

HALLIBURTON

SPECTRAL DENSITY DUAL SPACED NEUTRON MICROLOG

COMPANY		DESTINY PETROLEUM	
WELL		LINDA 3504 SWD 1-5	
FIELD/BLOCK		WILDCAT	
COUNTY		SUMNER	
STATE		KANSAS	
Permanent Datum		GL	Elev. 1199.0 ft
Log measured from		KB	D.F. 1212.0 ft
Drilling measured from		KB	G.L. 1199.0 ft
Date	05-Oct-17		
Run No.	1		
Depth - Driller	5400.0 ft		
Depth - Logger	5376.0 ft		
Bottom - Logged Interval	5366		
Top - Logged Interval	315		
Casing - Driller	9.625 in @ 315.0 ft		
Casing - Logger	315.0 ft		
Bit Size	8.750 in @		
Type Fluid in Hole	Water Based Mud		
Density	9.1 ppg	38.00	sl/qt
PH	11.20 pH	8.5	cp/m
Source of Sample	MUD PIT		
Rm @ Meas. Temperature	0.24 ohmm @ 84.00 degF		
Rmf @ Meas. Temperature	0.19 ohmm @ 80.00 degF		
Rmc @ Meas. Temperature	0.31 ohmm @ 80.00 degF		
Source Rmf	Rmc		
Rm @ BHT	0.14 ohmm @ 145.0 degF		
Time Since Circulation	18:00 hr		
Time on Bottom	05-Oct-17 03:33		
Max. Rec. Temperature	145.00 degF @ 5376.0 ft		
Equipment	12156883 EL RENO, OK		
Recorded By	WHITLOCK		
Witnessed By	REID McCARTY		

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Service Ticket No.: 904342231		API No.: 15-191-22795-00-00		PGM Version: WL INSITE R5.0.5 (Build 8)	
CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE			RESISTIVITY SCALE CHANGES		
Date	Sample No.	Type Log	Depth	Scale Up Hole	Scale Down Hole
Depth-Driller					
Type Fluid in Hole					
Density	Viscosity				
Ph	Fluid Loss				
Source of Sample			RESISTIVITY EQUIPMENT DATA		
Rm @ Meas. Temp	@	Run No.	Tool Type & No.	Pad Type	Tool Pos.
Rmf @ Meas. Temp.	@				
Rmc @ Meas. Temp.	@				
Source Rmf	Rmc				
Rm @ BHT	@				
Rmf @ BHT	@				
Rmc @ BHT	@				
EQUIPMENT DATA					
GAMMA		ACOUSTIC		DENSITY	
Run No.	Run No.	Run No.	Run No.	Run No.	Run No.
Serial No.	Serial No.	Serial No.	Serial No.	Serial No.	Serial No.
Model No.	Model No.	Model No.	Model No.	Model No.	Model No.
Diameter	No. of Cent.	Diameter	Diameter	Diameter	Diameter
Detector Model No.	Spacing	Log Type	Log Type	Log Type	Log Type
Type		Source Type	Source Type	Source Type	Source Type
Length	LSA [Y/N]	Serial No.	Serial No.	Serial No.	Serial No.
Distance to Source	FWDA [Y/N]	Strength	Strength	Strength	Strength
LOGGING DATA					
GENERAL		GAMMA		ACOUSTIC	
Run	Depth	Speed	Scale	Scale	Matrix
No.	From To	ft/min	L R	L R	Matrix

DIRECTIONAL INFORMATION

Maximum Deviation @ KOP @

Remarks: 7" CASING USED FOR ANNULAR HOLE VOLUME

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.

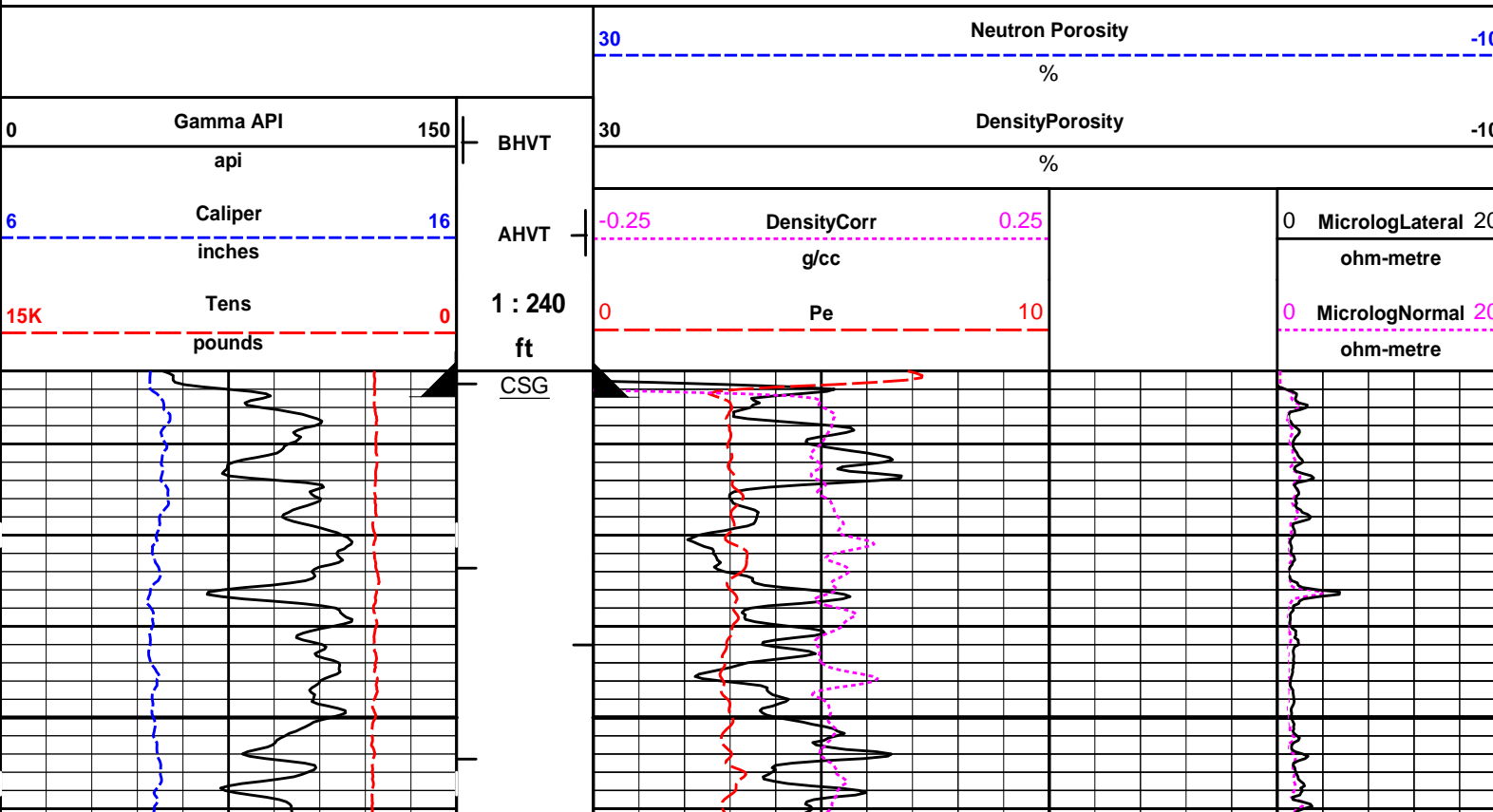
HALLIBURTON

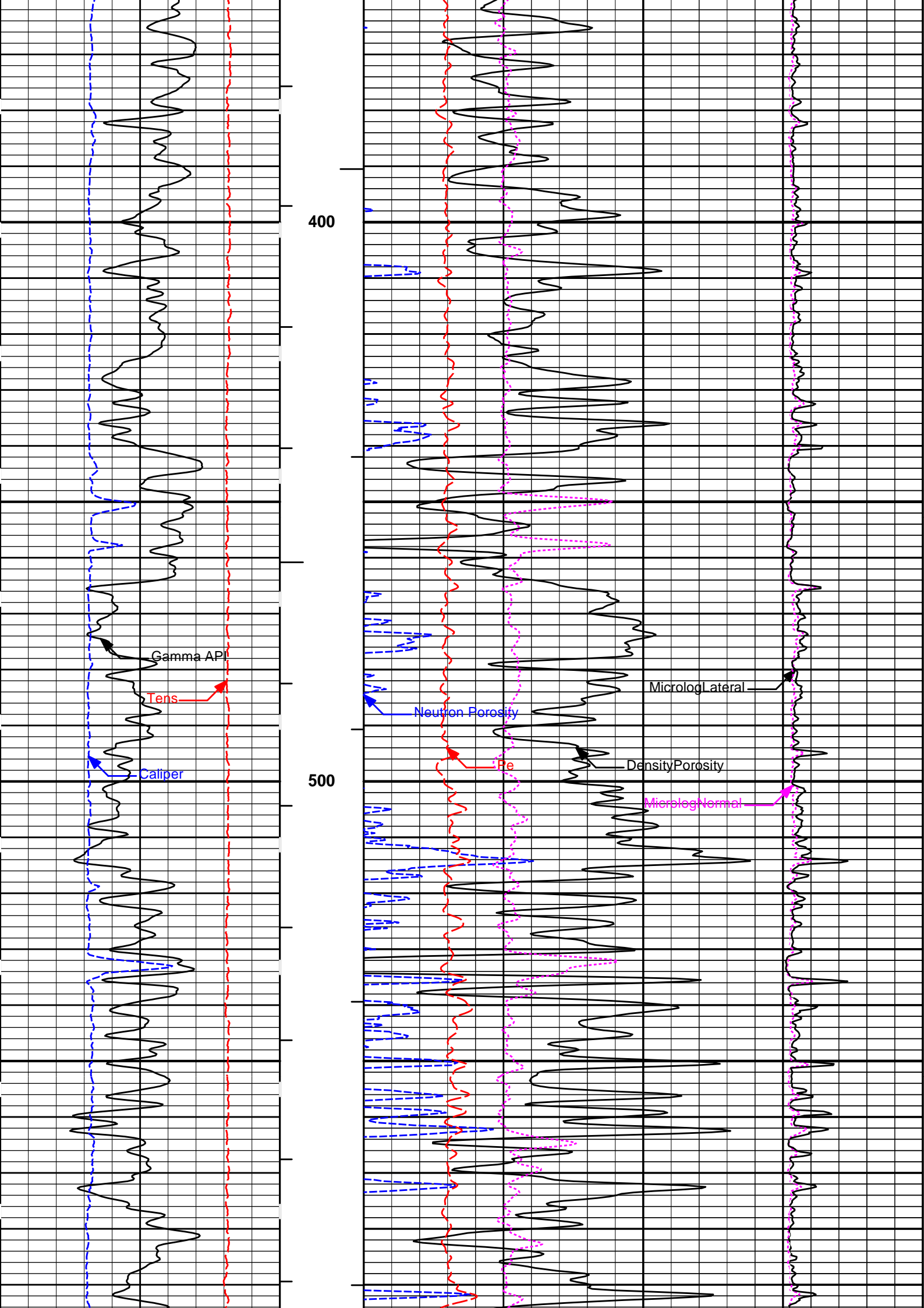


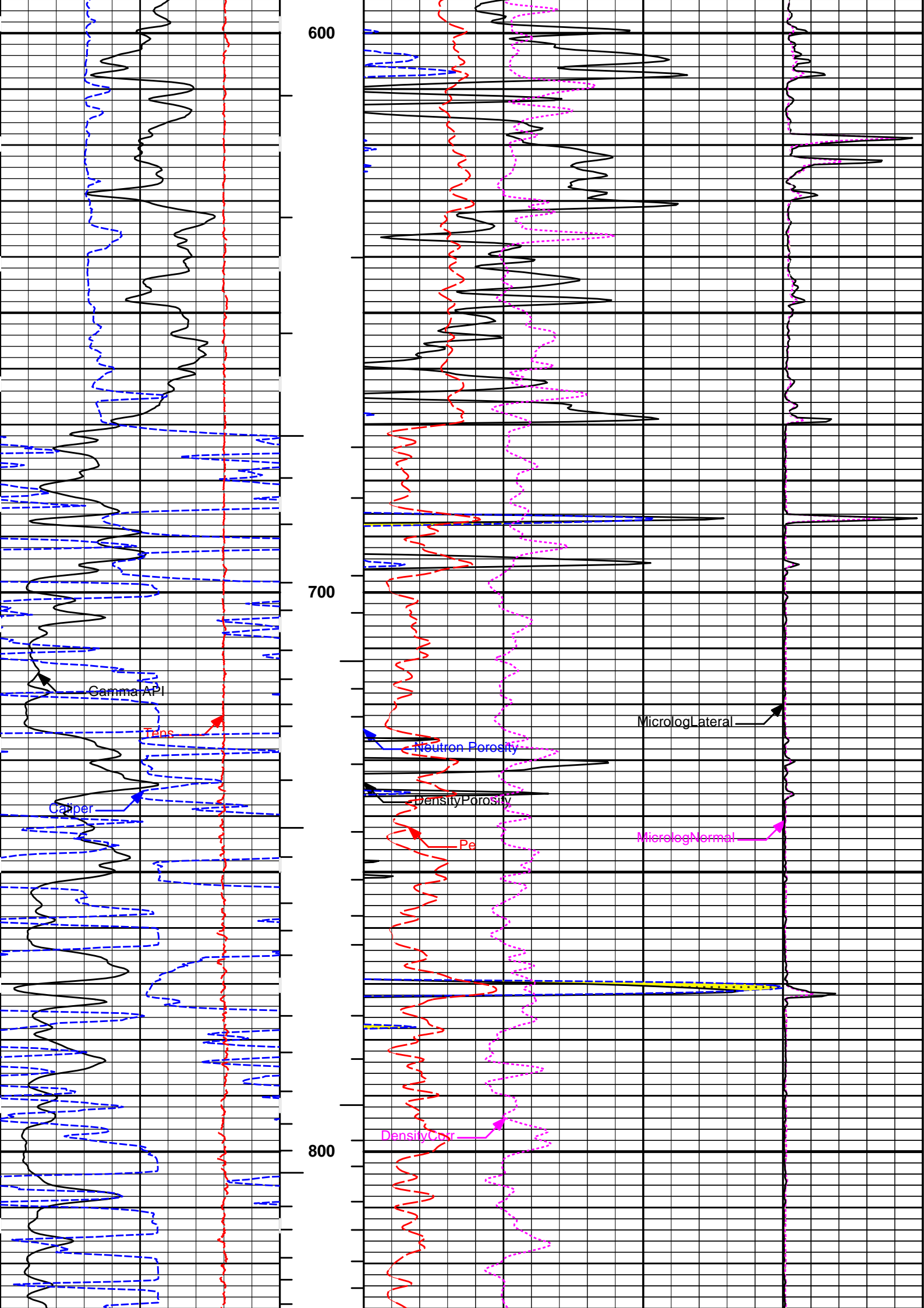
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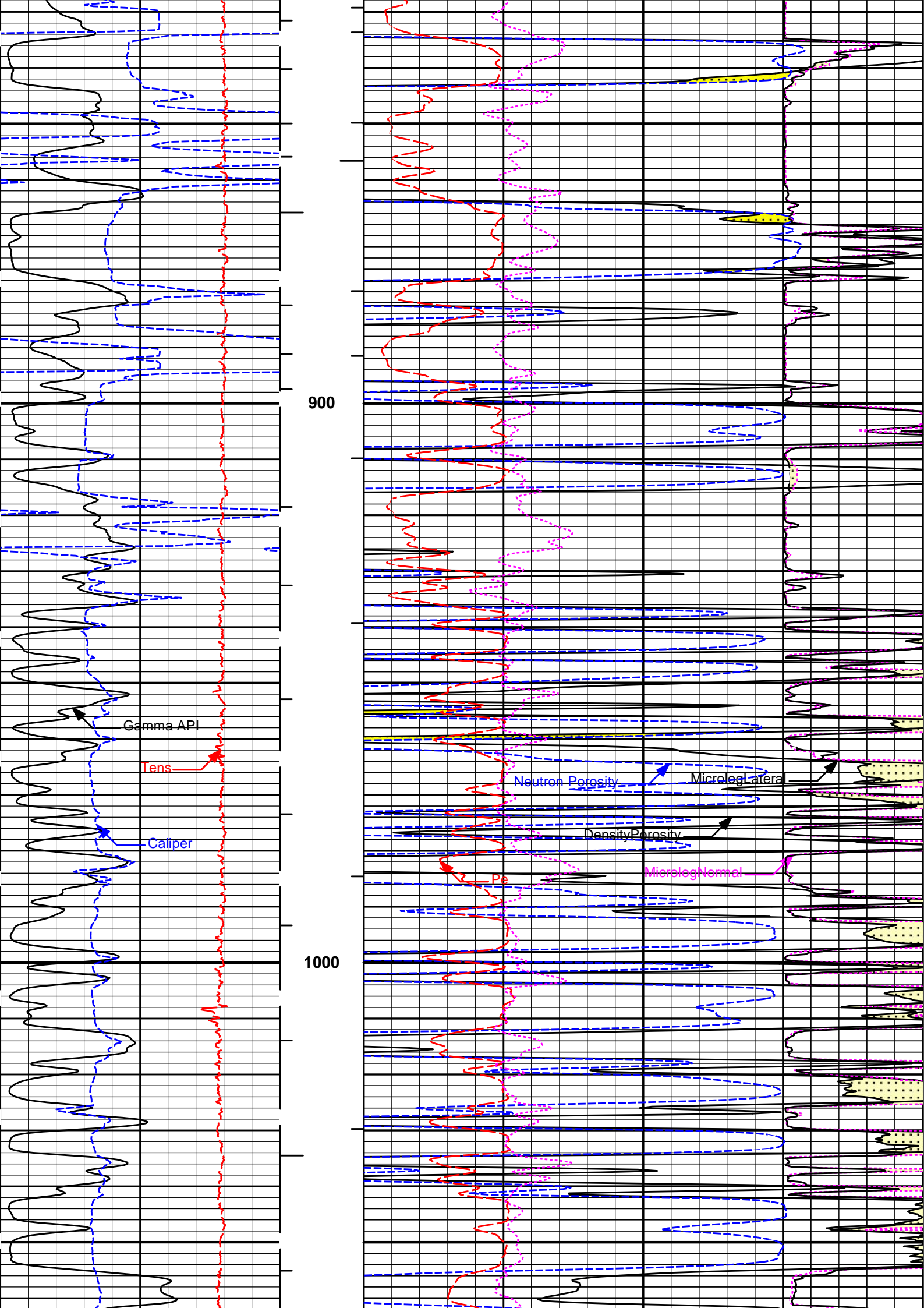
5 INCH MAIN LOG

