

HALLIBURTON

SPECTRAL DENSITY DUAL SPACED NEUTRON LOG

COMPANY	OXY USA INC		
WELL	BRINKMAN D-1		
FIELD	PLEASNT PRAIRRE		
COUNTY	HASKELL		
STATE	KANSAS		
COMPANY	OXY USA INC	WELL	BRINKMAN D-1
FIELD	PLEASNT PRAIRRE	COUNTY	HASKELL
COUNTY	HASKELL	STATE	KANSAS
API No.	15-081-21932	Other Services:	ACRT MICRO
Location	556 FNL & 1976 FWL		
Secl.	23	Twp.	27S
		Rge.	34W
Permanent Datum	GL	Elev.	3011.0 ft
Log measured from	KB	D.F.	3021.0 ft
Drilling measured from	KB	G.L.	3011.0 ft

Date	26-Apr-11		
Run No.	ONE		
Depth - Driller	5400.00 ft		
Depth - Logger	5395.0 ft		
Bottom - Logged Interval	5385.0 ft		
Top - Logged Interval	1942.0 ft		
Casing - Driller	8.625 in @ 1941.0 ft		
Casing - Logger	1942.0 ft		
Bit Size	7.875 in		@
Type Fluid in Hole	WATER BASED MUD		
Density	9.0 ppg	56.00	sg/qt
PH	9.30 pH	4.6	cp/m
Source of Sample	MUD PIT		
Rm @ Meas. Temperature	1.386 ohmm @ 80.00 degF		@
Rmf @ Meas. Temperature	1.13 ohmm @ 77.00 degF		@
Rmc @ Meas. Temperature	1.580 ohmm @ 78.00 degF		@
Source Rmf	MEASURED	MEASURED	
Rm @ BHT	1.03 ohmm @ 110.0 degF		@
Time Since Circulation	7.0 hr		
Time on Bottom	26-Apr-11 19:10		
Max. Rec. Temperature	110.0 degF @ 5400.0 ft		@
Equipment	10549592	LIBERAL	
Recorded By	JACOB BOSH	C. PARKER	
Witnessed By	A. GARNER	N. HALLEY	

Fold here

Service Ticket No.: 8116343		API Serial No.: 15-081-21932		PGM Version: WL INSITE R3.2.5 (Build 2)			
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.
Rmf @ Meas. Temp.	@	@					
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.	10748374	Serial No.		Serial No.	SDLT	Serial No.	DSNT
Model No.	GTET	Model No.		Model No.	M926	Model No.	10755066
Diameter	3.625"	No. of Cent.		Diameter	4.5"	Diameter	3.625"
Detector Model No.	T-102	Spacing		Log Type	GAM-GAM	Log Type	NEU-NEU
Type	SCINT			Source Type	Cs137	Source Type	Am241Be
Length	8"	LSA [Y/N]		Serial No.	5073GW	Serial No.	DSN-439
Distance to Source	10'	FWDA [Y/N]		Strength	1.5Ci	Strength	15Ci
LOGGING DATA							
GENERAL		GAMMA		ACOUSTIC		NEUTRON	

Run No.	Depth		Speed	Scale		Scale		Matrix	Scale		Matrix	Scale		Matrix
	From	To	ft/min	L	R	L	R		L	R		L	R	
ONE	TD	CSG	REC	0	150				30	-10	2.71	30	-10	LIME

DIRECTIONAL INFORMATION

Maximum Deviation @ KOP @

Remarks: ANNULAR HOLE VOLUME CALCULATED FOR 5.5" CASING

CHLORIDES 800 MG/L: LCM 6 #/BBL

NEUTRON POST CALIBRATION NOT DONE DUE TO WEATHER CONDITIONS

TODAY'S CREW: K.KELLY, M. MAY

THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES LIBERAL, KANSAS: 620 624 8123

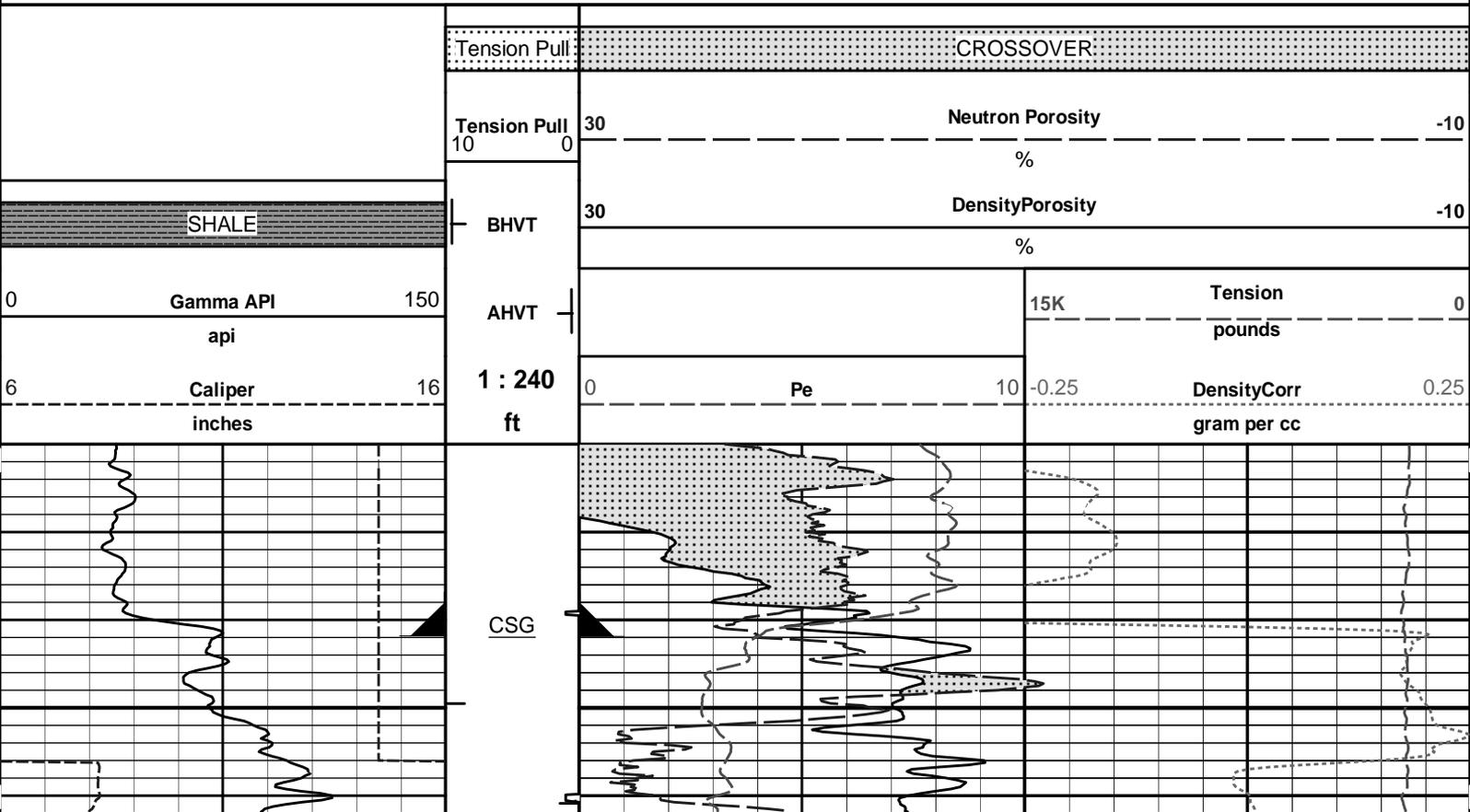
HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.

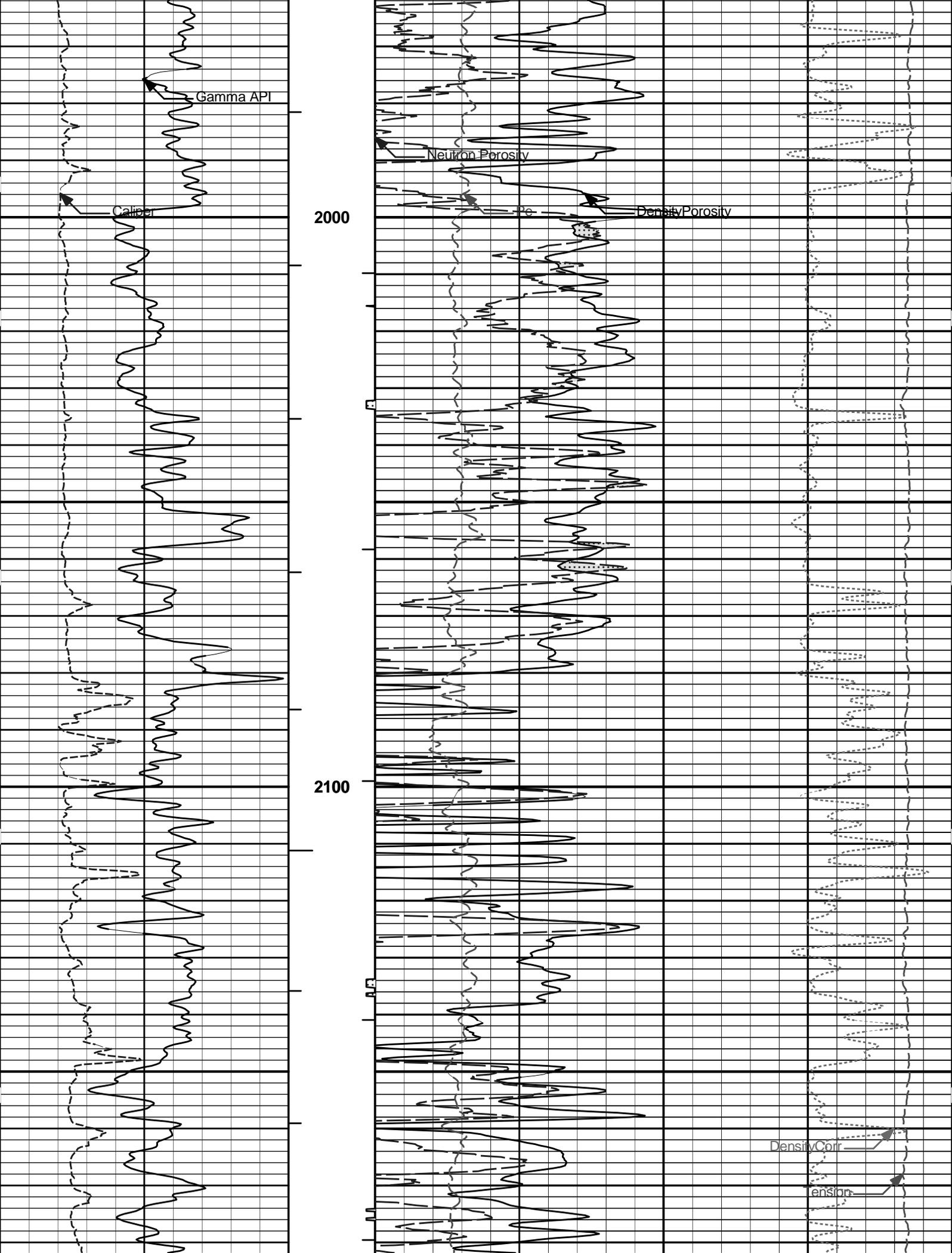
HALLIBURTON

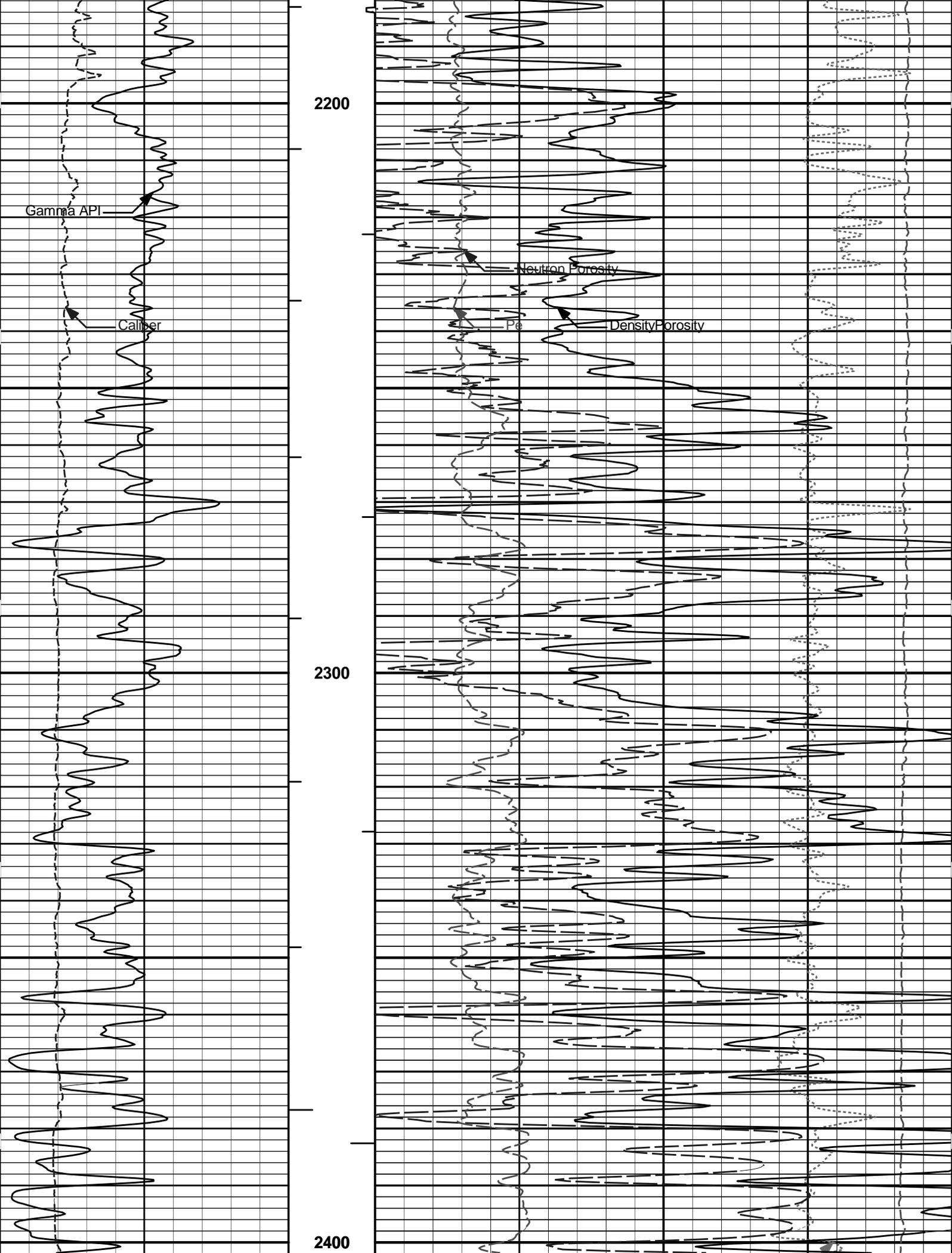


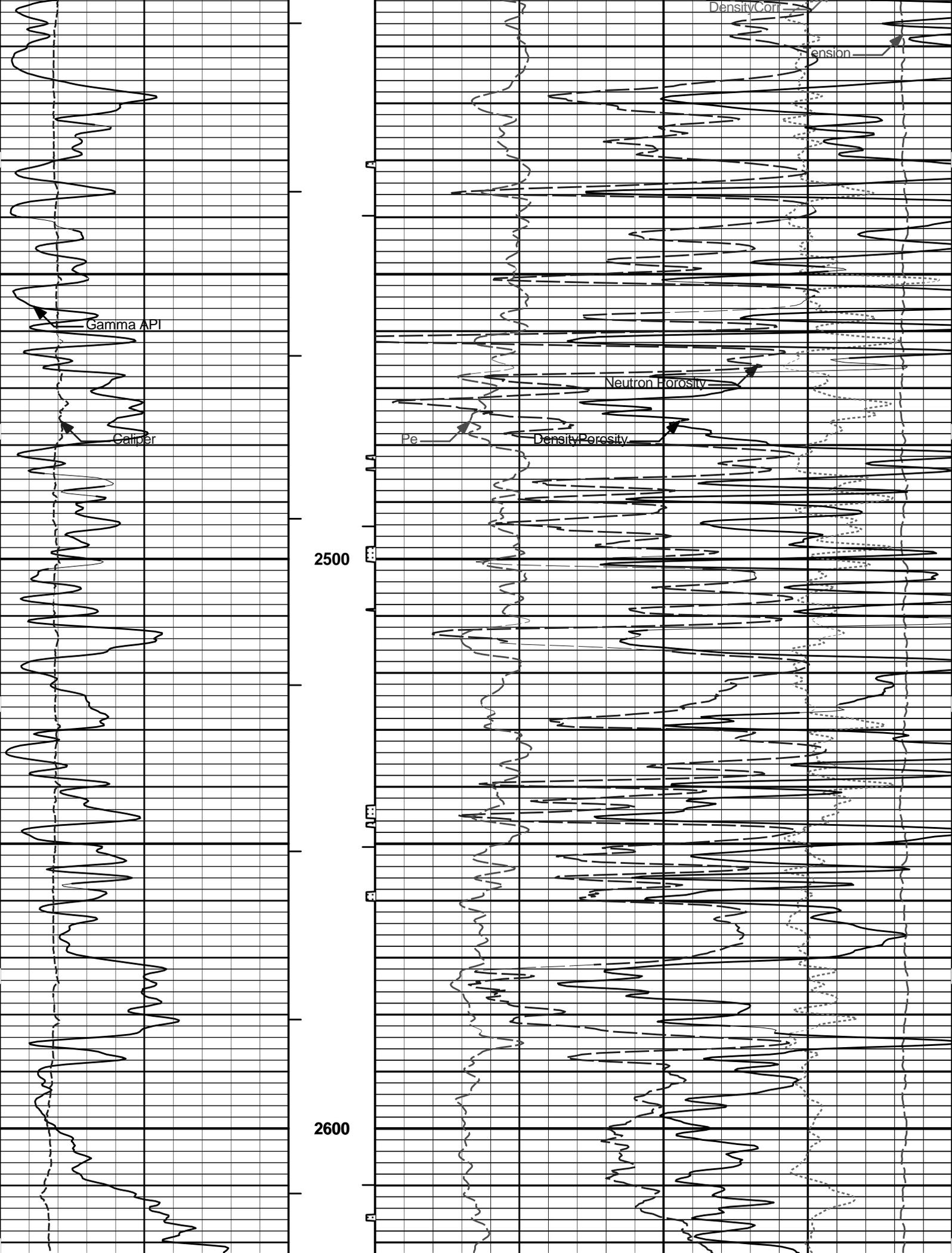
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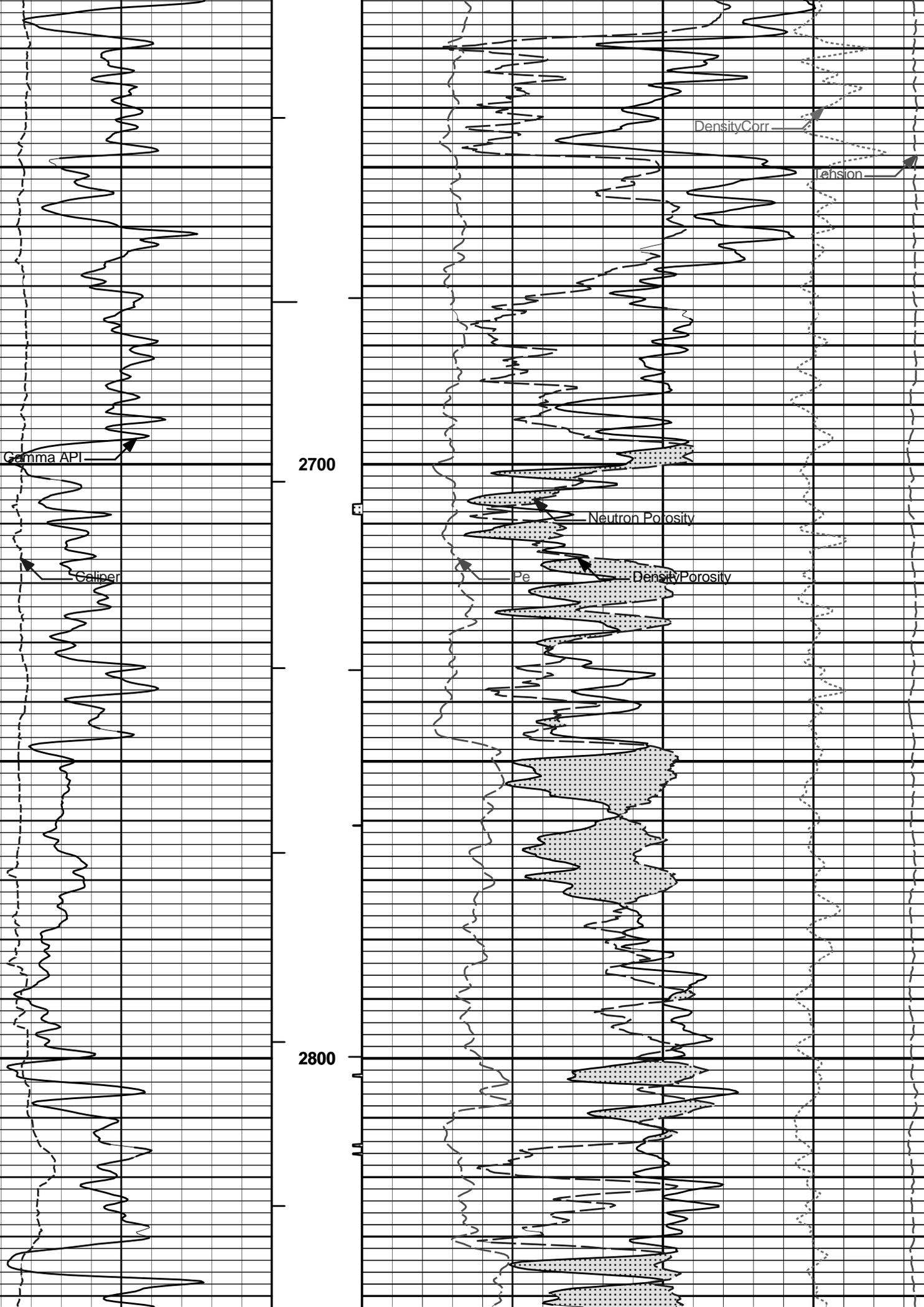
5 INCH MAIN LOG

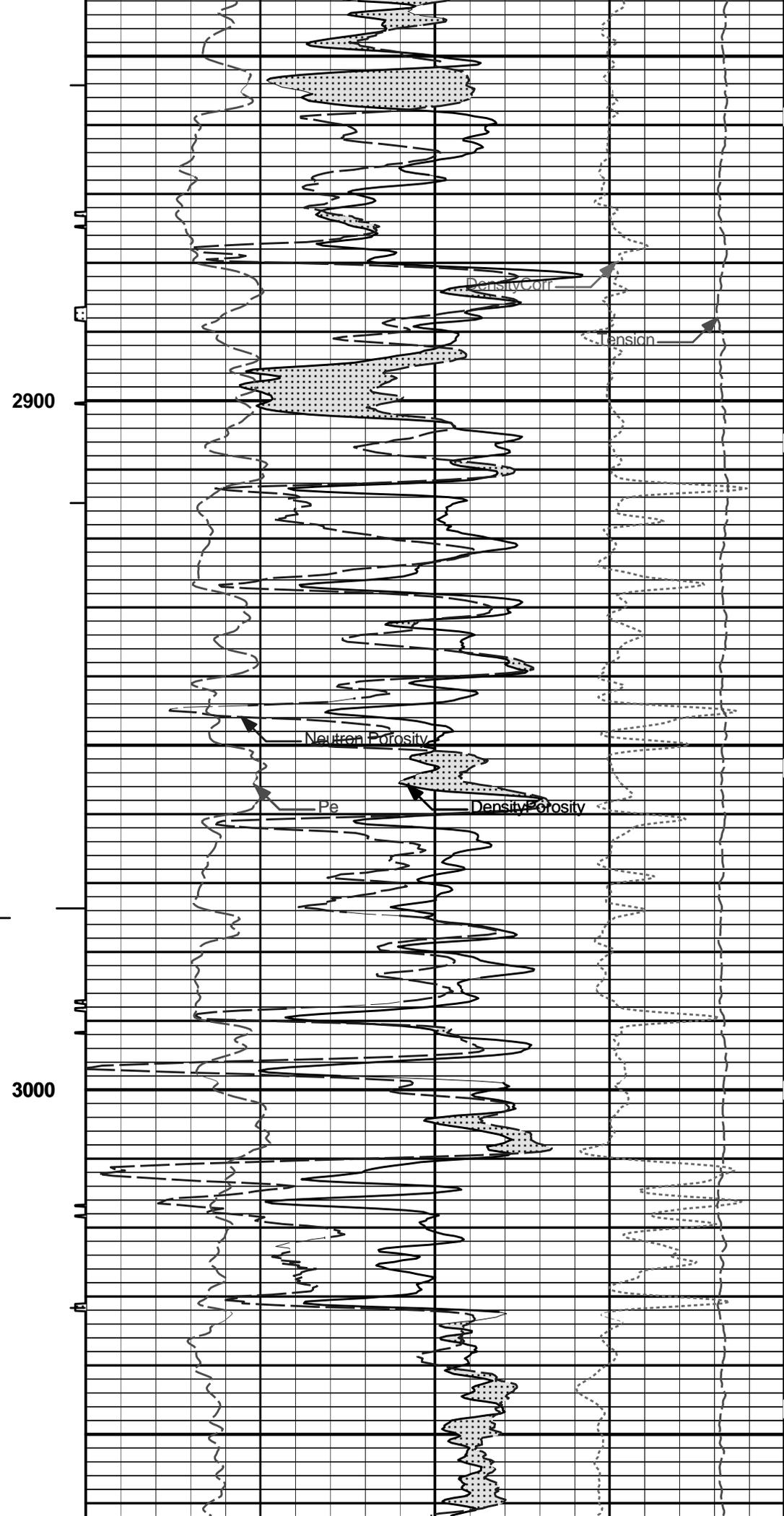
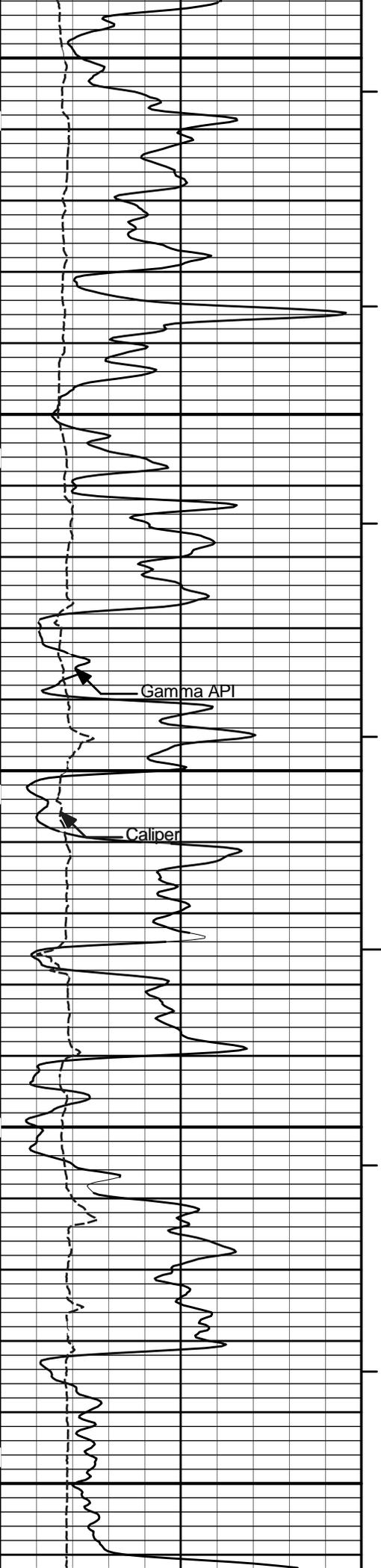


