

Company Merit Energy Company, LLC.
Well Carrie #15-2
Field Wildcat
County Kearny
State Kansas

Company Merit Energy Company, LLC.
Well Carrie #15-2
Field Wildcat
County Kearny
State Kansas

Location: 2088' FSL & 887' FEL
SE NW/NE SE
SEC 15 TWP 23S RGE 35W
Permanent Datum G.L. Elevation 3018 ft.
Log Measured From K.B. 12 ft. above perm. datum
Drilling Measured From K.B.
API #: 15-093-21992
Other Services
K.B. Elevation 3030 ft.
D.F. 3029 ft.
G.L. 3018 ft.

Date	12-Sep-2021
Run Number	One
Depth Driller	4978'
Depth Logger	4974'
Bottom Logged Interval	4966'
Top Log Interval	1735'
Casing Driller	8 5/8" @ 1745'
Casing Logger	1740'
Bit Size	7 7/8" @
Type Fluid in Hole	Chemical @
Density / Viscosity	9.31 / 54
pH / Fluid Loss	11.0 / 7.2
Source of Sample	Flowline
Rm @ Meas. Temp	1.345 @ 75°F @
Rmt @ Meas. Temp	1.009 @ 75°F @
Rmc @ Meas. Temp	1.681 @ 75°F @
Source of Rmf / Rmc	Calculated @
Rm @ BHT	0.926 @ 114°F @
Time Circulation Stopped	12:00
Time Logger on Bottom	16:50
Maximum Recorded Temperature	114°F
Equipment Number	10001
Location	OKC, OK.
Recorded By	H. Garcia
Witnessed By	Mr. A. Garner

<<< Fold Here >>>

Equipment and Log Data

Service Order: T1-210912

Gamma		Density		Neutron		Sonic		IAT	
Run No.	One	Run No.	One	Run No.	One	Run No.	One	Run No.	One
Serial No.	6122	Serial No.	872	Serial No.	071	Serial No.	36SS	Serial No.	110
O.D.	3.375 in.	Source No.	70997B	Source No.	1414NC	Centralizers	Two	Standoffs	2 @ 0.5"
		O.D.	4.5 in.	O.D.	3.375 in.	O.D.	3.375 in.	O.D.	3.875 in.

Logging Pass Data

General			Gamma		Density			Neutron			Sonic		IAT		
			Scales		Scales			Scales			Scales		Scales		
Run	Depths		Left	Right	Left	Right	Matrix	Left	Right	Matrix	Left	Right	Matrix	Left	Right
One	SCG	TD	0	150	0.3	-0.1	2.71 g/cc	0.3	-0.1	Lime	0.3	-0.1	47.6 usec/ft	1.2	2000

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, 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. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

Toolstring ran as per diagram
Density is presented on a 2.71 g/cc Matrix, Neutron is presented on a Limestone Matrix, Sonic is presented on 47.6 usec/ft Matrix
Chlorides: 2700 ppm
LCM: 34 lbs/bbl
Annular volume computed using 5.5" casing.

YOUR CREW TODAY: C. Swanson

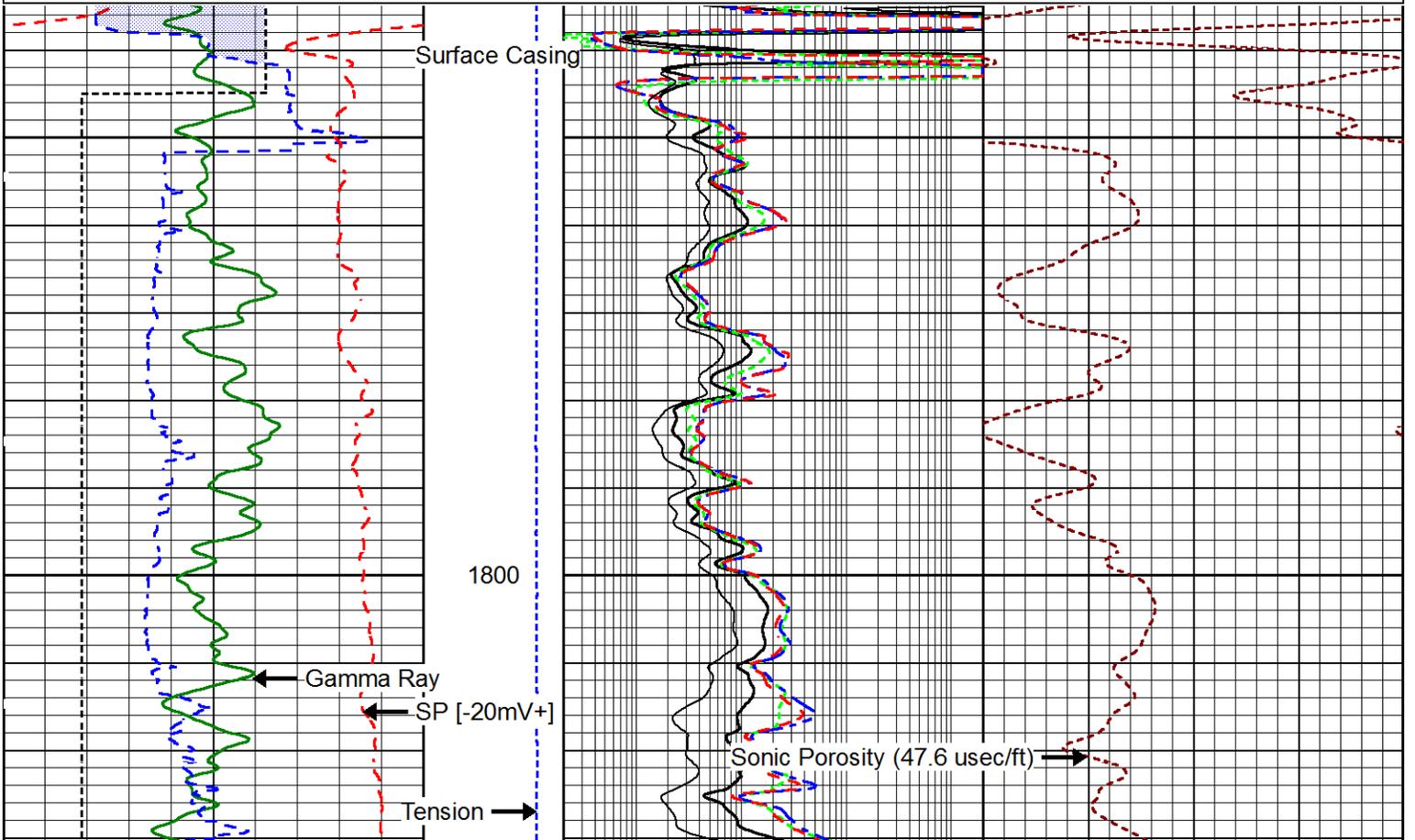
THANK YOU FOR CHOOSING WIRELINE LOGGING SOLUTIONS. OKLAHOMA CITY, OK. (405) 445-7135.

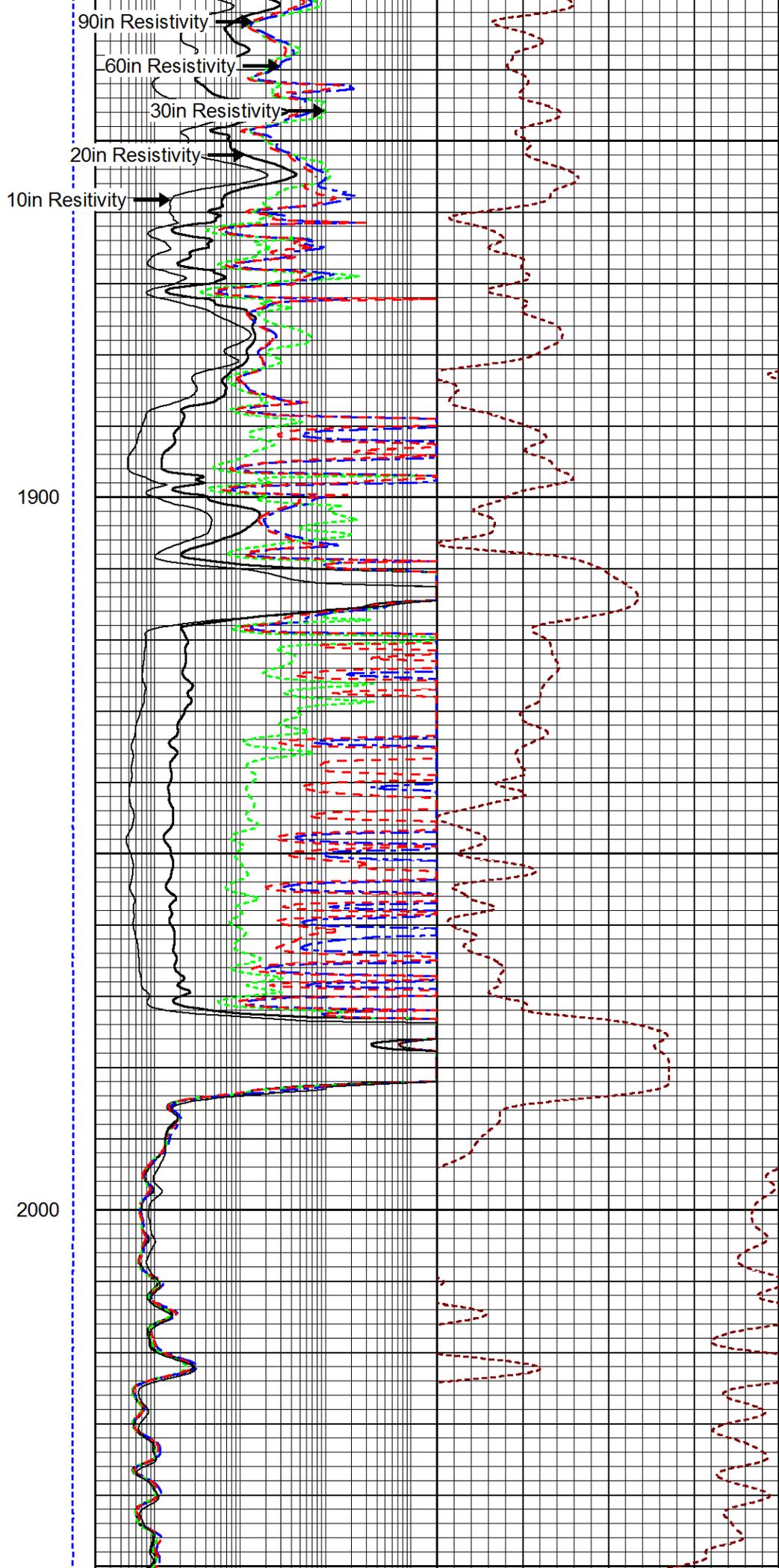
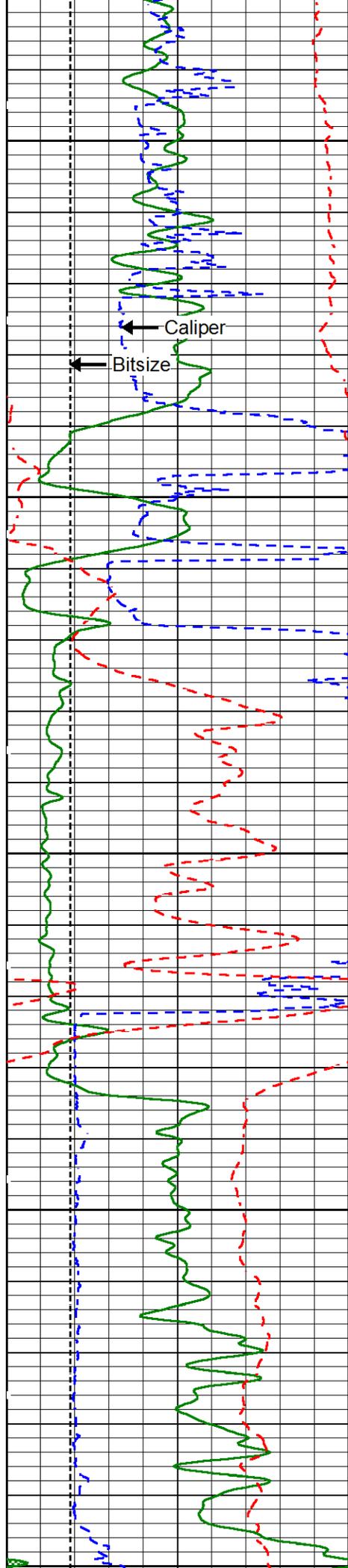


