

**Weatherford®****COMPENSATED PHOTO DENSITY  
COMPENSATED DUAL NEUTRON  
LOG**

COMPANY				WHITING OIL AND GAS CORPORATION			
WELL				RAZOR 27K-3405A			
FIELD				REDTAIL			
PROVINCE/COUNTY				WELD			
COUNTRY/STATE				U.S.A. / COLORADO			
LOCATION				SHL: 2322' FSL & 1914' FWL			
PERMIT NUMBER				BHL: 600' FSL & 1485' FWL (SEC. 34)			
SEC 27	TWP 10N	RGE 58W	Other Services				
			MAI				
			CMI				
API Number			05-123-37748				
Permanent Datum GL, Elevation 4750 feet							
Log Measured From KB							
Drilling Measured From KB							
Date	16-AUG-2013				Elevations:		
Run Number	ONE						
Service Order	3535485						
Depth Driller	12414.00				feet		
Depth Logger	12414.00				feet		
First Reading	12326.00				feet		
Last Reading	6007.00				feet		
Casing Driller	6010.00				feet		
Casing Logger	6007.00				feet		
Bit Size	6.000				inches		
Hole Fluid Type	PCS/POLYMER						
Density / Viscosity	9.25 g/cc		38.00 CP				
PH / Fluid Loss	8.50		7.60				
Sample Source	FLOWLINE						
Rm @ Measured Temp	0.75 @ 93.0				ohm-m		
Rmf @ Measured Temp	0.60 @ 93.0				ohm-m		
Rmc @ Measured Temp	0.90 @ 93.0				ohm-m		
Source Rmf / Rmc	CALC		CALC				
Rm @ BHT	0.332 @ 216.0		ohm-m				
Time Since Circulation	0.5 HOUR						
Max Recorded Temp	216.00		deg F				
Equipment / Base	18063		CASPER				
Recorded By	D. KUNTZ						
Witnessed By	K. RENTON						

BOREHOLE RECORD					Last Edited: 17-AUG-2013 07:11
Bit Size inches		Depth From feet		Depth To feet	
6.000		6007.00		12414.00	
CASING RECORD					
Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft	
SURFACE	7.000	0.00	6007.00	29.00	

REMARKS
SOFTWARE VERSION USED: 13.06.9804
TOOLS CONVEYED VIA CML WELL SHUTTLE.
TRIPLE COMBO - IMAGER WAS LOGGED IN A SINGLE RUN USING A 200V MEMORY CONVEYANCE SYSTEM.
HARDWARE USED: SEE TOOL DIAGRAM.
LAT: 40.808594 N
LONG: 103.853833 W

CUSTOMER'S SCALES USED AND INTERVALS LOGGED.

ALL DEPTHS RECORDED WITH WEATHERFORD ADVANTAGE DEPTH SYSTEM IN CONJUNCTION WITH PASON (RIGS) EDR SYSTEM.

ALL DEPTHS CORRECTED TO DRILLER'S STRAP DEPTH.

4.5 INCH PRODUCTION CASING USED TO CALCULATE ANNULAR HOLE VOLUME.

ANNULAR HOLE VOLUME FROM TD TO SURFACE CASING: 1210 CUBIC FEET

TOTAL HOLE VOLUME FROM TD TO SURFACE CASING: 505 CUBIC FEET

BOREHOLE SIZE AND RUGOSITY WILL AFFECT DATA QUALITY.

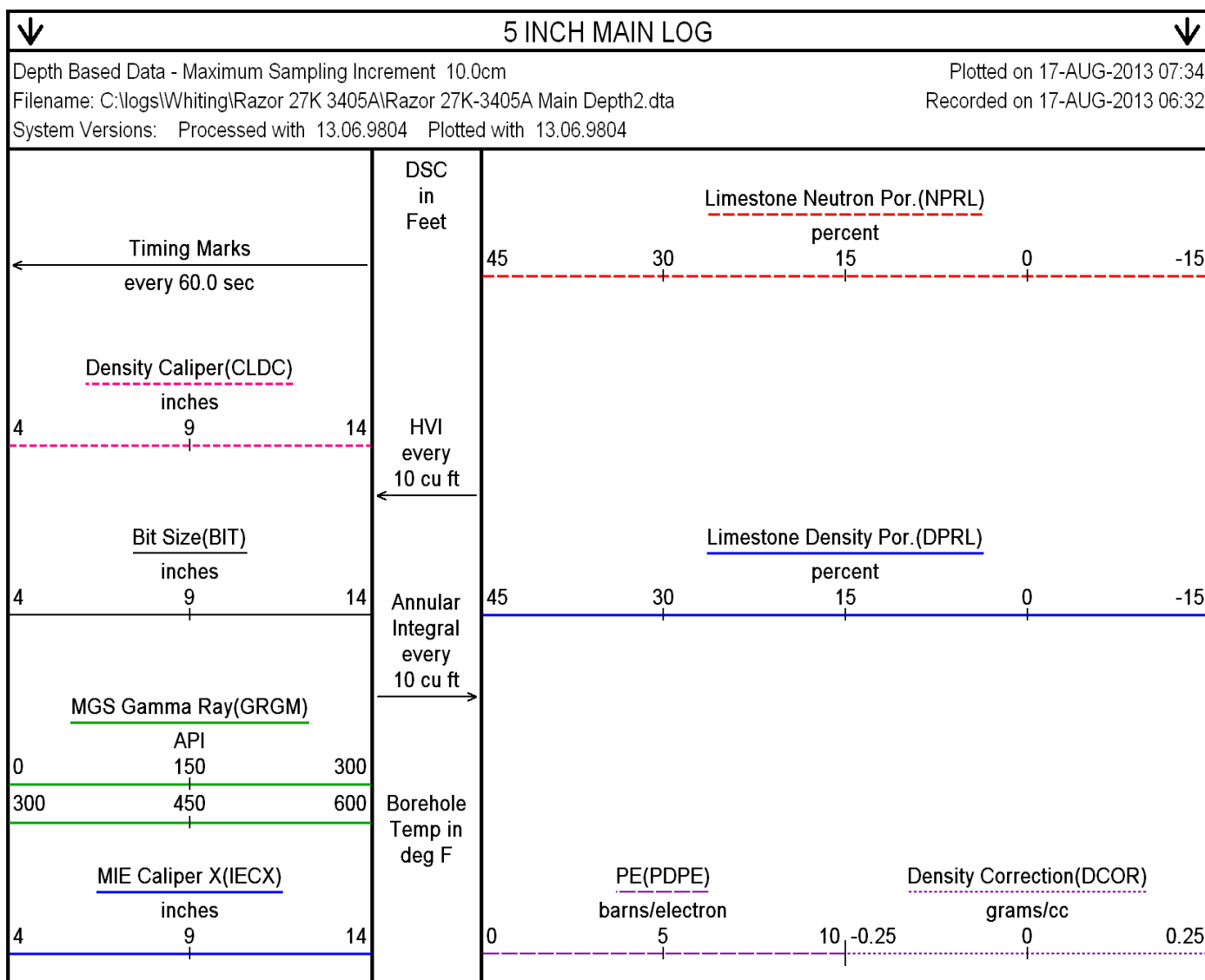
TIGHT PULLS WILL AFFECT DATA QUALITY.

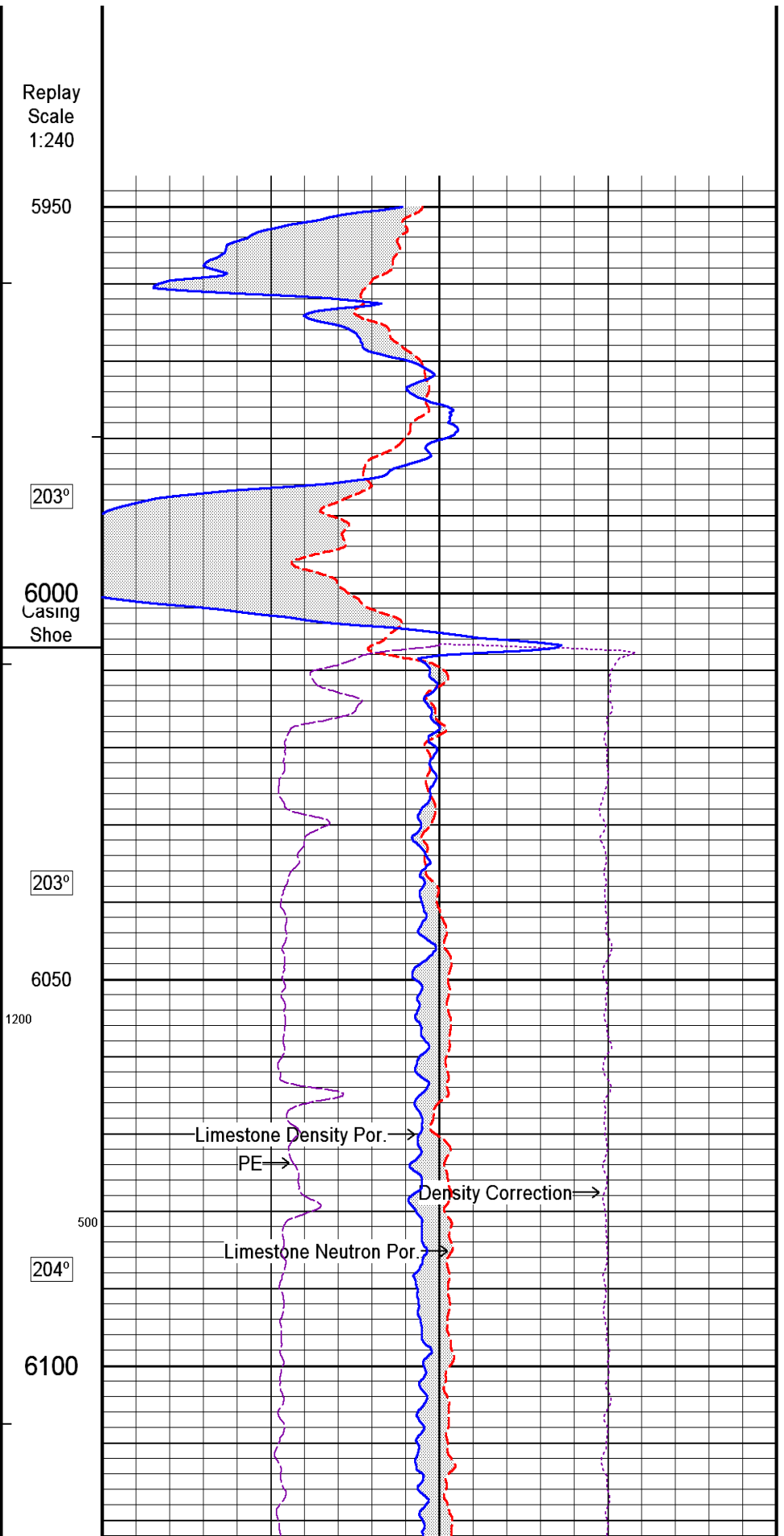
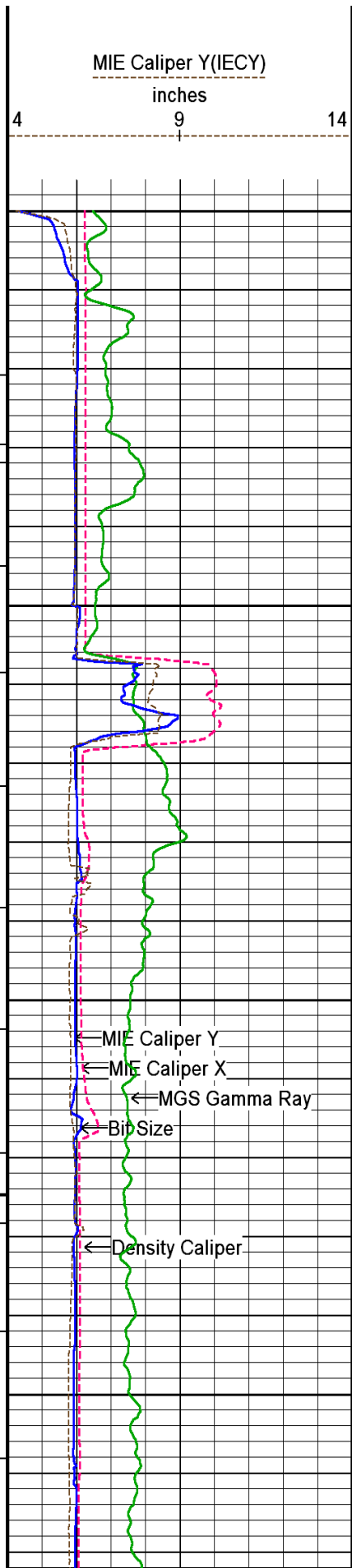
OPERATOR(S): S. LANDON, C. WILLIAMS

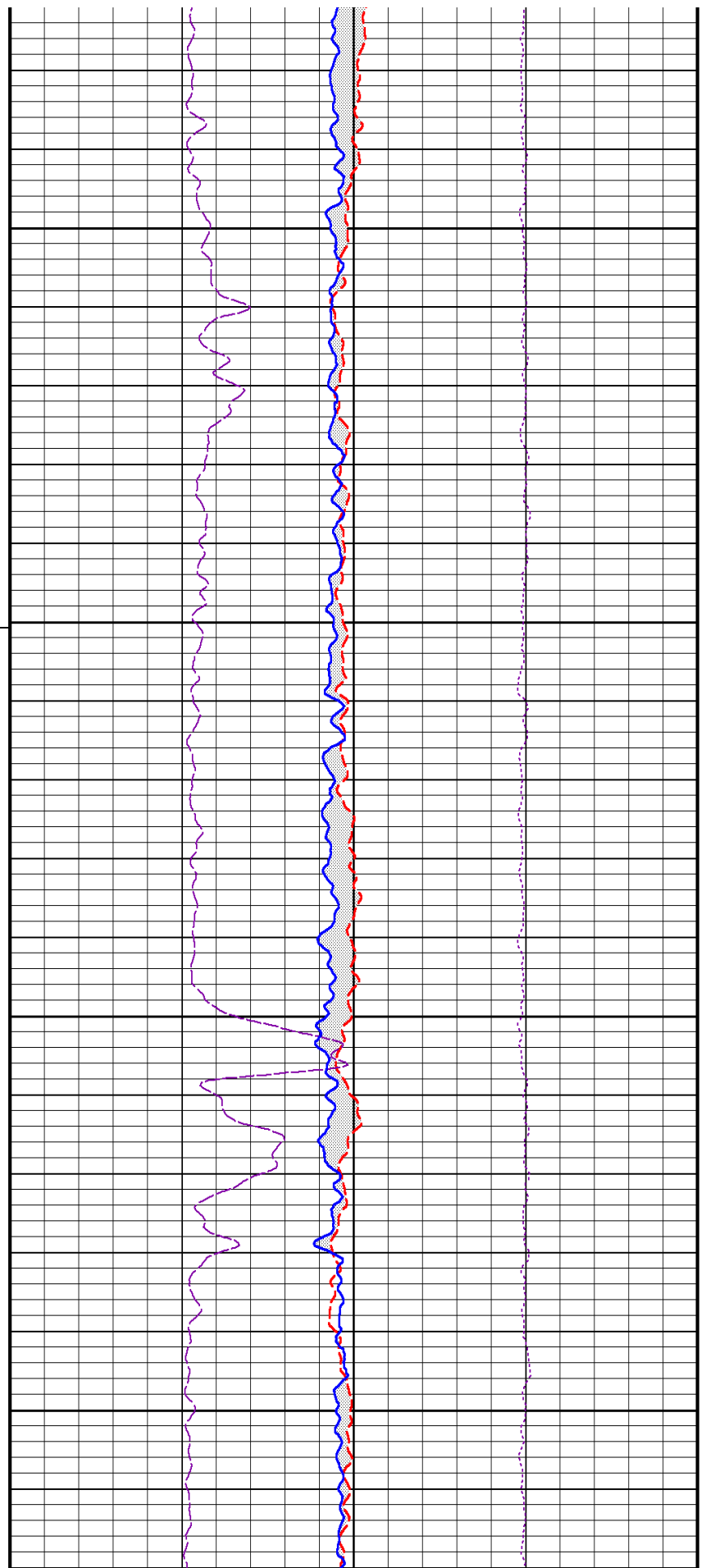
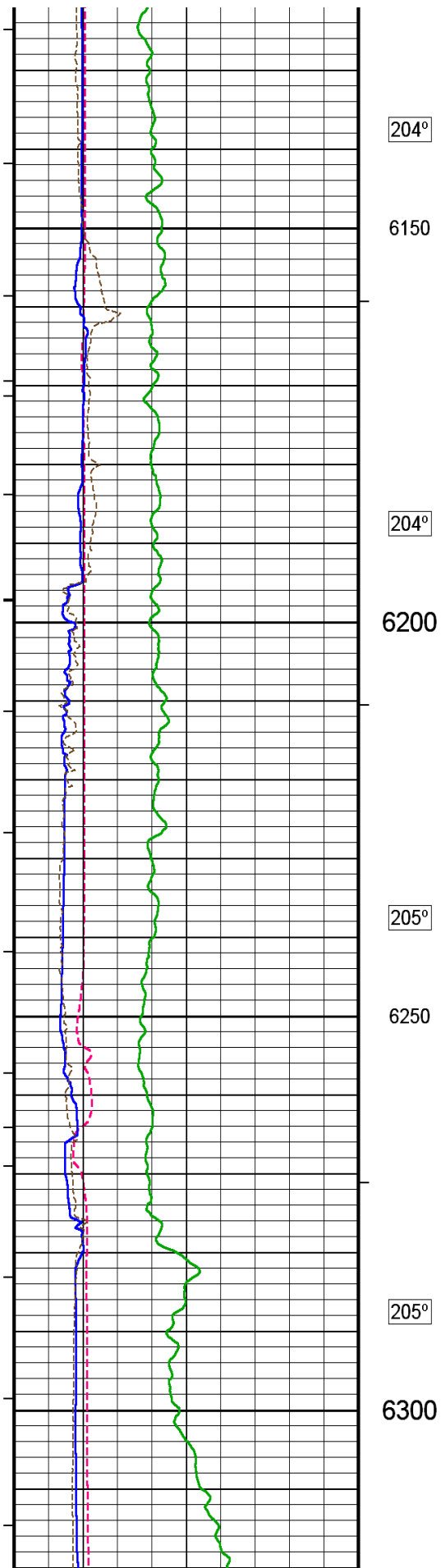
RIG: CADE 23

SERVICE ORDER #3535485

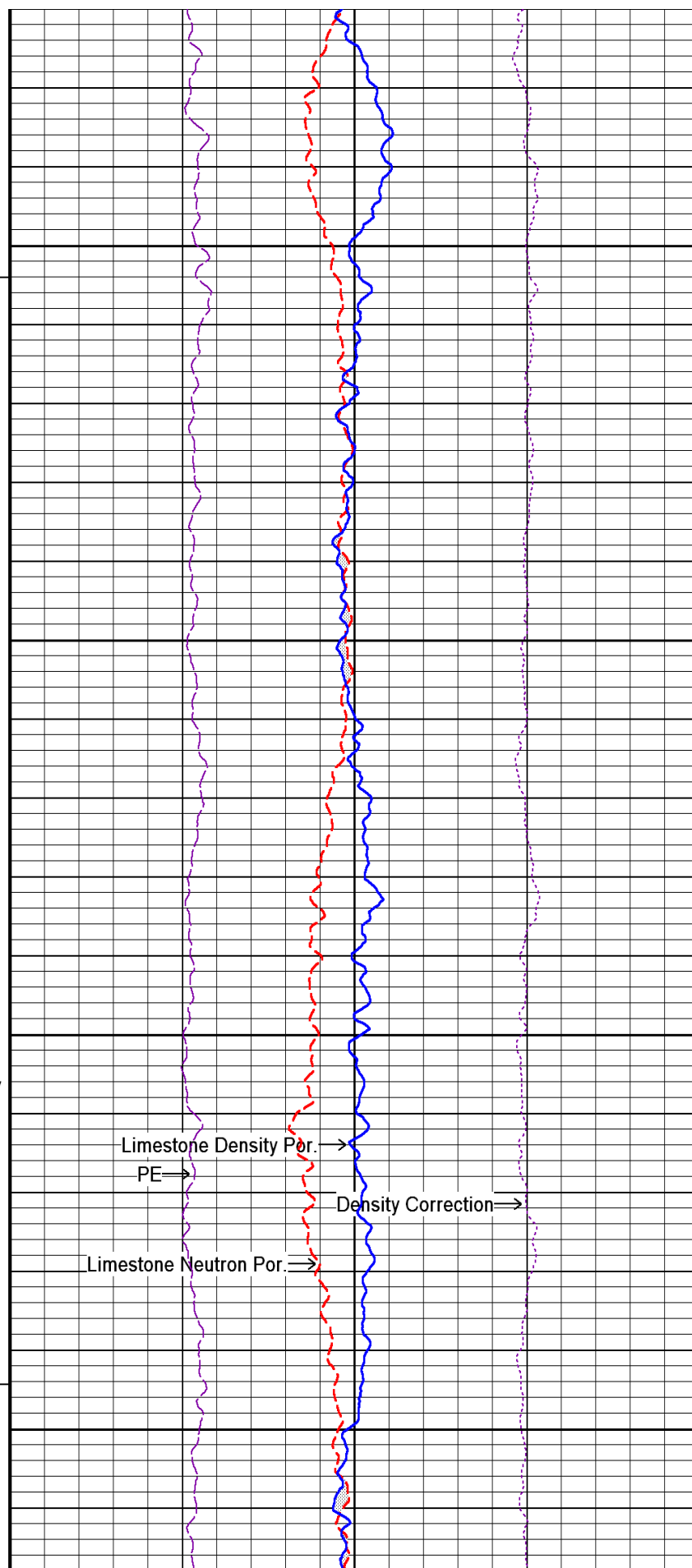
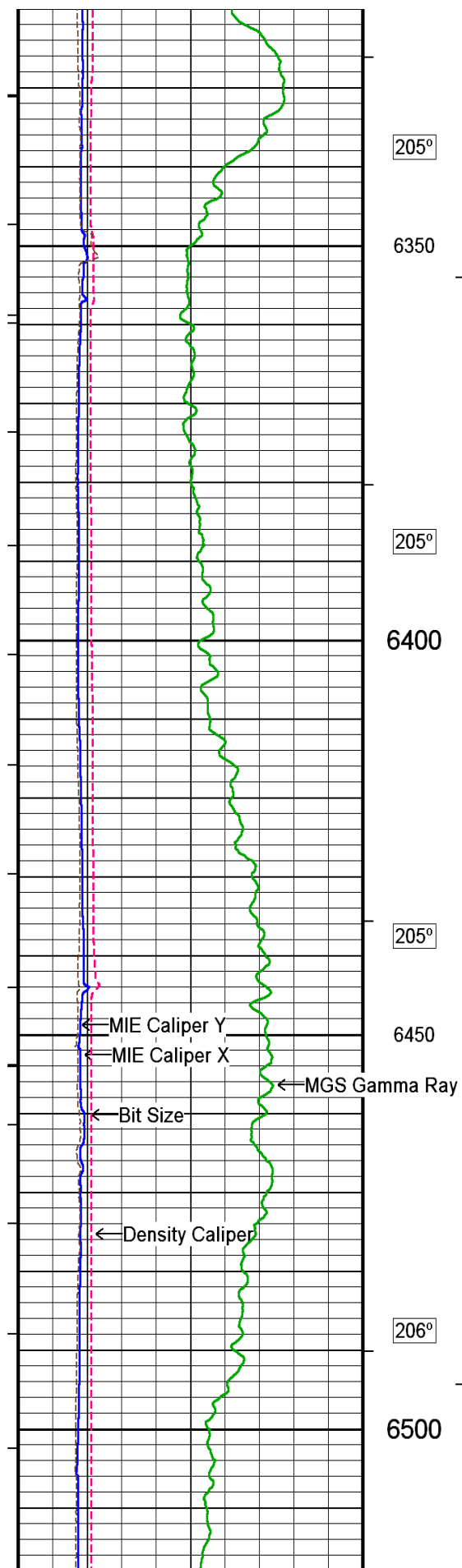
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, 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.

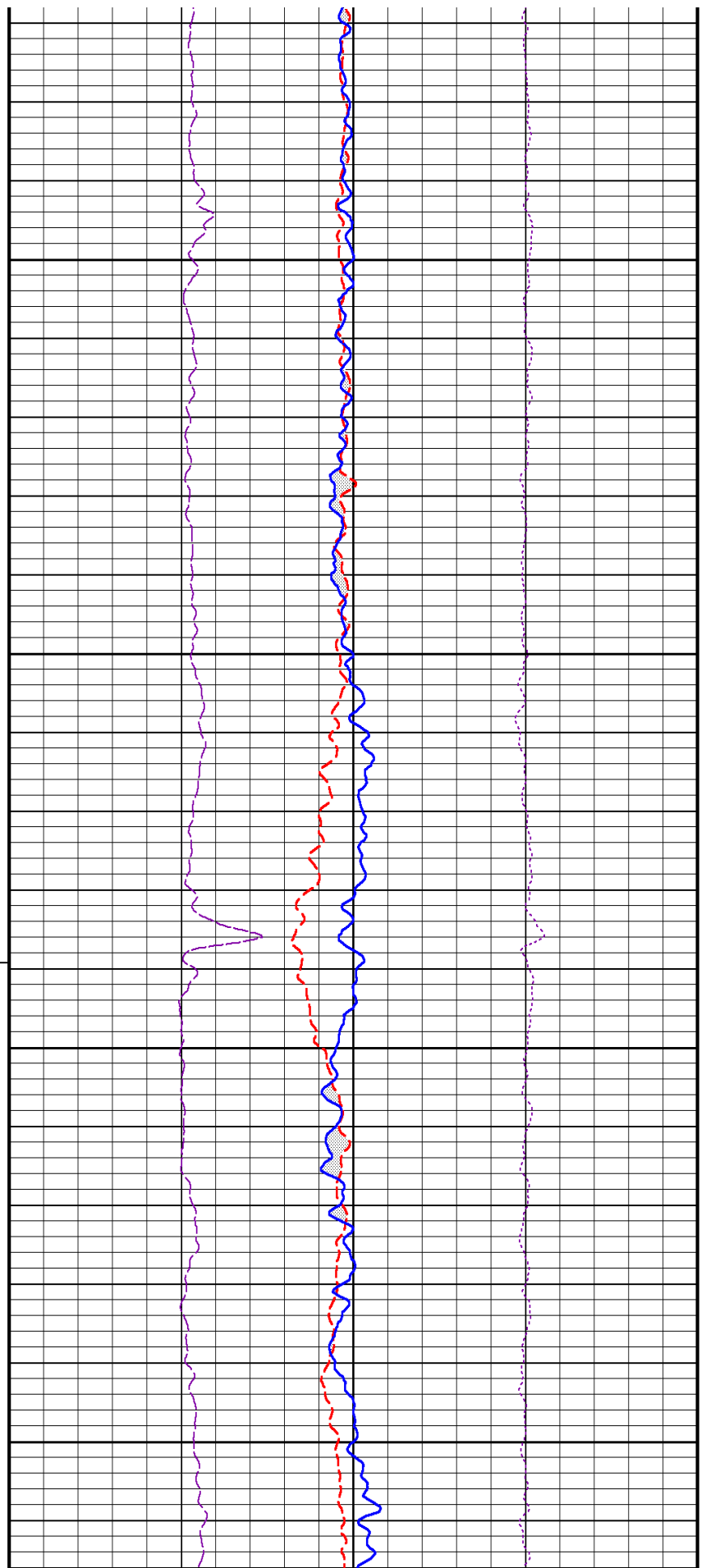
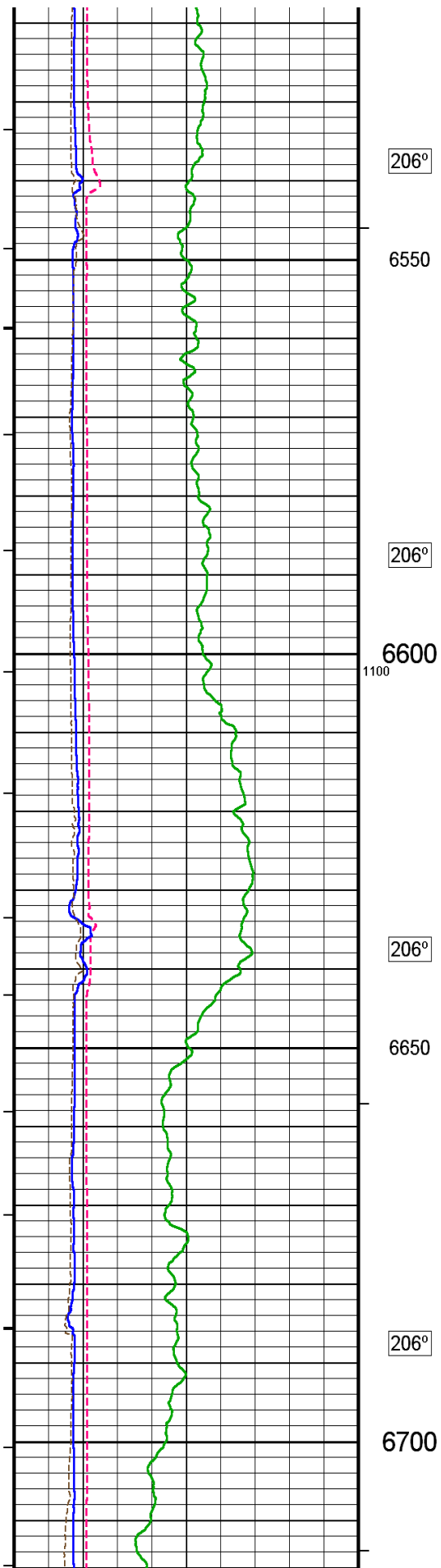


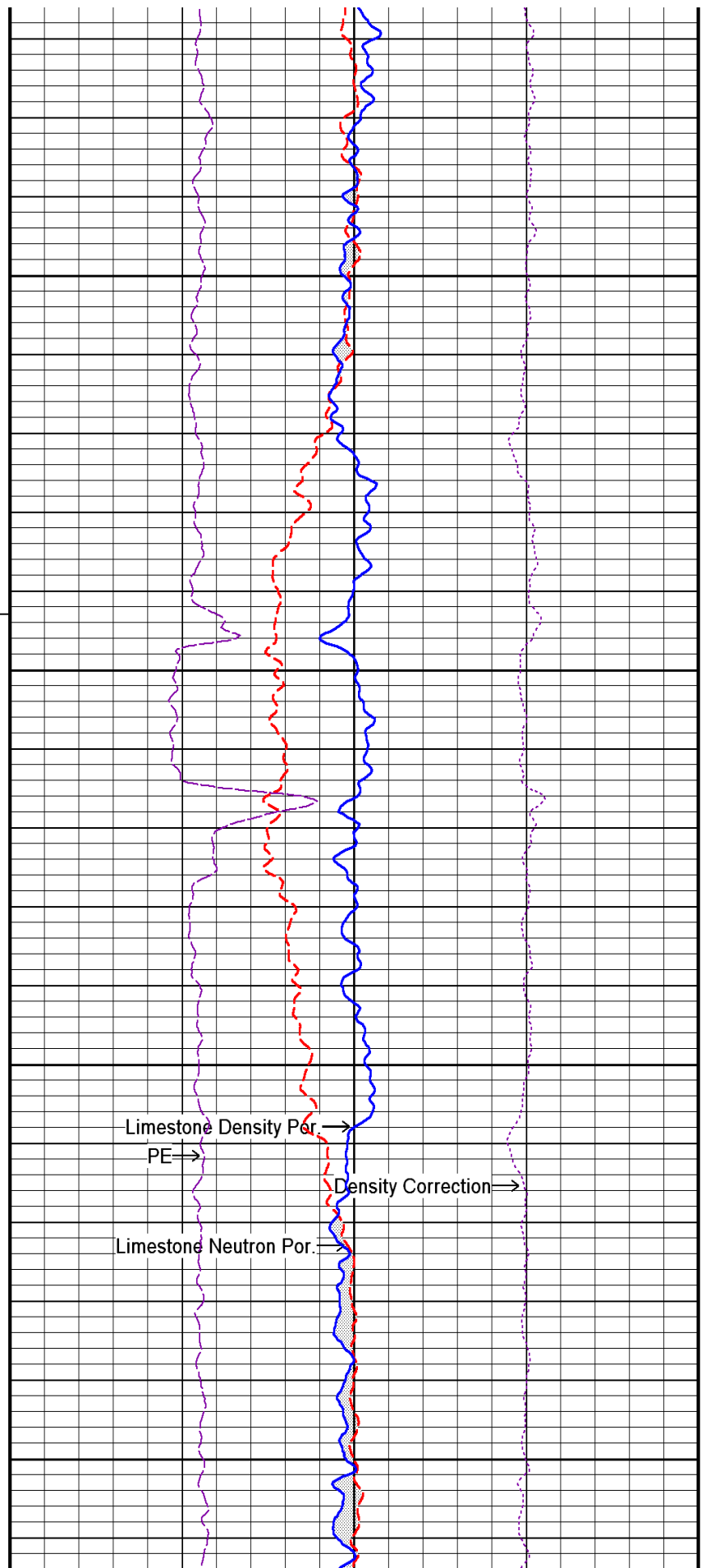
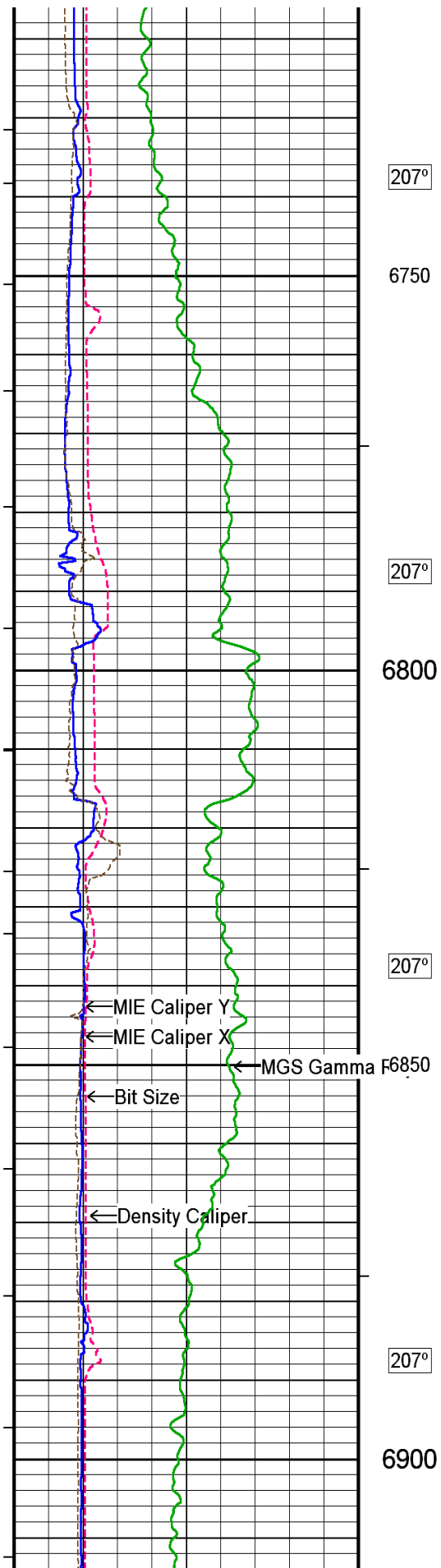


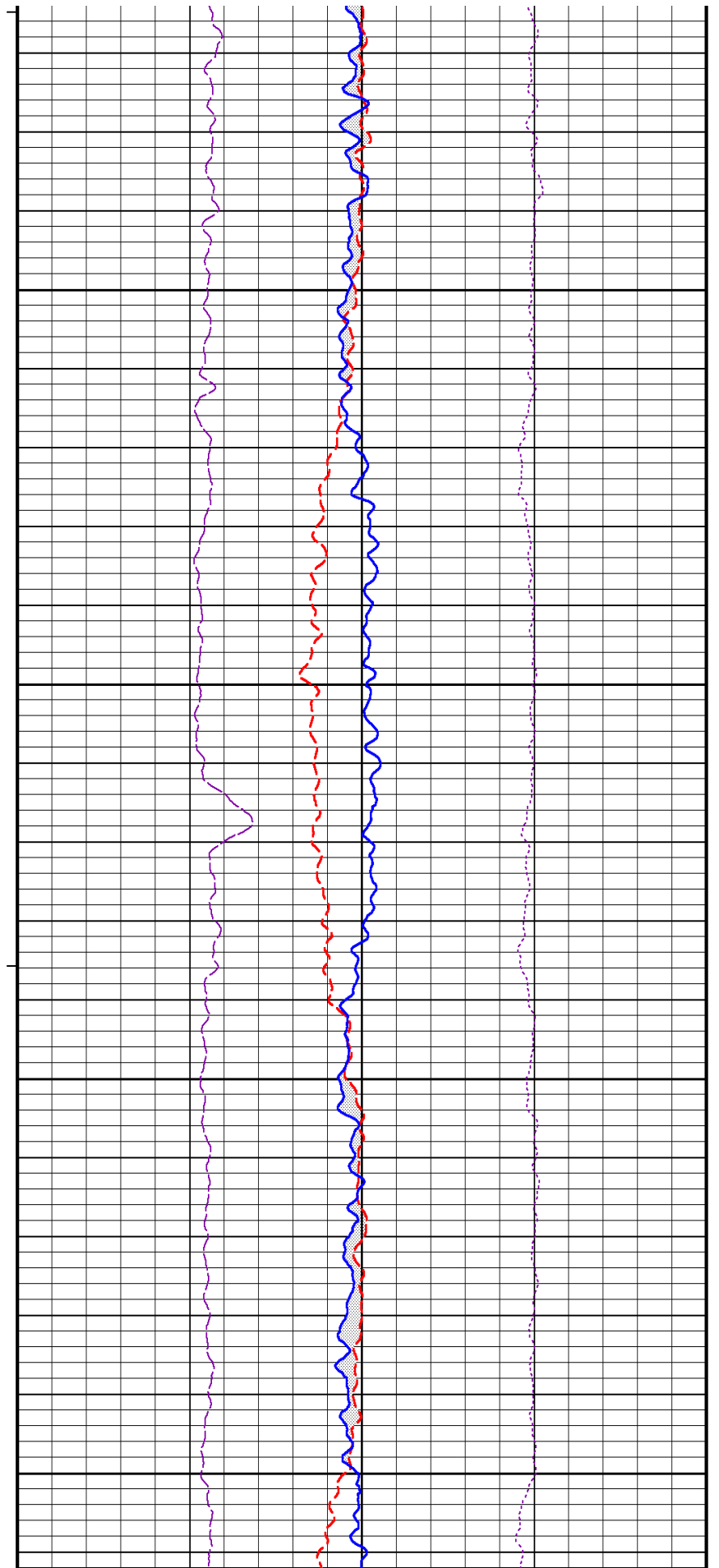
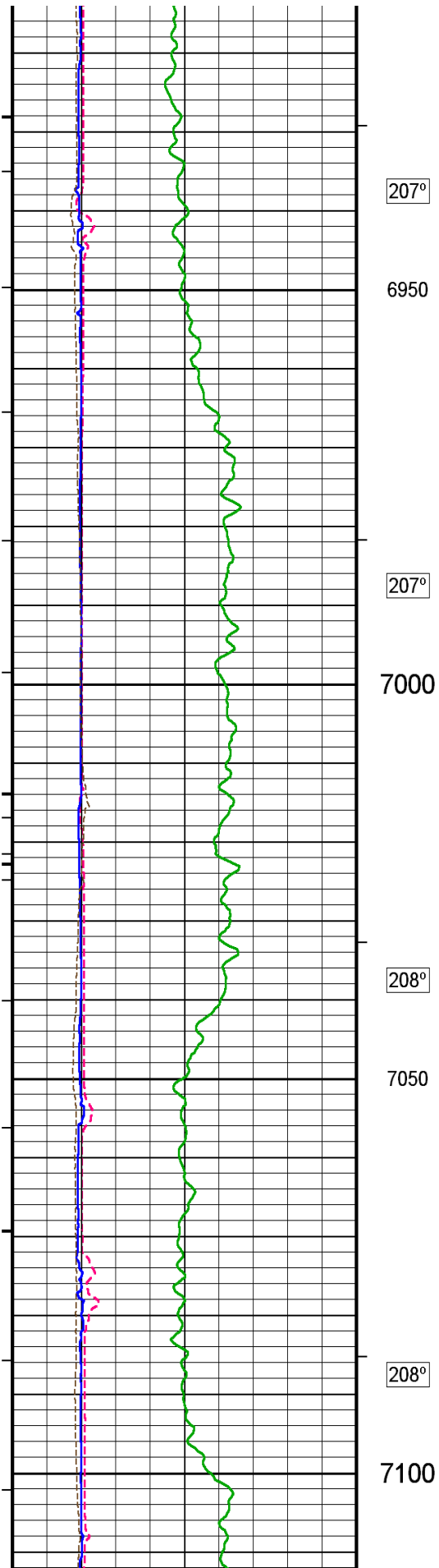


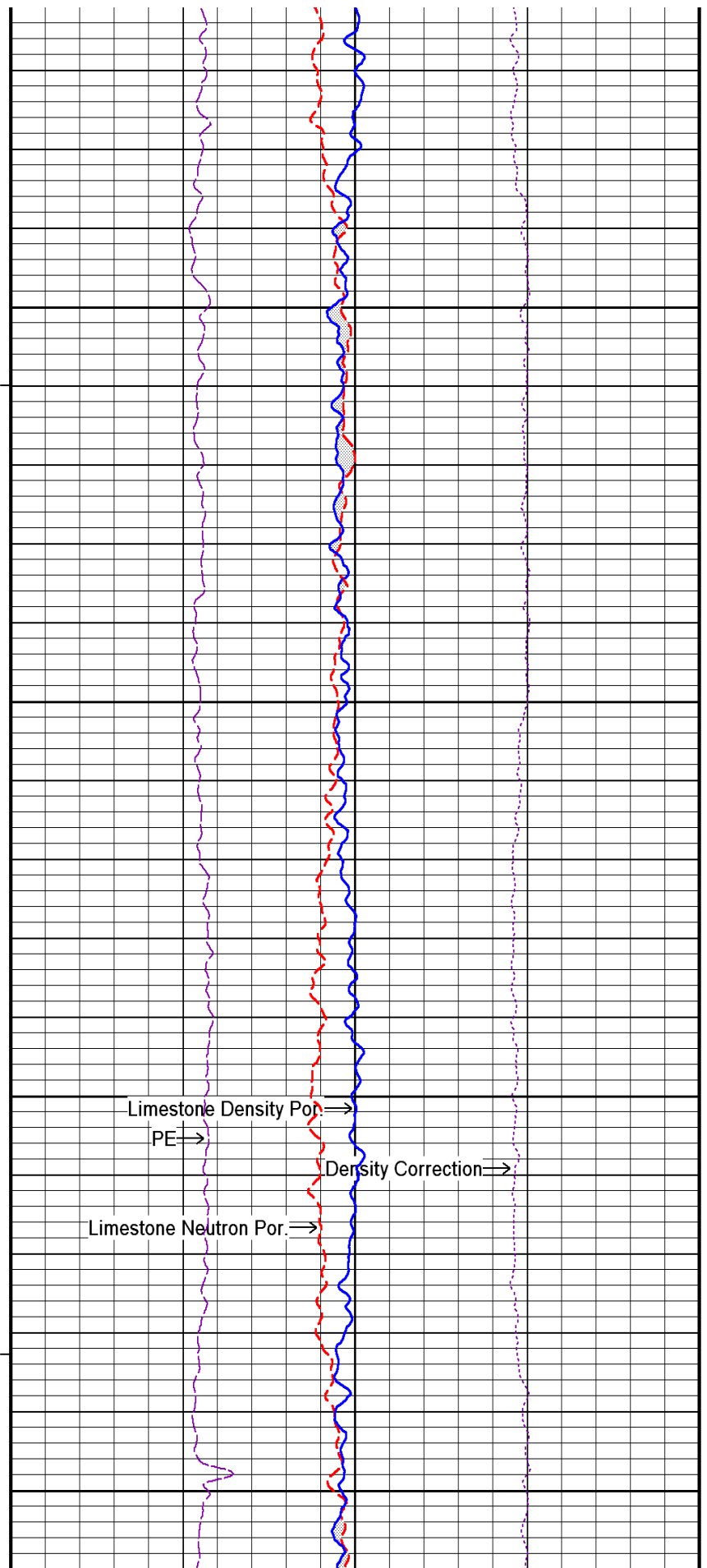
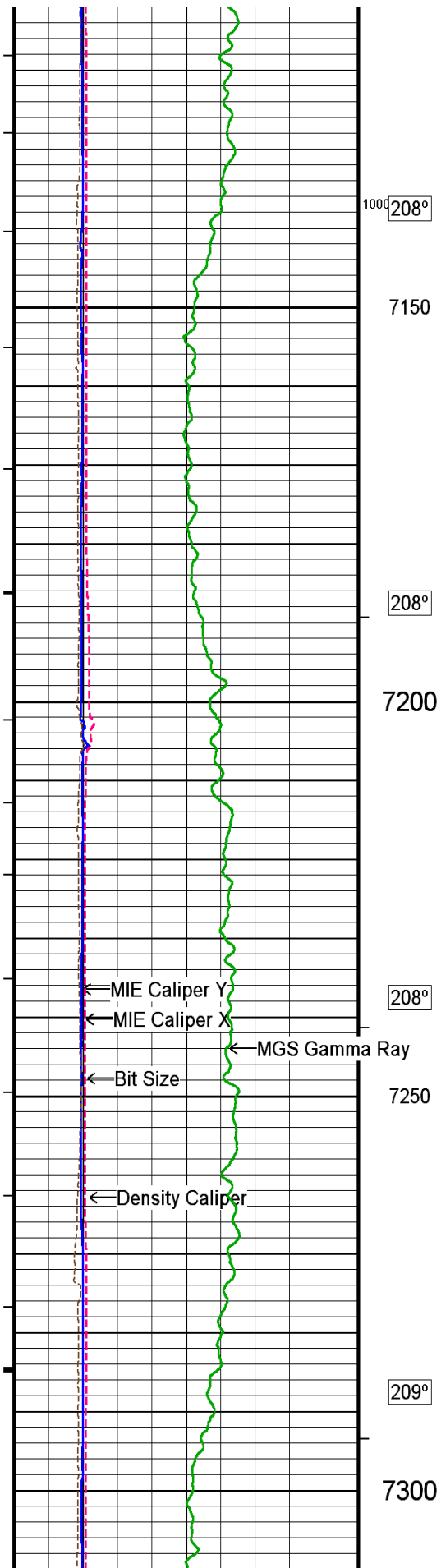


