

SPECTRAL DENSITY DUAL SPACED NEUTRON LOG

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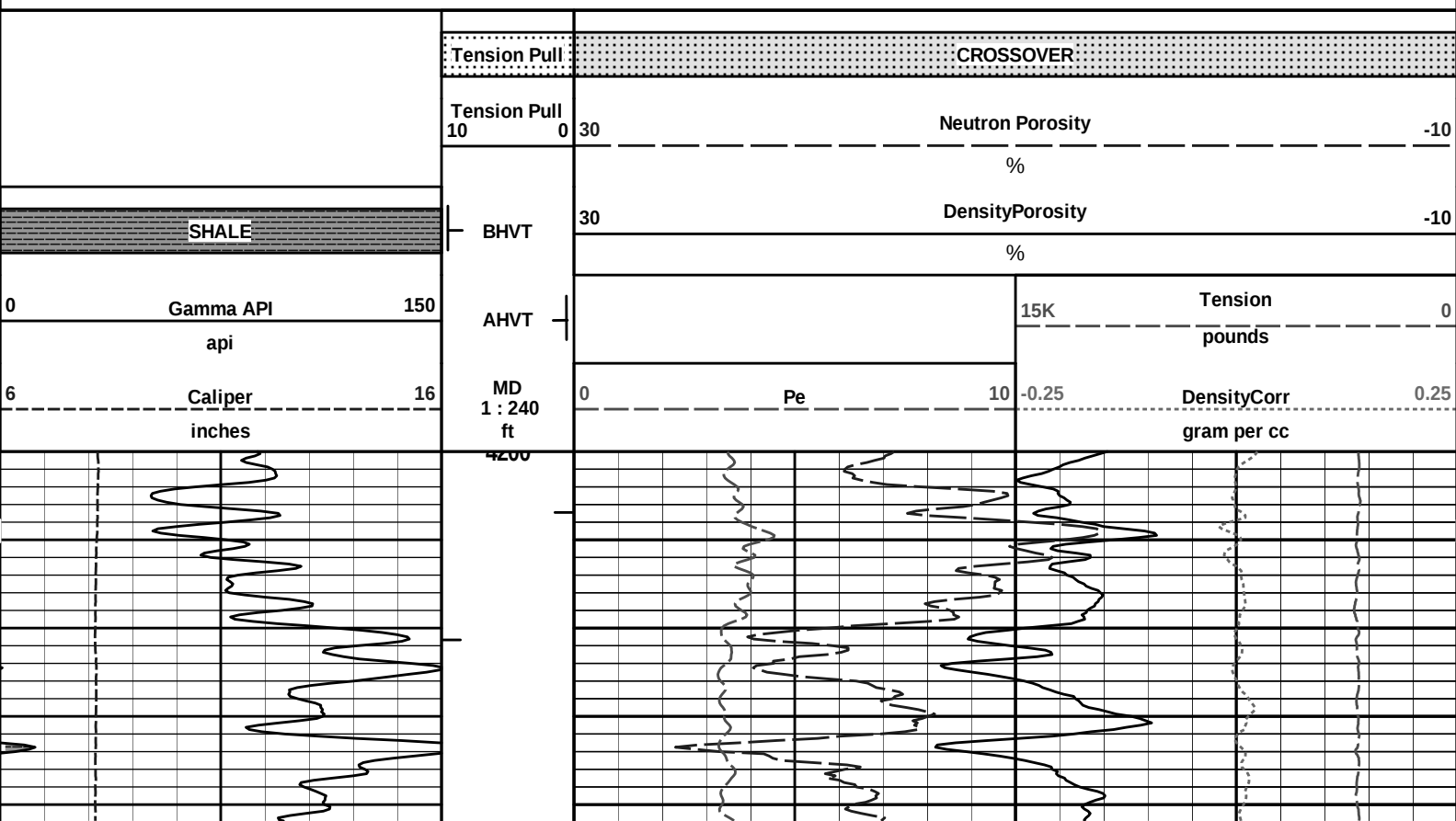
LOGGING DATA

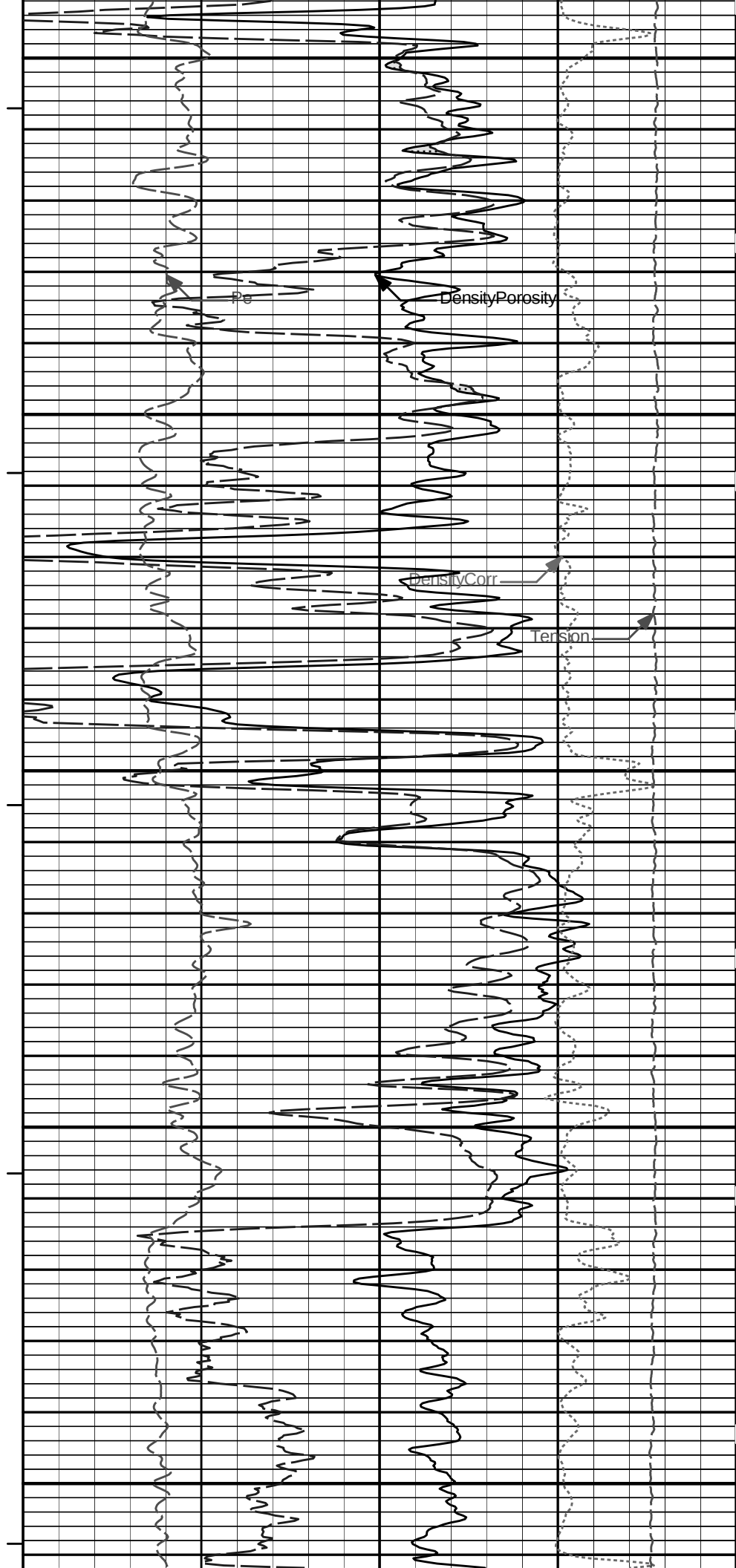
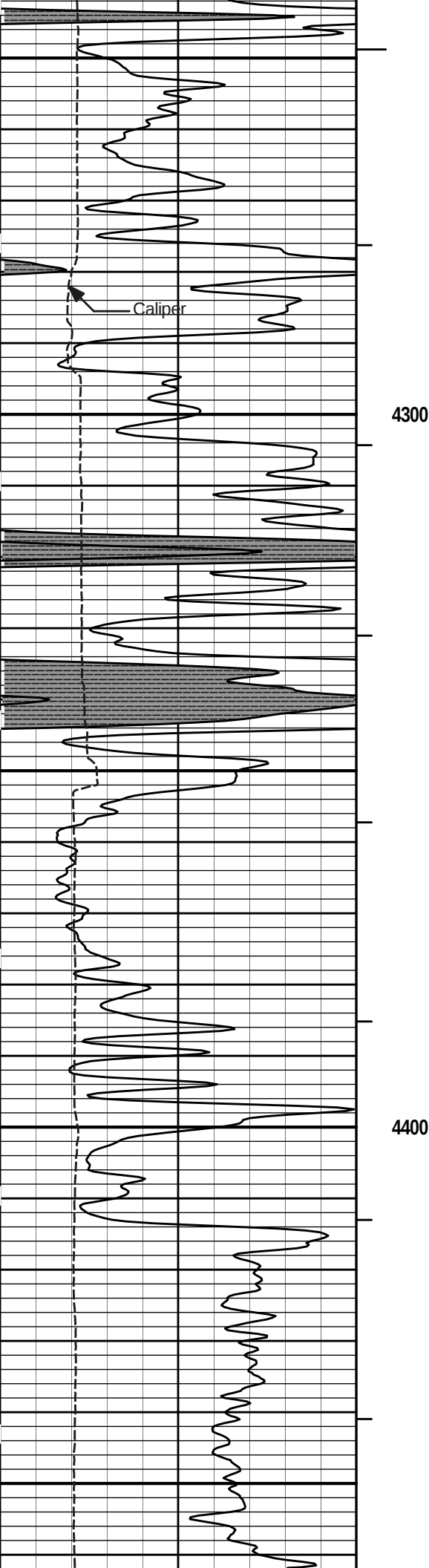
GENERAL	GAMMA	ACQUSTIC	PERCUTAN	NEUTRON
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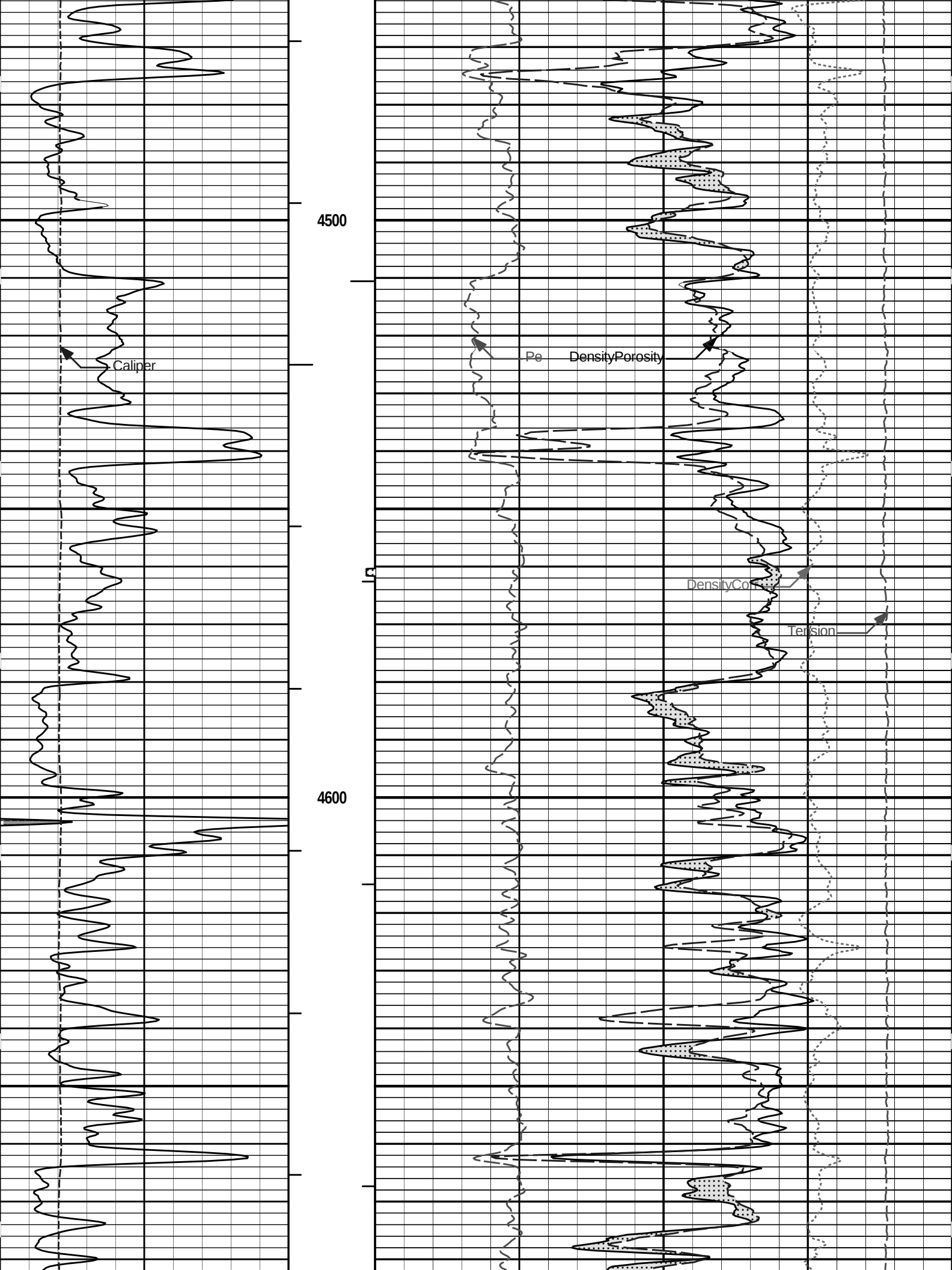
[illegible]**HALLIBURTON**

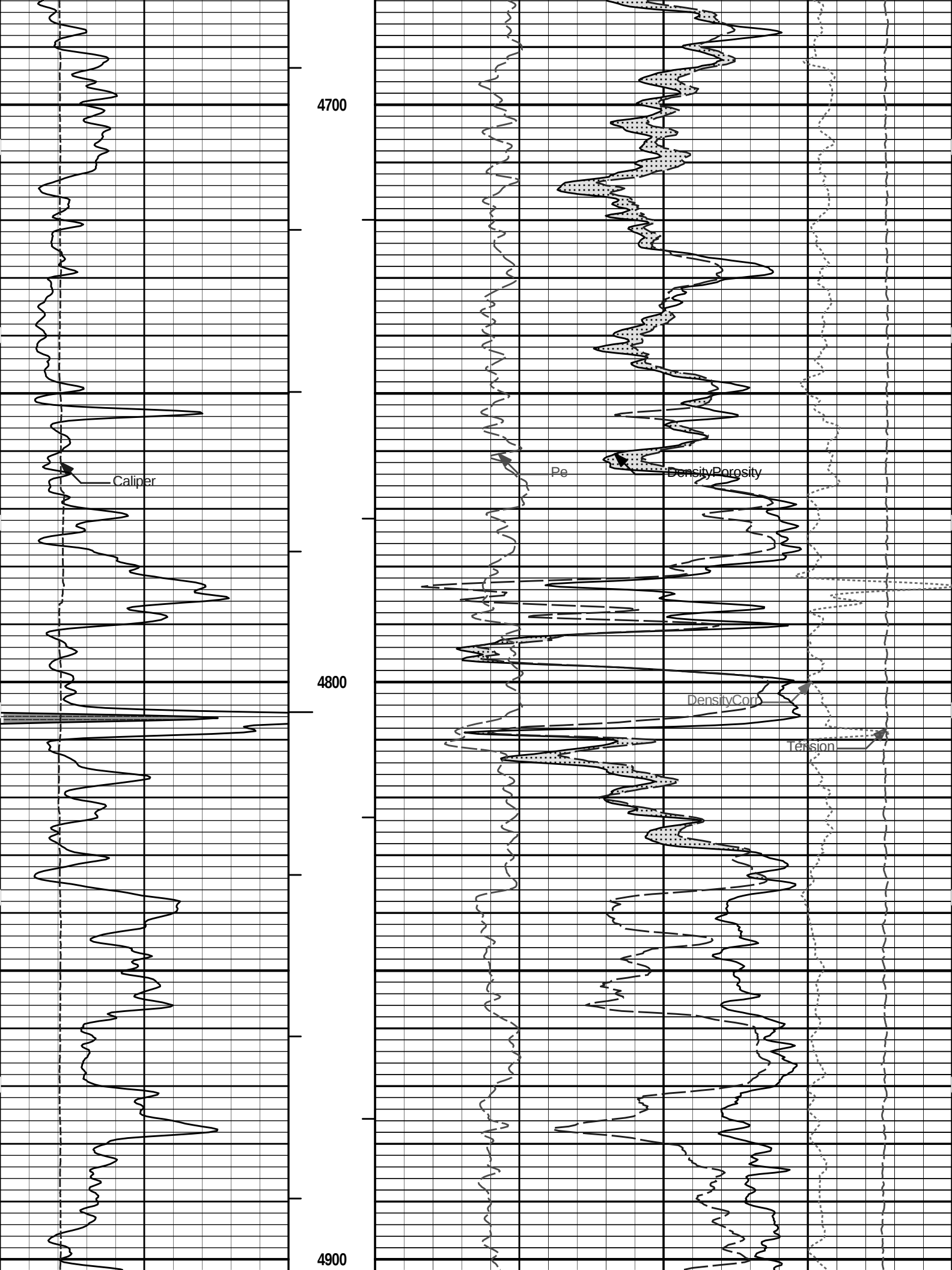
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Plot Range: 4200 ft to 6966 ft
Data: WIGGAINS_12_10\Well Based\DETAIL\
Plot File: \\POROI\Poro IQ 5 MAIN LIB

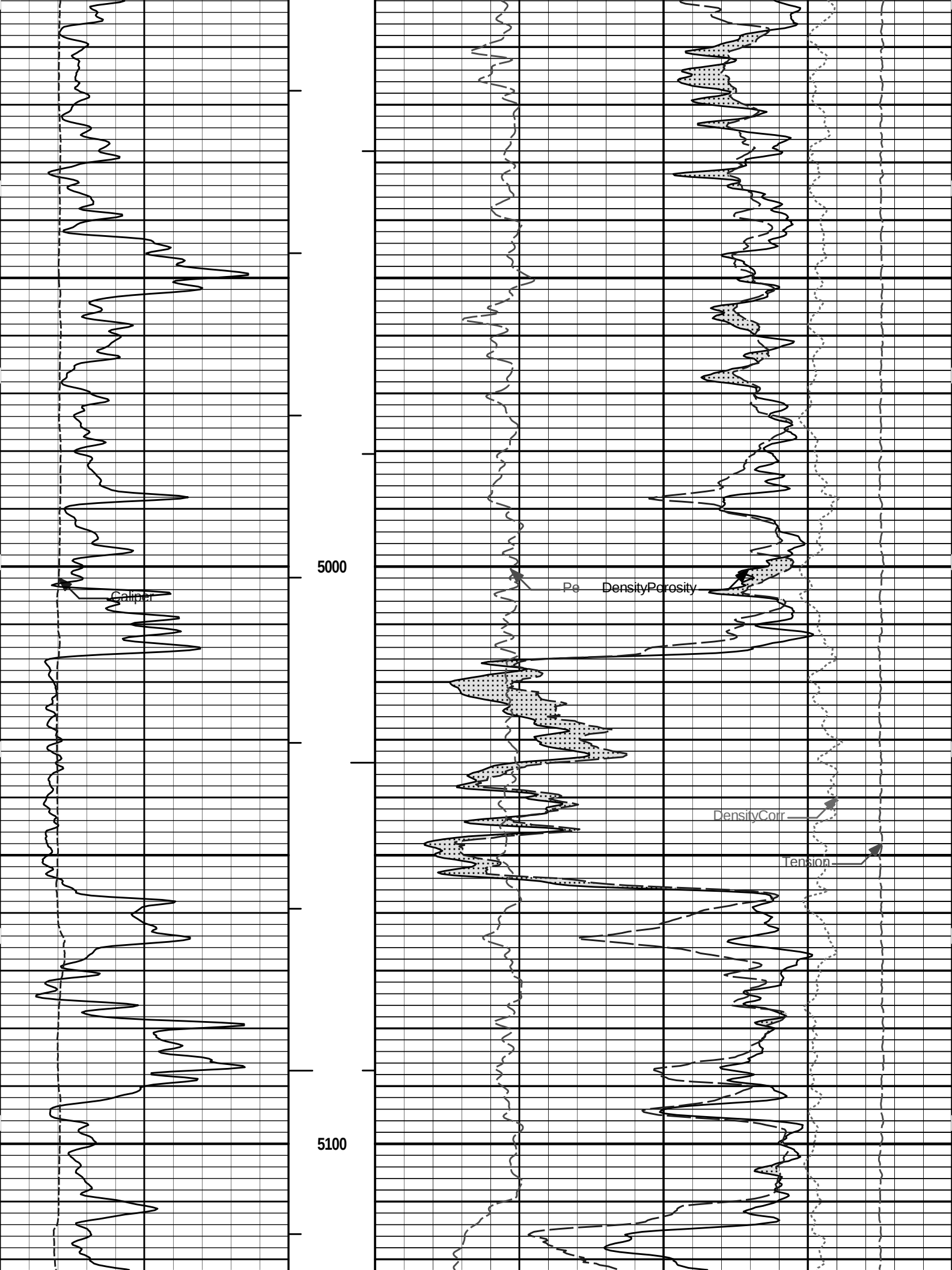
5 INCH MAIN LOG

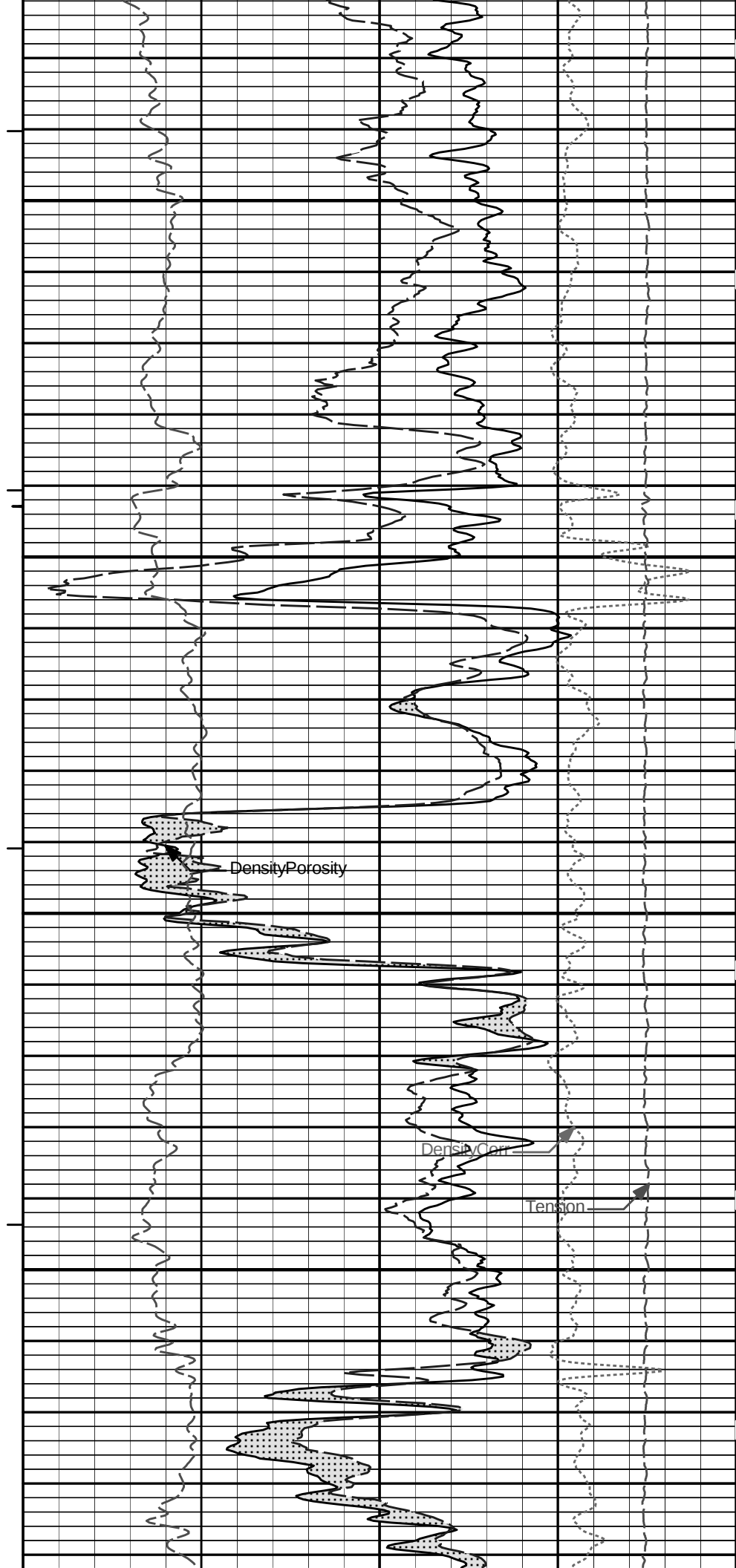
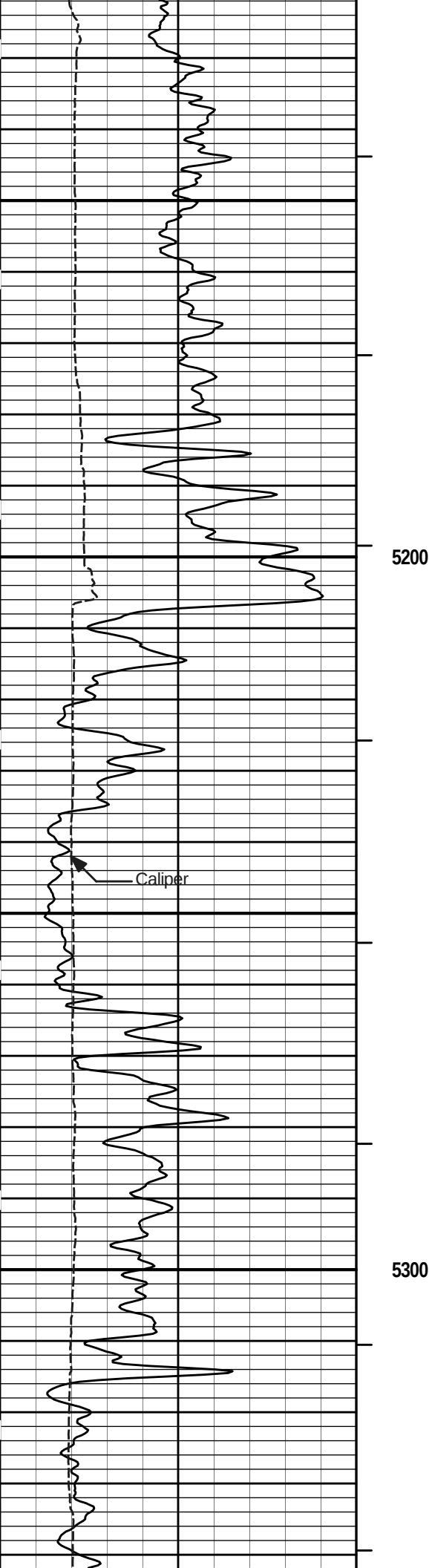


