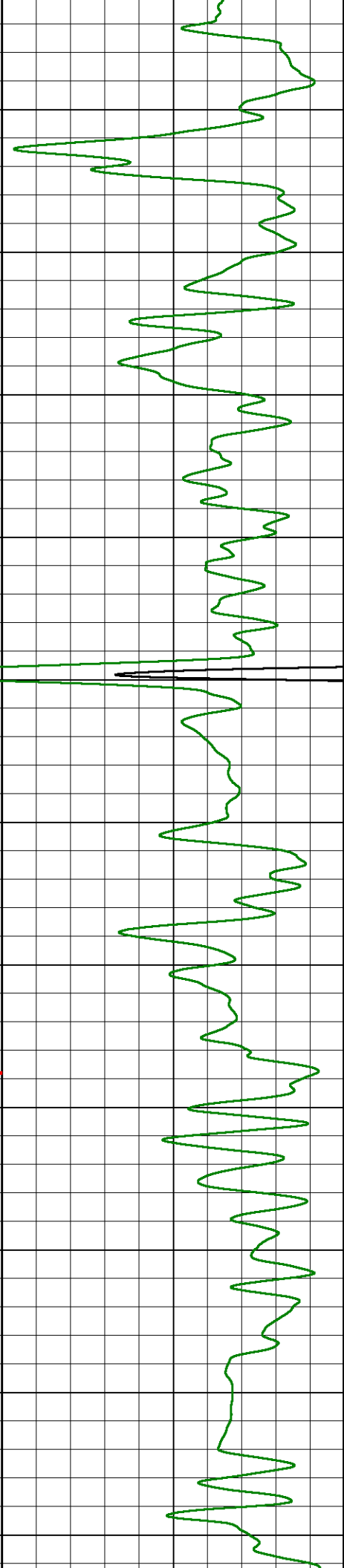
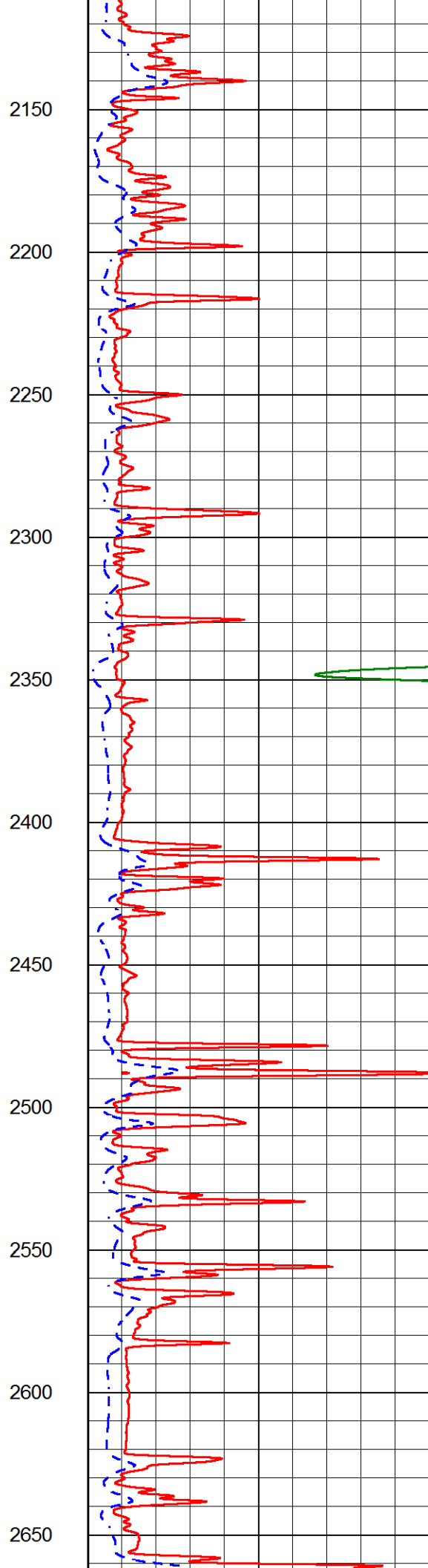
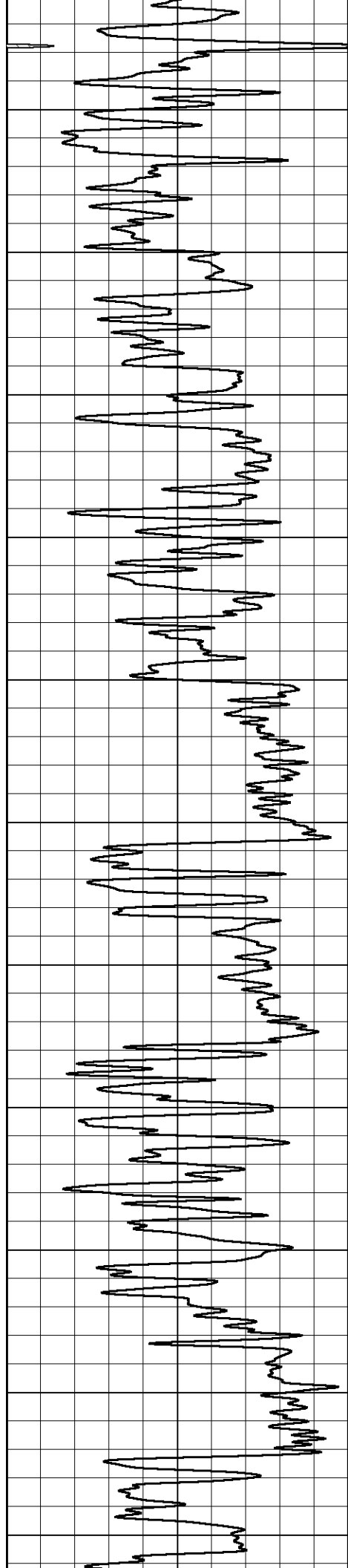