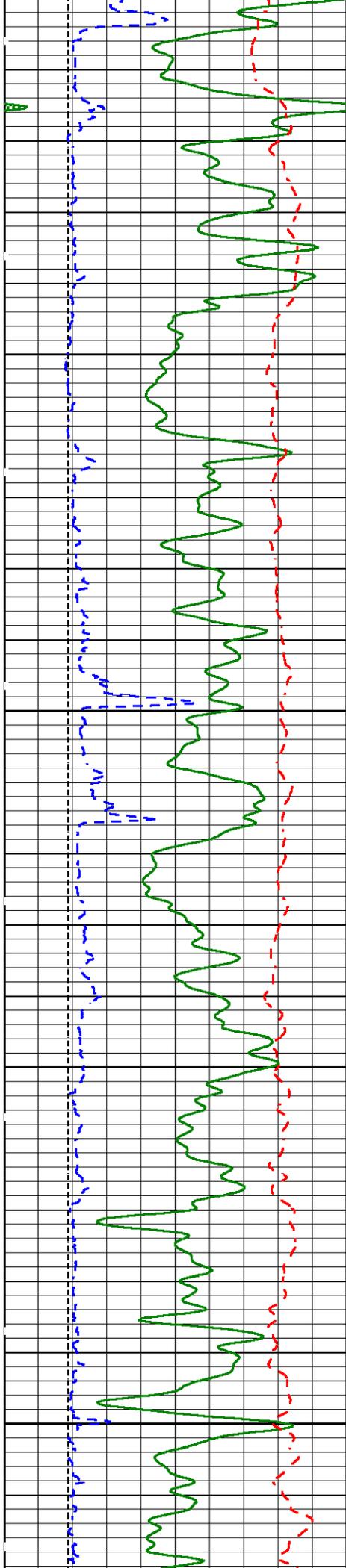
Main Pass

Database File merit-carrie #2-15.db
 Dataset Pathname pass5.3
 Presentation Format okc-3combomel-merit
 Dataset Creation Sun Sep 12 19:11:30 2021
 Charted by Depth in Feet scaled 1:240

6	Bitsize (in)	16	Tension	0.2	20in Resistivity (Ohm-m)	2000	Neutron Porosity (Limestone Matrix)
0	Gamma Ray (GAPI)	150	(lb)	0.2	30in Resistivity (Ohm-m)	2000	(Porosity Decimal Fraction) -0.1
6	Caliper (in)	16	10000	0	0.2	60in Resistivity (Ohm-m)	2000
	SP [-20mV+]		Inv	0.2	90in Resistivity (Ohm-m)	2000	0.3 (Porosity Decimal Fraction) -0.1
			(Ohm-m)	0.2	10in Resistivity (Ohm-m)	2000	0 PE 10
			0 40				Sonic Porosity (47.6 usec/ft)
			Nor				0.3 (Porosity Decimal Fraction) -0.1
			(Ohm-m)				
			0 40				

