

HALLIBURTON

DUAL SPACED NEUTRON SPECTRAL DENSITY LOG

COMPANY		RAYDON EXPLORATION INC.	
WELL		LINDA JO 1-22	
FIELD/BLOCK		WILDCAT	
COUNTY		SEWARD	
STATE		KANSAS	
Permanent Datum		GL	Elev: 2739.0 ft
Log measured from		KB	D.F. 2749.0 ft
Drilling measured from		KB	G.L. 2739.0 ft
Date		10-Aug-17	
Run No.		ONE	
Depth - Driller		5980.0 ft	
Depth - Logger		5980.0 ft	
Bottom - Logged Interval		5936.0 ft	
Top - Logged Interval		4000.0 ft	
Casing - Driller		8.625 in	@
Casing - Logger		1633.0 ft	@
Bit Size		7.875 in	@
Type Fluid in Hole		Water Based Mud	@
Density		8.9 ppg	60.00 sl/qt
PH		11.50 pH	6.0 cphm
Source of Sample		FLOWLINE	
Rm @ Meas. Temperature		0.92 ohmm	@ 75.00 degF
Rmf @ Meas. Temperature		0.78 ohmm	@ 75.00 degF
Rmc @ Meas. Temperature		1.05 ohmm	@ 75.00 degF
Source Rmf		Rmc	MEAS
Rm @ BHT		0.57 ohmm	@ 125.0 degF
Time Since Circulation		04:00 hr	
Time on Bottom		10-Aug-17 18:35	
Max. Rec. Temperature		125.00 degF	@ 5980.0 ft
Equipment Location		11230668	EL RENO, OK
Recorded By		T. HYDE	
Witnessed By		E. GRIEVES	

Fold here

Service Ticket No.: 904173918				API No.: 15-175-22252-00-00				PGM Version: WL INSITE R5.0.5 (Build 8)						
CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE						RESISTIVITY SCALE CHANGES								
Date	Sample No.			Type Log	Depth	Scale Up Hole	Scale Down Hole							
Depth-Driller														
Type Fluid in Hole														
Density	Viscosity													
Ph	Fluid Loss													
Source of Sample						RESISTIVITY EQUIPMENT DATA								
Rm @ Meas. Temp	@	@		Run No.	Tool Type & No.	Pad Type	Tool Pos.	Other						
Rmf @ Meas. Temp.	@	@		ONE	ACRT	N/A	CENT.	N/A						
Rmc @ Meas. Temp.	@	@			I-12109517									
Source Rmf	Rmc				S-12109515									
Rm @ BHT	@	@												
Rmf @ BHT	@	@												
Rmc @ BHT	@	@												
EQUIPMENT DATA														
GAMMA			ACOUSTIC			DENSITY			NEUTRON					
Run No.	ONE		Run No.	ONE		Run No.	ONE		Run No.	ONE				
Serial No.	10971172		Serial No.	10939050		Serial No.	12153526		Serial No.	1203046				
Model No.	GTET		Model No.	BSAT		Model No.	SDLT		Model No.	DSNT				
Diameter	3.625"		No. of Cent.	2		Diameter	5.5"		Diameter	3.625"				
Detector Model No.	T-102		Spacing	EVEN		Log Type	GAM-GAM		Log Type	NEU-NEU				
Type	SCINT					Source Type	Cs137		Source Type	Am241Be				
Length	8"		LSA [Y/N]			Serial No.	20791B		Serial No.	DSN-438				
Distance to Source	10'		FWDA [Y/N]			Strength	1.5 Ci		Strength	15 Ci				
LOGGING DATA														
GENERAL			GAMMA			ACOUSTIC			DENSITY			NEUTRON		
Run	Depth		Speed	Scale		Scale		Matrix	Scale		Matrix	Scale		Matrix
No.	From	To	ft/min	L	R	L	R		L	R		L	R	
ONE	TD	BSC	REC	0	150	30	-10	17.6 usec/ft	30	-10	2.71	30	-10	TIME

ONE	TD	BSC	REC	0	100	30	-10	47.0 psec/ft	30	-10	30	-10	LTIME
-----	----	-----	-----	---	-----	----	-----	--------------	----	-----	----	-----	-------

DIRECTIONAL INFORMATION

Maximum Deviation @ KOP @

Remarks: GTET-DSNT-SDLT-BSAT-ACRT RAN IN COMBINATION

CHLORIDES REPORTED AT 5000 mg/l

ANNULAR HOLE VOLUME CALCULATED FOR 5 INCH CASING

BOREHOLE WAS VERY RUGOSE

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

HALLIBURTON

Plot Time: 11-Aug-17 00:35:45

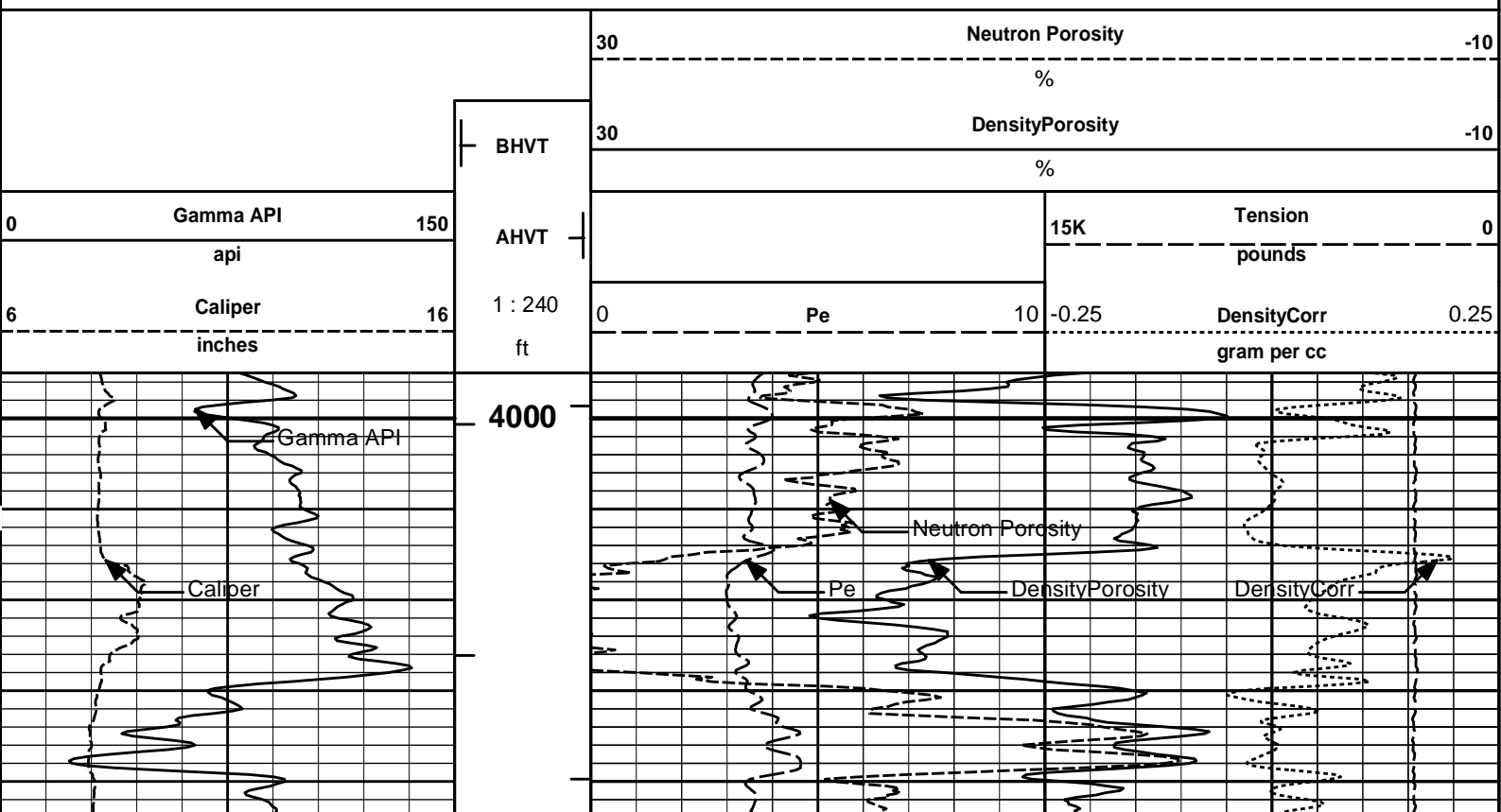
Plot Range: 3995 ft to 5984.08 ft

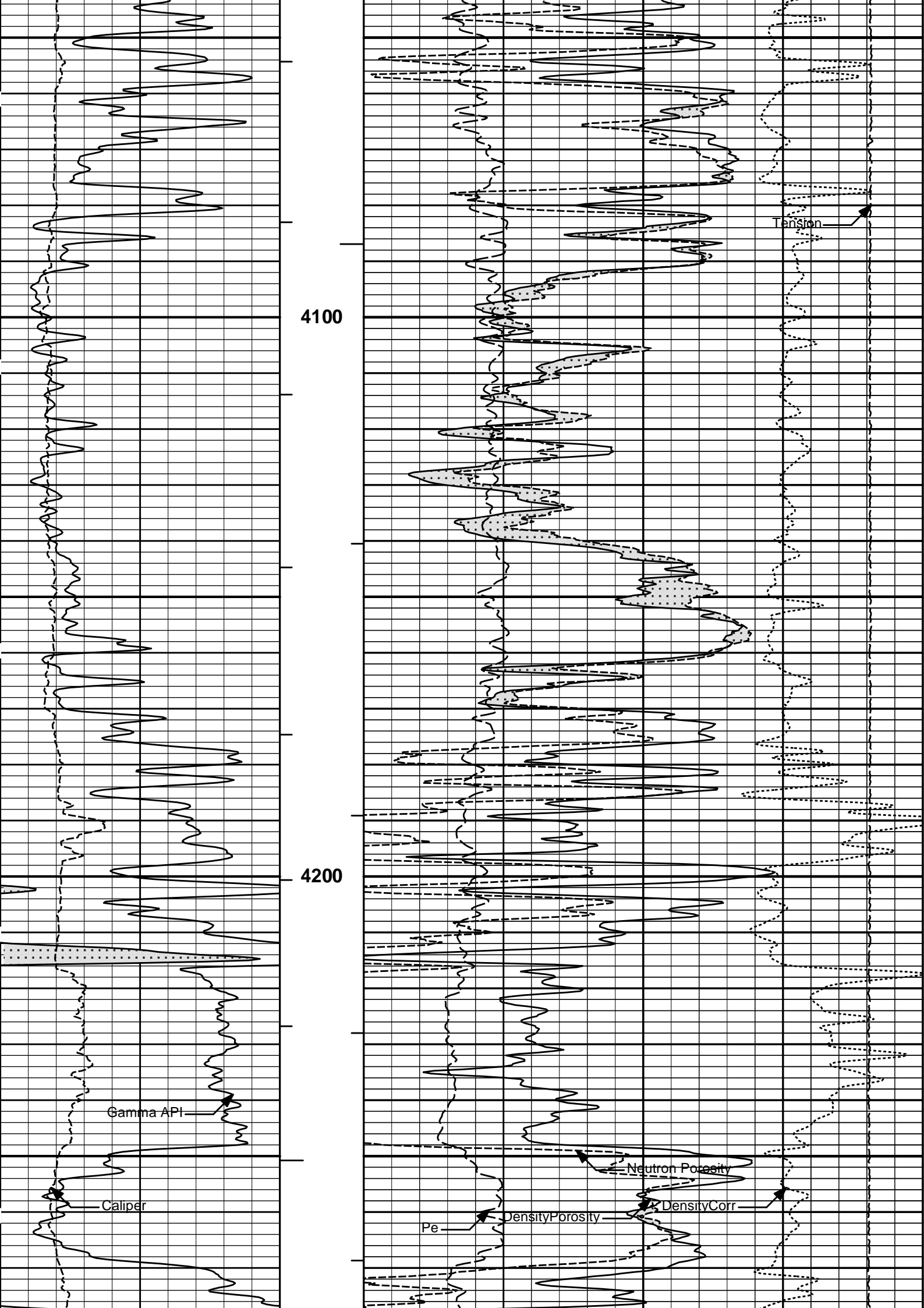
Data: LINDA_JO_1-22\Well Based\DAQ-0001-005\

