



PRECISION
ENERGY SERVICES

DLL - SLL - MLL - SONIC

DENSITY - NEUTRON

1:200

COMPANY

ORIGIN ENERGY RESOURCES LIMITED

WELL

CHILDERS COVE 1

FIELD

ONSHORE OTWAY BASIN

PROVINCE/COUNTY

VICTORIA

COUNTRY/STATE

AUSTRALIA

LOCATION

38DEG29'31.96"S 142DEG44'46.66"E

COMPACT
FINAL PRINT

LSD

SEC

TWP

RGE

Other Services

API Number

Permit Number PEP 154

Permanent Datum GROUND LEVEL, Elevation 46.2 metres

Log Measured From R. T. @ 5.3 METRE above Permanent Datum

Drilling Measured From R. T.

Elevations:

KB

51.50

metres

metres

metres

metres

metres

metres

metres

metres

metres

metres

metres

metres

metres

metres

metres

metres

metres

metres

metres

metres

metres

metres

Date

03-Oct-2005

01-Oct-2005

Run Number

TWO

ONE

Depth Driller

2658.00

metres

2545.00

metres

metres

metres

metres

metres

metres

metres

Depth Logger

2656.80

metres

2529.00

metres

metres

metres

metres

metres

metres

metres

First Reading

2656.80

metres

2528.15

metres

metres

metres

metres

metres

metres

metres

Last Reading

2400.00

metres

0.00

metres

metres

metres

metres

metres

metres

metres

Casing Driller

544.50

metres

544.50

metres

metres

metres

metres

metres

metres

metres

Casing Logger

544.20

metres

544.20

metres

metres

metres

metres

metres

metres

metres

Bit Size

8.50

inches

8.50

inches

inches

inches

inches

inches

inches

inches

Hole Fluid Type

KCL/PHPA/POL

KCL/PHPA/POL

KCL/PHPA/POL

KCL/PHPA/POL

KCL/PHPA/POL

KCL/PHPA/POL

KCL/PHPA/POL

KCL/PHPA/POL

KCL/PHPA/POL

KCL/PHPA/POL

Density / Viscosity

1.16 g/cc

58.00 CP

1.15 g/cc

59.00 CP

59.00 CP

59.00 CP

59.00 CP

59.00 CP

59.00 CP

59.00 CP

PH / Fluid Loss

8.00

5.00

8.60

4.00

4.00

4.00

4.00

4.00

4.00

4.00

Sample Source

FLOWLINE

FLOWLINE

FLOWLINE

FLOWLINE

FLOWLINE

FLOWLINE

FLOWLINE

FLOWLINE

FLOWLINE

FLOWLINE

Rm @ Measured Temp

0.18 @ 25.0

ohm-m

0.65 @ 13.9

ohm-m

ohm-m

ohm-m

ohm-m

ohm-m

ohm-m

ohm-m

Rmf @ Measured Temp

0.20 @ 25.0

ohm-m

1.06 @ 13.9

ohm-m

ohm-m

ohm-m

ohm-m

ohm-m

ohm-m

ohm-m

Rmc @ Measured Temp

0.13 @ 25.0

ohm-m

0.53 @ 14.1

ohm-m

ohm-m

ohm-m

ohm-m

ohm-m

ohm-m

ohm-m

Source Rmf / Rmc

PRESS

FILTER

PRESS

FILTER

PRESS

FILTER

PRESS

FILTER

PRESS

PRESS

Rm @ BHT

0.07 @ 93.5

ohm-m

0.09 @ 95.5

ohm-m

ohm-m

ohm-m

ohm-m

ohm-m

ohm-m

ohm-m

Time Since Circulation

11.8 HOURS

deg C

18 HOURS

deg C

deg C

deg C

deg C

deg C

deg C

deg C

Max Recorded Temp

93.50

deg C

95.50

deg C

deg C

deg C

deg C

deg C

deg C

deg C

Equipment Name

COMPACT

deg C

COMPACT

deg C

deg C

deg C

deg C

deg C

deg C

deg C

Equipment / Base

8

SALE

8

SALE

SALE

SALE

SALE

SALE

SALE

SALE

Recorded By

BEN MOSS

SALE

SALE

SALE

SALE

SALE

SALE

SALE

SALE

SALE

Witnessed By

JOHN HOBDAV

SALE

SALE

SALE

SALE

SALE

SALE

SALE

SALE

SALE

CIRC. STOP

13:00 3/10

00:00 1/10

00:00 1/10

00:00 1/10

00:00 1/10

00:00 1/10

00:00 1/10

00:00 1/10

00:00 1/10

00:00 1/10

BOREHOLE RECORD

Last Edited: 3-OCT-2005 20:29

Bit Size
inches

8.500

Depth From
metres

544.50

Depth To
metres

2658.00

CASING RECORD

Type

K-55

Size
inches

9.625

Depth From
metres

0.00

Shoe Depth
metres

544.50

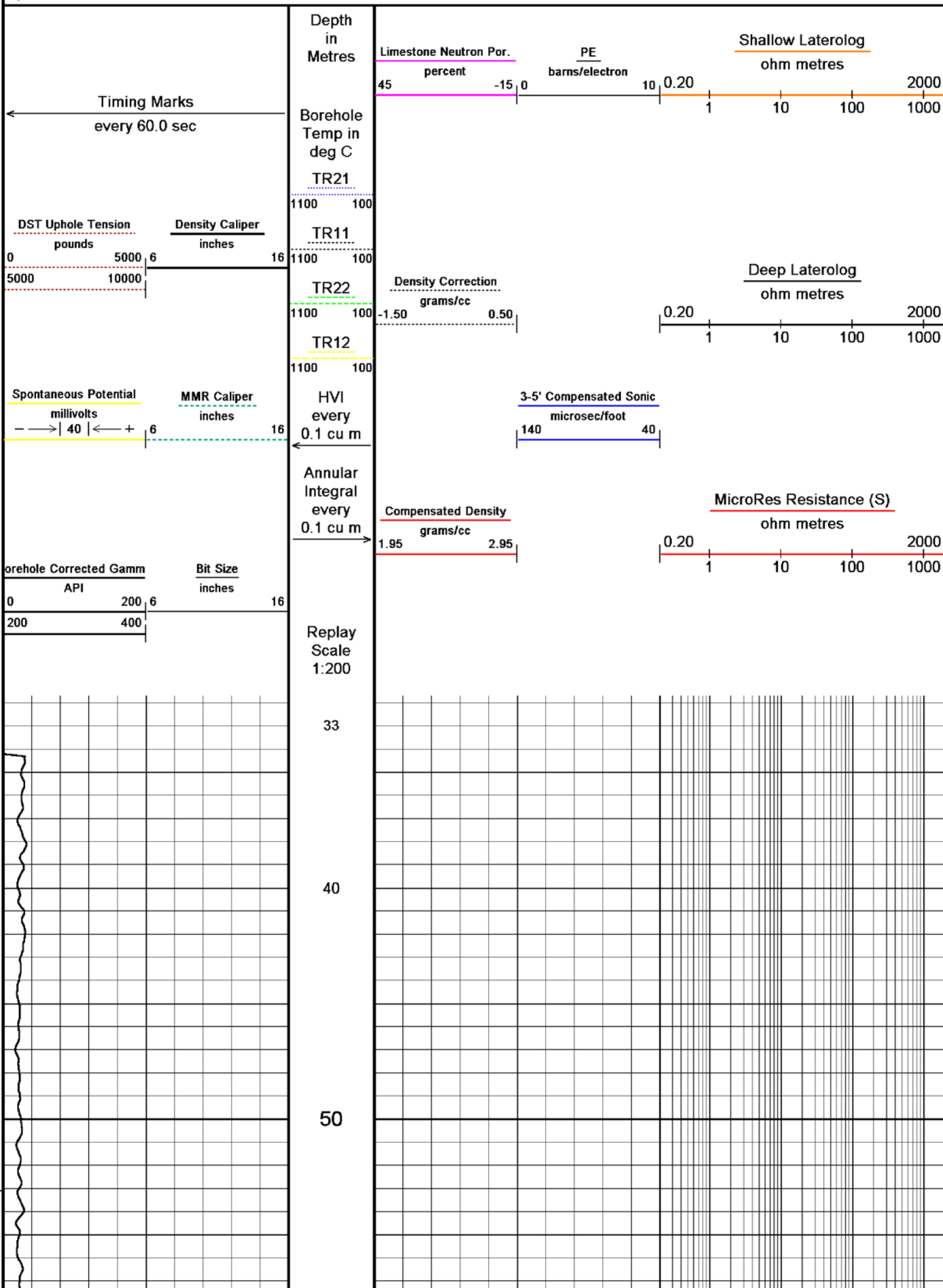
Weight
pounds/ft

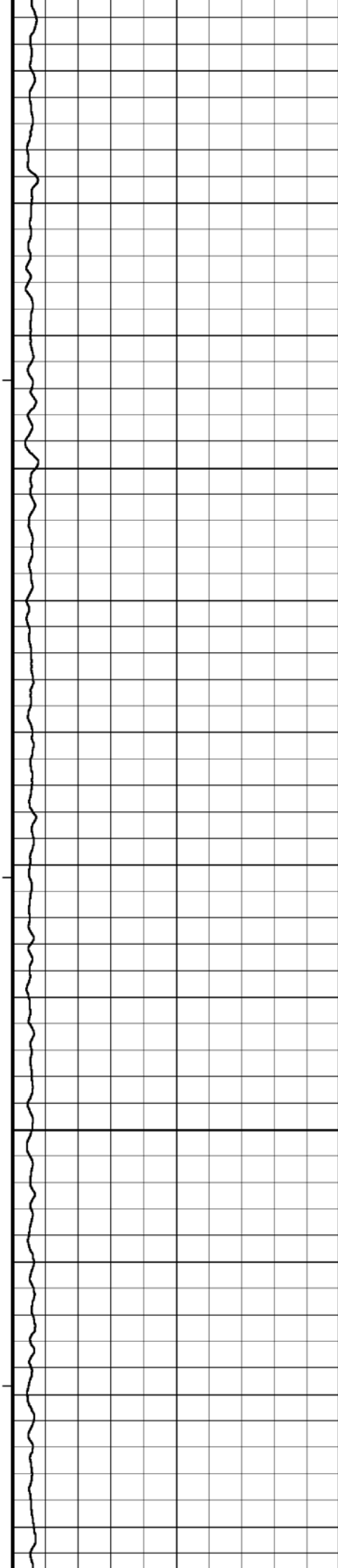
36.00

REMARKS

- 1) SOFTWARE ISSUE: JUN 17, 2004.
- 2) CUSTOMER SCALES AND INTERVALS LOGGED.
- 3) HFS, MMR, MLE, MUG, MSS, SKJ, MPD,MDN, MCG, MBE RAN IN COMBINATION.
- 4) HARDWARE: MMR: ONE 25.4MM STANDOFF
MSS: TWO 25.4MM STANDOFF
MUG: ONE 25.4MM STANDOFF
MBE: ONE 25.4MM STANDOFF
- 5) SERVICE ORDER: 2071
- 6) RIG:CENTURY 7
- 7) TOTAL HOLE VOLUME FROM TD TO SURFACE CASING = 79.7 CU.M.
- 8) TOTAL ANNULAR VOLUME WITH 7 INCH CASING = 27.7 CU.M.
- 9) SONIC CASING SIGNAL AT 500.5 M.

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.





60

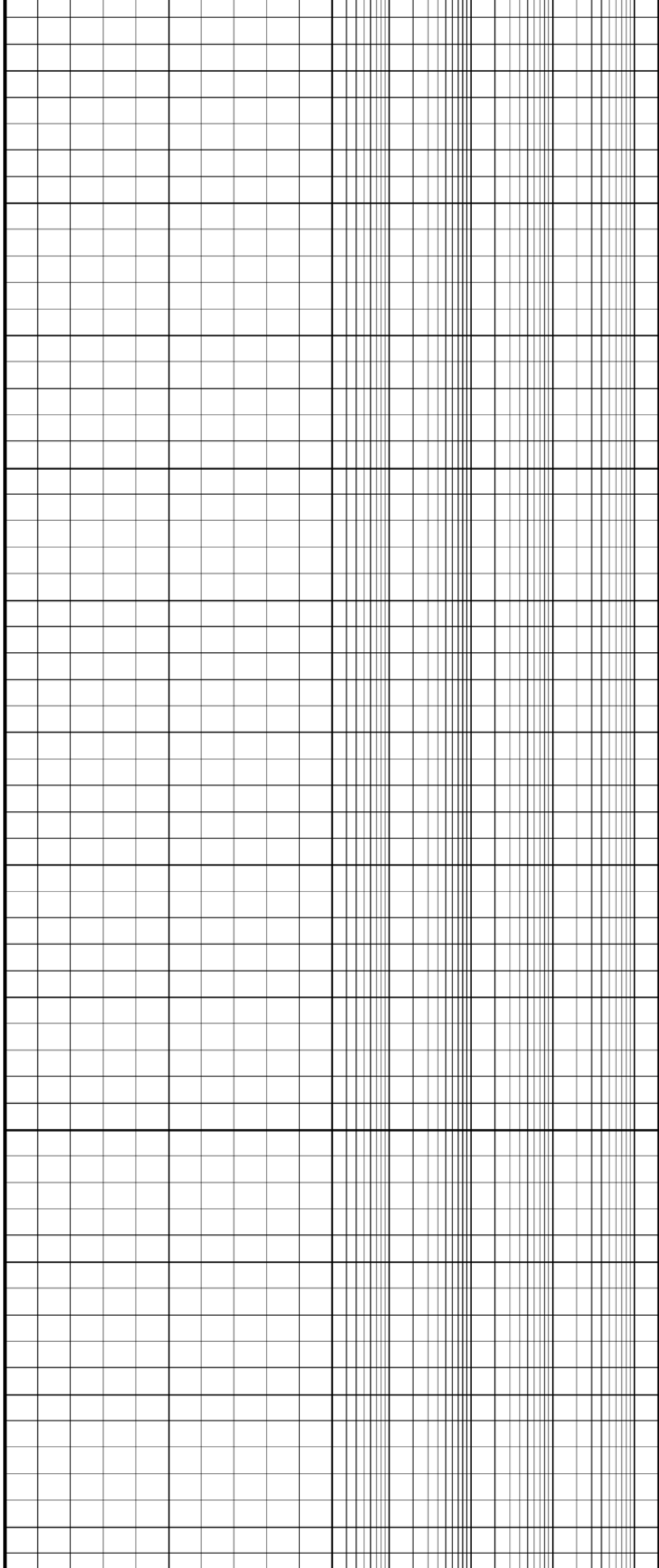
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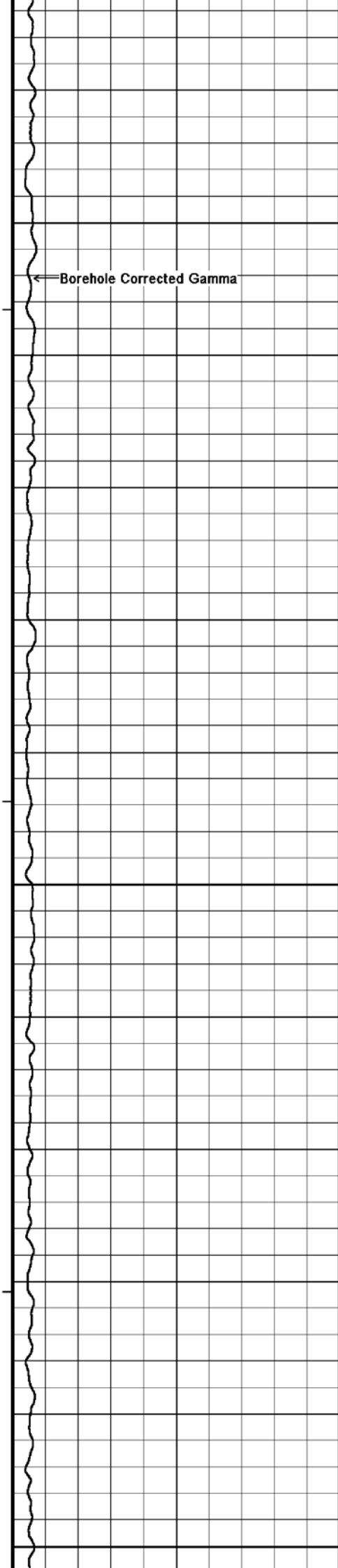
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90

100

110





120

130

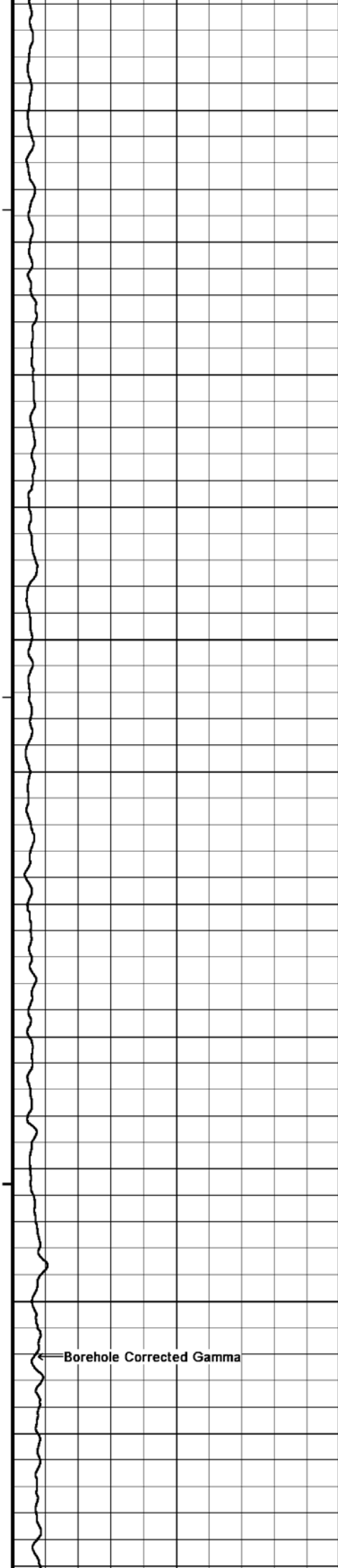
140

150

160

170

← Borehole Corrected Gamma



180

190

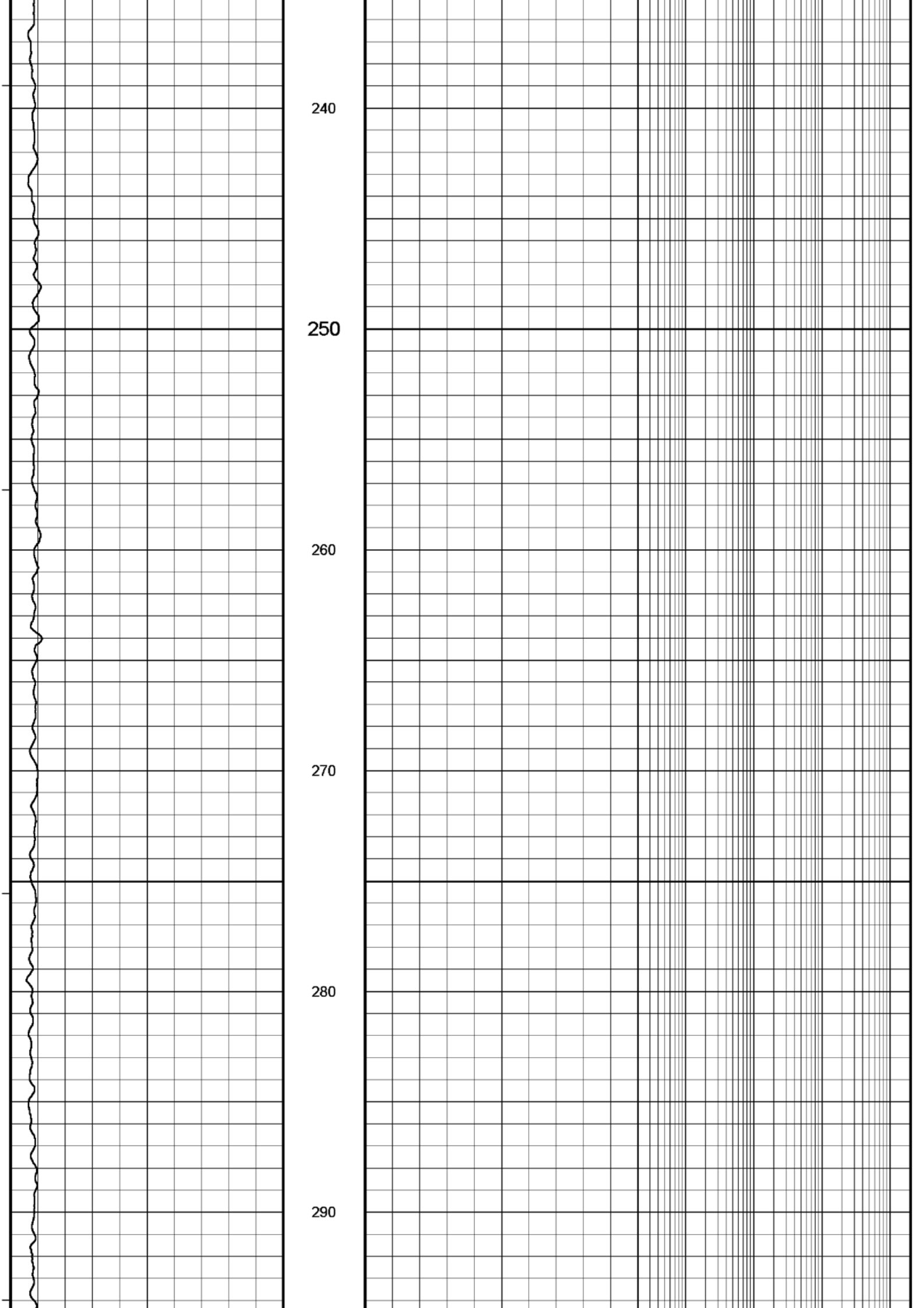
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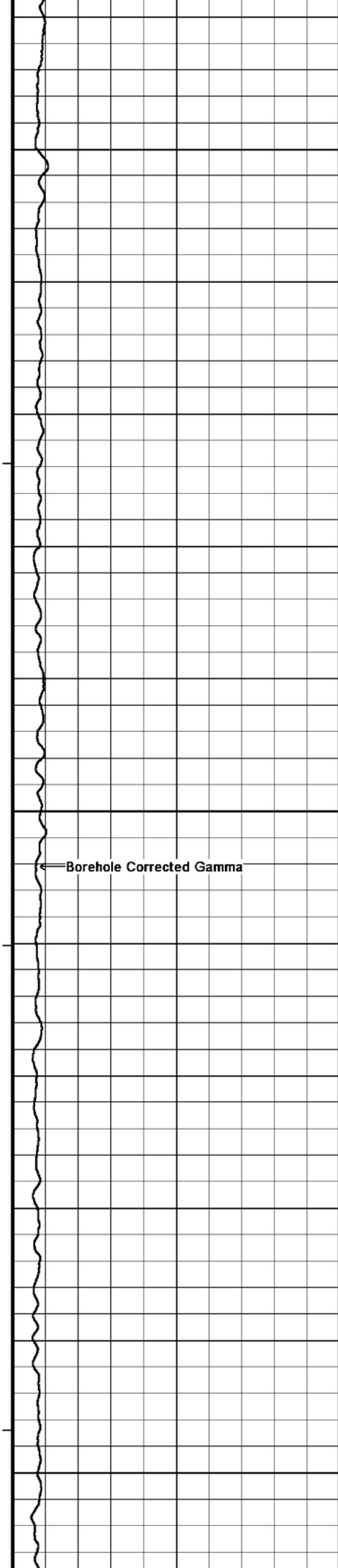
210

220

230

← Borehole Corrected Gamma





300

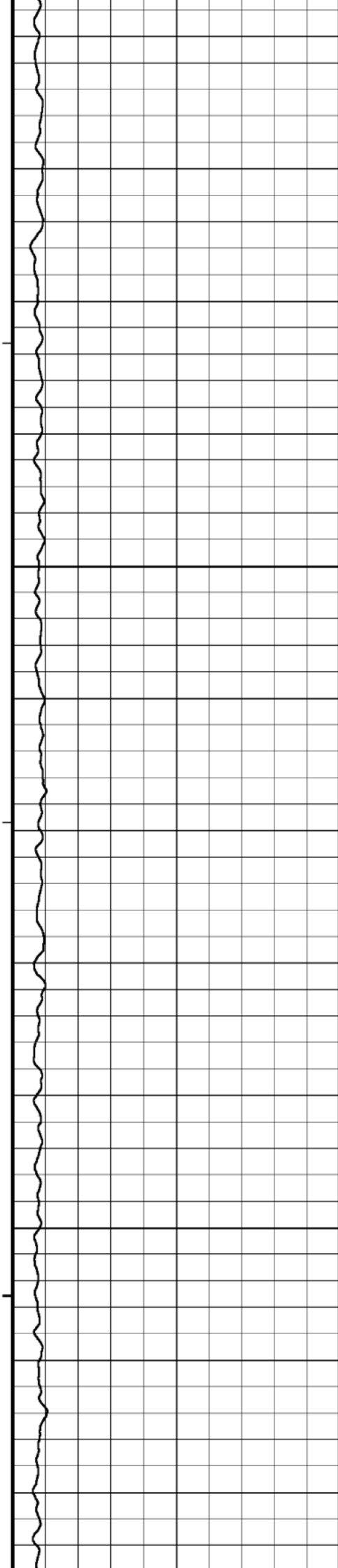
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320