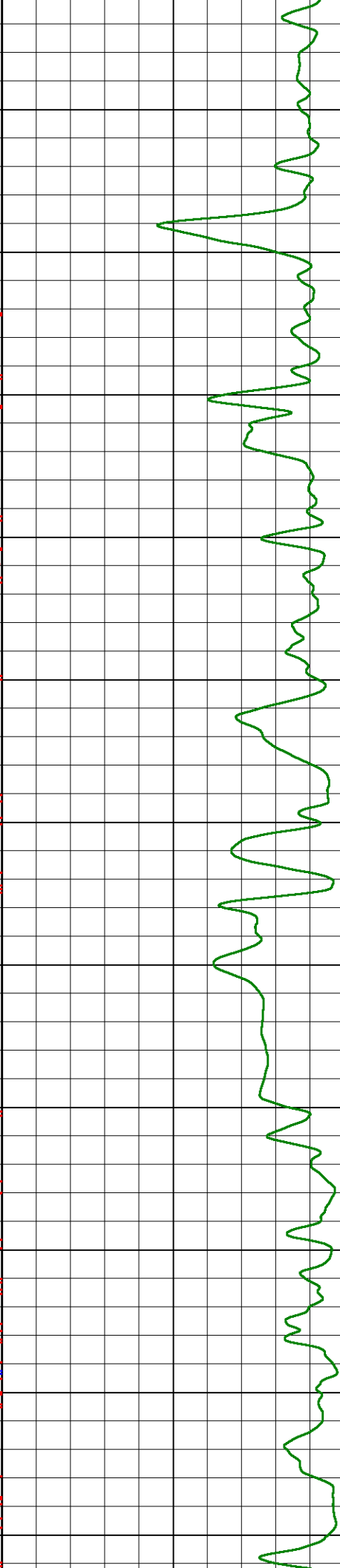
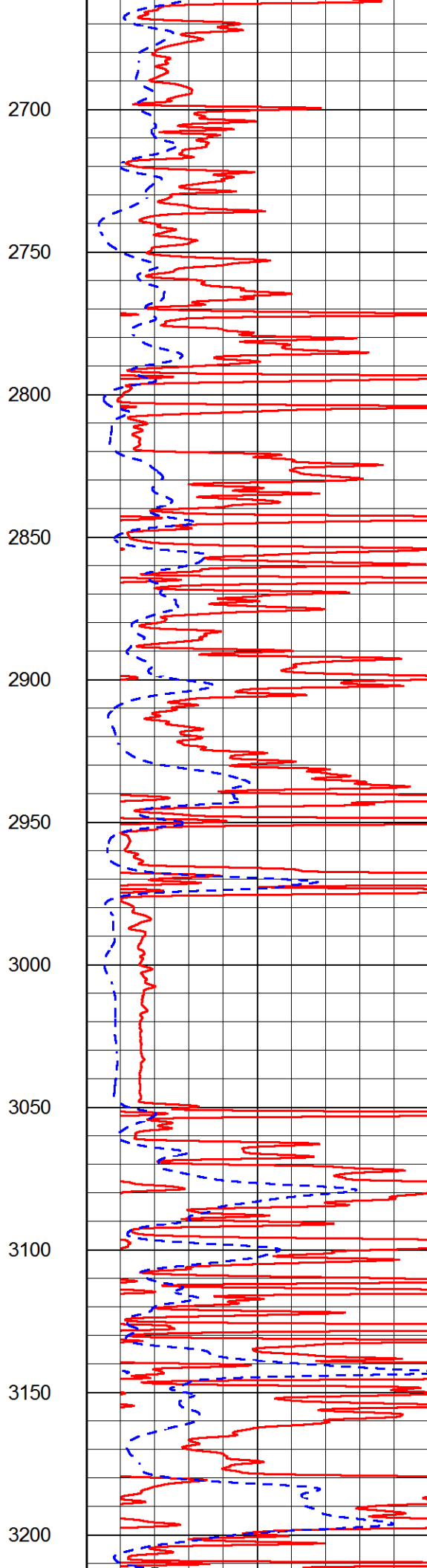
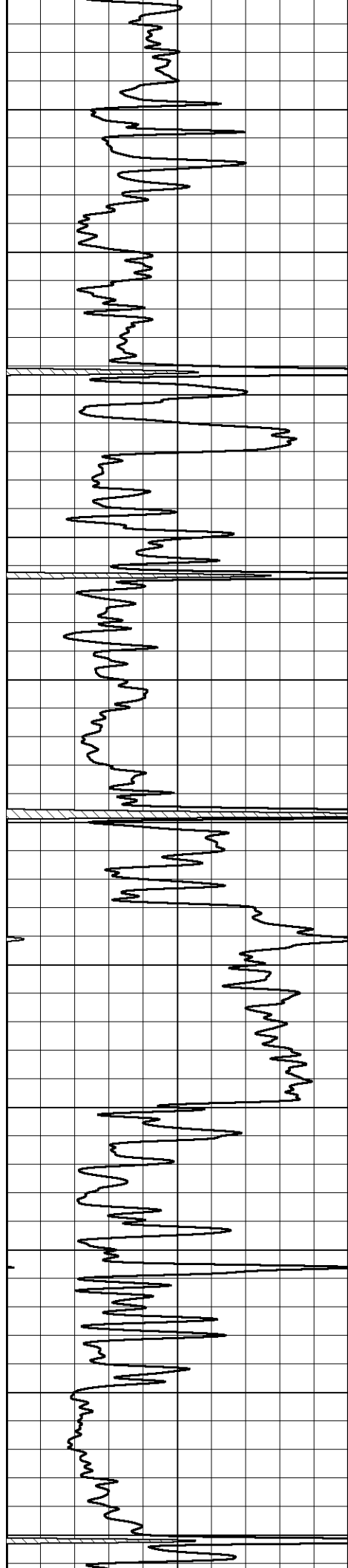