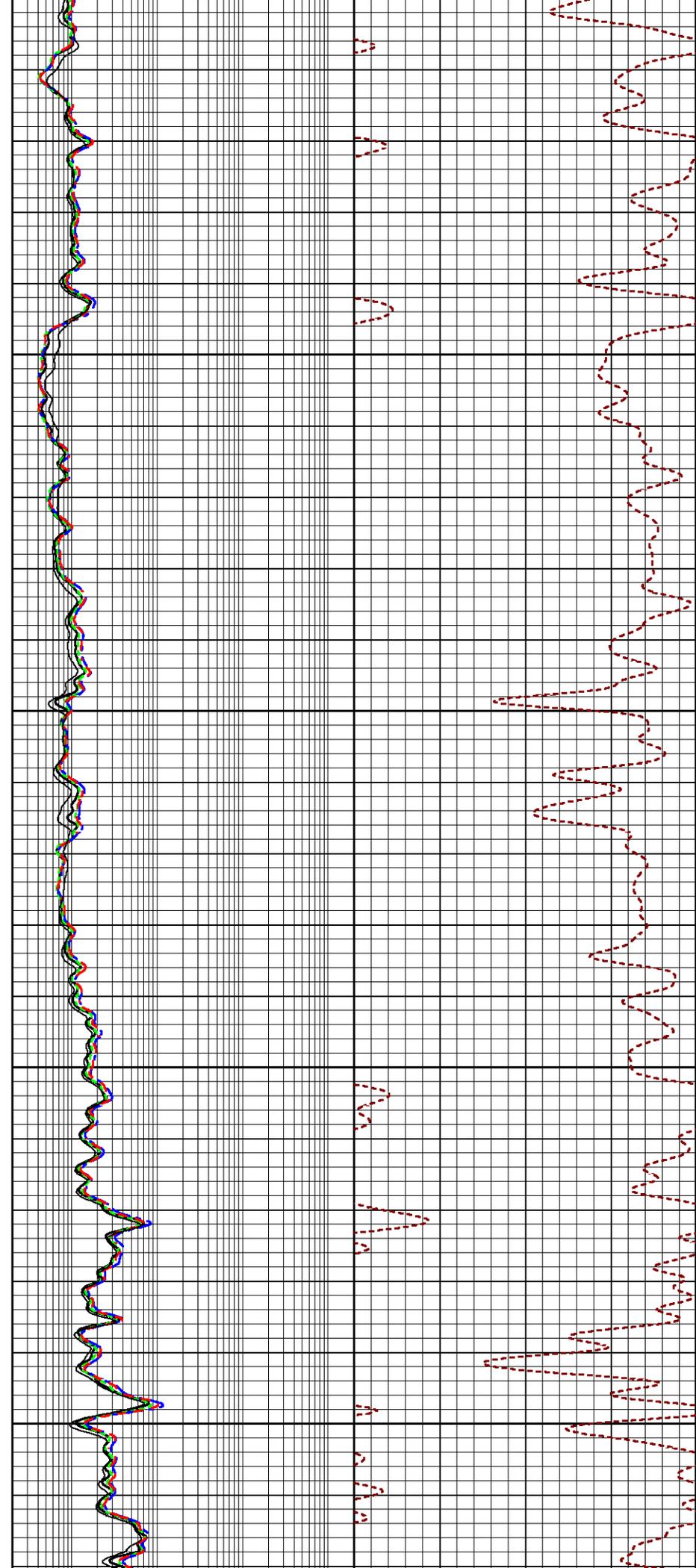


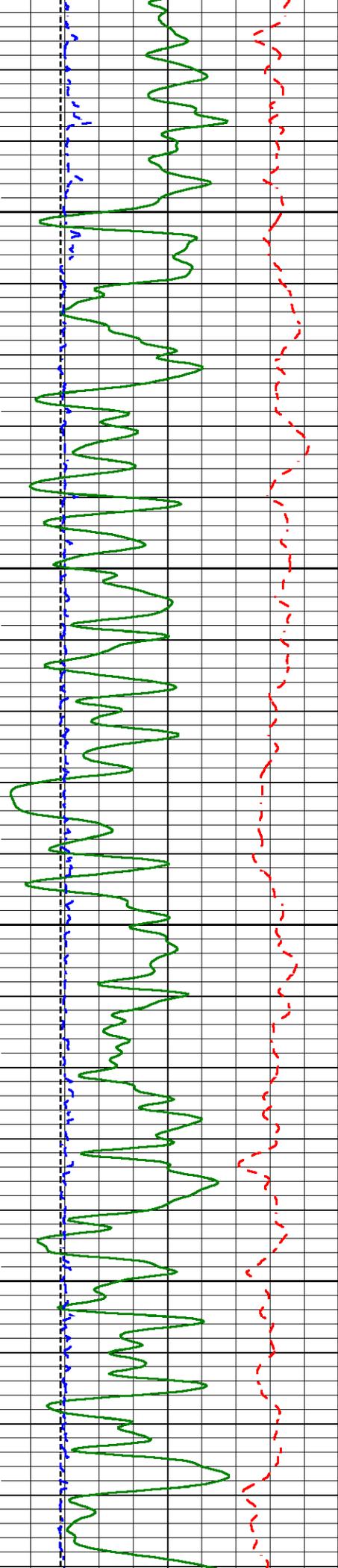




2100

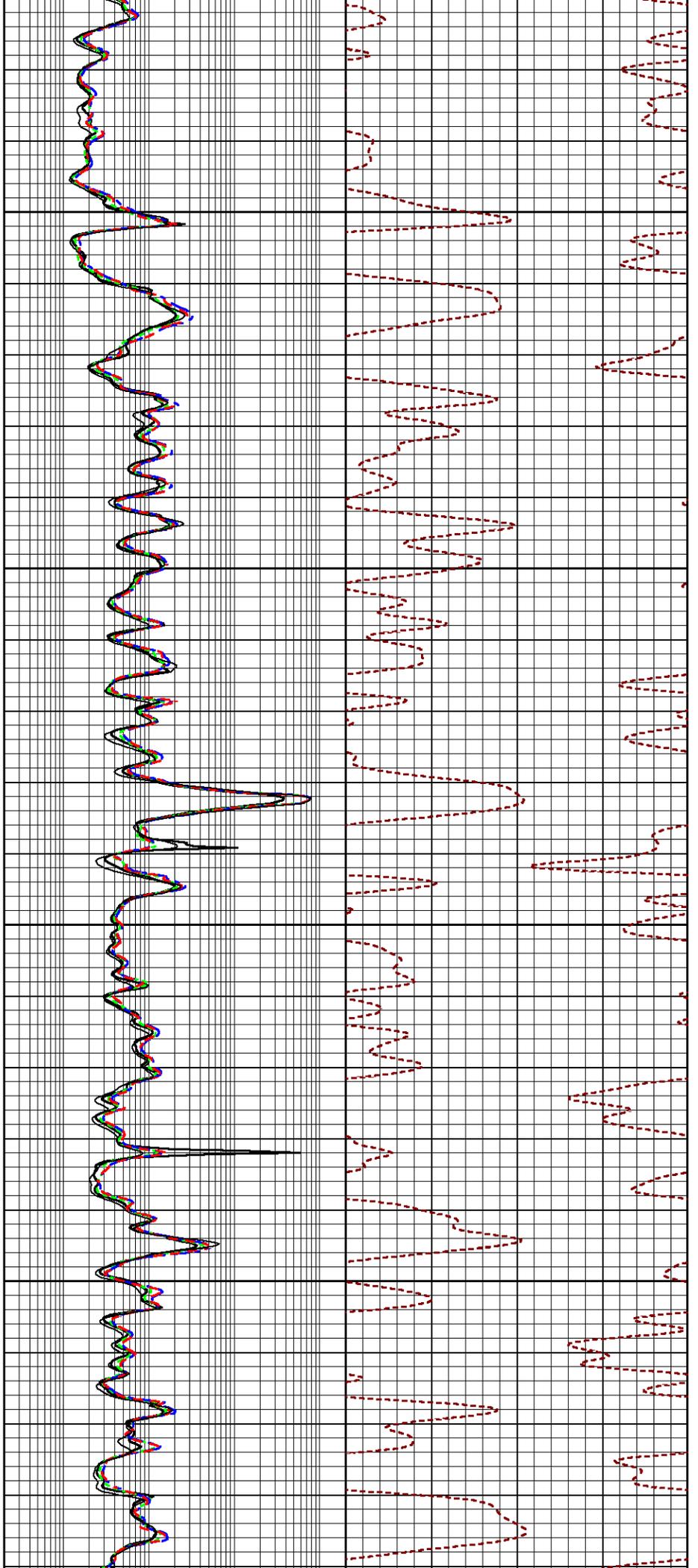
2200

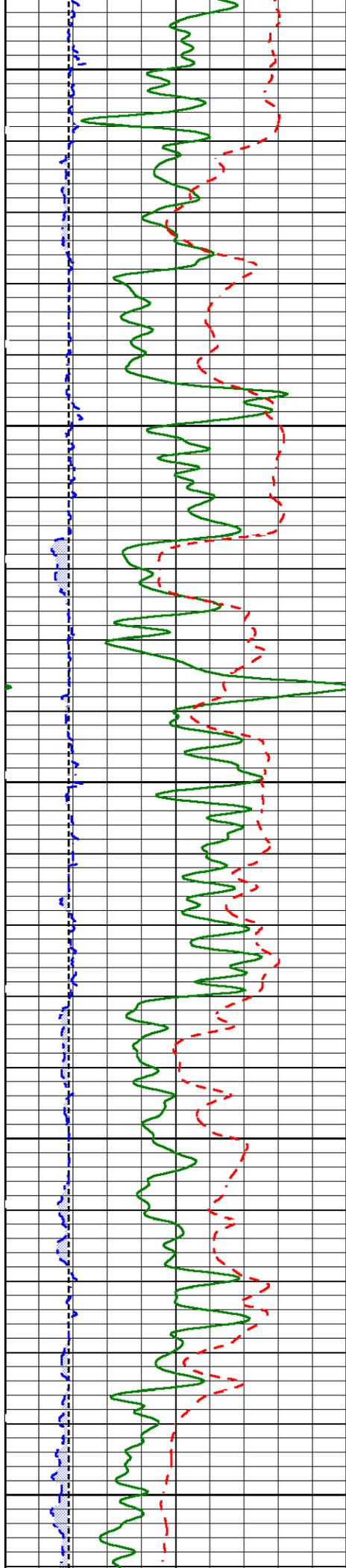




2300

2400

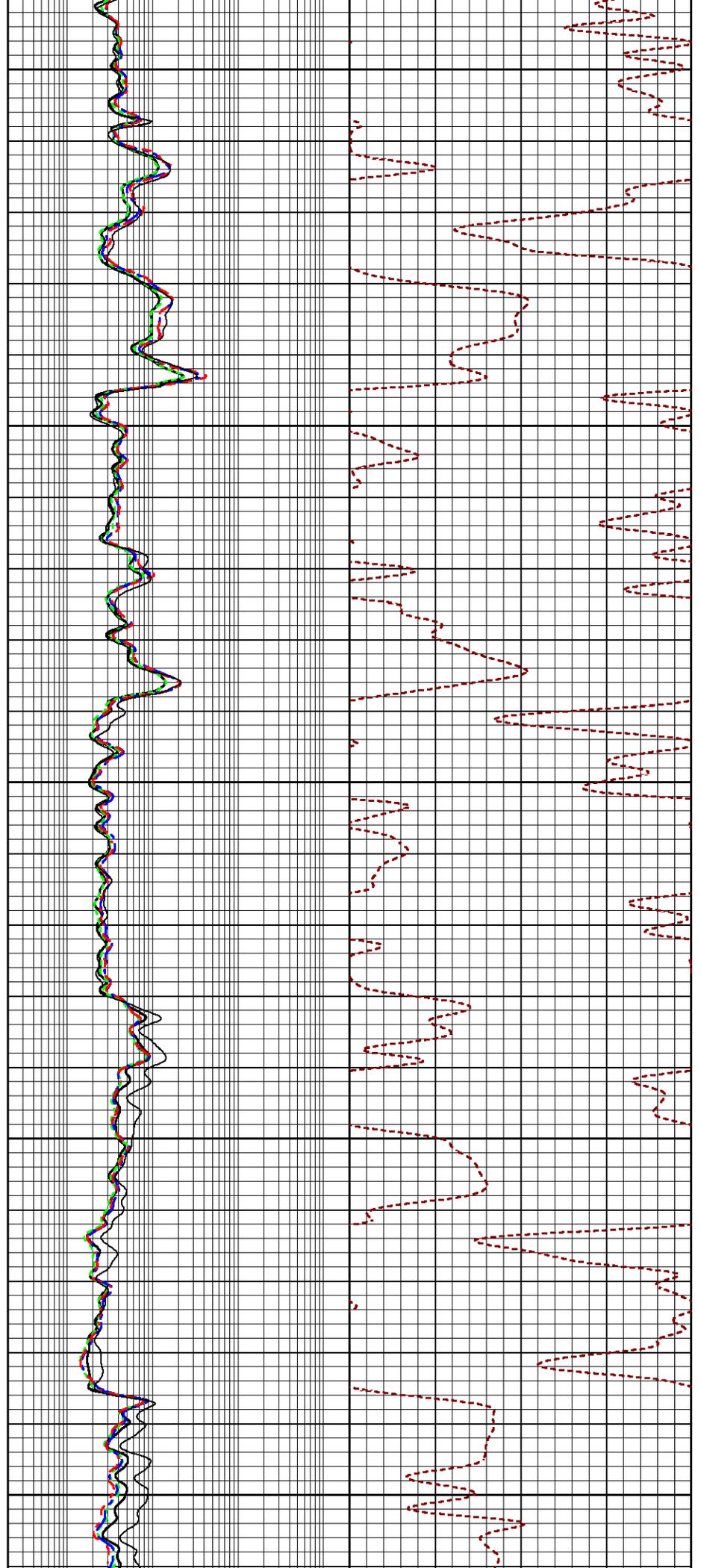


