

HALLIBURTON

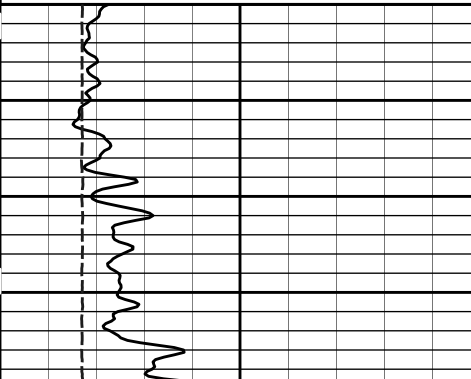
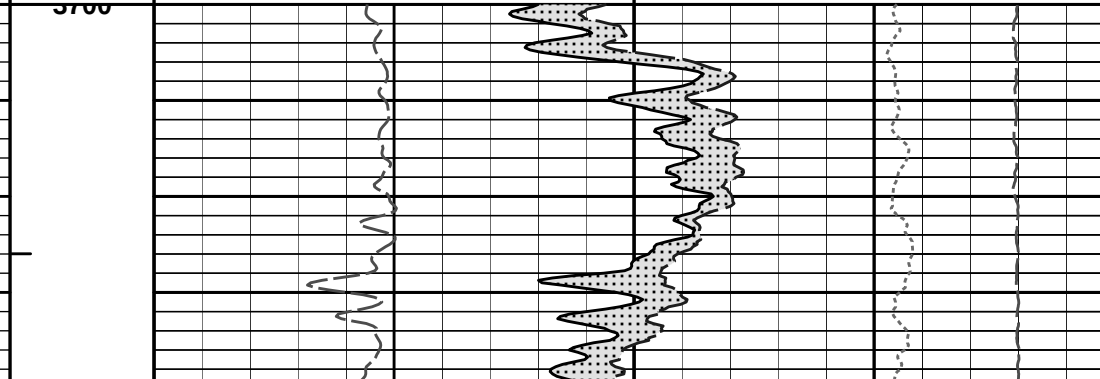
SPECTRAL DENSITY
DUAL SPACED NEUTRON
LOG

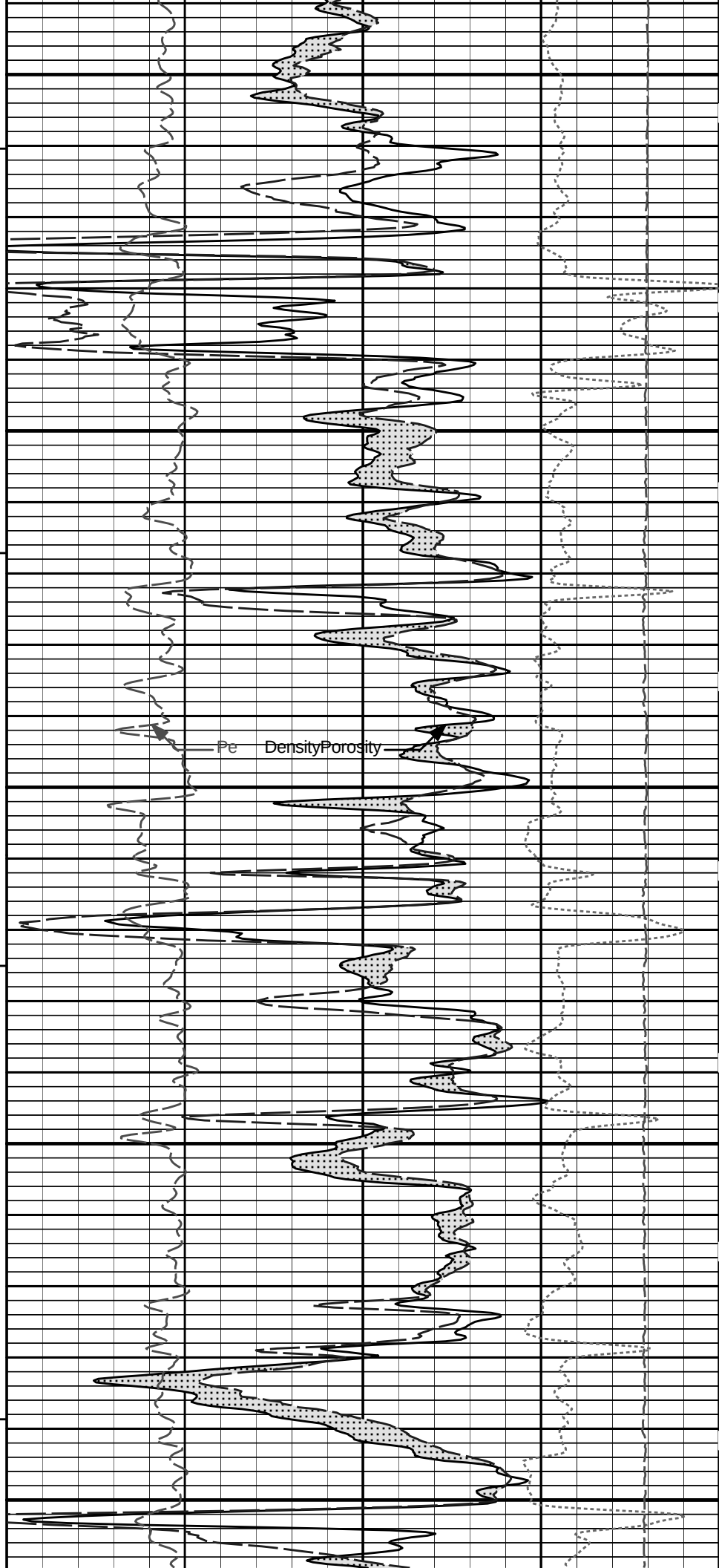
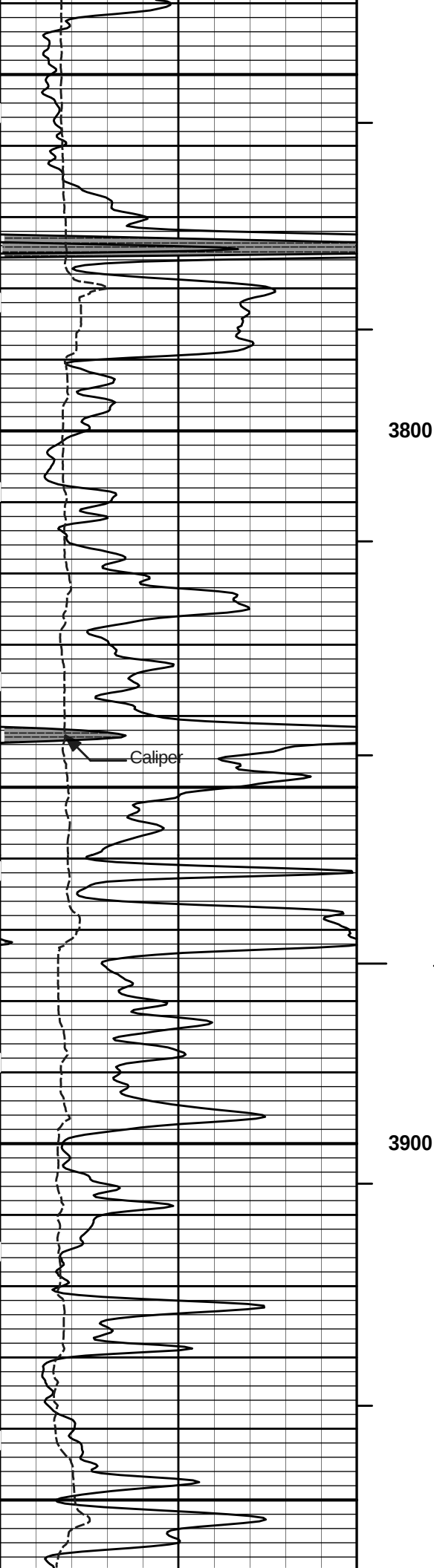
COMPANY				OXY USA INC							
WELL				GARDEN CITY T-3							
FIELD/BLOCK				HUGOTON GAS AREA							
COUNTY				FINNEY							
STATE				KANSAS							
Permanent Datum		GL		Sect. 29		Twp. 23S		Rge. 34W		Other Services: MICROLOG ACRT BSAT	
Log measured from		KB		Location		1540' FNL & 1550' FWL		Elev. 2973.0 ft		Elev.: K.B. 2984.0 ft	
Drilling measured from		KB						11.0 ft above perm. Datum		D.F. 2983.0 ft	
										G.L. 2973.0 ft	
Date		03-Mar-13									
Run No.		ONE									
Depth - Driller		5102.00 ft									
Depth - Logger		5084.0 ft									
Bottom - Logged Interval		5040.0 ft									
Top - Logged Interval		3700.0 ft									
Casing - Driller		8.625 in		@		1802.0 ft		@			
Casing - Logger		1801.0 ft									
Bit Size		7.875 in		@				@			
Type Fluid in Hole		WATER BASED MUD									
Density		9.3 ppg		55.00 s/qt							
PH		9.60 pH		10.6 cpm							
Source of Sample		MUD PIT									
Rm @ Meas. Temperature		0.700 ohmm		@		75.00 degF		@			
Rmf @ Meas. Temperature		0.50 ohmm		@		75.00 degF		@			
Rmc @ Meas. Temperature		0.850 ohmm		@		75.00 degF		@			
Source Rmf		Rmc		MEASURED							
Rm @ BHT		0.45 ohmm		@		120.0 degF		@			
Time Since Circulation		8.0 hr									
Time on Bottom		03-Mar-13 07:40									
Max. Rec. Temperature		120.0 degF		@		5084.0 ft		@			
Equipment		Location		10546696		LIBERAL					
Recorded By		J. BOLLOW									
Witnessed By		G. FLAGG									

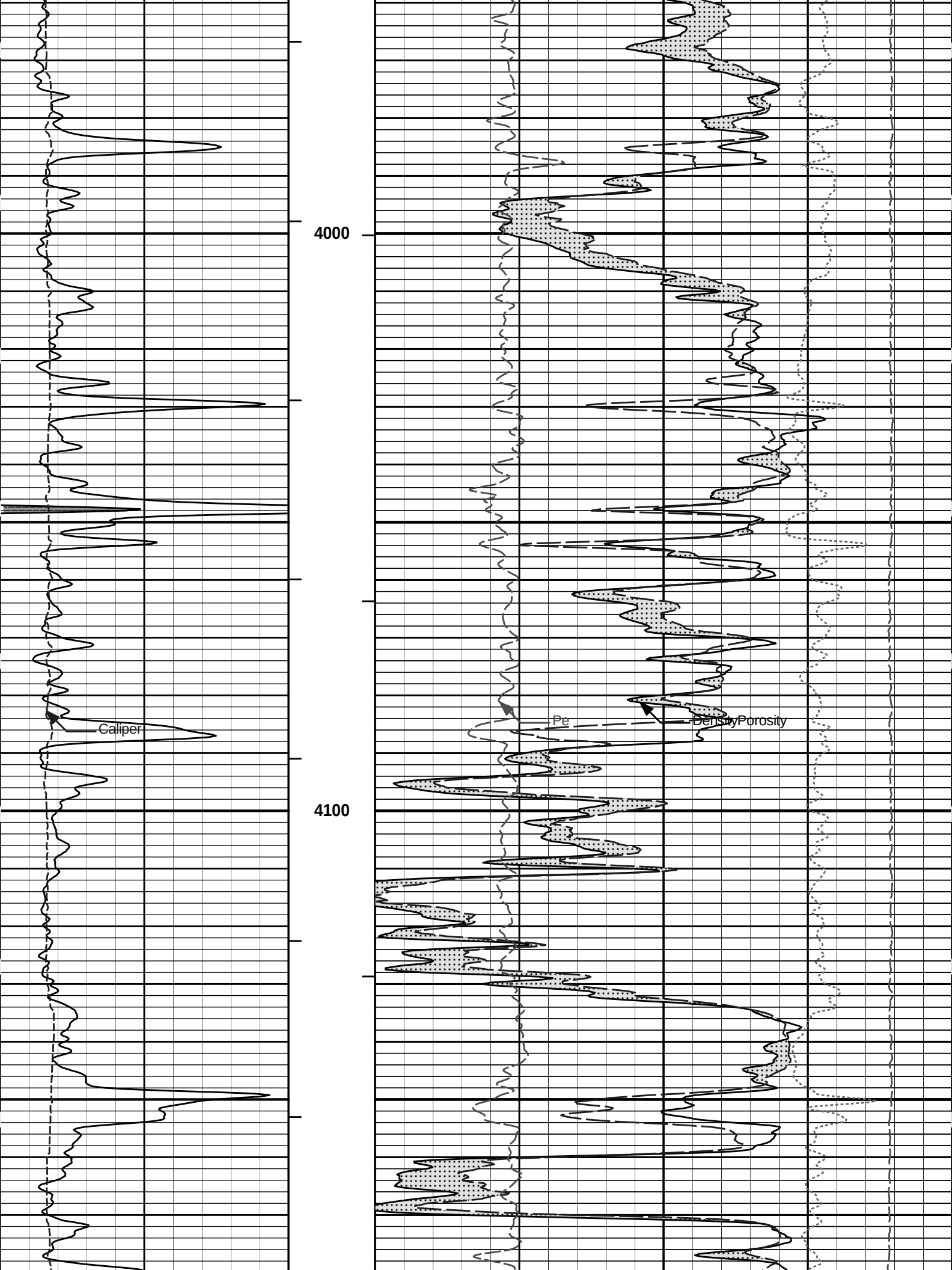
Fold here

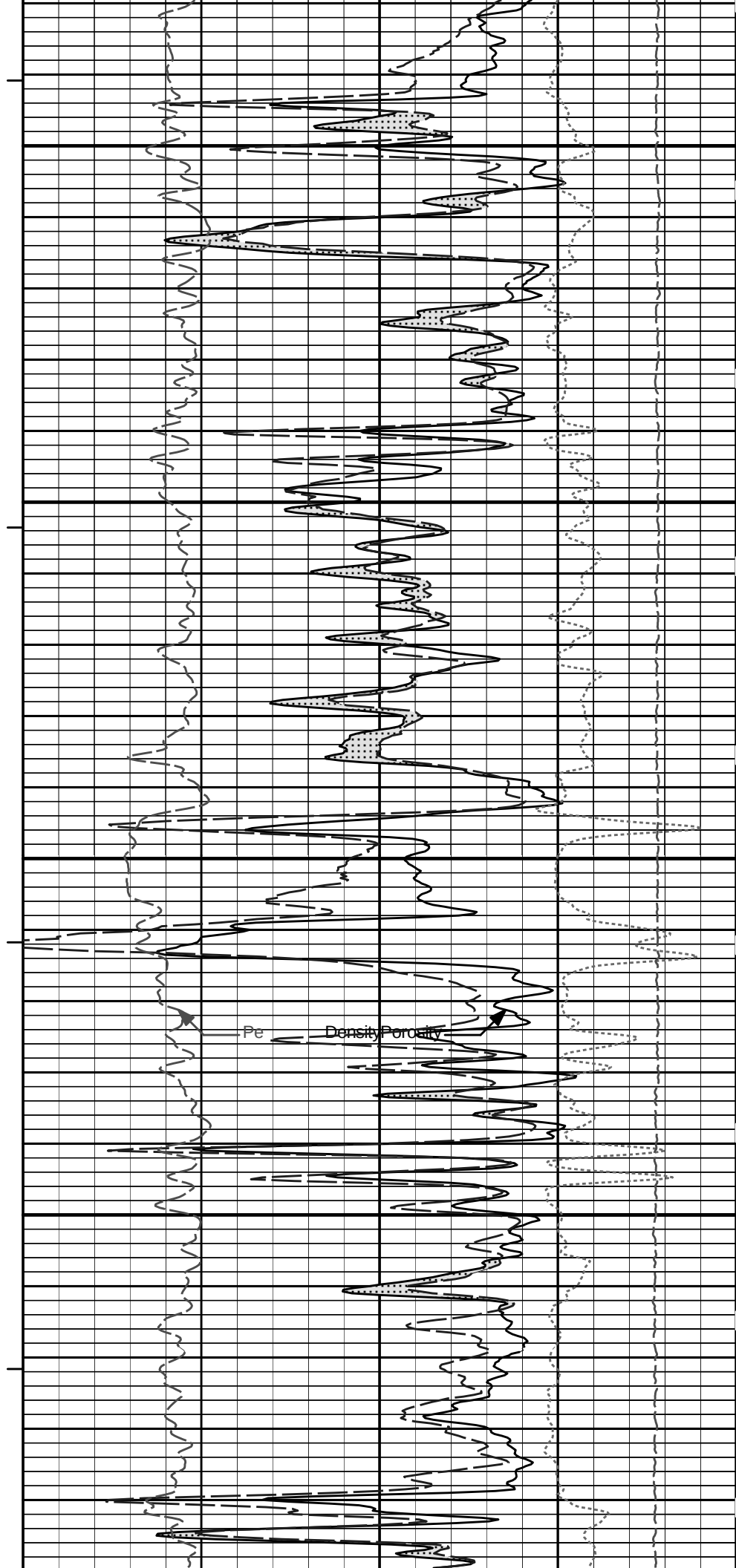
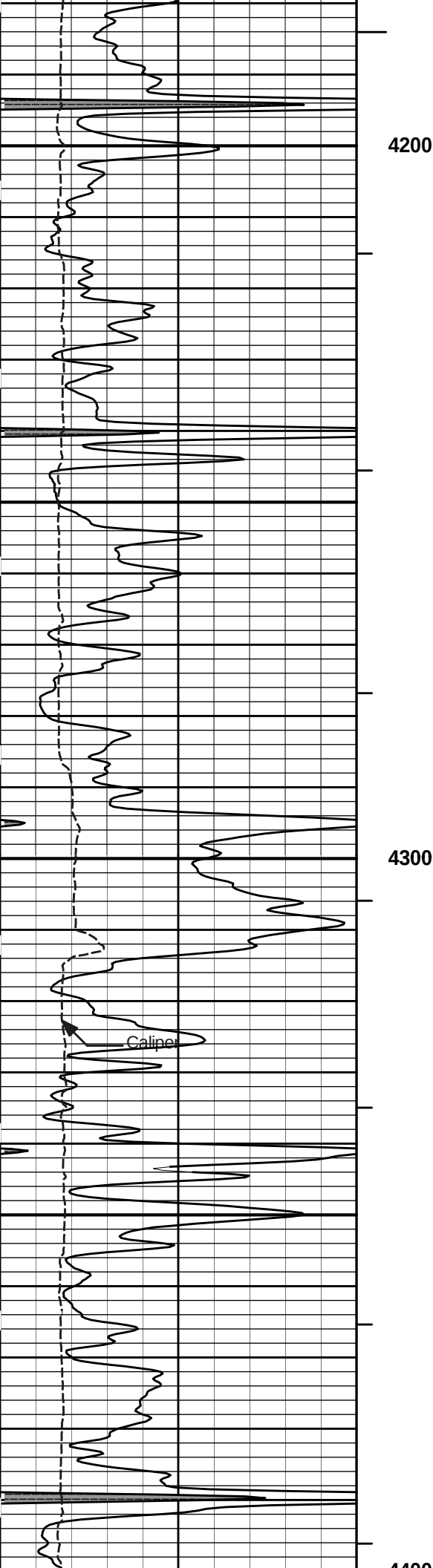
Service Ticket No.: 900258040				API Serial No.: 15055222050000				PGM Version: WL INSITE R3.8.0 (Build 2)							
CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE						RESISTIVITY SCALE CHANGES									
Date		Sample No.				Type Log		Depth		Scale Up Hole		Scale Down Hole			
Depth-Driller															
Type Fluid 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.		11039640		Serial No.				Serial No.		10865884		Serial No.		11055304	
Model No.		GTET		Model No.				Model No.		SDLT-I		Model No.		DSNT-I	
Diameter		3.625"		No. of Cent.				Diameter		4.5"		Diameter		3.625"	
Detector Model No.		GTET		Spacing				Log Type		GAM-GAM		Log Type		NEU-NEU	
Type		SCINT						Source Type		CS137		Source Type		AM241BE	
Length		8'		LSA [Y/N]				Serial No.		5168GW		Serial No.		DSN-424	
Distance to Source		10'		FWDA [Y/N]				Strength		1.5 CI		Strength		15 CI	
LOGGING DATA															

