

HALLIBURTON

DUAL SPACED NEUTRON SPECTRAL DENSITY LOG

COMPANY		OXY USA INC	
WELL		SHELL B-4	
FIELD		AMAZON DITCH	
COUNTY		FINNEY	
STATE		KANSAS	
Permanent Datum		GL	
Log measured from		KB	
Drilling measured from		KB	
Date		14-Apr-12	
Run No.		ONE	
Depth - Driller		5033.00 ft	
Depth - Logger		5000.0 ft	
Bottom - Logged Interval		4962 ft	
Top - Logged Interval		3750 ft	
Casing - Driller		8.625 in @ 1809.0 ft	
Casing - Logger		1808.0 ft	
Bit Size		7.875 in @	
Type Fluid in Hole		WATER BASED MUD	
Density		9.0 ppq 35.00 s/qt	
PH		9.00 pH 8.0 cp/m	
Source of Sample		FLOWLINE	
Rm @ Meas. Temperature		2.290 ohmm @ 80.00 degF @	
Rmf @ Meas. Temperature		2.00 ohmm @ 75.00 degF @	
Rmc @ Meas. Temperature		2.700 ohmm @ 75.00 degF @	
Source Rmf		MEASURED MEASURED	
Rm @ BHT		1.51 ohmm @ 125.0 degF @	
Time Since Circulation		13.5 hr	
Time on Bottom		14-Apr-12 08:53	
Max. Rec. Temperature		125.0 degF @ 5000.0 ft @	
Equipment		10782954 LIBERAL	
Recorded By		C. MARLOWE	
Witnessed By		D. COOK	
		A. GARNER	

COMPANY	OXY USA INC
WELL	SHELL B-4
FIELD	AMAZON DITCH
COUNTY	FINNEY
STATE	KANSAS
API No.	15-055-22132
Location	330' FNL & 330' FWL
Other Services:	ACRT ML BSAT

Sect.	17	Twp.	22S	Rge.	34W
-------	----	------	-----	------	-----

Elev.	2976.0 ft
D.F.	2986.0 ft
G.L.	2976.0 ft

Fold here

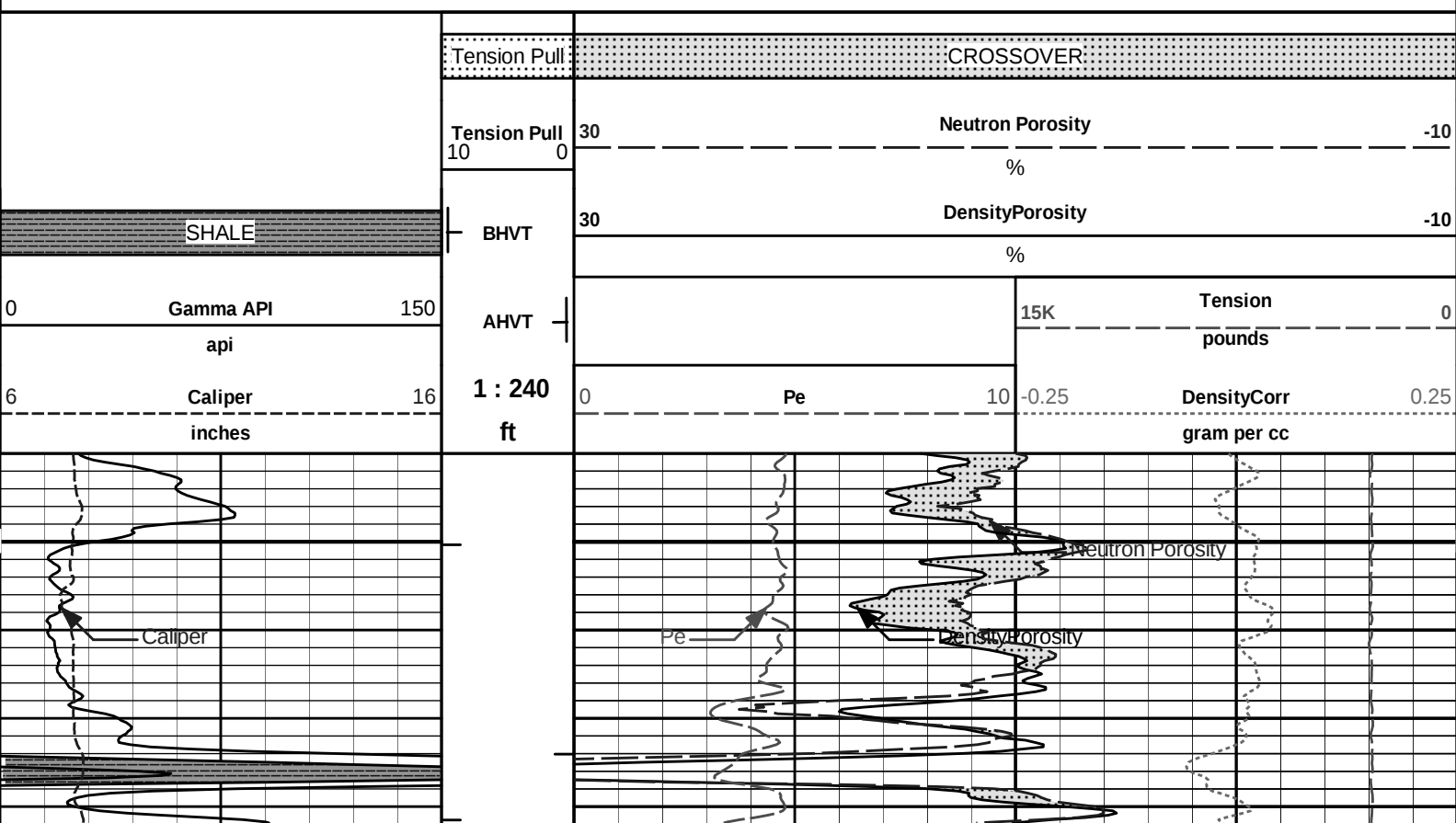
Service Ticket No.: 9429377						API Serial No.: 15-055-22132						PGM Version: WL INSITE R3.4.2 (Build 2)											
CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE												RESISTIVITY SCALE CHANGES											
Date		Sample No.										Type Log		Depth		Scale Up Hole		Scale Down Hole					
Depth-Driller																							
Type Fluid in Hole																							
Density		Viscosity																					
Ph		Fluid Loss																					
Source of Sample												RESISTIVITY EQUIPMENT DATA											
Rm @ Meas. Temp				@				@				Run No.		Tool Type & No.		Pad Type		Tool Pos.		Other			
Rmf @ Meas. Temp.				@				@															
Rmc @ Meas. Temp.				@				@															
Source Rmf		Rmc																					
Rm @ BHT				@				@															
Rmf @ BHT				@				@															
Rmc @ BHT				@				@															
EQUIPMENT DATA																							
GAMMA				ACOUSTIC								DENSITY						NEUTRON					
Run No.		ONE		Run No.				Run No.		ONE		Run No.		ONE									
Serial No.		10811258		Serial No.				Serial No.		I145_M73803_P90		Serial No.		10735145									
Model No.		GTET		Model No.				Model No.		SDLT		Model No.		DSNT									
Diameter		3.625"		No. of Cent.				Diameter		4.5"		Diameter		3.625"									
Detector Model No.		T-102		Spacing				Log Type		GAM-GAM		Log Type		NEU-NEU									
Type		SCINT						Source Type		CS 137		Source Type		AM241BE									
Length		8"		LSA [Y/N]				Serial No.		5068GW		Serial No.		DSN-436									
Distance to Source		10'		FWDA [Y/N]				Strength		1.5 CI		Strength		15 CI									

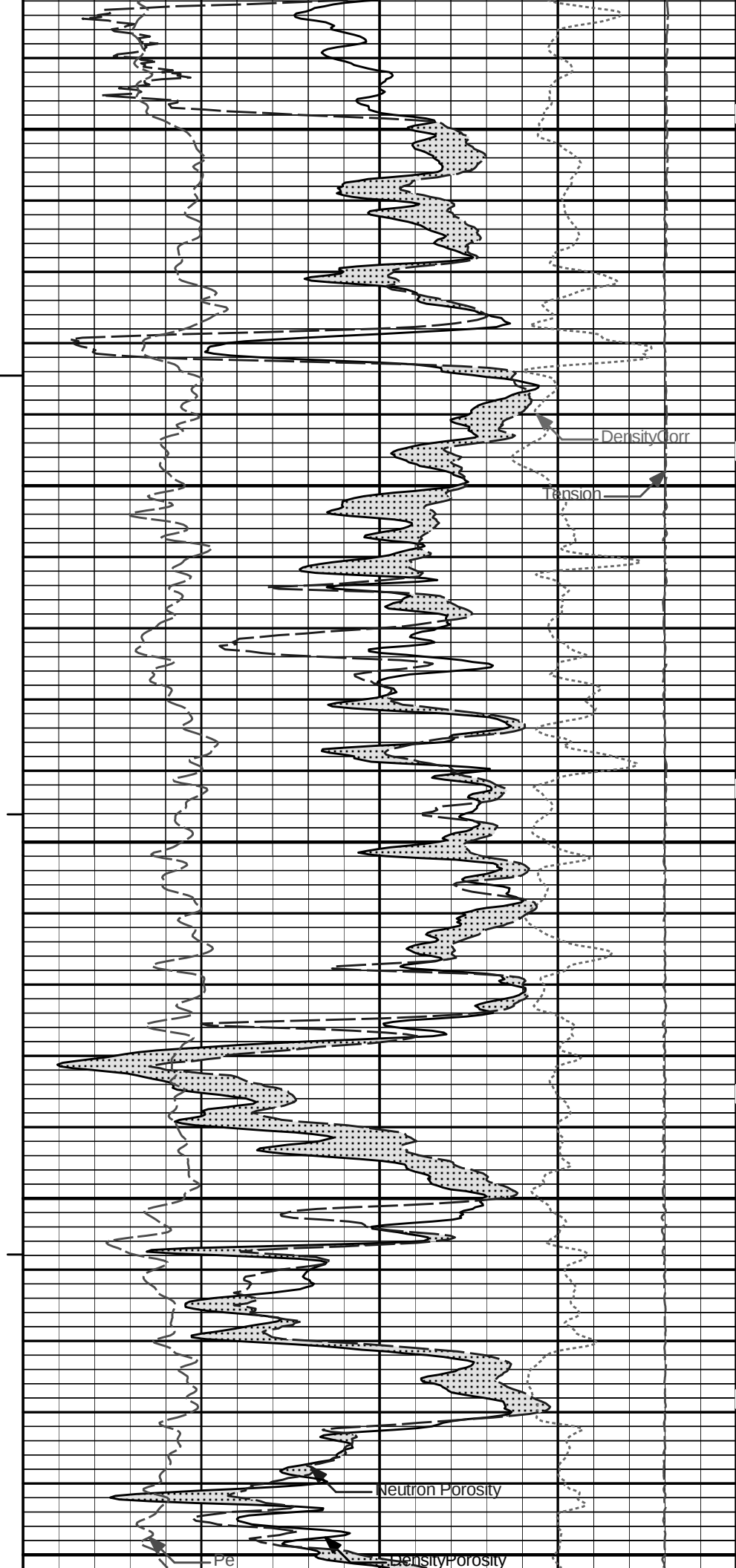
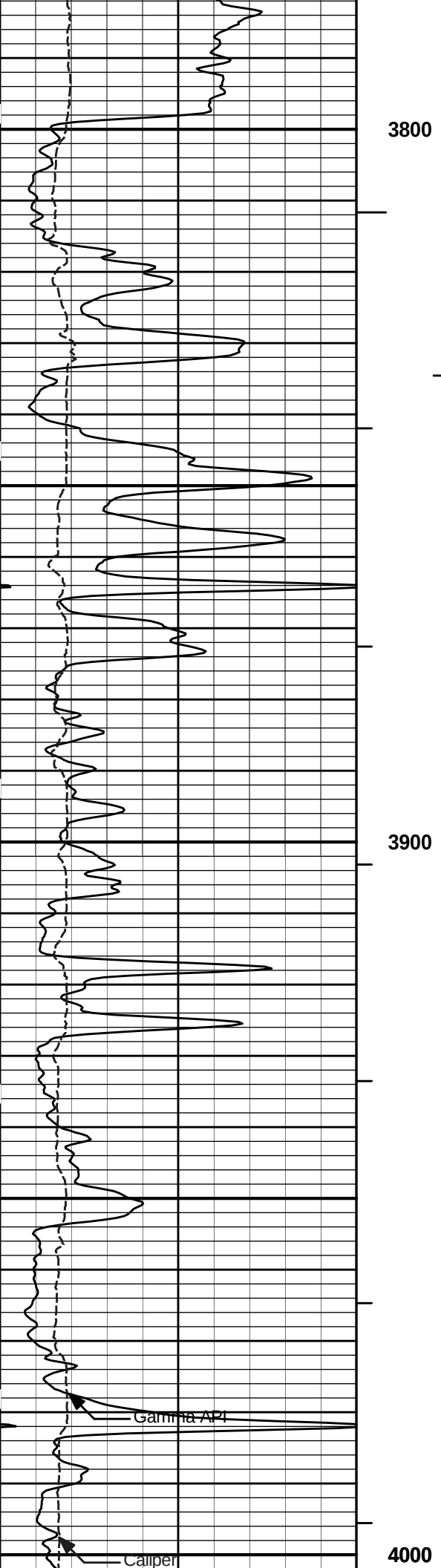
GENERAL			GAMMA		ACOUSTIC		DENSITY		NEUTRON					
Run	Depth		Speed	Scale		Scale		Matrix	Scale		Matrix	Scale		Matrix
No.	From	To	ft/min	L	R	L	R		L	R		L	R	
ONE	TD	3750	REC	0	150				30	-10	2.71	30	-10	LIME
DIRECTIONAL INFORMATION														
Maximum Deviation @									KOP @					
Remarks: SP-GTET-DSNT-SDLT-BSAT-ACRT RUN IN COMBINATION														
ANNULAR HOLE VOLUME CALCULATED FOR 5.5 INCH CASING														
CHLORIDES REPORTED AT 2600 MG/L														
POST JOB TOOL VERIFICATIONS NOT DONE AT CUSTOMER REQUEST														
TODAY'S CREW: A. VAQUERA, F. VILLA														
THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES: LIBERAL, KS 620-624-8123														
HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.														
HALLIBURTON														

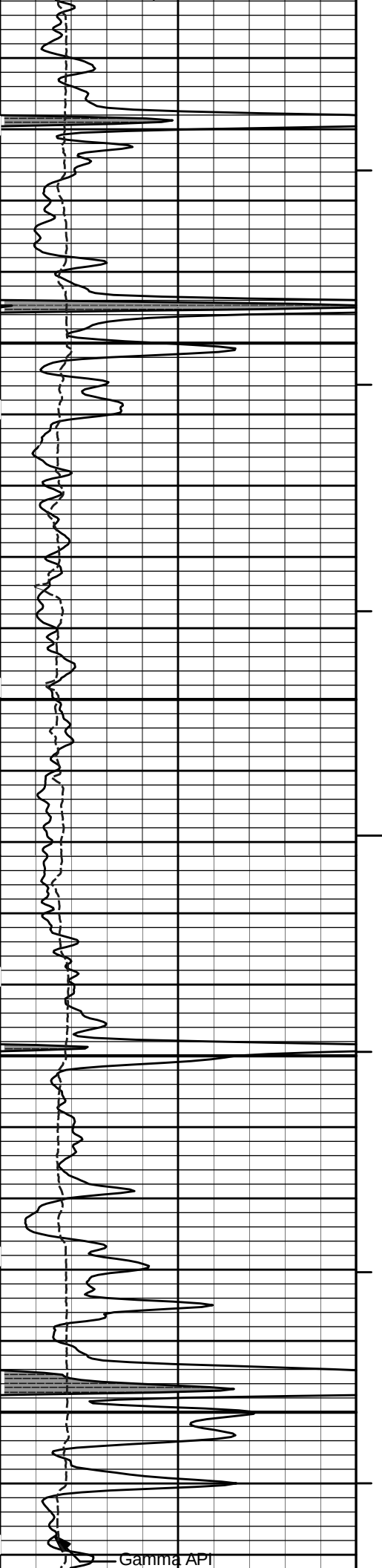
HALLIBURTON

Plot Time: 14-Apr-12 10:48:21
Plot Range: 3740 ft to 5001.08 ft
Data: SHELL_B_4\Well Based\DETAIL\
Plot File: \\PORO\Poro IQ 5 MAIN LIB