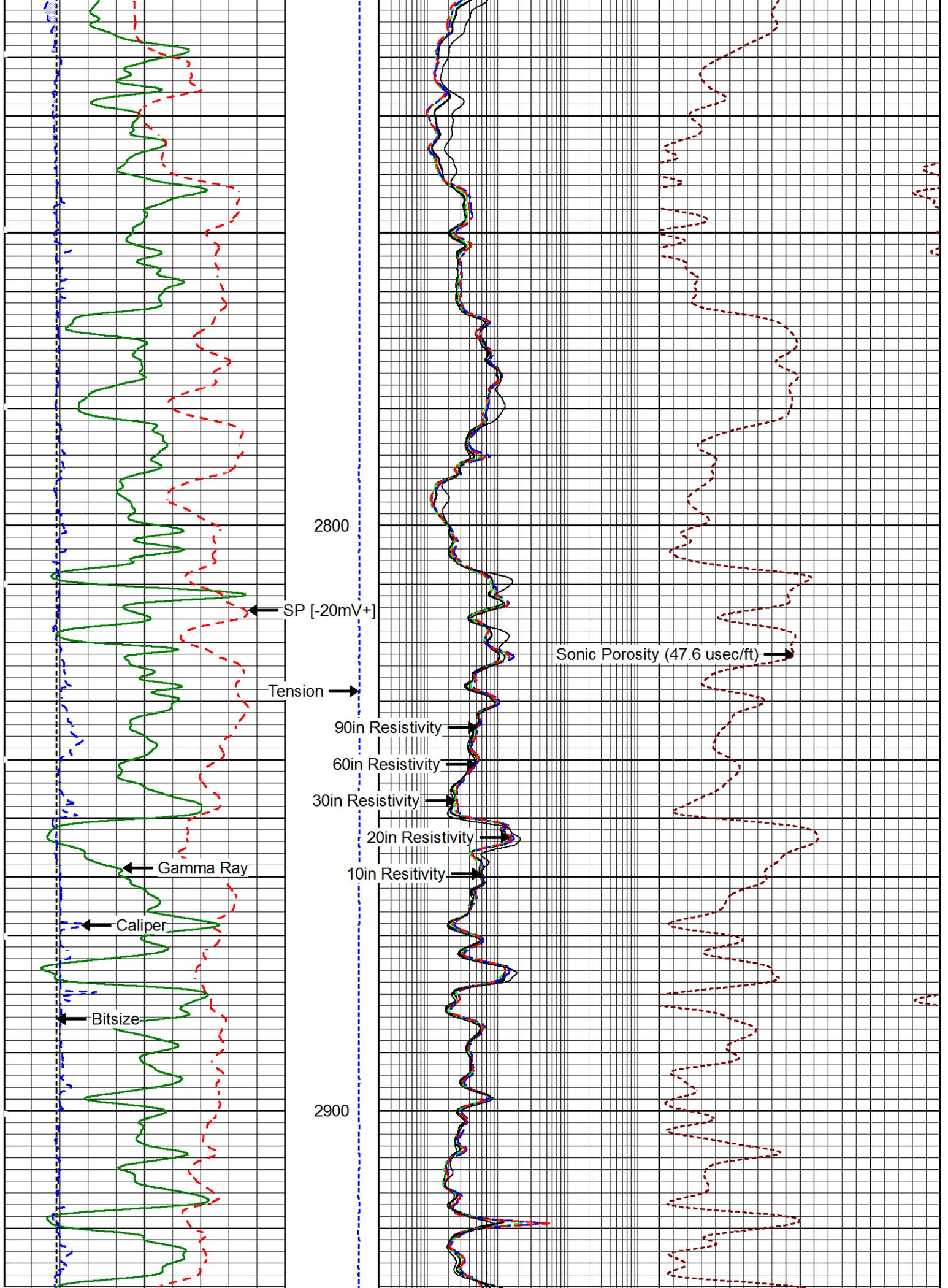


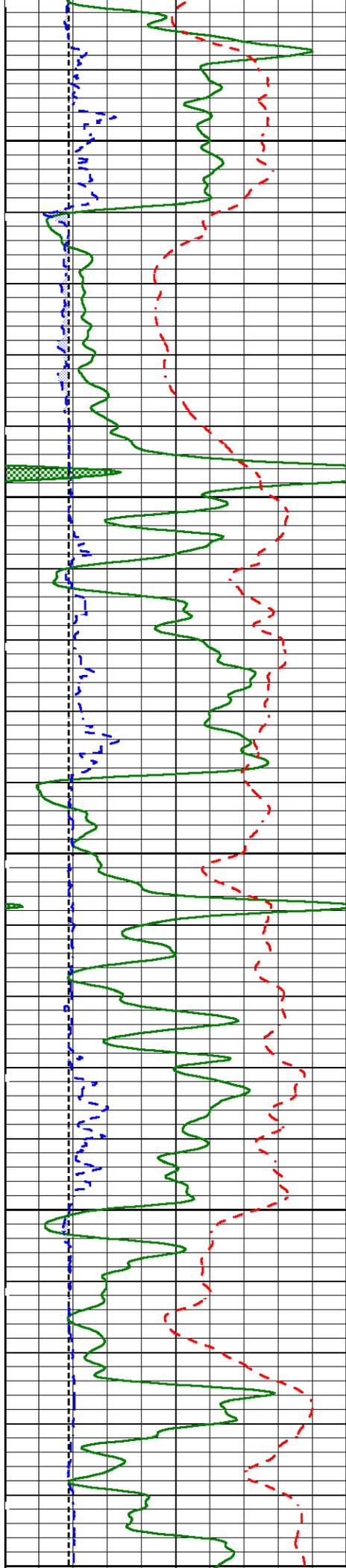
2500

2600

2700

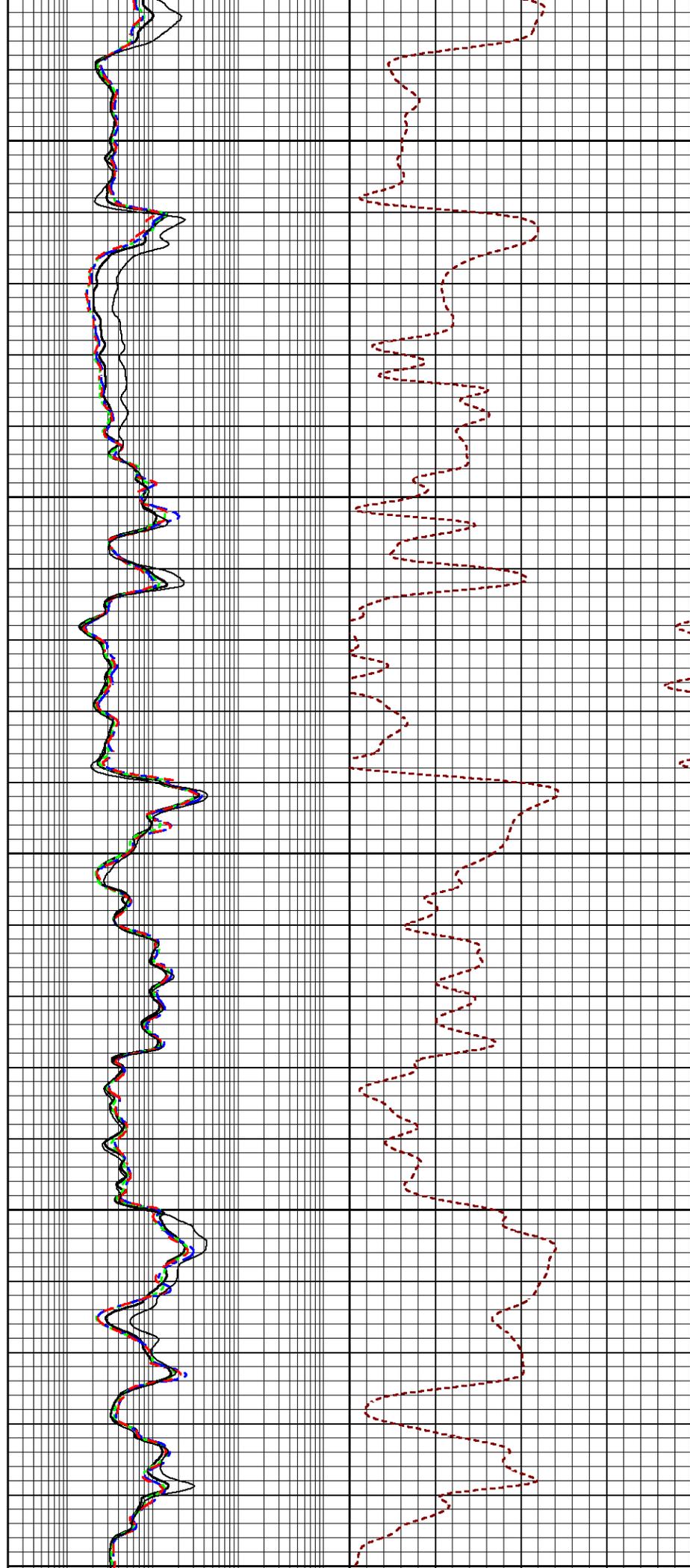


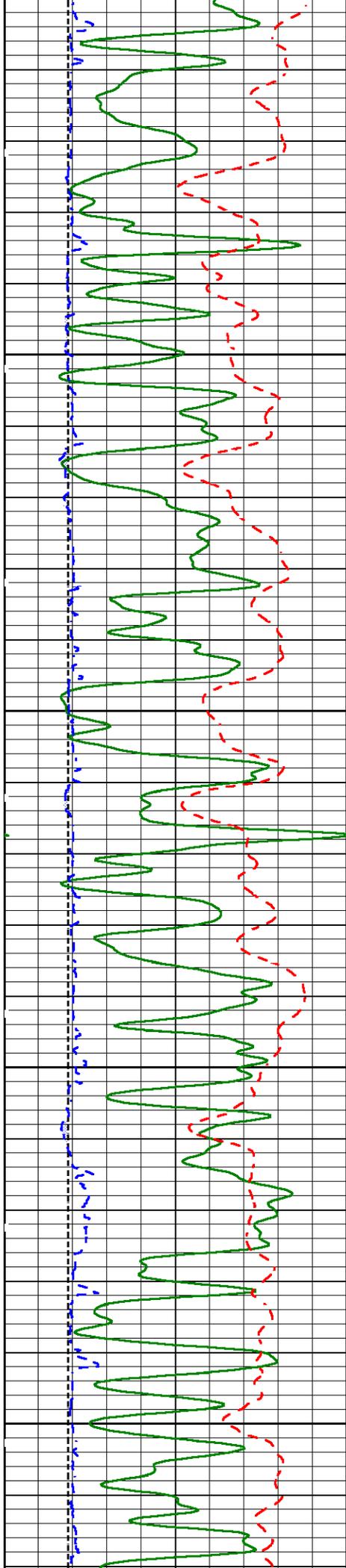




3000

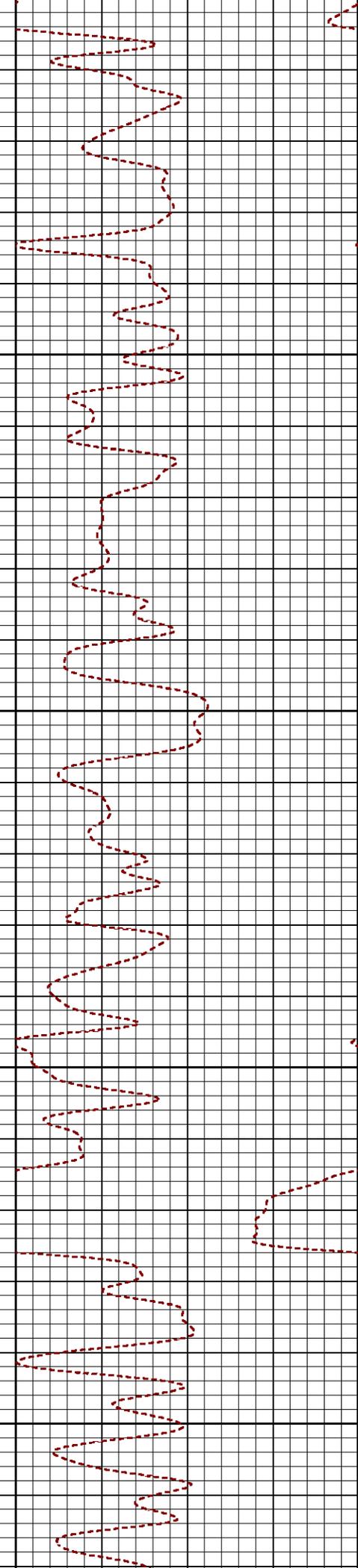
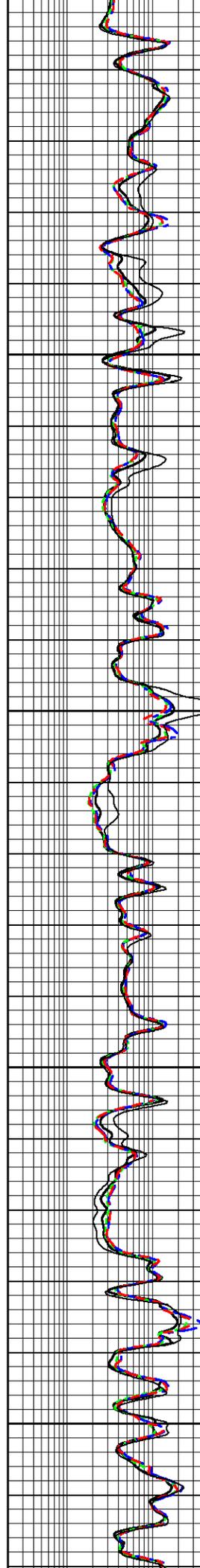
3100