330

340

350



360

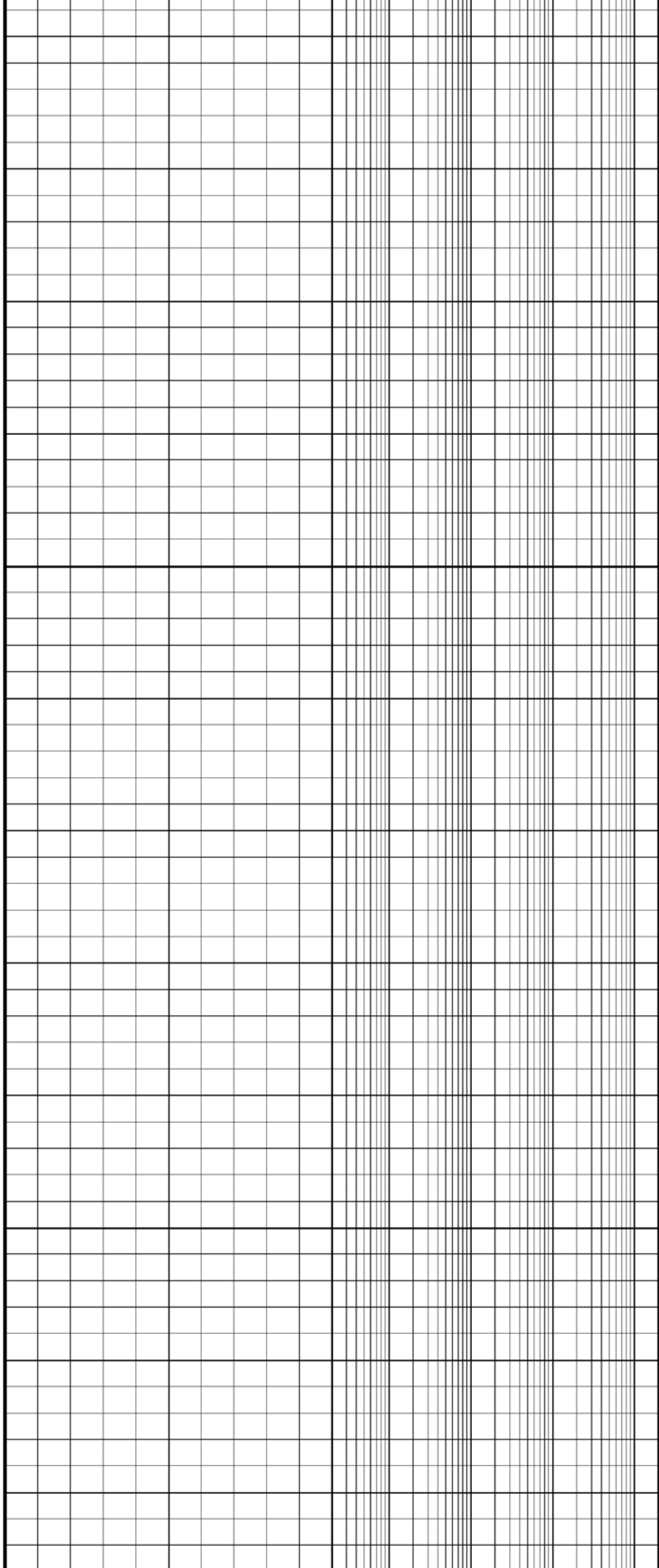
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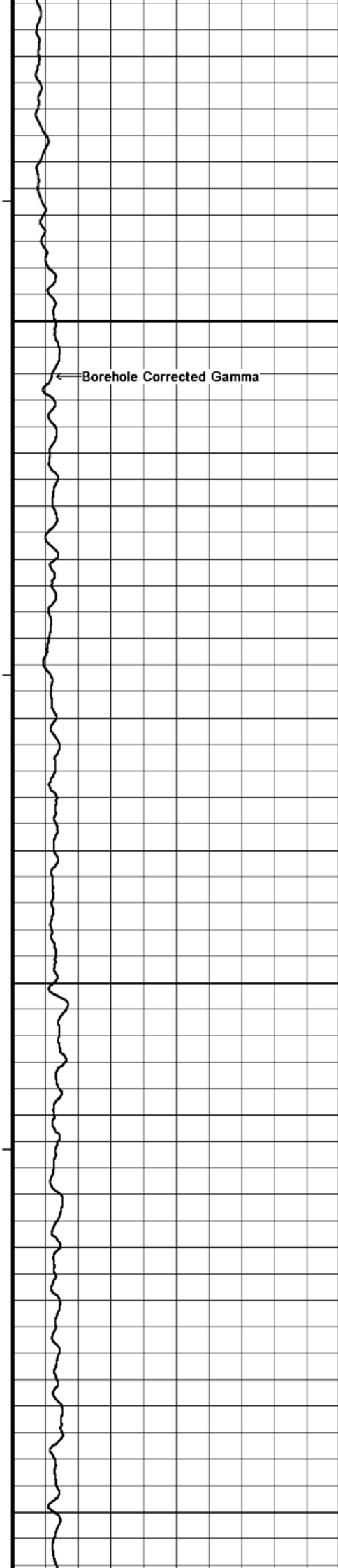
380

390

400

410





420

430

440

450

460

470

← Borehole Corrected Gamma

480

490

500

510

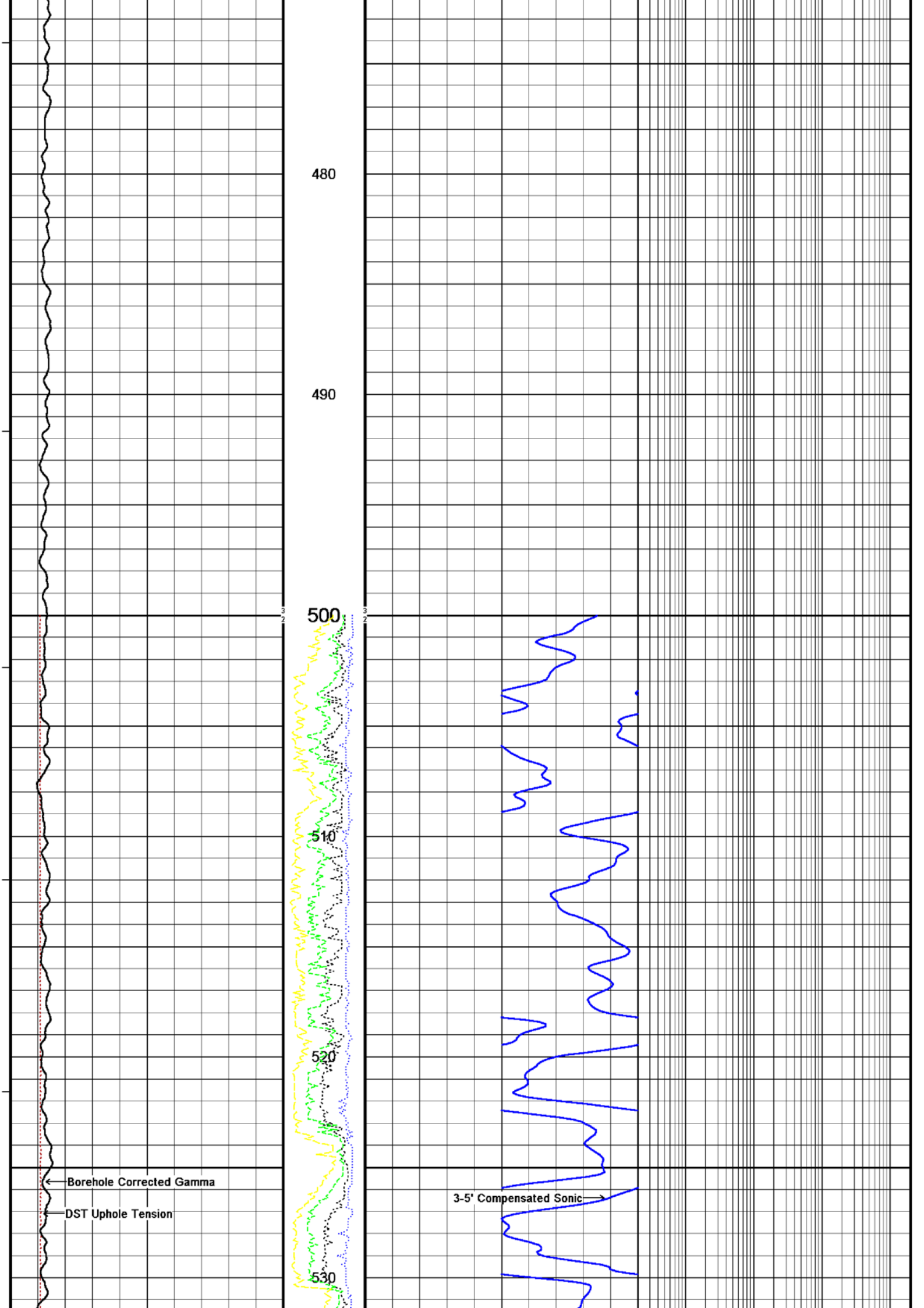
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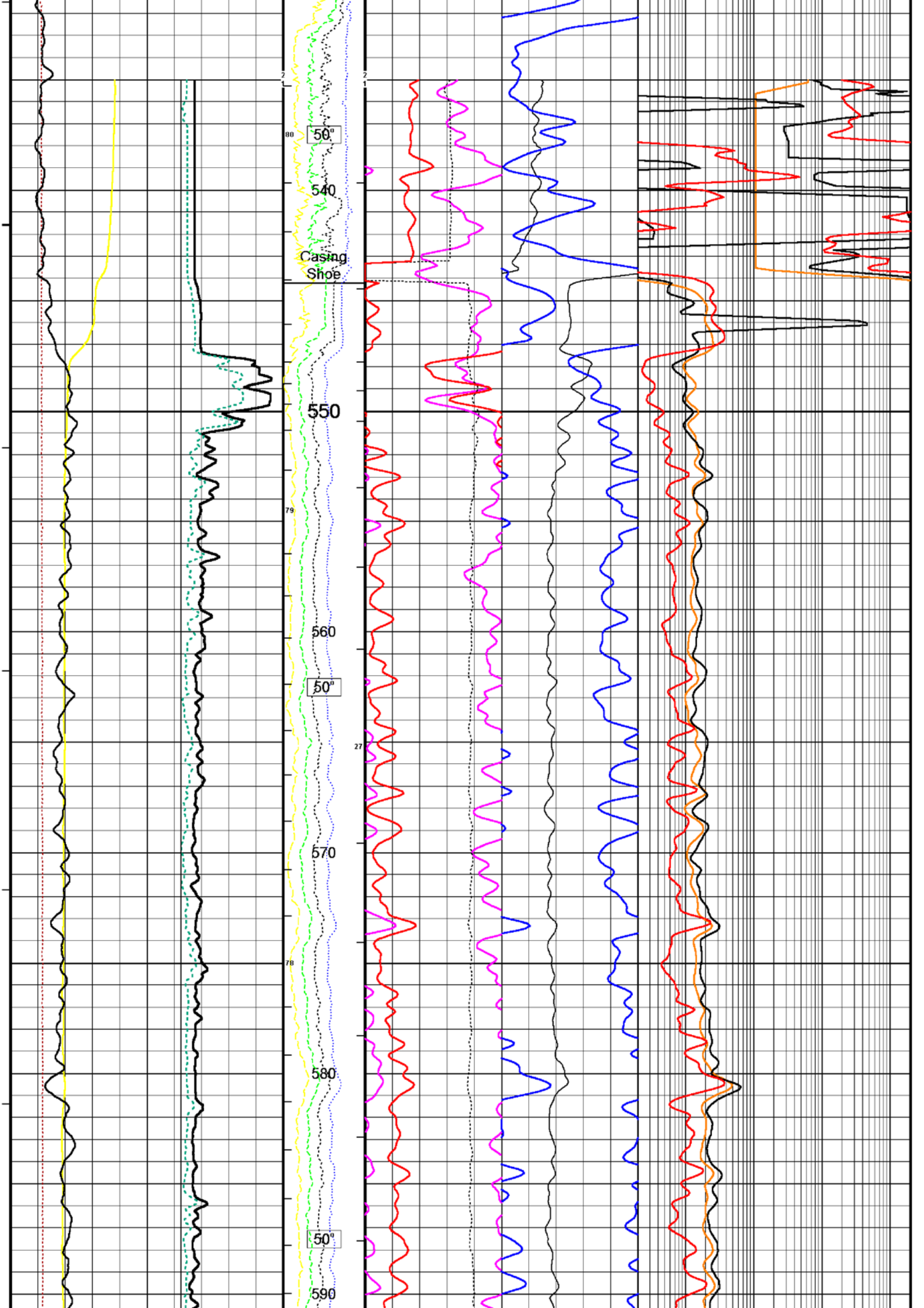
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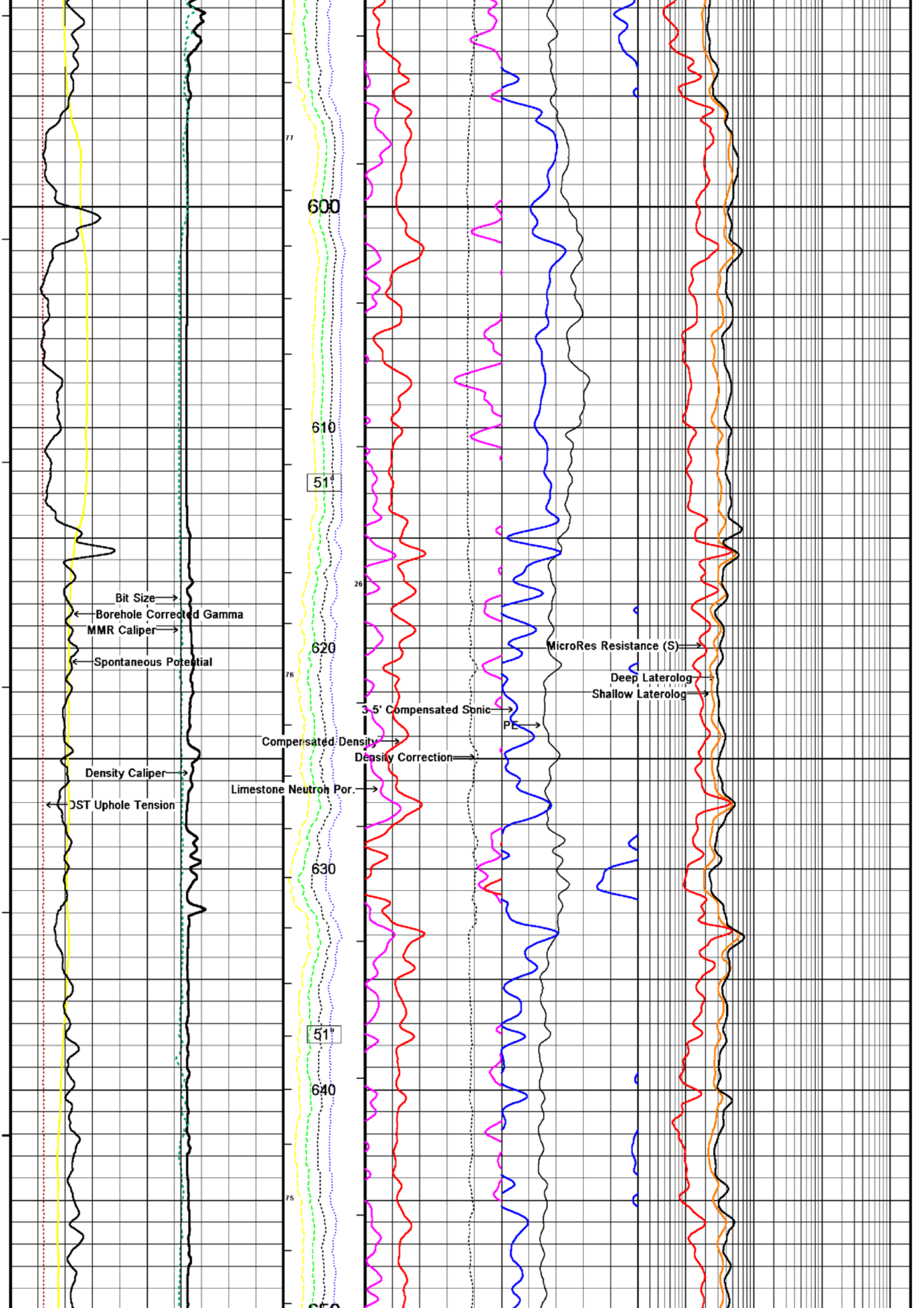
← Borehole Corrected Gamma