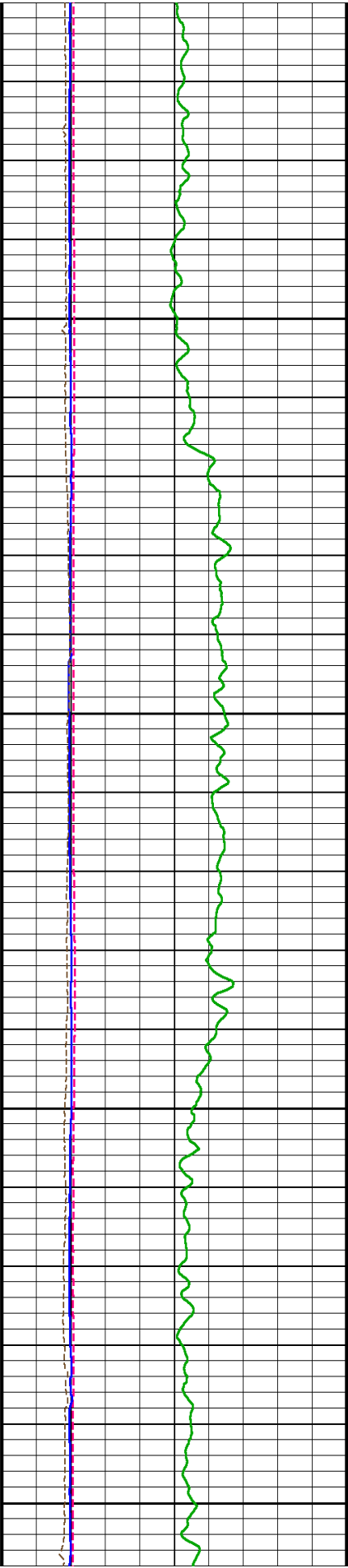












209°

7350

209°

7400

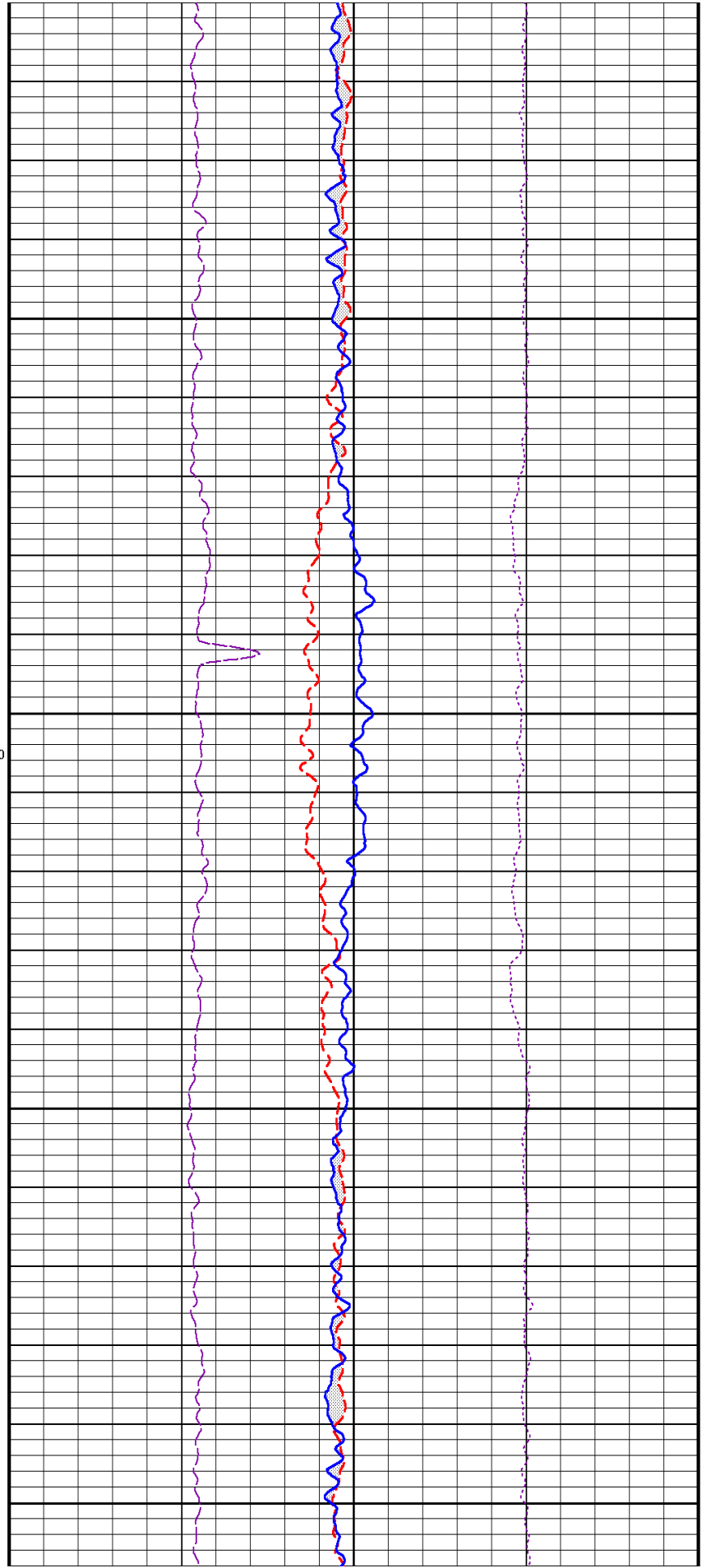
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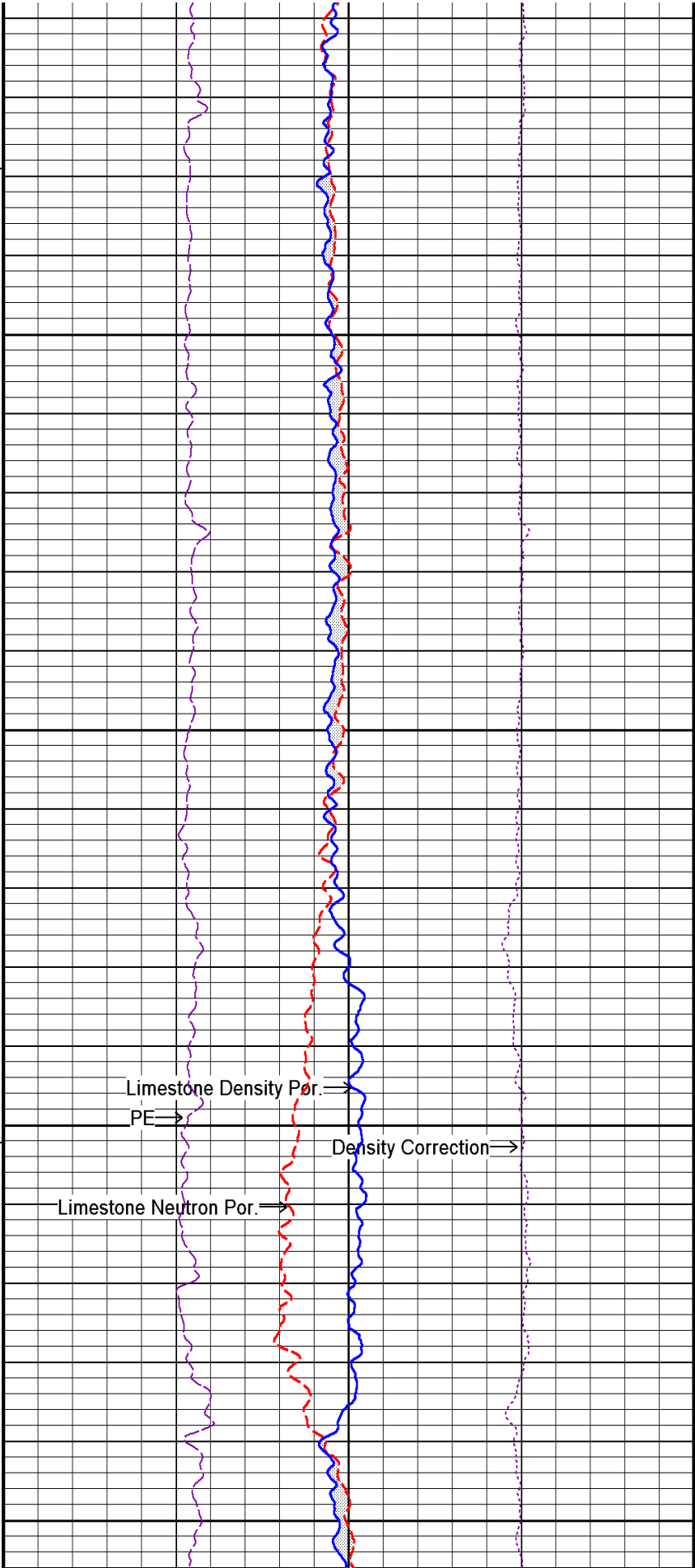
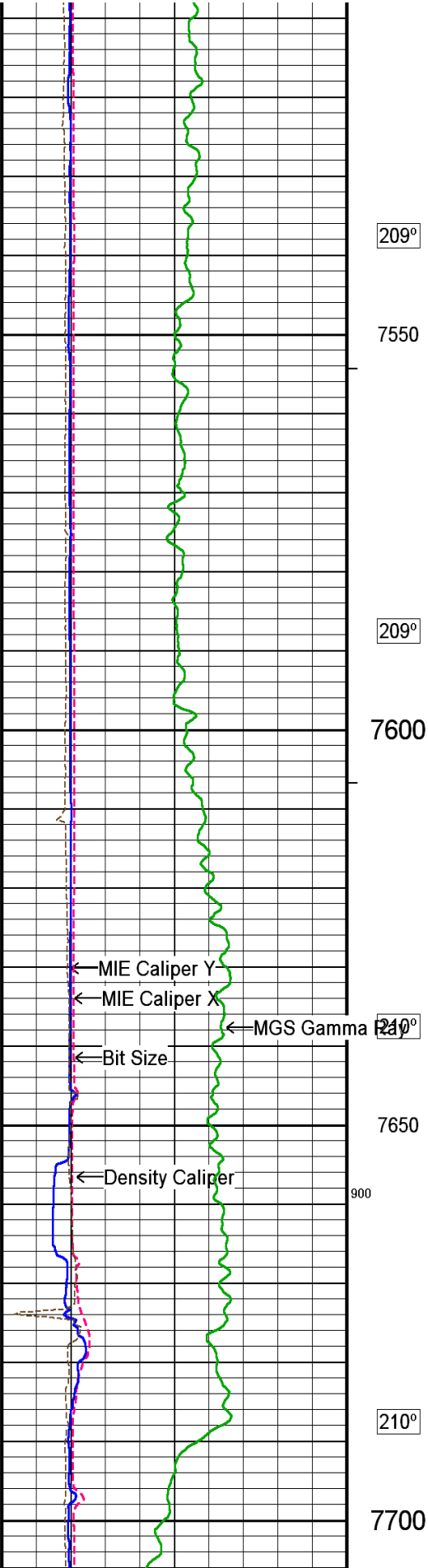
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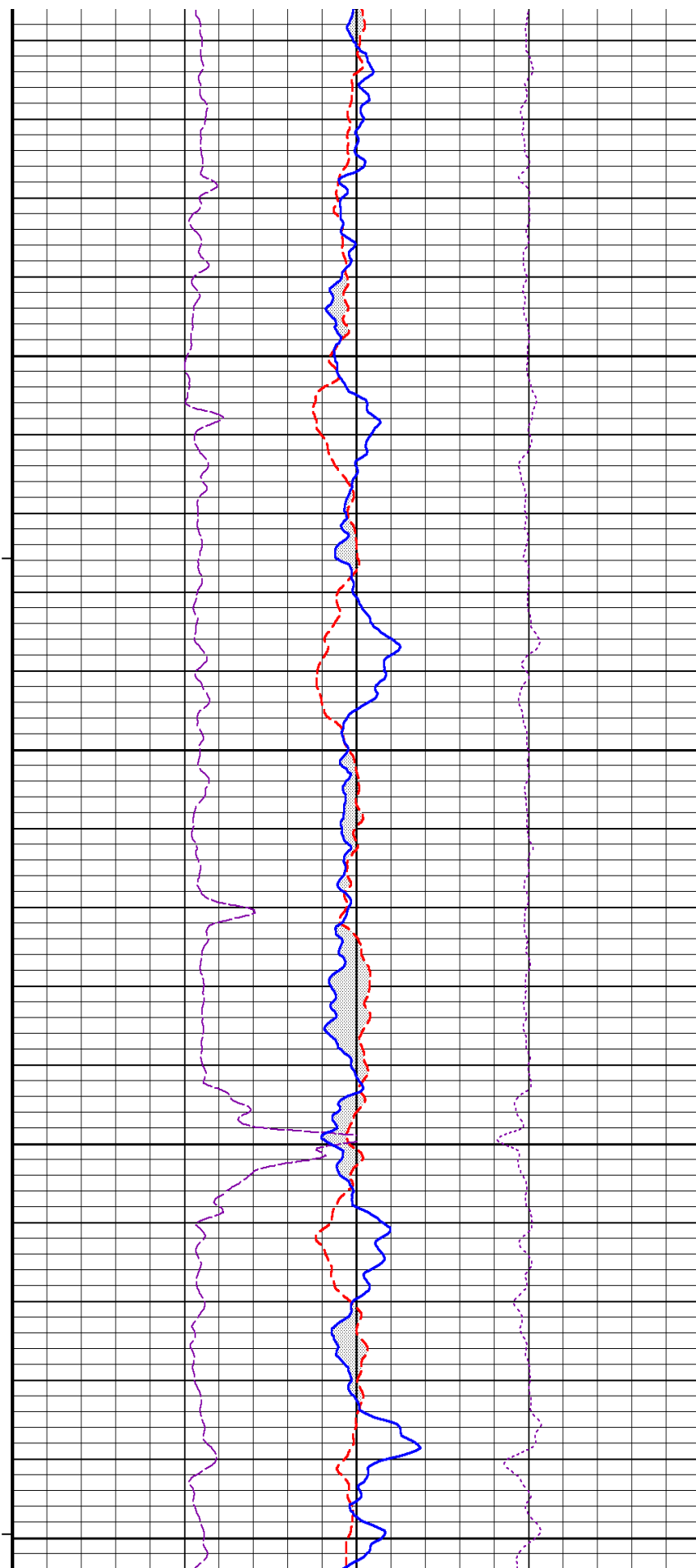
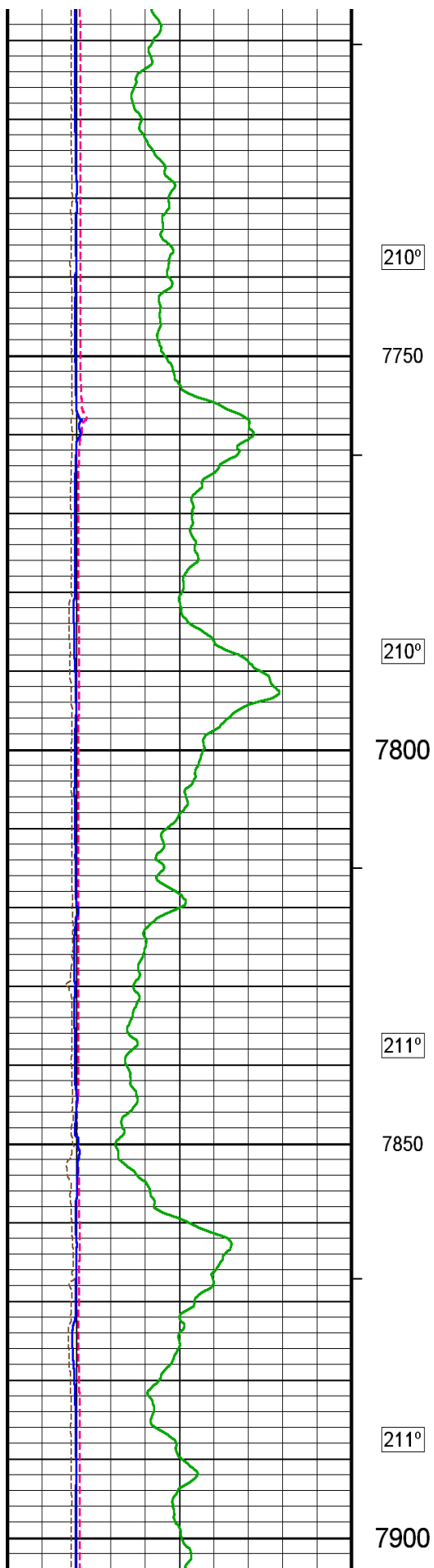
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209°

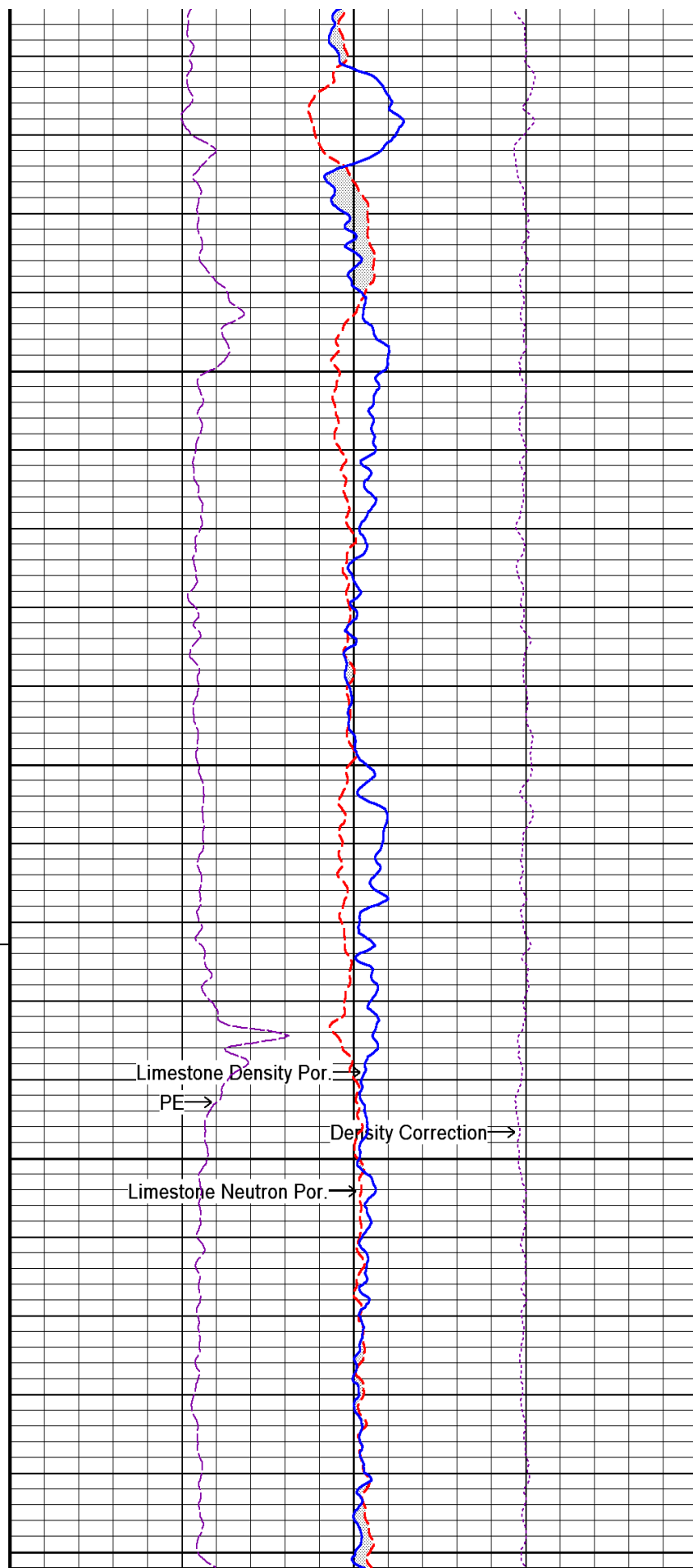
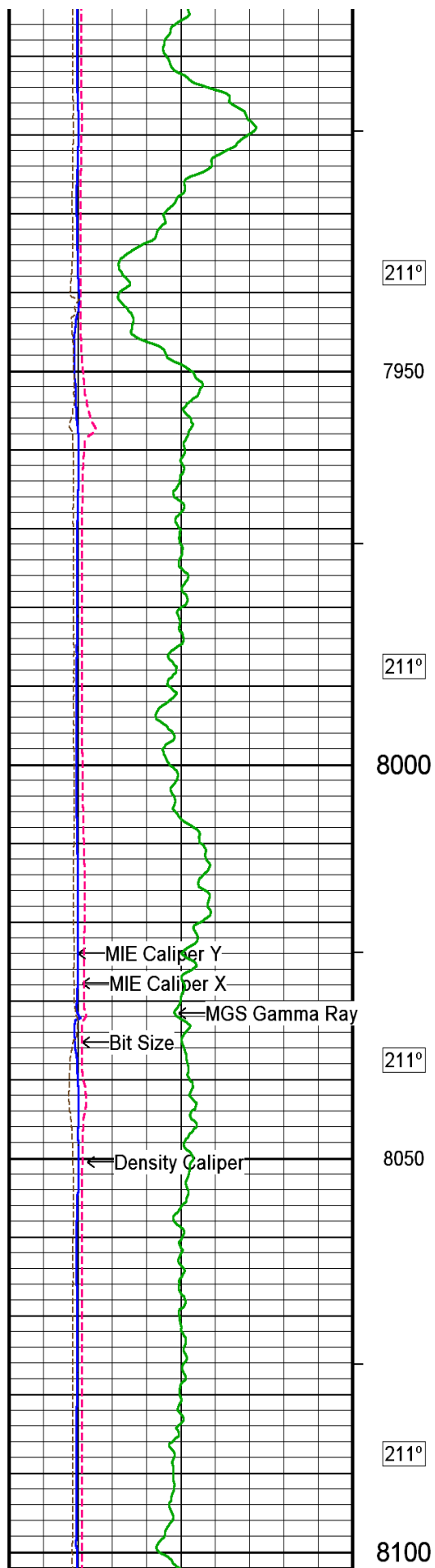
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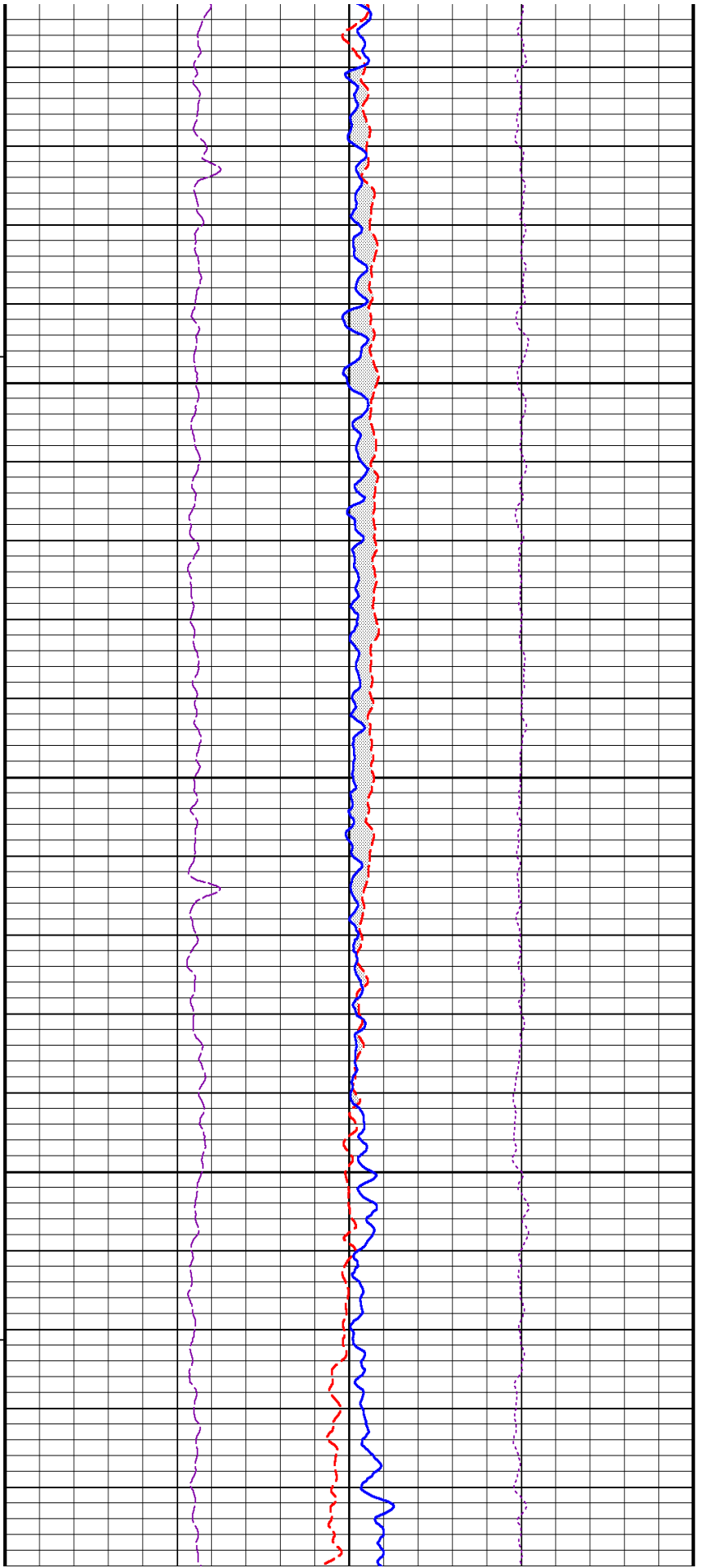
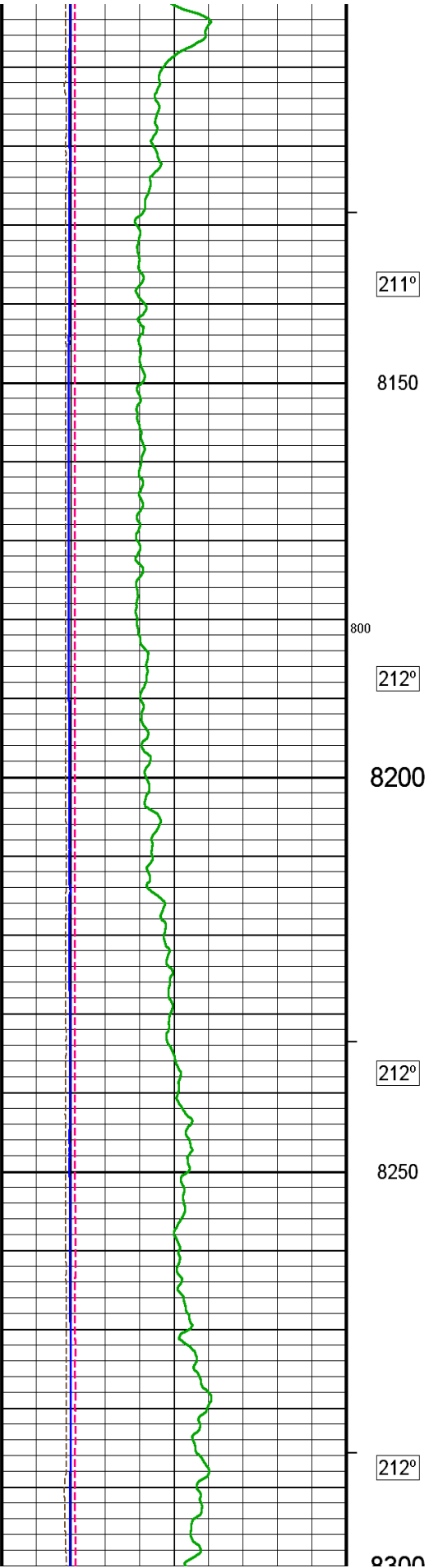


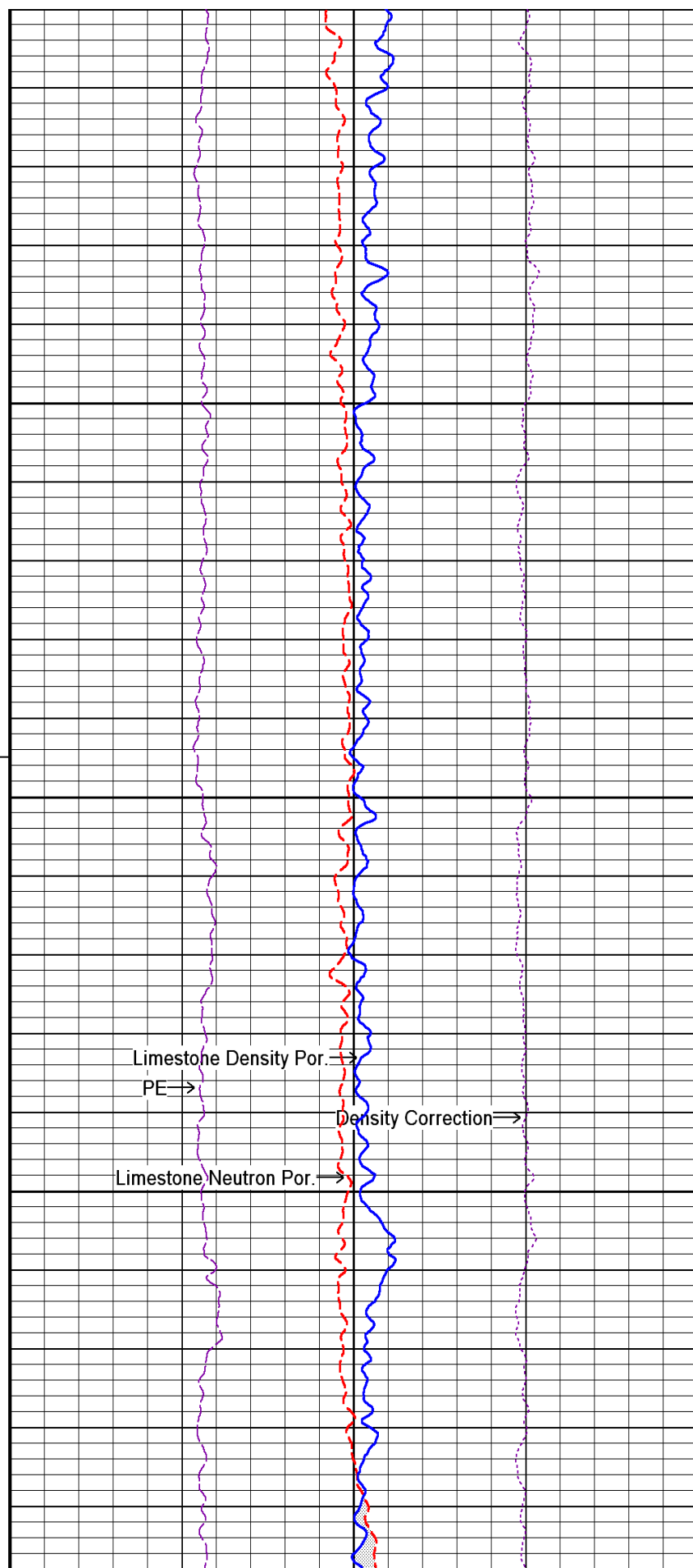
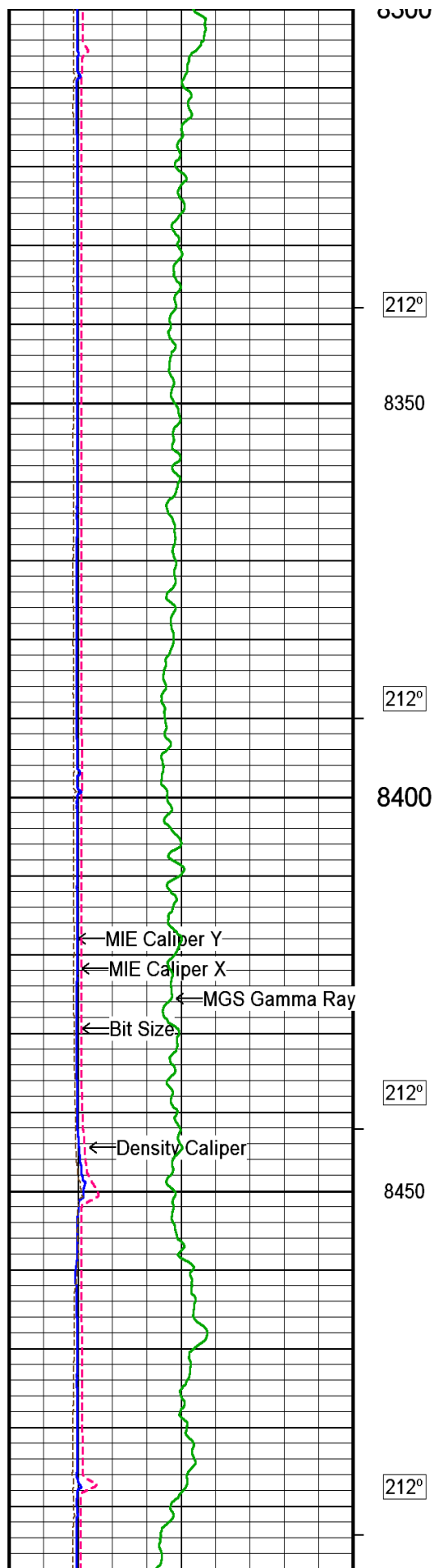


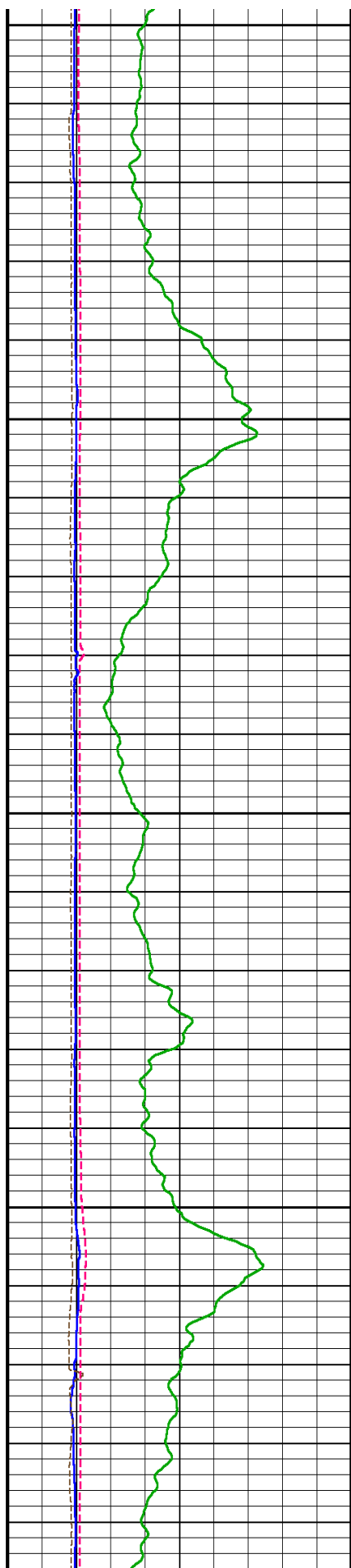












8500

212°

8550

213°

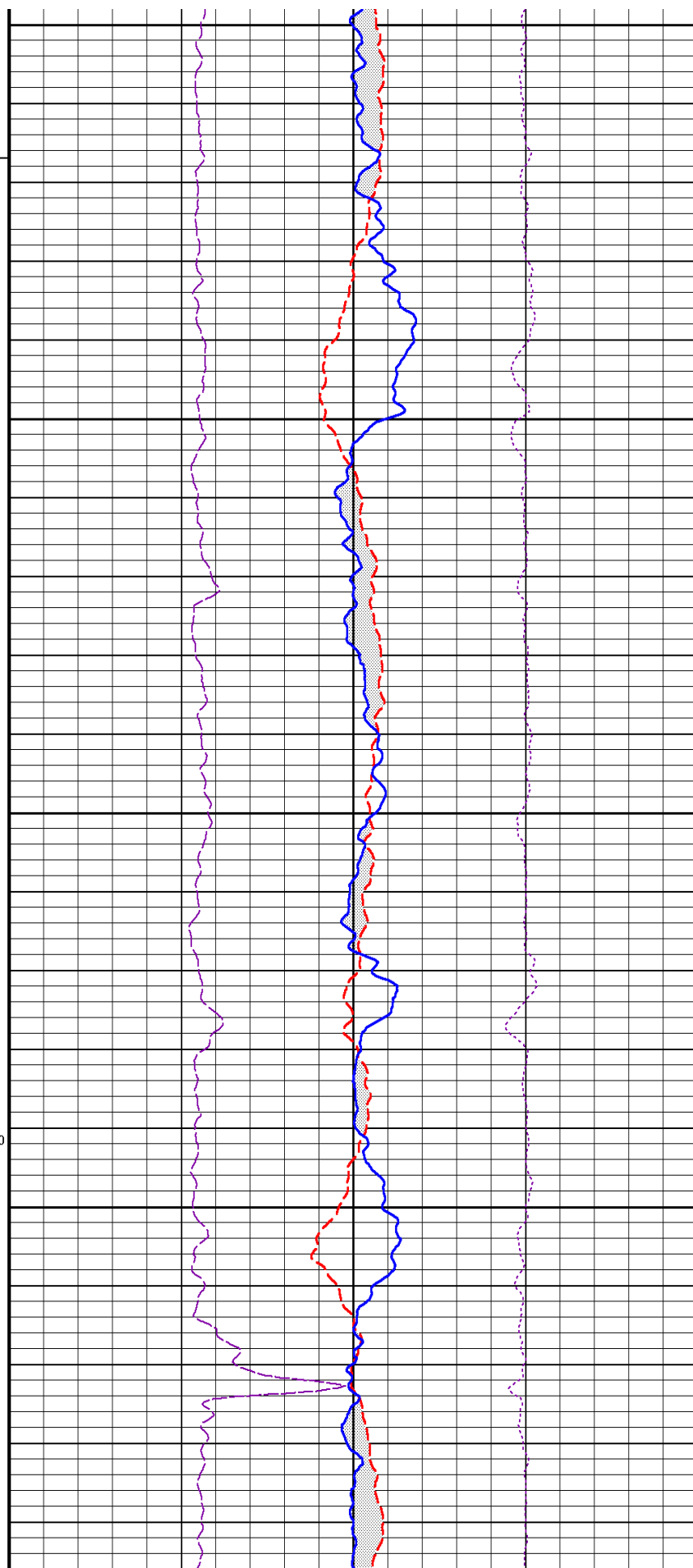
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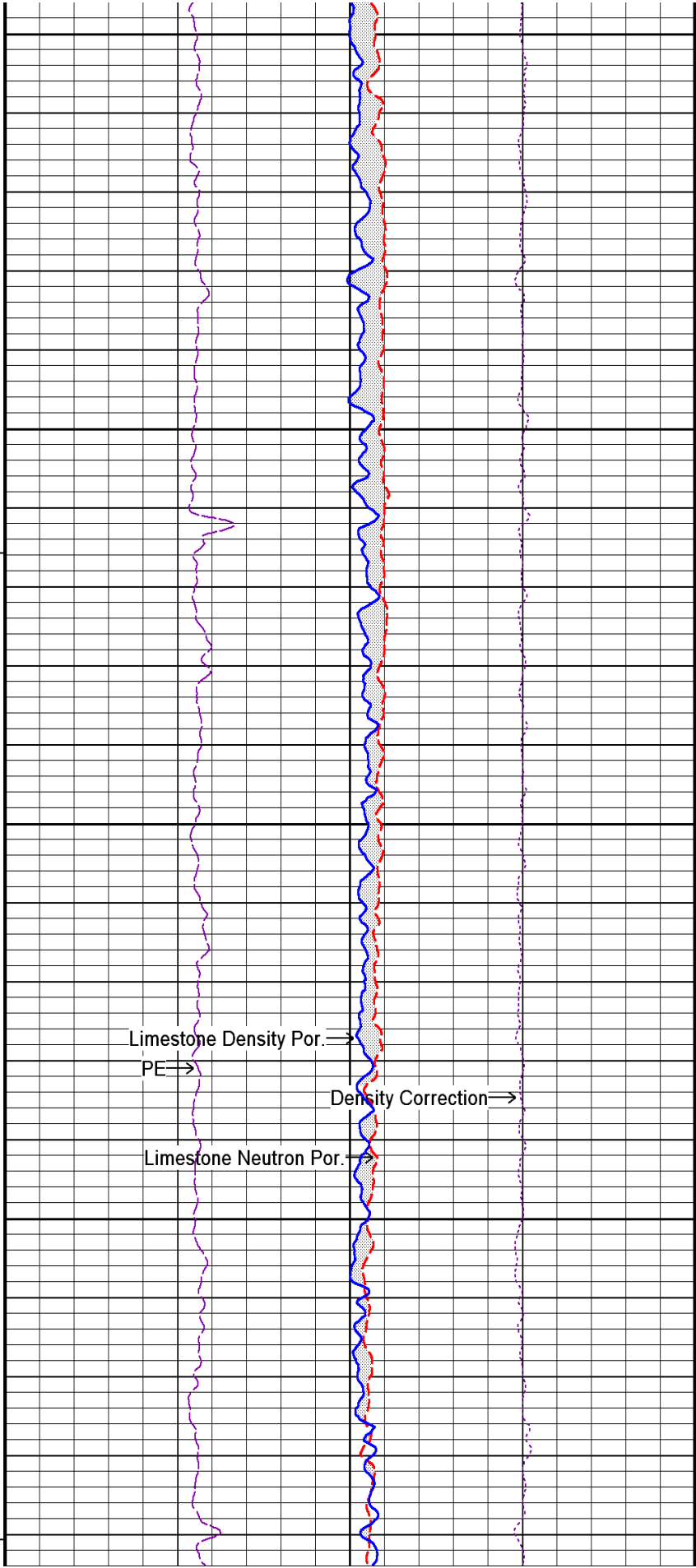
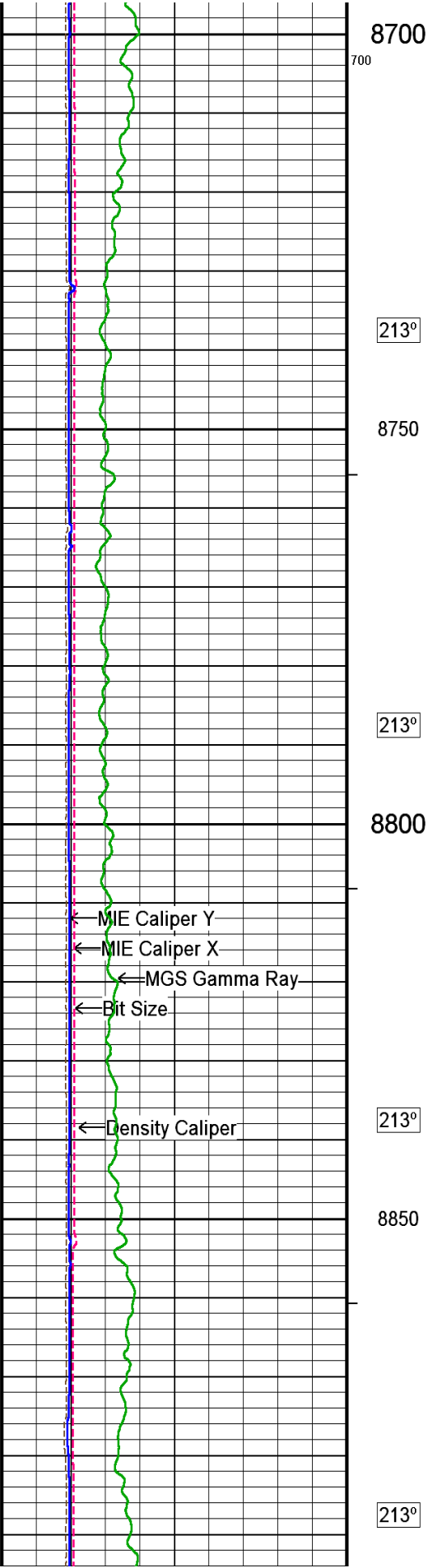
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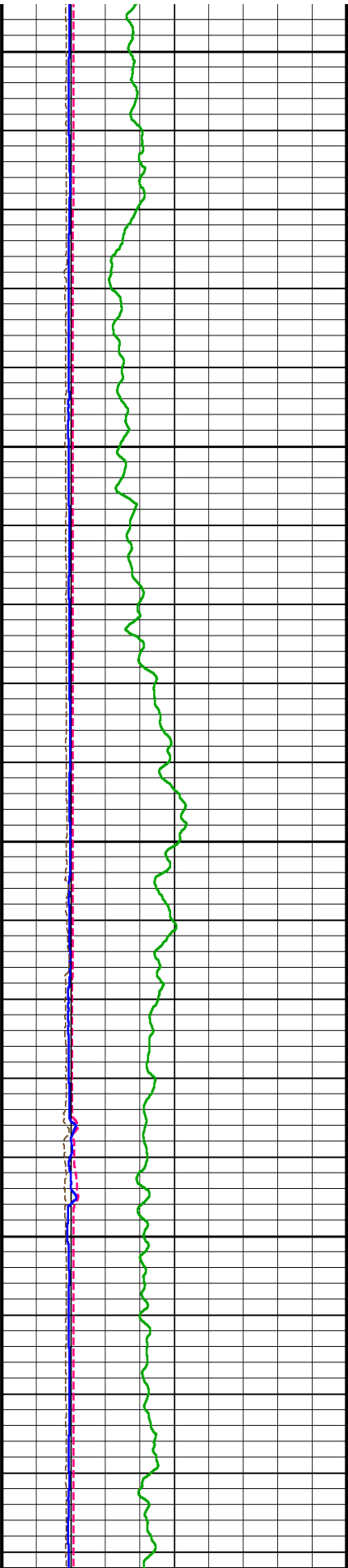
300

