



**DLL-SLL-MLL-SONIC
DENSITY - NEUTRON
1:200**

COMPANY **ESSENTIAL PETROLEUM EXPLORATION PTY LTD**
 WELL **EAST WING - 1ST**
 FIELD **EAST WING**
 PROVINCE/COUNTY **VICTORIA**
 COUNTRY/STATE **AUSTRALIA**
 LOCATION **SURFACE HOLE LOCATION** **FIELD PRINT**

AMG X Other Services
 AMG Y
 Latitude -38°31'35.30" S
 Longitude 142°46'52.64" E

Permanent Datum M.S.L., Elevation 0 metres
 Log Measured From K.B. @ 56.37 above Permanent Datum
 Drilling Measured From K.B. Elevations: KB metres 56.37
 DF metres 56.10
 GL metres 52.00

Date	29-MAY-2008	
Run Number	1	
Depth Driller	2305.00	metres
Depth Logger	2285.85	metres
First Reading	2285.00	metres
Last Reading	5.00	metres
Casing Driller	578.00	metres
Casing Logger	578.50	metres
Bit Size	8.50	inches
Hole Fluid Type	KCL/POLYMER	
Density / Viscosity	1.17 g/cc	40.00 CP
PH / Fluid Loss		6.70 ml/30Min
Sample Source	FLOW LINE	
Rm @ Measured Temp	0.12 @ 25.0	ohm-m
Rmf @ Measured Temp	0.10 @ 25.0	ohm-m
Rmc @ Measured Temp	0.20 @ 25.0	ohm-m
Source Rmf / Rmc	FILTER	PRESS
Rm @ BHT	0.055 @ 81.0	ohm-m
Time Since Circulation	17 HRS	
Max Recorded Temp	81.00	deg C
Equipment Name	SCOMBO	
Equipment / Base	93002	SALE
Recorded By	M. PARROTT	
Witnessed By	G. WAKELIN-KING	
Stop Circ	02:00/29 MAY	Last Line

BOREHOLE RECORD

Last Edited: 29-MAY-2008 15:03

Bit Size inches	Depth From metres	Depth To metres
12.250	0.00	584.00
8.500	584.00	2305.00

CASING RECORD

Type	Size inches	Depth From metres	Shoe Depth metres	Weight pounds/ft
SURFACE	9.625	0.00	578.00	36.00

REMARKS

#) RUN NUMBER 1 IS THE PRIMARY DEPTH REFERENCE LOG. ALL OTHER RUNS ARE CORRELATED BACK TO THIS LOG.
 # SOFTWARE ISSUE: VERSION 8.03.0116 - APRIL 9, 2008.
 # CUSTOMER SCALES AND INTERVALS LOGGED.
 # RUN 1 - MMR, MLE, MUG, MSS, MPD, MDN, MCG, MBE, MBE TOOLS RAN IN COMBINATION.
 # RUN 2 - MFT, MCG TOOLS RAN IN COMBINATION.
 # HARDWARE:
 RUN ONE
 - MMR: 2 x 1" STANDOFFS.
 - MUG: 1 x 1" STANDOFF.
 - MSS: 3 x 1" STANDOFFS.
 - MDN: DUAL BOW SPRING.
 - MBE: 1 x 1" STANDOFF

MBE: 1 x 1" STANDOFF.
 - MBE: 1 x 1" STANDOFF.

RUN TWO
 - MFT: 2 x BASKET CENTRALISERS.
 - MCG: 1 x BASKET CENTRALISER.

MPD CORRECTED FOR CALIPER AND MUD DENSITY.

MDN CORRECTED FOR CALIPER, MUD DENSITY AND MUD SALINITY.

SERVICE REPORT NUMBER: 4121.

RIG: AUSTRALIAN DRILLING SERVICES 6.

TOTAL HOLE VOLUME (HVOL) FROM T.D. TO SURFACE CASING = 80.2 CUBIC METRES.

TOTAL ANNULAR VOLUME (AVOL) WITH 7 INCH CASING = 38.2 CUBIC METRES.

SONIC CASING SIGNAL OBSERVED AT 560 METRES. SONIC TOOL HAD A RECEIVER FAIL WHEN THE TOOLS STRING PULLED TIGHT AT 2030 METERS; THEREFORE DISPLAYED A 3'-4' SONIC RATHER THAN 3'-5'.

LOGGING UNIT J-FACTOR FOR V93002 = 0.8434.

LATITUDE, LONGITUDE AND ELEVATIONS ARE PRELIMINARY.

LOGGING CREW: ENGINEER 1 - M. PARROTT, OPERATOR 1 - P. COLLERY, OPERATOR 2 - B. WARD.

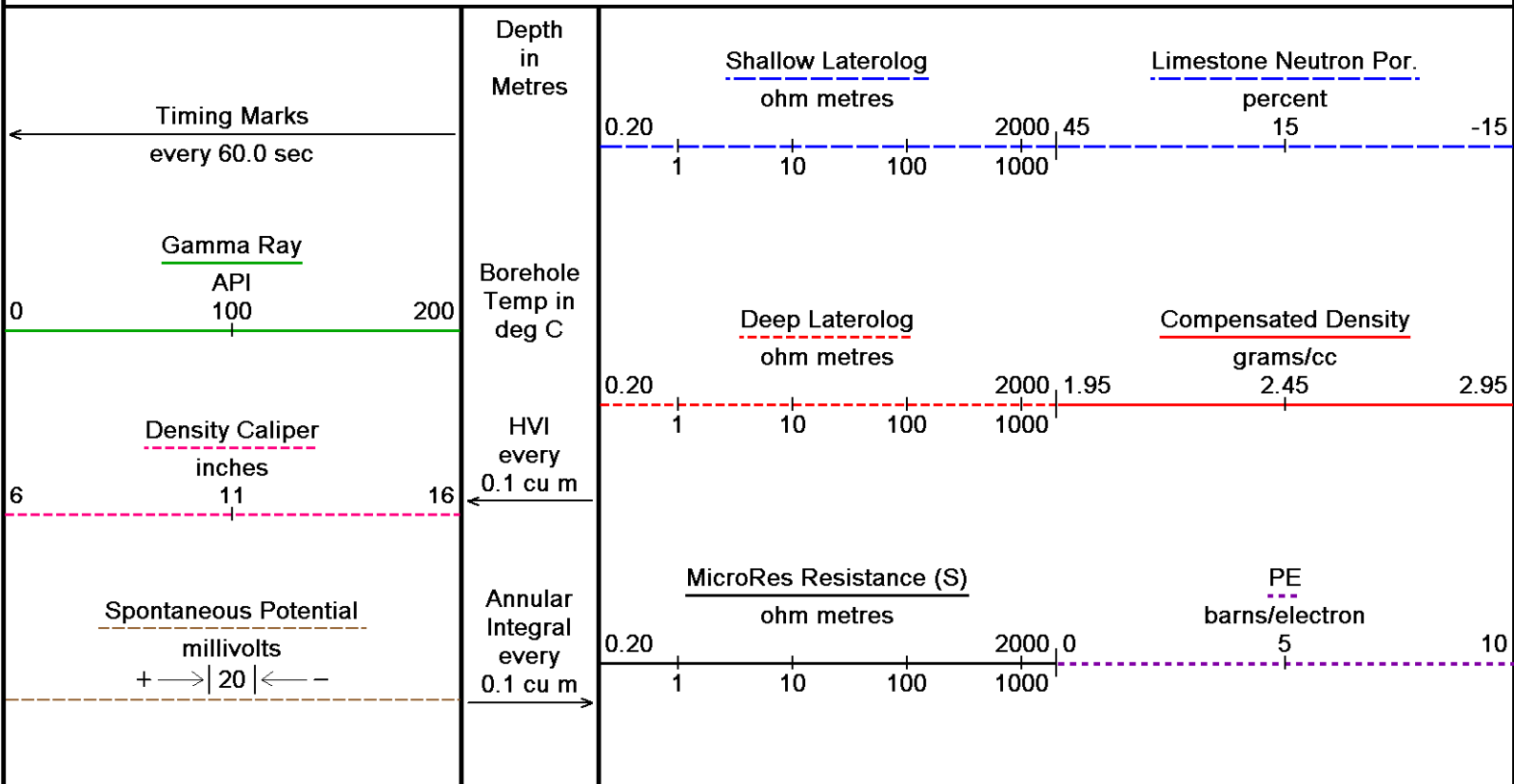
TOOLS STRING PULLED TIGHT AT 2030 METERS AND 2017 METERS; CALIPERS WERE CLOSED IN ORDER TO PASS THE OBSTRUCTION, THROUGH THESE AREAS SOME READINGS MAY BE AFFECTED.

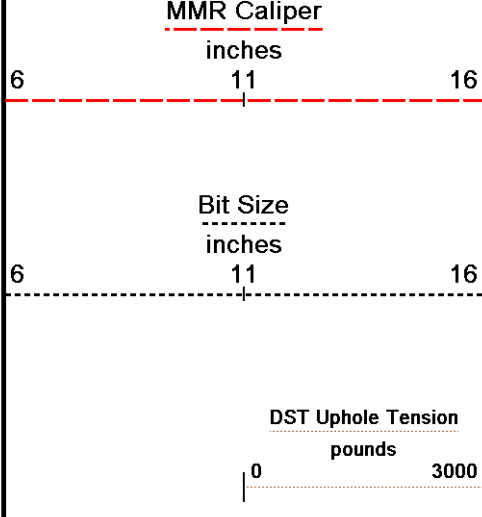
BRIDGED OFF AT 2285.85 METERS ON RUN 1. NO WIPER TRIP WAS PERFORMED.

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 interpretations, and we shall not, except in the case of gross or wilful 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 in our price schedule.

MAIN LOG 1:200

Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 30-MAY-2008 01:11
 Filename: C:\DOCUME~1\HELILI~1\LOCALS~1\Temp\Weatherford Pr...EASTWING_1_MAINLOG.dta Recorded on 29-MAY-2008 20:08
 System Versions: Logged with 8.03.0116 Processed with 8.03.0116 Plotted with 8.01.0107

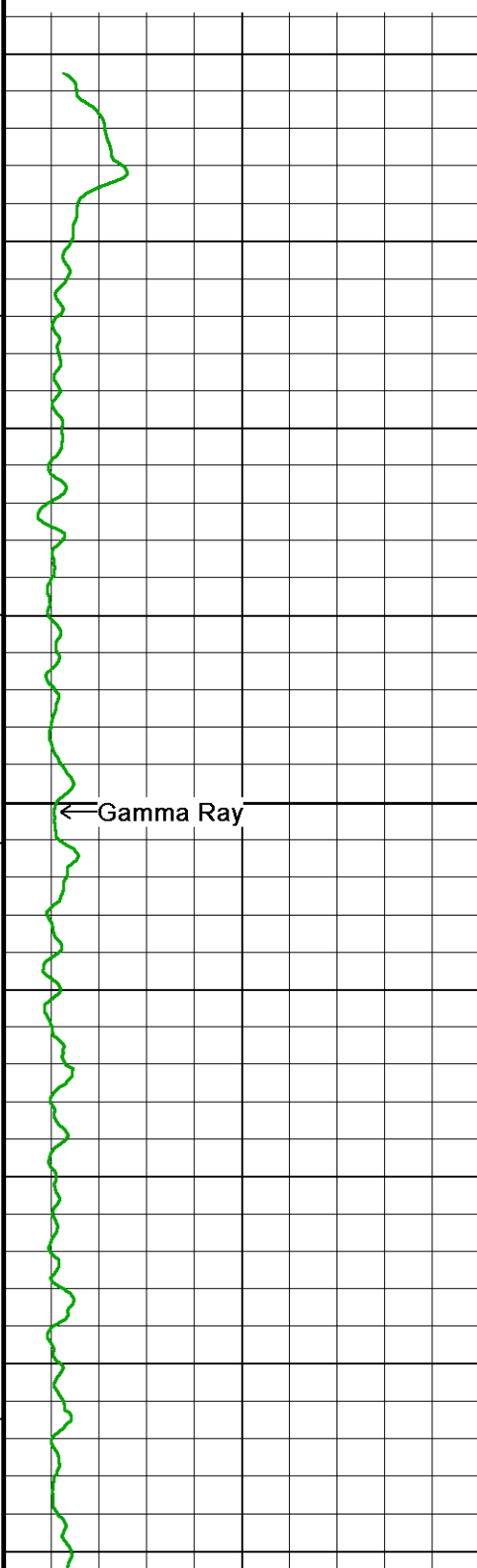
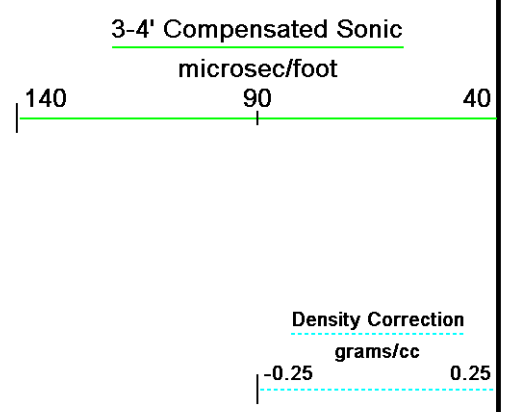




TR21
1100 100

TR11
1100 100

Replay Scale
1:200



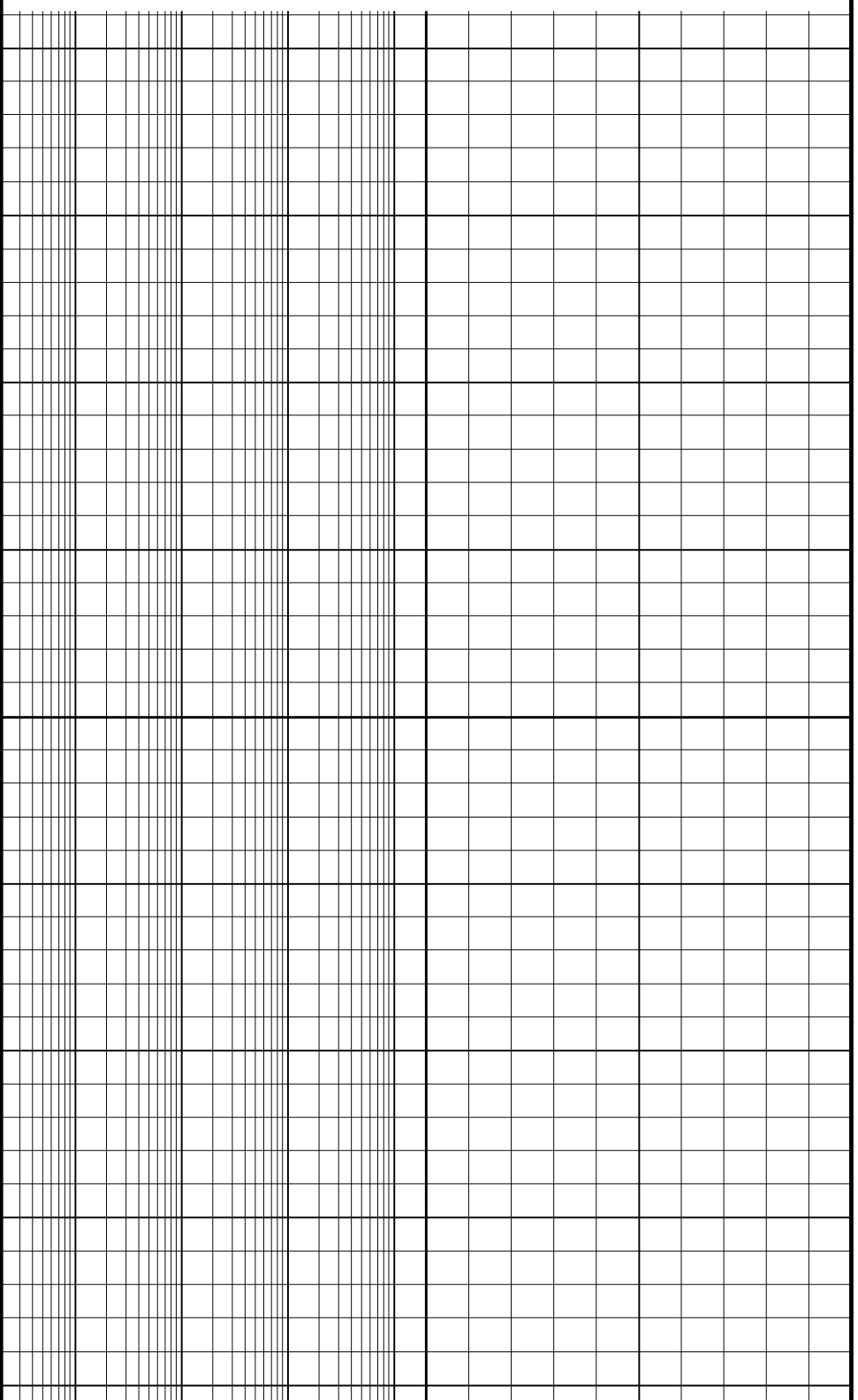
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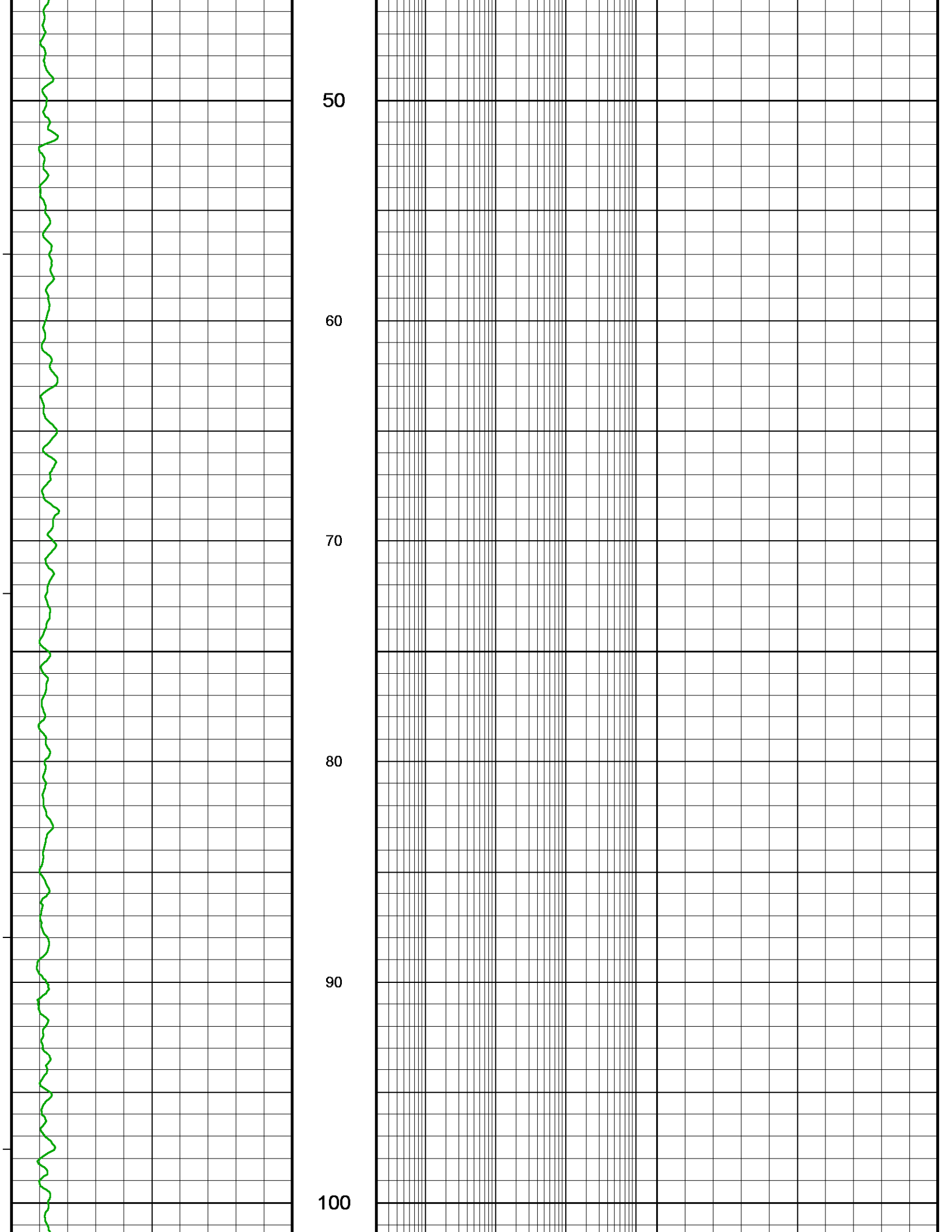
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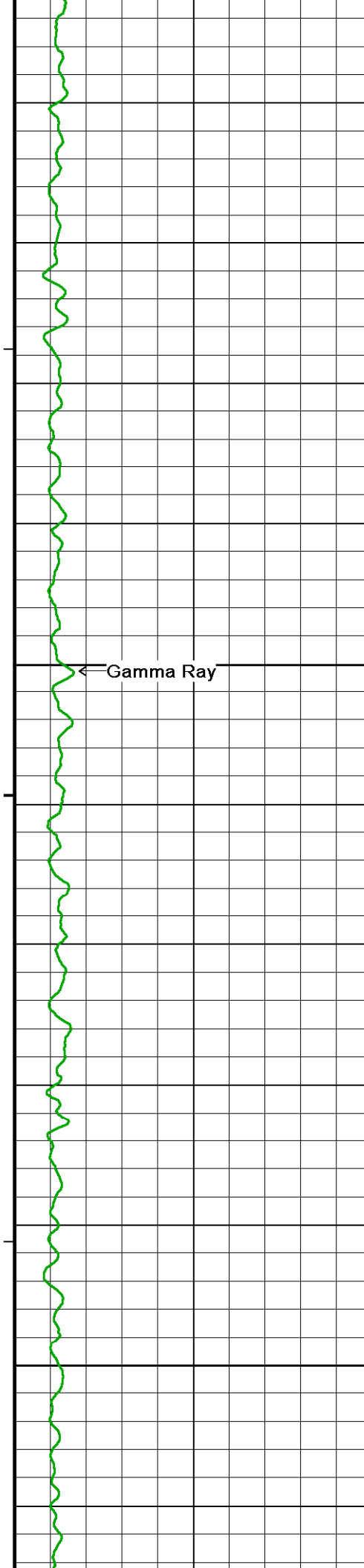
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30

40







110

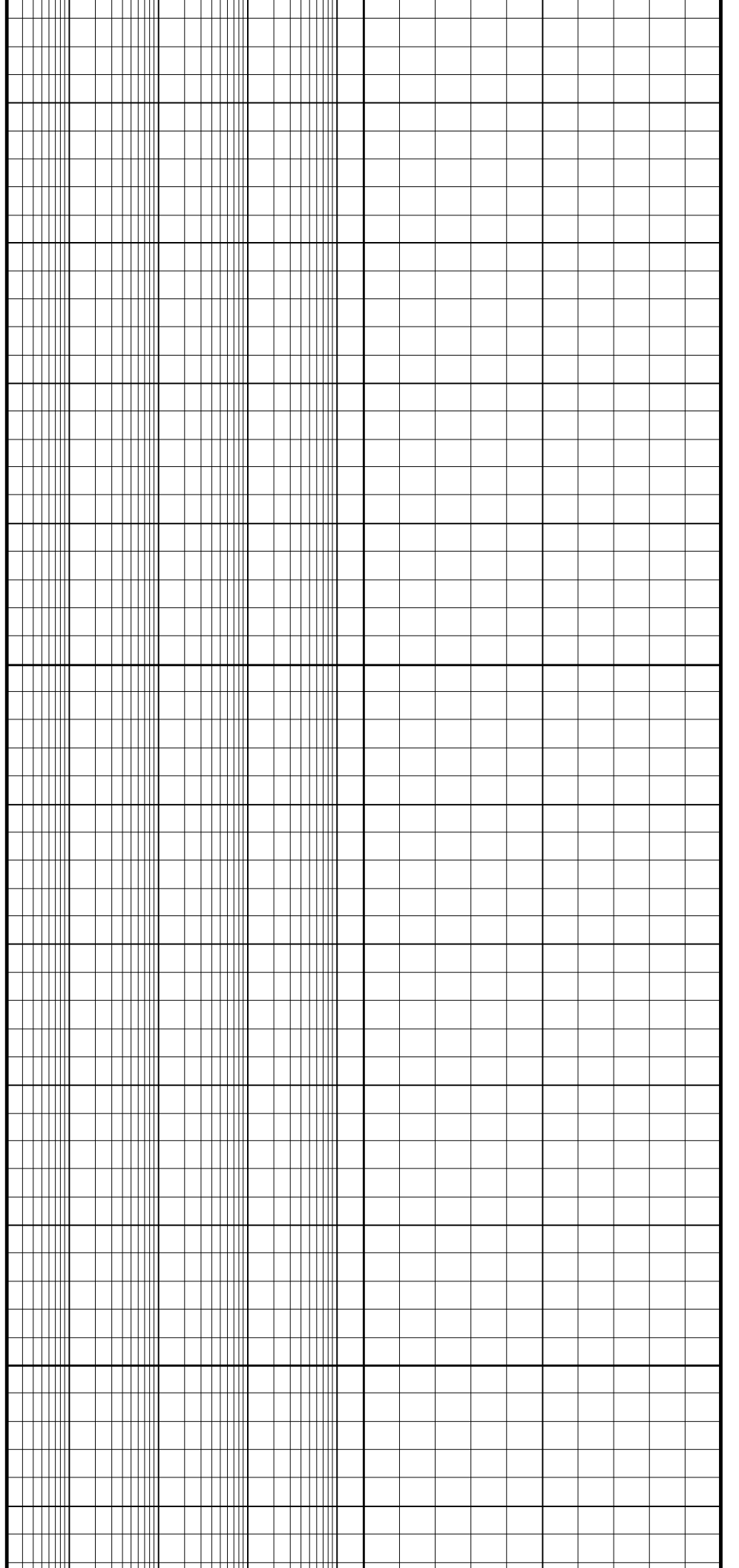
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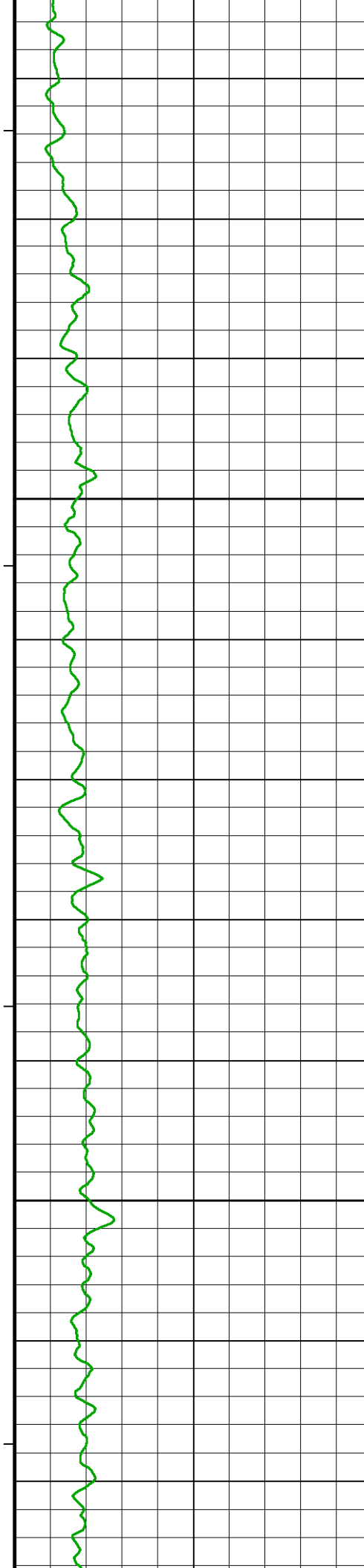
← Gamma Ray