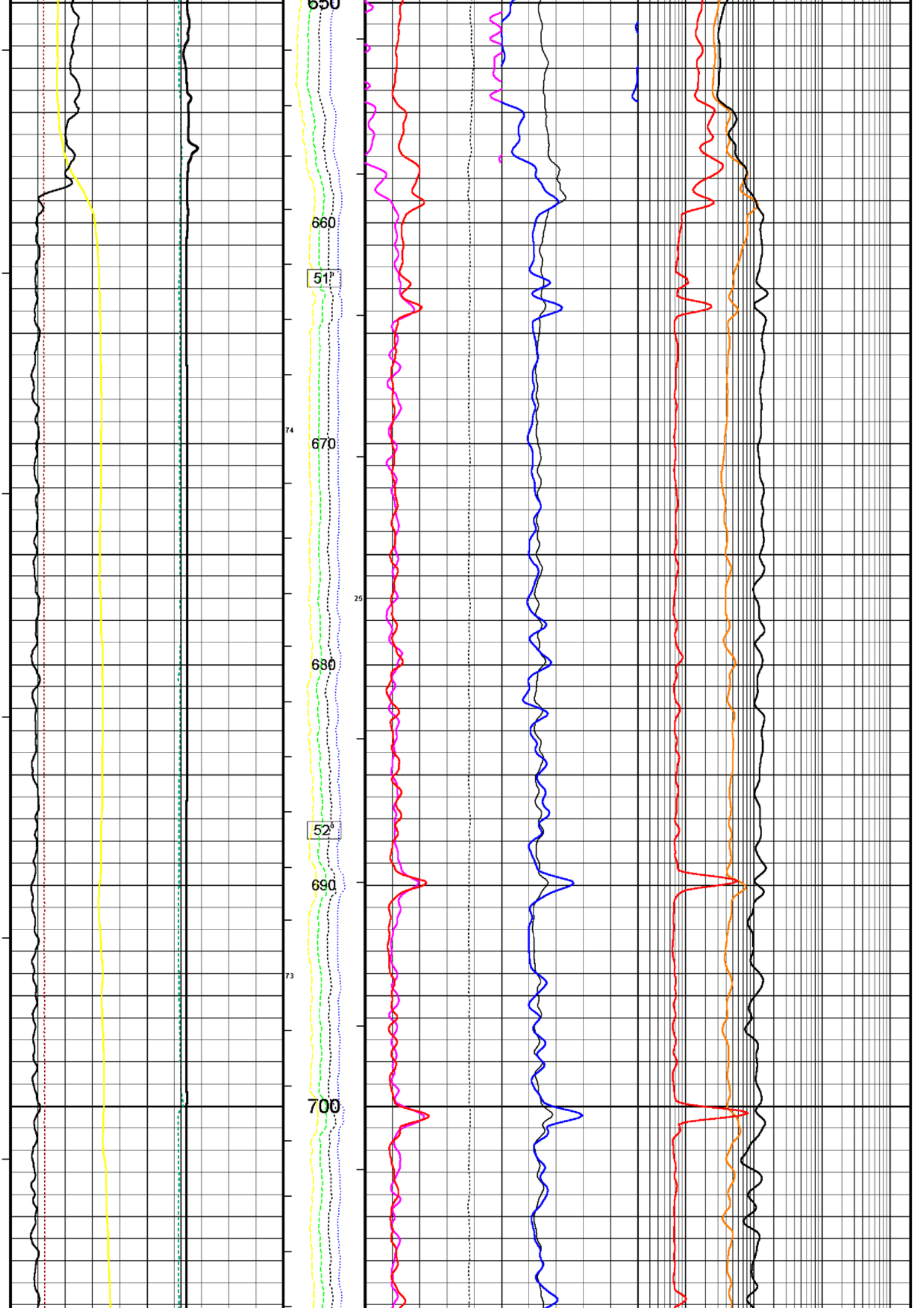
← DST Uphole Tension

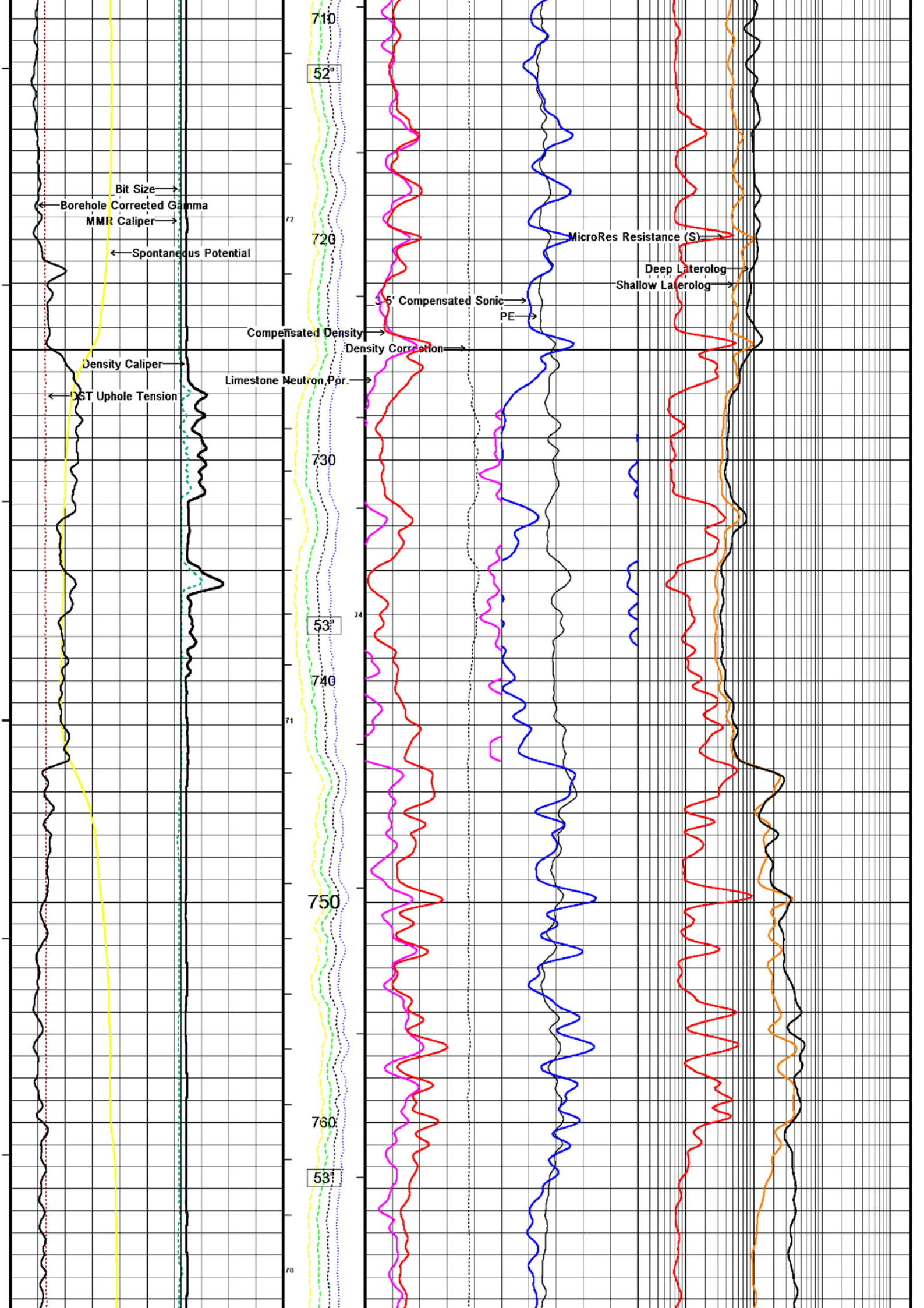
3-5' Compensated Sonic →

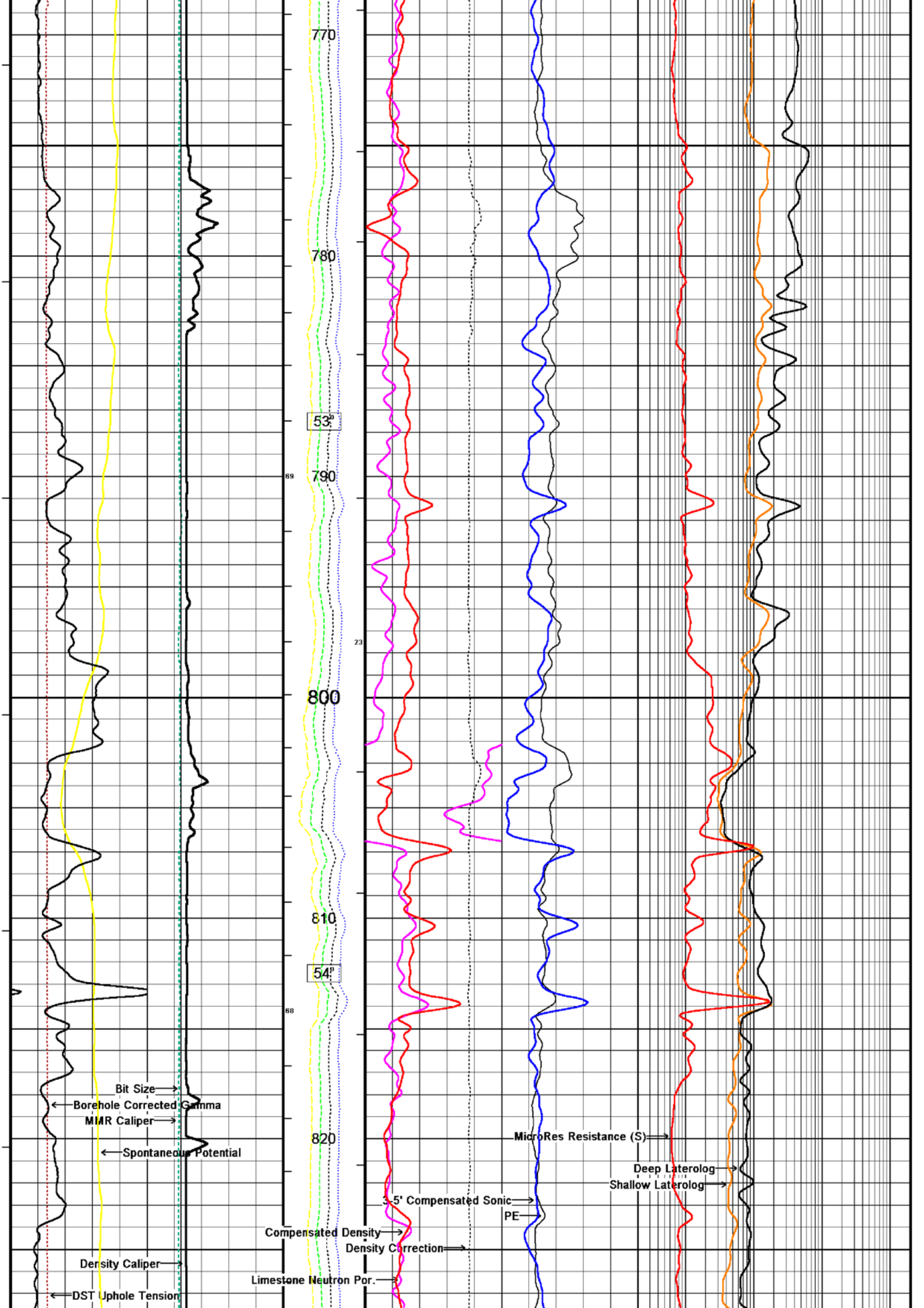


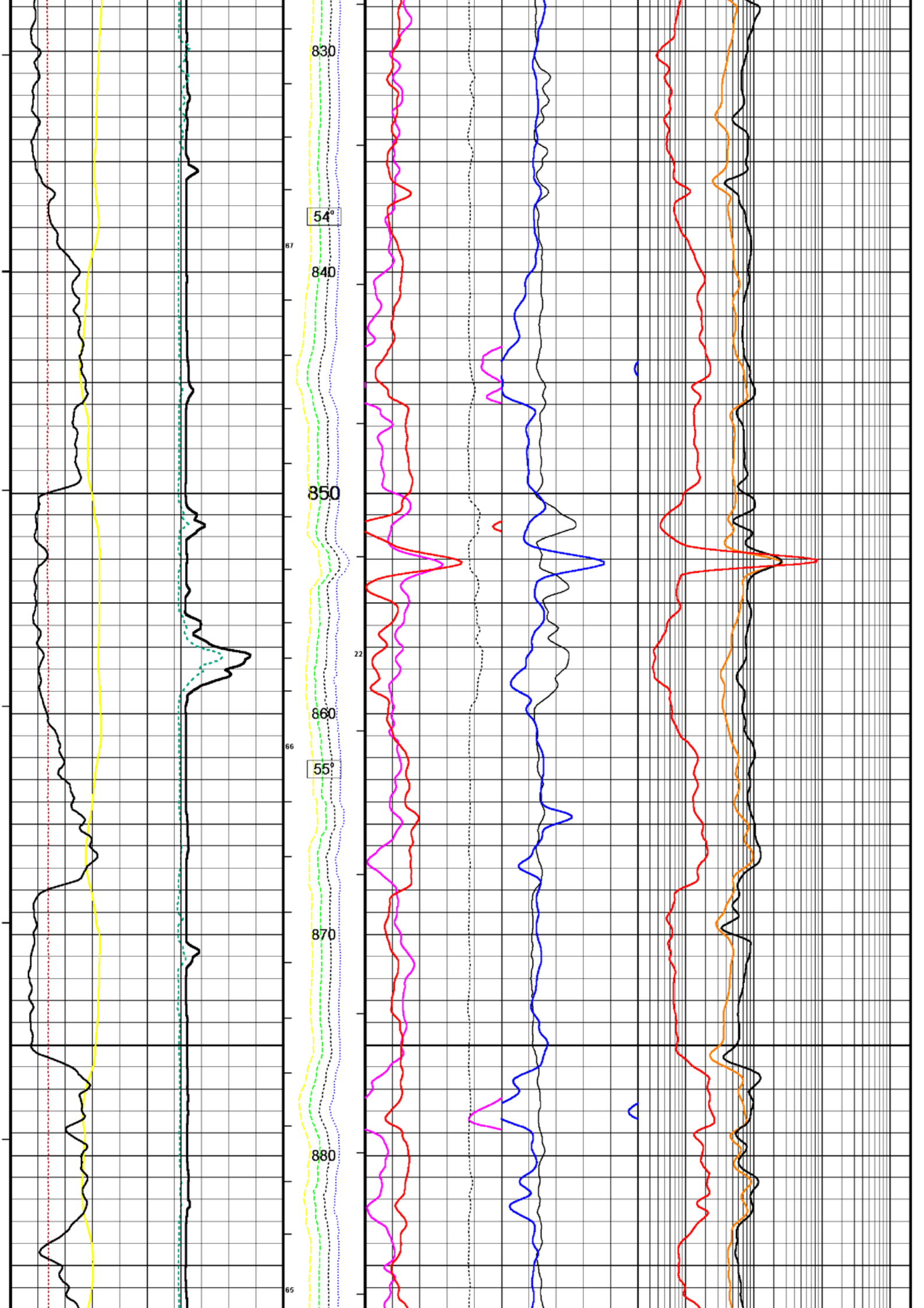


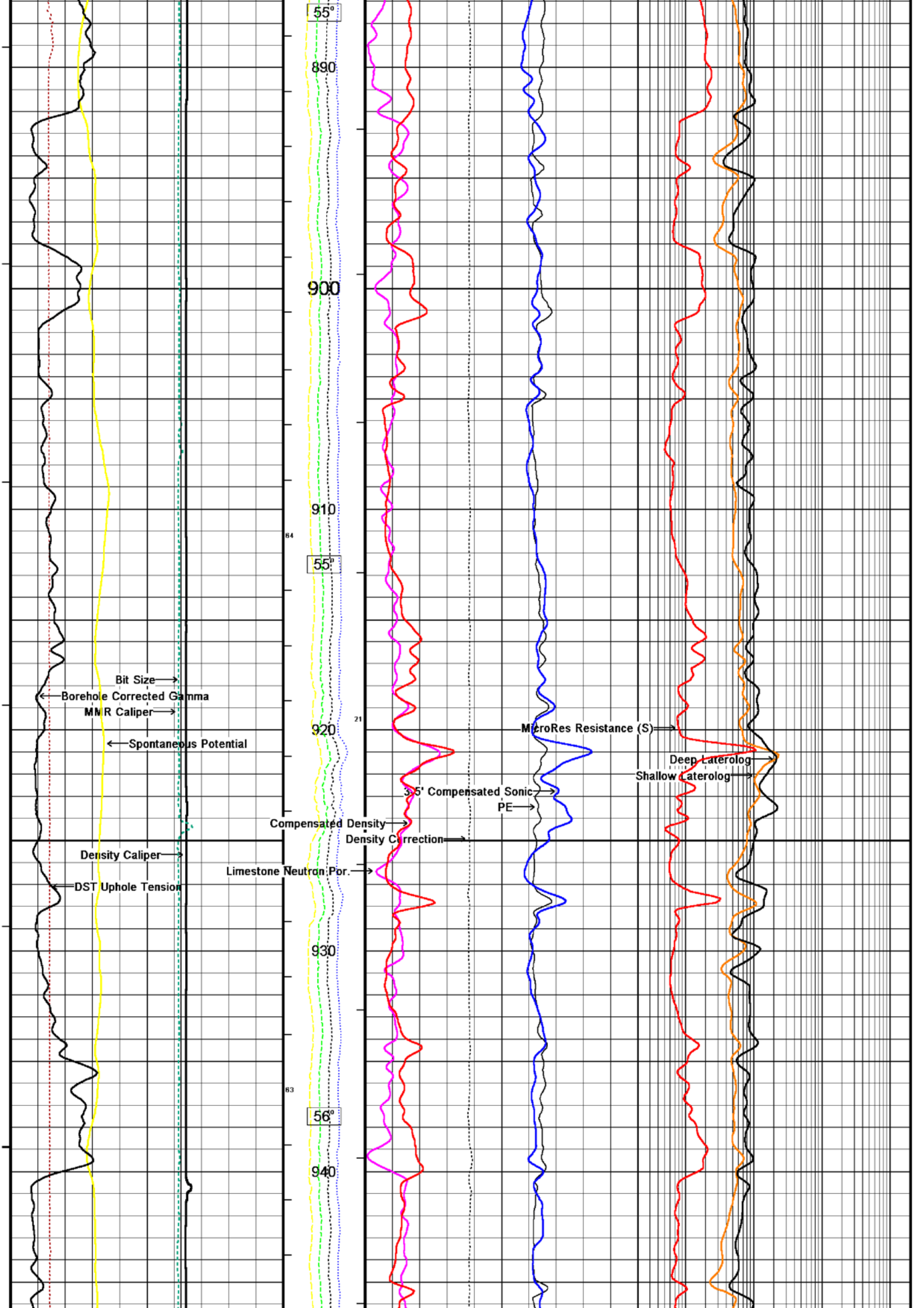


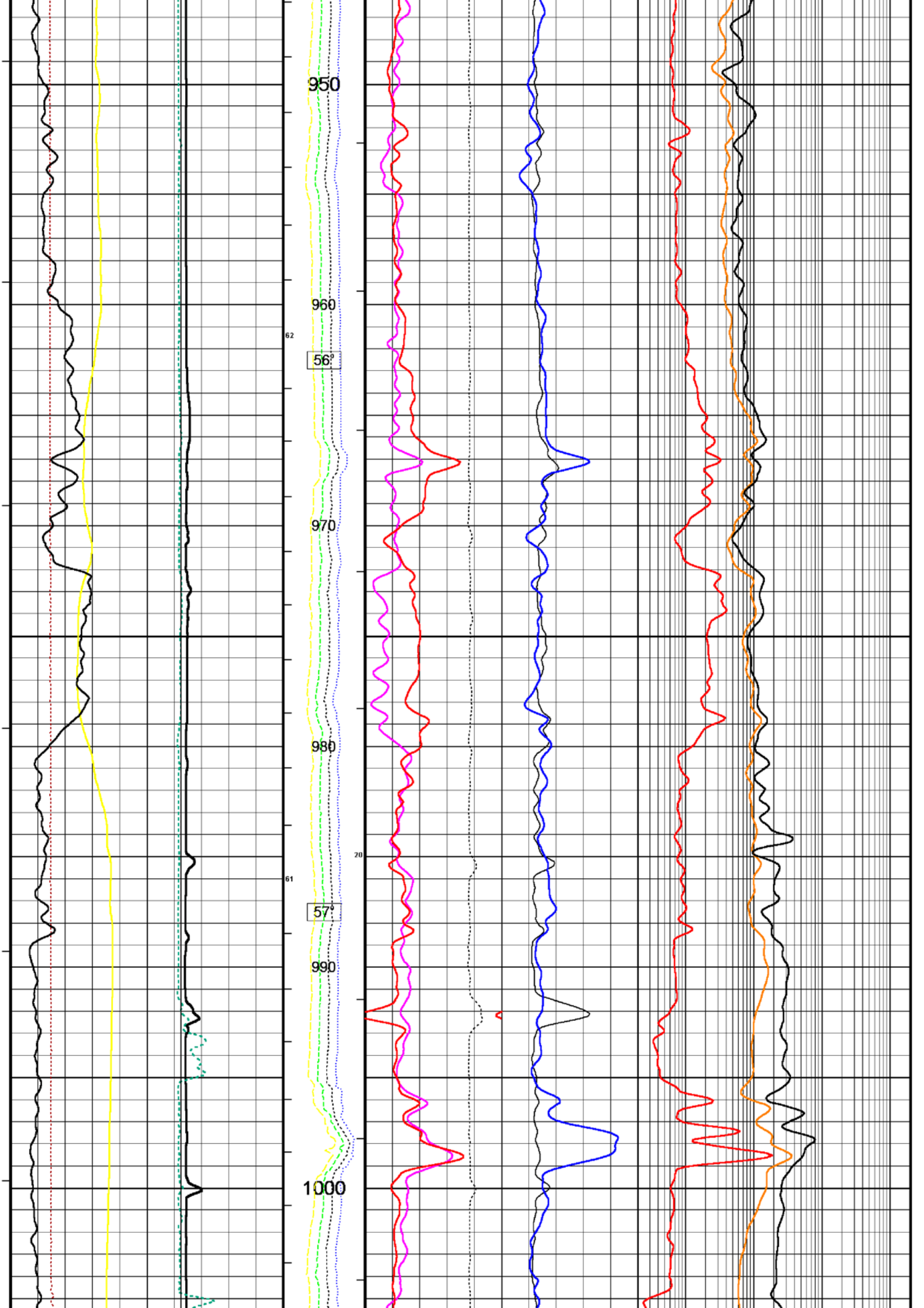


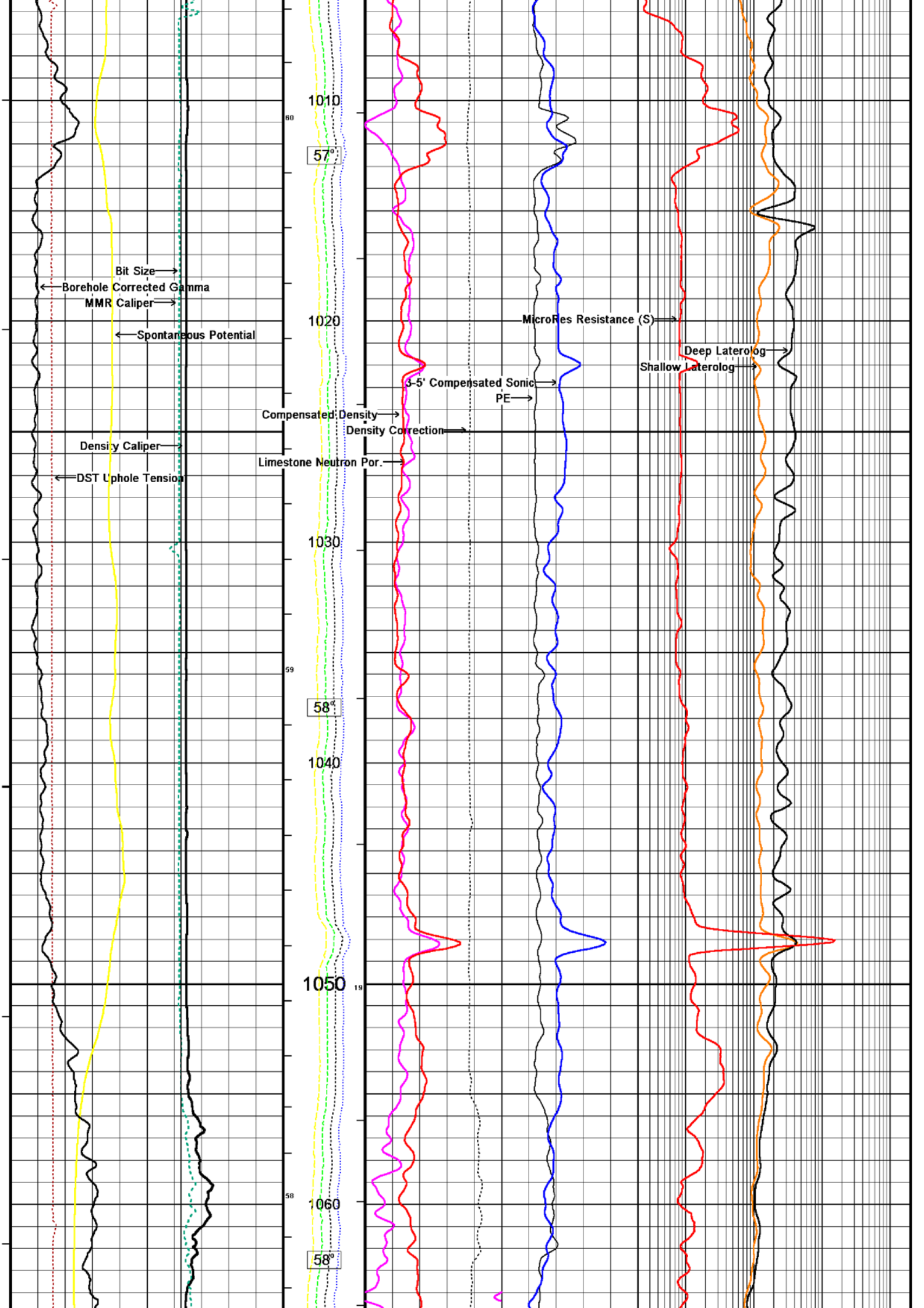


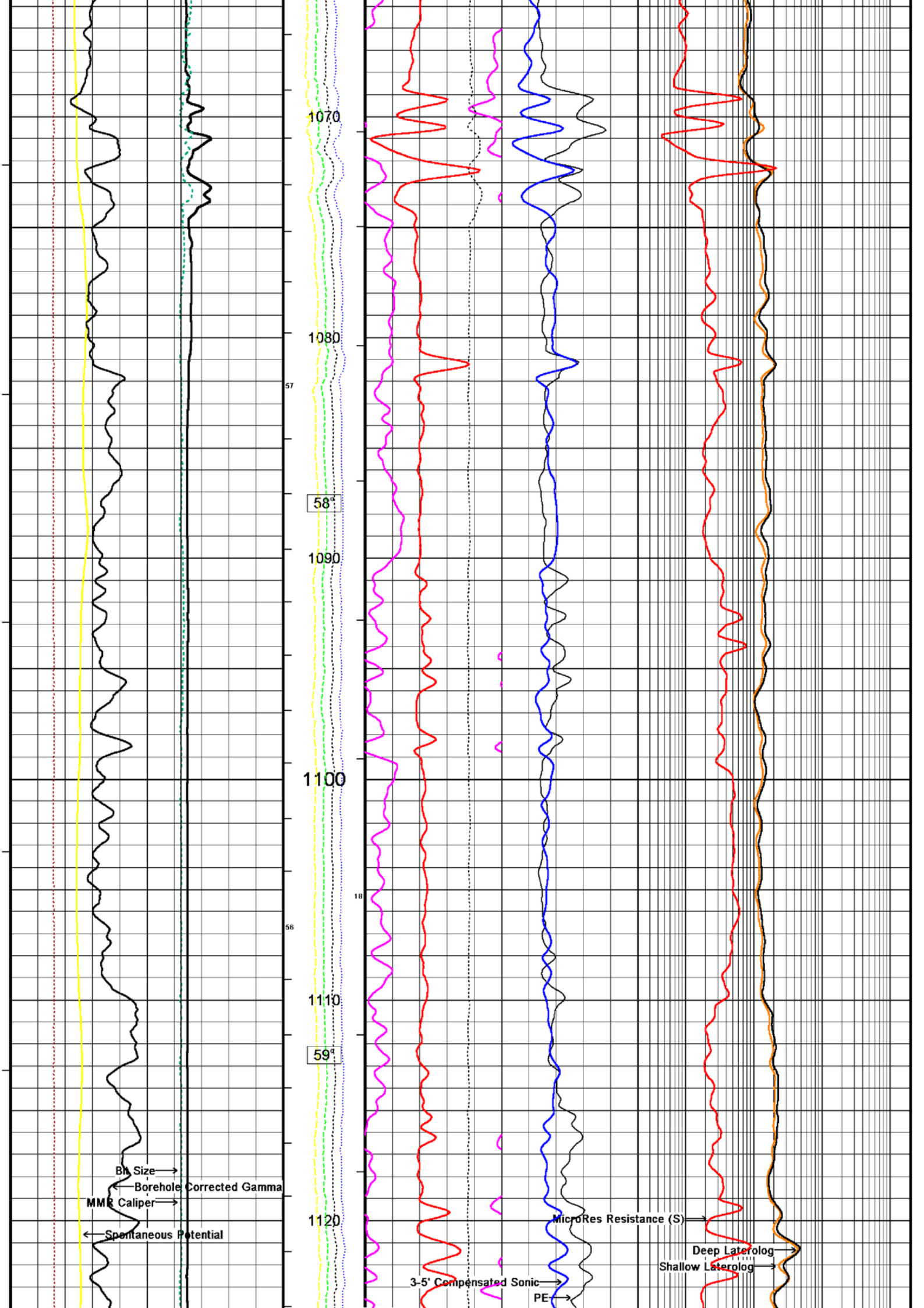


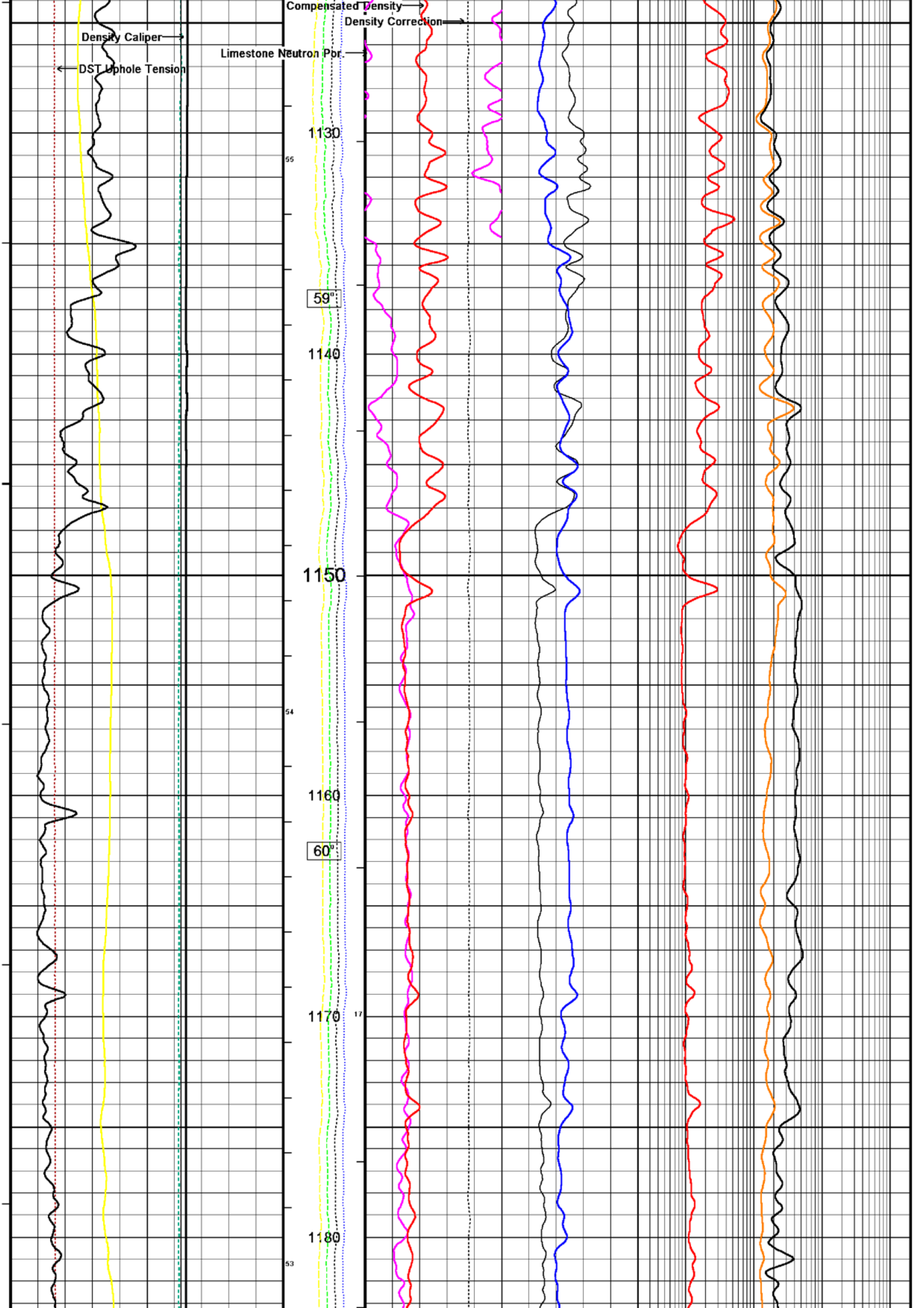


