

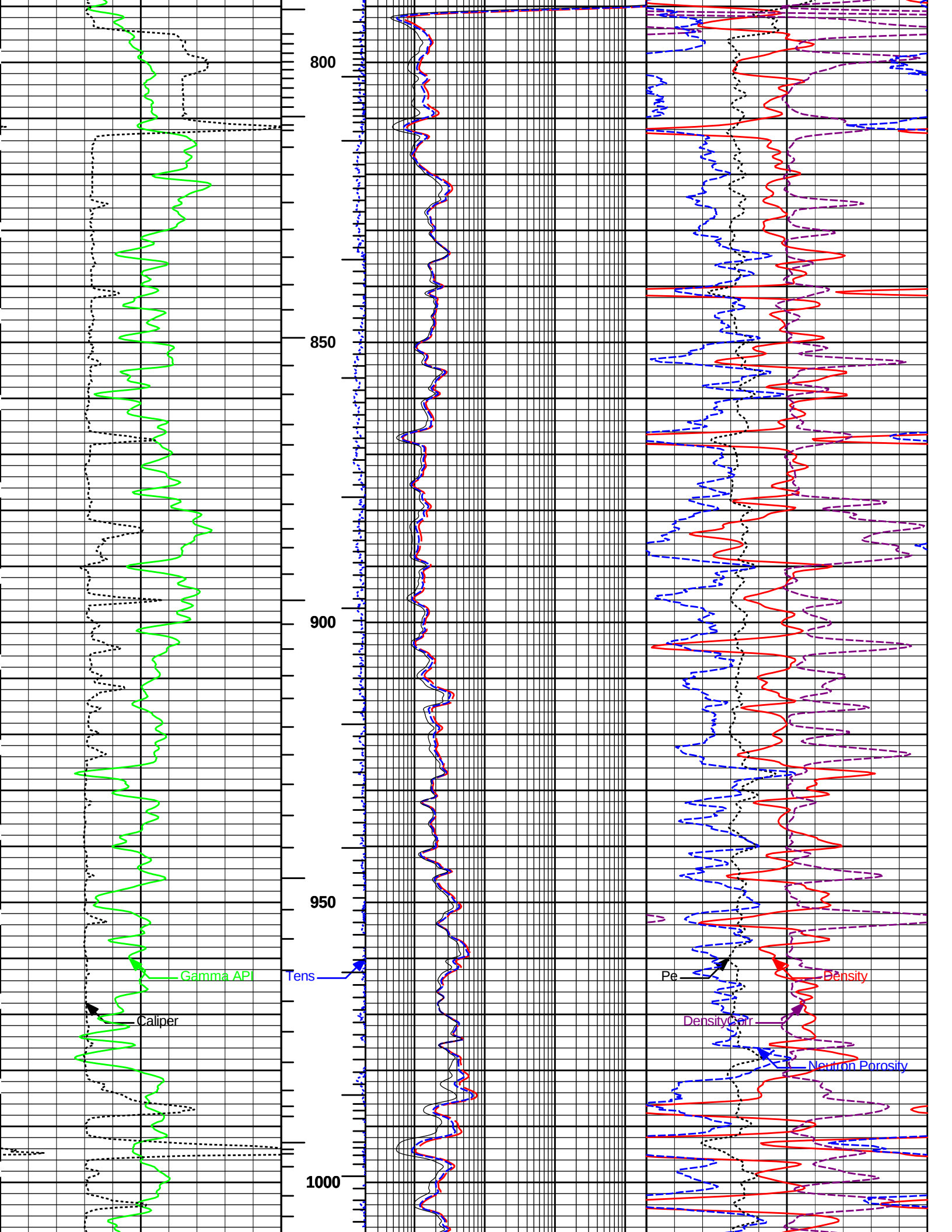
HALLIBURTON

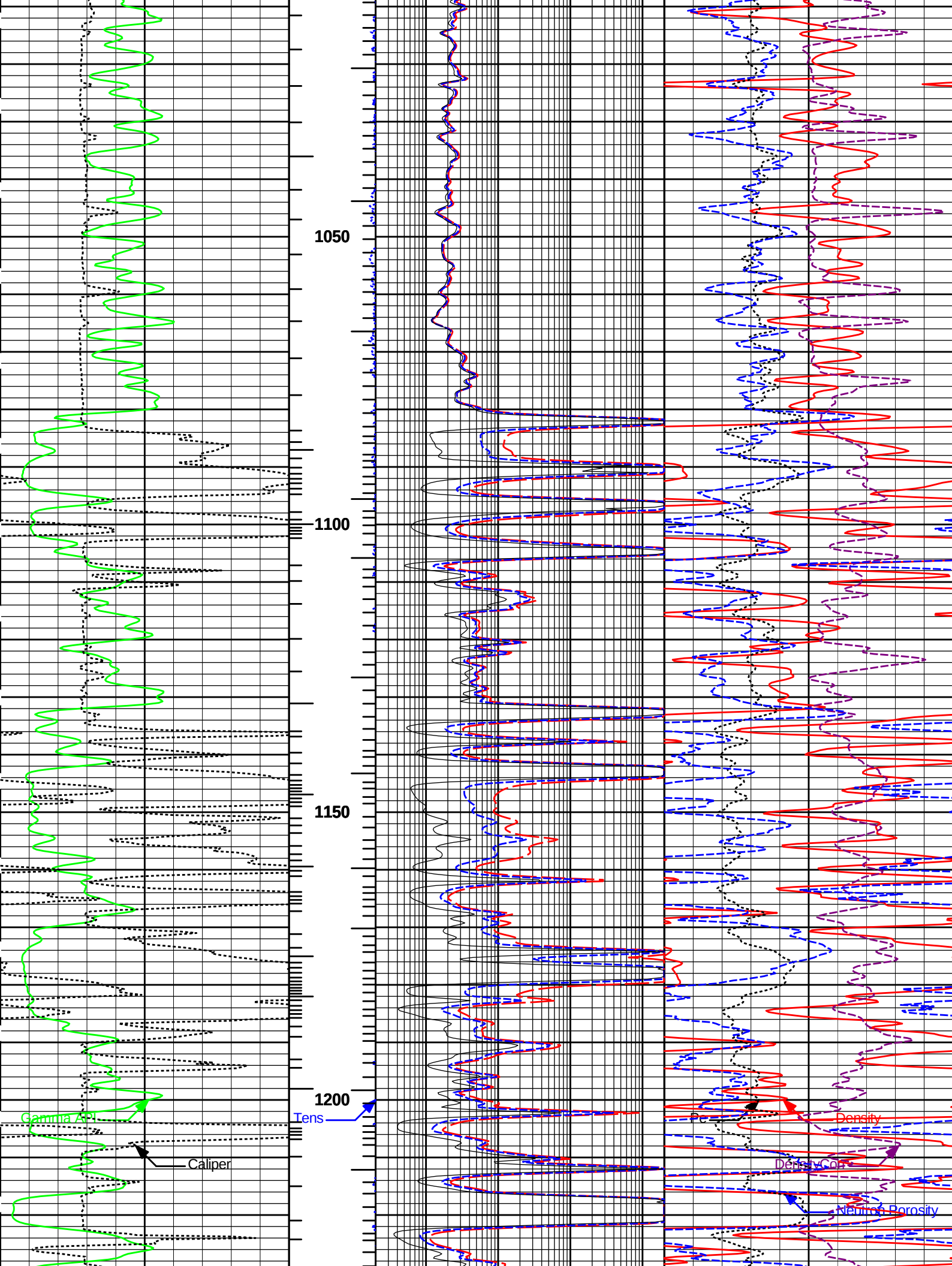
TRIPLE COMBO LOG

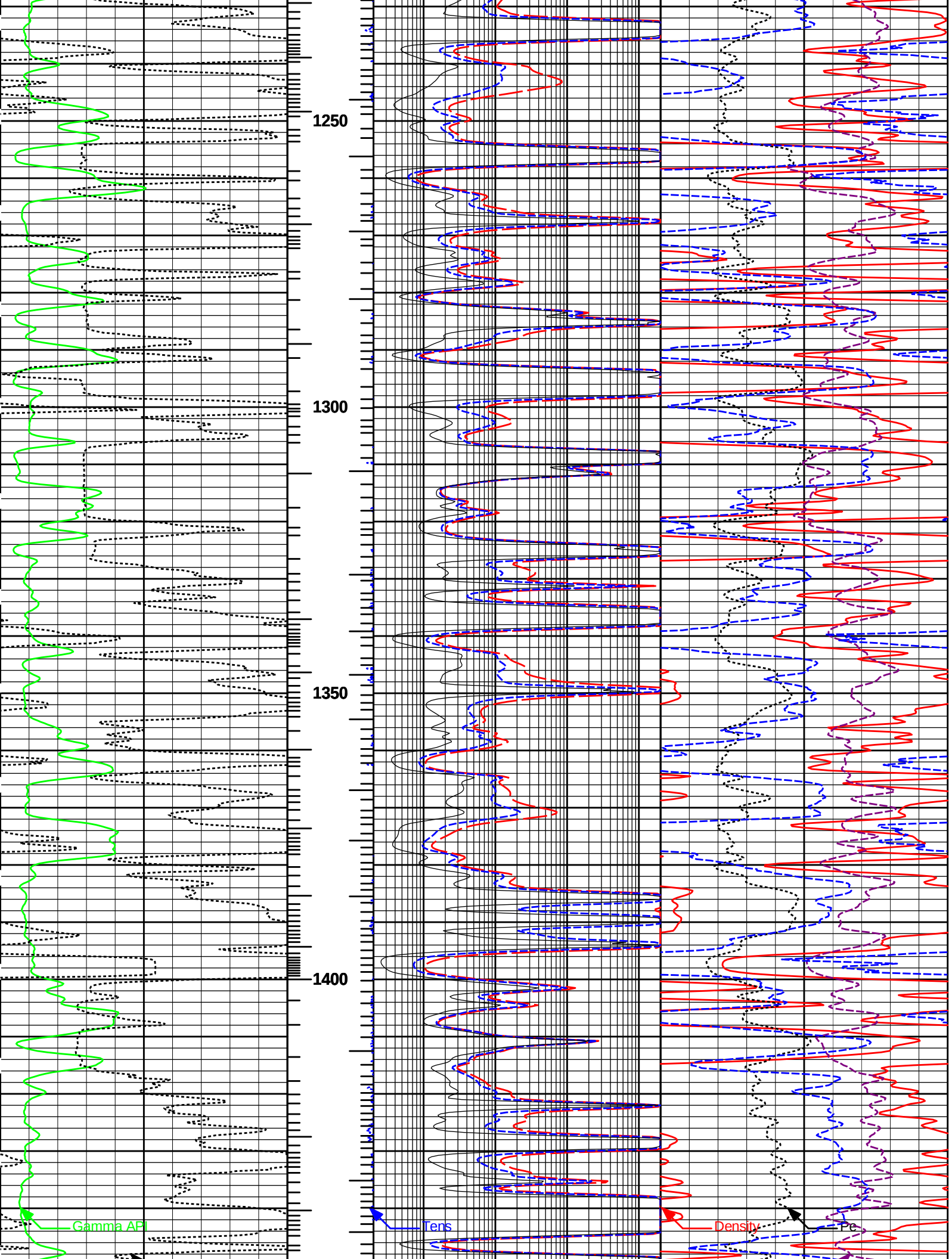
COMPANY		SHELL EXPLORATION	
WELL		SCHUPBACH 3510 #4-1	
FIELD		WILDCAT	
COUNTY		BARBER	
STATE		KANSAS	
Permanent Datum Log measured from Drilling measured from	GL	API No.	15-00723852
	DF	Location	310' FNL & 2323 FWL LAT: 37.03° N LONG: 98.41° W
Date	DF	Sect.	4
	DF	Twp.	35S
Run No.	ONE	Rge.	10W
Depth - Driller	5550.00 ft		
Depth - Logger	5536.00 ft		
Bottom - Logged Interval	5502.0 ft		
Top - Logged Interval	792.0 ft		
Casing - Driller	9.625 in @ 787.00 ft		
Casing - Logger	792.00 ft		
Bit Size	8.750 in		
Type Fluid in Hole	WATER BASED MUD		
Density	9.3 ppq	43.00 spq	
PH	9.00 pH	6 mptm	
Source of Sample	FLOWLINE		
Rm @ Meas. Temperature	0.120 ohmm @ 76.00 degF		
Rmf @ Meas. Temperature	0.110 ohmm @ 76.00 degF		
Rmc @ Meas. Temperature	0.105 ohmm @ 78.00 degF		
Source Rmf	MEASURED	MEASURED	
Rm @ BHT	0.11 ohmm @ 130.0 degF		
Time Since Circulation	15.6 hr		
Time on Bottom	30-Aug-12 11:34		
Max. Rec. Temperature	130.0 degF @ 5536.0 ft		
Equipment	10782954	LIBERAL	
Recorded By	C. HAVERKAMP		
Witnessed By	A. LATIFZAI		