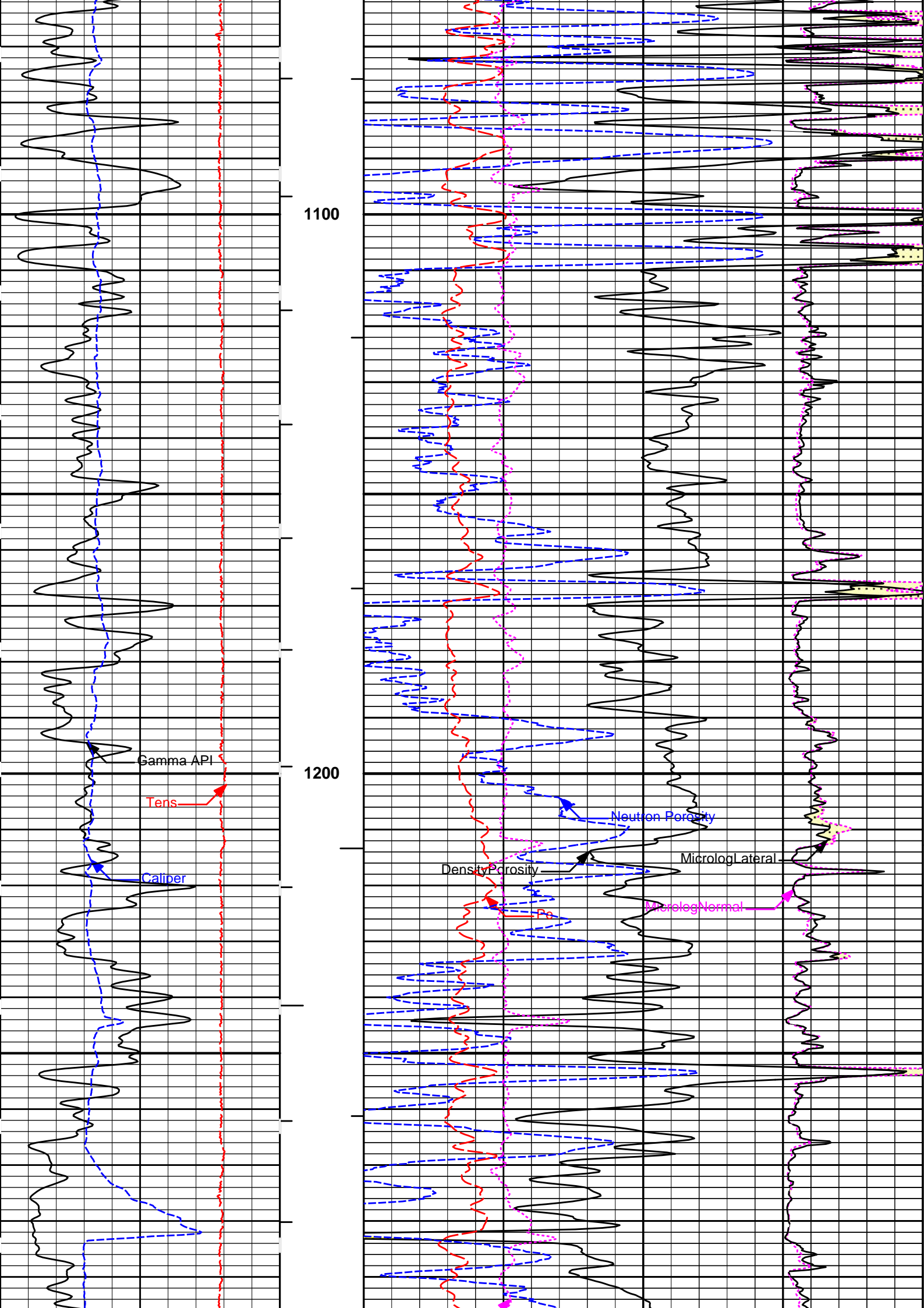
MAIN SECTION 5" PER 100'

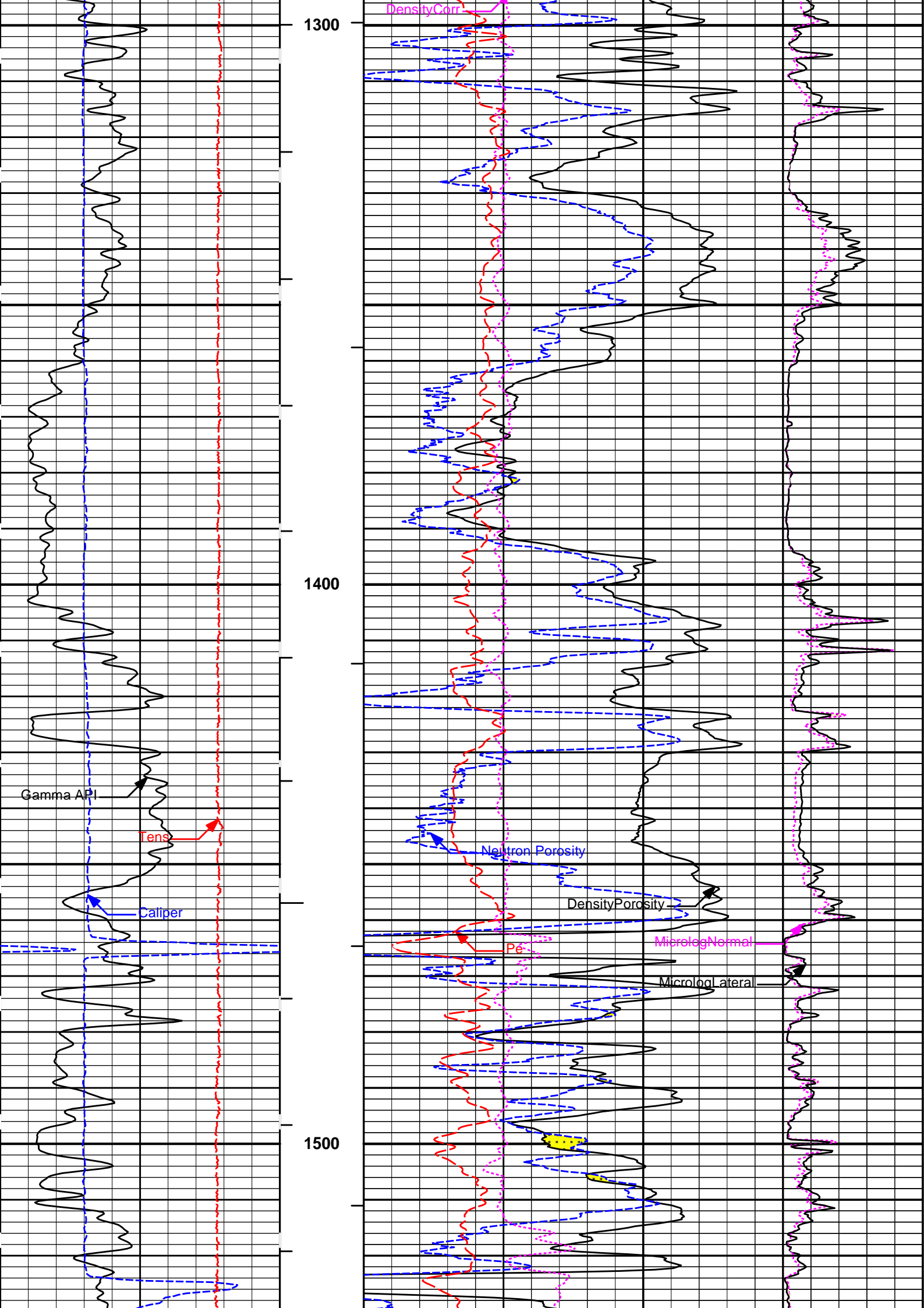












1300

1400

1500

DensityCorr

Gamma API

Tens

Caliper

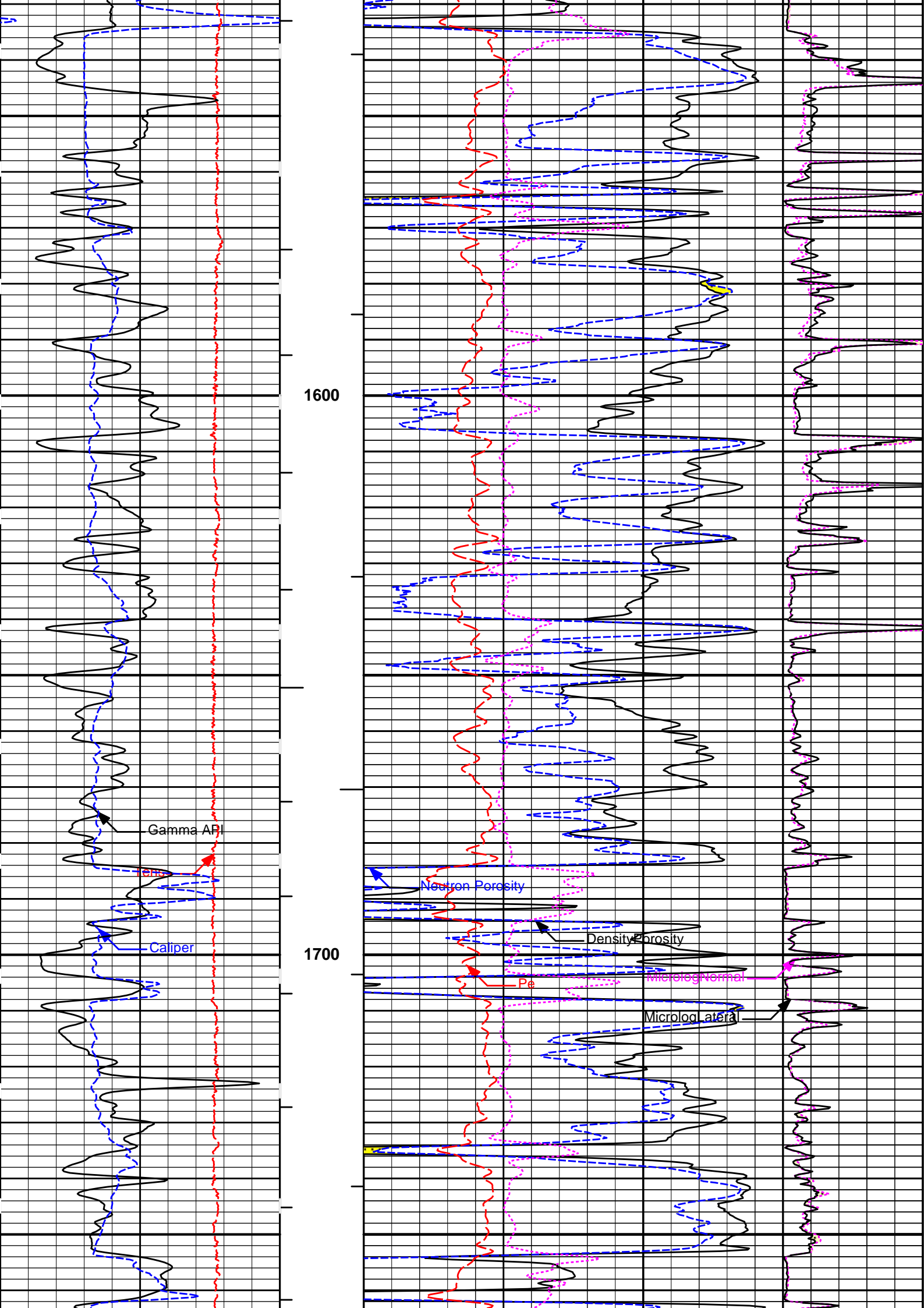
Neutron Porosity

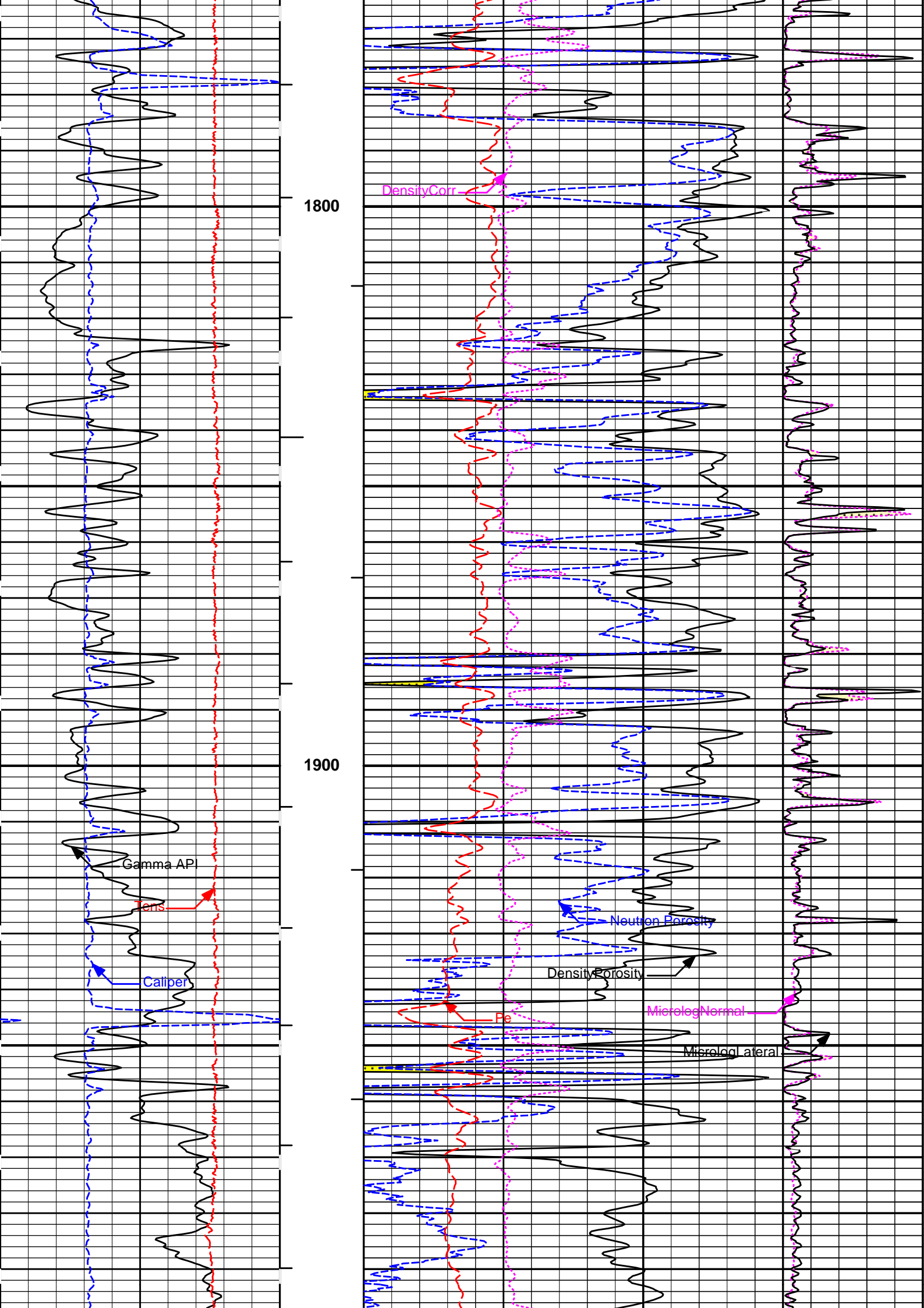
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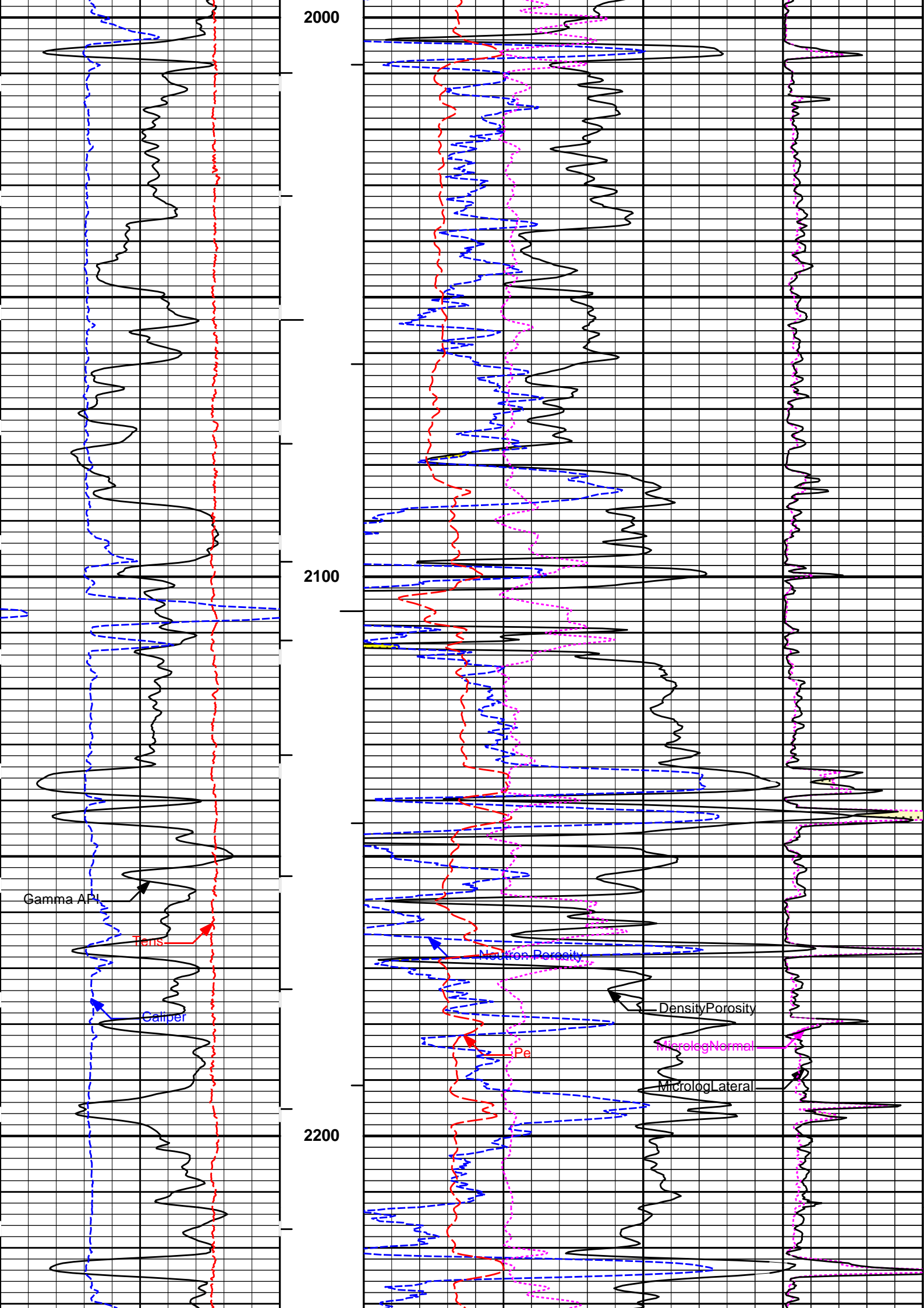
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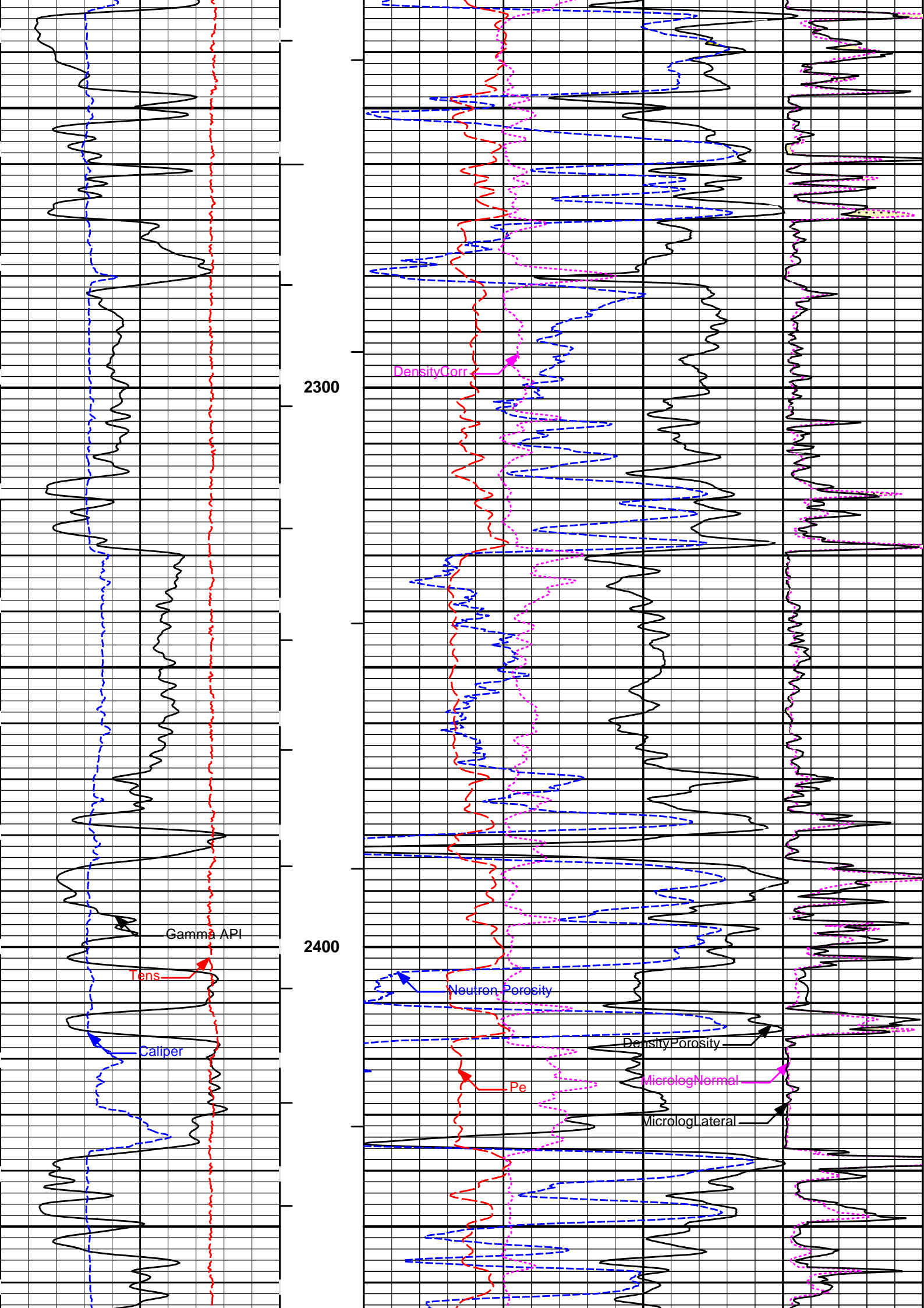
MicrologNormal