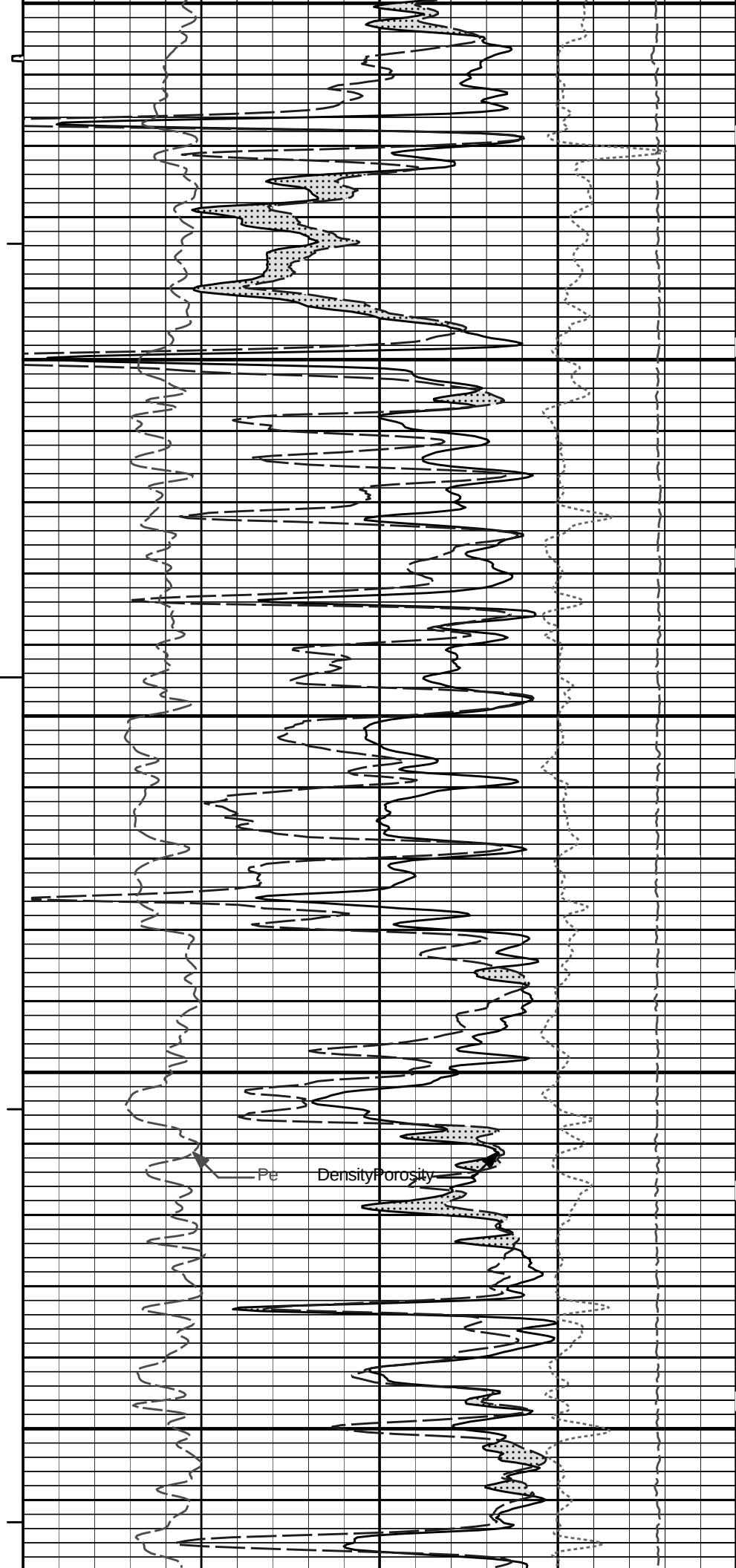
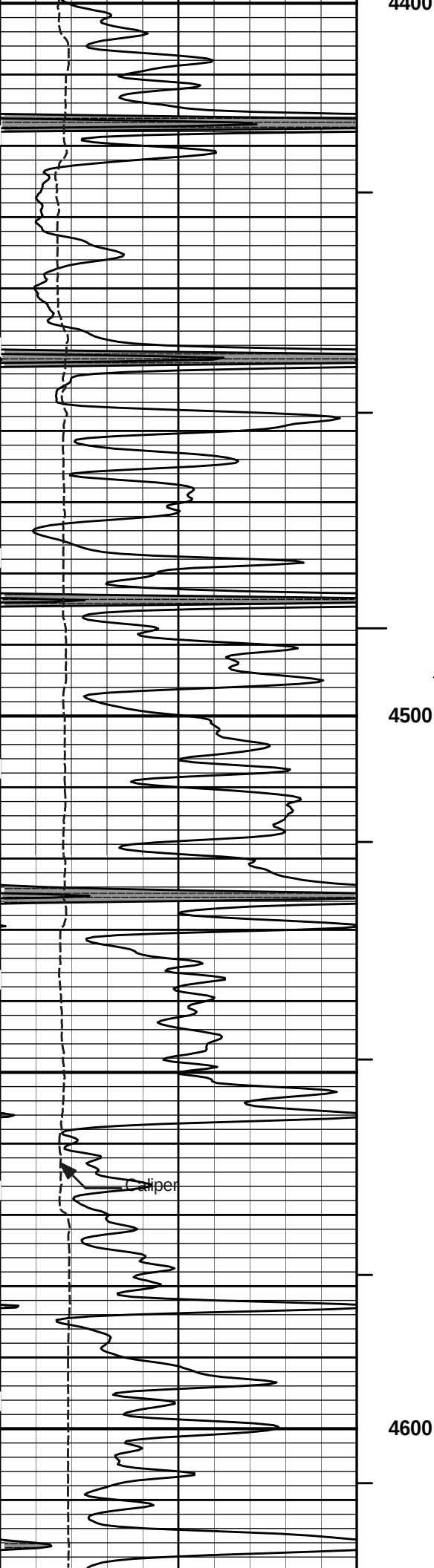
GENERAL			GAMMA		ACOUSTIC			DENSITY			NEUTRON			
Run	Depth		Speed	Scale		Scale		Matrix	Scale		Matrix	Scale		Matrix
No.	From	To	ft/min	L	R	L	R		L	R		L	R	
ONE	5084	3700	REC	0	150				30	-10	2.71	30	-10	LIME
DIRECTIONAL INFORMATION														
Maximum Deviation						@	KOP						@	
Remarks: ANNULAR HOLE VOLUME CALCULATED FOR 5.5-INCH CASING														
CHLORIDES REPORTED AT 5000 MG/L														
LCM REPORTED AT 3 LB/BBL														
GTET-DNST-SDLT-BSAT-ACRT RUN IN COMBINATION														
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														

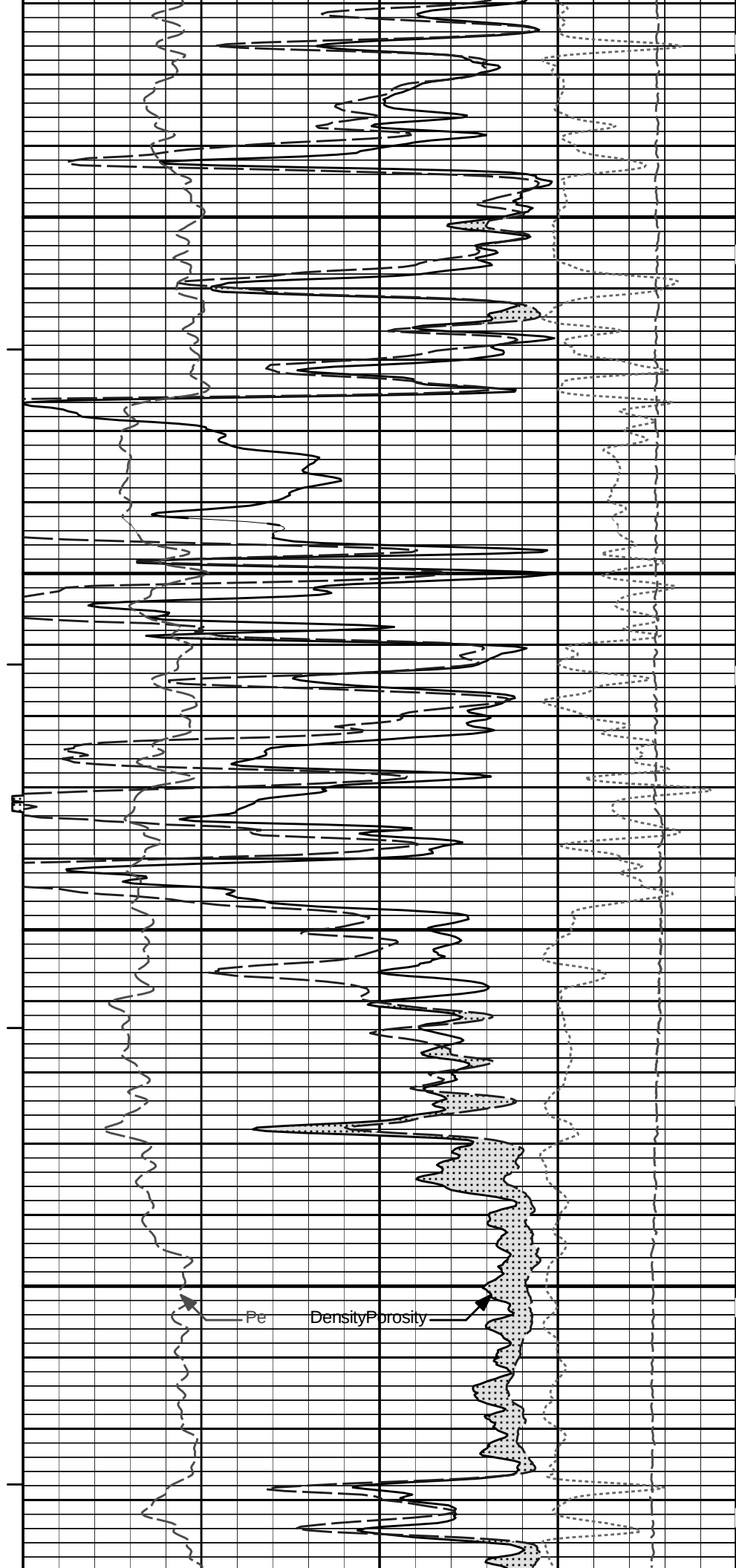
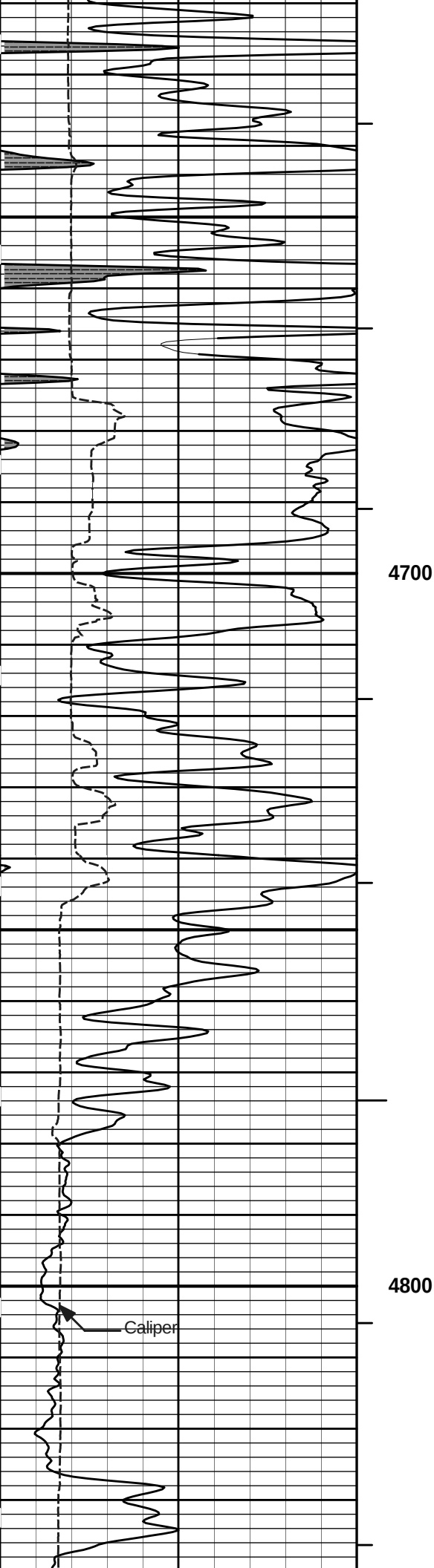
	Tension Pull	CROSSOVER					
	Tension Pull 10 0	30	Neutron Porosity				-10
	BHVT	30	DensityPorosity				-10
0	Gamma API	150	AHVT	15K	Tension		(
	api			pounds			
6	Caliper	16	MD 1 : 240 ft	Pe	10	DensityCorr	0.25
	inches					gram per cc	
		3700					

