HALLIBURTON

SPECTRAL DENSITY DUAL SPACED NEUTRON LOG

COMPANY	RAYDON EXPLORATION, INC.
WELL	FOX 1-30
FIELD	KISMET
COUNTY	MEADE
STATE	KANSAS

COMPANY **RAYDON EXPLORATION, INC.**
WELL **FOX 1-30**
FIELD **KISMET**
COUNTY **MEADE** STATE **KANSAS**

API No. 15-113-21354
Location 1485' FSL & 1535' FWL
Sect. 30 Twp. 33S Rge. 30W

Other Services:
ACRT
MICROLOG
BSAT

Permanent Datum	GL	Elev. 2702.0 ft	Elev.: K.B. 2718.0 ft
Log measured from	KB	16.0 ft above perm. Datum	D.F. 2717.0 ft
Drilling measured from	KB		G.L. 2702.0 ft

Date	29-Jul-12		
Run No.	ONE		
Depth - Driller	6000.00 ft		
Depth - Logger	5992.0 ft		
Bottom - Logged Interval	5948.0 ft		
Top - Logged Interval	3750.0 ft		
Casing - Driller	8.625 in @ 1655.0 ft	@	@
Casing - Logger	1645.0 ft		
Bit Size	7.875 in		
Type Fluid in Hole	WATER BASED MUD		
Density / Viscosity	8.9 ppg / 56.00 s/qt		
PH / Fluid Loss	11.00 pH / 8.0 cptm		
Source of Sample	FLOWLINE		
Rm @ Meas. Temperature	0.750 ohmm @ 75.00 degF	@	@
Rmf @ Meas. Temperature	0.66 ohmm @ 75.00 degF	@	@
Rmc @ Meas. Temperature	0.930 ohmm @ 75.00 degF	@	@
Source Rmf / Rmc	MEASURED / MEASURED		
Rm @ BHT	0.46 ohmm @ 128.0 degF	@	@
Time Since Circulation	5.0 hr		
Time on Bottom	29-Jul-12 08:43		
Max. Rec. Temperature	128.0 degF @ 5992.0 ft	@	@
Equipment / Location	10782954 / LIBERAL		
Recorded By	JAMES BOLLOM		
Witnessed By	E. GRIEVES		

Fold here

Service Ticket No.: 9658510 API Serial No.: 15-113-21354 PGM Version: WL INSITE R3.6.0 (Build 3)

CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE

Date	Sample No.				
Depth-Driller					
Type Fluid in Hole					
Density	Viscosity				
Ph	Fluid Loss				
Source of Sample					
Rm @ Meas. Temp		@		@	
Rmf @ Meas. Temp.		@		@	
Rmc @ Meas. Temp.		@		@	
Source Rmf	Rmc				
Rm @ BHT		@		@	
Rmf @ BHT		@		@	
Rmc @ BHT		@		@	

RESISTIVITY SCALE CHANGES

Type Log	Depth	Scale Up Hole	Scale Down Hole

RESISTIVITY EQUIPMENT DATA

Run No.	Tool Type & No.	Pad Type	Tool Pos.	Other

EQUIPMENT DATA

GAMMA		ACOUSTIC		DENSITY		NEUTRON	
Run No.	ONE	Run No.		Run No.	ONE	Run No.	ONE
Serial No.	10811258	Serial No.		Serial No.	M73803_P90	Serial No.	10735145
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.	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

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	5992	3750	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 3200 MG/L

LCM REPORTED AT 8 LB/BBL

GTET-DSNT-SDLT-BSAT-ACRT RUN IN COMBINATION

TODAY'S CREW: F. VILLA & A. VAQUERA

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.

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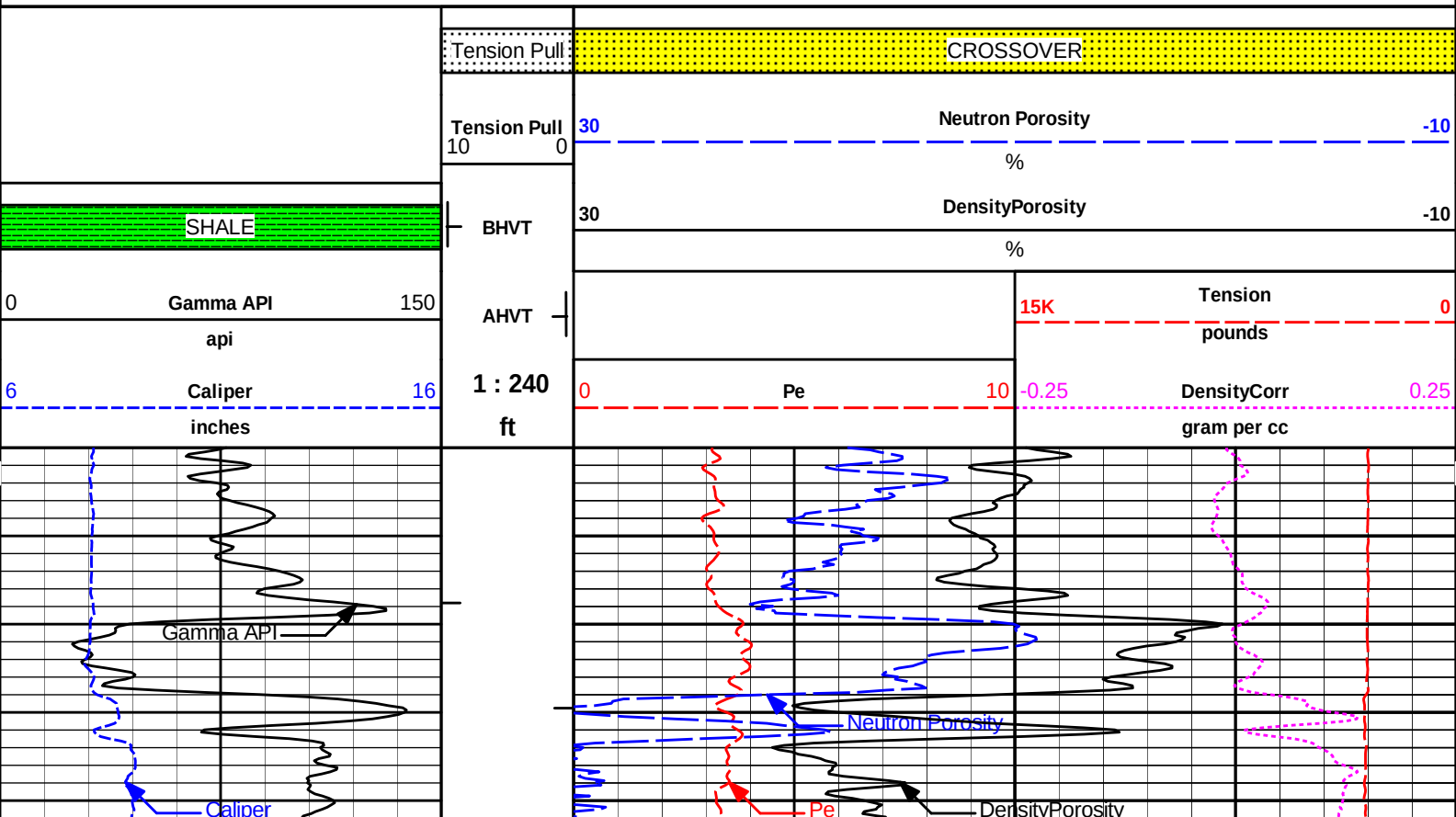
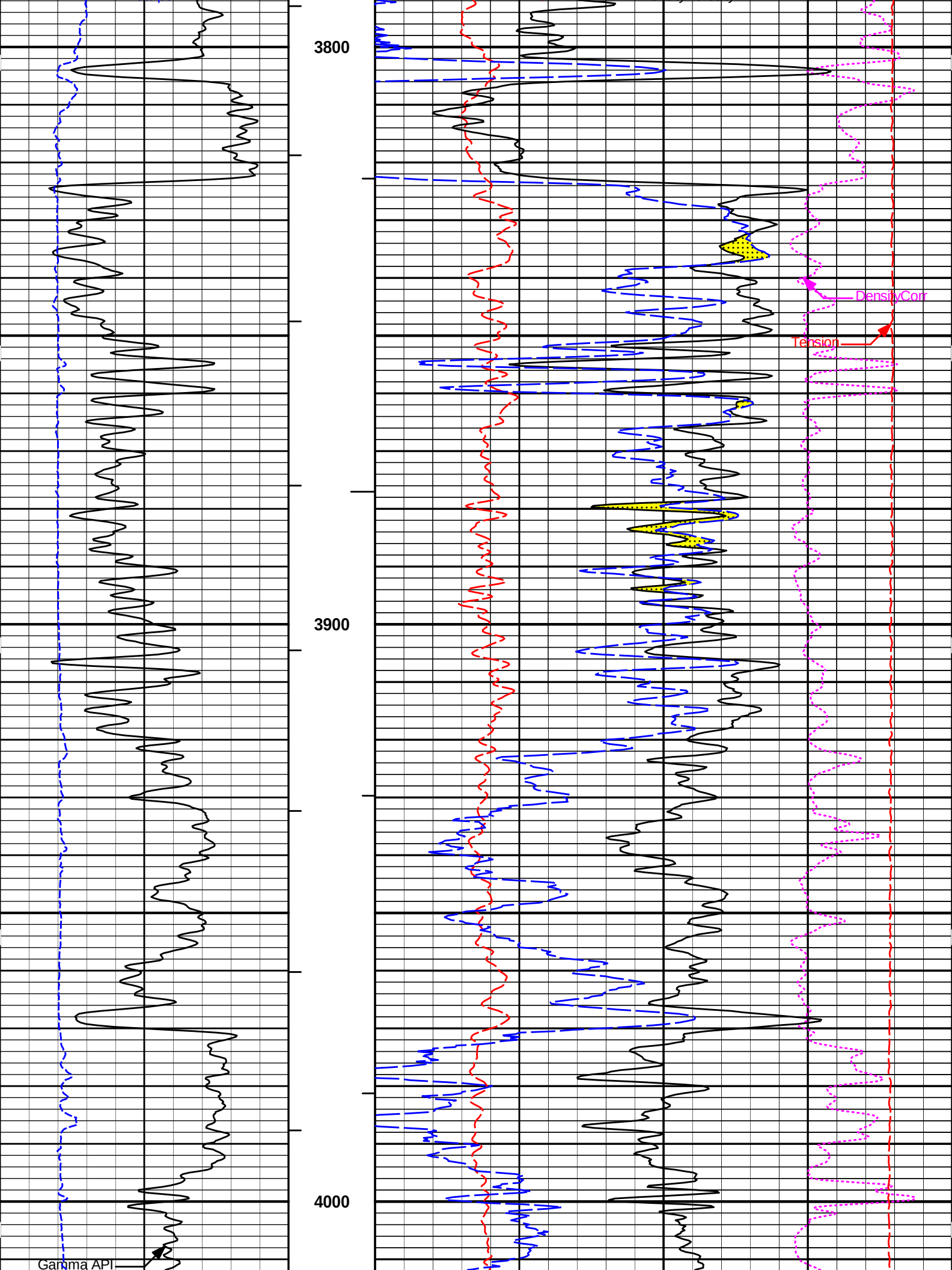
Plot Time: 29-Jul-12 11:35:30
Plot Range: 3750 ft to 5995.67 ft
Data: FOX _1_30\Well Based\DETAIL
Plot File: \\PORO\Poro_IQ_5_MAIN_LIB

5 INCH MAIN LOG

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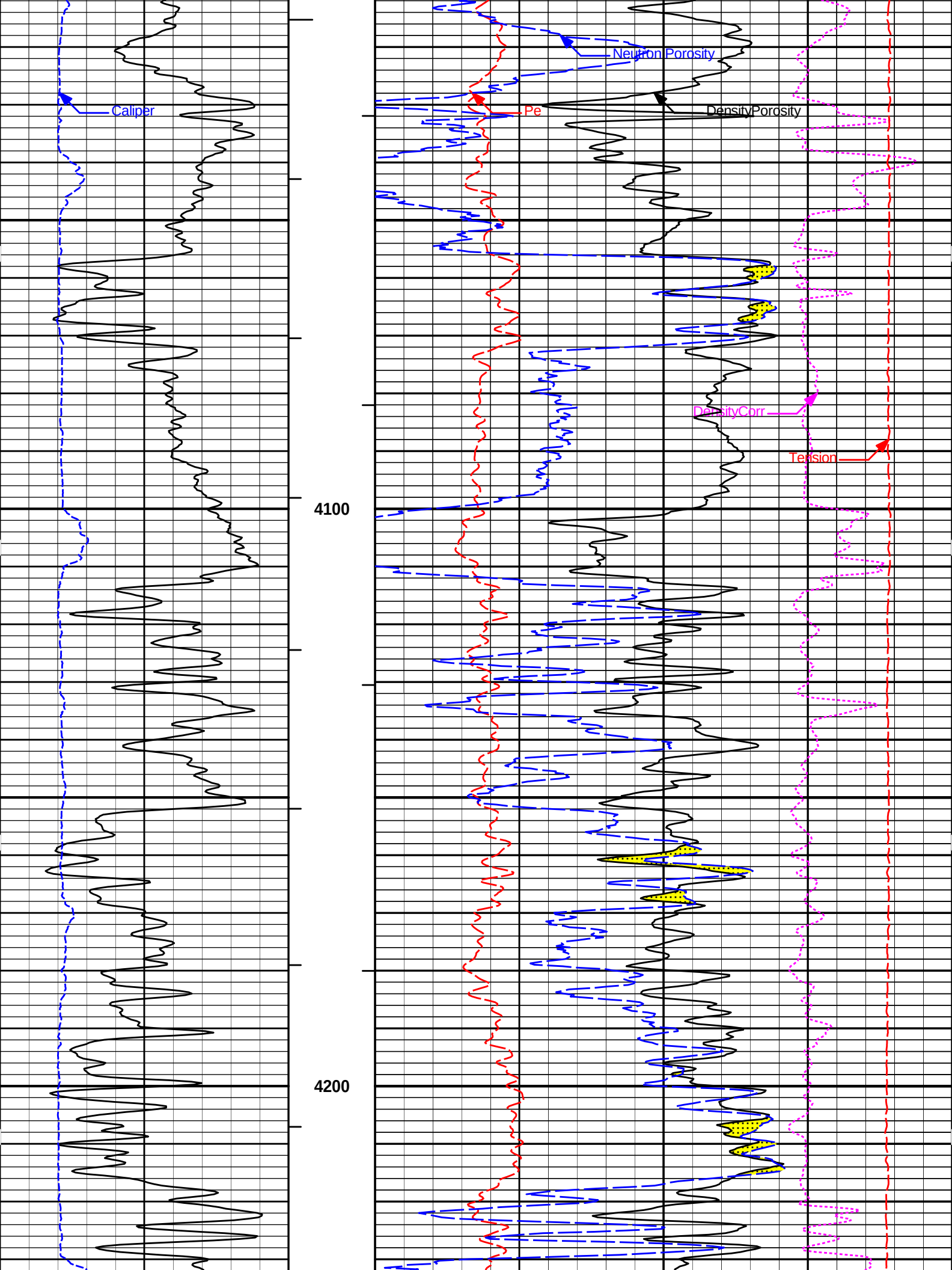
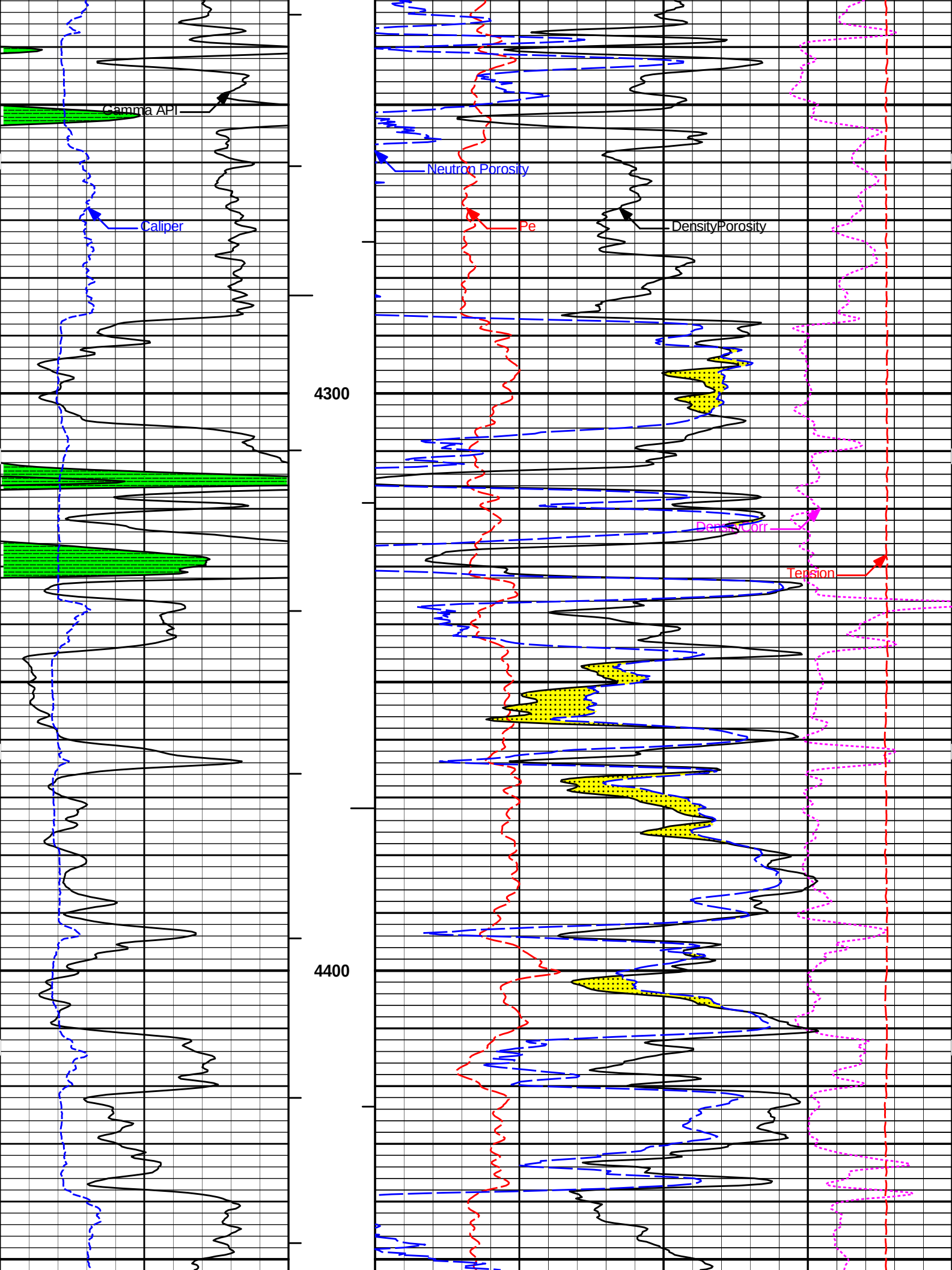
3900
4000
DensityCorr
Tension
Gamma API