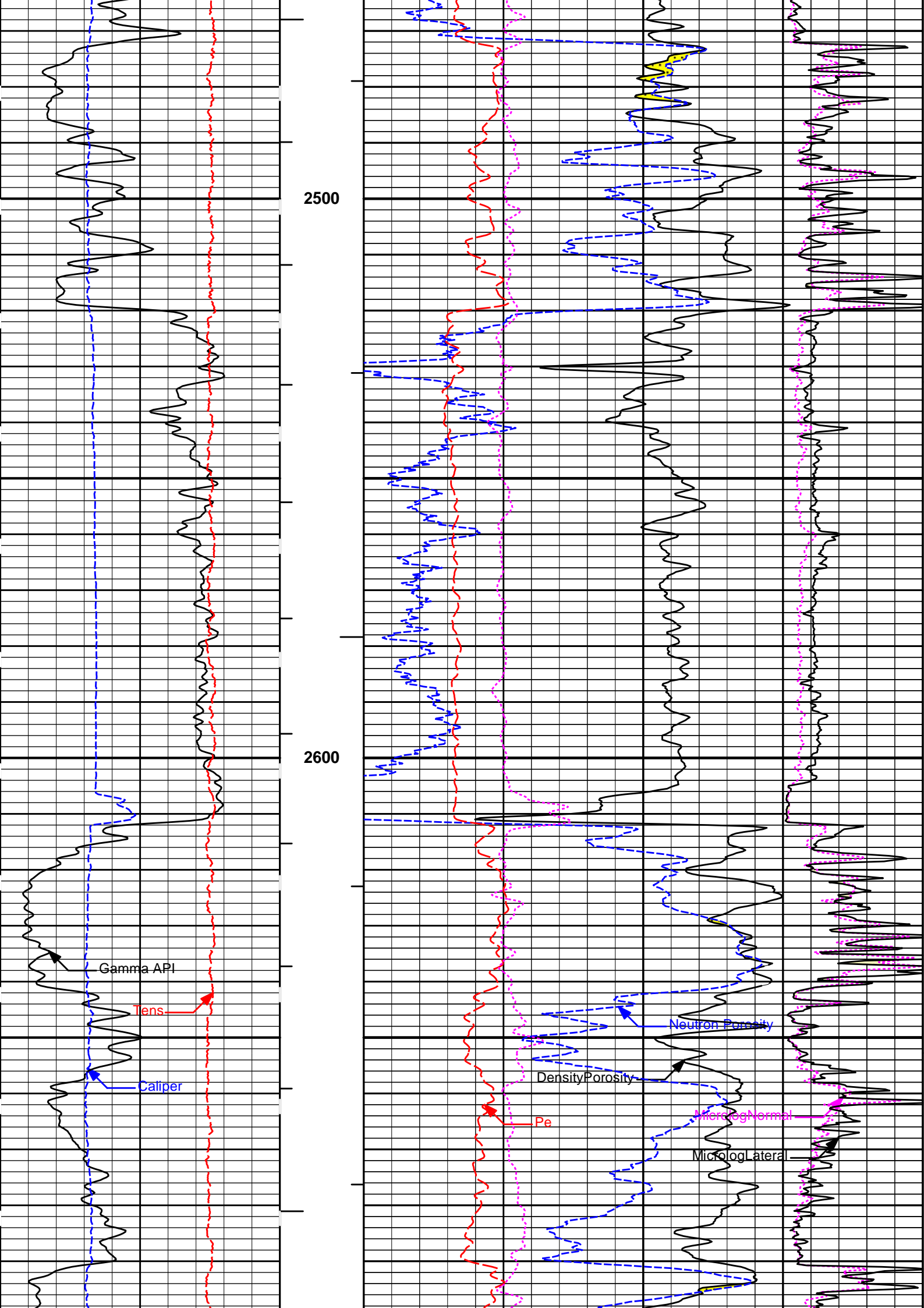
MicrologLateral

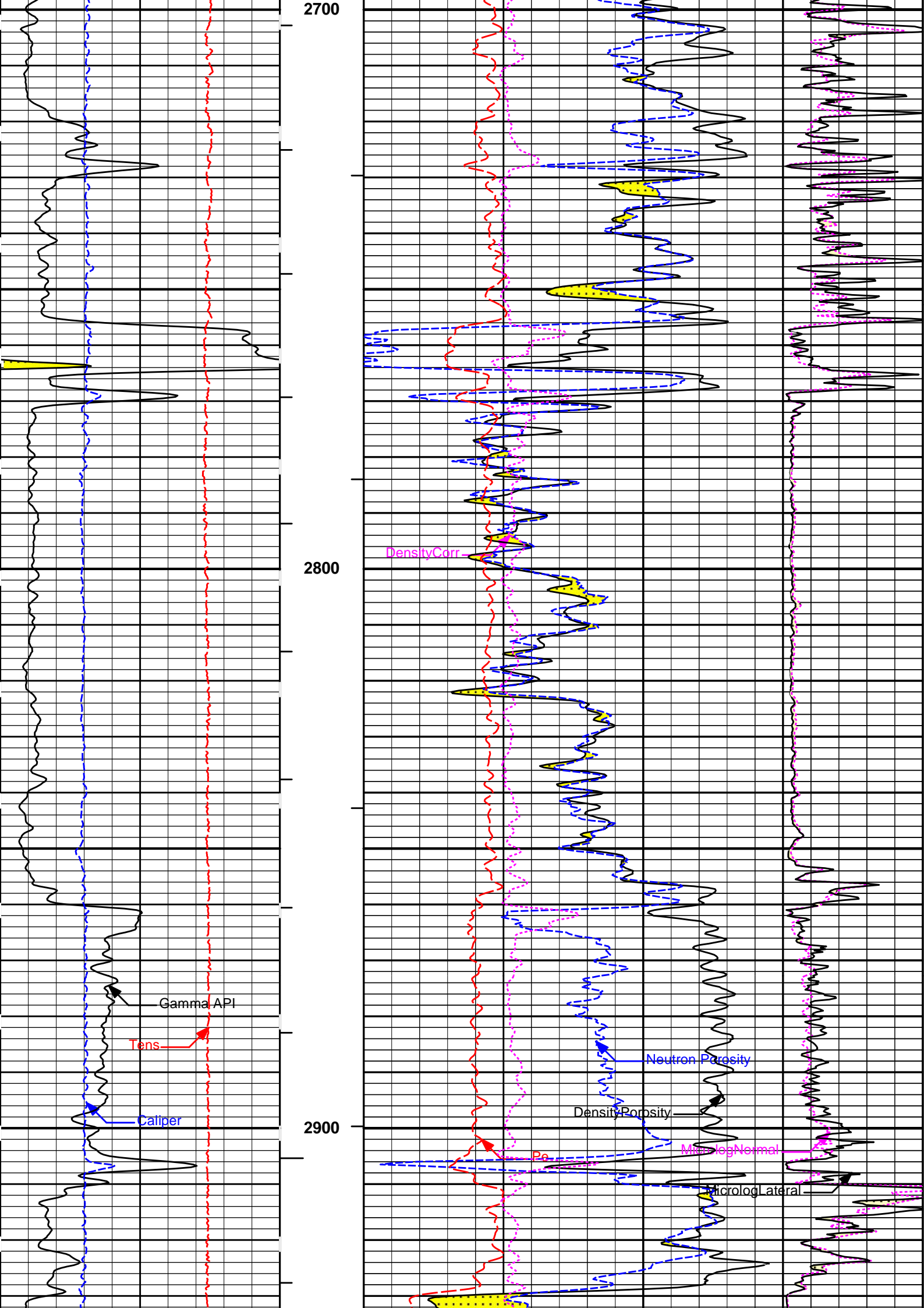


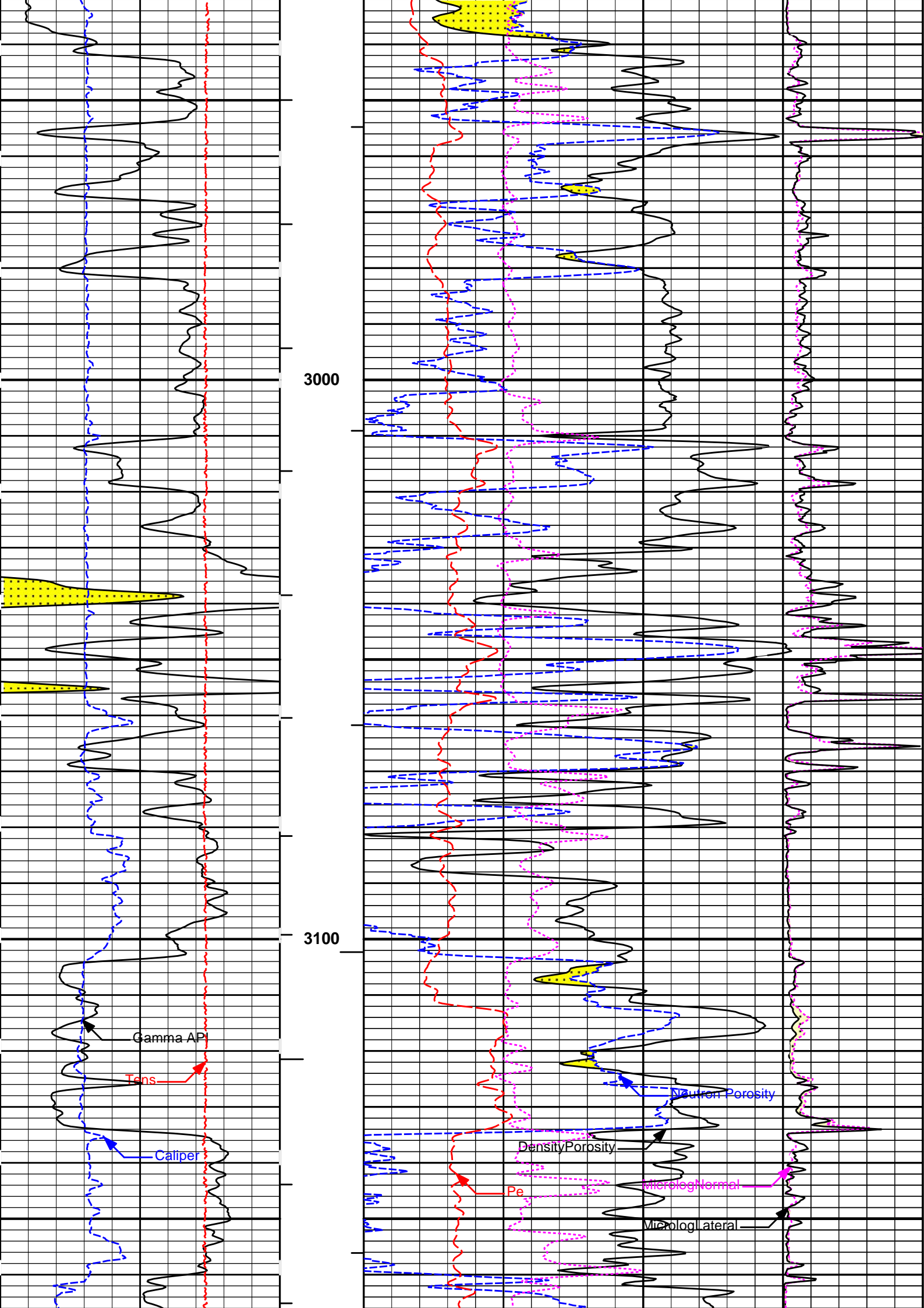


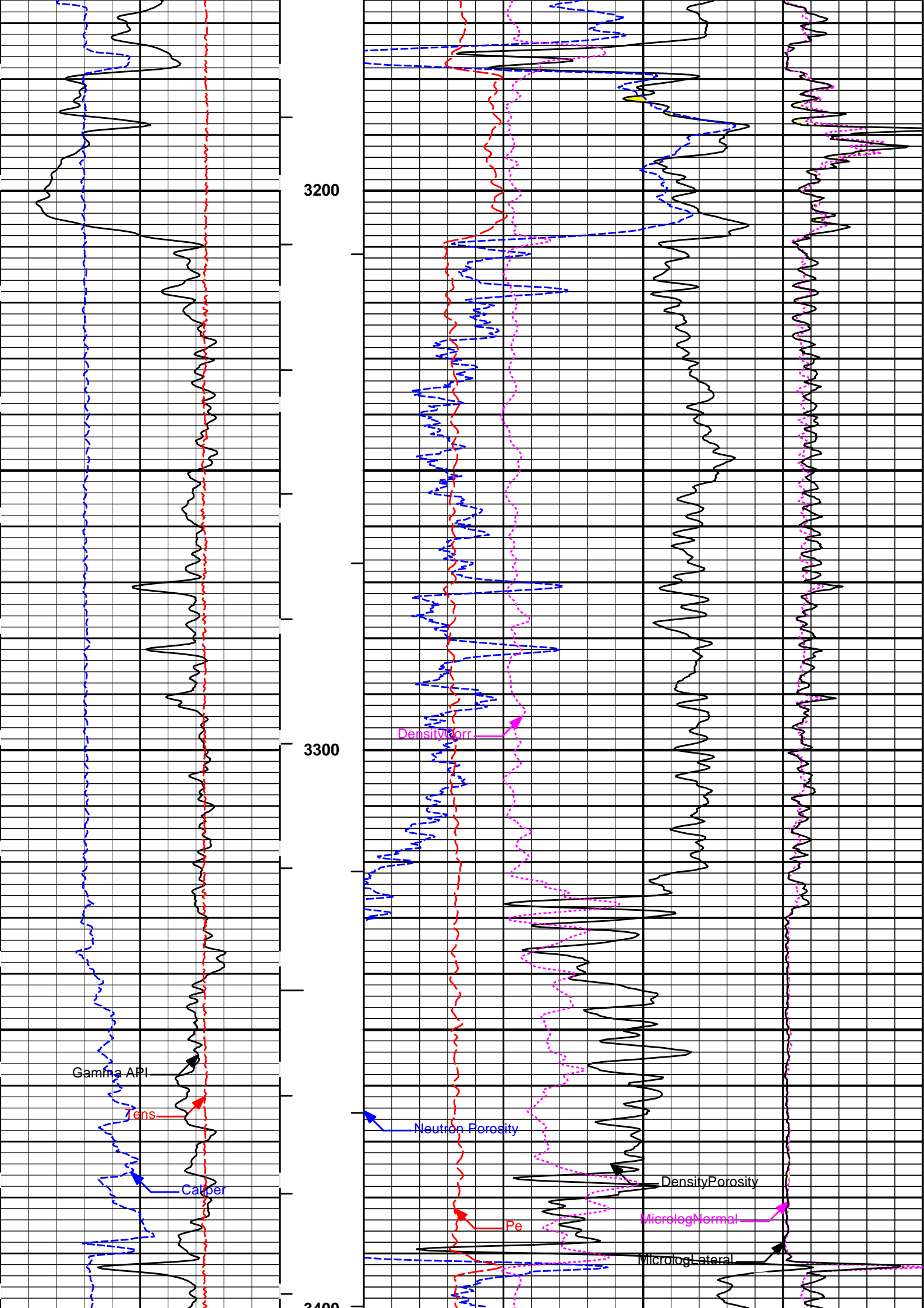


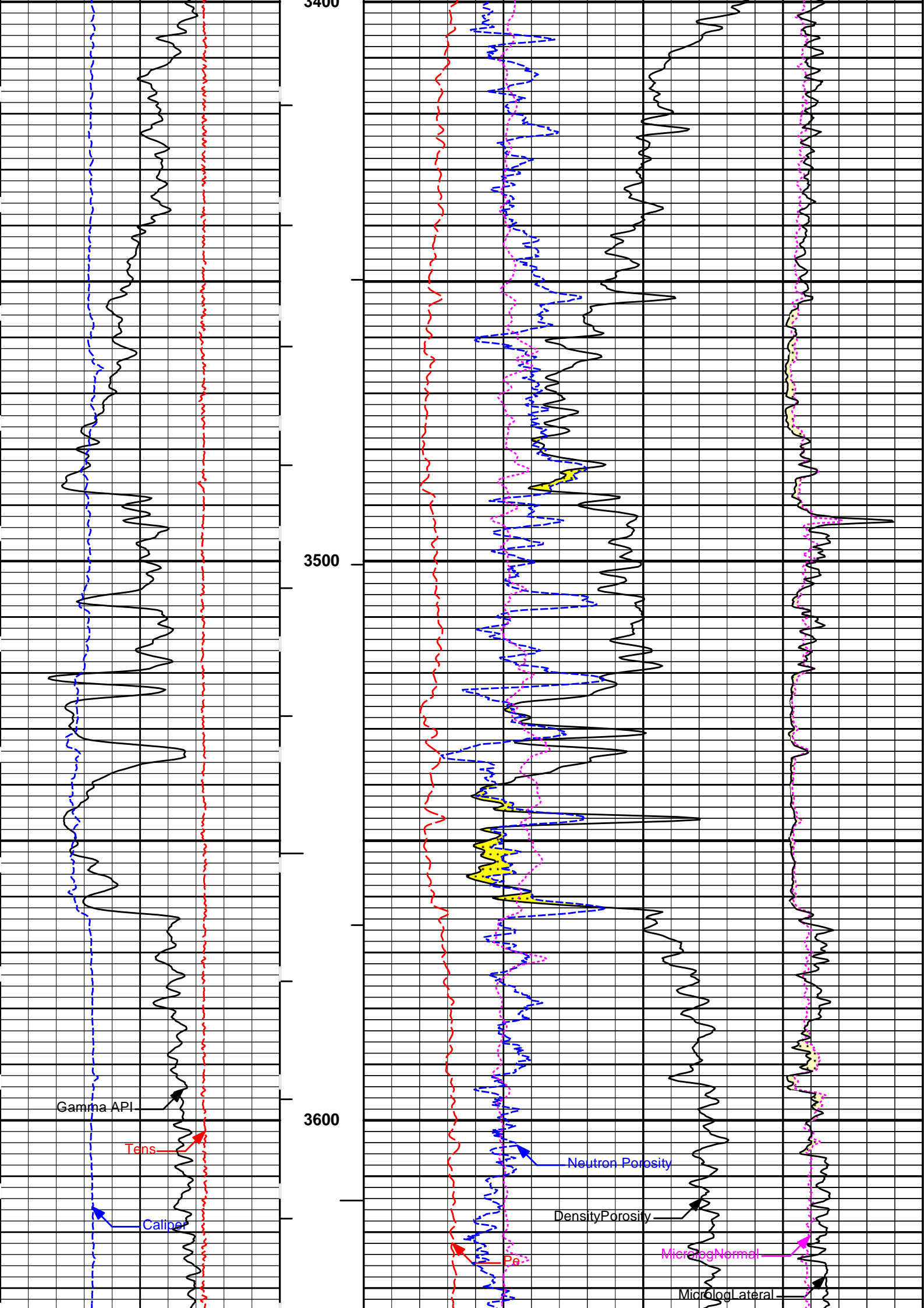


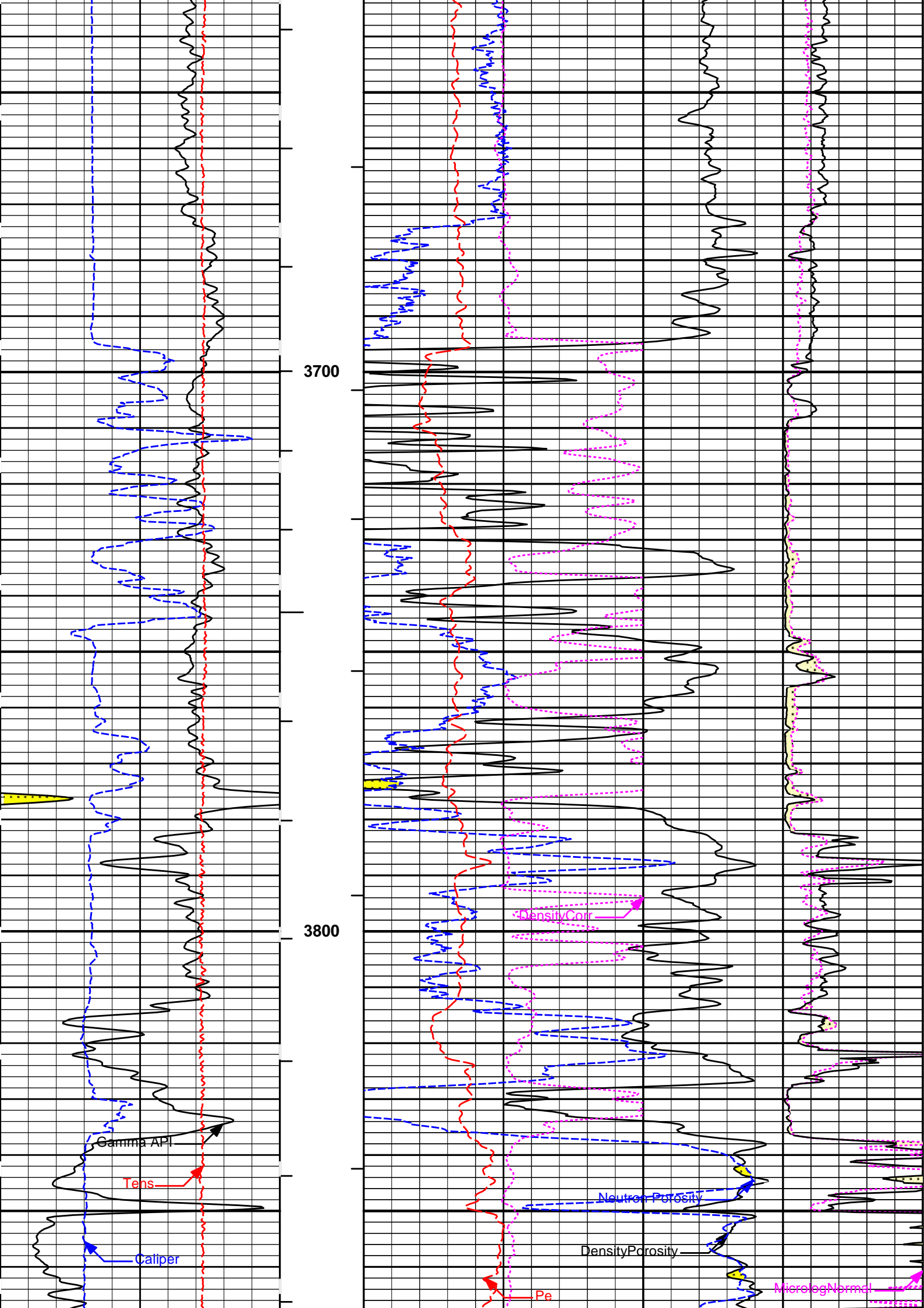


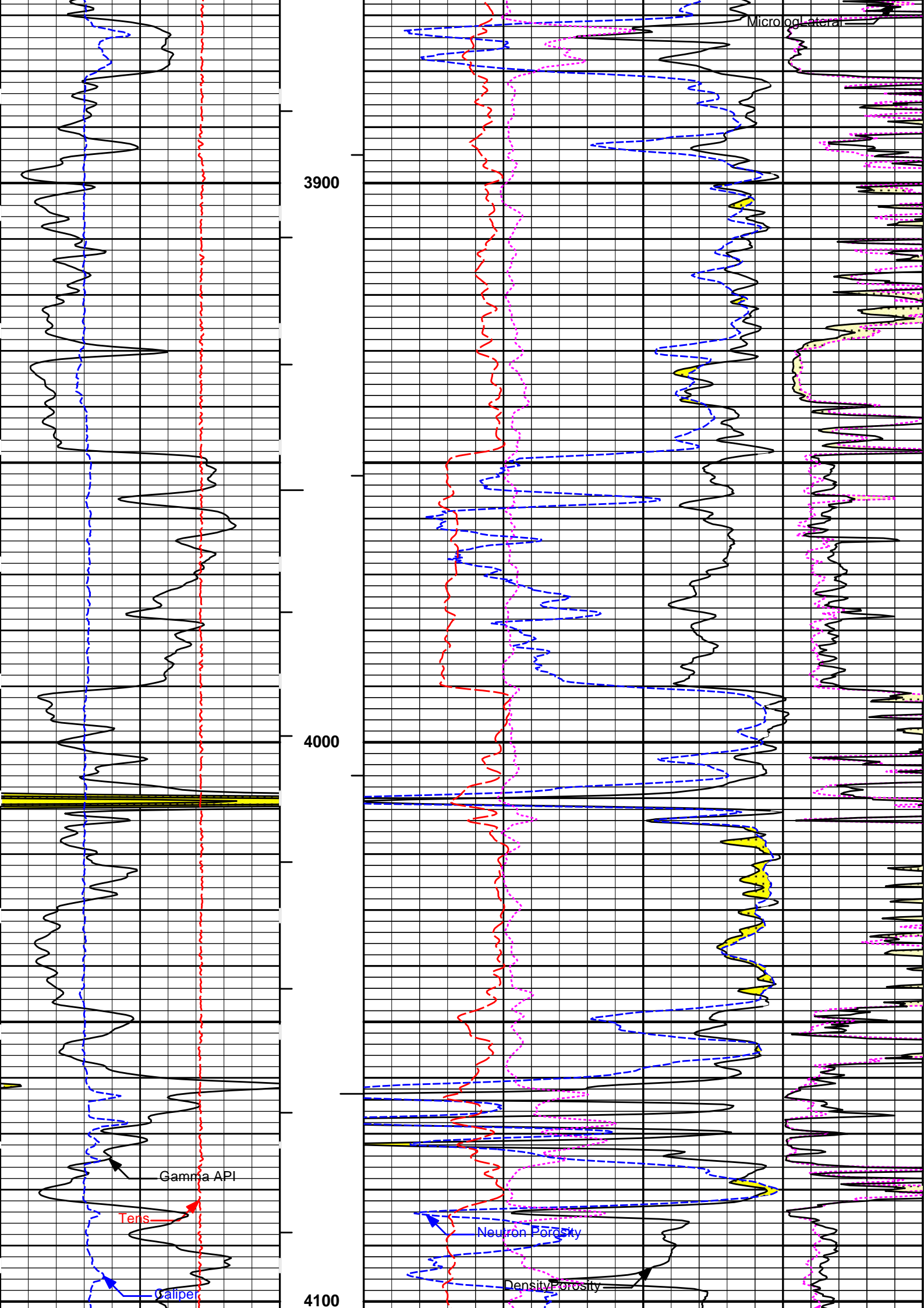


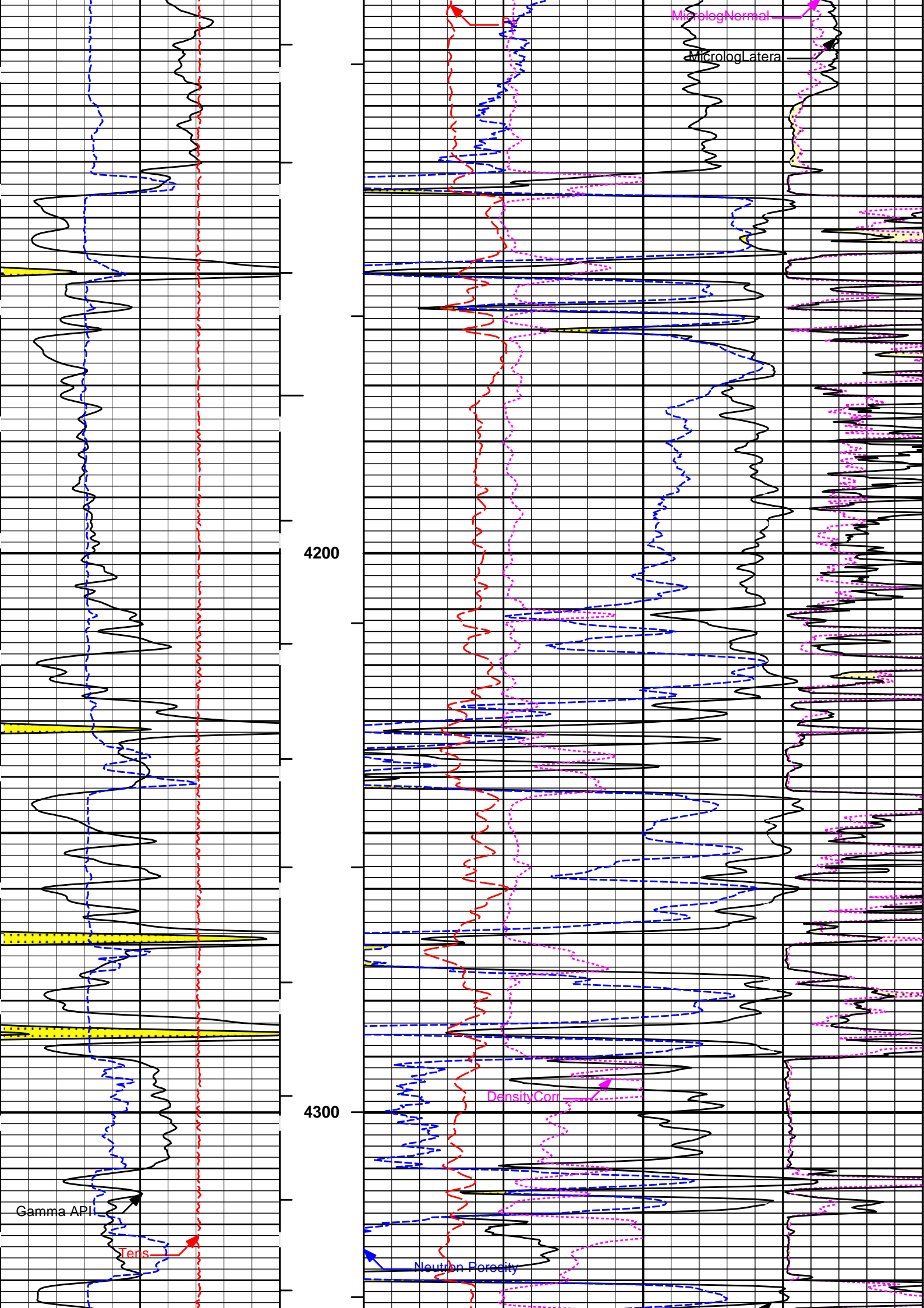


