

HALLIBURTON

SPECTRAL DENSITY
DUAL SPACED NEUTRON
ARRAY COMPENSATED
TRUE RESISTIVITY

COMPANY				BAYSWATER EXPLORATION & PRODUCTION, LLC			
WELL				TRIANGLE 18-22			
FIELD				WATTENBERG			
COUNTY				WELD			
STATE				COLORADO			
Permanent Datum		GL	Sect. 22		Twp. 7N	Rge. 65W	Other Services: RWCH
Log measured from		KB	SURFACE HOLE LOCATION: 1764' FNL & 2373' FWL / SENW				
Drilling measured from		KB	BOTTOM HOLE LOCATION: 883' FNL & 1516' FWL				
Date		25-Apr-13					
Run No.		ONE					
Depth - Driller		7555.00 ft					
Depth - Logger		631.0 ft					
Bottom - Logged Interval		7552.0 ft					
Top - Logged Interval		631.0 ft					
Casing - Driller		8.625 in @ 631.5 ft					@
Casing - Logger		7552.0 ft					
Bit Size		7.875 in					@
Type Fluid in Hole		WBM					
Density		9.3 ppg	45.00	s/qt			
PH		8.00 pH	8.0	cptn			
Source of Sample		MUD TANK					
Rm @ Meas. Temperature		1.660 ohmm @ 91.00 degF					@
Rmf @ Meas. Temperature		1.32 ohmm @ 75.00 degF					@
Rmc @ Meas. Temperature		1.460 ohmm @ 75.00 degF					@
Source Rmf		CHART	CHART				
Rm @ BHT		0.76 ohmm @ 208.0 degF					@
Time Since Circulation		8.1 hr					
Time on Bottom		25-Apr-13 17:33					
Max. Rec. Temperature		208.0 degF @ N/A					@
Equipment		11362840	ROCK SPRINC				
Recorded By		V. CREWS					
Witnessed By		C. WEITZEL					

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Service Ticket No.: 900391373				API Serial No.: 05123370670000				PGM Version: WL INSITE R3.6.2 (Build 7)											
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		FREE		N/A					
Rmc @ Meas. Temp.		@		@				E171_S970											
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.		10931260		Serial No.				Serial No.		10948155		Serial No.		11004663					
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.		102-A		Spacing				Log Type		GAM-GAM		Log Type		NEU-NEU					
Type		SCINT						Source Type		Cs137		Source Type		Am241Be					
Length		8"		LSA [Y/N]				Serial No.		5116GW		Serial No.		DSN-431					
Distance to Source		10'		FWDA [Y/N]				Strength		1.5 Ci		Strength		15.0 Ci					
LOGGING DATA																			
GENERAL				GAMMA				ACOUSTIC				DENSITY				NEUTRON			

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	7558'	7372'	REC	0	200				20%	0%	2.68 g/cc	20%	0%	SAND
ONE	7372'	7016'	REC	0	200				20%	0%	2.71 g/cc	20%	0%	LIME
ONE	7016'	CSG	REC	0	200				20%	0%	2.68 g/cc	20%	0%	SAND
DIRECTIONAL INFORMATION														
Maximum Deviation @									KOP @					
Remarks: RWCH-GTET-DSNT-SDLT-ACRT RAN IN COMBINATION														
ANNULAR HOLE VOLUME CALCULATED FOR 4.5-INCH CASING														
BOREHOLE RUGOSITY, TENSION PULLS AND WASHOUTS MAY EFFECT LOG QUALITY														
BOWSPRING AND STANDOFF REMOVED AT CUSTOMER REQUEST														
LATITUDE: 40.561911														
LONGITUDE: -104.650323														
TODAY'S CREW: G. HOOD & J. HARBISON							RIG: ENSIGN 7							
*** THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES, ROCK SPRINGS, WY (307) 352-8600 ***														
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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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
7016.00					
	DSNT	NLIT	Neutron Lithology	Limestone	
	SDLT Pad	DMA	Formation Density Matrix	2.710	g/cc
7372.00					
	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	9.300	ppg
	SHARED	WAGT	Weighting Agent	Barite	
	SHARED	BSAL	Borehole salinity	0.00	ppm
	SHARED	FSAL	Formation Salinity NaCl	0.00	ppm
	SHARED	KPCT	Percent K in Mud by Weight?	0.00	%
	SHARED	RMUD	Mud Resistivity	2.000	ohmm
	SHARED	TRM	Temperature of Mud	75.0	degF
	SHARED	CSD	Logging Interval is Cased?	No	
	SHARED	ICOD	AHV Casing OD	4.500	in
	SHARED	ST	Surface Temperature	65.0	degF
	SHARED	TD	Total Well Depth	7558.00	ft
	SHARED	BHT	Bottom Hole Temperature	208.0	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	
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	
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	0.000	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	0.00	in
ACRt Sonde	TCS1	Temperature Correction Source	FP Lwr & FP Up	
ACRt Sonde	TPOS	Tool Position	Free Hanging	
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

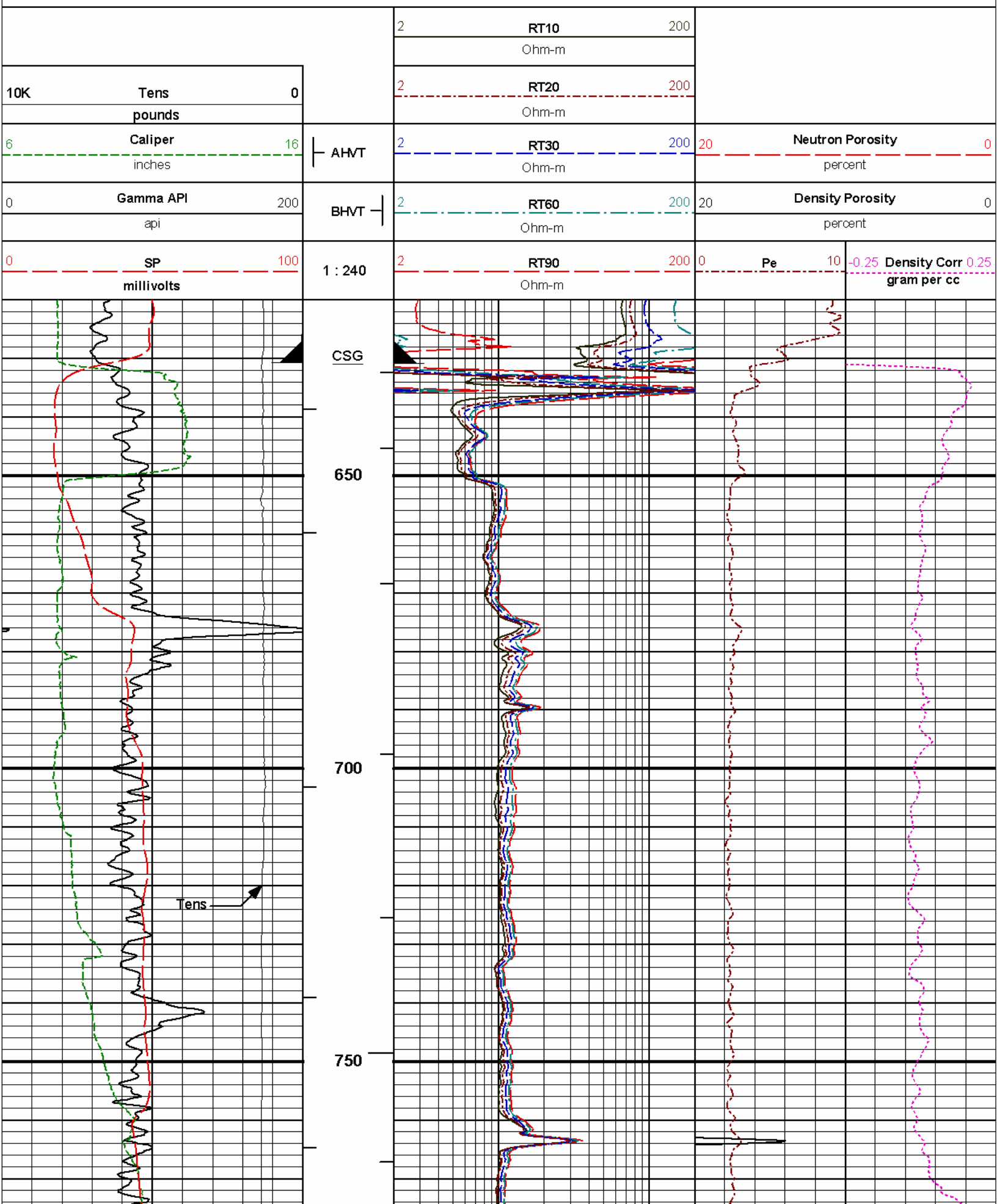
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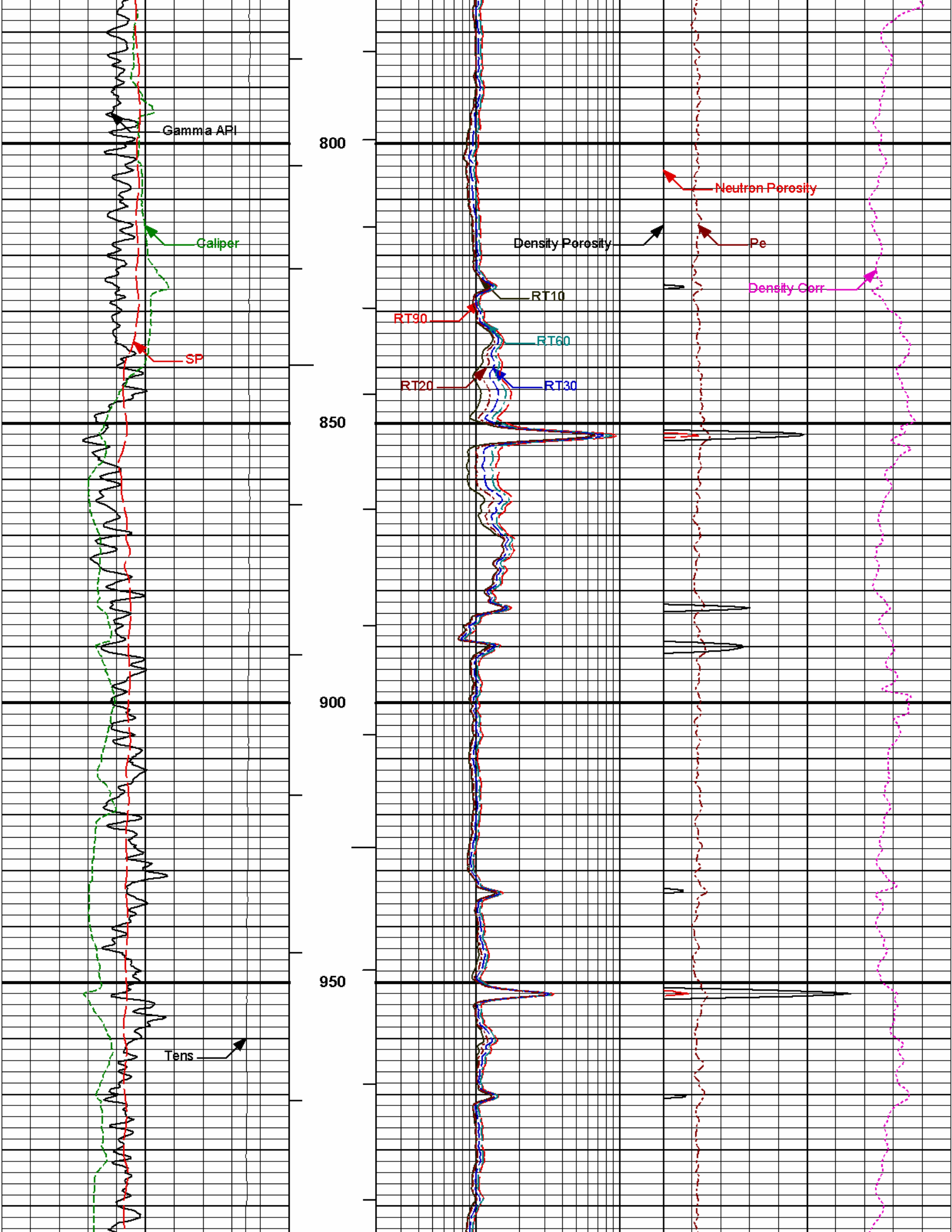
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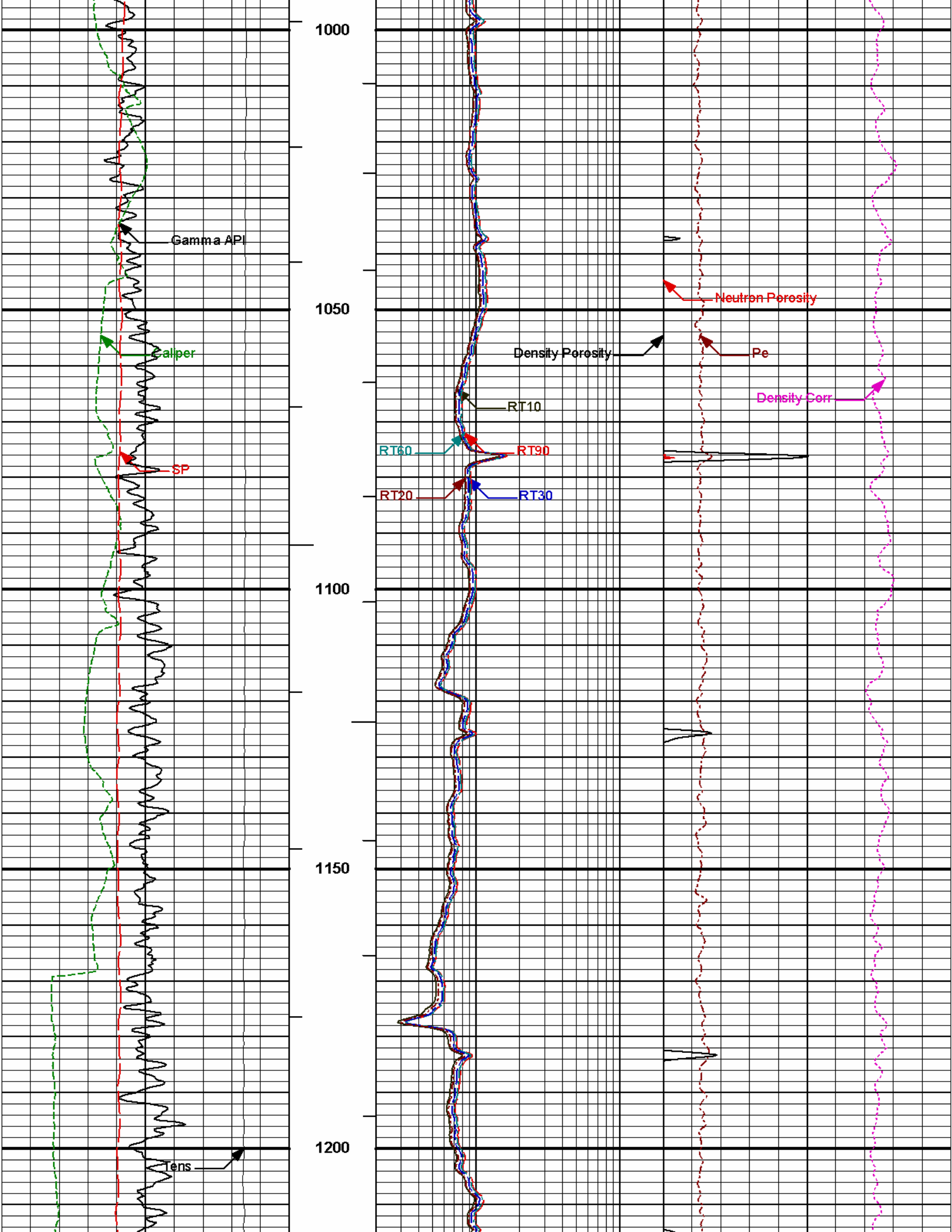
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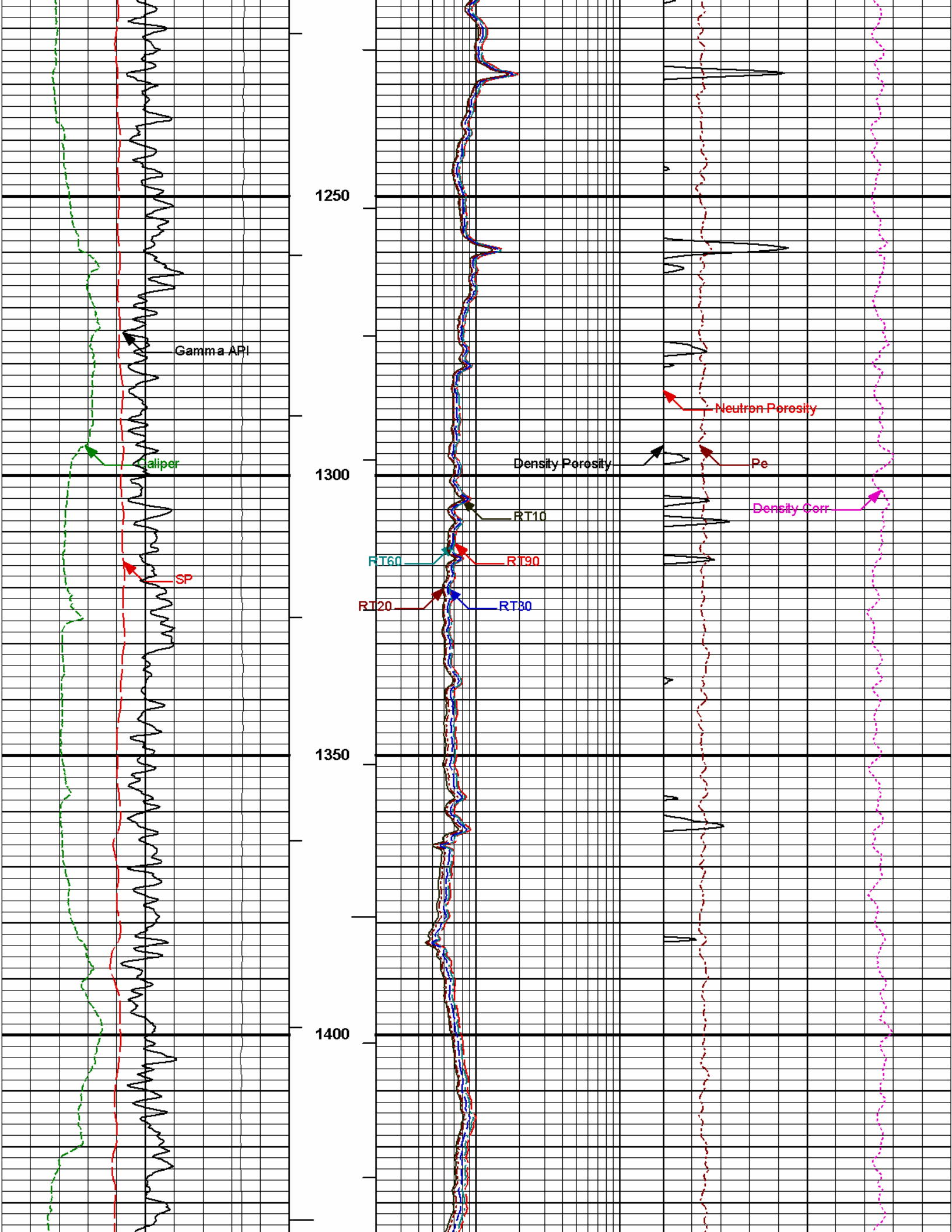
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Plot File: \\COMP\BAY_MAIN

