

HALLIBURTON

**DUAL SPACED NEUTRON
SPECTRAL DENSITY**

COMPANY				BAYHORSE PETROLEUM, LLC			
WELL				TRES HOMBRES 1-22			
FIELD/BLOCK				LEFT HAND			
COUNTY				KIOWA			
STATE				CO			
Permanent Datum				GL			
Log measured from				KB			
Drilling measured from				KB			
Date				22-Mar-15			
Run No.				ONE			
Depth - Driller				4497.00 ft			
Depth - Logger				4497.0 ft			
Bottom - Logged Interval				4497.0 ft			
Top - Logged Interval				75.0 ft			
Casing - Driller				8.625 in @ 436.0 ft			
Casing - Logger				436.0 ft			
Bit Size				7.875 in @			
Type Fluid in Hole				Water Based Mud			
Density				9.2 ppg			
PH				9.50 pH			
Source of Sample				MUD TANK			
Rm @ Meas. Temperature				0.898 ohmm @ 68.60 degF			
Rmf @ Meas. Temperature				1.45 ohmm @ 67.00 degF			
Rmc @ Meas. Temperature				1.450 ohmm @ 67.10 degF			
Source Rmf				MEASURED			
Rm @ BHT				0.49 ohmm @ 131.0 degF			
Time Since Circulation				4.0 hr			
Time on Bottom				22-Mar-15 11:02:20.000			
Max. Rec. Temperature				131.0 degF @ 4497.0 ft			
Equipment				11871076			
Recorded By				P. DIMPFL			
Witnessed By				J. KLIJESSEN			

COMPANY				BAYHORSE PETROLEUM, LLC			
WELL				TRES HOMBRES 1-22			
FIELD/BLOCK				LEFT HAND			
COUNTY				KIOWA			
STATE				CO			
API No.				05061068940000			
Location				SURFACE HOLE LOCATION: 1738' FNL & 987' FWL			
Sect. 22				Twp. 18S			
Rge. 47W				Elev. 4129.0 ft			
Other Services:				RWCH BSAT MEL ACRT			
Latitude: 38.479180				Elev.: K.B. 4140.0 ft			
Longitude: -102.671940				D.F. 4140.0 ft			
				G.L. 4129.0 ft			

Fold here

Service Ticket No.: 902244334				API Serial No.: 05061068940000				PGM Version: WL INSITE R4.6.0 (Build 4)							
CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE						RESISTIVITY SCALE CHANGES									
Date		Sample No.				Type Log		Depth		Scale Up Hole		Scale Down Hole			
Depth-Driller															
Type Fluid in Hole															
Density		Viscosity													
Ph		Fluid Loss													
Source of Sample						RESISTIVITY EQUIPMENT DATA									
Rm @ Meas. Temp		@		@		Run No.		Tool Type & No.		Pad Type		Tool Pos.		Other	
Rmf @ Meas. Temp.		@		@		ONE		ACRT		N/A		CENT		N/A	
Rmc @ Meas. Temp.		@		@				I: 11585787							
Source Rmf		Rmc						S: 11585797							
Rm @ BHT		@		@		ONE		MICROLOG		MICRO		PAD		N/A	
Rmf @ BHT		@		@				10951300							
Rmc @ BHT		@		@											
EQUIPMENT DATA															
GAMMA				ACOUSTIC				DENSITY				NEUTRON			
Run No.		ONE		Run No.		ONE		Run No.		ONE		Run No.		ONE	
Serial No.		11958949		Serial No.		10930054		Serial No.		10865876		Serial No.		10993888	
Model No.		GTET		Model No.		BSAT-I		Model No.		SDLT-I		Model No.		DSNT-I	
Diameter		3.625"		No. of Cent.		2		Diameter		4.5"		Diameter		3.625"	
Detector Model No.		GTET		Spacing		0.5'		Log Type		GAMMA-GAMMA		Log Type		NEU-THERM	
Type		SCINT						Source Type		Cs137		Source Type		Am241Be	
Length		8"		LSA [Y/N]		N		Serial No.		5153GW		Serial No.		DSN-388	
Distance to Source		9'		FWDA [Y/N]		N		Strength		1.5 Ci		Strength		15 Ci	
LOGGING DATA															

GENERAL			GAMMA		ACOUSTIC			DENSITY			NEUTRON			
Run	Depth		Speed	Scale		Scale		Matrix	Scale		Matrix	Scale		Matrix
No.	From	To	ft/min	L	R	L	R		L	R		L	R	
ONE	4497	436	REC	0 API	200 API	30 %	-10 %	47.5 us/ft	30 %	-10 %	2.71 g/cc	30 %	-10 %	LIME
ONE	436	75	REC											
DIRECTIONAL INFORMATION														
Maximum Deviation @								KOP @						
Remarks: RUN ONE: RWCH/GTET/DSNT/SDLT/FLEX/BSAT/ACRT/BN														
BORHOLE RUGOSITY, TENSION PULLS, LCM ADDITIVE, AND WASHOUTS MAY EFFECT LOG QUALITY AND REPEATABILITY														
CHLORIDES REPORTED TO BE 1800 ppm														
ANNULAR HOLE VOLUME CALCULATED USING 4.5-INCH CASING.														
YOU CREW TODAY: J. VIGIL, B. CALDWELL, A. KOBE RIG: H2 1														
THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES, GRAND JUNCTION, CO (970) 523-3600														
HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.														
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HALLIBURTON

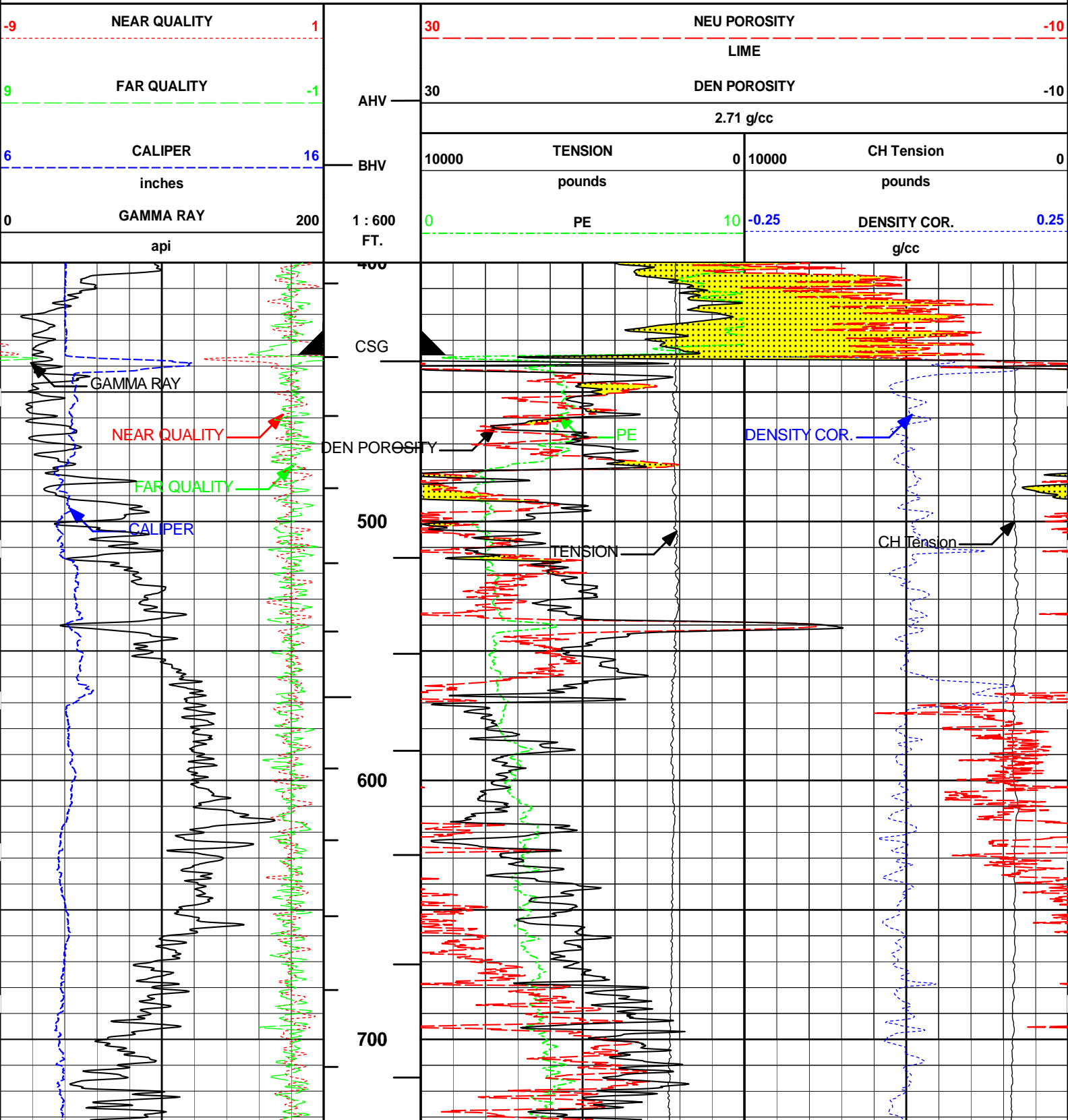
PARAMETERS REPORT

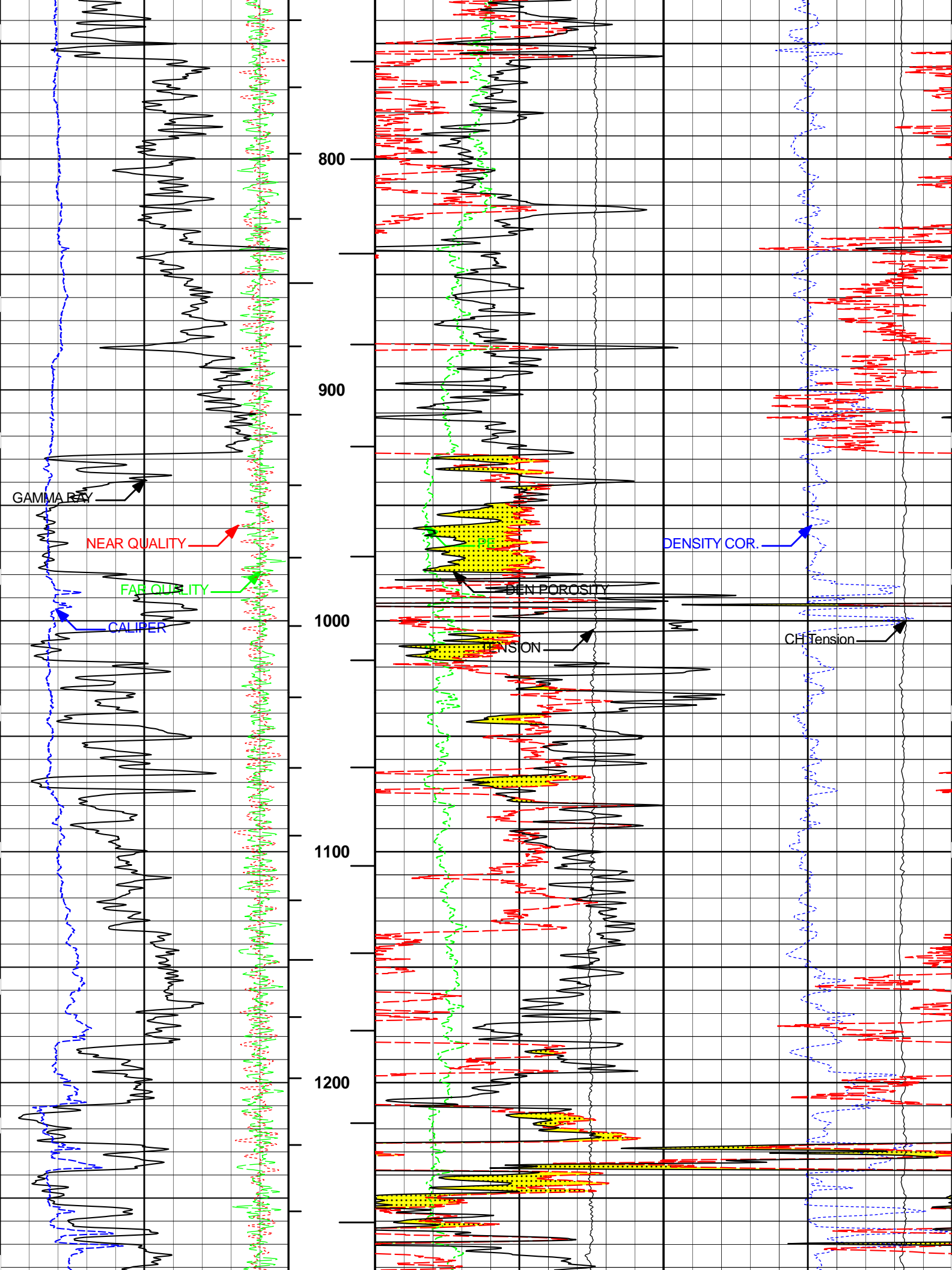
Depth (ft)	Tool Name	Mnemonic	Description	Value	Units
TOP					
	SHARED	BS	Bit Size	7.875	in
	SHARED	UBS	Use Bit Size instead of Caliper for all applications.	No	
	SHARED	MDBS	Mud Base	Water	
	SHARED	MDWT	Borehole Fluid Weight	9.200	ppg
	SHARED	WAGT	Weighting Agent	Barite	
	SHARED	BSAL	Borehole salinity	2400.00	ppm
	SHARED	FSAL	Formation Salinity NaCl	0.00	ppm
	SHARED	KPCT	Percent K in Mud by Weight?	0.00	%
	SHARED	RMUD	Mud Resistivity	0.898	ohmm
	SHARED	TRM	Temperature of Mud	68.6	degF
	SHARED	CSD	Logging Interval is Cased?	No	
	SHARED	ICOD	AHV Casing OD	4.500	in
	SHARED	ST	Surface Temperature	60.0	degF
	SHARED	TD	Total Well Depth	4497.00	ft
	SHARED	BHT	Bottom Hole Temperature	150.0	degF
	SHARED	SVTM	Navigation and Survey Master Tool	NONE	
	SHARED	AZTM	High Res Z Accelerometer Master Tool	GTET	
	SHARED	TEMM	Temperature Master Tool	NONE	
	Rwa / CrossPlot	XPOK	Process Crossplot?	Yes	
	Rwa / CrossPlot	FCHO	Select Source of F	Automatic	
	Rwa / CrossPlot	AFAC	Archie A factor	0.6200	

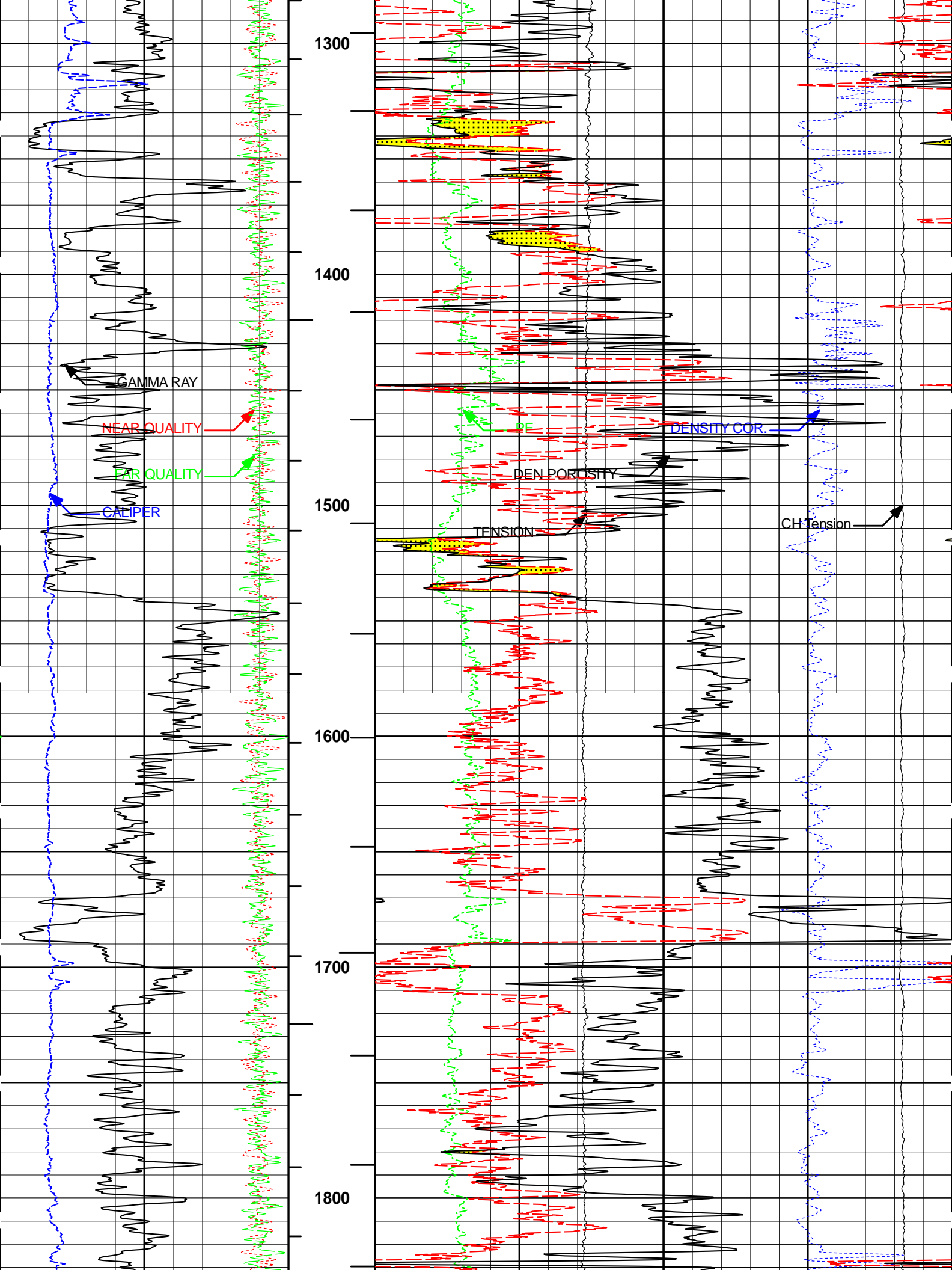
Rwa / CrossPlot	MFAC	Archie M factor	2.1500	
Rwa / CrossPlot	RMFR	Rmf Reference	0.10	ohmm
Rwa / CrossPlot	TMFR	Rmf Ref Temp	75.00	degF
Rwa / CrossPlot	RWA	Resistivity of Formation Water	0.05	ohmm
Rwa / CrossPlot	ADP	Use Air Porosity to calculate CrossplotPhi	No	
Rwa / CrossPlot	BHSM	Borehole Size Source Tool	SDLT	
GTET	GROK	Process Gamma Ray?	Yes	
GTET	GRSO	Gamma Tool Standoff	0.000	in
GTET	GEOK	Process Gamma Ray EVR?	No	
GTET	TPOS	Tool Position for Gamma Ray Tools.	Eccentered	
GTET	BHSM	Borehole Size Source Tool	SDLT	
DSNT	DNOK	Process DSN?	Yes	
DSNT	DEOK	Process DSN EVR?	No	
DSNT	NLIT	Neutron Lithology	Limestone	
DSNT	DNSO	DSN Standoff - 0.25 in (6.35 mm) Recommended	0.250	in
DSNT	DNTP	Temperature Correction Type	None	
DSNT	DPRS	DSN Pressure Correction Type	None	
DSNT	SHCO	View More Correction Options	No	
DSNT	UTVD	Use TVD for Gradient Corrections?	No	
DSNT	LHWT	Logging Horizontal Water Tank?	No	
DSNT	BHSM	Borehole Size Source Tool	SDLT	
SDLT	CLOK	Process Caliper Outputs?	Yes	
SDLT Pad	DNOK	Process Density?	Yes	
SDLT Pad	DNOK	Process Density EVR?	No	
SDLT Pad	CB	Logging Calibration Blocks?	No	
SDLT Pad	SPVT	SDLT Pad Temperature Valid?	Yes	
SDLT Pad	DTWN	Disable temperature warning	No	
SDLT Pad	DMA	Formation Density Matrix	2.710	g/cc
SDLT Pad	DFL	Formation Density Fluid	1.000	g/cc
SDLT Pad	BHSM	Borehole Size Source Tool	SDLT	
Microlog Pad	MLOK	Process MicroLog Outputs?	Yes	
BSAT	MBOK	Compute BCAS Results?	Yes	
BSAT	FLLO	Frequency Filter Low Pass Value?	5000	Hz
BSAT	FLHI	Frequency Filter High Pass Value?	27000	Hz
BSAT	DTFL	Delta -T Fluid	189.00	uspf
BSAT	DTMT	Delta -T Matrix Type	Limestone 47.5	
BSAT	DTSH	Delta -T Shale	100.00	uspf
BSAT	SPEQ	Acoustic Porosity Equation	Wyllie	
ACRt Sonde	RTOK	Process ACRt?	Yes	
ACRt Sonde	MNSO	Minimum Tool Standoff	1.50	in
ACRt Sonde	TCS1	Temperature Correction Source	FP Lwr & FP Upr	
ACRt Sonde	TPOS	Tool Position	Centered	
ACRt Sonde	RMOP	Rmud Source	Mud Cell	
ACRt Sonde	RMIN	Minimum Resistivity for MAP	0.20	ohmm
ACRt Sonde	RMIN	Maximum Resistivity for MAP	200.00	ohmm
ACRt Sonde	THQY	Threshold Quality	0.50	
ACRt Sonde	MRFX	Fixed mud resistivity	2000	ohmm
ACRt Sonde	BHSM	Borehole Size Source Tool	SDLT	
ACRt Sonde	MBFL	Apply Corkscrew Effect?	No	

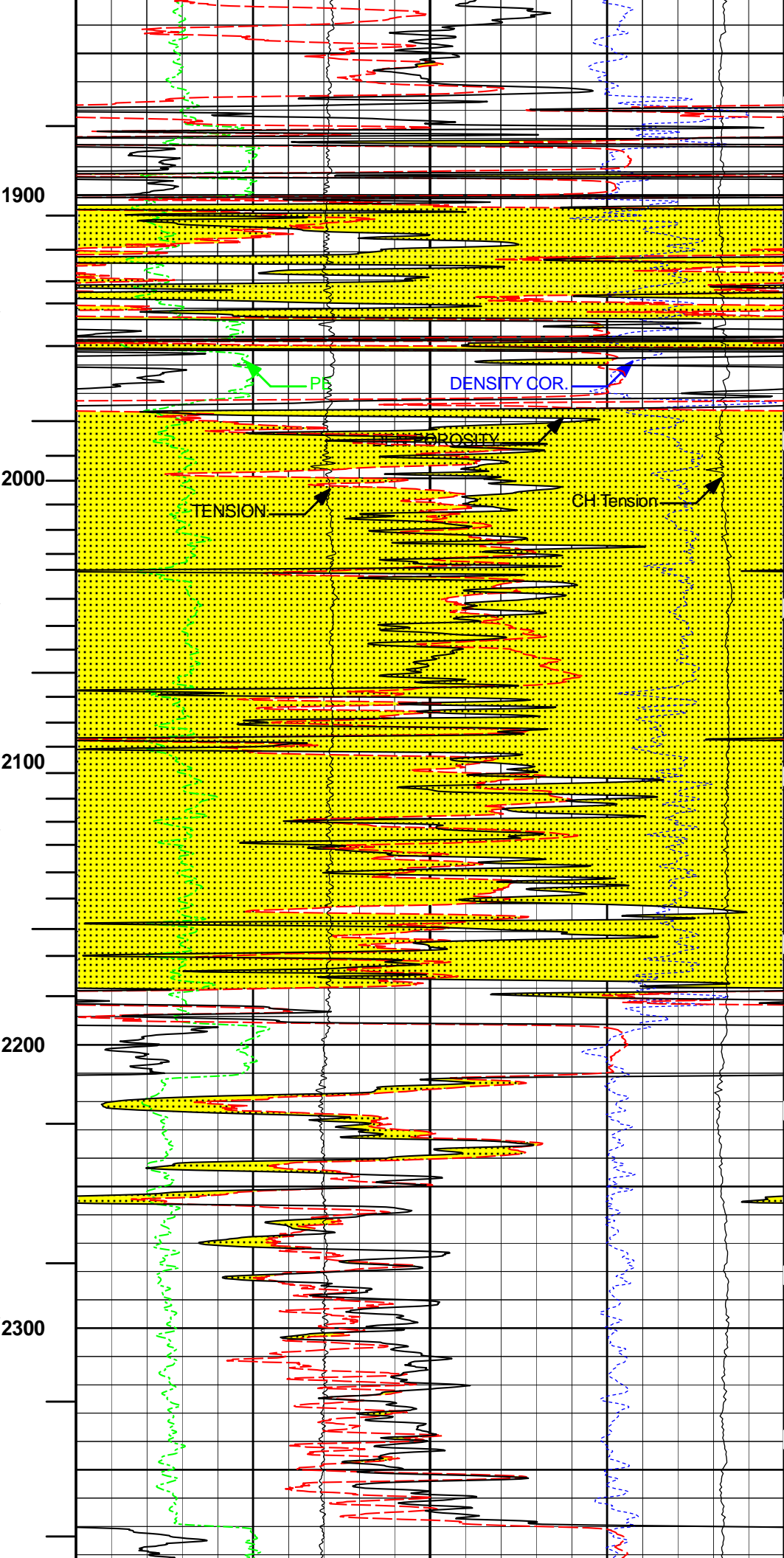
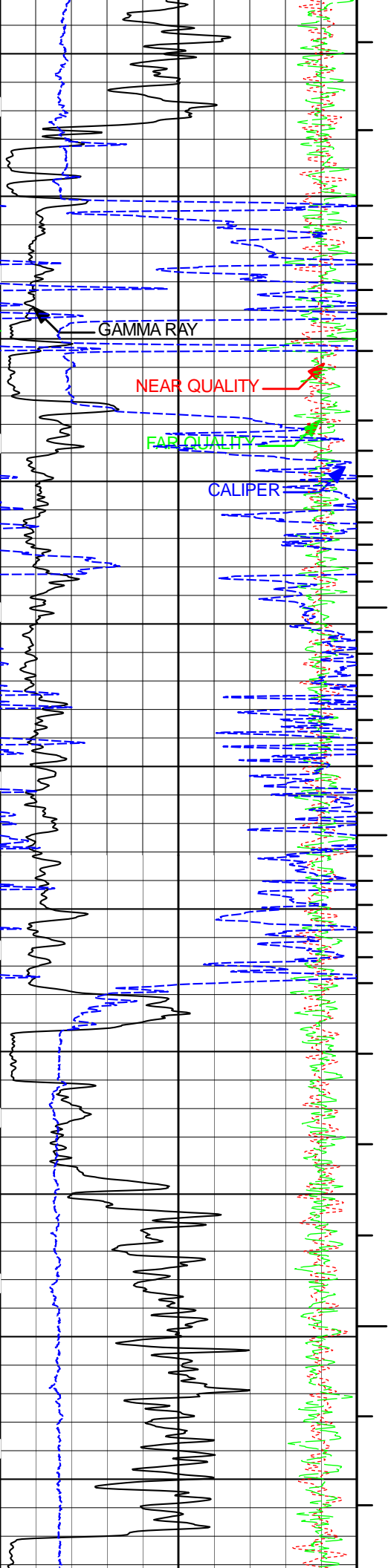
BOTTOM

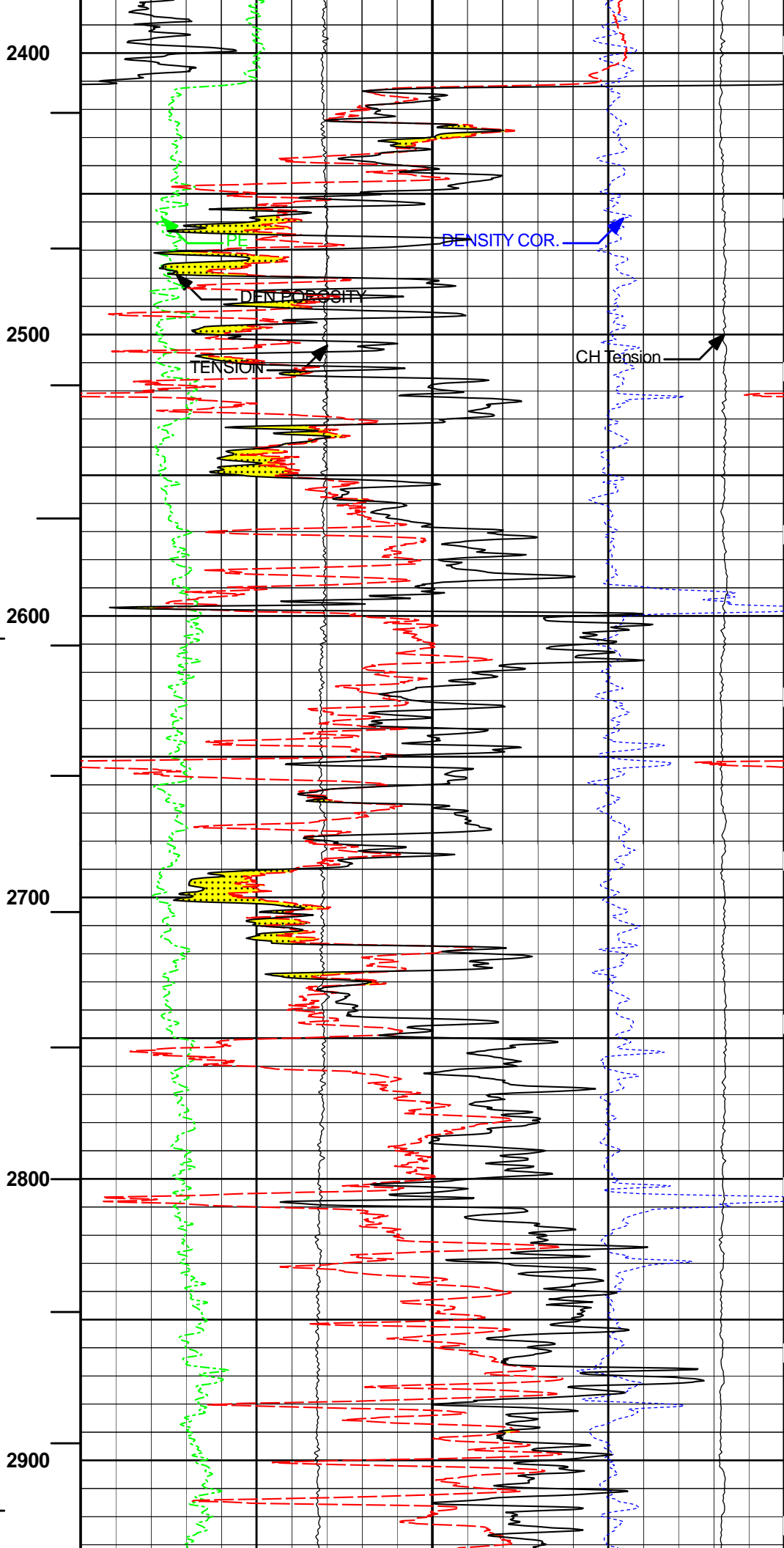
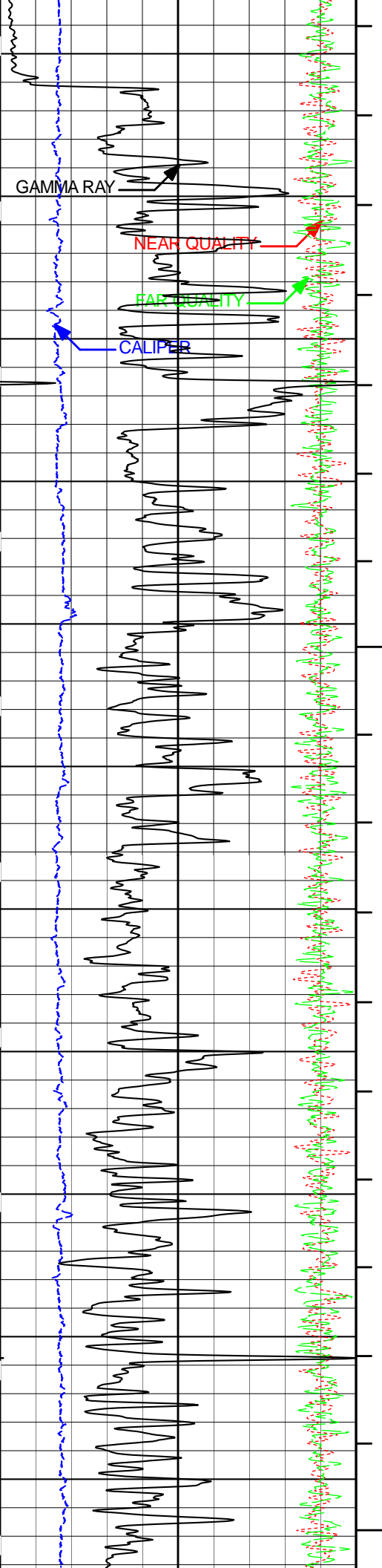
MAIN PASS 2" = 100'
LIMESTONE MATRIX