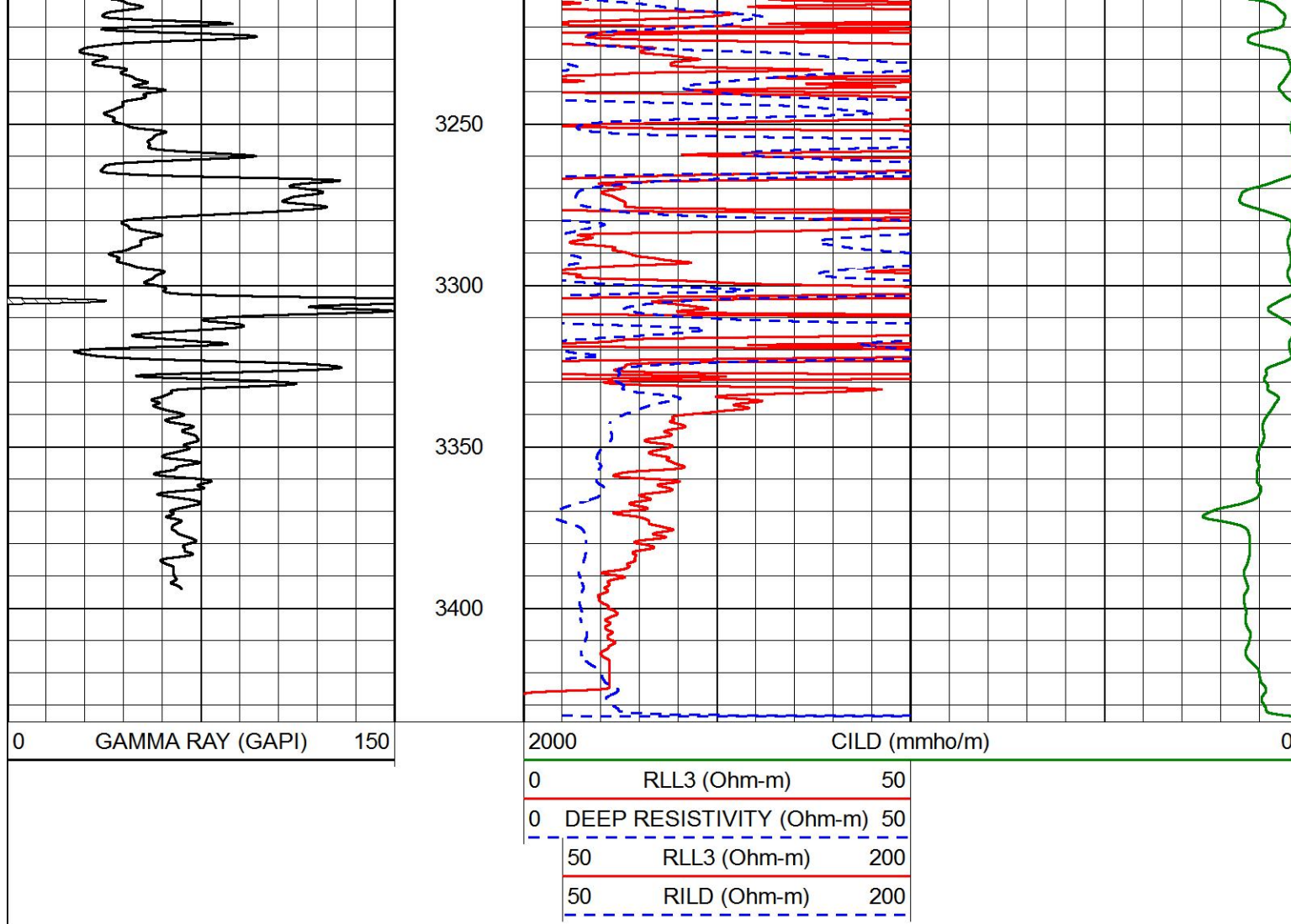


1600
1650
1700
1750
1800
1850
1900
1950
2000
2050
2100





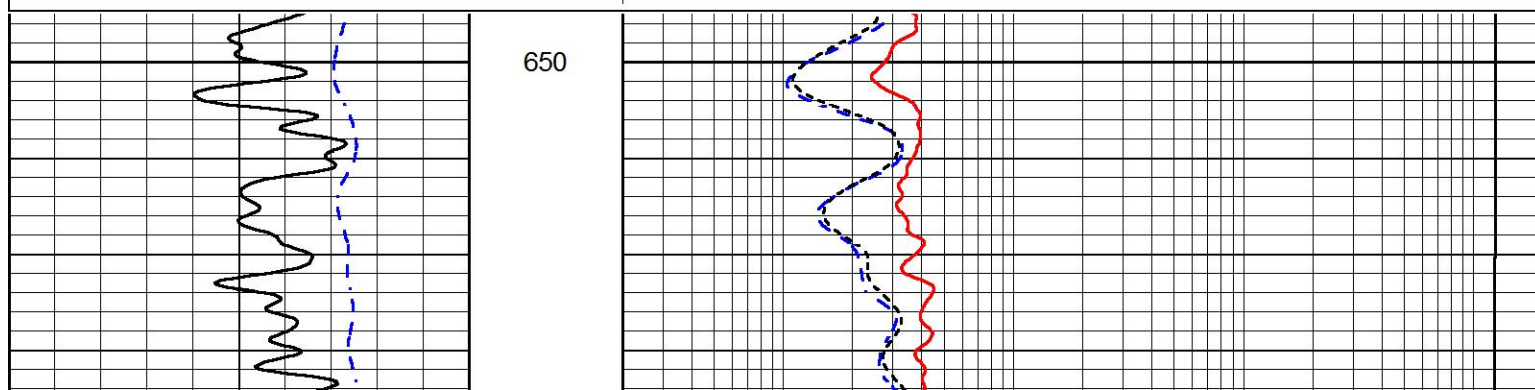


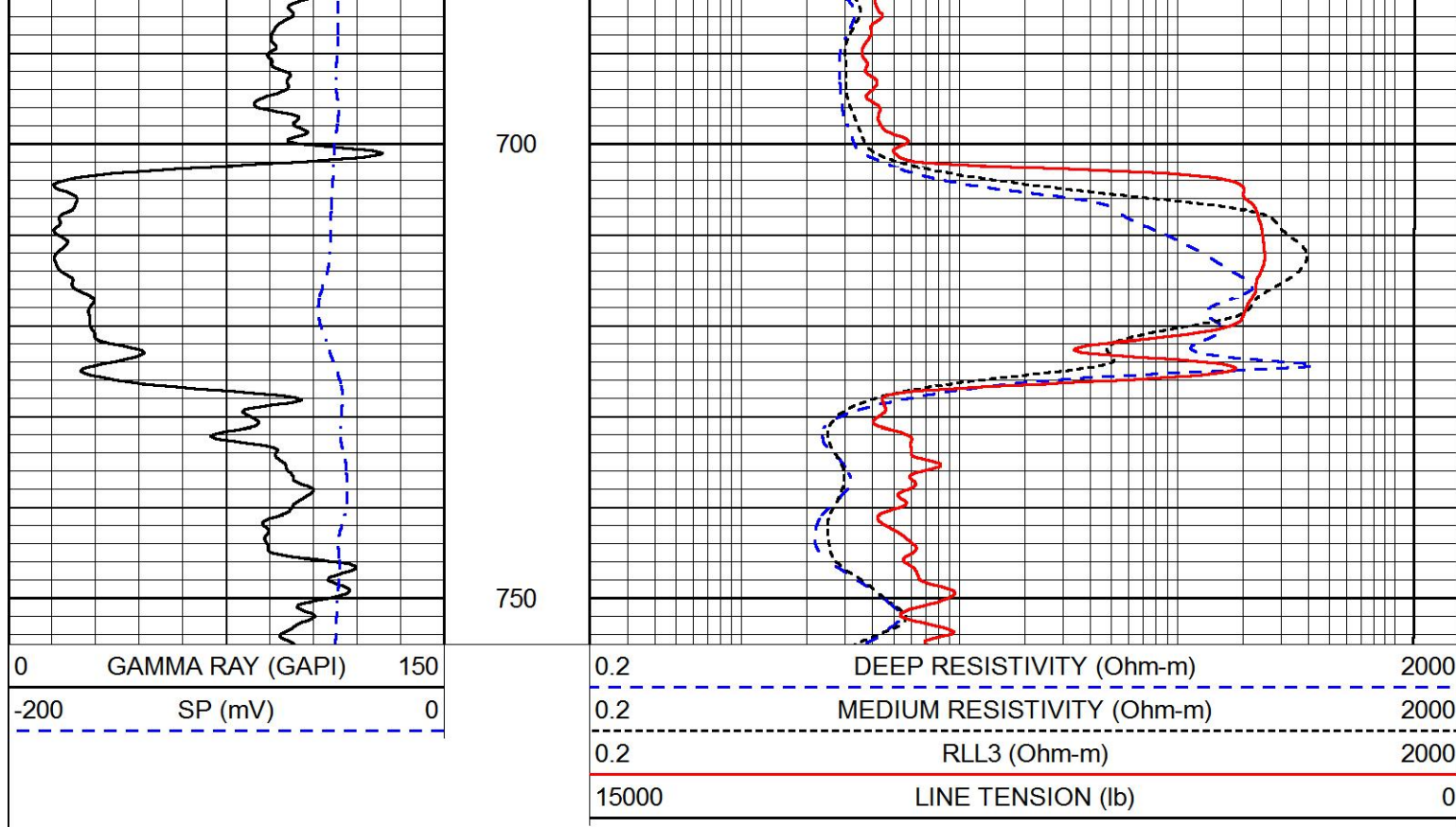


MAIN PASS

Database File	rjm_elvita_1.db
Dataset Pathname	stackml/pass3.1
Presentation Format	dil
Dataset Creation	Mon Nov 11 00:20:45 2019
Charted by	Depth in Feet scaled 1:240