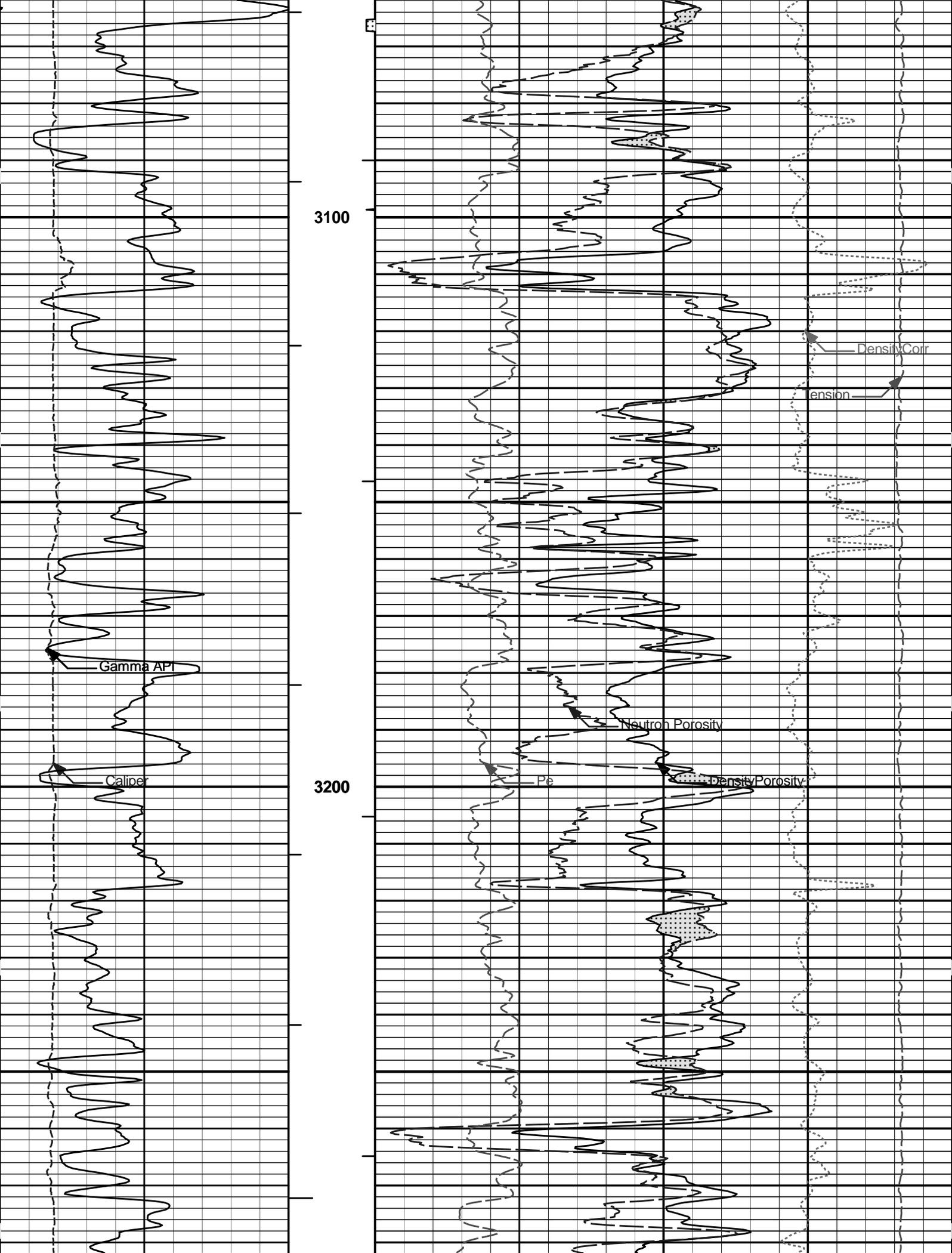


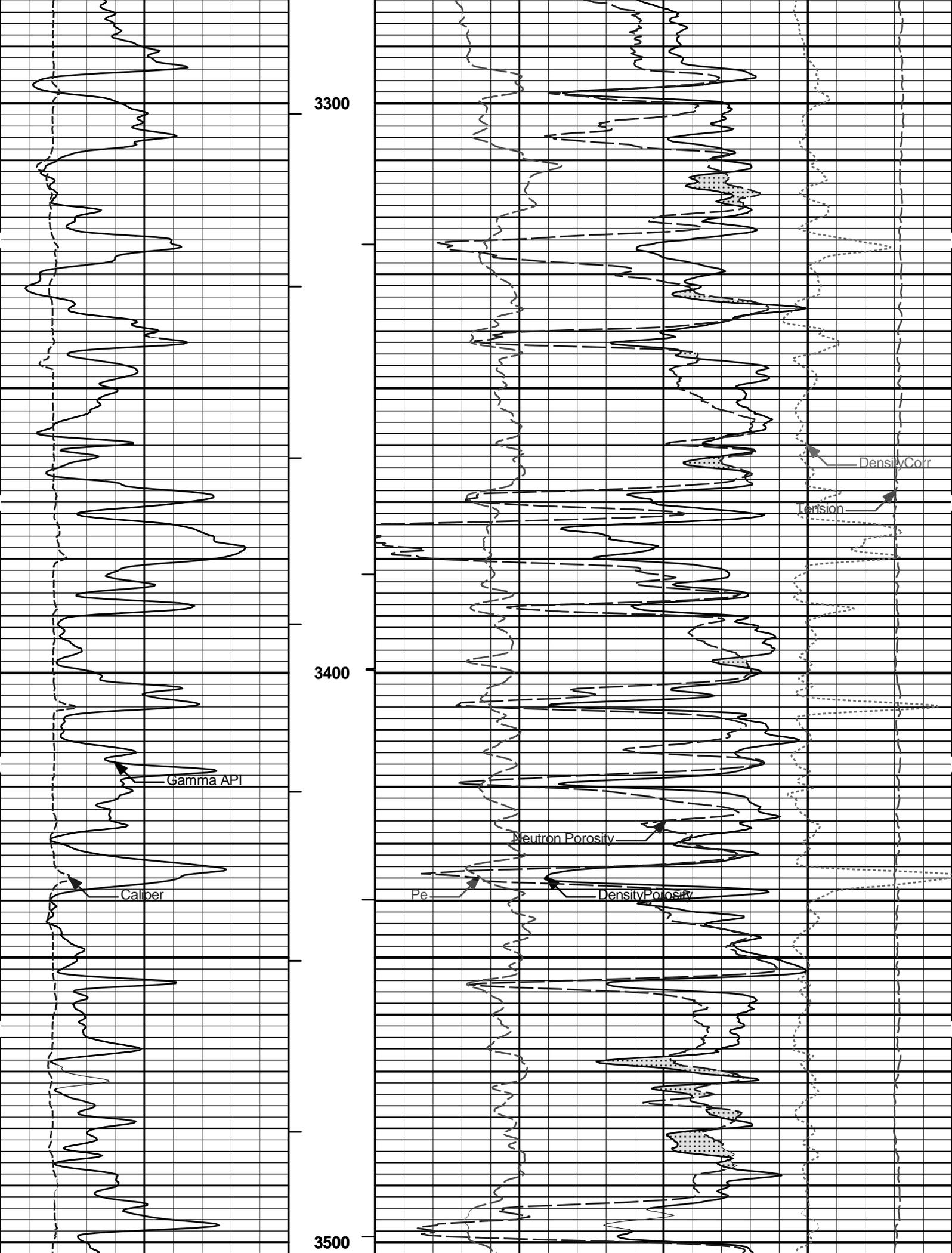




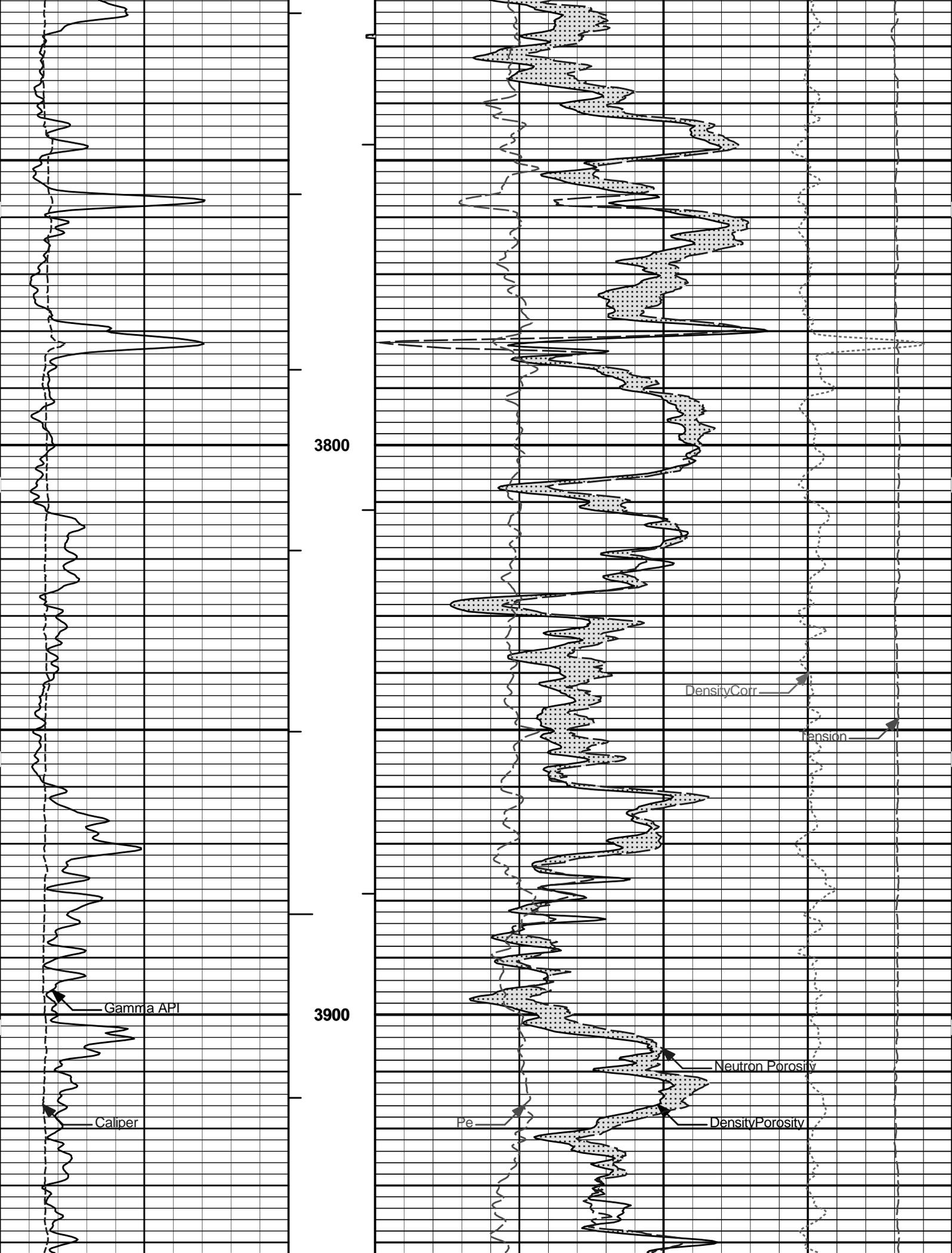


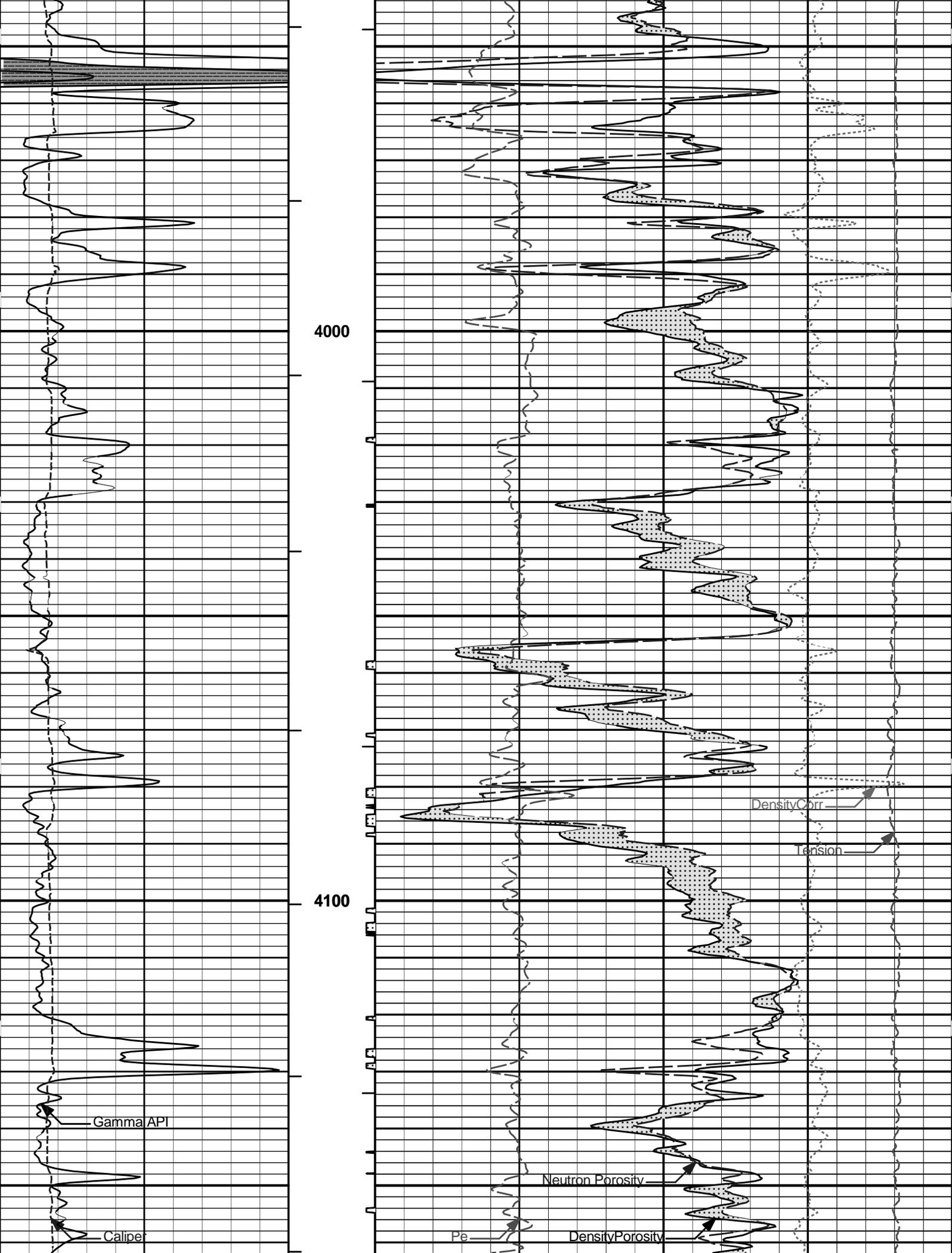


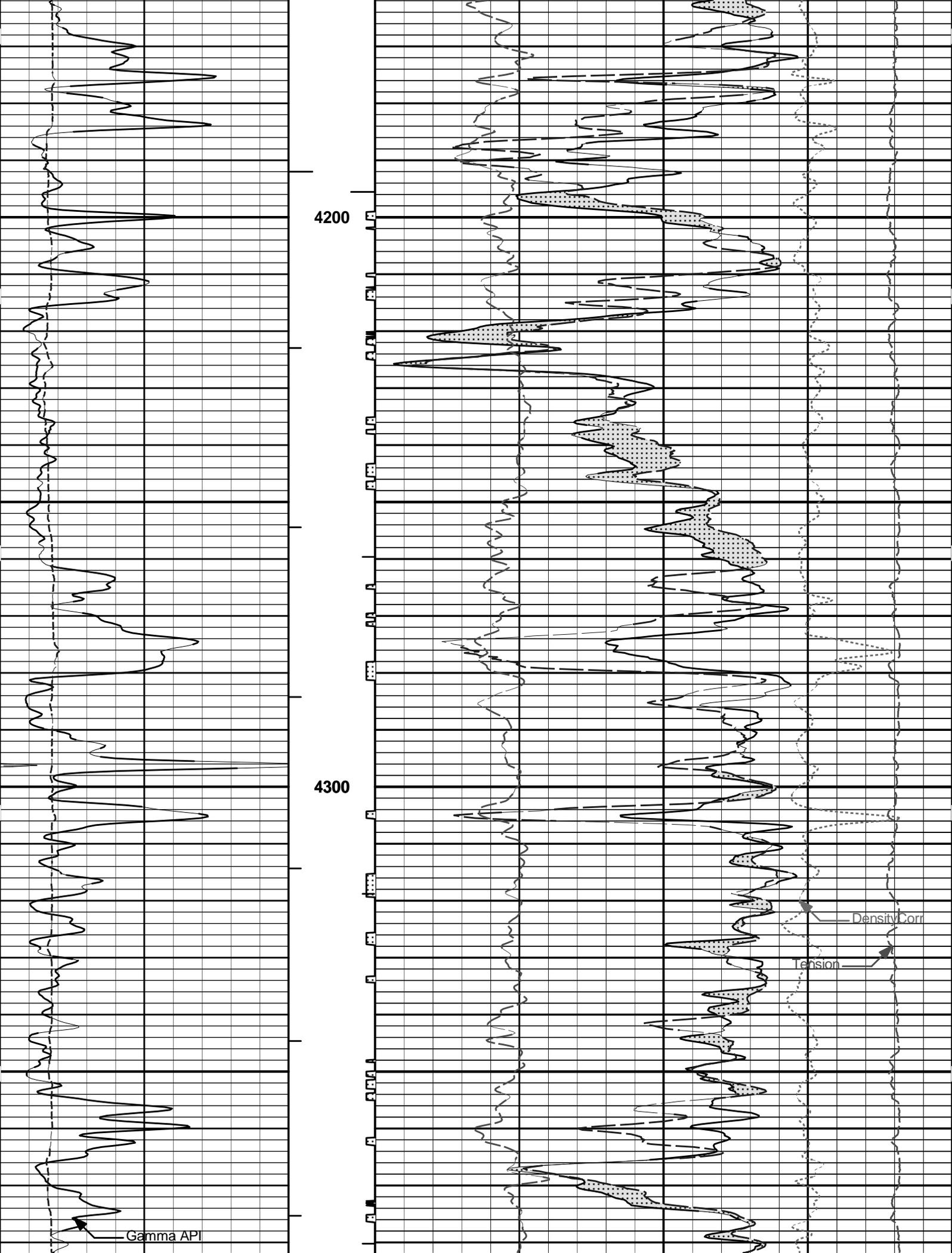


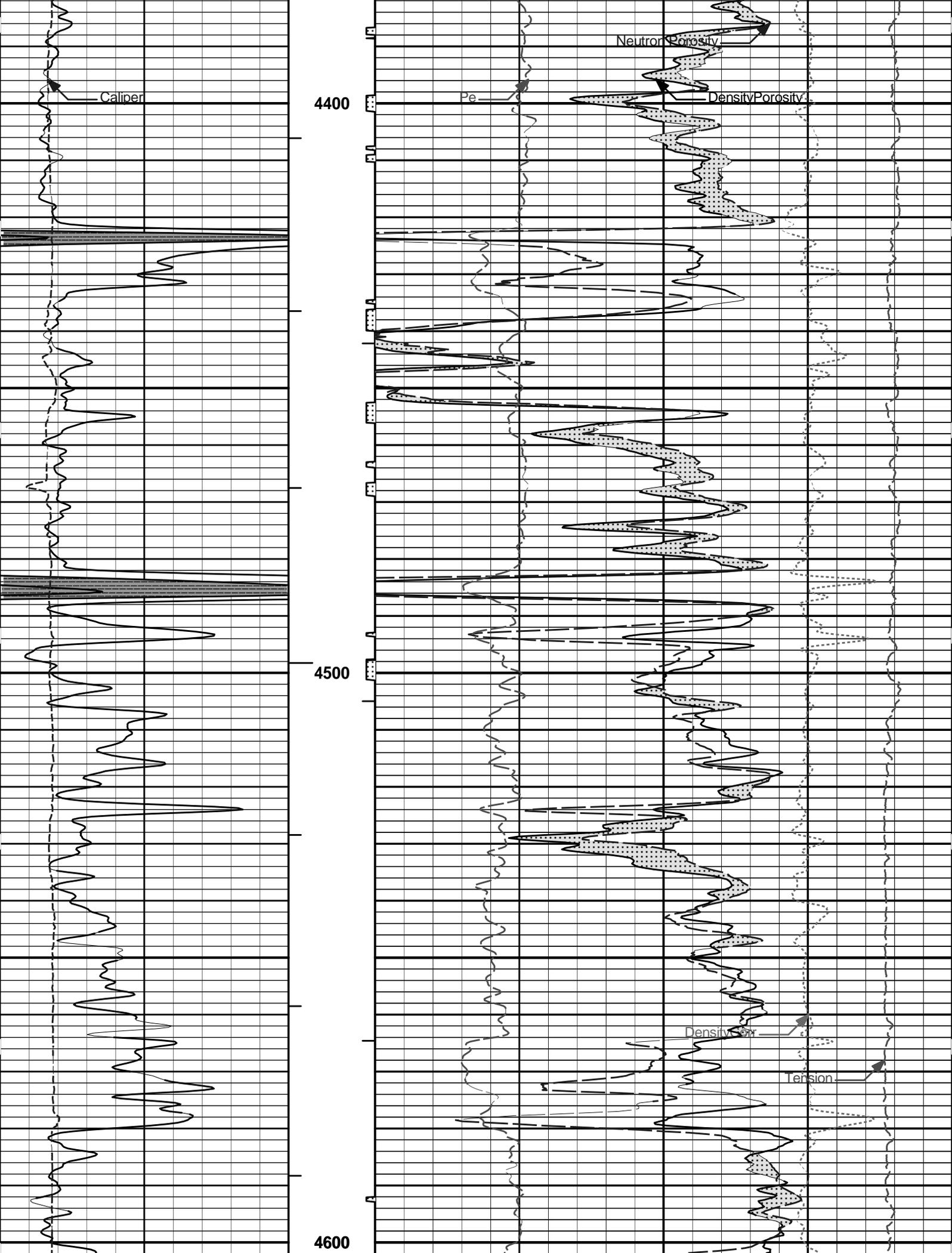


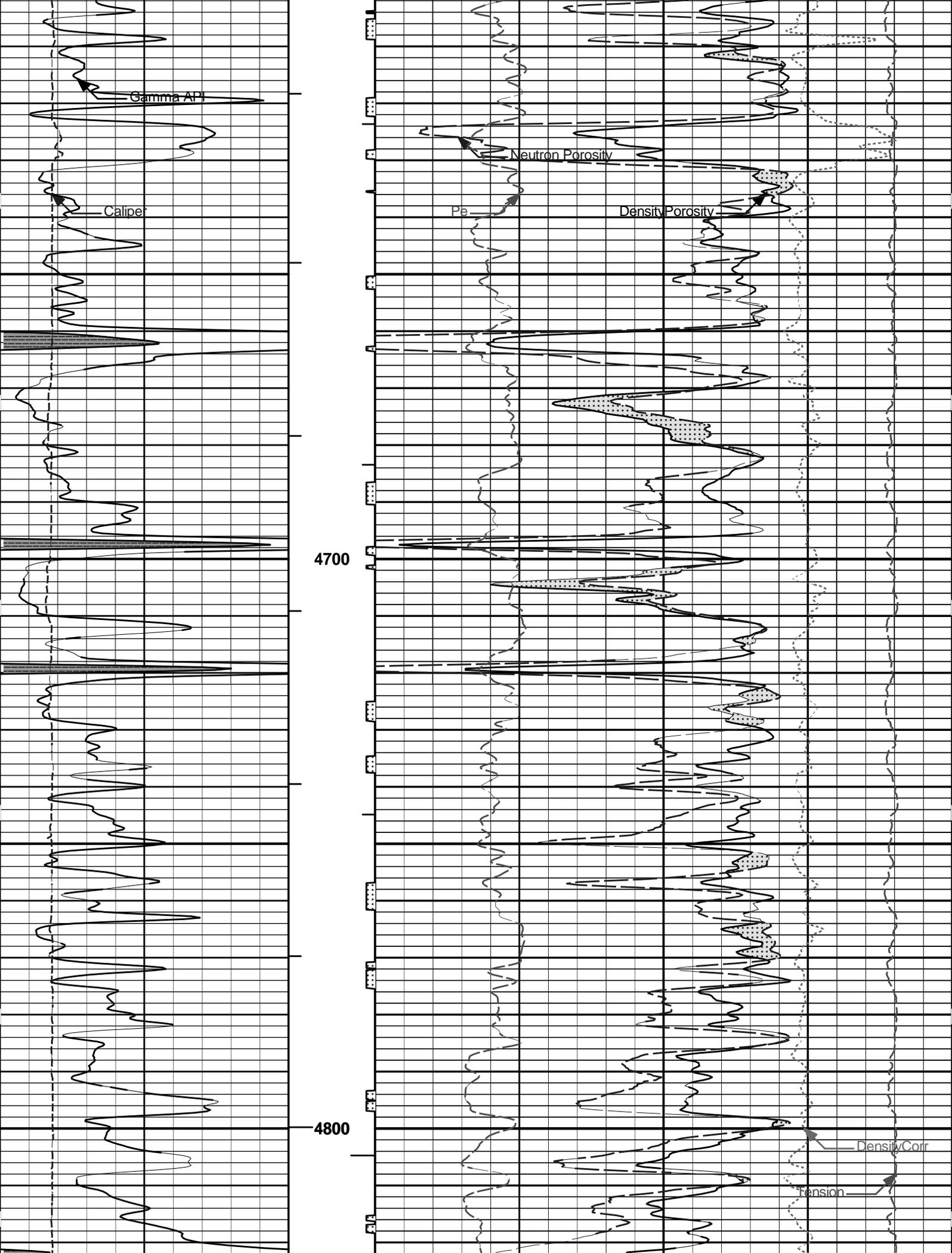


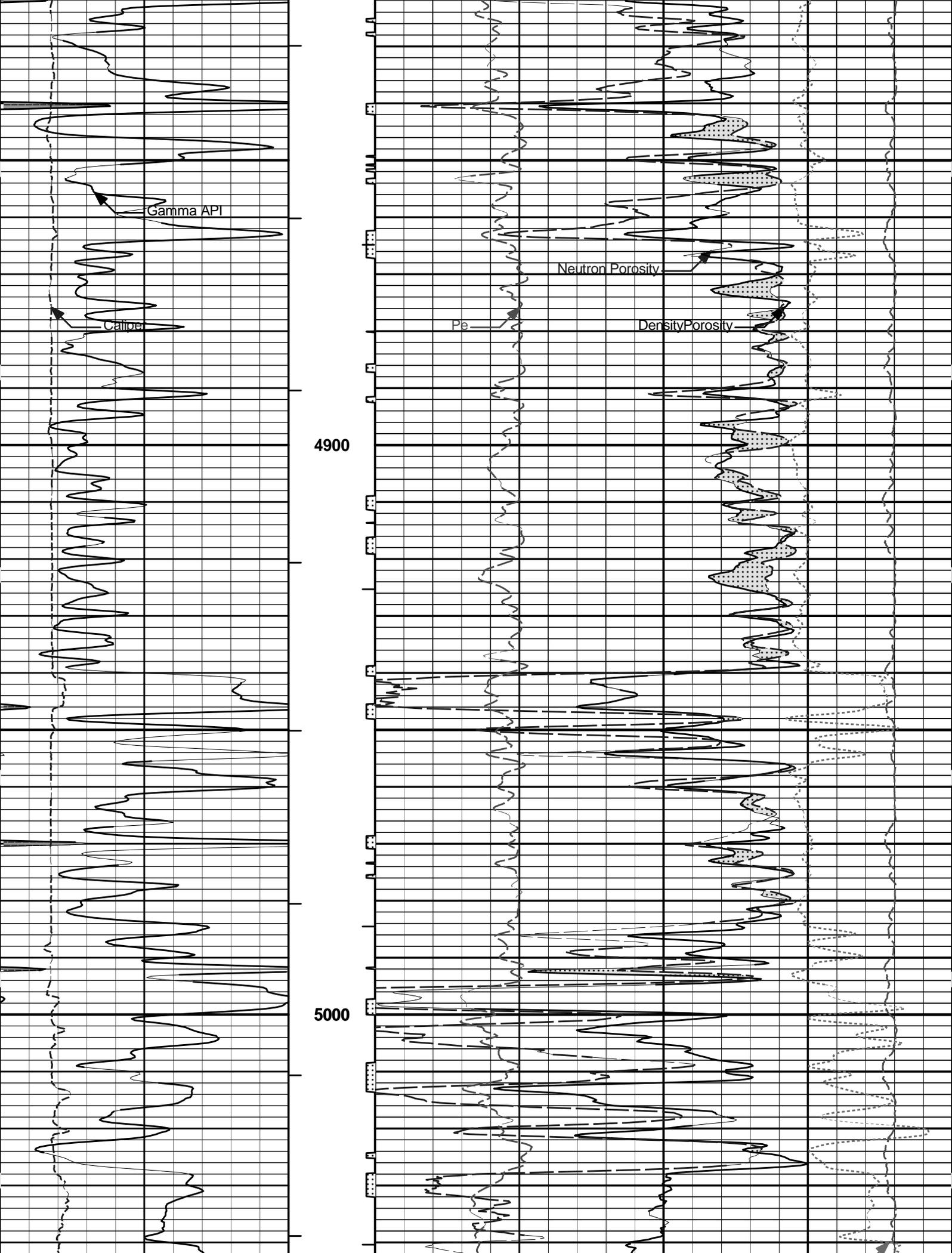


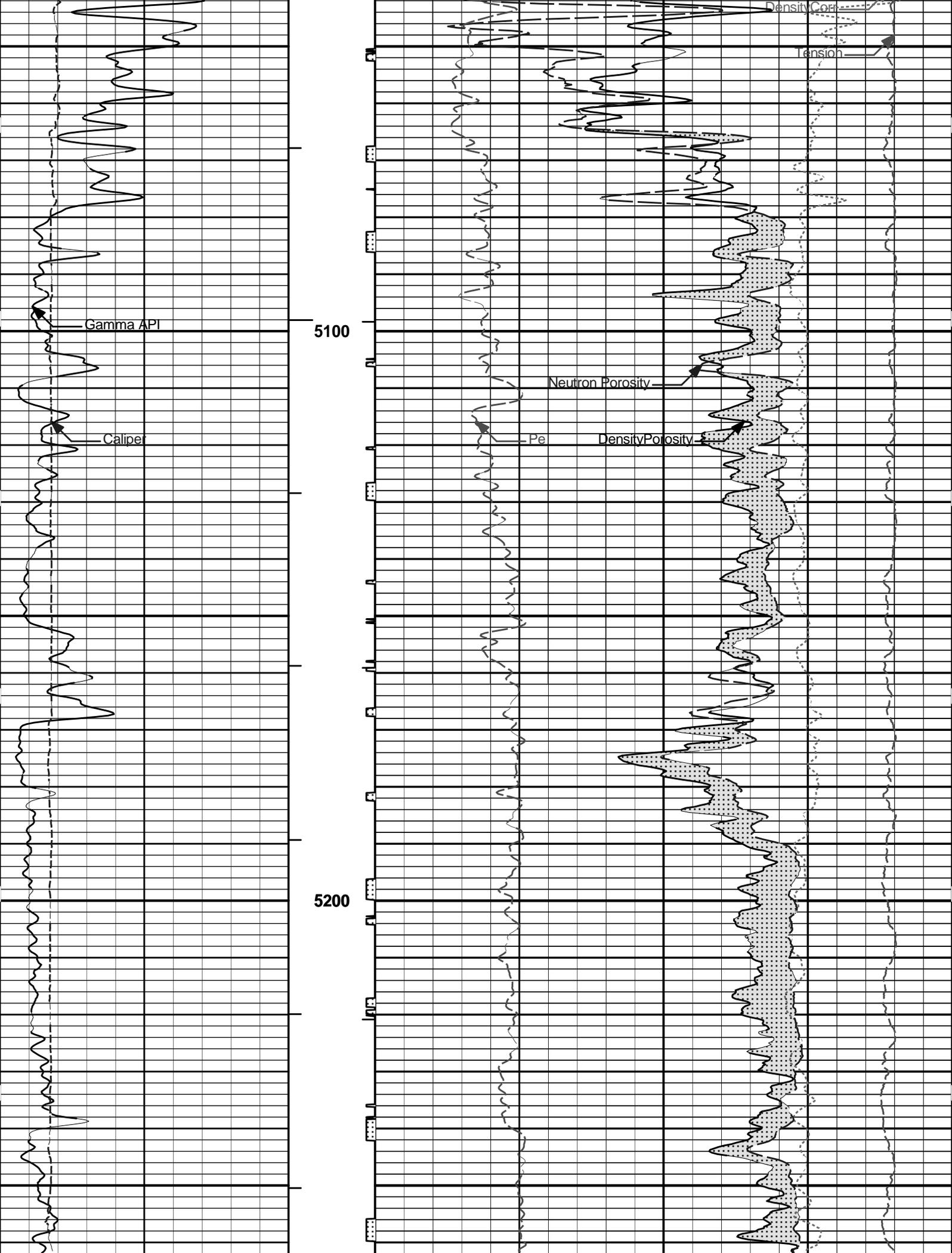


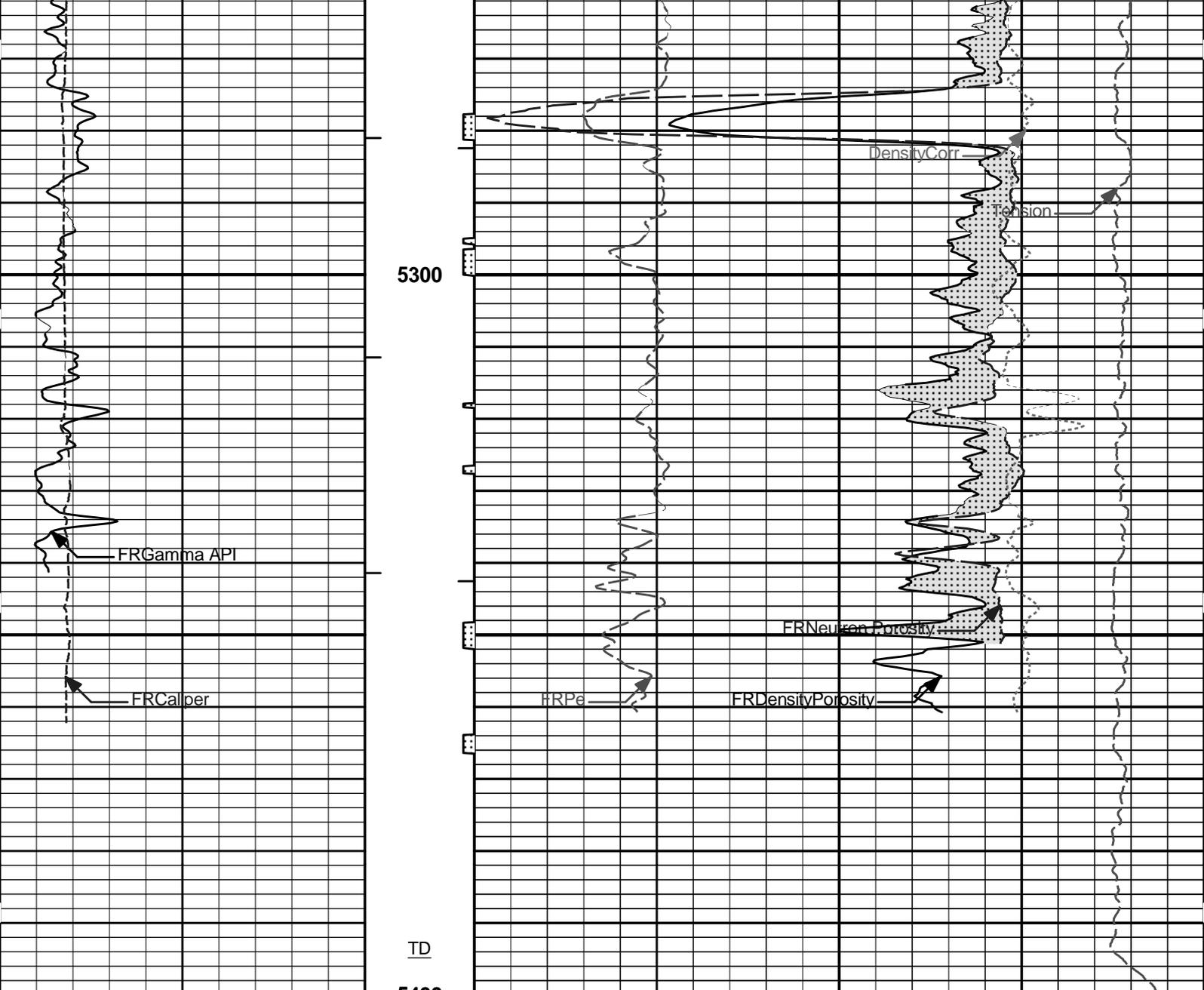












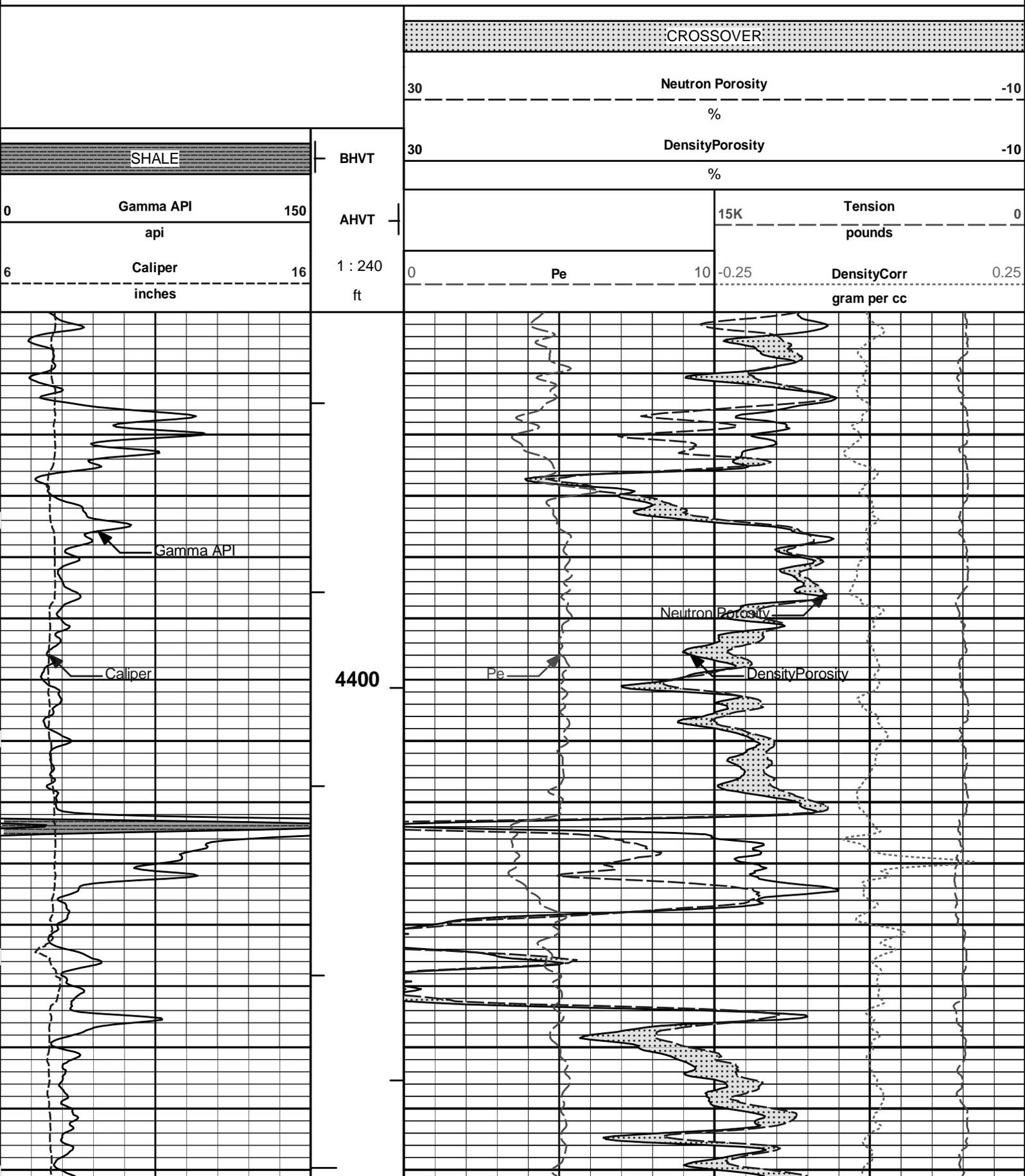
