

# HALLIBURTON

ARRAY COMPENSATED  
TRUE RESISTIVITY  
SPECTRAL DENSITY  
DUAL SPACED NEUTRON

COMPANY										BAYSWATER EXPLORATION AND PRODUCTION LLC									
WELL										BOOTH 25-26									
FIELD										WATTENBERG									
COUNTY										WELD									
STATE										CO									
Permanent Datum										GL									
Log measured from										KB									
Drilling measured from										KB									
Date										14-Oct-12									
Run No.										ONE									
Depth - Driller										7829.00 ft									
Depth - Logger										7828.0 ft									
Bottom - Logged Interval										7826 ft									
Top - Logged Interval										CASING									
Casing - Driller										8.625 in @ 712.0 ft									
Casing - Logger										712.0 ft									
Bit Size										7.875 in									
Type Fluid in Hole										WATER BASED MUD									
Density										9.5 ppg									
Viscosity										69.00 s/qt									
PH										8.00 pH									
Fluid Loss										10.0 cpm									
Source of Sample										MUD CELL									
Rm @ Meas. Temperature										1.400 ohmm @ 105.30 degF									
Rmf @ Meas. Temperature										1.70 ohmm @ 75.00 degF									
Rmc @ Meas. Temperature										1.615 ohmm @ 75.00 degF									
Source Rmf										CHART									
Rmc										CHART									
Rm @ BHT										0.81 ohmm @ 187.0 degF									
Time Since Circulation										8.0 hr									
Time on Bottom										14-Oct-12 21:53									
Max. Rec. Temperature										187.0 degF @ 7828.0 ft									
Equipment										11454566									
Location										BRIGHTON									
Recorded By										R. TWEETEN									
Witnessed By										D. BRUGEMAN									

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Service Ticket No.: 9888078										API Serial No.: 05123360720000										PGM Version: WL INSITE R3.6.0 (Build 3)									
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		ECC		N/A											
Rmc @ Meas. Temp.		@				@																							
Source Rmf		Rmc																											
Rm @ BHT		@				@																							
Rmf @ BHT		@				@																							
Rmc @ BHT		@				@																							
EQUIPMENT DATA																													
GAMMA				ACOUSTIC				DENSITY				NEUTRON																	
Run No.		ONE		Run No.				Run No.		ONE		Run No.		ONE															
Serial No.		11812883		Serial No.				Serial No.		11795867		Serial No.		11812167															
Model No.		GTET		Model No.				Model No.		SDLT		Model No.		DSNT															
Diameter		3.625"		No. of Cent.				Diameter		4.5"		Diameter		3.625"															
Detector Model No.		GTET		Spacing				Log Type		GAM-GAM		Log Type		NEU-NEU															
Type		SCINT						Source Type		Cs-137		Source Type		Am241Be															
Length		8"		LSA [Y/N]				Serial No.		5471GW		Serial No.		DSN434															
Distance to Source		10'		FWDA [Y/N ]				Strength		1.78 Ci		Strength		15 Ci															

LOGGING DATA

GENERAL				GAMMA				ACOUSTIC				DENSITY				NEUTRON			
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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	7828	7645	REC	0	200				30	-10	2.68	30	-10	SAND
ONE	7645	7342	REC	0	200				30	-10	2.71	30	-10	LIME
ONE	7342	CSG	REC	0	200				30	-10	2.68	30	-10	SAND
DIRECTIONAL INFORMATION														
Maximum Deviation			26.70 deg		@		4517.00 ft			KOP			@	
Remarks: RWCH-GTET-DSNT-SDLT-ACRt RUN IN COMBINATION.														
ANNULAR HOLE VOLUME CALCULATED USING 4.5-INCH PRODUCTION CASING.														
TENSION PULLS, WASHOUTS AND BOREHOLE RUGOSITY AFFECT LOG RESPONSE.														
TOOL STRING RUN IN SLICK CONFIGURATION AT CLIENT'S REQUEST.														
YOUR CREW TODAY: R. PERSHALL, I. KHALID														
RIG: ENSIGN 7														
THANK YOU FOR USING HALLIBURTON LOGGING SERVICES - BRIGHTON, CO - (303) 825-4346														
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.														
HALLIBURTON														



# PARAMETERS REPORT

Depth ((ft))	Tool Name	Mnemonic	Description	Value	Units
TOP					
	DSNT	NLIT	Neutron Lithology	Sandstone	
	SDLT Pad	DMA	Formation Density Matrix	2.680	g/cc
7342.00					
	DSNT	NLIT	Neutron Lithology	Limestone	
	SDLT Pad	DMA	Formation Density Matrix	2.710	g/cc
7645.00					
	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	9.500	ppg
	SHARED	WAGT	Weighting Agent	Natural	
	SHARED	BSAL	Borehole salinity	800.00	ppm
	SHARED	FSAL	Formation Salinity NaCl	0.00	ppm
	SHARED	KPCT	Percent K in Mud by Weight?	0.00	%
	SHARED	RMUD	Mud Resistivity	1.400	ohmm
	SHARED	TRM	Temperature of Mud	105.3	degF
	SHARED	CSD	Logging Interval is Cased?	No	
	SHARED	ICOD	AHV Casing OD	4.500	in
	SHARED	ST	Surface Temperature	55.0	degF
	SHARED	TD	Total Well Depth	7828.00	ft
	SHARED	BHT	Bottom Hole Temperature	187.0	degF
	SHARED	SVTM	Navigation and Survey Master Tool	NONE	
	SHARED	AZTM	High Res Z Accelerometer Master Tool	GTET	

SHARED	TEMM	Temperature Master Tool	NONE	
SHARED	BHSM	Borehole Size Master Tool	NONE	
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	
DSNT	DNOK	Process DSN?	Yes	
DSNT	DEOK	Process DSN EVR?	No	
DSNT	NLIT	Neutron Lithology	Sandstone	
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	
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	2.680	g/cc
SDLT Pad	DFL	Formation Density Fluid	1.000	g/cc
ACRt Sonde	RTOK	Process ACRt?	Yes	
ACRt Sonde	MNSO	Minimum Tool Standoff	0.25	in
ACRt Sonde	TCS1	Temperature Correction Source	FP Lwr & FP Up	
ACRt Sonde	TPOS	Tool Position	Eccentered	
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
BOTTOM				
Data: BOOTH_25-26\0001 BAYSWATER\003.01 14-Oct-12 22:08 Up				Date: 14-Oct-12 22:30:57



Plot Time: 13-Oct-13 18:02:22

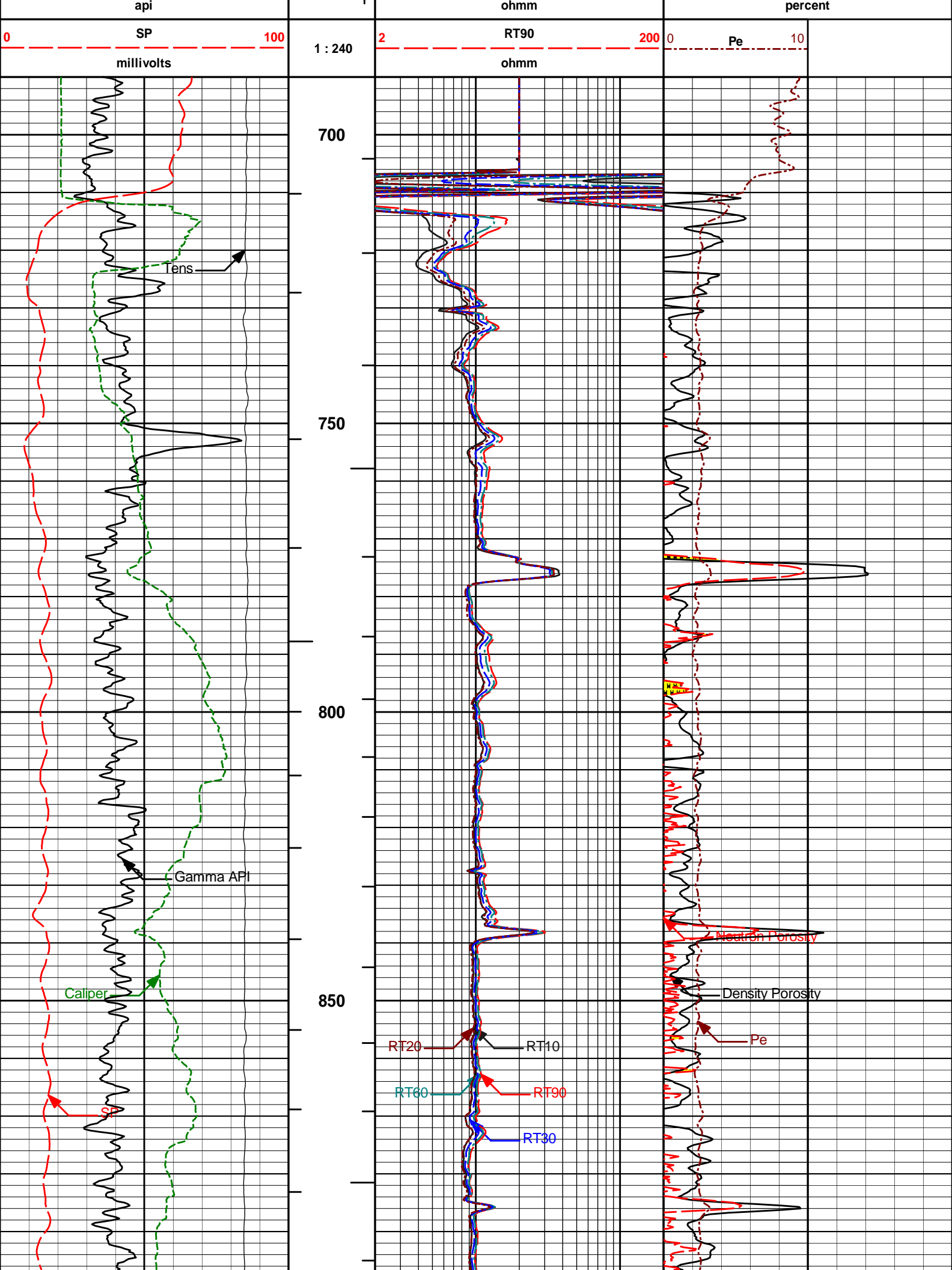
Plot Range: 690 ft to 7842.75 ft

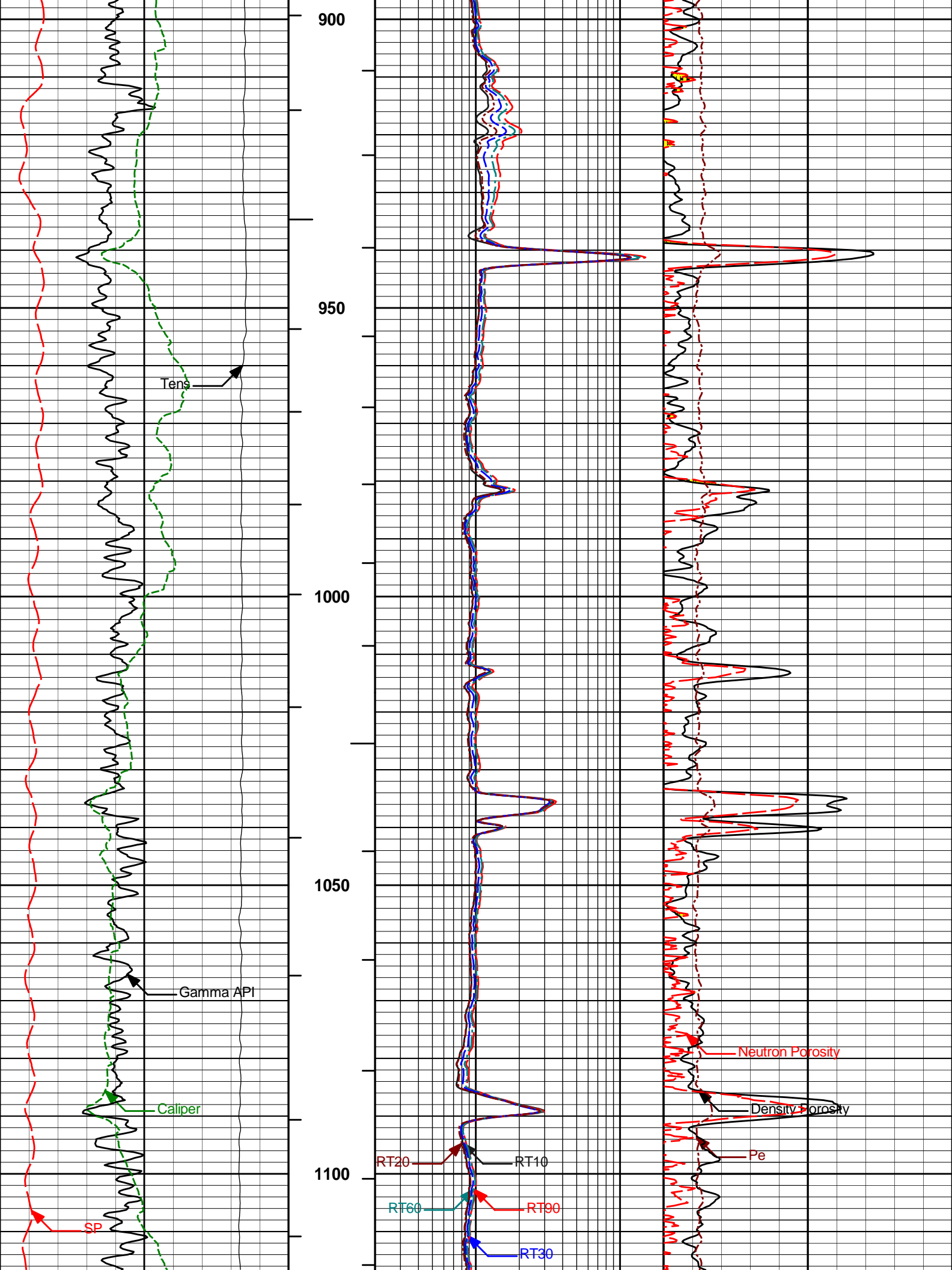
Data: BOOTH\_25-26\Well Based\MAIN\*

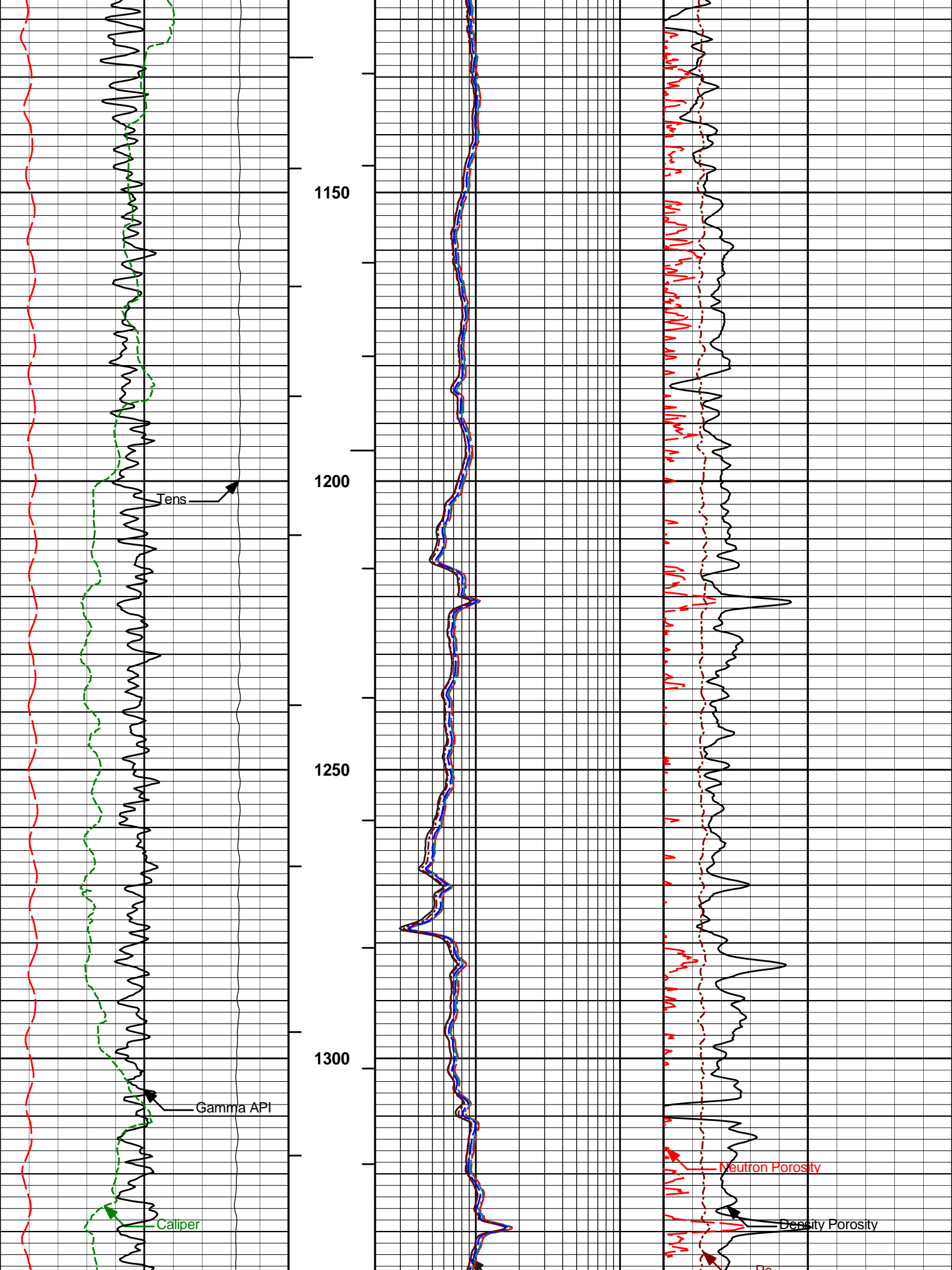
Plot File: \\COMP\MAIN

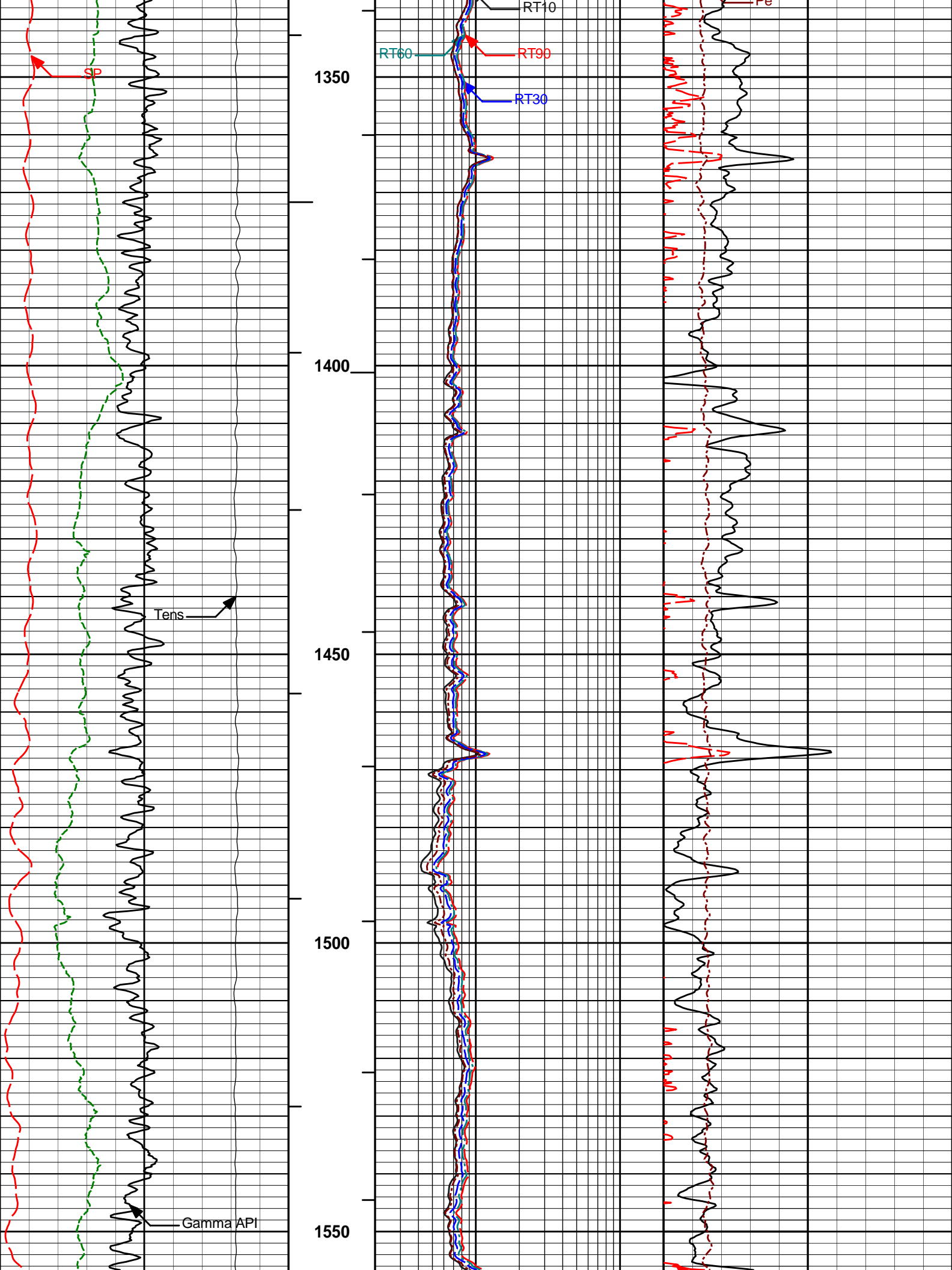
MAIN PASS 5" = 100'