8650

213°







8900

213°

8950

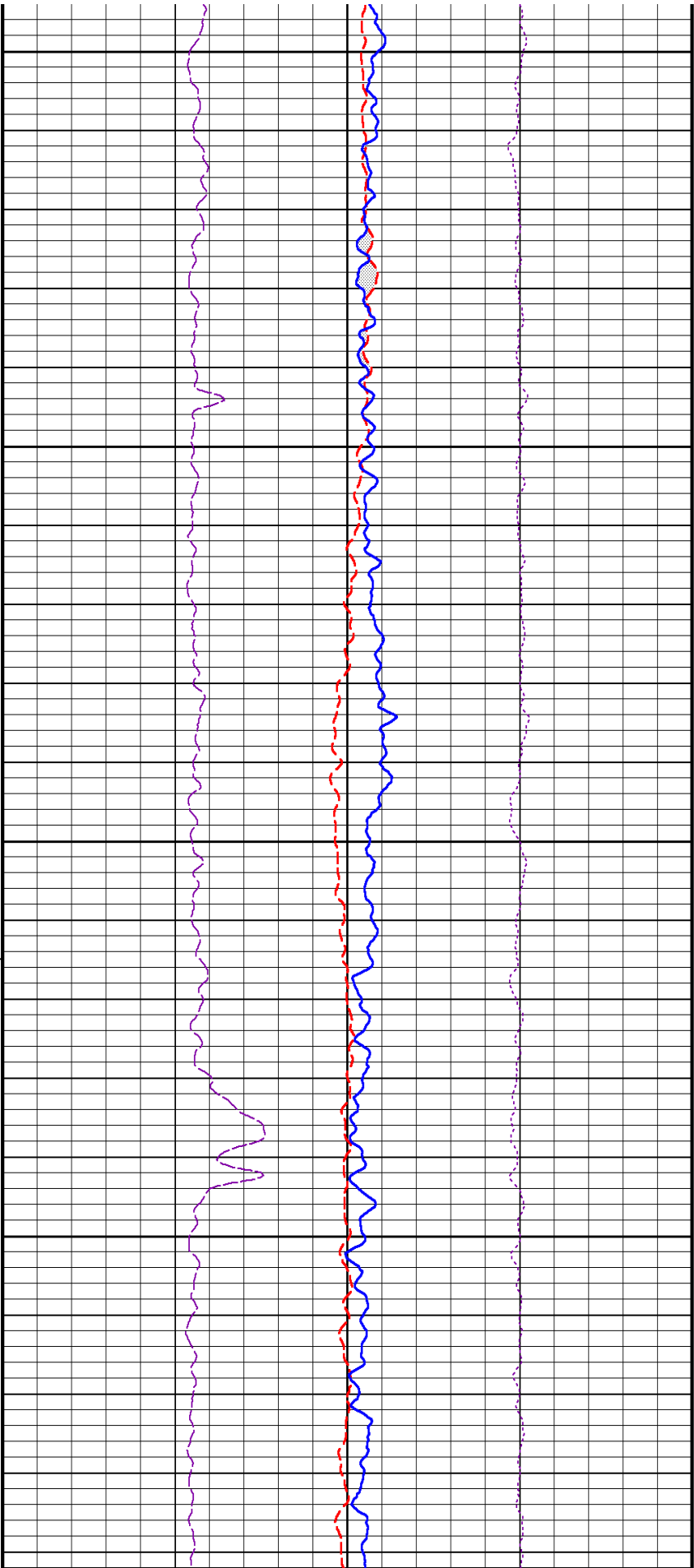
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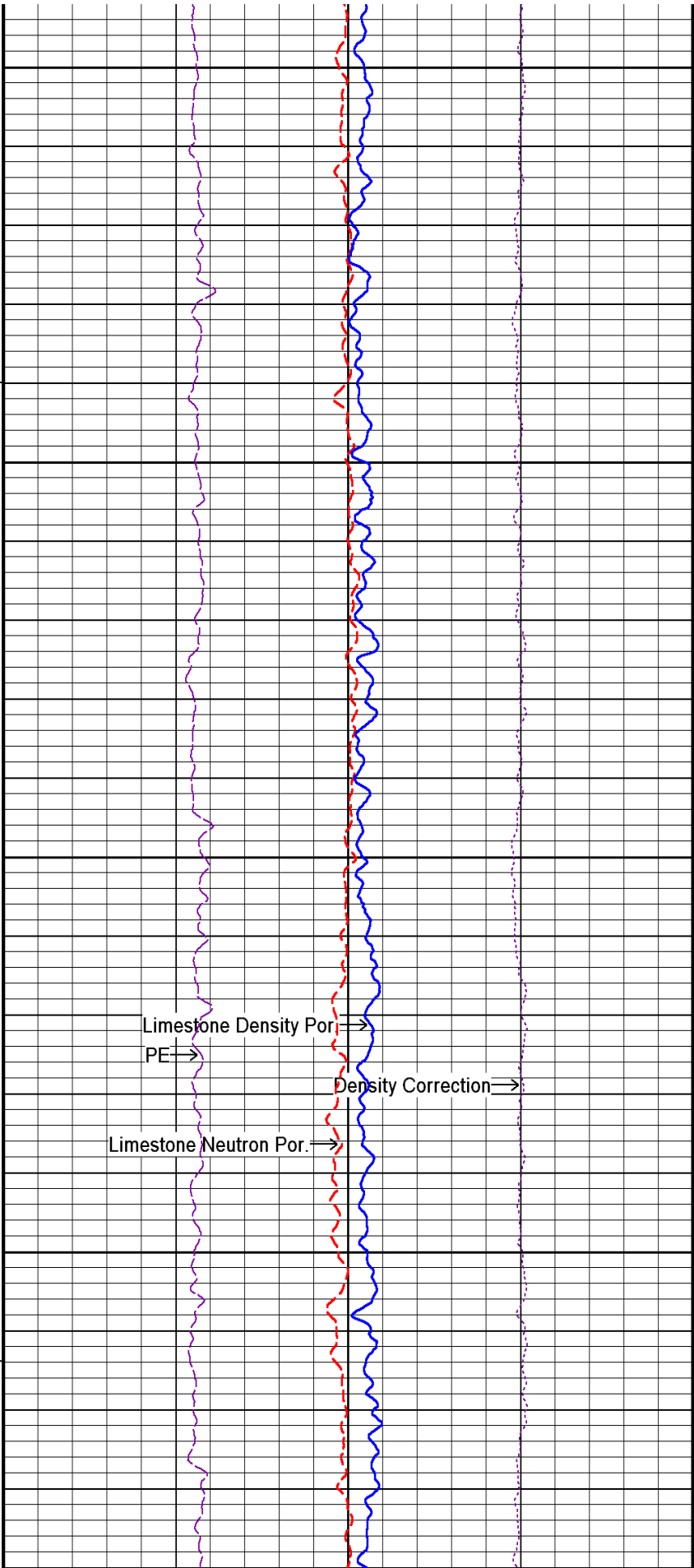
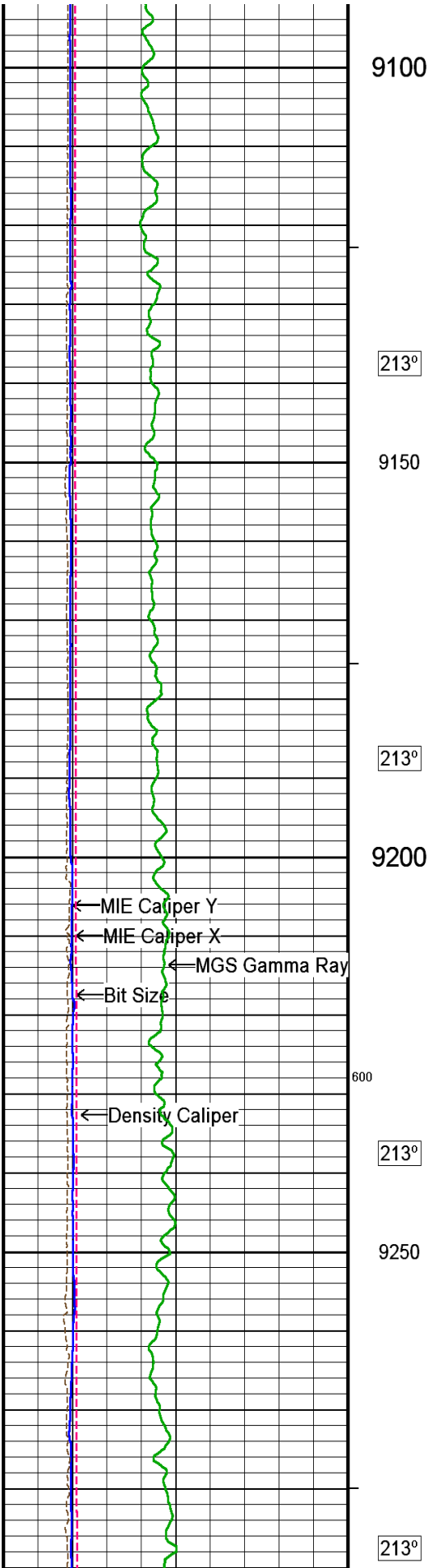
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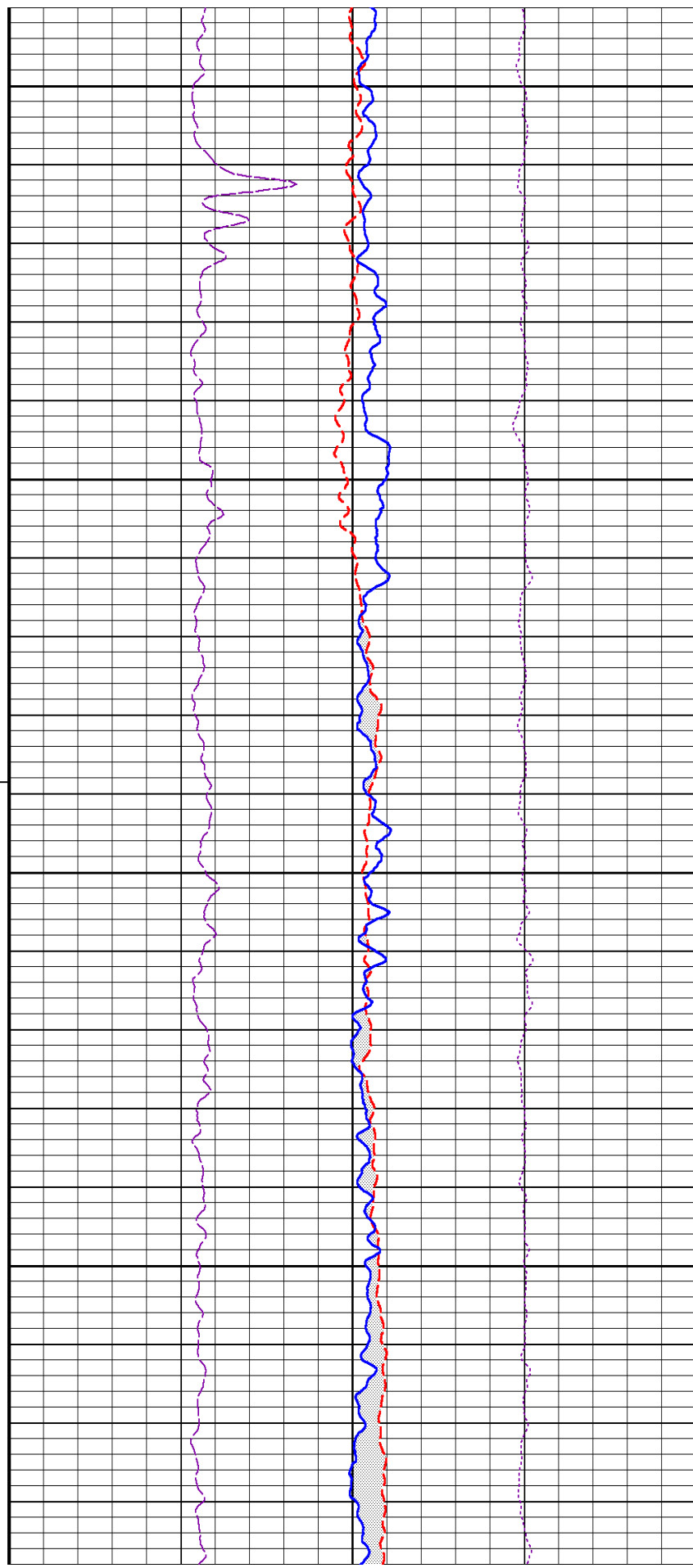
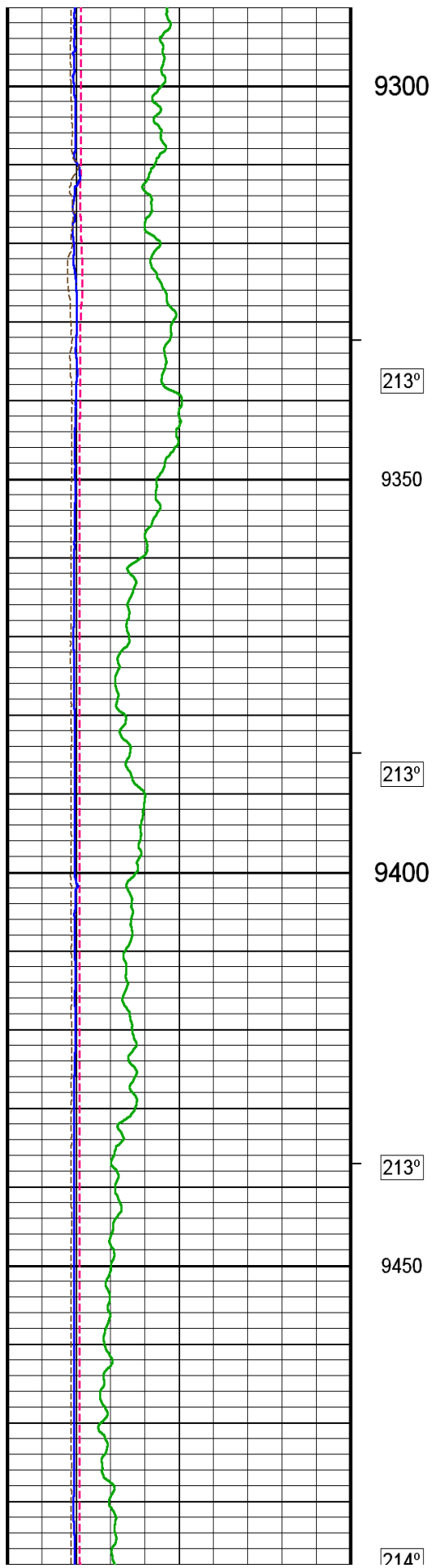
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9050

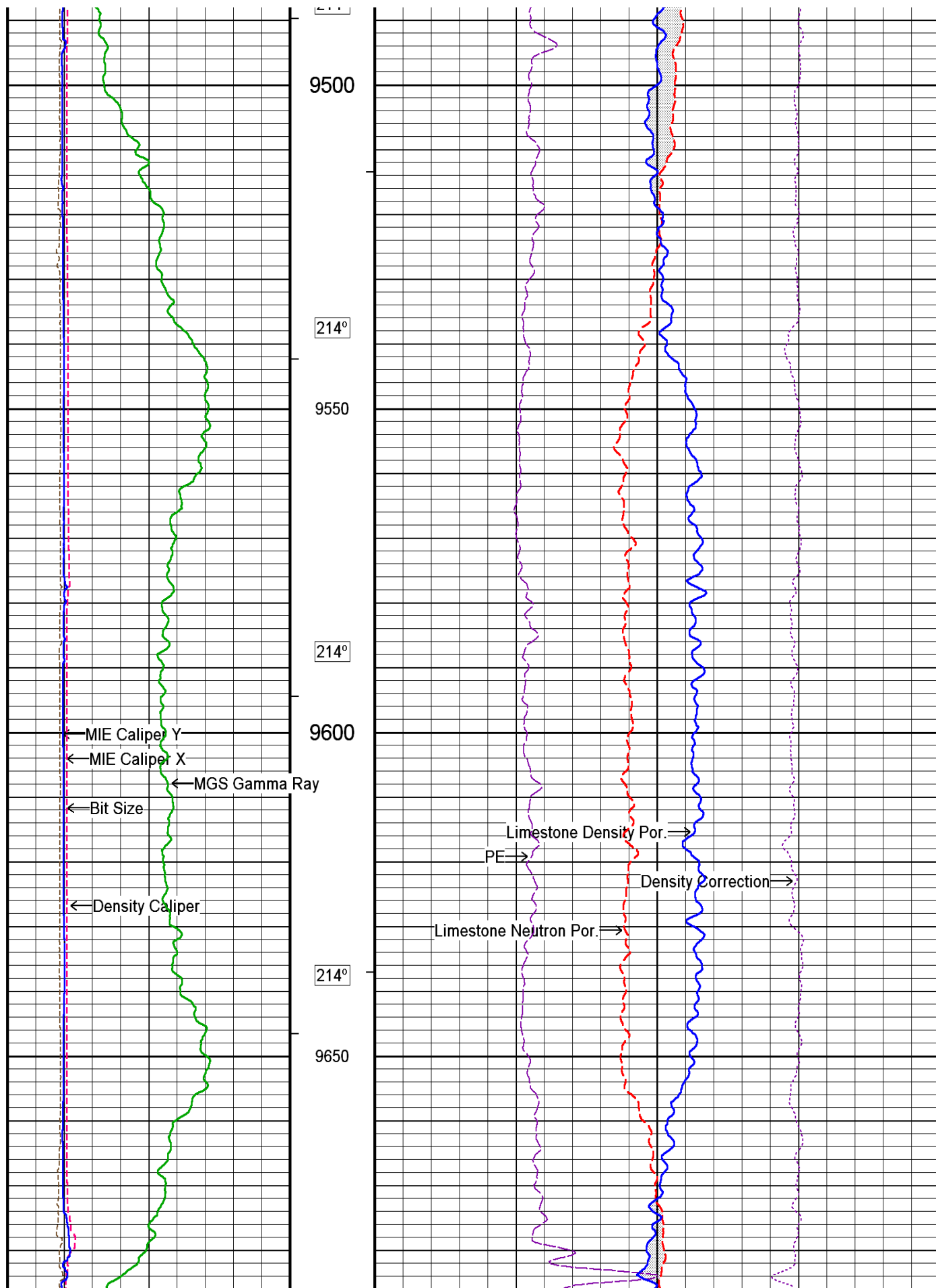
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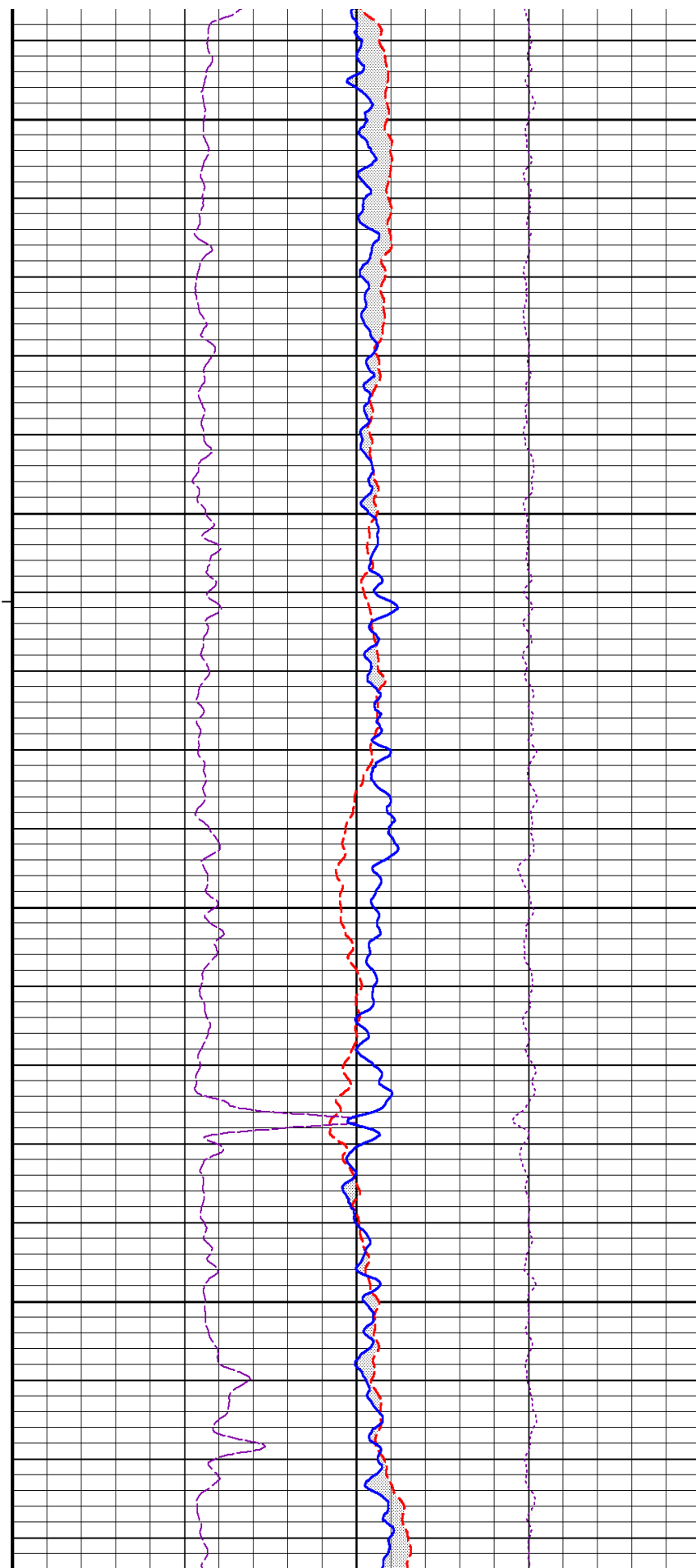
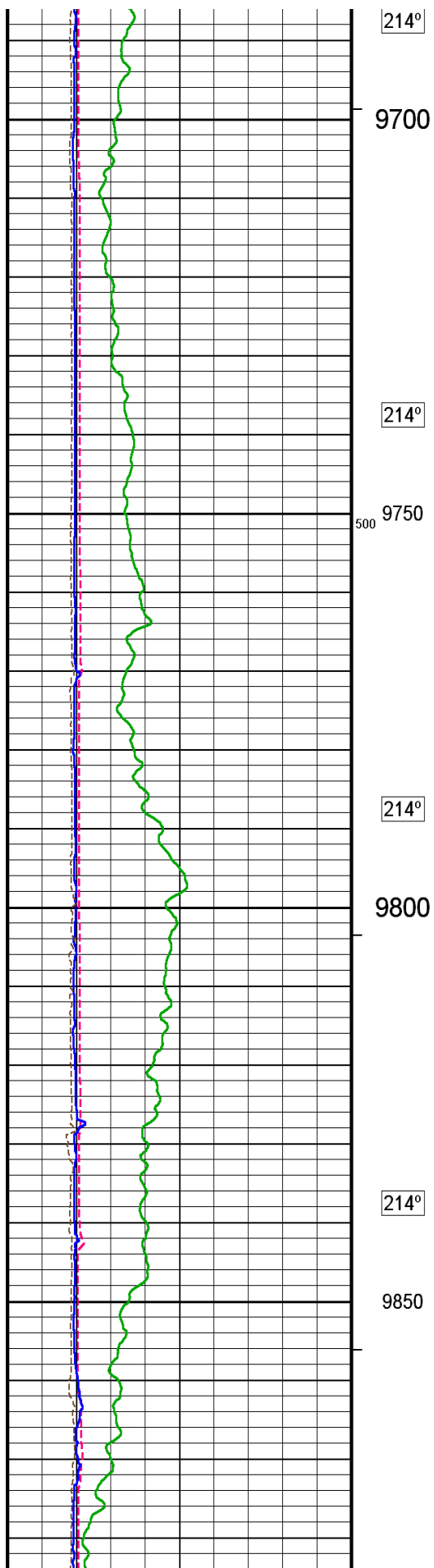


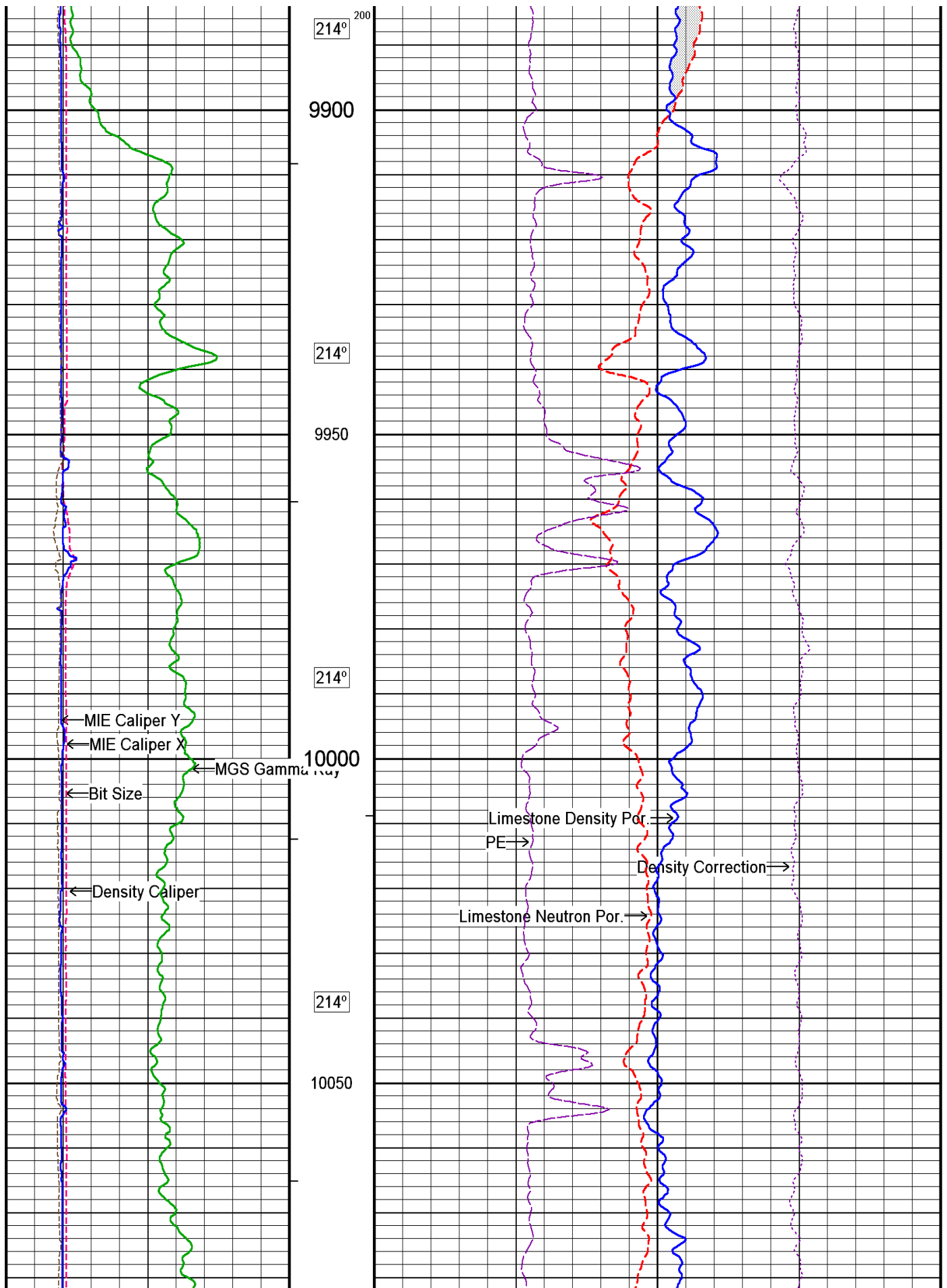


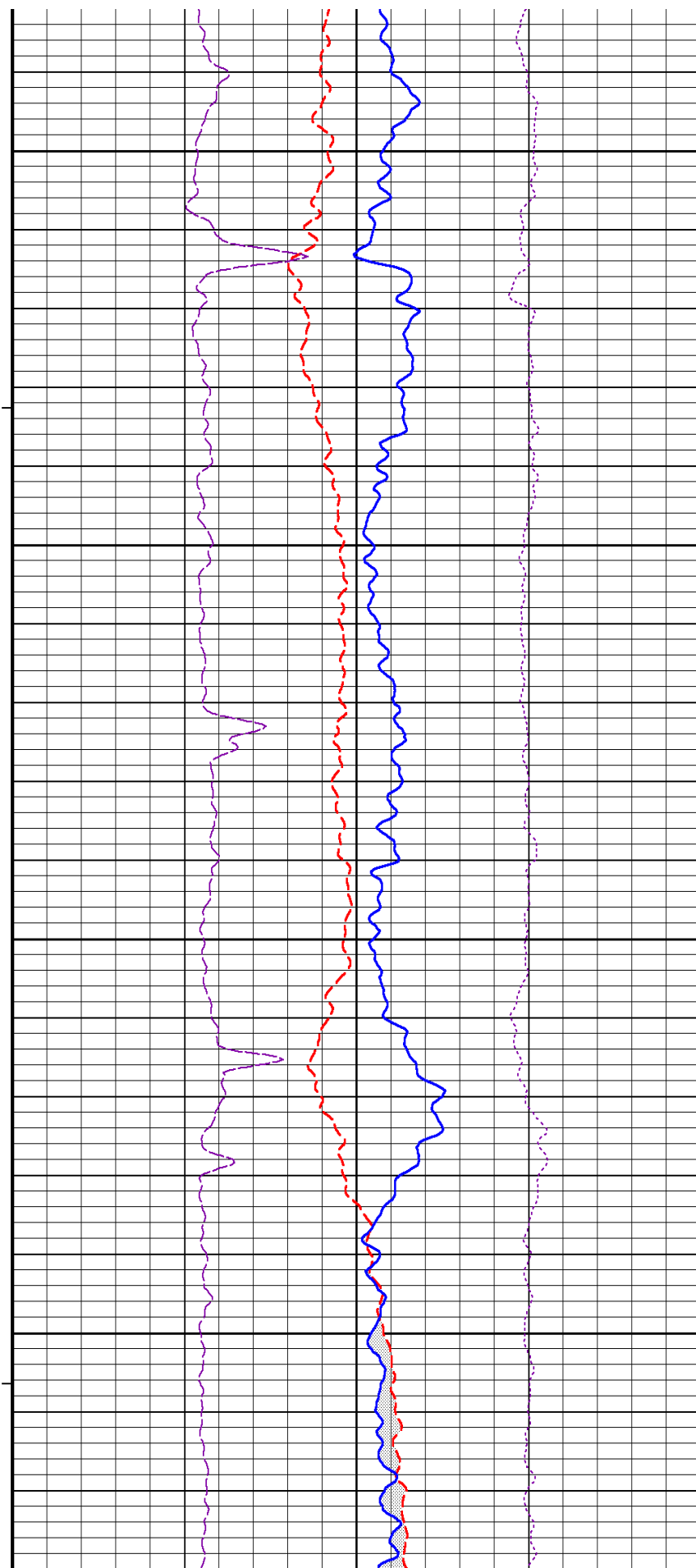
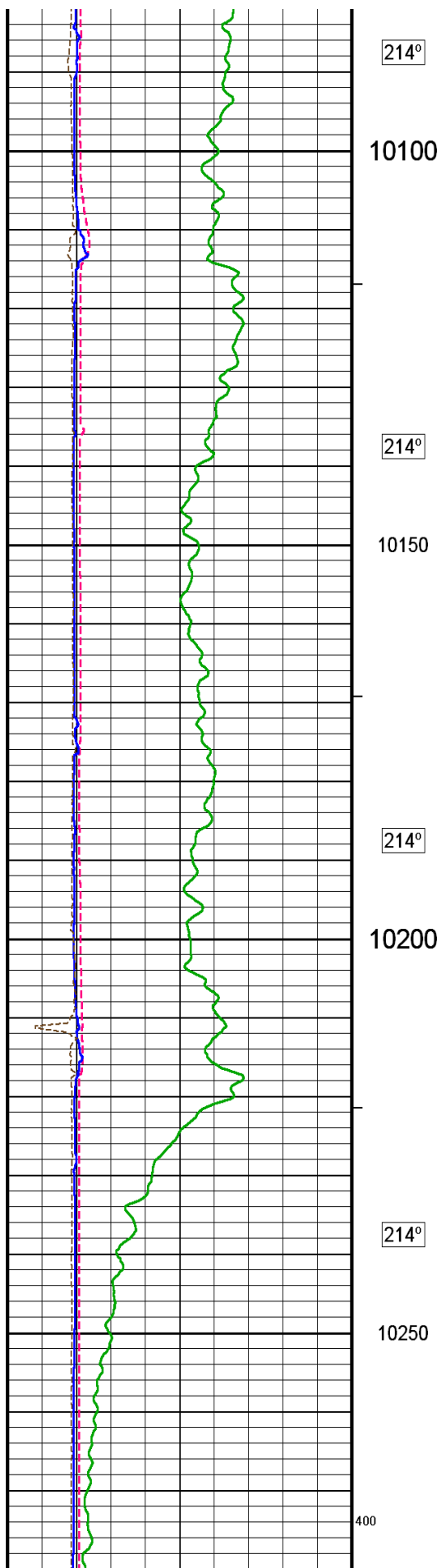


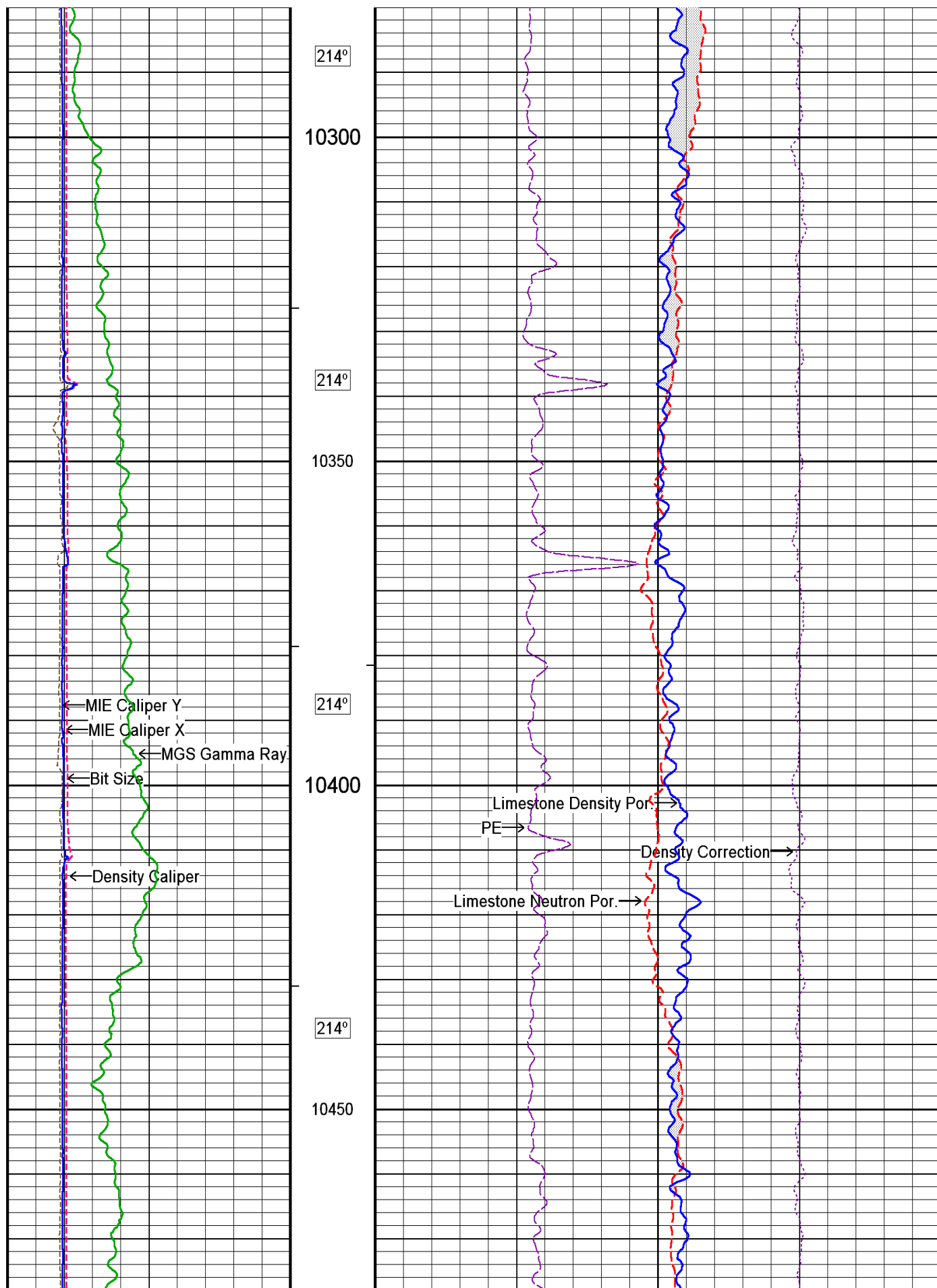


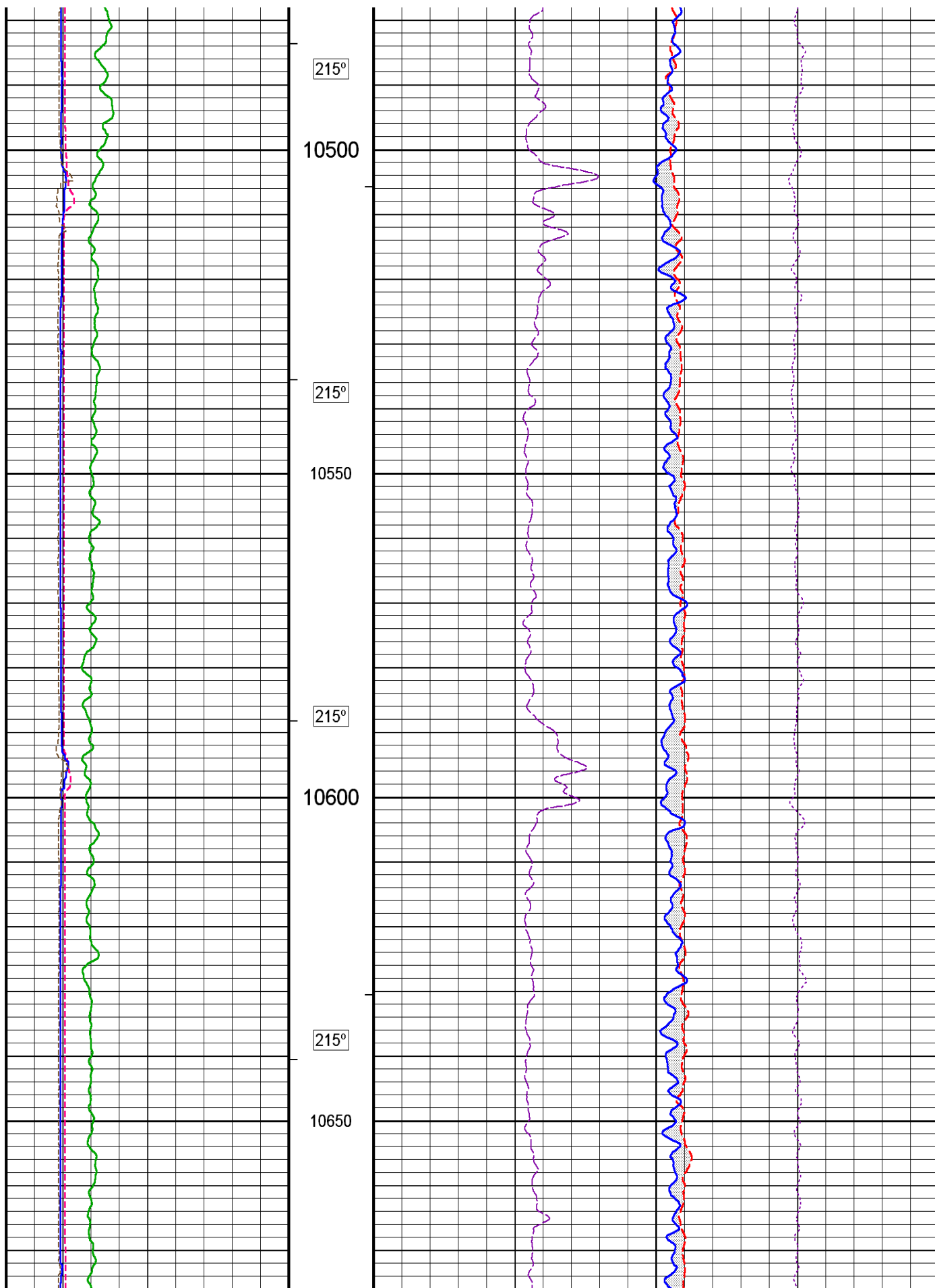


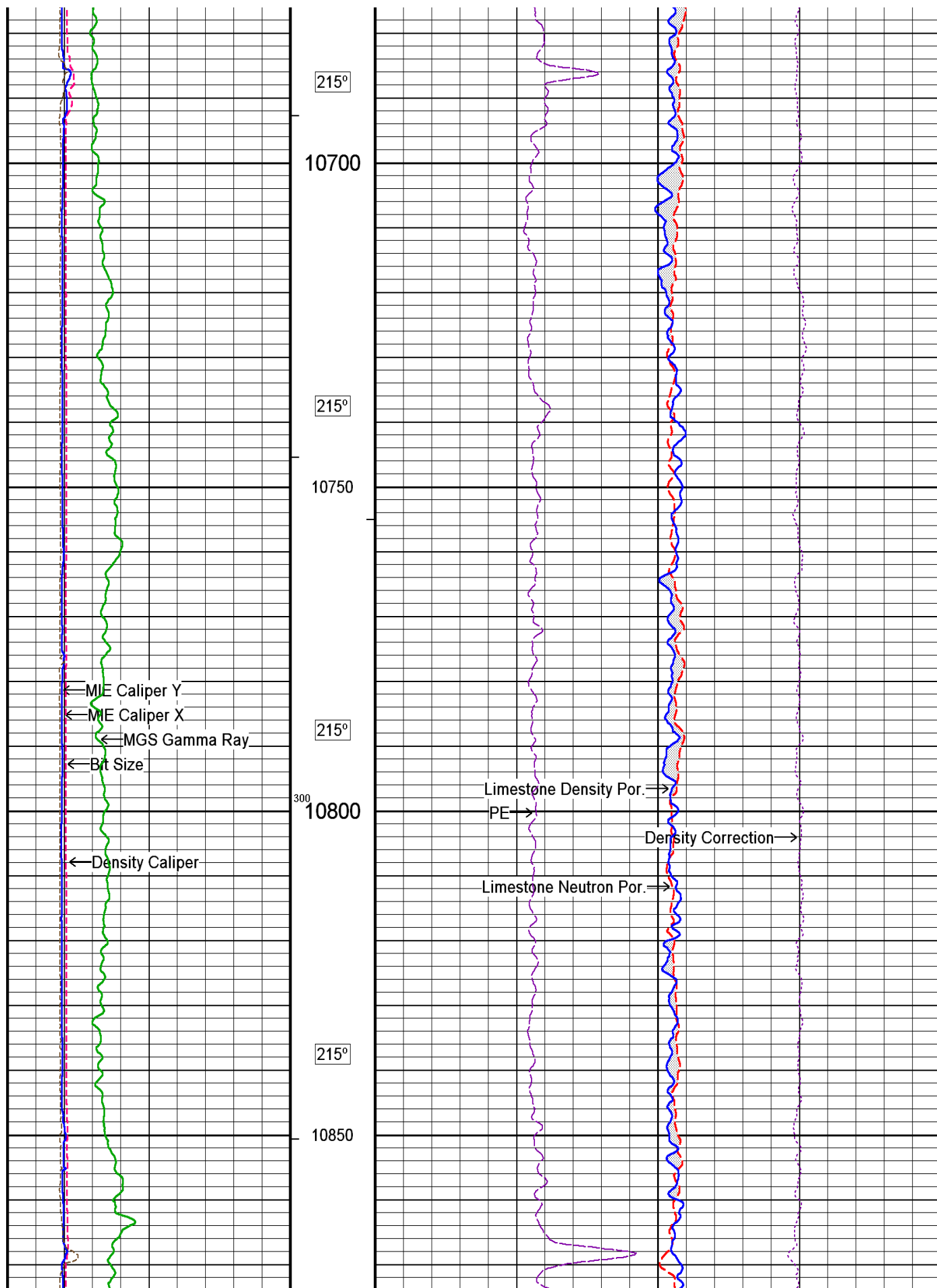


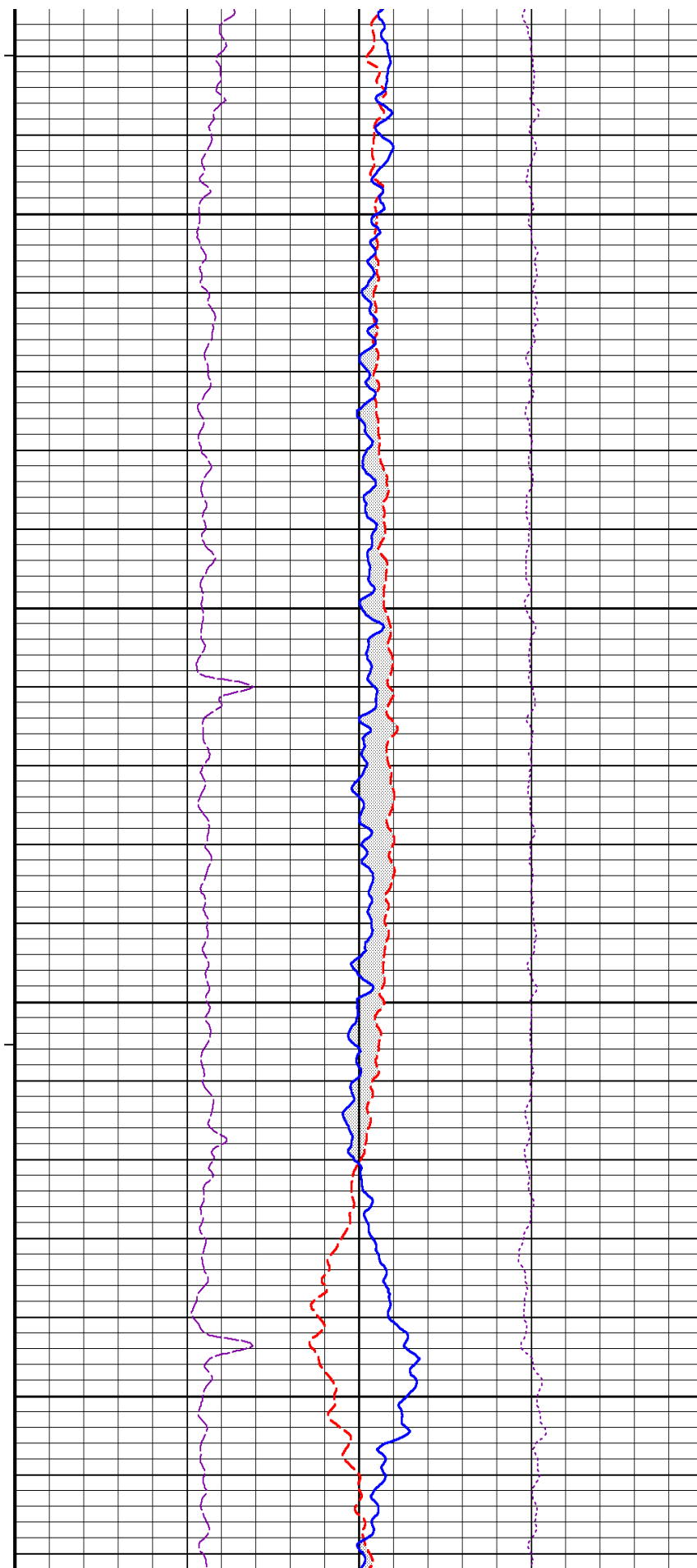
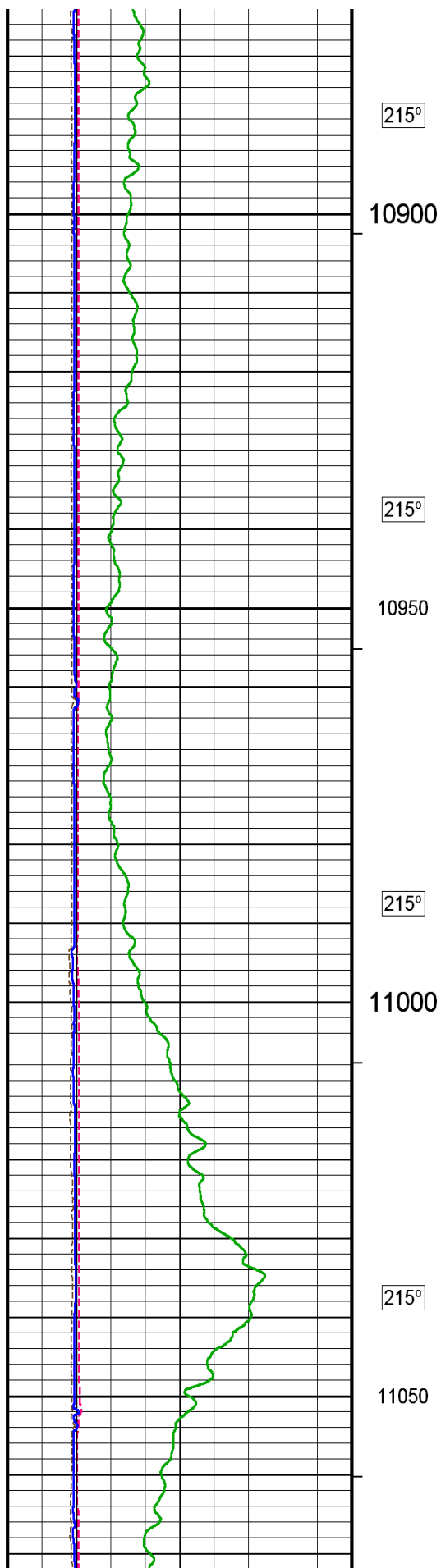