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0	Gamma API	150	AHVT				15K	Tension	0
	api							pounds	
	SHALE		BHVT	30	DensityPorosity				-10
					%				
			Tension Pull	30	Neutron Porosity				-10
			10	0	%				
			Tension Pull		CROSSOVER				

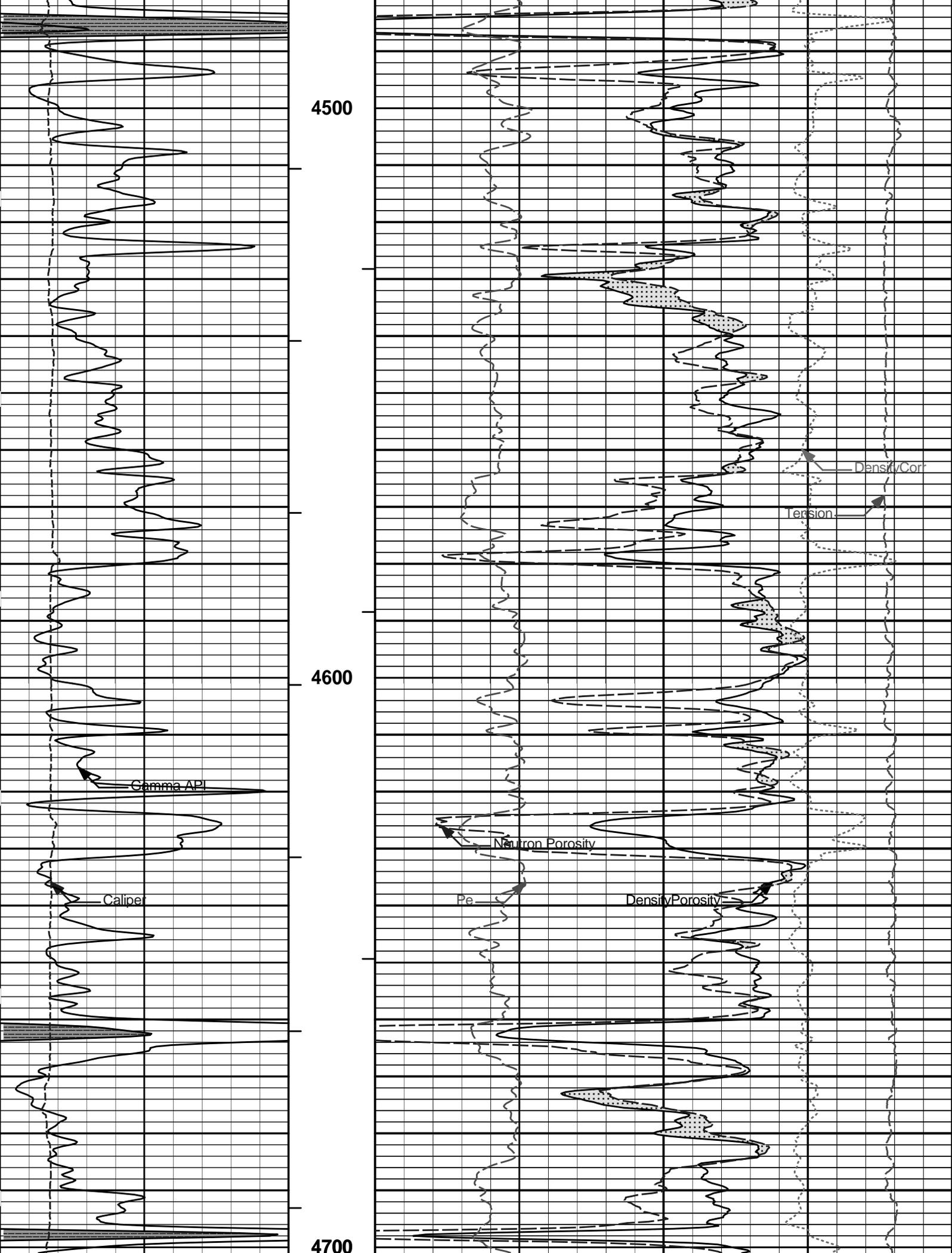
HALLIBURTON

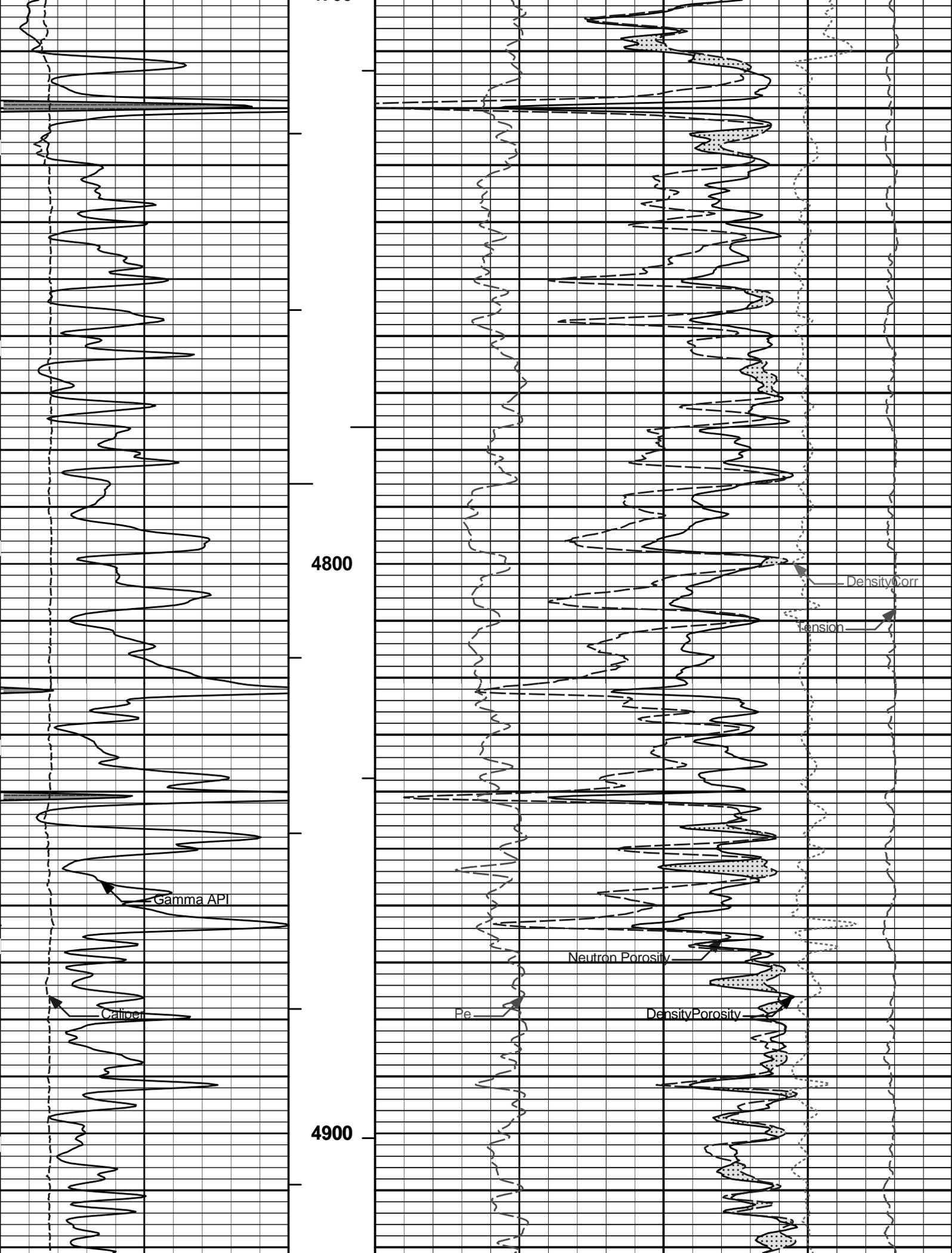
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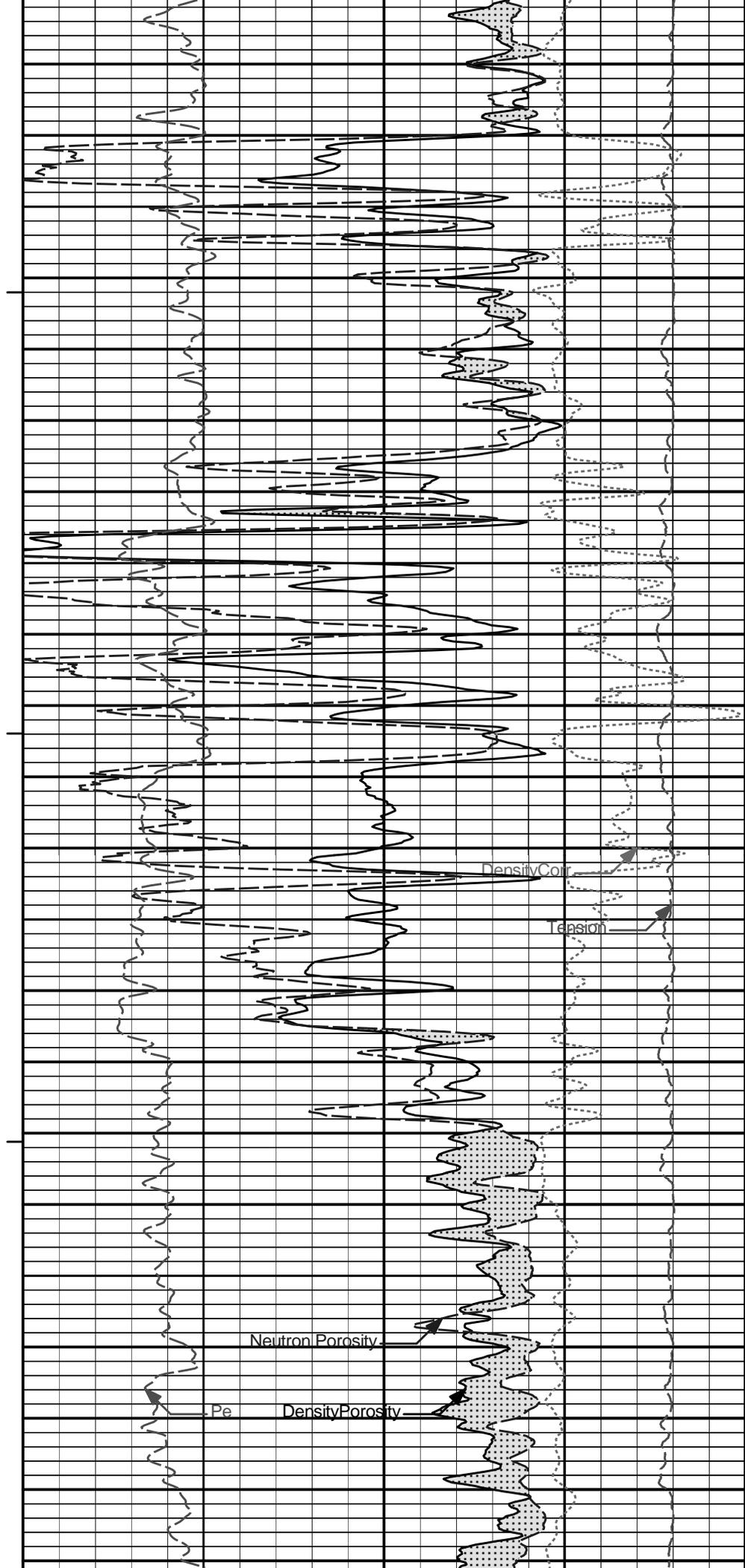
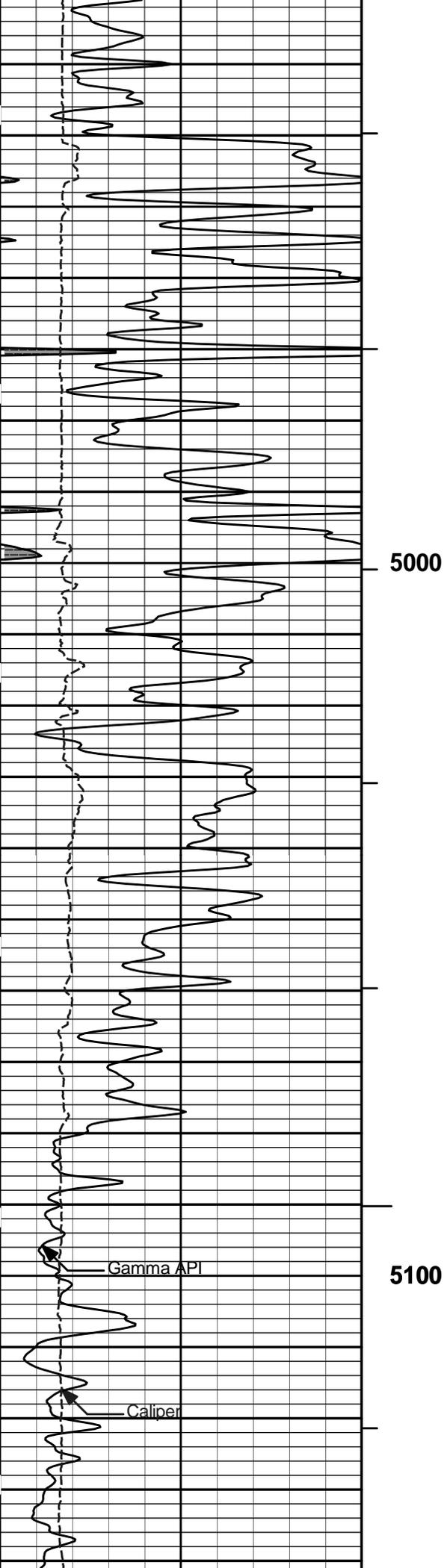
5 INCH MAIN LOG