Caliper
Neutron Porosity
Pe
DensityPorosity
DensityCorr
Tension
4100
4200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Caliper
Neutron Porosity
Pe
DensityPorosity
DensityCorr
Tension
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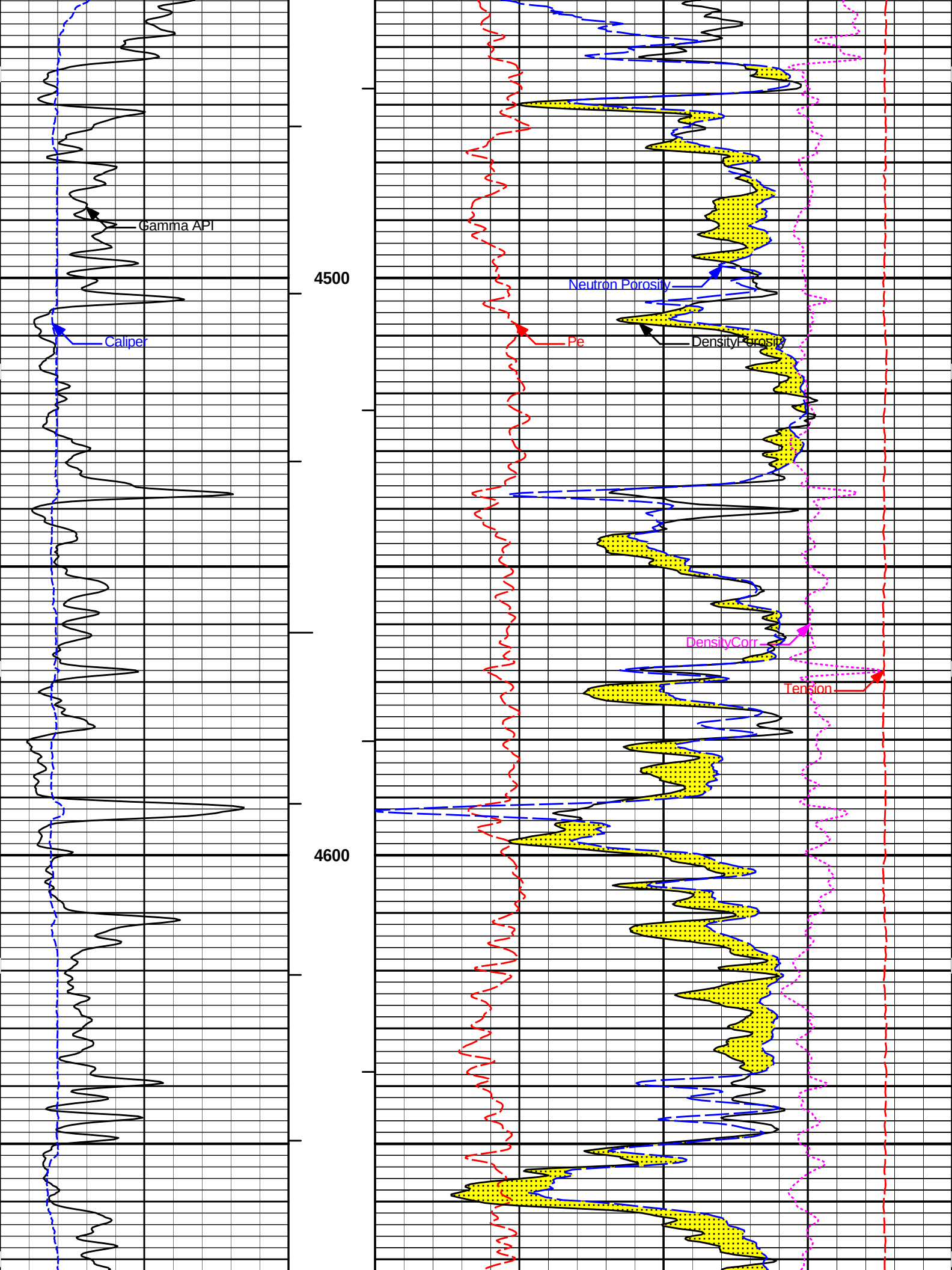
4400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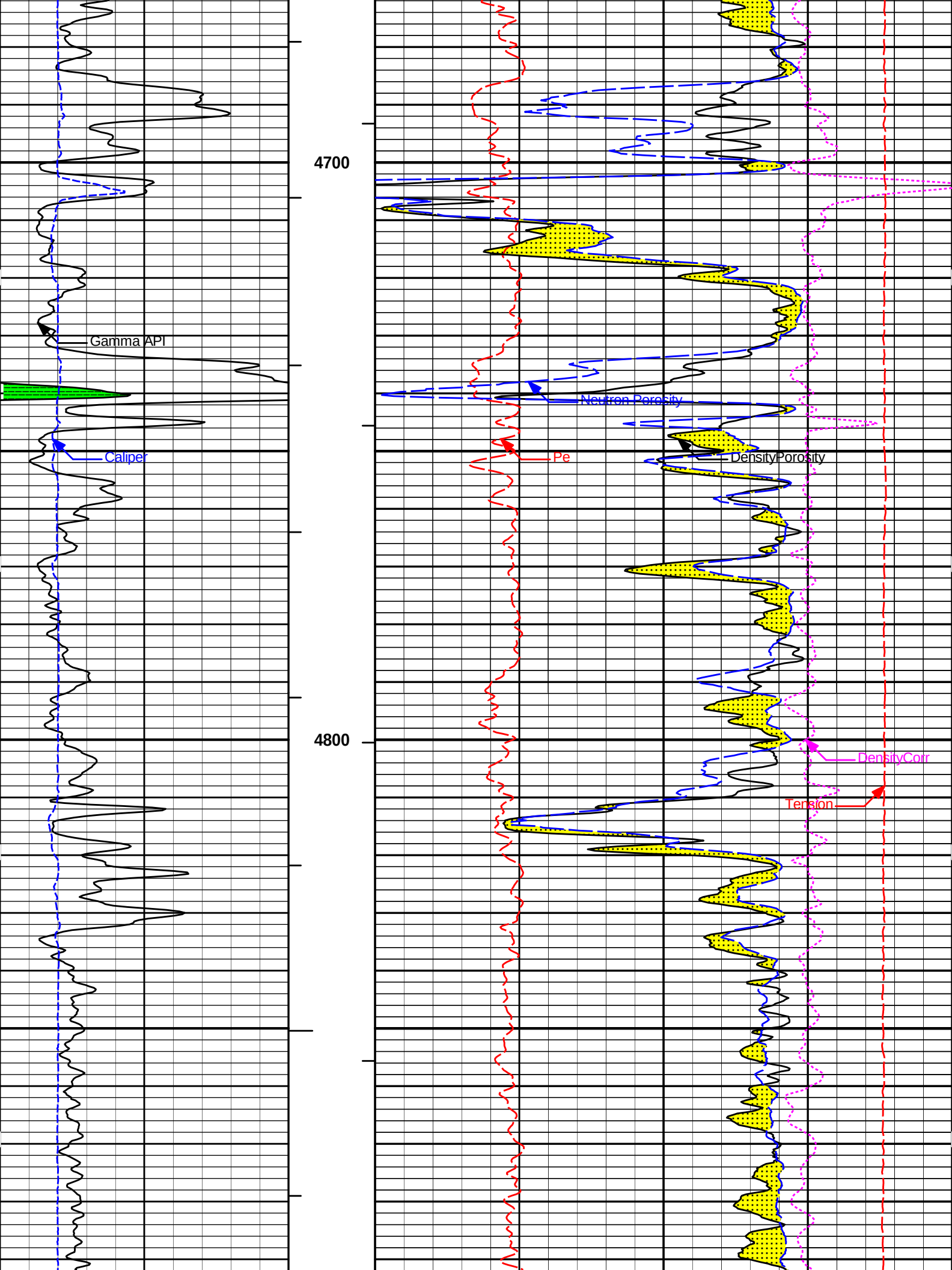
Caliper
4500
Neutron Porosity
Pe
DensityPorosity
DensityCorr
Tension
4600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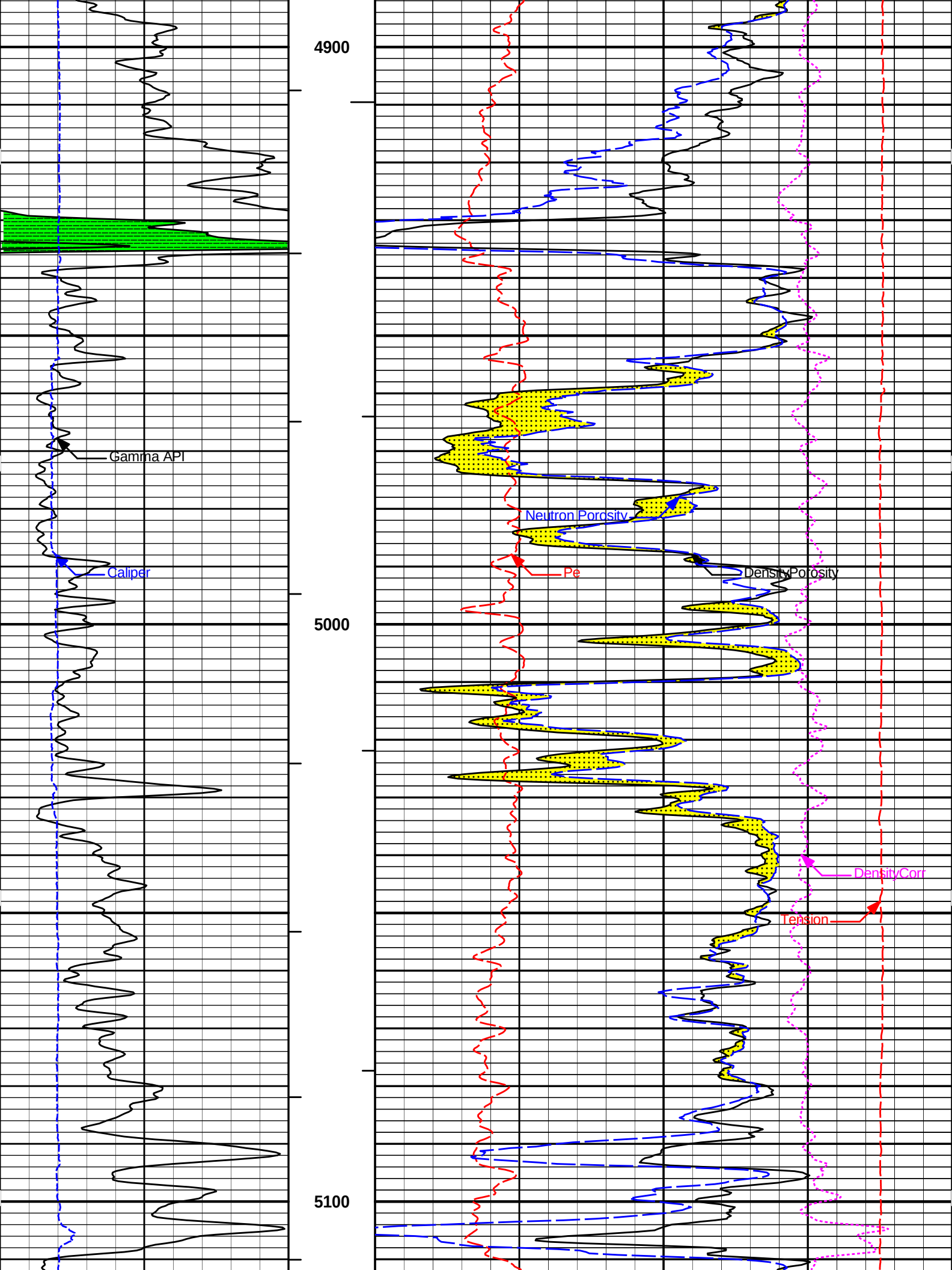
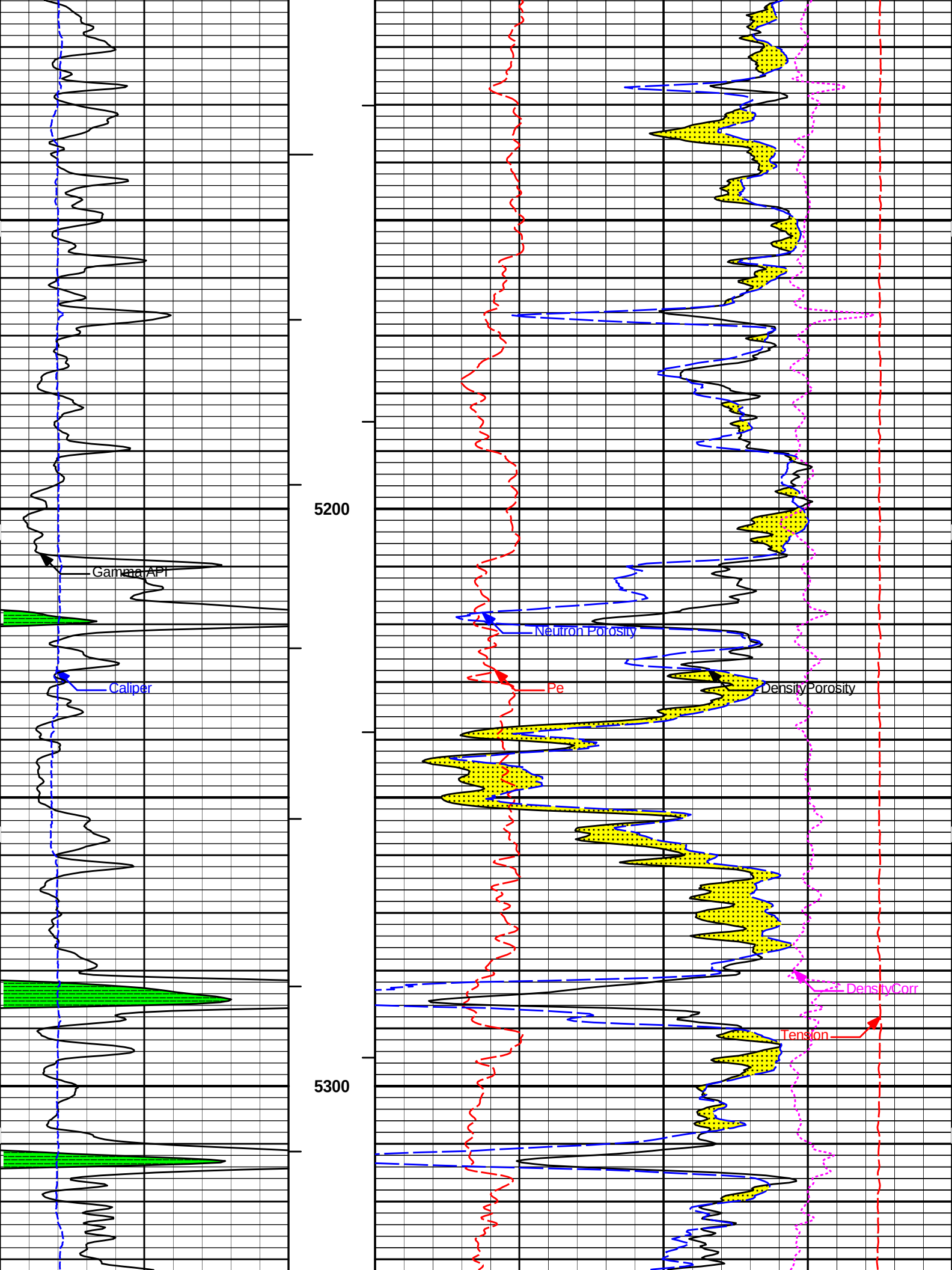
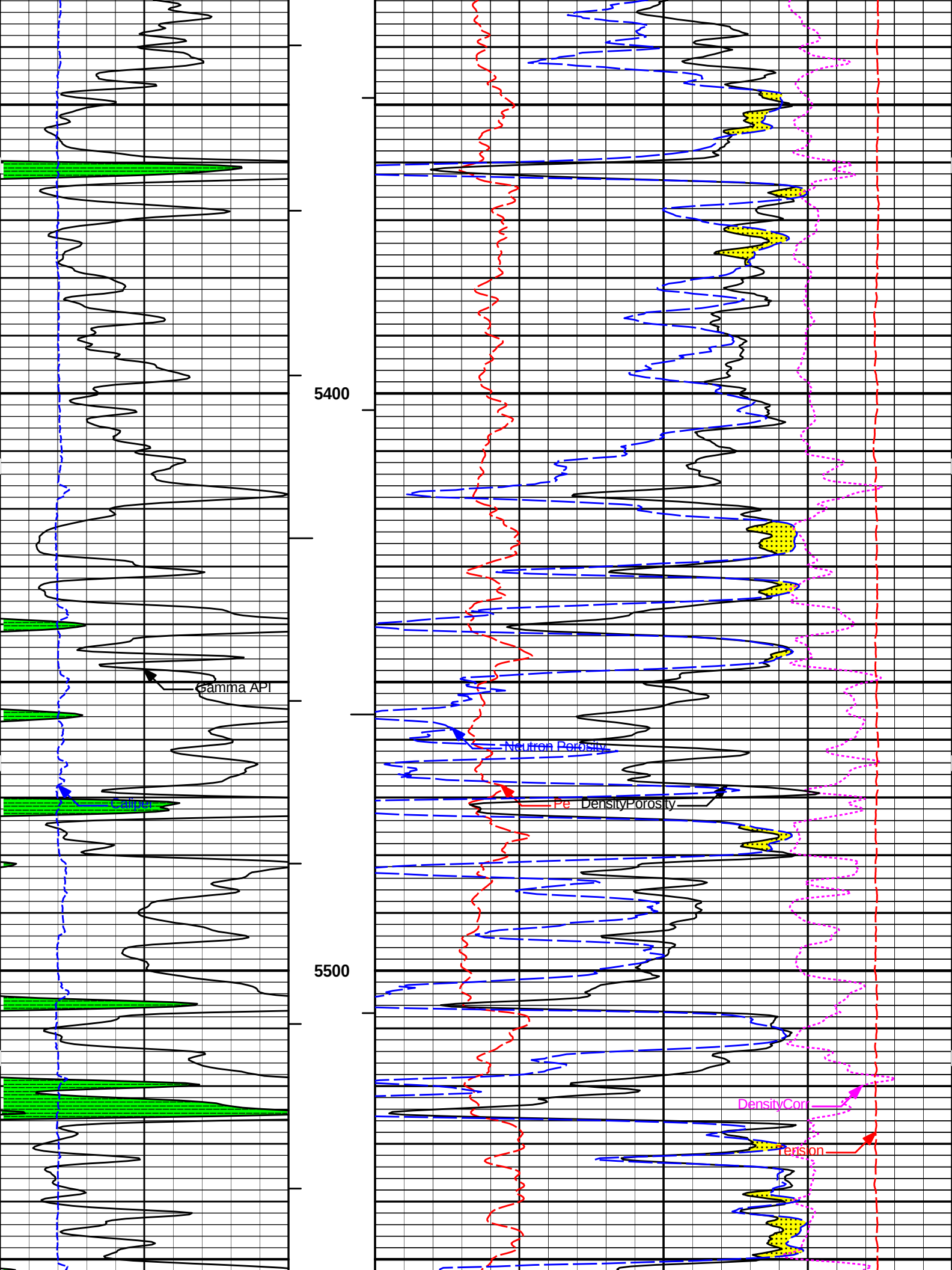
4800
Gamma API
Caliper
Neutron Porosity
Pe
DensityPorosity
DensityCorr
Tension


4900
5000
5100
Gamma API
Caliper
Neutron Porosity
Pe
DensityPorosity
DensityCorr
Tension