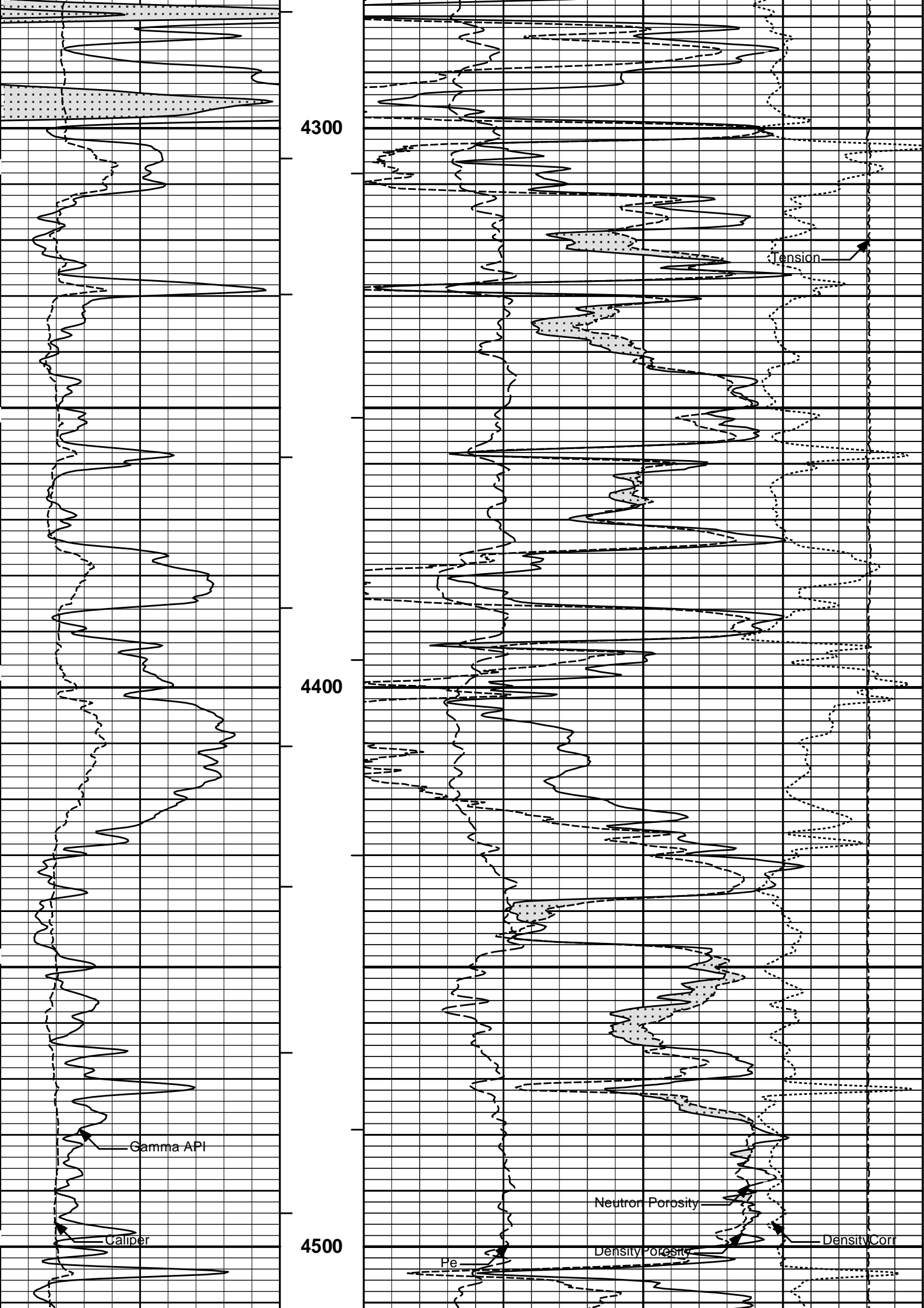
Plot File: \\PORO\Poro_IQ_5_MAIN

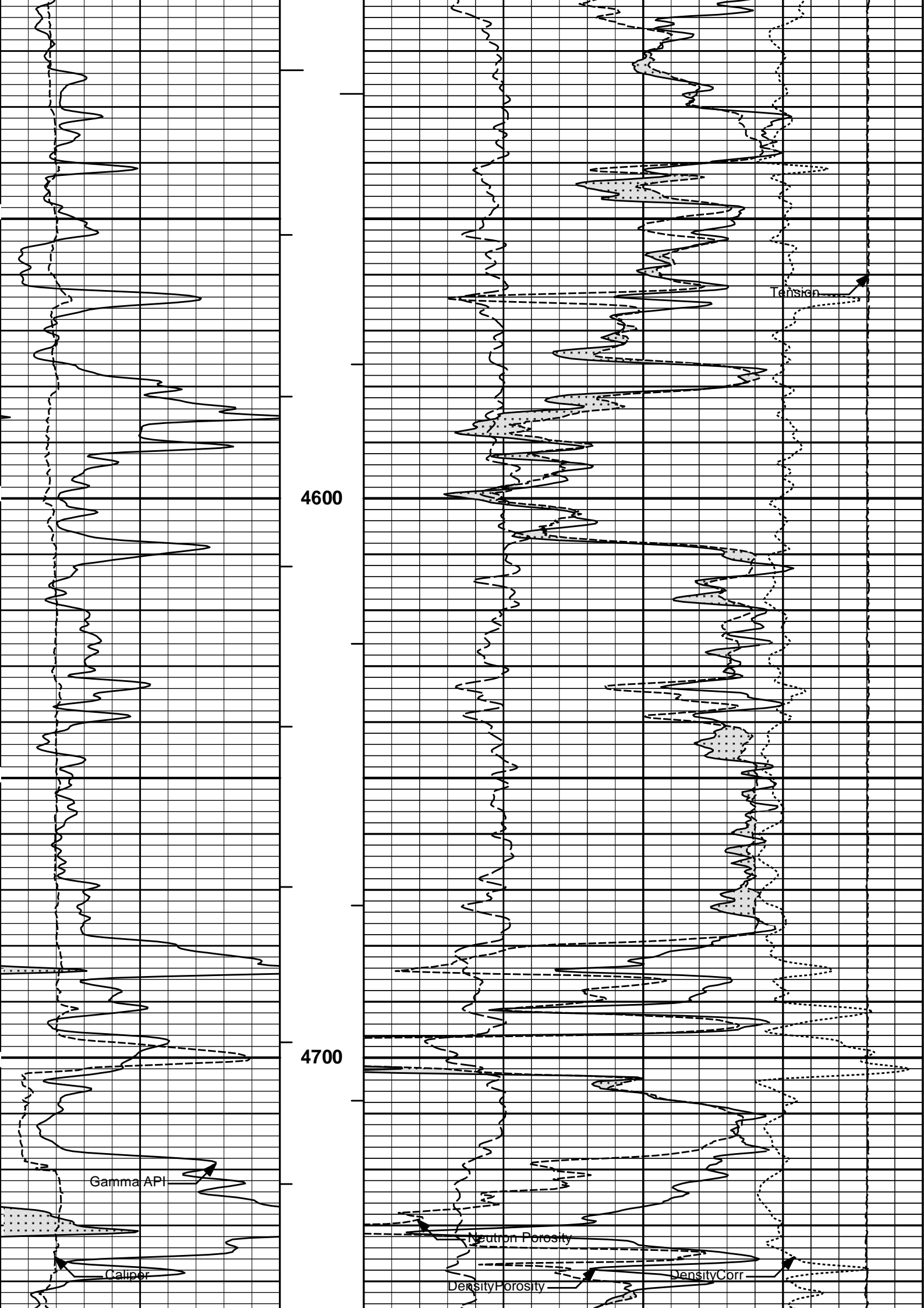
5 INCH MAIN LOG

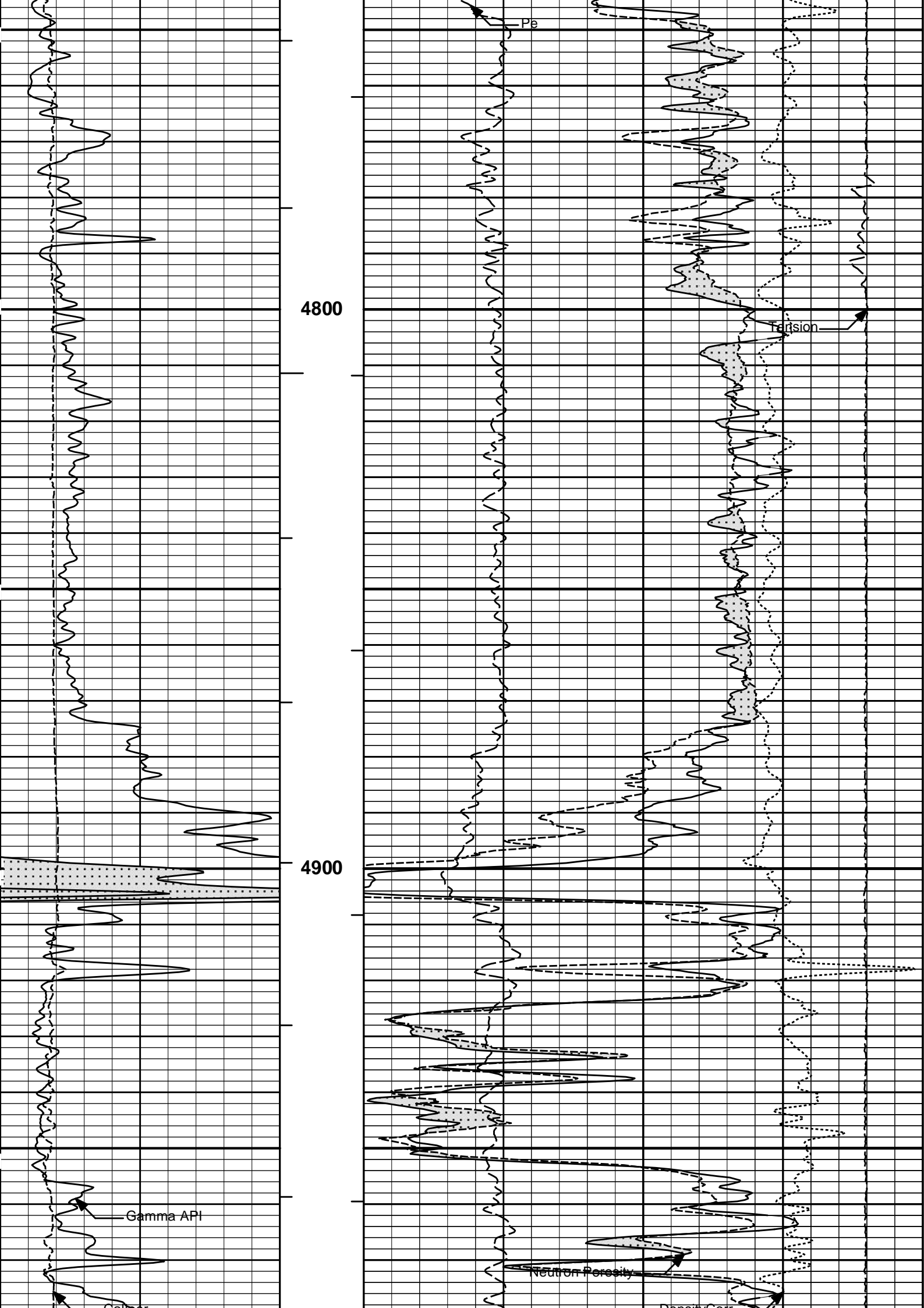
MAIN SECTION 5" PER 100'