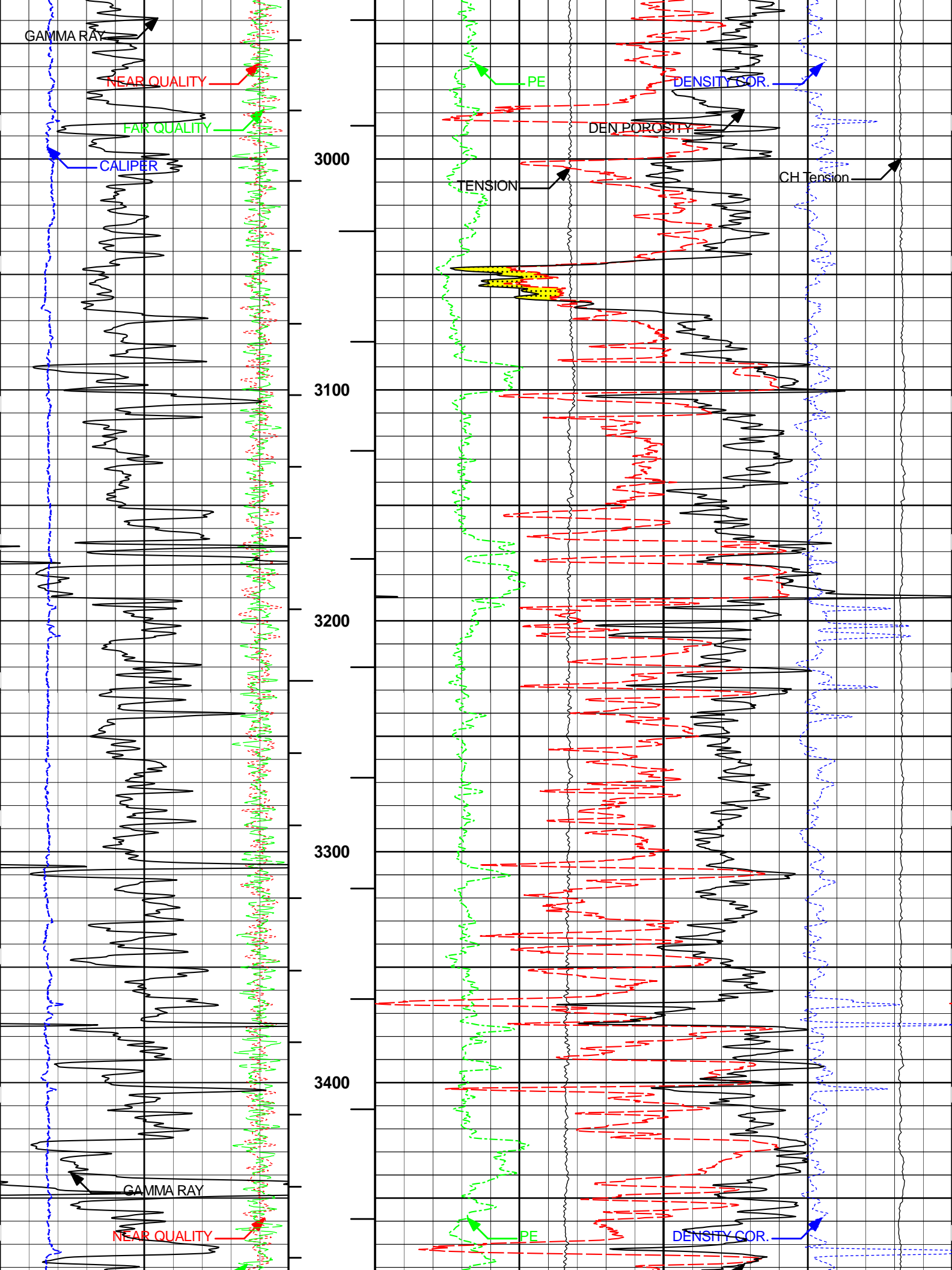


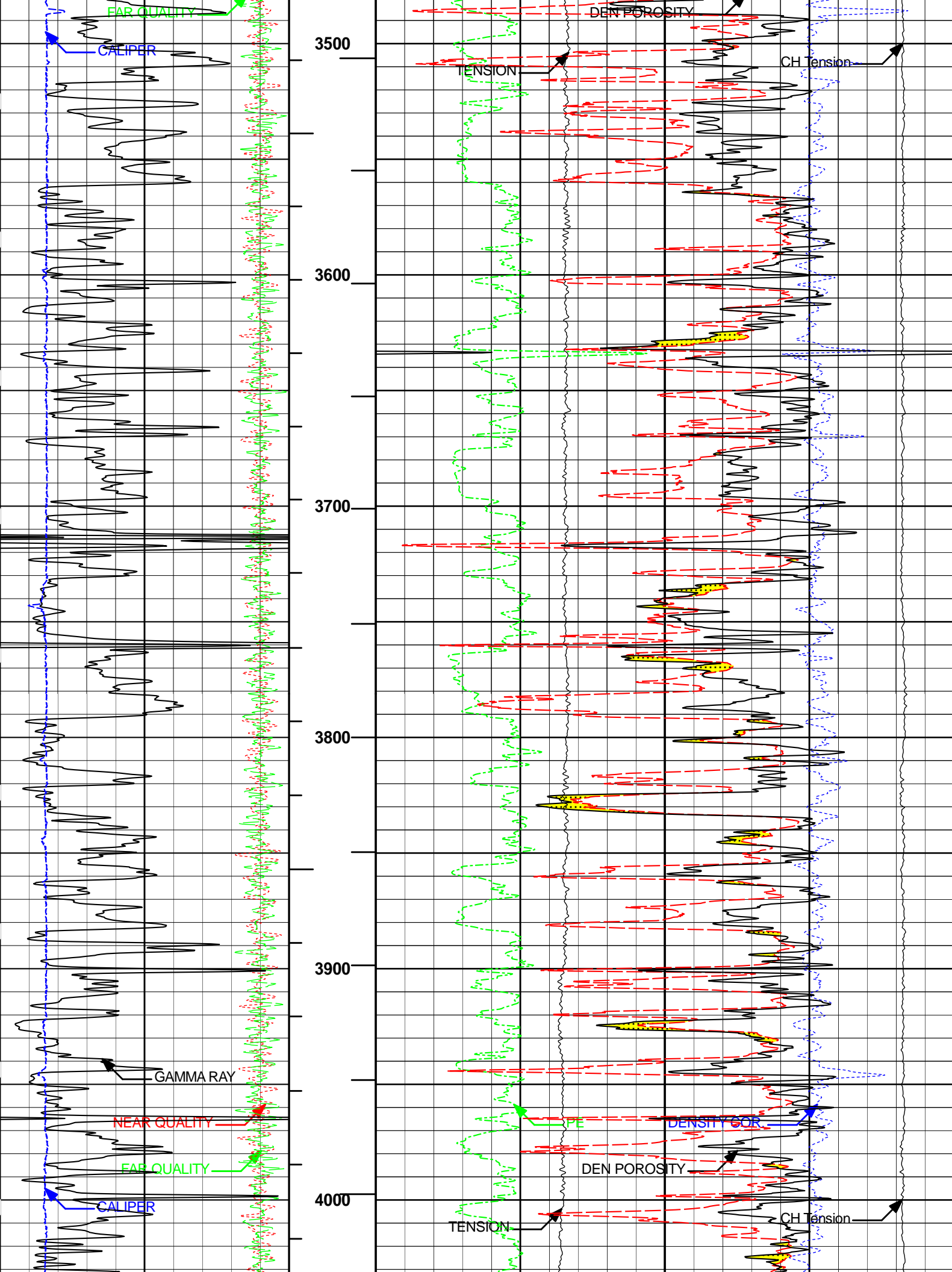


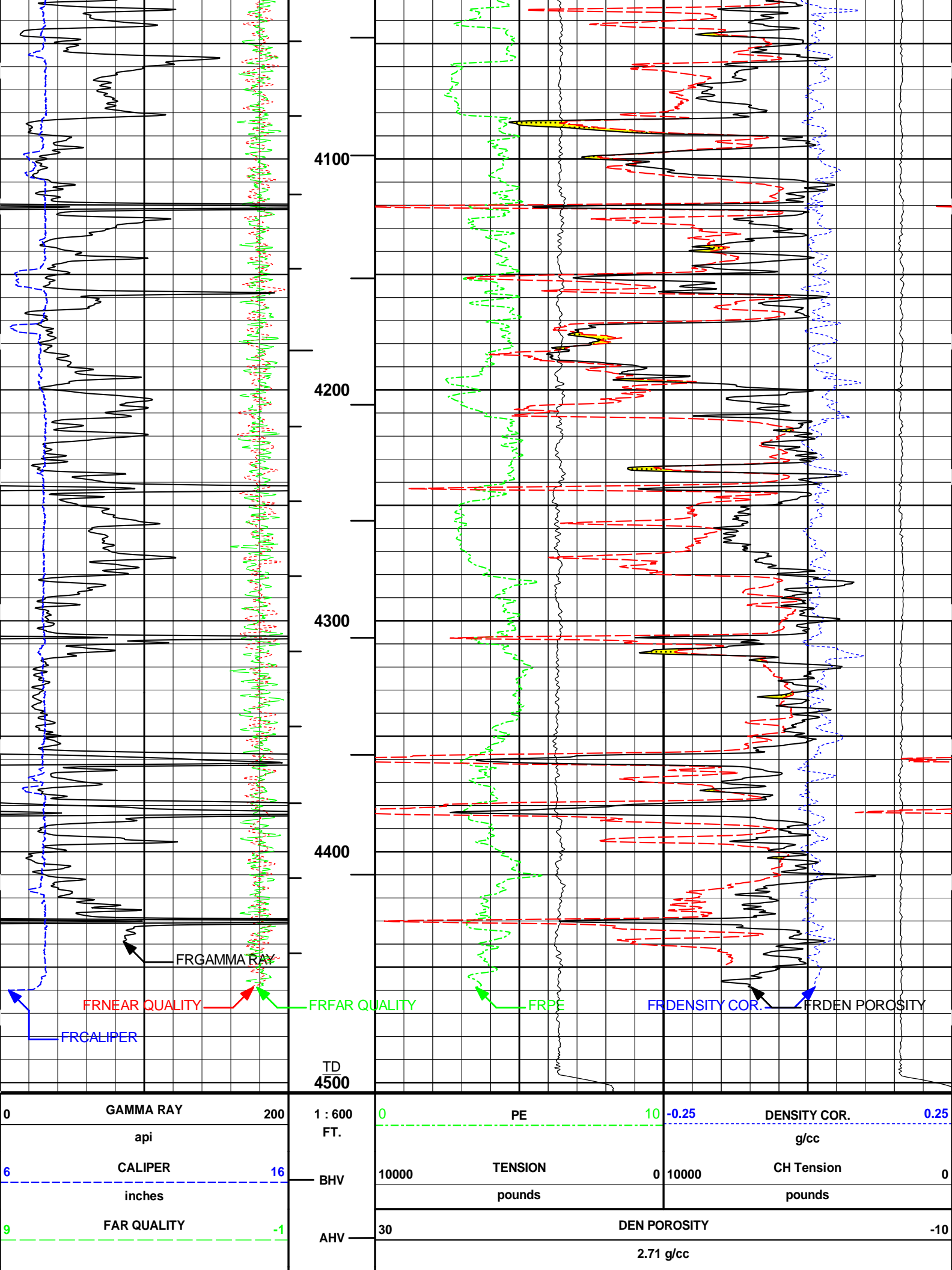








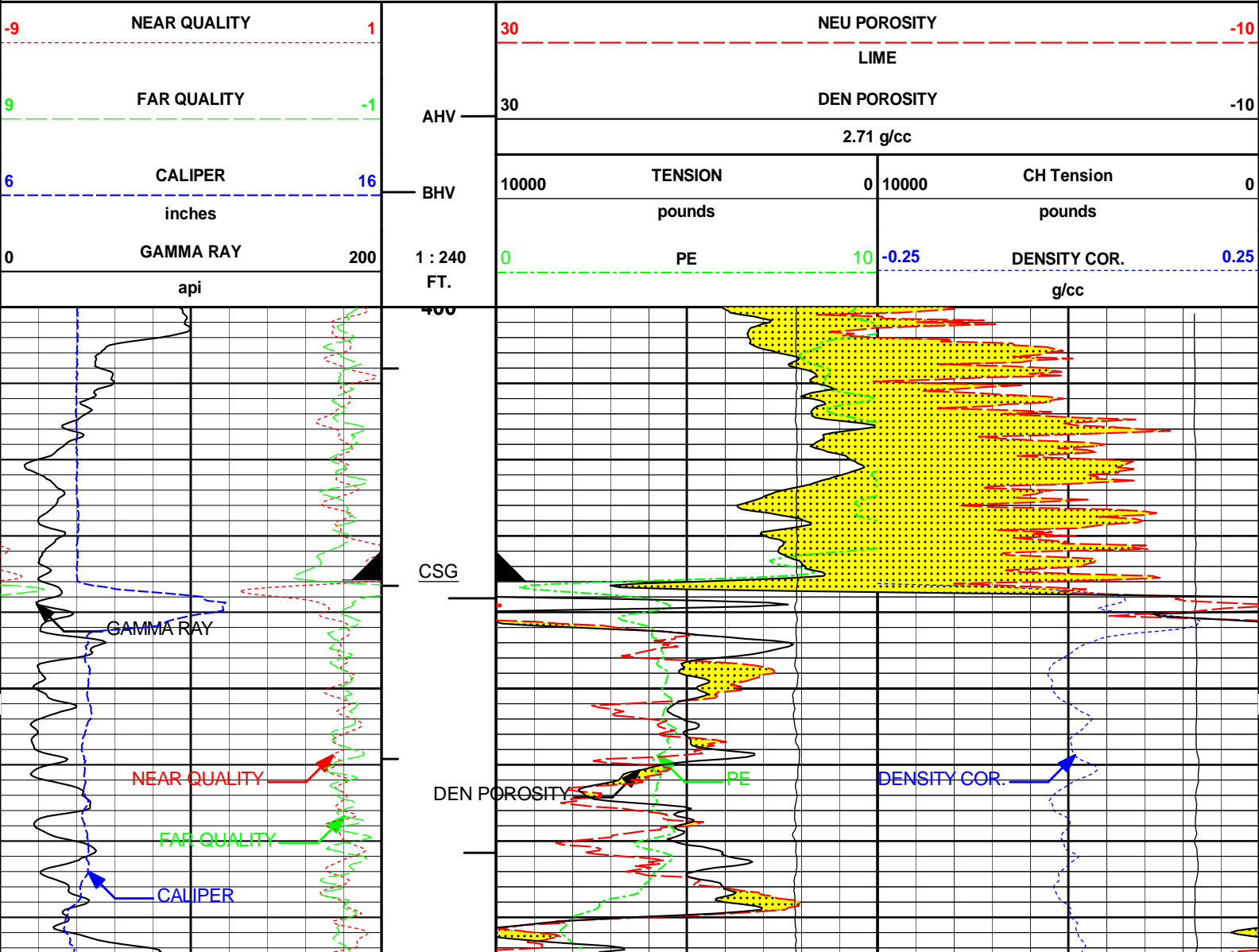


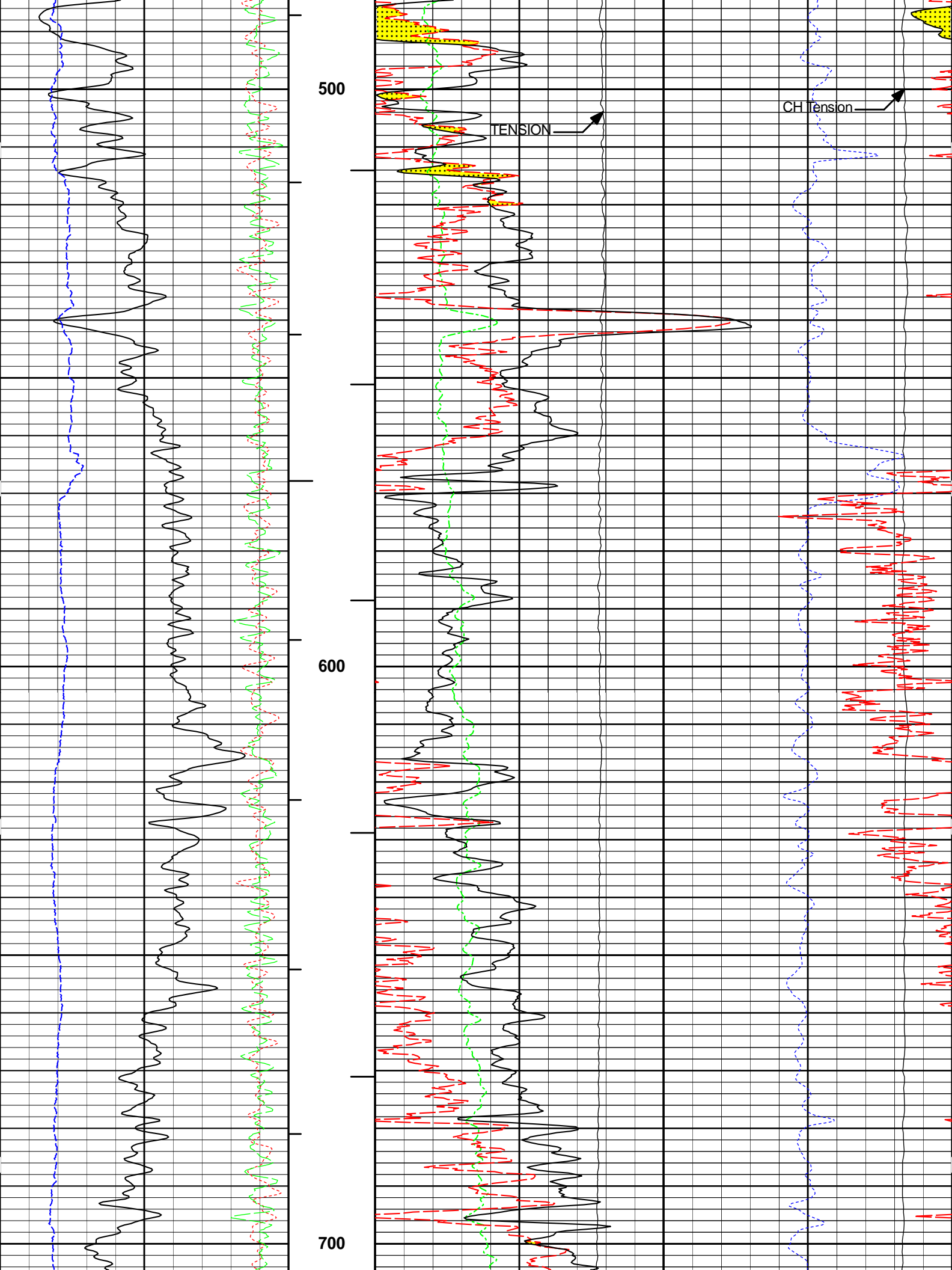


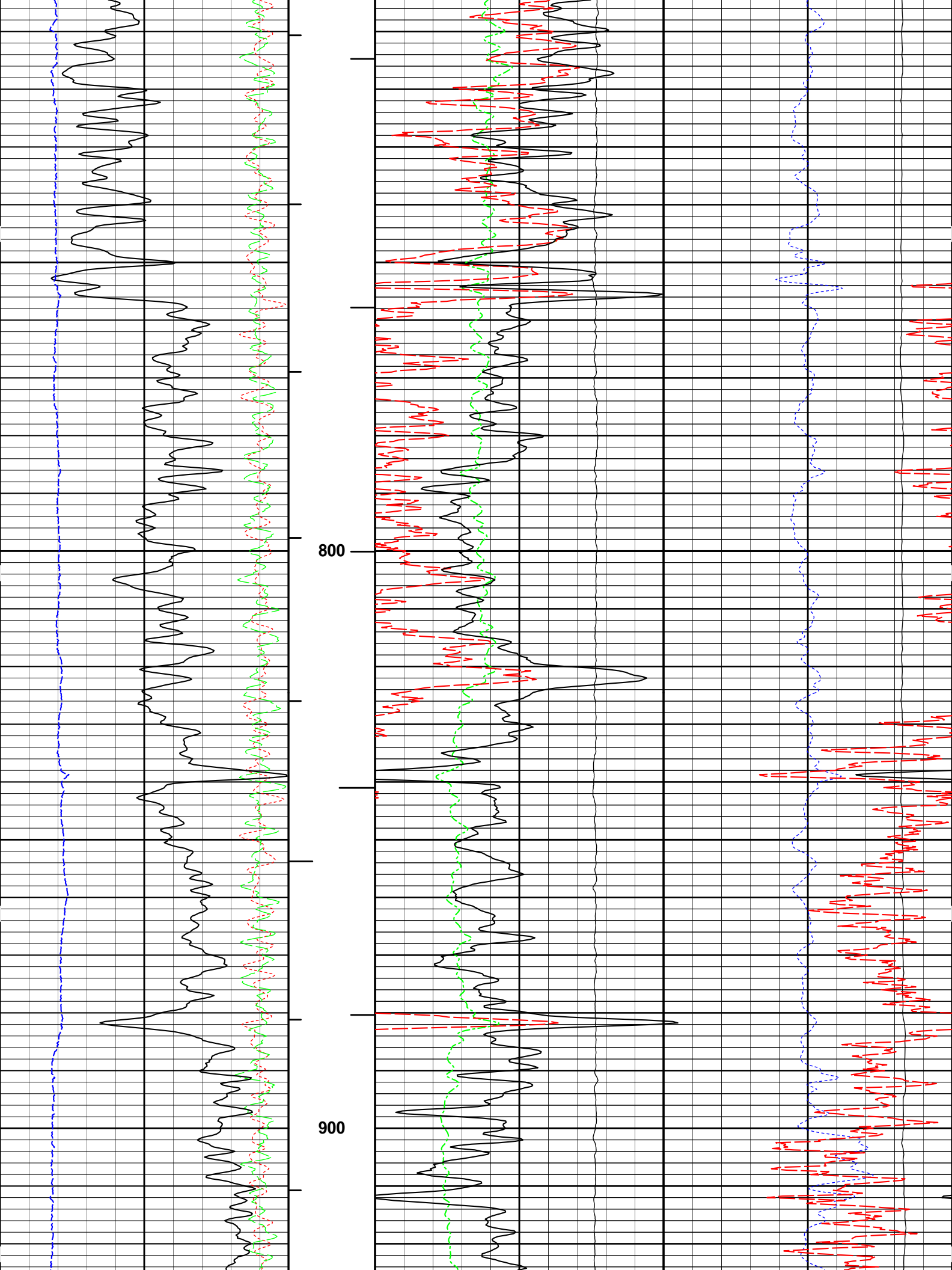
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Plot File: \\PORO\ POR5IN M

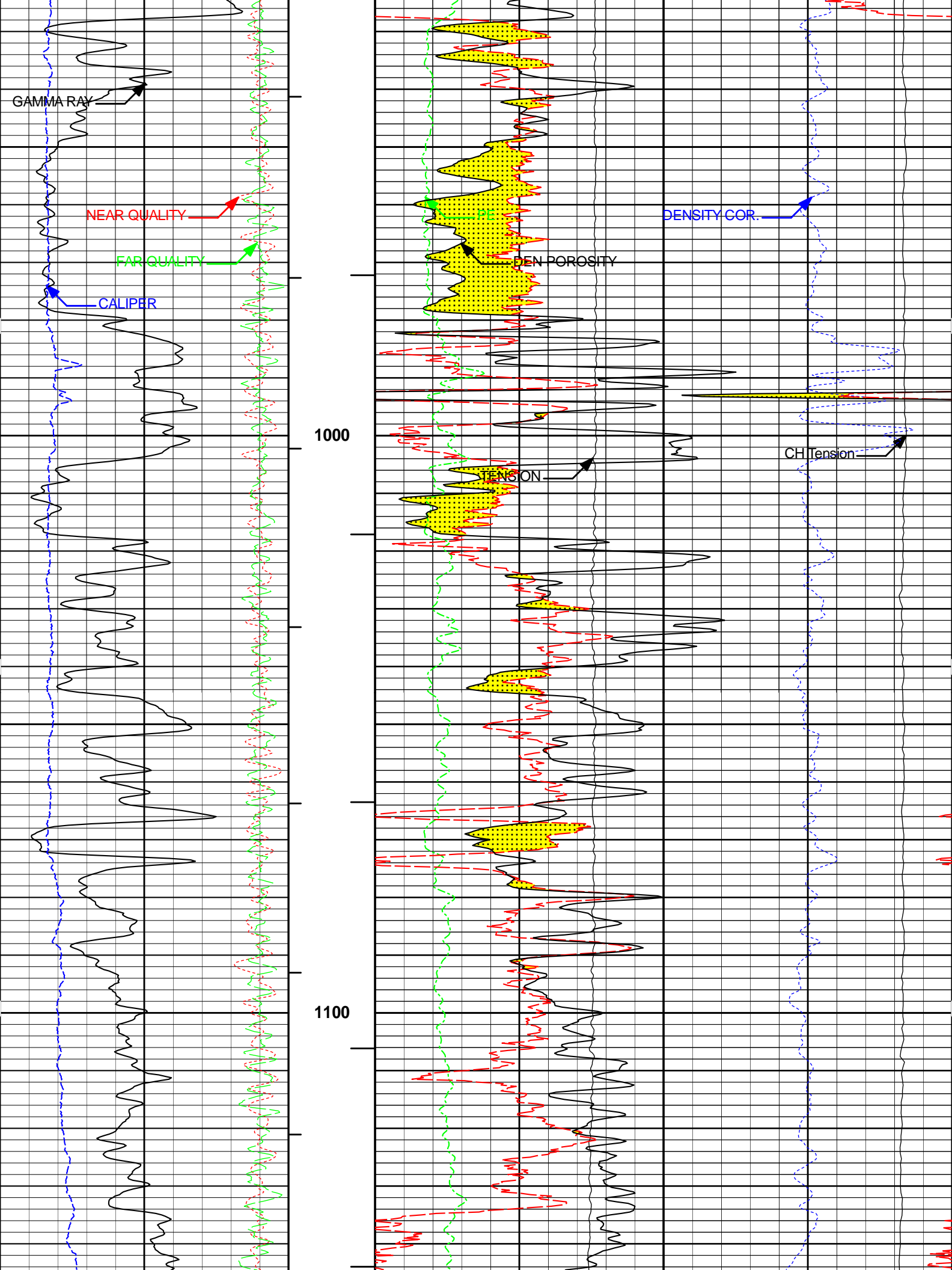
MAIN PASS 5" = 100'