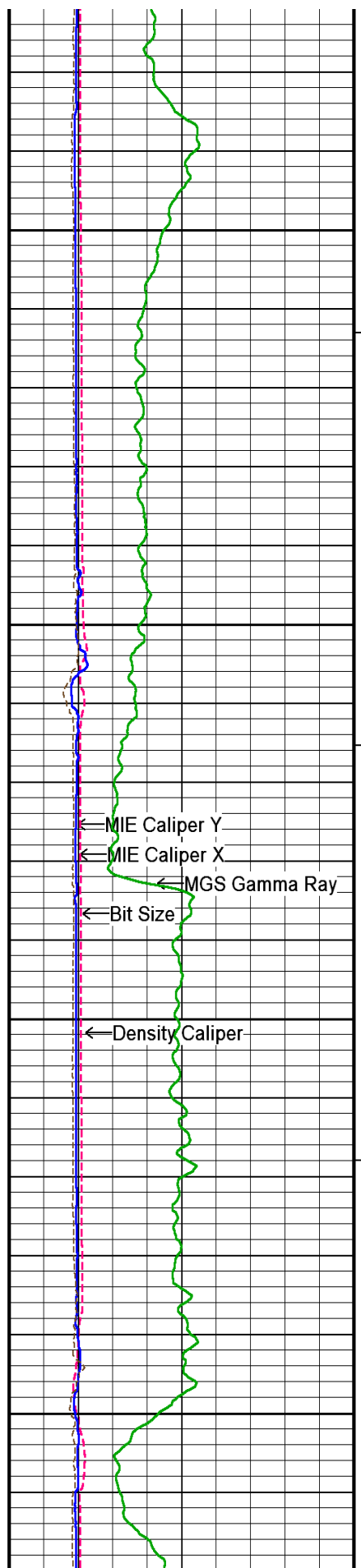












215°

11100

100

215°

11150

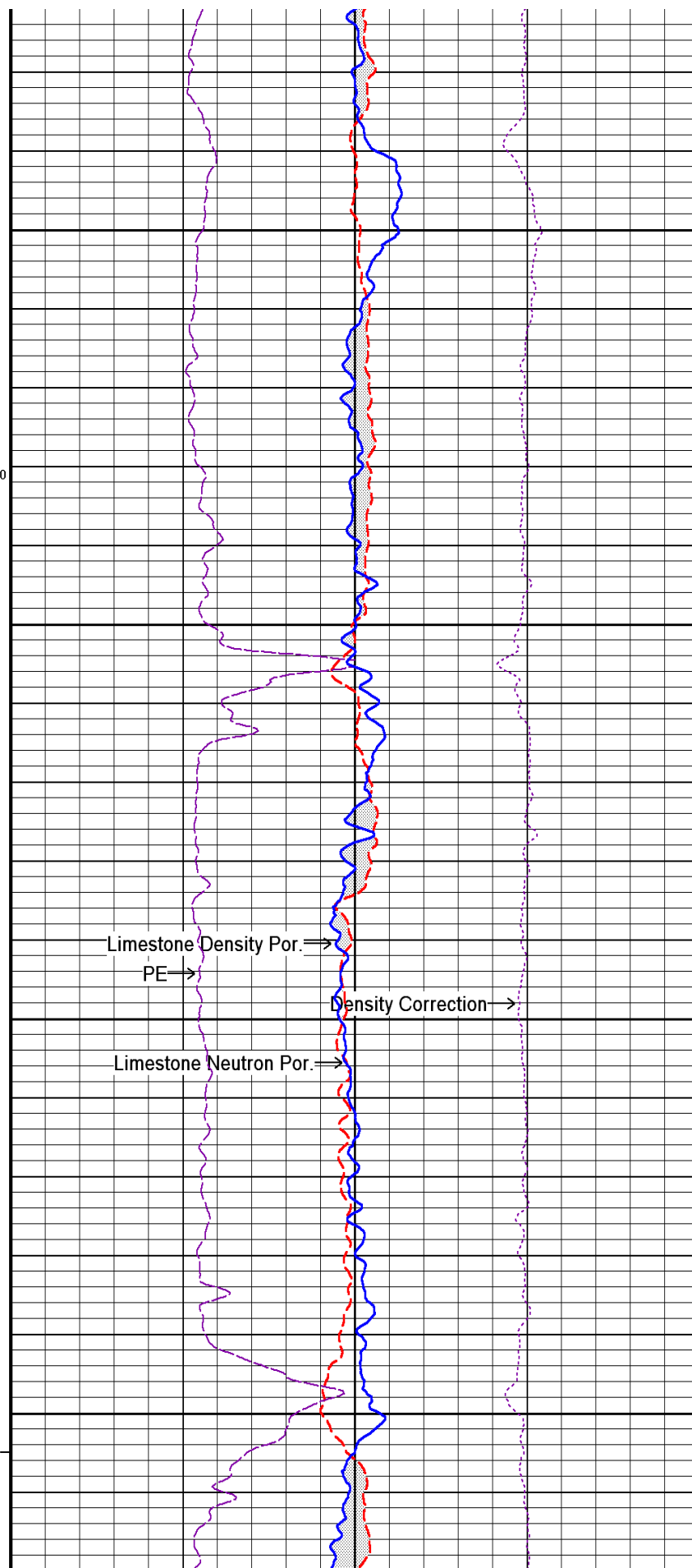
215°

11200

215°

11250

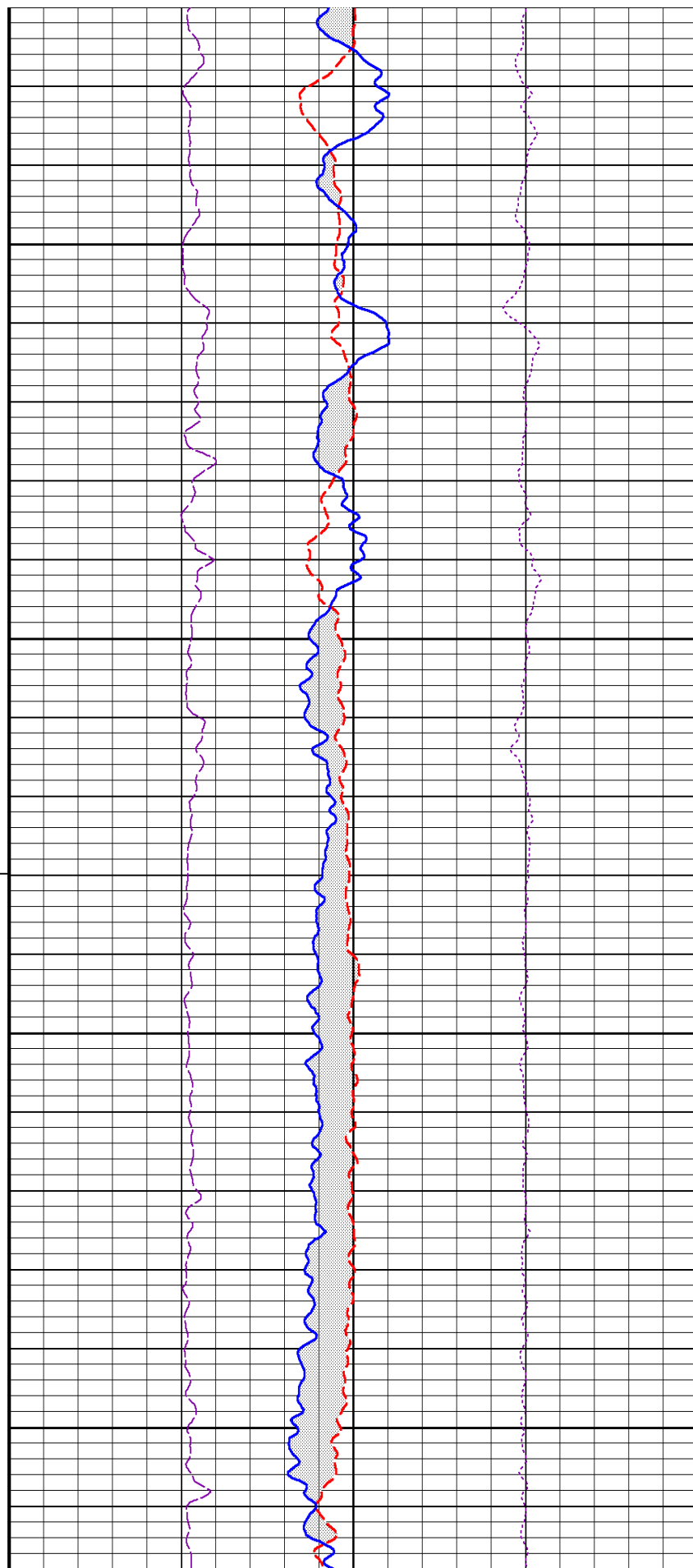
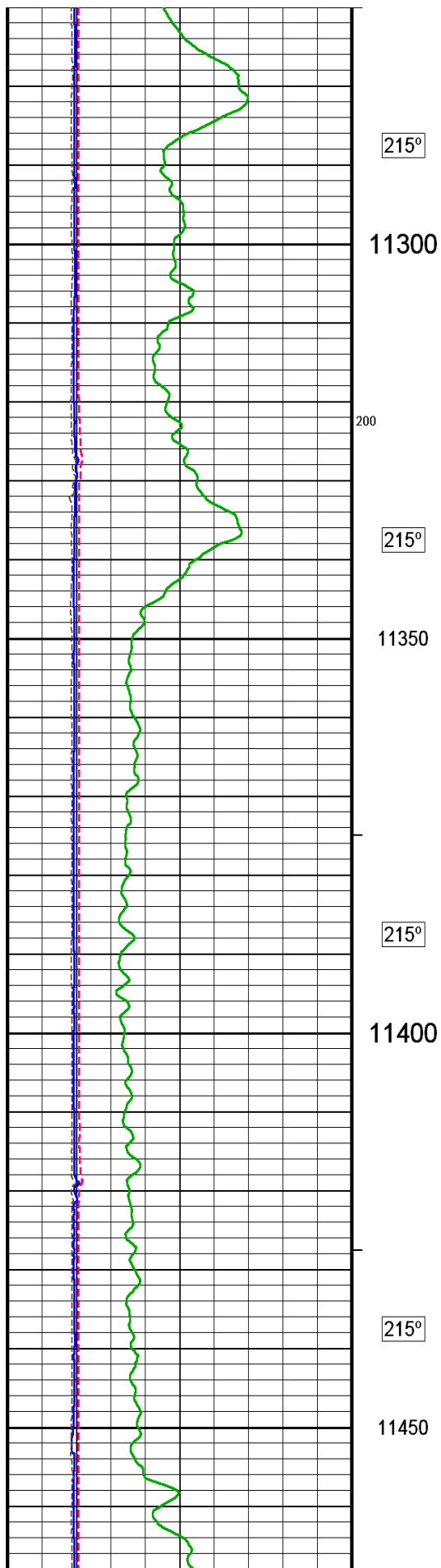
← MIE Caliper Y  
← MIE Caliper X  
← MGS Gamma Ray  
← Bit Size  
← Density Caliper

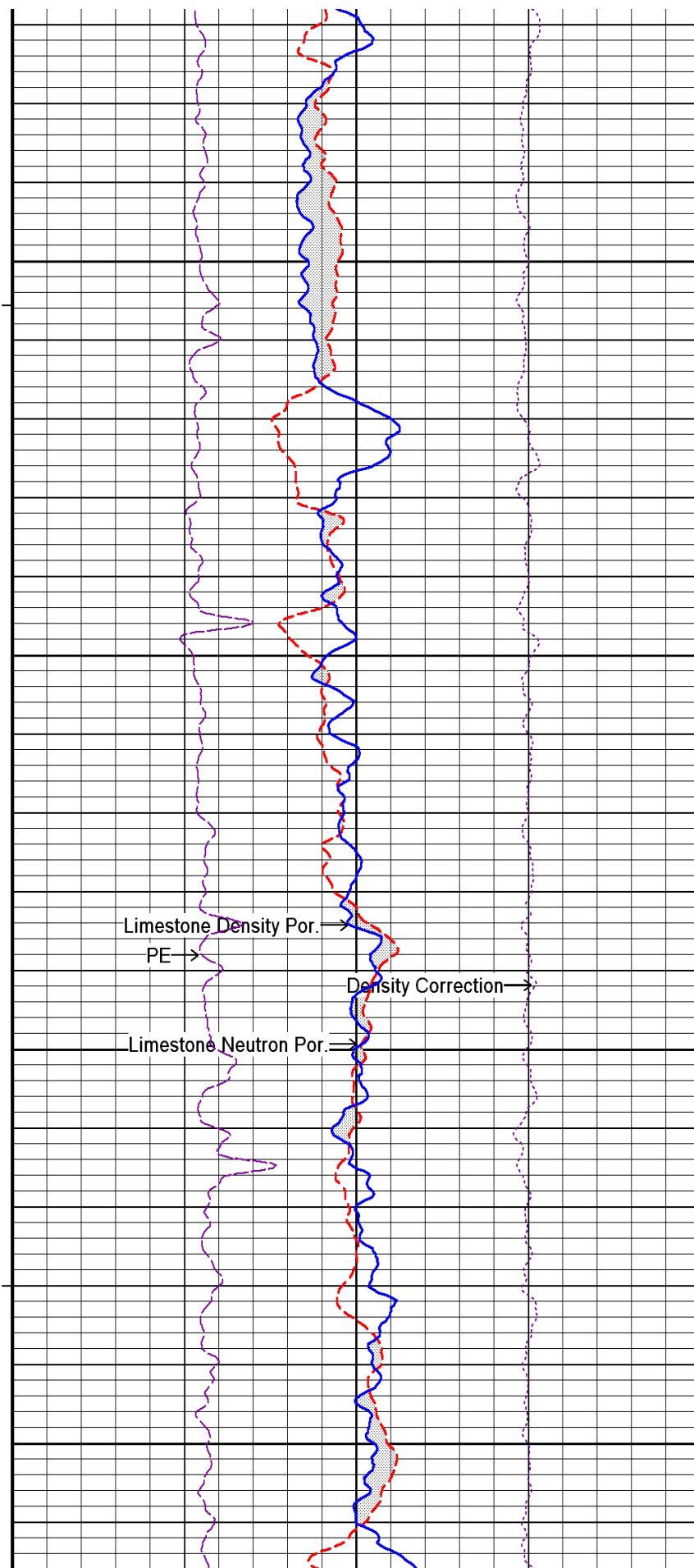
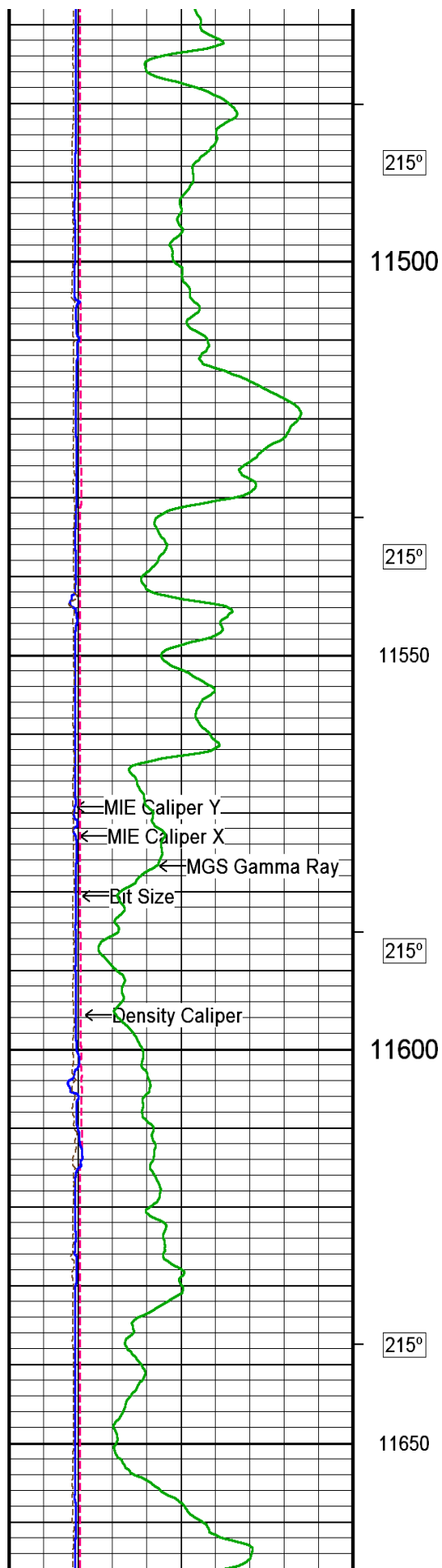


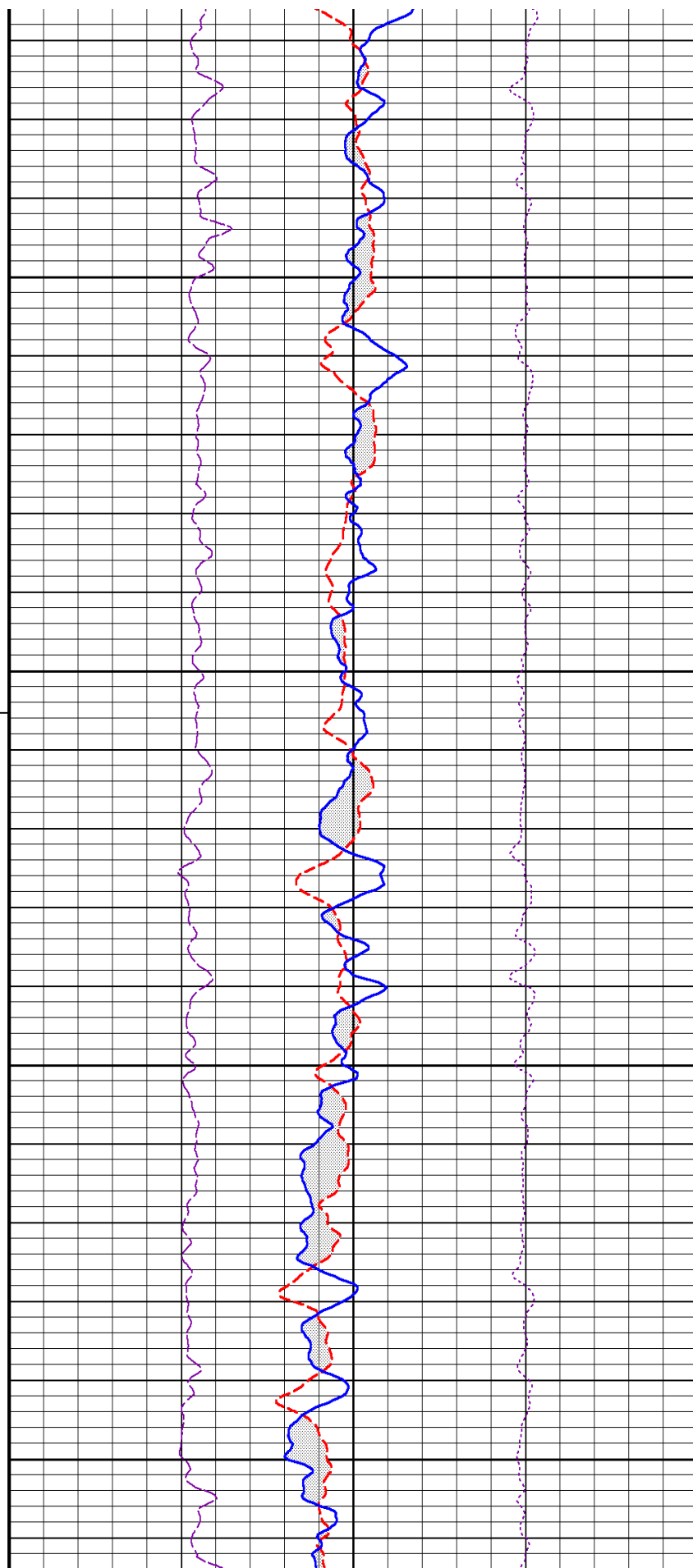
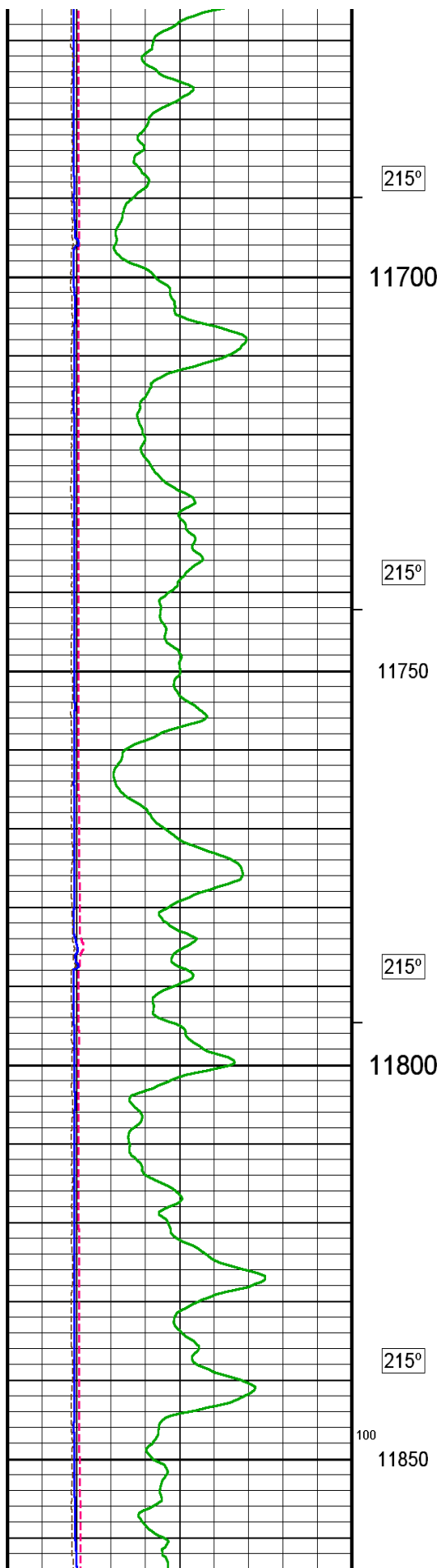
Limestone Density Por. →  
PE →

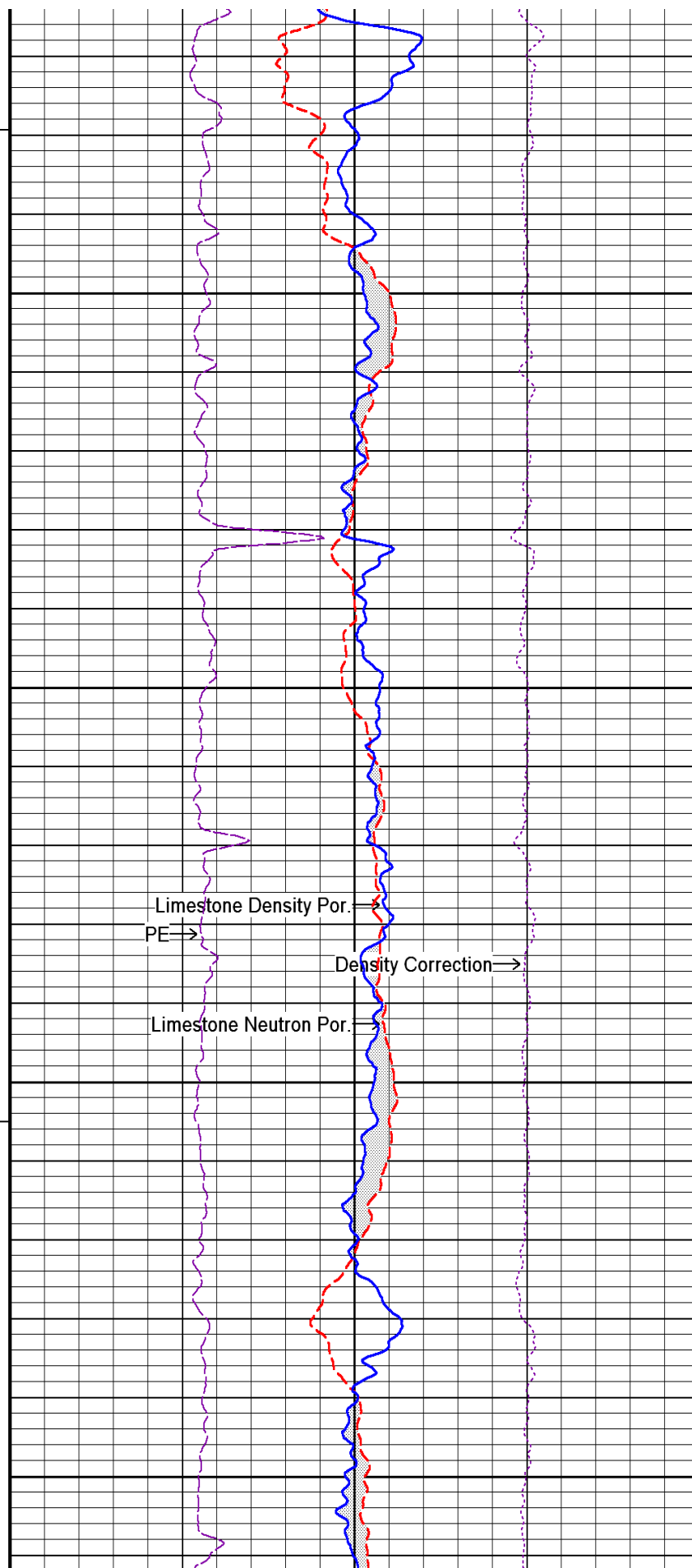
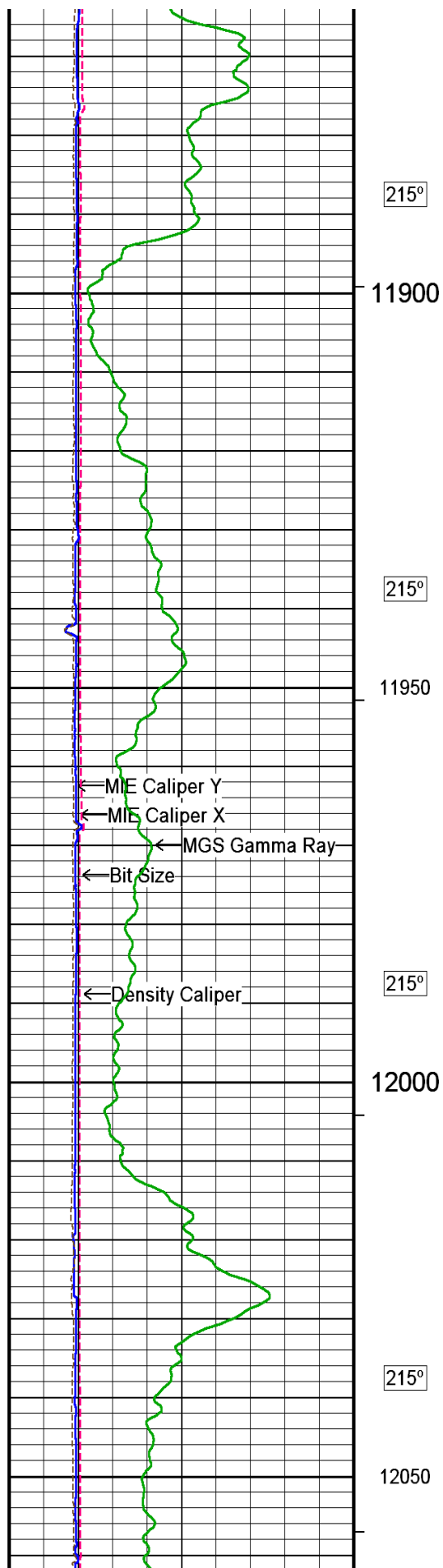
Density Correction →

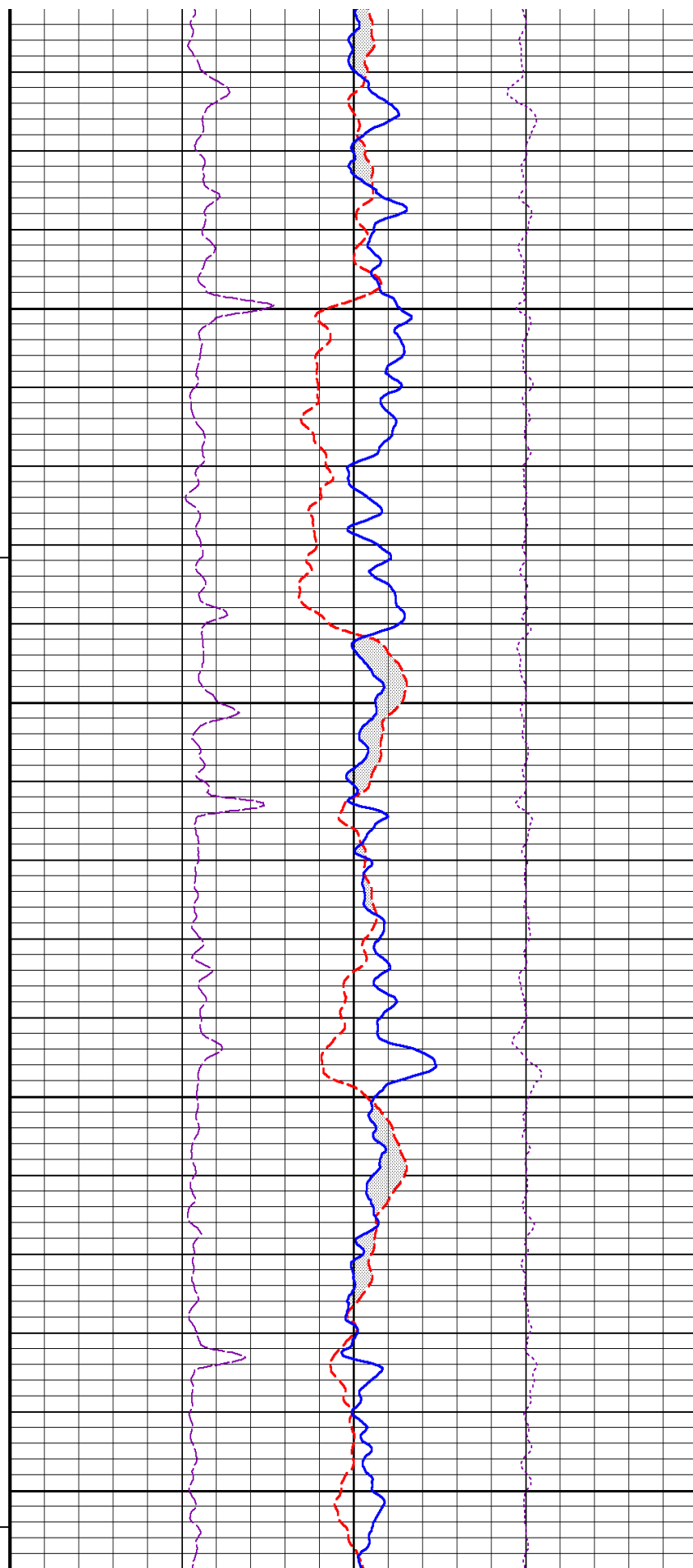
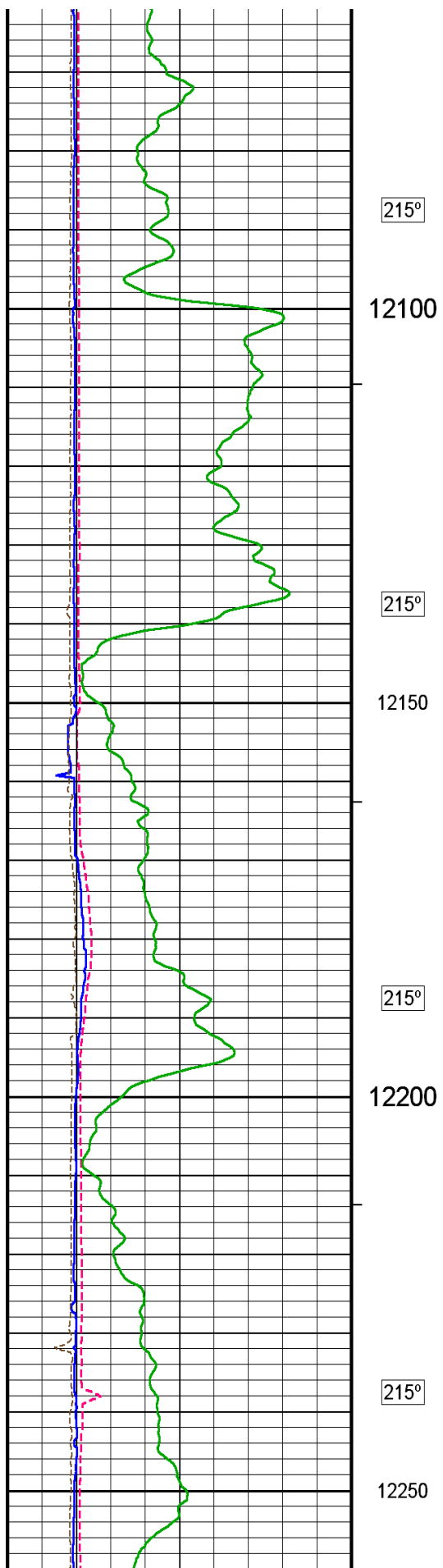
Limestone Neutron Por. →

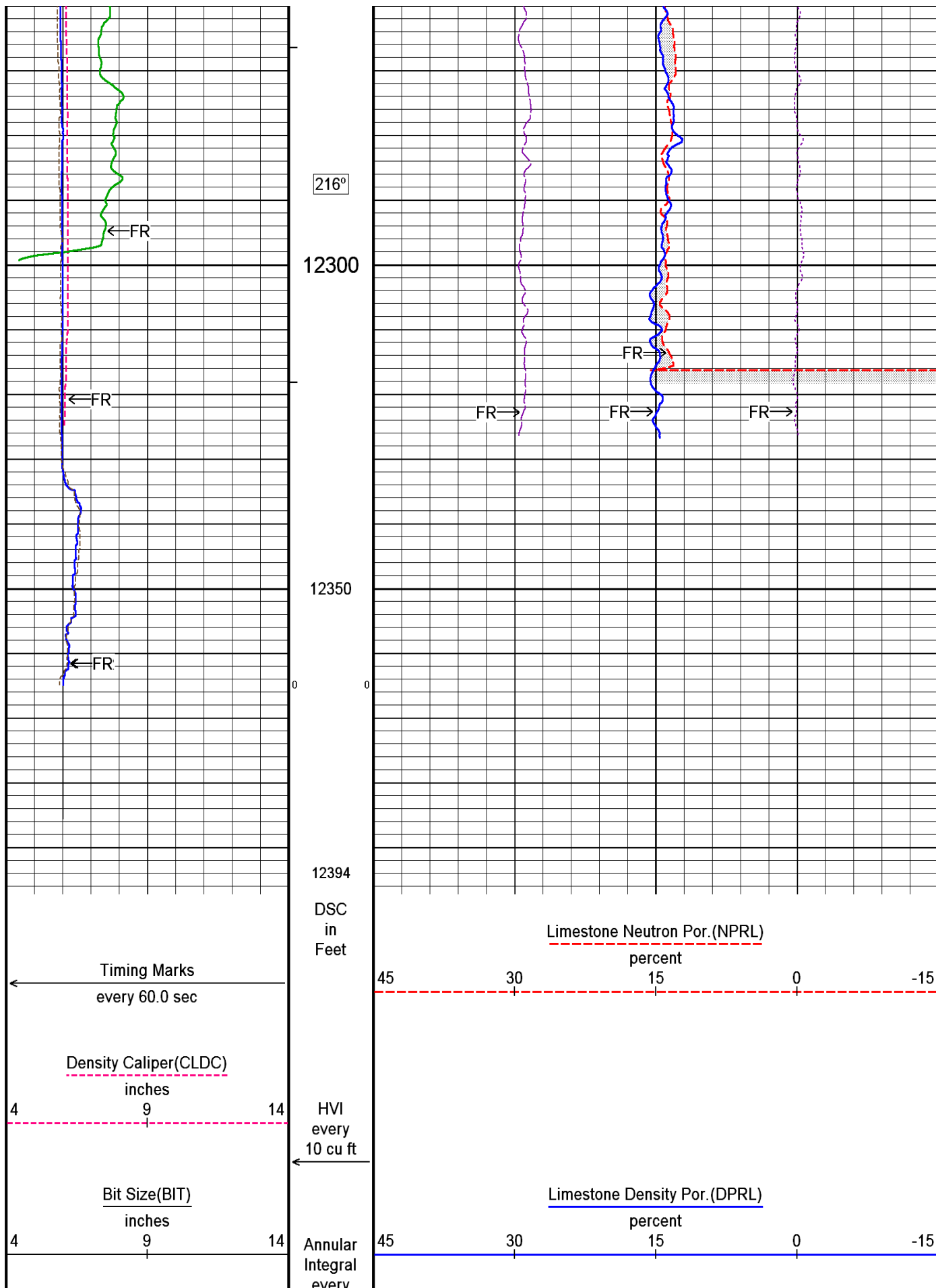


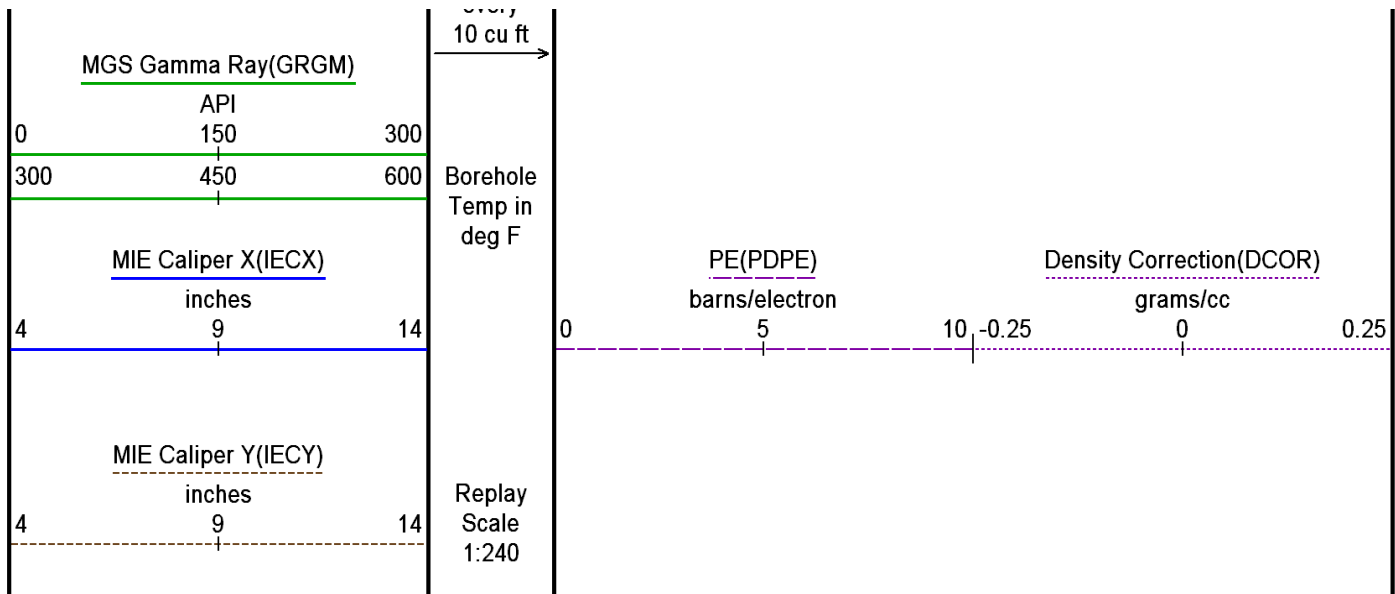






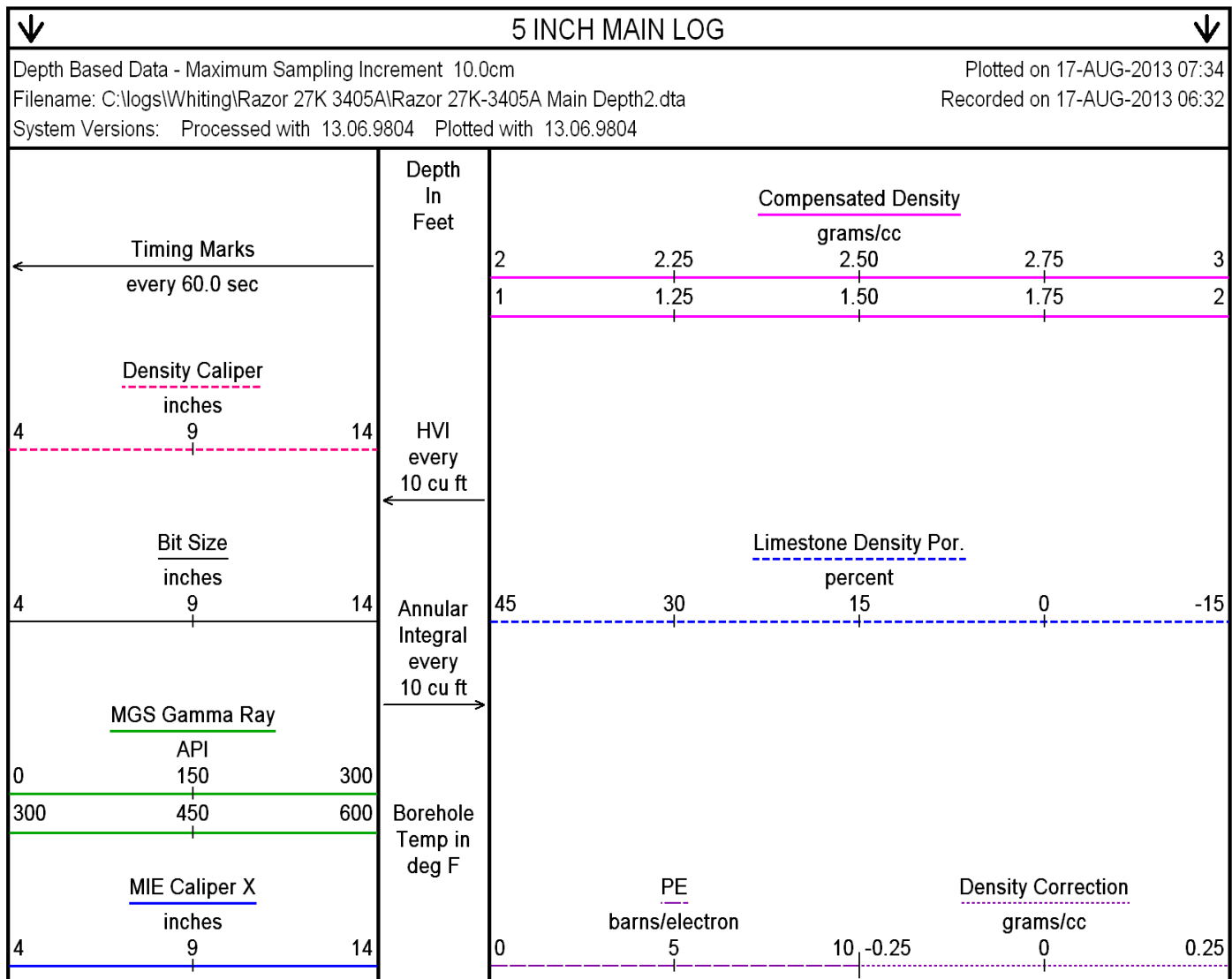




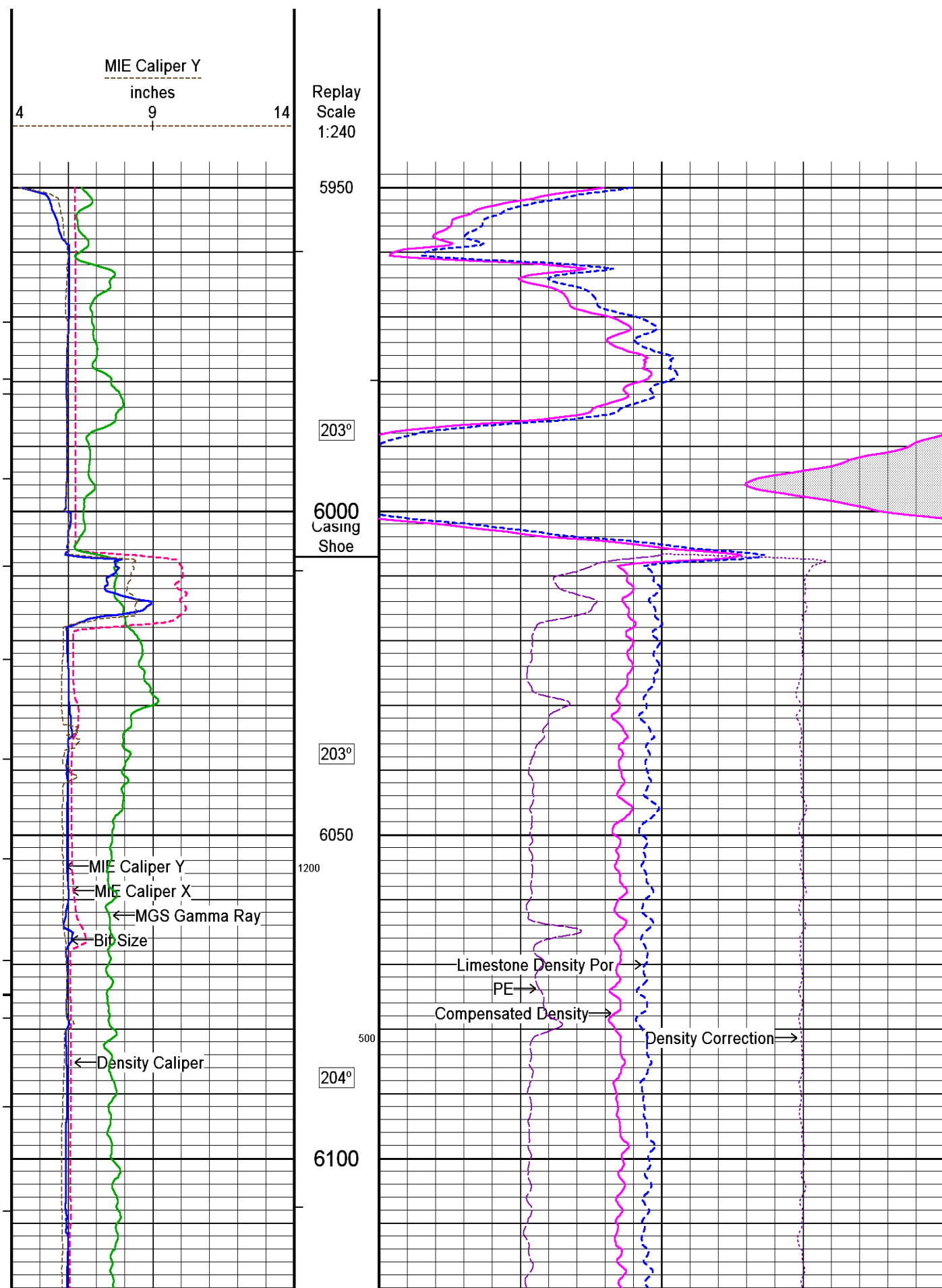


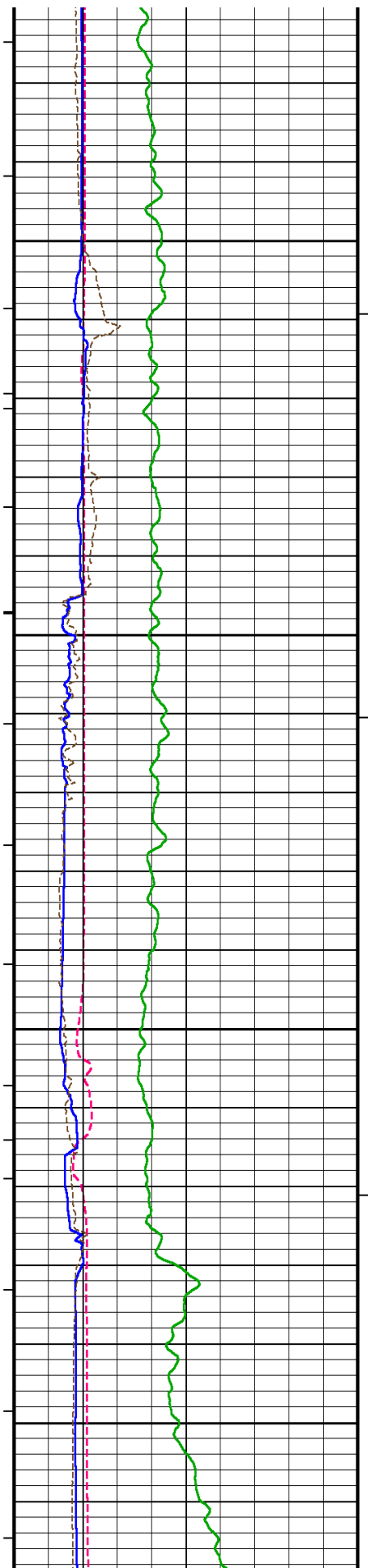
Depth Based Data - Maximum Sampling Increment 10.0cm  
 Plotted on 17-AUG-2013 07:34  
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 Recorded on 17-AUG-2013 06:32  
 System Versions: Processed with 13.06.9804 Plotted with 13.06.9804