5 INCH MAIN LOG

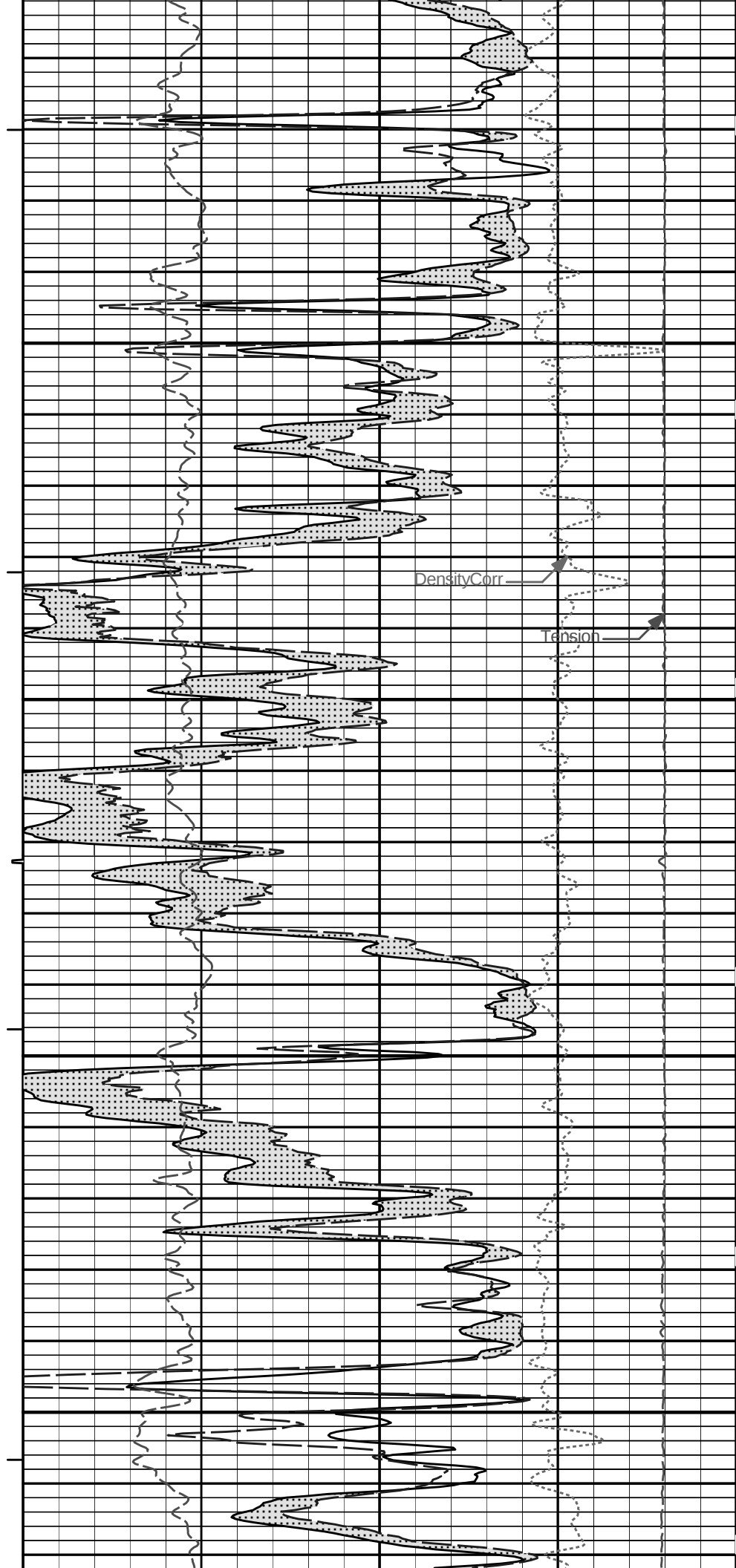


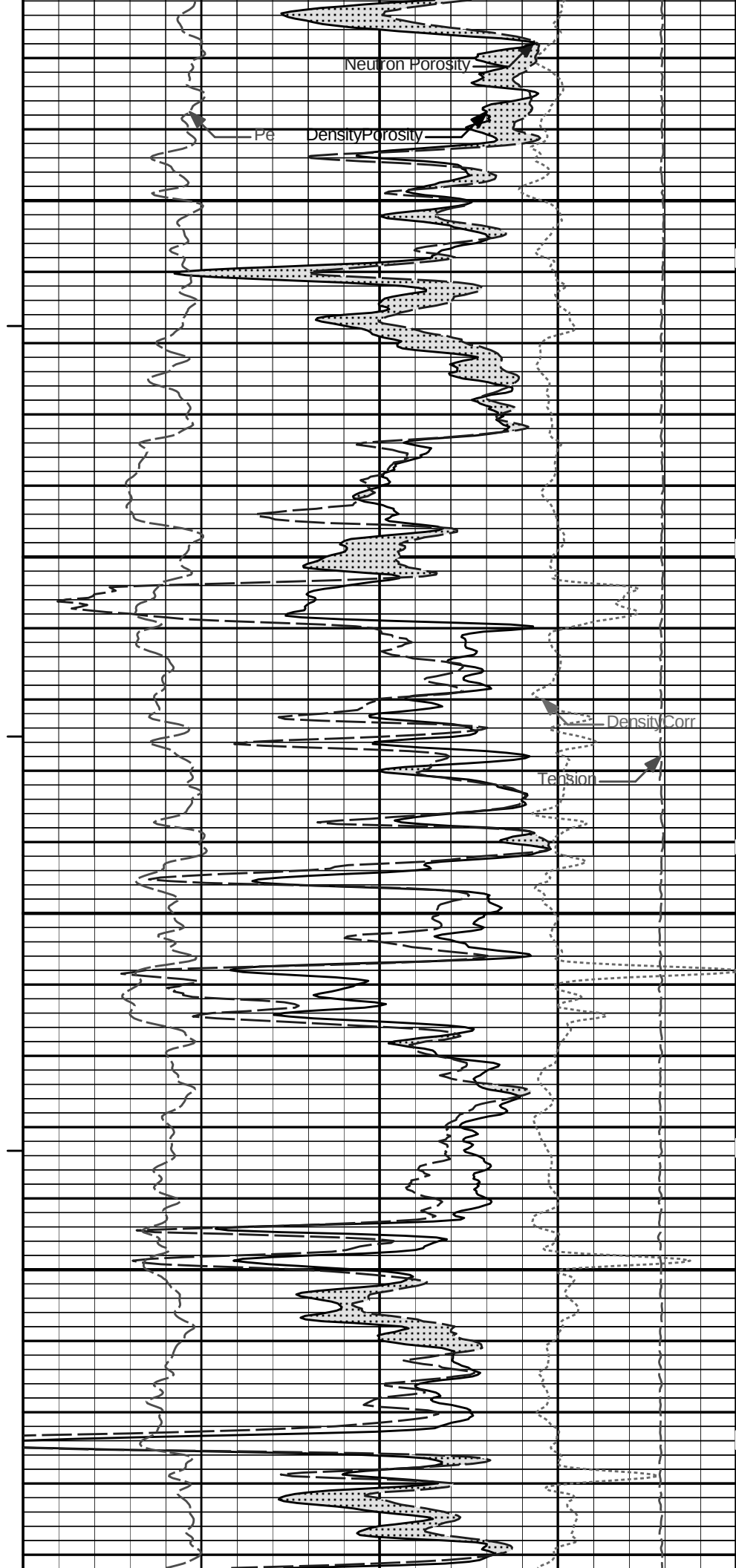
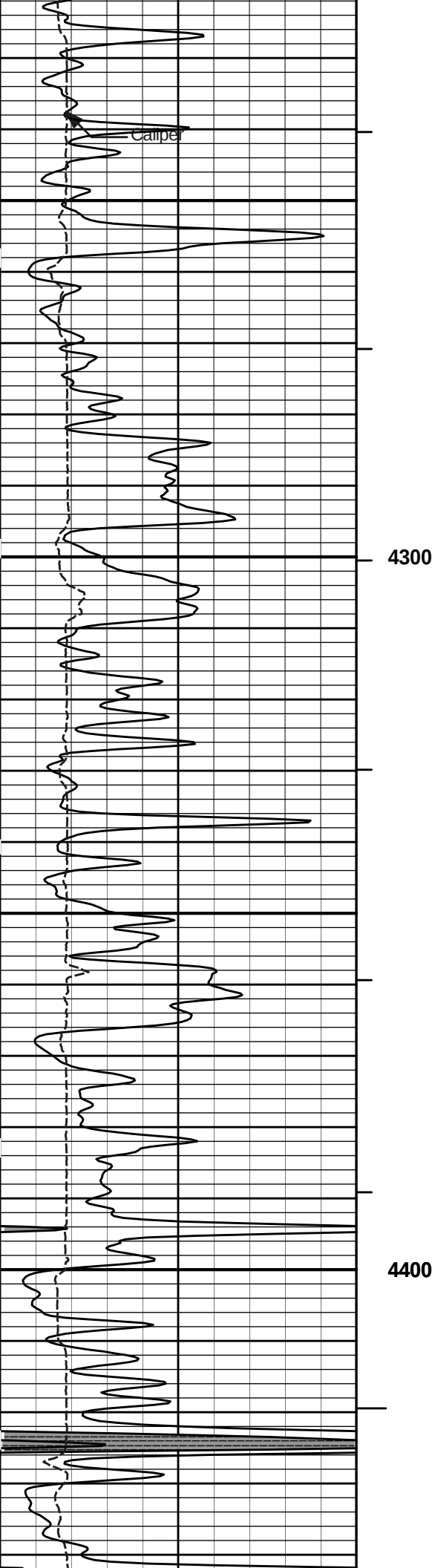




4100

4200

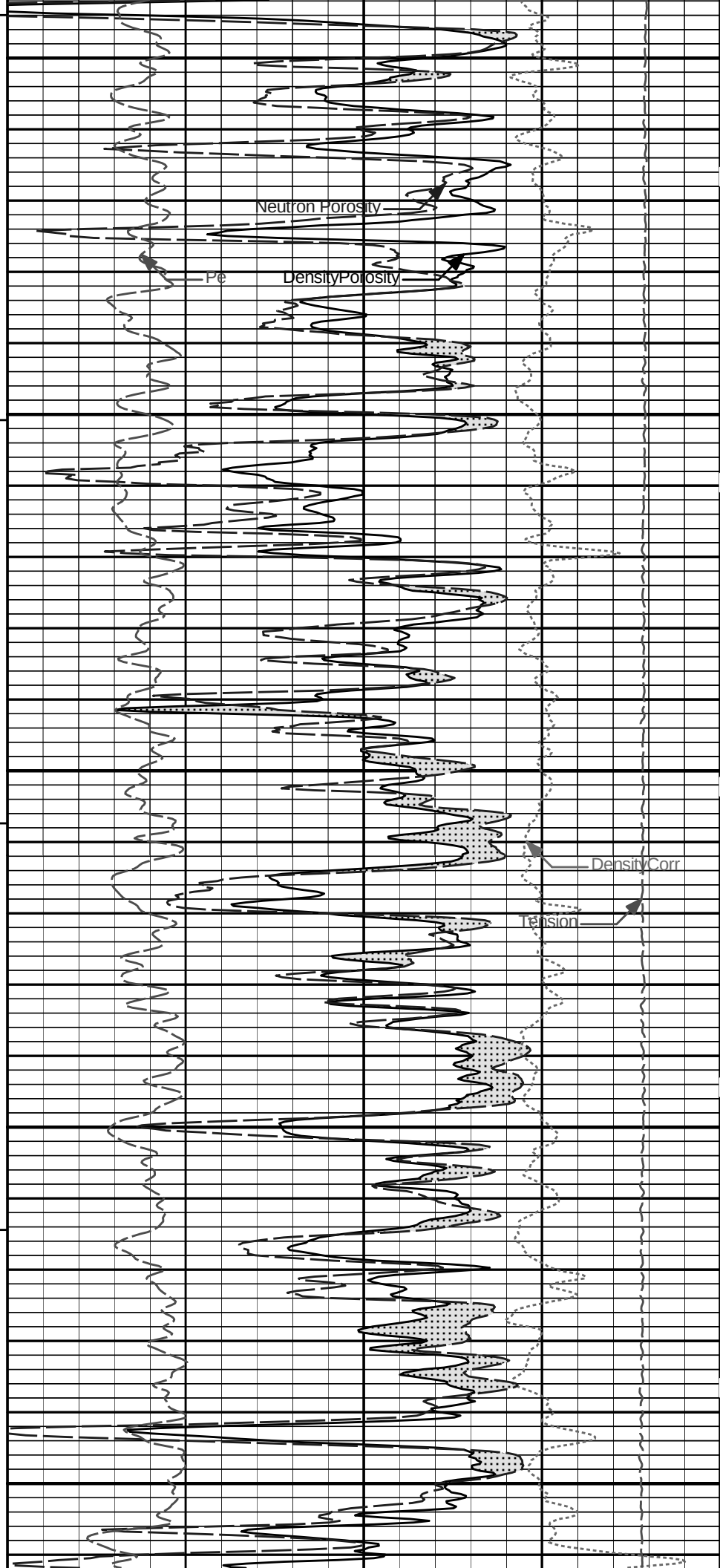


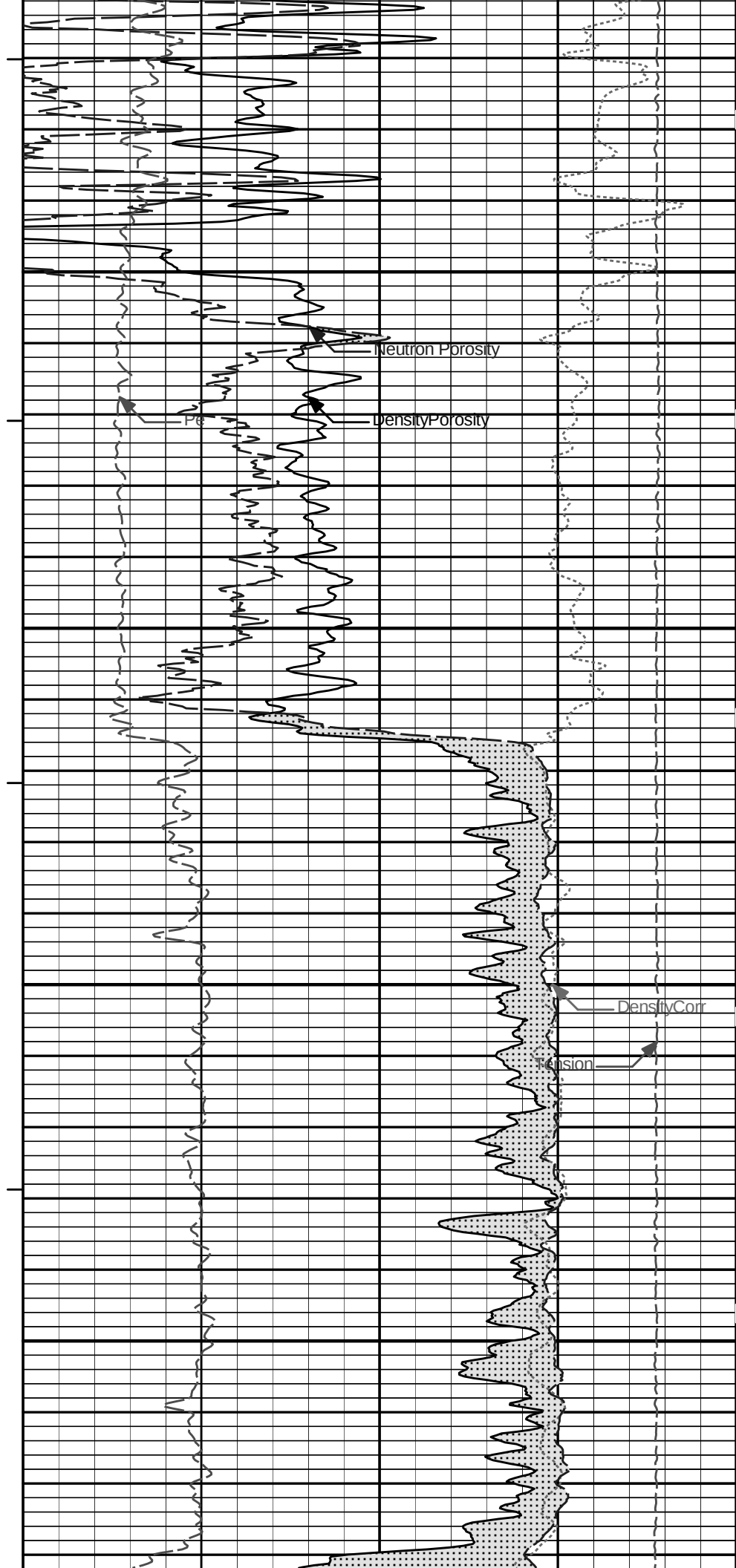
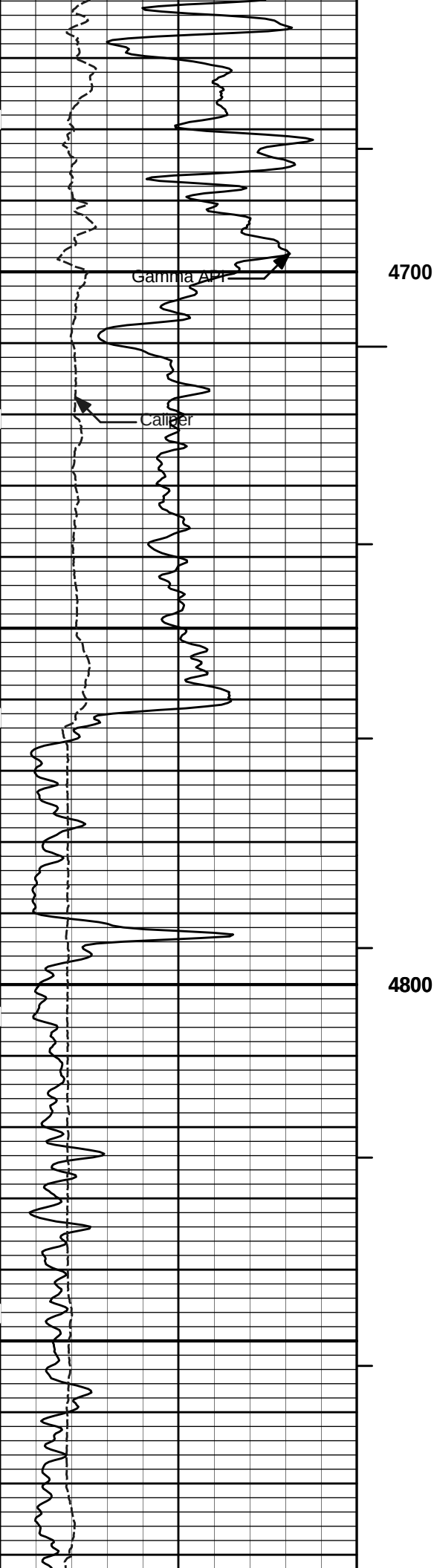