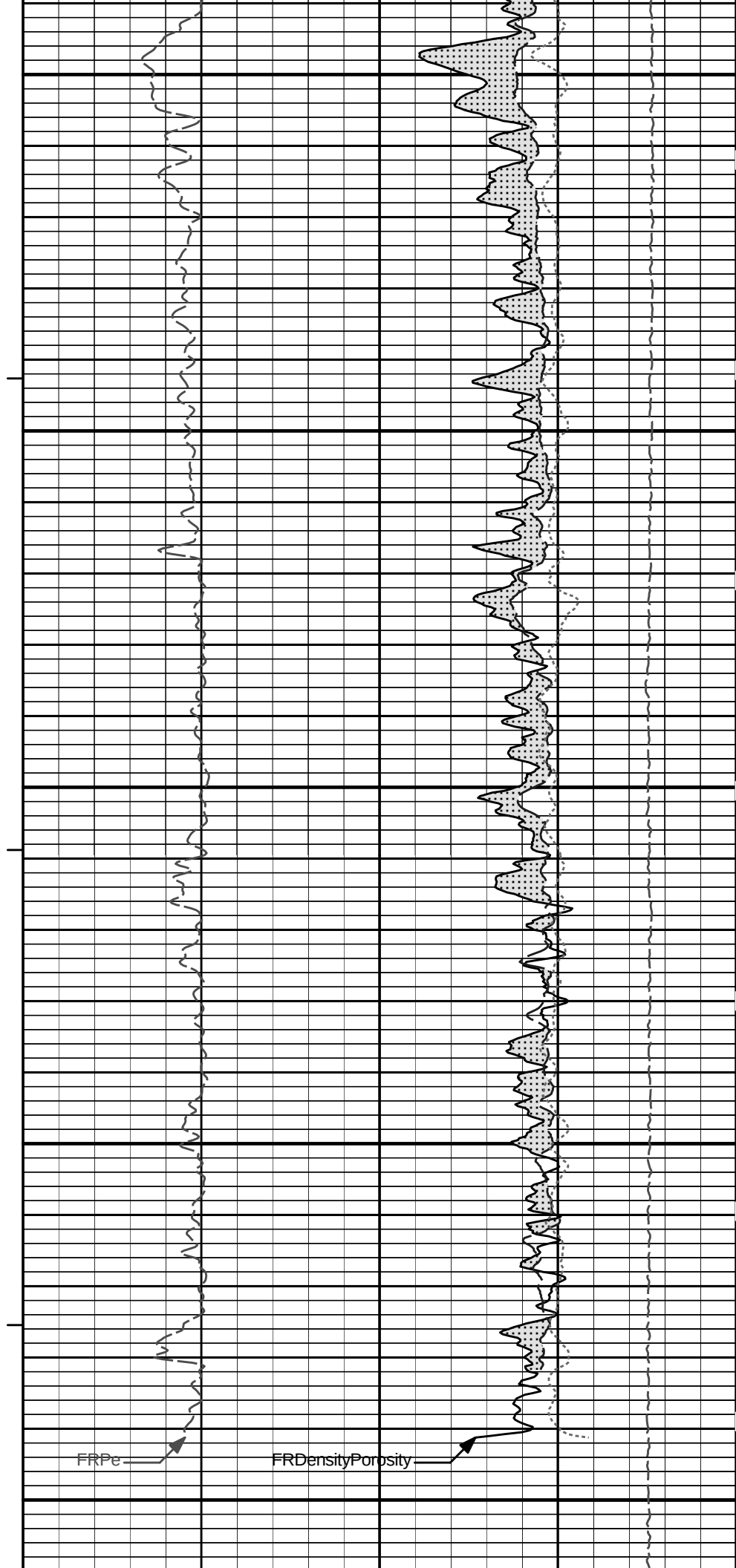
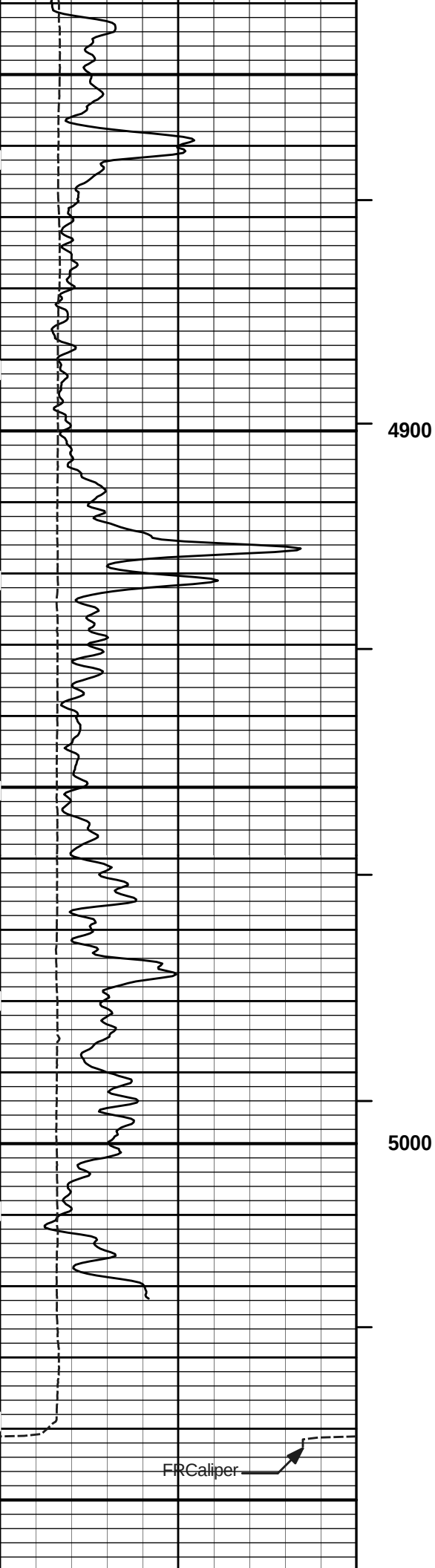


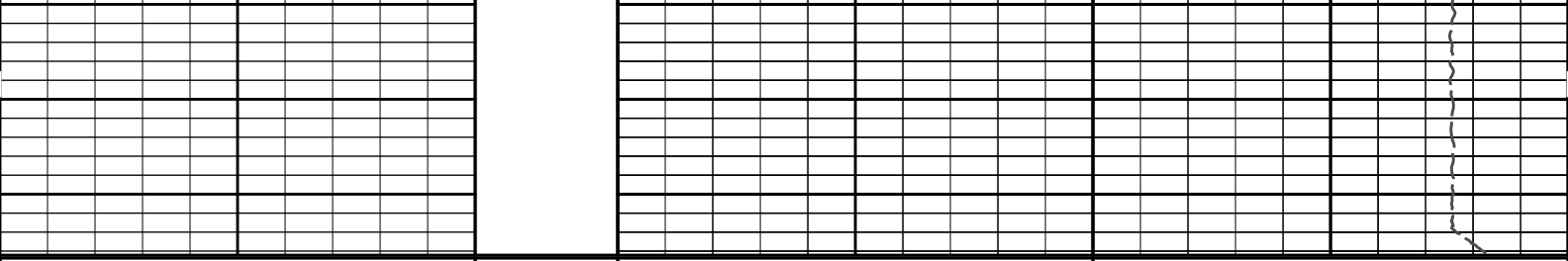












6	Caliper	16	MD	0	Pe	10	-0.25	DensityCorr	0.25
	inches		1 : 240					gram per cc	
0	Gamma API	150	AHVT				15K	Tension	0
	api							pounds	
	SHALE		BHVT	30	DensityPorosity				-10
					%				
			Tension Pull	30	Neutron Porosity				-10
			10 0		%				
			Tension Pull		CROSSOVER				

HALLIBURTON

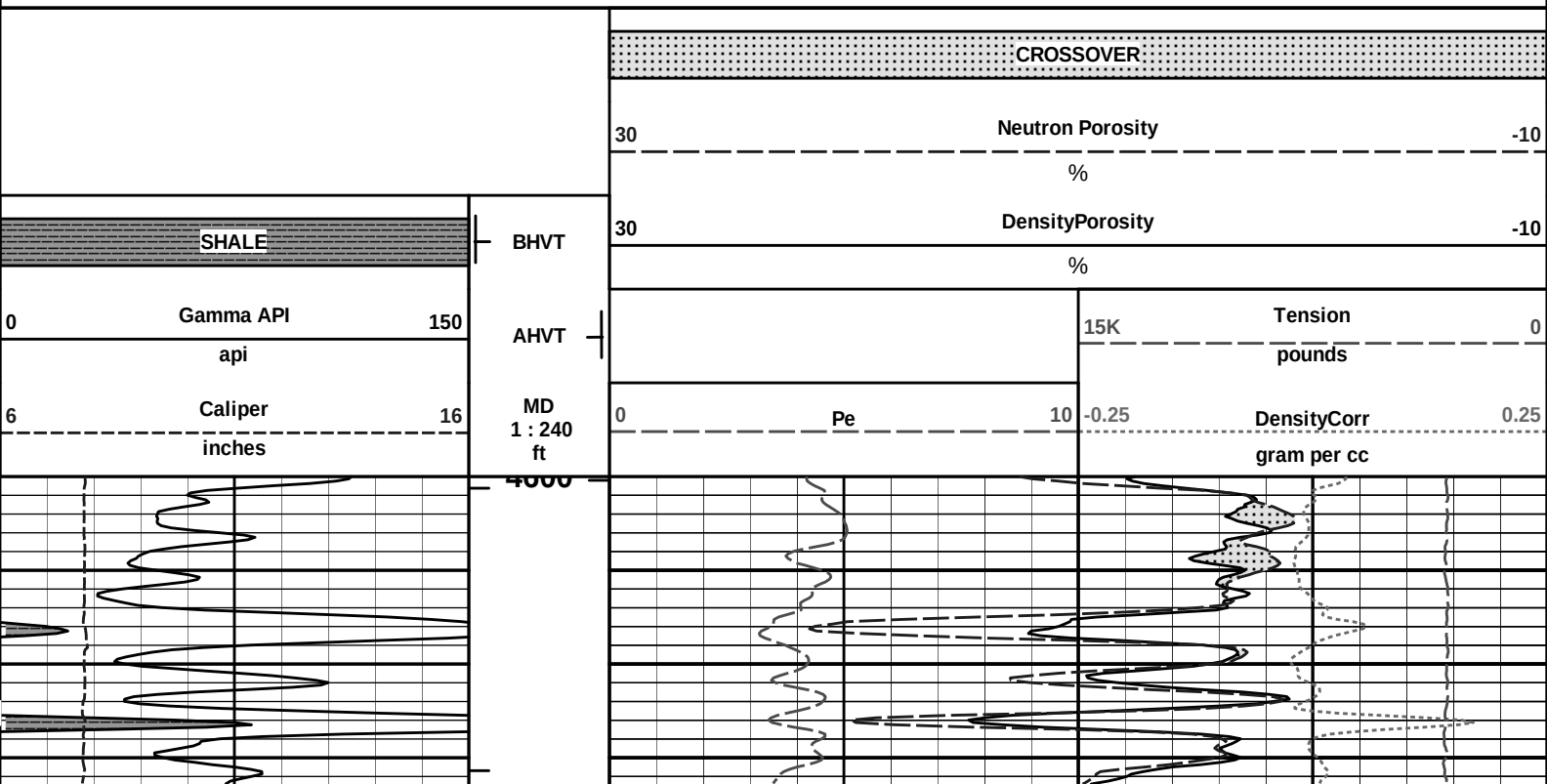
Plot Time: 03-Mar-13 09:42:53
Plot Range: 3700 ft to 5086.42 ft
Data: GARDEN_CITY_T_3\Well Based\DETAIL\
Plot File: \\PORO\Poros_IQ_5_MAIN_LIB

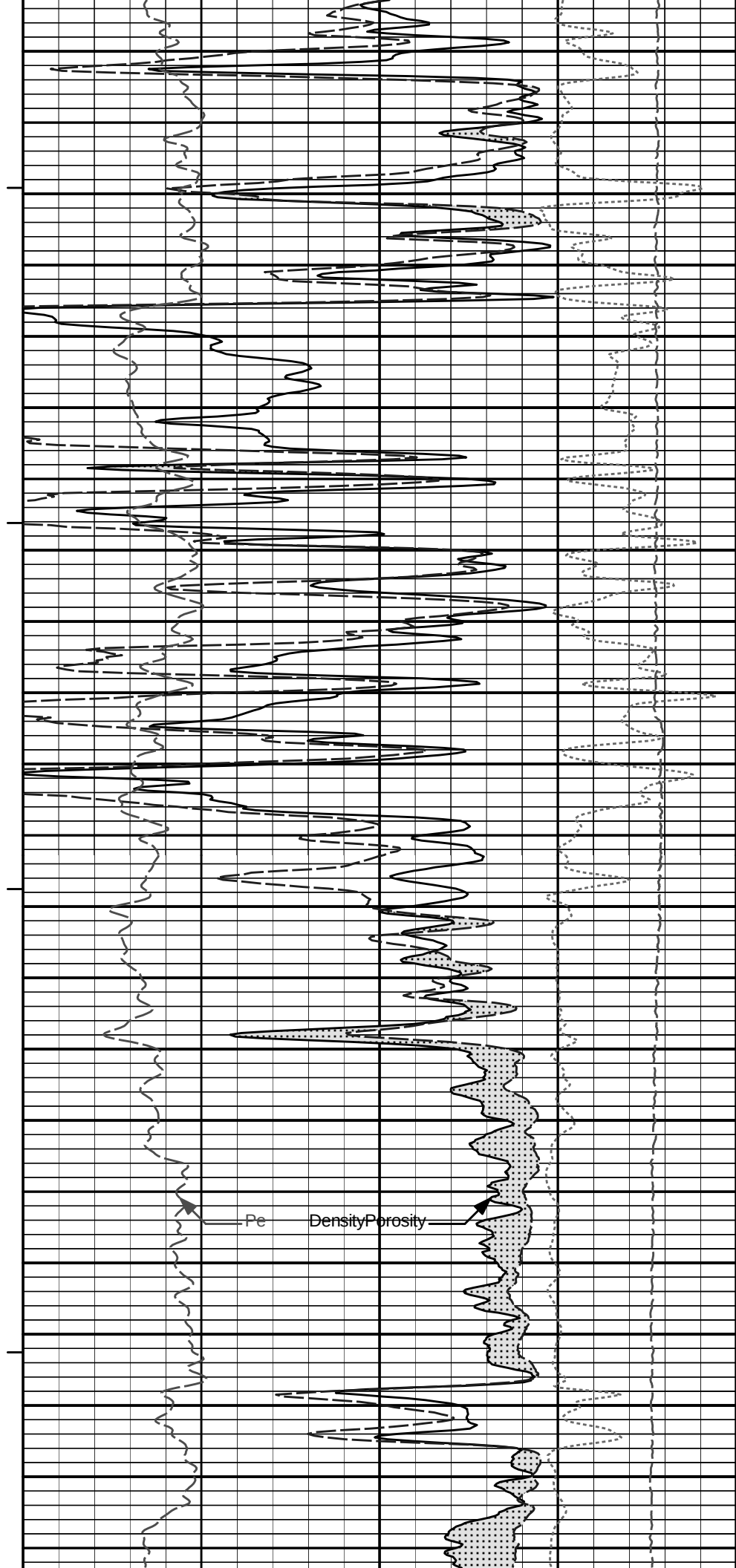
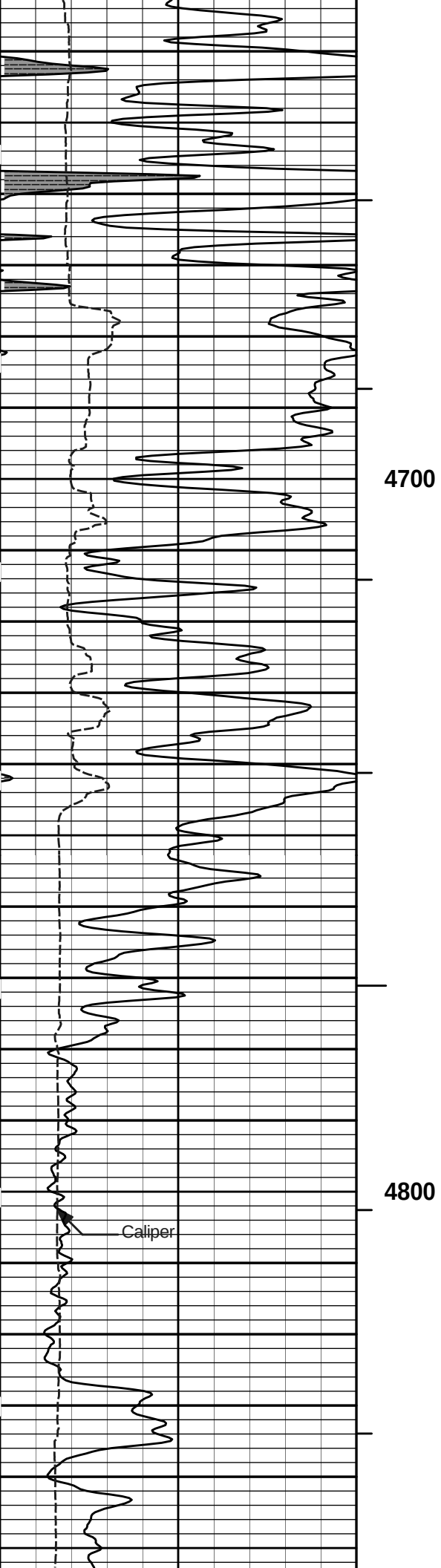
5 INCH MAIN LOG

