

HALLIBURTON

HIGH RESOLUTION INDUCTION

COMPANY		LARAMIE ENERGY PARTNERS II			
WELL		LEVERICH 31-05B			
FIELD		RULISON			
COUNTY		GARFIELD			
STATE		CO			
Permanent Datum		GL	Elev. 6664.0 ft		
Log measured from		KB	Elev. 6684.0 ft		
Drilling measured from		KB	D.F. 6684.0 ft		
			G.L. 6664.0 ft		
Date		04-Aug-08			
Run No.		ONE			
Depth - Driller		9240.0 ft			
Depth - Logger		9235.0 ft			
Bottom - Logged Interval		9226.0 ft			
Top - Logged Interval		100.0 ft			
Casing - Driller		8.625 in @ 1502.0 ft		@	
Casing - Logger		1516.0 ft		@	
Bit Size		7.875 in		@	
Type Fluid in Hole		LSND		@	
Density		11.1 ppG	57.00 s/qt		
PH		9.00 pH	7.8 cphn		
Source of Sample		MUD TANK			
Rm @ Meas. Temperature		1.78 ohmm @ 74.80 degF		@	
Rmf @ Meas. Temperature		1.53 ohmm @ 70.20 degF		@	
Rmc @ Meas. Temperature		2.80 ohmm @ 71.20 degF		@	
Source Rmf		Rmc	MEAS.	MEAS.	
Rm @ BHT		0.86 ohmm @ 163.0 degF		@	
Time Since Circulation		8.0 hr			
Time on Bottom		04-Aug-08 16:44			
Max. Rec. Temperature		163.0 degF @ 9235.0 ft		@	
Equipment		10549593		GJ	
Recorded By		D. RENNER		J. GEISER	
Witnessed By		M. BLAKLEY			

Fold here

Service Ticket No.: 6079706				API Serial No.: 050451572600				PGM Version: R2.2											
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.		Other					
Rmf @ Meas. Temp.		@		@		ONE		HRID-IB1S0944		N/A		1.5" STANDOFF		N/A					
Rmc @ Meas. Temp.		@		@															
Source Rmf		Rmc		CALC		CALC													
Rm @ BHT		0.86 ohmm @ 163.0 degF		@															
Rmf @ BHT		0.74 ohmm @ 163.0 degF		@															
Rmc @ BHT		1.35 ohmm @ 163.0 degF		@															
EQUIPMENT DATA																			
GAMMA				ACOUSTIC				DENSITY				NEUTRON							
Run No.		ONE		Run No.				Run No.		ONE		Run No.		ONE					
Serial No.		034		Serial No.				Serial No.		I709MC136		Serial No.		108760					
Model No.		D4TGX		Model No.				Model No.		SDL_DC		Model No.		DSN-II					
Diameter		3.625"		No. of Cent.				Diameter		4.5"		Diameter		3.625"					
Detector Model No.		D4TGX		Spacing				Log Type		GAMMA-GAMMA		Log Type		THERMAL					
Type		SCINT						Source Type		Cs137		Source Type		Am241 Be					
Length		8"		LSA [Y/N]				Serial No.		2189GW		Serial No.		DSN-60					
Distance to Source		16'		FWDA [Y/N ]				Strength		1.5 Ci		Strength		18.5 Ci					
LOGGING DATA																			
GENERAL				GAMMA				ACOUSTIC				DENSITY				NEUTRON			

GENERAL			GAMMA		ACOUSTIC		DENSITY		NEUTRON					
Run	Depth		Speed	Scale		Scale		Matrix	Scale		Matrix	Scale		Matrix
No.	From	To	ft/min	L	R	L	R		L	R		L	R	
ONE	TD	CASING	REC	0 api	200 api				30%	-10%	2.68 g/cc	30%	-10%	SAND
DIRECTIONAL INFORMATION														
Maximum Deviation @								KOP @						
Remarks: RWCH-D4TGX-DSN-SDL-HRID WERE RUN IN COMBINATION.														
TENSION PULLS AND HOLE RUGOSITY MAY AFFECT LOG QUALITY.														
AHV CALCULATED FOR 4.5" CASING.														
CHLORIDES REPORTED AT 1200 mg/L.														
LATITUDE: 39.48 // LONGITUDE: 107.82														
YOUR CREW TODAY IS J. WILKERSON RIG: GREYWOLF 706														
THANK YOU FOR CHOSSING HALLIBURTON ENERGY SERVICES - GRAND JUNCTION, CO (970) 523 - 3600														
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														

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	MDWT	Borehole Fluid Weight	11.100	ppg
	SHARED	RMUD	Mud Resistivity	1.780	ohmm
	SHARED	TRM	Temperature of Mud	74.8	degF
	SHARED	OBM	Oil Based Mud System?	No	
	SHARED	CSD	Logging Interval is Cased?	No	
	SHARED	ICOD	AHV Casing OD	4.500	in
	SHARED	ST	Surface Temperature	94.0	degF
	SHARED	TD	Total Well Depth	9240.00	ft
	SHARED	BHT	Bottom Hole Temperature	163.0	degF
	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
	D4TGX	GROK	Process Gamma Ray?	Yes	
	D4TGX	GRSO	Gamma Tool Standoff	0.000	in

D4TGX	GEOK	Process Gamma Ray EVR?	No	
DSN_II	DNOK	Process DSN?	Yes	
DSN_II	DEOK	Process DSN EVR?	No	
DSN_II	NLIT	Neutron Lithology	Sandstone	
DSN_II	DNSO	DSNTool Standoff	0.000	in
DSN_II	DNTP	Temperature Correction Type	None	
DSN_II	DPRS	DSN Pressure Correction Type	None	
DSN_II	SHCO	View More Correction Options	No	
DSN_II	UTVD	Use TVD for Gradient Corrections?	No	
DSN_II		Logging Horizontal Water Tank?	No	
SDL_DC	DNOK	Process Density?	Yes	
SDL_DC	DNOK	Process Density EVR?	No	
SDL_DC	AD	Is Hole Air Drilled?	No	
SDL_DC	CB	Use Calibration Blocks?	No	
SDL_DC	SPVT	SDLT Pad Temperature Valid?	Yes	
SDL_DC	MDTP	Weighted Mud Correction Type?	Barite	
SDL_DC	DMA	Formation Density Matrix	2.680	g/cc
SDL_DC	DFL	Formation Density Fluid	1.000	g/cc
SDL_DC	CLOK	Process Caliper Outputs?	Yes	
HRID	HRE	Do HRI Induction Calculation?	Yes	
HRID	DFLE	Do DFL Calculation?	Yes	
HRID	PYRI	Pyrite Switch	Off	
HRID	CSDP	Casing Depth	1506.0	ft
HRID	HDSP	Spike Reduction Filter Type	DELTA	
HRID	HRTC	Temperature Correction Source	None	
HRID	MMRS	Hrimap Minimum Resistivity	0.20	
HRID	MXRS	Hrimap Maximum Resistivity	200.00	

BOTTOM

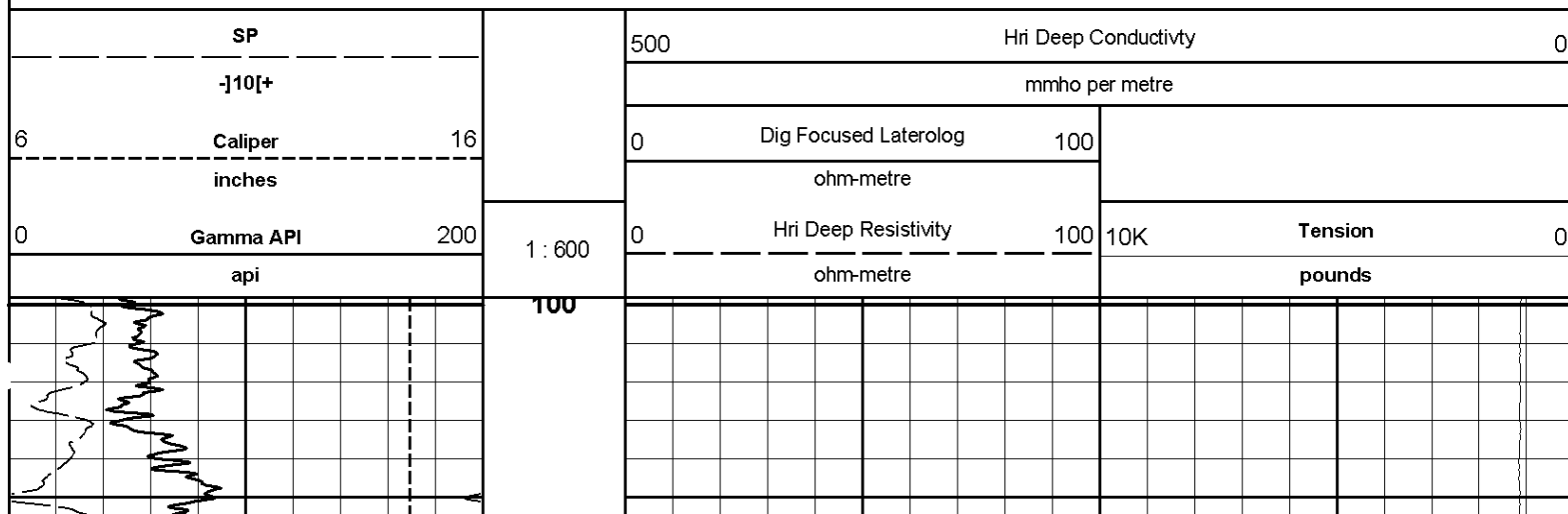
Data: LAR\_LEV\_31\_05B\0001 TRIPLE\IDLE

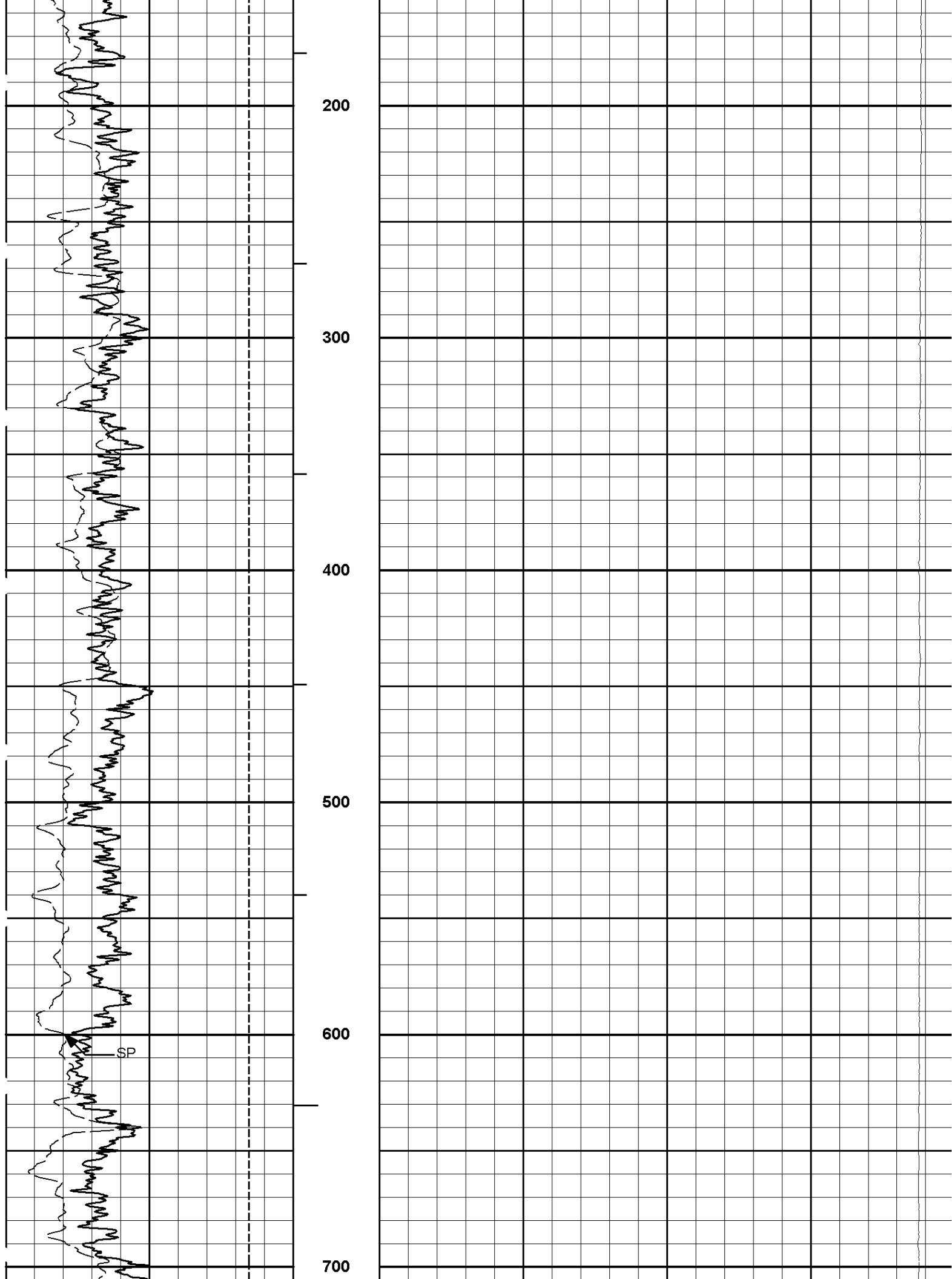
Date: 04-Aug-08 19:28:19

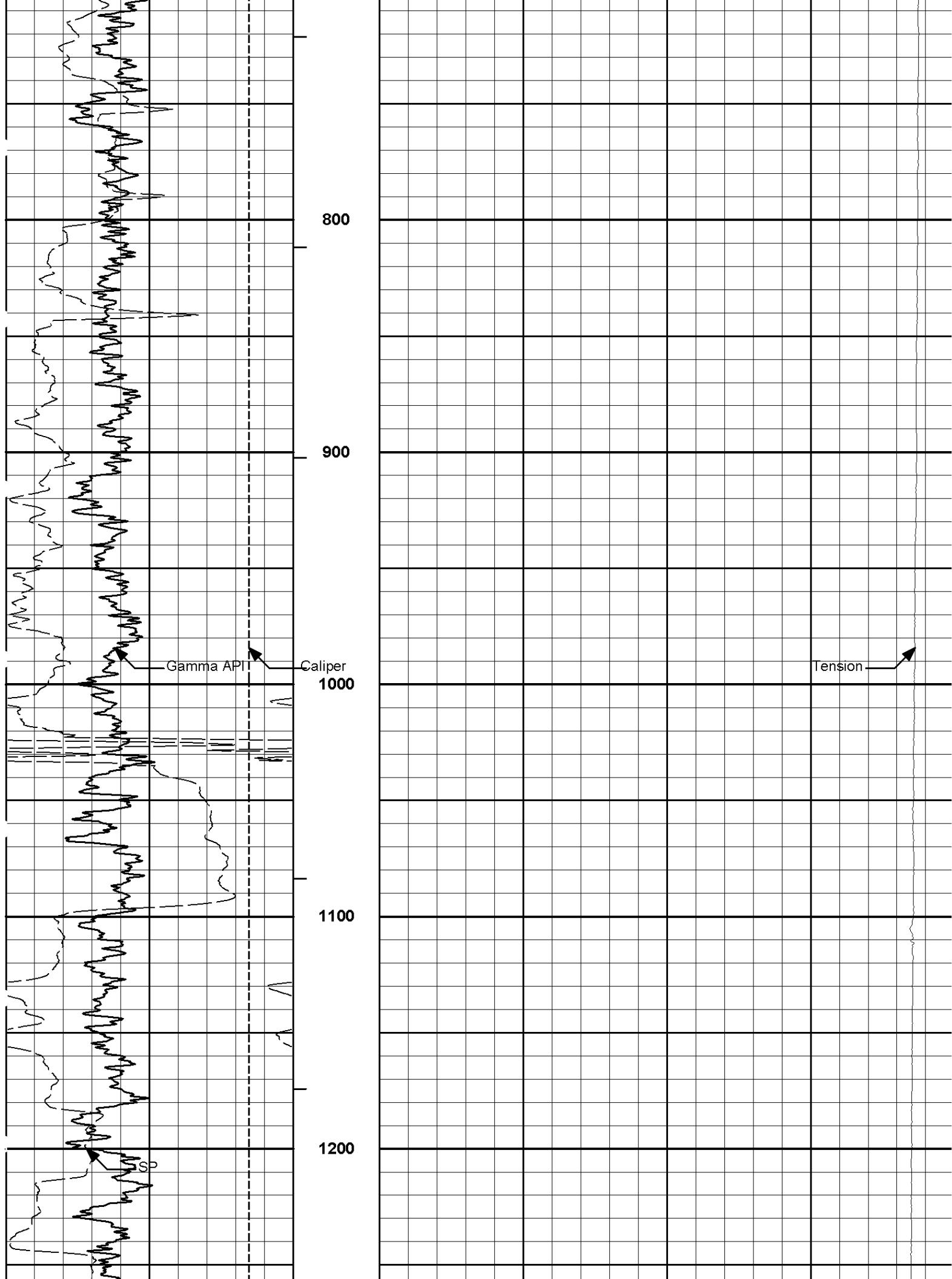
**HALLIBURTON**

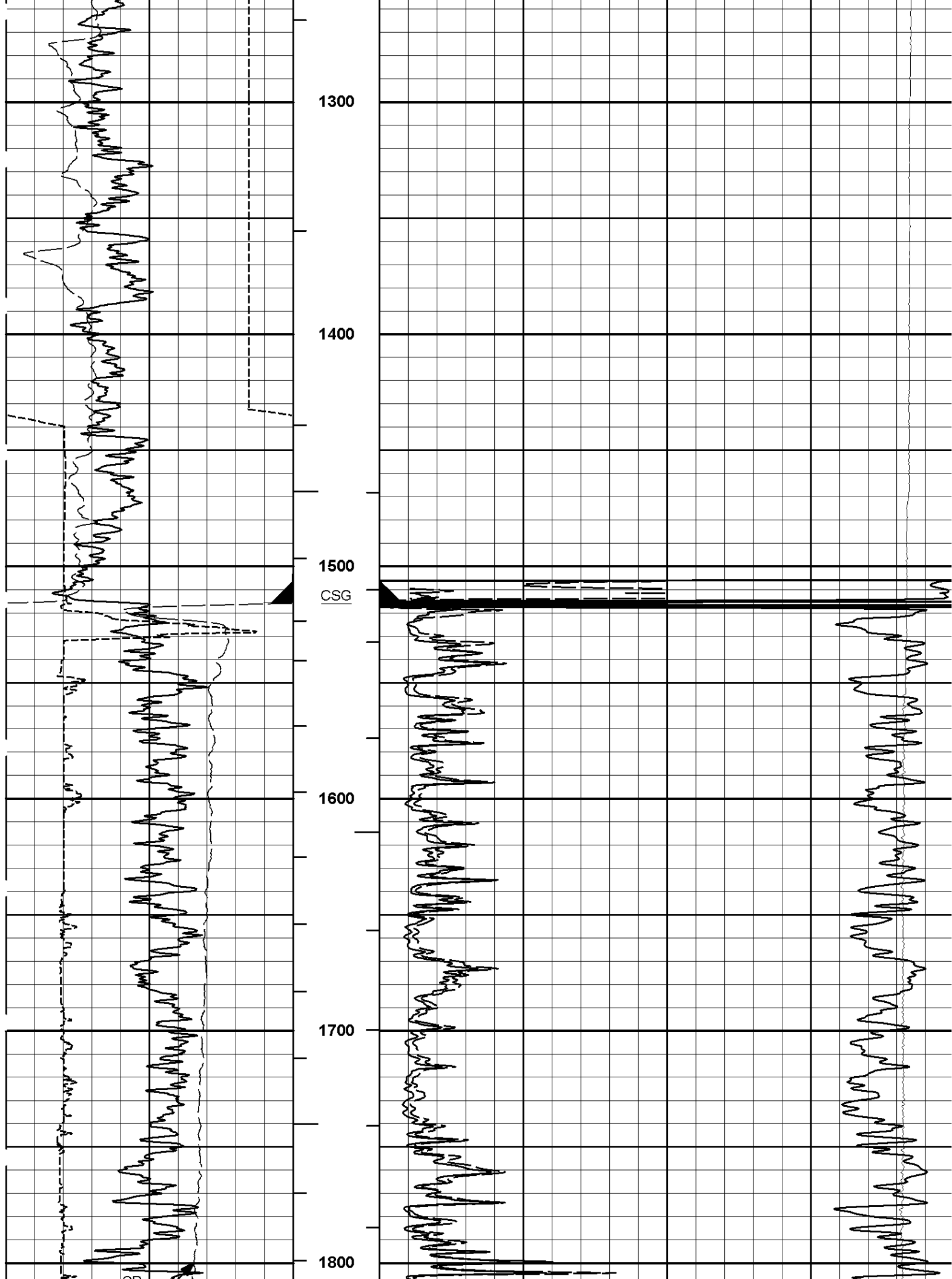
Plot Time: 04-Aug-08 21:15:24  
Plot Range: 98 ft to 9245 ft  
Data: LAR\_LEV\_31\_05B\Well Based\\*\  
Plot File: \\HRI\DITS\_HRI\_2IN\_RM

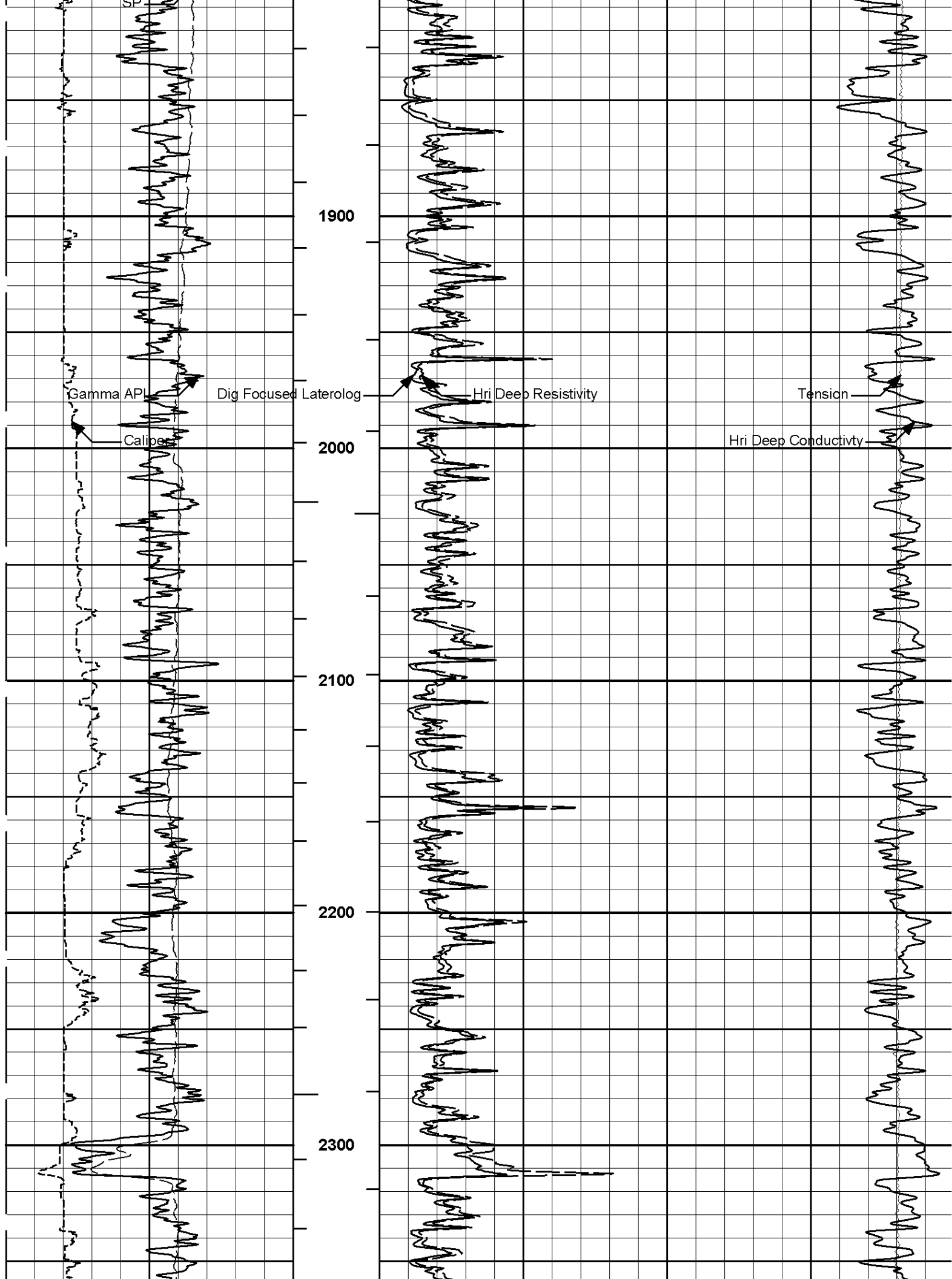
**MAIN PASS 2" = 100'**

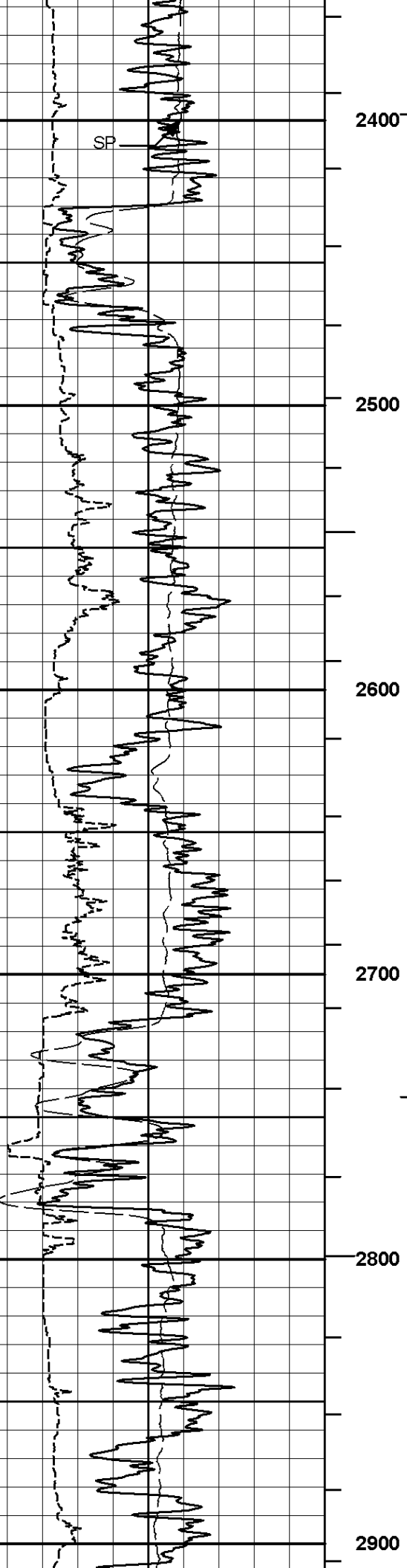
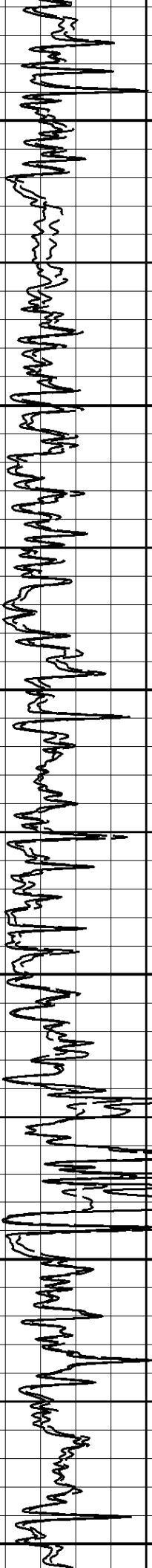
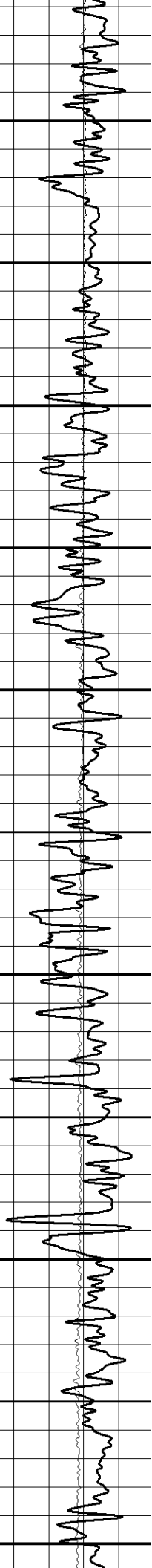




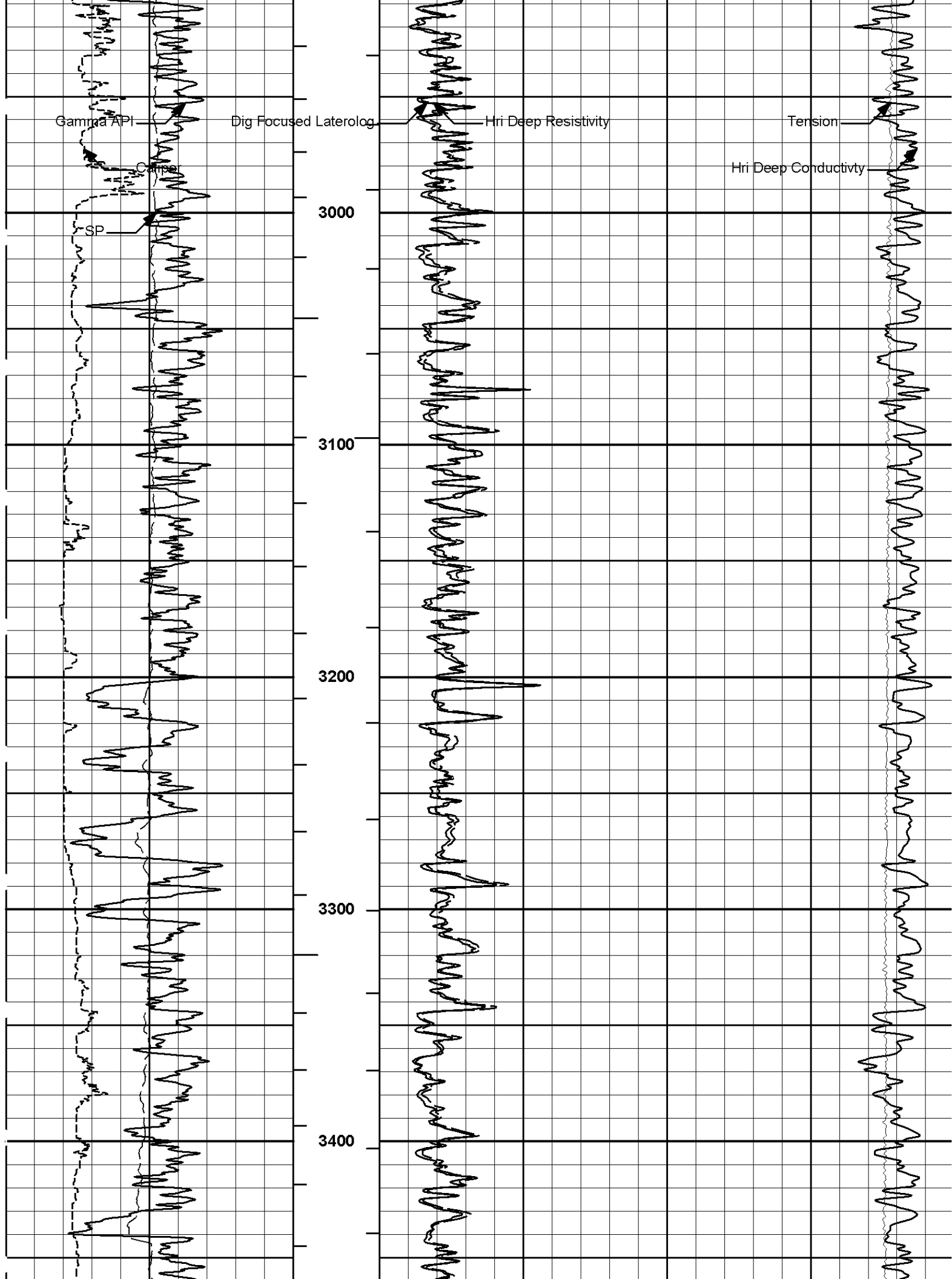


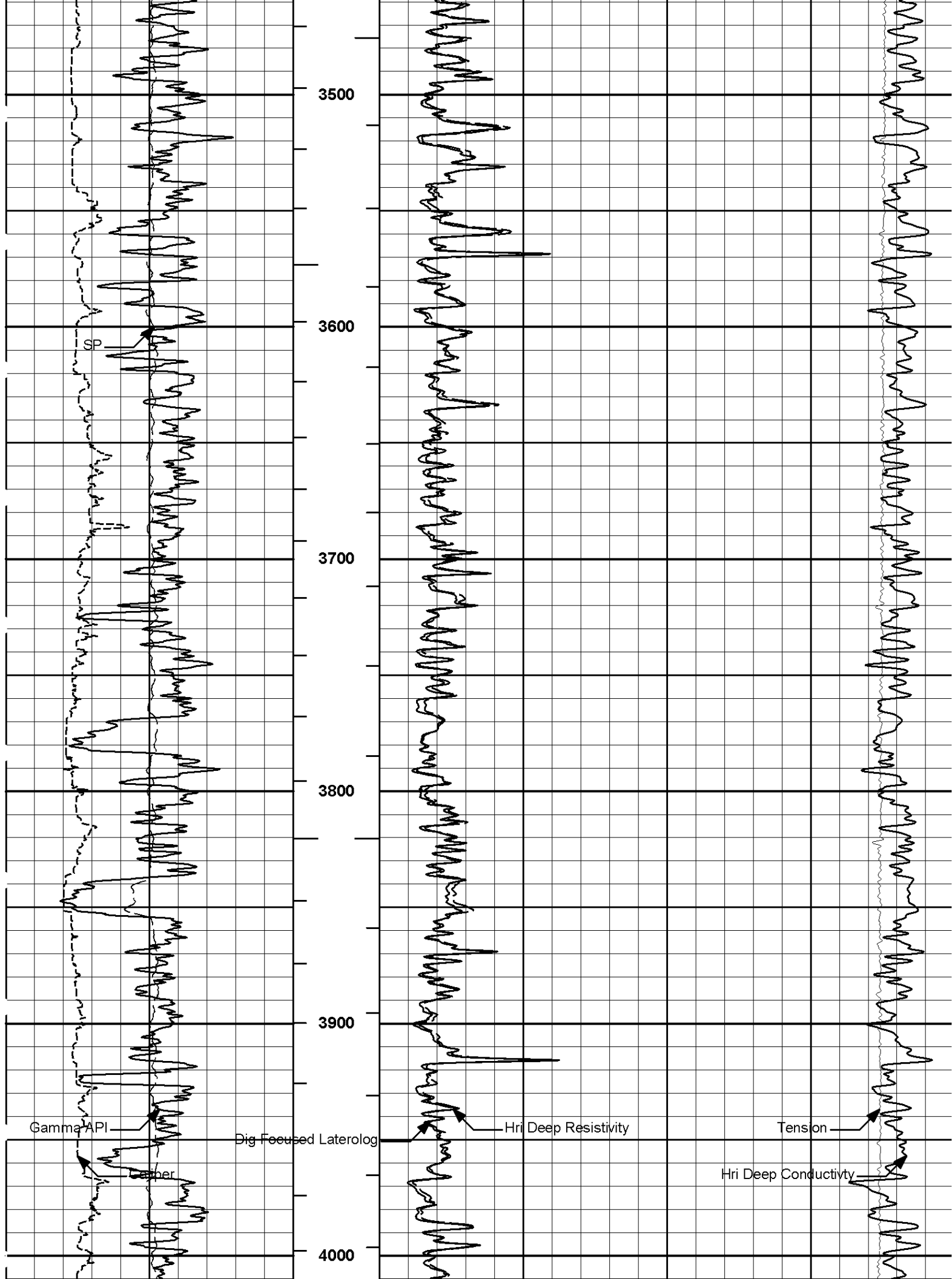


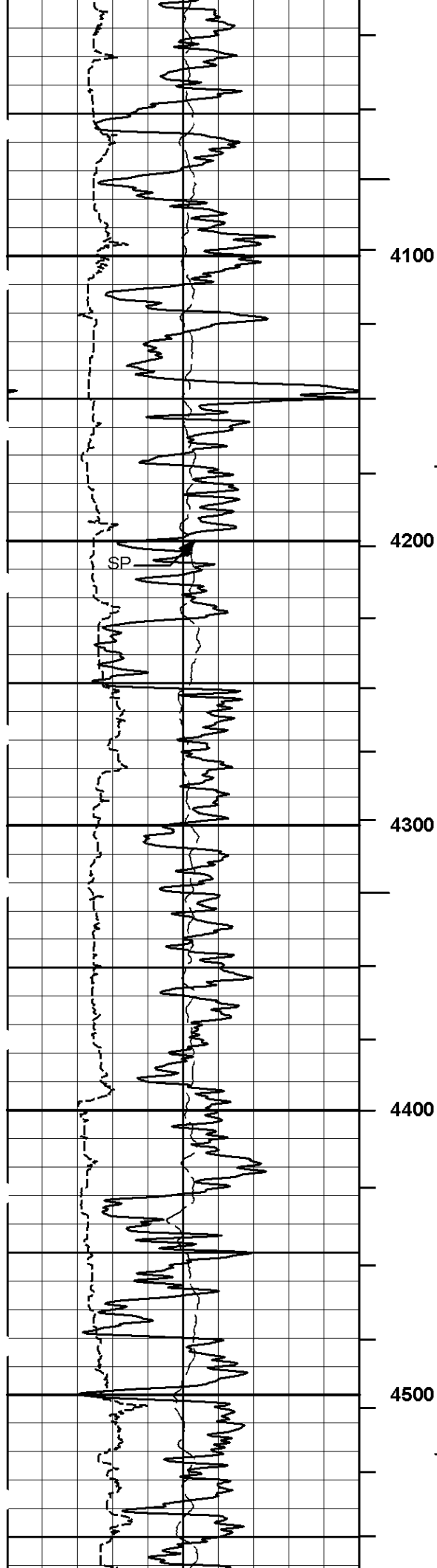
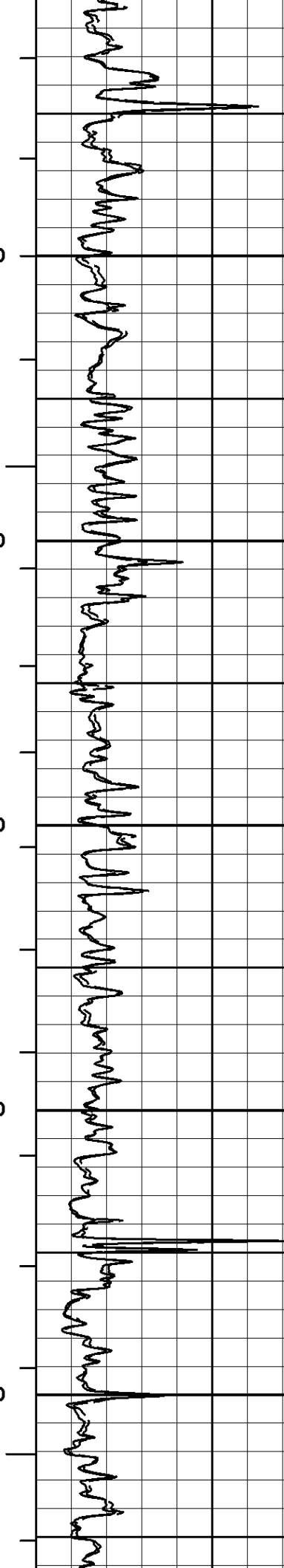
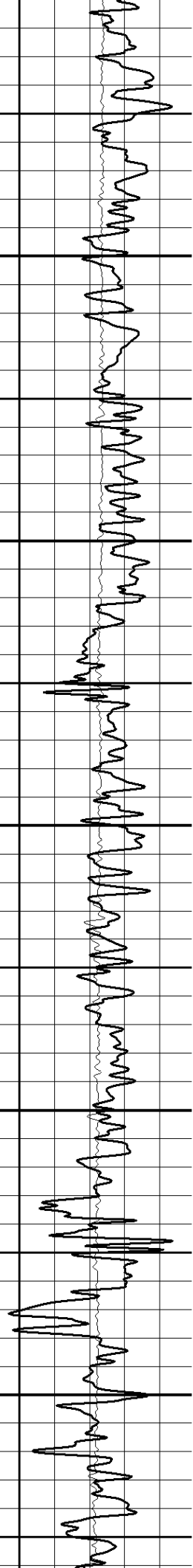


