

HALLIBURTON

DUAL SPACED NEUTRON SPECTRAL DENSITY LOG

COMPANY				OXY USA INC			
WELL				SMU #318			
FIELD				SMU			
COUNTY				FINNEY			
STATE				KANSAS			
Permanent Datum				GL			
Log measured from				KB			
Drilling measured from				KB			
Date				17-Jul-12			
Run No.				ONE			
Depth - Driller				4891.00 ft			
Depth - Logger				4883.0 ft			
Bottom - Logged Interval				4839.0 ft			
Top - Logged Interval				3700.0 ft			
Casing - Driller				8.625 in @ 1823.0 ft			
Casing - Logger				1818.0 ft			
Bit Size				7.875 in @			
Type Fluid in Hole				WATER BASED MUD			
Density				9.6 ppq 50.00 s/qt			
PH				9.60 pH 8.0 cp/m			
Source of Sample				FLOWLINE			
Rm @ Meas. Temperature				0.390 ohmm @ 75.00 degF @			
Rmf @ Meas. Temperature				0.33 ohmm @ 75.00 degF @			
Rmc @ Meas. Temperature				0.460 ohmm @ 75.00 degF @			
Source Rmf				MEASURED MEASURED			
Rm @ BHT				0.24 ohmm @ 125.0 degF @			
Time Since Circulation				6.0 hr			
Time on Bottom				17-Jul-12 19:05			
Max. Rec. Temperature				125.0 degF @ 4883.0 ft @			
Equipment				10782954 LIBERAL			
Recorded By				T. HYDE			
Witnessed By				J. KNEESE			

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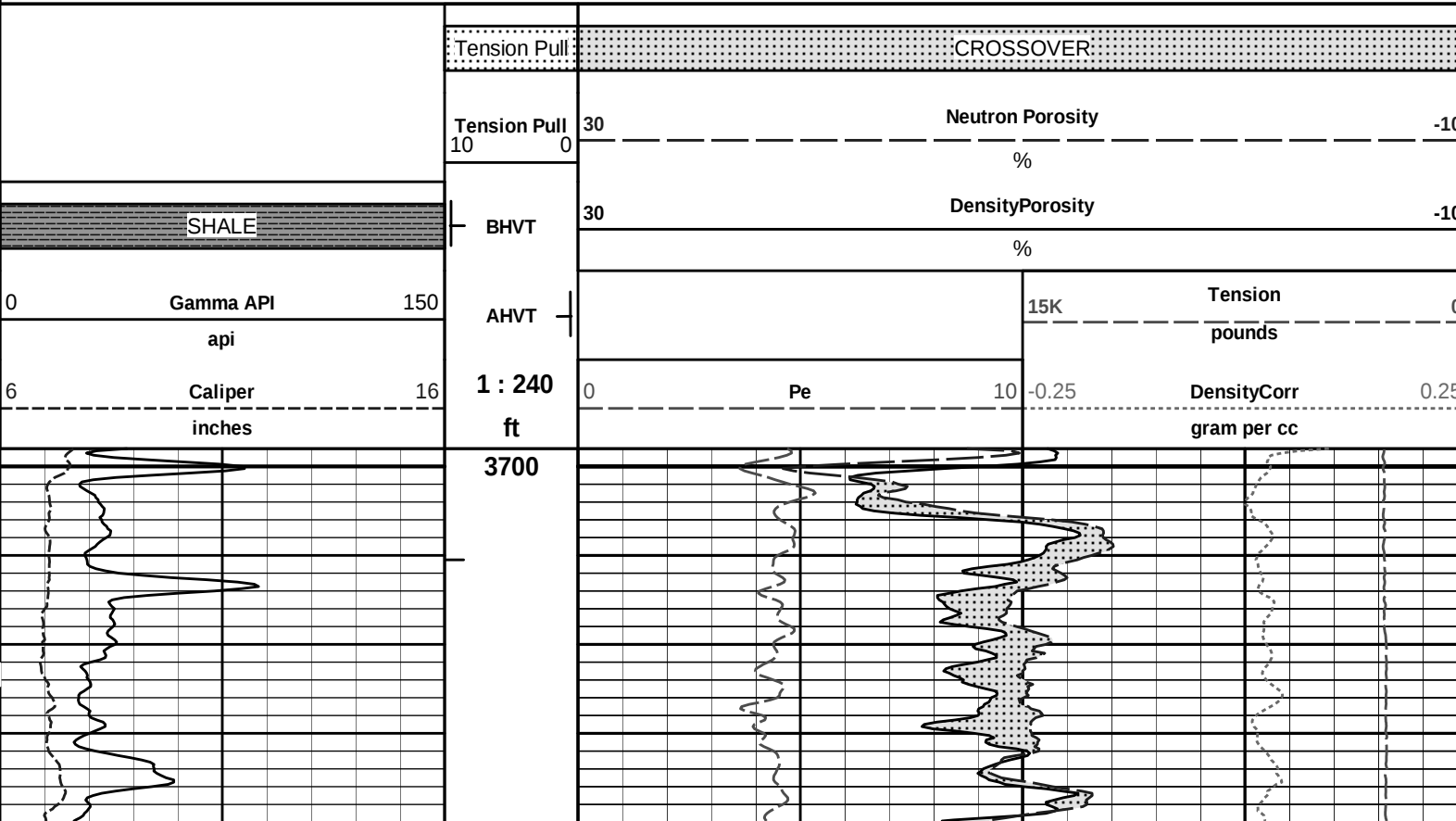
Service Ticket No.: 9670805				API Serial No.: 15-055-22161				PGM Version: WL INSITE R3.6.0 (Build 3)											
CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE				RESISTIVITY SCALE CHANGES															
Date		Sample No.						Type Log		Depth		Scale Up Hole		Scale Down Hole					
Depth-Driller																			
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.		I066_M85803_P45		Serial No.		10755066					
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		Cs137		Source Type		Am241Be					
Length		8"		LSA [Y/N]				Serial No.		5073GW		Serial No.		DSN-436					
Distance to Source		10'		FWDA [Y/N]				Strength		1.5 Ci		Strength		15 Ci					
LOGGING DATA																			
GENERAL				GAMMA				ACOUSTIC				DENSITY				NEUTRON			

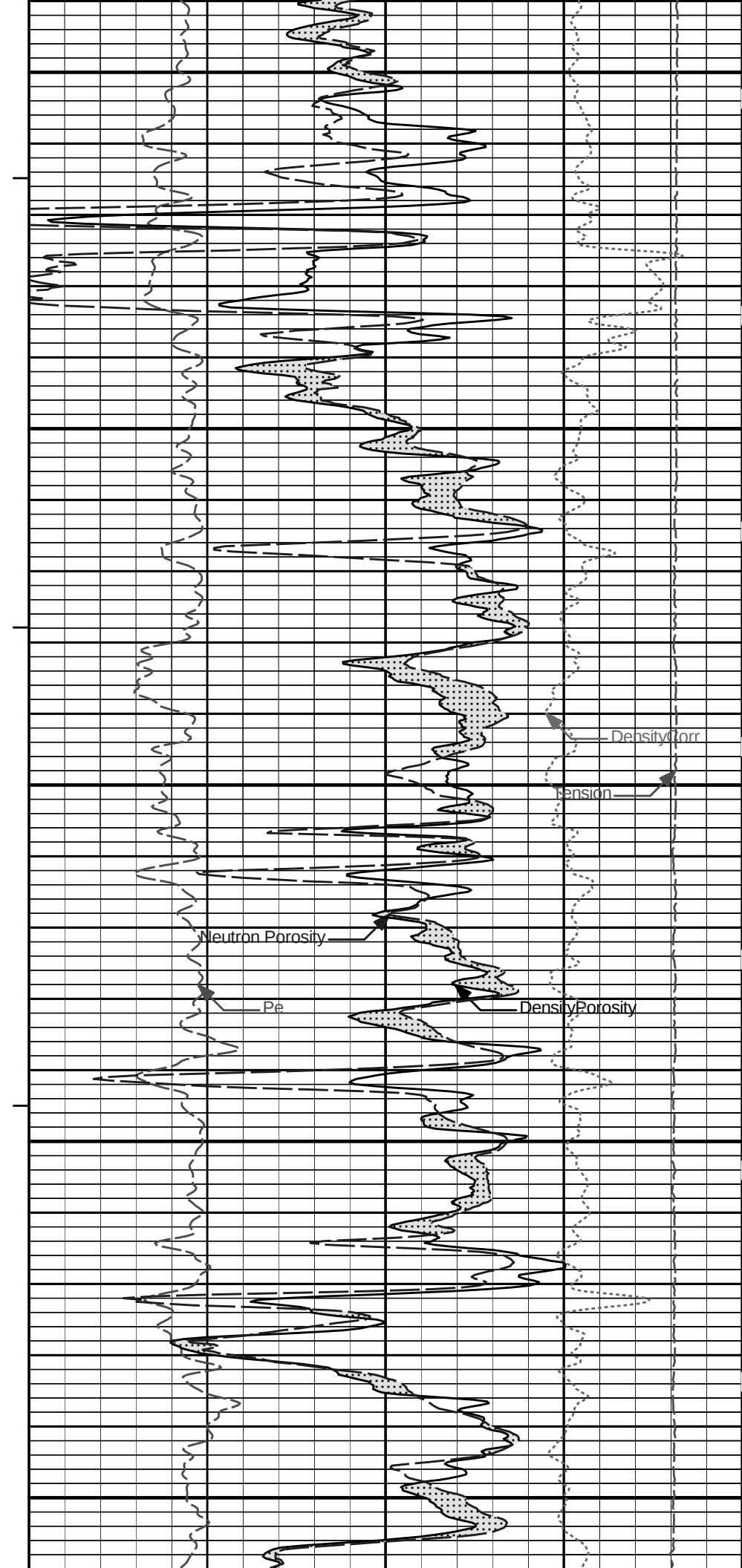
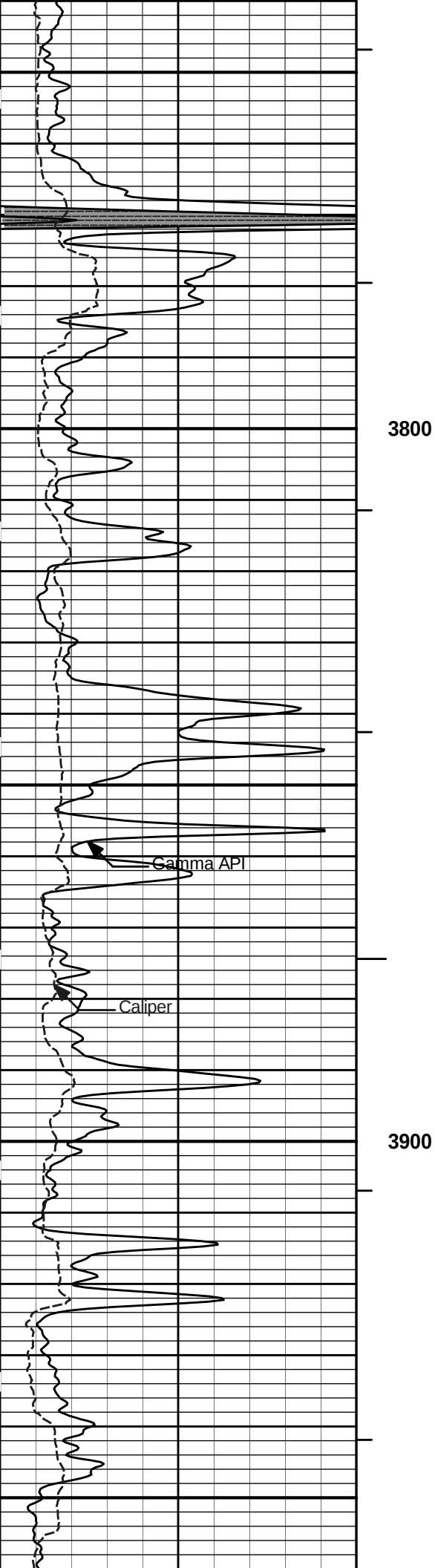
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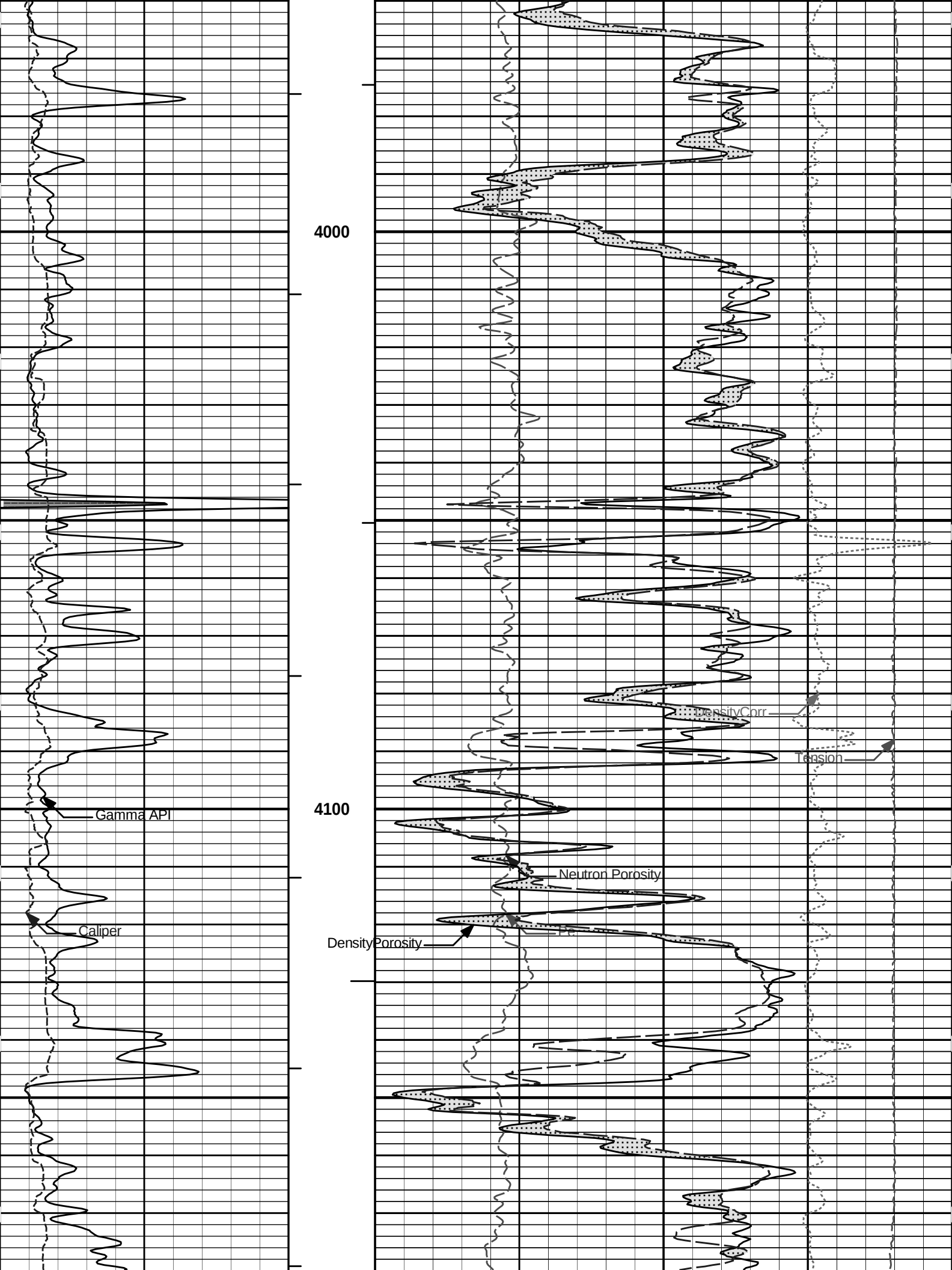
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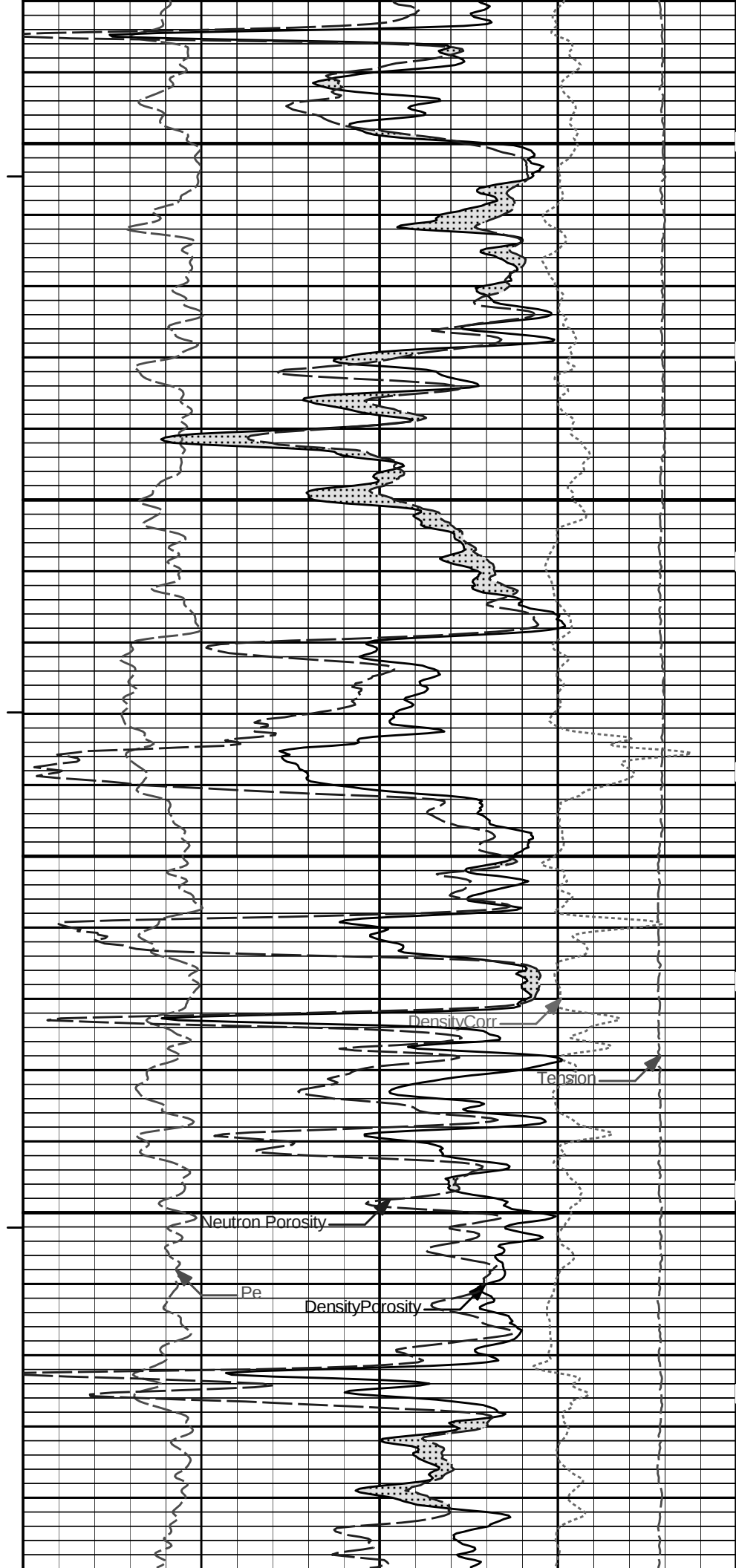
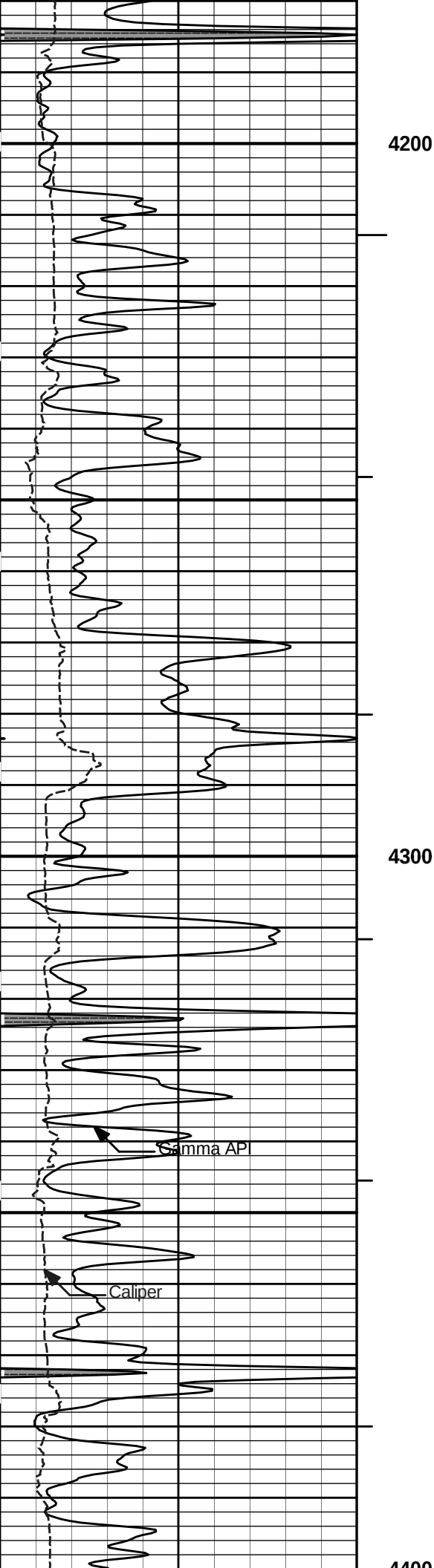
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Data: SMU_318\Well Based\DAQ-0001-0071
Plot File: \\POROI\Poroi_IQ_5_MAIN_LIB