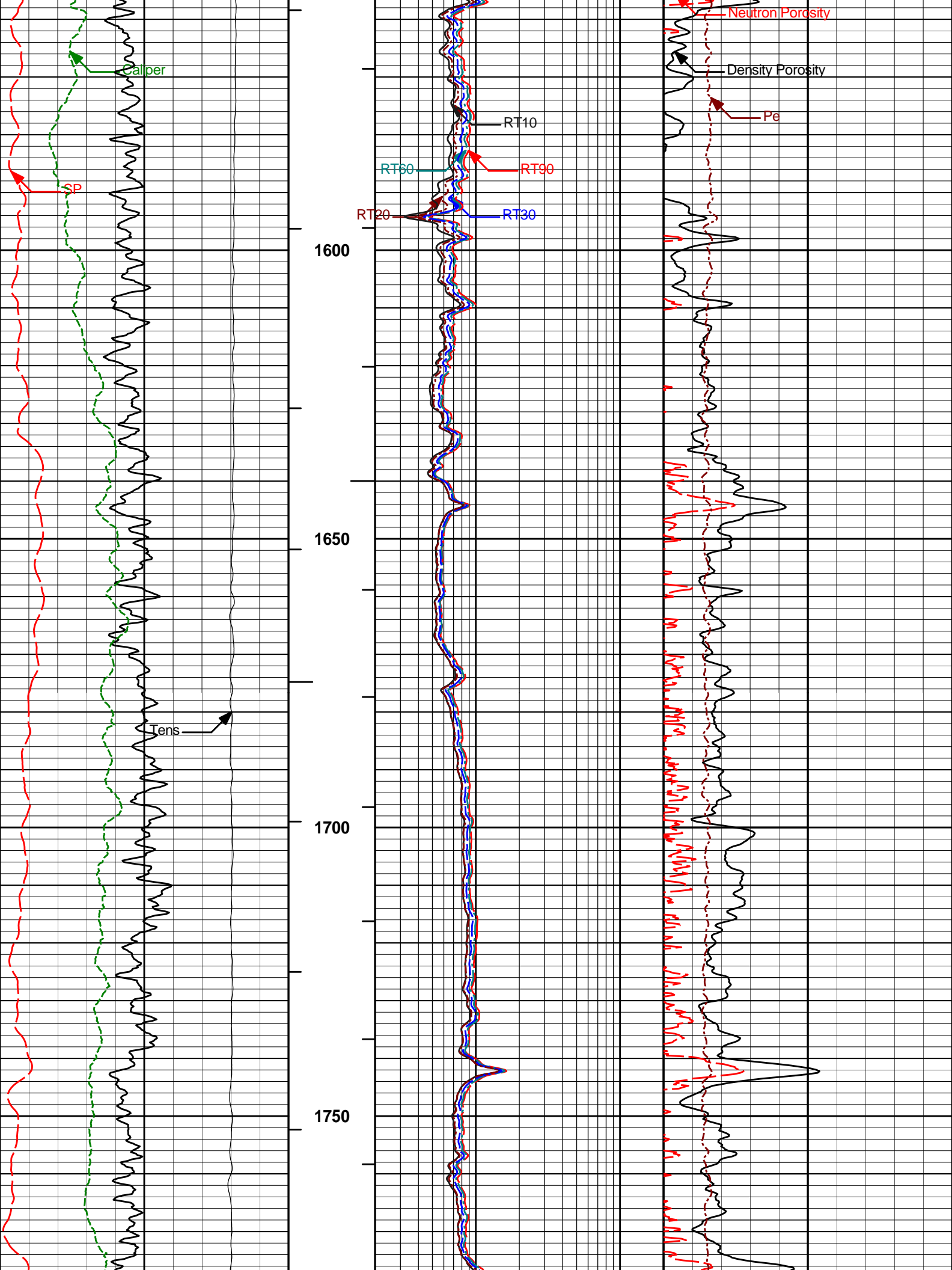
<div><div>10K</div><div>Tens</div><div>0</div></div>			<div><div>AHVT</div></div>	2	RT10	200			
					ohmm				
				2	RT20	200			
<div><div>pounds</div></div>				ohmm					
<div><div>6</div><div>Caliper</div><div>16</div></div>			<div><div>BHVT</div></div>	2	RT30	200	30	Neutron Porosity	-10
<div><div>inches</div></div>					ohmm		<div><div>percent</div></div>		
<div><div>0</div><div>Gamma API</div><div>200</div></div>			<div><div>BHVT</div></div>	2	RT60	200	30	Density Porosity	-10



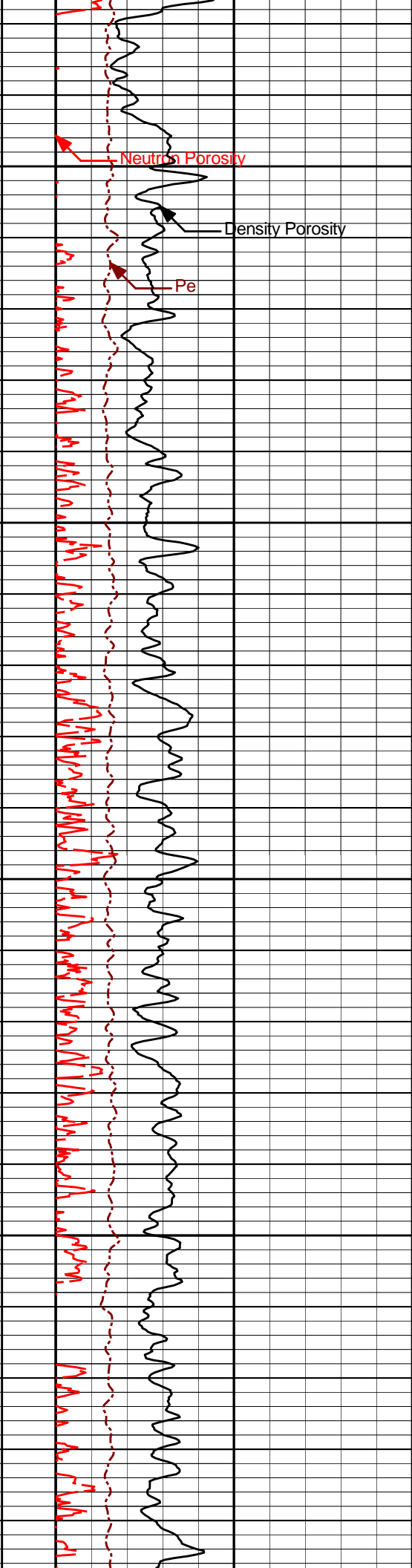
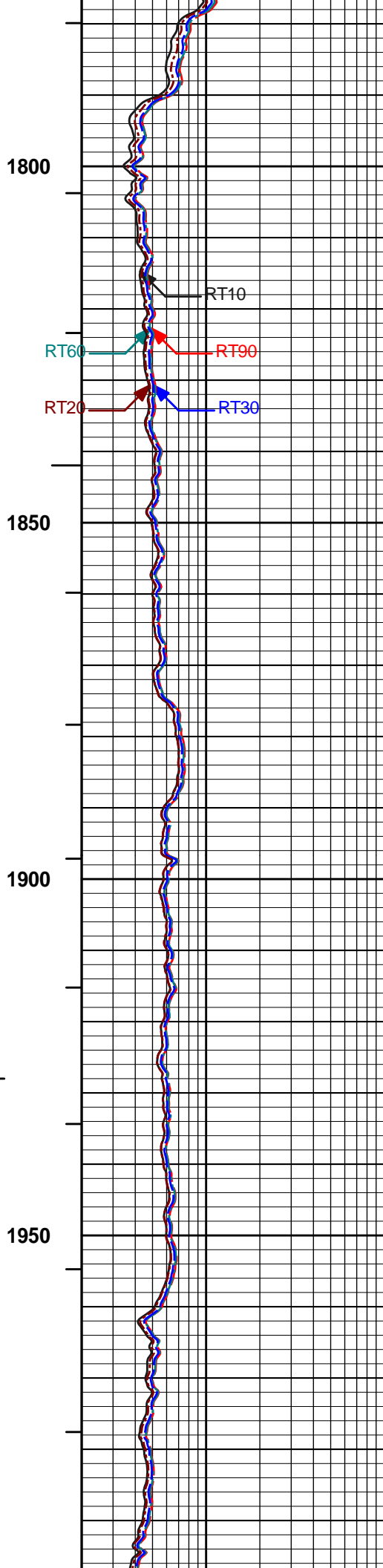
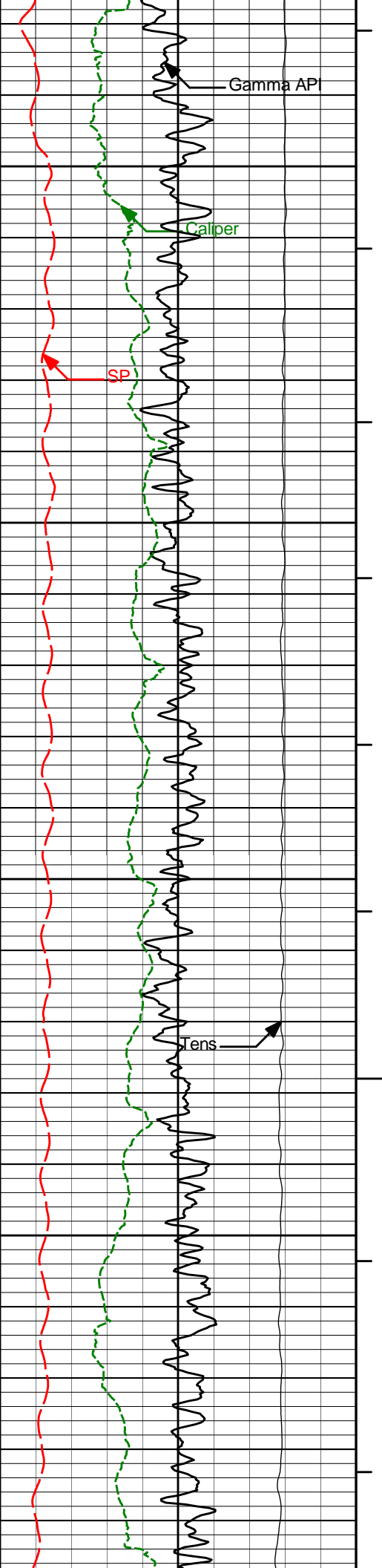