130

140

150





160

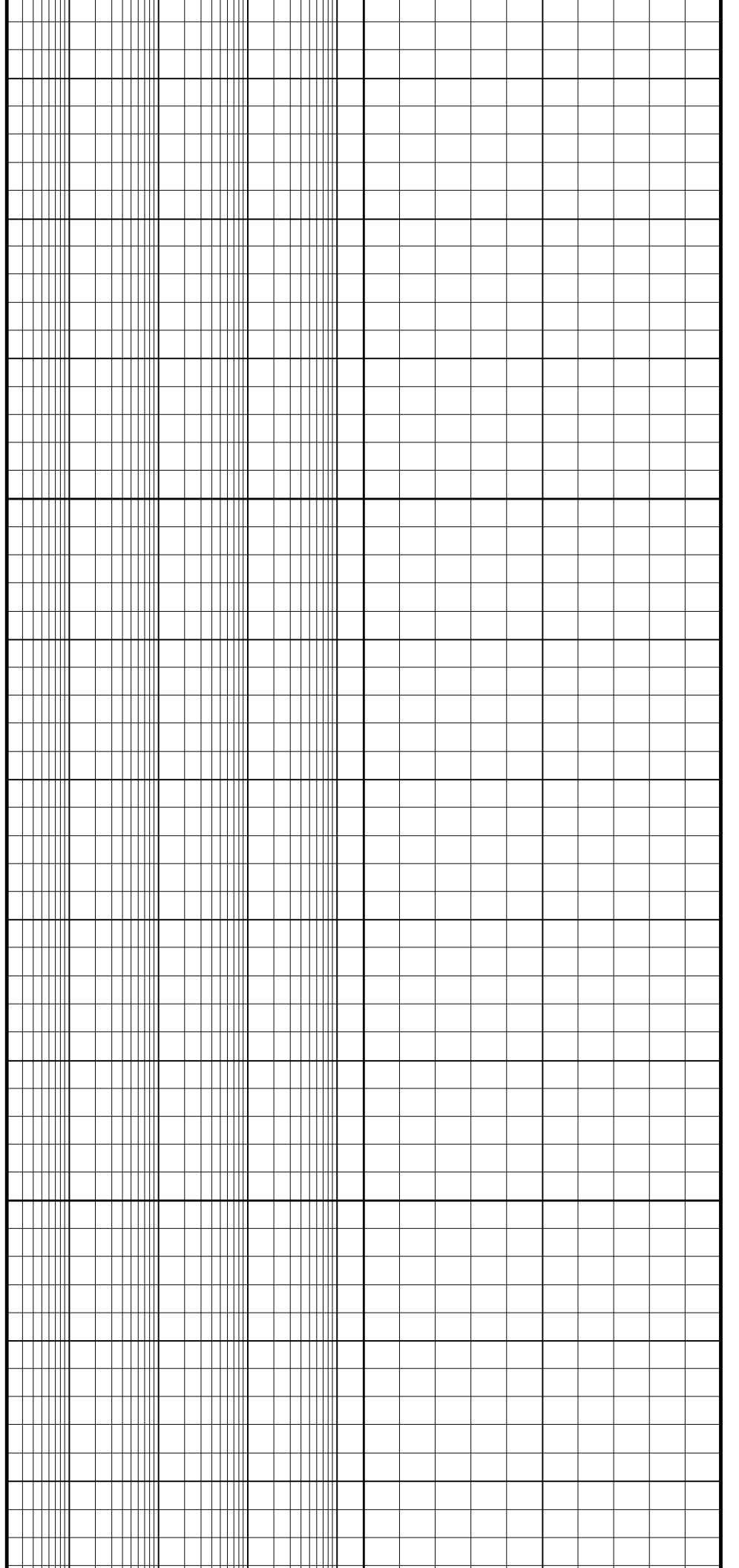
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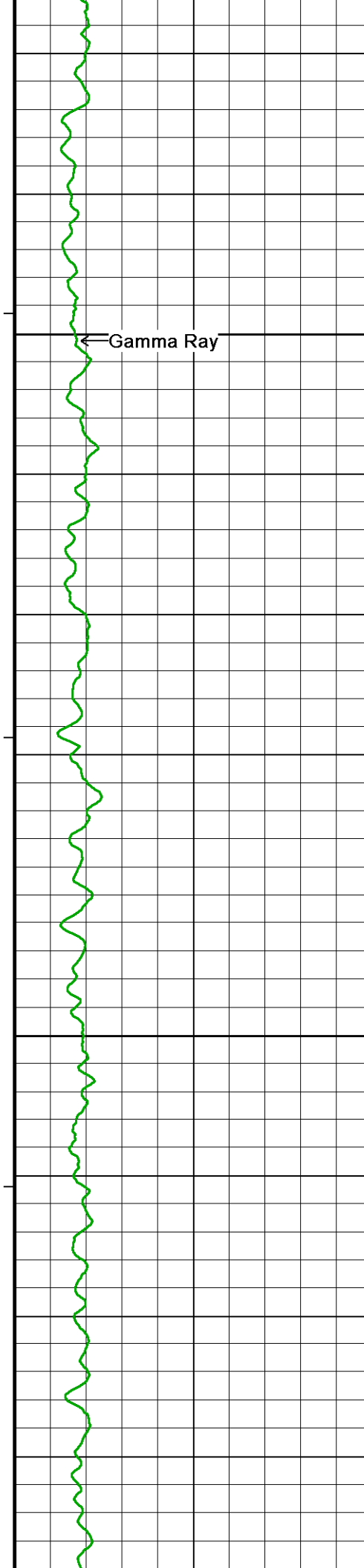
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200

210





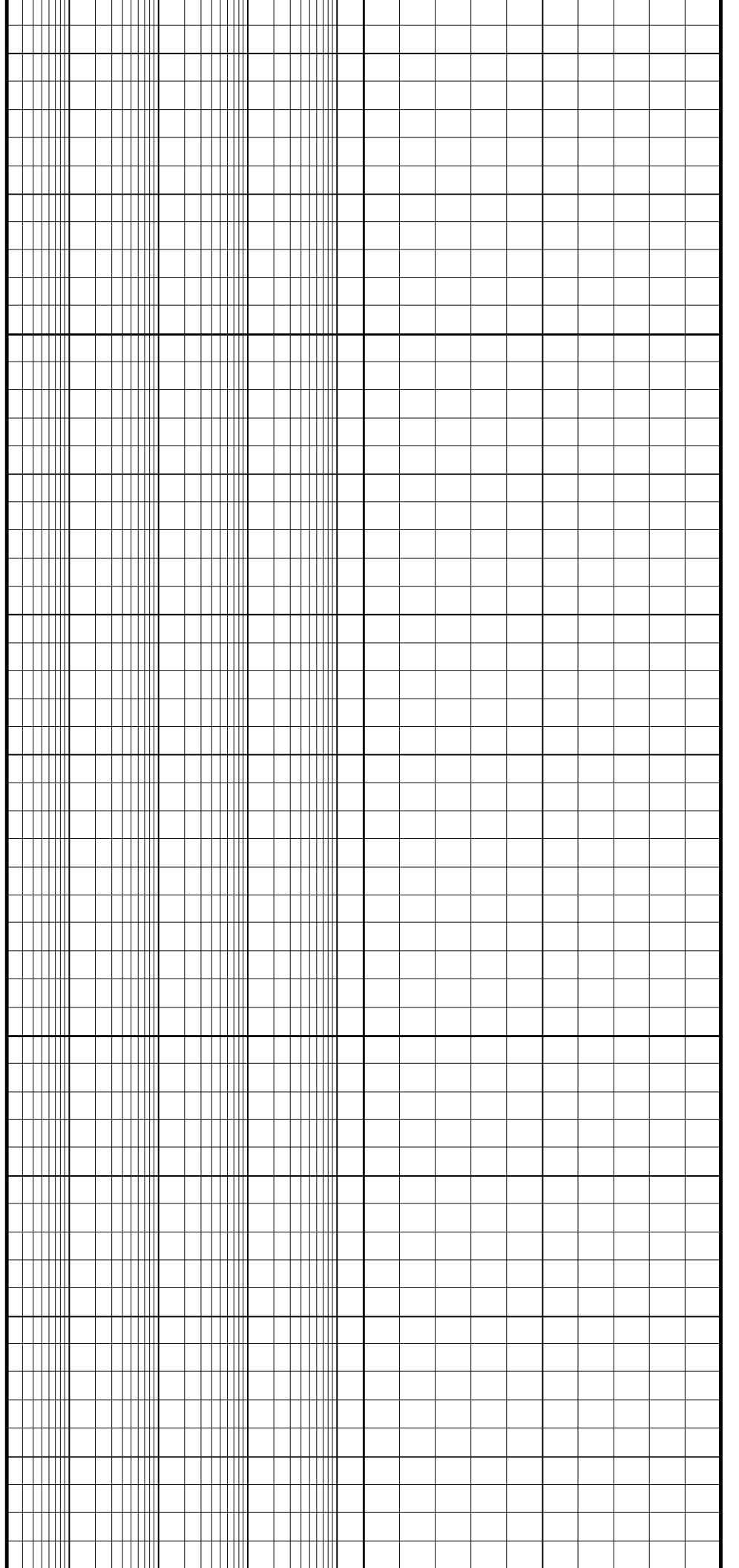
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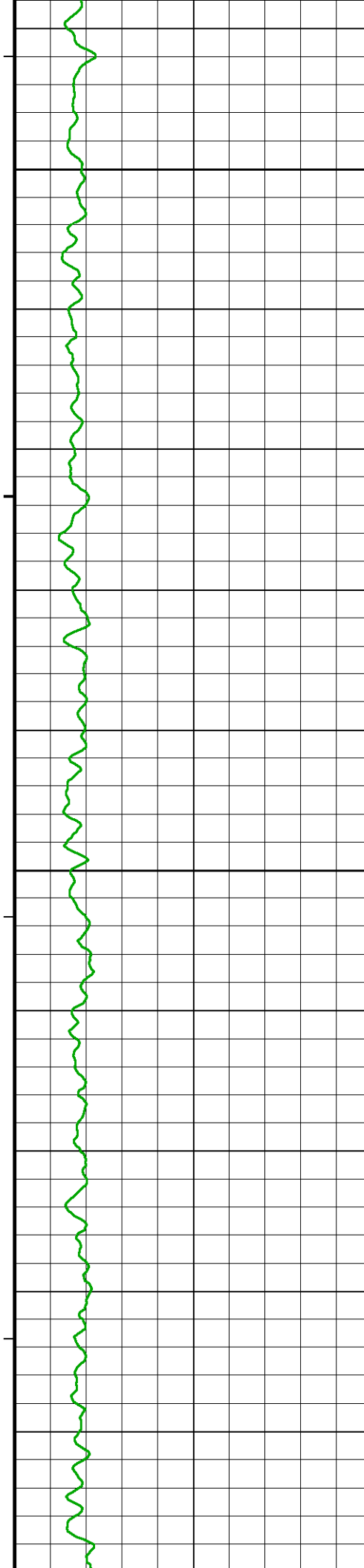
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240

250

260





270

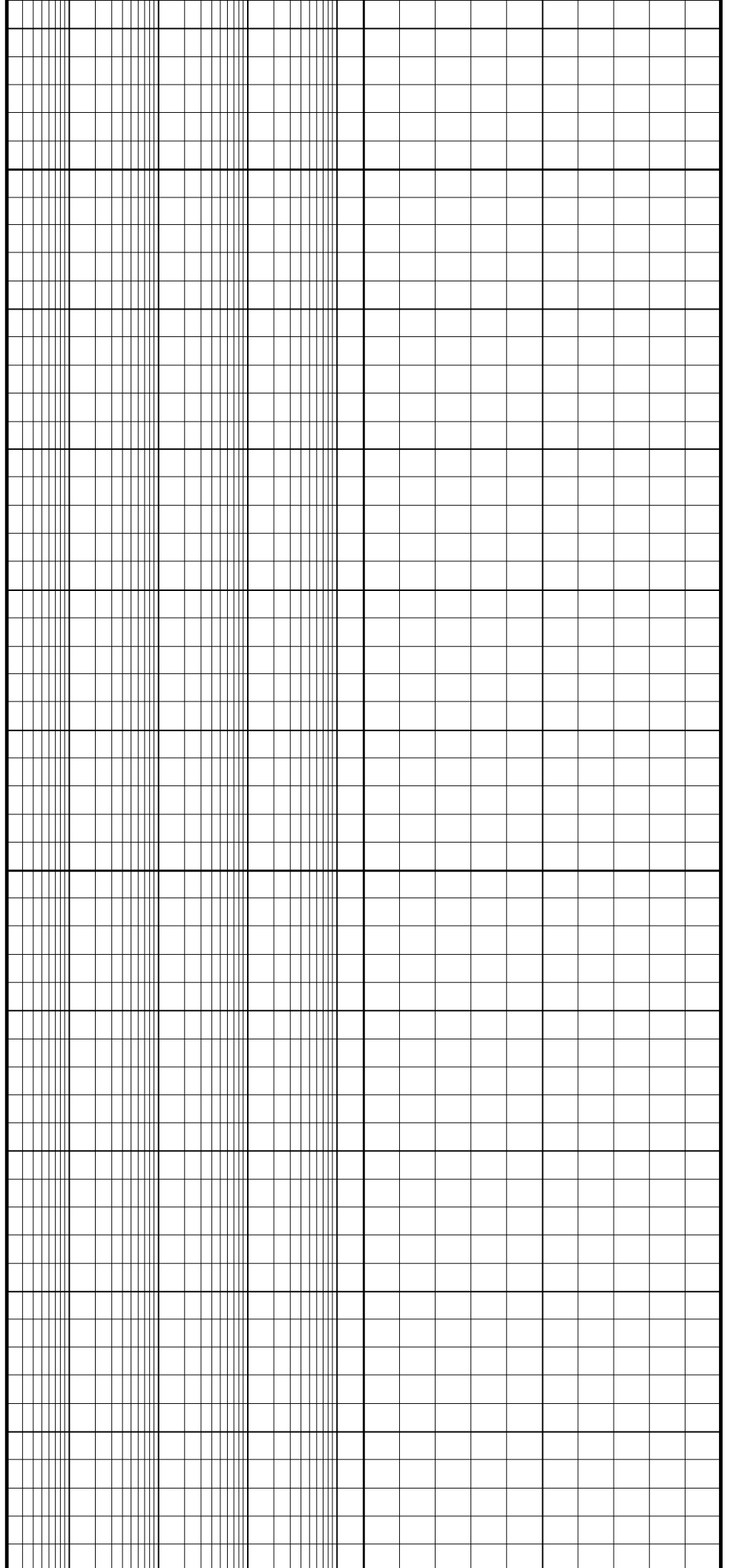
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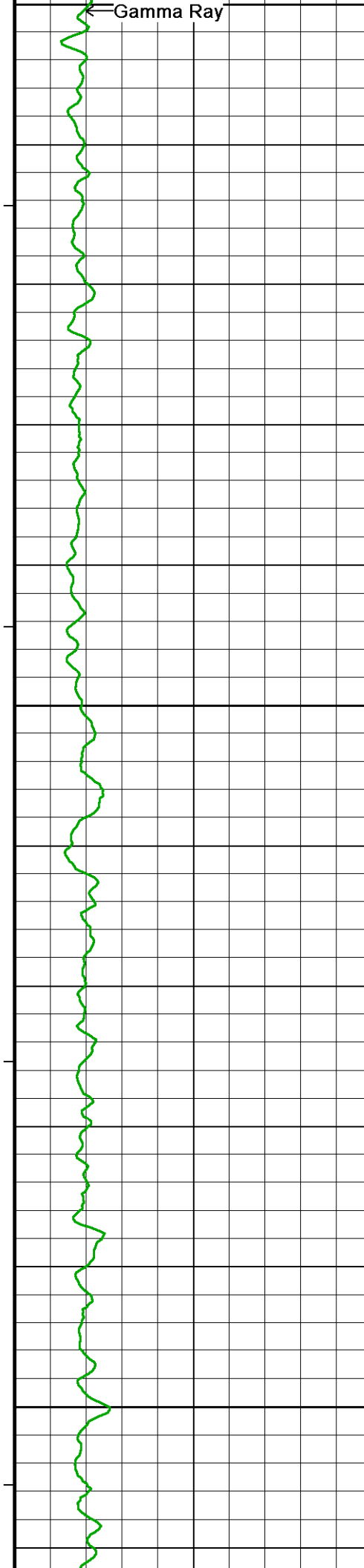
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300

310

320





330

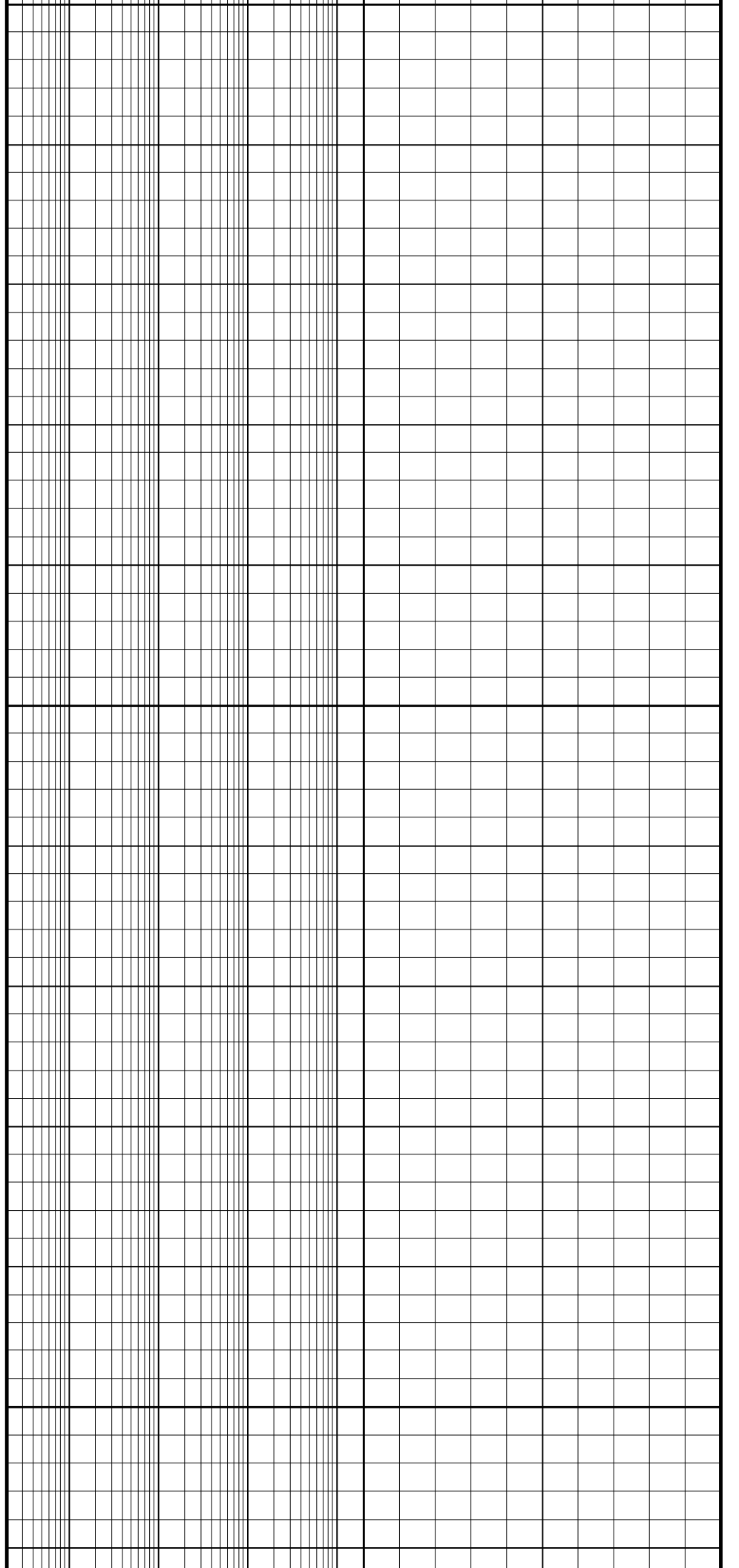
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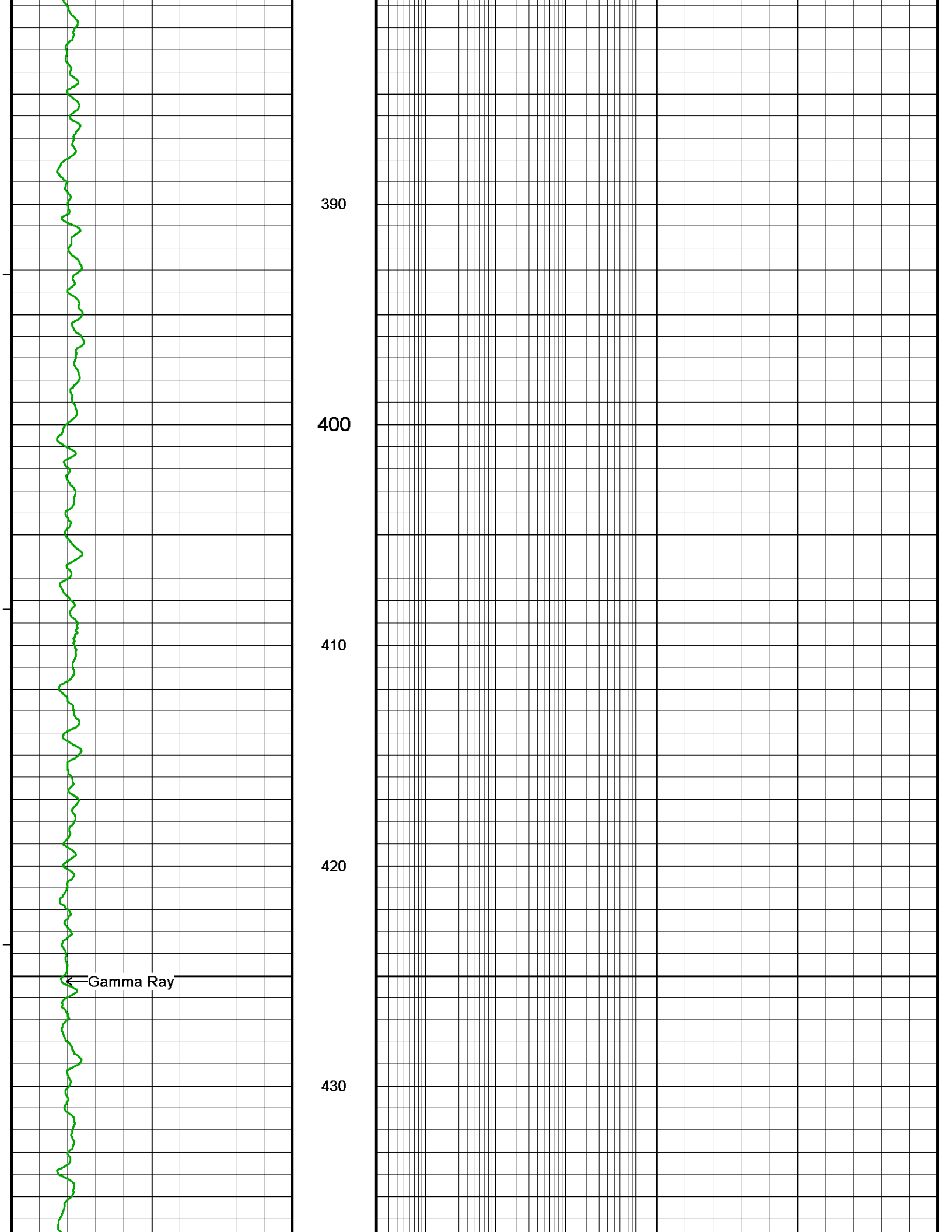
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360

370

380





390

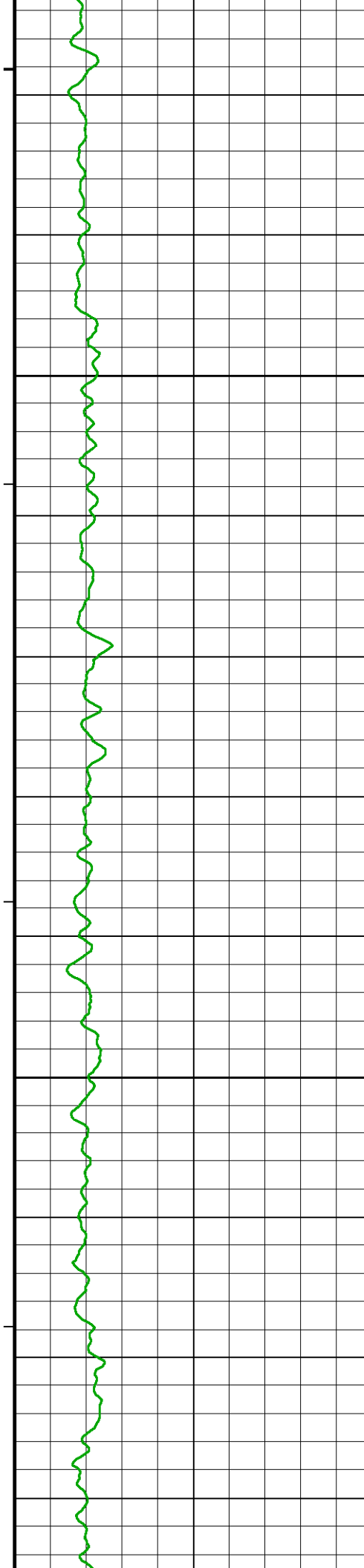
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410