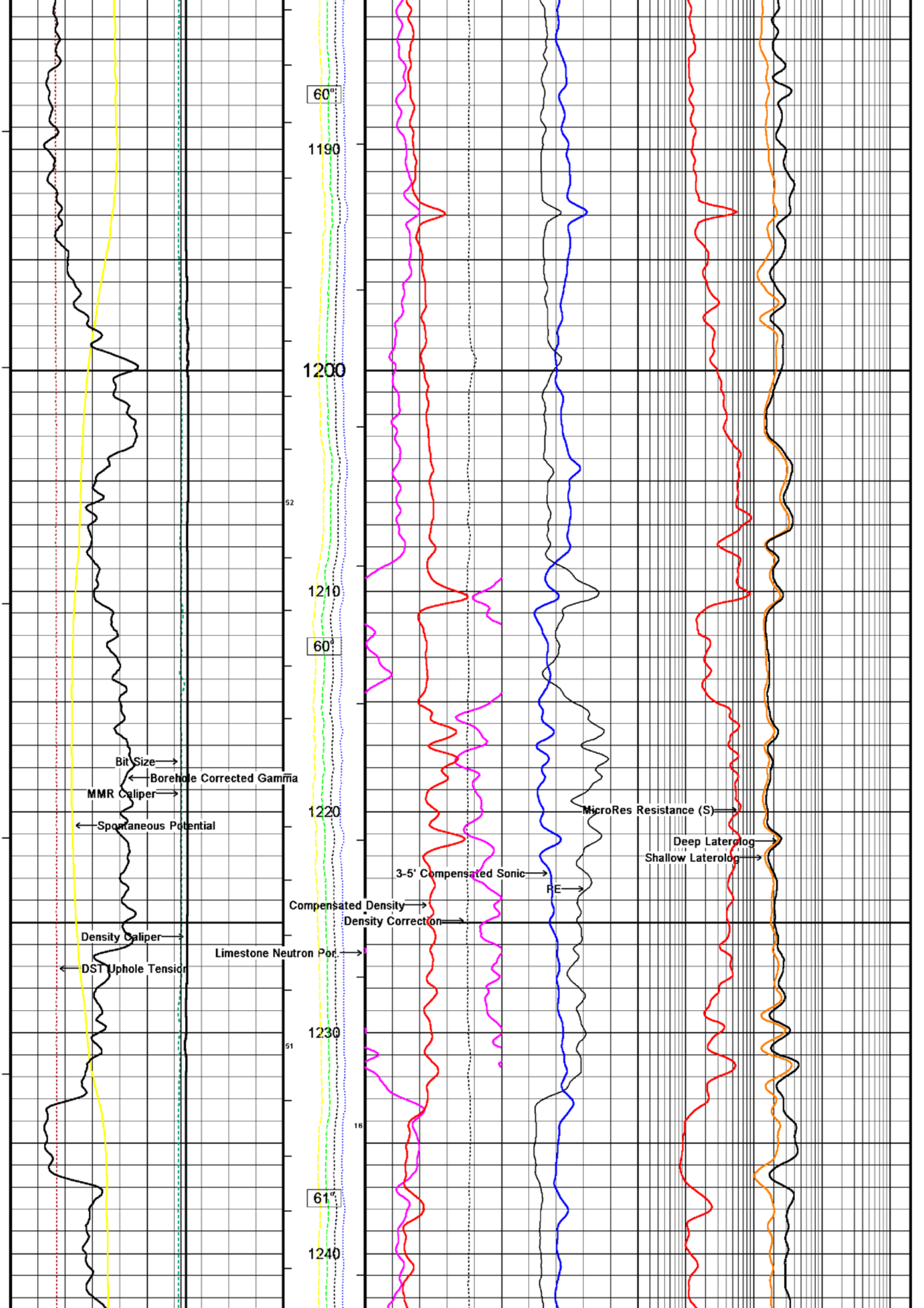


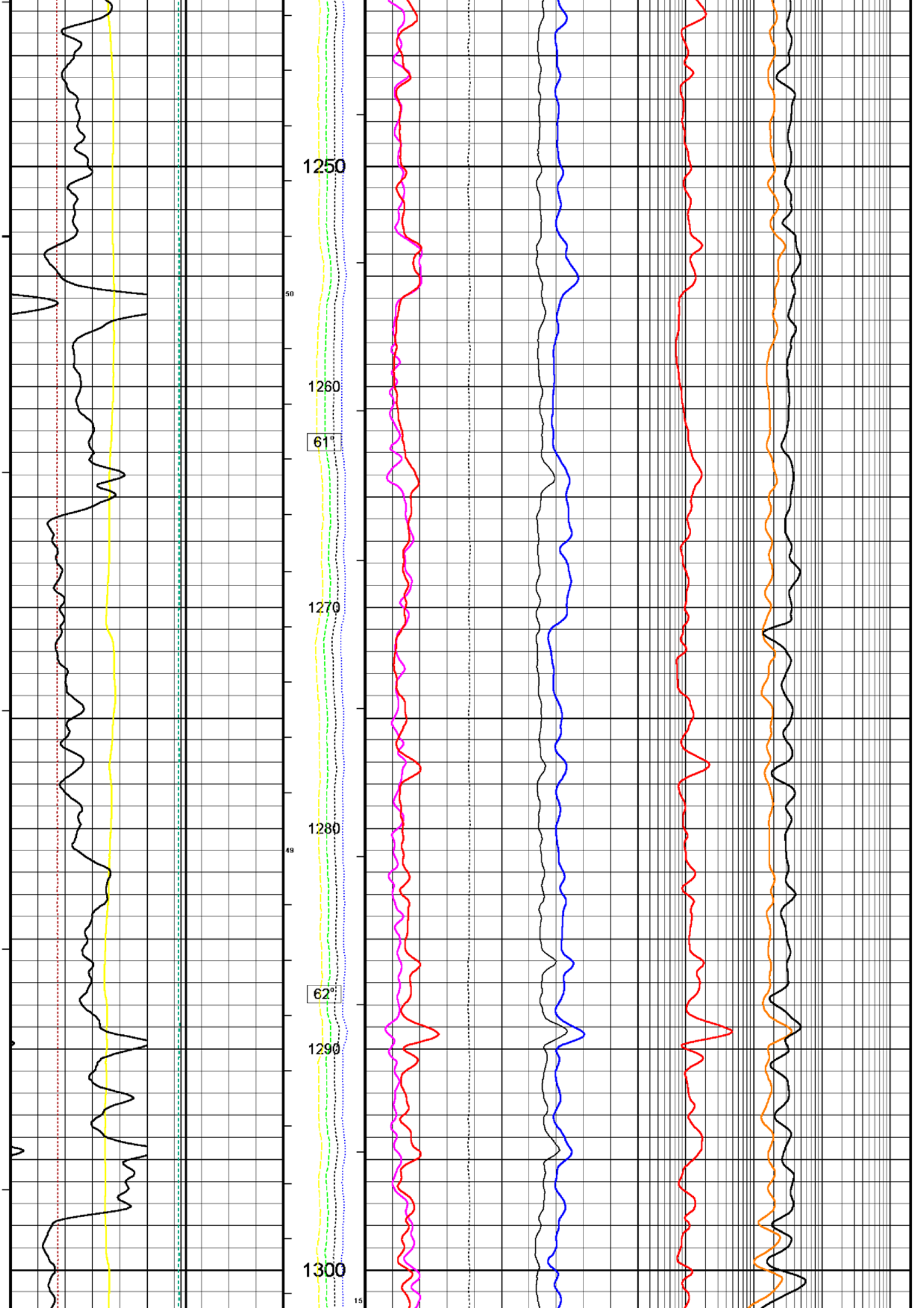


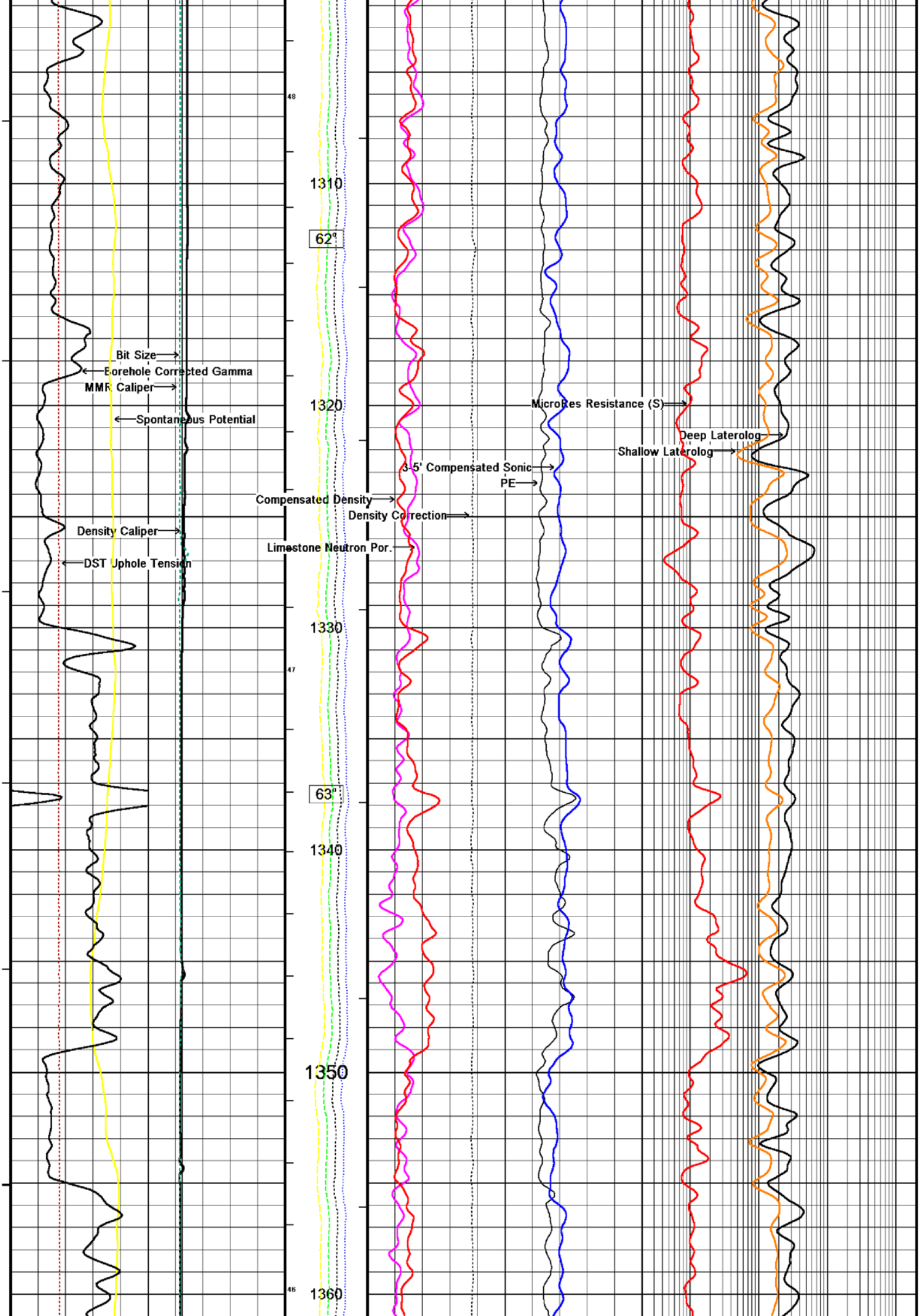


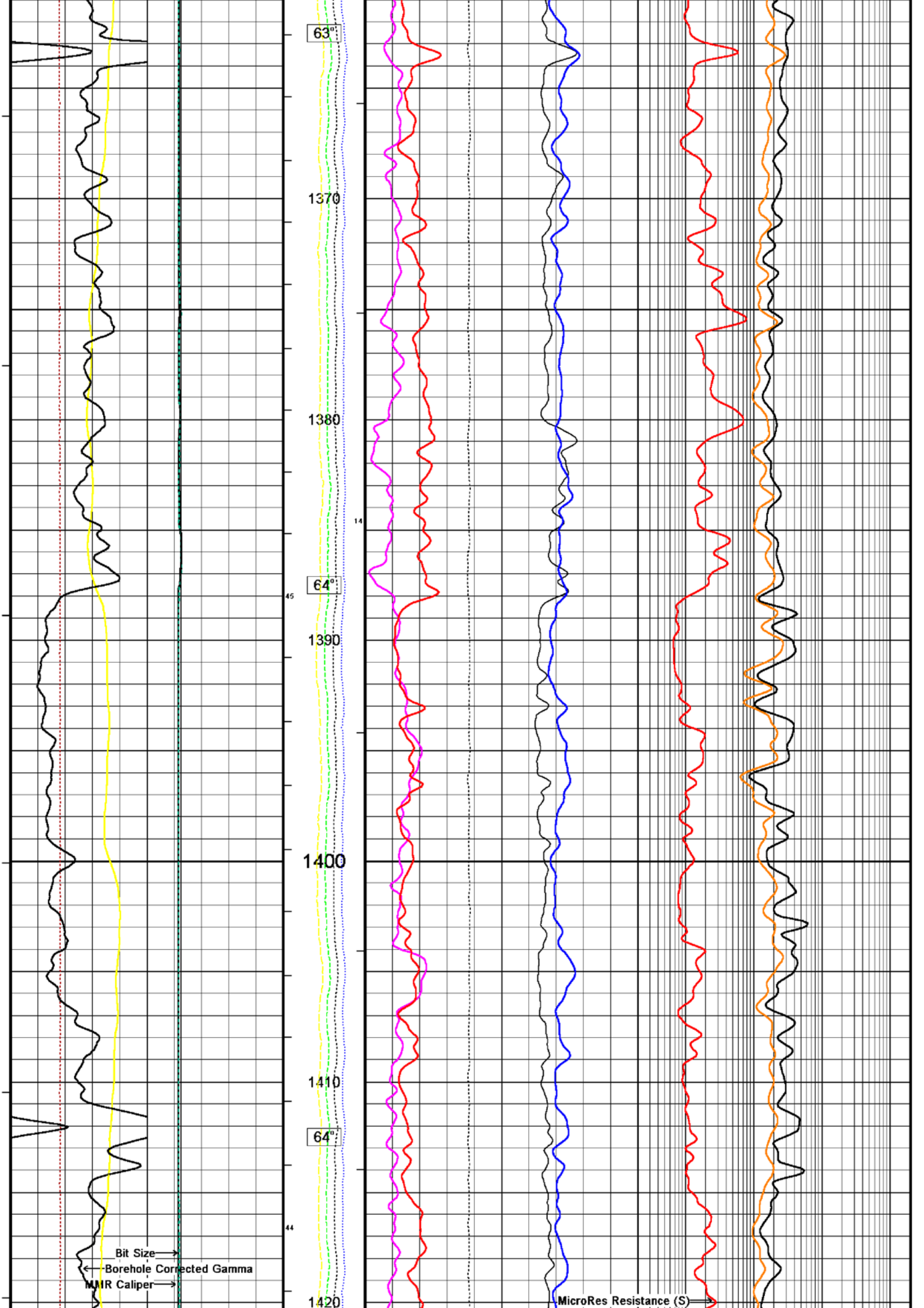


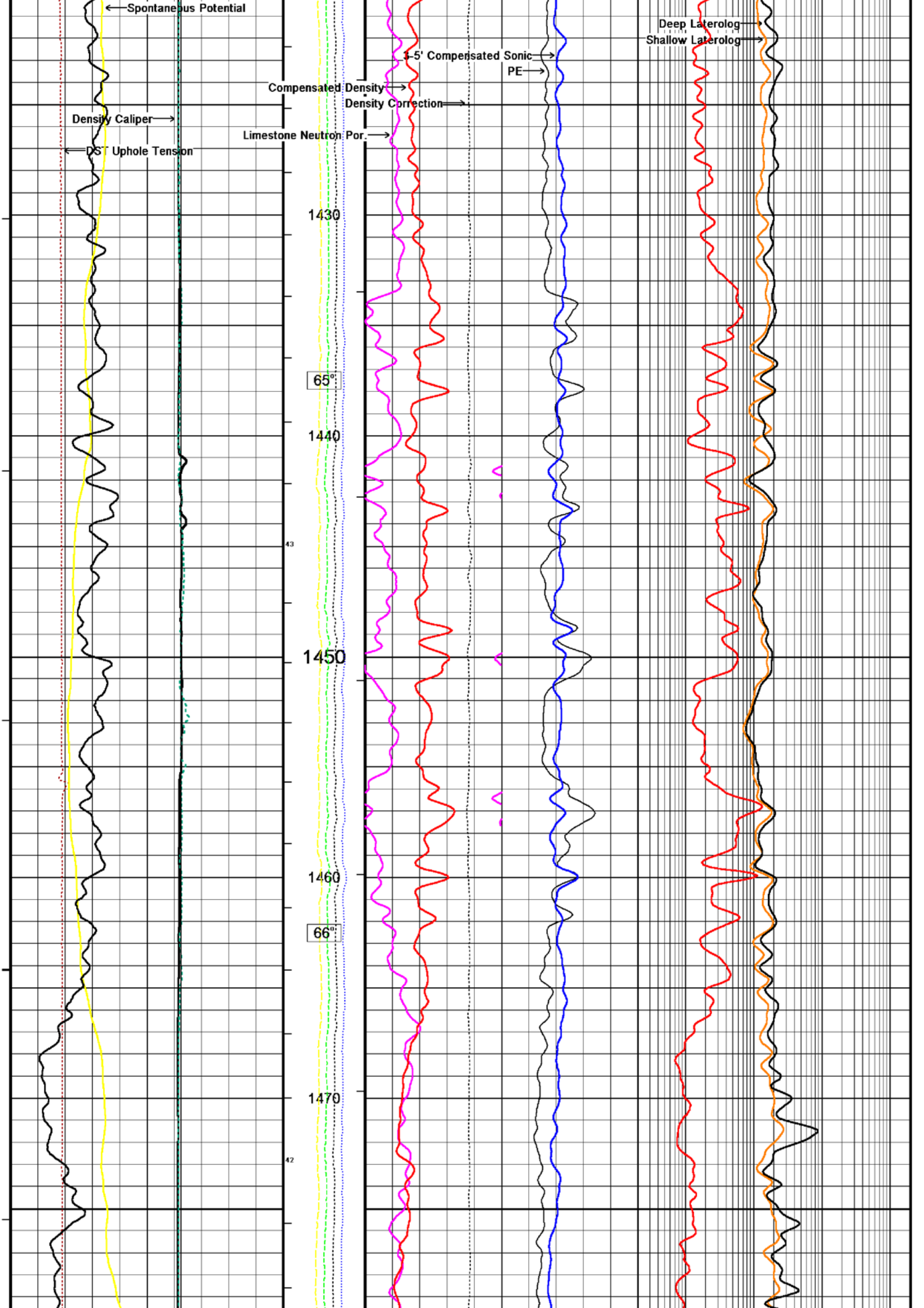


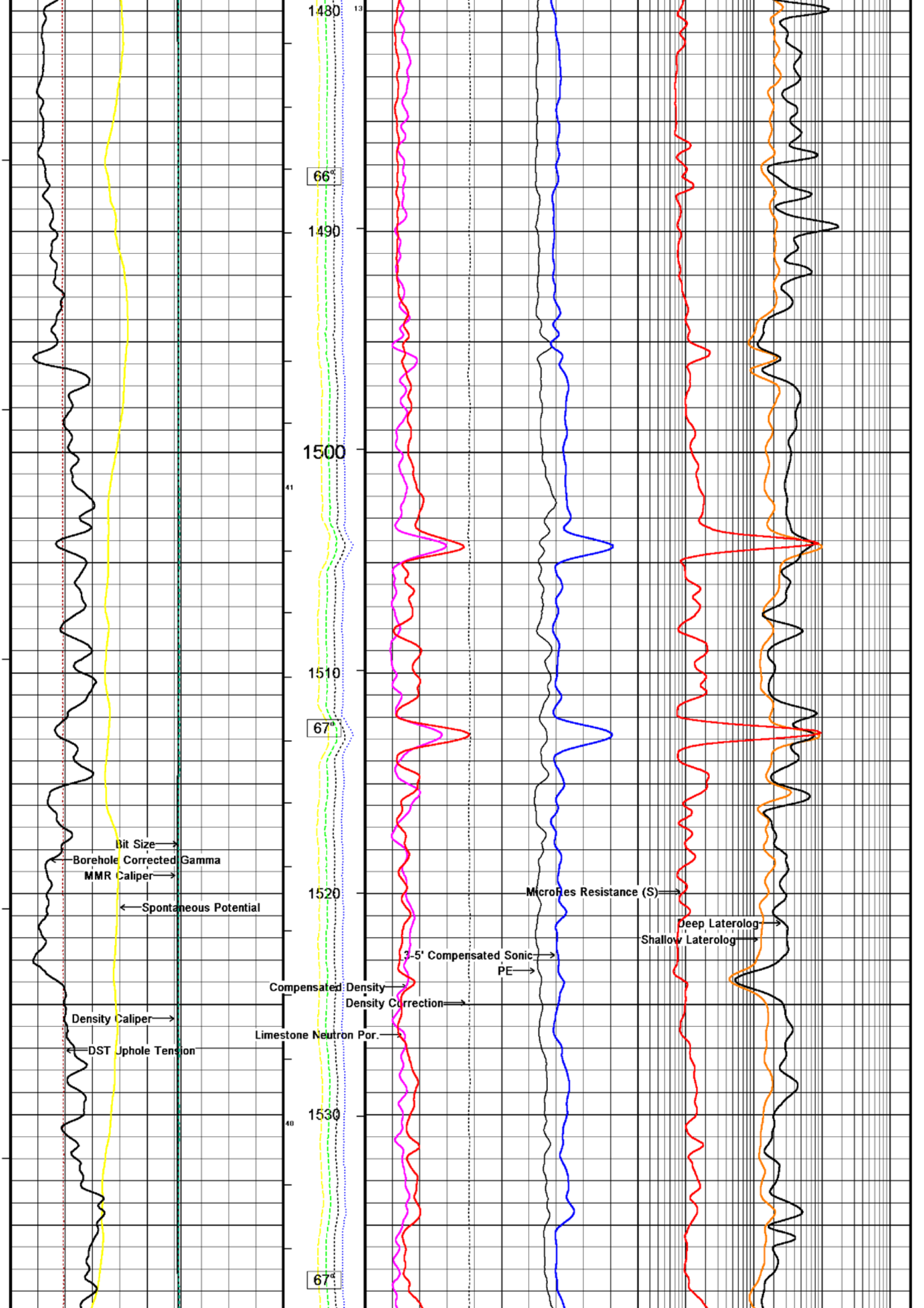


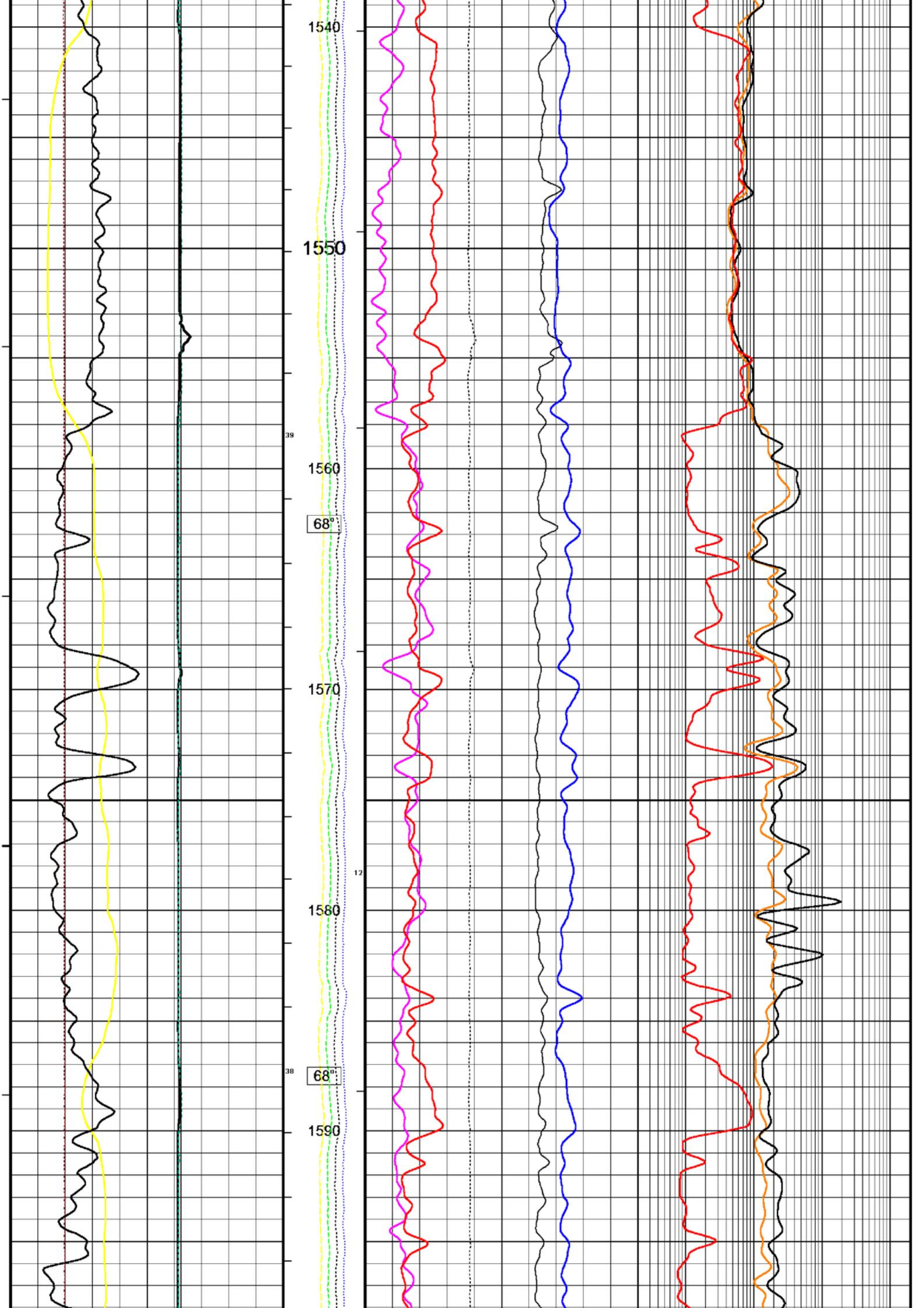


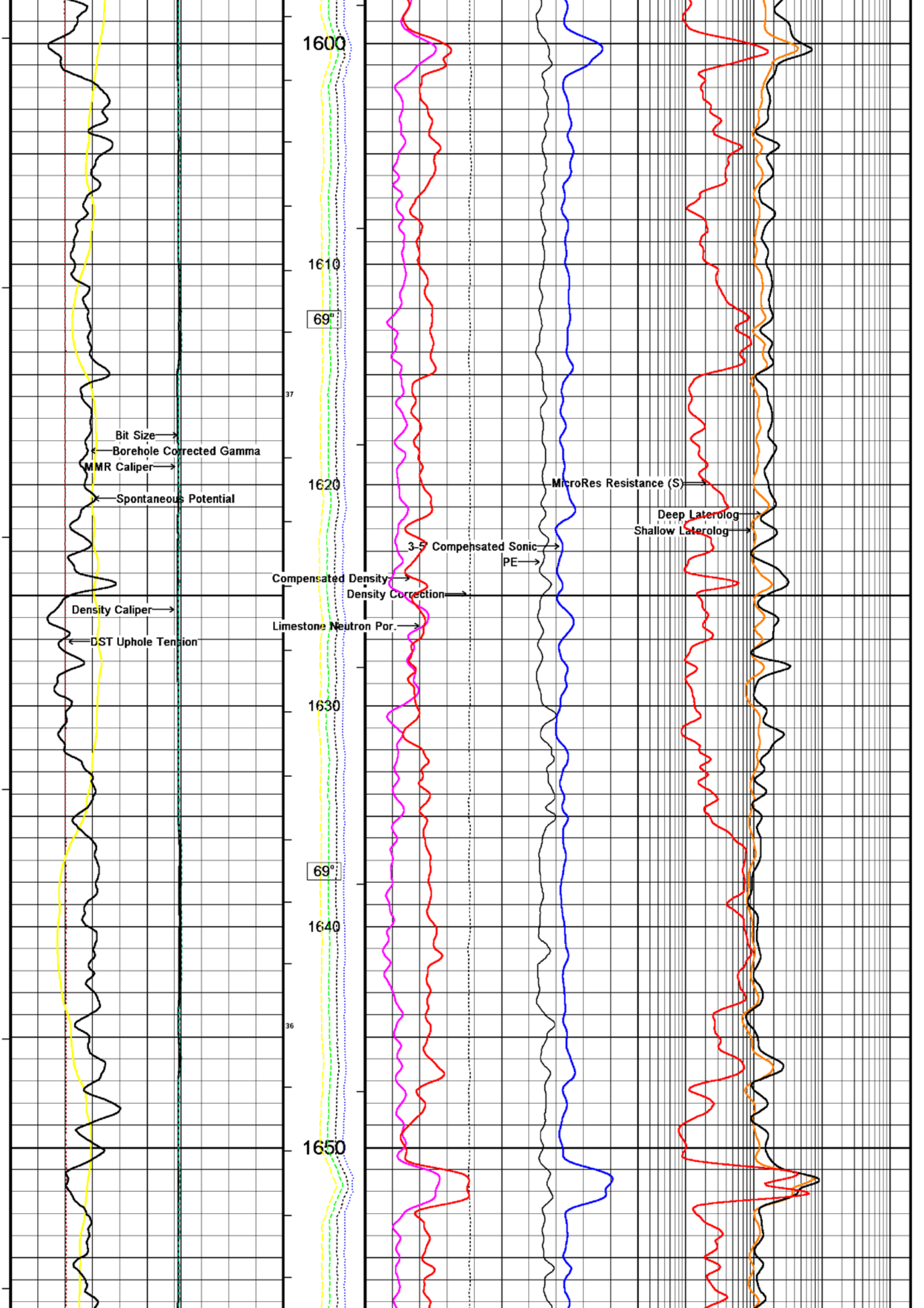


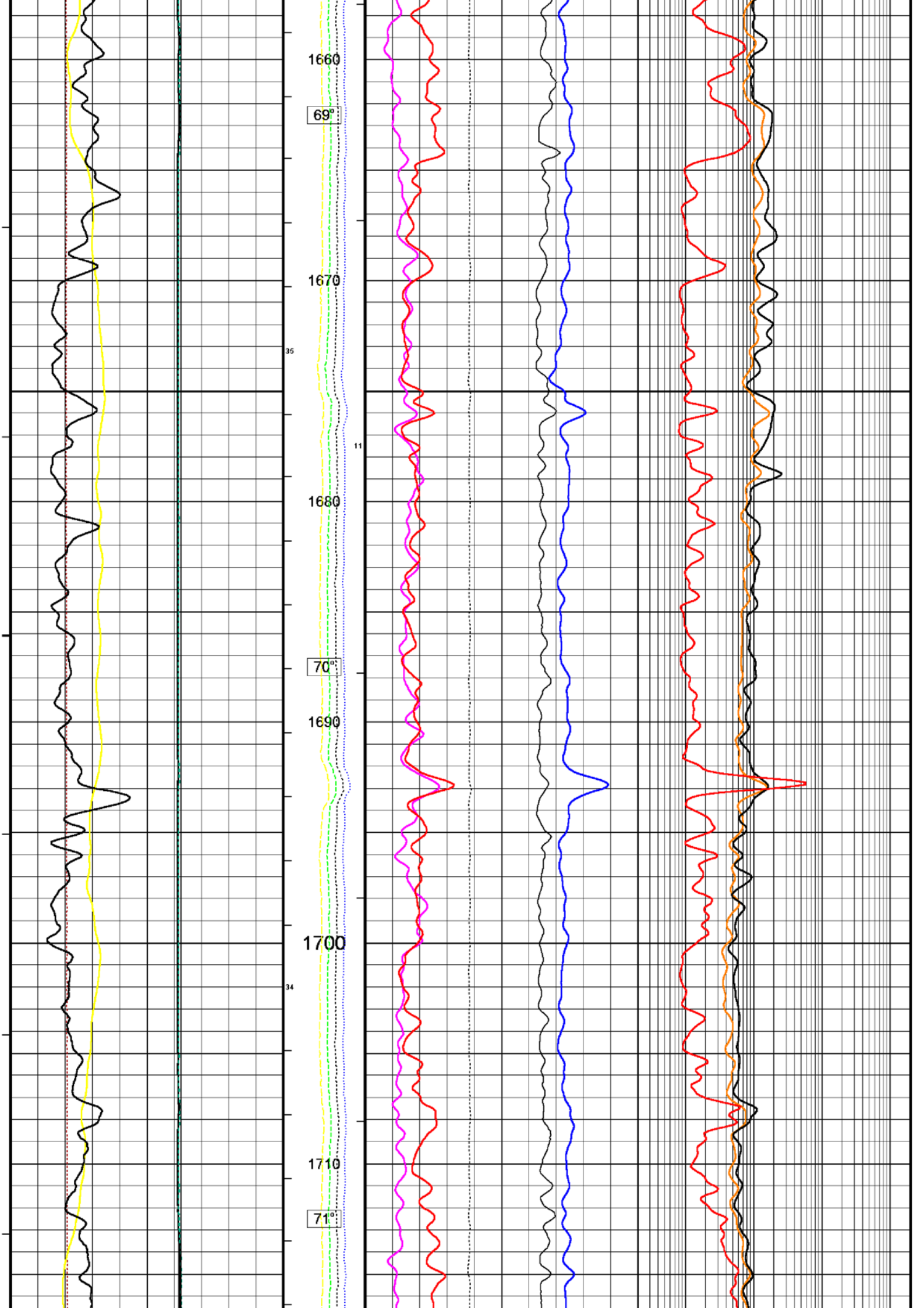


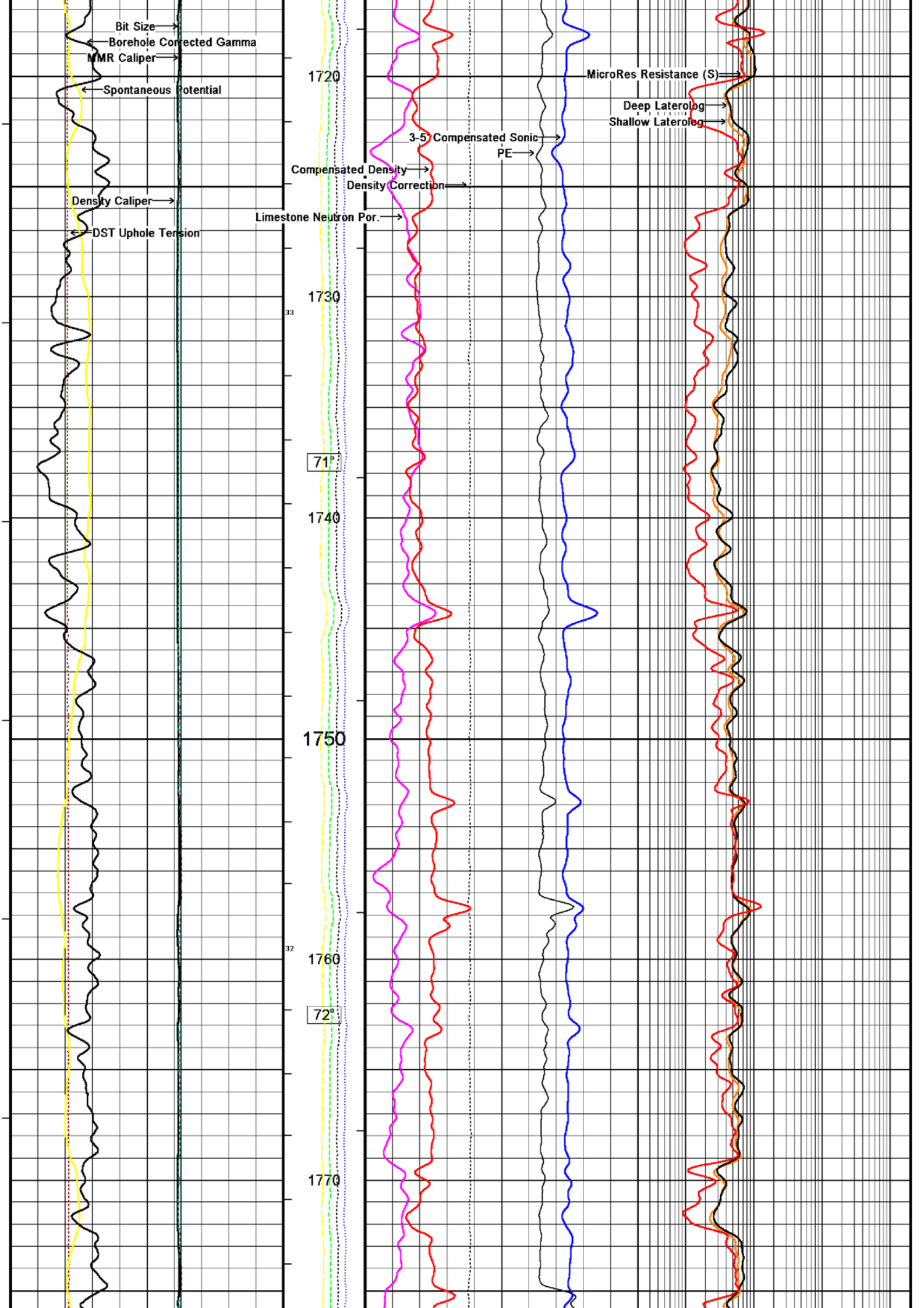