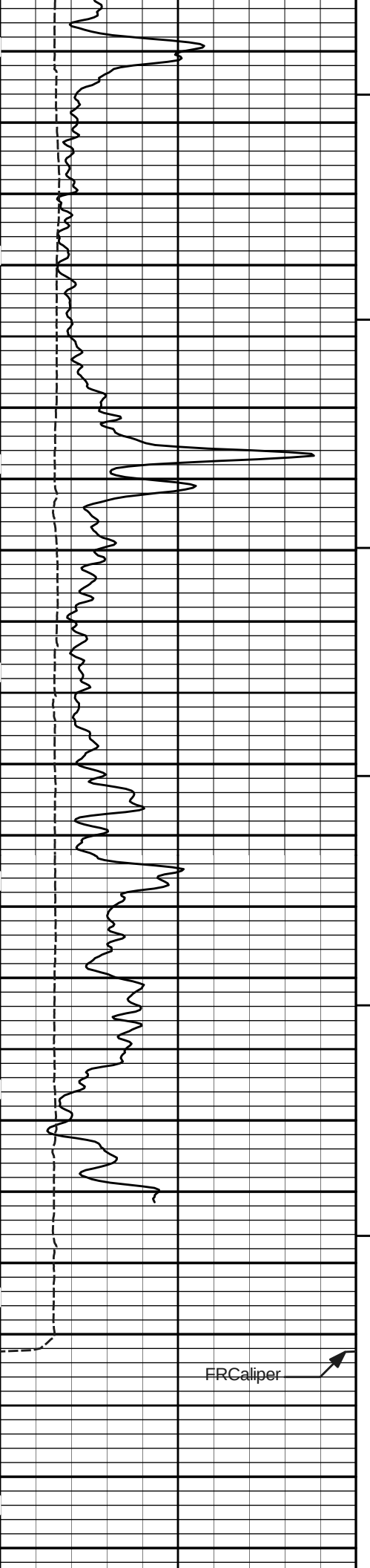
HALLIBURTON

Plot Time: 03-Mar-13 09:42:53
Plot Range: 4600 ft to 5086.5 ft
Data: GARDEN_CITY_T_3\Well Based\REPEAT_GARDEN_CITY\
Plot File: \\PORO\Poros_IQ_5_REP_LIB