↑ 5 INCH MAIN LOG ↑









204°

6150

204°

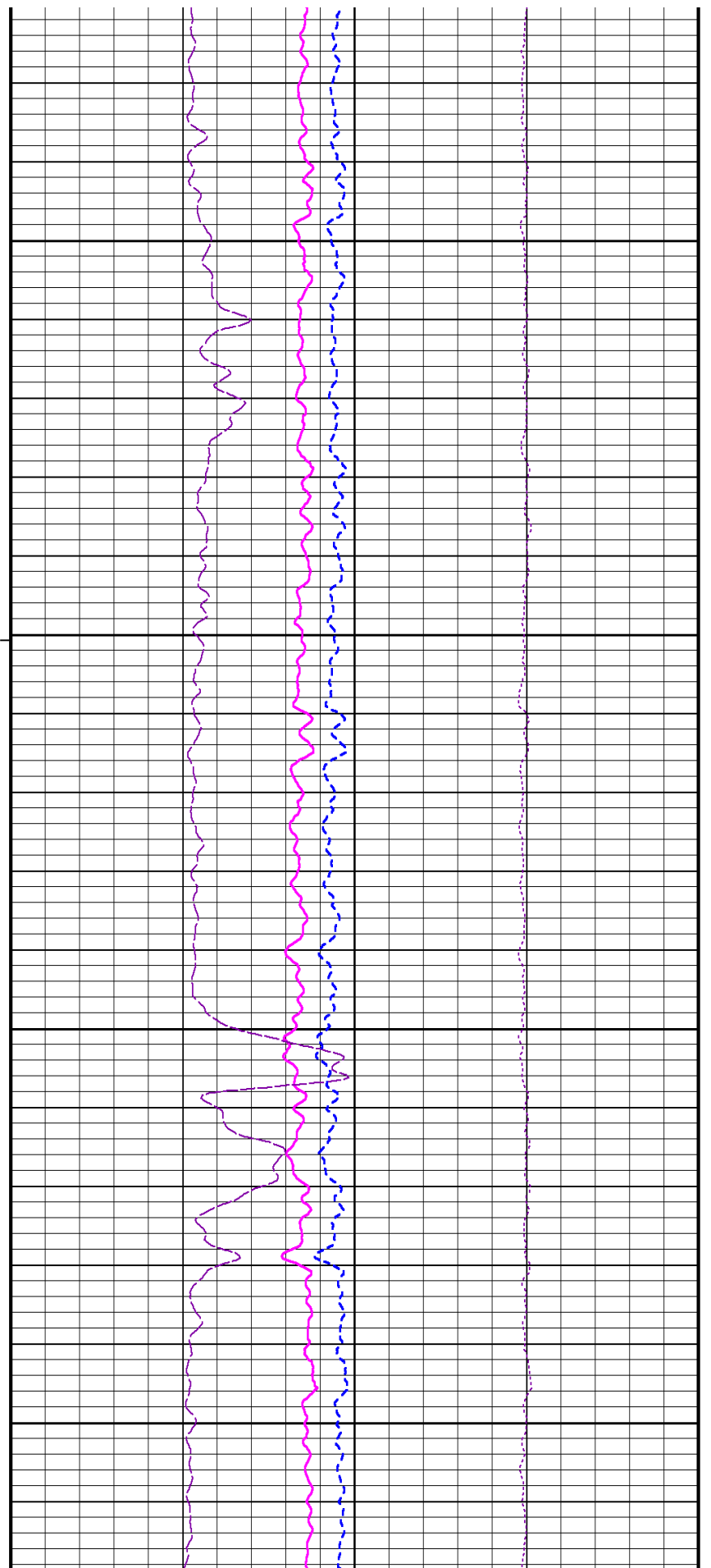
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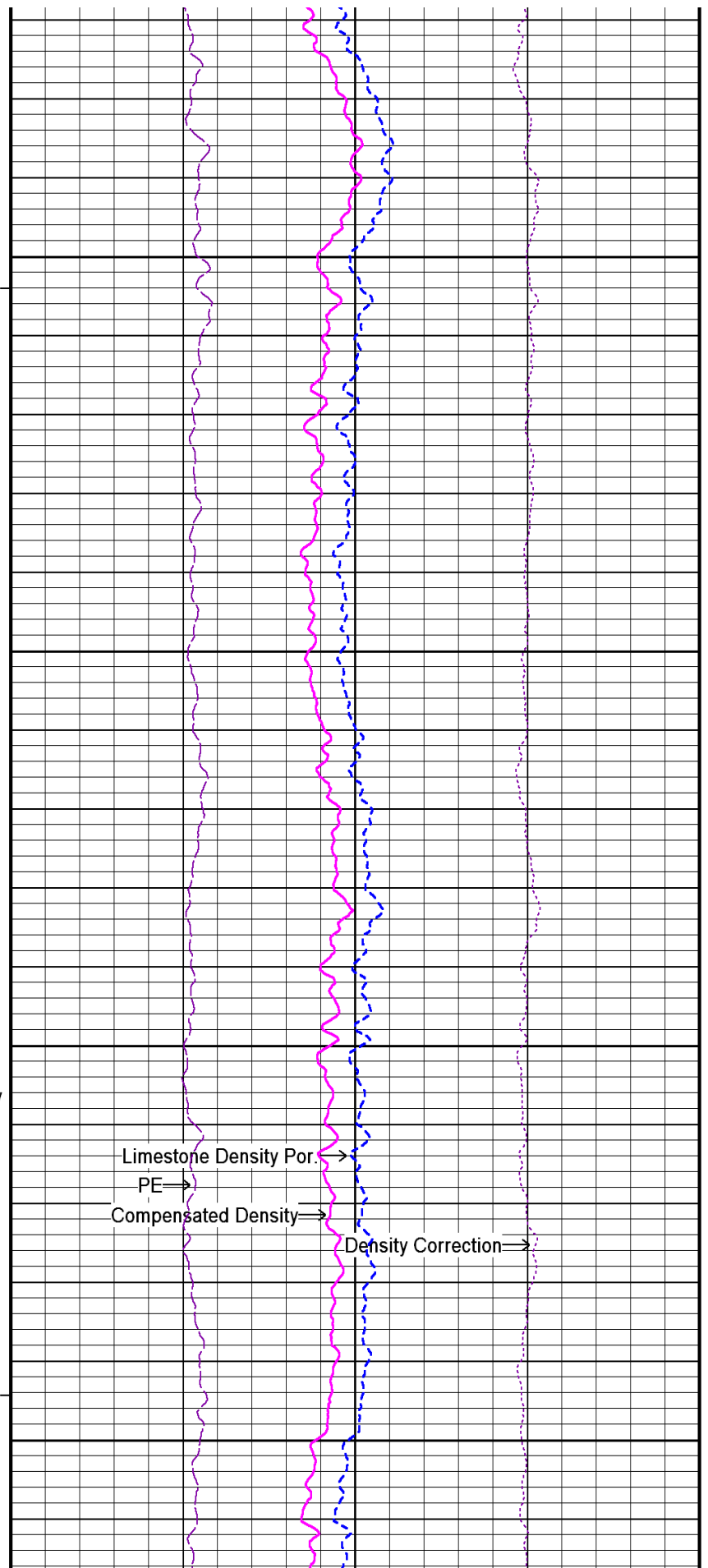
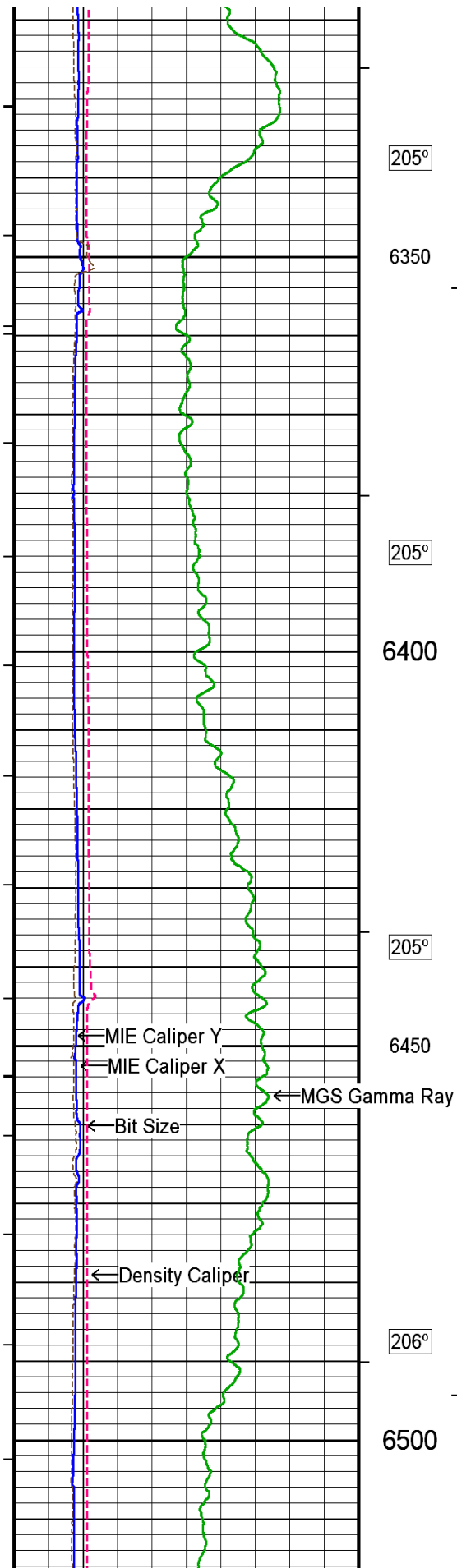
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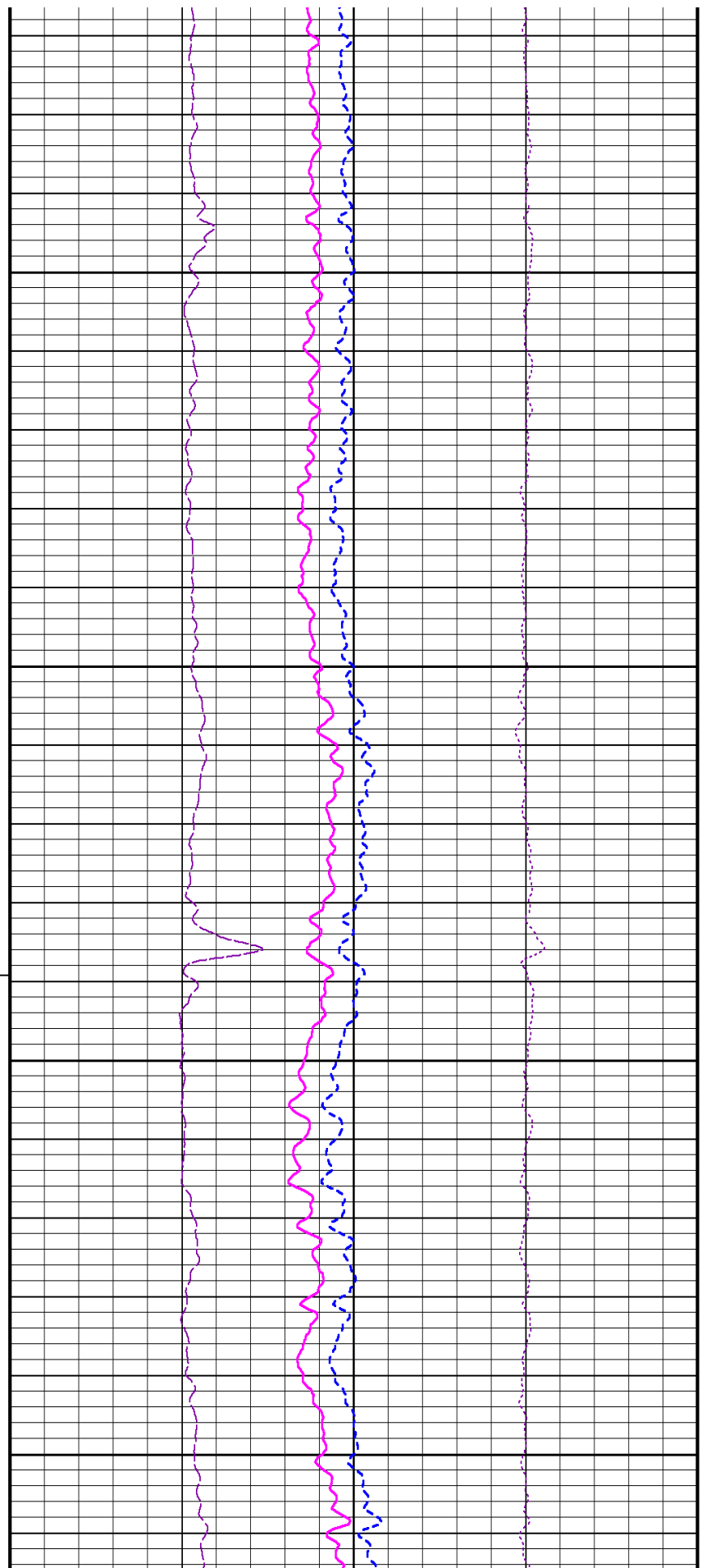
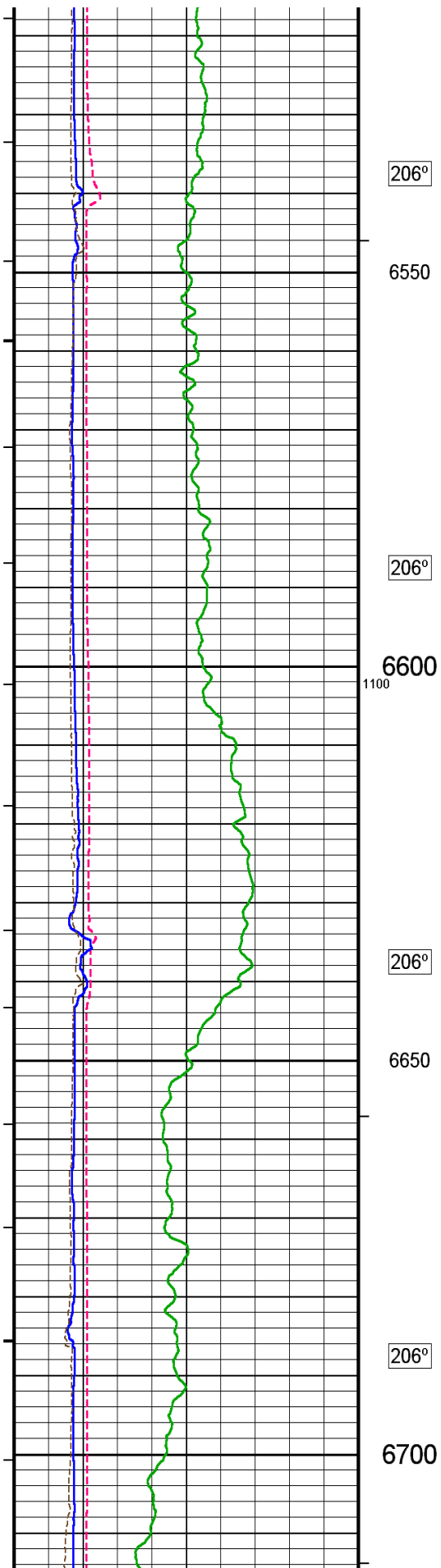
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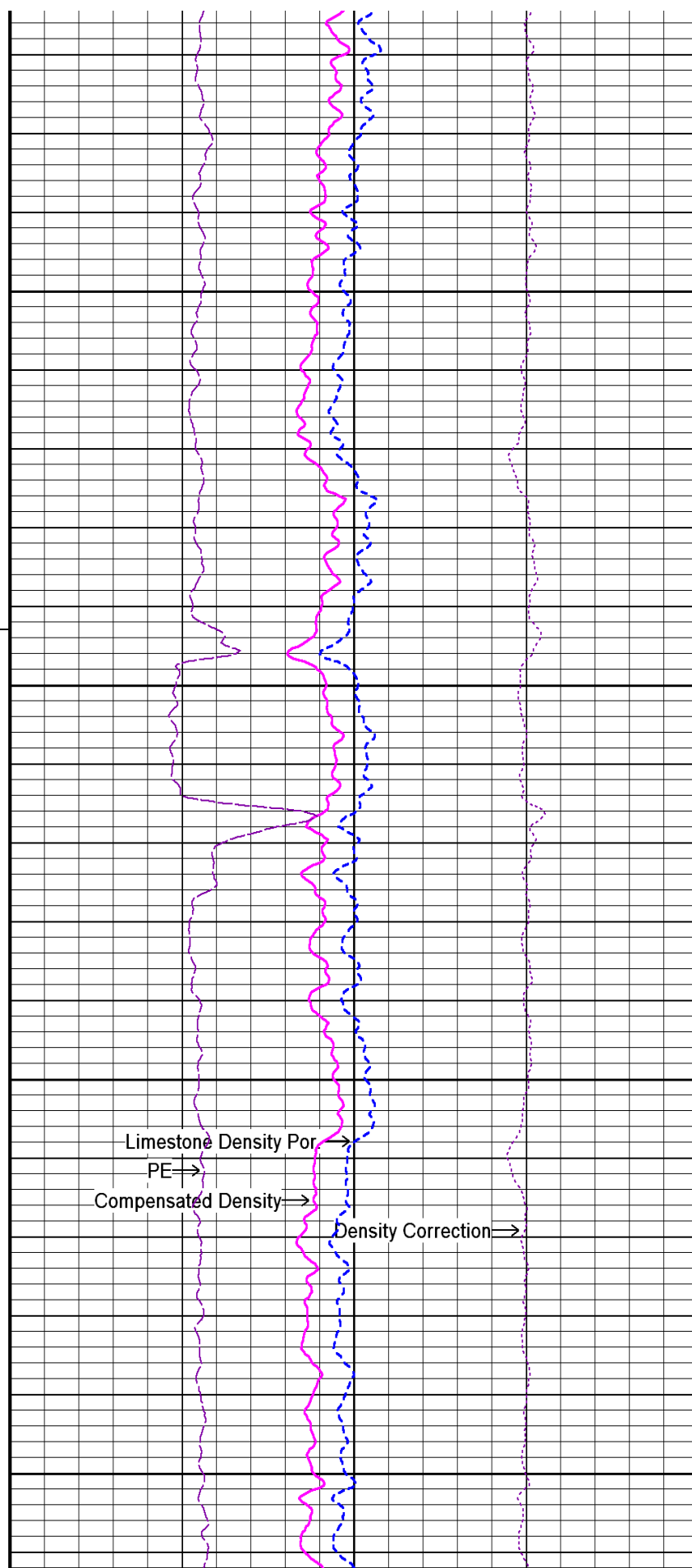
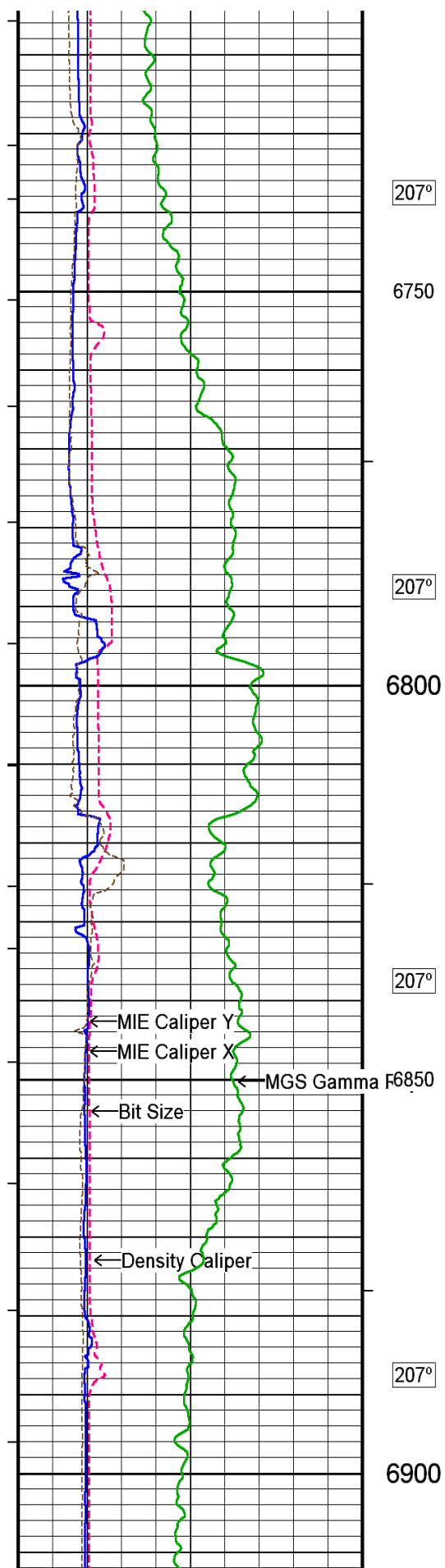
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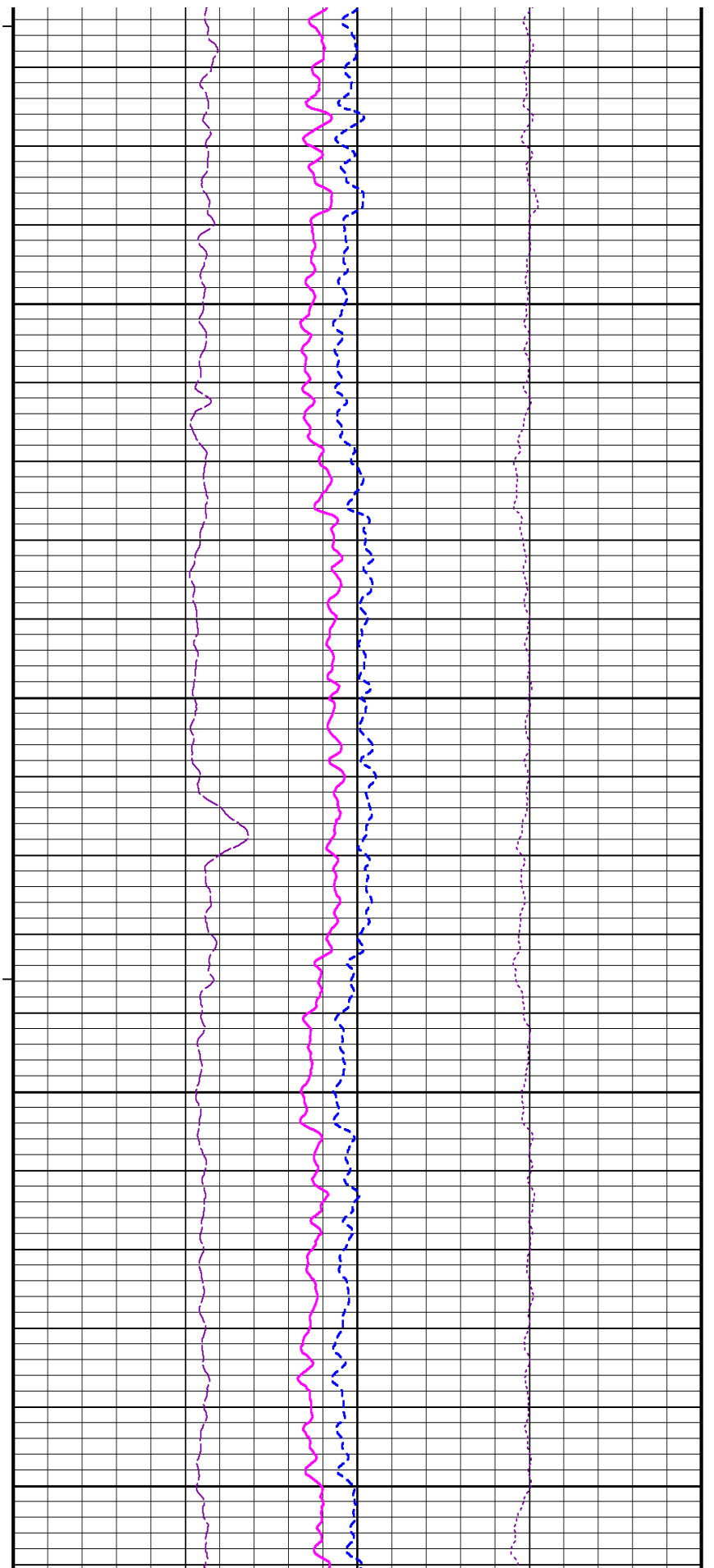
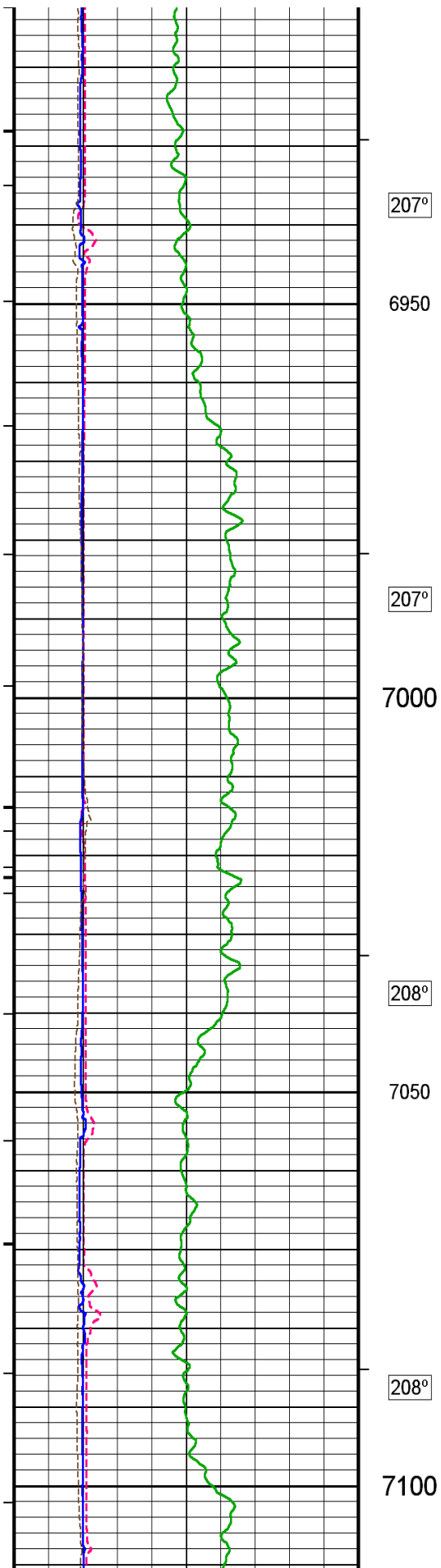
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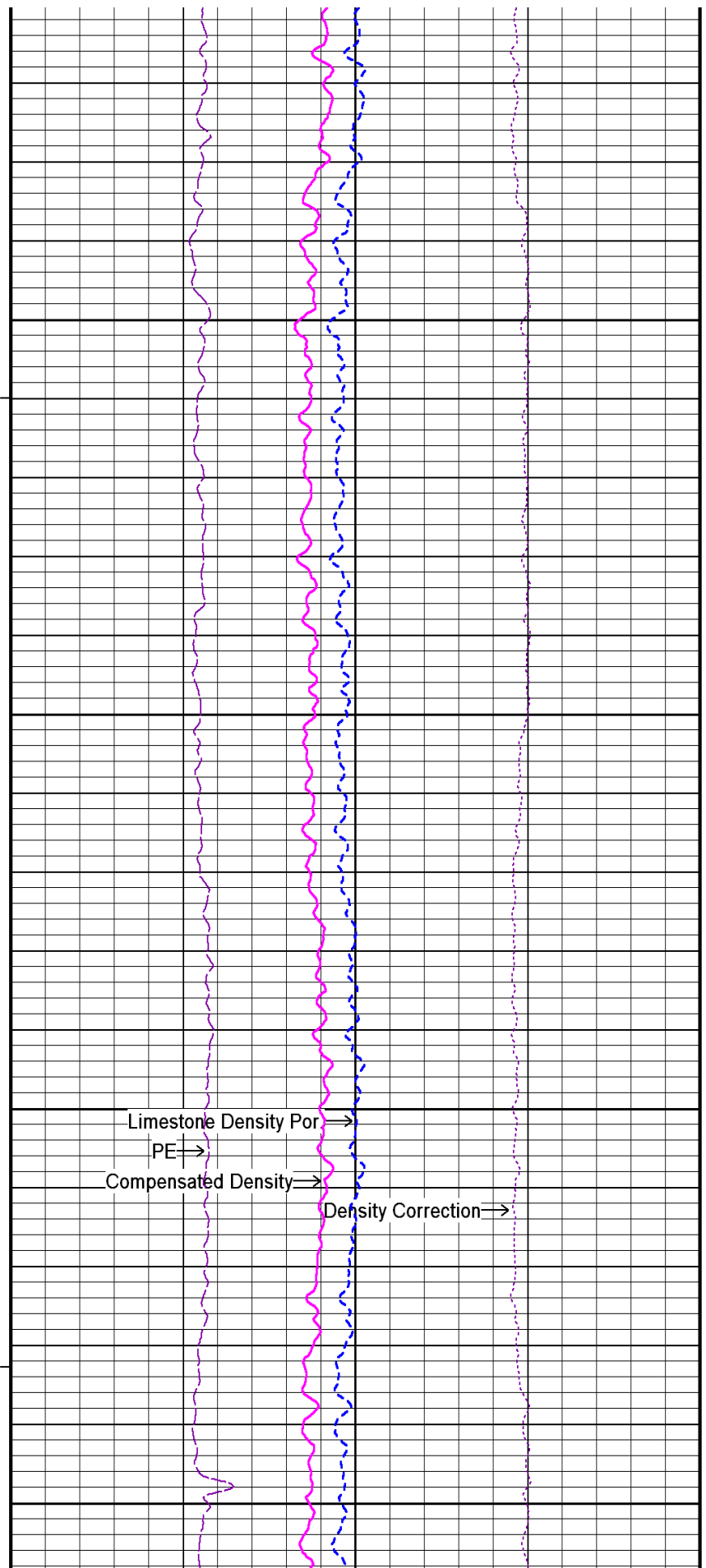
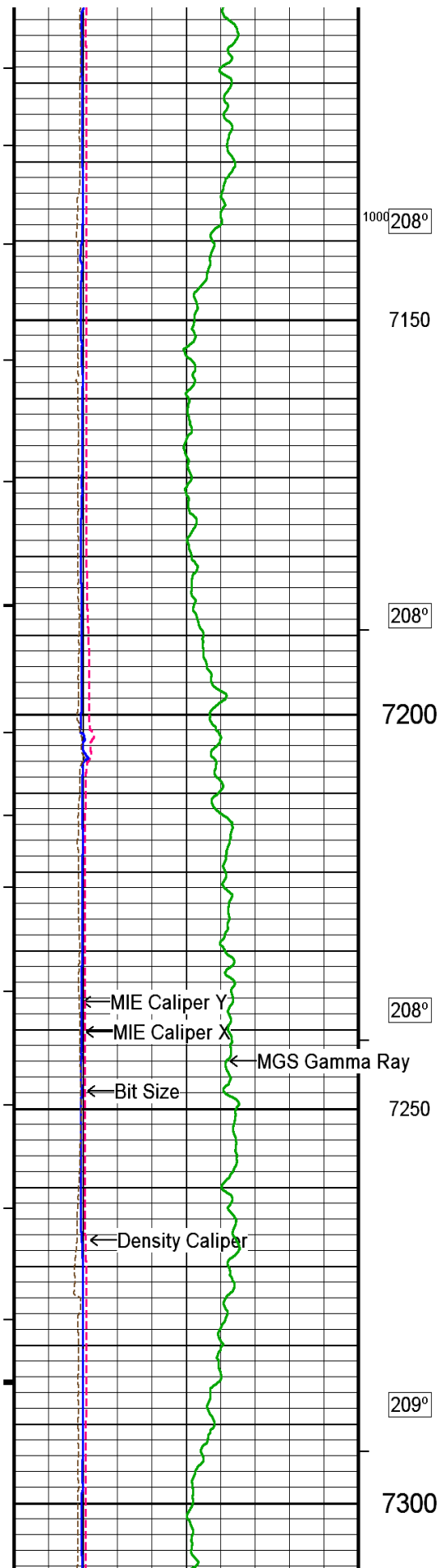


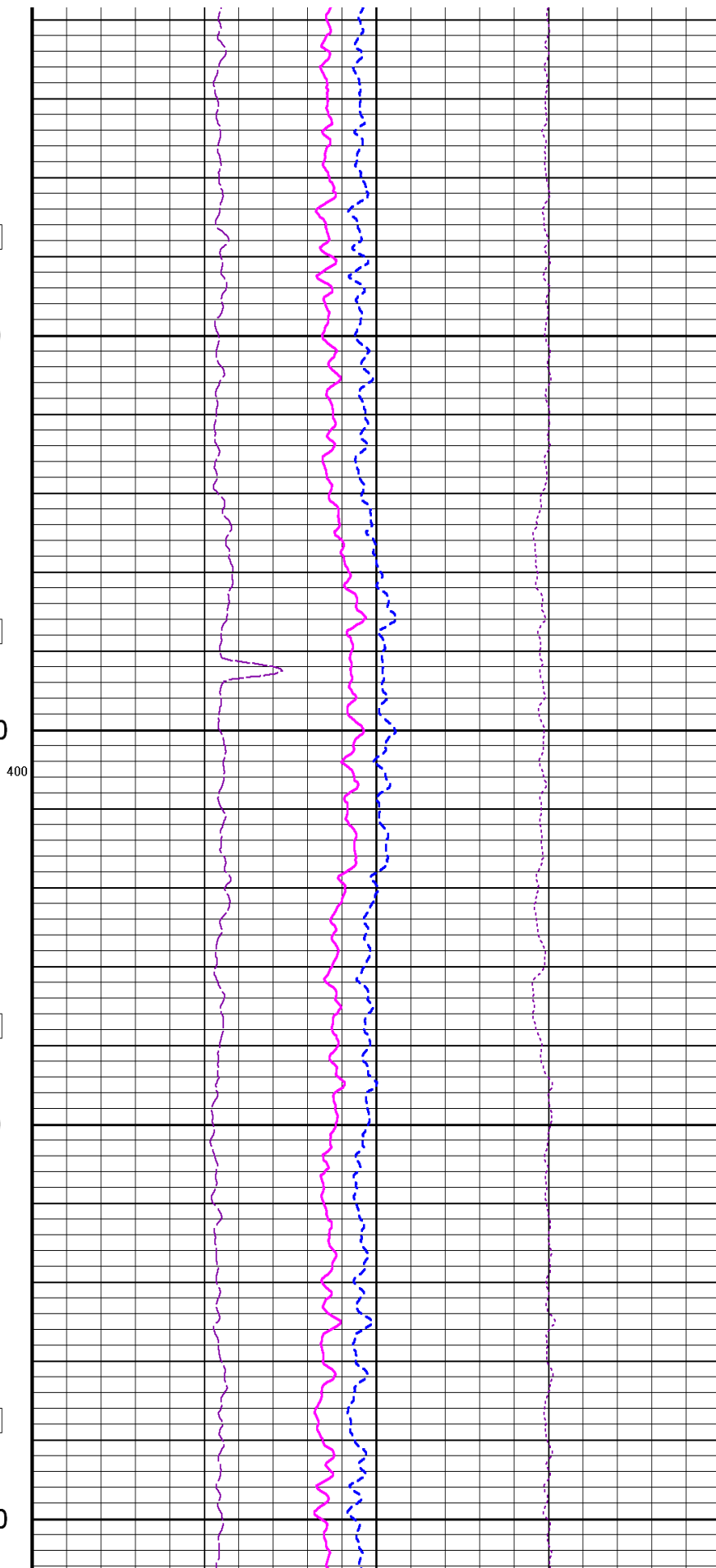
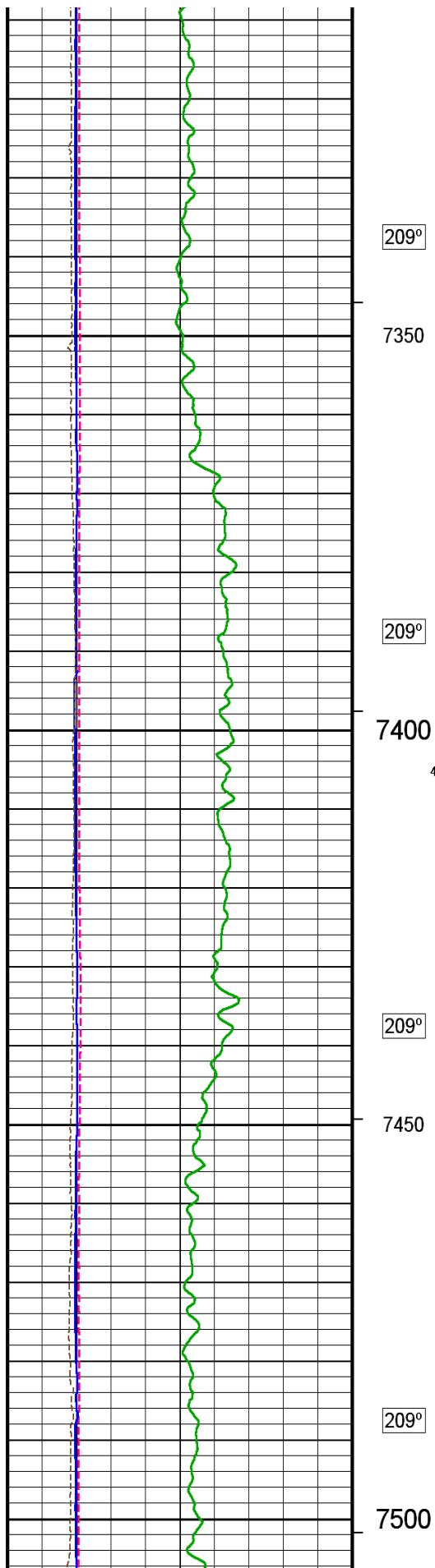




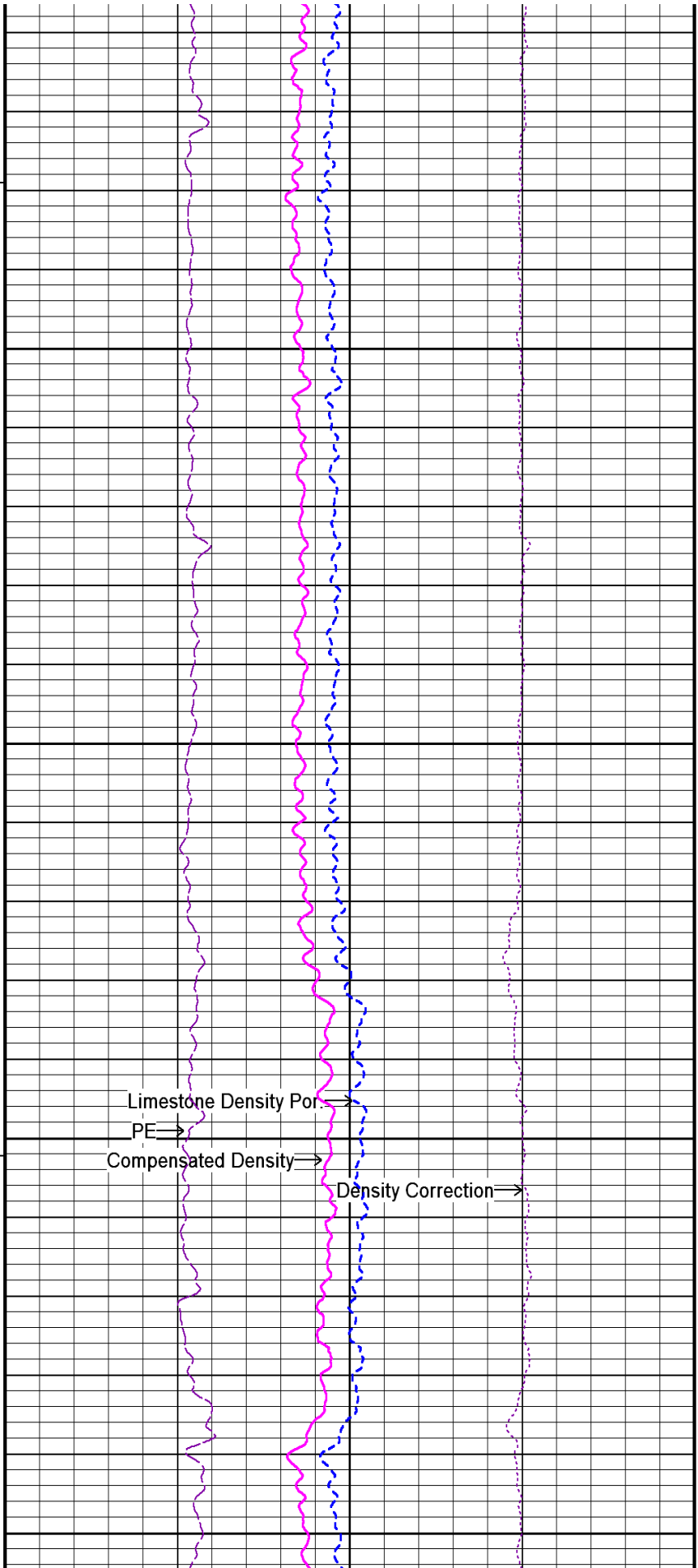
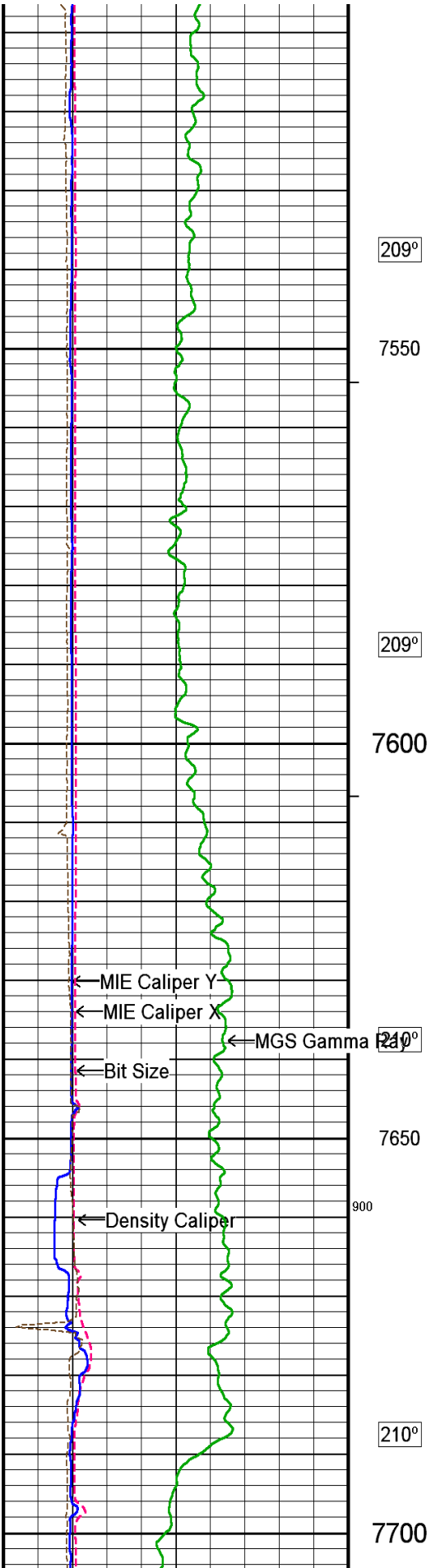