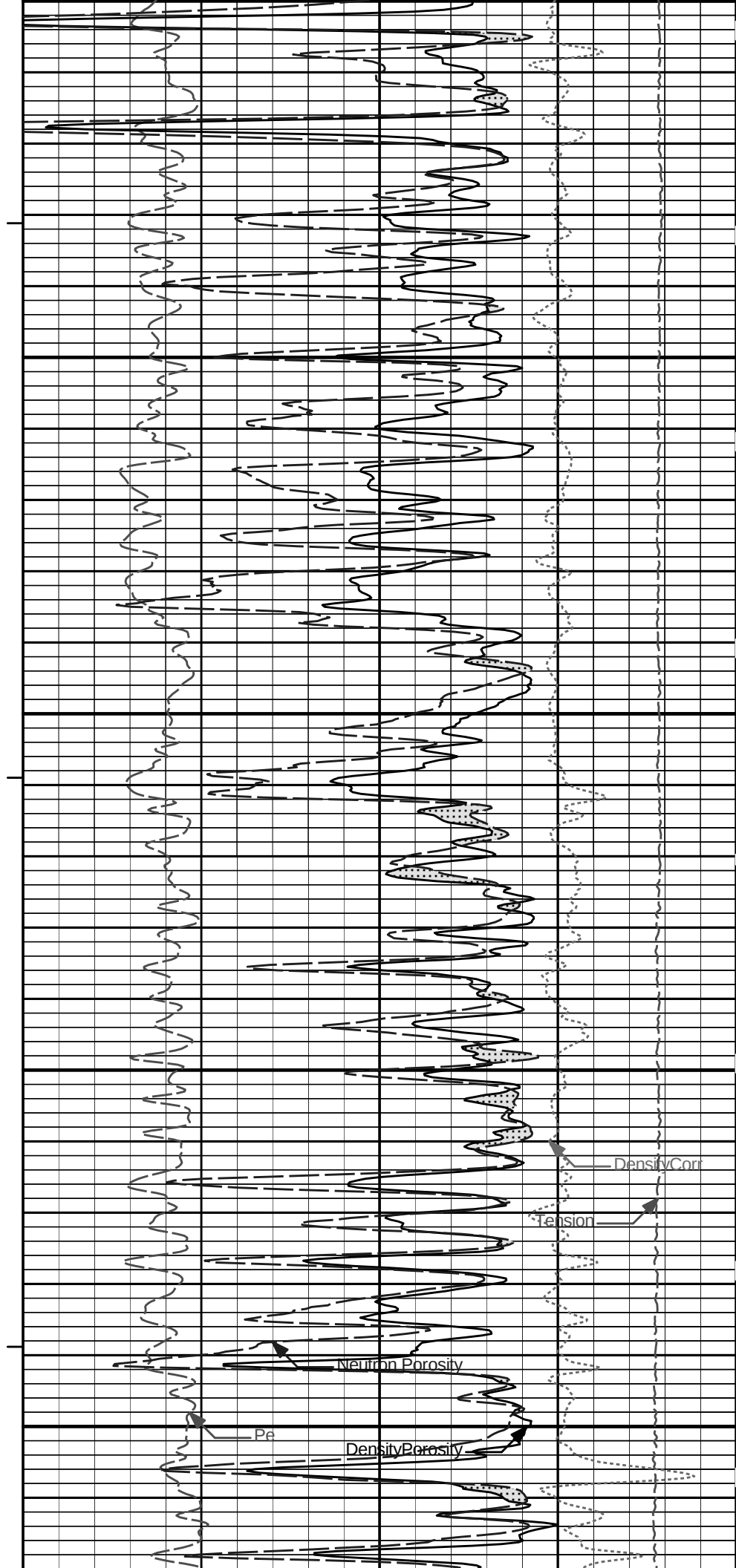
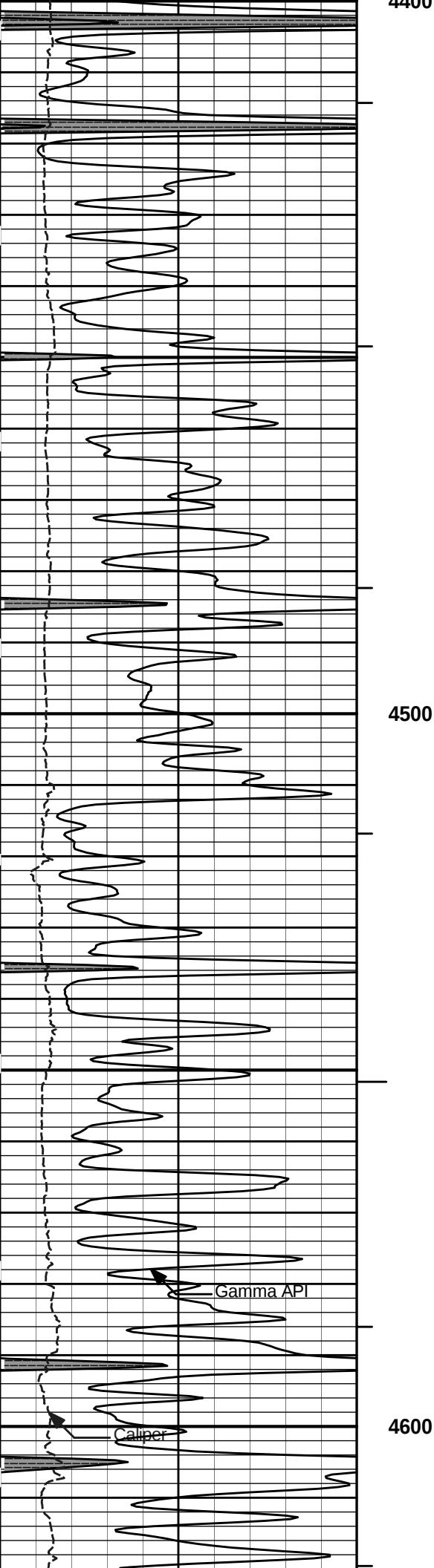
5 INCH MAIN LOG

