

HALLIBURTON

SPECTRAL DENSITY
DUAL SPACED NEUTRON
ARRAY COMPENSATED
TRUE RESISTIVITY
LOG

COMPANY				EL PASO PRODUCTION					
WELL				VPR C 204 WDW					
FIELD				VERMEJO PARK RANCH					
COUNTY				LAS ANIMAS					
STATE				CO					
Permanent Datum		GL		Sect. 1		Twp. 36S		Rge. 67W	
Log measured from		KB		SURFACE LOCATION: 1261' FSL & 687' FEL, SESE		Other Services:		RWCH	
Drilling measured from		KB		LATITUDE: 37.022820°				Elev.: K.B. 7371.0 ft	
		KB		LONGITUDE: -104.83252°				D.F. 7370.0 ft	
								G.L. 7359.0 ft	
Date		06-Feb-11							
Run No.		ONE							
Depth - Driller		6610.00 ft							
Depth - Logger		6609.0 ft							
Bottom - Logged Interval		6599 ft							
Top - Logged Interval		3384 ft							
Casing - Driller		9.625 in		@ 3384.0 ft				@	
Casing - Logger		33844.0 ft							
Bit Size		8.750 in						@	
Type Fluid in Hole		WBM						@	
Density		9.1 ppq		43.00 s/qt					
PH		9.50 pH		2.0 cp/m					
Source of Sample		MUD CELL							
Rm @ Meas. Temperature		0.210 ohmm		@ 75.00 degF				@	
Rmf @ Meas. Temperature		0.16 ohmm		@ 75.00 degF				@	
Rmc @ Meas. Temperature		0.228 ohmm		@ 75.00 degF				@	
Source Rmf		CHART		CHART					
Rm @ BHT		0.09 ohmm		@ 195.0 degF				@	
Time Since Circulation		10.0 hr							
Time on Bottom		06-Feb-11 09:21						@	
Max. Rec. Temperature		@						@	
Equipment		Location		10800785		BRIGHTON			
Recorded By		F. LODER							
Witnessed By		JACK							

Fold here

Service Ticket No.: N/A				API Serial No.: 05071098380000				PGM Version: WL INSITE R3.0.7 (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 336-042		N/A		1.5" S.O.		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.		11215095		Serial No.				Serial No.		I332M335		Serial No.		11219332	
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.		2G8 BICORN		Spacing				Log Type		GAM-GAM		Log Type		NEU-NEU	
Type		SCINT						Source Type		Cs137		Source Type		Am241Be	
Lenath		8"		LSA IY/NI				Serial No.		5256 GW		Serial No.		DSN430	

Distance to Source	10'		FWDA [Y/N]			Strength		1.5 Ci		Strength		15 Ci			
LOGGING DATA															
GENERAL				GAMMA		ACOUSTIC			DENSITY			NEUTRON			
Run	Depth		Speed	Scale		Scale		Matrix	Scale		Matrix	Scale		Matrix	
No.	From	To	ft/min	L	R	L	R		L	R		L	R		
ONE	6610'	3384	REC	0 API	150 API				30%	-10 %	2.68 g/cc	30 %	-10 %	SAND	
DIRECTIONAL INFORMATION															
Maximum Deviation								@	KOP						@
Remarks: RWCH-GTET-DSNT-SDLT-ACRT RAN IN COMBINATION															
ANNULAR HOLE VOLUME CALCULATED USING 7 INCH PRODUCTION CASING															
TENSION PULLS AND BOREHOLE RUGOSITY AFFECT LOG RESPONSE															
CHLORIDES REPORTED AT 33000 mg/L															
CREW: J. WALKER, N. GOULD, R. PERSHALL RIG: AZTEC 222															
THANK YOU FOR USING HALLIBURTON ENERGY SERVICES -- BRIGHTON, CO -- 303.825.4346															
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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	MDWT	Borehole Fluid Weight	9.100	ppg
	SHARED	OBM	Oil Based Mud System?	No	
	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	6610.00	ft
	SHARED	BHT	Bottom Hole Temperature	200.0	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	POTA	Potassium	0.00	%

GTET	MDTP	Mud Type	Natural	
GTET	TPOS	Tool Position	Standoff	
DSNT	DNOK	Process DSN?	Yes	
DSNT	DEOK	Process DSN EVR?	No	
DSNT	NLT	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	DNOK	Process Density?	Yes	
SDLT	DNOK	Process Density EVR?	No	
SDLT	AD	Is Hole Air Drilled?	No	
SDLT	CB	Logging Calibration Blocks?	No	
SDLT	SPVT	SDLT Pad Temperature Valid?	Yes	
SDLT	DTWN	Disable temperature warning	No	
SDLT	MDTP	Weighted Mud Correction Type?	None	
SDLT	DMA	Formation Density Matrix	2.680	g/cc
SDLT	DFL	Formation Density Fluid	1.000	g/cc
SDLT	CLOK	Process Caliper Outputs?	Yes	
SDLT	MLOK	Process MicroLog Outputs?	Yes	
ACRT	RTOK	Process ACRT?	Yes	
ACRT	MNSO	Minimum Tool Standoff	1.50	in
ACRT	TCS1	Temperature Correction Source	FP Lwr & FP Up	
ACRT	TPOS	Tool Position	Free Hanging	
ACRT	RMOP	Rmud Source	Mud Cell	
ACRT	RMIN	Minimum Resistivity for MAP	0.20	ohmm
ACRT	RMIN	Maximum Resistivity for MAP	200.00	ohmm
ACRT	THQY	Threshold Quality	0.50	

BOTTOM

Data: EP_C_204_WDW0001 TRIPLE\008 06-Feb-11 10:27 Up @4725.5f

Date: 06-Feb-11 10:38:49

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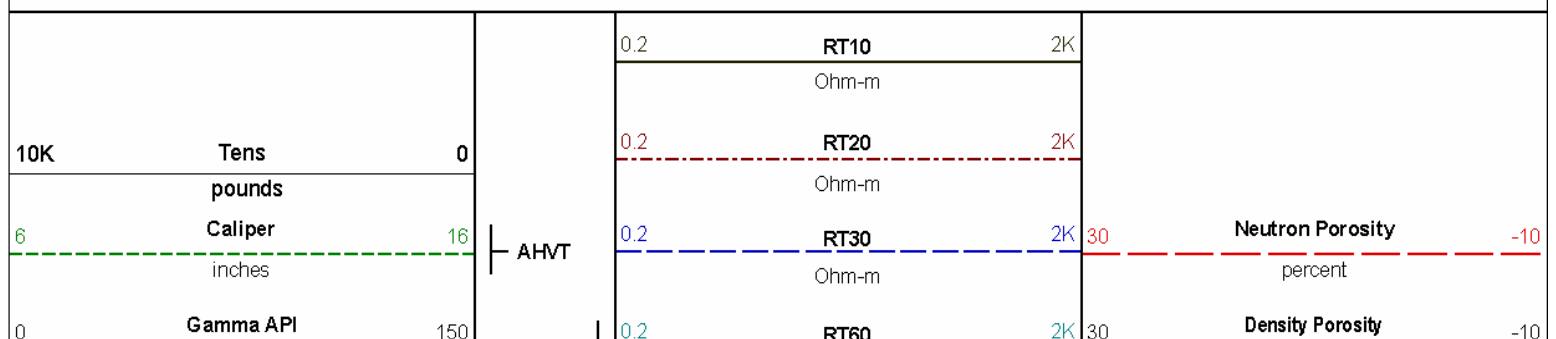
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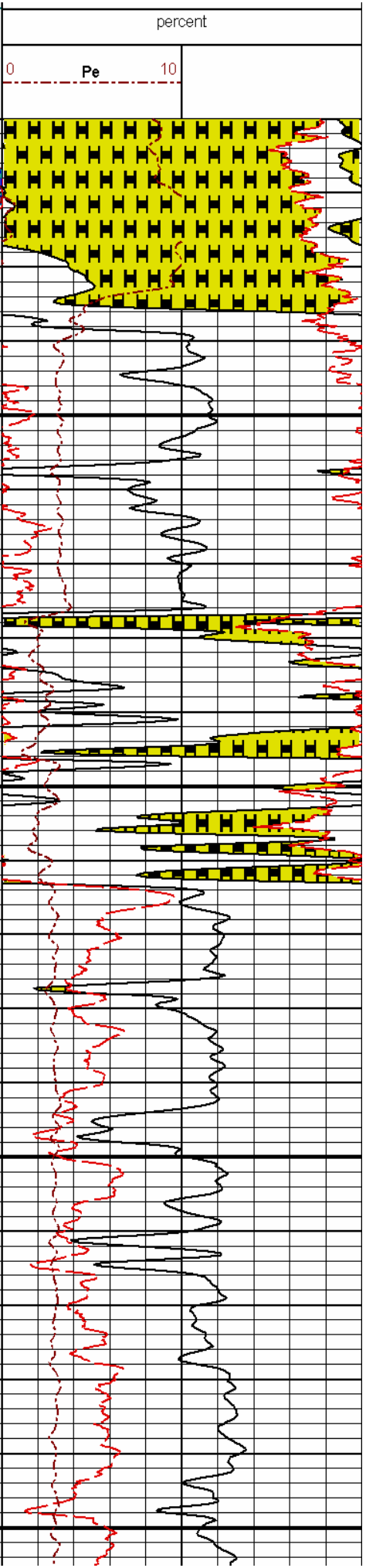
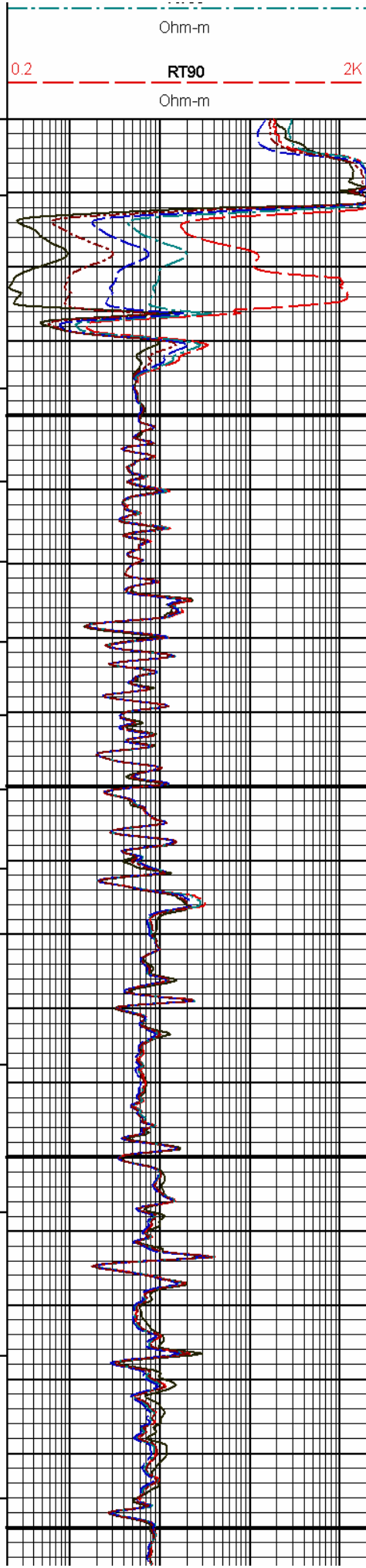
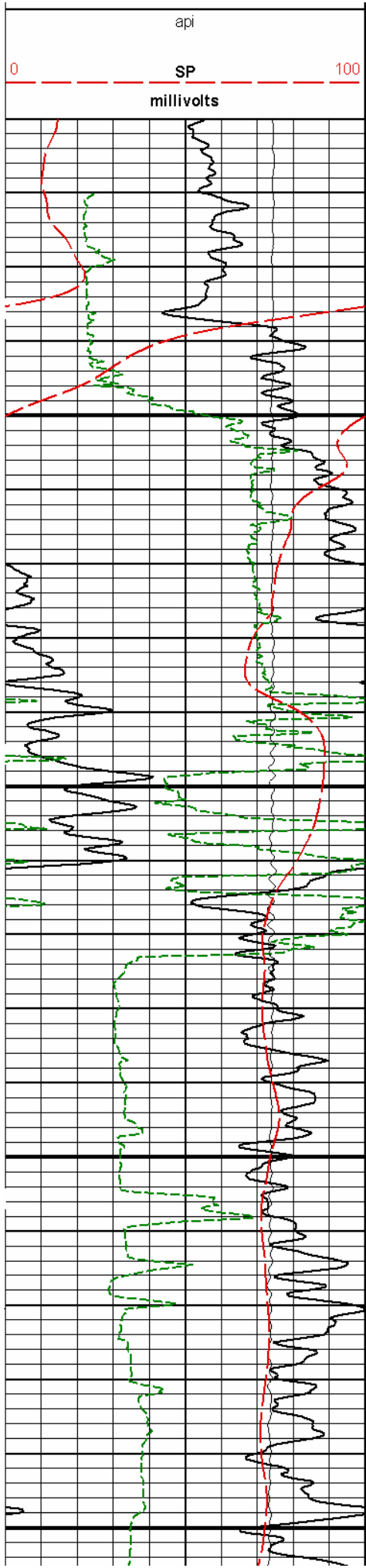
Plot Range: 3360 ft to 6615.83 ft

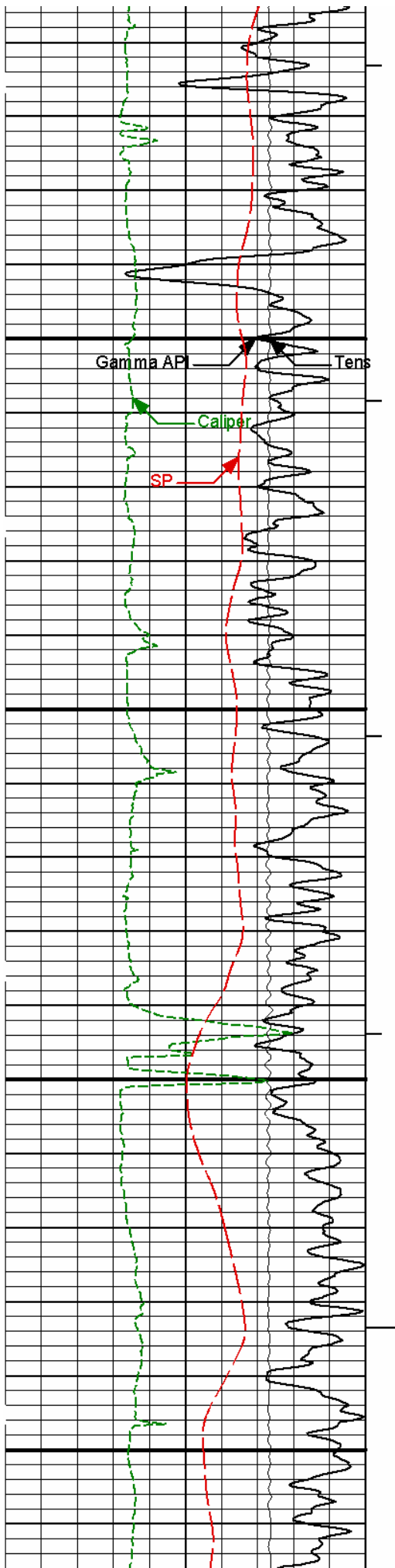
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Plot File: \COMPIQ_COMPOSITE_ACRT_5IN_RM

MAIN PASS 5" = 100'