5200
5300
Gamma API
Caliper
Neutron Porosity
Pe
DensityPorosity
DensityCorr
Tension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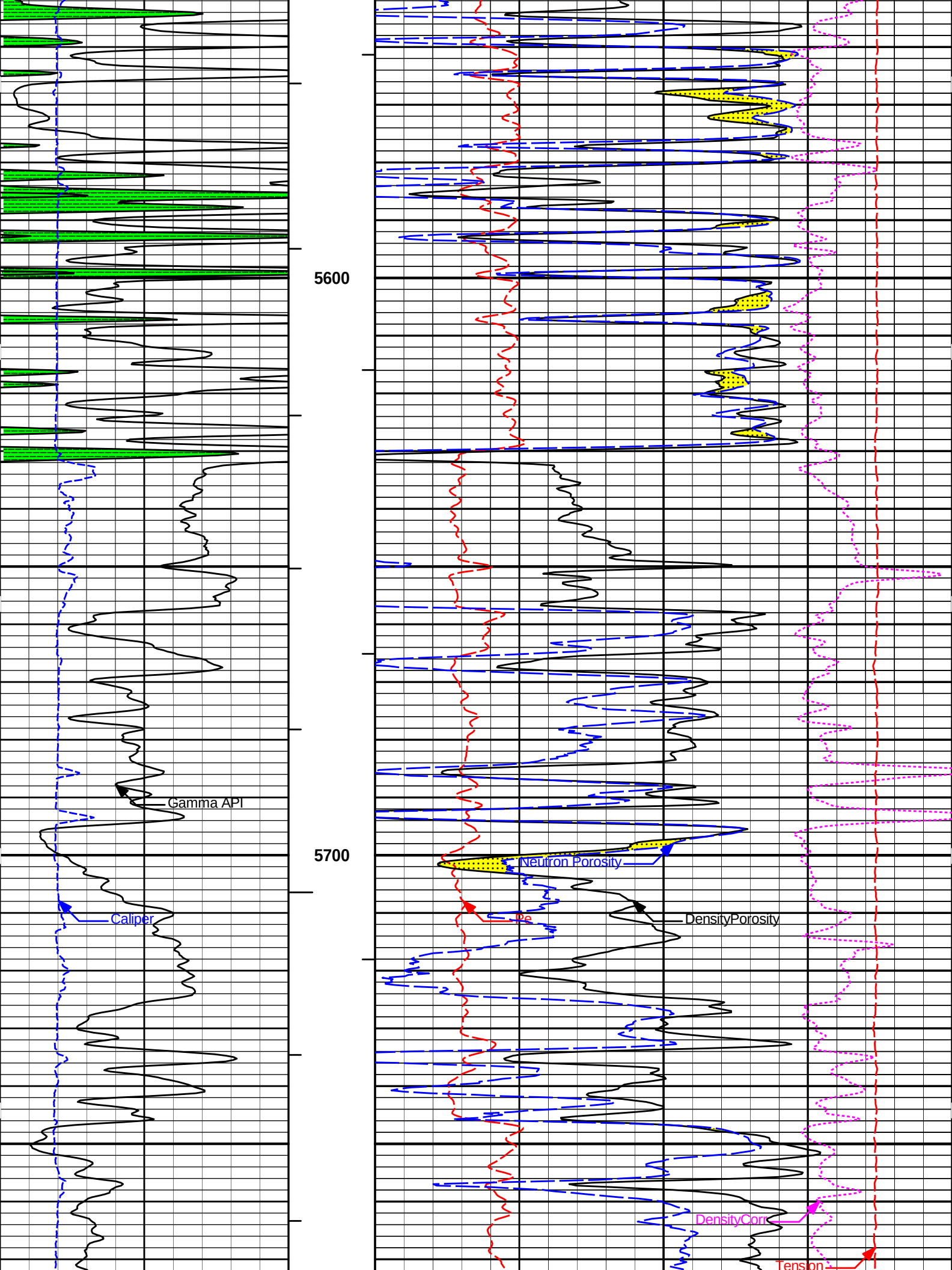
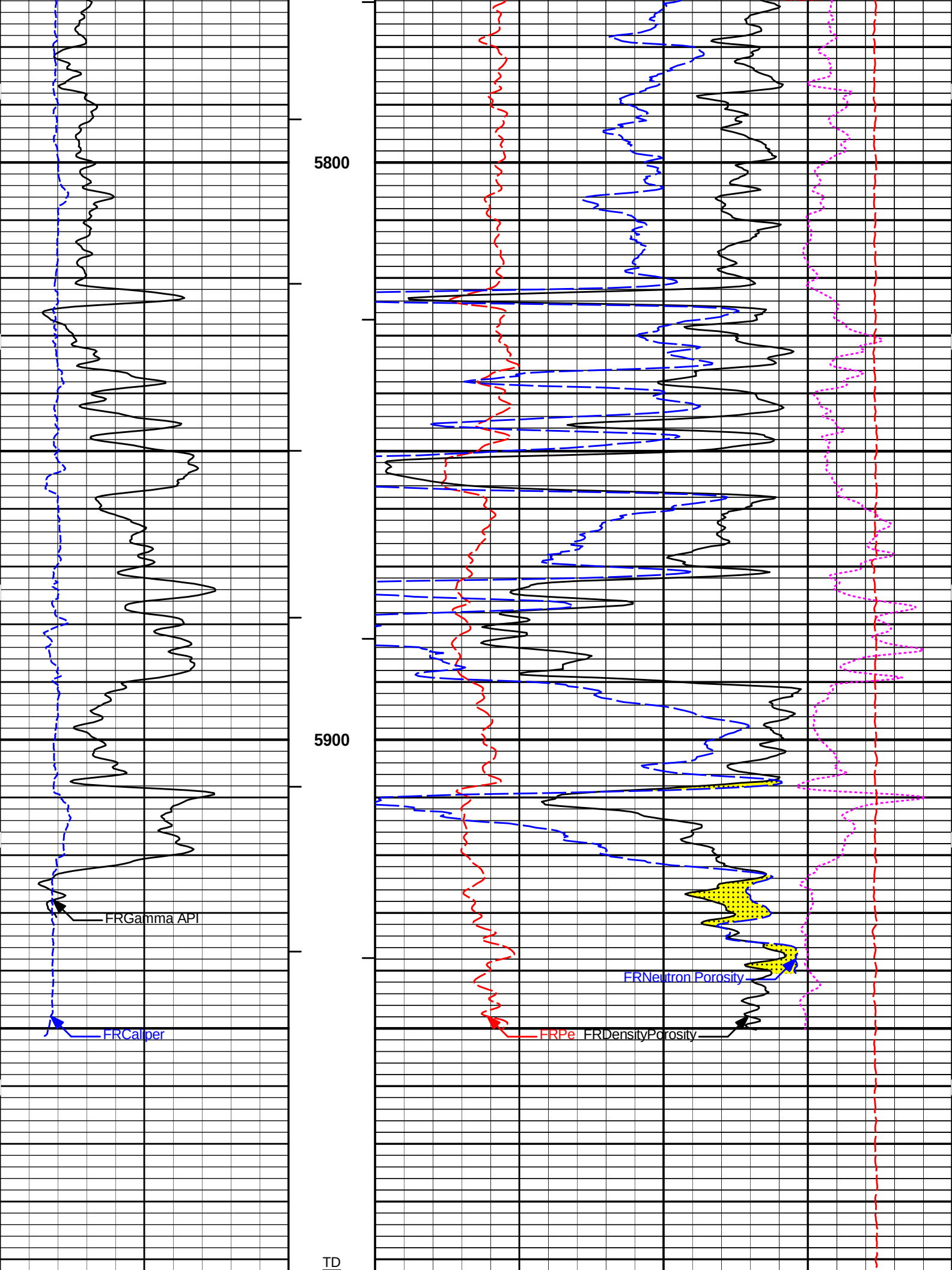
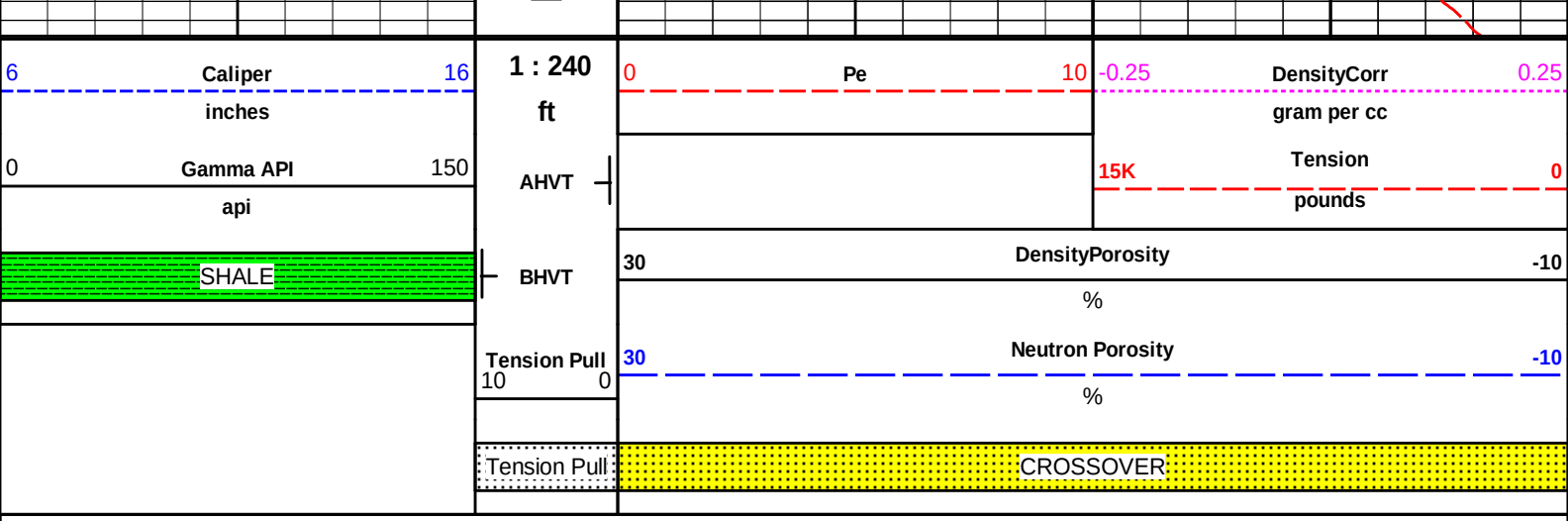
5500
Gamma API
Caliper
Neutron Porosity
Pe
DensityPorosity
DensityCorr
Tension


5600
5700
Gamma API
Caliper
Neutron Porosity
Pe
DensityPorosity
DensityCorr
Tension


5800
5900
FRGamma API
FRCaliper
FRNeutron Porosity
FRPe
FRDensityPorosity
TD



HALLIBURTON

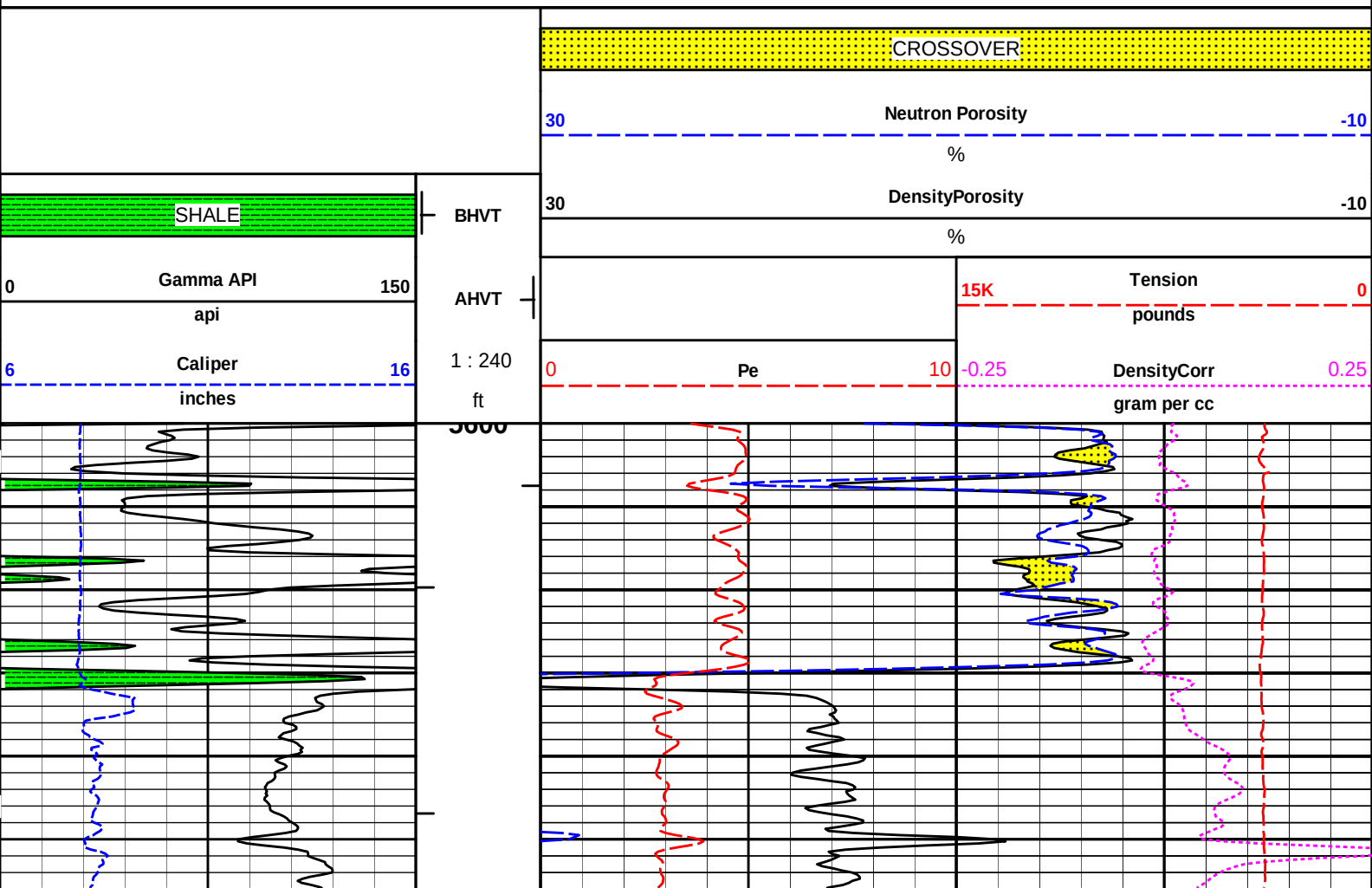
Plot Time: 29-Jul-12 11:35:45
Plot Range: 3750 ft to 5995.67 ft
Data: FOX _1_30\Well Based\DETAIL\
Plot File: \\PORO\Poro_IQ_5_MAIN_LIB

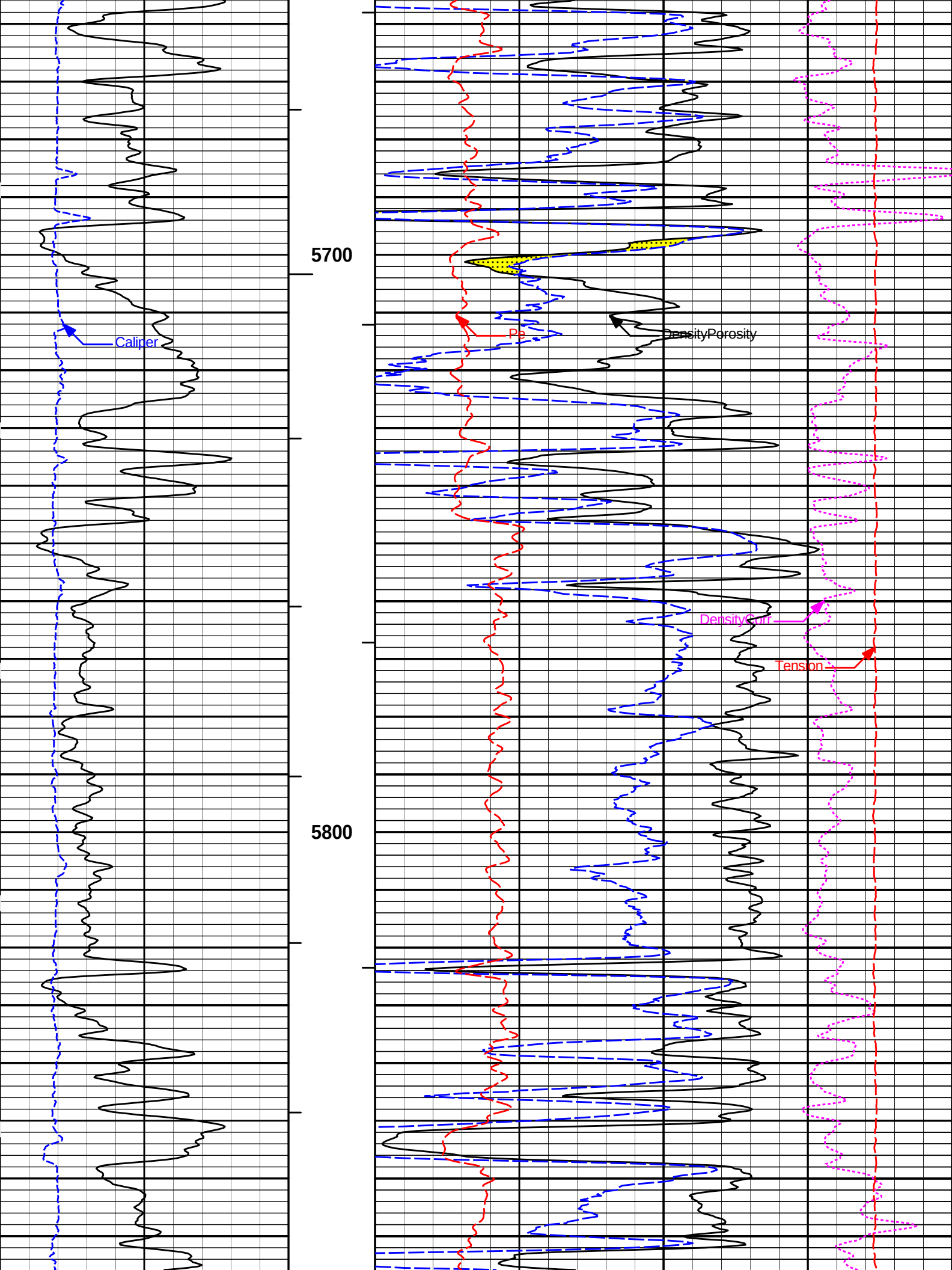
5 INCH MAIN LOG

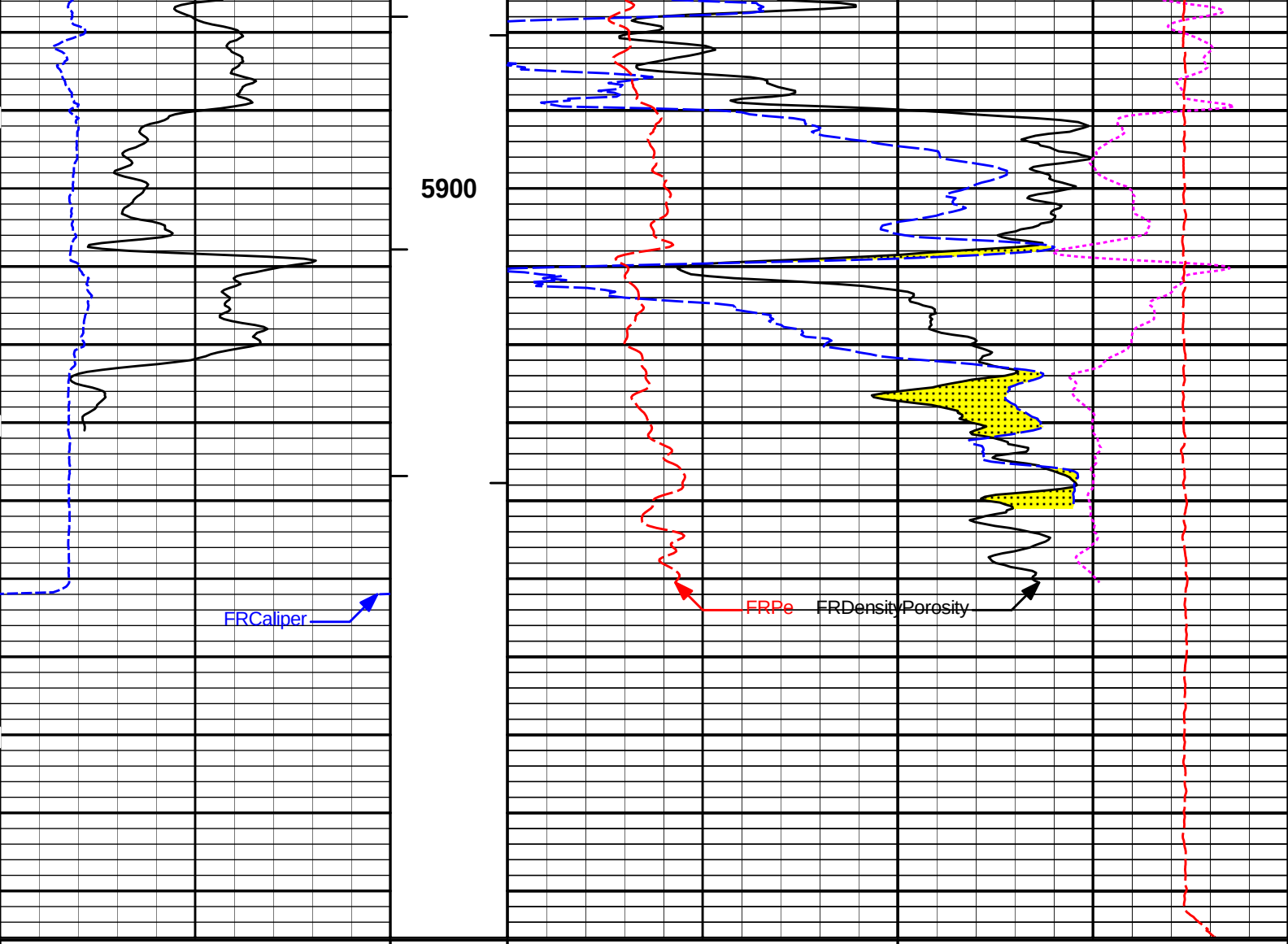
HALLIBURTON

Plot Time: 29-Jul-12 11:35:45
Plot Range: 5600 ft to 5996 ft
Data: FOX _1_30\Well Based\REPEAT\
Plot File: \\PORO\Poro_IQ_5_REP_LIB