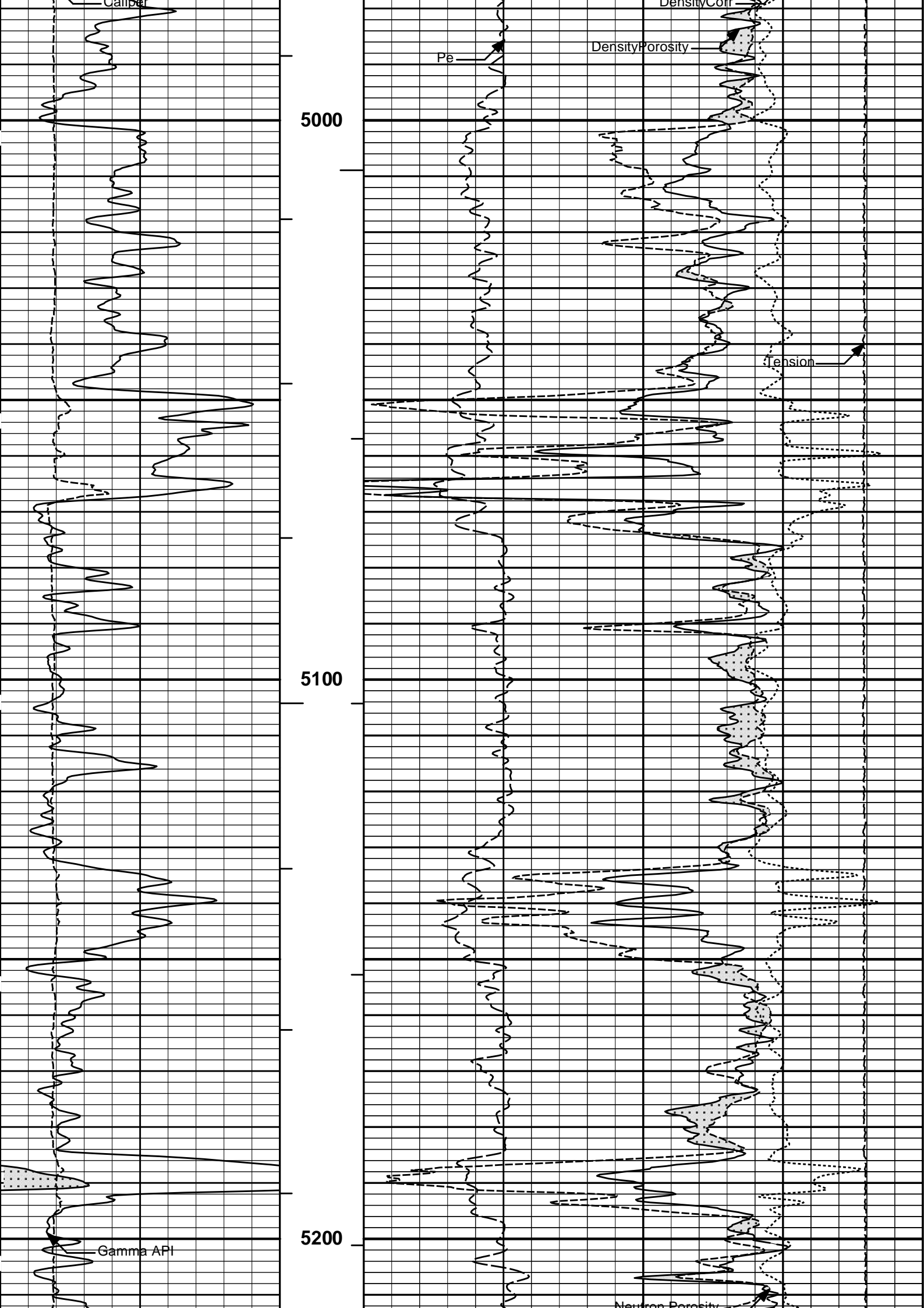


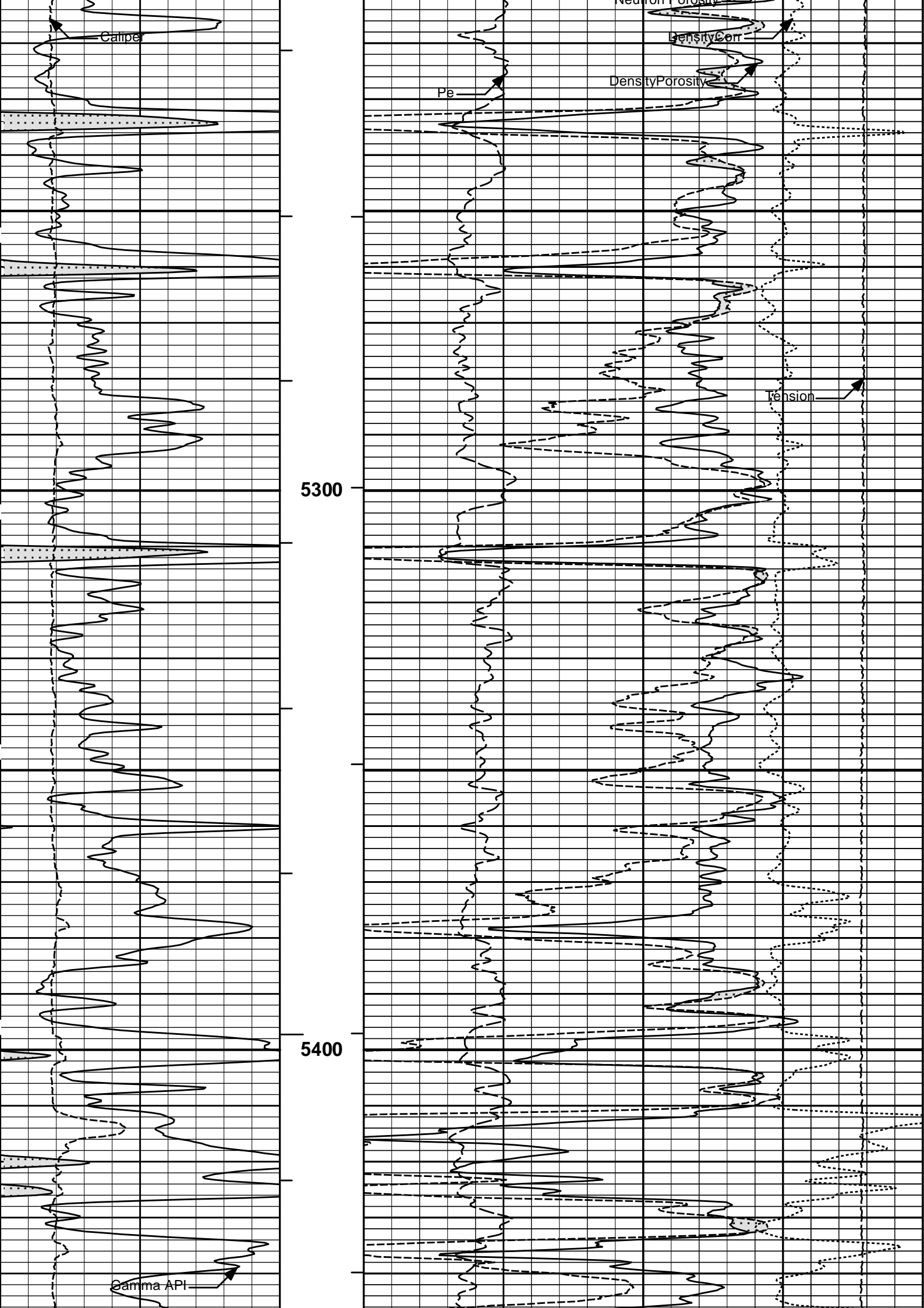


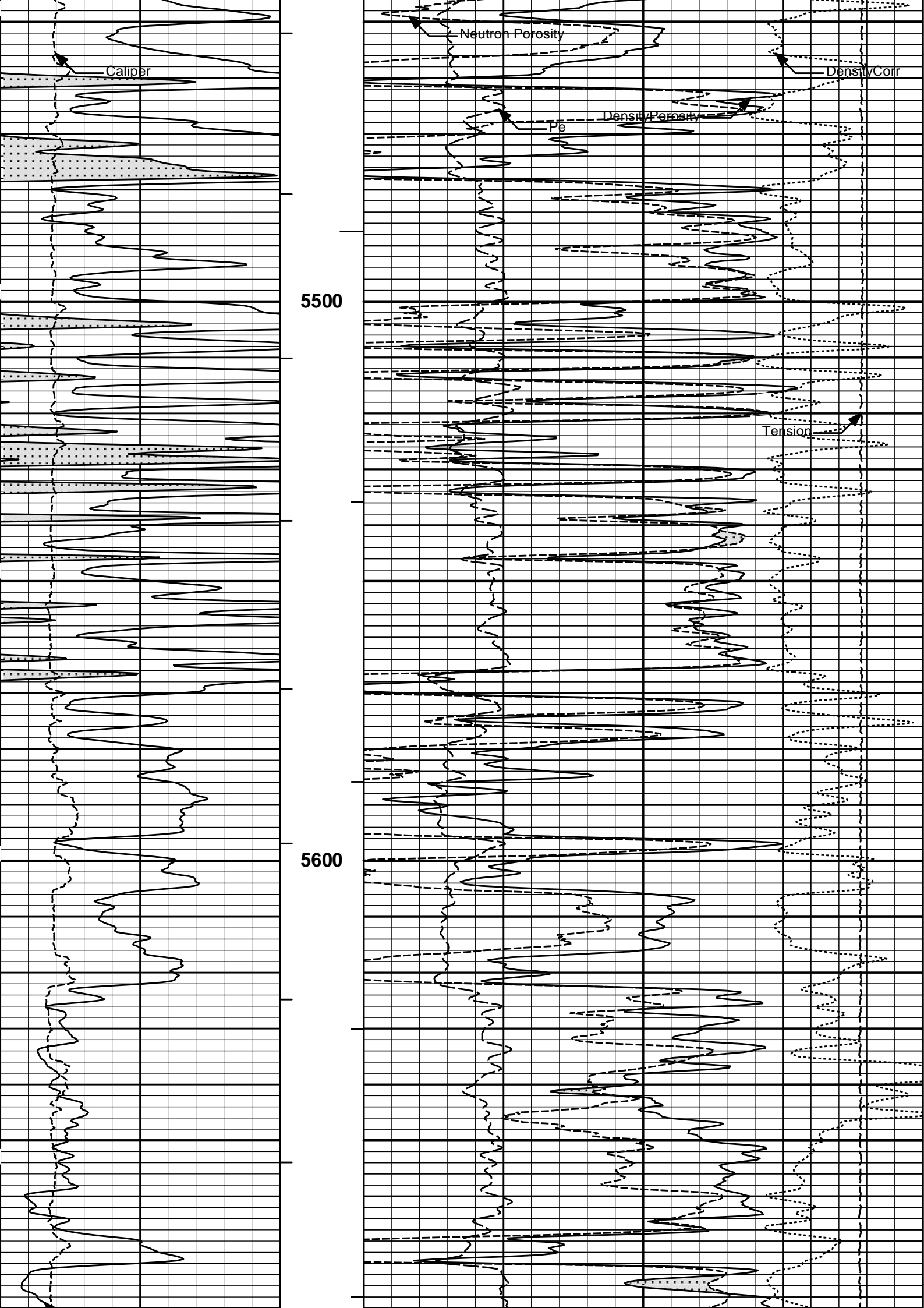


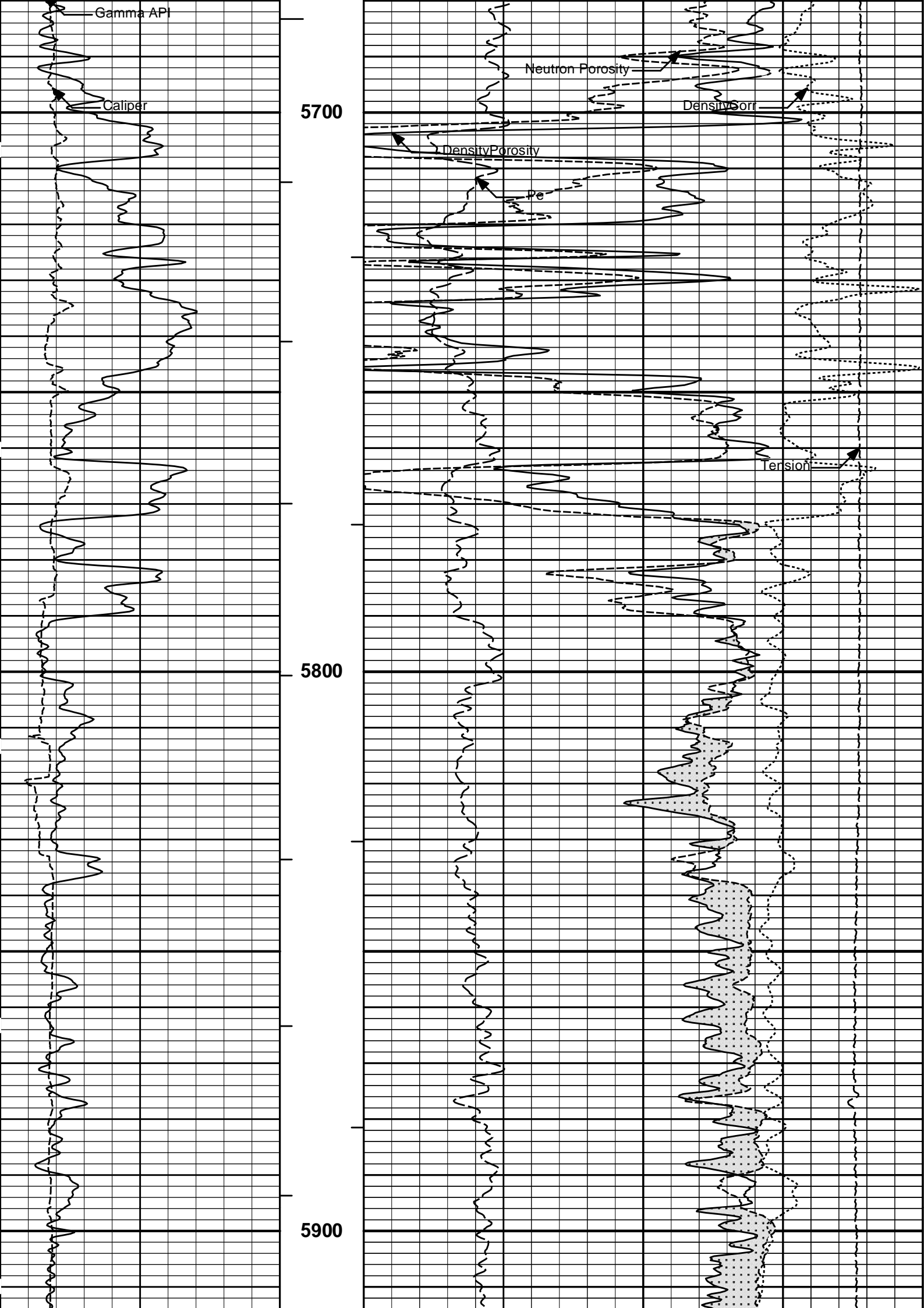


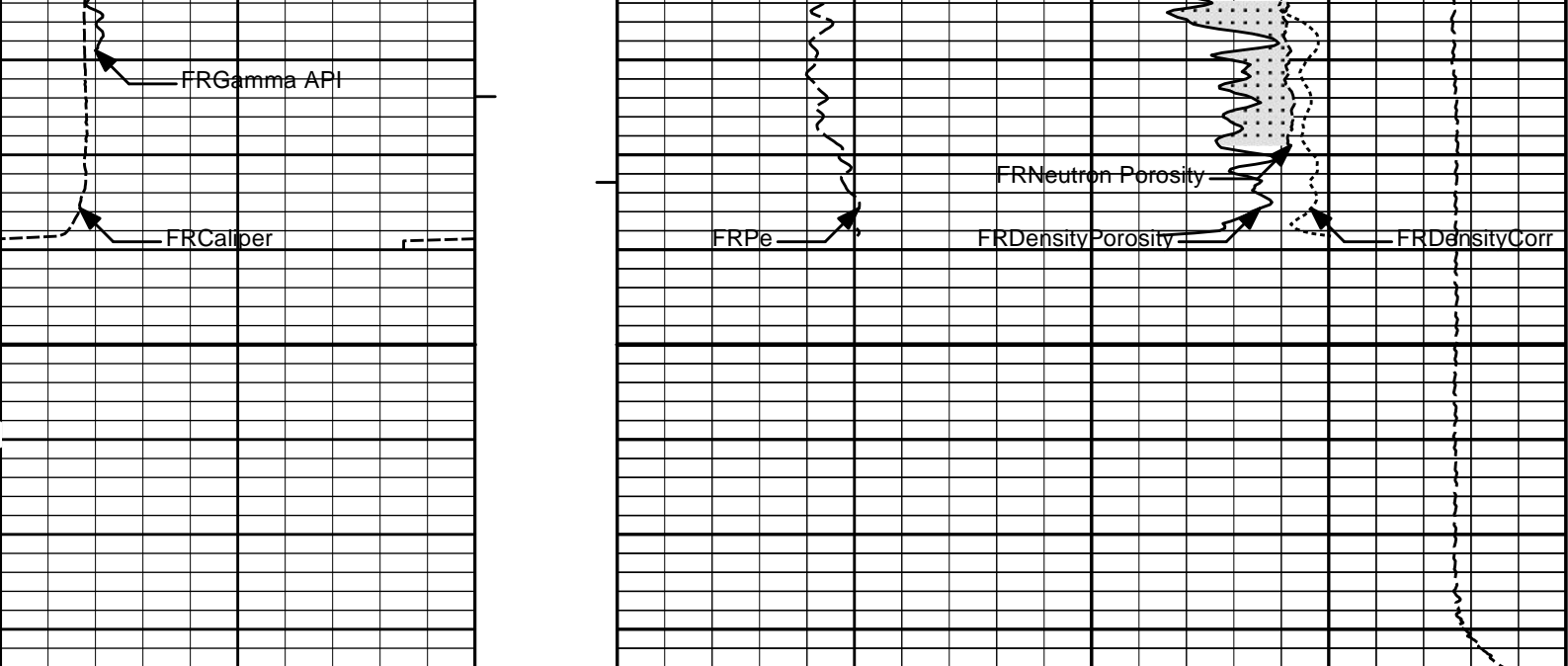












6	Caliper	16	1 : 240 ft	0	Pe	10	-0.25	DensityCorr	0.25
	inches								gram per cc
0	Gamma API	150	AHVT				15K	Tension	0
	api							pounds	
			BHVT	30	DensityPorosity				-10
					%				
				30	Neutron Porosity				-10
					%				

HALLIBURTON Plot Time: 11-Aug-17 00:35:48
 Plot Range: 3995 ft to 5984.08 ft
 Data: LINDA_JO_1-22\Well Based\DAQ-0001-005\
 Plot File: \\PORO\Poro_IQ_5_MAIN

5 INCH MAIN LOG

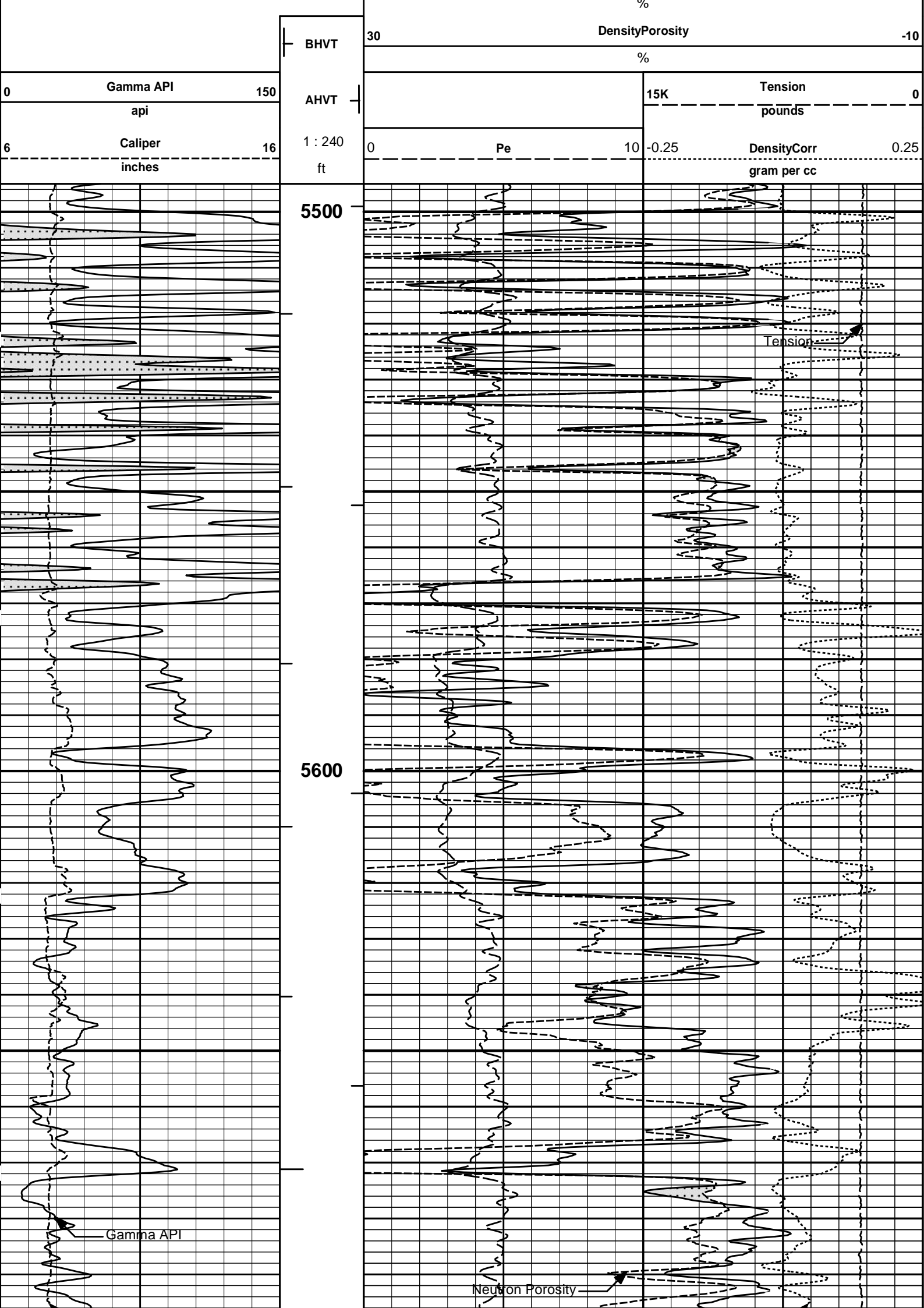
MAIN SECTION 5" PER 100'

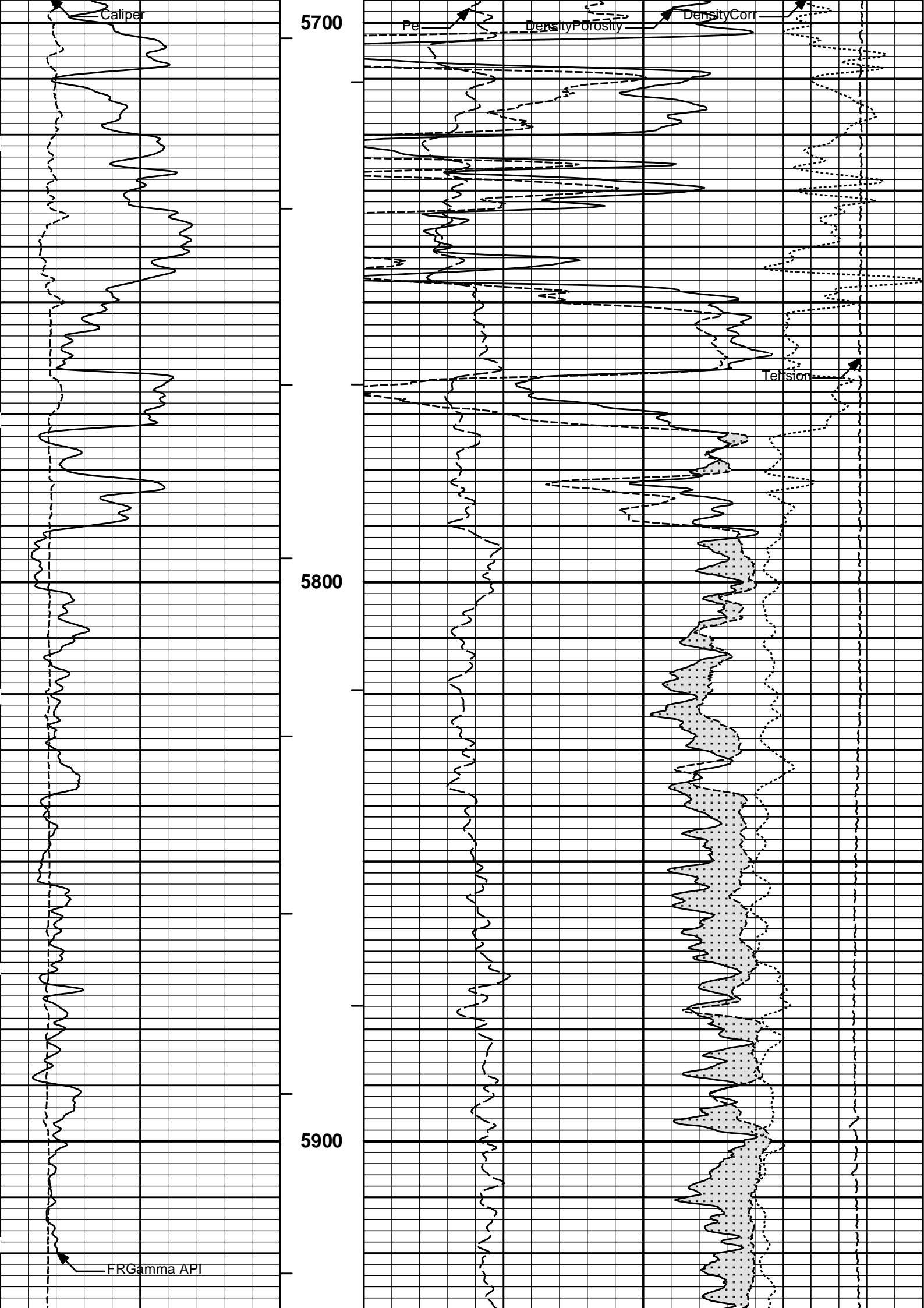
HALLIBURTON Plot Time: 11-Aug-17 00:35:48
 Plot Range: 5495 ft to 5984.67 ft
 Data: LINDA_JO_1-22\Well Based\DAQ-0001-003\
 Plot File: \\PORO\Poro_IQ_5_MAIN

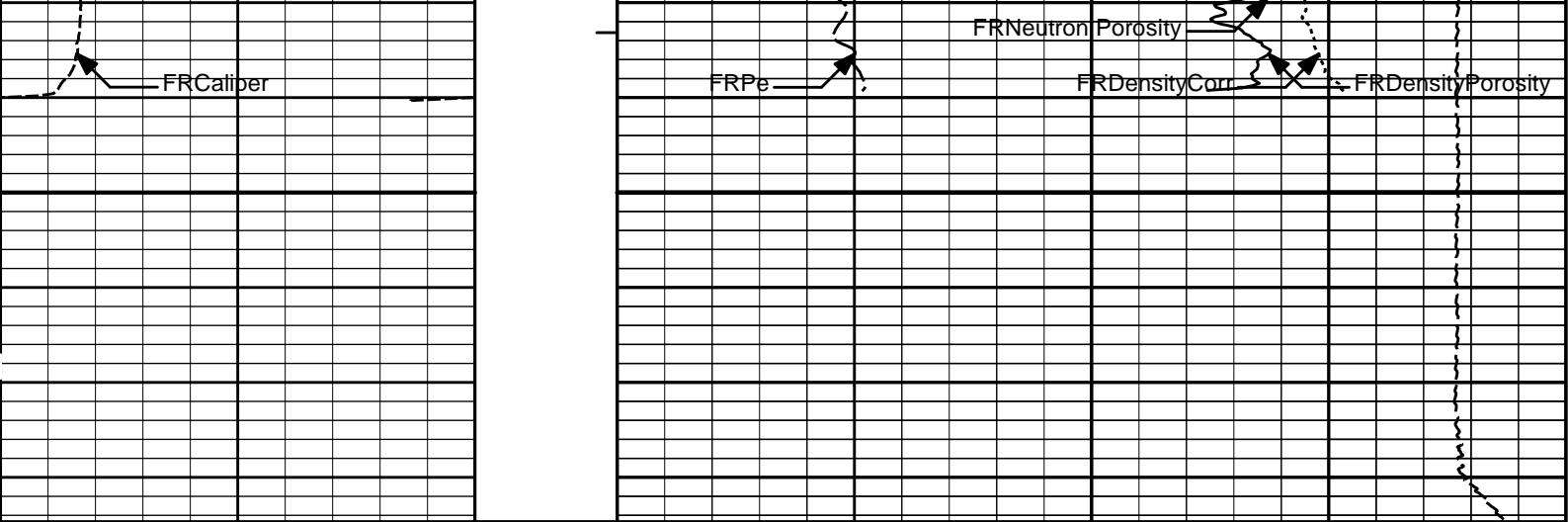
5 INCH REPEAT LOG

REPEAT SECTION 5" PER 100'

				30	Neutron Porosity				-10
					%				







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

HALLIBURTON Plot Time: 11-Aug-17 00:35:50
 Plot Range: 5495 ft to 5984.67 ft
 Data: LINDA_JO_1-22\Well Based\DAQ-0001-003\
 Plot File: \\PORO\Poro_IQ_5_MAIN

