



DUAL INDUCTION LOG

PIONEER
Pioneer Energy Services

Company **CONCORDE RESOURCES CORP**
Well **MCDANIEL #1-13**
Field **WILDCAT**
County **LOGAN**
State **KANSAS**

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County **LOGAN** State **KANSAS**

Location: API #: 15-109-21581-00-00

Other Services

SEC 13 TWP 15S RGE 34W
1405' FSL & 1380' FEL

CNL/CDL
MEL

Permanent Datum **GROUND LEVEL** Elevation **2949'**
Log Measured From **KELLY BUSHING**
Drilling Measured From **KELLY BUSHING**

Elevation
K.B. 2956'
D.F. N/A
G.L. 2949'

Date **5/4/2019**

Run Number **ONE**

Depth Driller **4670'**

Depth Logger **4671'**

Bottom Logged Interval **4670'**

Top Log Interval **300'**

Casing Driller **8.625" @ 305'**

Casing Logger **304'**

Bit Size **7.875"**

Type Fluid in Hole **CHEMICAL**

Salinity, ppm CL **4500**

Density / Viscosity **9.2 52**

pH / Fluid Loss **10.5 8.0**

Source of Sample **FLOWLINE**

Rm @ Meas. Temp **0.60 @ 70**

Rmt @ Meas. Temp **0.45 @ 70**

Rmc @ Meas. Temp **0.81 @ 70**

Source of Rmf / Rmc **CHARTS**

Rm @ BHT **0.34 @ 123**

Operating Rig Time **3 HOURS**

Max Rec. Temp. F **123**

Equipment Number **P-24**

Location **HAYS**

Recorded By **D. SCHMIDT**

Witnessed By **LARRY NICHOLSON**

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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.

OAKLEY,
SOUTH TO GOLD RD, WEST TO 390 RD, SOUTH TO ELK RD,
WEST TO 340, 3/4 SOUTH, WEST 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: **D. SCHMIDT**
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: **LARRY NICHOLSON**
Secondary Witness:
Secondary Witness:
Secondary Witness:

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in 7.875	degF 123	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 60	degF 60	Off	ft 4671

Sensor	Offset (ft)	Schematic		Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.58			GR-M&W (233-M&W)	3.00	3.50	50.00
CNLSC	37.48			CNT-M&W (207-MW)	5.50	3.50	100.00
CNSSC	36.73						
LSD	28.43			CDL-M&W (96-916)	8.50	4.00	250.00
	28.42						
	27.93						
MCAL	19.83			ML-PSIML (PSI-01)	7.58	4.00	65.00
	19.83			GO Micro log tools converted to Simplec electronics			
	19.83						
RLL3F	15.80						
RLL3	15.80						
CILD	8.00			DIL-PSI HIGH TEMP (967 (HT))	18.50	3.50	220.00

CILM

4.70

SP

0.20

Dataset: concorde_mcdaniel 1-13.db: field/well/STKML/pass4.1
 Total length: 43.08 ft
 Total weight: 685.00 lb
 O.D.: 4.00 in



PIONEER
 Pioneer Energy Services

MAIN PASS

Database File concorde_mcdaniel 1-13.db
 Dataset Pathname STKML/pass5.1
 Presentation Format _dil2in
 Dataset Creation Sat May 04 23:53:24 2019
 Charted by Depth in Feet scaled 1:600

GAMMA RAY

0

(GAPI)

150

1000 CONDUCTIVITY (mmho/m) 0

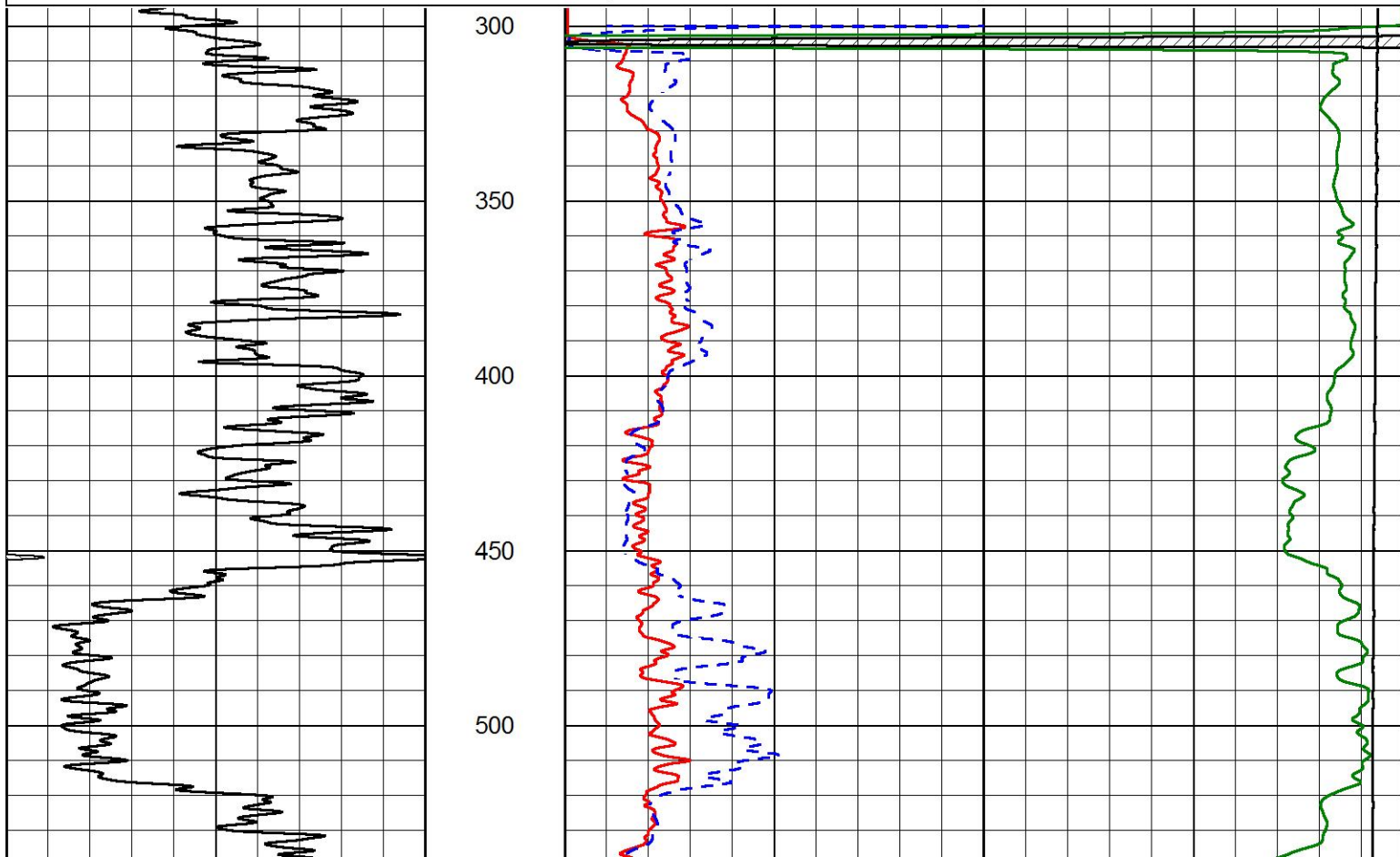
15000 Line Tension (lb) 0

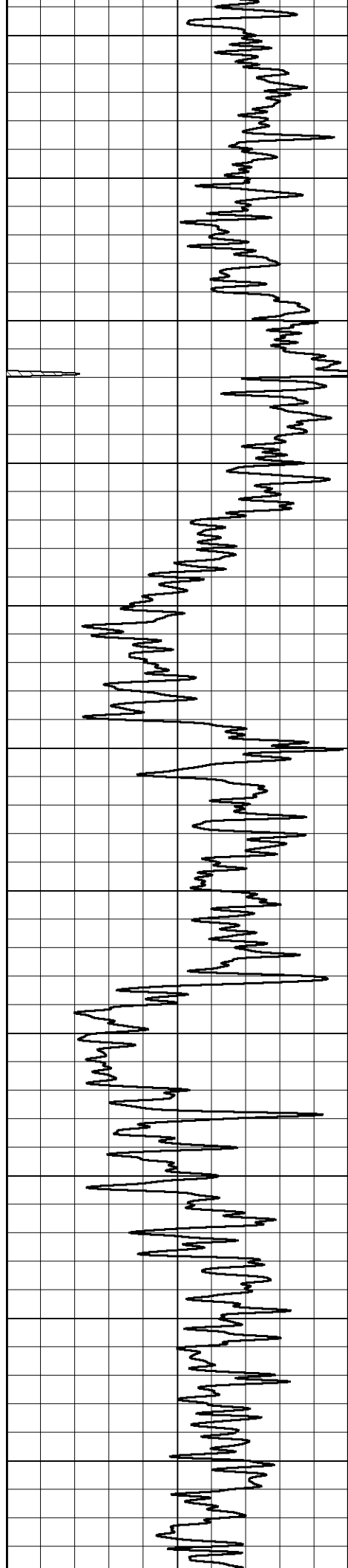
0 RLL3 (Ohm-m) 50

0 DEEP RESISTIVITY (Ohm-m) 50

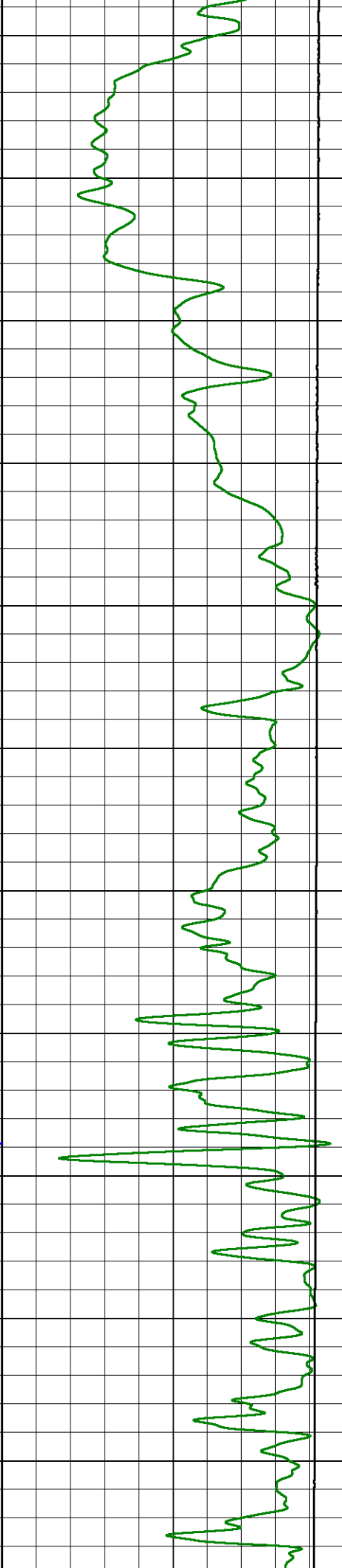
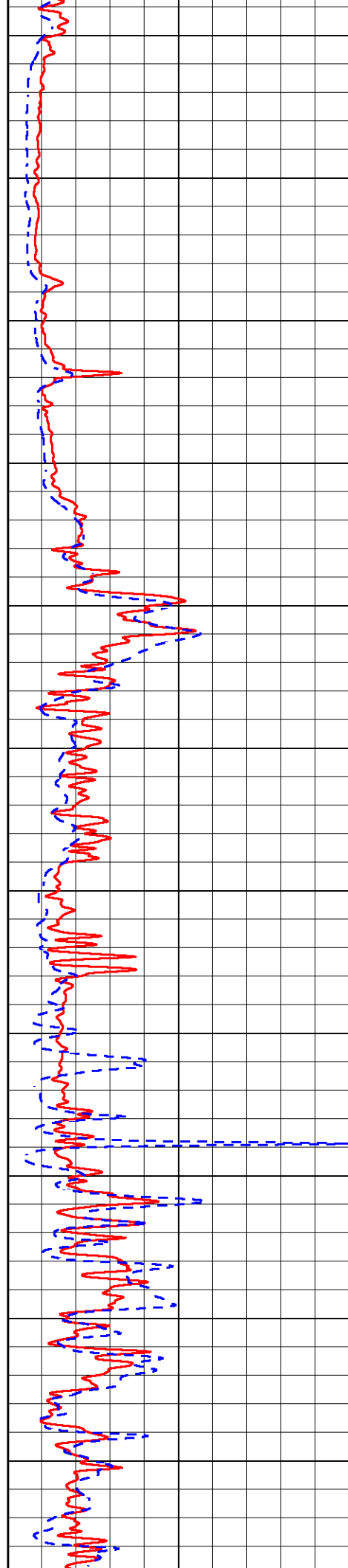
50 RLL3 (Ohm-m) 500