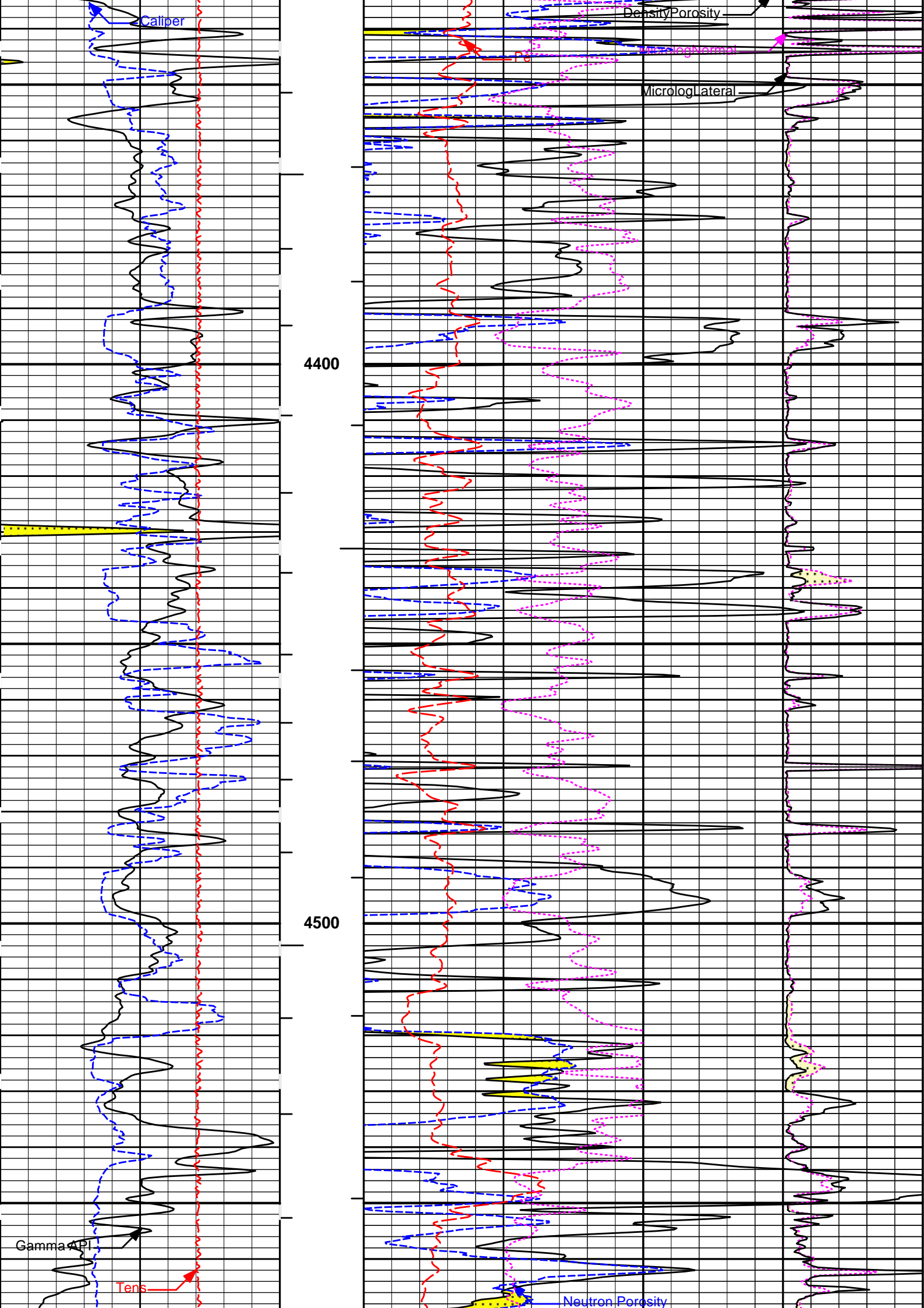


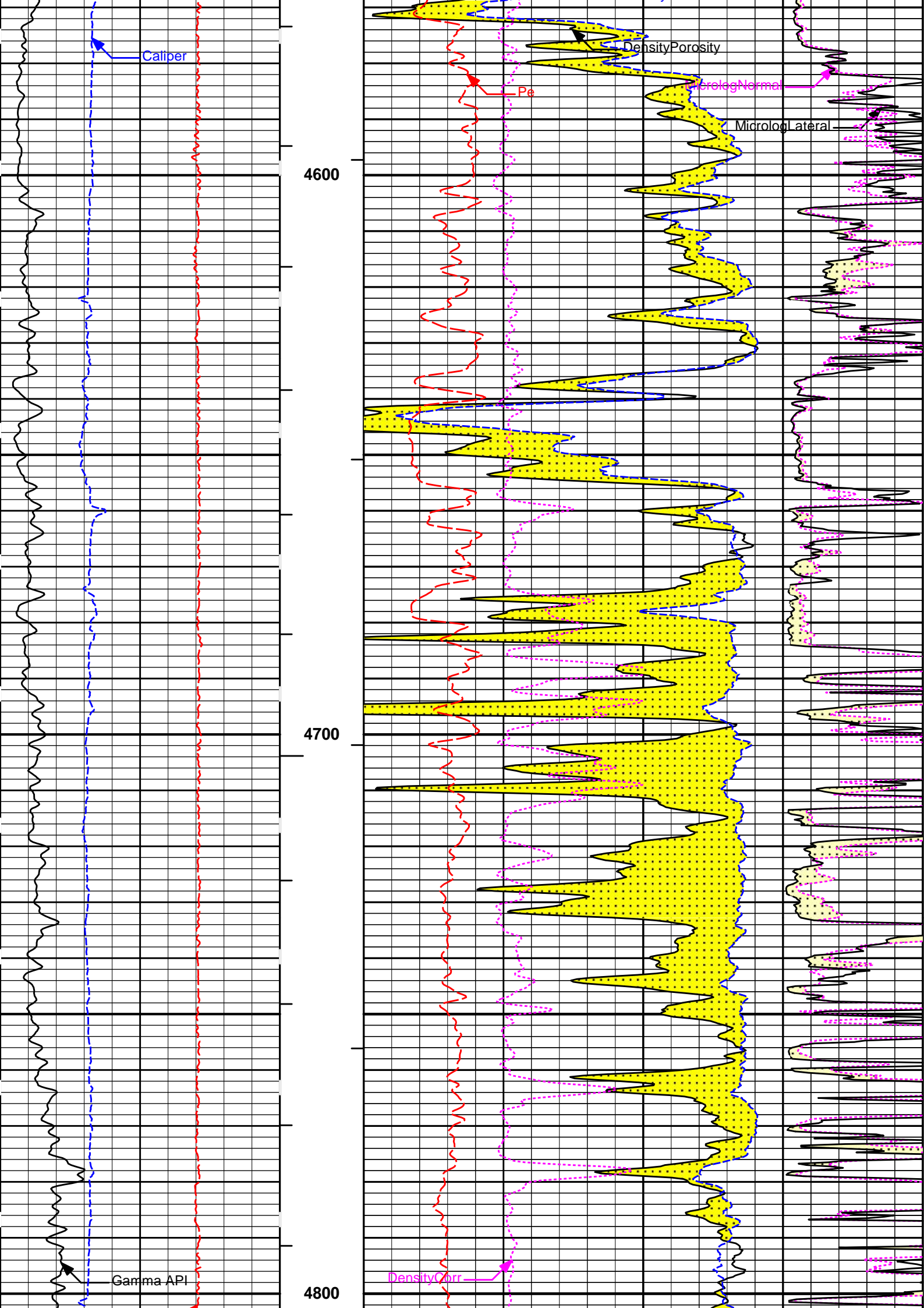


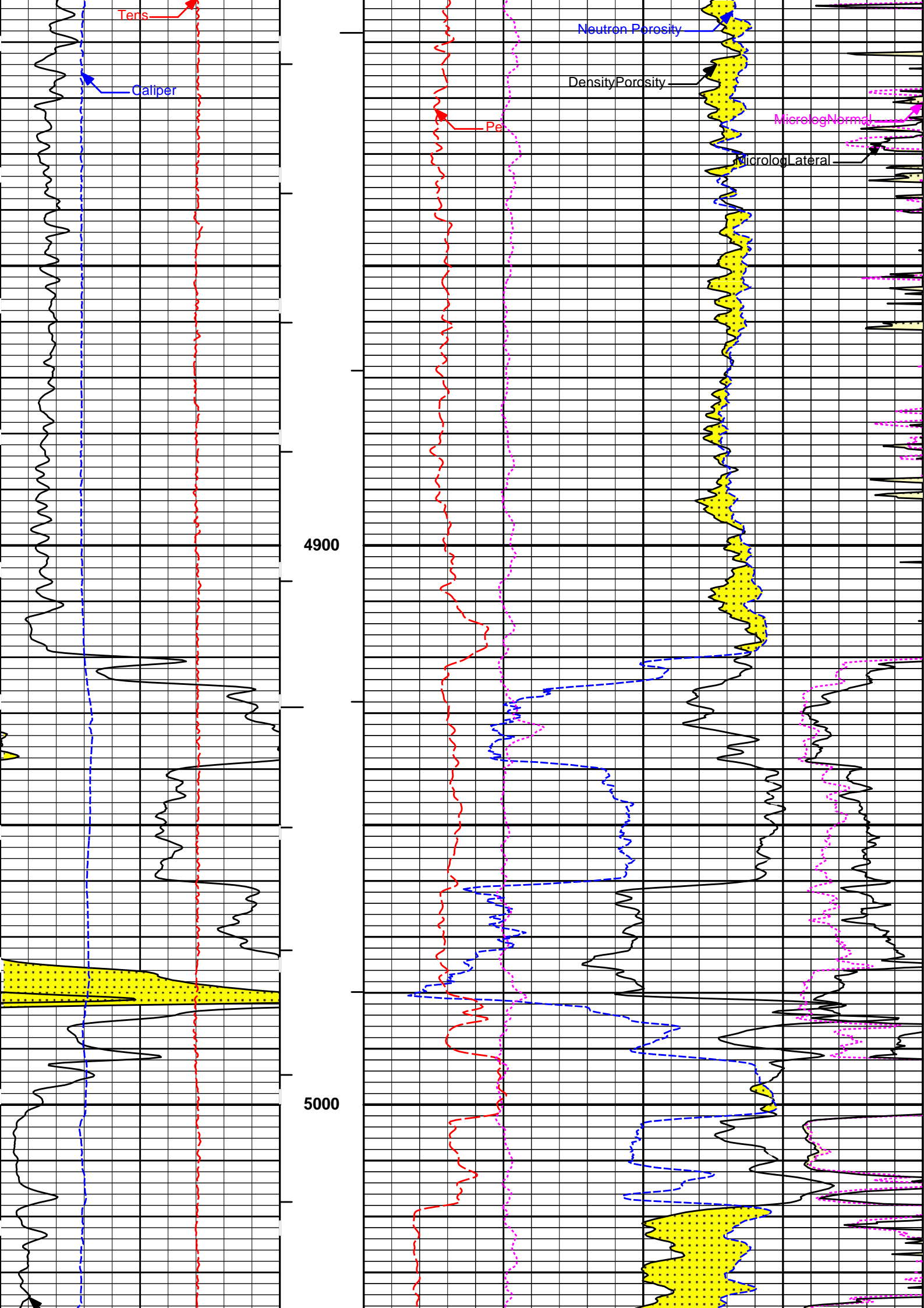


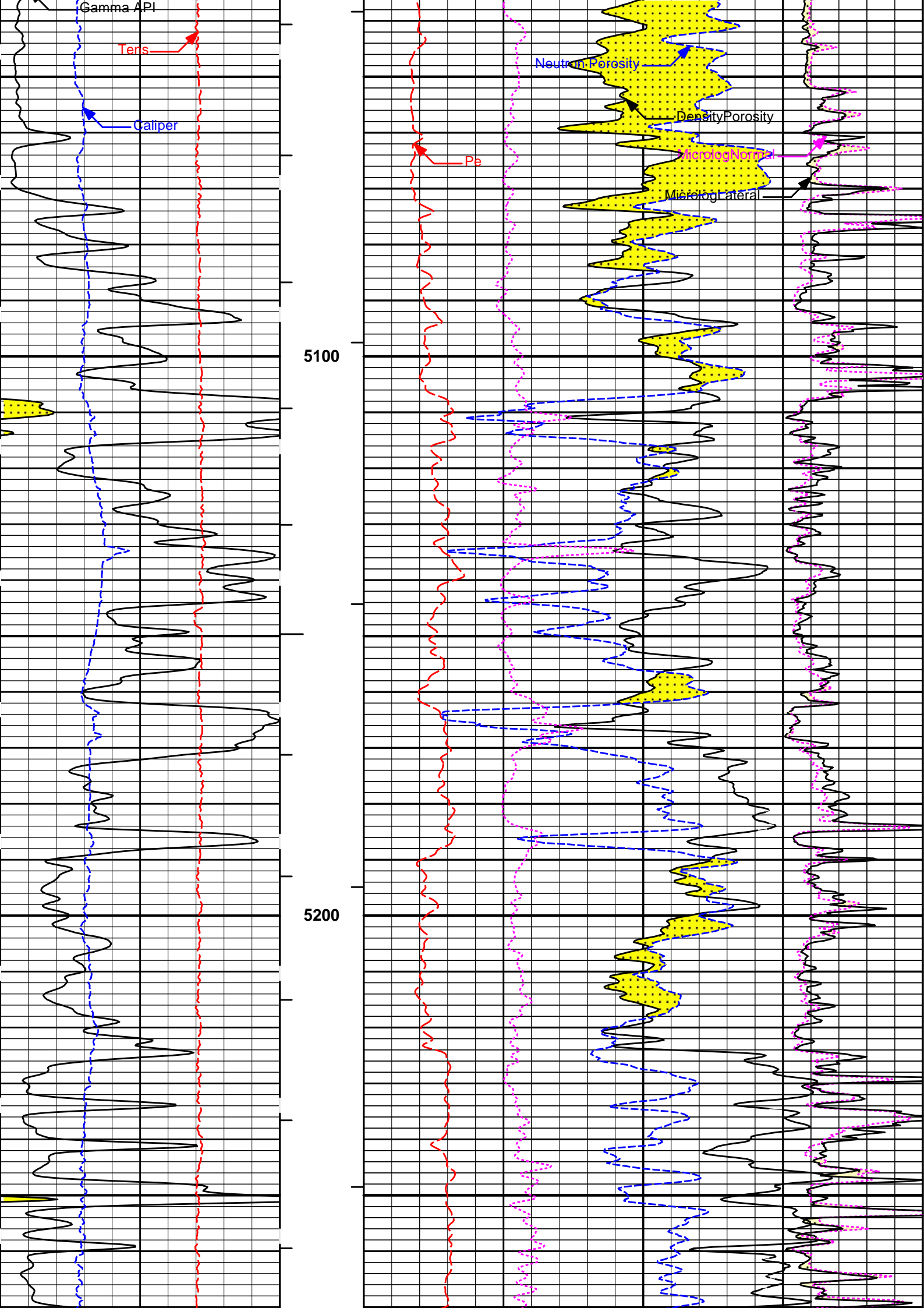


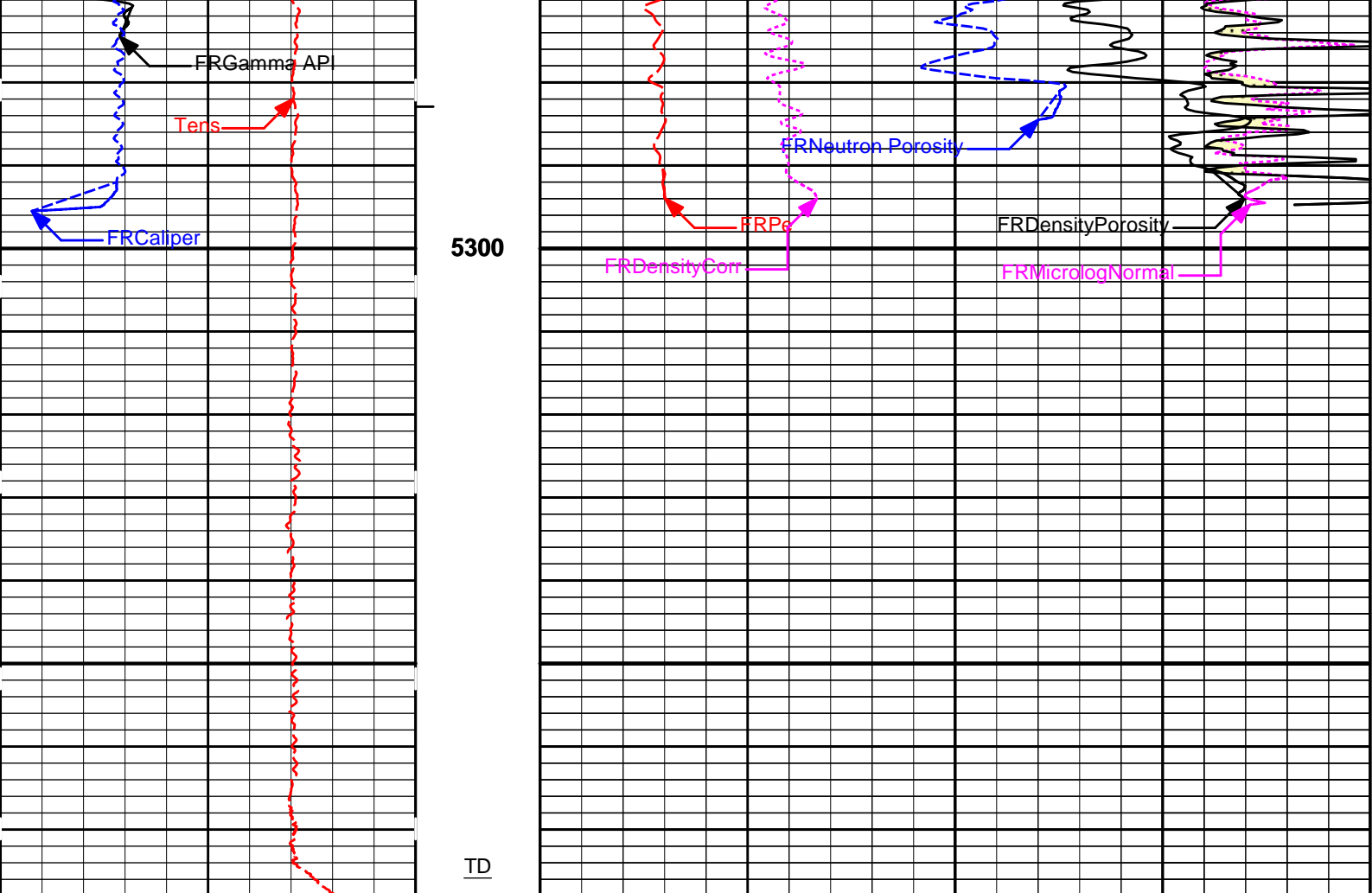












15K	Tens pounds	0	1 : 240 ft	0	Pe	10	0	MicrologNormal	20
6	Caliper inches	16	AHVT	-0.25	DensityCorr g/cc	0.25	0	MicrologLateral	20