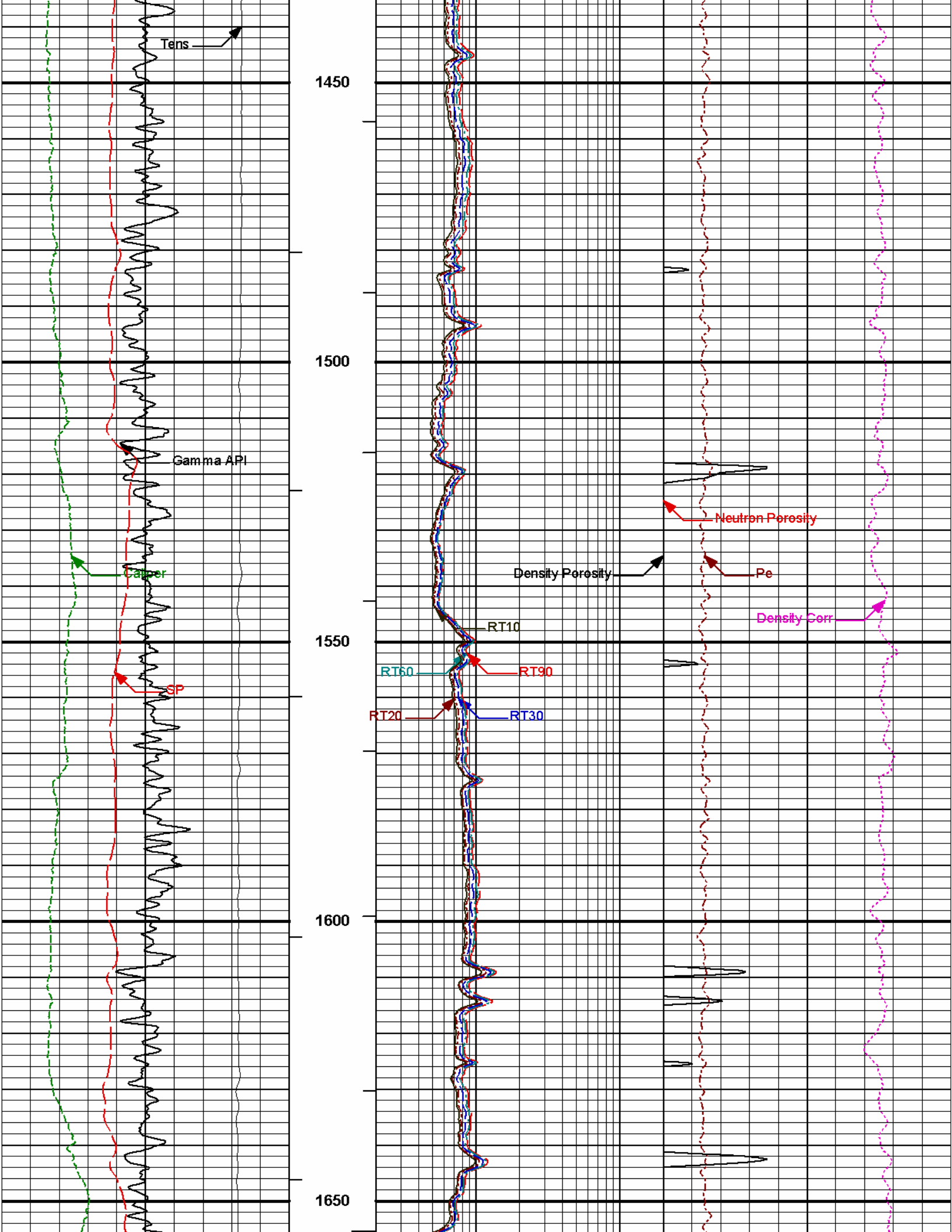
MAIN PASS 5" = 100'

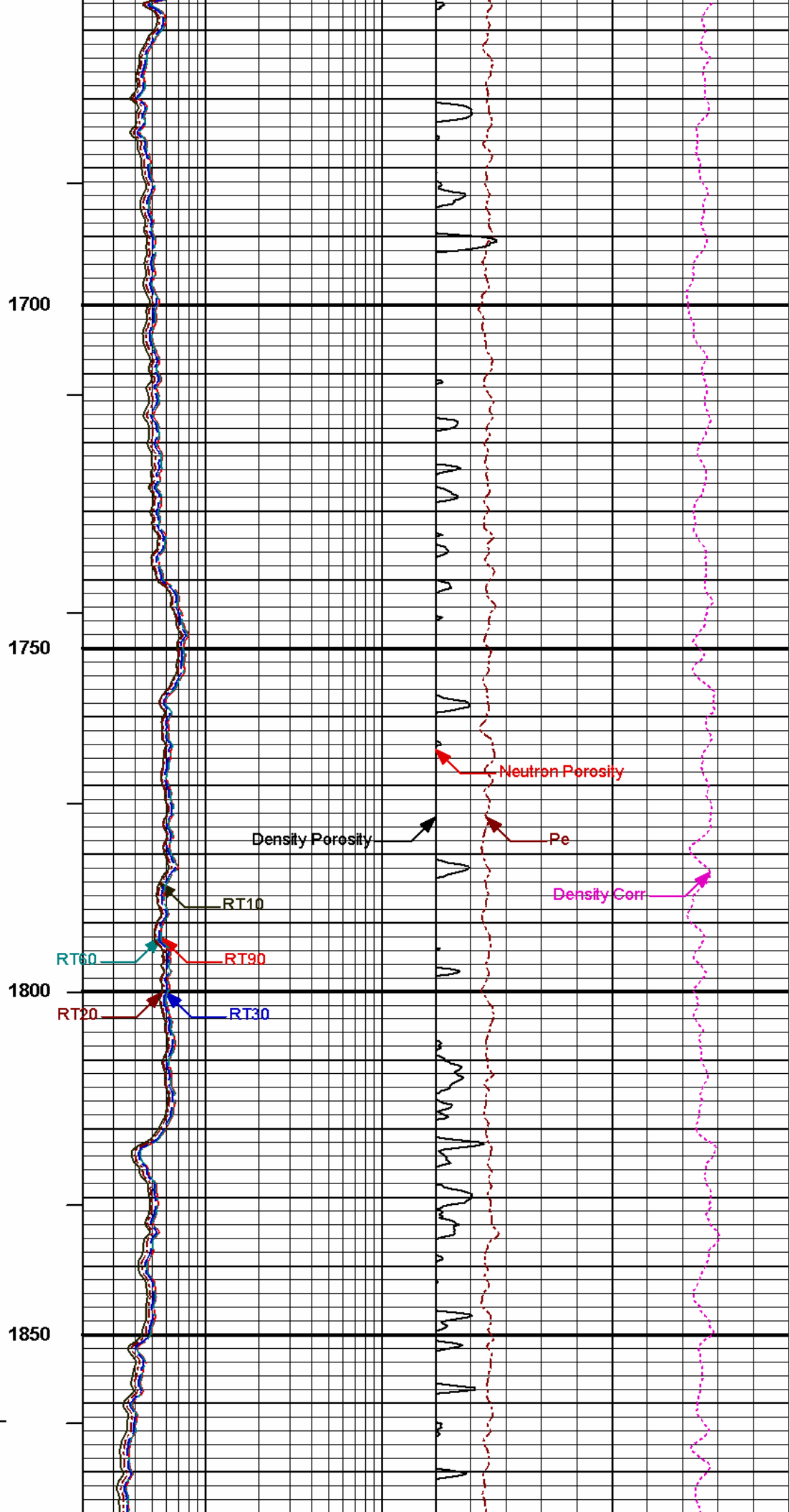
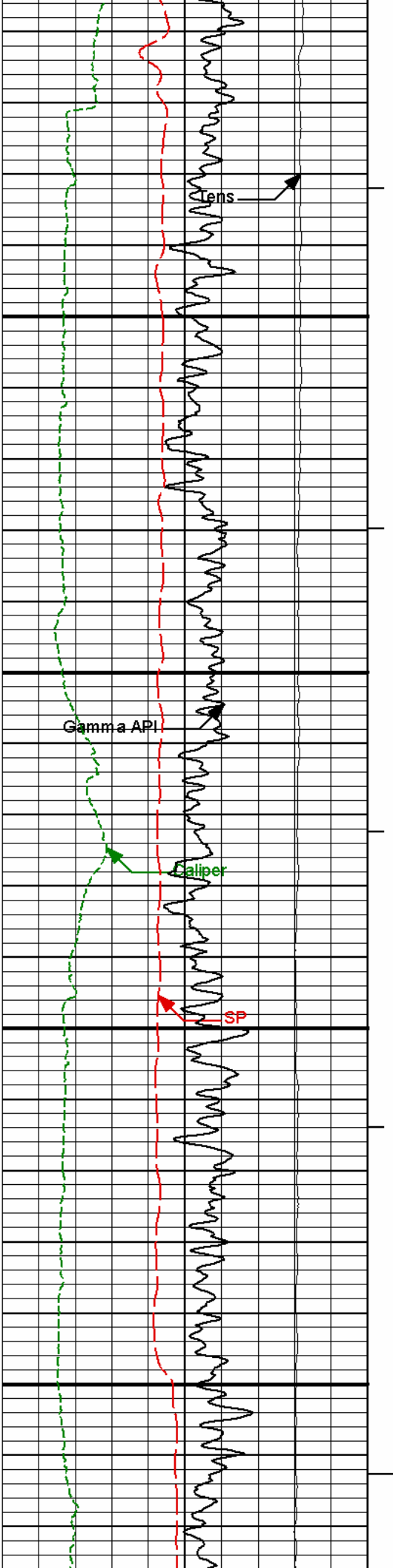