420

430

← Gamma Ray



440

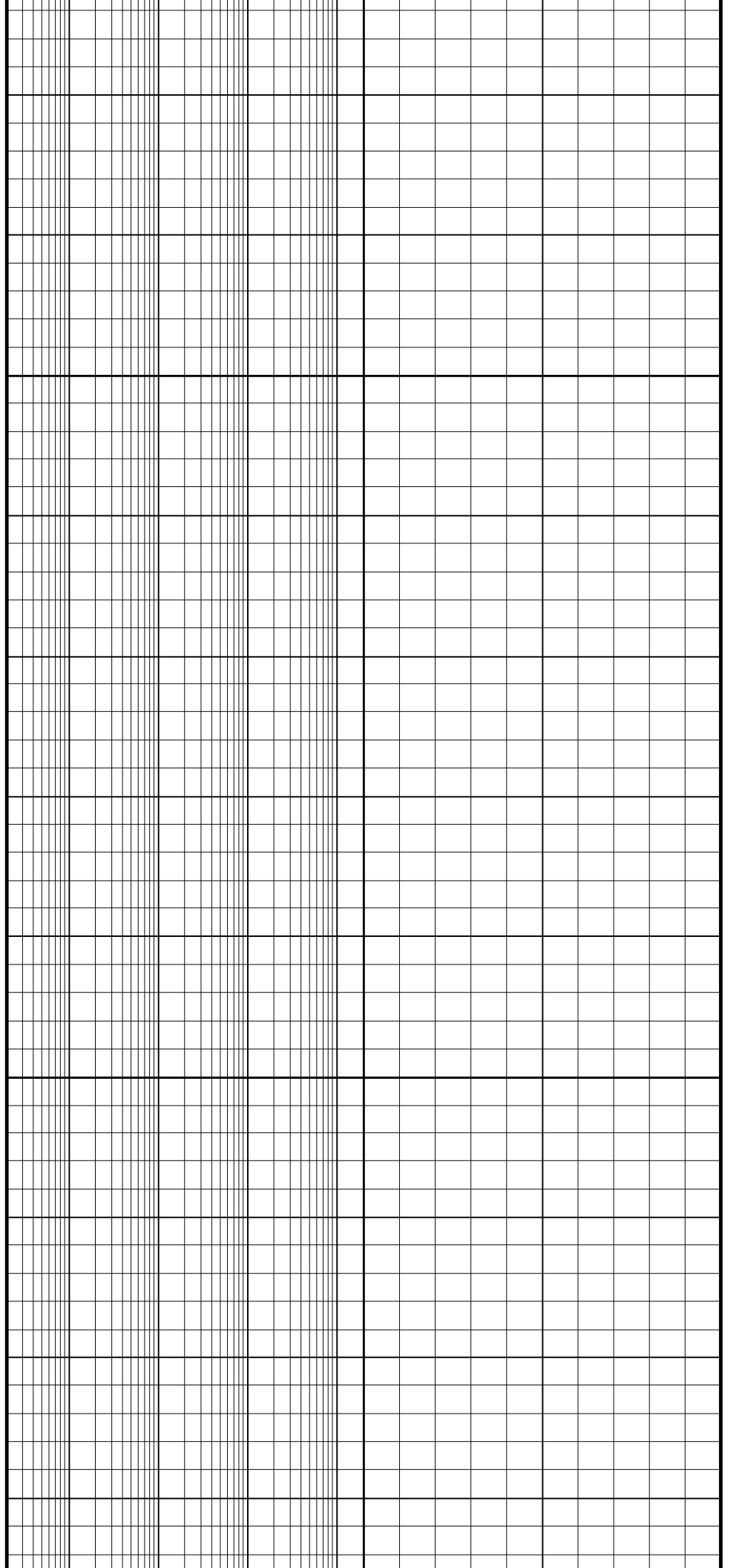
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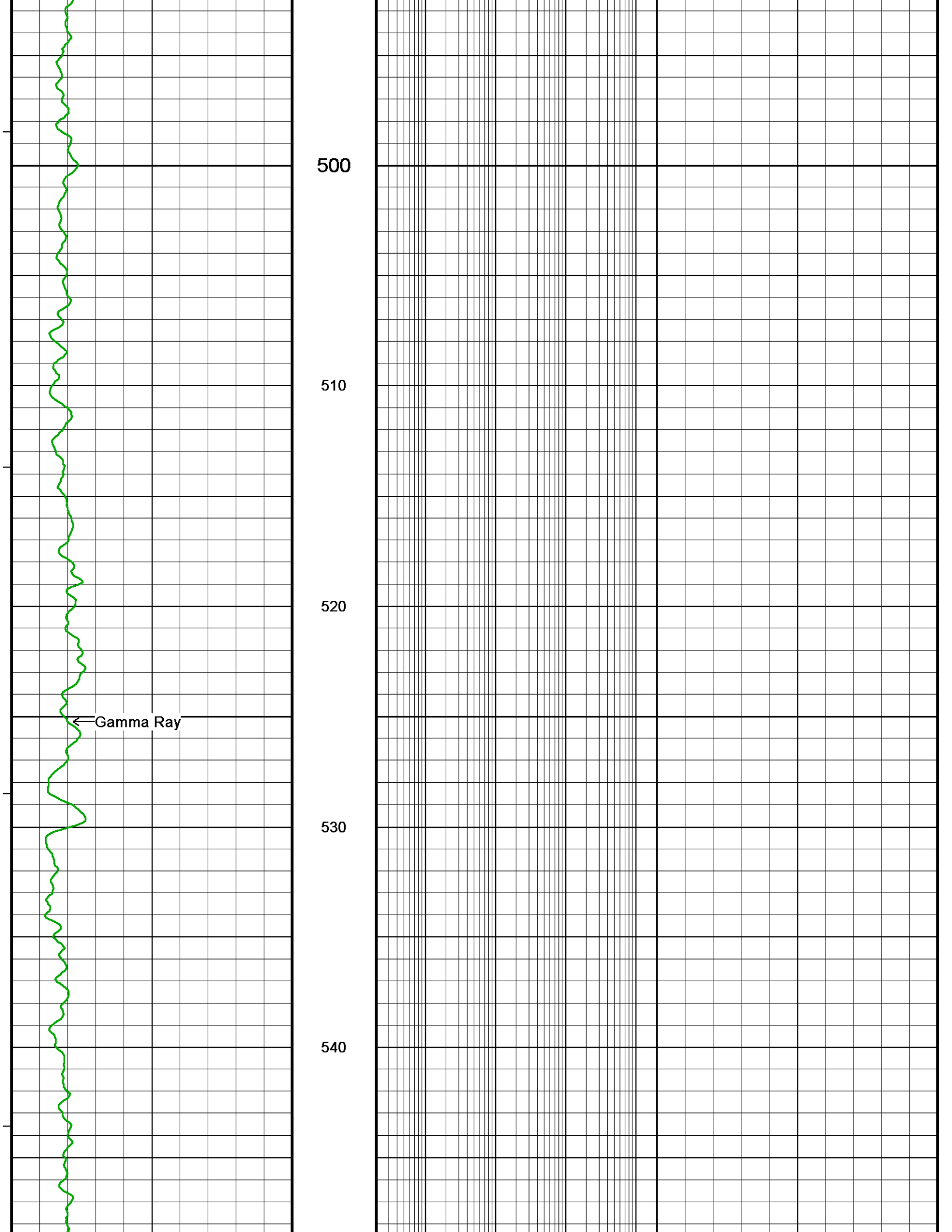
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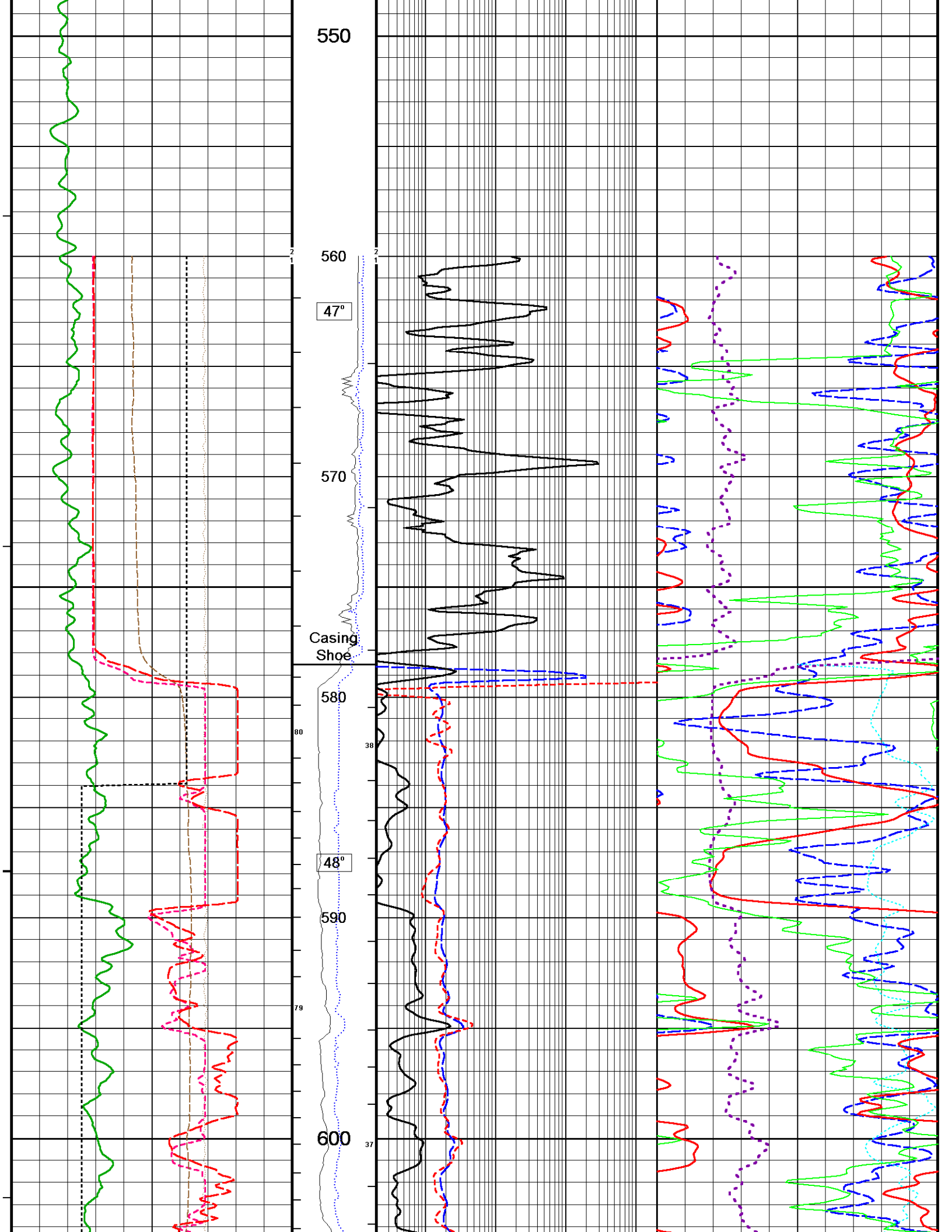
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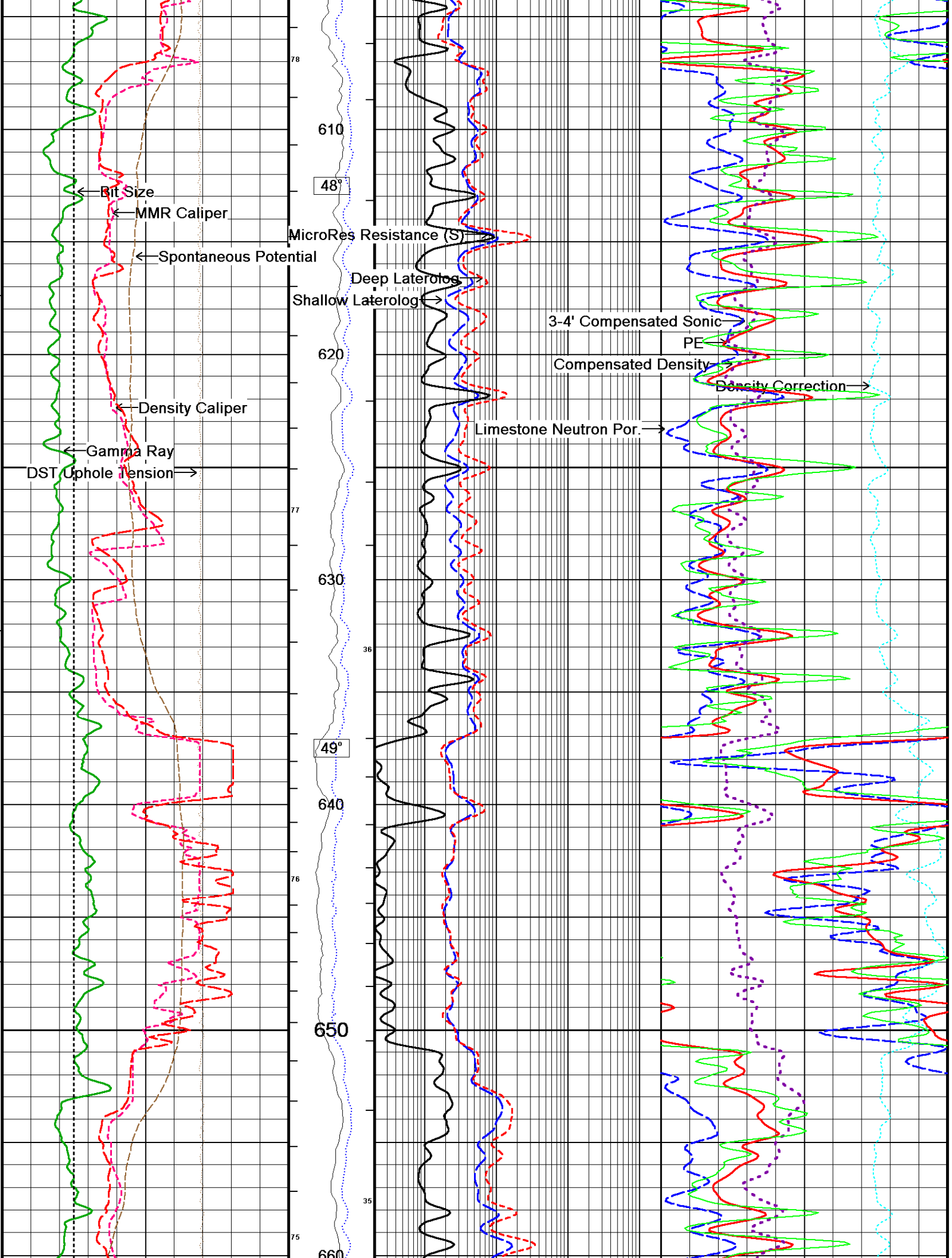
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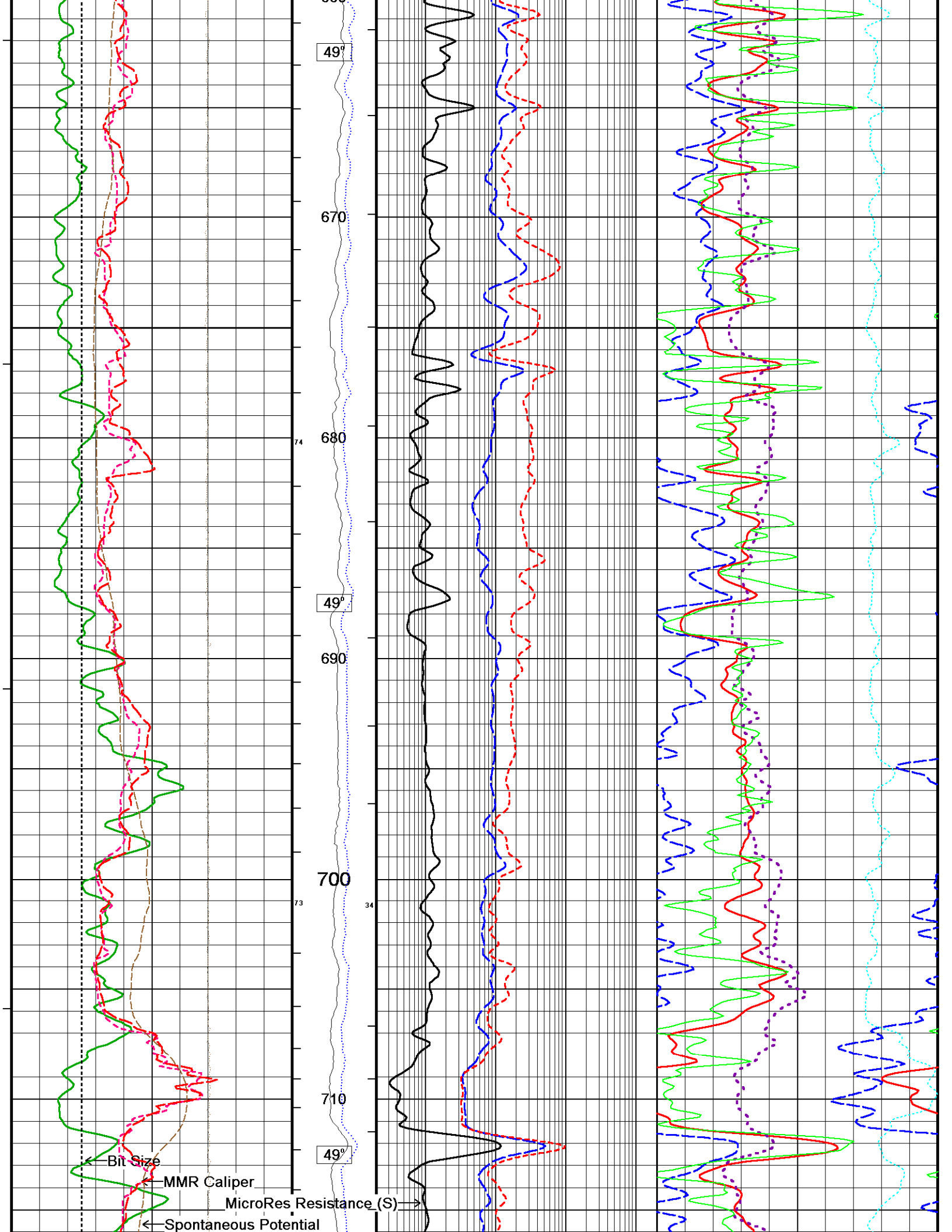
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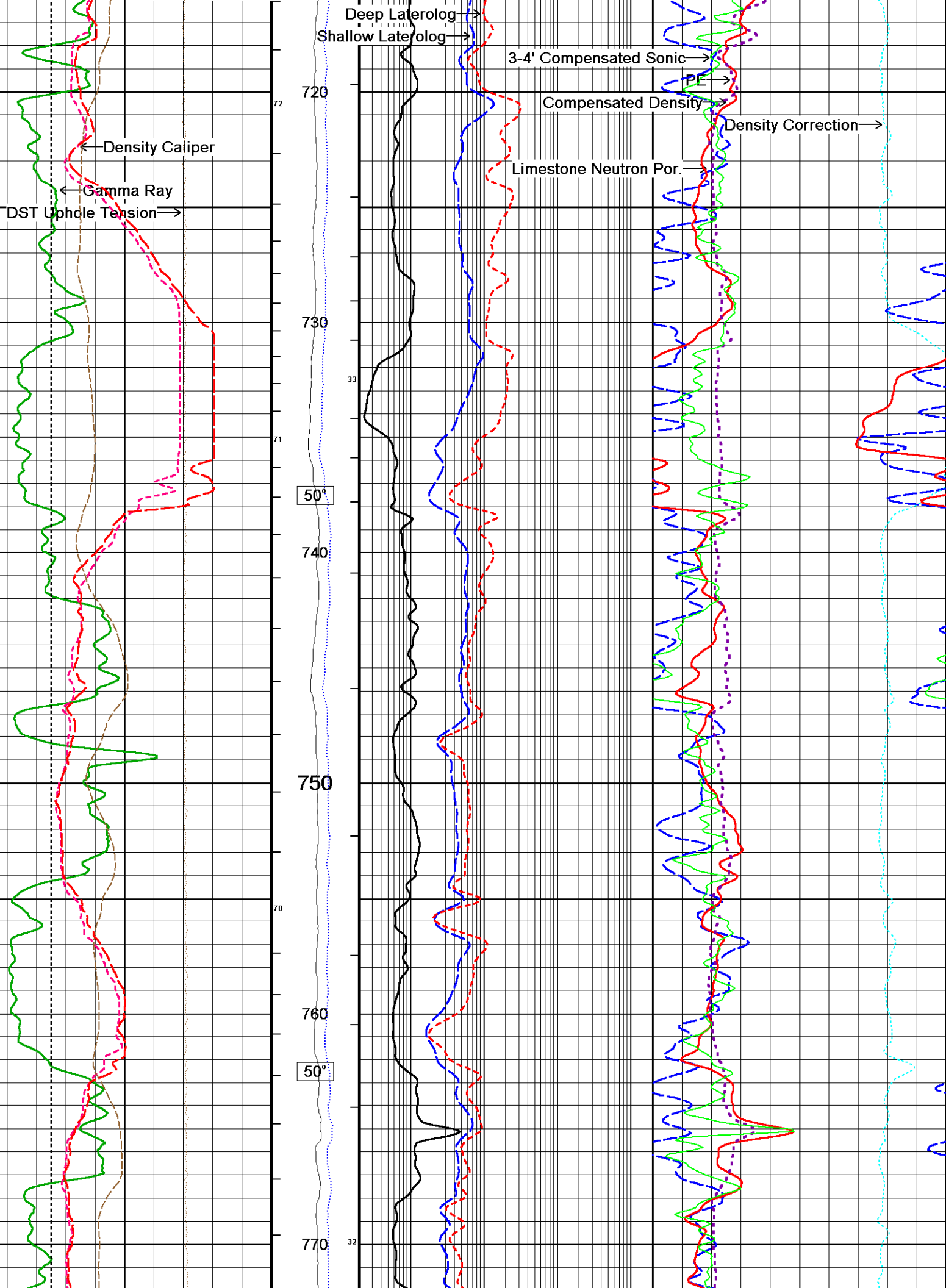


