PIONEER
Pioneer Energy Services

DUAL INDUCTION LOG

Company BECKER OIL CORPORATION
Well SCHROEDER #1 'A'
Field JETMORE SOUTH
County HODGEMAN State KANSAS
Location: API #: 15-083-21937-00-00
1300' FNL & 2400' FWL
SEC 11 TWP 23S RGE 24W

Other Services: CNL/CDL, MEL

Permanent Datum: GROUND LEVEL Elevation 2294'
Log Measured From: KELLY BUSHING
Drilling Measured From: KELLY BUSHING

Elevation: K.B. 2299', D.F. N/A, G.L. 2294'

Company BECKER OIL CORPORATION
Well SCHROEDER #1 'A'
Field JETMORE SOUTH
County HODGEMAN
State KANSAS

Date	7/13/2017		
Run Number	ONE		
Depth Driller	4620'		
Depth Logger	4624'		
Bottom Logged Interval	4623'		
Top Log Interval	200'		
Casing Driller	8.625" @ 219'		
Casing Logger	217'		
Bit Size	7.875"		
Type Fluid in Hole	CHEMICAL		
Salinity,ppm CL	5200		
Density / Viscosity	9.4 58		
pH / Fluid Loss	9.5 10.4		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.50 @ 80		
Rmf @ Meas. Temp	0.38 @ 80		
Rmc @ Meas. Temp	0.68 @ 80		
Source of Rmf / Rmc	CHARTS		
Rm @ BHT	0.33 @ 122		
Operating Rig Time	3 HOURS		
Max Rec. Temp. F	122		
Equipment Number	91		
Location	HAYS		
Recorded By	D. SCHMIDT		
Witnessed By	CLYDE BECKER		

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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.

JETMORE,
1 3/4 WEST ON L RD, SOUTH INTO

Log Measured From: KELLY BUSHING 5 Ft. Above Permanent Datum

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

Your Pioneer Energy Services Crew	This Log Record Was Witnessed By
Engineer: D. SCHMIDT	Primary Witness: CLYDE BECKER
Operator:	Secondary Witness:
Operator:	Secondary Witness:
Operator:	Secondary Witness:

Log Variables

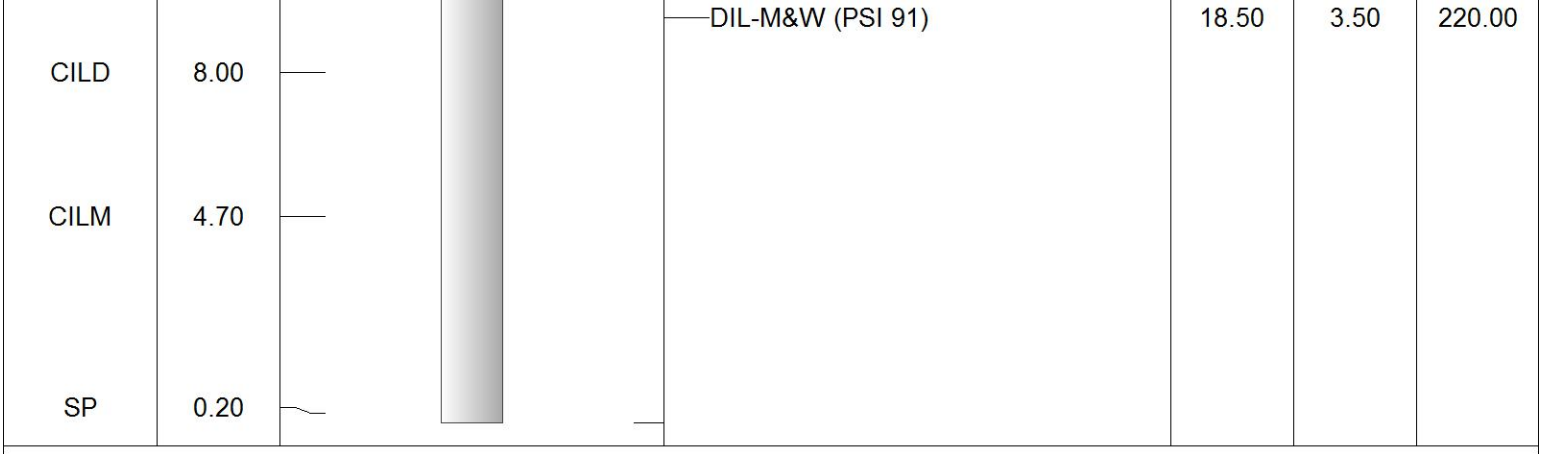
Database C:\ProgramData\Warrior\Data\becker_schroeder 1-a.db
Dataset field/well/stkml/pass3.8/_vars_

Top - Bottom

M	A	SZCOR	NPORSEL	FLUIDDEN g/cc	MATRXDEN g/cc	SPSHIFT mV	SNDERRM mmho/m
2	1	Off	Limestone	1	2.71	210	0

SNDERR mmho/m	SRFTEMP degF	CASETHCK in	CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF	BOREID in
0	80	0	5.5	0	0	122	7.875

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb
			GR-M&W (89)	3.00	3.50	50.00
GR	40.58					
CNLSC	37.48		CNT-M&W (207-MW)	5.50	3.50	100.00
CNSSC	36.73					
			CDL-M&W (90-1031)	8.50	4.00	250.00
LSD	28.43					
DCAL	28.42					
SSD	27.93					
			ML-PSIML (PSI-01) GO Micro log tools converted to Simplec electronics	7.58	4.00	65.00
MCAL	19.83					
MI	19.83					
MN	19.83					
RLL3F	15.80					
RLL3	15.80					



Dataset:	becker_schroeder 1-a.db: field/well/stkml/pass3.8
Total length:	43.08 ft
Total weight:	685.00 lb
O.D.:	4.00 in