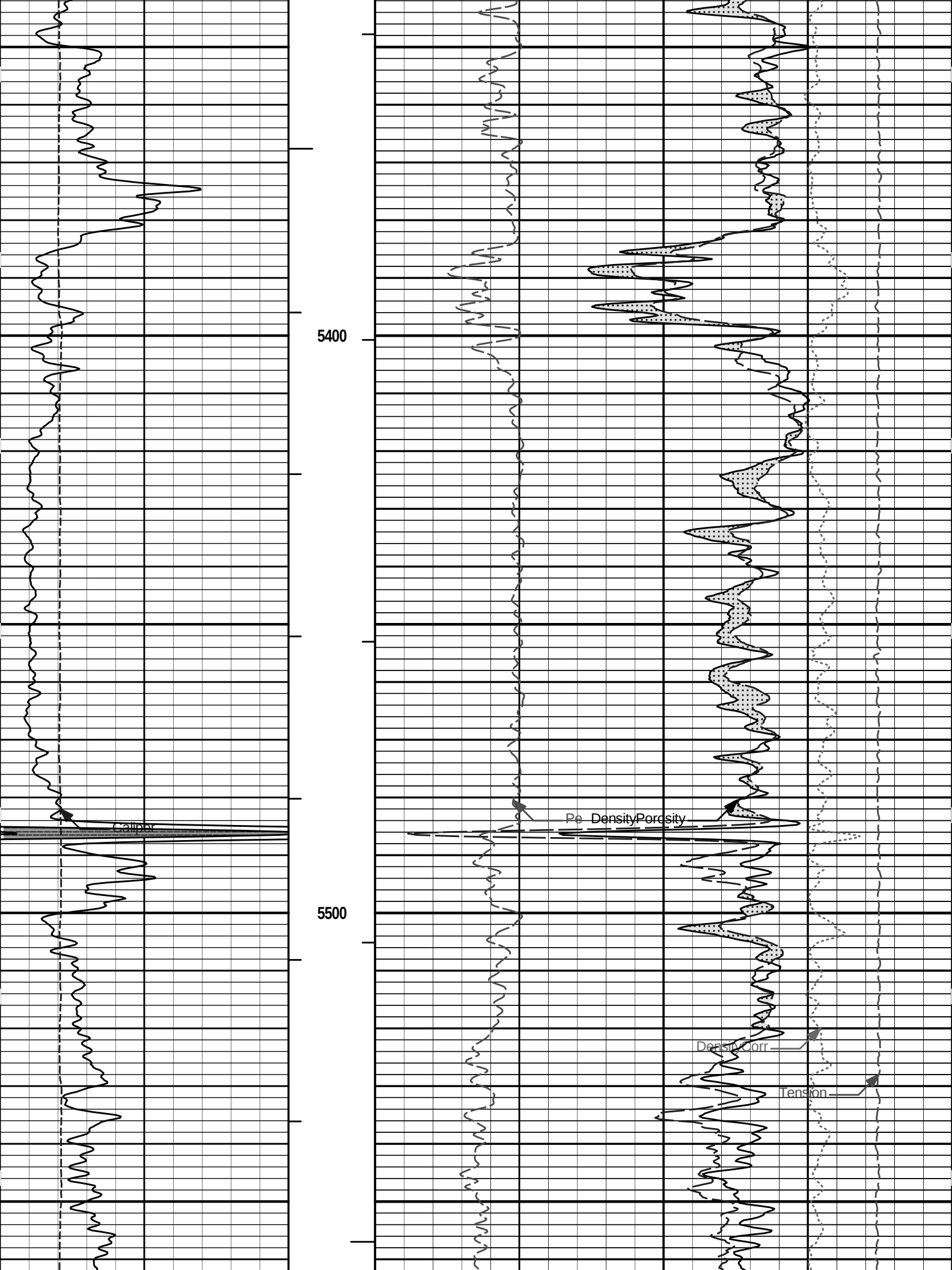


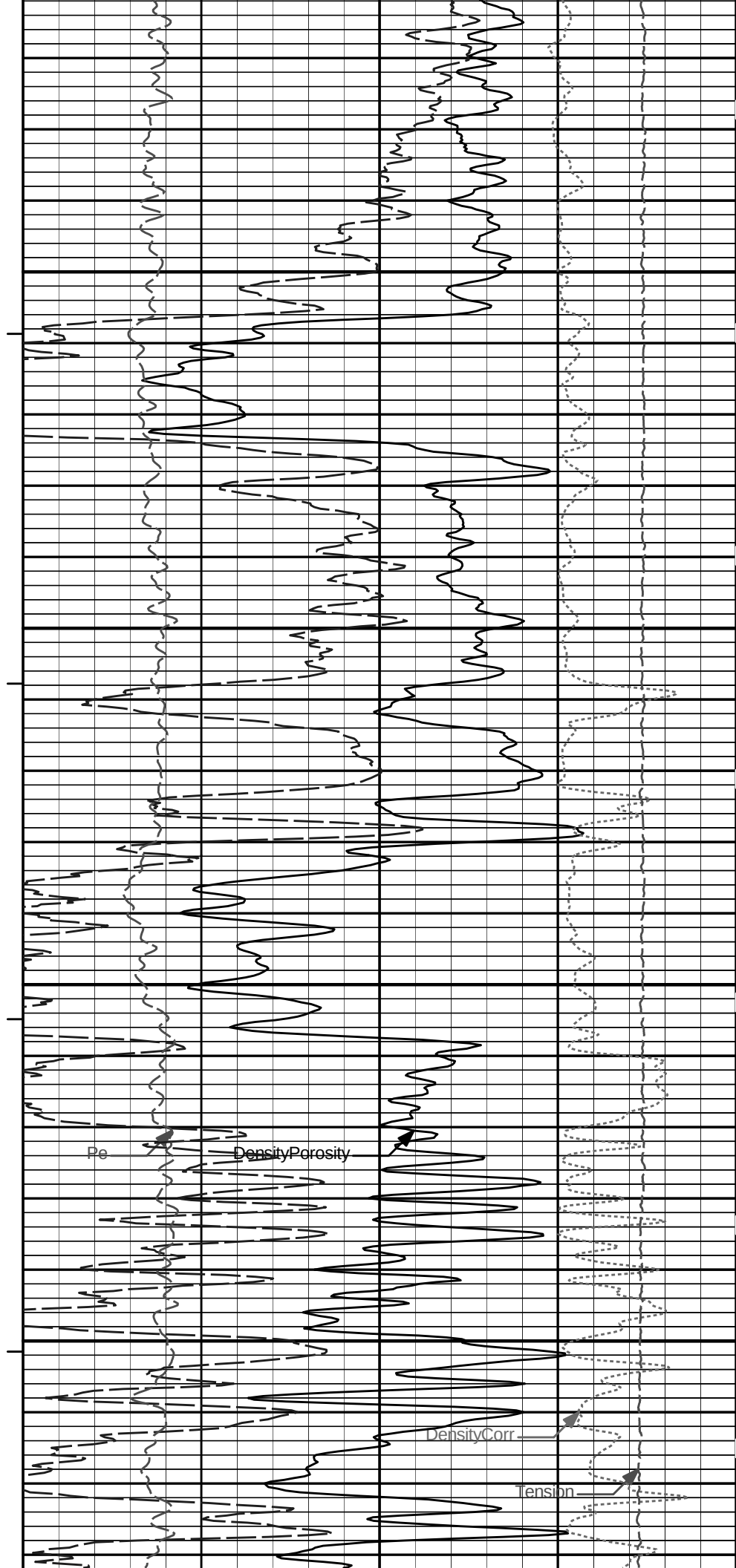
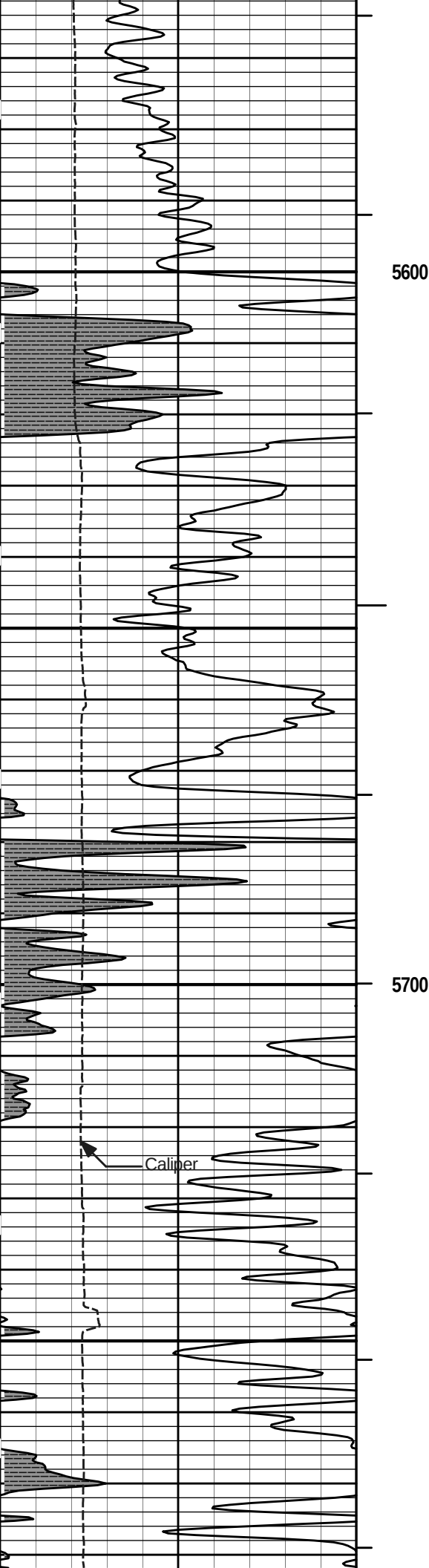