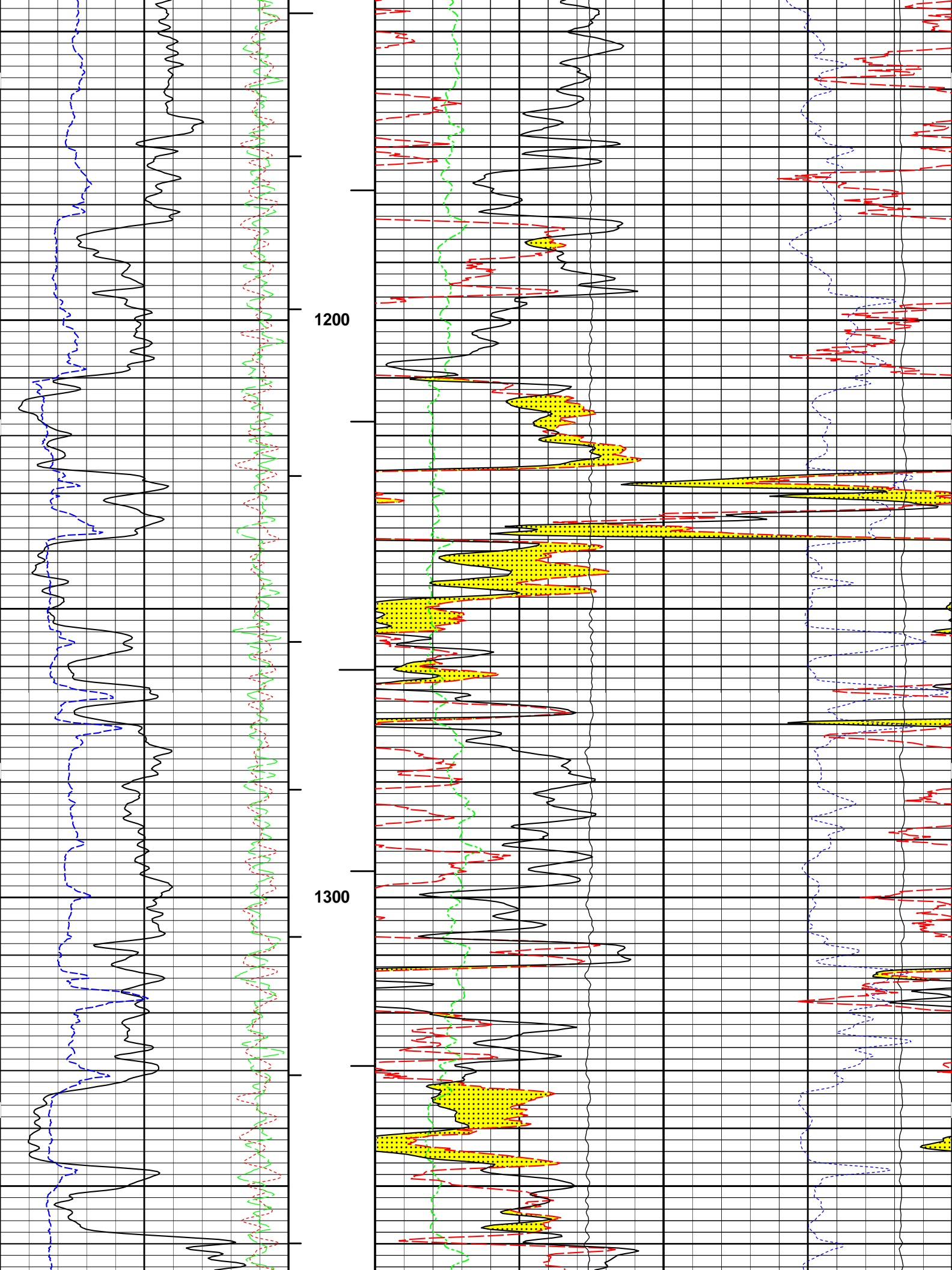
LIMESTONE MATRIX

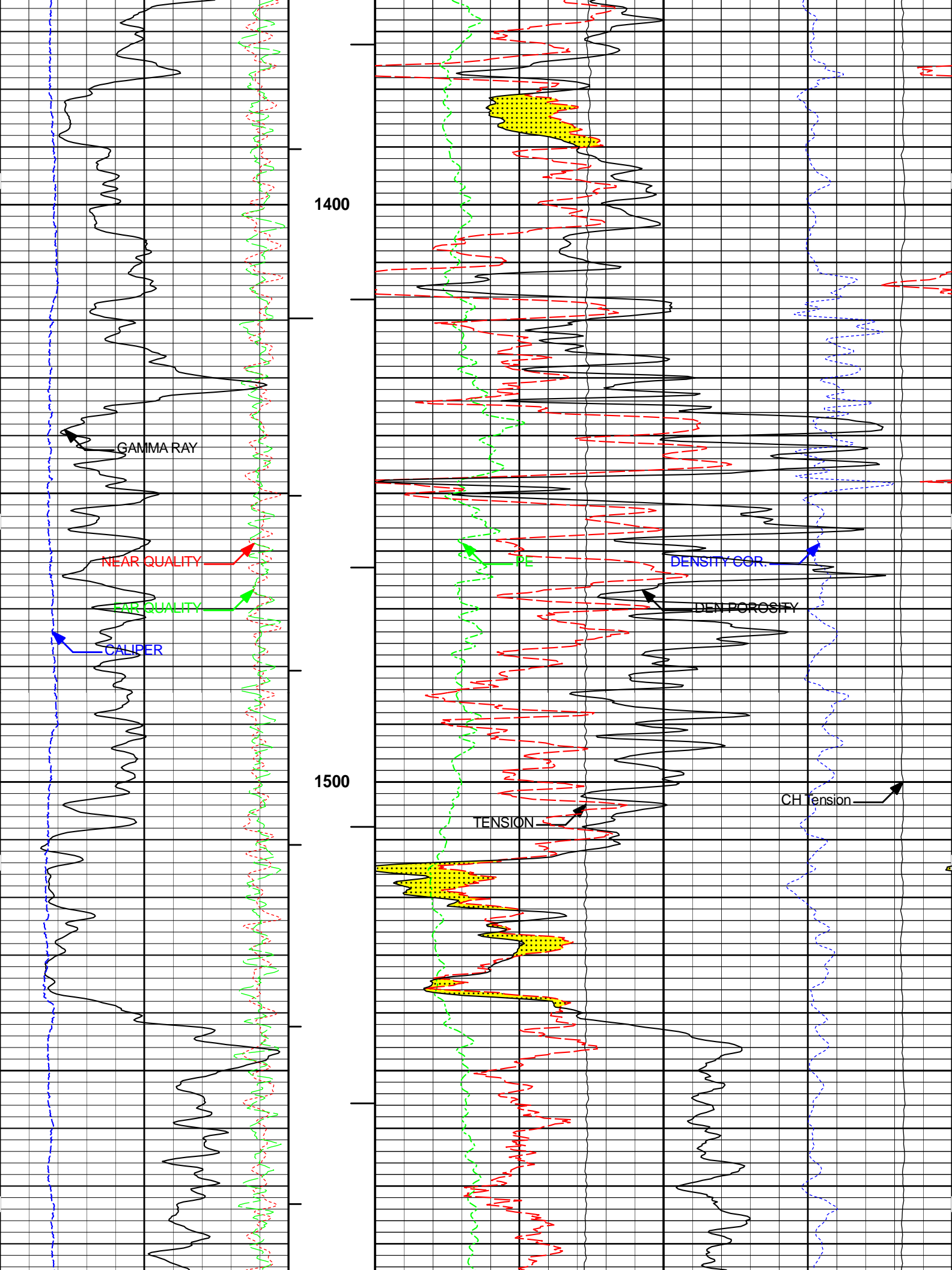


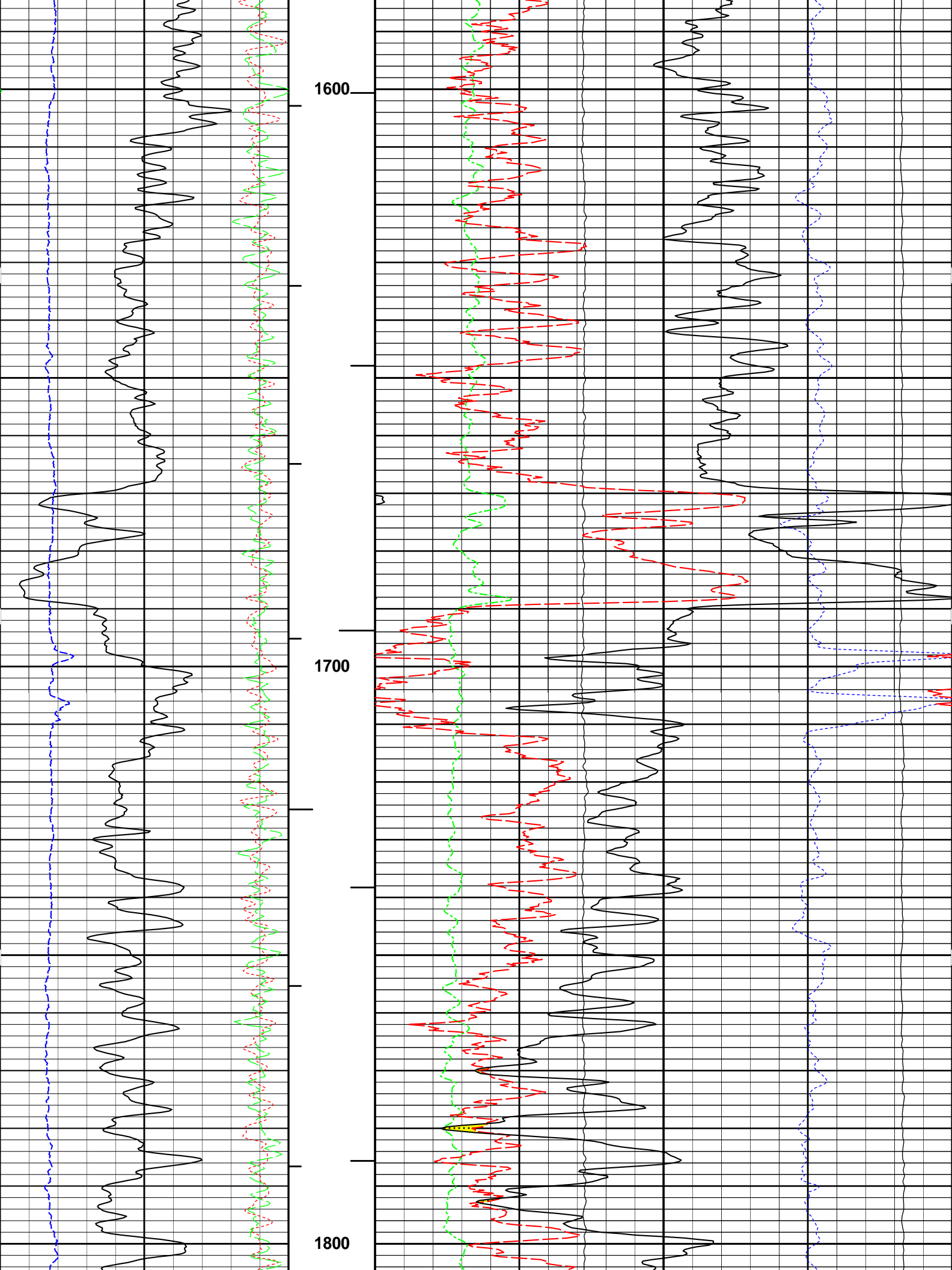


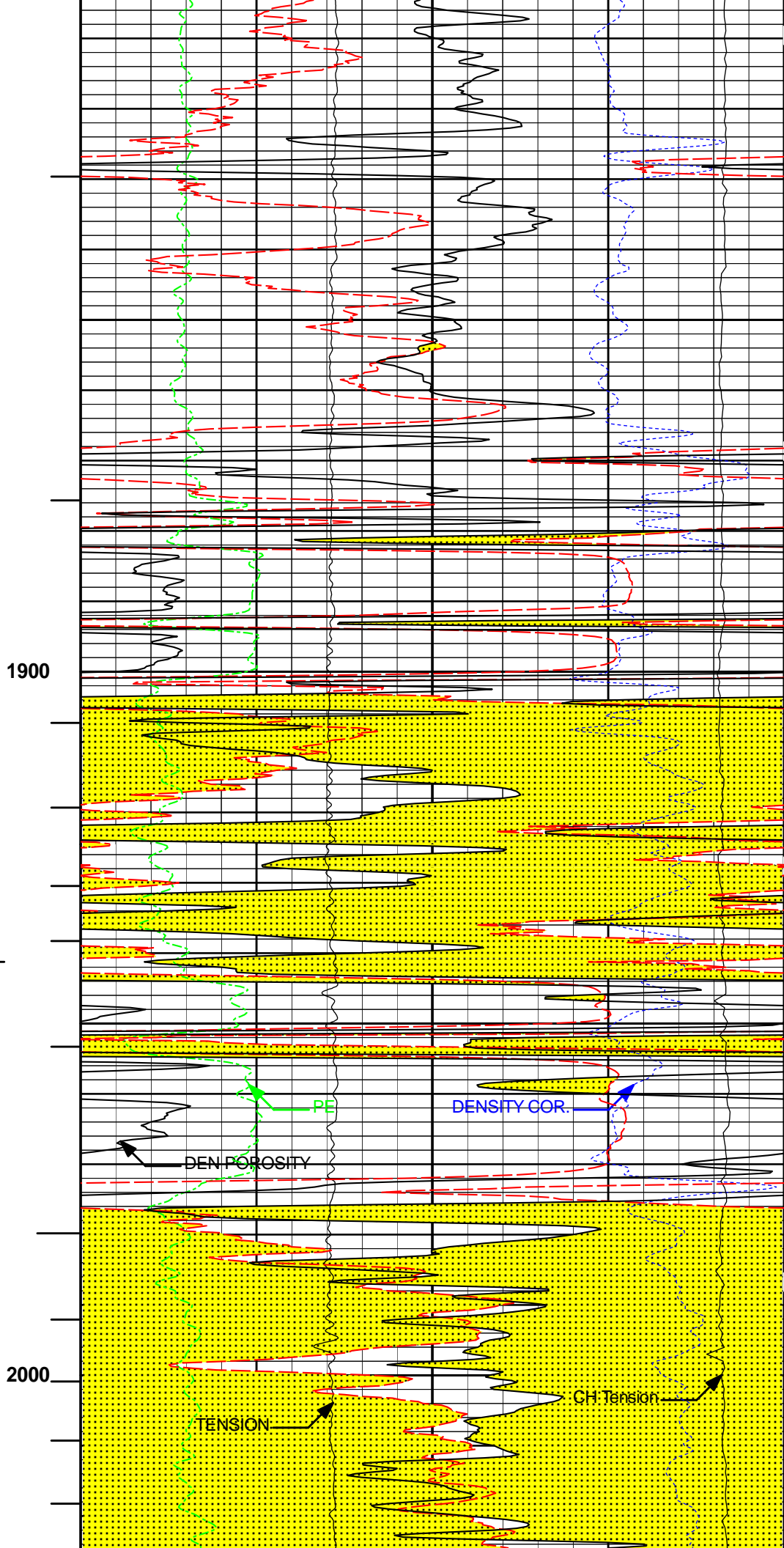
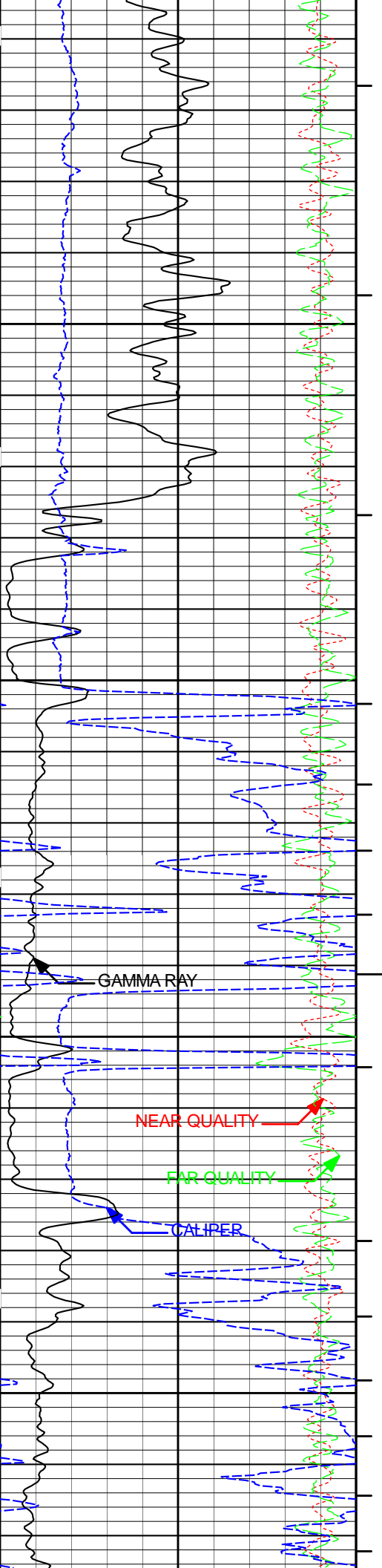


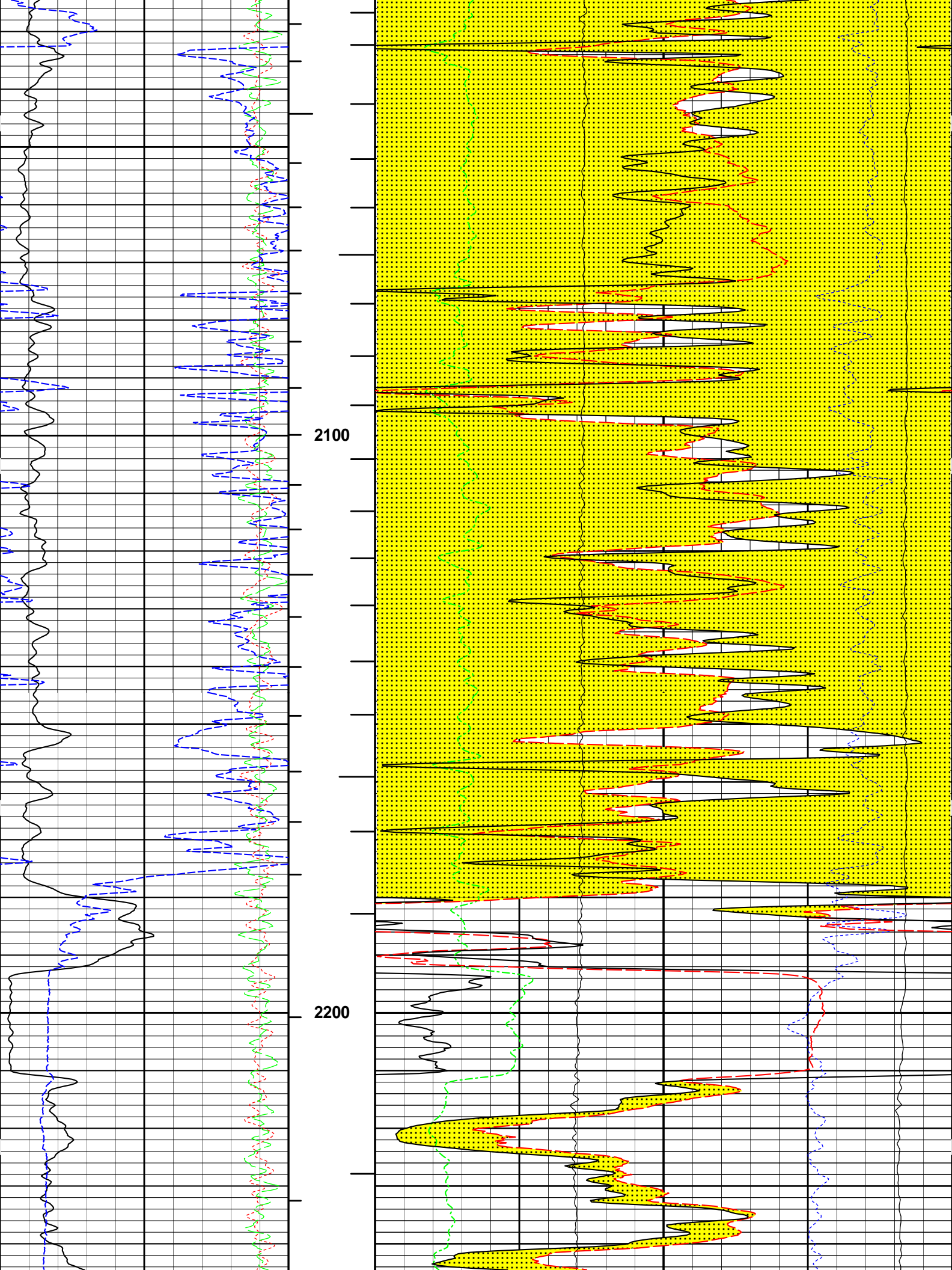


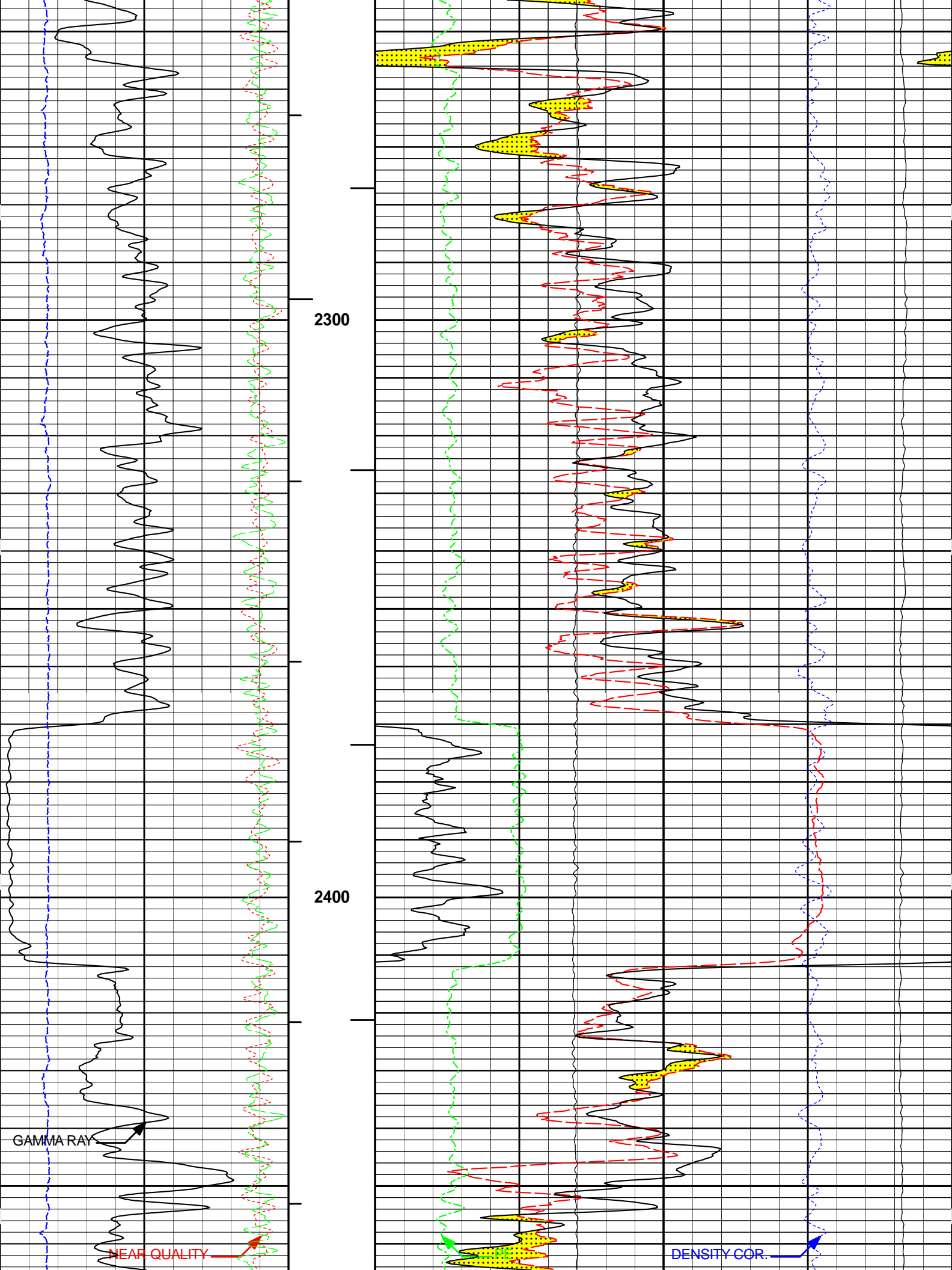


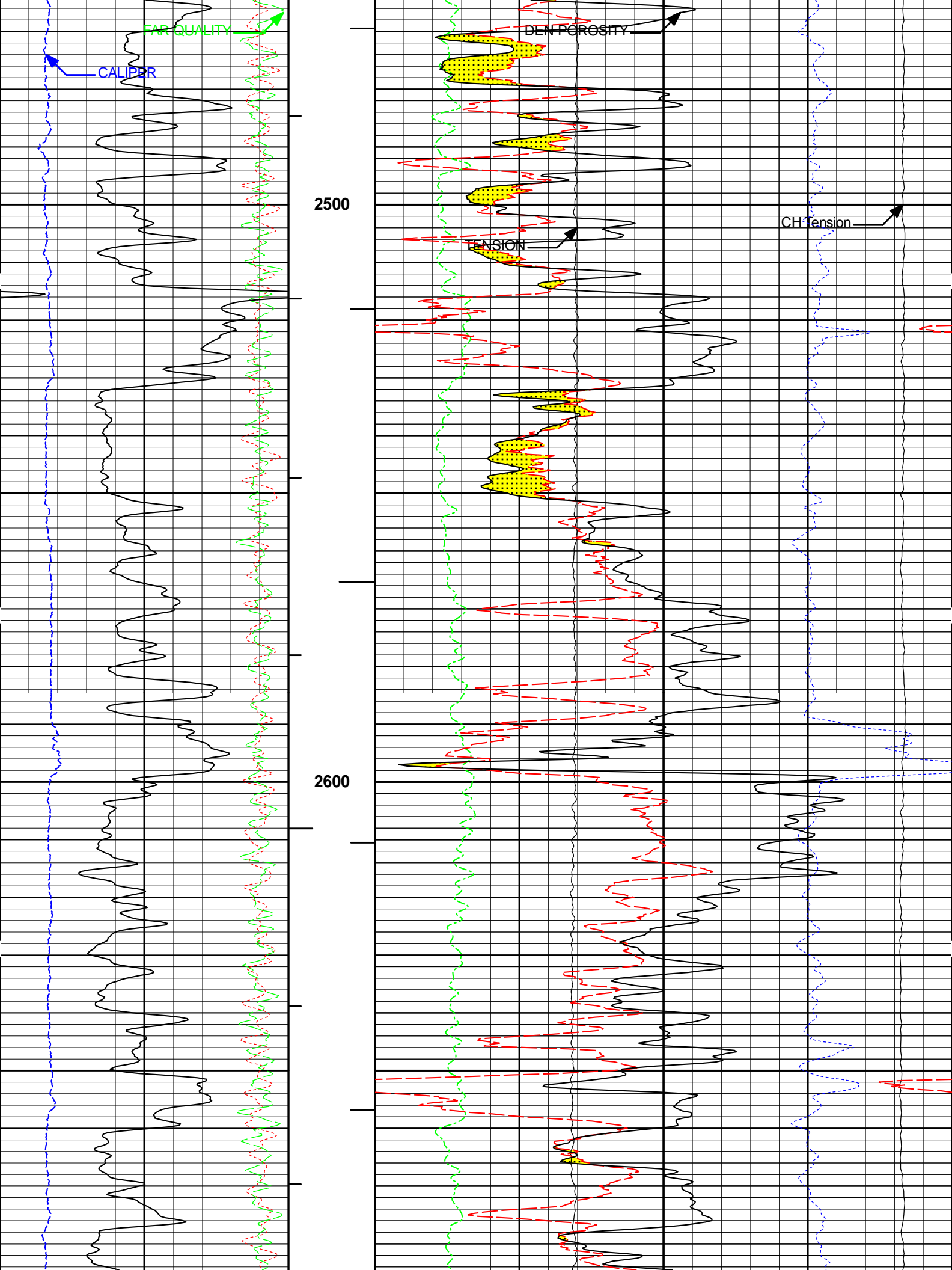


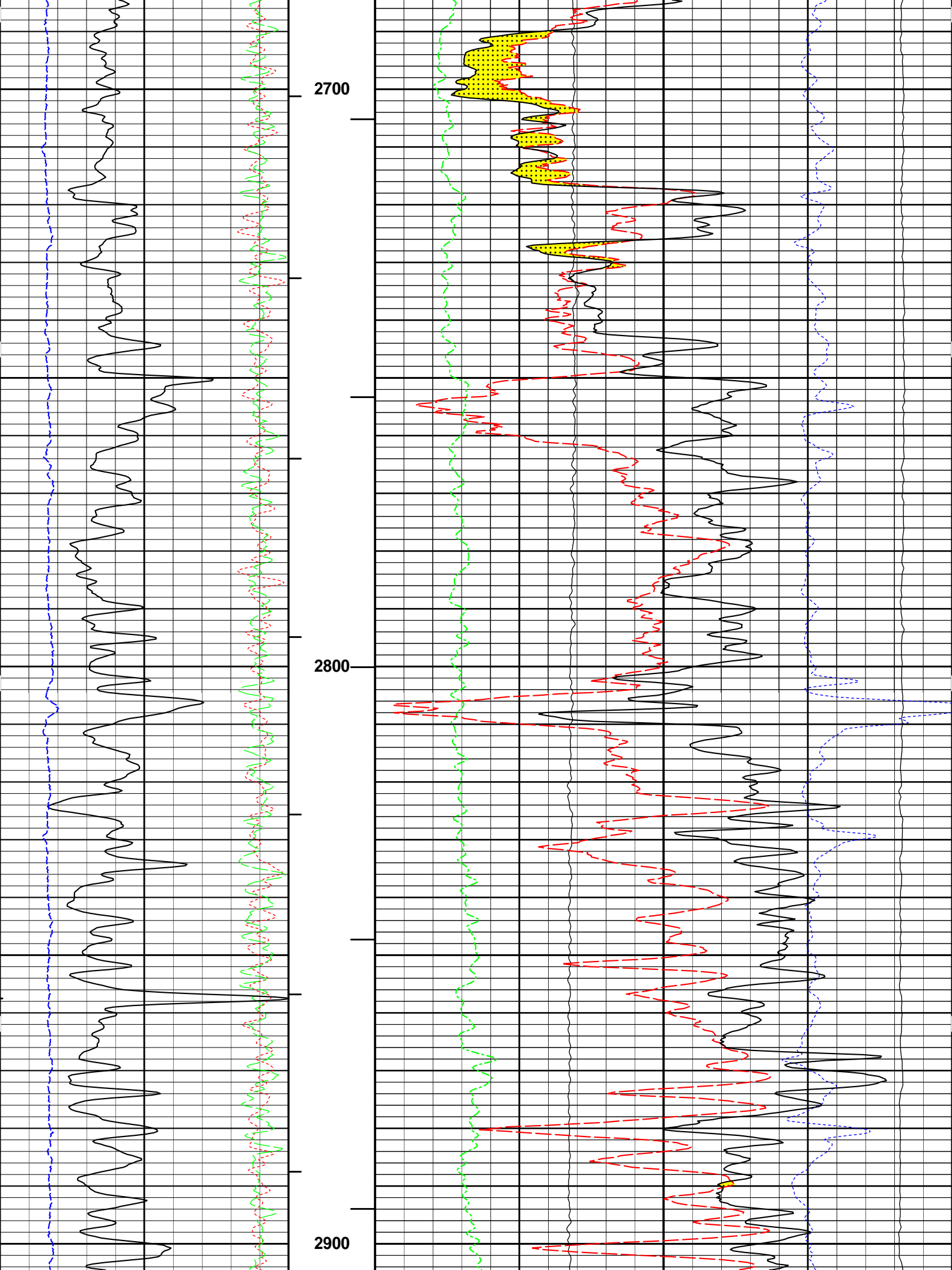












GAMMA RAY

NEAR QUALITY

FAR QUALITY

CALIPER

3000

3100

PE

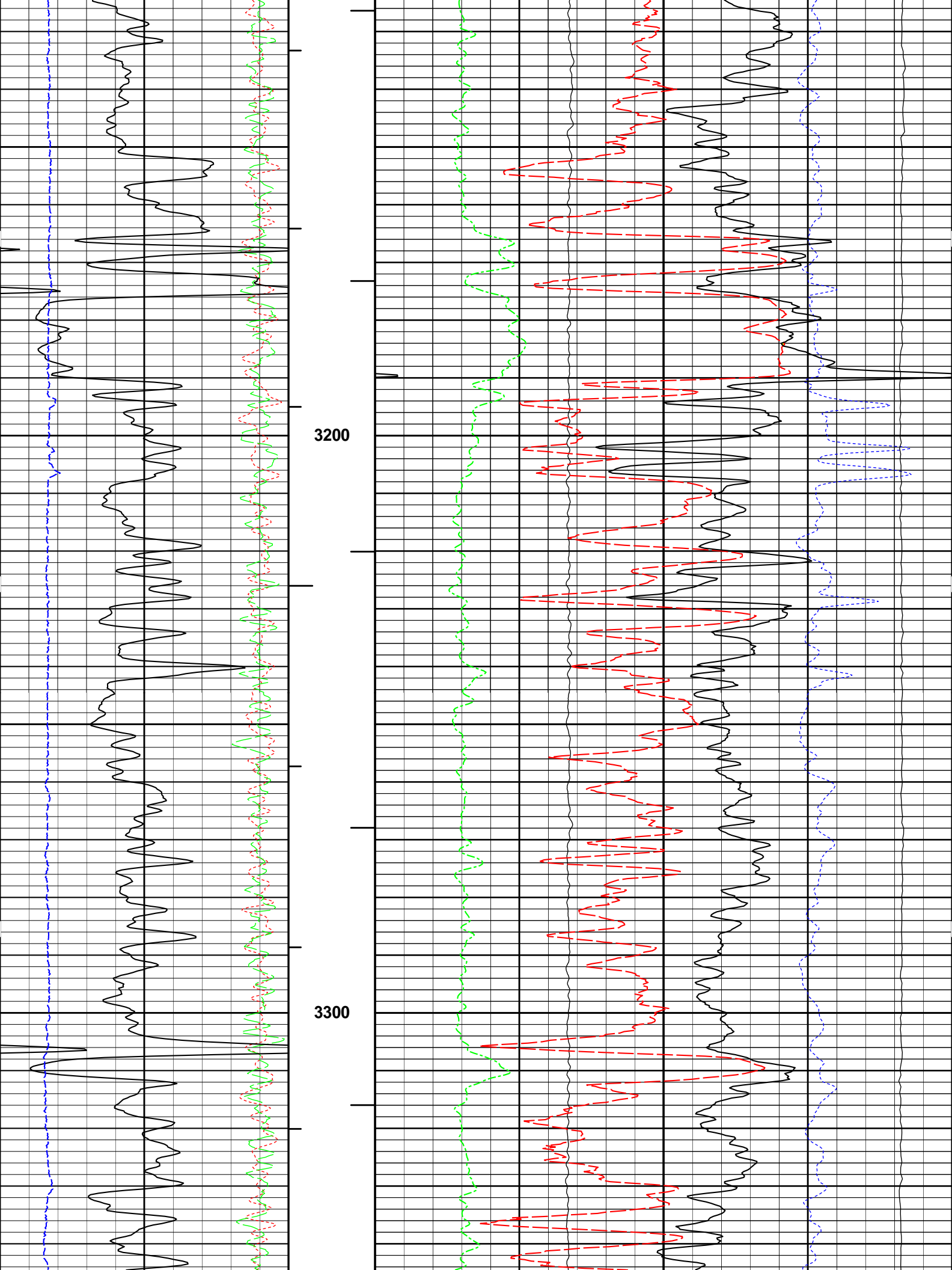
DEN POROSITY

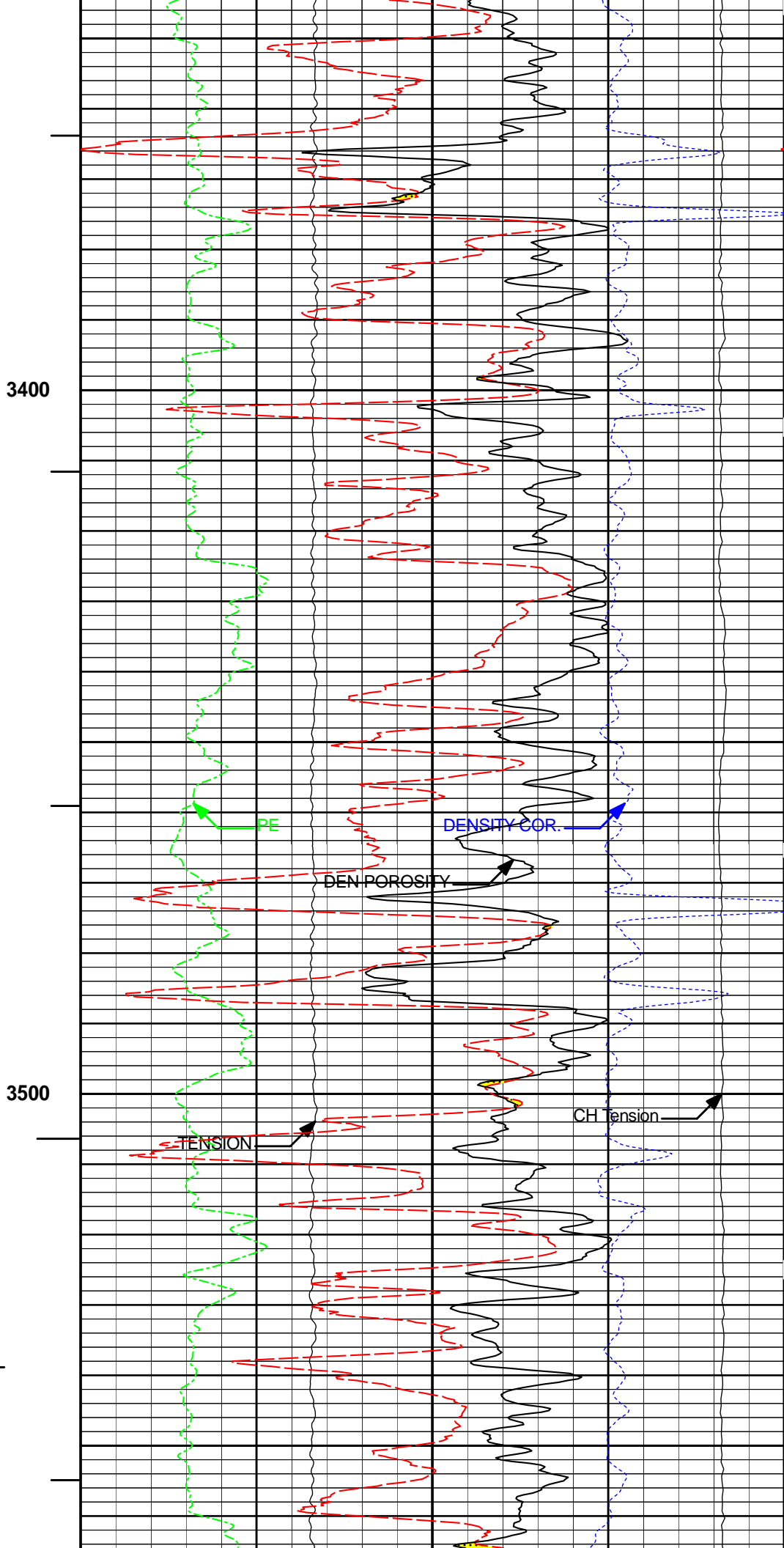
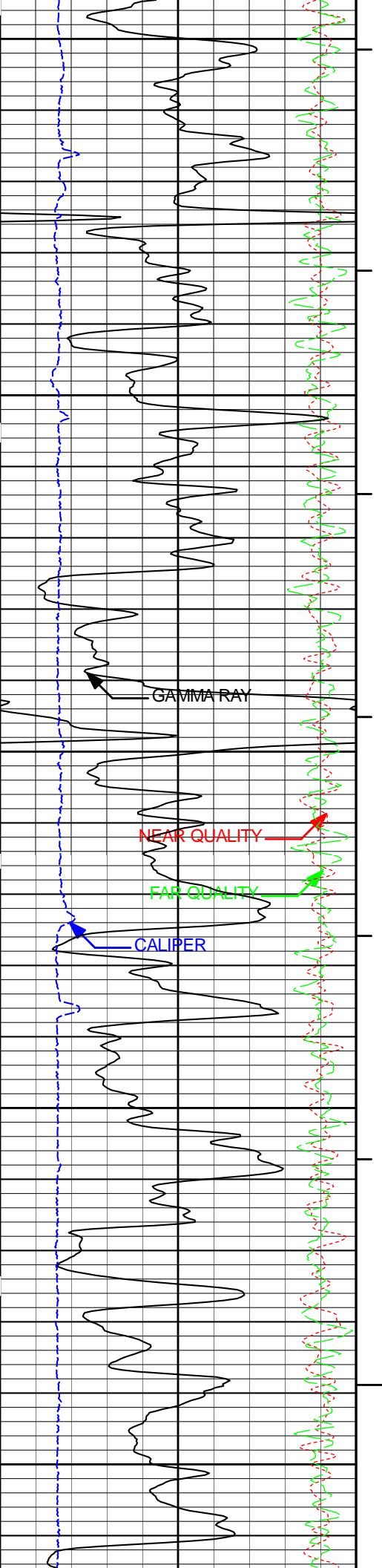
DENSITY COR.