5 INCH REPEAT LOG

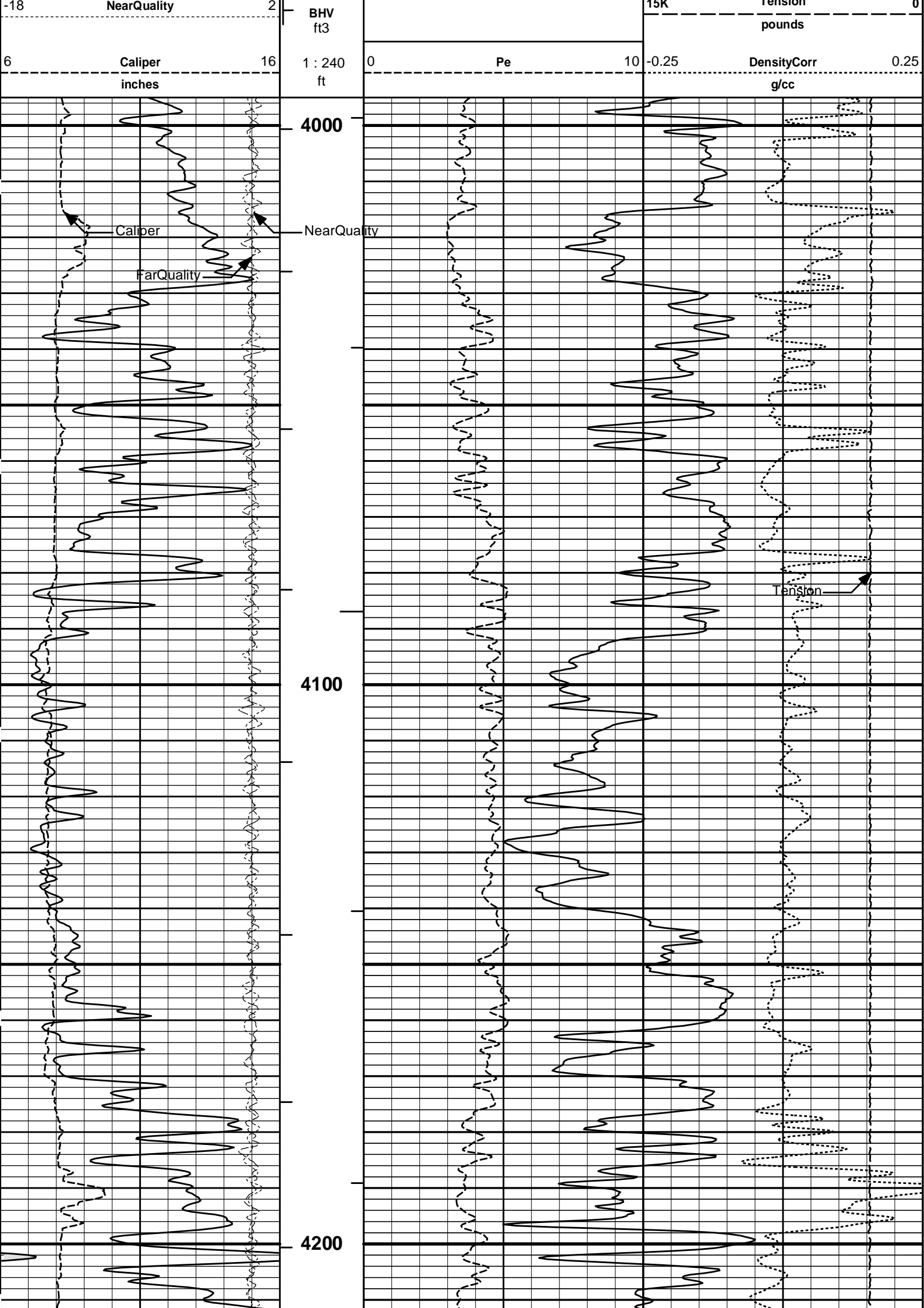
REPEAT SECTION 5" PER 100'

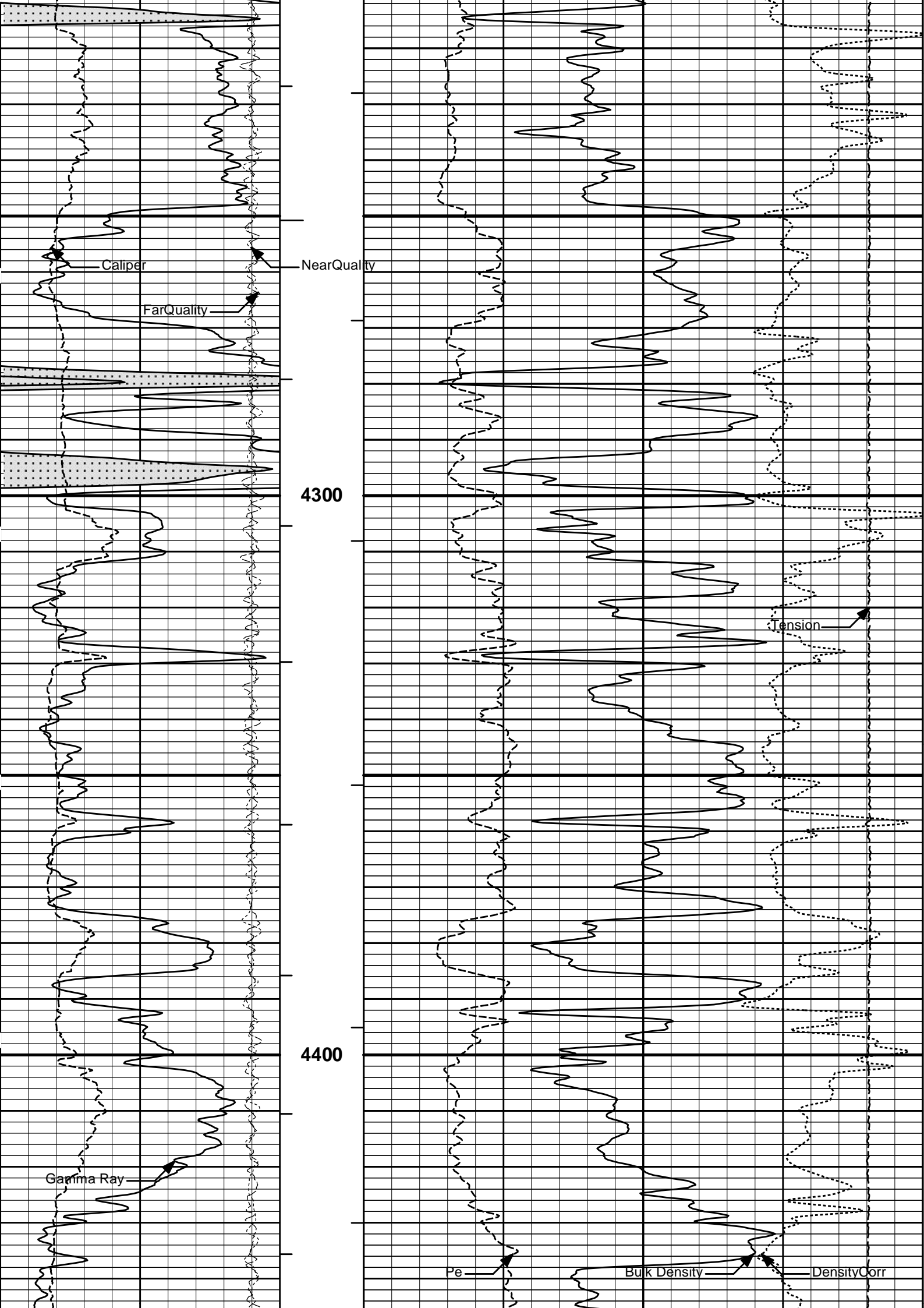
HALLIBURTON Plot Time: 11-Aug-17 00:35:51
 Plot Range: 3995 ft to 5984.08 ft
 Data: LINDA_JO_1-22\Well Based\DAQ-0001-005\
 Plot File: \\LOCAL\LINDA_JO_1-22\0001 GTET-DSNT-SDLT-BSAT-ACRT\PORO\BULKD_5_MAIN_IQ

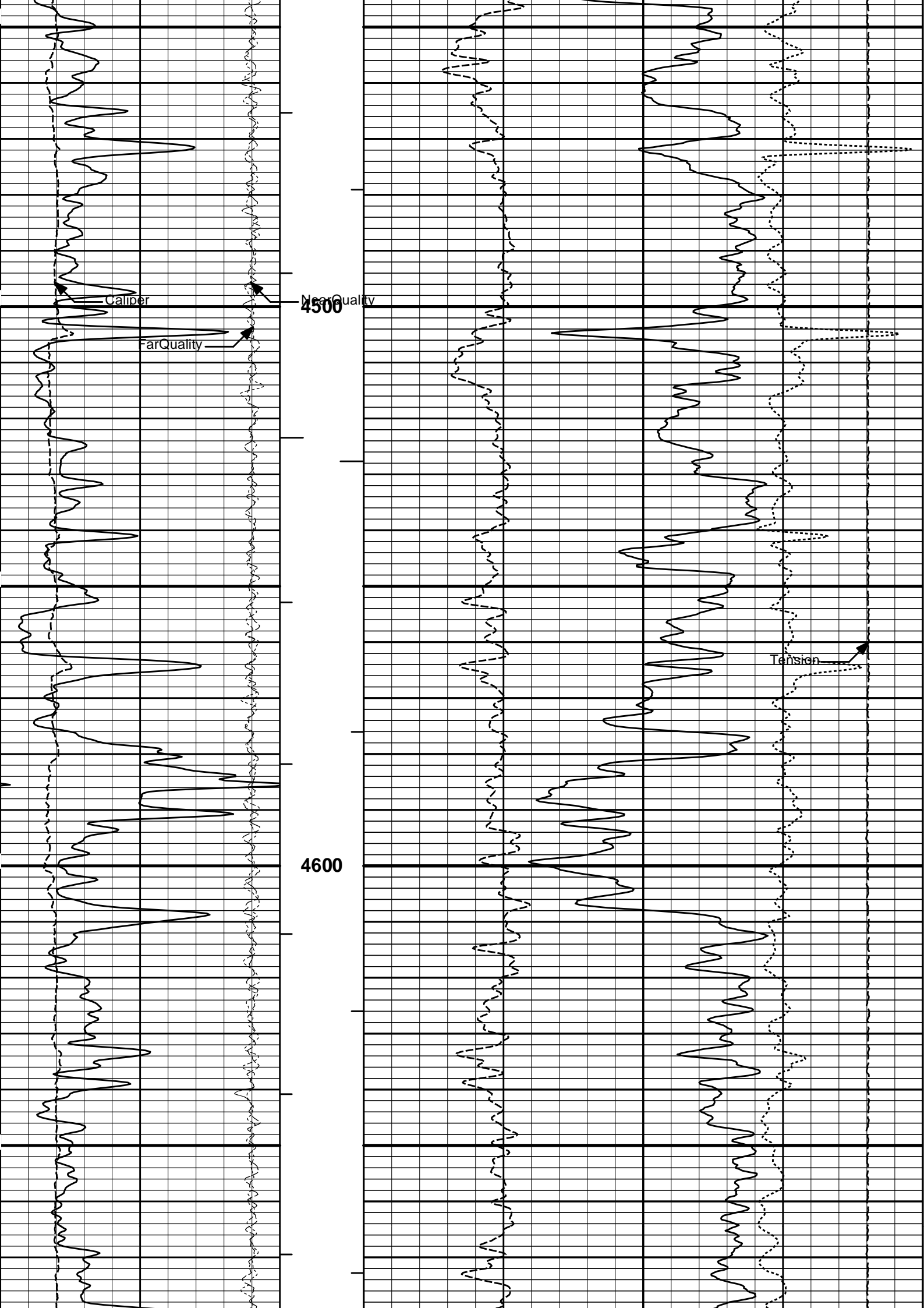
5 INCH MAIN LOG

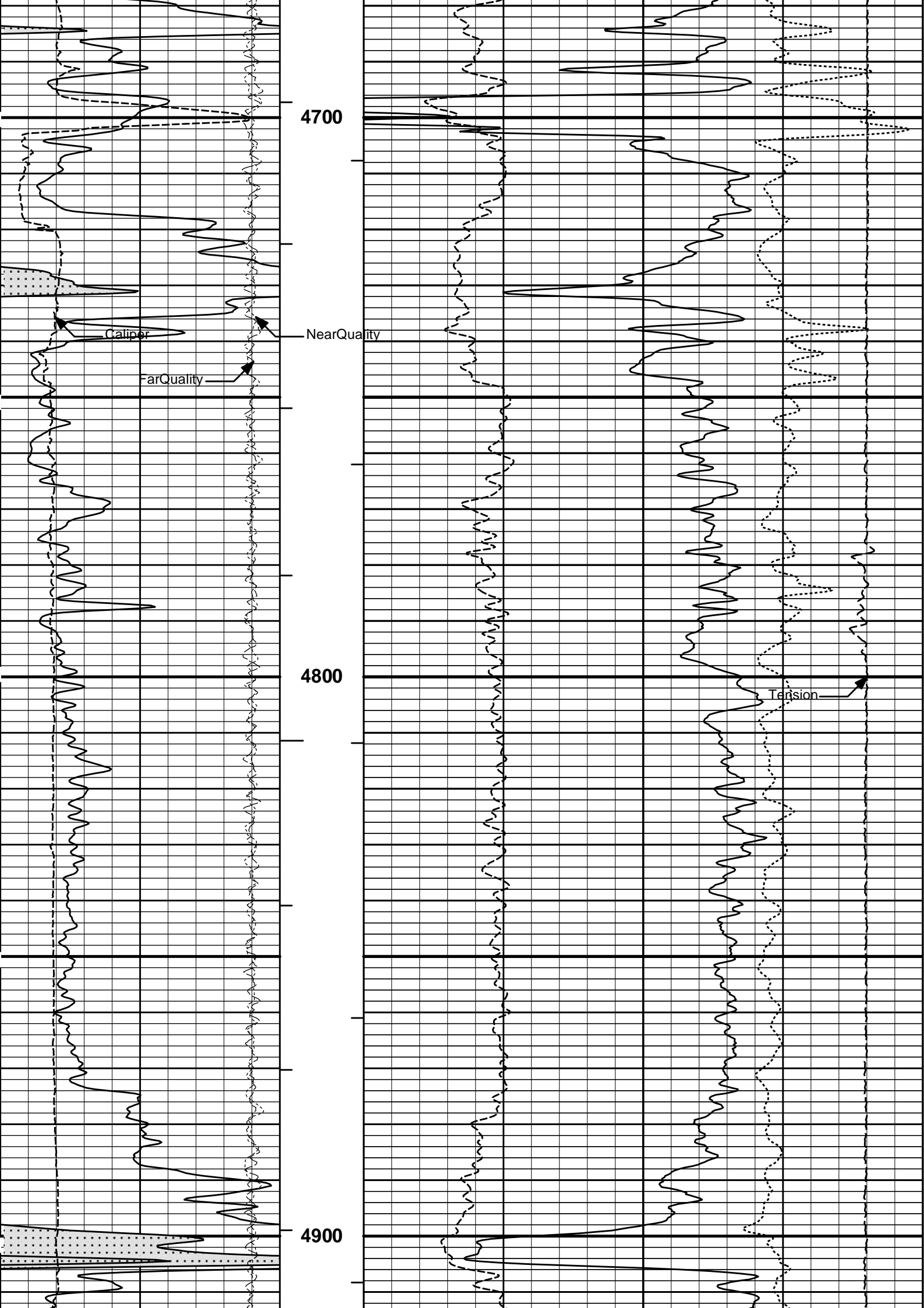
MAIN SECTION 5" PER 100'

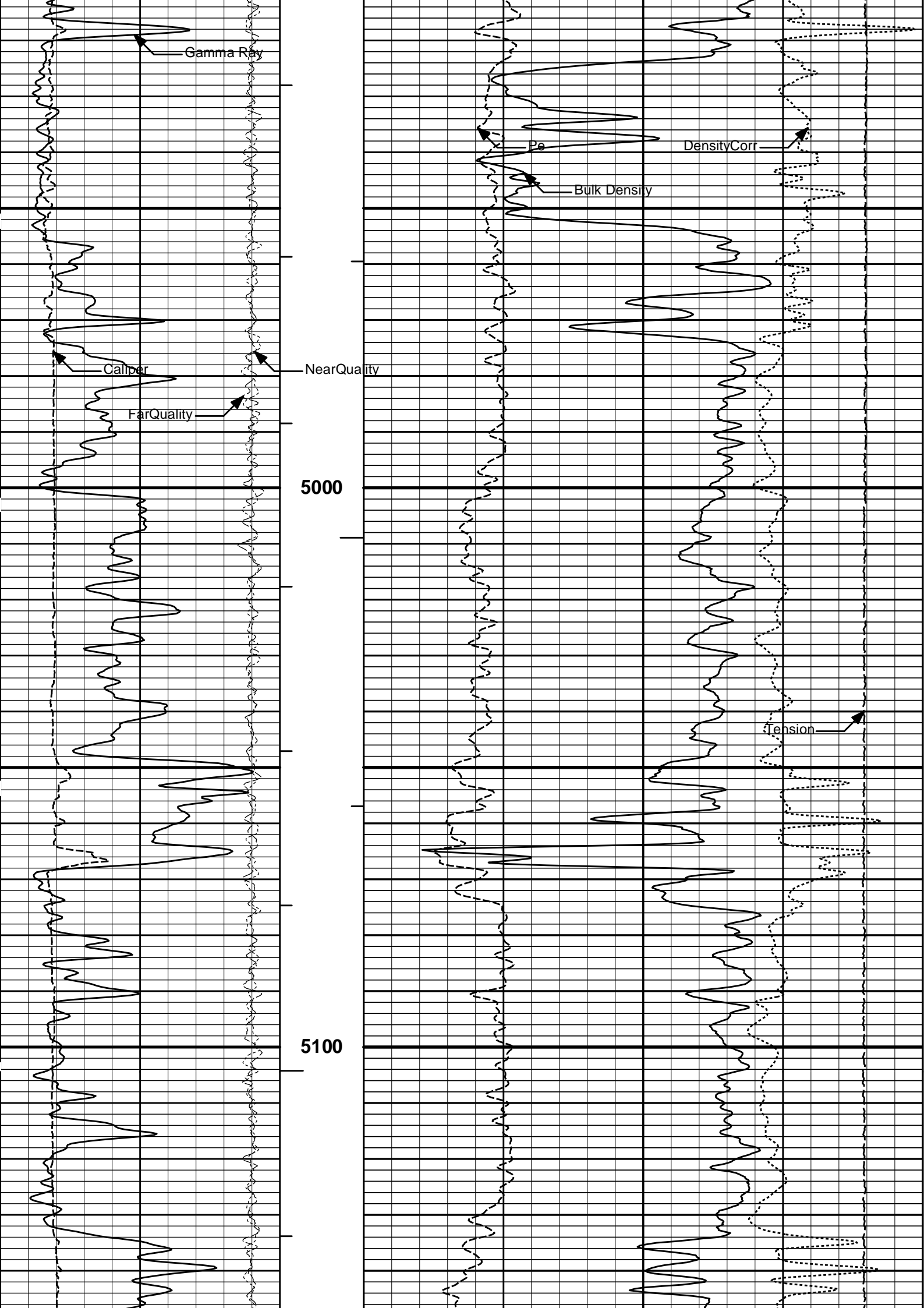
0	Gamma Ray	150	AHV ft3	2	Bulk Density	3
	api					g/cc
18	FarQuality	-2				
					15K	Tension