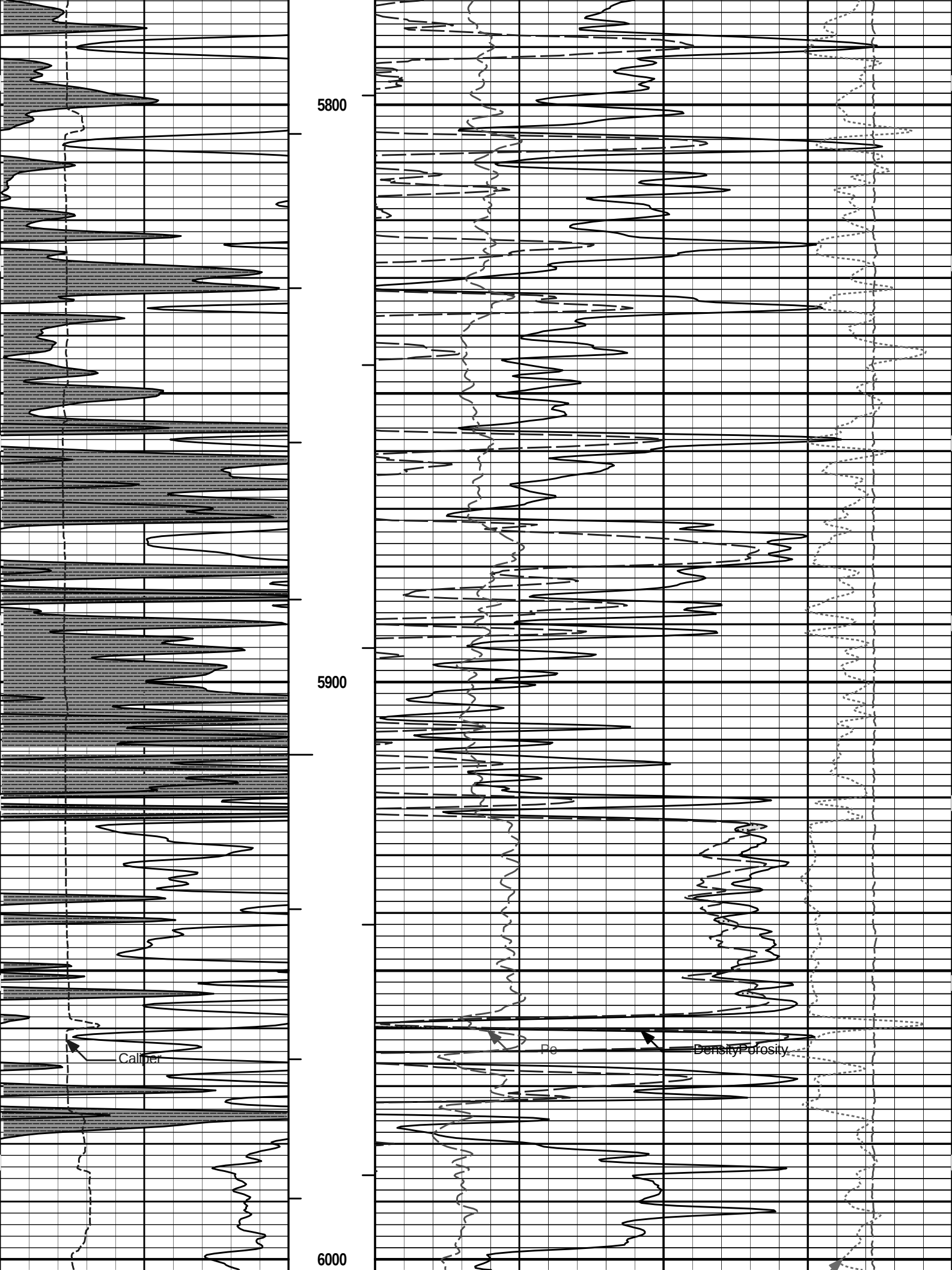


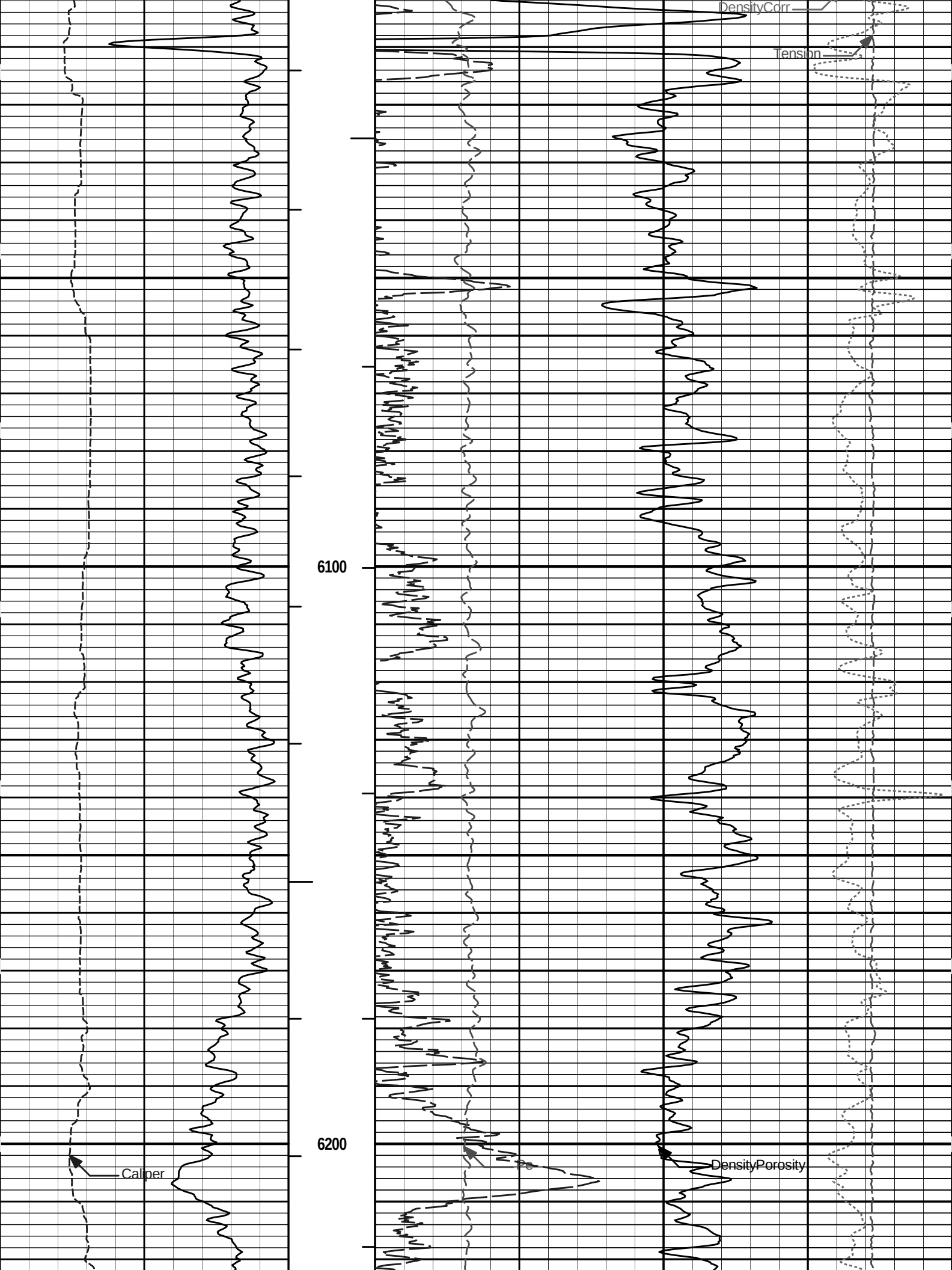


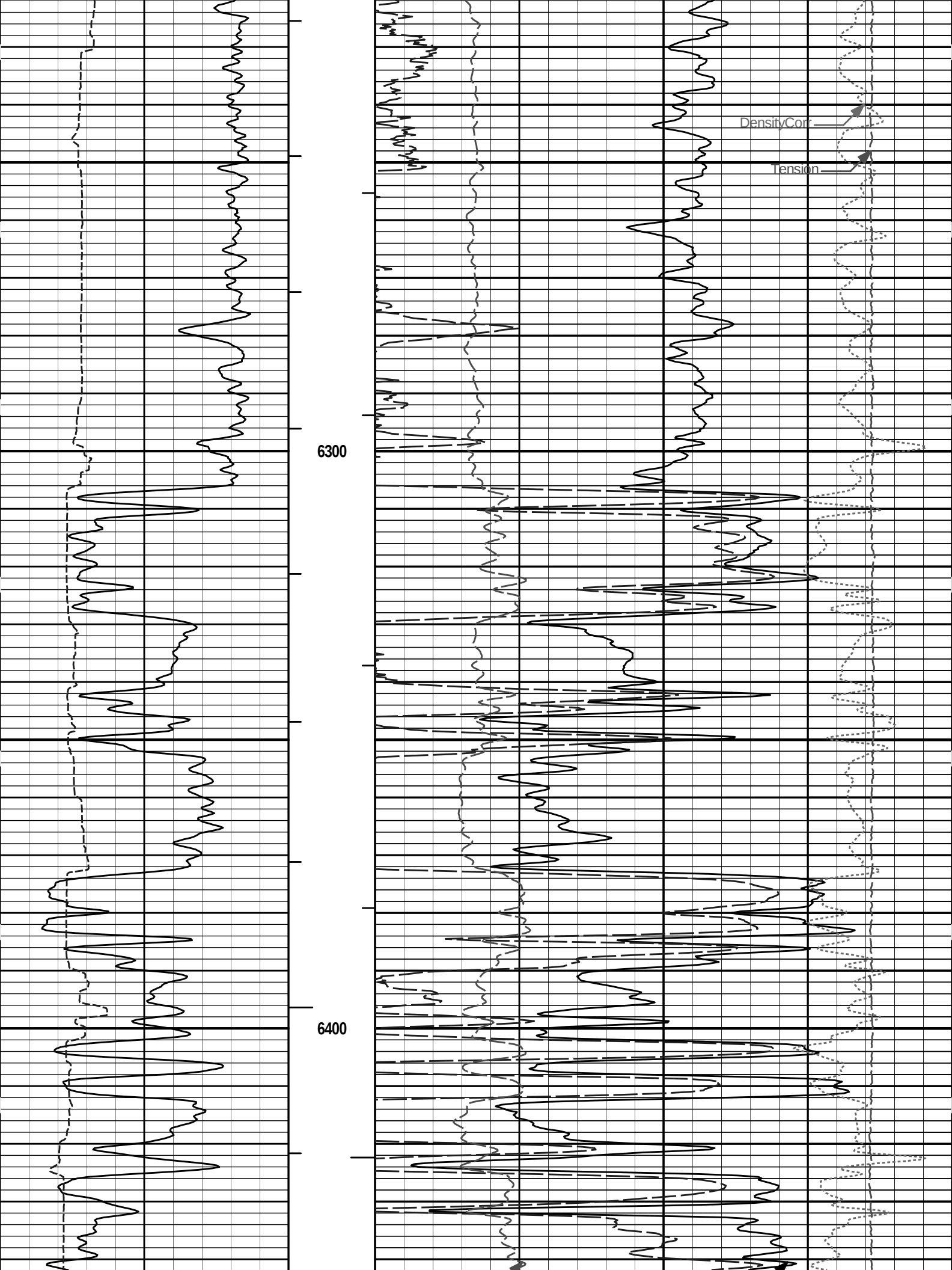


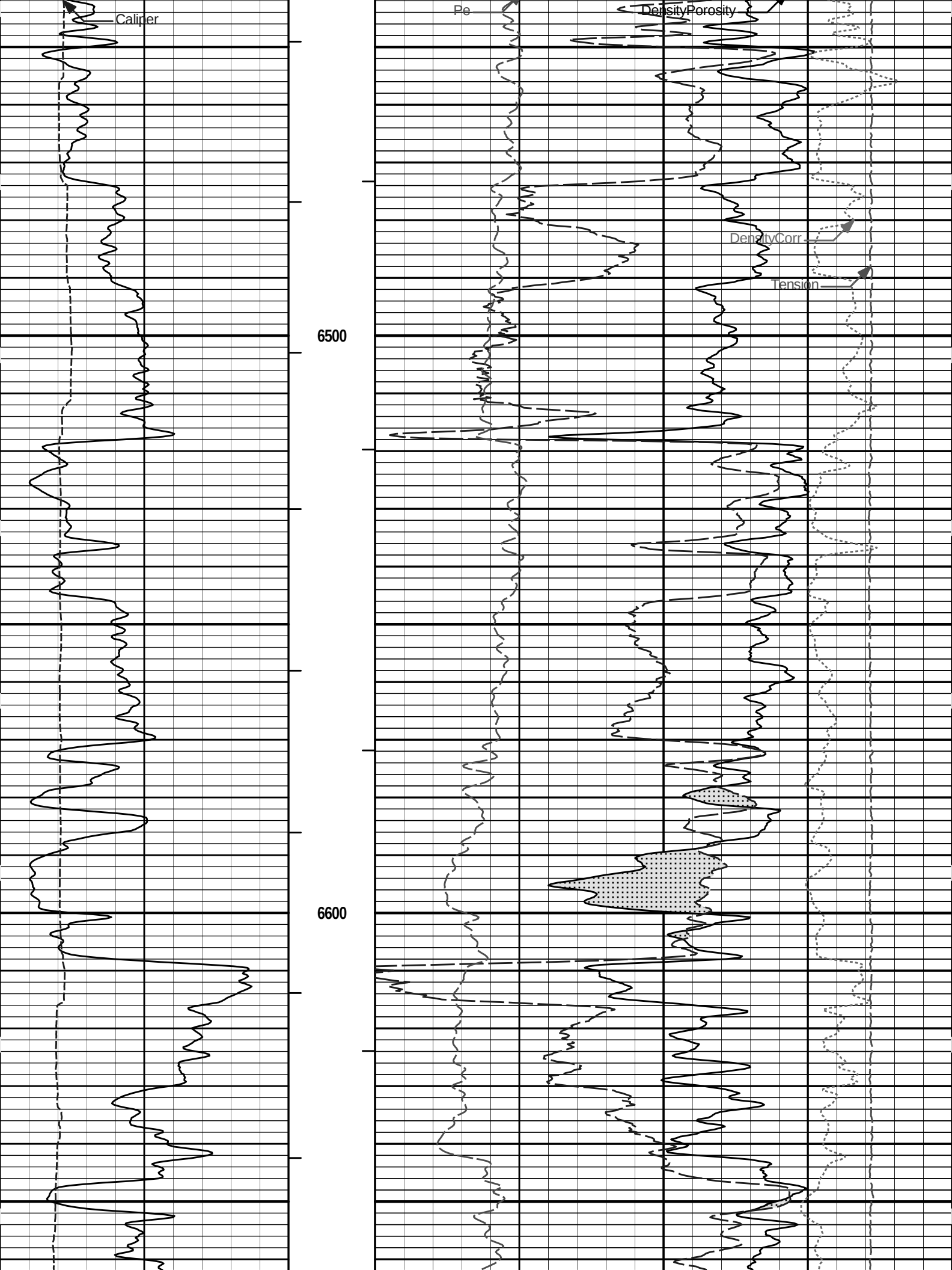


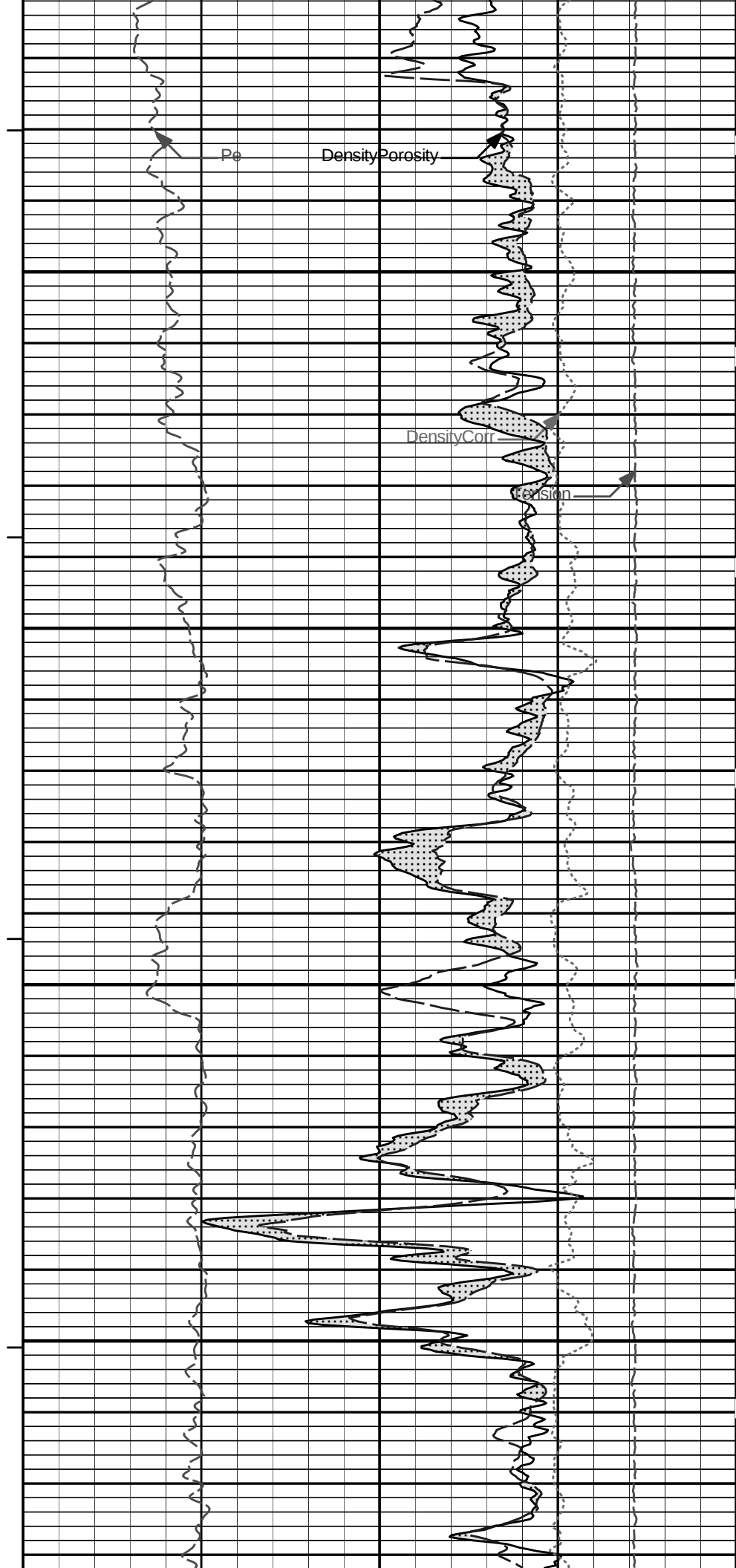
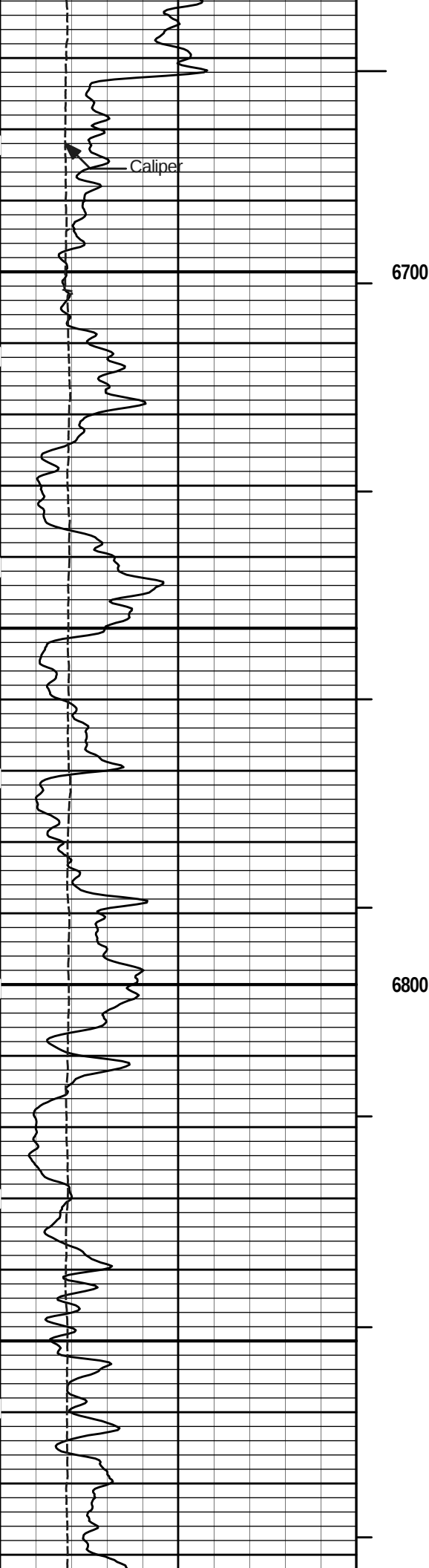


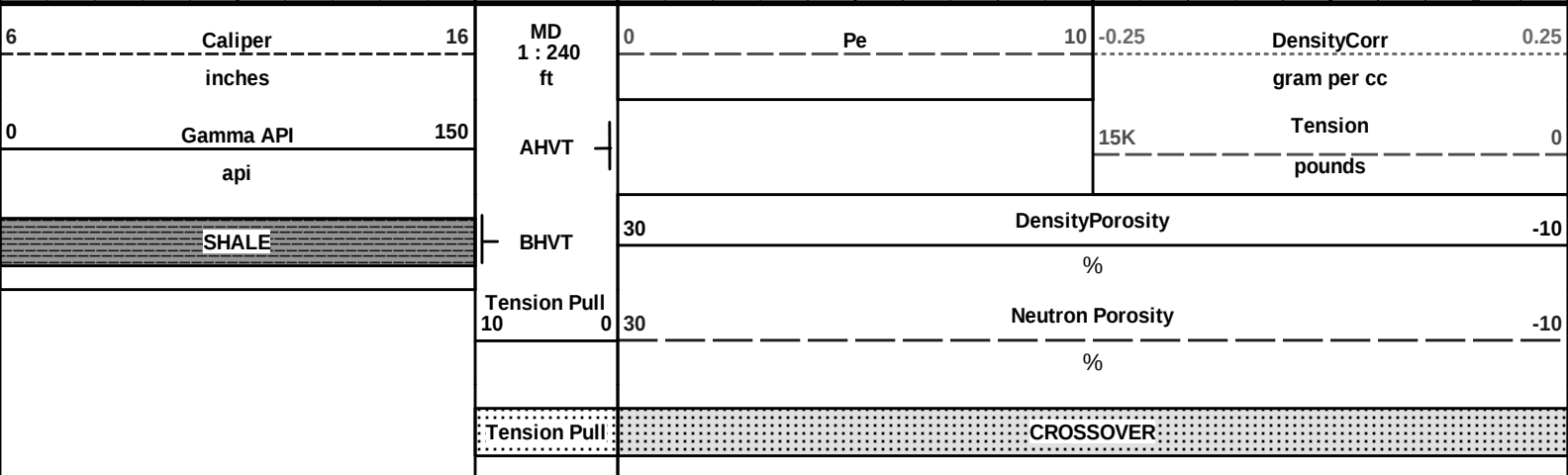












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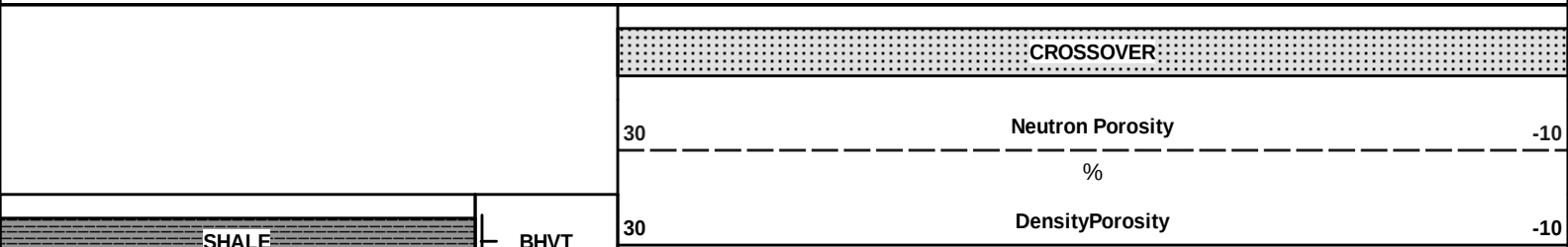
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Data: WIGGAINS_12_10\Well Based\DETAIL\
Plot File: \\PORO\Poro_IQ_5_MAIN_LIB

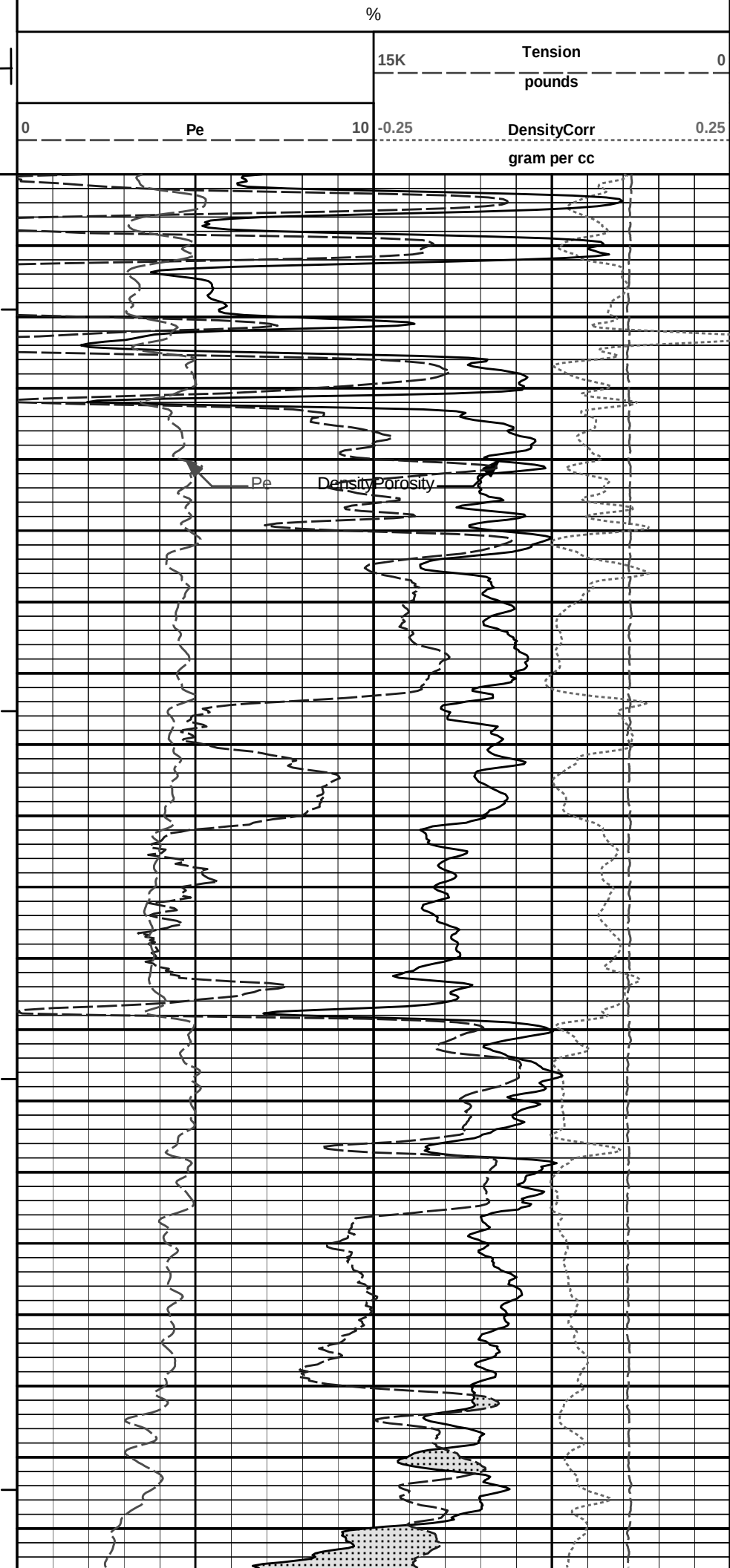
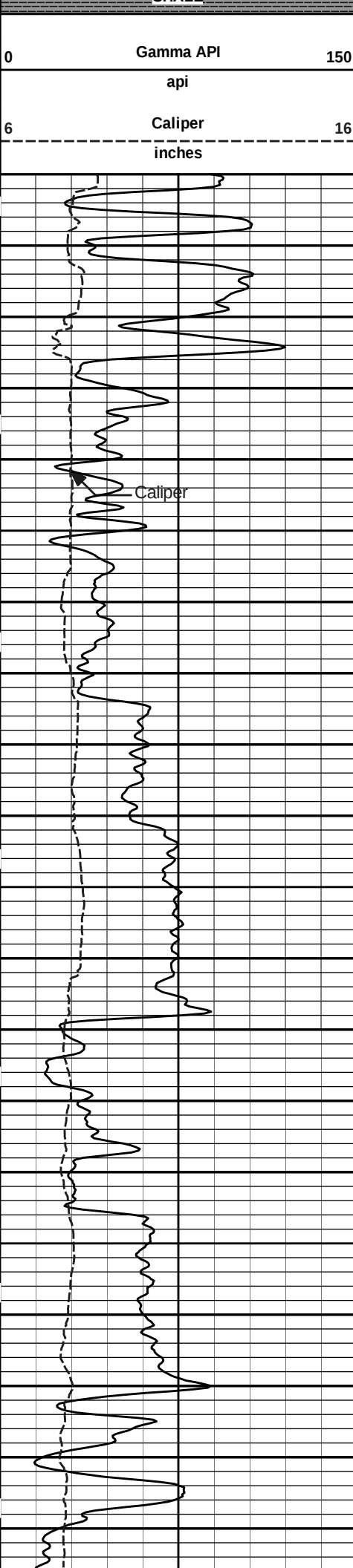
5 INCH MAIN LOG

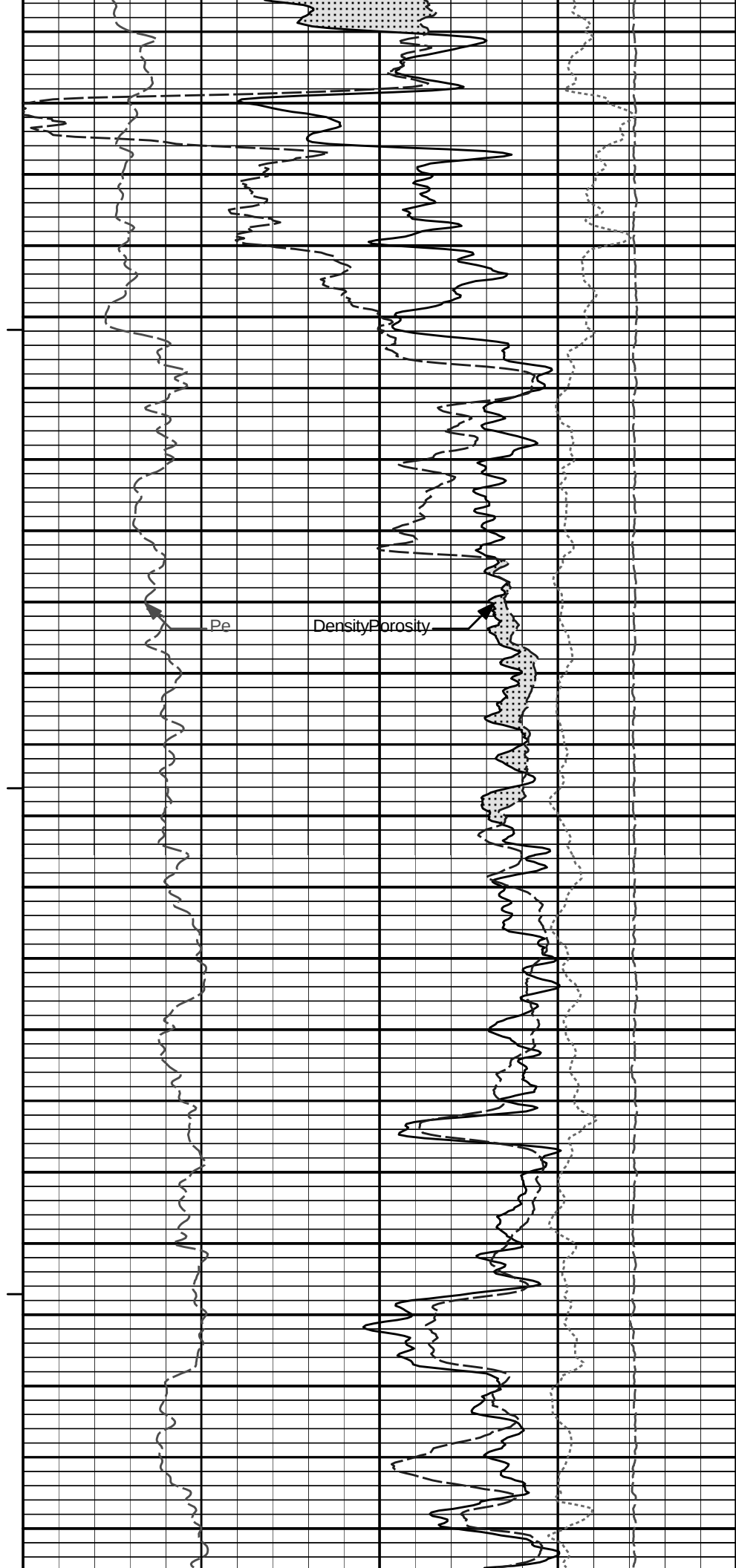
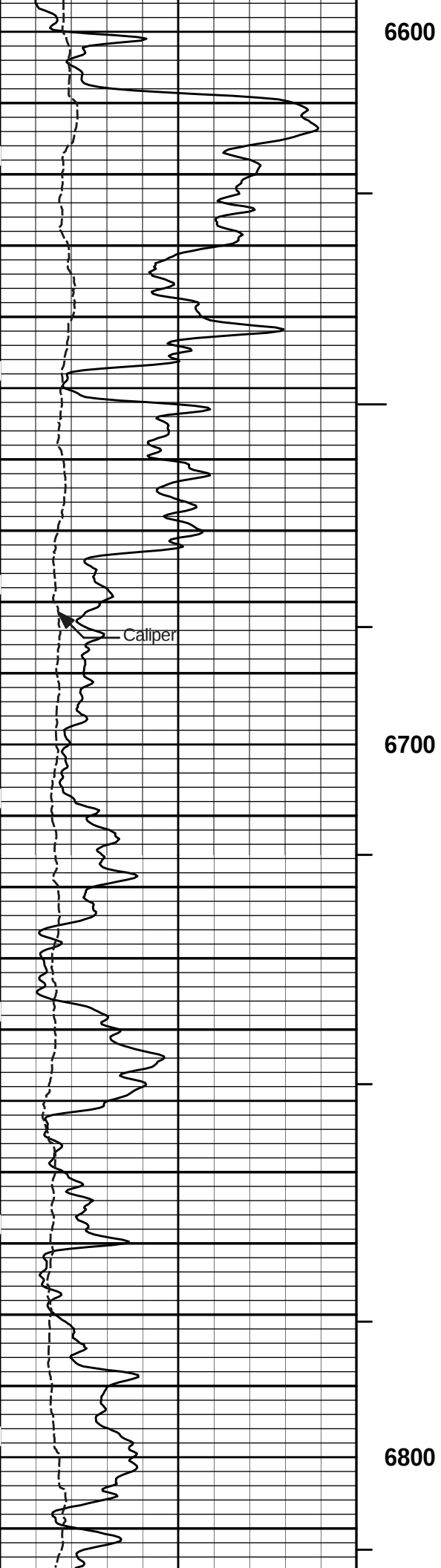
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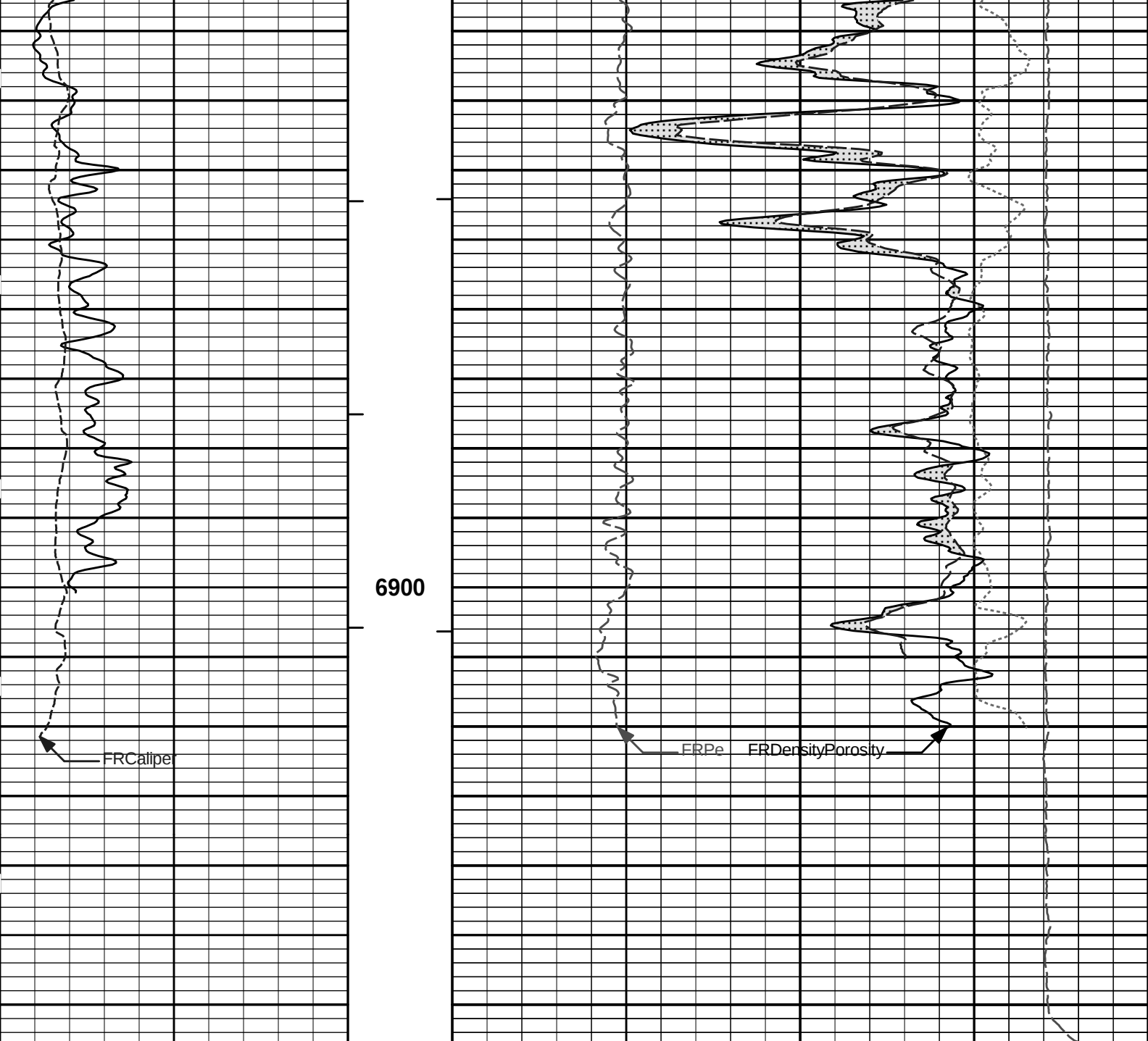
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Data: WIGGAINS_12_10\Well Based\REPEATV
Plot File: \\PORA\Porosity\IQ_5_REP_LIB