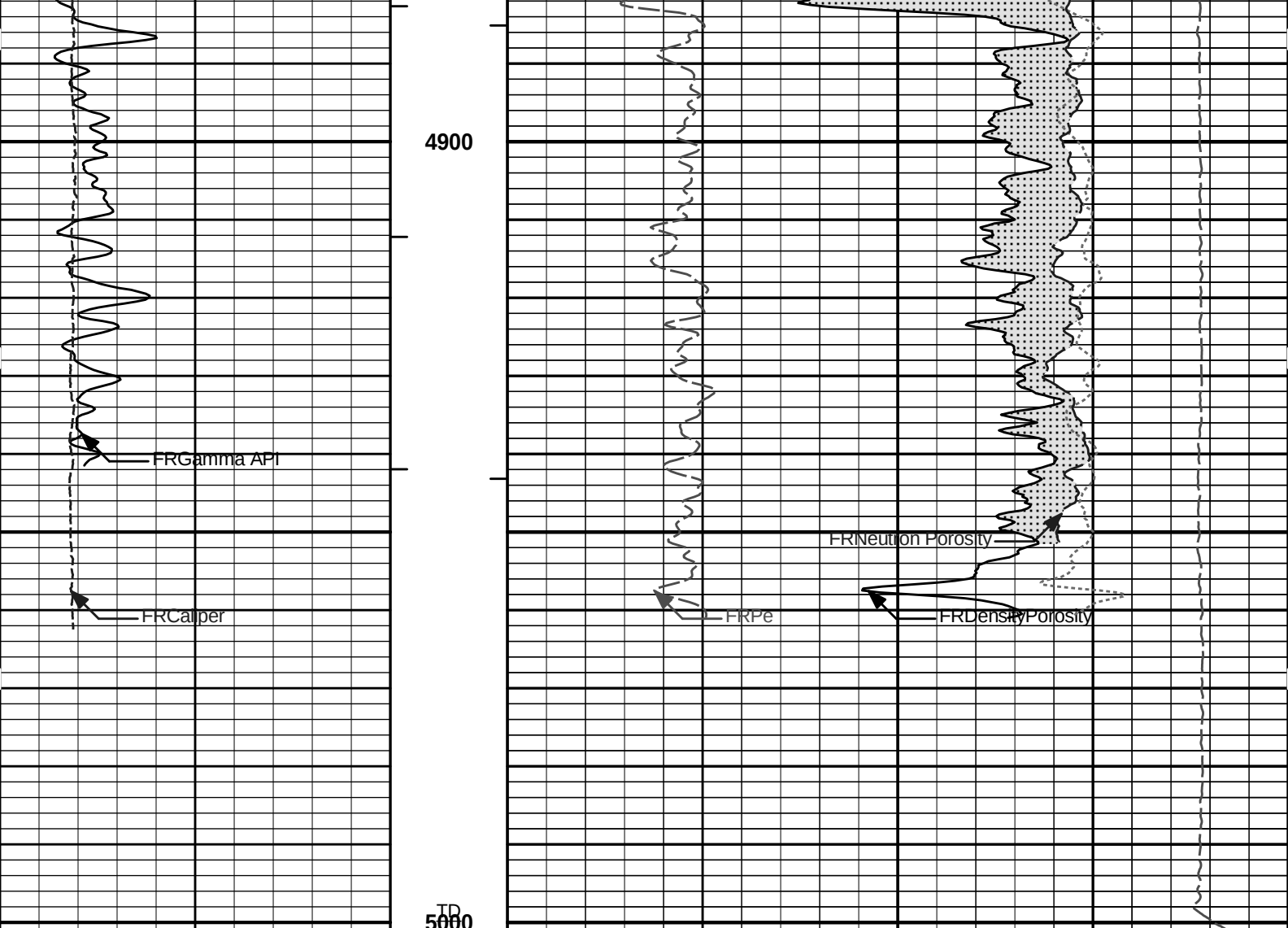


4500

4600







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

HALLIBURTON

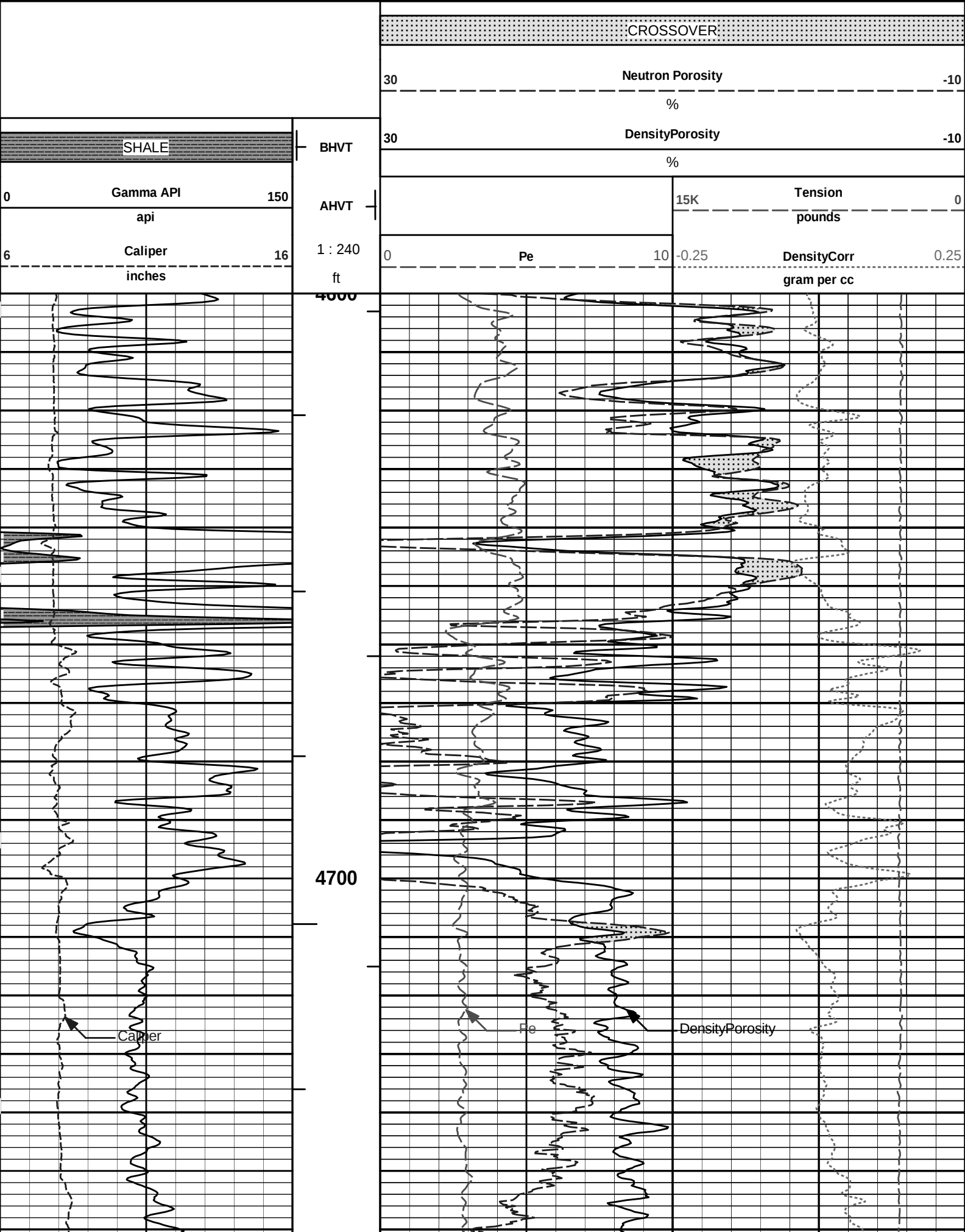
Plot Time: 14-Apr-12 10:48:34
Plot Range: 3740 ft to 5001.08 ft
Data: SHELL_B_4\Well Based\DETAIL\
Plot File: \\PORO\Poros_IQ_5_MAIN_LIB

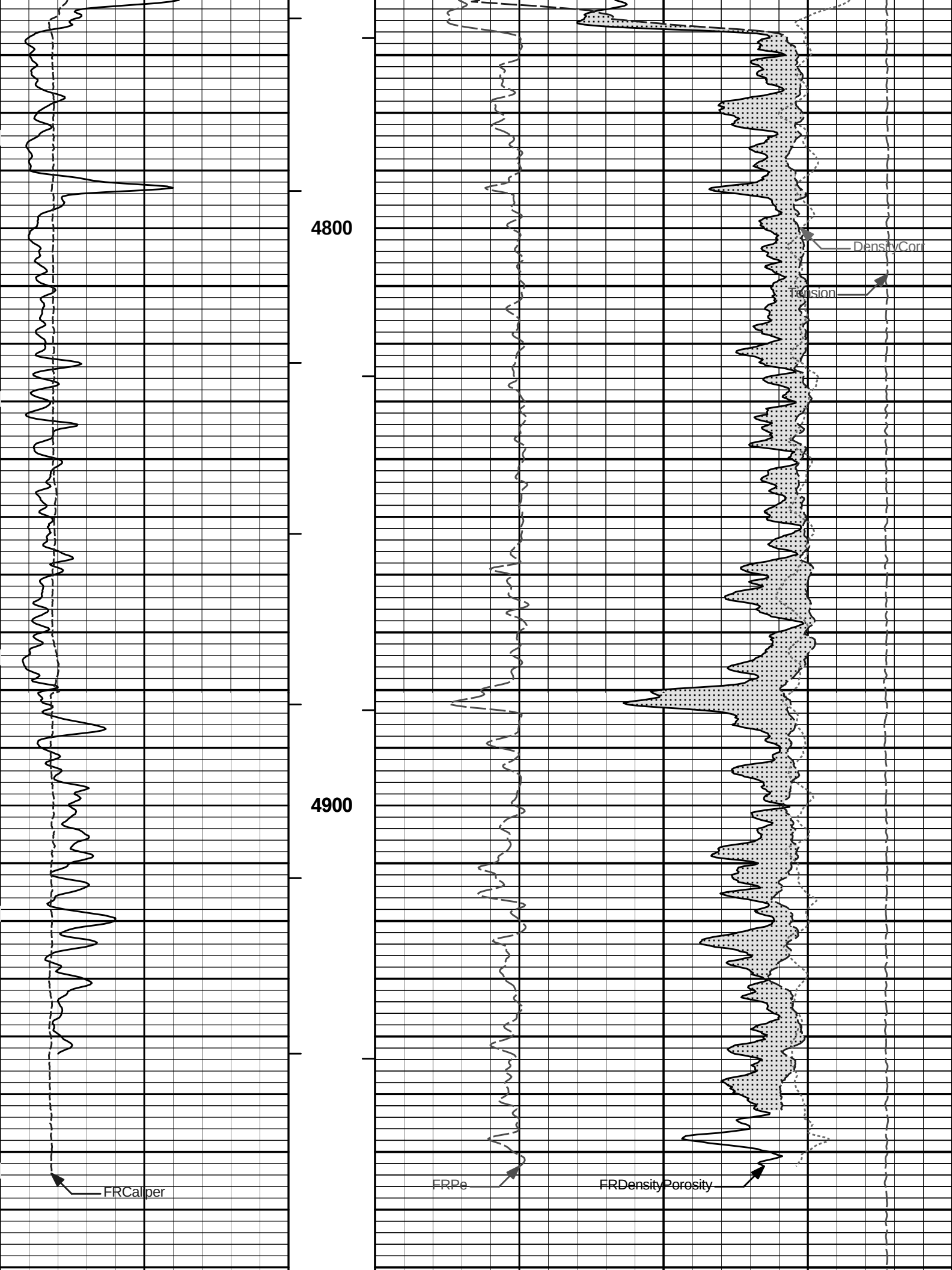
5 INCH MAIN LOG

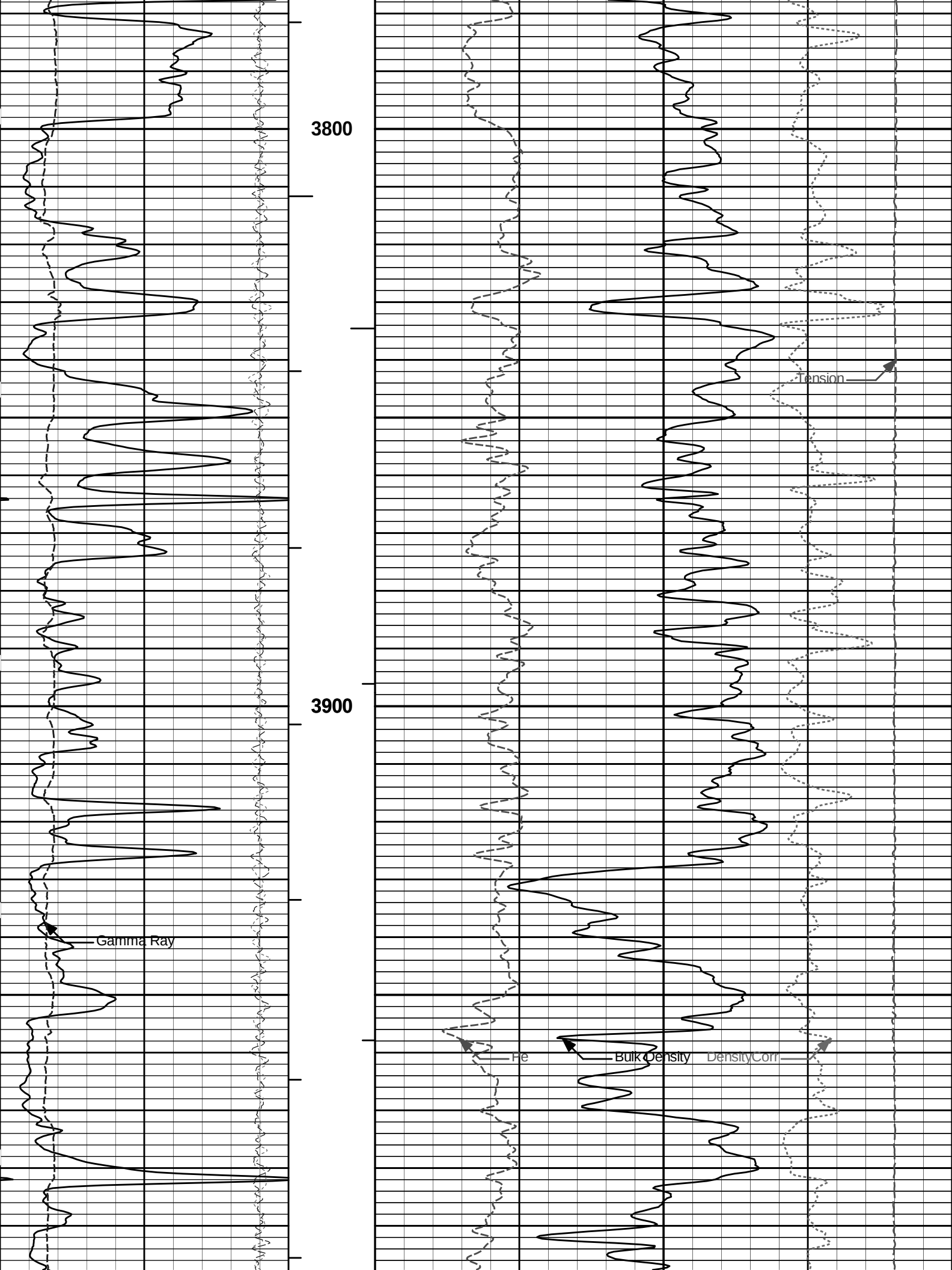
HALLIBURTON

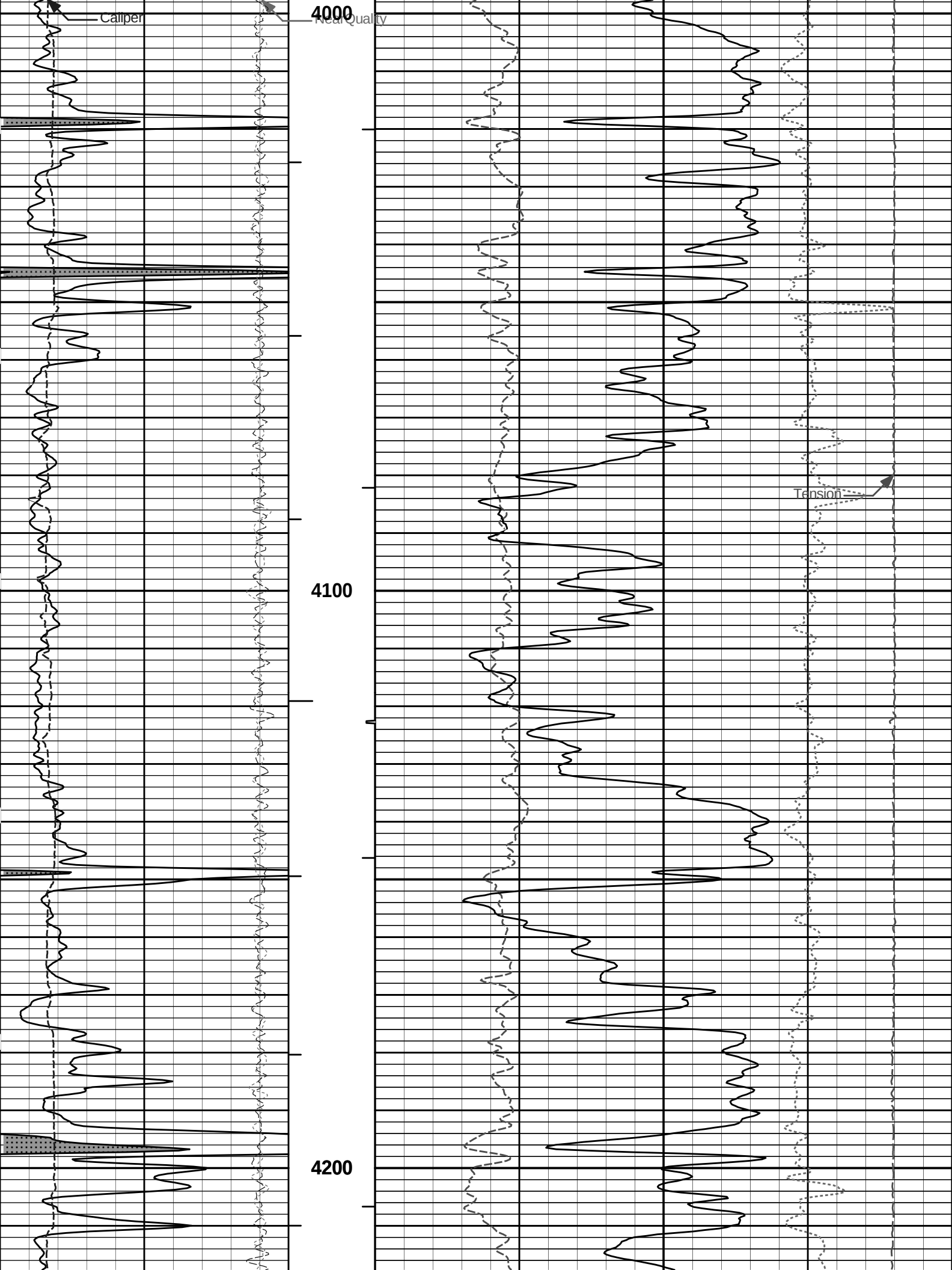
Plot Time: 14-Apr-12 10:48:34
Plot Range: 4600 ft to 5002.5 ft
Data: SHELL_B_4\Well Based\REPEAT\
Plot File: \\PORO\Poros_IQ_5_REP_LIB