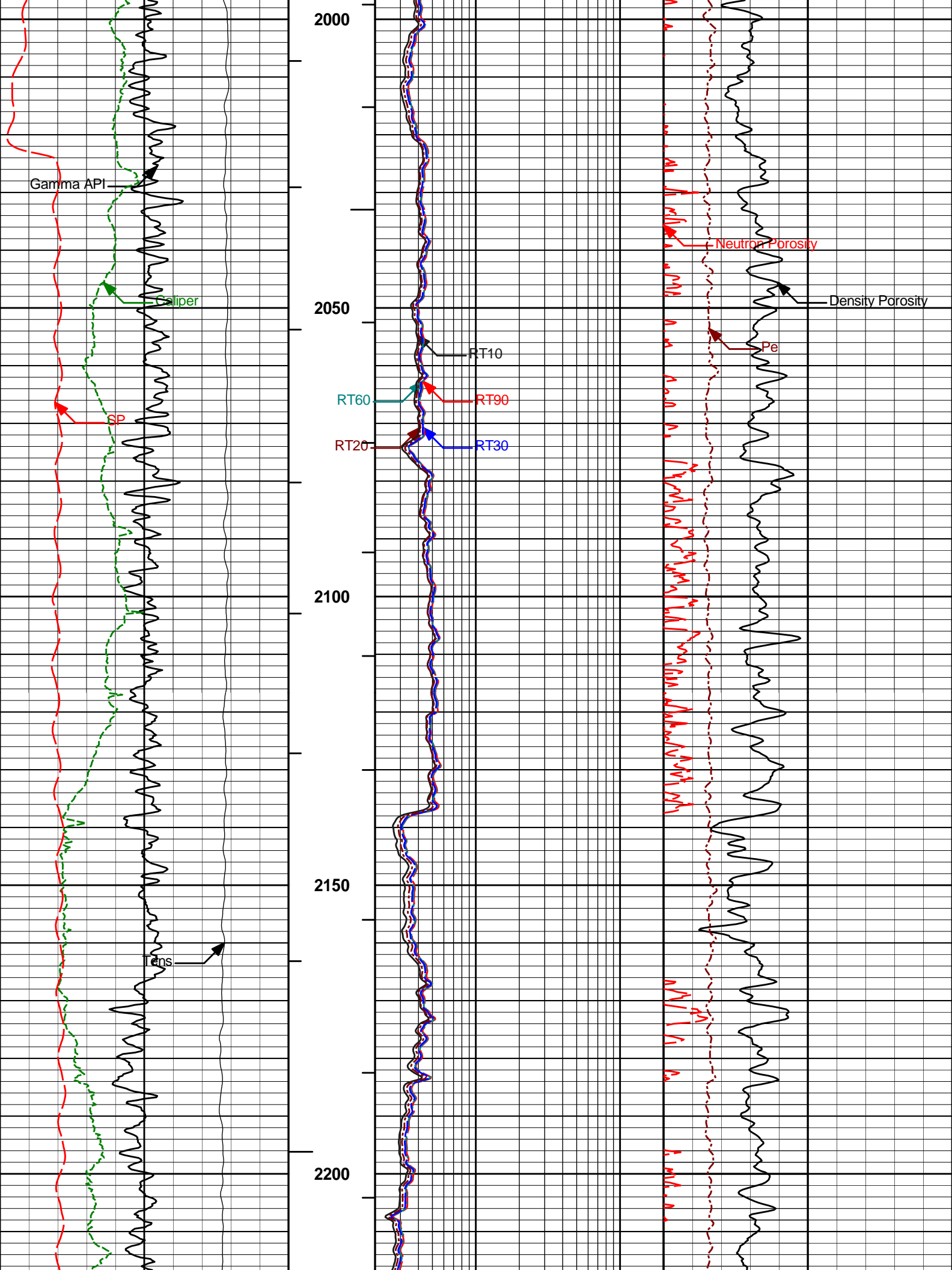


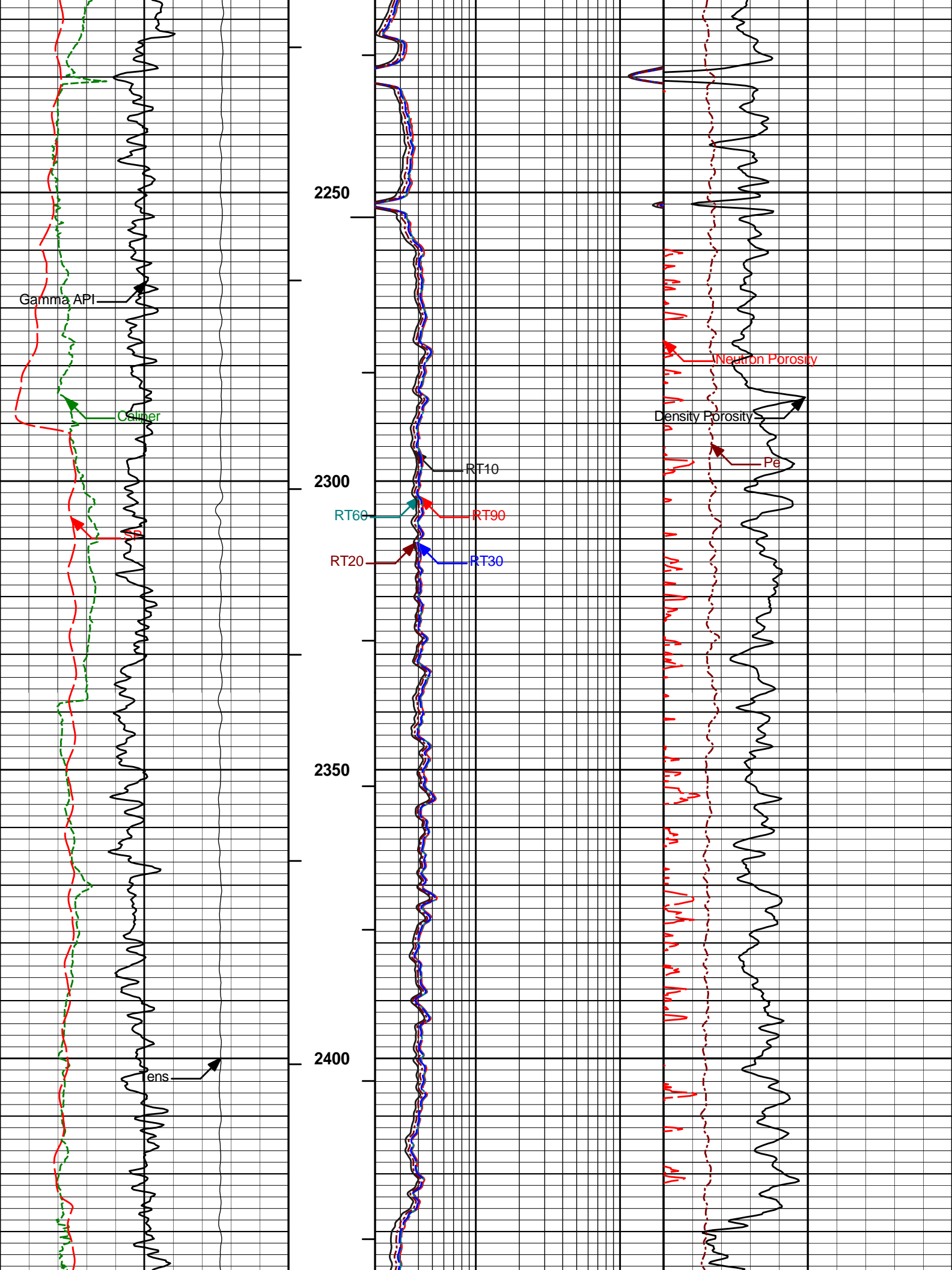


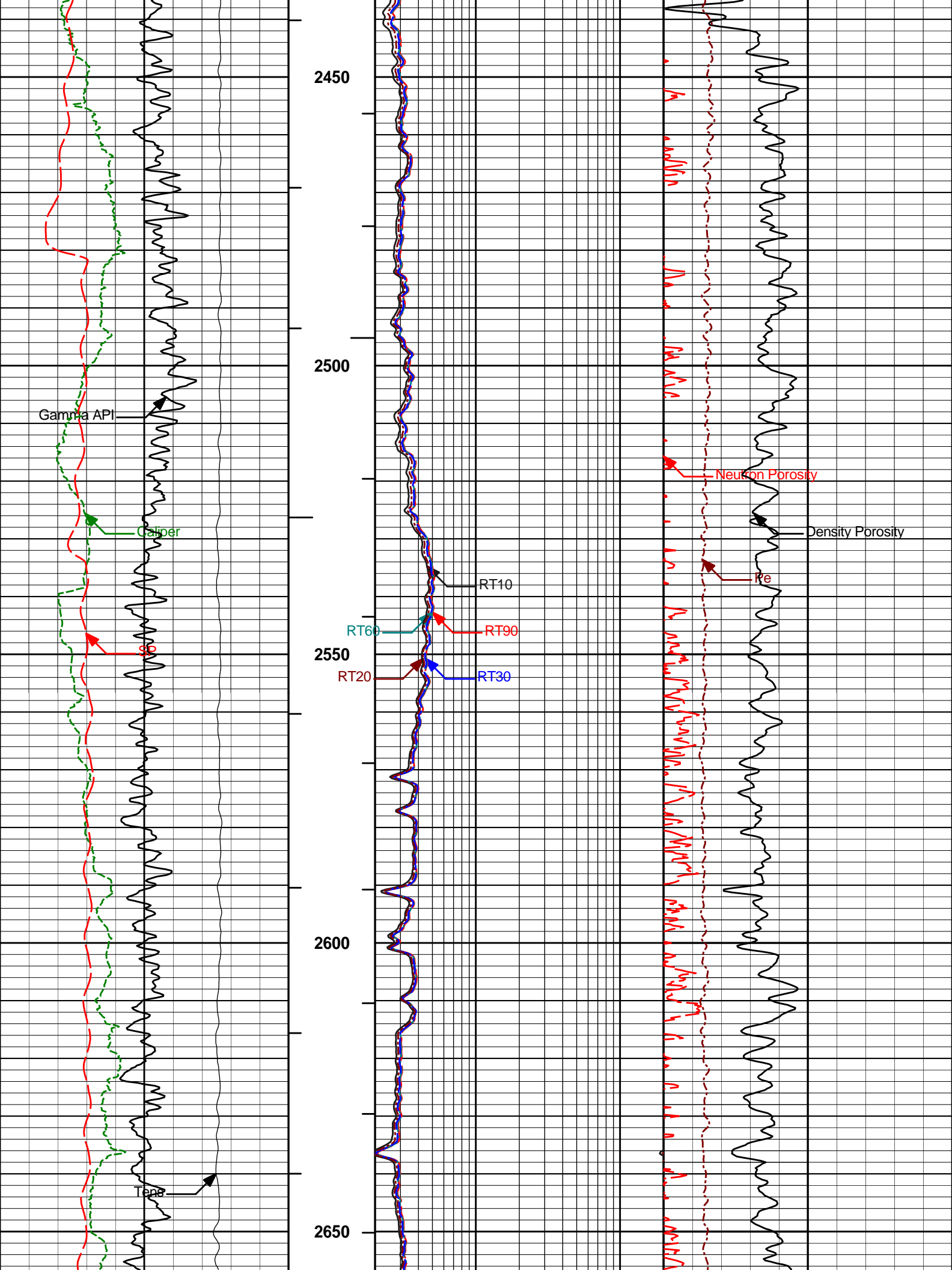


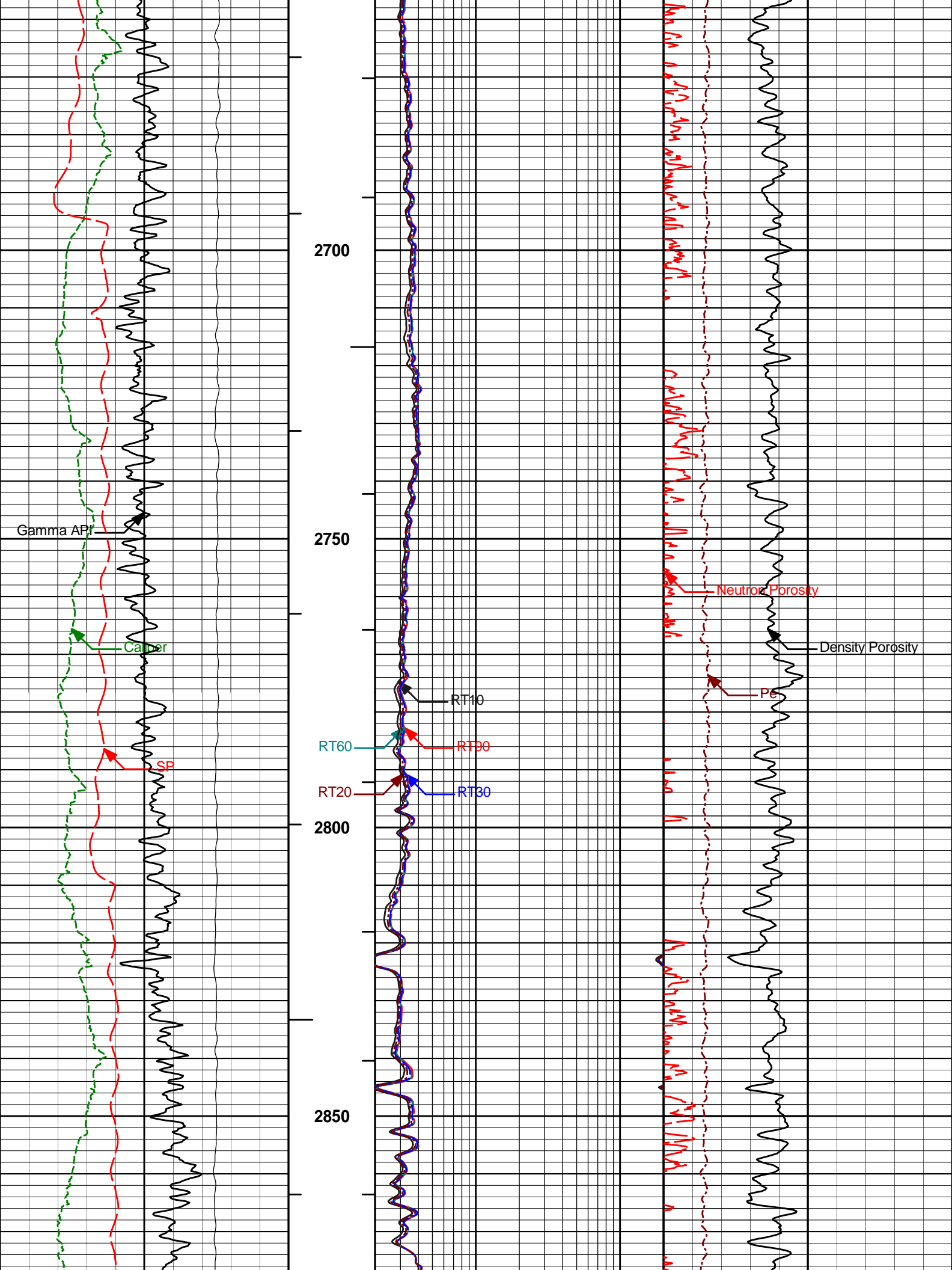


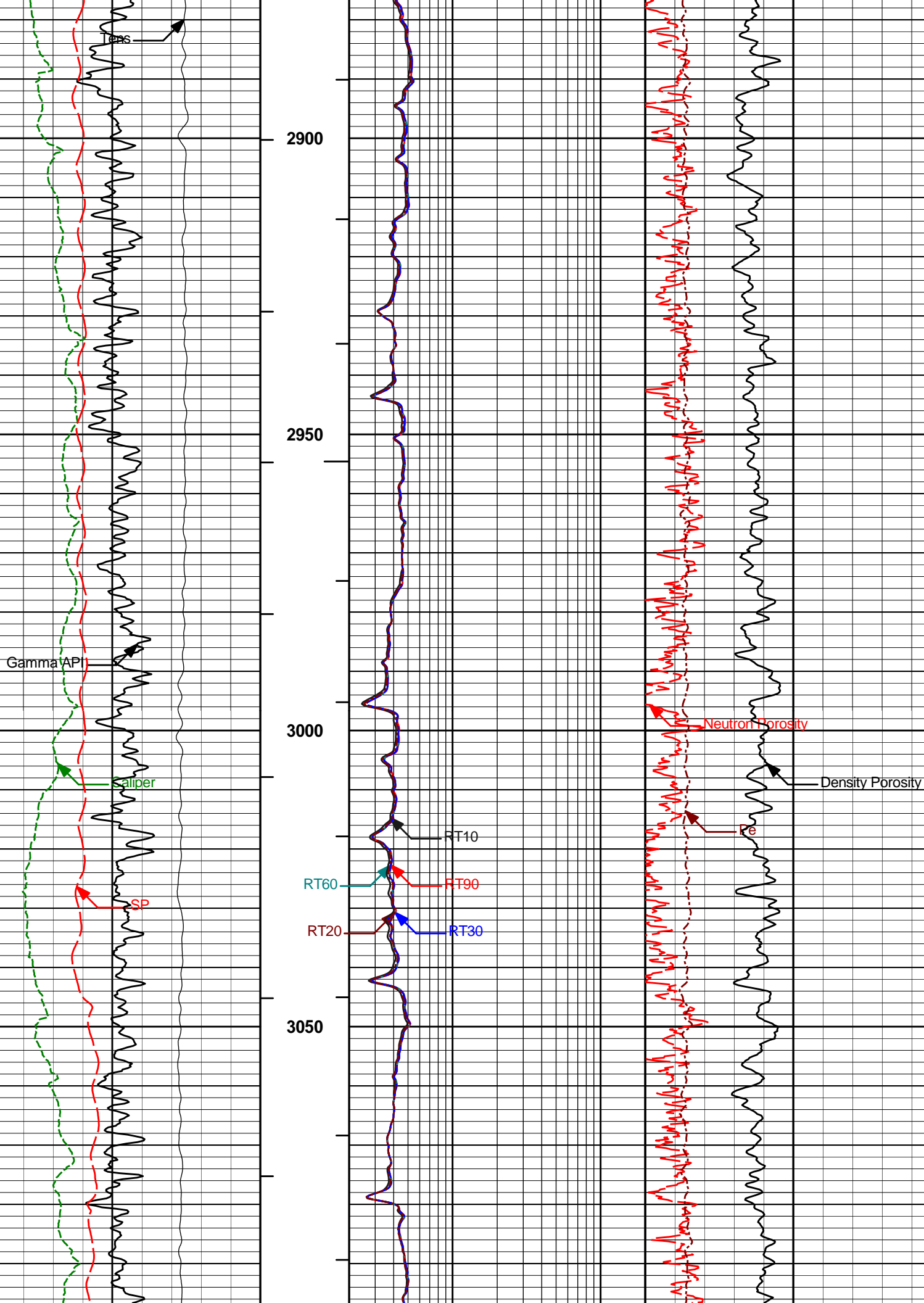


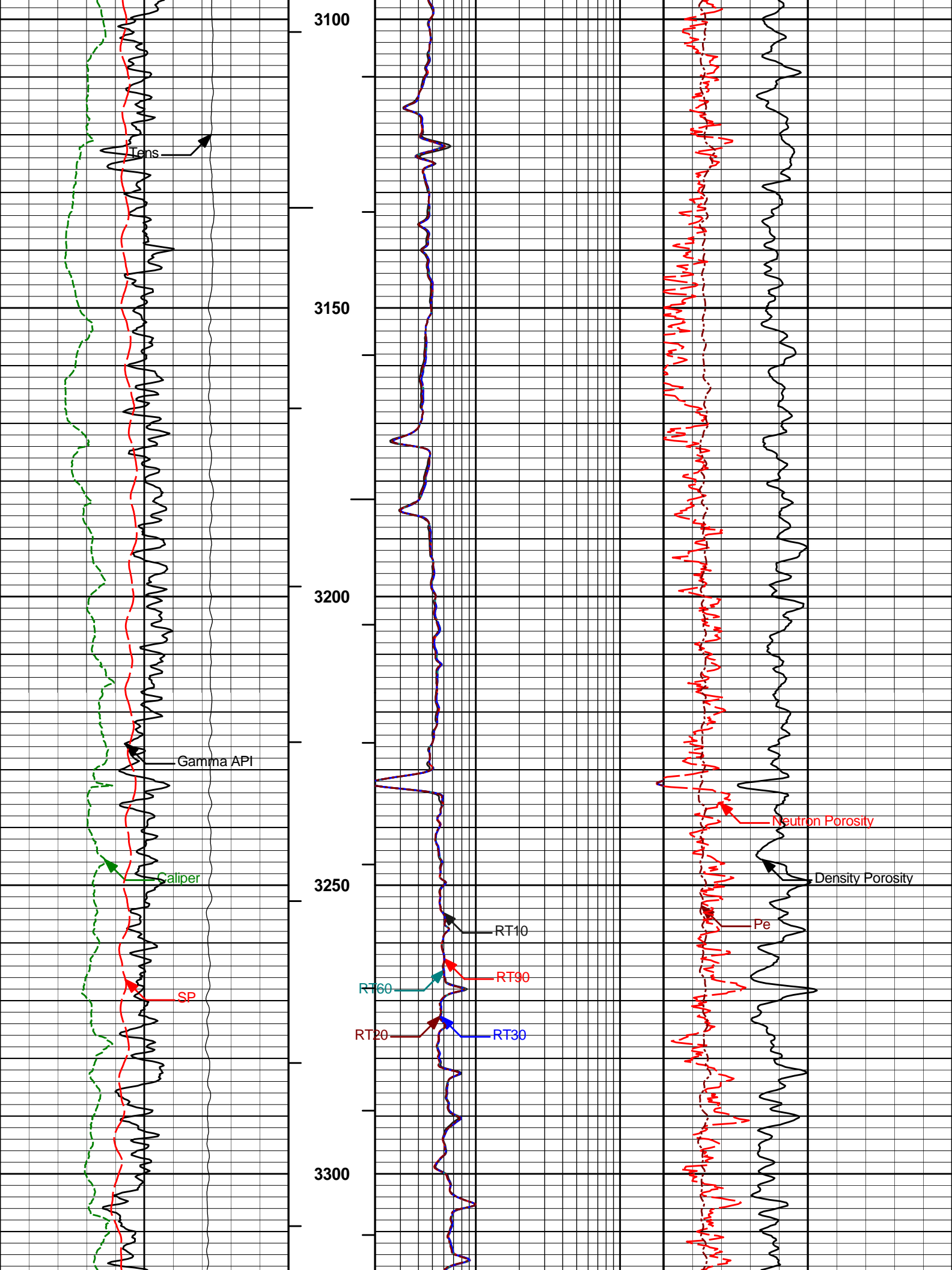


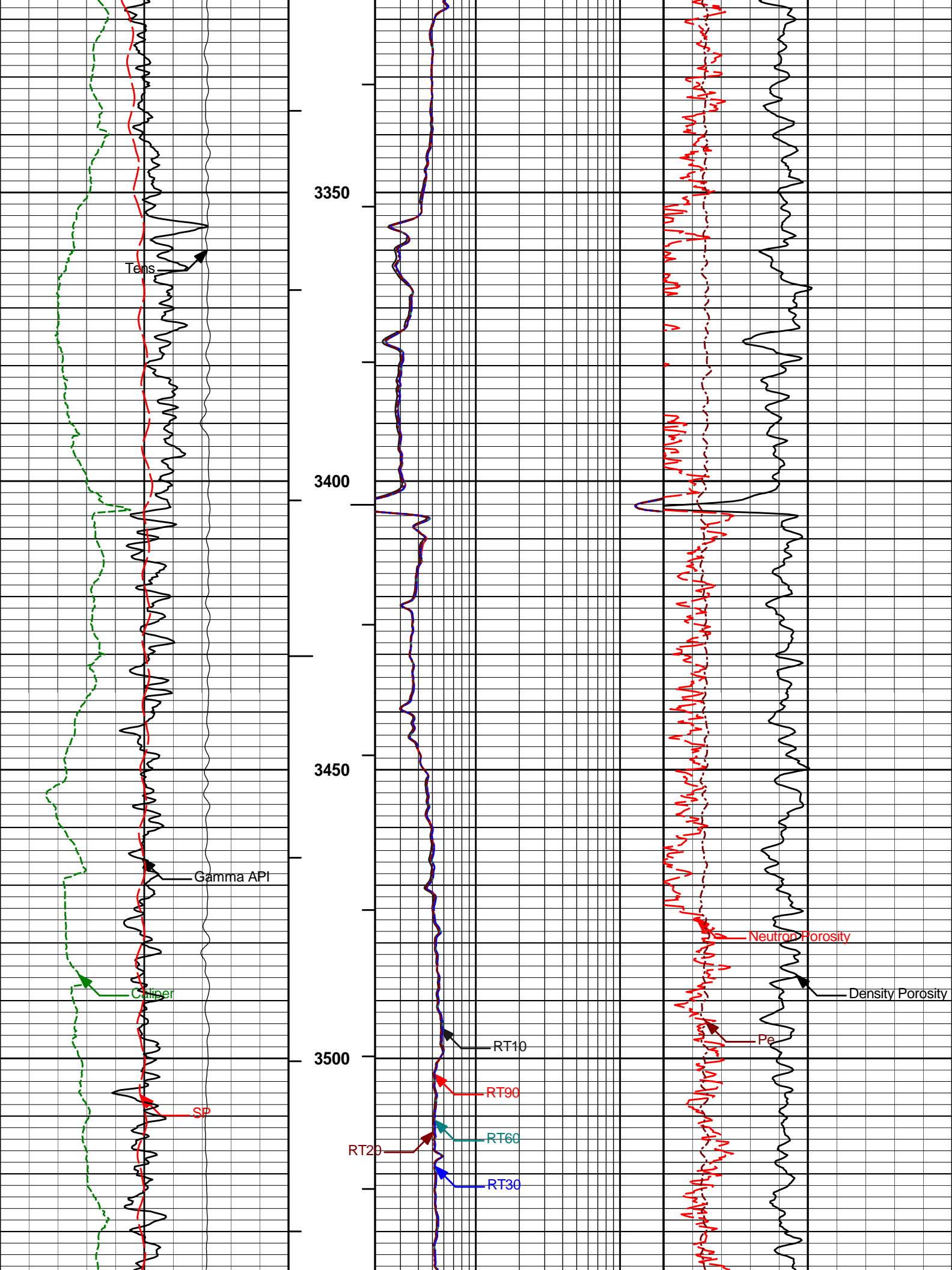




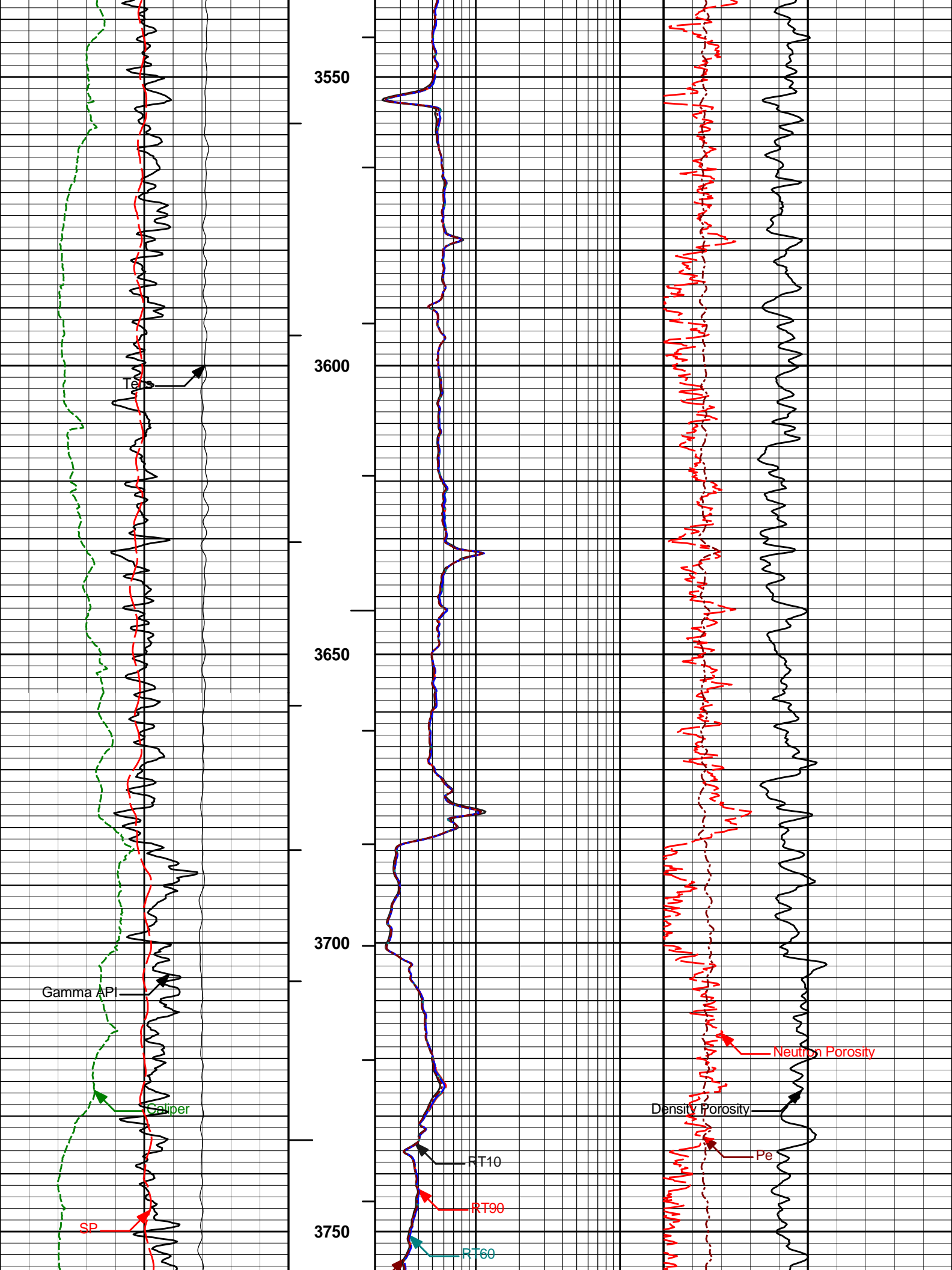