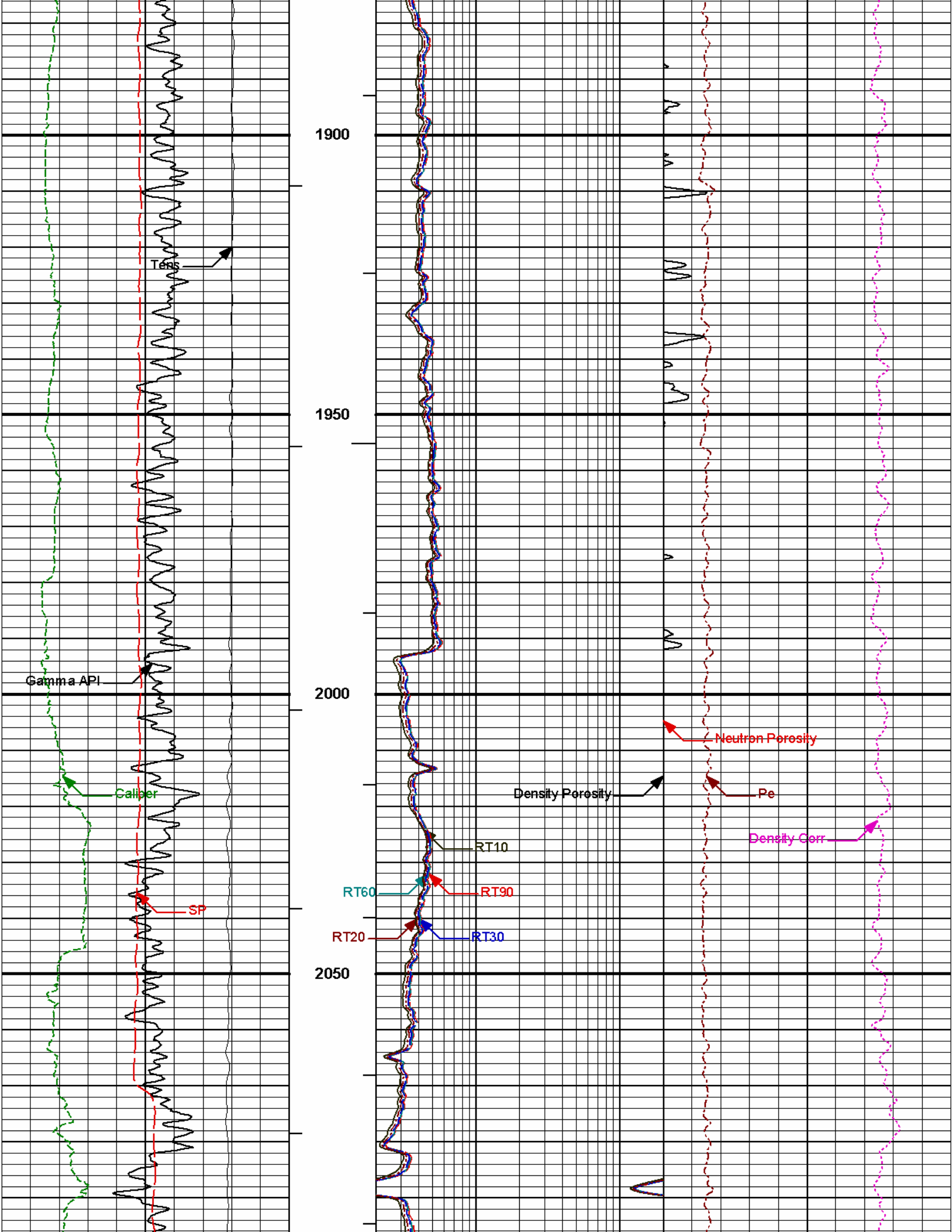


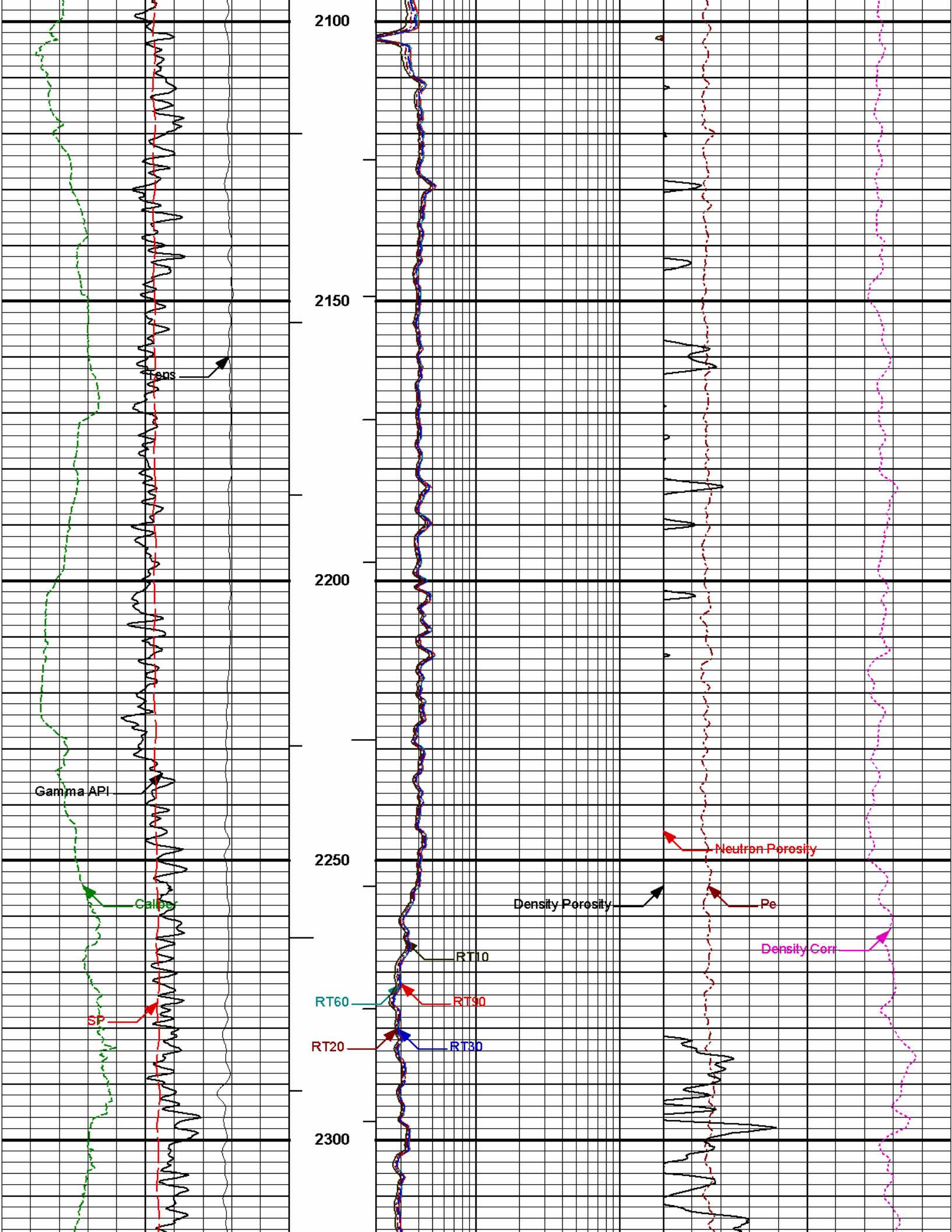


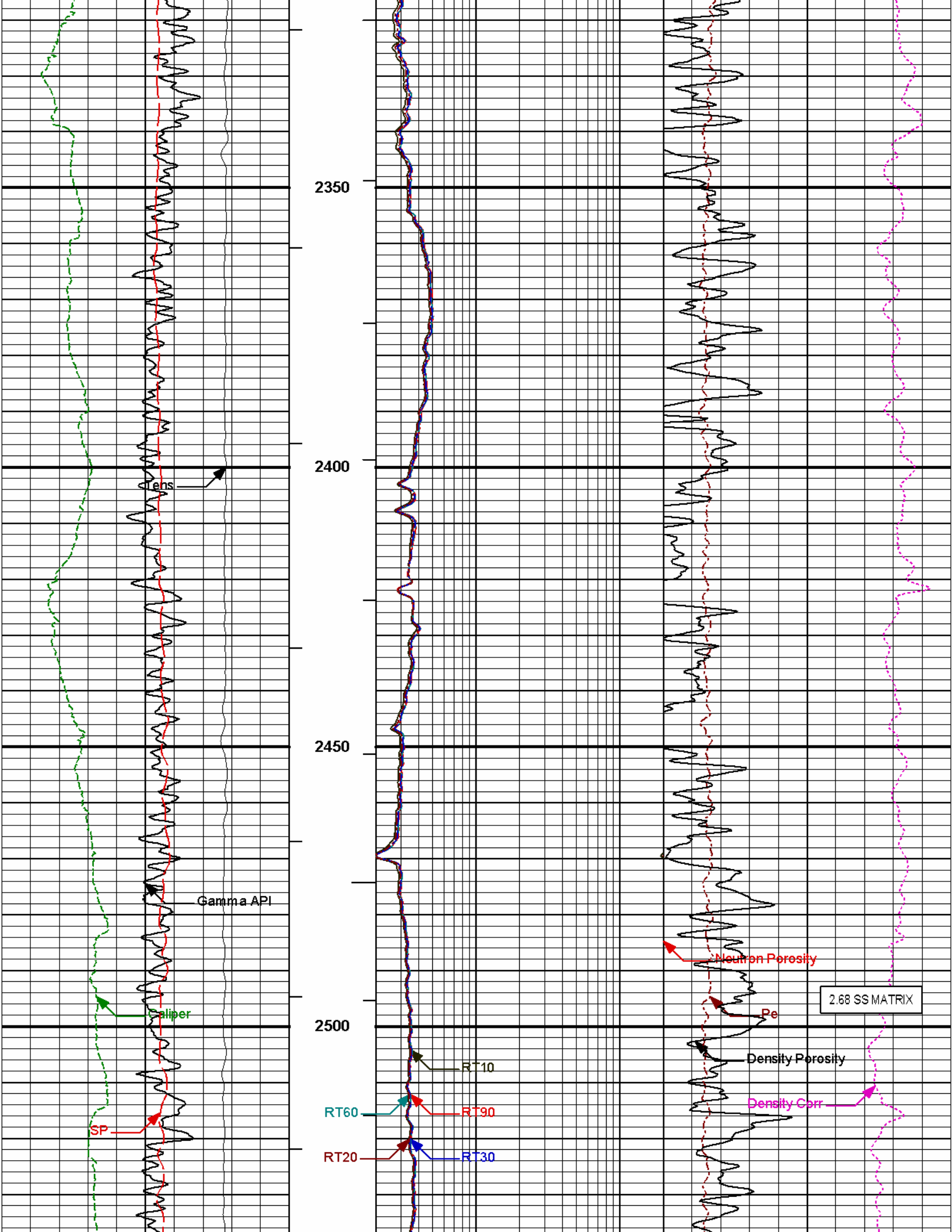


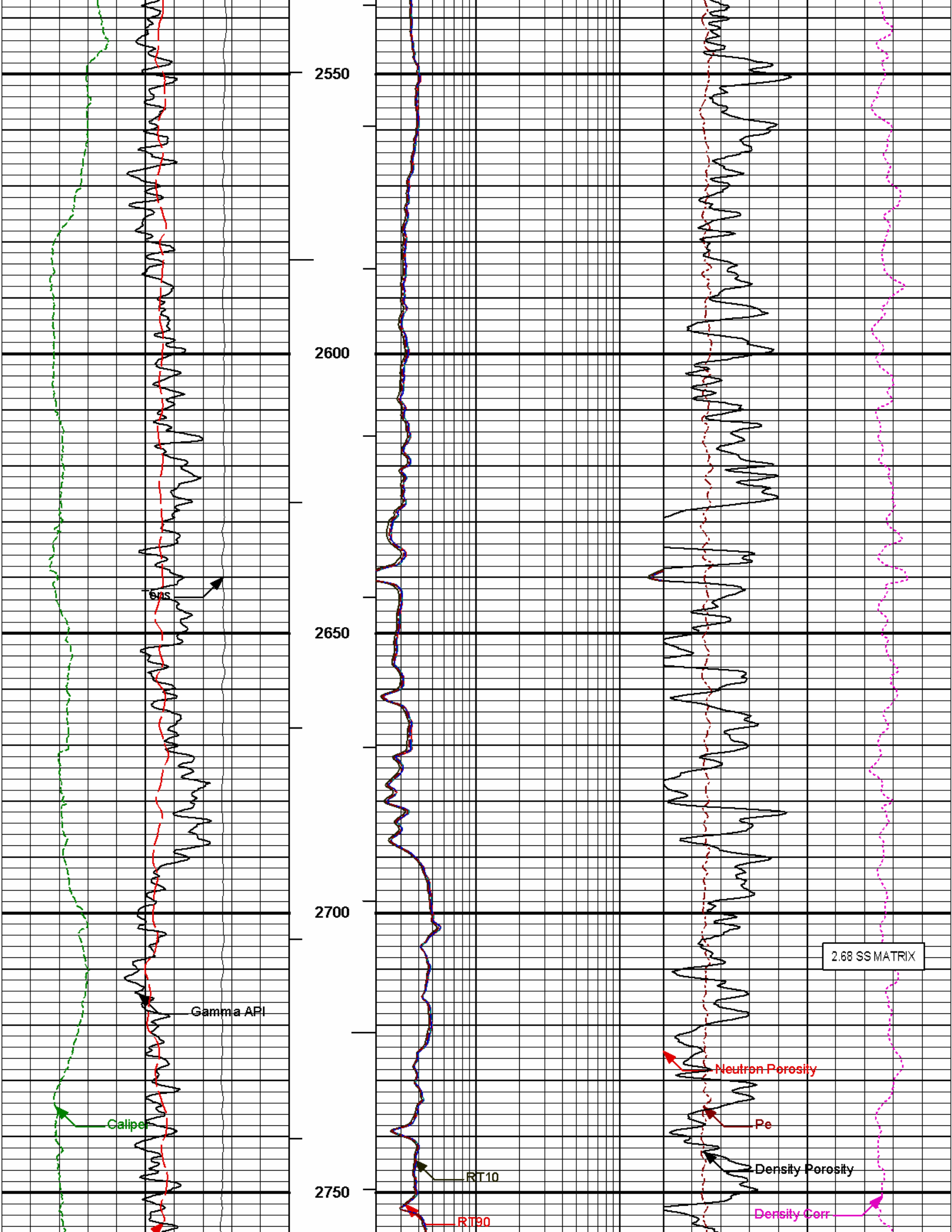


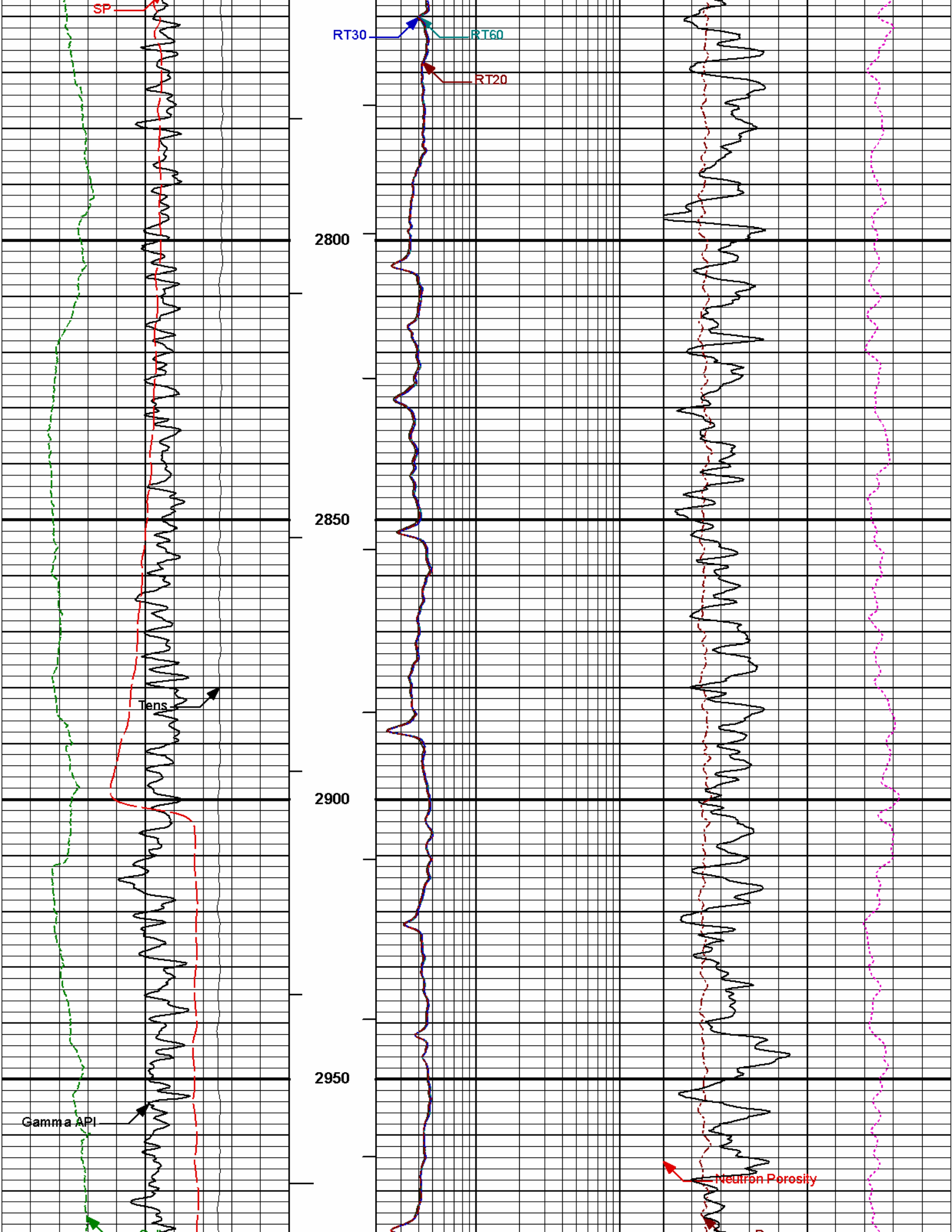


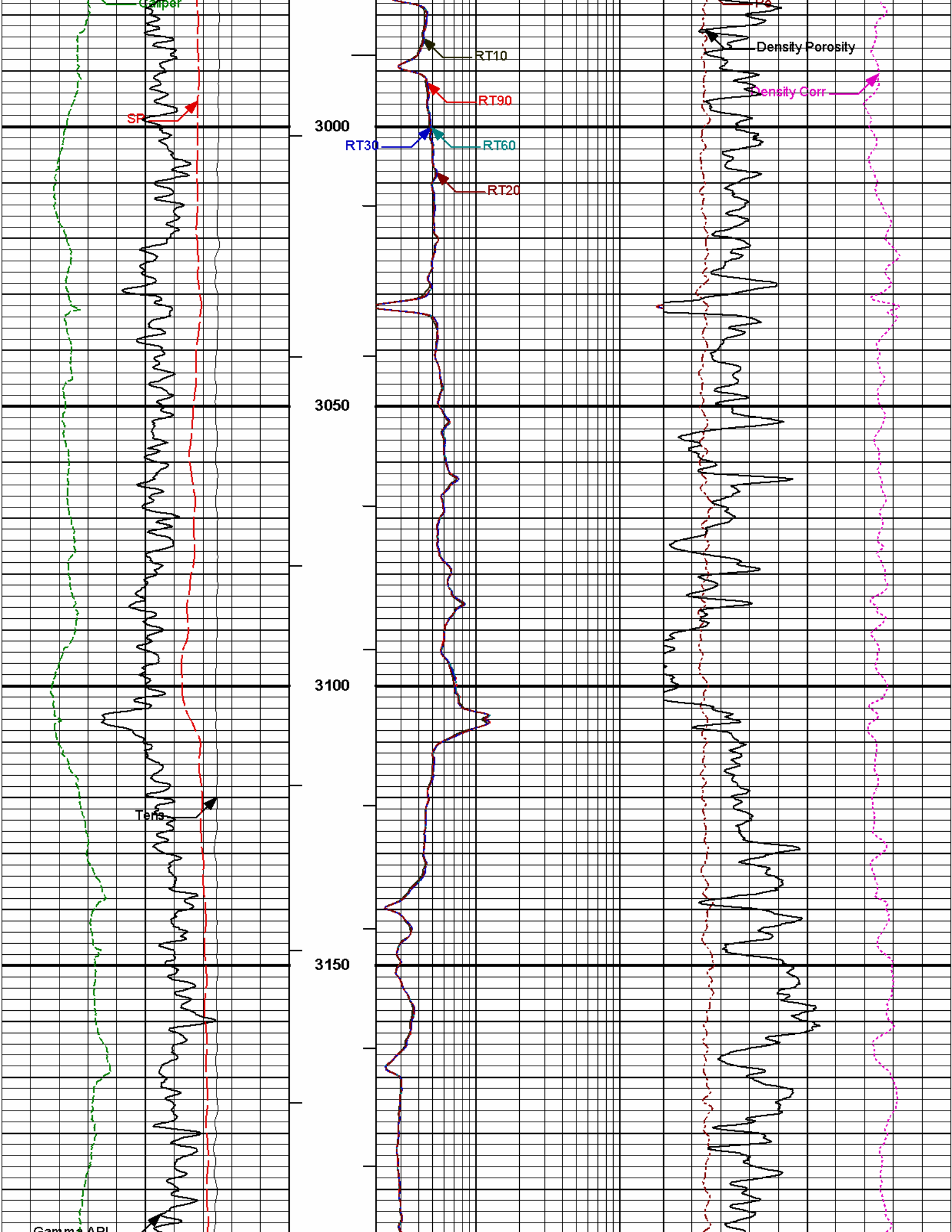


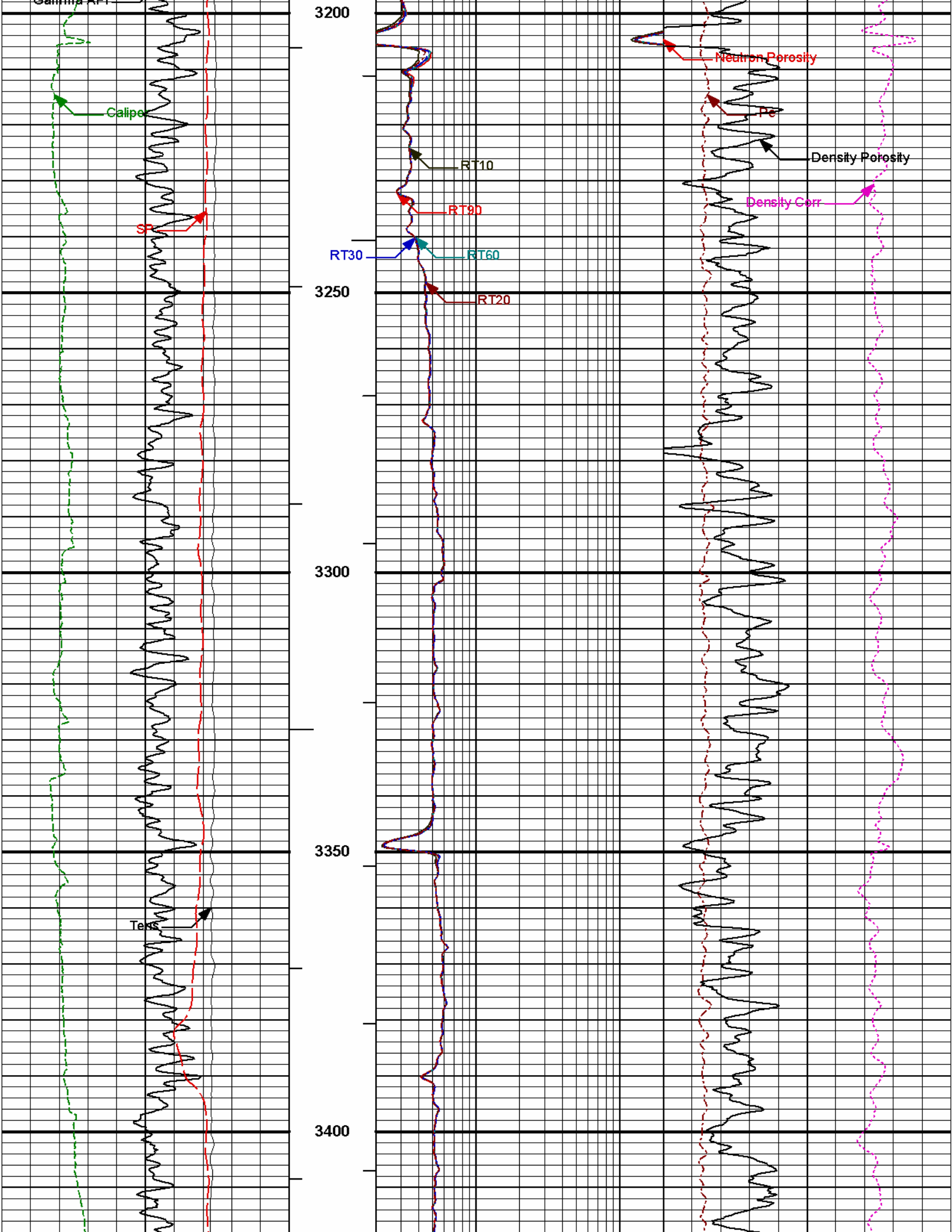


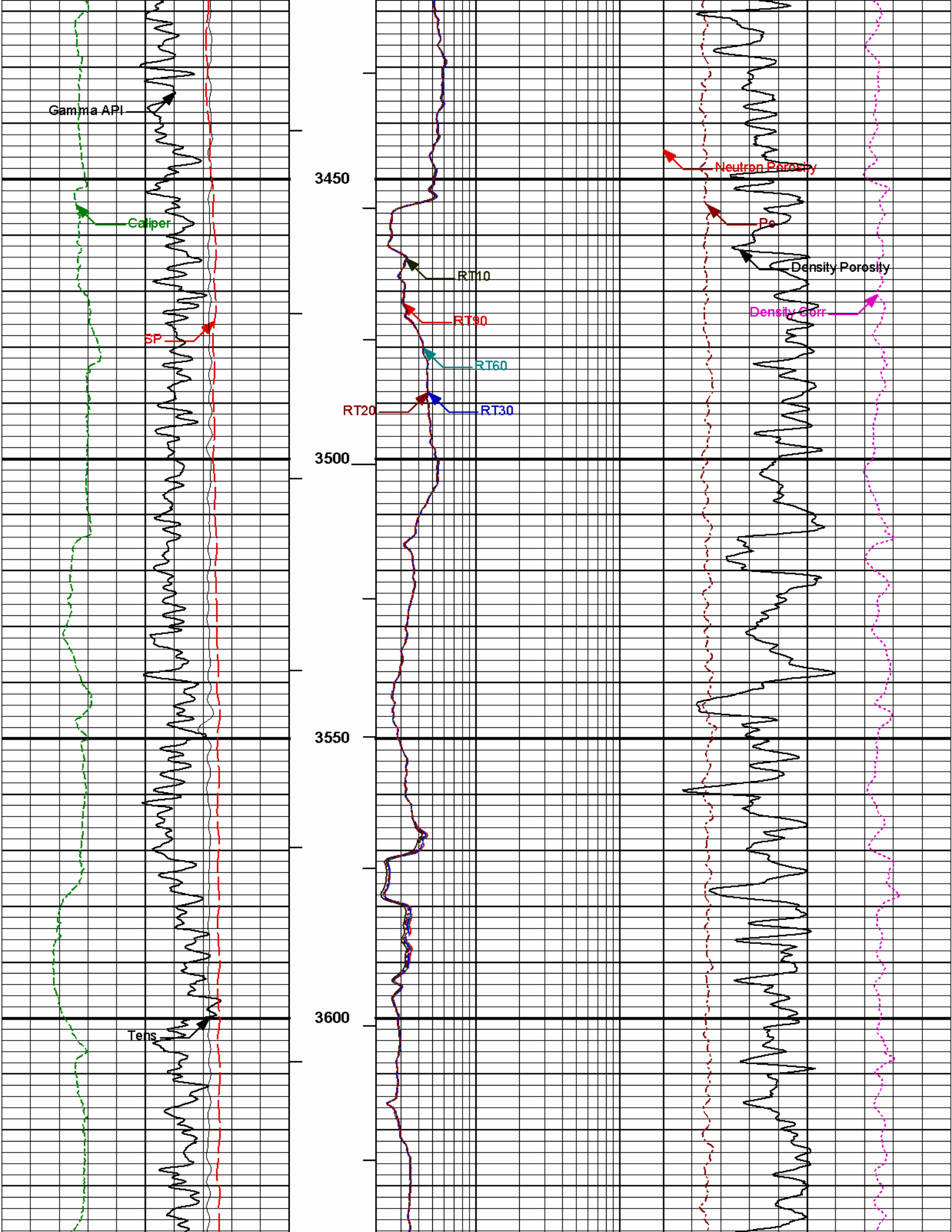