REPEAT SECTION




5700
5800
Caliper
Pe
DensityPorosity
DensityCorr
Tension



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

HALLIBURTON

Plot Time: 29-Jul-12 11:35:49
Plot Range: 5600 ft to 5996 ft
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Plot File: \\PORO\Poro_IQ_5_REP_LIB

REPEAT SECTION

HALLIBURTON

Plot Time: 29-Jul-12 11:35:50
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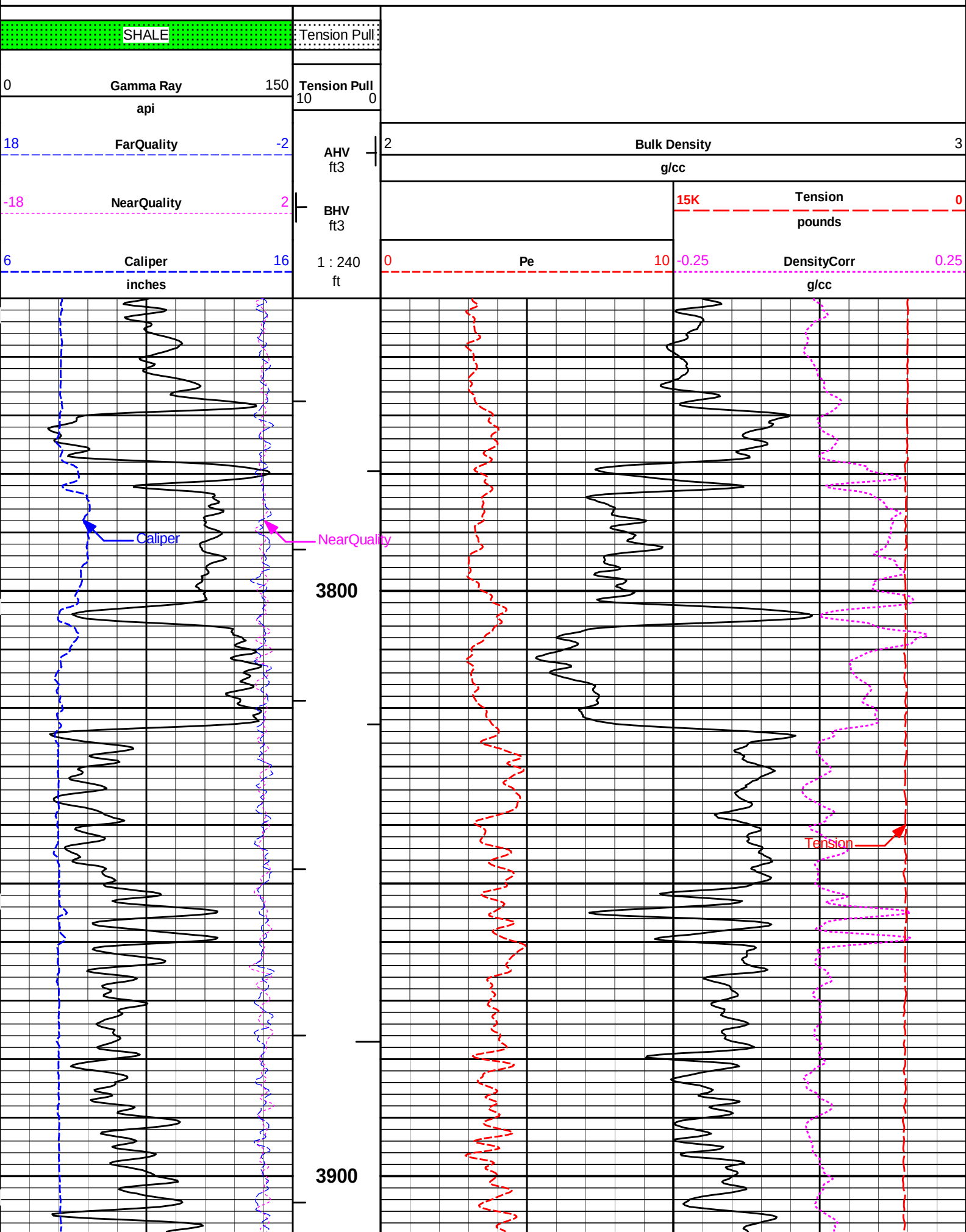
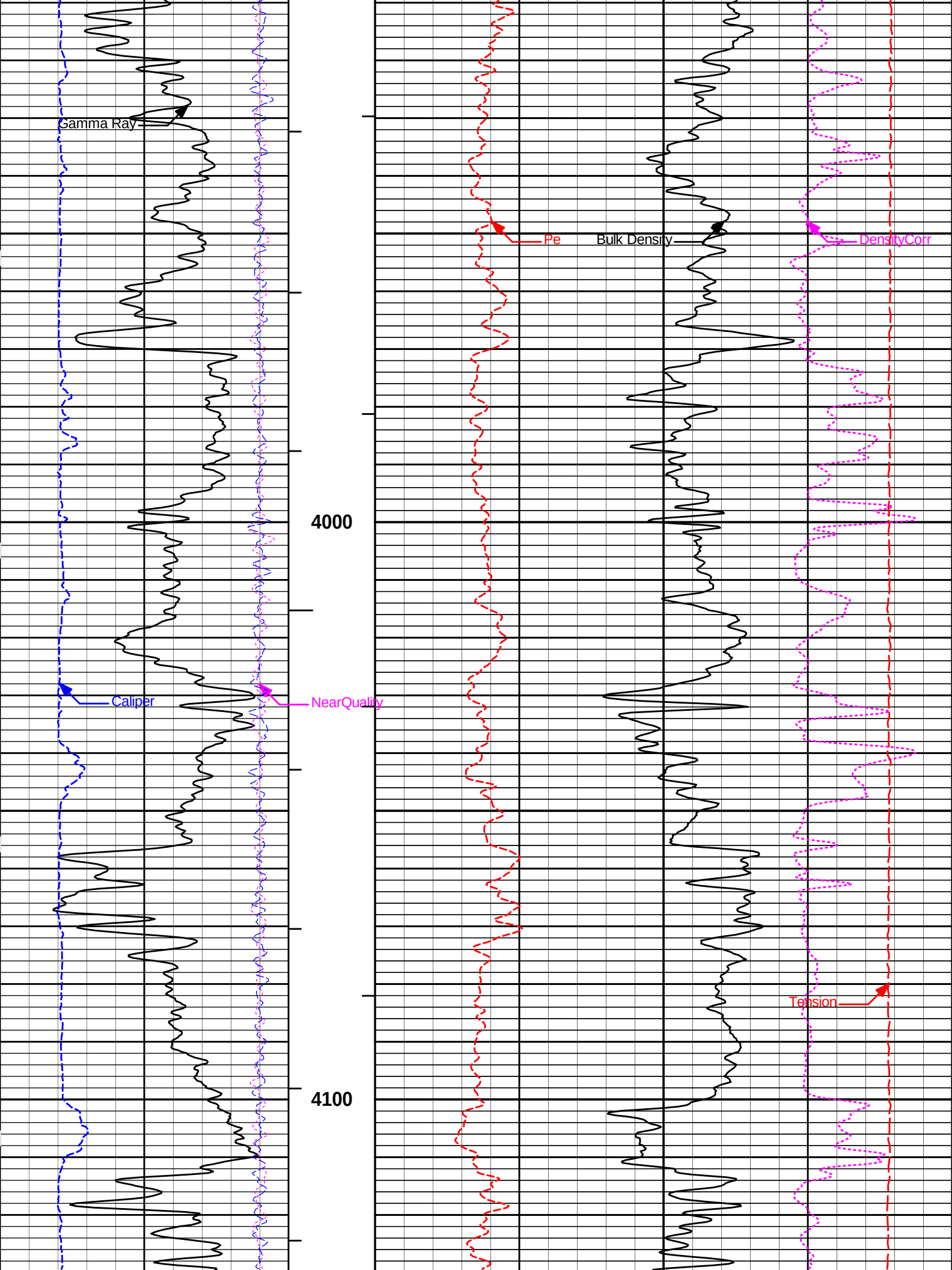
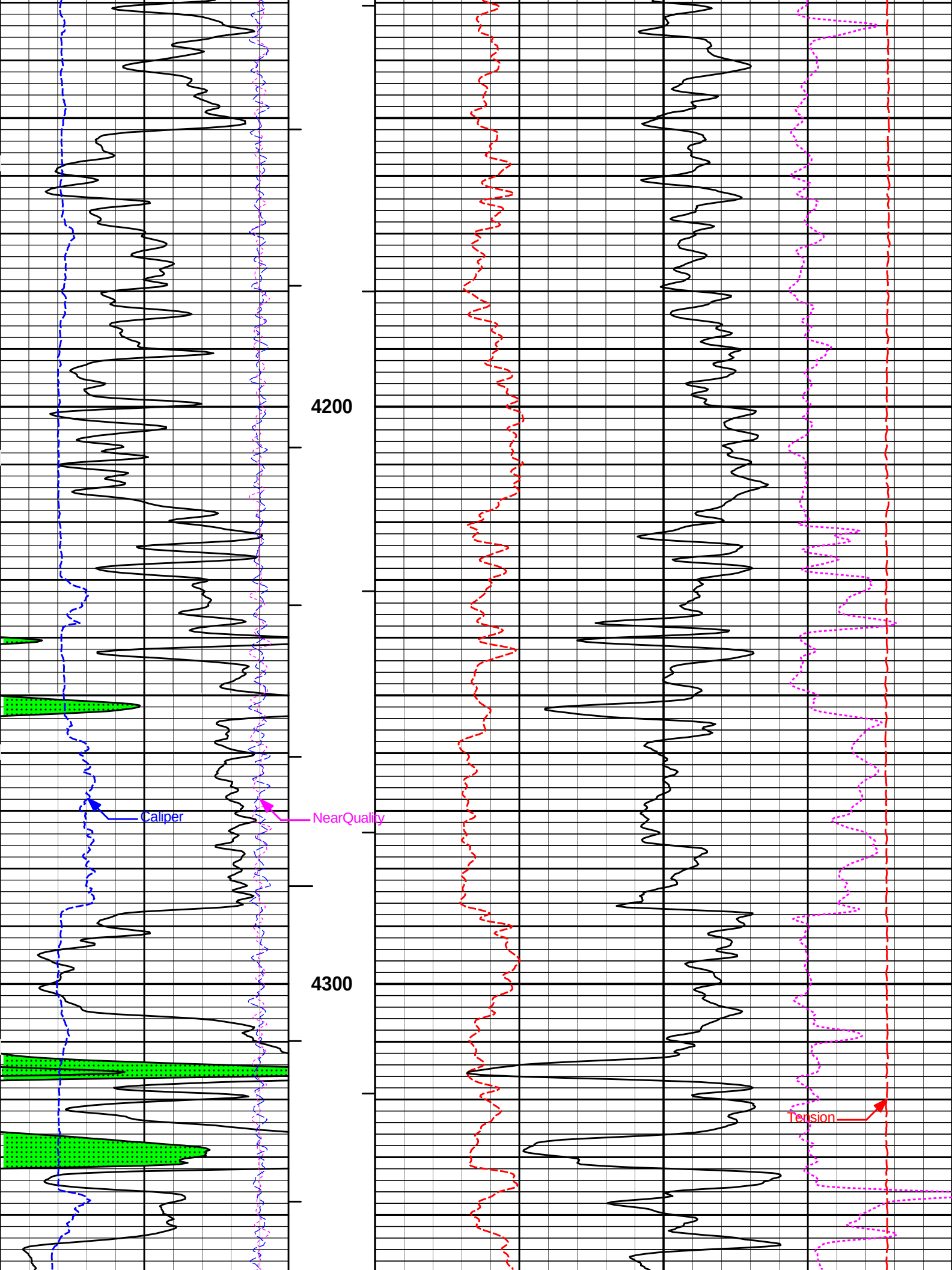
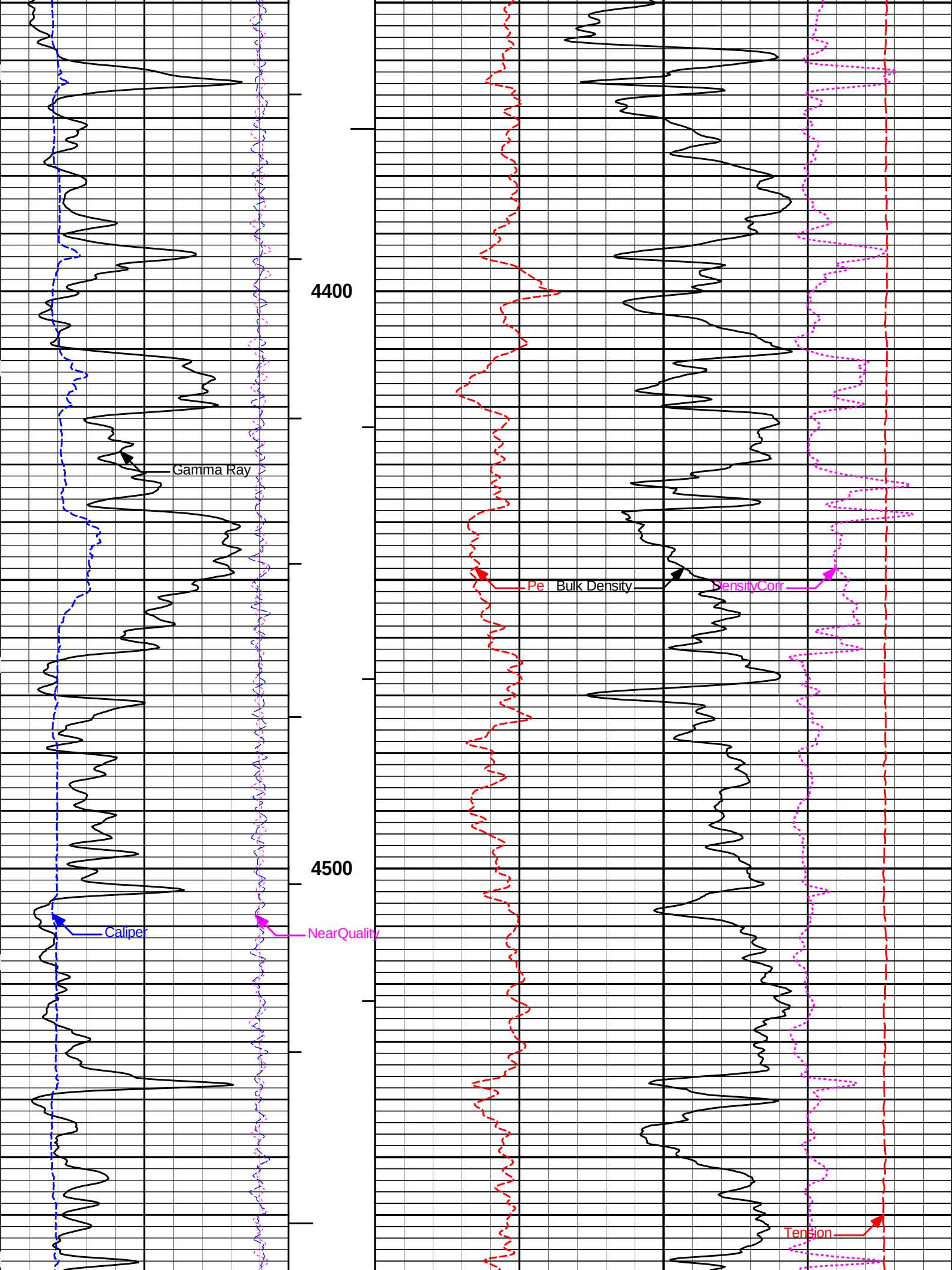
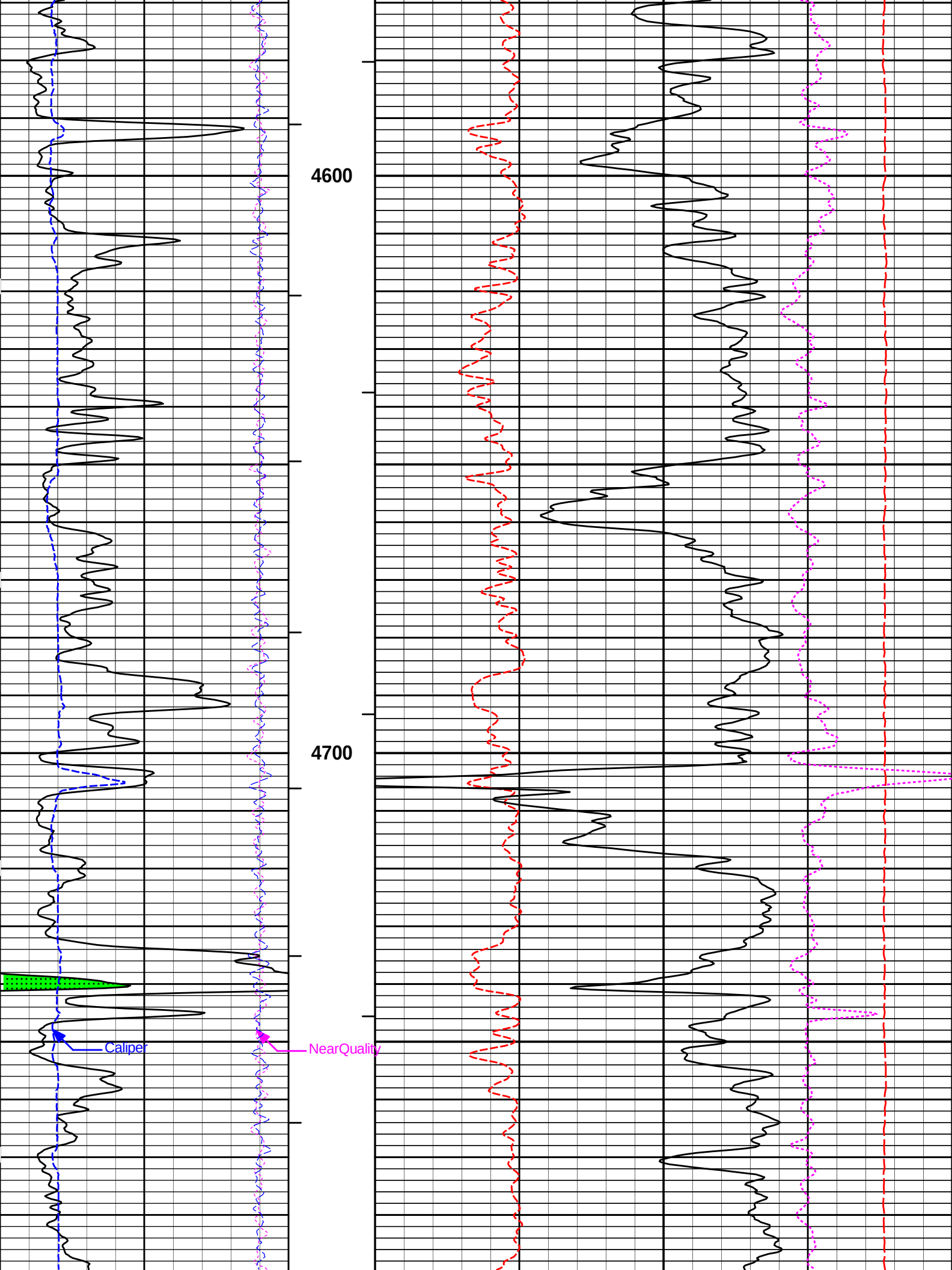
5 INCH MAIN LOG