0	Gamma API api	150	BHVT	30	DensityPorosity				-10
				30	Neutron Porosity				-10

HALLIBURTON Plot Time: 05-Oct-17 08:46:15
 Plot Range: 312 ft to 5378.08 ft
 Data: DESTINY_LINDA\Well Based\DAQ-0001-004\
 Plot File: \\SDL-DSN\PoromL_5_main_IQ

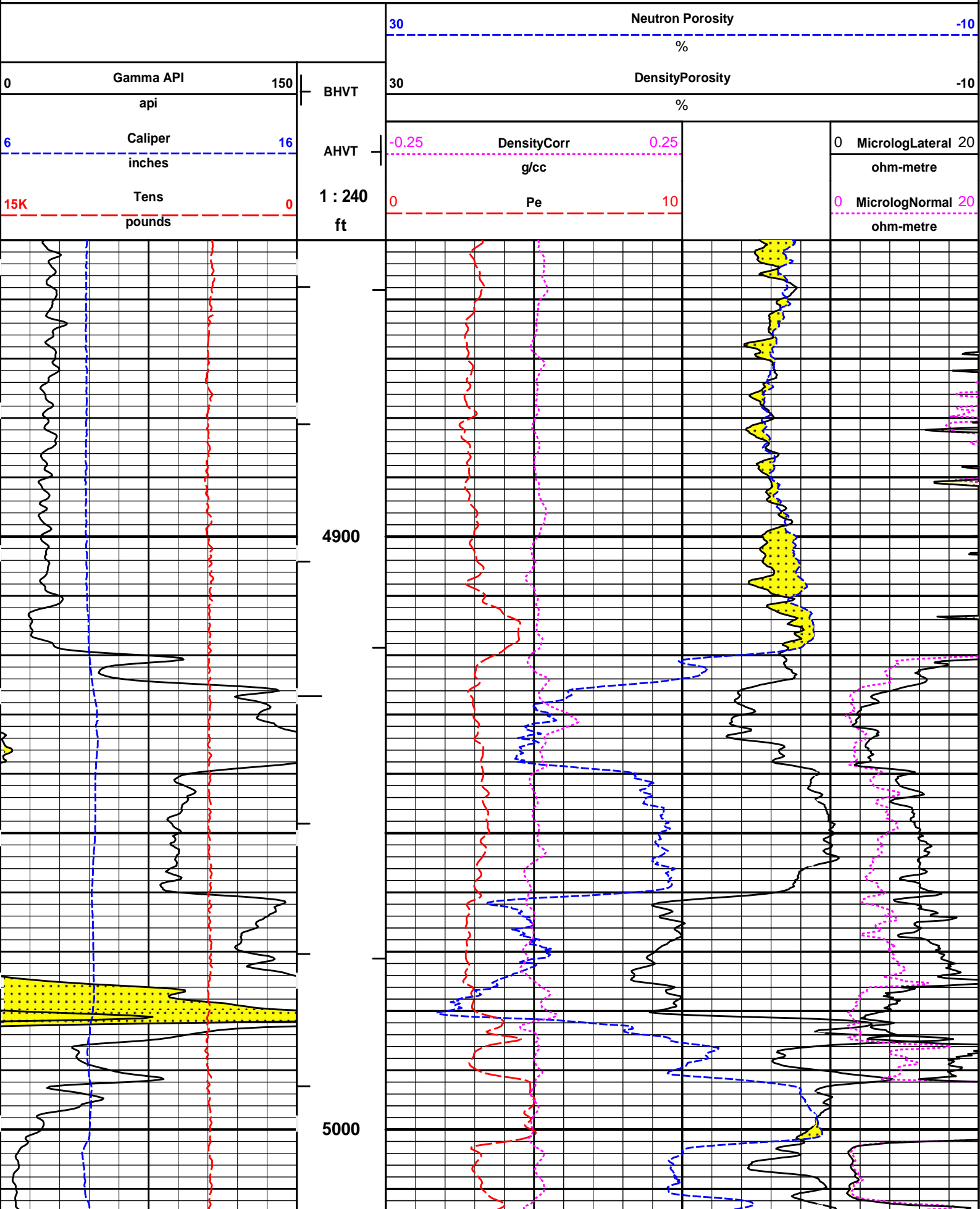
5 INCH MAIN LOG

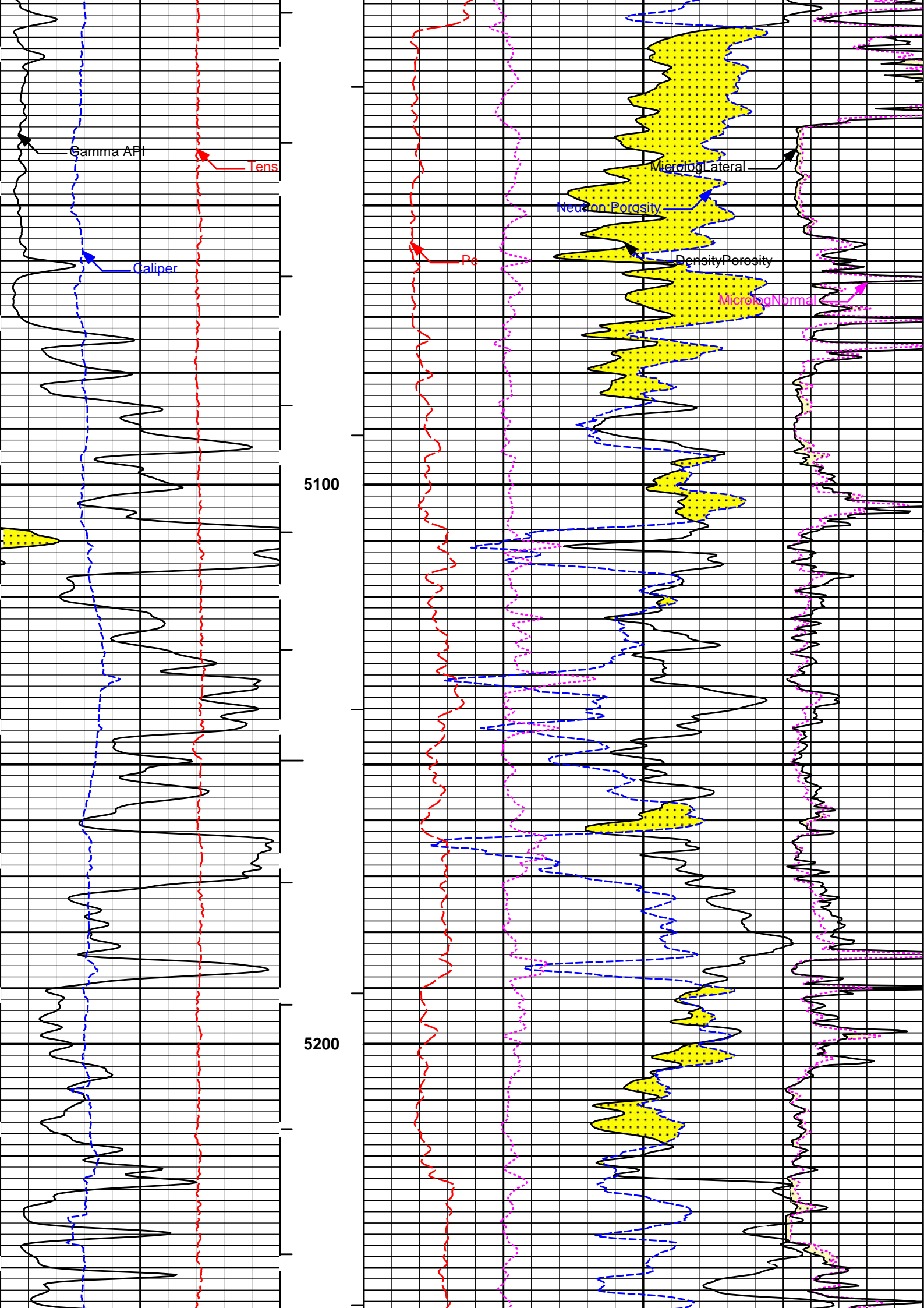
MAIN SECTION 5" PER 100'