REPEAT SECTION









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

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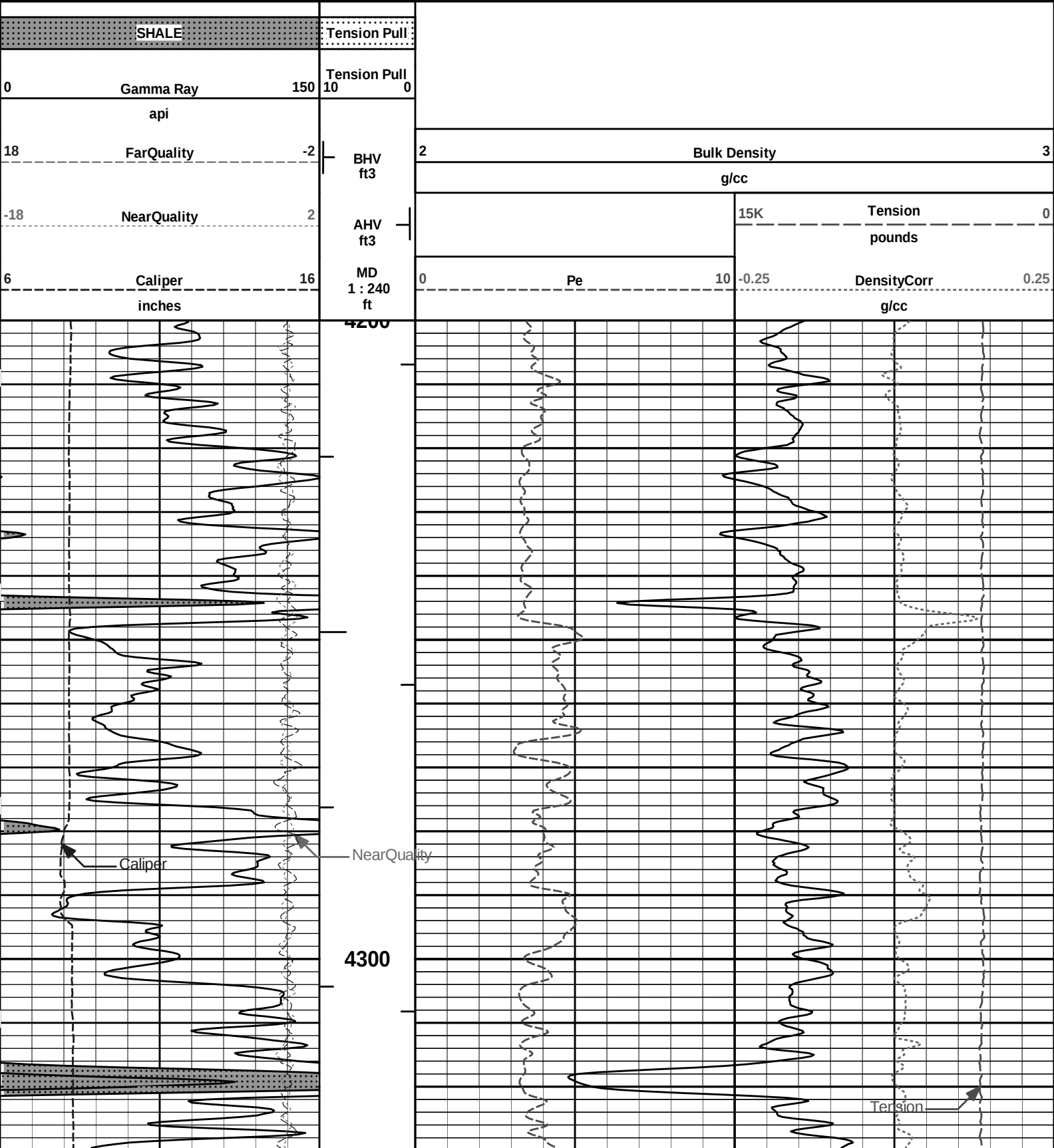
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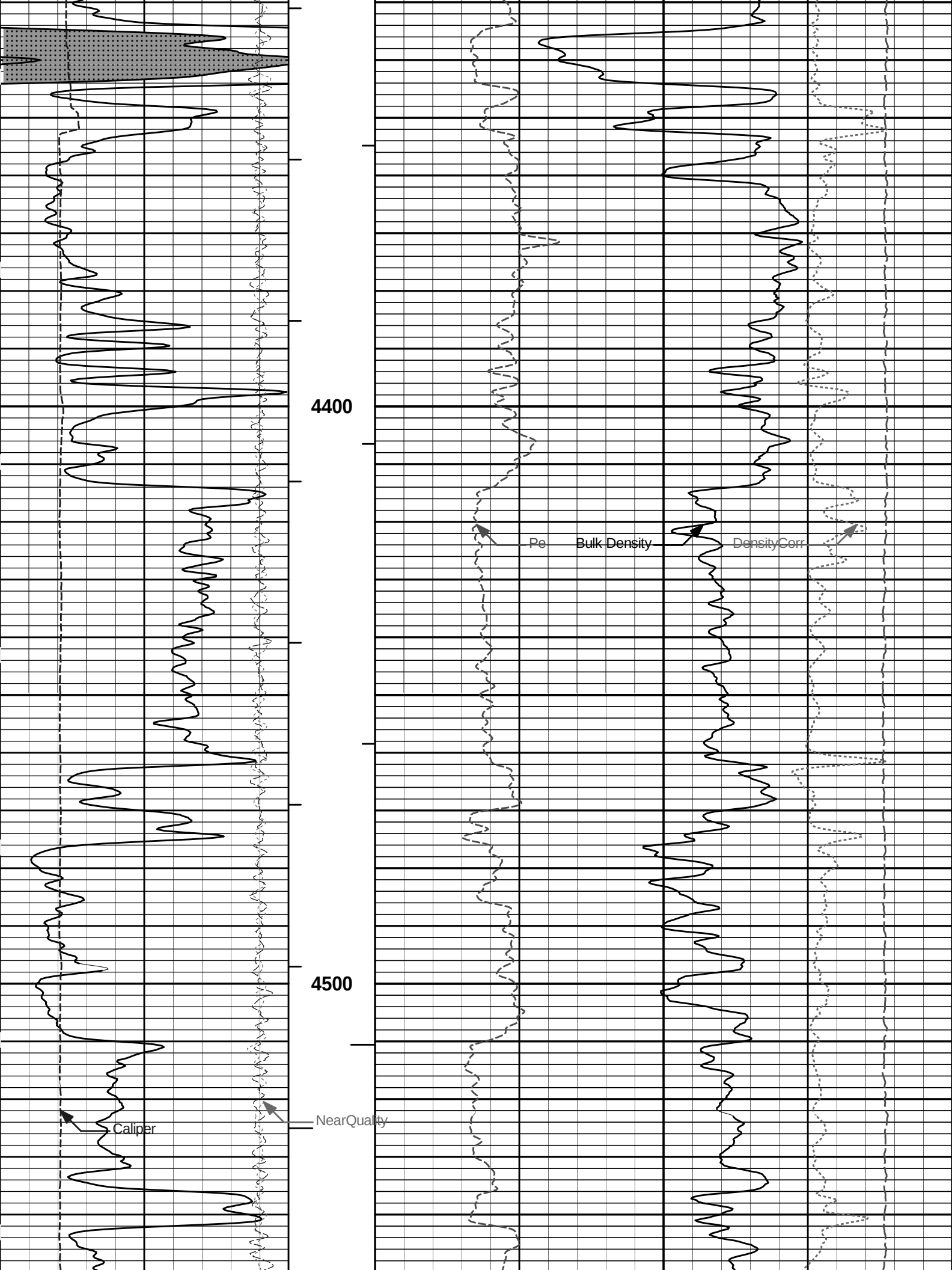
REPEAT SECTION

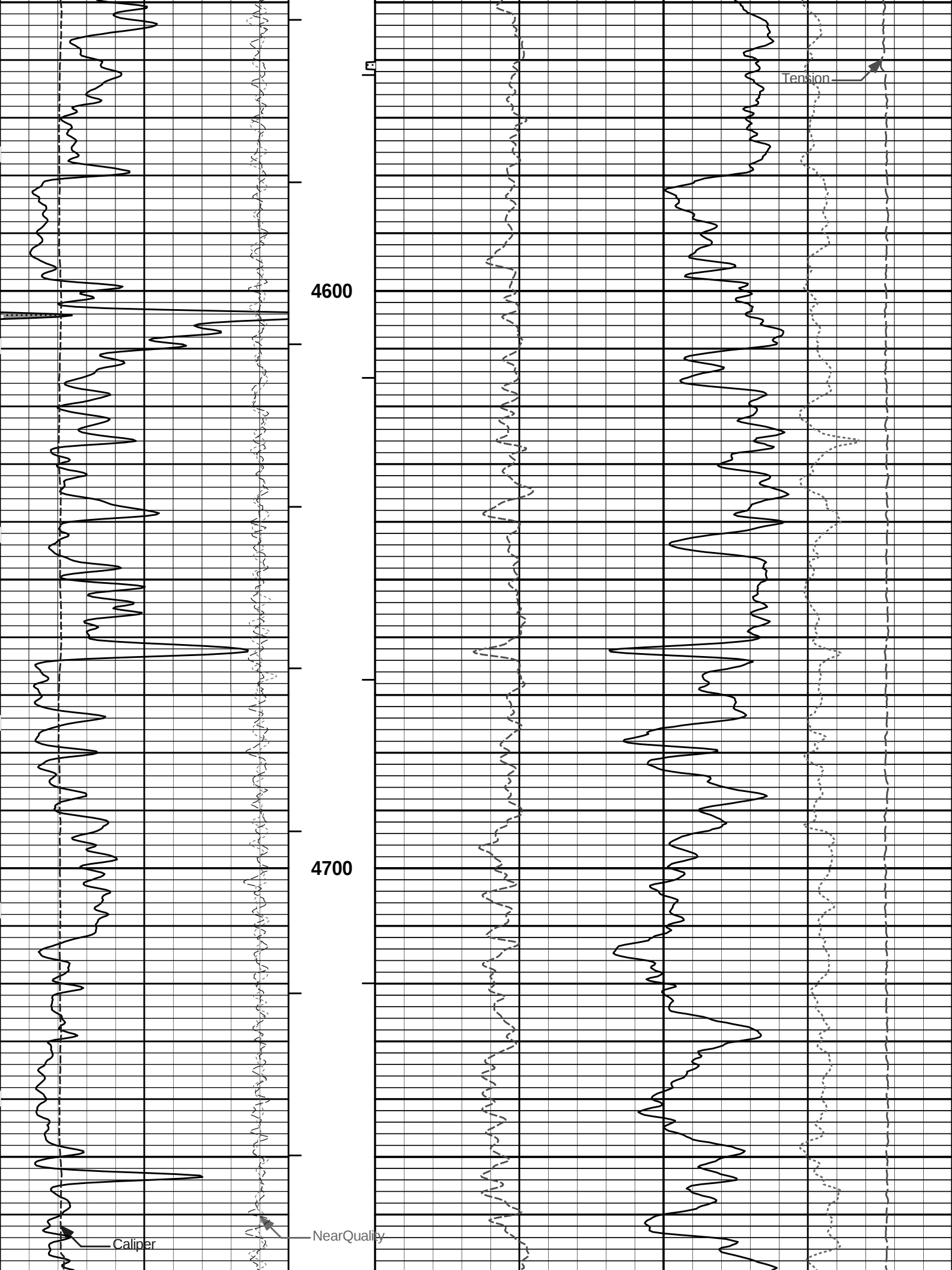
HALLIBURTON

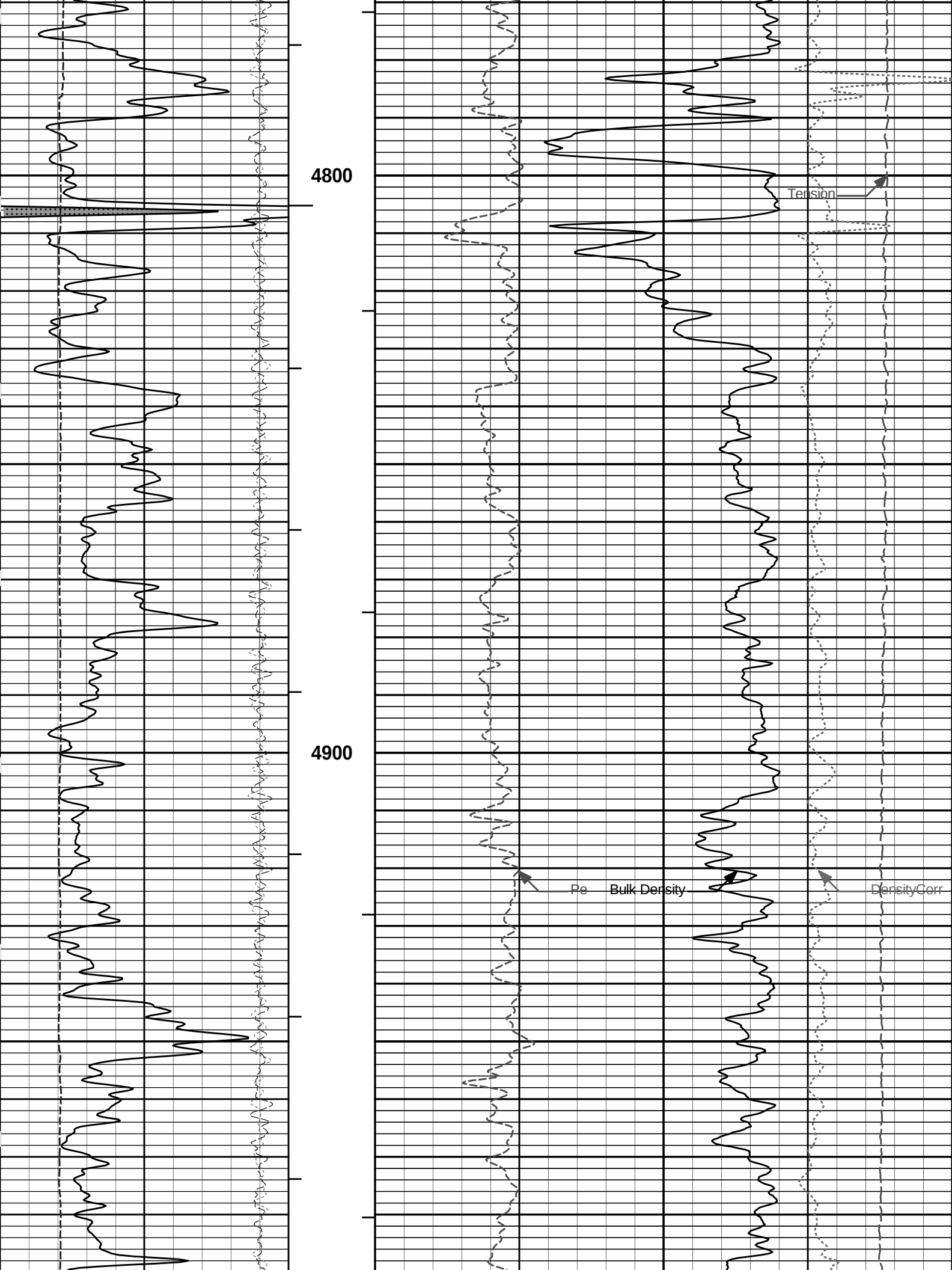
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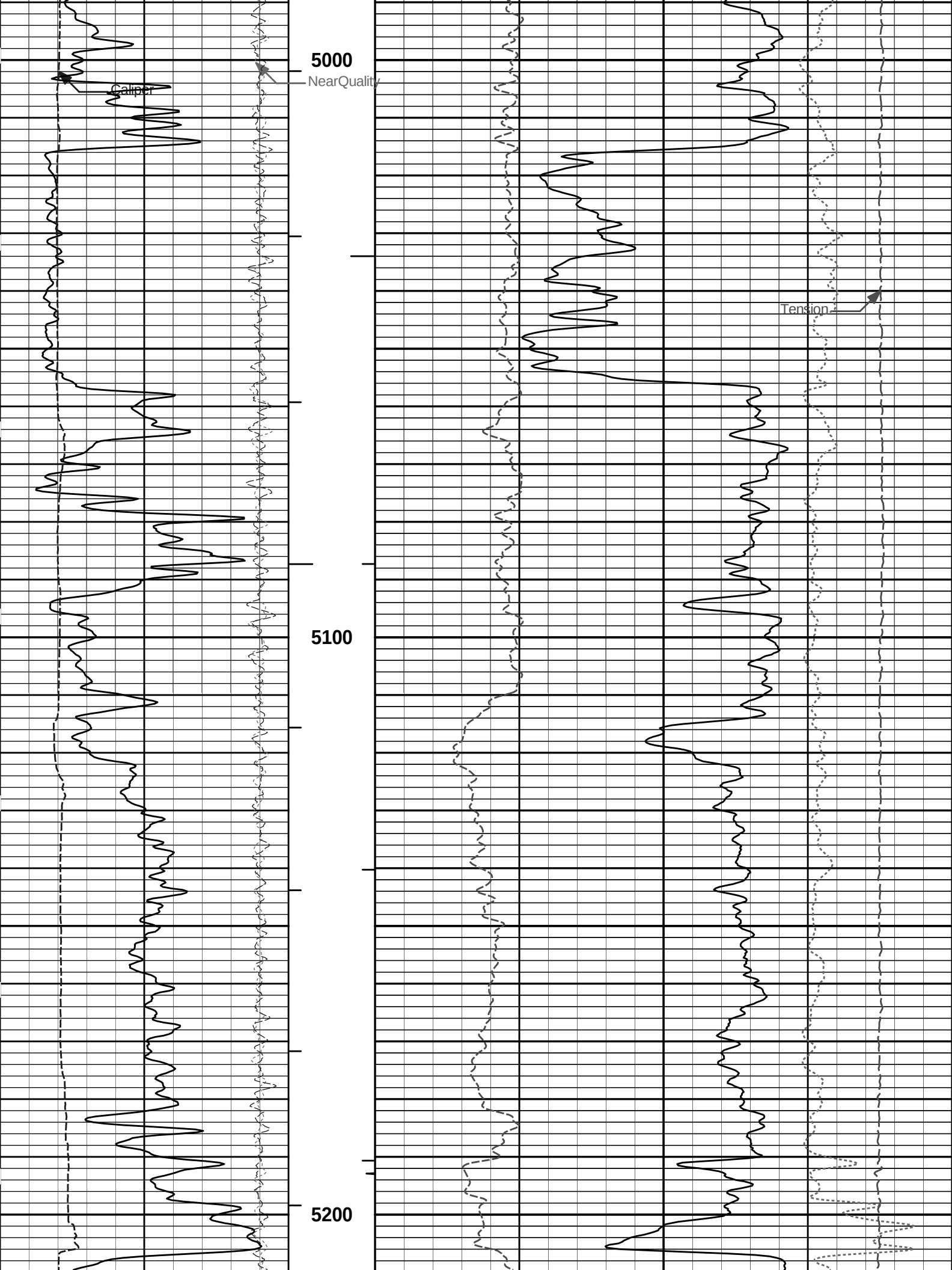
5 INCH MAIN LOG