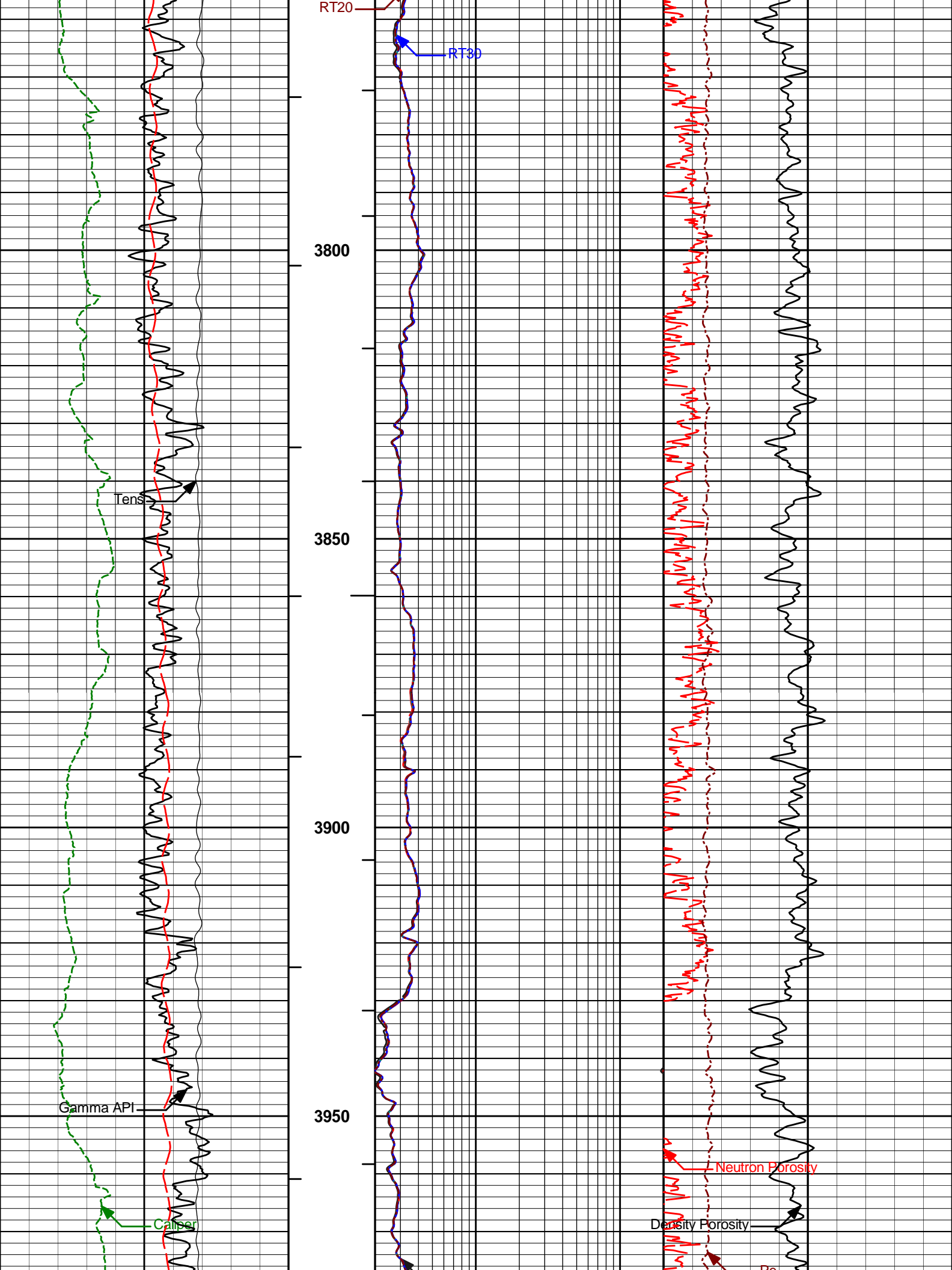


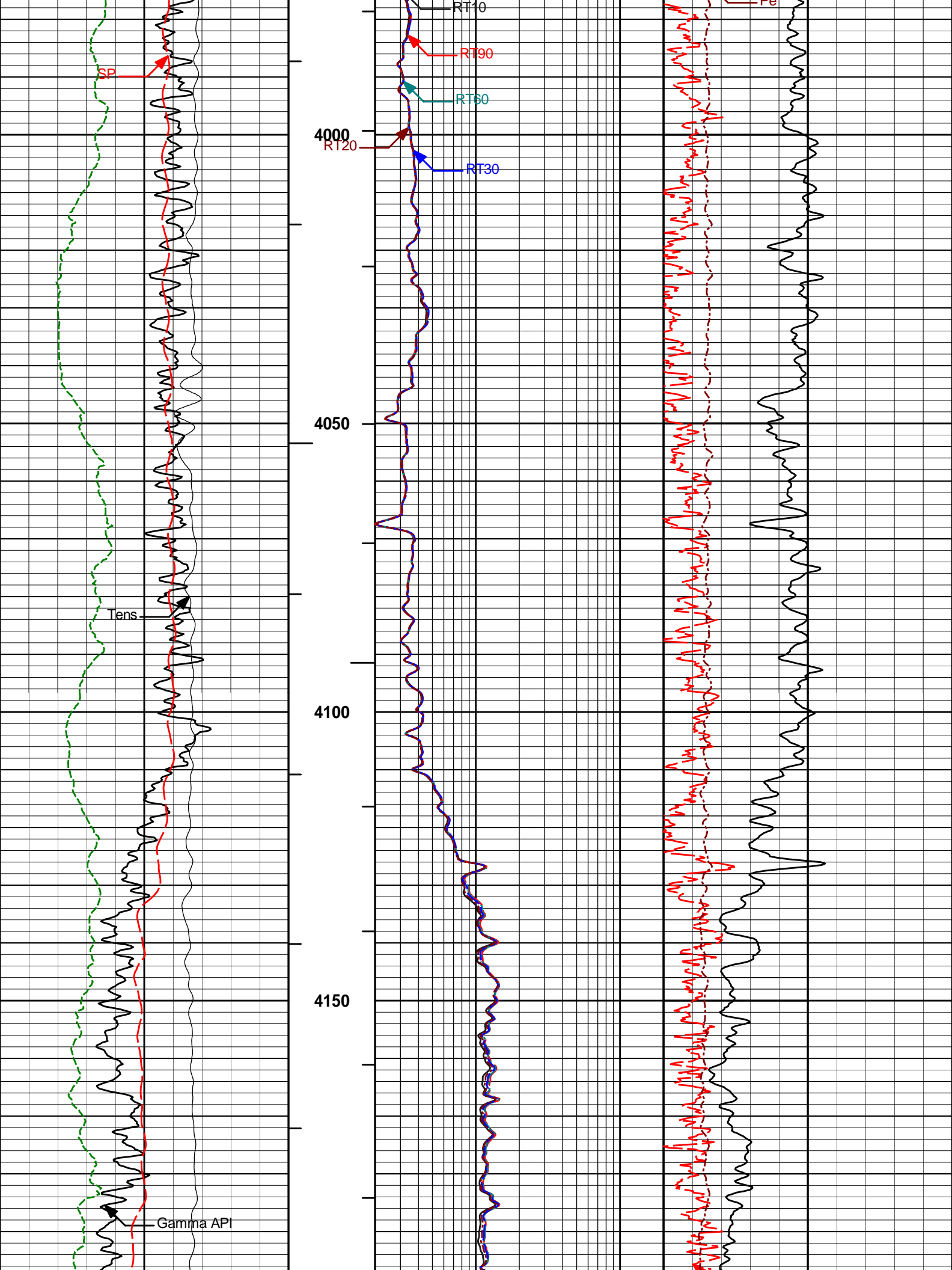


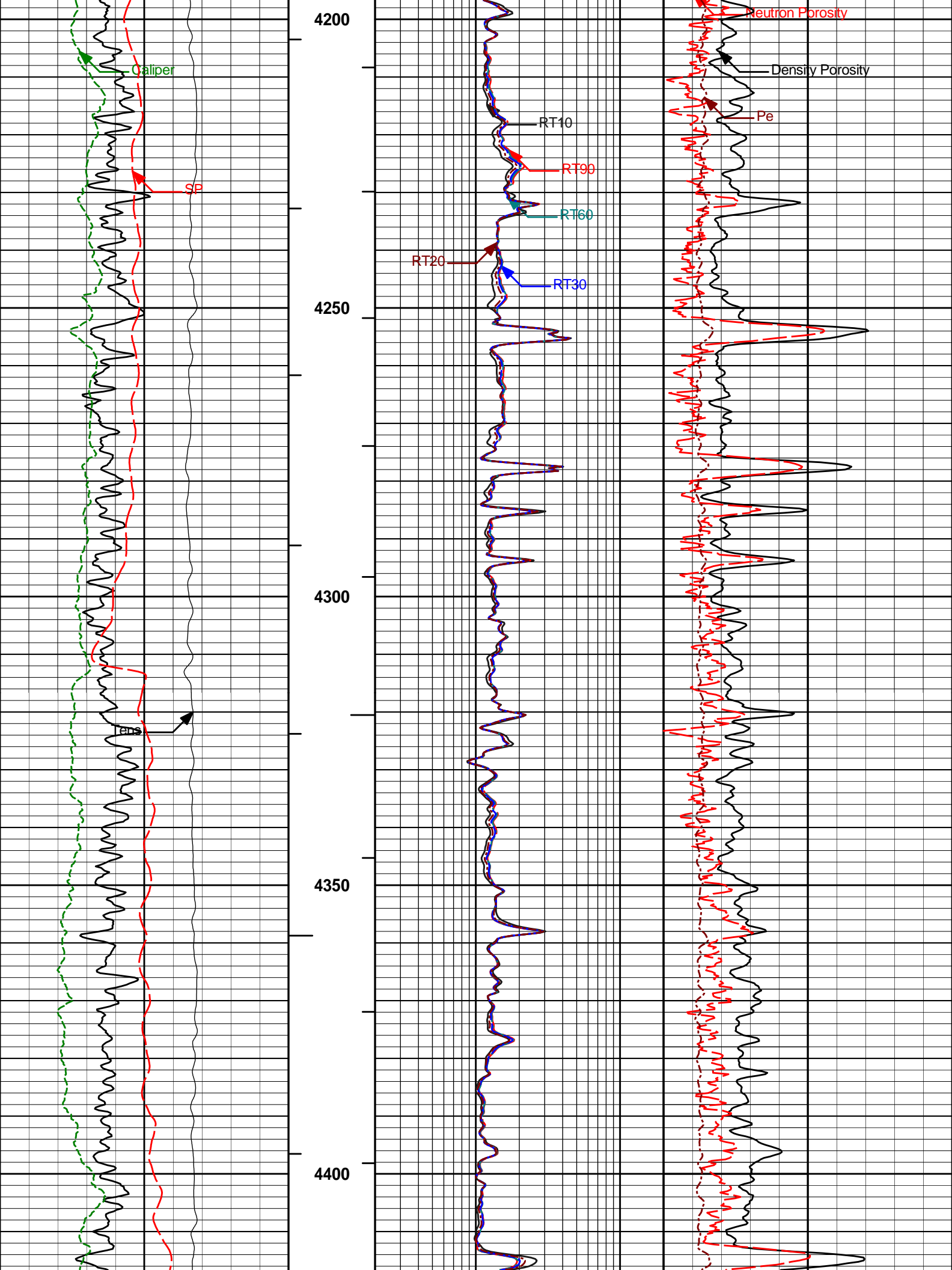


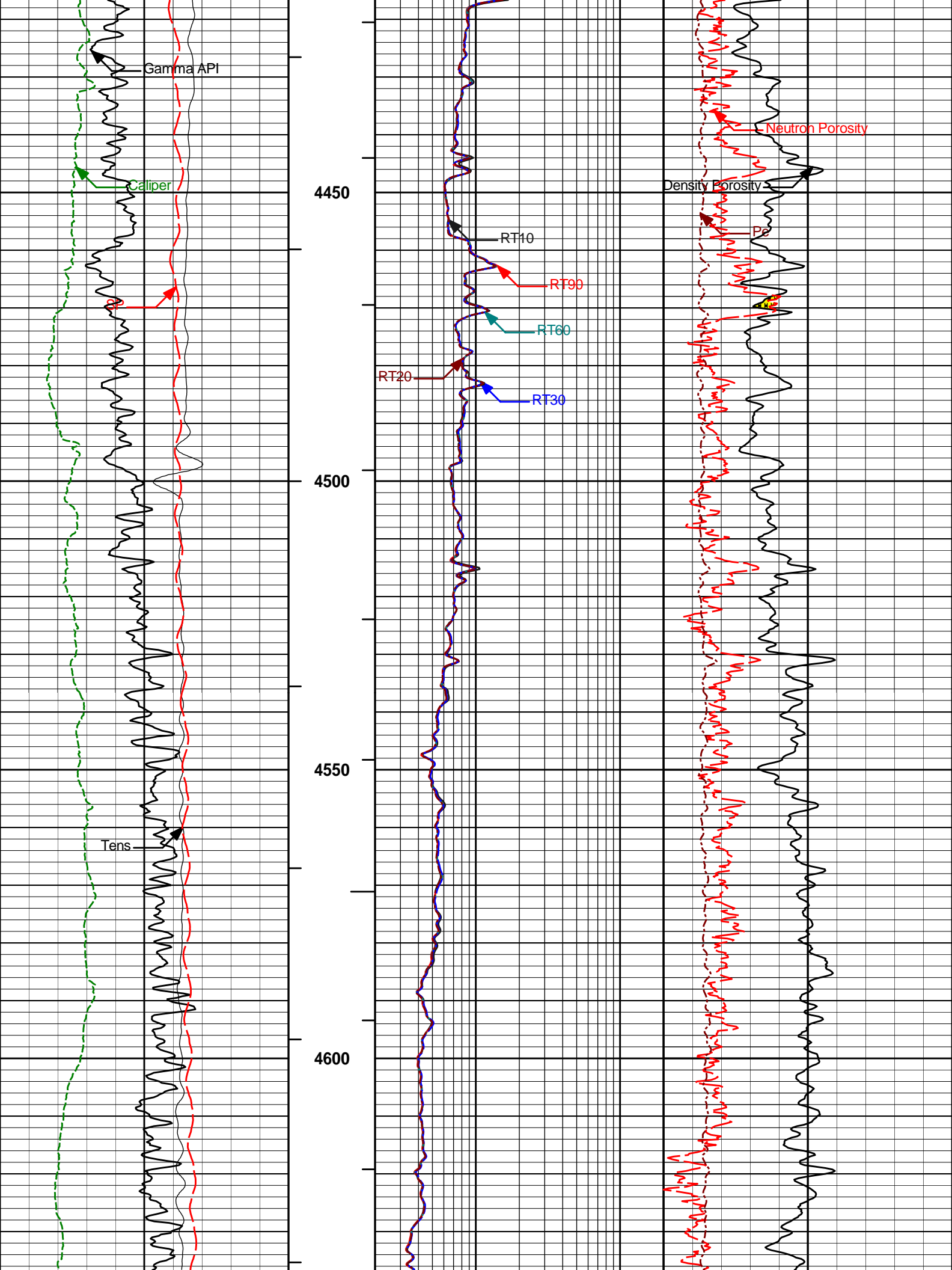


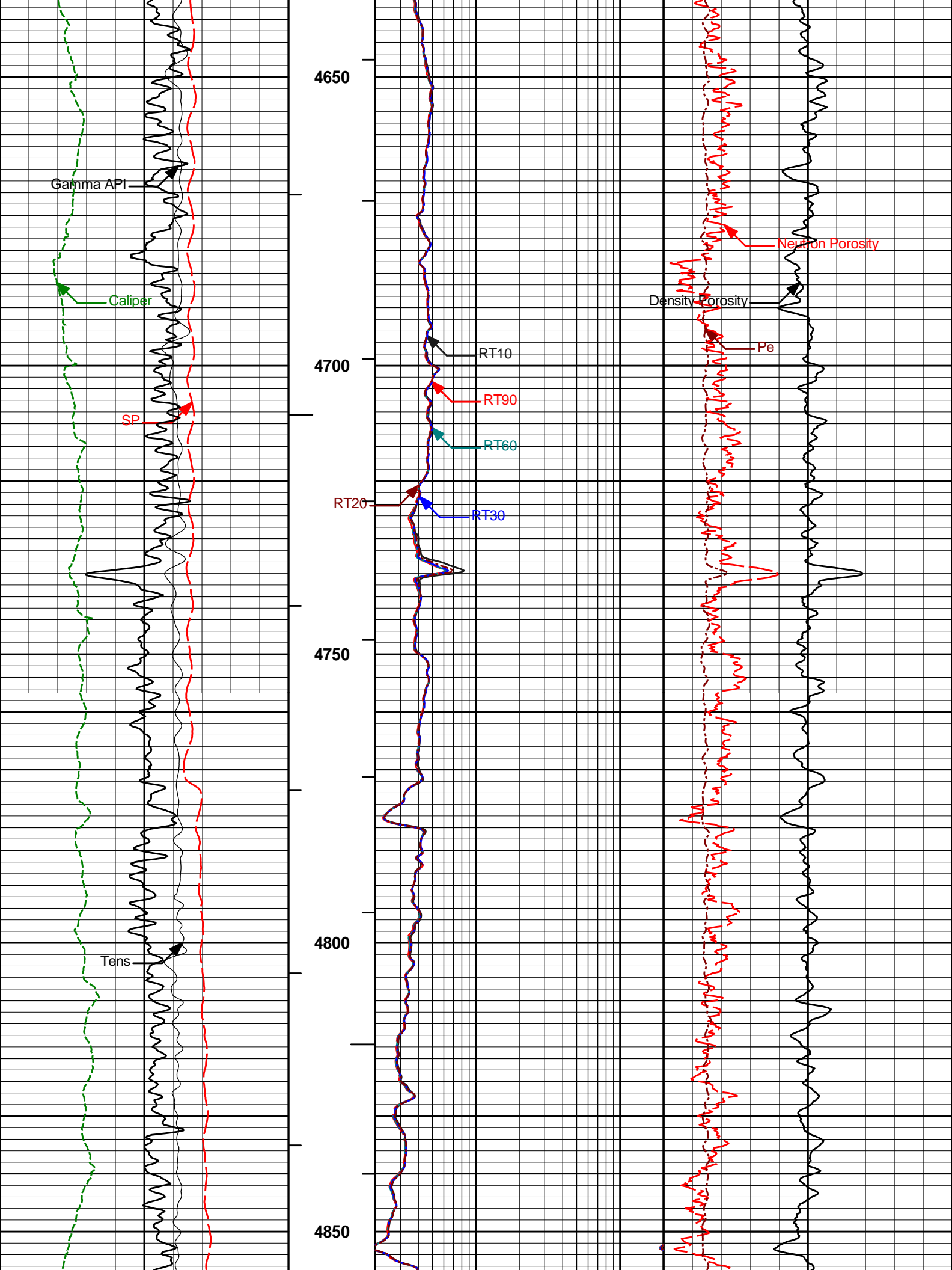


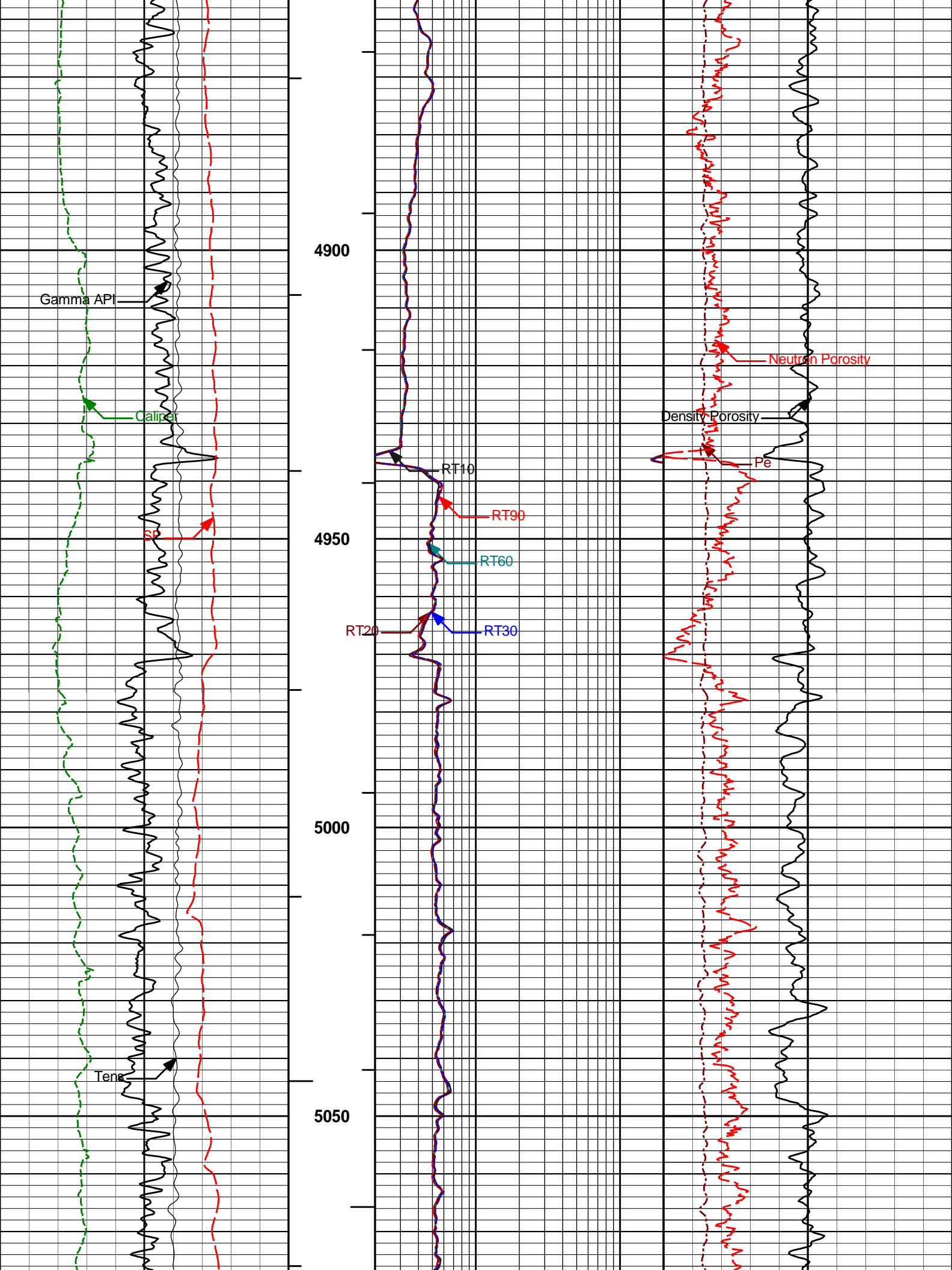


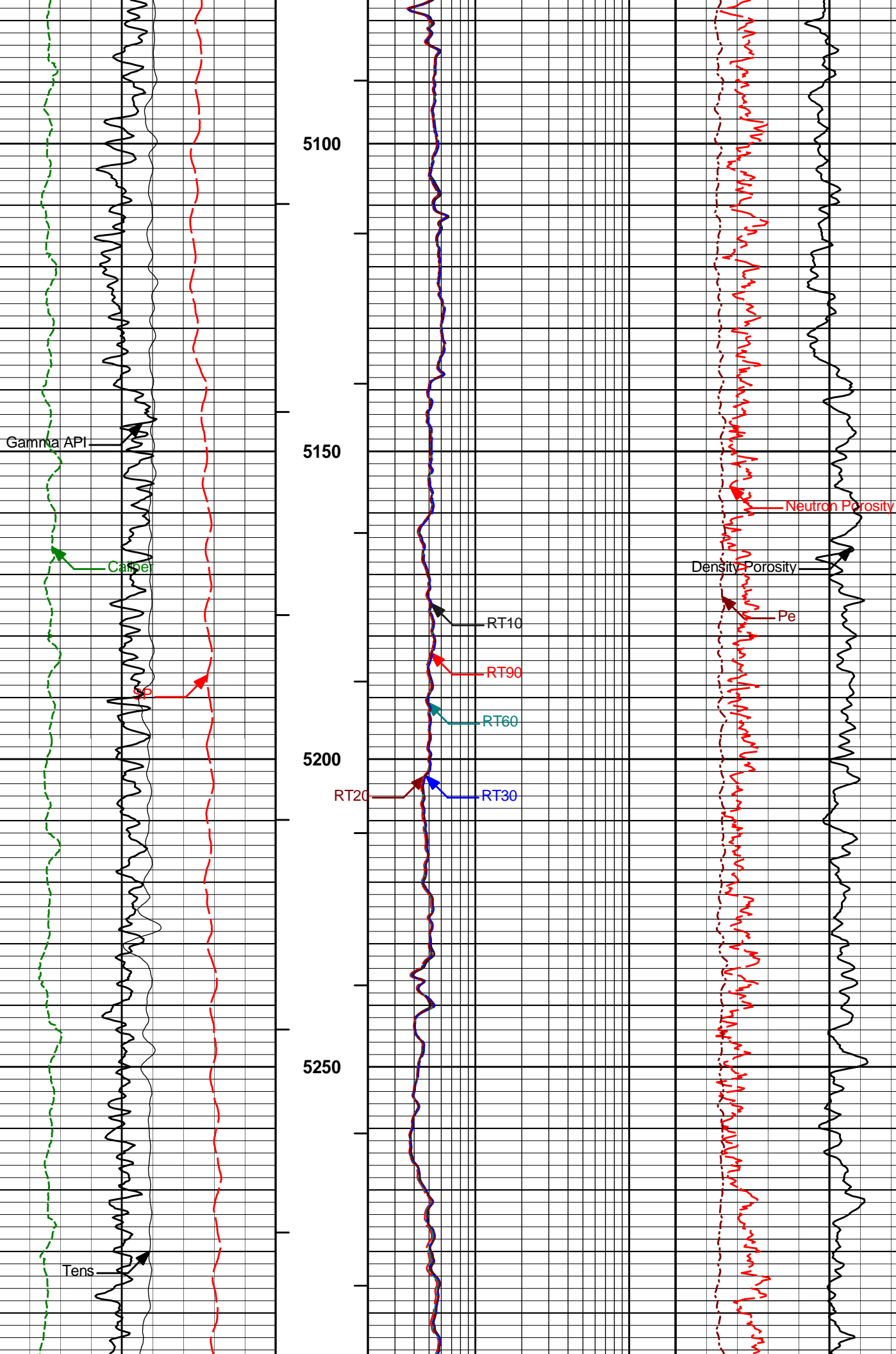




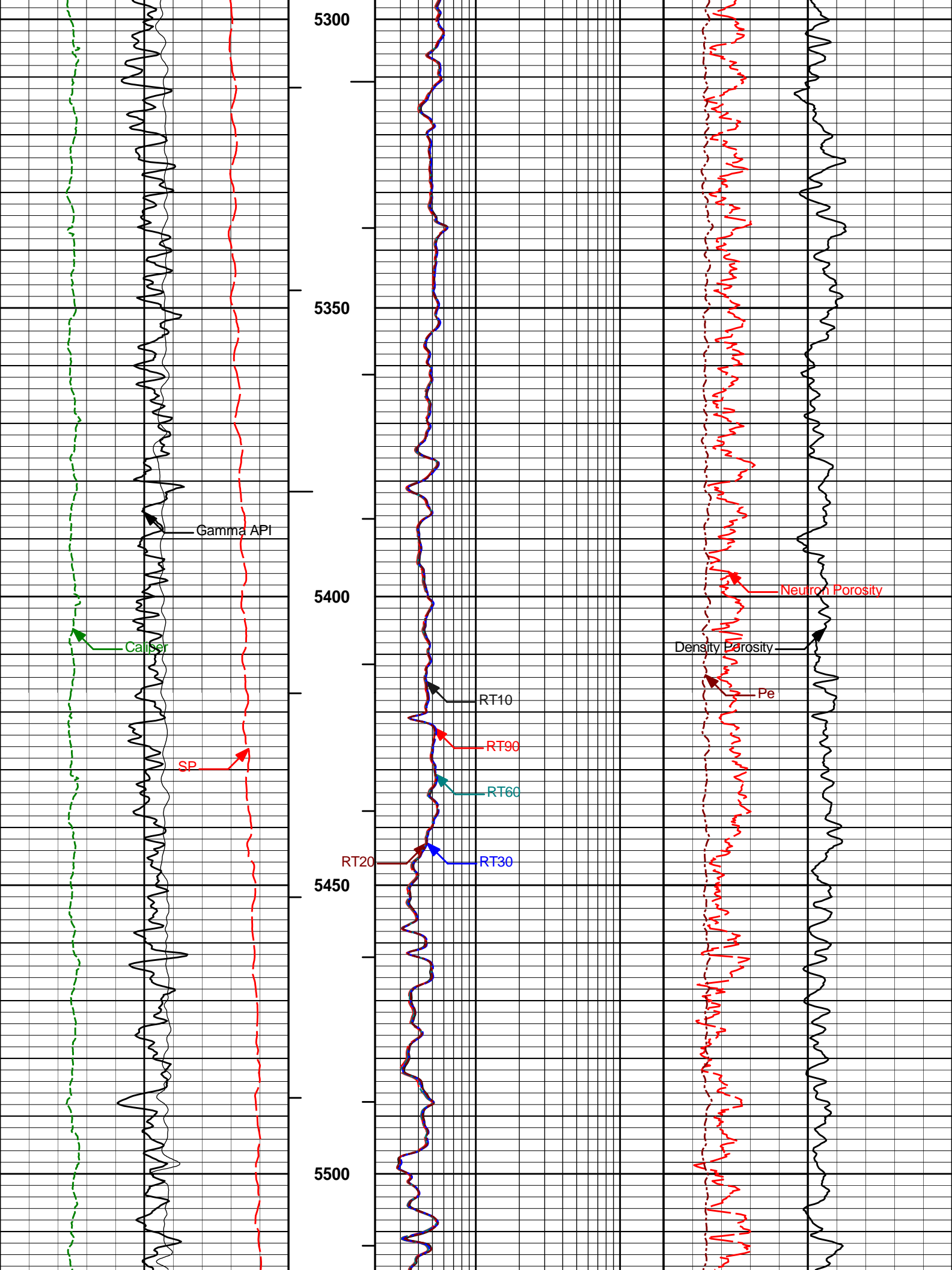