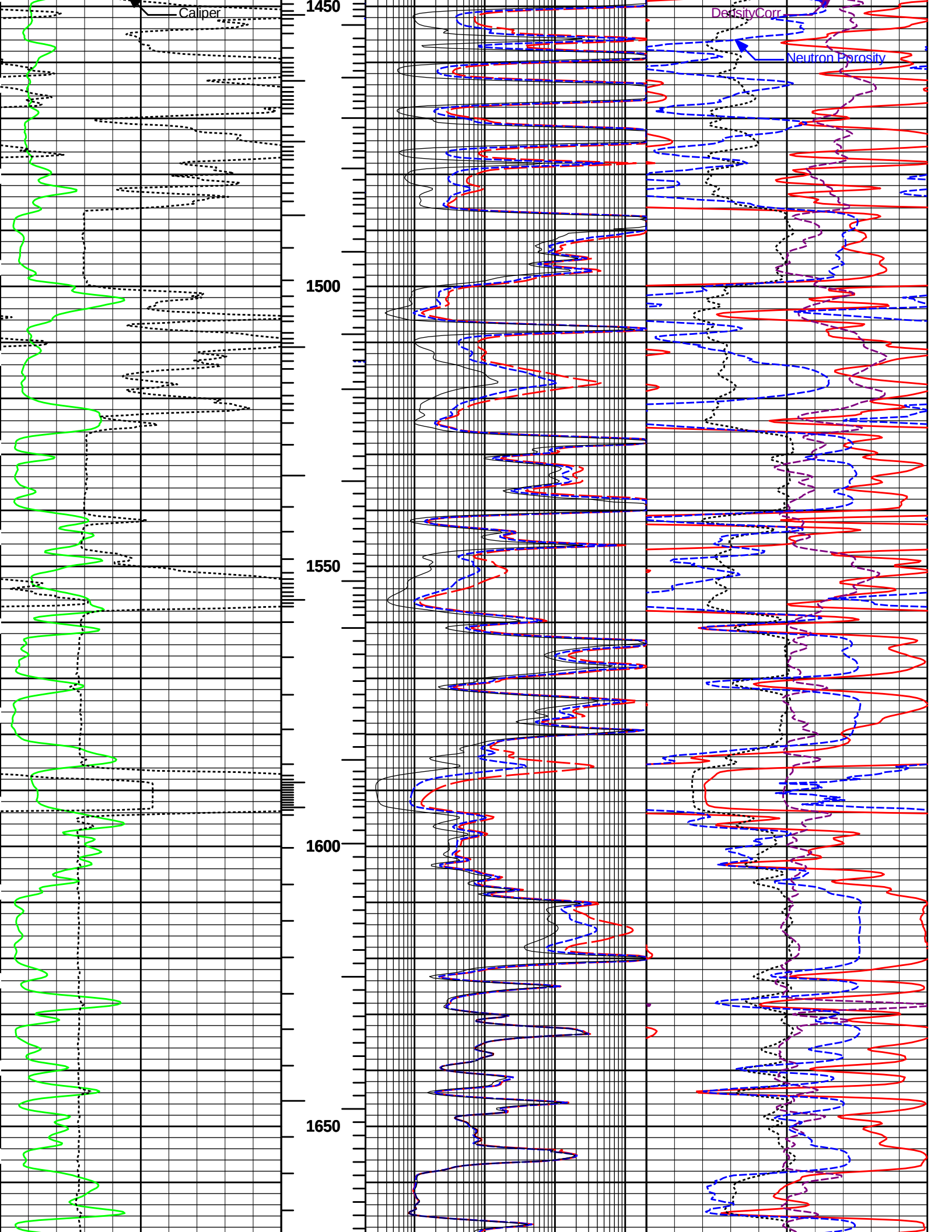
Fold here

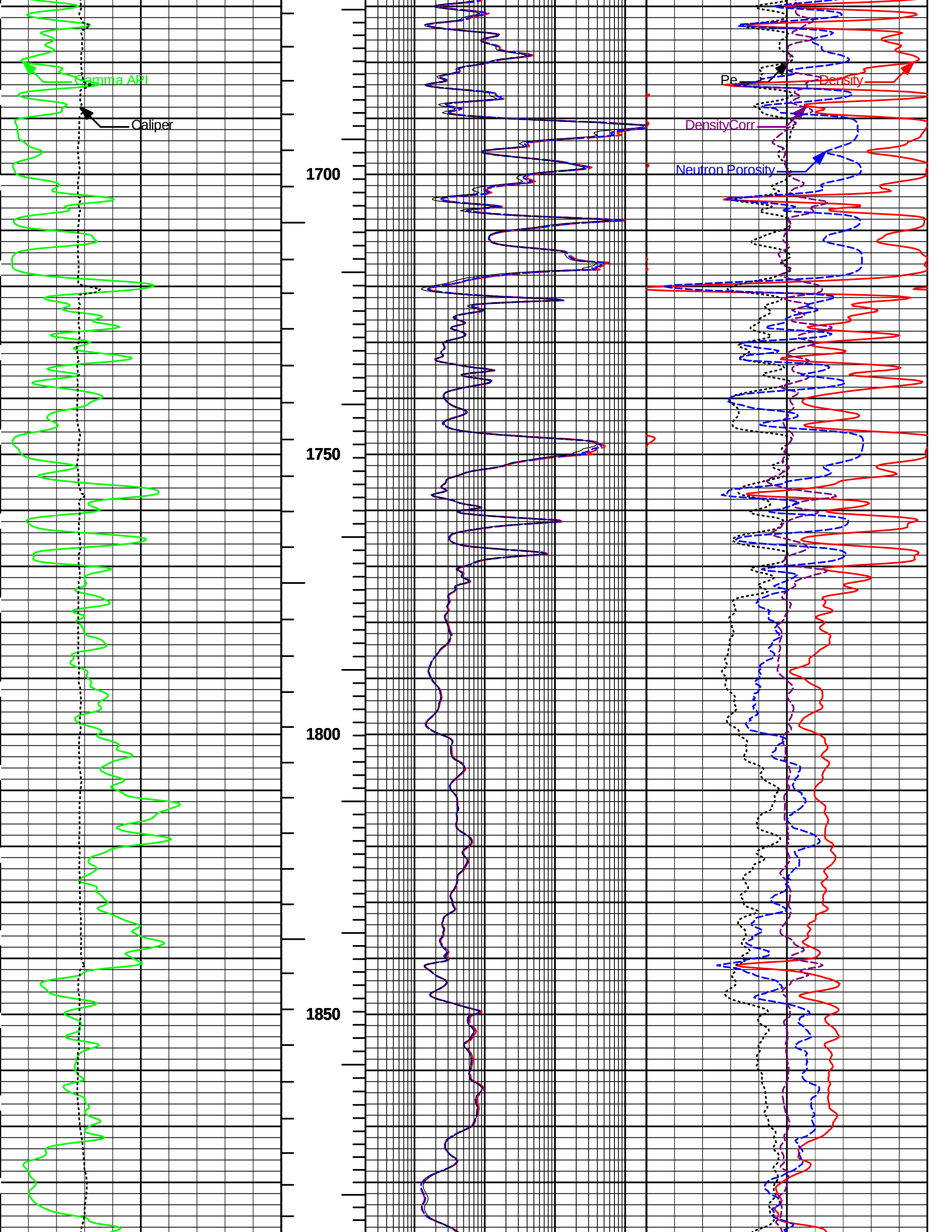
Service Ticket No.: 9772848						API Serial No.: 15-00723852						PGM Version: WL INSITE R3.6.0 (Build 3)									
CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE												RESISTIVITY SCALE CHANGES									
Date		Sample No.										Type Log		Depth		Scale Up Hole		Scale Down Hole			
Depth-Driller																					
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		1.5" S.O.		N/A	
Rmc @ Meas. Temp.				@				@						I776_S775							
Source Rmf		Rmc						Source Rmf		Rmc											
Rm @ BHT				@				@													
Rmf @ BHT				@				@													
Rmc @ BHT				@				@													
EQUIPMENT DATA																					
GAMMA				ACOUSTIC				DENSITY				NEUTRON									
Run No.		ONE		Run No.				Run No.				Run No.									
Serial No.		10811258		Serial No.				Serial No.				Serial No.									
Model No.		GTET		Model No.				Model No.				Model No.									
Diameter		3.625"		No. of Cent.				Diameter				Diameter									
Detector Model No.		T-102		Spacing				Log Type				Log Type									
Type		SCINT						Source Type				Source Type									
Length		8"		LSA [Y/N]				Serial No.				Serial No.									
Distance to Source		10'		FWDA [Y/N]				Strength				Strength									
LOGGING DATA																					