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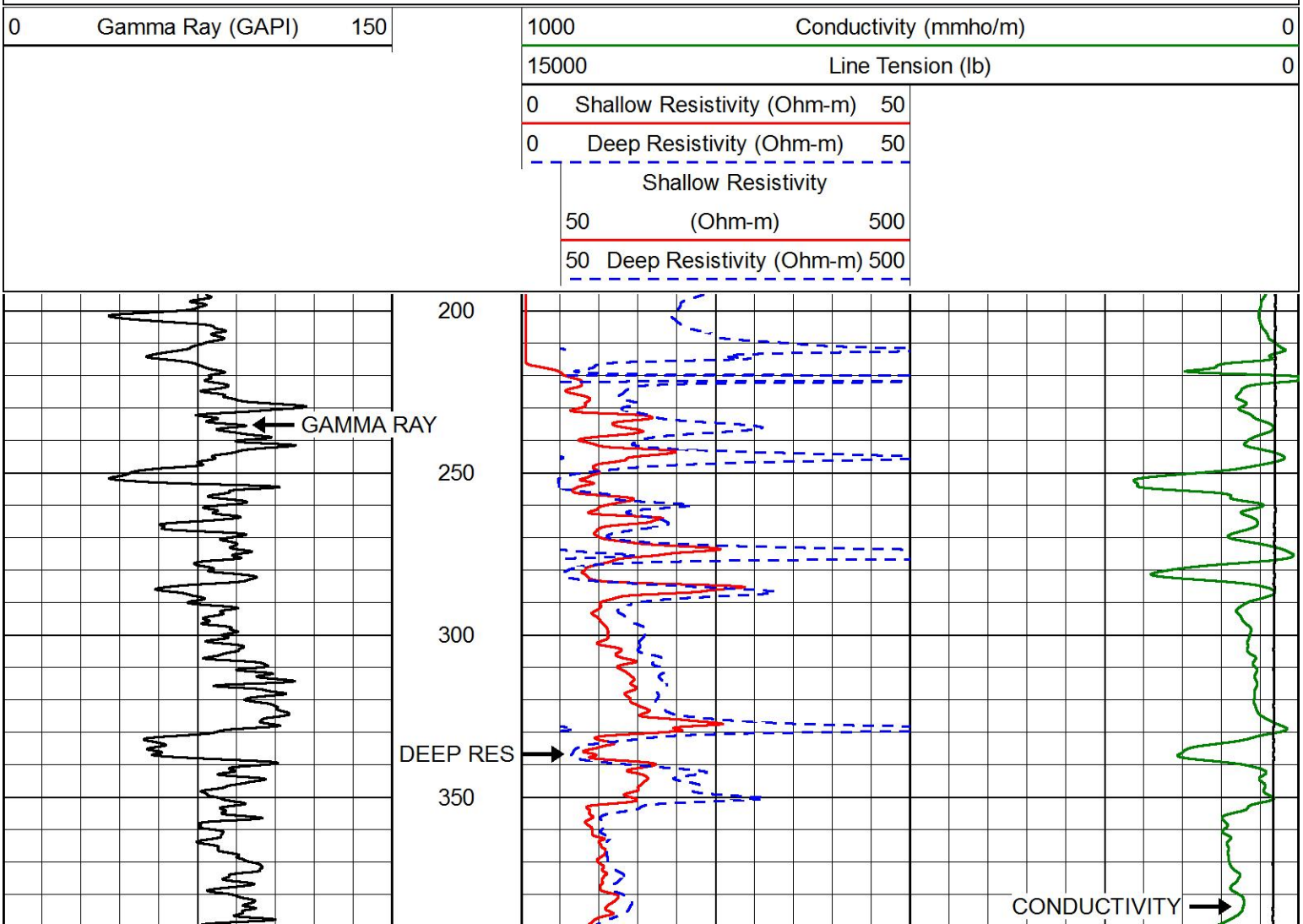
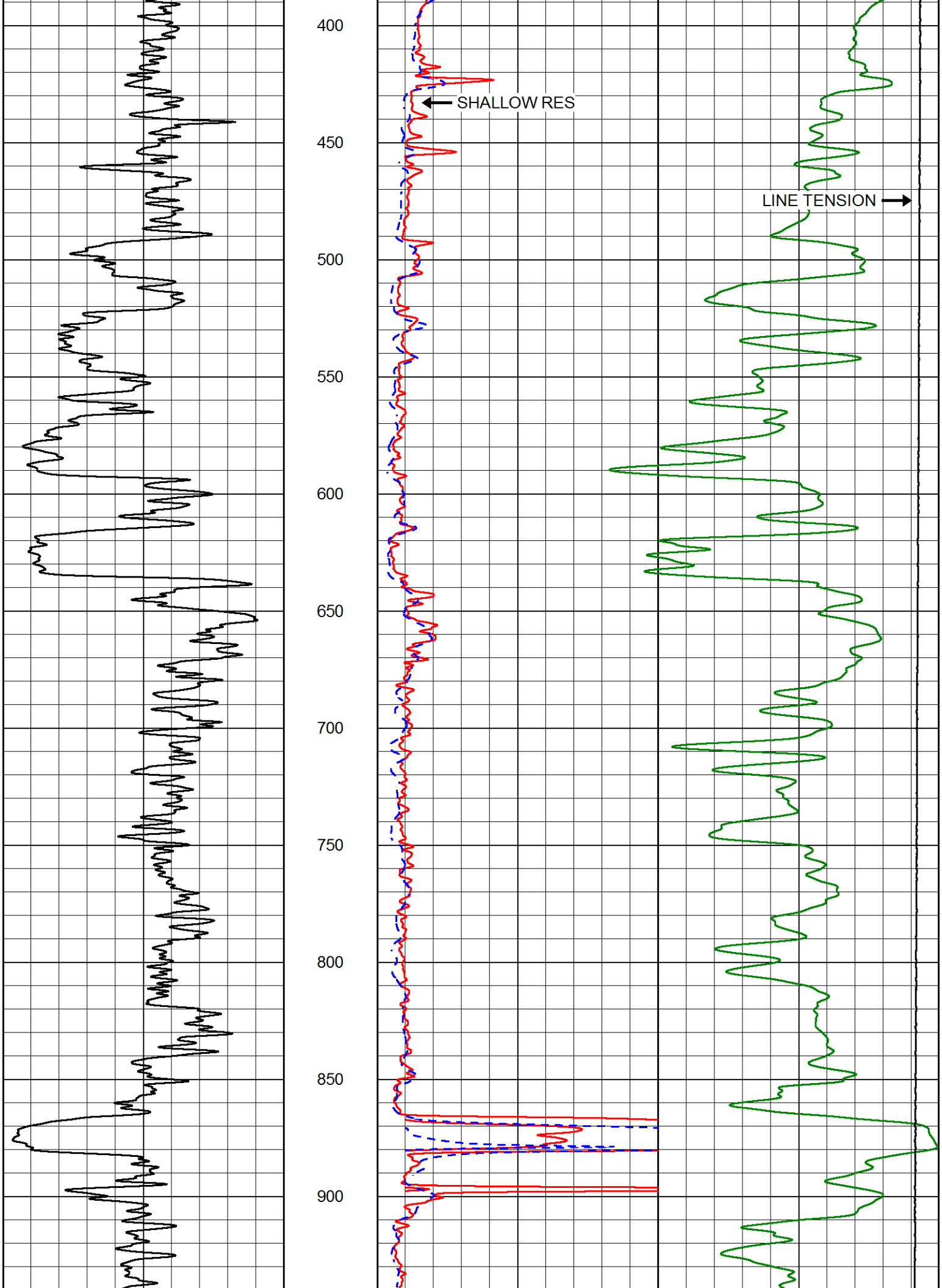
MAIN PASS

Database File	becker_schroeder 1-a.db
Dataset Pathname	stkml/pass3.1
Presentation Format	dil2in
Dataset Creation	Thu Jul 13 15:21:08 2017
Charted by	Depth in Feet scaled 1:600

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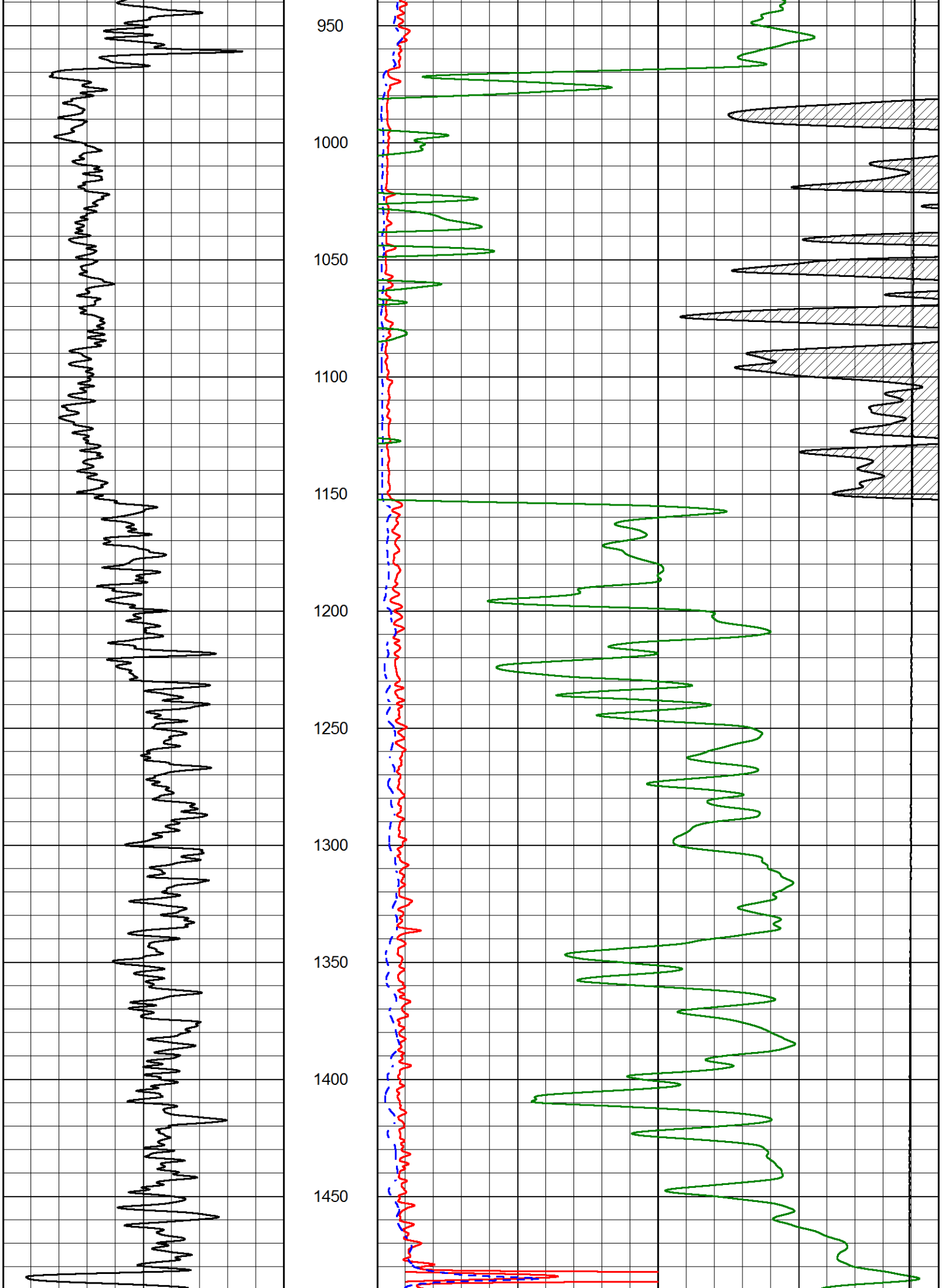
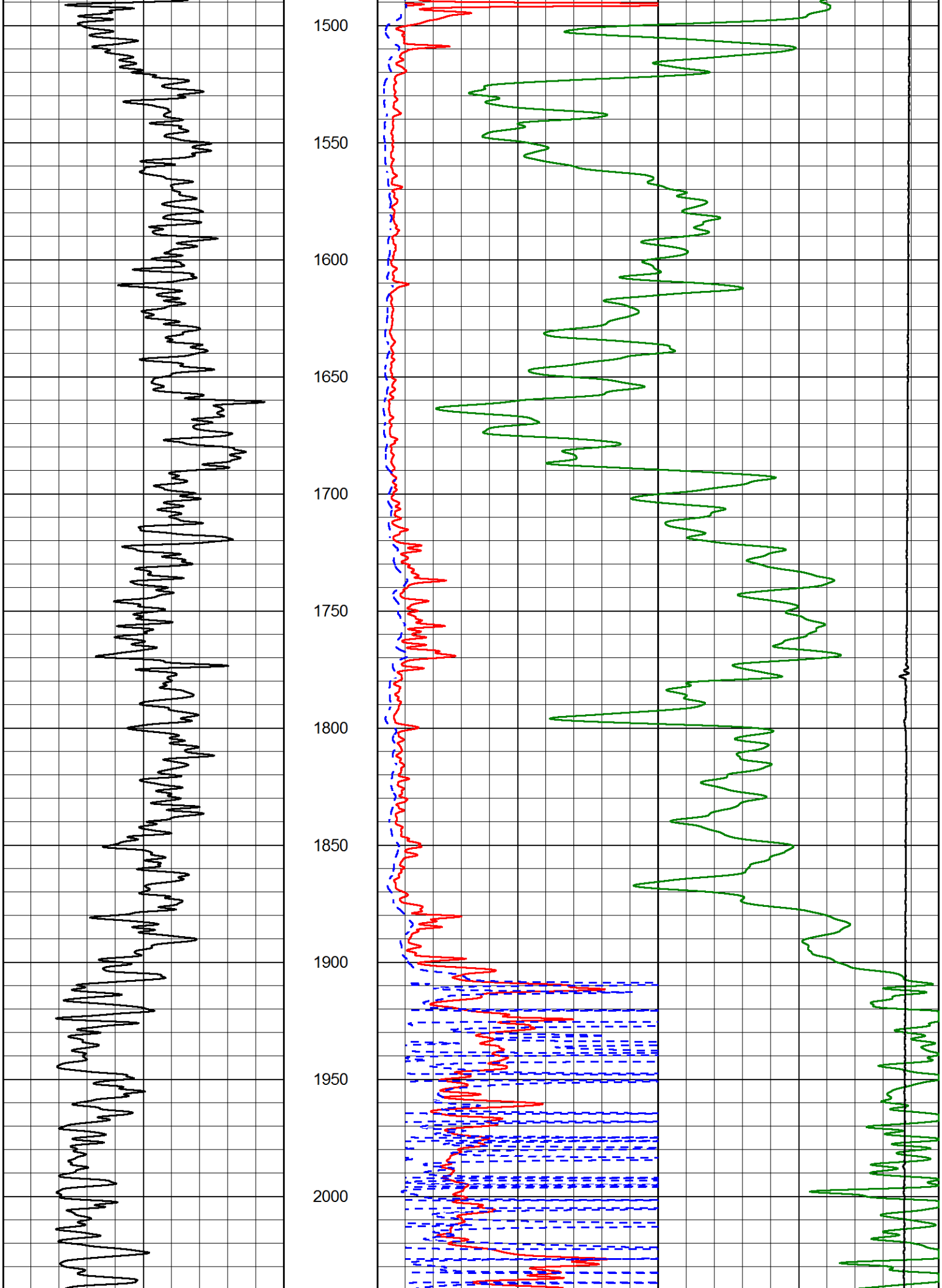
450
500
550
600
650
700
750
800
850
900
SHALLOW RES
LINE TENSION