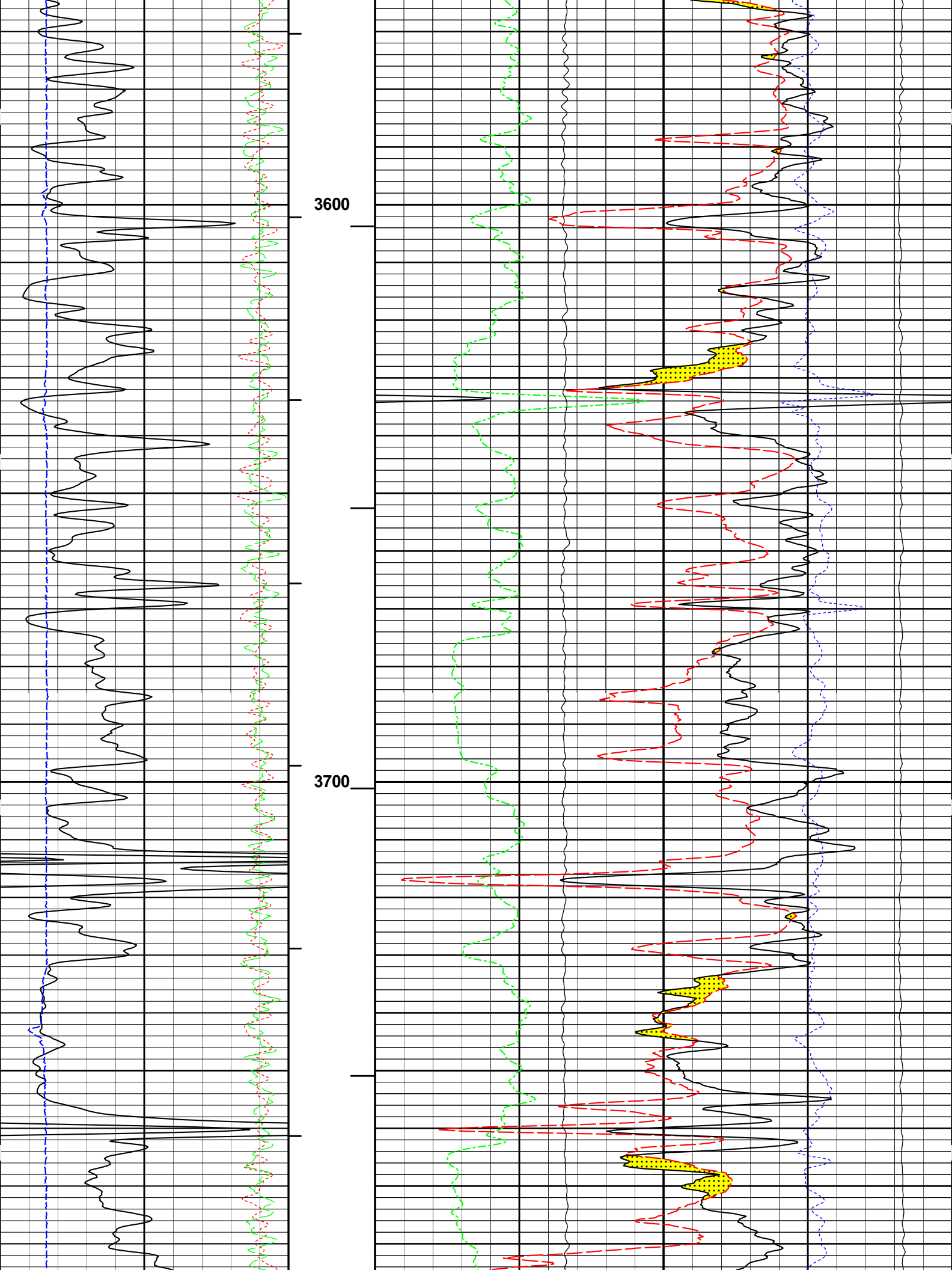
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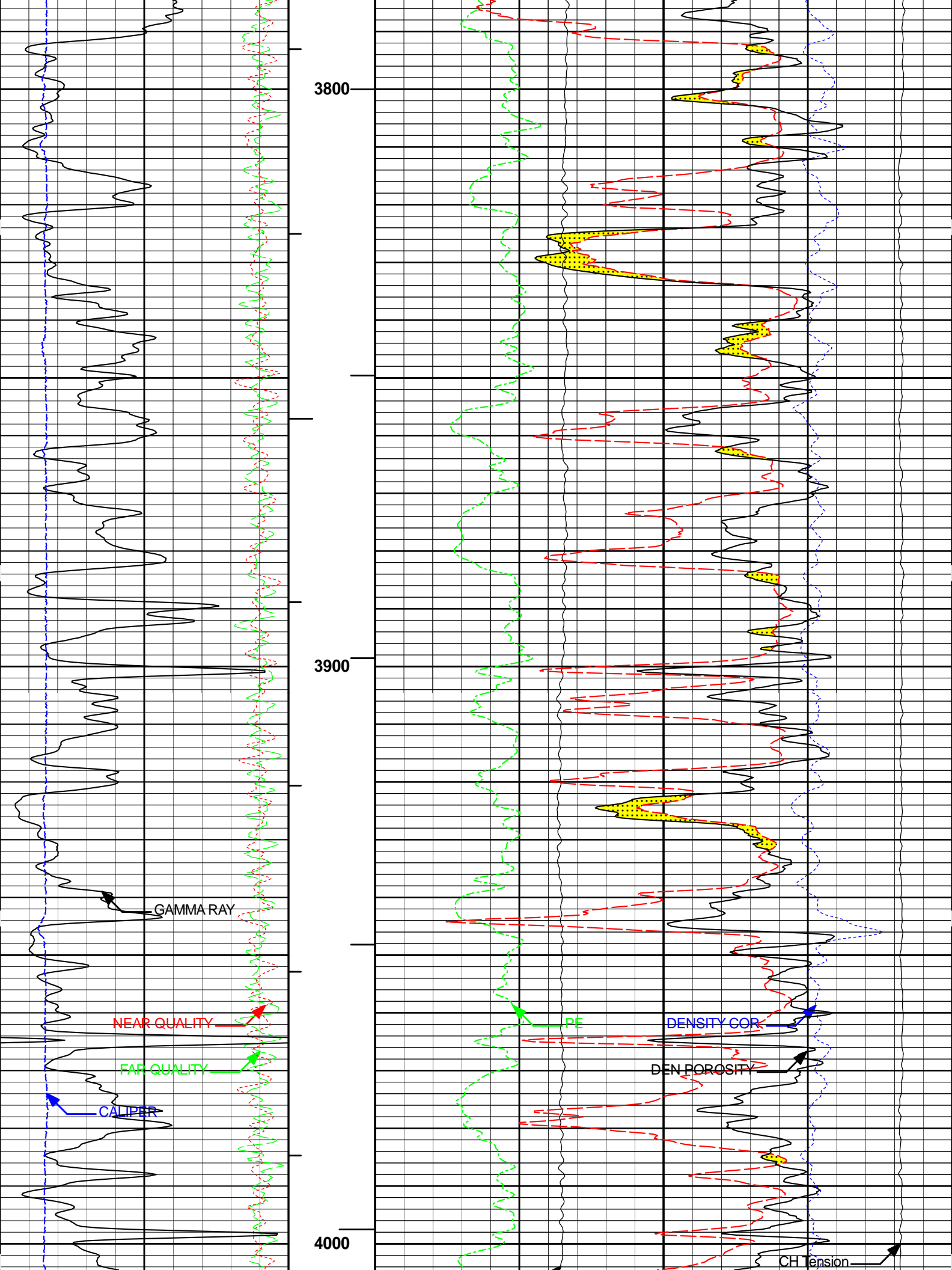
CH Tension

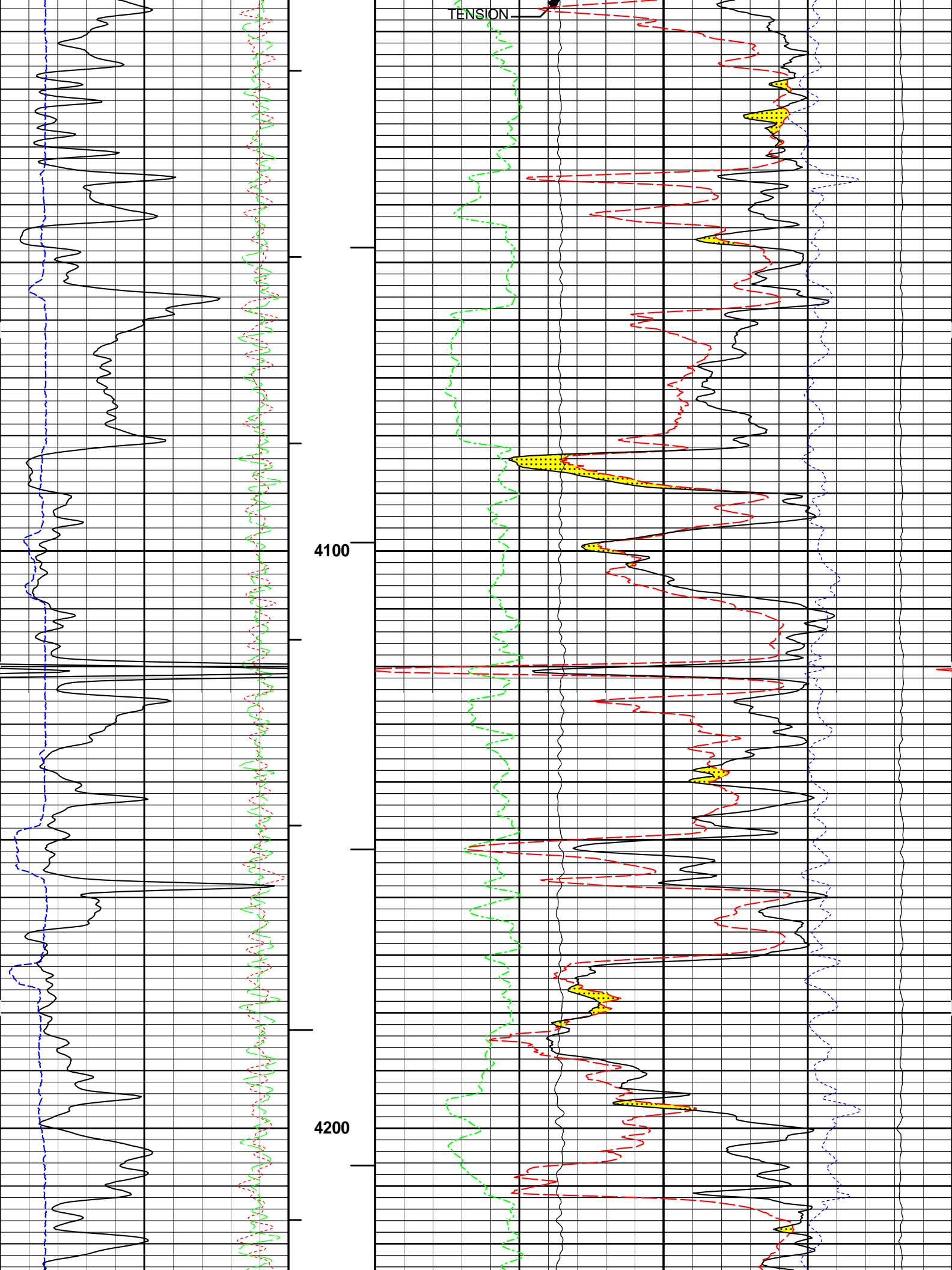


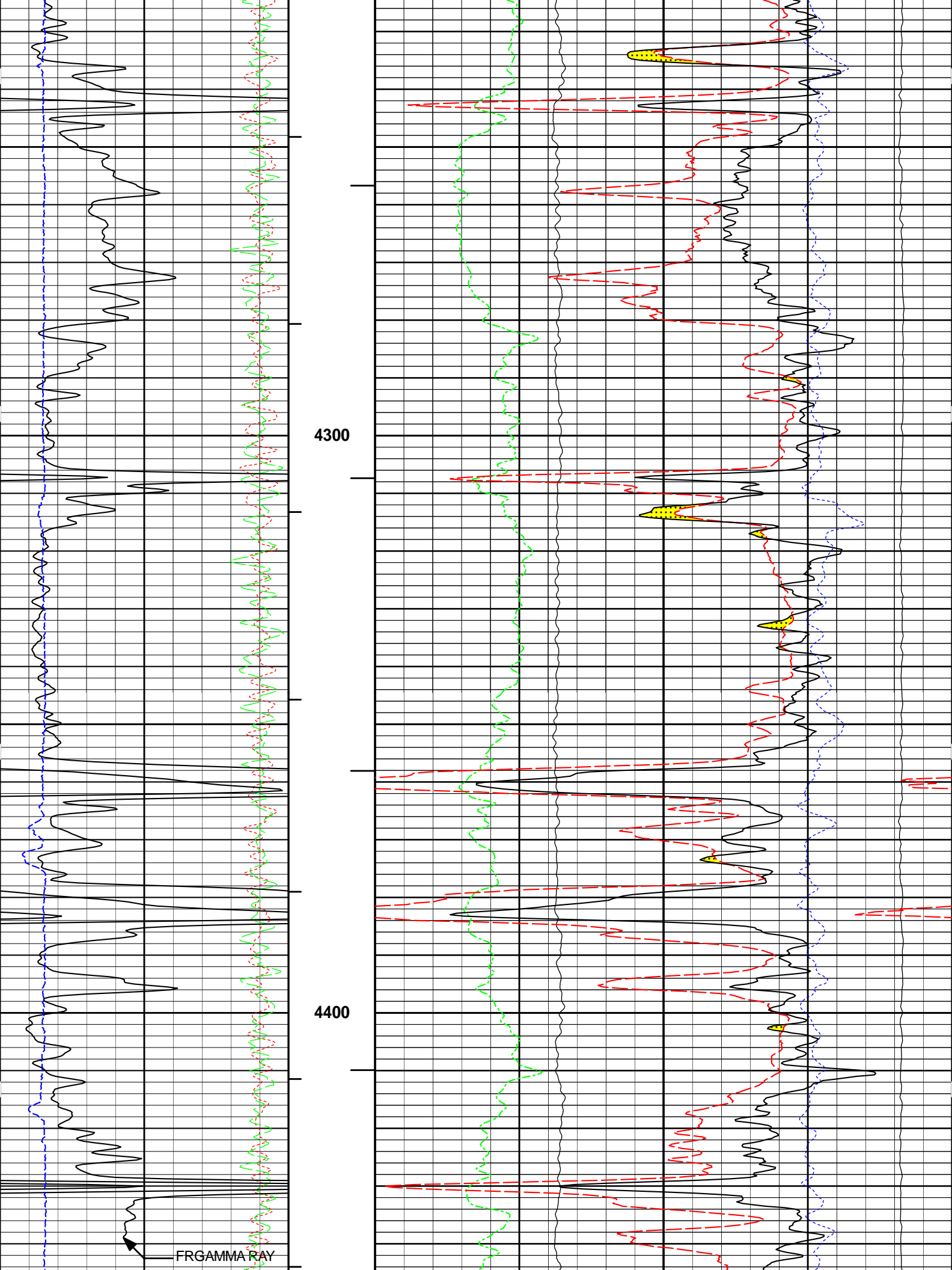


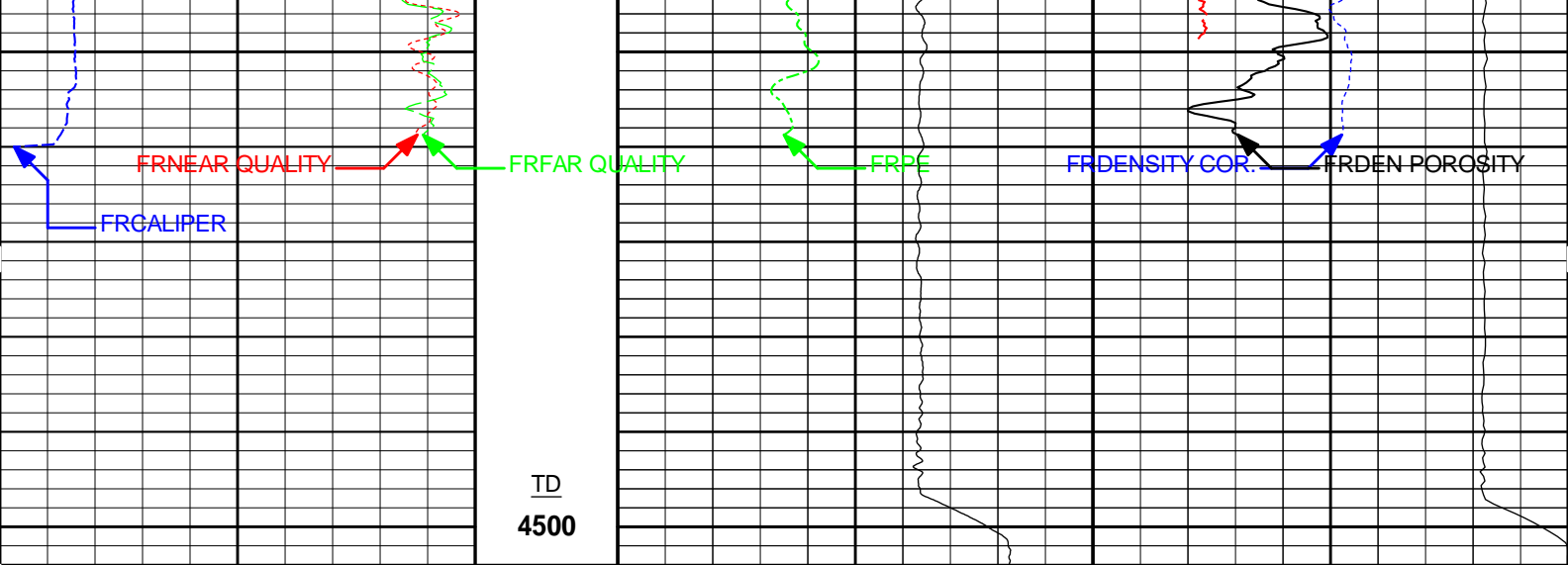












0	GAMMA RAY	200	1 : 240 FT.	0	PE	10	-0.25	DENSITY COR.	0.25
	api							g/cc	
6	CALIPER	16	BHV	10000	TENSION	0	10000	CH Tension	0
	inches				pounds			pounds	
9	FAR QUALITY	-1	AHV	30	DEN POROSITY			-10	
					2.71 g/cc				
-9	NEAR QUALITY	1		30	NEU POROSITY			-10	
					LIME				

HALLIBURTON

Plot Time: 22-Mar-15 13:40:00
Plot Range: 400 ft to 4504.05 ft
Data: TRESHOMBRES1_22\Well Based\MAIN
Plot File: \\PORO\POR5IN_M

MAIN PASS 5" = 100'

LIMESTONE MATRIX

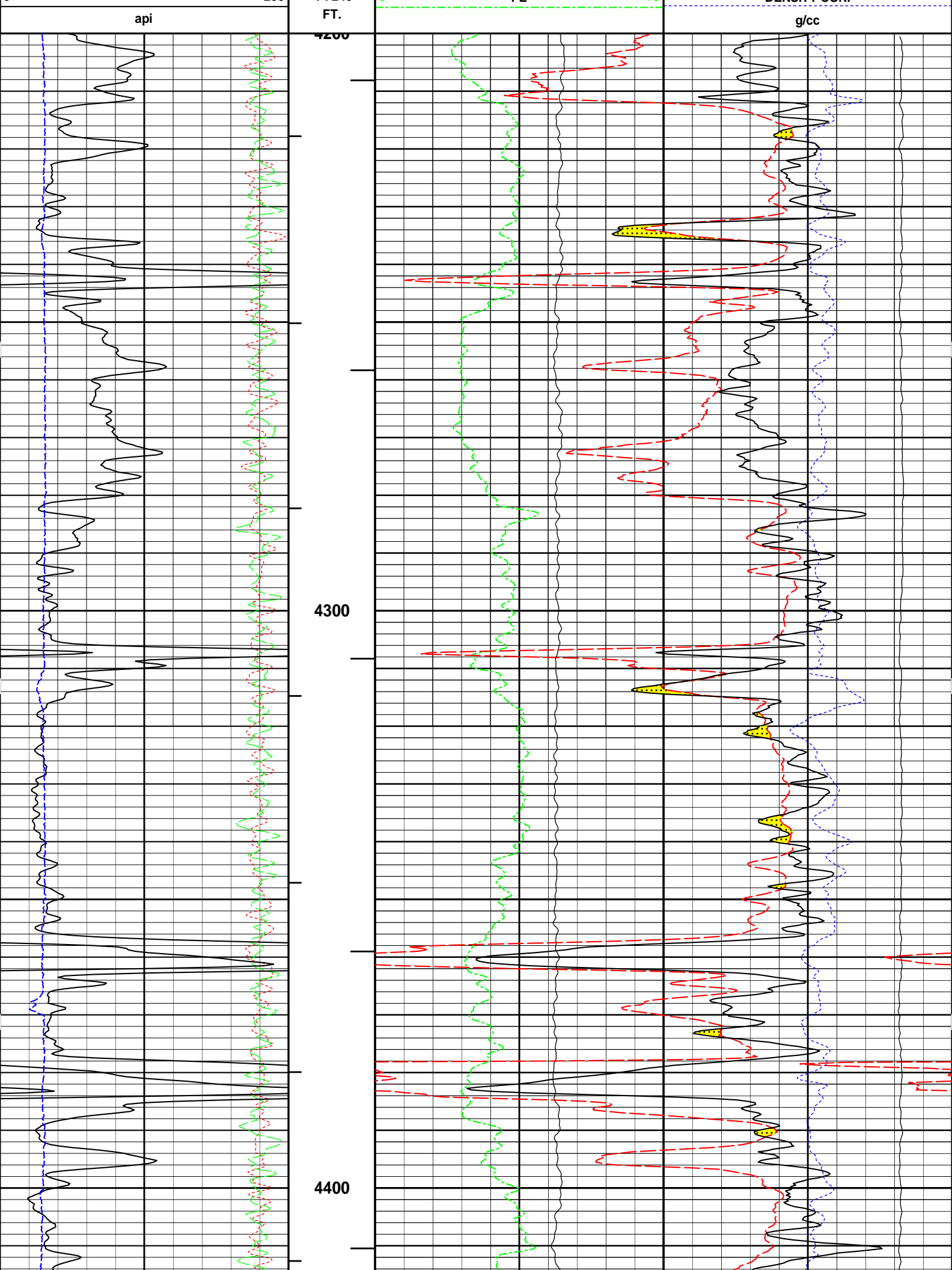
HALLIBURTON

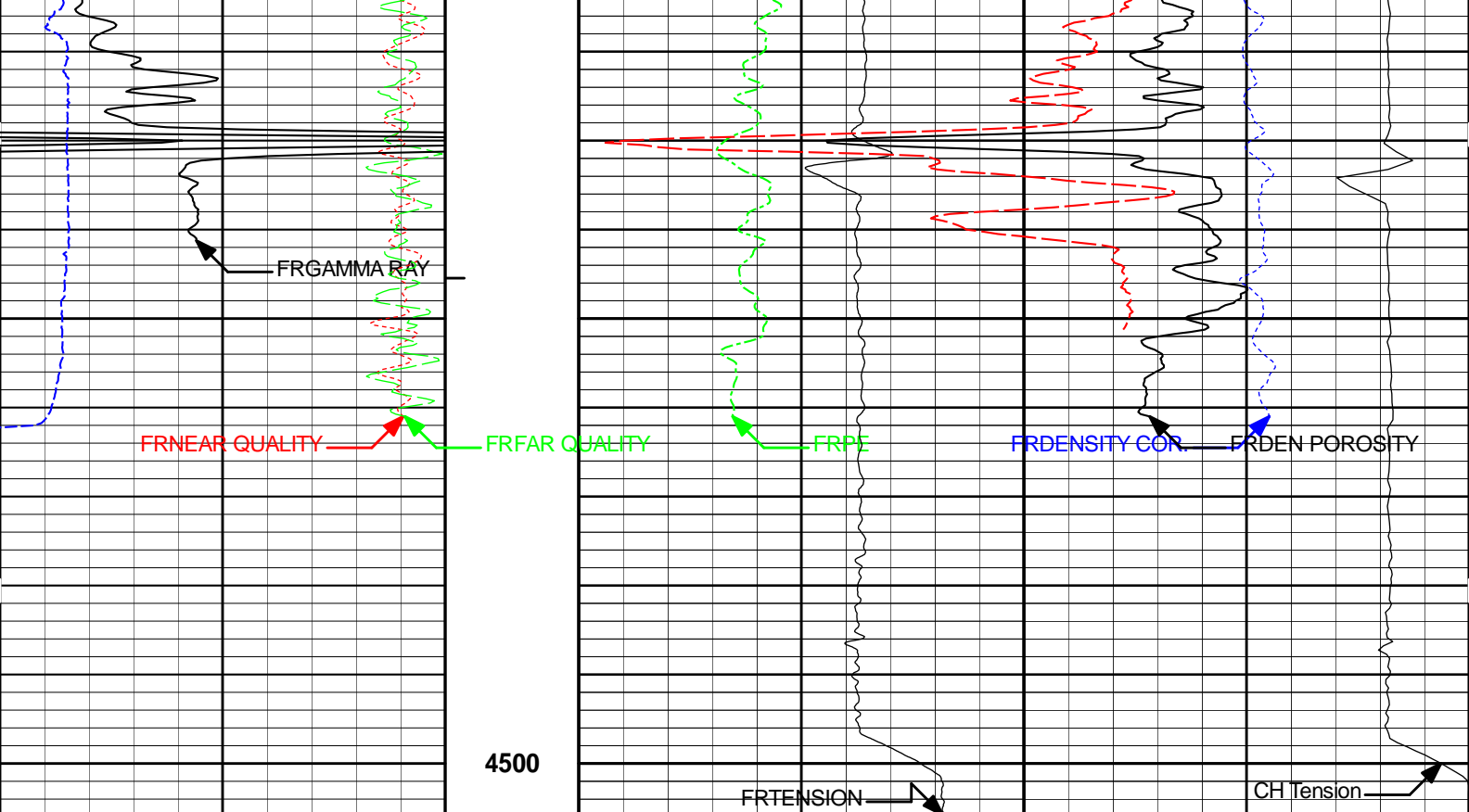
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Plot Range: 4200 ft to 4505.83 ft
Data: TRESHOMBRES1_22\Well Based\REPEAT
Plot File: \\PORO\POR5IN_R

REPEAT PASS 5" = 100'

LIMESTONE MATRIX

-9	NEAR QUALITY	1		30	NEU POROSITY			-10	
					LIME				
9	FAR QUALITY	-1	AHV	30	DEN POROSITY			-10	
					2.71 g/cc				
6	CALIPER	16	BHV	10000	TENSION	0	10000	CH Tension	0
	inches				pounds			pounds	
0	GAMMA RAY	200	1 : 240	0	PF	10	-0.25	DENSITY COR.	0.25





0	GAMMA RAY	200	1 : 240 FT.	0	PE	10	-0.25	DENSITY COR.	0.25
	api							g/cc	
6	CALIPER	16	BHV	10000	TENSION	0	10000	CH Tension	0
	inches				pounds			pounds	
9	FAR QUALITY	-1	AHV	30	DEN POROSITY				-10
					2.71 g/cc				
-9	NEAR QUALITY	1		30	NEU POROSITY				-10
					LIME				

HALLIBURTON	Plot Time: 22-Mar-15 13:40:02 Plot Range: 4200 ft to 4505.83 ft Data: TRESHOMBRES1_22\Well Based\REPEAT\ Plot File: \\PORO\POR5IN_R
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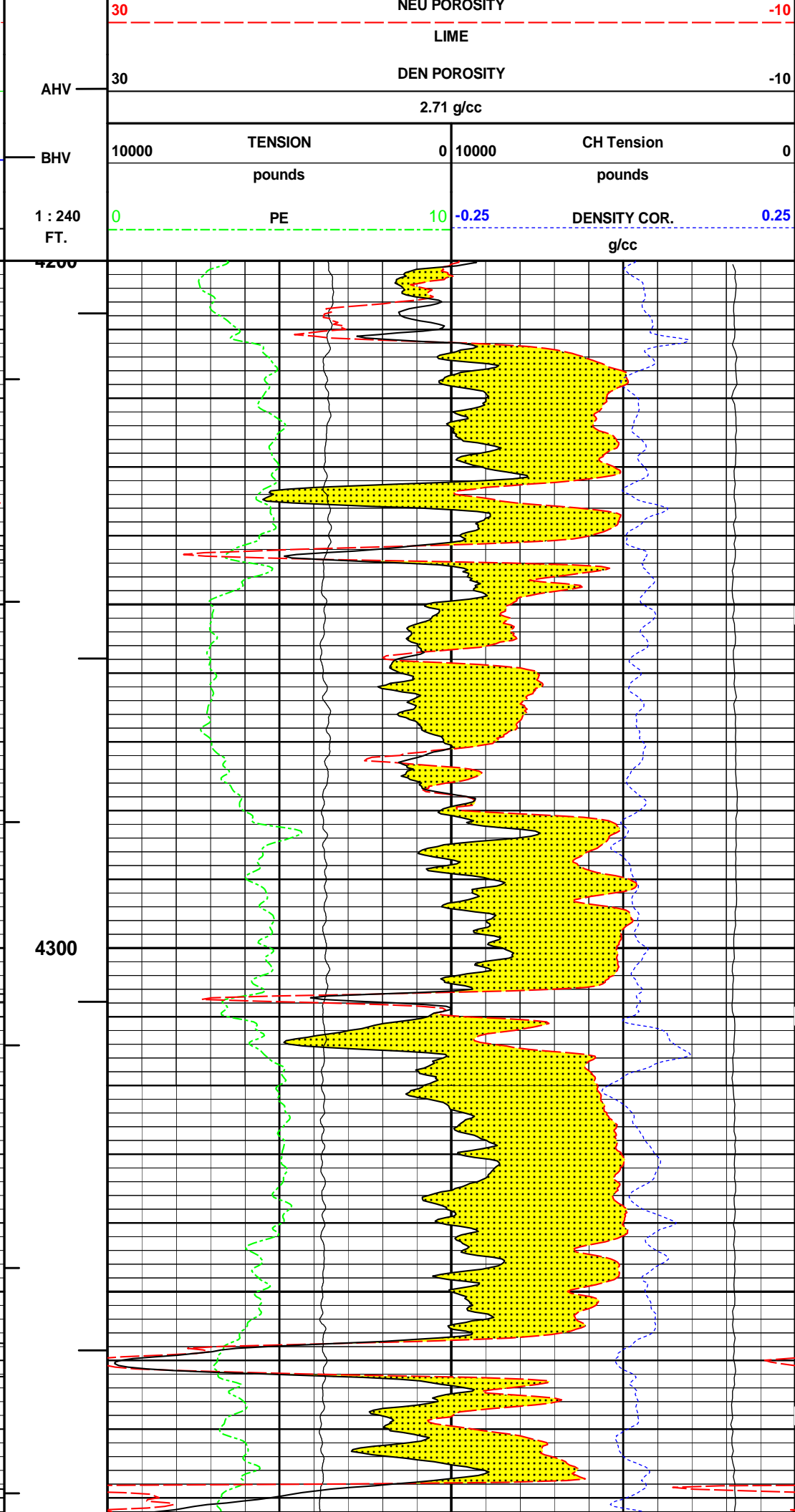
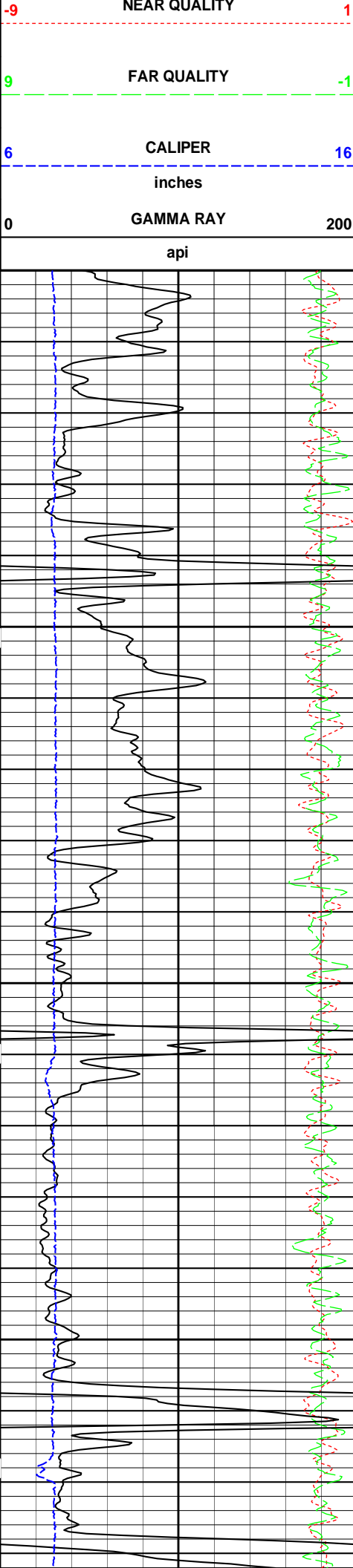
REPEAT PASS 5" = 100'

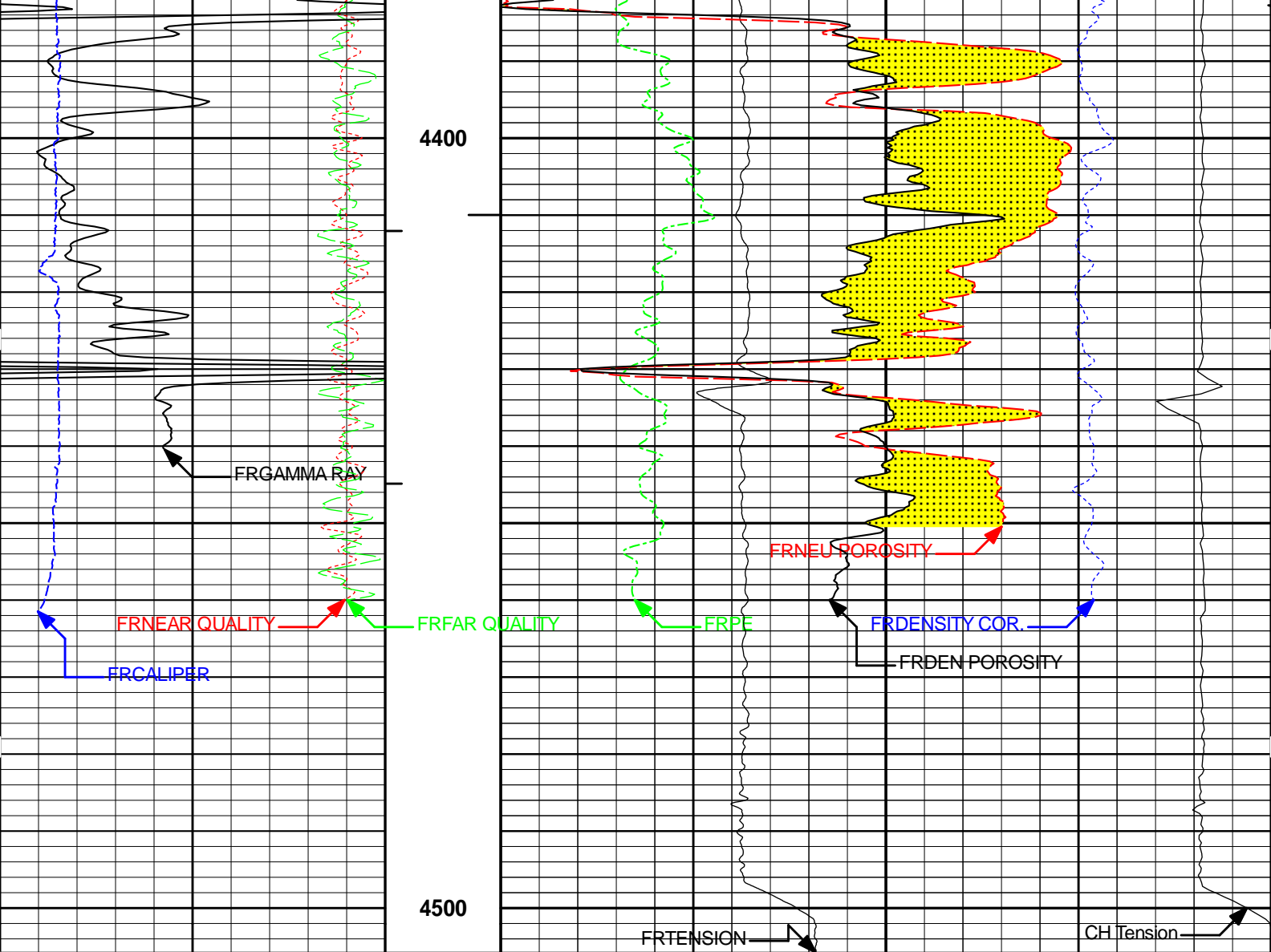
LIMESTONE MATRIX

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REPEAT PASS 5" = 100'

DOLOMITE MATRIX





0	GAMMA RAY	200	1 : 240 FT.	0	PE	10	-0.25	DENSITY COR.	0.25
	api							g/cc	
6	CALIPER	16	BHV	10000	TENSION	0	10000	CH Tension	0
	inches				pounds			pounds	
9	FAR QUALITY	-1	AHV	30	DEN POROSITY				-10
					2.71 g/cc				
-9	NEAR QUALITY	1		30	NEU POROSITY				-10
					LIME				