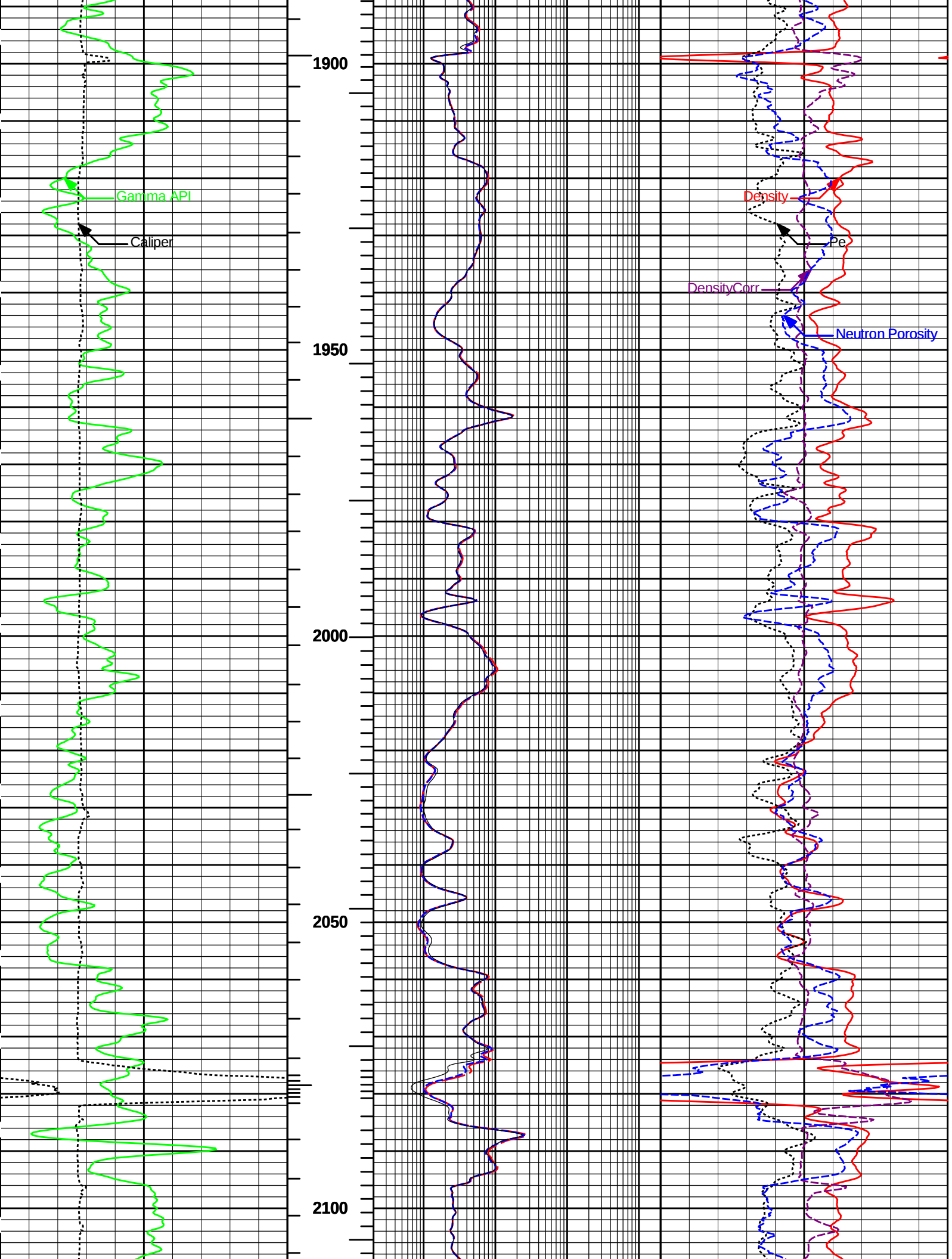


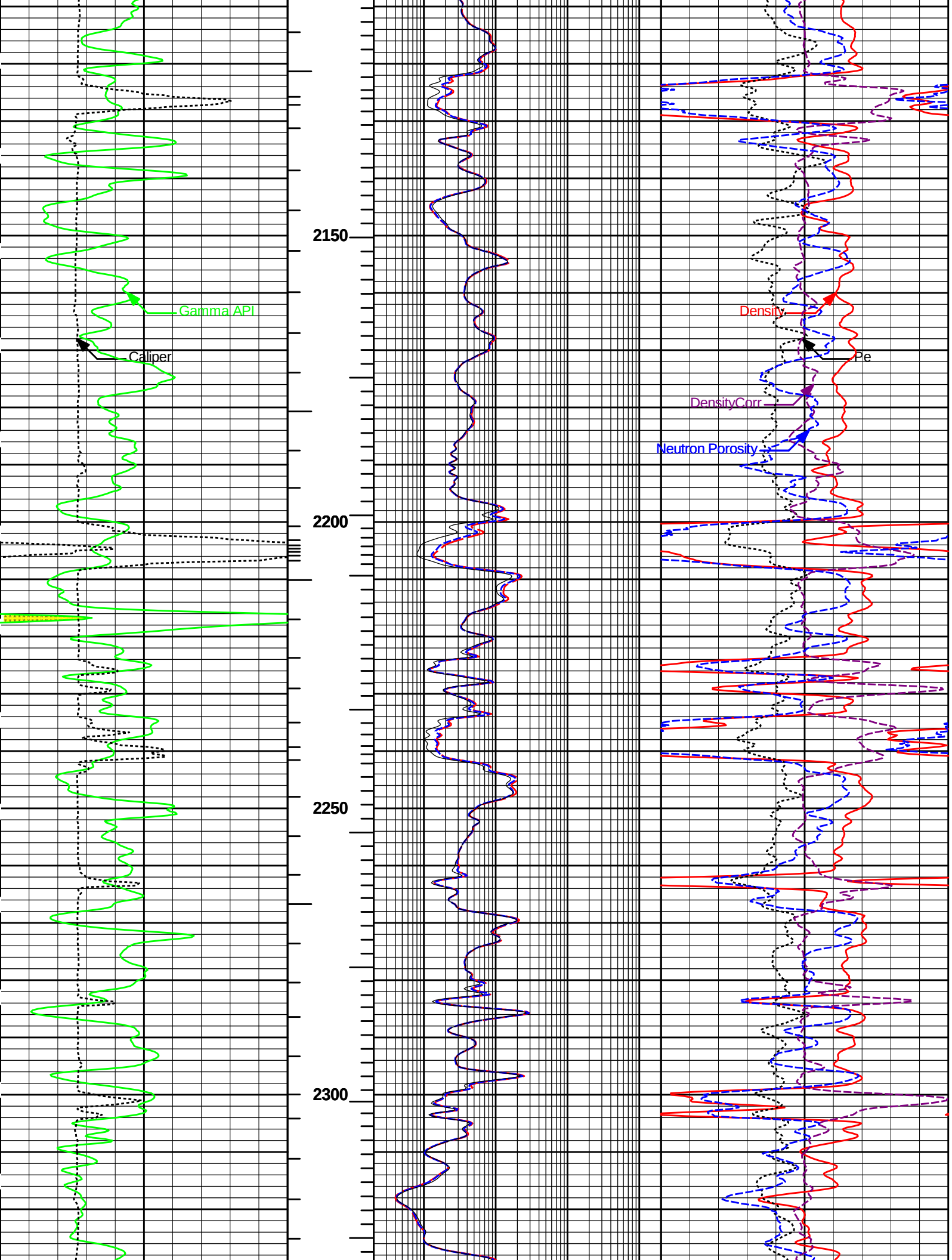


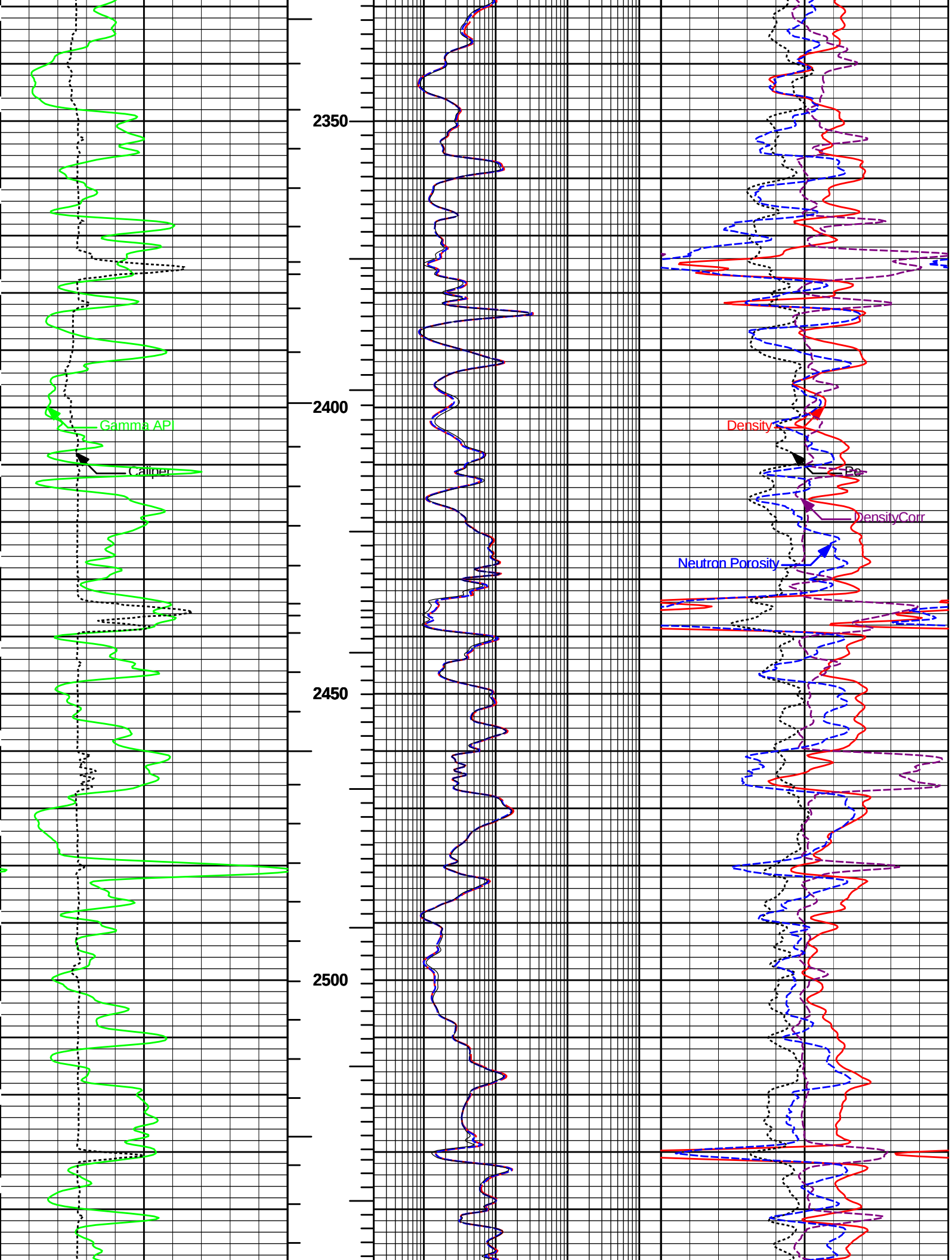


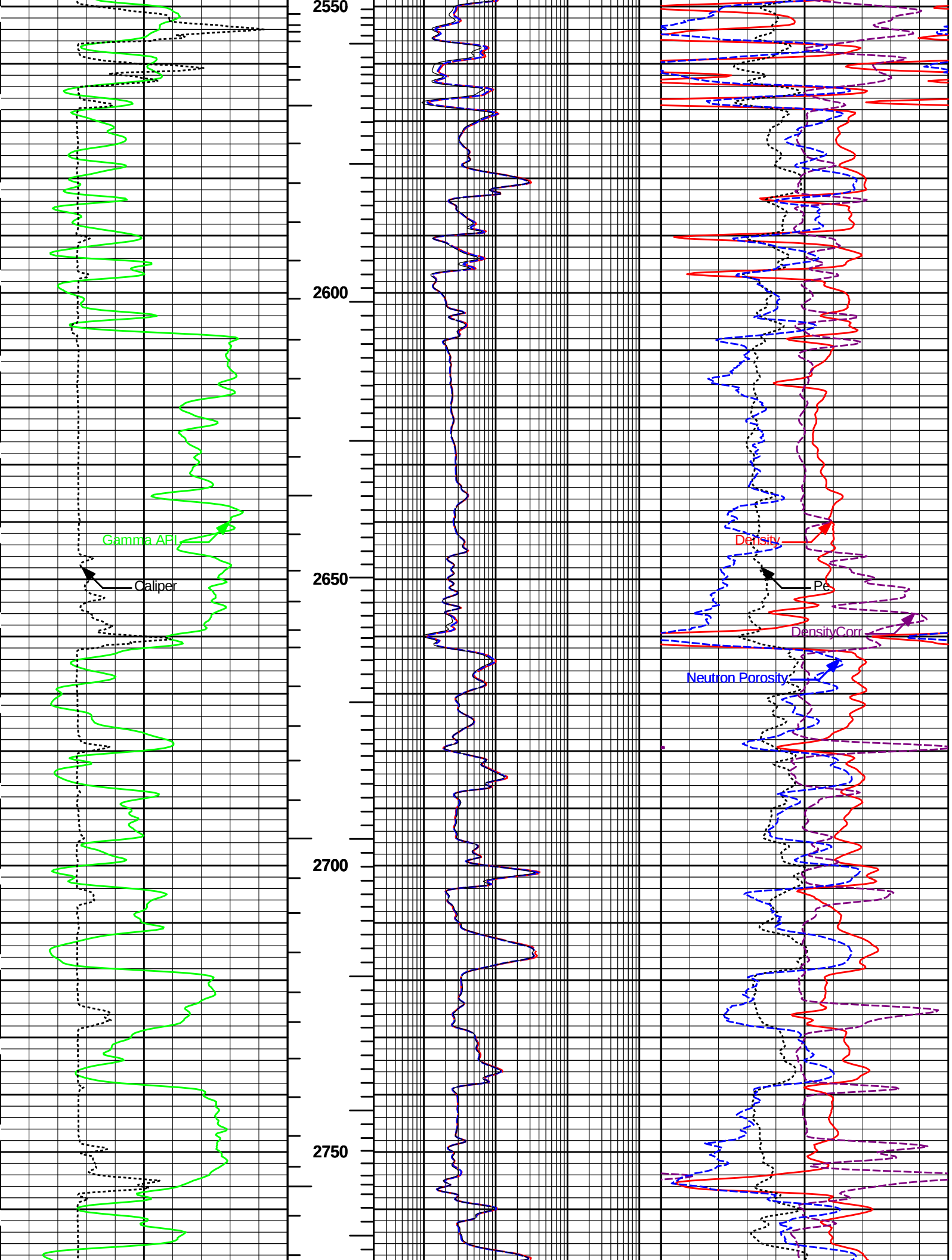


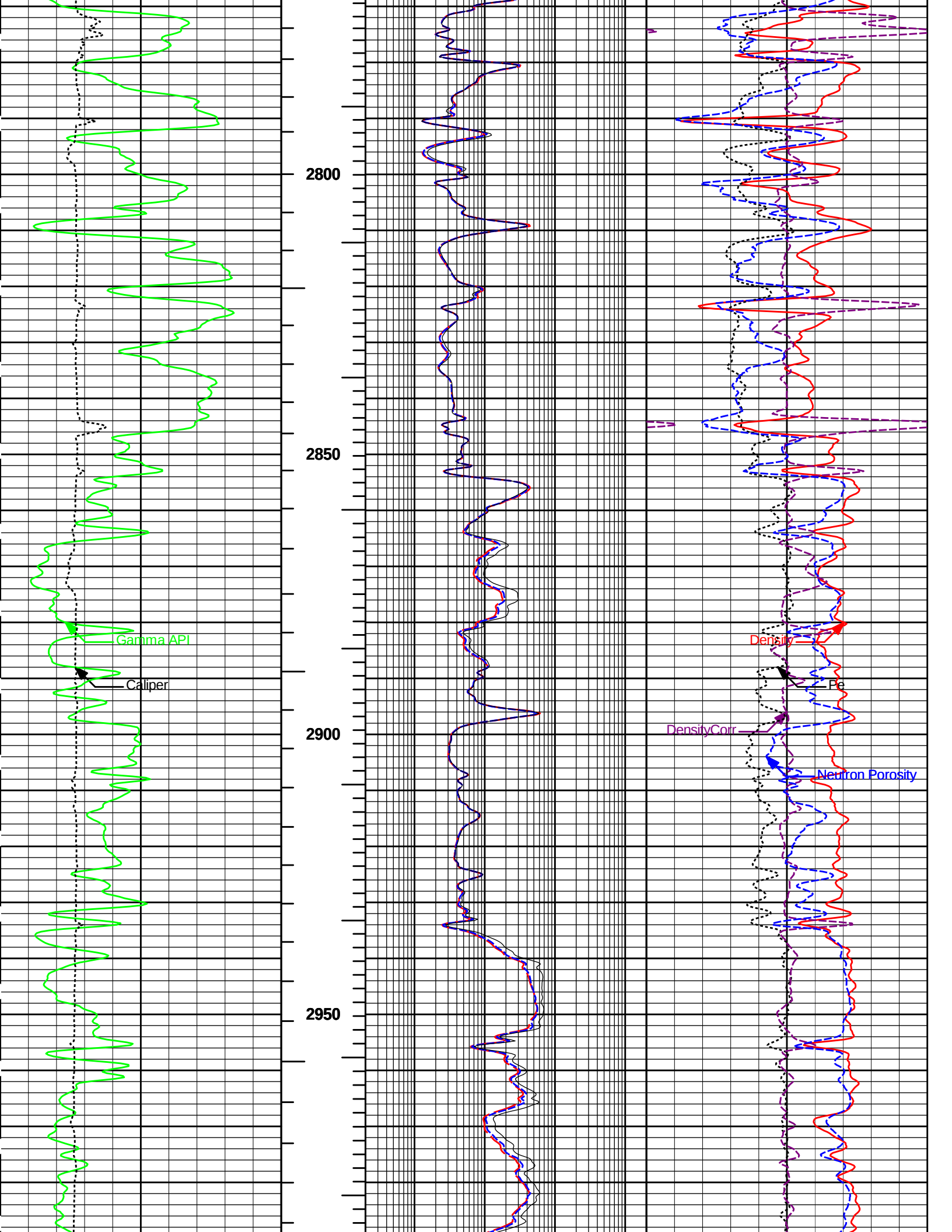


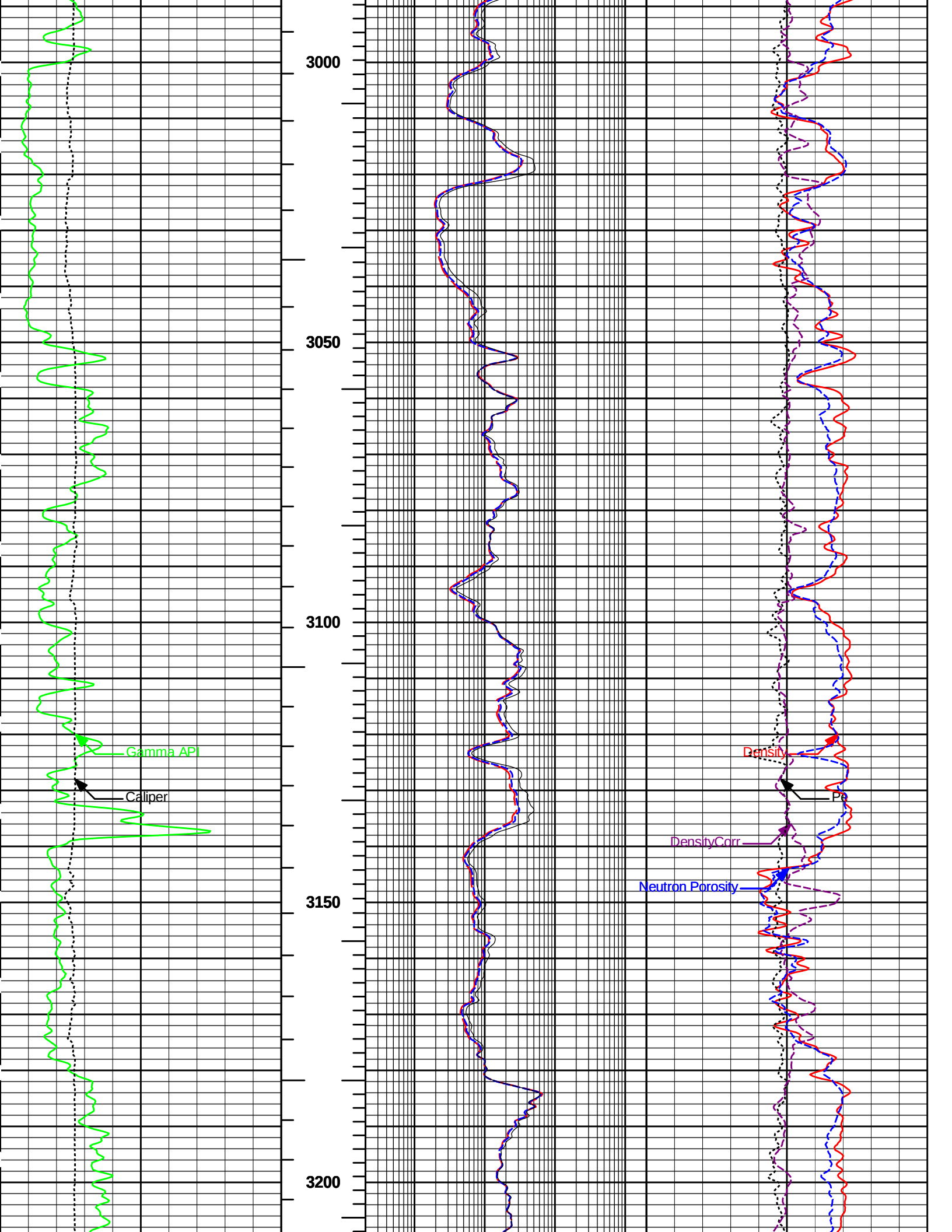


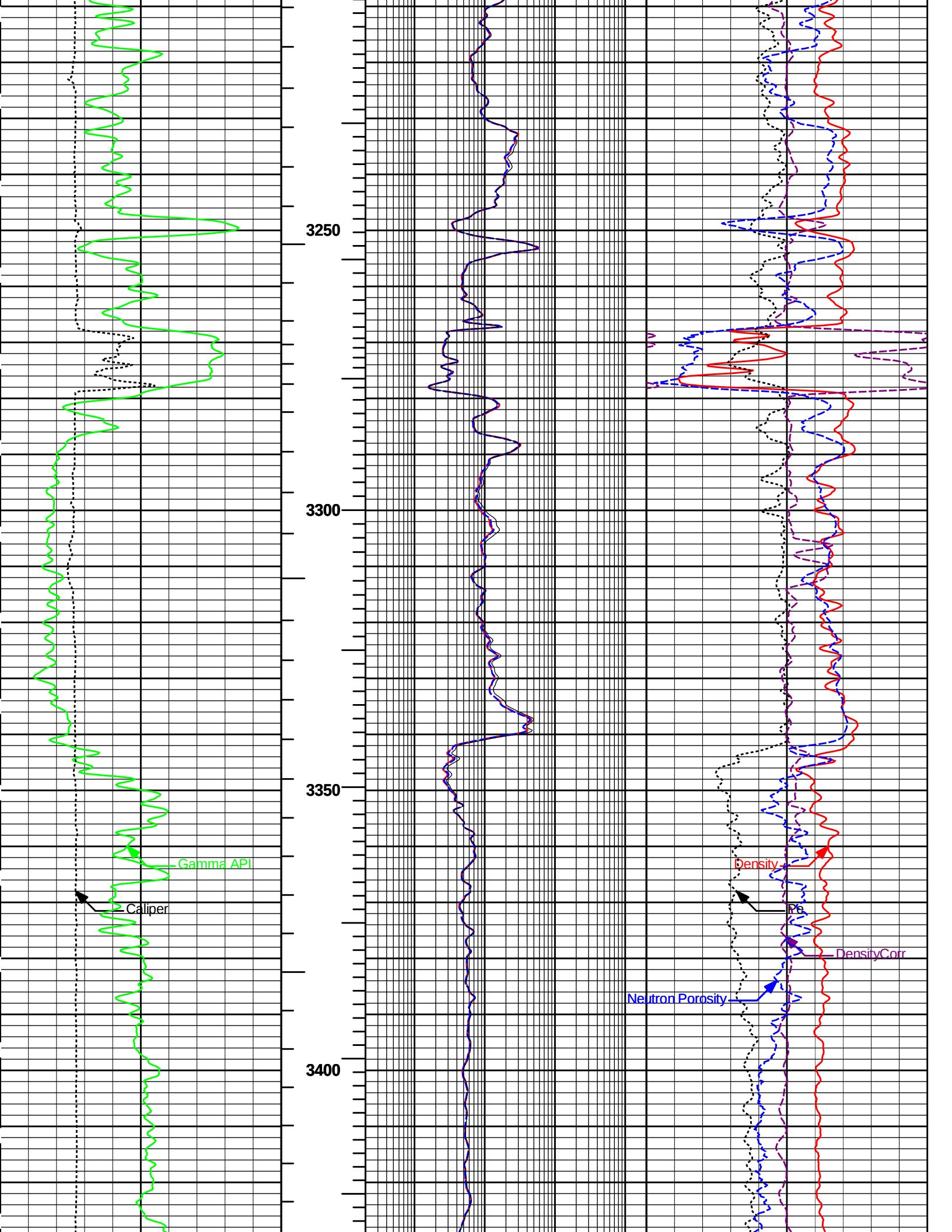


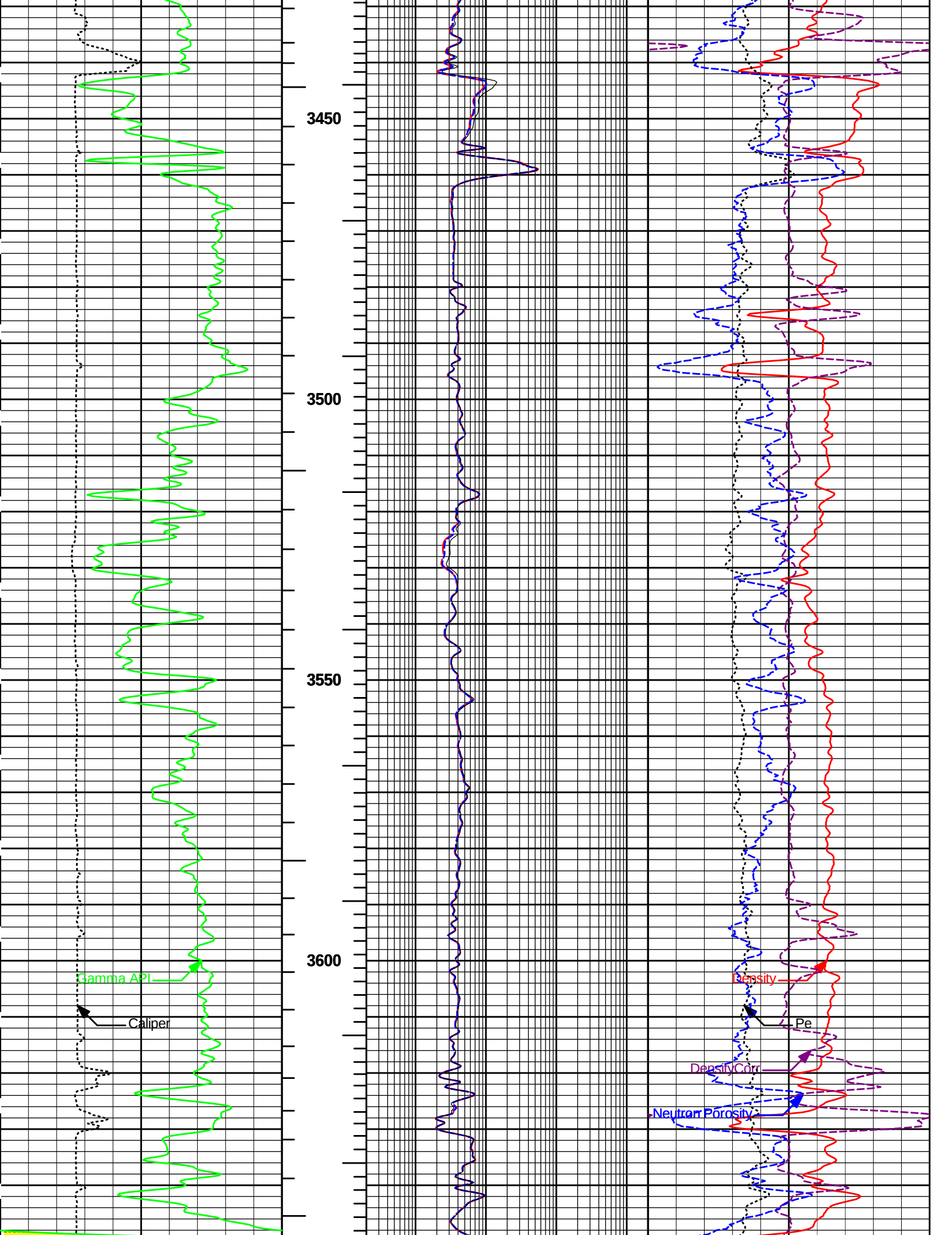


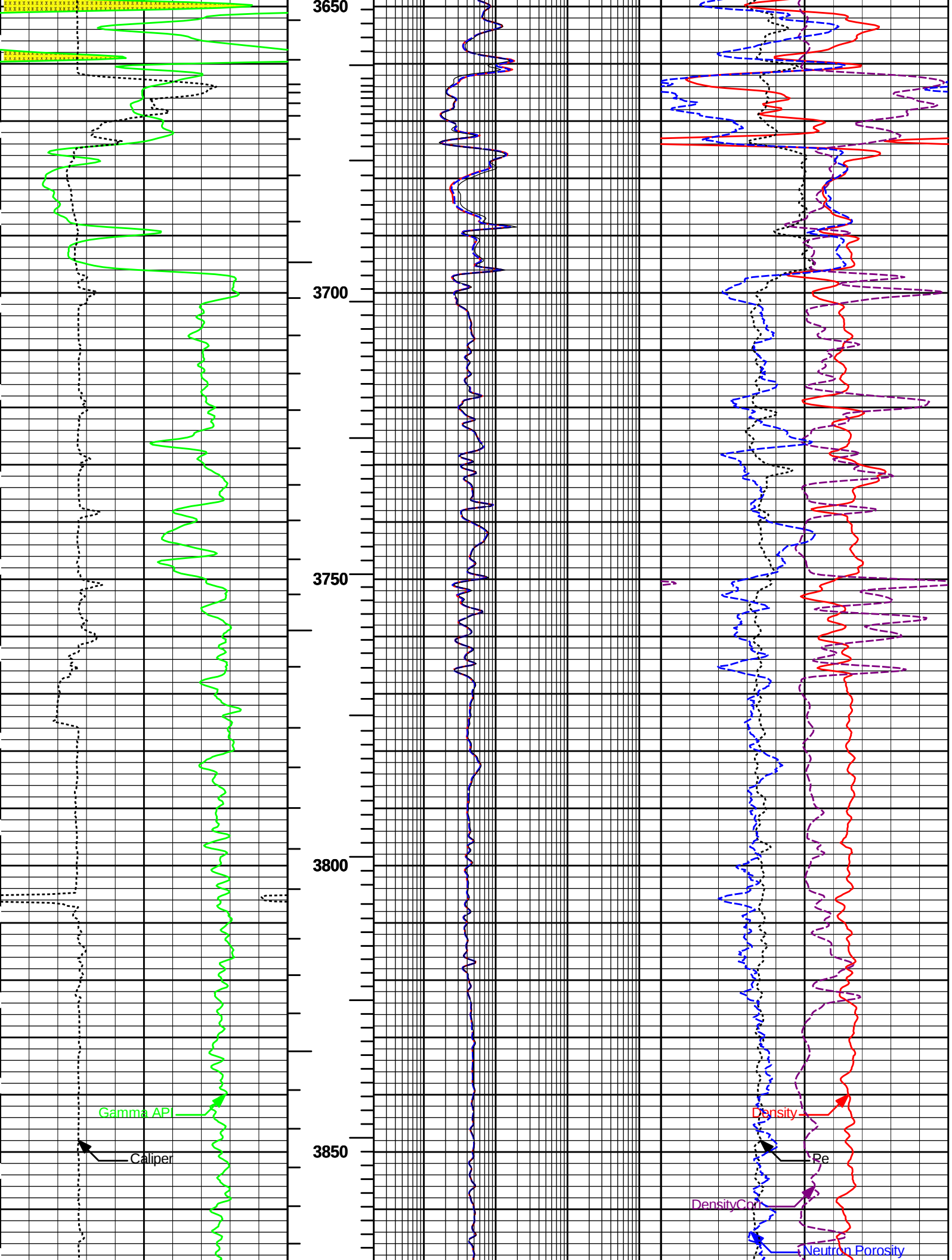


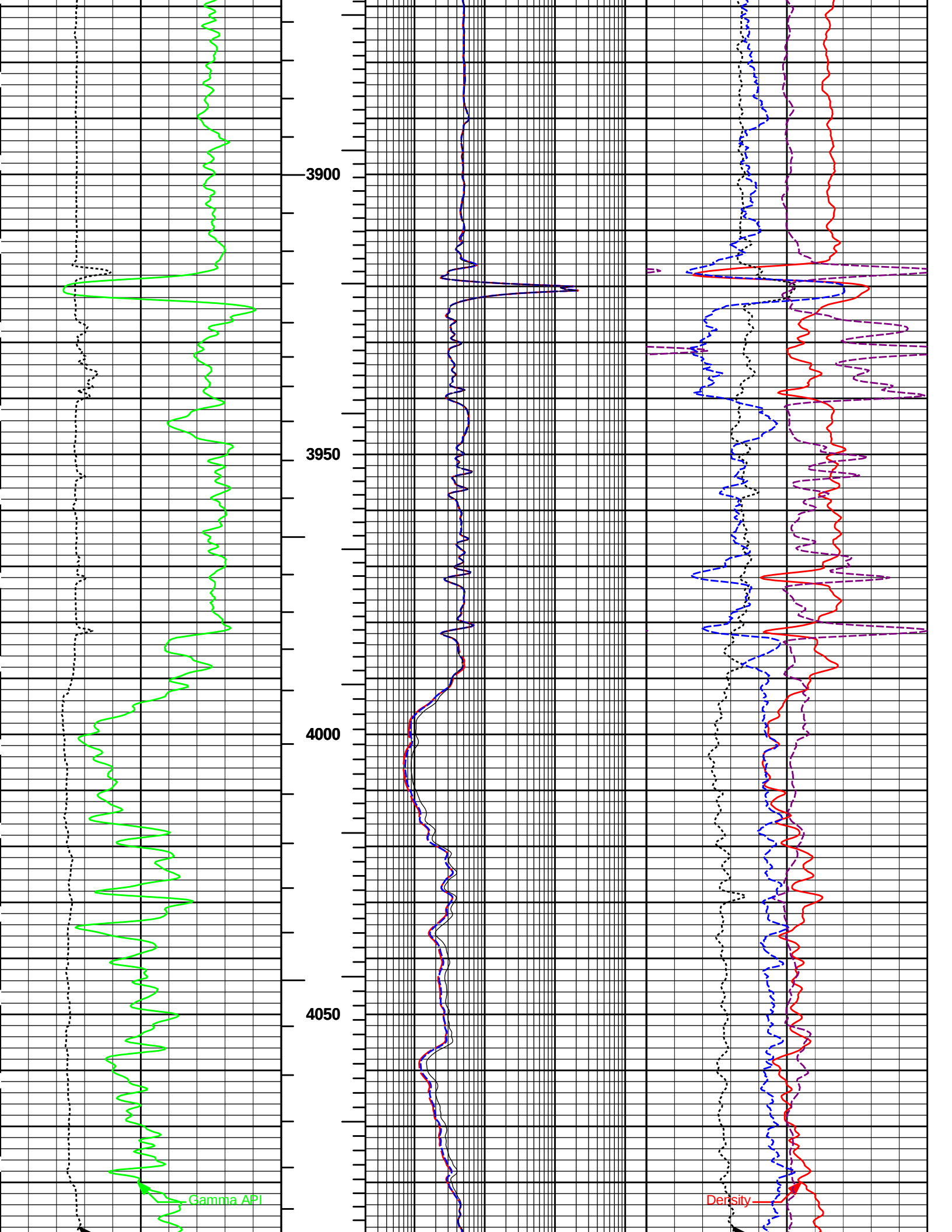