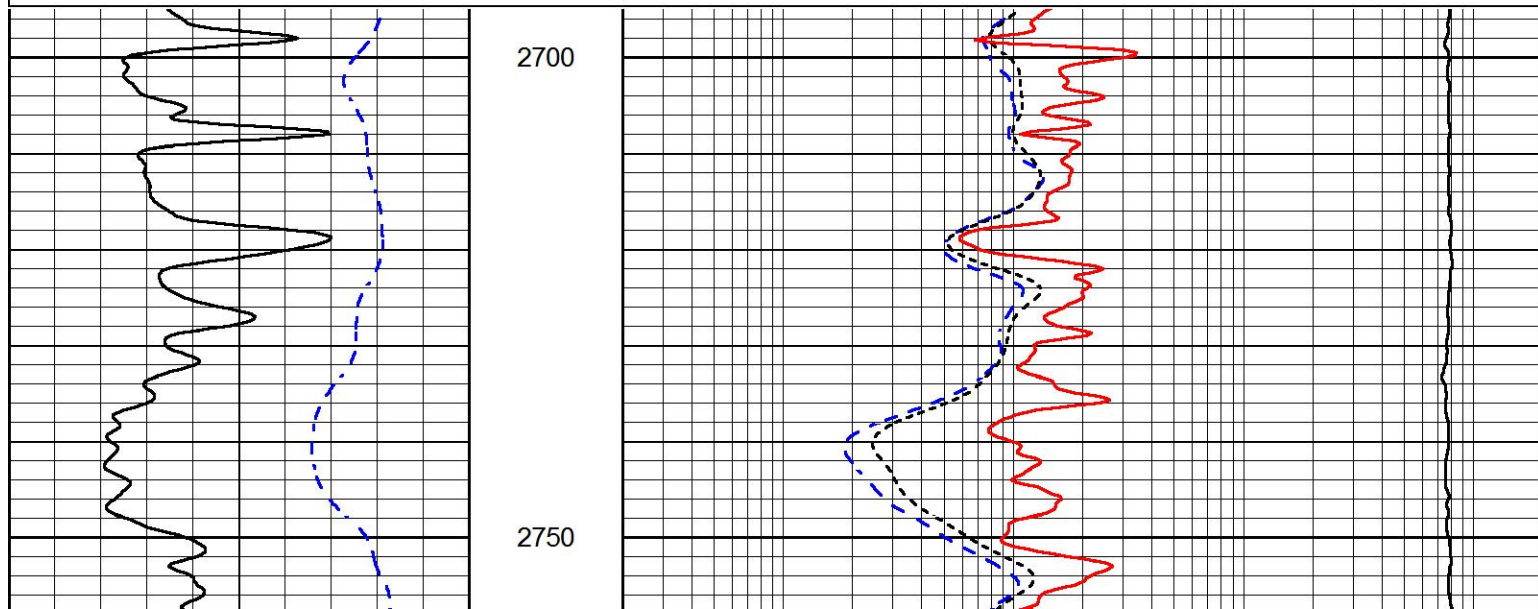
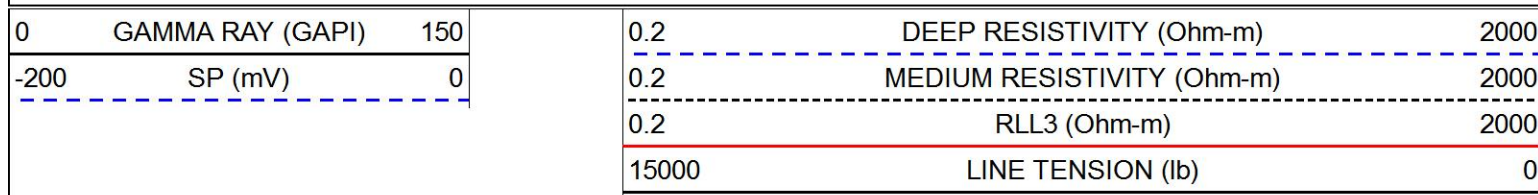
0 GAMMA RAY (GAPI) 150	0.2 DEEP RESISTIVITY (Ohm-m) 2000	
-200 SP (mV) 0	0.2 MEDIUM RESISTIVITY (Ohm-m) 2000	
	0.2 RLL3 (Ohm-m) 2000	
	15000 LINE TENSION (lb) 0	

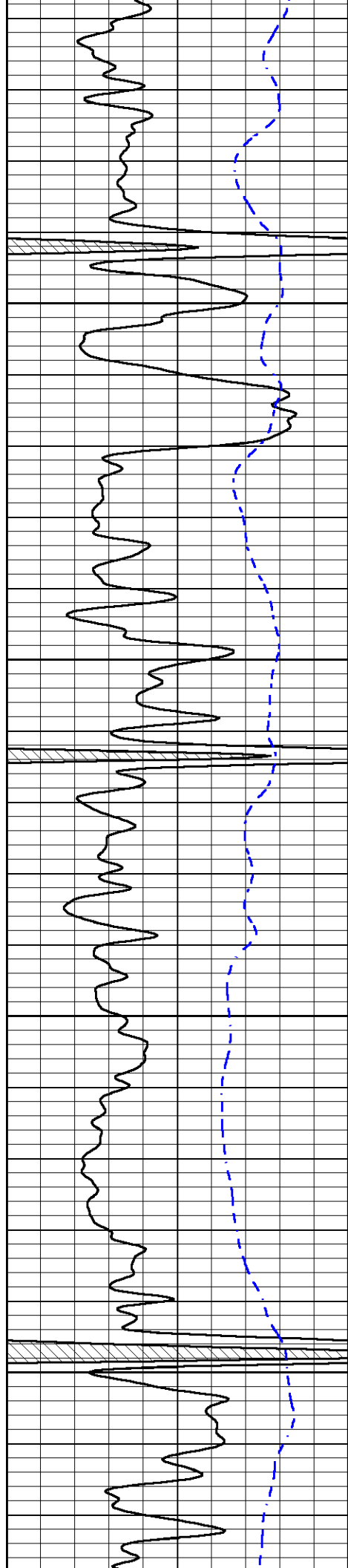




MAIN PASS

Database File rjm_elvita_1.db
 Dataset Pathname stackml/pass3.1
 Presentation Format dil
 Dataset Creation Mon Nov 11 00:20:45 2019
 Charted by Depth in Feet scaled 1:240