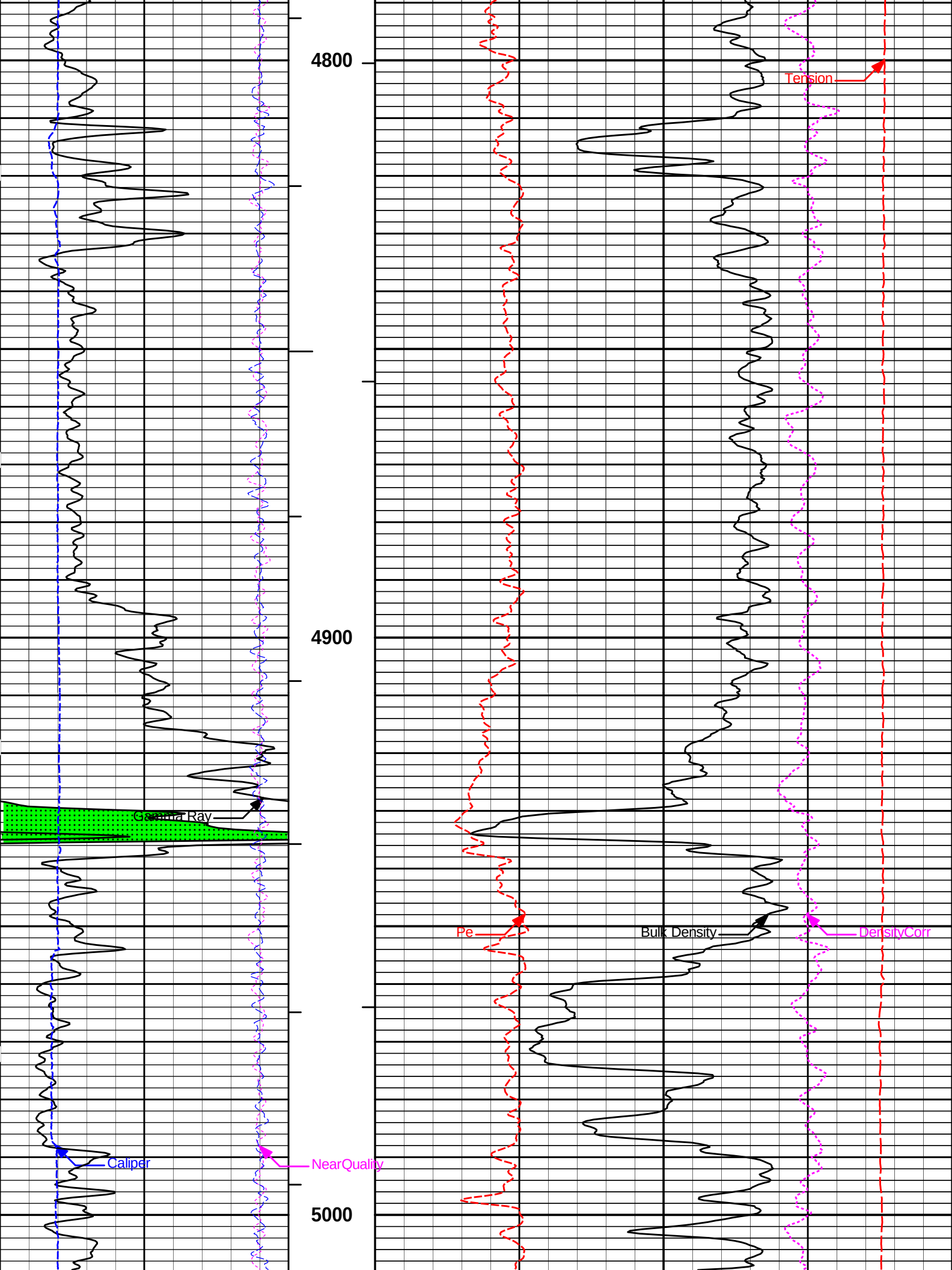


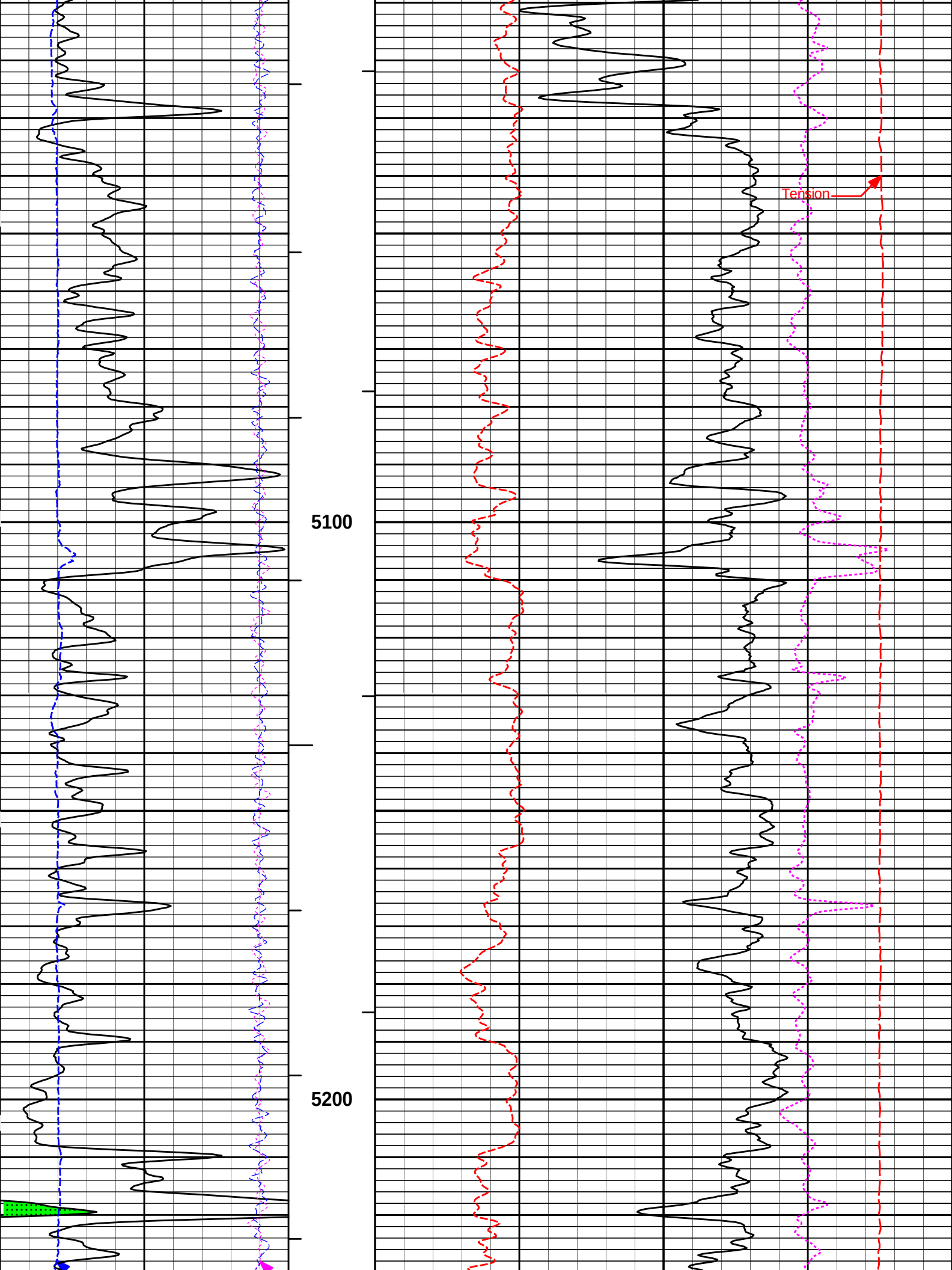

Gamma Ray
Pe
Bulk Density
DensityCorr
4000
Caliper
NearQuality
Tension
4100

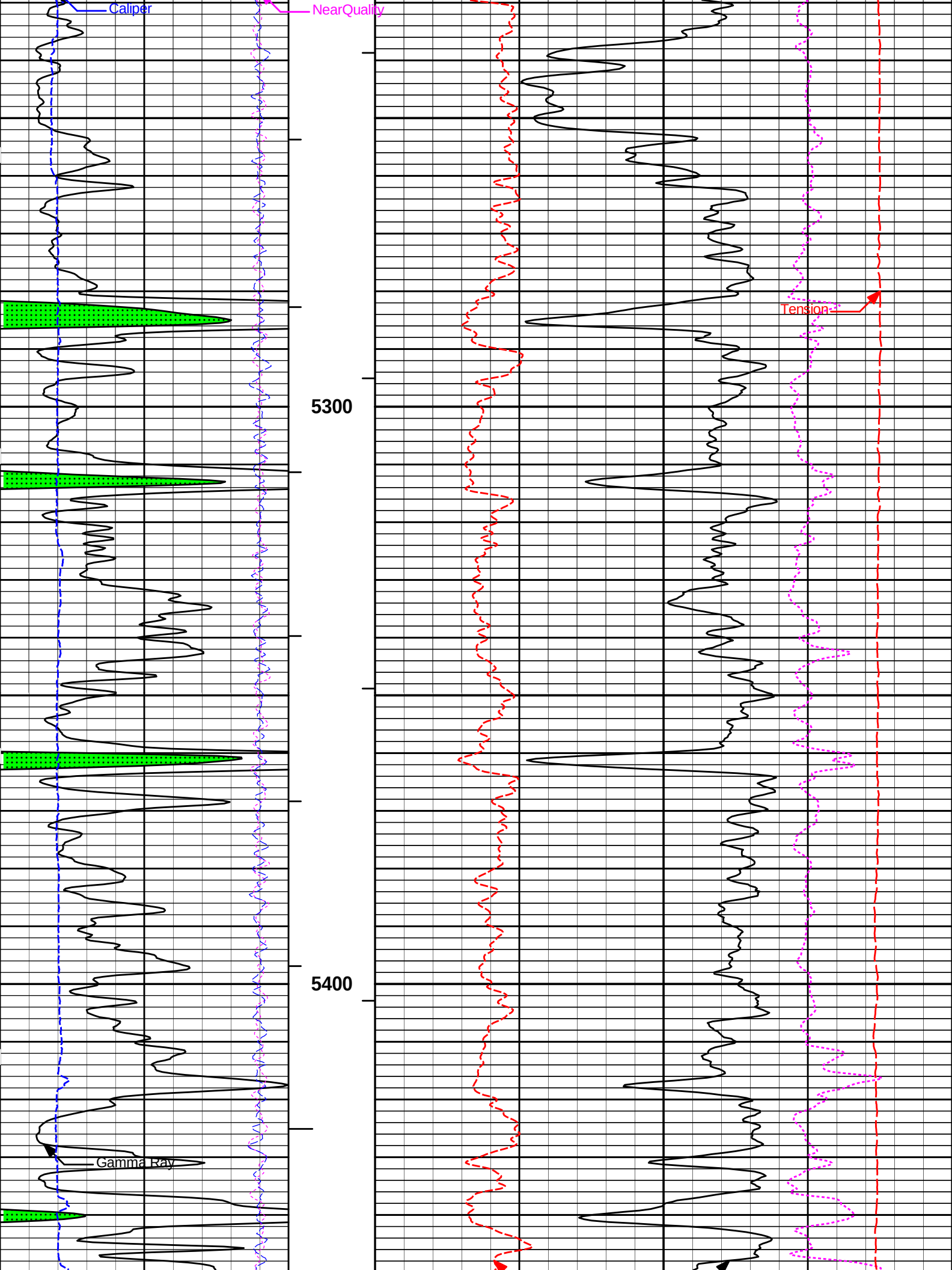

4200
4300
Caliper
NearQuality
Tension

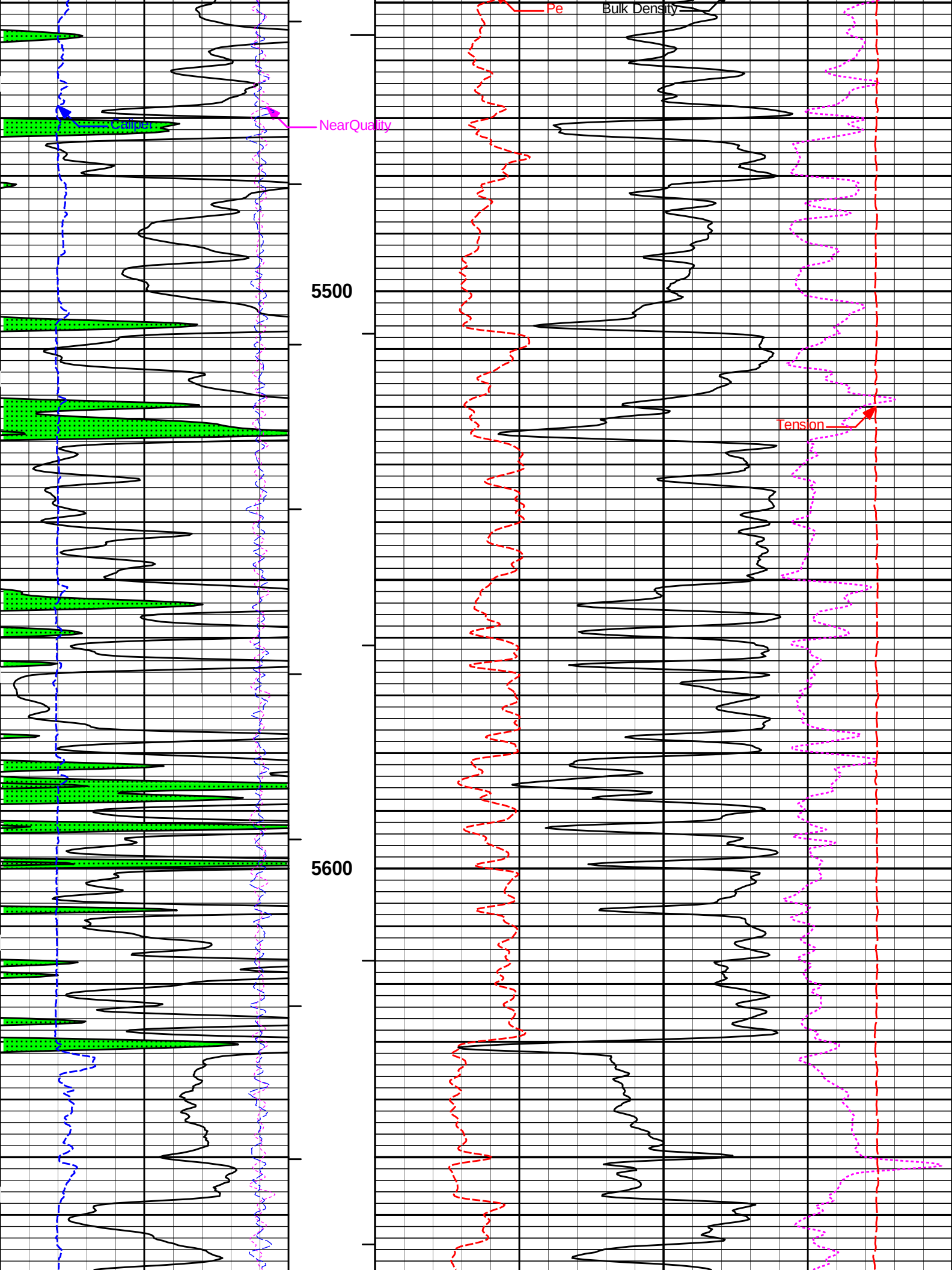

4400
4500
Gamma Ray
Caliper
NearQuality
Pe
Bulk Density
DensityCorr
Tension

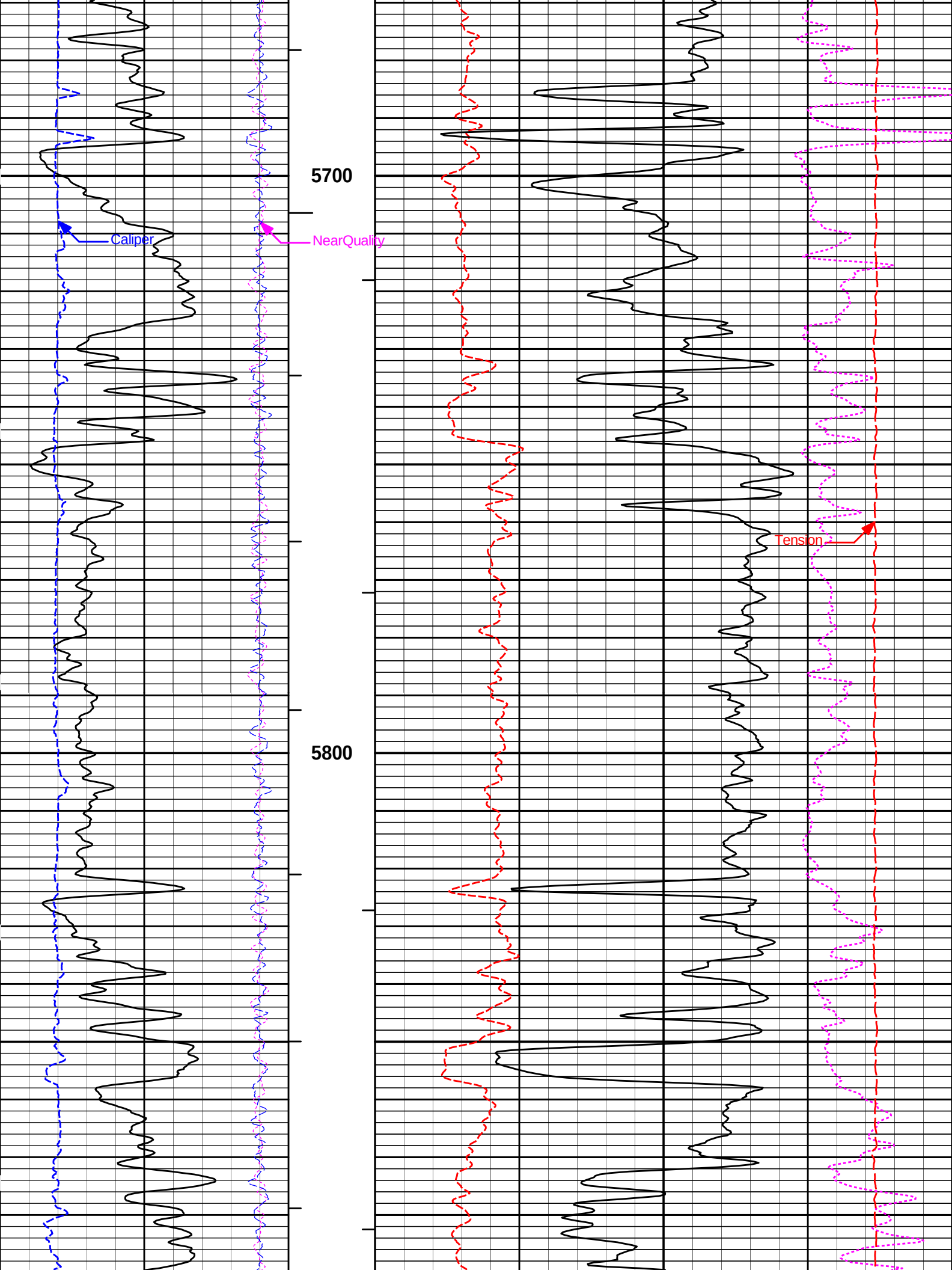

4600
4700
Caliper
NearQuality

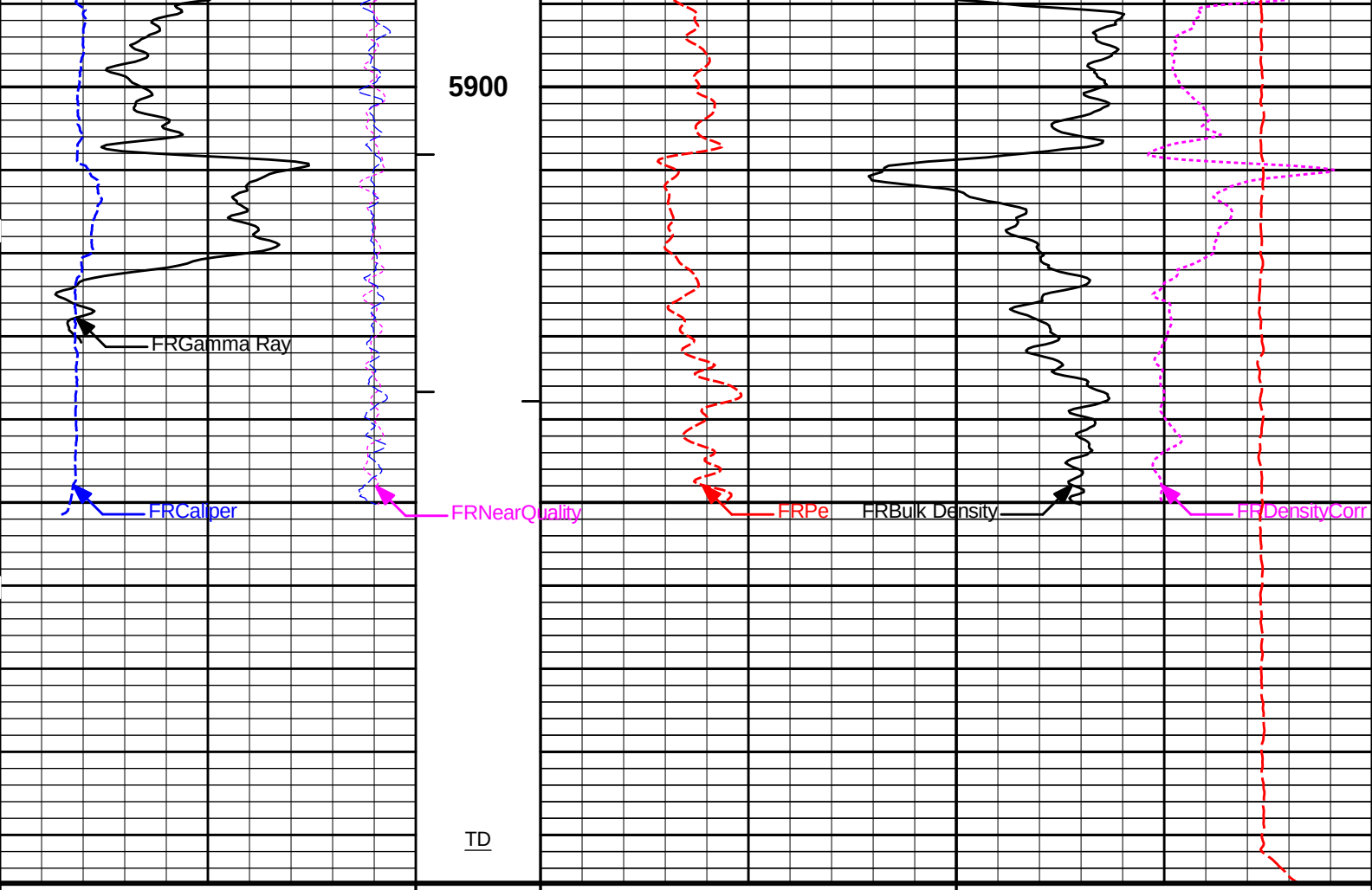

4800
4900
5000
Tension
Gamma Ray
Pe
Bulk Density
DensityCorr
Caliper
NearQuality


Tension
5100
5200


Caliper
NearQuality
Tension
5300
5400
Gamma Ray


Pe
Bulk Density
Caliper
NearQuality
5500
Tension
5600


5700
5800
Caliper
NearQuality
Tension



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

-0.25 DensityCorr 0.25	
g/cc	
15K Tension 0	
pounds	

HALLIBURTON

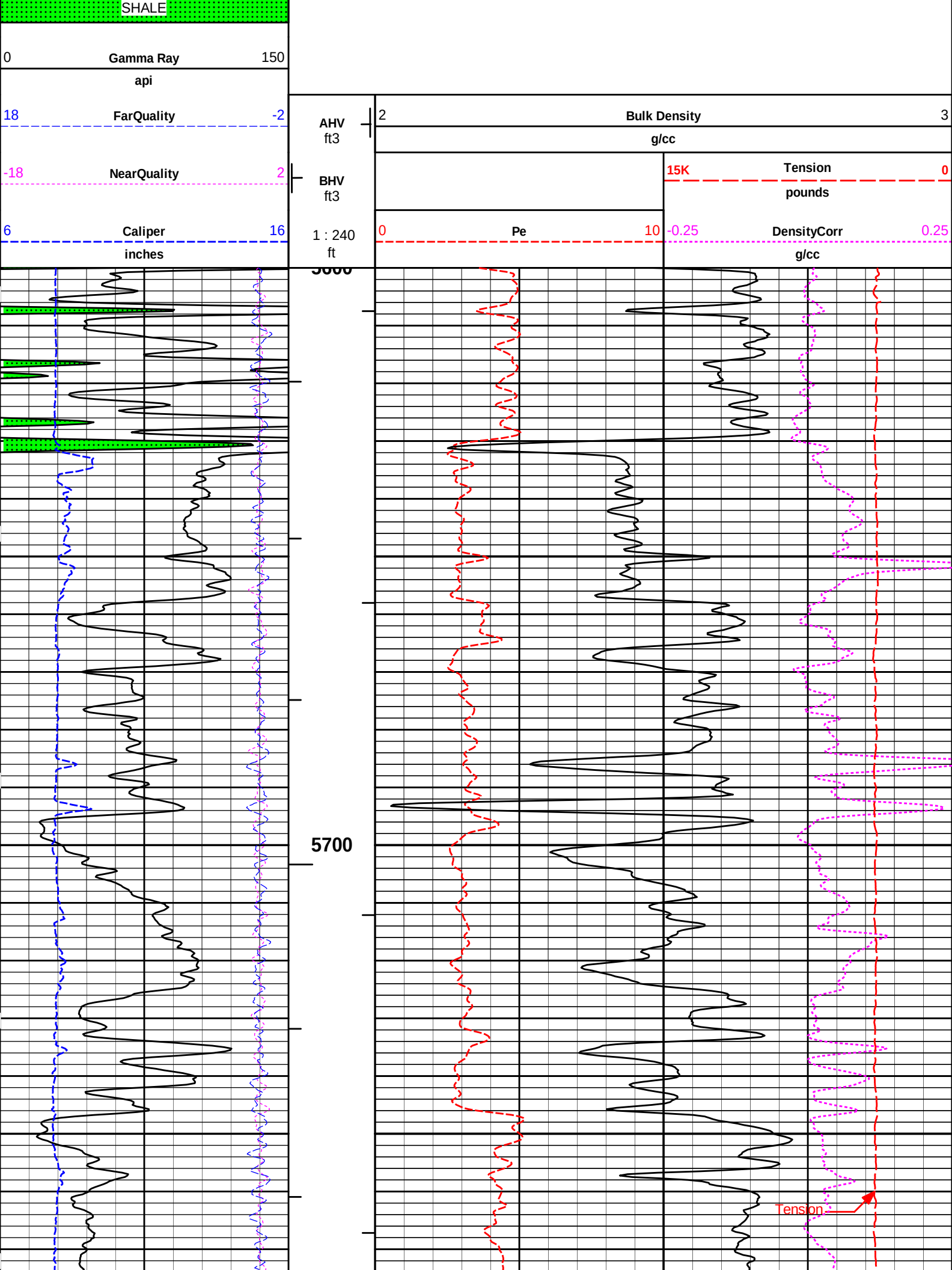
Plot Time: 29-Jul-12 11:35:57
Plot Range: 3750 ft to 5995.67 ft
Data: FOX _1_30\Well Based\DETAIL\
Plot File: \\-LOCAL-\FOX _1_30\0001 SP-GTET-DSNT-SDLT-FLEX-BSAT-ACRT-CH\PORO\BULKD_5_MAIN_LIB

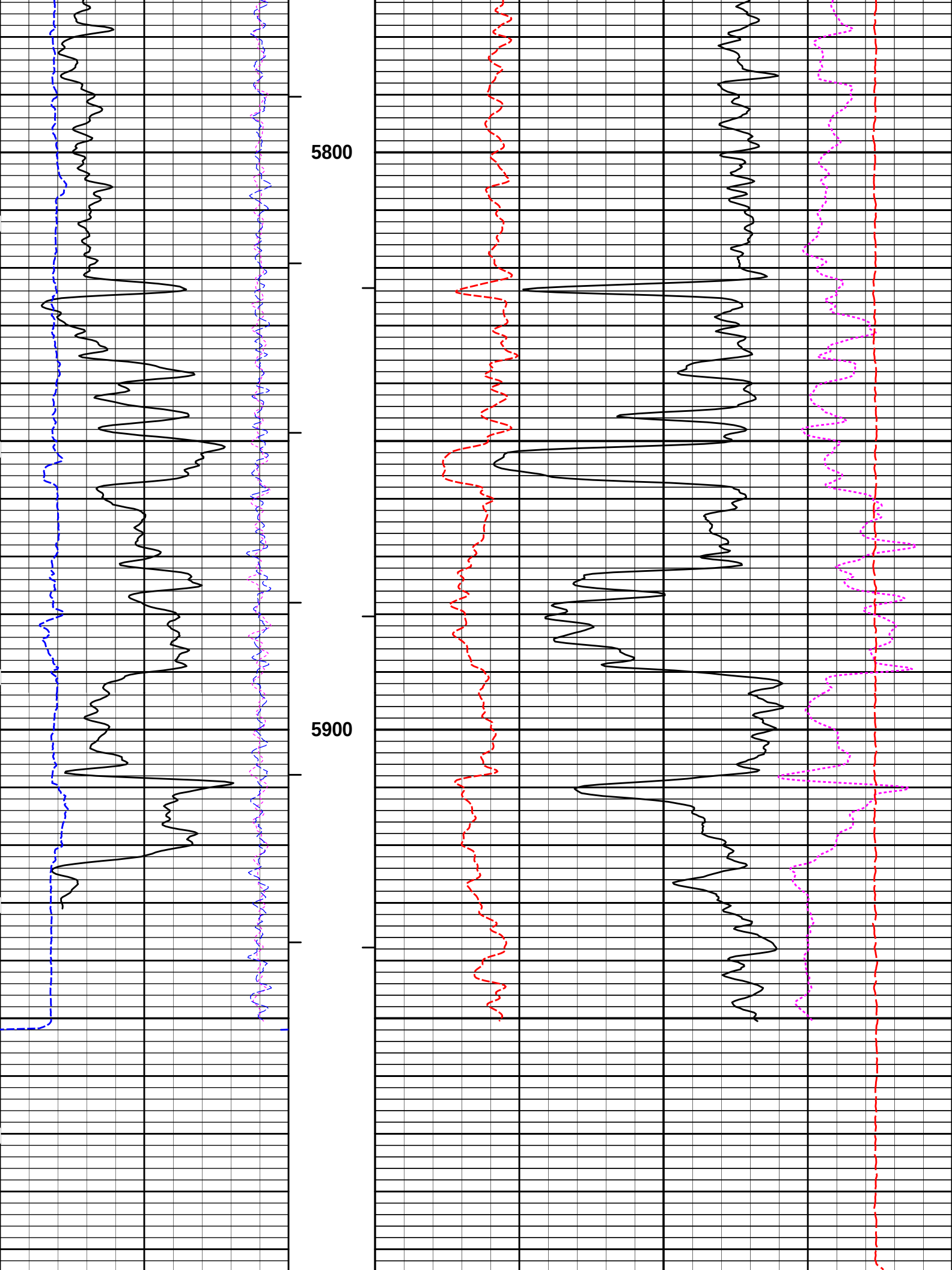
5 INCH MAIN LOG

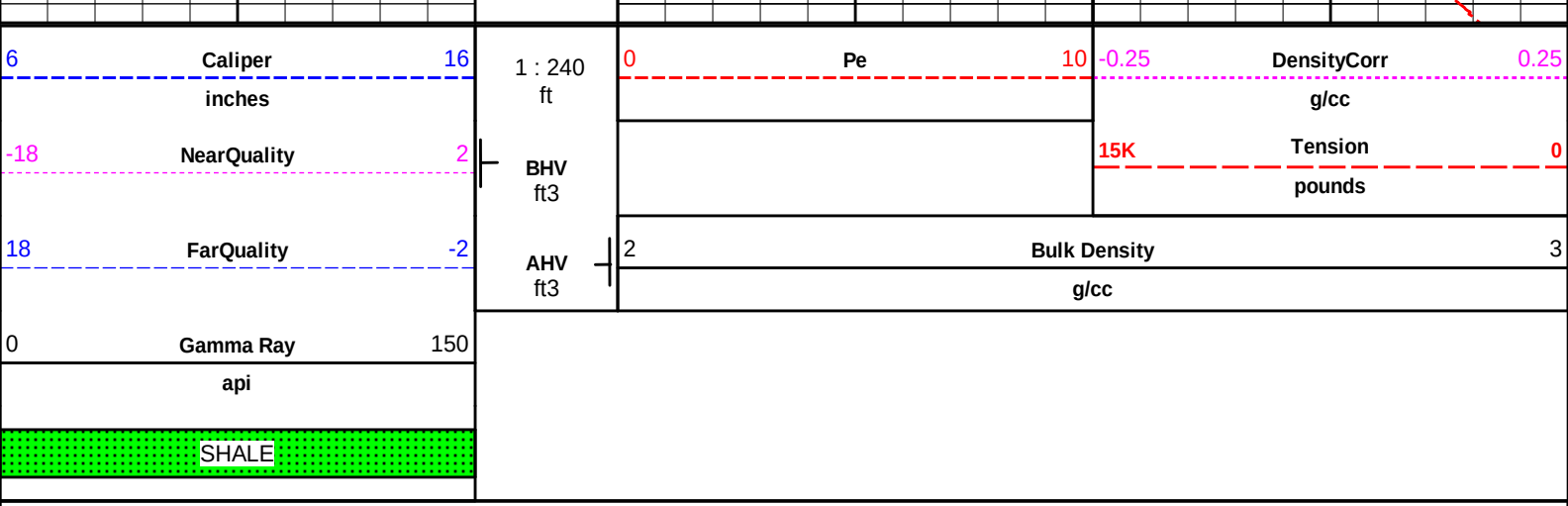
HALLIBURTON

Plot Time: 29-Jul-12 11:35:57
Plot Range: 5600 ft to 5996 ft
Data: FOX _1_30\Well Based\REPEAT\
Plot File: \\-LOCAL-\FOX _1_30\0001 SP-GTET-DSNT-SDLT-FLEX-BSAT-ACRT-CH\PORO\BULKD_5_REP_LIB

REPEAT SECTION


SHALE
0
Gamma Ray
150
api
18
FarQuality
-2
-18
NearQuality
2
6
Caliper
16
inches
AHV
ft3
BHV
ft3
1 : 240
ft
2
Bulk Density
3
g/cc
15K
Tension
0
pounds
0
Pe
10
-0.25
DensityCorr
0.25
g/cc
5700
Tension


5800
5900



HALLIBURTON

Plot Time: 29-Jul-12 11:35:59
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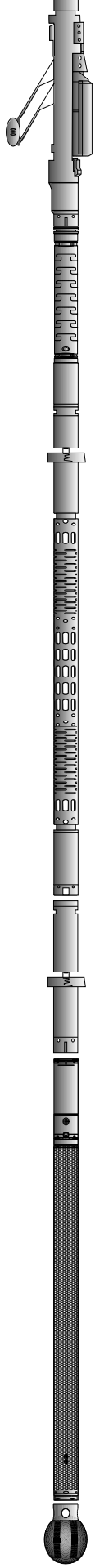
Plot File: \\-LOCAL-\FOX _1_30\0001 SP-GTET-DSNT-SDLT-FLEX-BSAT-ACRT-CH\PORO\BULKD_5_REP_LIB

REPEAT SECTION

HALLIBURTON

TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
						75.95 ft
Cable Head-PROT01 30.00 lbs		Ø 3.625 in →			1.92 ft	
						74.03 ft
SP Sub-11441709 60.00 lbs		Ø 3.625 in →		← SP @ 72.26 ft	3.74 ft	
						70.30 ft
GTET-10811258 165.00 lbs		Ø 3.625 in →			8.52 ft	
				← GammaRay @ 64.23 ft		
						61.78 ft
	DSN Decentralizer-10755066 6.60 lbs	Ø 5.000 in* →				
DSNT-10735145 174.00 lbs		Ø 3.625 in →			9.69 ft	
				← DSN Far @ 54.84 ft ← DSN Near @ 54.09 ft		