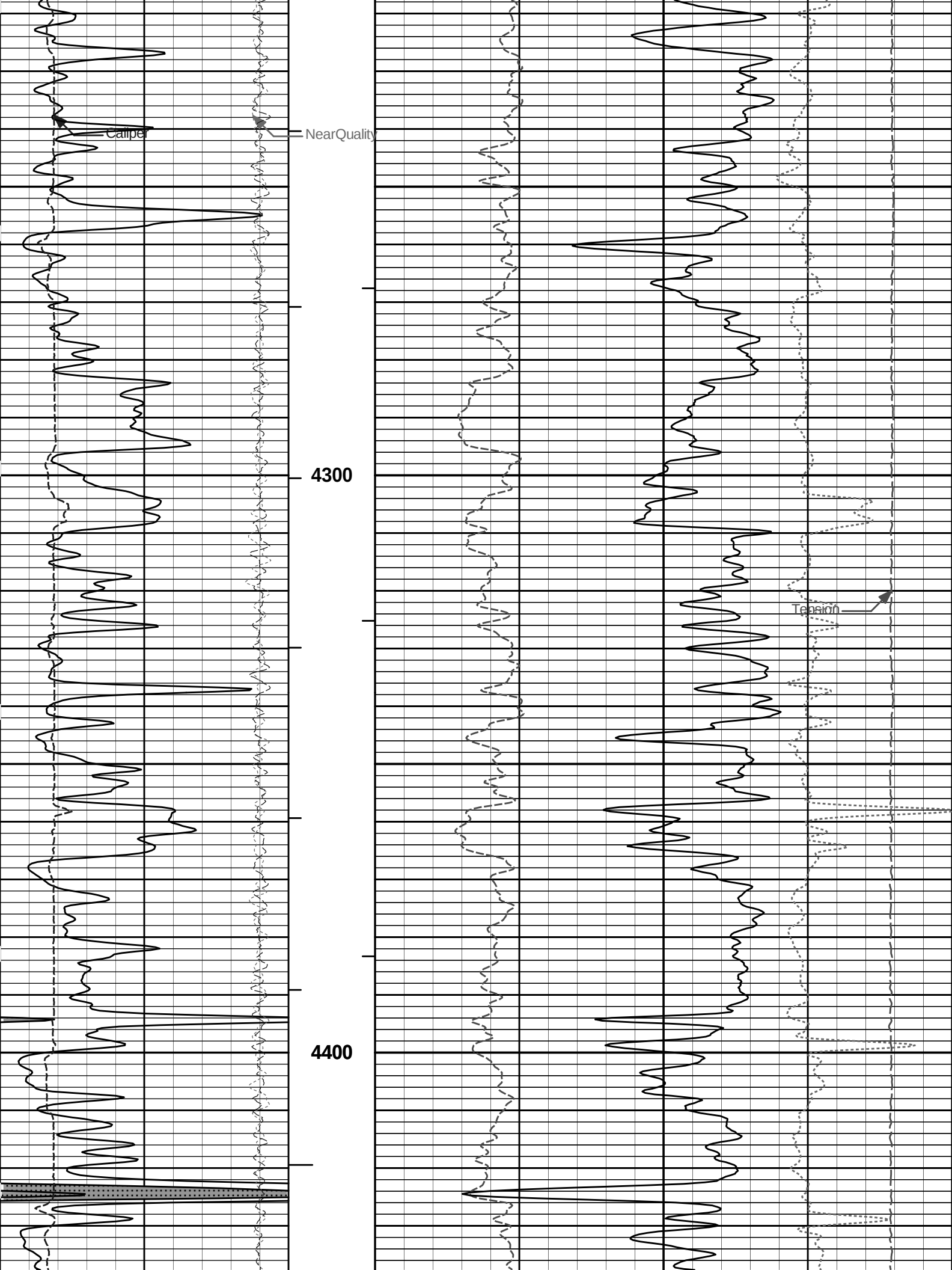
REPEAT SECTION

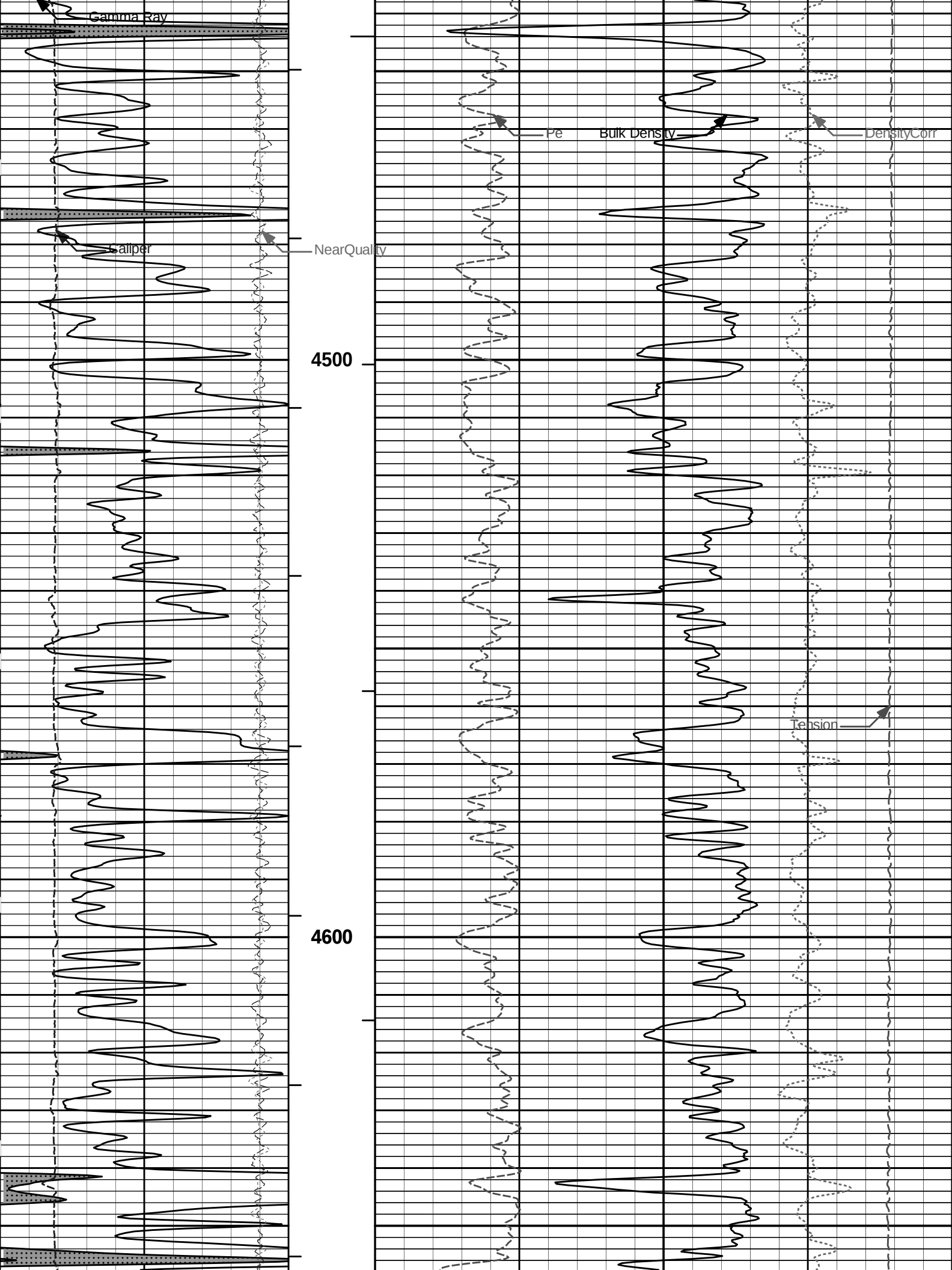


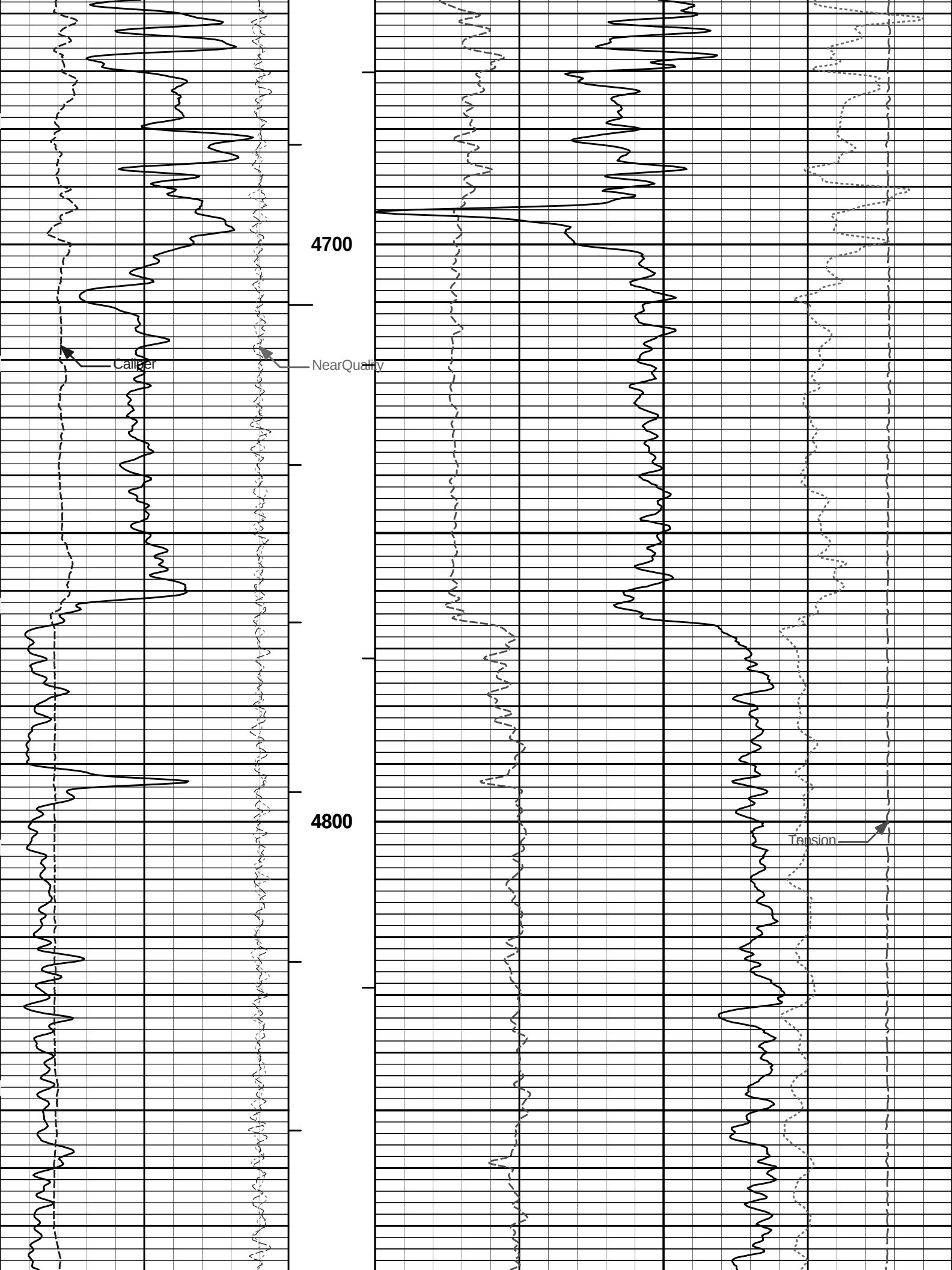


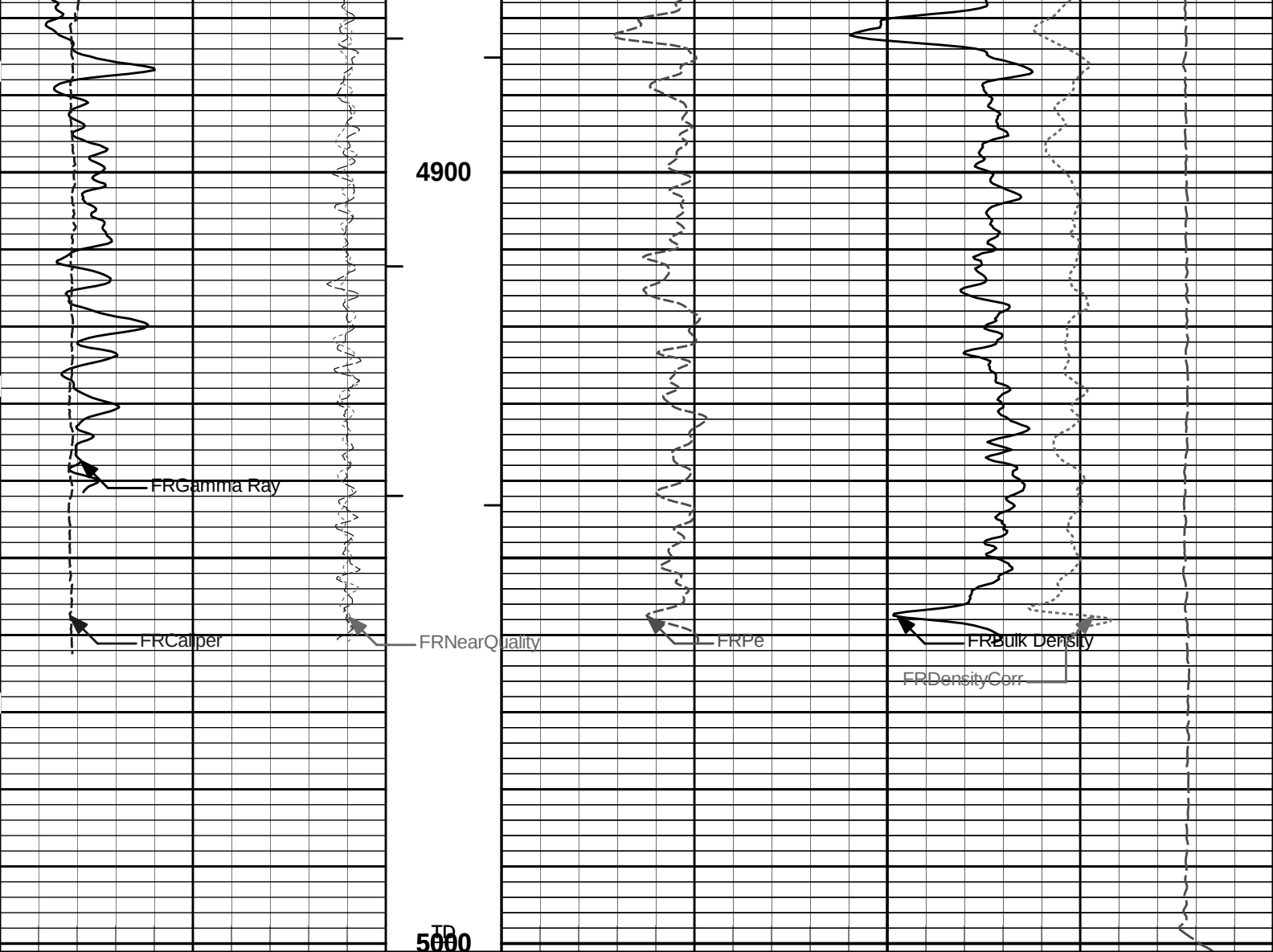












6	Caliper	16	1 : 240	0	Pe	10	-0.25	DensityCorr	0.25
	inches		ft					g/cc	
-18	NearQuality	2	BHV				15K	Tension	0
			ft3					pounds	
18	FarQuality	-2	AHV	2	Bulk Density				
			ft3		g/cc				
0	Gamma Ray	150	Tension Pull						
	api		10	0					
	SHALE		Tension Pull						

HALLIBURTON

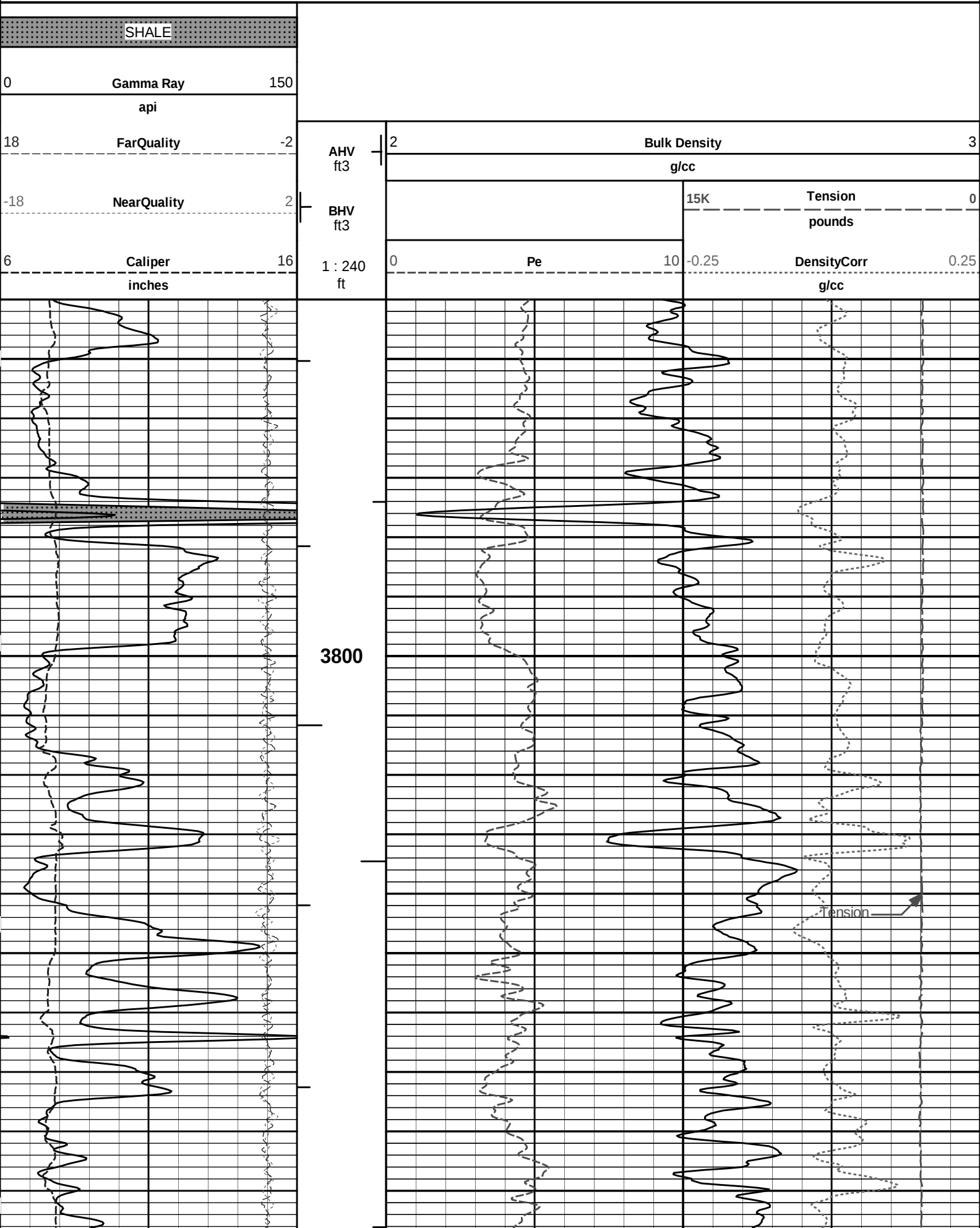
Plot Time: 14-Apr-12 10:48:42
 Plot Range: 3740 ft to 5001.08 ft
 Data: SHELL_B_4\Well Based\DETAIL\
 Plot File: \\-LOCAL-ISHELL_B_4\0001 SP-GTET-DSN-SDL-BSAT-ACRT-CH\PORO\BULKD_5_MAIN_LIB