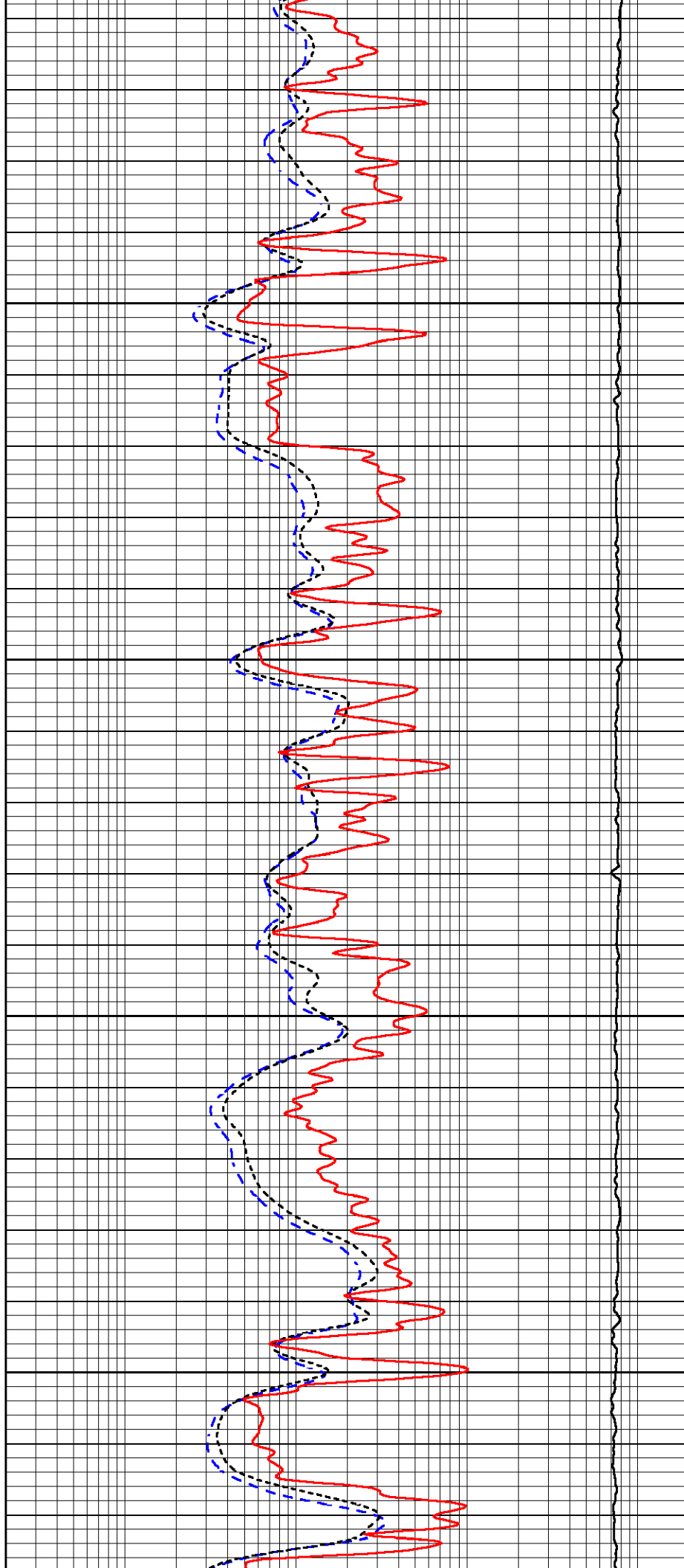


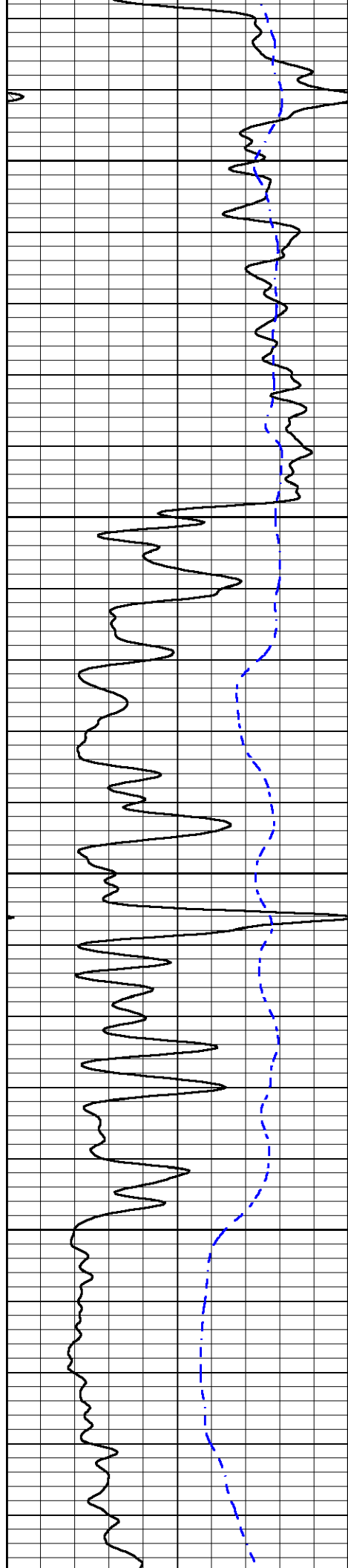
2800

2850

2900

2950



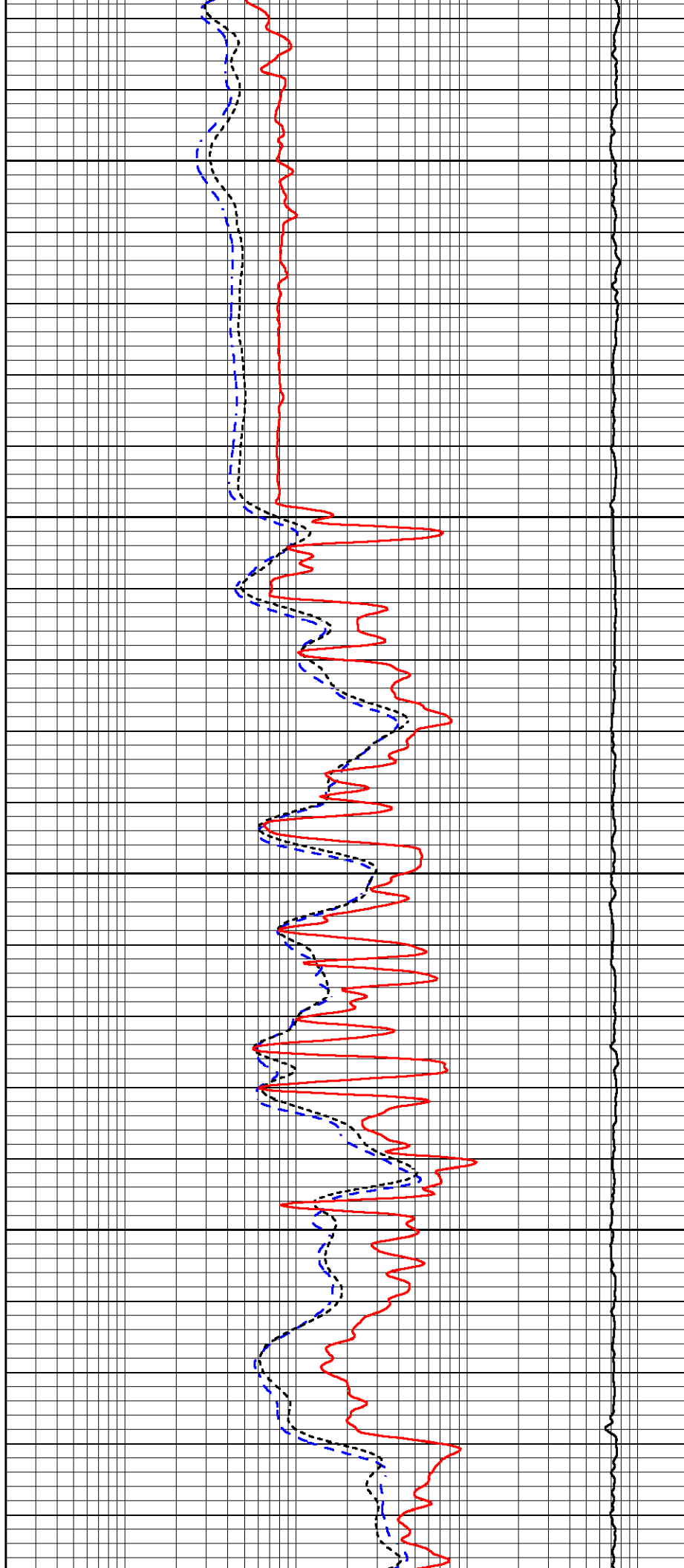


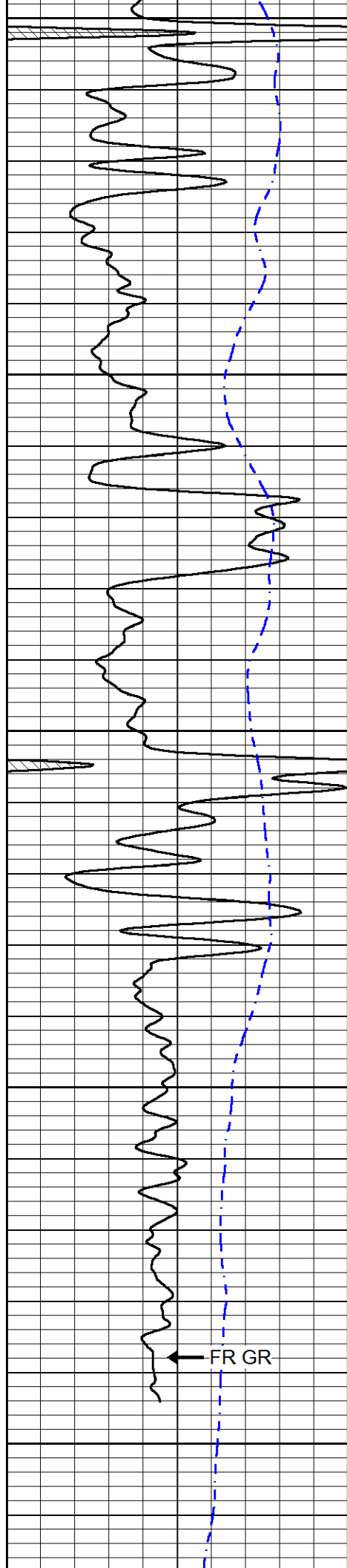
3000

3050

3100

3150