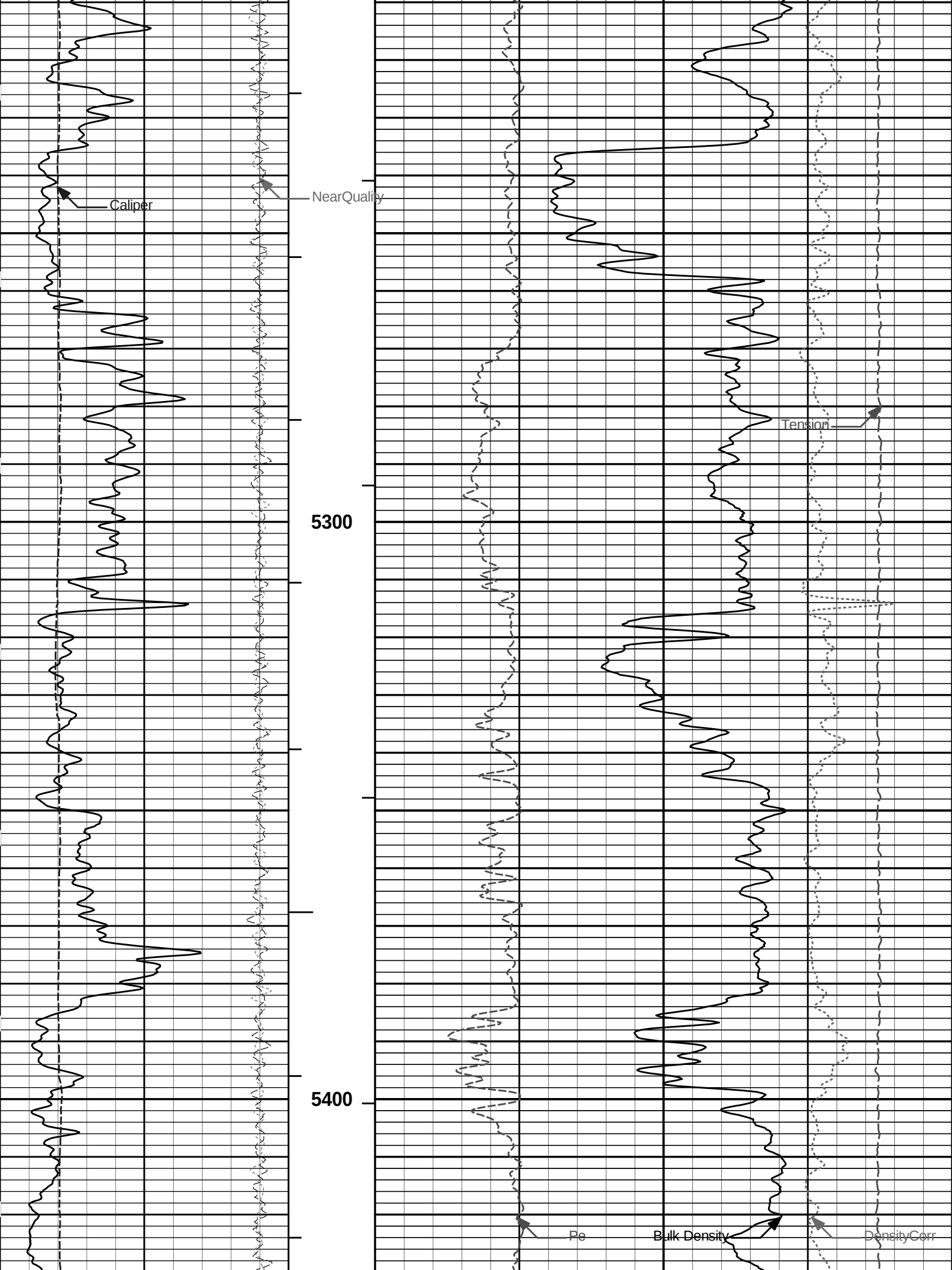


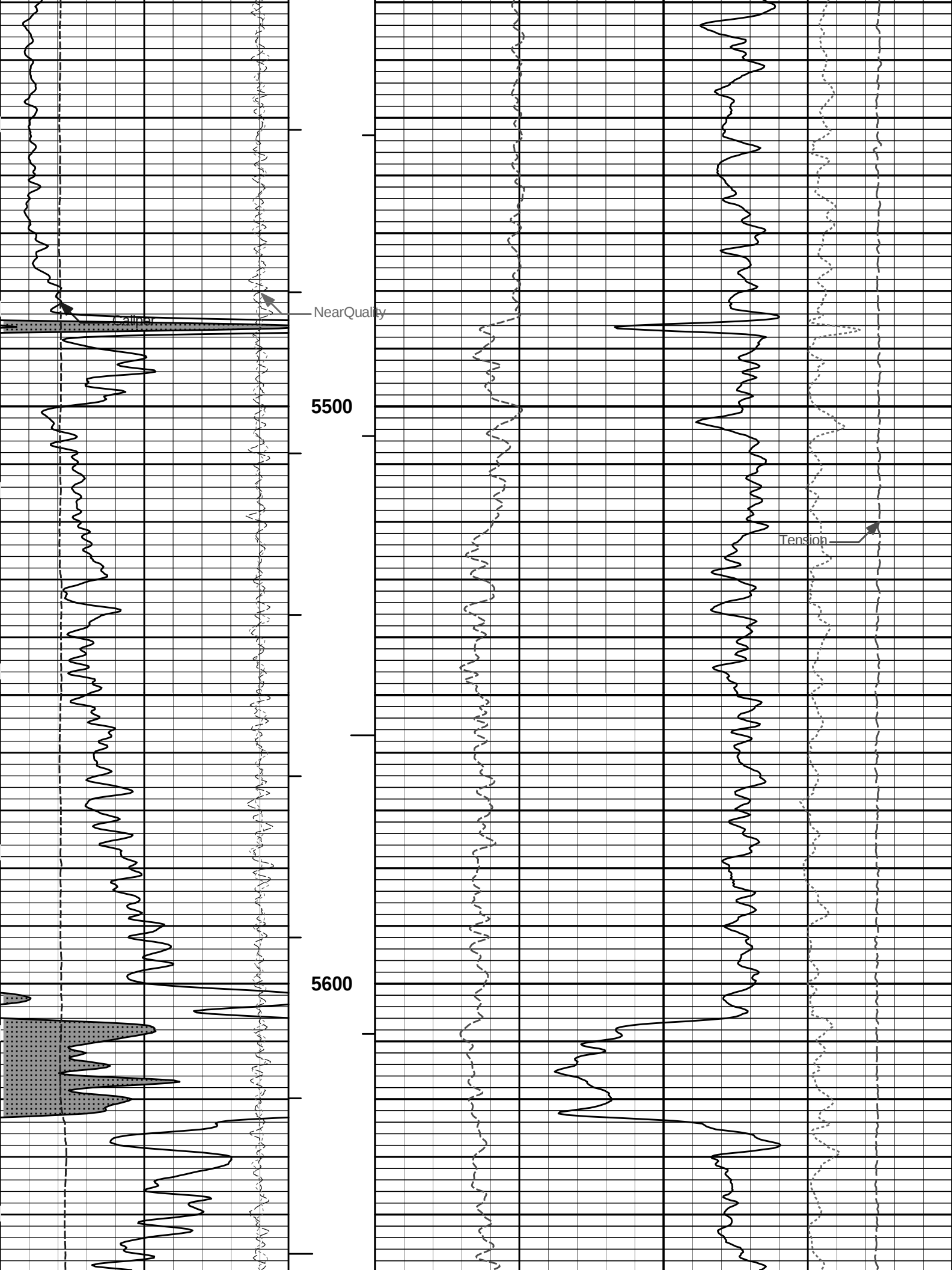


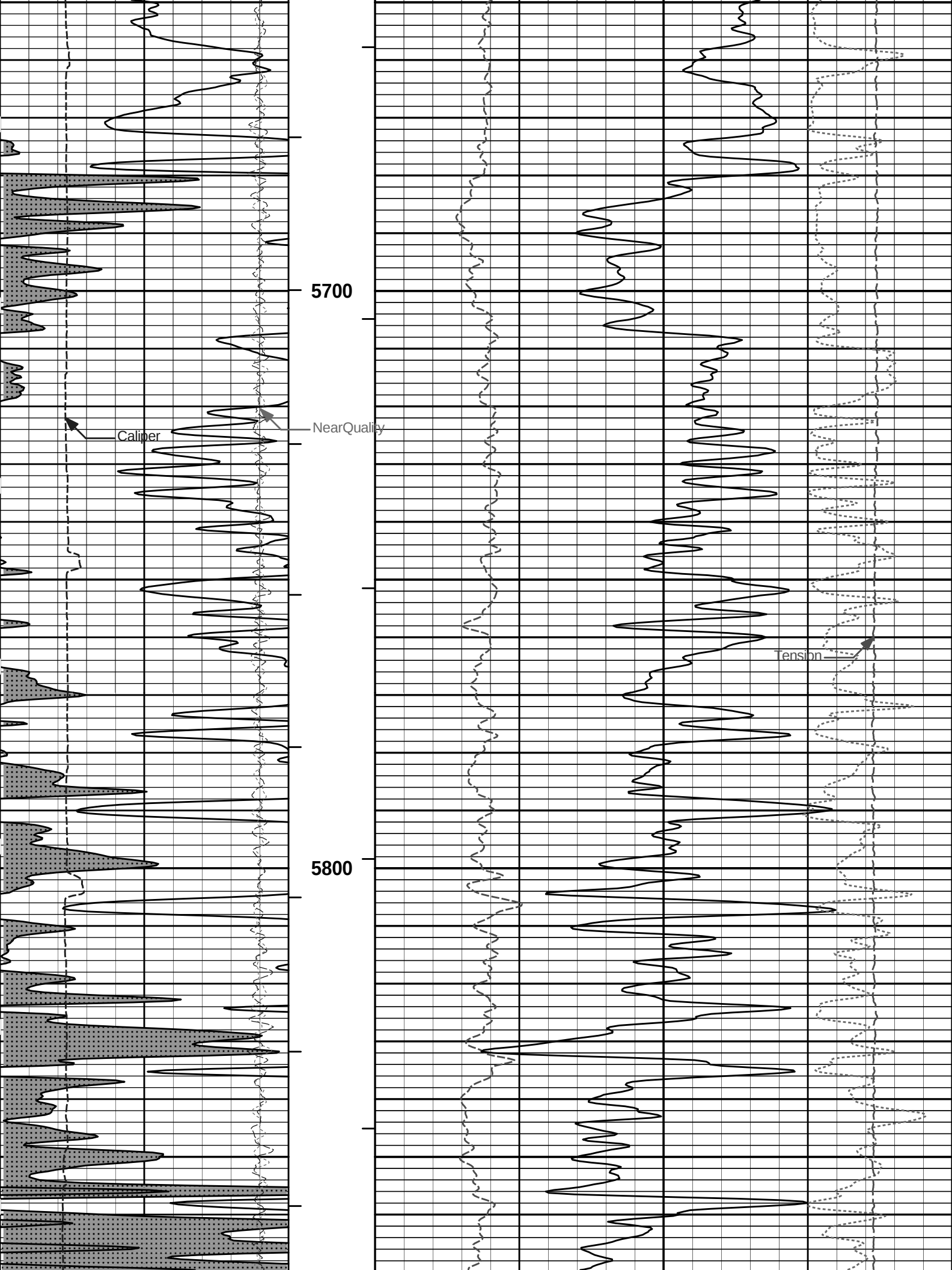


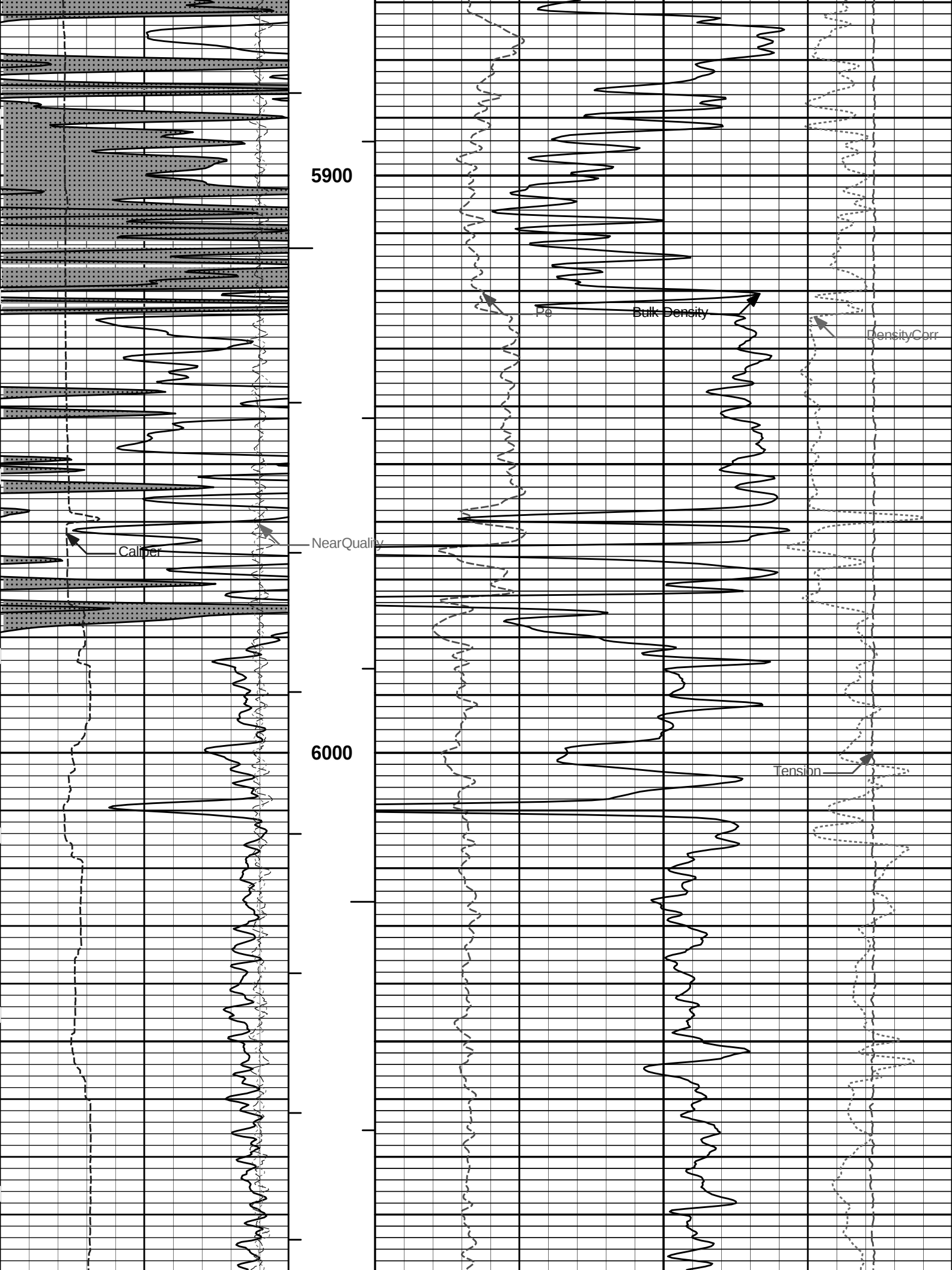


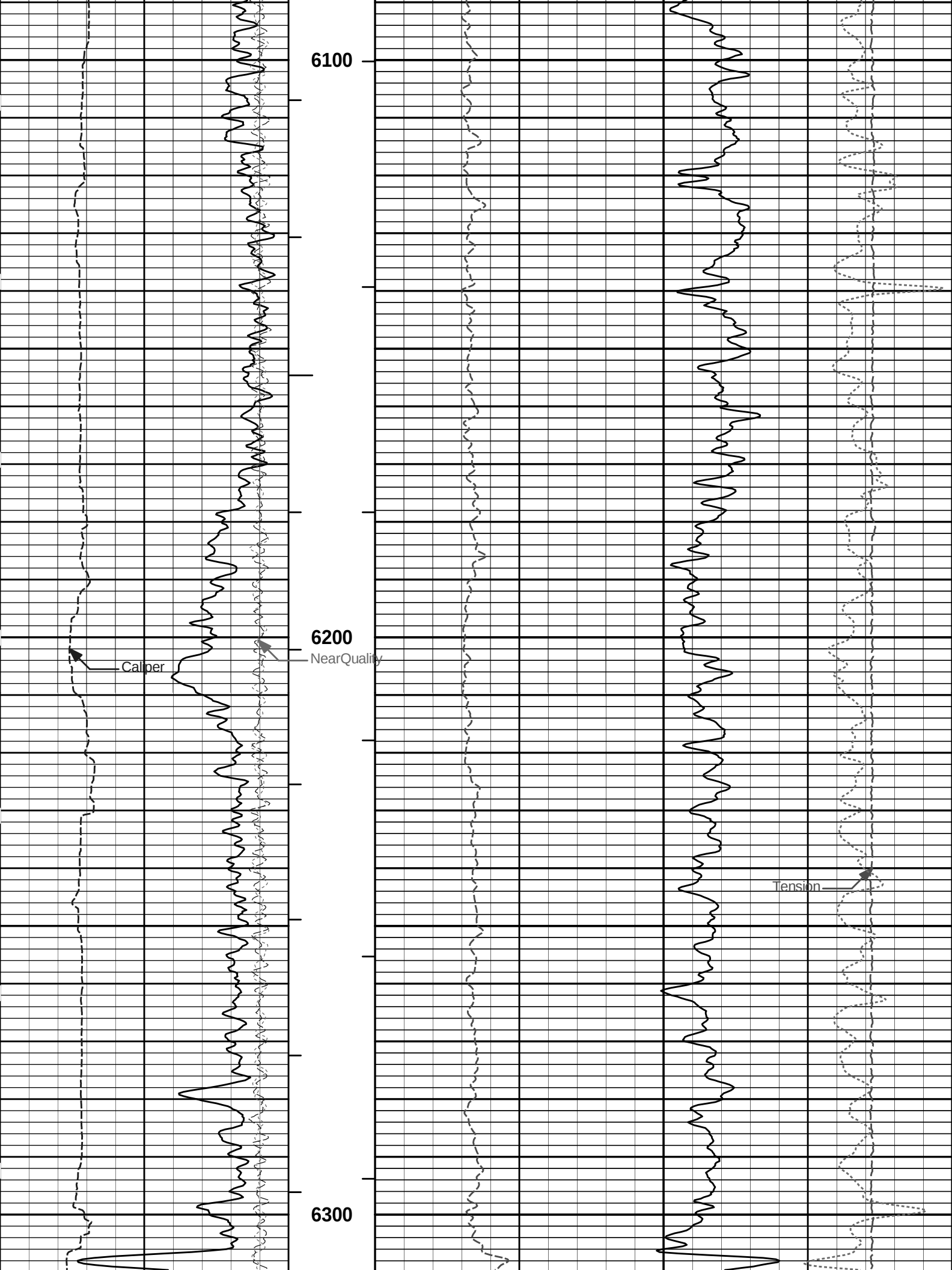


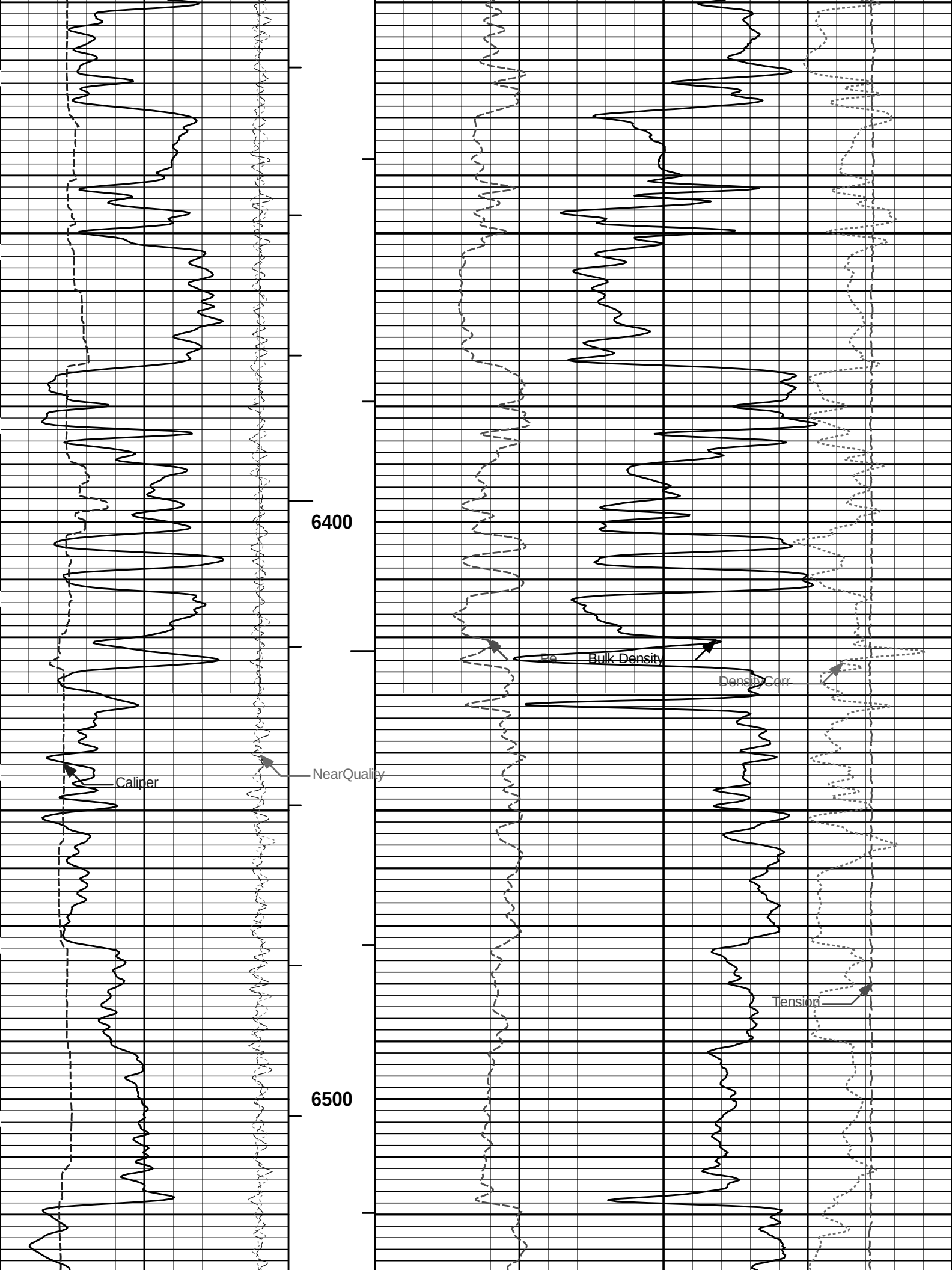


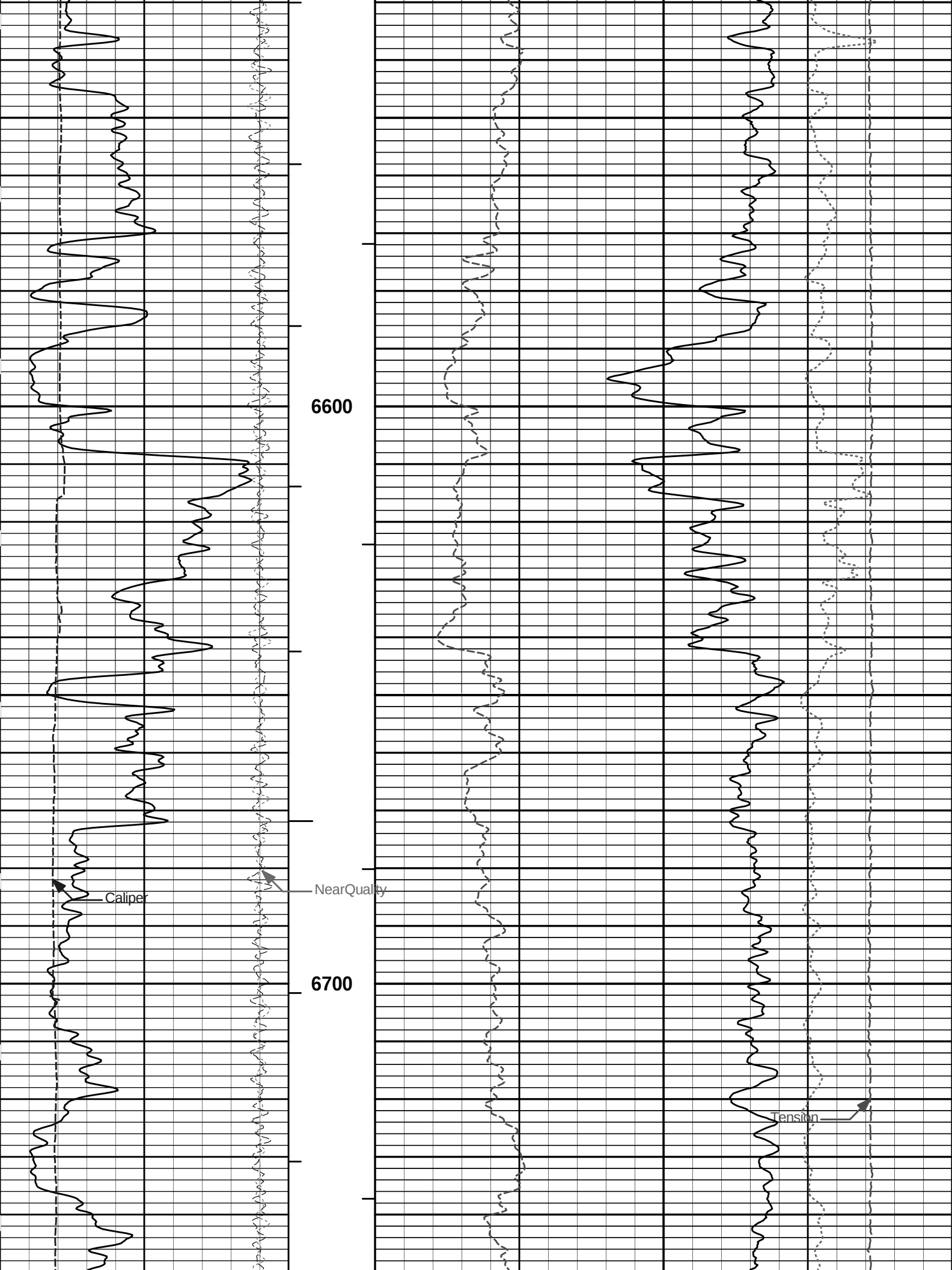


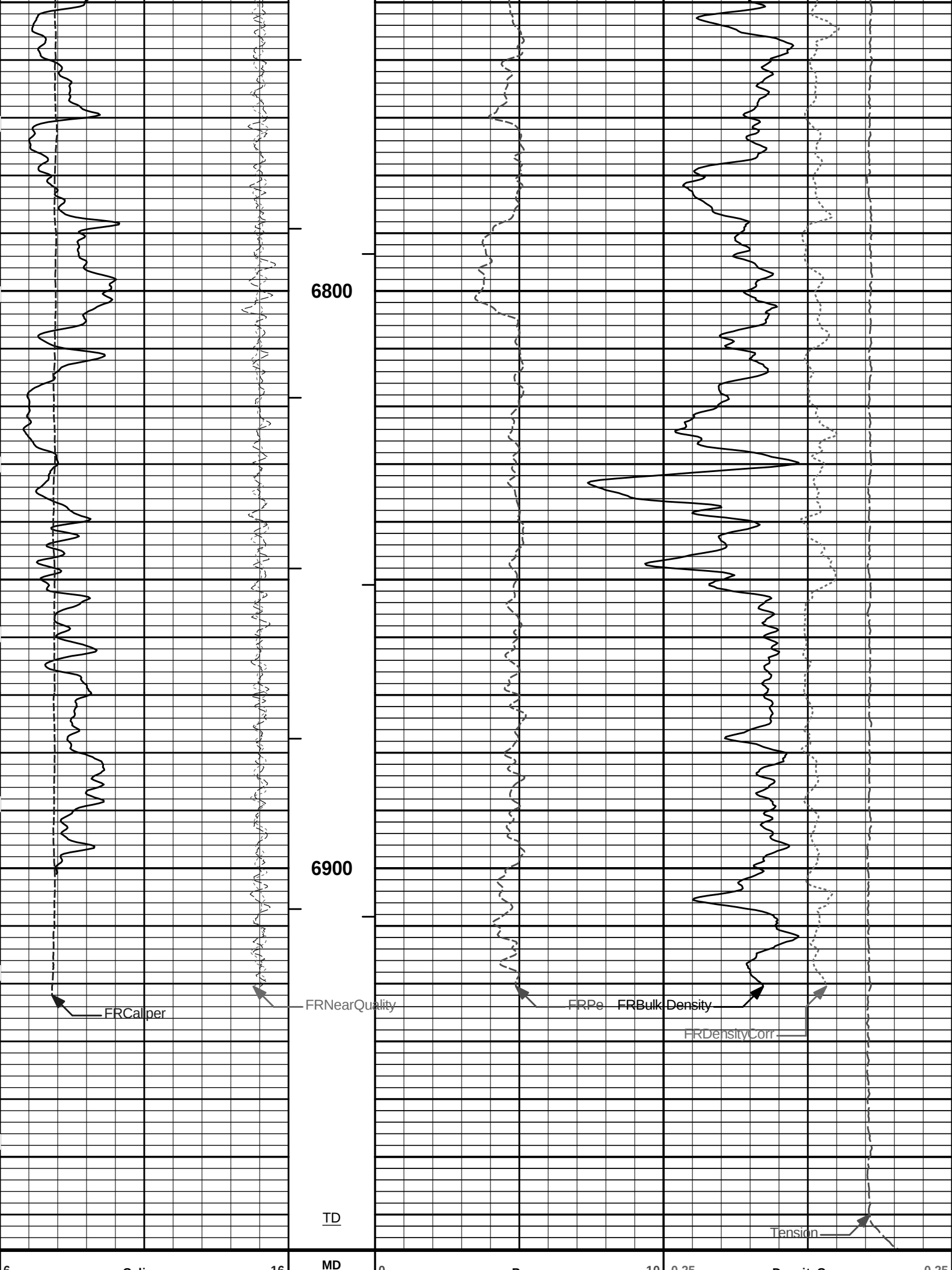












Caliper		16	1 : 240 ft	0	Pe	10	-0.25	DensityCorr	0.25	
inches							g/cc			
-18	NearQuality	2	AHV ft3				15K	Tension	0	
			pounds							
18	FarQuality	-2	BHV ft3		2		Bulk Density			3
					g/cc					
0	Gamma Ray	150	Tension Pull 10	0						
api										
SHALE			Tension Pull							