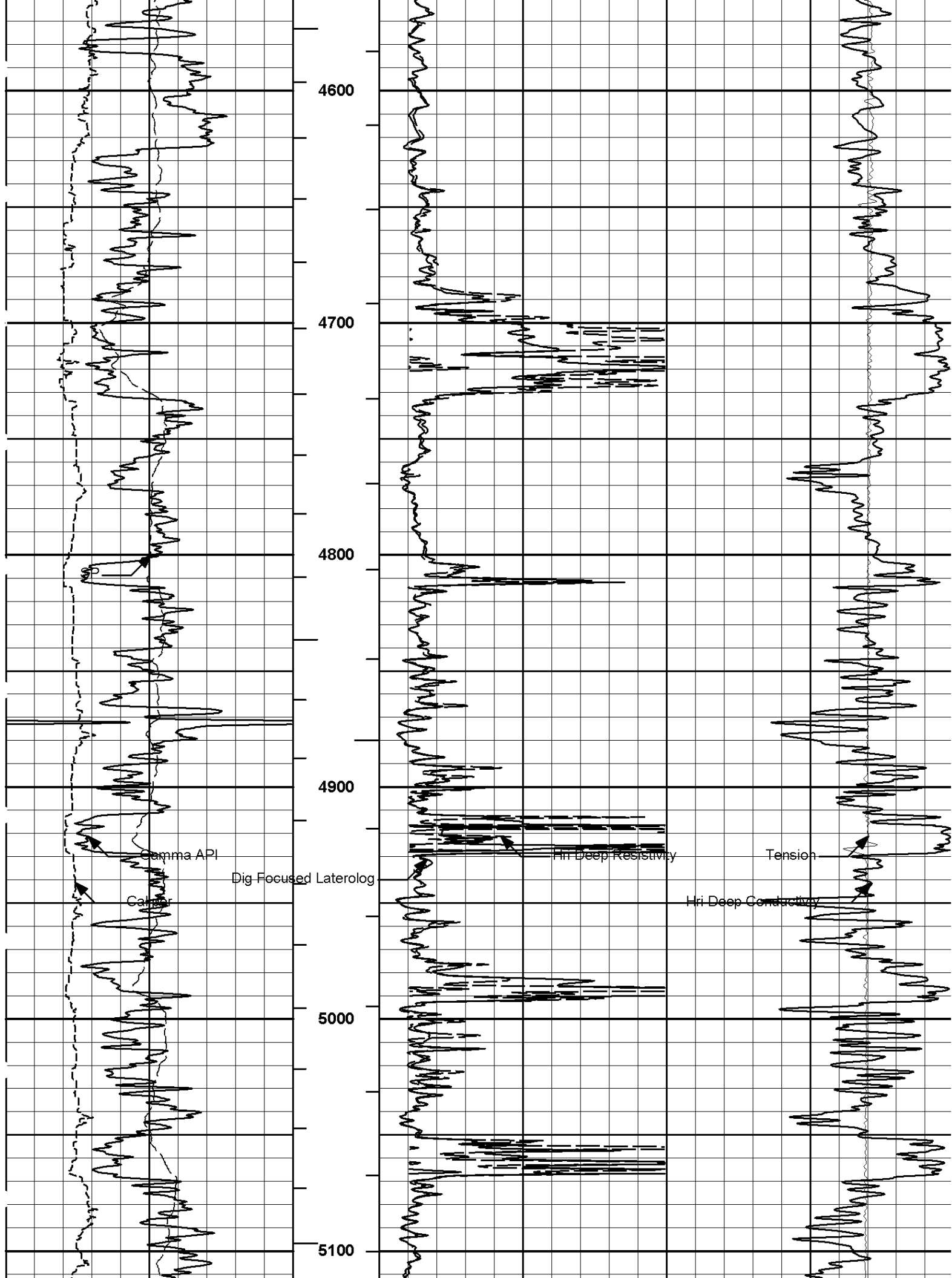


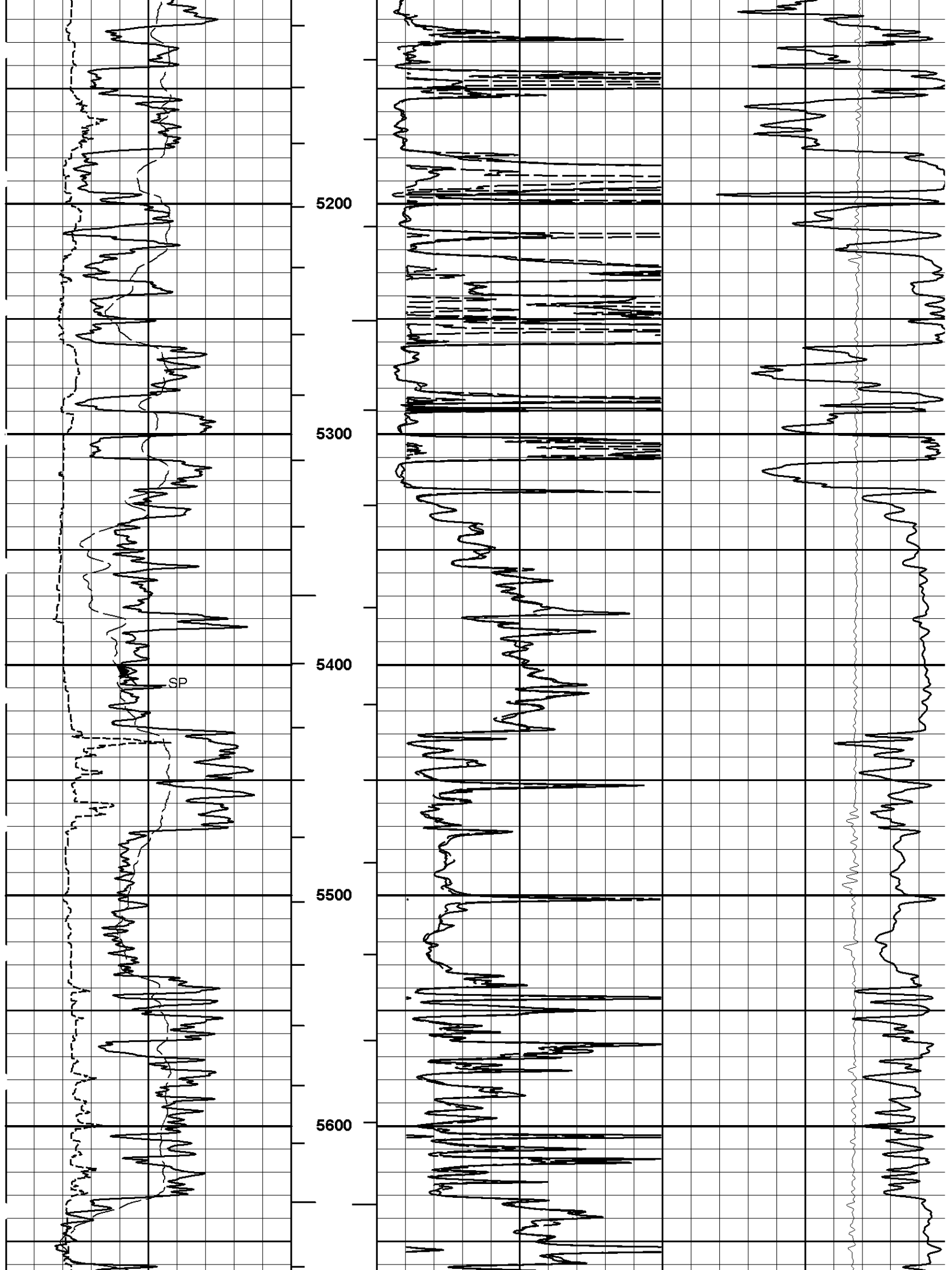


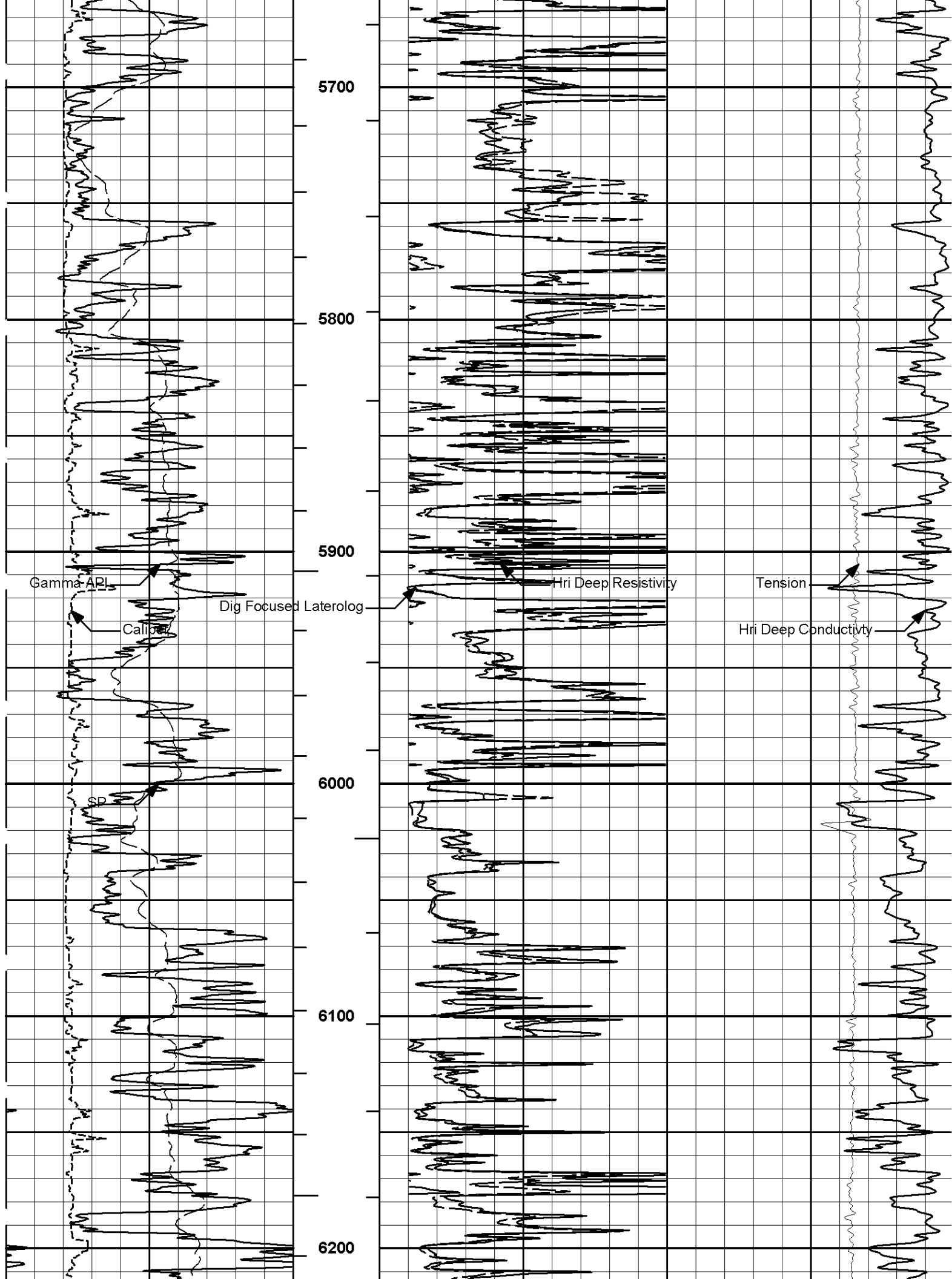


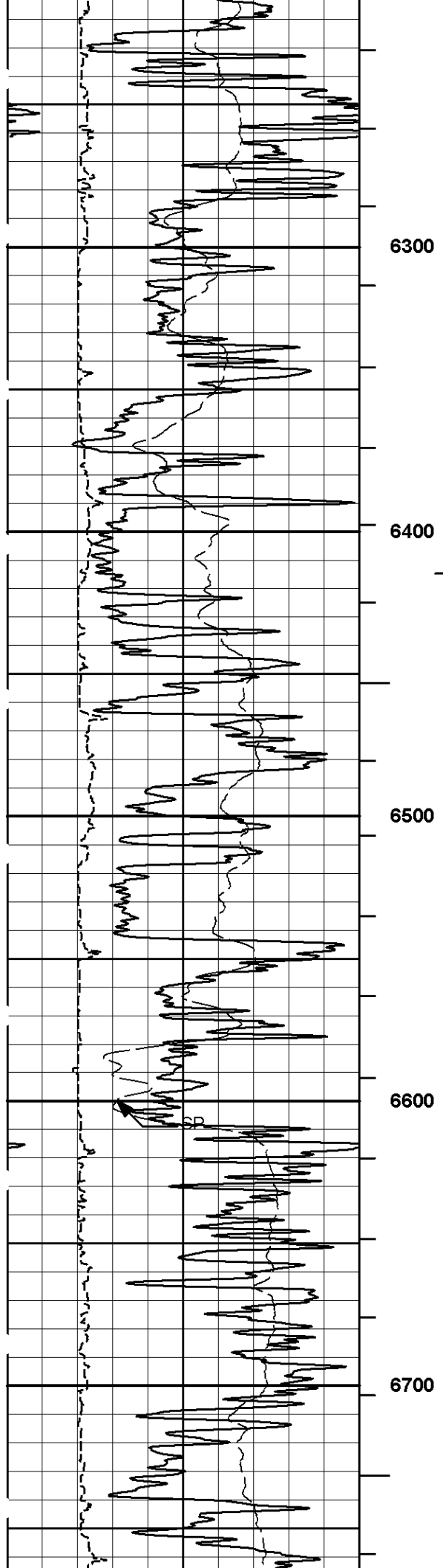
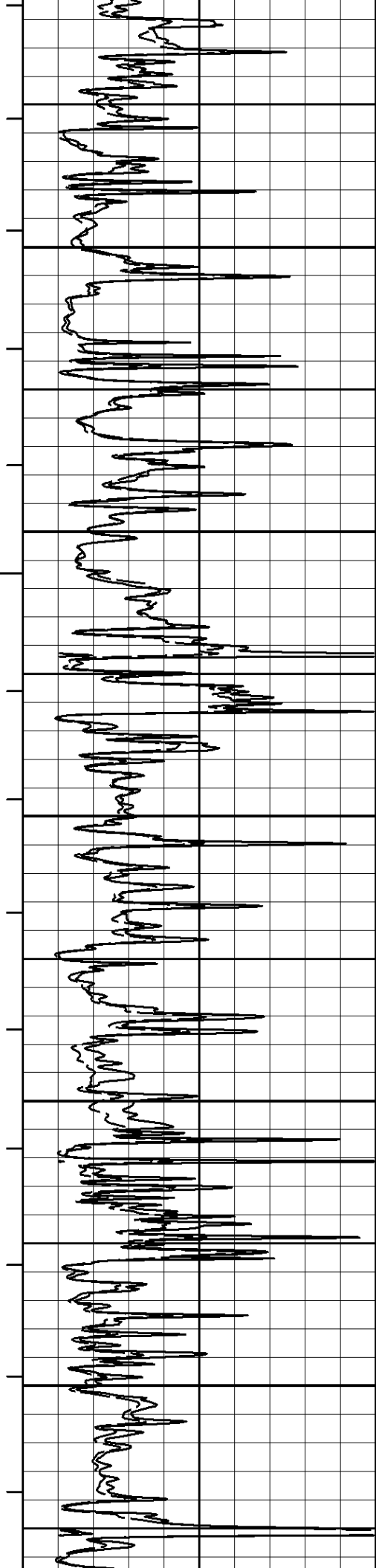
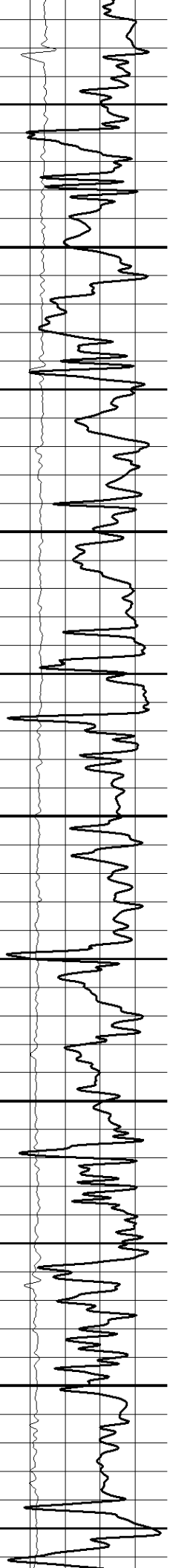


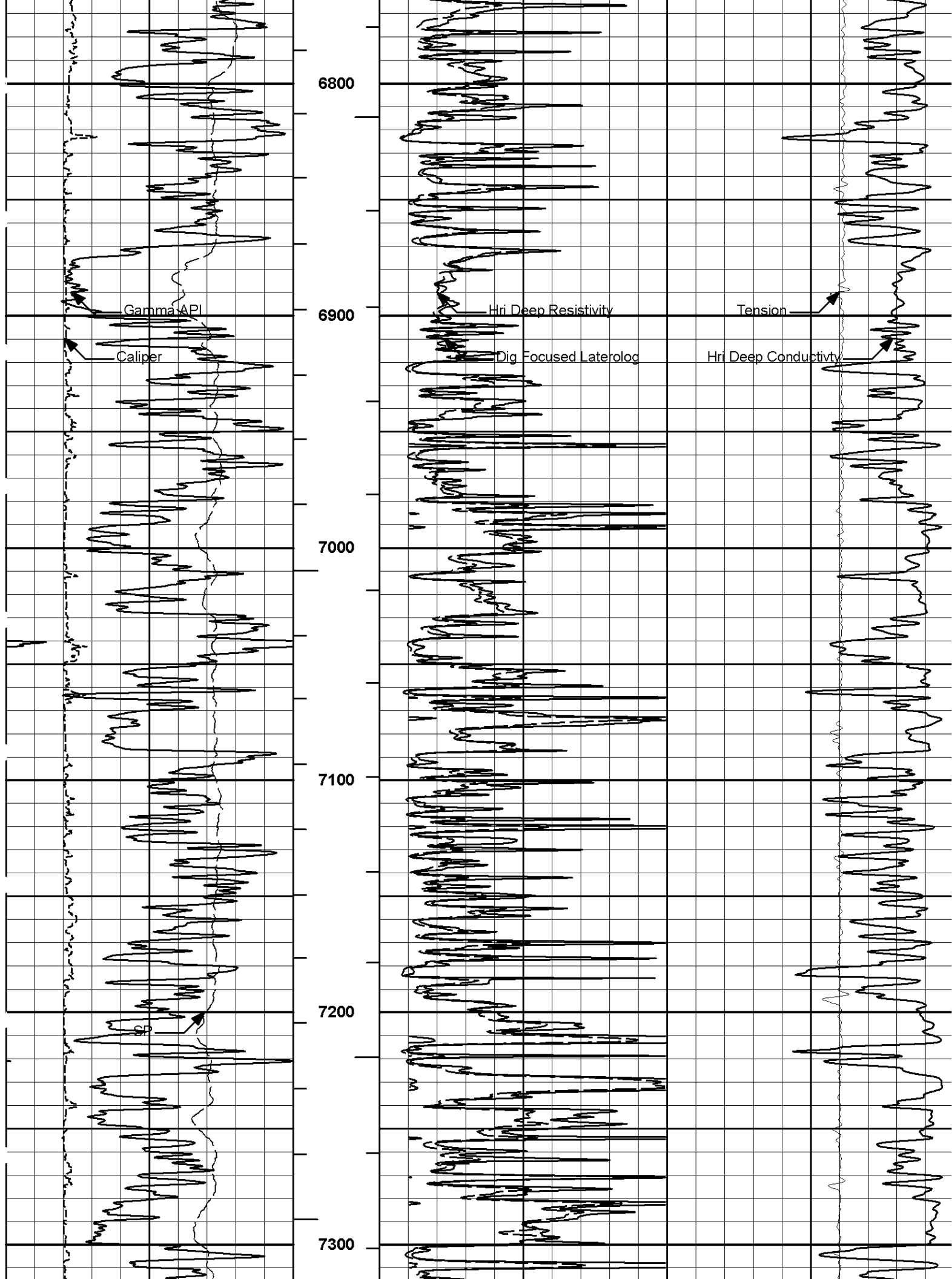




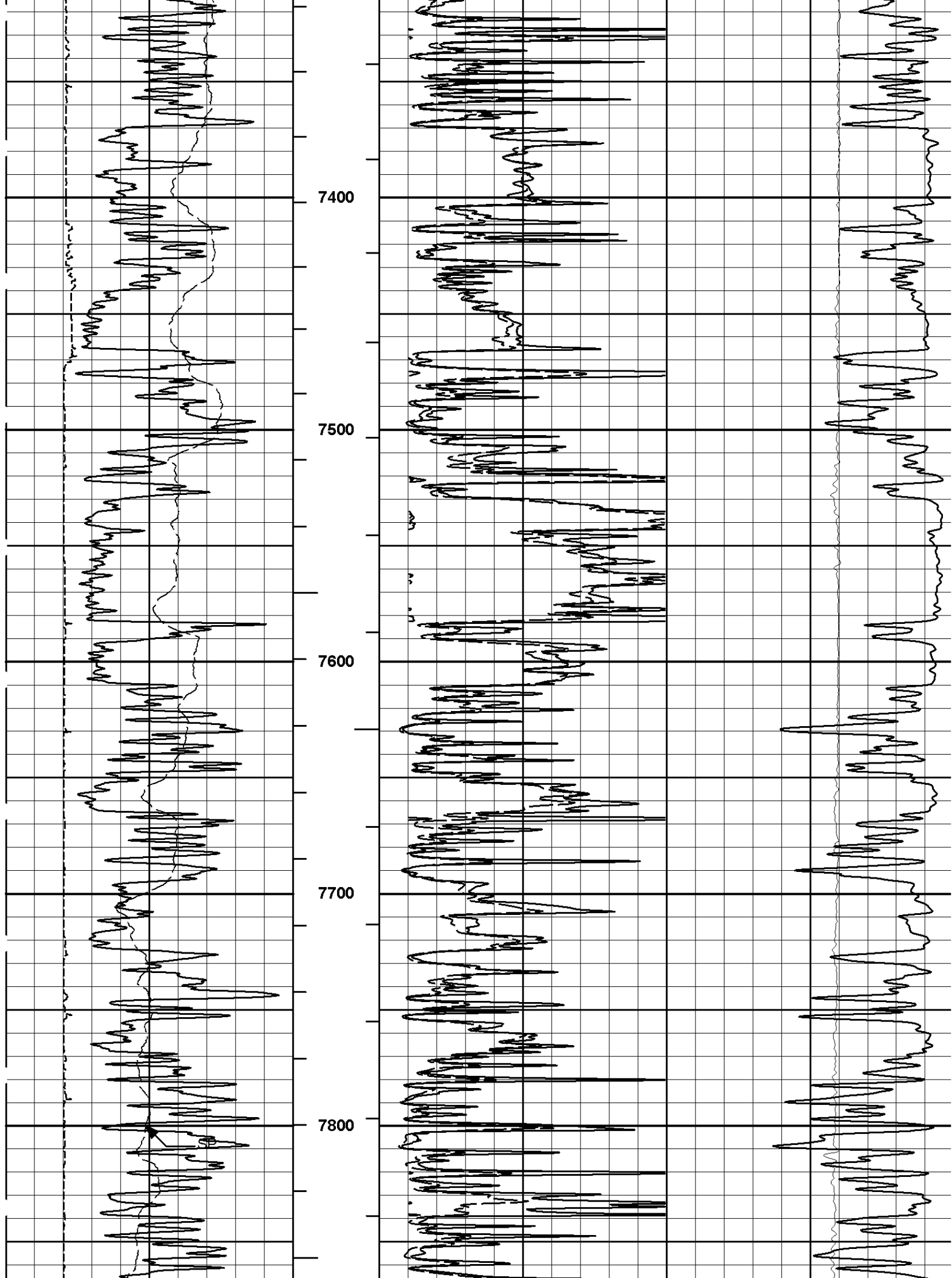


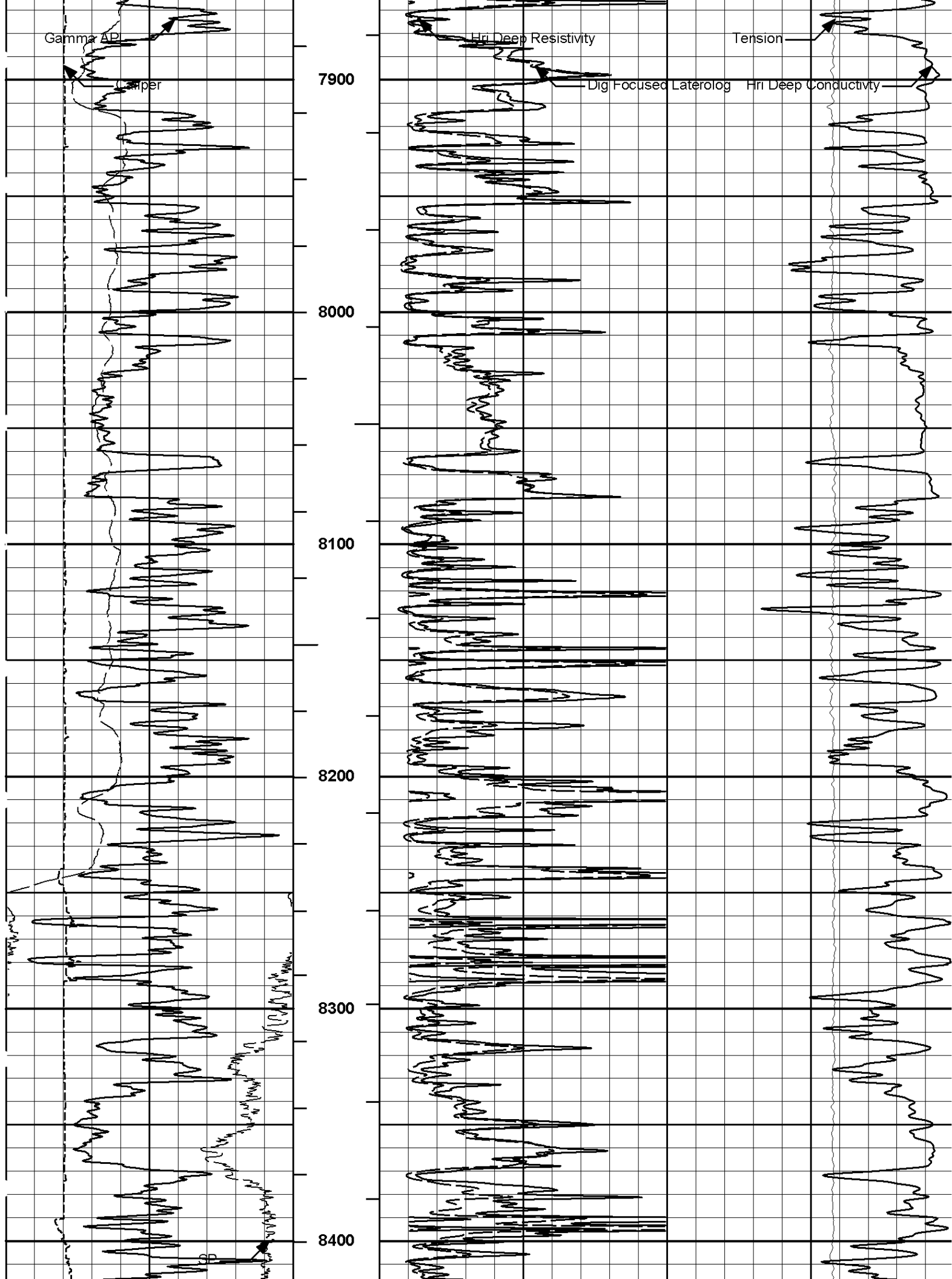


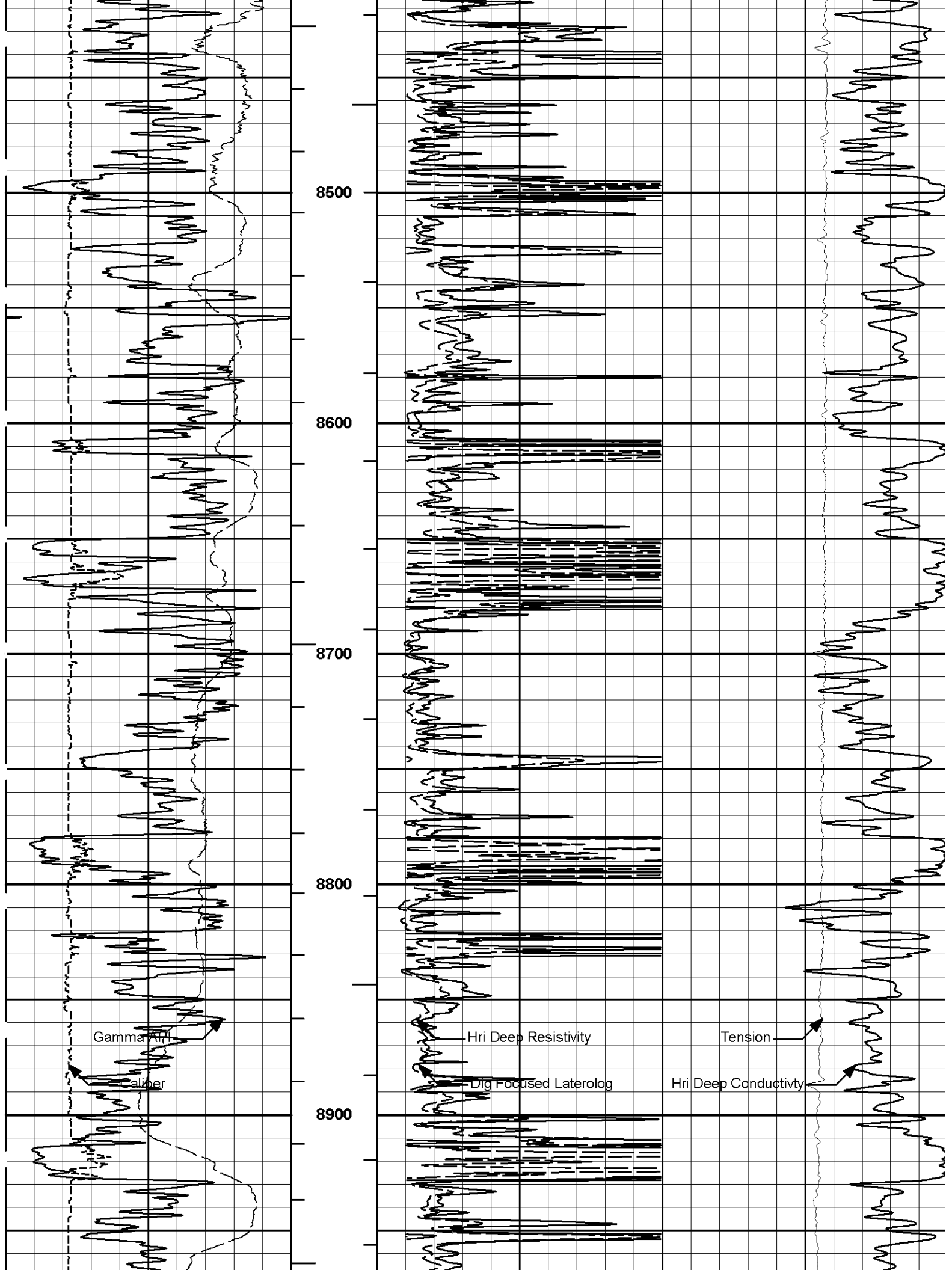


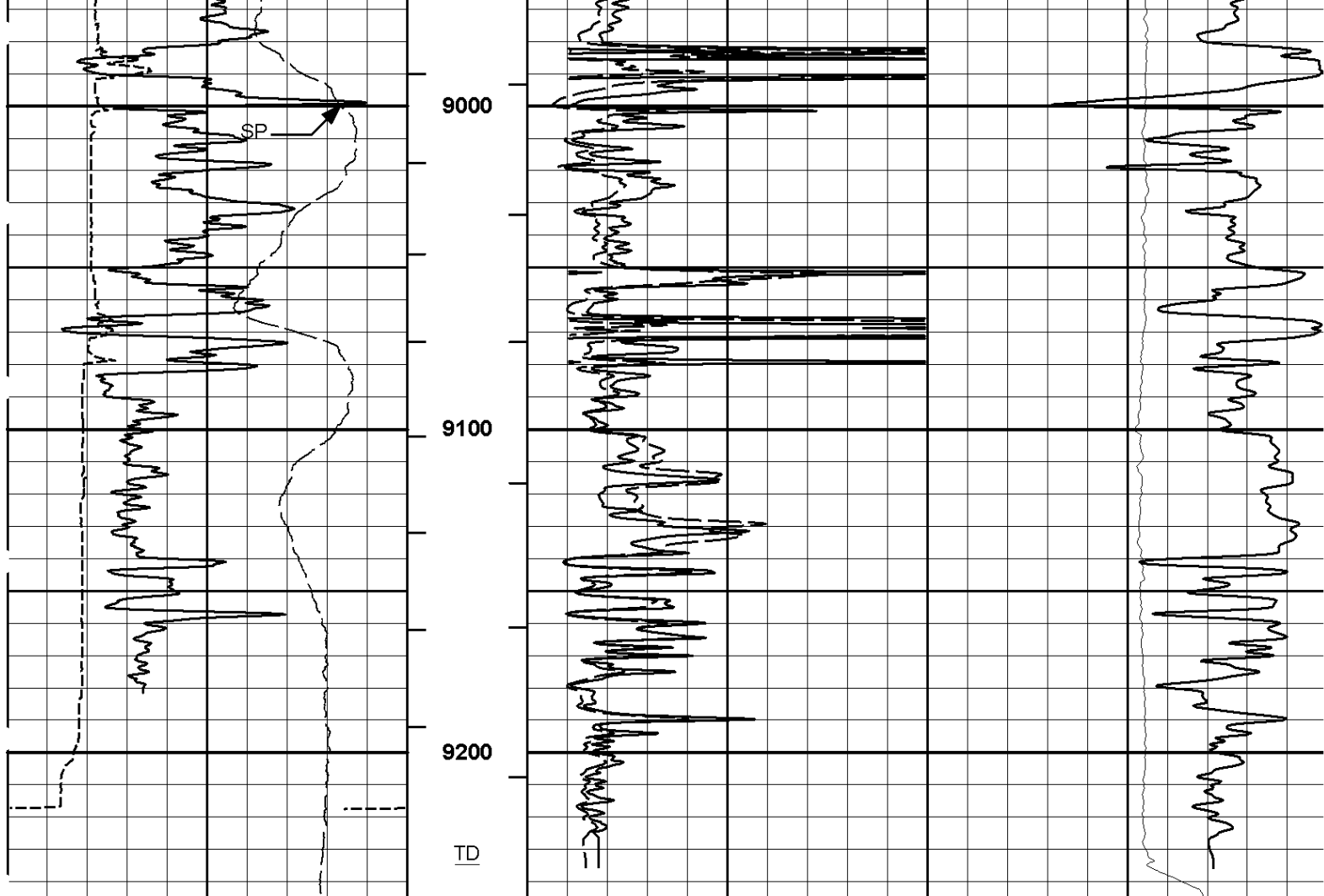












0	Gamma API	200	1 : 600	0	Hri Deep Resistivity	100	10K	Tension	0
	api				ohm-metre			pounds	
6	Caliper	16		0	Dig Focused Laterolog	100			
	inches				ohm-metre				
	SP			500	Hri Deep Conductivity				0
	-10[+				mmho per metre				