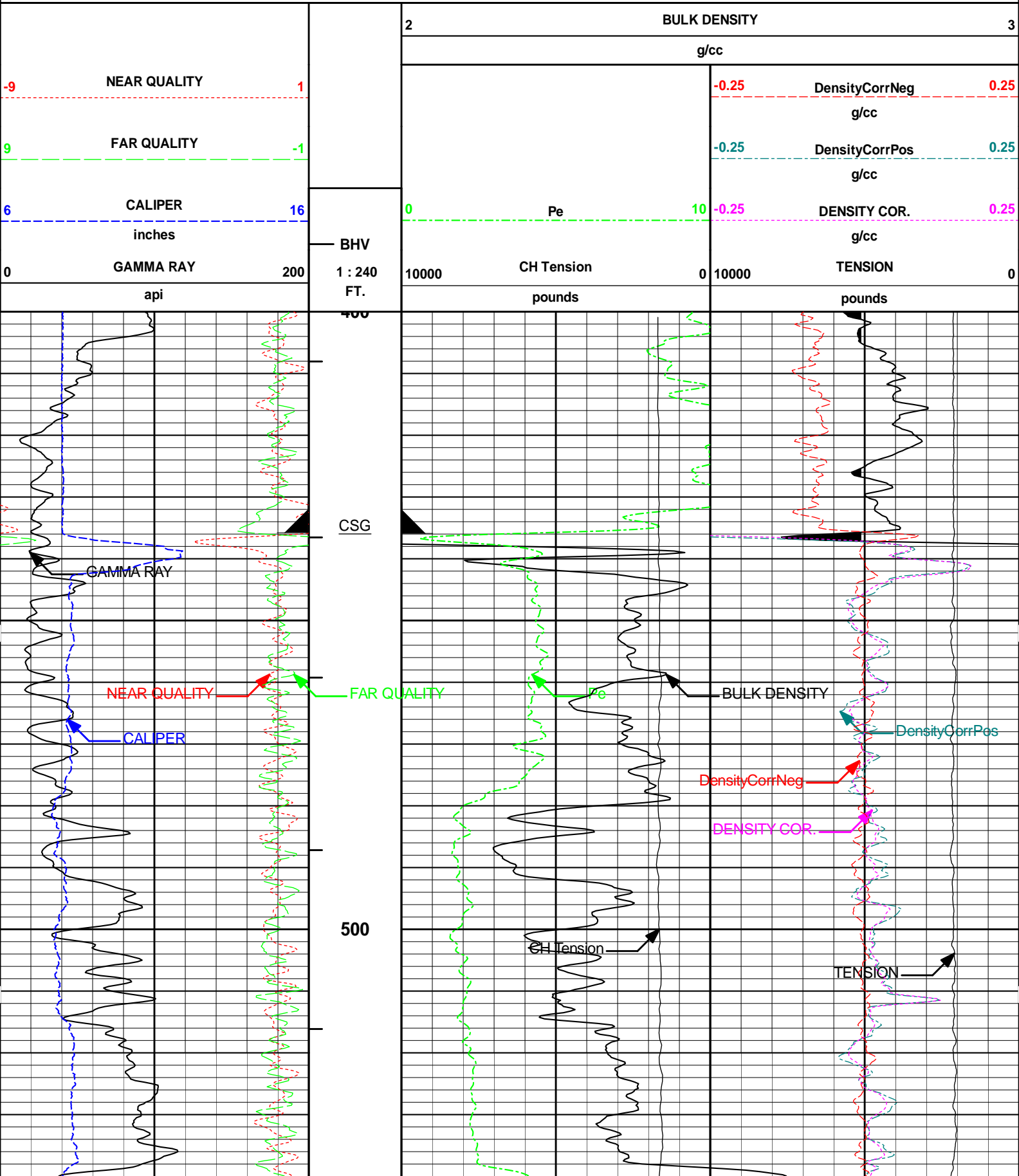
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 Plot File: \\POROV\POR5IN_R

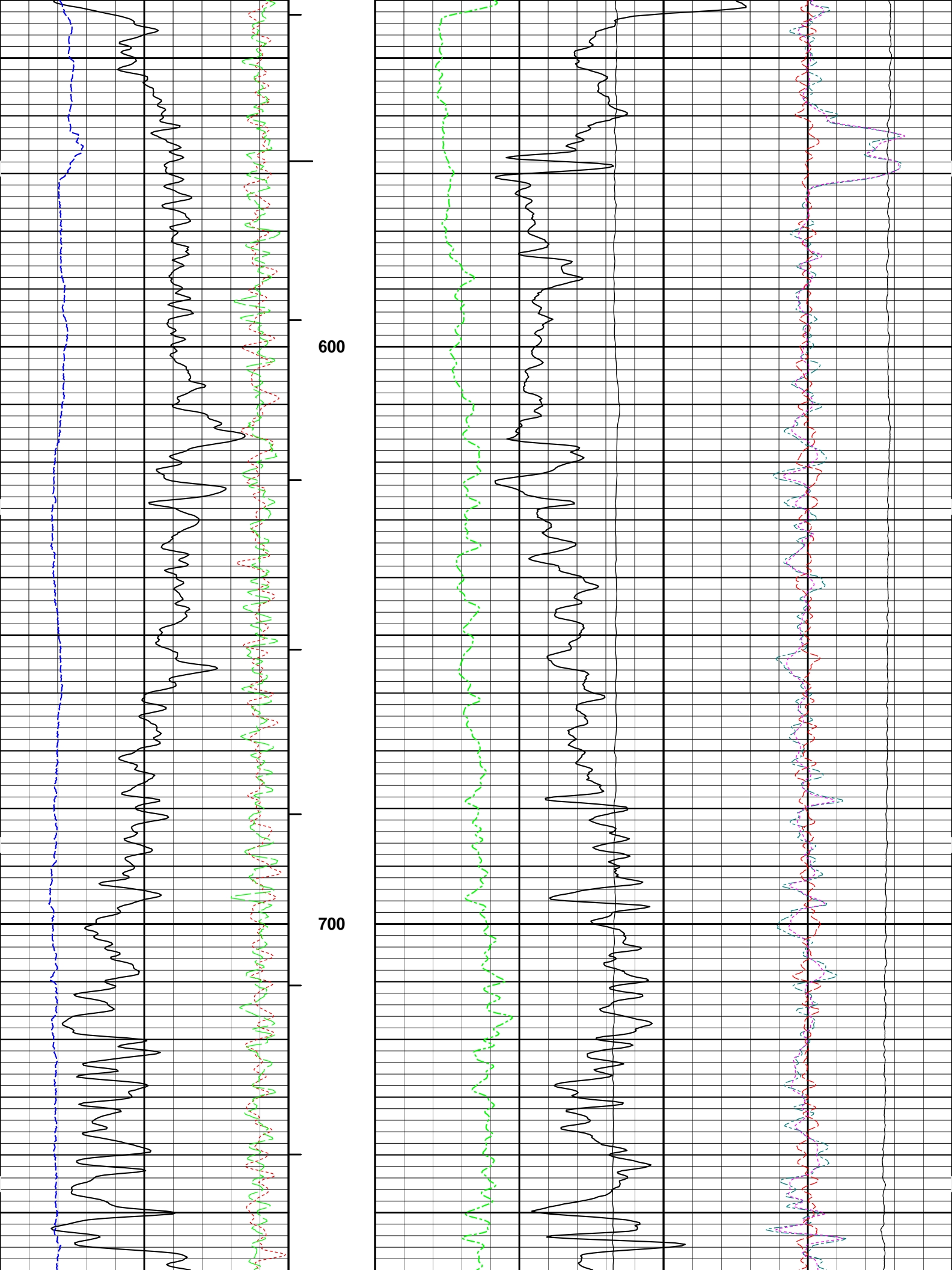
REPEAT PASS 5" = 100'
DOLOMITE MATRIX

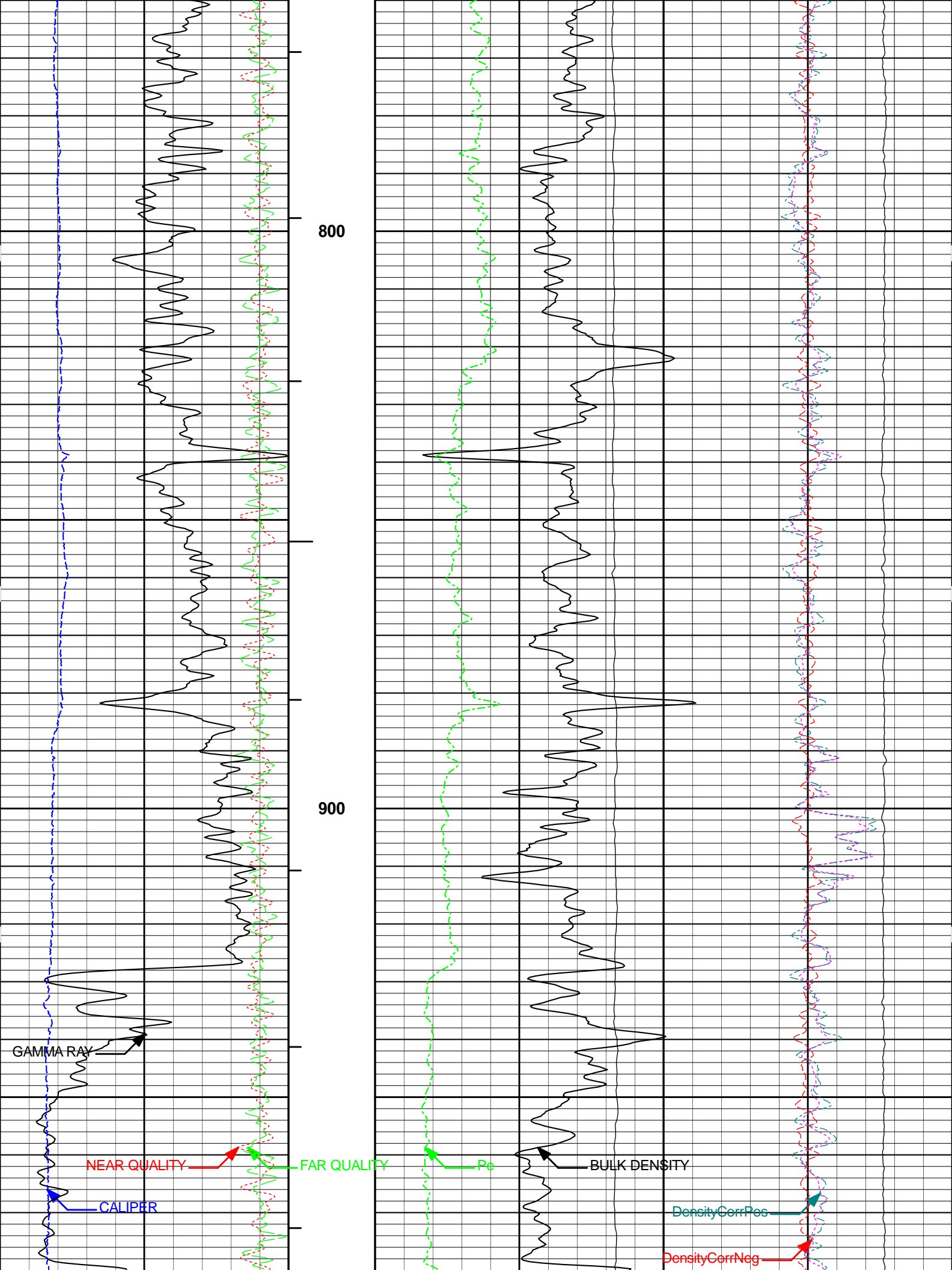
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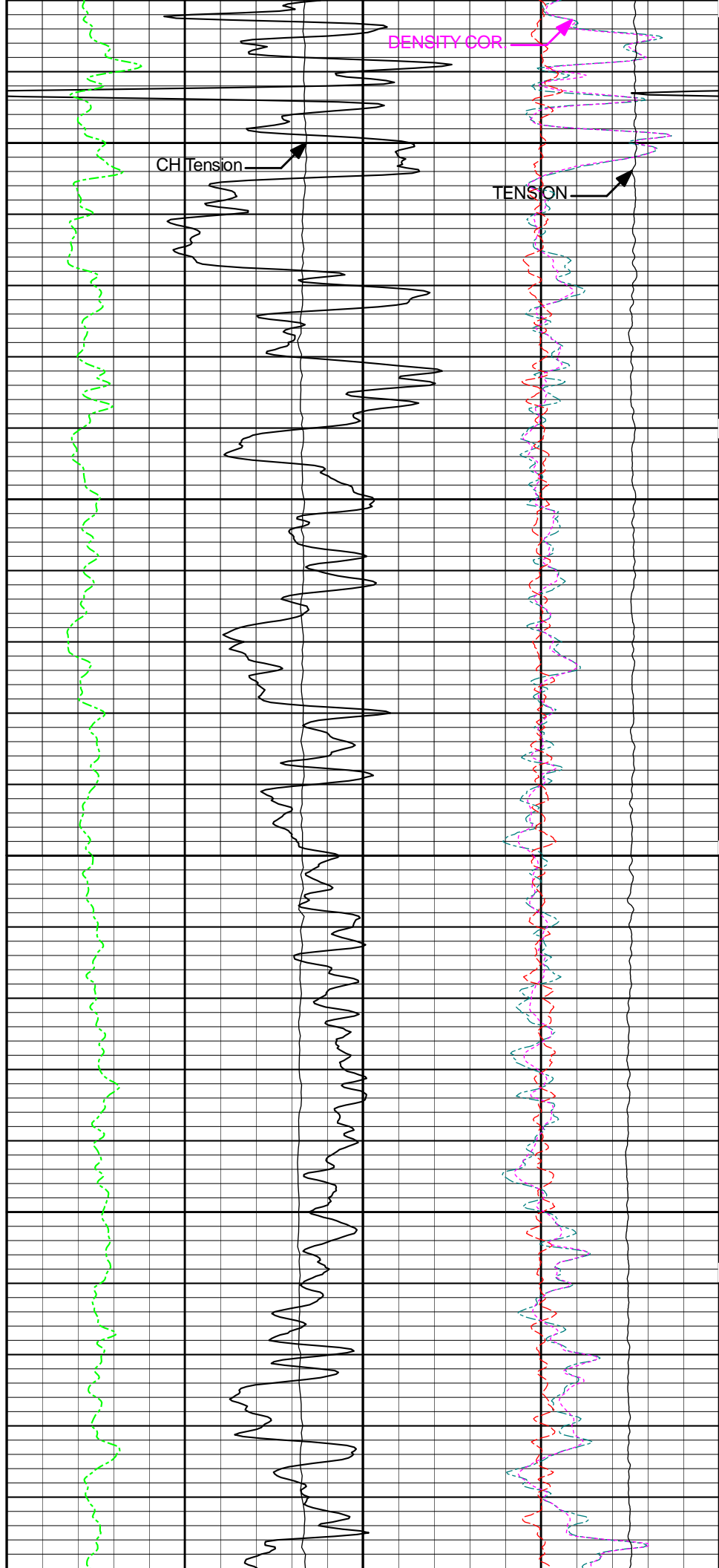
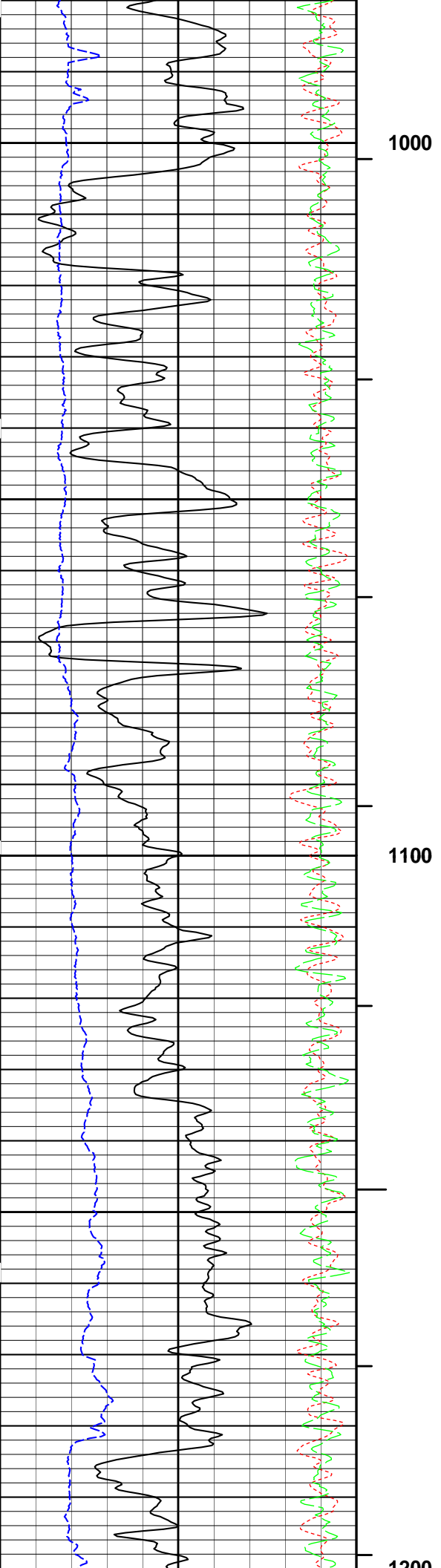
MAIN PASS 5" = 100'

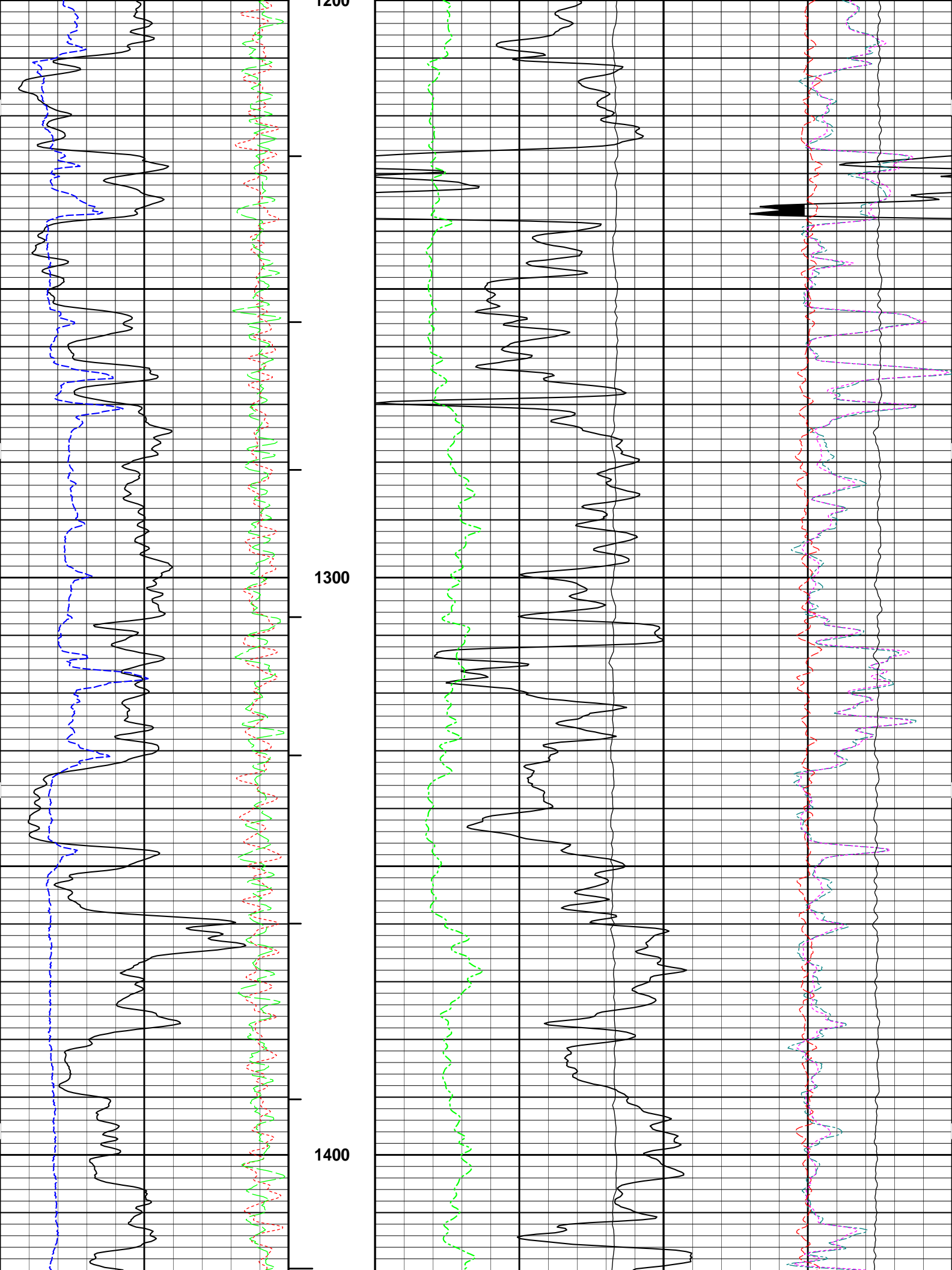
LIMESTONE MATRIX

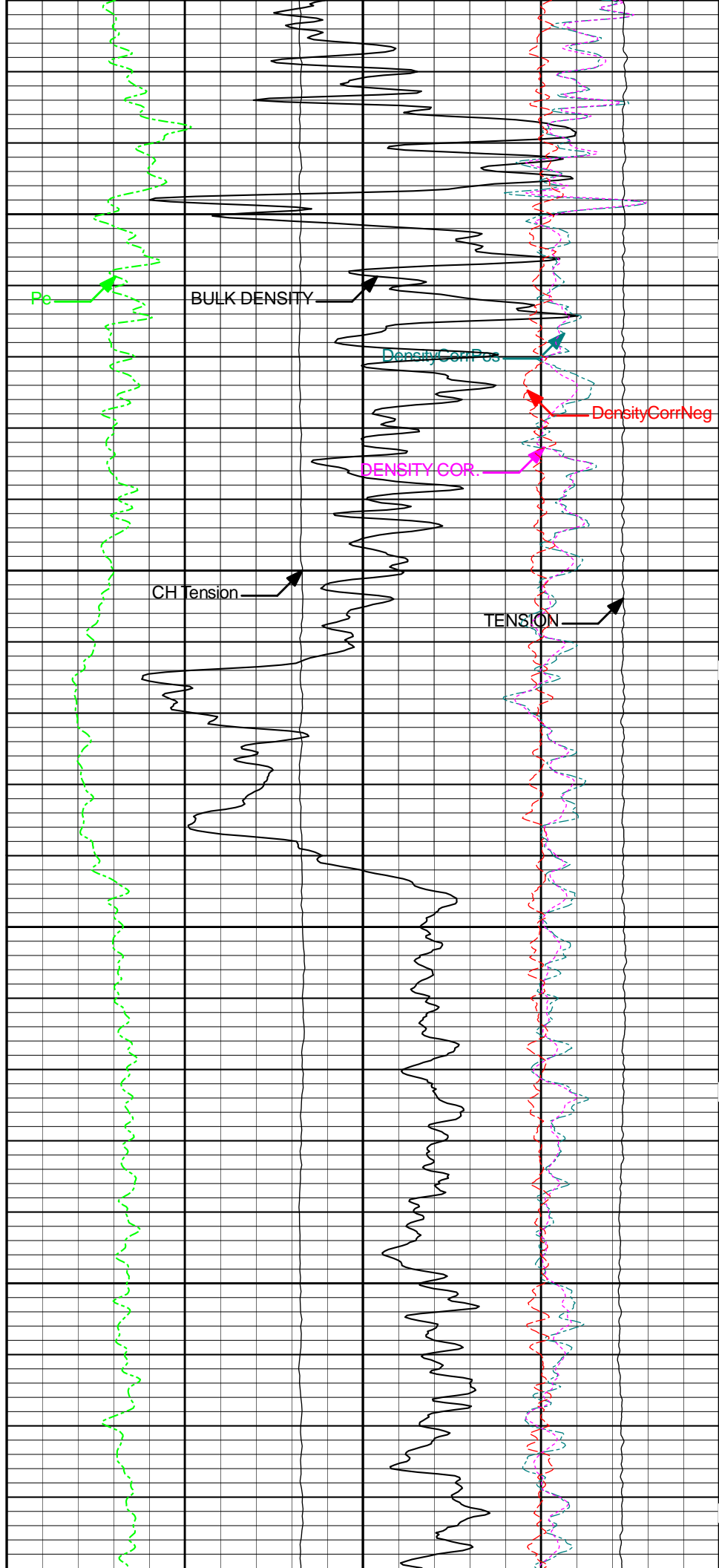
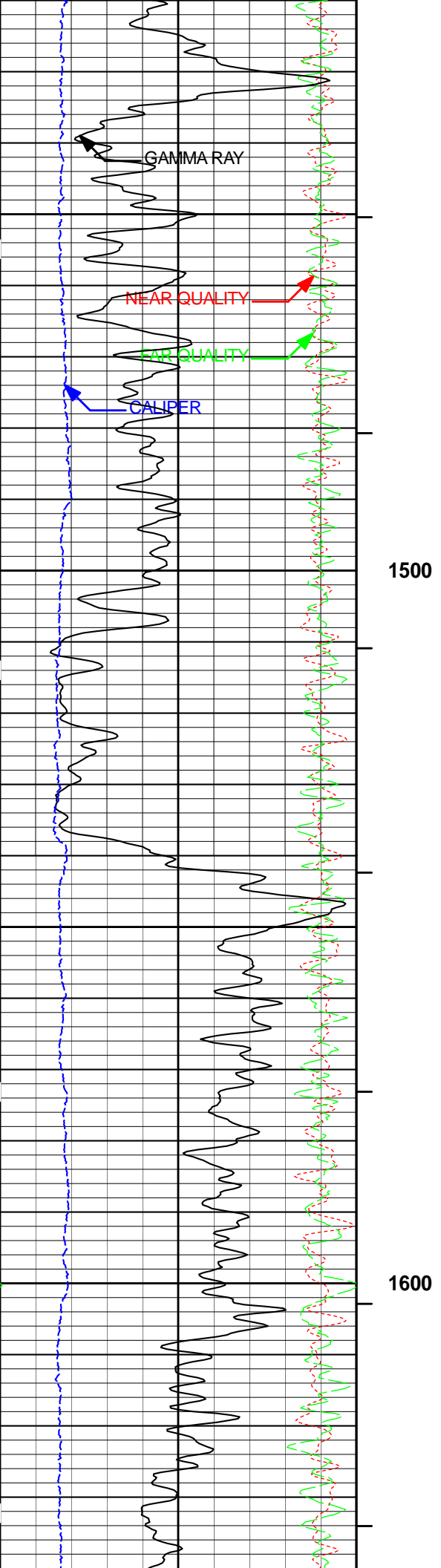


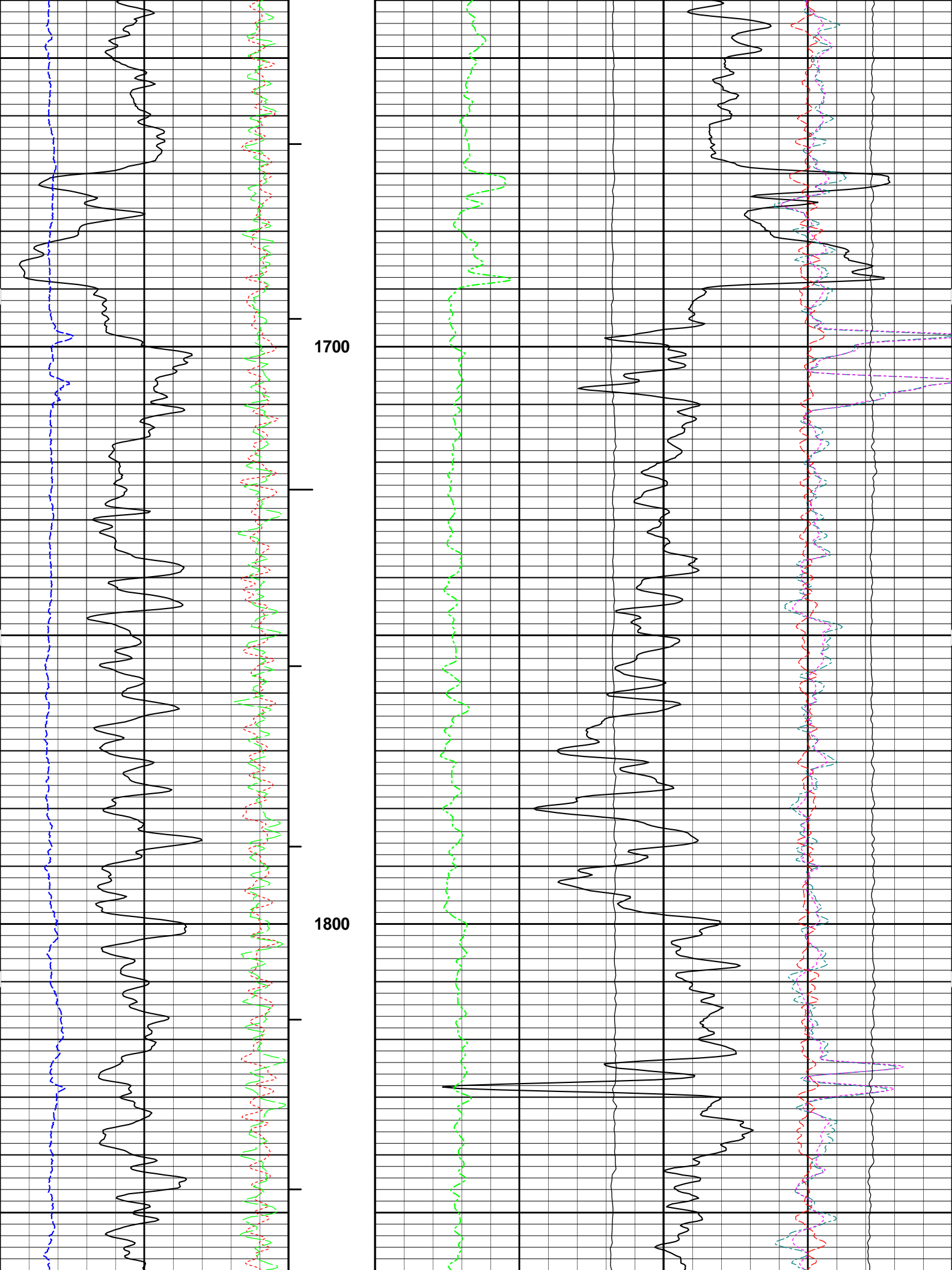


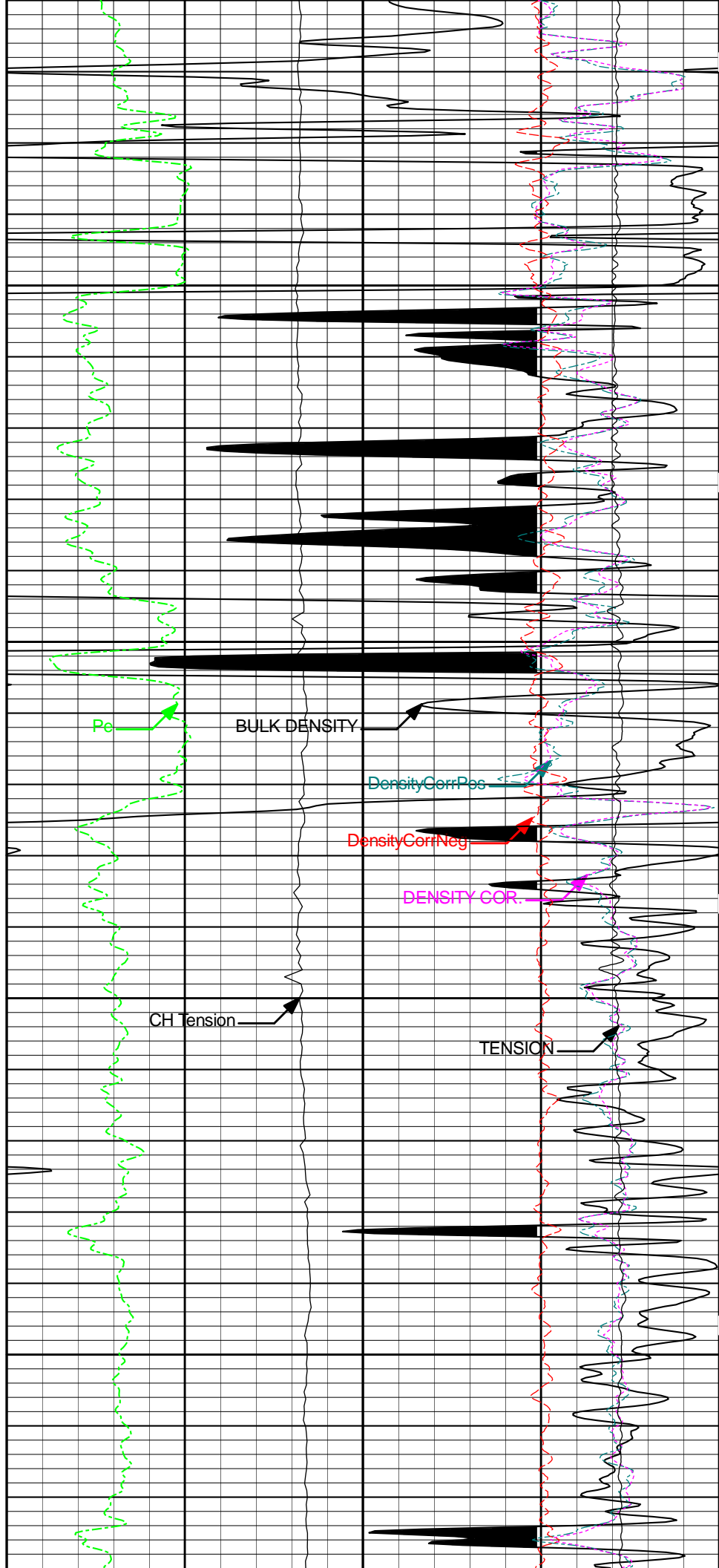
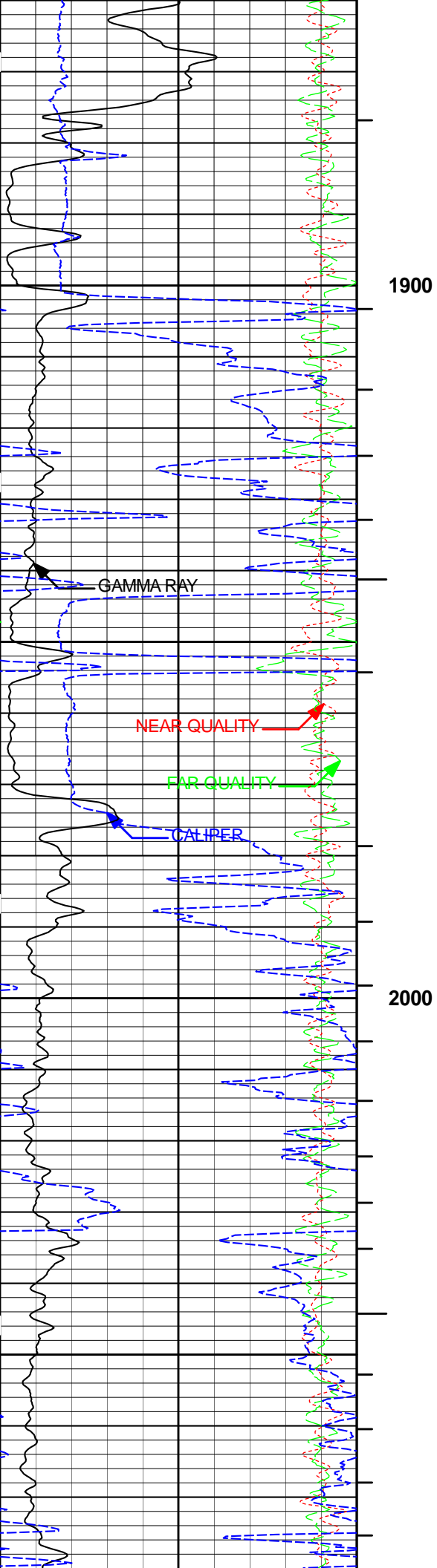