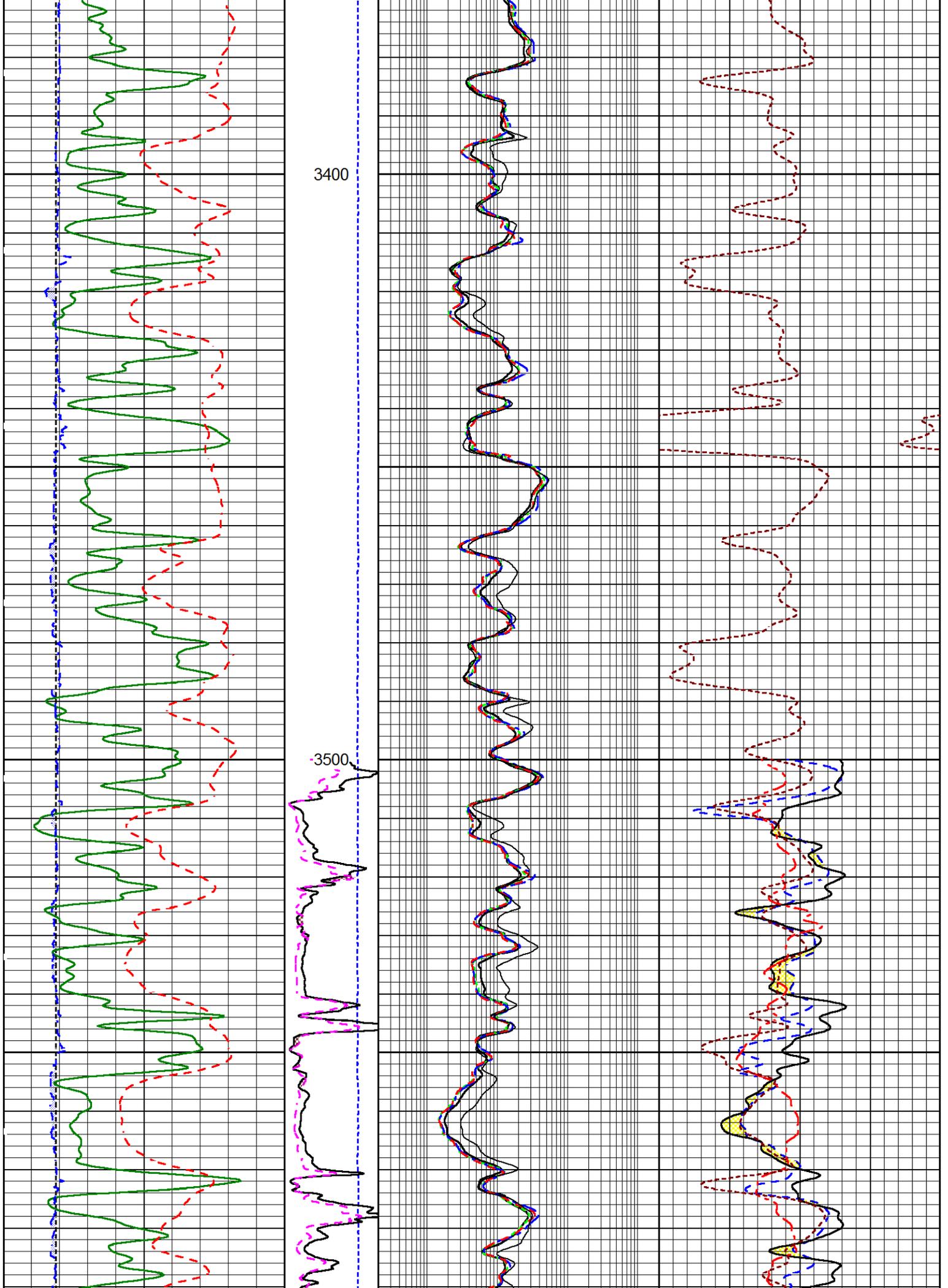


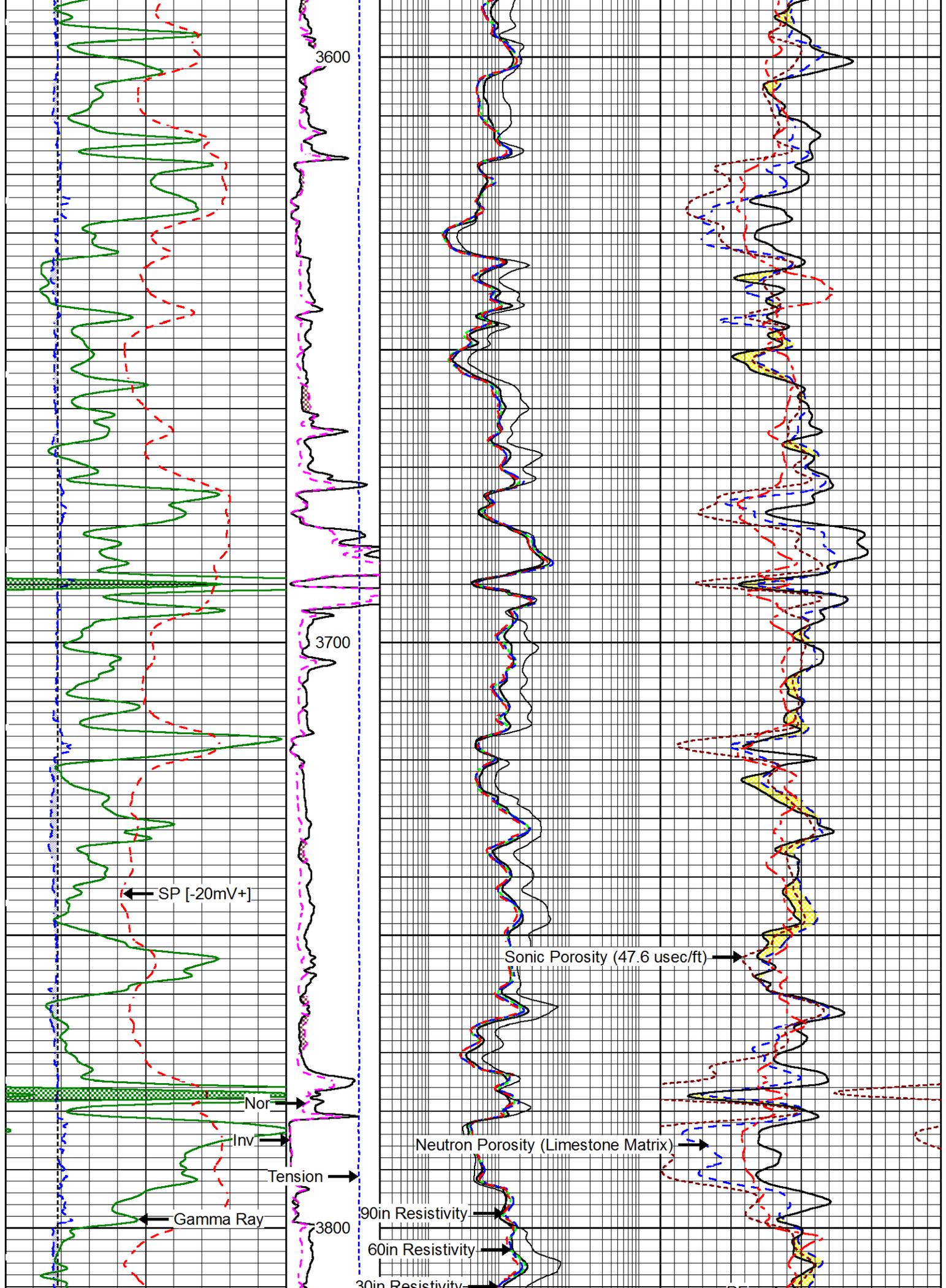


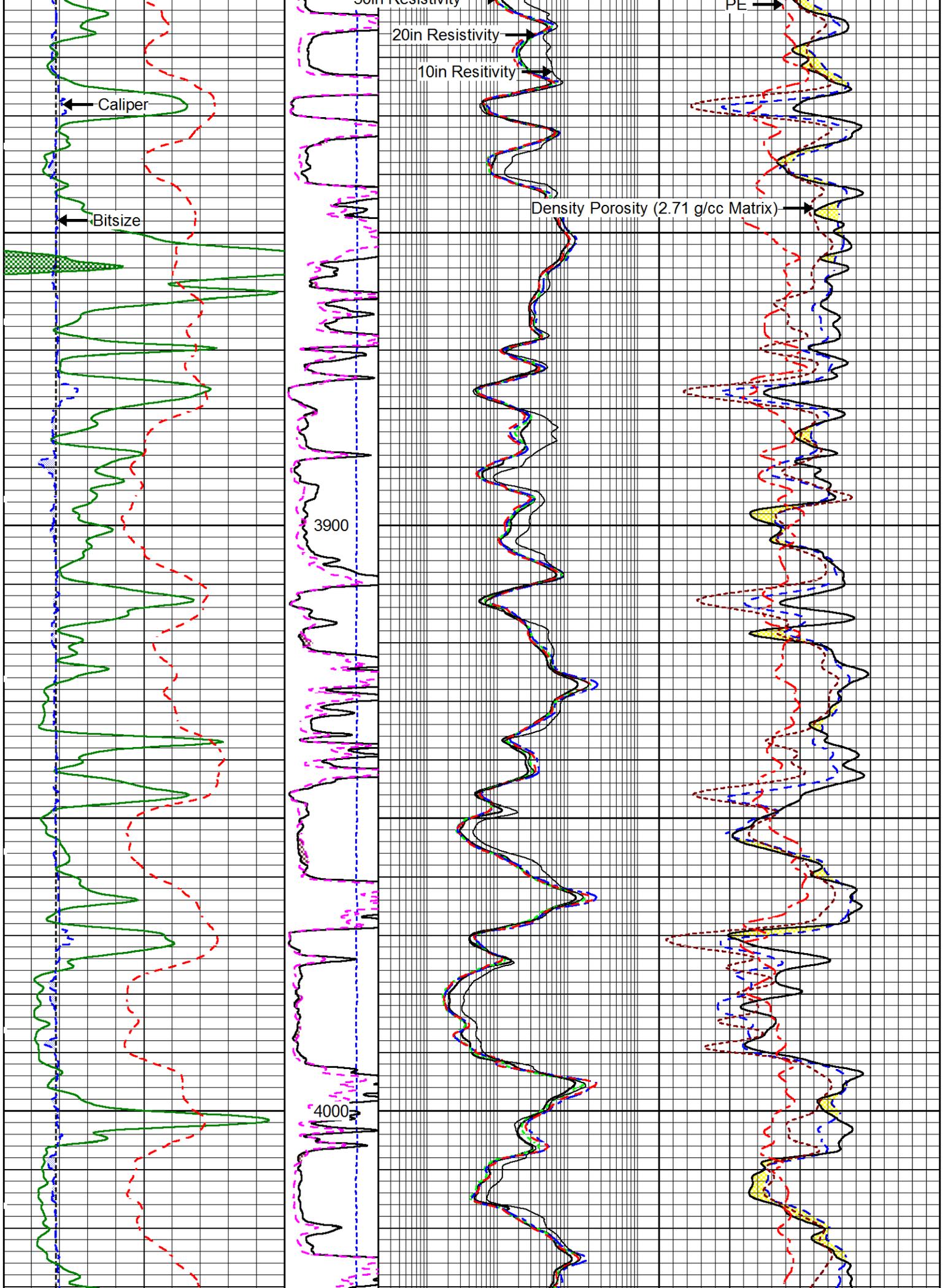
3200

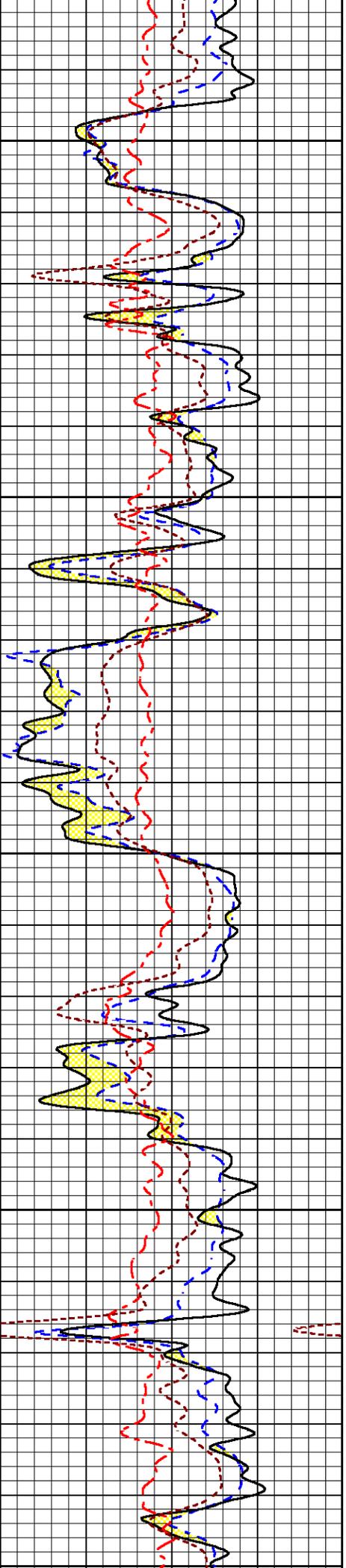
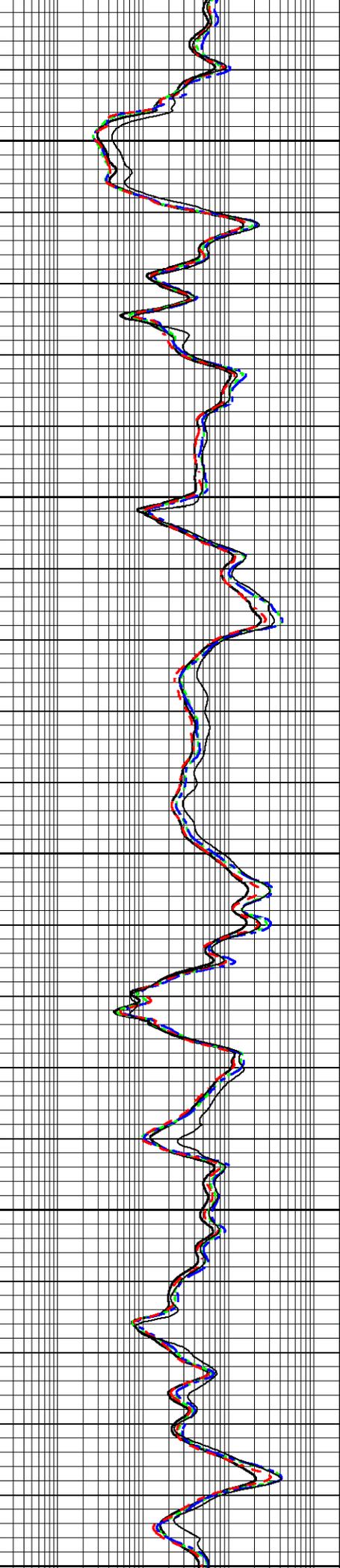
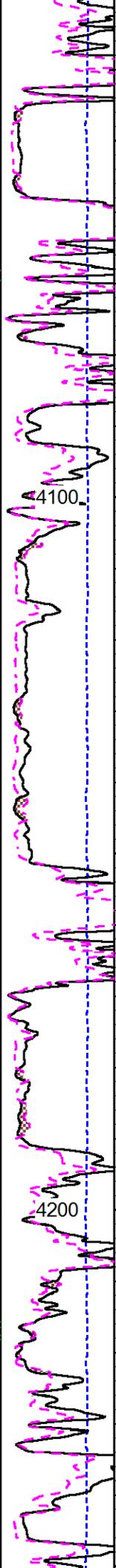
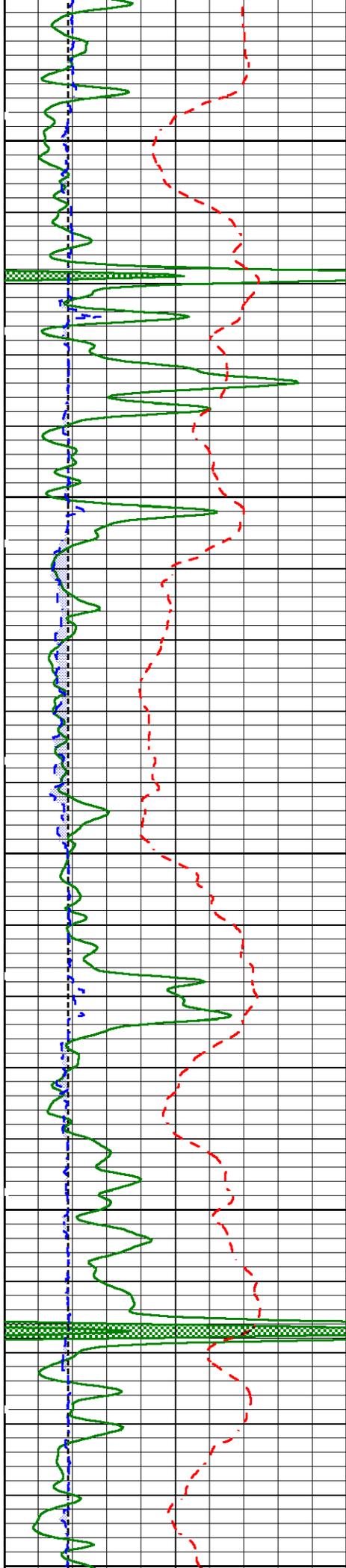
3300