REPEAT SECTION



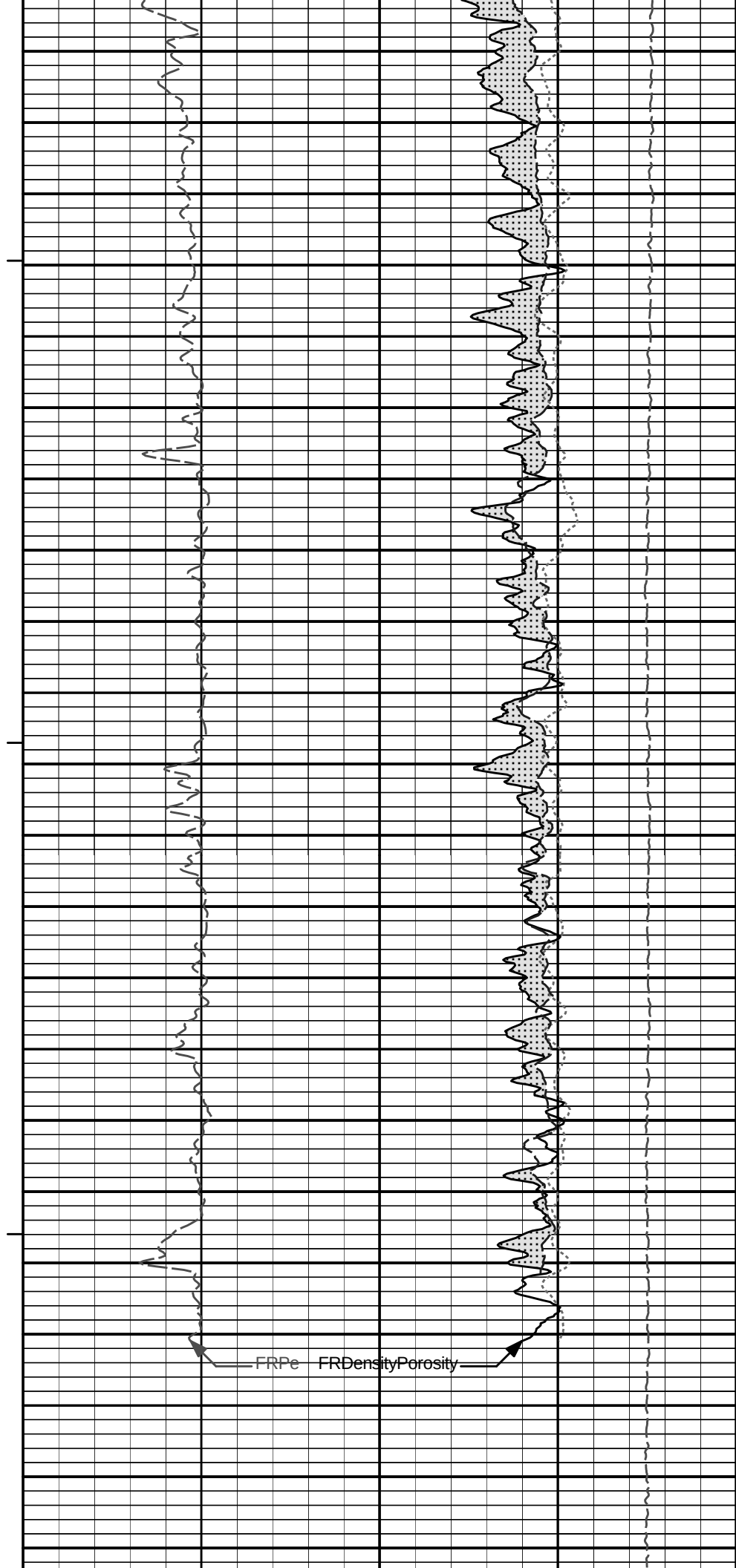




4900

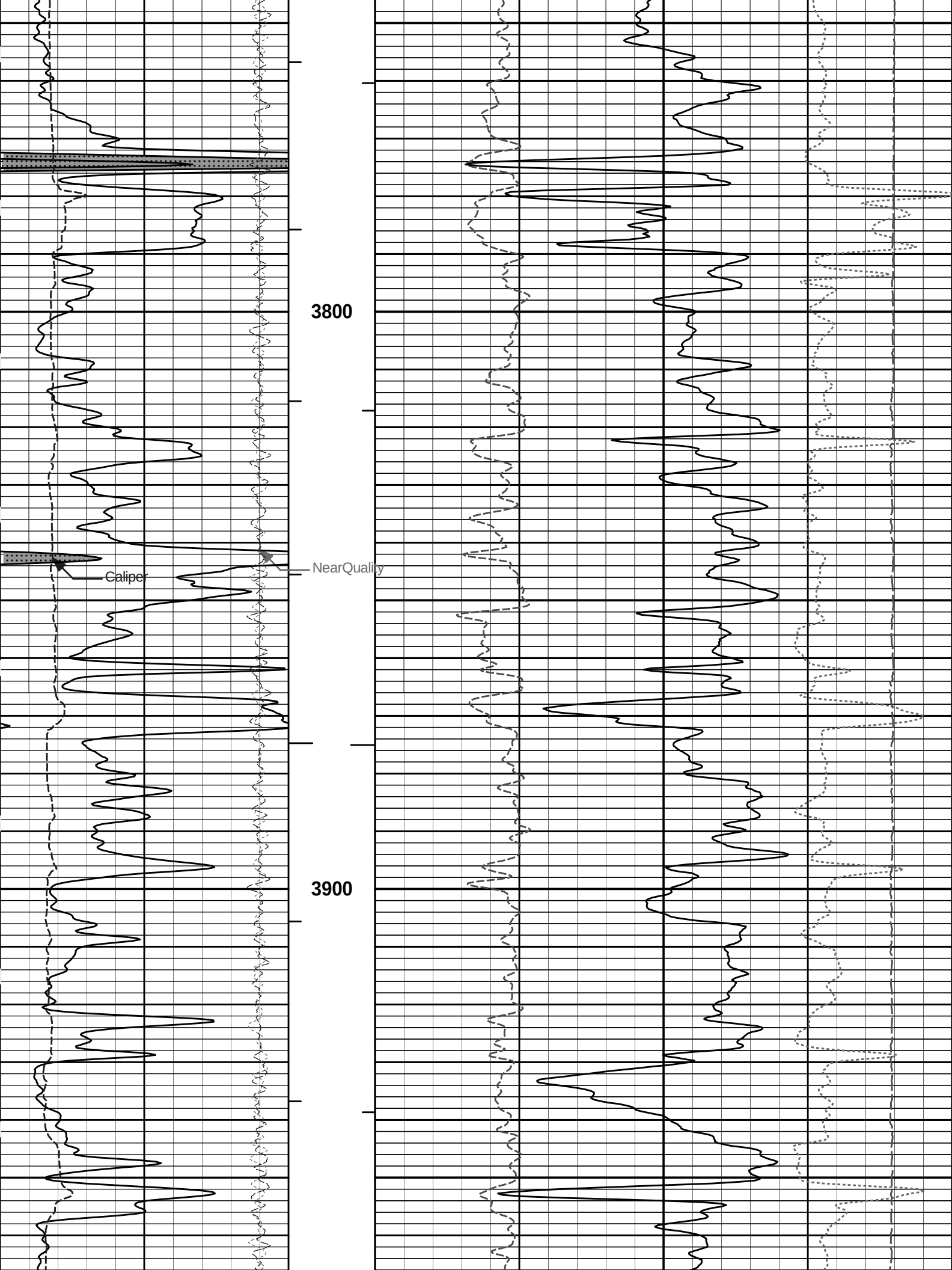
5000

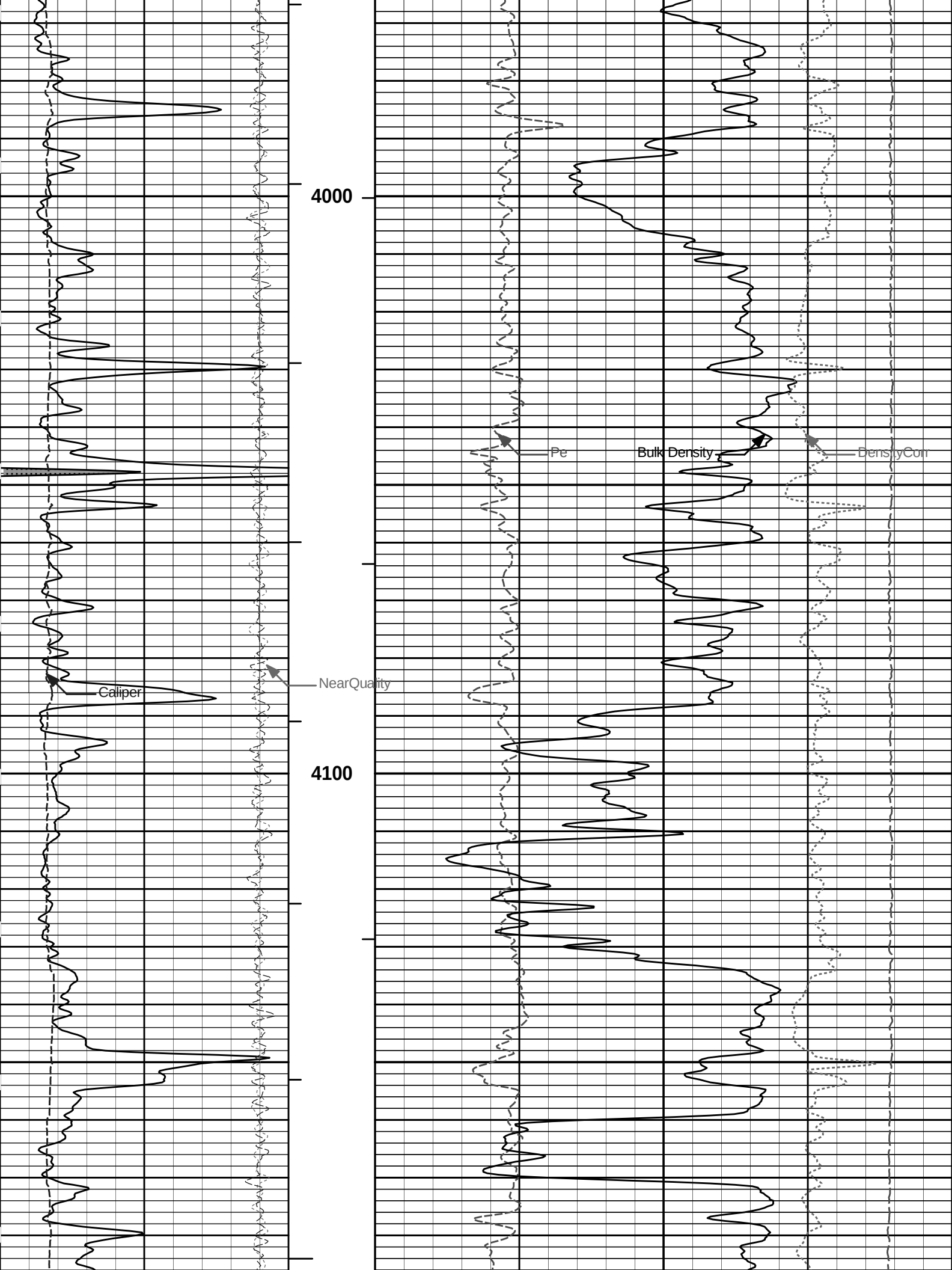
FRCaliper

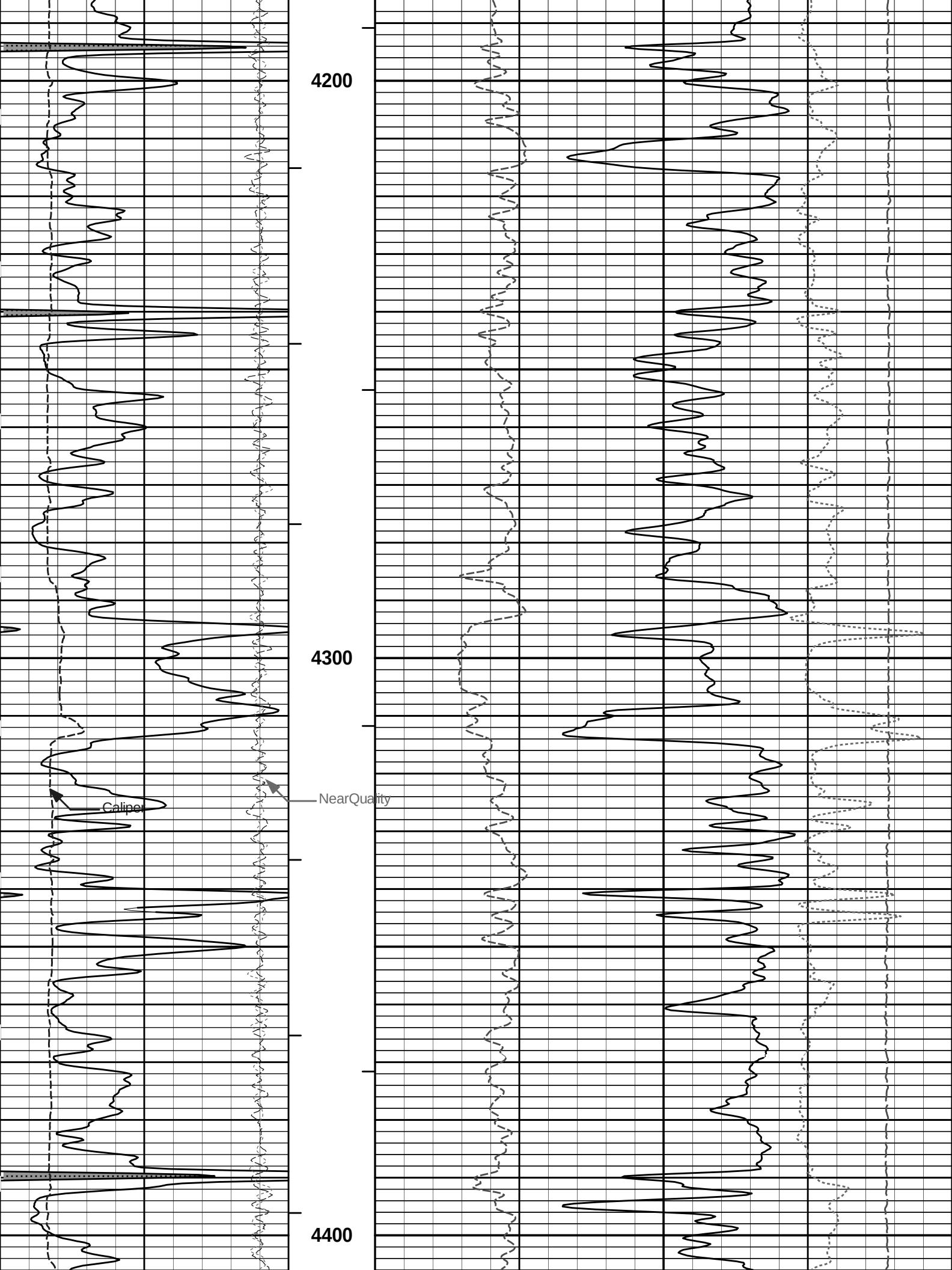


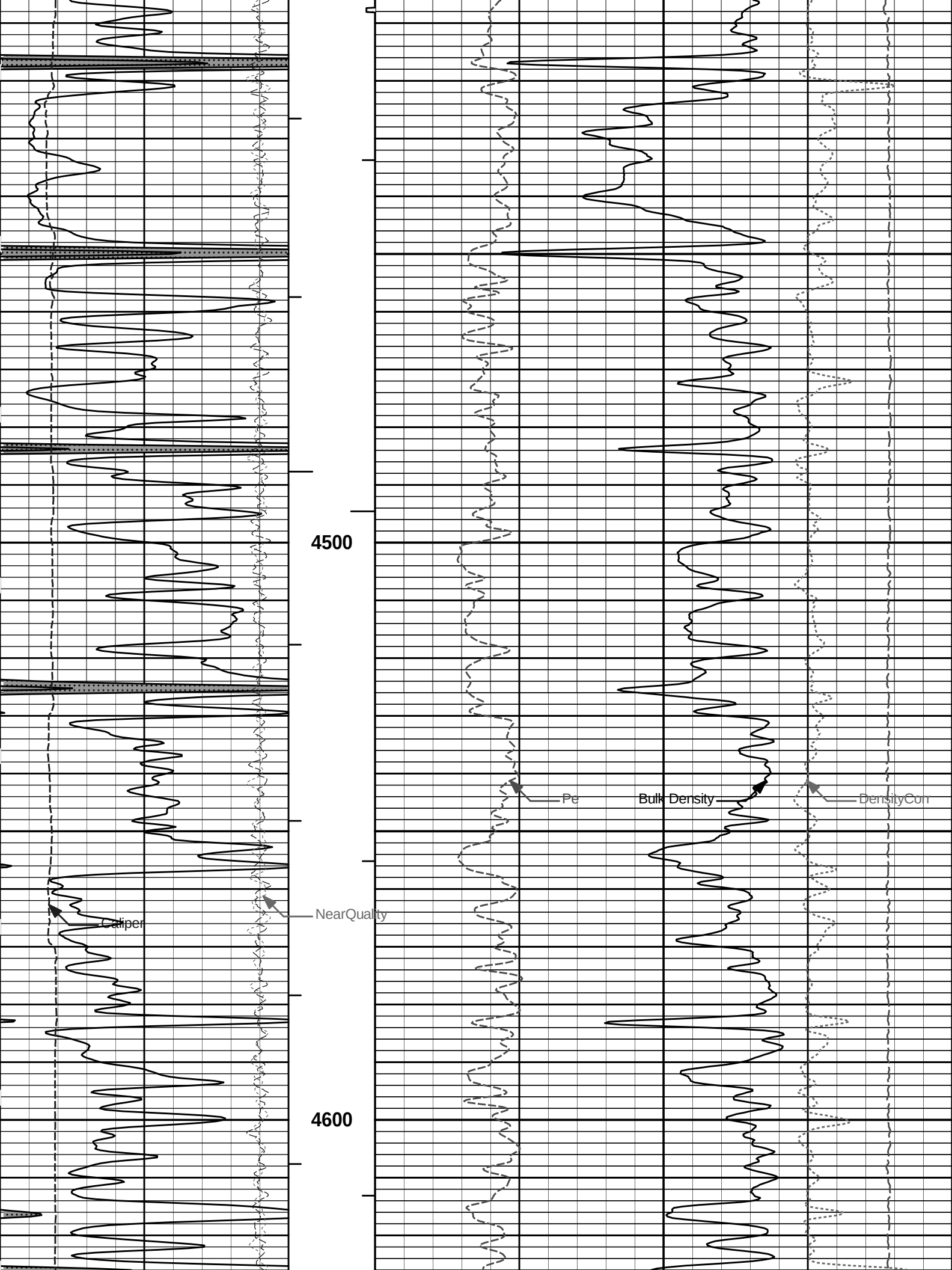
FRPe

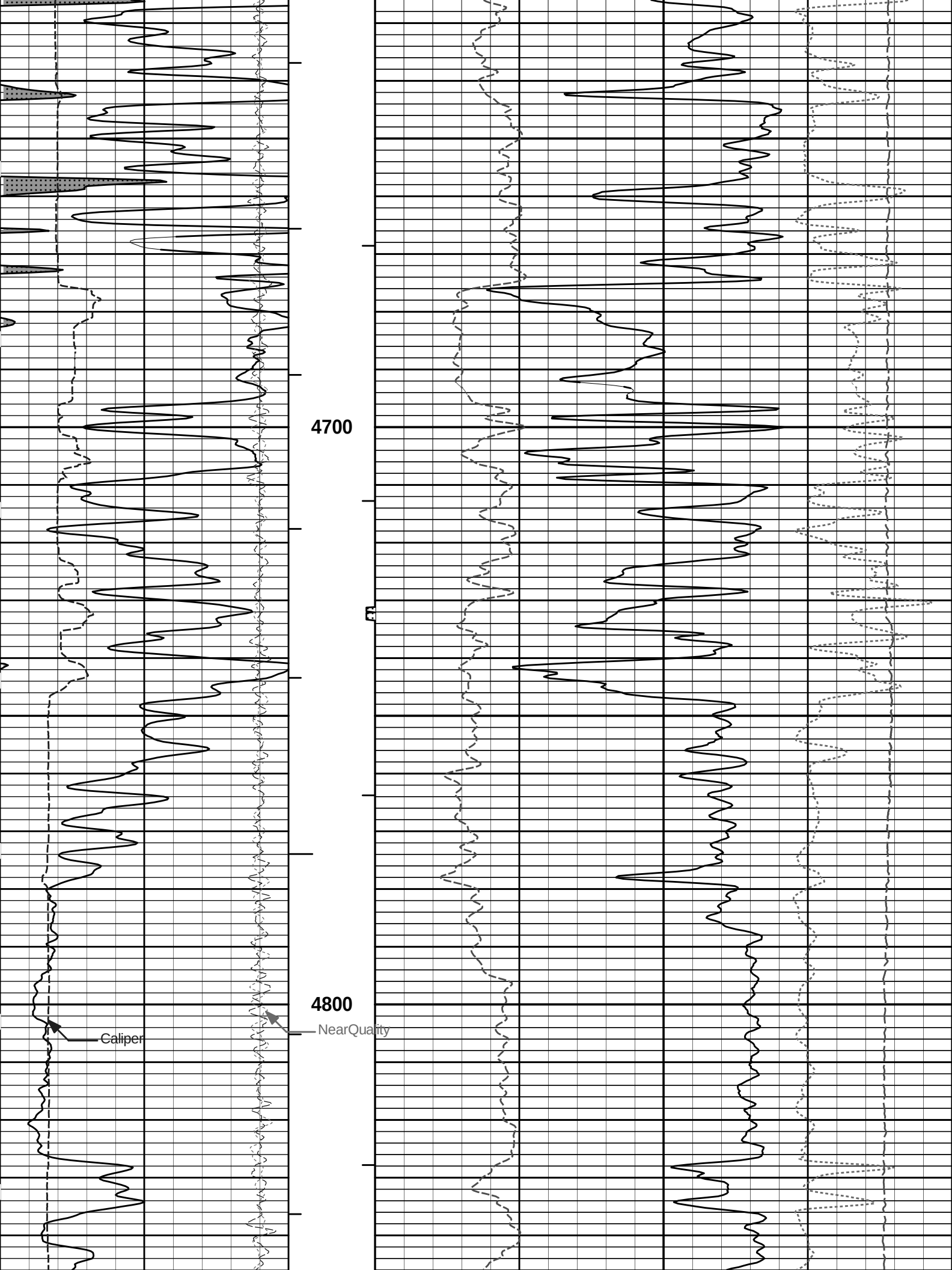
FRDensityPorosity

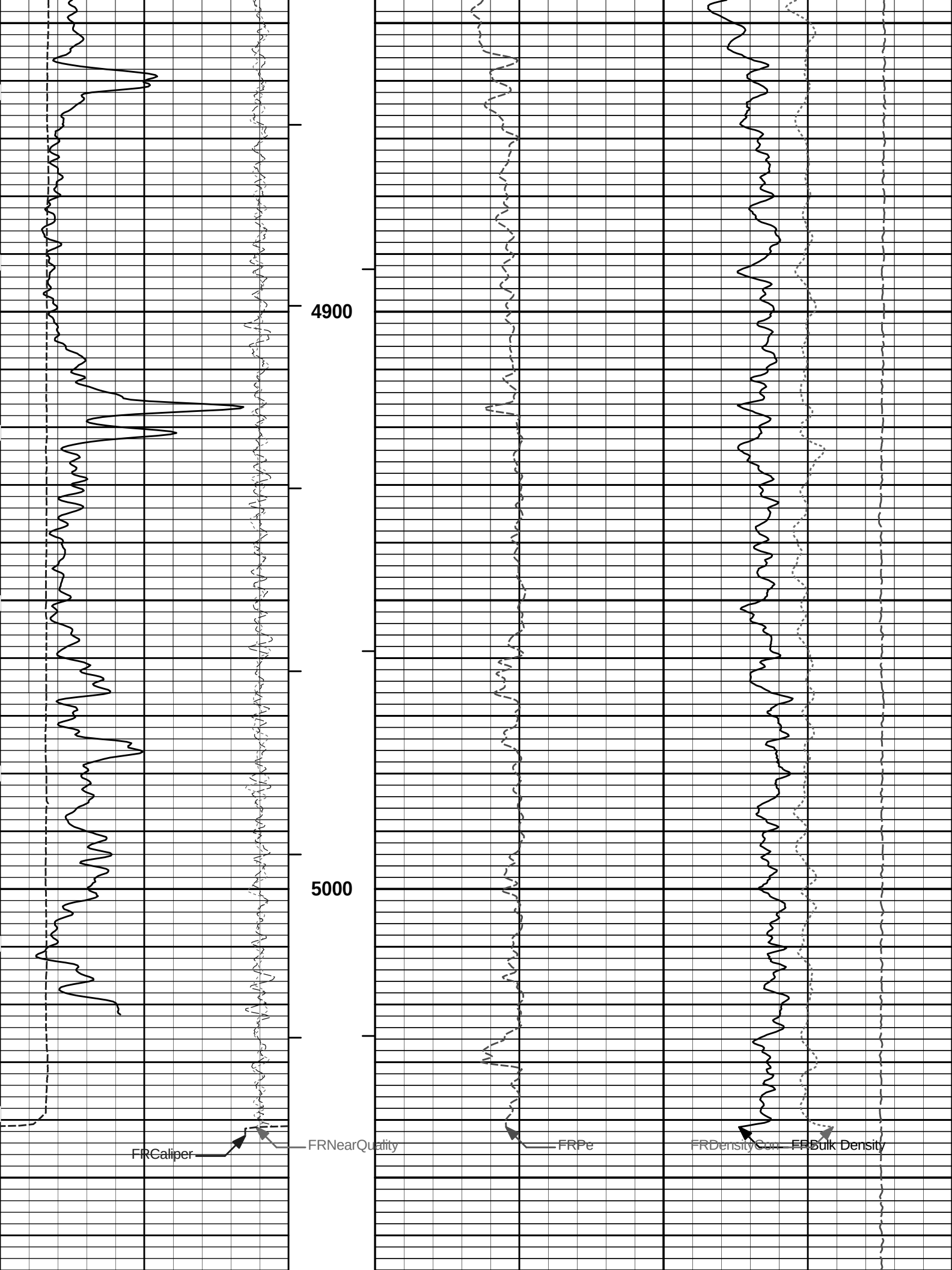


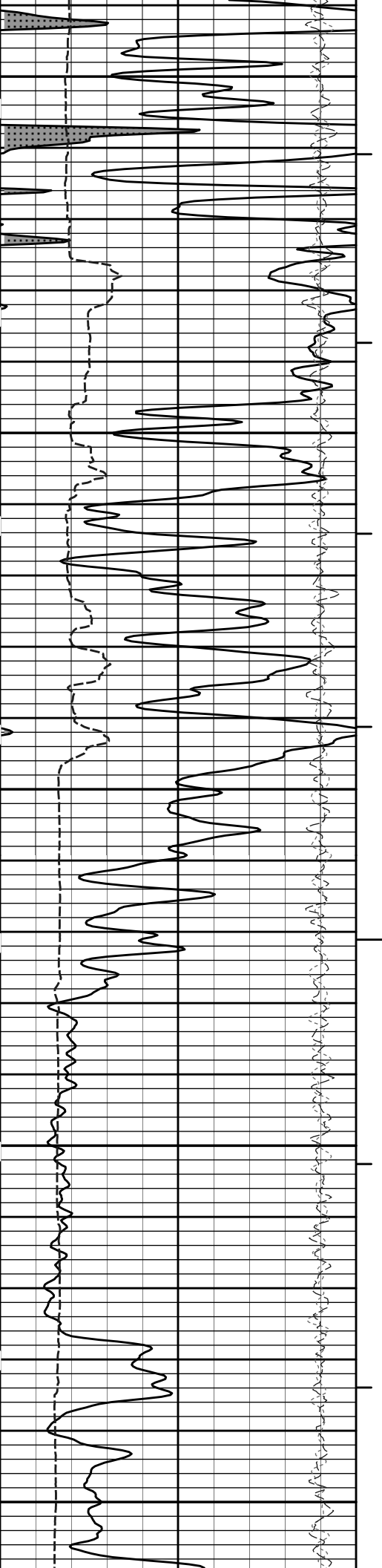






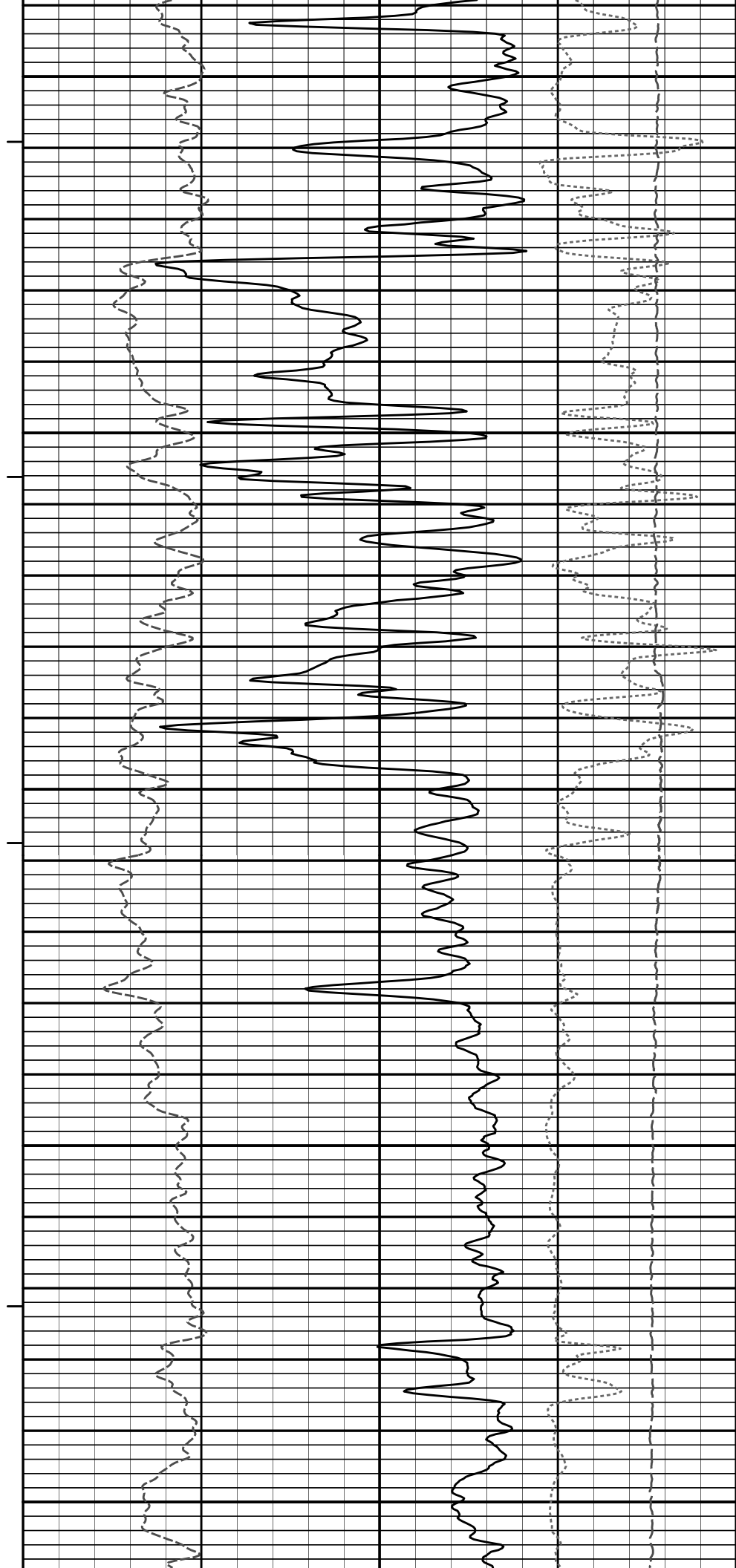


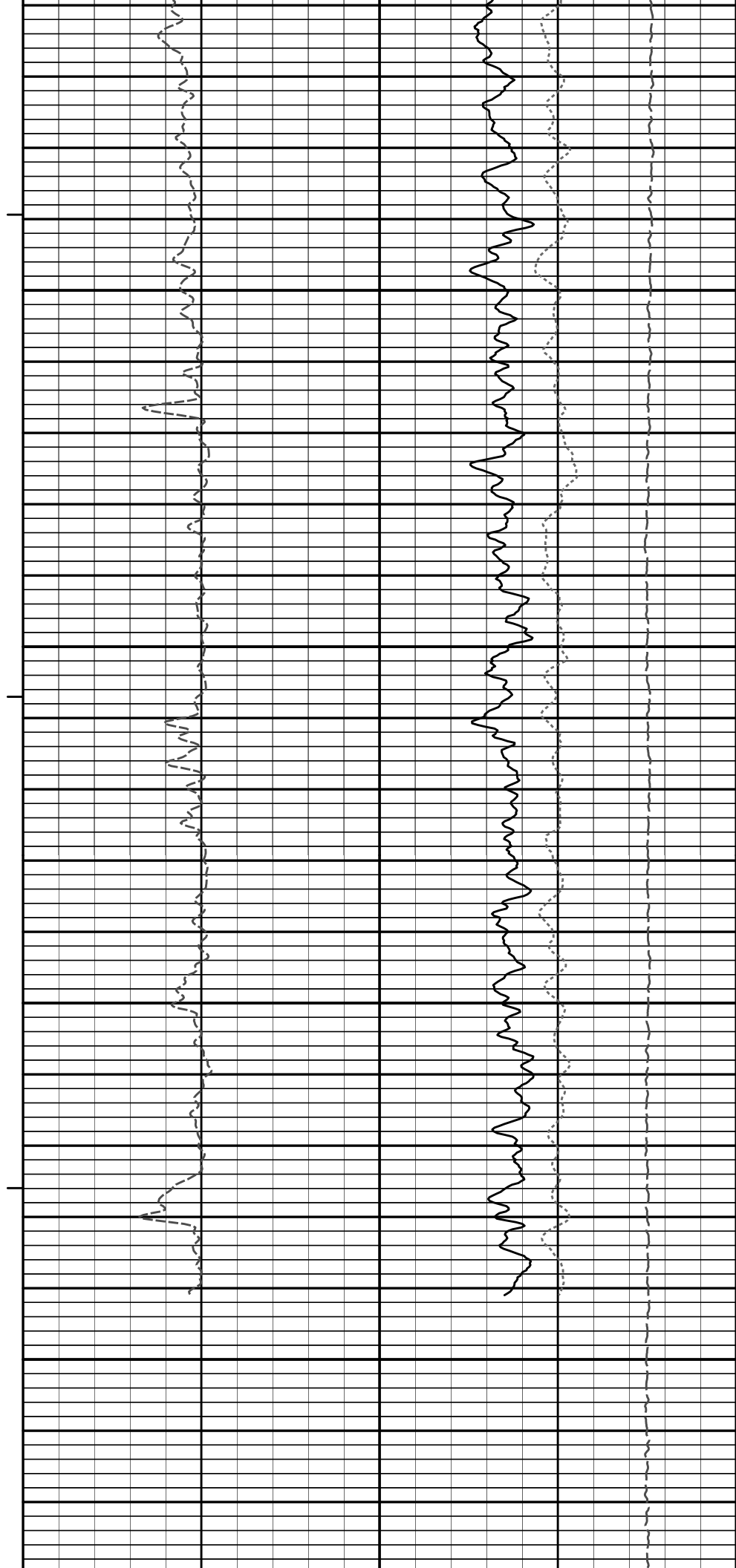
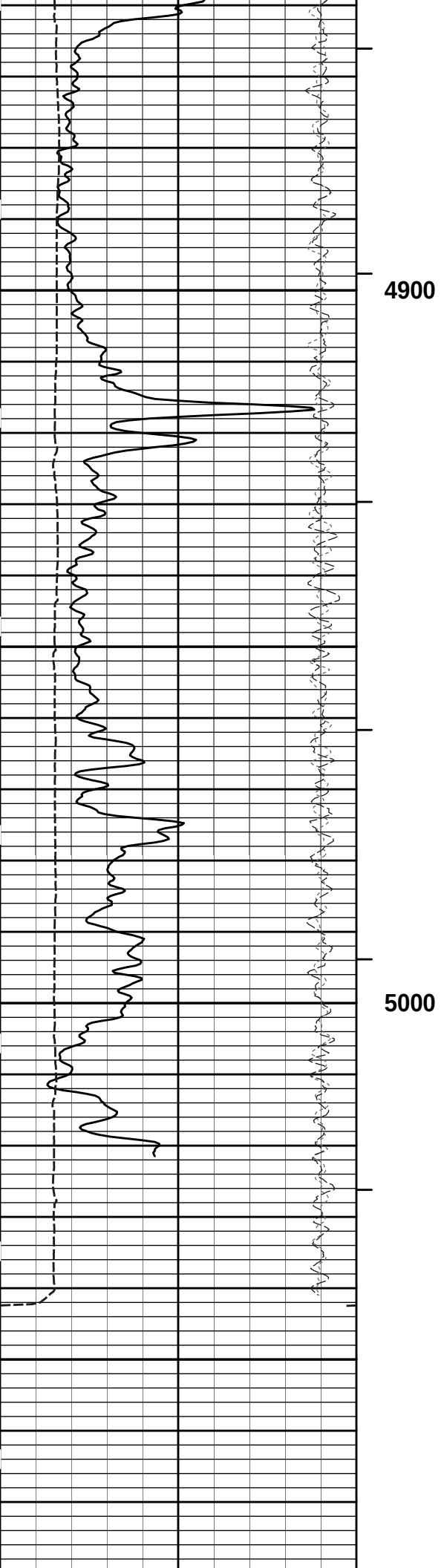


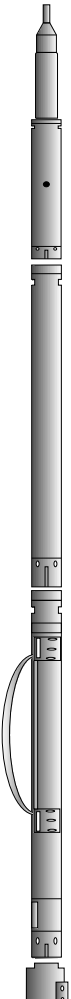


4700

4800





Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length	
CH_HOS-CH_696 37.50 lbs		Ø 2.750 in →		← Temperature @ 76.03 ft	3.03 ft	77.06 ft	
SP Sub-11441455 60.00 lbs		Ø 3.625 in →		← SP @ 72.26 ft	3.74 ft	74.03 ft	
							70.30 ft
GTET-11039640 165.00 lbs		Ø 3.625 in →		← GammaRay @ 64.23 ft	8.52 ft		
							61.78 ft
DSNT-11055304 174.00 lbs	DSN Decentralizer- 11019643 6.60 lbs	Ø 5.000 in* → Ø 3.625 in →		← DSN Far @ 54.84 ft ← DSN Near @ 54.09 ft	9.69 ft		
						52.09 ft	

SDLT-11014296
360.00 lbs

SDLT Pad-10865884
65.00 lbs
Microlog Pad-11014296
8.00 lbs

Ø 4.500 in →

Ø 4.750 in* →

Ø 4.750 in* →

Microlog @ 44.28 ft
SDL Caliper @ 44.09 ft
SDL @ 44.08 ft

10.81 ft

41.28 ft

Flex Joint-001
140.00 lbs

Ø 3.625 in →

5.67 ft

35.61 ft

Centralizer 29-1
12.00 lbs

Ø 4.000 in* →

BSAT-10747683
300.00 lbs

Ø 3.625 in →

← Sonic Receivers @ 27.09 ft

15.77 ft

19.83 ft

ACRt Instrument-
I962
50.00 lbs

Centralizer 29-2
12.00 lbs

Ø 4.000 in* →
Ø 3.625 in →

5.03 ft

14.80 ft

← Mud Resistivity @ 13.44 ft

← ACRt @ 9.46 ft

ACRt Sonde-
11005909
200.00 lbs

Ø 3.625 in →

14.22 ft

Cabbage Head-
TRK696
10.00 lbs

Ø 3.625 in →
Ø 6.000 in →

0.58 ft

0.58 ft

0.00 ft

Mnemonic

Tool Name

Serial
Number

Weight Length
(lbs) (ft)

Accumulated
Length
(ft)

Max.Log.
Speed
(fpm)

CH_HOS	Hostile Cable Head with Load Cell	CH_696	37.50	3.03	74.03	300.00
SP	SP Sub	11441455	60.00	3.74	70.30	300.00
GTET	Gamma Telemetry Tool	11039640	165.00	8.52	61.78	60.00
DSNT	Dual Spaced Neutron	11055304	174.00	9.69	52.09	60.00
DCNT	DSN Decentralizer	11019643	6.60	5.13 *	55.42	300.00
SDLT	Spectral Density Tool	11014296	360.00	10.81	41.28	60.00
MICP	Microlog Pad	11014296	8.00	1.00 *	43.78	60.00
SDLP	Density Insite Pad	10865884	65.00	2.55 *	43.49	60.00
FLEX	Flex Joint	001	140.00	5.67	35.61	300.00
BSAT	Borehole Sonic Array Tool	10747683	300.00	15.77	19.83	60.00
OBCEN	Centralizer - 29 in.Overbody	1	12.00	2.42 *	32.77	300.00
ACRT	Array Compensated True Resistivity Instrument Section	I962	50.00	5.03	14.80	300.00
OBCEN	Centralizer - 29 in.Overbody	2	12.00	2.42 *	16.39	300.00
ACRT	Array Compensated True Resistivity Sonde Section	11005909	200.00	14.22	0.58	300.00
CBHD	Cabbage Head	TRK696	10.00	0.58	0.00	300.00
Total			1,600.10	77.06		
						* Not included in Total Length and Length Accumulation.
Data: GARDEN_CITY_T_3I0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CHIIDLE					Date: 03-Mar-13 06:59:08	

HALLIBURTON

CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION

Tool Name:

GTET - 11039640

Reference Calibration Date:

14-Jan-13 11:39:27

Engineer:

J. BOLLLOM

Calibration Date:

13-Feb-13 13:51:32

Software Version:

WL INSITE R3.8.0 (Build 2)

Calibration Version:

1

Calibrator Source S/N: TB146

Calibrator API Reference:265.00 api

Equivalent Calibrator API Reference:269.6 api

Measurement	Measured	Calibrated	Units
Background	77.6	79.8	api
Background + Calibrator	339.7	349.5	api
Calibrator	262.1	269.6	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION

Tool Name:

GTET - 11039640

Reference Calibration Date:

13-Feb-13 13:51:32

Engineer:

J. BOLLLOM

Calibration Date:

02-Mar-13 14:13:00

Software Version:

WL INSITE R3.8.0 (Build 2)

Calibration Version:

1

Calibrator Source S/N: TB146

Calibrator API Reference:265.00 api

Equivalent Calibrator API Reference:269.6 api

Field Verification	Shop	Field	Units
Background	79.8	50.1	api
Background + Calibrator	349.5	318.0	api
Calibrator	269.6	267.9	api

Shop	Field	Difference	Tolerance
269.6	267.9	1.7	+/- 9.00

DUAL SPACED NEUTRON SHOP CALIBRATION

Tool Name:

DSNT - 11055304

Reference Calibration Date:

19-Dec-12 16:48:47

Engineer:

J. BOLLLOM

Calibration Date:

13-Feb-13 13:44:56

Logging Source S/N: 696

Tank Serial Number: LIBERAL_NEUTRON

Reference value assigned to Tank: 51.680

Snow Block S/N: 696

Calibration Tank Water Temperature: 60 degF

Min. Tool Housing Outside Diameter: 3.620 in

CALIBRATION CONSTANTS

Measurement	Prev. Value	New Value	Control Limit On New Value
Gain:	0.986	0.986	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):	0.2106	0.2106	0.0000	+/- 0.0020
Calibrated Ratio:	9.72	9.72	0.000	+/- 0.050

VERIFIER

Measurement	Value	Control Limit