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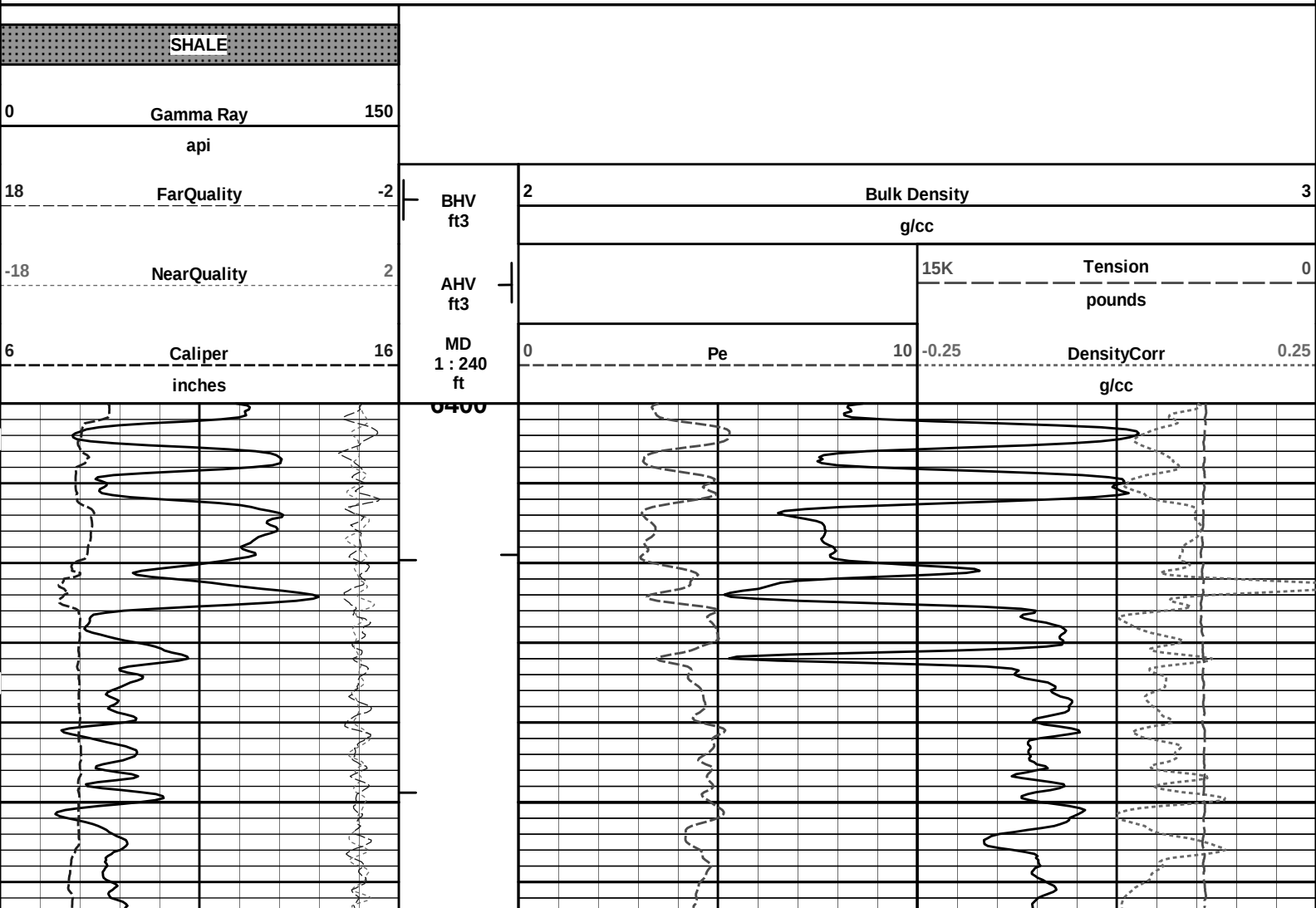
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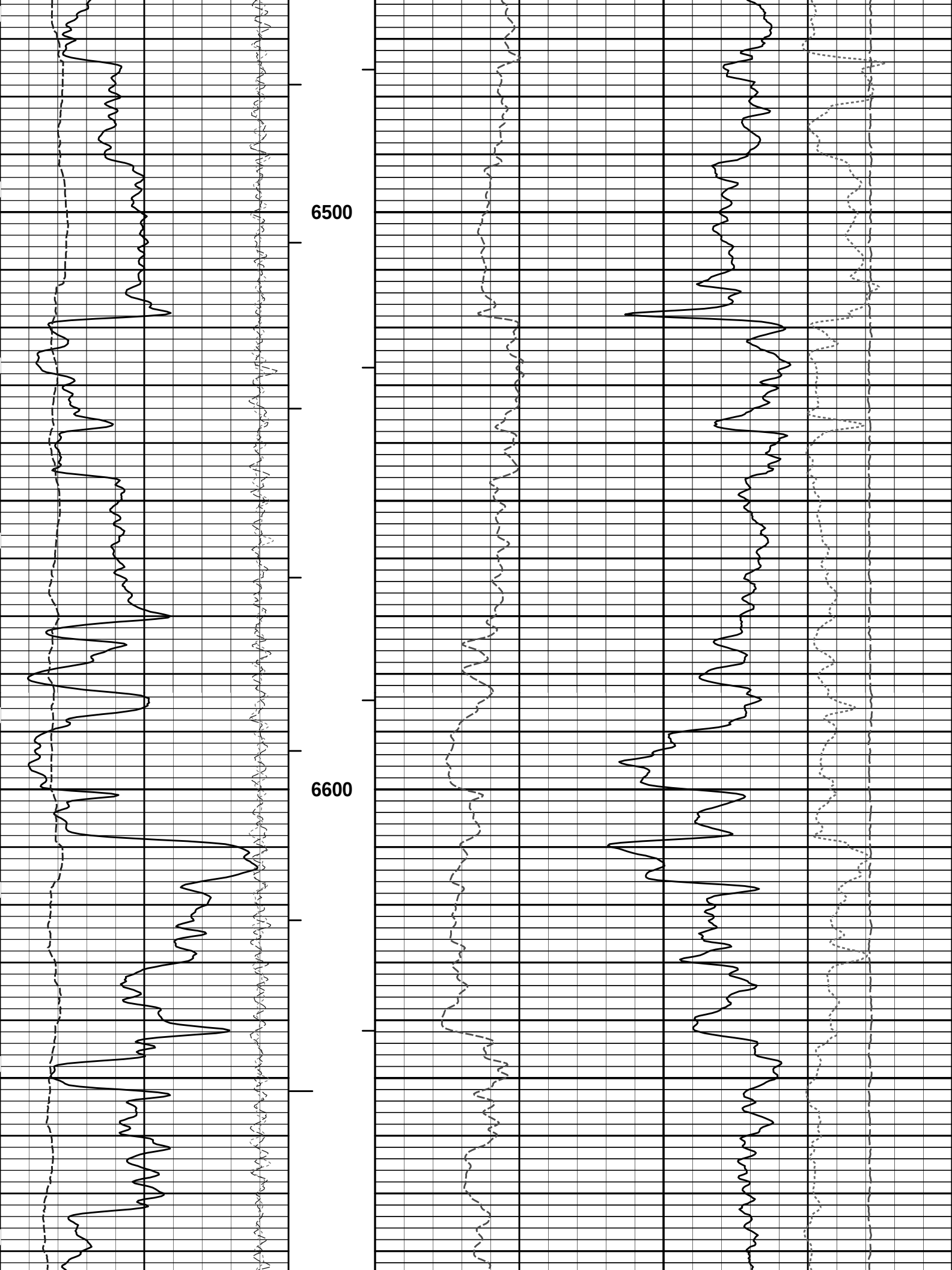
5 INCH MAIN LOG

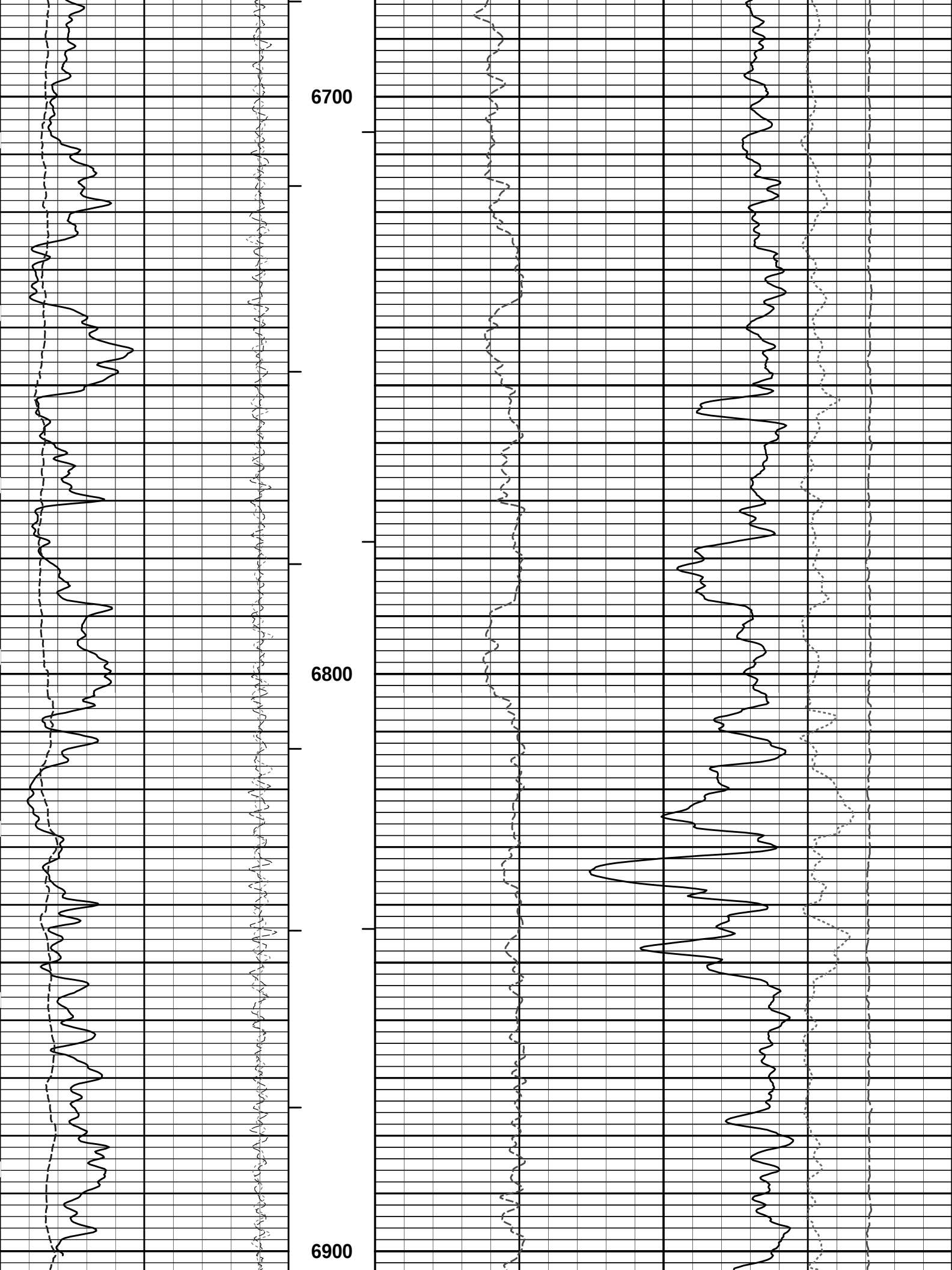
HALLIBURTON

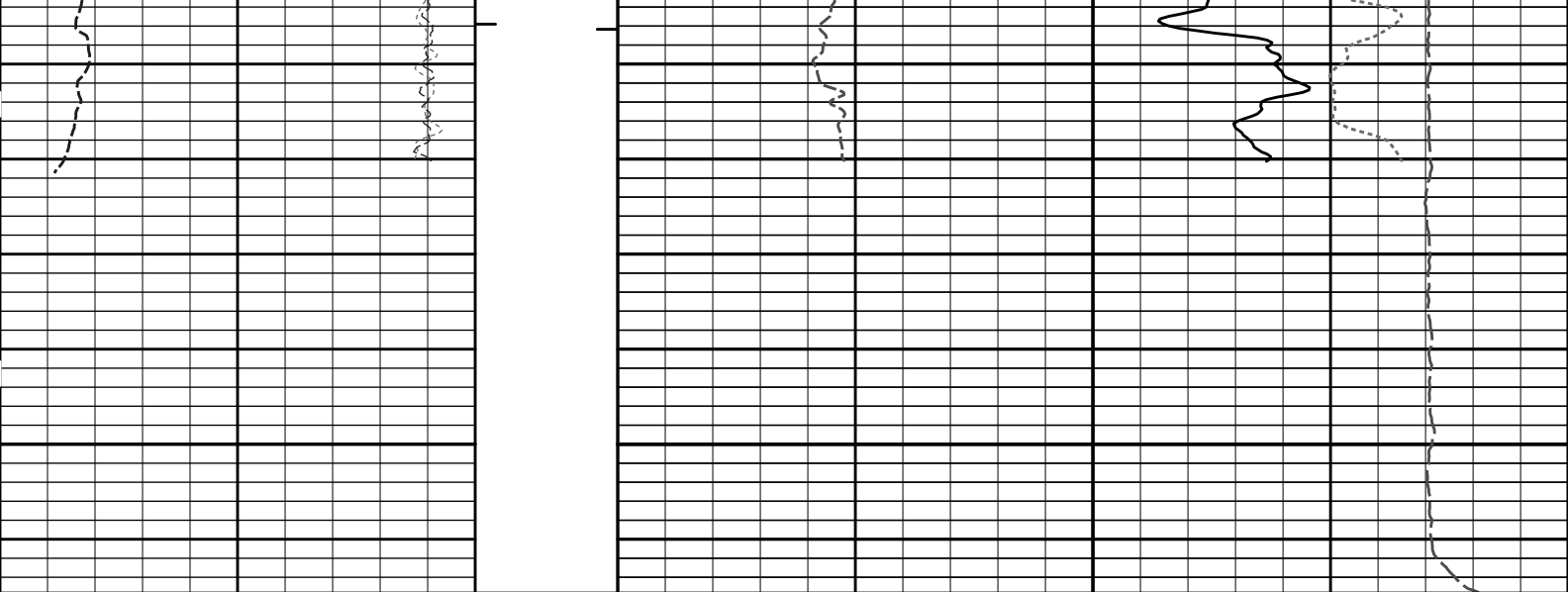
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Plot File: \\-LOCAL-WIGGAINS_12_10\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-BN\POROI\BULKD_5_REP_LIB

REPEAT SECTION









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

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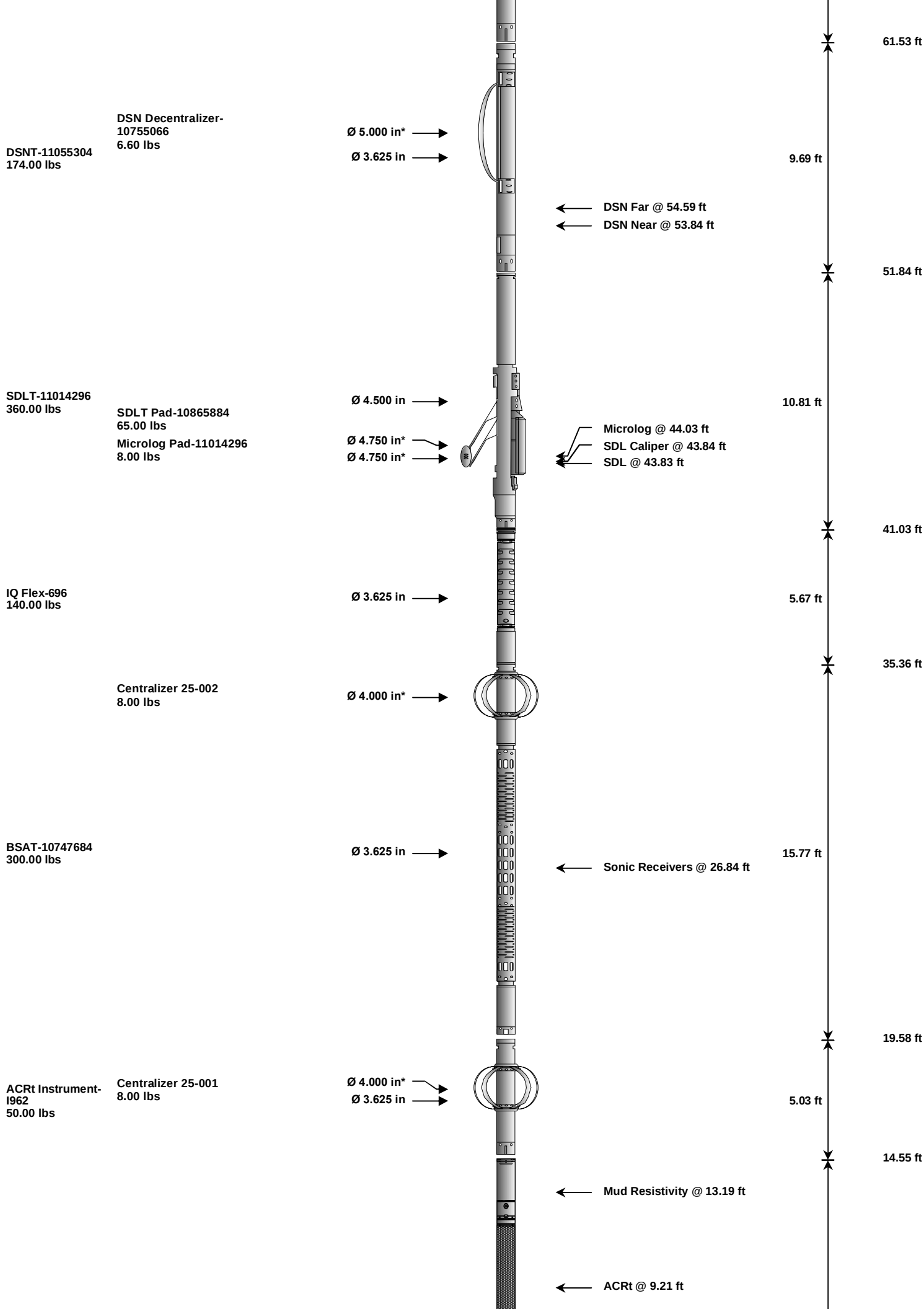
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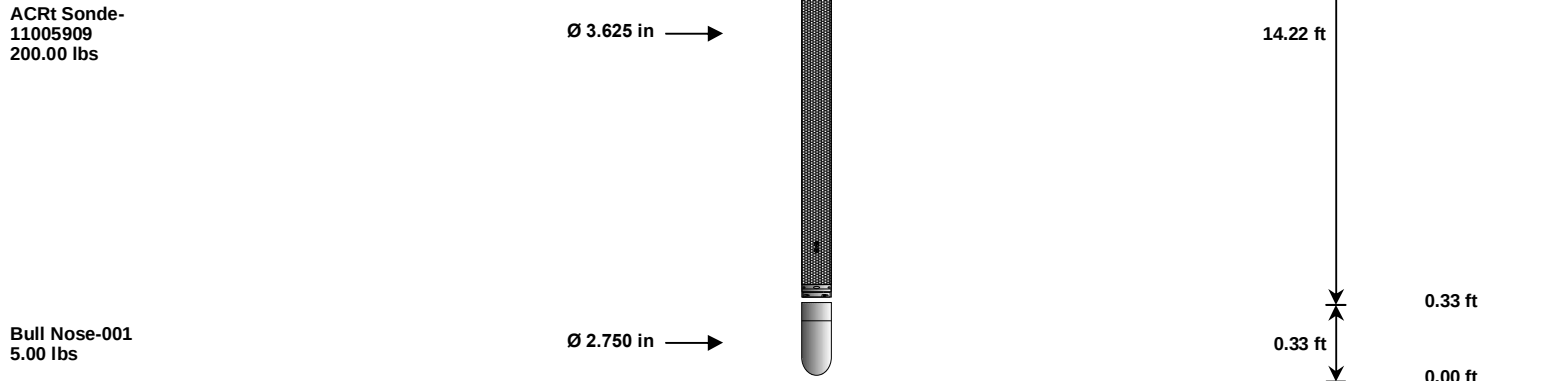
REPEAT SECTION

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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	75.71 ft
SP Sub-11441455 60.00 lbs		Ø 3.625 in →			3.74 ft	73.79 ft
						70.05 ft
GTET-11039640 165.00 lbs		Ø 3.625 in →			8.52 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	73.79	300.00
SP	SP Sub	11441455	60.00	3.74	70.05	300.00
GTET	Gamma Telemetry Tool	11039640	165.00	8.52	61.53	60.00
DSNT	Dual Spaced Neutron	11055304	174.00	9.69	51.84	60.00
DCNT	DSN Decentralizer	10755066	6.60	5.13	* 55.17	300.00
SDLT	Spectral Density Tool	11014296	360.00	10.81	41.03	60.00
MICP	Microlog Pad	11014296	8.00	1.00	* 43.53	60.00
SDLP	Density Insite Pad	10865884	65.00	2.55	* 43.24	60.00
IQF	IQ Flex tool	696	140.00	5.67	35.36	300.00
BSAT	Borehole Sonic Array Tool	10747684	300.00	15.77	19.58	60.00
OBCEN	Centralizer - 25 in. Overbody	002	8.00	2.08	* 32.96	300.00
ACRt	Array Compensated True Resistivity Instrument Section	1962	50.00	5.03	14.55	300.00
OBCEN	Centralizer - 25 in. Overbody	001	8.00	2.08	* 16.39	300.00
ACRt	Array Compensated True Resistivity Sonde Section	11005909	200.00	14.22	0.33	300.00
BLNS	Bull Nose	001	5.00	0.33	0.00	300.00
Total			1,579.60	75.71		
						* Not included in Total Length and Length Accumulation.
Data: WIGGAINS_12_10\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-BN\IDLE						Date: 04-Oct-12 03:28:11

HALLIBURTON

CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION

Tool Name:	GTET - 11039640	Reference Calibration Date:	24-Aug-12 11:06:42
Engineer:	S. INGERSOLL	Calibration Date:	25-Sep-12 15:48:12
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1

Calibrator Source S/N: TB146
Calibrator API Reference:265.00 api
Equivalent Calibrator API Reference:269.6 api

Measurement	Measured	Calibrated	Units
Background	55.4	55.5	api
Background + Calibrator	324.5	325.2	api
Calibrator	269.1	269.6	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION

Tool Name:	GTET - 11039640	Reference Calibration Date:	25-Sep-12 15:48:12
Engineer:	T. HYDE	Calibration Date:	03-Oct-12 16:35:51
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1

Calibrator Source S/N: TB146
Calibrator API Reference:265.00 api
Equivalent Calibrator API Reference:269.6 api

Equivalent Calibrator API Reference: 269.6 api

Field Verification	Shop	Field	Units
Background	55.5	50.7	api
Background + Calibrator	325.2	320.9	api
Calibrator	269.6	270.2	api

Shop	Field	Difference	Tolerance
269.6	270.2	-0.6	+/- 9.00

DUAL SPACED NEUTRON SHOP CALIBRATION

Tool Name: DSNT - 11055304

Reference Calibration Date: 05-Sep-12 14:46:31

Engineer: T. HYDE

Calibration Date: 03-Oct-12 09:49:05

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

Calibration Version: 1

Logging Source S/N: 696

Tank Serial Number: LIBERAL_NEUTRON

Reference value assigned to Tank: 51.680

Snow Block S/N: 696

Calibration Tank Water Temperature: 68 degF

Min. Tool Housing Outside Diameter: 3.620 in

CALIBRATION CONSTANTS			
Measurement	Prev. Value	New Value	Control Limit On New Value
Gain:	0.989	0.992	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):	0.2098	0.2107	0.0009	+/- 0.0020
Calibrated Ratio:	9.69	9.72	0.030	+/- 0.050

VERIFIER		
Measurement	Value	Control Limit
Snow-Block Porosity (decip):	0.0635	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 - 11055304

Reference Calibration Date: 03-Oct-12 09:49:05

Engineer: T. HYDE

Calibration Date: 03-Oct-12 09:50:43

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

Calibration Version: 1

Logging Source S/N: 696

Snow Block S/N: 696

NEUTRON FIELD-CHECK SUMMARY				
	Shop	Field	Difference	Control Limit On Change
Snow-Block Porosity (decip):	0.0635	0.0634	-0.0001	+/- 0.0150