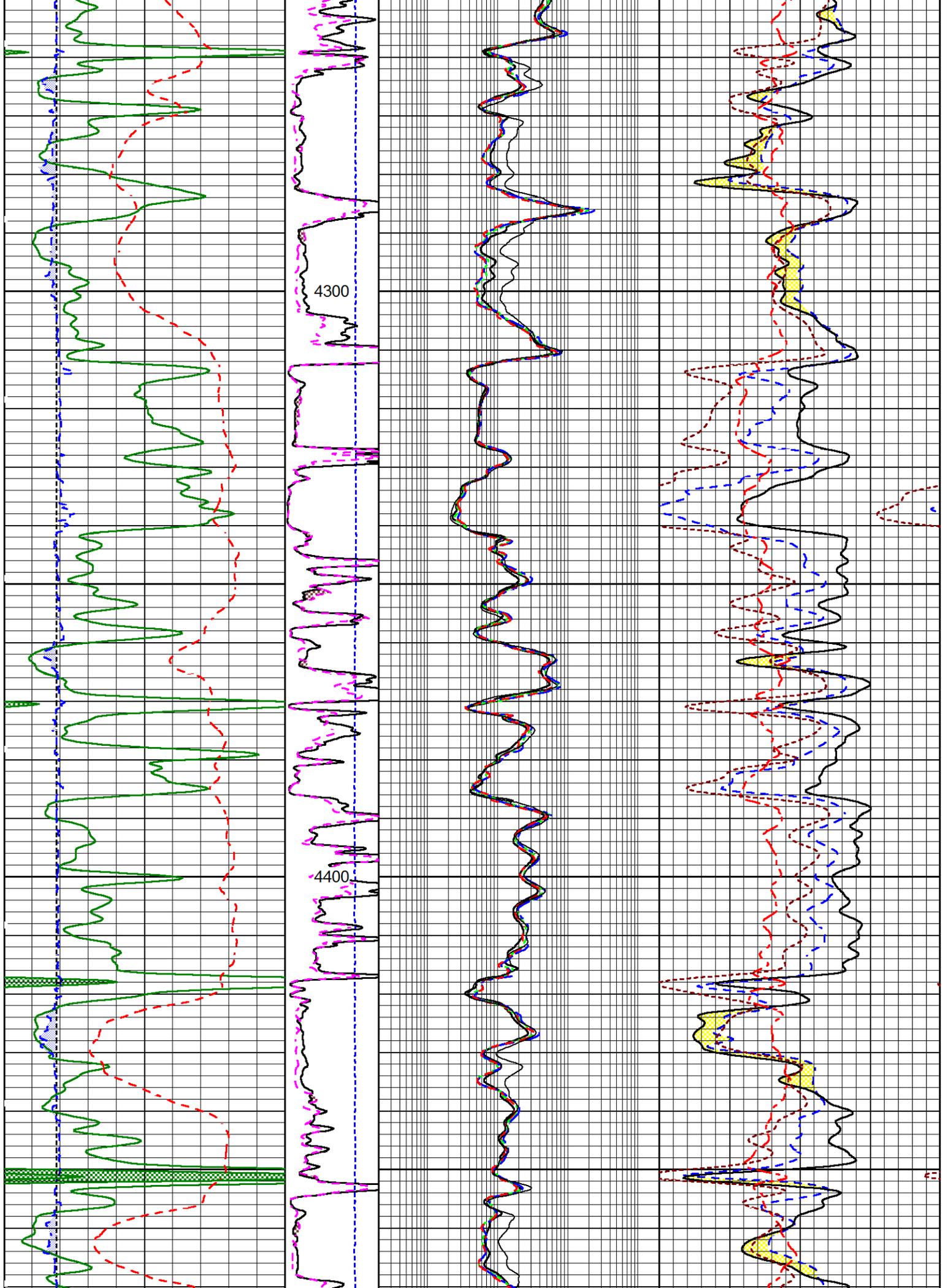


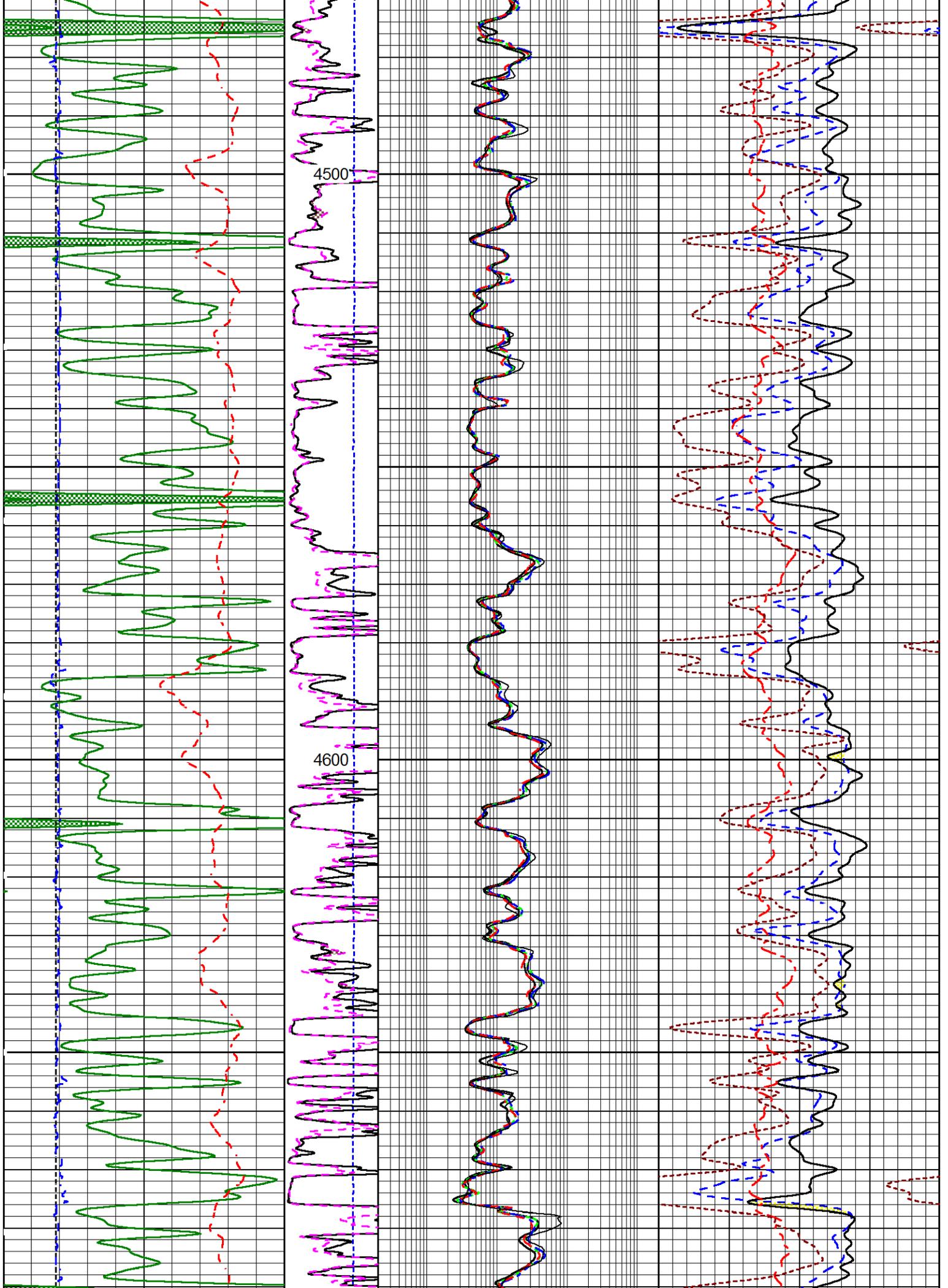


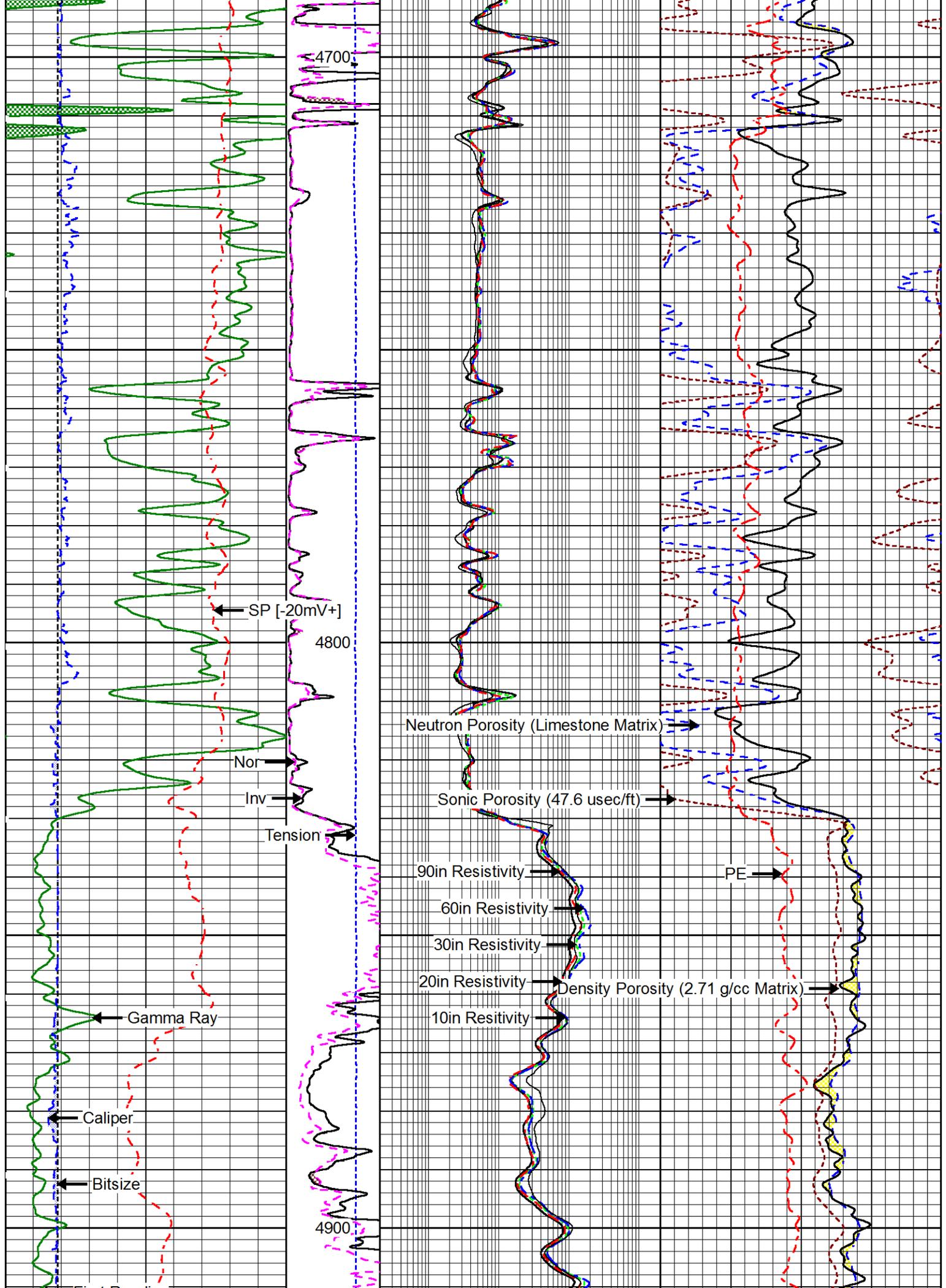


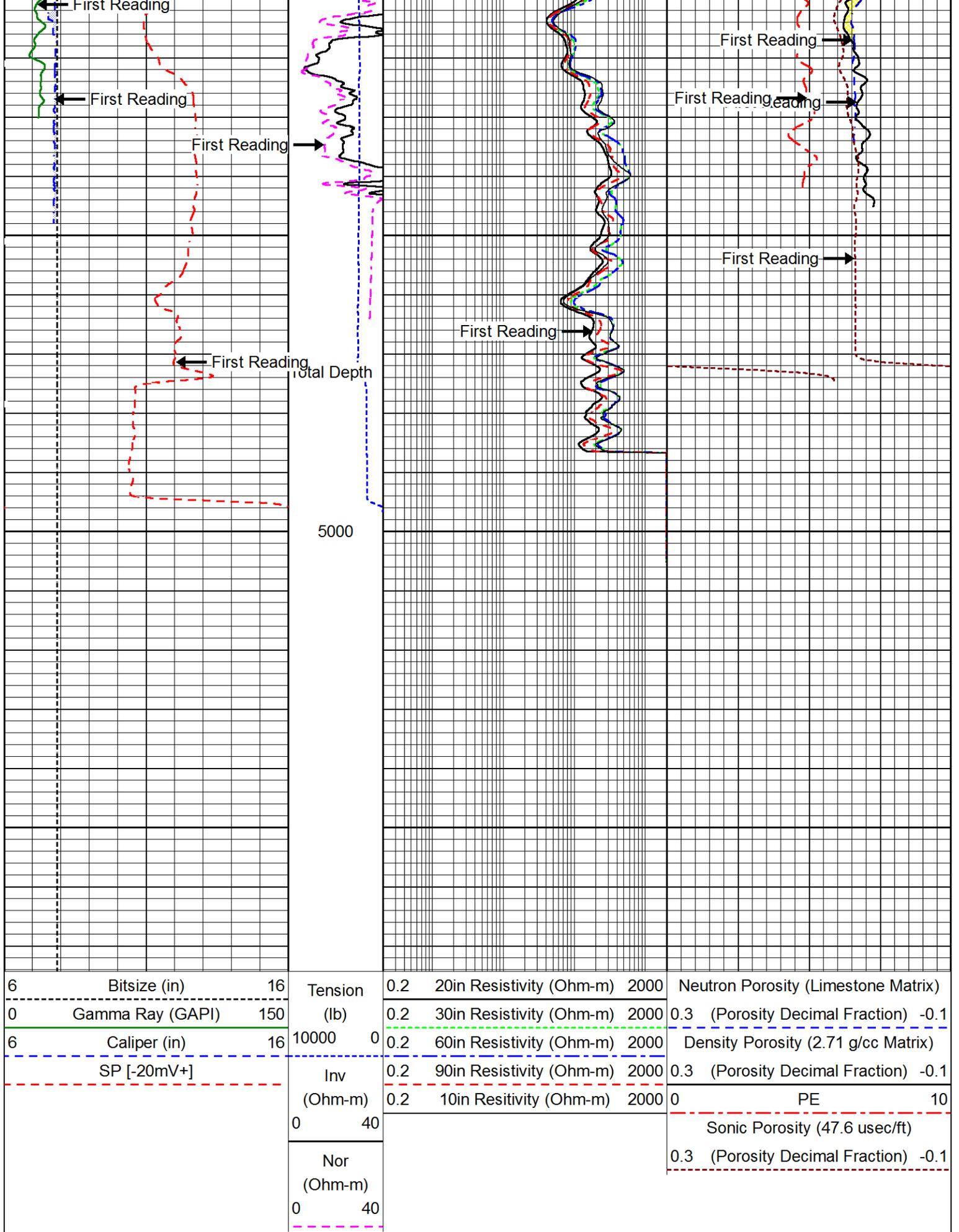








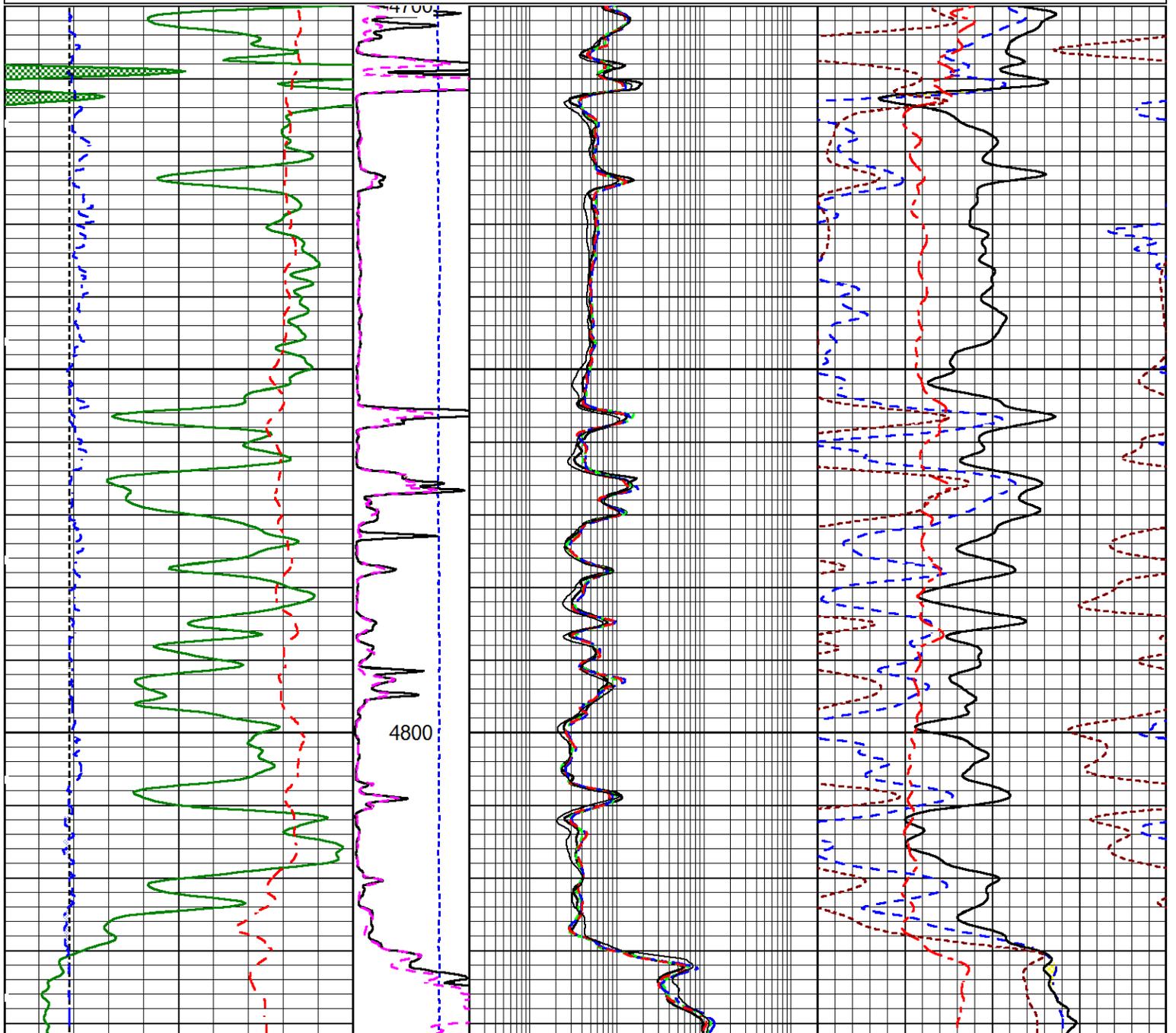


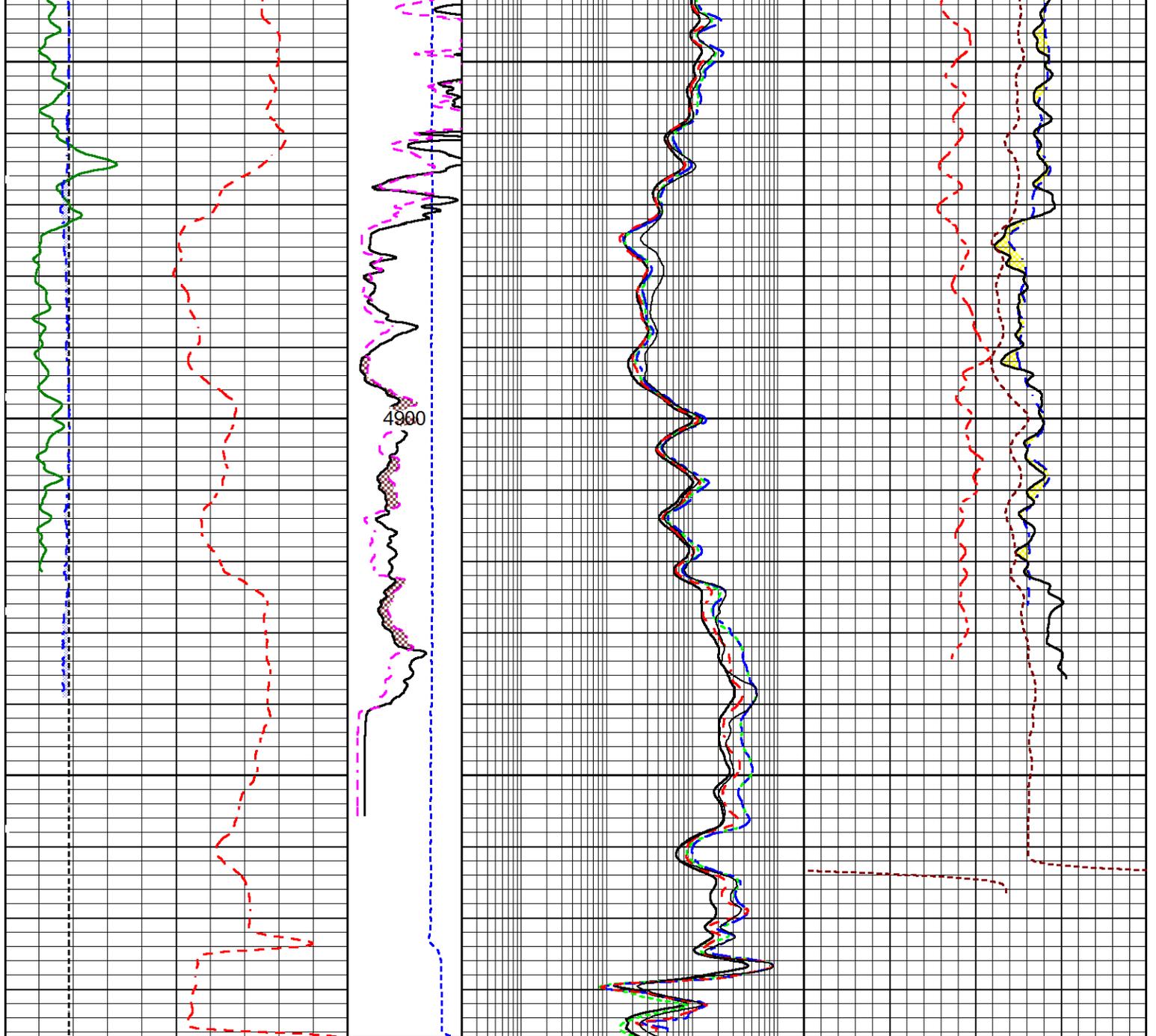


6	Bitsize (in)	16	Tension	0.2	20in Resistivity (Ohm-m)	2000	Neutron Porosity (Limestone Matrix)
0	Gamma Ray (GAPI)	150	(lb)	0.2	30in Resistivity (Ohm-m)	2000	(Porosity Decimal Fraction) -0.1
6	Caliper (in)	16	10000	0	0.2	60in Resistivity (Ohm-m)	2000
	SP [-20mV+]		Inv	0.2	90in Resistivity (Ohm-m)	2000	Density Porosity (2.71 g/cc Matrix)
			(Ohm-m)	0.2	10in Resistivity (Ohm-m)	2000	(Porosity Decimal Fraction) -0.1
			0	40			0
			Nor				PE
			(Ohm-m)				10
			0	40			Sonic Porosity (47.6 usec/ft)
							(Porosity Decimal Fraction) -0.1

Database File merit-carrie #2-15.db
 Dataset Pathname pass4
 Presentation Format okc-3combomel-merit
 Dataset Creation Sun Sep 12 16:53:03 2021 by Log Sondex
 Charted by Depth in Feet scaled 1:240