**HALLIBURTON**

Plot Time: 04-Aug-08 21:15:31  
Plot Range: 98 ft to 9245 ft  
Data: LAR\_LEV\_31\_05B\Well Based\\*\n  
Plot File: \\HRI\DITS\_HRI\_2IN\_RM

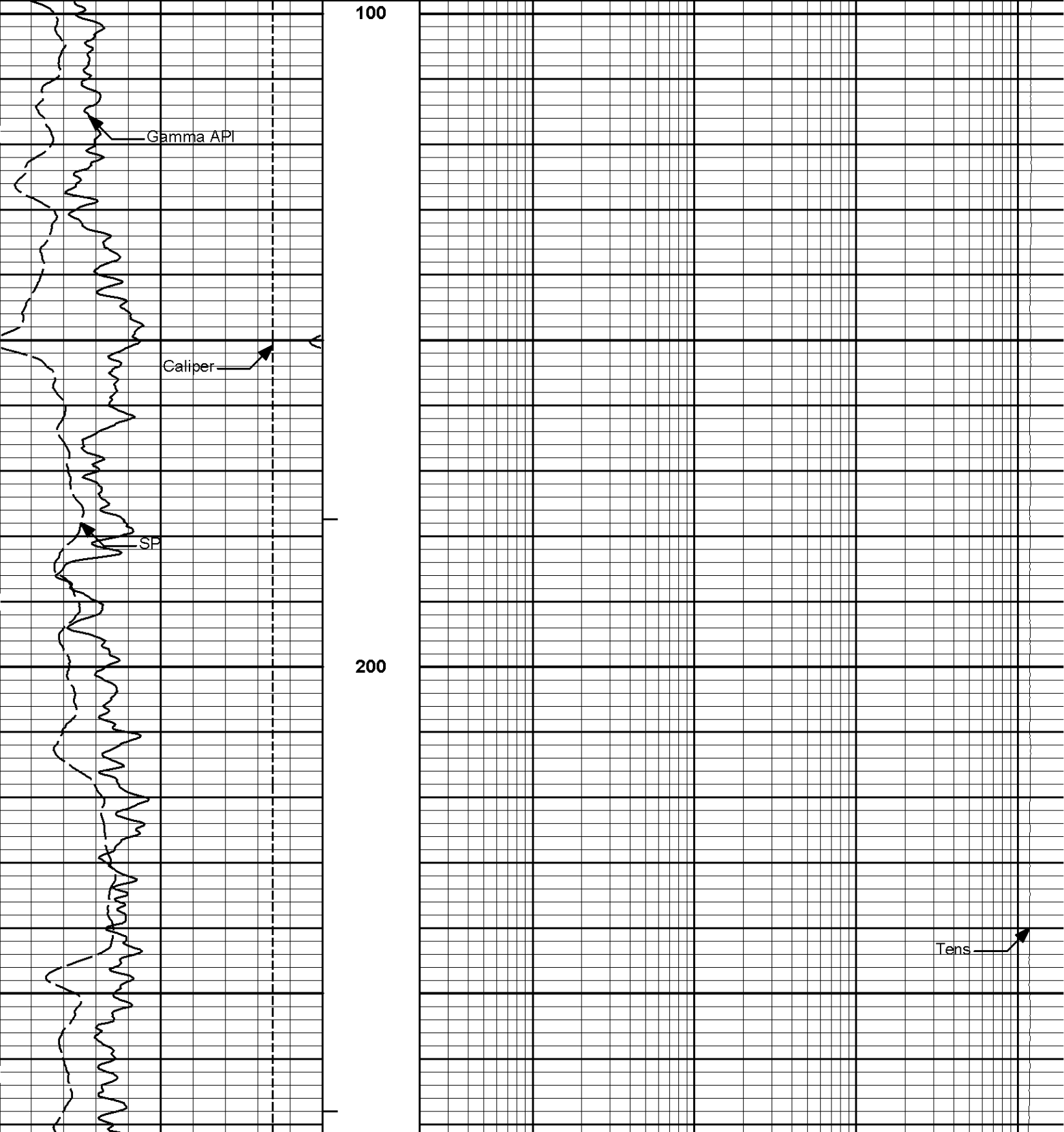
**MAIN PASS 2" = 100'**

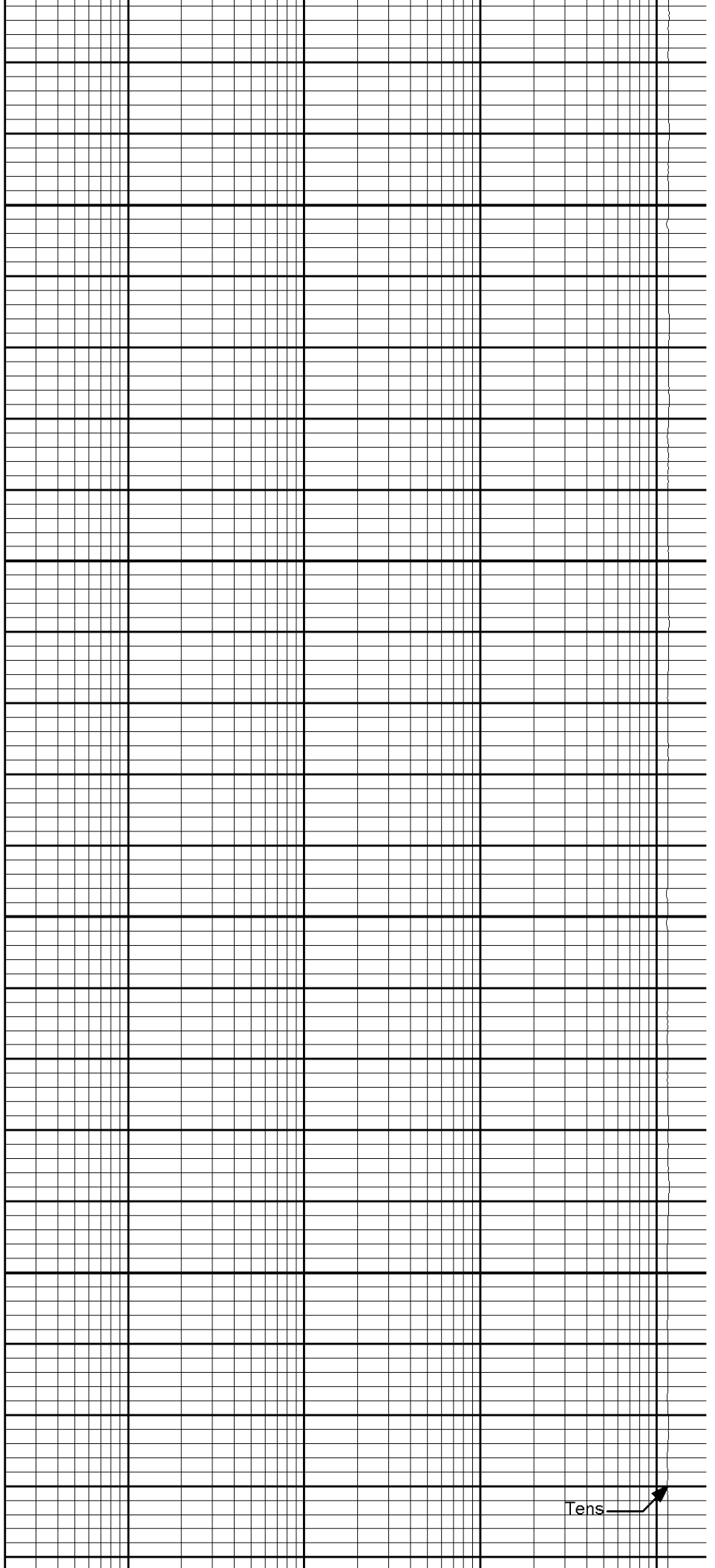
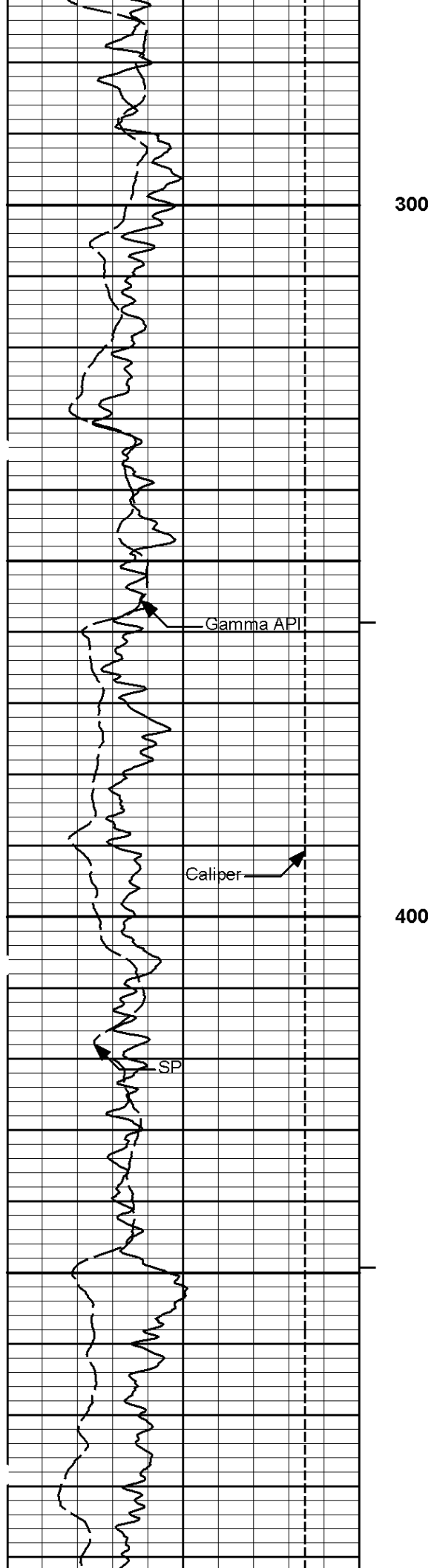
**HALLIBURTON**

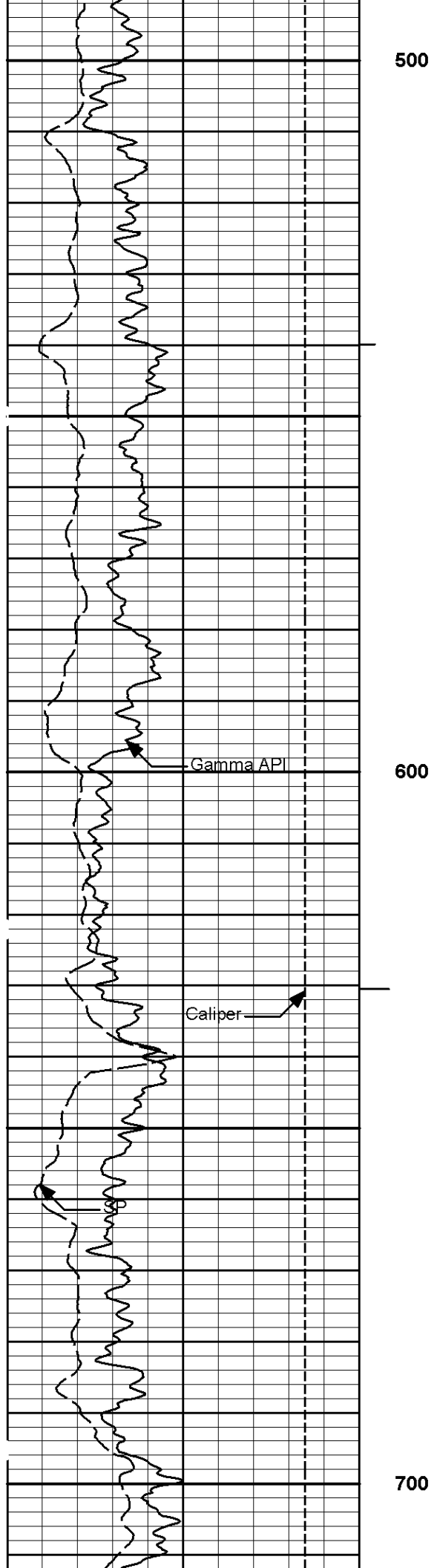
Plot Time: 04-Aug-08 21:15:31  
Plot Range: 98 ft to 9245 ft  
Data: LAR\_LEV\_31\_05B\Well Based\\*\n  
Plot File: \\HRI\DITS\_HRI\_5IN\_RM

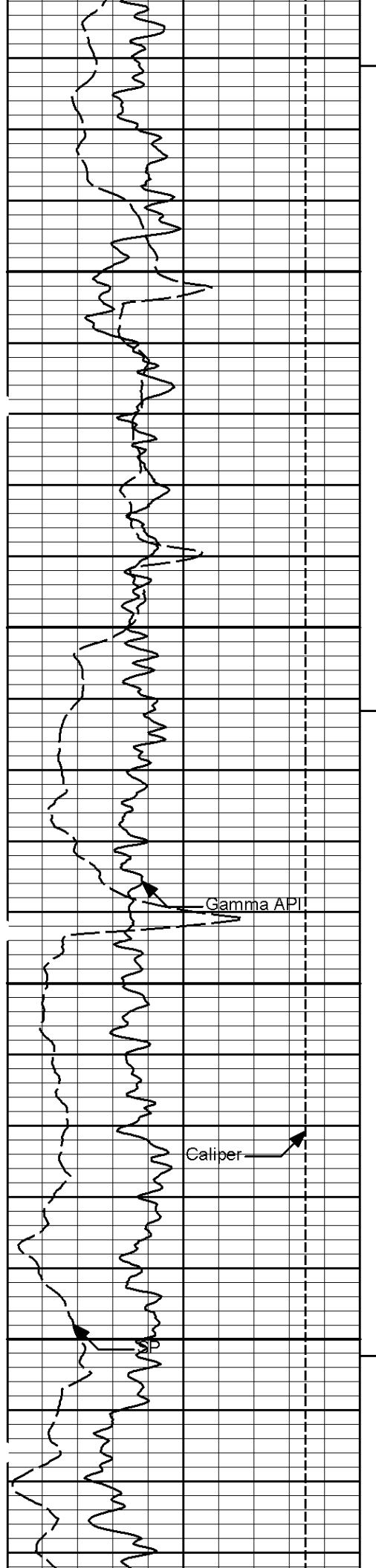
**MAIN PASS 5" = 100'**

			AHV	0.2 Dig Focused Laterolog 2K	
				ohm-metre	
6	Caliper	16	BHV	0.2 Hri Medium Resistivity 2K	
	inches			ohm-metre	
0	Gamma API	200	1 : 240	0.2 Hri Deep Resistivity 2K	
	api			ohm-metre	
0	SP	100		10K	Tens 0
	millivolts				pounds









800

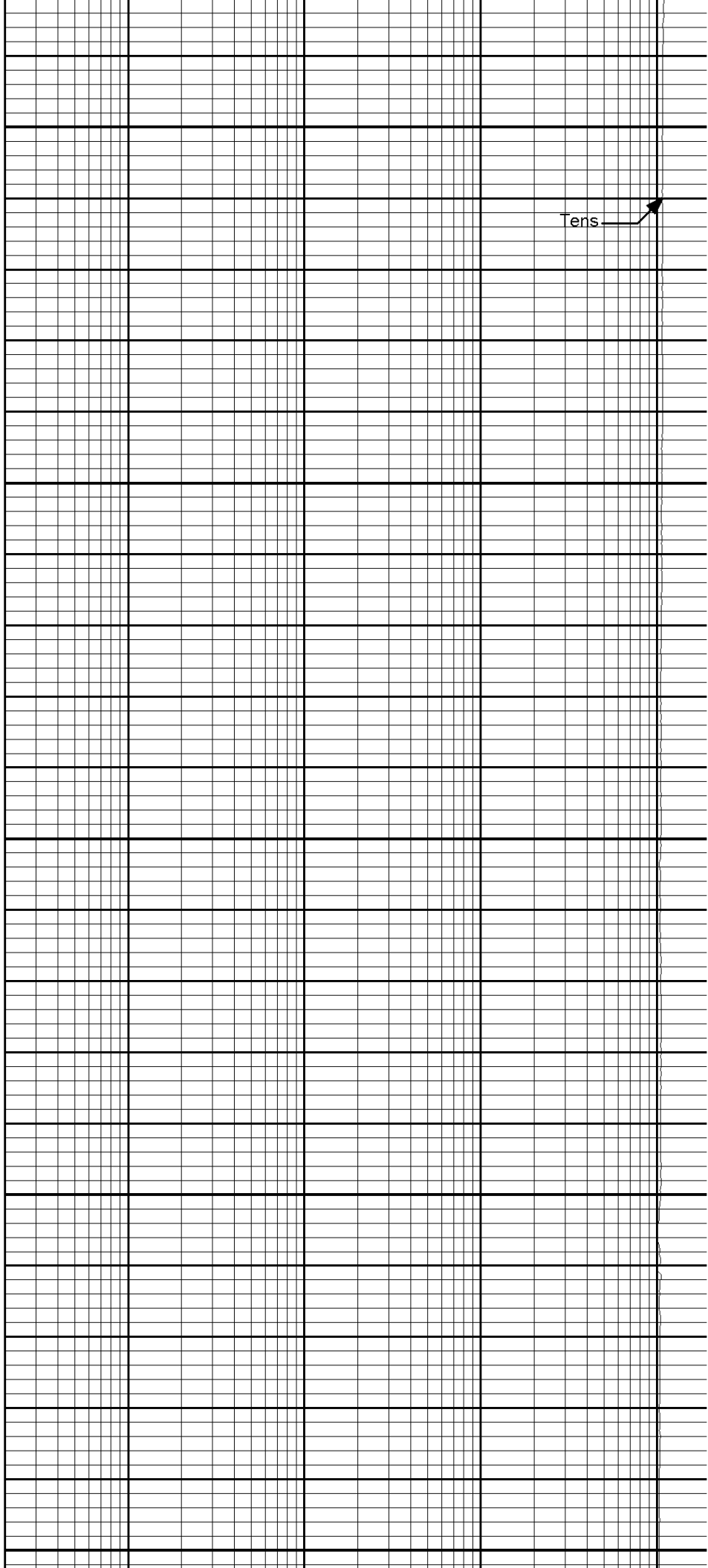
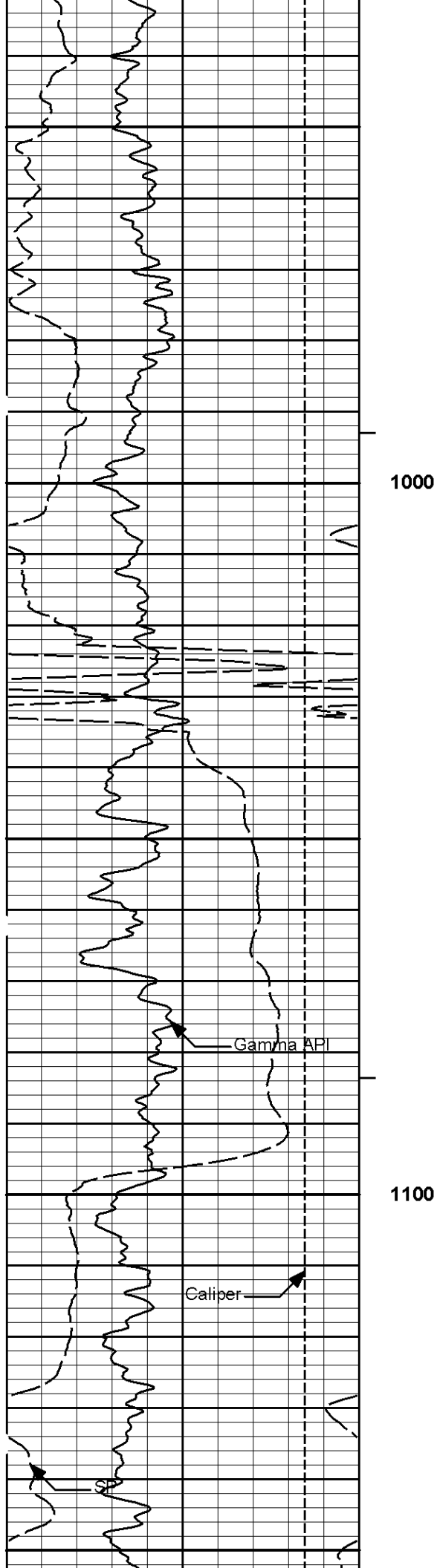
900

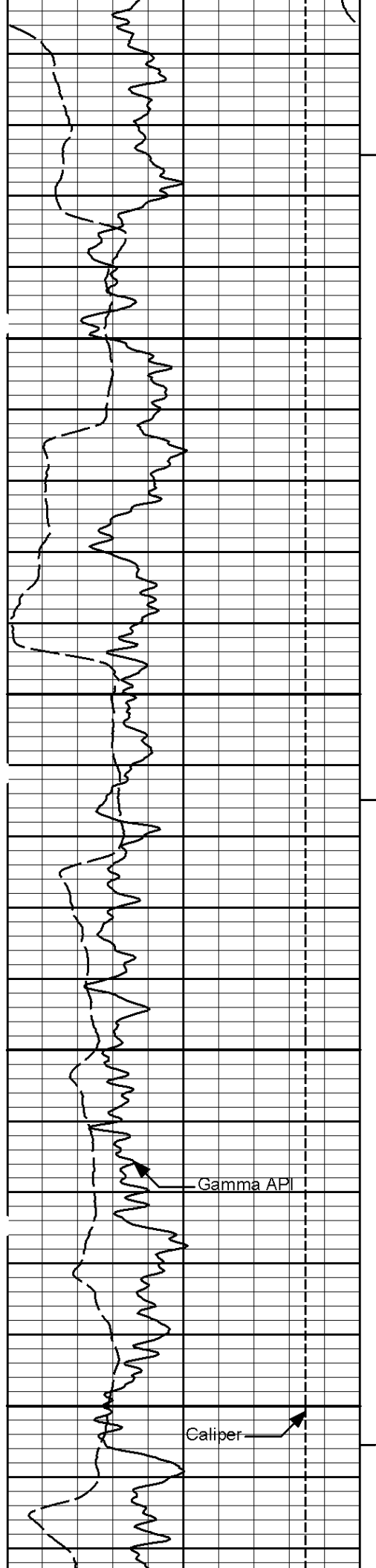
Gamma API

Caliper

Tens







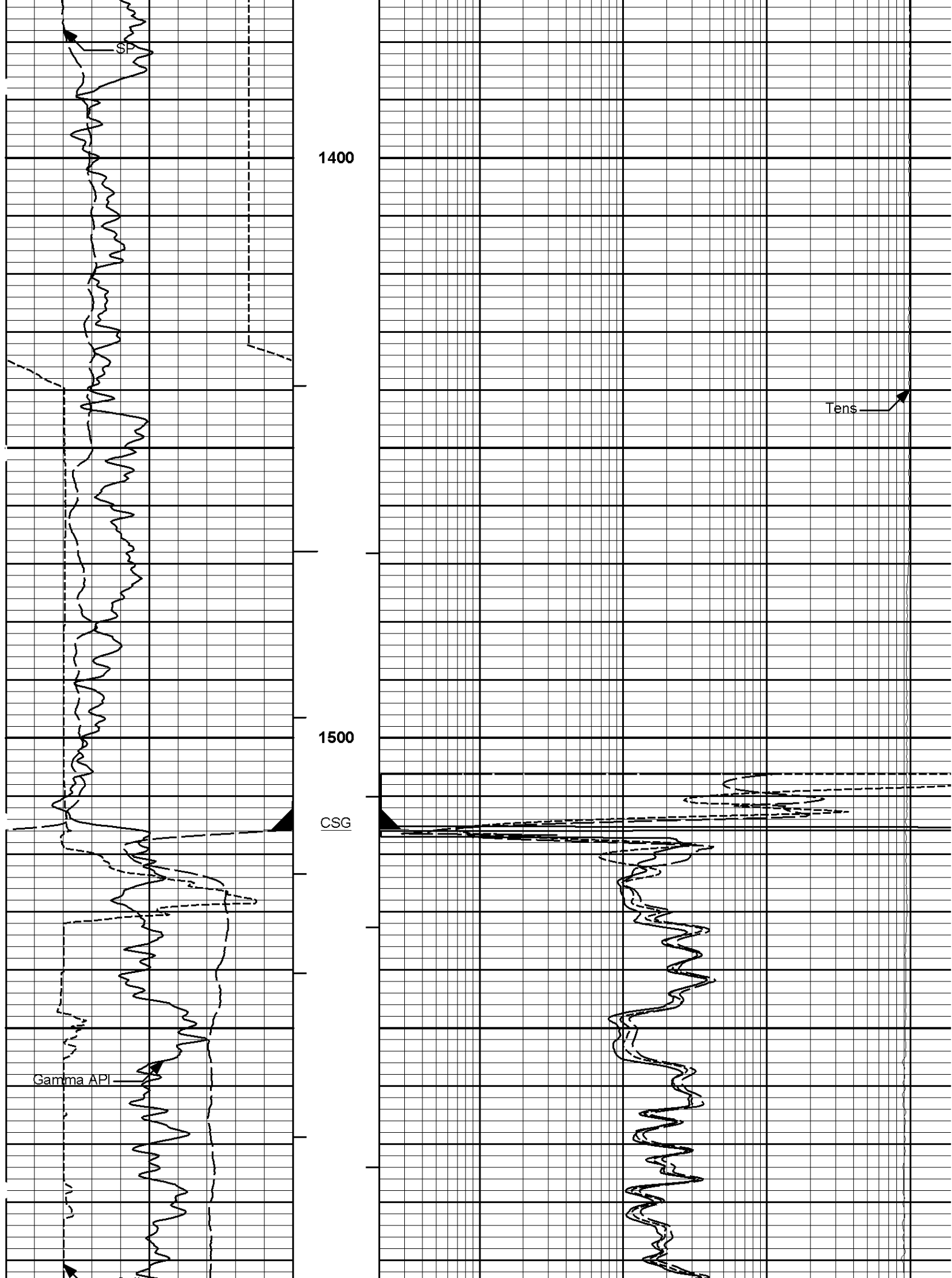
1200

1300

Gamma API

Caliper

Tens



Caliper

1600

Dig Focused Laterolog

Hri Deep Resistivity

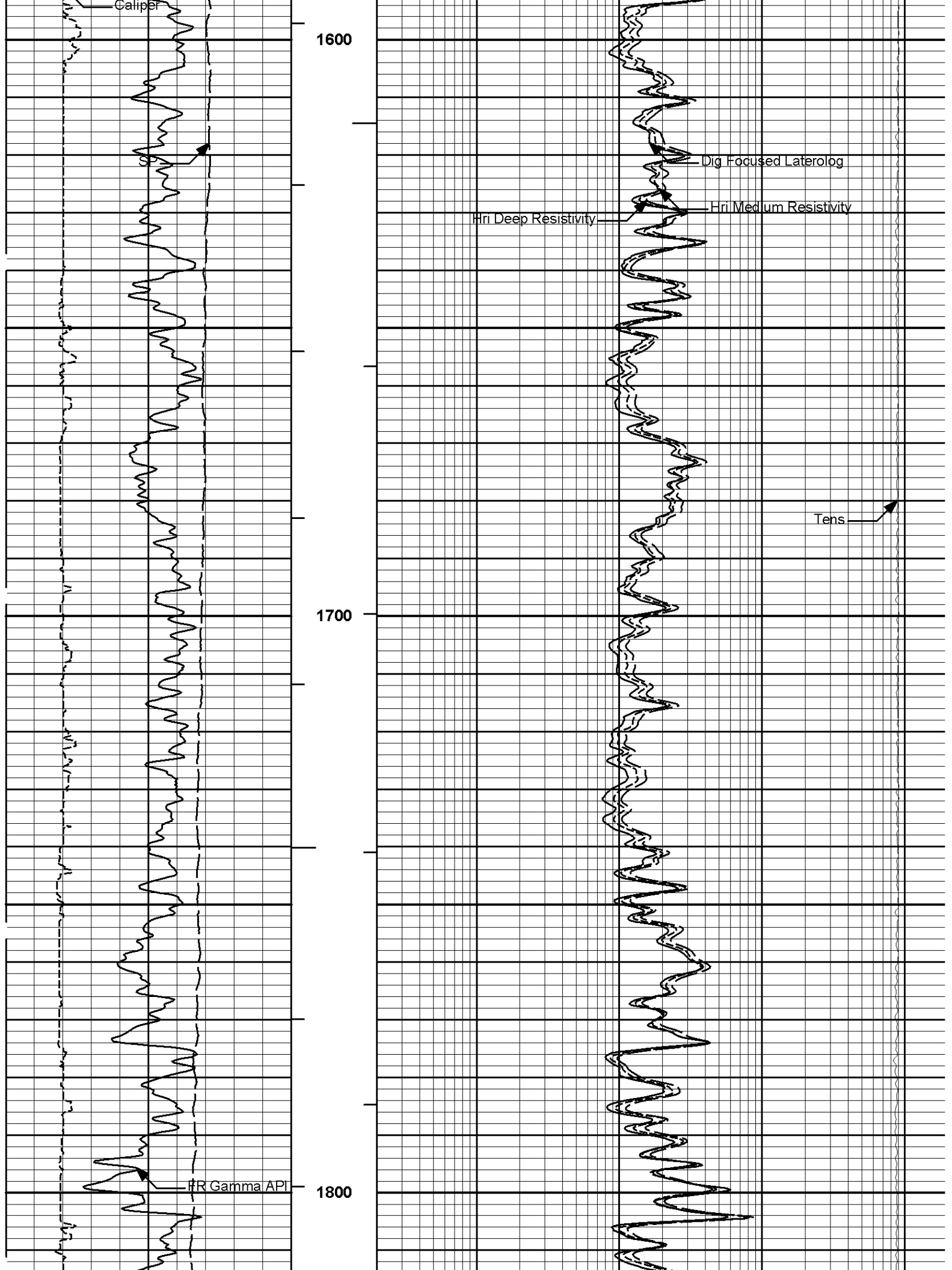
Hri Medium Resistivity

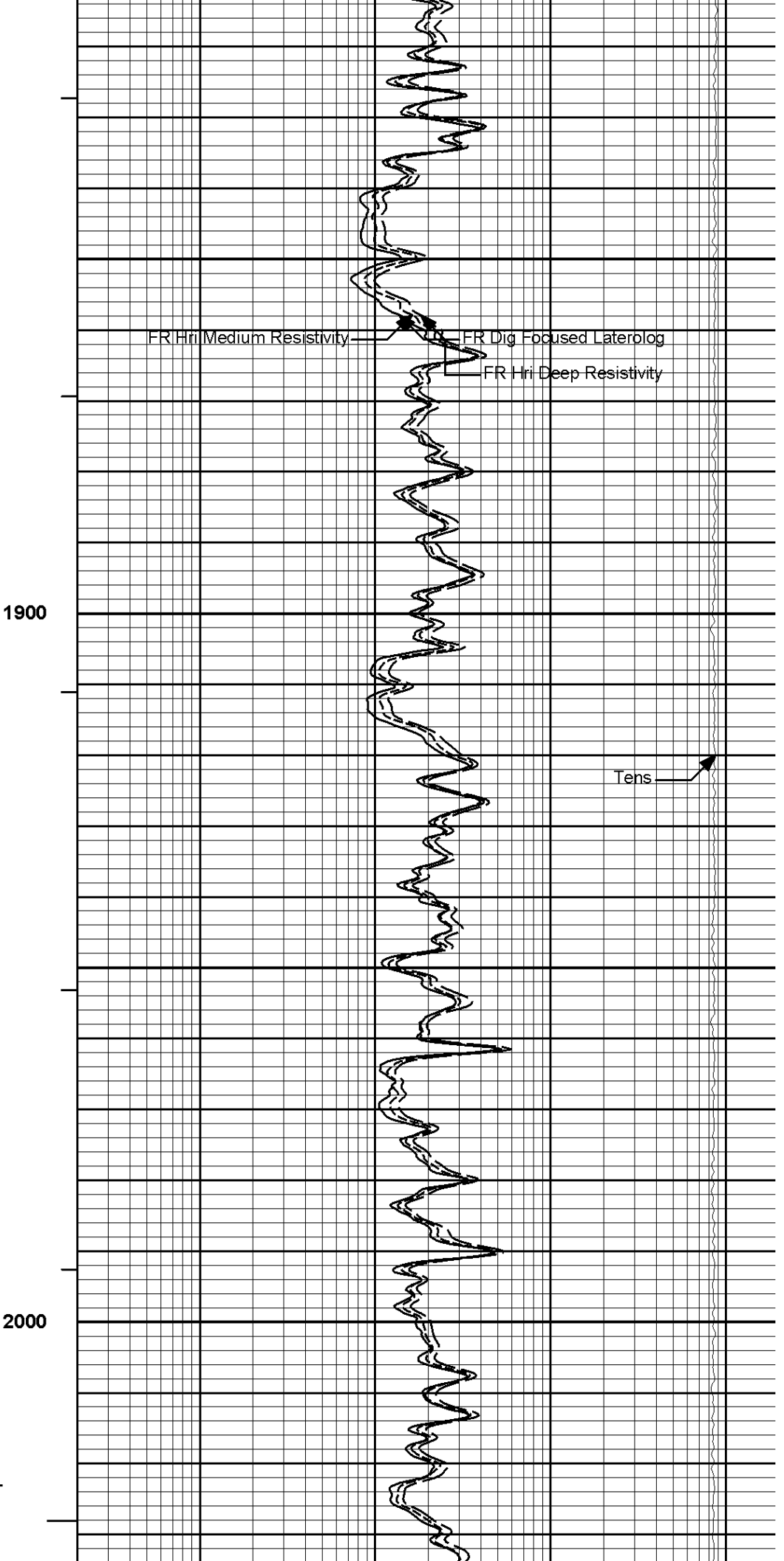
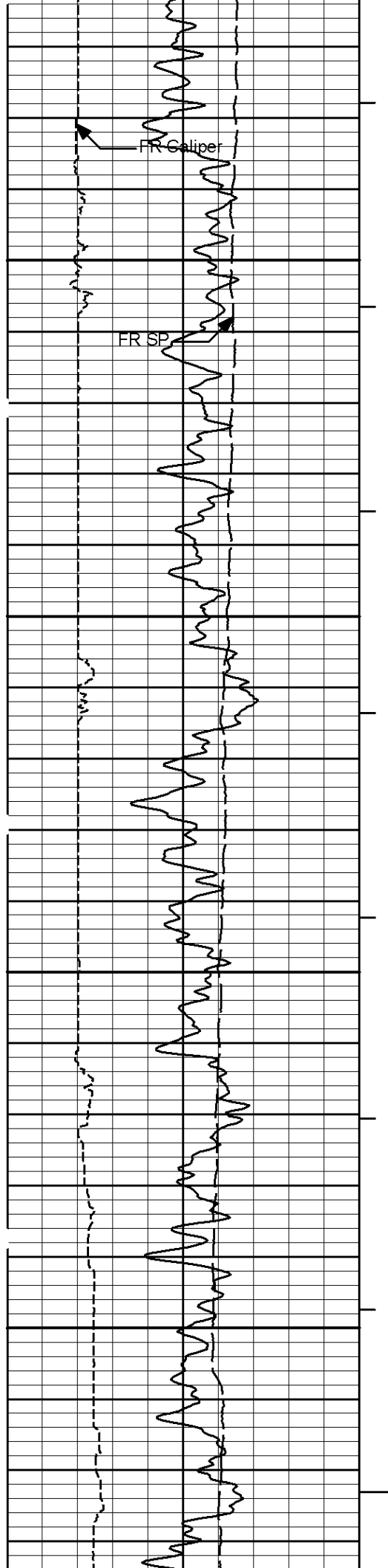
Tens