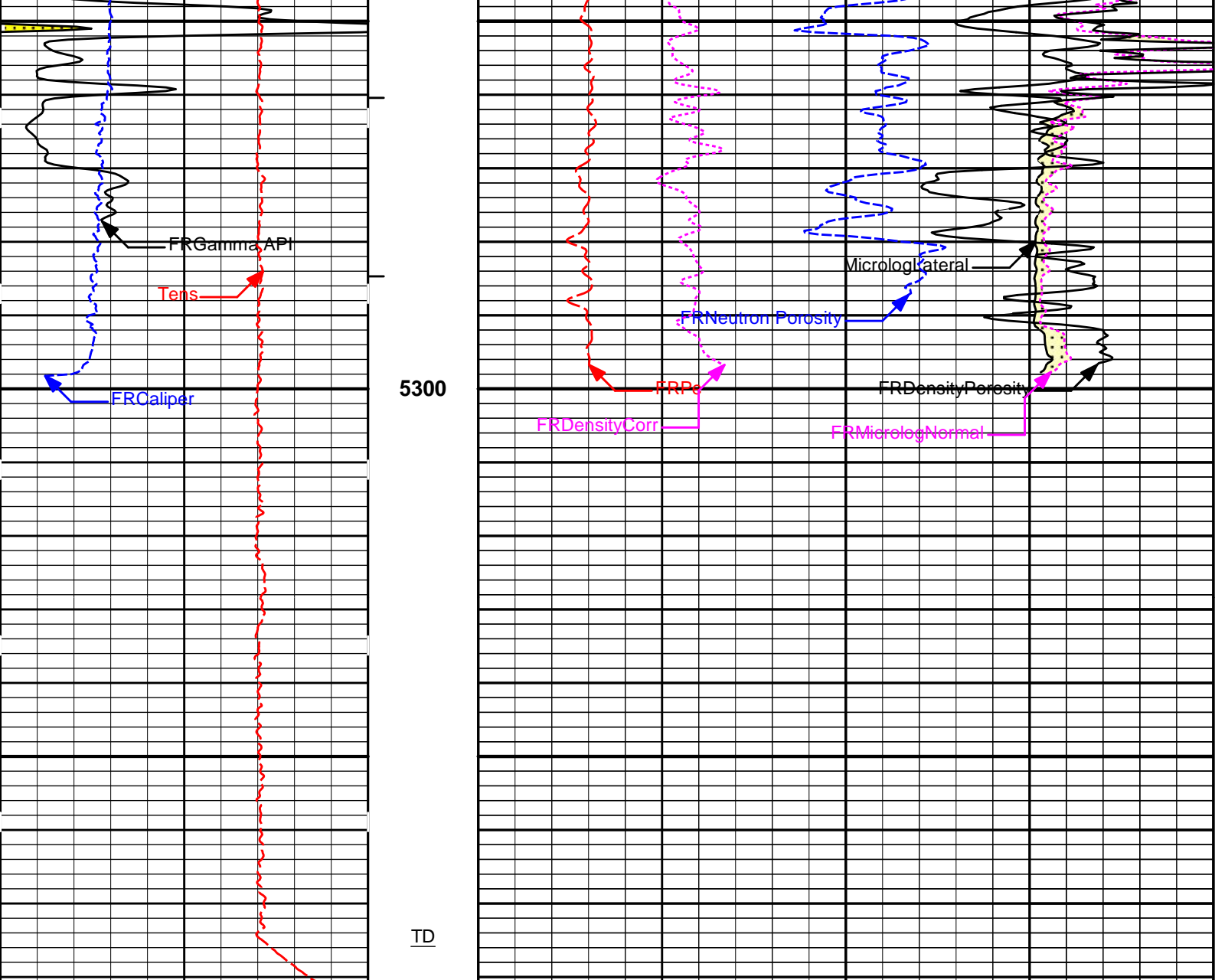
HALLIBURTON Plot Time: 05-Oct-17 08:46:15
 Plot Range: 4850 ft to 5381 ft
 Data: DESTINY_LINDA\Well Based\DAQ-0001-003\
 Plot File: \\SDL-DSN\PoromL_5_main_IQ

REPEAT SECTION

REPEAT SECTION







15K	Tens	0	1 : 240	0	Pe	10	0	MicrologNormal	20
	pounds		ft					ohm-metre	
6	Caliper	16	AHVT	-0.25	DensityCorr	0.25	0	MicrologLateral	20
	inches				g/cc			ohm-metre	
0	Gamma API	150	BHVT	30	DensityPorosity		30		-10
	api				%				
				30	Neutron Porosity				-10
					%				

HALLIBURTON

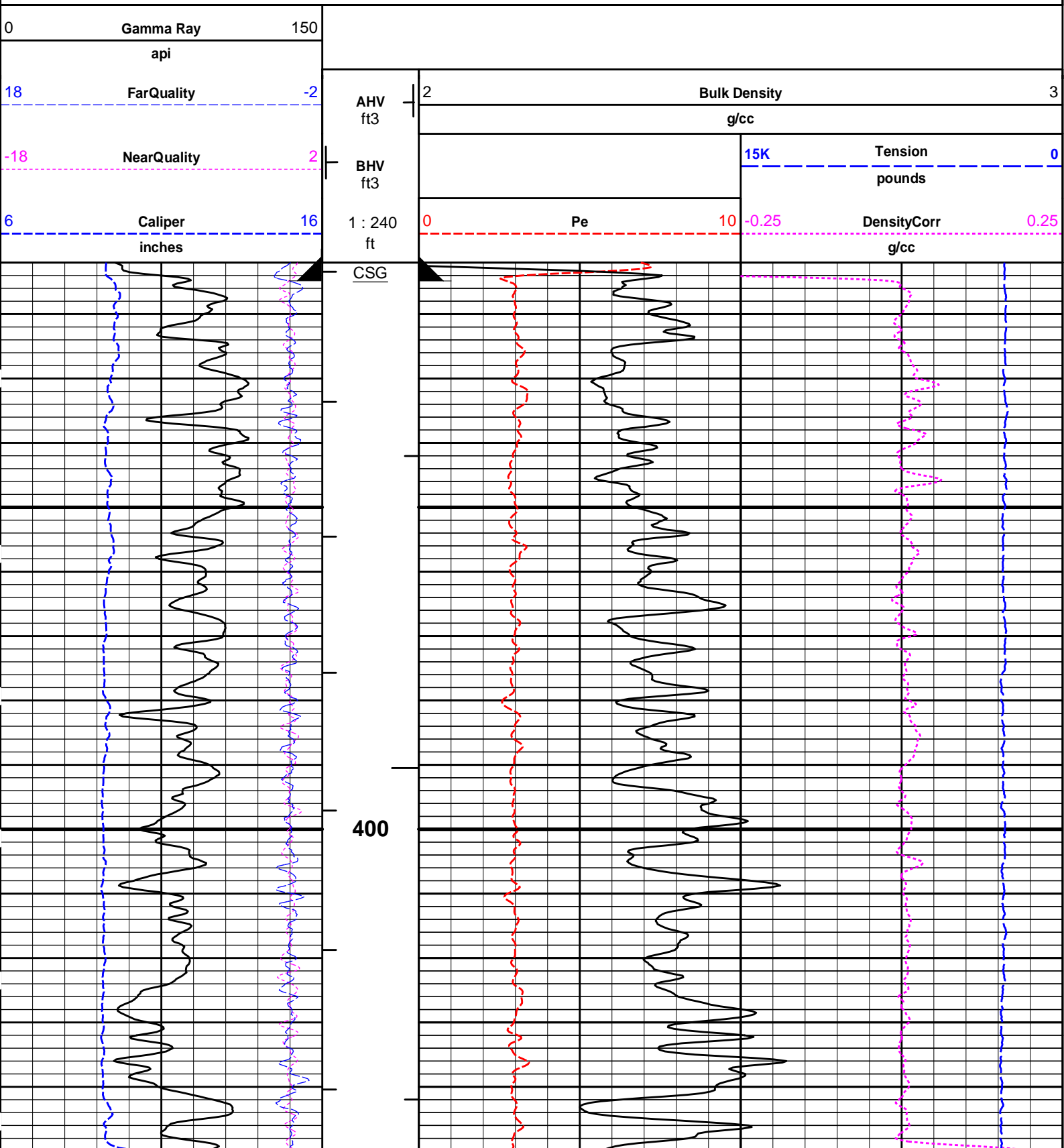
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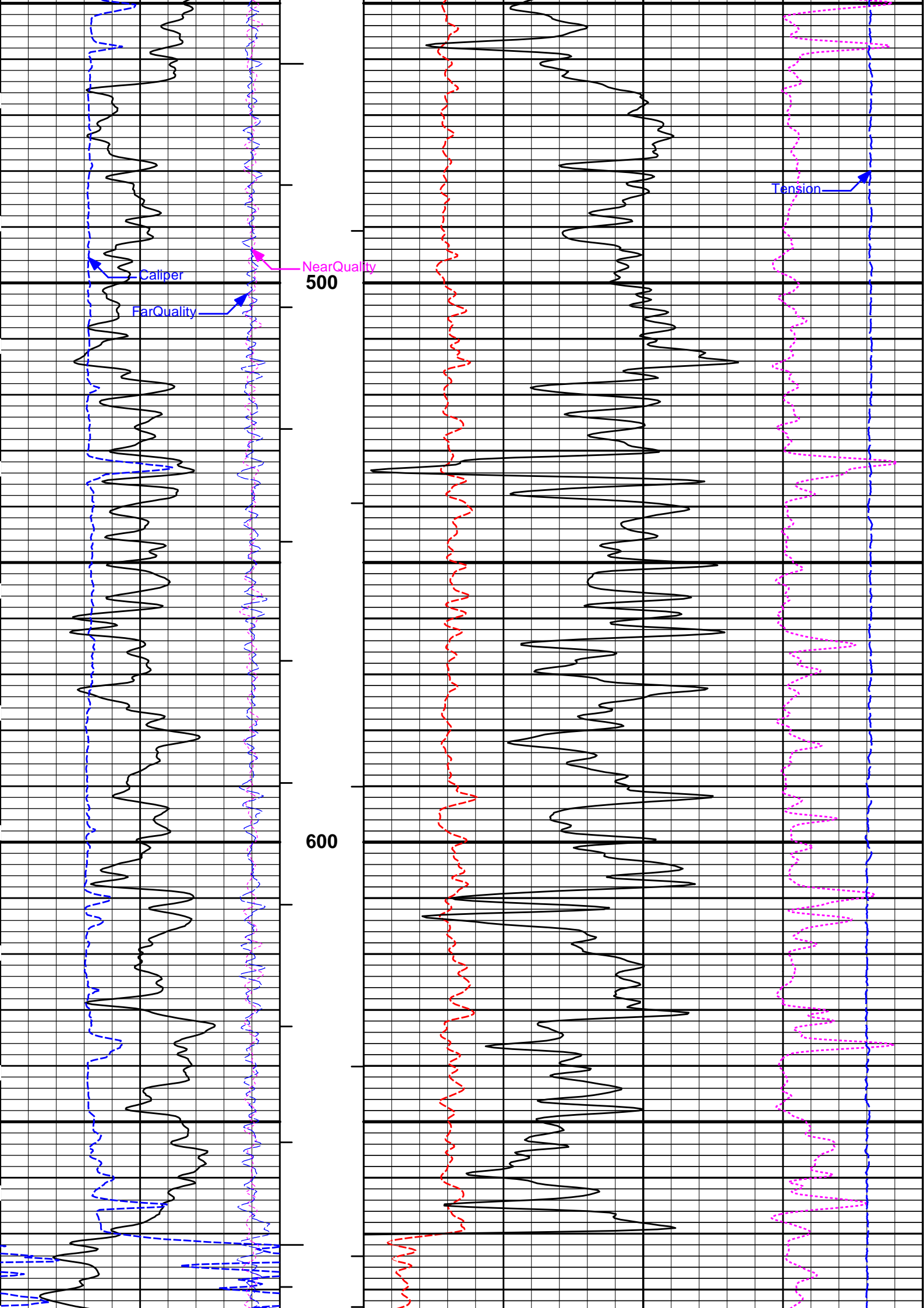
REPEAT SECTION