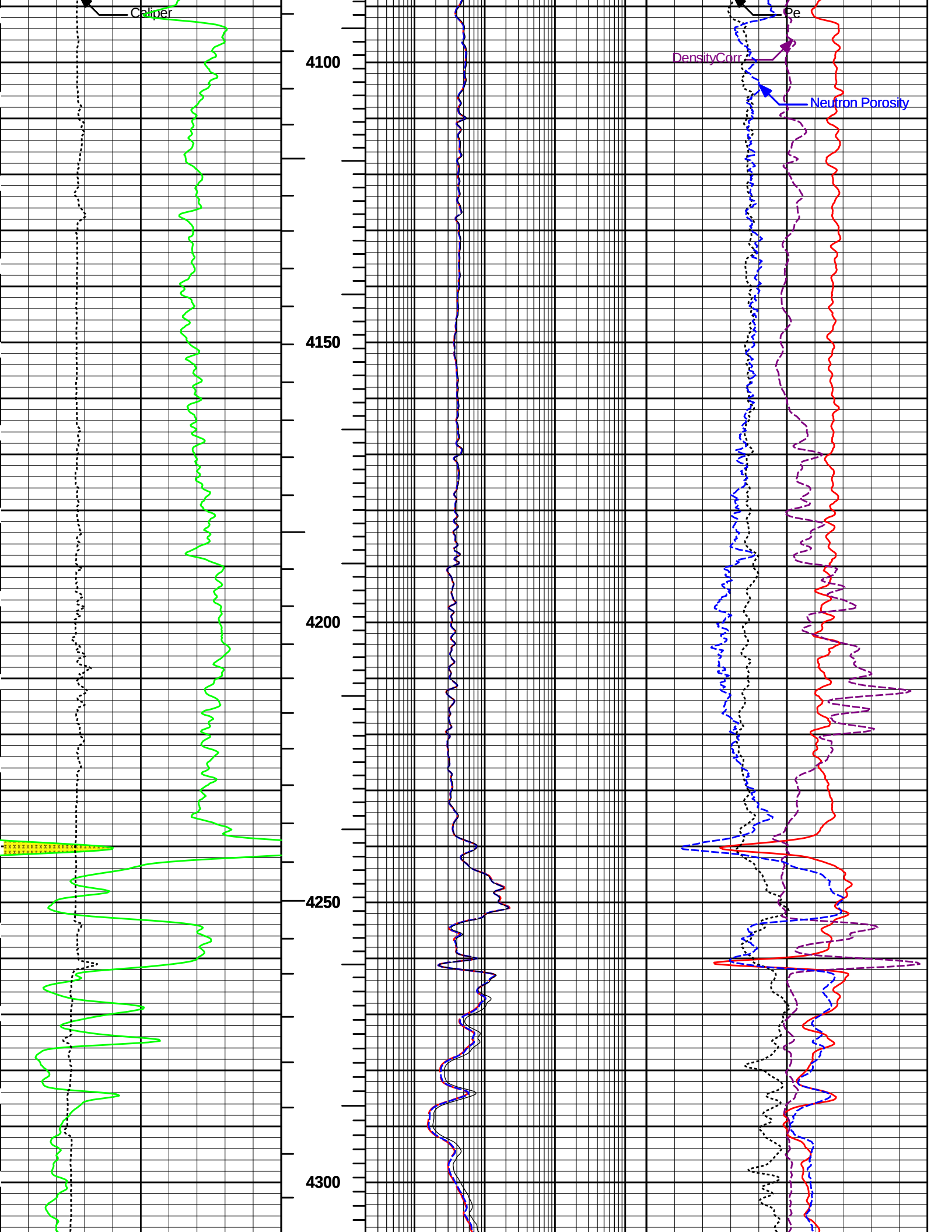


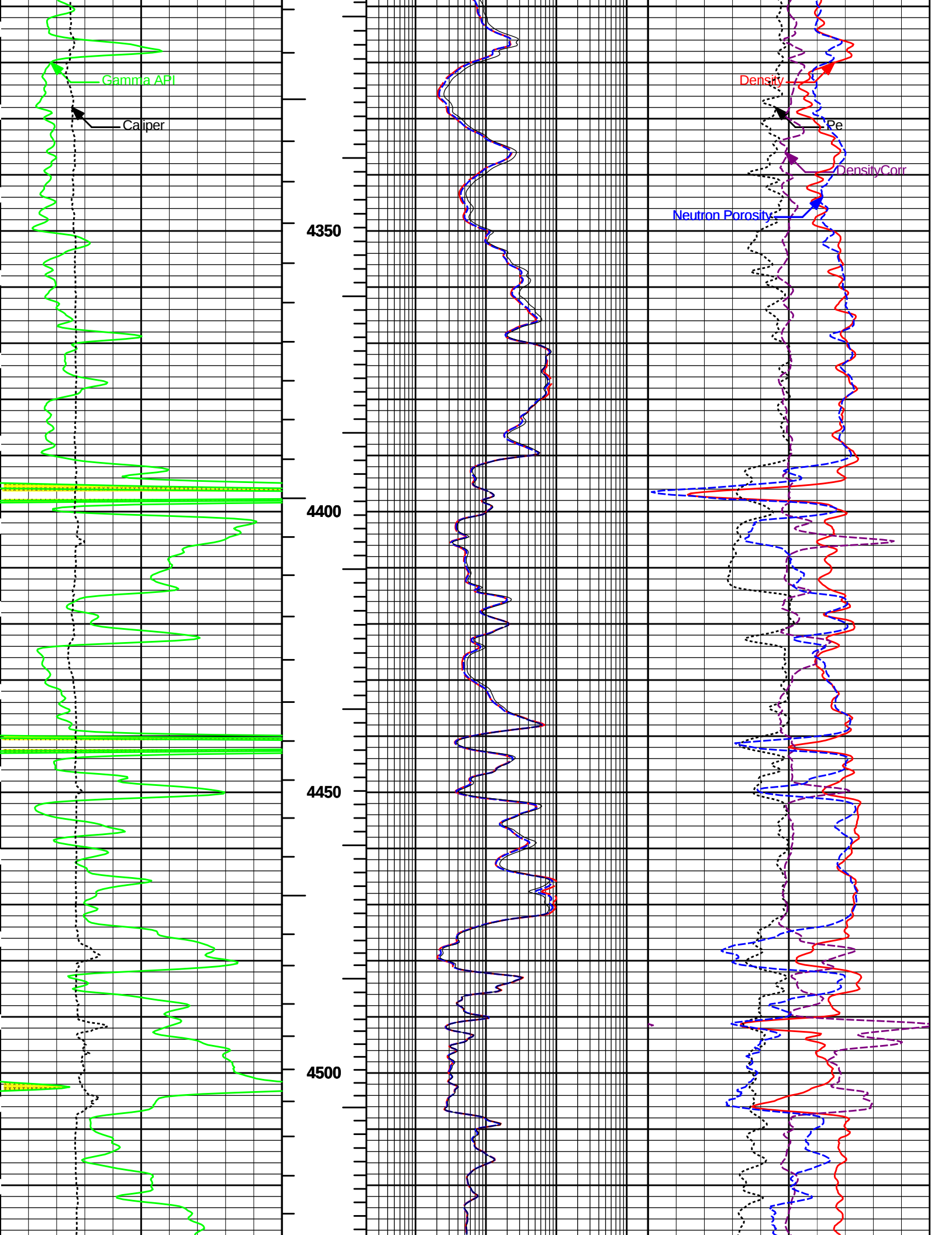


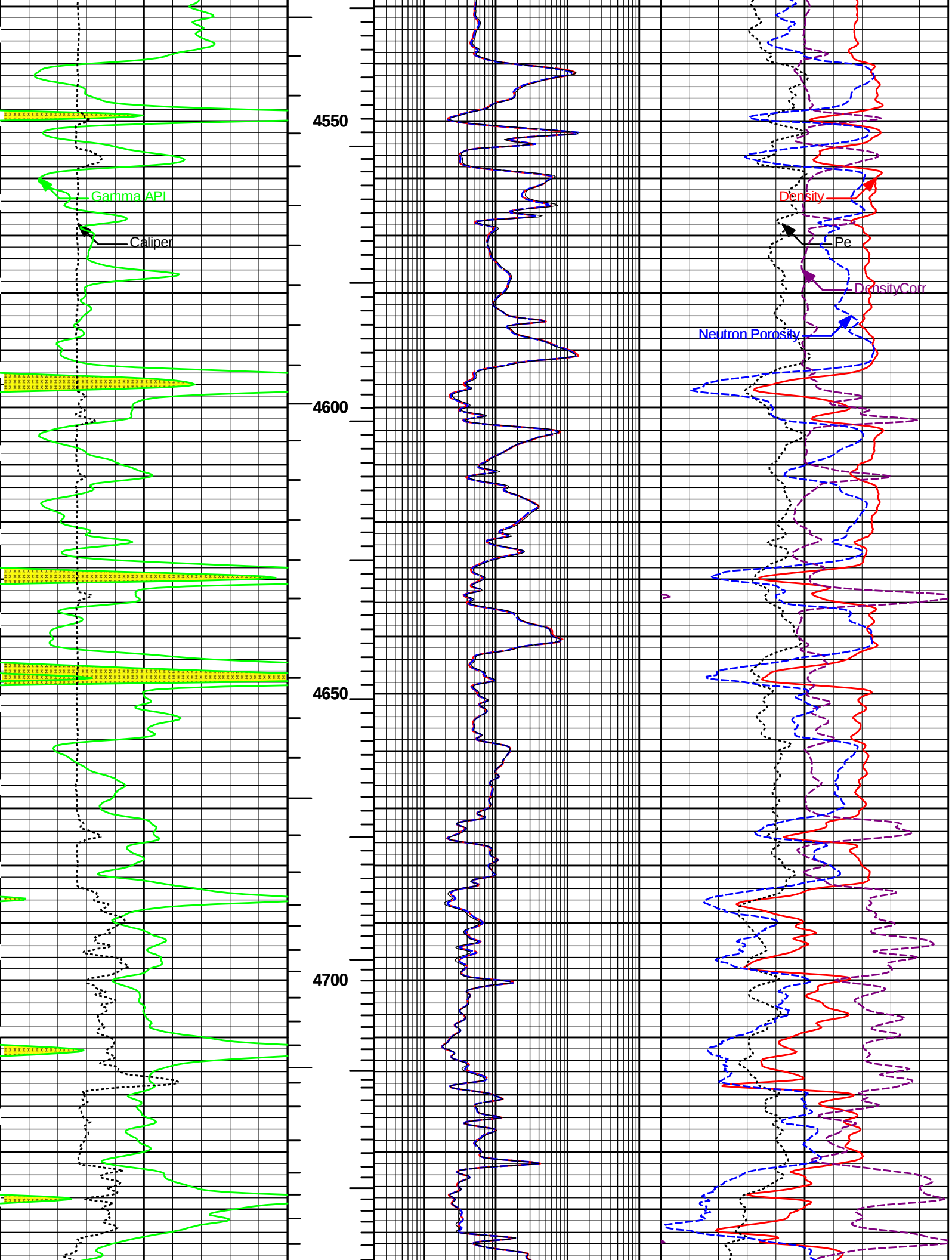


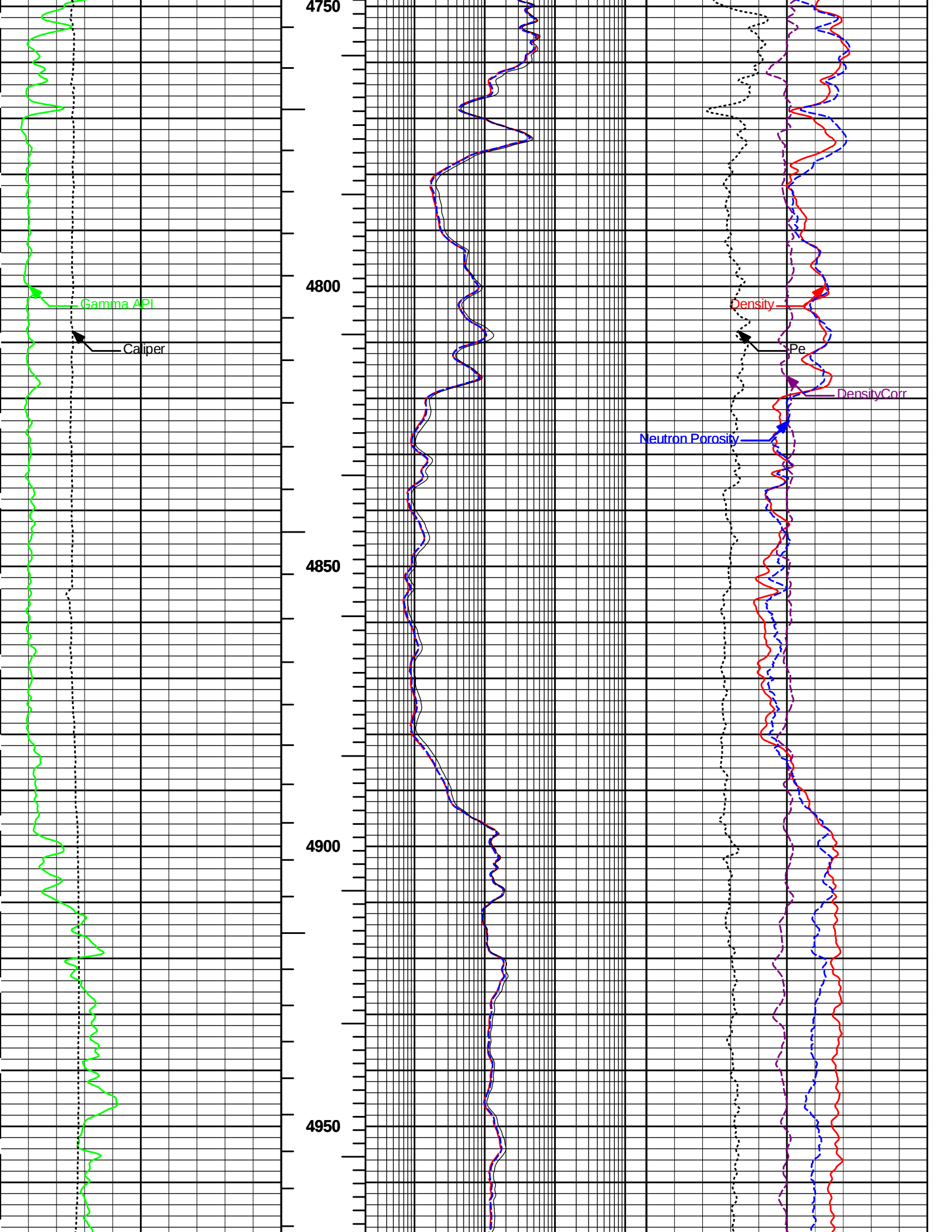


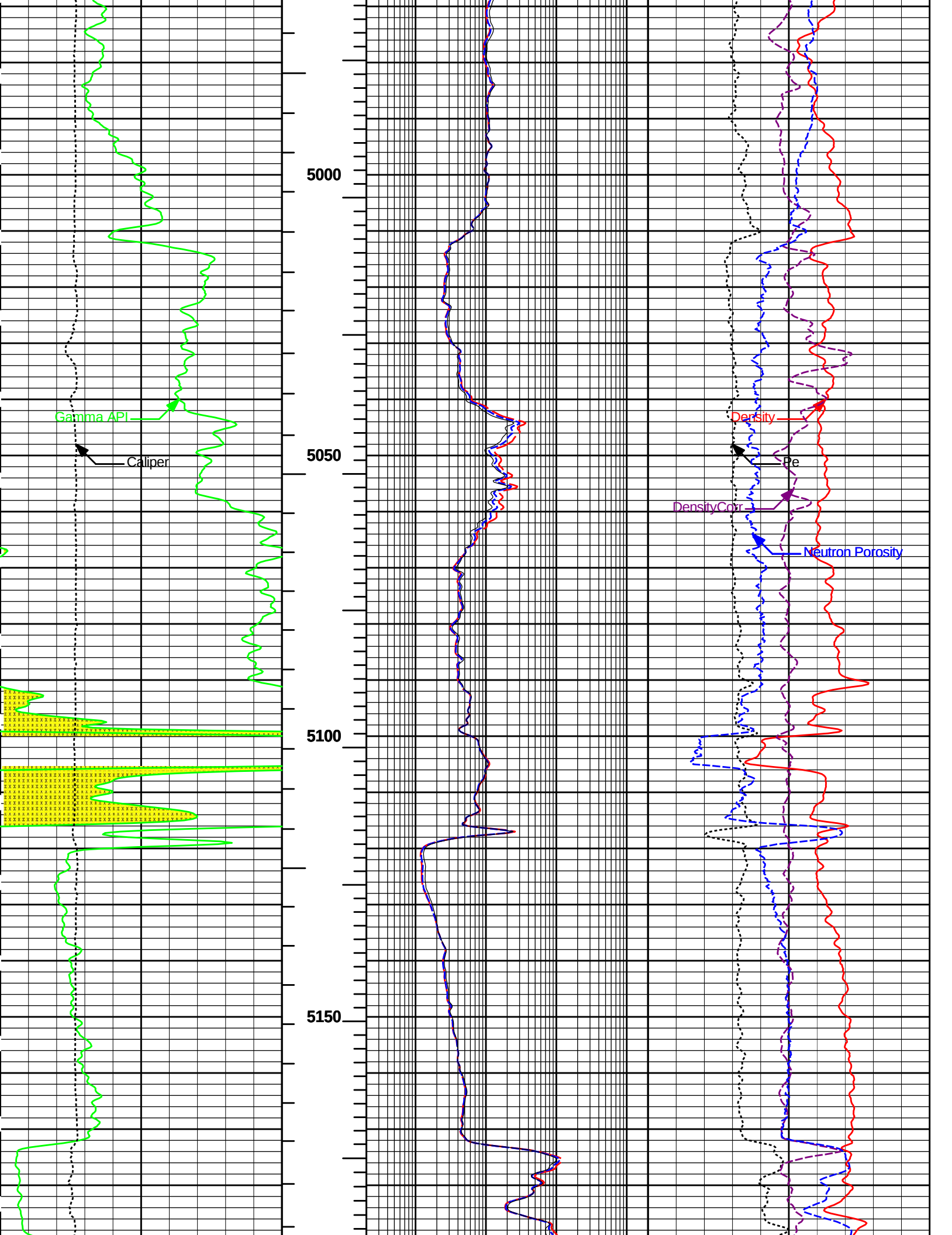


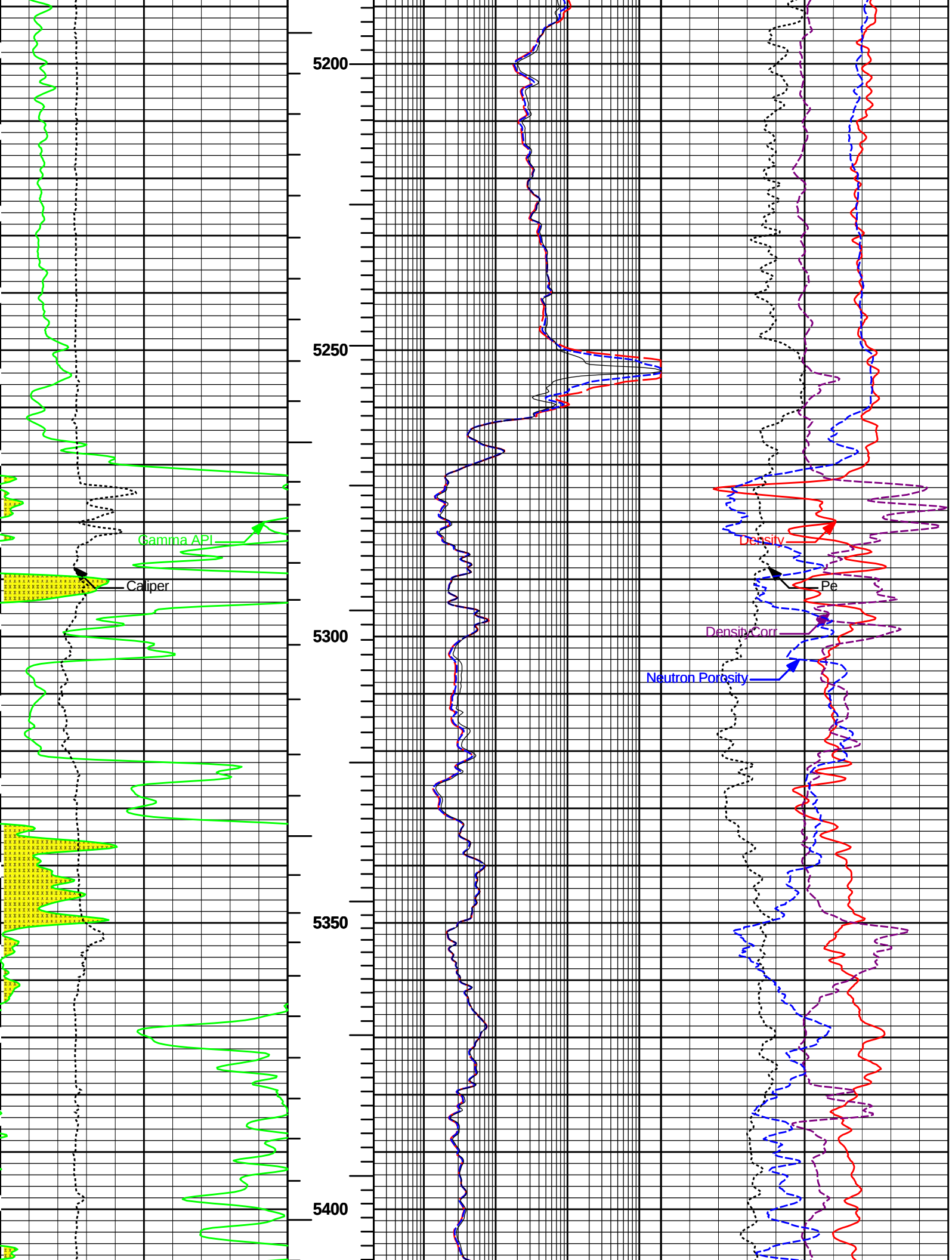


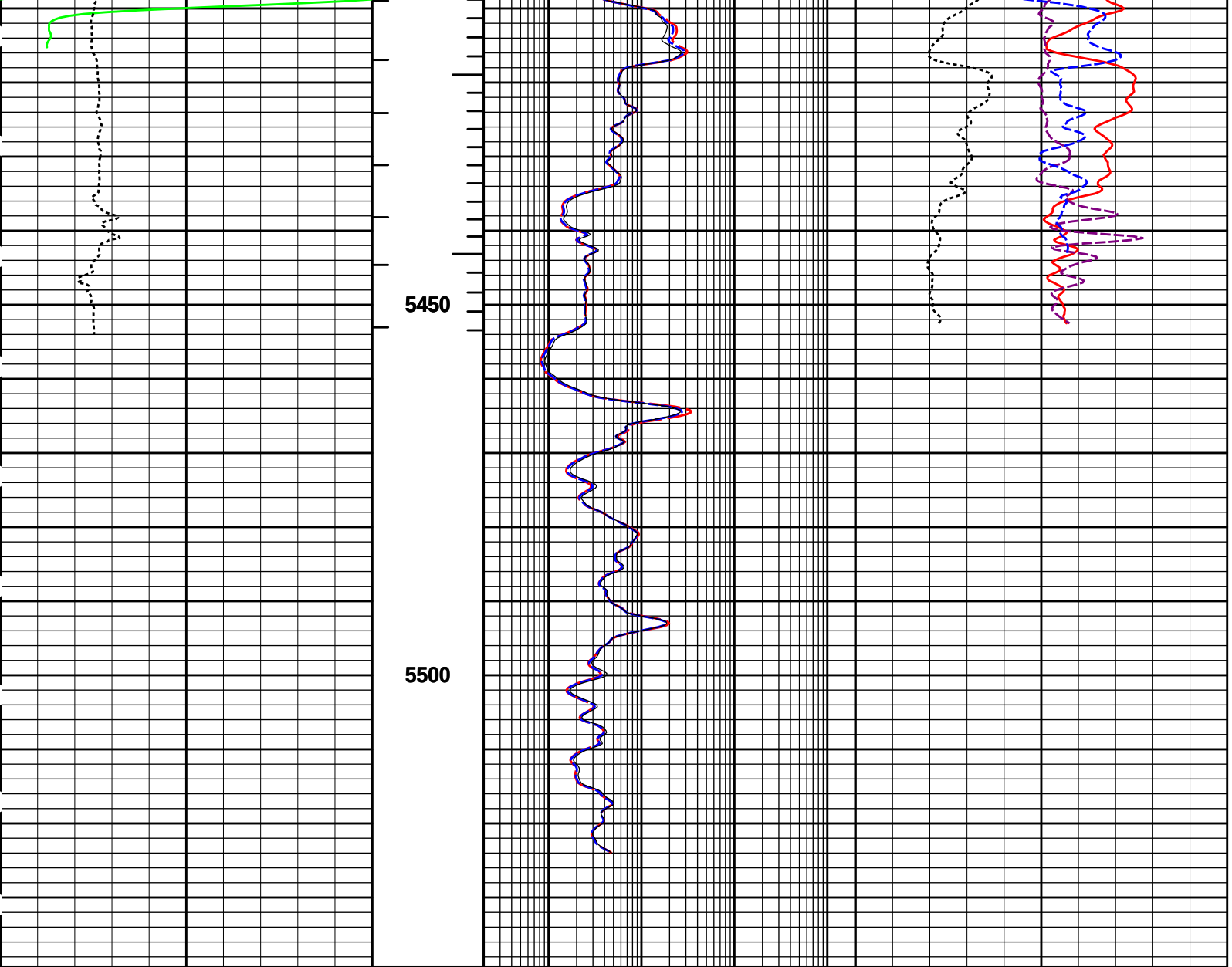










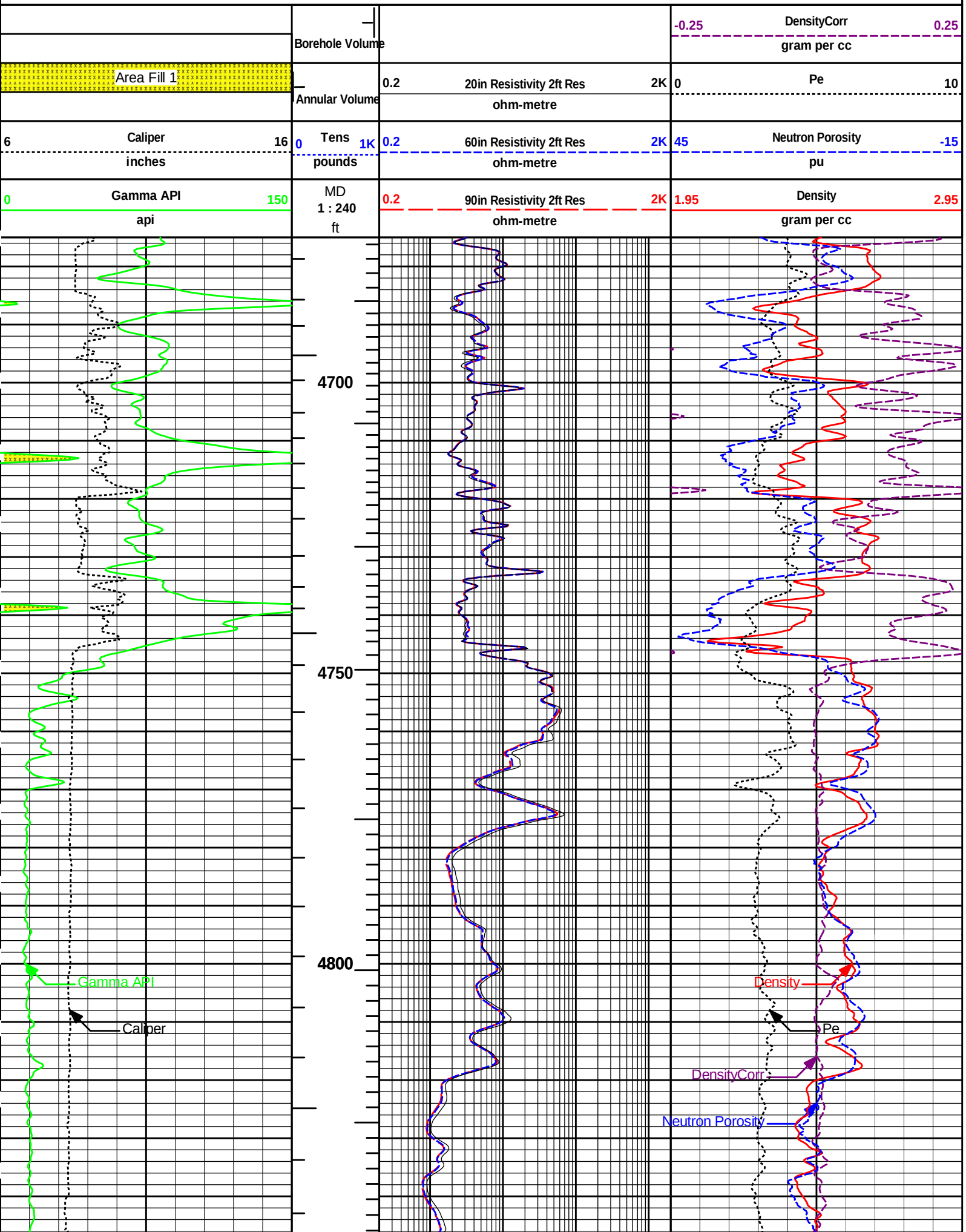


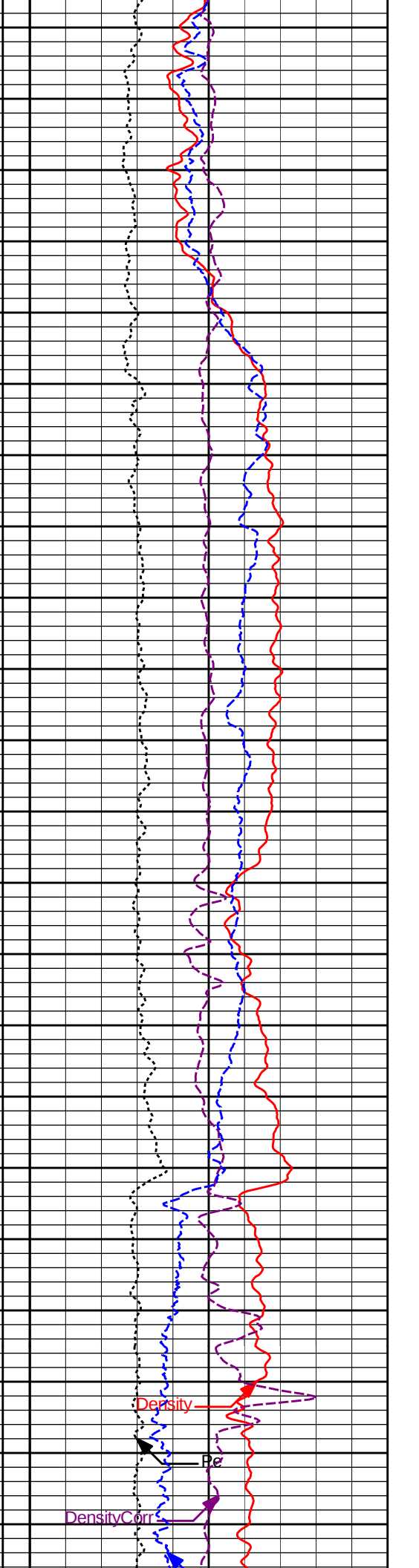
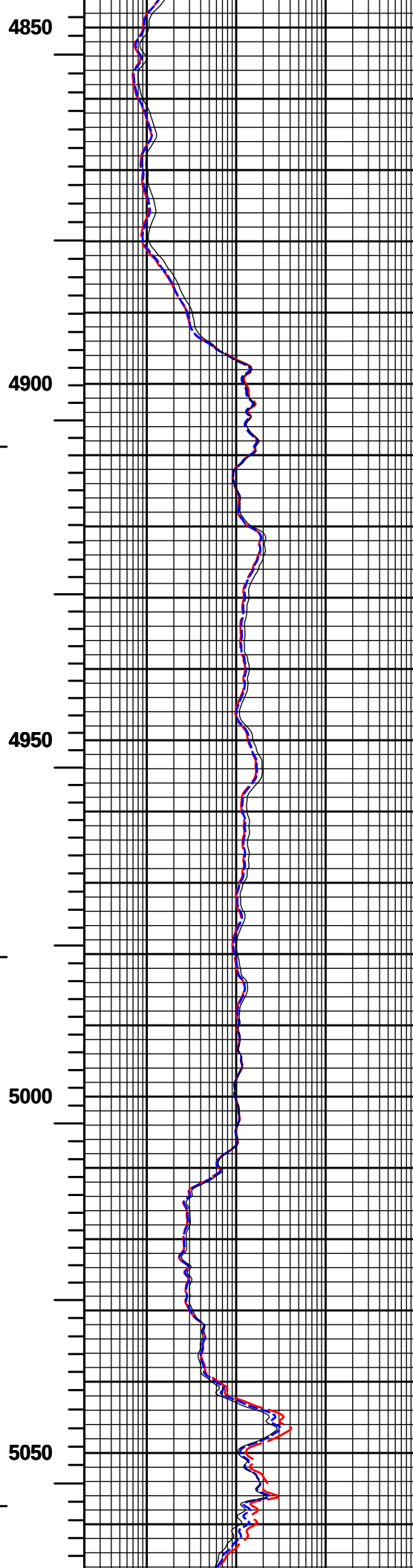