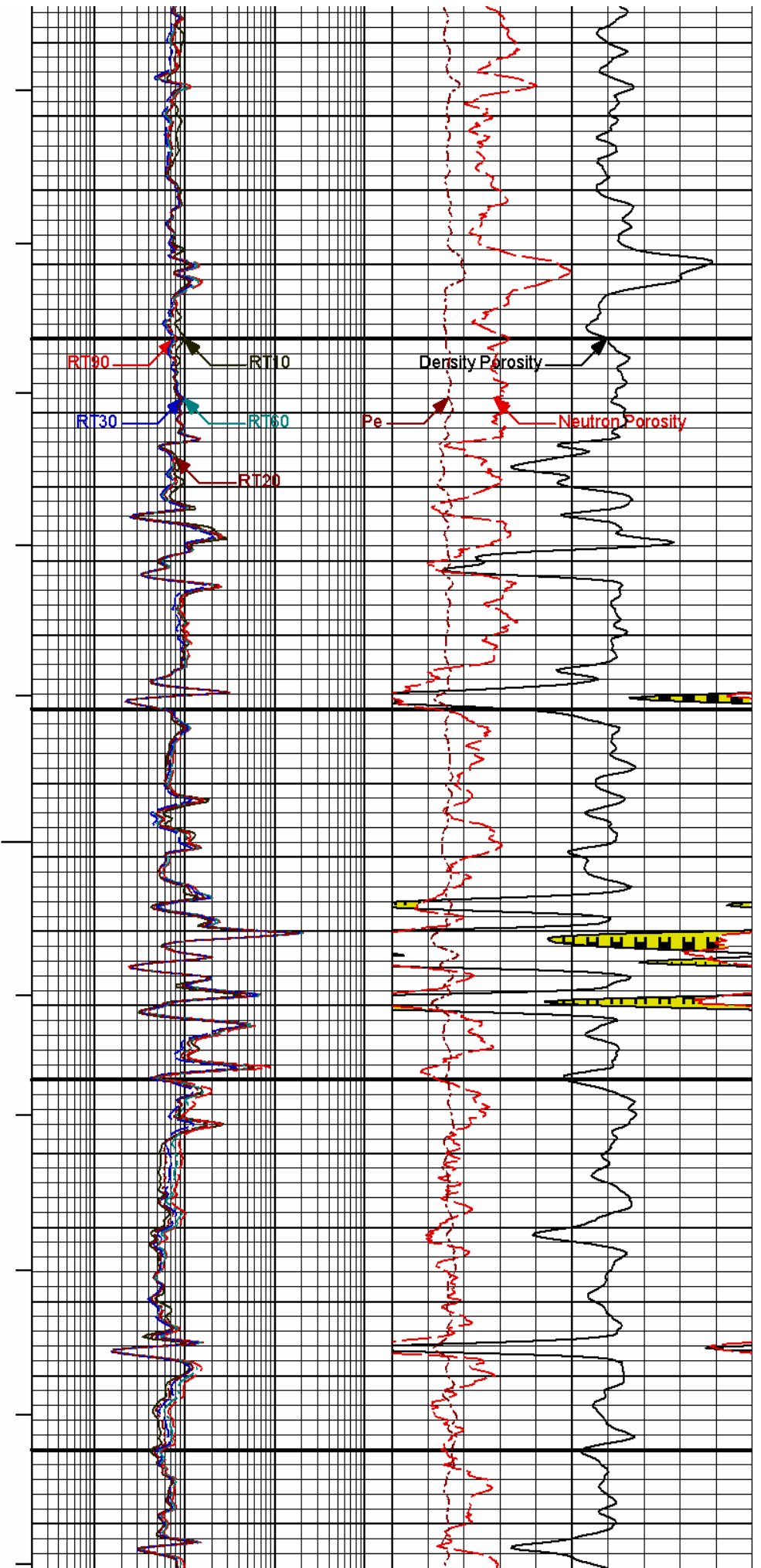


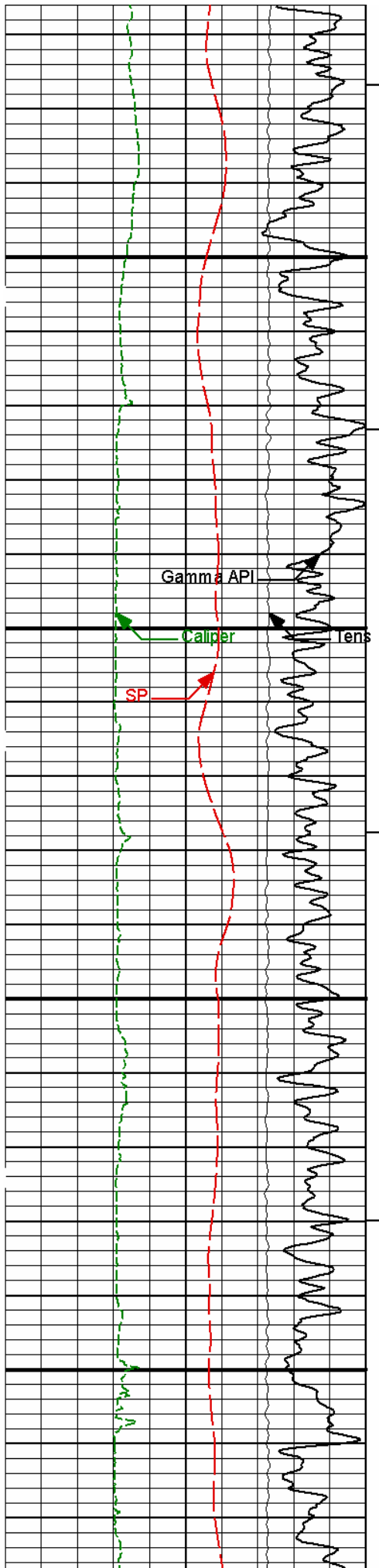




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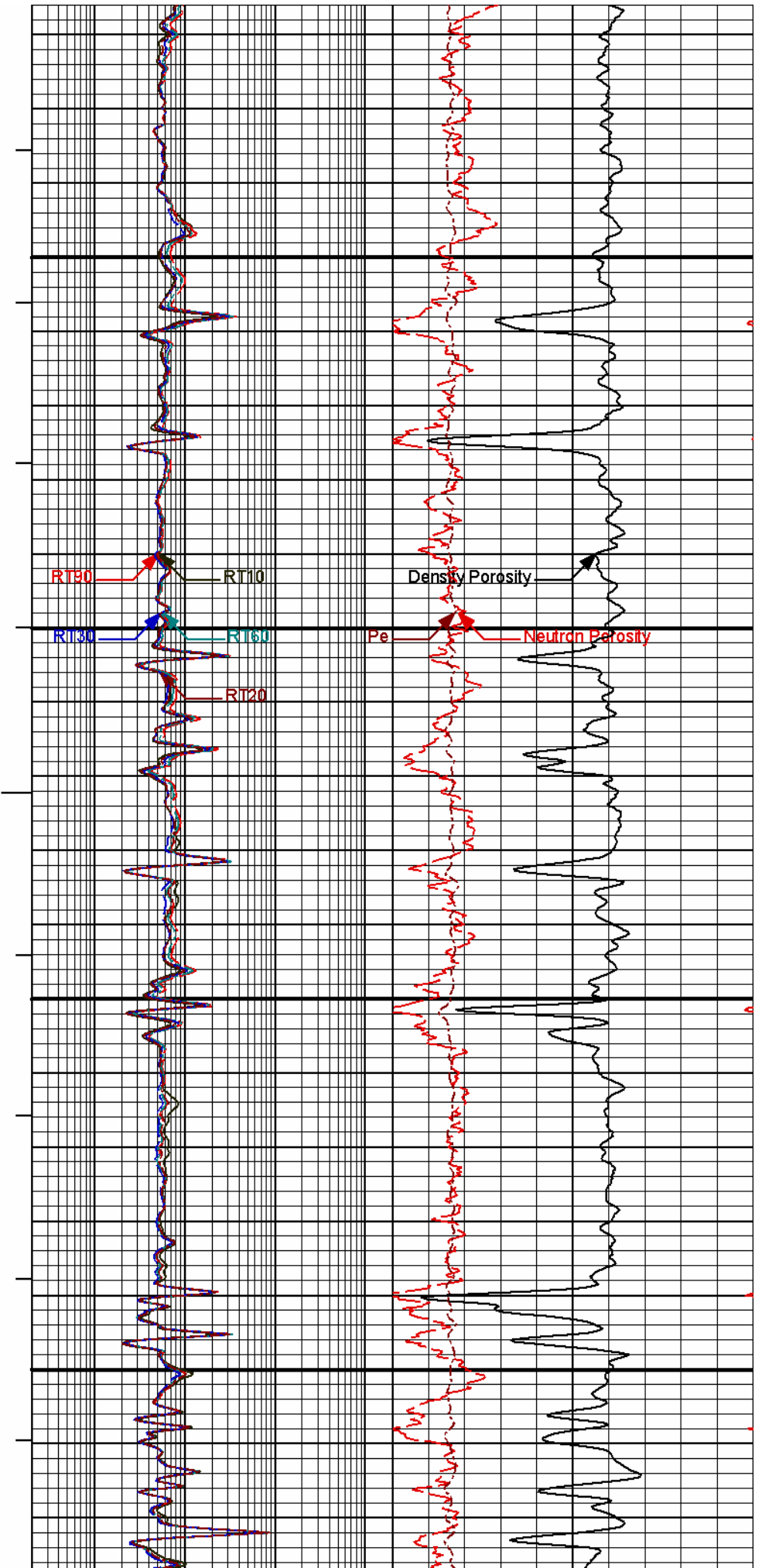
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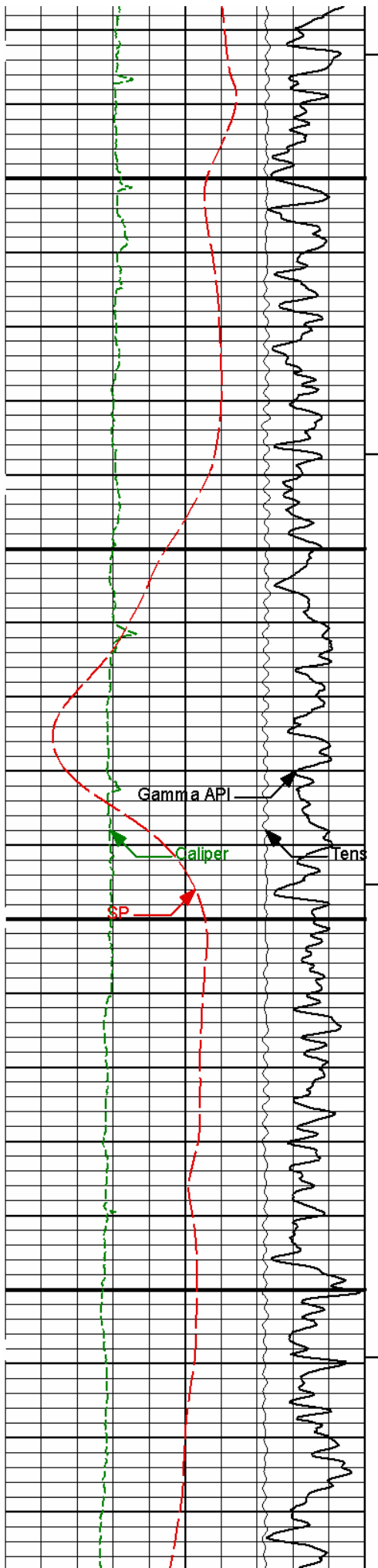




3800

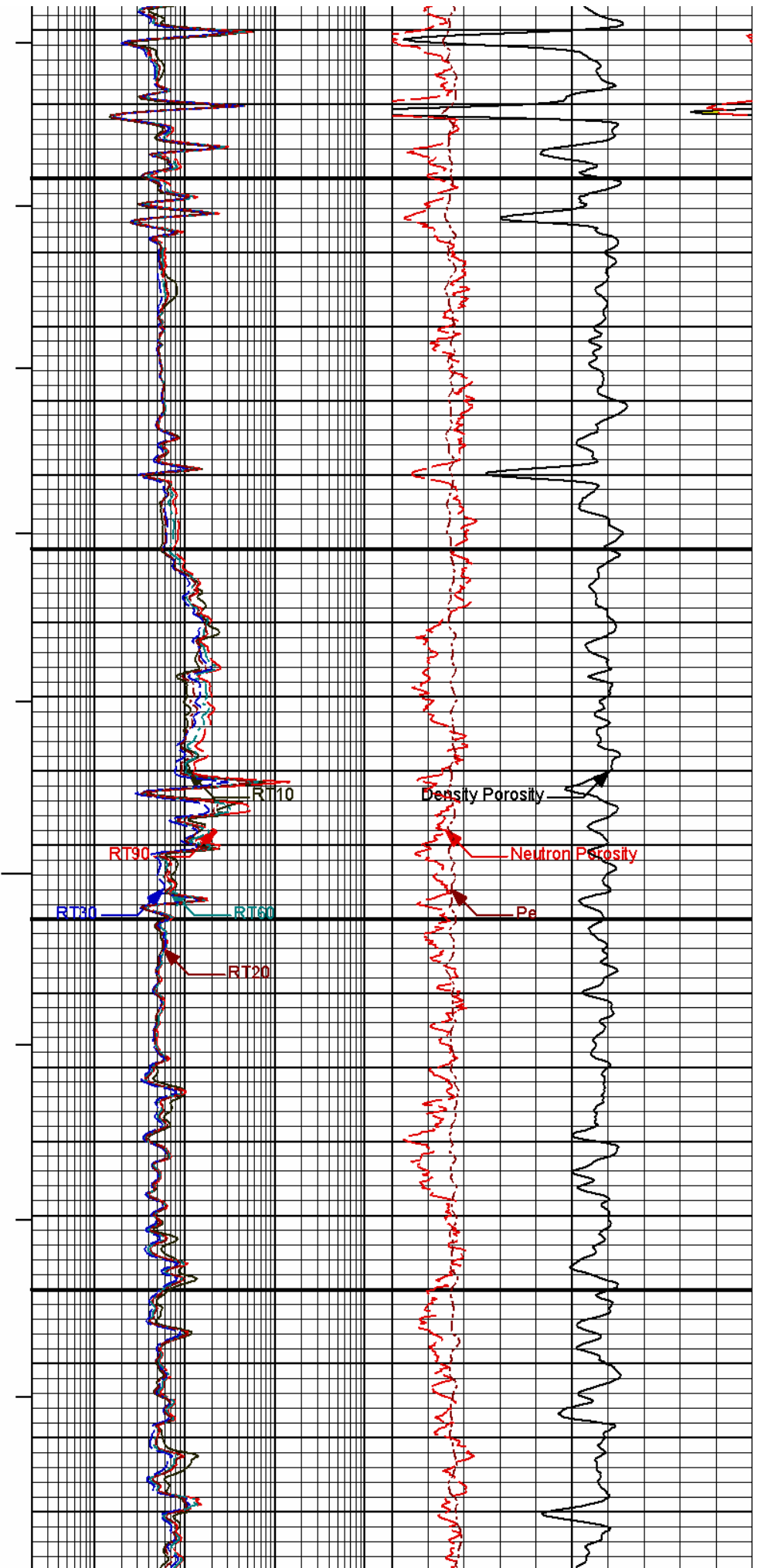
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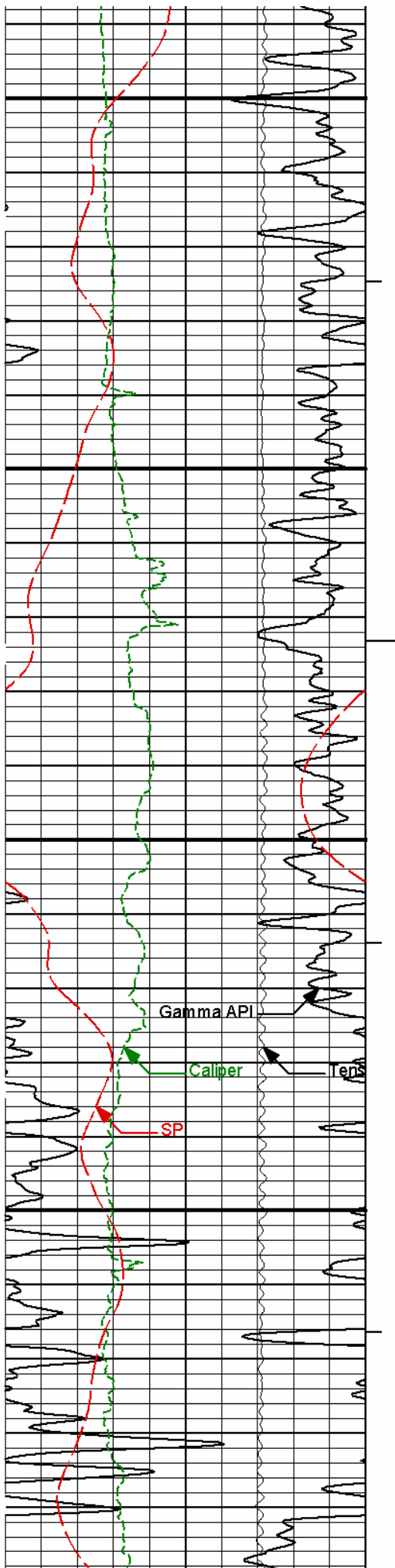