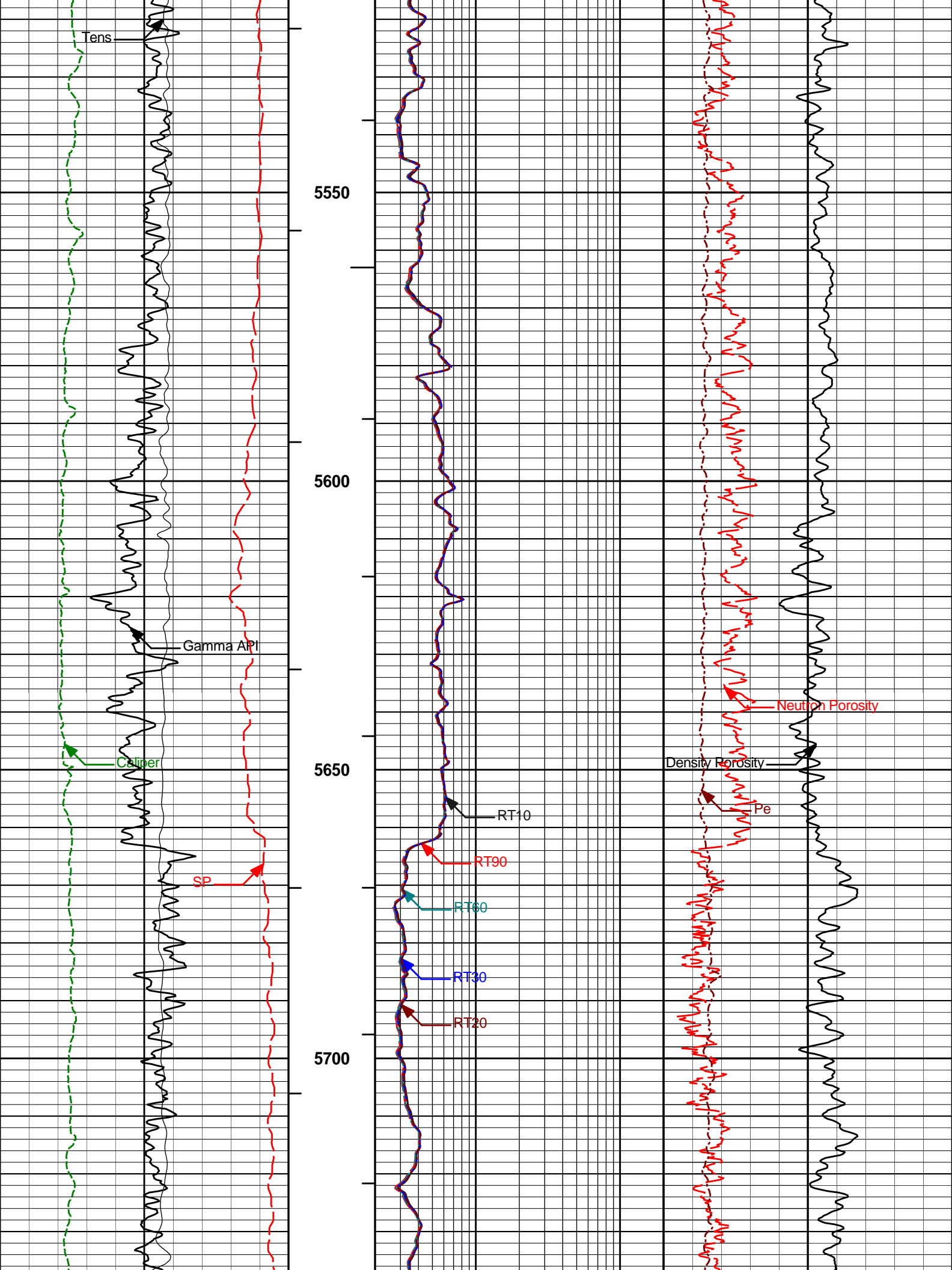


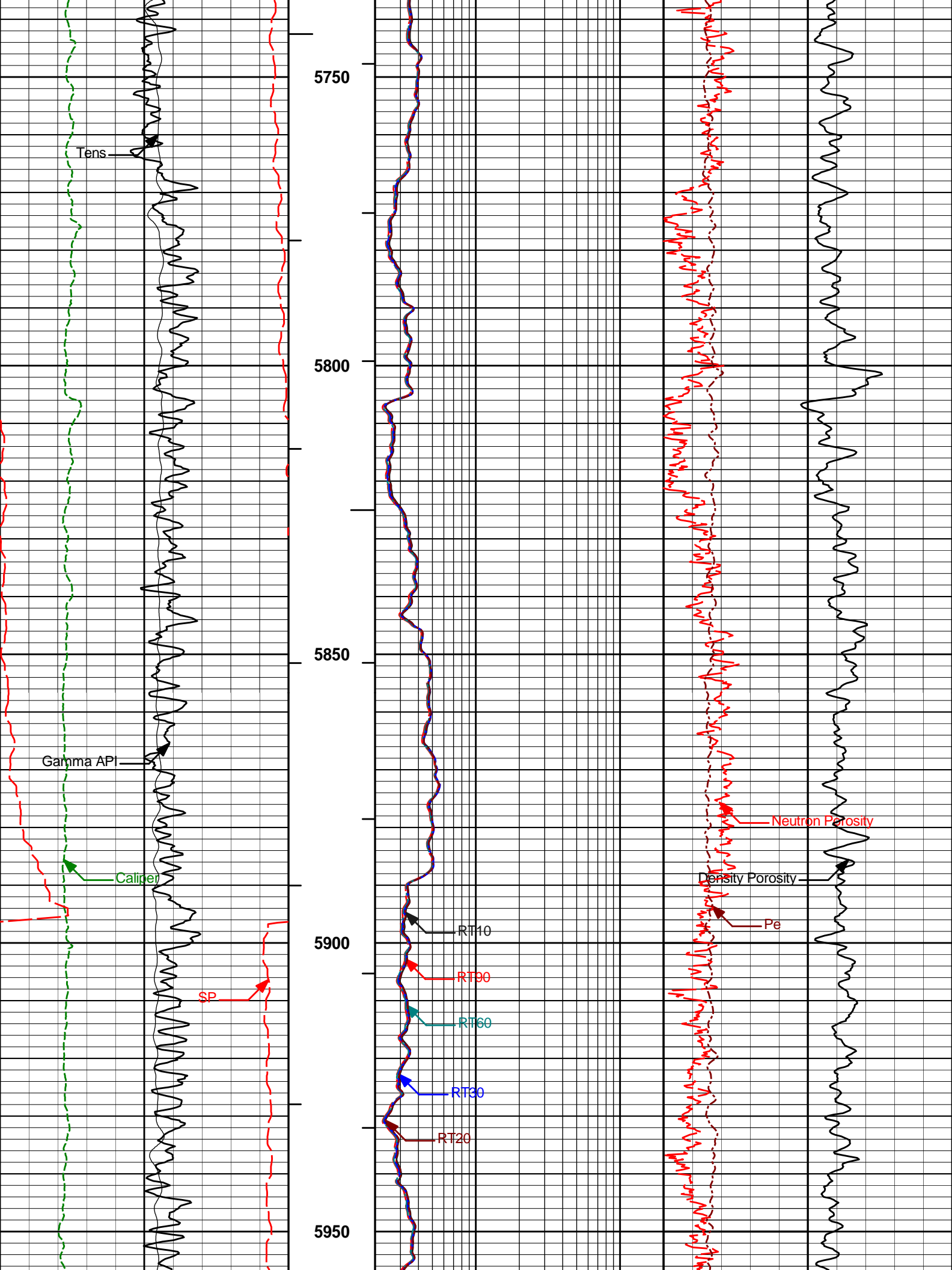


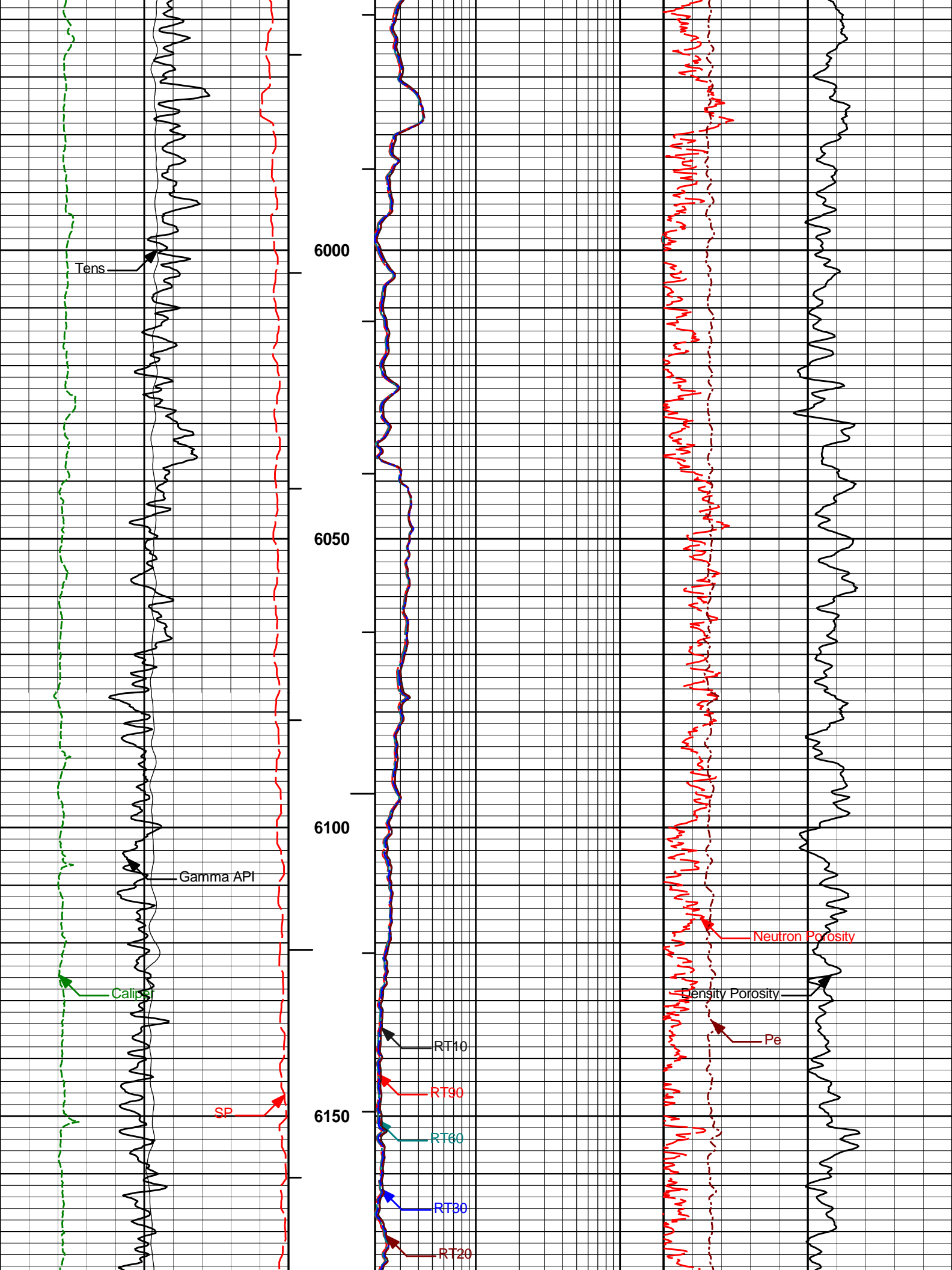


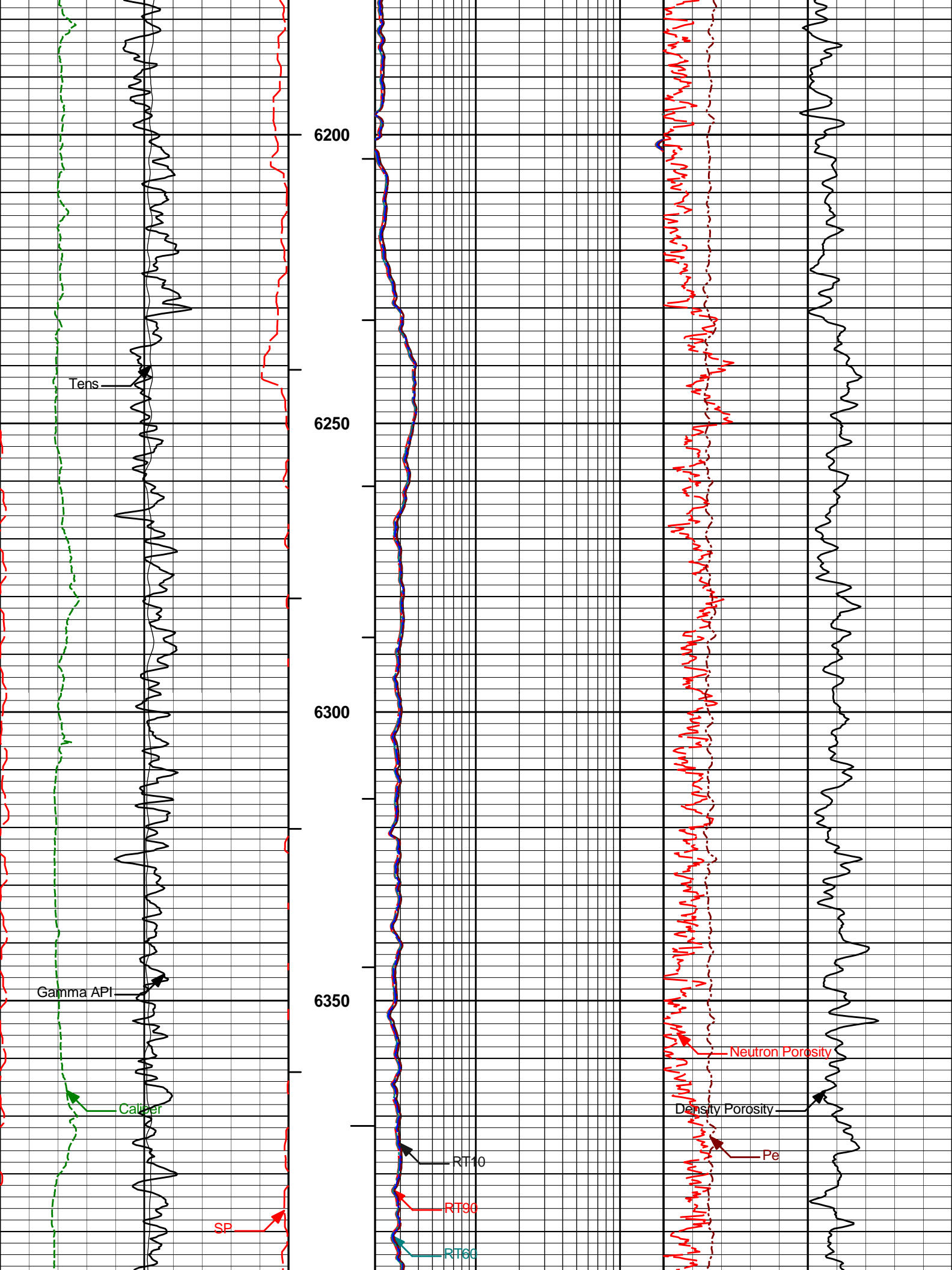


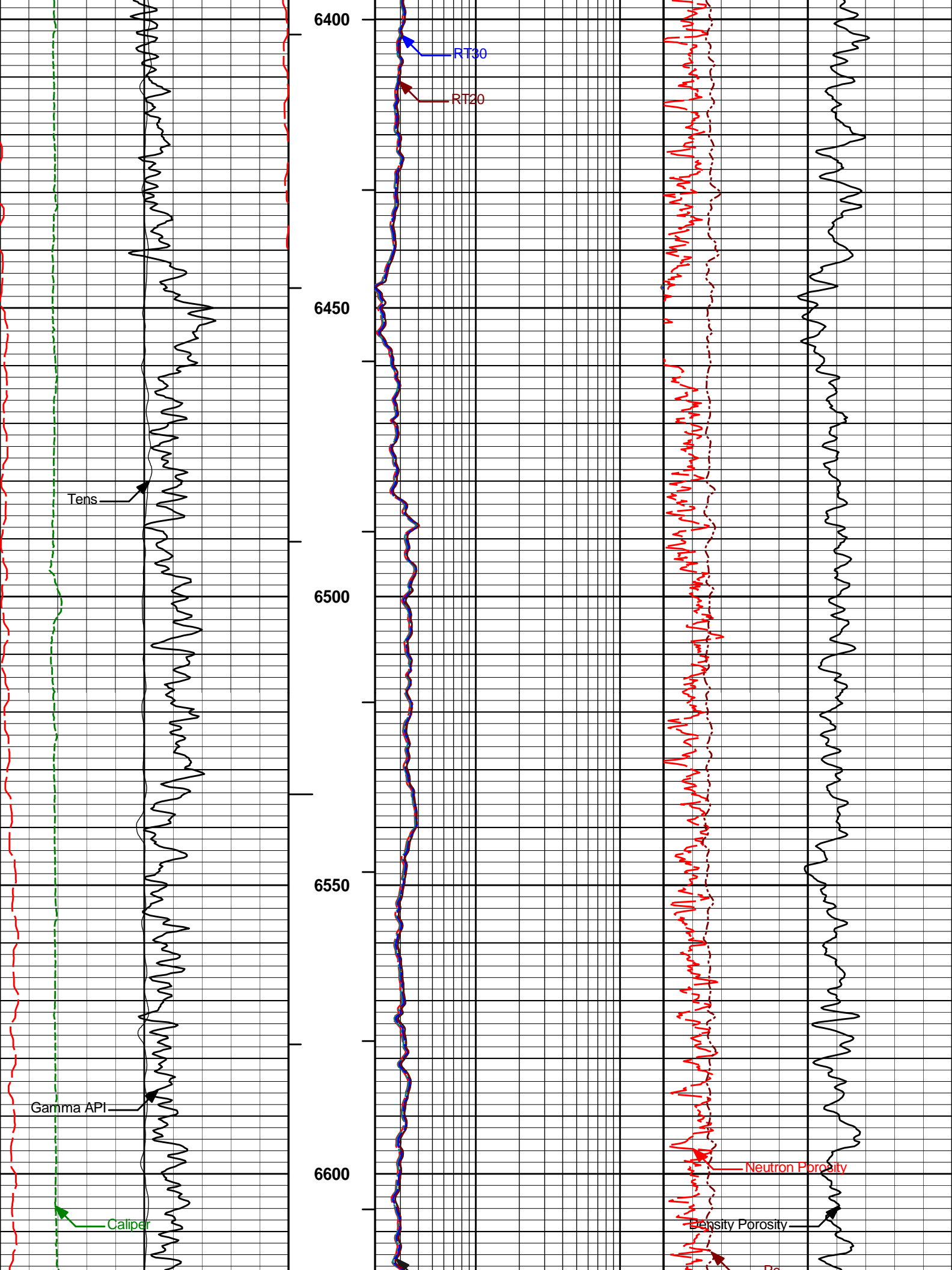


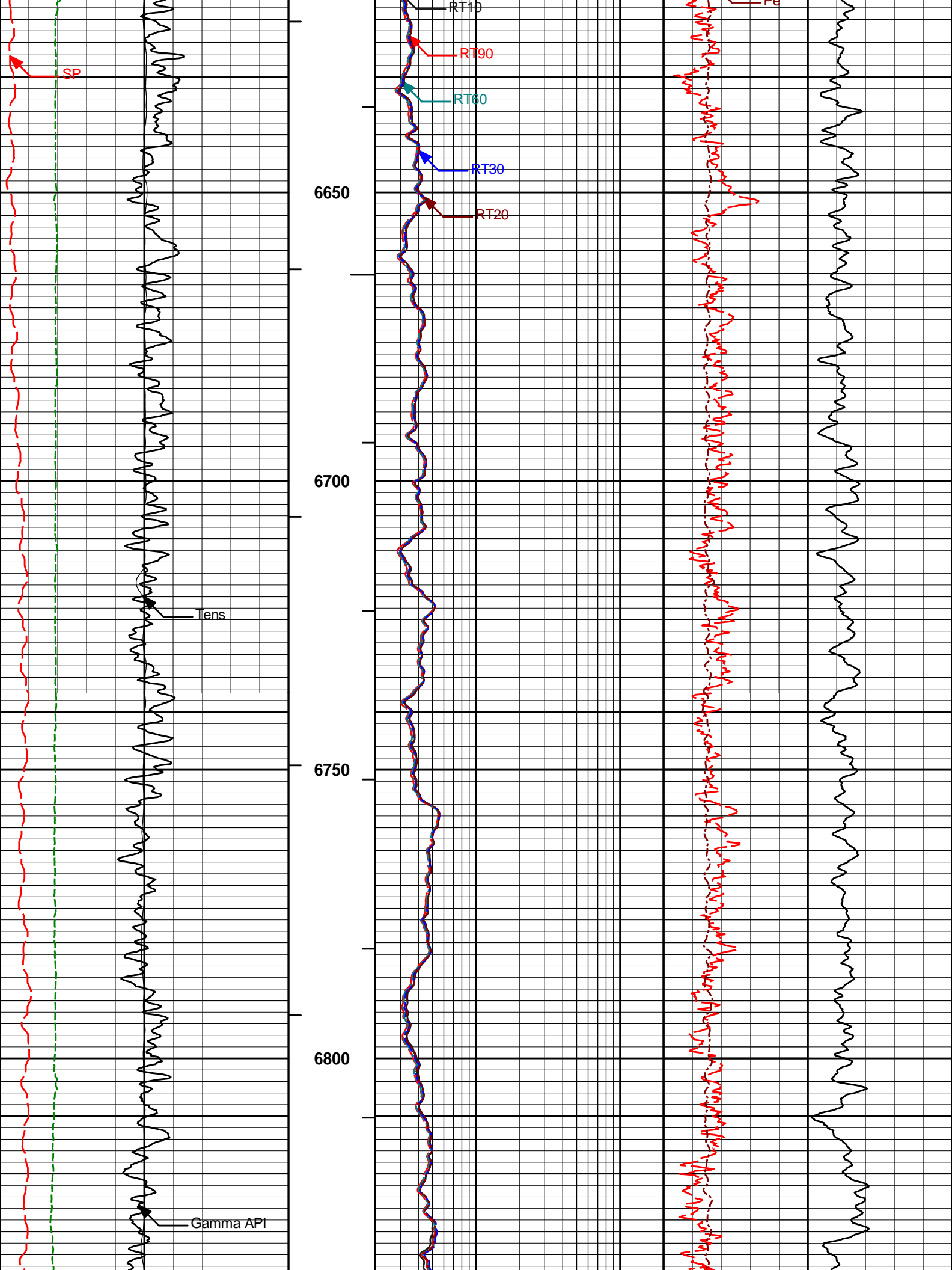


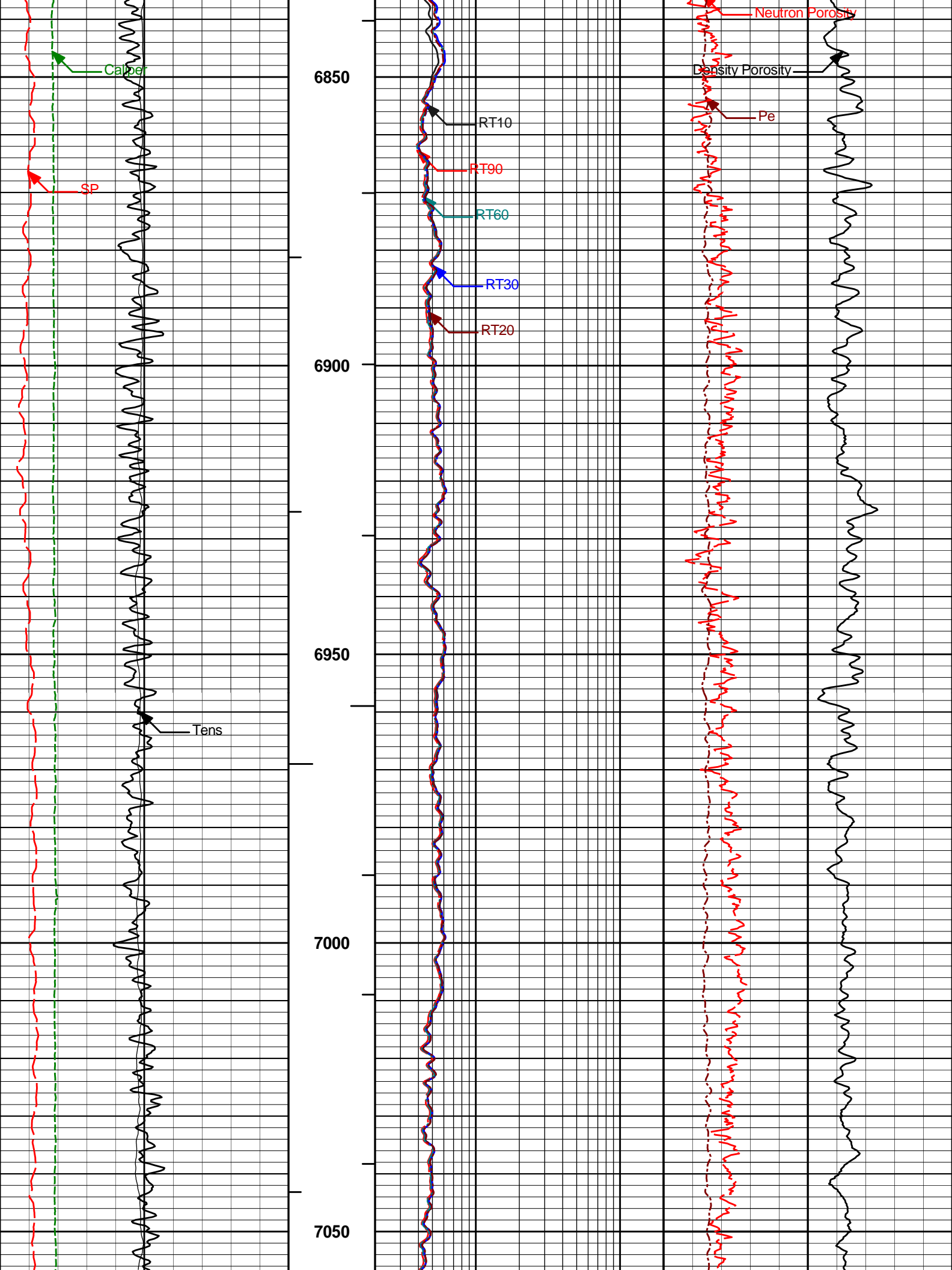




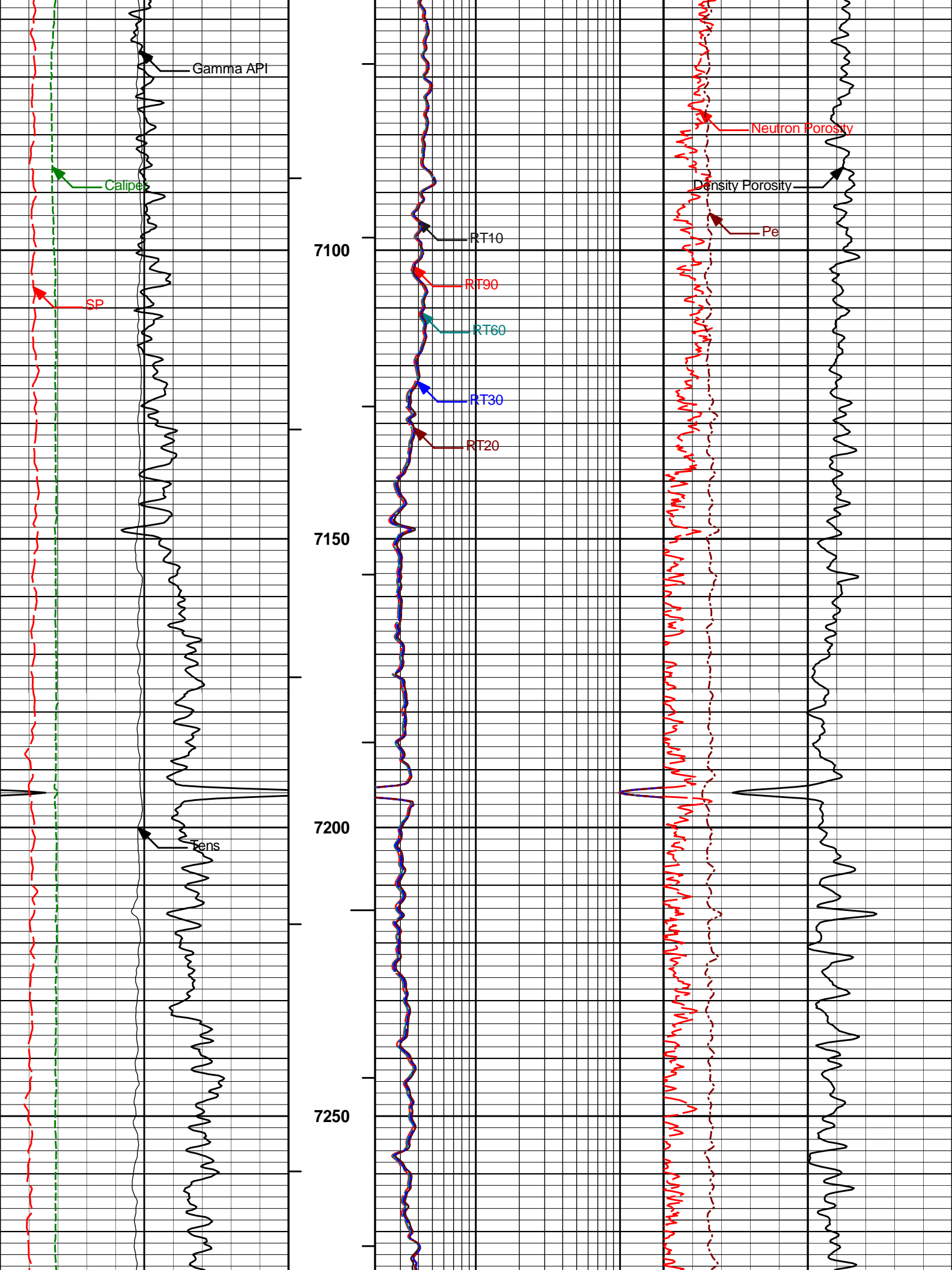