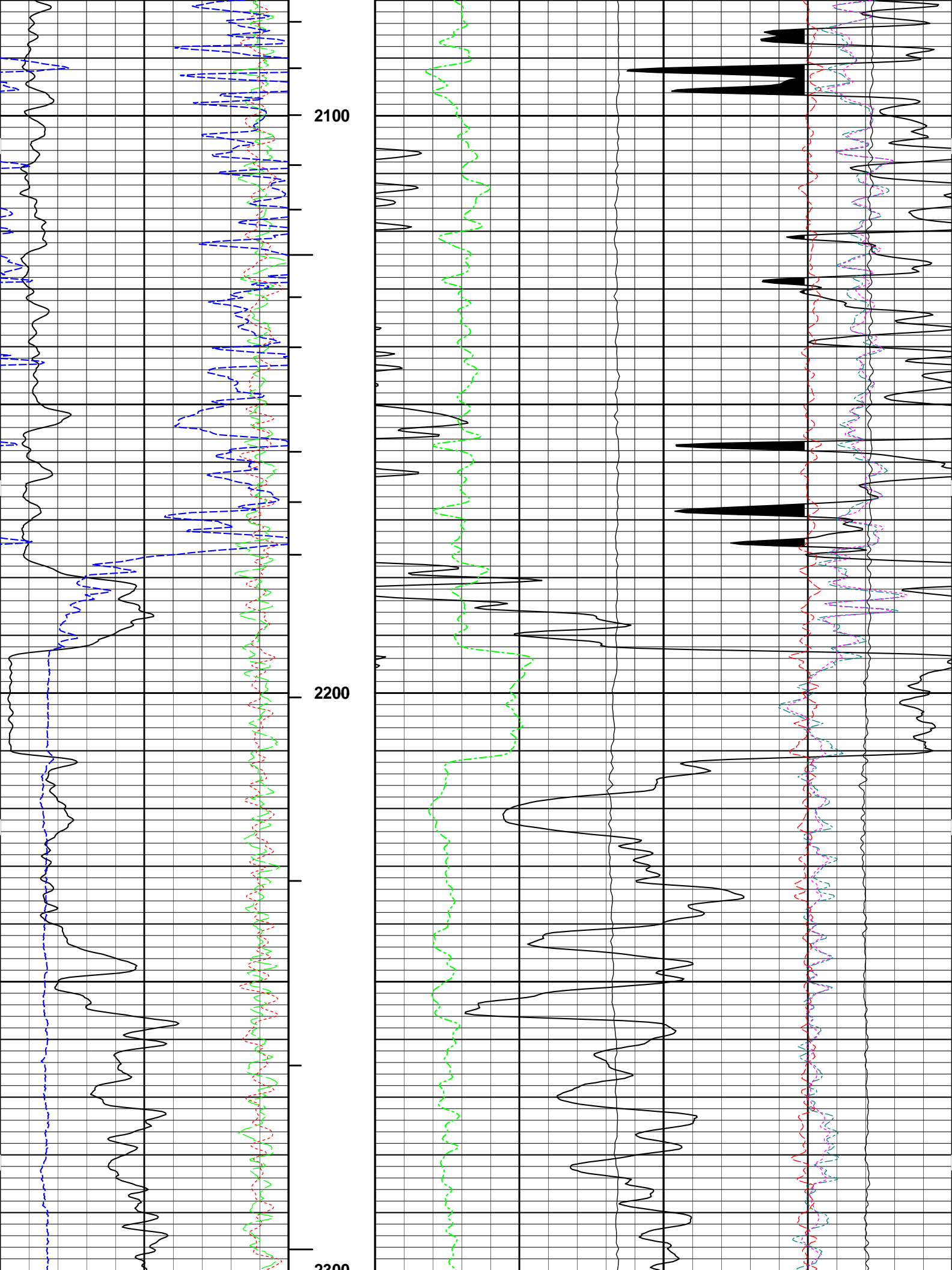


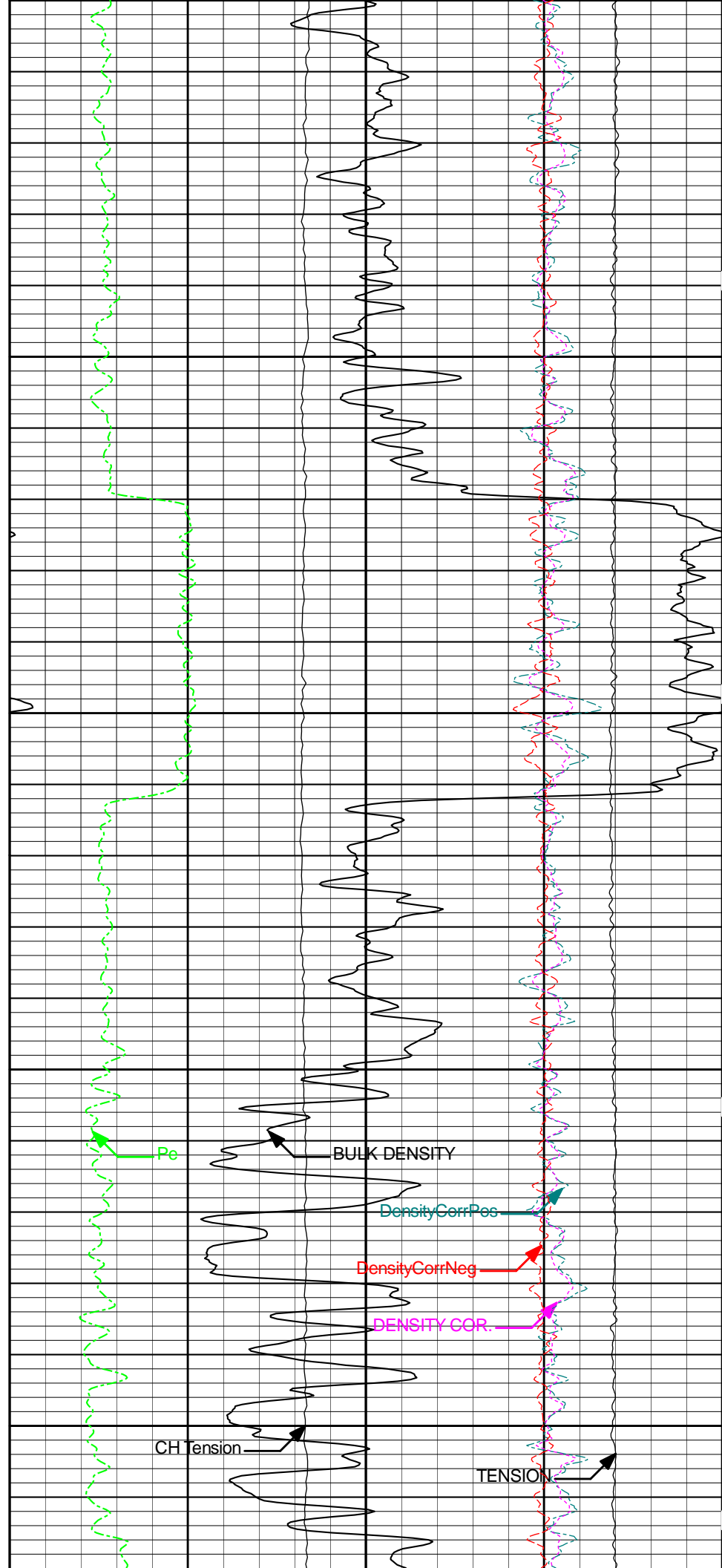
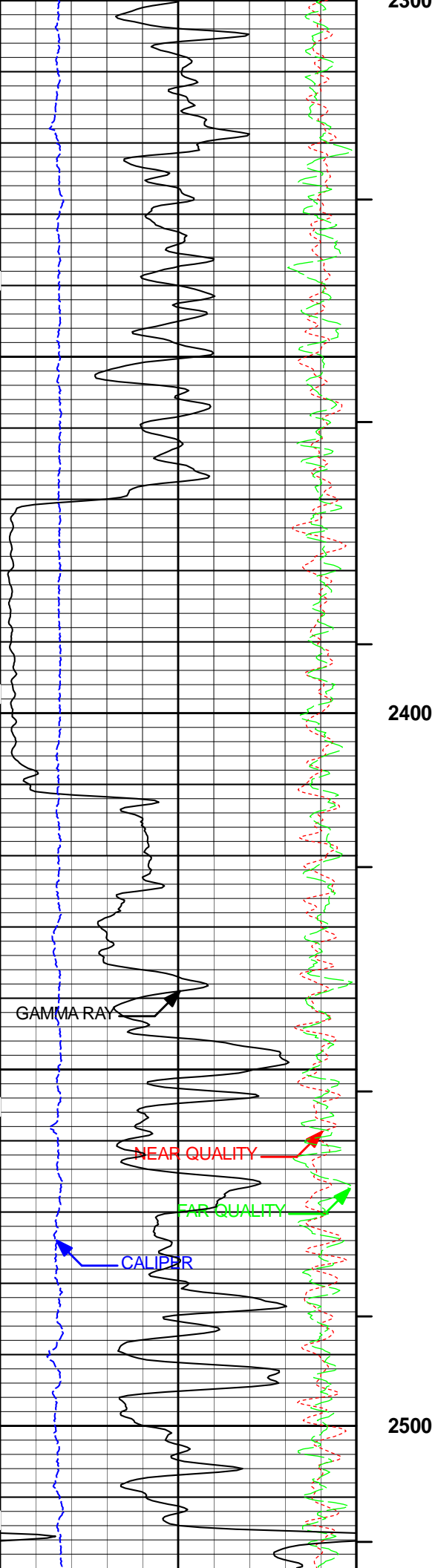


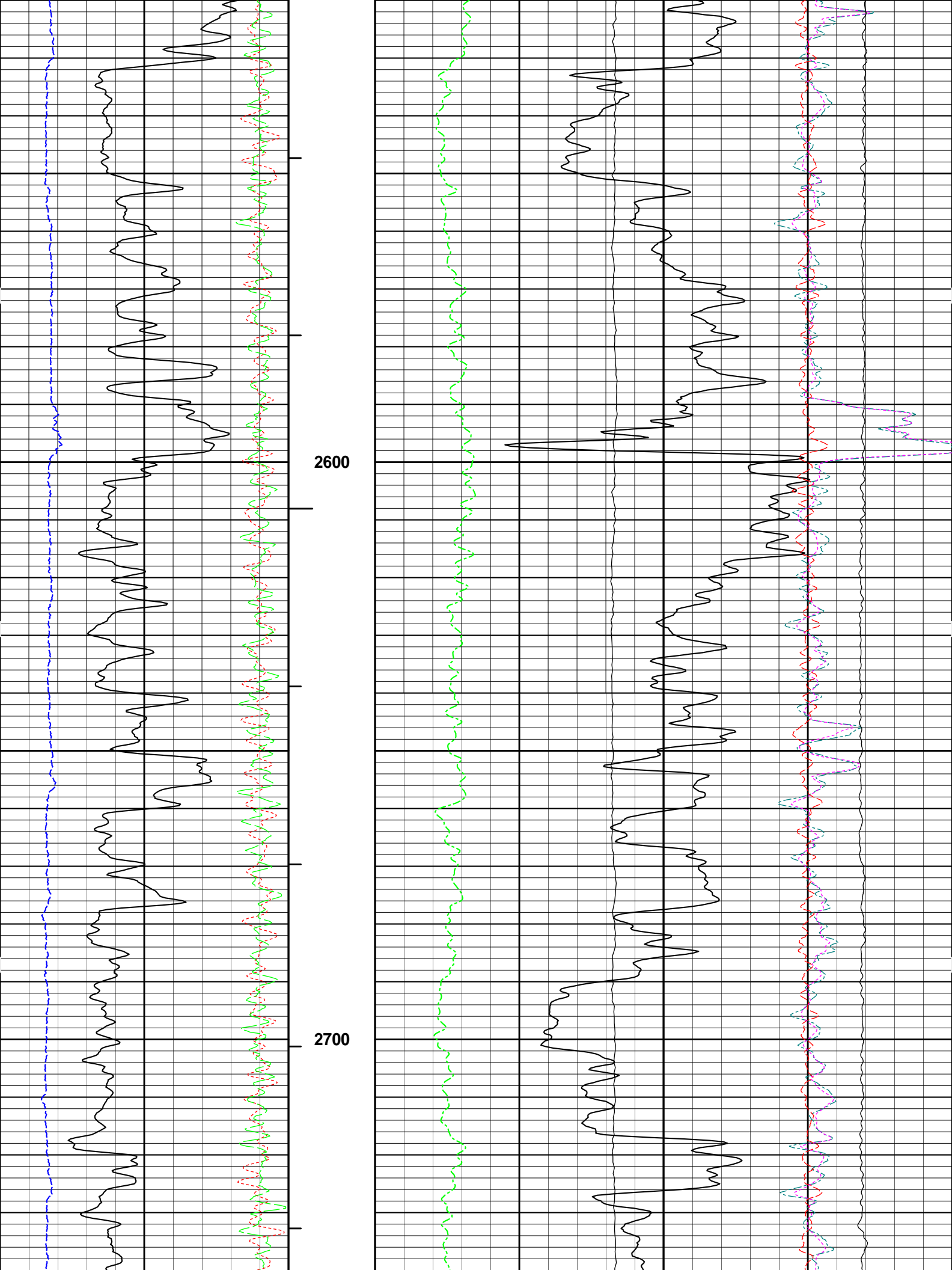


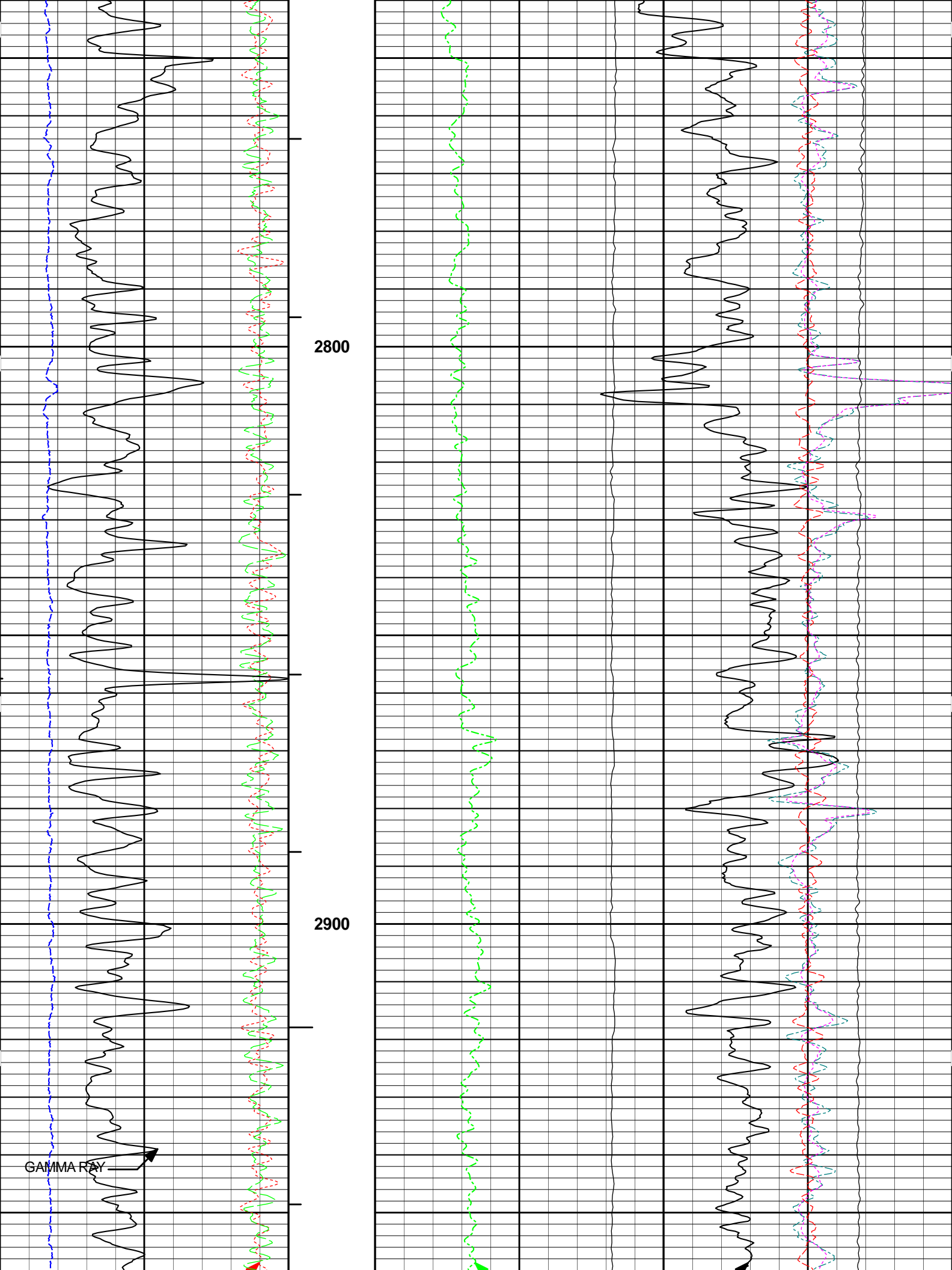


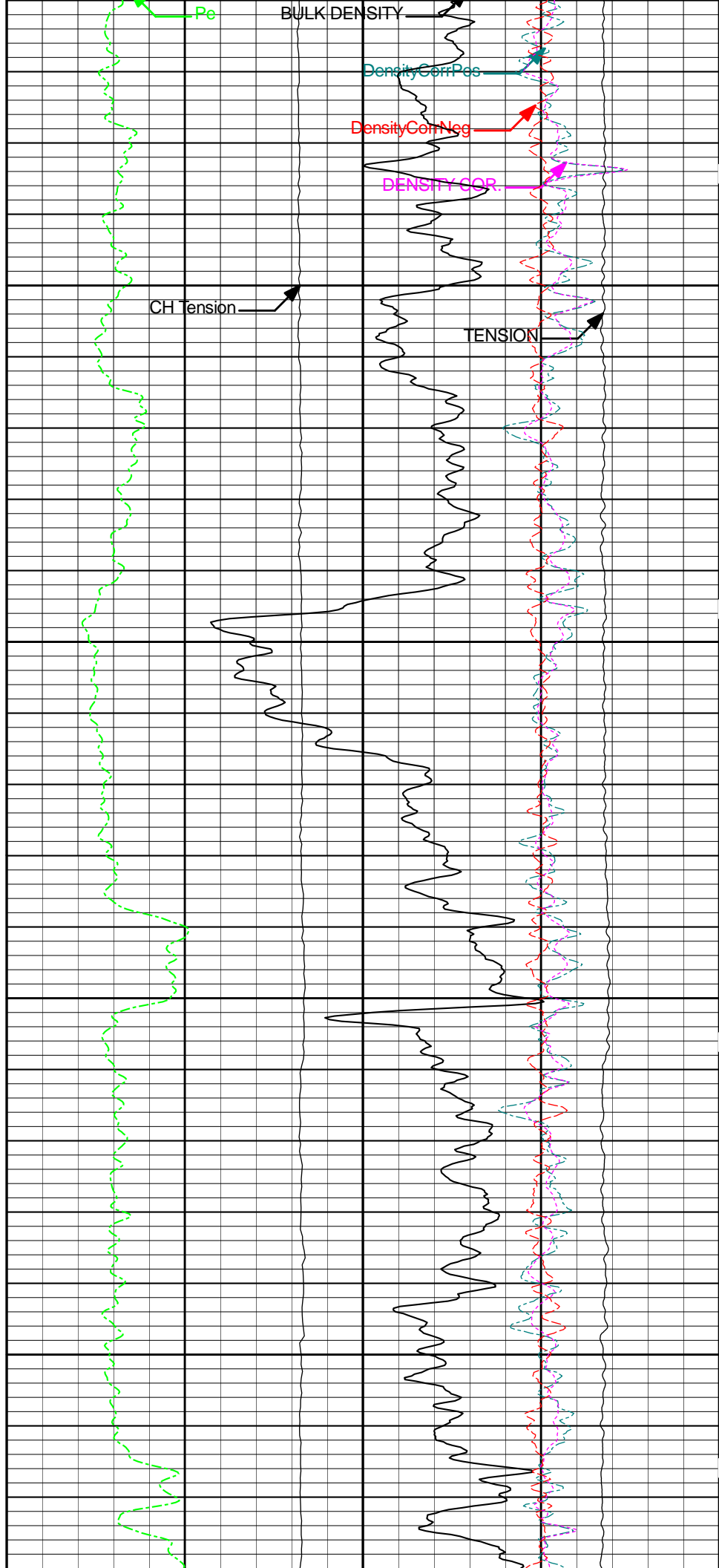
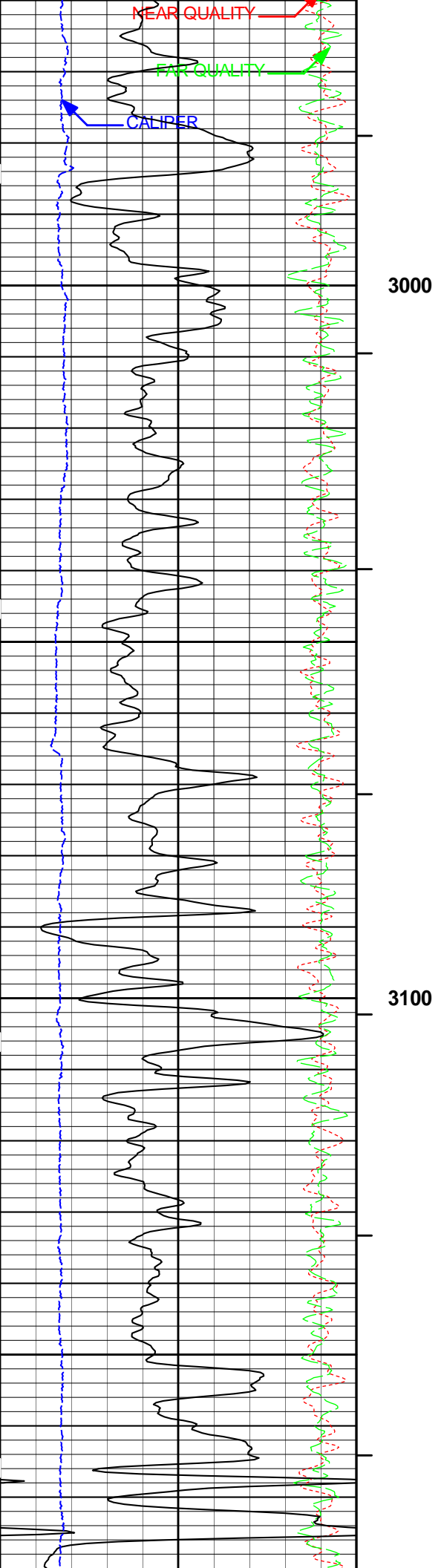


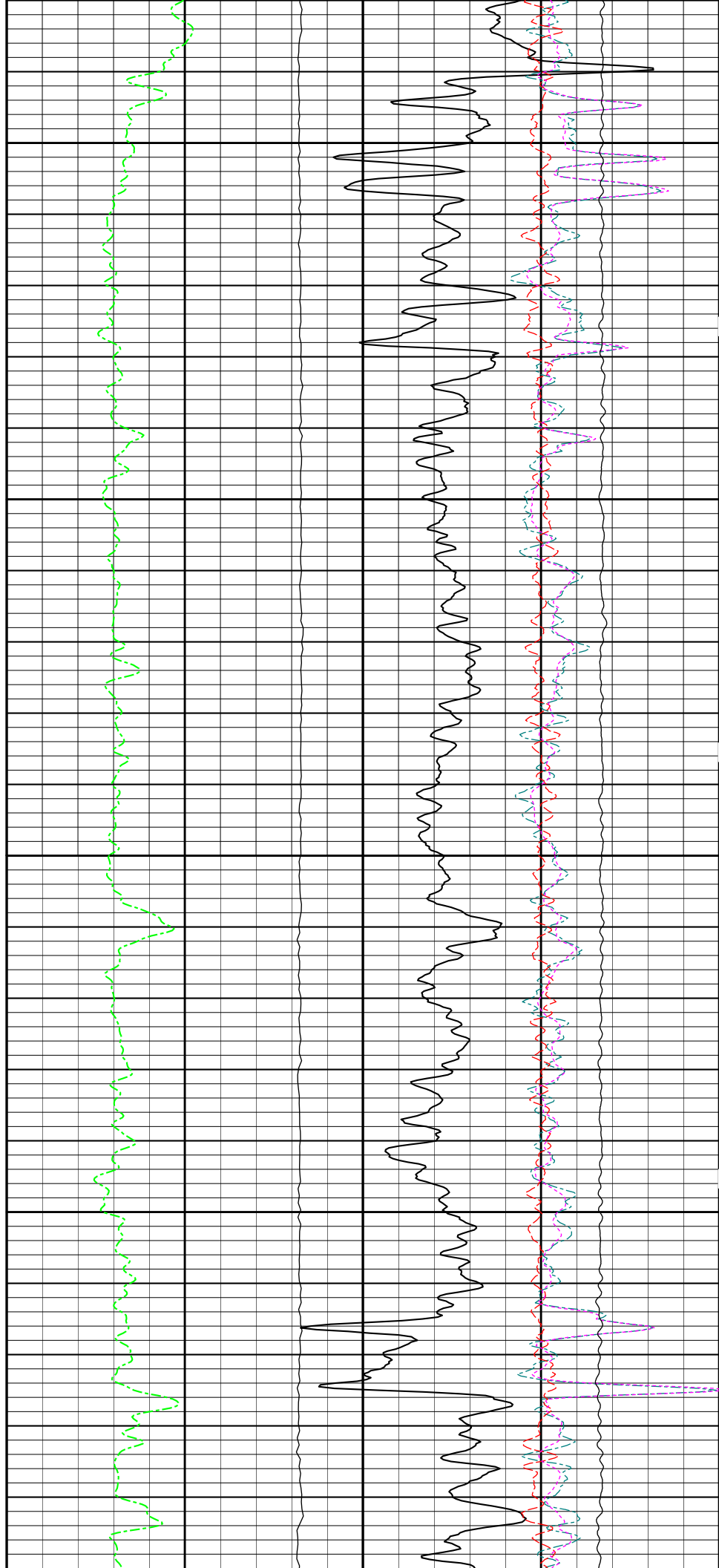
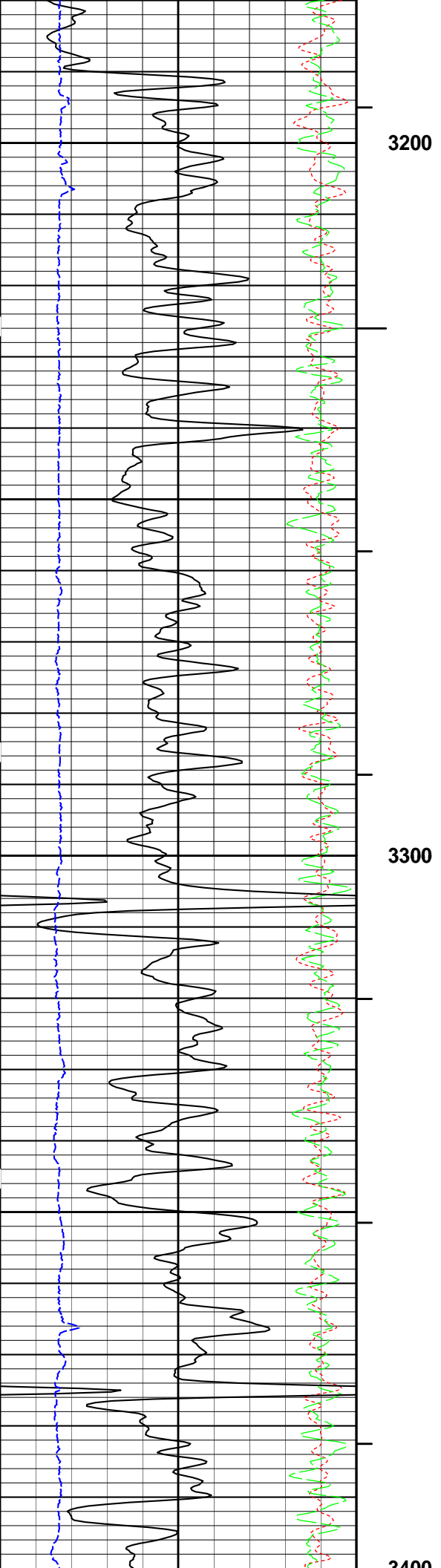


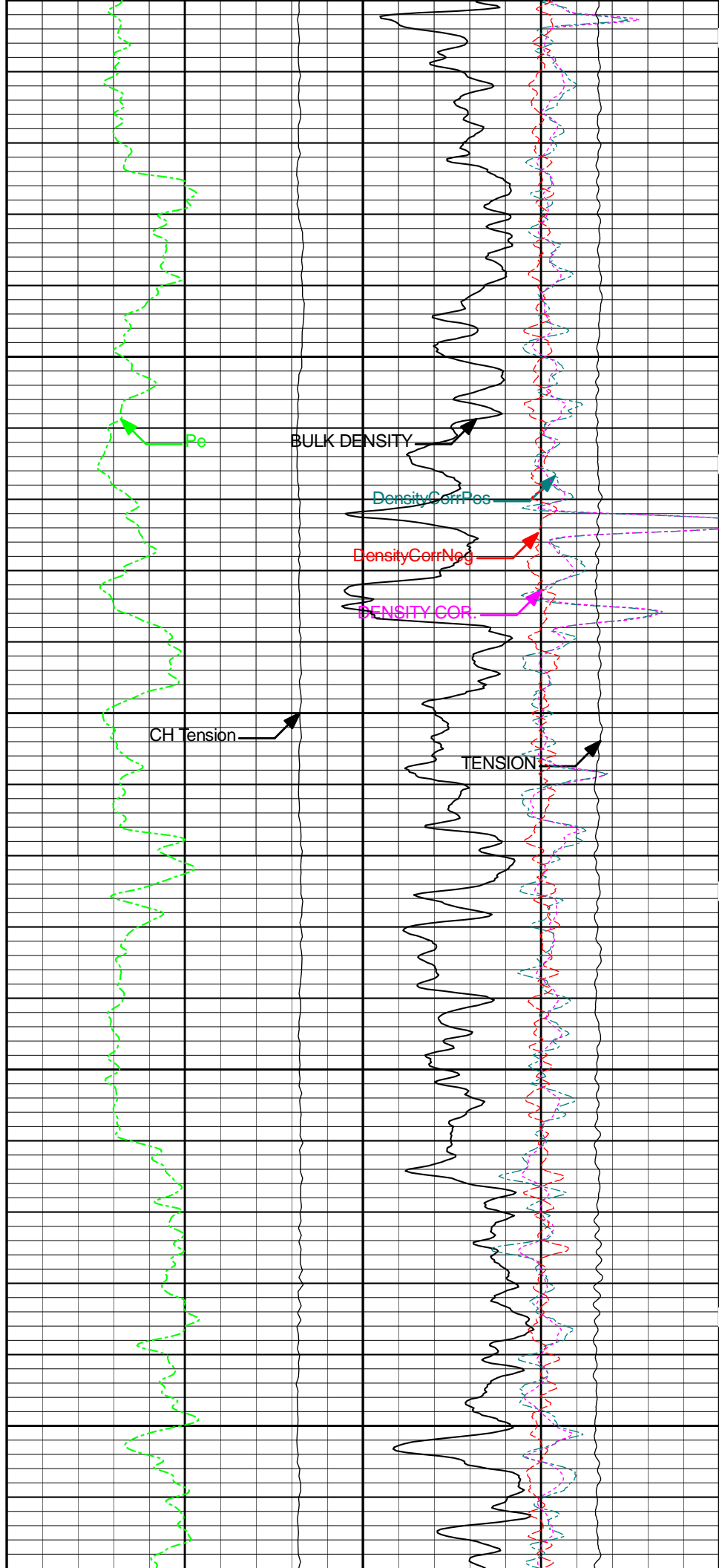
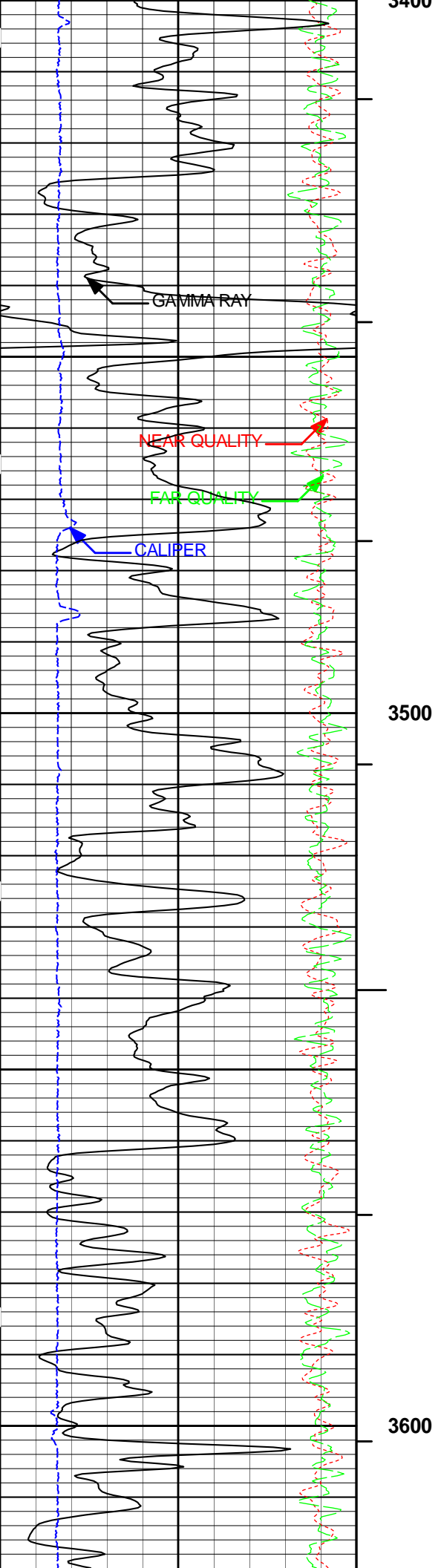