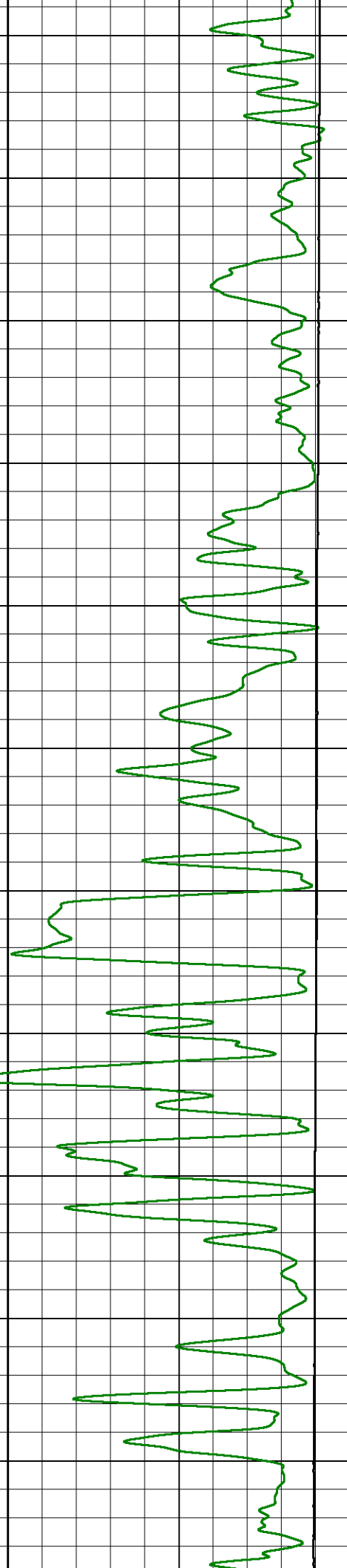
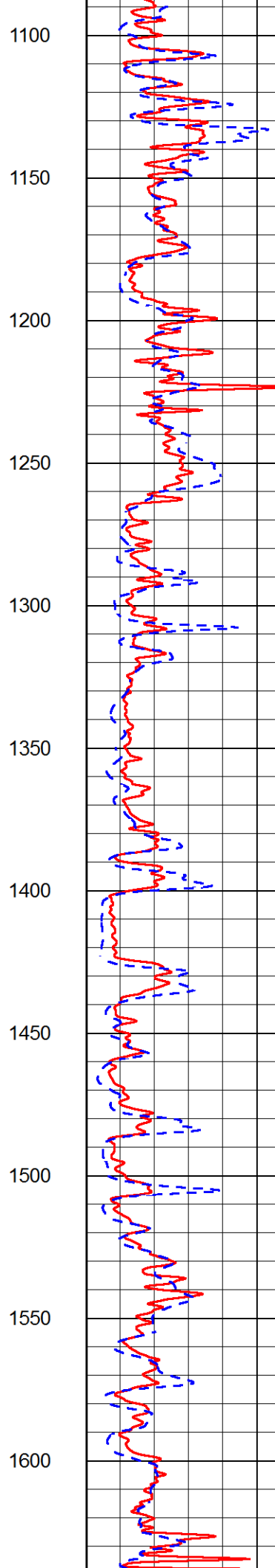
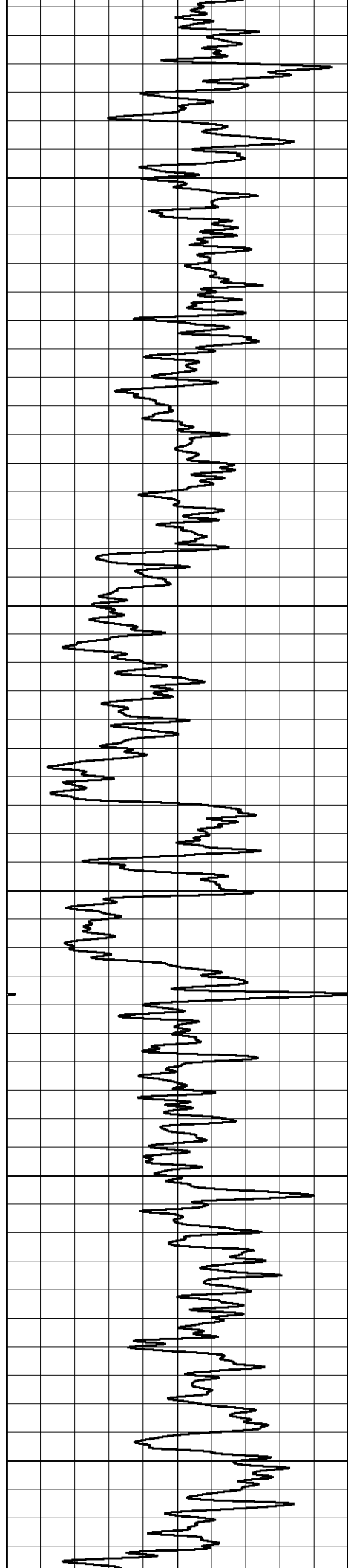
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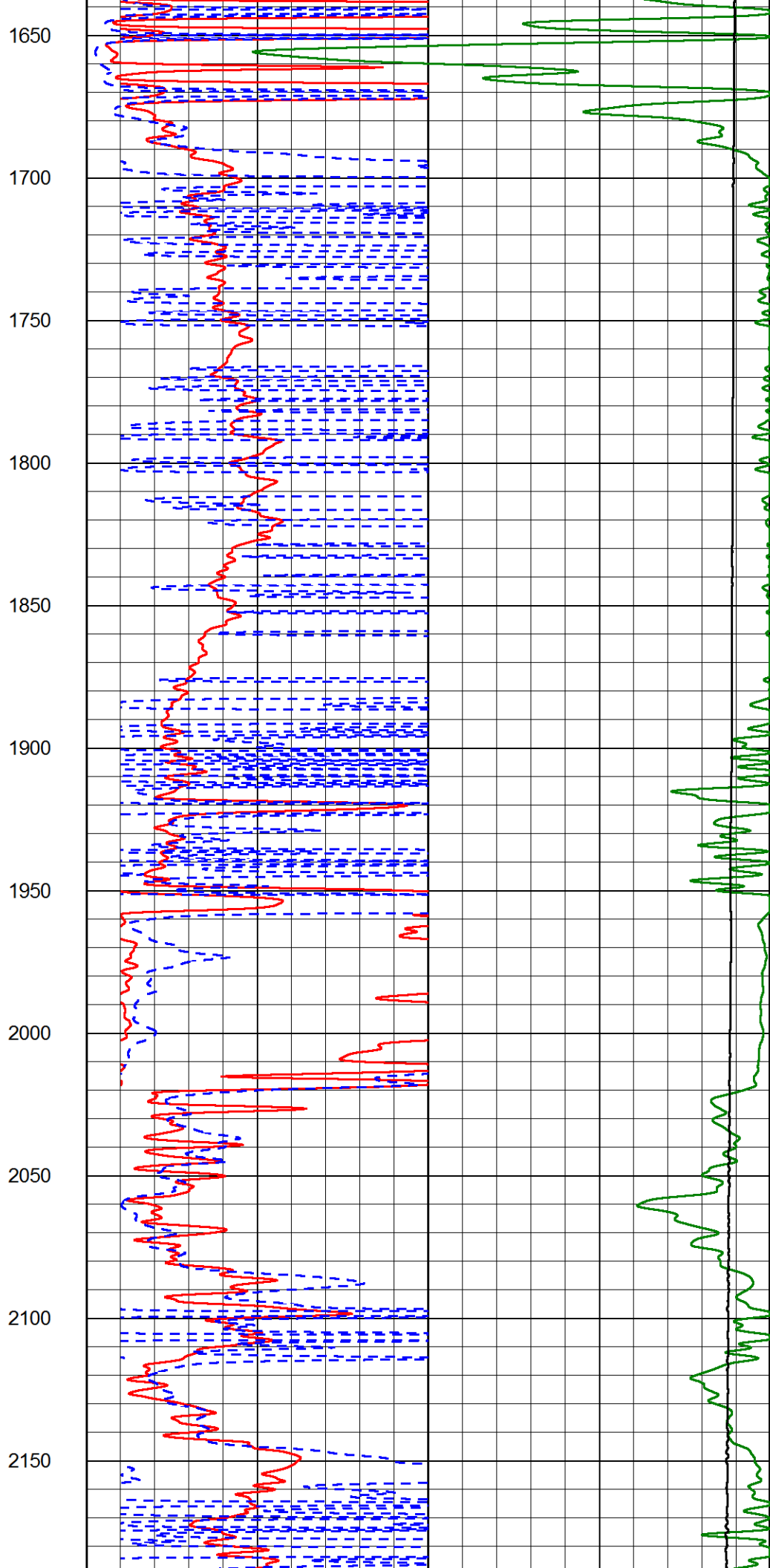
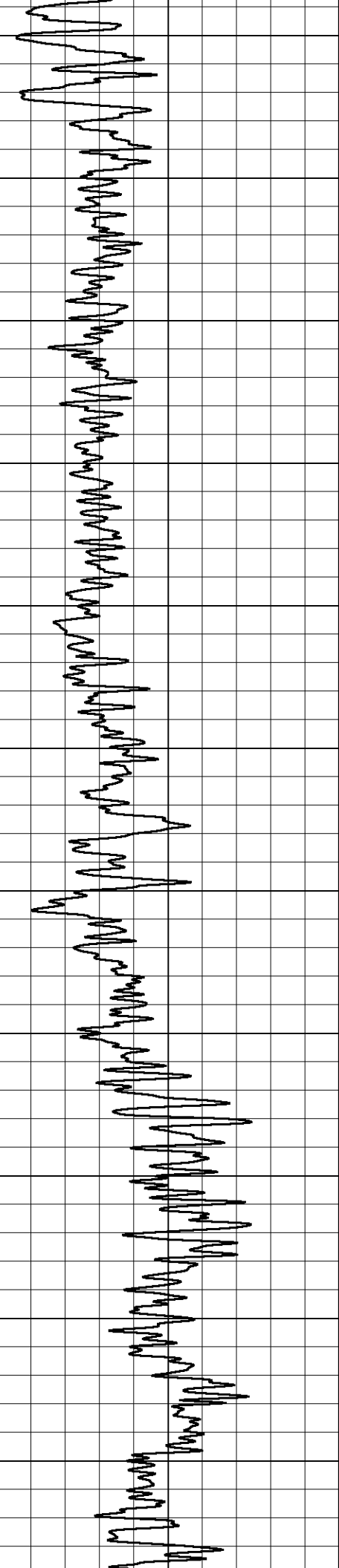