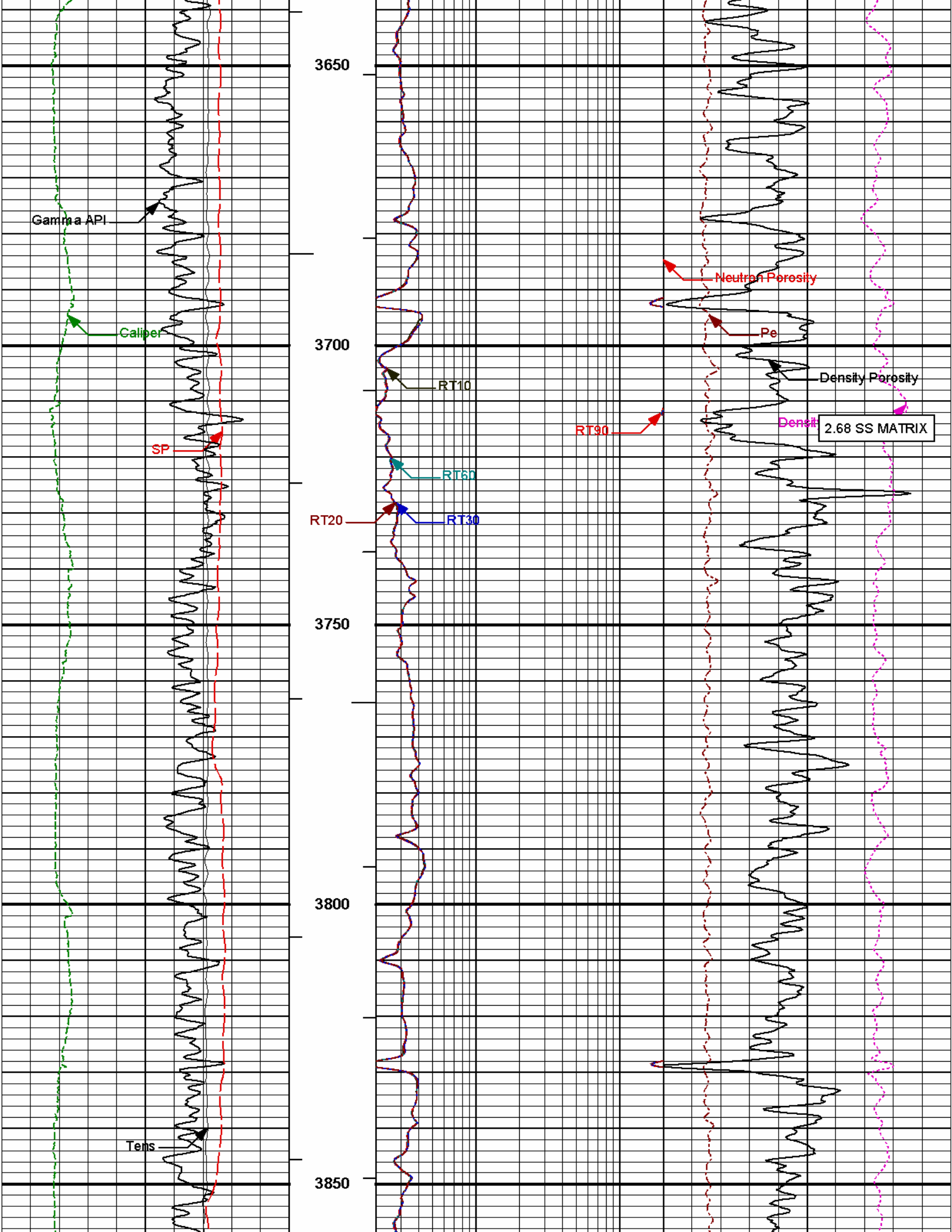


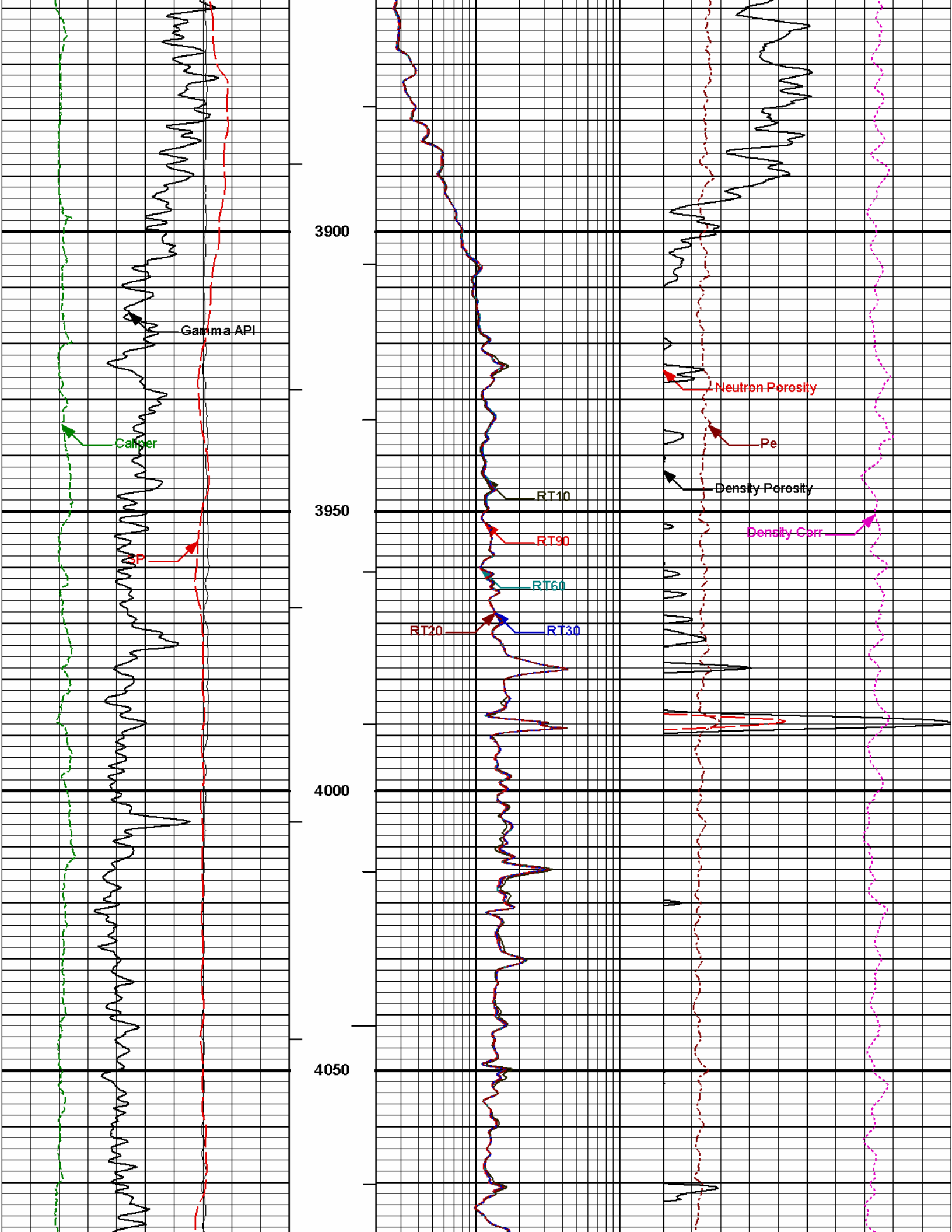


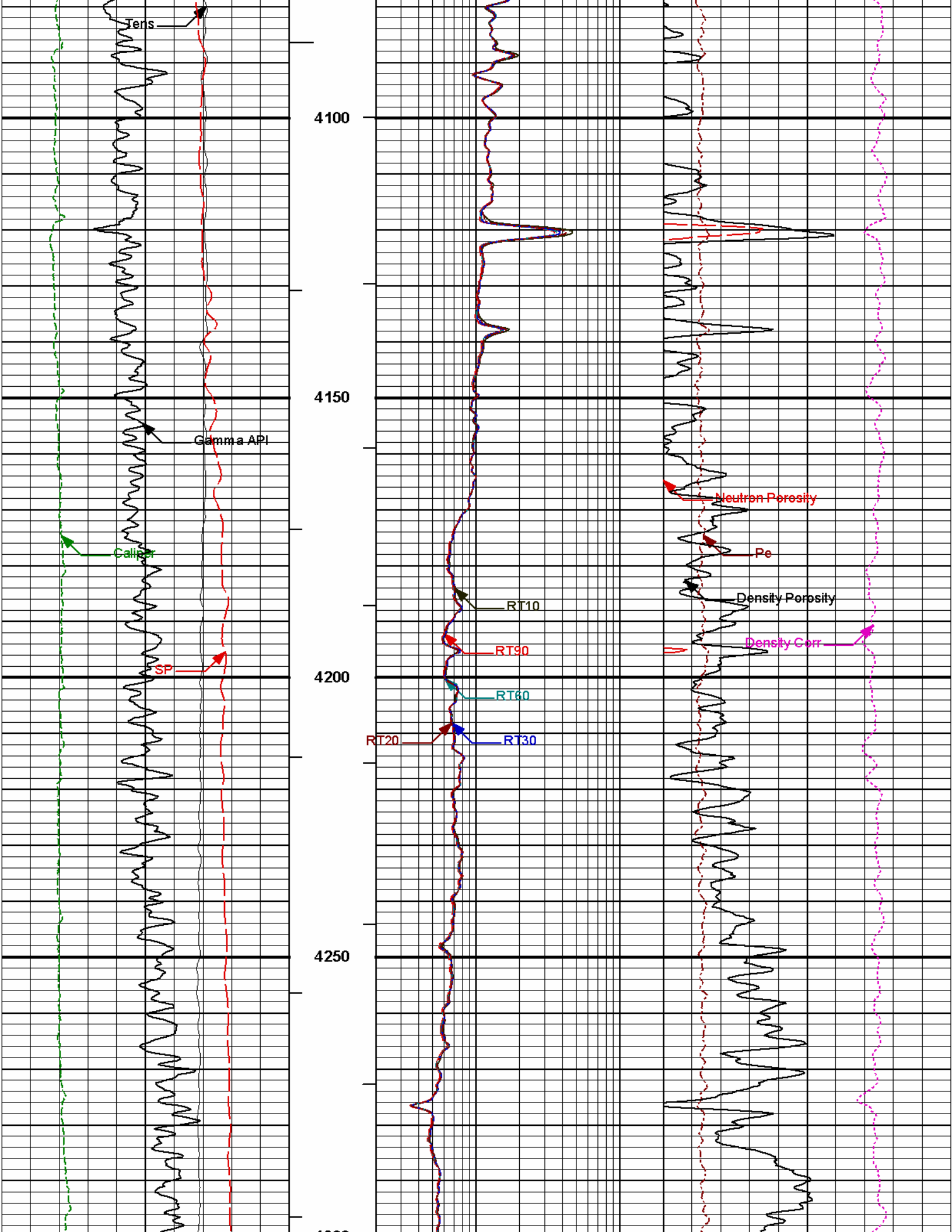


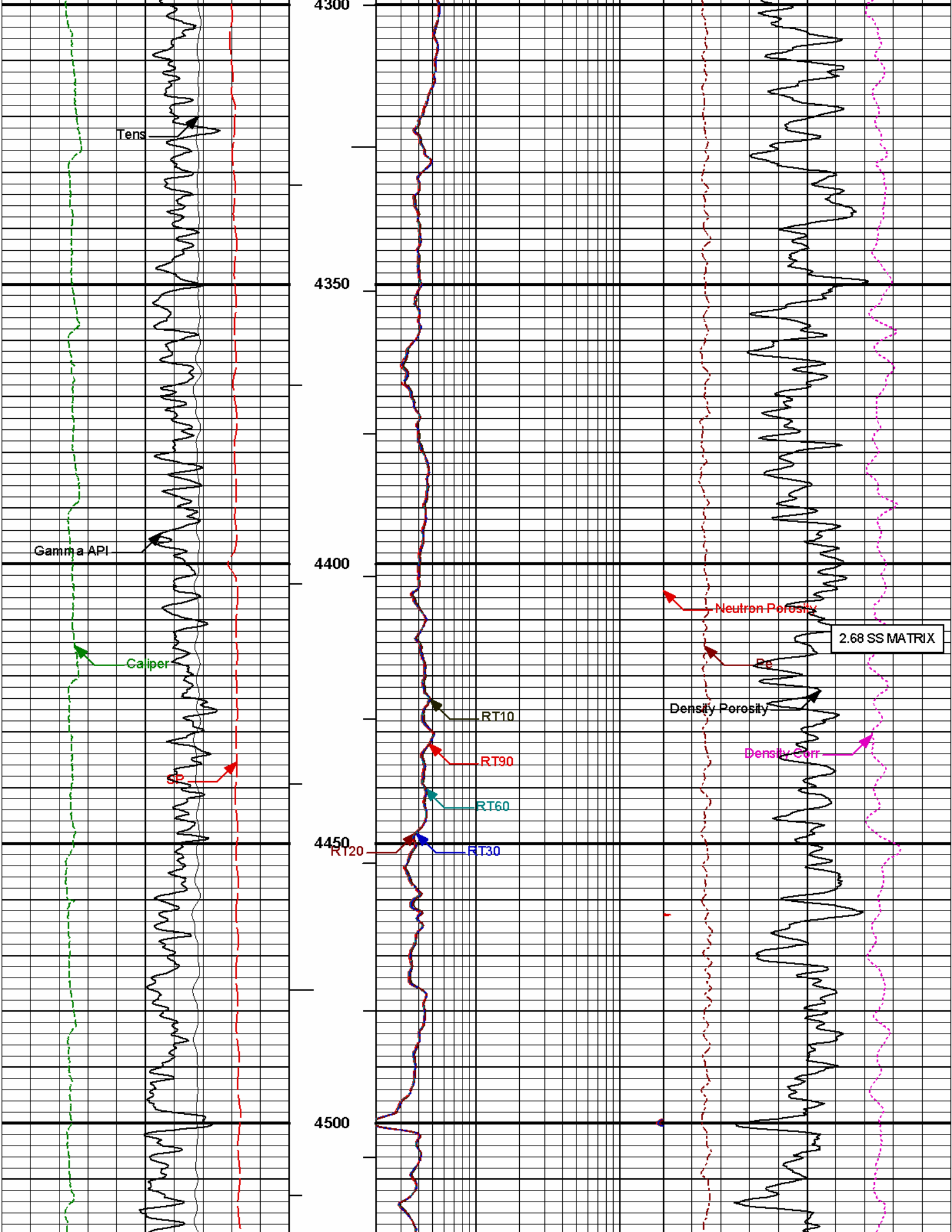


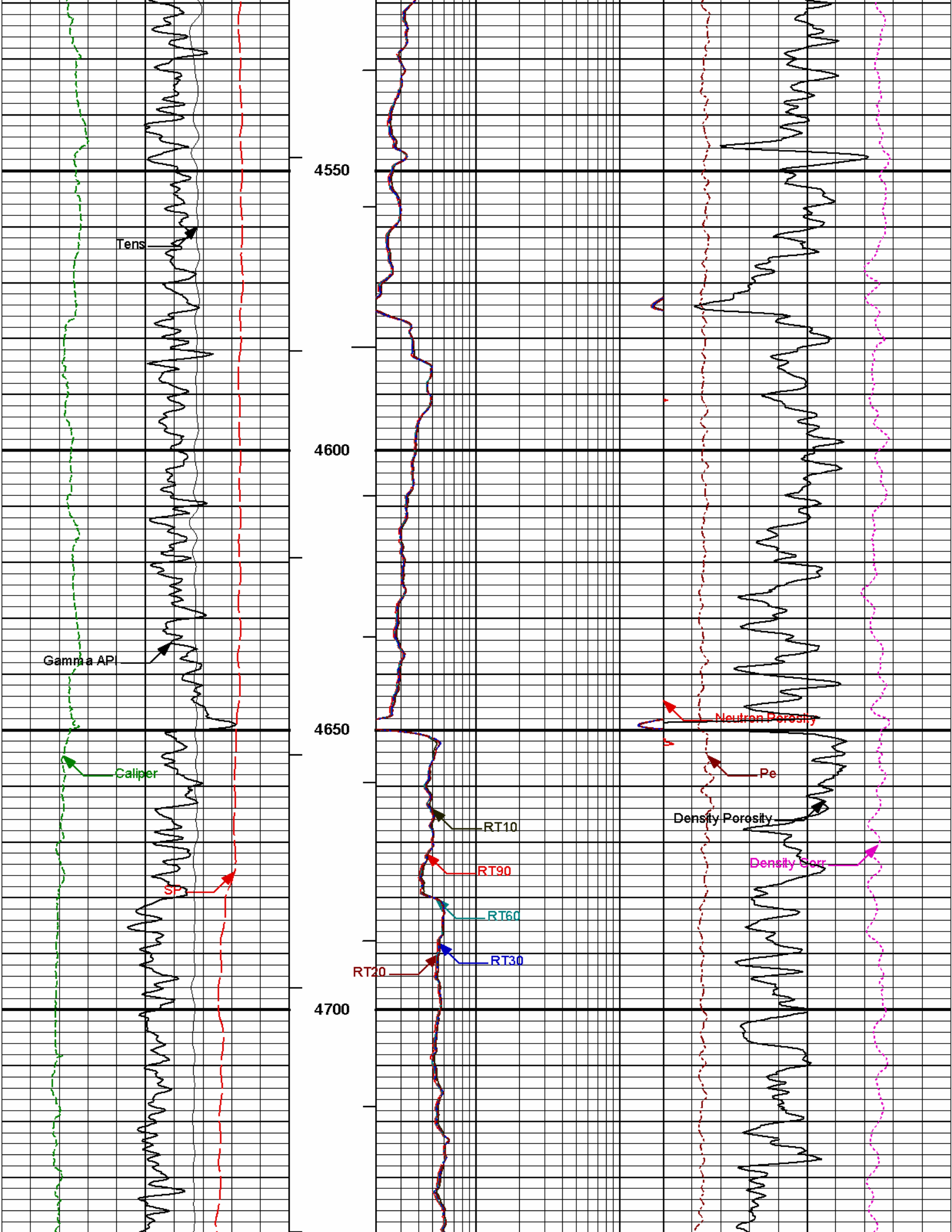


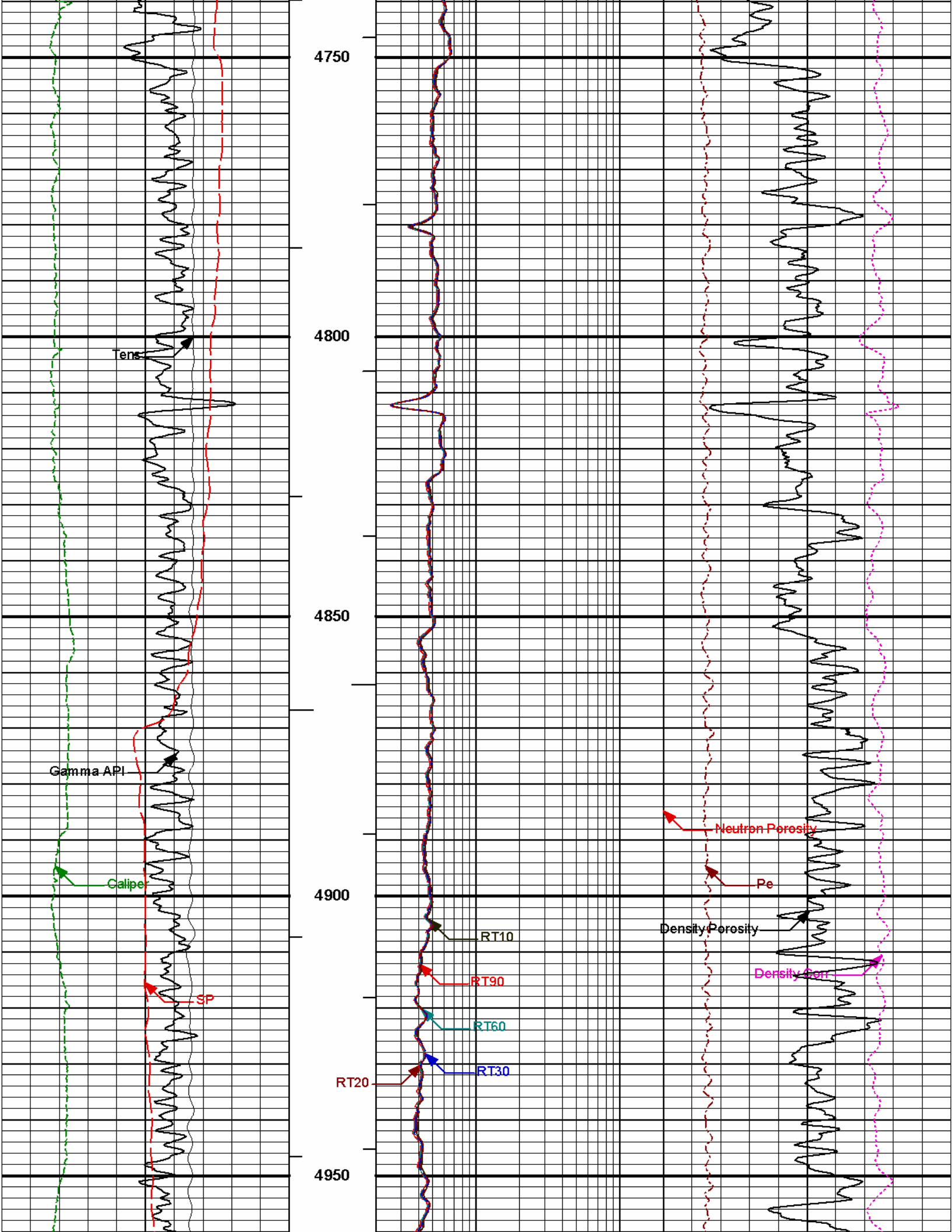


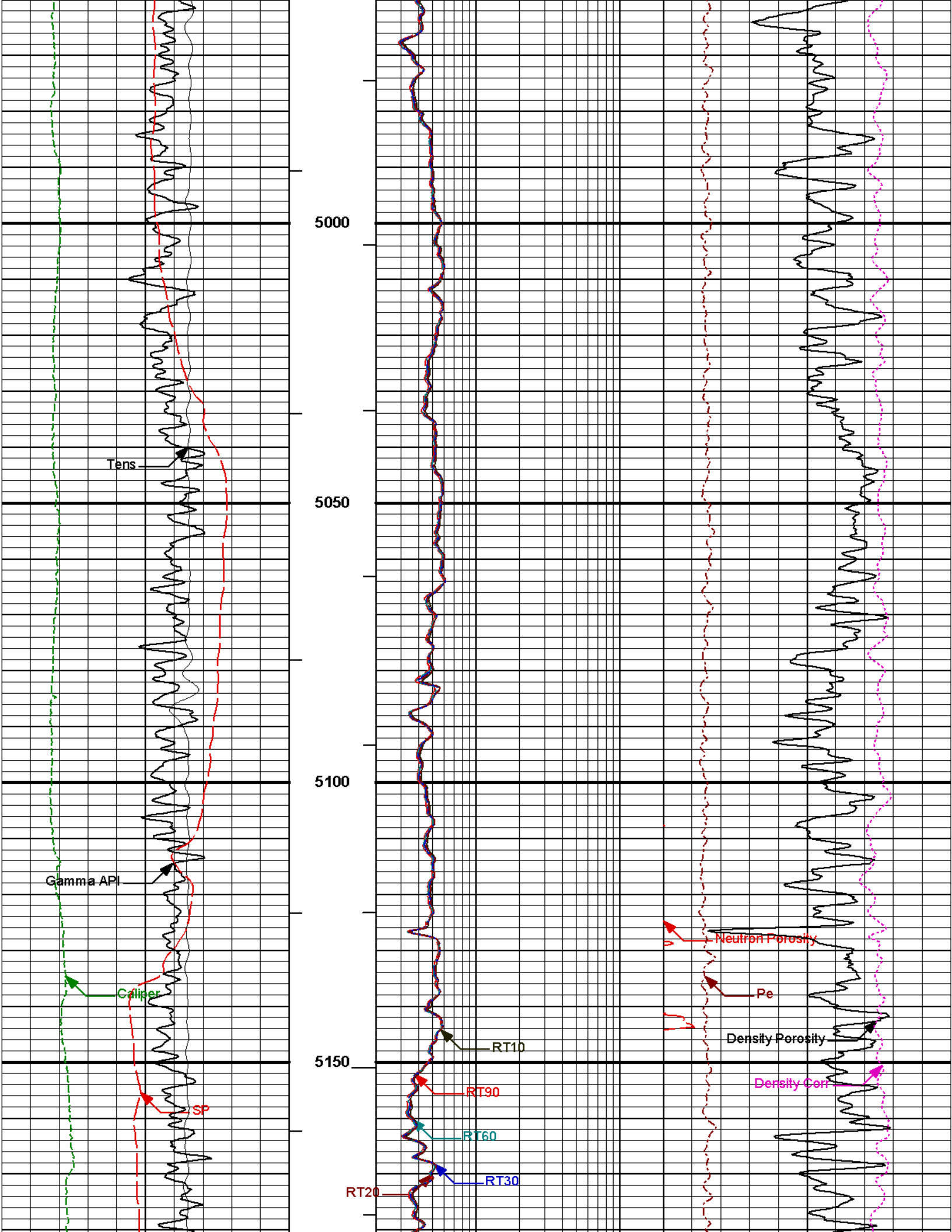