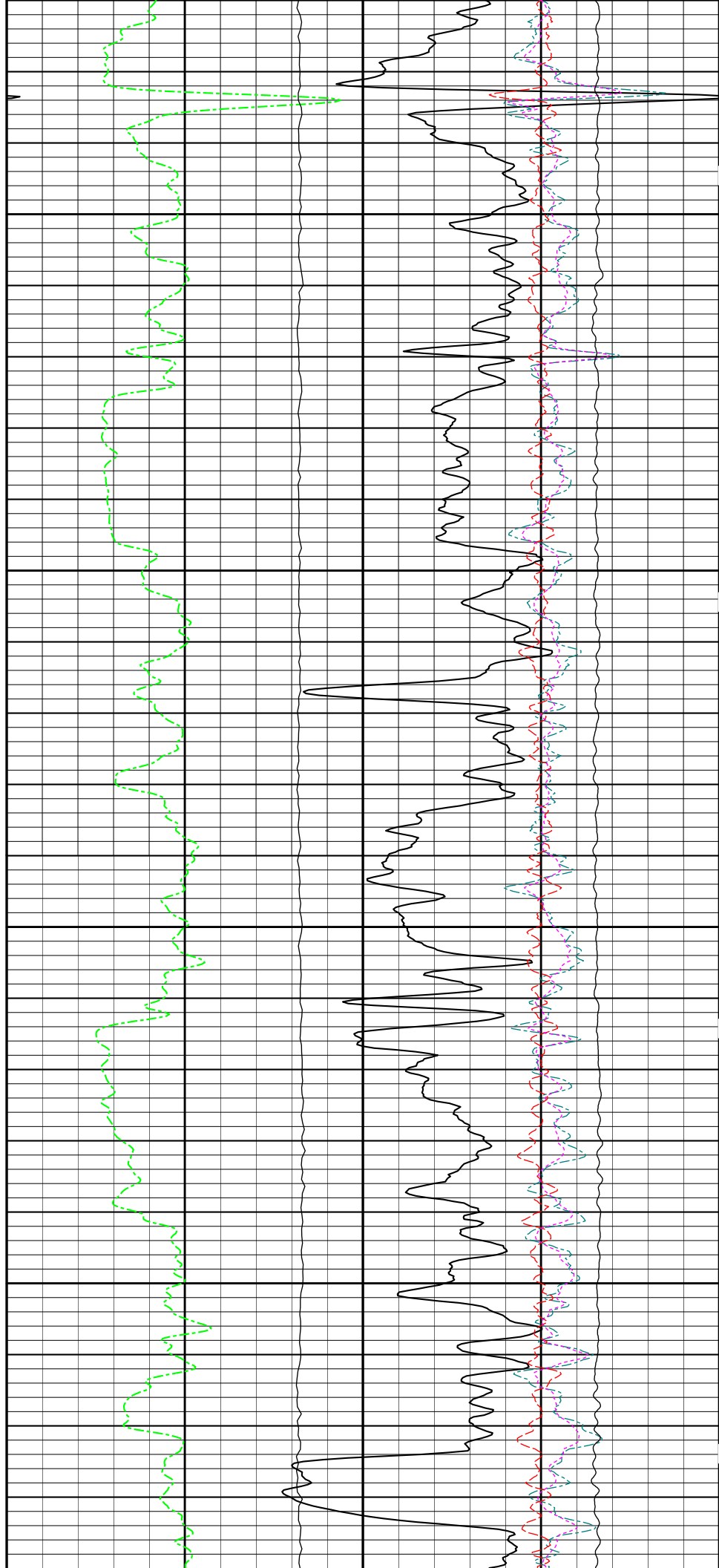
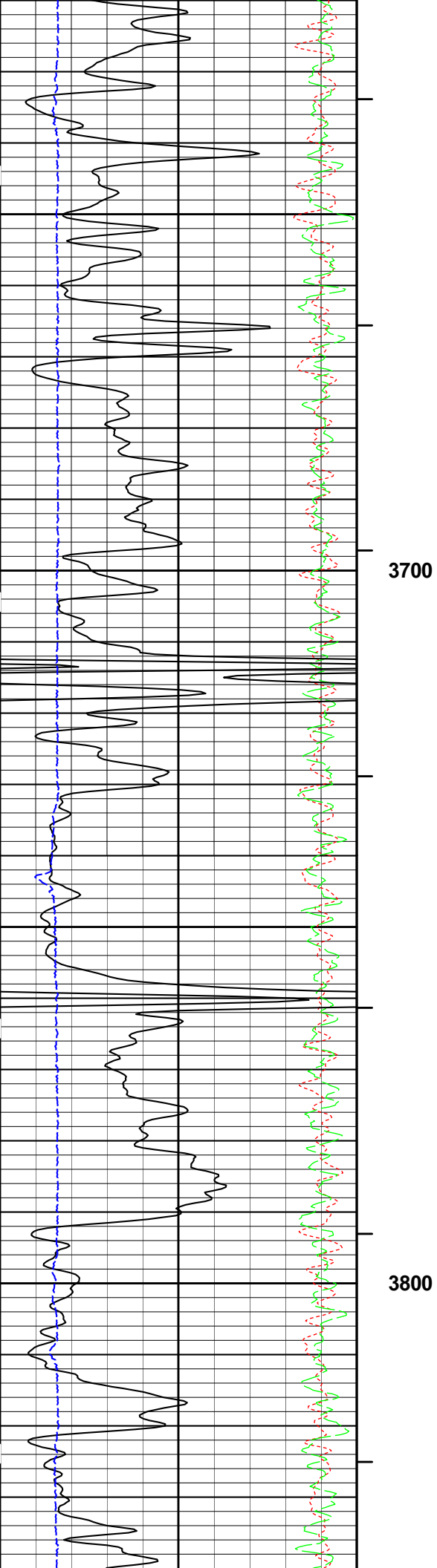


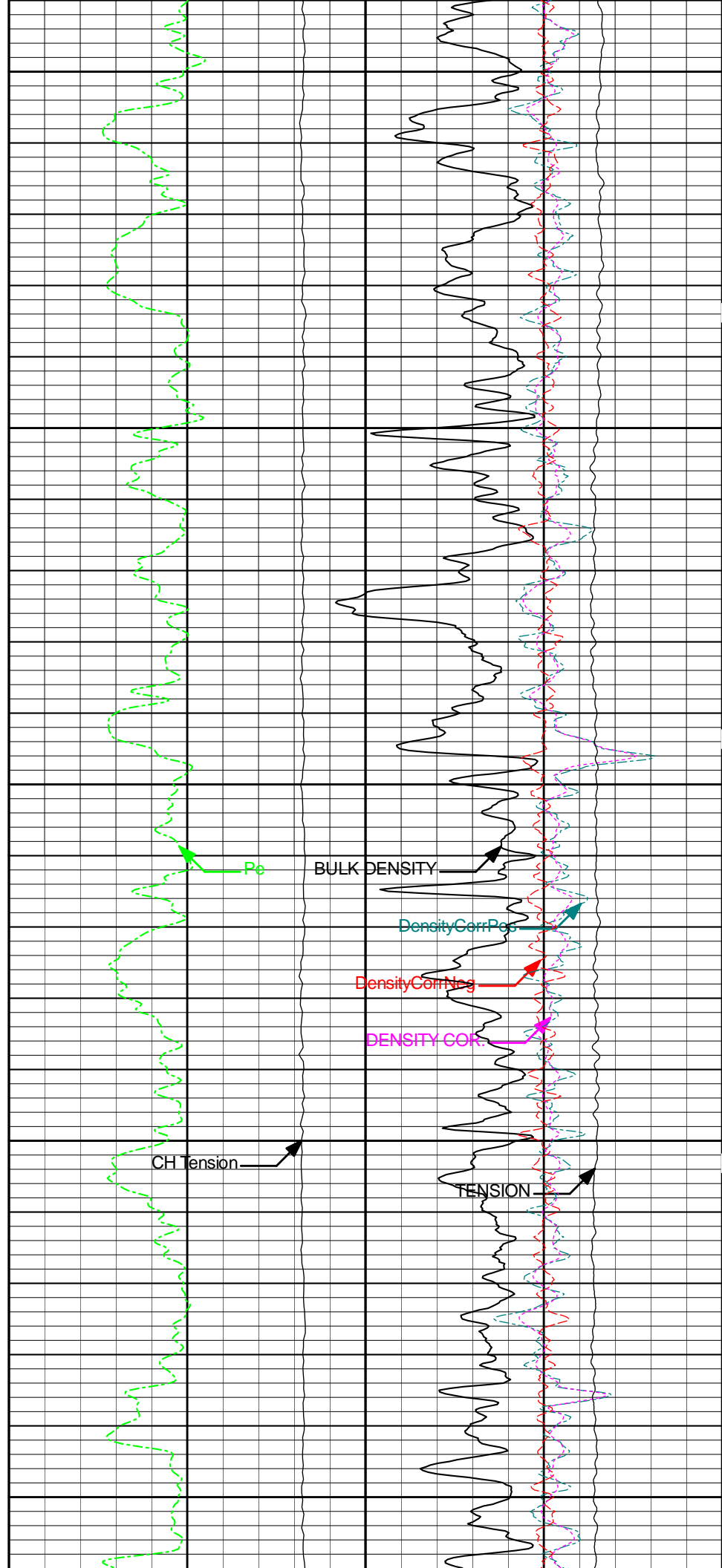
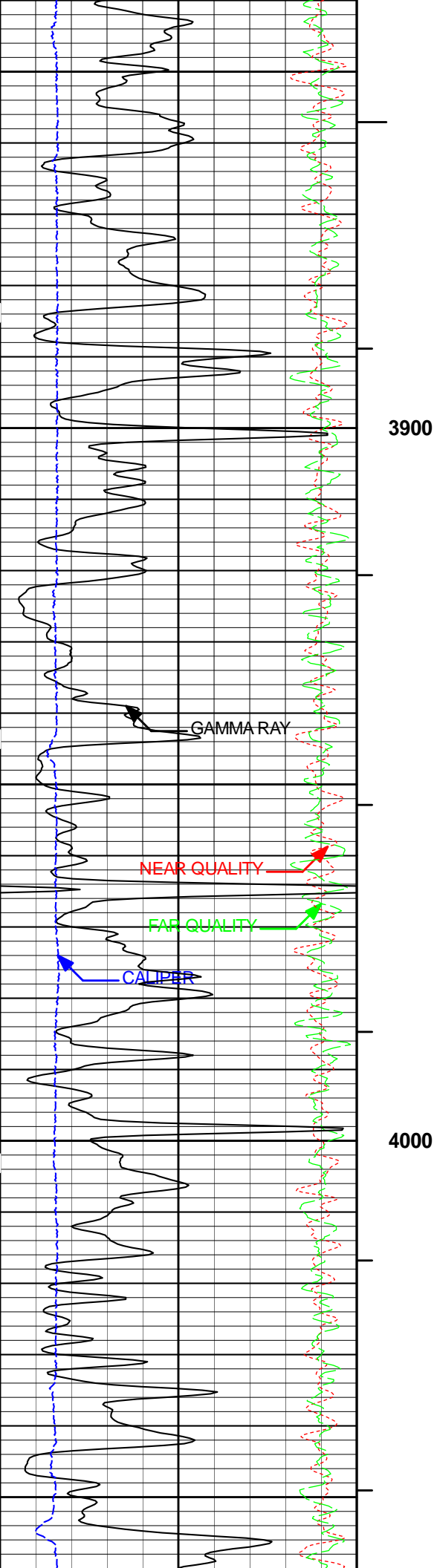


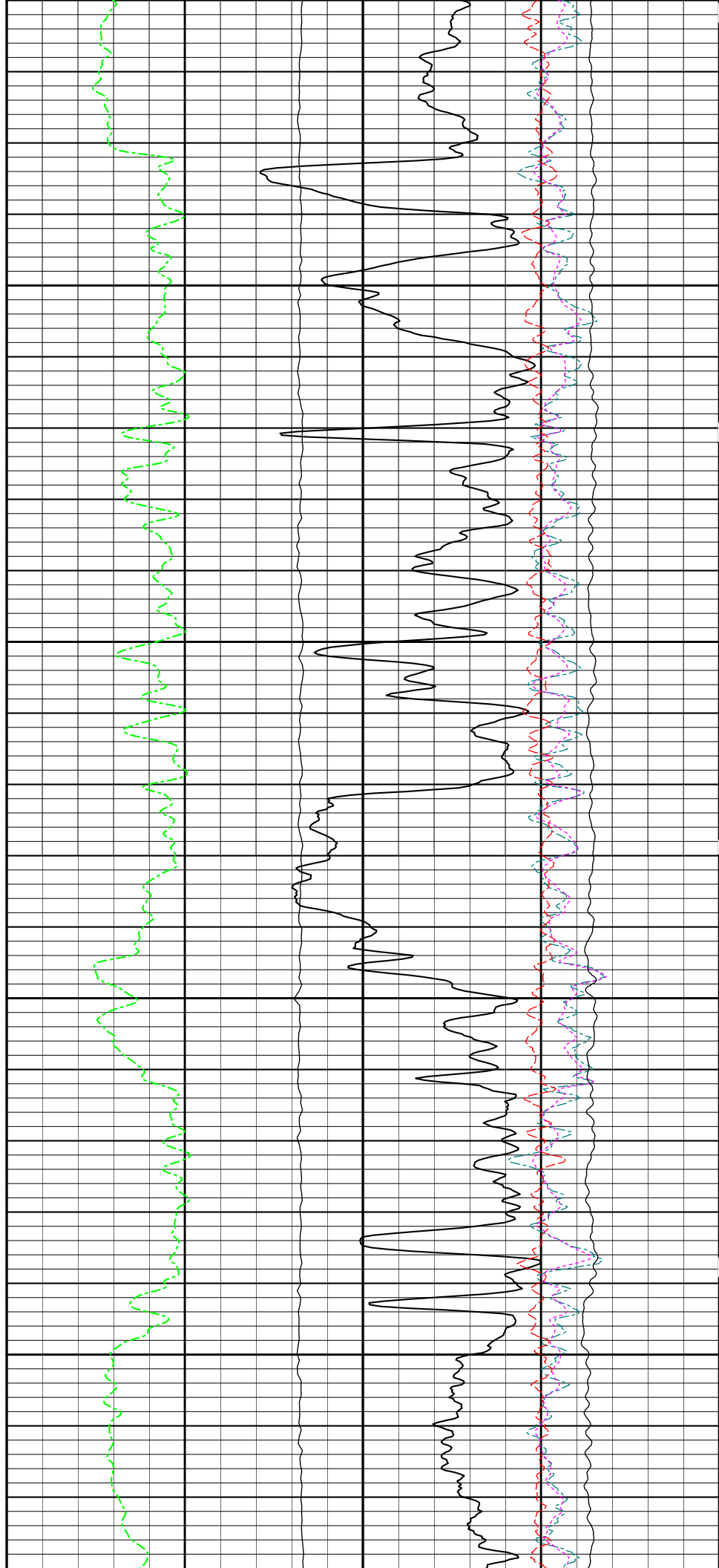
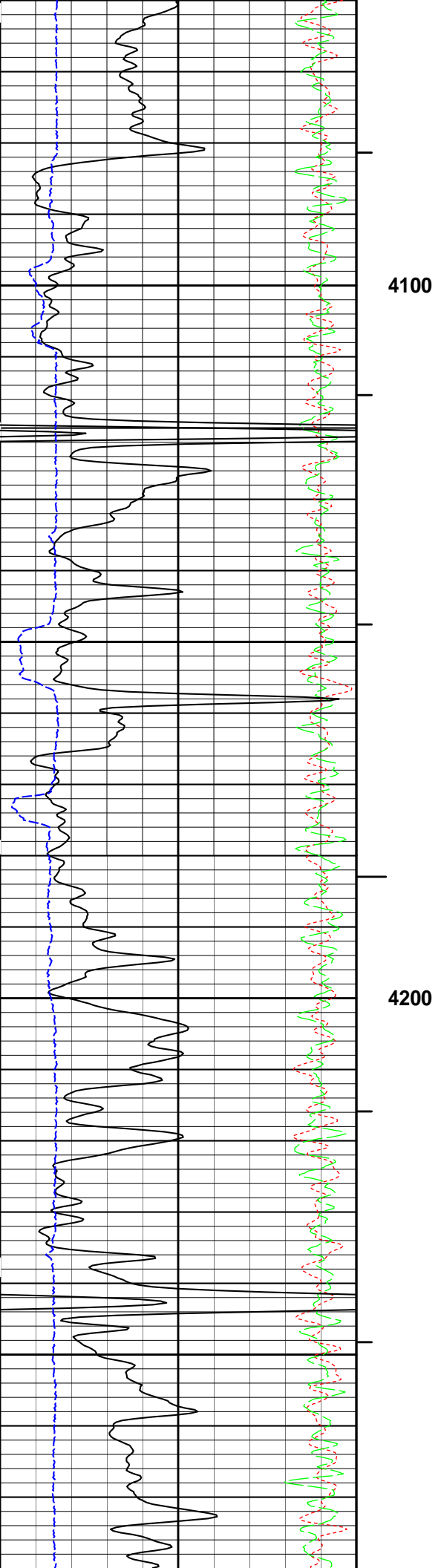


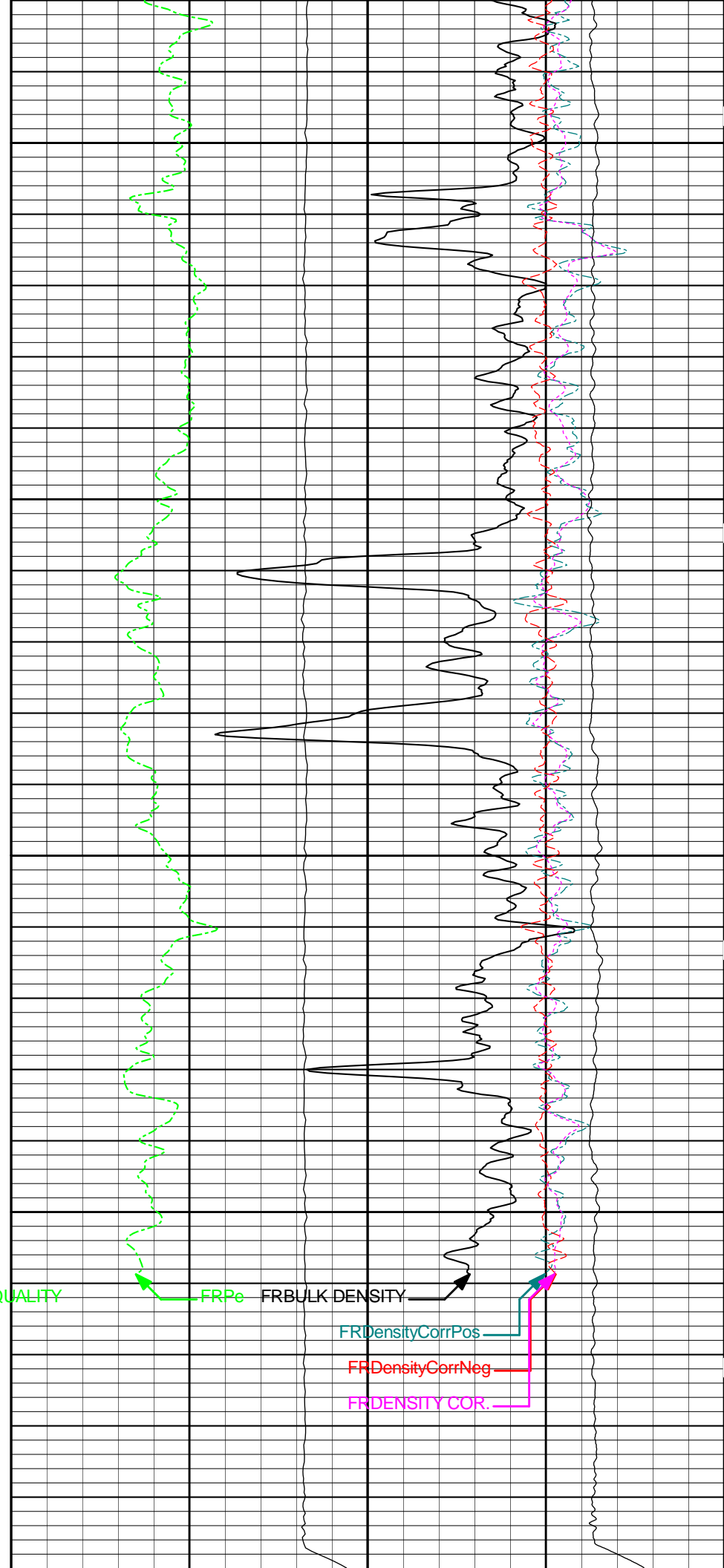
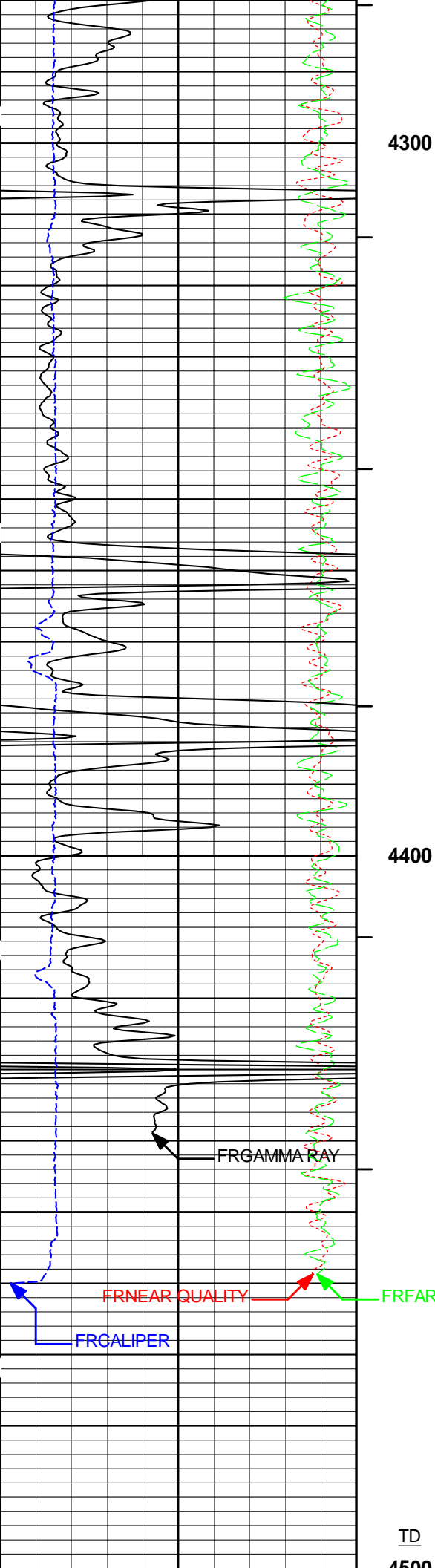












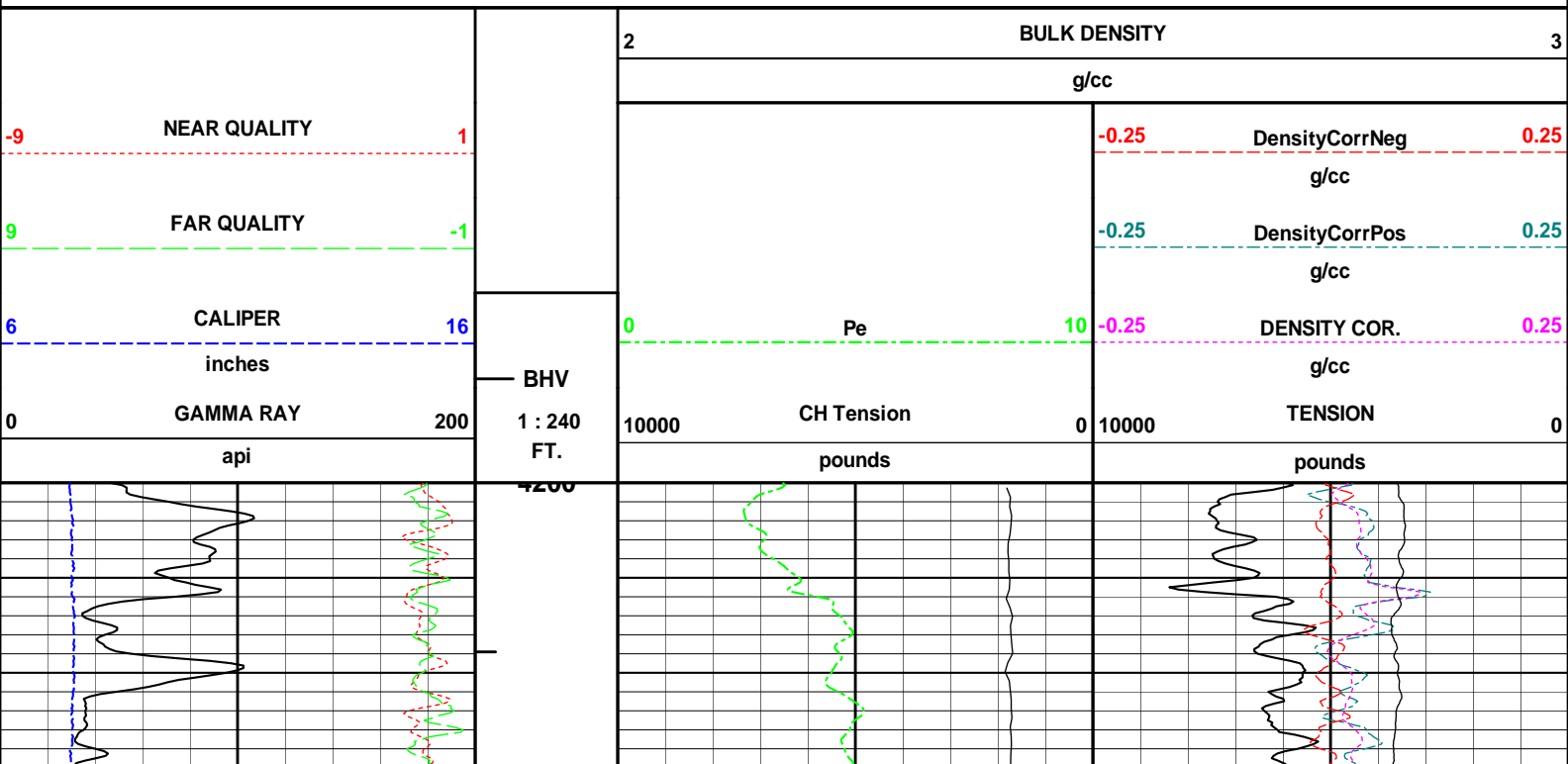
0	GAMMA RAY	200	1 : 240 FT.	10000	CH Tension	0	10000	TENSION	0
	api				pounds			pounds	
6	CALIPER	16		0	Pe	10	-0.25	DENSITY COR.	0.25
	inches		BHV					g/cc	
9	FAR QUALITY	-1					-0.25	DensityCorrPos	0.25
								g/cc	
-9	NEAR QUALITY	1					-0.25	DensityCorrNeg	0.25
								g/cc	
				2	BULK DENSITY				3
					g/cc				

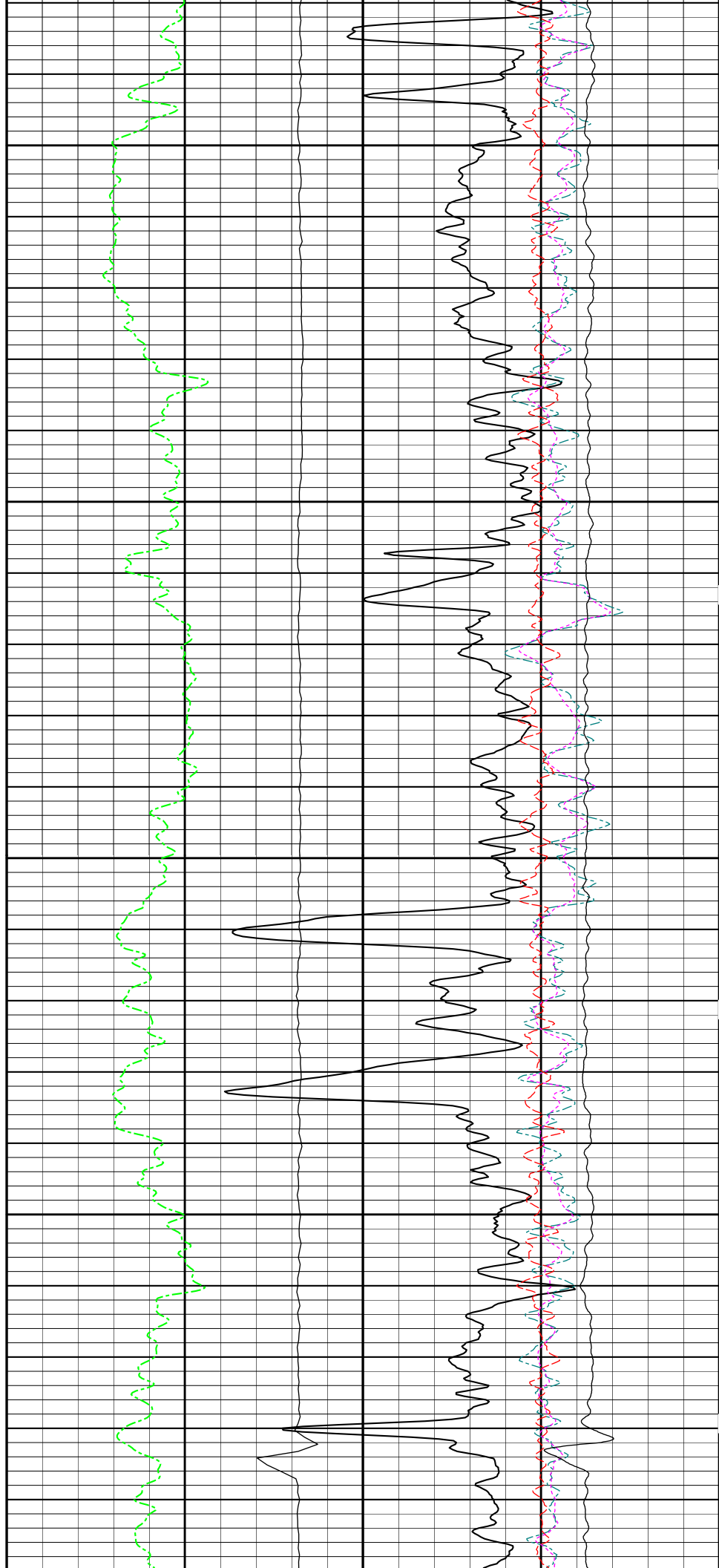
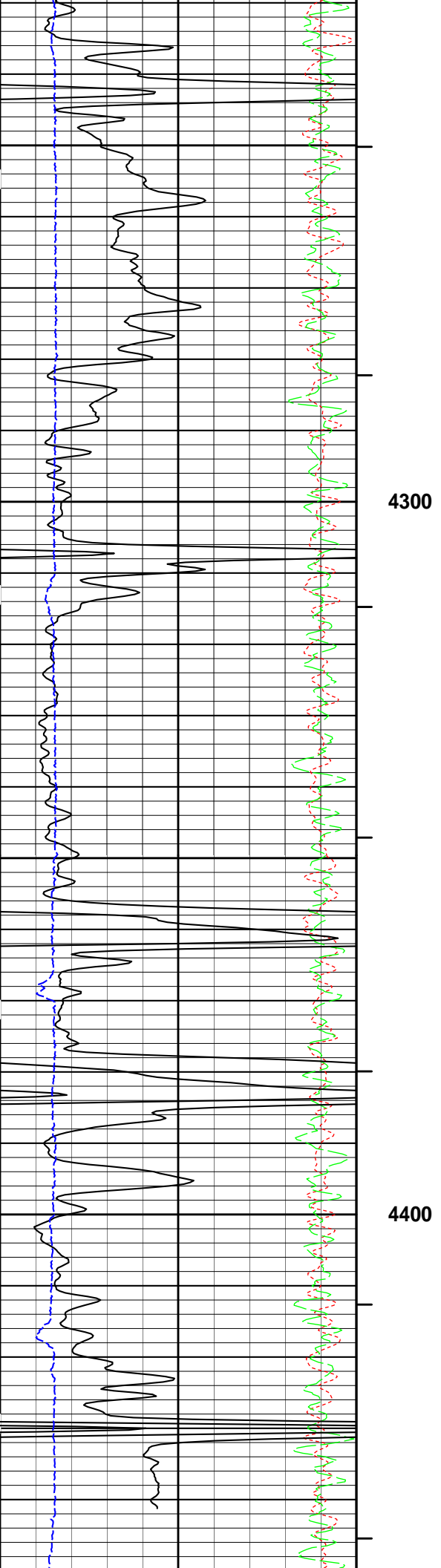
HALLIBURTON Plot Time: 22-Mar-15 13:40:11
Plot Range: 400 ft to 4504.05 ft
Data: TRESHOMBRES1_22\Well Based\MAIN\
Plot File: \\PORO\RHOB_M

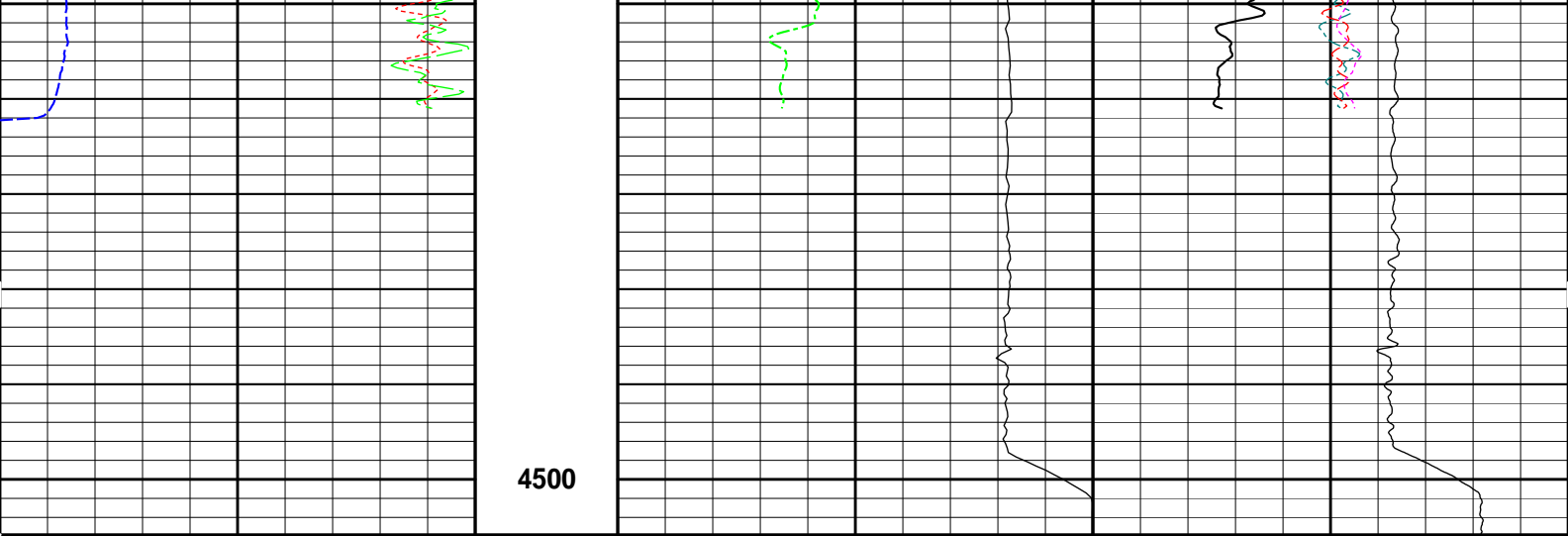
MAIN PASS 5" = 100'
LIMESTONE MATRIX

HALLIBURTON Plot Time: 22-Mar-15 13:40:11
Plot Range: 4200 ft to 4505.83 ft
Data: TRESHOMBRES1_22\Well Based\REPEAT\
Plot File: \\PORO\RHOB_R