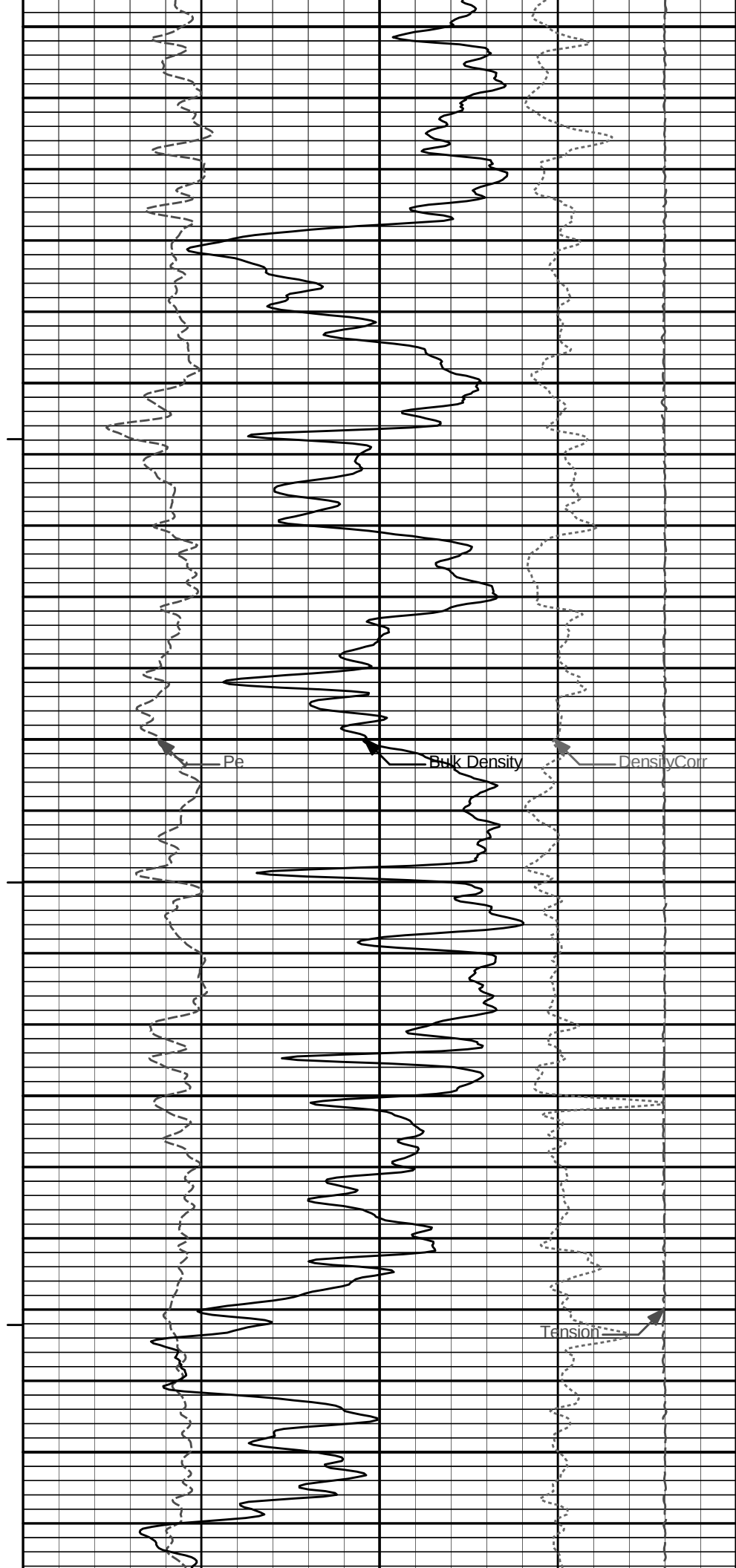
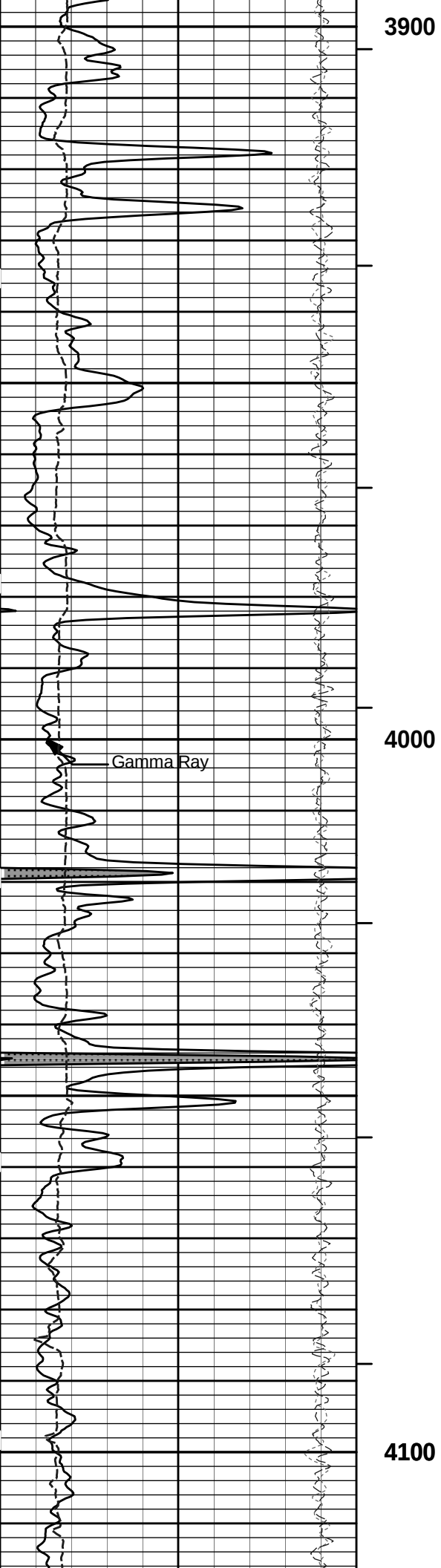
5 INCH MAIN LOG

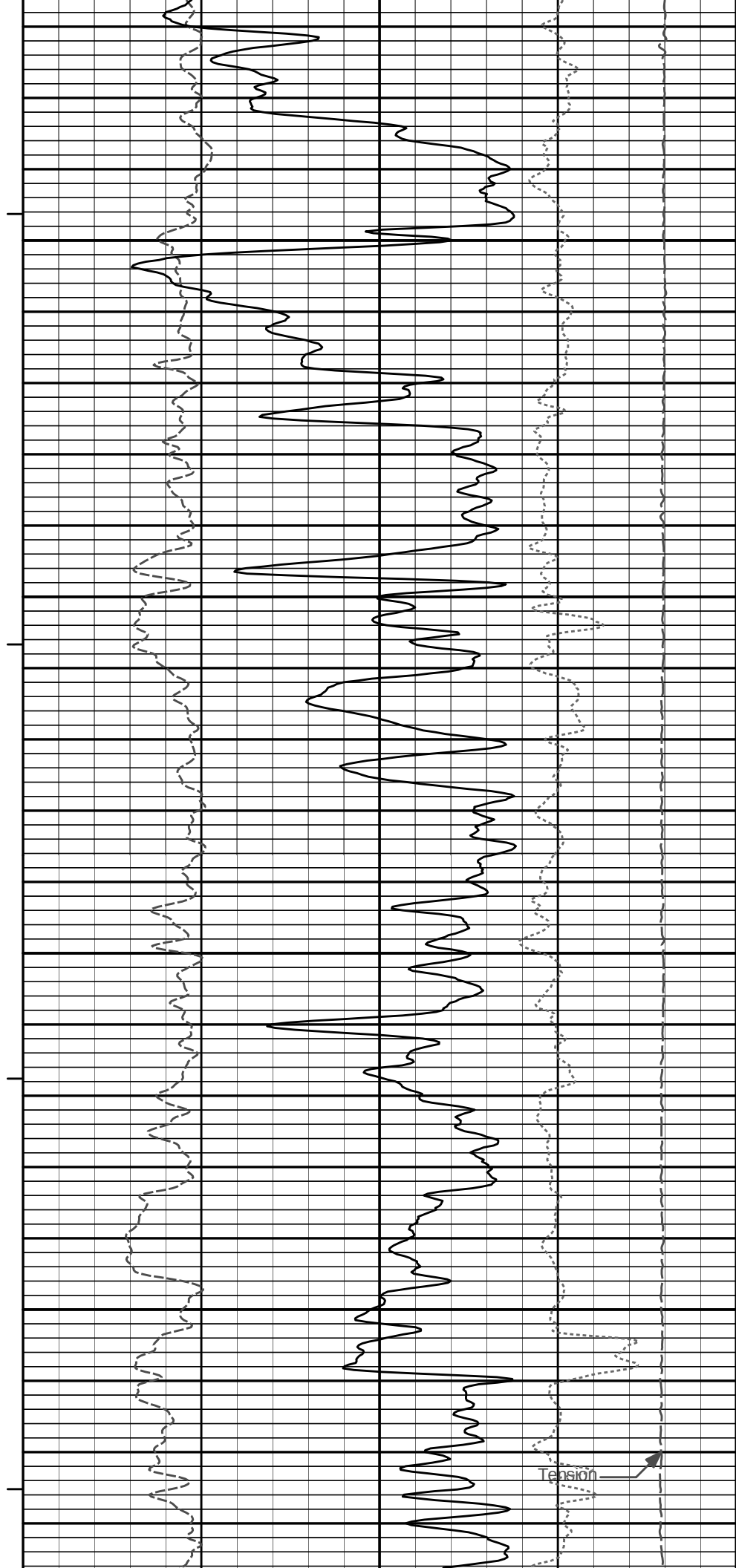
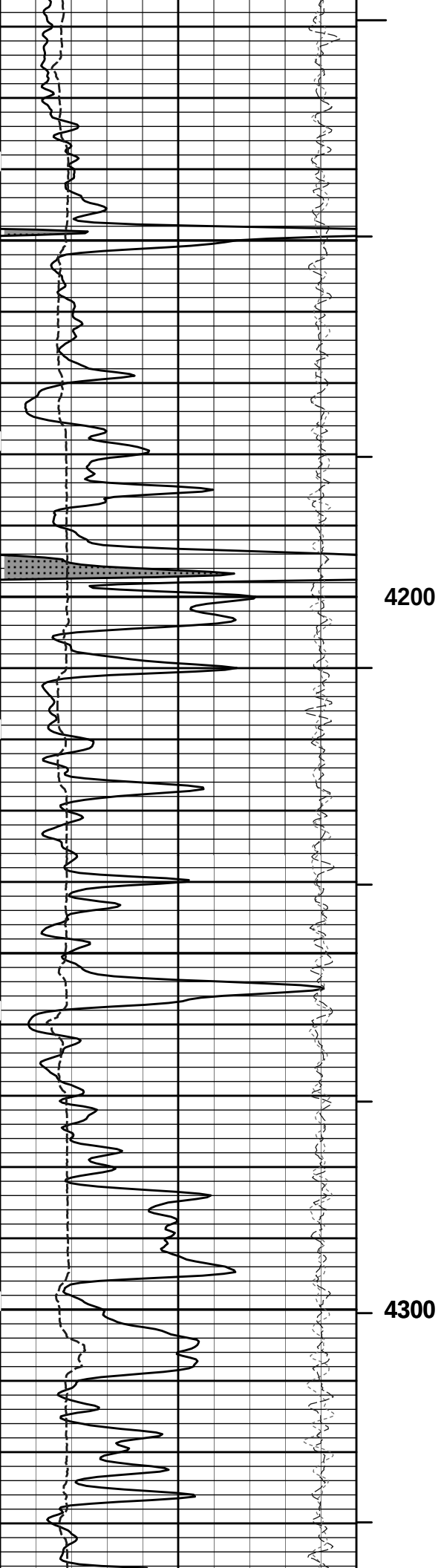
HALLIBURTON

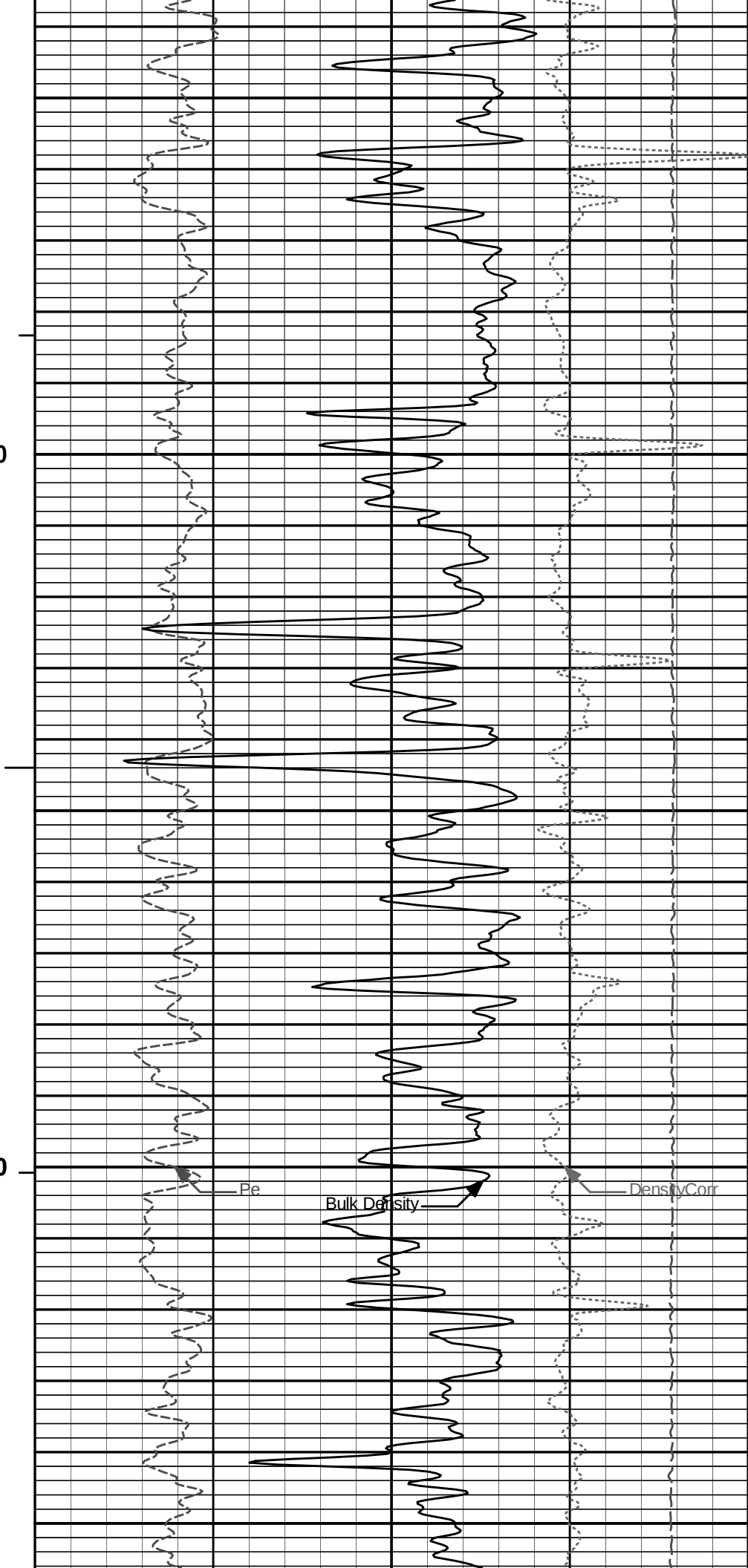
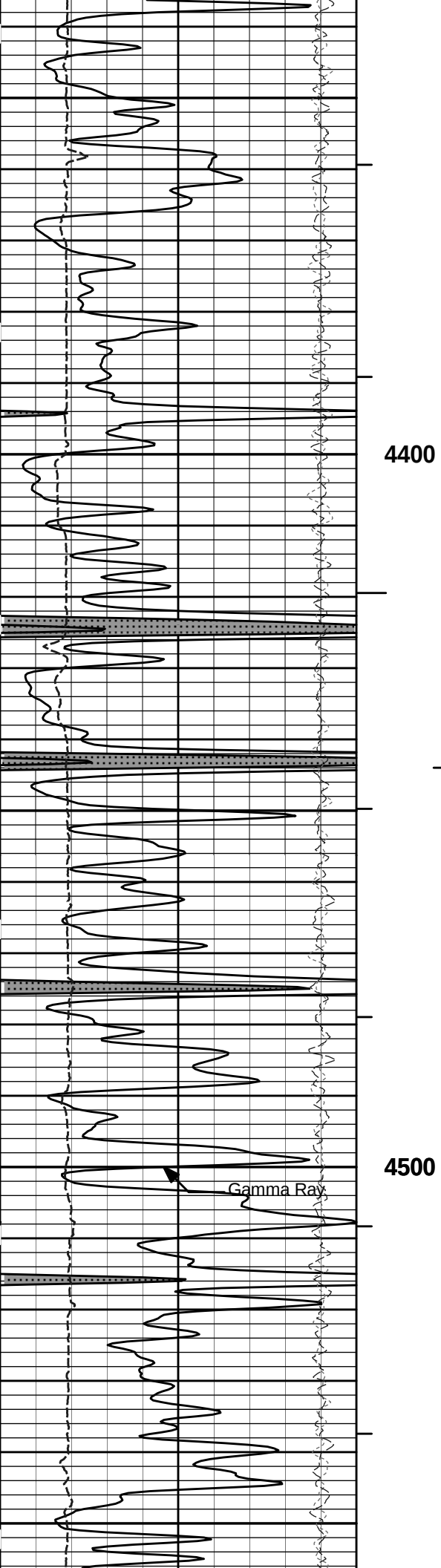
Plot Time: 14-Apr-12 10:48:43
 Plot Range: 3740 ft to 5001.08 ft
 Data: SHELL_B_4\Well Based\DETAIL\
 Plot File: \\-LOCAL-ISHELL_B_4\0001 SP-GTET-DSN-SDL-BSAT-ACRT-CH\PORO\BULKD_5_REP_LIB