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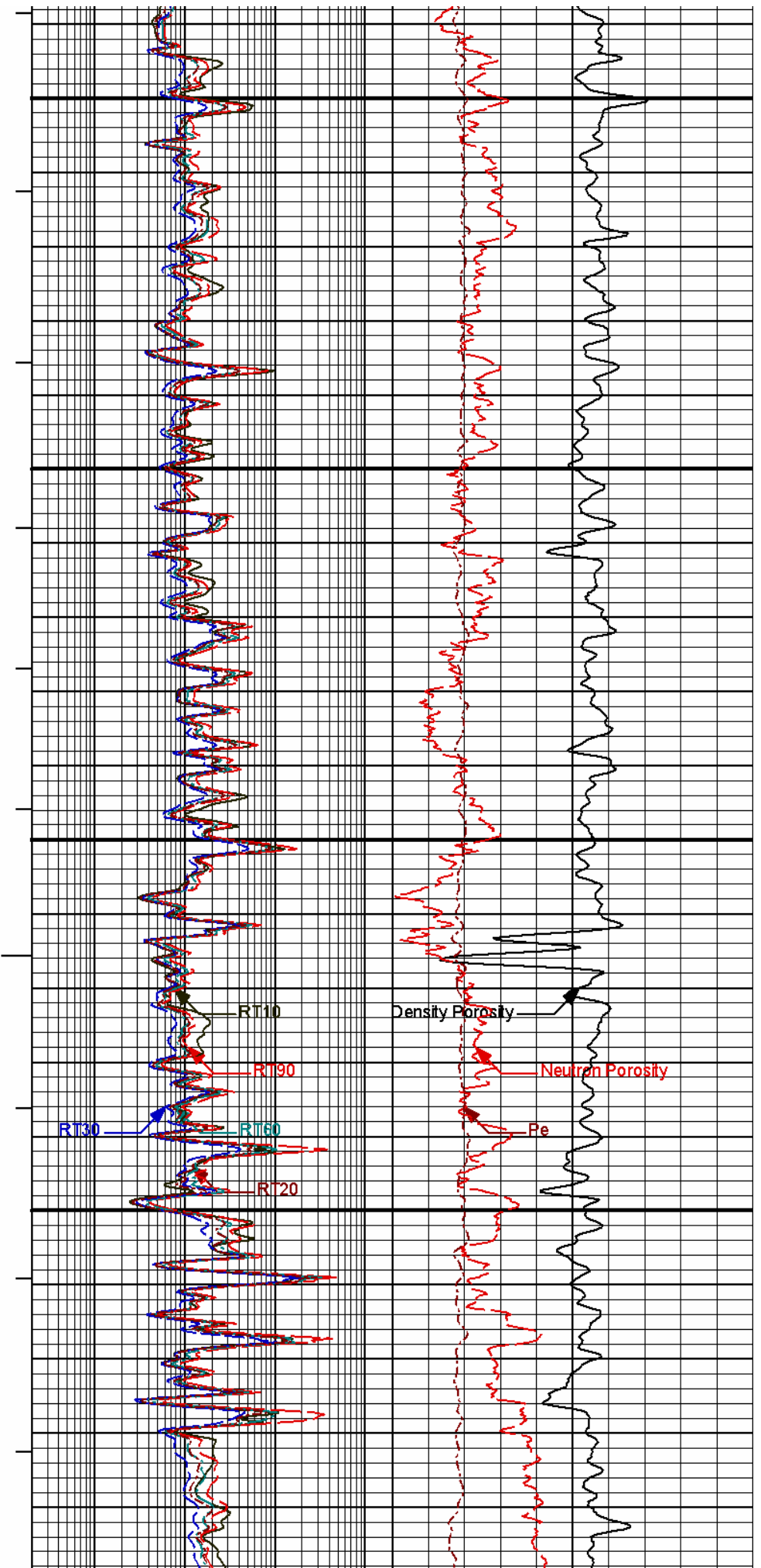
4100