1700

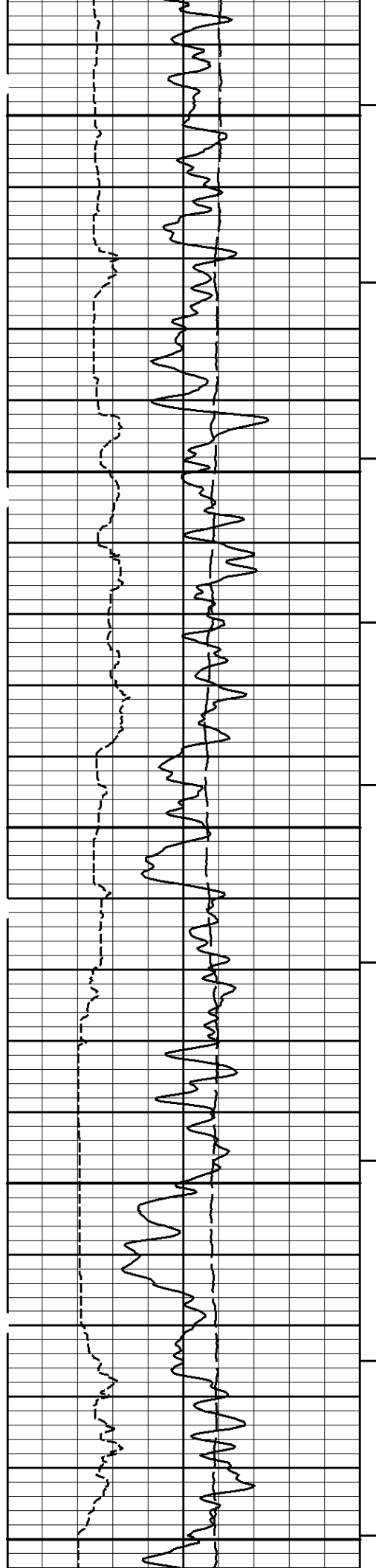
HR Gamma API

1800



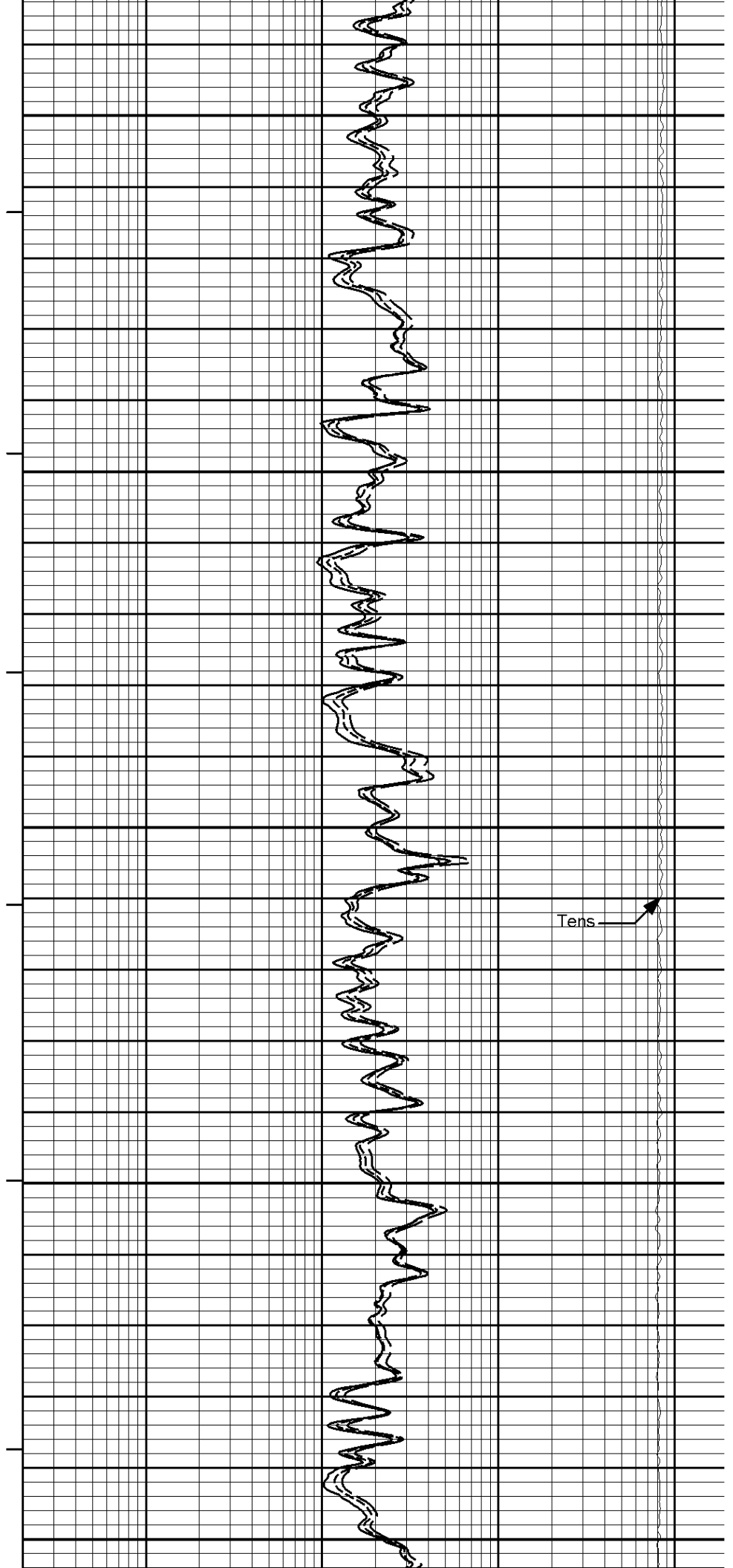


Tens

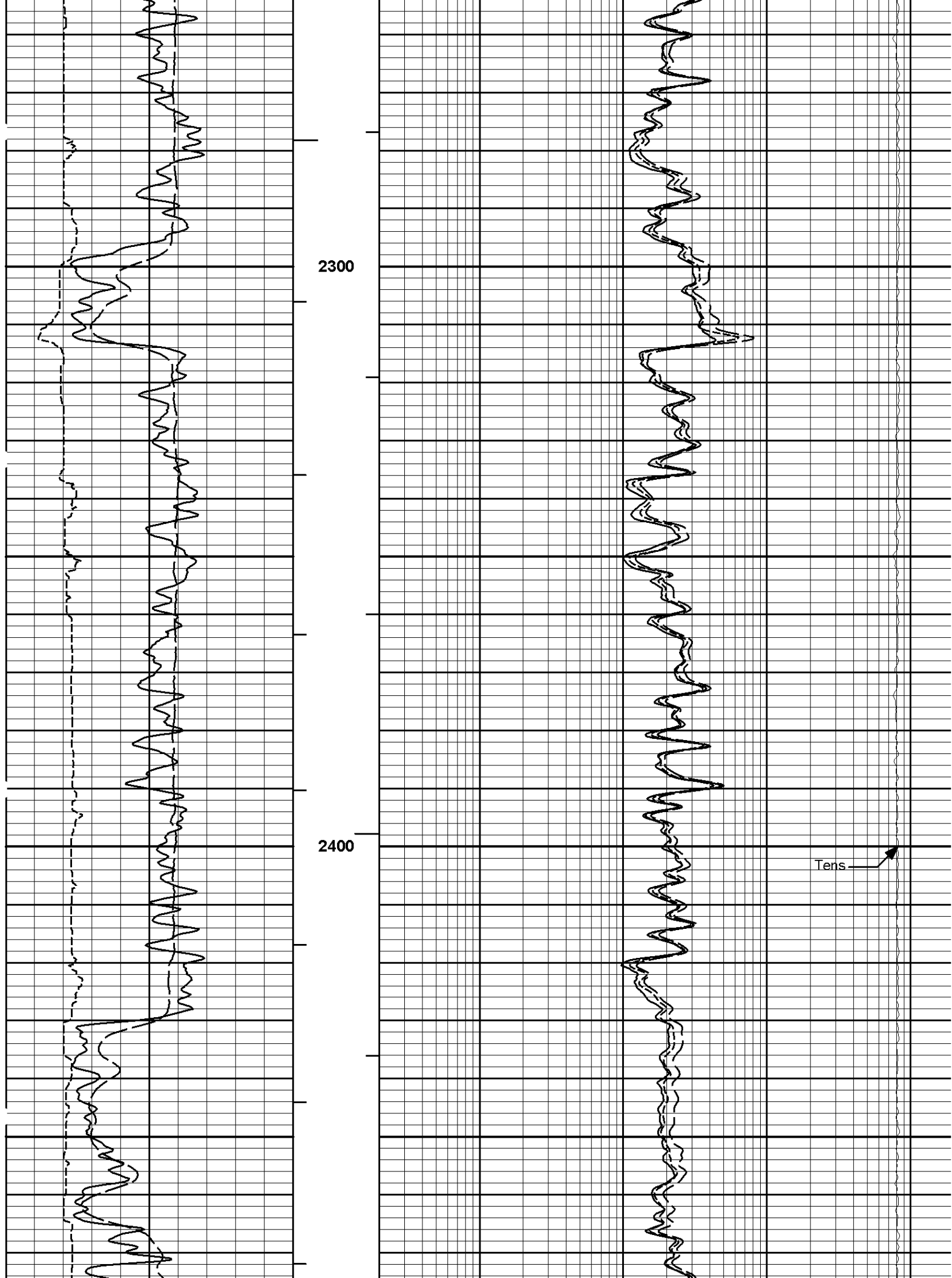


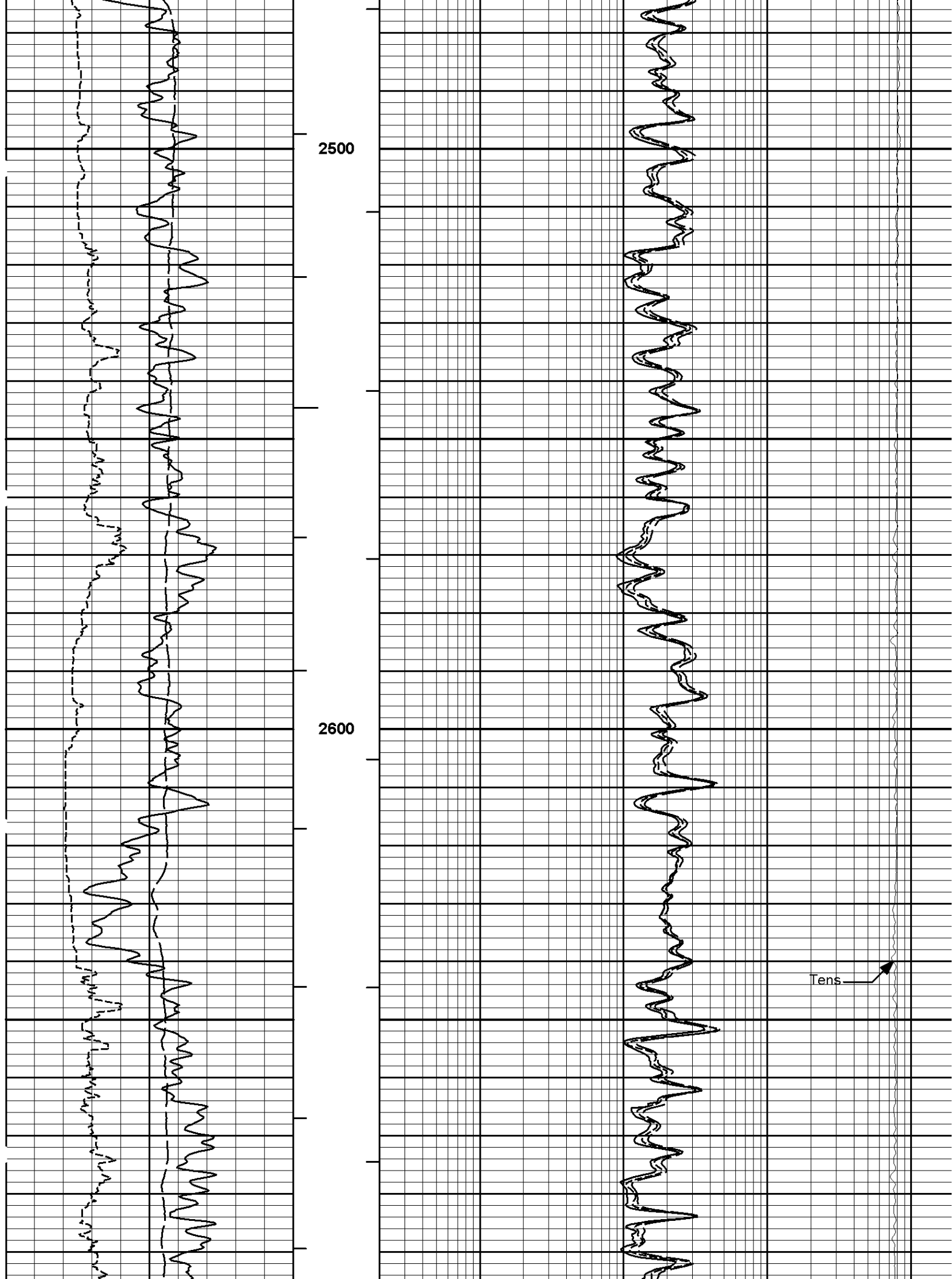
2100

2200

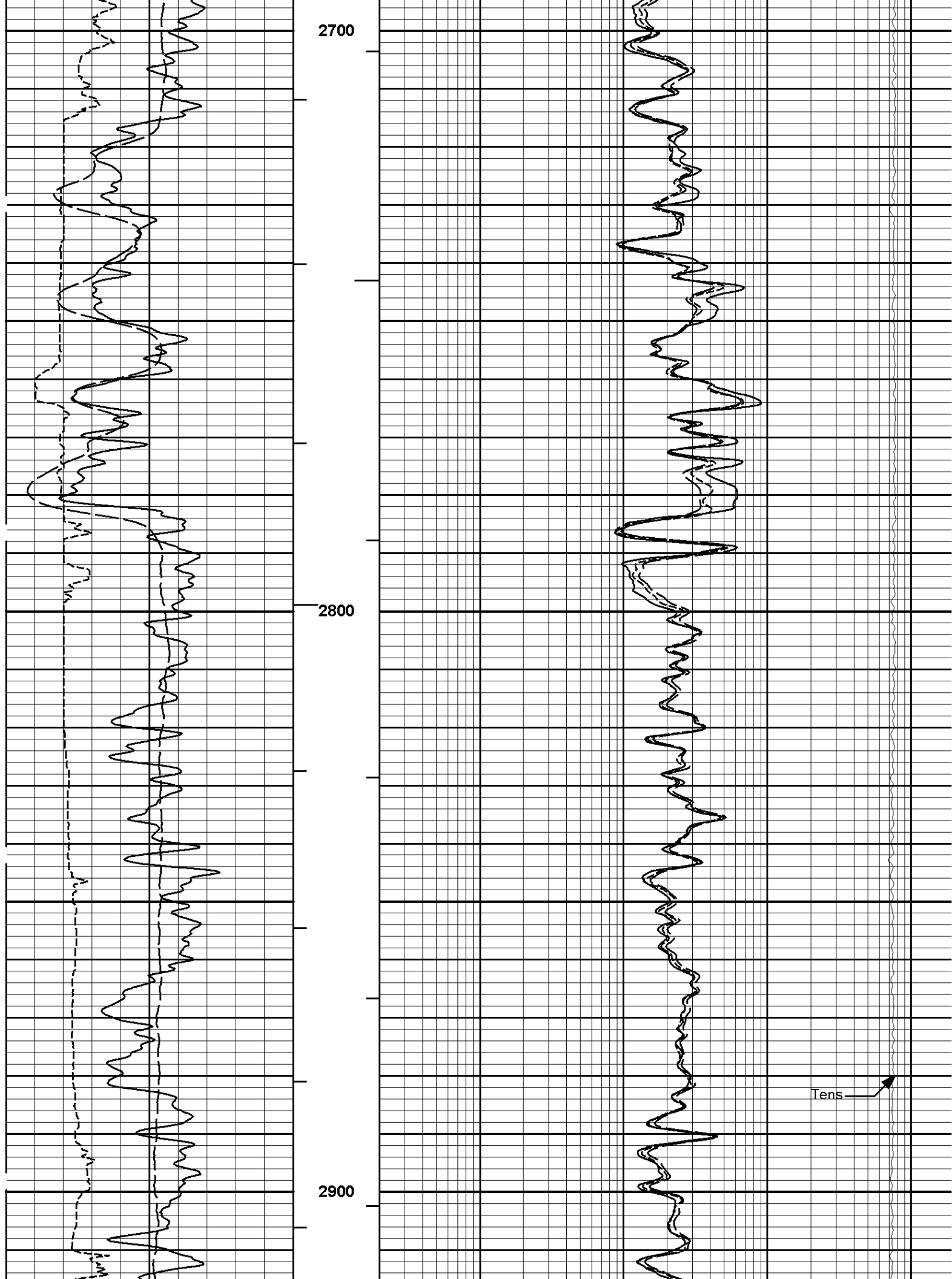


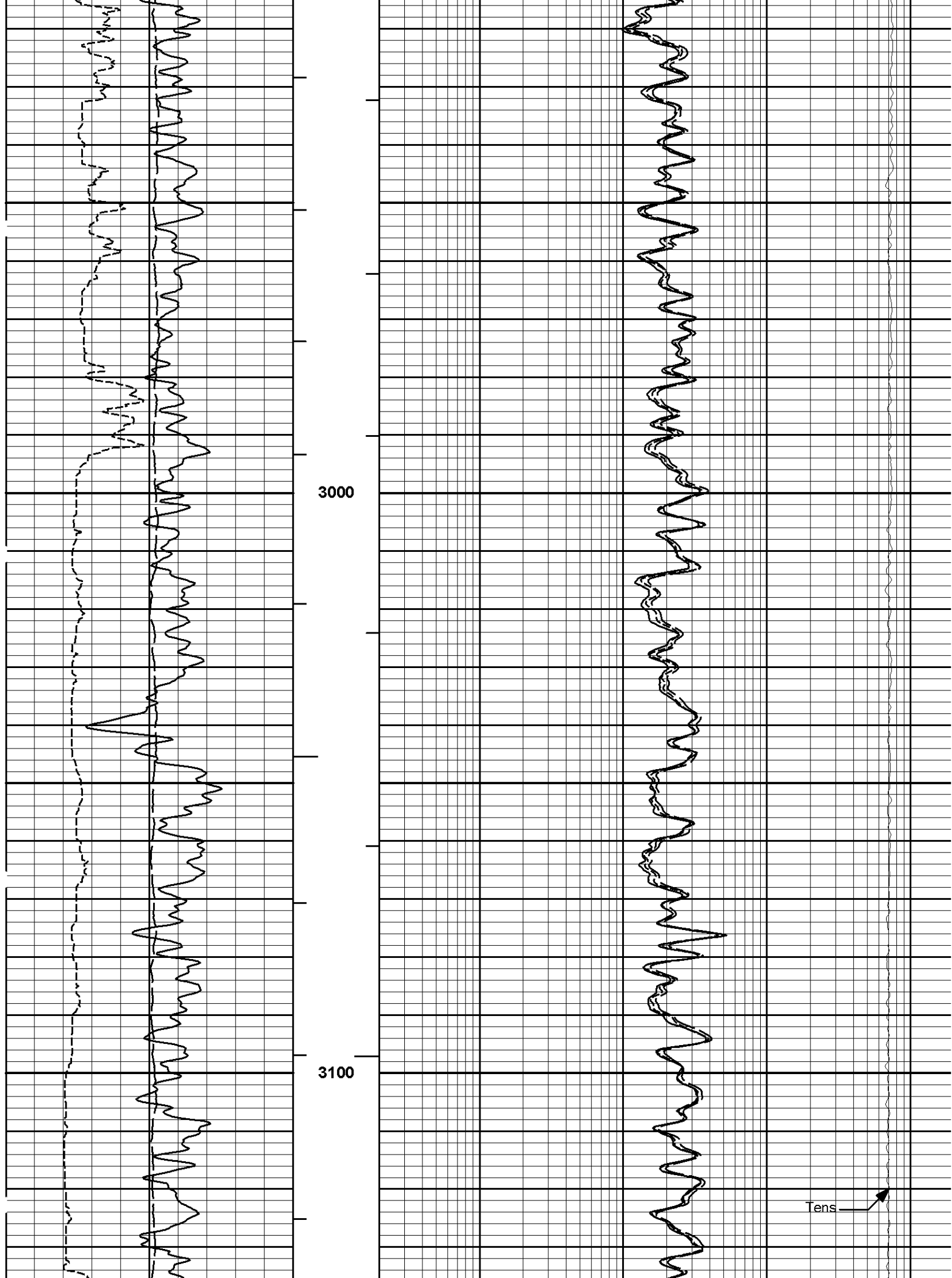
Tens

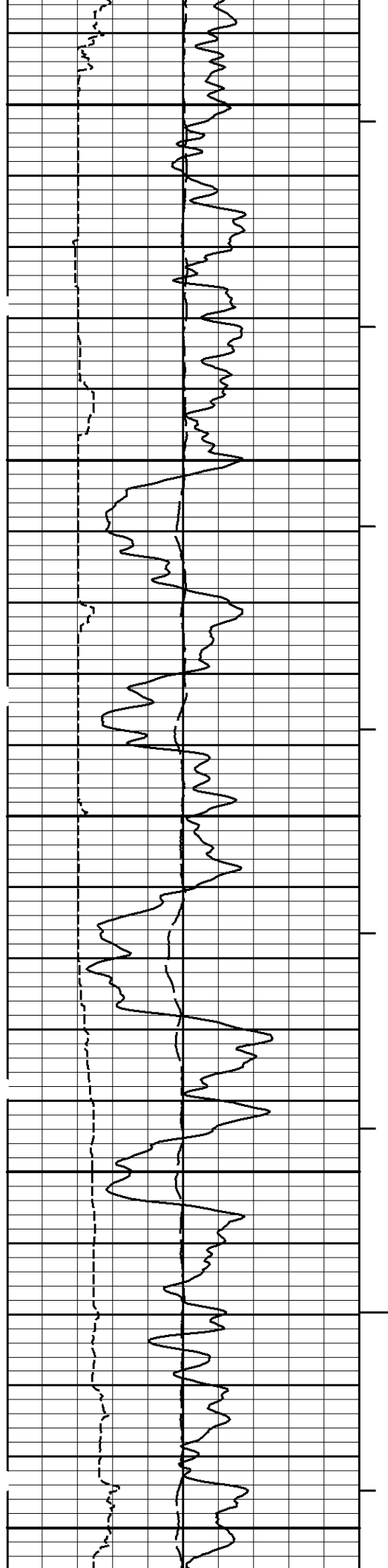






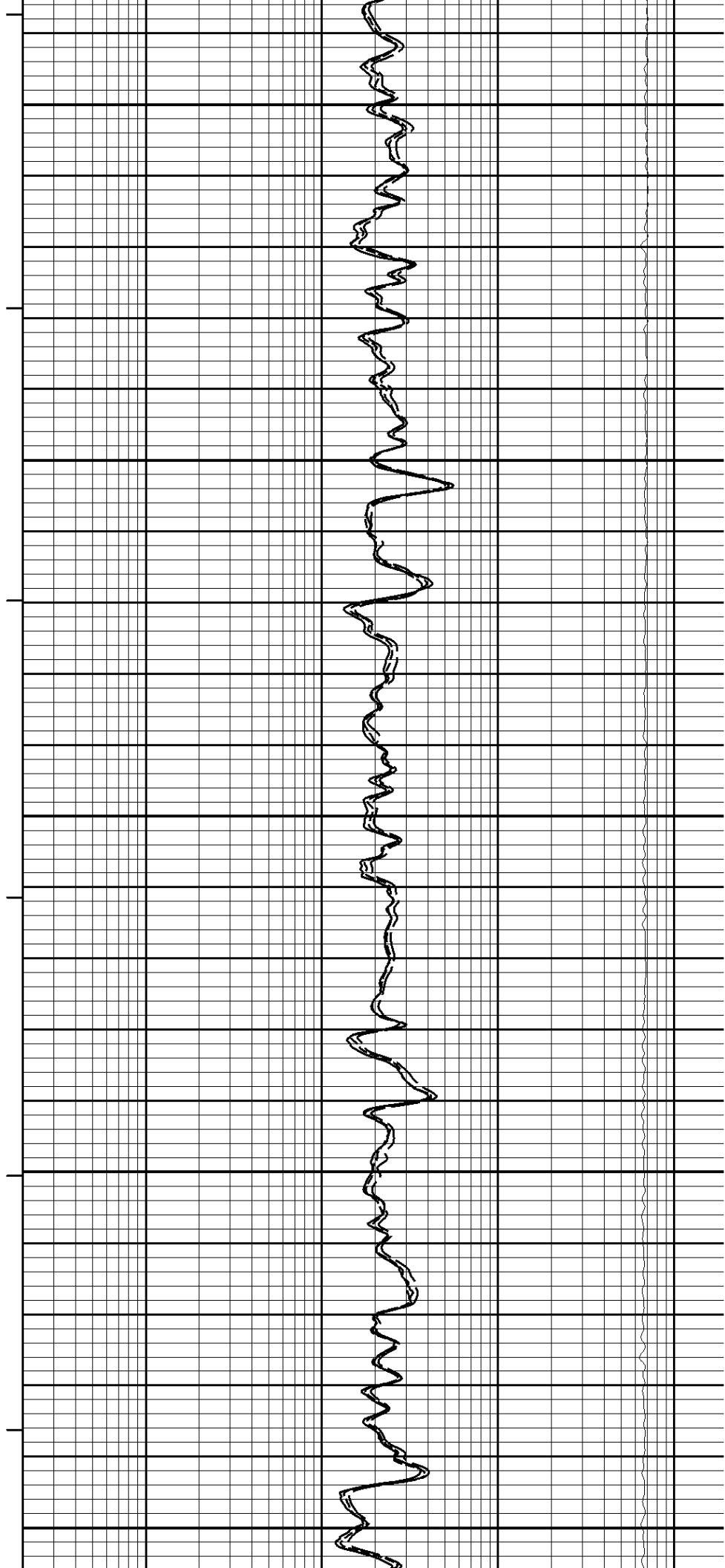


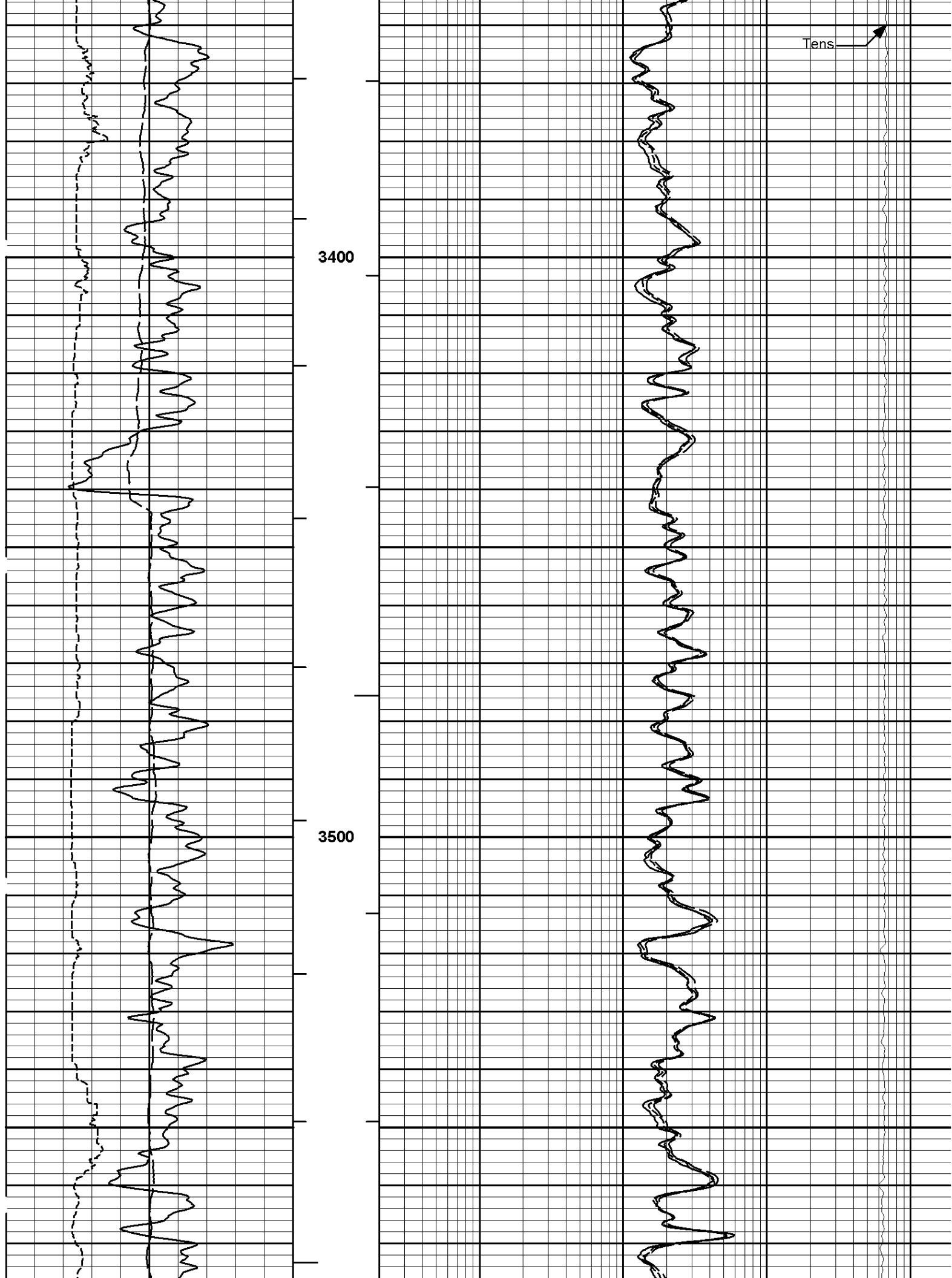


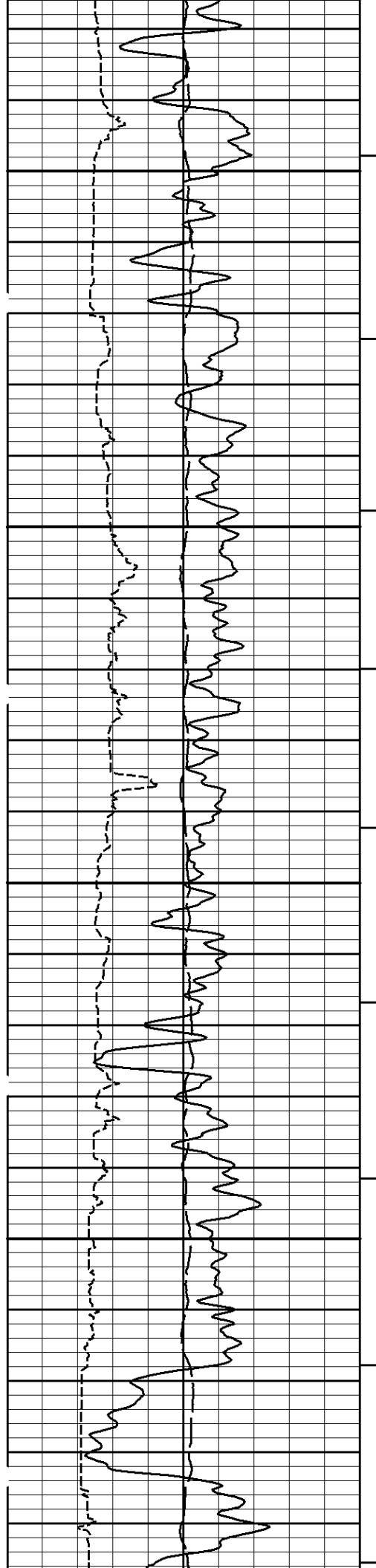


3200

3300

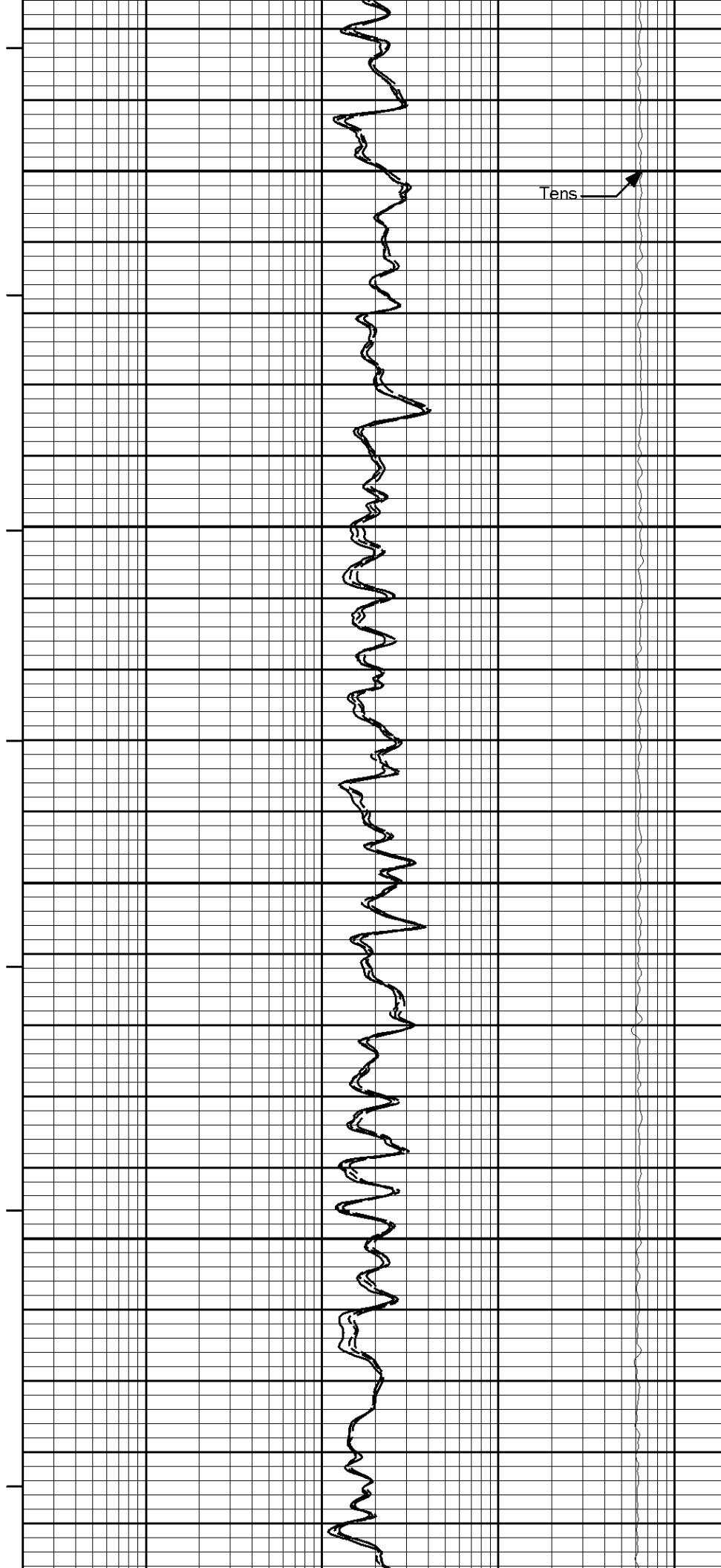






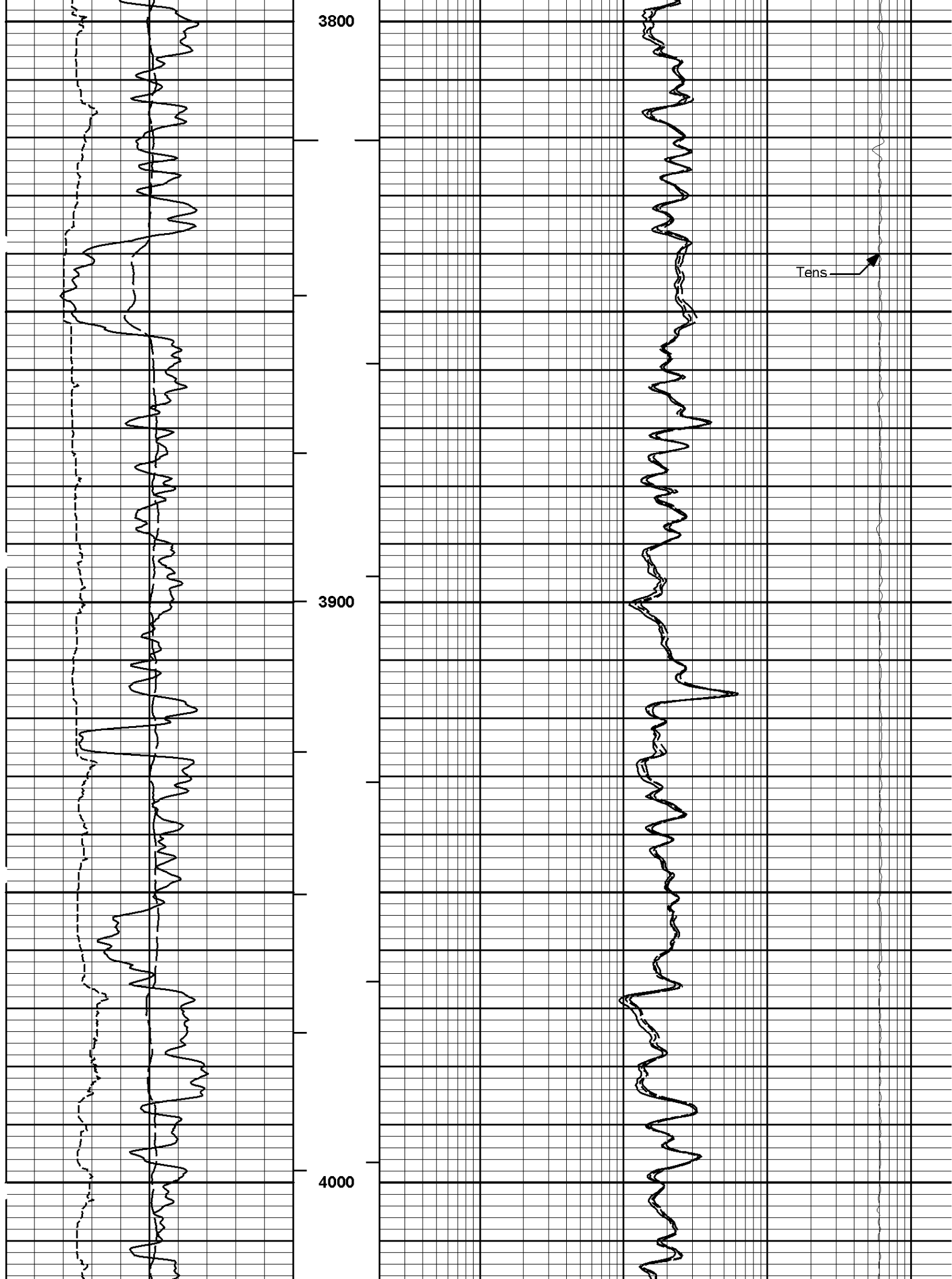
3600

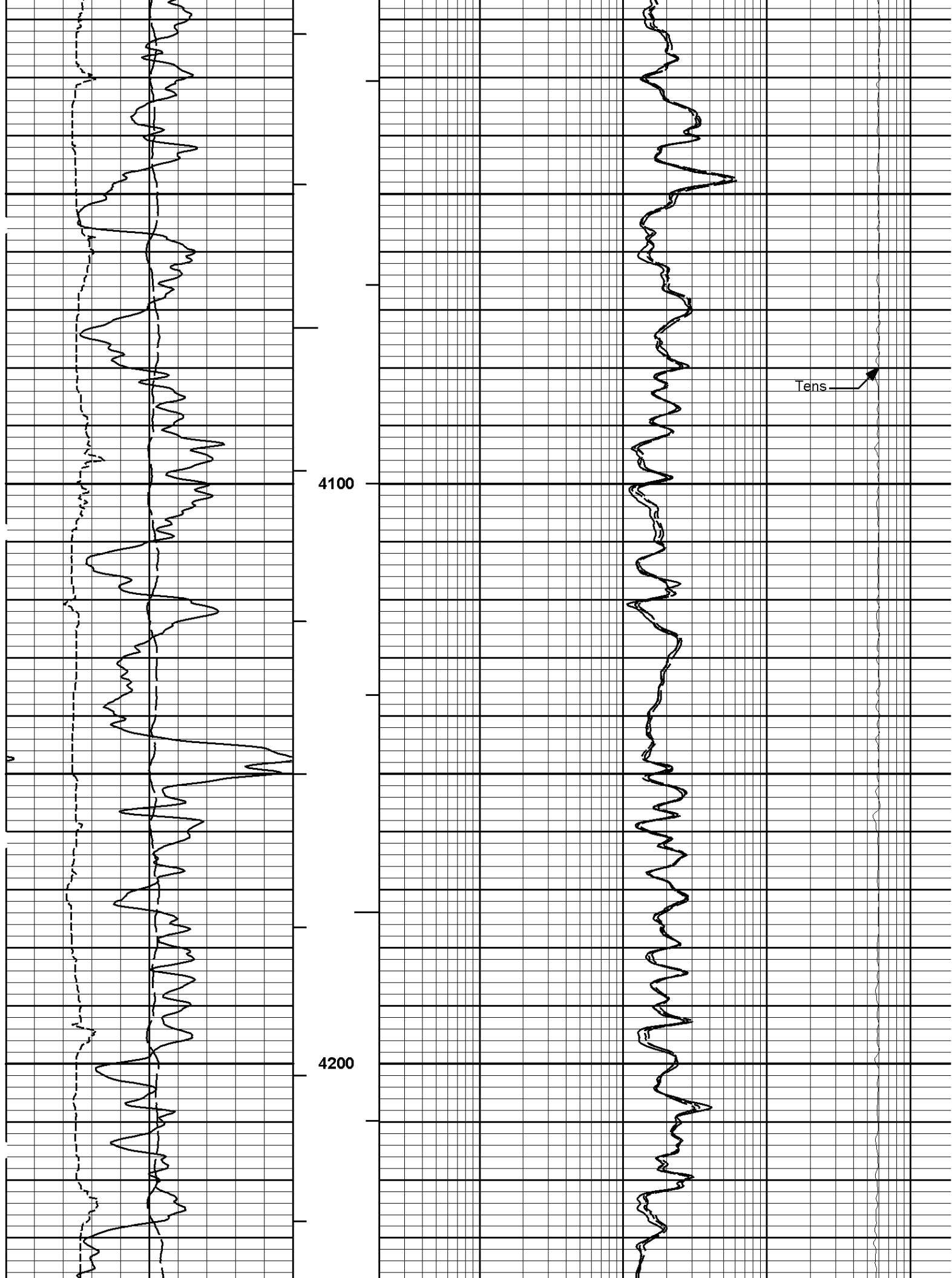