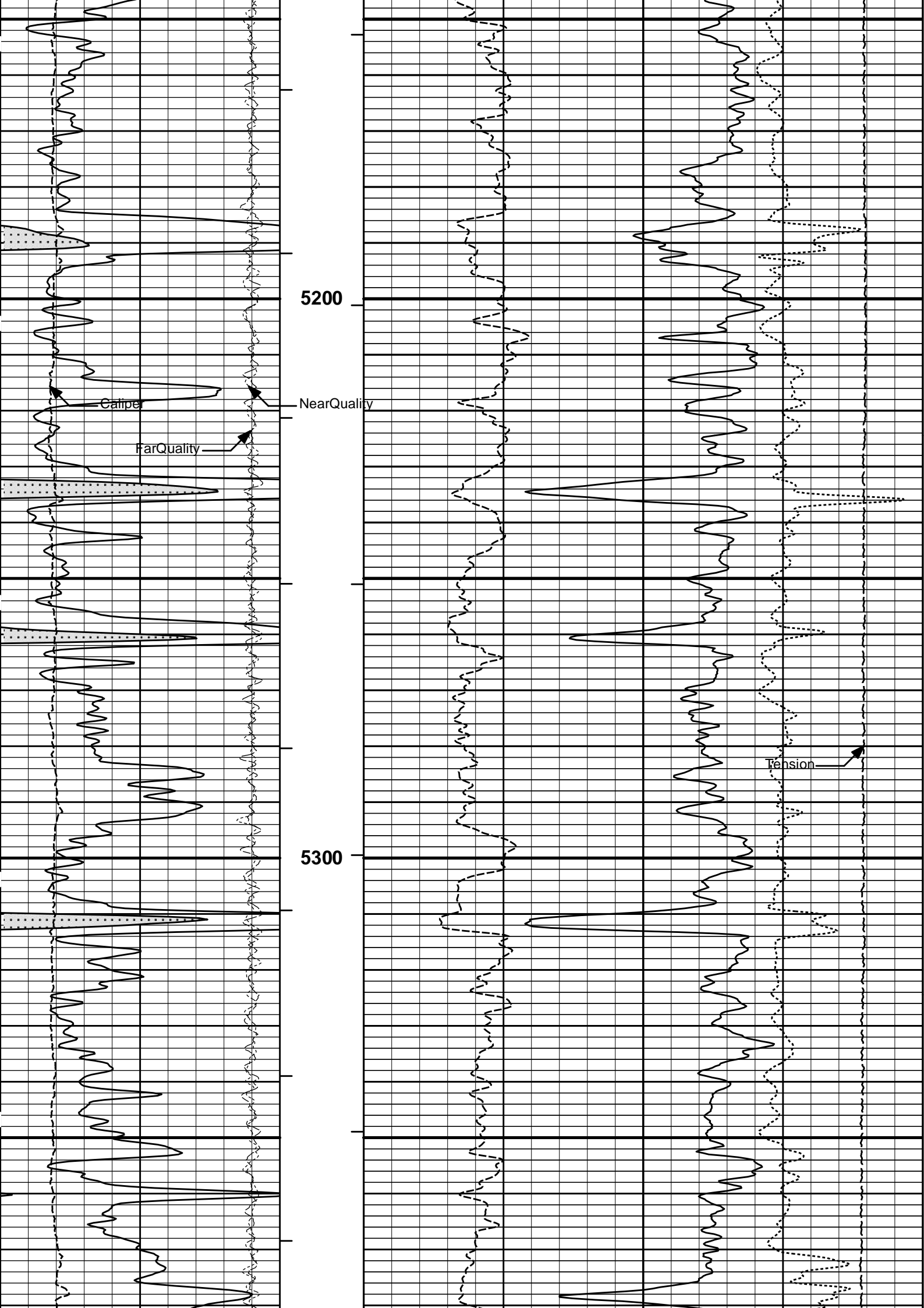


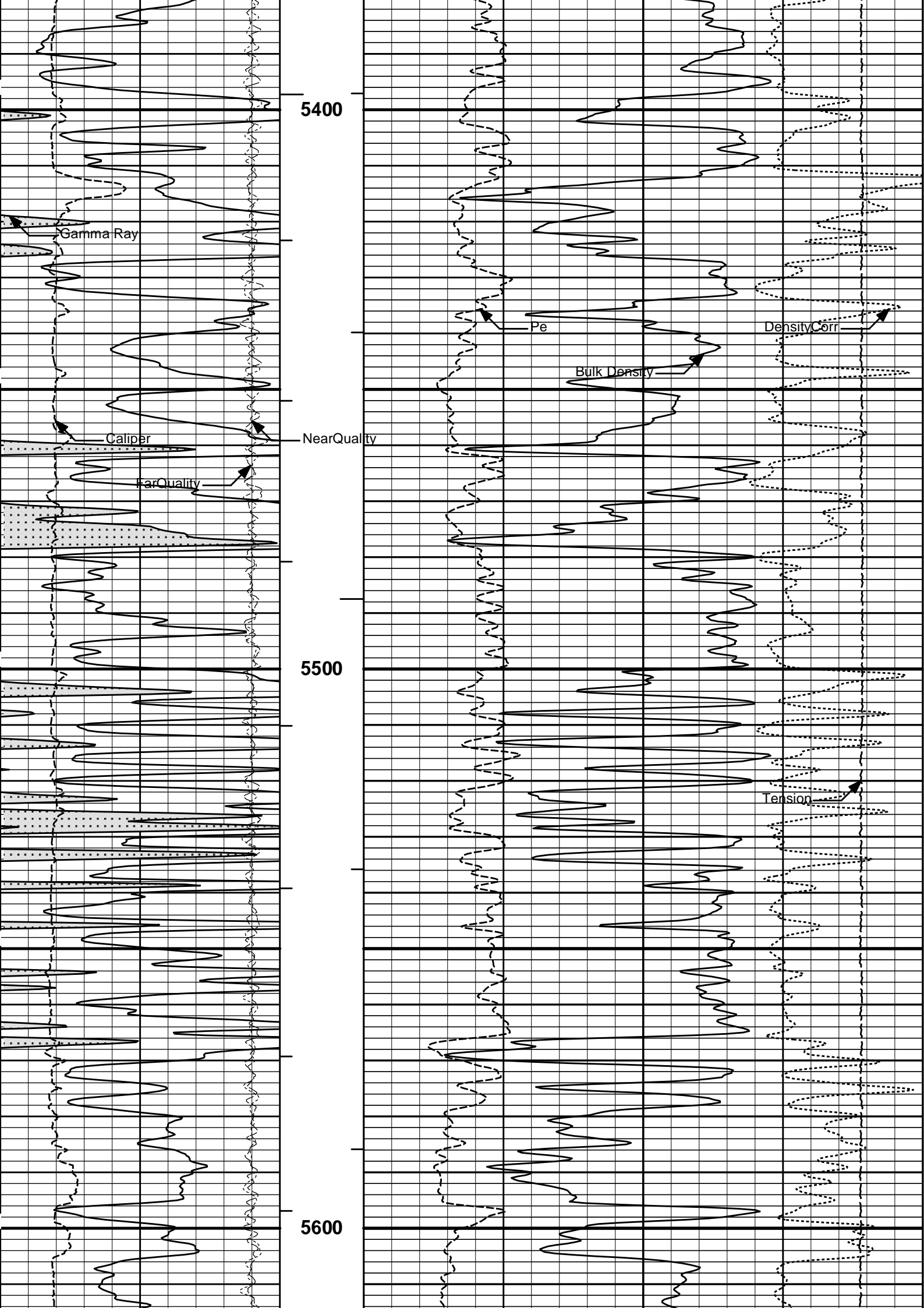


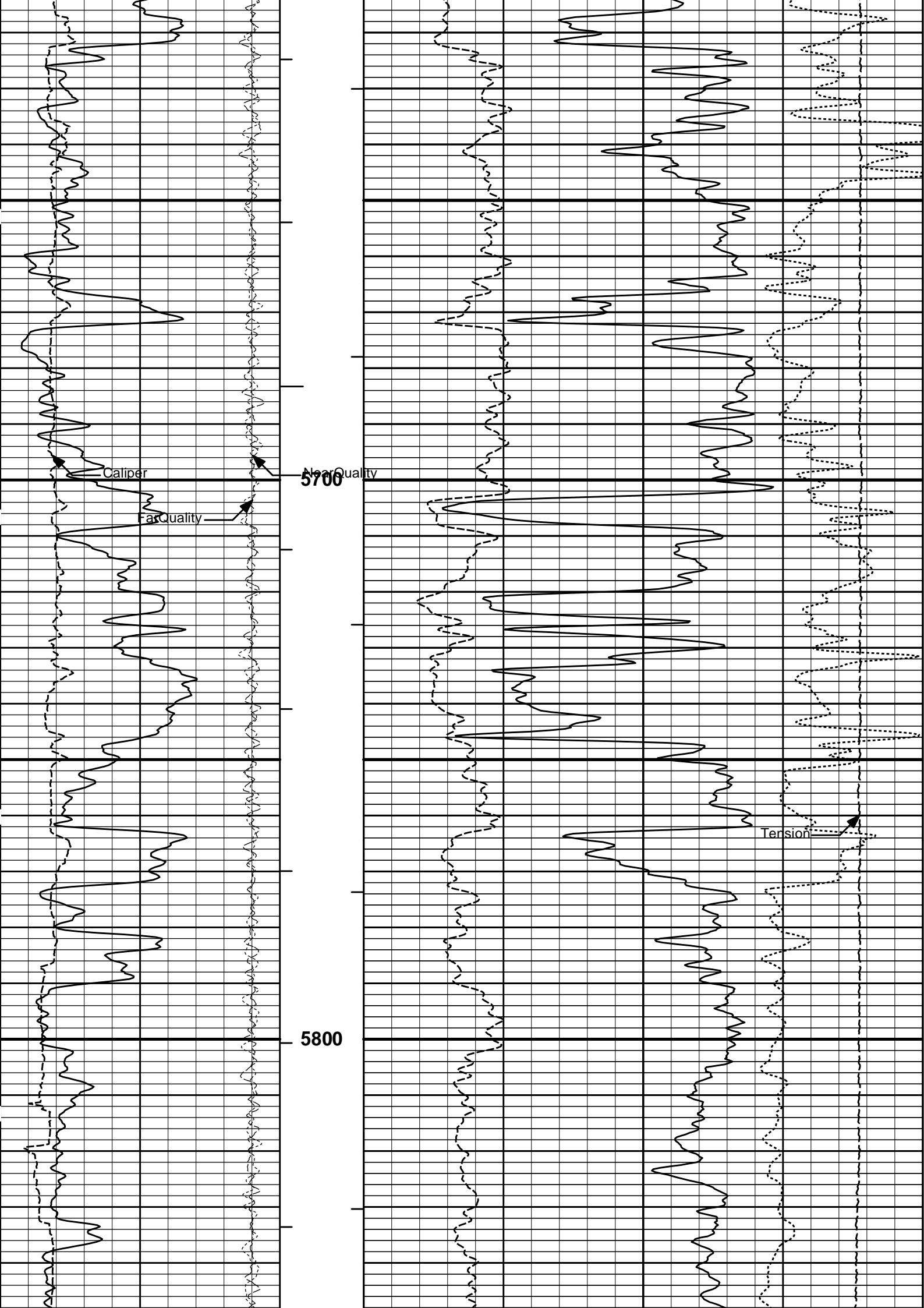


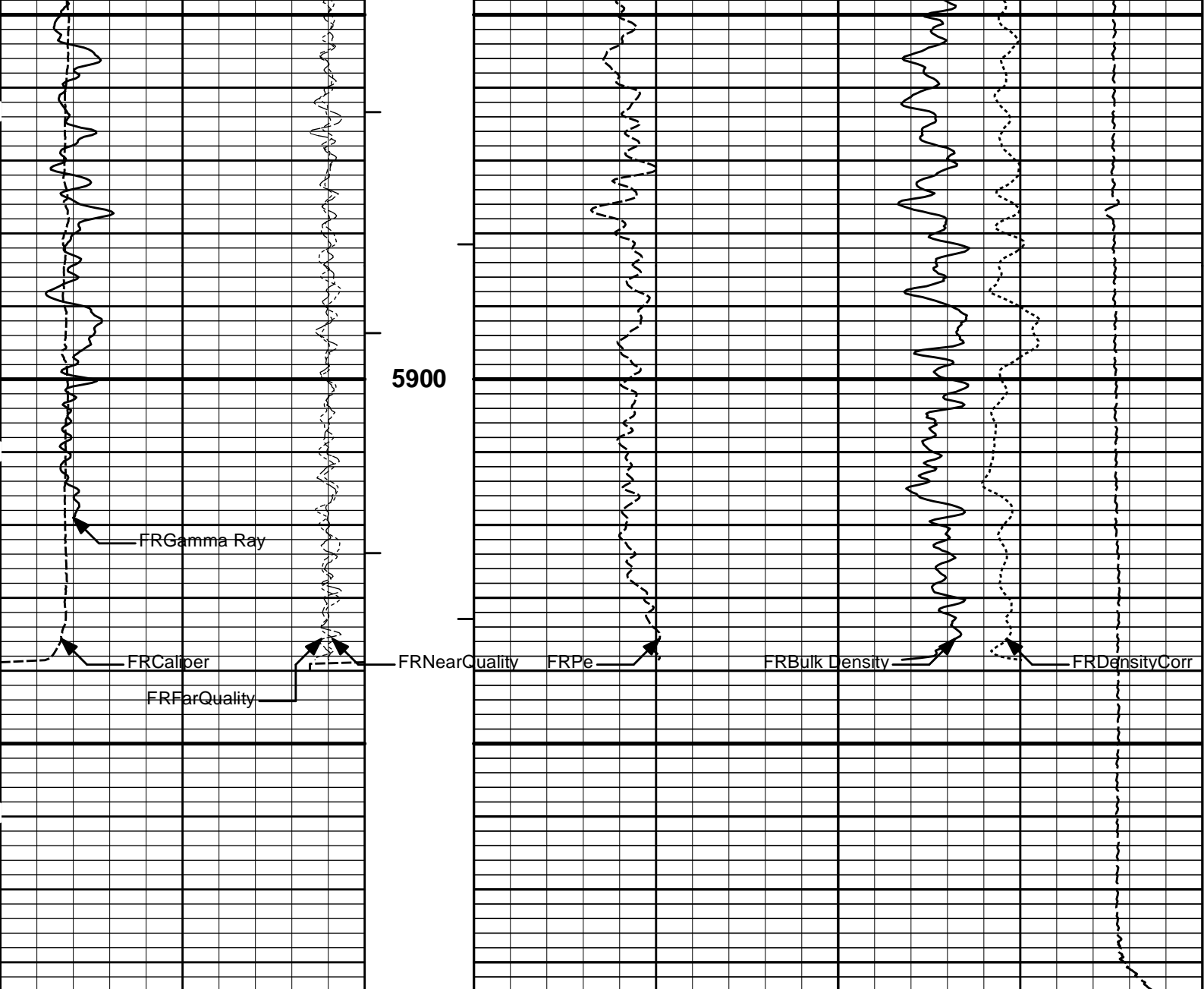












6	Caliper	16	1 : 240	0	Pe	10	-0.25	DensityCorr	0.25
	inches		ft					g/cc	
-18	NearQuality	2	BHV				15K	Tension	0
			ft3					pounds	
18	FarQuality	-2	AHV	2	Bulk Density				3
			ft3		g/cc				
0	Gamma Ray	150							
	api								