950
1000
1050
1100
1150
1200
1250
1300
1350
1400
1450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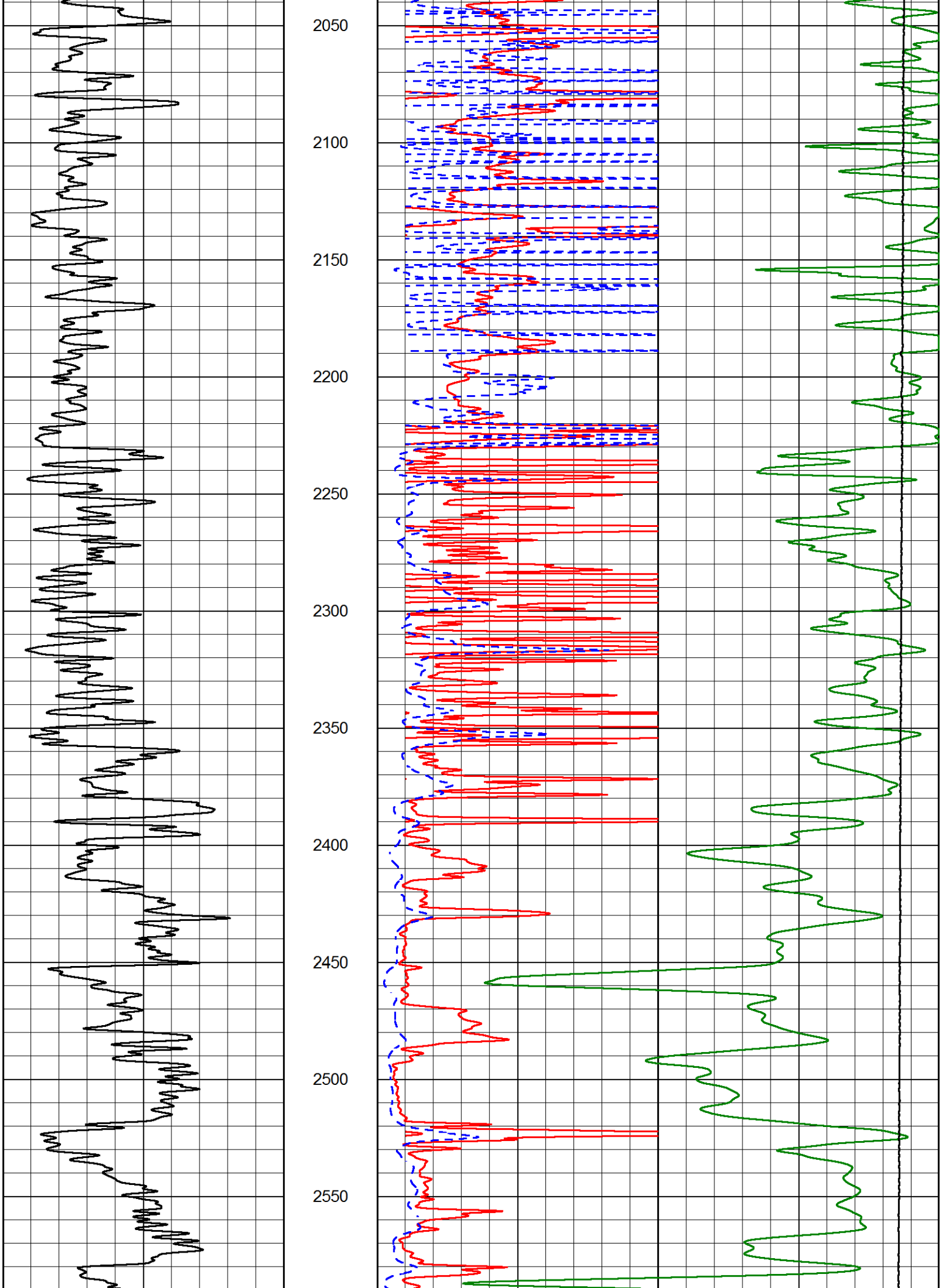
1550
1600
1650
1700
1750
1800
1850
1900
1950
2000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2100
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2200
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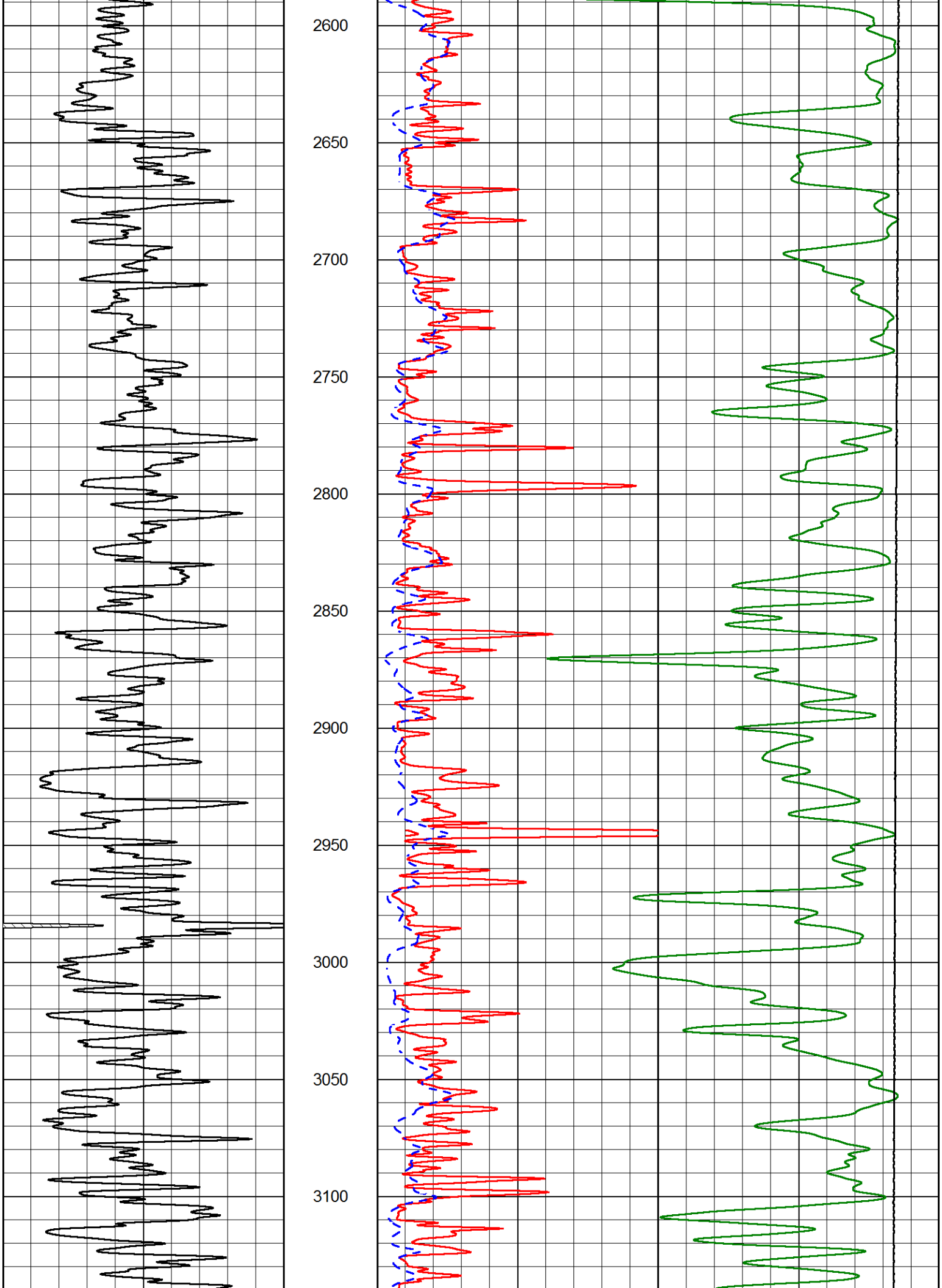