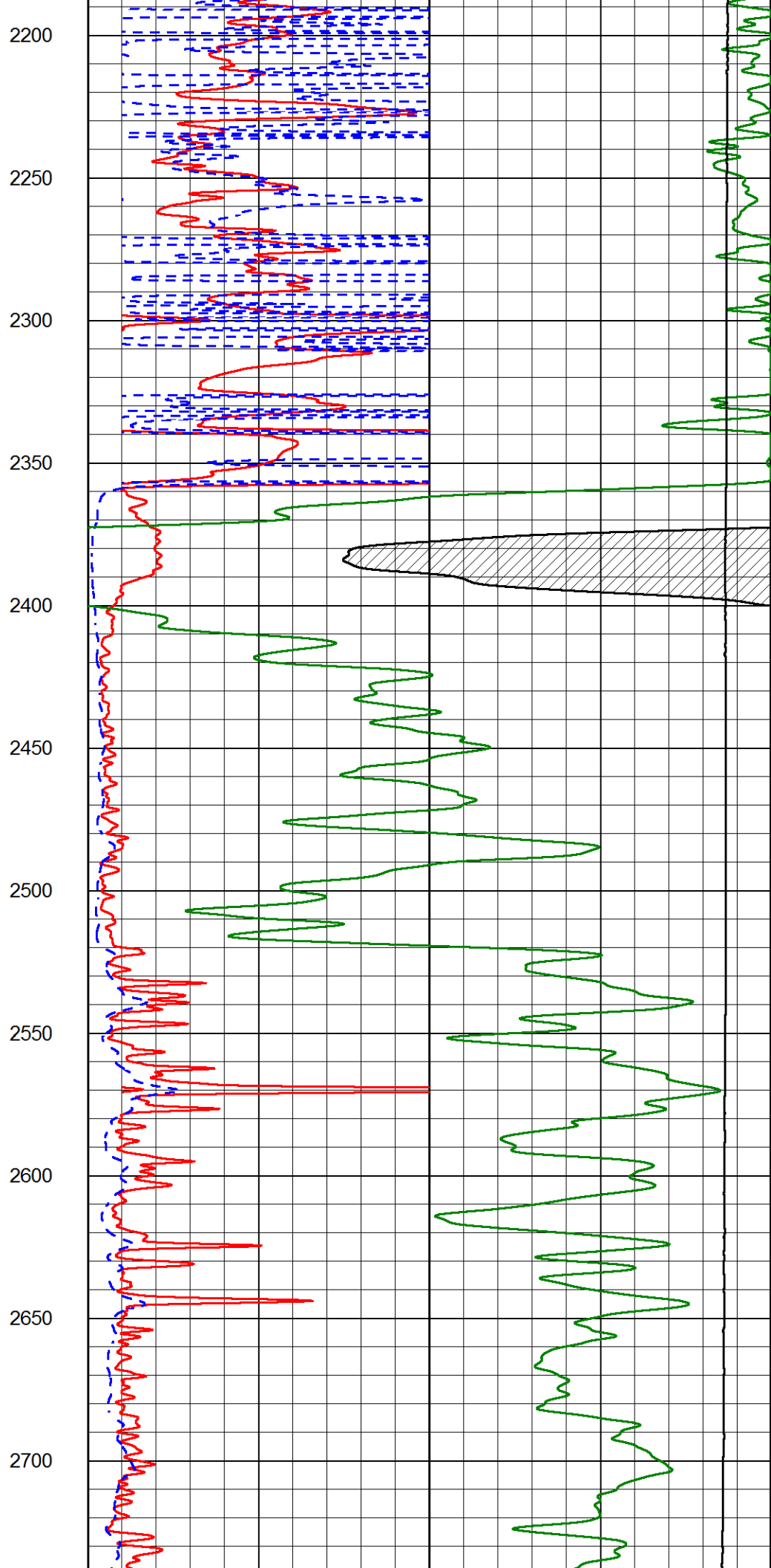
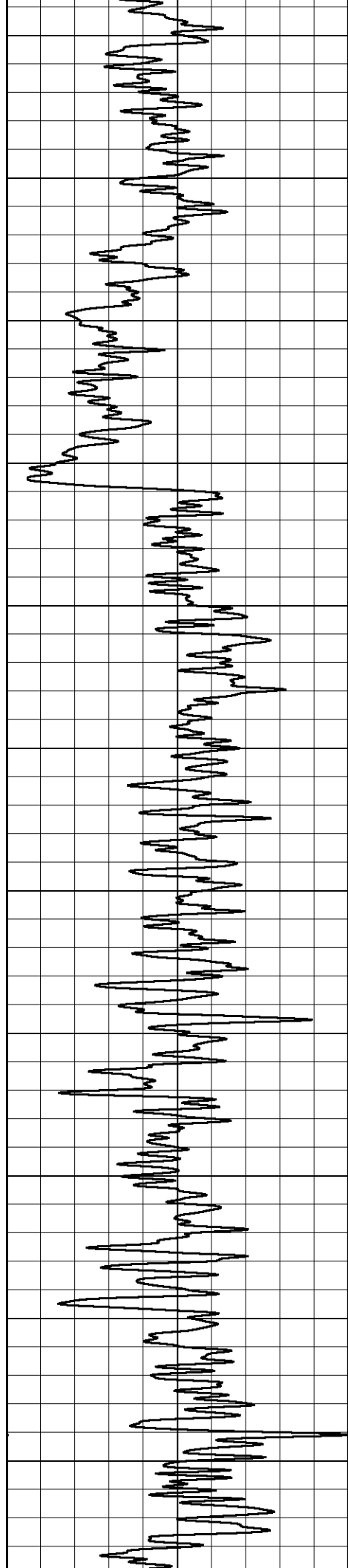


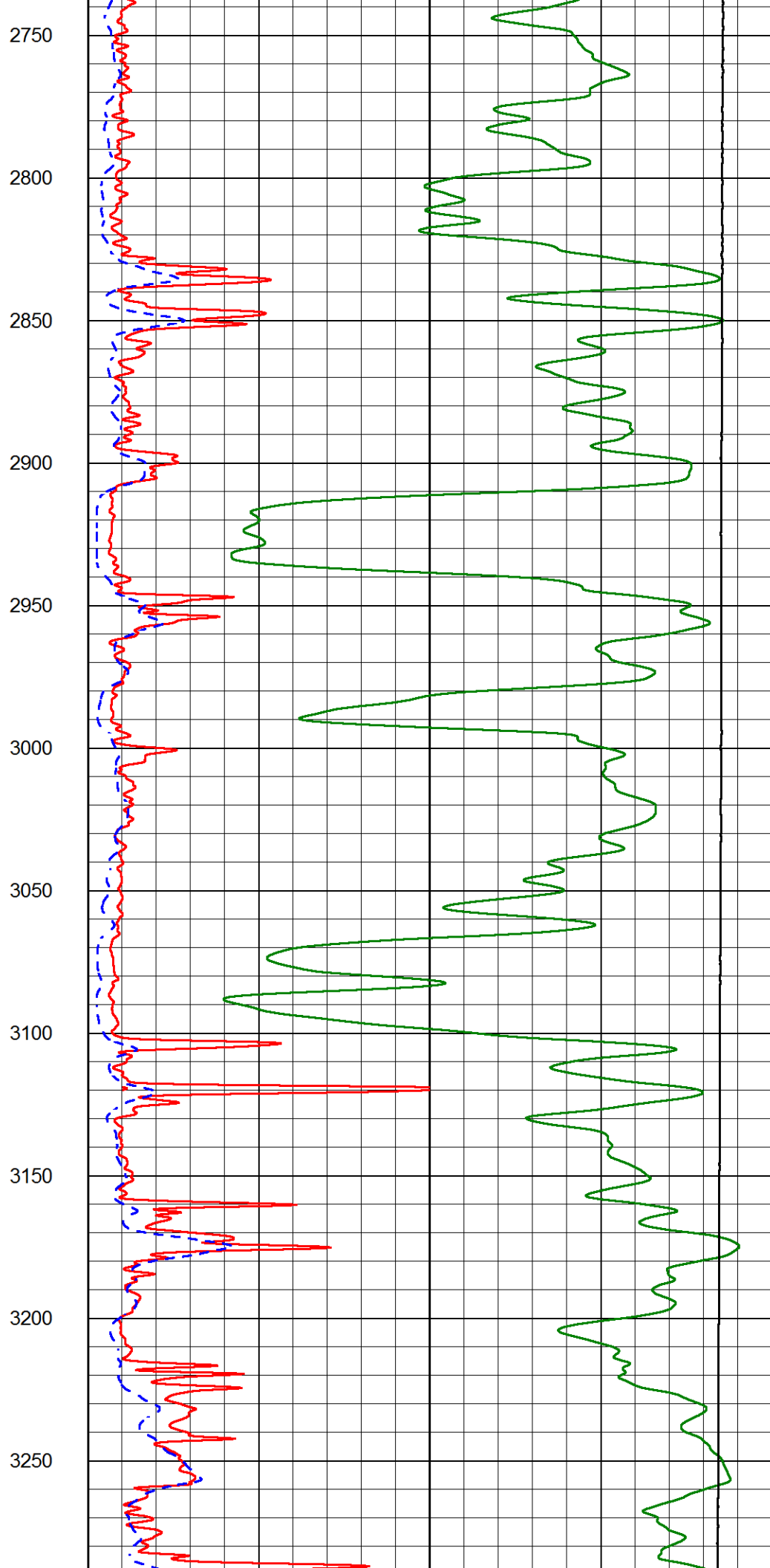
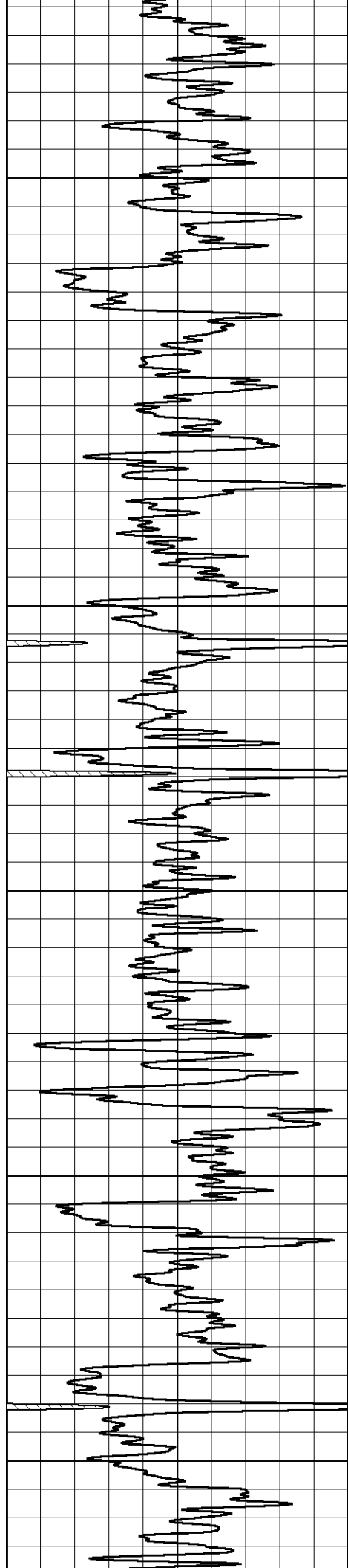
550
600
650
700
750
800
850
900
950
1000
1050