HALLIBURTON

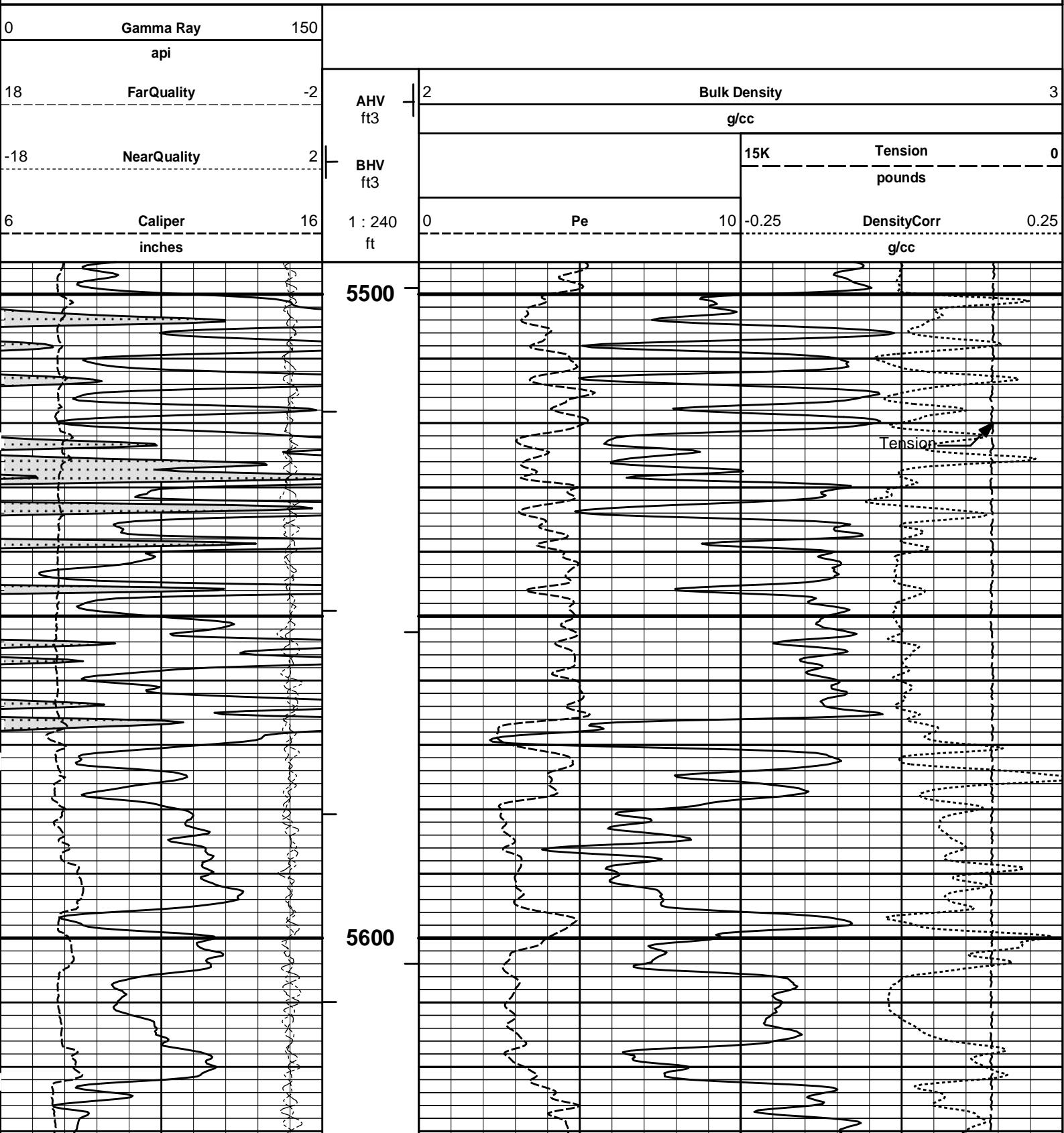
Plot Time: 11-Aug-17 00:35:54
 Plot Range: 3995 ft to 5984.08 ft
 Data: LINDA_JO_1-22\Well Based\DAQ-0001-005\
 Plot File: \\-LOCAL-LINDA_JO_1-22\0001 GTET-DSNT-SDLT-BSAT-ACRT\PORO\BULKD_5_MAIN_IQ

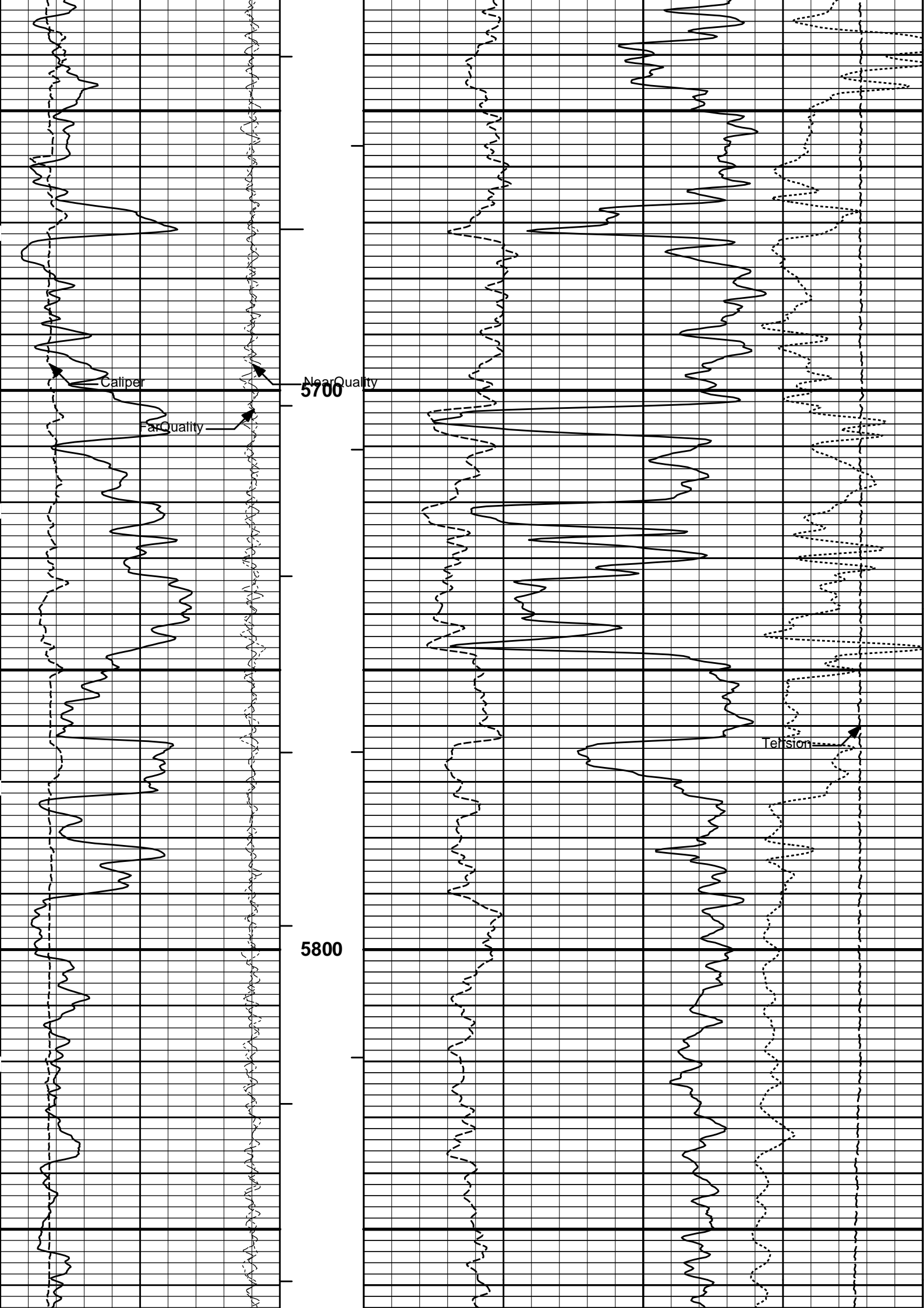
5 INCH MAIN LOG

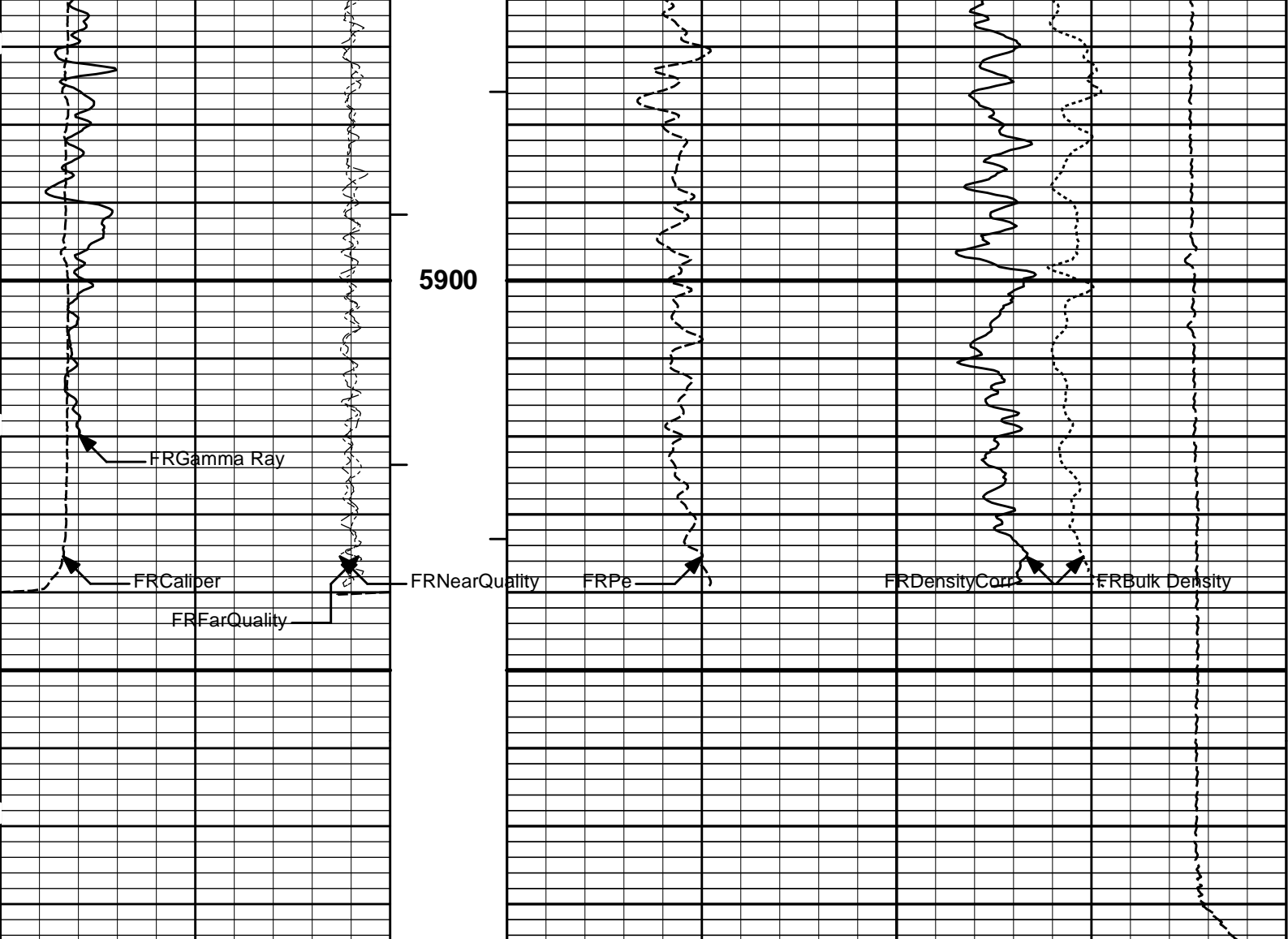
MAIN SECTION 5" PER 100'

5 INCH REPEAT LOG

REPEAT SECTION 5" PER 100'







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								

HALLIBURTON

Plot Time: 11-Aug-17 00:35:56
 Plot Range: 5495 ft to 5984.67 ft
 Data: LINDA_JO_1-22\Well Based\DAQ-0001-003\
 Plot File: \\-LOCAL-LINDA_JO_1-22\0001 GTET-DSNT-SDLT-BSAT-ACRT\PORO\BULKD_5_MAIN_IQ

5 INCH REPEAT LOG

REPEAT SECTION 5" PER 100'

HALLIBURTON

CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION

Tool Name: GTET - 10971172

Reference Calibration Date: 05-Jul-17 12:41:12

Engineer: T. HYDE

Calibration Date: 14-Jul-17 15:53:59

Software Version: WL INSITE R5.0.5 (Build 8)

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	27.0	23.5	api
Background + Calibrator	294.0	255.5	api
Calibrator	267.0	232.0	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION

Tool Name: GTET - 10971172

Reference Calibration Date: 14-Jul-17 15:53:59

Engineer: T. HYDE

Calibration Date: 31-Jul-17 09:22:39

Software Version: WL INSITE R5.0.5 (Build 8)

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	23.5	24.3	api
Background + Calibrator	255.5	258.9	api
Calibrator	232.0	234.6	api

Shop	Field	Difference	Tolerance
232.0	234.6	-2.6	+/- 9.00

DUAL SPACED NEUTRON SHOP CALIBRATION

Tool Name: DSNT - 12023046

Reference Calibration Date: 08-May-17 09:03:21

Engineer: T. HYDE

Calibration Date: 05-Jul-17 14:38:25

Software Version: WL INSITE R5.0.5 (Build 8)

Calibration Version: 1

Logging Source S/N: DSN-438
 Tank Serial Number: 10730320
 Reference value assigned to Tank: 56.100
 Snow Block S/N: 668
 Calibration Tank Water Temperature: 68 degF
 Min. Tool Housing Outside Diameter: 3.625 in

CALIBRATION CONSTANTS

Measurement	Prev. Value	New Value	Control Limit On New Value
Gain:	1.00193	1.00528	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):	0.2347	0.2358	0.0011	+/- 0.0020
Calibrated Ratio:	10.5243	10.5595	0.035	+/- 0.050

VERIFIER

Measurement	Value	Control Limit
Snow-Block Porosity (decp):	0.0800	0.02000 - 0.09000

PASS/FAIL SUMMARY

Background Check: Pass

Background Check:
Gain-Range Check:
Snow-Block Check:

Passed
Passed
Passed

DUAL SPACED NEUTRON FIELD CALIBRATION

Tool Name: DSNT - 12023046

Reference Calibration Date: 05-Jul-17 14:38:25

Engineer: T. HYDE

Calibration Date: 31-Jul-17 09:47:53

Software Version: WL INSITE R5.0.5 (Build 8)

Calibration Version: 1

Logging Source S/N: DSN-438

Snow Block S/N: 668

NEUTRON FIELD-CHECK SUMMARY

	Shop	Field	Difference	Control Limit On Change
Snow-Block Porosity (decp):	0.0800	0.0732	-0.0068	+/- 0.0150

PASS/FAIL SUMMARY

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

DENSITY CALIPER SHOP CALIBRATION

Tool Name: SDLT - 12153526

Reference Calibration Date: 31-Jul-17 09:29:06

Engineer: T. HYDE

Calibration Date: 31-Jul-17 09:34:52

Software Version: WL INSITE R5.0.5 (Build 8)

Calibration Version: 1

Host Tool Name: DSNT - 12023046

CALIBRATION COEFFICIENTS

Measurement	Previous Value	New Value	Control Limit On New Value
Pad Offset	-3562.79	-3301.56	-7000.00 - -1000.00
Pad Gain	0.0004001	0.0003800	0.0002000 - 0.0006000
Arm Offset	-1709.09	-2120.30	-5000.00 - 3000.00
Arm Gain	0.0004654	0.0005034	0.0003000 - 0.0007000
Arm Power	-0.000000440	-0.000003440	-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)	2.00	2.00	0.00	+/- 0.20
Medium Ring (in)	3.84	3.75	-0.09	+/- 0.20
RING DIAMETER:				
Small Ring (in)	6.46	6.50	0.04	+/- 0.20
Medium Ring (in)	8.14	8.25	0.11	+/- 0.20
Large Ring (in)	15.00	15.00	0.00	+/- 0.20

PASS/FAIL SUMMARY

Calibration-Coefficients Range Check:	Passed
Ring-Measurement Check:	Passed

PASS/FAIL SUMMARY

Calibration-Coefficients Range Check:	Passed
---------------------------------------	--------

SDLT CALIPER FIELD CALIBRATION

Tool Name: SDLT - 12153526

Reference Calibration Date: 31-Jul-17 09:34:52

Engineer: T. HYDE

Calibration Date: 31-Jul-17 09:36:40

Software Version: WL INSITE R5.0.5 (Build 8)

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	8.27	0.02	+/- 0.15

PASS/FAIL SUMMARY

Pad Extension Check:	Passed
Diameter Check:	Passed

MICRO LOG SHOP CALIBRATION

Tool Name: Microlog Pad - 12153526	Reference Calibration Date: 31-Jul-17 09:19:19
Engineer: T. HYDE	Calibration Date: 31-Jul-17 09:21:08
Software Version: WL INSITE R5.0.5 (Build 8)	Calibration Version: 1
Host Tool Name: DSNT - 12023046	

CALIBRATION COEFFICIENT SUMMARY

Measurement	Micro Log Normal		Micro Log Lateral		Units
	Measured	Calibrated	Measured	Calibrated	
Tool Zero	-0.17	-0.17	-0.01	-0.00	ohmm
Calibration Point #1	0.00	0.00	-0.00	0.00	ohmm
Calibration Point #2	20.01	20.00	20.00	20.00	ohmm
Internal Reference	19.88	19.87	19.97	19.97	ohmm

Measurement	Micro Log Normal Tool Value	Micro Log Lateral Tool Value	Units
Tool Zero	0.01	0.17	V
Calibration Point #1	44.98	1.31	V
Calibration Point #2	5336.68	6851.06	V
Internal Reference	5301.61	6839.77	V

MICRO LOG FIELD CHECK

Tool Name: Microlog Pad - 12153526	Reference Calibration Date: 31-Jul-17 09:21:08
Engineer: T. HYDE	Calibration Date: 31-Jul-17 09:27:34
Software Version: WL INSITE R5.0.5 (Build 8)	Calibration Version: 1

Measurement	Micro Log Normal		Micro Log Lateral		Units
	Shop	Field	Shop	Field	
Tool Zero	-0.17	-0.17	-0.00	-0.00	ohmm
Internal Reference	19.87	19.87	19.97	19.97	ohmm

Summary

Signal	Shop	Field	Difference	Tolerance
Microlog Normal	19.87	19.87	0.00	+/- 0.80
Microlog Lateral	19.97	19.97	0.00	+/- 0.80