2300
2350
2400
2450
2500
2550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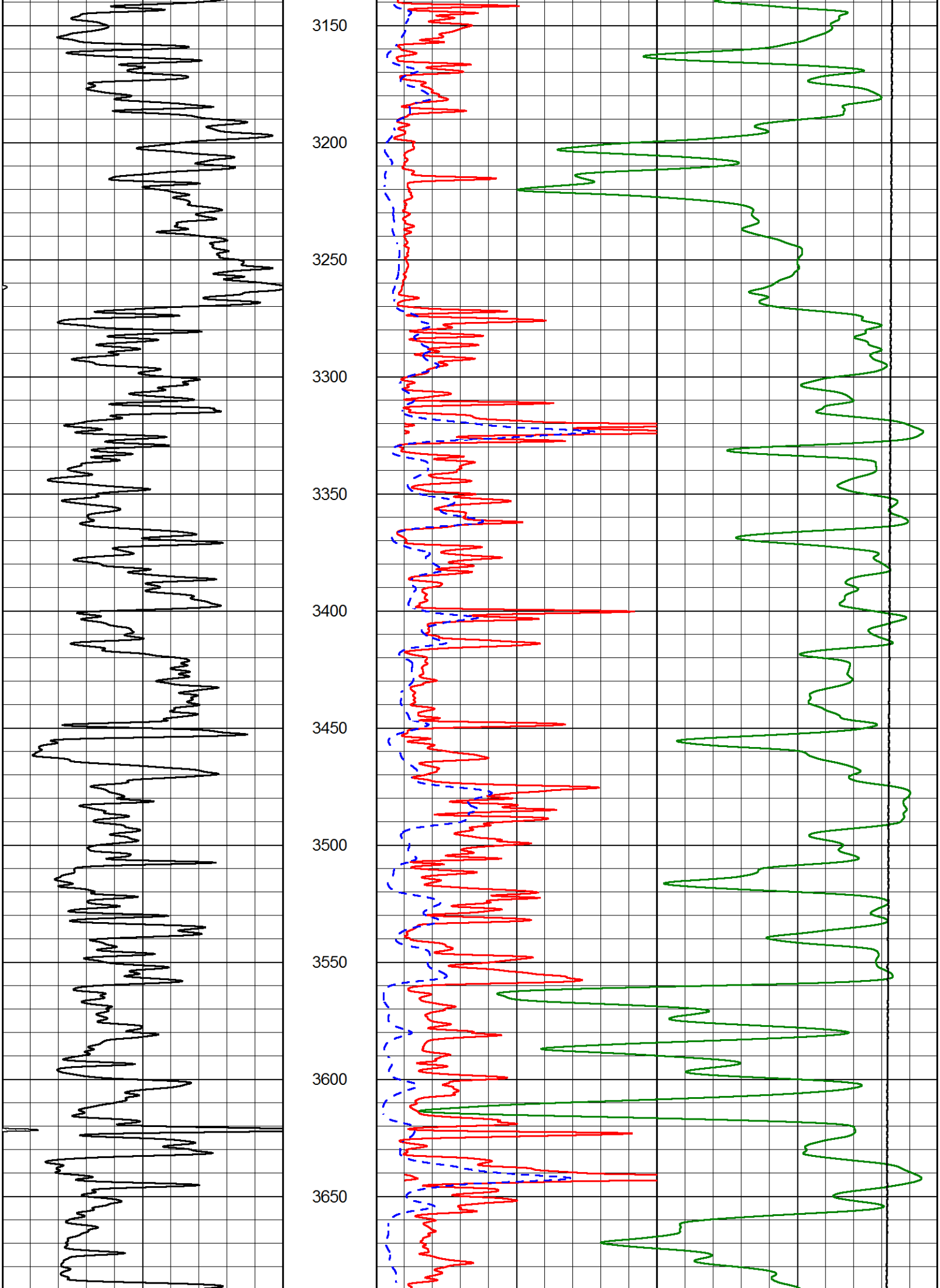
2700
2750
2800
2850
2900
2950
3000
3050
3100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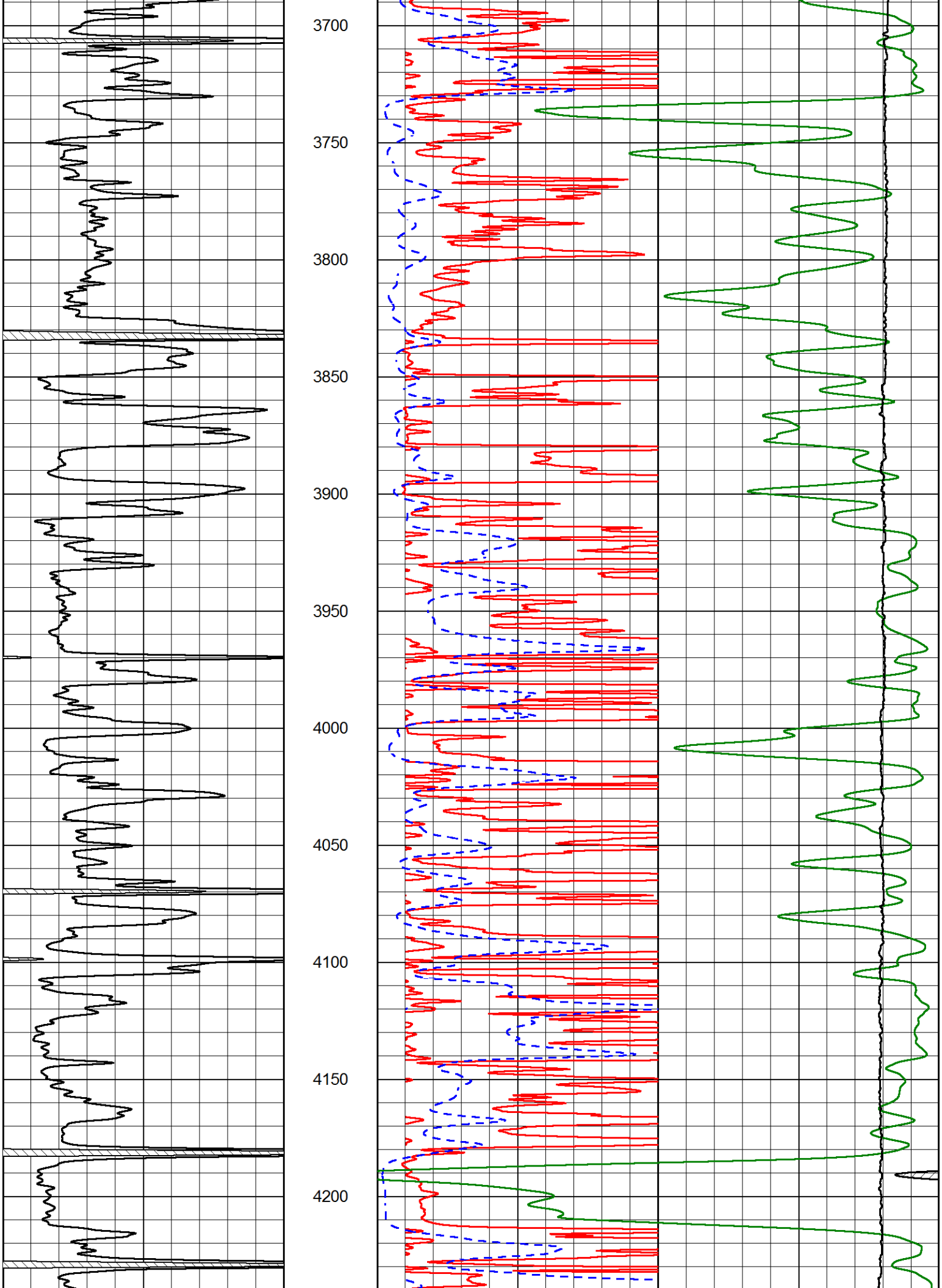
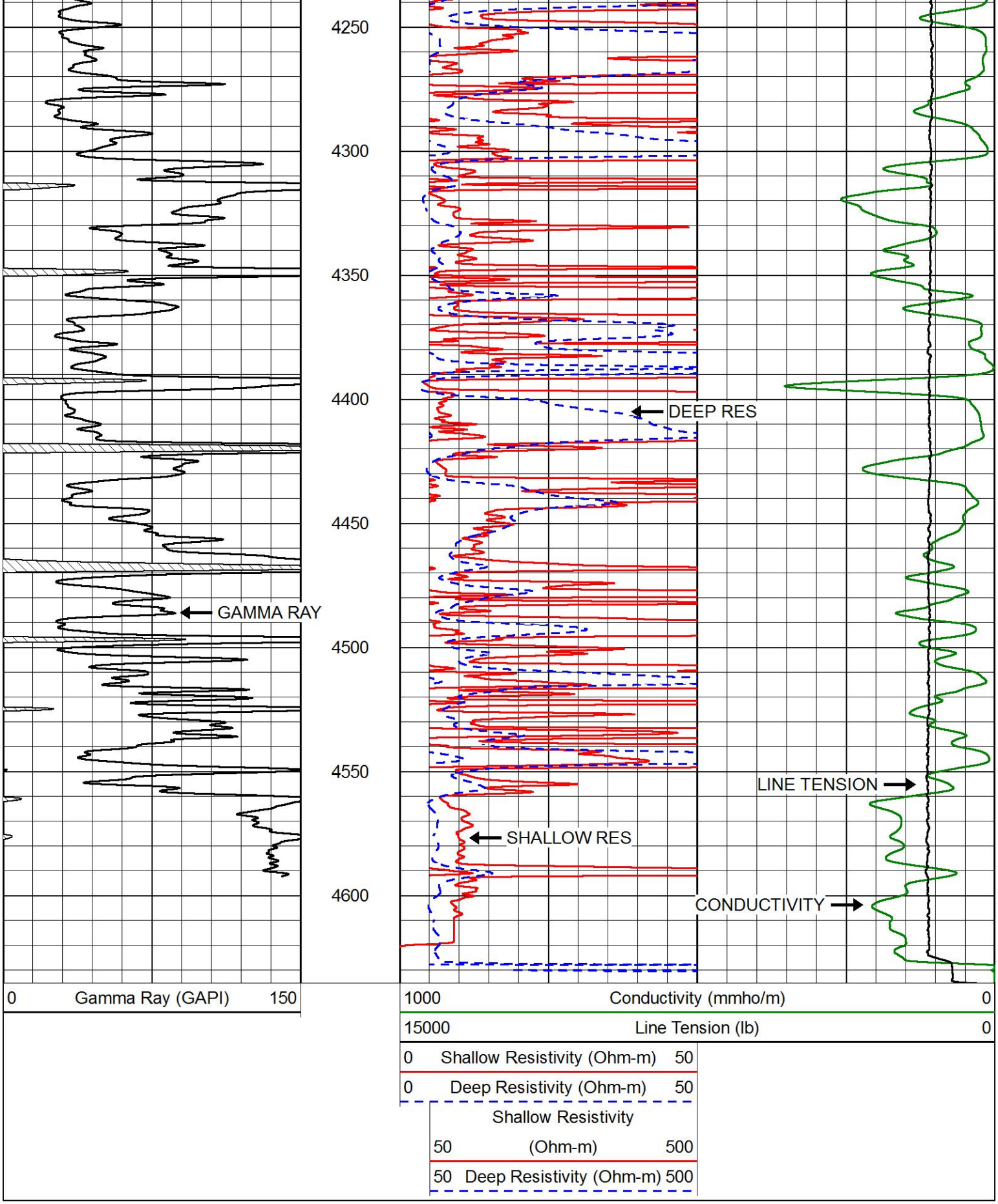
3250
3300
3350
3400
3450
3500
3550
3600
3650