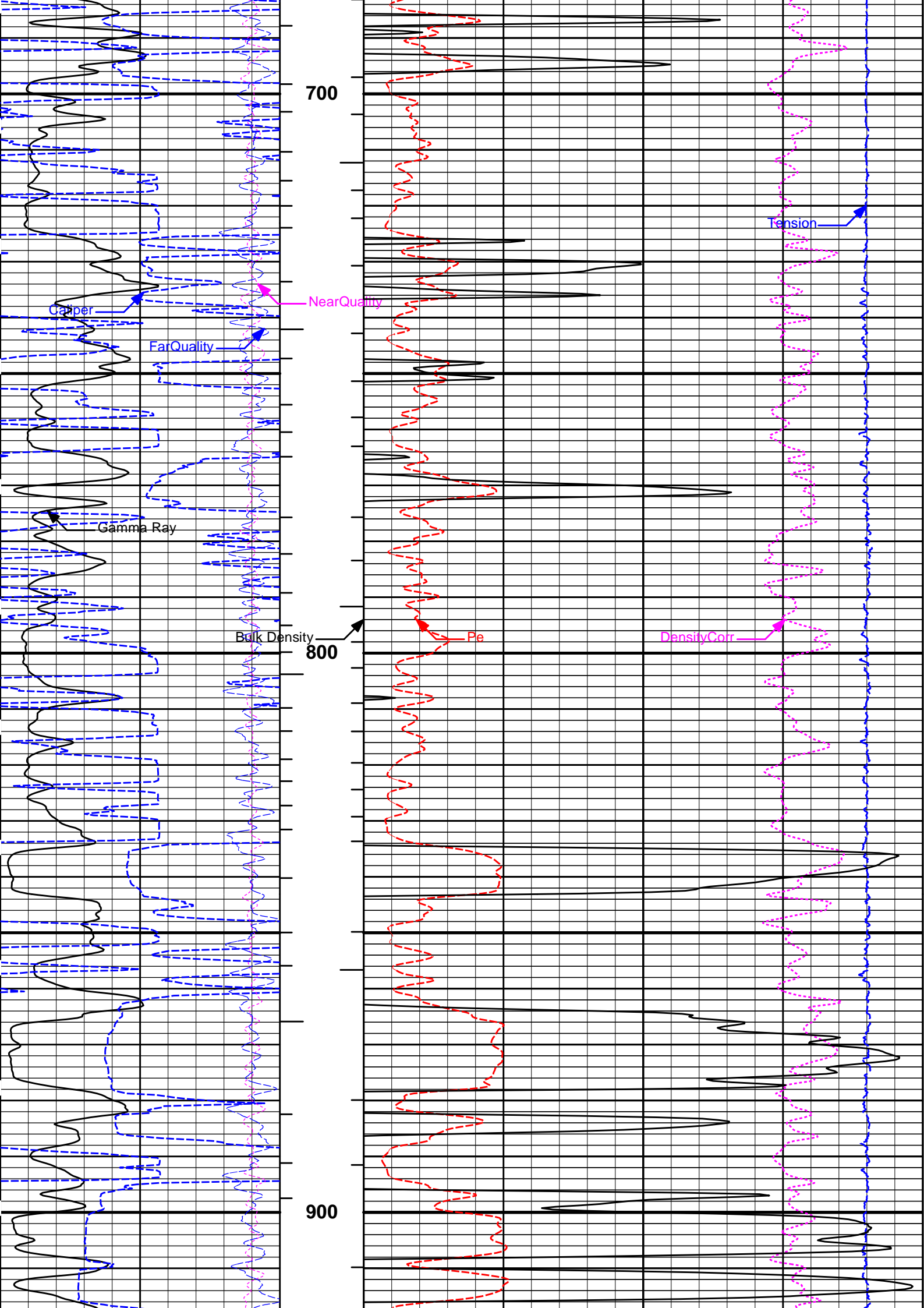
REPEAT SECTION

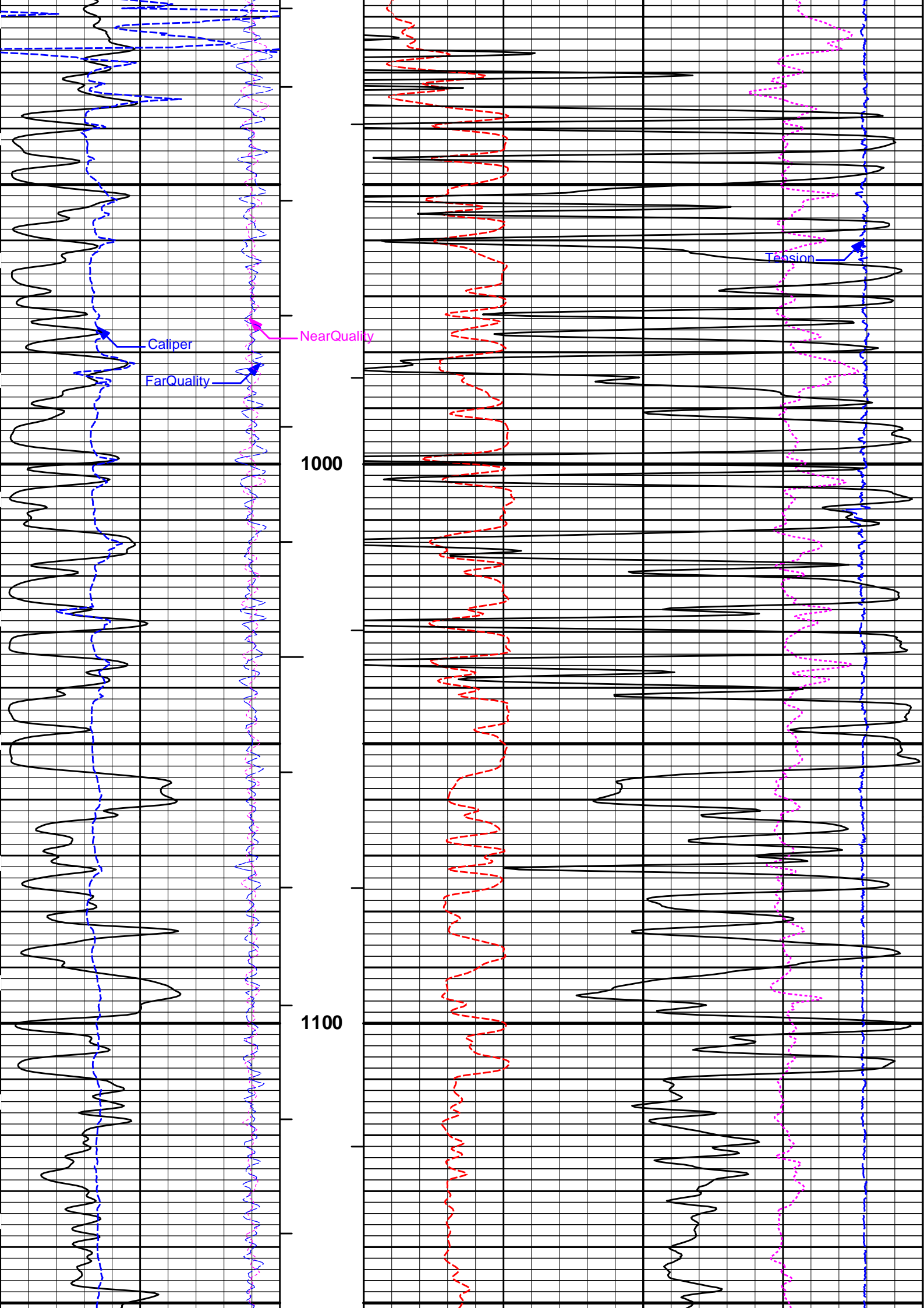
5 INCH MAIN LOG

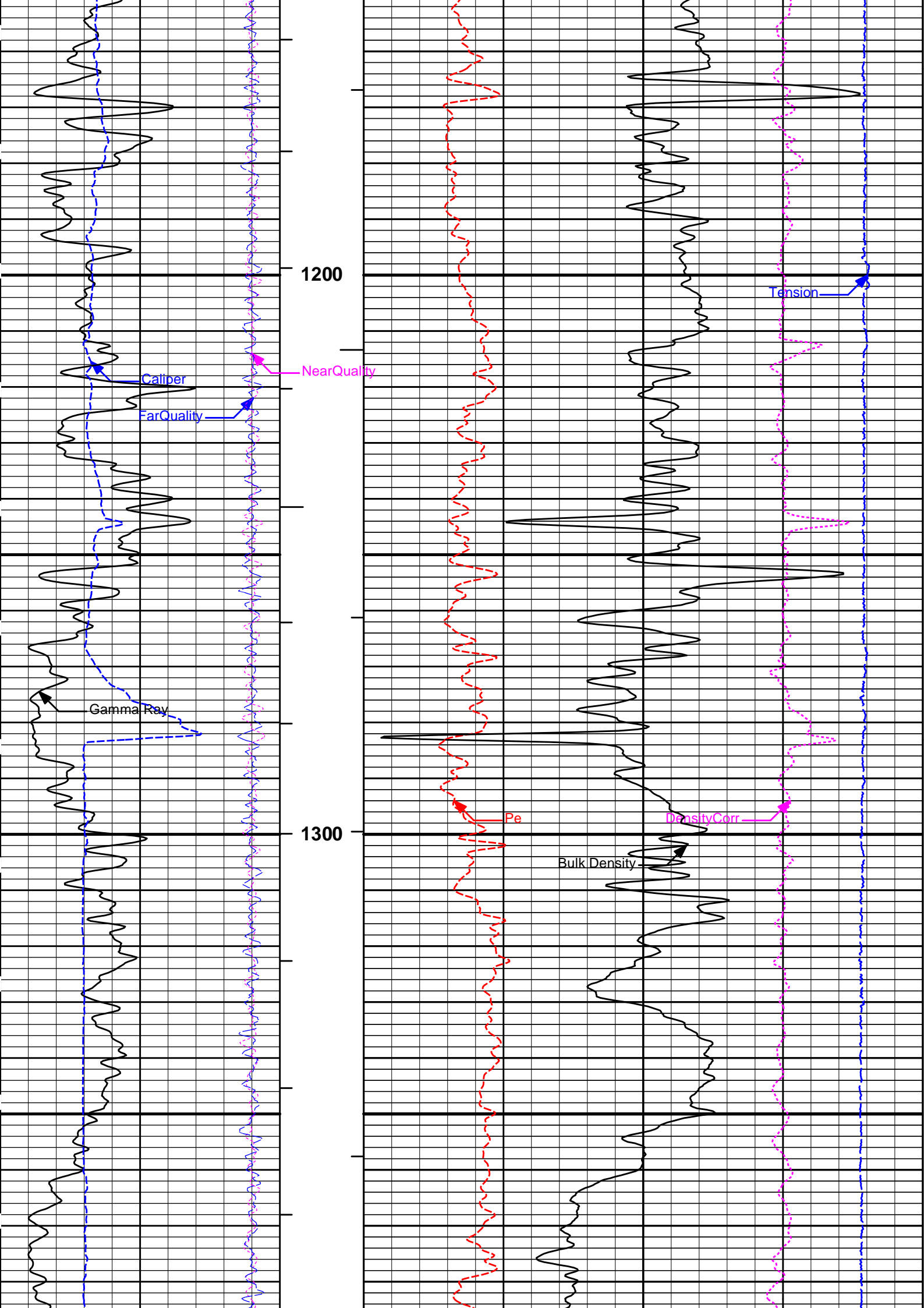
MAIN SECTION 5" PER 100'