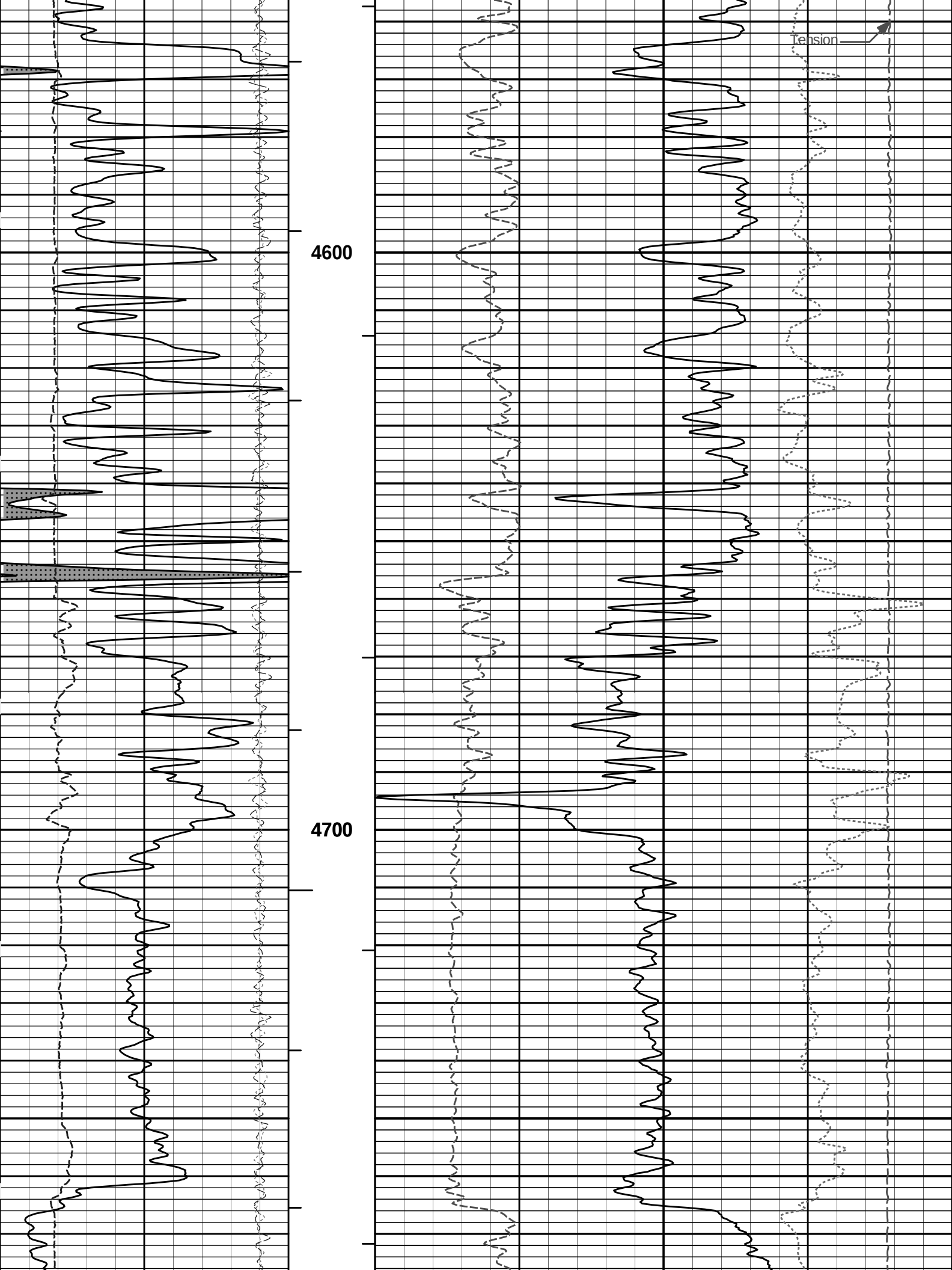
REPEAT SECTION

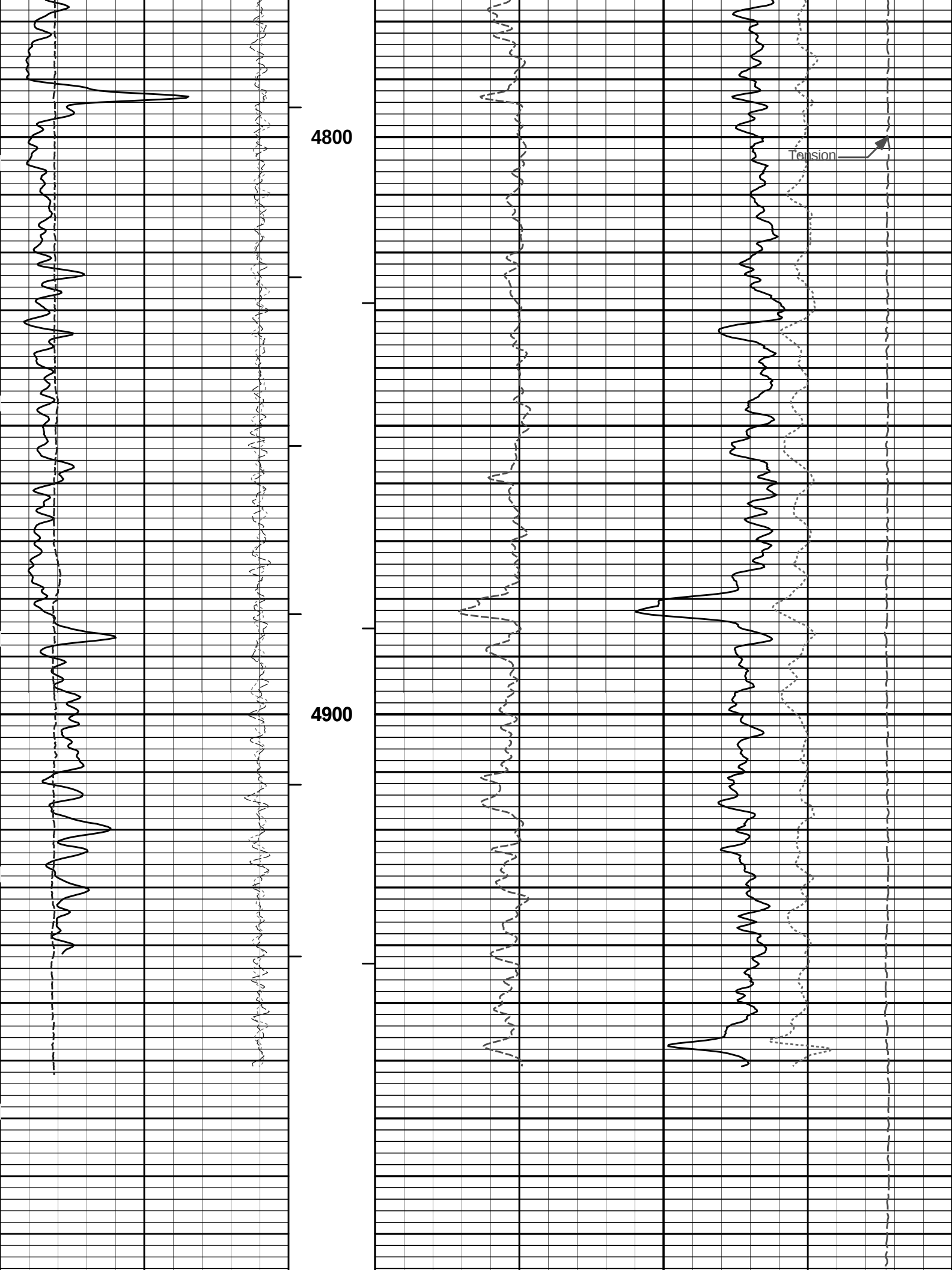




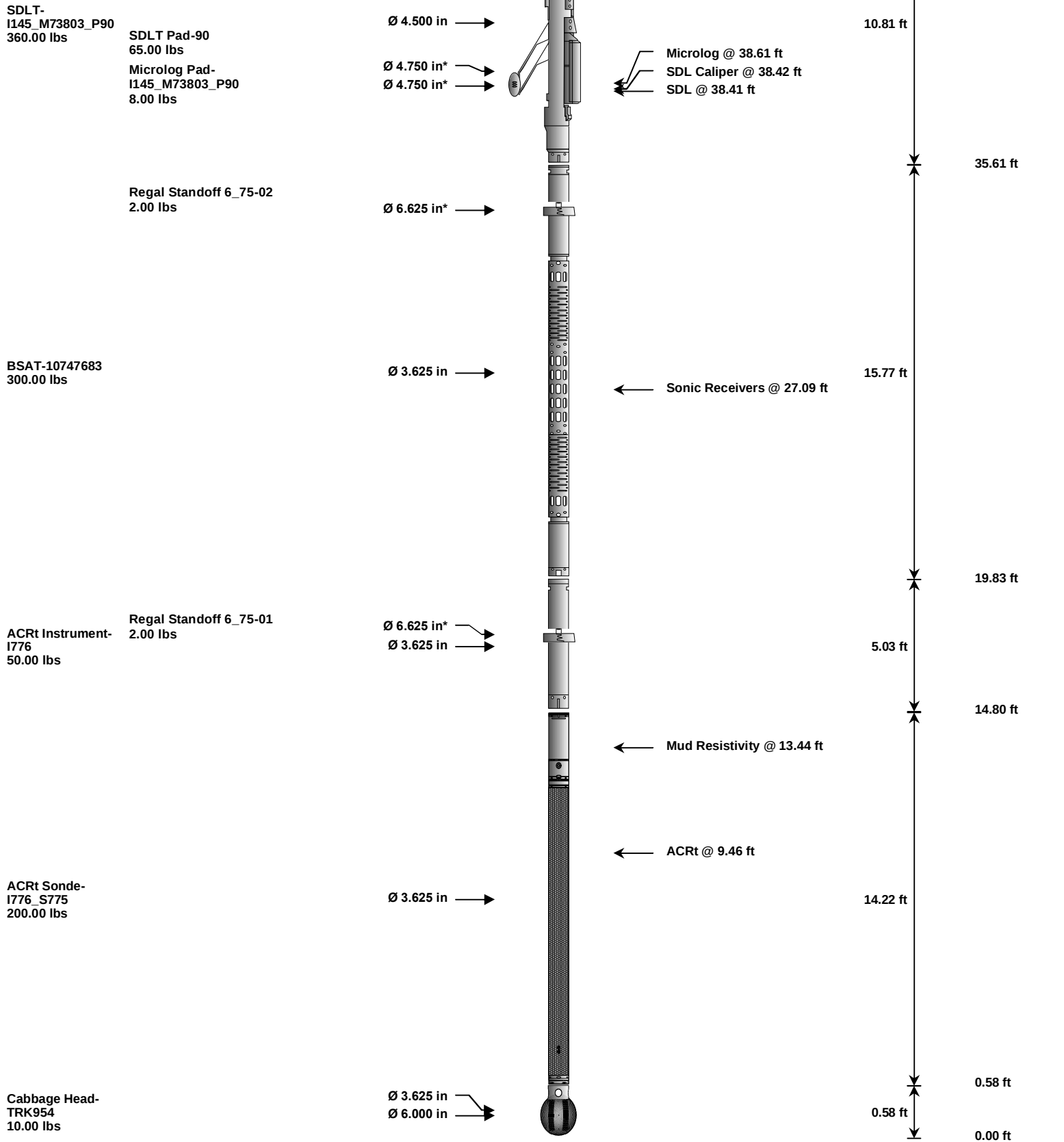








Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length	
Cable Head- PROT01 30.00 lbs		Ø 3.625 in →			1.92 ft	70.28 ft	
SP Sub-PROT01 60.00 lbs		Ø 3.625 in →		← SP @ 66.59 ft	3.74 ft	68.36 ft	
GTET-10811258 165.00 lbs		Ø 3.625 in →		← GammaRay @ 58.56 ft	8.52 ft	64.63 ft	
						56.11 ft	
DSN Decentralizer- 10735145 6.60 lbs		Ø 5.000 in* →					
DSNT-10735145 174.00 lbs		Ø 3.625 in →		← DSN Far @ 49.17 ft ← DSN Near @ 48.42 ft	9.69 ft	46.42 ft	



Mnemonic		Tool Name	Serial Number	Weight (lbs)	Length (ft)	Accumulated Length (ft)	Max.Log. Speed (fpm)
CH	Standard OH Cable Head		PROT01	30.00	1.92	68.36	300.00
SP	SP Sub		PROT01	60.00	3.74	64.63	300.00
GTET	Gamma Telemetry Tool		10811258	165.00	8.52	56.11	60.00
DSNT	Dual Spaced Neutron		10735145	174.00	9.69	46.42	60.00
DCNT	DSN Decentralizer		10735145	6.60	5.13	* 49.75	300.00
SDLT	Spectral Density Tool		I145_M73803_P90	360.00	10.81	35.61	60.00
MICP	Microlog Pad		I145_M73803_P90	8.00	1.00	* 38.11	60.00
SDLP	Density Insite Pad		90	65.00	2.55	* 37.82	60.00
BSAT	Borehole Sonic Array Tool		10747683	300.00	15.77	19.83	60.00

HALLIBURTON	CALIBRATION REPORT
--------------------	---------------------------

Tool Name:	GTET - 10811258	Reference Calibration Date:	27-Feb-12 10:45:14
Engineer:	C. MARLOWE	Calibration Date:	03-Apr-12 13:40:54
are Version:	WL INSITE R3.4.2 (Build 2)	Calibration Version:	1

Equivalent Calibrator API Reference:232.0 api

Measurement	Measured	Calibrated	Units
Background	23.6	23.3	api
Background + Calibrator	258.0	255.3	api
Calibrator	234.4	232.0	api

Tool Name:	GTET - 10811258	Reference Calibration Date:	03-Apr-12 13:40:54
Engineer:	CORY HANSON	Calibration Date:	14-Apr-12 06:52:40
are Version:	WL INSITE R3.4.2 (Build 2)	Calibration Version:	1

Equivalent Calibrator API Reference:232.0 api

Field Verification	Shop	Field	Units
Background	23.3	30.5	api
Background + Calibrator	255.3	259.8	api
Calibrator	232.0	229.2	api

Shop	Field	Difference	Tolerance
232.0	229.2	2.8	+/- 9.00

Tool Name:	DSNT - 10735145	Reference Calibration Date:	27-Feb-12 13:38:46
Engineer:	C. HAVERKAMP	Calibration Date:	07-Apr-12 14:03:46
Software Version:	WL INSITE R3.4.2 (Build 2)	Calibration Version:	1

Min. Tool Housing Outside Diameter: 3.600 in

CALIBRATION CONSTANTS			
Measurement	Prev. Value	New Value	Control Limit On New Value
Gain:	0.931	0.935	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):	0.2076	0.2088	0.0012	+/- 0.0020
Calibrated Ratio:	9.61	9.65	0.041	+/- 0.050

VERIFIER		
Measurement	Value	Control Limit
Snow-Block Porosity (decp):	0.0625	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 - 10735145	Reference Calibration Date:	07-Apr-12 14:03:46
Engineer:	CORY HANSON	Calibration Date:	14-Apr-12 06:57:31
Software Version:	WL INSITE R3.4.2 (Build 2)	Calibration Version:	1

Logging Source S/N: DSN-436
Snow Block S/N: TRK_954

NEUTRON FIELD-CHECK SUMMARY				
	Shop	Field	Difference	Control Limit On Change
Snow-Block Porosity (decp):	0.0625	0.0483	-0.0142	+/- 0.0150

PASS/FAIL SUMMARY	
Block Change Check:	Passed
Snow Block Stat Check:	Passed
Temperature Check:	Passed

DENSITY CALIPER SHOP CALIBRATION			
Tool Name:	SDLT - I145_M73803_P90	Reference Calibration Date:	15-Oct-11 01:31:43
Engineer:	C. MARLOWE	Calibration Date:	16-Dec-11 08:53:18
Software Version:	WL INSITE R3.4.2 (Build 2)	Calibration Version:	1

CALIBRATION COEFFICIENTS			
Measurement	Previous Value	New Value	Control Limit On New Value
Pad Offset	-2810.00	-2999.04	-7000.00 - -1000.00
Pad Gain	0.0004066	0.0004000	0.000200 - 0.000600
Arm Offset	-1181.84	-1398.96	-5000.00 - 3000.00
Arm Gain	0.0005021	0.0005230	0.000300 - 0.000700
Arm Power	-0.000004412	-0.000004686	-0.000010 - 0.000010

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)	2.11	2.00	-0.11	+/- 0.20
Medium Ring (in)	3.89	3.75	-0.14	+/- 0.20
RING DIAMETER:				
Small Ring (in)	6.60	6.50	-0.10	+/- 0.20
Medium Ring (in)	8.28	8.25	-0.03	+/- 0.20
Large Ring (in)	14.82	15.00	0.18	+/- 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 - I145_M73803_P90	Reference Calibration Date:	16-Dec-11 08:53:18
Engineer:	CORY HANSON	Calibration Date:	14-Apr-12 07:08:41
Software Version:	WL INSITE R3.4.2 (Build 2)	Calibration Version:	1

MEASURED CALIPER VALUES				
Measurement	Shop	Field	Change	Control Limit On New Value
Pad Extension	3.75	3.80	0.05	+/- 0.10
Ring Diameter	8.25	8.29	0.04	+/- 0.15

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

SPECTRAL DENSITY SHOP CALIBRATION			
Tool Name:	SDLT Pad - 90	Reference Calibration Date:	07-Apr-12 11:36:19
Engineer:	C. HAVERKAMP	Calibration Date:	07-Apr-12 11:56:59
Software Version:	WL INSITE R3.4.2 (Build 2)	Calibration Version:	1

Logging Source S/N: 5073GW		
Aluminum Block S/N: 63061	Density: 2.591g/cc	Pe: 3.170
Magnesium Block S/N: 63393	Density: 1.690g/cc	Pe: 2.594

DENSITY CALIBRATION SUMMARY			
Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	1.0488	1.0430	0.90 - 1.10
Near Dens Gain	1.0152	1.0101	0.90 - 1.10
Near Peak Gain	1.0169	1.0182	0.90 - 1.10
Near Lith Gain	0.9915	0.9890	0.90 - 1.10
Far Bar Gain	0.9989	0.9974	0.90 - 1.10
Far Dens Gain	0.9879	0.9867	0.90 - 1.10
Far Peak Gain	0.9824	0.9813	0.90 - 1.10
Far Lith Gain	0.9594	0.9591	0.90 - 1.10
Near Bar Offset	-0.2250	-0.1713	NONE
Near Dens Offset	0.0748	0.1210	NONE
Near Peak Offset	0.0695	0.0576	NONE
Near Lith Offset	0.2620	0.2824	NONE
Far Bar Offset	0.1553	0.1682	NONE
Far Dens Offset	0.2355	0.2452	NONE

Far Peak Offset	0.2526	0.2634	NONE
Far Lith Offset	0.3787	0.3829	NONE
Near Bar Background	880.26	881.31	700 - 1450
Near Dens Background	291.30	294.81	230 - 480
Near Peak Background	129.08	127.76	100 - 210
Near Lith Background	157.53	158.16	125 - 260
Far Bar Background	591.45	592.33	450 - 900
Far Dens Background	232.56	232.07	175 - 345
Far Peak Background	91.93	92.39	70 - 140
Far Lith Background	97.63	95.98	75 - 145

CALIBRATION BLOCK SUMMARY				
Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.690	1.690	0.000	+/- 0.015
Pe	2.549	2.551	0.002	+/- 0.150
ALUMINUM				
Density (g/cc)	2.591	2.591	0.000	+/- 0.01500
Pe	3.119	3.125	0.006	+/- 0.150

TOOL SUMMARY				
Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	0.0011	+/- 0.0110	0.0006	+/- 0.0140
Magnesium Block	0.0000	+/- 0.0110	-0.0008	+/- 0.0140
Aluminum Block	-0.0013	+/- 0.0110	-0.0005	+/- 0.0140
Resolution	8.95	6.00 - 11.50	8.94	6.00 - 11.50
Internal Verifier(B+D+P+L)	1462	1200 - 2700	1013	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 - 90	Reference Calibration Date:	07-Apr-12 11:56:59
Engineer:	CORY HANSON	Calibration Date:	14-Apr-12 06:52:26
Software Version:	WL INSITE R3.4.2 (Build 2)	Calibration Version:	1