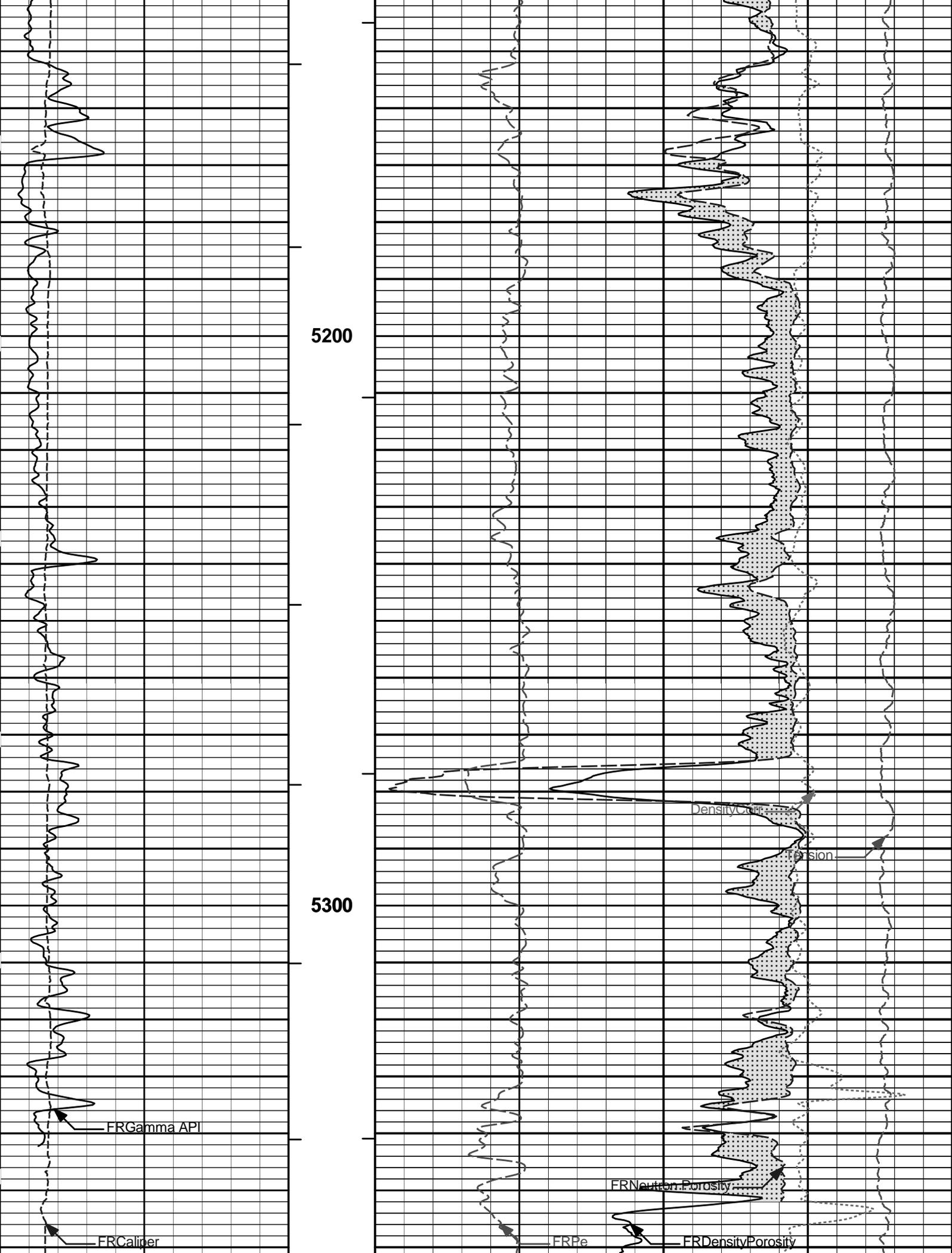
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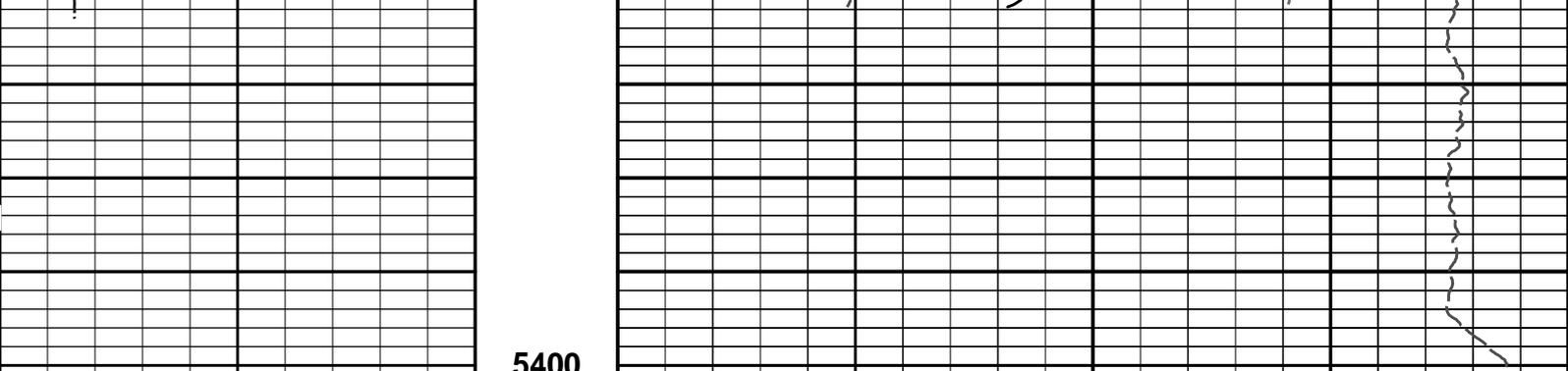












5400

6	Caliper inches	16	1 : 240 ft	0	Pe	10	-0.25	DensityCorr gram per cc	0.25
0	Gamma API api	150	AHVT				15K	Tension pounds	0
SHALE			BHVT	30	DensityPorosity				-10
								%	
				30	Neutron Porosity				-10
								%	
				CROSSOVER:					

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Plot Time: 26-Apr-11 23:04:21
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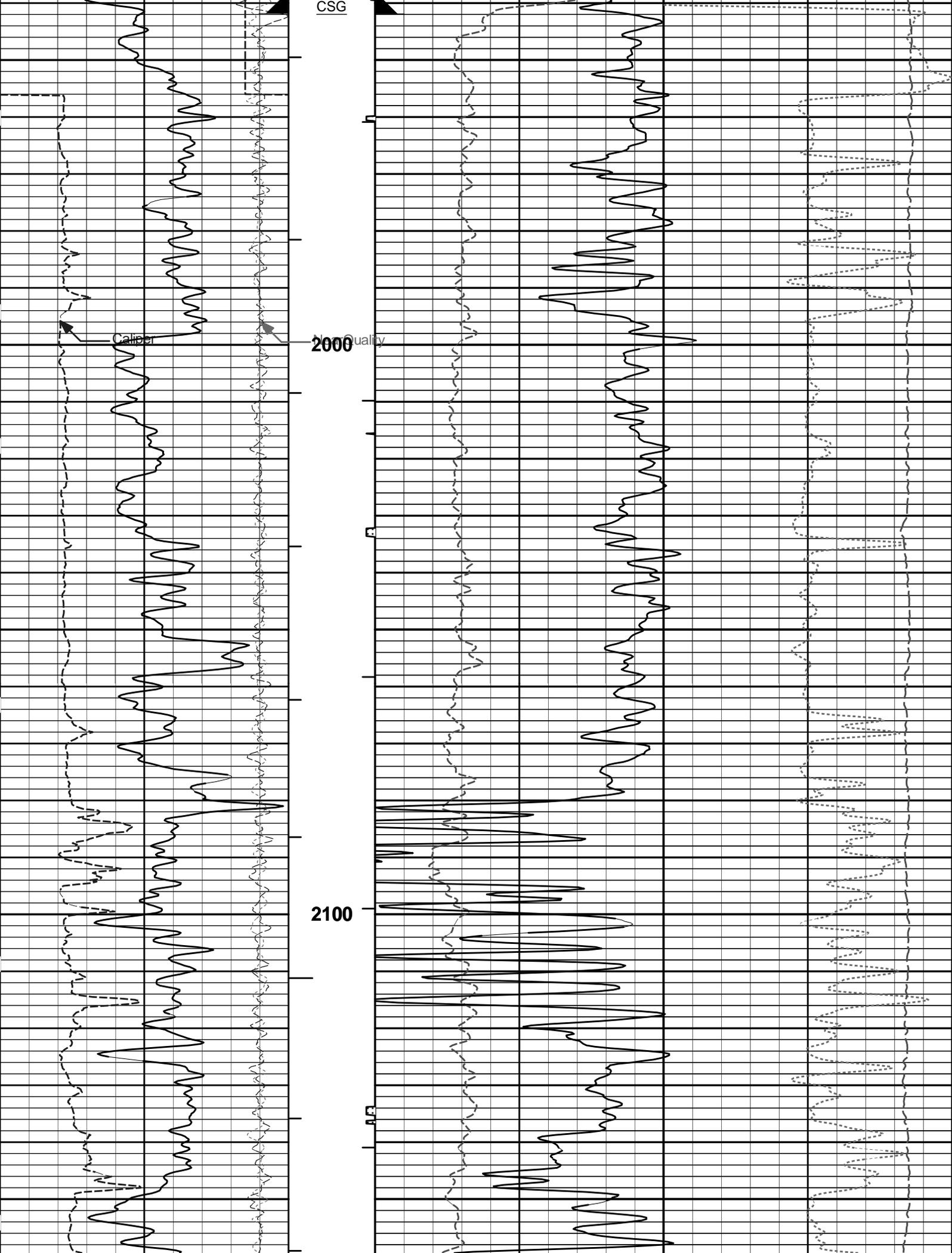
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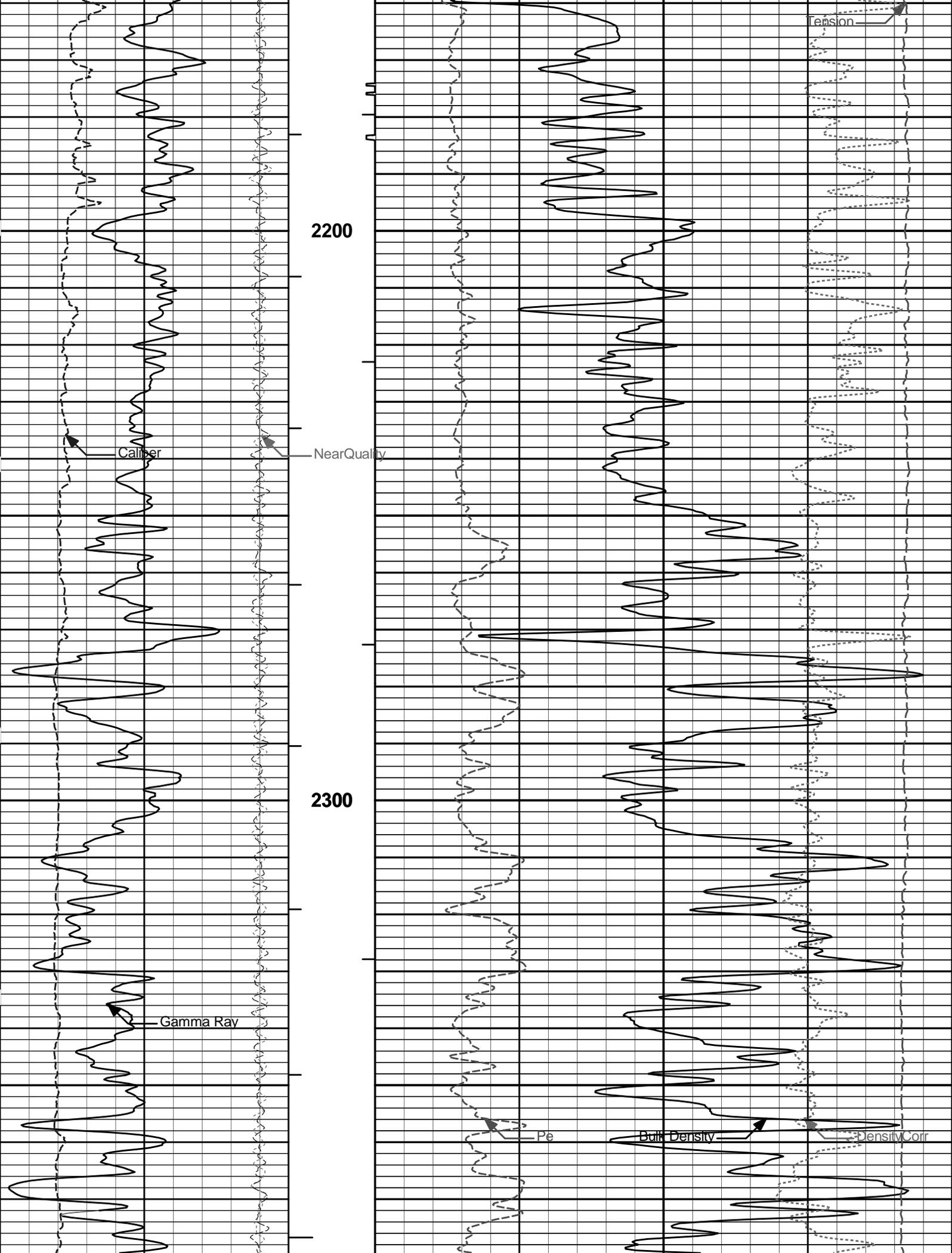
HALLIBURTON

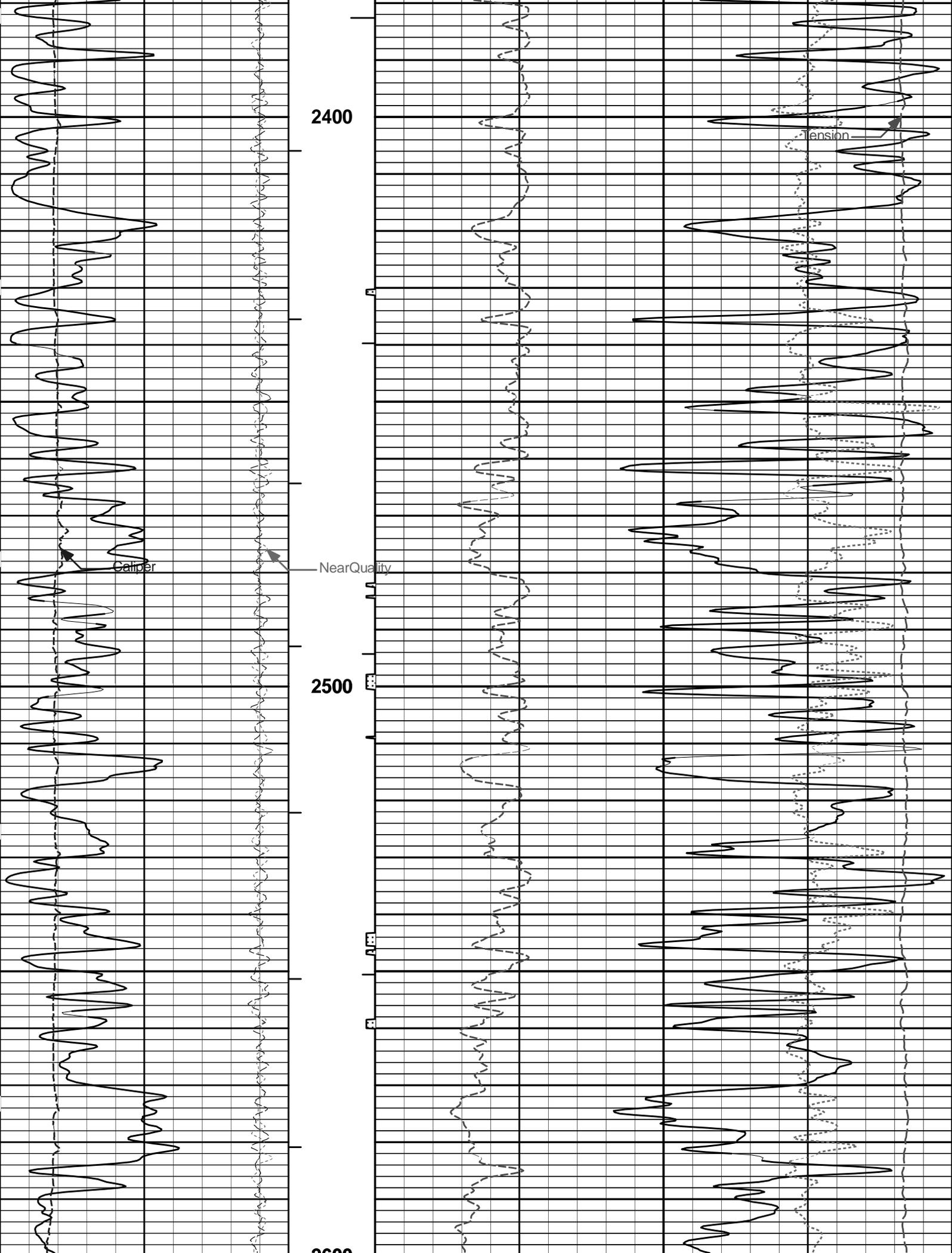
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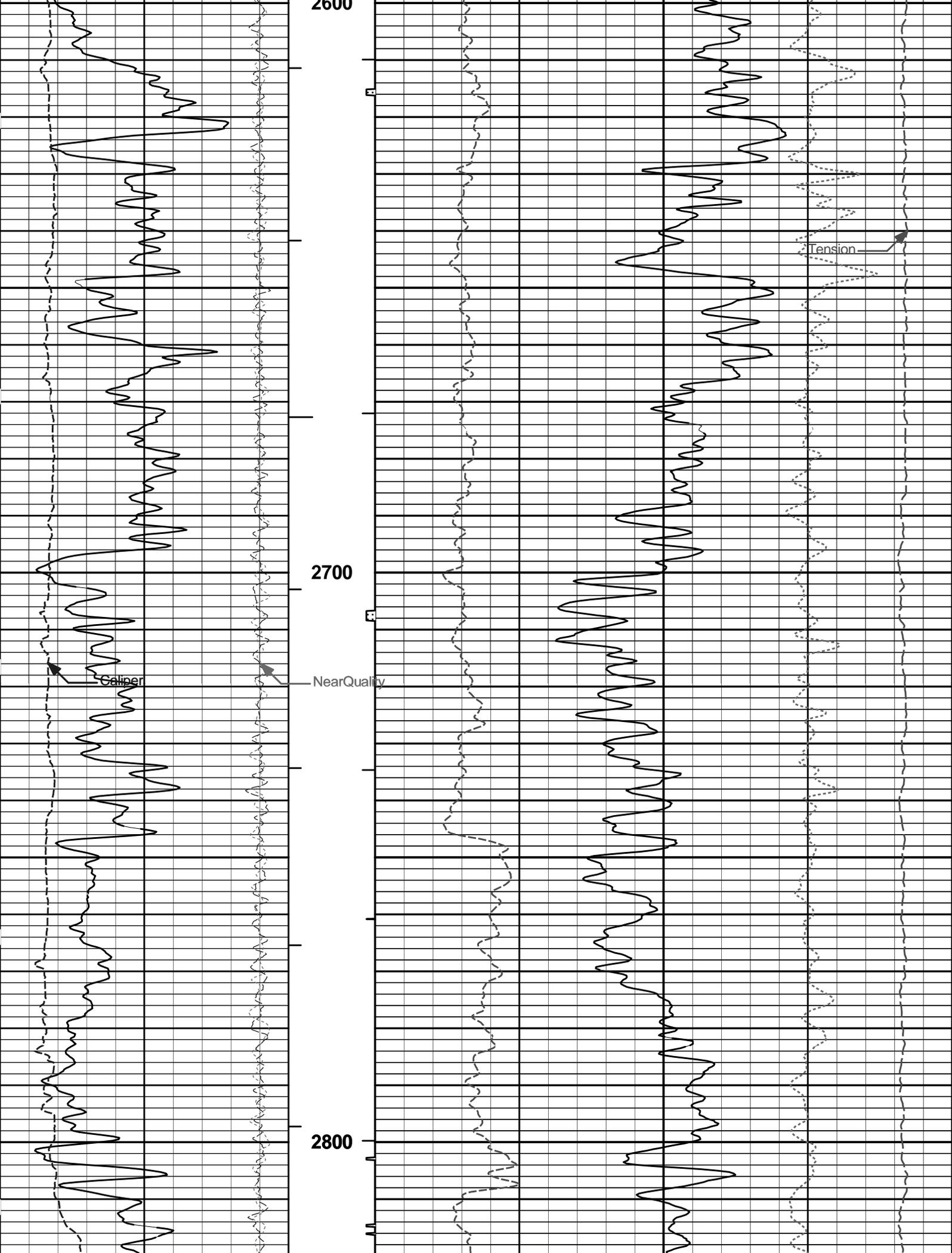
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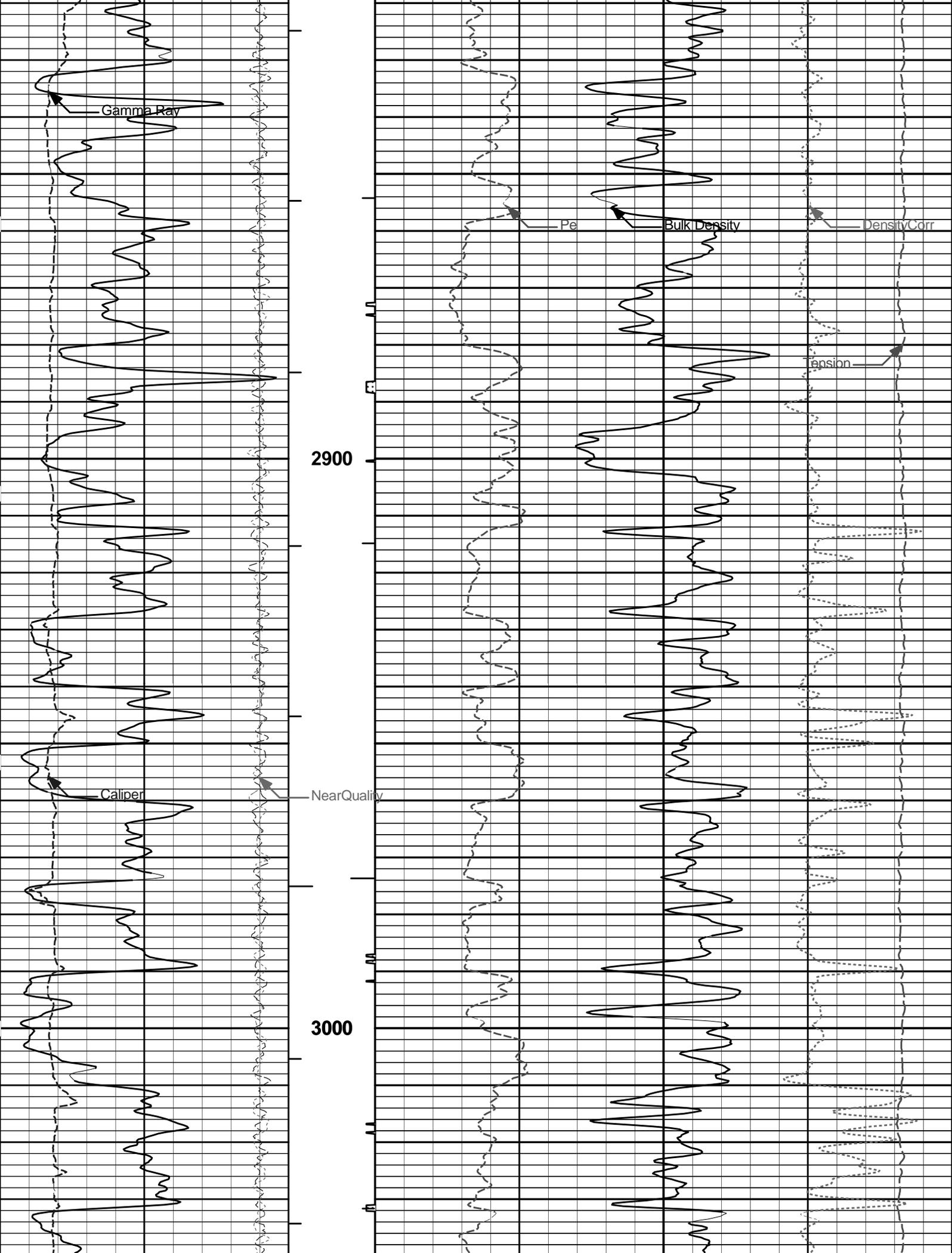
SHALE			Tension Pull						
0	Gamma Ray api	150	Tension Pull 10	0					
18	FarQuality	-2	AHV ft3	2	Bulk Density				3
					g/cc				
-18	NearQuality	2	BHV ft3			15K	Tension pounds		0
6	Caliper inches	16	1 : 240 ft	0	Pe	10	-0.25	DensityCorr g/cc	0.25