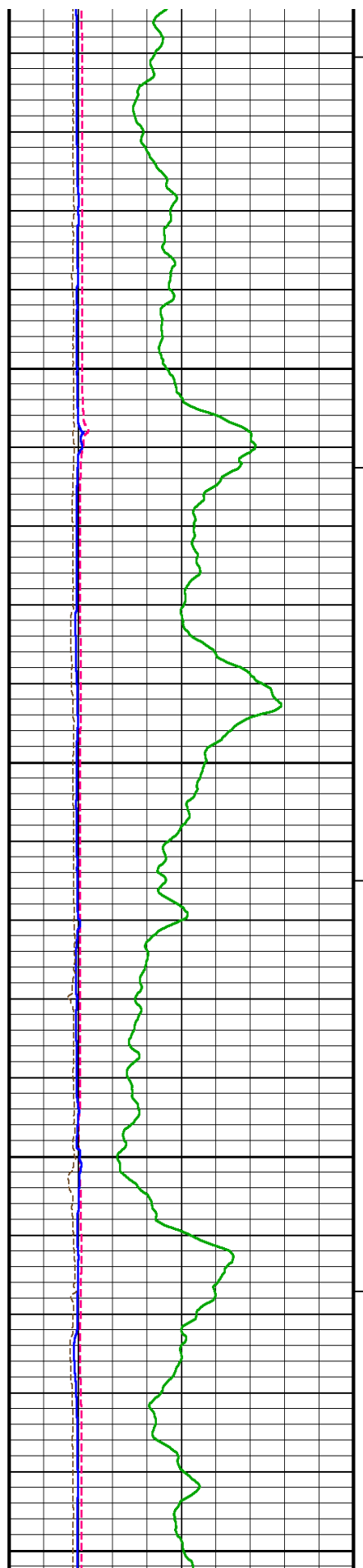












210°

7750

210°

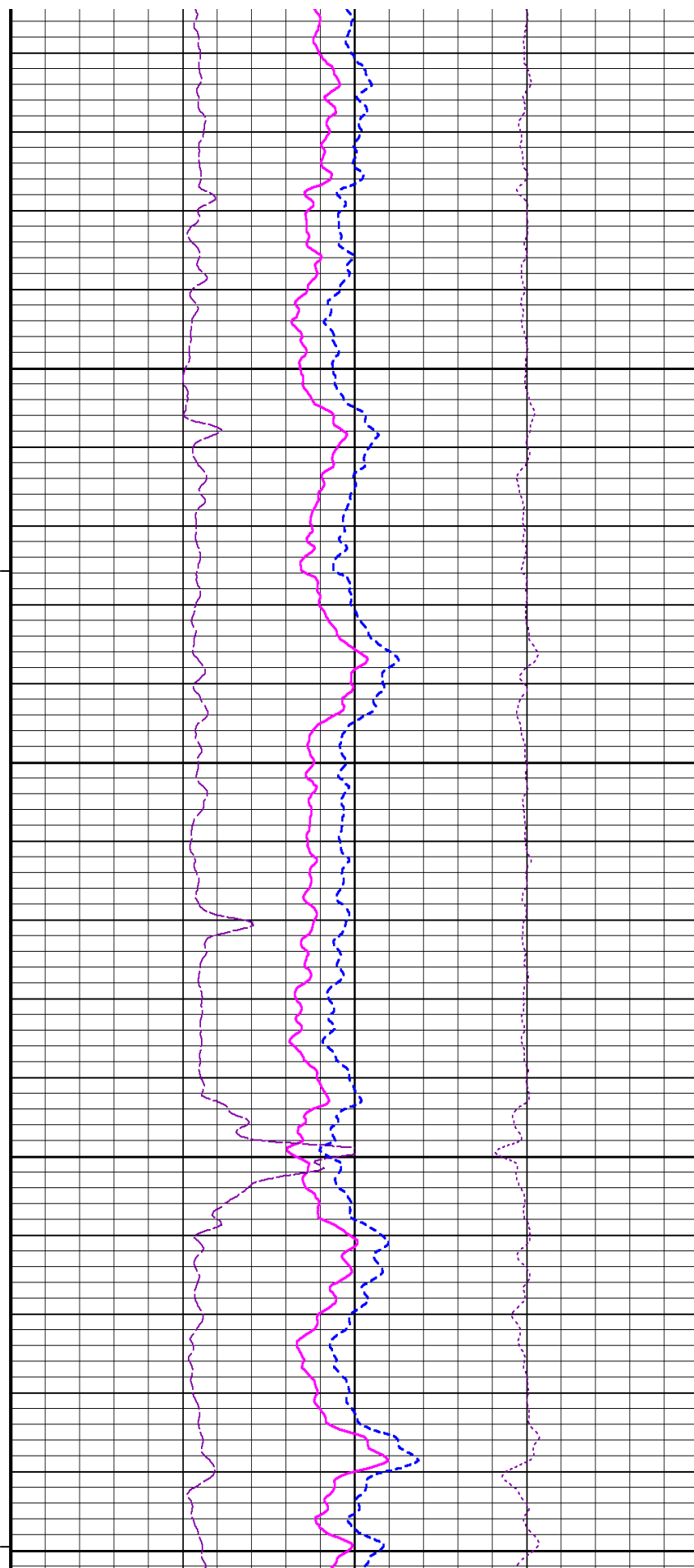
7800

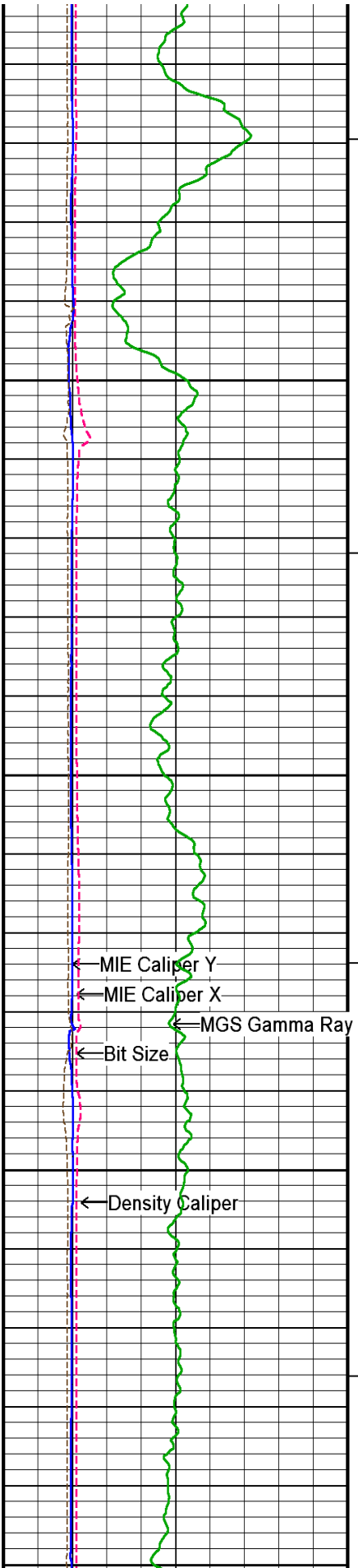
211°

7850

211°

7900





211°

7950

211°

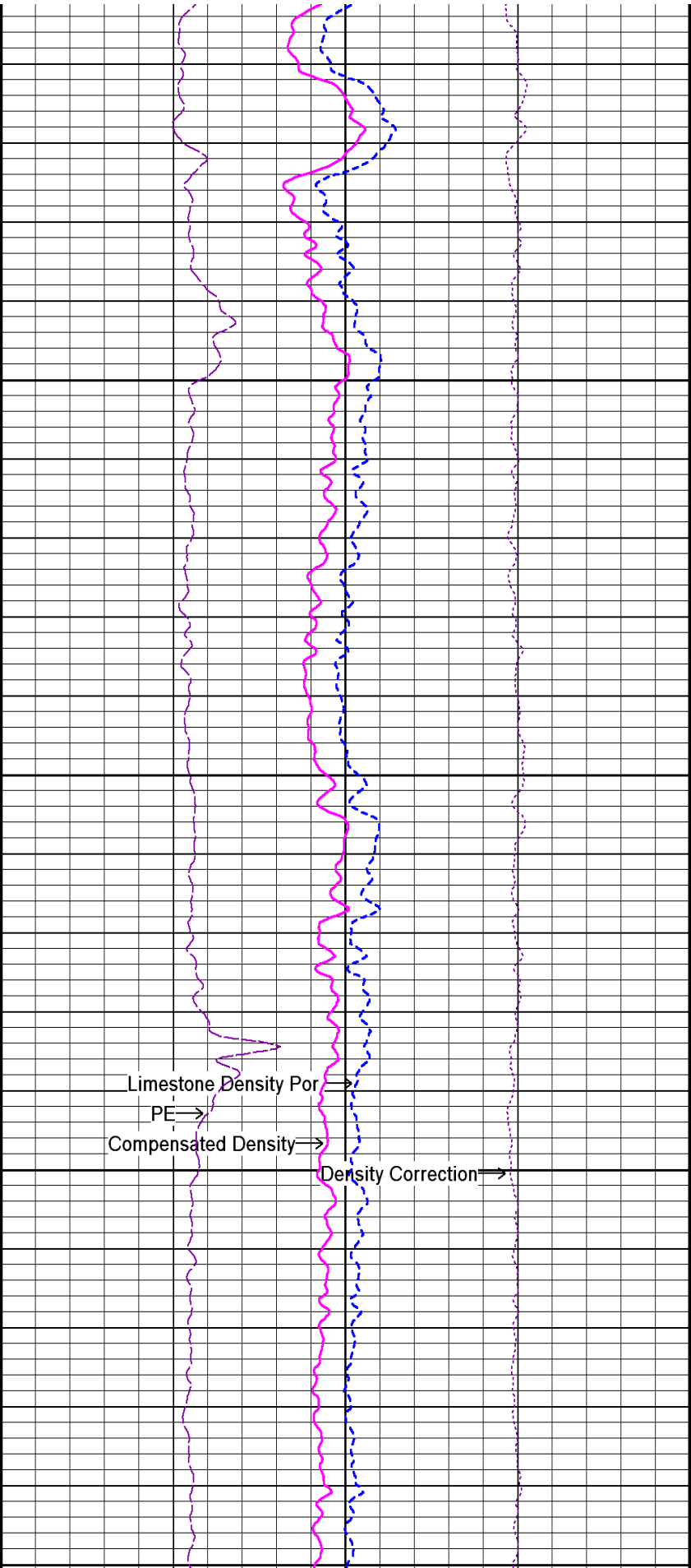
8000

211°

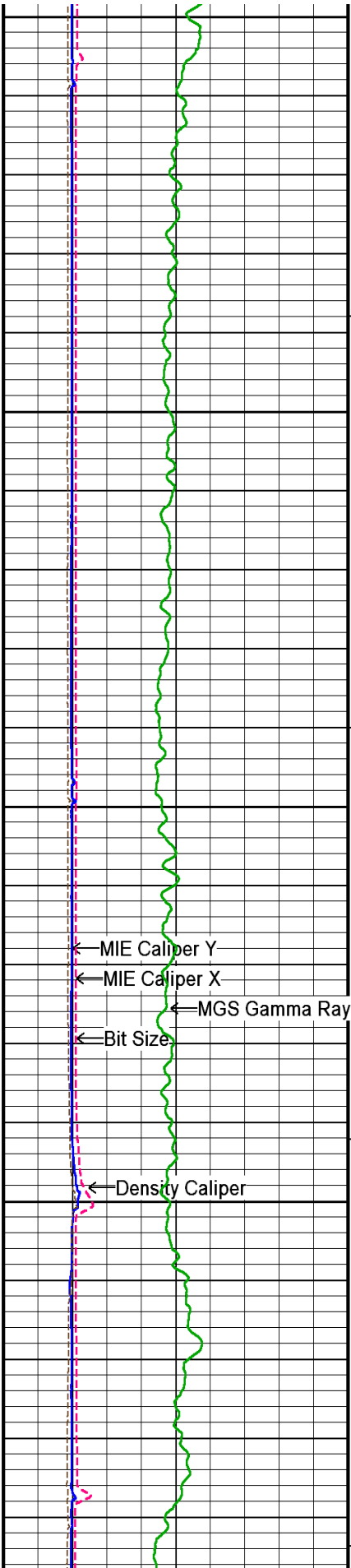
8050

211°

8100







8300

212°

8350

212°

8400

212°

8450

212°

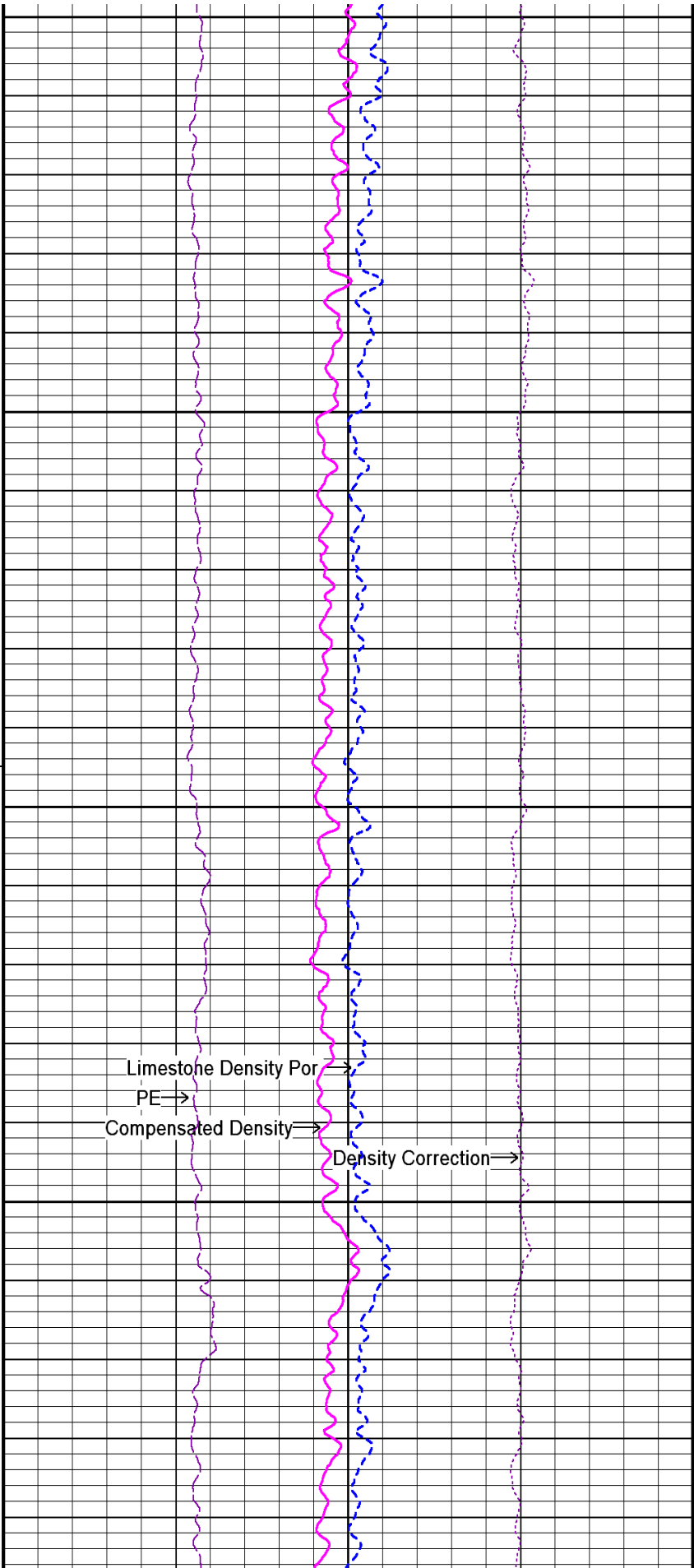
← MIE Caliper Y

← MIE Caliper X

← MGS Gamma Ray

← Bit Size

← Density Caliper

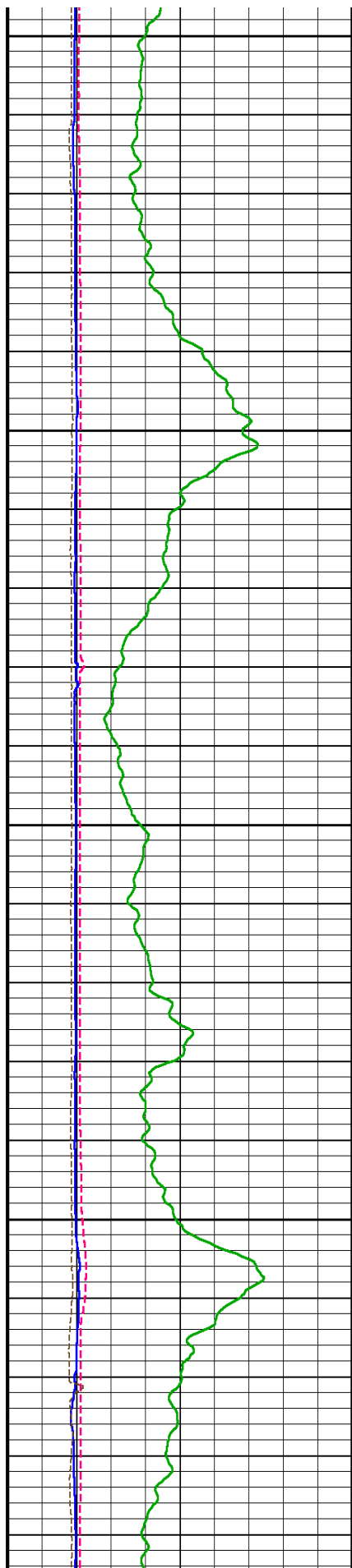


Limestone Density Por →

PE →

Compensated Density →

Density Correction →



8500

212°

8550

213°

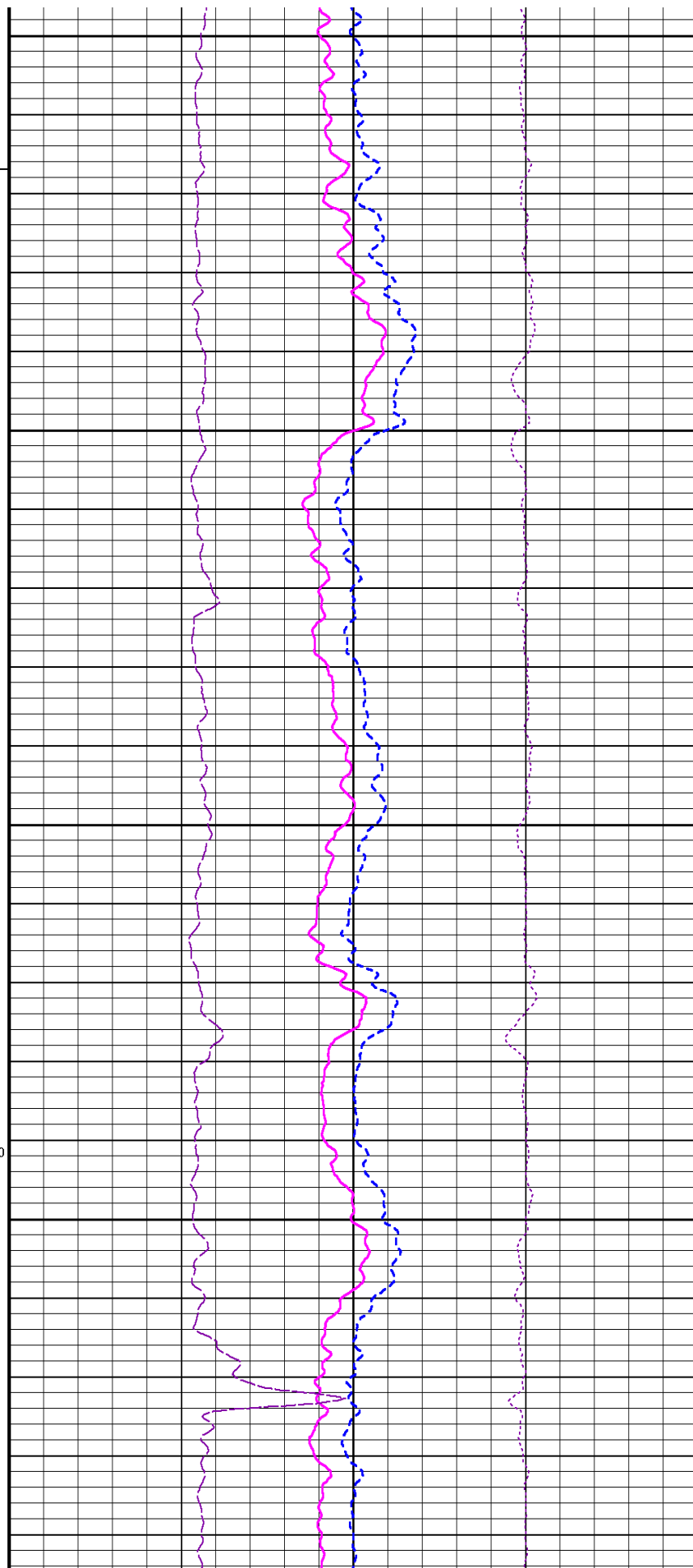
8600

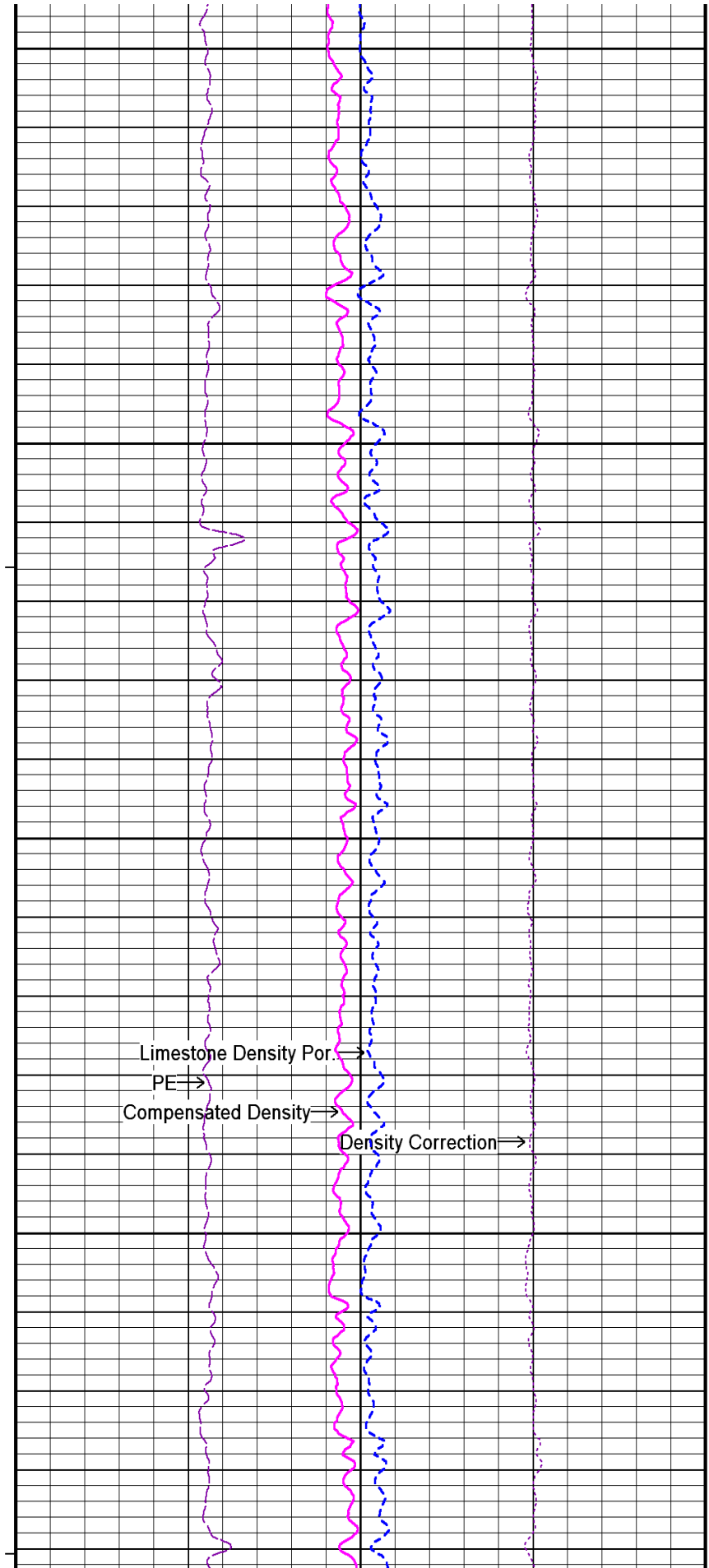
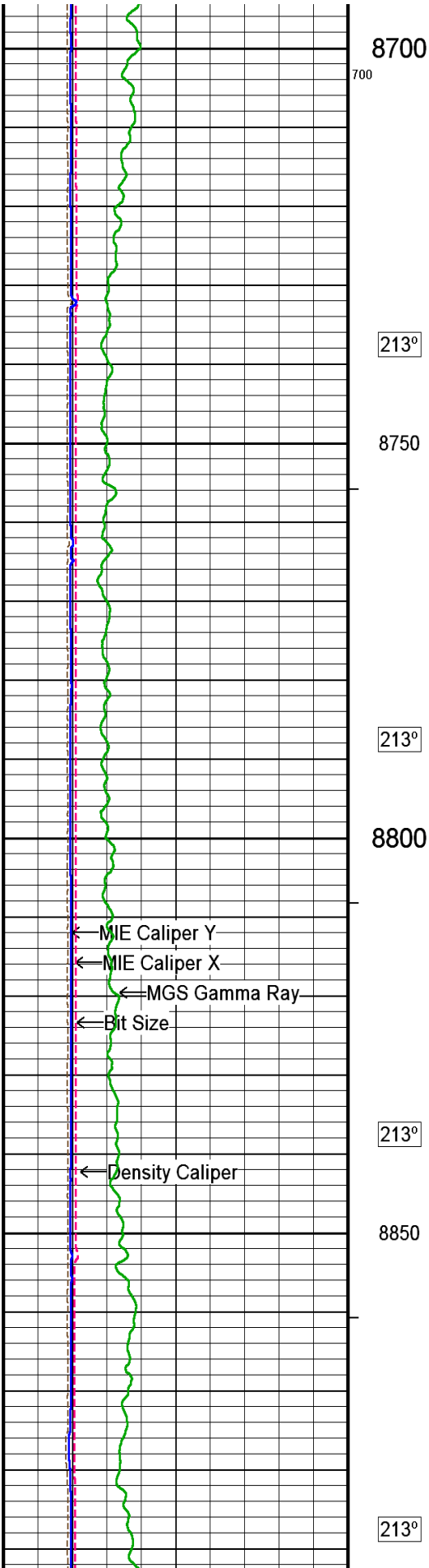
213°

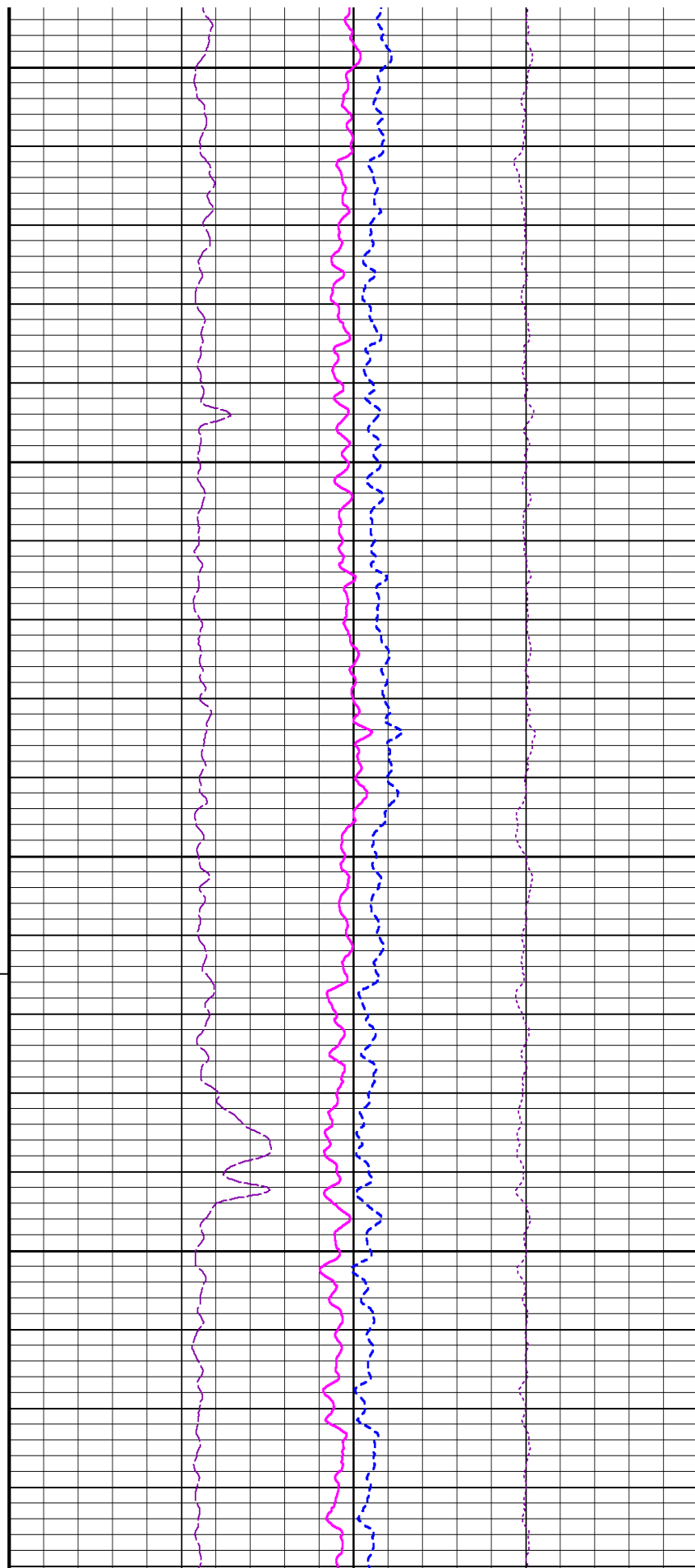
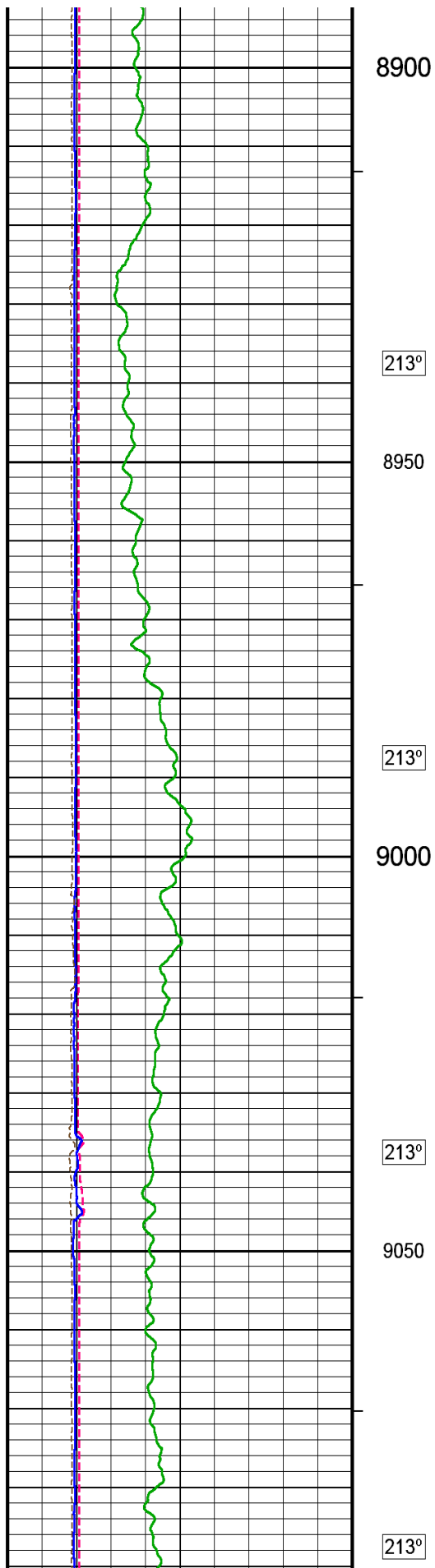
300

8650

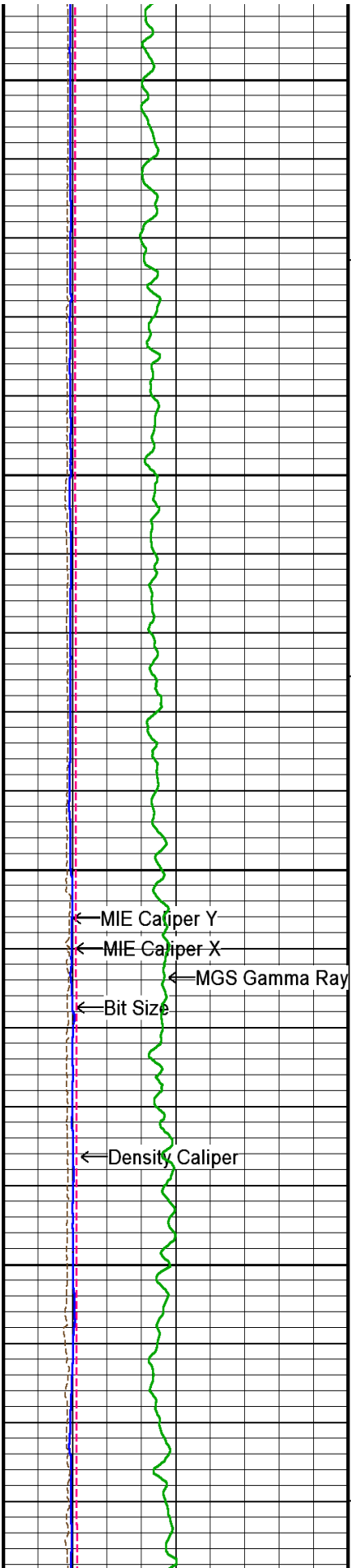
213°











9100

213°

9150

213°

9200

600

213°

9250

213°

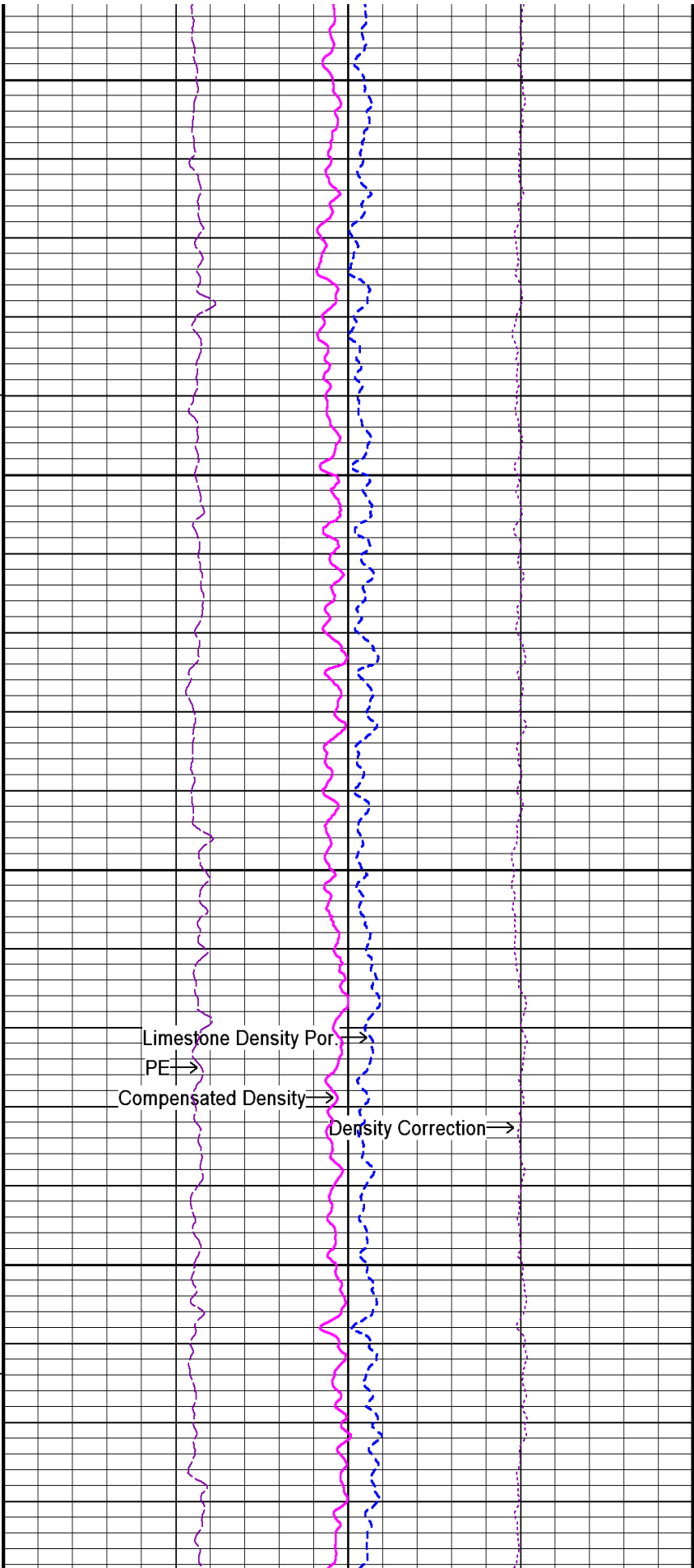
← MIE Caliper Y

← MIE Caliper X

← MGS Gamma Ray

← Bit Size

← Density Caliper

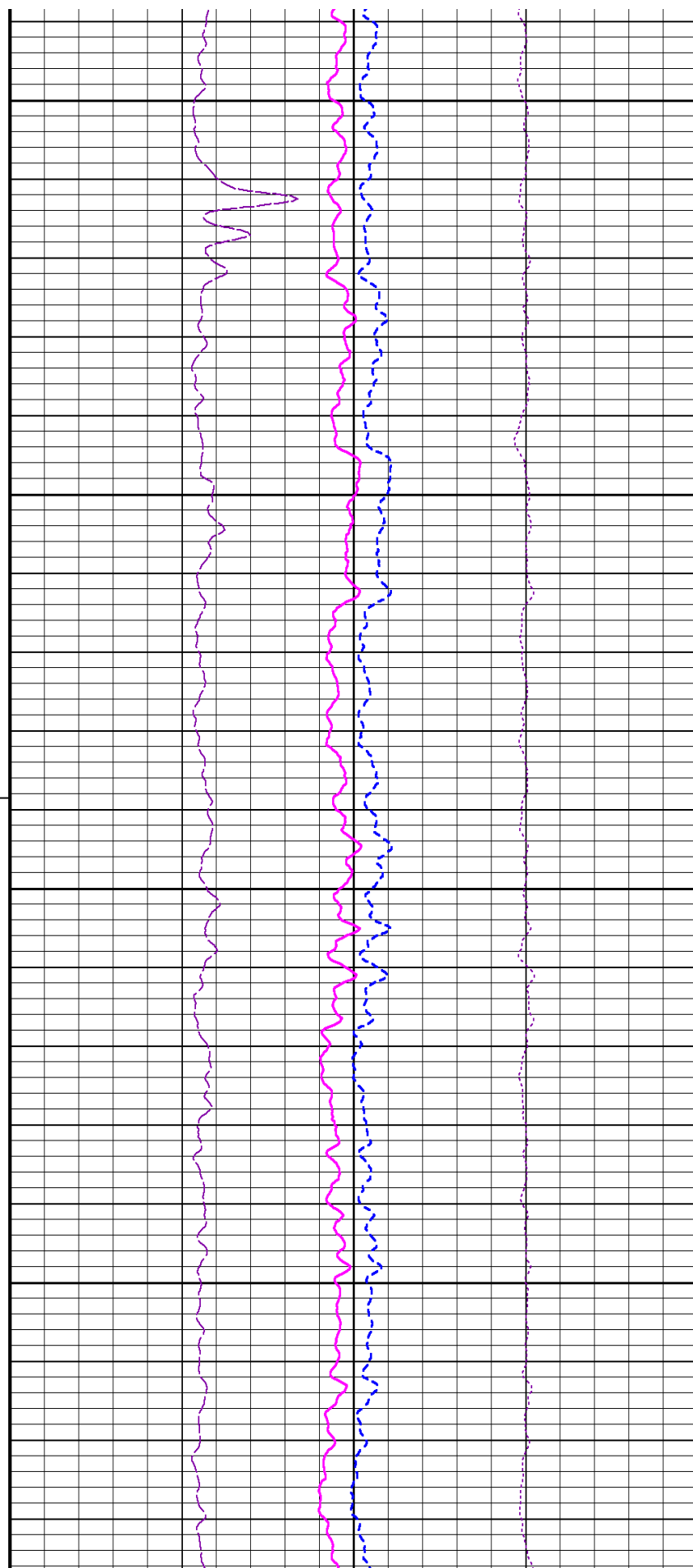
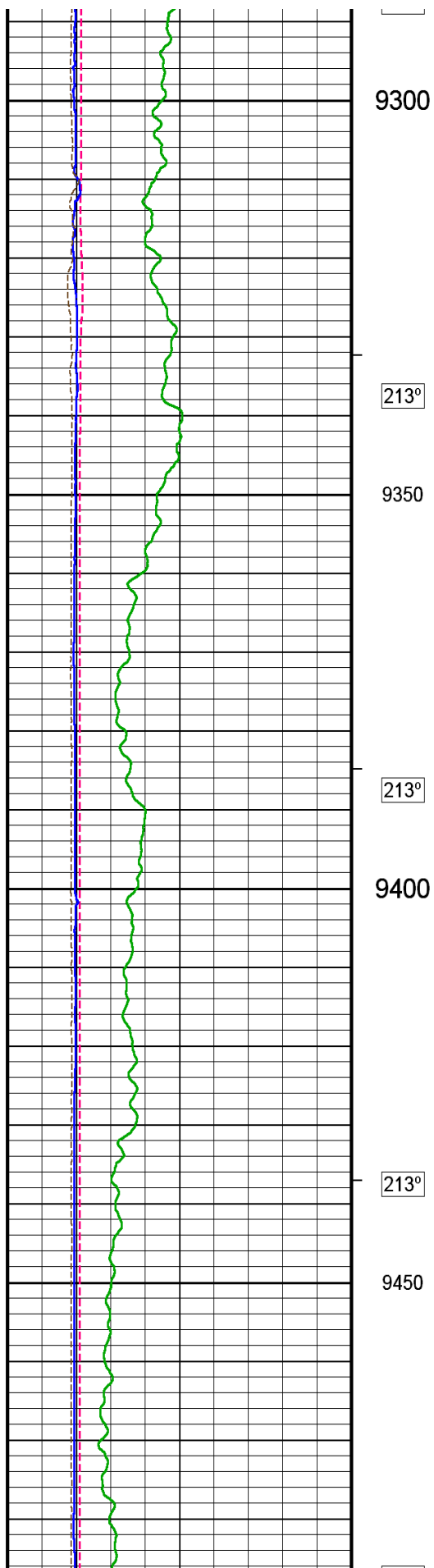


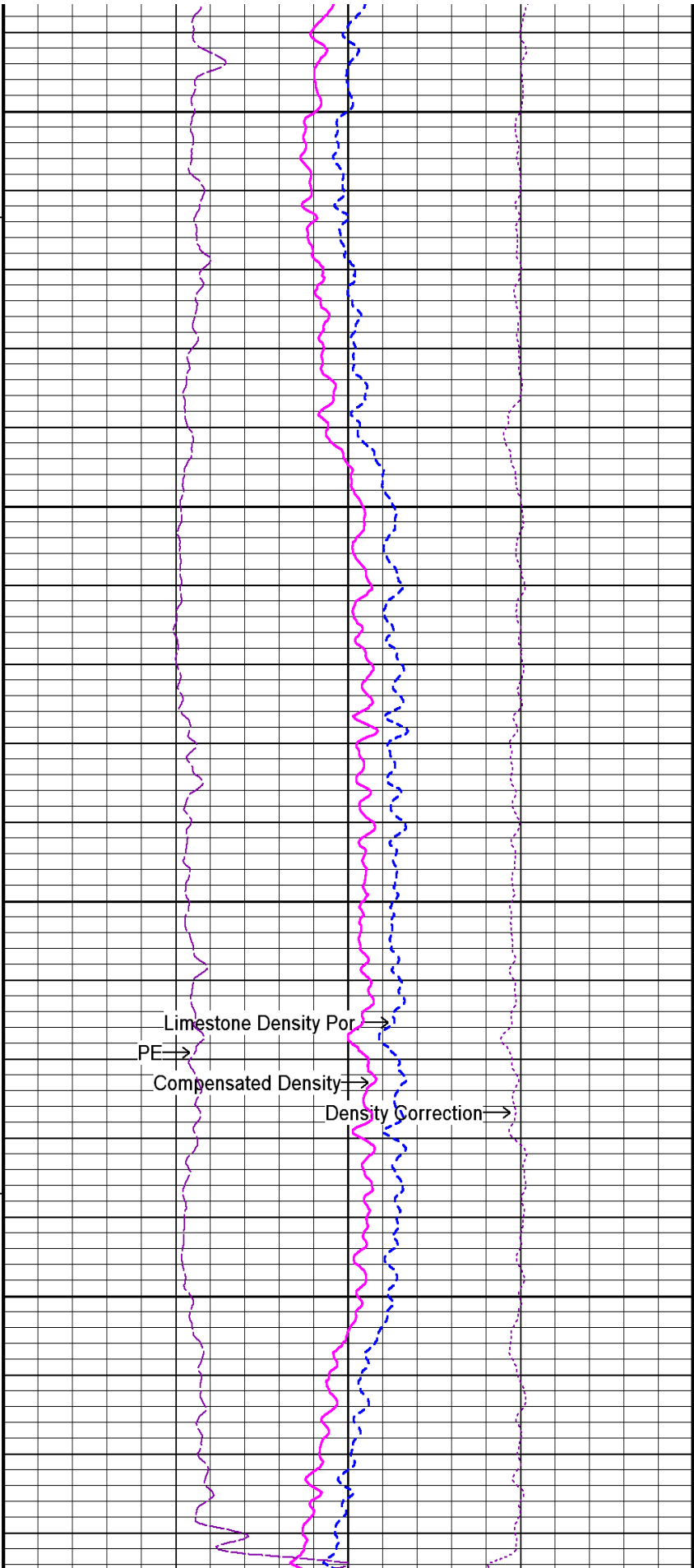
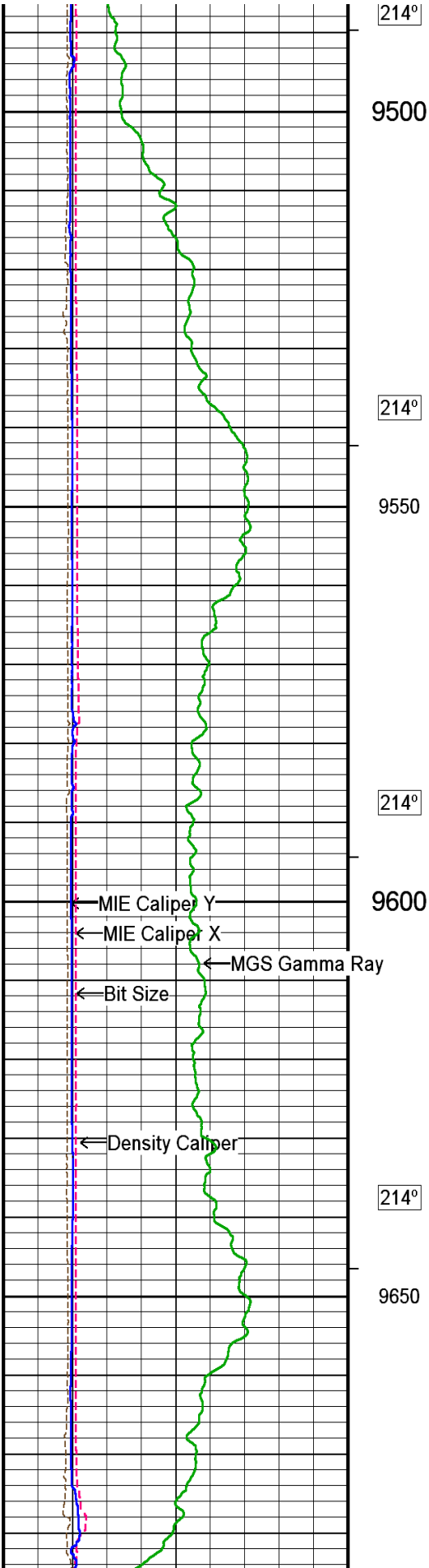
Limestone Density Por. →