PASS/FAIL SUMMARY	
Block Change Check:	Passed

Snow Block Stat Check:	Passed
Temperature Check:	Passed

DENSITY CALIPER SHOP CALIBRATION			
Tool Name:	SDLT - 11014296	Reference Calibration Date:	24-Aug-12 10:58:57
Engineer:	T. HYDE	Calibration Date:	03-Oct-12 13:32:52
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1
Host Tool Name:	DSNT - 11055304		

CALIBRATION COEFFICIENTS			
Measurement	Previous Value	New Value	Control Limit On New Value
Pad Offset	-3651.97	-4436.57	-7000.00 - -1000.00
Pad Gain	0.0003709	0.0004115	0.000200 - 0.000600
Arm Offset	-3014.05	-2657.94	-5000.00 - 3000.00
Arm Gain	0.0005075	0.0005195	0.000300 - 0.000700
Arm Power	-0.000005102	-0.000004820	-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)	2.09	2.00	-0.09	+/- 0.20
Medium Ring (in)	3.67	3.75	0.08	+/- 0.20
RING DIAMETER:				
Small Ring (in)	6.59	6.50	-0.09	+/- 0.20
Medium Ring (in)	8.29	8.25	-0.04	+/- 0.20
Large Ring (in)	14.85	15.00	0.15	+/- 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 - 10865884	Reference Calibration Date:	03-Oct-12 11:00:15
Engineer:	T. HYDE	Calibration Date:	03-Oct-12 11:22:25
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1

Logging Source S/N: 5168GW

Aluminum Block S/N: LIBERAL

Density: 2.598g/cc

Pe: 3.170

Magnesium Block S/N: LIBERAL

Density: 1.684g/cc

Pe: 2.598

DENSITY CALIBRATION SUMMARY			
Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	1.0485	1.0410	0.90 - 1.10
Near Dens Gain	1.0102	1.0113	0.90 - 1.10
Near Peak Gain	1.0180	1.0095	0.90 - 1.10
Near Lith Gain	0.9823	0.9932	0.90 - 1.10
Far Bar Gain	1.0134	1.0156	0.90 - 1.10
Far Dens Gain	1.0021	1.0021	0.90 - 1.10
Far Peak Gain	0.9958	0.9957	0.90 - 1.10
Far Lith Gain	0.9715	0.9726	0.90 - 1.10

Far Lith Offset	0.0715	0.0725	0.00 - 2.10
Near Bar Offset	-0.2516	-0.1824	NONE
Near Dens Offset	0.0651	0.0560	NONE
Near Peak Offset	-0.0240	0.0479	NONE
Near Lith Offset	0.2327	0.1420	NONE
Far Bar Offset	0.0154	-0.0028	NONE
Far Dens Offset	0.0911	0.0935	NONE
Far Peak Offset	0.1233	0.1237	NONE
Far Lith Offset	0.2811	0.2707	NONE
Near Bar Background	838.06	839.77	700 - 1450
Near Dens Background	278.48	277.12	230 - 480
Near Peak Background	121.09	121.11	100 - 210
Near Lith Background	149.91	148.58	125 - 260
Far Bar Background	515.44	519.76	450 - 900
Far Dens Background	201.25	203.54	175 - 345
Far Peak Background	80.16	79.88	70 - 140
Far Lith Background	83.66	82.71	75 - 145

CALIBRATION BLOCK SUMMARY				
Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.685	1.684	-0.001	+/- 0.015
Pe	2.580	2.559	-0.021	+/- 0.150
ALUMINUM				
Density (g/cc)	2.596	2.598	0.002	+/- 0.01500
Pe	3.121	3.127	0.006	+/- 0.150

TOOL SUMMARY				
Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	0.0022	+/- 0.0110	0.0018	+/- 0.0140
Magnesium Block	-0.0005	+/- 0.0110	-0.0004	+/- 0.0140
Aluminum Block	0.0004	+/- 0.0110	-0.0003	+/- 0.0140
Resolution	9.19	6.00 - 11.50	8.92	6.00 - 11.50
Internal Verifier(B+D+P+L)	1387	1200 - 2700	886	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 - 10865884

Reference Calibration Date: 03-Oct-12 11:22:25

Engineer: T. HYDE

Calibration Date: 03-Oct-12 11:27:05

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

Calibration Version: 1

Pad Temperature: 75.2 degF

DENSITY FIELD CALIBRATION SUMMARY

Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1386.583	1388.127	1.544	15.043
Far (B+D+P+L) cps	885.874	879.530	-6.344	16.225
Near Resolution	9.19	9.12	-0.070	0.50
Far Resolution	8.92	8.89	-0.030	1.00

PASS/FAIL SUMMARY

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

SDLT CALIPER FIELD CALIBRATION					
Tool Name:	SDLT - 11014296		Reference Calibration Date:	03-Oct-12 13:32:52	
Engineer:	T. HYDE		Calibration Date:	03-Oct-12 13:36:01	
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	3.74	-0.01	+/- 0.10
Ring Diameter	8.25	8.17	-0.08	+/- 0.15
PASS/FAIL SUMMARY				
Pad Extension Check:			Passed	
Diameter Check:			Passed	

CALIBRATION SUMMARY						
Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-11039640						
Gamma Ray Calibrator	269.6	270.2	-----	-0.6	+/- 9.00	api
DSNT-11055304						
Snow-Block Porosity	0.0635	0.0634	-----	0.0001	+/- 0.0150	decg
SDLT-11014296						
Pad Extension	3.75	3.74	-----	0.01	+/-0.10	in
Ring Diameter	8.25	8.17	-----	0.08	+/-0.15	in
SDLT Pad-10865884						
Near(B+D+P+L)	1386.583	1388.127	-----	-1.544	+/-15.043	cps
Far(B+D+P+L)	885.874	879.530	-----	6.344	+/-16.225	cps
Data: WIGGAINS_12_10I0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-BN\IDLE					Date: 04-Oct-12 03:29:52	

HALLIBURTON					
PARAMETERS REPORT					
Depth ((ft))	Tool Name	Mnemonic	Description	Value	Units
TOP					
	SHARED	BS	Bit Size	7.875	in
	SHARED	UBS	Use Bit Size instead of Caliper for all applications.	No	

	SHARED	MDBS	Mud Base	Water	
	SHARED	MDWT	Borehole Fluid Weight	9.400	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	2.000	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	6957.00	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	
	Rwa / CrossPlot	XPOK	Process Crossplot?	Yes	
	Rwa / CrossPlot	FCHO	Select Source of F	Automatic	
	Rwa / CrossPlot	AFAC	Archie A factor	0.6200	
	Rwa / CrossPlot	MFAC	Archie M factor	2.1500	
	Rwa / CrossPlot	RMFR	Rmf Reference	0.10	ohmm
	Rwa / CrossPlot	TMFR	Rmf Ref Temp	75.00	degF
	Rwa / CrossPlot	RWA	Resistivity of Formation Water	0.05	ohmm
	Rwa / CrossPlot	ADP	Use Air Porosity to calculate CrossplotPhi	No	
	GTET	GROK	Process Gamma Ray?	Yes	
	GTET	GRSO	Gamma Tool Standoff	0.000	in
	GTET	GEOK	Process Gamma Ray EVR?	No	
	GTET	TPOS	Tool Position for Gamma Ray Tools.	Eccentered	
	DSNT	DNOK	Process DSN?	Yes	
	DSNT	DEOK	Process DSN EVR?	No	
	DSNT	NLIT	Neutron Lithology	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	
	BSAT	MBOK	Compute BCAS Results?	Yes	
	BSAT	FLLO	Frequency Filter Low Pass Value?	5000	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 Sonde	RTOK	Process ACRt?	Yes	
	ACRt Sonde	MNSO	Minimum Tool Standoff	1.50	in
	ACRt Sonde	TCS1	Temperature Correction Source	FP Lwr & FP Upr	
	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					
Data: WIGGAINS_12_10\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-BN\IDLE				Date: 04-Oct-12 03:29:07	

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		72.01	NO	
SP	Spontaneous Potential		72.01	BLK	1.250
SPR	Raw Spontaneous Potential		72.01	NO	
SPO	Spontaneous Potential Offset		72.01	NO	
GTET					
TPUL	Tension Pull		63.99	NO	
GR	Natural Gamma Ray API		63.99	TRI	1.750
GRU	Unfiltered Natural Gamma Ray API		63.99	NO	
EGR	Natural Gamma Ray API with Enhanced Vertical Resolution		63.99	W	1.416 , 0.750
ACCZ	Accelerometer Z		0.00	BLK	0.083
DEVI	Inclination		0.00	NO	
DSNT					
TPUL	Tension Pull		53.74	NO	
RNDS	Near Detector Telemetry Counts		53.84	BLK	1.417
RFDS	Far Detector Telemetry Counts		54.59	TRI	0.583
DNTT	DSN Tool Temperature		53.84	NO	
DSNS	DSN Tool Status		53.74	NO	
ERND	Near Detector Telemetry Counts EVR		53.84	BLK	0.000
ERFD	Far Detector Telemetry Counts EVR		54.59	BLK	0.000
ENTM	DSN Tool Temperature EVR		53.84	NO	
SDLT					
TPUL	Tension Pull		43.84	NO	
PCAL	Pad Caliper		43.84	TRI	0.250
ACAL	Arm Caliper		43.84	TRI	0.250
BSAT					
TPUL	Tension Pull		26.84	NO	

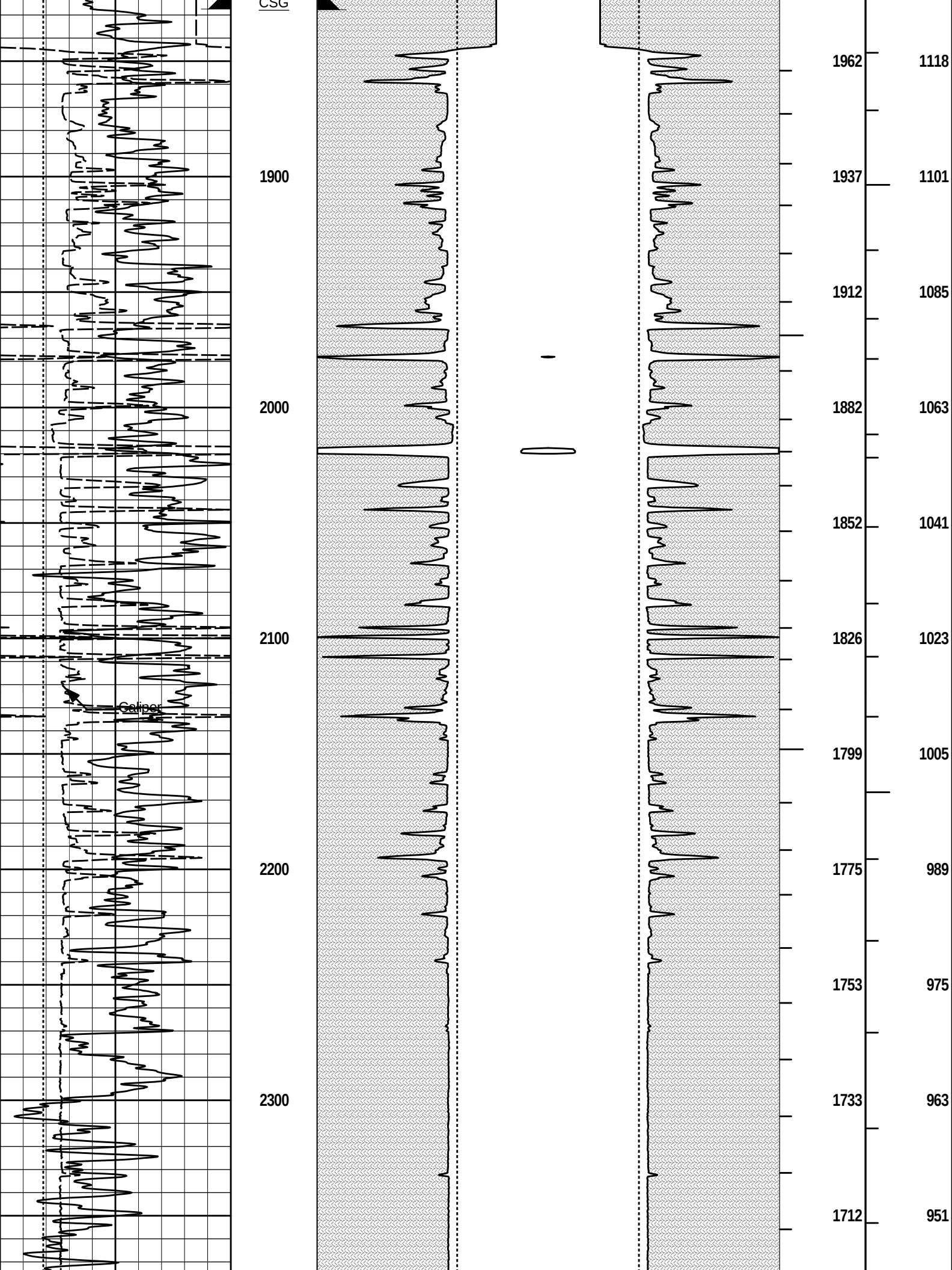
TPUL	Tension Pull	26.84	NO	
STAT	Status	26.84	NO	
DLYT	Delay Time	26.84	NO	
SI	Sample Interval	26.84	NO	
TXRX	Raw Telemetry 10 Receivers	26.84	NO	
FRMC	Tool Frame Count	26.84	NO	
GMOD	Gain processing mode	19.58	NO	
ACRt Sonde				
TPUL	Tension Pull	2.73	NO	
F1R1	ACRT 12KHz - 80in R value	8.98	BLK	0.000
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

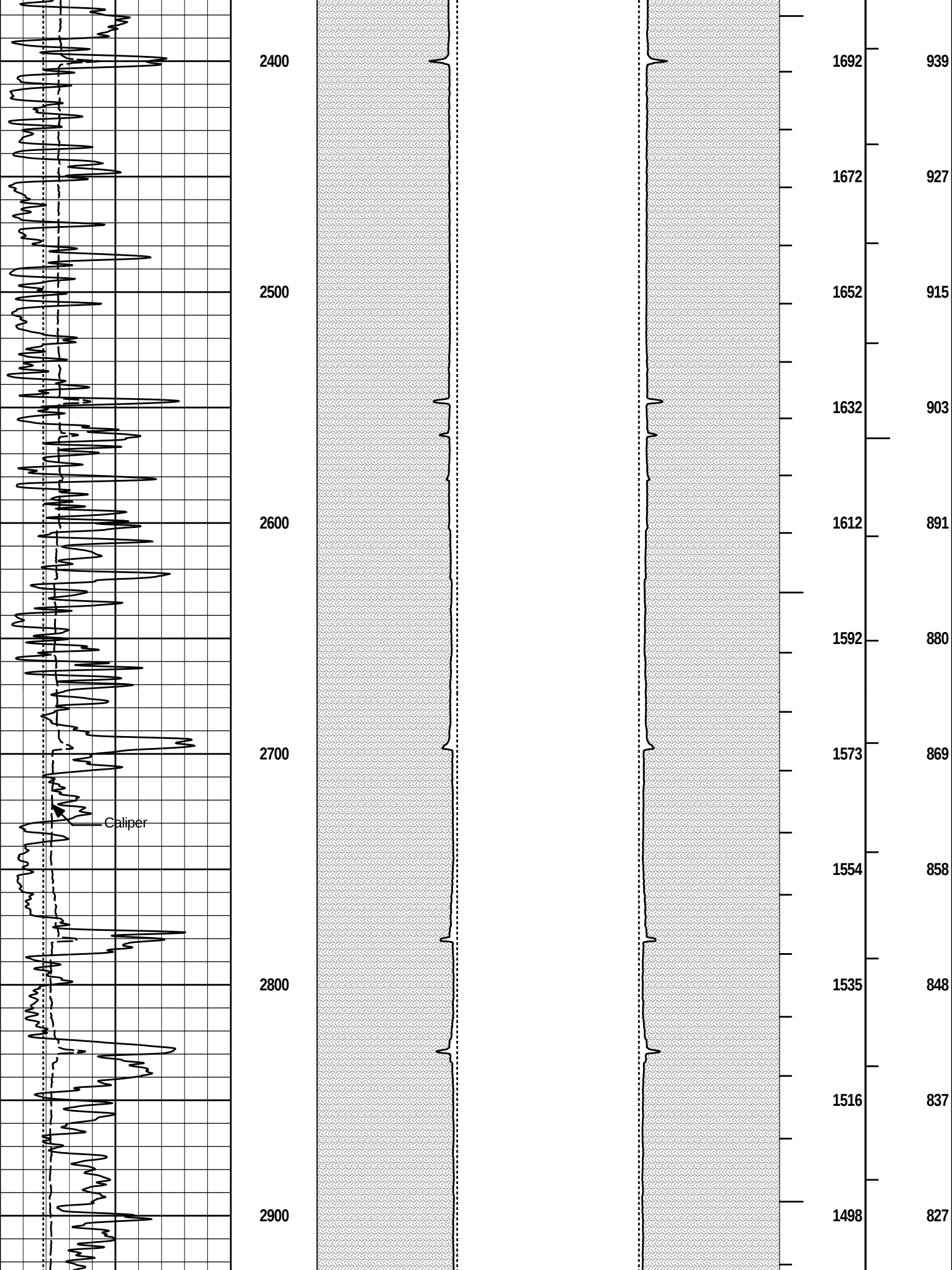
SDLT Pad				
TPUL	Tension Pull	43.83	NO	
NAB	Near Above	43.66	BLK	0.920
NHI	Near Cesium High	43.66	BLK	0.920
NLO	Near Cesium Low	43.66	BLK	0.920
NVA	Near Valley	43.66	BLK	0.920
NBA	Near Barite	43.66	BLK	0.920
NDE	Near Density	43.66	BLK	0.920
NPK	Near Peak	43.66	BLK	0.920
NLI	Near Lithology	43.66	BLK	0.920
NBAU	Near Barite Unfiltered	43.66	BLK	0.250
NLIU	Near Lithology Unfiltered	43.66	BLK	0.250
FAB	Far Above	44.01	BLK	0.250
FHI	Far Cesium High	44.01	BLK	0.250
FLO	Far Cesium Low	44.01	BLK	0.250
FVA	Far Valley	44.01	BLK	0.250
FBA	Far Barite	44.01	BLK	0.250
FDE	Far Density	44.01	BLK	0.250
FPK	Far Peak	44.01	BLK	0.250
FLI	Far Lithology	44.01	BLK	0.250
PTMP	Pad Temperature	43.84	BLK	0.920
NHV	Near Detector High Voltage	43.24	NO	
FHV	Far Detector High Voltage	43.24	NO	
ITMP	Instrument Temperature	43.24	NO	
DDHV	Detector High Voltage	43.24	NO	

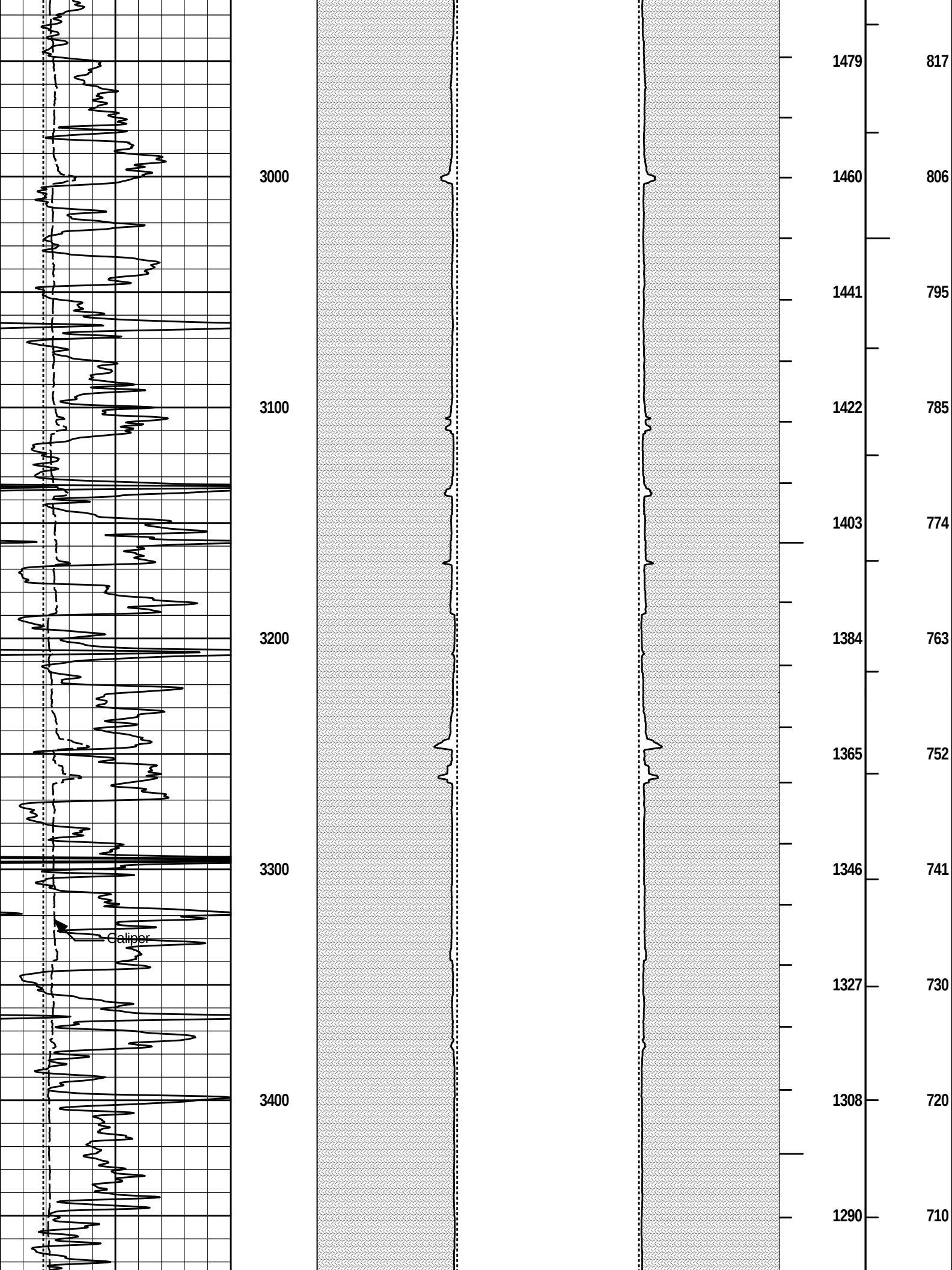
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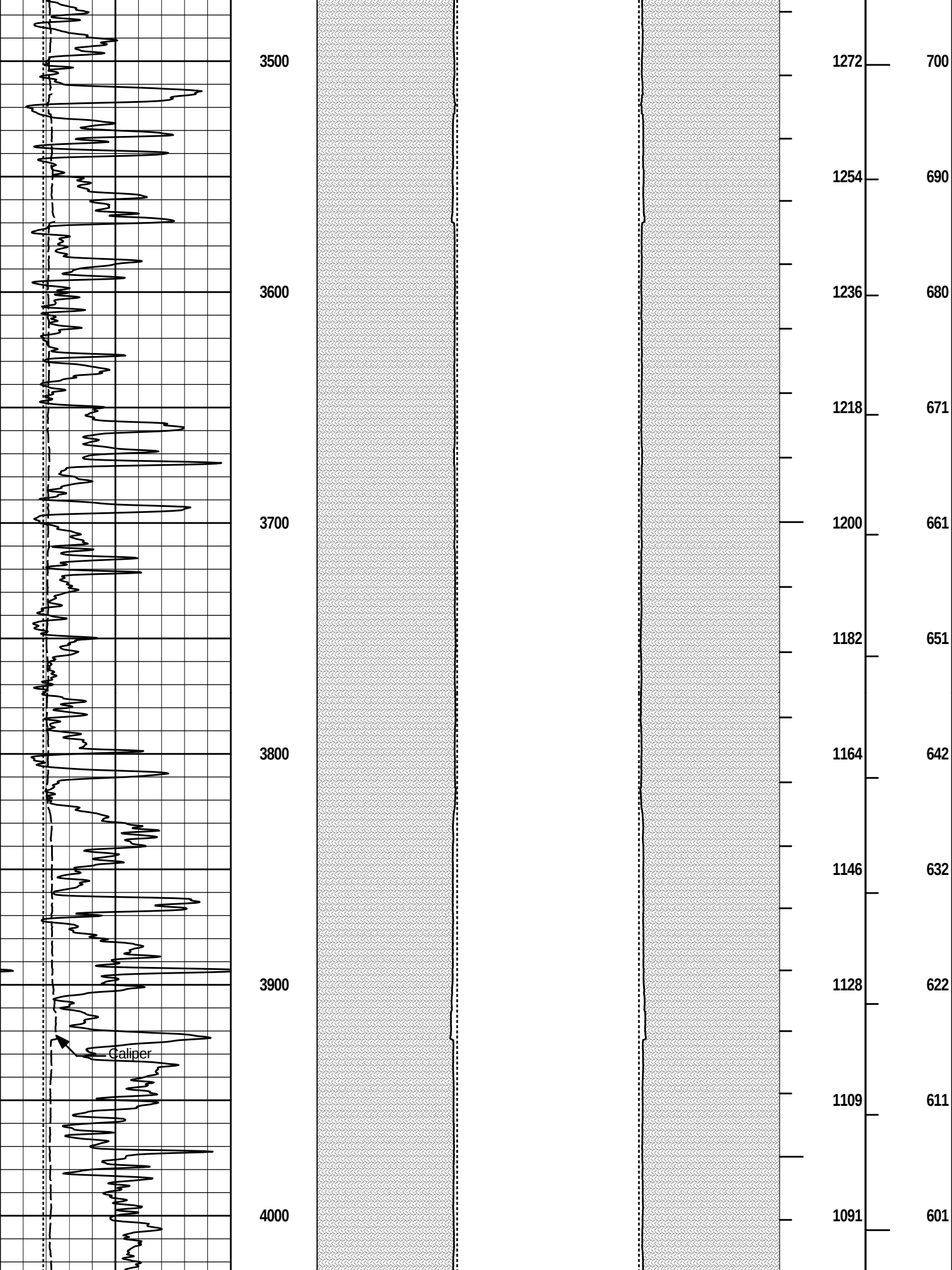
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Plot Range: 1800 ft to 6966 ft
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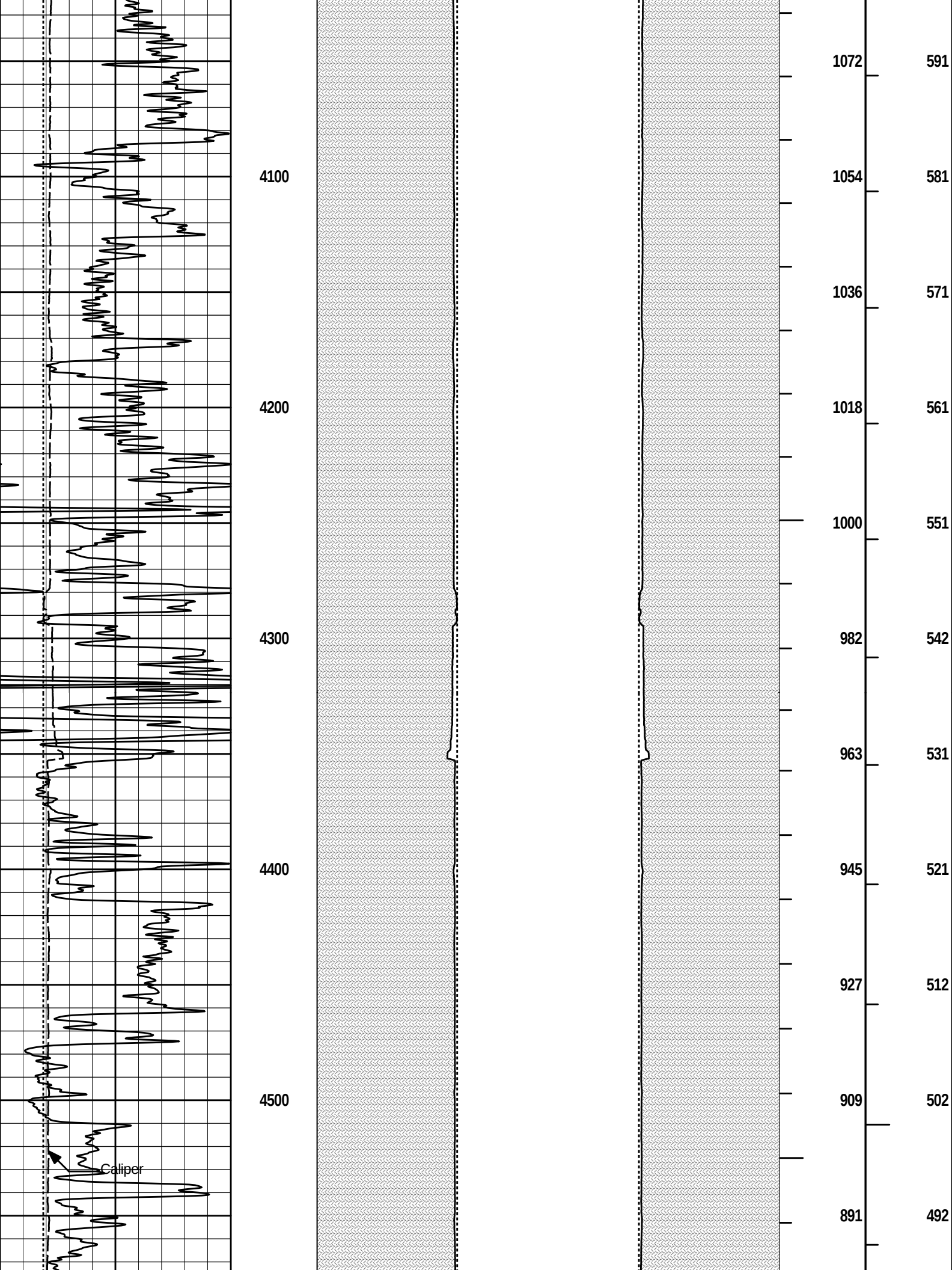
0	Gamma API	150		MUDCAKE		MUDCAKE					
api											
6	Bit Size	16		20	Bit Size	0	0	Bit Size	20		
inches											
6	Caliper	16	MD 1 : 600 ft	20	Caliper	0	0	Caliper	20	BHVT	AHVT
inches											
			1000					1500	1120		
			000								