						52.09 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	10735145	174.00	9.69		52.09	60.00
DCNT	DSN Decentralizer	10755066	6.60	5.13	*	55.42	300.00
SDLT	Spectral Density Tool	I145_M73803_P90	360.00	10.81		41.28	60.00
MICP	Microlog Pad	I145_M73803_P90	8.00	1.00	*	43.78	60.00
SDLP	Density Insite Pad	90	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: FOX _1_30\0001 SP-GTET-DSNT-SDLT-FLEX-BSAT-ACRT-CH\IDLE **Date: 29-Jul-12 08:24:53**

HALLIBURTON

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: C. HAVERKAMP **Calibration Date:** 29-Jul-12 08:01:45

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	41.7	api
Background + Calibrator	279.6	271.3	api
Calibrator	232.0	229.6	api

Shop	Field	Difference	Tolerance
232.0	229.6	2.4	+/- 9.00

DUAL SPACED NEUTRON SHOP CALIBRATION

Tool Name: DSNT - 10735145 **Reference Calibration Date:** 25-May-12 10:08:36

Engineer: C. HAVERKAMP **Calibration Date:** 27-Jun-12 11:14:40

Software Version: WL INSITE R3.6.0 (Build 3) **Calibration Version:** 1

Logging Source S/N: DSN-436

Tank Serial Number: 105060

Tank Serial Number: 105000
Reference value assigned to Tank: 51.680
Snow Block S/N: TRK_954
Calibration Tank Water Temperature: 88 degF
Min. Tool Housing Outside Diameter: 3.620 in

CALIBRATION CONSTANTS			
Measurement	Prev. Value	New Value	Control Limit On New Value
Gain:	0.944	0.942	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):	0.2114	0.2107	0.0007	+/- 0.0020
Calibrated Ratio:	9.74	9.72	0.024	+/- 0.050

VERIFIER		
Measurement	Value	Control Limit
Snow-Block Porosity (decp):	0.0775	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: 27-Jun-12 11:14:40
Engineer: C. HAVERKAMP
Calibration Date: 29-Jul-12 08:08:06
Software Version: WL INSITE R3.6.0 (Build 3)
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):	0.0775	0.0680	-0.0095	+/- 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: 24-Jul-12 19:54:45
Engineer: THOMAS HYDE
Calibration Date: 24-Jul-12 19:59:46
Software Version: WL INSITE R3.6.0 (Build 3)
Calibration Version: 1
Host Tool Name: DSNT - 10735145

CALIBRATION COEFFICIENTS			
Measurement	Previous Value	New Value	Control Limit On New Value
Pad Offset	-2668.67	-2670.41	-7000.00 - -1000.00
Pad Gain	0.0003985	0.0003943	0.000200 - 0.000600
Arm Offset	-1928.79	-1917.49	-5000.00 - 3000.00