4200

4300



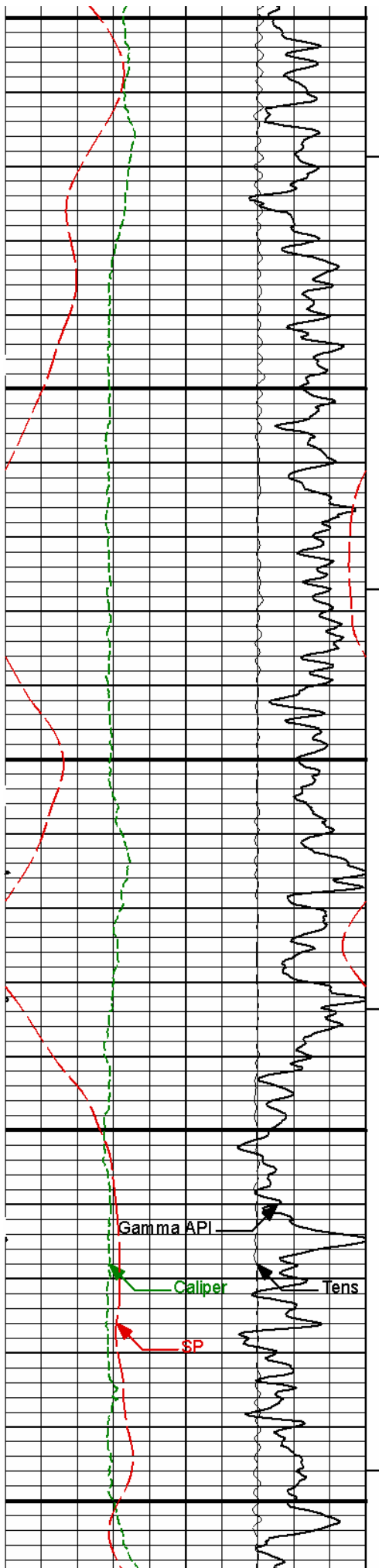
RT10

RT190

RT30

RT50

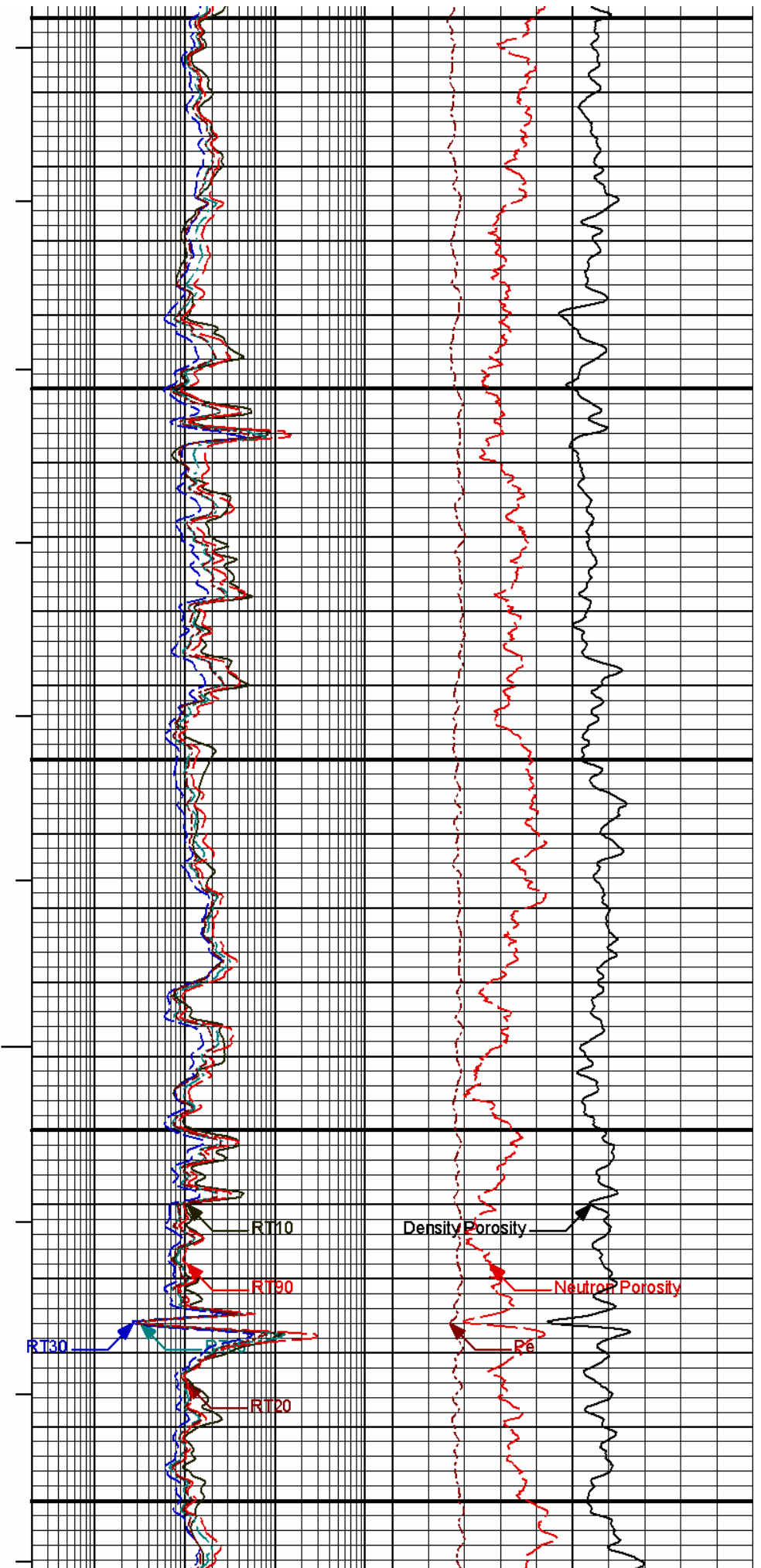
RT20



4400

4500

4600



RT10

RT90

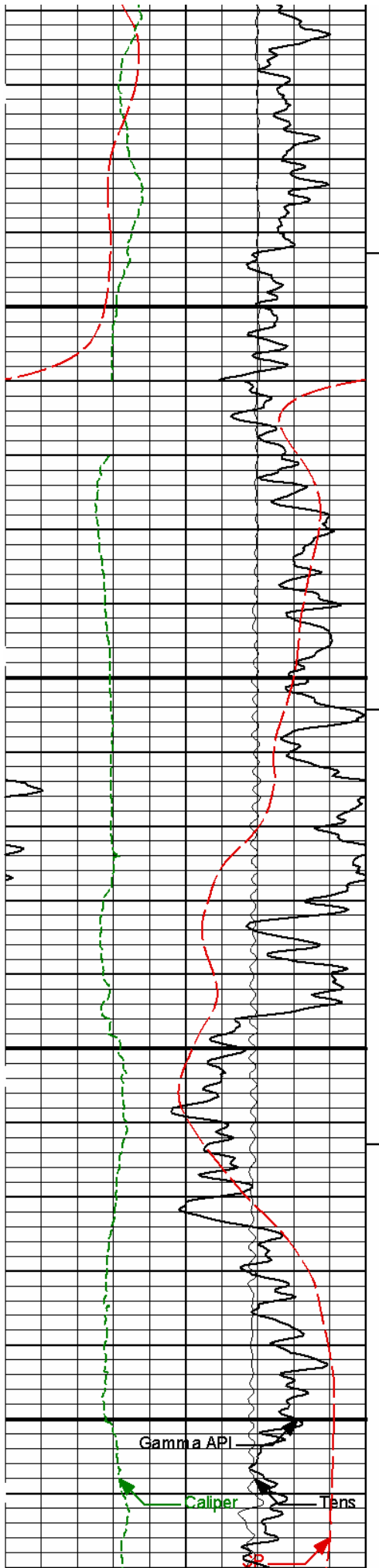
RT20

RT30

Density Porosity

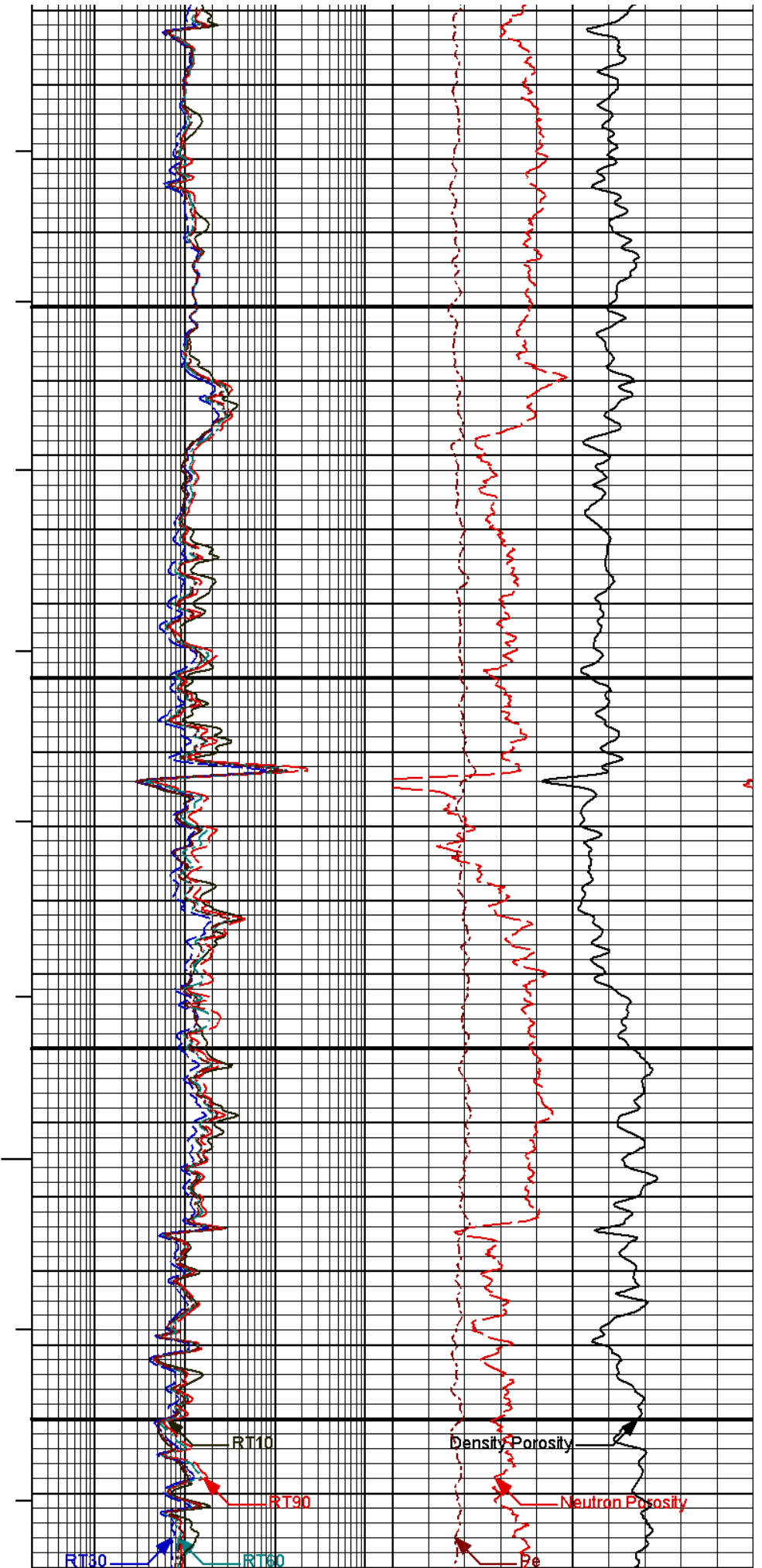
Neutron Porosity

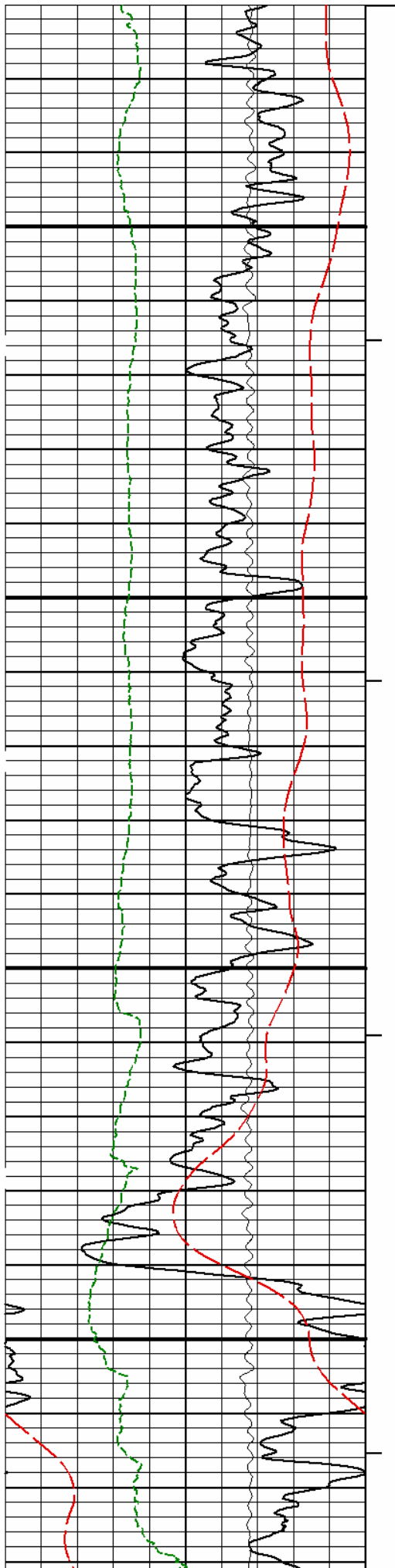
Pe



4700

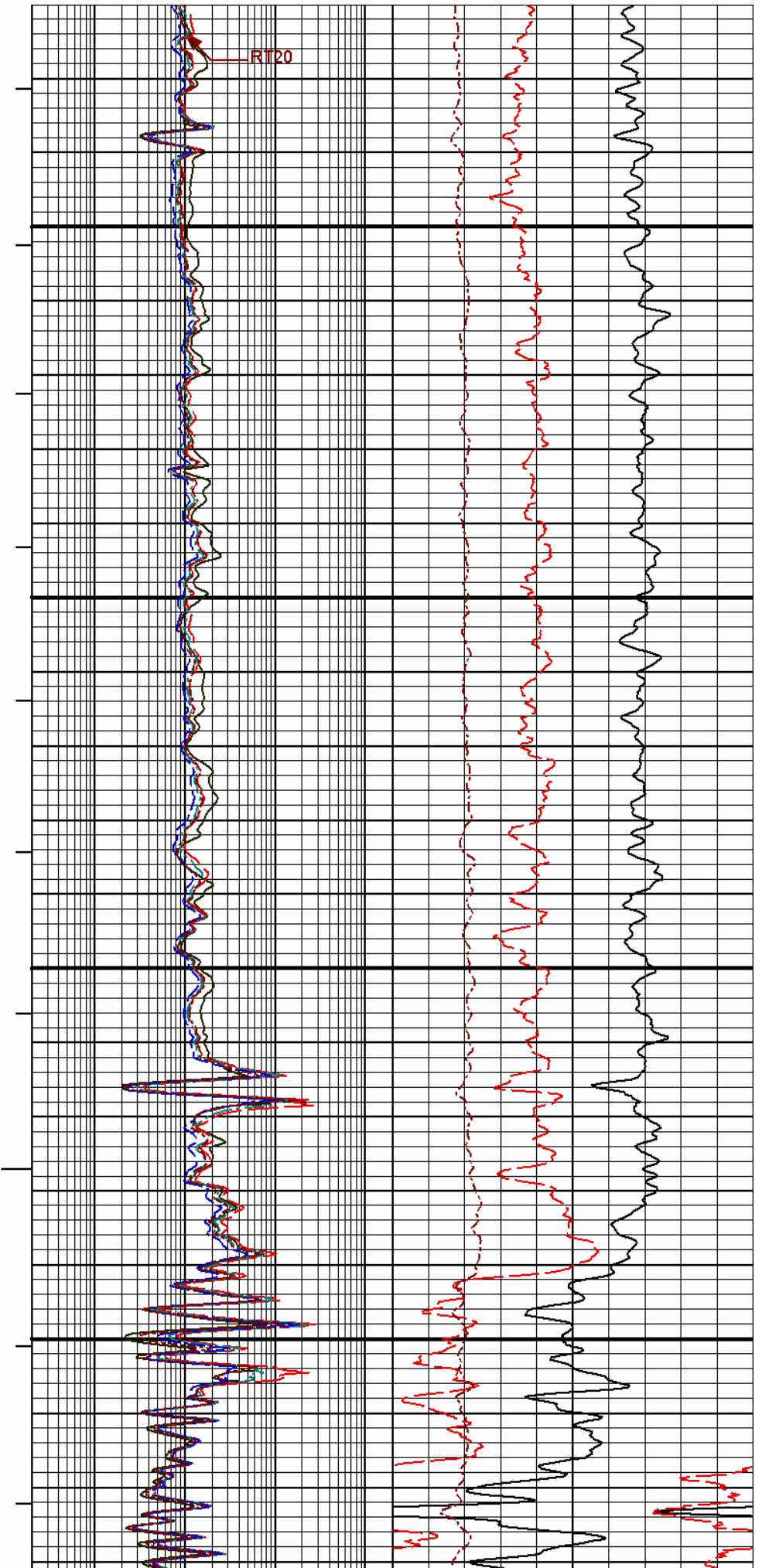
4800



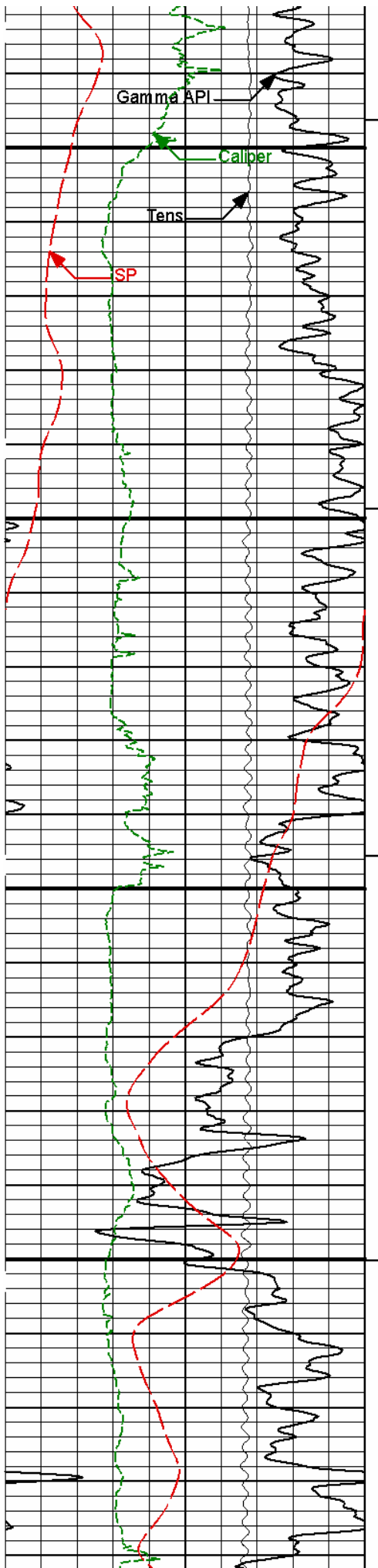


4900

5000