REPEAT PASS 5" = 100'
LIMESTONE MATRIX







0	GAMMA RAY	200	1 : 240 FT.	10000	CH Tension	0	10000	TENSION	0
	api				pounds			pounds	
6	CALIPER	16		0	Pe	10	-0.25	DENSITY COR.	0.25
	inches		BHV					g/cc	
9	FAR QUALITY	-1					-0.25	DensityCorrPos	0.25
								g/cc	
-9	NEAR QUALITY	1					-0.25	DensityCorrNeg	0.25
								g/cc	
				2	BULK DENSITY				3
					g/cc				

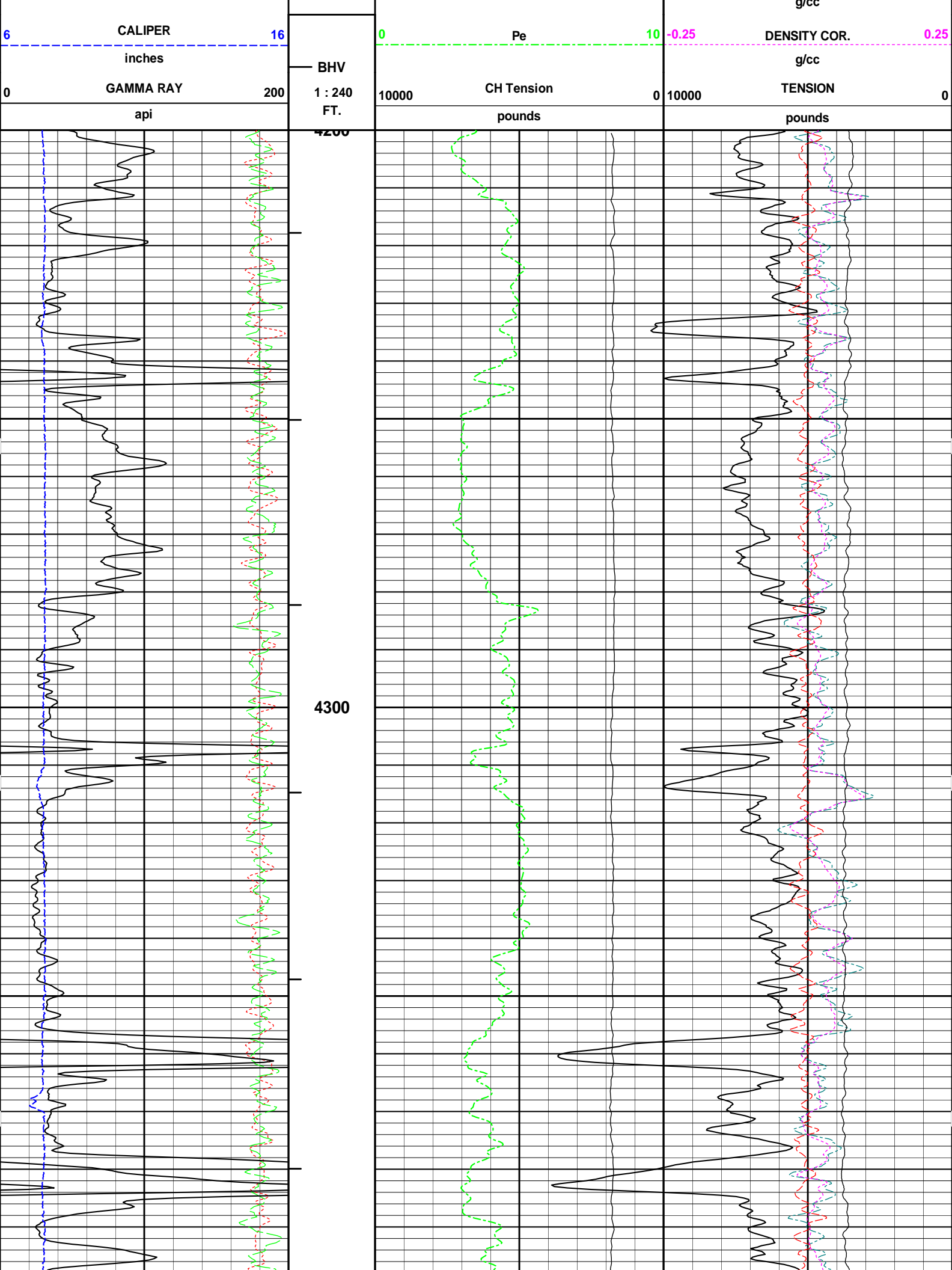
HALLIBURTON Plot Time: 22-Mar-15 13:40:13
Plot Range: 4200 ft to 4505.83 ft
Data: TRESHOMBRES1_22\Well Based\REPEAT\
Plot File: \\POROI_RHOB_R

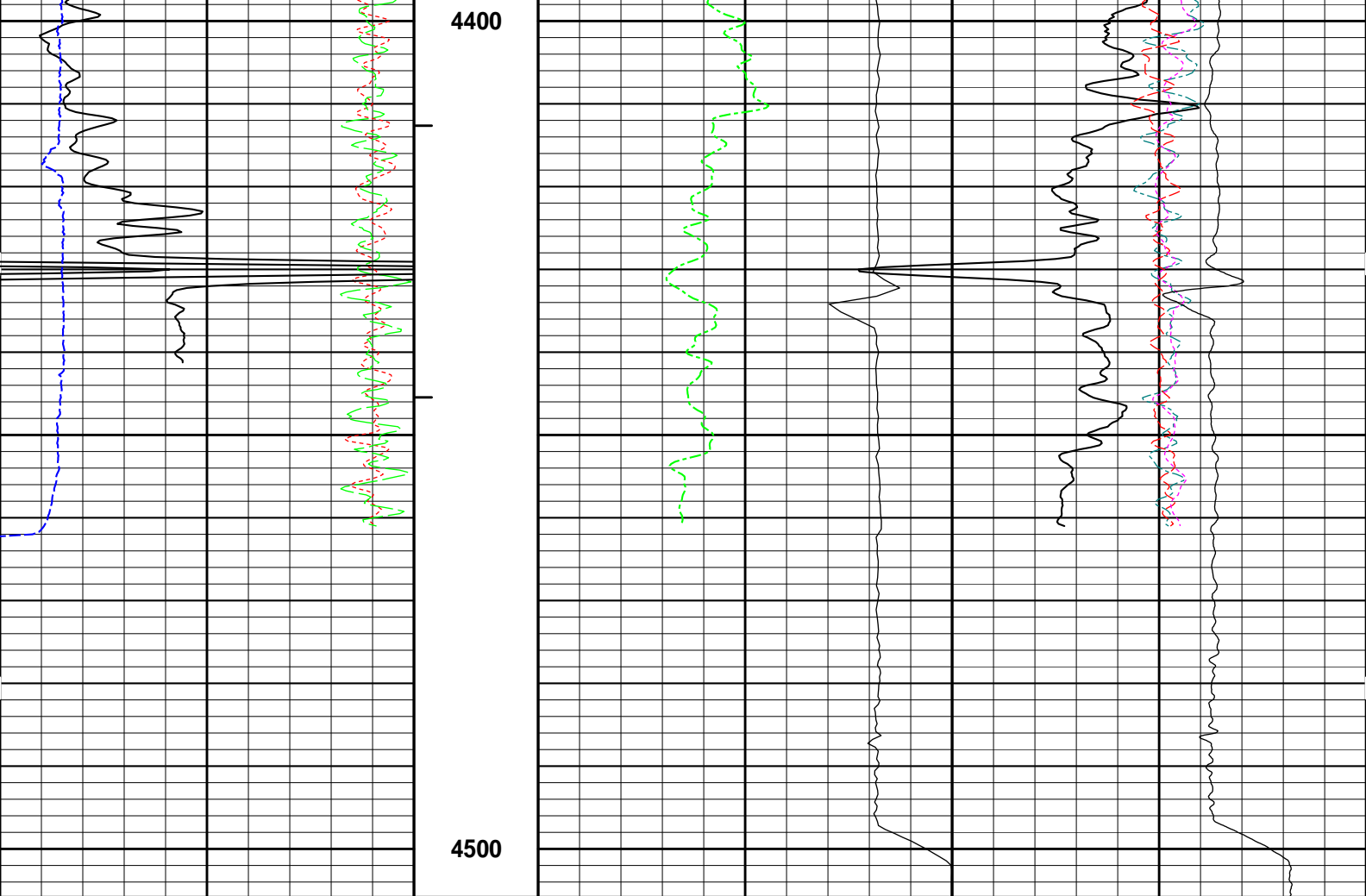
REPEAT PASS 5" = 100'
LIMESTONE MATRIX

HALLIBURTON Plot Time: 22-Mar-15 13:40:13
Plot Range: 4200 ft to 4505.83 ft
Data: TRESHOMBRES1_22\Well Based\REPEAT\
Plot File: \\POROI_RHOB_R

REPEAT PASS 5" = 100'
DOLOMITE MATRIX

		2	BULK DENSITY	3
			g/cc	
-9	NEAR QUALITY	1		-0.25 DensityCorrNeg 0.25
				g/cc
9	FAR QUALITY	-1		-0.25 DensityCorrPos 0.25
				g/cc





0 GAMMA RAY 200		1 : 240 FT. — BHV	10000 CH Tension 0	10000 TENSION 0
api			pounds	pounds
6	CALIPER 16		0 Pe 10	-0.25 DENSITY COR. 0.25
inches				g/cc
9	FAR QUALITY -1			-0.25 DensityCorrPos 0.25
NEAR QUALITY 1			g/cc	-0.25 DensityCorrNeg 0.25
				g/cc
			2 BULK DENSITY 3	
			g/cc	

HALLIBURTON Plot Time: 22-Mar-15 13:40:14
Plot Range: 4200 ft to 4505.83 ft
Data: TRESHOMBRES1_22\Well Based\REPEAT\
Plot File: \\PORO\RHOB_R

REPEAT PASS 5" = 100'

DOLOMITE MATRIX

NATURAL GAMMA RAY TOOL SHOP CALIBRATION																				
Tool Name: GTET - 11958949		Reference Calibration Date: 04-Feb-15 14:17:19																		
Engineer: P. DIMPFL		Calibration Date: 22-Mar-15 09:28:34																		
Software Version: WL INSITE R4.6.0 (Build 4)		Calibration Version: 1																		
Calibrator Source S/N: MP051807-04																				
Calibrator API Reference:239.00 api																				
Equivalent Calibrator API Reference:243.2 api																				
<table><tr><th>Measurement</th><th>Measured</th><th>Calibrated</th><th>Units</th></tr><tr><td>Background</td><td>42.1</td><td>43.9</td><td>api</td></tr><tr><td>Background + Calibrator</td><td>275.6</td><td>287.1</td><td>api</td></tr><tr><td>Calibrator</td><td>233.5</td><td>243.2</td><td>api</td></tr></table>					Measurement	Measured	Calibrated	Units	Background	42.1	43.9	api	Background + Calibrator	275.6	287.1	api	Calibrator	233.5	243.2	api
Measurement	Measured	Calibrated	Units																	
Background	42.1	43.9	api																	
Background + Calibrator	275.6	287.1	api																	
Calibrator	233.5	243.2	api																	

NATURAL GAMMA RAY TOOL FIELD CALIBRATION																				
Tool Name: GTET - 11958949		Reference Calibration Date: 22-Mar-15 09:28:34																		
Engineer: P. DIMPFL		Calibration Date: 22-Mar-15 09:31:15																		
Software Version: WL INSITE R4.6.0 (Build 4)		Calibration Version: 1																		
Calibrator Source S/N: MP051807-04																				
Calibrator API Reference:239.00 api																				
Equivalent Calibrator API Reference:243.2 api																				
<table><tr><th>Field Verification</th><th>Shop</th><th>Field</th><th>Units</th></tr><tr><td>Background</td><td>43.9</td><td>44.4</td><td>api</td></tr><tr><td>Background + Calibrator</td><td>287.1</td><td>290.0</td><td>api</td></tr><tr><td>Calibrator</td><td>243.2</td><td>245.7</td><td>api</td></tr></table>					Field Verification	Shop	Field	Units	Background	43.9	44.4	api	Background + Calibrator	287.1	290.0	api	Calibrator	243.2	245.7	api
Field Verification	Shop	Field	Units																	
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Background + Calibrator	287.1	290.0	api																	
Calibrator	243.2	245.7	api																	
<table><tr><th>Shop</th><th>Field</th><th>Difference</th><th>Tolerance</th></tr><tr><td>243.2</td><td>245.7</td><td>-2.5</td><td>+/- 9.00</td></tr></table>					Shop	Field	Difference	Tolerance	243.2	245.7	-2.5	+/- 9.00								
Shop	Field	Difference	Tolerance																	
243.2	245.7	-2.5	+/- 9.00																	

DUAL SPACED NEUTRON SHOP CALIBRATION																								
Tool Name: DSNT - 10993888		Reference Calibration Date: 29-Jan-15 10:21:15																						
Engineer: B. RIDDEL		Calibration Date: 05-Mar-15 14:06:08																						
Software Version: WL INSITE R4.6.0 (Build 4)		Calibration Version: 1																						
Logging Source S/N: DSN-388																								
Tank Serial Number: GJ WATER TANK																								
Reference value assigned to Tank: 52.750																								
Snow Block S/N: GJ SNOW BLOCK																								
Calibration Tank Water Temperature: 66 degF																								
Min. Tool Housing Outside Diameter: 3.625 in																								
<table><tr><th colspan="4">CALIBRATION CONSTANTS</th></tr><tr><th>Measurement</th><th>Prev. Value</th><th>New Value</th><th>Control Limit On New Value</th></tr><tr><td>Gain:</td><td>0.993</td><td>0.998</td><td>0.900 - 1.100</td></tr></table>					CALIBRATION CONSTANTS				Measurement	Prev. Value	New Value	Control Limit On New Value	Gain:	0.993	0.998	0.900 - 1.100								
CALIBRATION CONSTANTS																								
Measurement	Prev. Value	New Value	Control Limit On New Value																					
Gain:	0.993	0.998	0.900 - 1.100																					
<table><tr><th colspan="5">WATER TANK SUMMARY (Horizontal Water Tank)</th></tr><tr><th>Measurement</th><th>Current Reading (Previous Coef.)</th><th>Calibrated (New Coef.)</th><th>Change</th><th>Control Limit On Change</th></tr><tr><td>Porosity (decp):</td><td>0.2157</td><td>0.2169</td><td>0.0013</td><td>+/- 0.0020</td></tr><tr><td>Calibrated Ratio:</td><td>9.89</td><td>9.93</td><td>0.043</td><td>+/- 0.050</td></tr></table>					WATER TANK SUMMARY (Horizontal Water Tank)					Measurement	Current Reading (Previous Coef.)	Calibrated (New Coef.)	Change	Control Limit On Change	Porosity (decp):	0.2157	0.2169	0.0013	+/- 0.0020	Calibrated Ratio:	9.89	9.93	0.043	+/- 0.050
WATER TANK SUMMARY (Horizontal Water Tank)																								
Measurement	Current Reading (Previous Coef.)	Calibrated (New Coef.)	Change	Control Limit On Change																				
Porosity (decp):	0.2157	0.2169	0.0013	+/- 0.0020																				
Calibrated Ratio:	9.89	9.93	0.043	+/- 0.050																				
<table><tr><th colspan="3">VERIFIER</th></tr><tr><th>Measurement</th><th>Value</th><th>Control Limit</th></tr><tr><td>Snow-Block Porosity (decp):</td><td>0.0691</td><td>0.02000 - 0.09000</td></tr></table>					VERIFIER			Measurement	Value	Control Limit	Snow-Block Porosity (decp):	0.0691	0.02000 - 0.09000											
VERIFIER																								
Measurement	Value	Control Limit																						
Snow-Block Porosity (decp):	0.0691	0.02000 - 0.09000																						

PASS/FAIL SUMMARY

Background Check: Passed

Gain-Range Check: Passed

Snow-Block Check: Passed

DUAL SPACED NEUTRON FIELD CALIBRATION

Tool Name: DSNT - 10993888

Reference Calibration Date: 05-Mar-15 14:06:08

Engineer: P. DIMPFL

Calibration Date: 22-Mar-15 09:34:21

Software Version: WL INSITE R4.6.0 (Build 4)

Calibration Version: 1

Logging Source S/N: DSN-388

Snow Block S/N: GJ SNOW BLOCK

NEUTRON FIELD-CHECK SUMMARY

	Shop	Field	Difference	Control Limit On Change
Snow-Block Porosity (decP):	0.0691	0.0709	0.0019	+/- 0.0150

PASS/FAIL SUMMARY

Block Change Check: Passed

Snow Block Stat Check: Passed

Temperature Check: Passed

DENSITY CALIPER SHOP CALIBRATION

Tool Name: SDLT - 10951300

Reference Calibration Date: 19-Feb-15 10:11:47

Engineer: B. RIDDEL

Calibration Date: 19-Feb-15 10:15:26

Software Version: WL INSITE R4.2.0 (Build 2)

Calibration Version: 1

Host Tool Name: DSNT - 10993888

CALIBRATION COEFFICIENTS

Measurement	Previous Value	New Value	Control Limit On New Value
Pad Offset	-3445.21	-3550.63	-7000.00 - -1000.00
Pad Gain	0.0003644	0.0003685	0.000200 - 0.000600
Arm Offset	-1416.13	-1695.85	-5000.00 - 3000.00
Arm Gain	0.0004667	0.0005038	0.000300 - 0.000700
Arm Power	-0.000001974	-0.000004478	-0.000010000 - 0.000010000

The ring diameter is computed from: $\text{DIAMETER} = \text{PAD EXTENSION} + \text{ARM EXTENSION} + \text{TOOL DIAMETER}$

Tool Diameter: 4.50 in

CALIBRATION RINGS

Measurement	Current Reading (Previous Coeff.)	Calibrated (New Coeff.)	Change	Control Limit On New Value
PAD EXTENSION:				
Small Ring (in)	2.02	2.00	-0.02	+/- 0.20
Medium Ring (in)	3.75	3.75	0.00	+/- 0.20
RING DIAMETER:				
Small Ring (in)	6.55	6.50	-0.05	+/- 0.20
Medium Ring (in)	8.21	8.25	0.04	+/- 0.20
Large Ring (in)	15.00	15.00	0.00	+/- 0.20

PASS/FAIL SUMMARY

Calibration-Coefficients Range Check: Passed

Ring-Measurement Check: Passed

PASS/FAIL SUMMARY

SDLT CALIPER FIELD CALIBRATION

Tool Name: SDLT - 10951300

Reference Calibration Date: 19-Feb-15 10:15:26

Engineer: P. DIMPFL

Calibration Date: 22-Mar-15 09:31:28

Software Version: WL INSITE R4.6.0 (Build 4)

Calibration Version: 1

MEASURED CALIPER VALUES

Measurement	Shop	Field	Change	Control Limit On New Value
Pad Extension	3.75	3.71	-0.04	+/- 0.10
Ring Diameter	8.25	8.17	-0.08	+/- 0.15

PASS/FAIL SUMMARY

Pad Extension Check:

Passed

Diameter Check:

Passed

SPECTRAL DENSITY SHOP CALIBRATION

Tool Name: SDLT Pad - 10865876

Reference Calibration Date: 16-Feb-15 12:04:38

Engineer: B. RIDDEL

Calibration Date: 05-Mar-15 09:54:34

Software Version: WL INSITE R4.6.0 (Build 4)

Calibration Version: 1

Logging Source S/N: 5153 GW

Aluminum Block S/N: GJ ALUMINUM BLOCK

Density: 2.608g/cc

Pe: 3.230

Magnesium Block S/N: GJ MAG BLOCK

Density: 1.681g/cc

Pe: 2.600

DENSITY CALIBRATION SUMMARY

Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	1.0255	1.0249	0.90 - 1.10
Near Dens Gain	1.0142	1.0101	0.90 - 1.10
Near Peak Gain	1.0006	1.0022	0.90 - 1.10
Near Lith Gain	0.9771	0.9813	0.90 - 1.10
Far Bar Gain	1.0131	1.0118	0.90 - 1.10
Far Dens Gain	1.0010	1.0016	0.90 - 1.10
Far Peak Gain	0.9950	0.9932	0.90 - 1.10
Far Lith Gain	0.9729	0.9727	0.90 - 1.10
Near Bar Offset	-0.0252	-0.0232	NONE
Near Dens Offset	0.0817	0.1143	NONE
Near Peak Offset	0.1903	0.1710	NONE
Near Lith Offset	0.3704	0.3293	NONE
Far Bar Offset	0.0212	0.0272	NONE
Far Dens Offset	0.1081	0.0978	NONE
Far Peak Offset	0.1359	0.1479	NONE
Far Lith Offset	0.2750	0.2725	NONE
Near Bar Background	857.39	857.08	700 - 1450
Near Dens Background	285.49	286.70	230 - 480
Near Peak Background	128.01	127.29	100 - 210
Near Lith Background	155.13	154.92	125 - 260
Far Bar Background	529.31	526.12	450 - 900
Far Dens Background	206.13	204.04	175 - 345
Far Peak Background	80.69	80.77	70 - 140
Far Lith Background	86.11	85.27	75 - 145

CALIBRATION BLOCK SUMMARY				
Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.681	1.681	-0.000	+/- 0.015
Pe	2.536	2.558	0.022	+/- 0.150
ALUMINUM				
Density (g/cc)	2.609	2.608	-0.001	+/- 0.01500
Pe	3.157	3.179	0.022	+/- 0.150

TOOL SUMMARY				
Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	-0.0018	+/- 0.0110	0.0000	+/- 0.0140
Magnesium Block	-0.0005	+/- 0.0110	-0.0021	+/- 0.0140
Aluminum Block	-0.0011	+/- 0.0110	0.0013	+/- 0.0140
Resolution	8.96	6.00 - 11.50	9.64	6.00 - 11.50
Internal Verifier(B+D+P+L)	1426	1200 - 2700	896	800 - 1700

PASS/FAIL SUMMARY	
Background Quality Check:	Passed
Background Range Check:	Passed
Background Resolution Check:	Passed
Background Verification Check:	Passed
Magnesium Quality Check:	Passed
Aluminum Quality Check:	Passed
Gains Check:	Passed
Changes in Calibration Blocks:	Passed

SPECTRAL DENSITY FIELD CHECK			
Tool Name:	SDLT Pad - 10865876	Reference Calibration Date:	05-Mar-15 09:54:34
Engineer:	P. DIMPFL	Calibration Date:	22-Mar-15 09:28:59
Software Version:	WL INSITE R4.6.0 (Build 4)	Calibration Version:	1

Pad Temperature: 45.8 degF

DENSITY FIELD CALIBRATION SUMMARY				
Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1425.983	1417.139	-8.844	15.241
Far (B+D+P+L) cps	896.206	893.990	-2.216	16.290
Near Resolution	8.96	9.19	0.230	0.50
Far Resolution	9.64	9.70	0.060	1.00

PASS/FAIL SUMMARY	
Bkg Quality Check:	Passed
Bkg Resolution Check:	Passed
Bkg Verification Check:	Passed

MICRO LOG SHOP CALIBRATION			
Tool Name:	Microlog Pad - 10951300	Reference Calibration Date:	17-Jan-15 11:47:55
Engineer:	B. RIDDEL	Calibration Date:	05-Mar-15 11:19:23
Software Version:	WL INSITE R4.6.0 (Build 4)	Calibration Version:	1

Host Tool Name: DSNT - 10993888												
	CALIBRATION COEFFICIENT SUMMARY											
	Measurement	Micro Log Normal		Micro Log Lateral								
		Measured	Calibrated	Measured	Calibrated	Units						
	Tool Zero		-0.04	-0.04	0.01	0.01	ohmm					
	Calibration Point #1		0.00	0.00	-0.00	0.00	ohmm					
	Calibration Point #2		19.70	20.00	19.72	20.00	ohmm					
	Internal Reference		19.91	20.21	19.97	20.25	ohmm					
	Measurement	Micro Log Normal Tool Value		Micro Log Lateral Tool Value		Units						
	Tool Zero		6.11		6.17		V					
	Calibration Point #1		17.37		2.30		V					
	Calibration Point #2		5224.88		6862.02		V					
	Internal Reference		5280.52		6946.90		V					
ARRAY COMPENSATED TRUE RESISTIVITY SHOP CALIBRATION												
Tool Name:		ACRt Sonde - 11585797				Reference Calibration Date:		27-Jan-15 15:50:02				
Engineer:		P. DIMPFL				Calibration Date:		27-Jan-15 16:03:38				
Software Version:		WL INSITE R4.2.0 (Build 2)				Calibration Version:		1				
Host Tool Name:		ACRt Instrument - 11585787										
TYPICAL GAIN RANGE												
Subarray	R12KHz			R36KHz			R72KHz					
	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper			
A1 (80")	0.95	1.0234	1.05	0.95	1.0213	1.05	0.95	1.0201	1.05			
A2 (50")	0.95	1.0120	1.05	0.95	1.0125	1.05	0.95	1.0133	1.05			
A3 (29")	0.95	1.0058	1.05	0.95	1.0054	1.05	0.95	1.0047	1.05			
A4 (17")	0.95	1.0036	1.05	0.95	1.0005	1.05	0.95	1.0023	1.05			
A5 (10")	N/A	N/A	N/A	0.95	1.0075	1.05	0.95	1.0083	1.05			
A6 (6")	N/A	N/A	N/A	0.95	0.9861	1.05	0.95	0.9861	1.05			
SONDE OFFSET												
Subarray	R12KHz			R36KHz			R72KHz					
	(mmho/m)			(mmho/m)			(mmho/m)					
A1 (80")	-1.400			-4.436			-5.489					
A2 (50")	-1.992			-3.255			-4.694					
A3 (29")	-15.645			-4.528			-3.257					
A4 (17")	-119.763			-35.638			-27.444					
A5 (10")	N/A			-97.013			-50.120					
A6 (6")	N/A			312.823			158.068					
TRANSMITTER CURRENT GAIN					R-MUD VERIFICATION							
Signal	Lower	R		Upper	Signal	Lower (ohm-m)	Measured (ohm-m)	Upper (ohm-m)				
12K	0.6	0.85		1.3	Mud Cell	0.95	1.00	1.05				
36K	1.0	1.83		2.0								
72K	1.0	1.10		2.0								
PASS/FAIL SUMMARY												
GAIN RANGE CHK					PASS							
SONDE OFFSET CHK					PASS							

CALIBRATION SUMMARY

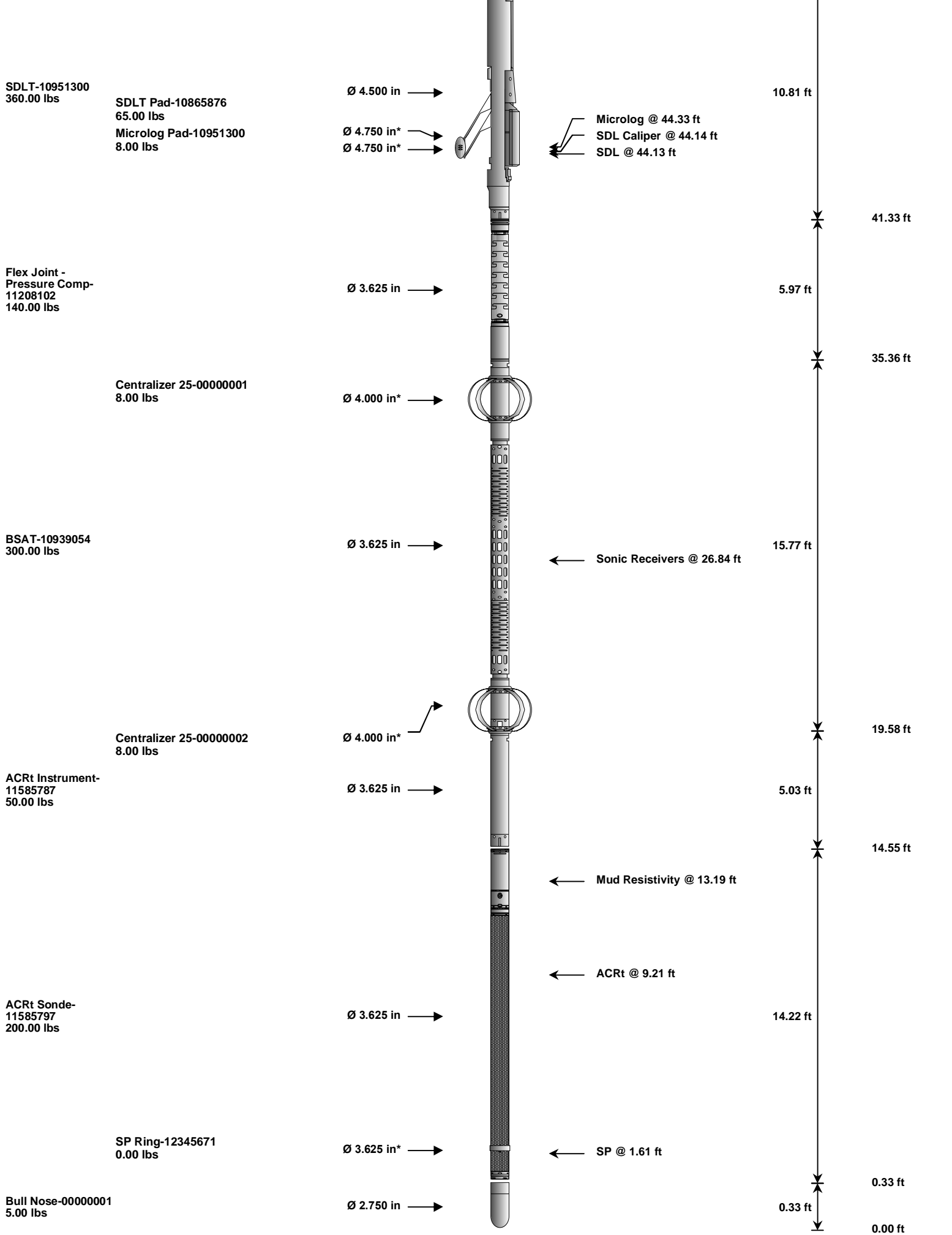
Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-11958949						
Gamma Ray Calibrator	243.2	245.7	-----	-2.5	+/- 9.00	api
DSNT-10993888						
Snow-Block Porosity	0.0691	0.0709	-----	-0.0018	+/- 0.0150	decp
SDLT-10951300						
Pad Extension	3.75	3.71	-----	0.04	+/-0.10	in
Ring Diameter	8.25	8.17	-----	0.08	+/-0.15	in
SDLT Pad-10865876						
Near(B+D+P+L)	1425.983	1417.139	-----	8.844	+/-15.241	cps
Far(B+D+P+L)	896.206	893.990	-----	2.216	+/-16.290	cps
Microlog Pad-10951300						
MicroLog Normal	20.21	-----	-----	0.00	-----	ohmm
MicroLog Lateral	20.25	-----	-----	0.00	-----	ohmm
ACRt Sonde-11585797						
Mud Cell	1.00	-----	-----	0.00	-----	ohm-m

Data: TRESHOMBRES1 22\0001 QUAD\004 22-Mar-15 11:10 Up @4502.5f Date: 22-Mar-15 11:51:33

HALLIBURTON

TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
RWCH-A032 135.00 lbs		Ø 3.625 in →		← Load Cell @ 72.91 ft ← BH Temperature @ 72.35 ft	6.25 ft	76.60 ft
GTET-11958949 165.00 lbs		Ø 3.625 in →		← GammaRay @ 64.29 ft	8.52 ft	70.35 ft
DSN Decentralizer-12026050 6.60 lbs		Ø 5.000 in* →				61.83 ft
DSNT-10993888 174.00 lbs		Ø 3.625 in →		← DSN Far @ 54.89 ft ← DSN Near @ 54.14 ft	9.69 ft	52.14 ft



SDLT-10951300
360.00 lbs

Flex Joint -
Pressure Comp-
11208102
140.00 lbs

BSAT-10939054
300.00 lbs

ACRt Instrument-
11585787
50.00 lbs

ACRt Sonde-
11585797
200.00 lbs

Bull Nose-00000001
5.00 lbs

SDLT Pad-10865876
65.00 lbs
Microlog Pad-10951300
8.00 lbs

Centralizer 25-00000001
8.00 lbs

Centralizer 25-00000002
8.00 lbs

SP Ring-12345671
0.00 lbs

Ø 4.500 in →

Ø 4.750 in* →

Ø 4.750 in* →

Ø 3.625 in →

Ø 4.000 in* →

Ø 3.625 in →

Ø 4.000 in* ↗

Ø 3.625 in →

Ø 3.625 in →

Ø 3.625 in* →

Ø 2.750 in →

Microlog @ 44.33 ft
SDL Caliper @ 44.14 ft
SDL @ 44.13 ft

← Sonic Receivers @ 26.84 ft

← Mud Resistivity @ 13.19 ft

← ACRt @ 9.21 ft

← SP @ 1.61 ft

10.81 ft

41.33 ft

5.97 ft

35.36 ft

15.77 ft

19.58 ft

5.03 ft

14.55 ft

14.22 ft

0.33 ft

0.33 ft

0.00 ft

Mnemonic	Tool Name	Serial Number	Weight (lbs)	Length (ft)	Accumulated Length (ft)	Max.Log. Speed (fpm)
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RWCH	Releasable Wireline Cable Head	A032	135.00	6.25	70.35	300.00
GTET	Gamma Telemetry Tool	11958949	165.00	8.52	61.83	60.00
DSNT	Dual Spaced Neutron	10993888	174.00	9.69	52.14	60.00
DCNT	DSN Decentralizer	12026050	6.60	5.13	*	55.47 300.00
SDLT	Spectral Density Tool	10951300	360.00	10.81	41.33	60.00
SDLP	Density Insite Pad	10865876	65.00	2.55	*	43.54 60.00
MICP	Microlog Pad	10951300	8.00	1.00	*	43.83 60.00
FLEX	Flex Joint - Pressure Compensated	11208102	140.00	5.97	35.36	300.00
BSAT	Borehole Sonic Array Tool	10939054	300.00	15.77	19.58	60.00
OBCEN	Centralizer - 25 in. Overbody	00000001	8.00	2.08	*	32.62 300.00
ACRt	Array Compensated True Resistivity Instrument Section	11585787	50.00	5.03	14.55	120.00
OBCEN	Centralizer - 25 in. Overbody	00000002	8.00	2.08	*	19.36 300.00
ACRt	Array Compensated True Resistivity Sonde Section	11585797	200.00	14.22	0.33	120.00
SP	SP Ring	12345671	0.00	0.25	*	1.61 300.00
BLNS	Bull Nose	00000001	5.00	0.33	0.00	300.00
Total			1,624.60	76.60		
						* Not included in Total Length and Length Accumulation.
Data: TRESHOMBRES1_22\0001 QUAD\004 22-Mar-15 11:10 Up @4502.5f						Date: 22-Mar-15 11:49:52

COMPANY	BAYHORSE PETROLEUM, LLC				
WELL	TRES HOMBRES 1-22				
FIELD	LEFT HAND				
COUNTY	KIOWA STATE CO				
HALLIBURTON		DUAL SPACED NEUTRON SPECTRAL DENSITY			