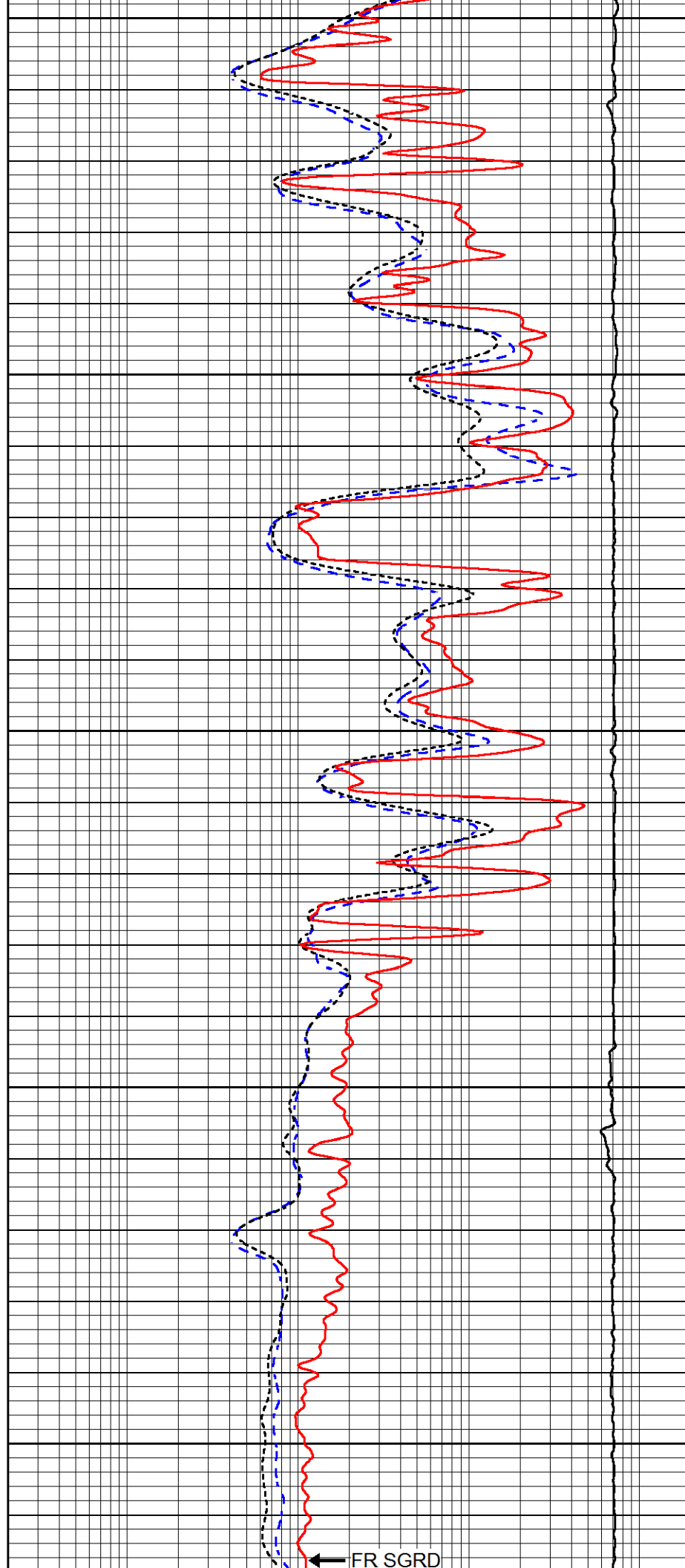
3200

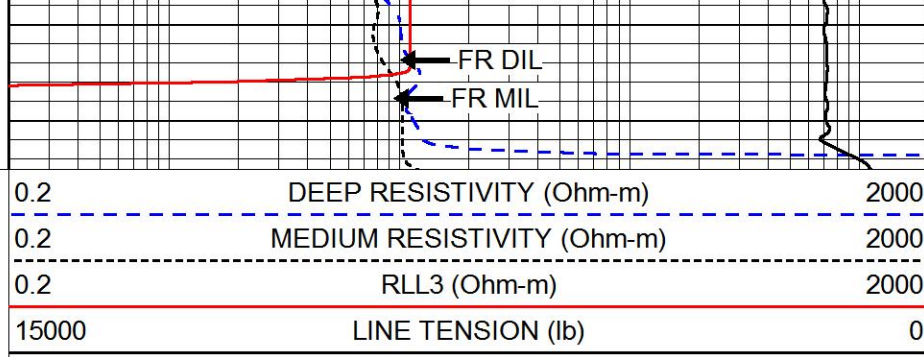
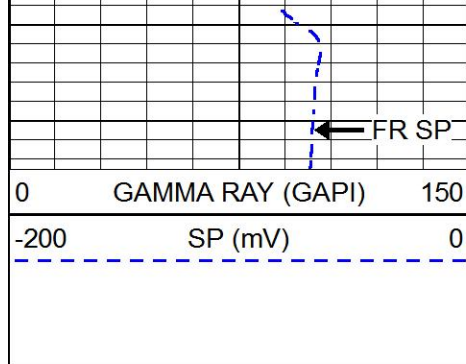
3250

3300

3350

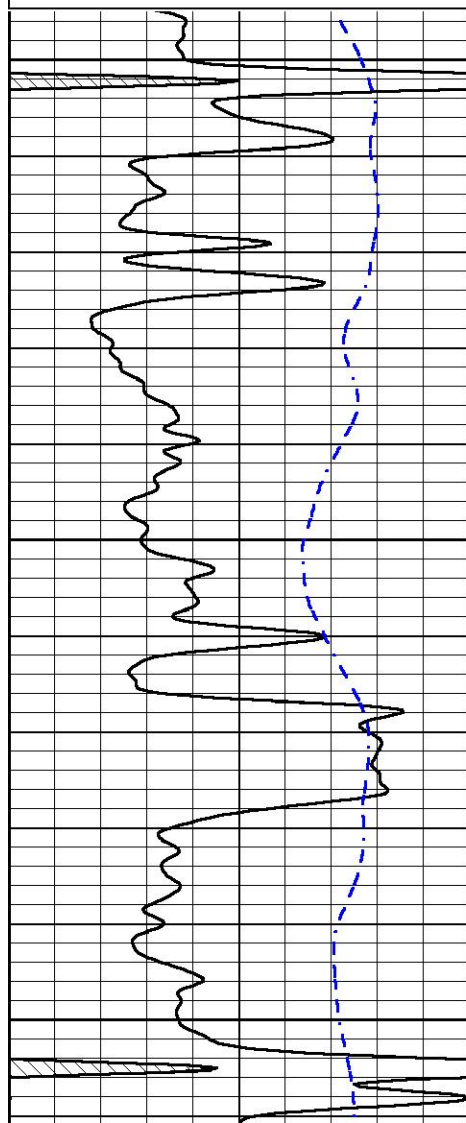
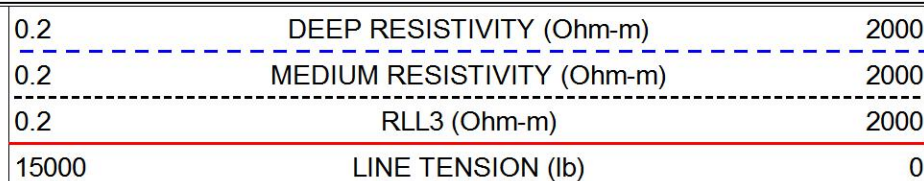