3700

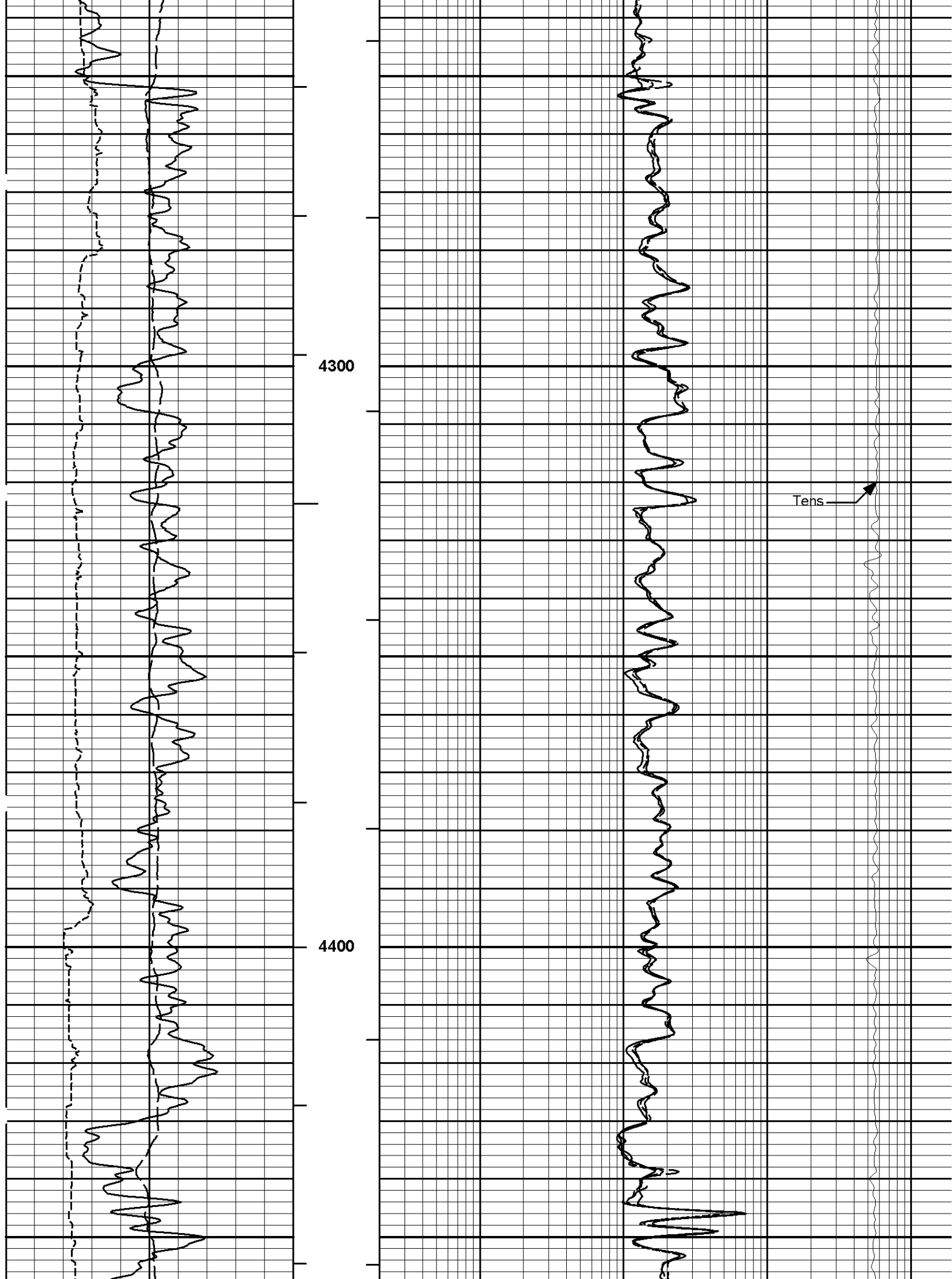


Tens

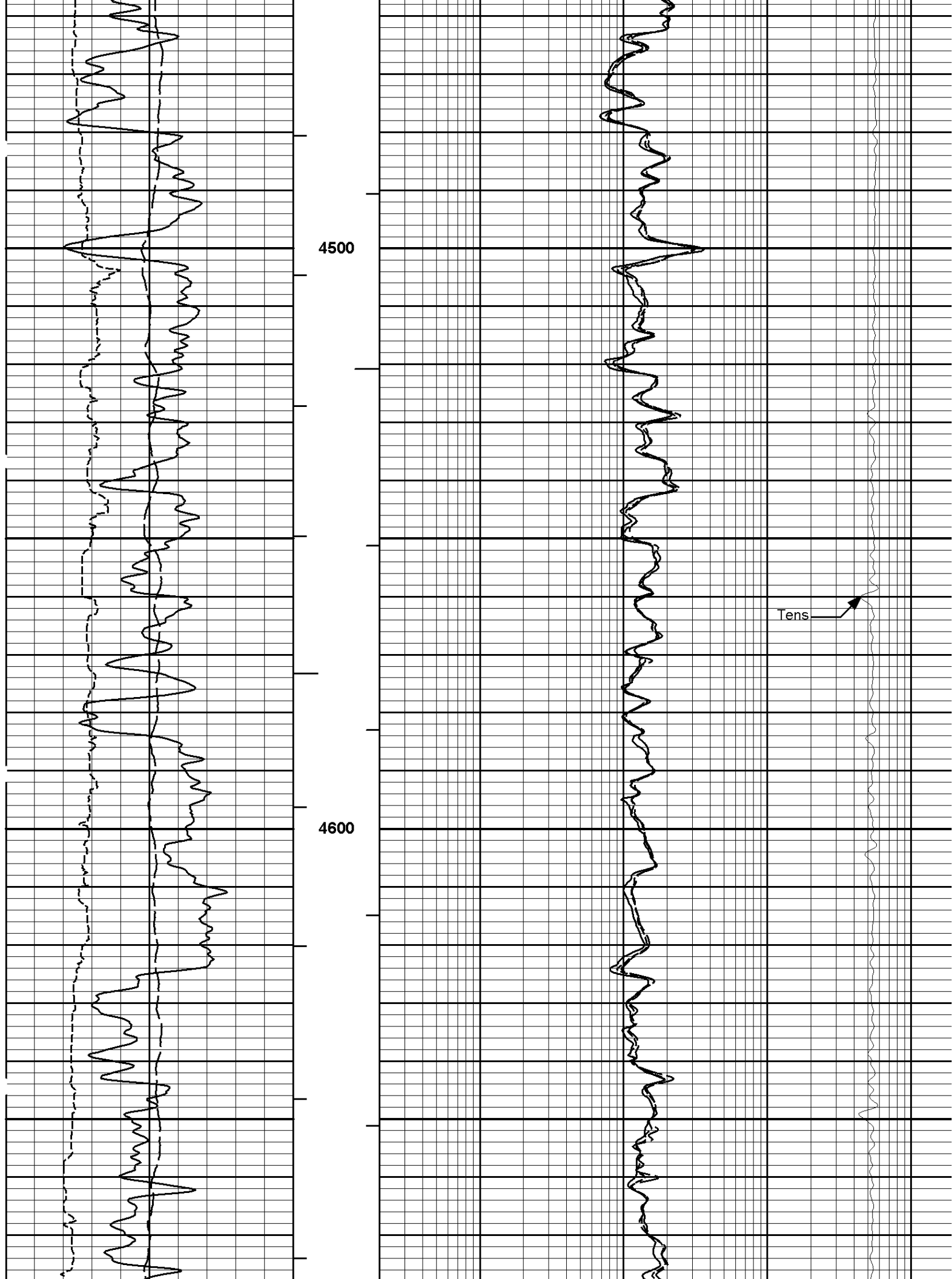


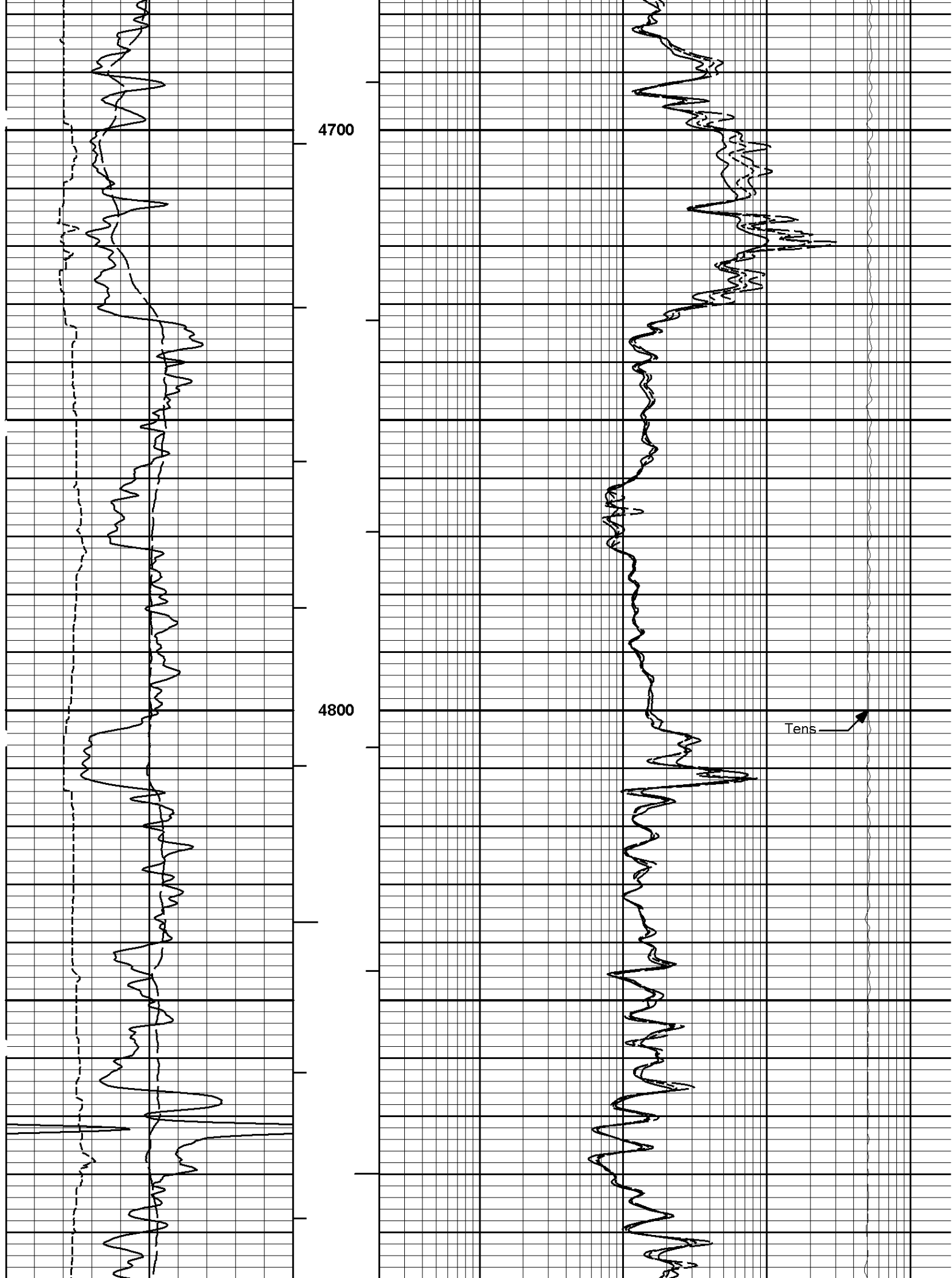


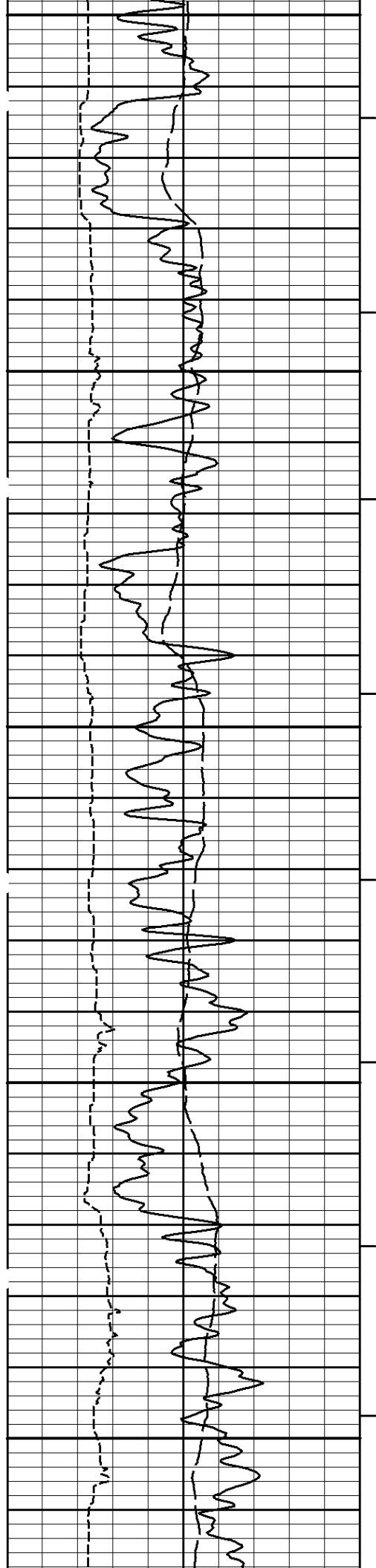








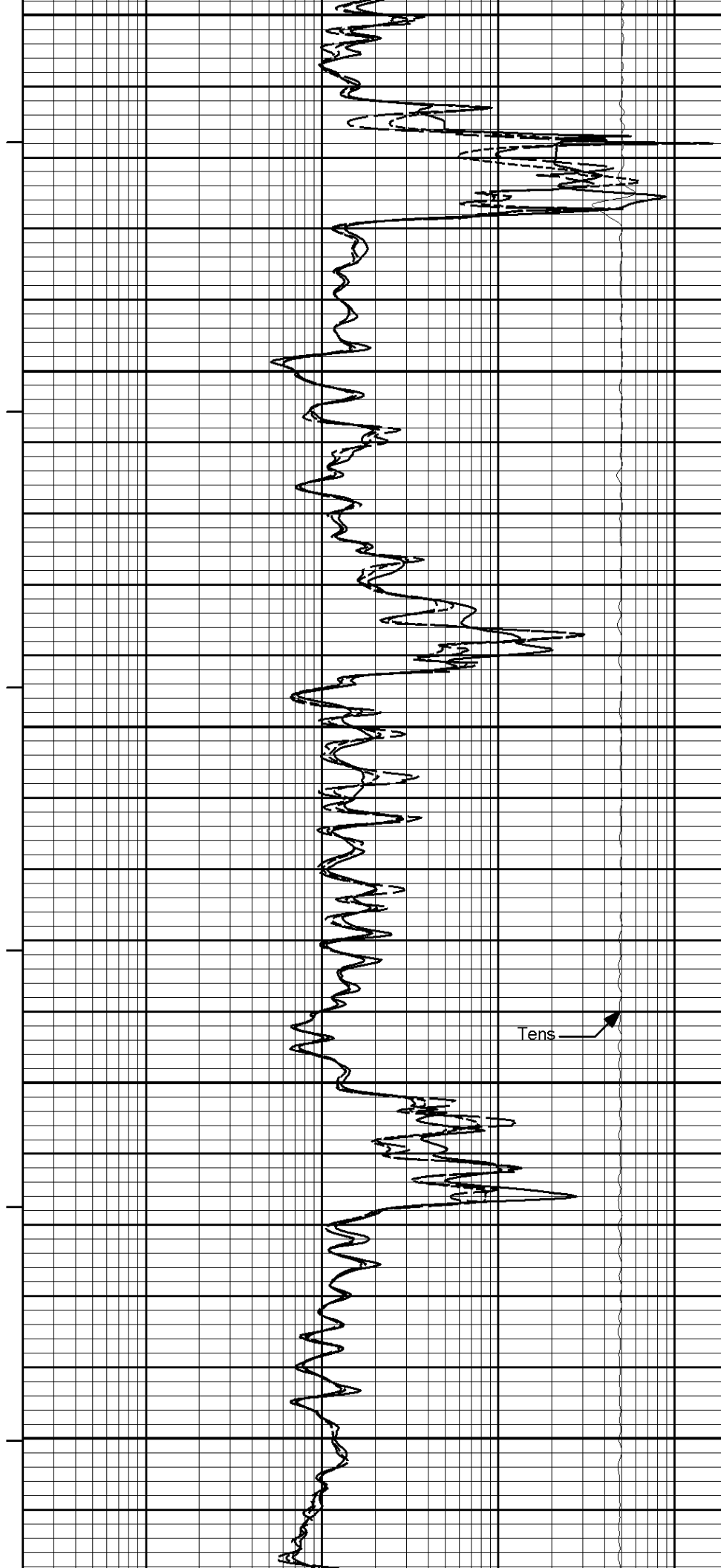




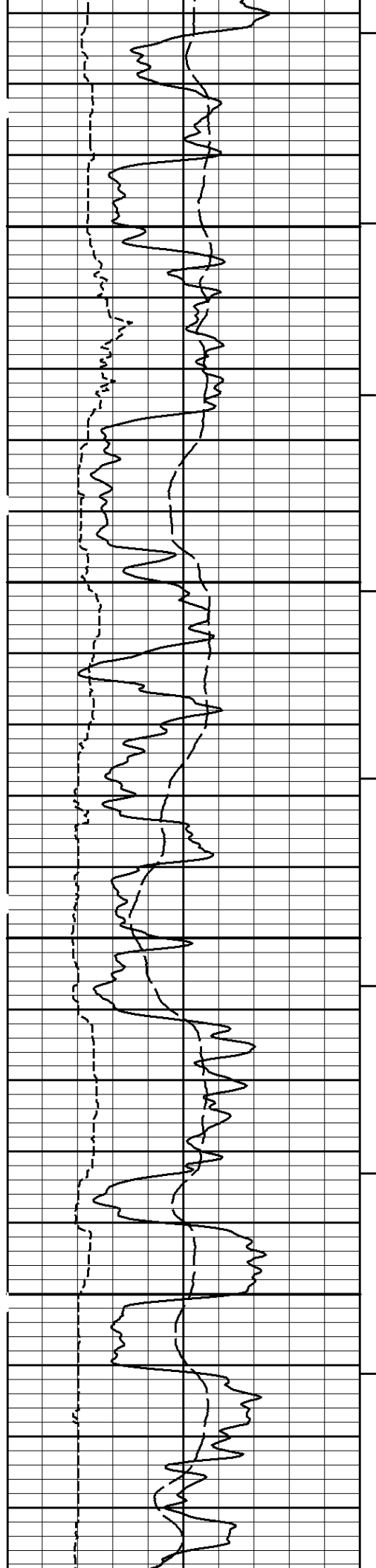
4900

5000

5100

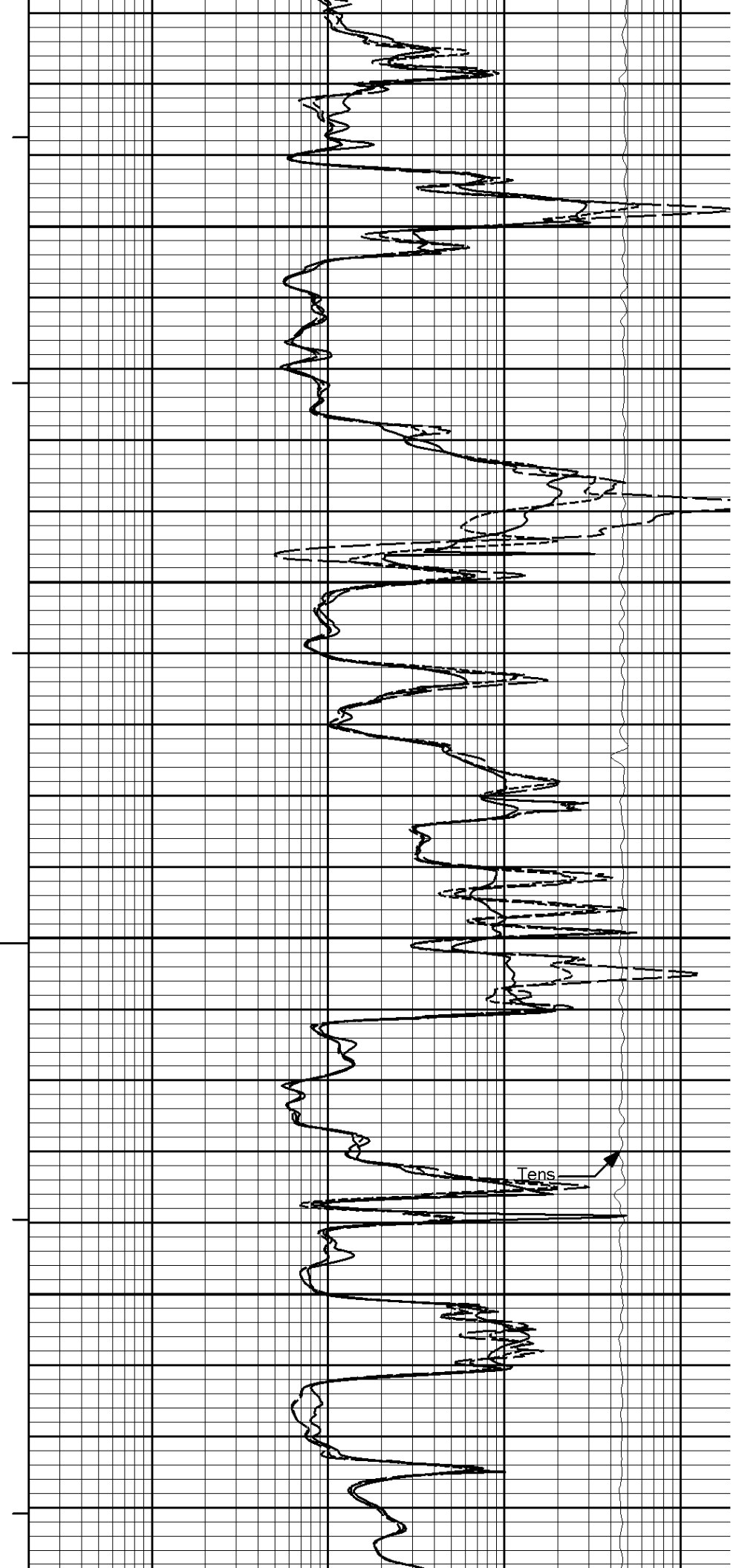


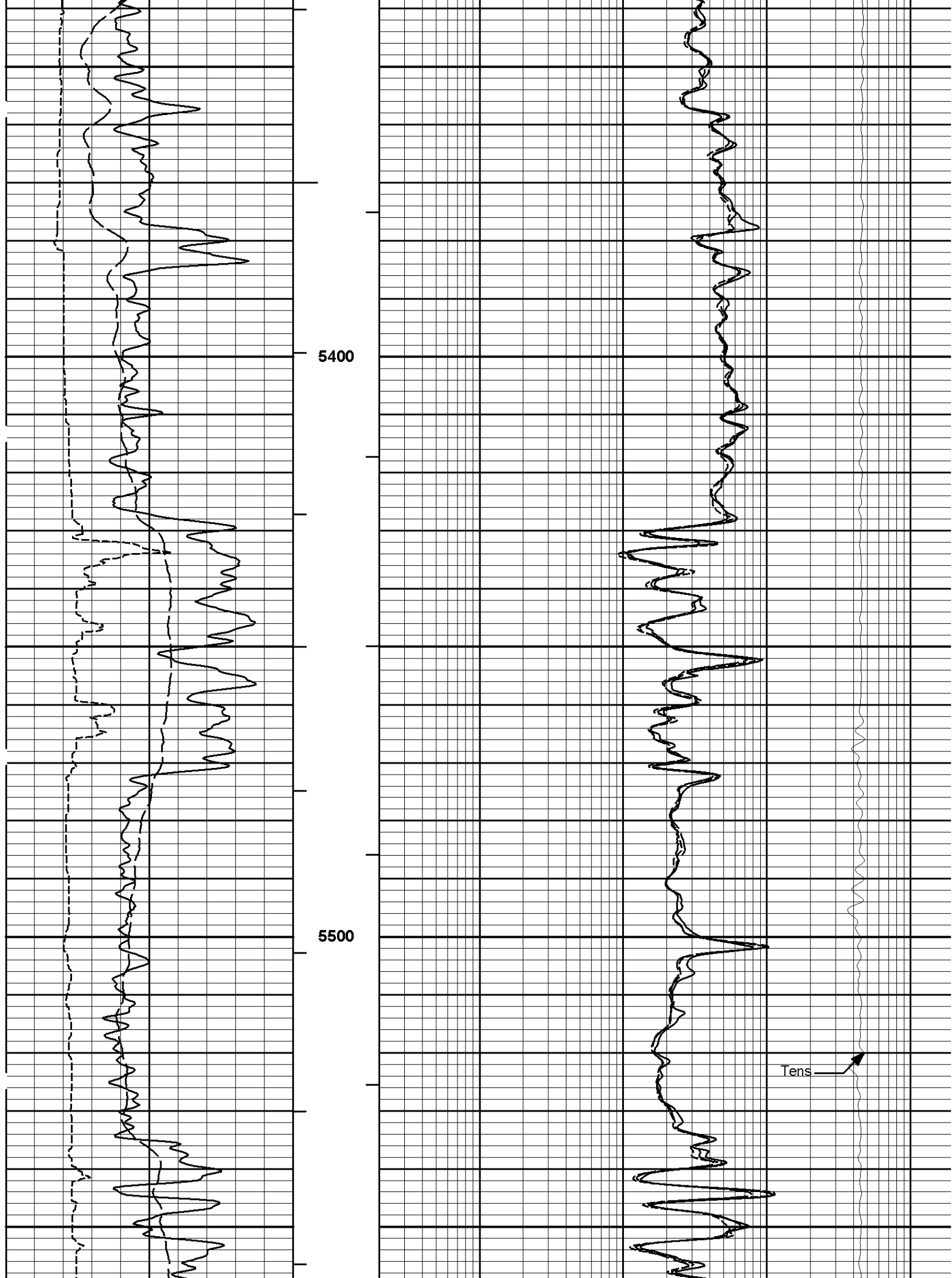
Tens

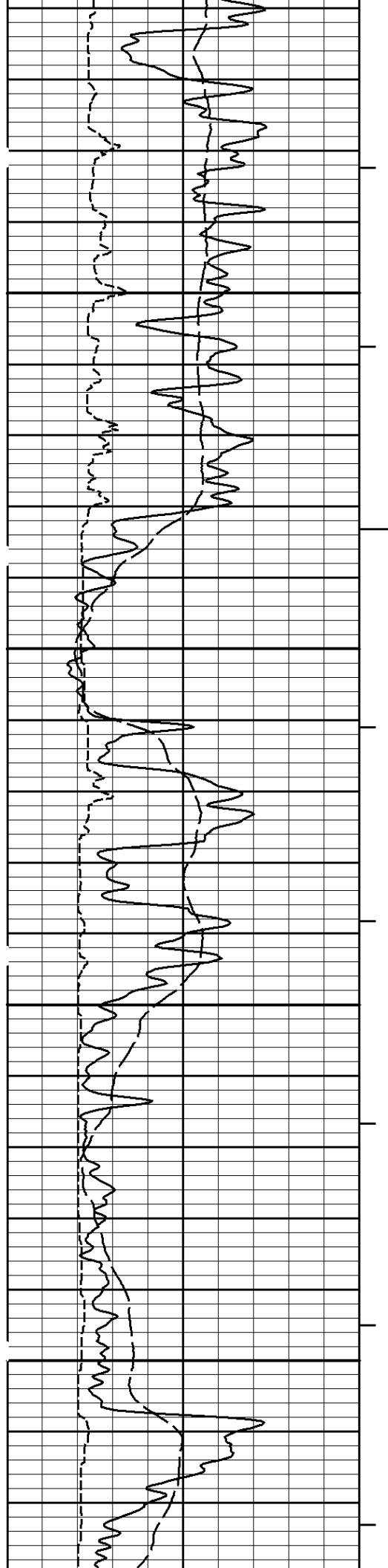


5200

5300

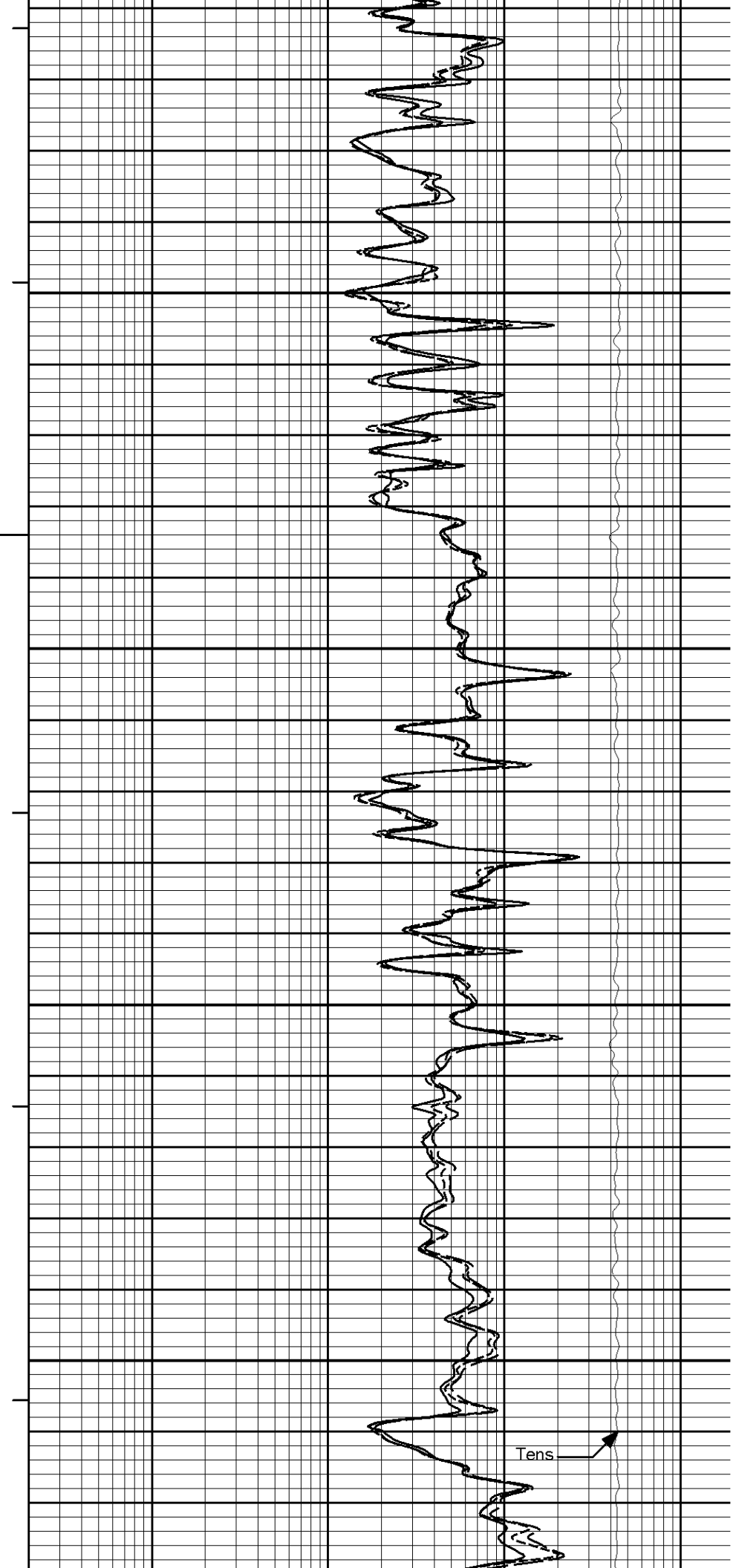




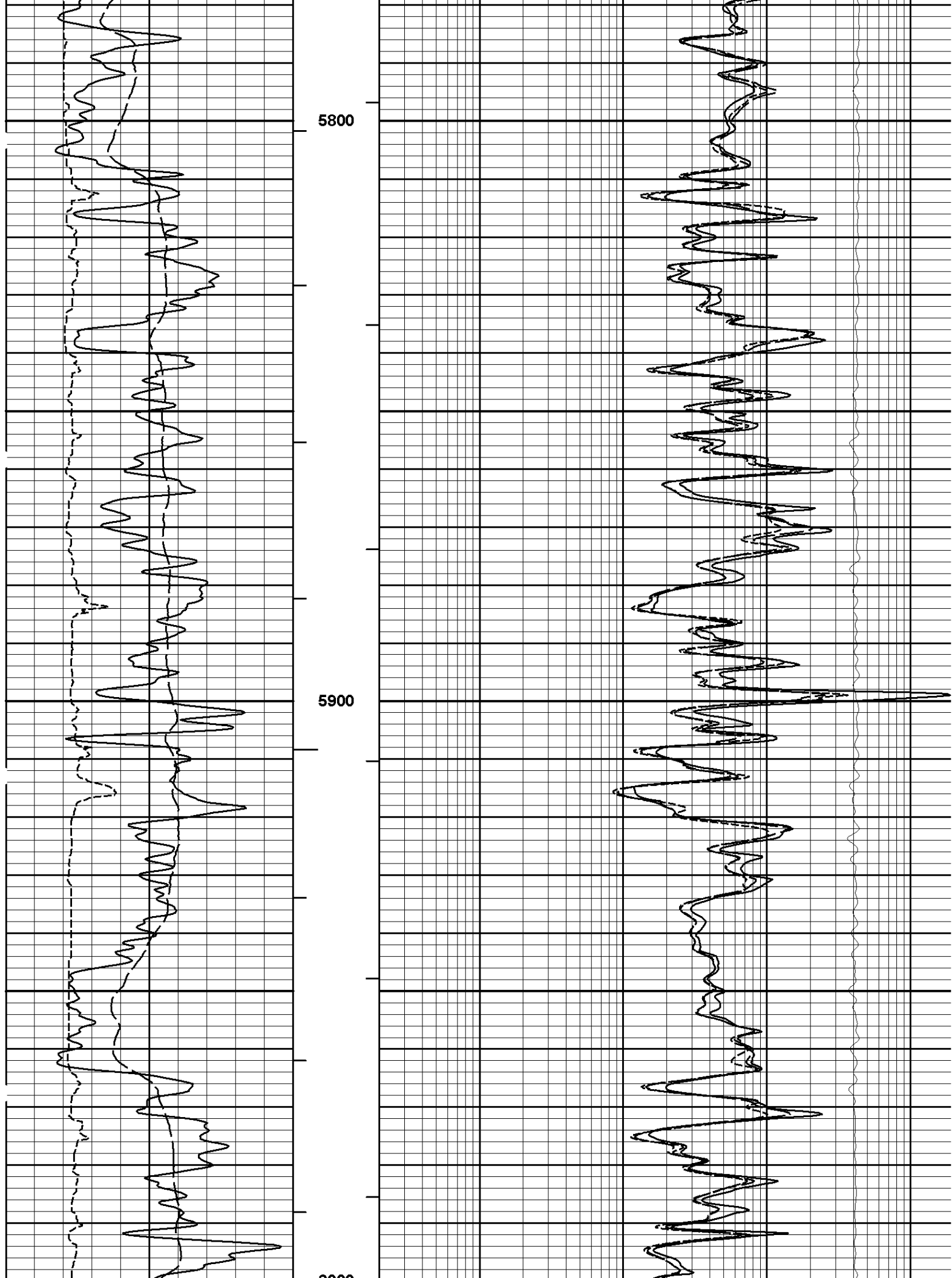


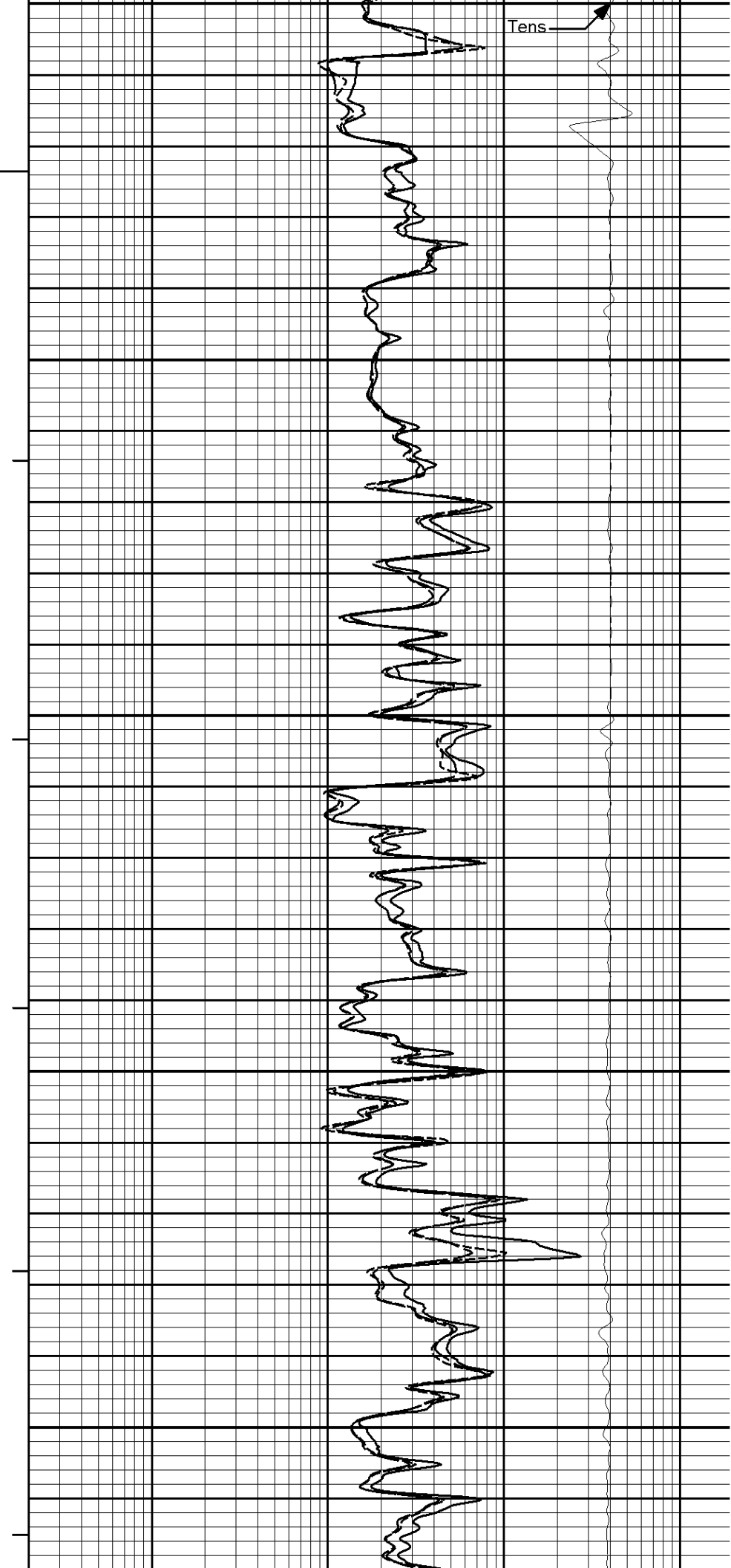
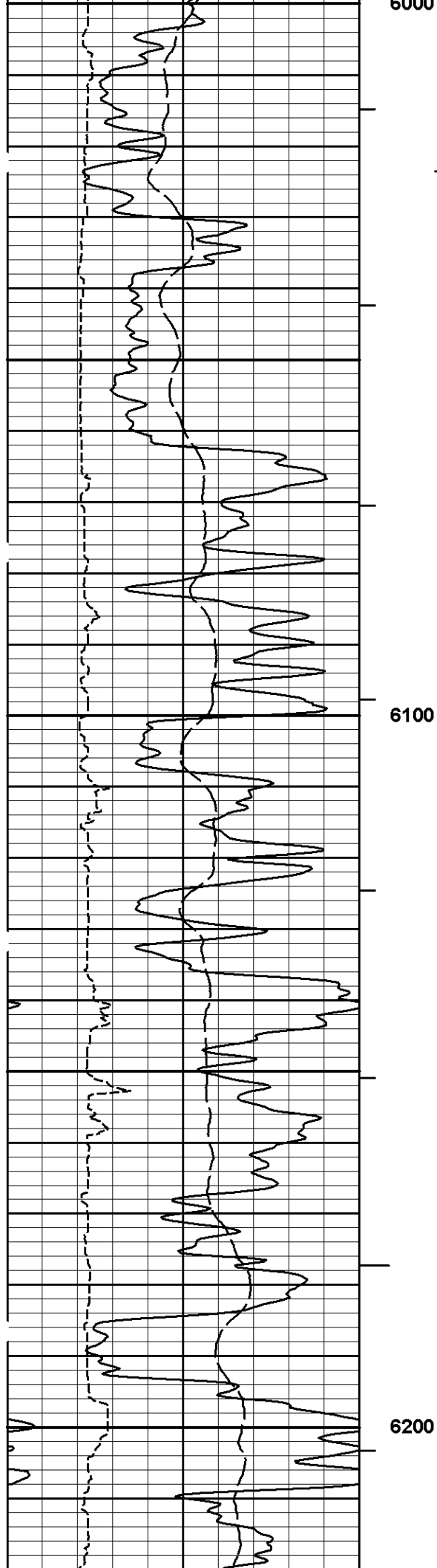
5600