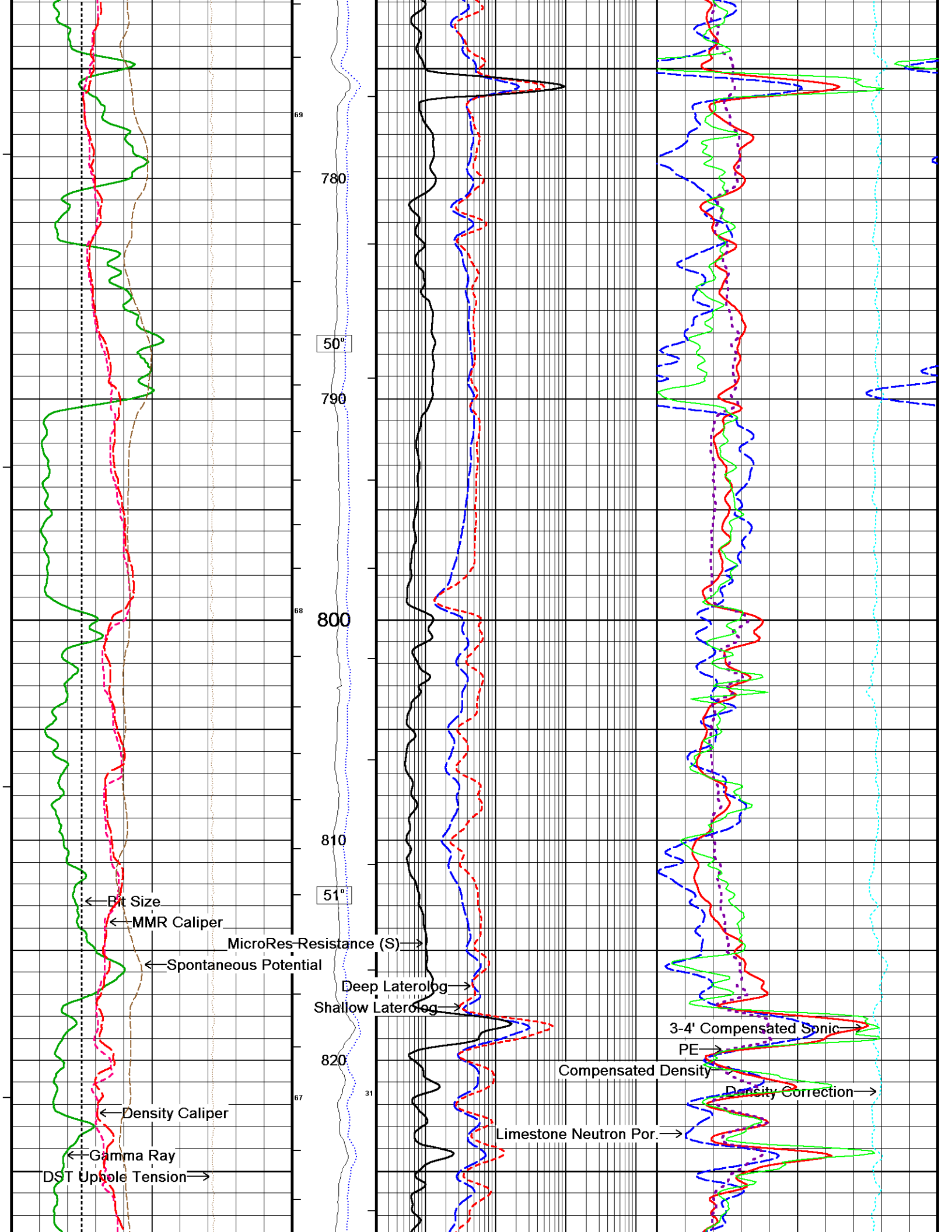


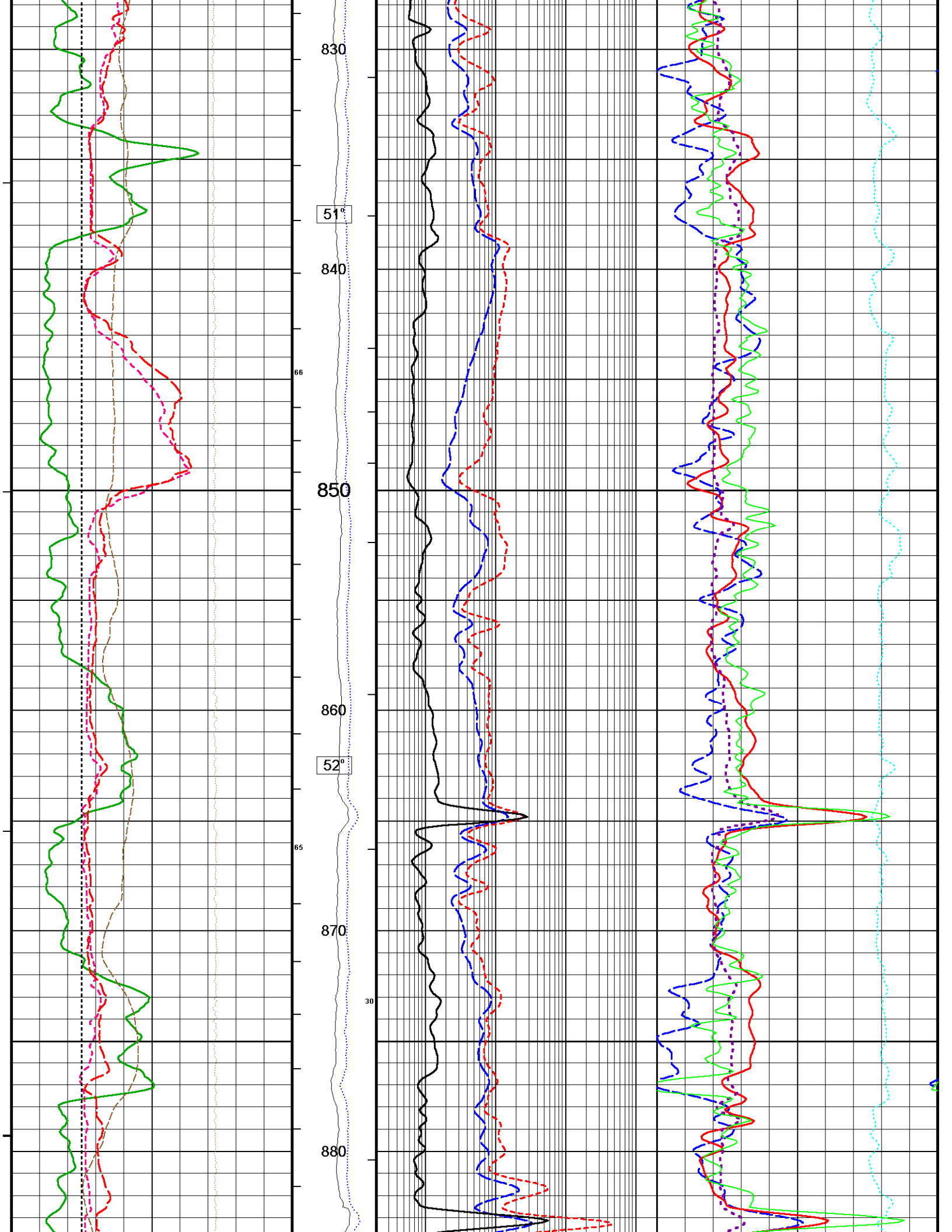


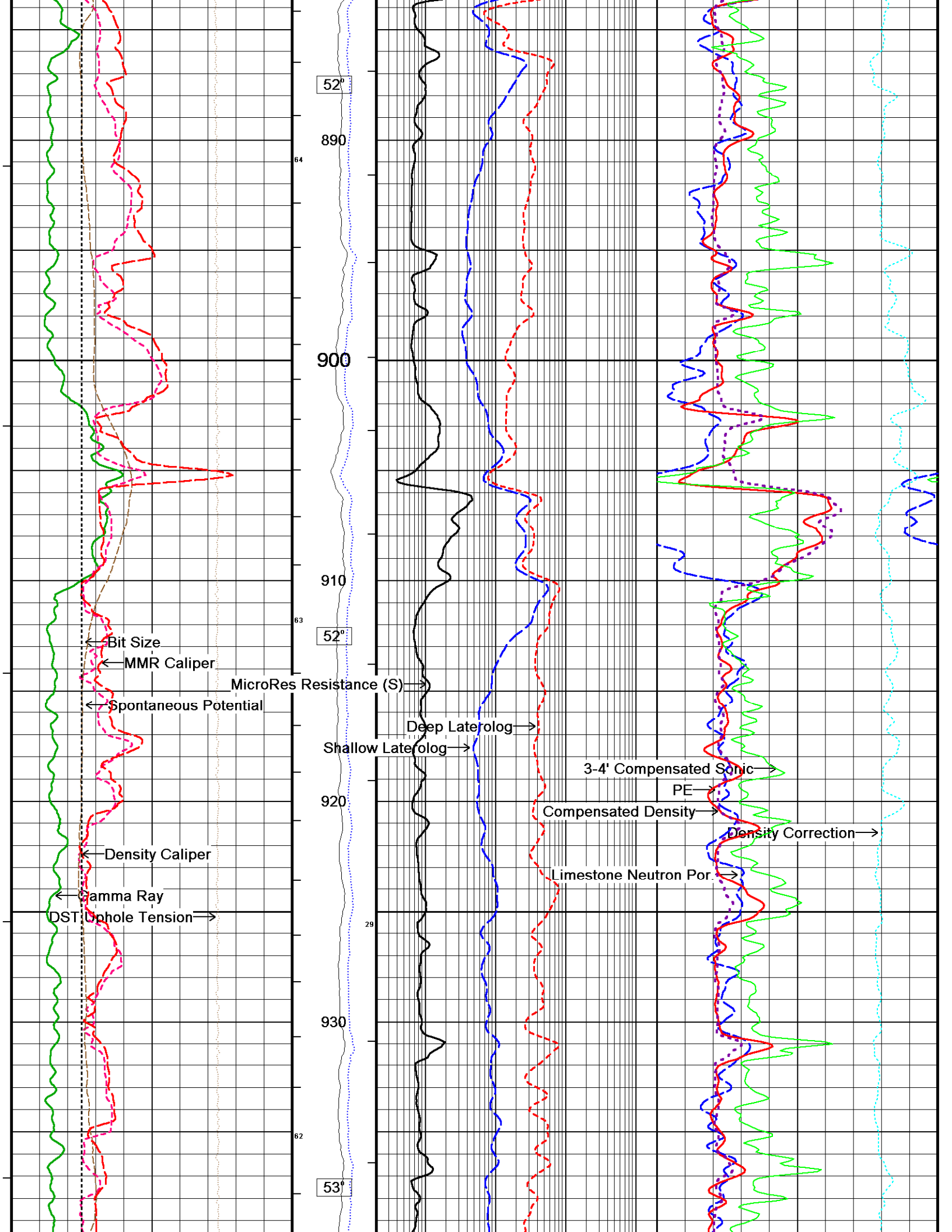


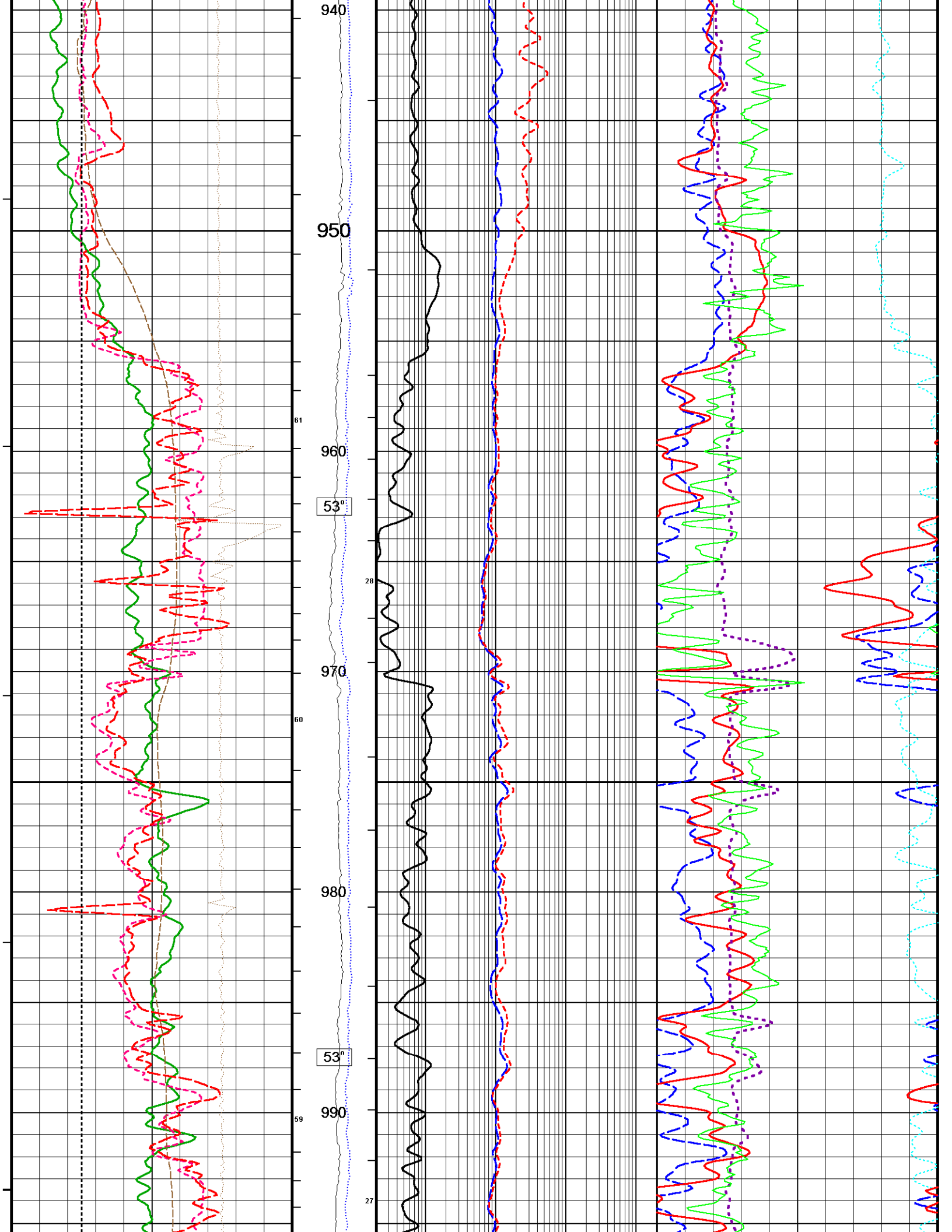


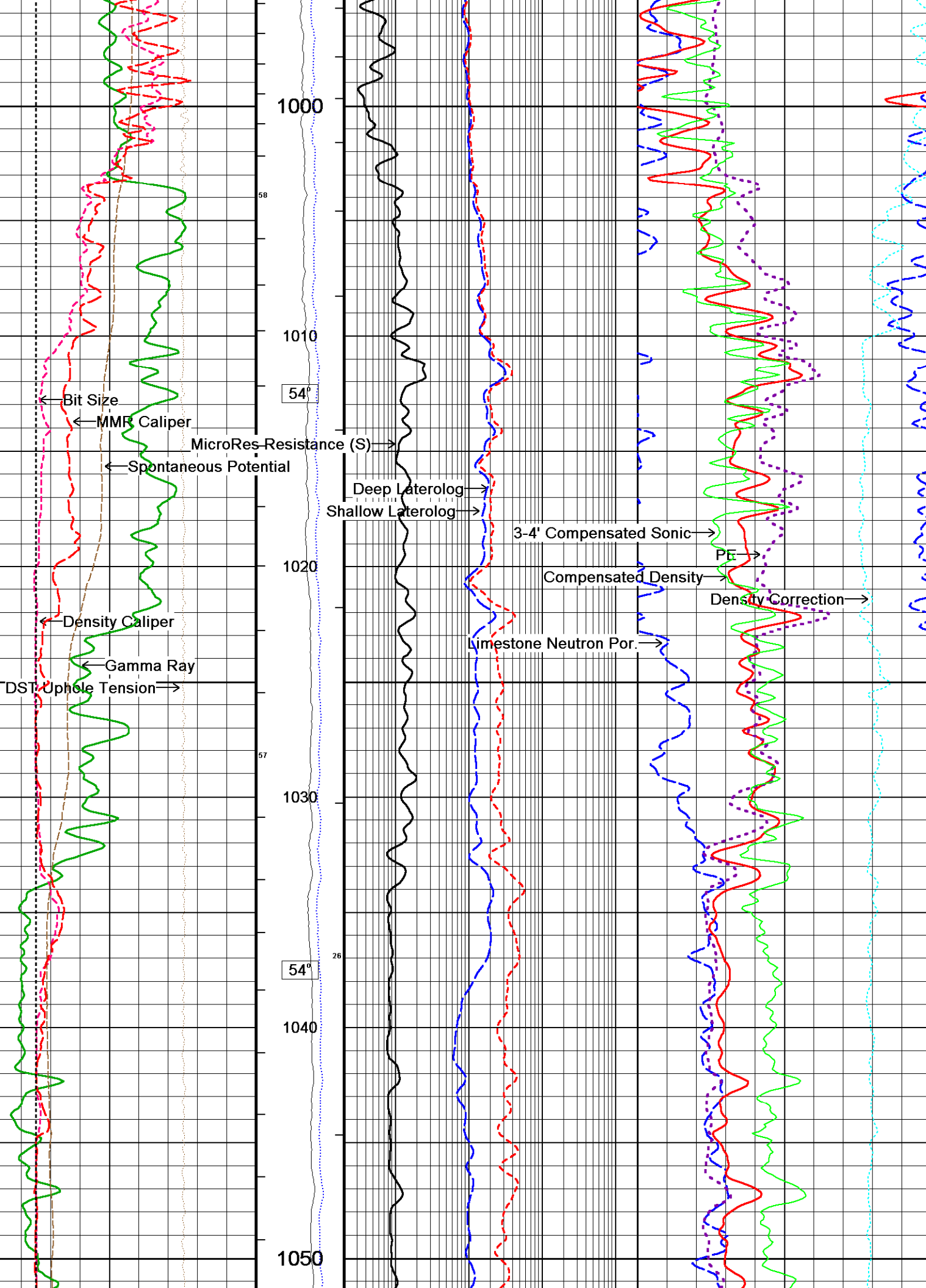


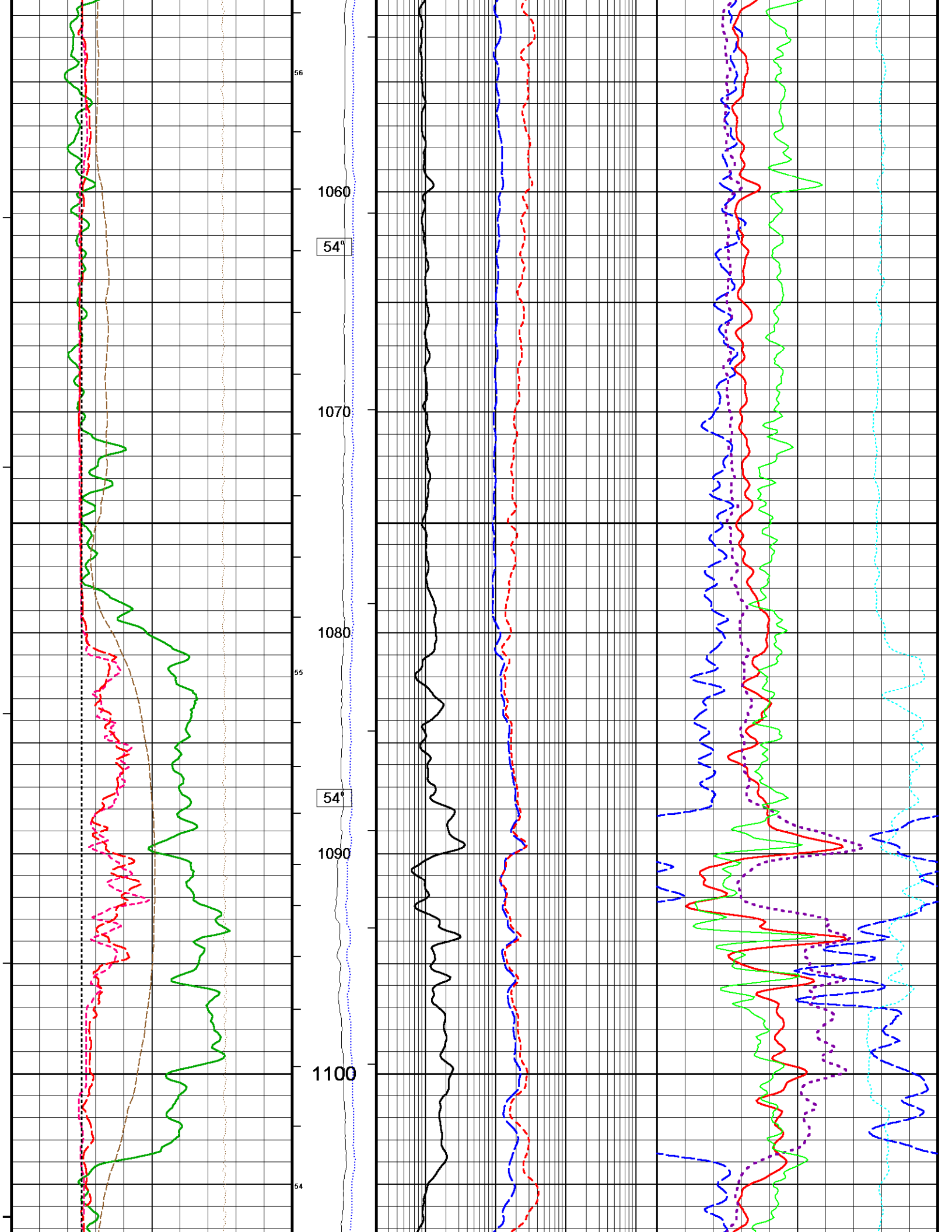


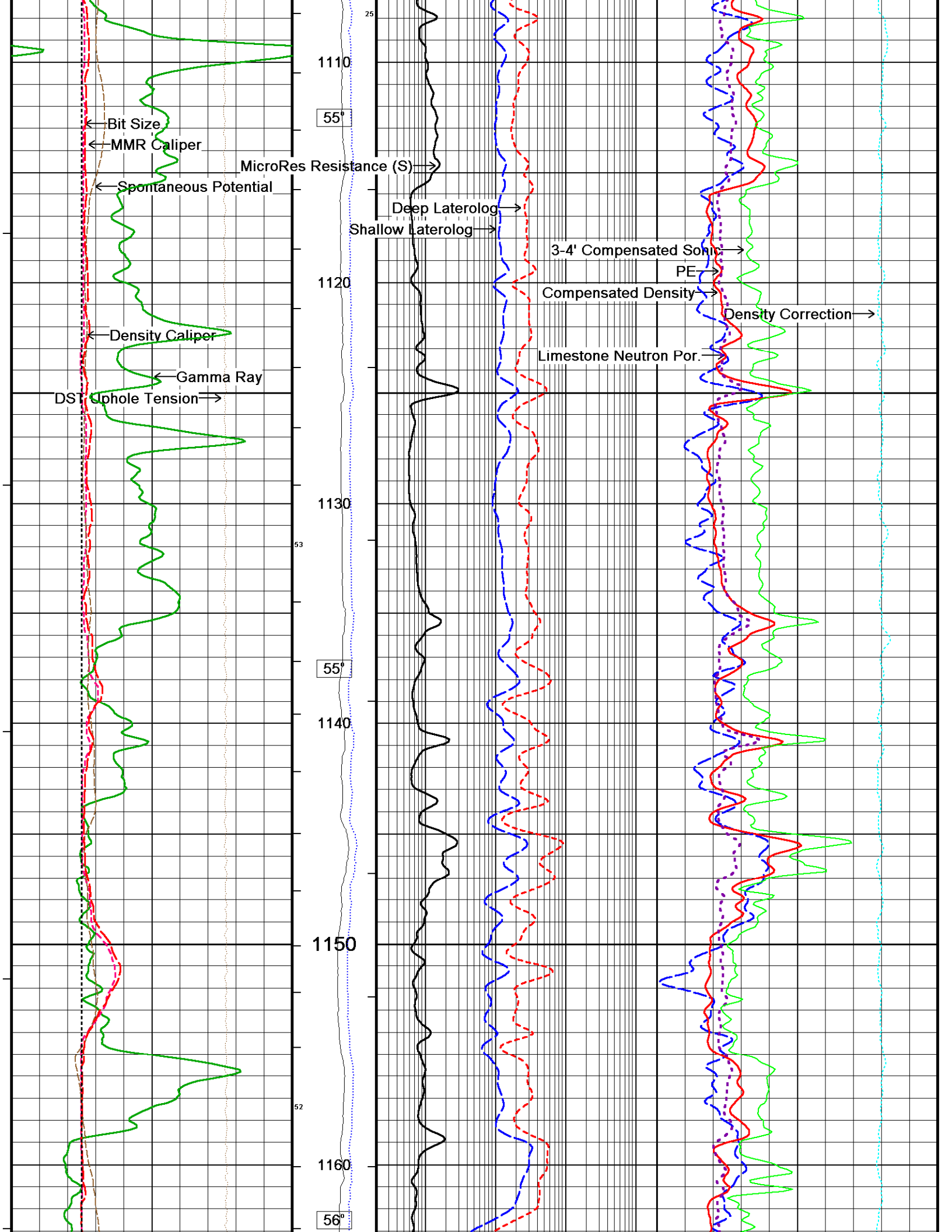


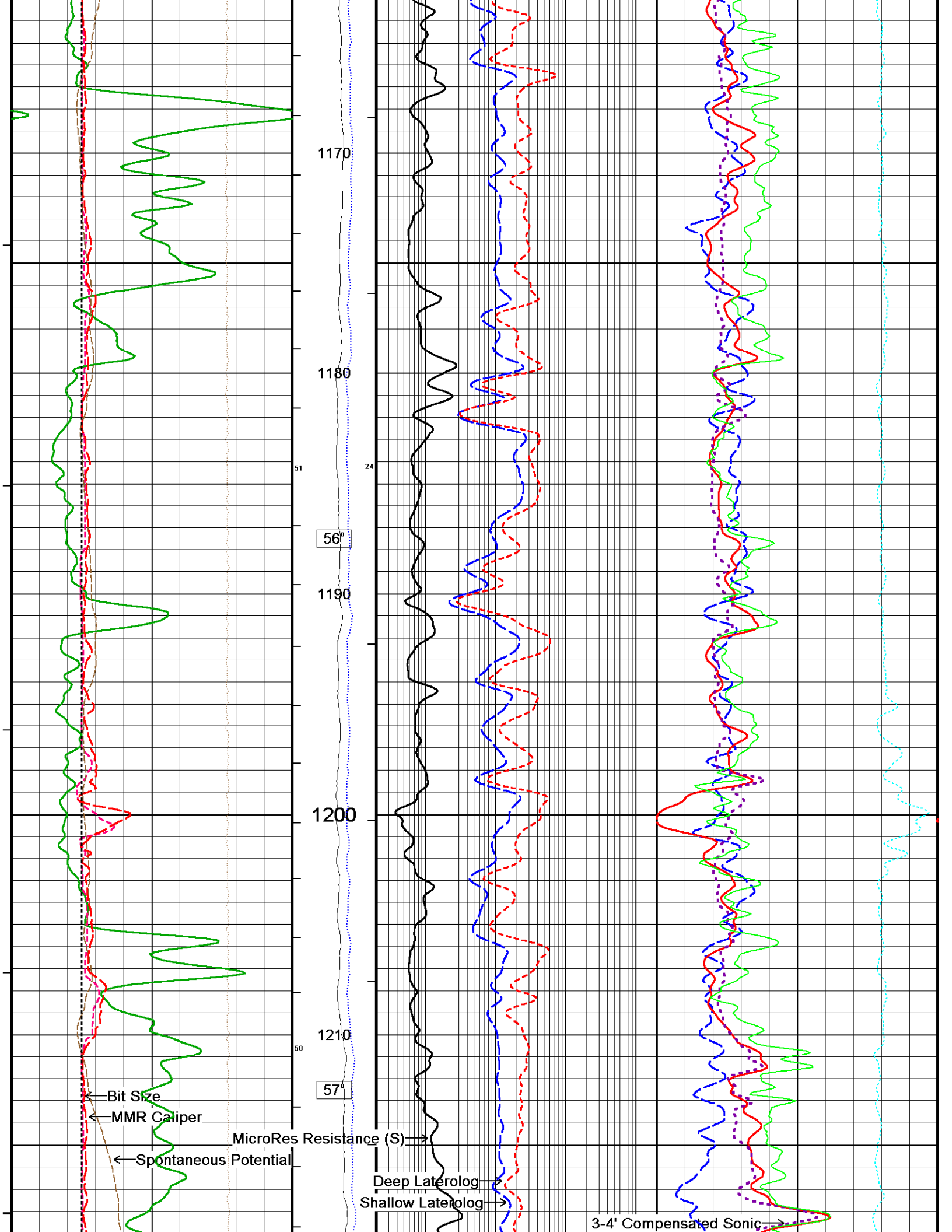


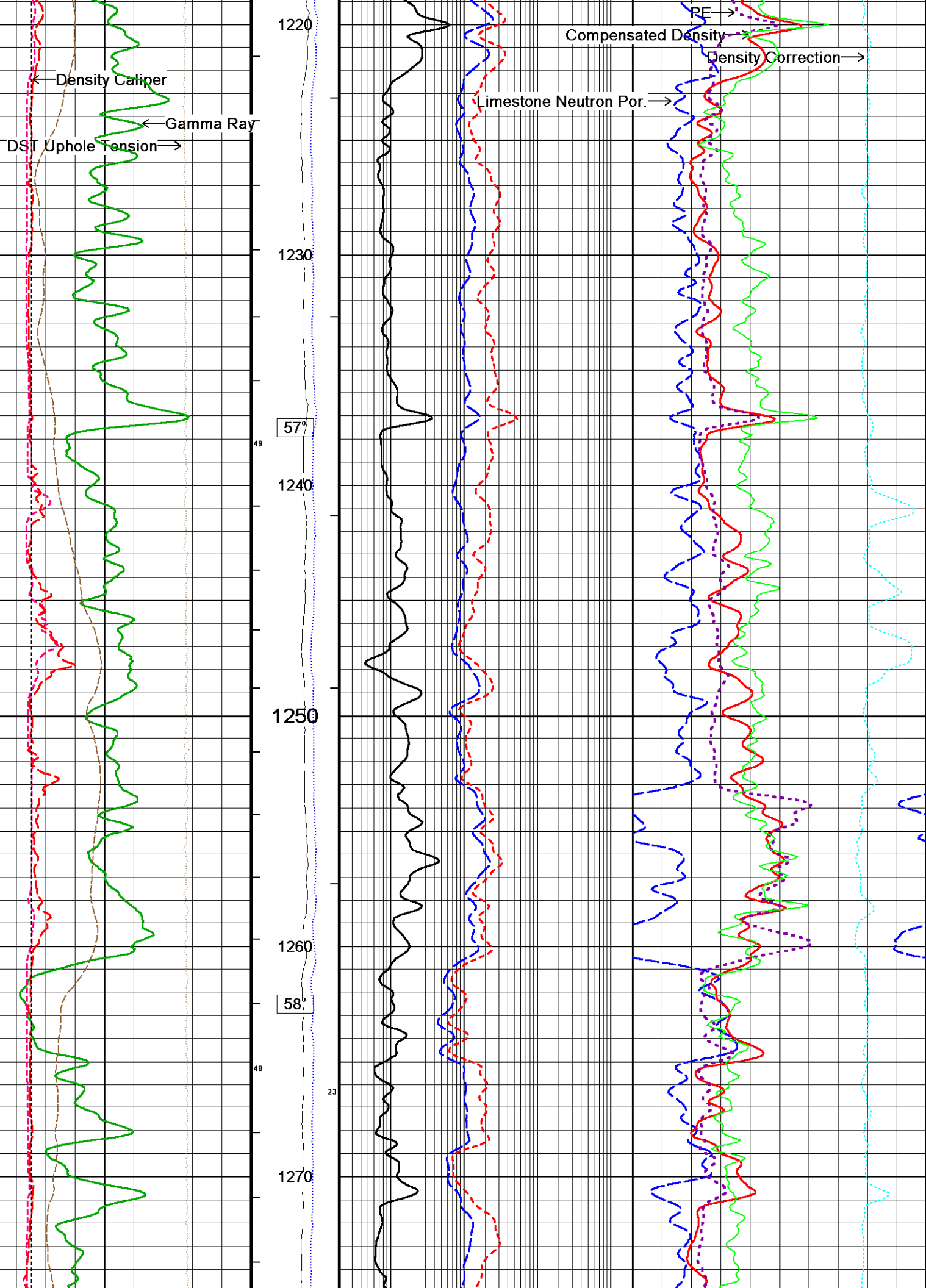


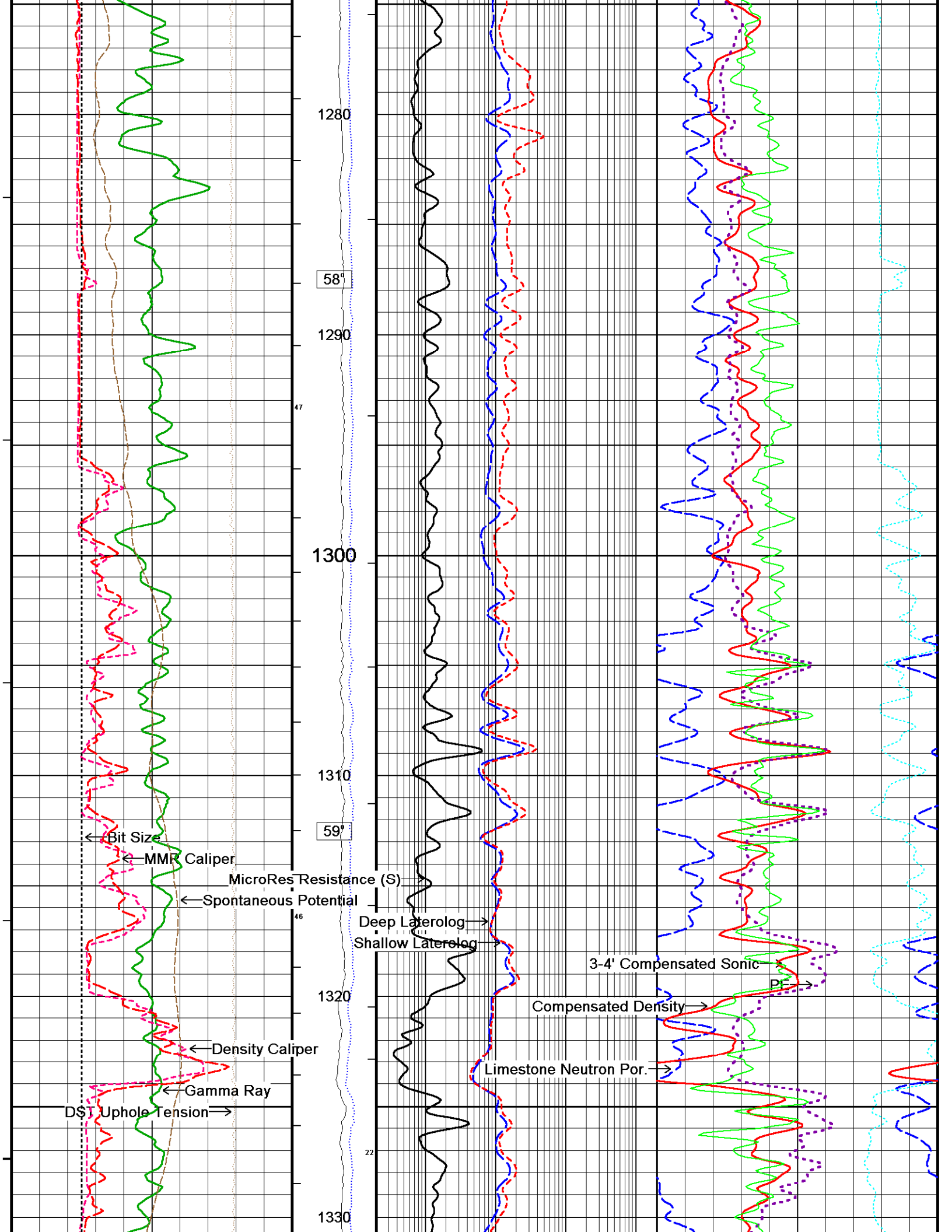


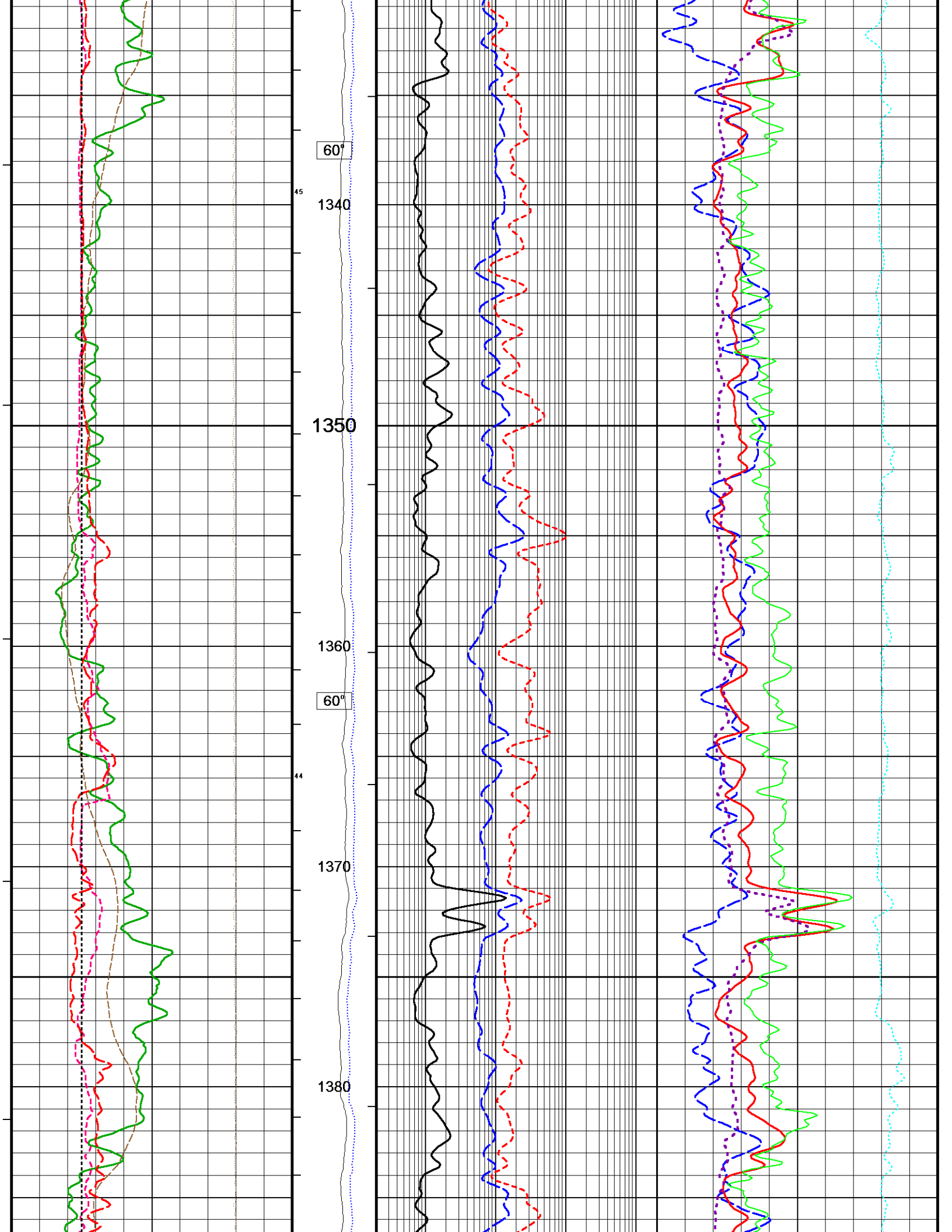