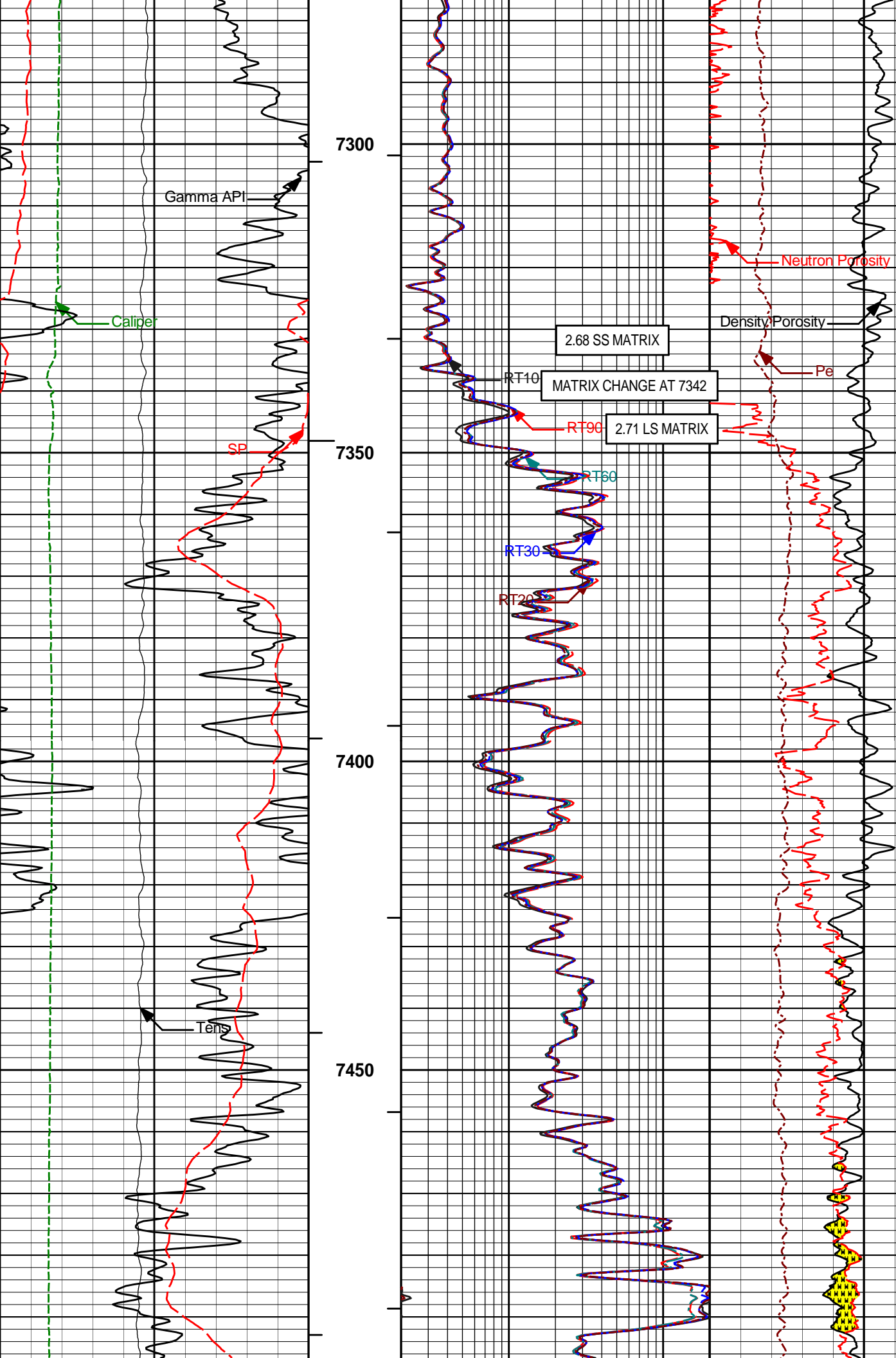


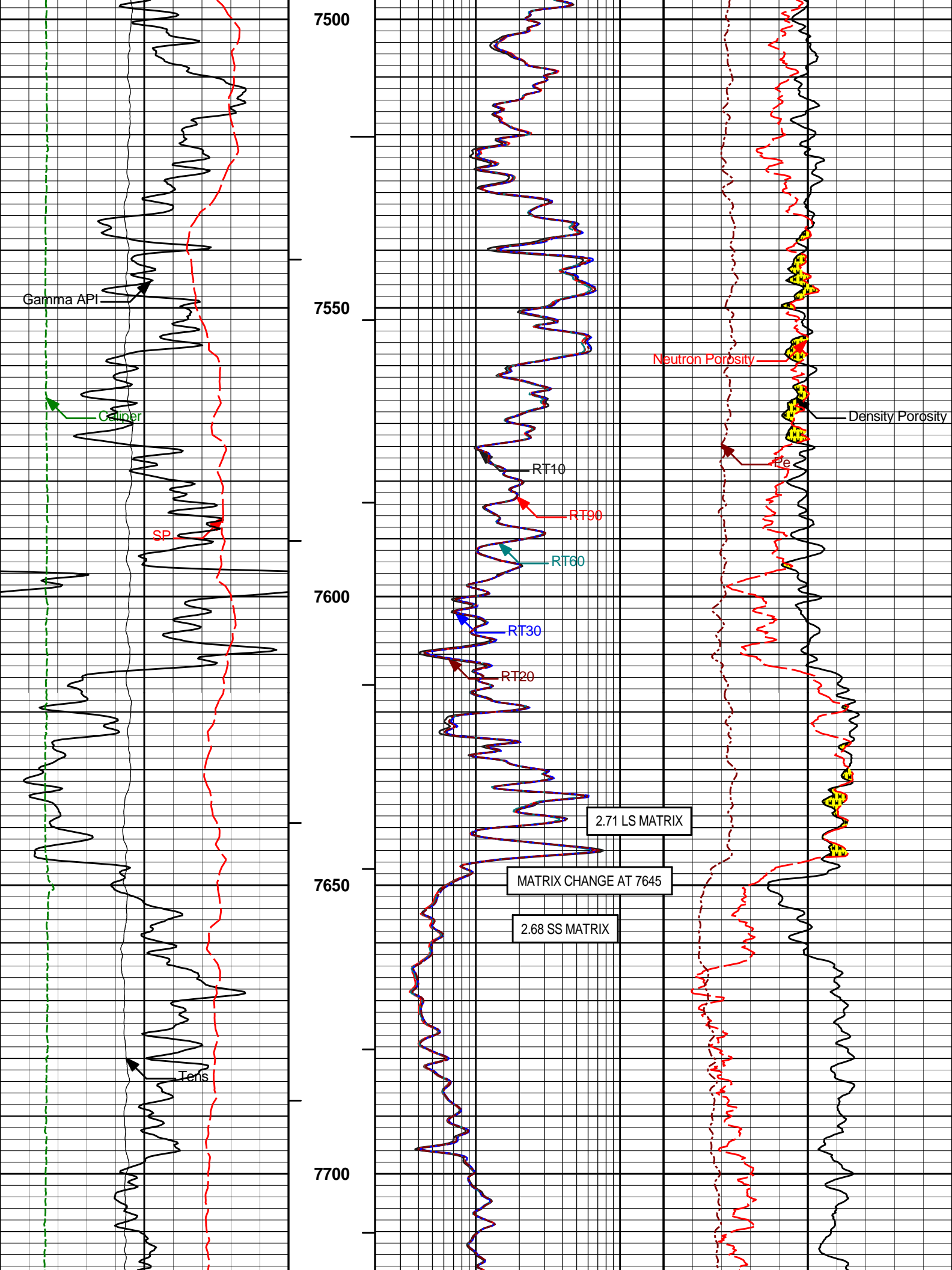


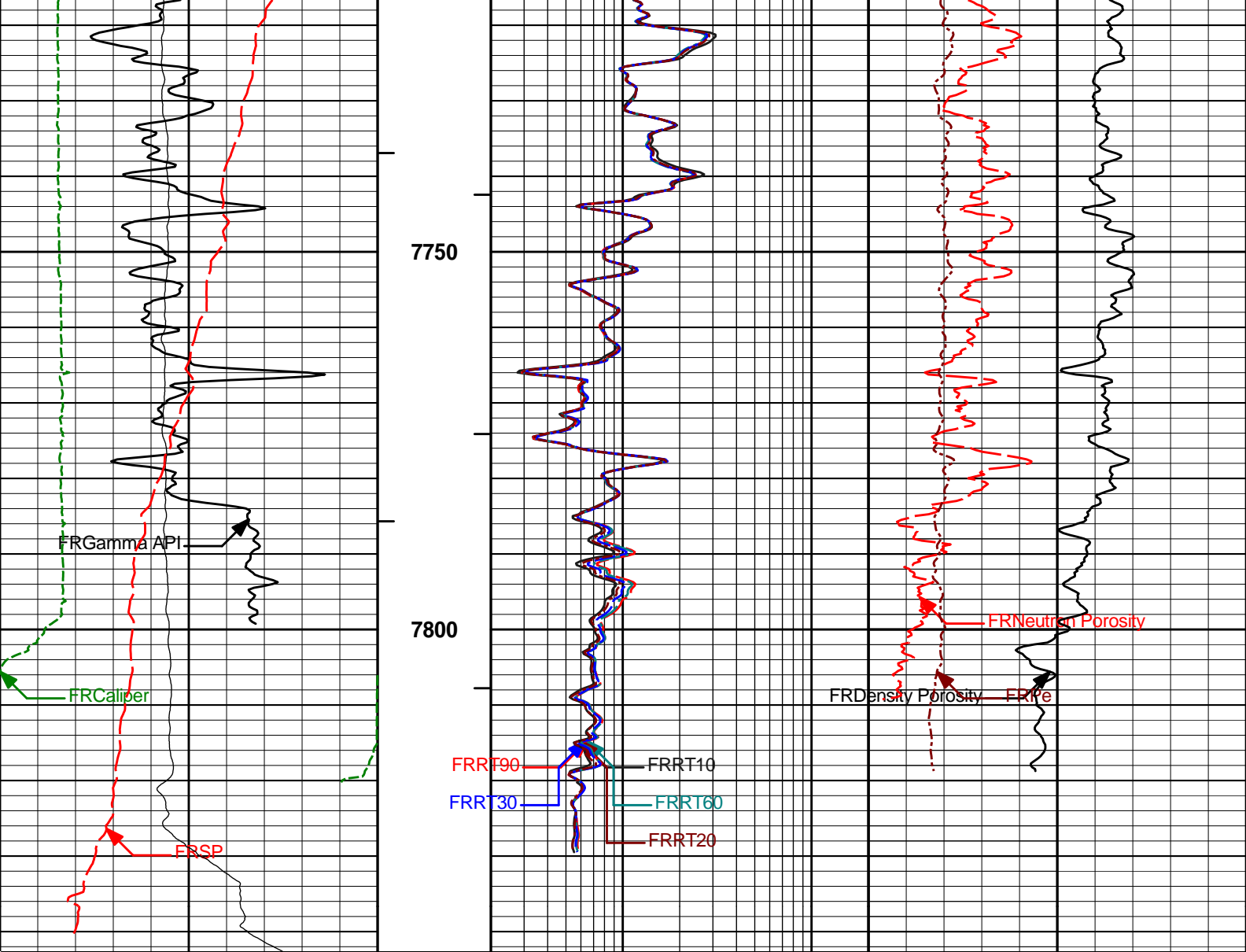












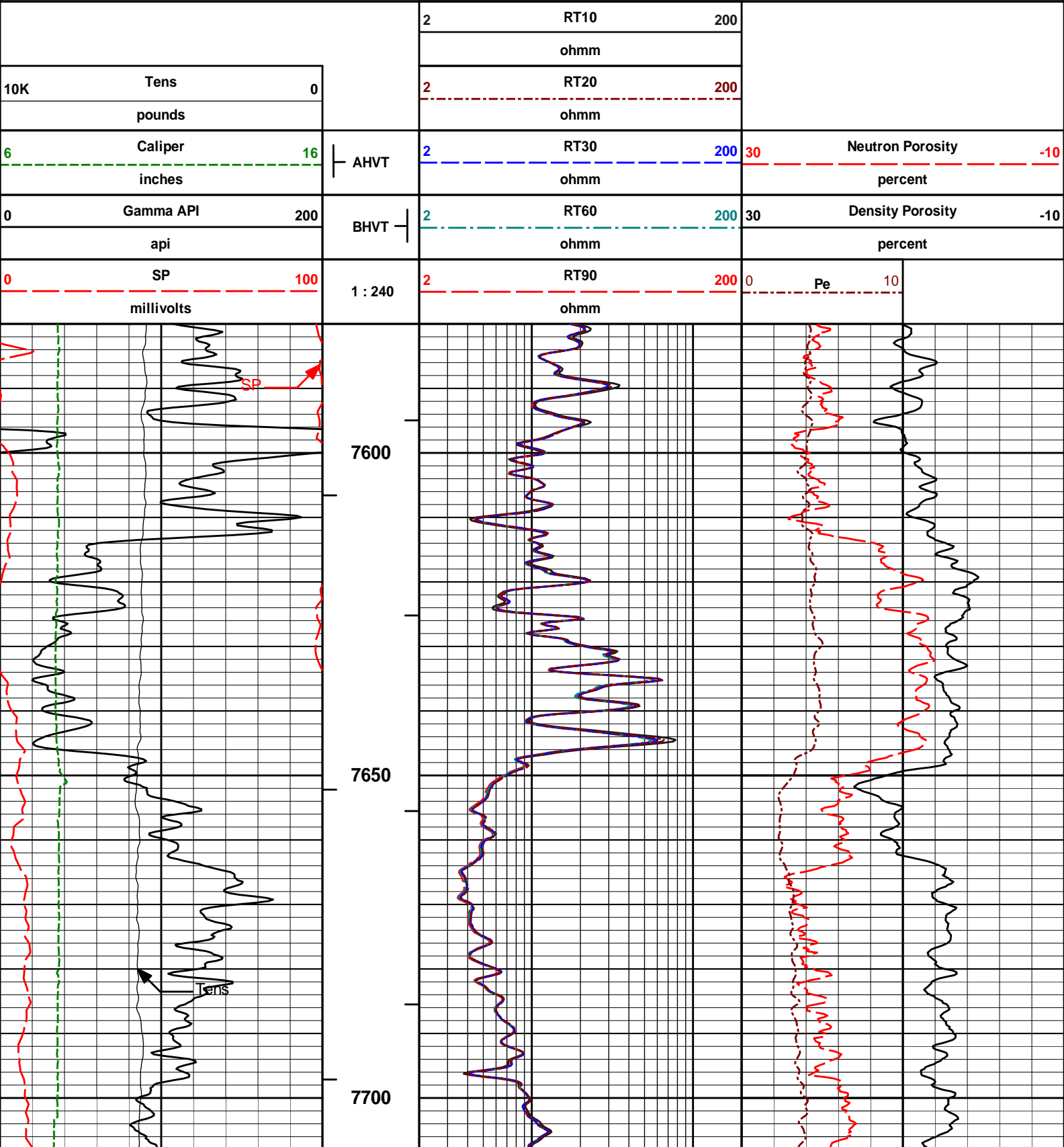
0	SP	100	1 : 240	2	RT90	200	0	Pe	10
	millivolts				ohmm				
0	Gamma API	200	BHVT	2	RT60	200	30	Density Porosity	-10
	api				ohmm			percent	