5700

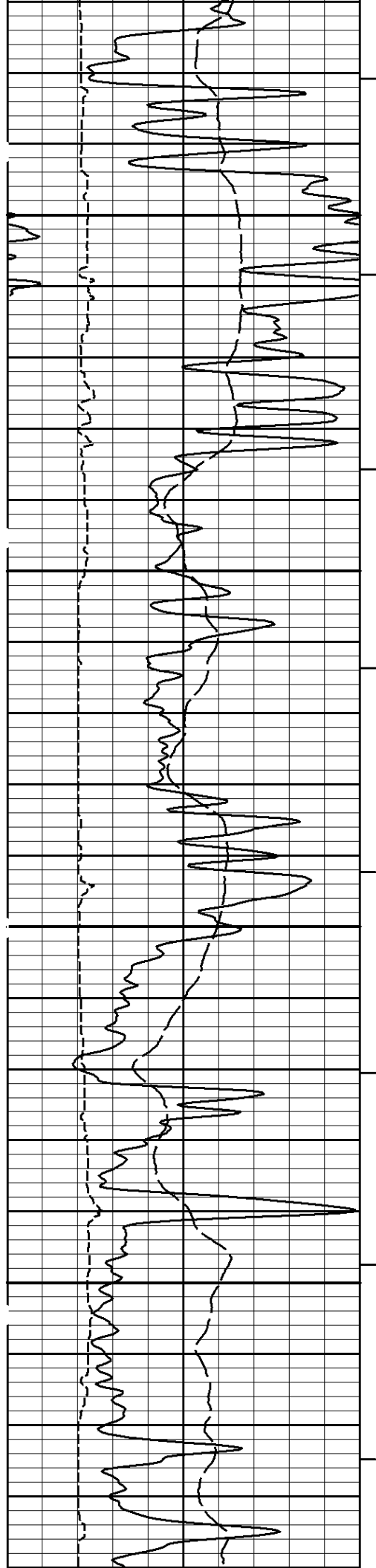


Tens



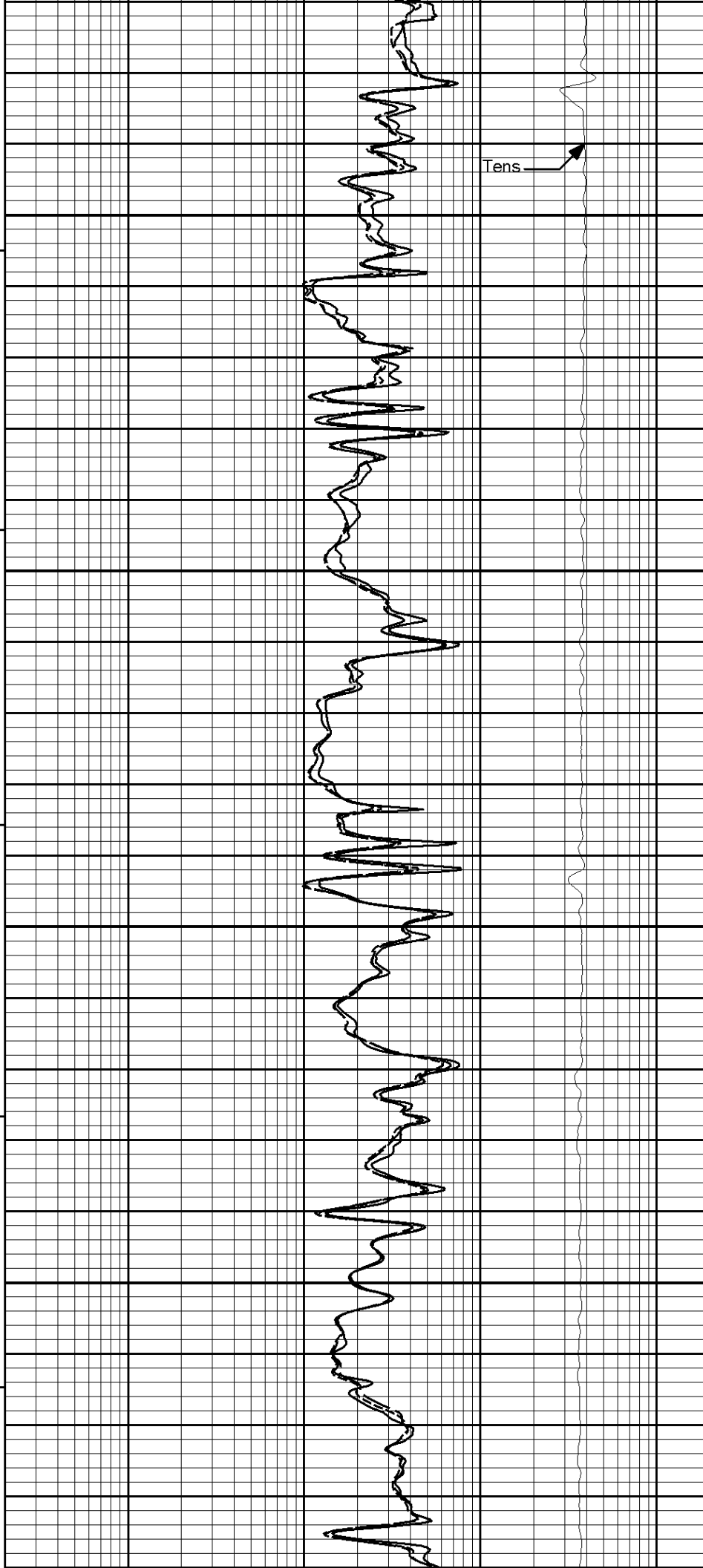


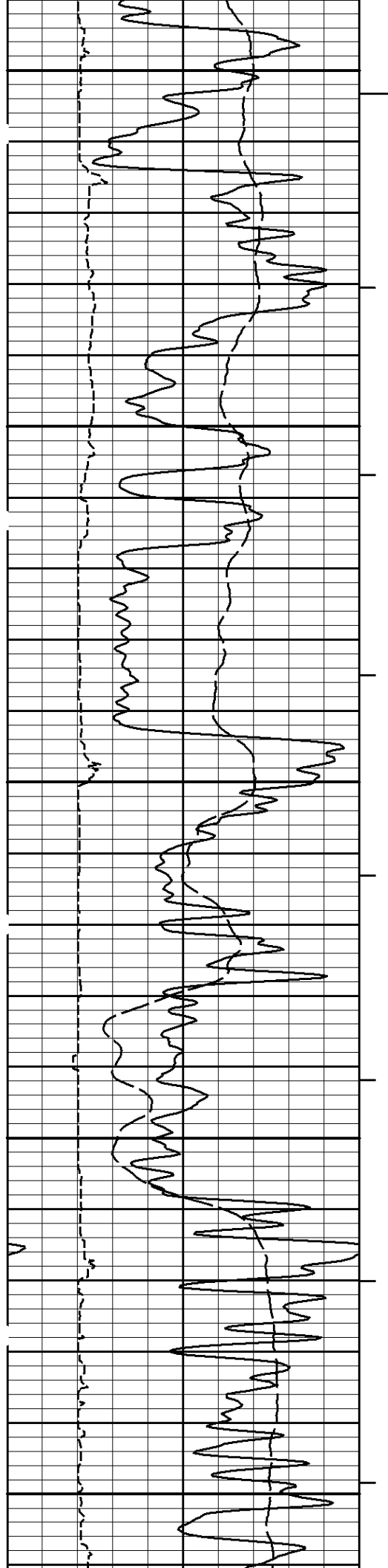




6300

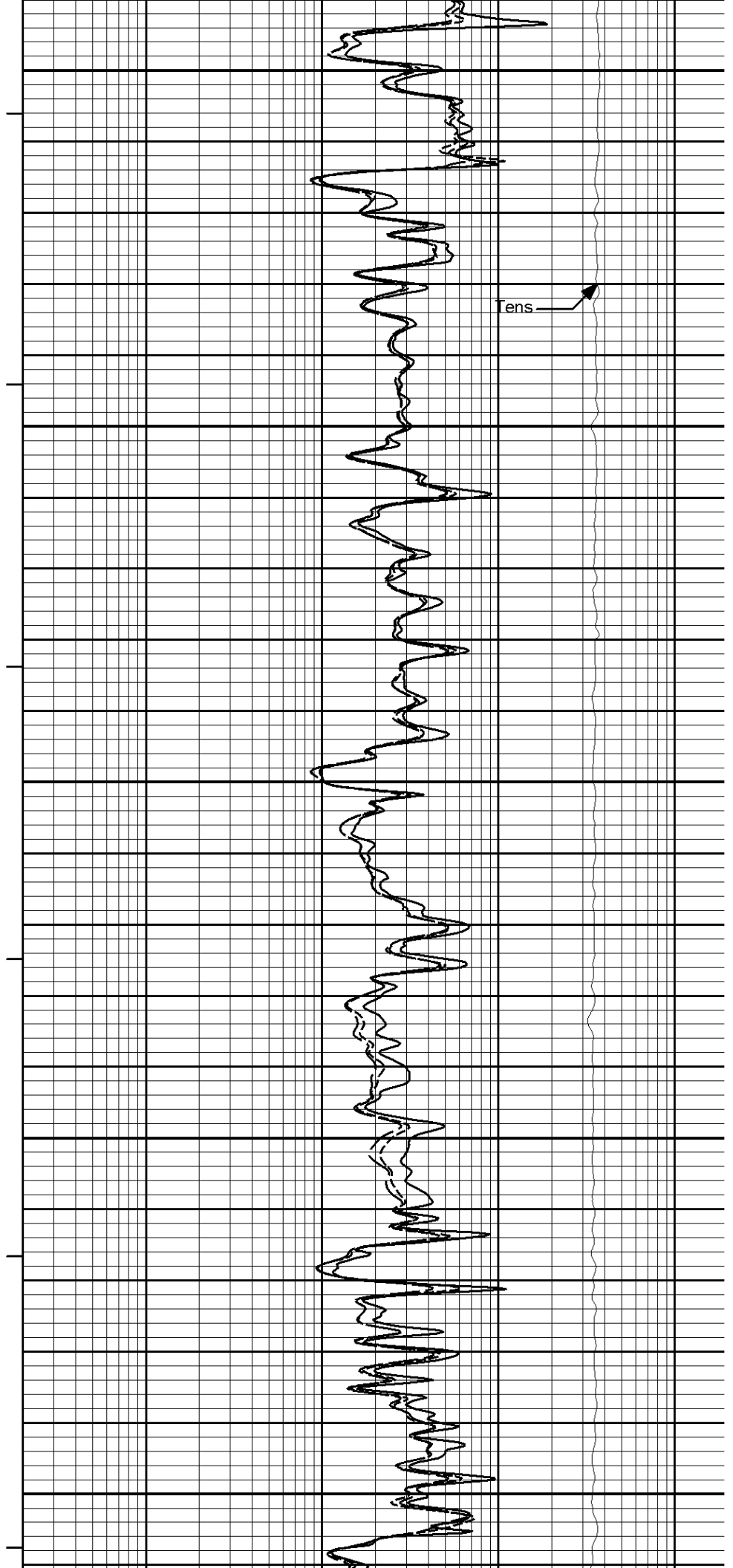
6400

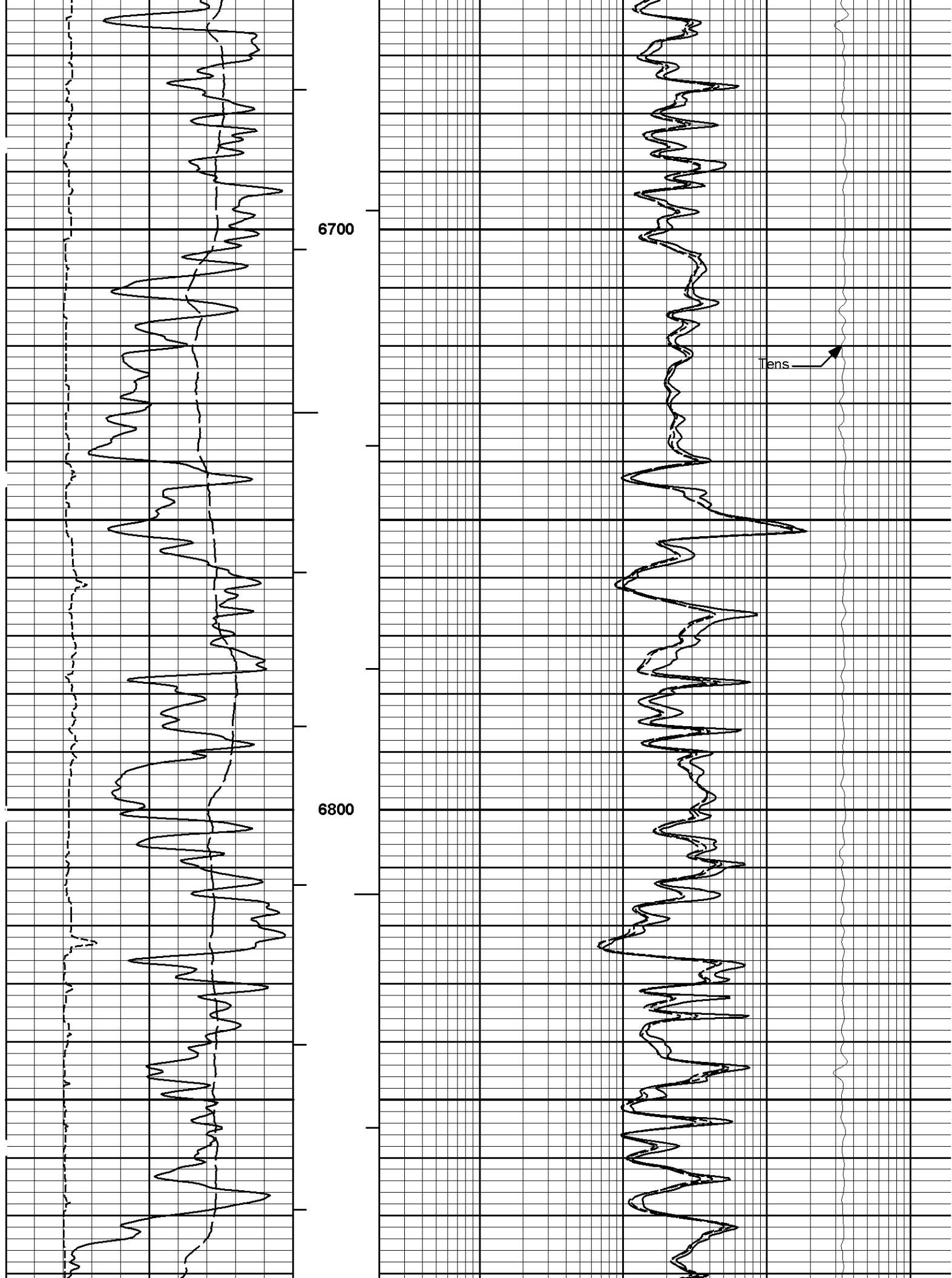


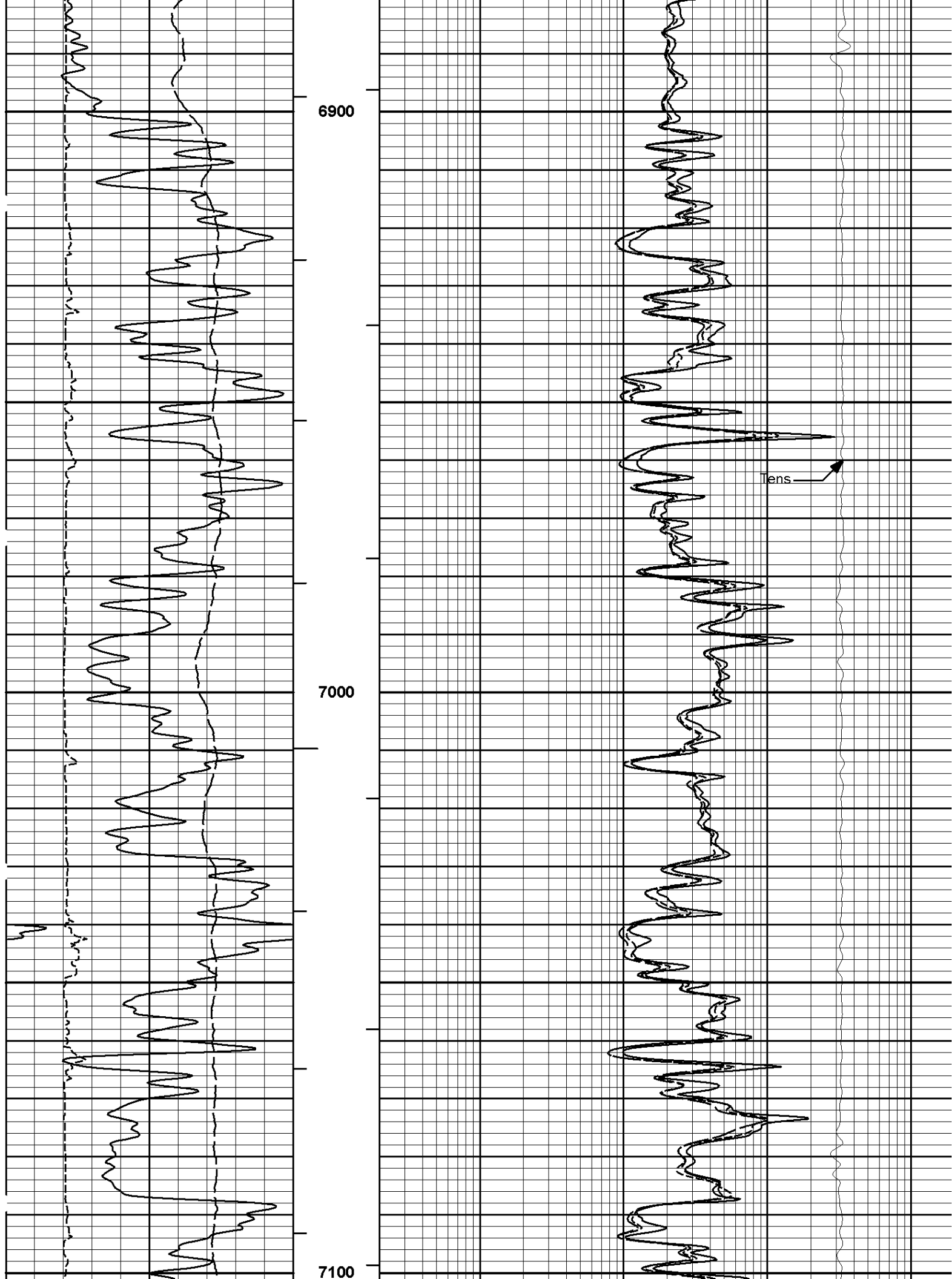


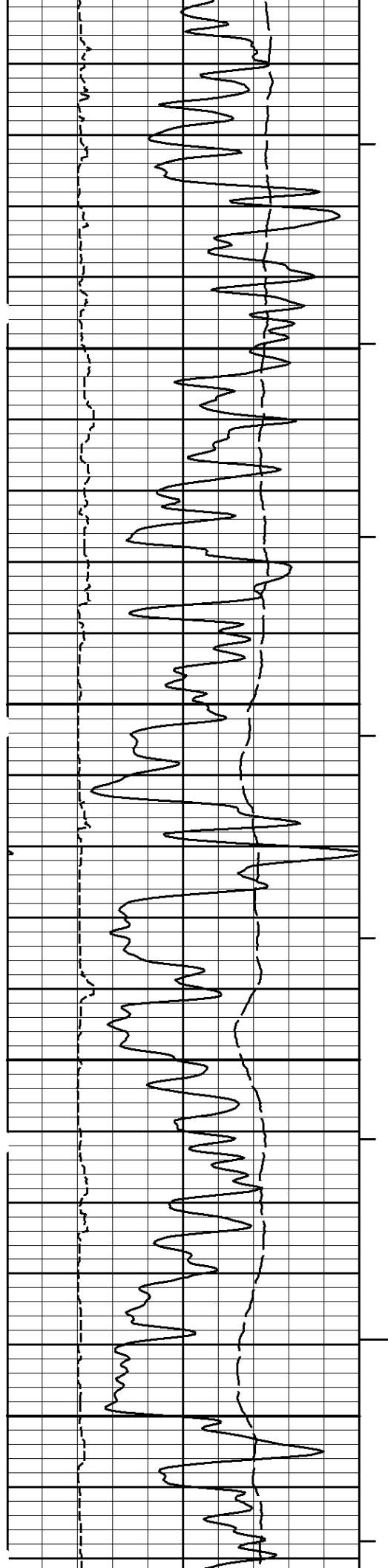
6500

6600



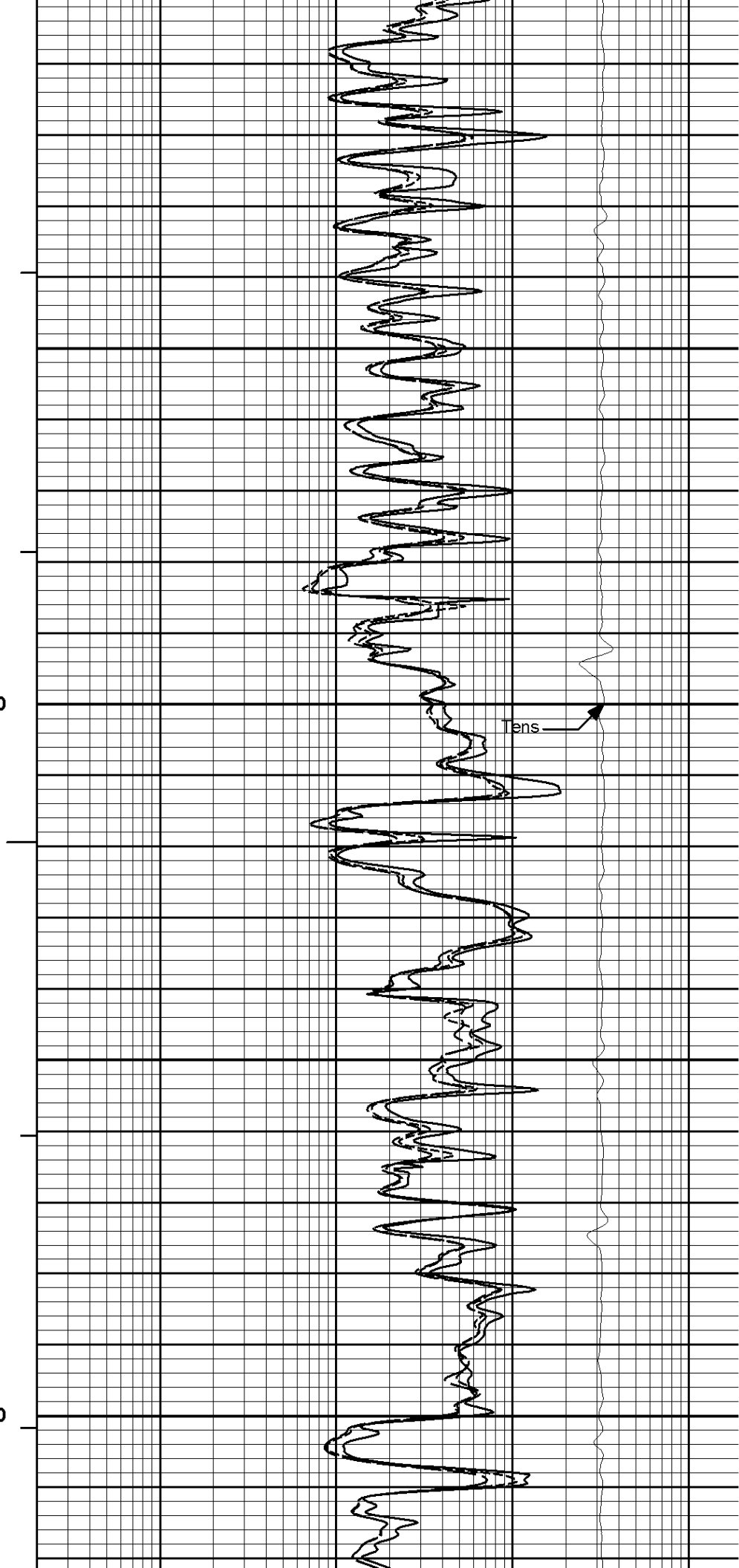


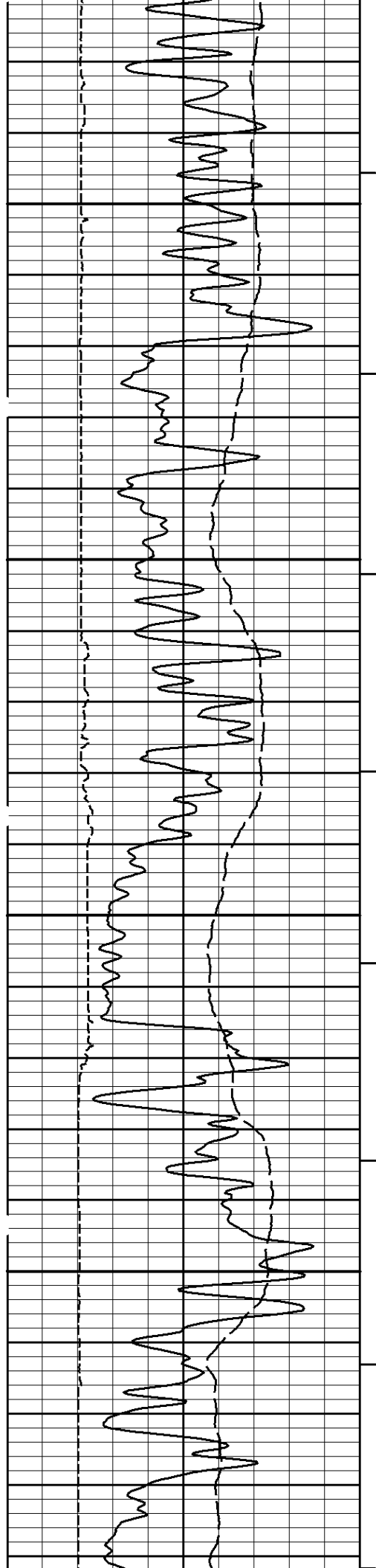




7200

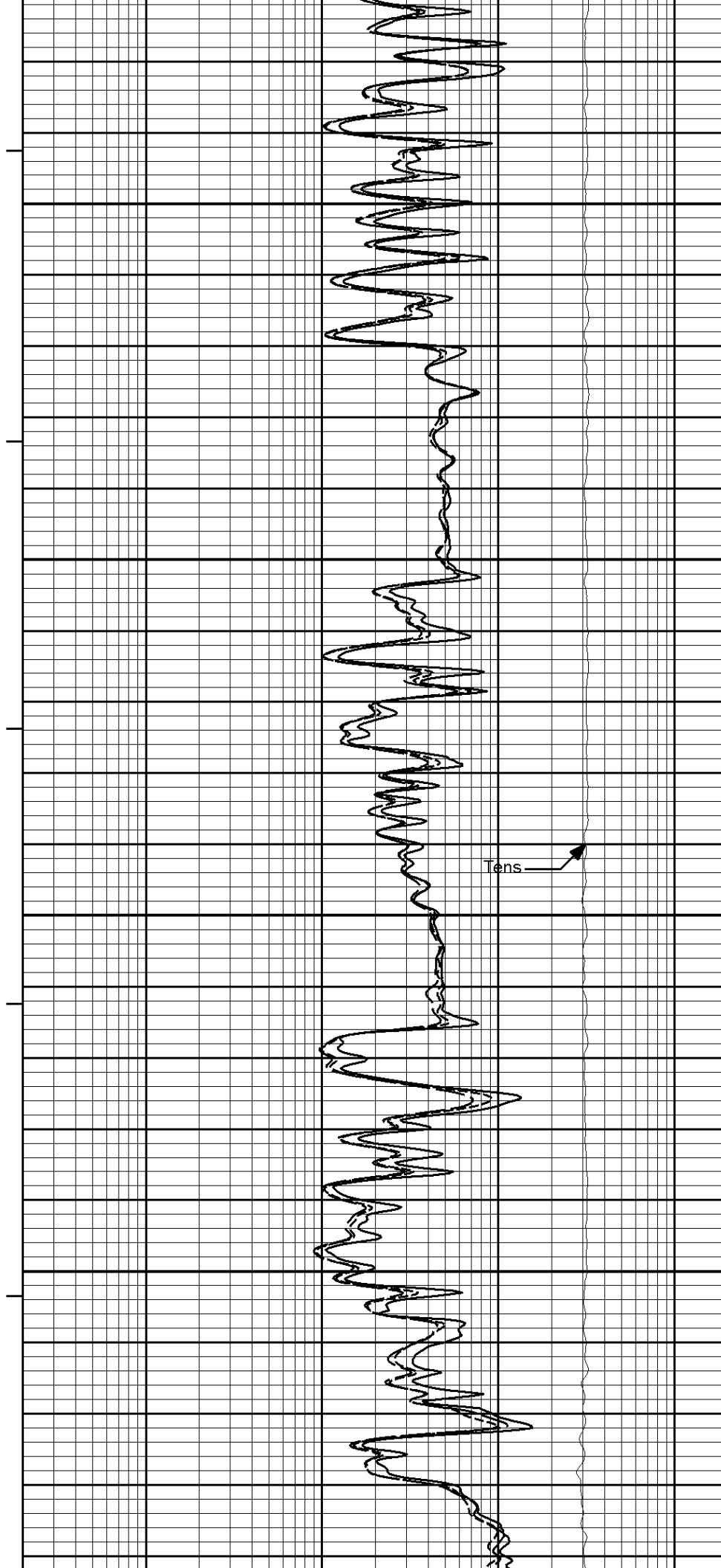
7300

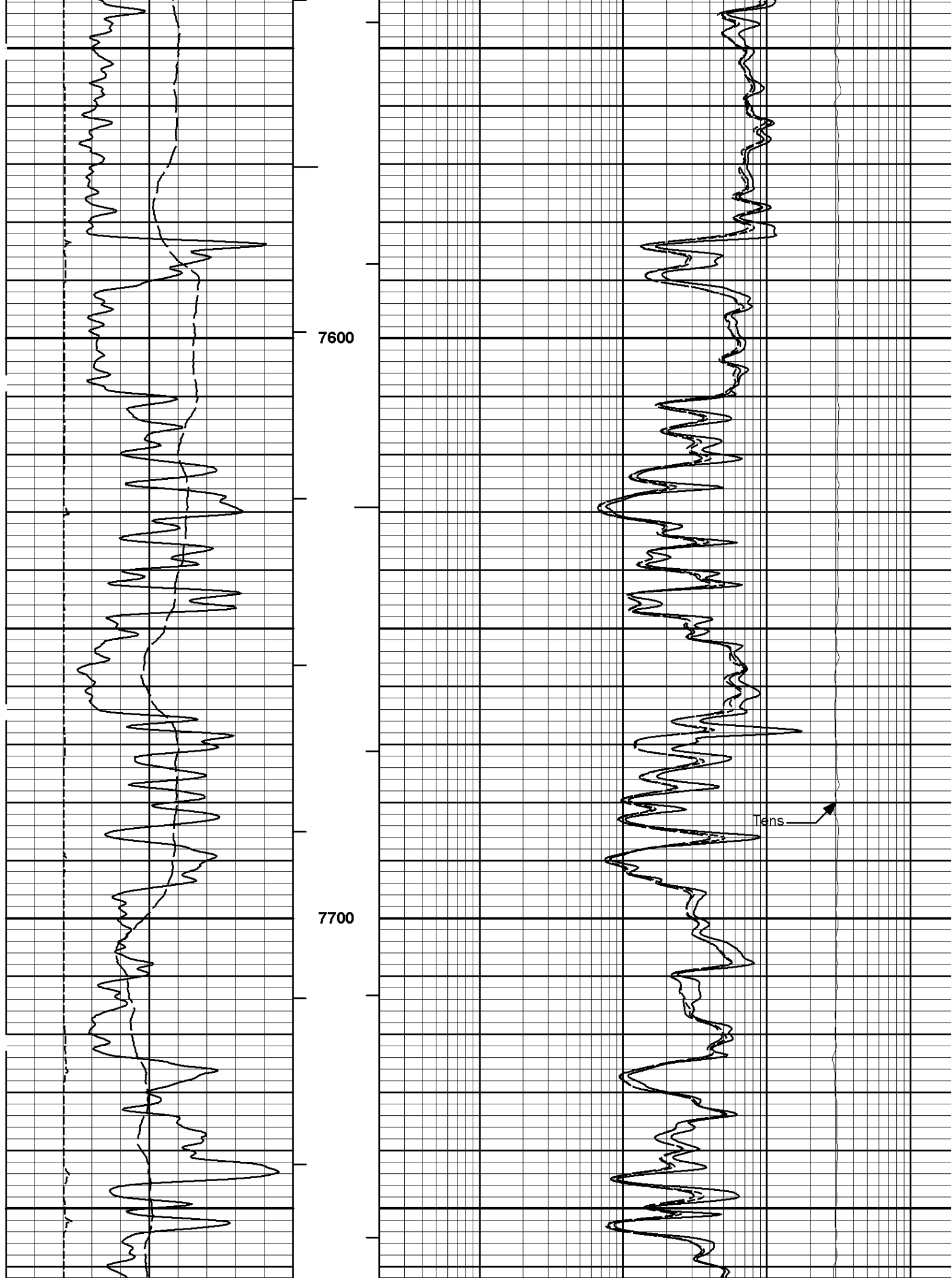


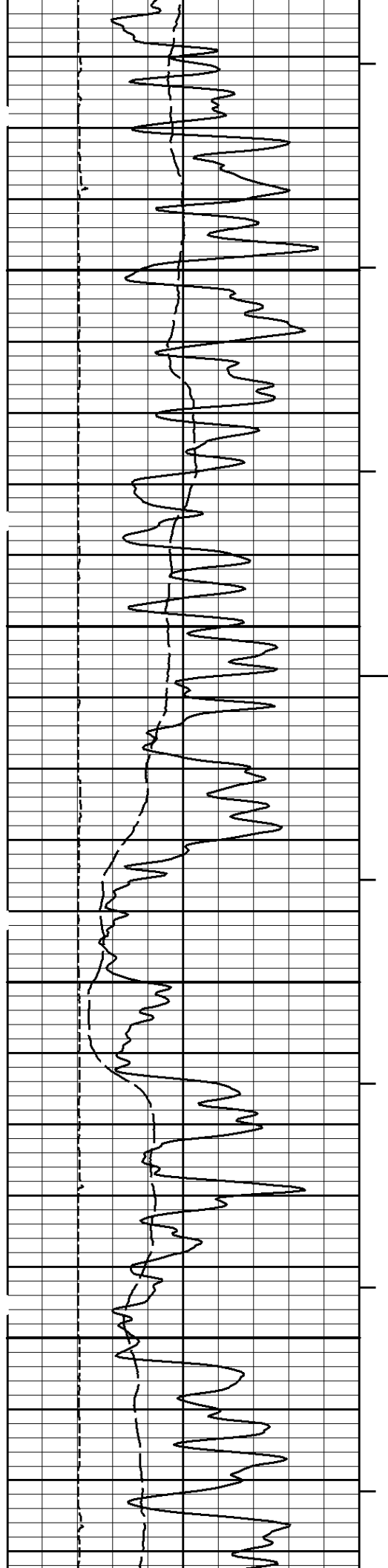


7400

7500

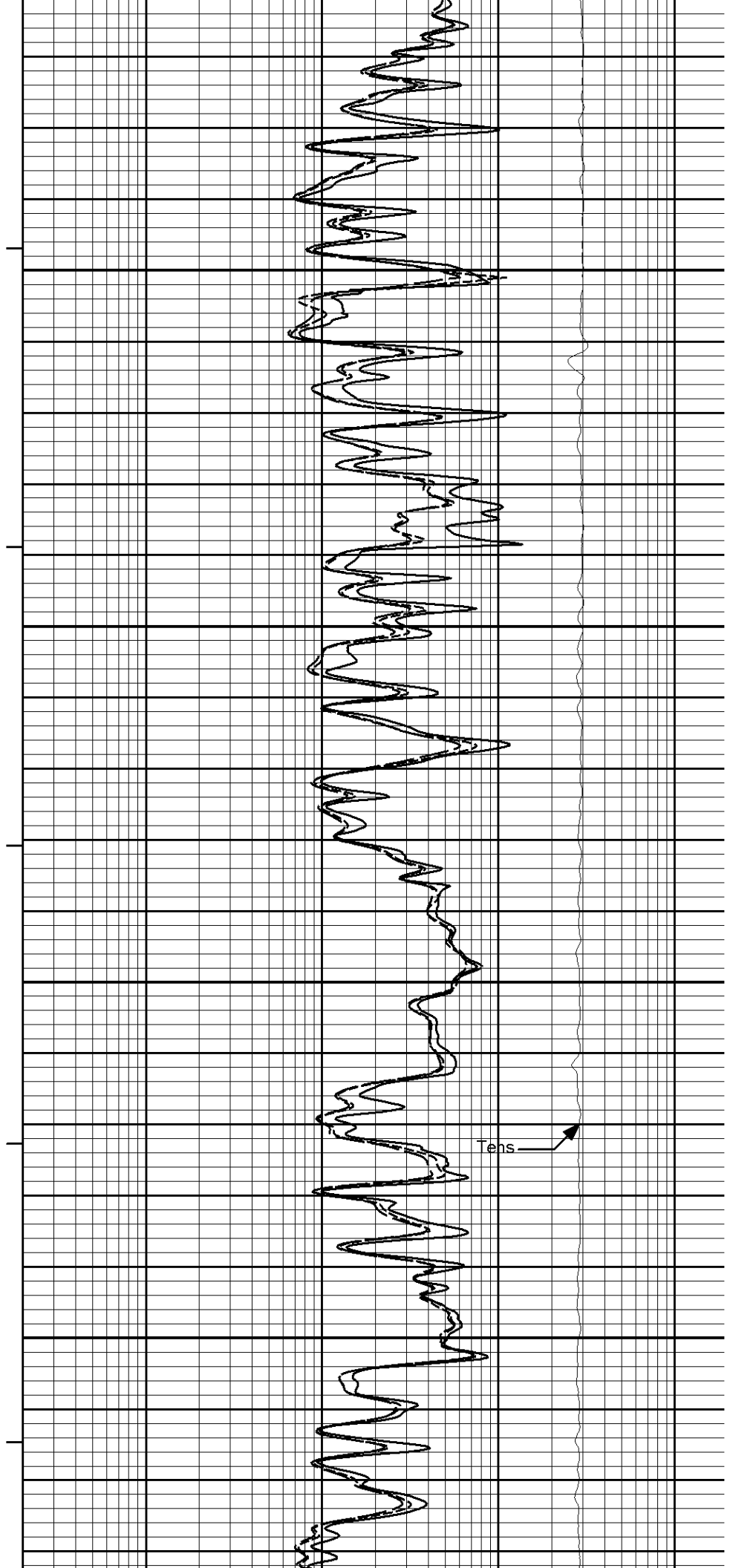




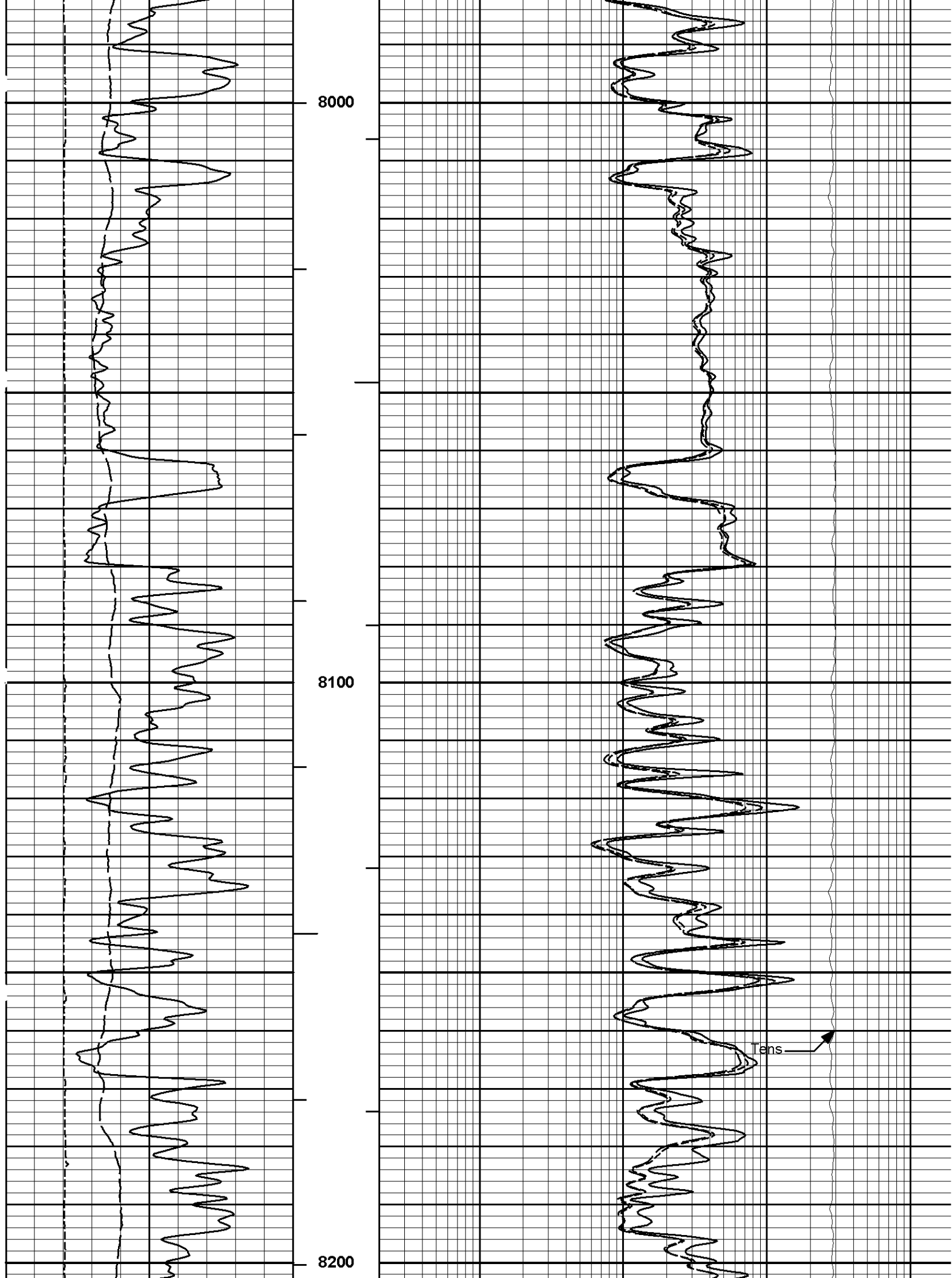


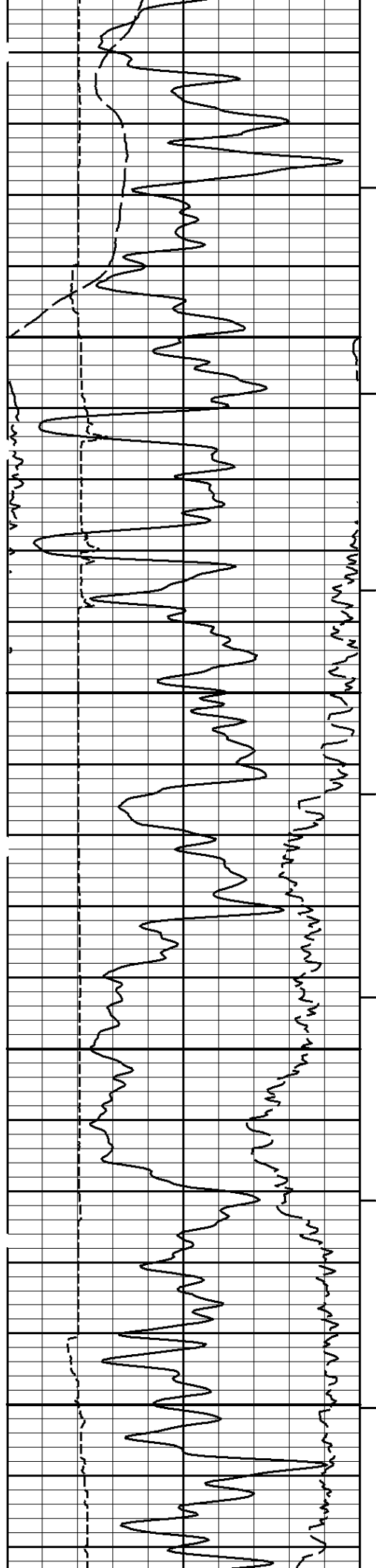
7800

7900



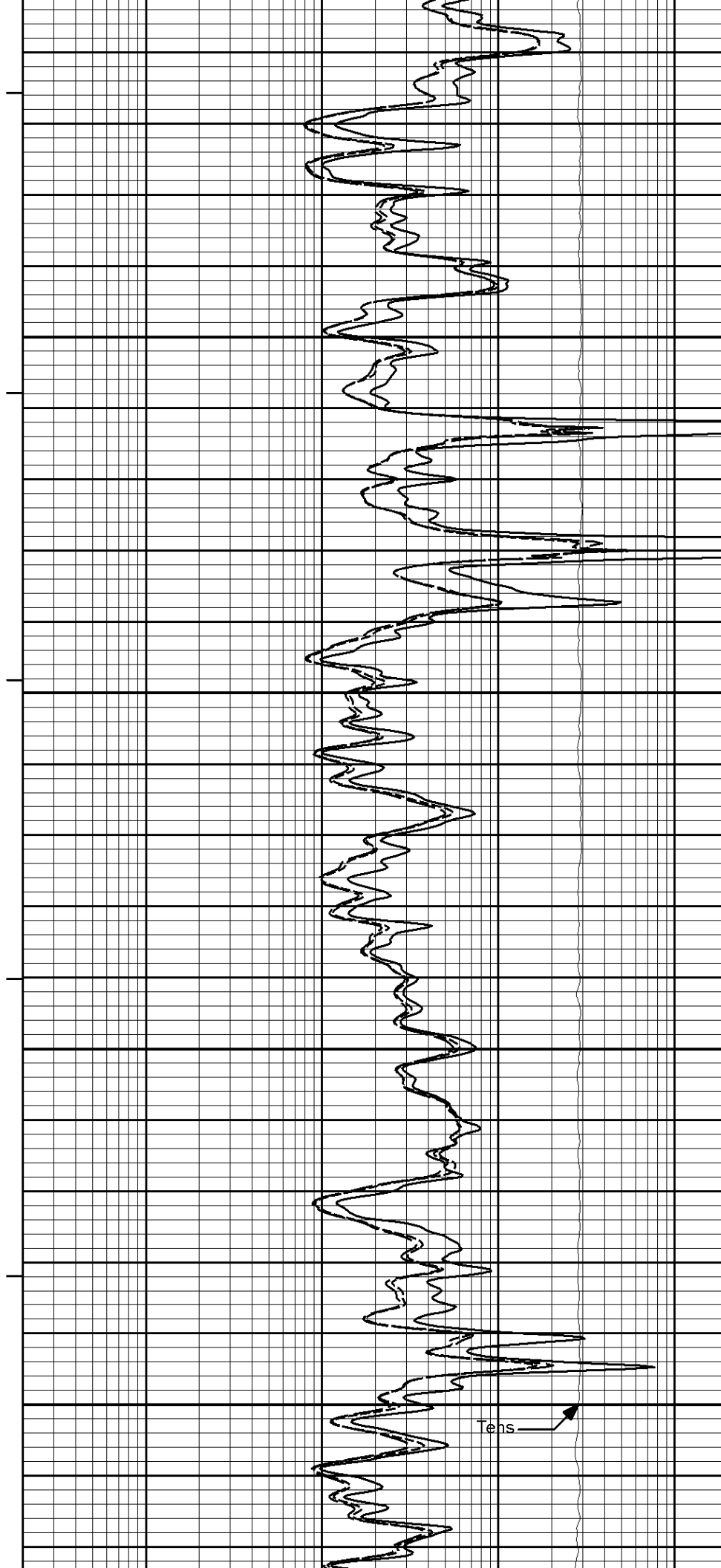




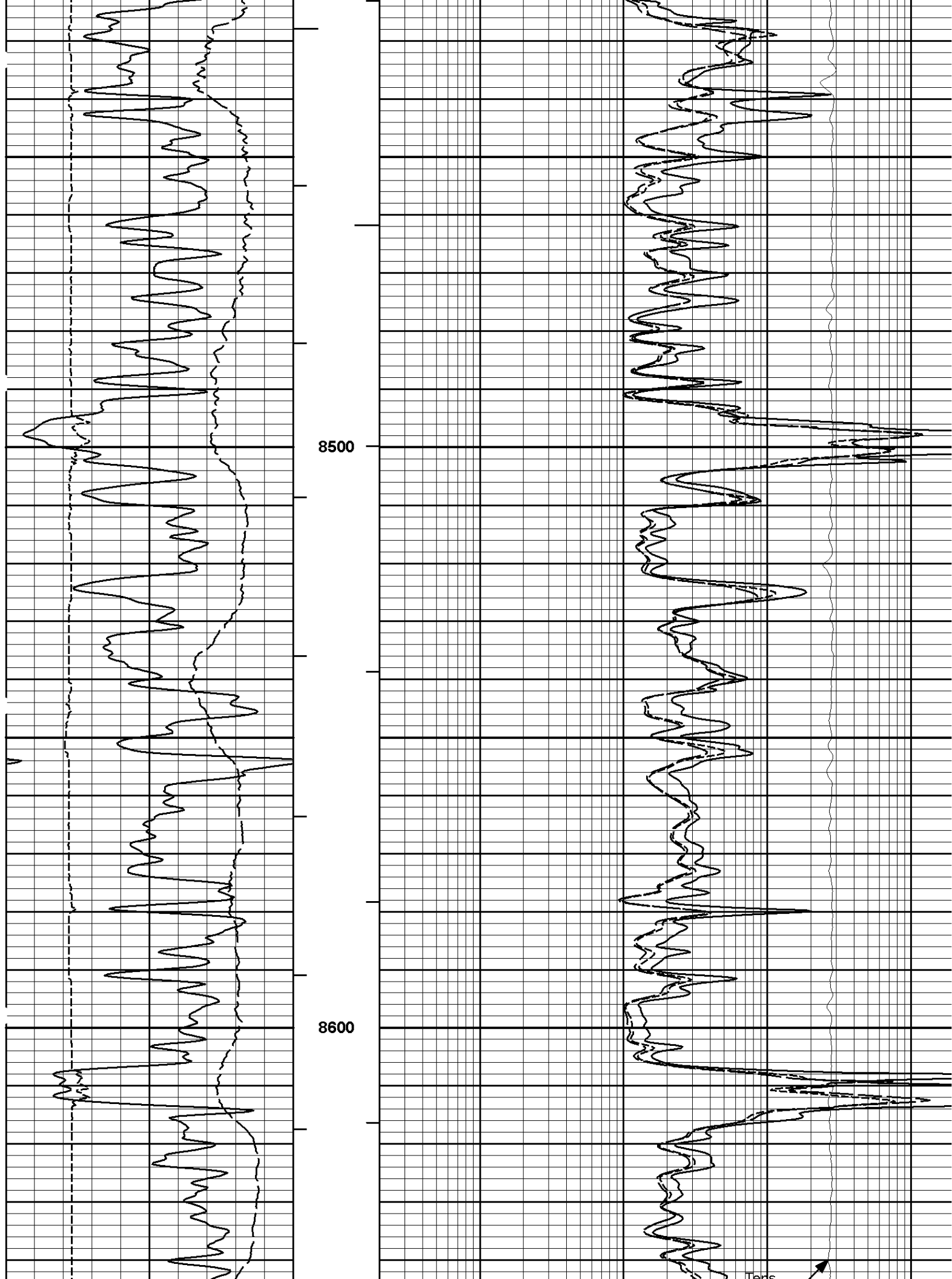


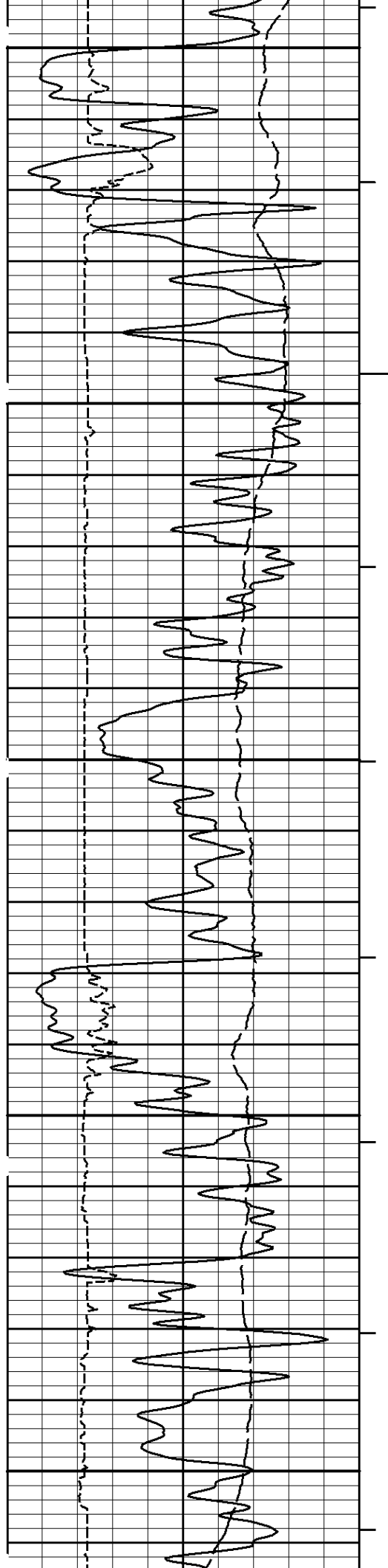
8300

8400



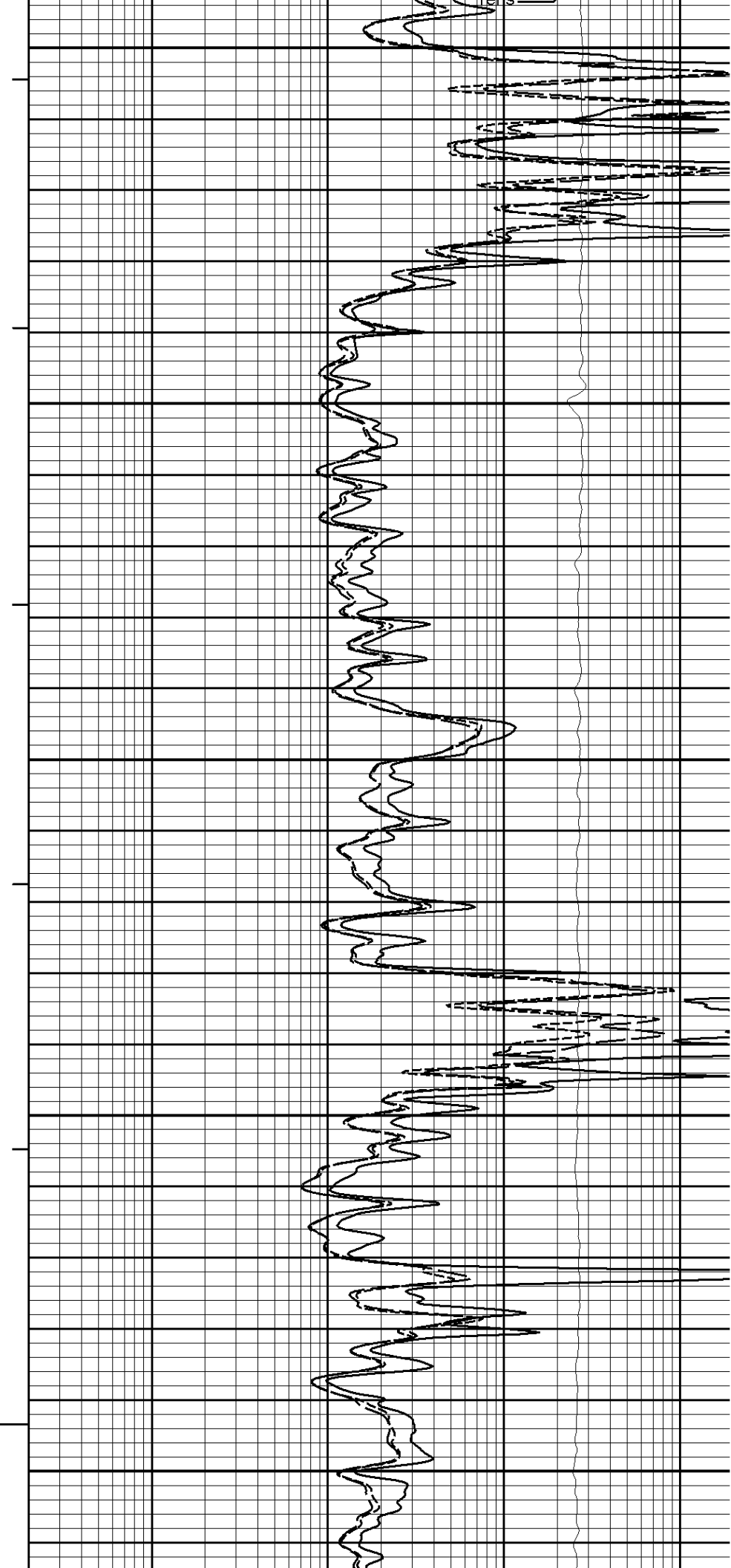
Tens

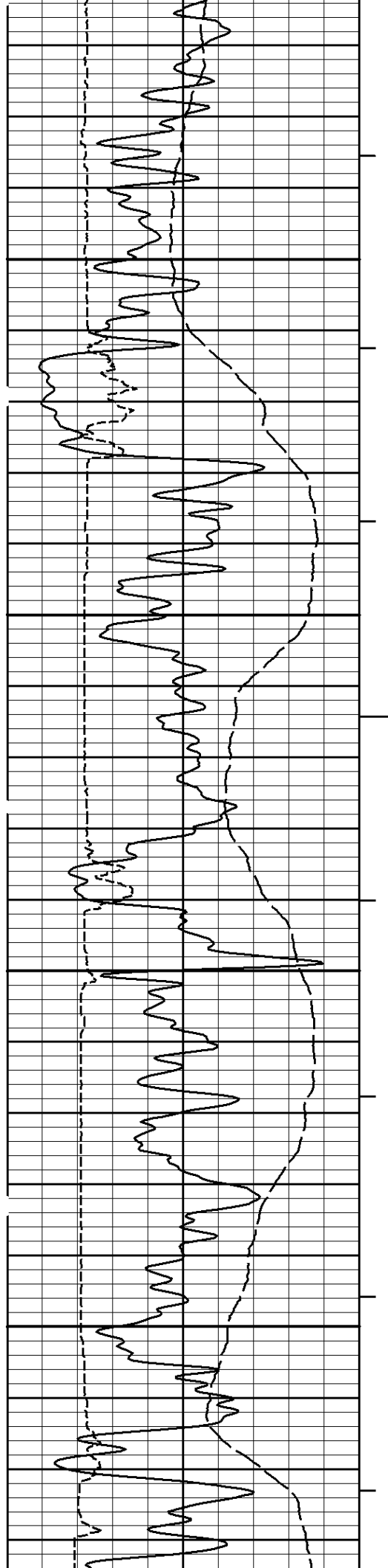




8700

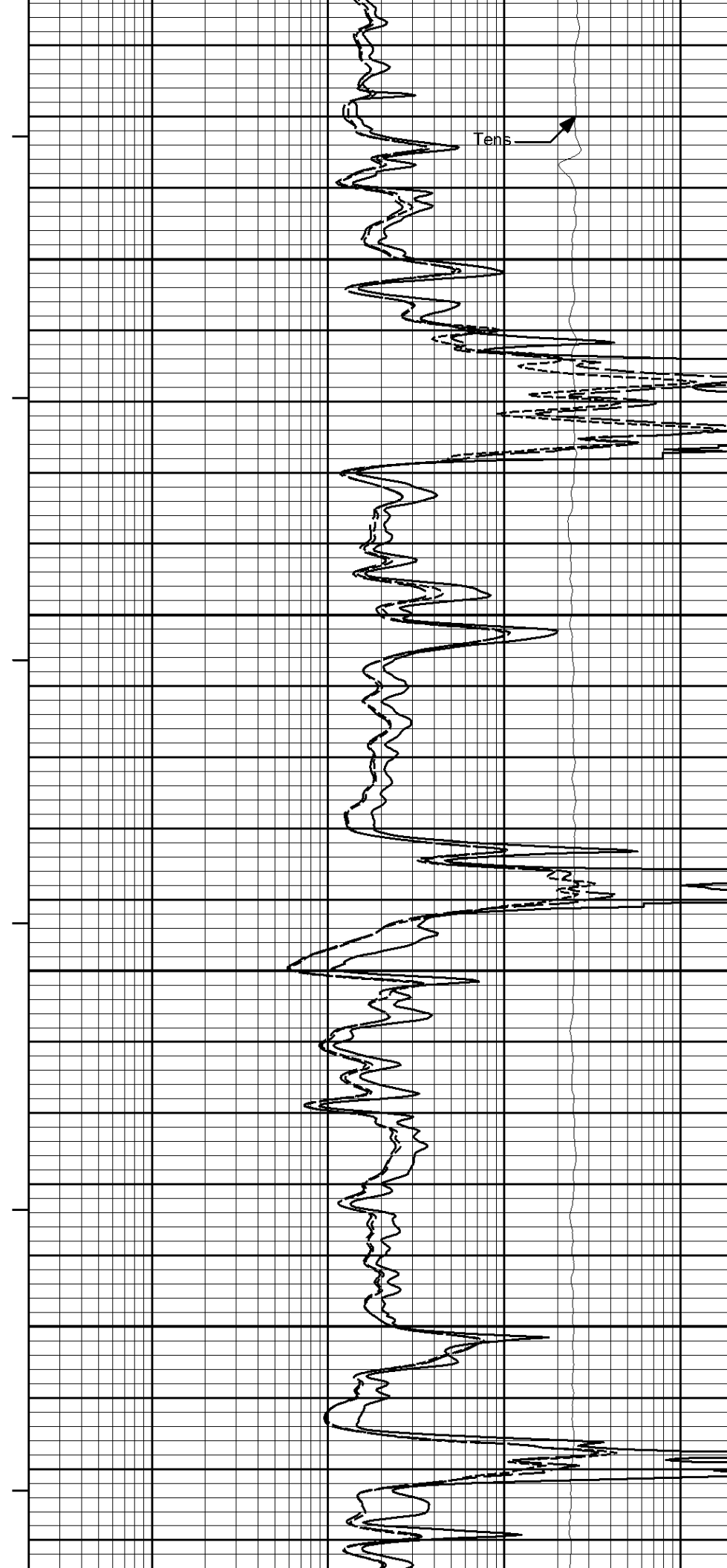
8800

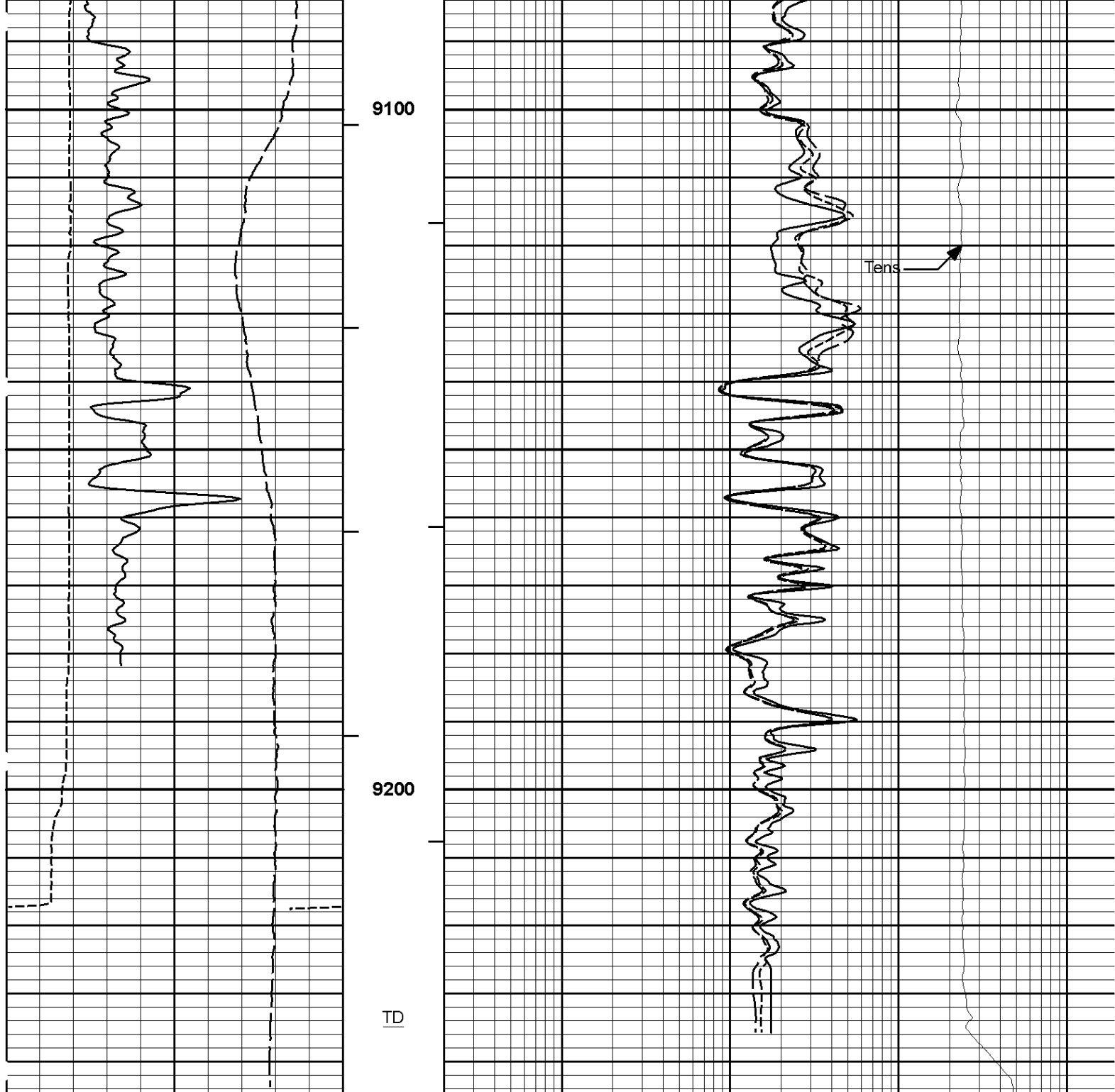




8900

9000





0	SP	100	1:240	10K	Tens	0
	millivolts				pounds	
0	Gamma API	200	BHV	0.2	Hri Deep Resistivity	2K
	api				ohm-metre	
6	Caliper	16	AHV	0.2	Hri Medium Resistivity	2K
	inches				ohm-metre	
				0.2	Dig Focused Laterolog	2K
					ohm-metre	

**HALLIBURTON**

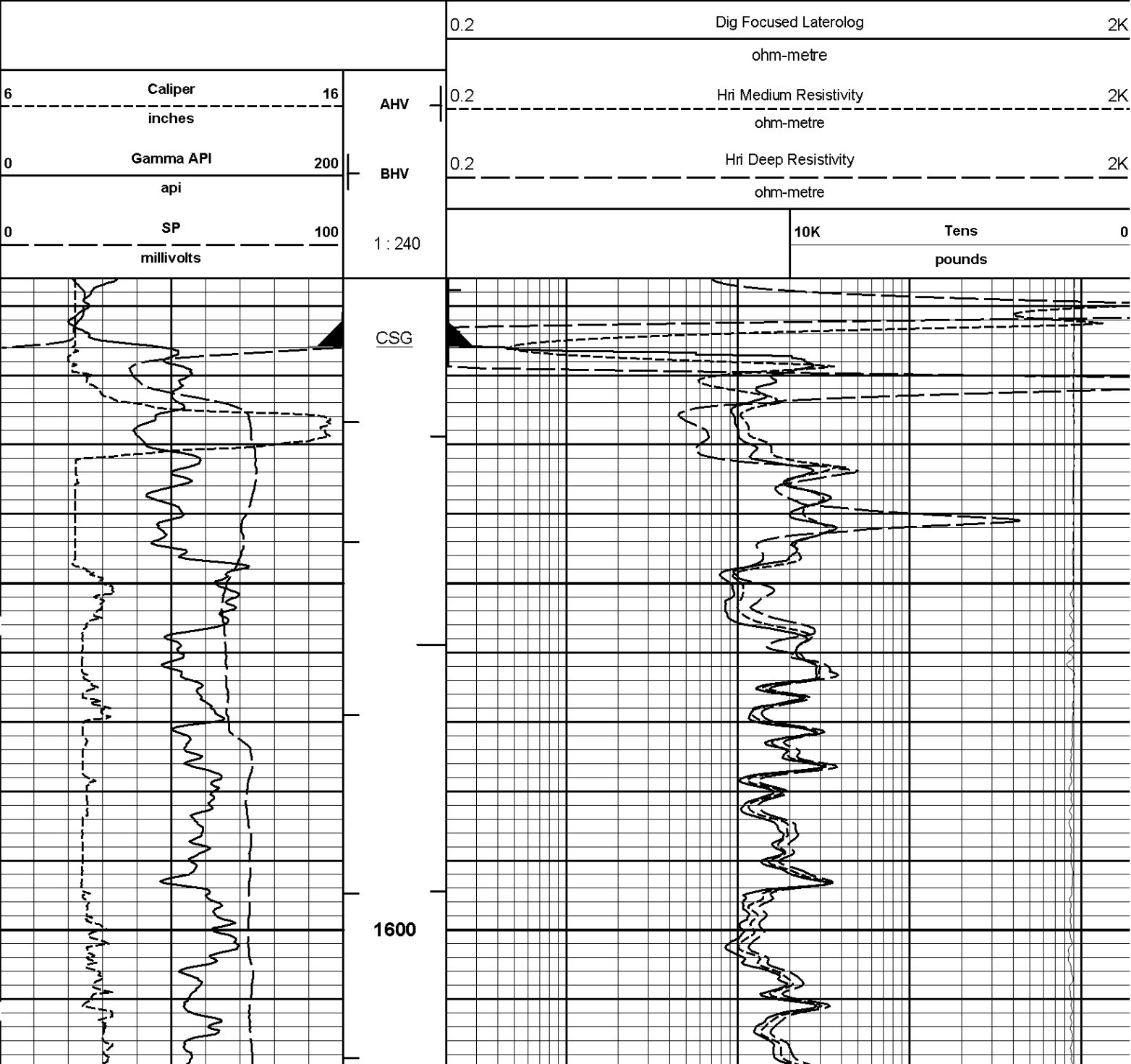
Plot Time: 04-Aug-08 21:15:44  
 Plot Range: 98 ft to 9245 ft  
 Data: LAR\_LEV\_31\_05B\Well Based\%  
 Plot File: \\HRI\DITS\_HRI\_5IN\_RM

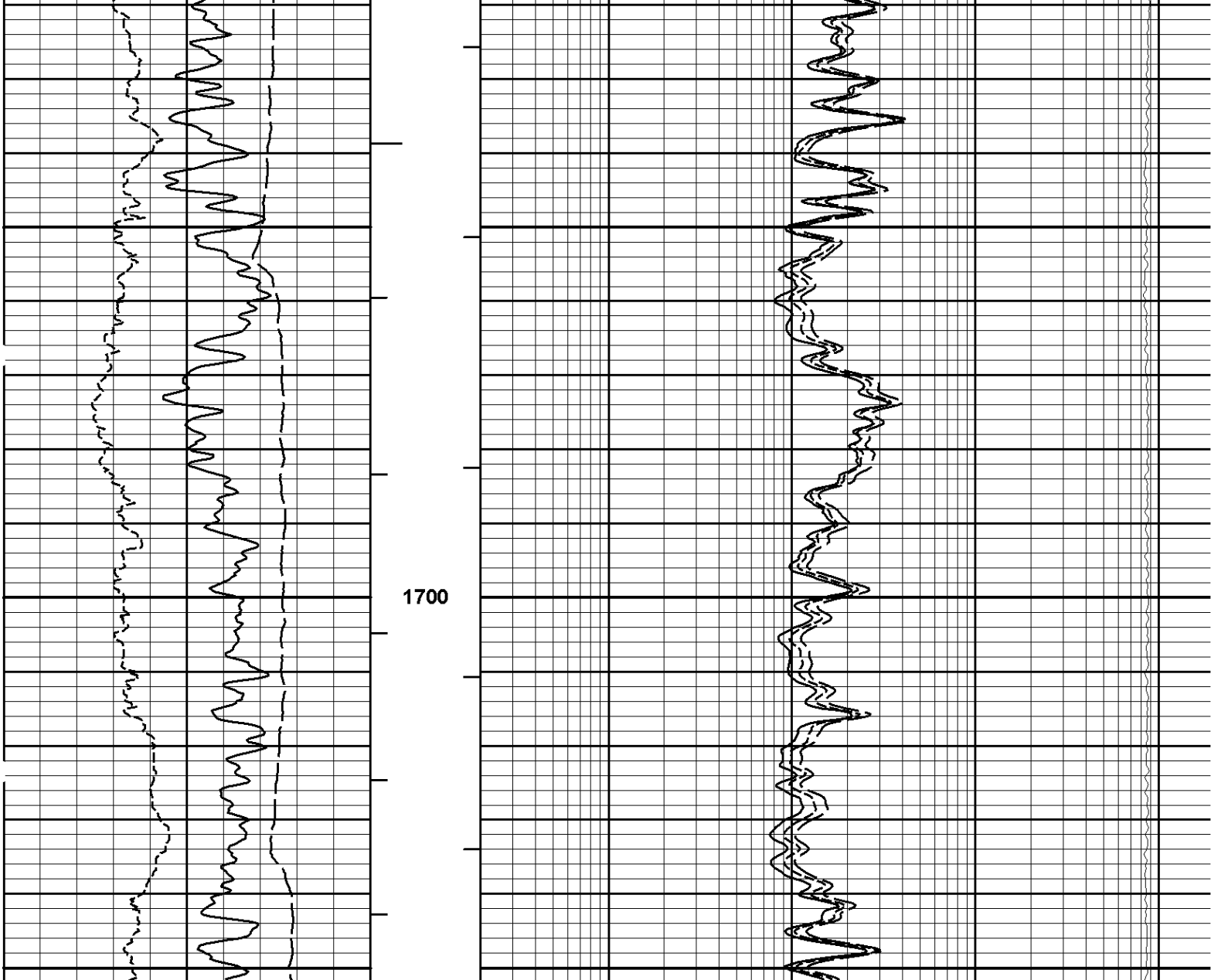
MAIN PASS 5" = 100'

HALLIBURTON

Plot Time: 04-Aug-08 21:15:45  
Plot Range: 1506 ft to 1752 ft  
Data: LAR\_LEV\_31\_05B\Well Based\REPEAT\  
Plot File: \\HR\REPEAT

REPEAT PASS 5" = 100'





0	SP	100	1 : 240	10K	Tens	0
	millivolts				pounds	
0	Gamma API	200	BHV	0.2	Hri Deep Resistivity	2K
	api				ohm-metre	
6	Caliper	16	AHV	0.2	Hri Medium Resistivity	2K
	inches				ohm-metre	
				0.2	Dig Focused Laterolog	2K
					ohm-metre	

HALLIBURTON

Plot Time: 04-Aug-08 21:15:46  
Plot Range: 1506 ft to 1752 ft  
Data: LAR\_LEV\_31\_05B\Well Based\REPEAT\  
Plot File: \\HR\REPEAT

REPEAT PASS 5" = 100'

HALLIBURTON



# CALIBRATION REPORT

## ACCELEROMETER SHOP CALIBRATION

Tool Name:	D4TGX - 034	Reference Calibration Date:	01-Jan-70 00:00:00
Engineer:	Unkown	Calibration Date:	21-Jul-05 12:10:41
Software Version:	Legacy Version	Calibration Version:	0

Horizontal-1 Telemetry	Horizontal-2 Telemetry	Vertical Telemetry	Units
16666.54	16656.18	20861.91	cnts
Coefficient	Coefficient Value	Tolerance	
Gain	0.000238	0.0002 - 0.0003	
Offset	-3.966	----	
Orientation	Measured	Calibrated	
Horizontal	16661.36	0.00	
Vertical	20861.91	1.00	

## DITS 4 TELEMETRY GAMMA SHOP CALIBRATION (GIBRALTAR)

Tool Name:	D4TGX - 034	Reference Calibration Date:	20-Jul-08 11:10:02
Engineer:	M. CARPENTER	Calibration Date:	24-Jul-08 11:29:25
Software Version:	WL INSITE R2.2 (Build 2)	Calibration Version:	1

Calibrator Source S/N: TB 255

Calibrator API Reference:253.00 api

Measurement	Measured	Calibrated	Units
Background	52.9	54.0	api
Background + Calibrator	300.9	307.0	api
Calibrator	254.1	253.0	api

## DITS 4 TELEMETRY GAMMA FIELD CALIBRATION (GIBRALTAR)

Tool Name:	D4TGX - 034	Reference Calibration Date:	24-Jul-08 11:29:25
Engineer:	M. CARPENTER	Calibration Date:	04-Aug-08 07:00:10
Software Version:	WL INSITE R2.2 (Build 2)	Calibration Version:	1

Calibrator Source S/N: TB 255

Calibrator API Reference:253.00 api

Field Verification	Shop	Field	Units
Background	54.0	358.2	api
Background + Calibrator	307.0	602.6	api
Calibrator	253.0	244.3	api
Shop	Field	Difference	Tolerance
253.0	244.3	8.7	+/- 9.00

## DITS 4 TELEMETRY GAMMA POST CALIBRATION (GIBRALTAR)

Tool Name:	D4TGX - 034	Reference Calibration Date:	04-Aug-08 07:00:10
Engineer:	D. RENNER	Calibration Date:	04-Aug-08 21:08:49
Software Version:	WL INSITE R2.2 (Build 2)	Calibration Version:	1

Calibrator Source S/N: TB 255

Calibrator API Reference:253.00 api

Post Verification	Field	Post	Units
-------------------	-------	------	-------

Background	358.2	60.7	api
Background + Calibrator	602.6	297.3	api
Calibrator	244.3	236.6	api

Shop	Field	Post	Difference	Tolerance
253.0	244.3	236.6	7.7	+/- 9.00

### DUAL SPACED NEUTRON SHOP CALIBRATION

<b>Tool Name:</b>	DSN_II - 108760	<b>Reference Calibration Date:</b>	17-Jun-08 09:17:59
<b>Engineer:</b>	C. GULLETT	<b>Calibration Date:</b>	14-Jul-08 16:00:52
<b>Software Version:</b>	WL INSITE R2.2 (Build 2)	<b>Calibration Version:</b>	1

Logging Source S/N: DSN-60  
 Calibrator Source S/N: CAL-131  
 Water Tank S/N: 105371101  
 Water Tank Value: 52.750  
 Snow Block S/N: 10549593  
 Calibration Tank Water Temperature: 81 degF  
 Min. Tool Housing Outside Diameter: 3.512 in

### WATER TANK SUMMARY (Horizontal Water Tank)

Measurement	Measured	Calibrated	Units
Ratio	6.383	6.450	
Porosity	0.11565	0.11749	decP