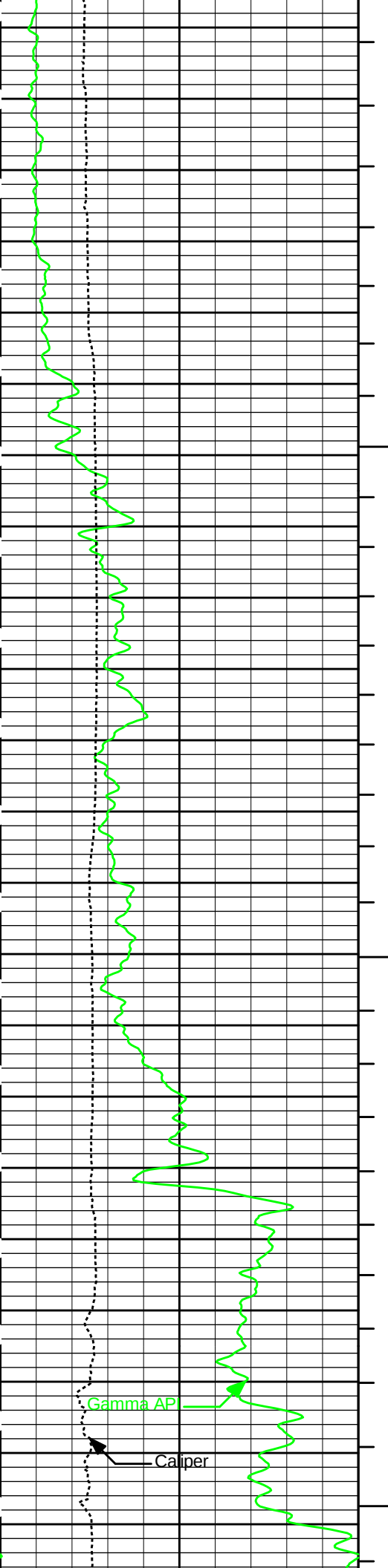
0	Gamma API	150	MD	0.2	90in Resistivity 2ft Res	2K	1.95	Density	2.95
	api		1 : 240		ohm-metre			gram per cc	
			ft						
6	Caliper	16	0 Tens	0.2	60in Resistivity 2ft Res	2K	45	Neutron Porosity	-15
	inches		pounds		ohm-metre			pu	
				0.2	20in Resistivity 2ft Res	2K	0	Pe	10
			Annular Volume		ohm-metre				
							-0.25	DensityCorr	0.25
			Borehole Volume					gram per cc	