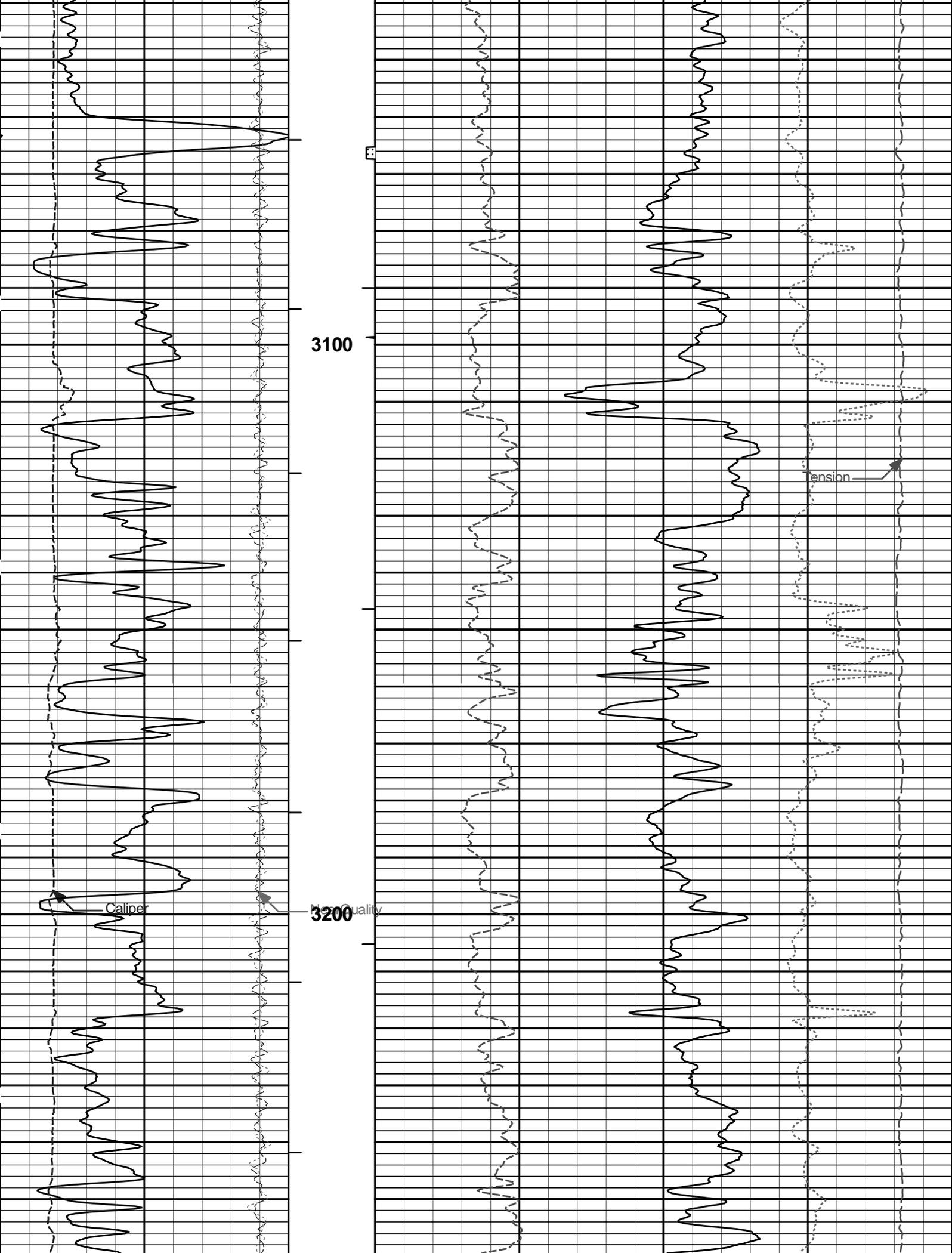


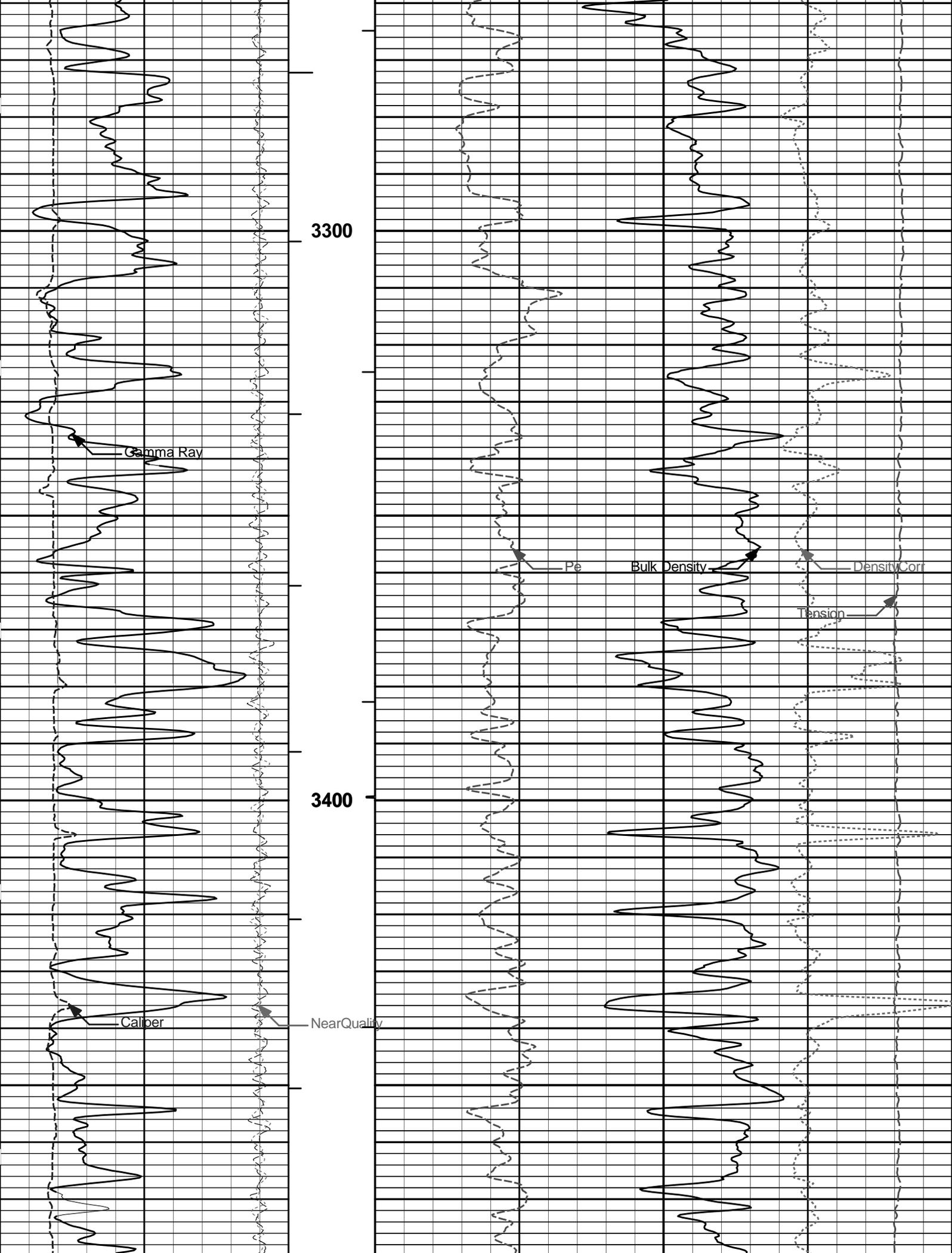


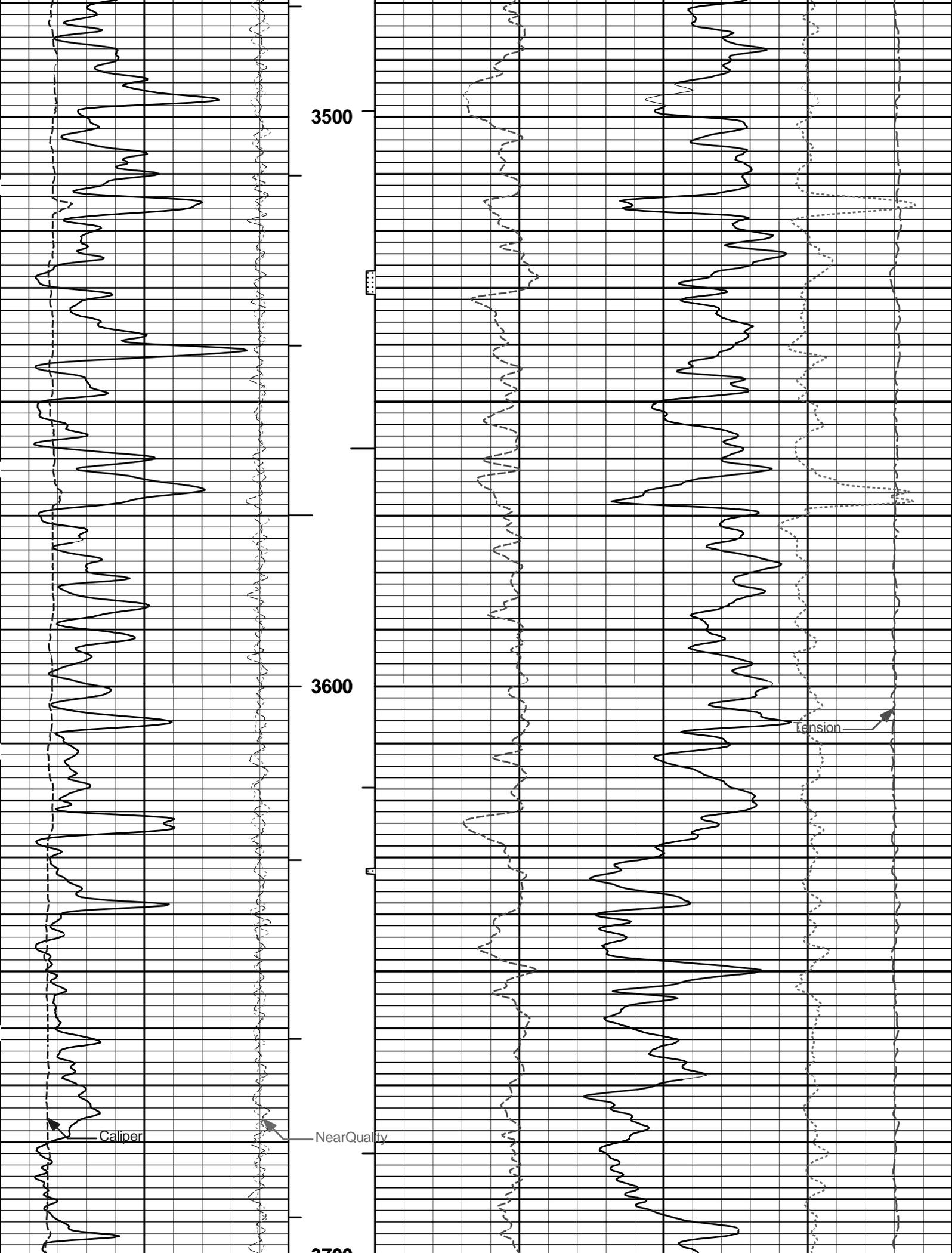


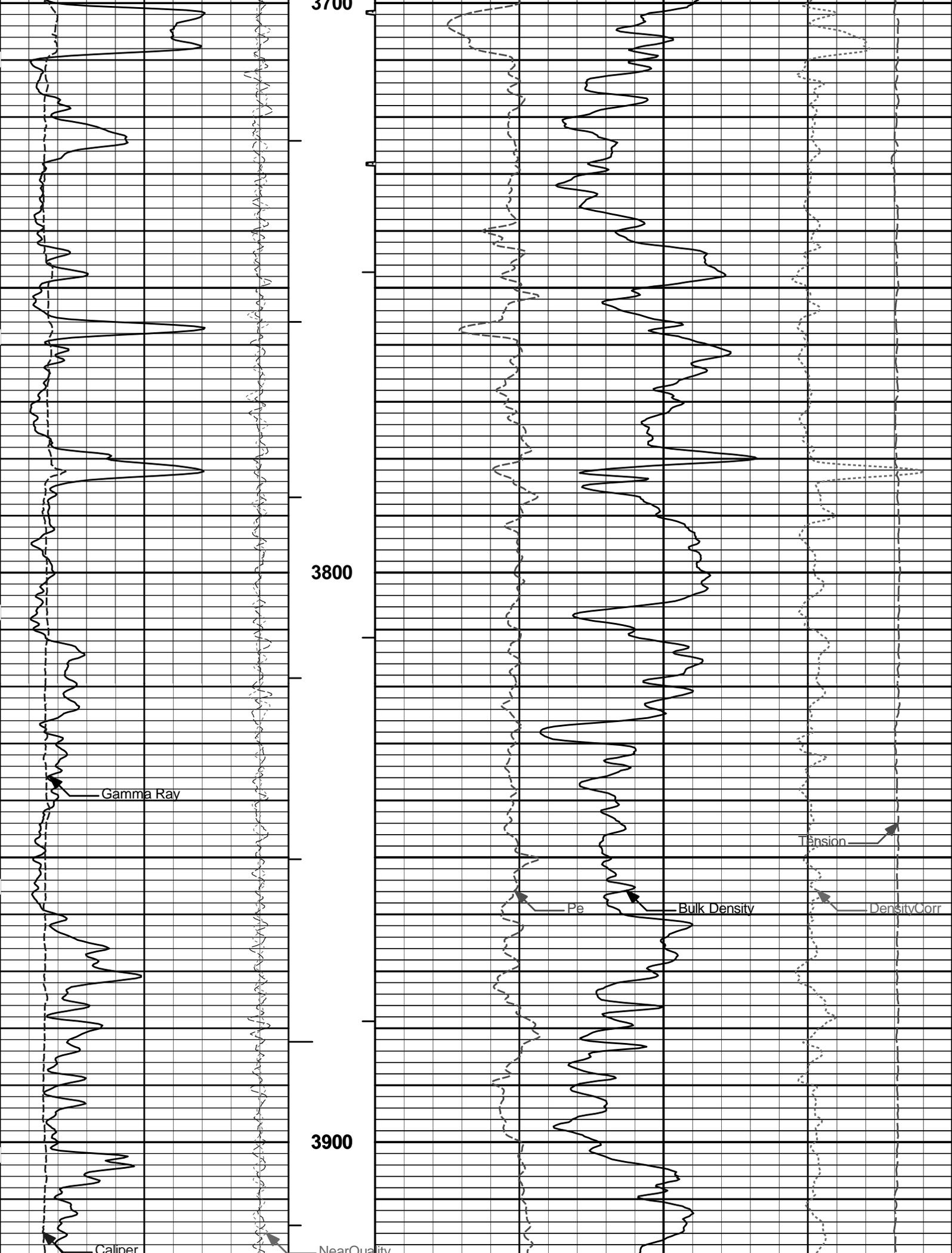


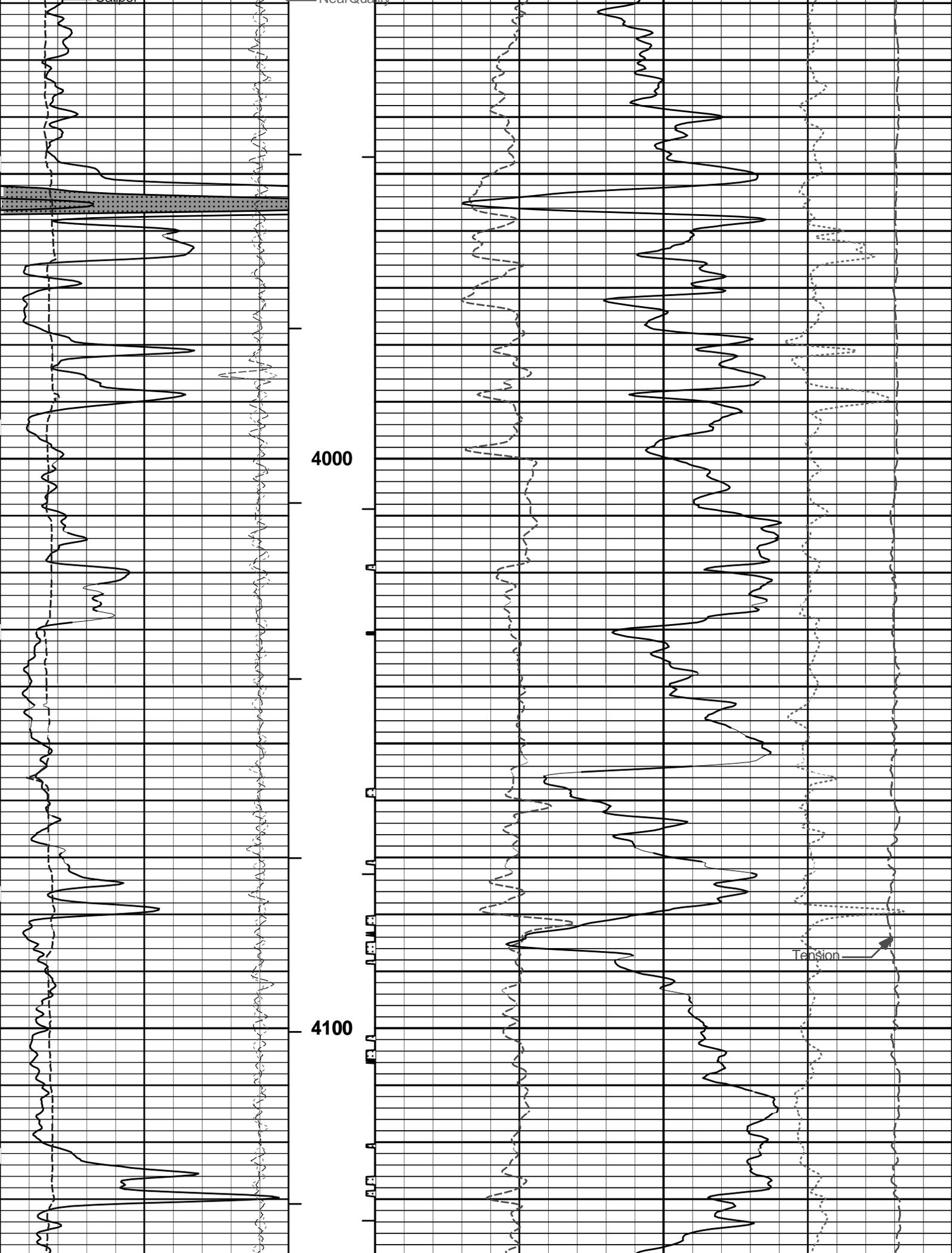


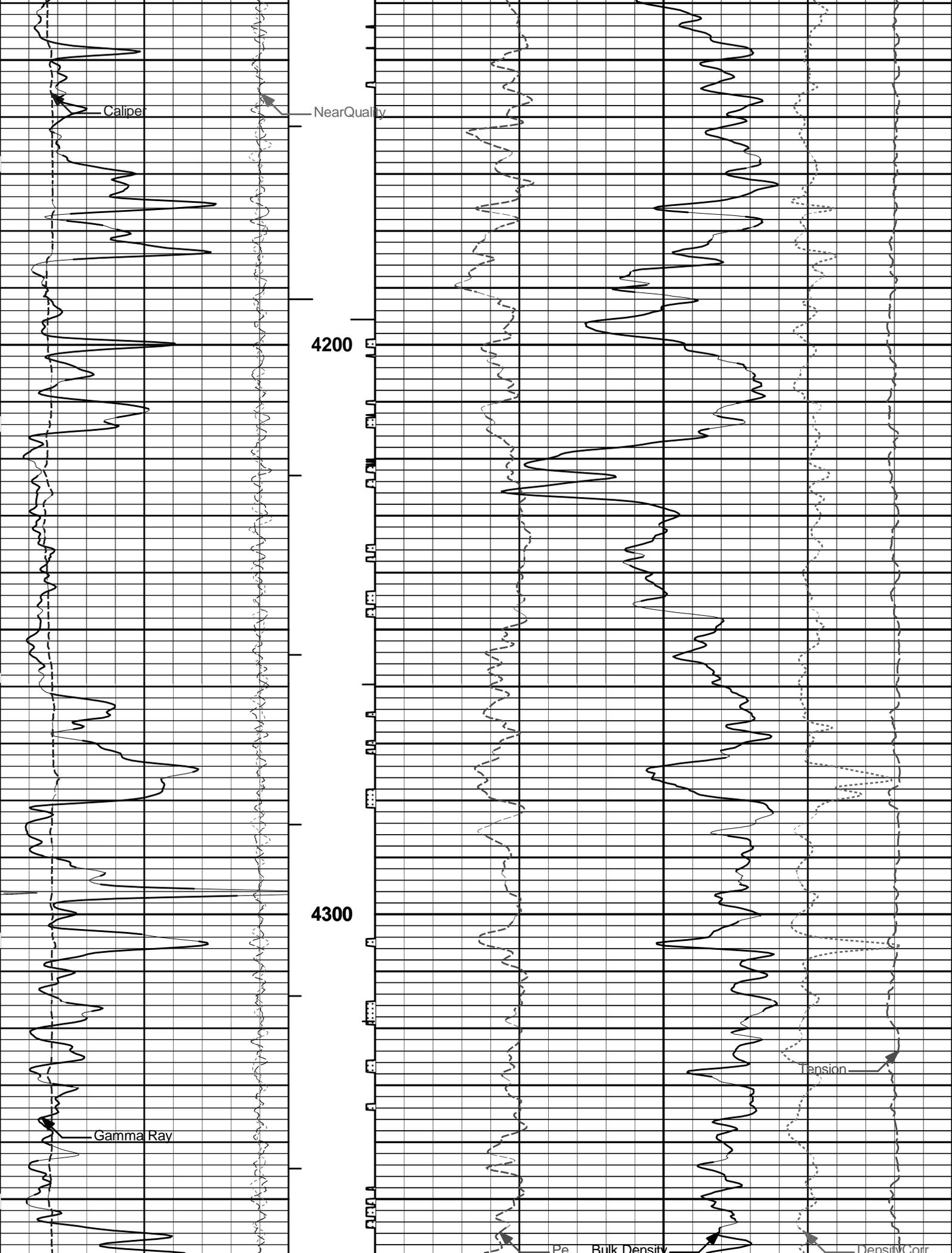


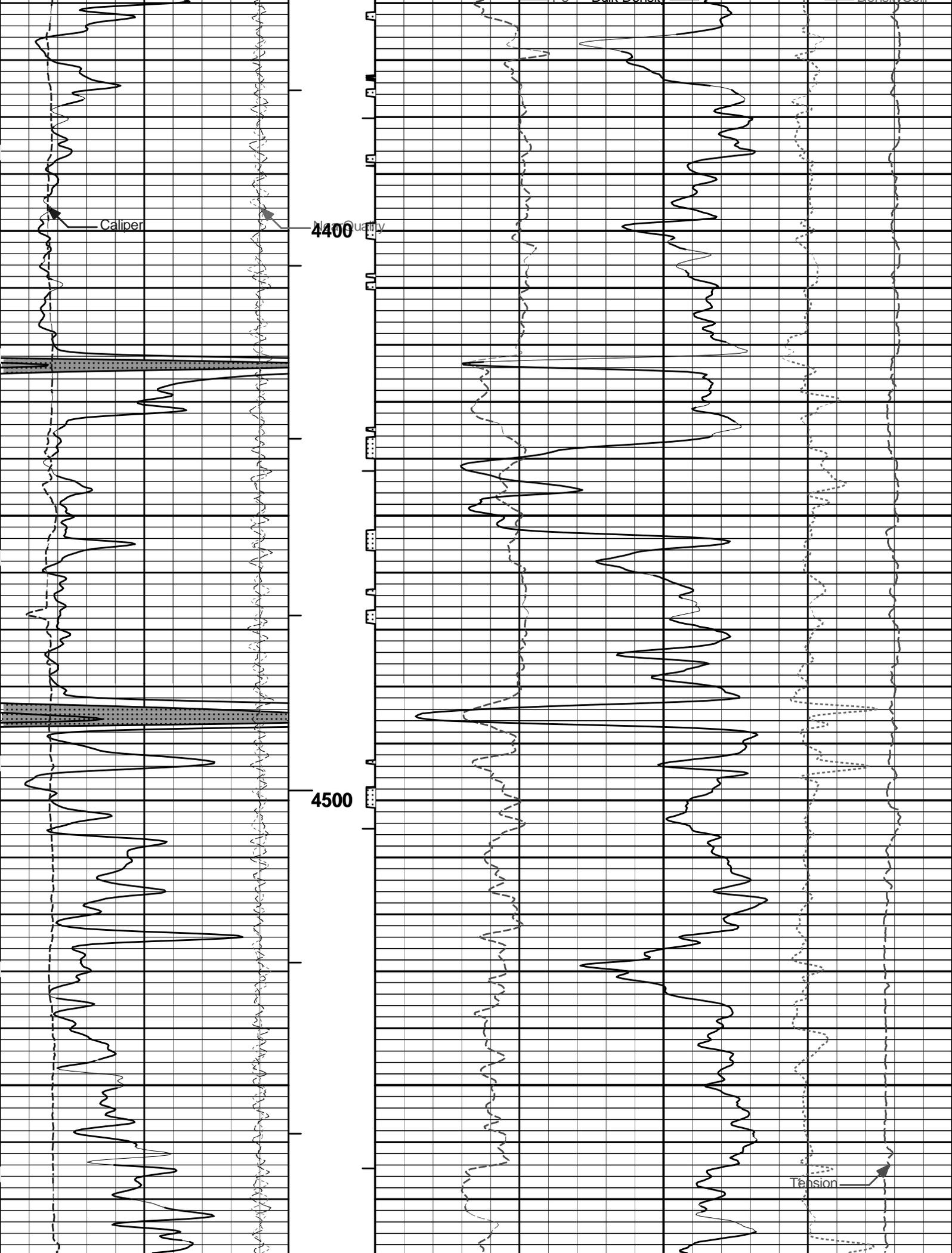


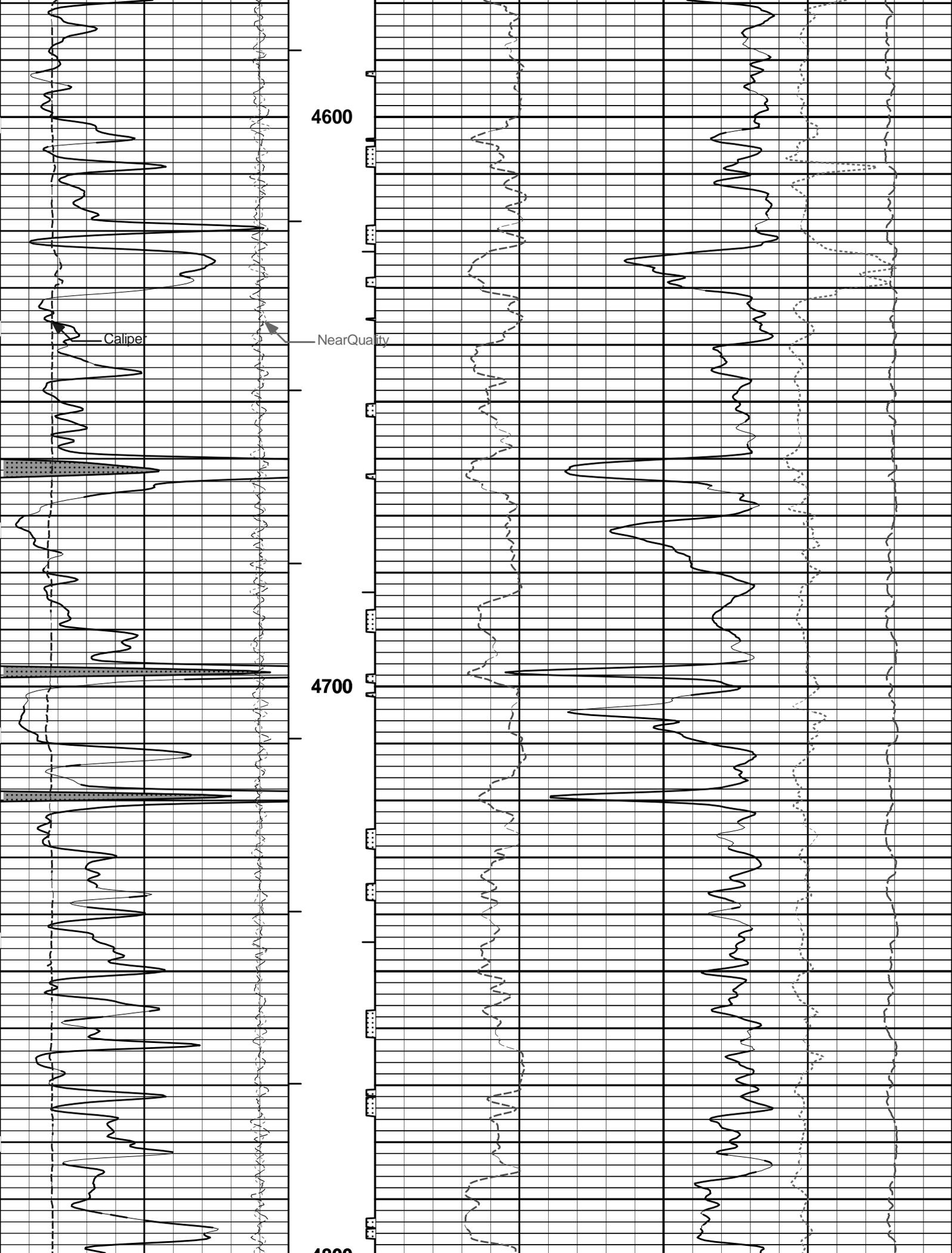


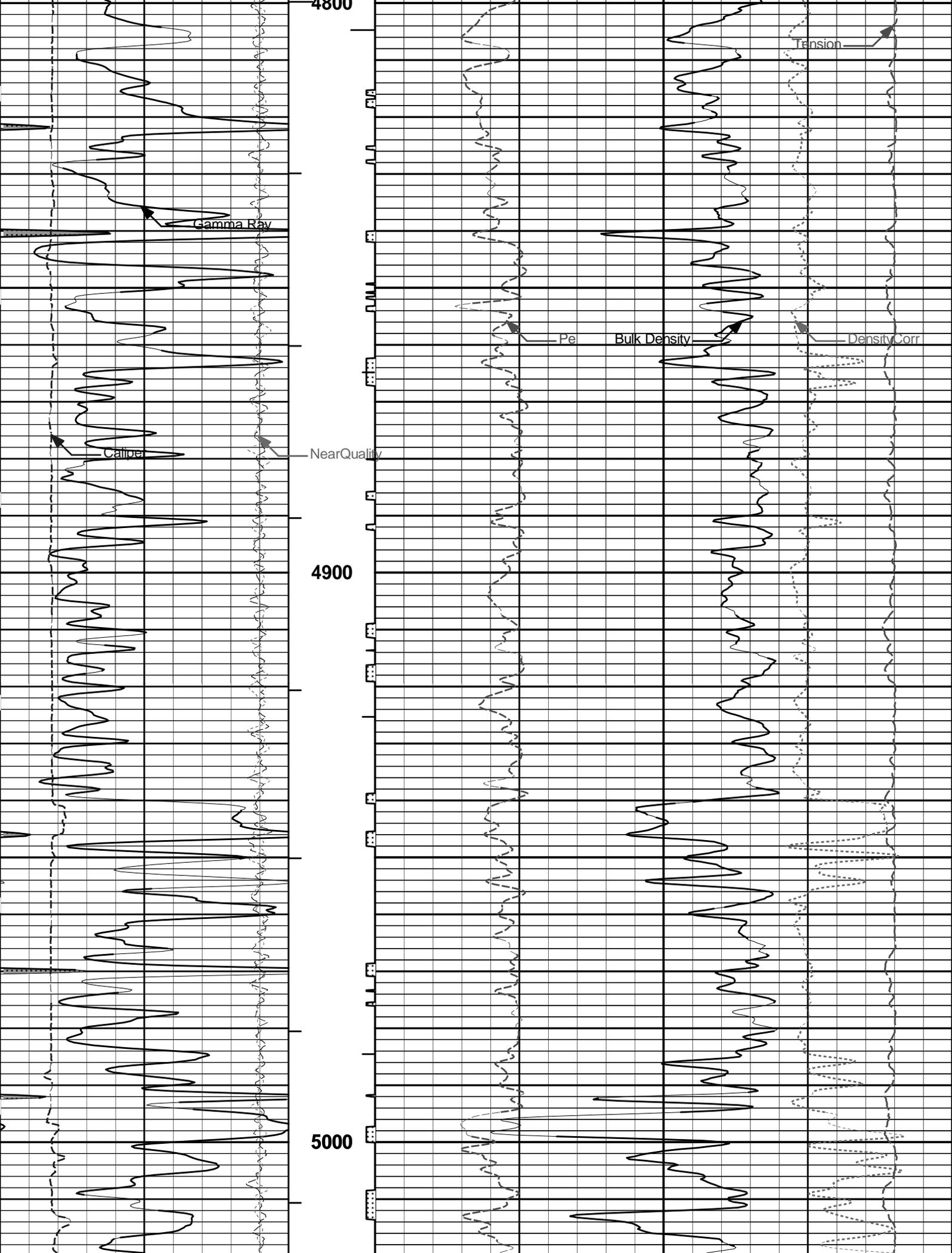