3700
3750
3800
3850
3900
3950
4000
4050
4100
4150
4200



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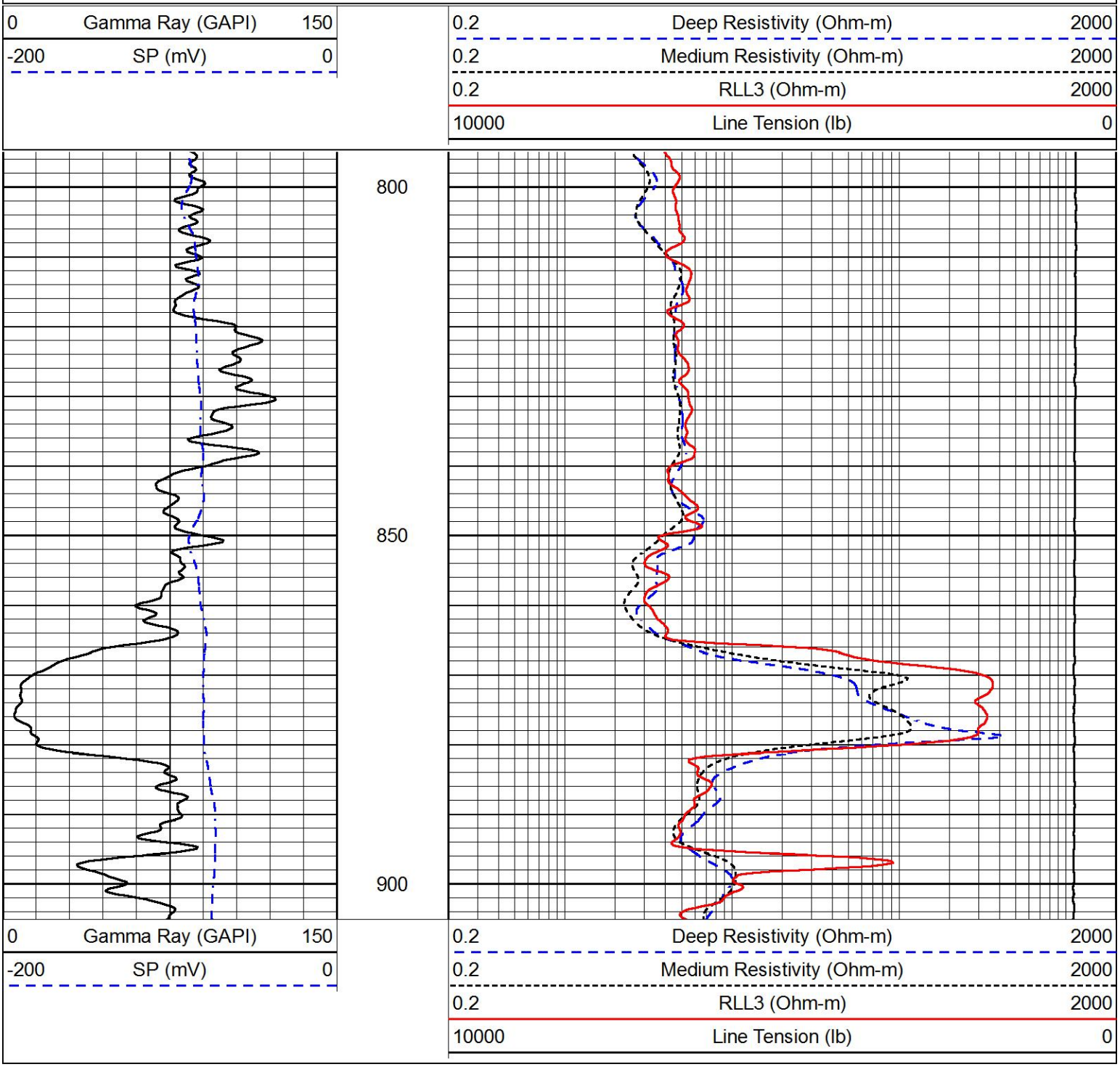
MAIN PASS

Database File	becker_schroeder 1-a.db
Dataset Pathname	stkml/pass3.1
Presentation Format	dil
Dataset Creation	Thu Jul 13 15:21:08 2017
Charted by	Depth in Feet scaled 1:240