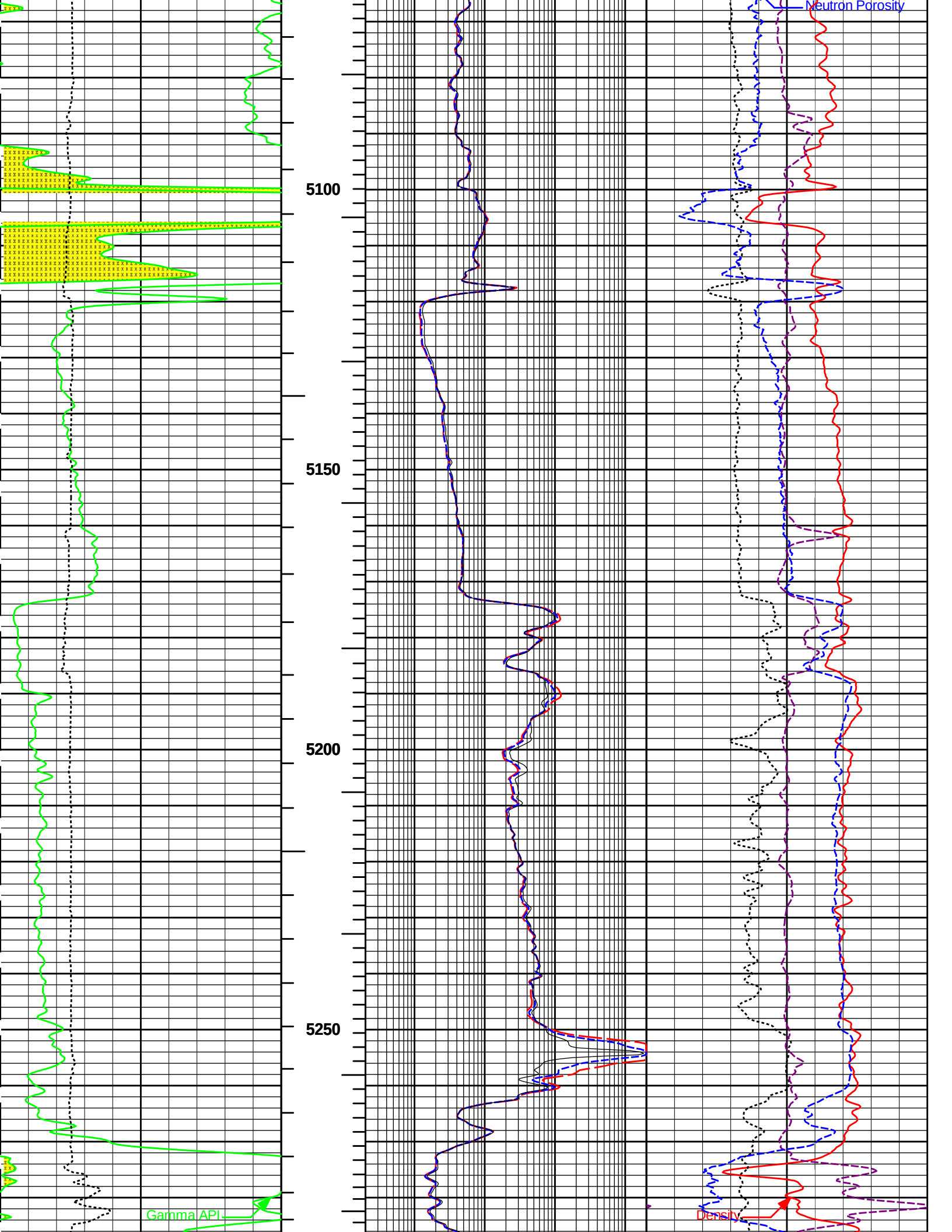
HALLIBURTON Plot Time: 19-Sep-12 09:25:47
Plot Range: 750 ft to 5539 ft
Data: SCHUPBACH3510_4\Well Based\IR1_MAIN\
Plot File: \\COMBO\Triple Combo 1_240

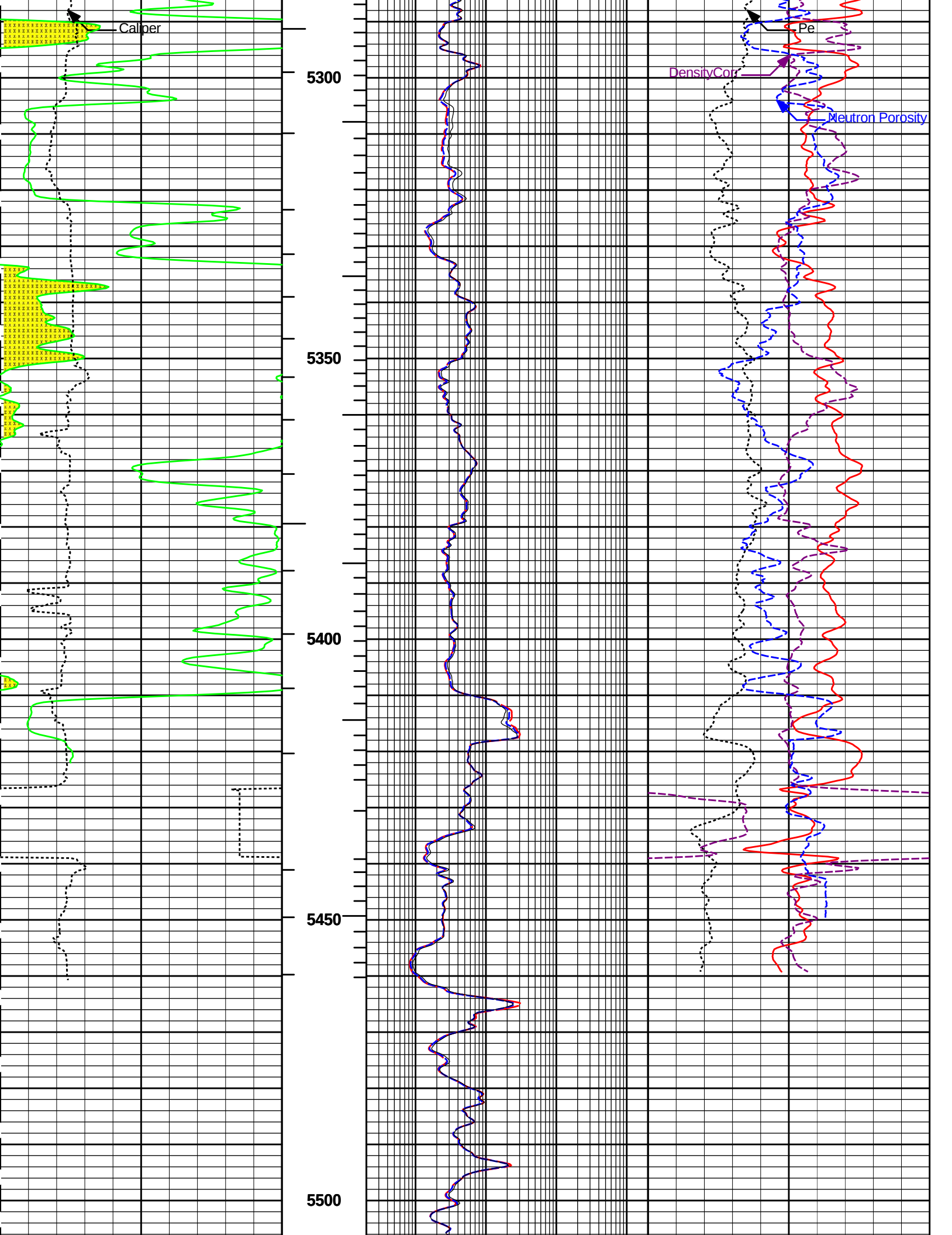
HALLIBURTON Plot Time: 19-Sep-12 09:25:47
Plot Range: 4675 ft to 5546 ft
Data: SCHUPBACH3510_4\Well Based\IR1_REPEAT\
Plot File: \\COMBO\Triple Combo 1_240

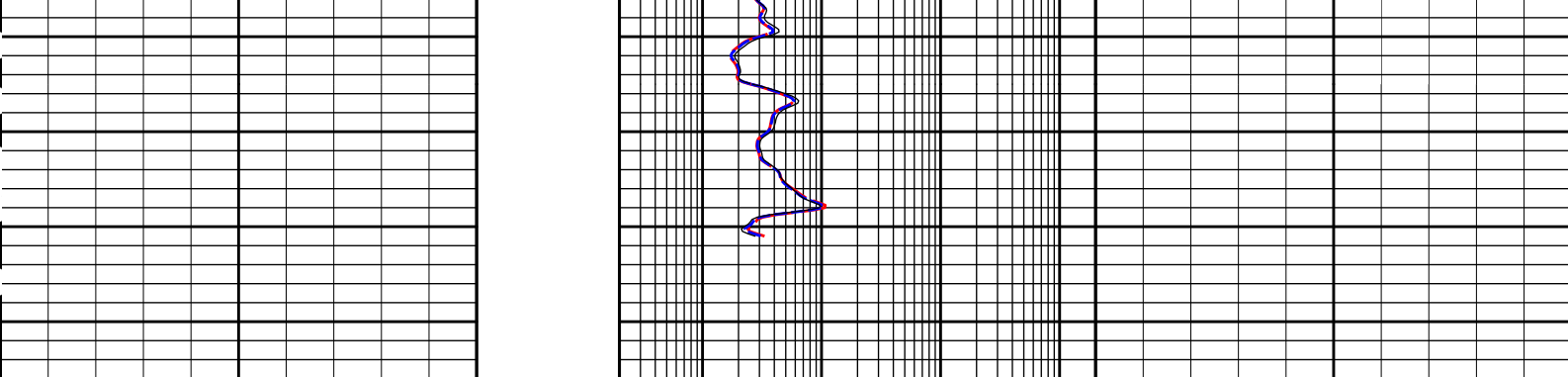
REPEAT SECTION











0	Gamma API	150	MD	1 : 240	0.2	90in Resistivity 2ft Res	2K	1.95	Density	2.95	
	api		ft			ohm-metre			gram per cc		
6	Caliper	16	0	Tens	1K	0.2	60in Resistivity 2ft Res	2K	45	Neutron Porosity	-15
	inches			pounds			ohm-metre			pu	
						0.2	20in Resistivity 2ft Res	2K	0	Pe	10
	Area Fill 1			Annular Volume			ohm-metre				
				Borehole Volume				-0.25	DensityCorr	0.25	
									gram per cc		

HALLIBURTON

Plot Time: 19-Sep-12 09:25:53
Plot Range: 4675 ft to 5546 ft
Data: SCHUPBACH3510_4\Well Based\IR1_REPEAT\
Plot File: \\COMBO\Triple Combo 1_240

HALLIBURTON

TOOL STRING DIAGRAM : SP-GTET-CSNG-GEM-DSN-SDL-FLEX-IDT-ICT-WAVE-ACRT-CH

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
Cable Head- PROT01 30.00 lbs		Ø 3.625 in →			1.92 ft	134.93 ft
SP Sub-11441709 60.00 lbs		Ø 3.625 in →		← SP @ 131.23 ft	3.74 ft	133.01 ft
GTET-10811258 165.00 lbs		Ø 3.625 in →		← GammaRay @ 123.21 ft	8.52 ft	129.27 ft
CSNG-10965402 114.00 lbs		Ø 3.625 in →		← CSNG @ 115.13 ft	8.17 ft	120.75 ft
		Ø 3.625 in →			112.59 ft	

GEMT-11519906
300.00 lbs

Ø 5.000 in →

← BGO Crystal @ 105.11 ft

9.64 ft

↕ 102.95 ft

DSNT-10735145
174.00 lbs

DSN Decentralizer-
11005605
6.60 lbs

Ø 5.000 in* →

Ø 3.625 in →

← DSN Far @ 96.01 ft

← DSN Near @ 95.26 ft

9.69 ft

↕ 93.26 ft

SDLT-
I145_M73803_P90
360.00 lbs

SDLT Pad-90
65.00 lbs
Microlog Pad-
I145_M73803_P90
8.00 lbs

Ø 4.500 in →

Ø 4.750 in* →

Ø 4.750 in* →

Microlog @ 85.45 ft

SDL Caliper @ 85.26 ft

SDL @ 85.25 ft

10.81 ft

↕ 82.45 ft

Flex Joint-
10989947
140.00 lbs

Ø 3.625 in →

5.67 ft

↕ 76.78 ft

IDT-10967514
150.00 lbs

Ø 3.625 in →

7.58 ft

↕ 69.19 ft

ICT-4020
330.00 lbs

Ø 3.625 in →

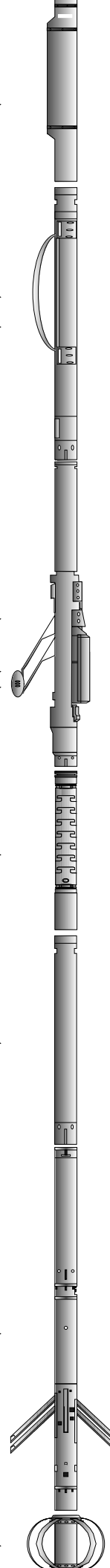
12.83 ft

← ICT Caliper @ 59.15 ft

↕ 56.36 ft

Centralizer 25-001
8.00 lbs

Ø 4.000 in* →



Wavesonic-I-
10855599
520.00 lbs

Ø 3.625 in →

34.07 ft

← Wavesonic Delay @ 33.79 ft

Centralizer 25-002
8.00 lbs

Ø 4.000 in* →

22.29 ft

ACRt Instrument-
I776
50.00 lbs

Ø 3.625 in →

5.03 ft

Regal Standoff 6_75-01
20.00 lbs

Ø 6.750 in* →

17.26 ft

← Mud Resistivity @ 15.90 ft

ACRt Sonde-
I776_S775
200.00 lbs

Ø 3.625 in →

14.22 ft

← ACRt @ 11.92 ft

Spacer-TEMP
15.00 lbs

Ø 3.625 in →

0.96 ft

Hole Finder-
TRK_954
50.00 lbs

Ø 2.800 in ↗
Ø 3.625 in →

2.08 ft

2.08 ft

50.00 lbs

0.00 ft

Mnemonic	Tool Name	Serial Number	Weight (lbs)	Length (ft)	Accumulated Length (ft)	Max.Log. Speed (fpm)
CH	Standard OH Cable Head	PROT01	30.00	1.92	133.01	300.00
SP	SP Sub	11441709	60.00	3.74	129.27	300.00
GTET	Gamma Telemetry Tool	10811258	165.00	8.52	120.75	60.00
CSNG	Compensated Spectral Natural Gamma	10965402	114.00	8.17	112.59	15.00
GEMT	Gamma, Elements and Minerals Tool	11519906	300.00	9.64	102.95	15.00
DSNT	Dual Spaced Neutron	10735145	174.00	9.69	93.26	60.00
DCNT	DSN Decentralizer	11005605	6.60	5.13	* 96.59	60.00
SDLT	Spectral Density Tool	I145_M73803_P90	360.00	10.81	82.45	60.00
SDLP	Density Insite Pad	90	65.00	2.55	* 84.66	60.00
MICP	Microlog Pad	I145_M73803_P90	8.00	1.00	* 84.95	60.00
FLEX	Flex Joint	10989947	140.00	5.67	76.78	300.00
IDT	Insite Directional Tool	10967514	150.00	7.58	69.19	30.00
ICT	Six Independent Arm Caliper	4020	330.00	12.83	56.36	30.00
WSTT	WaveSonic Insite	10855599	520.00	34.07	22.29	100.00
OBCEN	Centralizer - 25 in. Overbody	002	8.00	2.08	* 22.29	100.00
OBCEN	Centralizer - 25 in. Overbody	001	8.00	2.08	* 54.28	100.00
ACRt	Array Compensated True Resistivity Instrument Section	I776	50.00	5.03	17.26	300.00
ACRt	Array Compensated True Resistivity Sonde Section	I776_S775	200.00	14.22	3.04	300.00
RSOF	Regal Standoff 6.75in	01	20.00	0.52	* 16.74	300.00
SPC	Test	TEMP	15.00	0.96	2.08	100.00
HFND	Hole Finder	TRK_954	50.00	2.08	0.00	300.00
Total			2,773.60	134.93		
* Not included in Total Length and Length Accumulation.						
Data: SP-GTET-CSNG-GEM-DSN-SDL-FLEX-IDT-ICT-WAVE-ACRT-CH						
Date: 30-Aug-12 07:29:17						