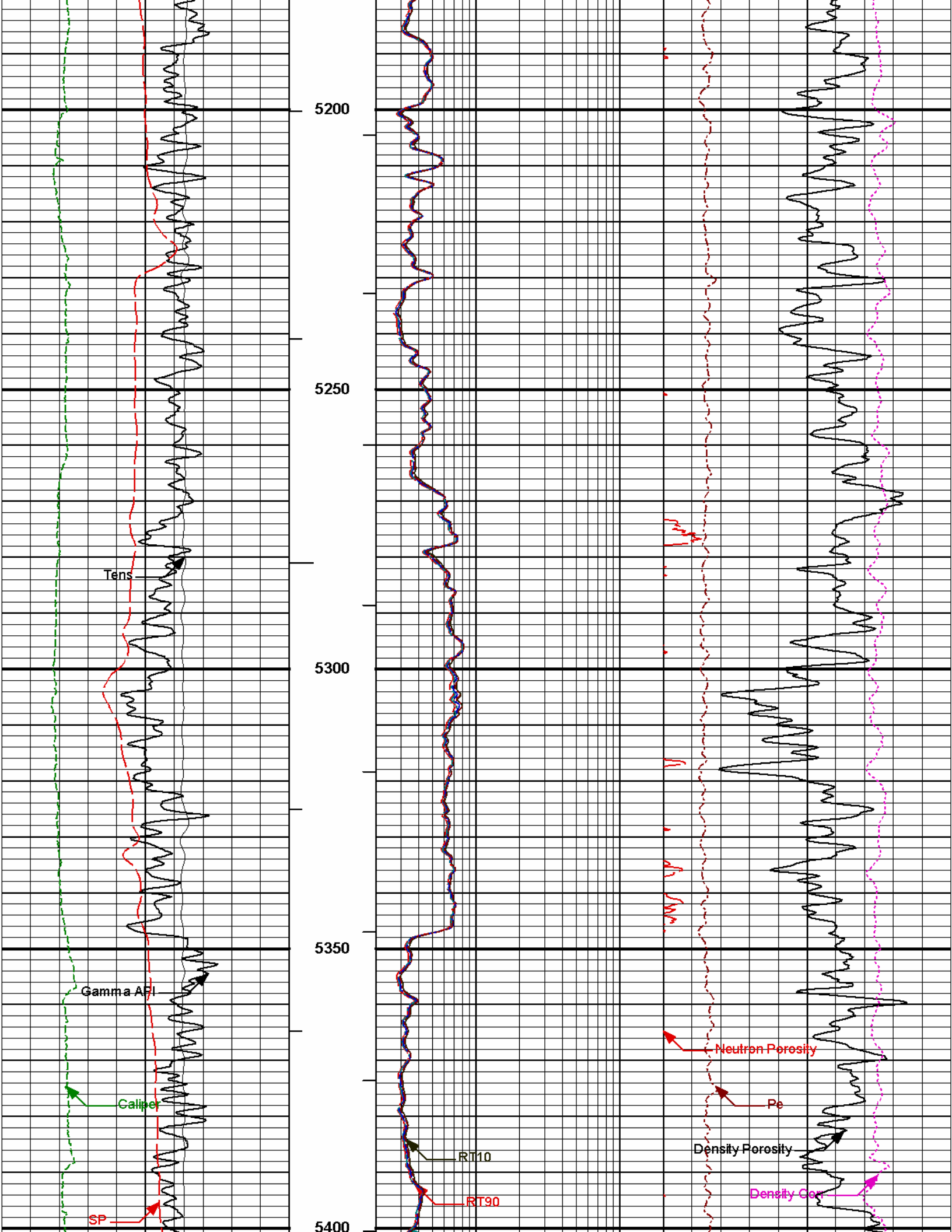


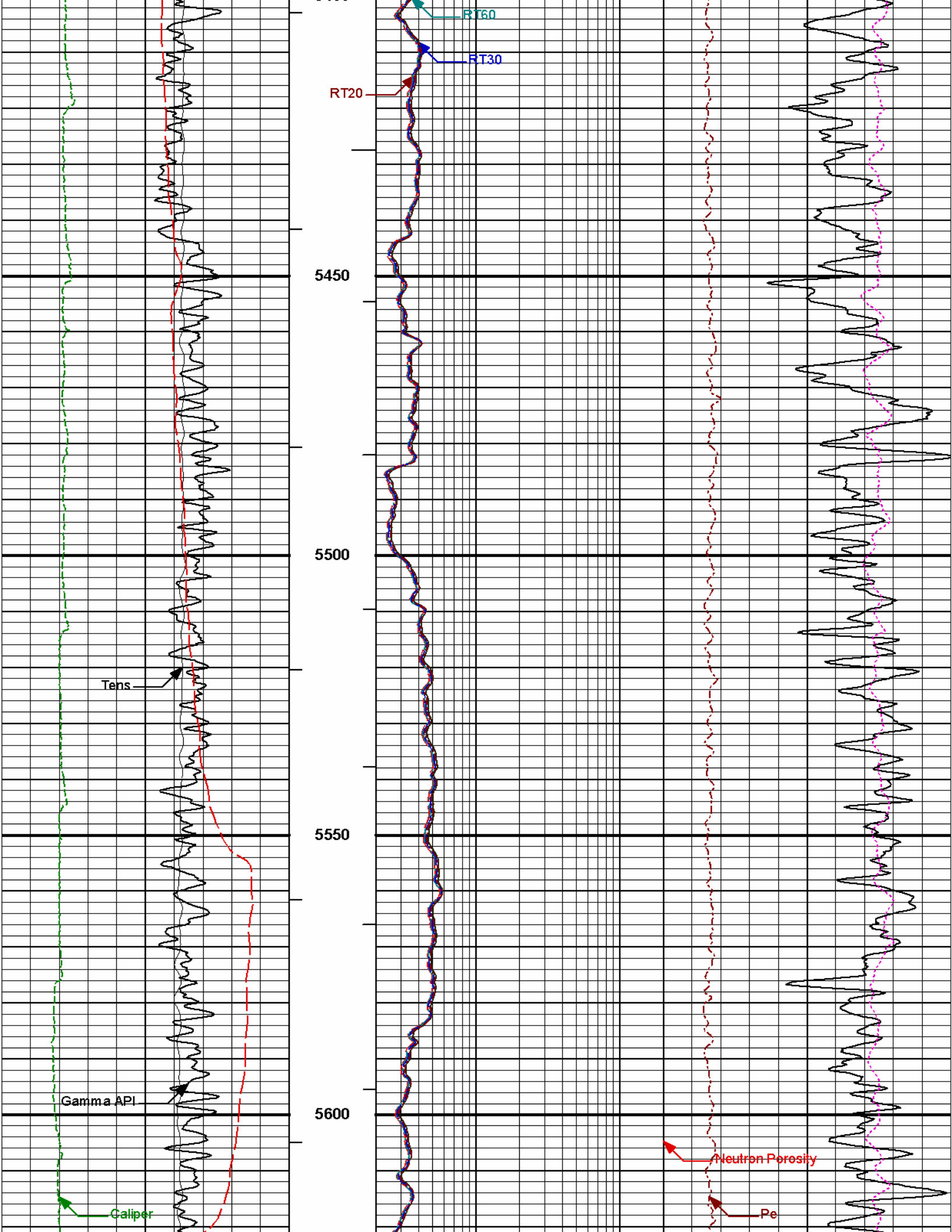


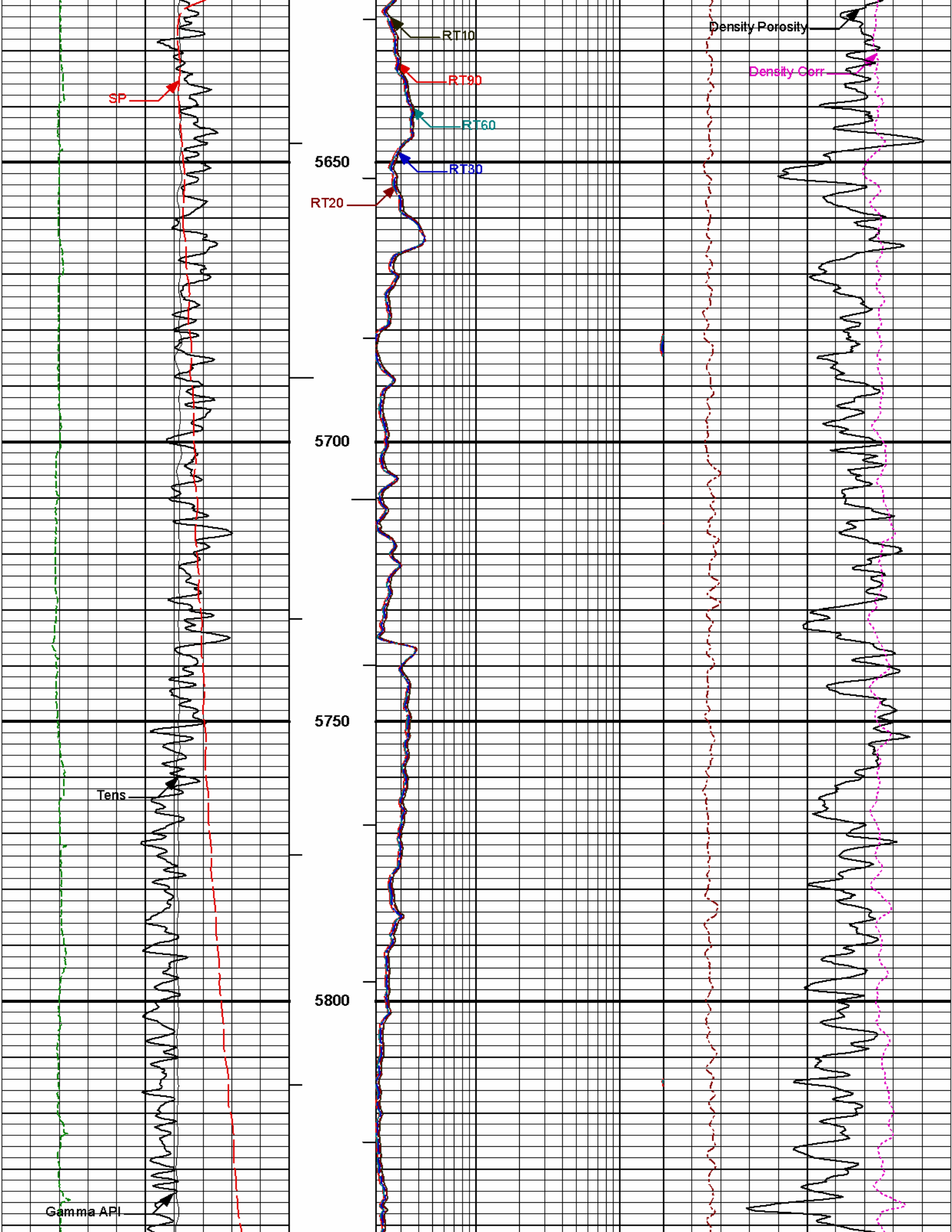


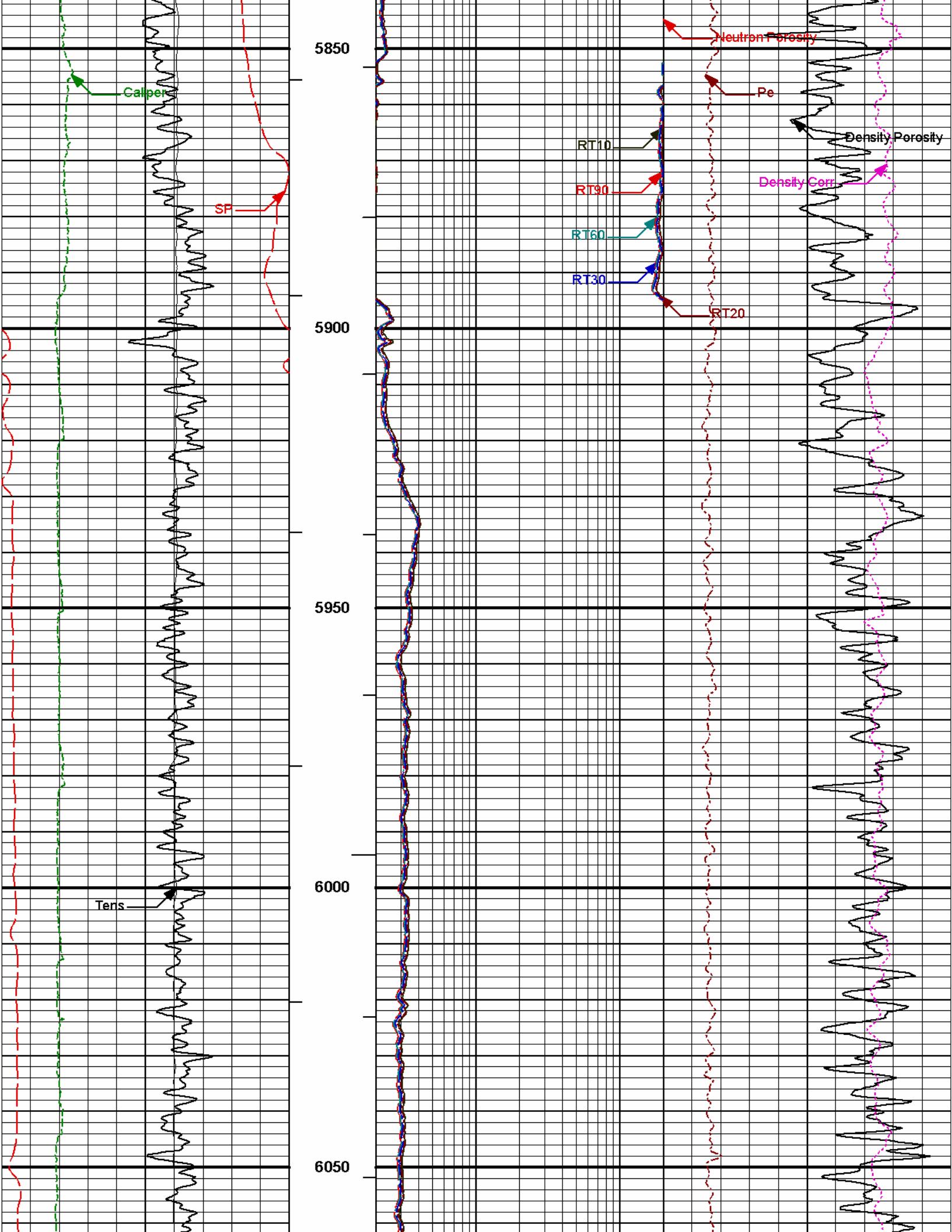


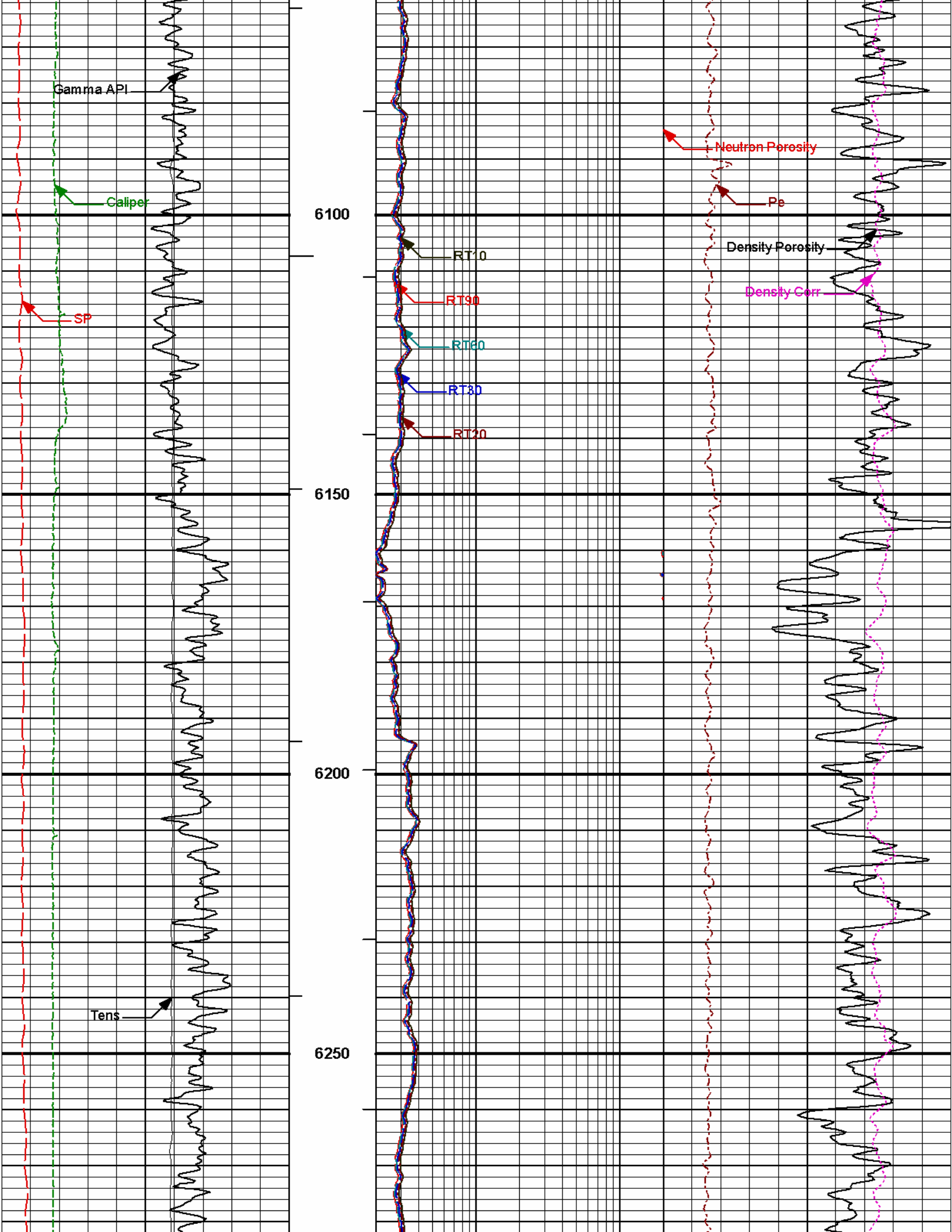


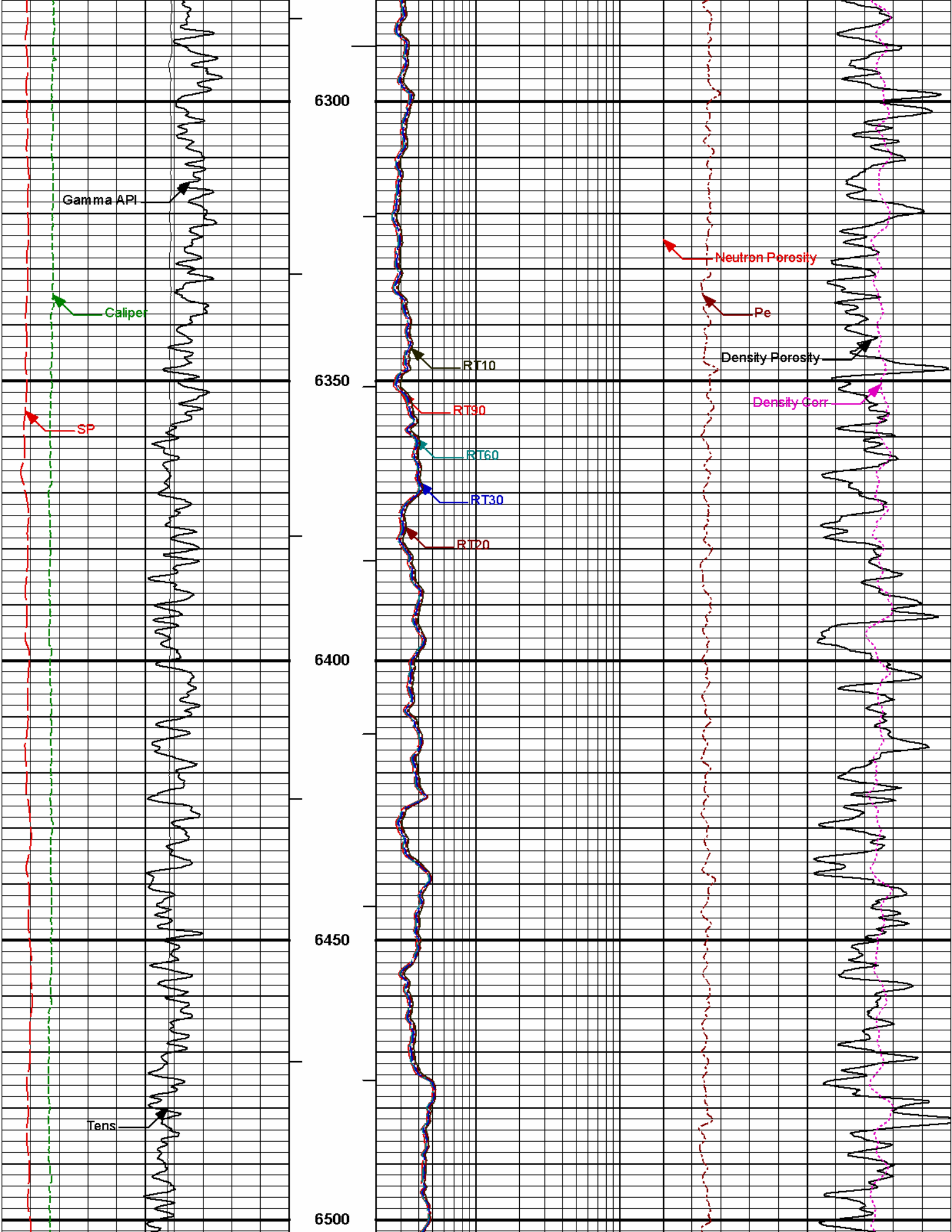


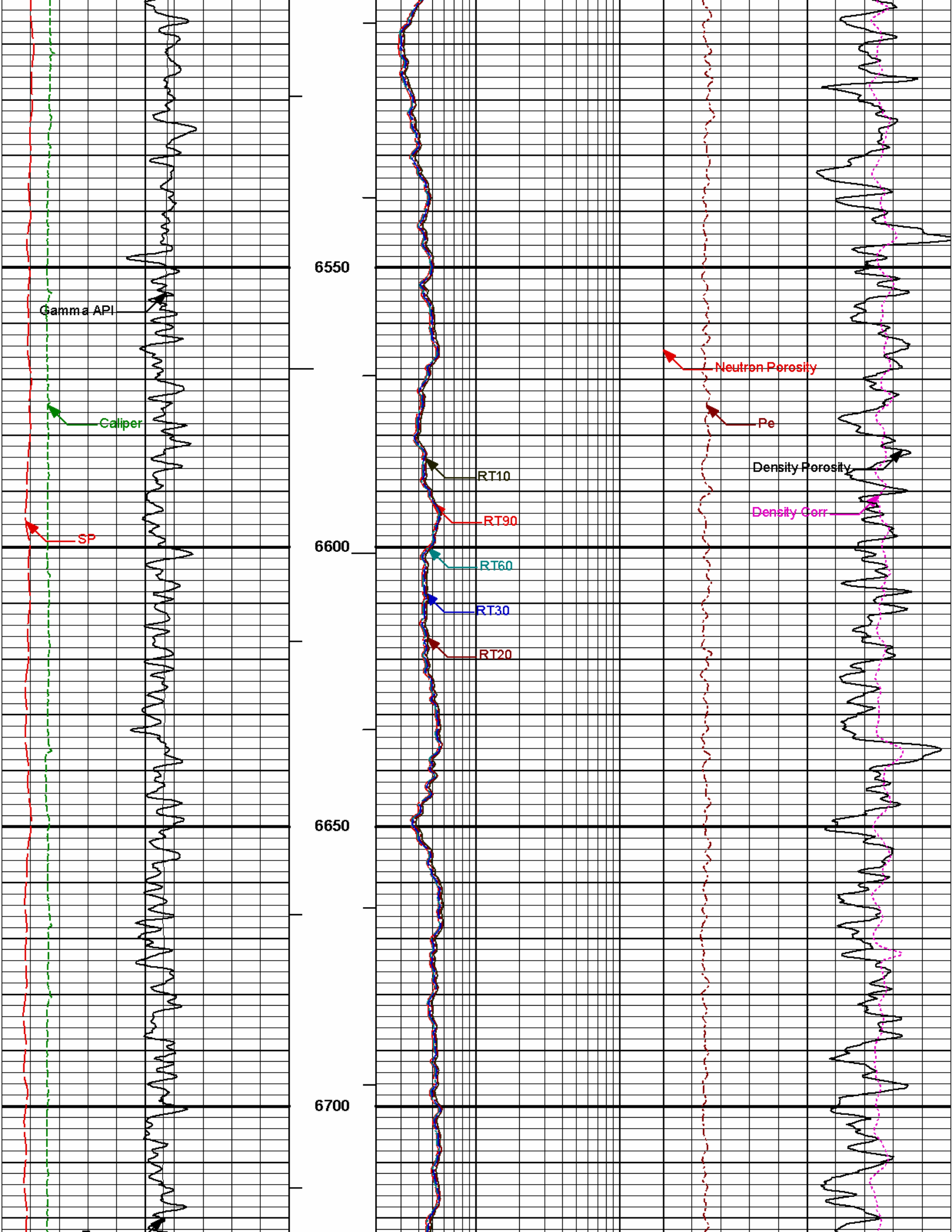


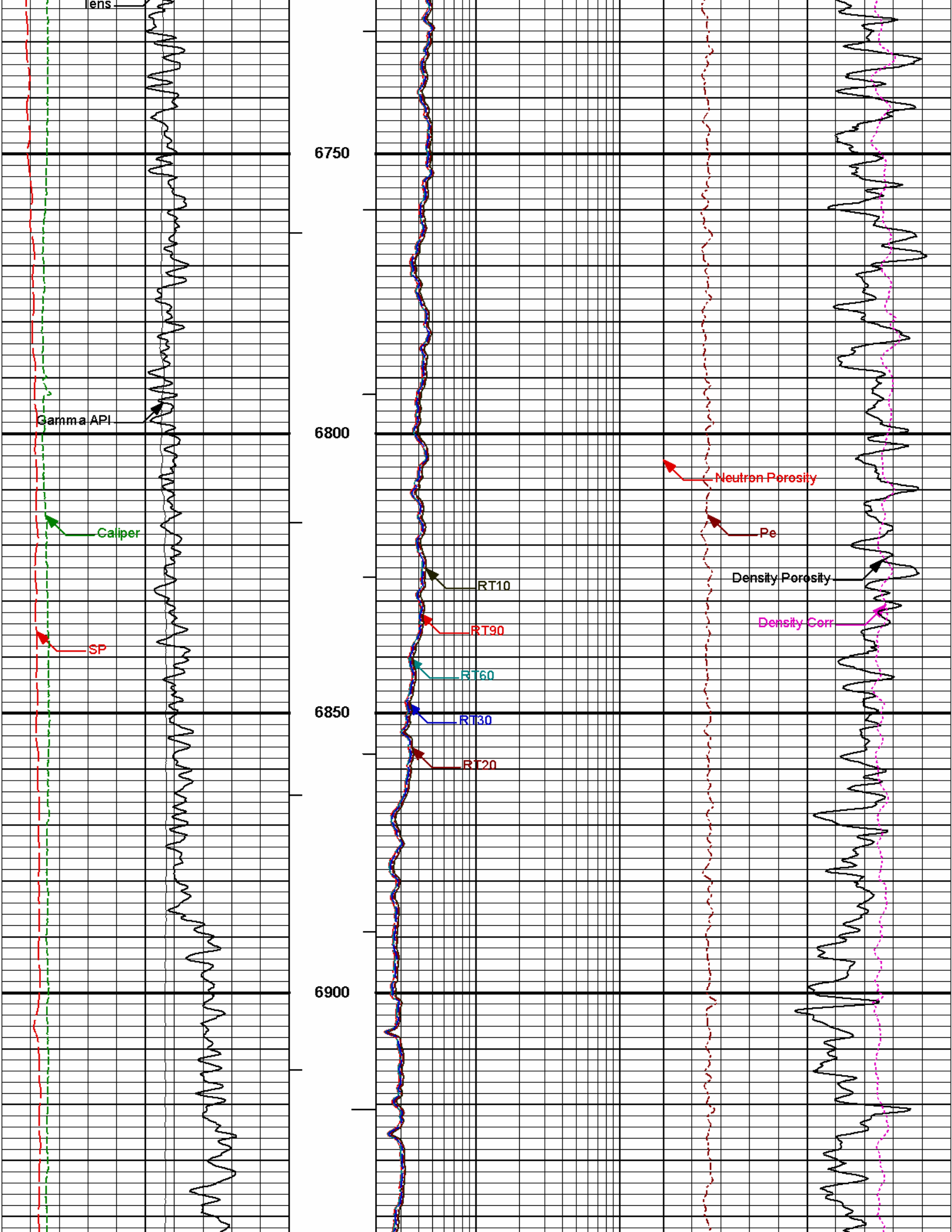