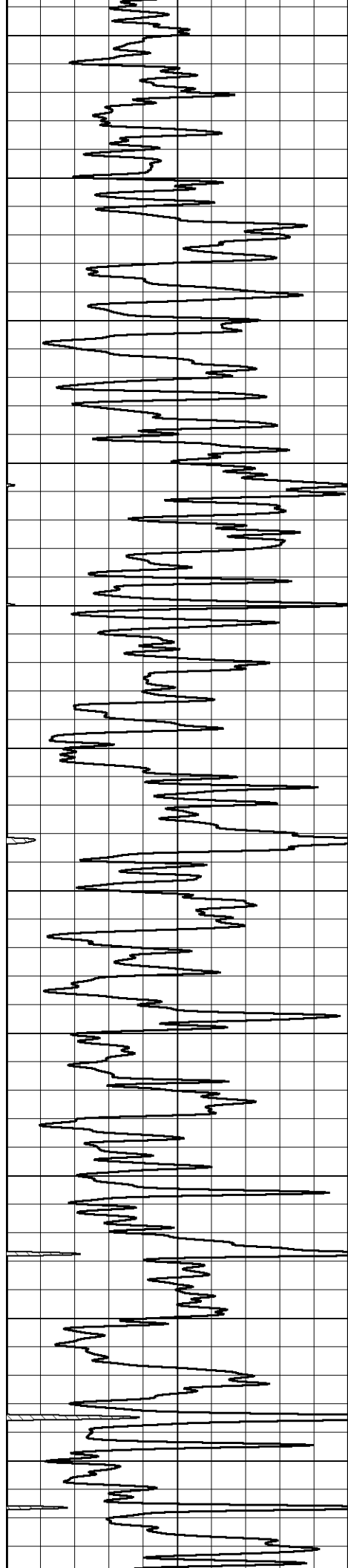












3300

3350

3400

3450

3500

3550

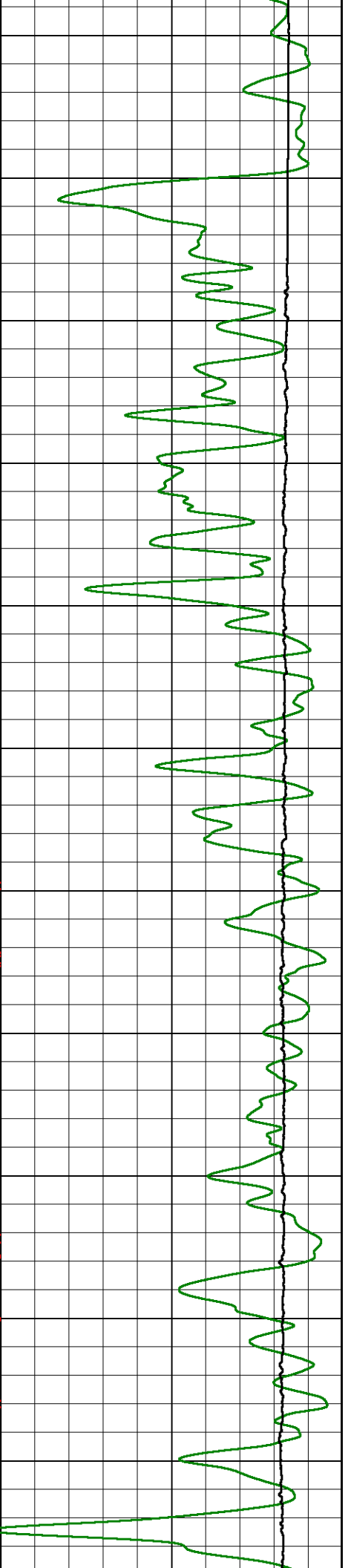
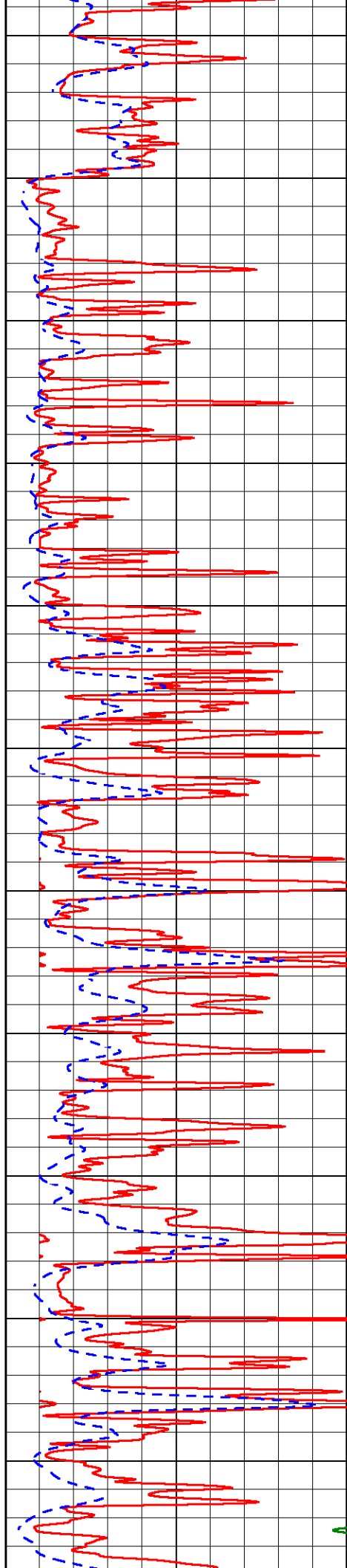
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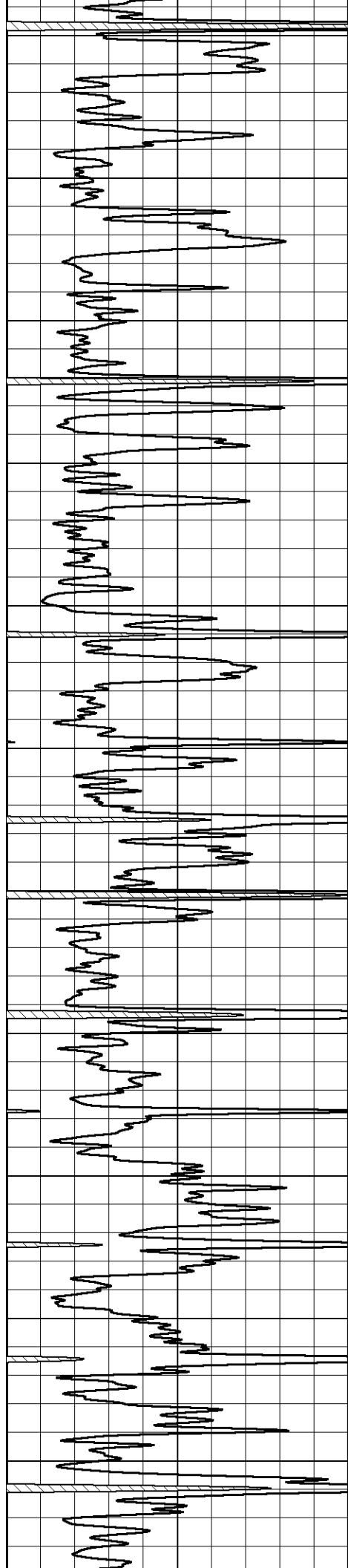
3650

3700

3750

3800





3850

3900

3950

4000

4050

4100

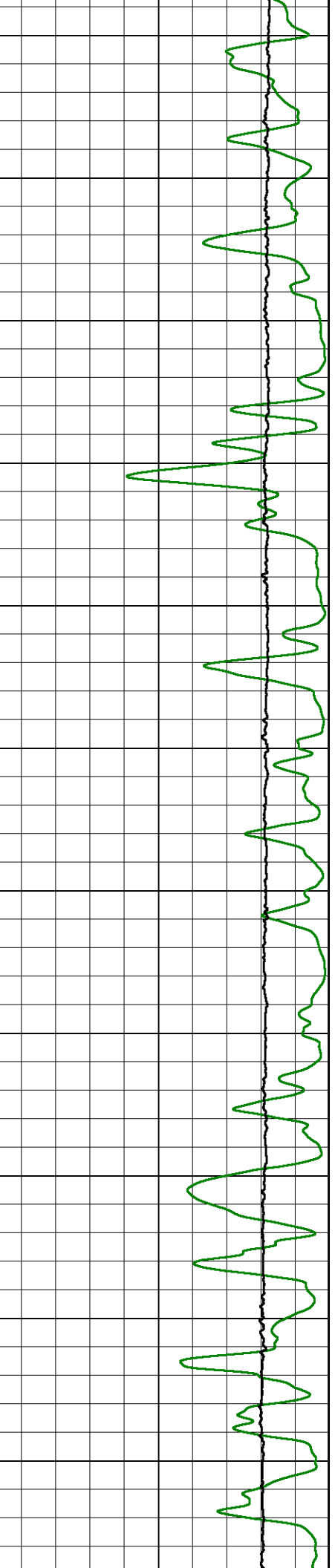
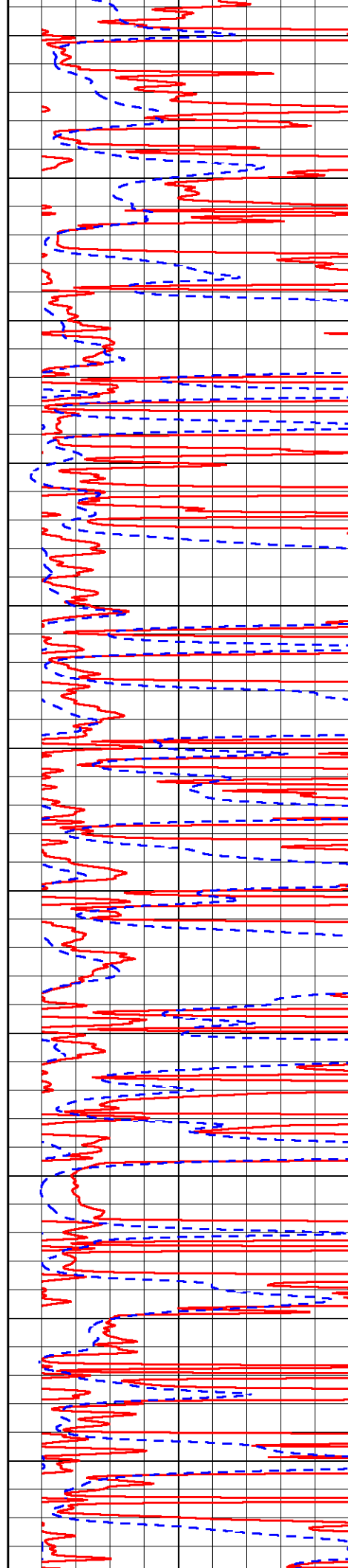
4150