### SNOW BLOCK SUMMARY

Measurement	Measured	Calibrated	Units
Ratio	6.083	6.060	
Porosity	0.11144	0.11027	decP

DSN Sensitivity: 1.028

### DUAL SPACED NEUTRON FIELD CALIBRATION

<b>Tool Name:</b>	DSN_II - 108760	<b>Reference Calibration Date:</b>	14-Jul-08 16:00:52
<b>Engineer:</b>	M. CARPENTER	<b>Calibration Date:</b>	04-Aug-08 06:49:37
<b>Software Version:</b>	WL INSITE R2.2 (Build 2)	<b>Calibration Version:</b>	1

Logging Source S/N: DSN-60  
 Calibrator Source S/N: CAL-131  
 Snow Block S/N: 10549593

### SNOW BLOCK SUMMARY

Measurement	Shop	Field	Units
Ratio	6.060	6.072	
Porosity	0.11027	0.11173	decP

DSN Sensitivity: 1.028

### DUAL SPACED NEUTRON POST CALIBRATION

<b>Tool Name:</b>	DSN_II - 108760	<b>Reference Calibration Date:</b>	04-Aug-08 06:49:37
<b>Engineer:</b>	D. RENNER	<b>Calibration Date:</b>	04-Aug-08 20:44:59
<b>Software Version:</b>	WL INSITE R2.2 (Build 2)	<b>Calibration Version:</b>	1

Logging Source S/N: DSN-60  
 Calibrator Source S/N: CAL-131

**SNOW BLOCK SUMMARY**

Measurement	Field	Post	Units
Ratio	6.072	6.072	
Porosity	0.11173	0.11173	decp

DSN Sensitivity: 1.028

**SPECTRAL DENSITY SHOP CALIBRATION**

Tool Name:	SDL_DC - I709MC136	Reference Calibration Date:	14-Jul-08 10:02:58
Engineer:	E.KIND	Calibration Date:	29-Jul-08 10:22:22
Software Version:	WL INSITE R2.2 (Build 2)	Calibration Version:	1

Logging Source S/N: 2189GW

Aluminum Block S/N: FARMINGTON

Density: 2.588g/cc

Magnesium Block S/N: FARMINGTON

Density: 1.687g/cc

**DENSITY CALIBRATION SUMMARY**

Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	1.0388	1.0524	0.85 - 1.15
Near Dens Gain	1.0137	1.0238	0.85 - 1.15
Near Peak Gain	0.9850	0.9982	0.85 - 1.15
Near Lith Gain	0.9759	0.9846	0.85 - 1.15
Far Bar Gain	1.0197	1.0277	0.85 - 1.15
Far Dens Gain	1.0039	1.0084	0.85 - 1.15
Far Peak Gain	0.9946	1.0008	0.85 - 1.15
Far Lith Gain	0.9843	0.9898	0.85 - 1.15
Near Bar Offset	0.0589	-0.0720	NONE
Near Dens Offset	0.2464	0.1474	NONE
Near Peak Offset	0.4605	0.3411	NONE
Near Lith Offset	0.5410	0.4568	NONE
Far Bar Offset	0.2350	0.1519	NONE
Far Dens Offset	0.3594	0.3052	NONE
Far Peak Offset	0.4672	0.3956	NONE
Far Lith Offset	0.6356	0.5640	NONE
Near Bar Background	1161.19	1159.74	700 - 1500
Near Dens Background	477.70	477.83	290 - 600
Near Peak Background	209.73	210.92	130 - 280
Near Lith Background	202.82	202.96	125 - 270
Far Bar Background	476.42	475.81	350 - 750
Far Dens Background	184.06	184.48	140 - 300
Far Peak Background	74.97	75.04	50 - 130
Far Lith Background	76.93	77.03	50 - 130

**CALIBRATION BLOCK SUMMARY**

Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.682	1.687	0.005	+/- 0.015
Pe	2.561	2.594	0.033	+/- 0.150
ALUMINUM				
Density (g/cc)	2.578	2.588	0.010	+/- 0.01500

Density (g/cc)	2.578	2.588	0.010	+/- 0.01500
Pe	3.076	3.100	0.024	+/- 0.150

#### TOOL SUMMARY

Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	-0.0017	+/- 0.0110	-0.0057	+/- 0.0140
Magnesium Block	-0.0075	+/- 0.0110	-0.0120	+/- 0.0140
Aluminum Block	-0.0039	+/- 0.0110	0.0029	+/- 0.0140
Resolution	8.93	6.00 - 11.00	9.83	6.00 - 11.00
Internal Verifier(B+D+P+L)	2051	1250 - 2700	812	600 - 1300

#### 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:	SDL_DC - I709MC136	Reference Calibration Date:	29-Jul-08 10:22:22
Engineer:	M. CARPENTER	Calibration Date:	04-Aug-08 06:24:43
Software Version:	WL INSITE R2.2 (Build 2)	Calibration Version:	1

Aluminum Block S/N: FARMINGTON	Density: 2.588g/cc
Magnesium Block S/N: FARMINGTON	Density: 1.687g/cc
Pad Temperature: 72.9 degF	

#### DENSITY FIELD CALIBRATION SUMMARY

Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	2051.454	2049.987	-1.467	18.081
Far (B+D+P+L) cps	812.364	811.393	-0.971	15.749
Near Resolution	8.93	8.91	-0.020	0.50
Far Resolution	9.84	9.83	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:	SDL_DC - I709MC136	Reference Calibration Date:	04-Aug-08 06:24:43
Engineer:	D. RENNER	Calibration Date:	04-Aug-08 20:25:23
Software Version:	WL INSITE R2.2 (Build 2)	Calibration Version:	1

Aluminum Block S/N: FARMINGTON	Density: 2.588g/cc
Magnesium Block S/N: FARMINGTON	Density: 1.687g/cc
Pad Temperature: 67.1 degF	

#### DENSITY POST CALIBRATION SUMMARY

Measurement	Field	Post	Change	Control Limit +/-
-------------	-------	------	--------	-------------------

Near (B+D+P+L) cps	2049.987	2043.553	-6.434	20.097
Far (B+D+P+L) cps	811.393	811.439	0.046	17.017
Near Resolution	8.91	8.92	0.010	0.50
Far Resolution	9.96	9.84	0.120	1.00

#### PASS/FAIL SUMMARY

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

#### CALIPER SHOP CALIBRATION

Tool Name:	SDL_DC - I709MC136	Reference Calibration Date:	04-Aug-08 06:31:01
Engineer:	M. CARPENTER	Calibration Date:	04-Aug-08 06:41:01
Software Version:	WL INSITE R2.2 (Build 2)	Calibration Version:	1

#### MEASURED CALIPER RINGS

Measurement	Current Reading (Previous Coeff.)	Calibrated (New Coeff.)	Change