Arm Gain	0.0005213	0.0005393	0.000300 - 0.000700
Arm Power	-0.000005267	-0.000006568	-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)	2.02	2.00	-0.02	+/- 0.20
Medium Ring (in)	3.79	3.75	-0.04	+/- 0.20
RING DIAMETER:				
Small Ring (in)	6.44	6.50	0.06	+/- 0.20
Medium Ring (in)	8.16	8.25	0.09	+/- 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 - 90**	**Reference Calibration Date:**	**02-Jun-12 11:09:43**
Engineer:	**T. HYDE**	**Calibration Date:**	**29-Jun-12 09:04:02**
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	1.0158	1.0464	0.90 - 1.10
Near Dens Gain	0.9886	1.0230	0.90 - 1.10
Near Peak Gain	0.9621	1.0156	0.90 - 1.10
Near Lith Gain	0.9402	0.9939	0.90 - 1.10
Far Bar Gain	0.9946	0.9998	0.90 - 1.10
Far Dens Gain	0.9848	0.9867	0.90 - 1.10
Far Peak Gain	0.9815	0.9785	0.90 - 1.10
Far Lith Gain	0.9534	0.9526	0.90 - 1.10
Near Bar Offset	0.0988	-0.1830	NONE
Near Dens Offset	0.3336	0.0256	NONE
Near Peak Offset	0.5531	0.1012	NONE
Near Lith Offset	0.7154	0.2570	NONE
Far Bar Offset	0.1961	0.1499	NONE
Far Dens Offset	0.2634	0.2476	NONE
Far Peak Offset	0.2602	0.2849	NONE
Far Lith Offset	0.4226	0.4216	NONE
Near Bar Background	877.65	877.55	700 - 1450
Near Dens Background	291.96	292.38	230 - 480
Near Peak Background	129.15	128.10	100 - 210
Near Lith Background	157.44	157.52	125 - 260
Far Bar Background	591.72	591.36	450 - 900

Far Dens Background	232.70	231.62	175 - 345
Far Peak Background	92.68	92.15	70 - 140
Far Lith Background	96.01	96.30	75 - 145

CALIBRATION BLOCK SUMMARY

Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.692	1.690	-0.002	+/- 0.015
Pe	2.517	2.562	0.045	+/- 0.150
ALUMINUM				
Density (g/cc)	2.595	2.590	-0.005	+/- 0.01500
Pe	3.042	3.136	0.094	+/- 0.150

TOOL SUMMARY

Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	-0.0006	+/- 0.0110	-0.0014	+/- 0.0140
Magnesium Block	0.0002	+/- 0.0110	-0.0009	+/- 0.0140
Aluminum Block	0.0001	+/- 0.0110	0.0002	+/- 0.0140
Resolution	8.86	6.00 - 11.50	8.91	6.00 - 11.50
Internal Verifier(B+D+P+L)	1456	1200 - 2700	1011	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:** 29-Jun-12 09:04:02

Engineer: C. HAVERKAMP **Calibration Date:** 29-Jul-12 08:01:39

Software Version: WL INSITE R3.6.0 (Build 3) **Calibration Version:** 1

Pad Temperature: 85.8 degF

DENSITY FIELD CALIBRATION SUMMARY

Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1455.558	1448.155	-7.403	15.388
Far (B+D+P+L) cps	1011.439	1007.326	-4.113	16.994
Near Resolution	8.86	8.91	0.050	0.50
Far Resolution	8.91	9.15	0.240	1.00

PASS/FAIL SUMMARY

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

SDLT CALIPER FIELD CALIBRATION

Tool Name:	**SDLT - I145_M73803_P90**	**Reference Calibration Date:**	**24-Jul-12 19:59:46**
Engineer:	**C. HAVERKAMP**	**Calibration Date:**	**29-Jul-12 08:13:18**
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	3.75	-0.00	+/- 0.10
Ring Diameter	8.25	8.31	0.06	+/- 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	229.6	----------	2.4	+/- 9.00	api
DSNT-10735145						
Snow-Block Porosity	0.0775	0.0680	----------	0.0095	+/- 0.0150	decp
SDLT-I145_M73803_P90						
Pad Extension	3.75	3.75	----------	0.00	+/-0.10	in
Ring Diameter	8.25	8.31	----------	-0.06	+/-0.15	in
SDLT Pad-90						
Near(B+D+P+L)	1455.558	1448.155	----------	7.403	+/-15.388	cps
Far(B+D+P+L)	1011.439	1007.326	----------	4.113	+/-16.994	cps

Data: FOX _1_30\0001 SP-GTET-DSNT-SDLT-FLEX-BSAT-ACRT-CH\IDLE **Date: 29-Jul-12 08:27:00**

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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	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	6000.00	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	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

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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
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: FOX _1_30\0001 SP-GTET-DSNT-SDLT-FLEX-BSAT-ACRT-CH\IDLE **Date: 29-Jul-12 08:28:06**

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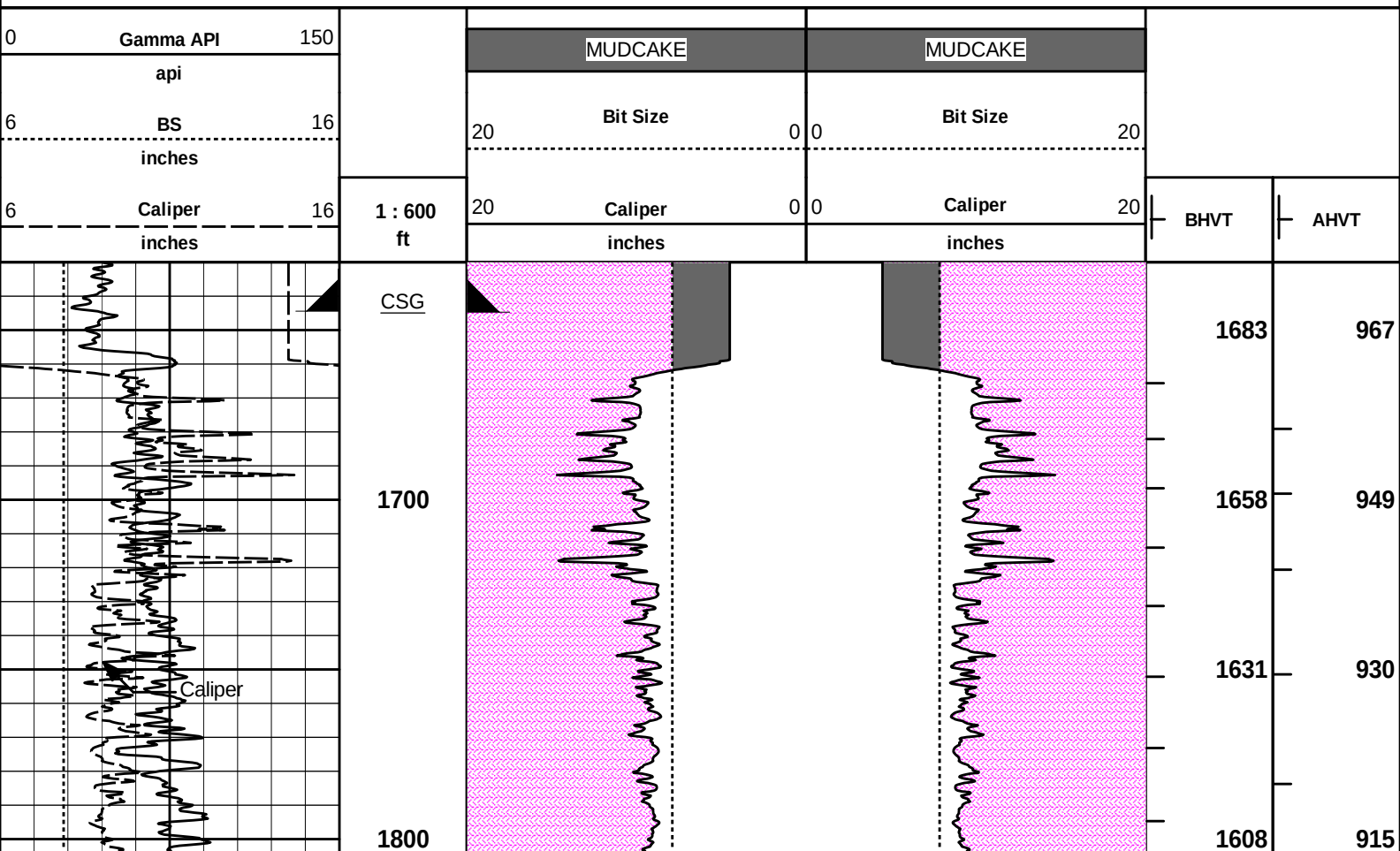
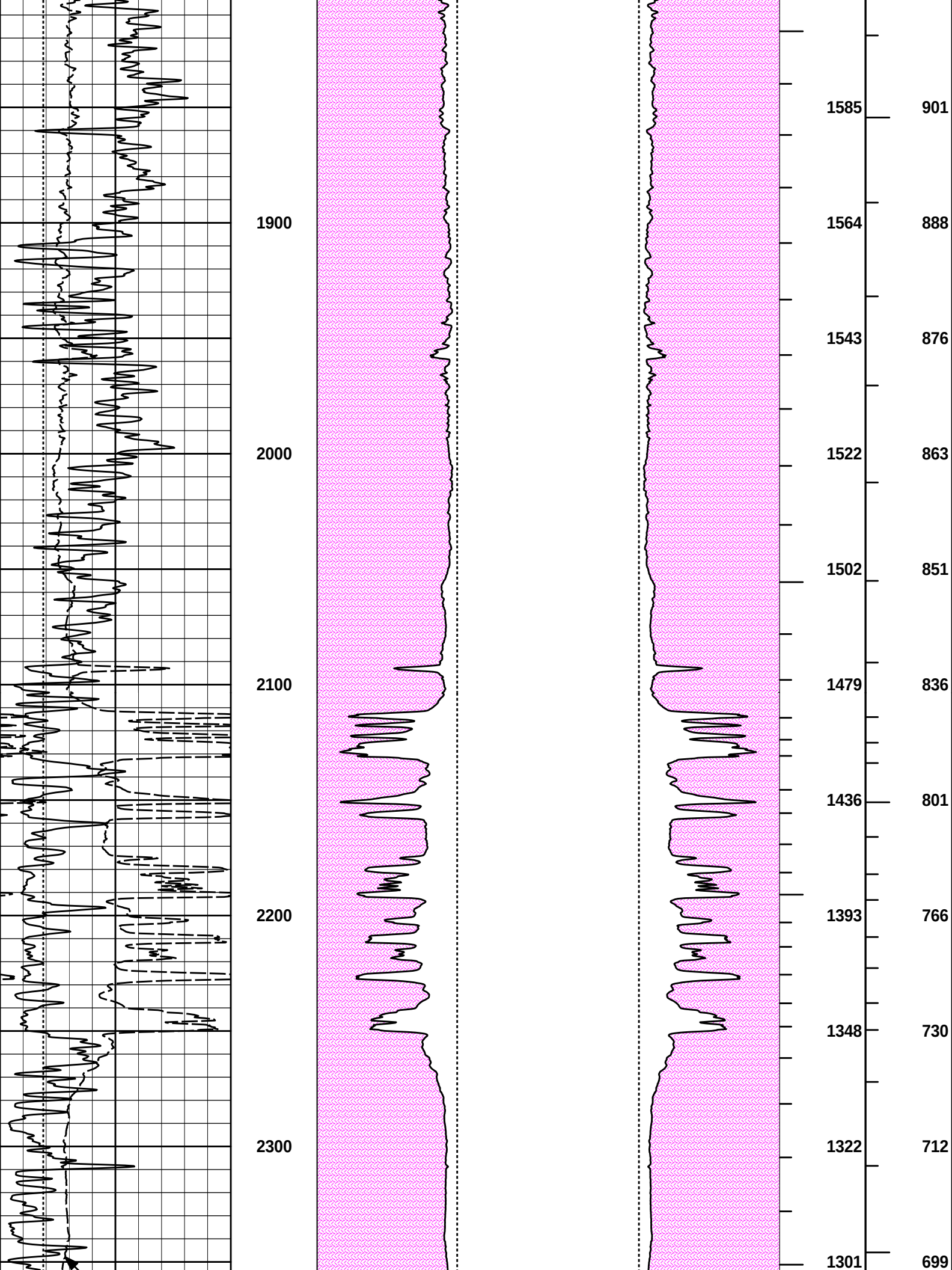
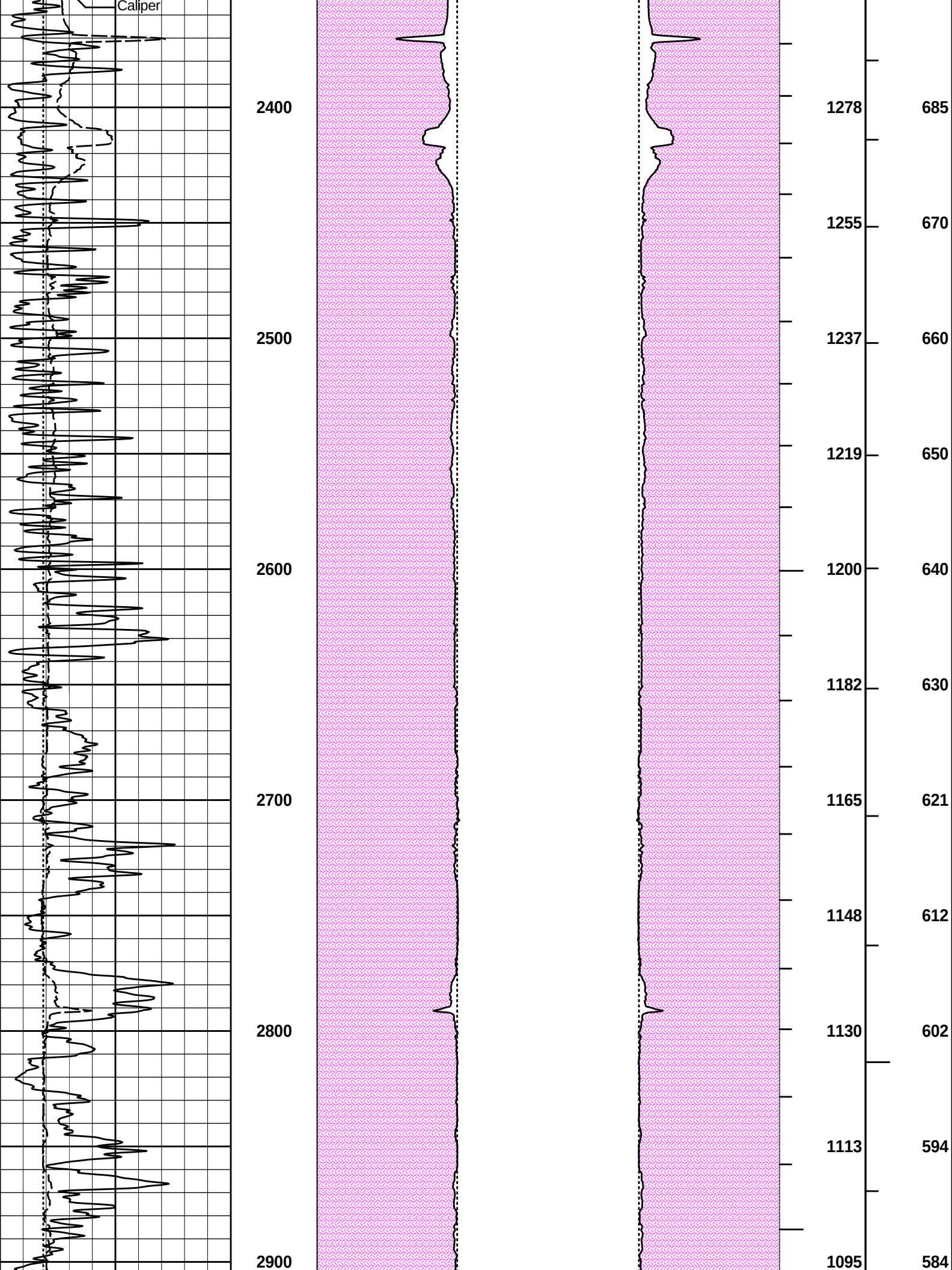
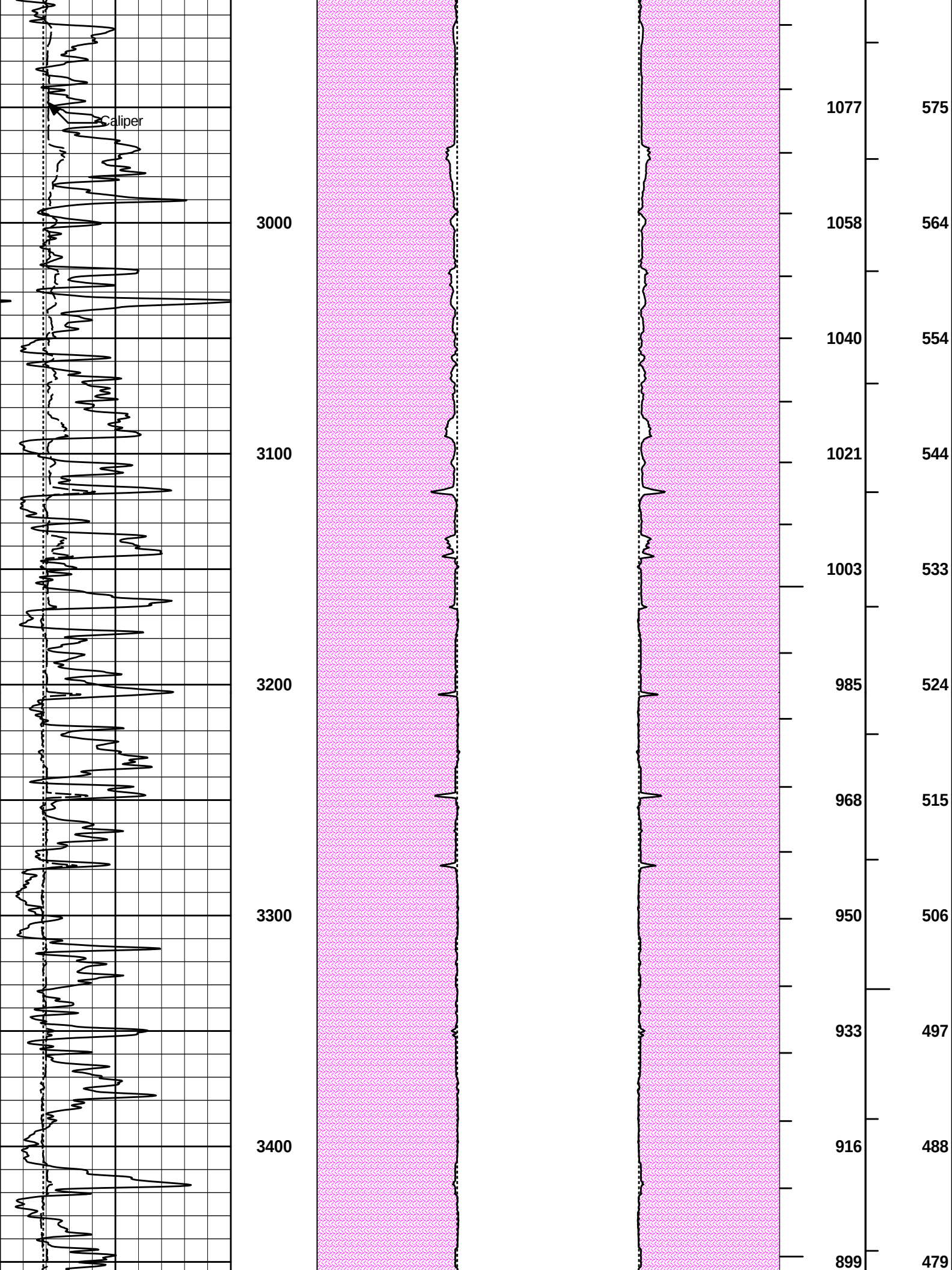
Plot Time: 29-Jul-12 11:36:00
Plot Range: 1630 ft to 5995.67 ft
Data: FOX _1_30\Well Based\CASING
Plot File: \\-LOCAL-\FOX _1_30\0001 SP-GTET-DSNT-SDLT-FLEX-BSAT-ACRT-CH\PORO\AHV_5_5_INCH_2_IQ_LIB

ANNULAR HOLE VOLUME PLOT (5.5 INCH)




1900
2000
2100
2200
2300
1585
1564
1543
1522
1502
1479
1436
1393
1348
1322
1301
901
888
876
863
851
836
801
766
730
712
699


Caliper
2400
2500
2600
2700
2800
2900
1278
1255
1237
1219
1200
1182
1165
1148
1130
1113
1095
685
670
660
650
640
630
621
612
602
594
584