6	Caliper	16	AHVT	2	RT30	200	30	Neutron Porosity	-10
	inches				ohmm			percent	
10K	Tens	0		2	RT20	200			
	pounds				ohmm				
				2	RT10	200			
					ohmm				

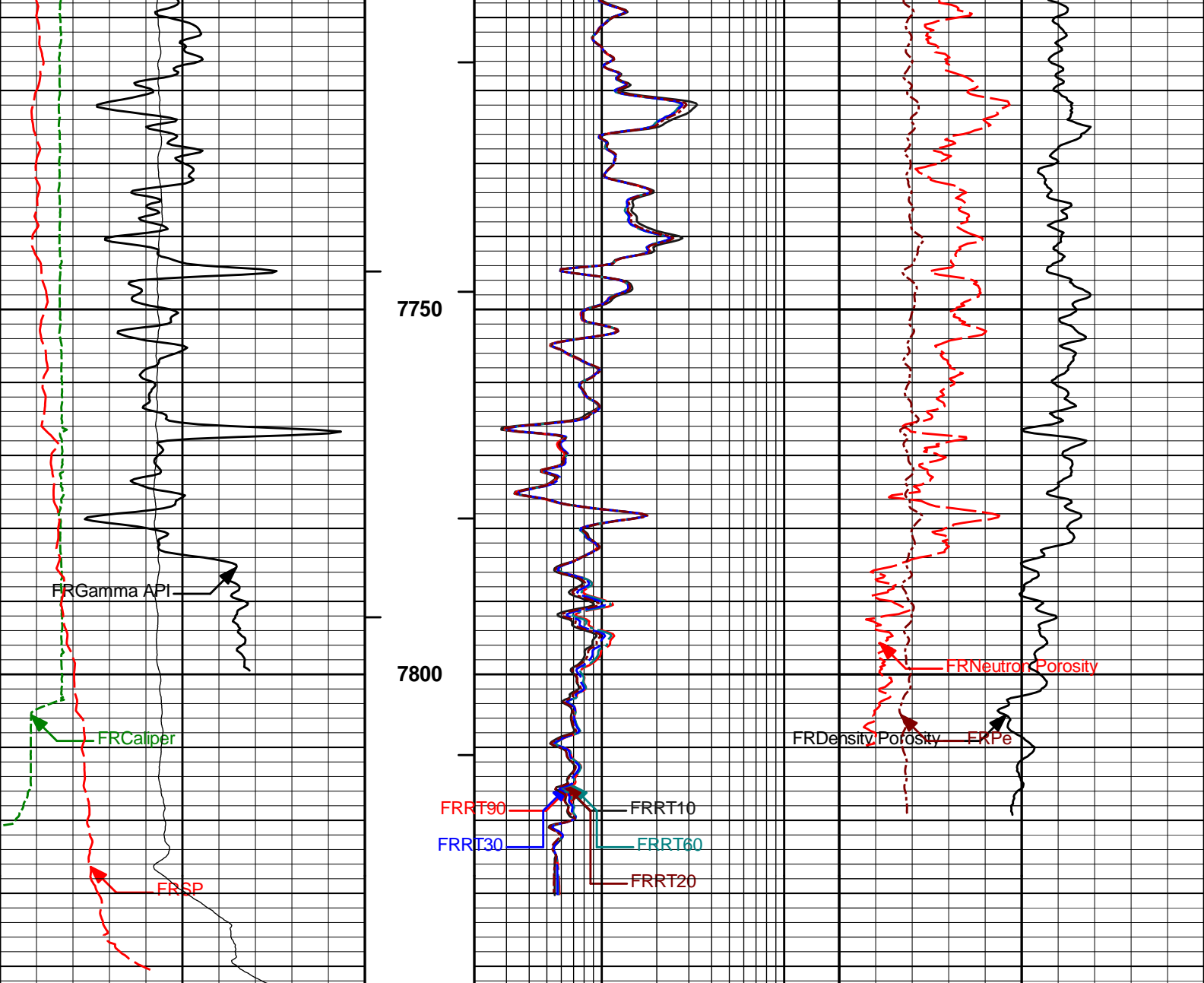
**HALLIBURTON**

Plot Time: 13-Oct-13 18:02:37  
 Plot Range: 690 ft to 7842.75 ft  
 Data: BOOTH\_25-26\Well Based\MAIN\*  
 Plot File: \COMP\MAIN