Pad Temperature: 61.1 degF

DENSITY FIELD CALIBRATION SUMMARY				
Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1462.042	1457.020	-5.022	15.420
Far (B+D+P+L) cps	1012.779	1024.372	11.593	17.002

Near Resolution	8.95	9.19	0.240	0.50
Far Resolution	8.94	9.41	0.470	1.00
PASS/FAIL SUMMARY				
Bkg Quality Check:			Passed	
Bkg Resolution Check:			Passed	
Bkg Verification Check:			Passed	

CALIBRATION SUMMARY						
Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-10811258						
Gamma Ray Calibrator	232.0	229.2	-----	2.8	+/- 9.00	api
DSNT-10735145						
Snow-Block Porosity	0.0625	0.0483	-----	0.0142	+/- 0.0150	decp
SDLT-I145_M73803_P90						
Pad Extension	3.75	3.80	-----	-0.05	+/-0.10	in
Ring Diameter	8.25	8.29	-----	-0.040	+/-0.15	in
SDLT Pad-90						
Near(B+D+P+L)	1462.042	1457.020	-----	5.022	+/-15.420	cps
Far(B+D+P+L)	1012.779	1024.372	-----	-11.593	+/-17.002	cps
Data: SHELL_B_4I0001 SP-GTET-DSN-SDL-BSAT-ACRT-CHIDLE					Date: 14-Apr-12 09:05:37	

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	9.000	ppg
	SHARED	WAGT	Weighting Agent	Natural	
	SHARED	BSAL	Borehole salinity	0.00	ppm
	SHARED	FSAL	Formation Salinity NaCl	0.00	ppm
	SHARED	KPCT	Percent K in Mud by Weight?	0.00	%
	SHARED	RMUD	Mud Resistivity	2.290	ohmm
	SHARED	TRM	Temperature of Mud	80.0	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	5033.00	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	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	

CrossPlot	Rwa / CrossPlot	RMFR	Rmf Reference	2.00	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	DSNO	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	
BOTTOM					
Data: SHELL_B_4I0001 SP-GTET-DSN-SDL-BSAT-ACRT-CHIDLE				Date: 14-Apr-12 09:04:17	

HALLIBURTON

INPUTS, DELAYS AND FILTERS TABLE

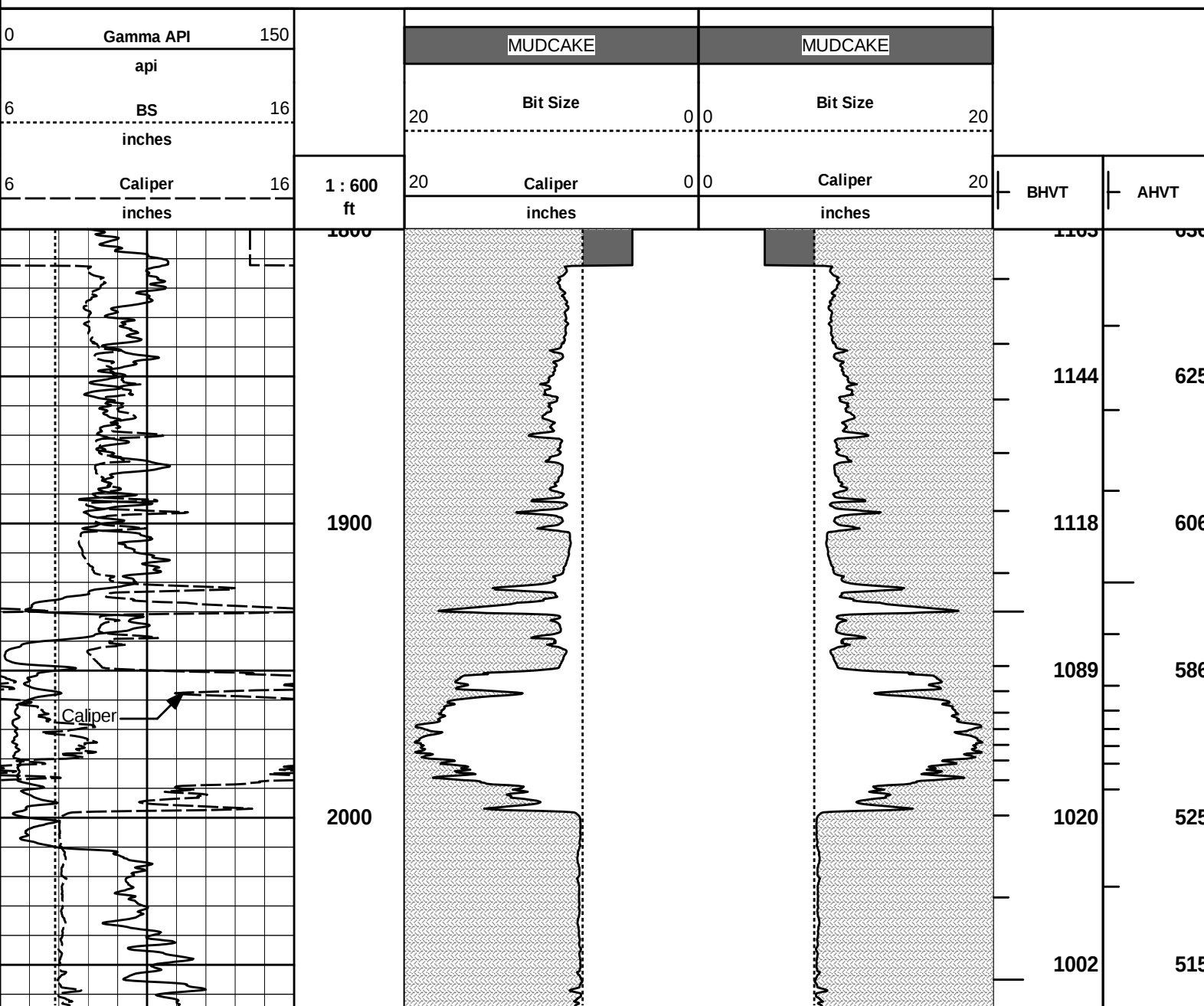
Mnemonic	Input Description	Delay (ft)	Filter Type	Filter Length (ft)
----------	-------------------	------------	-------------	--------------------

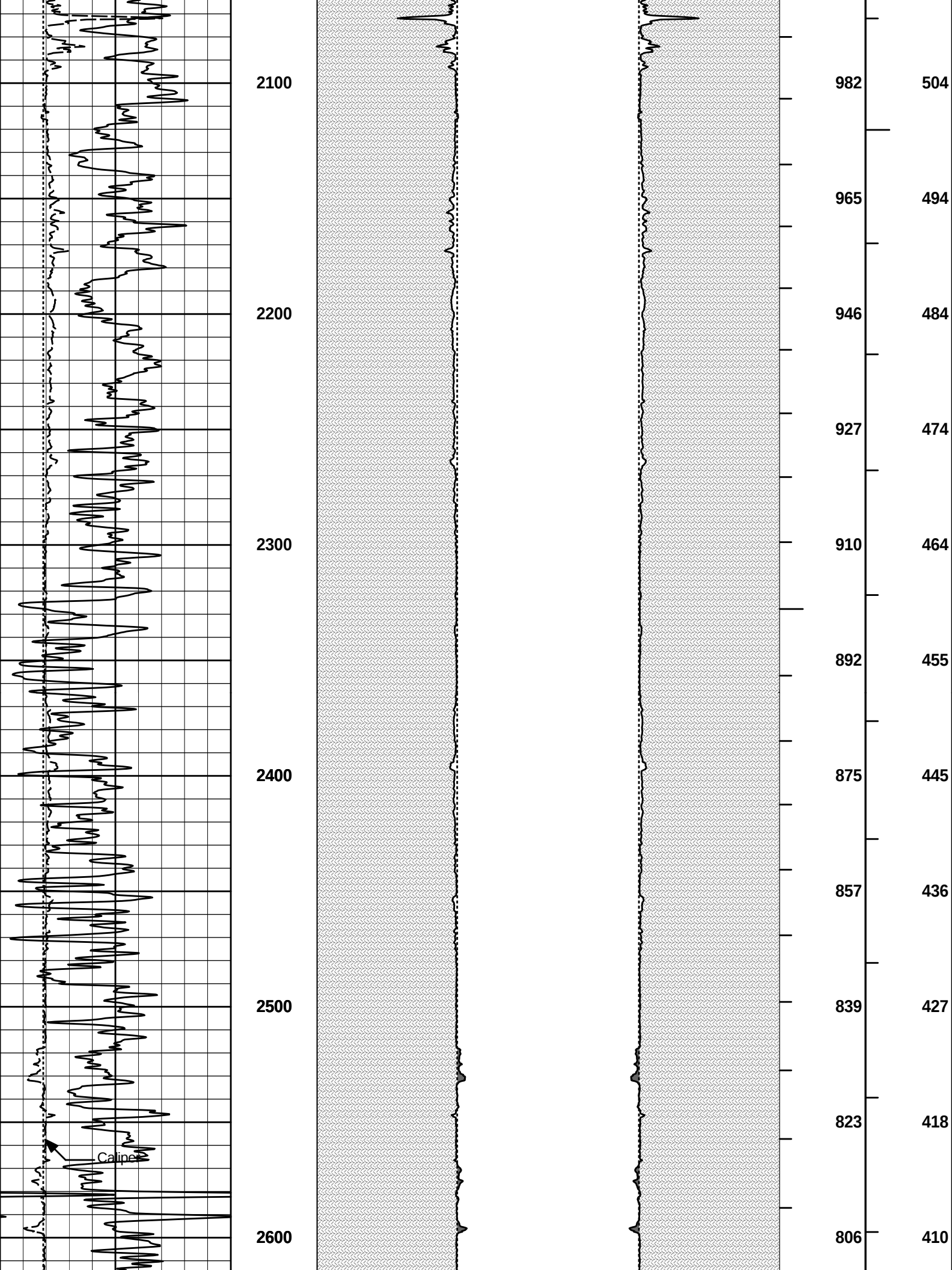
Depth Panel				
TENS	Tension	0.00	NO	
SP Sub				
PLTC	Plot Control Mask	66.58	NO	
SP	Spontaneous Potential	66.58	BLK	1.250
SPR	Raw Spontaneous Potential	66.58	NO	
SPO	Spontaneous Potential Offset	66.58	NO	
GTET				
TPUL	Tension Pull	58.56	NO	
GR	Natural Gamma Ray API	58.56	TRI	1.750
GRU	Unfiltered Natural Gamma Ray API	58.56	NO	
EGR	Natural Gamma Ray API with Enhanced Vertical Resolution	58.56	W	1.416 , 0.750
ACCZ	Accelerometer Z	0.00	BLK	0.083
DEVI	Inclination	0.00	NO	
DSNT				
TPUL	Tension Pull	48.32	NO	
RNDS	Near Detector Telemetry Counts	48.42	BLK	1.417
RFDS	Far Detector Telemetry Counts	49.17	TRI	0.583
DNTT	DSN Tool Temperature	48.42	NO	
DSNS	DSN Tool Status	48.32	NO	
ERND	Near Detector Telemetry Counts EVR	48.42	BLK	0.000
ERFD	Far Detector Telemetry Counts EVR	49.17	BLK	0.000
ENTM	DSN Tool Temperature EVR	48.42	NO	
SDLT				
TPUL	Tension Pull	38.42	NO	
PCAL	Pad Caliper	38.42	TRI	0.250
ACAL	Arm Caliper	38.42	TRI	0.250
BSAT				
TPUL	Tension Pull	27.09	NO	
STAT	Status	27.09	NO	
DLYT	Delay Time	27.09	NO	
SI	Sample Interval	27.09	NO	
TXRX	Raw Telemetry 10 Receivers	27.09	NO	
FRMC	Tool Frame Count	27.09	NO	
ACRt Sonde				
TPUL	Tension Pull	2.97	NO	
F1R1	ACRT 12KHz - 80in R value	9.22	BLK	0.000
F1X1	ACRT 12KHz - 80in X value	9.22	BLK	0.000
F1R2	ACRT 12KHz - 50in R value	6.72	BLK	0.000
F1X2	ACRT 12KHz - 50in X value	6.72	BLK	0.000
F1R3	ACRT 12KHz - 29in R value	5.22	BLK	0.000
F1X3	ACRT 12KHz - 29in X value	5.22	BLK	0.000
F1R4	ACRT 12KHz - 17in R value	4.22	BLK	0.000
F1X4	ACRT 12KHz - 17in X value	4.22	BLK	0.000
F1R5	ACRT 12KHz - 10in R value	3.72	BLK	0.000
F1X5	ACRT 12KHz - 10in X value	3.72	BLK	0.000
F1R6	ACRT 12KHz - 6in R value	3.47	BLK	0.000
F1X6	ACRT 12KHz - 6in X value	3.47	BLK	0.000
F2R1	ACRT 36KHz - 80in R value	9.22	BLK	0.000
F2X1	ACRT 36KHz - 80in X value	9.22	BLK	0.000
F2R2	ACRT 36KHz - 50in R value	6.72	BLK	0.000

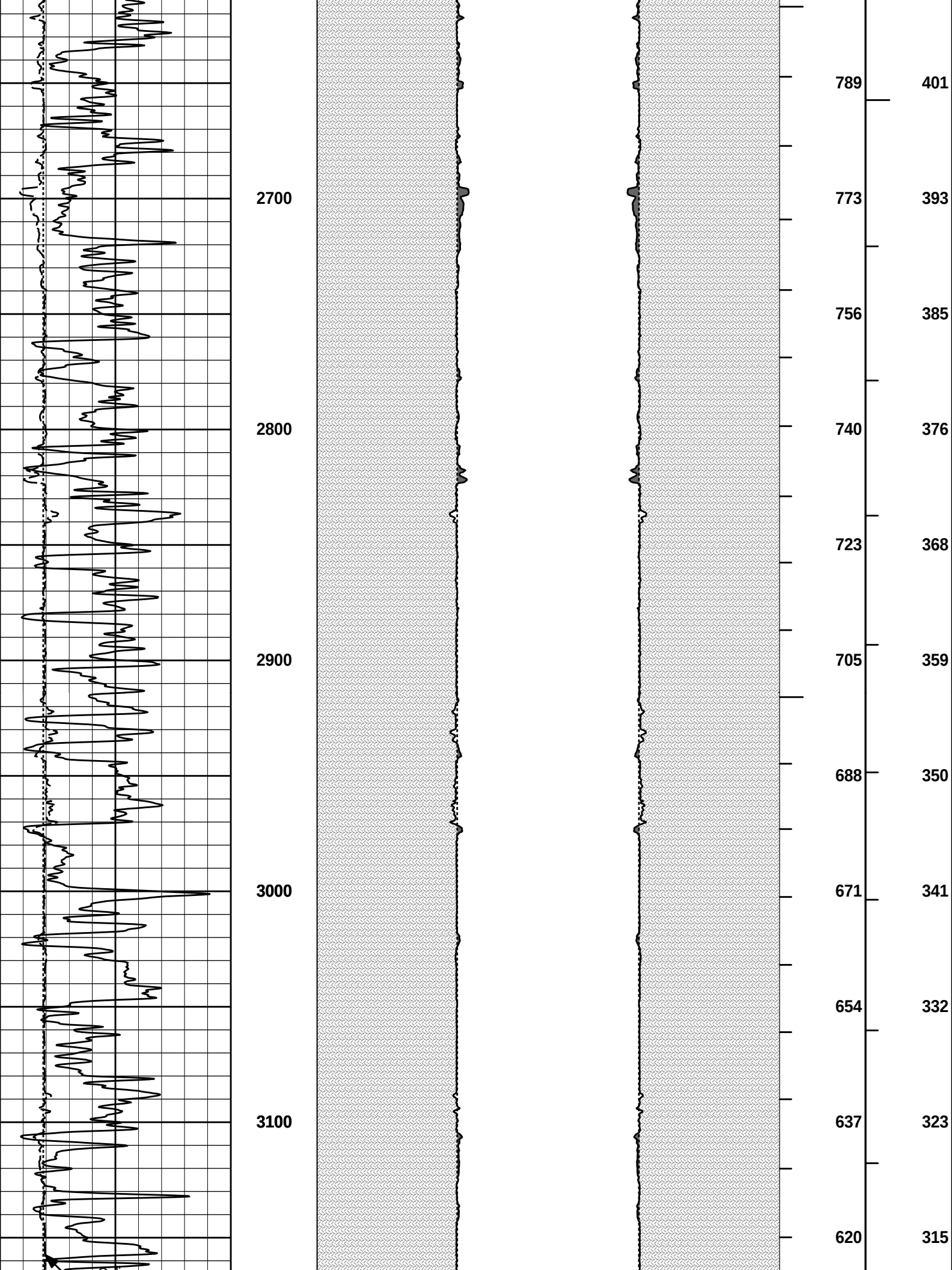
F2X2	ACRT 36KHz - 50in X value	6.72	BLK	0.000
F2R3	ACRT 36KHz - 29in R value	5.22	BLK	0.000
F2X3	ACRT 36KHz - 29in X value	5.22	BLK	0.000
F2R4	ACRT 36KHz - 17in R value	4.22	BLK	0.000
F2X4	ACRT 36KHz - 17in X value	4.22	BLK	0.000
F2R5	ACRT 36KHz - 10in R value	3.72	BLK	0.000
F2X5	ACRT 36KHz - 10in X value	3.72	BLK	0.000
F2R6	ACRT 36KHz - 6in R value	3.47	BLK	0.000
F2X6	ACRT 36KHz - 6in X value	3.47	BLK	0.000
F3R1	ACRT 72KHz - 80in R value	9.22	BLK	0.000
F3X1	ACRT 72KHz - 80in X value	9.22	BLK	0.000
F3R2	ACRT 72KHz - 50in R value	6.72	BLK	0.000
F3X2	ACRT 72KHz - 50in X value	6.72	BLK	0.000
F3R3	ACRT 72KHz - 29in R value	5.22	BLK	0.000
F3X3	ACRT 72KHz - 29in X value	5.22	BLK	0.000
F3R4	ACRT 72KHz - 17in R value	4.22	BLK	0.000
F3X4	ACRT 72KHz - 17in X value	4.22	BLK	0.000
F3R5	ACRT 72KHz - 10in R value	3.72	BLK	0.000
F3X5	ACRT 72KHz - 10in X value	3.72	BLK	0.000
F3R6	ACRT 72KHz - 6in R value	3.47	BLK	0.000
F3X6	ACRT 72KHz - 6in X value	3.47	BLK	0.000
RMUD	Mud Resistivity	12.76	BLK	0.000
F1RT	Transmitter Reference 12 KHz Real Signal	2.97	BLK	0.000
F1XT	Transmitter Reference 12 KHz Imaginary Signal	2.97	BLK	0.000
F2RT	Transmitter Reference 36 KHz Real Signal	2.97	BLK	0.000
F2XT	Transmitter Reference 36 KHz Imaginary Signal	2.97	BLK	0.000
F3RT	Transmitter Reference 72 KHz Real Signal	2.97	BLK	0.000
F3XT	Transmitter Reference 72 KHz Imaginary Signal	2.97	BLK	0.000
TFPU	Upper Feedpipe Temperature Calculated	2.97	BLK	0.000
TFPL	Lower Feedpipe Temperature Calculated	2.97	BLK	0.000
ITMP	Instrument Temperature	2.97	BLK	0.000
TCVA	Temperature Correction Values Loop Off	2.97	NO	
TIDV	Instrument Temperature Derivative	2.97	NO	
TUDV	Upper Temperature Derivative	2.97	NO	
TLDV	Lower Temperature Derivative	2.97	NO	
TRBD	Receiver Board Temperature	2.97	NO	
SDLT Pad				
TPUL	Tension Pull	38.41	NO	
NAB	Near Above	38.24	BLK	0.920
NHI	Near Cesium High	38.24	BLK	0.920
NLO	Near Cesium Low	38.24	BLK	0.920
NVA	Near Valley	38.24	BLK	0.920
NBA	Near Barite	38.24	BLK	0.920
NDE	Near Density	38.24	BLK	0.920
NPK	Near Peak	38.24	BLK	0.920
NLI	Near Lithology	38.24	BLK	0.920
NBAU	Near Barite Unfiltered	38.24	BLK	0.250
NLIU	Near Lithology Unfiltered	38.24	BLK	0.250
FAB	Far Above	38.58	BLK	0.250
FHI	Far Cesium High	38.58	BLK	0.250
FLO	Far Cesium Low	38.58	BLK	0.250
FVA	Far Valley	38.58	BLK	0.250
FBA	Far Barite	38.58	BLK	0.250
FDE	Far Density	38.58	BLK	0.250
FPK	Far Peak	38.58	BLK	0.250