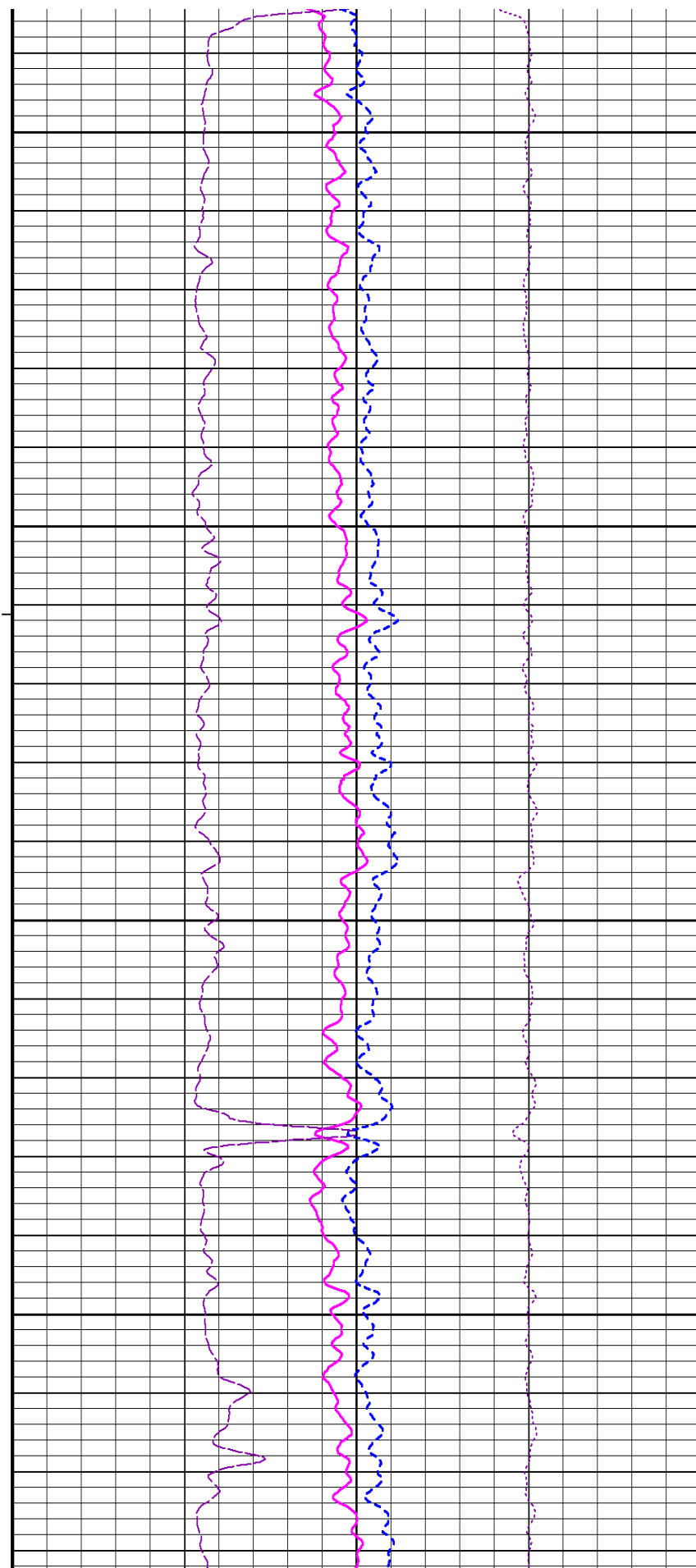
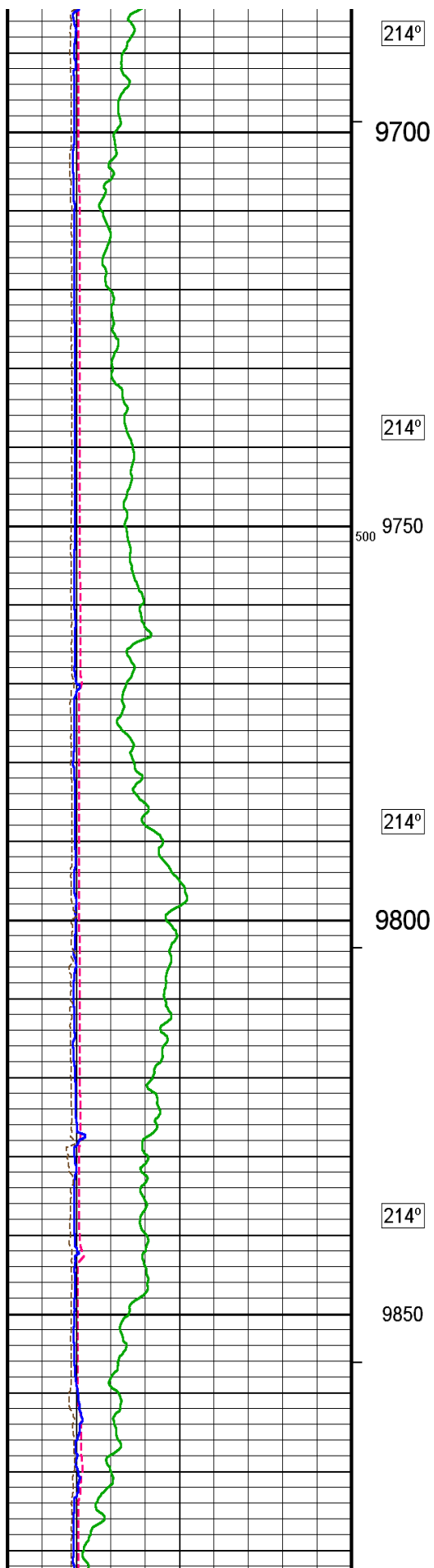
PE →

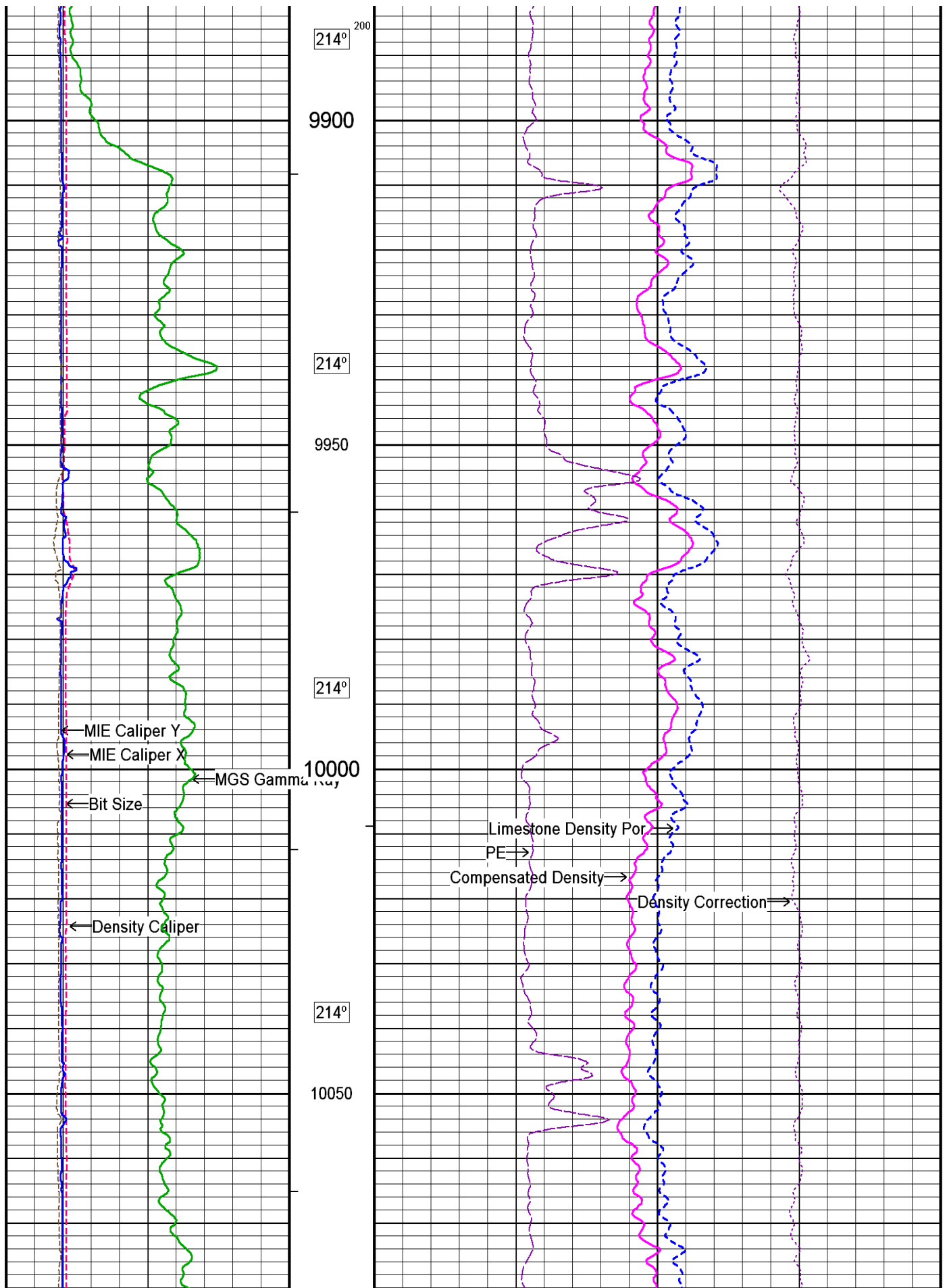
Compensated Density →

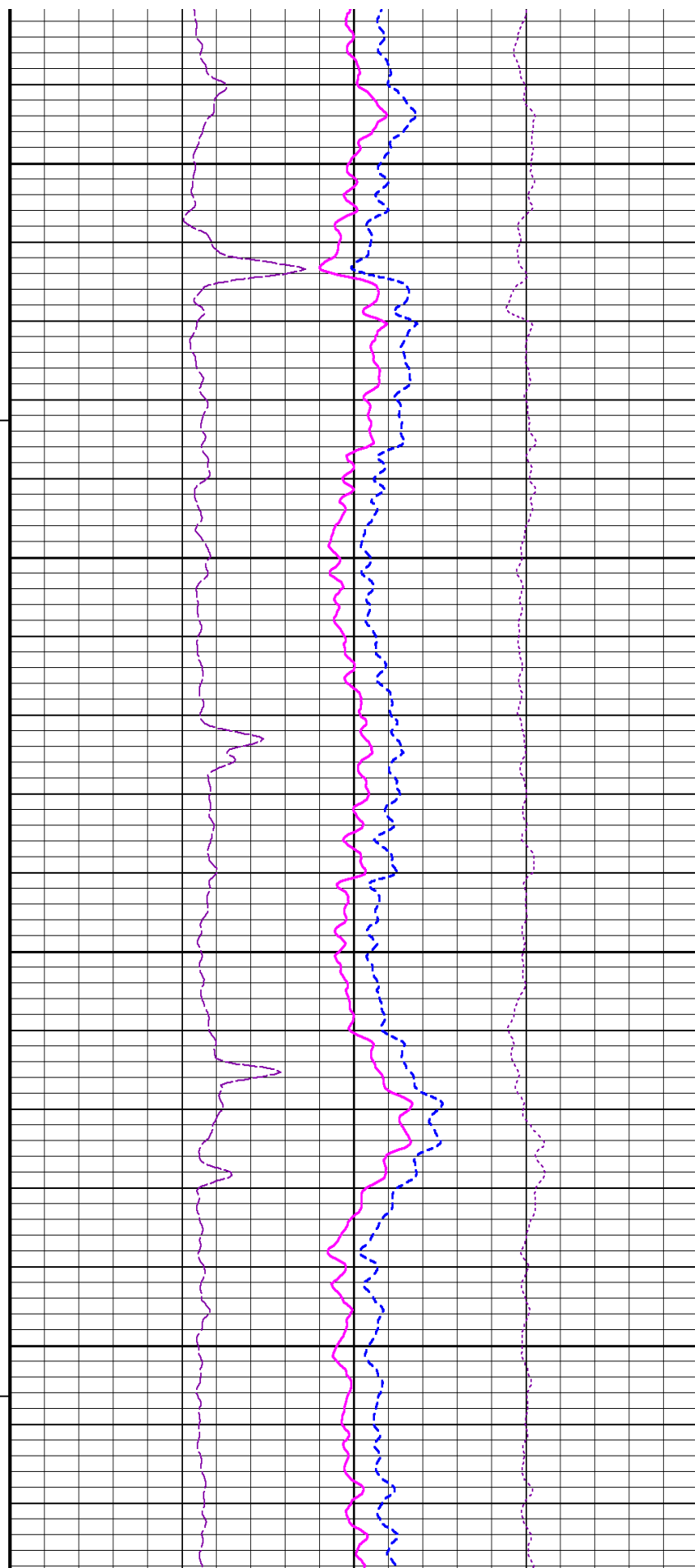
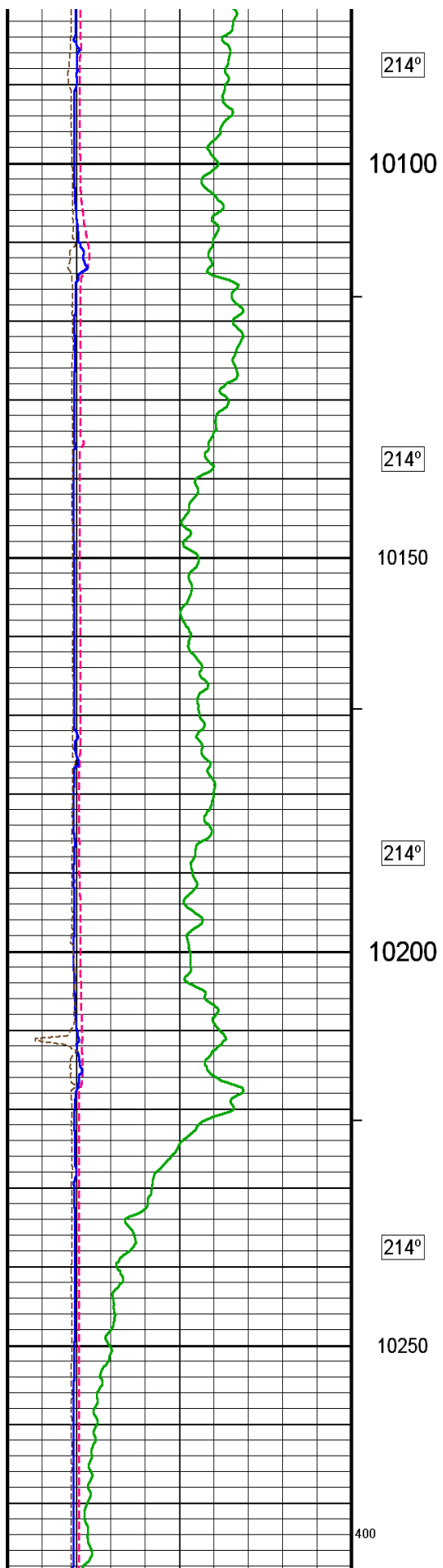
Density Correction →

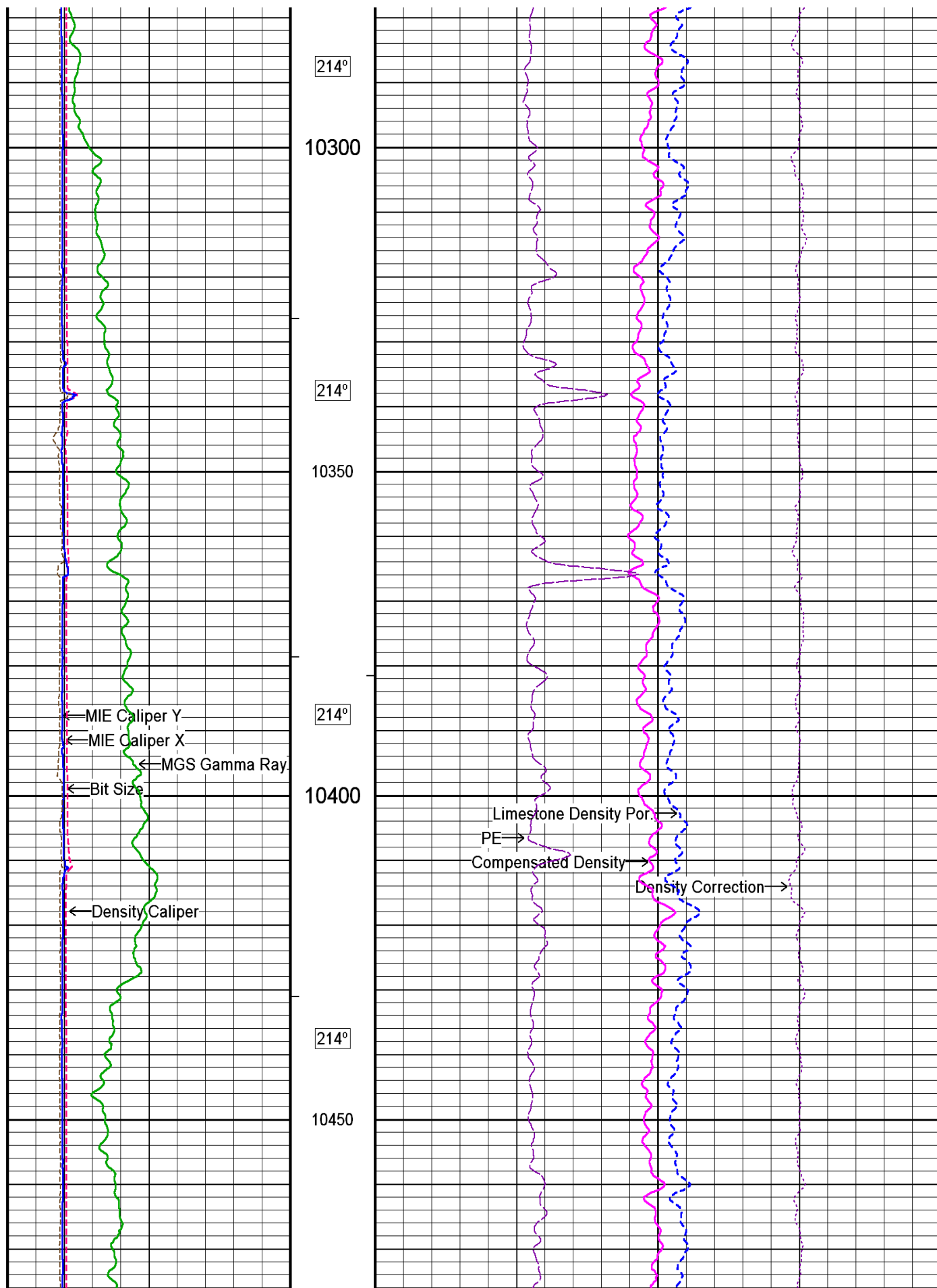


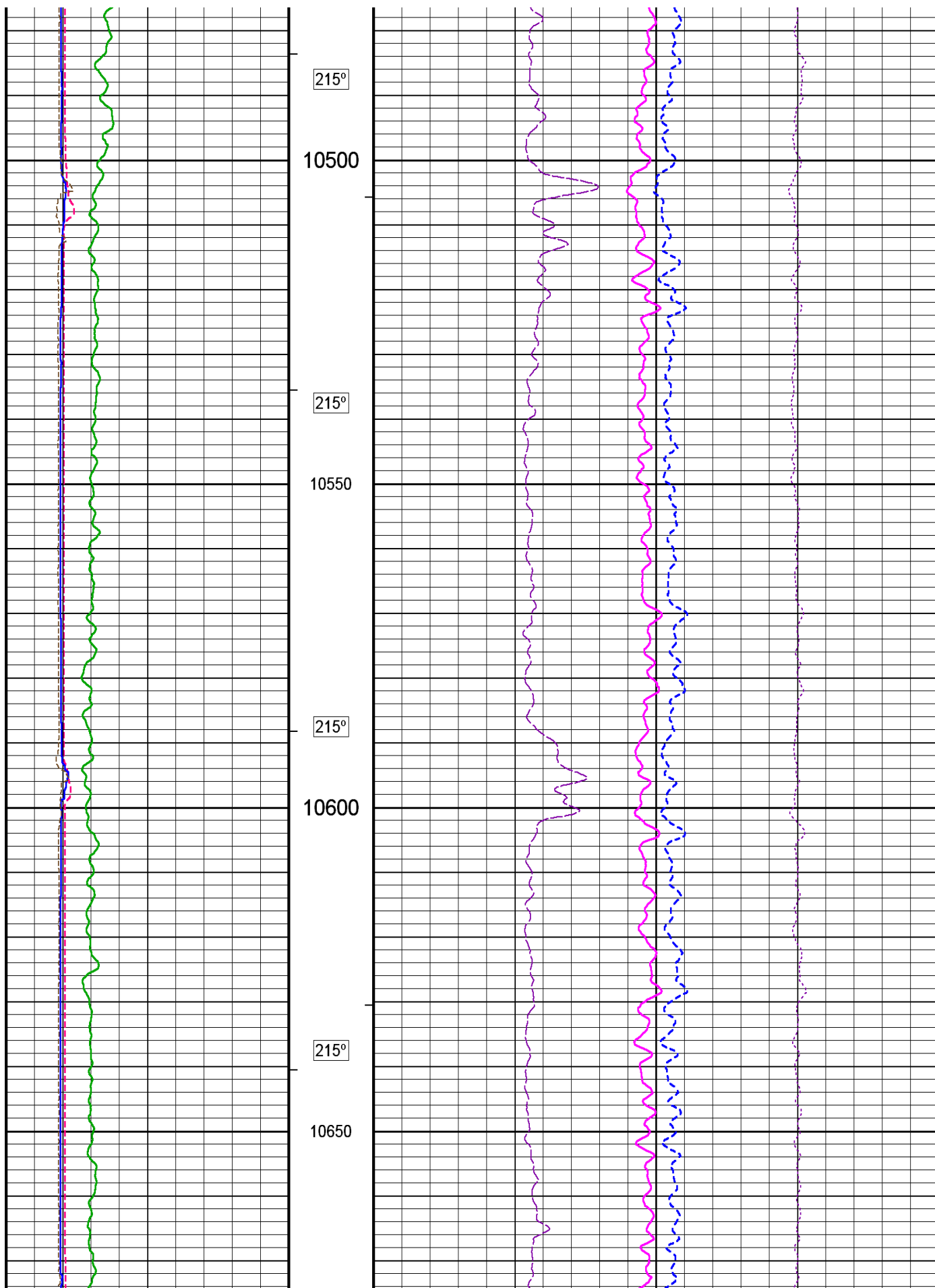




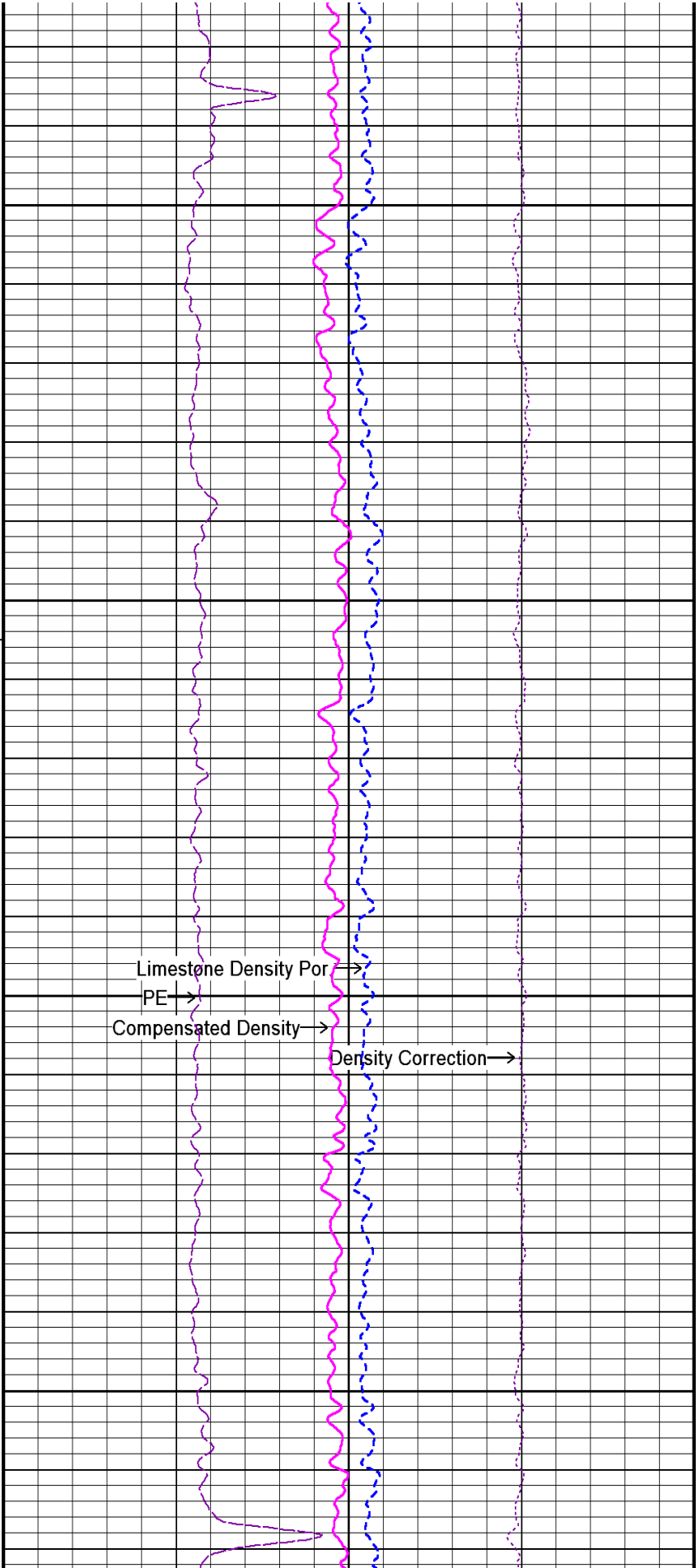
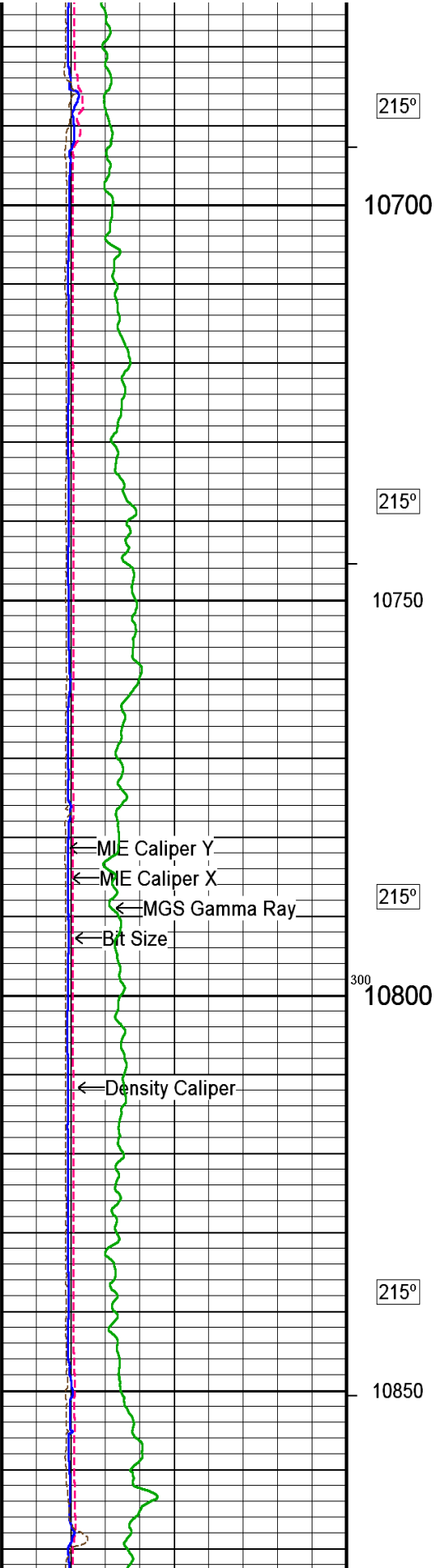


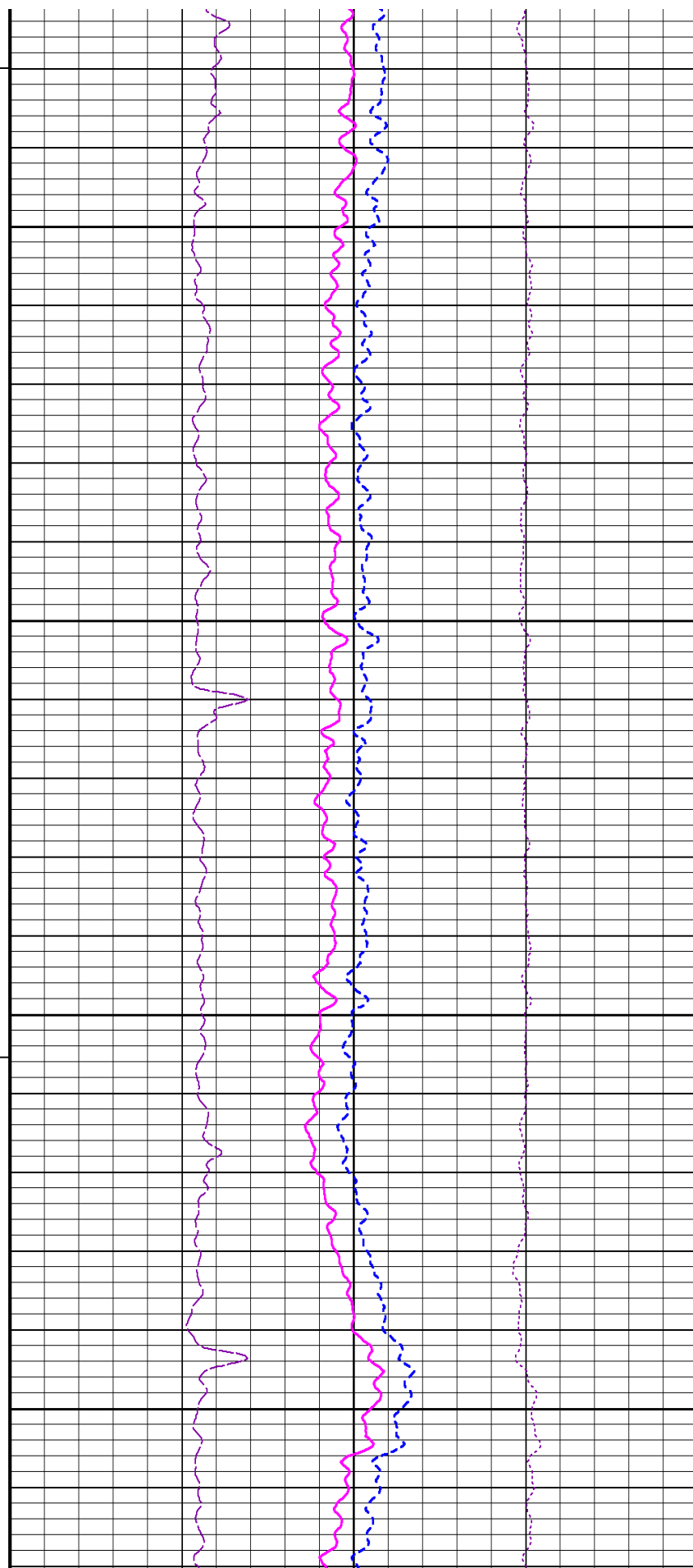
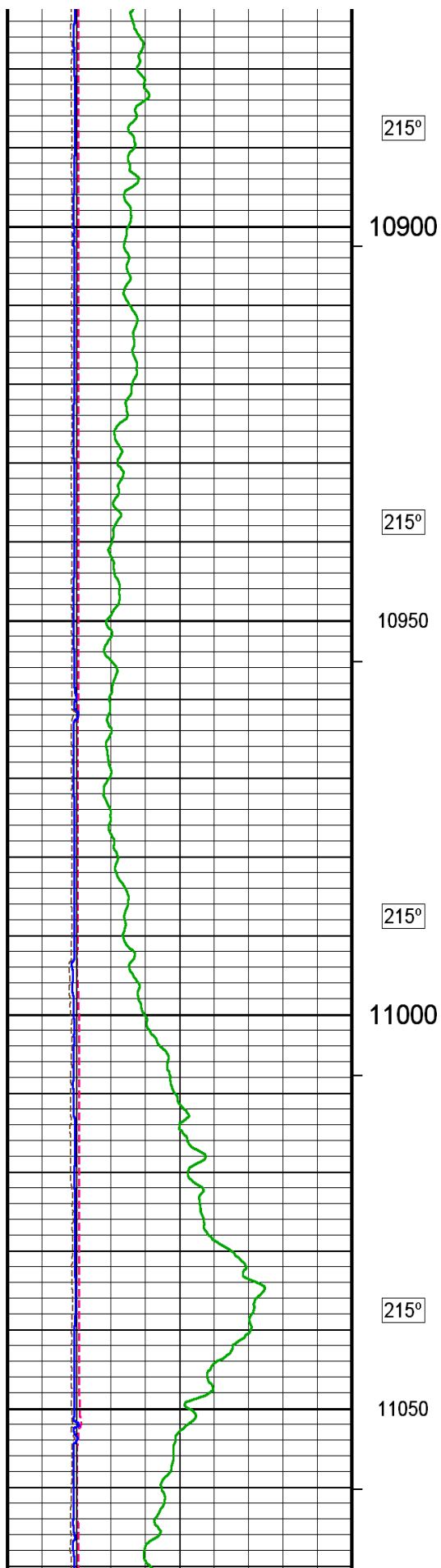


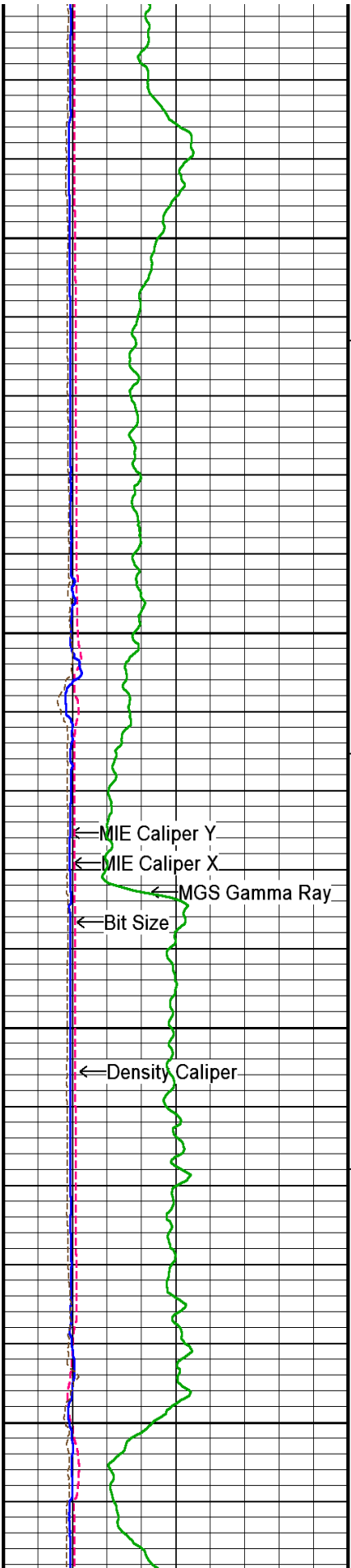












215°

11100

100

215°

11150

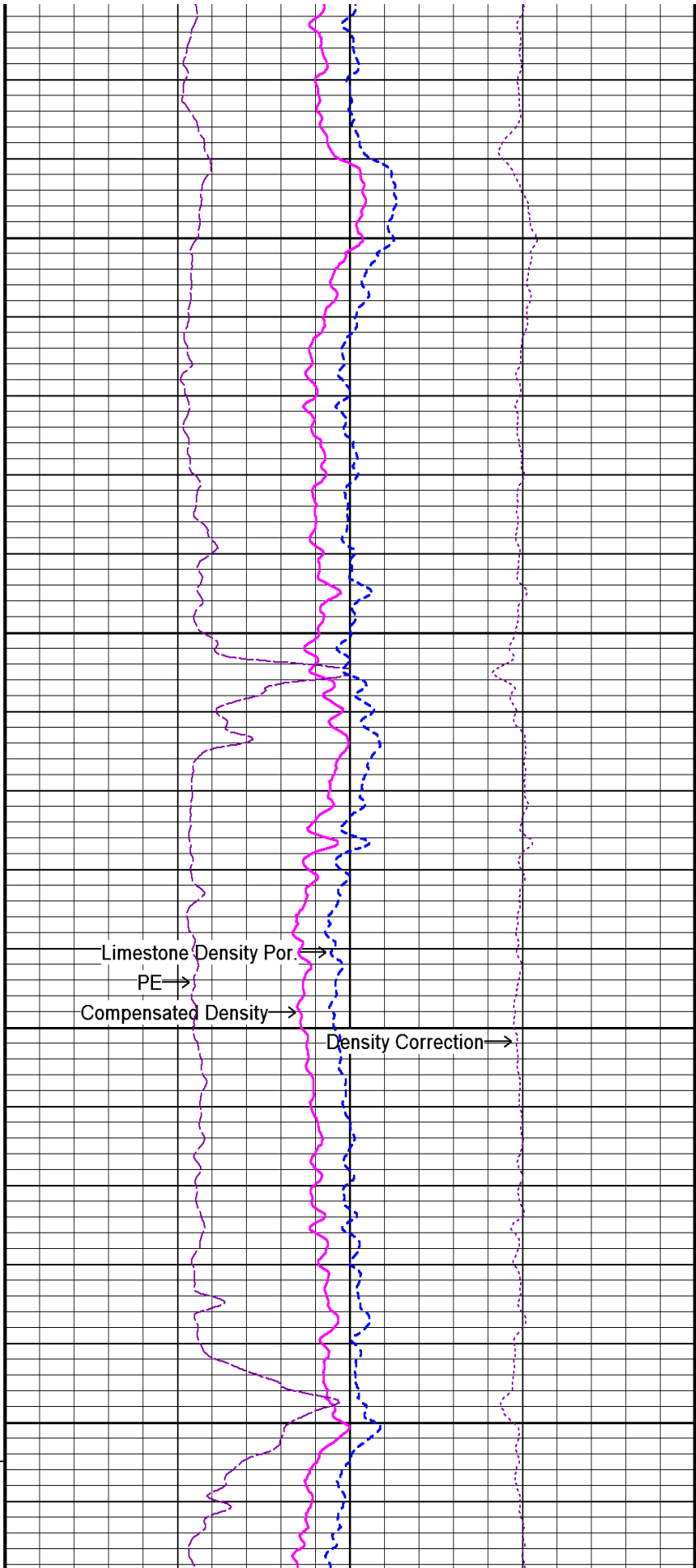
215°

11200

215°

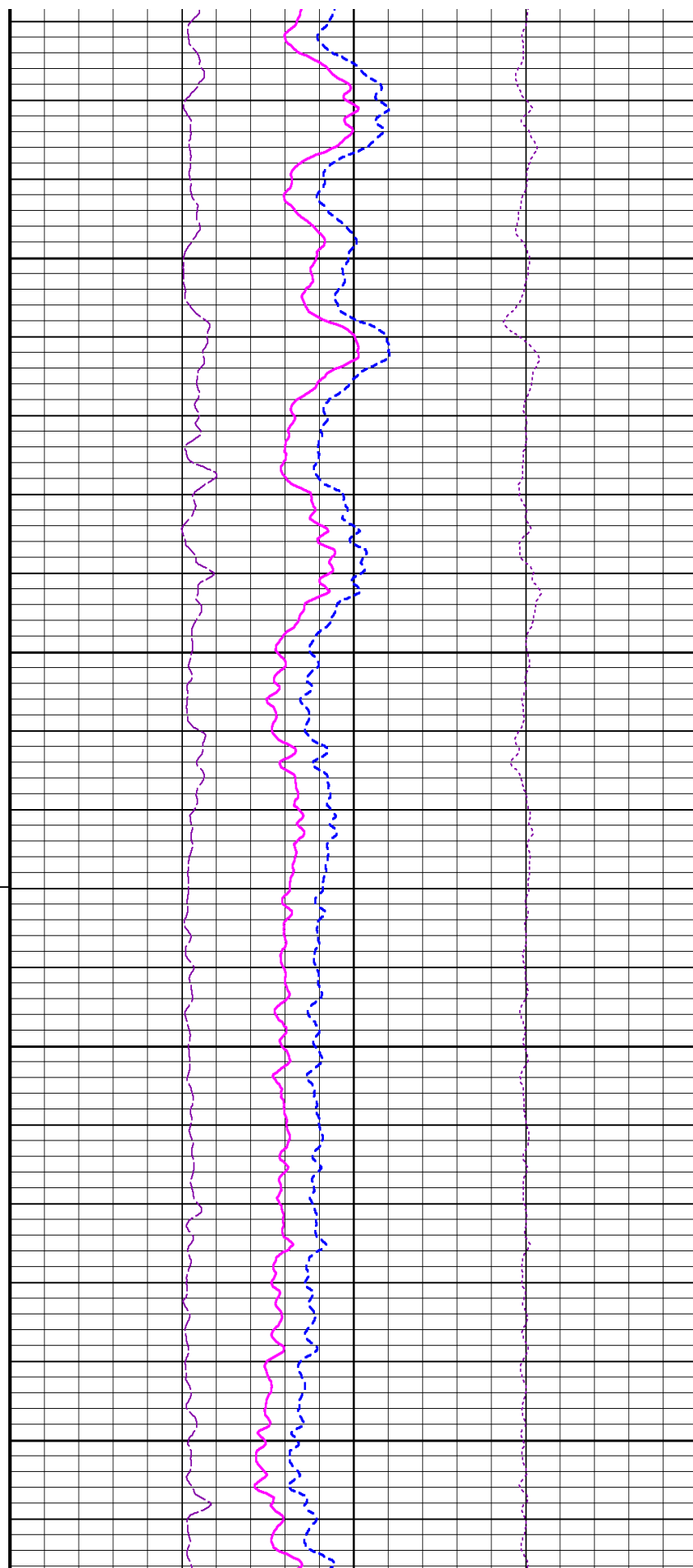
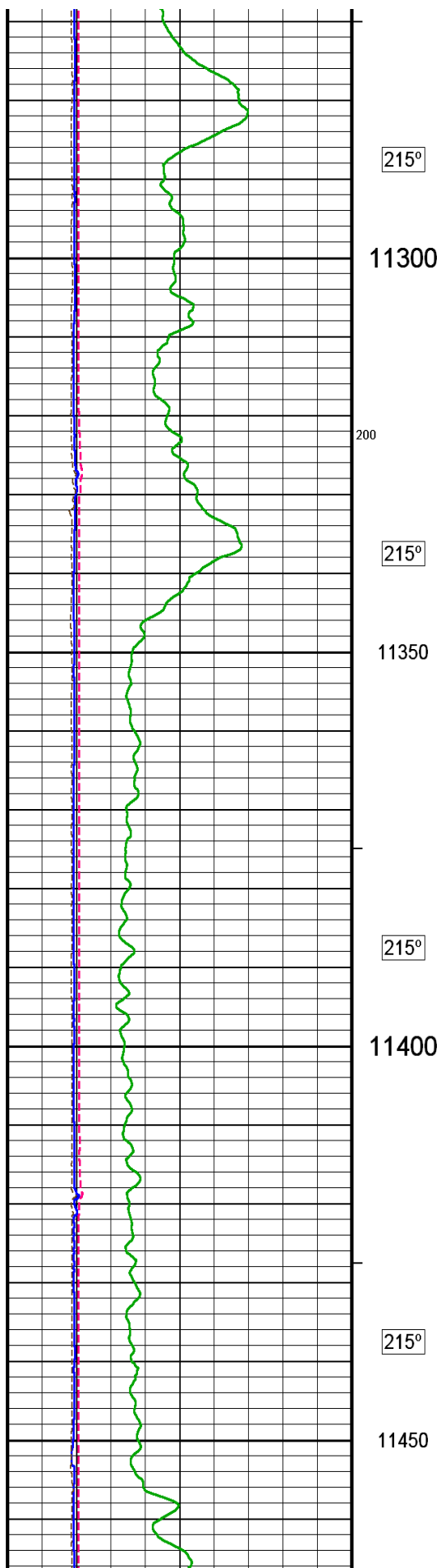
11250