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Database File	becker_schroeder 1-a.db
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Dataset Creation	Thu Jul 13 15:21:08 2017
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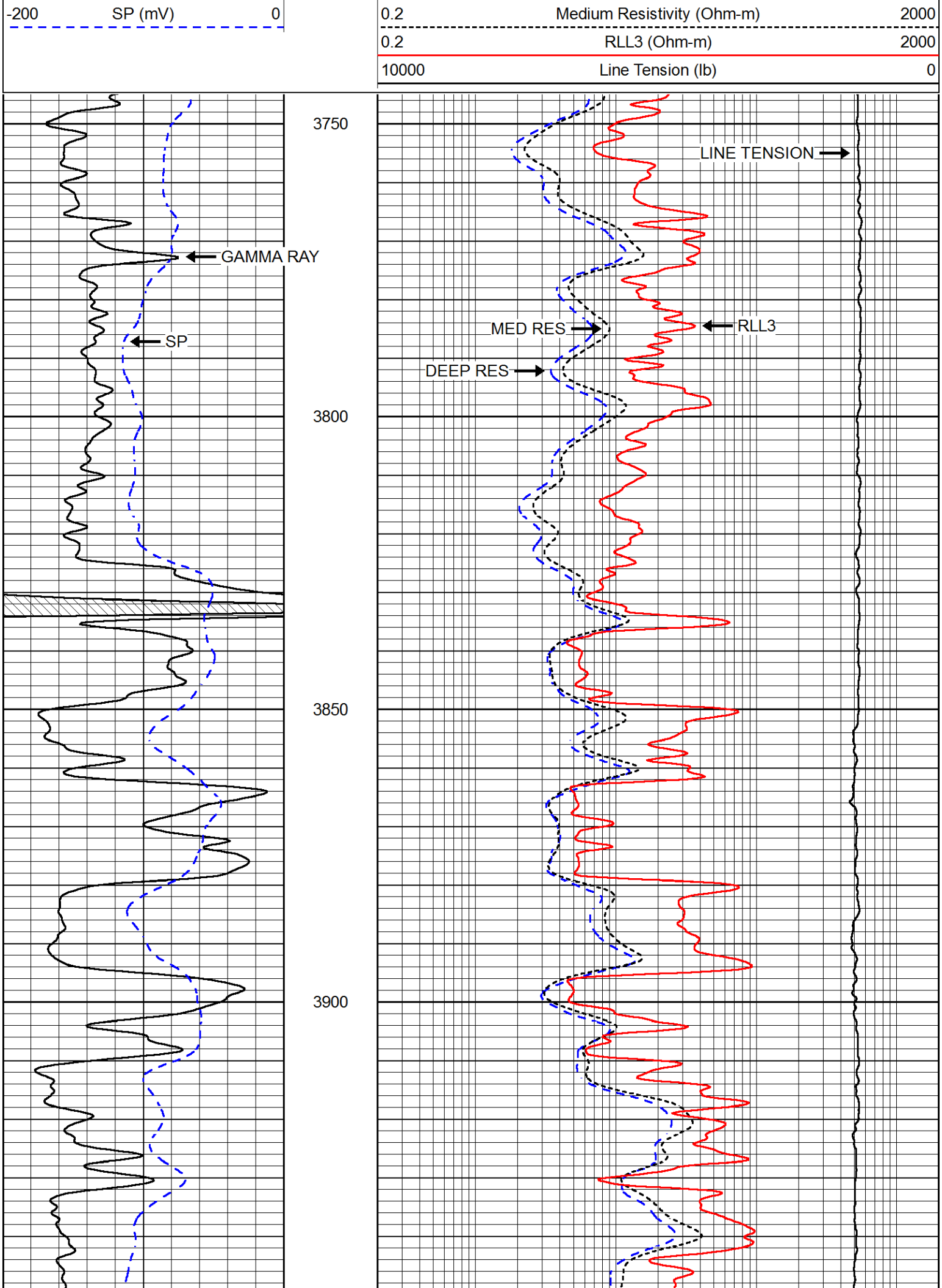
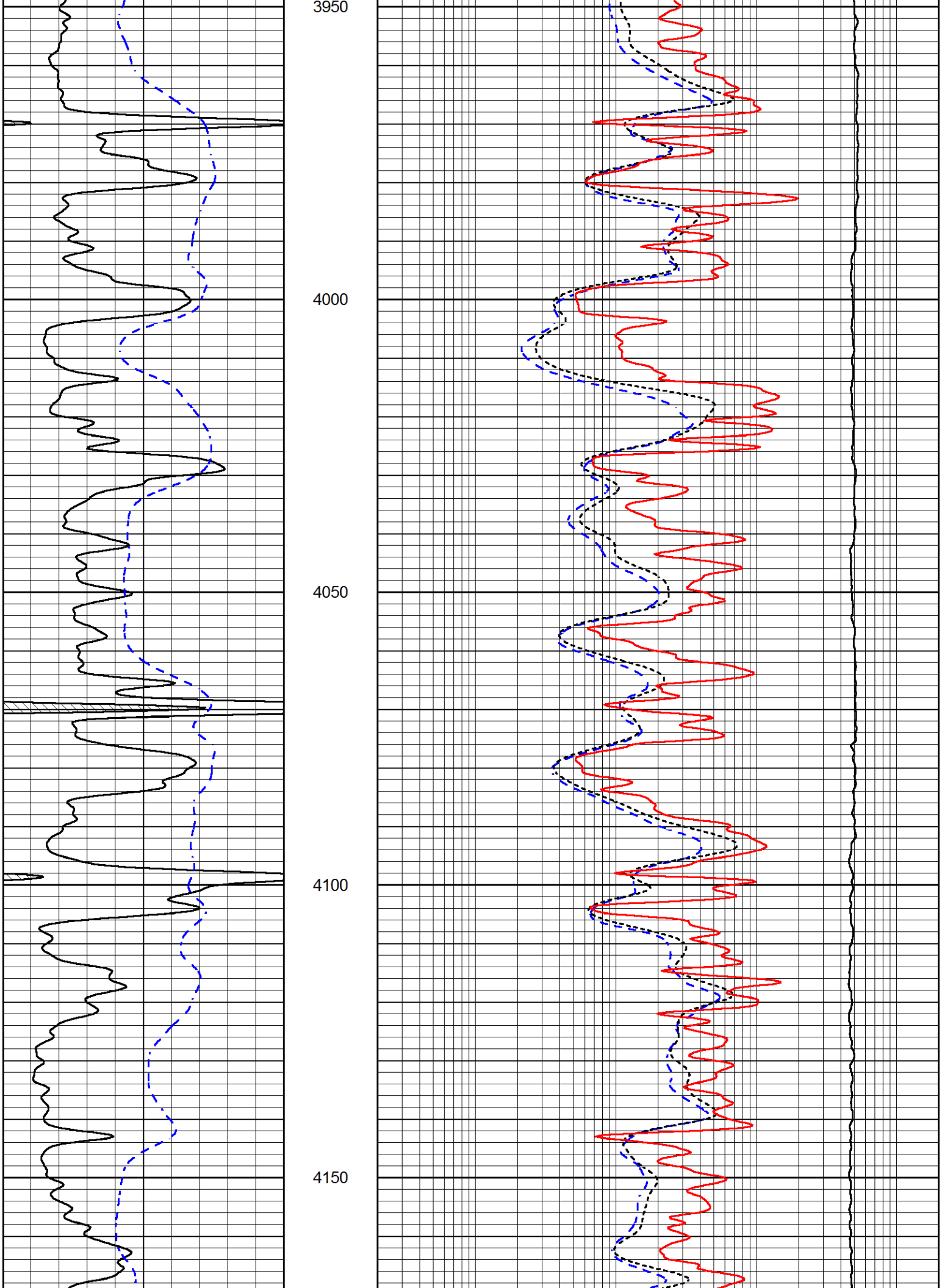