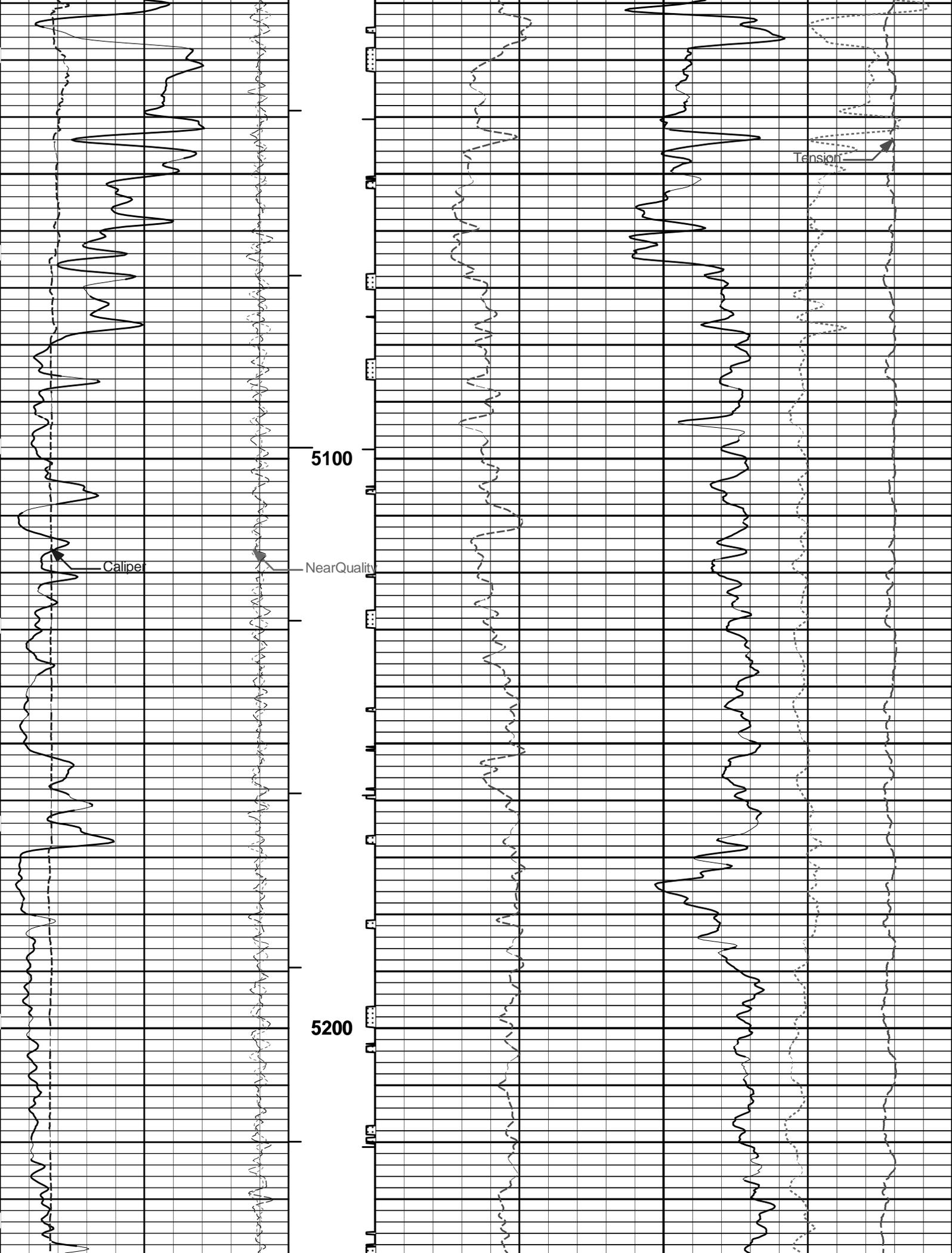


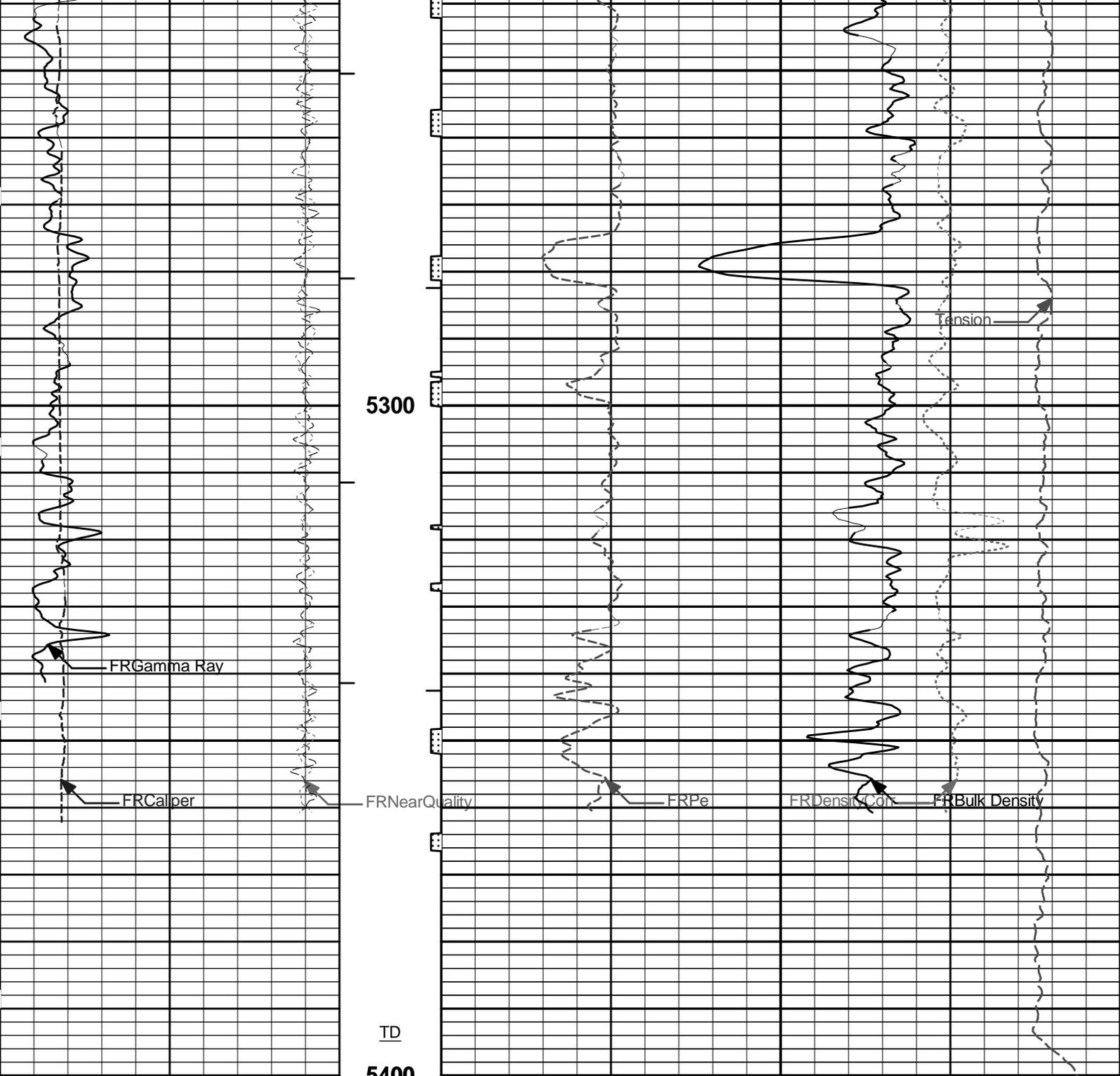












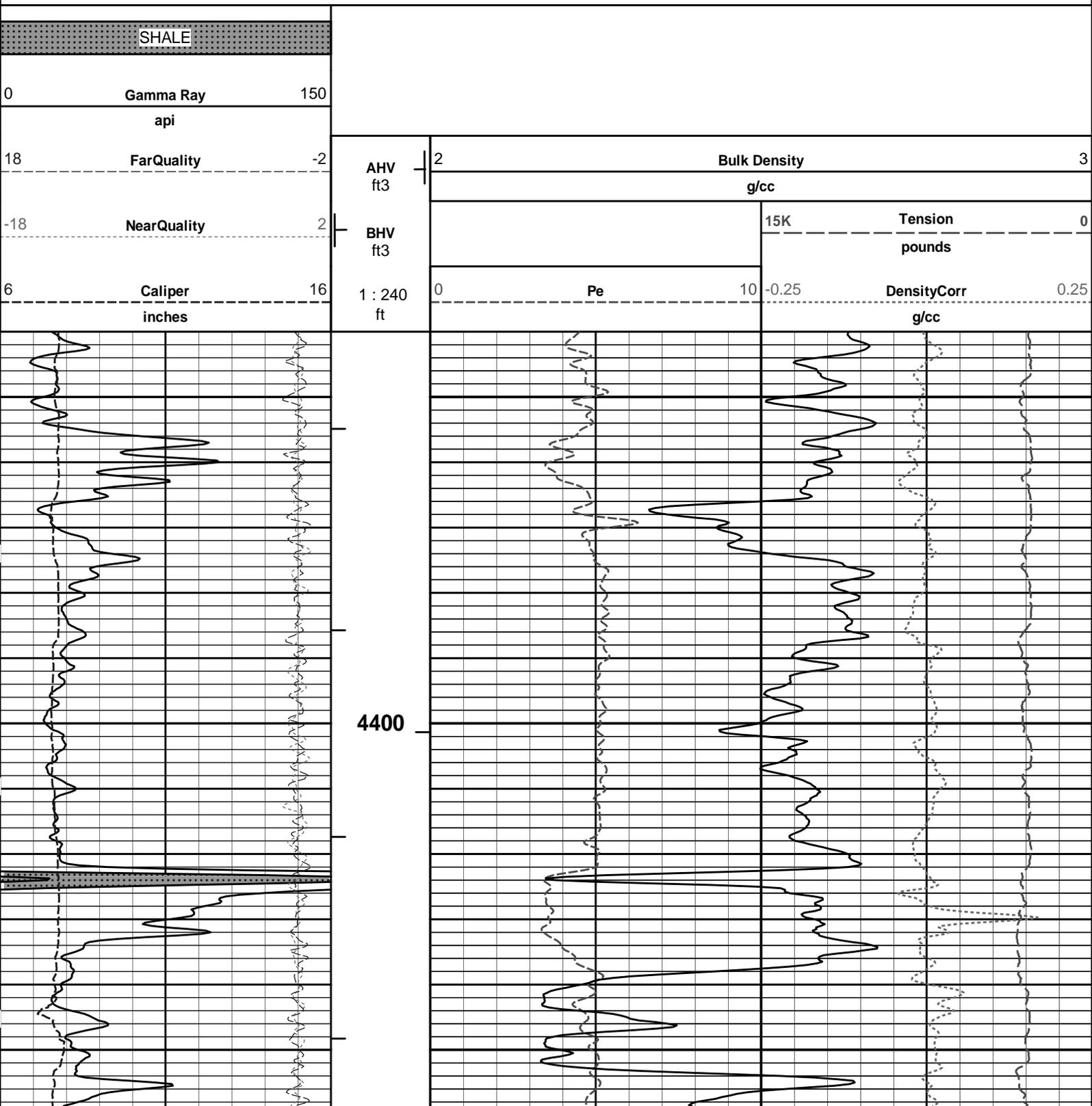
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	inches		ft				g/cc	
-18	NearQuality	2	BHV			15K	Tension	0
			ft3				pounds	
18	FarQuality	-2	AHV	2			Bulk Density	3
			ft3				g/cc	
0	Gamma Ray	150	Tension Pull					
	api		10	0				
	SHALE		Tension Pull					