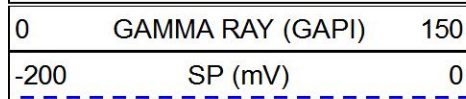
3400





REPEAT SECTION

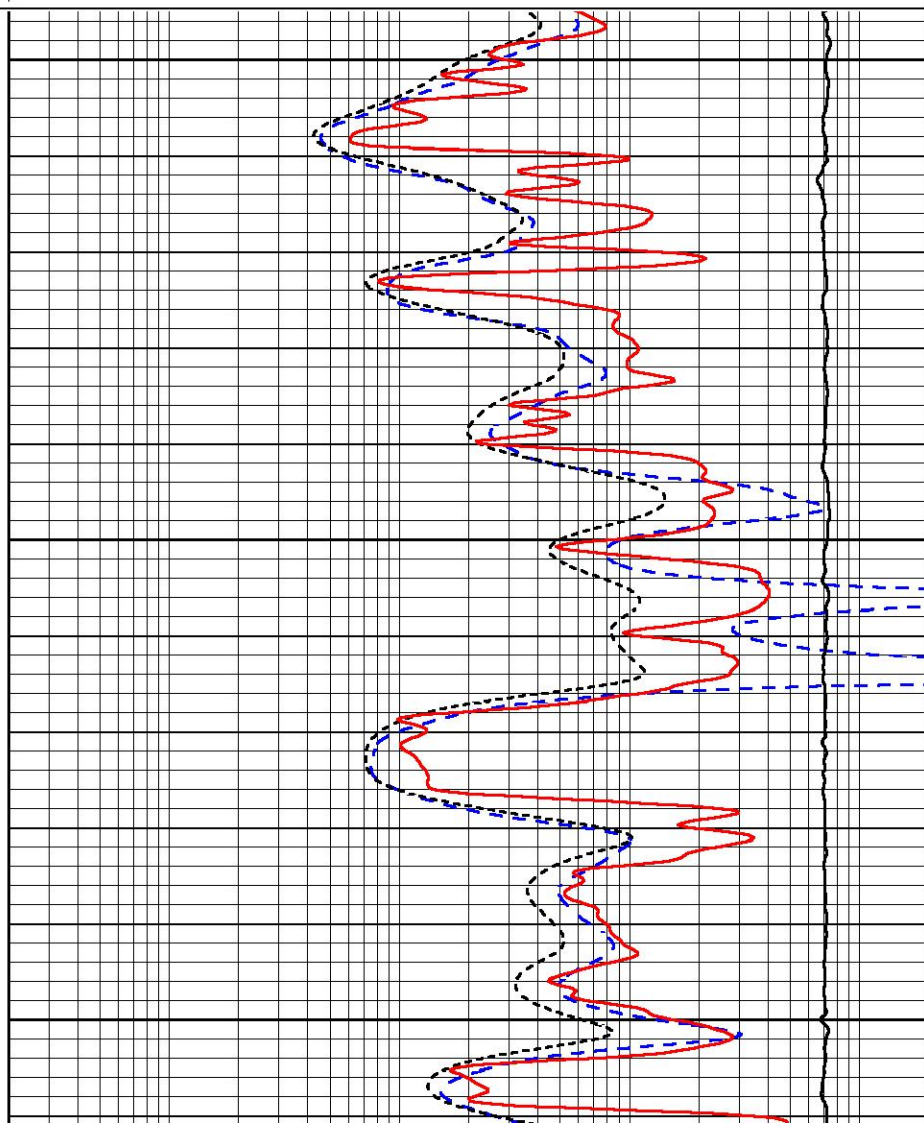
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 Charted by Depth in Feet scaled 1:240