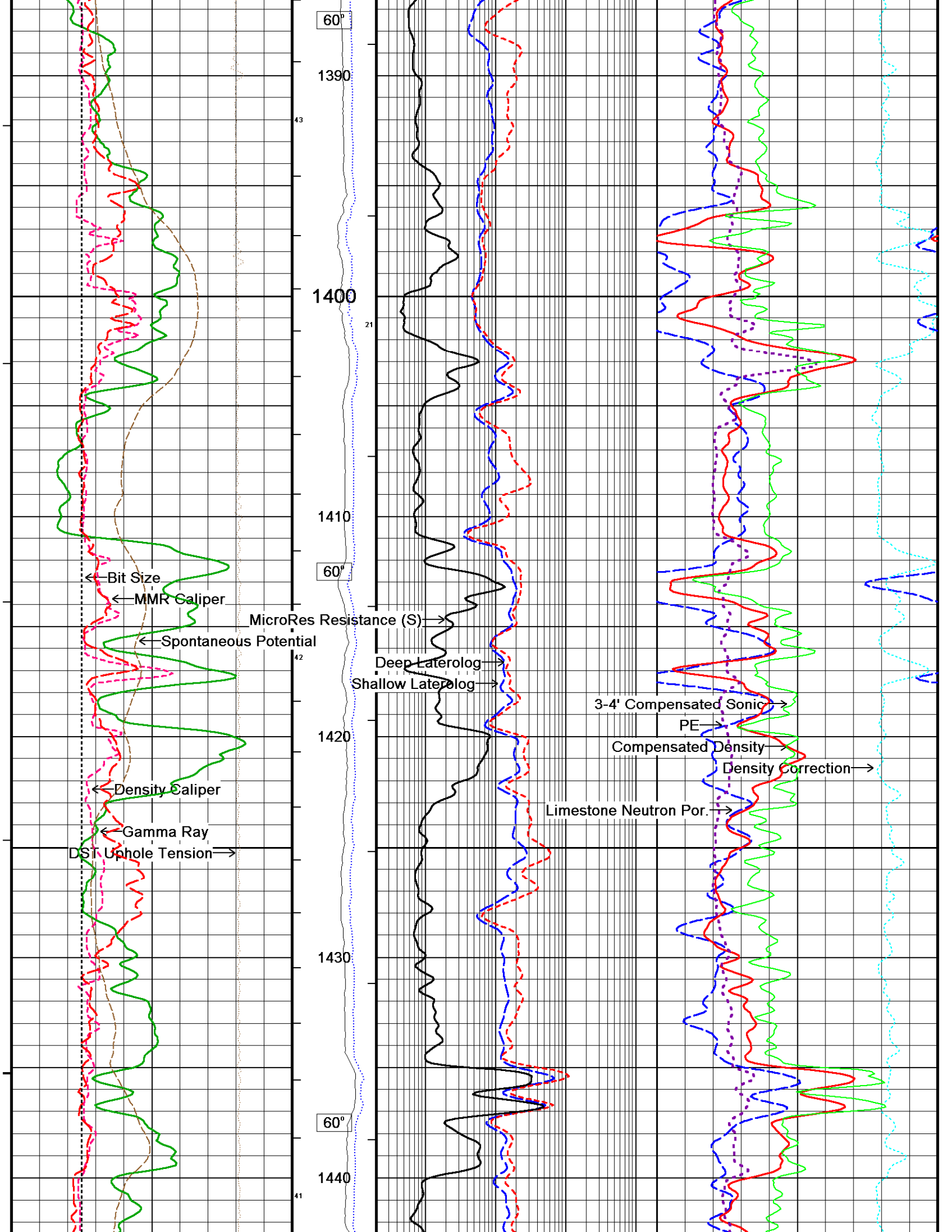


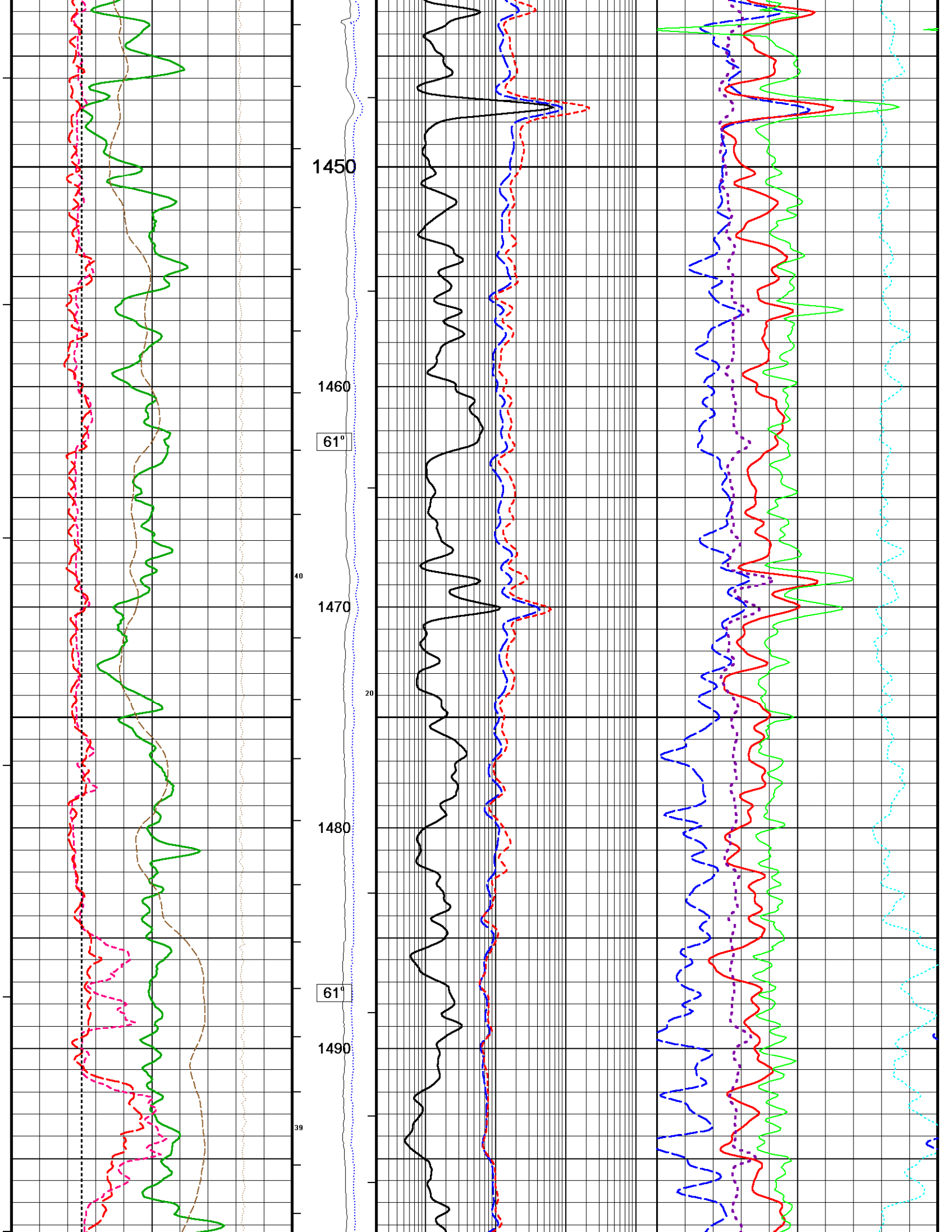


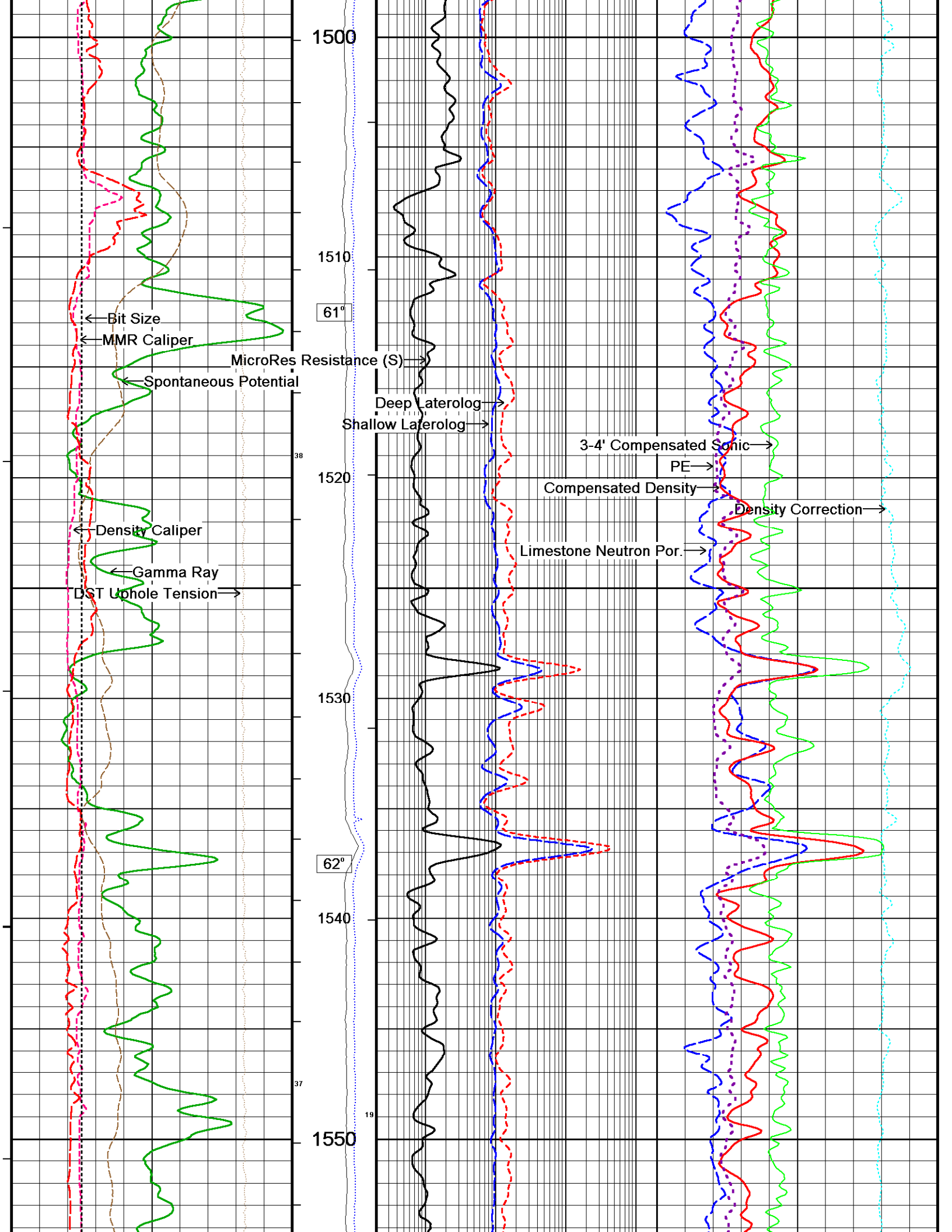


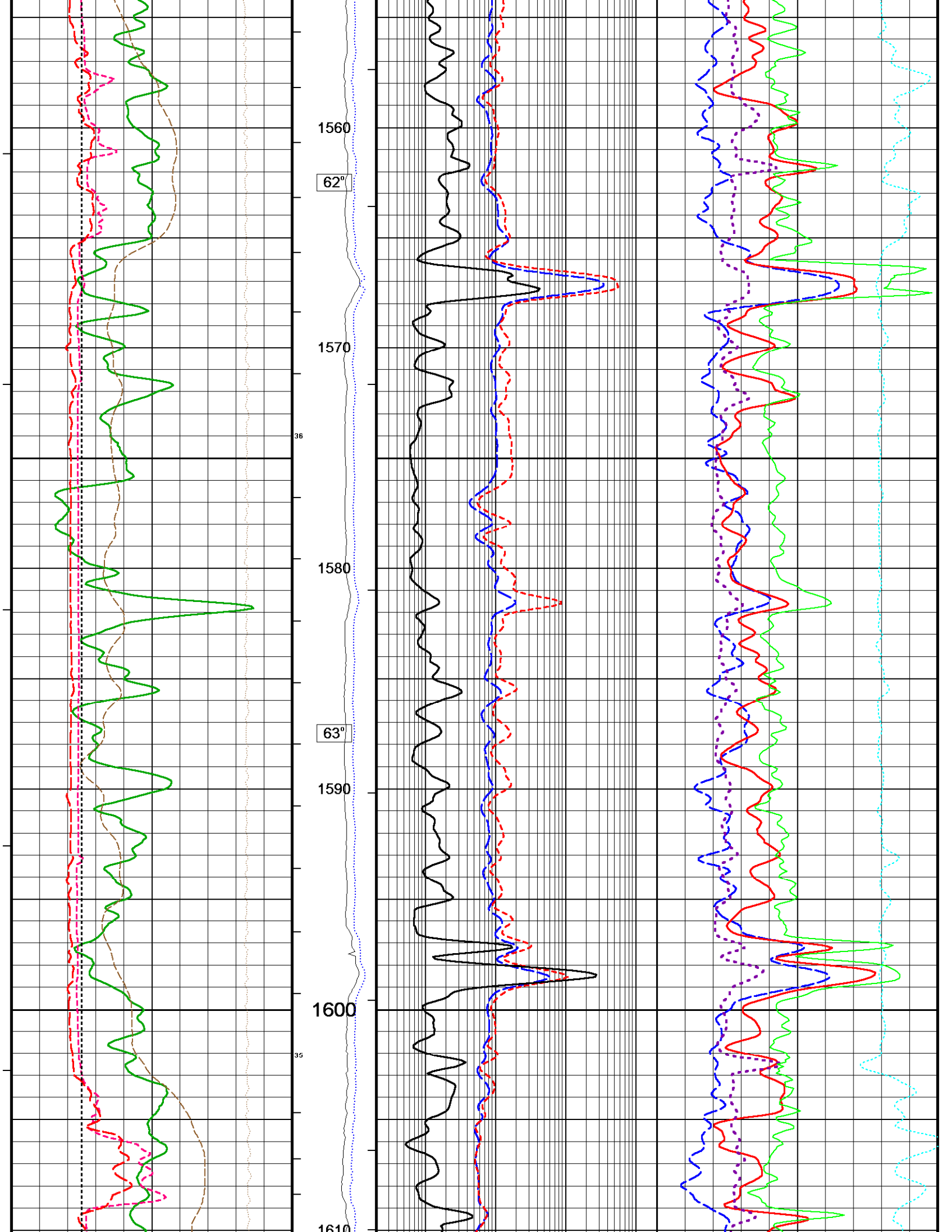


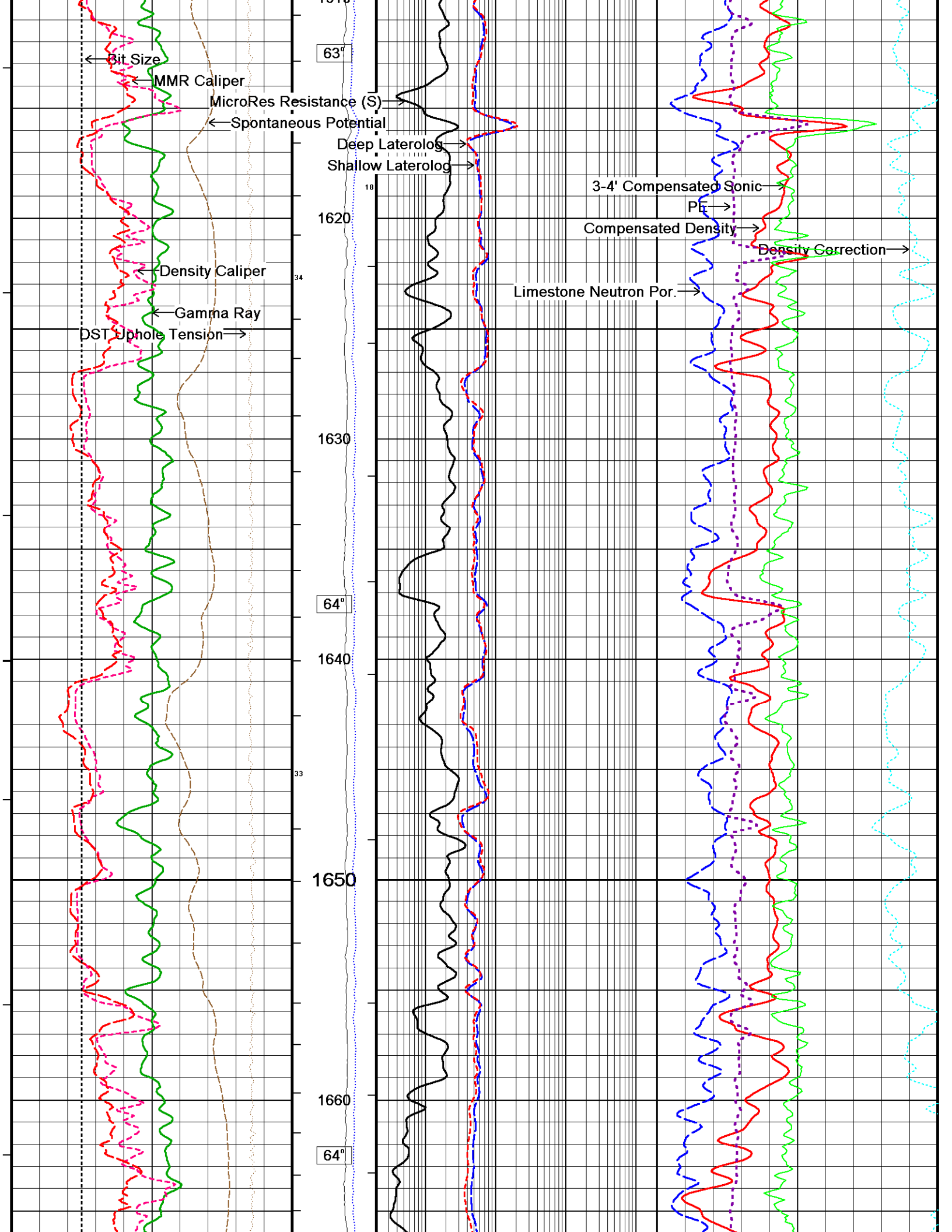


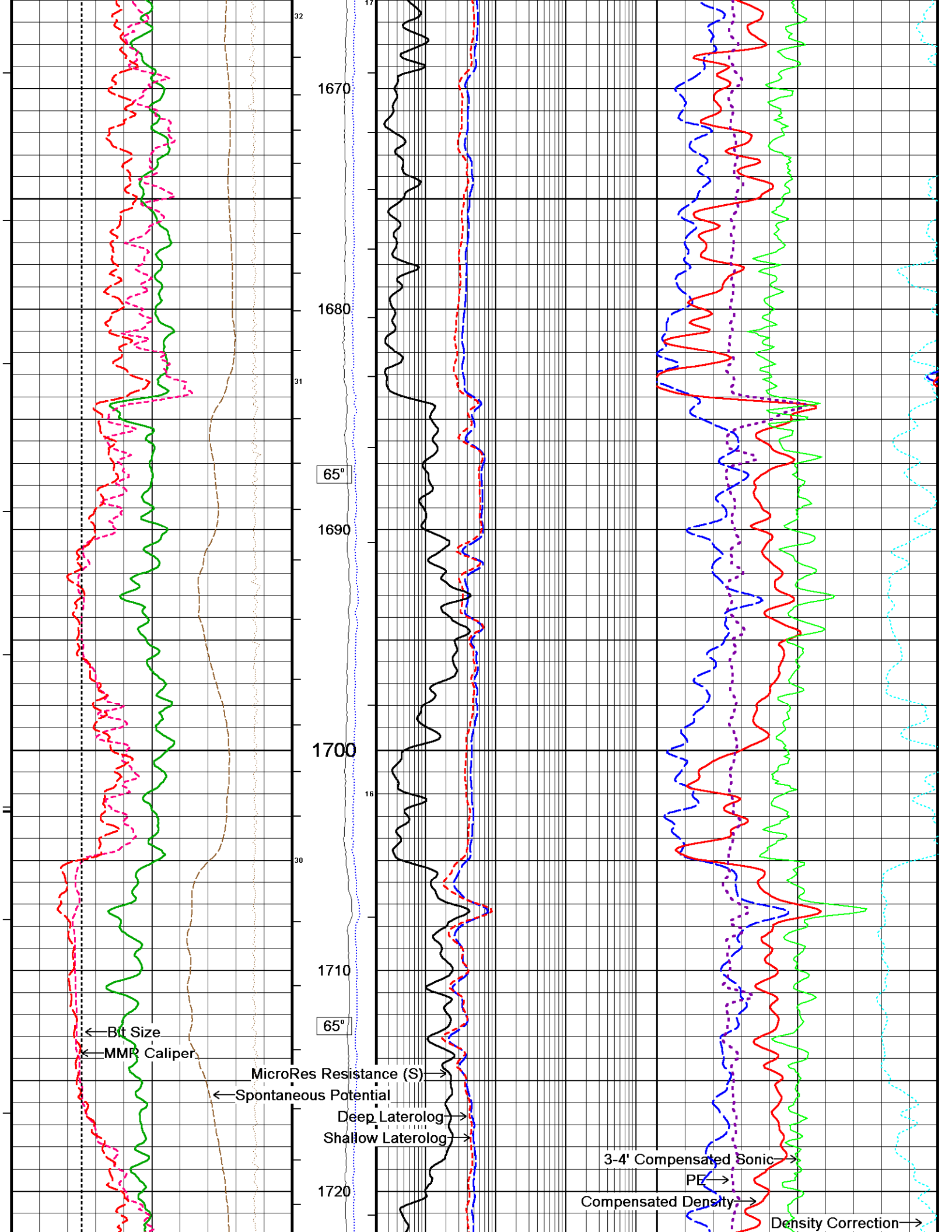


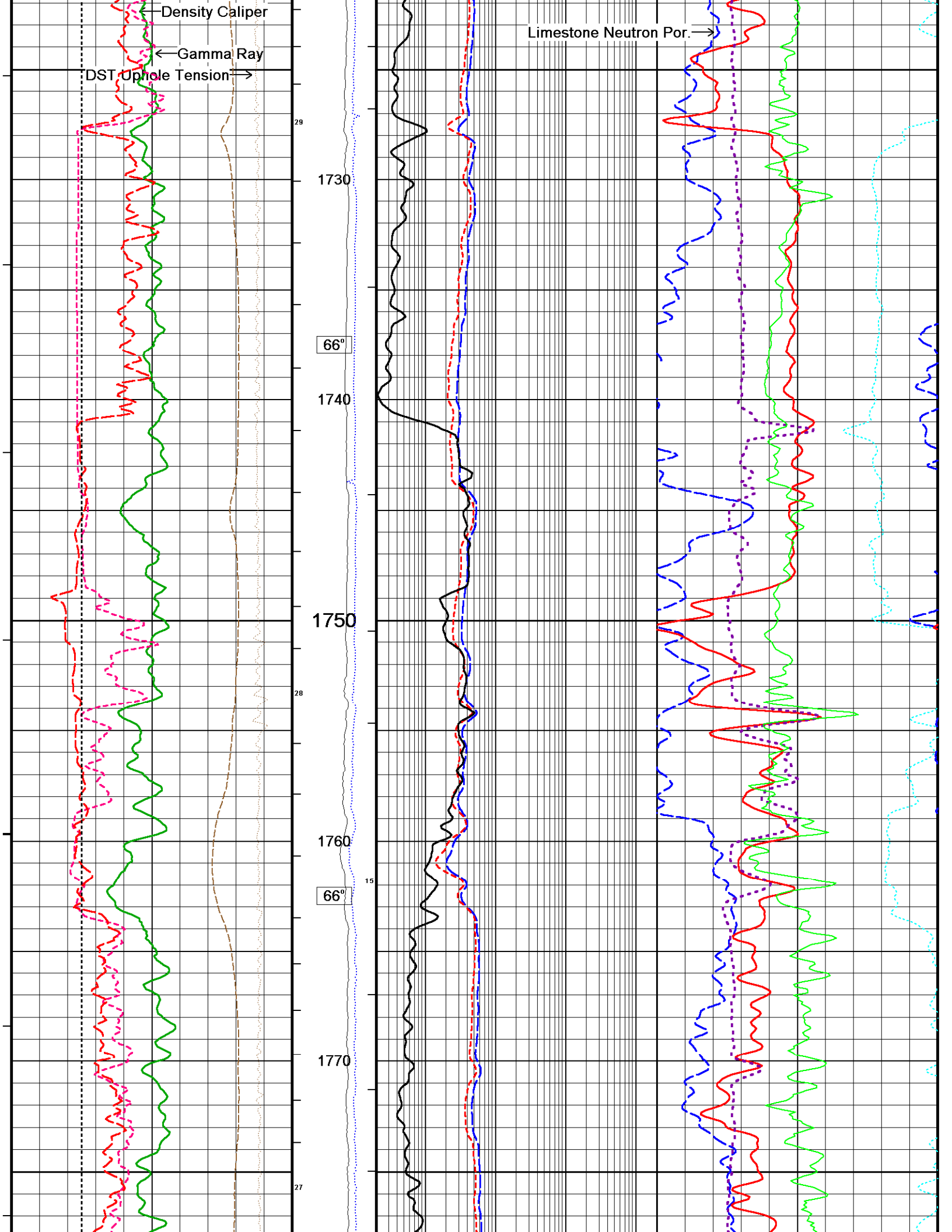


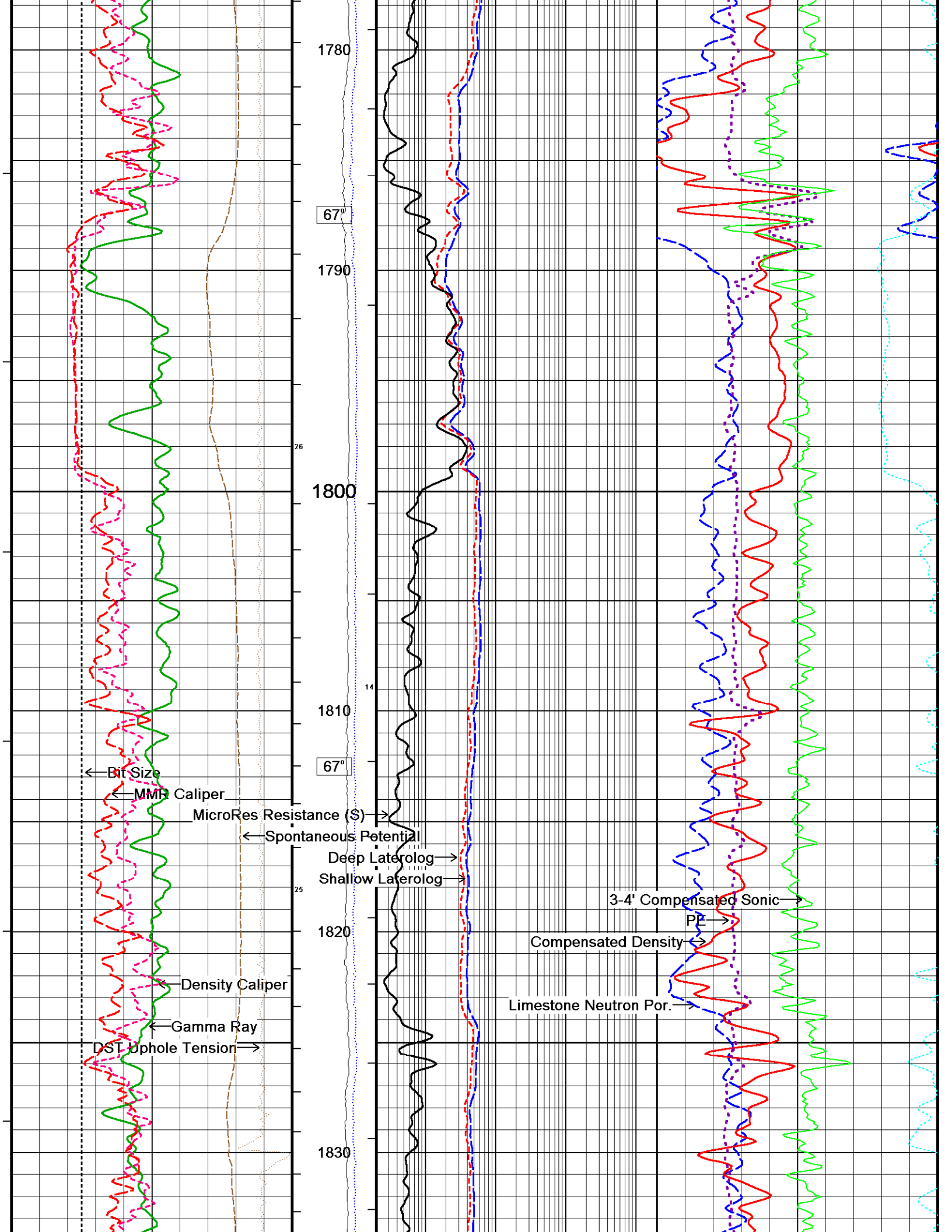


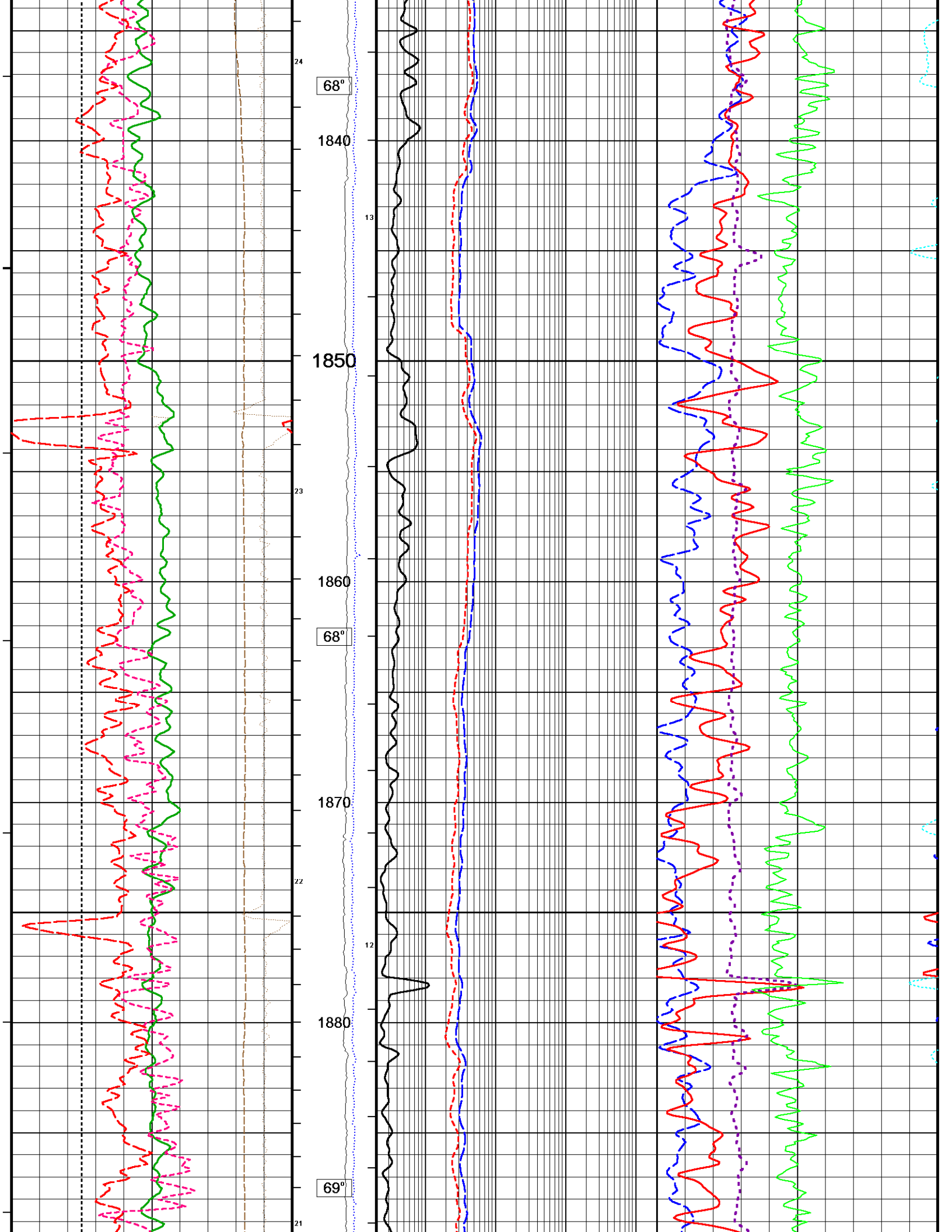


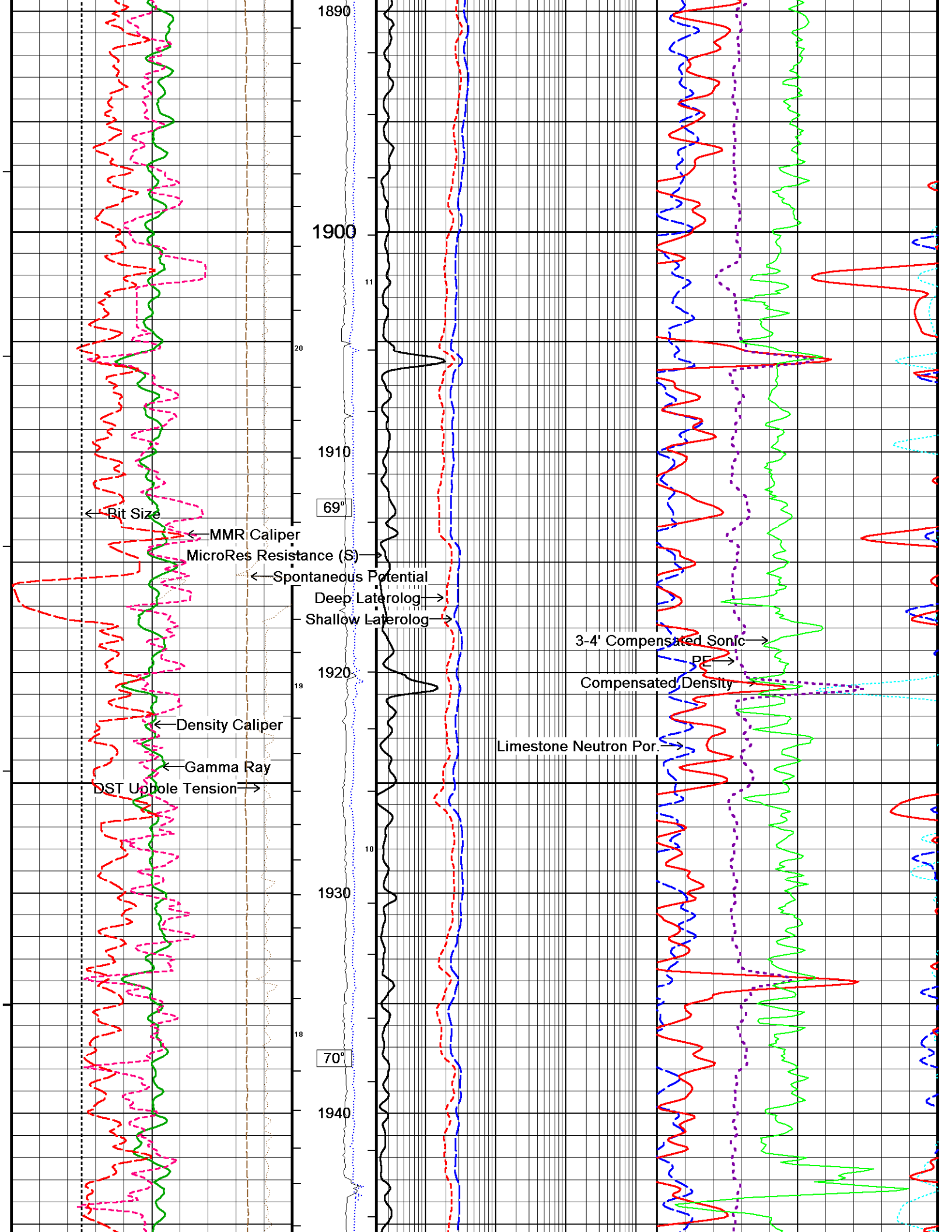