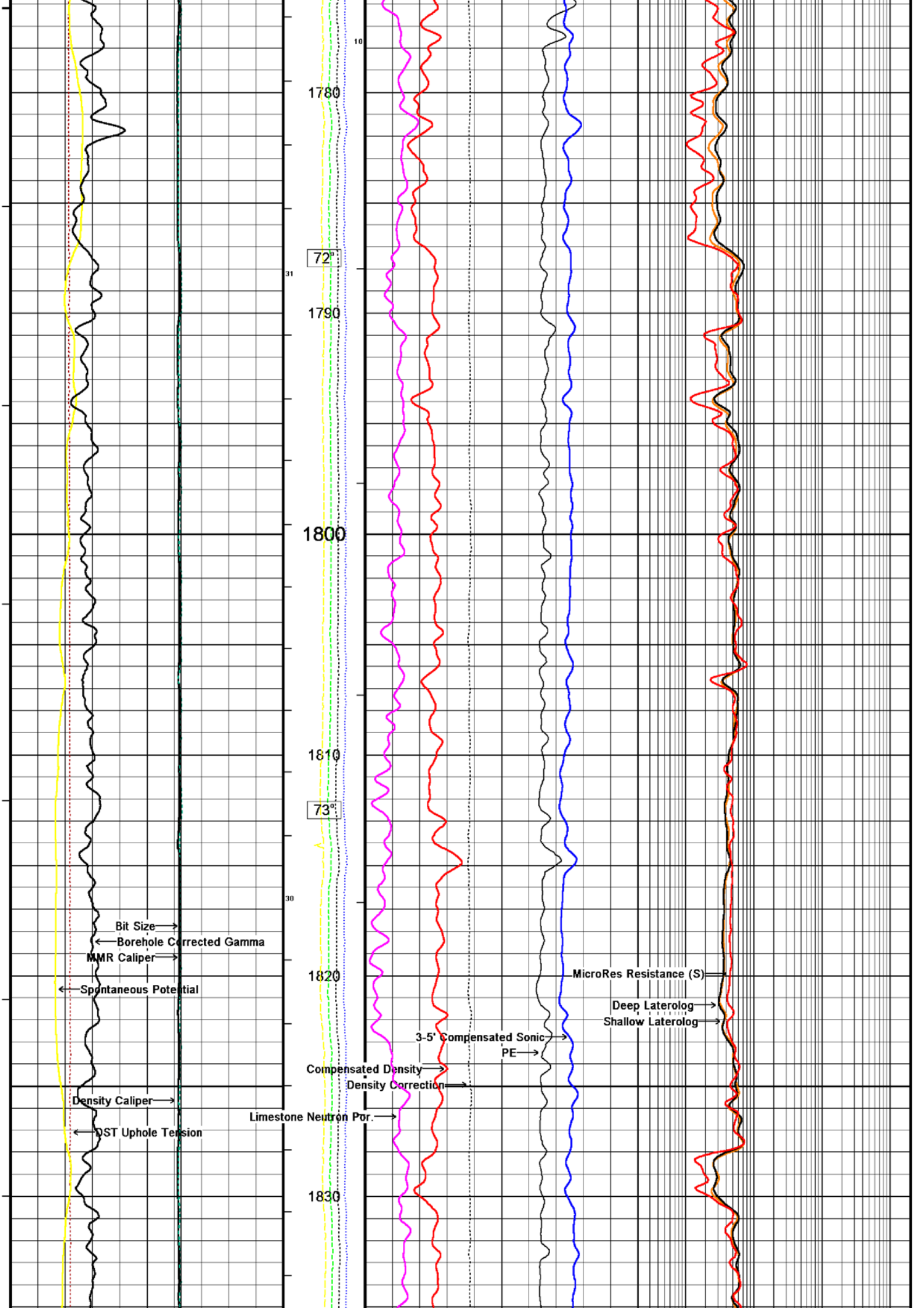


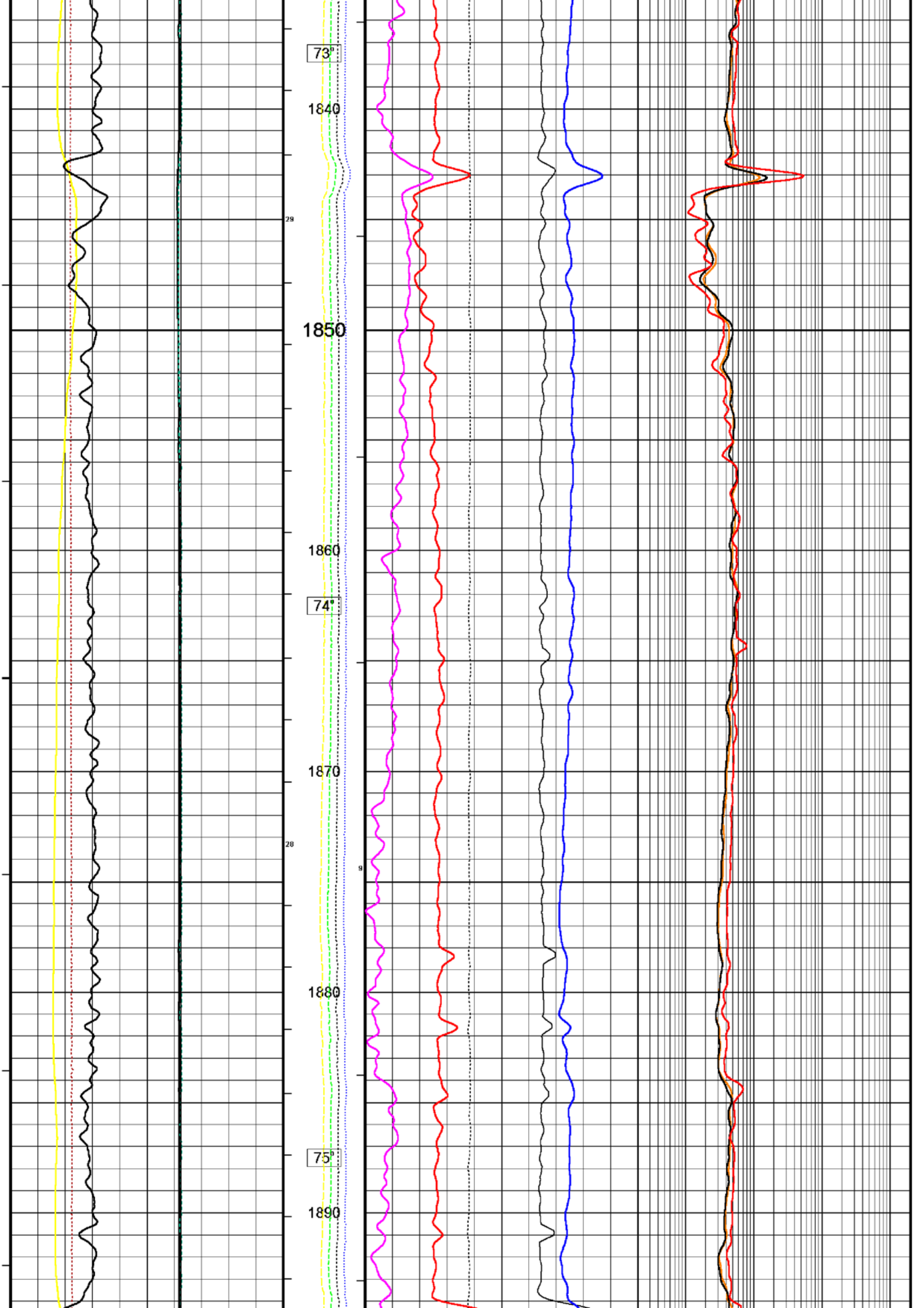


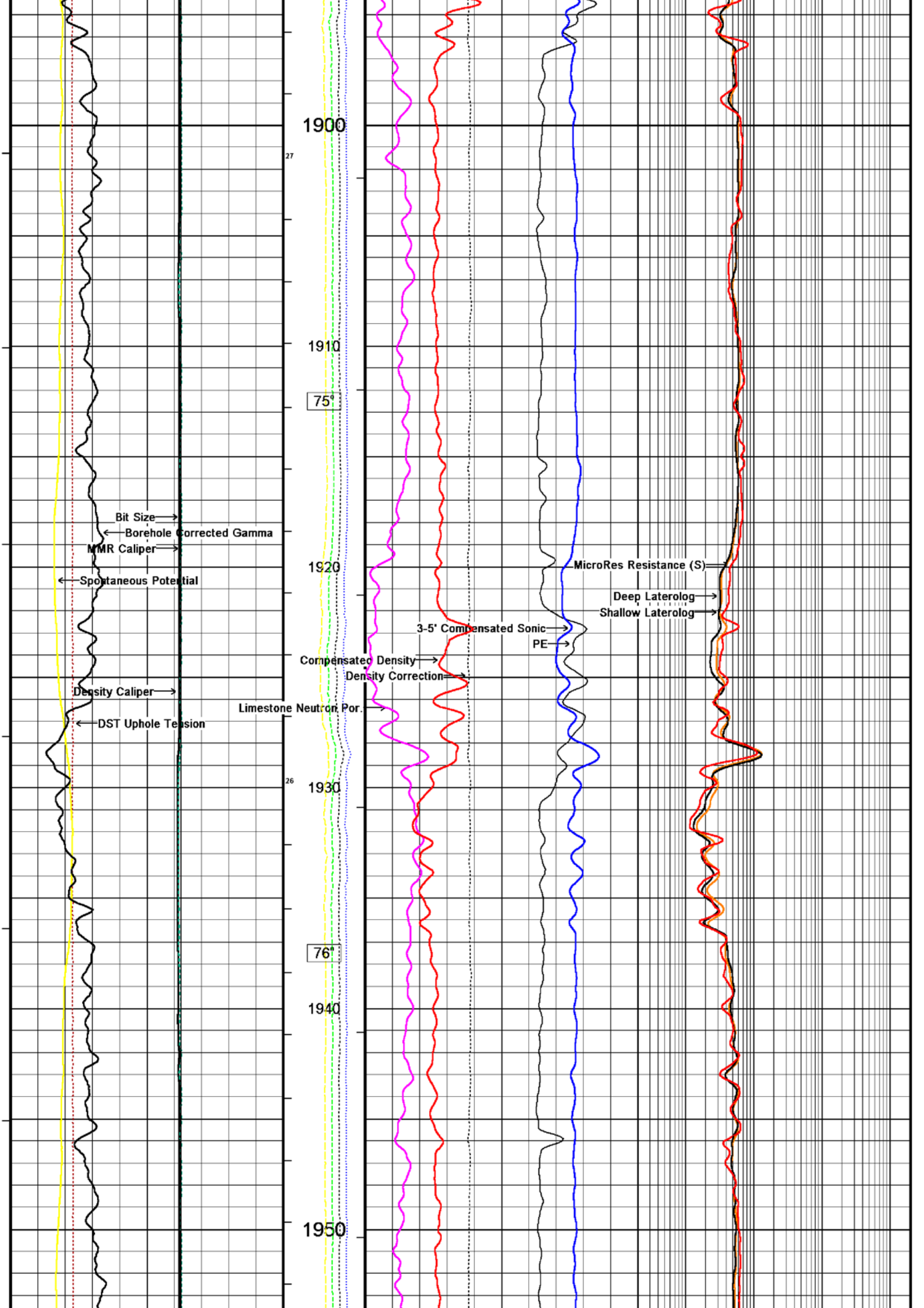


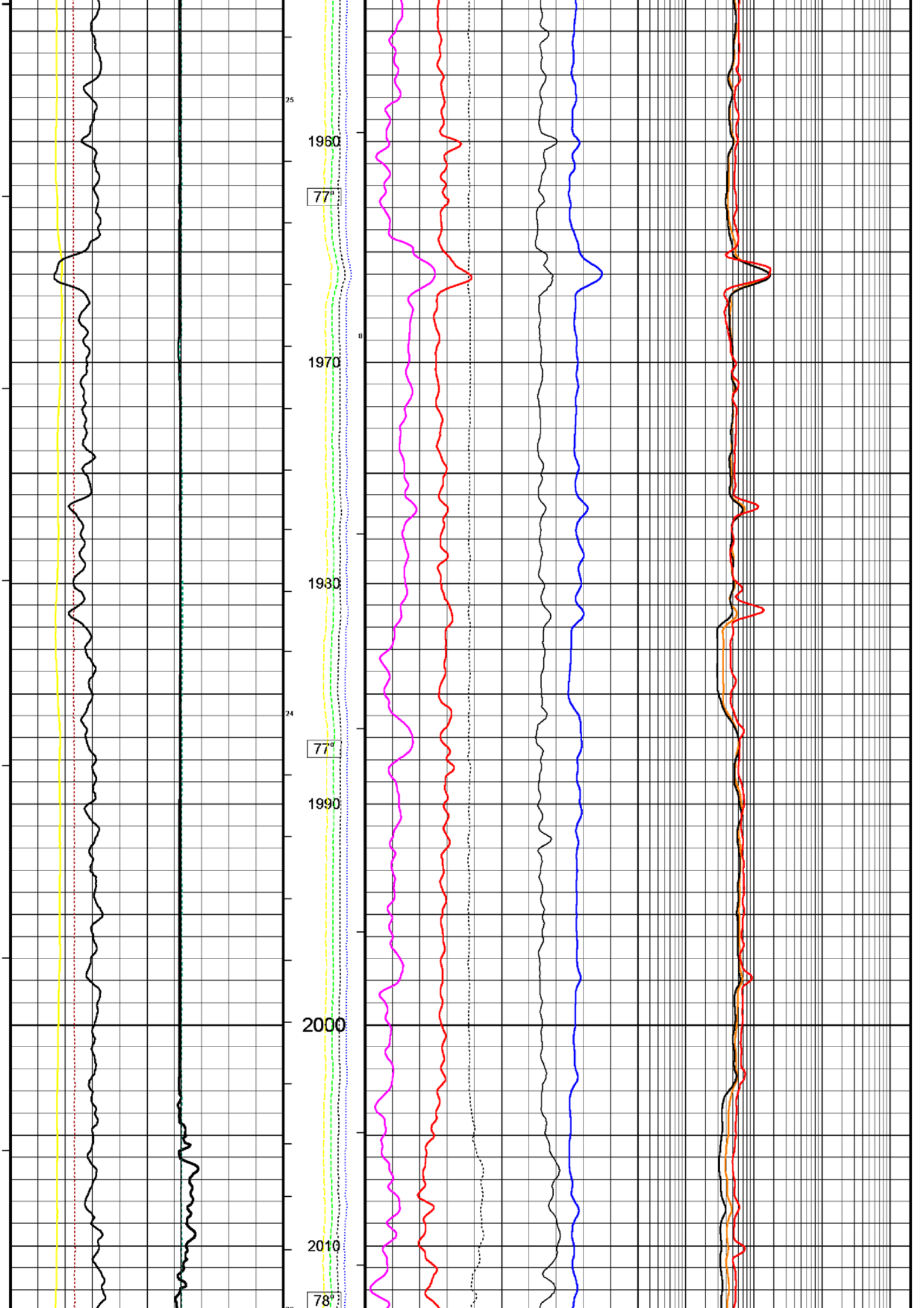


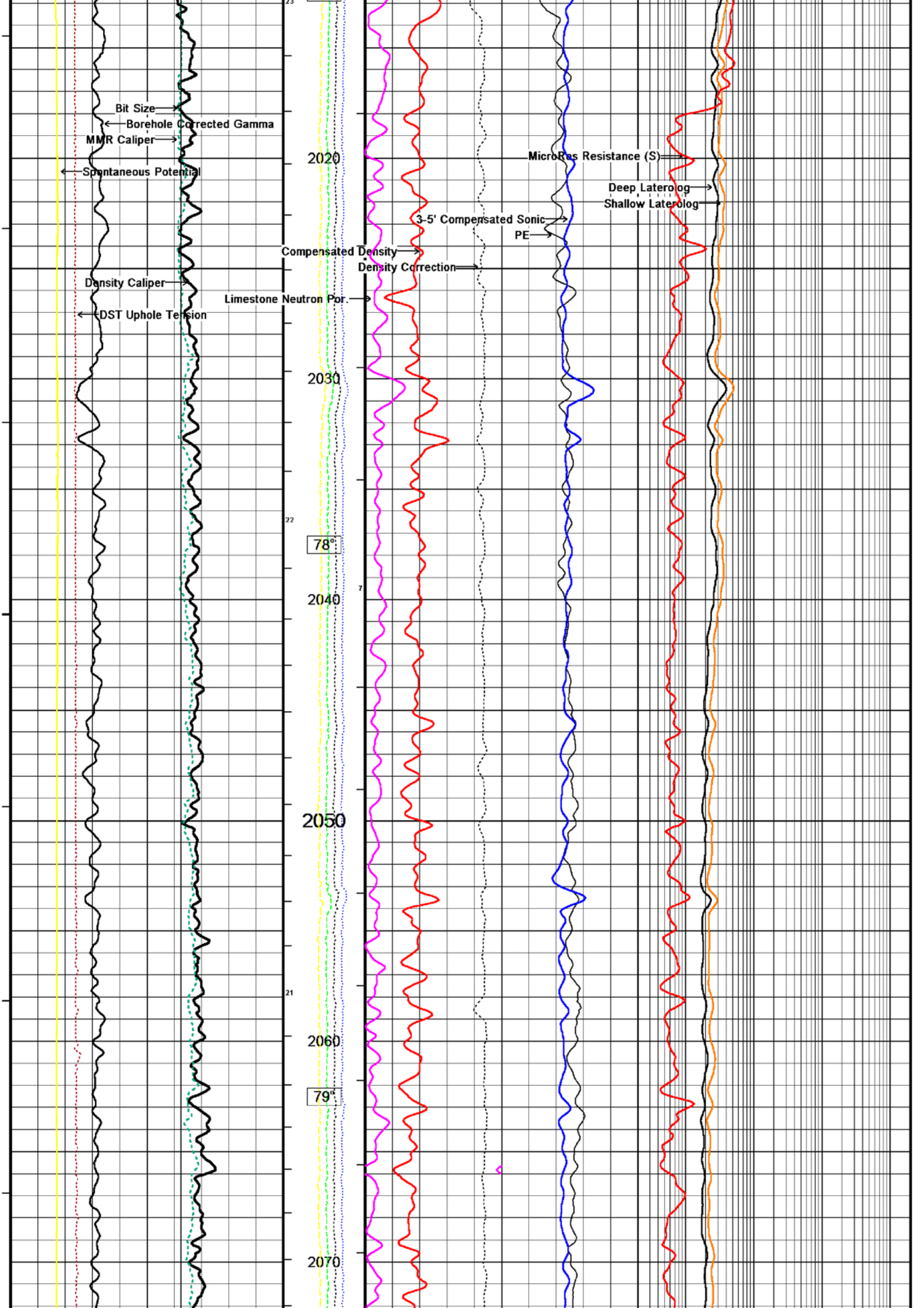


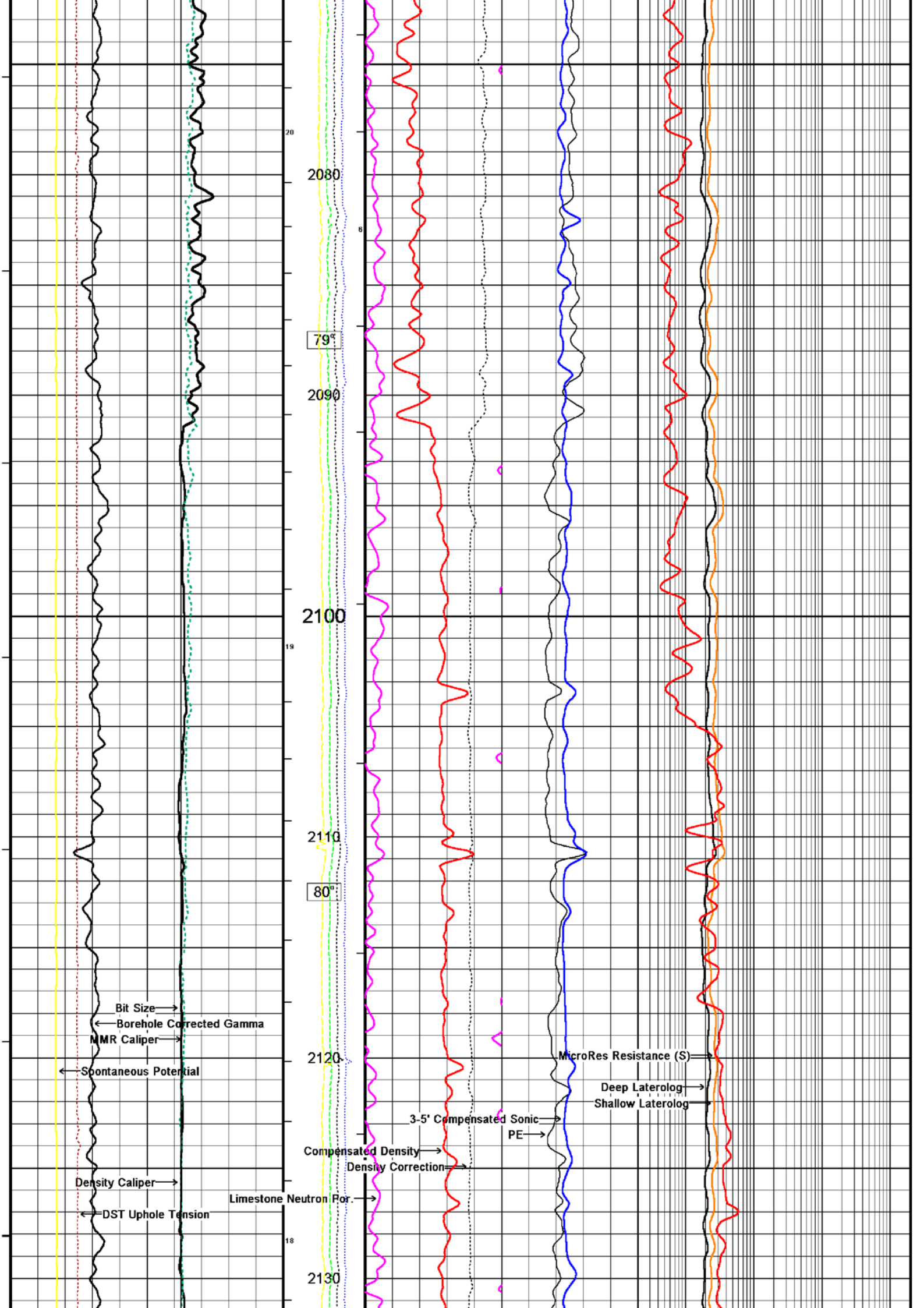


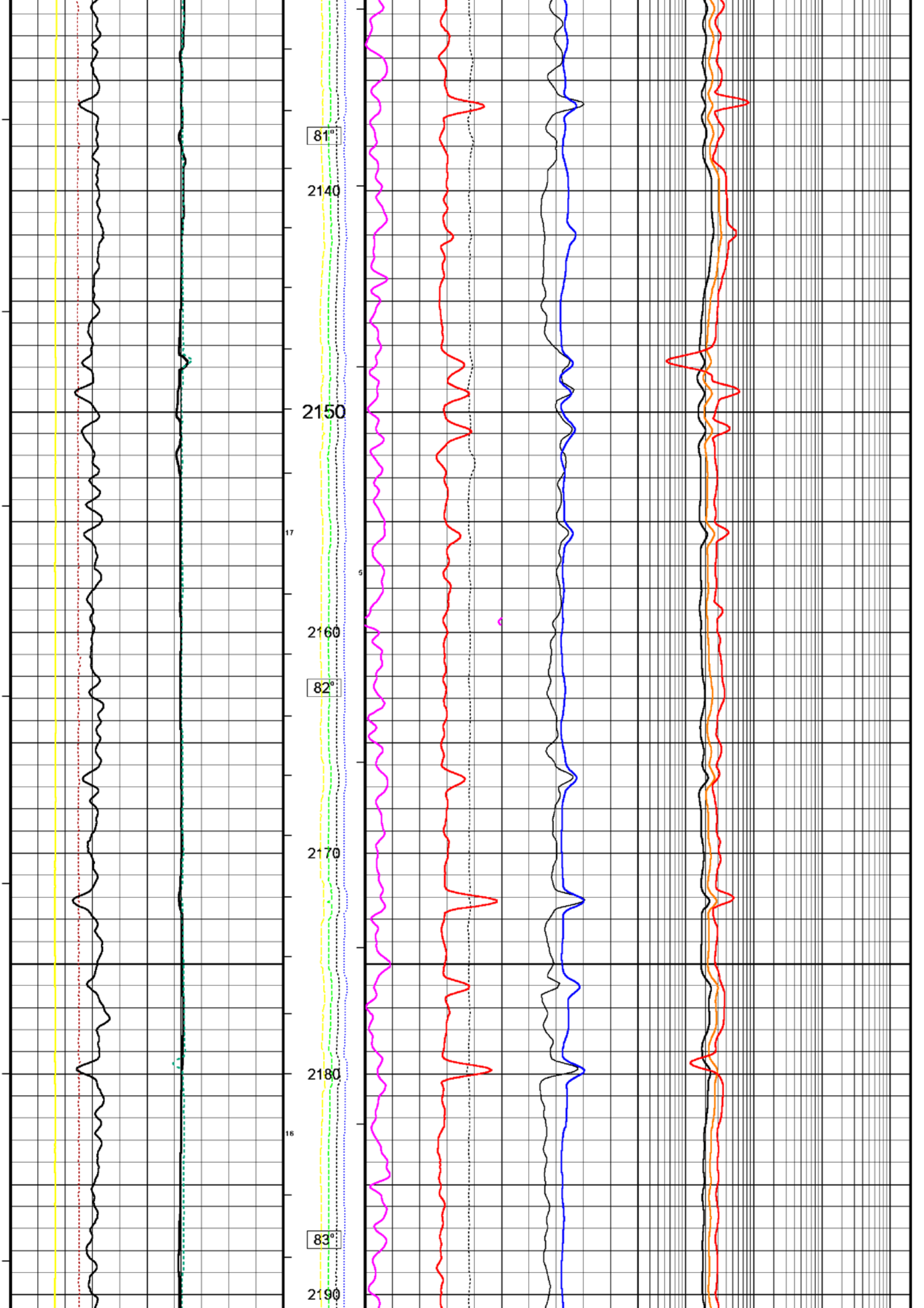


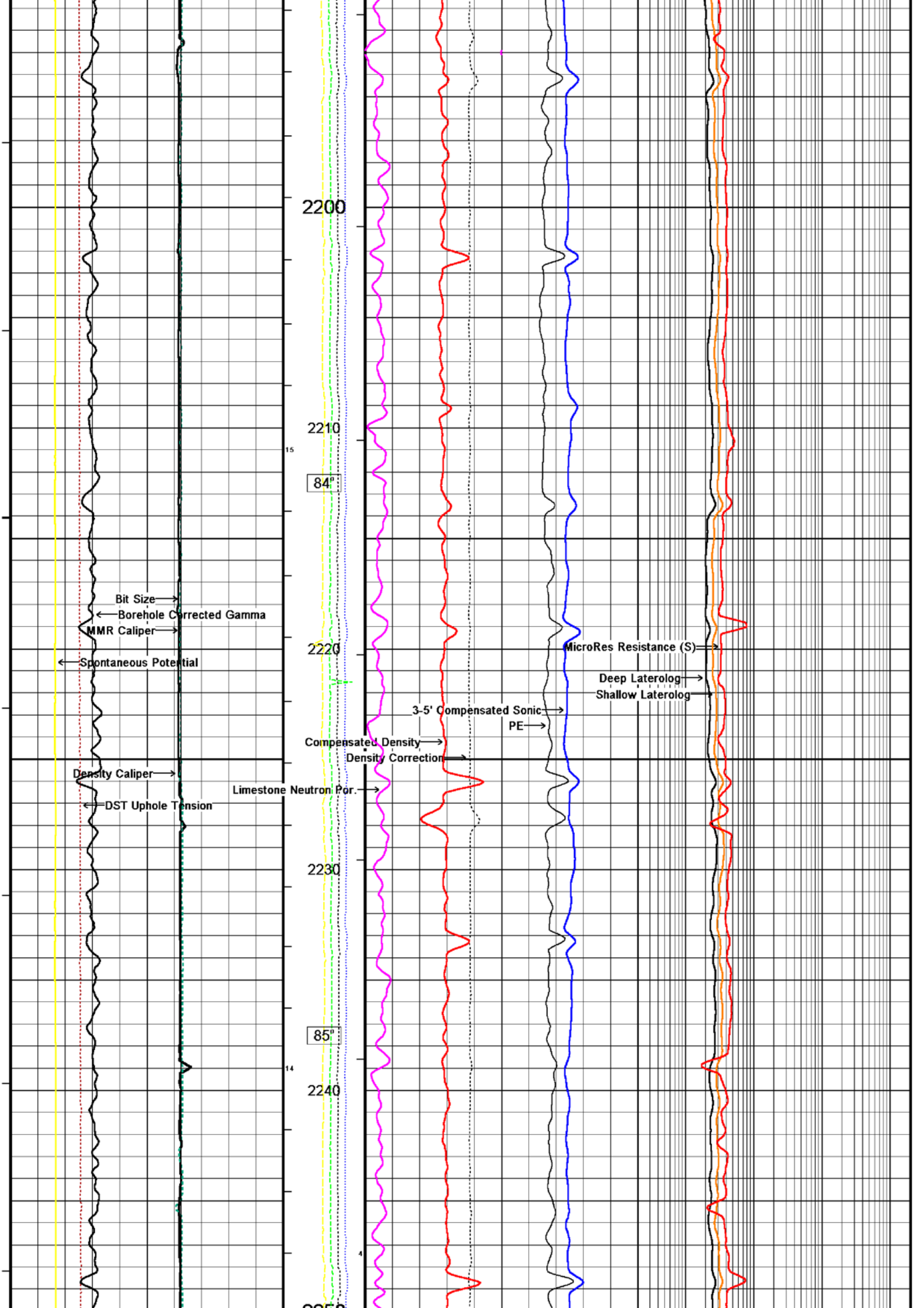


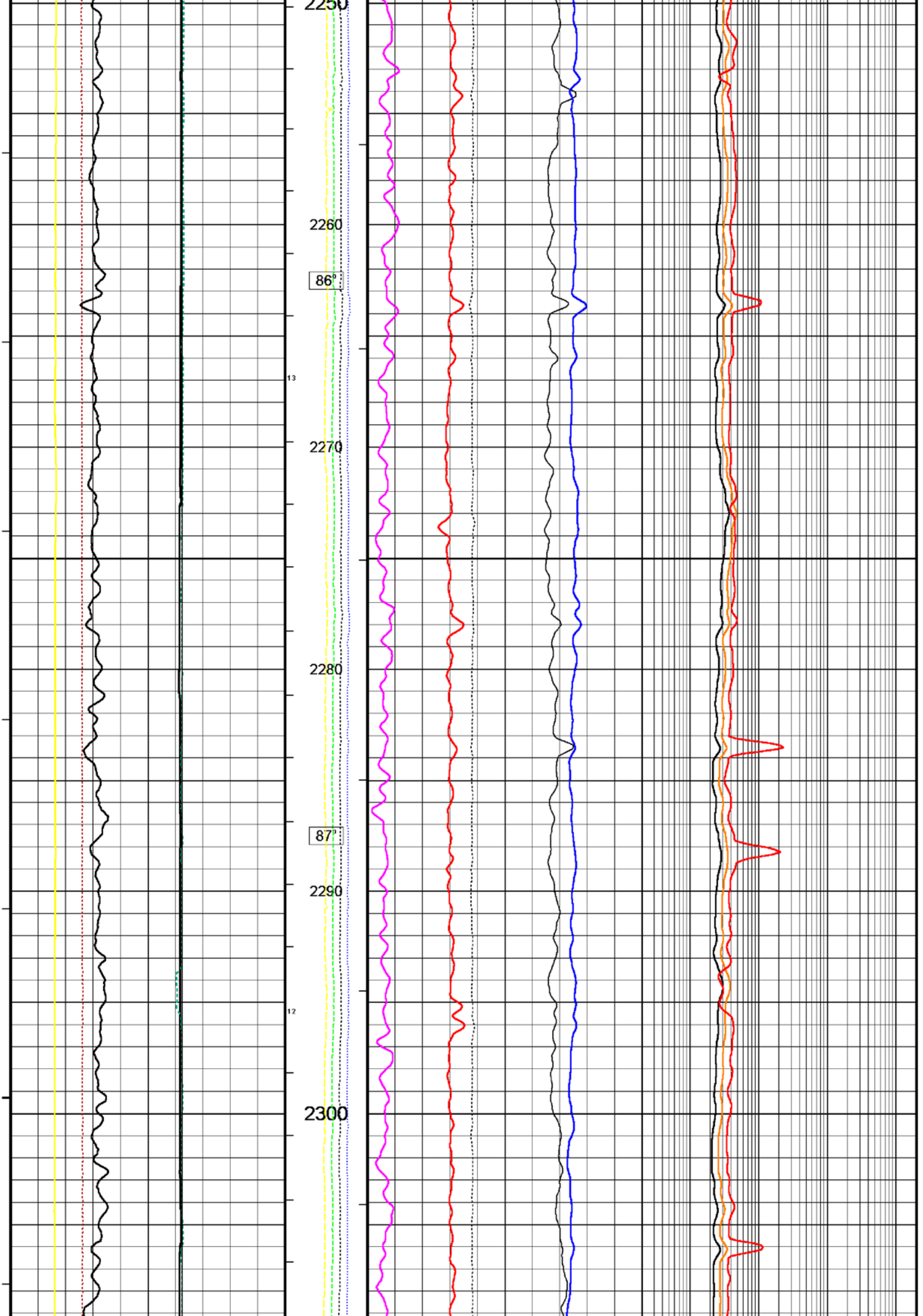


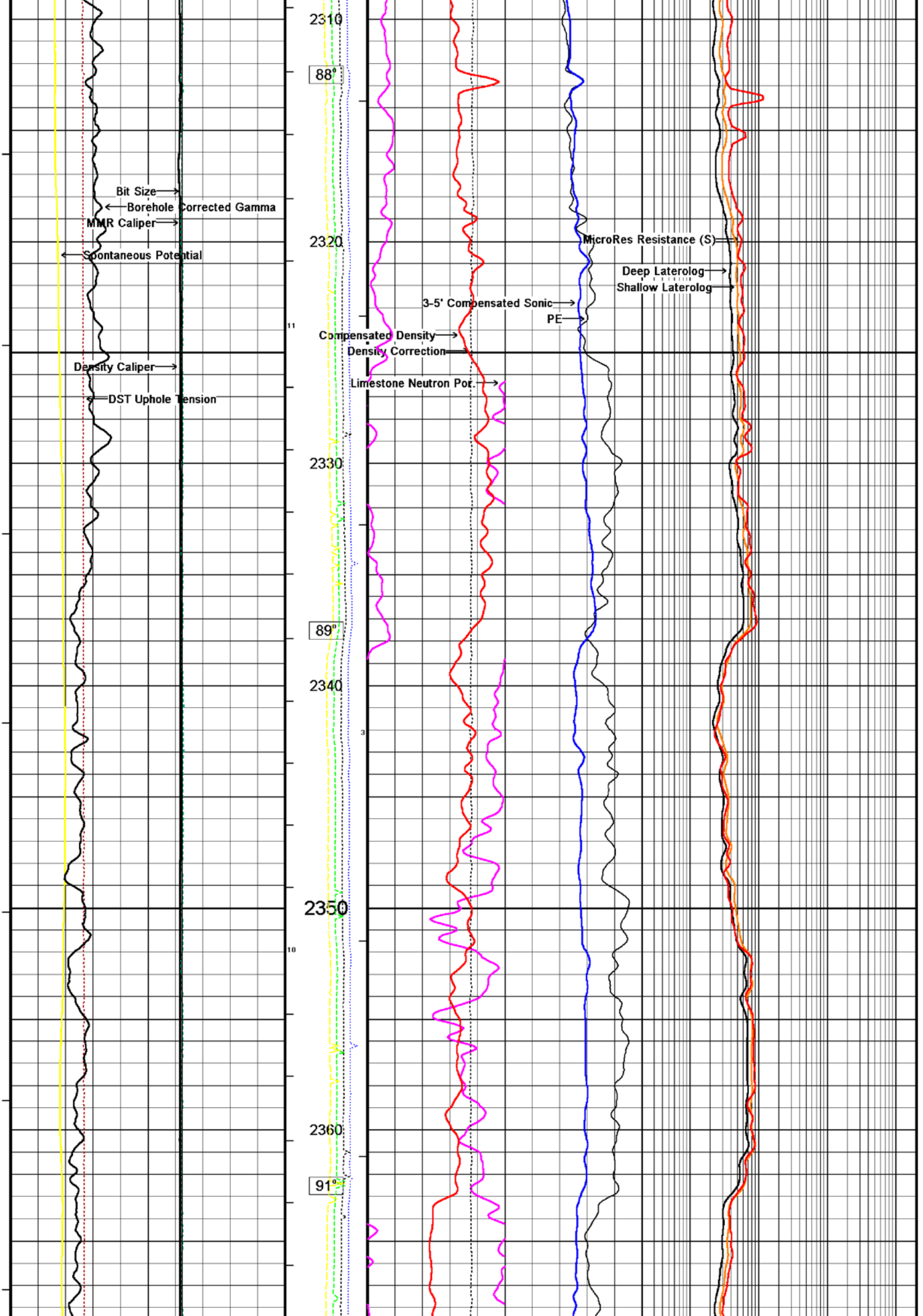