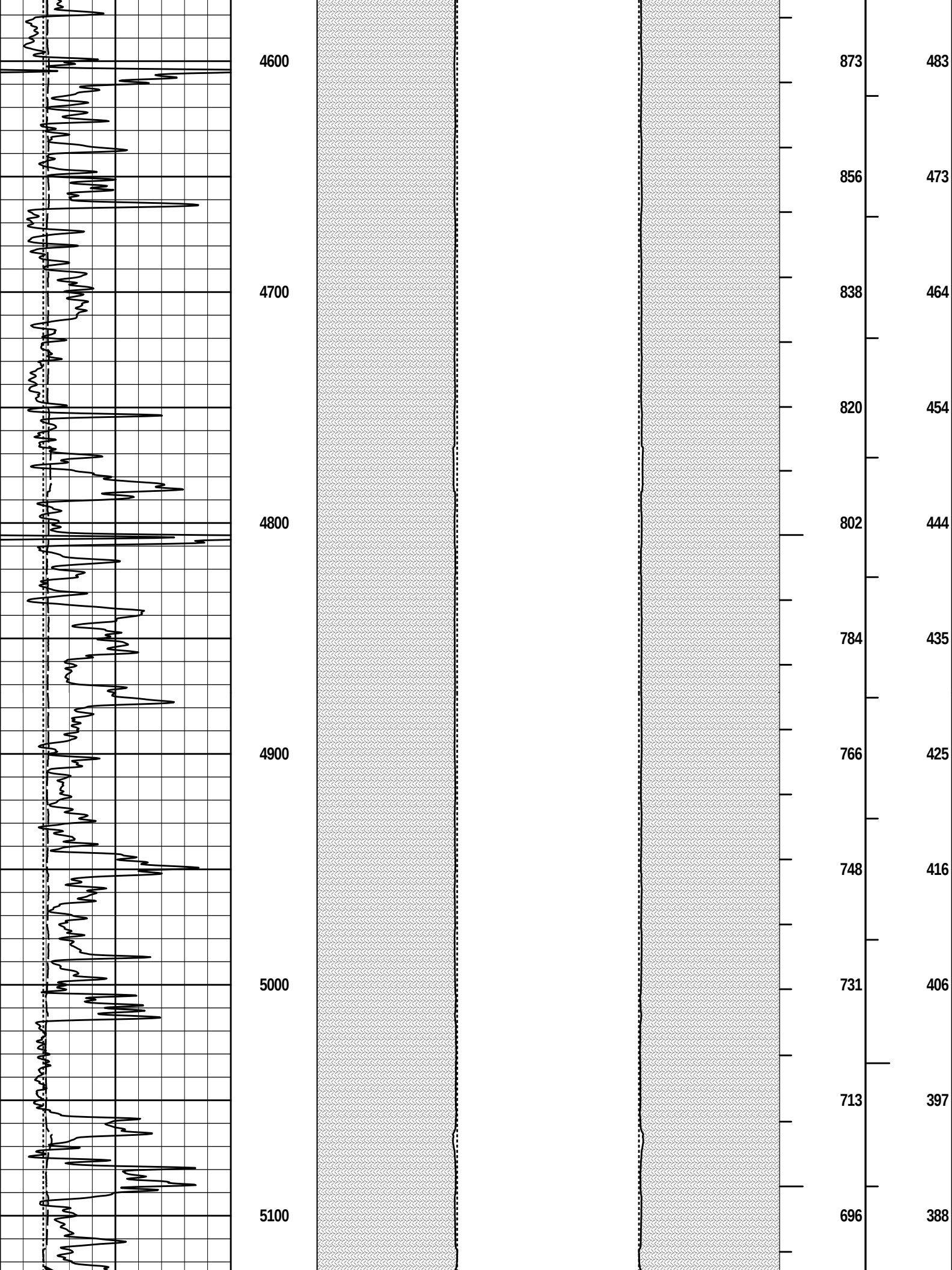


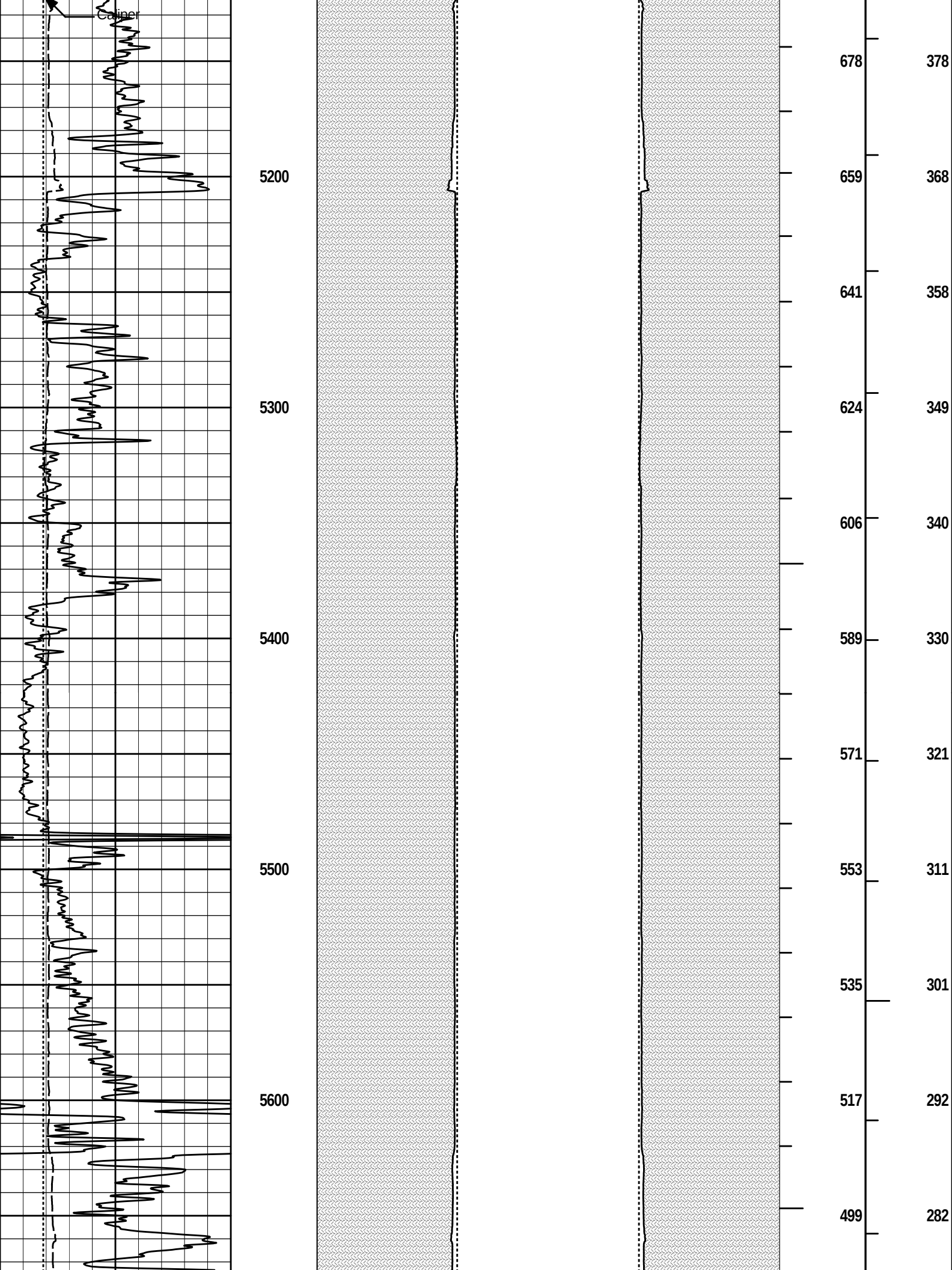


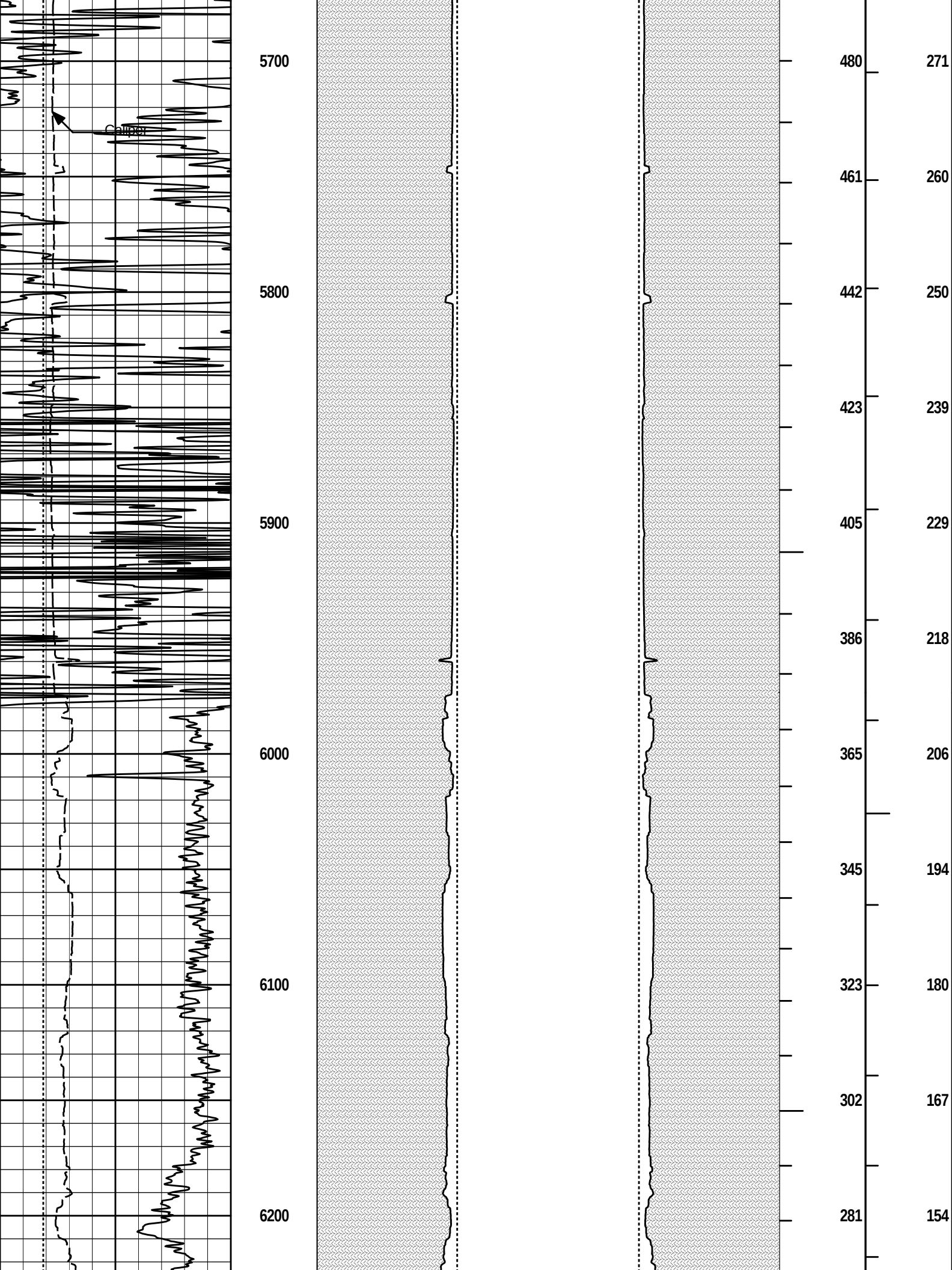


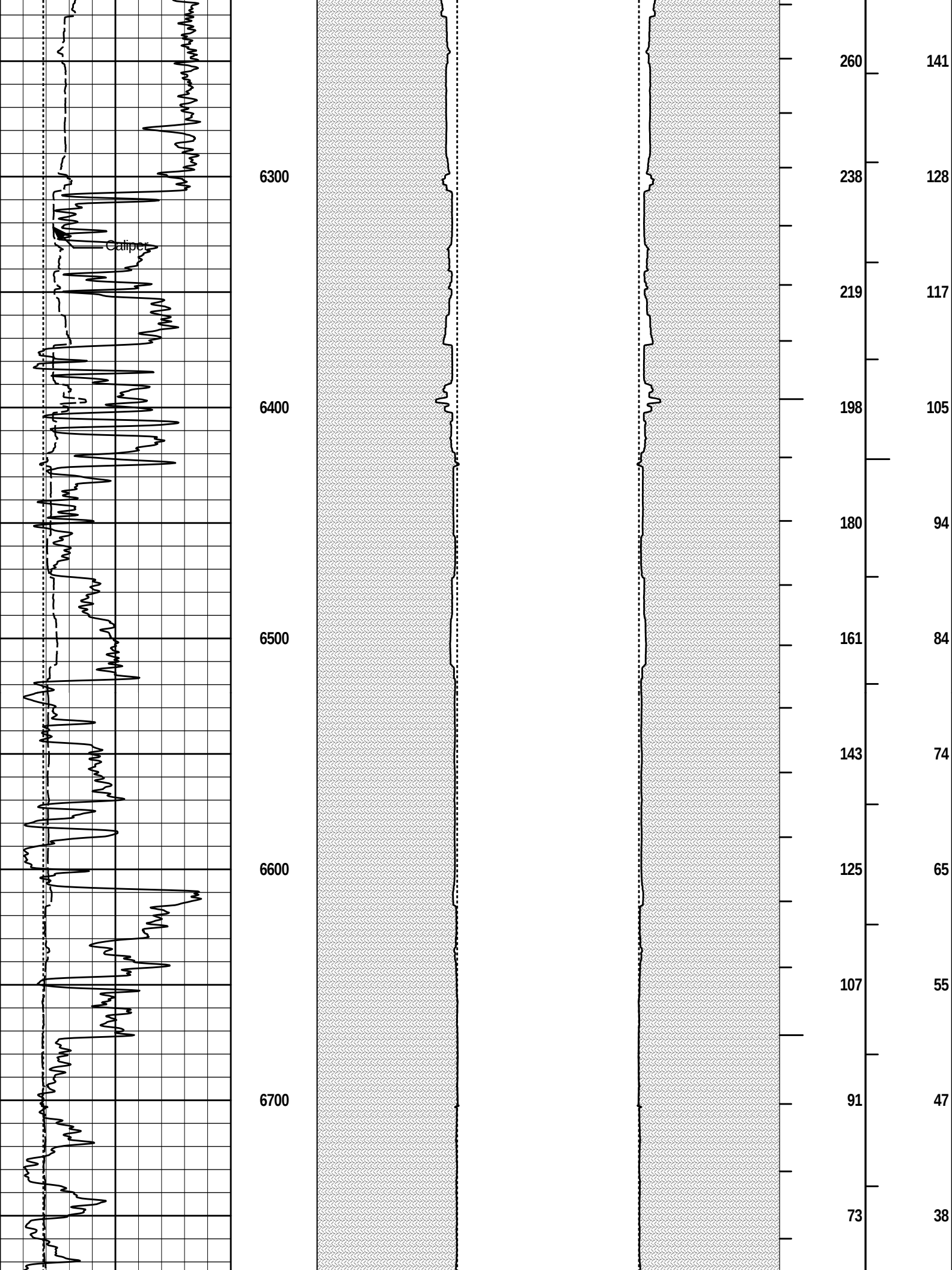


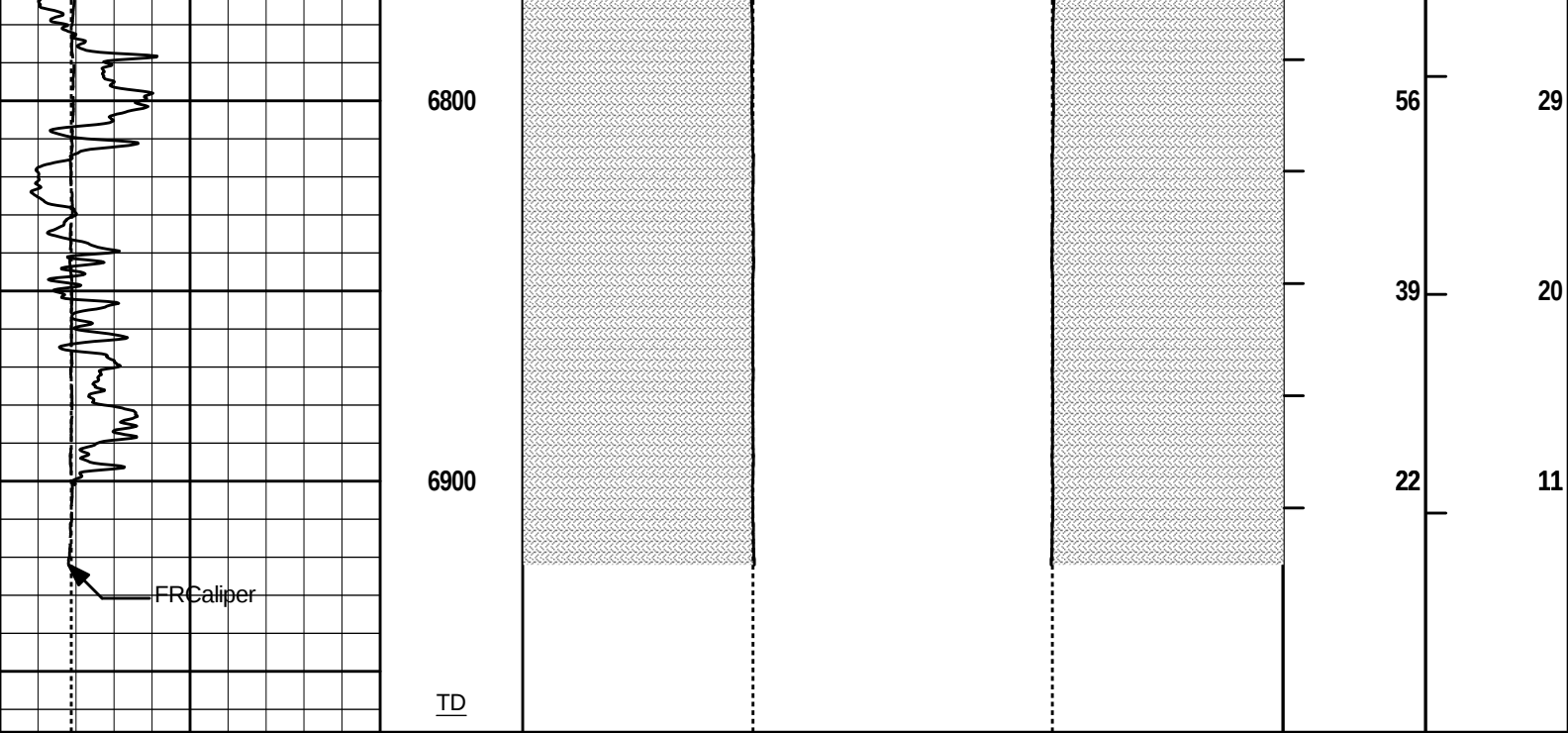












6	Caliper	16	MD 1 : 600 ft	20	Caliper	0 0	20	Caliper	20	BHVT	AHVT
	inches				inches			inches			
6	Bit Size	16		20	Bit Size	0 0	20	Bit Size	20		
	inches										
0	Gamma API	150			MUDCAKE			MUDCAKE			
	api										

HALLIBURTON

Plot Time: 04-Oct-12 07:35:54
Plot Range: 1800 ft to 6966 ft
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Plot File: \\-LOCAL-WIGGAINS_12_10\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-BNIPORO\AHV_2_IQ_LIB

ANNULAR HOLE VOLUME PLOT

COMPANY	OXY USA INC.		
WELL	WIGGAINS 12-10		
FIELD	GOOCH		
COUNTY	STEVENS	STATE	KANSAS
HALLIBURTON		SPECTRAL DENSITY DUAL SPACED NEUTRON LOG	