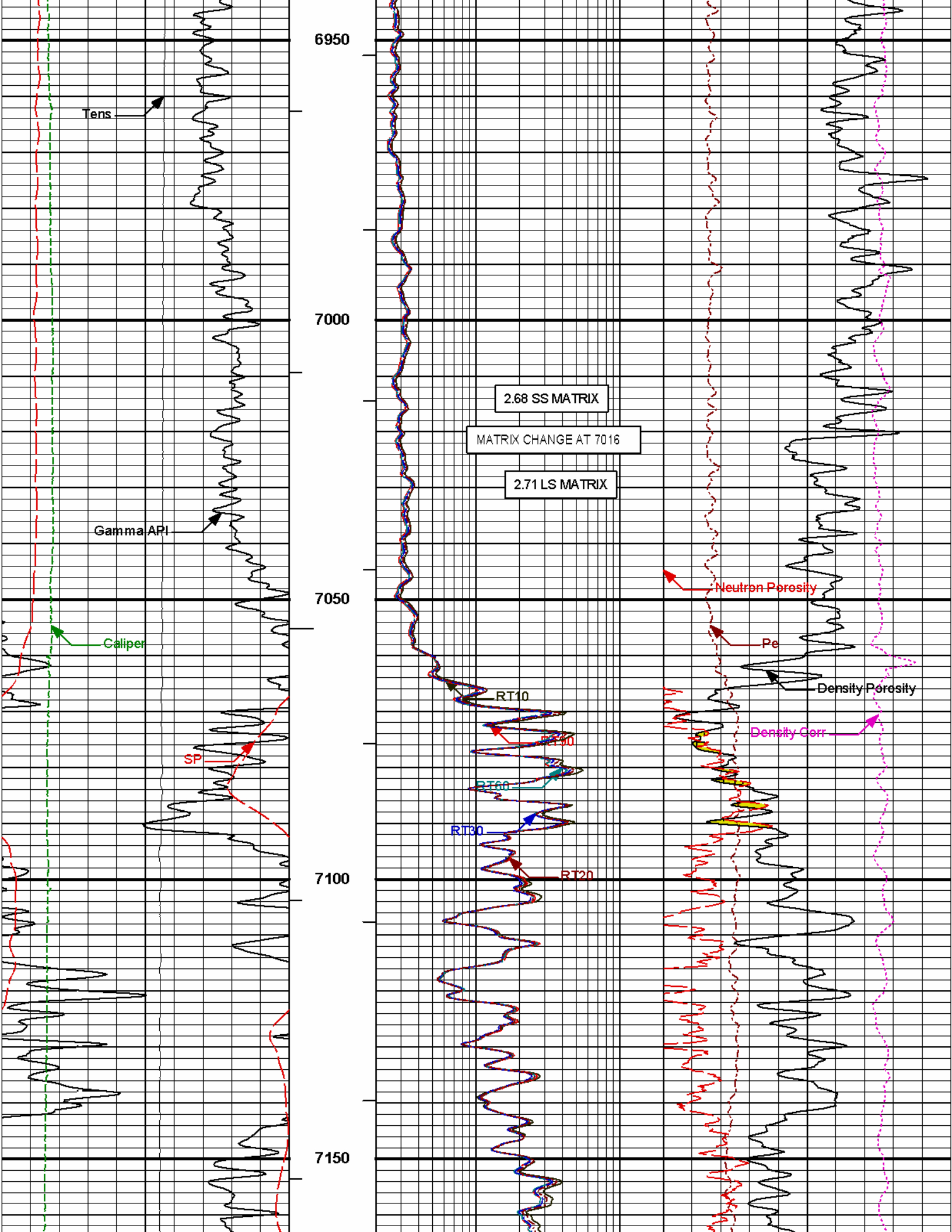


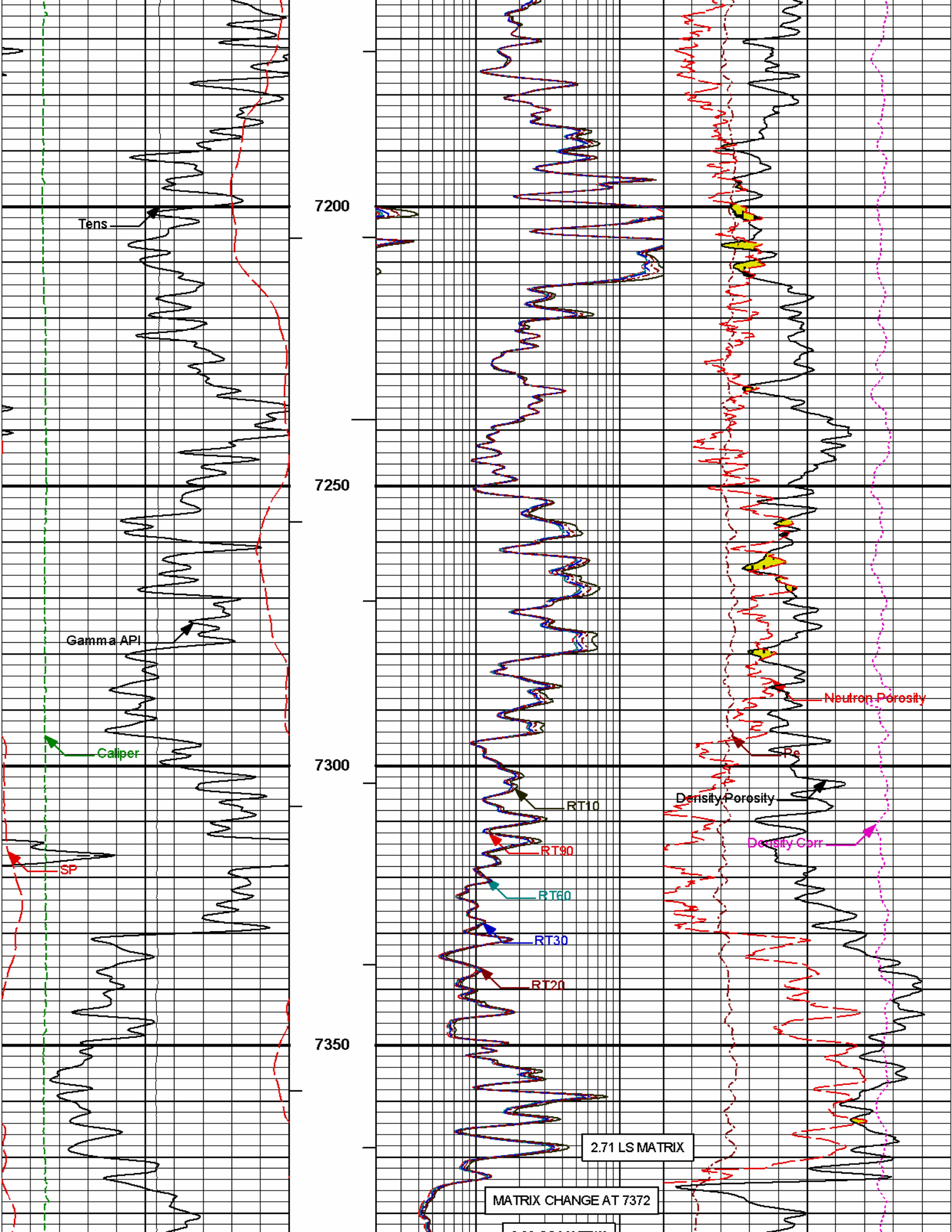


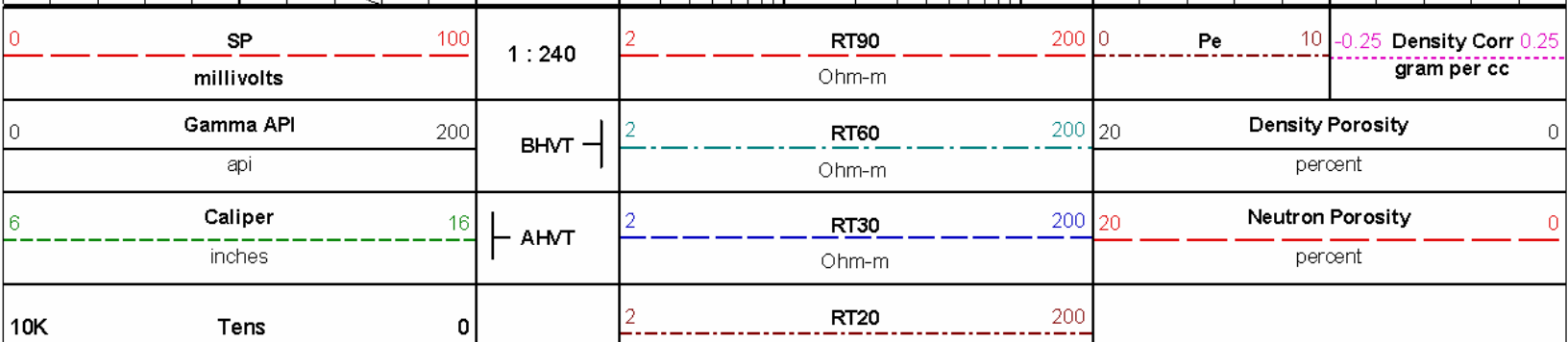










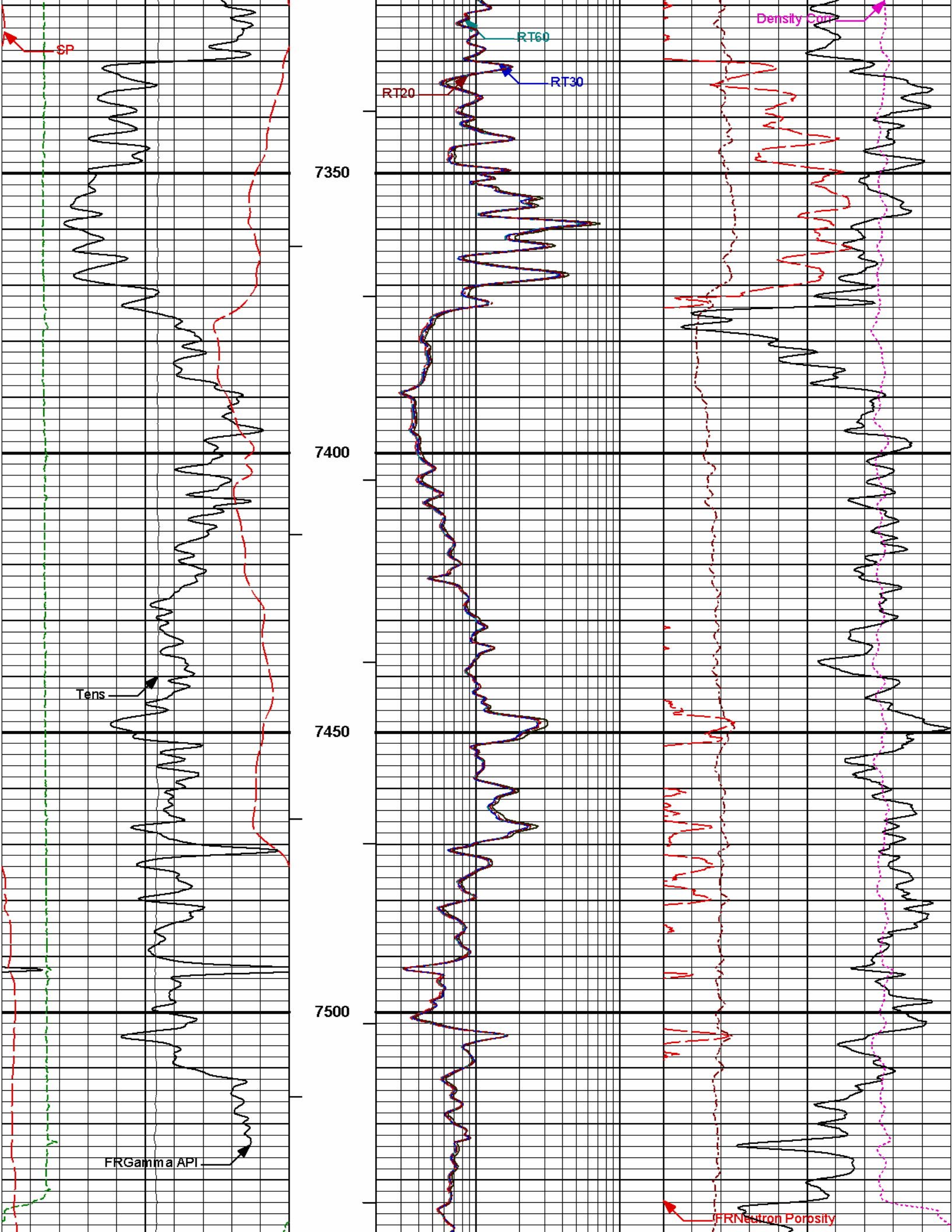


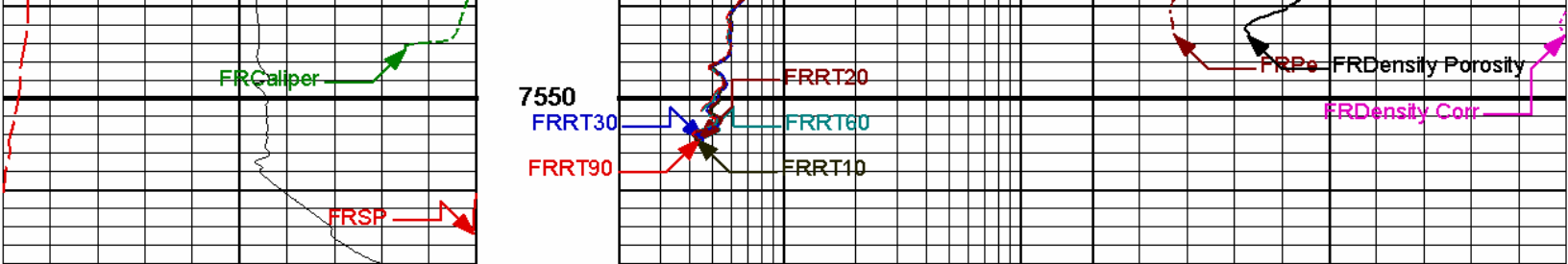
Ohm-m

Plot File: \\COMP\BAY_MAIN

Plot File: \\COMPIBAY_REPEAT

- Caliper





0	SP	100	1 : 240	2	RT90	200	0	Pe	10	-0.25	Density Corr	0.25
	millivolts				Ohm-m						gram per cc	
0	Gamma API	200	BHVT	2	RT60	200	20	Density Porosity				0
	api				Ohm-m			percent				
6	Caliper	16	AHVT	2	RT30	200	20	Neutron Porosity				0
	inches				Ohm-m			percent				
10K	Tens	0		2	RT20	200						
	pounds				Ohm-m							
				2	RT10	200						
					Ohm-m							