Snow-Block Porosity (decp):	0.0624	0.02000 - 0.09000

PASS/FAIL SUMMARY

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

DUAL SPACED NEUTRON FIELD CALIBRATION

Tool Name: DSNT - 11055304

Reference Calibration Date: 13-Feb-13 13:44:56

Engineer: J. BOLLLOM

Calibration Date: 02-Mar-13 14:18:37

Software Version: WL INSITE R3.8.0 (Build 2)

Calibration Version: 1

Logging Source S/N: 696

Snow Block S/N: 696

NEUTRON FIELD-CHECK SUMMARY

	Shop	Field	Difference	Control Limit On Change
Snow-Block Porosity (decp):	0.0624	0.0730	0.0106	+/- 0.0150

PASS/FAIL SUMMARY

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

DENSITY CALIPER SHOP CALIBRATION

Tool Name: SDLT - 11014296

Reference Calibration Date: 13-Feb-13 09:52:34

Engineer: J. BOLLLOM

Calibration Date: 13-Feb-13 09:56:36

Software Version: WL INSITE R3.8.0 (Build 2)

Calibration Version: 1

Host Tool Name: DSNT - 11055304

CALIBRATION COEFFICIENTS

Measurement	Previous Value	New Value	Control Limit On New Value
-------------	----------------	-----------	----------------------------

Pad Offset	-4115.63	-3940.88	-7000.00 - -1000.00
Pad Gain	0.0003908	0.0003812	0.000200 - 0.000600
Arm Offset	-2144.15	-2009.50	-5000.00 - 3000.00
Arm Gain	0.0004162	0.0004246	0.000300 - 0.000700
Arm Power	0.000002688	0.000001261	-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)	1.98	2.00	0.02	+/- 0.20
Medium Ring (in)	3.78	3.75	-0.03	+/- 0.20
RING DIAMETER:				
Small Ring (in)	6.35	6.50	0.15	+/- 0.20
Medium Ring (in)	8.10	8.25	0.15	+/- 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

SPECTRAL DENSITY SHOP CALIBRATION			
Tool Name:	SDLT Pad - 10865884	Reference Calibration Date:	04-Jan-13 10:30:13
Engineer:	J. BOLLLOM	Calibration Date:	13-Feb-13 10:47:49
Software Version:	WL INSITE R3.8.0 (Build 2)	Calibration Version:	1

Logging Source S/N: 5168GW		
Aluminum Block S/N: LIBERAL	Density: 2.598g/cc	Pe: 3.170
Magnesium Block S/N: LIBERAL	Density: 1.684g/cc	Pe: 2.598

DENSITY CALIBRATION SUMMARY			
Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	1.0591	1.0409	0.90 - 1.10
Near Dens Gain	1.0204	1.0144	0.90 - 1.10
Near Peak Gain	1.0236	1.0045	0.90 - 1.10
Near Lith Gain	0.9918	0.9897	0.90 - 1.10
Far Bar Gain	1.0142	1.0119	0.90 - 1.10
Far Dens Gain	1.0021	1.0002	0.90 - 1.10
Far Peak Gain	0.9953	0.9961	0.90 - 1.10
Far Lith Gain	0.9734	0.9709	0.90 - 1.10
Near Bar Offset	-0.3434	-0.1754	NONE
Near Dens Offset	-0.0183	0.0332	NONE
Near Peak Offset	-0.0641	0.0950	NONE
Near Lith Offset	0.1634	0.1786	NONE
Far Bar Offset	0.0078	0.0343	NONE
Far Dens Offset	0.0906	0.1130	NONE
Far Peak Offset	0.1244	0.1196	NONE
Far Lith Offset	0.2556	0.2809	NONE
Near Bar Background	831.89	829.24	700 - 1450
Near Dens Background	276.96	275.13	230 - 480

Near Peak Background	118.93	119.99	100 - 210
Near Lith Background	146.93	146.82	125 - 260
Far Bar Background	515.51	513.05	450 - 900
Far Dens Background	202.64	200.66	175 - 345
Far Peak Background	78.62	79.48	70 - 140
Far Lith Background	81.88	82.22	75 - 145

CALIBRATION BLOCK SUMMARY				
Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.688	1.684	-0.004	+/- 0.015
Pe	2.534	2.552	0.018	+/- 0.150
ALUMINUM				
Density (g/cc)	2.600	2.598	-0.002	+/- 0.01500
Pe	3.081	3.120	0.039	+/- 0.150

TOOL SUMMARY				
Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	-0.0003	+/- 0.0110	-0.0017	+/- 0.0140
Magnesium Block	-0.0024	+/- 0.0110	-0.0007	+/- 0.0140
Aluminum Block	0.0005	+/- 0.0110	0.0001	+/- 0.0140
Resolution	9.15	6.00 - 11.50	8.96	6.00 - 11.50
Internal Verifier(B+D+P+L)	1371	1200 - 2700	875	800 - 1700

PASS/FAIL SUMMARY	
Background Quality Check:	Passed
Background Range Check:	Passed
Background Resolution Check:	Passed
Background Verification Check:	Passed
Magnesium Quality Check:	Passed
Aluminum Quality Check:	Passed
Gains Check:	Passed
Changes in Calibration Blocks:	Passed

SPECTRAL DENSITY FIELD CHECK

Tool Name:	SDLT Pad - 10865884	Reference Calibration Date:	13-Feb-13 10:47:49
Engineer:	J. BOLLLOM	Calibration Date:	02-Mar-13 14:12:12
Software Version:	WL INSITE R3.8.0 (Build 2)	Calibration Version:	1

Pad Temperature: 54.1 degF

DENSITY FIELD CALIBRATION SUMMARY				
Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1371.181	1372.707	1.526	14.965
Far (B+D+P+L) cps	875.410	874.591	-0.819	16.158
Near Resolution	9.15	9.26	0.110	0.50
Far Resolution	8.96	9.17	0.210	1.00

PASS/FAIL SUMMARY

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

SDLT CALIPER FIELD CALIBRATION			
Tool Name:	SDLT - 11014296	Reference Calibration Date:	13-Feb-13 09:56:36
Engineer:	J. BOLLLOM	Calibration Date:	02-Mar-13 14:29:53
Software Version:	WL INSITE R3.8.0 (Build 2)	Calibration Version:	1

MEASURED CALIPER VALUES				
Measurement	Shop	Field	Change	Control Limit On New Value
Pad Extension	3.75	3.79	0.04	+/- 0.10
Ring Diameter	8.25	8.22	-0.03	+/- 0.15