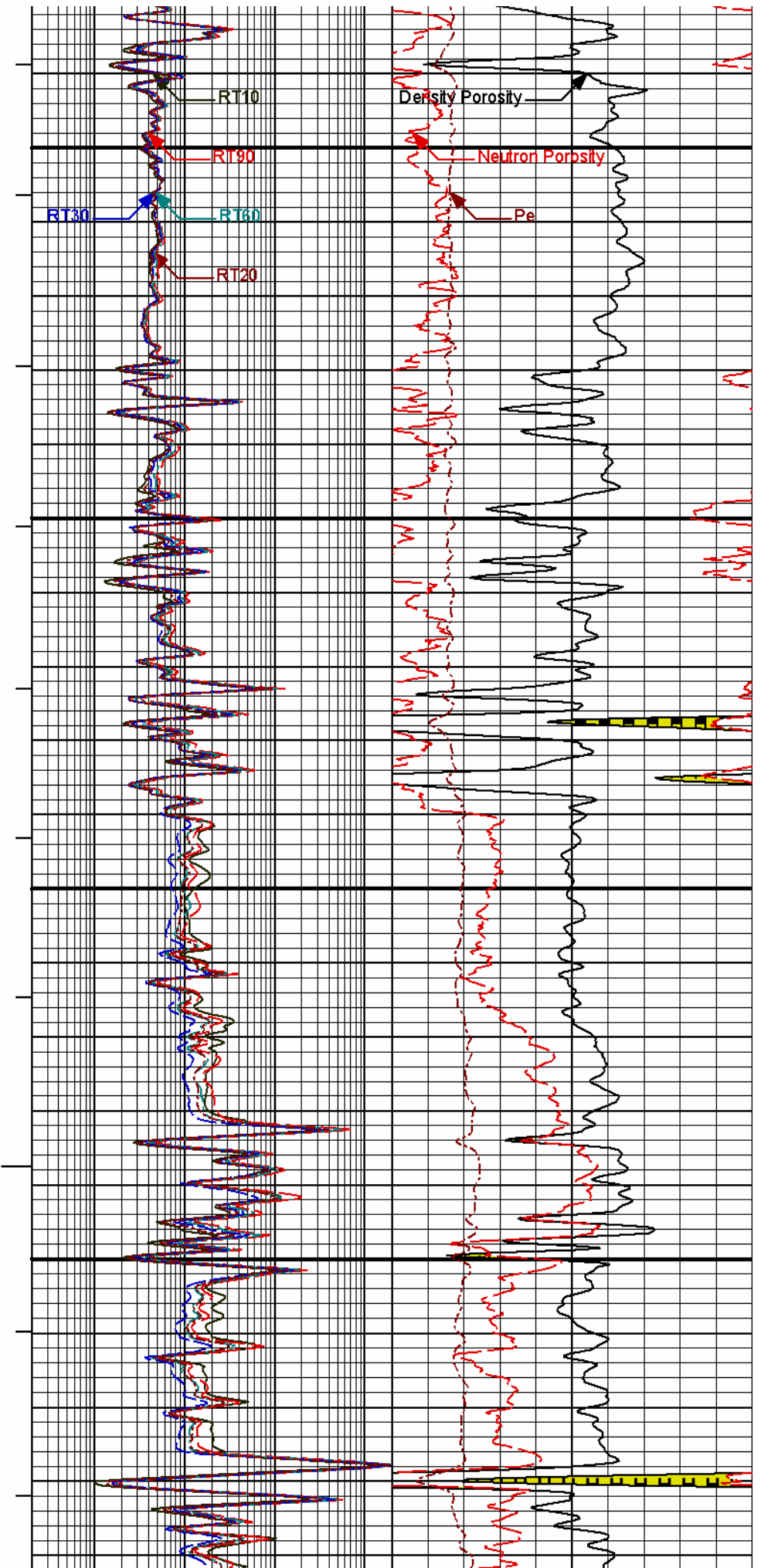


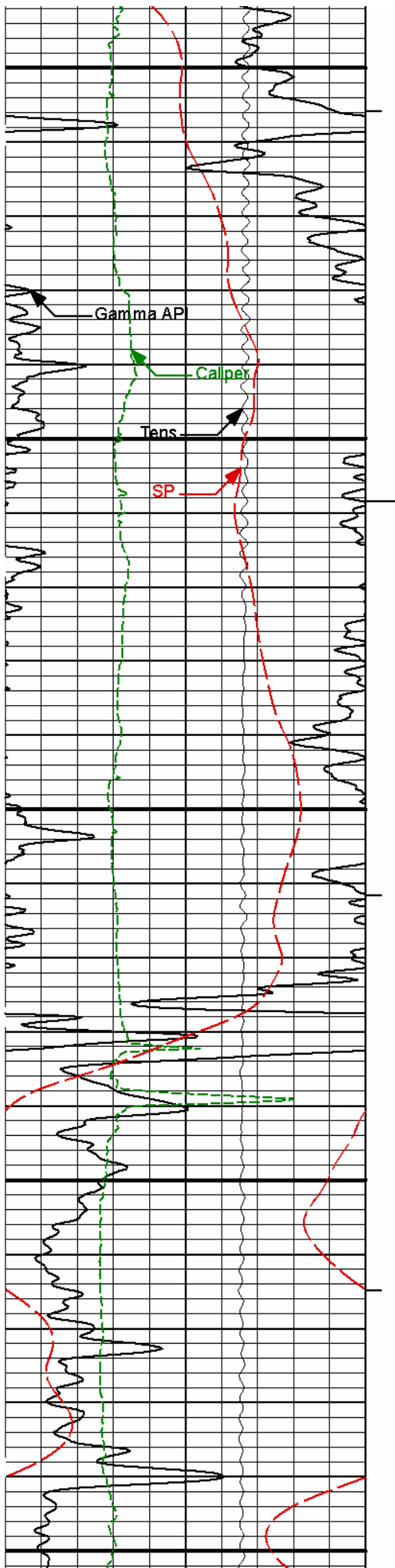
RT20



5100

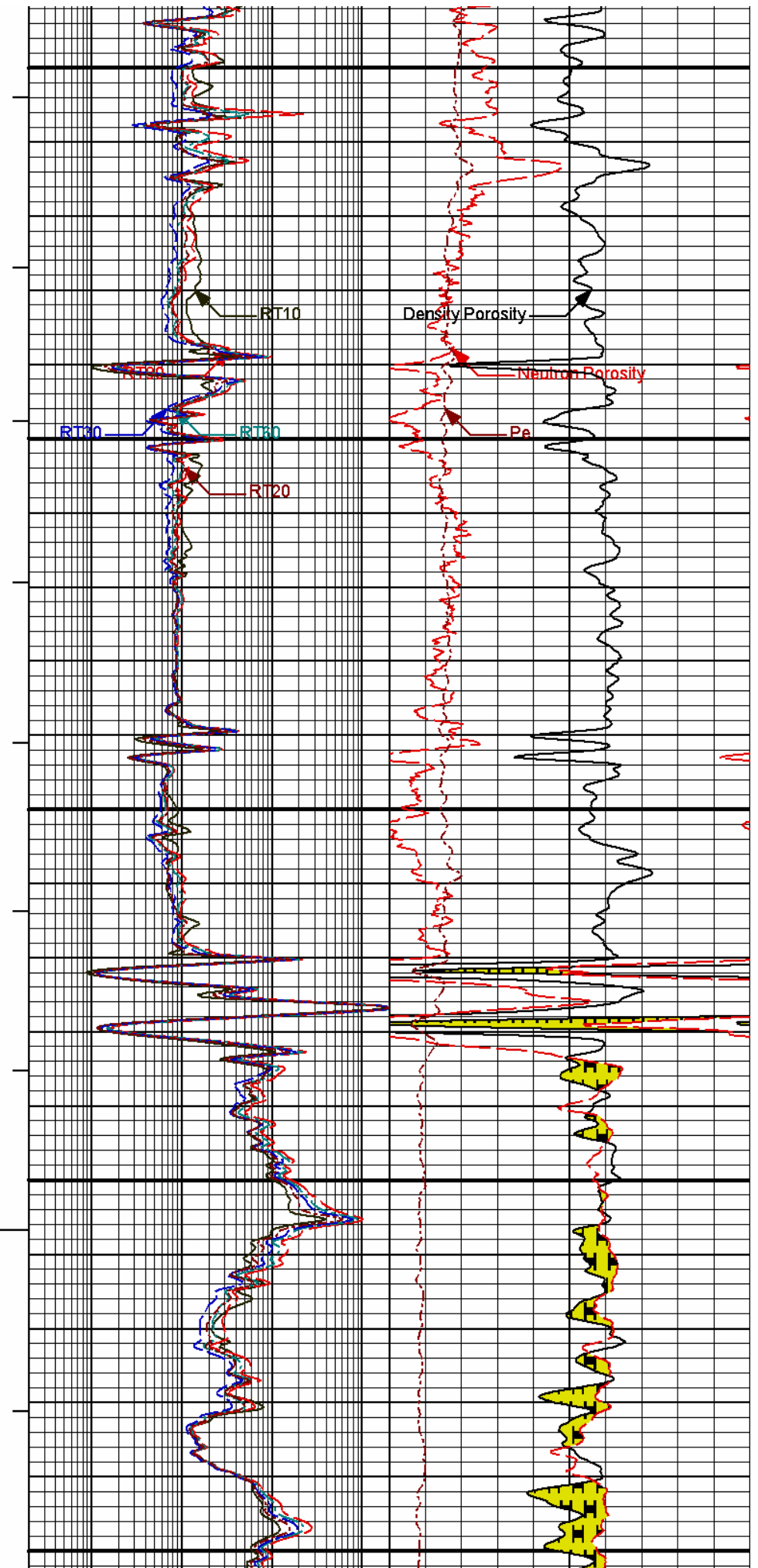
5200

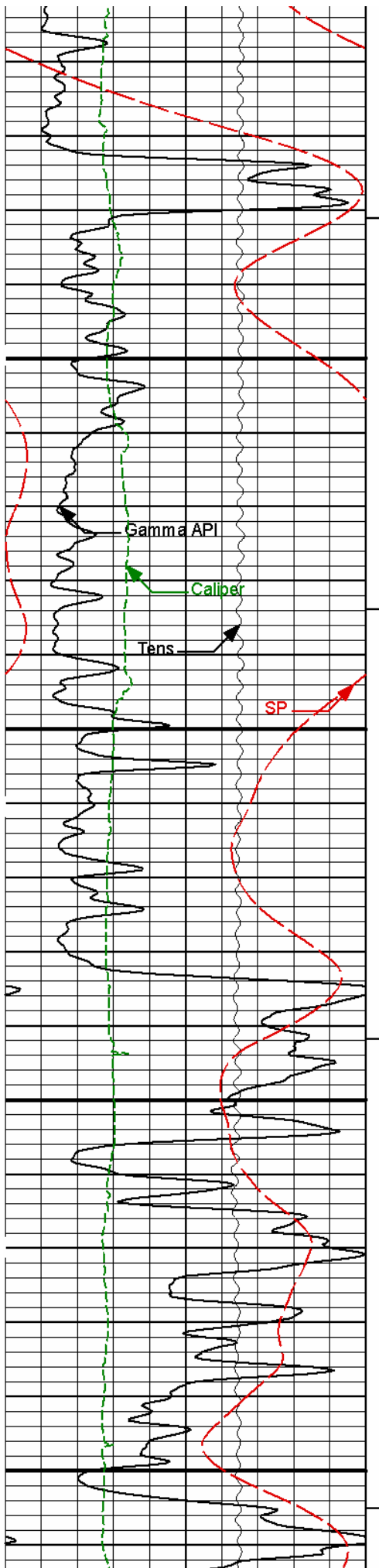




5300

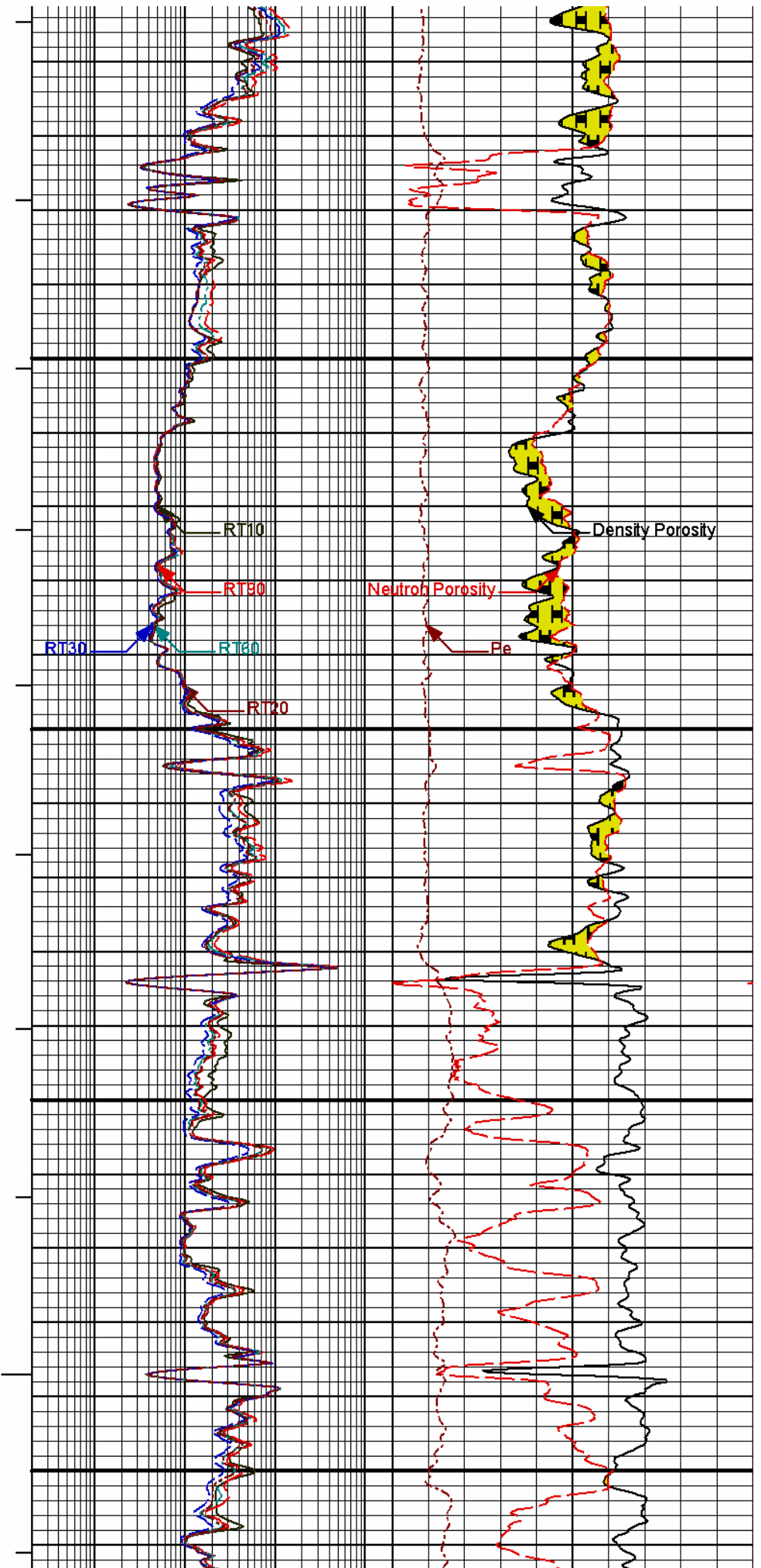
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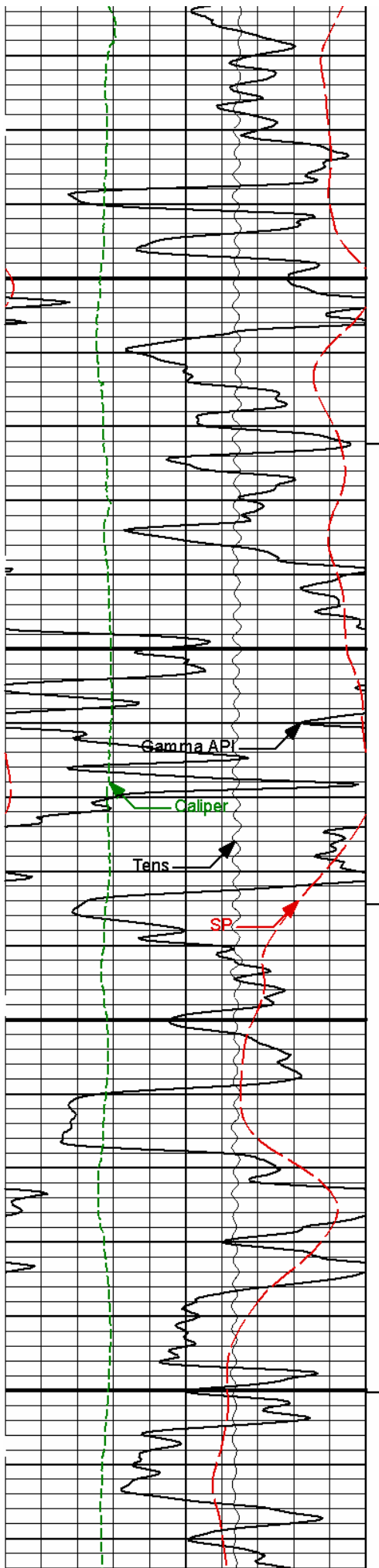




5500

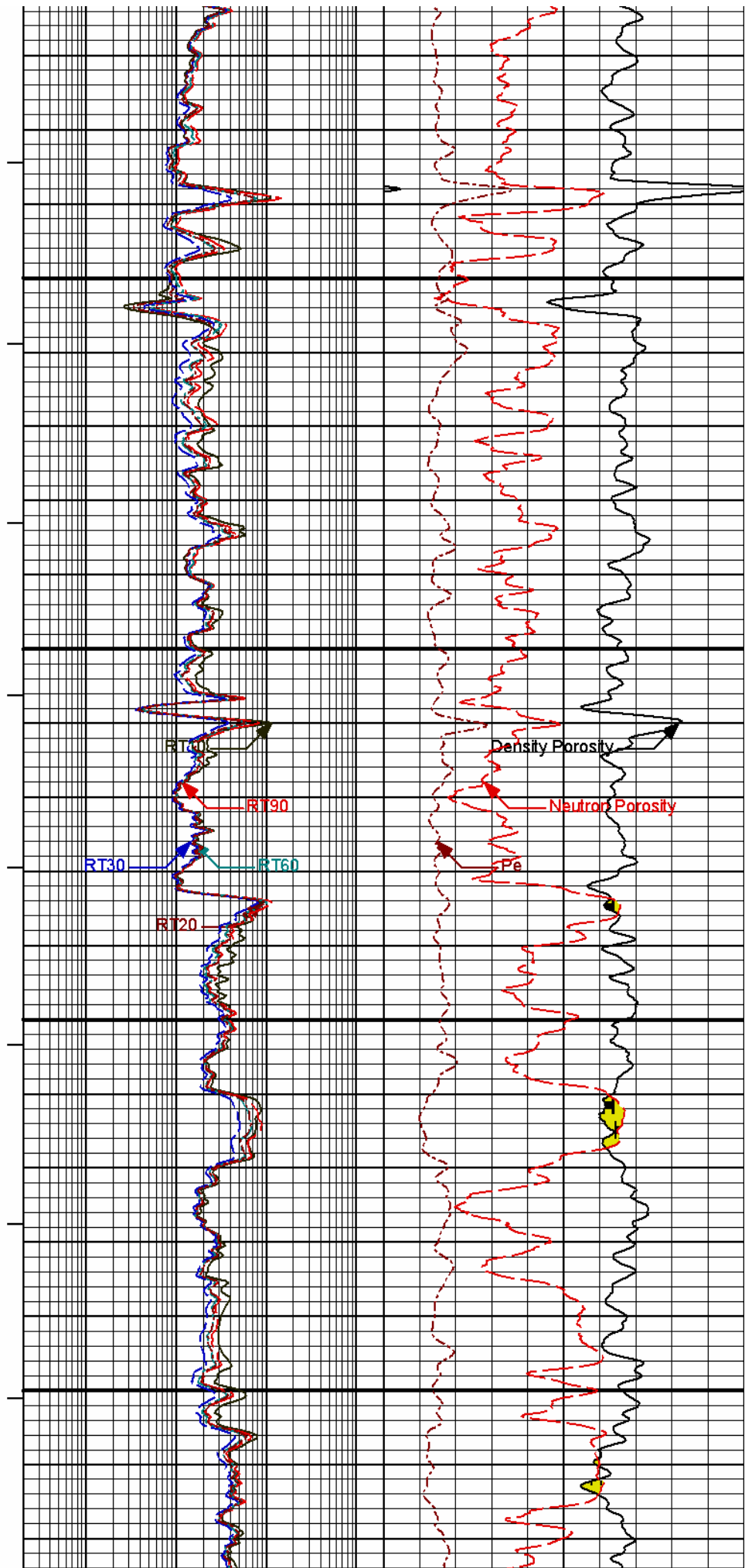
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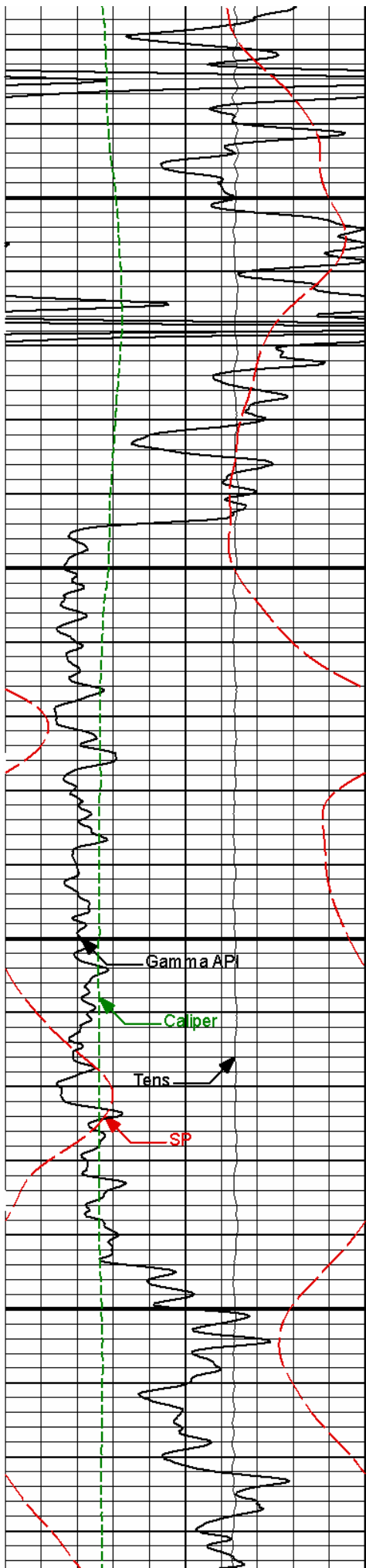