Caliper
3000
3100
3200
3300
3400
1077
575
1058
564
1040
554
1021
544
1003
533
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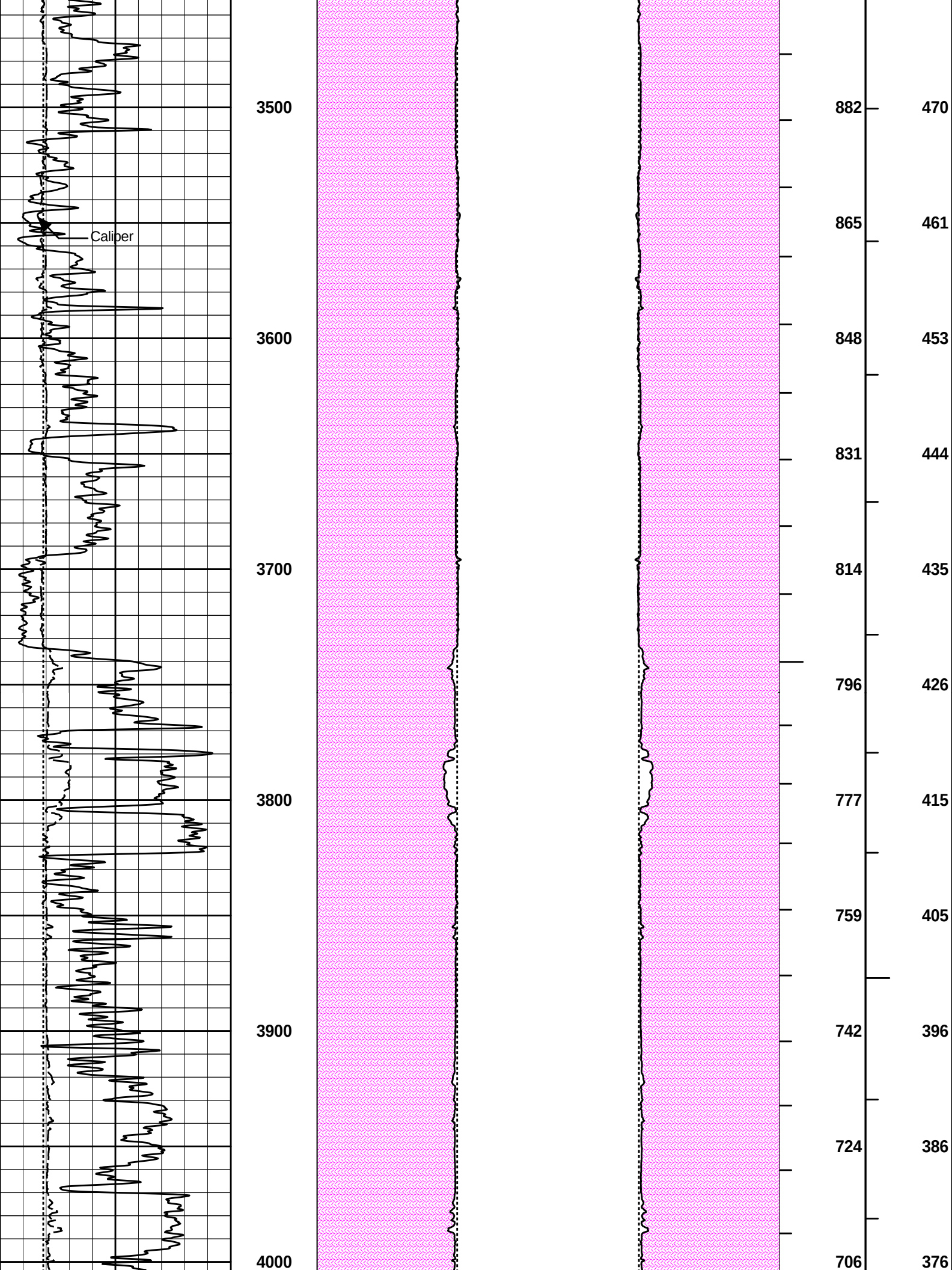
Caliber
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3600
3700
3800
3900
4000
882
865
848
831
814
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759
742
724
706
470
461
453
444
435
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396
386
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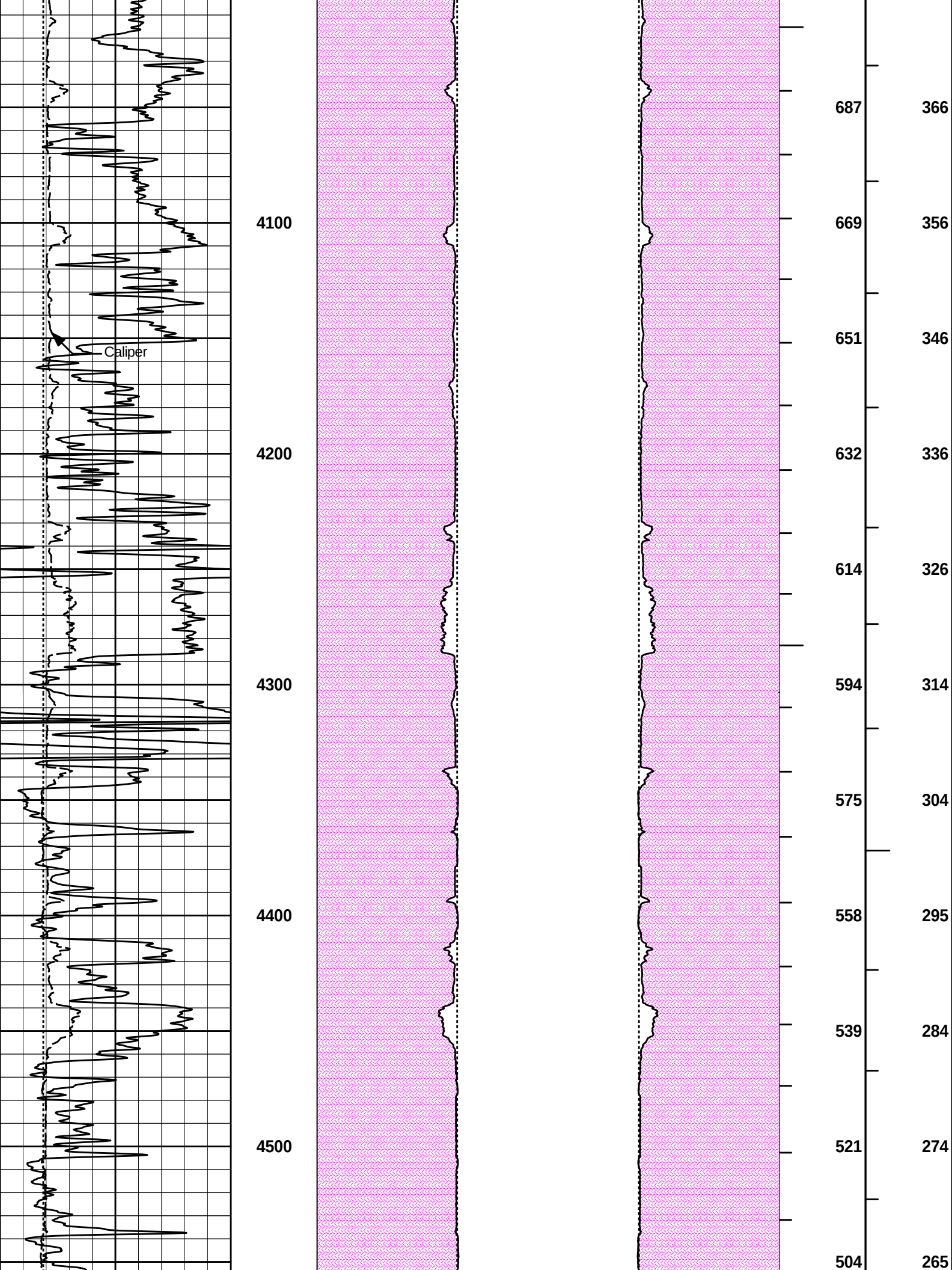
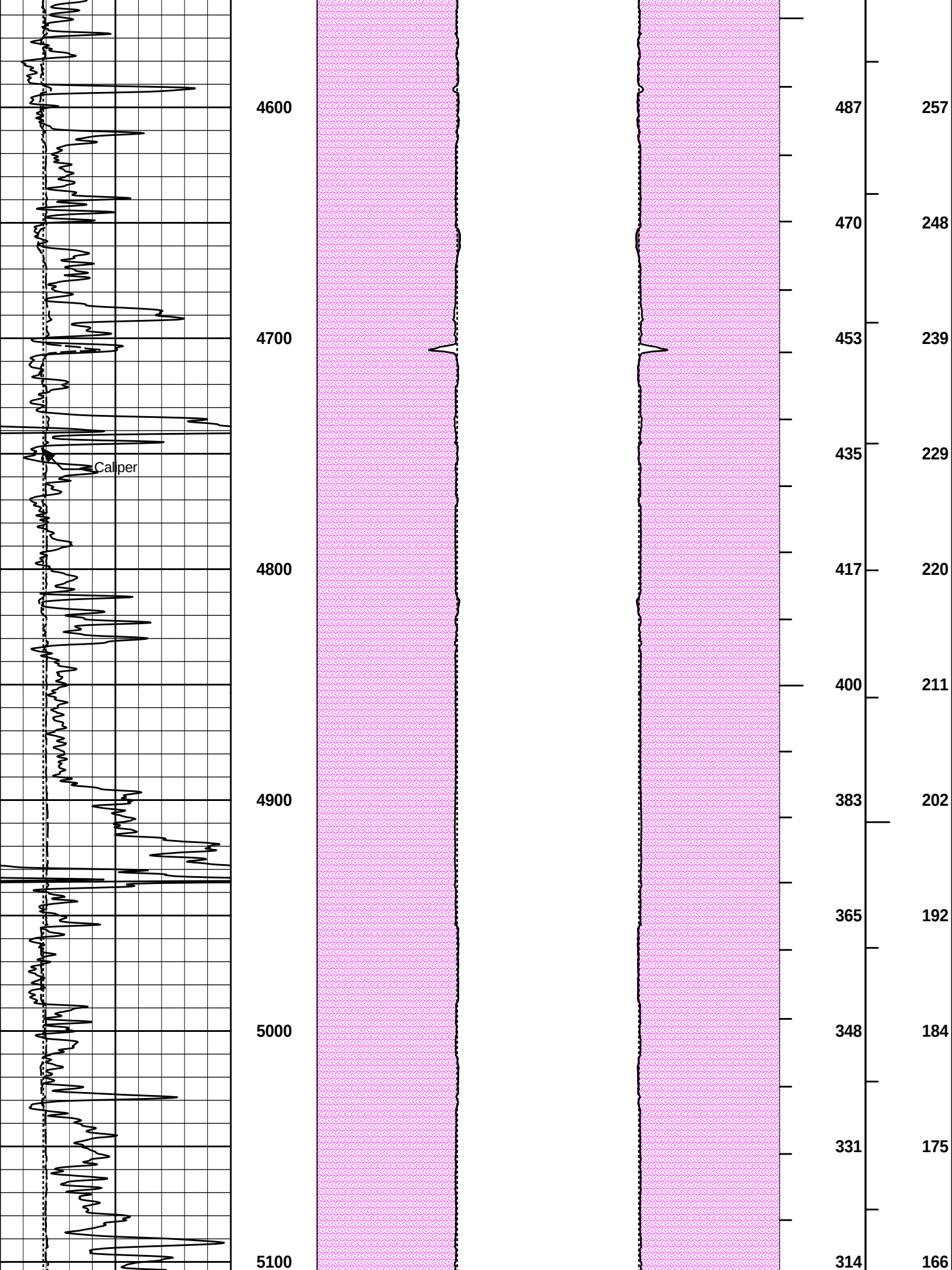

Caliper
4100
4200
4300
4400
4500
687
669
651
632
614
594
575
558
539
521
504
366
356
346
336
326
314
304
295
284
274
265


Caliper
4600
4700
4800
4900
5000
5100
487
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453
435
417
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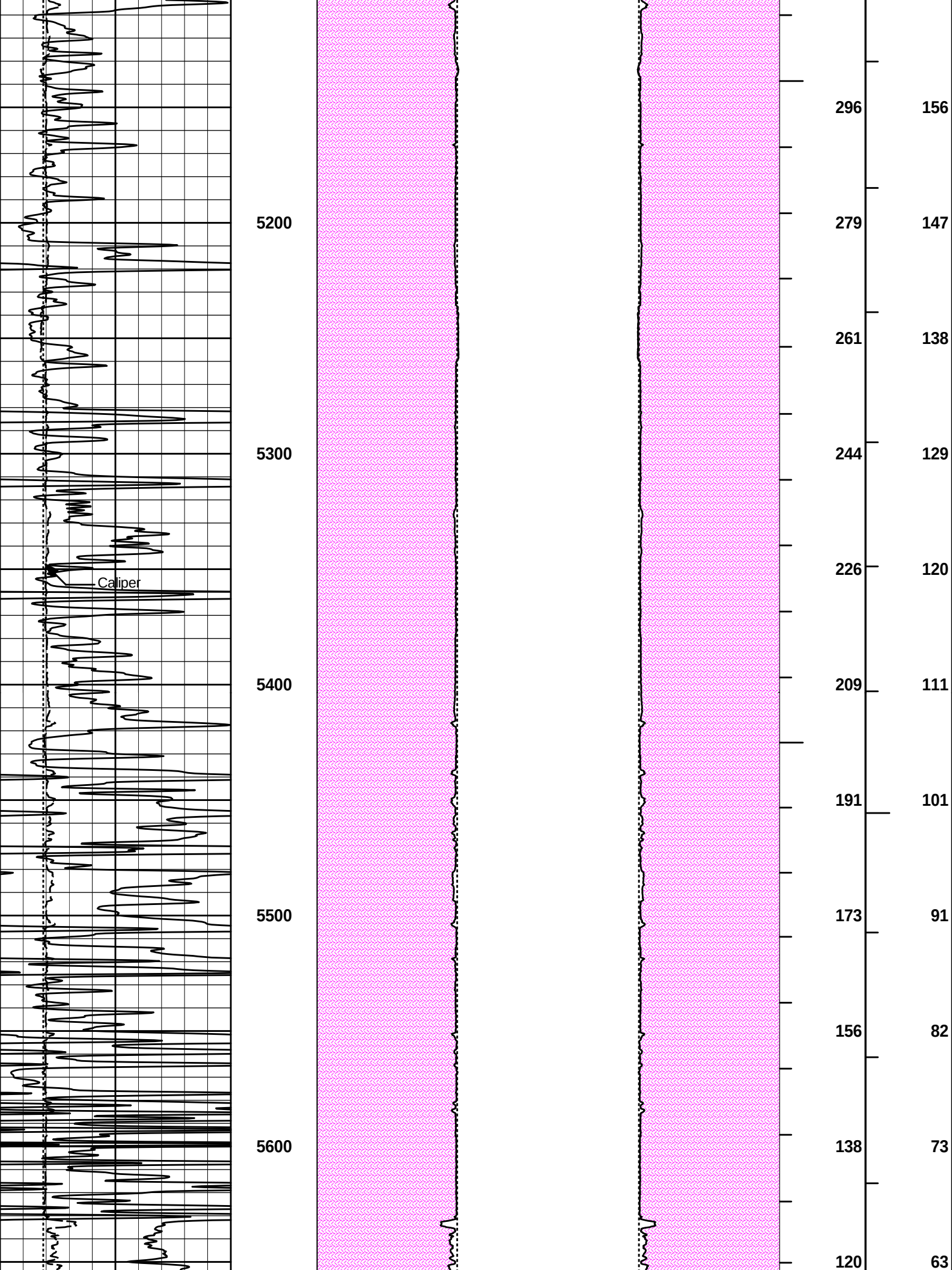
175
166


Caliper
5200
5300
5400
5500
5600
296
279
261
244
226
209
191
173
156
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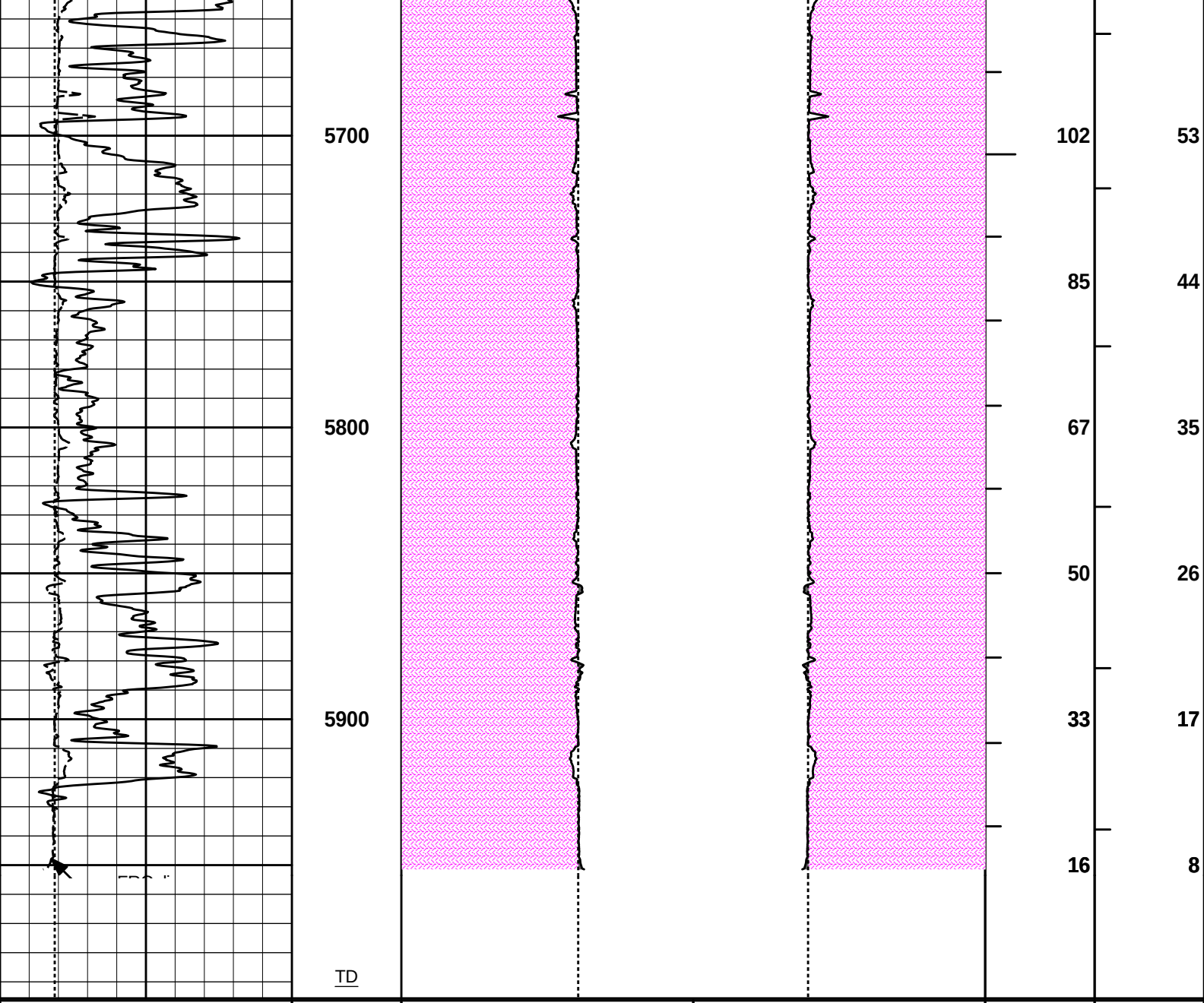
73
63



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

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Plot Time: 29-Jul-12 11:36:09
Plot Range: 1630 ft to 5995.67 ft
Data: FOX _1_30\Well Based\CASING\
Plot File: \\-LOCAL-\FOX _1_30\0001 SP-GTET-DSNT-SDLT-FLEX-BSAT-ACRT-CH\PORO\AHV_5_5_INCH_2_IQ_LIB

ANNULAR HOLE VOLUME PLOT (5.5 INCH)

COMPANY	**RAYDON EXPLORATION, INC.**
WELL	**FOX 1-30**
FIELD	**KISMET**

COUNTY	**MEADE**	STATE	**KANSAS**

HALLIBURTON

SPECTRAL DENSITY
DUAL SPACED NEUTRON
LOG