HALLIBURTON CALIBRATION REPORT			
NATURAL GAMMA RAY TOOL SHOP CALIBRATION			
Tool Name:	GTET - 10811258	Reference Calibration Date:	29-Jun-12 10:47:38
Engineer:	C. HAVERKAMP	Calibration Date:	11-Aug-12 06:02:48
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1
Calibrator Source S/N: TB-185 Calibrator API Reference:228.00 api Equivalent Calibrator API Reference:232.0 api			
	Measurement	Measured	Calibrated
	Background	33.3	33.0
	Background + Calibrator	267.7	265.0
	Calibrator	234.4	232.0
NATURAL GAMMA RAY TOOL FIELD CALIBRATION			
Tool Name:	GTET - 10811258	Reference Calibration Date:	11-Aug-12 06:02:48
Engineer:	C. HAVERKAMP	Calibration Date:	30-Aug-12 05:27:41
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1
Calibrator Source S/N: TB-185 Calibrator API Reference:228.00 api Equivalent Calibrator API Reference:232.0 api			
	Field Verification	Shop	Field
	Background	33.0	40.7
	Background + Calibrator	265.0	273.2
	Calibrator	232.0	232.5

Shop	Field	Difference	Tolerance
232.0	232.5	-0.5	+/- 9.00

NATURAL GAMMA RAY TOOL POST CALIBRATION

Tool Name:	GTET - 10811258	Reference Calibration Date:	30-Aug-12 05:27:41
Engineer:	C. HAVERKAMP	Calibration Date:	30-Aug-12 18:33:33
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1

Calibrator Source S/N: TB-185
Calibrator API Reference:228.00 api
Calibrator API Reference:232.0 api

Post Verification	Field	Post	Units
Background	40.7	35.3	api
Background + Calibrator	273.2	270.1	api
Calibrator	232.5	234.8	api

Shop	Field	Post	Difference	Tolerance
232.0	232.5	234.8	-2.3	+/- 9.00

DUAL SPACED NEUTRON SHOP CALIBRATION

Tool Name:	DSNT - 10735145	Reference Calibration Date:	01-Jan-70 00:00:00
Engineer:	C. HAVERKAMP	Calibration Date:	05-Aug-12 11:14:28
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1

Logging Source S/N: DSN-436
Tank Serial Number: 105060
Reference value assigned to Tank: 51.680
Snow Block S/N: TRK_954
Calibration Tank Water Temperature: 78 degF
Min. Tool Housing Outside Diameter: 3.620 in

CALIBRATION CONSTANTS			
Measurement	Prev. Value	New Value	Control Limit On New Value
Gain:	0.939	0.939	0.900 - 1.100

WATER TANK SUMMARY (Horizontal Water Tank)				
Measurement	Current Reading (Previous Coef.)	Calibrated (New Coef.)	Change	Control Limit On Change
Porosity (decg):	0.2107	0.2107	0.0000	+/- 0.0020
Calibrated Ratio:	9.72	9.72	0.000	+/- 0.050

VERIFIER		
Measurement	Value	Control Limit
Snow-Block Porosity (decg):	0.0597	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 - 10735145	Reference Calibration Date:	05-Aug-12 11:14:28
Engineer:	C. HAVERKAMP	Calibration Date:	30-Aug-12 05:36:32

Engineer:	C. HAVERKAMP	Calibration Date:	30-Aug-12 05:36:32
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1
Logging Source S/N: DSN-436			
Snow Block S/N: TRK_954			
NEUTRON FIELD-CHECK SUMMARY			
	Shop	Field	Control Limit On Change
Snow-Block Porosity (decp):	0.0597	0.0515	+/- 0.0150
PASS/FAIL SUMMARY			
Block Change Check:		Passed	
Snow Block Stat Check:		Passed	
Temperature Check:		Passed	

DUAL SPACED NEUTRON POST CALIBRATION			
Tool Name:	DSNT - 10735145	Reference Calibration Date:	30-Aug-12 05:36:32
Engineer:	C. HAVERKAMP	Calibration Date:	30-Aug-12 18:44:09
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1

Logging Source S/N: DSN-436			
Snow Block S/N: TRK_954			
NEUTRON POST-CHECK SUMMARY			
	Field Value	Post Value	Control Limit On Change
Snow-Block Porosity (decp):	0.0515	0.0550	+/- 0.0150
PASS/FAIL SUMMARY			
Block Change Check:		Passed	
Snow Block Stat Check:		Passed	
Temperature Check:		Passed	

DENSITY CALIPER SHOP CALIBRATION			
Tool Name:	SDLT - I145_M73803_P90	Reference Calibration Date:	24-Jul-12 19:54:45
Engineer:	THOMAS HYDE	Calibration Date:	24-Jul-12 19:59:46
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1
Host Tool Name:	DSNT - 10735145		

CALIBRATION COEFFICIENTS				
Measurement	Previous Value	New Value	Control Limit On New Value	
Pad Offset	-2668.67	-2670.41	-7000.00 - -1000.00	
Pad Gain	0.0003985	0.0003943	0.000200 - 0.000600	
Arm Offset	-1928.79	-1917.49	-5000.00 - 3000.00	
Arm Gain	0.0005213	0.0005393	0.000300 - 0.000700	
Arm Power	-0.000005267	-0.000006568	-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)	2.02	2.00	-0.02	+/- 0.20
Medium Ring (in)	3.79	3.75	-0.04	+/- 0.20
RING DIAMETER:				
Small Ring (in)	6.44	6.50	0.06	+/- 0.20
Medium Ring (in)	8.12	8.05	-0.07	+/- 0.20

	Medium Ring (in)	8.16	8.25	0.09	+/- 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					
Calibration-Coefficients Range Check:			Passed		

SPECTRAL DENSITY SHOP CALIBRATION					
Tool Name:	SDLT Pad - 90		Reference Calibration Date:	16-Aug-12 15:56:32	
Engineer:	J. BOLLUM		Calibration Date:	16-Aug-12 16:59:02	
Software Version:	WL INSITE R3.6.0 (Build 3)		Calibration Version:	1	

Logging Source S/N: 5073GW					
Aluminum Block S/N: 63061		Density: 2.591g/cc		Pe: 3.170	
Magnesium Block S/N: 63393		Density: 1.690g/cc		Pe: 2.594	

DENSITY CALIBRATION SUMMARY			
Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	0.9993	1.0566	0.90 - 1.10
Near Dens Gain	0.9854	1.0271	0.90 - 1.10
Near Peak Gain	0.9717	1.0281	0.90 - 1.10
Near Lith Gain	0.9547	1.0053	0.90 - 1.10
Far Bar Gain	0.9942	1.0088	0.90 - 1.10
Far Dens Gain	0.9838	0.9943	0.90 - 1.10
Far Peak Gain	0.9767	0.9881	0.90 - 1.10
Far Lith Gain	0.9522	0.9599	0.90 - 1.10
Near Bar Offset	0.2479	-0.2761	NONE
Near Dens Offset	0.3614	-0.0095	NONE
Near Peak Offset	0.4721	0.0003	NONE
Near Lith Offset	0.5933	0.1684	NONE
Far Bar Offset	0.1946	0.0645	NONE
Far Dens Offset	0.2666	0.1733	NONE
Far Peak Offset	0.2937	0.1966	NONE
Far Lith Offset	0.4154	0.3523	NONE
Near Bar Background	871.67	874.31	700 - 1450
Near Dens Background	291.35	291.01	230 - 480
Near Peak Background	129.64	127.51	100 - 210
Near Lith Background	155.44	156.21	125 - 260
Far Bar Background	587.99	585.37	450 - 900
Far Dens Background	230.31	231.20	175 - 345
Far Peak Background	91.23	92.44	70 - 140
Far Lith Background	96.64	96.61	75 - 145

CALIBRATION BLOCK SUMMARY				
Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.692	1.690	-0.002	+/- 0.015
Pe	2.540	2.560	0.020	+/- 0.150
ALUMINUM				
Density (g/cc)	2.586	2.591	0.005	+/- 0.01500

Density (g/cc)	2.366	2.391	0.003	+/- 0.01500
Pe	3.101	3.134	0.033	+/- 0.150

TOOL SUMMARY				
Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	0.0026	+/- 0.0110	-0.0012	+/- 0.0140
Magnesium Block	-0.0002	+/- 0.0110	-0.0011	+/- 0.0140
Aluminum Block	0.0001	+/- 0.0110	-0.0003	+/- 0.0140
Resolution	8.91	6.00 - 11.50	8.94	6.00 - 11.50
Internal Verifier(B+D+P+L)	1449	1200 - 2700	1006	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 - 90	Reference Calibration Date:	16-Aug-12 16:59:02
Engineer:	C. HAVERKAMP	Calibration Date:	30-Aug-12 05:25:09
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1

Pad Temperature: 78.8 degF

DENSITY FIELD CALIBRATION SUMMARY				
Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1449.042	1450.950	1.908	15.356
Far (B+D+P+L) cps	1005.624	1012.425	6.801	16.959
Near Resolution	8.91	9.27	0.360	0.50
Far Resolution	8.94	9.79	0.850	1.00

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

SPECTRAL DENSITY POST CHECK

Tool Name:	SDLT Pad - 90	Reference Calibration Date:	30-Aug-12 05:25:09
Engineer:	C. HAVERKAMP	Calibration Date:	30-Aug-12 18:33:40
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1

Pad Temperature: 92.9 degF

DENSITY POST CALIBRATION SUMMARY				
Measurement	Field	Post	Change	Control Limit +/-
Near (B+D+P+L) cps	1450.950	1453.635	2.685	15.356
Far (B+D+P+L) cps	1012.425	1014.984	2.559	16.959
Near Resolution	9.27	8.96	-0.310	0.50
Far Resolution	9.79	9.38	-0.410	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 - I145_M73803_P90 Reference Calibration Date: 24-Jul-12 19:44:03
Engineer: C. HAVERKAMP Calibration Date: 13-Aug-12 11:22:16
Software Version: WL INSITE R3.6.0 (Build 3) Calibration Version: 1
Host Tool Name: DSNT - 10735145

CALIBRATION COEFFICIENT SUMMARY

Measurement	Micro Log Normal		Micro Log Lateral		Units
	Measured	Calibrated	Measured	Calibrated	
Tool Zero	-0.11	-0.08	-0.00	-0.01	ohmm
Calibration Point #1	-0.03	0.00	0.00	0.00	ohmm
Calibration Point #2	19.88	20.00	19.91	20.00	ohmm
Internal Reference	19.88	20.01	20.00	20.09	ohmm

Measurement	Micro Log Normal Tool Value	Micro Log Lateral Tool Value	Units
Tool Zero	-0.45	0.00	V
Calibration Point #1	21.35	1.92	V
Calibration Point #2	5373.24	6978.08	V
Internal Reference	5374.76	7010.52	V

MICRO LOG FIELD CHECK

Tool Name: Microlog Pad - I145_M73803_P90 Reference Calibration Date: 13-Aug-12 11:22:16
Engineer: C. HAVERKAMP Calibration Date: 30-Aug-12 05:29:25
Software Version: WL INSITE R3.6.0 (Build 3) Calibration Version: 1

Measurement	Micro Log Normal		Micro Log Lateral		Units
	Shop	Field	Shop	Field	
Tool Zero	-0.08	-0.07	-0.01	-0.00	ohmm
Internal Reference	20.01	20.03	20.09	20.11	ohmm

Summary				
Signal	Shop	Field	Difference	Tolerance
Microlog Normal	20.01	20.03	-0.02	+/- 0.80
Microlog Lateral	20.09	20.11	-0.02	+/- 0.80

MICRO LOG POST CHECK

Tool Name: Microlog Pad - I145_M73803_P90 Reference Calibration Date: 30-Aug-12 05:29:25
Engineer: C. HAVERKAMP Calibration Date: 30-Aug-12 18:32:59
Software Version: WL INSITE R3.6.0 (Build 3) Calibration Version: 1

Measurement	Micro Log Normal		Micro Log Lateral		Units
	Field	Post	Field	Post	
Tool Zero	-0.07	-0.07	-0.00	-0.01	ohmm
Internal Reference	20.03	20.09	20.11	20.17	ohmm

Summary				
Signal	Field	Post	Difference	Tolerance

Microlog Normal	20.03	20.09	0.06	+/- 0.80
Microlog Lateral	20.11	20.17	0.06	+/- 0.80

SDLT CALIPER FIELD CALIBRATION				
Tool Name:	SDLT - I145_M73803_P90	Reference Calibration Date:	24-Jul-12 19:59:46	
Engineer:	C. HAVERKAMP	Calibration Date:	30-Aug-12 05:46:23	
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	3.78	0.03	+/- 0.10
Ring Diameter	8.25	8.31	0.06	+/- 0.15
PASS/FAIL SUMMARY				
Pad Extension Check:			Passed	
Diameter Check:			Passed	

SDLT CALIPER POST CALIBRATION				
Tool Name:	SDLT - I145_M73803_P90	Reference Calibration Date:	30-Aug-12 05:46:23	
Engineer:	C. HAVERKAMP	Calibration Date:	30-Aug-12 18:46:22	
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1	

MEASURED CALIPER VALUES				
Measurement	Field	Post	Change	Control Limit On New Value
Pad Extension	3.78	3.80	0.02	+/- 0.10
Ring Diameter	8.31	8.16	-0.14	+/- 0.15
PASS/FAIL SUMMARY				
Pad Extension Check:			Passed	
Diameter Check:			Passed	

CALIBRATION SUMMARY						
Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-10811258						
Gamma Ray Calibrator	232.0	232.5	234.8	-2.3	+/- 9.00	api
DSNT-10735145						
Snow-Block Porosity	0.0597	0.0515	0.0550	-0.0035	+/- 0.0150	decP
SDLT-I145_M73803_P90						
Pad Extension	3.75	3.78	3.80	-0.02	+/-0.10	in
Ring Diameter	8.25	8.31	8.16	0.15	+/-0.15	in
SDLT Pad-90						
Near(B+D+P+L)	1449.042	1450.950	1453.635	-2.685	+/-15.356	cps
Far(B+D+P+L)	1005.624	1012.425	1014.984	-2.559	+/-16.959	cps
Microlog Pad-I145_M73803_P90						
MicroLog Normal	20.01	20.03	20.09	-0.06	+/-0.80	ohmm
MicroLog Lateral	20.09	20.11	20.17	-0.06	+/-0.80	ohmm

Data: SCHUPBACH3510_4I0001 SP-GTET-CSNG-GEM-DSN-SDL-FLEX-IDT-ICT-WAVE-ACRT-CHNIDLE	Date: 30-Aug-12 19:38:34
--	--------------------------

HALLIBURTON
PARAMETERS REPORT

Depth (ft))	Tool Name	Mnemonic	Description	Value	Units
TOP					
	SHARED	BS	Bit Size	8.750	in
	SHARED	UBS	Use Bit Size instead of Caliper for all applications.	No	
	SHARED	MDBS	Mud Base	Water	
	SHARED	MDWT	Borehole Fluid Weight	9.250	ppg
	SHARED	WAGT	Weighting Agent	Natural	
	SHARED	BSAL	Borehole salinity	17100.00	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	7.000	in
	SHARED	ST	Surface Temperature	75.0	degF
	SHARED	TD	Total Well Depth	5550.00	ft
	SHARED	BHT	Bottom Hole Temperature	135.0	degF
	SHARED	SVTM	Navigation and Survey Master Tool	IDT	
	SHARED	AZTM	High Res Z Accelerometer Master Tool	IDT	
	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	
	CSNG	CGOK	Process CSNG Data?	Yes	
	CSNG	CENT	Is Tool Centralized?	No	
	CSNG	GBOK	Gamma Enviromental Corrections?	Yes	
	CSNG	BARF	Barite Correction Factor	1.00	
	CSNG	ORDG	Use Fixed Gain	No	
	CSNG	ORDO	Use Fixed Offset	No	
	CSNG	ORDR	Use Fixed Resolution Degradation Factor	No	
	GEMT	GMOK	Compute GEMT Results?	Yes	
	GEMT	FTAL	Fit Chemical Element Al	Yes	
	GEMT	FTBA	Fit Chemical Element Ba	No	
	GEMT	FITC	Fit Chemical Element C	Yes	
	GEMT	FTCA	Fit Chemical Element Ca	Yes	
	GEMT	FTCL	Fit Chemical Element Cl	Yes	
	GEMT	FTFE	Fit Chemical Element Fe	Yes	
	GEMT	FTGD	Fit Chemical Element Gd	Yes	
	GEMT	FITH	Fit Chemical Element H	Yes	
	GEMT	FTK	Fit Chemical Element K	Yes	

GEMT	FTMG	Fit Chemical Element Mg	Yes	
GEMT	FTMN	Fit Chemical Element Mn	Yes	
GEMT	FTNA	Fit Chemical Element Na	No	
GEMT	FITO	Fit Chemical Element O	Yes	
GEMT	FTS	Fit Chemical Element S	Yes	
GEMT	FTSI	Fit Chemical Element SI	Yes	
GEMT	FTTI	Fit Chemical Element Ti	Yes	
GEMT	KFIT	Potassium constraint flag (No = don't fit,Yes = fit)	Yes	
GEMT	UFDF	Use Fix Resolution Degradation Factor	No	
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	
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
Microlog Pad	MLOK	Process MicroLog Outputs?	Yes	
IDT	WRTI	Survey Writing Interval	30	ft
IDT	SOPT	Smoothing Option	None	
ICT	CLOK	Process Caliper Outputs?	Yes	
ICT	NAVS	Navigation Source Tool	IDT	
Wavesonic-I	WSOK	Process WSTT?	Yes	
Wavesonic-I	AFIL	Adaptive Filtering?	No	
Wavesonic-I	PINT	Process 1 Sample and Skip	0	
Wavesonic-I	PROM	Process Mode: M=1,MX=2,MY=3,MXY=4	4	
Wavesonic-I	DTSH	Delta -T Shale	100.00	uspfp
Wavesonic-I	DTMT	Delta -T Matrix Type	User define	
Wavesonic-I	DTMA	Delta -T Matrix	47.60	uspfp
Wavesonic-I	DTFL	Delta -T Fluid	189.00	uspfp
Wavesonic-I	RHOM	Matrix Density	2.7100	g/cc
Wavesonic-I	RHOF	Fluid Density	1.0000	g/cc
Wavesonic-I	SMTH	Semblance Threshold	0.25	
Wavesonic-I	VPVS	VPVS Ratio for Porosity	1.40	
Wavesonic-I	APEQ	Acoustic Porosity Equation	Wylie	
Wavesonic-I	NAVS	Navigation Source Tool	IDT	
ACRt Sonde	RTOK	Process ACRt?	Yes	
ACRt Sonde	MNSO	Minimum Tool Standoff	1.50	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				