6	Bitsize (in)	16	Tension	0.2	20in Resistivity (Ohm-m)	2000	Neutron Porosity (Limestone Matrix)
0	Gamma Ray (GAPI)	150	(lb)	0.2	30in Resistivity (Ohm-m)	2000	0.3 (Porosity Decimal Fraction) -0.1
6	Caliper (in)	16	10000 0	0.2	60in Resistivity (Ohm-m)	2000	Density Porosity (2.71 g/cc Matrix)
	SP [-20mV+]		Inv	0.2	90in Resistivity (Ohm-m)	2000	0.3 (Porosity Decimal Fraction) -0.1
			(Ohm-m)	0.2	10in Resistivity (Ohm-m)	2000	0 PE 10
			0 40				Sonic Porosity (47.6 usec/ft)
			Nor				0.3 (Porosity Decimal Fraction) -0.1
			(Ohm-m)				
			0 40				





6	Bitsize (in)	16	Tension	0.2	20in Resistivity (Ohm-m)	2000	Neutron Porosity (Limestone Matrix)
0	Gamma Ray (GAPI)	150	(lb)	0.2	30in Resistivity (Ohm-m)	2000	(Porosity Decimal Fraction) -0.1
6	Caliper (in)	16	10000 0	0.2	60in Resistivity (Ohm-m)	2000	Density Porosity (2.71 g/cc Matrix)
	SP [-20mV+]		Inv	0.2	90in Resistivity (Ohm-m)	2000	(Porosity Decimal Fraction) -0.1
			(Ohm-m)	0.2	10in Resistivity (Ohm-m)	2000	0 PE 10
			0 40				Sonic Porosity (47.6 usec/ft)
			Nor				(Porosity Decimal Fraction) -0.1
			(Ohm-m)				
			0 40				