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

CALIBRATION SUMMARY						
Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-11039640						
Gamma Ray Calibrator	269.6	267.9	-----	1.7	+/- 9.00	api
DSNT-11055304						
Snow-Block Porosity	0.0624	0.0730	-----	-0.0106	+/- 0.0150	decp
SDLT-11014296						
Pad Extension	3.75	3.79	-----	-0.04	+/-0.10	in
Ring Diameter	8.25	8.22	-----	0.03	+/-0.15	in
SDLT Pad-10865884						
Near(B+D+P+L)	1371.181	1372.707	-----	-1.526	+/-14.965	cps
Far(B+D+P+L)	875.410	874.591	-----	0.819	+/-16.158	cps

Data: GARDEN CITY T 310001 SP-GTET-DSN-SDI-FLEX-BSAT-ACRT-CHUDLE		Date: 03-Mar-13 07:25:05
--	--	--------------------------

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	9.300	ppg
	SHARED	WAGT	Weighting Agent	Natural	
	SHARED	BSAL	Borehole salinity	0.00	ppm
	SHARED	FSAL	Formation Salinity NaCl	0.00	ppm
	SHARED	KPCT	Percent K in Mud by Weight?	0.00	%
	SHARED	RMUD	Mud Resistivity	2.000	ohmm
	SHARED	TRM	Temperature of Mud	75.0	degF
	SHARED	CSD	Logging Interval is Cased?	No	
	SHARED	ICOD	AHV Casing OD	5.500	in
	SHARED	ST	Surface Temperature	75.0	degF
	SHARED	TD	Total Well Depth	5102.00	ft
	SHARED	BHT	Bottom Hole Temperature	200.0	degF

	SHARED	SVTM	Navigation and Survey Master Tool	NONE	
	SHARED	AZTM	High Res Z Accelerometer Master Tool	GTET	
	SHARED	TEMM	Temperature Master Tool	NONE	
	SHARED	BHSM	Borehole Size Master Tool	NONE	
	Rwa / CrossPlot	XPOK	Process Crossplot?	Yes	
	Rwa / CrossPlot	FCHO	Select Source of F	Automatic	
	Rwa / CrossPlot	AFAC	Archie A factor	0.6200	
	Rwa / CrossPlot	MFAC	Archie M factor	2.1500	
	Rwa / CrossPlot	RMFR	Rmf Reference	0.10	ohmm
	Rwa / CrossPlot	TMFR	Rmf Ref Temp	75.00	degF
	Rwa / CrossPlot	RWA	Resistivity of Formation Water	0.05	ohmm
	Rwa / CrossPlot	ADP	Use Air Porosity to calculate CrossplotPhi	No	
	GTET	GROK	Process Gamma Ray?	Yes	
	GTET	GRSO	Gamma Tool Standoff	0.000	in
	GTET	GEOK	Process Gamma Ray EVR?	No	
	GTET	TPOS	Tool Position for Gamma Ray Tools.	Eccentered	
	DSNT	DNOK	Process DSN?	Yes	
	DSNT	DEOK	Process DSN EVR?	No	
	DSNT	NLIT	Neutron Lithology	Limestone	
	DSNT	DNSO	DSN Standoff - 0.25 in (6.35 mm) Recommended	0.250	in
	DSNT	DNTP	Temperature Correction Type	None	
	DSNT	DPRS	DSN Pressure Correction Type	None	
	DSNT	SHCO	View More Correction Options	No	
	DSNT	UTVD	Use TVD for Gradient Corrections?	No	
	DSNT	LHWT	Logging Horizontal Water Tank?	No	
	SDLT	CLOK	Process Caliper Outputs?	Yes	
	SDLT Pad	DNOK	Process Density?	Yes	
	SDLT Pad	DNOK	Process Density EVR?	No	
	SDLT Pad	CB	Logging Calibration Blocks?	No	
	SDLT Pad	SPVT	SDLT Pad Temperature Valid?	Yes	
	SDLT Pad	DTWN	Disable temperature warning	No	
	SDLT Pad	DMA	Formation Density Matrix	2.710	g/cc
	SDLT Pad	DFL	Formation Density Fluid	1.000	g/cc
	Microlog Pad	MLOK	Process MicroLog Outputs?	Yes	
	BSAT	MBOK	Compute BCAS Results?	Yes	
	BSAT	FLLO	Frequency Filter Low Pass Value?	5000	Hz
	BSAT	FLHI	Frequency Filter High Pass Value?	27000	Hz
	BSAT	DTFL	Delta -T Fluid	189.00	uspf
	BSAT	DTMT	Delta -T Matrix Type	User define	
	BSAT	DTMA	Delta -T Matrix	47.60	uspf
	BSAT	DTSH	Delta -T Shale	100.00	uspf
	BSAT	SPEQ	Acoustic Porosity Equation	Wyllie	
	ACRt Sonde	RTOK	Process ACRt?	Yes	
	ACRt Sonde	MNSO	Minimum Tool Standoff	1.50	in
	ACRt Sonde	TCS1	Temperature Correction Source	FP Lwr & FP Up	
	ACRt Sonde	TPOS	Tool Position	Free Hanging	
	ACRt Sonde	RMOP	Rmud Source	Mud Cell	
	ACRt Sonde	RMIN	Minimum Resistivity for MAP	0.20	ohmm
	ACRt Sonde	RMIN	Maximum Resistivity for MAP	200.00	ohmm
	ACRt Sonde	THQY	Threshold Quality	0.50	
	ACRt Sonde	MRFX	Fixed mud resistivity	2000	ohmm

HALLIBURTON

INPUTS, DELAYS AND FILTERS TABLE

Mnemonic	Input Description	Delay (ft)	Filter Type	Filter Length (ft)
Depth Panel				
TENS	Tension	0.00	NO	
CH_HOS				
DHTN	DownholeTension	0.00	BLK	0.000
SP Sub				
PLTC	Plot Control Mask	72.25	NO	
SP	Spontaneous Potential	72.25	BLK	1.250
SPR	Raw Spontaneous Potential	72.25	NO	
SPO	Spontaneous Potential Offset	72.25	NO	
GTET				
TPUL	Tension Pull	64.23	NO	
GR	Natural Gamma Ray API	64.23	TRI	1.750
GRU	Unfiltered Natural Gamma Ray API	64.23	NO	
EGR	Natural Gamma Ray API with Enhanced Vertical Resolution	64.23	W	1.416 , 0.750
ACCZ	Accelerometer Z	0.00	BLK	0.083
DEVI	Inclination	0.00	NO	
DSNT				
TPUL	Tension Pull	53.99	NO	
RNDS	Near Detector Telemetry Counts	54.09	BLK	1.417
RFDS	Far Detector Telemetry Counts	54.84	TRI	0.583
DNTT	DSN Tool Temperature	54.09	NO	
DSNS	DSN Tool Status	53.99	NO	
ERND	Near Detector Telemetry Counts EVR	54.09	BLK	0.000
ERFD	Far Detector Telemetry Counts EVR	54.84	BLK	0.000
ENTM	DSN Tool Temperature EVR	54.09	NO	
SDLT				
TPUL	Tension Pull	44.09	NO	
PCAL	Pad Caliper	44.09	TRI	0.250
ACAL	Arm Caliper	44.09	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	
GMOD	Gain processing mode	19.83	NO	
ACRt Sonde				
TPUL	Tension Pull	2.97	NO	

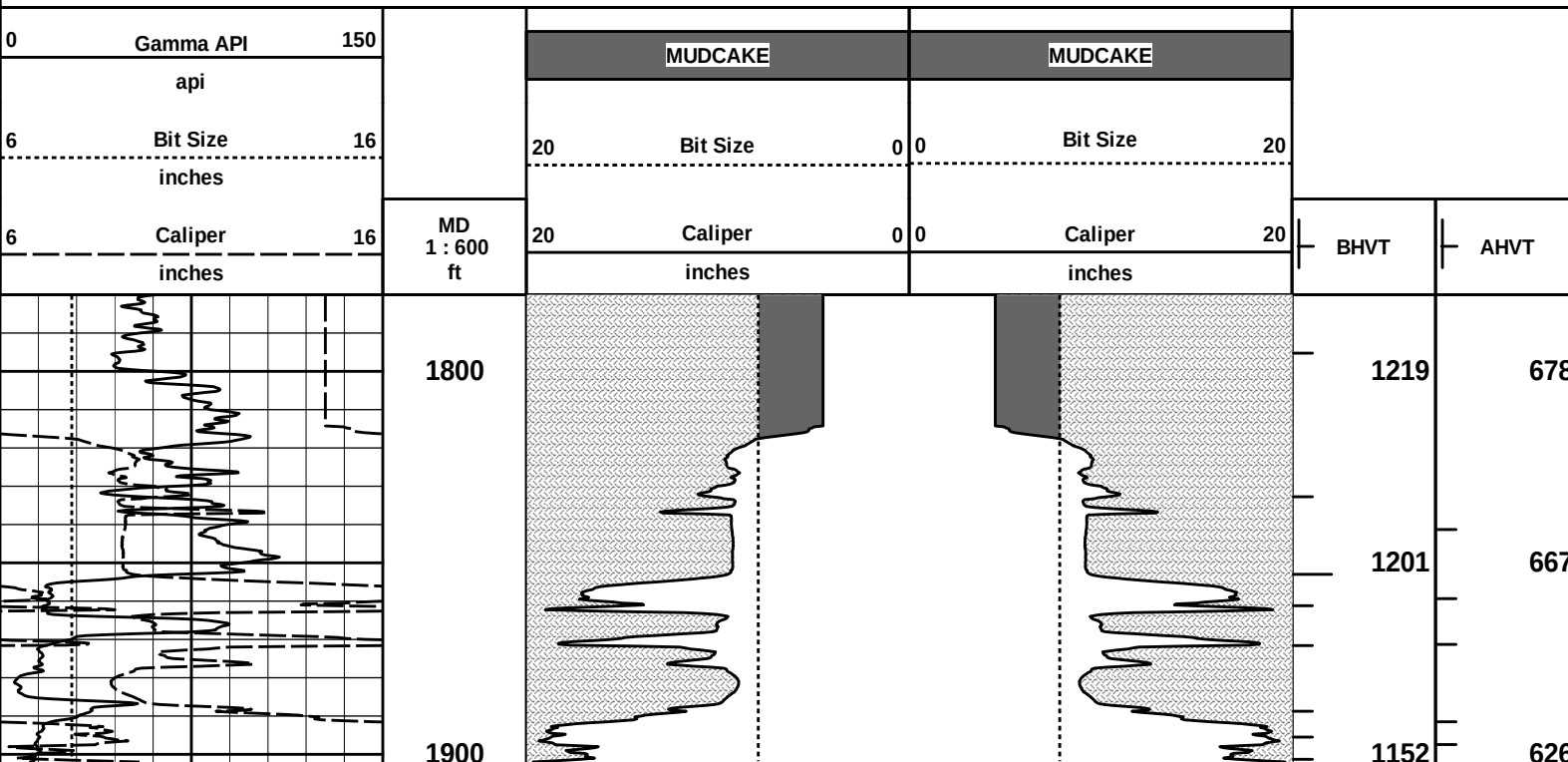
F1R1	ACRT 12KHz - 80in R value	9.22	BLK	0.000
F1X1	ACRT 12KHz - 80in X value	9.22	BLK	0.000
F1R2	ACRT 12KHz - 50in R value	6.72	BLK	0.000
F1X2	ACRT 12KHz - 50in X value	6.72	BLK	0.000
F1R3	ACRT 12KHz - 29in R value	5.22	BLK	0.000
F1X3	ACRT 12KHz - 29in X value	5.22	BLK	0.000
F1R4	ACRT 12KHz - 17in R 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 Current Raw 12K X Receiver	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	44.08	NO	
NAB	Near Above	43.90	BLK	0.920
NHI	Near Cesium High	43.90	BLK	0.920

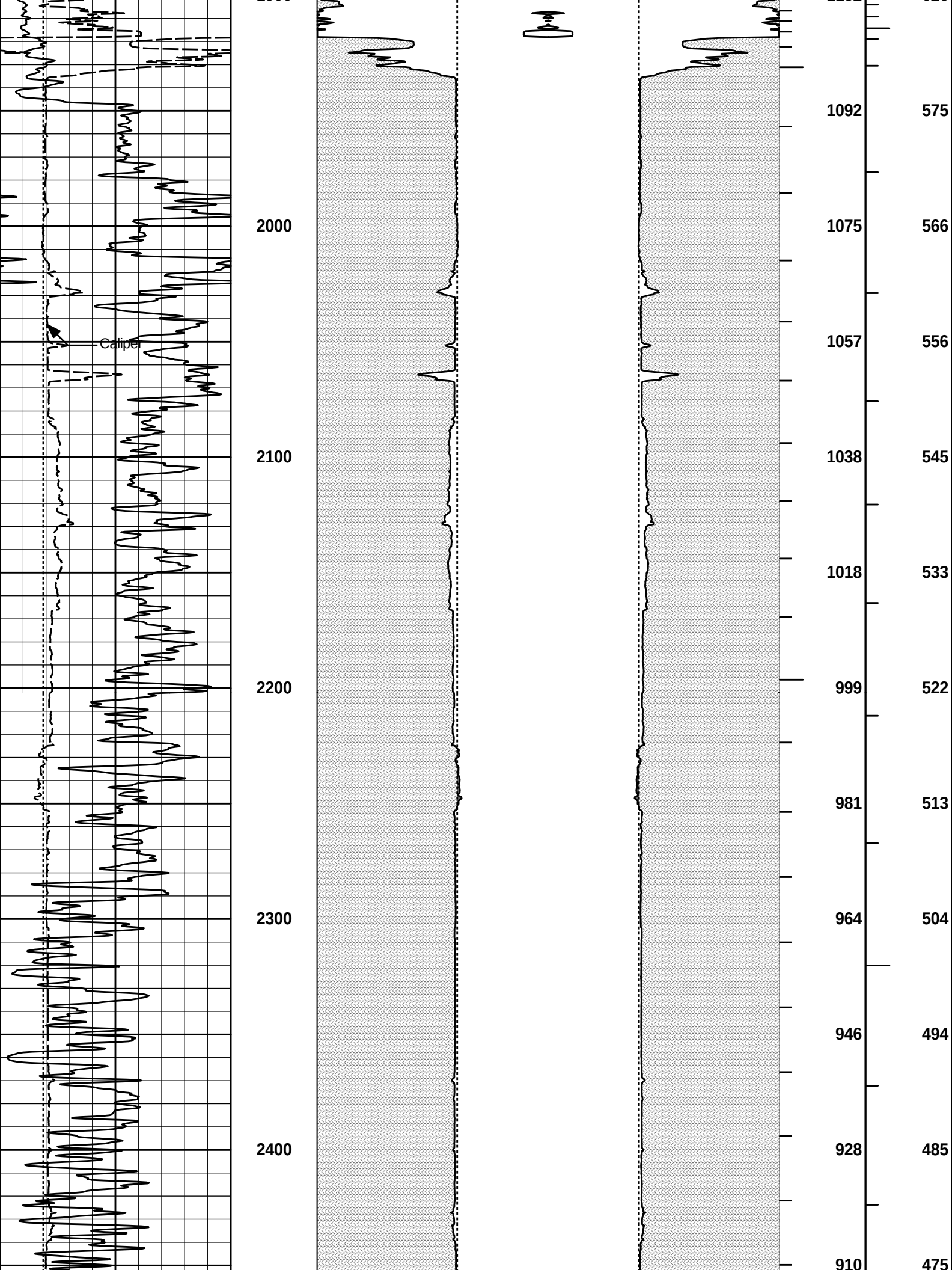
NLO	Near Cesium Low	43.90	BLK	0.920
NVA	Near Valley	43.90	BLK	0.920
NBA	Near Barite	43.90	BLK	0.920
NDE	Near Density	43.90	BLK	0.920
NPK	Near Peak	43.90	BLK	0.920
NLI	Near Lithology	43.90	BLK	0.920
NBAU	Near Barite Unfiltered	43.90	BLK	0.250
NLIU	Near Lithology Unfiltered	43.90	BLK	0.250
FAB	Far Above	44.26	BLK	0.250
FHI	Far Cesium High	44.26	BLK	0.250
FLO	Far Cesium Low	44.26	BLK	0.250
FVA	Far Valley	44.26	BLK	0.250
FBA	Far Barite	44.26	BLK	0.250
FDE	Far Density	44.26	BLK	0.250
FPK	Far Peak	44.26	BLK	0.250
FLI	Far Lithology	44.26	BLK	0.250
PTMP	Pad Temperature	44.09	BLK	0.920
NHV	Near Detector High Voltage	43.49	NO	
FHV	Far Detector High Voltage	43.49	NO	
ITMP	Instrument Temperature	43.49	NO	
DDHV	Detector High Voltage	43.49	NO	