RING DIAMETER:			
Ring #1 (in)	5.90	6.00	-0.10
Ring #2 (in)	13.69	13.69	0.00

#### CALIPER FIELD CALIBRATION

Tool Name:	SDL_DC - I709MC136	Reference Calibration Date:	04-Aug-08 06:41:01
Engineer:	M. CARPENTER	Calibration Date:	04-Aug-08 06:41:24
Software Version:	WL INSITE R2.2 (Build 2)	Calibration Version:	1

#### MEASURED CALIPER RINGS

Measurement	Shop	Field	Change	Control Limit On New Value
Ring #1 (in)	5.90	6.00	0.10	+/- 0.50

#### PASS/FAIL SUMMARY

Ring #1 Check:	Passed
----------------	--------

#### CALIPER POST CALIBRATION

Tool Name:	SDL_DC - I709MC136	Reference Calibration Date:	04-Aug-08 06:41:24
Engineer:	D. RENNER	Calibration Date:	04-Aug-08 20:31:31
Software Version:	WL INSITE R2.2 (Build 2)	Calibration Version:	1

#### MEASURED CALIPER RING

Measurement	Field	Post	Change	Control Limit On New Value
Ring #1 (in)	6.00	6.29	0.29	+/- 0.50

#### PASS/FAIL SUMMARY

Ring #1 Check:	Passed
----------------	--------

#### HIGH RESOLUTION INDUCTION SHOP CALIBRATION

Tool Name:	HRID - I81S0944	Reference Calibration Date:	08-Jul-08 14:27:13
Engineer:	D. RENNER	Calibration Date:	25-Jul-08 14:06:02
Software Version:	WL INSITE R2.2 (Build 2)	Calibration Version:	1

#### HIGH RESOLUTION INDUCTION SHOP CALIBRATION SUMMARY

#### TEST LOOP RESPONSE

1 - Test Loop Closed	Measured Signal	Nominal	Units
----------------------	-----------------	---------	-------

	R	X	R	X	Units
HRD	1976	1972	1976	1972	MMHOS
HRM	2838	2832	2838	2832	MMHOS
2 - Test Loop Off(Sonde Error)		Measured Signal		Nominal	Units
	R	X	R	X	
HRD	-5	-96	+/- 15	+/- 100	MMHOS
HRM	-12	-111	+/- 15	+50/-150	MMHOS
ELECTRONICS RELATIVE GAIN					
	Set		Nominal		
	Magnitude	Phase	Magnitude	Phase	
HRD	1.00	-1.70	1. +/- .1	0. +/- 5	
HRM	1.00	-1.60	1. +/- .1	0. +/- 5	
Temperature at time of calibration:		120.79	degF		
**** NOTICE ****					
THE HIGH RESOLUTION INDUCTION TOOL (HRID) IS A CONTINUAL SELF-CALIBRATING TOOL. DURING LOGGING, THE TOOL CONSTANTLY SELF-UPDATES ITS COEFFICIENTS, THE SHOP CALIBRATION IS PERFORMED UNDER VERY STRINGENT CONDITIONS. SINCE THE TOOL IS SELF-CALIBRATING DURING LOGGING, FIELD AND POST CALIBRATIONS ARE NOT AVAILABLE OR NECESSARY FOR THE HRID TOOL.					

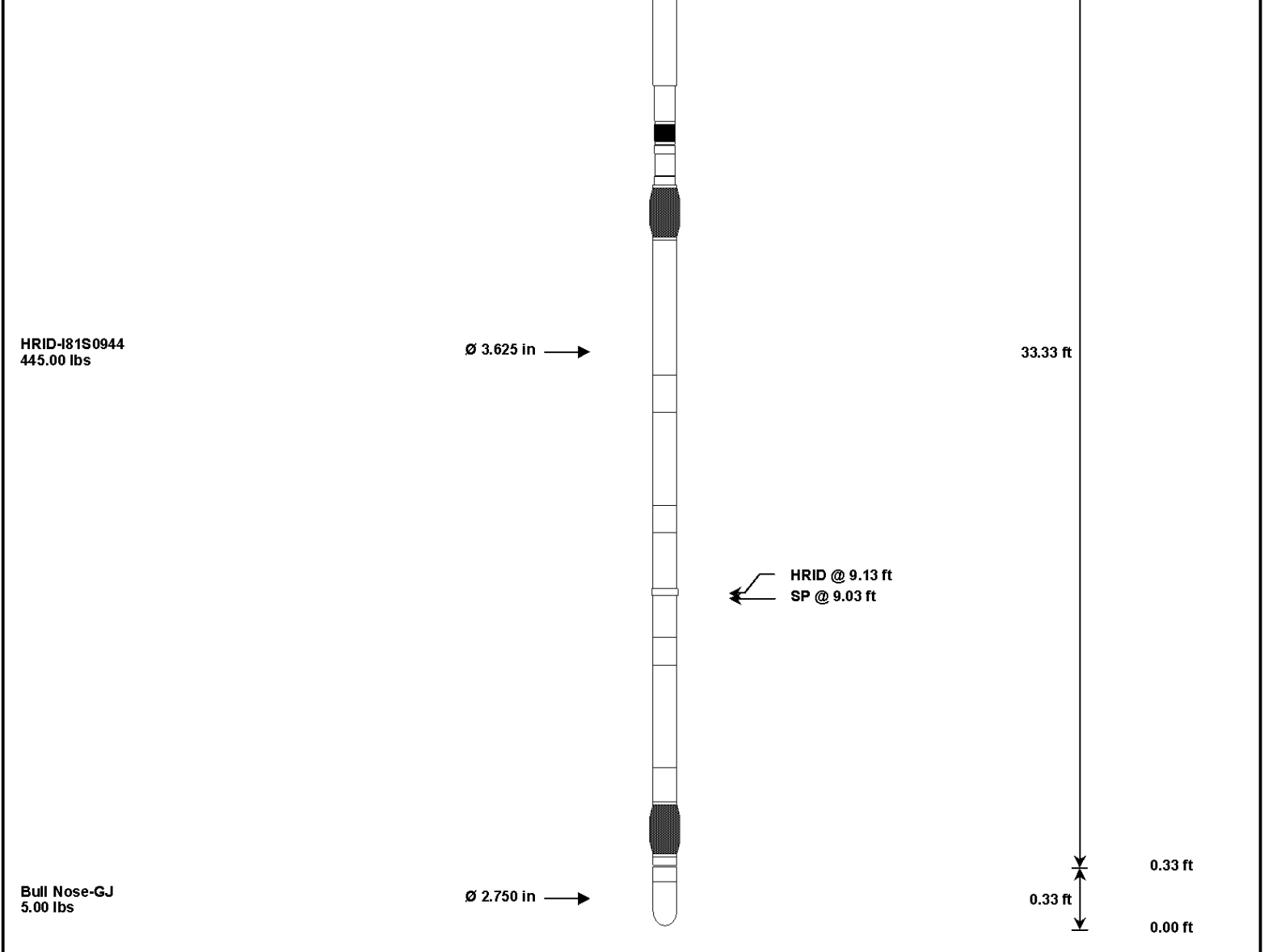
CALIBRATION SUMMARY						
Sensor	Shop	Field	Post	Difference	Tolerance	Units
D4TGX-034						
AccZ Horizontal	0.00	-----	-----	0.00	-----	g
AccZ Vertical	1.00	-----	-----	0	-----	g
Gamma Ray Calibrator	253.0	244.3	236.6	7.7	+/- 9.00	api
DSN_II-108760						
Snow Block Porosity	0.11027	0.11173	0.11173	0.00000	+/- +/-0.00900	decp
SDL_DC-I709MC136						
Near(B+D+P+L)	2051.454	2049.987	2043.553	6.434	+/-20.097	cps
Far(B+D+P+L)	812.364	811.393	811.439	-0.046	+/-17.017	cps
Field Block Density	2.130	0.000	0.000	0.000	+/-0.01500	g/cc
Ring #1	6.00	6.00	6.29	-0.29	+/- 0.500	in
Data: LAR_LEV_31_05B\0001 TRIPLE\IDLE					Date: 04-Aug-08 21:09:47	

HALLIBURTON			
CUSTOMER EVENT LOG			
Event Type	Time & Date	Depth (ft)	Event Description
	04-Aug-08 15:49:15	65.75	Logging 001 04-Aug-08 15:49 Dn @70.0f
	04-Aug-08 15:57:25	1872.27	Halting 001 04-Aug-08 15:49 Dn @70.0f
	04-Aug-08 15:58:02	1868.00	Logging 002 04-Aug-08 15:58 Up @1868.0f
	04-Aug-08 16:06:20	1432.44	Halting 002 04-Aug-08 15:58 Up @1868.0f
	04-Aug-08 16:08:01	1604.50	Logging 003 04-Aug-08 16:08 Dn @1619.0f
	04-Aug-08 16:44:12	9247.22	Halting 003 04-Aug-08 16:08 Dn @1619.0f
	04-Aug-08 16:44:32	9254.50	Logging 004 04-Aug-08 16:44 Up @9254.3f
	04-Aug-08 19:27:00	95.39	Halting 004 04-Aug-08 16:44 Up @9254.3f
Data: LAR_LEV_31_05B\0001 TRIPLE\HWI0782			Date: 04-Aug-08 19:28:04

HALLIBURTON
-------------

# TOOL STRING DIAGRAM REPORT

Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
RWCH-10763226 135.00 lbs	Ø 3.625 in →		Load Cell @ 75.54 ft BH Temperature @ 74.97 ft	6.25 ft	79.22 ft
			GammaRay @ 71.29 ft		72.97 ft
D4TGX-034 221.00 lbs	Ø 3.625 in →			9.63 ft	
					63.34 ft
DSN_II-108760 195.80 lbs	Ø 3.625 in →		Neutron Porosity @ 54.99 ft	10.25 ft	
					53.09 ft
SDL_DC-1709MC136 420.00 lbs	Ø 4.500 in →			19.43 ft	
			SDL Caliper @ 36.16 ft SDL @ 35.70 ft		33.66 ft



Mnemonic	Tool Name	Serial Number	Weight (lbs)	Length (ft)	Accumulated Length (ft)	Max.Log. Speed (fpm)
RWCH	Releasable Wireline Cable Head	10763226	135.00	6.25	72.97	300.00
D4TGX	DITS Telemetry Gamma - Gibraltar Class	034	221.00	9.63	63.34	60.00
DSN_II	Dual Spaced Neutron-II Tool	108760	195.80	10.25	53.09	60.00
SDLD	SDL (D) with (C) Mandrel w/ EVR	I709MC136	420.00	19.43	33.66	60.00
HRID	High Resolution Induction Tool Dits	I81S0944	445.00	33.33	0.33	100.00
SP	SP Ring	I91S0180	5.00	0.25	*	9.03
BLNS	Bull Nose	GJ	5.00	0.33	0.00	300.00
Total			1,426.80	79.22		
* Not included in Total Length and Length Accumulation.						
Data: LAR_LEV_31_05B\0001 TRIPLE\IDLE					Date: 04-Aug-08 15:44:16	

COMPANY	LARAMIE ENERGY PARTNERS II				
WELL	LEVERICH 31-05B				
FIELD	RULISON				
COUNTY	GARFIELD	STATE	CO		