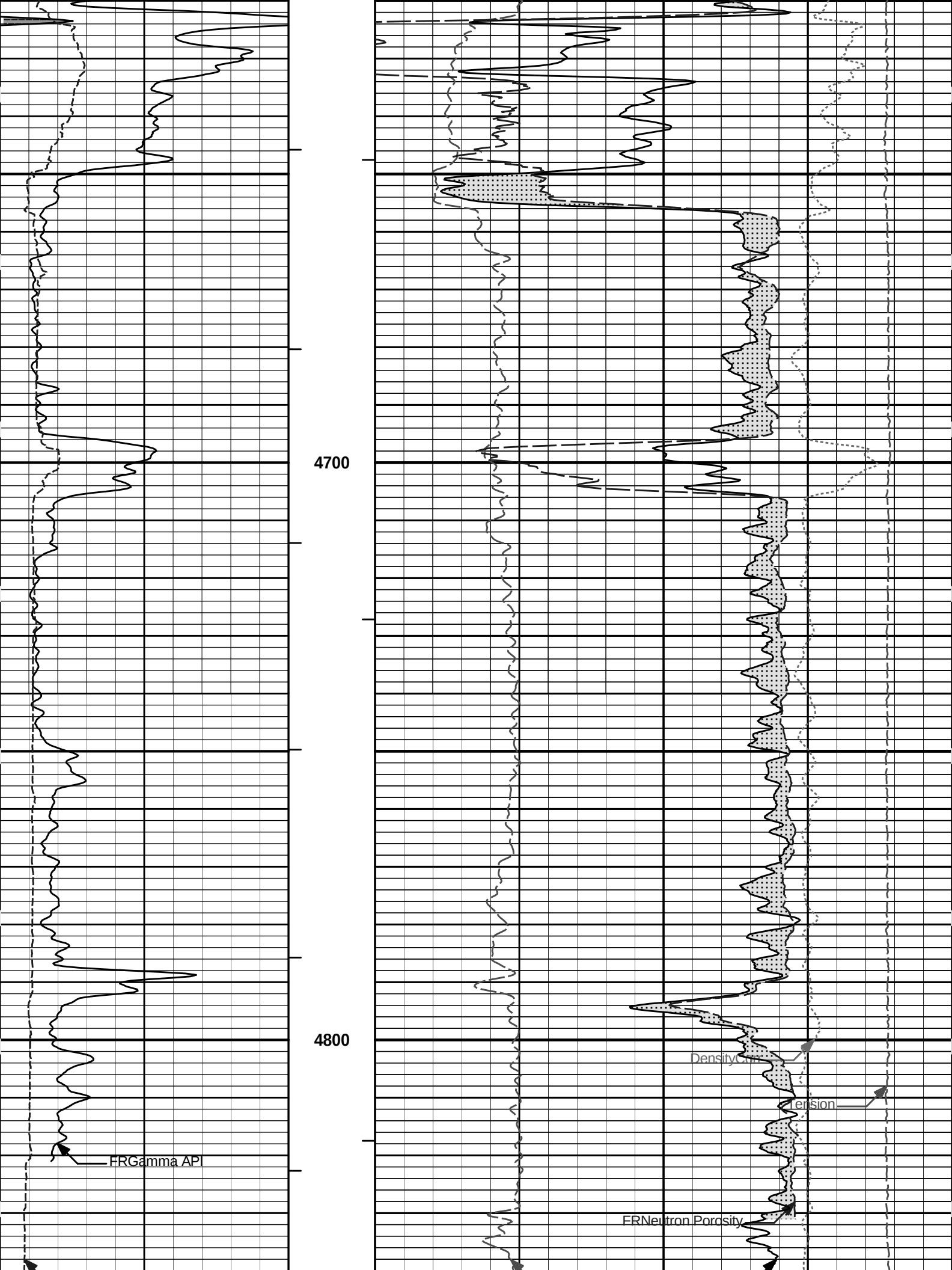


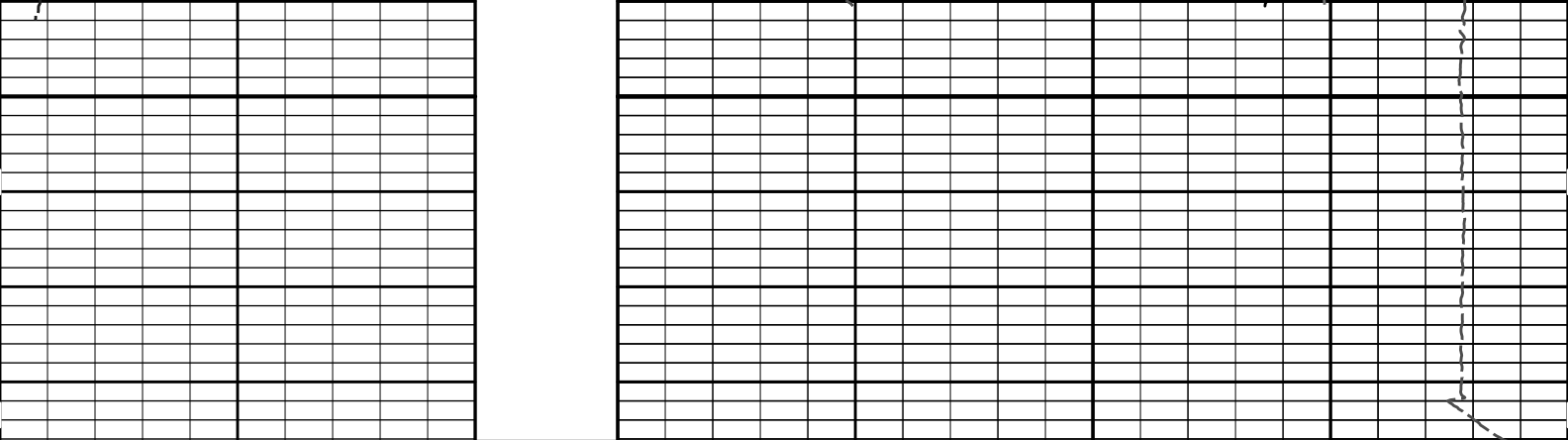












6	Caliper	16	1 : 240	0	Pe	10	-0.25	DensityCorr	0.25
	inches		ft					gram per cc	
0	Gamma API	150	AHVT				15K	Tension	0
	api							pounds	
	SHALE		BHVT	30	DensityPorosity				-10
					%				
			Tension Pull	30	Neutron Porosity				-10
			10 0		%				
			Tension Pull		CROSSOVER				

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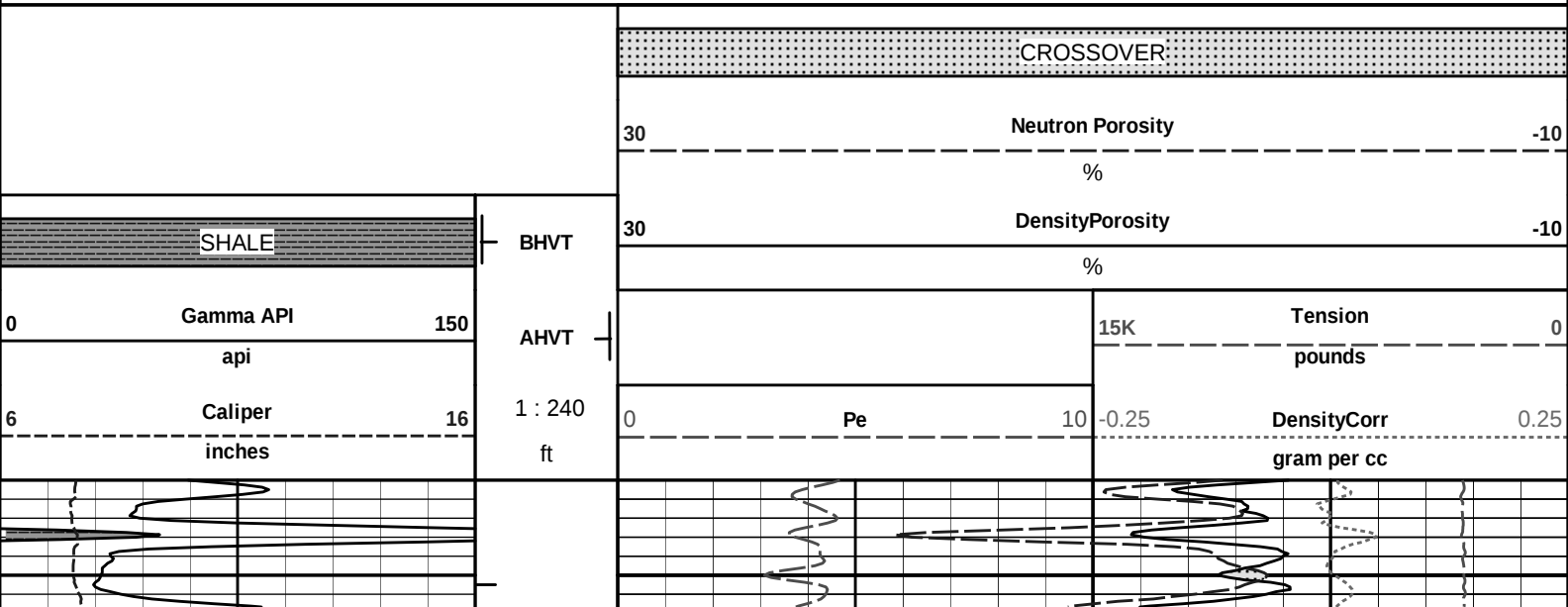
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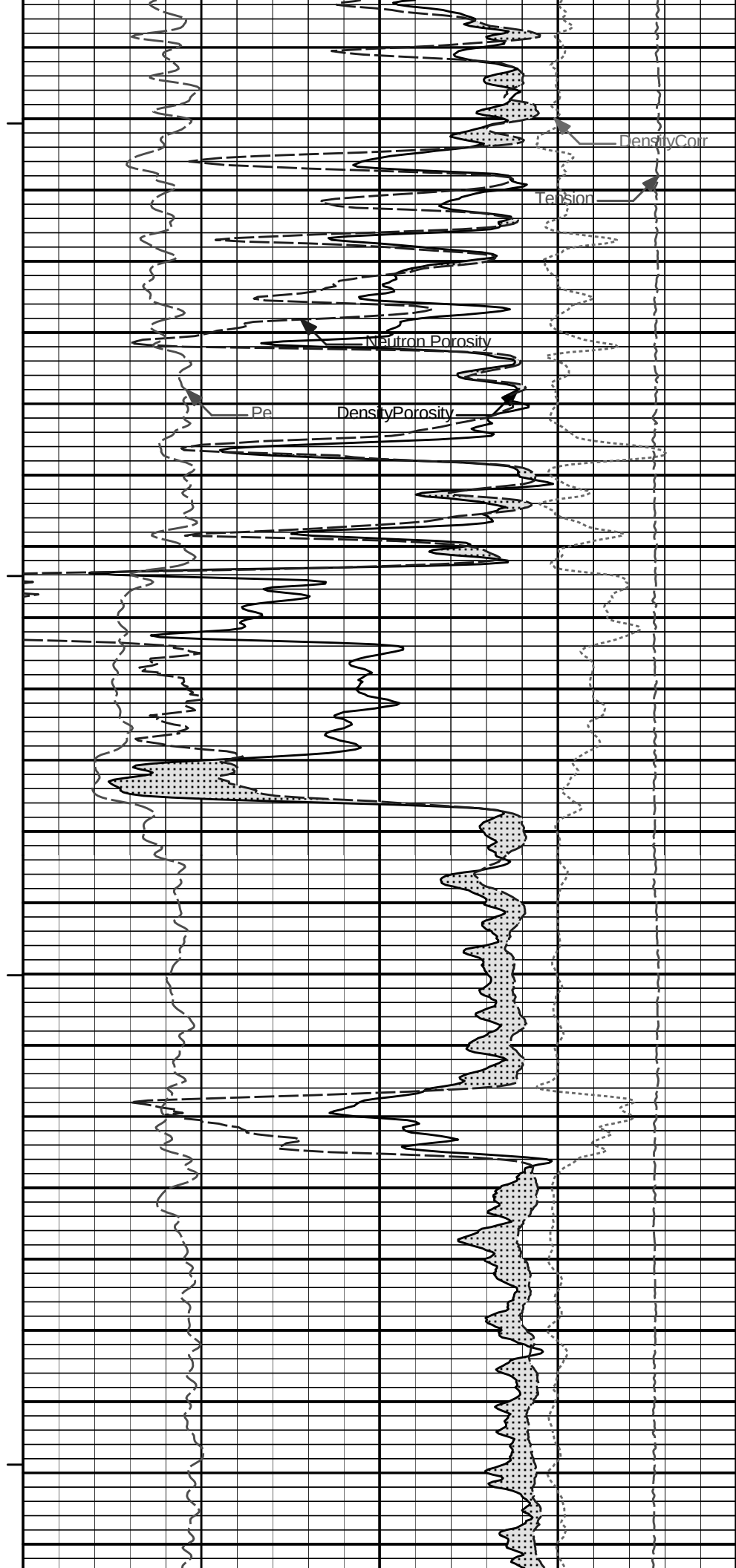
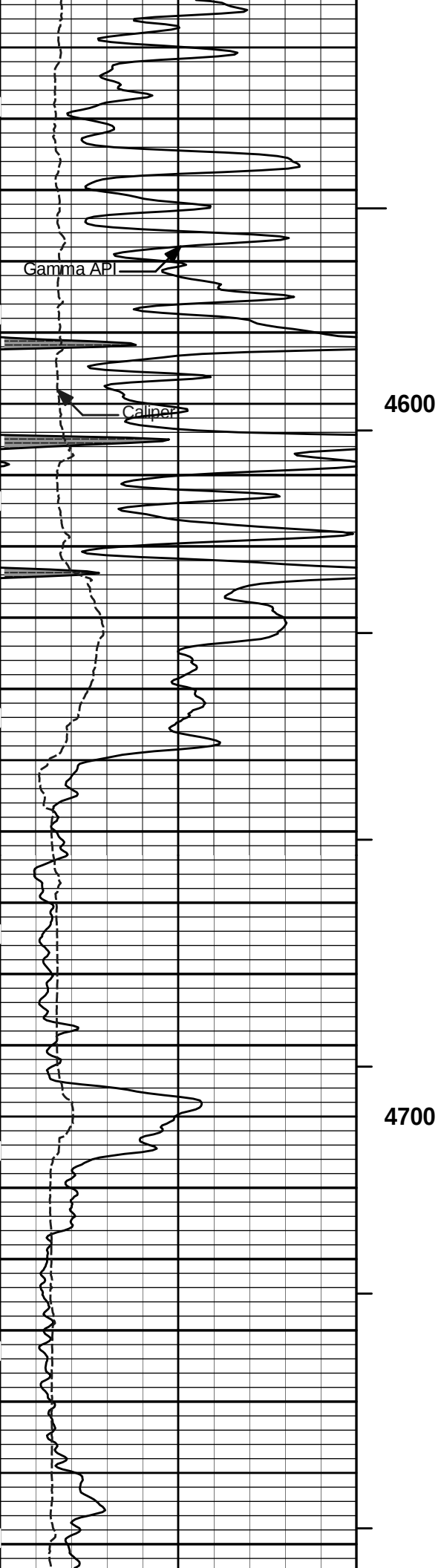
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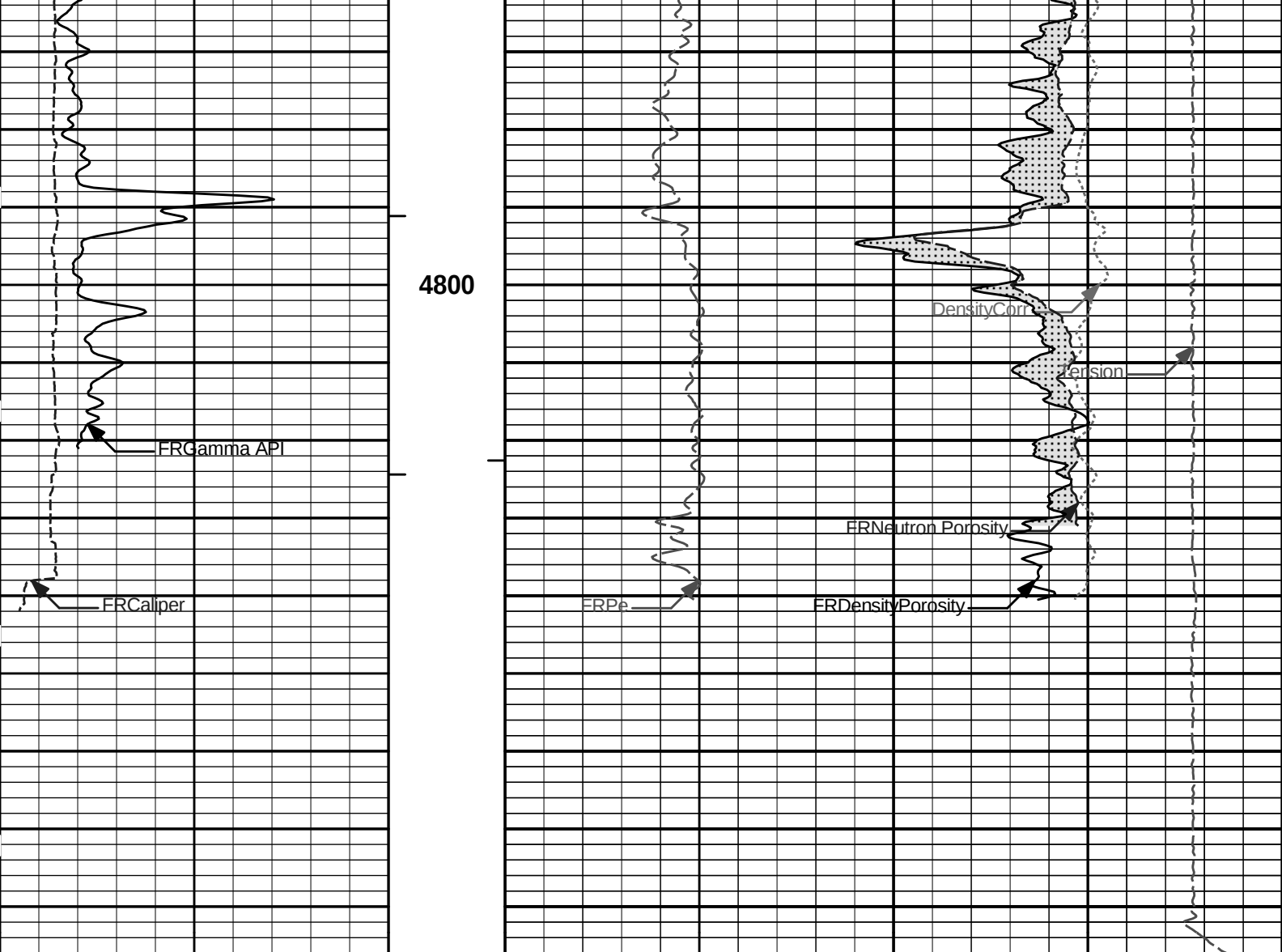
HALLIBURTON