-200
SP (mV)
0
0.2
Medium Resistivity (Ohm-m)
2000
0.2
RLL3 (Ohm-m)
2000
10000
Line Tension (lb)
0
3750
3800
3850
3900
GAMMA RAY
SP
LINE TENSION
MED RES
RLL3
DEEP RES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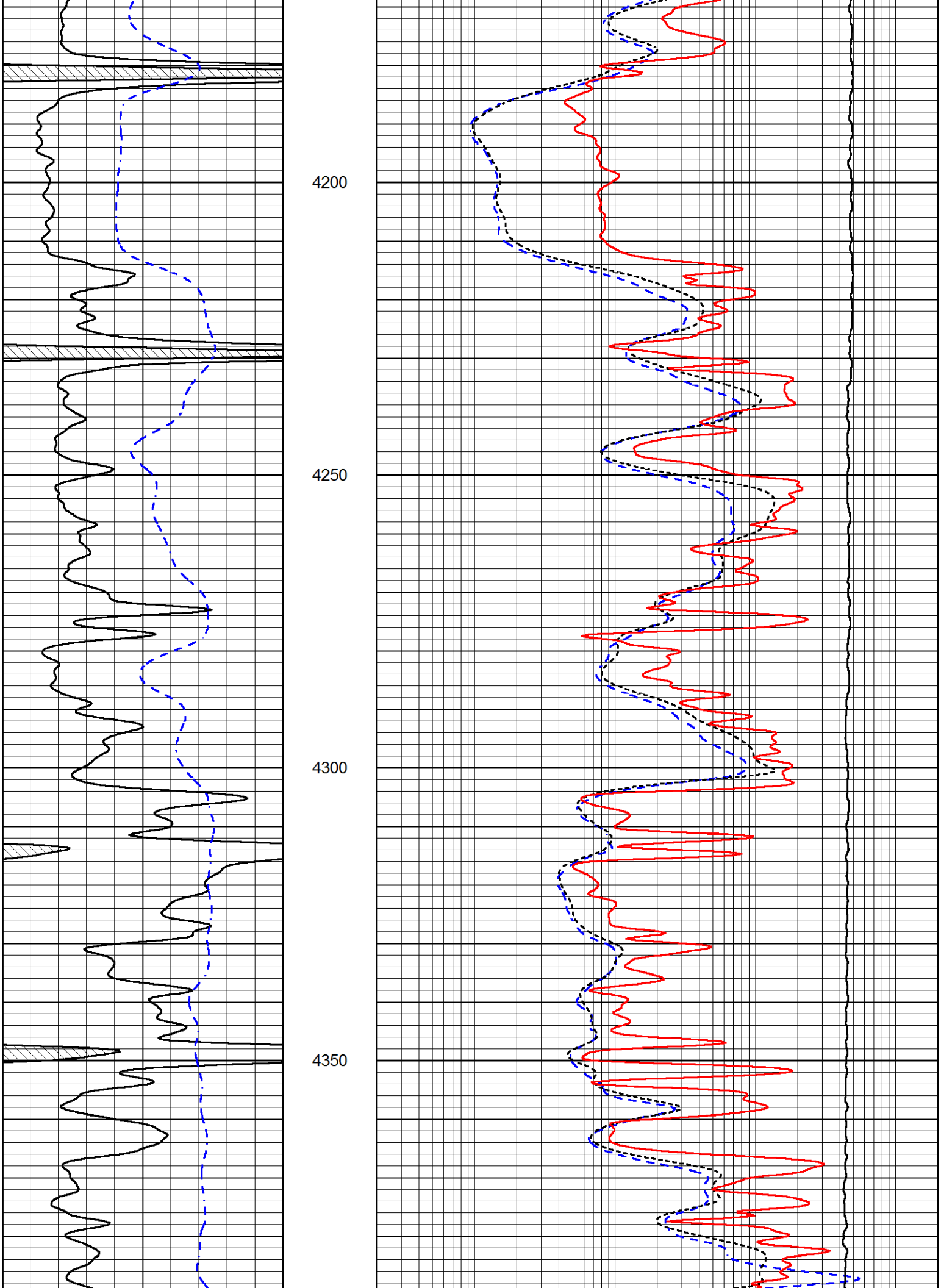
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4250
4300
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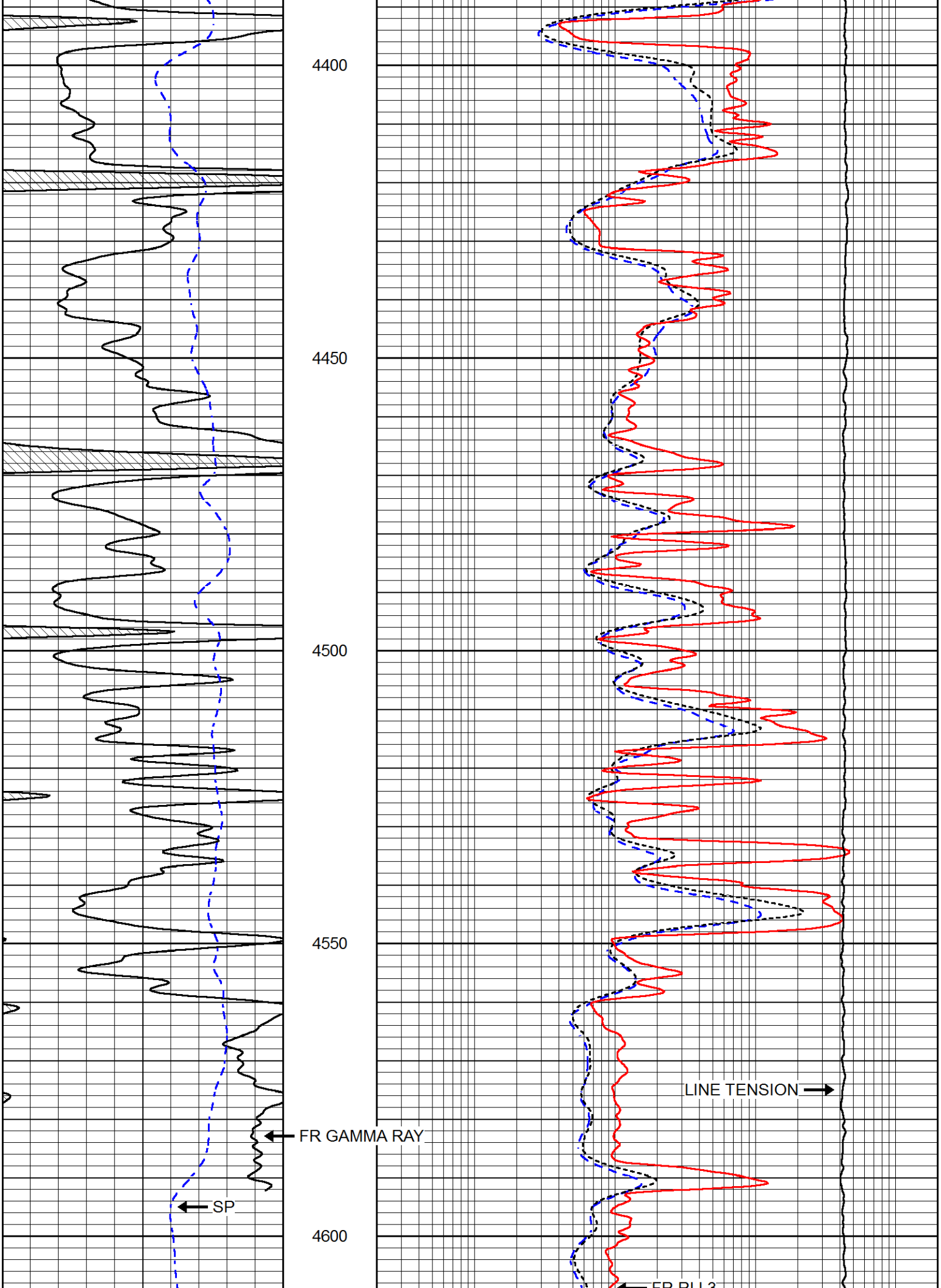
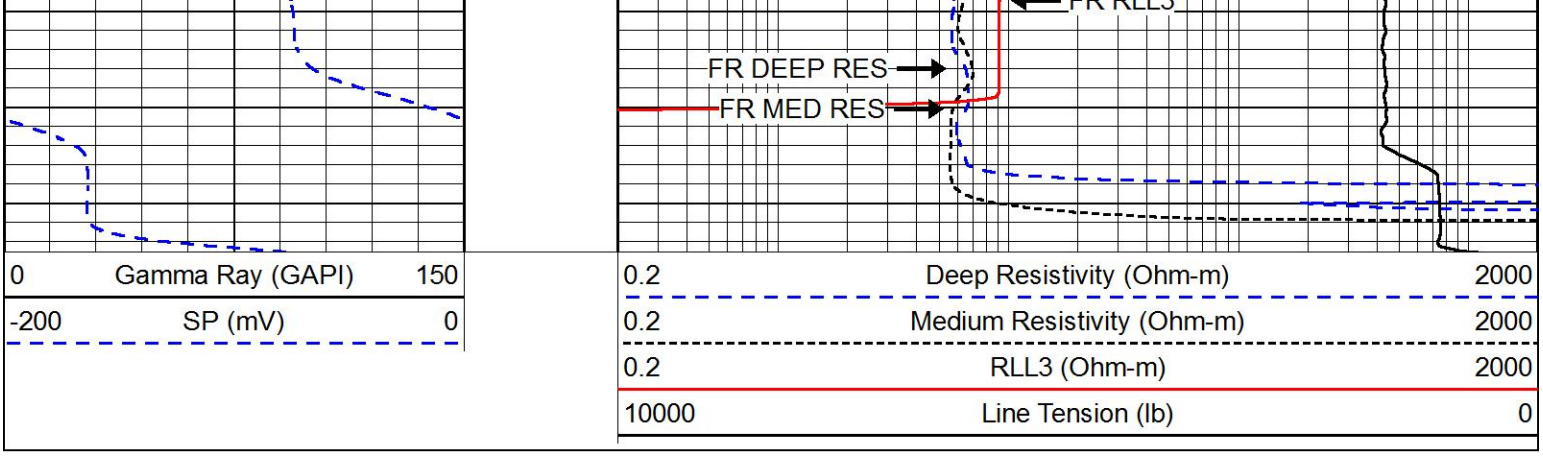