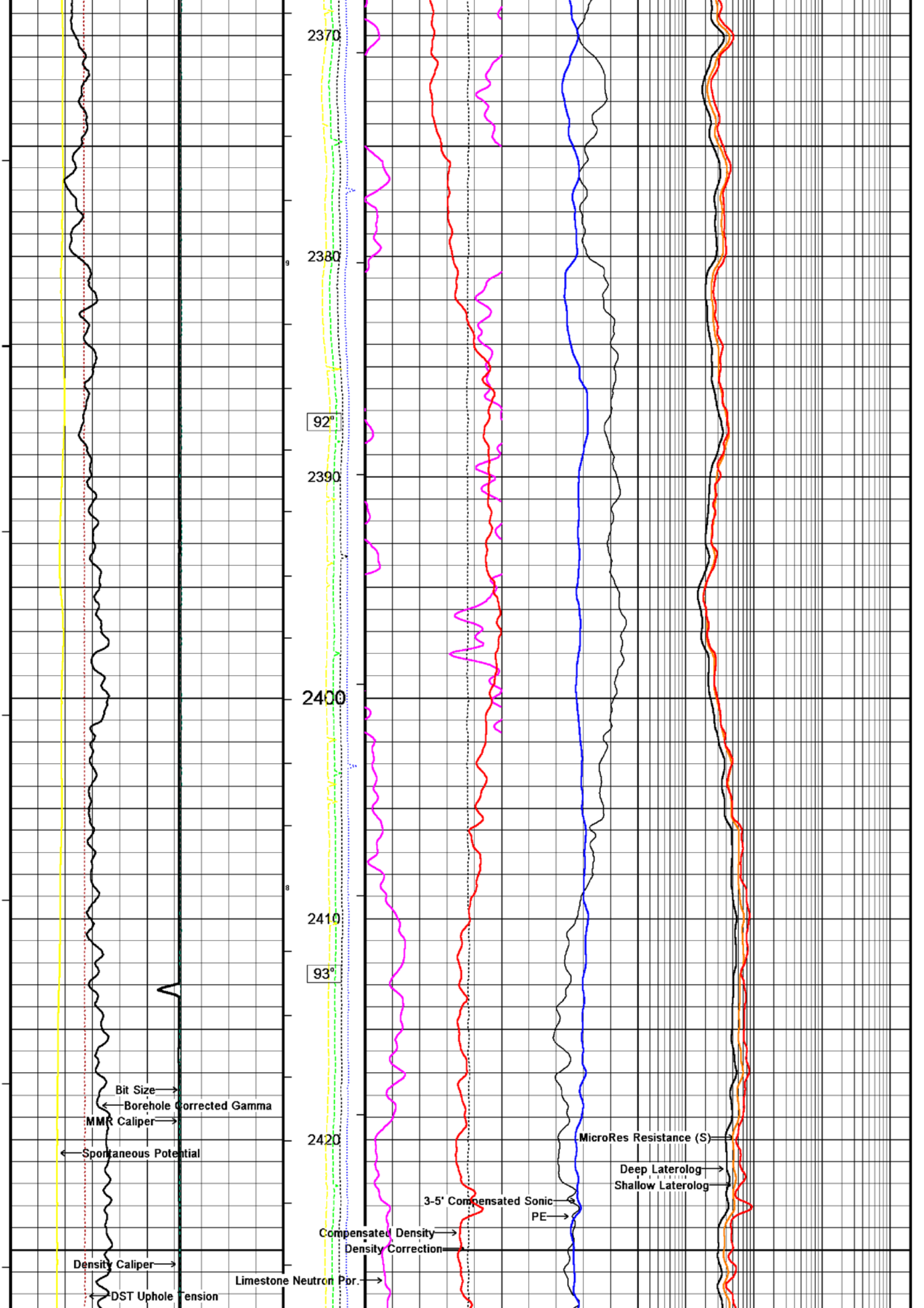


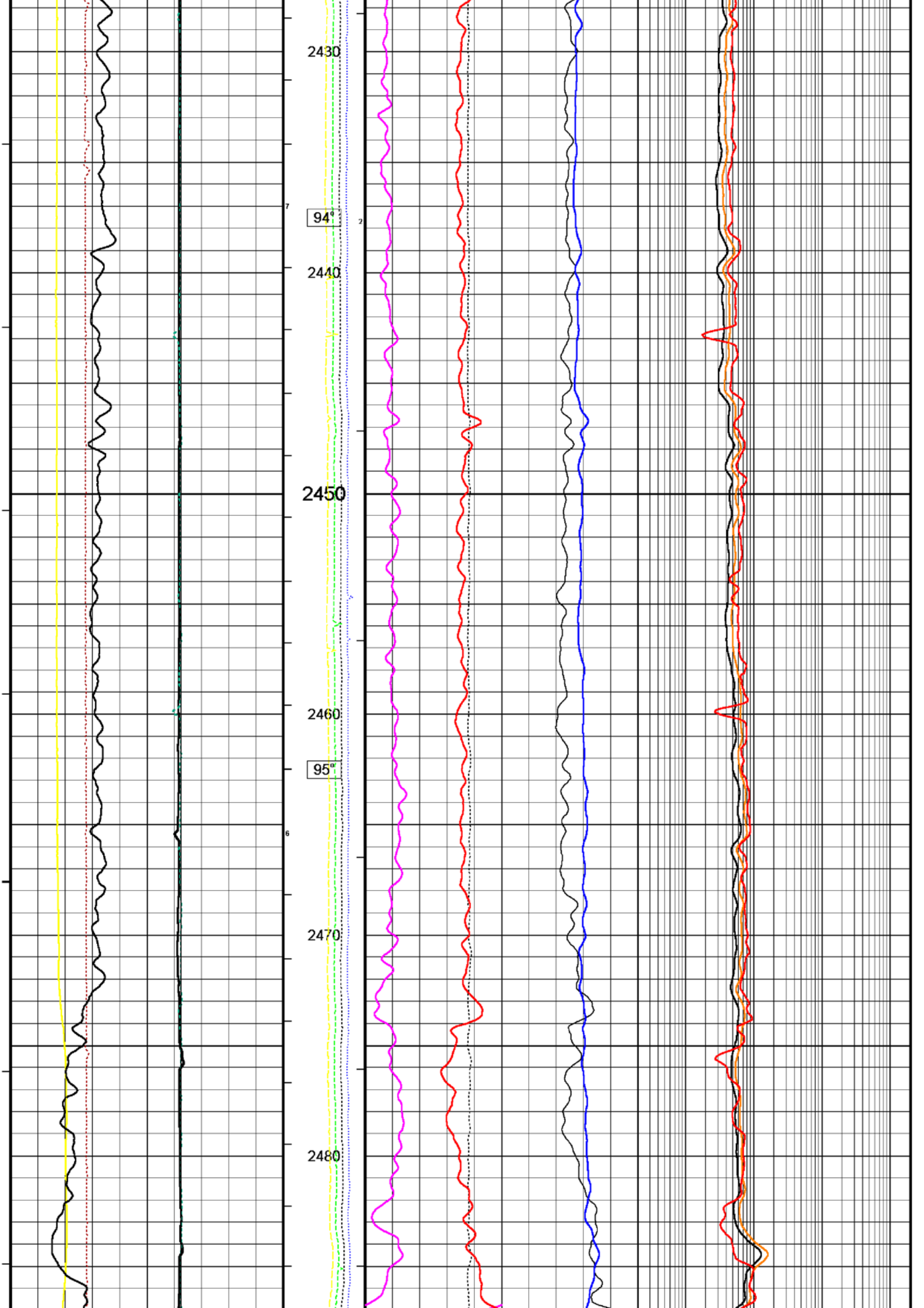


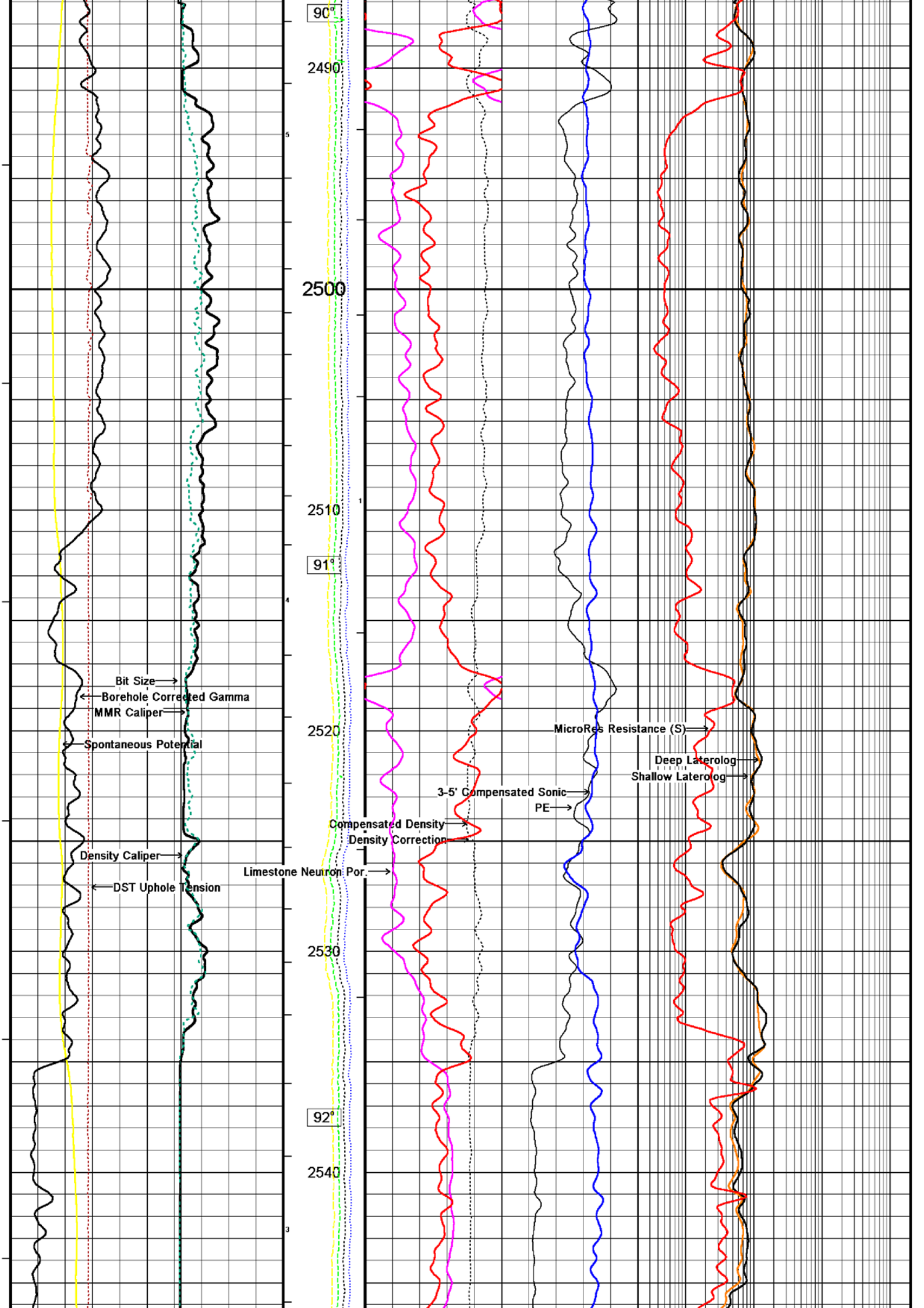


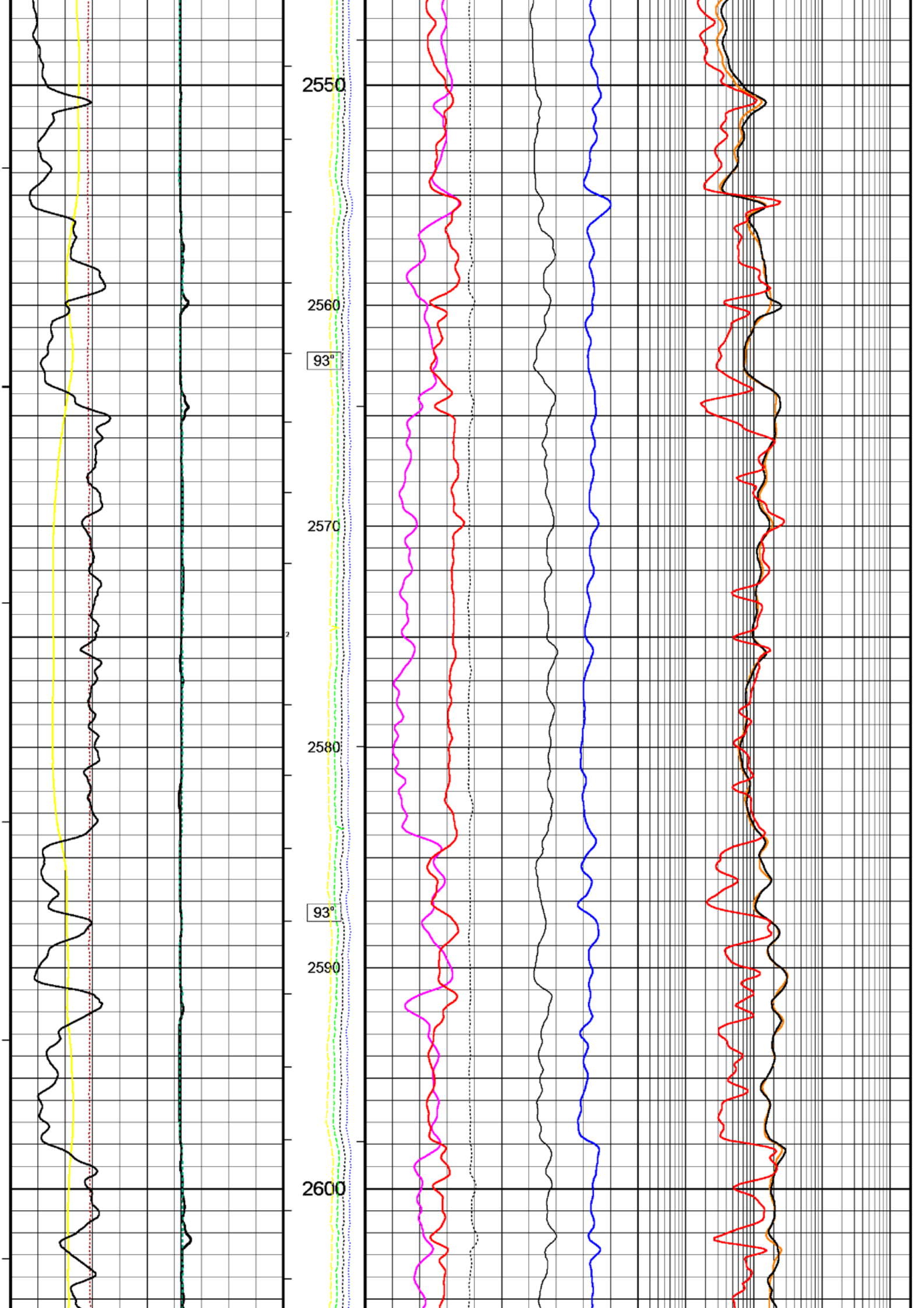


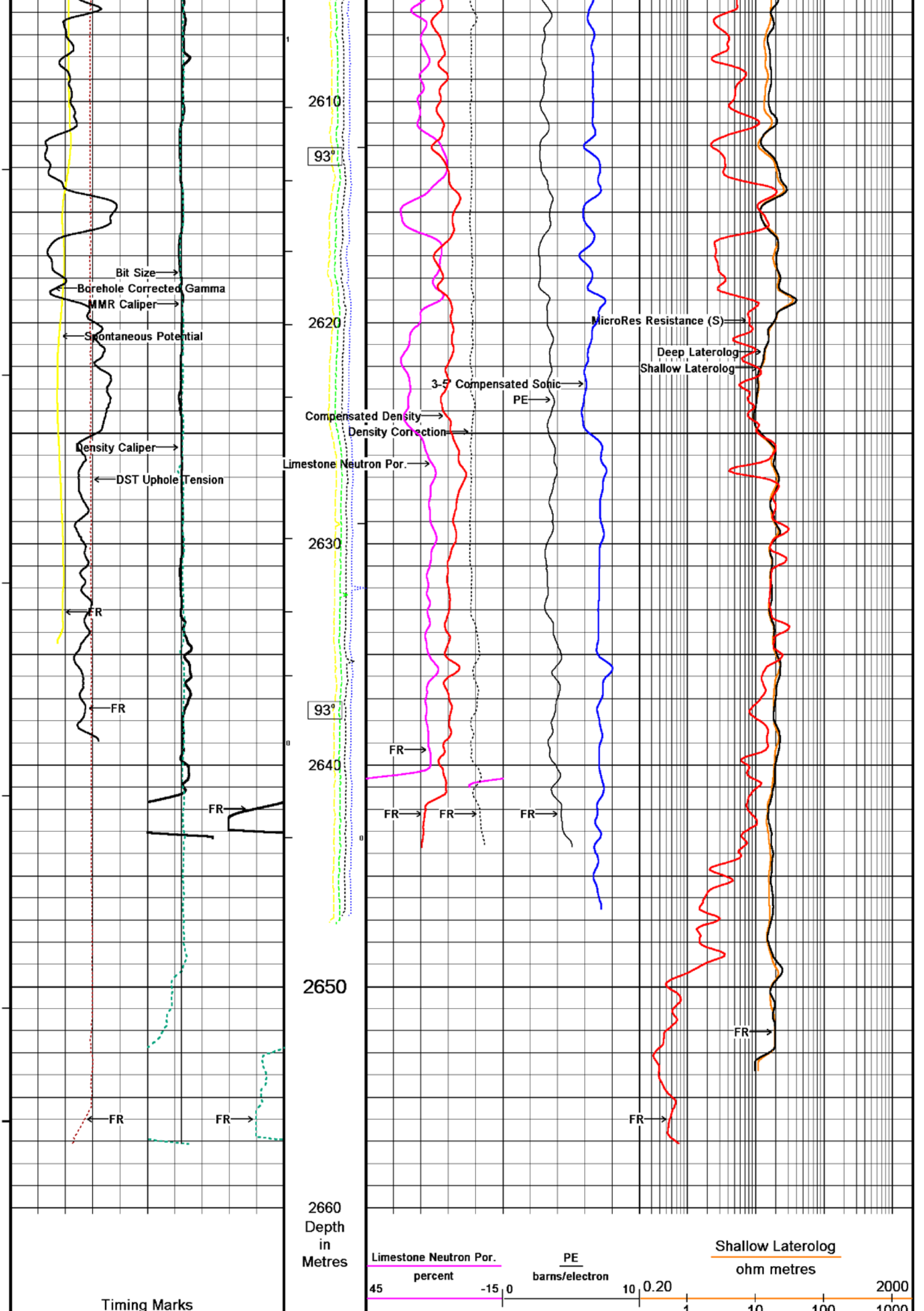


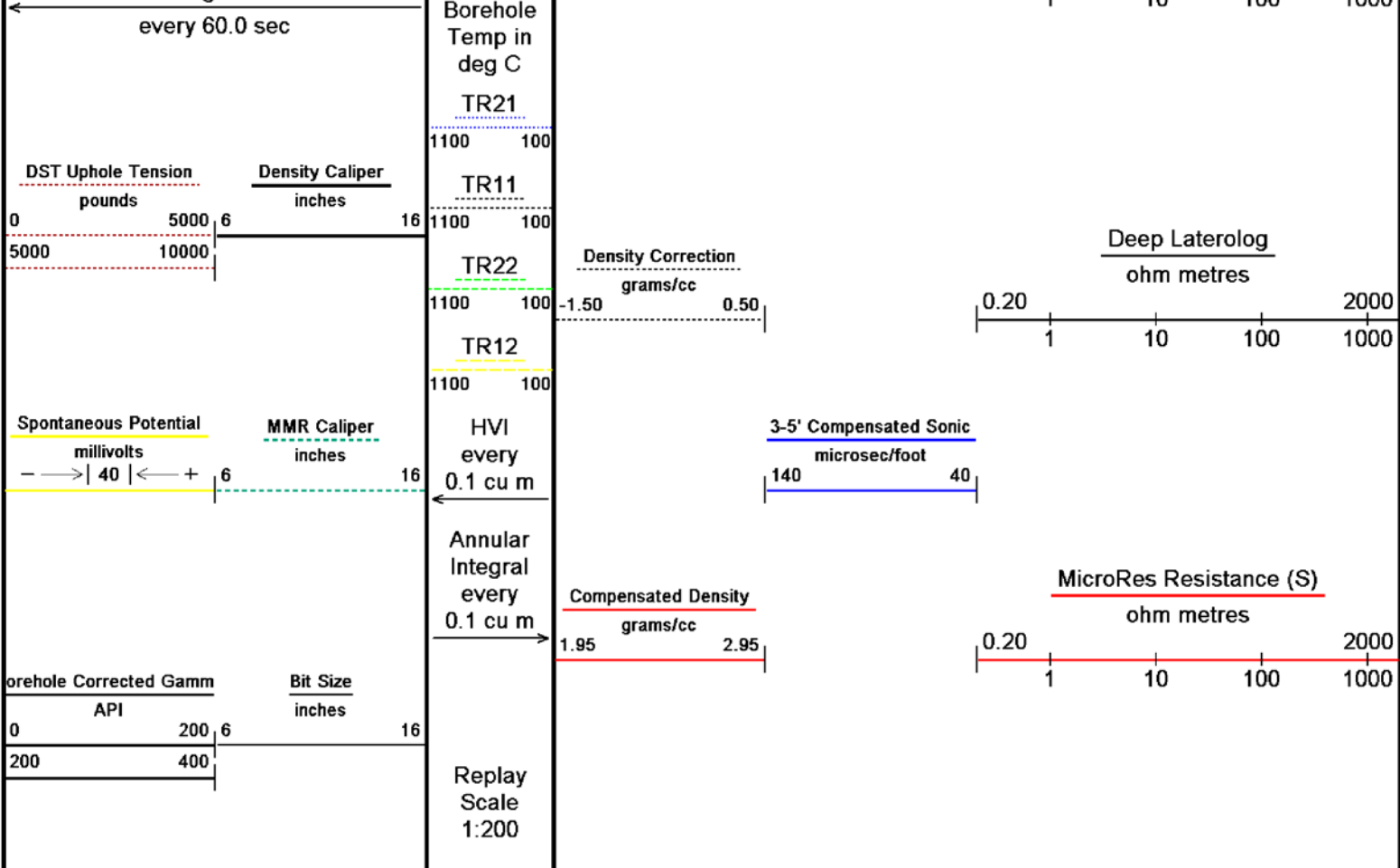












Depth Based Data - Maximum Sampling Increment 10.0cm

Plotted on 04-NOV-2005 16:01

Filename: C:\Program Files\Precision\PreView\Precision\...\SUPERCOMBO_COMBINED_MAIN_LOG.dta