MAIN PASS 5" = 100'

REPEAT PASS 5" = 100'





0	SP	100	1 : 240	2	RT90	200	0	Pe	10
	millivolts				ohmm				
0	Gamma API	200	BHVT	2	RT60	200	30	Density Porosity	-10
	api				ohmm			percent	
6	Caliper	16	AHVT	2	RT30	200	30	Neutron Porosity	-10
	inches				ohmm			percent	
10K	Tens	0		2	RT20	200			
	pounds				ohmm				
				2	RT10	200			
					ohmm				

**HALLIBURTON**

Plot Time: 13-Oct-13 18:02:39  
 Plot Range: 7580 ft to 7842.75 ft  
 Data: BOOTH\_25-26\Well Based\REPEAT\*  
 Plot File: \\COMP\REPEAT

REPEAT PASS 5" = 100'

CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION

Tool Name:	GTET - 11812883	Reference Calibration Date:	13-Aug-12 08:59:35
Engineer:	R. TWEETEN	Calibration Date:	26-Sep-12 06:39:34
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1

Calibrator Source S/N: TB-289  
Calibrator API Reference:243.00 api  
Equivalent Calibrator API Reference:247.3 api

Measurement	Measured	Calibrated	Units
Background	21.8	21.9	api
Background + Calibrator	268.4	269.2	api
Calibrator	246.6	247.3	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION

Tool Name:	GTET - 11812883	Reference Calibration Date:	26-Sep-12 06:39:34
Engineer:	R. TWEETEN	Calibration Date:	14-Oct-12 16:27:16
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1

Calibrator Source S/N: TB-289  
Calibrator API Reference:243.00 api  
Equivalent Calibrator API Reference:247.3 api

Field Verification	Shop	Field	Units
Background	21.9	71.4	api
Background + Calibrator	269.2	323.1	api
Calibrator	247.3	251.7	api

Shop	Field	Difference	Tolerance
247.3	251.7	-4.4	+/- 9.00

DUAL SPACED NEUTRON SHOP CALIBRATION

Tool Name:	DSNT - 11812167	Reference Calibration Date:	13-Aug-12 08:50:23
Engineer:	J. WALDEN	Calibration Date:	20-Sep-12 13:07:33
Software Version:	WL INSITE R3.4.4 (Build 2)	Calibration Version:	1

Logging Source S/N: DSN434  
Tank Serial Number: 11068236  
Reference value assigned to Tank: 53.720  
Snow Block S/N: 37526  
Calibration Tank Water Temperature: 68 degF  
Min. Tool Housing Outside Diameter: 3.625 in

CALIBRATION CONSTANTS			
Measurement	Prev. Value	New Value	Control Limit On New Value
Gain:	0.998	0.999	0.900 - 1.100

WATER TANK SUMMARY (Horizontal Water Tank)				
Measurement	Current Reading (Previous Coef.)	Calibrated (New Coef.)	Change	Control Limit On Change

Porosity (decp):	0.2220	0.2224	0.0004	+/- 0.0020
Calibrated Ratio:	10.10	10.11	0.013	+/- 0.050

VERIFIER		
Measurement	Value	Control Limit
Snow-Block Porosity (decp):	0.0811	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 - 11812167	Reference Calibration Date:	20-Sep-12 13:07:33
Engineer:	R. TWEETEN	Calibration Date:	14-Oct-12 16:36:44
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1

Logging Source S/N: DSN434  
Snow Block S/N: 37526

NEUTRON FIELD-CHECK SUMMARY				
	Shop	Field	Difference	Control Limit On Change
Snow-Block Porosity (decp):	0.0811	0.0797	-0.0013	+/- 0.0150

PASS/FAIL SUMMARY	
Block Change Check:	Passed
Snow Block Stat Check:	Passed
Temperature Check:	Passed

DENSITY CALIPER SHOP CALIBRATION			
Tool Name:	SDLT - 11812177	Reference Calibration Date:	20-Sep-12 14:55:13
Engineer:	R. TWEETEN	Calibration Date:	20-Sep-12 15:01:18
Software Version:	WL INSITE R3.4.4 (Build 2)	Calibration Version:	1
Host Tool Name:	-		

CALIBRATION COEFFICIENTS			
Measurement	Previous Value	New Value	Control Limit On New Value
Pad Offset	-3570.55	-3519.96	-7000.00 - -1000.00
Pad Gain	0.0003863	0.0003825	0.000200 - 0.000600
Arm Offset	-4529.12	-4535.03	-5000.00 - 3000.00
Arm Gain	0.0005710	0.0005646	0.000300 - 0.000700
Arm Power	-0.000005442	-0.000004670	-0.000010000 - 0.000010000

The ring diameter is computed from: DIAMETER = PAD EXTENSION + ARM EXTENSION + 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)	2.00	2.00	0.00	+/- 0.20
Medium Ring (in)	3.77	3.75	-0.02	+/- 0.20
RING DIAMETER:				
Small Ring (in)	6.50	6.50	0.00	+/- 0.20
Medium Ring (in)	8.26	8.25	-0.01	+/- 0.20



PASS/FAIL SUMMARY	
Calibration-Coefficients Range Check:	Passed
Ring-Measurement Check:	Passed
PASS/FAIL SUMMARY	
Calibration-Coefficients Range Check:	Passed

SPECTRAL DENSITY SHOP CALIBRATION			
Tool Name:	SDLT Pad - 11795867	Reference Calibration Date:	13-Aug-12 10:09:26
Engineer:	J. WALDEN	Calibration Date:	20-Sep-12 13:49:09
Software Version:	WL INSITE R3.4.4 (Build 2)	Calibration Version:	1

Logging Source S/N: 5471GW		
Aluminum Block S/N: 63066	Density: 2.602g/cc	Pe: 3.100
Magnesium Block S/N: N/A	Density: 1.691g/cc	Pe: 2.650

DENSITY CALIBRATION SUMMARY			
Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	1.0464	1.0571	0.90 - 1.10
Near Dens Gain	1.0179	1.0168	0.90 - 1.10
Near Peak Gain	1.0168	0.9928	0.90 - 1.10
Near Lith Gain	0.9738	0.9356	0.90 - 1.10
Far Bar Gain	1.0103	1.0093	0.90 - 1.10
Far Dens Gain	0.9999	0.9967	0.90 - 1.10
Far Peak Gain	0.9907	0.9900	0.90 - 1.10
Far Lith Gain	0.9761	0.9705	0.90 - 1.10
Near Bar Offset	-0.4968	-0.5966	NONE
Near Dens Offset	-0.2166	-0.2090	NONE
Near Peak Offset	-0.1944	0.0077	NONE
Near Lith Offset	0.1575	0.4840	NONE
Far Bar Offset	-0.1876	-0.1764	NONE
Far Dens Offset	-0.0842	-0.0547	NONE
Far Peak Offset	-0.0148	-0.0070	NONE
Far Lith Offset	0.1049	0.1530	NONE
Near Bar Background	848.67	848.88	700 - 1450
Near Dens Background	282.50	280.25	230 - 480
Near Peak Background	122.50	123.12	100 - 210
Near Lith Background	149.86	150.13	125 - 260
Far Bar Background	665.89	661.75	450 - 900
Far Dens Background	260.98	258.60	175 - 345
Far Peak Background	103.35	102.71	70 - 140
Far Lith Background	106.13	106.33	75 - 145

CALIBRATION BLOCK SUMMARY				
Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.693	1.691	-0.002	+/- 0.015
Pe	2.560	2.603	0.043	+/- 0.150
ALUMINUM				
Density (g/cc)	2.605	2.602	-0.003	+/- 0.01500

TOOL SUMMARY				
Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	0.0003	+/- 0.0110	0.0003	+/- 0.0140
Magnesium Block	0.0009	+/- 0.0110	-0.0004	+/- 0.0140
Aluminum Block	-0.0012	+/- 0.0110	0.0001	+/- 0.0140
Resolution	8.68	6.00 - 11.50	8.94	6.00 - 11.50
Internal Verifier(B+D+P+L)	1402	1200 - 2700	1129	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 - 11795867	Reference Calibration Date:	20-Sep-12 13:49:09
Engineer:	R. TWEETEN	Calibration Date:	14-Oct-12 16:26:46
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1

Pad Temperature: 68.2 degF

DENSITY FIELD CALIBRATION SUMMARY				
Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1402.372	1396.004	-6.368	15.123
Far (B+D+P+L) cps	1129.395	1128.486	-0.909	17.674
Near Resolution	8.68	8.65	-0.030	0.50
Far Resolution	8.94	9.03	0.090	1.00

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

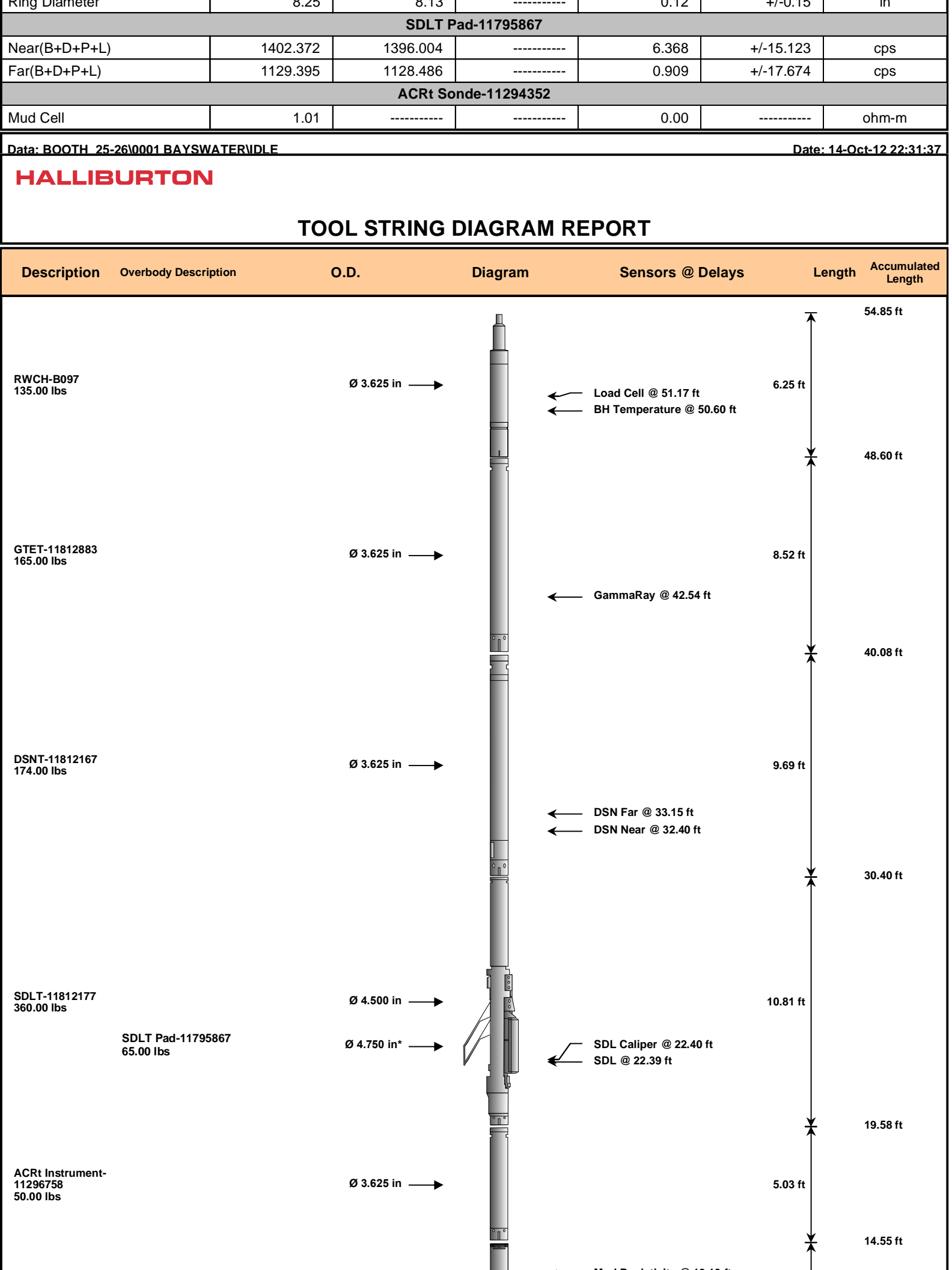
SDLT CALIPER FIELD CALIBRATION

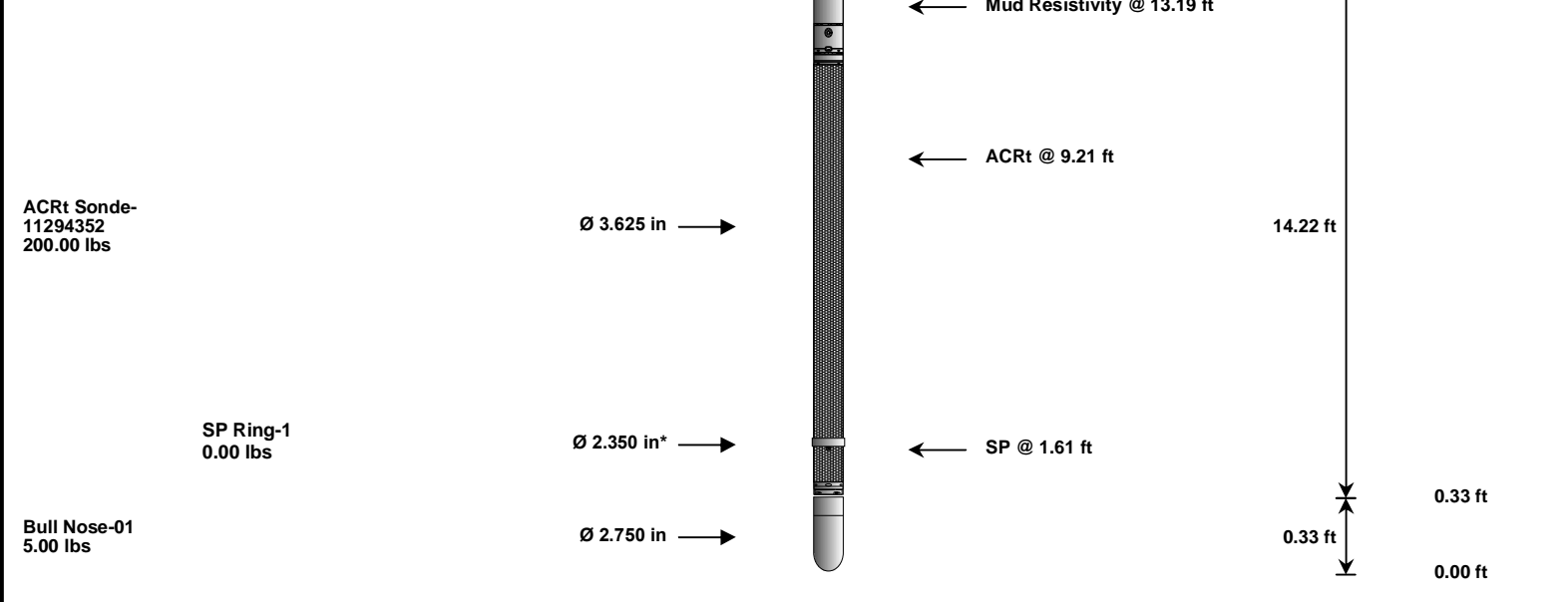
Tool Name:	SDLT - 11812177	Reference Calibration Date:	20-Sep-12 15:01:18
Engineer:	R. TWEETEN	Calibration Date:	14-Oct-12 16:30:06
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1

MEASURED CALIPER VALUES				
Measurement	Shop	Field	Change	Control Limit On New Value
Pad Extension	3.75	3.82	0.07	+/- 0.10
Ring Diameter	8.25	8.13	-0.12	+/- 0.15

PASS/FAIL SUMMARY	
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Pad Extension Check:		Passed							
Diameter Check:		Passed							
ARRAY COMPENSATED TRUE RESISTIVITY SHOP CALIBRATION									
Tool Name: ACRt Sonde - 11294352		Reference Calibration Date: 17-Aug-12 15:16:12							
Engineer: R. TWEETEN		Calibration Date: 17-Aug-12 15:29:14							
Software Version: WL INSITE R3.4.4 (Build 2)		Calibration Version: 1							
Host Tool Name: ACRt Instrument - 11296758									
TYPICAL GAIN RANGE									
Subarray	R12KHz			R36KHz			R72KHz		
	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper
A1 (80")	0.95	1.00	1.05	0.95	1.00	1.05	0.95	0.99	1.05
A2 (50")	0.95	1.00	1.05	0.95	1.00	1.05	0.95	1.00	1.05
A3 (29")	0.95	1.00	1.05	0.95	1.00	1.05	0.95	1.00	1.05
A4 (17")	0.95	1.00	1.05	0.95	1.00	1.05	0.95	1.00	1.05
A5 (10")	N/A	N/A	N/A	0.95	0.99	1.05	0.95	0.99	1.05
A6 (6")	N/A	N/A	N/A	0.95	0.98	1.05	0.95	0.97	1.05
TYPICAL SONDE OFFSET RANGE									
Subarray	R12KHz			R36KHz			R72KHz		
	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper
A1 (80")	-5	-1.12	2	-6	-4.30	-2	-8	-5.02	-2
A2 (50")	-7	-2.73	0	-7	-3.97	0	-7	-4.54	0
A3 (29")	-27	-14.33	-9	-9	-4.10	-3	-7	-3.34	-1
A4 (17")	-180	-97.28	-60	-45	-31.64	-15	-39	-25.69	-13
A5 (10")	N/A	N/A	N/A	-150	-95.39	-50	-80	-45.63	-10
A6 (6")	N/A	N/A	N/A	175	304.46	525	90	154.93	270
TRANSMITTER CURRENT GAIN				R-MUD VERIFICATION					
Signal	Lower	R	Upper	Signal	Lower (ohm-m)	Measured (ohm-m)	Upper (ohm-m)		
12K	0.6	0.92	1.3	Mud Cell	0.95	1.01	1.05		
36K	1.0	1.88	2.0						
72K	1.0	1.15	2.0						
PASS/FAIL SUMMARY									
GAIN RANGE CHK				PASS					
SONDE OFFSET RANGE CHK				PASS					
Tx CURRENT GAIN				PASS					
Rmud VERIFICATION				PASS					
TOOL OK TO LOG									
CALIBRATION SUMMARY									
Sensor	Shop	Field	Post	Difference	Tolerance	Units			
GTET-11812883									
Gamma Ray Calibrator	247.3	251.7	-----	-4.4	+/- 9.00	api			
DSNT-11812167									
Snow-Block Porosity	0.0811	0.0797	-----	0.0014	+/- 0.0150	decp			
SDLT-11812177									
Pad Extension	3.75	3.82	-----	-0.07	+/-0.10	in			
Ring Diameter	8.25	8.12	-----	0.13	+/- 0.15	in			





Mnemonic		Tool Name	Serial Number	Weight (lbs)	Length (ft)	Accumulated Length (ft)	Max.Log. Speed (fpm)
RWCH		Releasable Wireline Cable Head	B097	135.00	6.25	48.60	300.00
GTET		Gamma Telemetry Tool	11812883	165.00	8.52	40.08	60.00
DSNT		Dual Spaced Neutron	11812167	174.00	9.69	30.40	60.00
SDLT		Spectral Density Tool	11812177	360.00	10.81	19.58	60.00
SDLP		Density Insite Pad	11795867	65.00	2.55	* 21.79	60.00
ACRt		Array Compensated True Resistivity Instrument Section	11296758	50.00	5.03	14.55	300.00
ACRt		Array Compensated True Resistivity Sonde Section	11294352	200.00	14.22	0.33	300.00
SP		SP Ring	1	0.00	0.25	* 1.61	300.00
BLNS		Bull Nose	01	5.00	0.33	0.00	300.00
Total				1,154.00	54.85		
* Not included in Total Length and Length Accumulation.							
Data: BOOTH_25-26\0001 BAYSWATER\003 14-Oct-12 21:53 Up @7843.5f							Date: 14-Oct-12 22:24:24

COMPANY	BAYSWATER EXPLORATION AND PRODUCTION LLC		
WELL	BOOTH 25-26		
FIELD	WATTENBERG		
COUNTY	WELD	STATE	CO
HALLIBURTON		ARRAY COMPENSATED TRUE RESISTIVITY SPECTRAL DENSITY DUAL SPACED NEUTRON	