Plot Time: 17-Jul-12 20:23:22
Plot Range: 4530 ft to 4886.25 ft
Data: SMU_318\Well Based\DAQ-0001-0061
Plot File: \\POROI\Poroi_Q_5_REP_LIB

REPEAT SECTION







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				-10
					%				
				30	Neutron Porosity				-10
					%				
					CROSSOVER				

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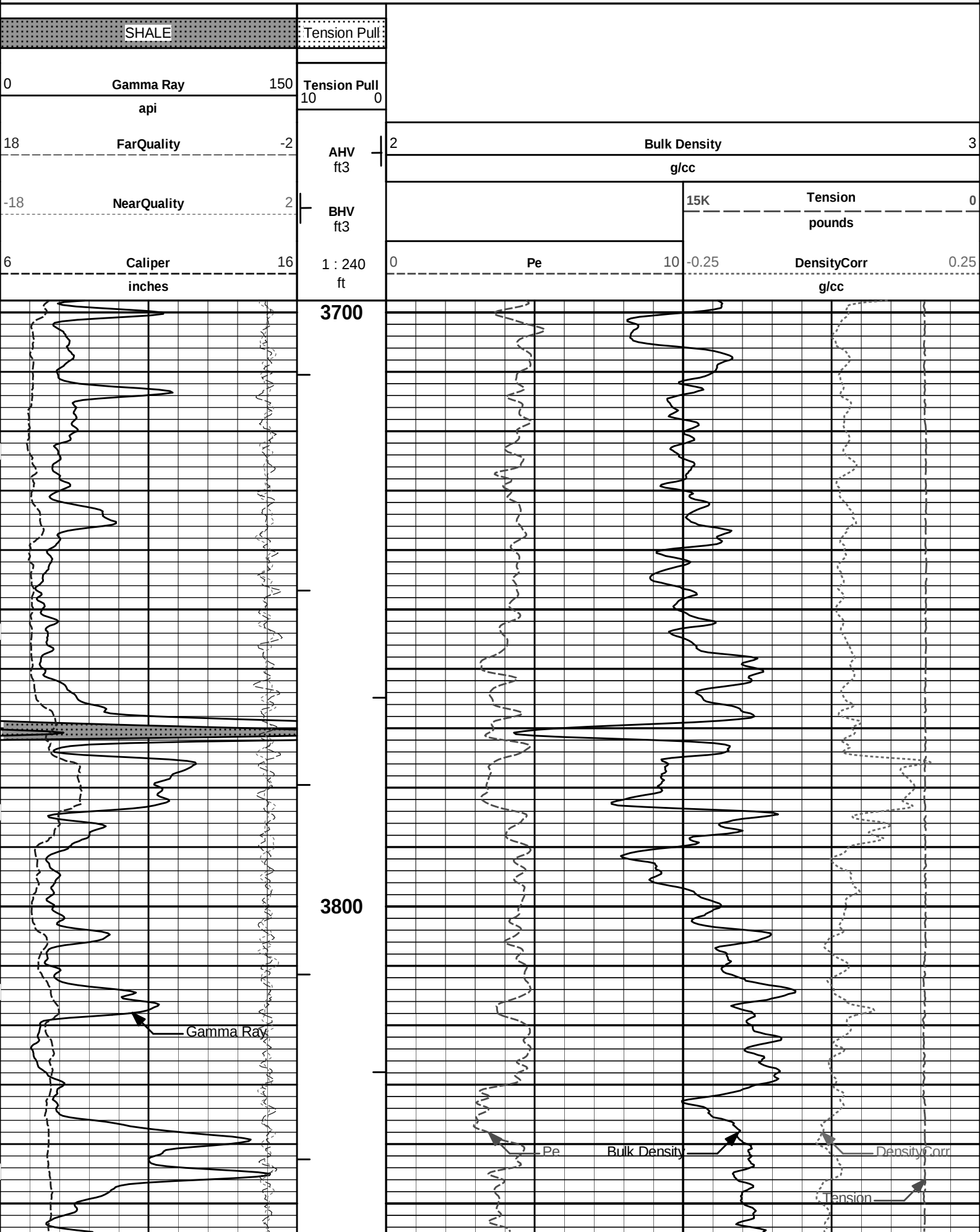
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 Data: SMU_318\Well Based\DAQ-0001-006\
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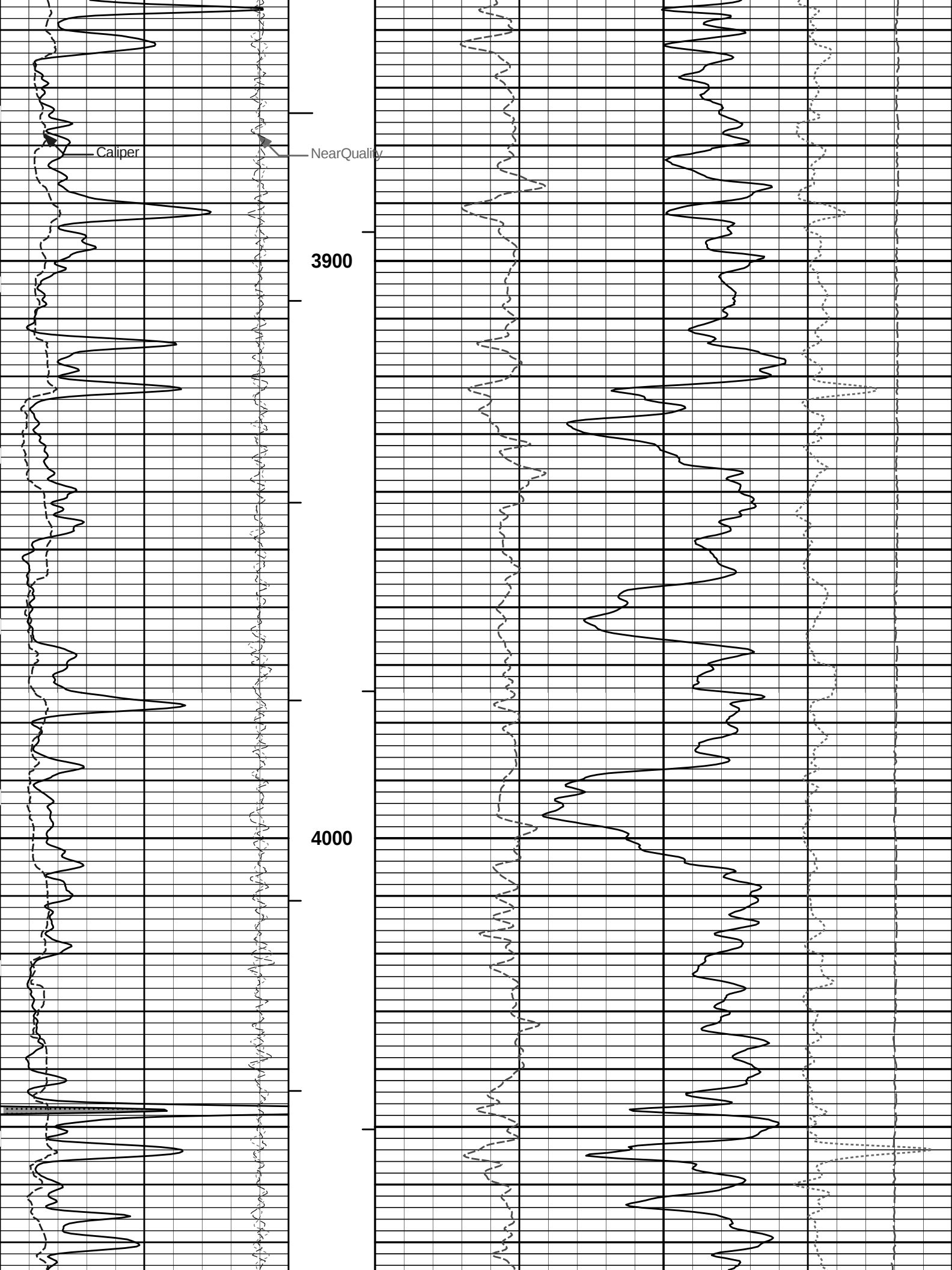
REPEAT SECTION