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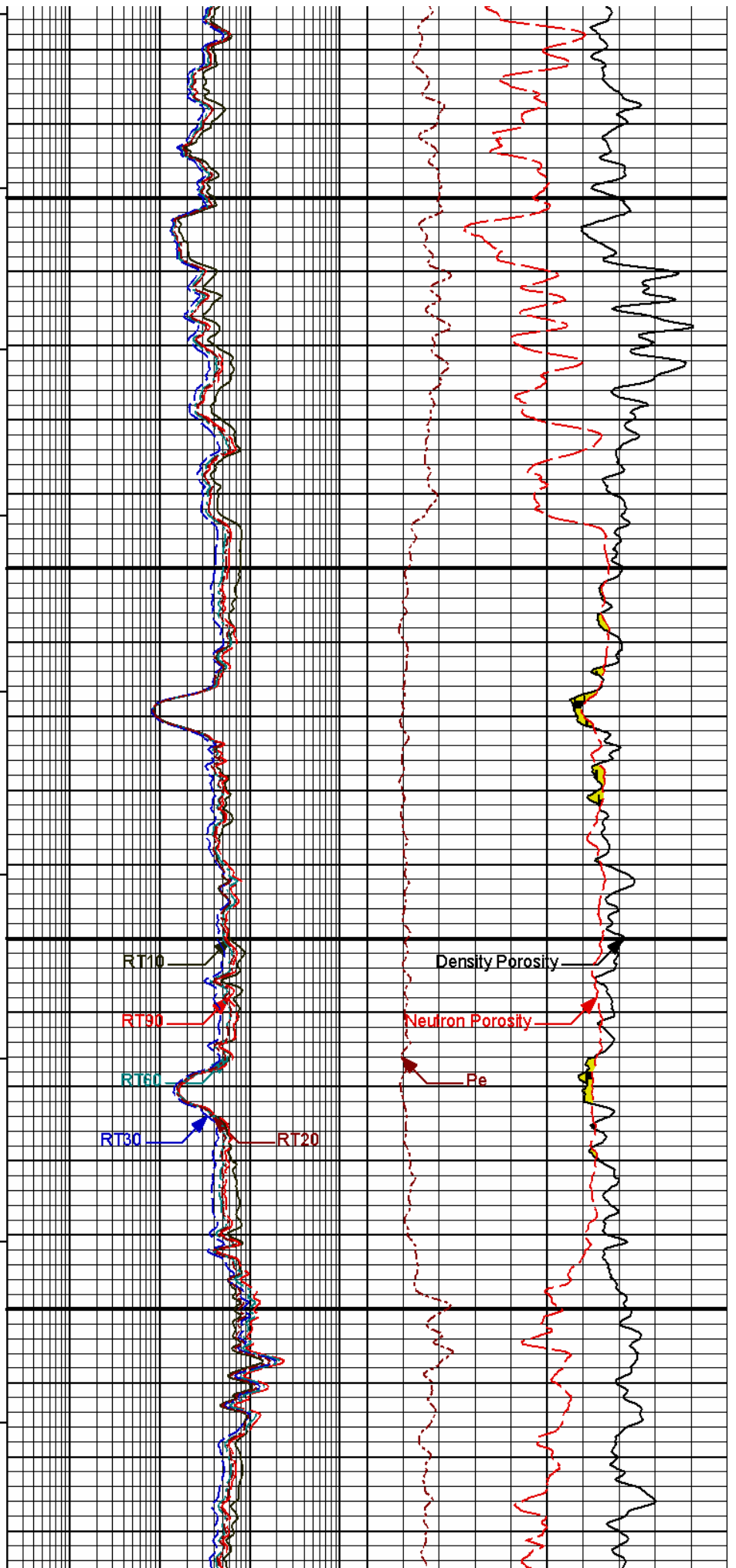
5800





5900

6000



RT10

RT90

RT50

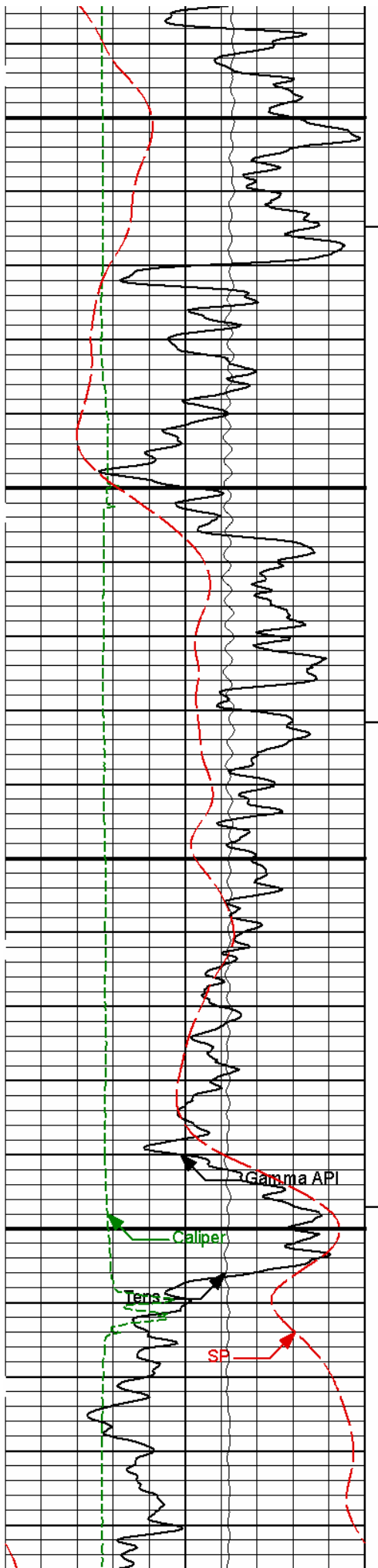
RT30

RT20

Density Porosity

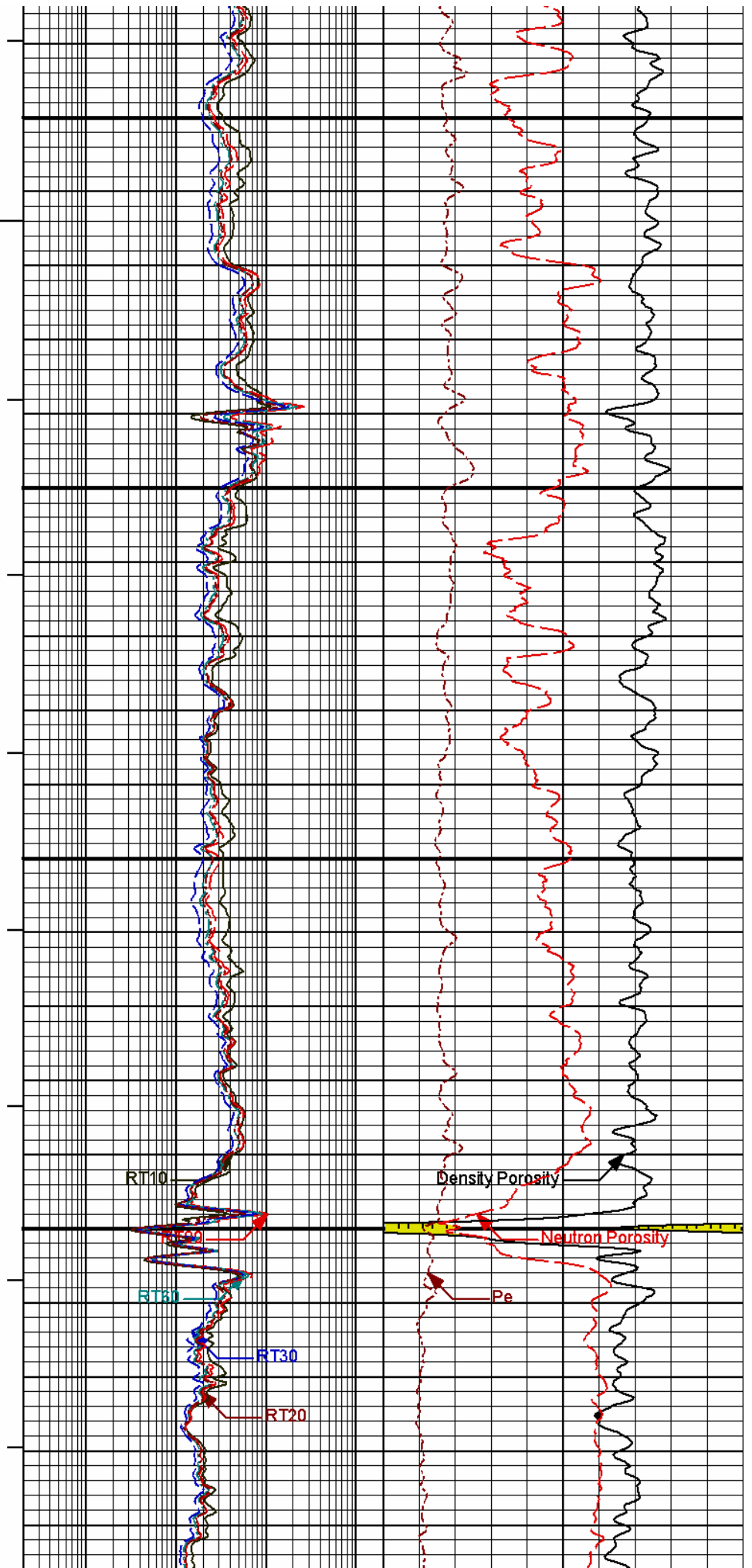
Neutron Porosity

Pe



6100

6200



RT10

RT20

RT30

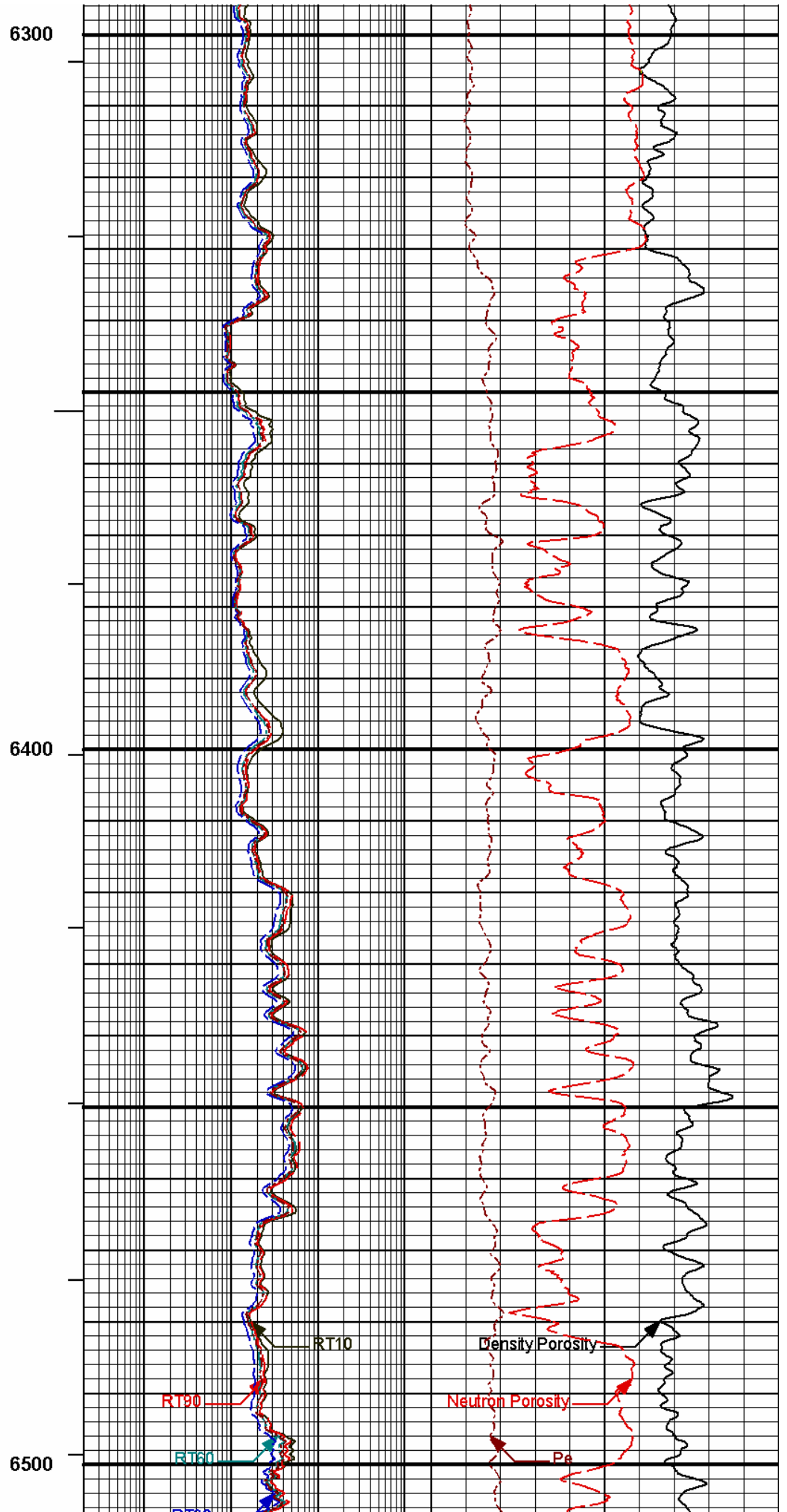
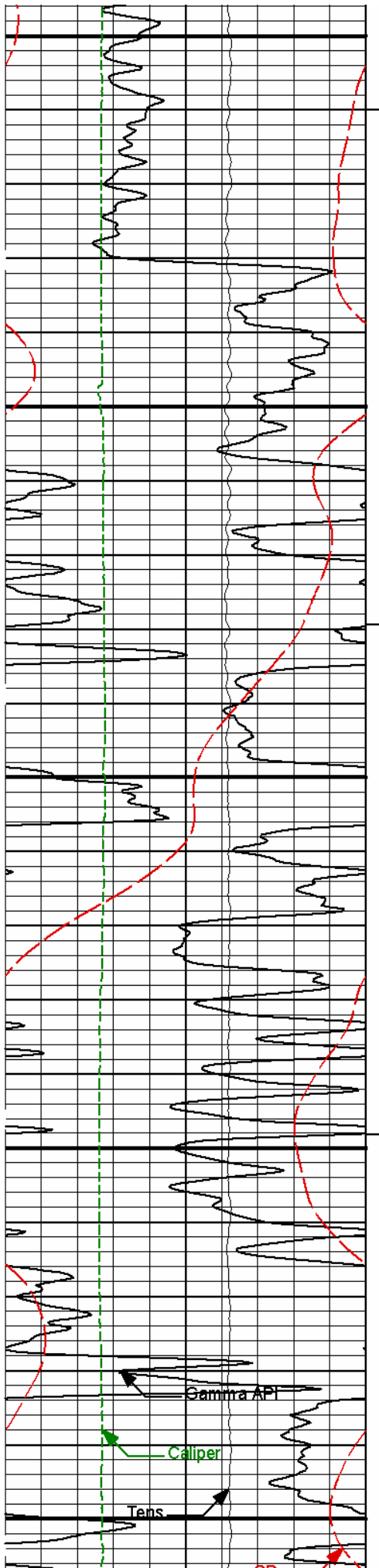
RT30