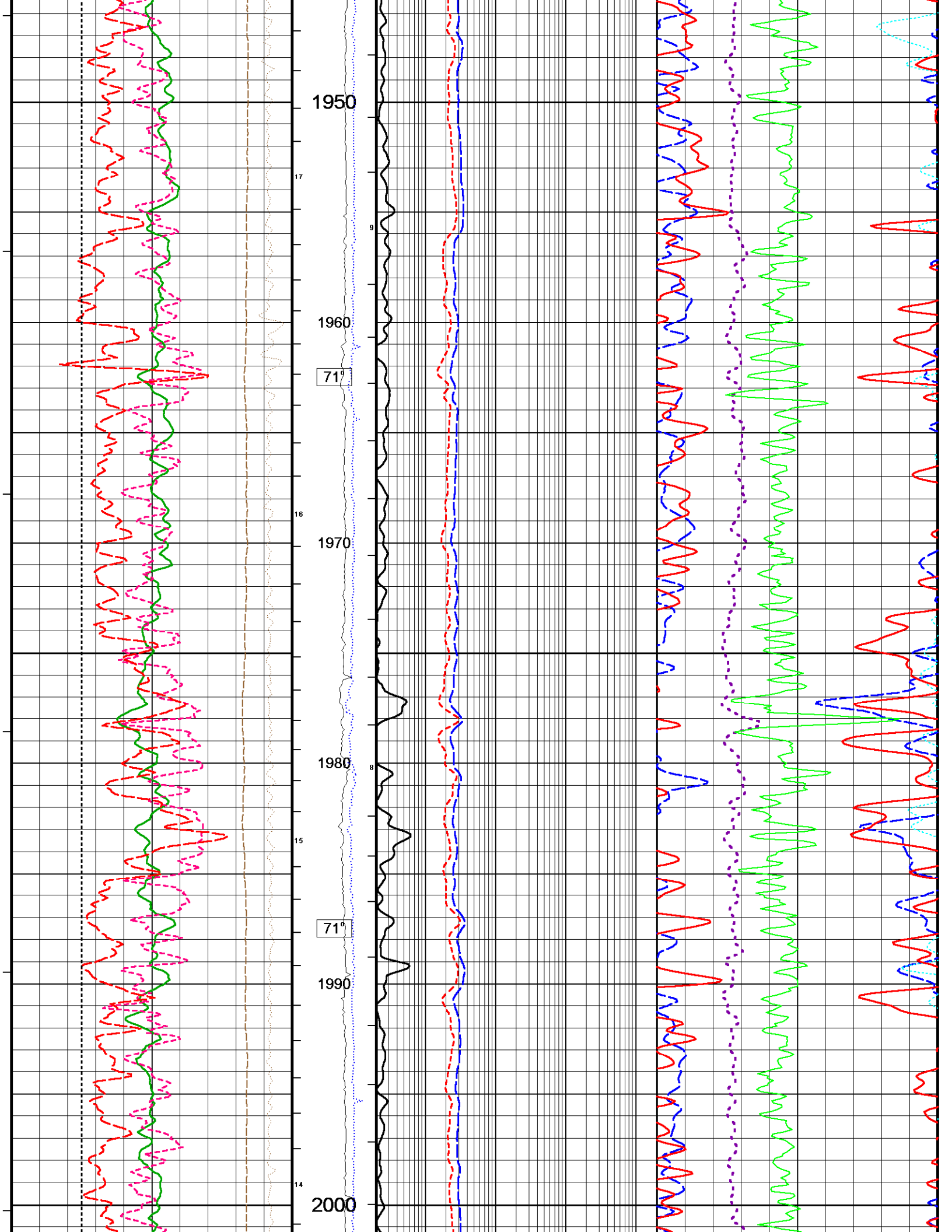


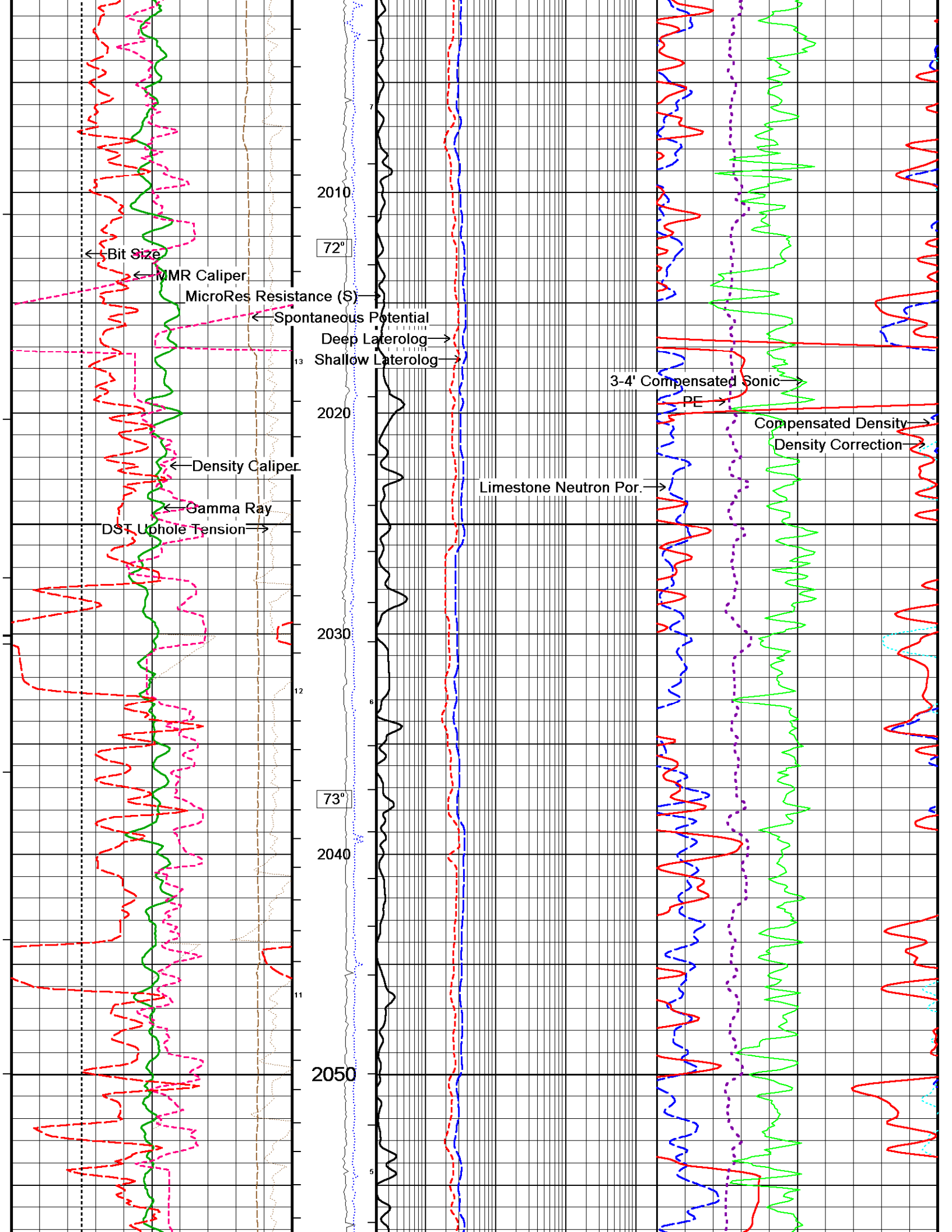


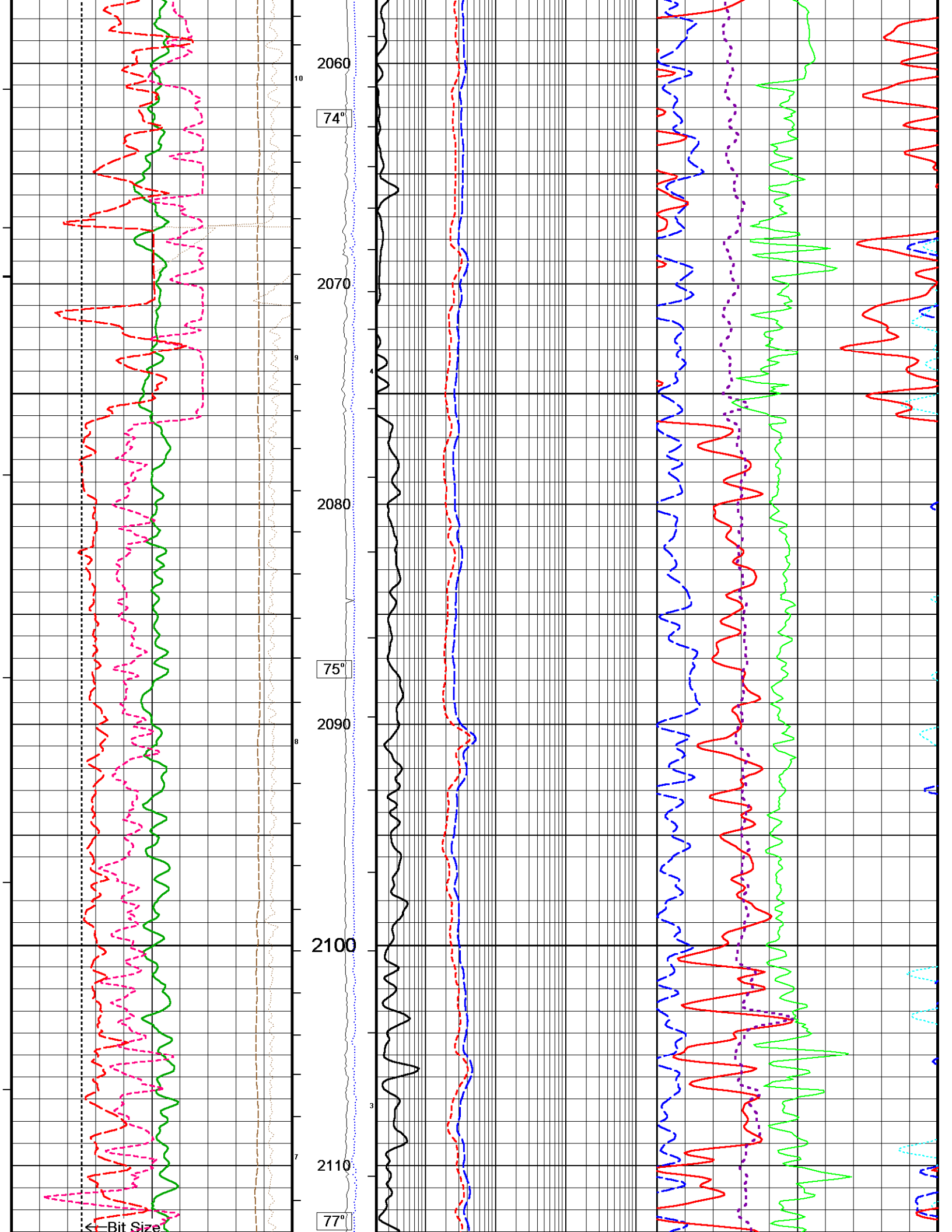


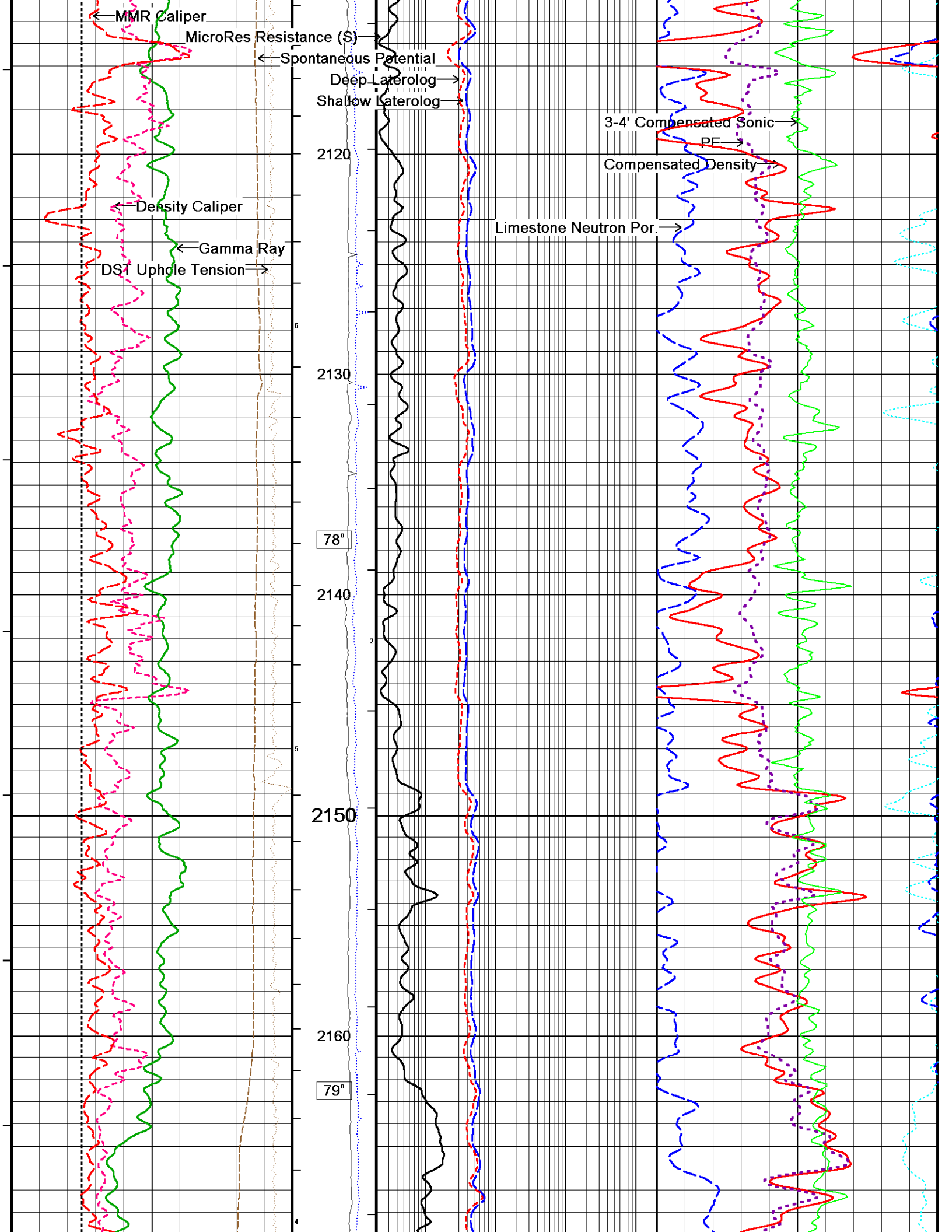


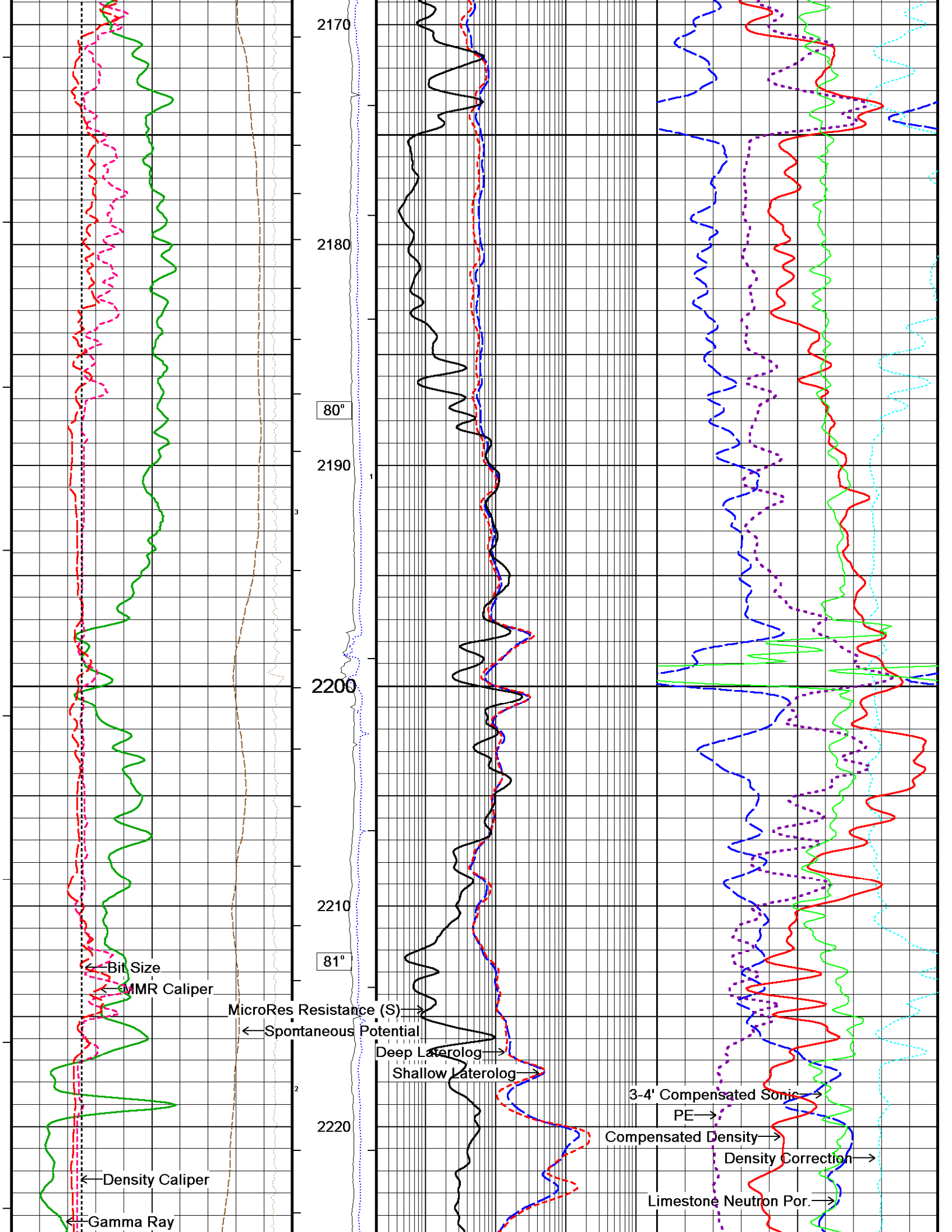


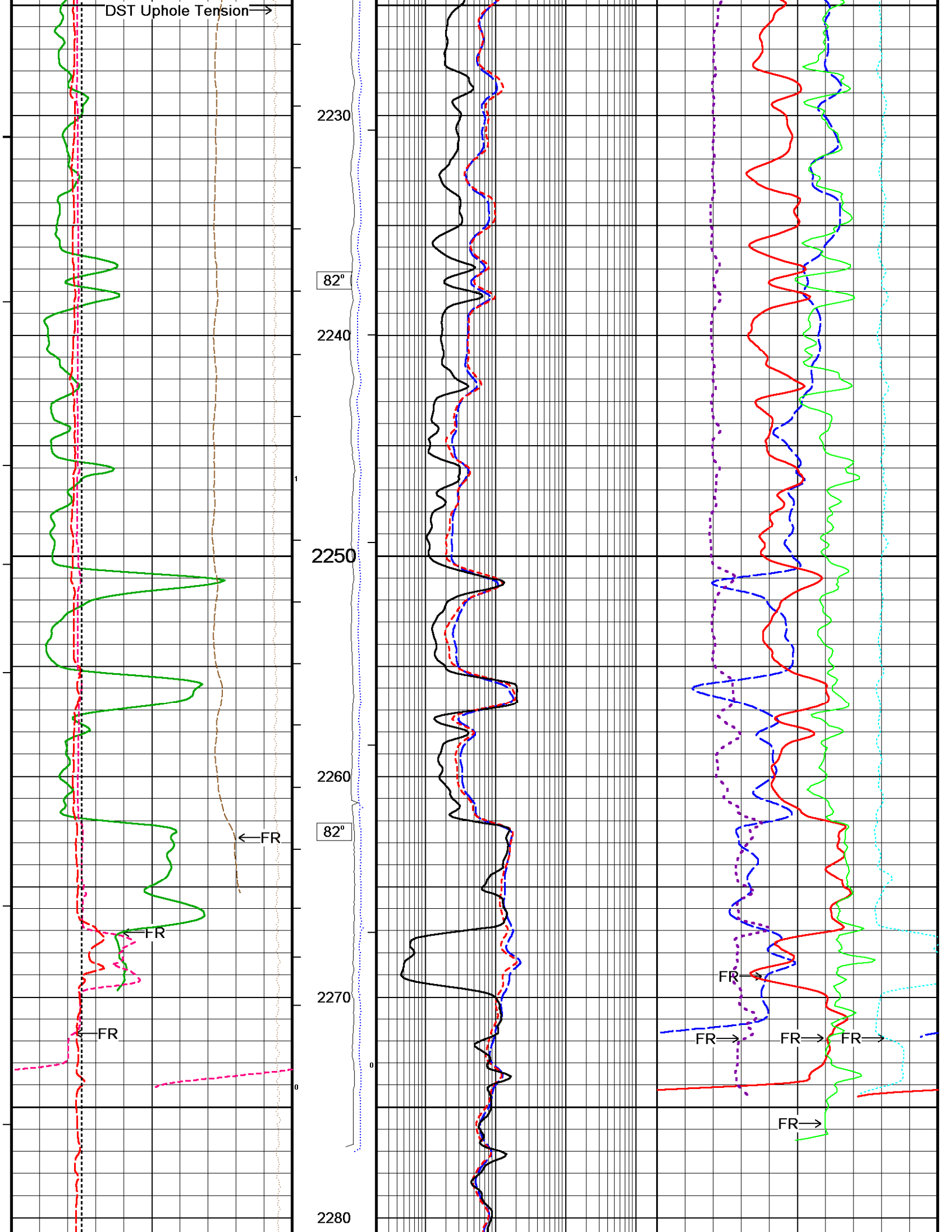


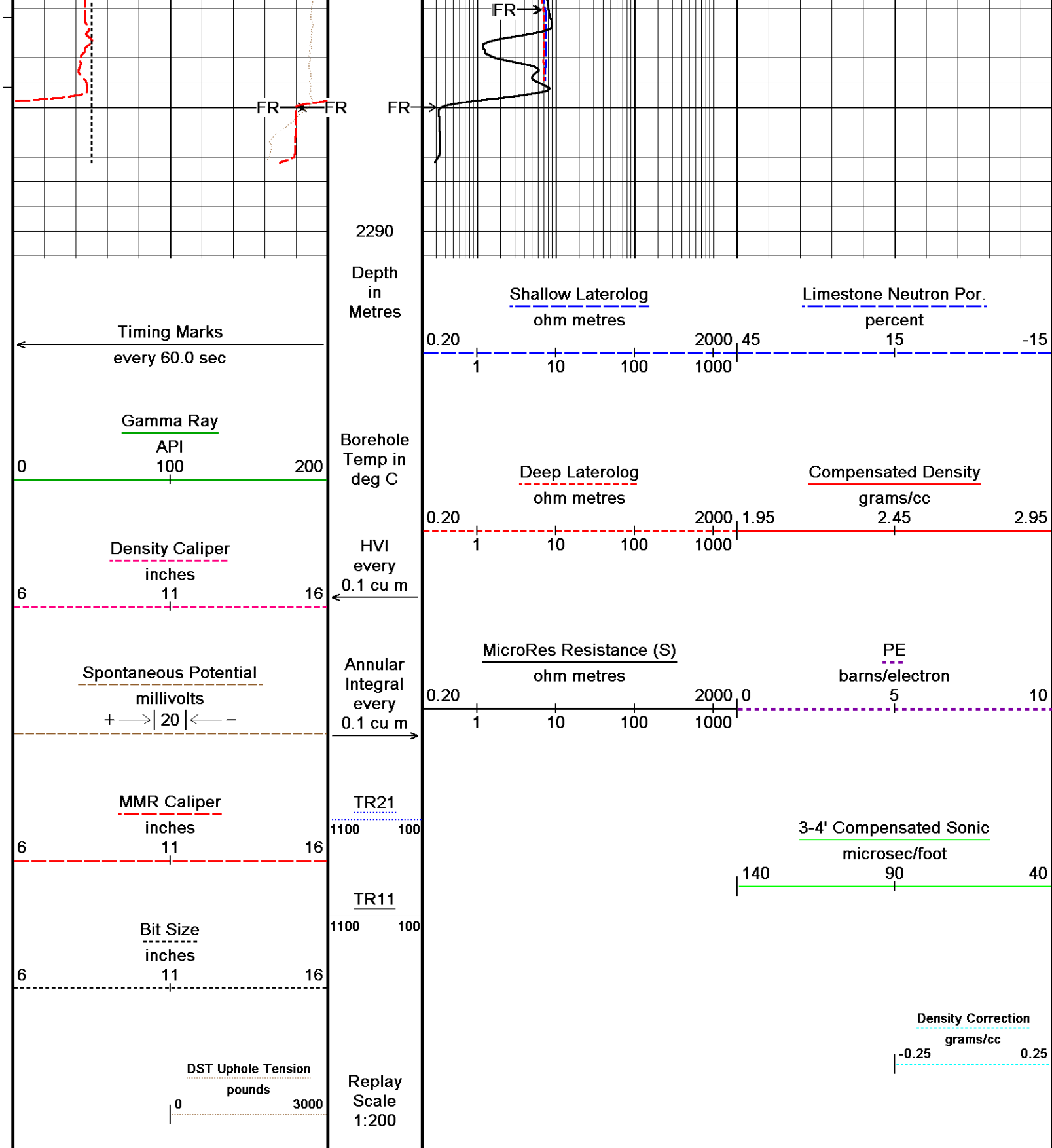










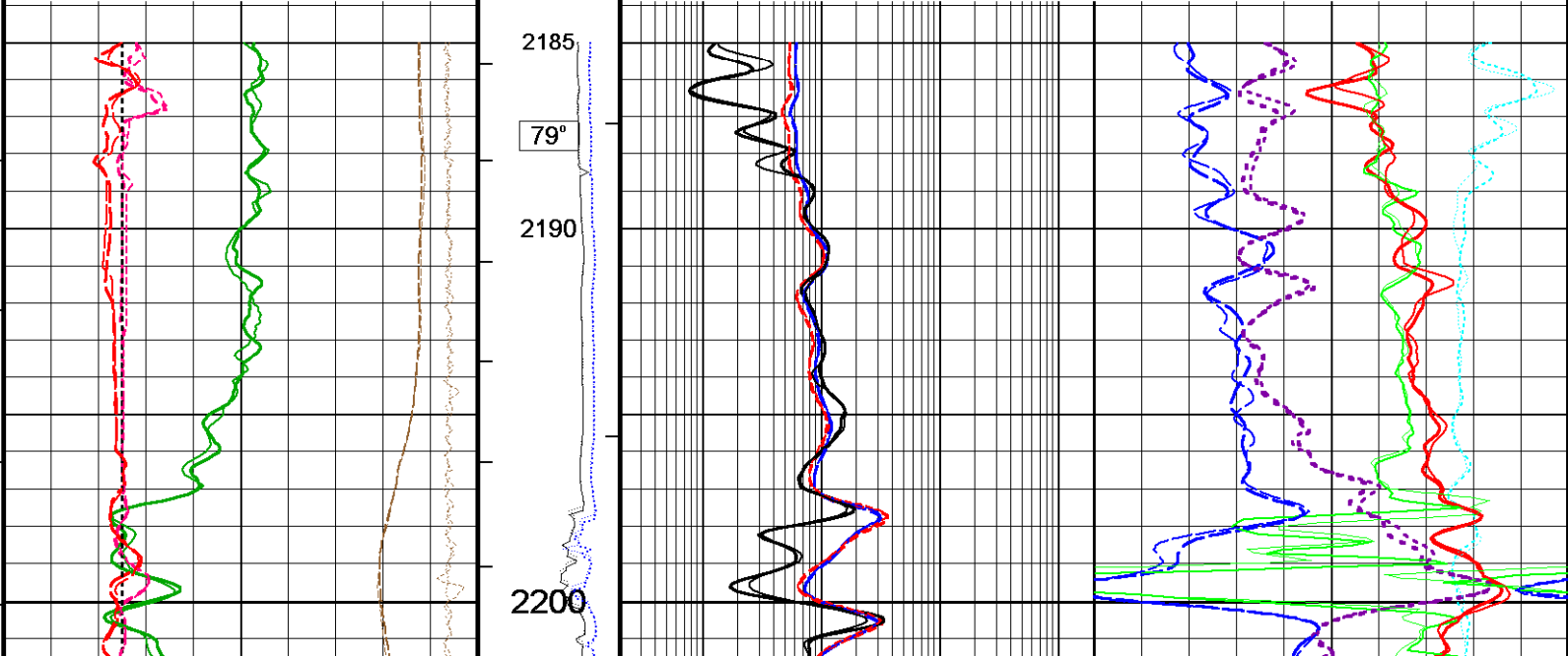
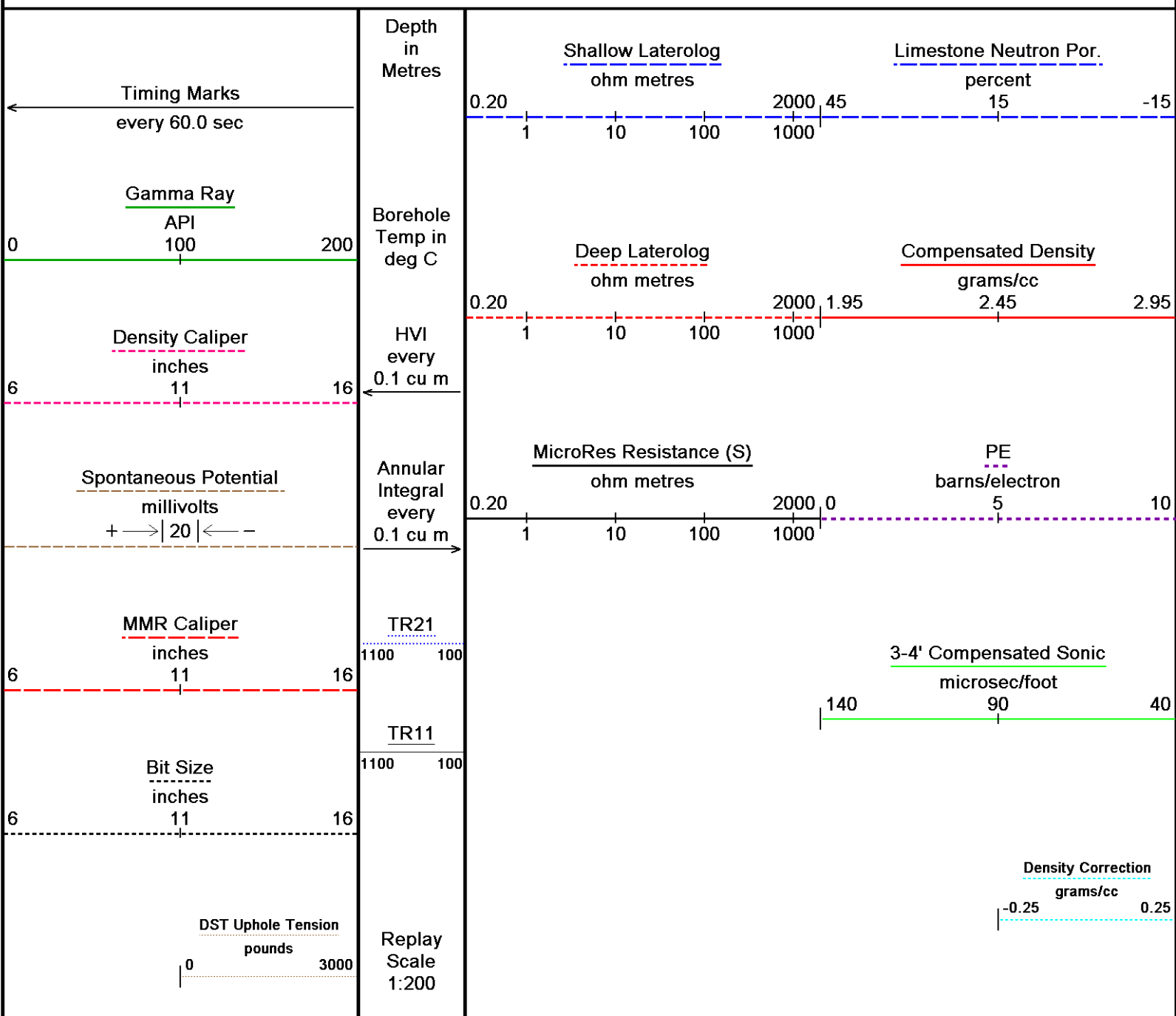


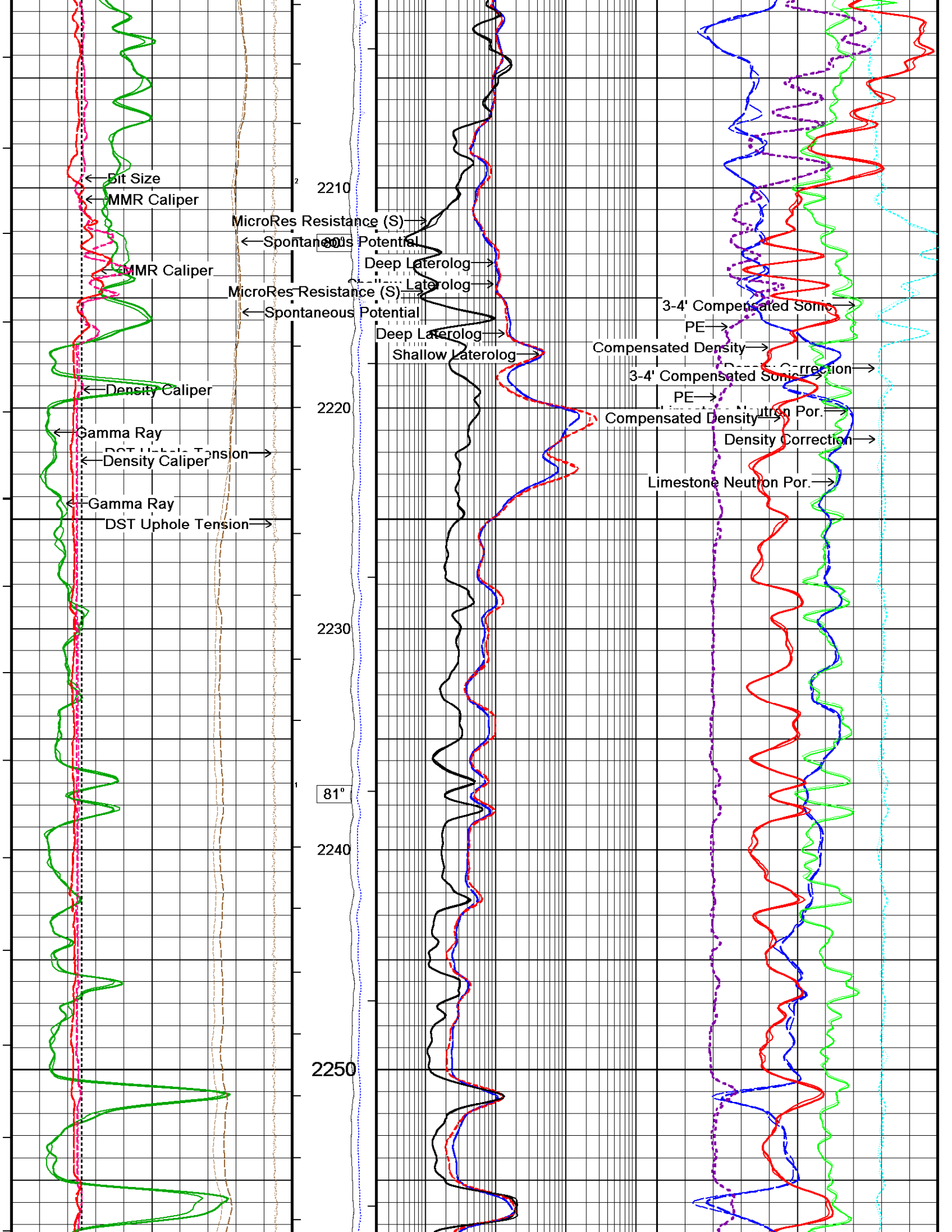
Depth Based Data - Maximum Sampling Increment 10.0cm