Recorded on 04-OCT-2005 00:45

System Versions: Plotted with 7.01.0179

MAIN LOG 1:200

REPEAT SECTION 1:200 RUN 2

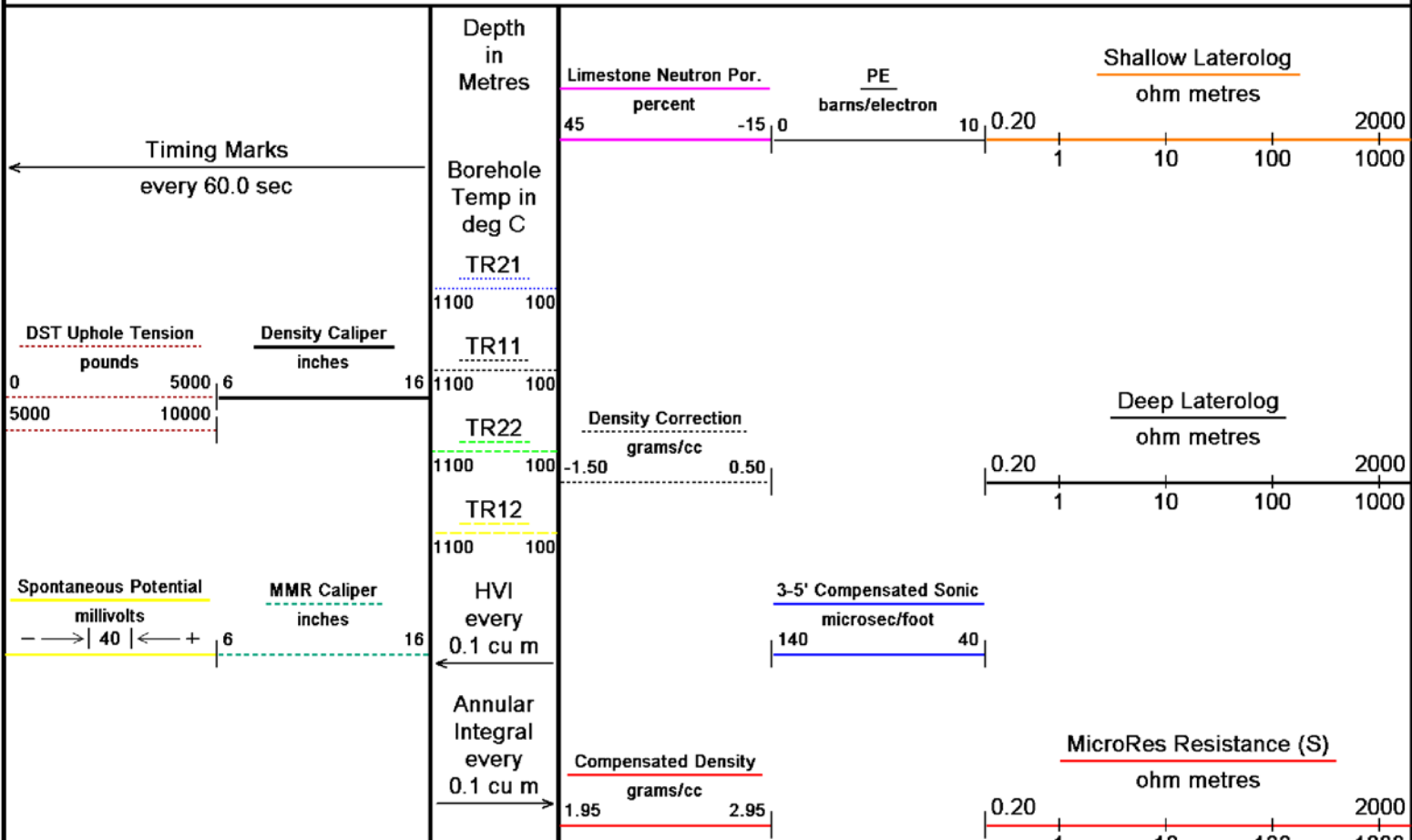
Depth Based Data - Maximum Sampling Increment 10.0cm

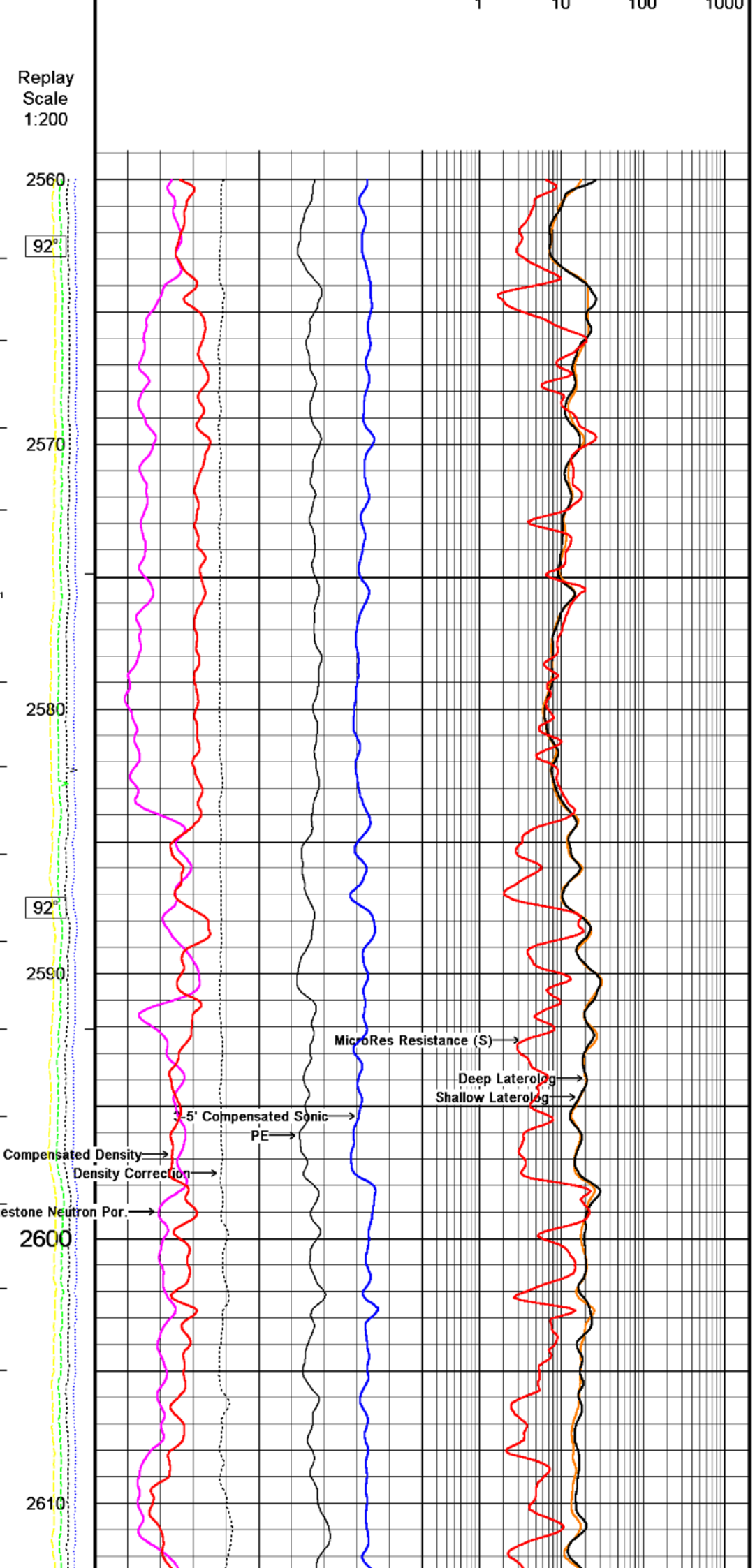
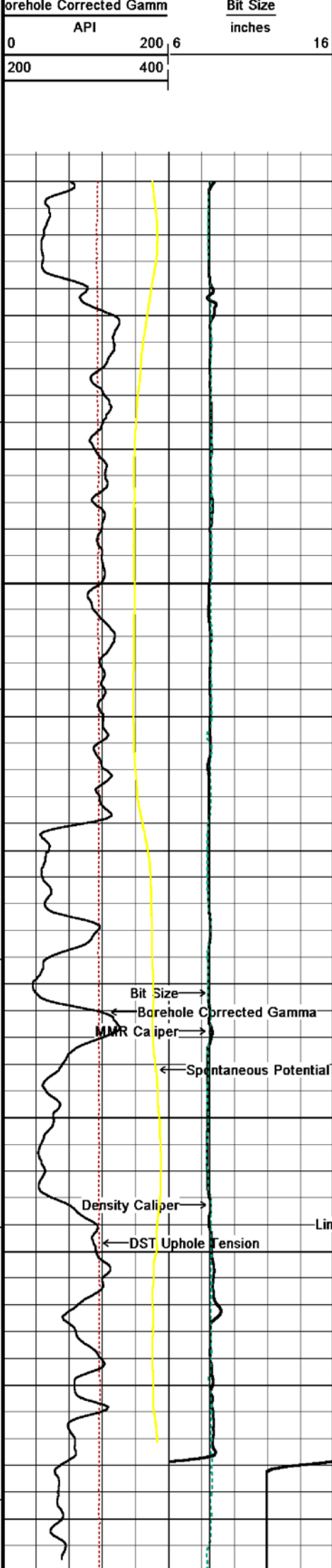
Plotted on 04-NOV-2005 16:01

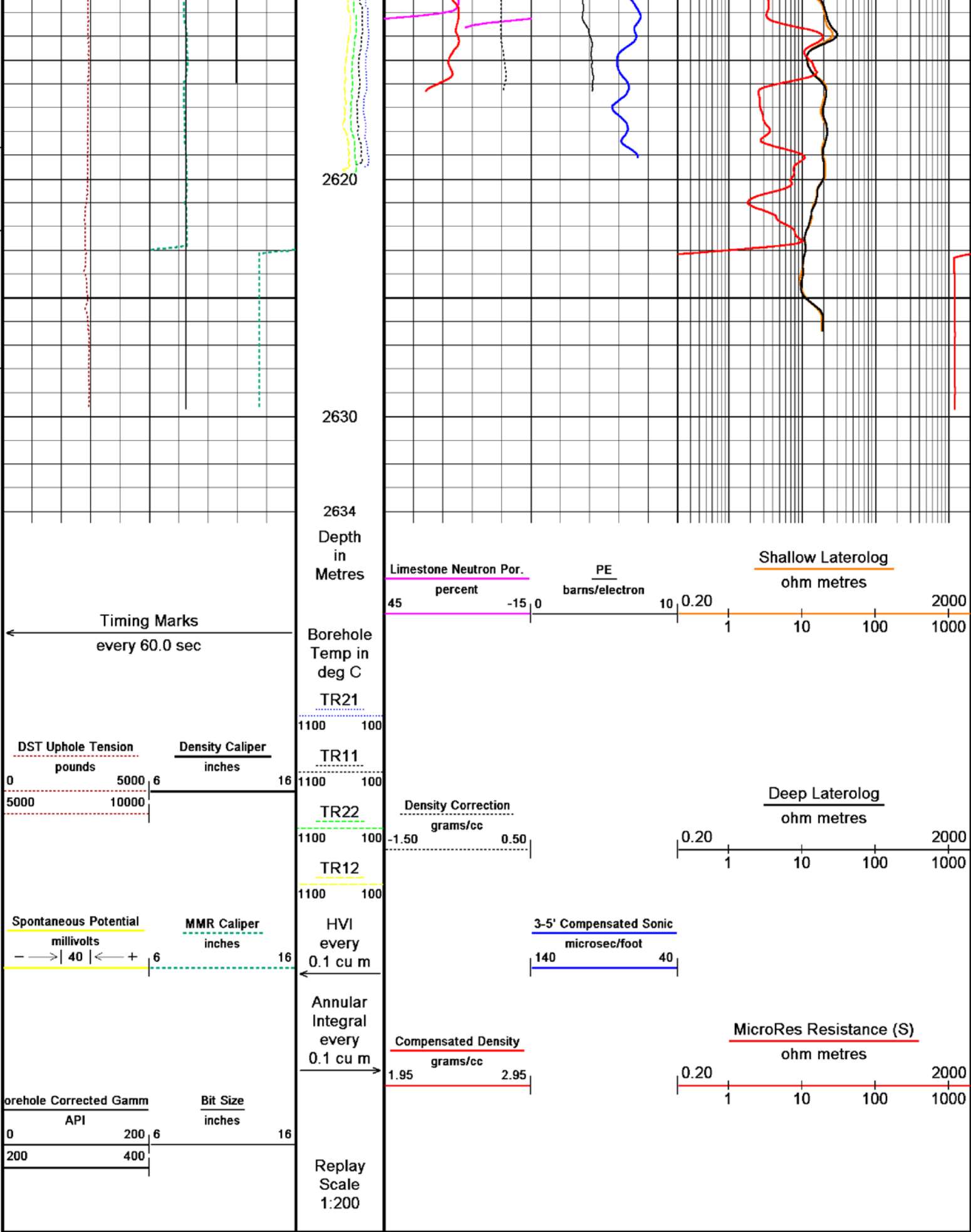
Filename: C:\Program Files\Precision\PreView\Precision PreView\SUPERCOMBO_4_002.dta