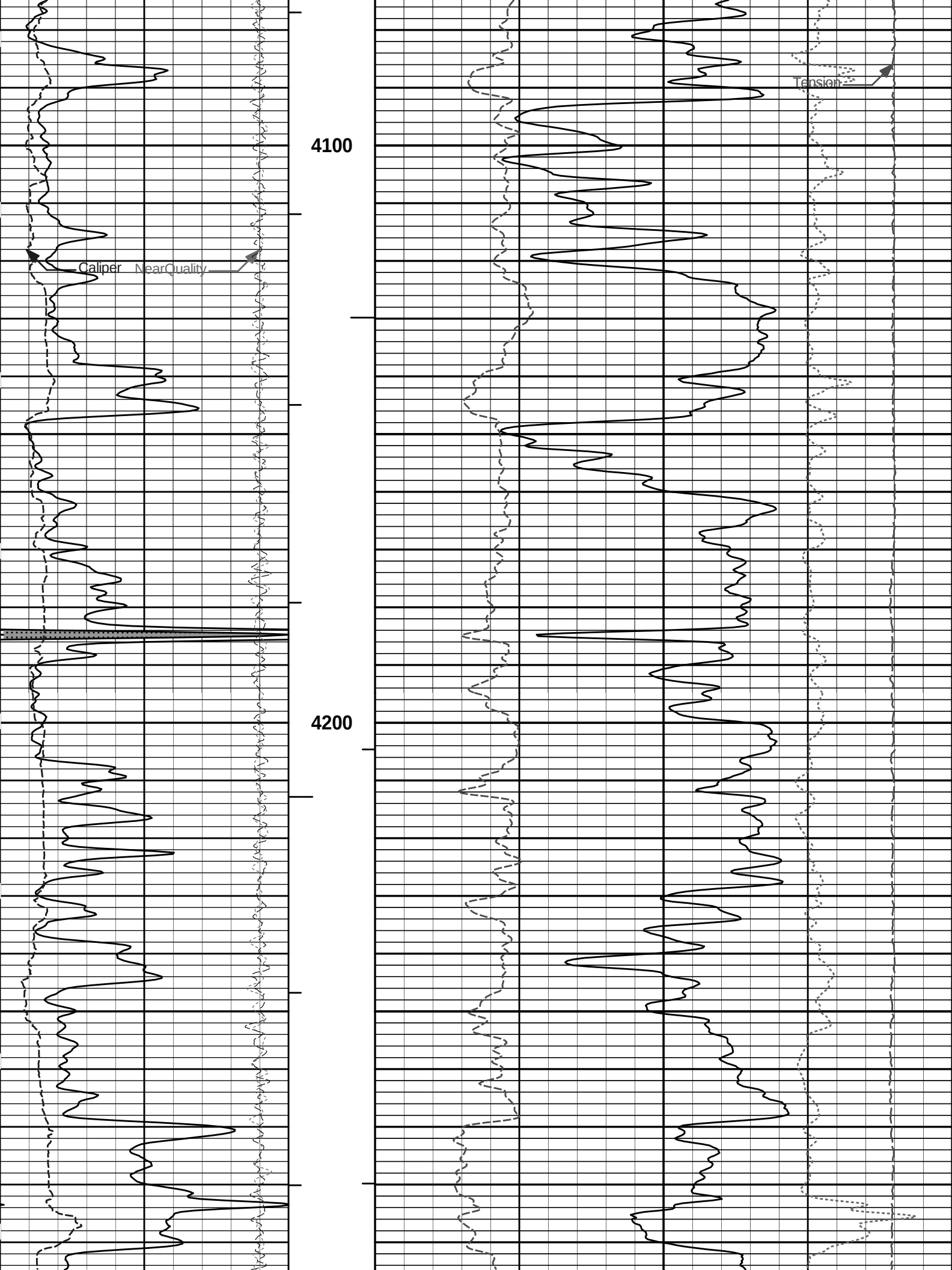
HALLIBURTON

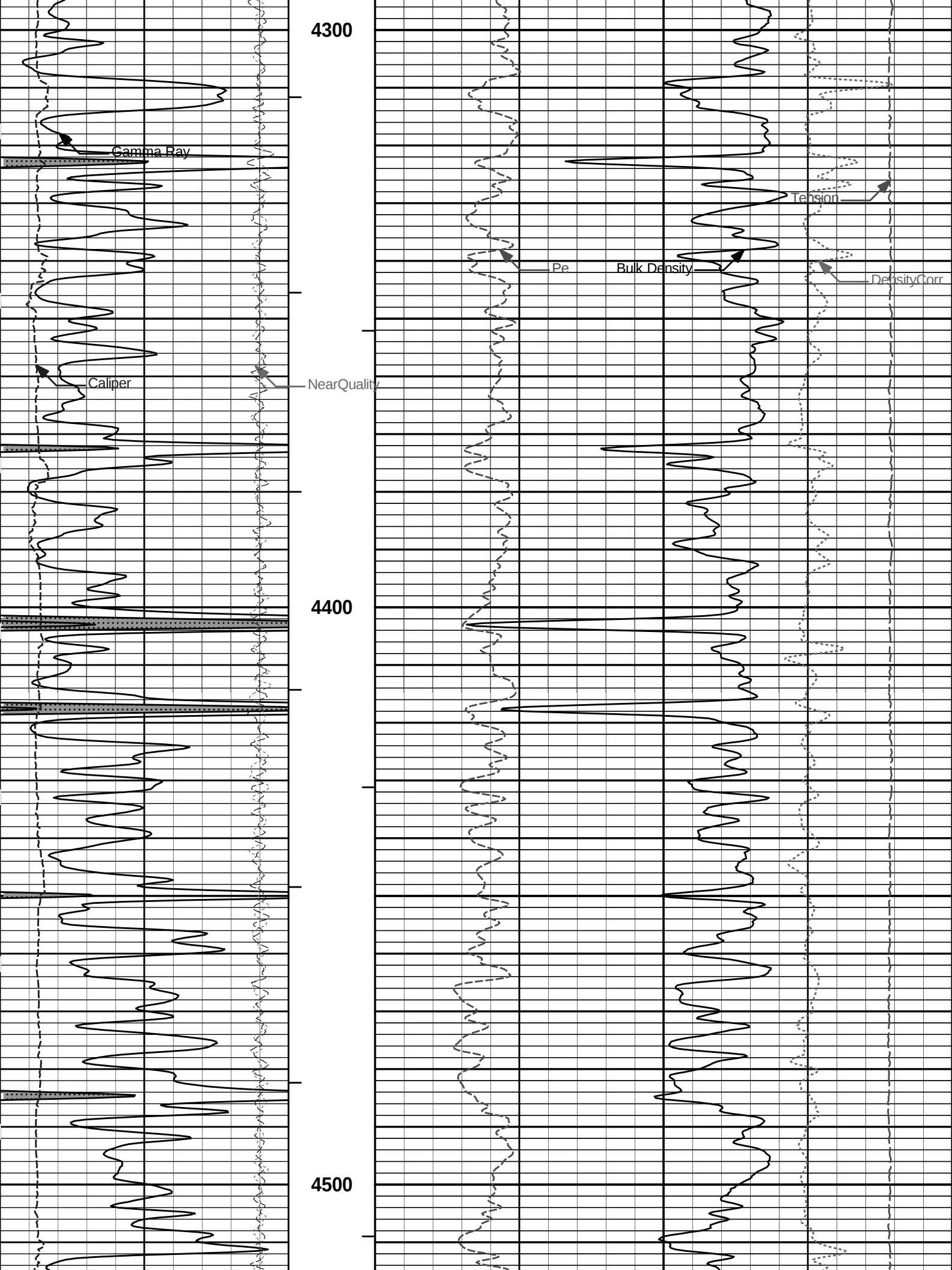
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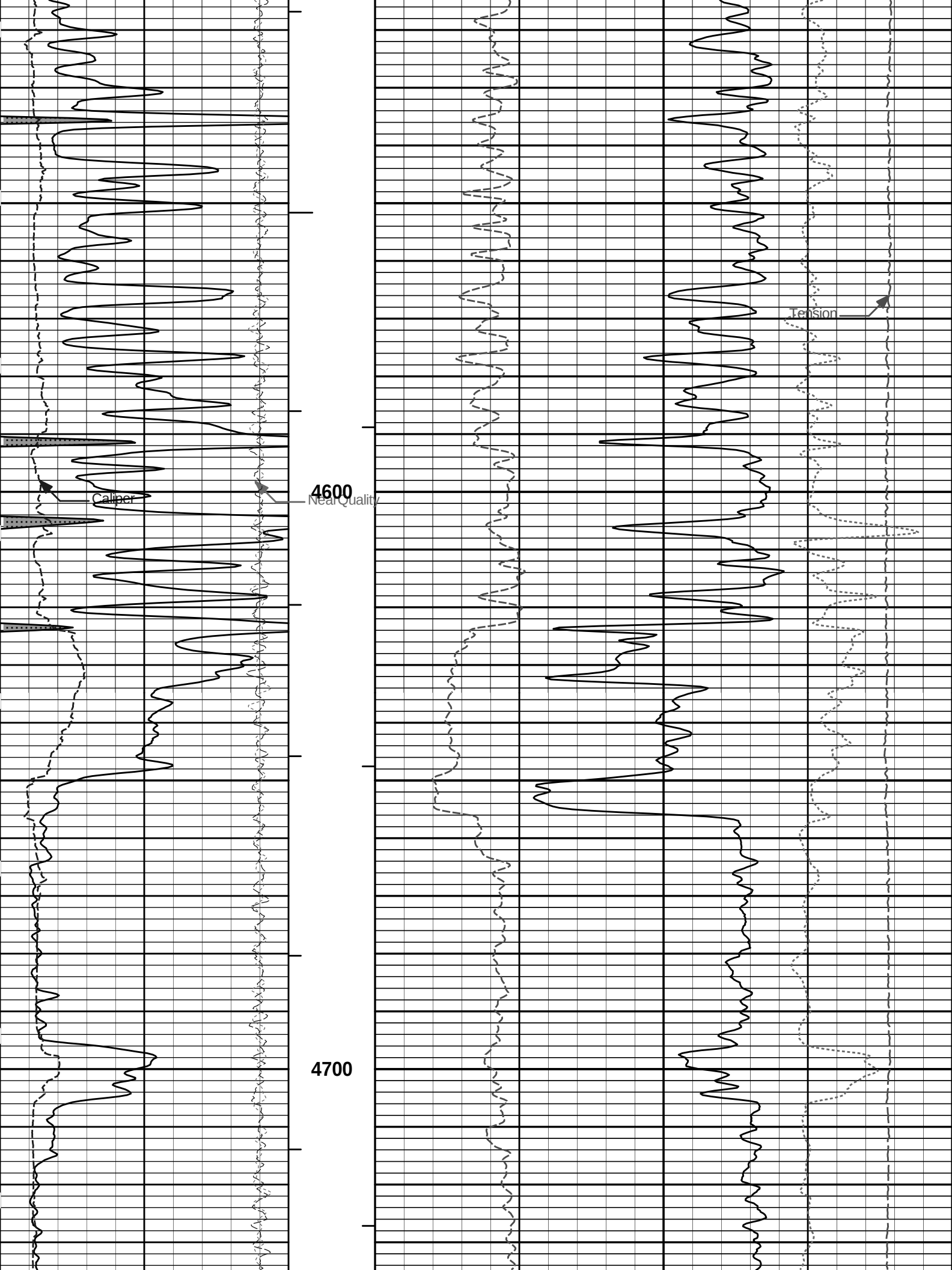
5 INCH MAIN LOG

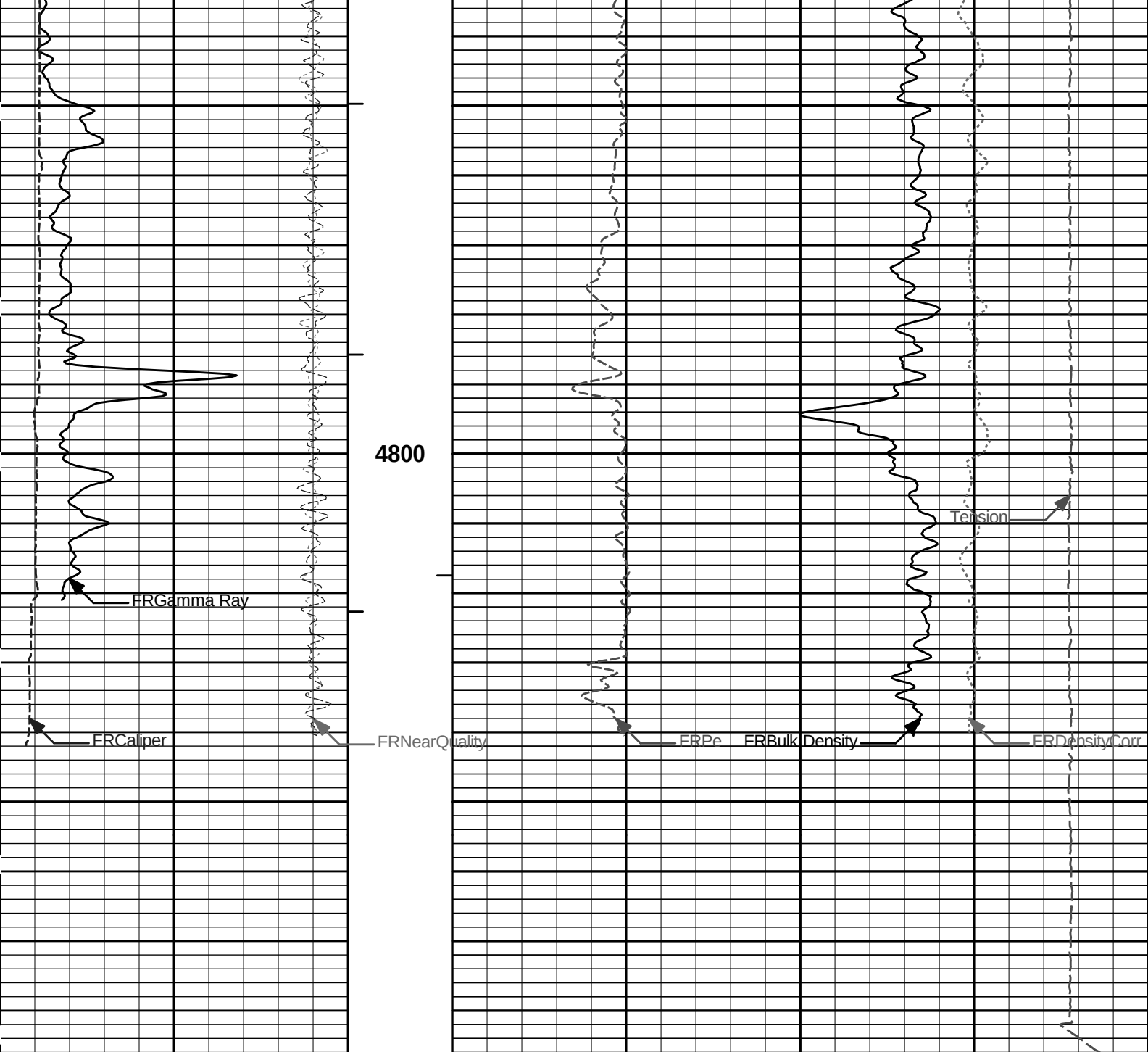












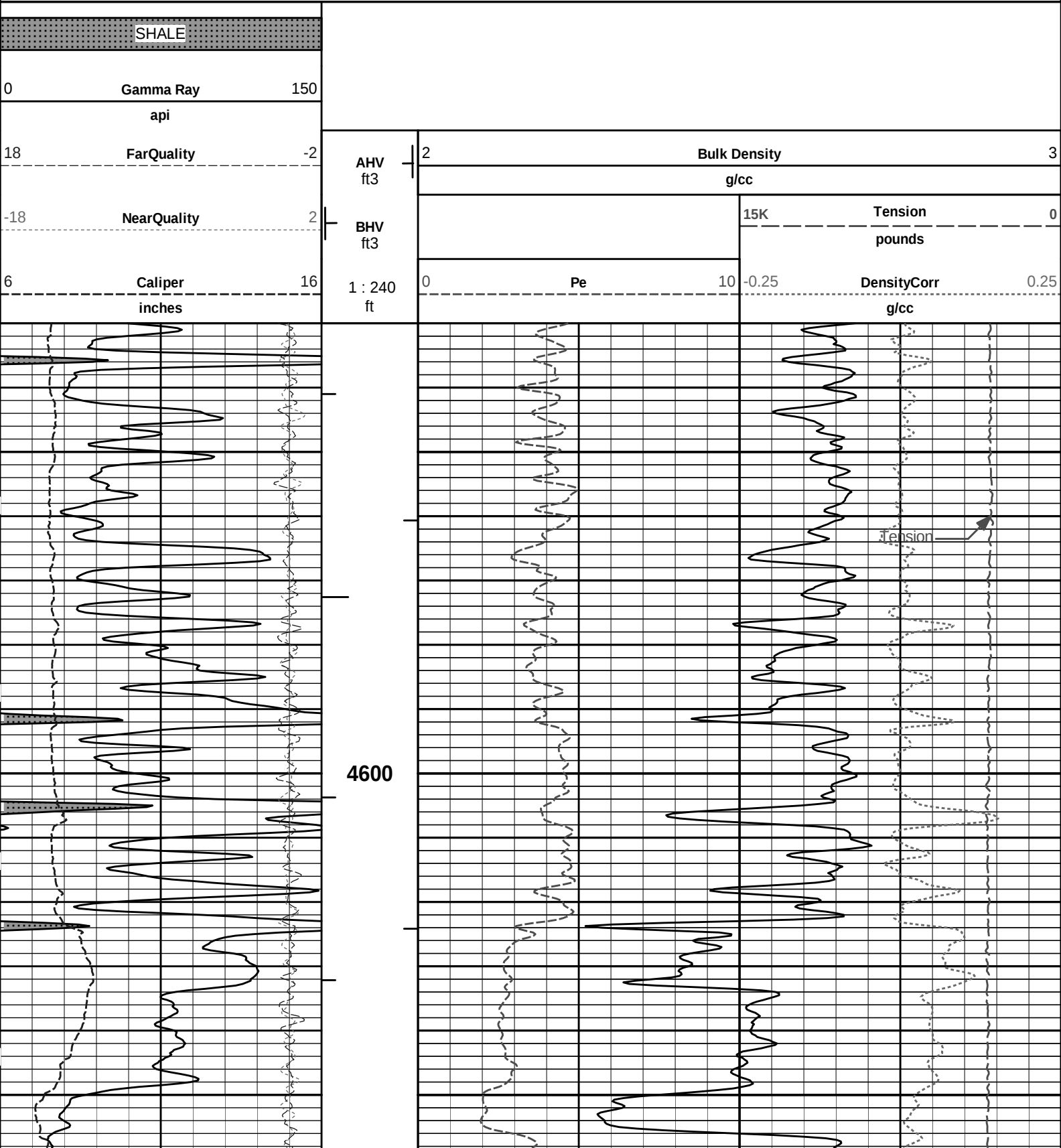
6	Caliper	16	1 : 240	0	Pe	10	-0.25	DensityCorr	0.25
	inches		ft					g/cc	
-18	NearQuality	2	BHV				15K	Tension	0
			ft3					pounds	
18	FarQuality	-2	AHV	2	Bulk Density				
			ft3		g/cc				
0	Gamma Ray	150	Tension Pull						
	api		10 0						
	SHALE		Tension Pull						