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 System Versions: Logged with 8.03.0116 Processed with 8.03.0116 Plotted with 8.01.0107

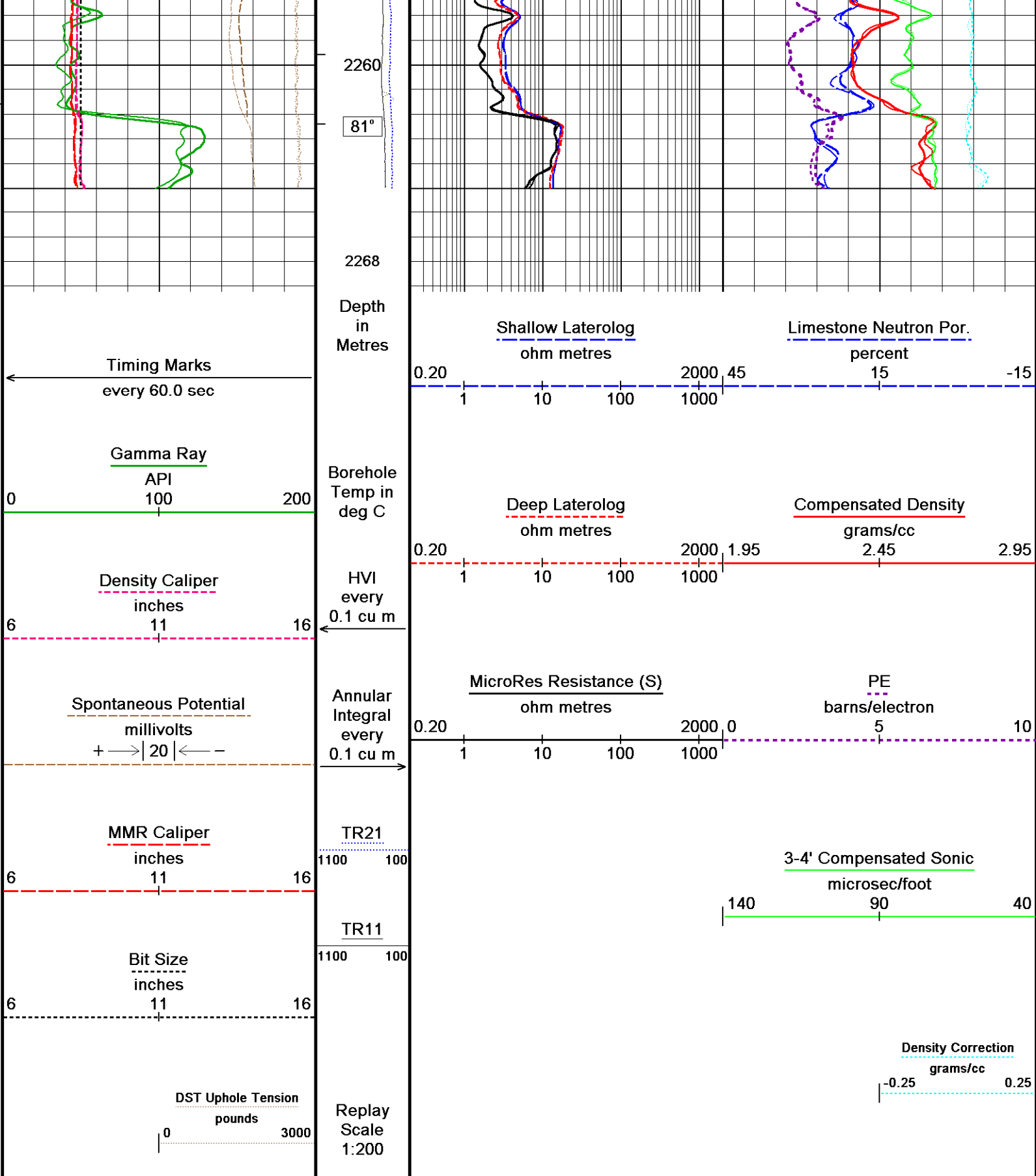
↑ MAIN LOG 1:200 ↑

↓ REPEAT SECTION MAIN LOG 1:200 ↓

Depth Based Data - Maximum Sampling Increment 10.0cm
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 System Versions: Logged with 8.03.0116 Processed with 8.03.0116 Plotted with 8.01.0107