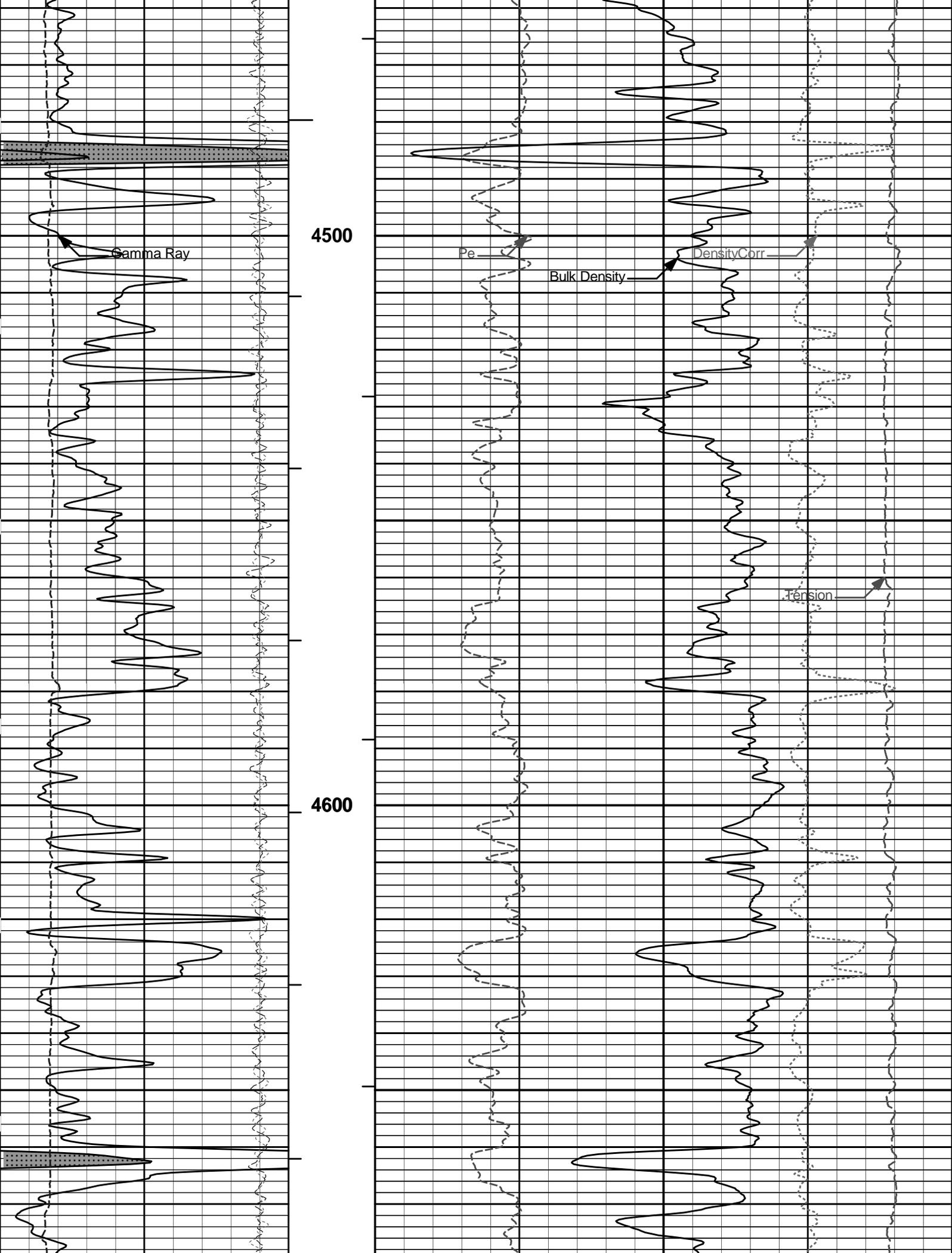
5 INCH MAIN LOG

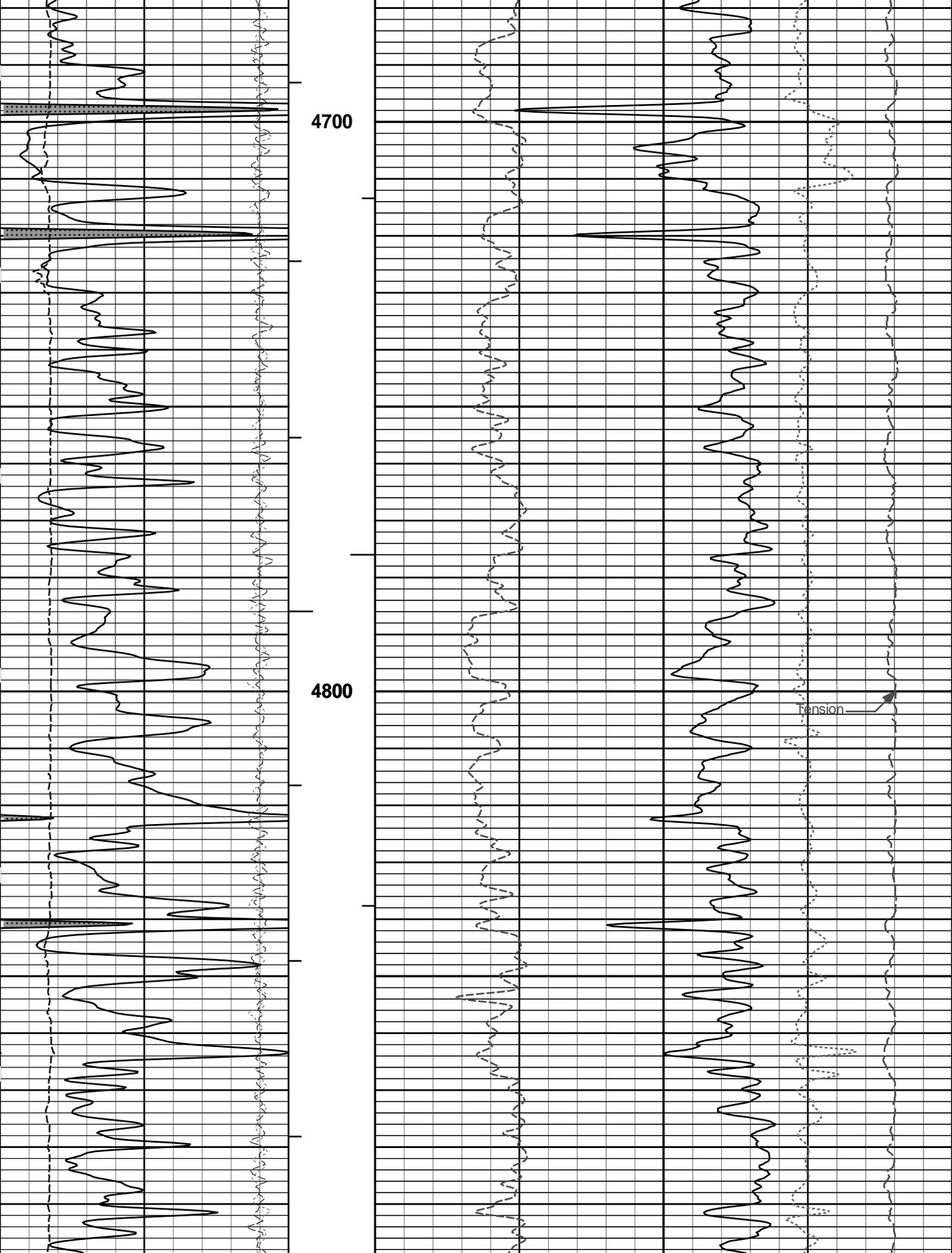
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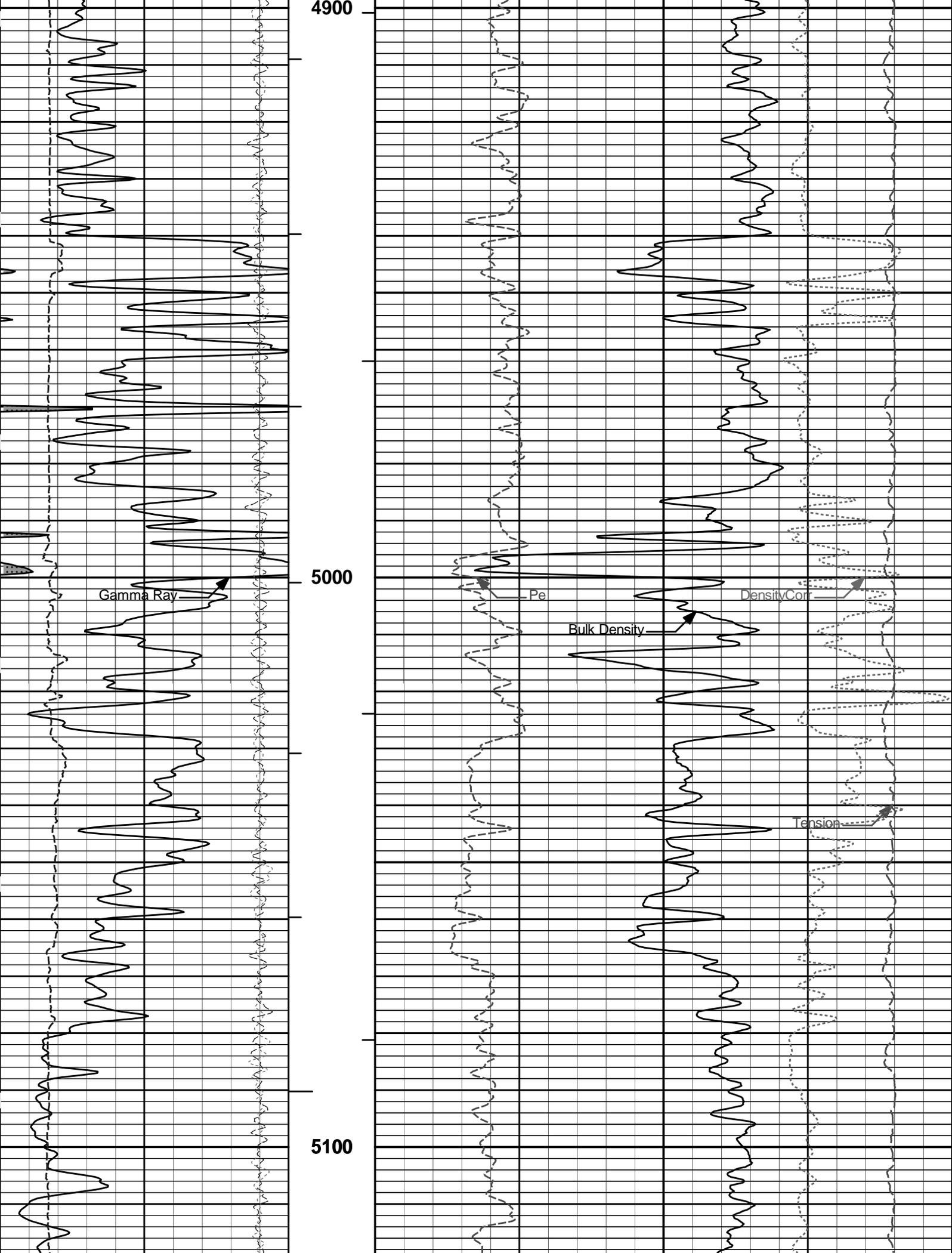
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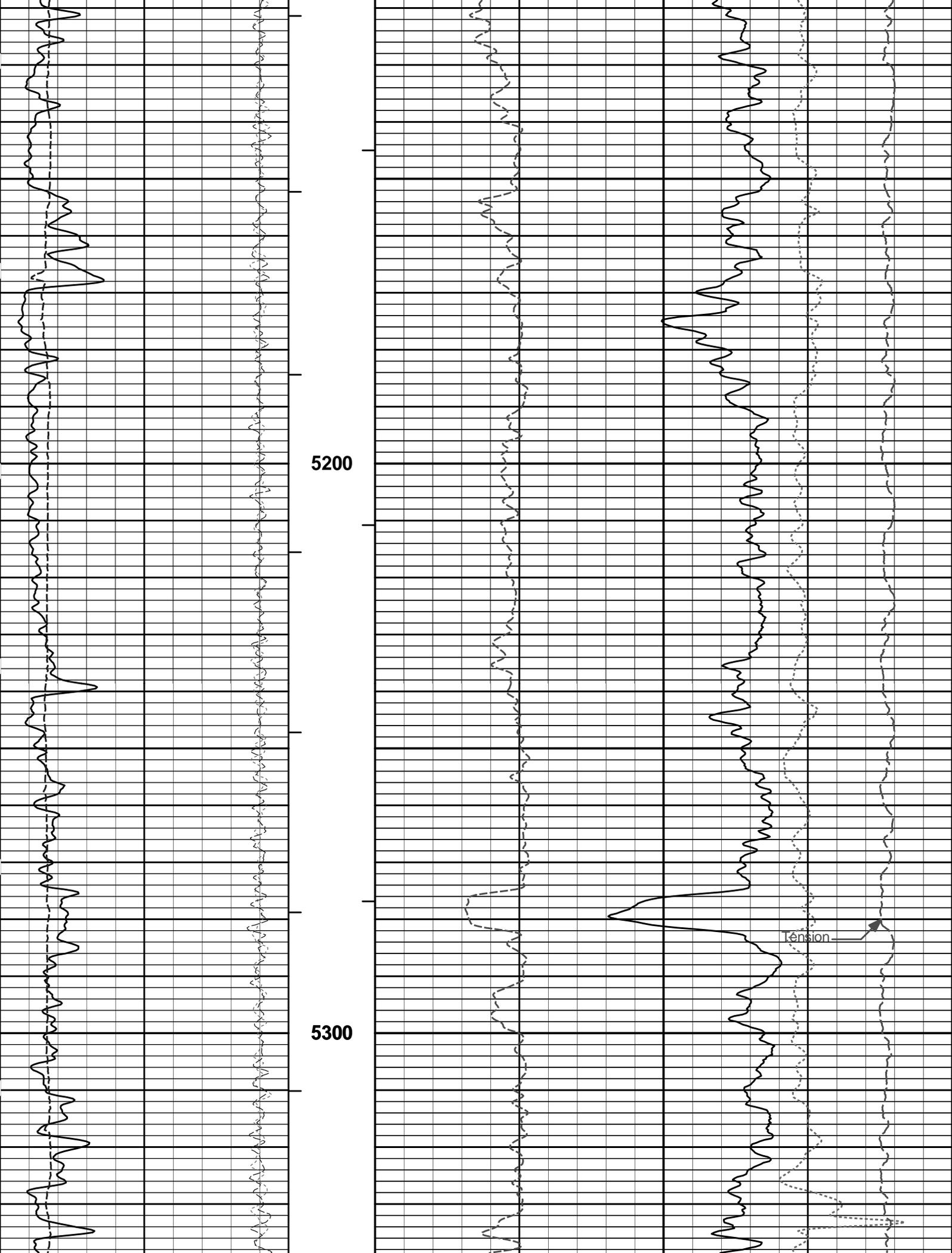
REPEAT SECTION

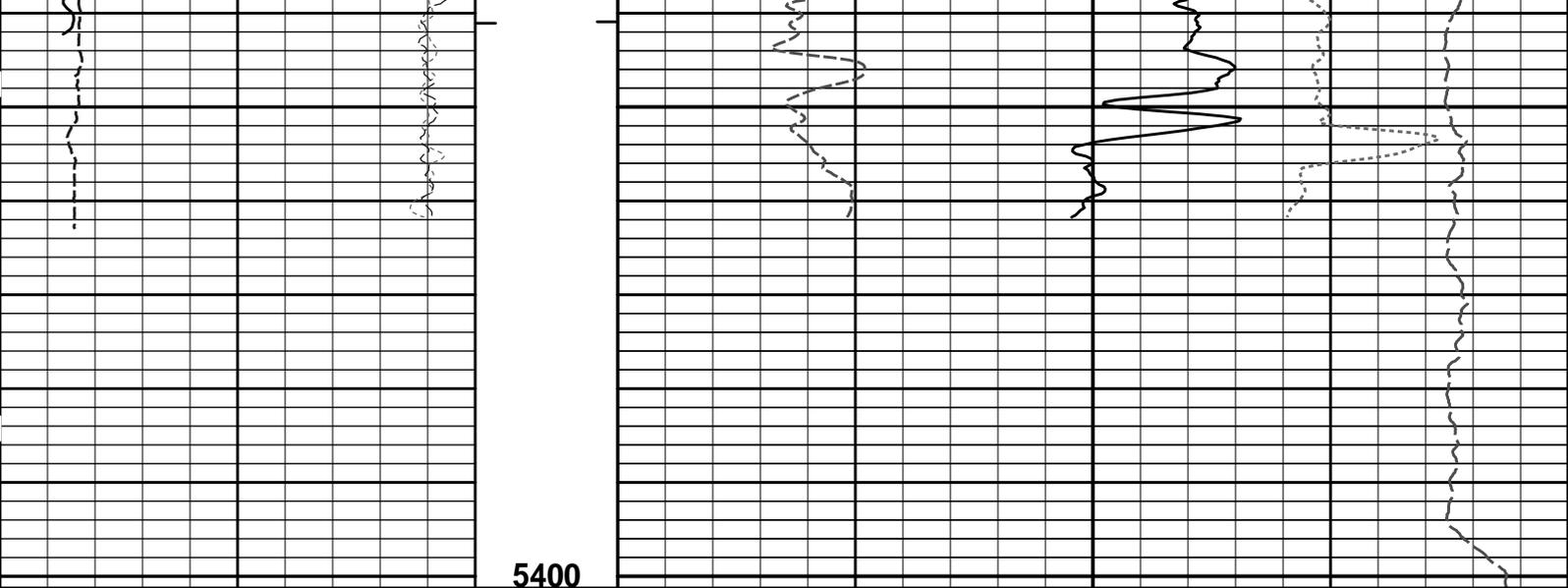












5400

6	Caliper	16	1 : 240	0	Pe	10	-0.25	DensityCorr	0.25
	inches		ft					g/cc	
-18	NearQuality	2	BHV				15K	Tension	0
			ft3					pounds	
18	FarQuality	-2	AHV	2	Bulk Density				3
			ft3		g/cc				
0	Gamma Ray	150							
	api								
	SHALE								

HALLIBURTON

Plot Time: 26-Apr-11 23:04:26
 Plot Range: 4340 ft to 5401.25 ft
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REPEAT SECTION

HALLIBURTON

TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length	
Cable Head- PROT01 30.00 lbs		Ø 3.625 in →			1.92 ft	70.04 ft	
SP Sub-TRK954 60.00 lbs		Ø 3.625 in →		← SP @ 66.34 ft	3.74 ft	68.12 ft	
							64.38 ft
GTET-10748374 165.00 lbs		Ø 3.625 in →		← GammaRay @ 58.32 ft	8.52 ft		

DSNT-10755066
174.00 lbs

DSN Decentralizer-11005605
6.60 lbs

Ø 3.625 in* →
Ø 3.625 in →

← **DSN Far @ 48.92 ft**
← **DSN Near @ 48.17 ft**

55.86 ft
9.69 ft
46.17 ft

SDLT-1066_M926_P90
360.00 lbs

Ø 4.500 in →
Ø 4.750 in →

← **SDL Microlog @ 38.36 ft**
← **SDL Caliper @ 38.17 ft**
← **SDL @ 38.16 ft**

10.81 ft
35.36 ft

BSAT-10747683
300.00 lbs

Ø 3.625 in →

← **Sonic Receivers @ 26.84 ft**

15.77 ft
19.58 ft

ACRt-I776_S775
250.00 lbs

Ø 3.625 in →

← **Mud Resistivity @ 13.19 ft**

← **ACRt @ 9.21 ft**

19.25 ft



Bull Nose-001
5.00 lbs

Ø 2.750 in →



0.33 ft

0.33 ft

0.00 ft

Mnemonic	Tool Name	Serial Number	Weight (lbs)	Length (ft)	Accumulated Length (ft)	Max.Log. Speed (fpm)
CH	Standard OH Cable Head	PROT01	30.00	1.92	68.12	300.00
SP	SP Sub	TRK954	60.00	3.74	64.38	300.00
GTET	Gamma Telemetry Tool	10748374	165.00	8.52	55.86	60.00
DSNT	Dual Spaced Neutron	10755066	174.00	9.69	46.17	60.00
DCNT	DSN Decentralizer	11005605	6.60	5.13	* 49.50	300.00
SDLT	Spectral Density Tool	I066_M926_P90	360.00	10.81	35.36	60.00
BSAT	Borehole Sonic Array Tool	10747683	300.00	15.77	19.58	60.00
ACRt	Array Compensated True Resistivity	I776_S775	250.00	19.25	0.33	300.00
BLNS	Bull Nose	001	5.00	0.33	0.00	300.00

Total 1,350.60 70.04

* Not included in Total Length and Length Accumulation.

Data: BRINKMAN_D_110001 SP-GTET-DSN-SDL-BSAT-ACRT-BNIDLE Date: 26-Apr-11 18:27:44

HALLIBURTON

CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION

Tool Name: GTET - 10748374 Reference Calibration Date: 24-Feb-11 21:56:53
 Engineer: JACOB BOSH Calibration Date: 25-Apr-11 10:04:04
 Software Version: WL INSITE R3.2.5 (Build 2) 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	Units
Background	32.3	31.6	api
Background + Calibrator	269.1	263.6	api
Calibrator	231.3	232.0	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION

Tool Name: GTET - 10748374 Reference Calibration Date: 25-Apr-11 10:04:04
 Engineer: JACOB BOSH Calibration Date: 25-Apr-11 10:36:01
 Software Version: WL INSITE R3.2.5 (Build 2) 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	Units
Background	31.6	36.1	api
Background + Calibrator	263.6	262.4	api
Calibrator	232.0	226.3	api

Shop	Field	Difference	Tolerance
232.0	226.3	5.7	+/- 9.00

NATURAL GAMMA RAY TOOL POST CALIBRATION

Tool Name: GTET - 10748374 Reference Calibration Date: 25-Apr-11 10:36:01

Engineer: JACOB BOSH

Calibration Date: 26-Apr-11 22:58:08

Software Version: WL INSITE R3.2.5 (Build 2)

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	36.1	36.3	api
Background + Calibrator	262.4	257.6	api
Calibrator	226.3	221.3	api

Shop	Field	Post	Difference	Tolerance
232.0	226.3	221.3	5.0	+/- 9.00

DUAL SPACED NEUTRON SHOP CALIBRATION

Tool Name: DSNT - 10755066

Reference Calibration Date: 18-Apr-11 11:55:52

Engineer: S. JUNG

Calibration Date: 18-Apr-11 12:19:05

Software Version: WL INSITE R3.2.1 (Build 7)

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_10782954

Calibration Tank Water Temperature: 66 degF

Min. Tool Housing Outside Diameter: 3.615 in

CALIBRATION CONSTANTS

Measurement	Prev. Value	New Value	Control Limit On New Value
Gain:	0.947	0.950	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):	0.2094	0.2103	0.0009	+/- 0.0020
Calibrated Ratio:	9.67	9.70	0.030	+/- 0.050

VERIFIER

Measurement	Value	Control Limit
Snow-Block Porosity (decp):	0.0607	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 - 10755066

Reference Calibration Date: 18-Apr-11 12:19:05

Engineer: JACOB BOSH

Calibration Date: 25-Apr-11 10:24:05

Software Version: WL INSITE R3.2.5 (Build 2)

Calibration Version: 1

Logging Source S/N: DSN-436

Snow Block S/N: TRK_10782954

NEUTRON FIELD-CHECK SUMMARY

Control Limit

	Shop	Field	Difference	Control Limit On Change
Snow-Block Porosity (decp):	0.0607	0.0596	-0.0011	+/- 0.0150

PASS/FAIL SUMMARY

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

SPECTRAL DENSITY SHOP CALIBRATION

Tool Name: SDLT - I066_M926_P90	Reference Calibration Date: 18-Apr-11 15:56:49
Engineer: S. JUNG	Calibration Date: 18-Apr-11 16:16:34
Software Version: WL INSITE R3.2.1 (Build 7)	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	1.0350	1.0353	0.90 - 1.10
Near Dens Gain	1.0154	1.0190	0.90 - 1.10
Near Peak Gain	1.0100	1.0375	0.90 - 1.10
Near Lith Gain	0.9912	1.0104	0.90 - 1.10
Far Bar Gain	0.9951	0.9985	0.90 - 1.10
Far Dens Gain	0.9855	0.9857	0.90 - 1.10
Far Peak Gain	0.9804	0.9787	0.90 - 1.10
Far Lith Gain	0.9484	0.9483	0.90 - 1.10
<hr/>			
Near Bar Offset	-0.1613	-0.1619	NONE
Near Dens Offset	0.0119	-0.0185	NONE
Near Peak Offset	0.0621	-0.1666	NONE
Near Lith Offset	0.1974	0.0392	NONE
Far Bar Offset	0.1285	0.0968	NONE
Far Dens Offset	0.1923	0.1909	NONE
Far Peak Offset	0.1826	0.1991	NONE
Far Lith Offset	0.3426	0.3455	NONE
<hr/>			
Near Bar Background	904.97	906.37	700 - 1450
Near Dens Background	299.18	299.38	230 - 480
Near Peak Background	131.36	131.43	100 - 210
Near Lith Background	160.57	160.58	125 - 260
Far Bar Background	605.93	606.95	450 - 900
Far Dens Background	237.75	238.34	175 - 345
Far Peak Background	93.92	95.49	70 - 140
Far Lith Background	98.53	98.93	75 - 145

CALIBRATION BLOCK SUMMARY

Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.688	1.690	0.002	+/- 0.015
Pe	2.572	2.555	-0.017	+/- 0.150
ALUMINUM				
Density (g/cc)	2.588	2.591	0.003	+/- 0.01500
Pe	2.414	2.422	0.008	+/- 0.150

TOOL SUMMARY				
Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	0.0021	+/- 0.0110	0.0012	+/- 0.0140
Magnesium Block	-0.0004	+/- 0.0110	-0.0001	+/- 0.0140
Aluminum Block	-0.0006	+/- 0.0110	0.0003	+/- 0.0140
Resolution	8.95	6.00 - 11.50	9.08	6.00 - 11.50
Internal Verifier(B+D+P+L)	1498	1200 - 2700	1040	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 - I066_M926_P90	Reference Calibration Date:	18-Apr-11 16:16:34
Engineer:	JACOB BOSH	Calibration Date:	25-Apr-11 10:03:02
Software Version:	WL INSITE R3.2.5 (Build 2)	Calibration Version:	1

Pad Temperature: 61.1 degF

DENSITY FIELD CALIBRATION SUMMARY				
Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1497.758	1494.856	-2.902	15.595
Far (B+D+P+L) cps	1039.712	1035.155	-4.557	17.160
Near Resolution	8.95	9.02	0.070	0.50
Far Resolution	9.08	9.09	0.010	1.00

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

SPECTRAL DENSITY POST CHECK

Tool Name:	SDLT - I066_M926_P90	Reference Calibration Date:	25-Apr-11 10:03:02
Engineer:	JACOB BOSH	Calibration Date:	26-Apr-11 22:57:59
Software Version:	WL INSITE R3.2.5 (Build 2)	Calibration Version:	1

Pad Temperature: 61.1 degF

DENSITY POST CALIBRATION SUMMARY				
Measurement	Field	Post	Change	Control Limit +/-
Near (B+D+P+L) cps	1494.856	1499.830	4.974	15.595
Far (B+D+P+L) cps	1035.155	1050.892	15.737	17.160
Near Resolution	9.02	9.22	0.200	0.50
Far Resolution	9.09	9.72	0.630	1.00

PASS/FAIL SUMMARY

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

DENSITY CALIPER SHOP CALIBRATION

Tool Name: SDLT - I066_M926_P90	Reference Calibration Date: 18-Apr-11 16:24:17
Engineer: S. JUNG	Calibration Date: 18-Apr-11 16:28:53
Software Version: WL INSITE R3.2.1 (Build 7)	Calibration Version: 1

CALIBRATION COEFFICIENTS

Measurement	Previous Value	New Value	Control Limit On New Value
Pad Offset	-2438.45	-2471.75	-7000.00 - -1000.00
Pad Gain	0.0003909	0.0003949	0.000200 - 0.000600
Arm Offset	-1626.43	-1655.13	-5000.00 - 3000.00
Arm Gain	0.0005111	0.0005196	0.000300 - 0.000700
Arm Power	-0.000004716	-0.000005277	-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)	1.99	2.00	0.01	+/- 0.20
Medium Ring (in)	3.72	3.75	0.03	+/- 0.20
RING DIAMETER:				
Small Ring (in)	6.50	6.50	0.00	+/- 0.20
Medium Ring (in)	8.23	8.25	0.02	+/- 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
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SDLT CALIPER FIELD CALIBRATION

Tool Name: SDLT - I066_M926_P90	Reference Calibration Date: 18-Apr-11 16:28:53
Engineer: JACOB BOSH	Calibration Date: 25-Apr-11 10:29:01
Software Version: WL INSITE R3.2.5 (Build 2)	Calibration Version: 1

MEASURED CALIPER VALUES

Measurement	Shop	Field	Change	Control Limit On New Value
Pad Extension	3.75	3.67	-0.08	+/- 0.10
Ring Diameter	8.25	8.24	-0.01	+/- 0.15

PASS/FAIL SUMMARY

Pad Extension Check:	Passed
Diameter Check:	Passed

SDLT CALIPER POST CALIBRATION

Tool Name: SDLT - I066_M926_P90	Reference Calibration Date: 25-Apr-11 10:29:01
Engineer: JACOB BOSH	Calibration Date: 26-Apr-11 23:00:10

MEASURED CALIPER VALUES				
Measurement	Field	Post	Change	Control Limit On New Value
Pad Extension	3.67	3.74	0.08	+/- 0.10
Ring Diameter	8.24	8.28	0.04	+/- 0.15

PASS/FAIL SUMMARY	
Pad Extension Check:	Passed
Diameter Check:	Passed

CALIBRATION SUMMARY

Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-10748374						
Gamma Ray Calibrator	232.0	226.3	221.3	5.0	+/- 9.00	api
DSNT-10755066						
Snow-Block Porosity	0.0607	0.0596	-----	0.0011	+/- 0.0150	decp
SDLT-I066_M926_P90						
Near(B+D+P+L)	1497.758	1494.856	1499.830	-4.974	+/-15.595	cps
Far(B+D+P+L)	1039.712	1035.155	1050.892	-15.737	+/-17.160	cps
Pad Extension	3.75	3.67	3.74	-0.07	+/-0.10	in
Ring Diameter	8.25	8.24	8.28	-0.040	+/-0.15	in

Data: BRINKMAN_D_1\0001 SP-GTET-DSN-SDL-BSAT-ACRT-BNIDLE Date: 26-Apr-11 23:00:43

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PARAMETERS REPORT

Depth (ft)	Tool Name	Mnemonic	Description	Value	Units
TOP					
	SHARED	BS	Bit Size	7.865	in
	SHARED	UBS	Use Bit Size instead of Caliper for all applications.	No	
	SHARED	MDBS	Mud Base	Water	
	SHARED	MDWT	Borehole Fluid Weight	9.000	ppg
	SHARED	WAGT	Weighting Agent	Natural	
	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	1.388	ohmm
	SHARED	TRM	Temperature of Mud	75.0	degF
	SHARED	CSD	Logging Interval is Cased?	No	
	SHARED	ICOD	AHV Casing OD	5.500	in
	SHARED	ST	Surface Temperature	75.0	degF
	SHARED	TD	Total Well Depth	5395.00	ft
	SHARED	BHT	Bottom Hole Temperature	110.0	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	GRSK	Process Gamma Ray EVR2	No	

GTET	GEOK	Process Gamma Ray EVR?	No	
GTET	TPOS	Tool Position	Eccentered	
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	DNOK	Process Density?	Yes	
SDLT	DNOK	Process Density EVR?	No	
SDLT	CB	Logging Calibration Blocks?	No	
SDLT	SPVT	SDLT Pad Temperature Valid?	Yes	
SDLT	DTWN	Disable temperature warning	No	
SDLT	DMA	Formation Density Matrix	2.710	g/cc
SDLT	DFL	Formation Density Fluid	1.000	g/cc
SDLT	CLOK	Process Caliper Outputs?	Yes	
SDLT	MLOK	Process MicroLog Outputs?	Yes	
BSAT	MBOK	Compute BCAS Results?	Yes	
BSAT	FLLO	Frequency Filter Low Pass Value?	7000	Hz
BSAT	FLHI	Frequency Filter High Pass Value?	27000	Hz
BSAT	DTFL	Delta -T Fluid	189.00	uspf
BSAT	DTMT	Delta -T Matrix Type	User define	
BSAT	DTMA	Delta -T Matrix	47.60	uspf
BSAT	DTSH	Delta -T Shale	100.00	uspf
BSAT	SPEQ	Acoustic Porosity Equation	Wylie	
ACRt	RTOK	Process ACRt?	Yes	
ACRt	MNSO	Minimum Tool Standoff	1.50	in
ACRt	TCS1	Temperature Correction Source	FP Lwr & FP Upr	
ACRt	TPOS	Tool Position	Eccentered	
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: BRINKMAN_D_110001 SP-GTET-DSN-SDL-BSAT-ACRT-BNIDLE