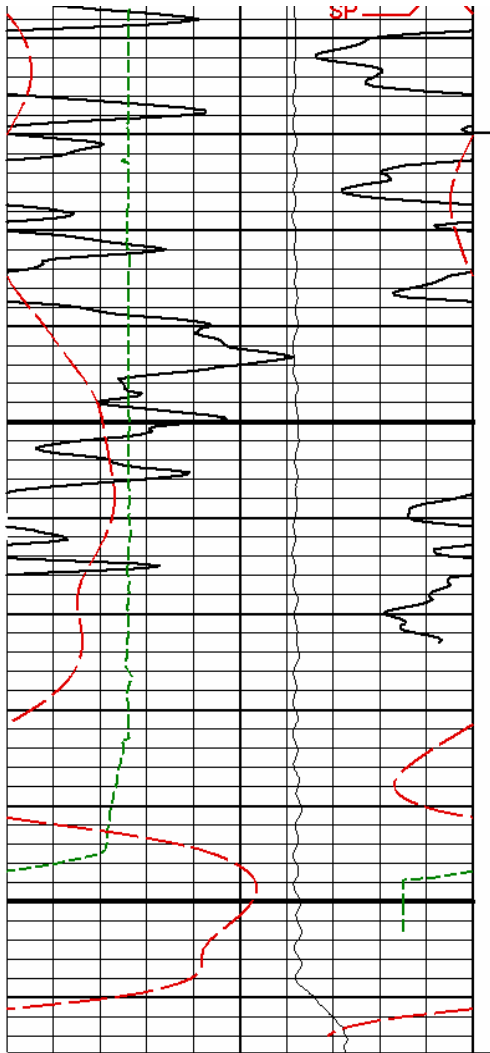
RT20

Density Porosity

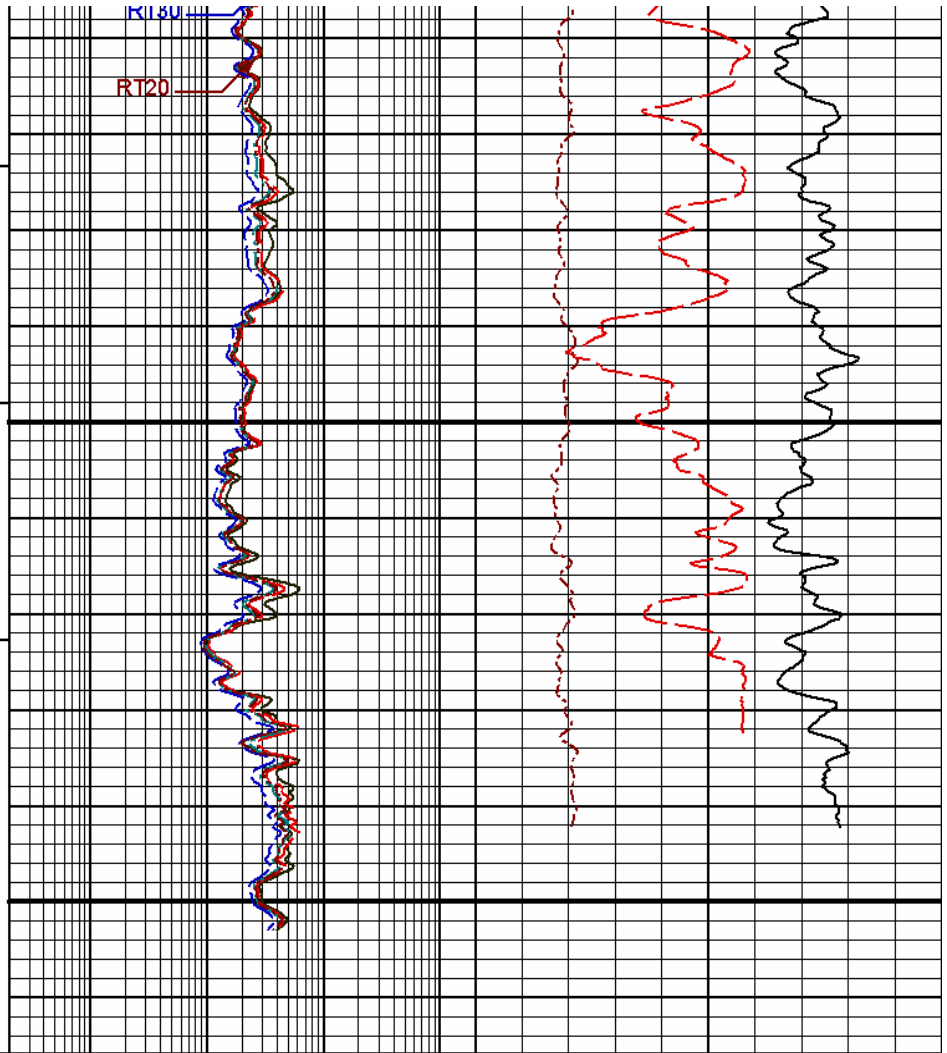
Neutron Porosity

Pe





6600



0	SP	100	1 : 240	0.2	RT90	2K	0	Pe	10
	millivolts				Ohm-m				
0	Gamma API	150	BHVT	0.2	RT60	2K	30	Density Porosity	-10
	api				Ohm-m			percent	
6	Caliper	16	AHVT	0.2	RT30	2K	30	Neutron Porosity	-10
	inches				Ohm-m			percent	
10K	Tens	0		0.2	RT20	2K			
	pounds				Ohm-m				
				0.2	RT10	2K			
					Ohm-m				

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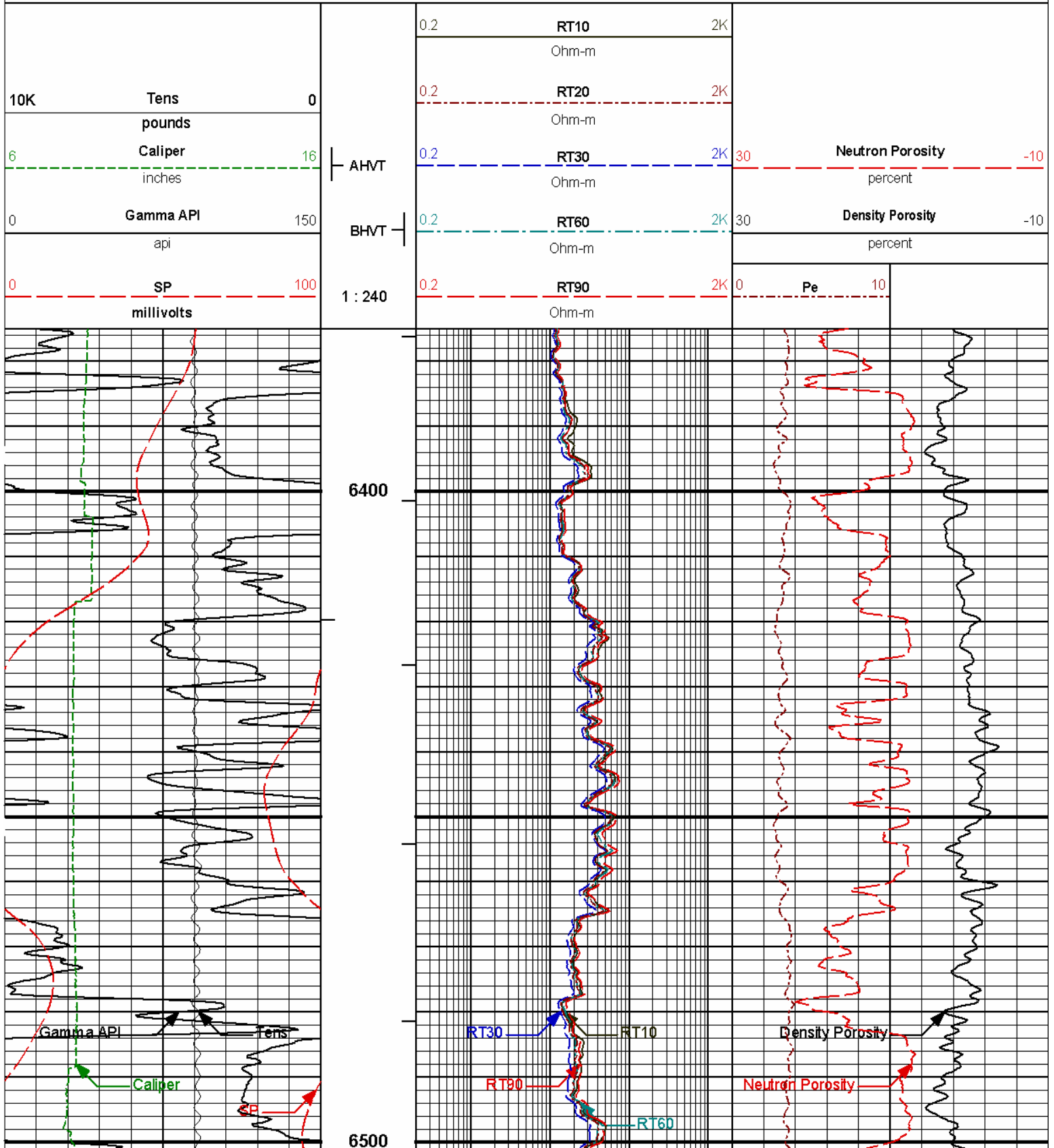
Plot Time: 06-Feb-11 11:05:40
 Plot Range: 3360 ft to 6615.83 ft
 Data: {ActiveWell}\Well Based\MAIN*
 Plot File: \\COMP\IQ_COMPOSITE_ACRT_5IN_RM

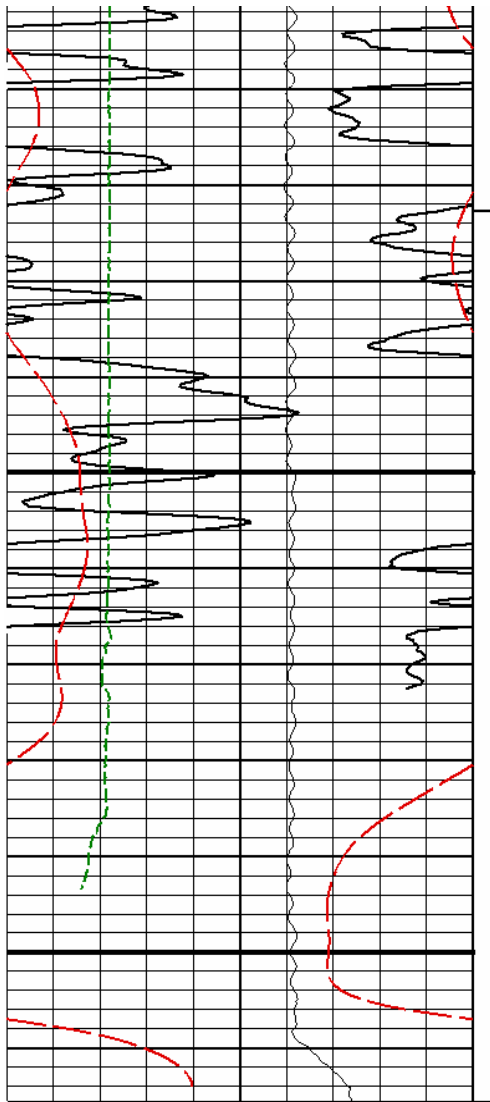
MAIN PASS 5" = 100'

HALLIBURTON

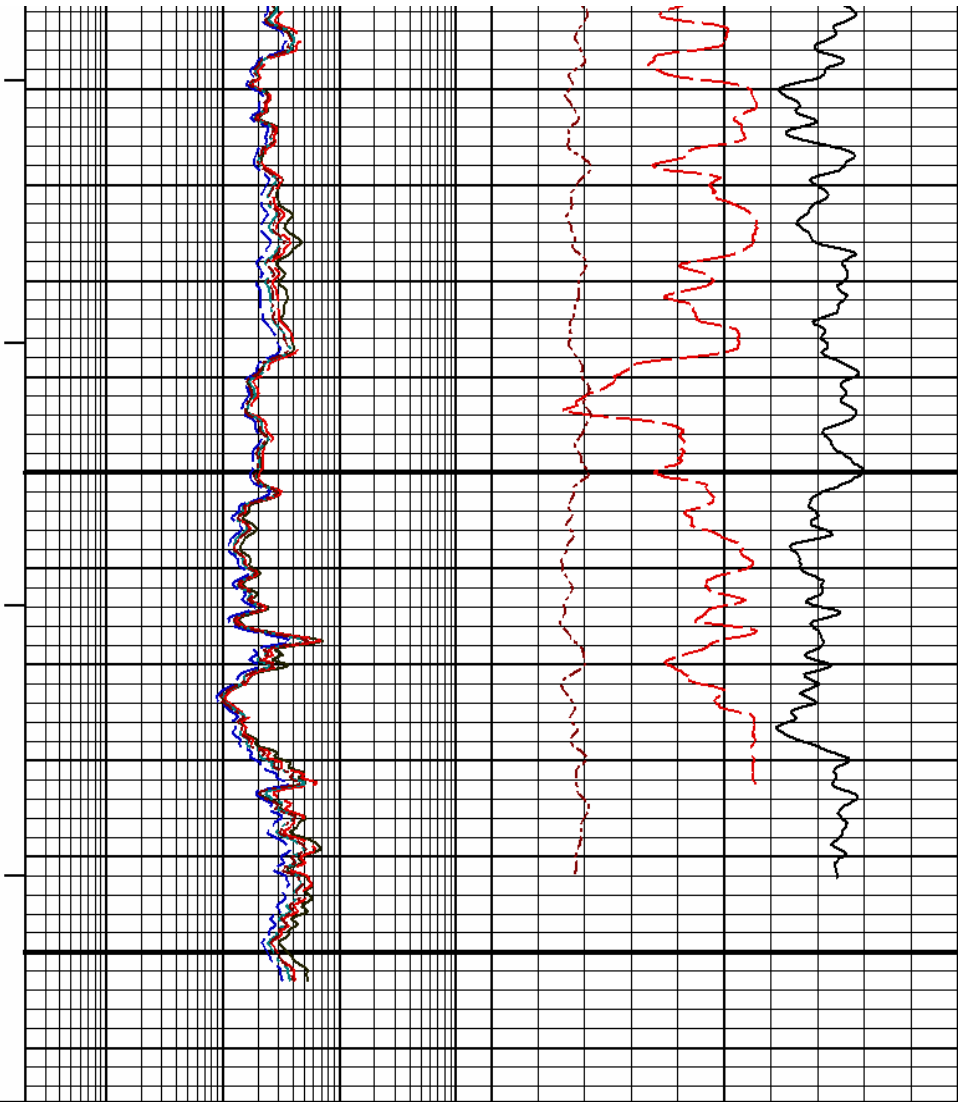
Plot Time: 06-Feb-11 11:05:40
 Plot Range: 6375 ft to 6615.67 ft
 Data: {ActiveWell}\Well Based\MAIN*
 Plot File: \\COMP\IQ_COMPOSITE_ACRT_5IN_RM