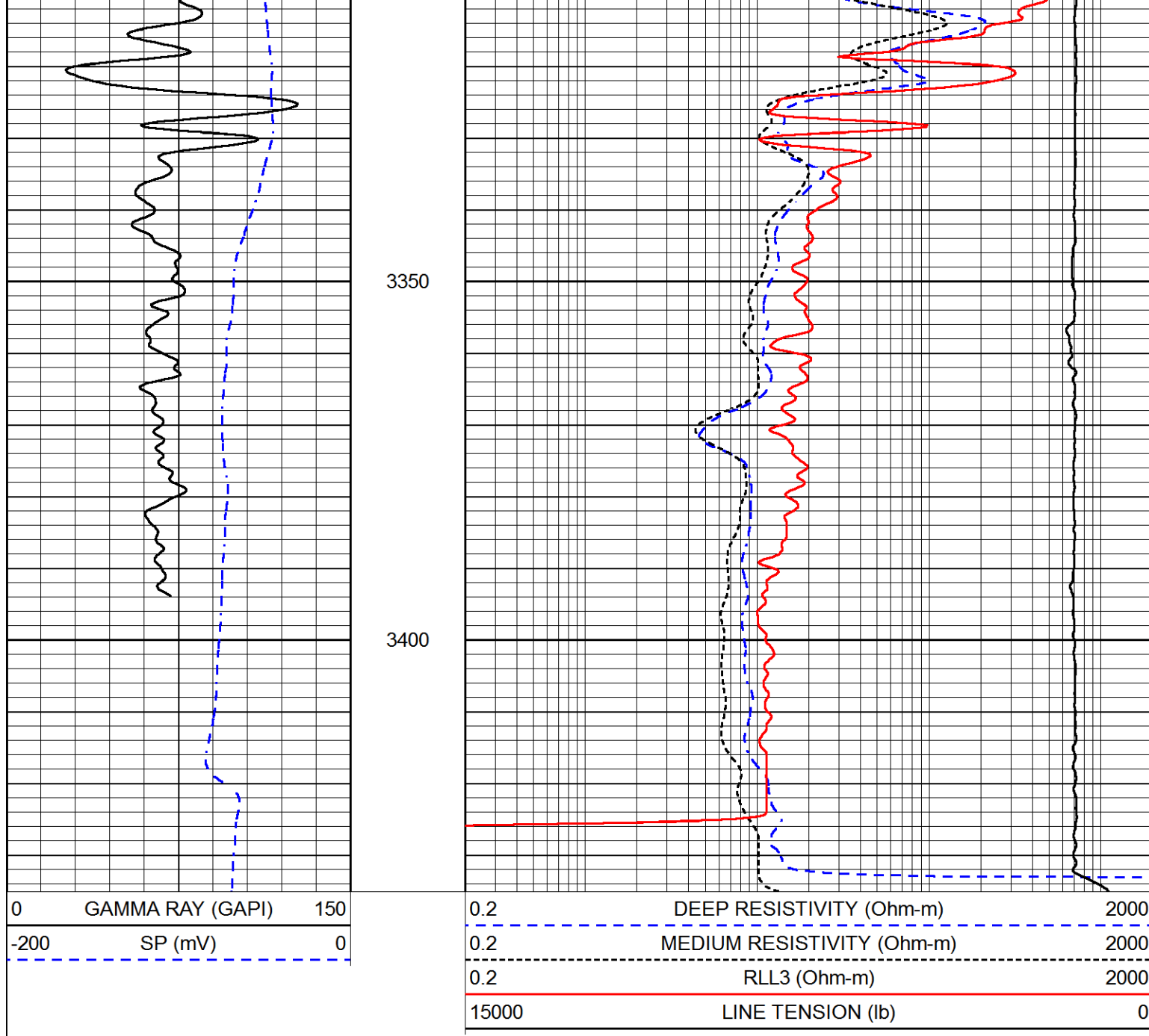


3200

3250

3300





Calibration Report

Database File rjm_elvita_1.db
 Dataset Pathname stackml/pass3.1
 Dataset Creation Mon Nov 11 00:20:45 2019

Dual Induction Calibration Report

Serial-Model: 55-222-M&W
 Calibration Performed: Sun Oct 27 17:18:15 2019

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		Gain	Offset
Deep	167.000	835.000	0.000	255.800	mmho/m	0.510	-41.000
Medium	0.000	1348.000	142.000	255.800	mmho/m	0.360	-15.000

Microlog Calibration Report

Serial-Model:
Performed:

UDM-01-PSI UDM ML
Fri May 31 06:10:42 2019

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	25000.0000	0.0000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	25000.0000	0.0000
Caliper	0.7305	0.9327	8.0000	22.0000	in	69.2371	-42.5804

Compensated Density Calibration Report

Serial-Model: 979-229-M&W
Source / Verifier: 21170B /
Master Calibration Performed: Tue Jul 23 10:17:03 2019

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	7680.82	9959.08	cps
Aluminum	2.690	g/cc	1424.07	6427.19	cps
Spine Angle = 75.43			Density/Spine Ratio = 0.537		
	Size		Reading		
Small Ring	4.00	in	1.15		
Large Ring	14.00	in	1.02		

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
Calibration Performed: 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 RJM COMPANY
Well ELVITA #1
Field UNKNOWN
County BARTON

Pioneer Energy Services

State

KANSAS