Recorded on 04-OCT-2005 00:11

System Versions: Logged 17-JUN-2004 Plotted with 7.01.0179







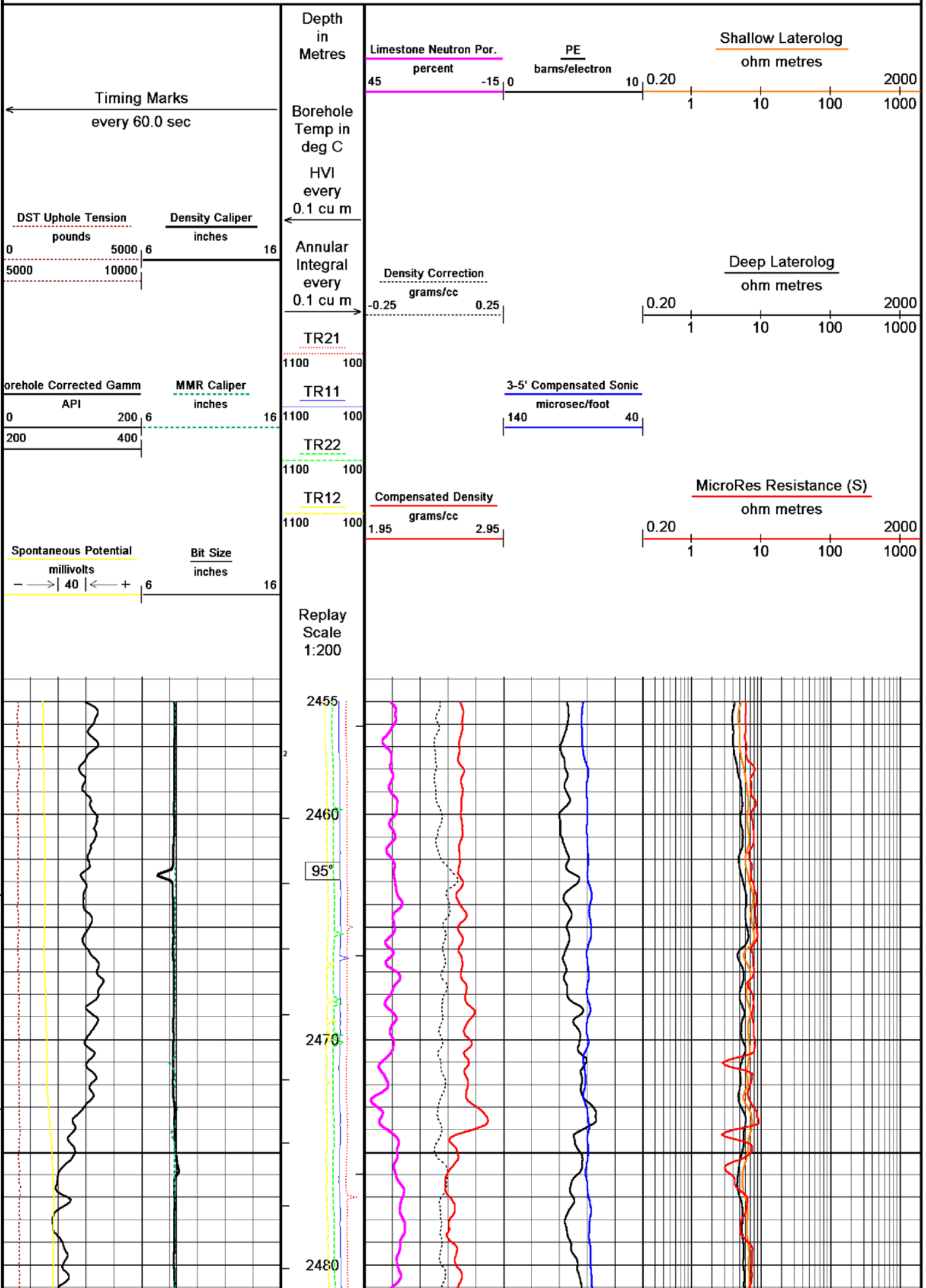
Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Program Files\Precision\PreView\Precision PreView\SUPERCOMBO_4_002.dta
System Versions: Logged 17-JUN-2004 Plotted with 7.01.0179

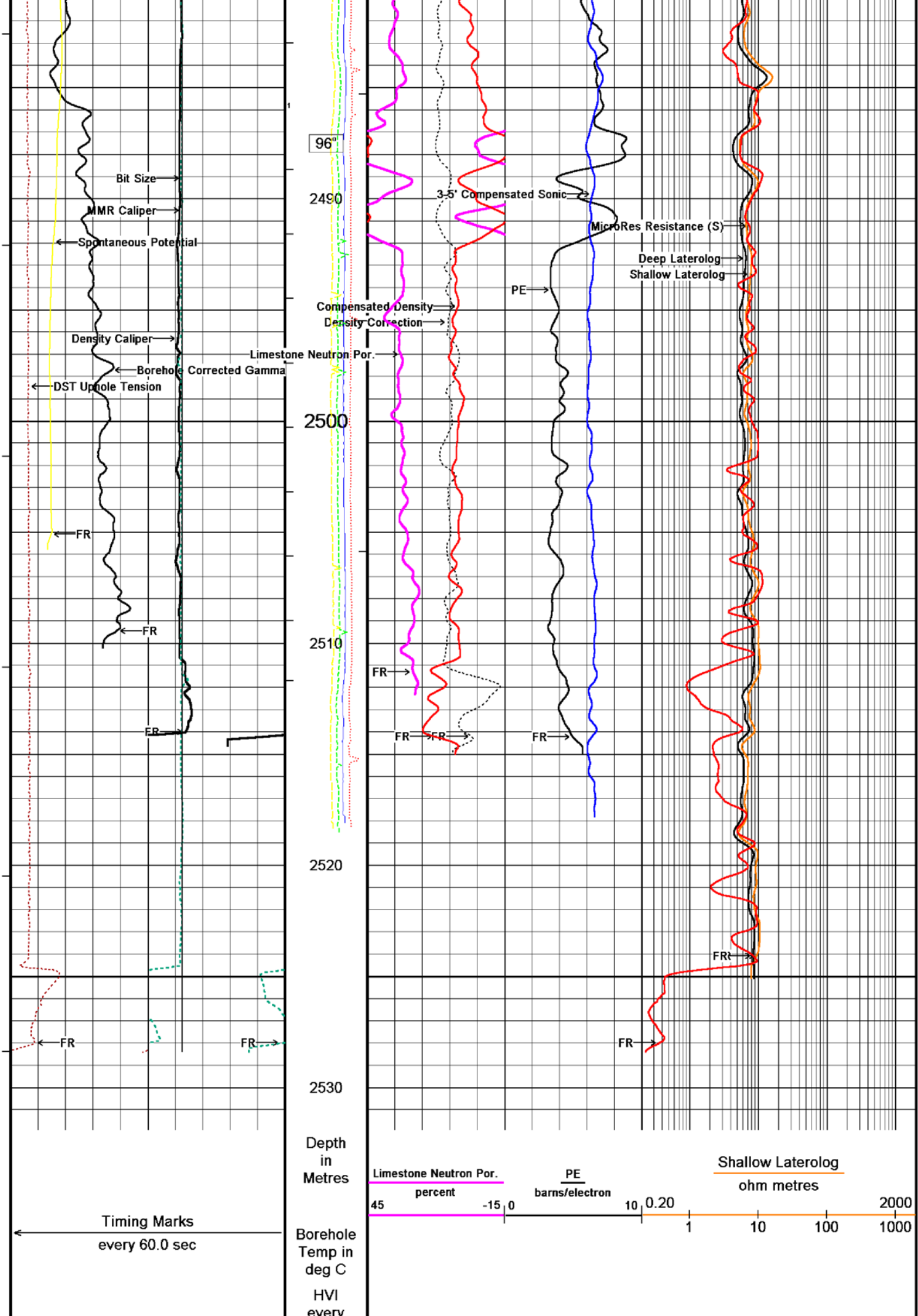
Plotted on 04-NOV-2005 16:01
Recorded on 04-OCT-2005 00:11

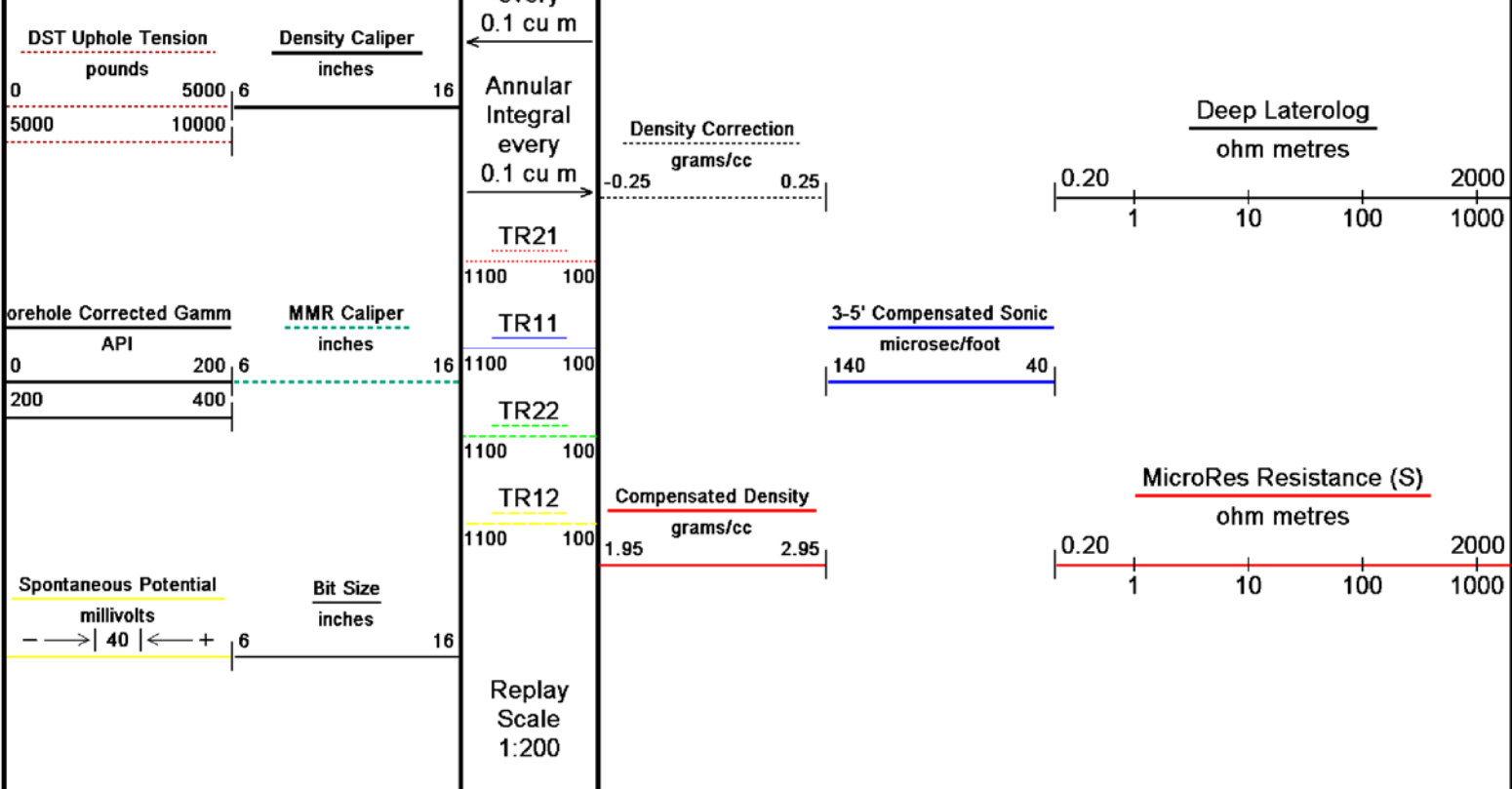
↑ REPEAT SECTION 1:200 RUN 2 ↑

↓ REPEAT SECTION 1:200 RUN 1 ↓

Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 04-NOV-2005 16:01

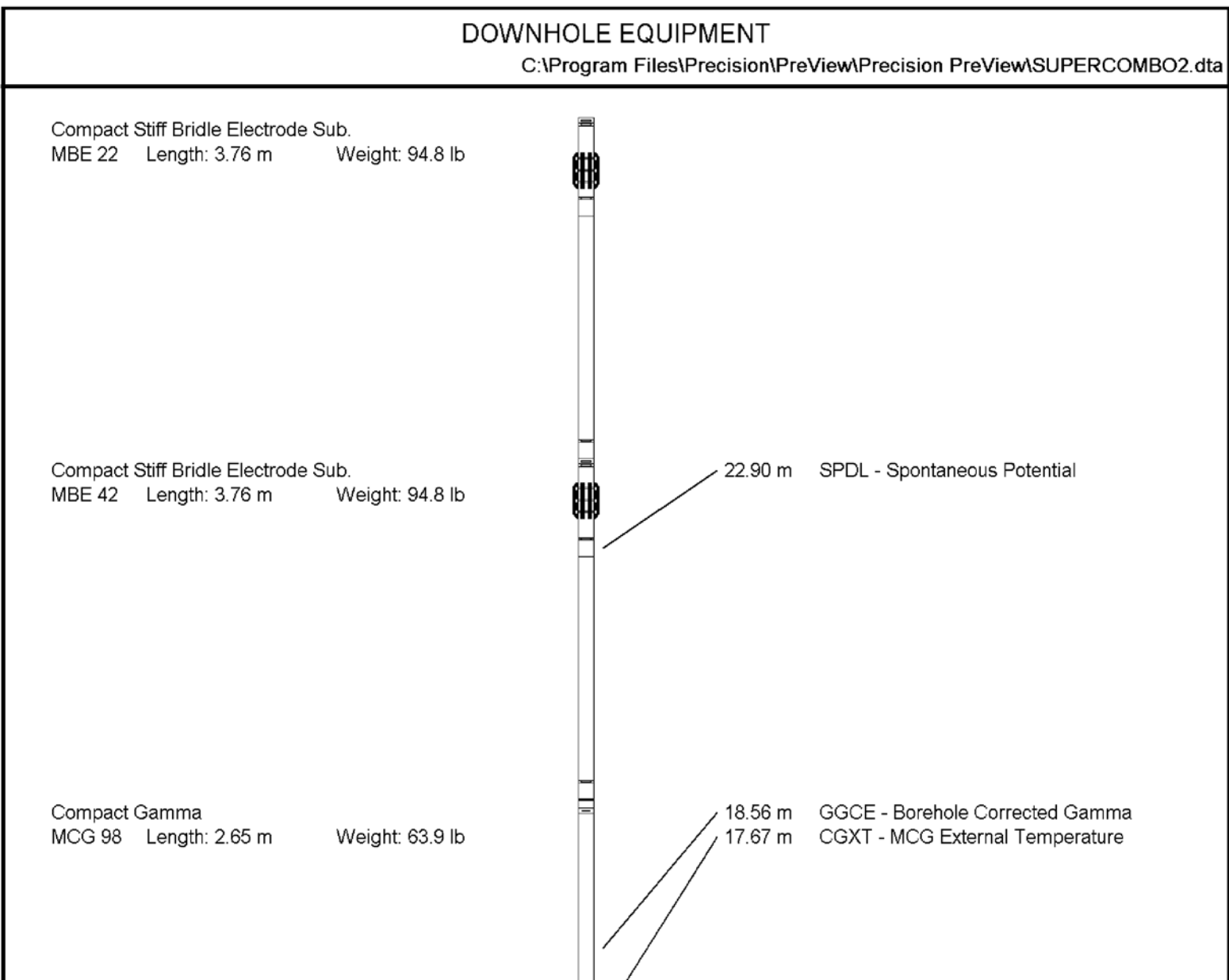






Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Program Files\Precision\PreView\Precision PreView\SUPERCOMBO2.dta
System Versions: Logged 17-JUN-2004 Plotted with 7.01.0179
Plotted on 04-NOV-2005 16:02
Recorded on 01-OCT-2005 18:14

↑ REPEAT SECTION 1:200 RUN 1 ↑



Compact Neutron
MDN 43 Length: 1.53 m Weight: 50.7 lb

Compact Density/Caliper
MPD 66 Length: 2.92 m Weight: 90.4 lb

Compact Knuckle Joint
SKJ 3 Length: 0.66 m Weight: 24.3 lb

Compact Sonic
MSS 49 Length: 3.82 m Weight: 72.8 lb

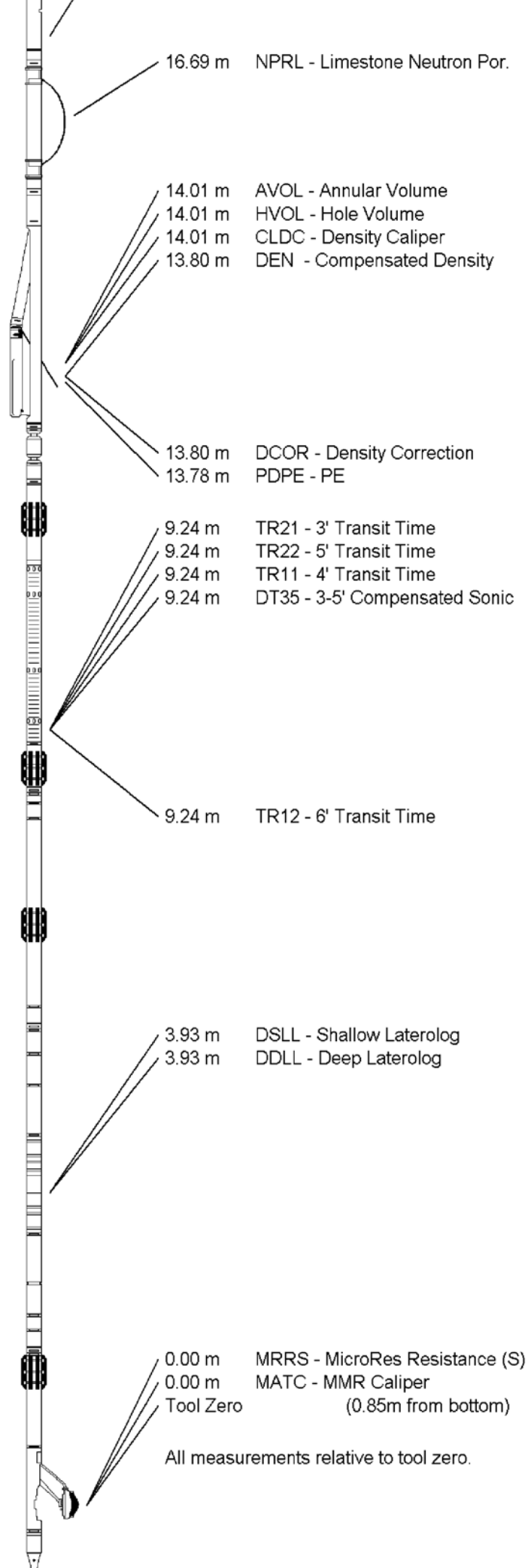
Compact Upper Guard Sub.
MUG 20 Length: 2.74 m Weight: 68.3 lb

Compact Laterolog Electrode Sub.
MLE 16 Length: 3.76 m Weight: 92.6 lb

Compact Micro-Resistivity
MMR 5 Length: 2.62 m Weight: 81.6 lb

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

Total Length: 28.50 m Weight: 740.8 lb



BEFORE SURVEY CALIBRATION

General Constants All 000

Last Edited on 1-OCT-2005,07:46

General Parameters

Mud Resistivity	3.210	ohm-metres
Mud Resistivity Temperature	20.000	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	Limestone Sonic Porosity
Resistivity used	Deep Laterolog
RWA Constant A	0.610
RWA Constant M	2.150

Gamma Calibration MCG 098

Field Calibration on 3-OCT-2005,19:46

	Measured	Calibrated (API)
Background	29	22
Calibrator (Gross)	1029	771
Calibrator (Net)	1000	749

Gamma Constants MCG 098

Last Edited on 3-OCT-2005,20:14

Gamma Calibrator Number	30	
Mud Density	1.16	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl	0.00	kppm

High Resolution Temperature Calibration MCG 098

Field Calibration on 3-OCT-2005,20:14

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

High Resolution Temperature Constants MCG 098

Pre-filter Length	11
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Neutron Calibration MDN 043

Base Calibration on 22-AUG-2005 15:53

Field Check on 3-OCT-2005,20:14

Base Calibration

	Measured		Calibrated (cps)	
	Near	Far	Near	Far
	3021	94	3714	110
Ratio	32.071		33.764	

Field Calibrator at Base

	Calibrated (cps)
	1674 2333
Ratio	0.717

Field Check

	Calibrated (cps)
	1647 2293
Ratio	0.718

Neutron Constants MDN 043

Last Edited on 3-OCT-2005,20:15

Neutron Source Id	NSNE-747	
Neutron Jig Number	31	
Epithermal Neutron	No	
Caliper Source for Processing	Density Caliper	
Stand-off	0.00	inches
Mud Density	1.16	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	Constant Value	

Temperature	20.00	degrees C
Mud Salinity	11.57	kppm
Formation Fluid Salinity Source	Constant Value	
Formation Fluid Salinity	0.00	kppm
Barite Mud Correction	Not Applied	

Photo Density Calibration MPD 066

Base Calibration on 22-AUG-2005,12:13
Field Check on 3-OCT-2005,20:15

Density Calibration		Measured		Calibrated (sdu)	
Base Calibration		Near	Far	Near	Far
Reference 1	49825	17938	53111	19310	
Reference 2	23308	2480	24951	2530	

Field Check at Base
918.0 1089.7

Field Check
919.8 1086.8

PE Calibration		Measured		Calibrated	
Base Calibration		WS	WH	Ratio	Ratio
Background	176	793			
Reference 1	15856	49650	0.321	0.320	
Reference 2	6240	23176	0.271	0.273	

Field Check at Base
176.0 793.2

Field Check
173.6 795.1

Density Constants MPD 066

Last Edited on 3-OCT-2005,20:15

Density Source Id	NSDL250	
Nylon Calibrator Number	DNC-D-536	
Aluminium/Fe Calibrator Number	DAC-D-536	
Density Shoe Profile	8 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.16	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

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	0.00

Caliper Calibration MPD 066

Base Calibration on 22-AUG-2005 11:11
Field Calibration on 3-OCT-2005,20:15

Base Calibration		Calibrator Size (in)	
Reading No	Measured		
1	11983	4.01	
2	20446	5.99	
3	29120	7.98	
4	37568	9.94	
5	47008	12.01	
6	N/A	N/A	

Field Calibration		Actual Caliper (in)	
Measured Caliper (in)			
8.91		8.92	

Sonic Constants MSS 049

Maximum Boundary Contrast	100.00	micro-sec/ft
Fluid Transit Time	180.00	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	3-5' Compensated	
Correction for Sonde Skew	Applied	
Cycle Stretch Algorithm	Applied	
MN3FT	0.00	micro-sec
MX3FT	1500.00	micro-sec

Fixed Gate Parameters

Start Time (micro-sec)	End Time (micro-sec)	Discriminator (mV)	Depth (m)
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
0.00	0.00	0.00	0.00

Down Hole Fixed Gate Parameters

Gate Start	0.00	micro-sec
Gate Width	0.00	micro-sec
Initial Discriminator Level	0.0000	mVolts

Full Waveform Parameters

Use 3' Waveform to derive TR	No	
Use 4' Waveform to derive TR	No	
Use 5' Waveform to derive TR	No	
Use 6' Waveform to derive TR	No	
3' Waveform Discriminator Level	0.30	mV
4' Waveform Discriminator Level	0.30	mV
5' Waveform Discriminator Level	0.15	mV
6' Waveform Discriminator Level	0.15	mV
3' Waveform Filter	0	
4' Waveform Filter	0	
5' Waveform Filter	0	
6' Waveform Filter	0	
Semblance Level	0.50	
Semblance Window Width	120.00	micro-sec
Sonic 1 Despiker	100.00	micro-sec/ft
Sonic 2 Despiker	100.00	micro-sec/ft

Laterolog Calibration MLE 016

Base Calibration on 24-AUG-2005 11:54
Field Check on 3-OCT-2005,20:15

Base Calibration

Channel	Measured		Calibrated (ohm-m)	
	Resistor 1	Resistor 2	Resistor 1	Resistor 2
Shallow	9.7	965.7	13.3	1327.3
Deep	9.7	966.0	8.5	852.7
Groningen	9.7	966.3	8.5	852.7

Channel	Base Check (ohm-m)	Field Check (ohm-m)
Shallow	49.4	49.4
Deep	31.7	31.7
Groningen	253.9	253.9

Laterolog Constants MLE 016

Last Edited on 31-AUG-2005,09:24

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	
Groningen Connection	None	

Borehole Correction Constants

Stand-off	0	
Caliper Source	0	
Hole Size	0.000	0
Mud Resistivity Source	0	
Temp. for Rm Corr.	0	

SP Calibration MLE 016

Field Calibration on 3-OCT-2005,20:16

	Measured	Calibrated (mV)
Reference 1	93.1	100.0

Reference 2

-114.1

-100.0

Micro Laterolog Calibration MMR 005

Base Calibration on 24-AUG-2005 09:35

Field Check on 3-OCT-2005,20:16

Base Calibration

		Measured		Calibrated (ohm-m)	
Ref 1	Ref 2	Ref 1	Ref 2	Ref 1	Ref 2
0.0	9744.7	0.0		0.0	196.0
Base Check (ohm-m)			Field Check (ohm-m)		
8.1			8.0		

Micro Laterolog Constants MMR 005

Last Edited on 4-SEP-2005,19:44

Micro Laterolog K Factor	0.0196	
Standoff Offset	0.0000	inches
Borehole Correction Constants		
Mud Cake Source	0	
Mud Cake Thickness	0.0000	0
Mud Cake Thickness Caliper	0	
Mud Cake Resistivity	0.0000	ohm-m

COMPANY	ORIGIN ENERGY RESOURCES LIMITED
WELL	CHILDERS COVE 1
FIELD	ONSHORE OTWAY BASIN
PROVINCE/COUNTY	VICTORIA
COUNTRY/STATE	AUSTRALIA

Elevation Kelly Bushing	51.50	metres	First Reading	2656.80	metres
Elevation Drill Floor		metres	Depth Driller	2658.00	metres
Elevation Ground Level	46.20	metres	Depth Logger	2656.80	metres



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