Log Variables

Database: C:\Sondex\Sondex Warrior\Data\merit-carrie #2-15.db
 Dataset: field/well/run1/pass5.2/_vars_

Top - 1745.00 ft

FRMSALIN	MUDSALIN	DEVI	SRFTEMP	SO	DE-CENT	CASED?	CASEWGHT
kppm	kppm	deg	degF	in			lb/ft
75	0	0	95	0.25	Yes	Yes	54.5

NPORSEL	AIR_HOLE?	MudWgt lb/gal	FLUIDDEN g/cc	MATRXDEN g/cc	MAXAMPL mV	MINAMPL mV	MINATTN db/ft
Limestone	No	9.1	1	2.71	0	1	0.8
COMPACT	SVFLUID usec/ft	SVMATRIX usec/ft	SPSHIFT mV	CASETHCK in	CASEOD in	PERFS	TDEPTH ft
1	189	47.6	0	0.38	8.625	0	1745
BOTTEMP degF	BOREID in						
114	12.25						

1745.00 ft - Bottom

FRMSALIN kppm	MUDSALIN kppm	DEVI deg	SRFTEMP degF	SO in	DE-CENT	CASED?	CASEWGHT lb/ft
75	0	0	95	0.25	Yes	No	17
NPORSEL	AIR_HOLE?	MudWgt lb/gal	FLUIDDEN g/cc	MATRXDEN g/cc	MAXAMPL mV	MINAMPL mV	MINATTN db/ft
Limestone	No	9.1	1	2.71	0	1	0.8
COMPACT	SVFLUID usec/ft	SVMATRIX usec/ft	SPSHIFT mV	CASETHCK in	CASEOD in	PERFS	TDEPTH ft
1	189	47.6	0	0.25	5.5	0	4978
BOTTEMP degF	BOREID in						
114	7.875						

Calibration Report

Database File merit-carrie #2-15.db
Dataset Pathname pass5
Dataset Creation Sun Sep 12 17:10:47 2021 by Log Sondex

Induction Array Tool Calibration Report

Serial Number: B10110
Tool Model: 002

Master Calibration Performed: Fri Jun 19 15:42:19 2020
Temperature: 106.4 degF

Sonde Error:

Array	1	2	3	4	5	6	7	
Real	192.3	-12.8	-40.5	-15.8	-2.7	3.4	1.1	mmho/m
Imaginary	37.3	-19.3	-5.4	-21.0	-27.8	3.2	-1.2	mmho/m

Loop Gain:

Array	1	2	3	4	5	6	7	
Loop (real)	537.7	678.5	1295.3	1394.1	1144.8	712.8	404.8	mmho/m
Loop (imaginary)	73.3	92.5	389.8	419.5	344.5	214.5	121.8	mmho/m
Real	754.7	724.6	1228.1	1358.7	1147.9	734.9	415.9	mmho/m
Imaginary	105.1	80.9	380.2	394.1	318.0	223.9	123.9	mmho/m
Gain (real)	0.956	0.920	1.021	1.014	0.995	0.974	0.976	
Gain (imaginary)	1.081	0.923	1.011	1.011	0.996	0.972	0.974	

Before Survey Verification Performed: Fri Jun 19 15:59:35 2020

Sonde 1 Temperature: 109.7 degF
Sonde 2 Temperature: 106.7 degF
Array 1 Temperature: 111.1 degF

Array	1	2	3	4	5	6	7
TxIR	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
TxIX	0.0	0.0	0.2	0.2	0.2	0.2	0.2
Tx Magnitude	0.0	0.0	0.2	0.2	0.2	0.2	0.2
Gain	122.5	170.7	190.0	190.0	183.8	185.8	190.0
RxCR	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0
RxCX	0.2	0.1	0.2	0.2	0.2	0.2	0.2
RxC Magnitude	0.2	0.1	0.2	0.2	0.2	0.2	0.2

Tool Module Parameters

Software Version: 8.0.0.4
 Borehole Size Source: CALI
 Mud Resistivity Source: MUDRES
 Mud Resistivity At Surface: N/A
 Mud Resistivity Surface Temperature: N/A
 Borehole Corrections: Centralized Lookup Table
 Minimum Standoff: N/A

Multi Array Sonic Calibration Report

Serial Number: C10036SS
 Tool Model: 001SS

Tool Module Parameters

Software Version: 8.0.0.2
 Integrated Transit Time Source: DT57
 Porosity Source: DT57
 Porosity Method: Wyllie
 Raymer Hunt Constant: N/A

Micro Electric Log Calibration Report

Serial Number: 10020666
 Tool Model: 001

Caliper Calibration Performed: Wed Mar 27 13:54:25 2019

	Pad Arm			Backup Arm		
	Radius		Reading	Radius		Reading
Small Jig:	4.000	in	1079.500	4.000	in	1216.600
Large Jig:	6.000	in	1483.400	6.000	in	1590.500
Gain:			0.0050			0.0053
Offset:			-1.3454			-2.5076

Pad Calibration

	Inverse	Normal
Gain:	1.0000	1.0000
Offset:	0.0000	0.0000

Tool Module Parameters

Software Version: 8.0.0.4

Litho Density Tool Calibration Report

Serial Number: B0872S70997B
 Tool Model: B10872

Caliper Calibration Performed: Fri Aug 27 13:58:10 2021

	Diameter	Reading
--	----------	---------

Small Ring:	9.000	in	1741.200	cps
Large Ring:	13.000	in	2083.500	cps
Gain:	0.0117			
Offset:	-11.3471			

Master Calibration Performed: Tue Sep 07 16:42:35 2021

Source Number: 70997B
 Medium: Water
 Al Block Density: 2.6017 g/cc

	Background	Al Block	Al Block + Fe	
SS1	651.4	4479.0	3908.3	cps
SS2	1859.0	30947.6	27081.5	cps
SSTOTAL	4344.4	49488.1	42873.3	cps
LITH	89.8	531.6	333.6	cps
LL	176.9	852.2	785.8	cps
LU	509.8	1086.9	1039.0	cps
LS	686.7	1939.0	1824.8	cps
LSTOTAL	1294.0	4797.0	4049.9	cps
SSHV	1466.7	1469.4	1469.9	V
LSHV	1418.0	1418.7	1418.9	V
SSFF	-0.001	0.004	-0.001	
LSFF	0.008	-0.006	0.002	

Before Survey Verification Performed: Tue Sep 07 17:00:38 2021
 After Survey Verification Performed: Tue Sep 07 17:01:57 2021

	Master Background	Before Survey Background	After Survey Background	
SS1	651.4	657.0	649.5	cps
SS2	1859.0	1848.4	1847.5	cps
SSTOTAL	4344.4	4331.8	4329.7	cps
LITH	89.8	91.6	91.1	cps
LL	176.9	177.7	177.5	cps
LU	509.8	510.0	511.8	cps
LS	686.7	687.7	689.3	cps
LSTOTAL	1294.0	1295.1	1304.4	cps
SSHV	1466.7	1469.5	1469.5	V
LSHV	1418.0	1420.3	1420.4	V
SSFF	-0.001	0.006	-0.009	
LSFF	0.008	-0.003	-0.001	

Tool Module Parameters

Software Version: 8.0.0.6
 Borehole Size Source: CALI
 Pad Type: 2

Compensated Neutron Tool Calibration Report

Serial Number: C10071S1414NC
 Tool Model: 009

Master Calibration Performed: Thu Aug 26 08:48:19 2021

Source Number: 1414NC

Short Spacing Counts: 5131.95 cps
 Long Spacing Counts: 186.21 cps
 High Voltage: 1363.96 V

Target Ratio: 27.2000
 Ratio: 27.5607
 K-Factor: 0.9869

Before Survey Verification Performed: Thu Aug 26 08:57:41 2021
 After Survey Verification Performed: Thu Aug 26 08:58:58 2021

Verifier Number: 6489

Verifier Values	Master Cal	Before Survey	After Survey	
Short Spacing Counts:	304.63	303.06	304.57	cps
Long Spacing Counts:	316.44	316.98	318.88	cps
High Voltage:	1363.94	1363.94	1363.94	V
Ratio:	0.9627	0.9561	0.9551	

Tool Module Parameters

Software Version: 8.0.0.5
 Borehole Size Source: CALI
 Clip Crossplot Porosity: YES
 Lithology Identification Parameters:

	Calcite	Quartz	Dolomite	
Uma:	13.77	4.79	9.03	barns/cc
RHOma:	2.71	2.65	2.88	g/cc

Gamma Ray Calibration Report

Serial Number: C06122
 Tool Model: 001

Performed: Thu Aug 26 14:27:58 2021

Calibrator Value: 156.0 GAPI
 Background Reading: 91.1 cps
 Calibrator Reading: 547.6 cps
 Sensitivity: 0.3418 GAPI/cps

Borehole Fluid Resistivity Calibration Report

Serial Number: P004
 Tool Model: 002

Master Calibration Performed: Wed May 25 15:17:37 2016

Resistivity Polynomial Equation:
 $0.1429x^3 - 0.4495x^2 + 1.2097x - 0.2854$

Temperature Calibration:

Reference		Reading	
71.60	degF	559.80	bits
167.00	degF	659.50	bits

Head Tension Unit Calibration Report

Serial Number: 00001
 Tool Model: 011

Performed: Mon Mar 04 10:52:43 2013

Point #	Reference		Reading	
1	-19894.000	lb	8957.860	cps
2	-15010.000	lb	13965.100	cps
3	-9998.000	lb	19079.100	cps
4	-5007.000	lb	24193.000	cps

4	-5007.000	lb	24133.000	cps
5	-1009.000	lb	28232.100	cps
6	1017.000	lb	30185.400	cps
7	5040.000	lb	34439.700	cps
8	9970.000	lb	39346.900	cps
9	14955.000	lb	44466.000	cps
10	19770.000	lb	49397.800	cps

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
HTEN	69.23		CHD-WFT (WFT01) Weatherford Cable Head	2.67	2.25	15.00
			X-Over-WFT (0001) Weatherford X-Over	1.13	3.38	5.00
			XTU-008 (C10068) Crossover Ultrawire Toolbus to Ultralink	2.08	3.38	47.00
BFR	65.59		HTU-011 (00001) Head Tension Unit	2.18	3.38	55.00
GR	62.82		BFR-002 (P004) Borehole Fluid Resistivity Tool	4.39	3.38	94.00
			GRT-001 (C06122) Gamma Ray Tool	3.22	3.38	69.00
CNLSC	57.18		CNL-009 (C10071S1414NC) Compensated Neutron Logging Tool	5.28	3.38	100.00
CNSSC	56.68					
LDT	47.02		LDT-B10872 (B0872S70997B) Litho Density Tool	9.75	4.50	310.00
			OJT-001 (000001) OH Offset Joint	1.00	3.38	56.00
		KJT-001 (10010515) Knuckle Joint	2.86	3.38	72.00	
		CEN-001 (000028) Inline OH Springbow Centraliser	4.27	3.38	66.00	
MEL	29.67	MEL-001 (10020666) Micro Electric Log	9.17	3.38	190.00	
		Overbody-Over-cen Overbody Centralizer	3.00	3.38	10.00	
WVFUTRF	21.67	MAS-001SS (C10036SS) Multi Array Sonic Tool (SS)	14.28	3.38	242.00	
WVFLTRF	20.67					
WVFUTRN	20.67					
WVFLTRN	19.67					
IAT	8.44	Overbody-Over-cen Overbody Centralizer	3.00	3.38	10.00	
		IAT-002 (B10110) Induction Array Tool	13.22	3.88	196.00	

SP	0.43		Shorty-Short Short Hole Finder	0.38	3.88	6.00
		Dataset:	merit-carrie #2-15.db: field/well/run1/pass5			
		Total length:	75.87 ft			
		Total weight:	1543.00 lb			
		O.D.:	4.50 in			

	Company	Merit Energy Company, LLC.
	Well	Carrie #15-2
	Field	Wildcat
	Parish	Kearny
	State	Kansas