SPECTRAL DENSITY SHOP CALIBRATION

Tool Name: SDLT Pad - 10865873	Reference Calibration Date: 11-May-17 10:56:48
Engineer: T. HYDE	Calibration Date: 05-Jul-17 13:02:30
Software Version: WL INSITE R5.0.5 (Build 8)	Calibration Version: 1

Logging Source S/N: 20791B

Aluminum Block S/N: EL RENO ALUMINUM

Density: 2.581g/cc

Pe: 3.170

Magnesium Block S/N: EL RENO MAGNESIUM

Density: 1.687g/cc

Pe: 2.594

DENSITY CALIBRATION SUMMARY

Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	1.0133	1.0988	0.90 - 1.10
Near Bar Gain	1.0133	1.0988	0.90 - 1.10

Near Dens Gain	1.0164	1.0679	0.90 - 1.10
Near Peak Gain	1.0400	1.0978	0.90 - 1.10
Near Lith Gain	1.0400	1.0968	0.90 - 1.10
Far Bar Gain	1.0101	1.0199	0.90 - 1.10
Far Dens Gain	1.0001	1.0096	0.90 - 1.10
Far Peak Gain	0.9986	1.0093	0.90 - 1.10
Far Lith Gain	0.9724	0.9817	0.90 - 1.10

Near Bar Offset	0.1327	-0.6543	NONE
Near Dens Offset	0.0969	-0.3629	NONE
Near Peak Offset	-0.1129	-0.5939	NONE
Near Lith Offset	-0.1381	-0.6143	NONE
Far Bar Offset	0.1541	0.0639	NONE
Far Dens Offset	0.2032	0.1140	NONE
Far Peak Offset	0.1741	0.0775	NONE
Far Lith Offset	0.3213	0.2365	NONE

Near Bar Background	840.40	841.26	700 - 1450
Near Dens Background	276.97	274.42	230 - 480
Near Peak Background	121.49	121.24	100 - 210
Near Lith Background	146.82	146.46	125 - 260
Far Bar Background	472.80	472.41	450 - 900
Far Dens Background	186.19	186.04	175 - 345
Far Peak Background	72.59	73.12	70 - 140
Far Lith Background	75.44	77.06	75 - 145

CALIBRATION BLOCK SUMMARY

Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.685	1.687	0.002	+/- 0.015
Pe	2.572	2.561	-0.011	+/- 0.150
ALUMINUM				
Density (g/cc)	2.577	2.580	0.003	+/- 0.01500
Pe	3.165	3.134	-0.031	+/- 0.150

TOOL SUMMARY

Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	-0.0012	+/- 0.0110	0.0006	+/- 0.0140
Magnesium Block	-0.0007	+/- 0.0110	-0.0012	+/- 0.0140
Aluminum Block	-0.0007	+/- 0.0110	-0.0006	+/- 0.0140
Resolution	9.91	6.00 - 11.50	8.90	6.00 - 11.50
Internal Verifier(B+D+P+L)	1383	1200 - 2700	809	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 - 10865873

Reference Calibration Date: 05-Jul-17 13:02:30

Engineer: T. HYDE

Calibration Date: 31-Jul-17 09:19:26

Software Version: WL INSITE R5.0.5 (Build 8)

Calibration Version: 1

Pad Temperature: 80.8 degF

DENSITY FIELD CALIBRATION SUMMARY

Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1383.381	1376.524	-6.857	15.027
Far (B+D+P+L) cps	808.624	805.509	-3.115	15.724
Near Resolution	9.91	9.98	0.070	0.50
Far Resolution	8.90	9.14	0.240	1.00

PASS/FAIL SUMMARY

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

ARRAY COMPENSATED TRUE RESISTIVITY SHOP CALIBRATION

Tool Name: ACRt Sonde - 12109515

Reference Calibration Date: 10-Mar-17 16:30:34

Engineer: JORGE ORLANDO PEREZ

Calibration Date: 26-Jun-17 09:54:04

Software Version: WL INSITE R5.0.5 (Build 8)

Calibration Version: 1

Host Tool Name: ACRt Instrument - 12109517

TYPICAL GAIN RANGE

Subarray	R12KHz			R36KHz			R72KHz		
	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper
A1 (80")	0.95	1.0343	1.05	0.95	1.0158	1.05	0.95	1.0090	1.05
A2 (50")	0.95	1.0478	1.05	0.95	1.0305	1.05	0.95	1.0275	1.05
A3 (29")	0.95	1.0359	1.05	0.95	1.0177	1.05	0.95	1.0125	1.05
A4 (17")	0.95	1.0289	1.05	0.95	1.0091	1.05	0.95	1.0060	1.05
A5 (10")	N/A	N/A	N/A	0.95	1.0141	1.05	0.95	1.0089	1.05
A6 (6")	N/A	N/A	N/A	0.95	0.9916	1.05	0.95	0.9874	1.05

SONDE OFFSET

Subarray	R12KHz (mmho/m)	R36KHz (mmho/m)	R72KHz (mmho/m)
A1 (80")	0.785	-4.447	-5.755
A2 (50")	-0.427	-3.982	-5.059
A3 (29")	-14.213	-4.684	-3.616
A4 (17")	-109.833	-33.558	-25.528
A5 (10")	N/A	-77.847	-35.599
A6 (6")	N/A	284.626	148.473

TRANSMITTER CURRENT GAIN

Signal	Lower	R	Upper
12K	0.6	0.91	1.3
36K	1.0	1.90	2.0
72K	1.0	1.15	2.0

R-MUD VERIFICATION

Signal	Lower (ohm-m)	Measured (ohm-m)	Upper (ohm-m)
Mud Cell	0.95	1.00	1.05

PASS/FAIL SUMMARY

GAIN RANGE CHK	PASS
SONDE OFFSET CHK	PASS

TOOL OK TO LOG

CALIBRATION SUMMARY

CALIBRATION SUMMARY

Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-10971172						
Gamma Ray Calibrator	232.0	234.6	-----	-2.6	+/- 9.00	api
DSNT-12023046						
Snow-Block Porosity	0.0800	0.0732	-----	0.0068	+/- 0.0150	decP
SDLT-12153526						
Pad Extension	3.75	3.74	-----	0.01	+/-0.10	in
Ring Diameter	8.25	8.27	-----	-0.02	+/-0.15	in
Microlog Pad-12153526						
MicroLog Normal	19.87	19.87	-----	0.00	+/-0.80	ohmm
MicroLog Lateral	19.97	19.97	-----	0.00	+/-0.80	ohmm
SDLT Pad-10865873						
Near(B+D+P+L)	1383.381	1376.524	-----	6.857	+/-15.027	cps
Far(B+D+P+L)	808.624	805.509	-----	3.115	+/-15.724	cps
ACRt Sonde-12109515						
Mud Cell	1.00	-----	-----	0	-----	ohm-m

Data: LINDA_JO_1-22\0001 GTET-DSNT-SDLT-BSAT-ACRT\MIDLE Date: 10-Aug-17 18:57:16

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	8.900	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	0.920	ohmm
	SHARED	TRM	Temperature of Mud	75.0	degF
	SHARED	CSD	Logging Interval is Cased?	No	
	SHARED	ICOD	AHV Casing OD	5.000	in
	SHARED	CSTR	Compressive Strength	1000.00	psia
	SHARED	ST	Surface Temperature	75.0	degF
	SHARED	TD	Total Well Depth	5980.00	ft
	SHARED	BHT	Bottom Hole Temperature	125.0	degF
	SHARED	SVTM	Navigation and Survey Master Tool	NONE	
	SHARED	AZTM	High Res Z Accelerometer Master Tool	GTET	
	SHARED	TEMM	CBM Temperature Master Tool	GTET	
	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	

Rwa / CrossPlot	BHSM	Borehole Size Source Tool	SDLT	
Rwa / CrossPlot	ROIN	Input for RO Calculation	Rwa	
GTET	GROK	Process Gamma Ray?	Yes	
GTET	GEOK	Process Gamma Ray EVR?	No	
GTET	TPOS	Tool Position for Gamma Ray Tools.	Eccentered	
GTET	BHSM	Borehole Size Source Tool	SDLT	
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	DNTT	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	
DSNT	BHSM	Borehole Size Source Tool	SDLT	
SDLT	CLOK	Process Caliper Outputs?	Yes	
Microlog Pad	MLOK	Process MicroLog 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
SDLT Pad	BHSM	Borehole Size Source Tool	SDLT	
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 Pore 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	1.19	in
ACRt Sonde	TCS1	Temperature Correction Source	FP Lwr & FP Upr	
ACRt Sonde	TPOS	Tool Position	Centered	
ACRt Sonde	RMOP	Rmud Source	Mud Cell	
ACRt Sonde	RMIN	Minimum Resistivity for MAP	0.20	ohmm
ACRt Sonde	RMAX	Maximum Resistivity for MAP	200.00	ohmm
ACRt Sonde	THQY	Threshold Quality	0.50	
ACRt Sonde	MRFX	Fixed mud resistivity	2000	ohmm
ACRt Sonde	BHSM	Borehole Size Source Tool	SDLT	
ACRt Sonde	MBFL	Apply Corkscrew Effect?	No	


BOTTOM

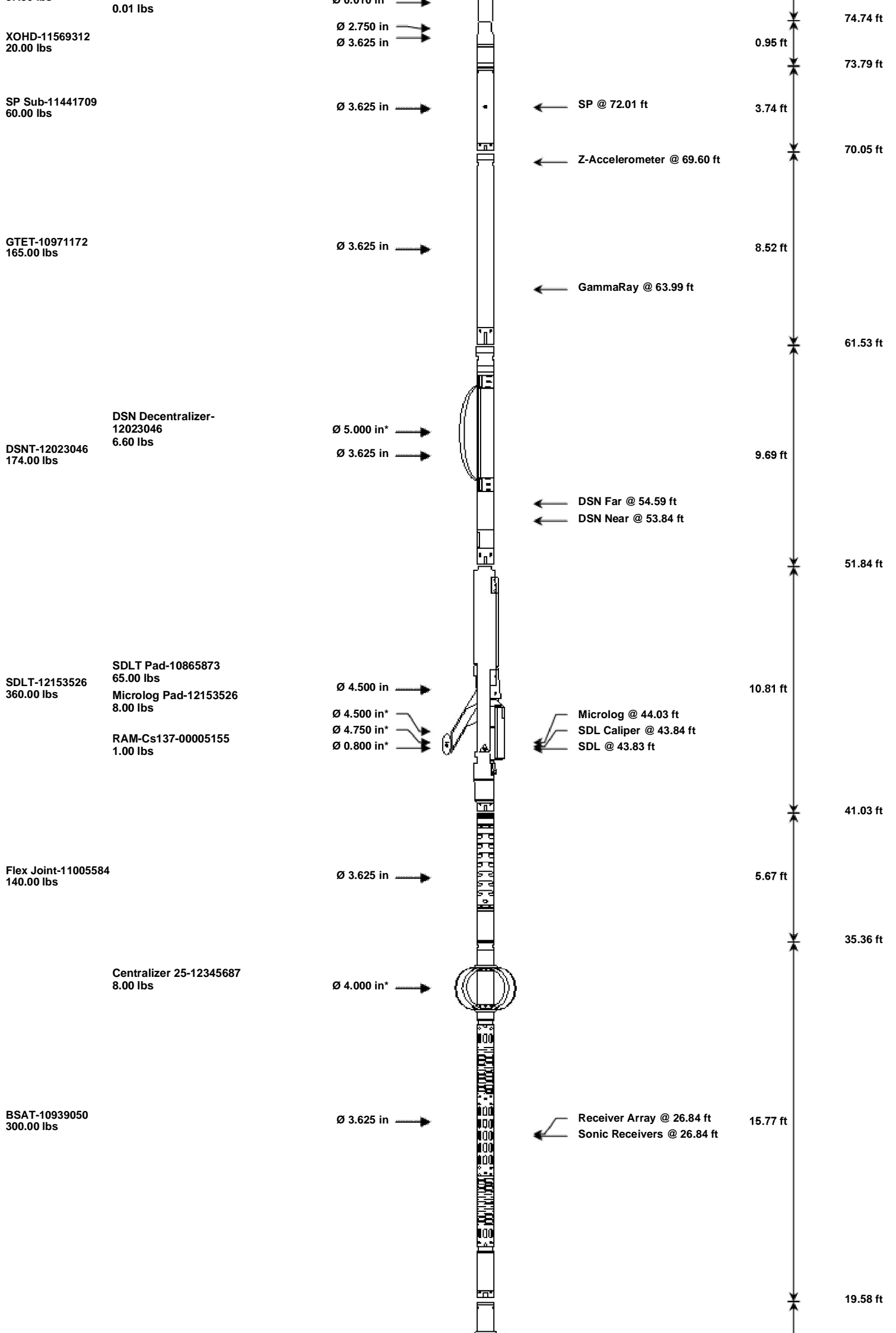
Data: LINDA_JO_1-22\0001 GTET-DSNT-SDLT-BSAT-ACRT\IDLE

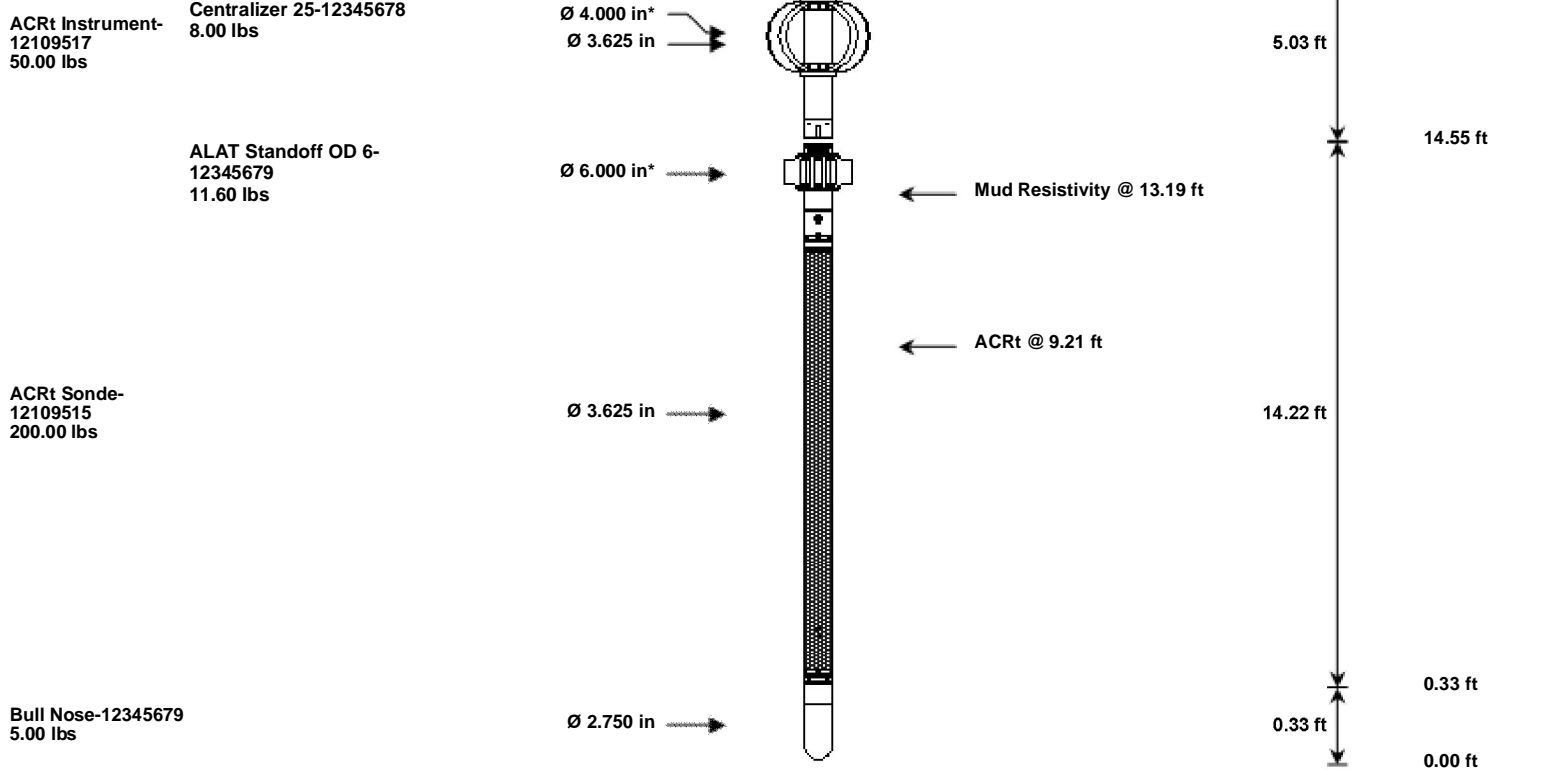
Date: 10-Aug-17 23:32:49

HALLIBURTON

TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
CH_HOS-11459024 37.50 lbs	Weak Point 7000 lbs- 12345678	Ø 2.750 in Ø 0.010 in*		Temperature @ 76.74 ft	2.50 ft	77.24 ft





Mnemonic	Tool Name	Serial Number	Weight (lbs)	Length (ft)	Accumulated Length (ft)	Max.Log. Speed (fpm)
CH_HOS	Hostile Cable Head with Load Cell	11459024	37.50	2.50	74.74	300.00
WP7K	Weak Point 7000 lbs	12345678	0.01	0.01	* 75.54	300.00
XOHD	Hostile to Dits Cross Over	11569312	20.00	0.95	73.79	300.00
SP	SP Sub	11441709	60.00	3.74	70.05	300.00
GTET	Gamma Telemetry Tool	10971172	165.00	8.52	61.53	60.00
DSNT	Dual Spaced Neutron	12023046	174.00	9.69	51.84	60.00
DCNT	DSN Decentralizer	12023046	6.60	5.13	* 55.17	300.00
SDLT	Spectral Density Tool	12153526	360.00	10.81	41.03	60.00
SDLP	Density Insite Pad	10865873	65.00	2.55	* 43.24	60.00
Cs137	Logging Source, SDLT-I, 1.78 Ci - Cs137	00005155	1.00	0.80	* 43.47	300.00
MICP	Microlog Pad	12153526	8.00	1.00	* 43.53	60.00
FLEX	Flex Joint	11005584	140.00	5.67	35.36	300.00
BSAT	Borehole Sonic Array Tool	10939050	300.00	15.77	19.58	60.00
OBCEN	Centralizer - 25 in. Overbody	12345687	8.00	2.08	* 32.29	300.00
ACRt	Array Compensated True Resistivity Instrument Section	12109517	50.00	5.03	14.55	120.00
OBCEN	Centralizer - 25 in. Overbody	12345678	8.00	2.08	* 16.24	300.00
ACRt	Array Compensated True Resistivity Sonde Section	12109515	200.00	14.22	0.33	120.00
ALATS	Array Laterolog Tool OD 6 Standoff	12345679	11.60	1.00	* 13.19	60.00
BLNS	Bull Nose	12345679	5.00	0.33	0.00	300.00