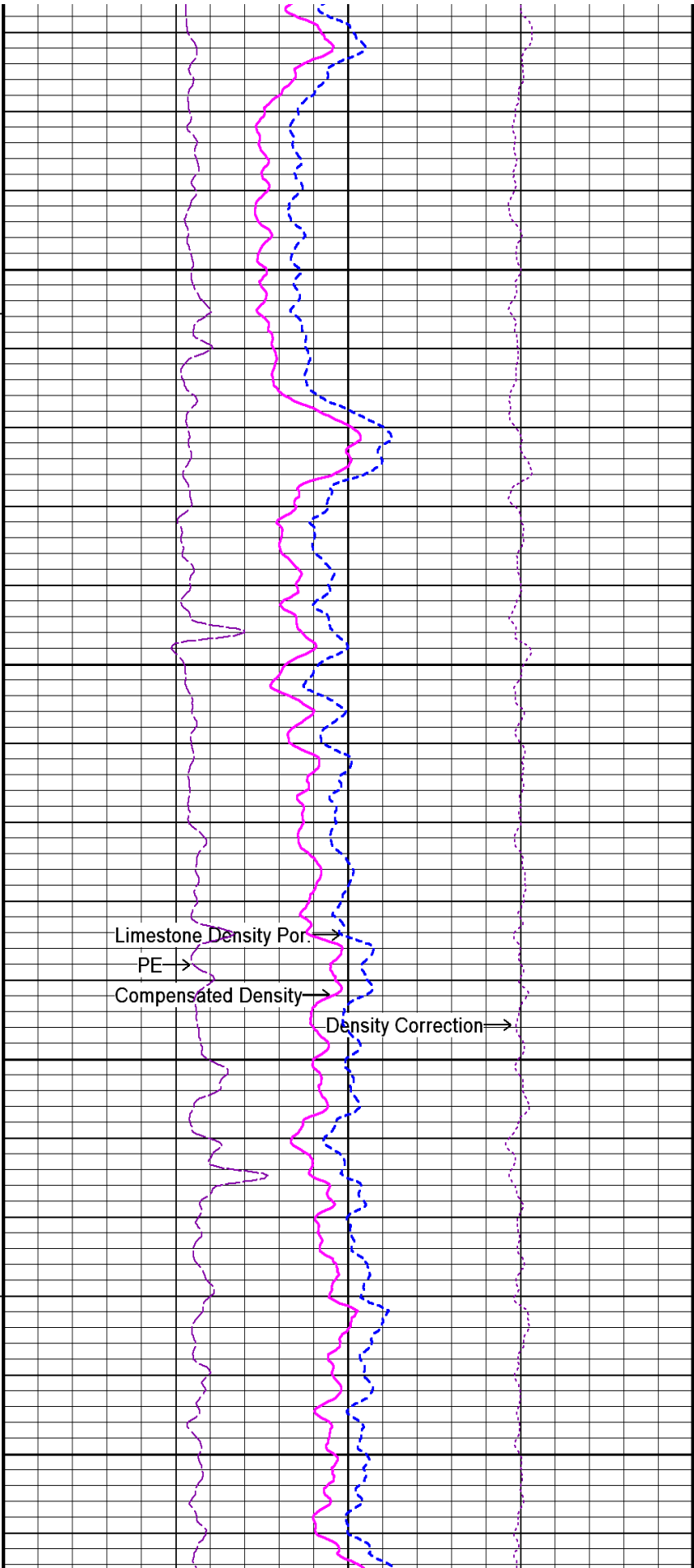
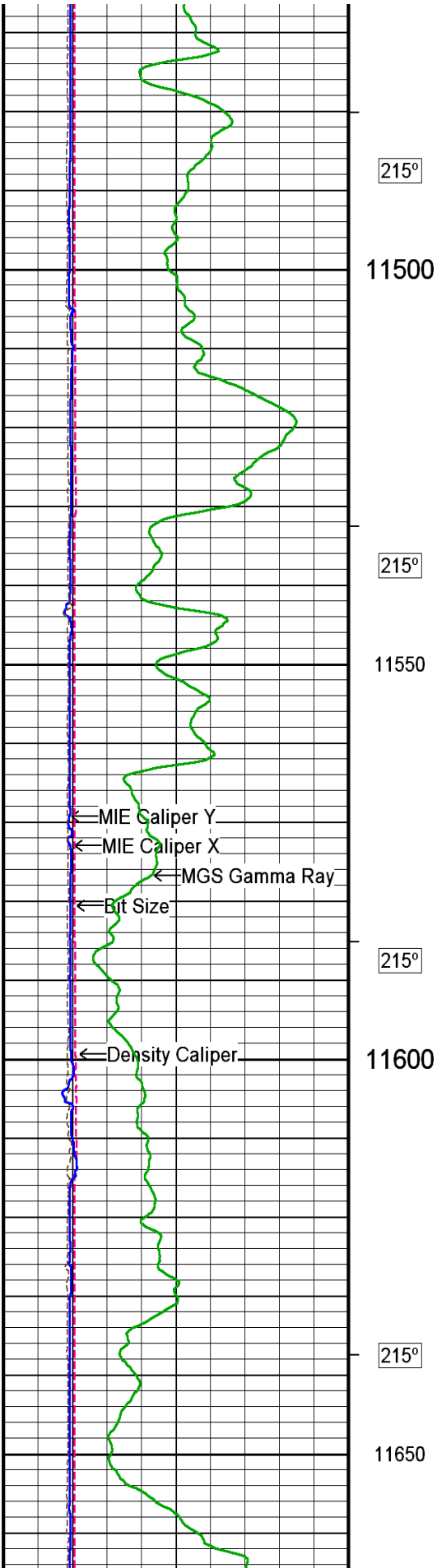
← MIE Caliper Y  
← MIE Caliper X  
← MGS Gamma Ray  
← Bit Size  
← Density Caliper

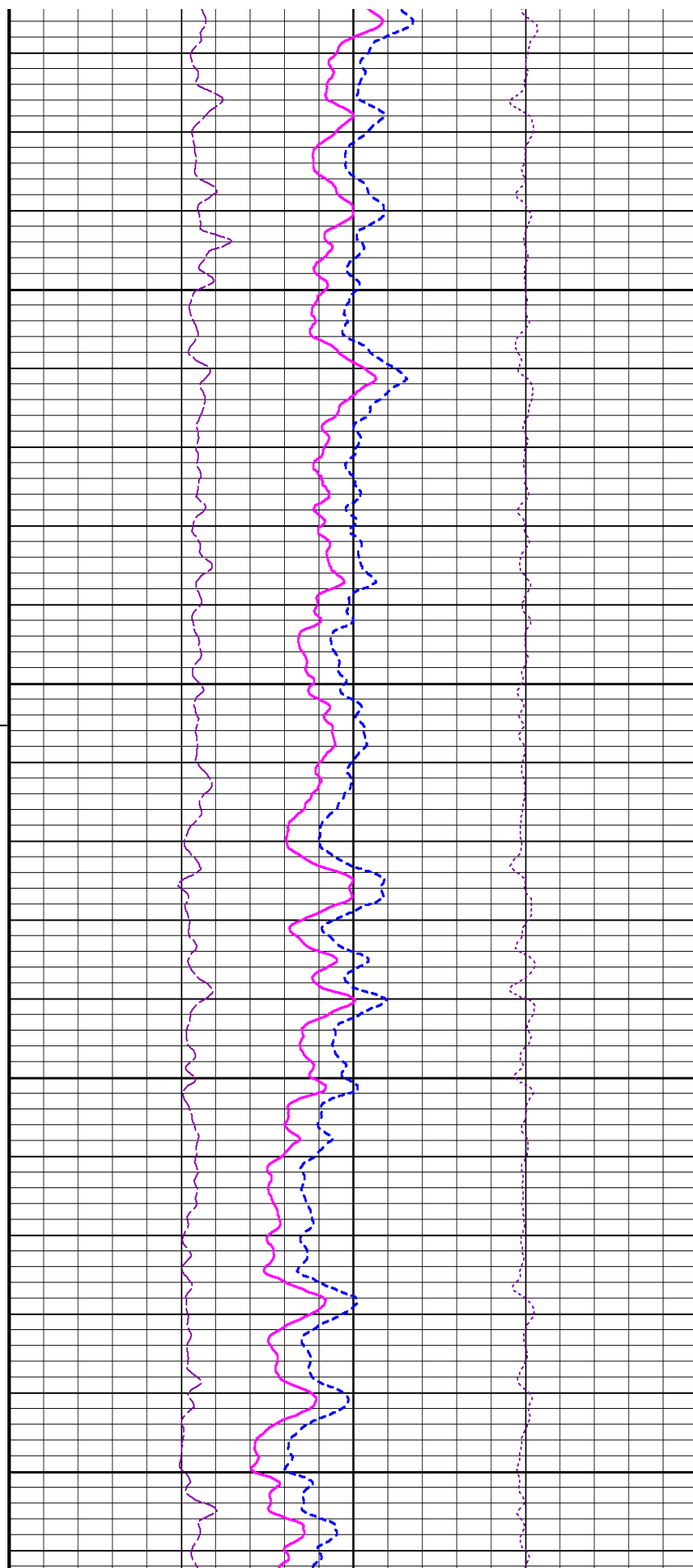
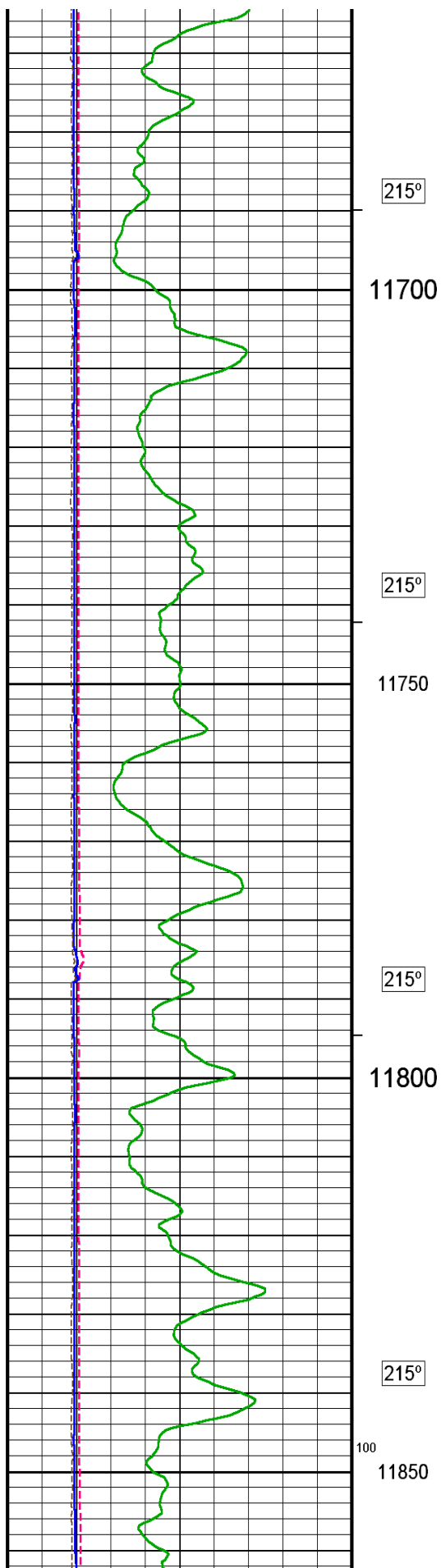


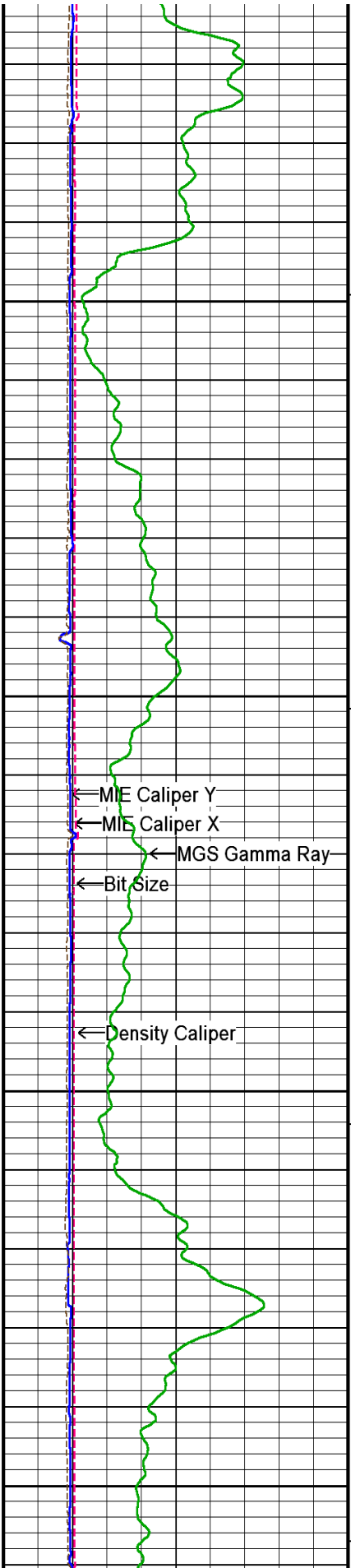
Limestone Density Por. →  
PE →  
Compensated Density →

Density Correction →









215°

11900

215°

11950

← MIE Caliper Y  
← MIE Caliper X  
← MGS Gamma Ray  
← Bit Size

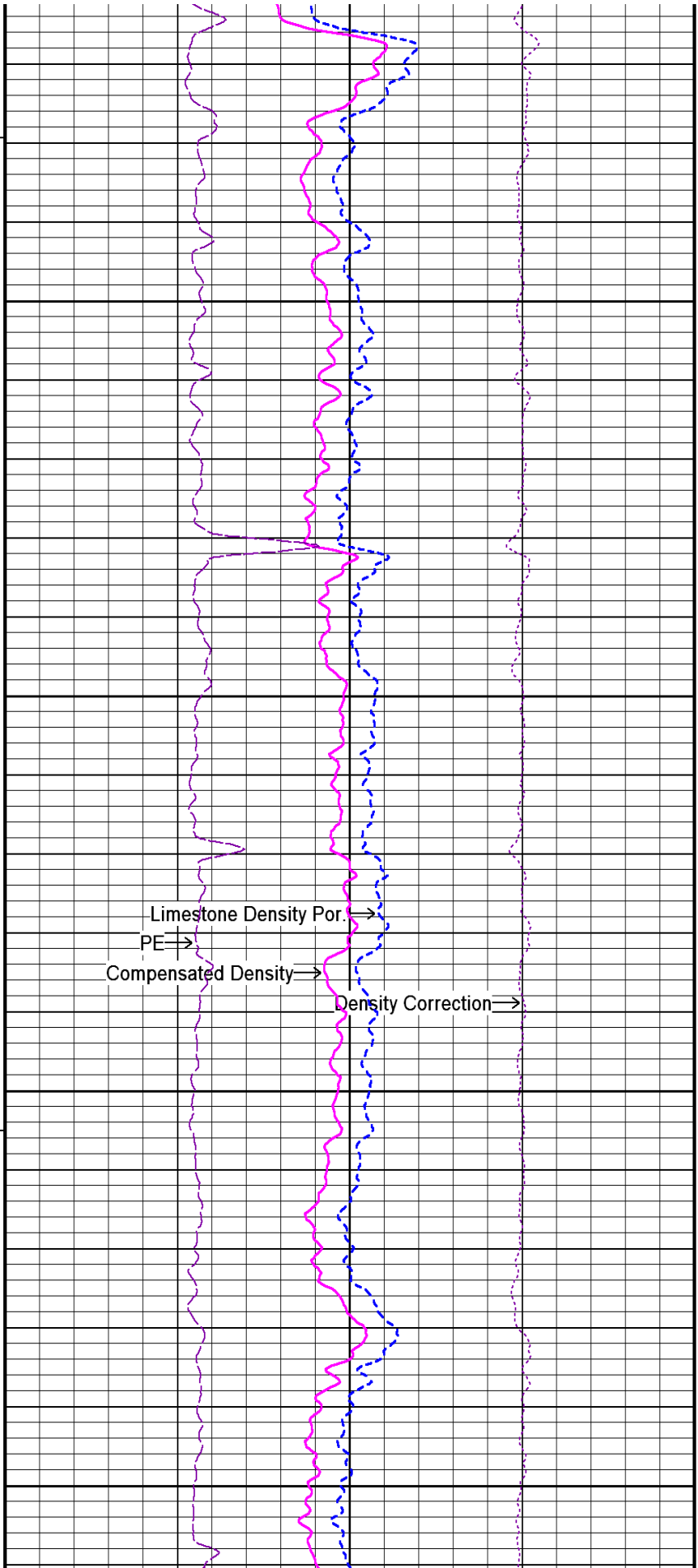
215°

← Density Caliper

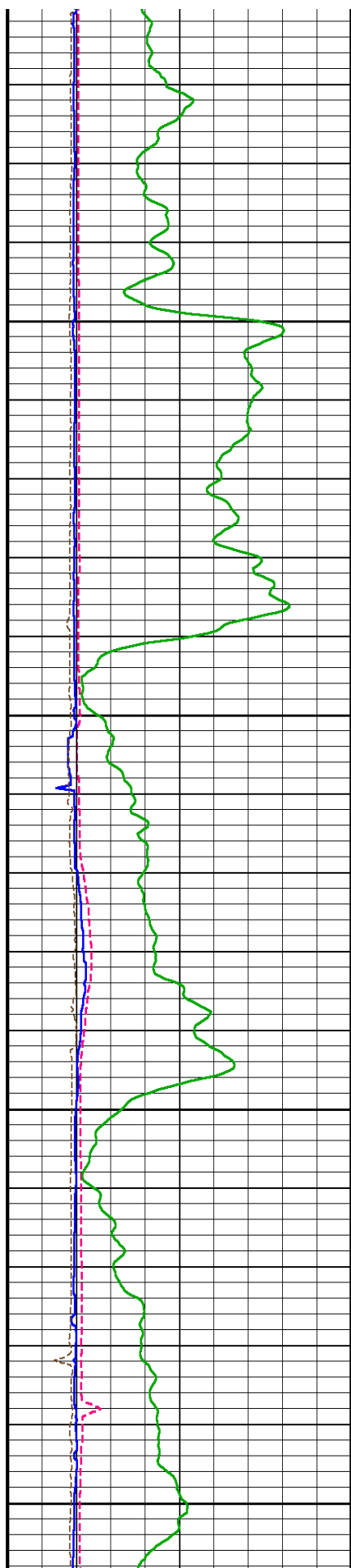
12000

215°

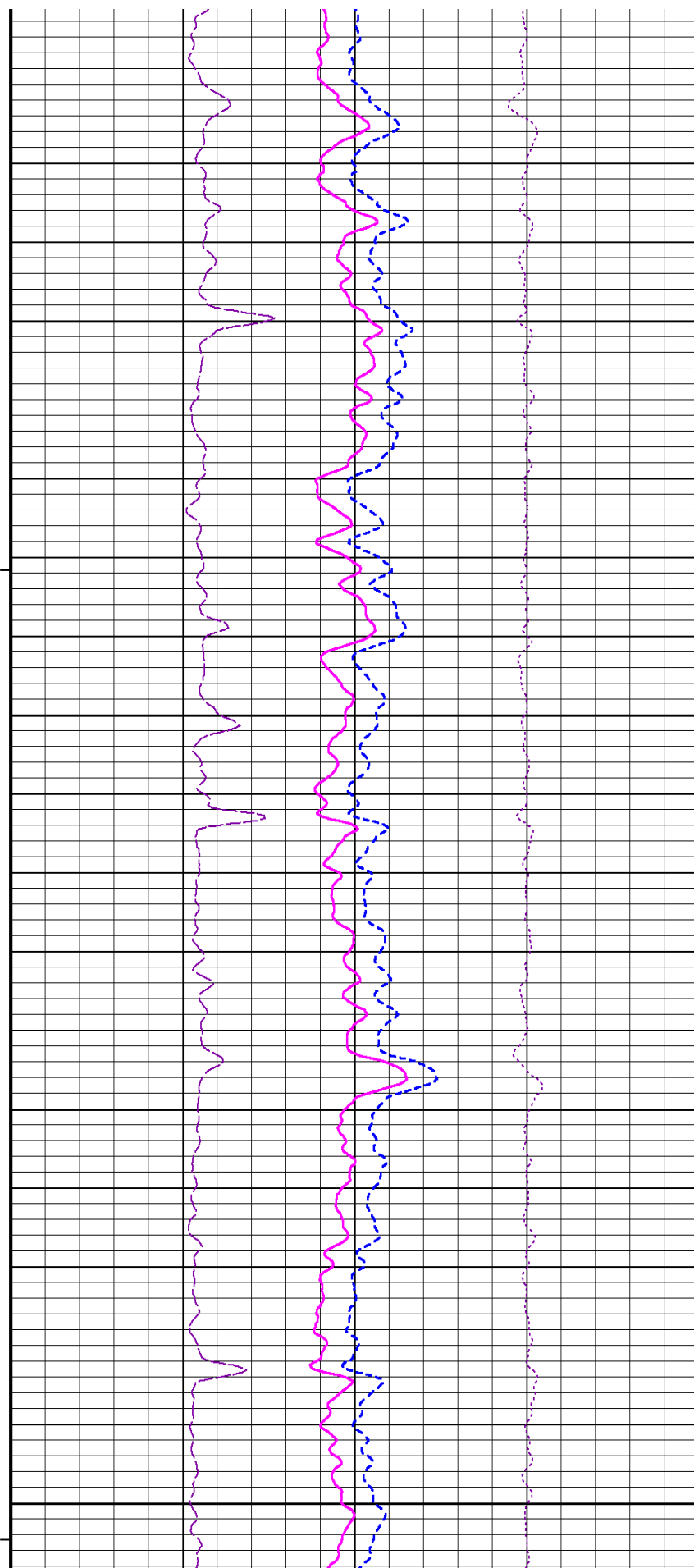
12050



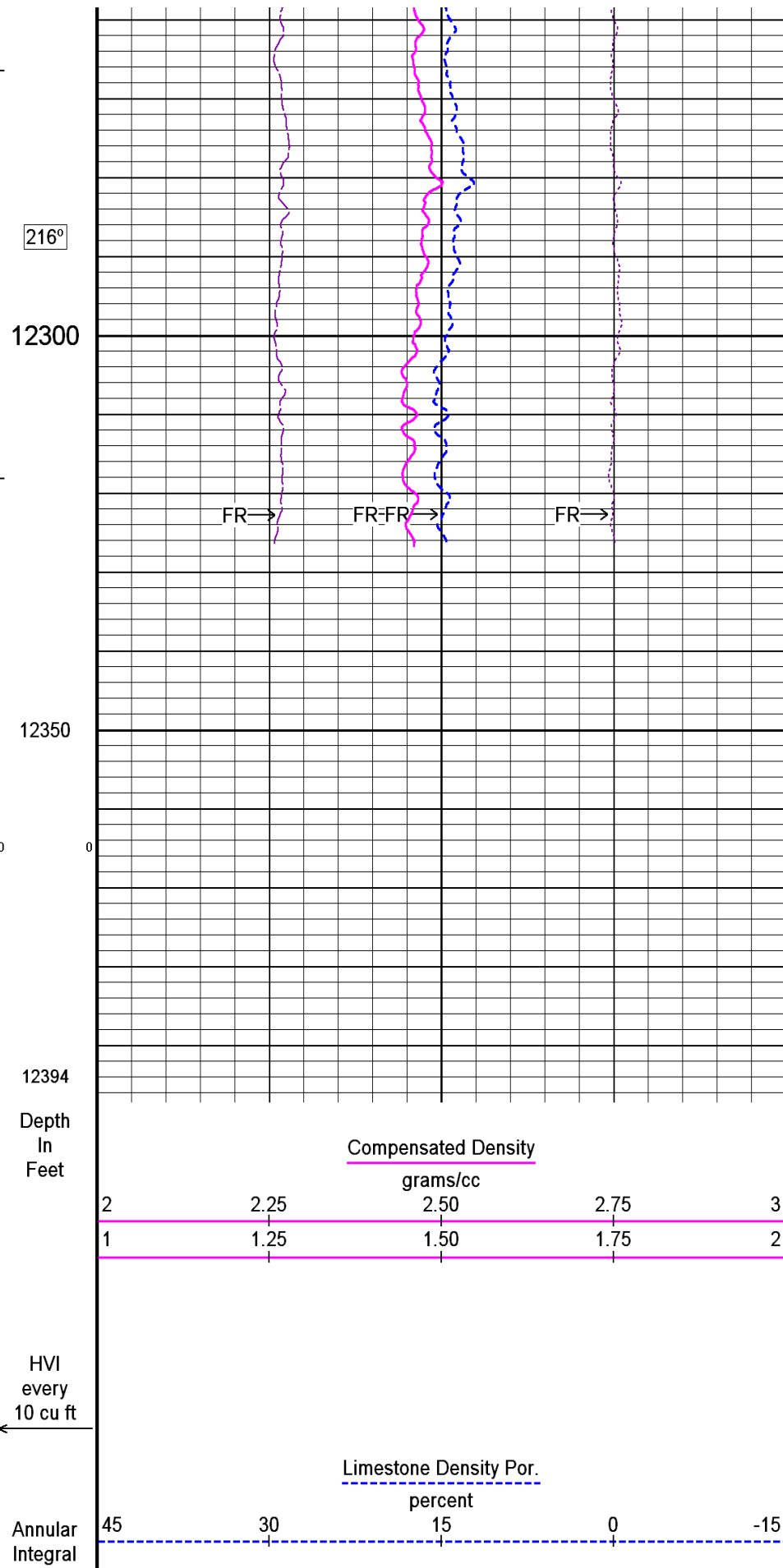
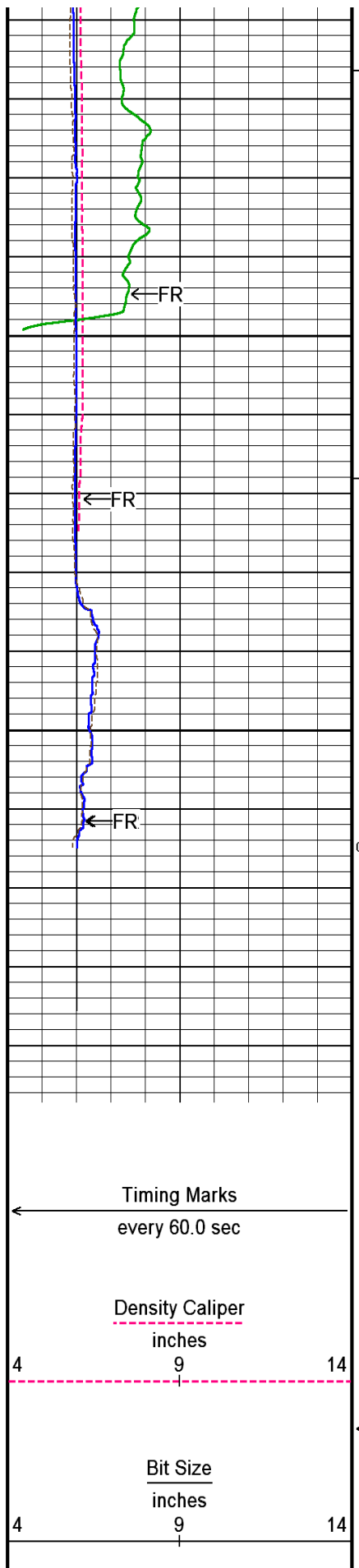
Limestone Density Por. →  
PE →  
Compensated Density →  
Density Correction →



215°  
12100  
215°  
12150  
215°  
12200  
215°  
12250









2000.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4000.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6000.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8000.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10000.0	0.000		0.000		0.000		0.000	
Gamma Calibration MGS-C.J 149								
					Field Calibration on 14-AUG-2013 23:08			
		Measured		Calibrated (API)				
Background		149		102				
Calibrator (Gross)		933		636				
Calibrator (Net)		784		534				
Gamma Constants MGS-C.J 149								
					Last Edited on 14-AUG-2013,23:00			
Gamma Calibrator Number		225						
Mud Density		1.00	gm/cc					
Caliper Source for Processing		MIE Caliper X						
Tool Position		Eccentred						
Concentration of KCl			kppm					
K Mud Type		Chloride						
K Mud Concentration		0.00	%					
SP Calibration MGS-C.J 149								
					Field Calibration on 10-AUG-2013,07:40			
		Measured		Calibrated (mV)				
Reference 1		100.0		100.0				
Reference 2		-100.0		-100.0				
High Resolution Temperature Calibration MGS-C.J 149								
					Field Calibration on 14-AUG-2013,23:28			
		Measured		Calibrated(Deg F)				
Lower		0.00		0.00				
Upper		50.00		50.00				
High Resolution Temperature Constants MGS-C.J 149								
					Last Edited on 14-AUG-2013,23:28			
Pre-filter Length		11						
Neutron Calibration MDN-B.A 275								
					Base Calibration on 31-JUL-2013 13:09			
					Field Check on 14-AUG-2013 23:00			
Base Calibration								
		Measured		Calibrated (cps)				
		Near Far		Near Far				
		2978 92		3714 110				
Ratio		32.467		33.764				
Field Calibrator at Base				Calibrated (cps)				
				0 0				
Ratio								
Field Check				Calibrated (cps)				
				2303 3359				
Ratio				0.686				
Neutron Constants MDN-B.A 275								
					Last Edited on 15-AUG-2013,15:12			
Neutron Source Id		P31131B						
Neutron Jig Number		NJ6630						
Epithermal Neutron		No						
Caliper Source for Processing		MIE Caliper X						
Stand-off		0.00	inches					
Mud Density		1.00	gm/cc					
Limestone Sigma		7.10	cu					
Sandstone Sigma		7.00	cu					
Dolomite Sigma		4.70	cu					

Formation Pressure Source	None			
Formation Pressure	N/A	kpsi		
Temperature Source	Constant Value			
Temperature	68.00	degrees F		
Mud Salinity	0.00	kppm		
Salinity Correction	Not Applied			
Formation Fluid Salinity Source	None			
Formation Fluid Salinity	N/A	kppm		
Barite Mud Correction	Not Applied			

Accelerometer Parameters MIE-B.A 255				
Date Of Last Accelerometer Calibration		16-JUL-2013,10:47		
	X Accelerometer	Y Accelerometer	Z Accelerometer	
Slope	-1.117631	-1.107005	-1.098683	
Offset	0.005285	0.006260	0.003490	

Accelerometer Constants MIE-B.A 255					Last Edited on 14-AUG-2013,22:38
Accelerometer Calibrator Number		000			
Accelerometer Temperature Characterisation					
X Accelerometer					
Serial Number	1148				
Calibration Date	16-May-2012				
	B0	B1	B2	B3	
Bias(g)	0.00000e+000	2.17085e-005	-2.87584e-008	1.62293e-010	
	SF0	SF1	SF2	SF3	
Scale Factor(mA/g)	3.00000e+000	2.53317e-004	3.78425e-007	8.53160e-010	
Y Accelerometer					
Serial Number	1144				
Calibration Date	16-May-2012				
	B0	B1	B2	B3	
Bias(g)	0.00000e+000	2.40573e-006	-2.17464e-009	1.45528e-010	
	SF0	SF1	SF2	SF3	
Scale Factor(mA/g)	3.00000e+000	2.77672e-004	3.45576e-007	7.42833e-010	
Z Accelerometer					
Serial Number	1140				
Calibration Date	10-May-2012				
	B0	B1	B2	B3	
Bias(g)	0.00000e+000	2.15582e-005	8.13147e-009	-4.05766e-011	
	SF0	SF1	SF2	SF3	
Scale Factor(mA/g)	3.00000e+000	2.87061e-004	2.74042e-007	7.28323e-010	

Magnetometer Parameters MIE-B.A 255				
Date Of Last Magnetometer Calibration		30-JUL-2013,10:04		
	X Magnetometer	Y Magnetometer	Z Magnetometer	
Slope	-1.000000	-0.978468	-0.975364	
Offset	-0.004142	-0.019785	-0.006512	

Magnetometer Constants MIE-B.A 255					Last Edited on
Magnetometer Calibrator Number		000			

Caliper Calibration MIE-B.A 255					Base Calibration on 08-AUG-2013 14:10
					Field Calibration on 14-AUG-2013 23:12
Base Calibration					
Reading No	Pads 1-5 Meas.	Pads 3-7 Meas.	Calibrator Size (in)		
1	24869	24853	5.97		
2	35489	35455	7.96		
3	45268	45244	9.86		
4	56957	56885	11.92		

5	0	0	0.00		
Reading No	Pad 2 Meas.	Pad 4 Meas.	Pad 6 Meas.	Pad 8 Meas.	Calibrator Size (in)
1	25438	25740	25898	25100	5.97
2	34051	34560	35186	34388	7.96
3	42363	43132	43551	42569	9.86
4	52343	52859	53183	52689	11.92
5	0	0	0	0	0.00
Field Calibration					
	Measured	Measured		Actual	
	Pads 1-5 Caliper(in)	Pads 3-7 Caliper(in)		Caliper(in)	
	6.11	6.17		5.97	
	Measured	Measured	Measured	Measured	Actual
	Pad 2 Caliper(in)	Pad 4 Caliper(in)	Pad 6 Caliper(in)	Pad 8 Caliper(in)	Caliper(in)
	3.11	3.01	2.89	2.98	5.97
Caliper Constants MIE-B.A 255				Last Edited on 08-AUG-2013,14:03	
Caliper Difference for BRKT		0.120	inches		
Navigation Constants MIE-B.A 255				Last Edited on 15-AUG-2013,17:41	
Magnetic Declination		8.10	degrees	East	
Imager Pad Check MIE-B.A 255				Field Check on	
Pad 1	Pad Not Tested	Pad 5	Pad Not Tested		
Pad 2	Pad Not Tested	Pad 6	Pad Not Tested		
Pad 3	Pad Not Tested	Pad 7	Pad Not Tested		
Pad 4	Pad Not Tested	Pad 8	Pad Not Tested		
Compact Micro Imager Constants MIE-B.A 255				Last Edited on 14-AUG-2013,22:37	
Sonde Configuration		Imager Mode			
Arm-Pad Kit		Normal Pads (12.25 in)			
Arm-Pad Kit Serial Number					
Centre Pad 1 Rotational Offset		0.00	degrees		
Image/Borehole Ovality Reference		Azimuth of Pad 1			
Non Active Buttons		Omit			
Search Angle		0.00	degrees		
Correlation Interval		3.28	feet		
Correlation Step		1.64	feet		
Current Offset		0.0000	mAmp		
Squasher Start		0.0500	mAmp		
Image Processing		Enabled			
Induction Calibration MAI-B.J 376				Base Calibration on 06-JUN-2013,08:44	
				Field Check on 14-AUG-2013 22:37	
Base Calibration					
Test Loop Calibration		Measured		Calibrated (mmho/m)	
Channel	Low	High	Low	High	
1	16.4	461.5	9.3	966.2	
2	5.9	377.0	7.6	821.4	
3	3.1	255.4	5.2	566.0	
4	1.7	130.3	2.6	279.2	
Array Temperature		73.8	Deg F		
Channel		Base Check (mmho/m)		Field Check (mmho/m)	
	Low	High	Low	High	
1	15.3	3946.5	14.2	3941.2	
2	31.2	3583.5	30.9	3581.2	
3	30.0	3102.4	29.9	3101.1	
4	20.5	2123.9	20.5	2123.4	

Deep	19.0	2052.2	18.9	2051.7	
Medium	43.3	4061.5	43.2	4060.0	
Shallow	45.7	5259.1	45.2	5255.2	
Array Temperature		77.9		61.2	Deg F
Induction Constants MAI-B.J 376					Last Edited on 17-AUG-2013,06:53
Induction Model		RtAP-WBM			
Caliper for Borehole Corr.		MIE Caliper X			
Hole Size for Borehole Correction		N/A	inches		
Tool Centred		No			
Stand-off Type		Fins			
Stand-off		0.50	inches		
Number of Fins on Stand-off		6.0000			
Stand-off Fin Angle		60.00	degrees		
Stand-off Fin Width		0.5000	inches		
Borehole Corr. Rm Source		Temperature Corr			
Temp. for Rm Corr.		MGS External Temperature			
Squasher Start		0.0020	mhos/metre		
Squasher Offset		N/A	mhos/metre		
Borehole Normalisation					
DRM1	0.0000	DRC1		0.0000	
DRM2	0.0000	DRC2		0.0000	
MRM1	0.0000	MRC1		0.0000	
MRM2	0.0000	MRC2		0.0000	
SRM1	0.0000	SRC1		0.0000	
SRM2	0.0000	SRC2		0.0000	
Calibration Site Corrections					
Channel 1		0.00	mmhos/metre		
Channel 2		0.00	mmhos/metre		
Channel 3		0.00	mmhos/metre		
Channel 4		0.00	mmhos/metre		
Apparent Porosity and Water Saturation Constants					
Archie Constant (A)		1.00			
Cementation Exponent (M)		2.00			
Saturation Exponent (N)		2.00			
Saturation of Water for Apor		100.00	percent		
Resistivity of Water for Apor and Sw		0.05	ohm-m		
Resistivity of Mud Filtrate for Sw		0.00	ohm-m		
Source for Rt		0.00			
Source for Rxo		0.00			
High Resolution Temperature Calibration MAI-B.J 376					Field Calibration on 14-AUG-2013,22:37
		Measured	Calibrated(Deg F)		
Lower		0.00	0.00		
Upper		50.00	50.00		
High Resolution Temperature Constants MAI-B.J 376					Last Edited on 14-AUG-2013,22:37
Pre-filter Length		11			
Photo Density Calibration MPD-C.J 378					Base Calibration on 01-AUG-2013 13:40 Field Check on 14-AUG-2013 22:48
Density Calibration					
Base Calibration		Measured	Calibrated (sdu)		
	Near	Far	Near	Far	
Reference 1	53633	25231	59443	30683	
Reference 2	21446	2371	25113	2508	
Field Check at Base					

	1175.6	1257.3		
Field Check				
	1178.3	1263.0		
PE Calibration				
Base Calibration		Measured		Calibrated
	WS	WH	Ratio	Ratio
Background	215	1051		
Reference 1	21890	53445	0.414	0.372
Reference 2	5949	21312	0.283	0.268
Field Check at Base				
	214.7	1051.3		
Field Check				
	214.8	1051.9		

# Density Constants MPD-C.J 378

Last Edited on 15-AUG-2013,15:12

Density Source Id	P21136B	
Nylon Calibrator Number	652	
Aluminium Calibrator Number	659	
Density Shoe Profile	4 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.11	gm/cc
Mud Density Z/A Multiplier	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	Hybrid	
Matrix Density (gm/cc)	Depth (ft)	
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	

# Caliper Calibration MPD-C.J 378

Base Calibration on 01-AUG-2013 13:53

Field Calibration on 14-AUG-2013 22:44

Base Calibration		
Reading No	Measured	Calibrator Size (in)
1	14864	4.01
2	22944	5.97
3	31088	7.96
4	39104	9.86
5	48528	11.92
6	N/A	N/A
Field Calibration		
	Measured Caliper (in)	Actual Caliper (in)
	3.98	4.01

## DOWNHOLE EQUIPMENT

C:\logs\Whiting\Razor 27K 3405A\Razor 27K-3405A Main Depth2.dta

Shuttle Running Tool 3.5"

SRT-A.A 59 LG: 6.62 ft WT: 37.5 lb OD: 2.52 in

MMR Tube

MLK-A 3 LG: 4.47 ft WT: 30.9 lb OD: 2.24 in

200v Std Tube

MLK-A 1 LG: 8.52 ft WT: 30.9 lb OD: 2.24 in

400v Ext Tube

MLK-A 2 LG: 14.23 ft WT: 30.9 lb OD: 2.24 in

SKJ-E.B Compact Knuckle Joint

SKJ-E.B 611 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

MBS-G.A 200v Compact Battery Sub

MBS-G.A 123 LG: 17.06 ft WT: 123.5 lb OD: 2.24 in

Compact Memory Sub E.B

MMS-E.B 159 LG: 5.20 ft WT: 37.5 lb OD: 2.24 in

Compact Tool Isolator sub.

MTI-B.A 53 LG: 1.54 ft WT: 13.2 lb OD: 2.24 in

Compact Short Gamma

MGS-C.J 149 LG: 3.41 ft WT: 24.3 lb OD: 2.24 in

Compact Collar Locator

MCL-B.J 53 LG: 3.17 ft WT: 26.5 lb OD: 2.24 in

SKJ-D.A Compact Knuckle Joint

SKJ-D.A 66 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

SHA-J.B Compact Swivel Head Adaptor

SHA-J.B 587 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in

MIS-D.B Compact Inline Bowspring sub

MIS-D.B 811 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

Compact Neutron

MDN-B.A 275 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

Compact Density/Caliper

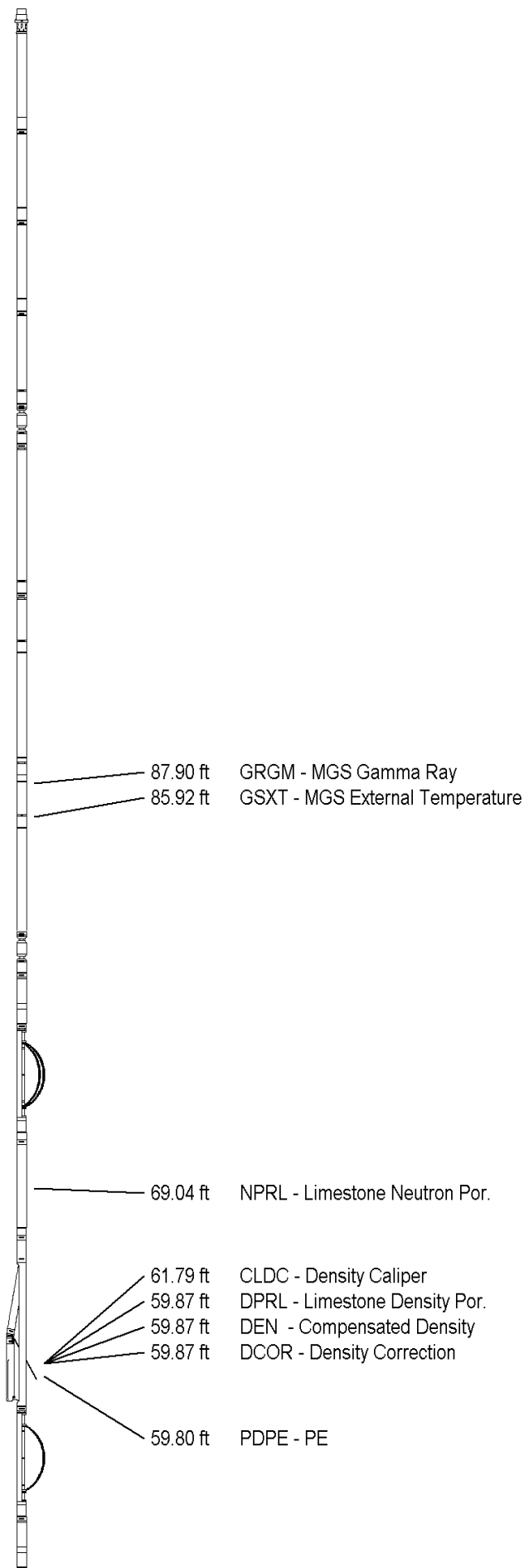
MPD-C.J 378 LG: 9.59 ft WT: 90.4 lb OD: 2.24 in

MIS-D.B Compact Inline Bowspring sub

MIS-D.B 654 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

SHA-J.B Compact Swivel Head Adaptor

SHA-J.B 597 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in





SKJ-E.B Compact Knuckle Joint  
SKJ-E.B 610 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

MIS-E.B Compact Inline Standoff sub  
MIS-E.B 693 LG: 2.14 ft WT: 15.4 lb OD: 2.24 in

SKJ-E.A Compact Knuckle Joint  
SKJ-E.A 410 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

MIS-D.B Compact Inline Bowspring sub  
MIS-D.B 700 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

Compact MMI Memory Section  
MIM-B.A 255 LG: 4.65 ft WT: 26.5 lb OD: 2.24 in

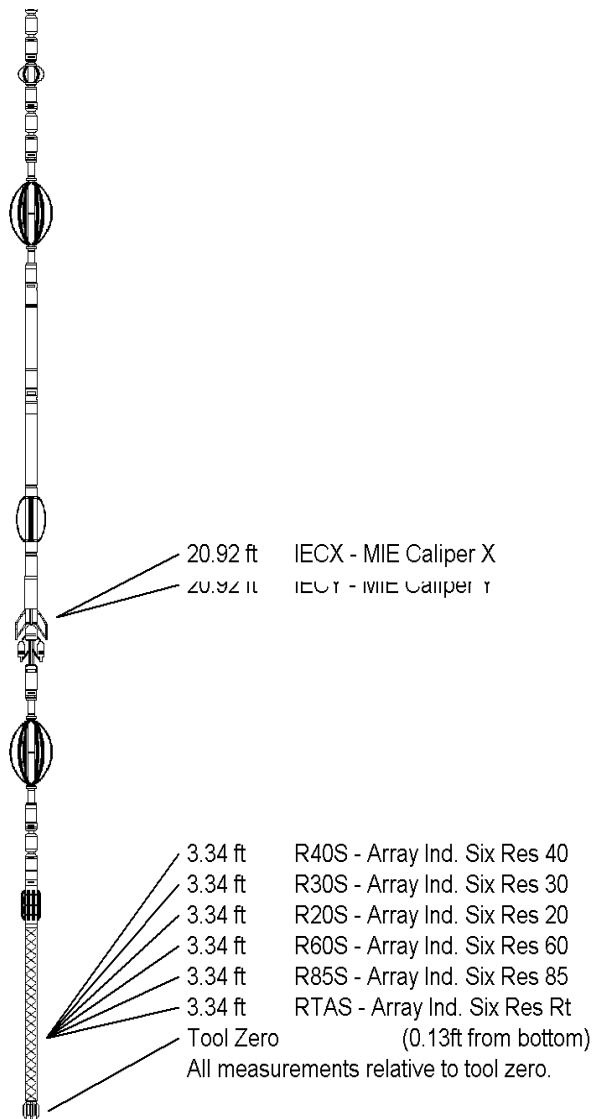
Compact MMI Electrode Section  
MIE-B.A 255 LG: 13.96 ft WT: 99.2 lb OD: 4.09 in

MIS-D.A Compact Inline Bowspring sub  
MIS-D.A 440 LG: 5.70 ft WT: 33.1 lb OD: 2.24 in

SKJ-E.B Compact Knuckle Joint  
SKJ-E.B 614 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

Compact Induction  
MAI-B.J 376 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 148.63 ft Weight: 983.3 lb



COMPANY	WHITING OIL AND GAS CORPORATION
WELL	RAZOR 27K-3405A
FIELD	REDTAIL
PROVINCE/COUNTY	WELD
COUNTRY/STATE	U.S.A. / COLORADO

Elevation Kelly Bushing	4767.00	feet	First Reading	12326.00	feet
Elevation Drill Floor	4767.00	feet	Depth Driller	12414.00	feet
Elevation Ground Level	4750.00	feet	Depth Logger	12414.00	feet



**Weatherford®**

COMPENSATED PHOTO DENSITY  
COMPENSATED DUAL NEUTRON  
LOG