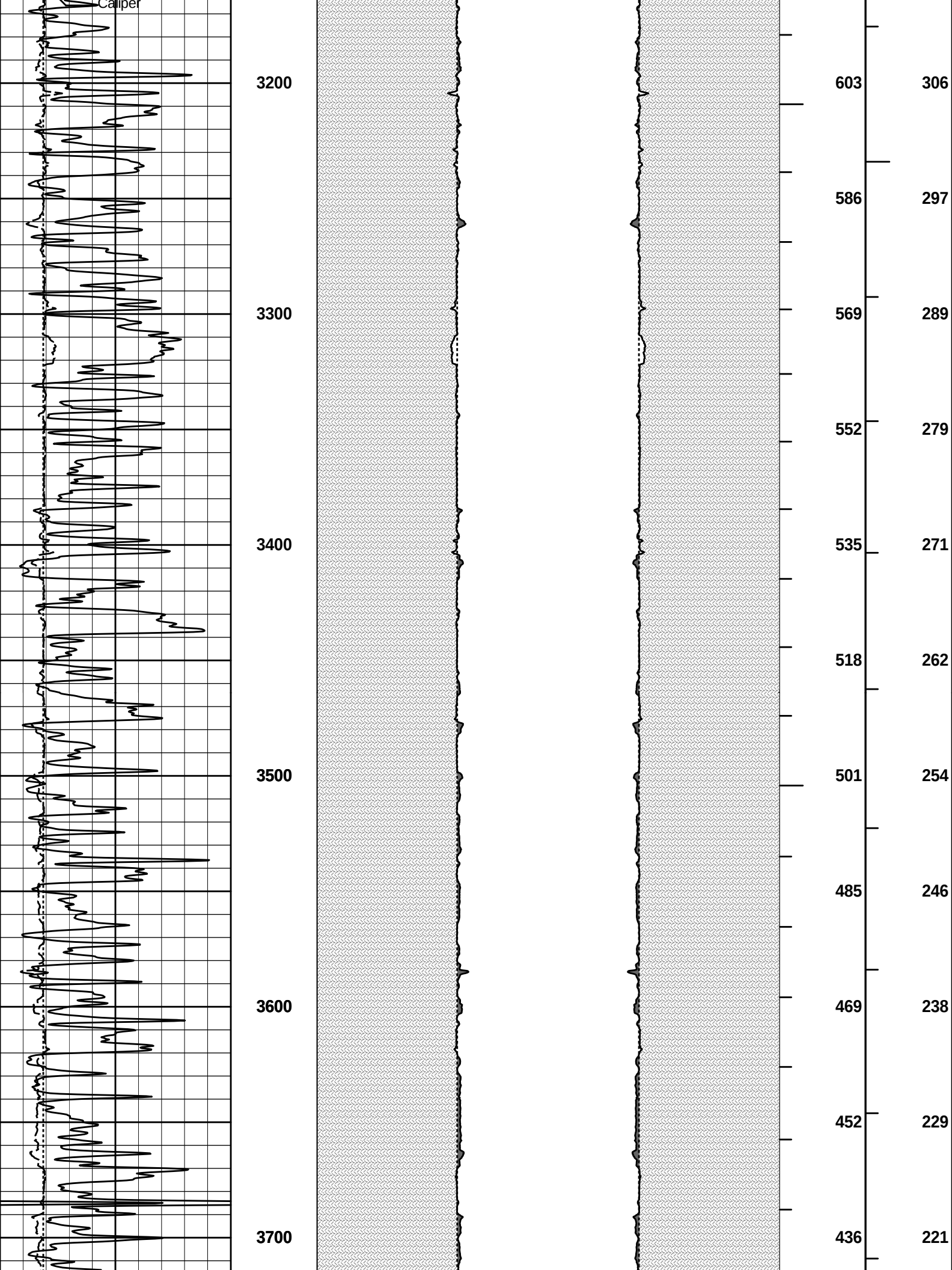
FLI	Far Lithology	38.58	BLK	0.250
PTMP	Pad Temperature	38.42	BLK	0.920
NHV	Near Detector High Voltage	37.81	NO	
FHV	Far Detector High Voltage	37.81	NO	
ITMP	Instrument Temperature	37.81	NO	
DDHV	Detector High Voltage	37.81	NO	

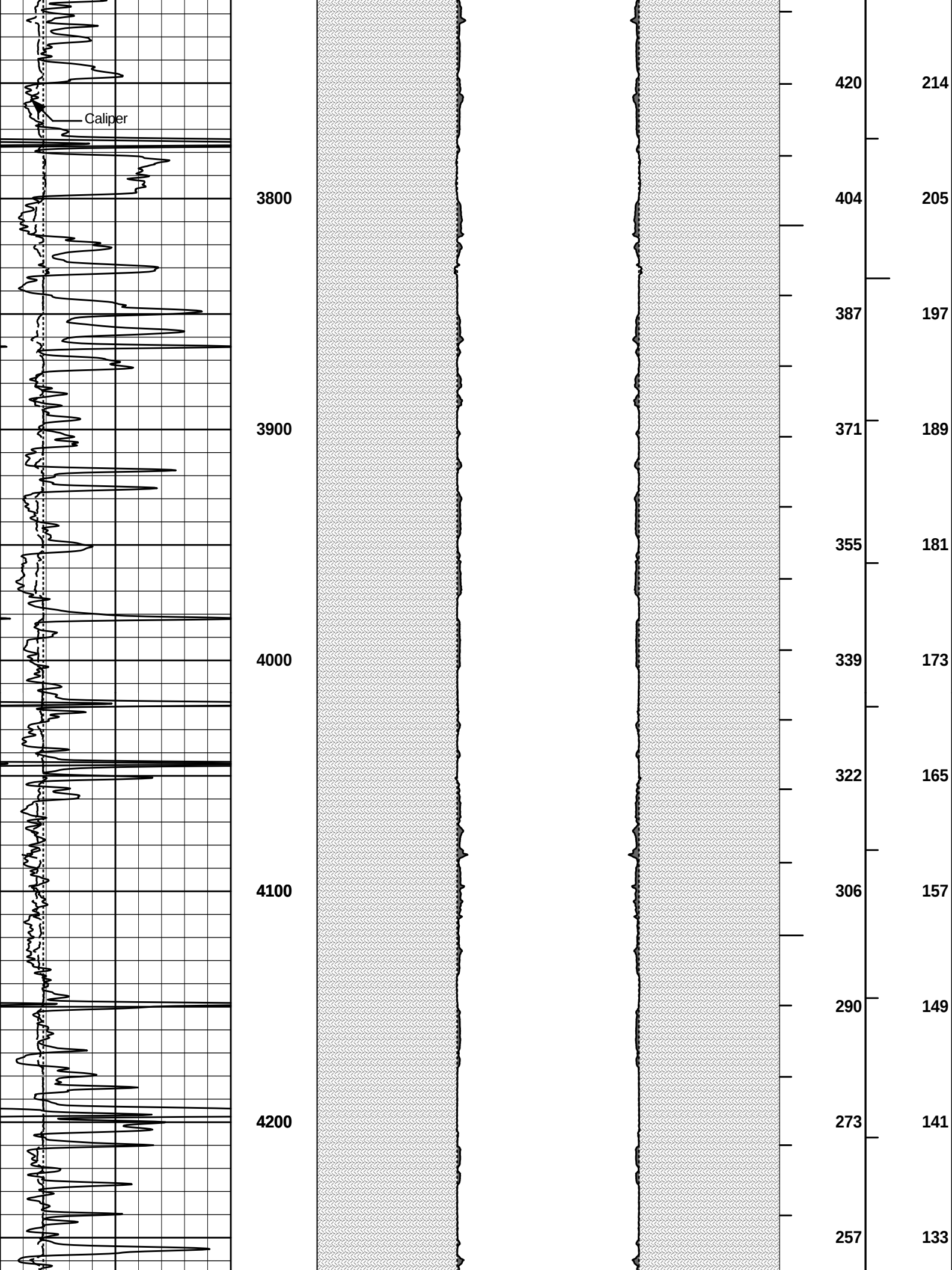
HALLIBURTON Plot Time: 14-Apr-12 10:48:45
 Plot Range: 1800 ft to 5001.08 ft
 Data: SHELL_B_4\Well Based\CASING\
 Plot File: \\LOCAL-SHELL_B_4\0001 SP-GTET-DSN-SDL-BSAT-ACRT-CHIPORO\AHV_5_5 INCH_2 IQ LIB

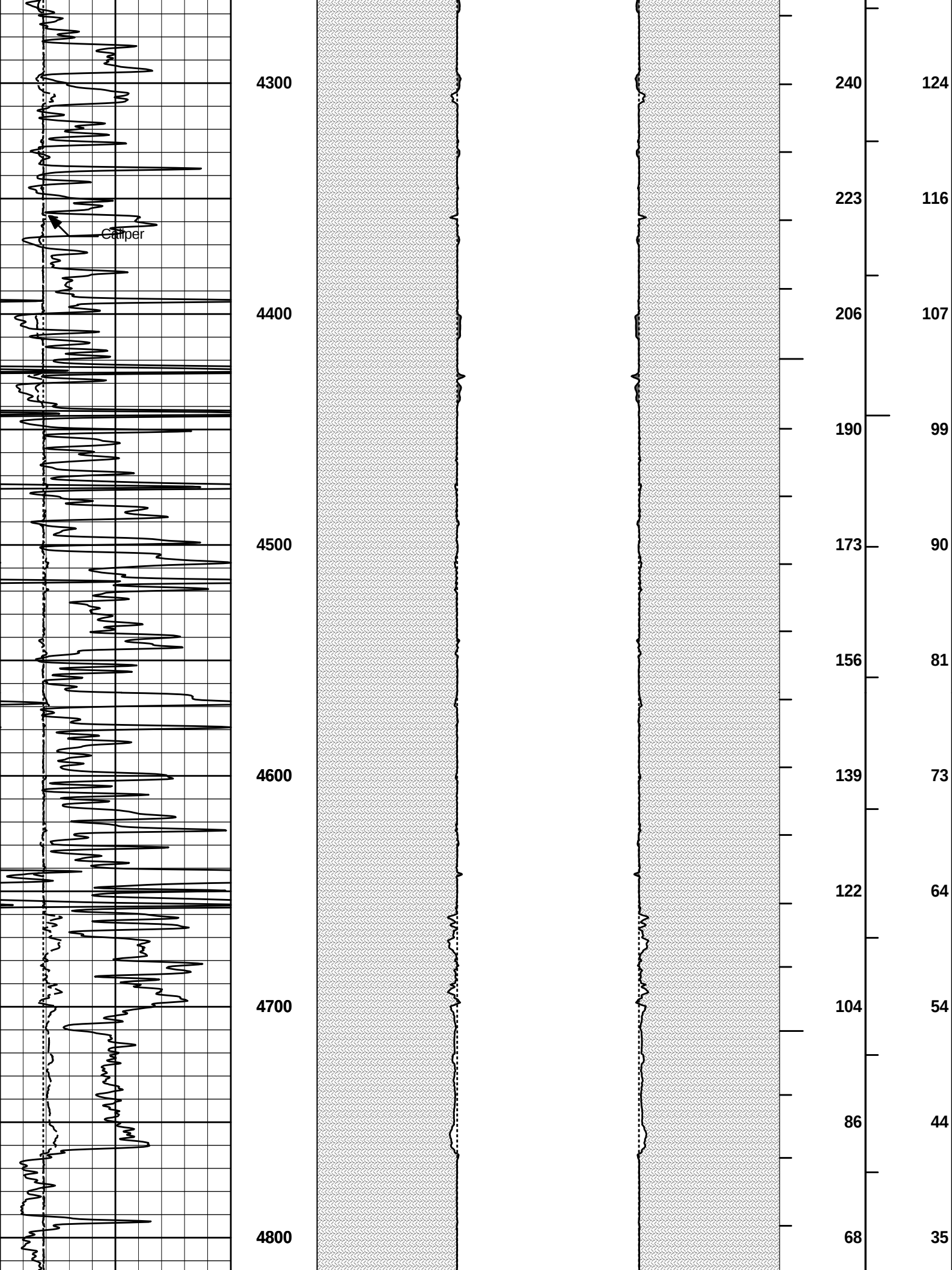


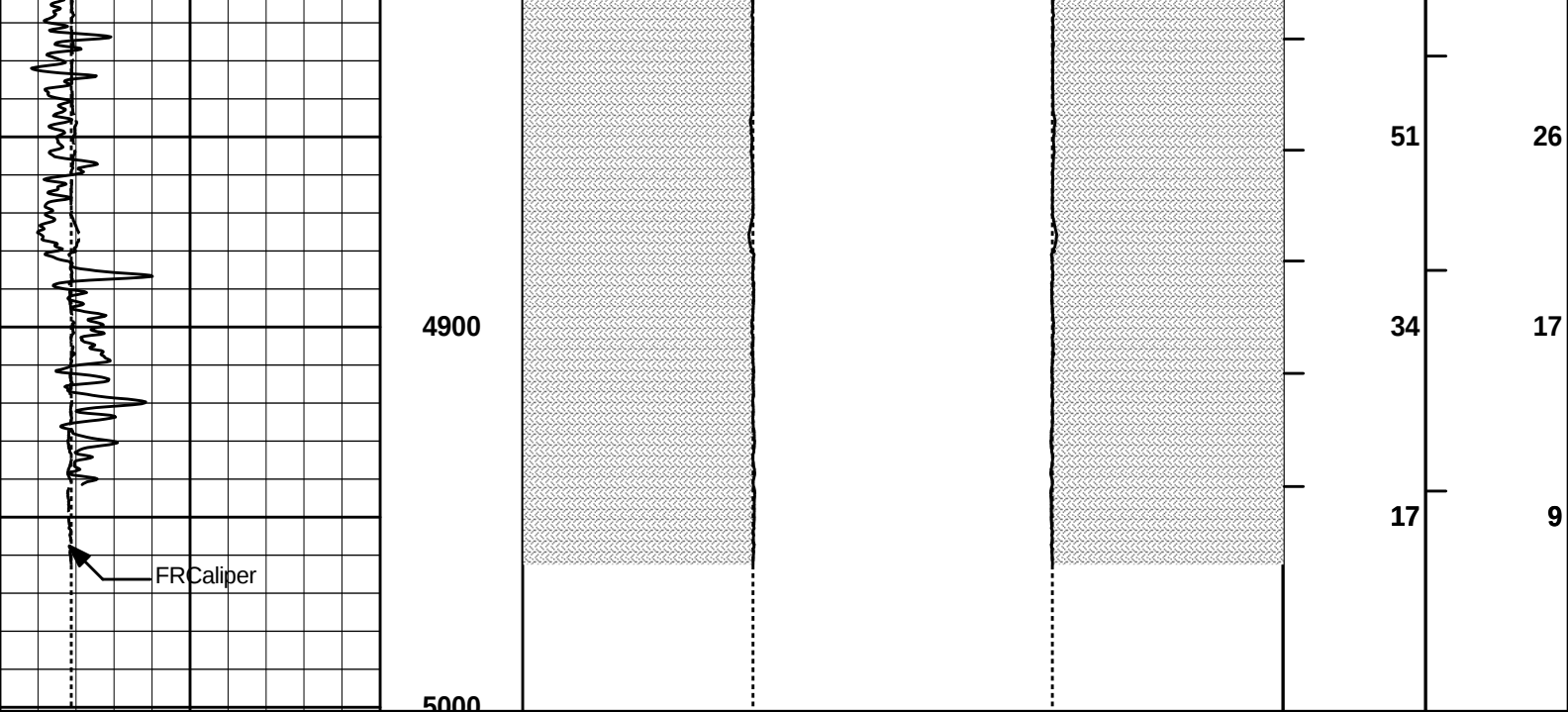












6	Caliper	16	1 : 600 ft	20	Caliper	0 0	20	BHVT	AHVT
	inches				inches				
6	BS	16		20	Bit Size	0 0	20		
	inches								
0	Gamma API	150			MUDCAKE		MUDCAKE		
	api								

HALLIBURTON

Plot Time: 14-Apr-12 10:48:58
Plot Range: 1800 ft to 5001.08 ft
Data: SHELL_B_4\Well Based\CASING\
Plot File: \\LOCAL-ISHELL_B_4\0001 SP-GTET-DSN-SDL-BSAT-ACRT-CH\PORO\AHV_5_5_INCH_2_IQ_LIB

ANNULAR HOLE VOLUME PLOT (5.5 INCH)

COMPANY	OXY USA INC		
WELL	SHELL B-4		
FIELD	AMAZON DITCH		
COUNTY	FINNEY	STATE	KANSAS
HALLIBURTON		DUAL SPACED NEUTRON SPECTRAL DENSITY LOG	