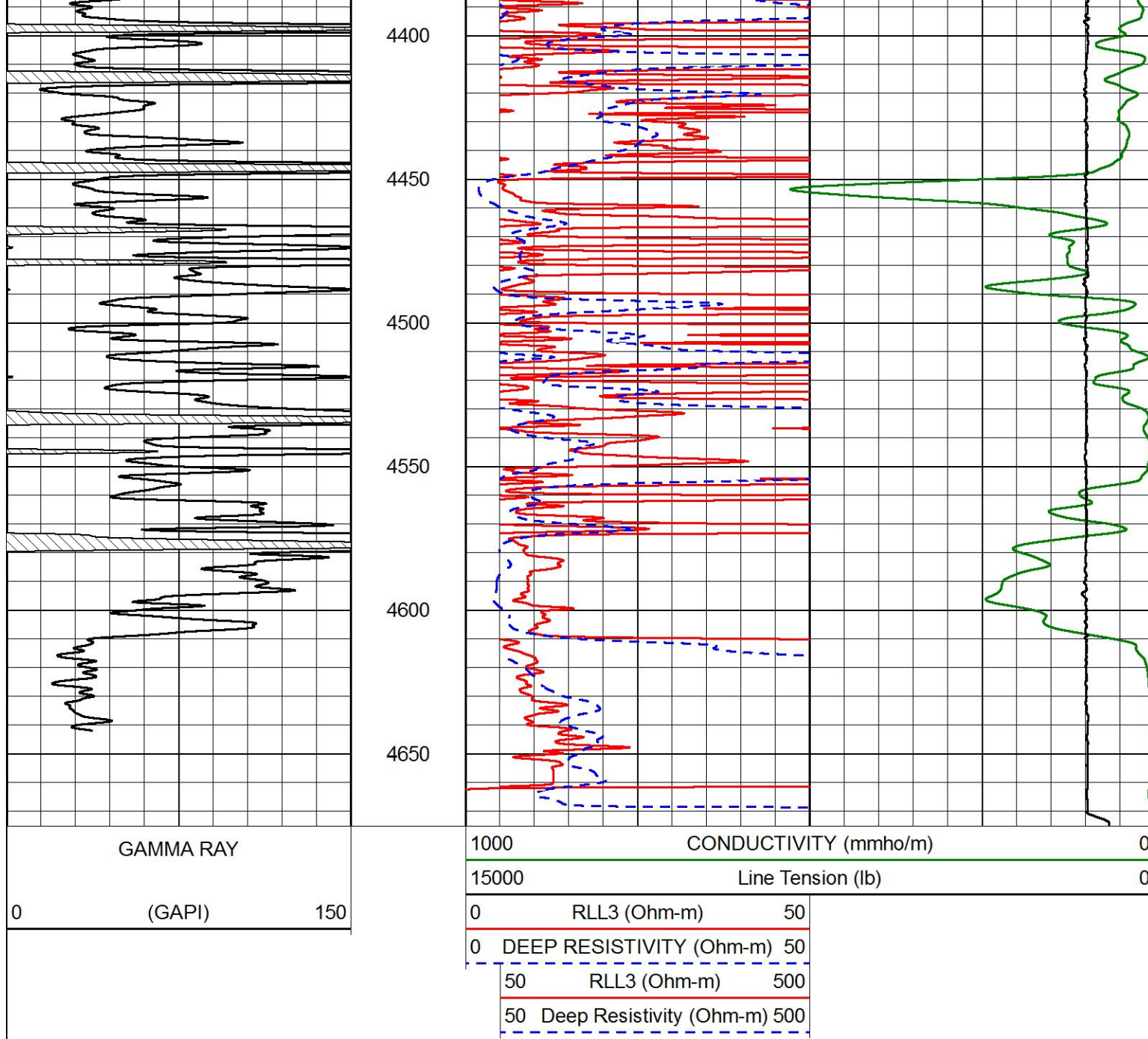
4200

4250

4300

4350

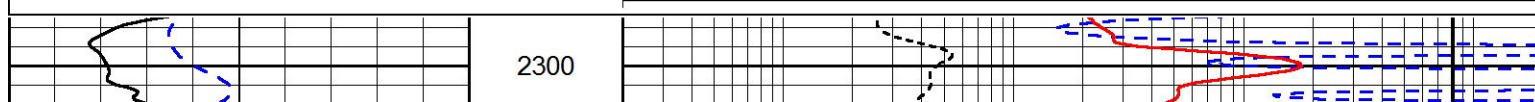


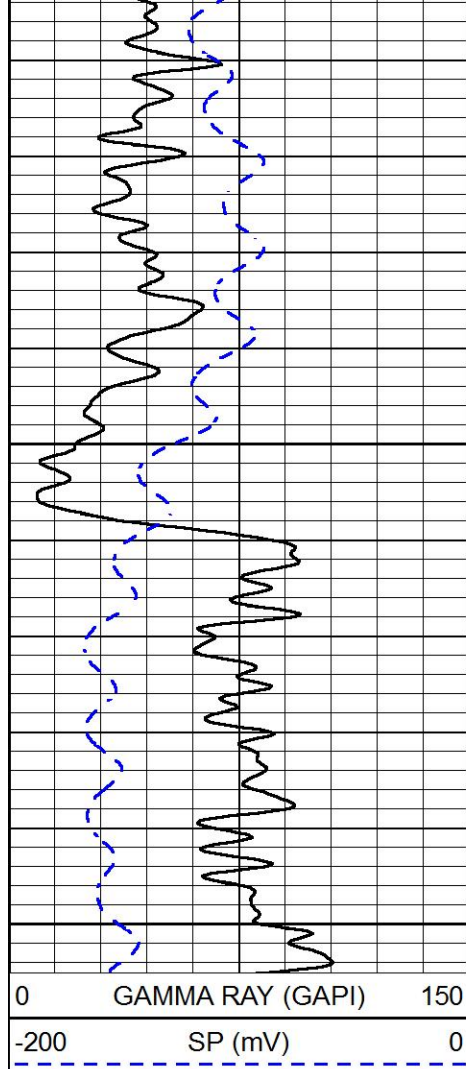


MAIN PASS

Database File	concorde_mcdaniel 1-13.db
Dataset Pathname	STKML/pass5.1
Presentation Format	_dil
Dataset Creation	Sat May 04 23:53:24 2019
Charted by	Depth in Feet scaled 1:240

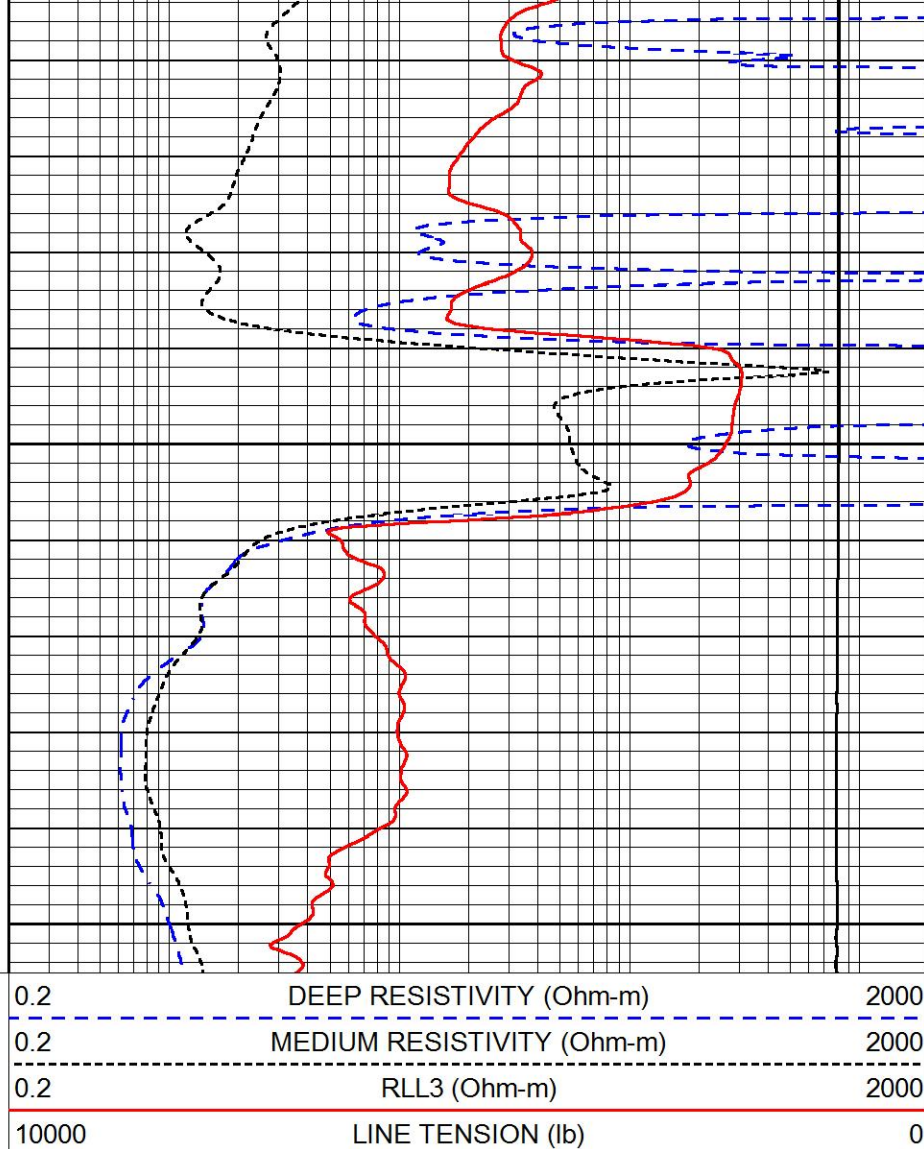
0	GAMMA RAY (GAPI)	150
-200	SP (mV)	0
0.2	DEEP RESISTIVITY (Ohm-m)	2000
0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
10000	LINE TENSION (lb)	0





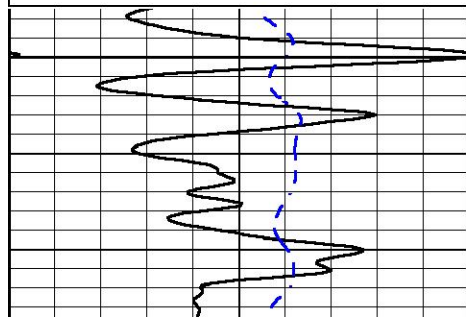
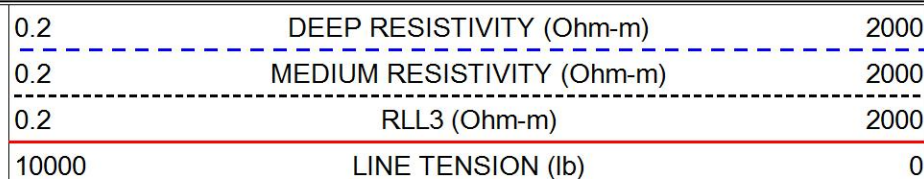
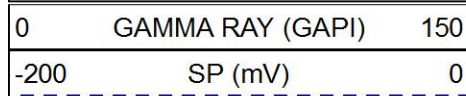
2350

2400

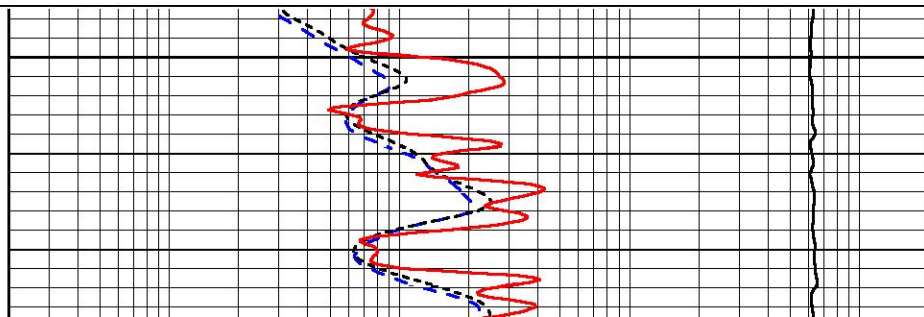


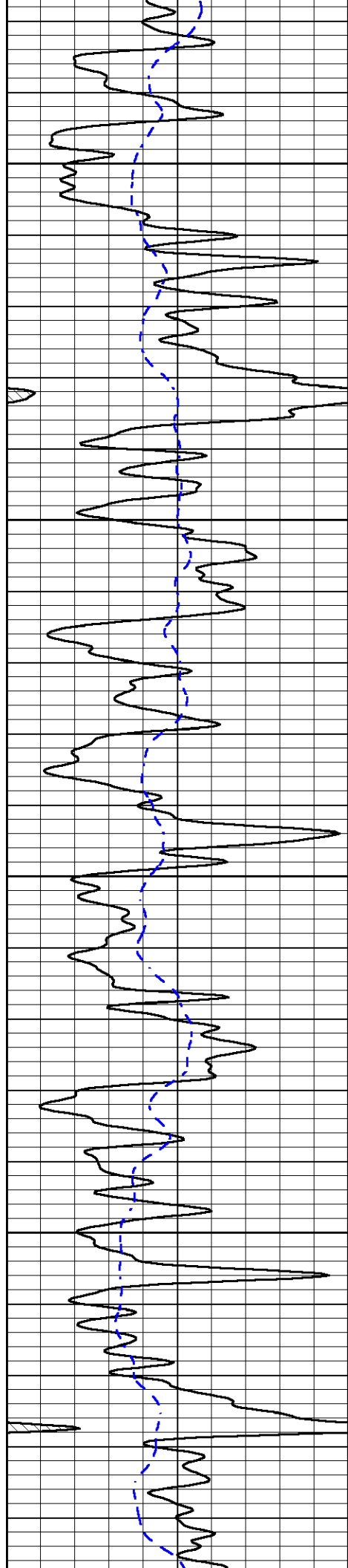
MAIN PASS

Database File concorde_mcdaniel 1-13.db
Dataset Pathname STKML/pass5.1
Presentation Format _dil
Dataset Creation Sat May 04 23:53:24 2019
Charted by Depth in Feet scaled 1:240