Total **1,619.71** **77.24**

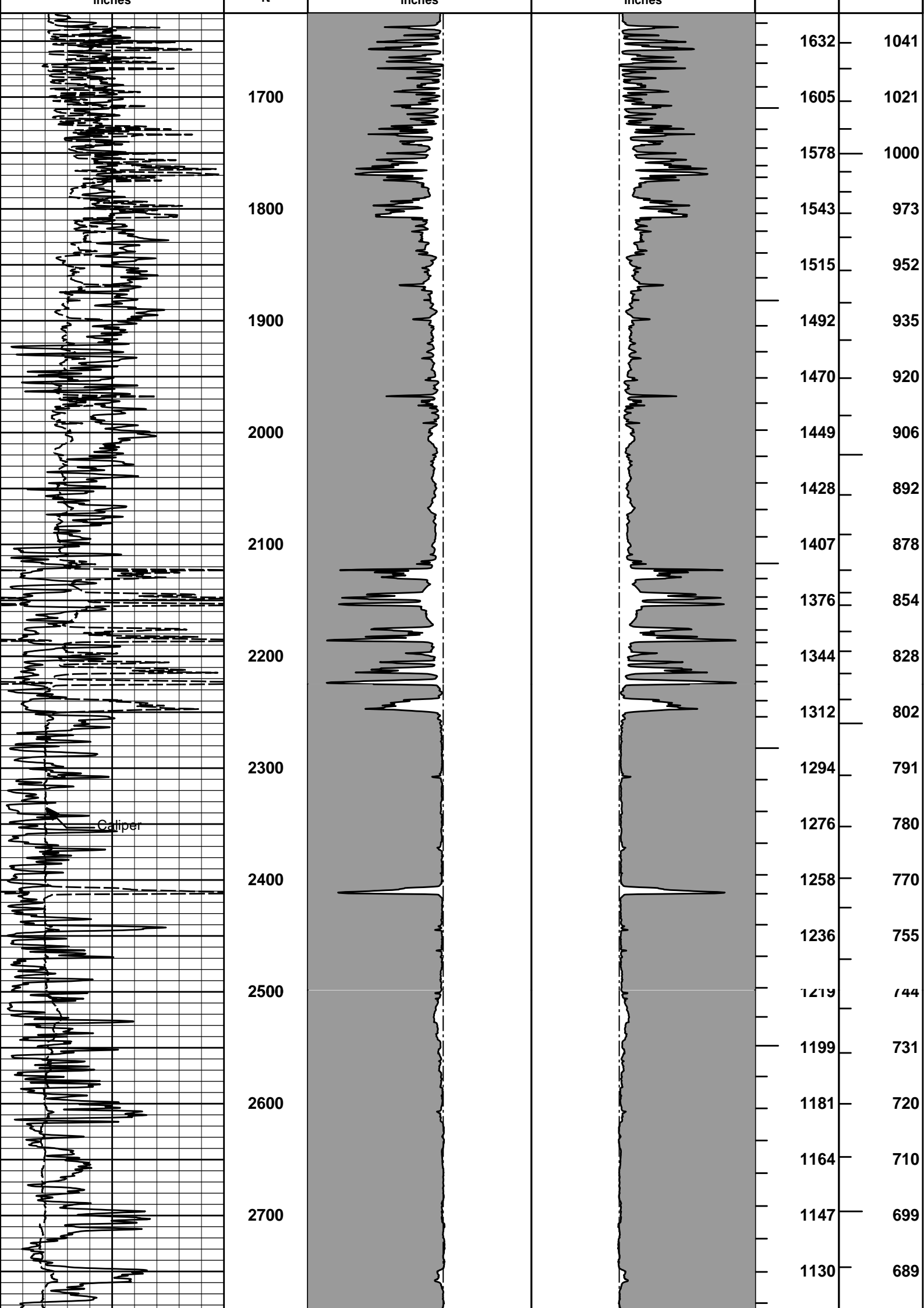
* Not included in Total Length and Length Accumulation.

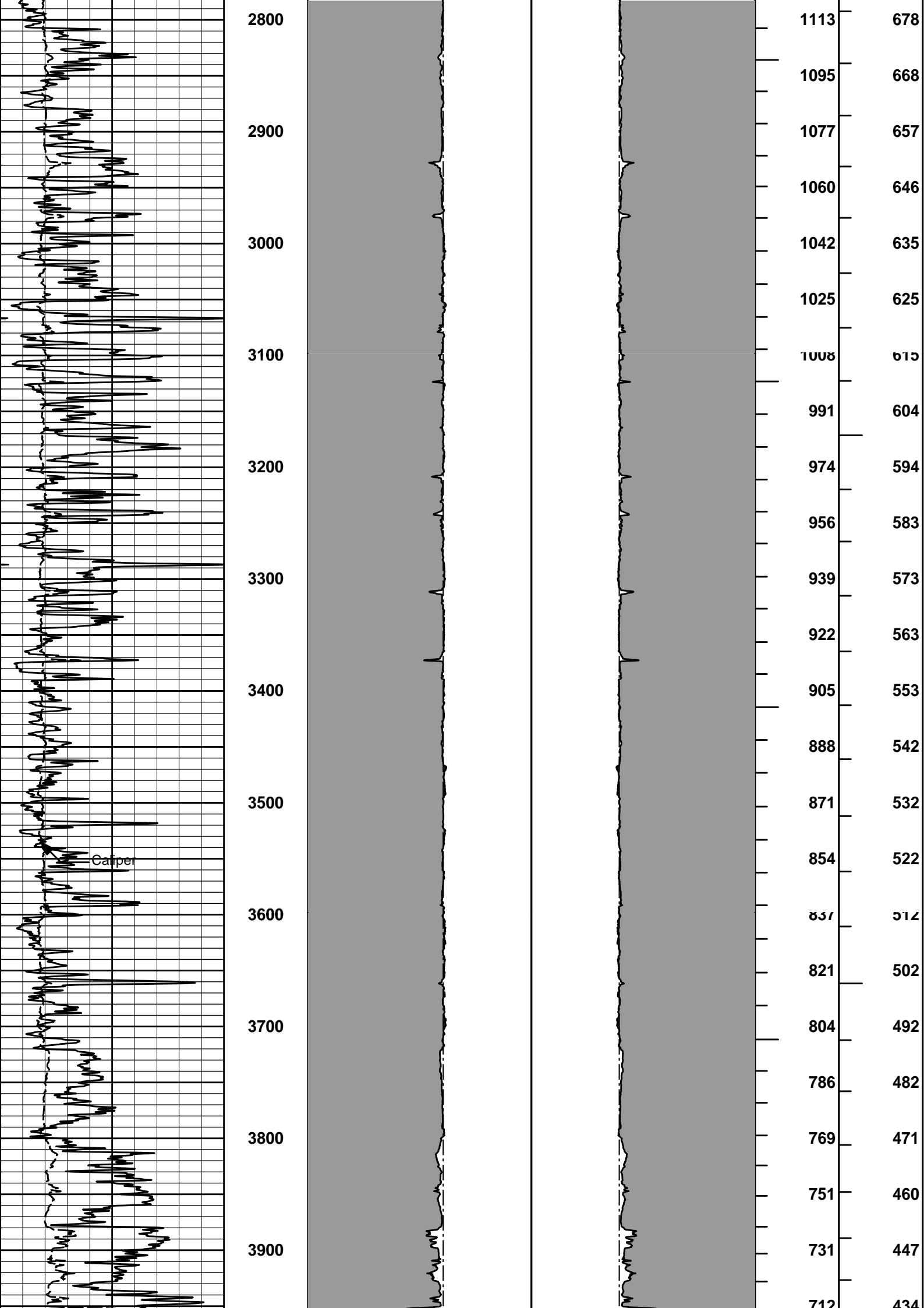
Data: LINDA_JO_1-22\0001 GTET-DSNT-SDLT-BSAT-ACRT\IDLE Date: 10-Aug-17 18:19:14

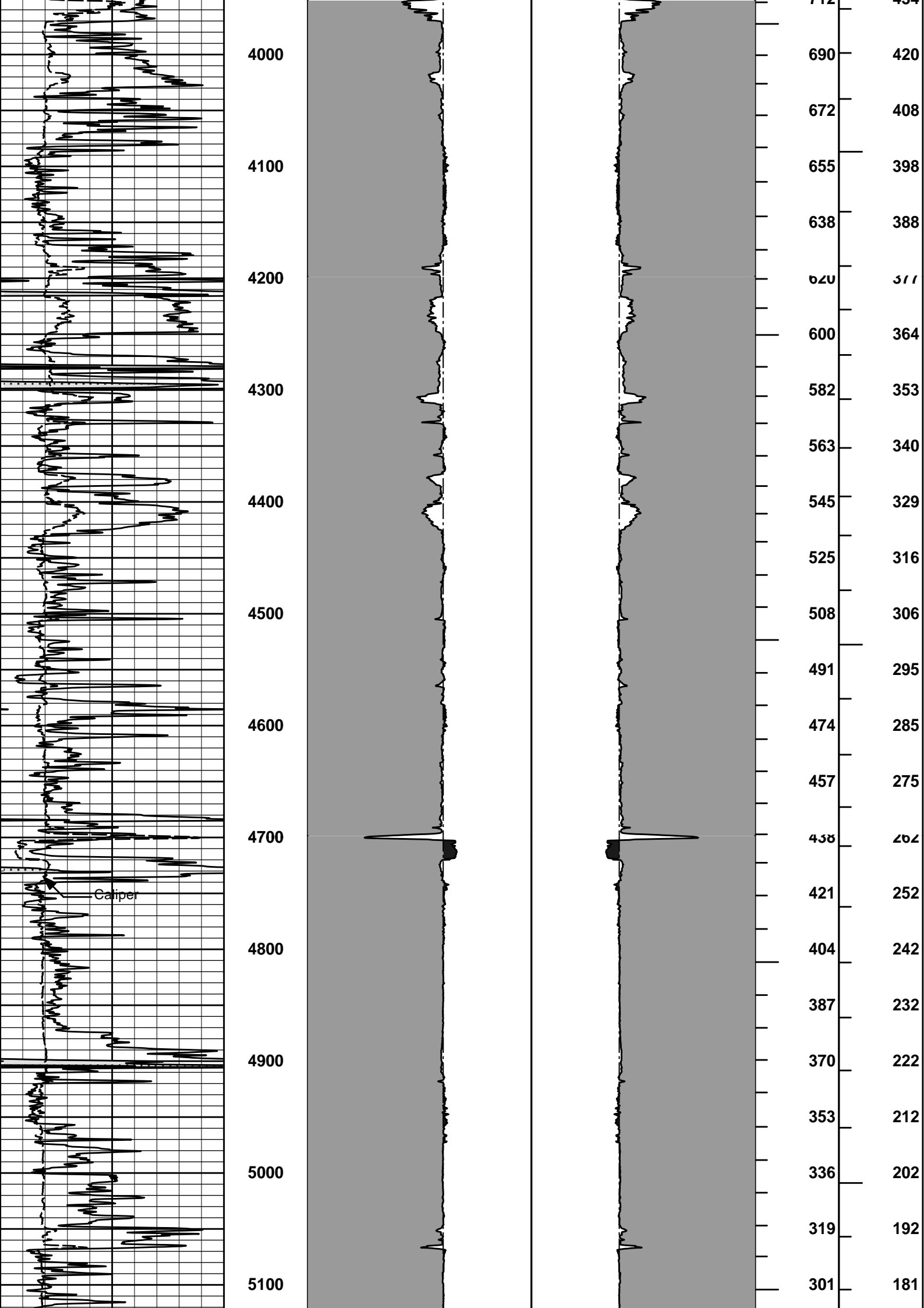
HALLIBURTON Plot Time: 11-Aug-17 00:36:02
Plot Range: 1625 ft to 5984.08 ft
Data: LINDA_JO_1-22\Well Based\DAQ-0001-005\
Plot File: \\-LOCAL-LINDA_JO_1-22\0001 GTET-DSNT-SDLT-BSAT-ACRT\PORO\AHV Plot_INSITE_IQ

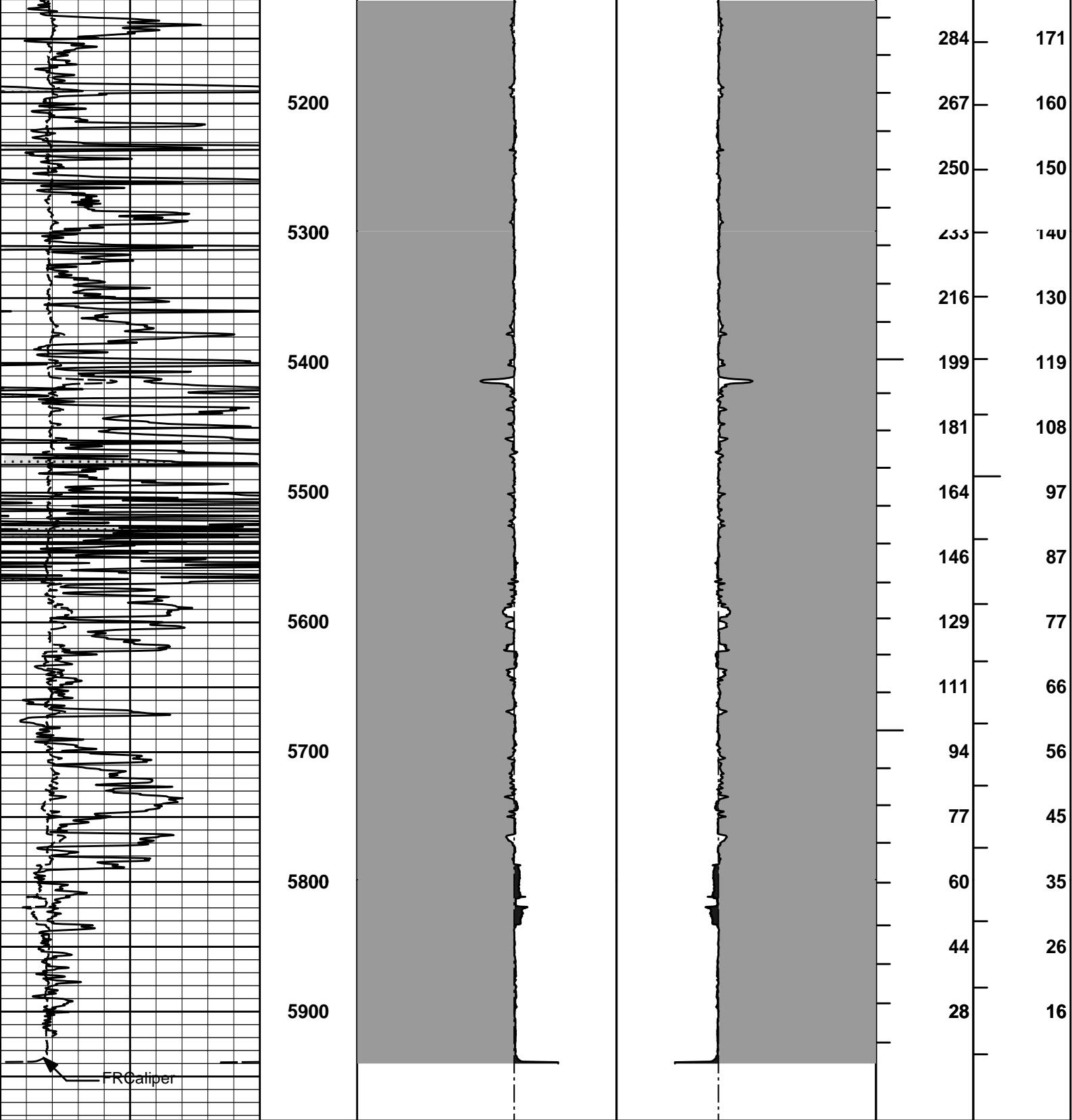
ANNULAR HOLE VOLUME PLOT

SHALE		MUDCAKE	MUDCAKE	
0 Gamma API 150		20 Bit Size 0 0	20 Bit Size 20	
api				
6 CALI 16	1 : 1200 ft	20 CALI 0 0	20 CALI 20	BHVT AHVT
inches		inches	inches	









6	CALI	16	1 : 1200 ft	20	CALI	0 0	20	BHVT	AHVT
	inches			20	inches	0 0	20		
0	Gamma API	150		20	Bit Size	0 0	20		
	api								
	SHALE				MUDCAKE		MUDCAKE		

HALLIBURTON

Plot Time: 11-Aug-17 00:36:04
 Plot Range: 1625 ft to 5984.08 ft
 Data: LINDA_JO_1-22\Well Based\DAQ-0001-005\
 Plot File: \\-LOCAL-LINDA_JO_1-22\0001 GTET-DSNT-SDLT-BSAT-ACRT\PORO\AHV Plot_INSITE_IQ

ANNULAR HOLE VOLUME PLOT

COMPANY	RAYDON EXPLORATION INC.		
WELL	LINDA JO 1-22		
FIELD	WILDCAT		
COUNTY	SEWARD	STATE	KANSAS
HALLIBURTON		DUAL SPACED NEUTRON SPECTRAL DENSITY LOG	