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Plot Time: 25-Apr-13 19:28:17
Plot Range: 7248 ft to 7568.33 ft
Data: BAYS_TRI_18_22\Well Based\REPEAT\
Plot File: \\COMPIBAY_REPEAT

REPEAT SECTION 5" = 100'

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CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION

Tool Name:	GTET - 10931260	Reference Calibration Date:	11-Mar-13 10:14:55
Engineer:	J. MAYNE	Calibration Date:	29-Mar-13 13:50:37
Software Version:	WL INSITE R3.6.2 (Build 7)	Calibration Version:	1

Calibrator Source S/N: TB-11
Calibrator API Reference:233.00 api
Equivalent Calibrator API Reference:237.1 api

Measurement	Measured	Calibrated	Units
Background	45.9	44.6	api
Background + Calibrator	289.9	281.6	api
Calibrator	244.0	237.1	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION

Tool Name:	GTET - 10931260	Reference Calibration Date:	29-Mar-13 13:50:37
Engineer:	V. CREWS	Calibration Date:	25-Apr-13 16:09:51
Software Version:	WL INSITE R3.6.2 (Build 7)	Calibration Version:	1

Calibrator Source S/N: TB-11
Calibrator API Reference:233.00 api
Equivalent Calibrator API Reference:237.1 api

Field Verification	Shop	Field	Units
Background	44.6	67.1	api
Background + Calibrator	281.6	299.7	api
Calibrator	237.1	232.6	api

Shop	Field	Difference	Tolerance
237.1	232.6	4.5	+/- 9.00

DUAL SPACED NEUTRON SHOP CALIBRATION

Tool Name:	DSNT - 11004663	Reference Calibration Date:	11-Mar-13 10:01:01
Engineer:	J. MAYNE	Calibration Date:	29-Mar-13 13:41:56
Software Version:	WL INSITE R3.6.2 (Build 7)	Calibration Version:	1

Logging Source S/N: DSN-431
 Tank Serial Number: 105039
 Reference value assigned to Tank: 51.650
 Snow Block S/N: 11362840
 Calibration Tank Water Temperature: 69 degF
 Min. Tool Housing Outside Diameter: 3.625 in

CALIBRATION CONSTANTS			
Measurement	Prev. Value	New Value	Control Limit On New Value
Gain:	0.954	0.952	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):	0.2113	0.2108	0.0005	+/- 0.0020
Calibrated Ratio:	9.74	9.72	0.016	+/- 0.050

VERIFIER		
Measurement	Value	Control Limit
Snow-Block Porosity (decp):	0.0753	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 - 11004663	Reference Calibration Date:	29-Mar-13 13:41:56
Engineer:	V. CREWS	Calibration Date:	25-Apr-13 16:21:28
Software Version:	WL INSITE R3.6.2 (Build 7)	Calibration Version:	1

Logging Source S/N: DSN-431
 Snow Block S/N: 11362840

NEUTRON FIELD-CHECK SUMMARY				
	Shop	Field	Difference	Control Limit On Change
Snow-Block Porosity (decp):	0.0753	0.0760	0.0007	+/- 0.0150

PASS/FAIL SUMMARY	
Block Change Check:	Passed

Snow Block Stat Check:

Passed

Temperature Check:

Passed

DENSITY CALIPER SHOP CALIBRATION**Tool Name:** SDLT - 10948155**Reference Calibration Date:** 29-Mar-13 11:04:53**Engineer:** J. MAYNE**Calibration Date:** 29-Mar-13 11:09:20**Software Version:** WL INSITE R3.6.2 (Build 7)**Calibration Version:** 1**Host Tool Name:** DSNT - 11004663**CALIBRATION COEFFICIENTS**

Measurement	Previous Value	New Value	Control Limit On New Value
Pad Offset	-2554.23	-2556.26	-7000.00 - -1000.00
Pad Gain	0.0003788	0.0003806	0.000200 - 0.000600
Arm Offset	-4587.24	-4681.56	-5000.00 - 3000.00
Arm Gain	0.0005790	0.0005879	0.000300 - 0.000700
Arm Power	-0.000006169	-0.000006991	-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)	1.99	2.00	0.01	+/- 0.20
Medium Ring (in)	3.73	3.75	0.02	+/- 0.20
RING DIAMETER:				
Small Ring (in)	6.53	6.50	-0.03	+/- 0.20
Medium Ring (in)	8.27	8.25	-0.02	+/- 0.20
Large Ring (in)	15.07	15.00	-0.07	+/- 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 - 10706570**Reference Calibration Date:** 29-Mar-13 10:06:06**Engineer:** J. MAYNE**Calibration Date:** 29-Mar-13 10:28:40**Software Version:** WL INSITE R3.6.2 (Build 7)**Calibration Version:** 1

Logging Source S/N: 5116GW

Aluminum Block S/N: ROCK SPRINGS

Density: 2.602g/cc

Pe: 3.110

Magnesium Block S/N: ROCK SPRINGS

Density: 1.690g/cc

Pe: 2.610

DENSITY CALIBRATION SUMMARY

Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	1.0449	1.0344	0.90 - 1.10
Near Dens Gain	1.0368	1.0170	0.90 - 1.10
Near Peak Gain	1.0532	1.0201	0.90 - 1.10
Near Lith Gain	1.0294	1.0006	0.90 - 1.10
Far Bar Gain	1.0083	1.0091	0.90 - 1.10
Far Dens Gain	1.0006	1.0002	0.90 - 1.10
Far Peak Gain	0.9952	0.9948	0.90 - 1.10
Far Lith Gain	0.9763	0.9783	0.90 - 1.10

Near Bar Offset	-0.1446	-0.0511	NONE
Near Dens Offset	-0.0809	0.0898	NONE
Near Peak Offset	-0.1987	0.0711	NONE
Near Lith Offset	-0.0165	0.2196	NONE
Far Bar Offset	0.0722	0.0653	NONE
Far Dens Offset	0.1405	0.1472	NONE
Far Peak Offset	0.1661	0.1717	NONE
Far Lith Offset	0.2874	0.2750	NONE
Near Bar Background	787.81	788.49	700 - 1450
Near Dens Background	259.22	259.81	230 - 480
Near Peak Background	110.61	111.64	100 - 210
Near Lith Background	137.49	138.78	125 - 260
Far Bar Background	502.74	498.18	450 - 900
Far Dens Background	195.69	196.28	175 - 345
Far Peak Background	79.52	79.58	70 - 140
Far Lith Background	83.23	82.47	75 - 145

CALIBRATION BLOCK SUMMARY				
Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.696	1.690	-0.006	+/- 0.015
Pe	2.538	2.566	0.028	+/- 0.150
ALUMINUM				
Density (g/cc)	2.603	2.602	-0.001	+/- 0.01500
Pe	3.083	3.072	-0.011	+/- 0.150

TOOL SUMMARY				
Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	0.0010	+/- 0.0110	0.0016	+/- 0.0140
Magnesium Block	0.0002	+/- 0.0110	-0.0014	+/- 0.0140
Aluminum Block	-0.0007	+/- 0.0110	0.0008	+/- 0.0140
Resolution	9.63	6.00 - 11.50	8.77	6.00 - 11.50
Internal Verifier(B+D+P+L)	1299	1200 - 2700	857	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 - 10706570

Reference Calibration Date: 29-Mar-13 10:28:40

Engineer: V. CREWS

Calibration Date: 25-Apr-13 16:17:48

Pad Temperature: 69.8 degF

DENSITY FIELD CALIBRATION SUMMARY

Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1298.728	1300.326	1.598	14.591
Far (B+D+P+L) cps	856.518	860.917	4.399	16.037
Near Resolution	9.63	9.82	0.190	0.50
Far Resolution	8.77	9.47	0.700	1.00

PASS/FAIL SUMMARY

Bkg Quality Check:	Passed
Bkg Resolution Check:	Passed
Bkg Verification Check:	Passed

SDLT CALIPER FIELD CALIBRATION

Tool Name: SDLT - 10948155

Reference Calibration Date: 29-Mar-13 11:09:20

Engineer: V. CREWS

Calibration Date: 25-Apr-13 16:08:32

Software Version: WL INSITE R3.6.2 (Build 7)

Calibration Version: 1

MEASURED CALIPER VALUES

Measurement	Shop	Field	Change	Control Limit On New Value
Pad Extension	3.75	3.70	-0.05	+/- 0.10
Ring Diameter	8.25	8.17	-0.08	+/- 0.15

PASS/FAIL SUMMARY

Pad Extension Check:	Passed
Diameter Check:	Passed

ARRAY COMPENSATED TRUE RESISTIVITY SHOP CALIBRATION

Tool Name: ACRT Sonde - 11017970

Reference Calibration Date: 19-Mar-13 09:53:40

Engineer: B. PEDERSEN

Calibration Date: 18-Apr-13 10:19:58

Software Version: WL INSITE R3.6.0 (Build 3)

Calibration Version: 1

Host Tool Name: ACRT Instrument - 11016171

TYPICAL GAIN RANGE

Subarray	R12KHz			R36KHz			R72KHz		
	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper
A1 (80")	0.95	1.02	1.05	0.95	1.01	1.05	0.95	1.01	1.05
A2 (50")	0.95	1.02	1.05	0.95	1.02	1.05	0.95	1.02	1.05
A3 (29")	0.95	1.02	1.05	0.95	1.01	1.05	0.95	1.01	1.05
A4 (17")	0.95	1.01	1.05	0.95	1.01	1.05	0.95	1.01	1.05
A5 (10")	N/A	N/A	N/A	0.95	1.00	1.05	0.95	1.00	1.05
A6 (6")	N/A	N/A	N/A	0.95	0.99	1.05	0.95	0.99	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	-0.10	2	-6	-3.64	-2	-8	-4.76	-2
A2 (50")	-7	-1.36	0	-7	-3.38	0	-7	-4.47	0
A3 (29")	-27	-12.78	-9	-9	-3.49	-3	-7	-3.11	-1
A4 (17")	-180	-100.88	-60	-45	-31.58	-15	-39	-25.51	-13
A5 (10")	N/A	N/A	N/A	-150	-112.57	-50	-80	-54.08	-10

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	1.96	2.0				
72K	1.0	1.17	2.0				

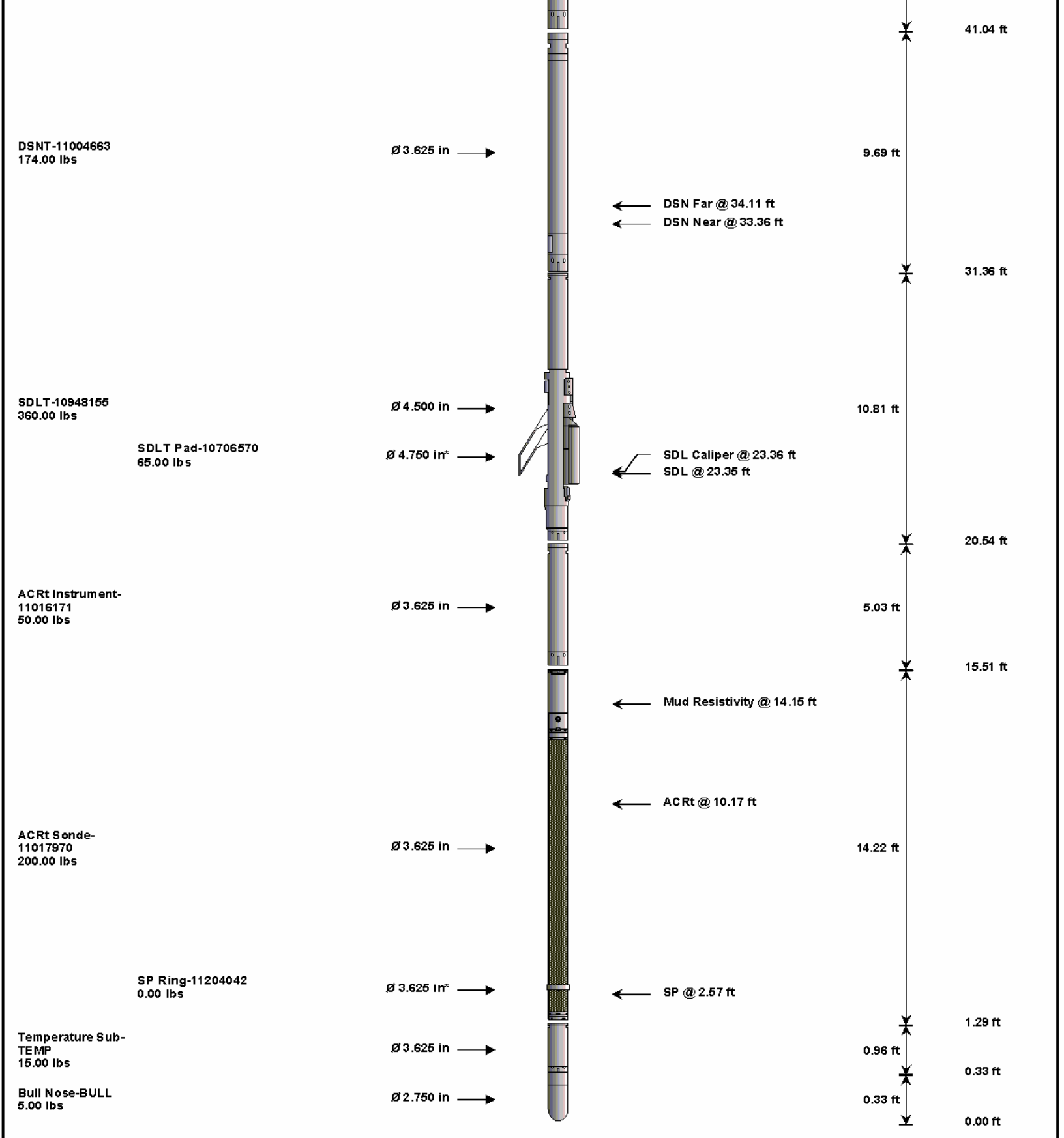
PASS/FAIL SUMMARY	
GAIN RANGE CHK	PASS
SONDE OFFSET RANGE CHK	PASS
Tx CURRENT GAIN	PASS
Rmud VERIFICATION	PASS
TOOL OK TO LOG	

CALIBRATION SUMMARY						
Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-10931260						
Gamma Ray Calibrator	237.1	232.6	-----	4.5	+/- 9.00	api
DSNT-11004663						
Snow-Block Porosity	0.0753	0.0760	-----	-0.0007	+/- 0.0150	decp
SDLT-10948155						
Pad Extension	3.75	3.70	-----	0.05	+/-0.10	in
Ring Diameter	8.25	8.17	-----	0.08	+/-0.15	in
SDLT Pad-10706570						
Near(B+D+P+L)	1298.728	1300.326	-----	-1.598	+/-14.591	cps
Far(B+D+P+L)	856.518	860.917	-----	-4.399	+/-16.037	cps
ACRt Sonde-11017970						
Mud Cell	1.01	-----	-----	0.00	-----	ohm-m

HALLIBURTON

TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
RWCH-10351640 135.00 lbs		Ø 3.625 in →		Load Cell @ 52.13 ft BH Temperature @ 51.56 ft	6.25 ft	55.81 ft
GTET-10931260 165.00 lbs		Ø 3.625 in →		GammaRay @ 43.50 ft	8.52 ft	49.56 ft



Mnemonic	Tool Name	Serial Number	Weight (lbs)	Length (ft)	Accumulated Length (ft)	Max. Log. Speed (fpm)
RWCH	Releasable Wireline Cable Head	10351640	135.00	6.25	49.56	300.00
GTET	Gamma Telemetry Tool	10931260	165.00	8.52	41.04	60.00
DSNT	Dual Spaced Neutron	11004663	174.00	9.69	31.36	60.00
SDLT	Spectral Density Tool	10948155	360.00	10.81	20.54	60.00
SDLP	Density Insite Pad	10706570	65.00	2.55	22.75	60.00
ACRt	Array Compensated True Resistivity Instrument Section	11016171	50.00	5.03	15.51	300.00
ACRt	Array Compensated True Resistivity Sonde Section	11017970	200.00	14.22	1.29	300.00
SP	SP Ring	11204042	0.00	0.25	2.57	300.00
TMAX	Temperature Sub - 3_625 OD	TEMP	15.00	0.96	0.33	300.00

BLNS	Bull Nose	BULL	5.00	0.33	0.00	300.00
Total			1,169.00	55.81		
				* Not included in Total Length and Length Accumulation.		
Data: BAYS_TRI_18_22\0001 TRIPLE\004 25-Apr-13 17:33 Up @7567.8f				Date: 25-Apr-13 17:52:32		

COMPANY	BAYSWATER EXPLORATION & PRODUCTION, LLC		
WELL	TRIANGLE 18-22		
FIELD	WATTENBERG		
COUNTY	WELD	STATE	COLORADO
HALLIBURTON		SPECTRAL DENSITY DUAL SPACED NEUTRON ARRAY COMPENSATED TRUE RESISTIVITY	