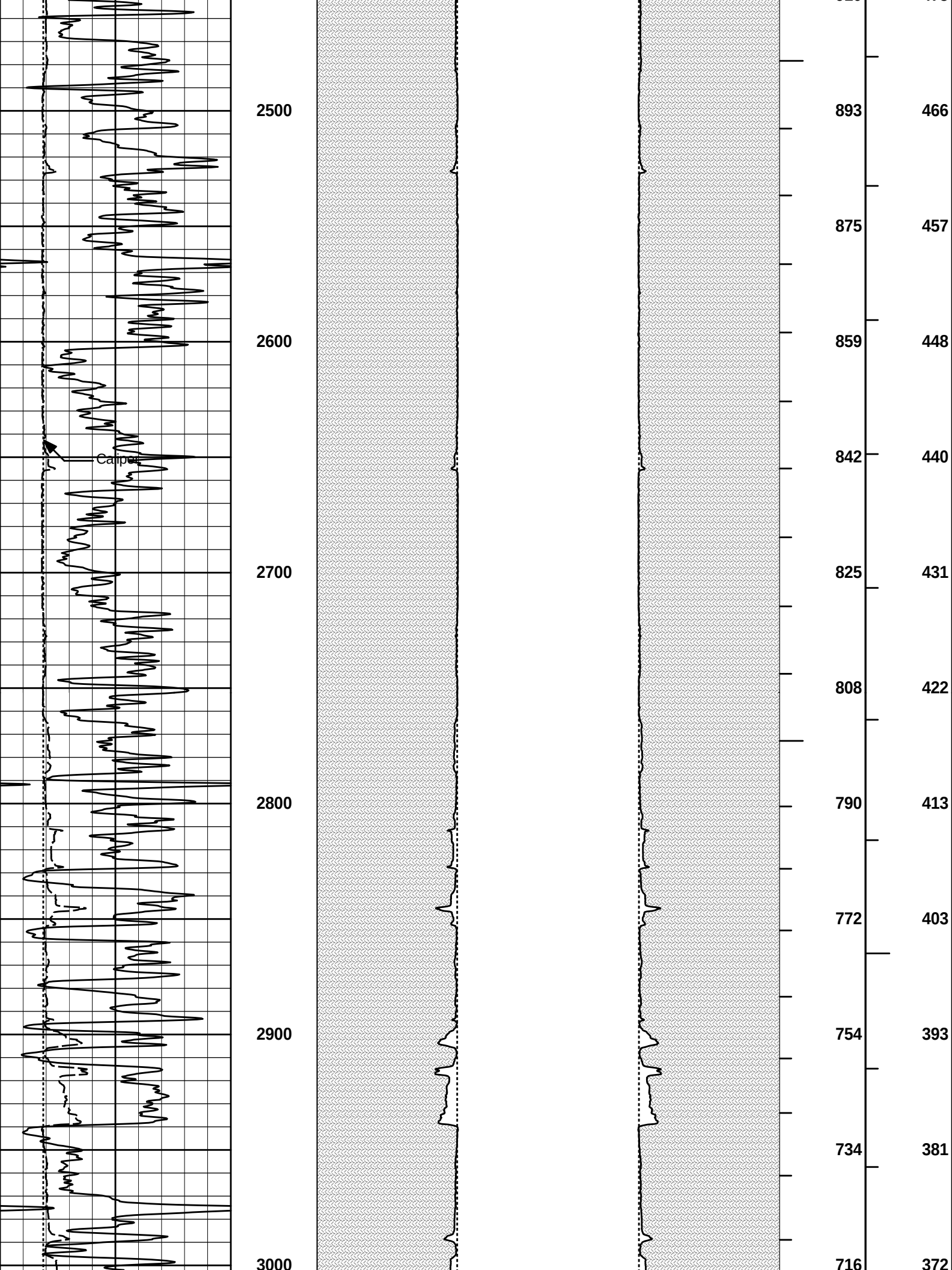
Microlog Pad				
TPUL	Tension Pull	44.28	NO	
MINV	Microlog Lateral	44.28	BLK	0.750
MNOR	Microlog Normal	44.28	BLK	0.750
Data: GARDEN_CITY_T_3I0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CHIIDLE			Date: 03-Mar-13 07:22:40	

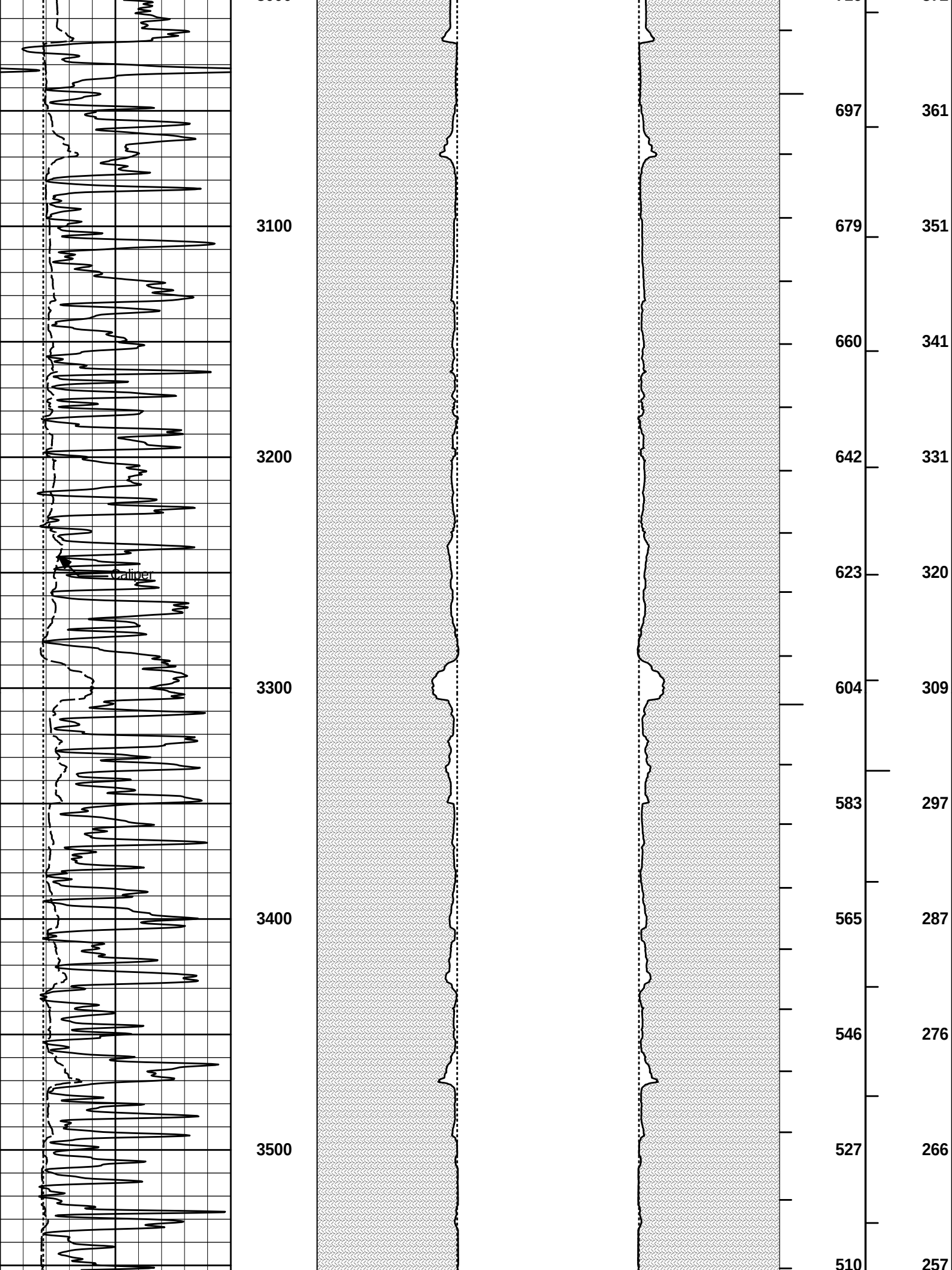
HALLIBURTON		Plot Time: 03-Mar-13 09:42:59
		Plot Range: 1780 ft to 5086.42 ft
		Data: GARDEN_CITY_T_3IWell Based\CASING\
		Plot File: \\LOCAL-IGARDEN_CITY_T_3I0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CHIPOROI\AHV_2_IQ_LIB

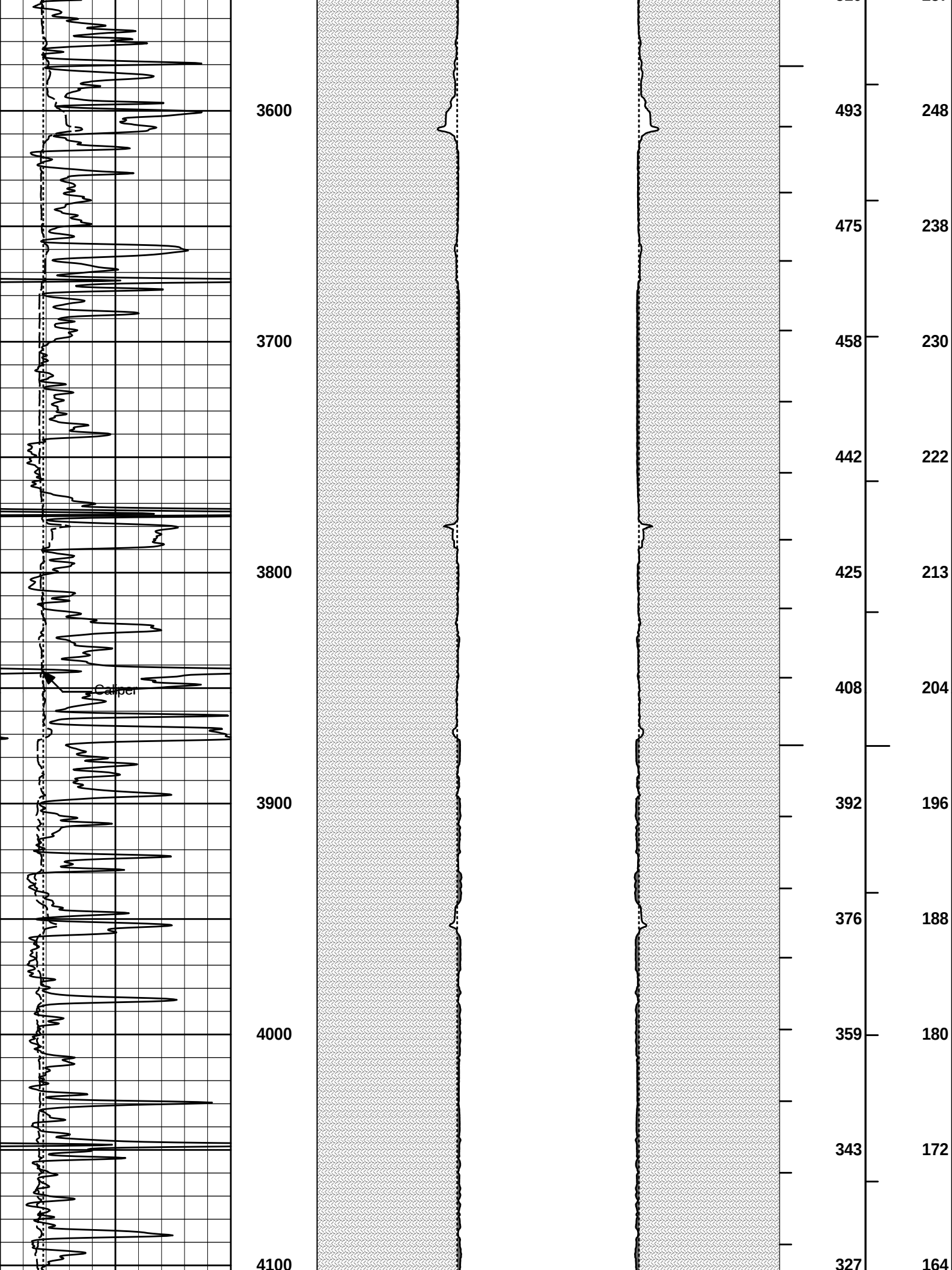
ANNULAR HOLE VOLUME PLOT

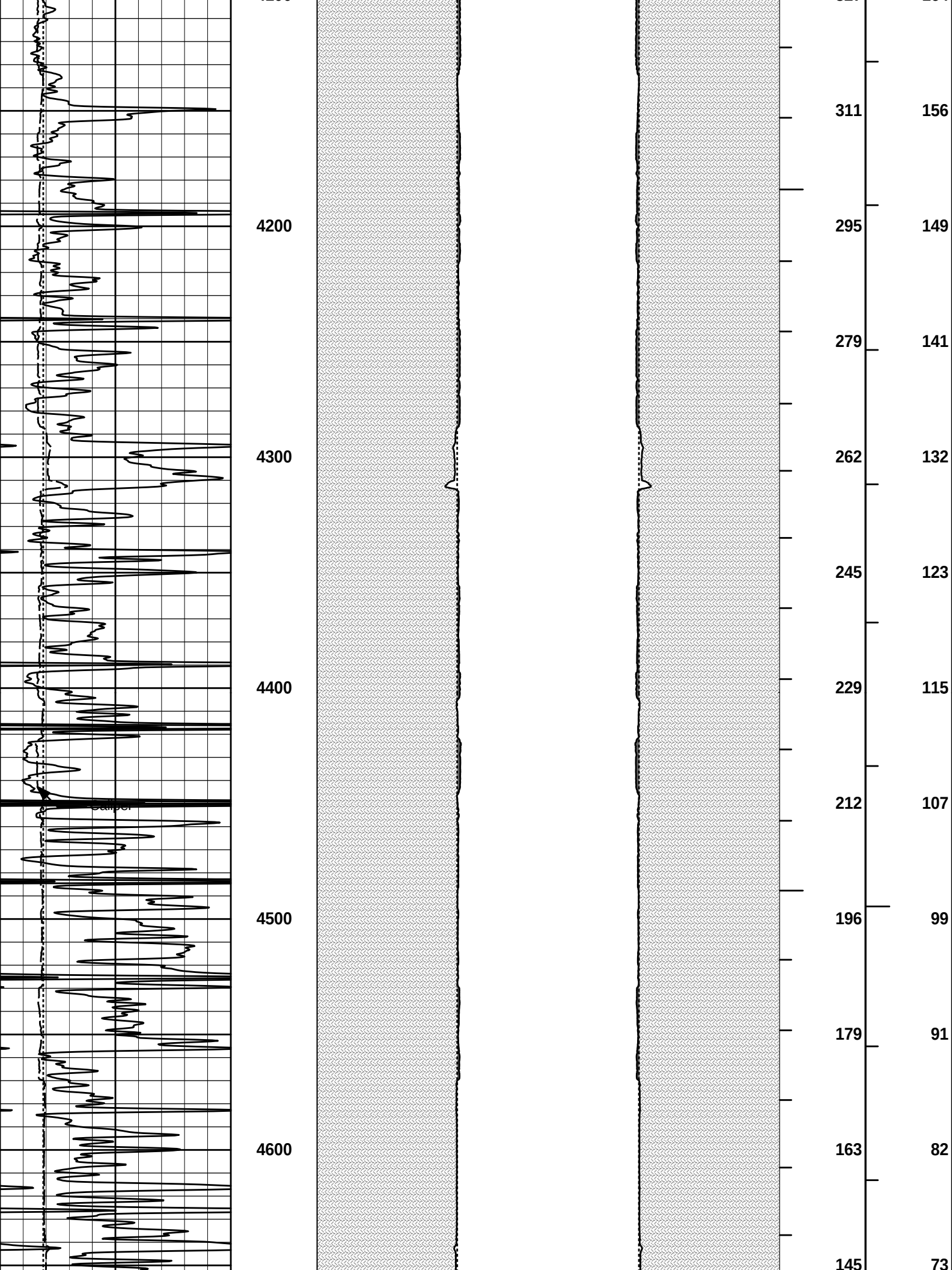


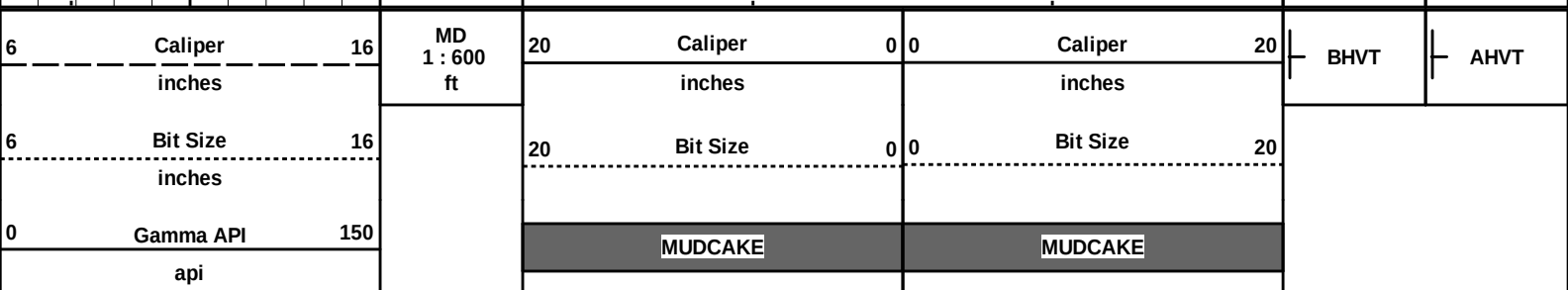












ANNULAR HOLE VOLUME PLOT

COMPANY	OXY USA INC		
WELL	GARDEN CITY T-3		
FIELD	HUGOTON GAS AREA		
COUNTY	FINNEY	STATE	KANSAS
HALLIBURTON		SPECTRAL DENSITY DUAL SPACED NEUTRON LOG	