3500



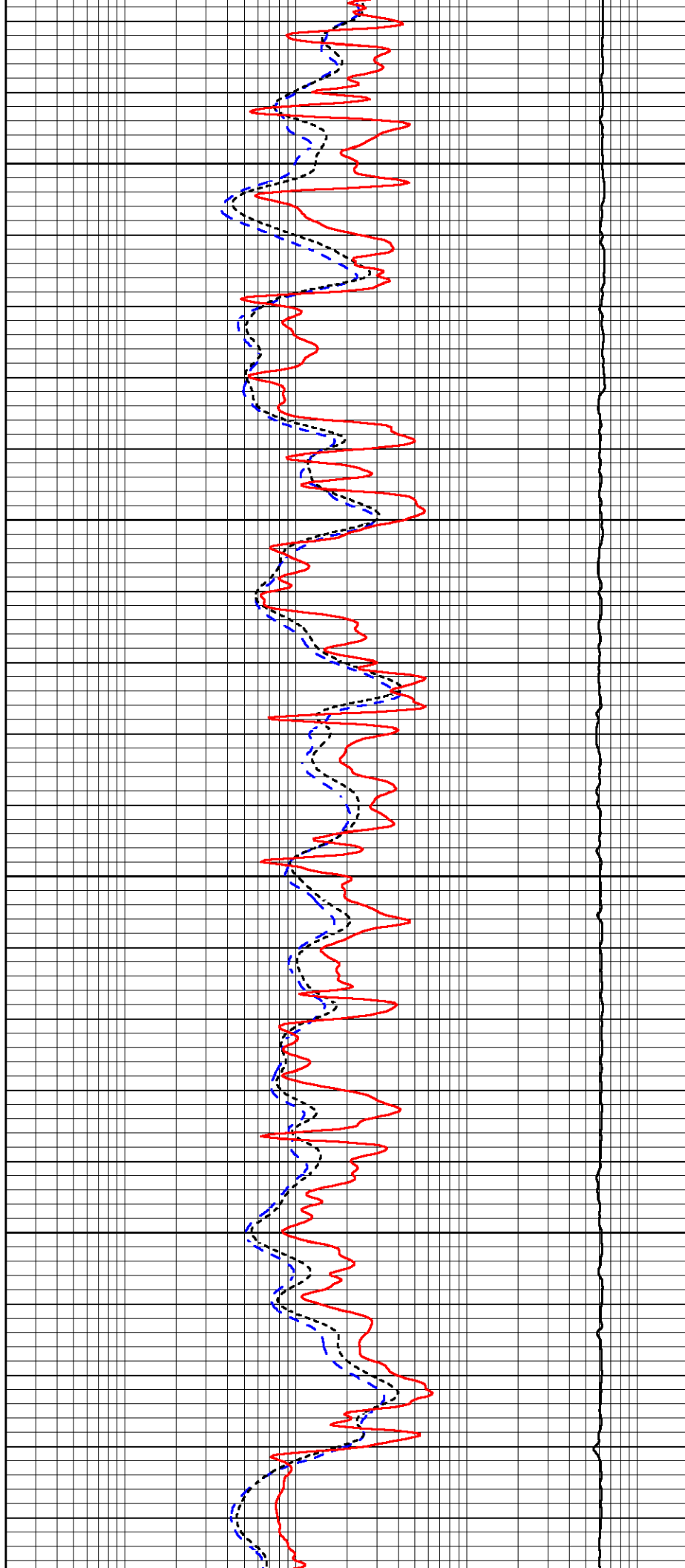


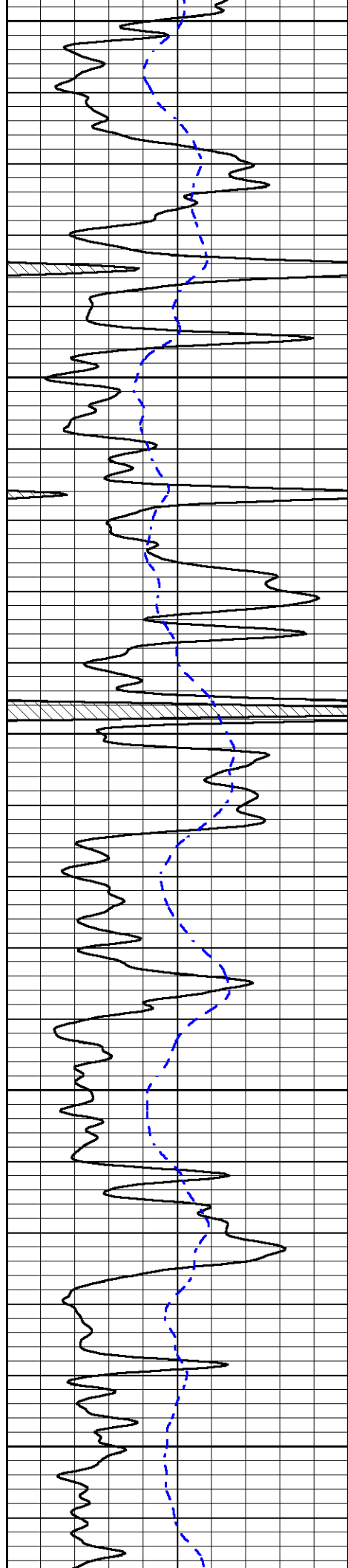
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3600

3650

3700





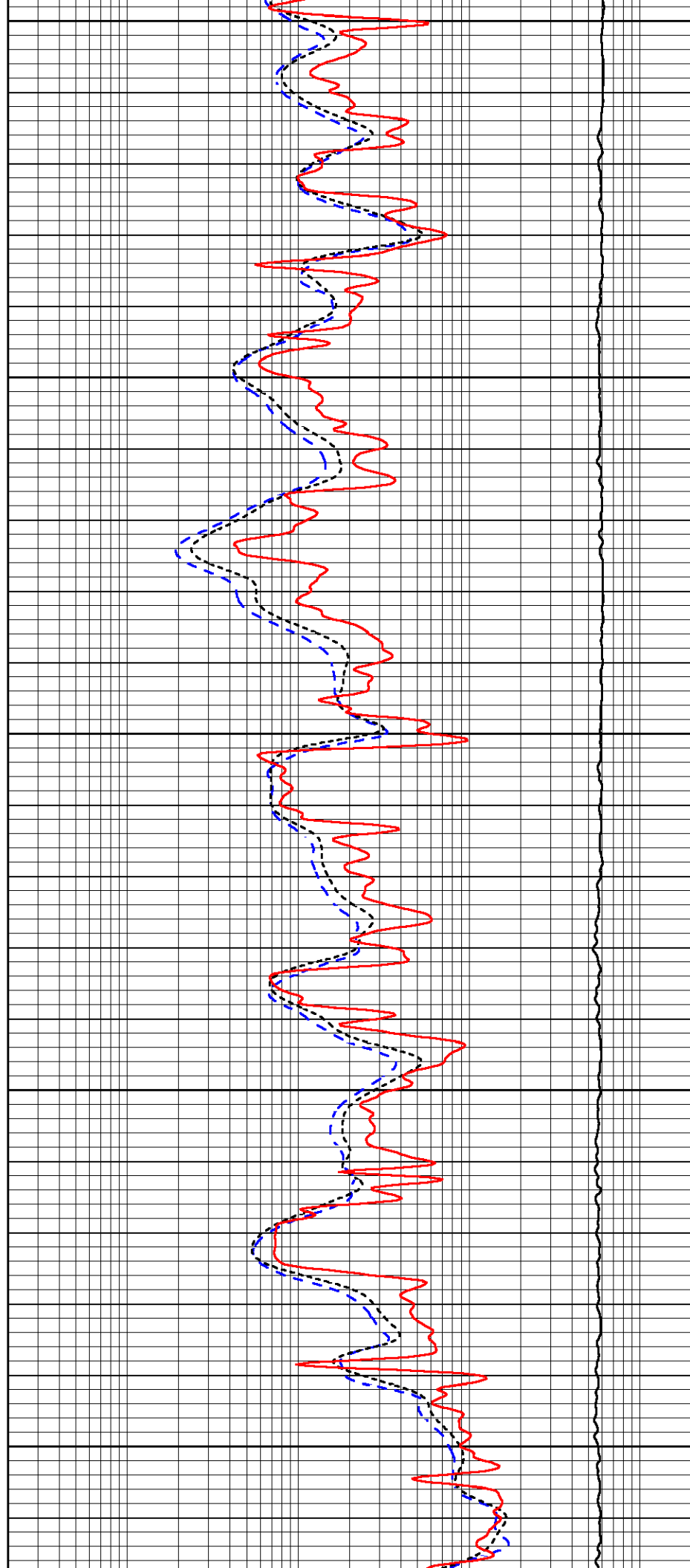
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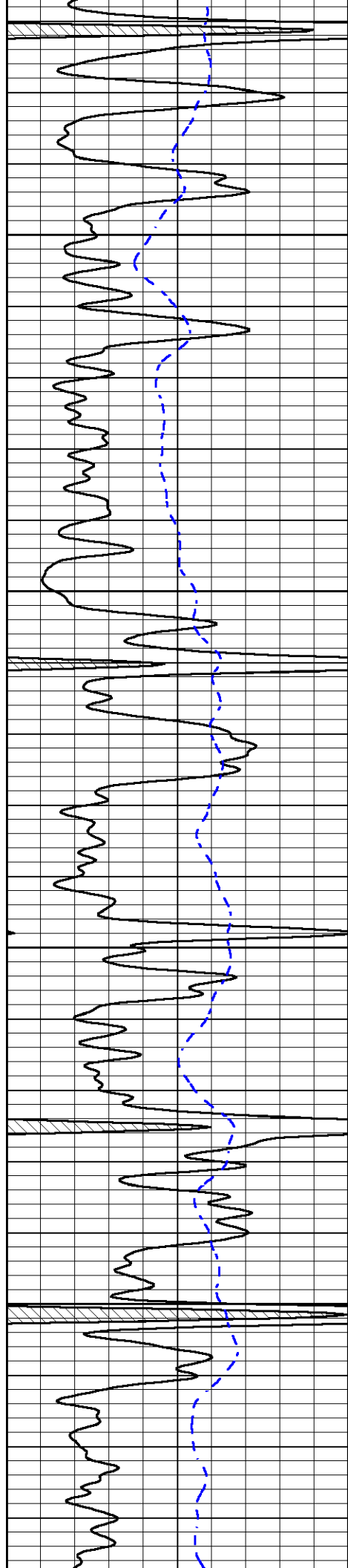
3800