MAIN PASS 5" = 100'





6600



0	SP	100
	millivolts	
0	Gamma API	150
	api	
6	Caliper	16
	inches	
10K	Tens	0
	pounds	

1 : 240

BHVT

AHVT

0.2	RT90	2K
	Ohm-m	
0.2	RT60	2K
	Ohm-m	
0.2	RT30	2K
	Ohm-m	
0.2	RT20	2K
	Ohm-m	
0.2	RT10	2K
	Ohm-m	

0	Pe	10
30	Density Porosity	-10
	percent	
30	Neutron Porosity	-10
	percent	

HALLIBURTON

Plot Time: 06-Feb-11 11:05:42
 Plot Range: 6375 ft to 6615.67 ft
 Data: {ActiveWell}\Well Based\REPEAT1*
 Plot File: \\COMP\IQ_COMPOSITE_ACRT_5IN_RM

MAIN PASS 5" = 100'

CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION

Tool Name: GTET - 11215095

Reference Calibration Date: 29-Nov-10 15:50:18

Engineer: C. BLUE

Calibration Date: 11-Jan-11 17:38:46

Software Version: WL INSITE R3.0.7 (Build 3)

Calibration Version: 1

Calibrator Source S/N: TB290

Calibrator API Reference: 235.00 api

Measurement	Measured	Calibrated	Units
Background	74.1	73.9	api
Background + Calibrator	313.8	313.0	api
Calibrator	238.9	239.1	api

DUAL SPACED NEUTRON SHOP CALIBRATION

Tool Name: DSNT - 11219332

Reference Calibration Date: 11-Jan-11 18:09:27

Engineer: C. BLUE

Calibration Date: 11-Jan-11 18:24:20

Software Version: WL INSITE R3.0.7 (Build 3)

Calibration Version: 1

Logging Source S/N: DSN430

Tank Serial Number: BRIGHTON

Reference value assigned to Tank: 55.000

Snow Block S/N: BRIGHTON

Calibration Tank Water Temperature: 40 degF

Min. Tool Housing Outside Diameter: 3.625 in

CALIBRATION CONSTANTS

Measurement	Prev. Value	New Value	Control Limit On New Value
Gain:	0.995	0.998	0.900 - 1.100

WATER TANK SUMMARY (Horizontal Water Tank)

Measurement	Current Reading (Previous Coef.)	Calibrated (New Coef.)	Change	Control Limit On Change
Porosity (decip):	0.2287	0.2295	0.0008	+/- 0.0020
Calibrated Ratio:	10.32	10.35	0.028	+/- 0.050

VERIFIER

Measurement	Value	Control Limit
Snow-Block Porosity (decip):	0.0747	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 - 11219332

Reference Calibration Date: 11-Jan-11 18:24:20

Engineer: F. LODER

Calibration Date: 05-Feb-11 22:06:34

Software Version: WL INSITE R3.0.7 (Build 3)

Calibration Version: 1

Logging Source S/N: DSN430

Snow Block S/N: BRIGHTON

NEUTRON FIELD-CHECK SUMMARY

	Shop	Field	Difference	Control Limit On Change
Snow-Block Porosity (decp):	0.0747	0.0755	0.0008	+/- 0.0150

PASS/FAIL SUMMARY

Block Change Check:	Passed
Snow Block Stat Check:	Passed
Temperature Check:	Passed

SPECTRAL DENSITY SHOP CALIBRATION

Tool Name: SDLT - I332M335

Reference Calibration Date: 21-Jan-11 18:12:58

Engineer: C. BLUE

Calibration Date: 21-Jan-11 18:32:31

Software Version: WL INSITE R3.0.7 (Build 3)

Calibration Version: 1

Logging Source S/N: 5256GW

Aluminum Block S/N: BRIGHTON

Density: 2.600g/cc

Pe: 3.100

Magnesium Block S/N: BRIGHTON

Density: 1.680g/cc

Pe: 2.594

DENSITY CALIBRATION SUMMARY

Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	1.0659	1.0701	0.90 - 1.10
Near Dens Gain	1.0257	1.0427	0.90 - 1.10
Near Peak Gain	1.0220	1.0433	0.90 - 1.10
Near Lith Gain	1.0083	1.0324	0.90 - 1.10
Far Bar Gain	1.0170	1.0152	0.90 - 1.10
Far Dens Gain	1.0083	1.0047	0.90 - 1.10
Far Peak Gain	1.0029	1.0006	0.90 - 1.10
Far Lith Gain	0.9847	0.9832	0.90 - 1.10
Near Bar Offset	-0.6266	-0.6647	NONE
Near Dens Offset	-0.2167	-0.3664	NONE
Near Peak Offset	-0.1735	-0.3516	NONE
Near Lith Offset	-0.0773	-0.2777	NONE
Far Bar Offset	-0.2049	-0.1899	NONE
Far Dens Offset	-0.1331	-0.0993	NONE
Far Peak Offset	-0.0990	-0.0807	NONE
Far Lith Offset	0.0257	0.0358	NONE
Near Bar Background	1069.73	1071.20	700 - 1450
Near Dens Background	350.53	351.42	230 - 480
Near Peak Background	153.87	152.84	100 - 210
Near Lith Background	187.53	186.92	125 - 260
Far Bar Background	558.10	557.96	450 - 900
Far Dens Background	217.51	219.17	175 - 345
Far Peak Background	84.73	84.91	70 - 140
Far Lith Background	89.97	89.66	75 - 145

CALIBRATION BLOCK SUMMARY

Measurement	Current Reading	Calibrated (New Coef)	Change	Control Limit On Change
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	(Previous Coef)	(New Coef)	Change	
MAGNESIUM				
Density (g/cc)	1.676	1.681	0.005	+/- 0.015
Pe	2.627	2.586	-0.041	+/- 0.150
ALUMINUM				
Density (g/cc)	2.601	2.600	-0.001	+/- 0.01500
Pe	3.096	3.091	-0.005	+/- 0.150

TOOL SUMMARY				
Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	-0.0006	+/- 0.0110	0.0014	+/- 0.0140
Magnesium Block	-0.0009	+/- 0.0110	-0.0017	+/- 0.0140
Aluminum Block	0.0016	+/- 0.0110	-0.0005	+/- 0.0140
Resolution	9.10	6.00 - 11.50	9.67	6.00 - 11.50
Internal Verifier(B+D+P+L)	1762	1200 - 2700	952	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 - I332M335

Reference Calibration Date: 21-Jan-11 18:32:31

Engineer: F. LODER

Calibration Date: 05-Feb-11 21:55:15

Software Version: WL INSITE R3.0.7 (Build 3)

Calibration Version: 1

Pad Temperature: 56.1 degF

DENSITY FIELD CALIBRATION SUMMARY				
Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1762.380	1761.230	-1.150	16.832
Far (B+D+P+L) cps	951.703	953.393	1.690	16.634
Near Resolution	9.10	9.11	0.010	0.50
Far Resolution	9.67	9.73	0.060	1.00

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

DENSITY CALIPER SHOP CALIBRATION

Tool Name: SDLT - I332M335

Reference Calibration Date: 21-Jan-11 18:47:16

Engineer: C. BLUE

Calibration Date: 21-Jan-11 18:51:33

Software Version: WL INSITE R3.0.7 (Build 3)

Calibration Version: 1

CALIBRATION COEFFICIENTS			
Measurement	Previous Value	New Value	Control Limit On New Value
Pad Offset	-2404.06	-2407.77	-7000.00 - -1000.00
Pad Gain	0.0003925	0.0003957	0.000200 - 0.000600
Arm Offset	-3229.94	-2928.72	-5000.00 - 3000.00
Arm Gain	0.0006115	0.0005786	0.000300 - 0.000700
Arm Power	-0.000007993	-0.000006215	-0.000010 - 0.000010

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)	1.98	2.00	0.02	+/- 0.20
Medium Ring (in)	3.72	3.75	0.03	+/- 0.20
RING DIAMETER:				
Small Ring (in)	6.43	6.50	0.07	+/- 0.20
Medium Ring (in)	8.25	8.25	0.00	+/- 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

SDLT CALIPER FIELD CALIBRATION				
Tool Name:	SDLT - I332M335	Reference Calibration Date:	21-Jan-11 18:51:33	
Engineer:	F. LODER	Calibration Date:	05-Feb-11 21:58:32	
Software Version:	WL INSITE R3.0.7 (Build 3)	Calibration Version:	1	
MEASURED CALIPER VALUES				
Measurement	Shop	Field	Change	Control Limit On New Value
Pad Extension	3.75	3.71	-0.04	+/- 0.10
Ring Diameter	8.25	8.15	-0.10	+/- 0.15
PASS/FAIL SUMMARY				
Pad Extension Check:			Passed	
Diameter Check:			Passed	

ARRAY COMPENSATED TRUE RESISTIVITY SHOP CALIBRATION			
Tool Name:	ACRt - E9336-S4042	Reference Calibration Date:	29-Nov-10 10:05:24
Engineer:	C. BLUE	Calibration Date:	29-Nov-10 10:24:28
Software Version:	WL INSITE R3.0.4 (Build 6)	Calibration Version:	1

TYPICAL GAIN RANGE									
Subarray	R12KHz			R36KHz			R72KHz		
	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper
A1 (80")	0.95	1.0124	1.05	0.95	1.0112	1.05	0.95	1.0087	1.05
A2 (50")	0.95	0.9999	1.05	0.95	0.9994	1.05	0.95	0.9992	1.05

A3 (29")	0.95	1.0027	1.05	0.95	1.0017	1.05	0.95	0.9984	1.05
A4 (17")	0.95	0.9959	1.05	0.95	0.9923	1.05	0.95	0.9933	1.05
A5 (10")	N/A	N/A	N/A	0.95	0.9818	1.05	0.95	0.9804	1.05
A6 (6")	N/A	N/A	N/A	0.95	0.9703	1.05	0.95	0.9694	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	0.658	2	-6	-3.458	-2	-8	-5.078	-2
A2 (50")	-7	-1.854	-1	-6	-3.756	-2	-7	-4.493	-2
A3 (29")	-27	-13.021	-9	-9	-3.753	-3	-7	-3.013	-1
A4 (17")	-180	-98.689	-60	-45	-31.432	-15	-39	-25.166	-13
A5 (10")	N/A	N/A	N/A	-150	-69.697	-50	-80	-36.680	-10
A6 (6")	N/A	N/A	N/A	175	268.707	525	90	139.940	270

TRANSMITTER CURRENT GAIN					R-MUD VERIFICATION			
Signal	Lower	R	Upper		Signal	Lower (ohm-m)	Measured (ohm-m)	Upper (ohm-m)
12K	0.6	0.8512	1.3		Mud Cell	0.95	1.008	1.05
36K	1.0	1.8893	2.0					
72K	1.0	1.0922	2.0					


CALIBRATION SUMMARY						
Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-11215095						
Gamma Ray Calibrator	239.1	-----	-----	0.0	+/- 9.00	api
DSNT-11219332						
Snow-Block Porosity	0.0747	0.0755	-----	-0.0008	+/- 0.0150	decp
SDLT-I332M335						
Near(B+D+P+L)	1762.380	1761.230	-----	1.150	+/-16.832	cps
Far(B+D+P+L)	951.703	953.393	-----	-1.690	+/-16.634	cps
Pad Extension	3.75	3.71	-----	0.04	+/-0.10	in
Ring Diameter	8.25	8.15	-----	0.100	+/-0.15	in
ACRt-E9336-S4042						
Mud Cell	1.008	-----	-----	0.000	-----	ohm-m

Data: EP_C_204_WDWI0001 TRIPLEIDLE

Date: 06-Feb-11 10:39:36

HALLIBURTON

TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
RWCH-10895163 135.00 lbs		Ø 3.625 in →		Load Cell @ 51.17 ft BH Temperature @ 50.60 ft	6.25 ft 48.60 ft	54.85 ft

GTET-11215095
165.00 lbs

Ø 3.625 in →

8.52 ft

← GammaRay @ 42.54 ft

40.08 ft

DSNT-11219332
174.00 lbs

DSN Decentralizer-
10813523
6.60 lbs

Ø 3.625 in →

Ø 3.625 in →

9.69 ft

← DSN Far @ 33.15 ft
← DSN Near @ 32.40 ft

30.40 ft

SDLT-1332M335
360.00 lbs

Ø 4.500 in →

Ø 4.750 in →

10.81 ft

SDL Microlog @ 22.58 ft
SDL Caliper @ 22.40 ft
SDL @ 22.39 ft

19.58 ft

← Mud Resistivity @ 13.19 ft

ACRt-E9336-S4042
250.00 lbs

Ø 3.625 in →

19.25 ft

← ACRt @ 9.21 ft

SP Ring-1
0.00 lbs

Ø 3.625 in →

← SP @ 1.61 ft

0.33 ft

Bull Nose-BN
5.00 lbs

Ø 2.750 in →

0.33 ft

0.00 ft

Mnemonic	Tool Name	Serial Number	Weight (lbs)	Length (ft)	Accumulated Length (ft)	Max.Log. Speed (fpm)
DMCH	Delecoable Mifeline Cable Head	10005163	125.00	6.25	40.60	300.00

KVCH	Reusable Wireline Cable Head	10893103	133.00	0.23	40.00	300.00
GTET	Gamma Telemetry Tool	11215095	165.00	8.52	40.08	60.00
DSNT	Dual Spaced Neutron	11219332	174.00	9.69	30.40	60.00
DCNT	DSN Decentralizer	10813523	6.60	5.13	*	33.73
SDLT	Spectral Density Tool	I332M335	360.00	10.81	19.58	60.00
ACRt	Array Compensated True Resistivity	E9336-S4042	250.00	19.25	0.33	300.00
SP	SP Ring	1	0.00	0.25	*	1.61
BLNS	Bull Nose	BN	5.00	0.33	0.00	300.00
Total			1,095.60	54.85		
* Not included in Total Length and Length Accumulation.						
Data: EP_C_204_WDW0001 TRIPLEIDLE						
Date: 06-Feb-11 08:09:59						

COMPANY	EL PASO PRODUCTION		
WELL	VPR C 204 WDW		
FIELD	VERMEJO PARK RANCH		
COUNTY	LAS ANIMAS	STATE	CO
HALLIBURTON		SPECTRAL DENSITY DUAL SPACED NEUTRON ARRAY COMPENSATED TRUE RESISTIVITY LOG	