Date: 26-Apr-11 21:49:06

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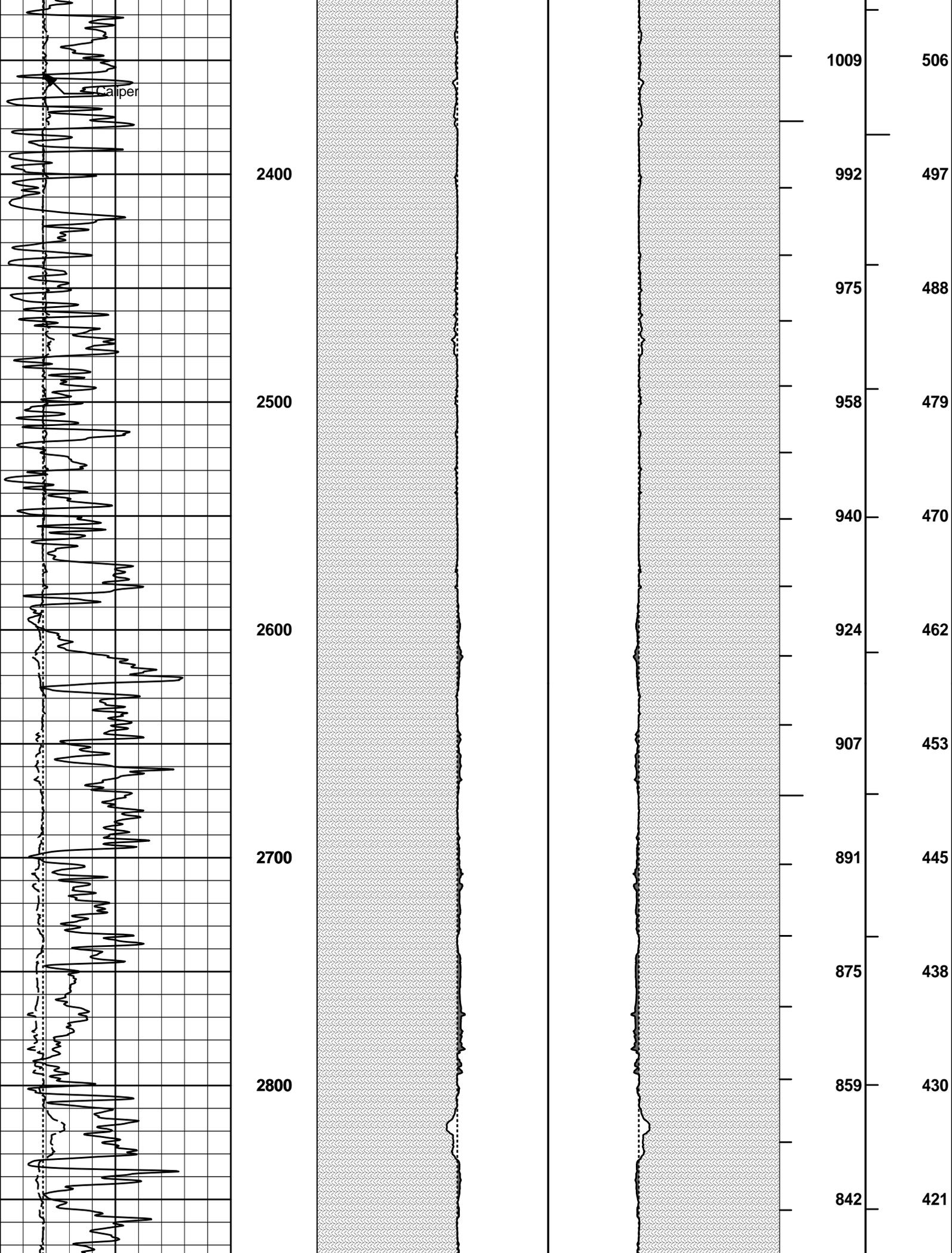
INPUTS, DELAYS AND FILTERS TABLE

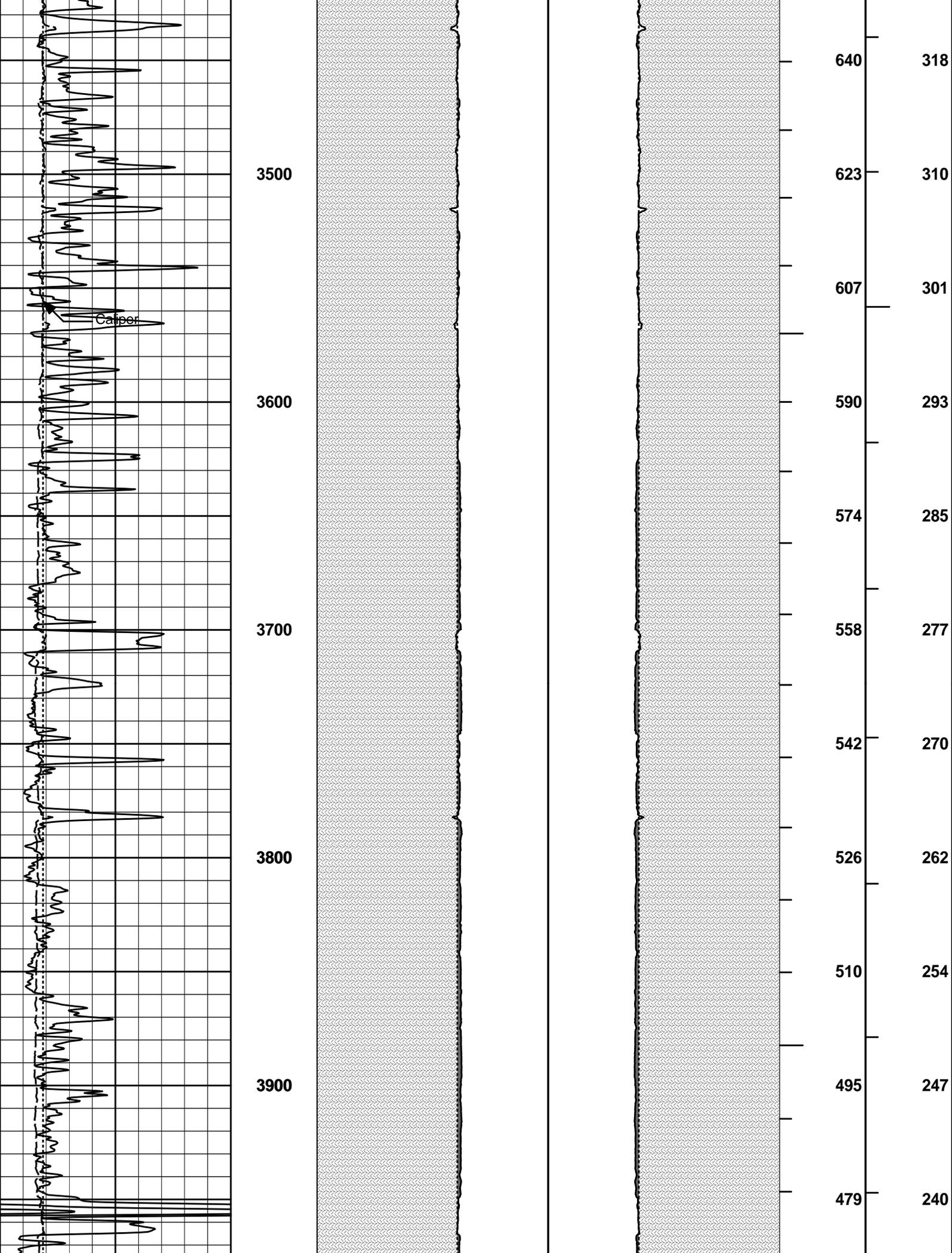
Mnemonic	Input Description	Delay (ft)	Filter Type	Filter Length (ft)
Depth Panel				
TENS	Tension	0.00	NO	
SP Sub				
PLTC	Plot Control Mask	66.34	NO	
SP	Spontaneous Potential	66.34	BLK	1.250
SPR	Raw Spontaneous Potential	66.34	NO	
SPO	Spontaneous Potential Offset	66.34	NO	
GTET				
TPUL	Tension Pull	58.32	NO	

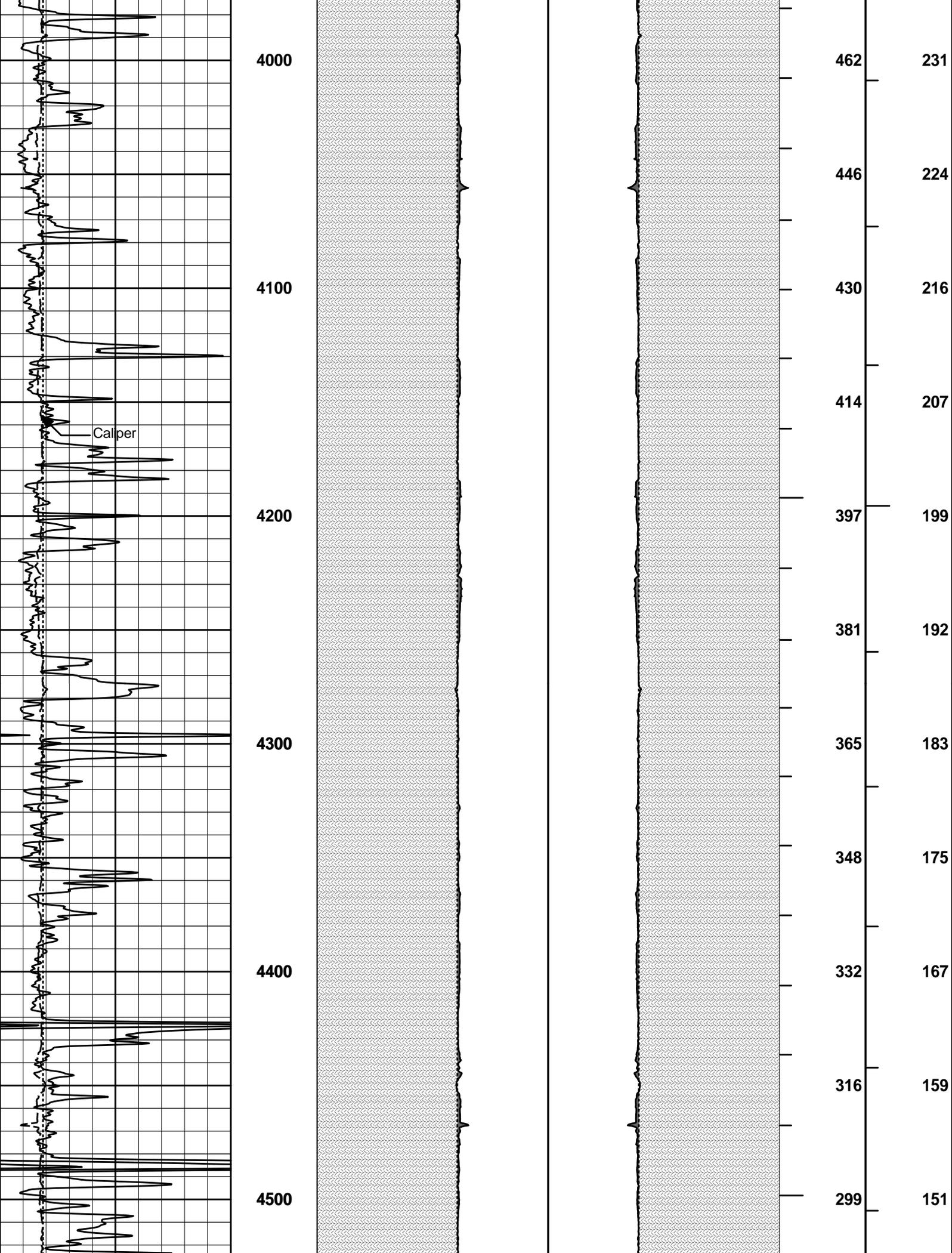
GR	Natural Gamma Ray API	58.32	TRI	1.750
GRU	Unfiltered Natural Gamma Ray API	58.32	NO	
EGR	Natural Gamma Ray API with Enhanced Vertical Resolution	58.32	W	1.416 , 0.750
ACCZ	Accelerometer Z	0.00	BLK	0.083
DEVI	Inclination	0.00	NO	
DSNT				
TPUL	Tension Pull	48.07	NO	
RNDS	Near Detector Telemetry Counts	48.17	BLK	1.417
RFDS	Far Detector Telemetry Counts	48.92	TRI	0.583
DNTT	DSN Tool Temperature	48.17	NO	
DSNS	DSN Tool Status	48.07	NO	
ERND	Near Detector Telemetry Counts EVR	48.17	BLK	0.000
ERFD	Far Detector Telemetry Counts EVR	48.92	BLK	0.000
ENTM	DSN Tool Temperature EVR	48.17	NO	
SDLT				
TPUL	Tension Pull	38.16	NO	
NAB	Near Above	37.99	BLK	0.920
NHI	Near Cesium High	37.99	BLK	0.920
NLO	Near Cesium Low	37.99	BLK	0.920
NVA	Near Valley	37.99	BLK	0.920
NBA	Near Barite	37.99	BLK	0.920
NDE	Near Density	37.99	BLK	0.920
NPK	Near Peak	37.99	BLK	0.920
NLI	Near Lithology	37.99	BLK	0.920
NBAU	Near Barite Unfiltered	37.99	BLK	0.250
NLIU	Near Lithology Unfiltered	37.99	BLK	0.250
FAB	Far Above	38.34	BLK	0.250
FHI	Far Cesium High	38.34	BLK	0.250
FLO	Far Cesium Low	38.34	BLK	0.250
FVA	Far Valley	38.34	BLK	0.250
FBA	Far Barite	38.34	BLK	0.250
FDE	Far Density	38.34	BLK	0.250
FPK	Far Peak	38.34	BLK	0.250
FLI	Far Lithology	38.34	BLK	0.250
PTMP	Pad Temperature	38.17	BLK	0.920
NHV	Near Detector High Voltage	35.36	NO	
FHV	Far Detector High Voltage	35.36	NO	
ITMP	Instrument Temperature	35.36	NO	
DDHV	Detector High Voltage	35.36	NO	
TPUL	Tension Pull	38.17	NO	
PCAL	Pad Caliper	38.17	TRI	0.250
ACAL	Arm Caliper	38.17	TRI	0.250
TPUL	Tension Pull	38.36	NO	
MINV	Microlog Lateral	38.36	BLK	0.750
MNOR	Microlog Normal	38.36	BLK	0.750
BSAT				
TPUL	Tension Pull	26.84	NO	
STAT	Status	26.84	NO	
DLYT	Delay Time	26.84	NO	
SI	Sample Interval	26.84	NO	
TXRX	Raw Telemetry 10 Receivers	26.84	NO	
FRMC	Tool Frame Count	26.84	NO	

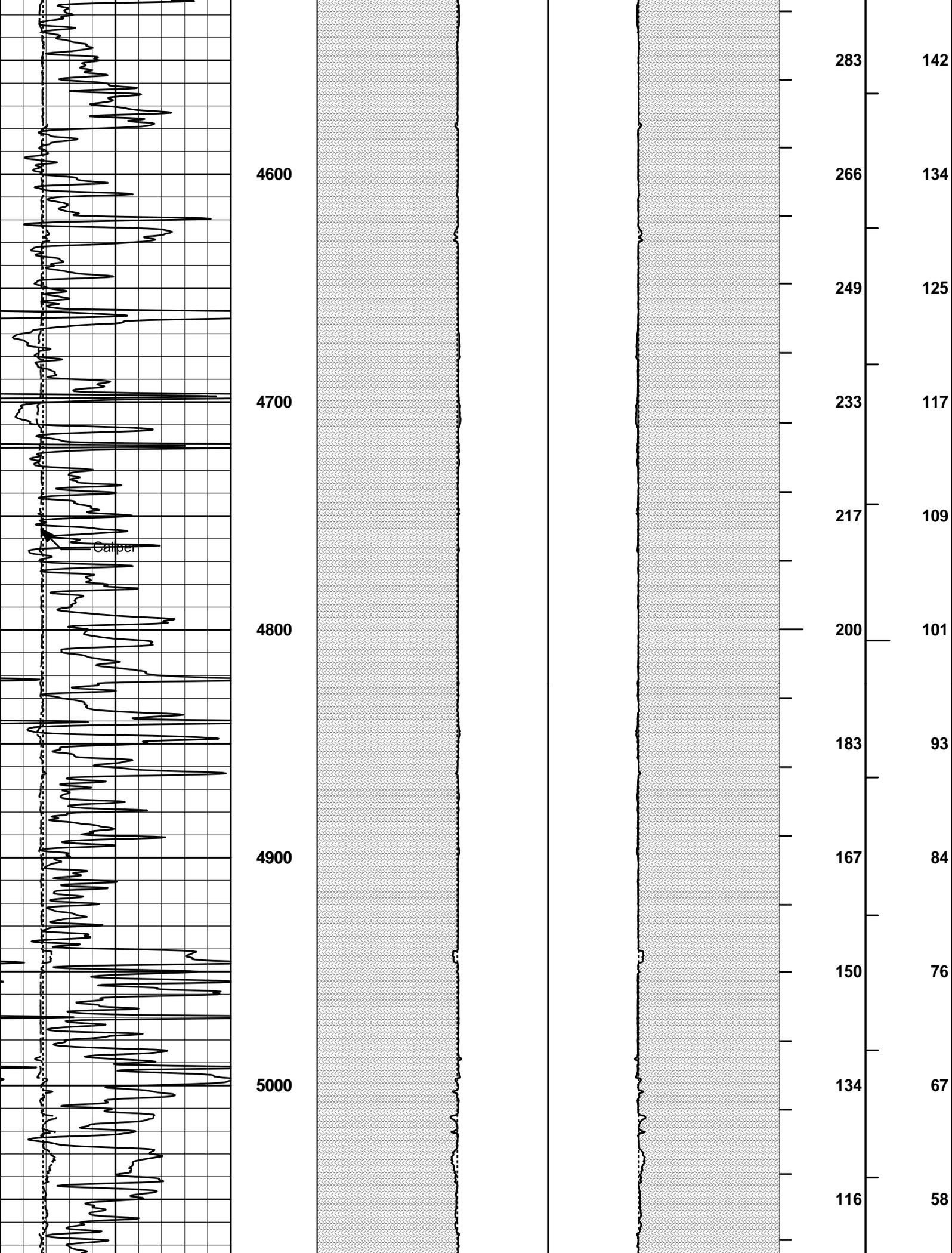
ACRT

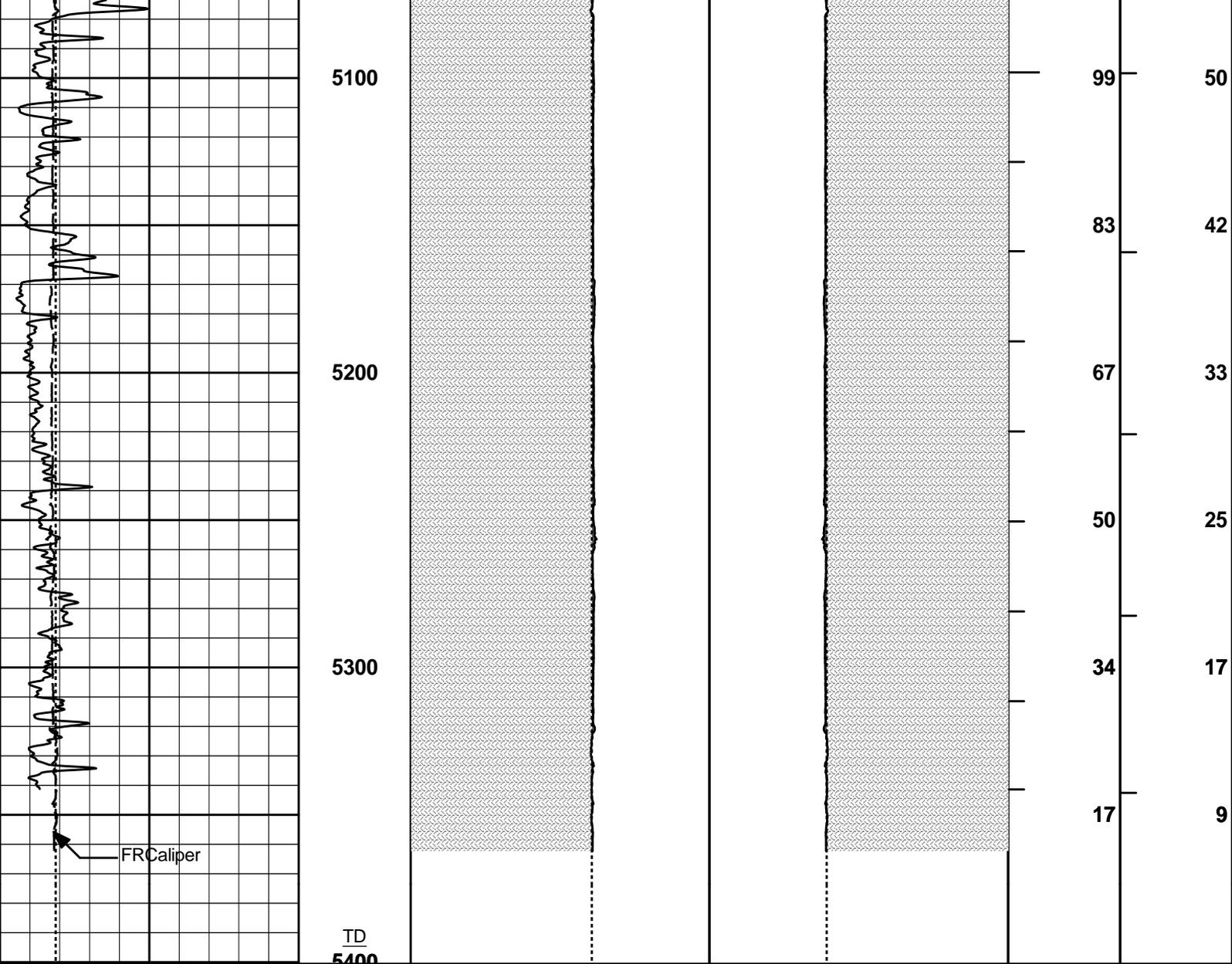
TPUL	Tension Pull	2.73	NO	
F1R1	ACRT 12KHz - 80in R value	8.98	BLK	0.000
F1X1	ACRT 12KHz - 80in X value	8.98	BLK	0.000
F1R2	ACRT 12KHz - 50in R value	6.48	BLK	0.000
F1X2	ACRT 12KHz - 50in X value	6.48	BLK	0.000
F1R3	ACRT 12KHz - 29in R value	4.98	BLK	0.000
F1X3	ACRT 12KHz - 29in X value	4.98	BLK	0.000
F1R4	ACRT 12KHz - 17in R value	3.98	BLK	0.000
F1X4	ACRT 12KHz - 17in X value	3.98	BLK	0.000
F1R5	ACRT 12KHz - 10in R value	3.48	BLK	0.000
F1X5	ACRT 12KHz - 10in X value	3.48	BLK	0.000
F1R6	ACRT 12KHz - 6in R value	3.23	BLK	0.000
F1X6	ACRT 12KHz - 6in X value	3.23	BLK	0.000
F2R1	ACRT 36KHz - 80in R value	8.98	BLK	0.000
F2X1	ACRT 36KHz - 80in X value	8.98	BLK	0.000
F2R2	ACRT 36KHz - 50in R value	6.48	BLK	0.000
F2X2	ACRT 36KHz - 50in X value	6.48	BLK	0.000
F2R3	ACRT 36KHz - 29in R value	4.98	BLK	0.000
F2X3	ACRT 36KHz - 29in X value	4.98	BLK	0.000
F2R4	ACRT 36KHz - 17in R value	3.98	BLK	0.000
F2X4	ACRT 36KHz - 17in X value	3.98	BLK	0.000
F2R5	ACRT 36KHz - 10in R value	3.48	BLK	0.000
F2X5	ACRT 36KHz - 10in X value	3.48	BLK	0.000
F2R6	ACRT 36KHz - 6in R value	3.23	BLK	0.000
F2X6	ACRT 36KHz - 6in X value	3.23	BLK	0.000
F3R1	ACRT 72KHz - 80in R value	8.98	BLK	0.000
F3X1	ACRT 72KHz - 80in X value	8.98	BLK	0.000
F3R2	ACRT 72KHz - 50in R value	6.48	BLK	0.000
F3X2	ACRT 72KHz - 50in X value	6.48	BLK	0.000
F3R3	ACRT 72KHz - 29in R value	4.98	BLK	0.000
F3X3	ACRT 72KHz - 29in X value	4.98	BLK	0.000
F3R4	ACRT 72KHz - 17in R value	3.98	BLK	0.000
F3X4	ACRT 72KHz - 17in X value	3.98	BLK	0.000
F3R5	ACRT 72KHz - 10in R value	3.48	BLK	0.000
F3X5	ACRT 72KHz - 10in X value	3.48	BLK	0.000
F3R6	ACRT 72KHz - 6in R value	3.23	BLK	0.000
F3X6	ACRT 72KHz - 6in X value	3.23	BLK	0.000
RMUD	Mud Resistivity	12.52	BLK	0.000
F1RT	Transmitter Reference 12 KHz Real Signal	2.73	BLK	0.000
F1XT	Transmitter Reference 12 KHz Imaginary Signal	2.73	BLK	0.000
F2RT	Transmitter Reference 36 KHz Real Signal	2.73	BLK	0.000
F2XT	Transmitter Reference 36 KHz Imaginary Signal	2.73	BLK	0.000
F3RT	Transmitter Reference 72 KHz Real Signal	2.73	BLK	0.000
F3XT	Transmitter Reference 72 KHz Imaginary Signal	2.73	BLK	0.000
TFPU	Upper Feedpipe Temperature Calculated	2.73	BLK	0.000
TFPL	Lower Feedpipe Temperature Calculated	2.73	BLK	0.000
ITMP	Instrument Temperature	2.73	BLK	0.000
TCVA	Temperature Correction Values Loop Off	2.73	NO	
TIDV	Instrument Temperature Derivative	2.73	NO	
TUDV	Upper Temperature Derivative	2.73	NO	
TLDV	Lower Temperature Derivative	2.73	NO	
TRBD	Receiver Board Temperature	2.73	NO	











6	Caliper	16	1 : 600 ft	20	Caliper	0 0	20	BHVT	AHVT
	inches					inches			
6	BS	16		20	Bit Size	0 0	20		
	inches								
0	Gamma API	150			MUDCAKE		MUDCAKE		
	api								

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Plot Time: 26-Apr-11 23:04:30
 Plot Range: 1920 ft to 5400.58 ft
 Data: BRINKMAN_D_1\Well Based\DAQ-0001-003\
 Plot File: \\-LOCAL-\\BRINKMAN_D_1\0001 SP-GTET-DSN-SDL-BSAT-ACRT-BMPOROAHV_5_5_INCH_2_IQ_LIB

ANNULAR HOLE VOLUME PLOT (5.5 INCH)

COMPANY	OXY USA INC		
WELL	BRINKMAN D-1		
FIELD	PLEASNT PRAIRRE		
COUNTY	HASKELL	STATE	KANSAS

HALLIBURTON

**SPECTRAL DENSITY
DUAL SPACED NEUTRON
LOG**