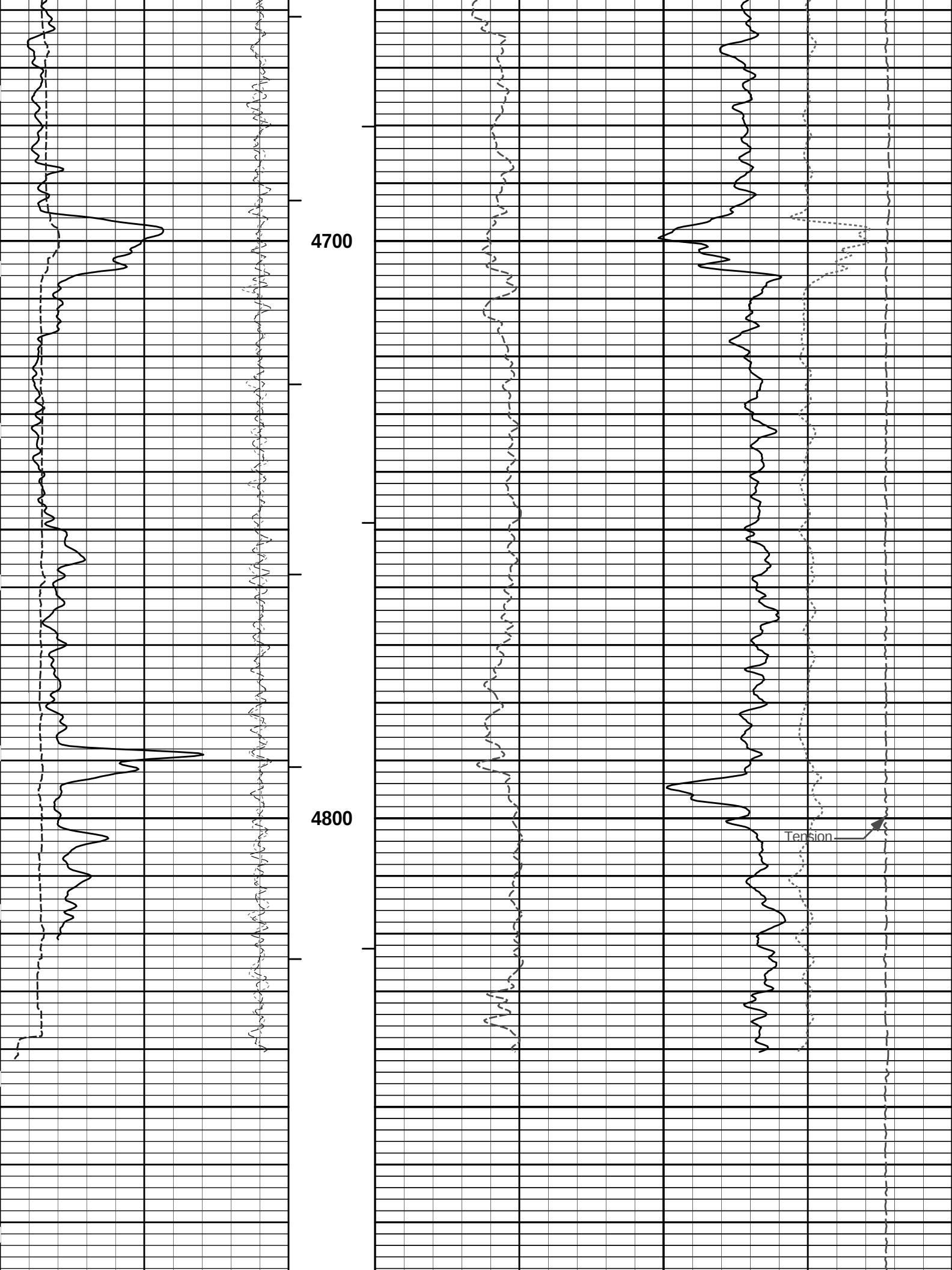
5 INCH MAIN LOG

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Plot Time: 17-Jul-12 20:23:29
Plot Range: 4530 ft to 4886.25 ft
Data: SMU_318\Well Based\DAQ-0001-006\
Plot File: \\-LOCAL-ISMU_318\0001 SP-GTET-DSNT-SDLT-BSAT-ACRT-CHIPORO\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	75.95 ft
SP Sub-11441709 60.00 lbs		Ø 3.625 in →		← SP @ 72.26 ft	3.74 ft	74.03 ft
						70.30 ft
GTET-10811258 165.00 lbs		Ø 3.625 in →			8.52 ft	
				← GammaRay @ 64.23 ft		61.78 ft
DSNT-10755066 174.00 lbs	DSN Decentralizer- 10755066 6.60 lbs	Ø 5.000 in* → Ø 3.625 in →			9.69 ft	
			← DSN Far @ 54.84 ft ← DSN Near @ 54.09 ft			52.09 ft

SDLT-
I066_M85803_P45
360.00 lbs

SDLT Pad-45
65.00 lbs

Microlog Pad-
I066_M85803_P45
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-
10939592
140.00 lbs

Ø 3.625 in →

5.67 ft

Regal Standoff 6_75-02
20.00 lbs

Ø 6.750 in* →

35.61 ft

BSAT-10747683
300.00 lbs

Ø 3.625 in →

← Sonic Receivers @ 27.09 ft

15.77 ft

19.83 ft

ACRt Instrument-
I256
50.00 lbs

Regal Standoff 6_75-01
20.00 lbs

Ø 3.625 in ↘

Ø 6.750 in* →

5.03 ft

14.80 ft

← Mud Resistivity @ 13.44 ft

← ACRt @ 9.46 ft

ACRt Sonde-
I1256_S0784
200.00 lbs

Ø 3.625 in →

14.22 ft

Cabbage Head-
TRK954
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 (lbs)	Length (ft)	Accumulated Length (ft)	Max.Log. Speed (fpm)
CH	Standard OH Cable Head	PROT01	30.00	1.92	74.03	300.00

SP	SP Sub	11441709	60.00	3.74	70.30	300.00
GTET	Gamma Telemetry Tool	10811258	165.00	8.52	61.78	60.00
DSNT	Dual Spaced Neutron	10755066	174.00	9.69	52.09	60.00
DCNT	DSN Decentralizer	10755066	6.60	5.13	*	55.42 300.00
SDLT	Spectral Density Tool	I066_M85803_P45	360.00	10.81		41.28 60.00
MICP	Microlog Pad	I066_M85803_P45	8.00	1.00	*	43.78 60.00
SDLP	Density Insite Pad	45	65.00	2.55	*	43.49 60.00
FLEX	Flex Joint	10939592	140.00	5.67		35.61 300.00
BSAT	Borehole Sonic Array Tool	10747683	300.00	15.77		19.83 60.00
RSOF	Regal Standoff 6.75in	02	20.00	0.52	*	33.69 300.00
ACRt	Array Compensated True Resistivity Instrument Section	I256	50.00	5.03		14.80 300.00
RSOF	Regal Standoff 6.75in	01	20.00	0.52	*	17.02 300.00
ACRt	Array Compensated True Resistivity Sonde Section	I1256_S0784	200.00	14.22		0.58 300.00
CBHD	Cabbage Head	TRK954	10.00	0.58		0.00 300.00
Total			1,608.60	75.95		
* Not included in Total Length and Length Accumulation.						
Data: SMU_318\0001 SP-GTET-DSNT-SDLT-BSAT-ACRT-CH\IDLE						Date: 17-Jul-12 17:49:41

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CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION			
Tool Name:	GTET - 10811258	Reference Calibration Date:	29-Jun-12 10:45:01
Engineer:	T. HYDE	Calibration Date:	29-Jun-12 10:47:38
Software Version:	WL INSITE R3.6.0 (Build 3)	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	46.1	47.6	api
Background + Calibrator	270.8	279.6	api
Calibrator	224.7	232.0	api
NATURAL GAMMA RAY TOOL FIELD CALIBRATION			
Tool Name:	GTET - 10811258	Reference Calibration Date:	29-Jun-12 10:47:38
Engineer:	T. HYDE	Calibration Date:	17-Jul-12 17:34:29
Software Version:	WL INSITE R3.6.0 (Build 3)	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	47.6	64.0	api
Background + Calibrator	279.6	297.2	api
Calibrator	232.0	233.2	api
Shop	Field	Difference	Tolerance
232.0	233.2	-1.2	+/- 9.00
DUAL SPACED NEUTRON SHOP CALIBRATION			
Tool Name:	DSNT - 10755066	Reference Calibration Date:	01-Jan-70 00:00:00
Engineer:	C. HAVERKAMP	Calibration Date:	27-Jun-12 10:45:54
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1

Logging Source S/N: DSN-436
Tank Serial Number: 105060
Reference value assigned to Tank: 51.680
Snow Block S/N: TRK_10782954
Calibration Tank Water Temperature: 93 degF
Min. Tool Housing Outside Diameter: 3.620 in

CALIBRATION CONSTANTS			
Measurement	Prev. Value	New Value	Control Limit On New Value
Gain:	0.964	0.964	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):	0.2107	0.2107	0.0000	+/- 0.0020
Calibrated Ratio:	9.72	9.72	0.000	+/- 0.050

VERIFIER		
Measurement	Value	Control Limit
Snow-Block Porosity (decp):	0.0730	0.02000 - 0.09000

PASS/FAIL SUMMARY	
Background Check:	Passed
Gain-Range Check:	Passed
Snow-Block Check:	Passed

DENSITY CALIPER SHOP CALIBRATION

Tool Name:	SDLT - I066_M85803_P45	Reference Calibration Date:	07-Jul-12 14:12:05
Engineer:	T. HYDE	Calibration Date:	07-Jul-12 14:18:02
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1
Host Tool Name:	DSNT - 10755066		

CALIBRATION COEFFICIENTS			
Measurement	Previous Value	New Value	Control Limit On New Value
Pad Offset	-5042.74	-5247.47	-7000.00 - -1000.00
Pad Gain	0.0003801	0.0003860	0.000200 - 0.000600
Arm Offset	-79.85	982.68	-5000.00 - 3000.00
Arm Gain	0.0005313	0.0004495	0.000300 - 0.000700
Arm Power	-0.000005463	-0.000000436	-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)	2.05	2.00	-0.05	+/- 0.20
Medium Ring (in)	3.77	3.75	-0.02	+/- 0.20
RING DIAMETER:				
Small Ring (in)	6.49	6.50	0.01	+/- 0.20
Medium Ring (in)	8.39	8.25	-0.14	+/- 0.20
Large Ring (in)	15.01	15.00	-0.01	+/- 0.20

PASS/FAIL SUMMARY

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

PASS/FAIL SUMMARY

Calibration-Coefficients Range Check:	Passed
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SPECTRAL DENSITY SHOP CALIBRATION

Tool Name:	SDLT Pad - 45	Reference Calibration Date:	02-Jun-12 08:56:06
Engineer:	T. HYDE	Calibration Date:	29-Jun-12 11:17:55
Software Version:	WL INSITE R3.6.0 (Build 3)	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	0.9579	0.9811	0.90 - 1.10
Near Dens Gain	0.9677	0.9831	0.90 - 1.10
Near Peak Gain	0.9868	0.9806	0.90 - 1.10
Near Lith Gain	0.9729	0.9781	0.90 - 1.10
Far Bar Gain	0.9846	0.9863	0.90 - 1.10
Far Dens Gain	0.9784	0.9793	0.90 - 1.10
Far Peak Gain	0.9730	0.9722	0.90 - 1.10
Far Lith Gain	0.9465	0.9481	0.90 - 1.10
Near Bar Offset	0.6125	0.4083	NONE
Near Dens Offset	0.4894	0.3635	NONE
Near Peak Offset	0.2925	0.3620	NONE
Near Lith Offset	0.3667	0.3425	NONE
Far Bar Offset	0.2641	0.2498	NONE
Far Dens Offset	0.2952	0.2849	NONE
Far Peak Offset	0.2998	0.3024	NONE
Far Lith Offset	0.4293	0.4066	NONE
Near Bar Background	995.94	994.27	700 - 1450
Near Dens Background	329.85	330.82	230 - 480
Near Peak Background	144.18	143.88	100 - 210
Near Lith Background	175.17	176.25	125 - 260
Far Bar Background	508.47	509.49	450 - 900
Far Dens Background	196.98	197.73	175 - 345
Far Peak Background	77.28	78.43	70 - 140
Far Lith Background	81.69	81.21	75 - 145

CALIBRATION BLOCK SUMMARY

Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.675	1.690	0.015	+/- 0.015
Pe	2.630	2.562	-0.068	+/- 0.150
ALUMINUM				
Density (g/cc)	2.577	2.590	0.014	+/- 0.01500
Pe	3.219	3.136	-0.083	+/- 0.150

TOOL SUMMARY				
Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	-0.0010	+/- 0.0110	-0.0006	+/- 0.0140
Magnesium Block	-0.0003	+/- 0.0110	-0.0013	+/- 0.0140
Aluminum Block	0.0005	+/- 0.0110	-0.0003	+/- 0.0140
Resolution	9.91	6.00 - 11.50	9.09	6.00 - 11.50
Internal Verifier(B+D+P+L)	1645	1200 - 2700	867	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 - 45		Reference Calibration Date:	29-Jun-12 11:17:55
Engineer:	T. HYDE		Calibration Date:	17-Jul-12 17:34:31
Software Version:	WL INSITE R3.6.0 (Build 3)		Calibration Version:	1

Pad Temperature: 107.0 degF				
DENSITY FIELD CALIBRATION SUMMARY				
Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1645.219	1644.312	-0.907	16.297
Far (B+D+P+L) cps	866.867	871.522	4.655	16.104
Near Resolution	9.91	9.97	0.060	0.50
Far Resolution	9.09	9.48	0.390	1.00
PASS/FAIL SUMMARY				
Bkg Quality Check:			Passed	
Bkg Resolution Check:			Passed	
Bkg Verification Check:			Passed	

SDLT CALIPER FIELD CALIBRATION				
Tool Name:	SDLT - I066_M85803_P45		Reference Calibration Date:	07-Jul-12 14:18:02
Engineer:	T. HYDE		Calibration Date:	17-Jul-12 17:43:55
Software Version:	WL INSITE R3.6.0 (Build 3)		Calibration Version:	1

MEASURED CALIPER VALUES				
Measurement	Shop	Field	Change	Control Limit On New Value
Pad Extension	3.75	3.77	0.02	+/- 0.10
Ring Diameter	8.25	8.12	-0.13	+/- 0.15
PASS/FAIL SUMMARY				
Pad Extension Check:			Passed	
Diameter Check:			Passed	

CALIBRATION SUMMARY						
Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-10811258						
Gamma Ray Calibrator	232.0	233.2	-----	-1.2	+/- 9.00	api
DSNT-10755066						
Snow-Block Porosity	0.0730	-----	-----	0.0000	+/- -.--	decp
SDLT-I066_M85803_P45						
Pad Extension	3.75	3.77	-----	-0.02	+/-0.10	in
Ring Diameter	8.25	8.12	-----	0.13	+/-0.15	in
SDLT Pad-45						
Near(B+D+P+L)	1645.219	1644.312	-----	0.907	+/-16.297	cps
Far(B+D+P+L)	866.867	871.522	-----	-4.655	+/-16.104	cps
Data: SMU_318\0001 SP-GTET-DSNT-SDLT-BSAT-ACRT-CHIDLE					Date: 17-Jul-12 18:32:10	