4400
4450
4500
4550
4600
LINE TENSION
FR GAMMA RAY
SP



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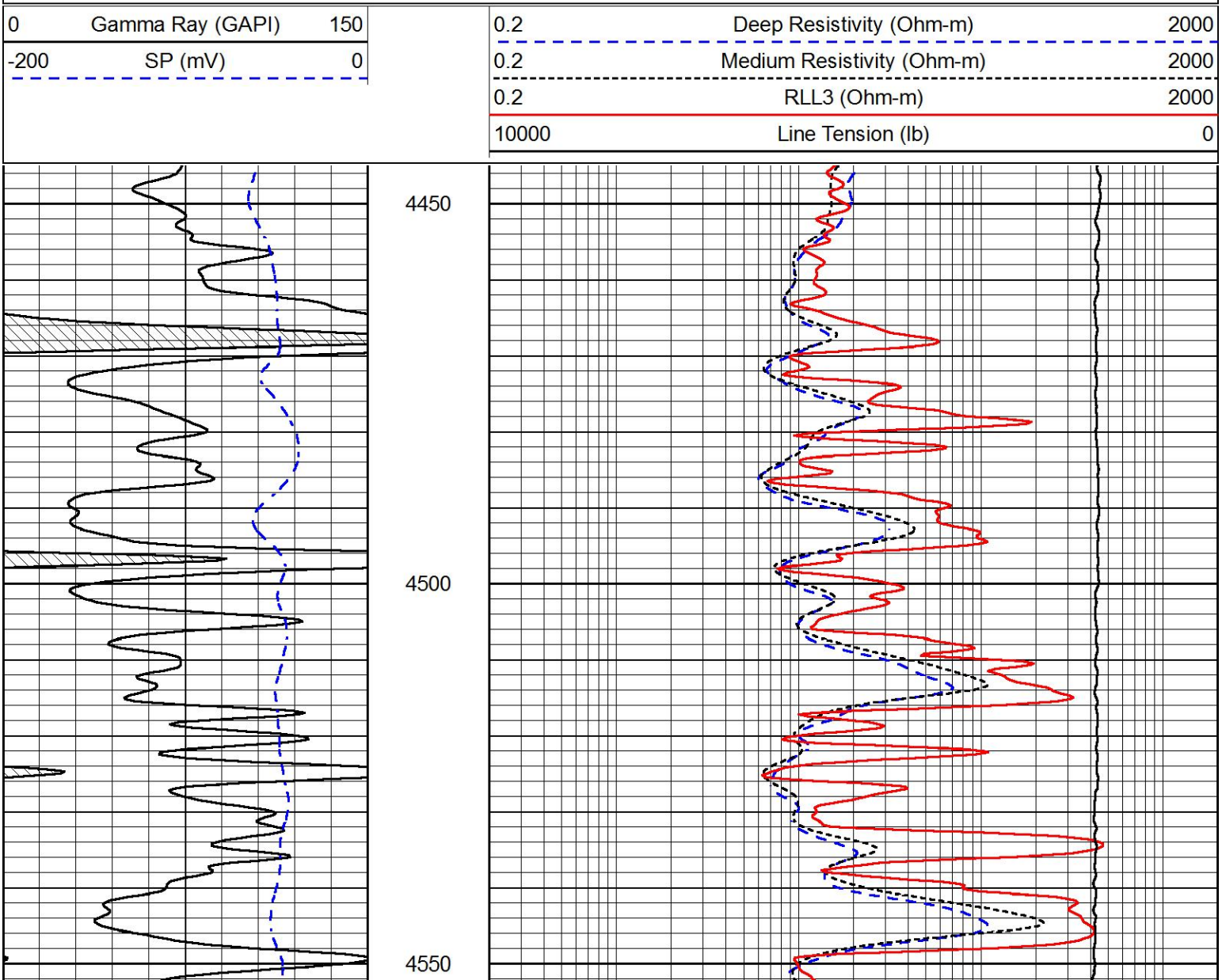
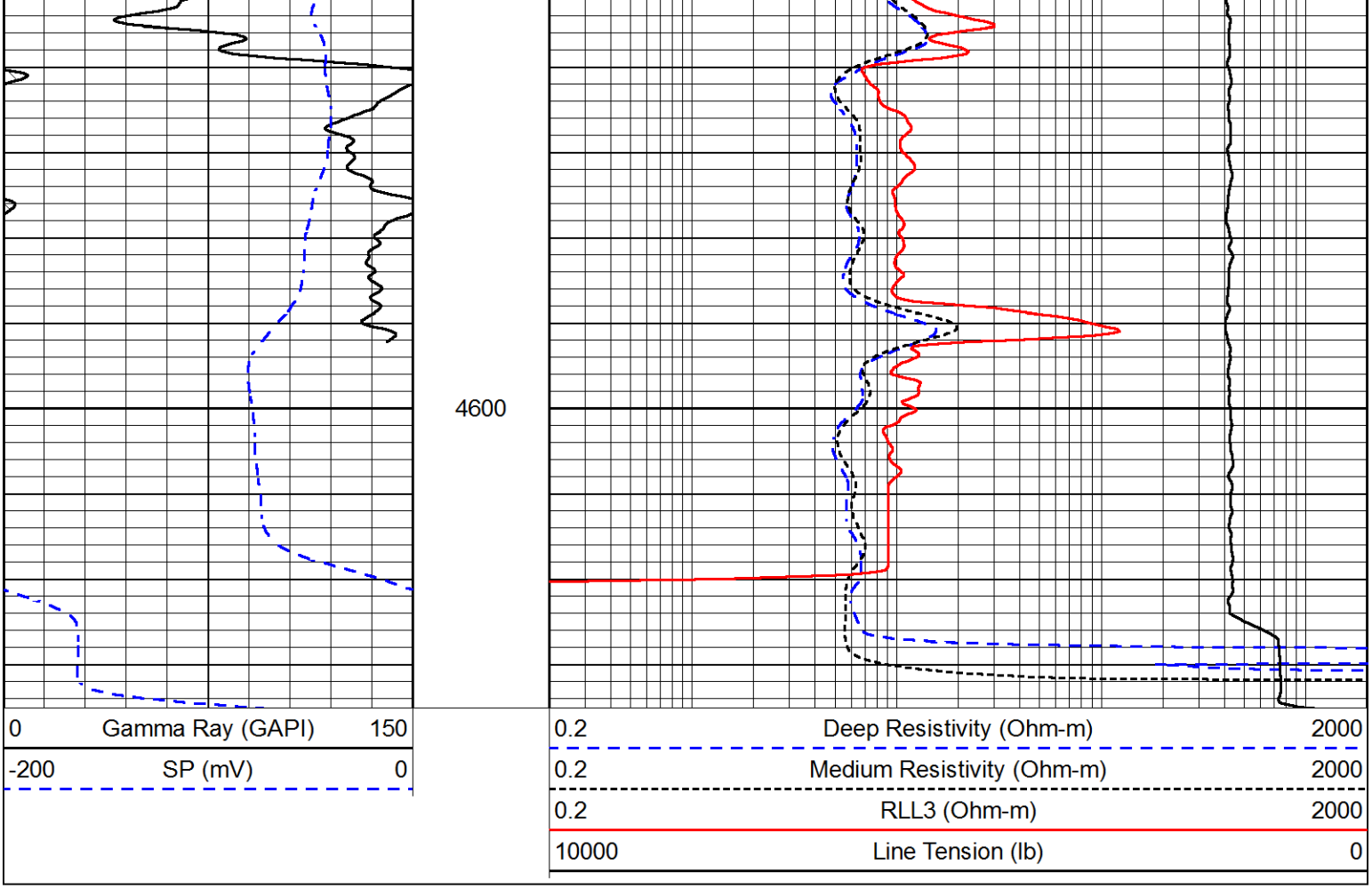
REPEAT SECTION

Database File	becker_schroeder 1-a.db
Dataset Pathname	stkml/pass2.1
Presentation Format	dil
Dataset Creation	Thu Jul 13 14:59:46 2017
Charted by	Depth in Feet scaled 1:240





Calibration Report

Database File	becker_schroeder 1-a.db
Dataset Pathname	stkml/pass3.8
Dataset Creation	Thu Jul 13 14:58:15 2017

Dual Induction Calibration Report

Serial-Model:	PSI 91-M&W
Calibration Performed:	Thu Jul 13 13:00:25 2017

	Readings		References			Results	
Loop:	Air	Loop	Air	Loop		Gain	Offset
Deep	166.796	835.089	0.000	255.800	mmho/m	0.430	-30.500
Medium	142.009	1348.560	0.000	255.800	mmho/m	0.360	-31.000

Microlog Calibration Report

Serial-Model:	PSI-01-PSIML
Performed:	Thu Jul 13 13:00:38 2017

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	25000.0000	-1.0000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	30000.0000	-0.8000
Caliper	1.0001	1.1397	6.5000	18.5000	in	100.0000	-97.1500

Compensated Density Calibration Report

Serial-Model:	90-1031-M&W
Source / Verifier:	16955B / 2ci
Master Calibration Performed:	Thu Jul 13 13:00:48 2017

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	4903.44	6153.79	cps
Aluminum	2.695	g/cc	934.50	4021.31	cps

Spine Angle = 75.61 Density/Spine Ratio = 0.549

	Size		Reading
Small Ring	8.00	in	1.84
Large Ring	22.00	in	1.46

Compensated Neutron Calibration Report

Serial Number:	207-MW
Tool Model:	M&W
Calibration Performed:	Sat Jun 17 10:30:30 2017

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 Jul 13 13:01:02 2017	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.6000	GAPI/cps

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Well	SCHROEDER #1 'A'
Field	JETMORE SOUTH
County	HODGEMAN
State	KANSAS