HALLIBURTON**INPUTS, DELAYS AND FILTERS TABLE**

Mnemonic	Input Description	Delay (ft)	Filter Type	Filter Length (ft)
Depth Panel				
TENS	Tension	0.00	NO	
SP Sub				
PLTC	Plot Control Mask	131.23	NO	
SP	Spontaneous Potential	131.23	BLK	1.250
SPR	Raw Spontaneous Potential	131.23	NO	
SPO	Spontaneous Potential Offset	131.23	NO	
GTET				
TPUL	Tension Pull	123.21	NO	
GR	Natural Gamma Ray API	123.21	TRI	1.750
GRU	Unfiltered Natural Gamma Ray API	123.21	NO	
EGR	Natural Gamma Ray API with Enhanced Vertical Resolution	123.21	W	1.416 , 0.750
ACCZ	Accelerometer Z	0.00	BLK	0.083
DEVI	Inclination	0.00	NO	
CSNG				
TPUL	Tension Pull	115.13	NO	
STAT	Status	115.13	NO	
FRMC	Tool Frame Count	115.13	BLK	0.250
TFRM	Total Frames	115.13	NO	
LSPD	Line Speed	115.13	BLK	0.250
CTIM	Accumulation time for sample	115.13	BLK	0.250
NOIS	Spectral Noise	115.13	BLK	0.250
STAB	Stabilizer Voltage in mv	115.13	BLK	0.250
STBP	Stabilizer 60 KEV Peak	115.13	BLK	0.250
AMER	Americium	115.13	BLK	0.250
FTMP	Flask PCB Temperature	115.13	BLK	0.250
SPEL	Low Energy Spectrum	115.13	BLK	0.250
SPEH	High Energy Spectrum	115.13	BLK	0.250
SSP	Stabilization Energy Spectrum	115.13	BLK	0.250
CSPC	CSNG Lo Hi Spectrum Data	115.13	NO	
GEMT				
TPUL	Tension Pull	105.11	NO	
FRMC	Tool Frame Count	105.11	NO	
TFRM	Total Frames	105.11	NO	
LSPD	Line Speed	105.11	NO	
ATIM	Accumulation time for sample	105.11	NO	
CTIM	Accumulation time for single frame	105.11	NO	
STAT	Status	105.11	NO	
PHMI	Photomultiplier Current	105.11	NO	
PHVT	Photomultiplier Voltage	105.11	NO	
FTMP	Flask PCB Temperature	105.11	NO	
GSP	GEMT Spectrum	105.11	NO	

DSN I

TPUL	Tension Pull	95.16	NO	
RNDS	Near Detector Telemetry Counts	95.26	BLK	1.417
RFDS	Far Detector Telemetry Counts	96.01	TRI	0.583
DNTT	DSN Tool Temperature	95.26	NO	
DSNS	DSN Tool Status	95.16	NO	
ERND	Near Detector Telemetry Counts EVR	95.26	BLK	0.000
ERFD	Far Detector Telemetry Counts EVR	96.01	BLK	0.000
ENTM	DSN Tool Temperature EVR	95.26	NO	

SDLT

TPUL	Tension Pull	85.26	NO	
PCAL	Pad Caliper	85.26	TRI	0.250
ACAL	Arm Caliper	85.26	TRI	0.250

IDT

TPUL	Tension Pull	70.19	NO	
ACCX	Accelerometer X	70.19	NO	
ACCY	Accelerometer Y	70.19	NO	
ACCZ	Accelerometer Z	70.19	NO	
MAGX	magnetometer x with unit	70.19	NO	
MAGY	Magnetometer Y with unit	70.19	NO	
MAGZ	magnetometer z with unit	70.19	NO	
IAMP	Accelerometer Temperature	70.19	NO	
MTMP	Magnetometer Temperature	70.19	NO	

ICT

TPUL	Tension Pull	59.15	NO	
	Arm Potentiometer excitation V	56.36	NO	
	Caliper 1 measurement	59.15	BLK	1.250
	Caliper 2 measurement	59.15	BLK	1.250
	Caliper 3 measurement	59.15	BLK	1.250
	Caliper 4 measurement	59.15	BLK	1.250
	Caliper 5 measurement	59.15	BLK	1.250
	Caliper 6 measurement	59.15	BLK	1.250
	Caliper Global measurement	59.15	BLK	1.250
MOTI	Motor Current	56.36	NO	
MOT1	Motor Voltage Monitor 1	56.36	NO	
STA1	Status word #1	56.36	NO	
STA2	Status word #2	56.36	NO	
PRES	Caliper percentage of total compression of the spring	56.36	NO	
HAZI	Hole Azimuth	59.15	NO	
RB	Relative Bearing	59.15	NO	
AZI1	PAD1 Azimuth	59.15	NO	
DEVI	Inclination	59.15	NO	

Wavesonic-I

TPUL	Tension Pull	33.79	NO	
DPSX	Dipole Source X StructureI	22.29	NO	
DPSY	Dipole Source Y StructureI	22.29	NO	
DPSM	Monopole Source Structure	22.29	NO	
WVST	Wavesonic Compressed Data	33.79	NO	
TPUL	Tension Pull	33.79	NO	
XMS1	Wave Sonic Status Word 1	22.29	NO	
XMS2	Wave Sonic Status Word 2	22.29	NO	
XMS1	Wave Sonic XMITStatus Word 1	22.29	NO	
XMS1	Wave Sonic XMITStatus Word 2	22.29	NO	

Wave Sonic Xmr Status Word 1		22.29	NO
F1HA	Dipole 1 HV After	22.29	NO
F1HB	Dipole 1 HV Before	22.29	NO
F2HA	Dipole 2 HV After	22.29	NO
F2HB	Dipole 2 HV Before	22.29	NO
F3HA	Monopole HV After	22.29	NO
F3HB	Monopole HV Before	22.29	NO
INVT	Input Voltage	22.29	NO
5VOL	5 Volts	22.29	NO
MI5A	Minus 5 Volts Analog	22.29	NO
ITMP	Instrument Temperature	22.29	NO
PL5A	Plus 5 Volts Analog	22.29	NO
5VD	Plus 5 Volts Digital	22.29	NO
TCUR	Tool Current	22.29	NO
SUPV	Supply Voltage	22.29	NO
PRVT	Preregulated voltage	22.29	NO
PRVT	Pre-regulated voltage Xmter	22.29	NO
TEMP	Temperature	22.29	NO
ACQN	Acquisition Number	22.29	NO
XDP	Delay Reference	33.79	NO
MITM	MIT Mode	33.79	NO
VERS	Version	22.29	NO
D1CT	Dipole 1 Compressed Word Count	33.79	NO
D2CT	Dipole 2 Compressed Word Count	33.79	NO
MCNT	Monopole Compressed Word Count	33.79	NO
SEQN	Sequence Number	22.29	NO
FREV	Firmware Revision	22.29	NO
MSMP	Monopole Sample Rate	22.29	NO
MSMP	Dipole Sample Rate	22.29	NO
MFWF	Monopole Firing Waveform	22.29	NO
MFRQ	Monopole Frequency	22.29	NO
MDLY	Monopole Delay	22.29	NO
DXWF	Dipole X Firing Waveform	22.29	NO
XFRQ	Dipole X Frequency	22.29	NO
XDLY	Dipole X Delay	22.29	NO
DYWF	Dipole Y Firing Waveform	22.29	NO
YFRQ	Dipole Y Frequency	22.29	NO
YDLY	Dipole Y Delay	22.29	NO
DPSX	Dipole Source X Structurel	22.29	NO
DPSY	Dipole Source Y Structurel	22.29	NO
DPSM	Monopole Source Structure	22.29	NO
WVST	Wavesonic Compressed Data	33.79	NO
AUTM	Auto Mode	22.29	NO
SONM	tool mode for sonic - 0 for normal or 3 for calibration	22.29	NO
MSL	Monopole Lower Travel Time	33.79	NO
MSH	Monopole Upper Travel Time	33.79	NO
MLFC	Monopole-1 Lower Filter Bandpass Frequency Cut-off	22.29	NO
MUFC	Monopole-1 Upper Filter Bandpass Frequency Cut-off	22.29	NO
DLTT	Dipole Lower Travel Time	22.29	NO
DUTT	Dipole Upper Travel Time	22.29	NO
DLFC	Dipole Lower Filter Bandpass Frequency Cut-off	22.29	NO
DUFC	Dipole Upper Filter Bandpass Frequency Cut-off	22.29	NO
MUTE	WaveSonic Mute/Enable Channels and Sides map	22.29	NO
MUTS	Mute/Enable Sides	22.29	NO
WSRB	Relative Bearing	33.79	NO
WSAZ	WSX Azimuth Pad 1	33.79	NO

TPUL	Tension Pull	33.79	NO
WMP	Summed array of Monopole for SIDES - A,B,C,D	33.79	NO
WXX	Dipole X for SIDES - A-C	33.79	NO
WYY	Dipole Y for SIDES - B-D	33.79	NO
WXY	Dipole X for SIDES - B-D	33.79	NO
WYX	Dipole Y for SIDES - A-C	33.79	NO
TPUL	Tension Pull	33.79	NO
WMA	Monopole Waveform Side A - Channel 1 to Channel 8 Receivers	33.79	NO
WMB	Monopole Waveform Side B - Channel 1 to Channel 8 Receivers	33.79	NO
WMC	Monopole Waveform Side C - Channel 1 to Channel 8 Receivers	33.79	NO
WMD	Monopole Waveform Side D - Channel 1 to Channel 8 Receivers	33.79	NO
WXA	Dipole X Waveform Side A - Channel 1 to Channel 8 Receivers	33.79	NO
WXB	Dipole X Waveform Side B - Channel 1 to Channel 8 Receivers	33.79	NO
WXC	Dipole X Waveform Side C - Channel 1 to Channel 8 Receivers	33.79	NO
WXD	Dipole X Waveform Side D - Channel 1 to Channel 8 Receivers	33.79	NO
WYA	Dipole Y Waveform Side A - Channel 1 to Channel 8 Receivers	33.79	NO
WYB	Dipole Y Waveform Side B - Channel 1 to Channel 8 Receivers	33.79	NO
WYC	Dipole Y Waveform Side C - Channel 1 to Channel 8 Receivers	33.79	NO
WYD	Dipole Y Waveform Side D - Channel 1 to Channel 8 Receivers	33.79	NO
GAR1	Gain Side A Receiver 1	22.29	NO
GAR2	Gain Side A Receiver 2	22.29	NO
GAR3	Gain Side A Receiver 3	22.29	NO
GAR4	Gain Side A Receiver 4	22.29	NO
GAR5	Gain Side A Receiver 5	22.29	NO
GAR6	Gain Side A Receiver 6	22.29	NO
GAR7	Gain Side A Receiver 7	22.29	NO
GAR8	Gain Side A Receiver 8	22.29	NO
GBR1	Gain Side B Receiver 1	22.29	NO
GBR2	Gain Side B Receiver 2	22.29	NO
GBR3	Gain Side B Receiver 3	22.29	NO
GBR4	Gain Side B Receiver 4	22.29	NO
GBR5	Gain Side B Receiver 5	22.29	NO
GBR6	Gain Side B Receiver 6	22.29	NO
GBR7	Gain Side B Receiver 7	22.29	NO
GBR8	Gain Side B Receiver 8	22.29	NO
GCR1	Gain Side C Receiver 1	22.29	NO
GCR2	Gain Side C Receiver 2	22.29	NO
GCR3	Gain Side C Receiver 3	22.29	NO
GCR4	Gain Side C Receiver 4	22.29	NO
GCR5	Gain Side C Receiver 5	22.29	NO
GCR6	Gain Side C Receiver 6	22.29	NO
GCR7	Gain Side C Receiver 7	22.29	NO
GCR8	Gain Side C Receiver 8	22.29	NO
GDR1	Gain Side D Receiver 1	22.29	NO
GDR2	Gain Side D Receiver 2	22.29	NO
GDR3	Gain Side D Receiver 3	22.29	NO
GDR4	Gain Side D Receiver 4	22.29	NO
GDR5	Gain Side D Receiver 5	22.29	NO
GDR6	Gain Side D Receiver 6	22.29	NO
GDR7	Gain Side D Receiver 7	22.29	NO

GDR8	Gain Side D Receiver 8	22.29	NO	
ACRt Sonde				
TPUL	Tension Pull	5.44	NO	
F1R1	ACRT 12KHz - 80in R value	11.69	BLK	0.000
F1X1	ACRT 12KHz - 80in X value	11.69	BLK	0.000
F1R2	ACRT 12KHz - 50in R value	9.19	BLK	0.000
F1X2	ACRT 12KHz - 50in X value	9.19	BLK	0.000
F1R3	ACRT 12KHz - 29in R value	7.69	BLK	0.000
F1X3	ACRT 12KHz - 29in X value	7.69	BLK	0.000
F1R4	ACRT 12KHz - 17in R value	6.69	BLK	0.000
F1X4	ACRT 12KHz - 17in X value	6.69	BLK	0.000
F1R5	ACRT 12KHz - 10in R value	6.19	BLK	0.000
F1X5	ACRT 12KHz - 10in X value	6.19	BLK	0.000
F1R6	ACRT 12KHz - 6in R value	5.94	BLK	0.000
F1X6	ACRT 12KHz - 6in X value	5.94	BLK	0.000
F2R1	ACRT 36KHz - 80in R value	11.69	BLK	0.000
F2X1	ACRT 36KHz - 80in X value	11.69	BLK	0.000
F2R2	ACRT 36KHz - 50in R value	9.19	BLK	0.000
F2X2	ACRT 36KHz - 50in X value	9.19	BLK	0.000
F2R3	ACRT 36KHz - 29in R value	7.69	BLK	0.000
F2X3	ACRT 36KHz - 29in X value	7.69	BLK	0.000
F2R4	ACRT 36KHz - 17in R value	6.69	BLK	0.000
F2X4	ACRT 36KHz - 17in X value	6.69	BLK	0.000
F2R5	ACRT 36KHz - 10in R value	6.19	BLK	0.000
F2X5	ACRT 36KHz - 10in X value	6.19	BLK	0.000
F2R6	ACRT 36KHz - 6in R value	5.94	BLK	0.000
F2X6	ACRT 36KHz - 6in X value	5.94	BLK	0.000
F3R1	ACRT 72KHz - 80in R value	11.69	BLK	0.000
F3X1	ACRT 72KHz - 80in X value	11.69	BLK	0.000
F3R2	ACRT 72KHz - 50in R value	9.19	BLK	0.000
F3X2	ACRT 72KHz - 50in X value	9.19	BLK	0.000
F3R3	ACRT 72KHz - 29in R value	7.69	BLK	0.000
F3X3	ACRT 72KHz - 29in X value	7.69	BLK	0.000
F3R4	ACRT 72KHz - 17in R value	6.69	BLK	0.000
F3X4	ACRT 72KHz - 17in X value	6.69	BLK	0.000
F3R5	ACRT 72KHz - 10in R value	6.19	BLK	0.000
F3X5	ACRT 72KHz - 10in X value	6.19	BLK	0.000
F3R6	ACRT 72KHz - 6in R value	5.94	BLK	0.000
F3X6	ACRT 72KHz - 6in X value	5.94	BLK	0.000
RMUD	Mud Resistivity	15.23	BLK	0.000
F1RT	Transmitter Reference 12 KHz Real Signal	5.44	BLK	0.000
F1XT	Transmitter Reference 12 KHz Imaginary Signal	5.44	BLK	0.000
F2RT	Transmitter Reference 36 KHz Real Signal	5.44	BLK	0.000
F2XT	Transmitter Reference 36 KHz Imaginary Signal	5.44	BLK	0.000
F3RT	Transmitter Reference 72 KHz Real Signal	5.44	BLK	0.000
F3XT	Transmitter Reference 72 KHz Imaginary Signal	5.44	BLK	0.000
TFPU	Upper Feedpipe Temperature Calculated	5.44	BLK	0.000
TFPL	Lower Feedpipe Temperature Calculated	5.44	BLK	0.000
ITMP	Instrument Temperature	5.44	BLK	0.000
TCVA	Temperature Correction Values Loop Off	5.44	NO	
TIDV	Instrument Temperature Derivative	5.44	NO	
TUDV	Upper Temperature Derivative	5.44	NO	
TLDV	Lower Temperature Derivative	5.44	NO	
TRBD	Receiver Board Temperature	5.44	NO	

SDLT Pad				
TPUL	Tension Pull	85.25	NO	
NAB	Near Above	85.08	BLK	0.920
NHI	Near Cesium High	85.08	BLK	0.920
NLO	Near Cesium Low	85.08	BLK	0.920
NVA	Near Valley	85.08	BLK	0.920
NBA	Near Barite	85.08	BLK	0.920
NDE	Near Density	85.08	BLK	0.920
NPK	Near Peak	85.08	BLK	0.920
NLI	Near Lithology	85.08	BLK	0.920
NBAU	Near Barite Unfiltered	85.08	BLK	0.250
NLIU	Near Lithology Unfiltered	85.08	BLK	0.250
FAB	Far Above	85.43	BLK	0.250
FHI	Far Cesium High	85.43	BLK	0.250
FLO	Far Cesium Low	85.43	BLK	0.250
FVA	Far Valley	85.43	BLK	0.250
FBA	Far Barite	85.43	BLK	0.250
FDE	Far Density	85.43	BLK	0.250
FPK	Far Peak	85.43	BLK	0.250
FLI	Far Lithology	85.43	BLK	0.250
PTMP	Pad Temperature	85.26	BLK	0.920
NHV	Near Detector High Voltage	84.66	NO	
FHV	Far Detector High Voltage	84.66	NO	
ITMP	Instrument Temperature	84.66	NO	
DDHV	Detector High Voltage	84.66	NO	
Microlog Pad				
TPUL	Tension Pull	85.45	NO	
MINV	Microlog Lateral	85.45	BLK	0.750
MNOR	Microlog Normal	85.45	BLK	0.750
Data: SCHUPBACH3510_4\0001 SP-GTET-CSNG-GEM-DSN-SDL-FLEX-IDT-ICT-WAVE-ACRT-CHIDLE			Date: 30-Aug-12 07:29:53	

COMPANY	SHELL EXPLORATION		
WELL	SCHUPBACH 3510 #4-1		
FIELD	WILDCAT		
COUNTY	BARBER	STATE	KANSAS
HALLIBURTON		TRIPLE COMBO LOG	