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	9.600	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	4891.00	ft
	SHARED	BHT	Bottom Hole Temperature	200.0	degF
	SHARED	SVTM	Navigation and Survey Master Tool	NONE	
	SHARED	AZTM	High Res Z Accelerometer Master Tool	GTET	
	SHARED	TEMM	Temperature Master Tool	NONE	
	SHARED	BHSM	Borehole Size Master Tool	NONE	
	Rwa / CrossPlot	XPOK	Process Crossplot?	Yes	
	Rwa / CrossPlot	FCHO	Select Source of F	Automatic	
	Rwa / CrossPlot	AFAC	Archie A factor	0.6200	
	Rwa / CrossPlot	MFAC	Archie M factor	2.1500	
	Rwa / CrossPlot	RMFR	Rmf Reference	0.10	ohmm
	Rwa / CrossPlot	TMFR	Rmf Ref Temp	75.00	degF
	Rwa / CrossPlot	RWA	Resistivity of Formation Water	0.05	ohmm
	Rwa / CrossPlot	ADP	Use Air Porosity to calculate CrossplotPhi	No	
	GTET	GROK	Process Gamma Ray?	Yes	
	GTET	GRSO	Gamma Tool Standoff	0.000	in

GTET	GEOK	Process Gamma Ray EVR?	No	
GTET	TPOS	Tool Position for Gamma Ray Tools.	Eccentered	
DSNT	DNOK	Process DSN?	Yes	
DSNT	DEOK	Process DSN EVR?	No	
DSNT	NLIT	Neutron Lithology	Limestone	
DSNT	DNSO	DSN Standoff - 0.25 in (6.35 mm) Recommended	0.250	in
DSNT	DNTP	Temperature Correction Type	None	
DSNT	DPRS	DSN Pressure Correction Type	None	
DSNT	SHCO	View More Correction Options	No	
DSNT	UTVD	Use TVD for Gradient Corrections?	No	
DSNT	LHWT	Logging Horizontal Water Tank?	No	
SDLT	CLOK	Process Caliper Outputs?	Yes	
SDLT Pad	DNOK	Process Density?	Yes	
SDLT Pad	DNOK	Process Density EVR?	No	
SDLT Pad	CB	Logging Calibration Blocks?	No	
SDLT Pad	SPVT	SDLT Pad Temperature Valid?	Yes	
SDLT Pad	DTWN	Disable temperature warning	No	
SDLT Pad	DMA	Formation Density Matrix	2.710	g/cc
SDLT Pad	DFL	Formation Density Fluid	1.000	g/cc
Microlog Pad	MLOK	Process MicroLog Outputs?	Yes	
BSAT	MBOK	Compute BCAS Results?	Yes	
BSAT	FLLO	Frequency Filter Low Pass Value?	5000	Hz
BSAT	FLHI	Frequency Filter High Pass Value?	27000	Hz
BSAT	DTFL	Delta -T Fluid	189.00	uspf
BSAT	DTMT	Delta -T Matrix Type	User define	
BSAT	DTMA	Delta -T Matrix	47.60	uspf
BSAT	DTSH	Delta -T Shale	100.00	uspf
BSAT	SPEQ	Acoustic Porosity Equation	Wylie	
ACRt Sonde	RTOK	Process ACRt?	Yes	
ACRt Sonde	MNSO	Minimum Tool Standoff	1.50	in
ACRt Sonde	TCS1	Temperature Correction Source	FP Lwr & FP Upr	
ACRt Sonde	TPOS	Tool Position	Free Hanging	
ACRt Sonde	RMOP	Rmud Source	Mud Cell	
ACRt Sonde	RMIN	Minimum Resistivity for MAP	0.20	ohmm
ACRt Sonde	RMIN	Maximum Resistivity for MAP	200.00	ohmm
ACRt Sonde	THQY	Threshold Quality	0.50	
ACRt Sonde	MRFX	Fixed mud resistivity	2000	ohmm
BOTTOM				
Data: SMU_318\0001 SP-GTET-DSNT-SDLT-BSAT-ACRT-CHIDLE			Date: 17-Jul-12 18:33:00	

HALLIBURTON				
INPUTS, DELAYS AND FILTERS TABLE				
Mnemonic	Input Description	Delay (ft)	Filter Type	Filter Length (ft)
Depth Panel				
TENS	Tension	0.00	NO	
SP Sub				
PLTC	Plot Control Mask	72.25	NO	
SP	Spontaneous Potential	72.25	BLK	1.250
SPR	Raw Spontaneous Potential	72.25	NO	
SPO	Spontaneous Potential Offset	72.25	NO	

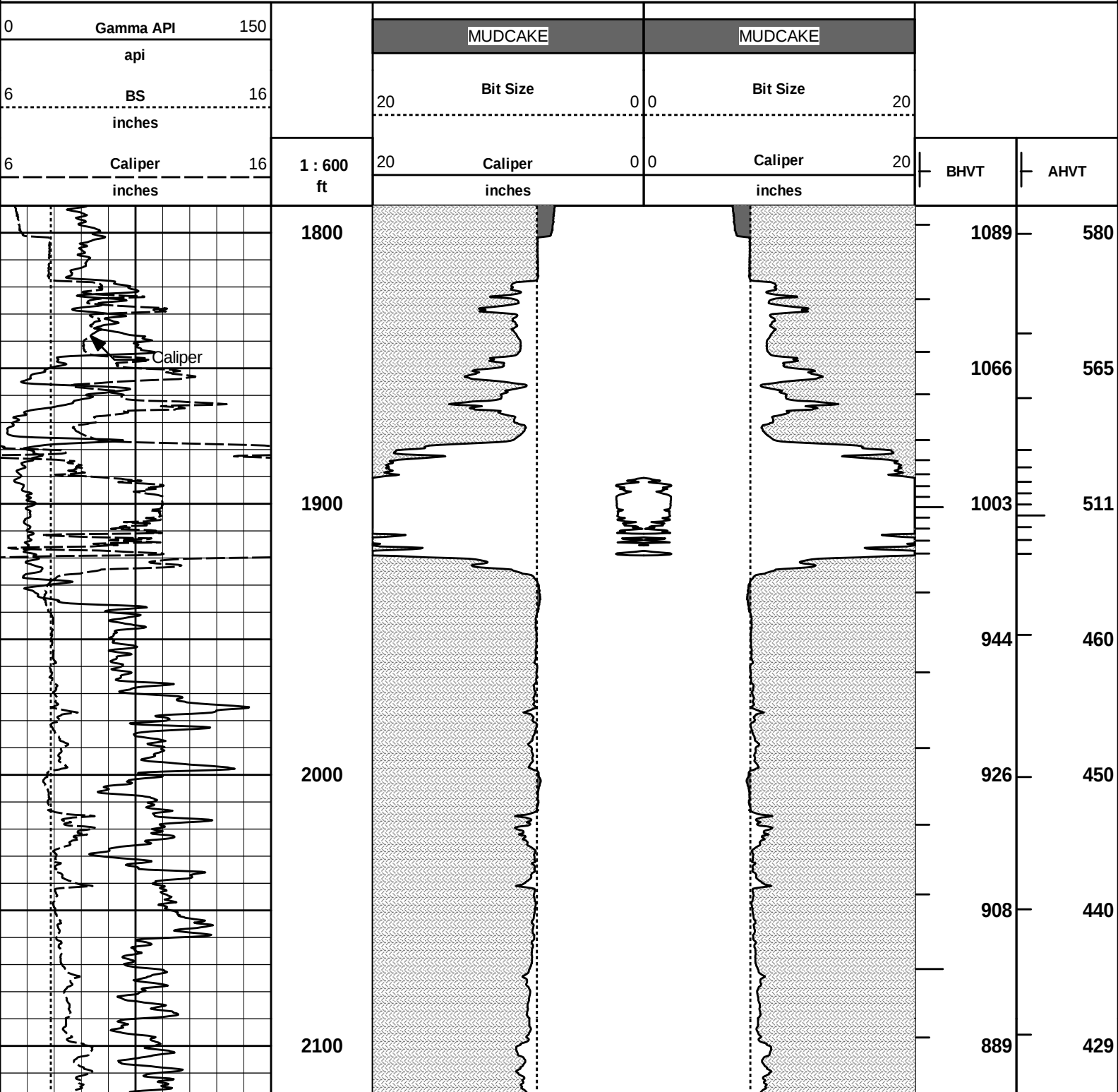
GTET				
TPUL	Tension Pull	64.23	NO	
GR	Natural Gamma Ray API	64.23	TRI	1.750
GRU	Unfiltered Natural Gamma Ray API	64.23	NO	
EGR	Natural Gamma Ray API with Enhanced Vertical Resolution	64.23	W	1.416 , 0.750
ACCZ	Accelerometer Z	0.00	BLK	0.083
DEVI	Inclination	0.00	NO	
DSNT				
TPUL	Tension Pull	53.99	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

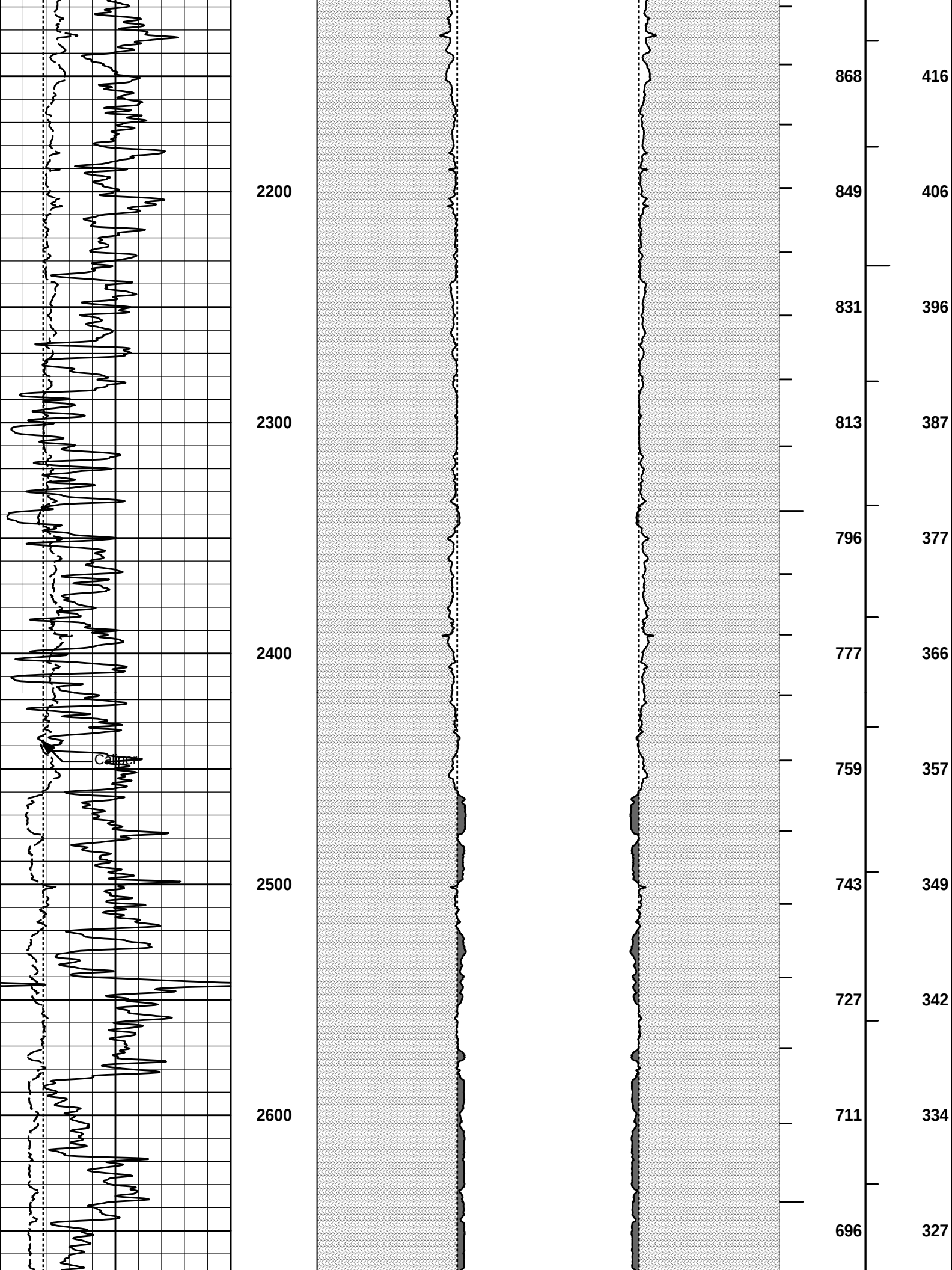
F2X5	ACRT 36KHz - 10in X value	3.72	BLK	0.000
F2R6	ACRT 36KHz - 6in R value	3.47	BLK	0.000
F2X6	ACRT 36KHz - 6in X value	3.47	BLK	0.000
F3R1	ACRT 72KHz - 80in R value	9.22	BLK	0.000
F3X1	ACRT 72KHz - 80in X value	9.22	BLK	0.000
F3R2	ACRT 72KHz - 50in R value	6.72	BLK	0.000
F3X2	ACRT 72KHz - 50in X value	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	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	