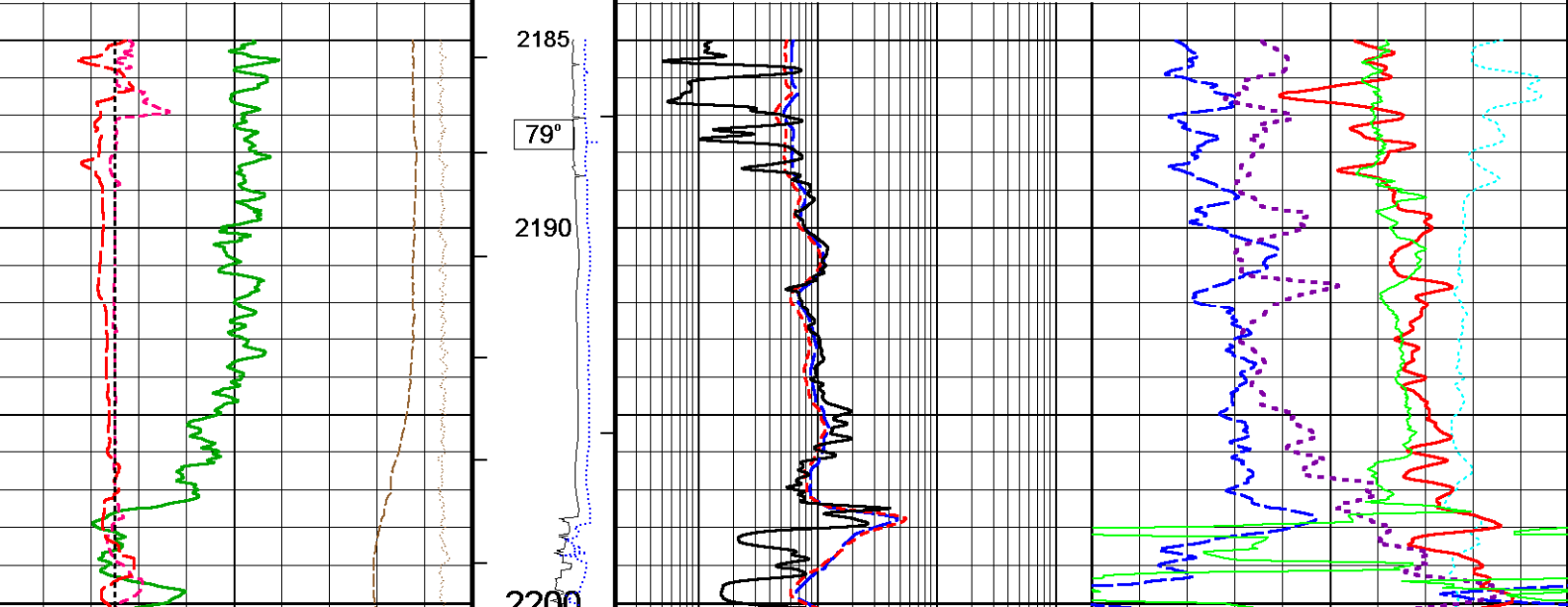
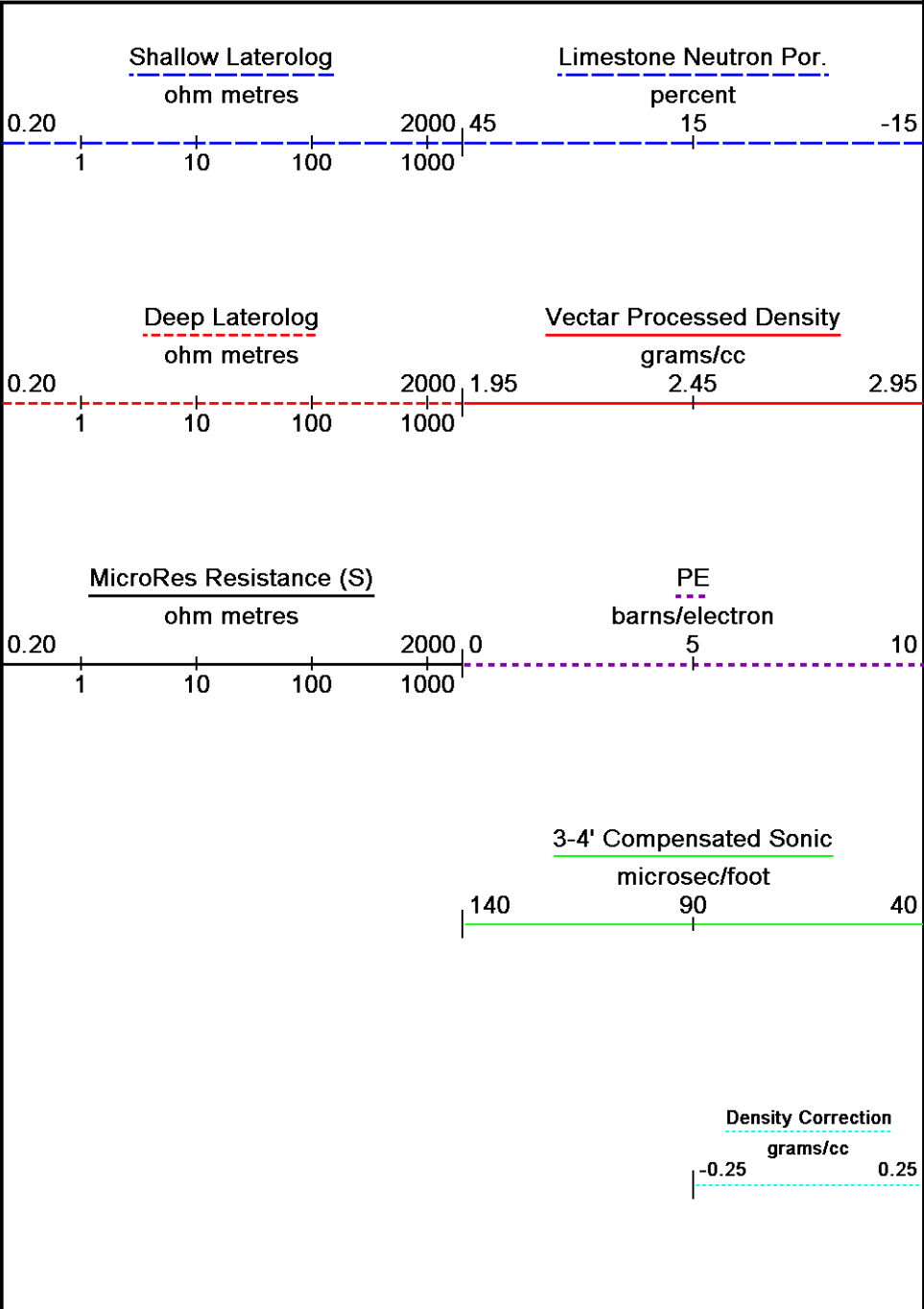
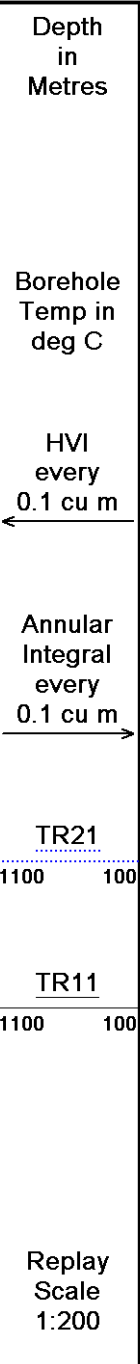
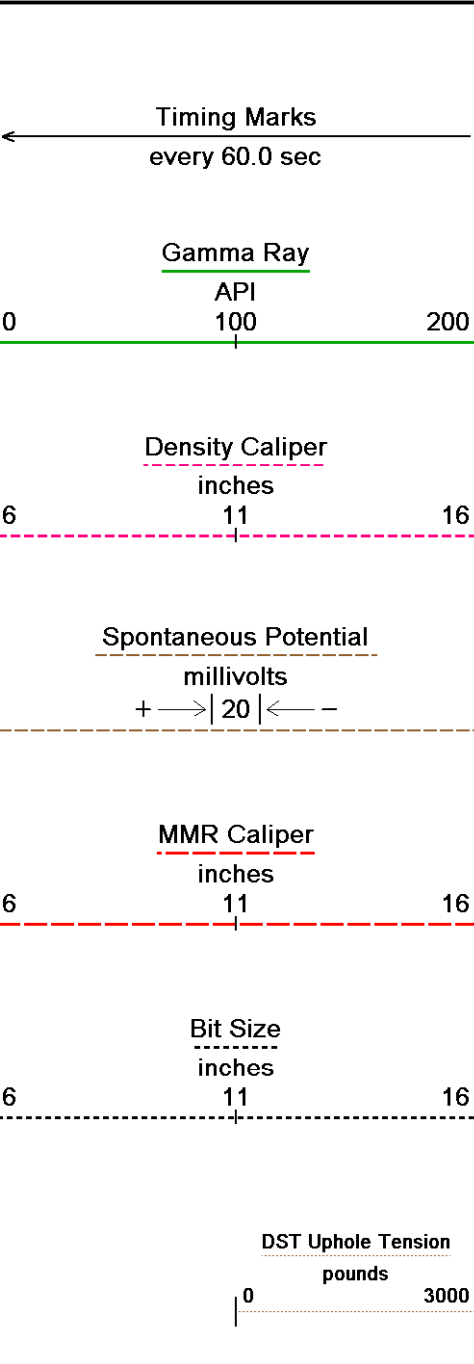


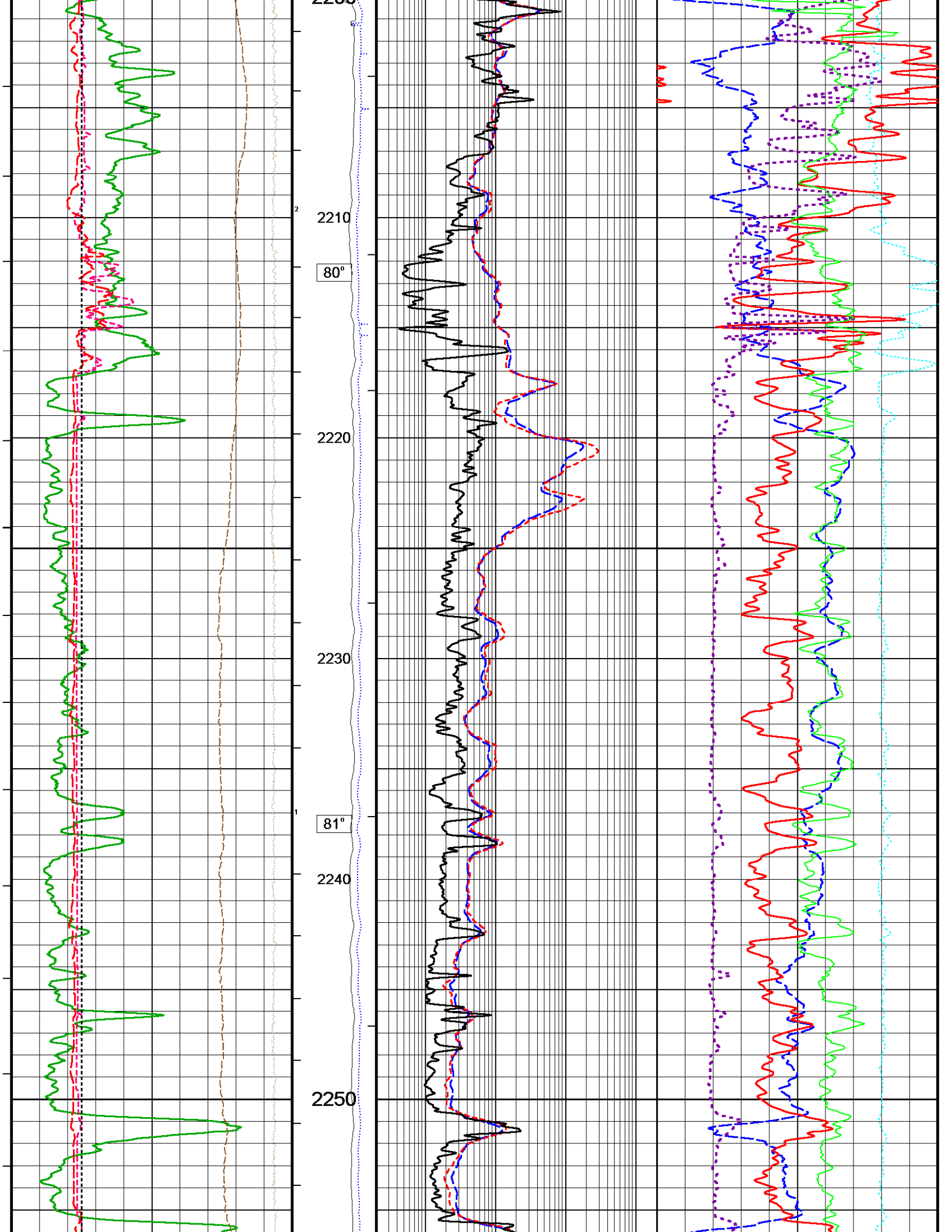
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 System Versions: Logged with 8.03.0116 Processed with 8.03.0116 Plotted with 8.01.0107

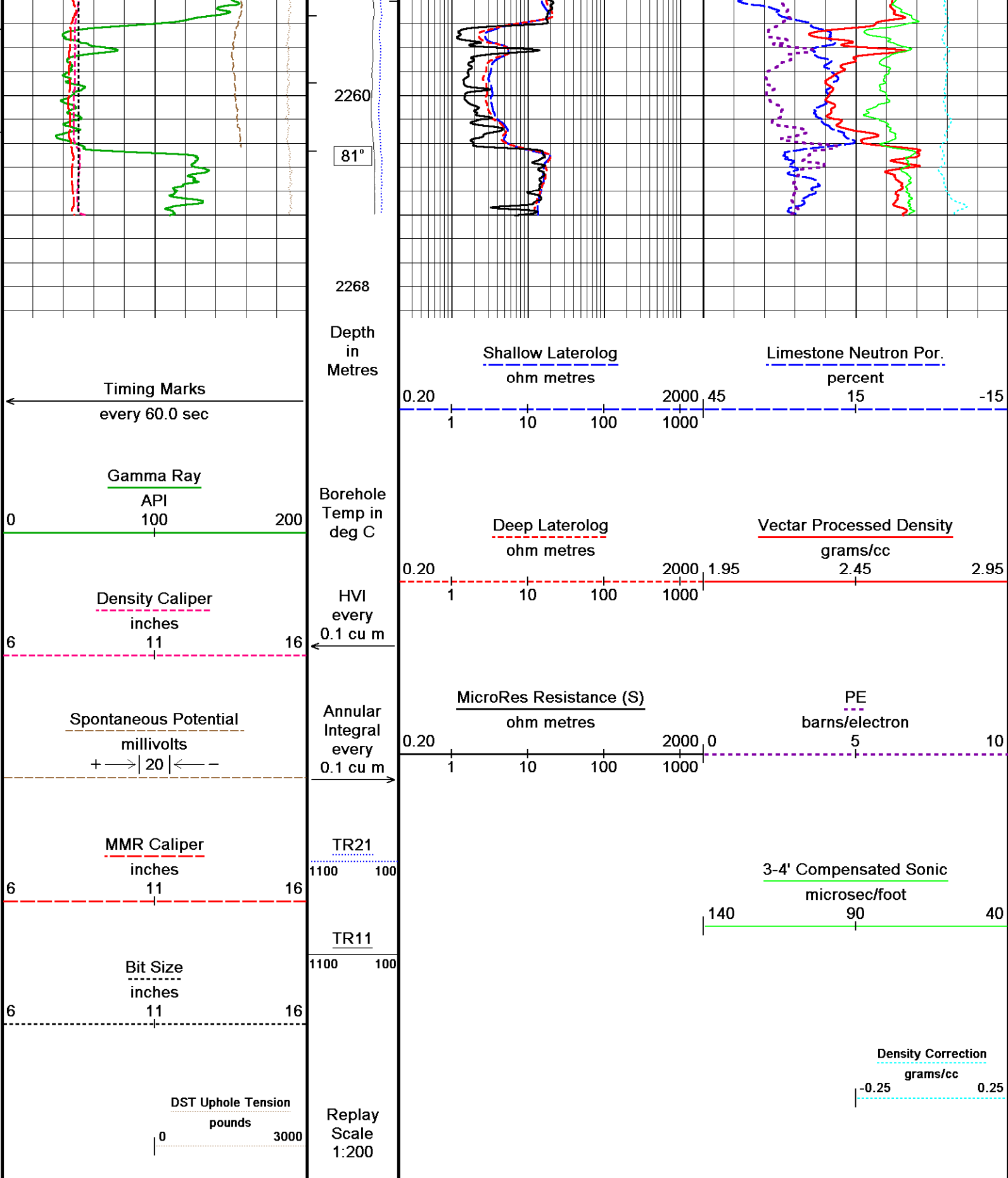
Plotted on 30-MAY-2008 01:11
 Recorded on 29-MAY-2008 18:24
 Recorded on 29-MAY-2008 20:08

↑ REPEAT SECTION MAIN LOG 1:200 ↑

HIGH RESOLUTION 1:200







Depth Based Data - Maximum Sampling Increment 2.5cm
 Plotted on 30-MAY-2008 01:11
 Filename: C:\DOCUME~1\HELILI~1\LOCALS~1\Temp\Weatherford Pr...EASTWING_1_HIGHRES.dta
 Recorded on 29-MAY-2008 18:24
 System Versions: Logged with 8.03.0116 Processed with 8.03.0116 Plotted with 8.01.0107

BEFORE SURVEY CALIBRATION

General Constants All 000

Last Edited on 29-MAY-2008,15:02

General Parameters

Mud Resistivity	0.120	ohm-metres
Mud Resistivity Temperature	25.000	degrees C
Water Level	0.000	metres
Density/Neutron Processing	Wet Hole	

Hole/Annular Volume and Differential Caliper Parameters

HVOL Caliper 1	Density Caliper	
HVOL Caliper 2	Density Caliper	
Annular Volume Diameter	7.000	inches
Caliper for Differential Caliper	Density Caliper	

Rwa Parameters

Porosity used	Base Density Porosity
Resistivity used	Deep Laterolog
RWA Constant A	0.610
RWA Constant M	2.150

Down-hole Tension Calibration SMS 000

Field Calibration on 02-MAY-2006 18:21

Reading No	Measured	Calibrated (lbs)
1	16259.89	0.00
2	16944.52	325.00

SP Calibration MCG 213

Field Calibration on

	Measured	Calibrated (mV)
Reference 1	0.0	0.0
Reference 2	0.0	0.0

High Resolution Temperature Calibration MCG 213

Field Calibration on 17-APR-2008,18:15

	Measured	Calibrated(Deg C)
Lower	0.00	0.00
Upper	100.00	100.00

High Resolution Temperature Constants MCG 213

Pre-filter Length	11
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Gamma Calibration MCG 213

Field Calibration on 26-MAY-2008 14:51

	Measured	Calibrated (API)
Background	35	24
Calibrator (Gross)	1371	933
Calibrator (Net)	1336	909

Gamma Constants MCG 213

Last Edited on 29-MAY-2008,16:14

Gamma Calibrator Number	060	
Mud Density	1.18	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl	0.00	kppm

Neutron Calibration MDN 184

Base Calibration on 1-MAY-2008 15:31
Field Check on 26-MAY-2008 14:59

Base Calibration

	Measured		Calibrated (cps)	
	Near	Far	Near	Far
Ratio	2997	92	3714	110
	32.551		33.764	

Field Calibrator at Base

	Calibrated (cps)	
Ratio	2013	3204
	0.628	

Field Check

	Calibrated (cps)	
	2260	2520

Ratio

0.669

Neutron Constants MDN 184

Last Edited on 29-MAY-2008,16:15

Neutron Source Id	802		
Neutron Jig Number	90		
Epithermal Neutron	No		
Caliper Source for Processing	Density Caliper		
Stand-off	0.00	inches	
Mud Density	1.17	gm/cc	
Limestone Sigma	7.10	cu	
Sandstone Sigma	4.26	cu	
Dolomite Sigma	4.70	cu	
Formation Pressure Source	Constant Value		
Formation Pressure	0.00	kpsi	
Temperature Source	MCG External Temperature		
Temperature	N/A	degrees C	
Mud Salinity	55.36	kppm	
Formation Fluid Salinity Source	Constant Value		
Formation Fluid Salinity	0.00	kppm	
Barite Mud Correction	Not Applied		

Caliper Calibration MPD 187

Base Calibration on 2-MAY-2008 11:01
Field Calibration on 29-MAY-2008,23:30

Base Calibration			
Reading No	Measured	Calibrator Size (in)	
1	14876	4.00	
2	24624	5.99	
3	34739	7.99	
4	44943	9.94	
5	56171	12.01	
6	N/A	N/A	
Field Calibration			
	Measured Caliper (in)	Actual Caliper (in)	
	8.85	8.92	

Photo Density Calibration MPD 187

Base Calibration on 2-MAY-2008 10:40
Field Check on 26-MAY-2008 14:44

Density Calibration					
Base Calibration					
		Measured		Calibrated (sdu)	
		Near	Far	Near	Far
Reference 1	56652	27831		59983	31159
Reference 2	22574	2722		24663	2534
Field Check at Base					
	1422.1	1516.3			
Field Check					
	1415.8	1509.2			
PE Calibration					
Base Calibration					
		Measured		Calibrated	
	WS	WH	Ratio	Ratio	
Background	258	1255			
Reference 1	23466	56412	0.421	0.369	
Reference 2	6388	22401	0.290	0.269	
Field Check at Base					
	257.6	1255.4			
Field Check					
	255.7	1258.4			

Density Constants MPD 187

Last Edited on 29-MAY-2008,16:15

Density Source Id	293
Nylon Calibrator Number	638
Aluminium/Fe Calibrator Number	638
Density Shoe Profile	8 inch
Caliper Source for Processing	Density Caliper

PE Correction to Density	Not Applied	
Mud Density	1.17	gm/cc
Mud Density Z/A Correction	1.11	
Mud Filtrate Density	1.00	gm/cc
Dry Hole Mud Filtrate Density	1.00	gm/cc
DNCT	0.00	gm/cc
CRCT	0.00	gm/cc
Density Z/A Correction	Advanced	
Matrix density (gm/cc)	Depth (m)	
2.71		
0.00	0.00	
0.00	0.00	
0.00	0.00	
0.00	0.00	
0.00	0.00	
0.00	0.00	
0.00	0.00	
0.00	0.00	

Sonic Constants MSS 140

Last Edited on 29-MAY-2008,23:47

Maximum Boundary Contrast	100.00	micro-sec/ft
Fluid Transit Time	189.00	micro-sec/ft
Limestone Transit Time	47.50	micro-sec/ft
Sandstone Transit Time	55.50	micro-sec/ft
Dolomite Transit Time	43.50	micro-sec/ft
Sonic used for Porosities	3-4' Compensated Sonic	
Correction for Sonde Skew	Not Applied	
Cycle Stretch Algorithm	Not Applied	
MN3FT	N/A	micro-sec
MX3FT	N/A	micro-sec
Hunt-Raymer Constant	83.13	micro-sec/ft

Fixed Gate Parameters

Start Time (micro-sec)	End Time (micro-sec)	Discriminator (mV)	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Down Hole Fixed Gate Parameters

Gate Start	N/A	micro-sec
Gate Width	N/A	micro-sec
Initial Discriminator Level	0.0000	mVolts

Full Waveform Parameters

Use 3' Waveform to derive TR	N/A	
Use 4' Waveform to derive TR	N/A	
Use 5' Waveform to derive TR	N/A	
Use 6' Waveform to derive TR	N/A	
3' Waveform Discriminator Level	N/A	mV
4' Waveform Discriminator Level	N/A	mV
5' Waveform Discriminator Level	N/A	mV
6' Waveform Discriminator Level	N/A	mV
3' Waveform Filter	N/A	
4' Waveform Filter	N/A	
5' Waveform Filter	N/A	
6' Waveform Filter	N/A	
Semblance Level	N/A	
Semblance Window Width	N/A	micro-sec
Sonic 1 Despiker	N/A	N/A
Sonic 2 Despiker	N/A	N/A

SP Calibration MLE 055

Field Calibration on 26-MAY-2008 15:19

	Measured	Calibrated (mV)
Reference 1	80.2	81.0
Reference 2	-83.7	-82.0

Laterolog Calibration MLE 055

Base Calibration on 5-MAY-2008 11:21

Field Check on 26-MAY-2008 15:06

Base Calibration

Channel	Measured		Calibrated (ohm-m)	
	Resistor 1	Resistor 2	Resistor 1	Resistor 2
Shallow	9.8	979.7	13.3	1327.3
Deep	10.6	980.3	8.5	852.7
Groningen	9.9	979.3	8.5	852.7

Channel	Base Check (ohm-m)	Field Check (ohm-m)
Shallow	48.7	48.7
Deep	30.6	30.6
Groningen	250.4	250.5

Laterolog Constants MLE 055

Last Edited on 26-MAY-2008,14:29

Squasher Start	40000	ohm-m
Shallow Laterolog K Factor	1.3273	
Deep Laterolog K Factor	0.8527	
Groningen Laterolog K Factor	0.8527	
Interference Rejection	50 Hz	
SP Connection	SP Bridle Electrode (Lower)	
Groningen Connection	Groningen Electrode (Upper)	

Borehole Correction Constants	
Stand-off	0.00
Caliper Source	Density Caliper
Hole Size	N/A
Mud Resistivity Source	Temperature Corrected
Temp. for Rm Corr.	MCG External Temperature

Caliper Calibration MMR 063

Base Calibration on 5-MAY-2008 12:04
Field Calibration on 29-MAY-2008,23:30

Base Calibration	Reading No	Measured	Calibrator Size (in)
	1	14993	5.97
	2	18103	7.99
	3	21307	9.94
	4	25405	12.01
	5	0	0.00
	6	N/A	N/A

Field Calibration	Measured Caliper (in)	Actual Caliper (in)
	8.24	8.92

Micro Laterolog Calibration MMR 063

Base Calibration on 5-MAY-2008 11:54
Field Check on 26-MAY-2008 15:09

Base Calibration	Measured		Calibrated (ohm-m)	
	Ref 1	Ref 2	Ref 1	Ref 2
	0.0	9841.3	0.0	165.0

	Base Check (ohm-m)	Field Check (ohm-m)
	6.7	6.7

Micro Laterolog Constants MMR 063

Last Edited on 26-MAY-2008,14:24

Micro Laterolog K Factor	0.0165	
Standoff Offset	0.0000	inches

Borehole Correction Constants	
Mud Cake Source	Constant Value
Mud Cake Thickness	0.2500
Mud Cake Thickness Caliper	N/A
Mud Cake Resistivity	0.1500

DOWNHOLE EQUIPMENT

C:\DOCUME~1\HELILI~1\LOCALS~1\Temp\Weatherford PreView\0\EASTWING_1_MAINLOG.dta

MCC-A 11C Tension Cablehead

MCC-1 Length: 0.73 m

Weight: 10.0 lb



MCC 1 Length: 0.73 m Weight: 19.8 lb

11C-11B MTA-A Compact Tool Adaptor
 MTA 1 Length: 0.47 m Weight: 13.2 lb

Compact Stiff Bridle Electrode Sub.
 MBE 76 Length: 3.76 m Weight: 77.2 lb

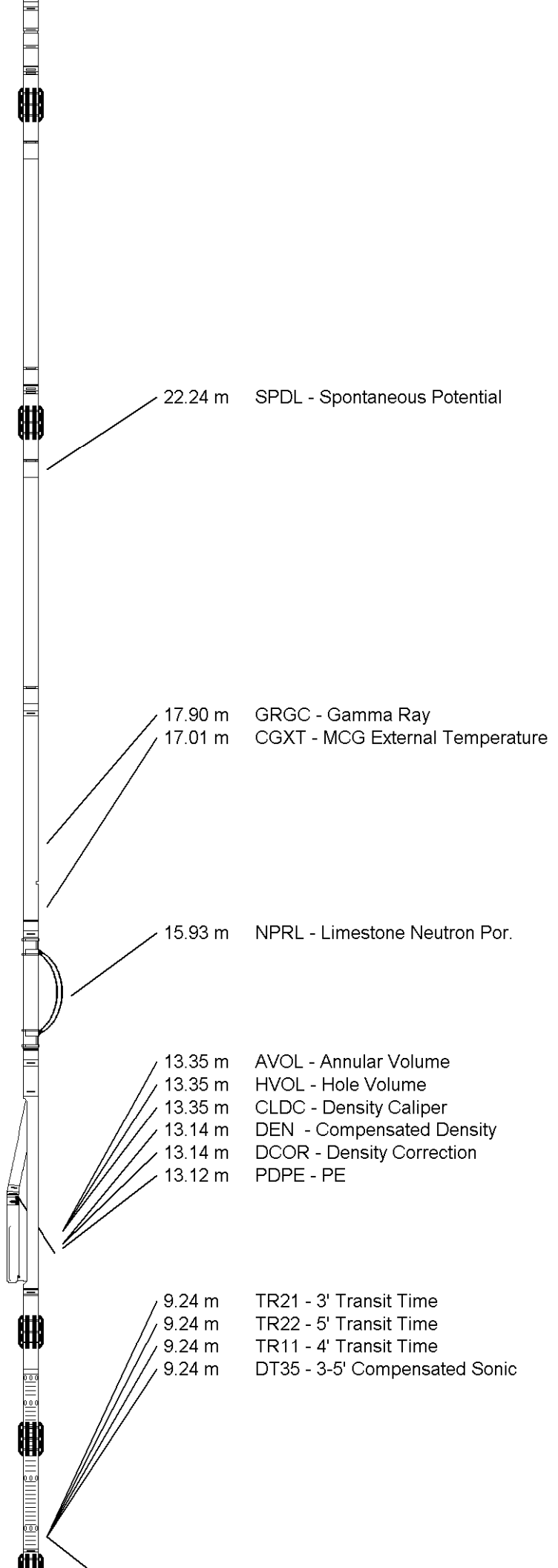
Compact Stiff Bridle Electrode Sub.
 MBE 74 Length: 3.76 m Weight: 77.2 lb

Compact Gamma
 MCG 213 Length: 2.65 m Weight: 63.9 lb

Compact Neutron
 MDN 184 Length: 1.53 m Weight: 50.7 lb

Compact Density/Caliper
 MPD 187 Length: 2.92 m Weight: 90.4 lb

Compact Sonic
 MSS 140 Length: 3.82 m Weight: 72.8 lb



22.24 m SPDL - Spontaneous Potential

17.90 m GRGC - Gamma Ray
 17.01 m CGXT - MCG External Temperature

15.93 m NPRL - Limestone Neutron Por.

13.35 m AVOL - Annular Volume
 13.35 m HVOL - Hole Volume
 13.35 m CLDC - Density Caliper
 13.14 m DEN - Compensated Density
 13.14 m DCOR - Density Correction
 13.12 m PDPE - PE

9.24 m TR21 - 3' Transit Time
 9.24 m TR22 - 5' Transit Time
 9.24 m TR11 - 4' Transit Time
 9.24 m DT35 - 3-5' Compensated Sonic

Compact Upper Guard Sub.
MUG 53 Length: 2.74 m Weight: 68.3 lb

9.24 m TR12 - 6' Transit Time

Compact Laterolog Electrode Sub.
MLE 55 Length: 3.76 m Weight: 92.6 lb

3.93 m DSLL - Shallow Laterolog
3.93 m DDLL - Deep Laterolog

Compact Micro-Resistivity
MMR 63 Length: 2.62 m Weight: 81.6 lb

0.00 m MRRS - MicroRes Resistance (S)
0.00 m MATC - MMR Caliper
Tool Zero (0.85m from bottom)

Pressure Bung + Hole Finder
HFS 3 Length: 0.28 m Weight: 6.6 lb

All measurements relative to tool zero.

Total Length: 29.03 m Weight: 714.3 lb



COMPANY	ESSENTIAL PETROLEUM EXPLORATION PTY LTD		
WELL	EAST WING - 1ST		
FIELD	EAST WING		
PROVINCE/COUNTY	VICTORIA		
COUNTRY/STATE	AUSTRALIA		

Elevation Kelly Bushing	56.37	metres	First Reading	2285.00	metres
Elevation Drill Floor	56.10	metres	Depth Driller	2305.00	metres
Elevation Ground Level	52.00	metres	Depth Logger	2285.85	metres



DLL-SLL-MLL-SONIC
DENSITY - NEUTRON
1:200

Weatherford[®]