3850

3900

3950



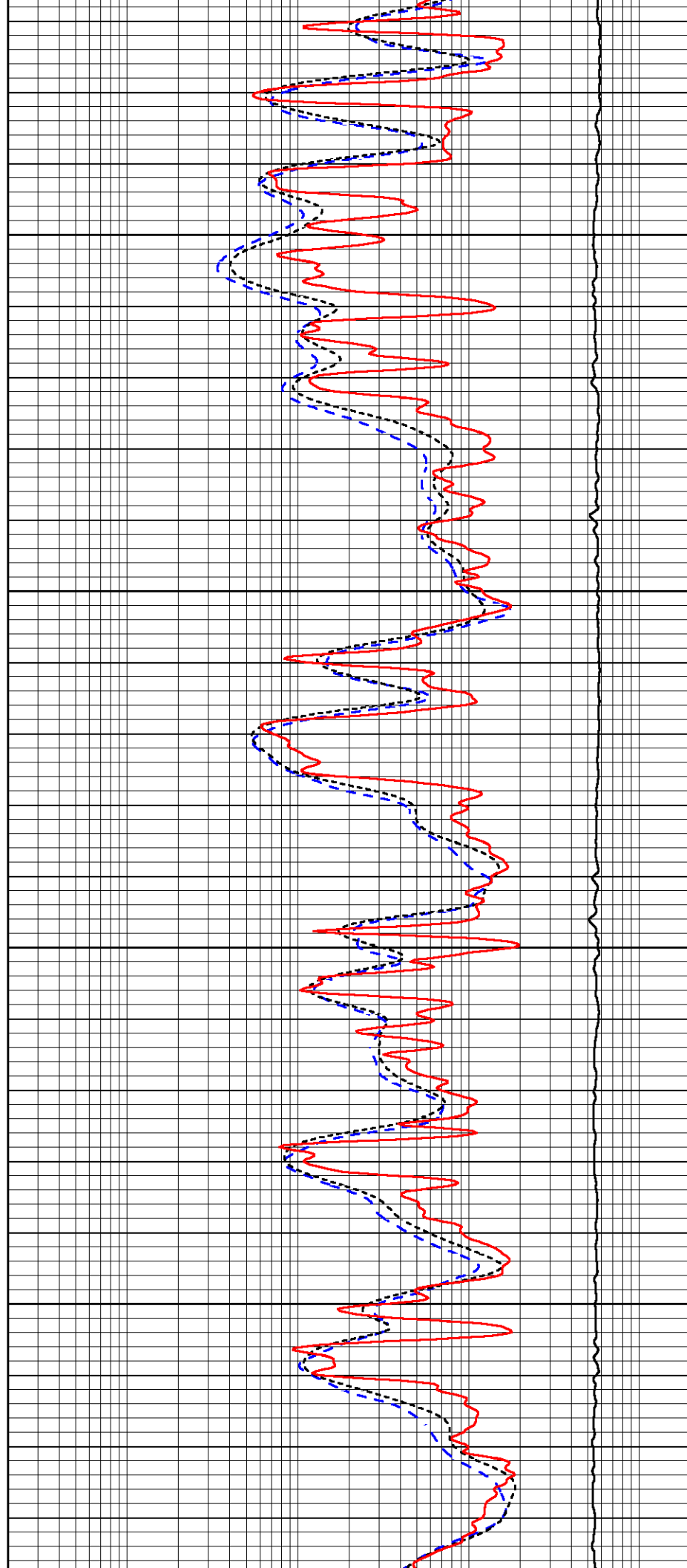


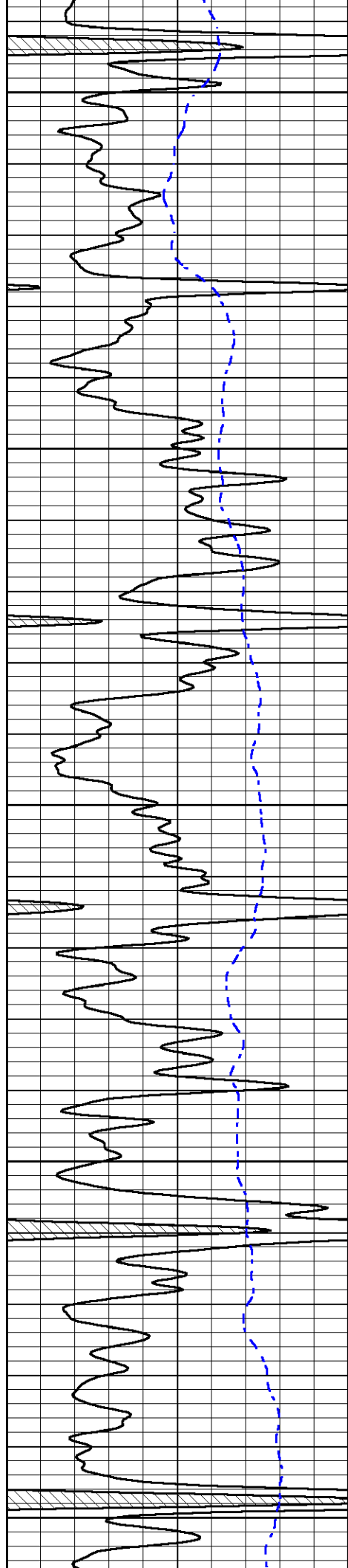
4000

4050

4100

4150





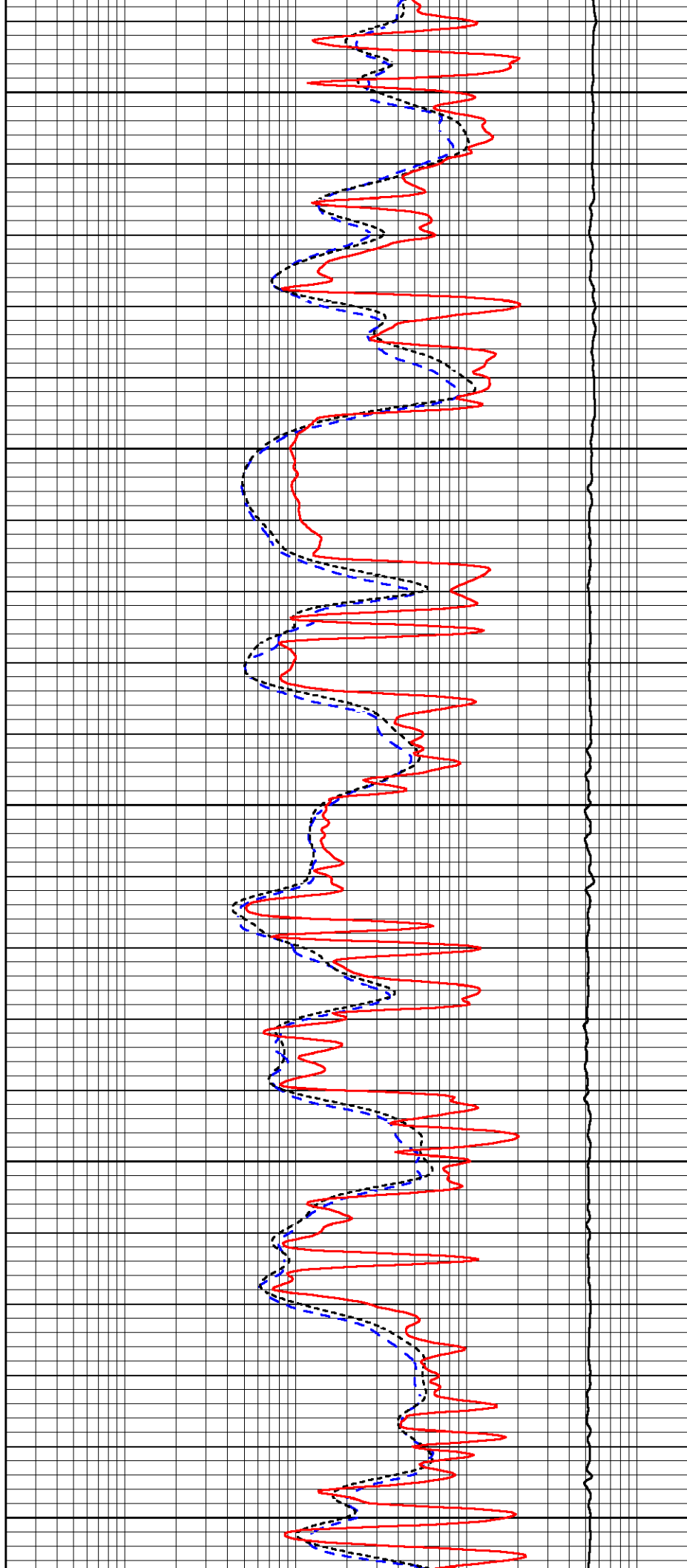
4200

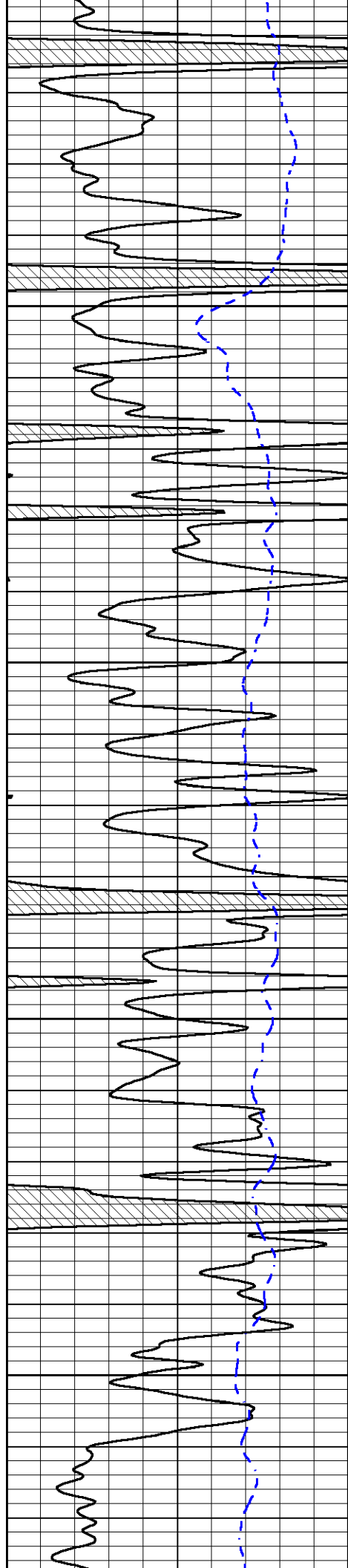
4250

4300

4350

4400



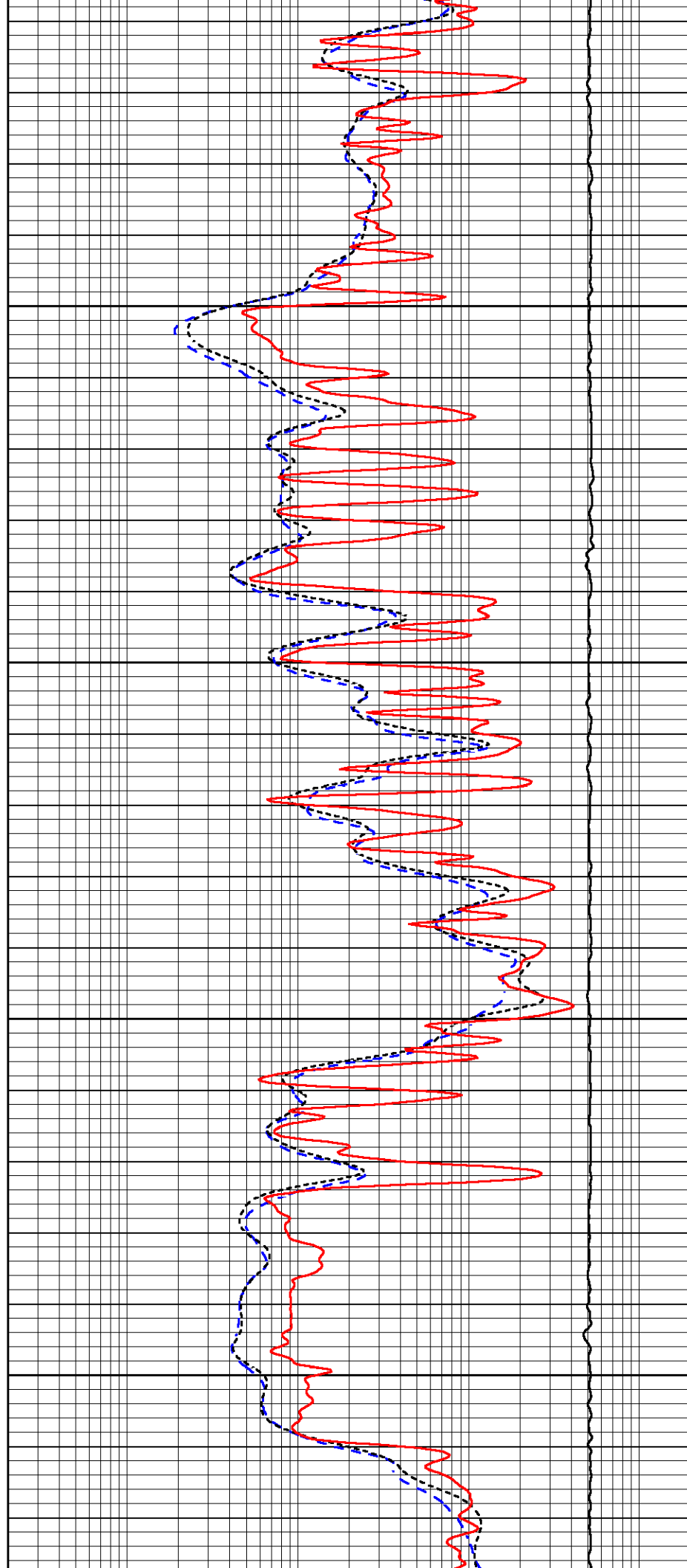


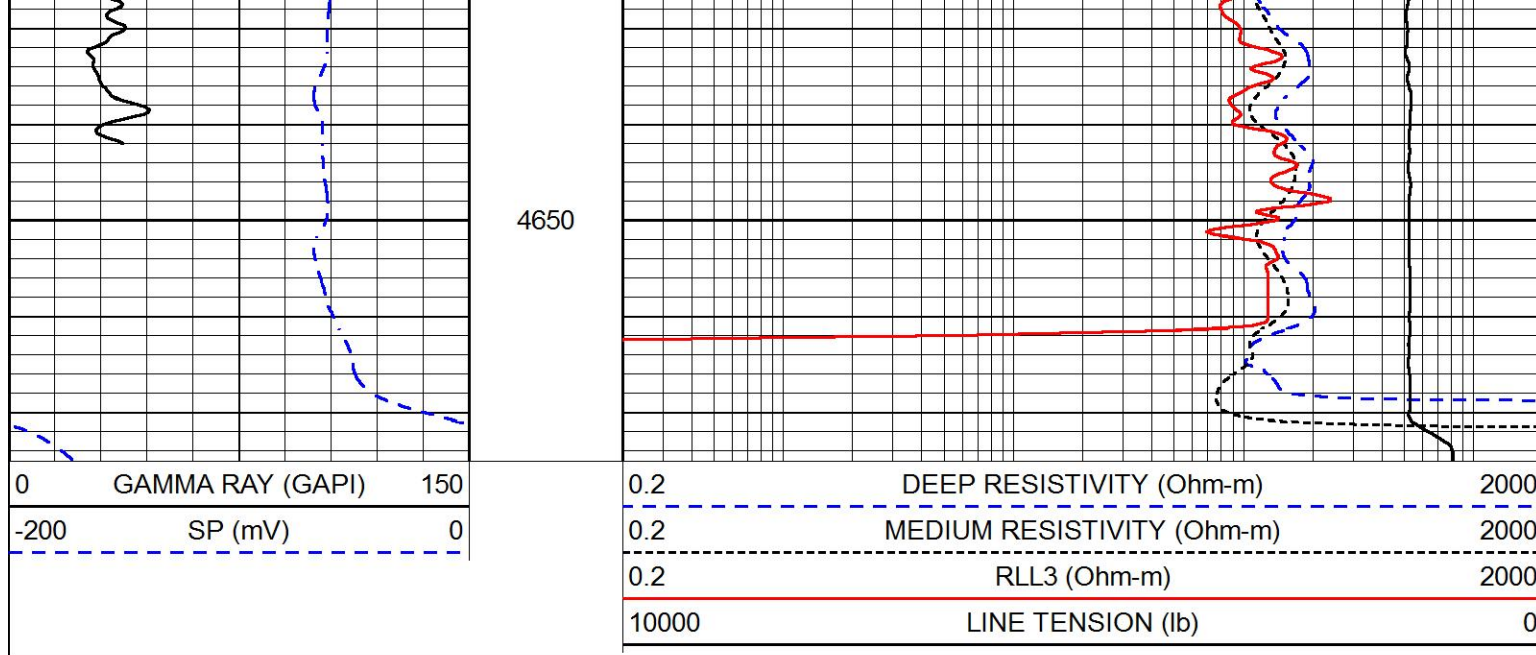
4450

4500

4550

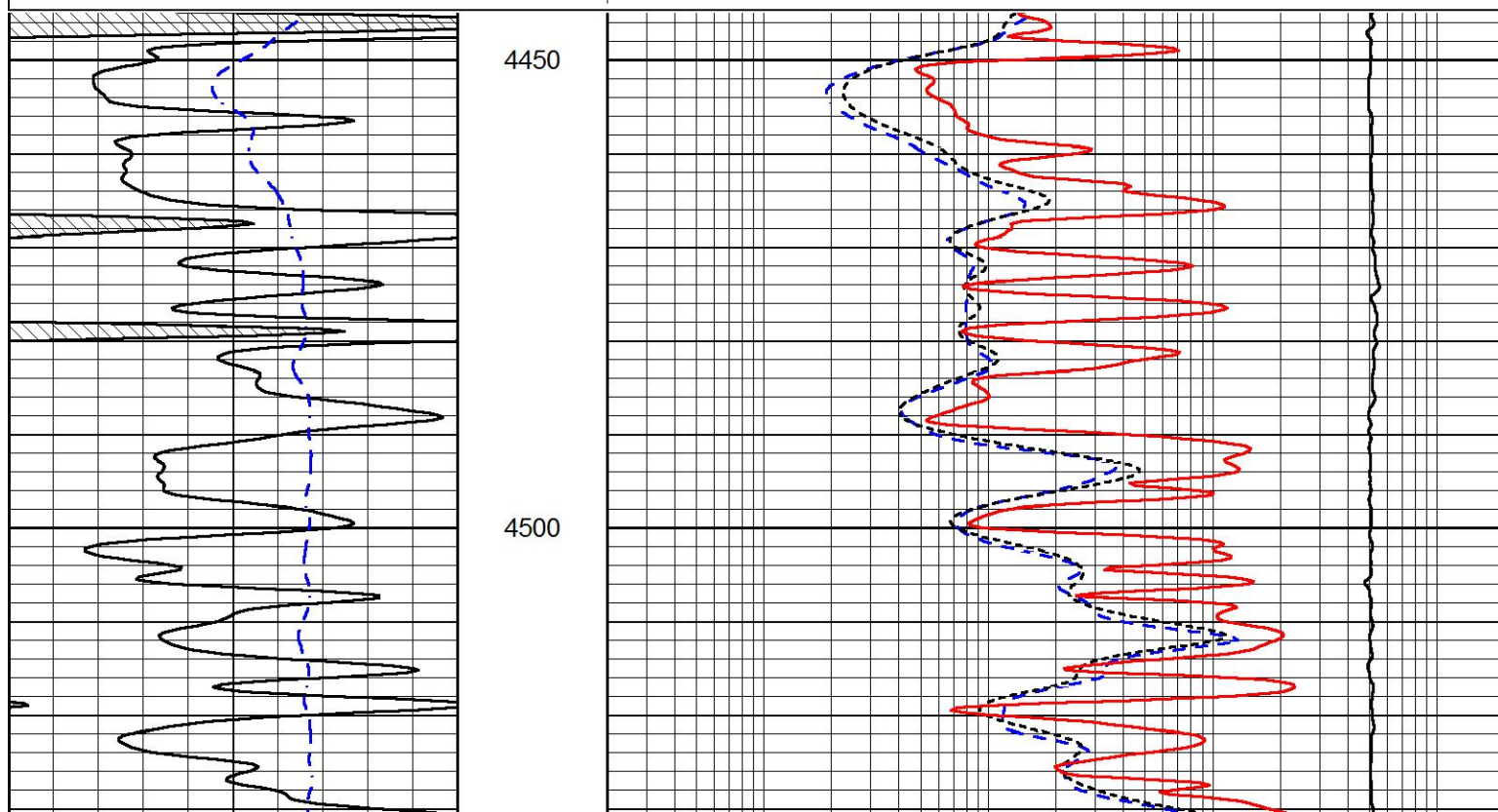
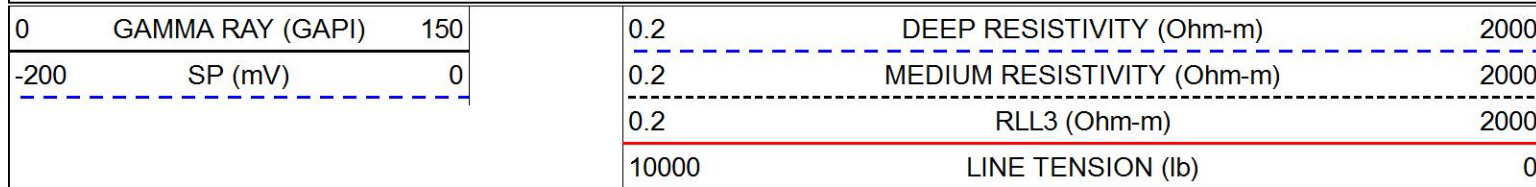
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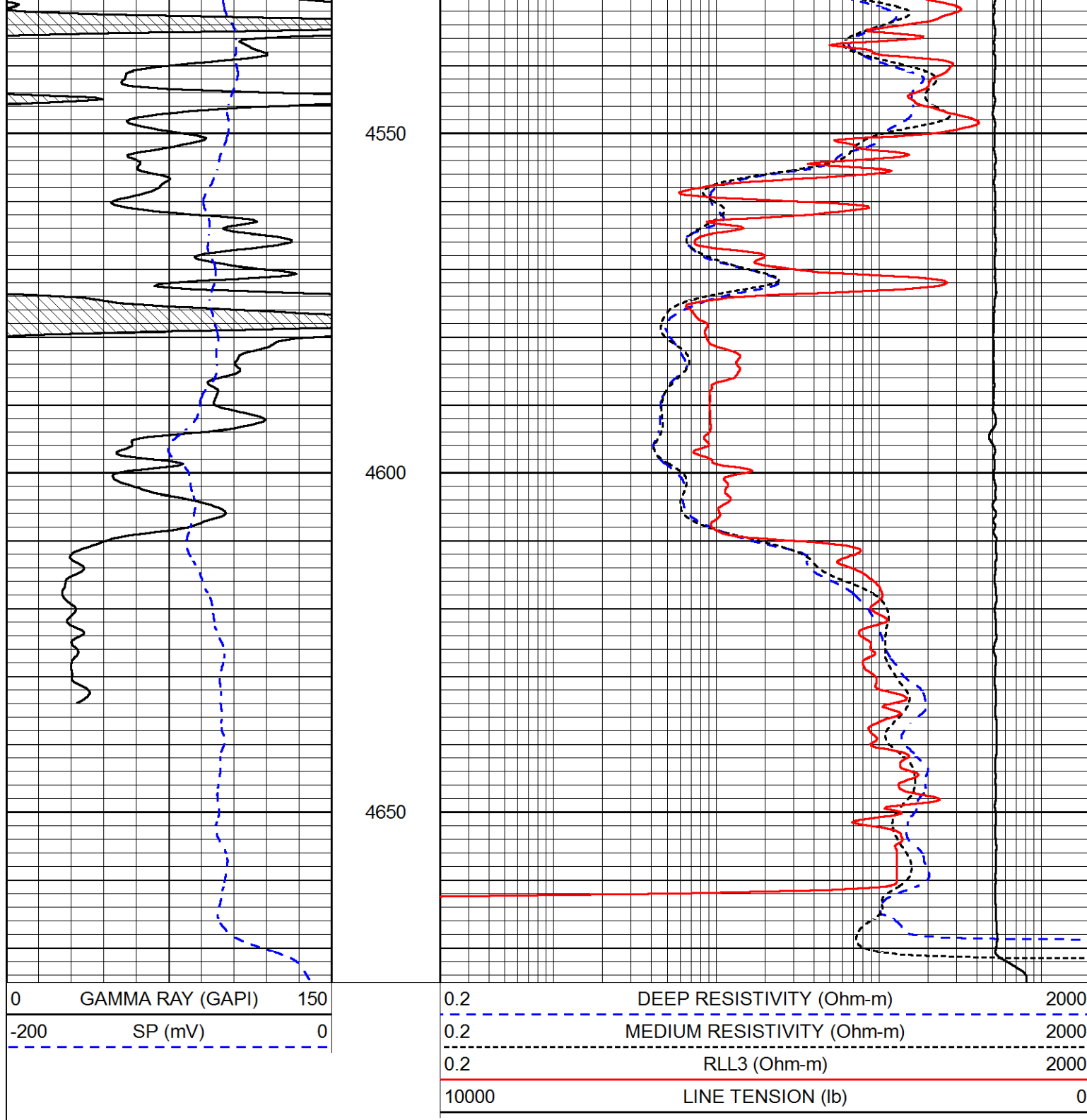




REPEAT SECTION

Database File concorde_mcdaniel 1-13.db
 Dataset Pathname STKML/pass3.1
 Presentation Format _dil
 Dataset Creation Sat May 04 23:39:23 2019
 Charted by Depth in Feet scaled 1:240





Calibration Report

Database File concorde_mcdaniel 1-13.db
Dataset Pathname STKML/pass4.1
Dataset Creation Sat May 04 23:41:56 2019

Dual Induction Calibration Report

Serial-Model: 967 (HT)-PSI HIGH TEMP
Calibration Performed: Fri Apr 12 09:37:07 2019

Readings

Loop: Air Loop

References

Air Loop

Results

Gain Offset

Deep	167.000	835.000	0.000	255.800	mmho/m	0.565	-14.500
Medium	0.000	1348.000	142.000	255.800	mmho/m	0.390	-37.000

Microlog Calibration Report

Serial-Model: Performed:	PSI-01-PSIML Sun Feb 24 09:53:40 2019
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	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	26000.0000	-0.7000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	43000.0000	-0.6000
Caliper	1.0001	1.1397	6.5000	18.5000	in	70.0000	-65.7000

Compensated Density Calibration Report

Serial-Model: Source / Verifier: Master Calibration Performed:	96-916-M&W 16955B / 2ci Wed Mar 27 11:00:53 2019
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Master Calibration							
	Density			Far Detector		Near Detector	
Magnesium	1.755	g/cc		8943.64		10054.60	cps
Aluminum	2.665	g/cc		1595.61		6242.82	cps
	Spine Angle = 74.54			Density/Spine Ratio = 0.509			
	Size			Reading			
Small Ring	6.00	in		1.75			
Large Ring	16.00	in		1.46			

Compensated Neutron Calibration Report

Serial Number: Tool Model: Calibration Performed:	207-MW M&W WED FEB 13 10:30:30 2019
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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:	233-M&W	
Tool Model:	M&W	
Calibration Performed:	Fri Feb 07 01:42:40 2014	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.5500	GAPI/cps



Company	CONCORDE RESOURCES CORP
Well	MCDANIEL #1-13
Field	WILDCAT
County	LOGAN
State	KANSAS