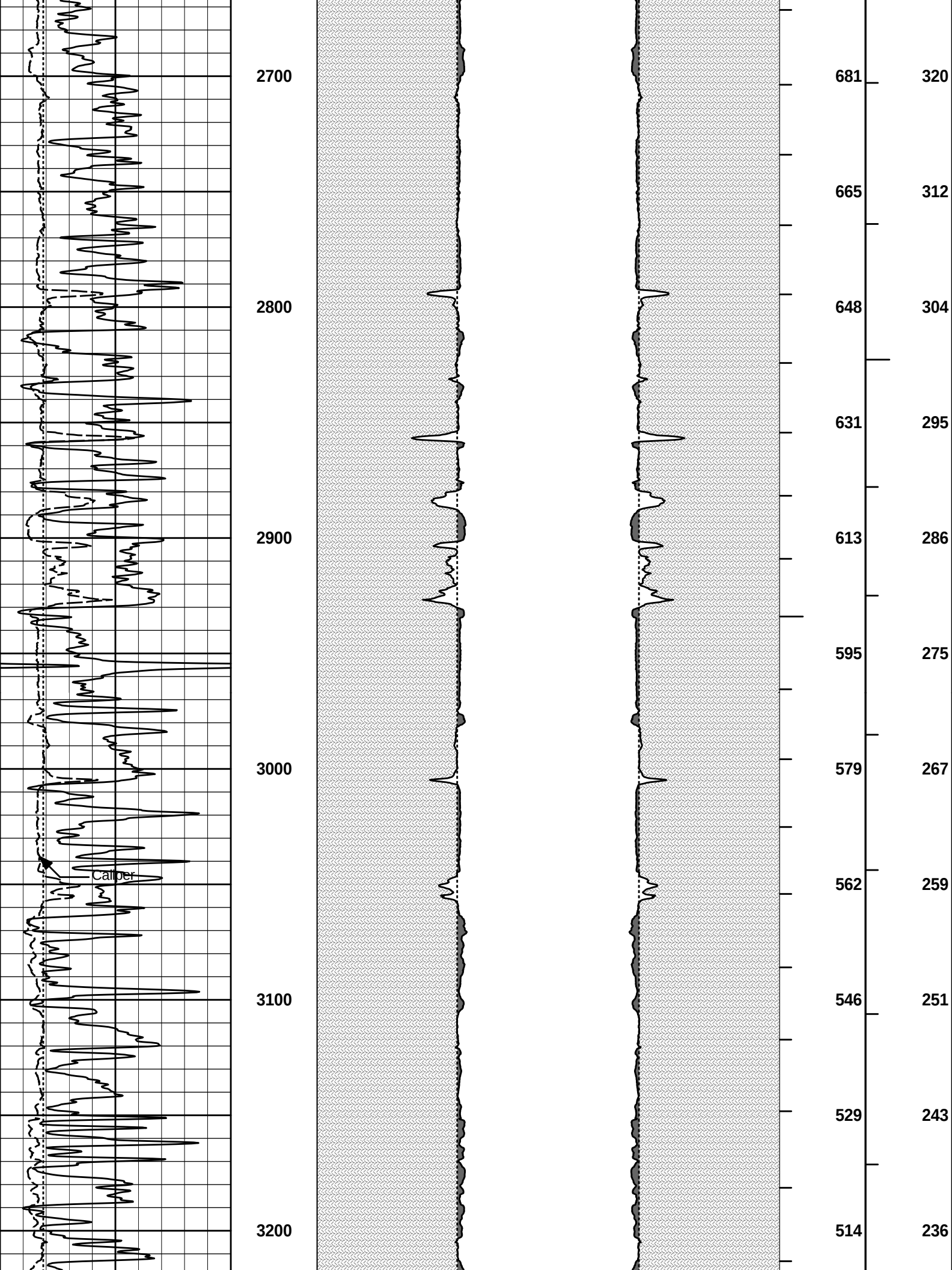
Microlog Pad				
TPUL	Tension Pull	44.28	NO	
MINV	Microlog Lateral	44.28	BLK	0.750
MNOR	Microlog Normal	44.28	BLK	0.750
Data: SMU_318\0001 SP-GTET-DSNT-SDLT-BSAT-ACRT-CHI\IDLE			Date: 17-Jul-12 18:33:17	

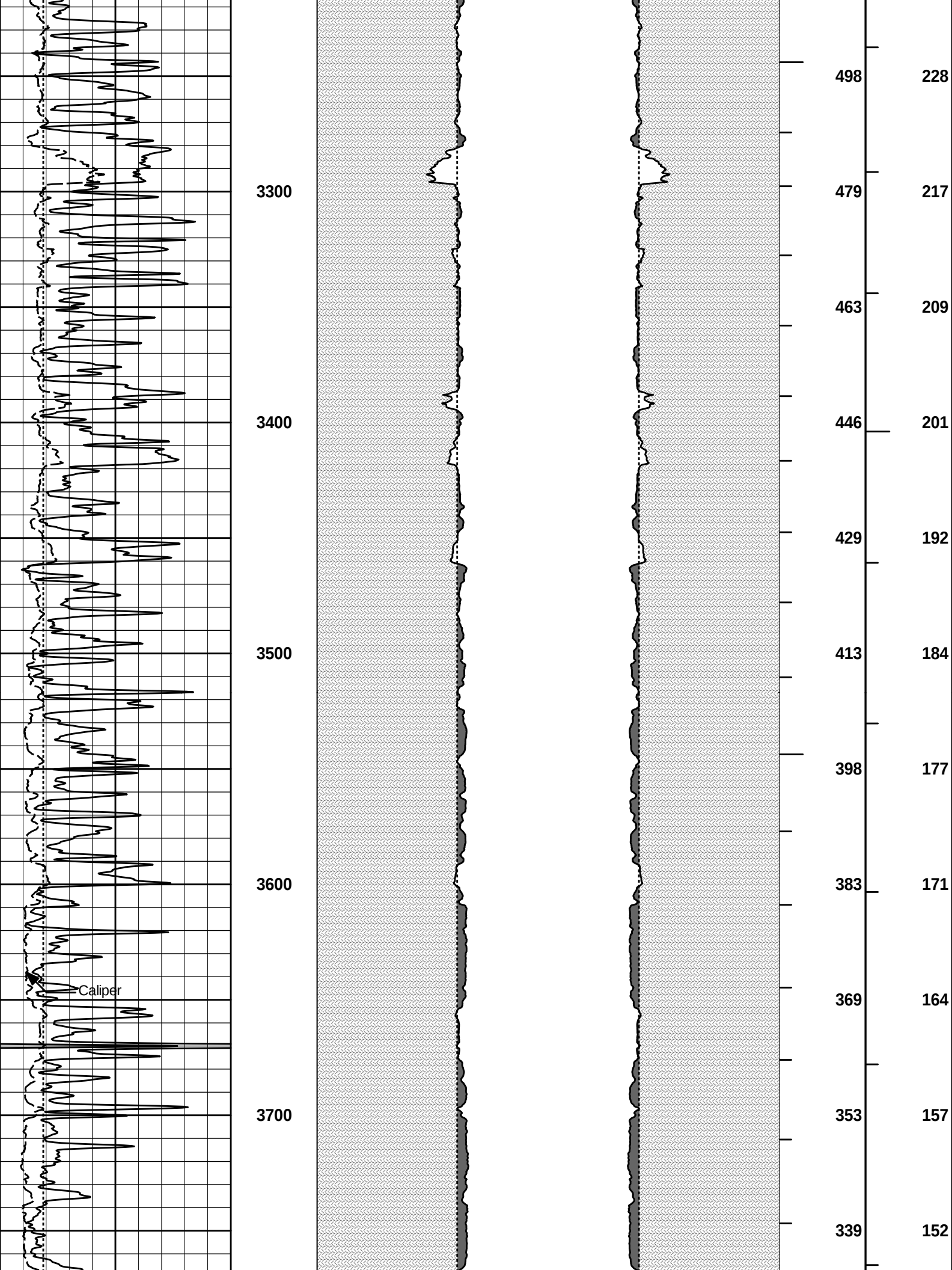
HALLIBURTON		Plot Time: 17-Jul-12 20:23:31 Plot Range: 1790 ft to 4886.25 ft Data: SMU_318\Well Based\DAQ-0001-007\ Plot File: \\LOCAL-1\SMU_318\0001 SP-GTET-DSNT-SDLT-BSAT-ACRT-CHIPORO\AHV_5_5_INCH_2_IQ_LIB
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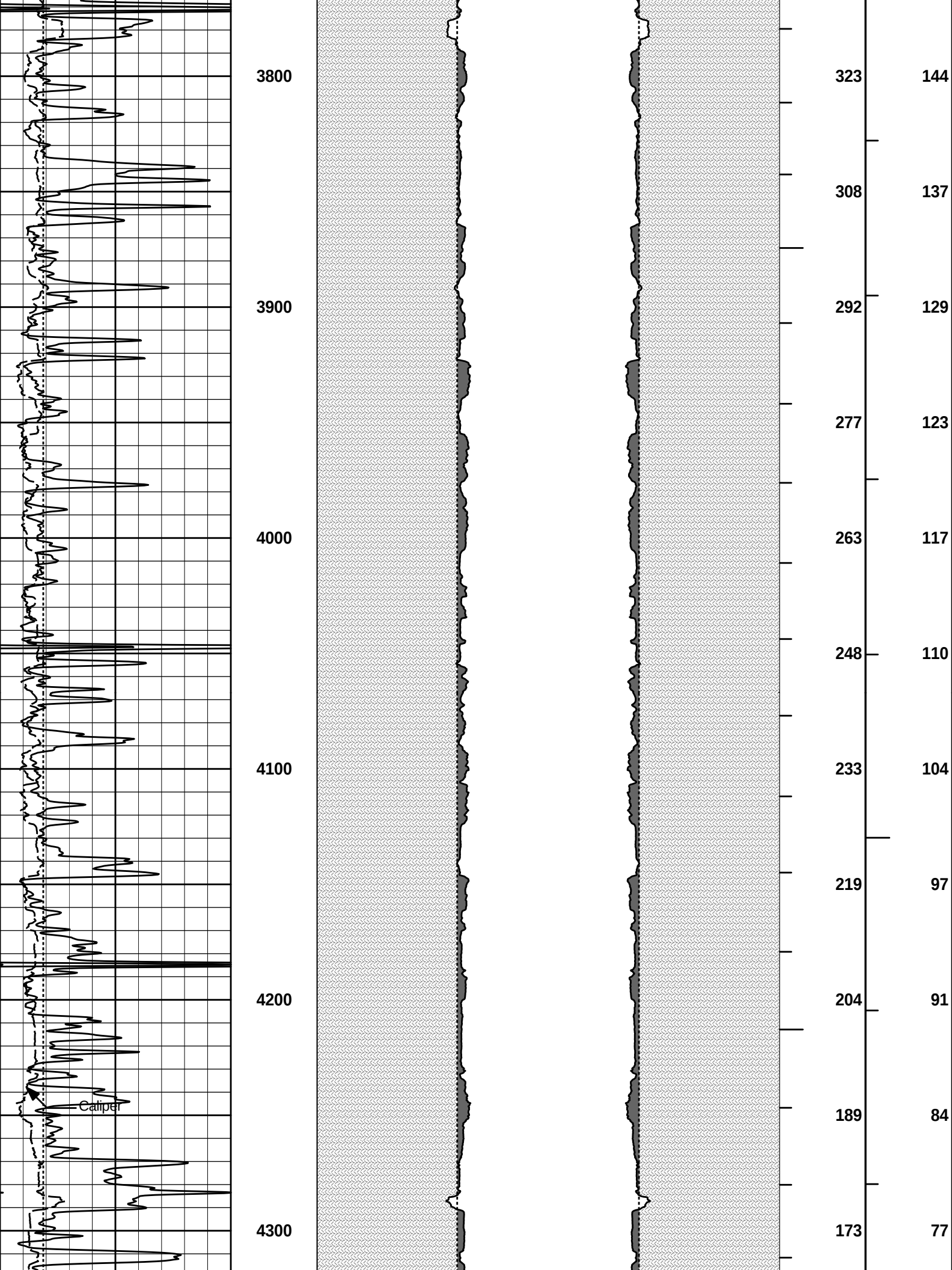
ANNULAR HOLE VOLUME PLOT (5.5 INCH)

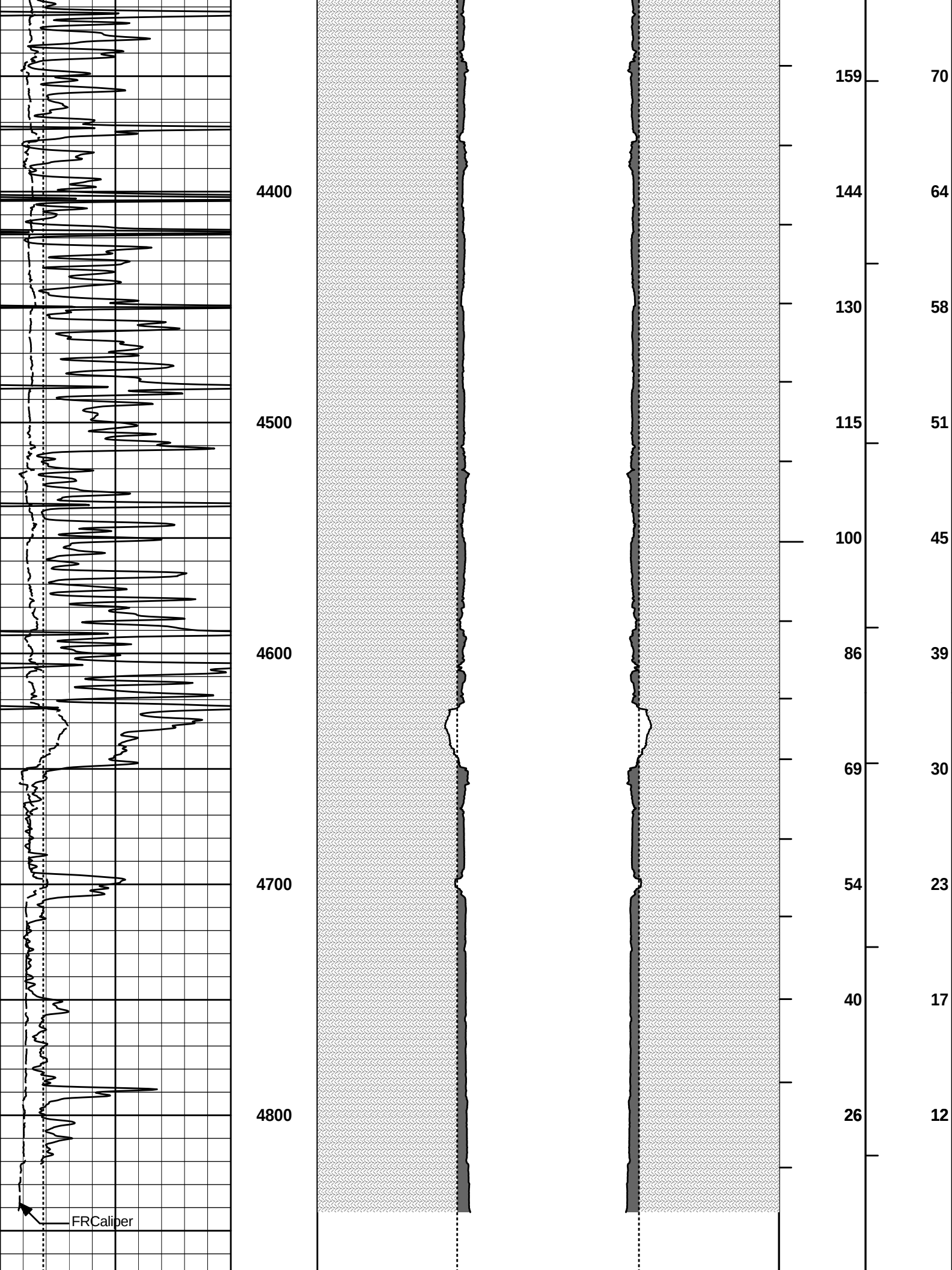












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HALLIBURTON

Plot Time: 17-Jul-12 20:23:36

Plot Range: 1790 ft to 4886.25 ft

Data: SMU_318\Well Based\DAQ-0001-007\

Plot File: \\-LOCAL-\\SMU_318\\0001 SP-GTET-DSNT-SDLT-BSAT-ACRT-CH\\PORO\\AHV_5_5_INCH_2_IQ_LIB

ANNULAR HOLE VOLUME PLOT (5.5 INCH)

COMPANY	OXY USA INC		
WELL	SMU #318		
FIELD	SMU		
COUNTY	FINNEY	STATE	KANSAS
HALLIBURTON		DUAL SPACED NEUTRON SPECTRAL DENSITY LOG	