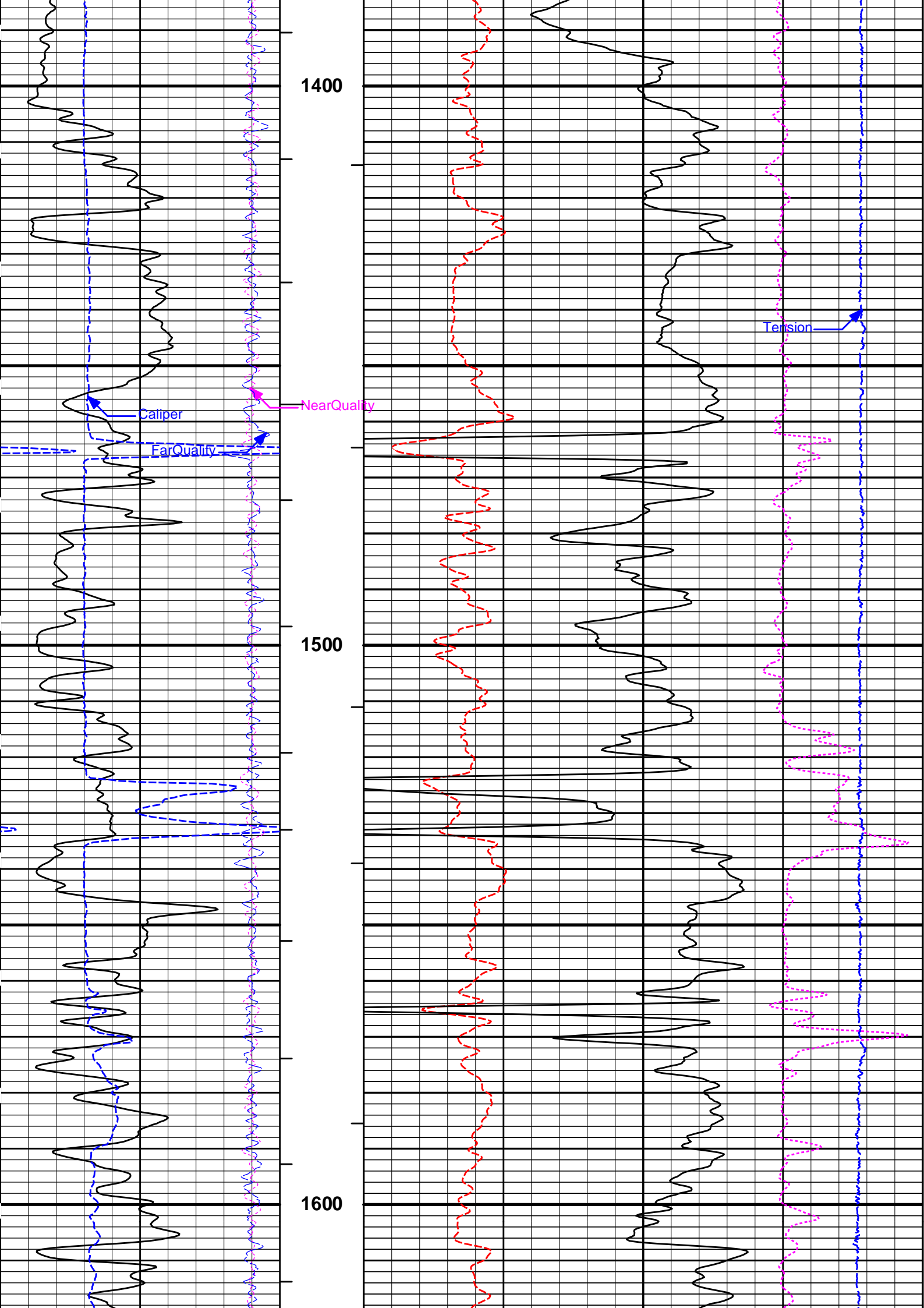


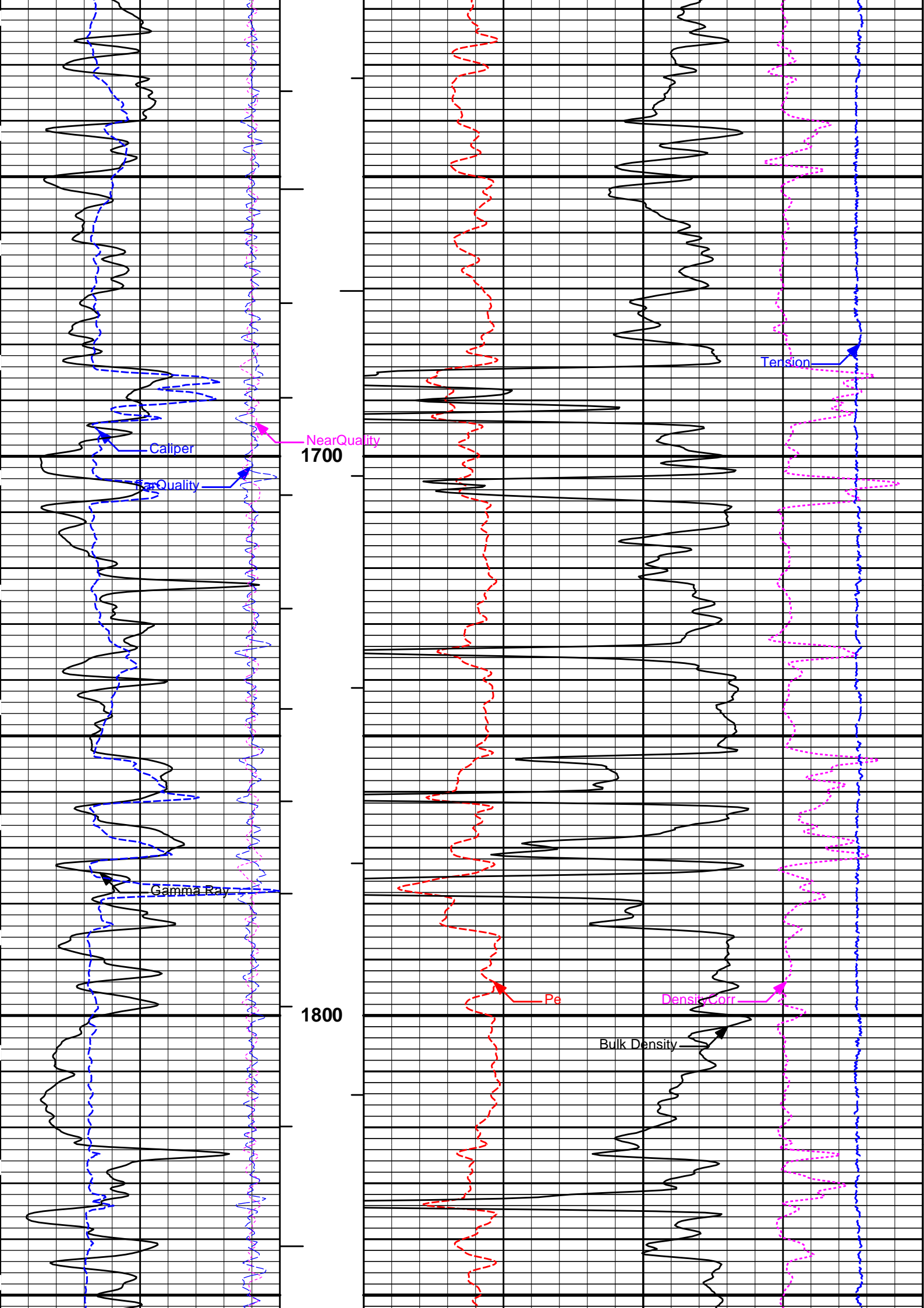


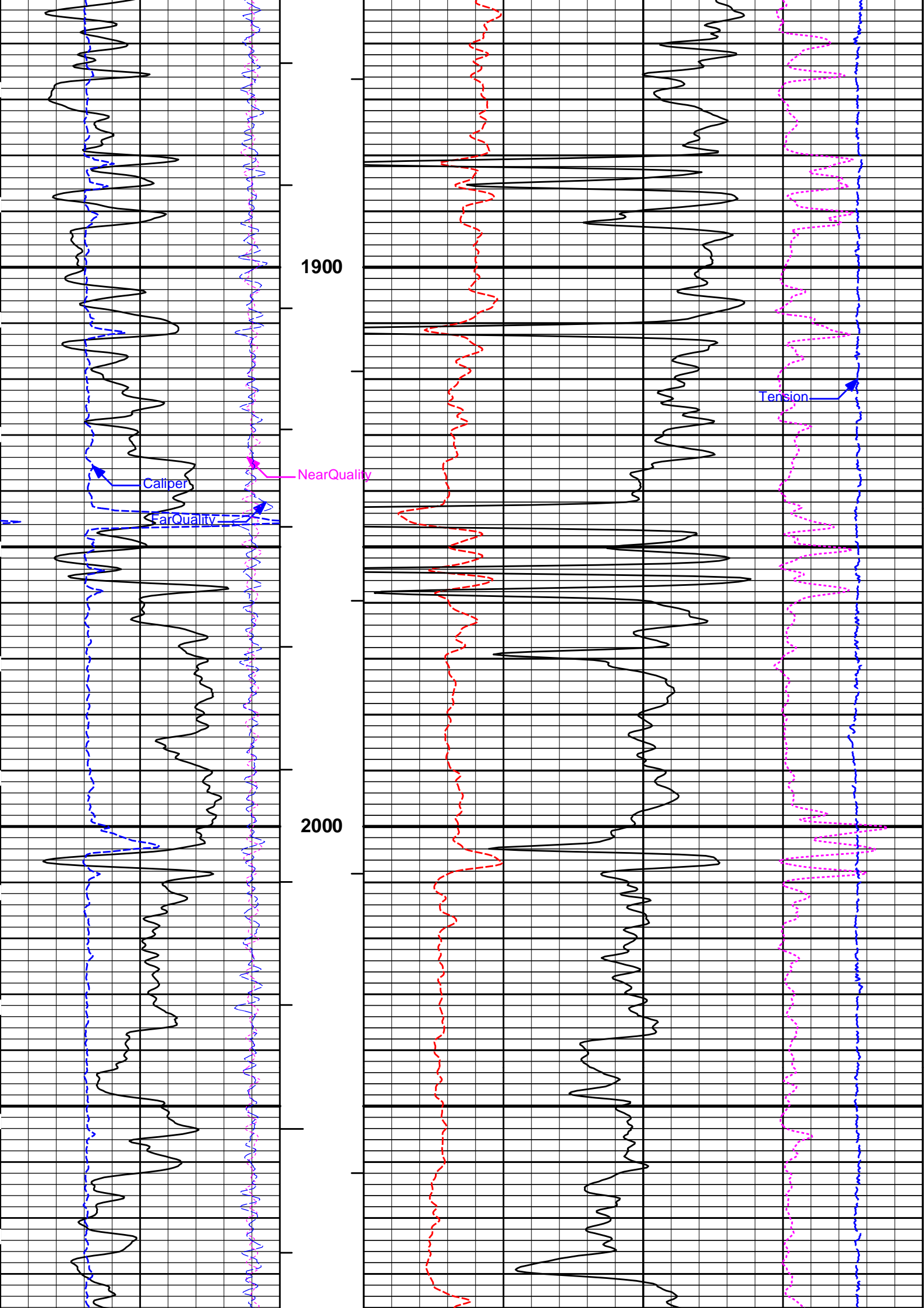


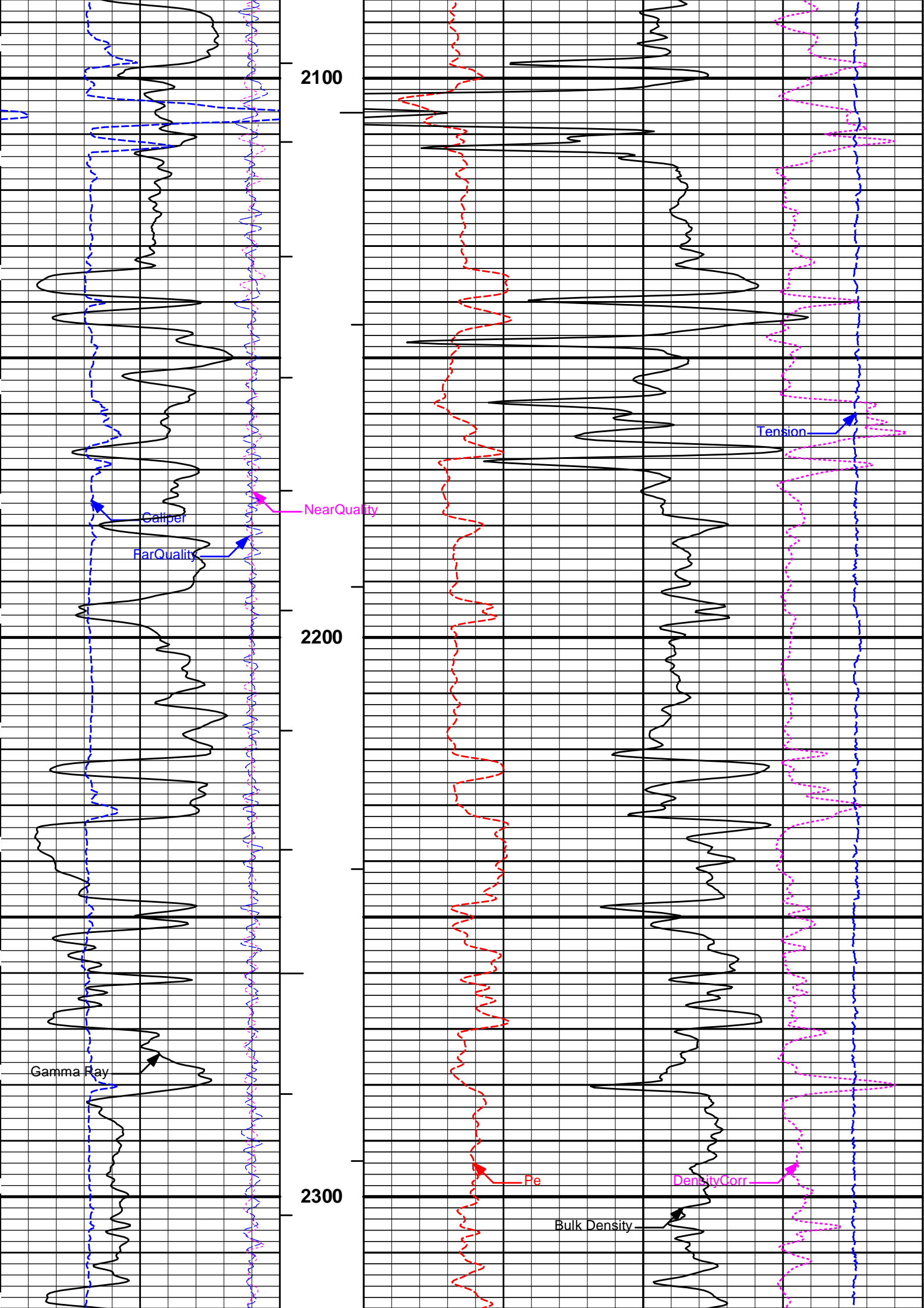


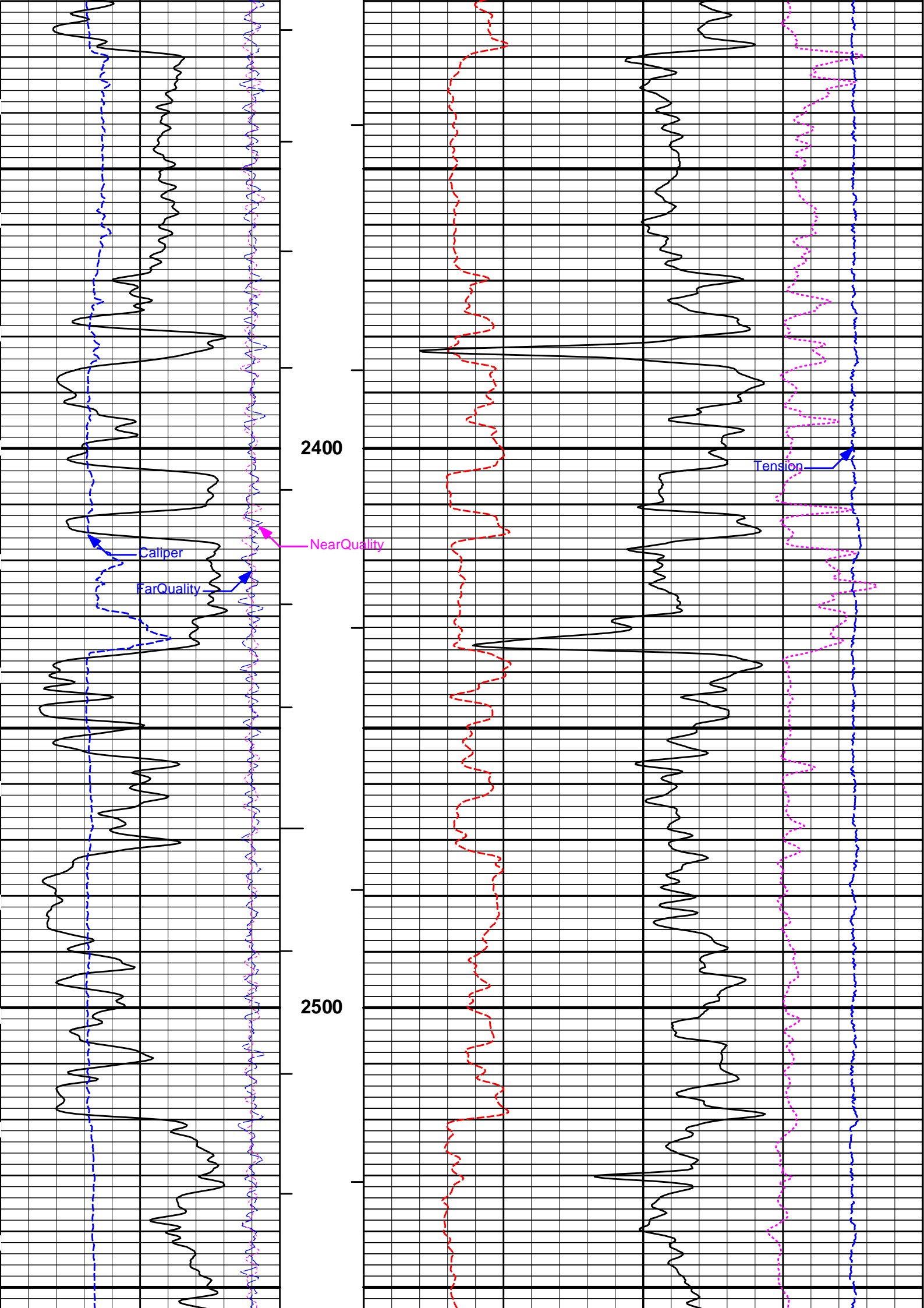


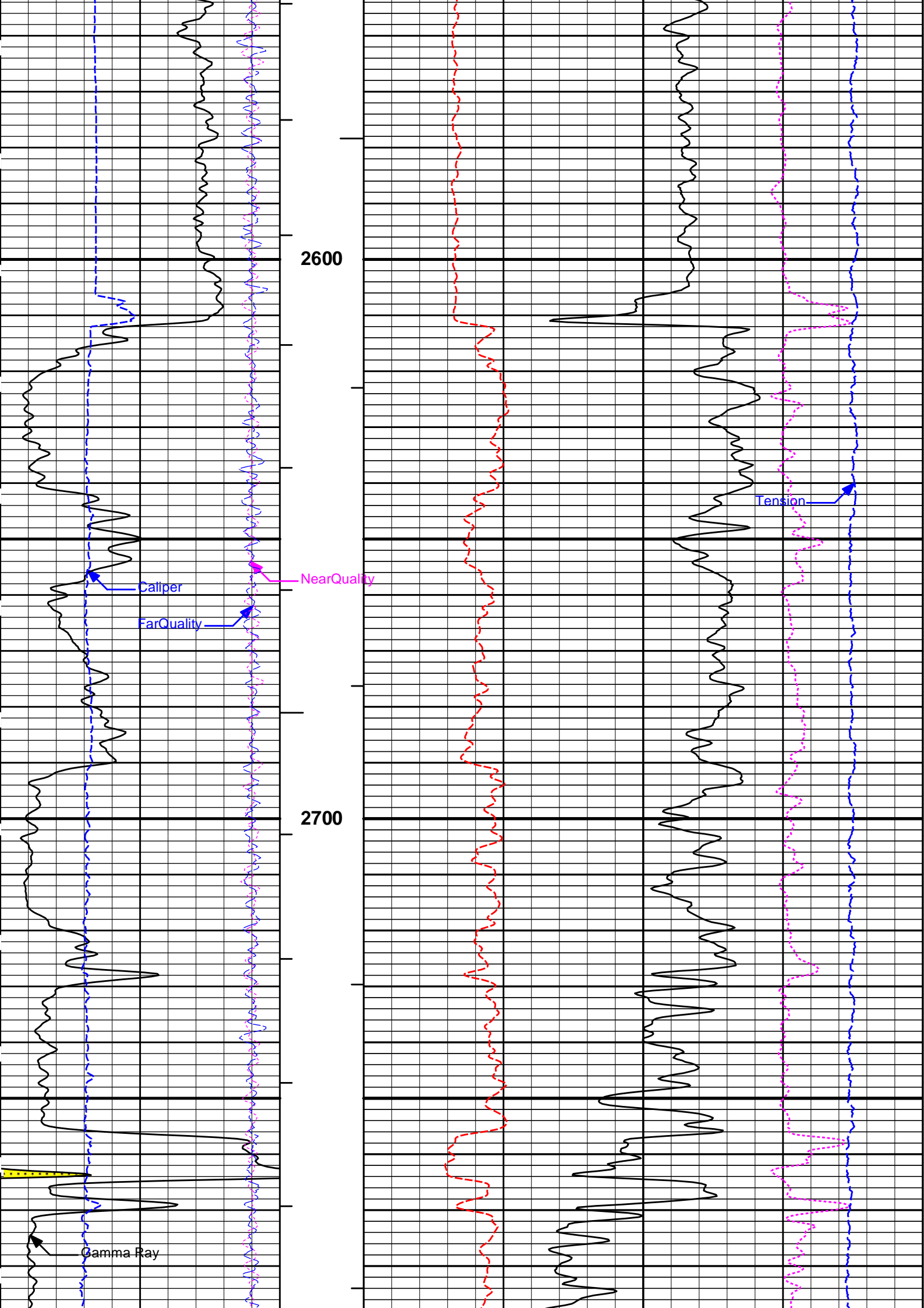


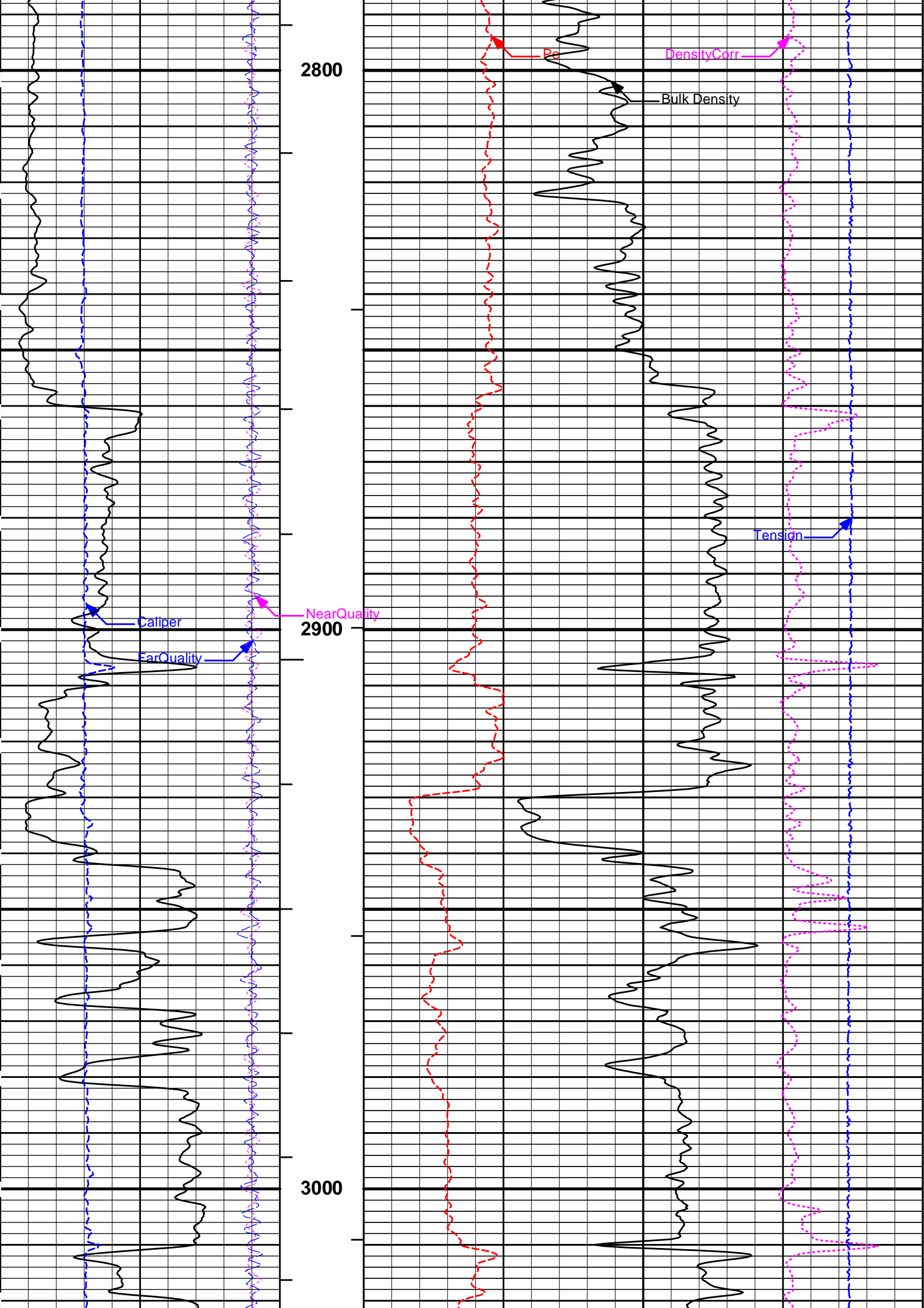


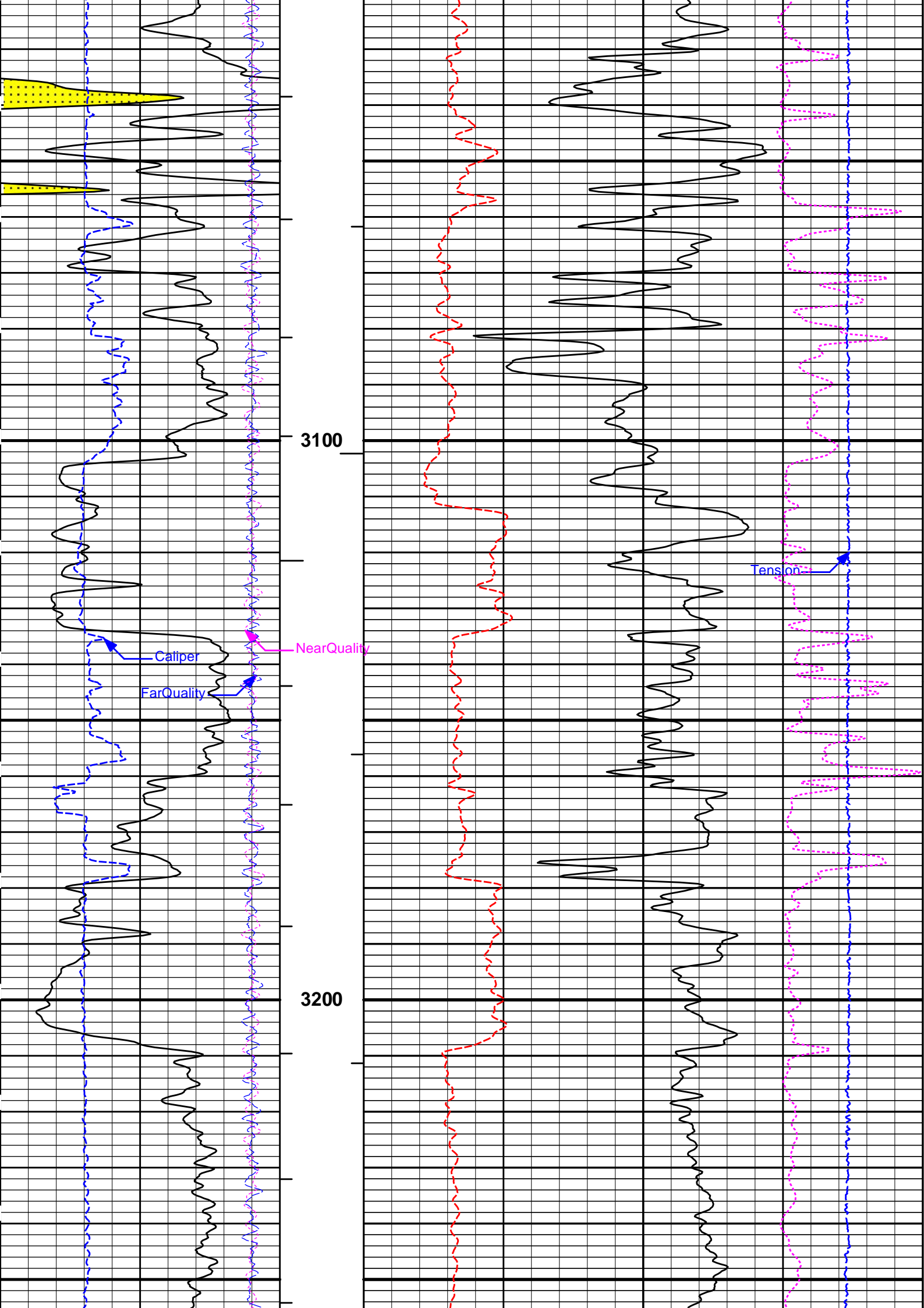


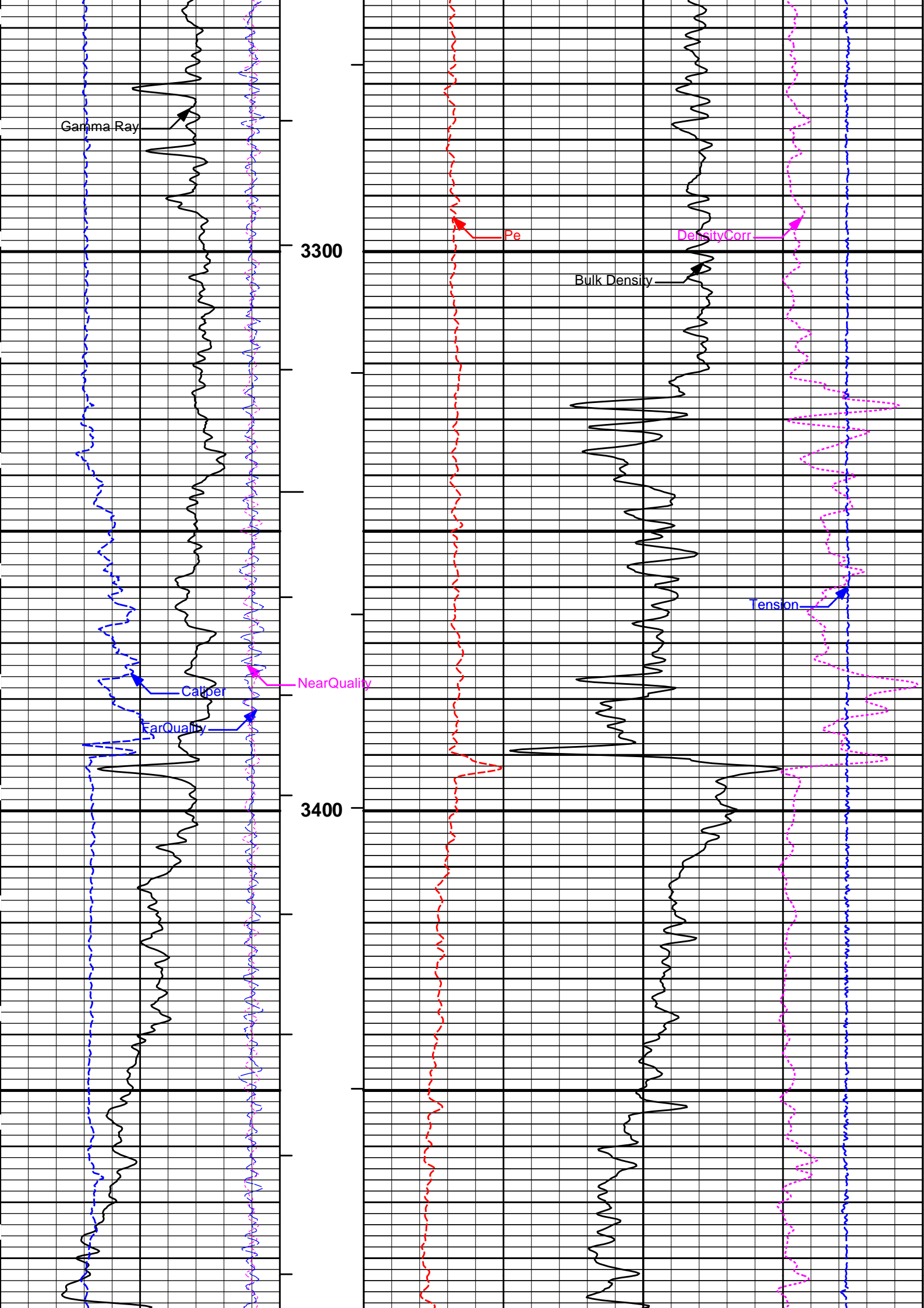


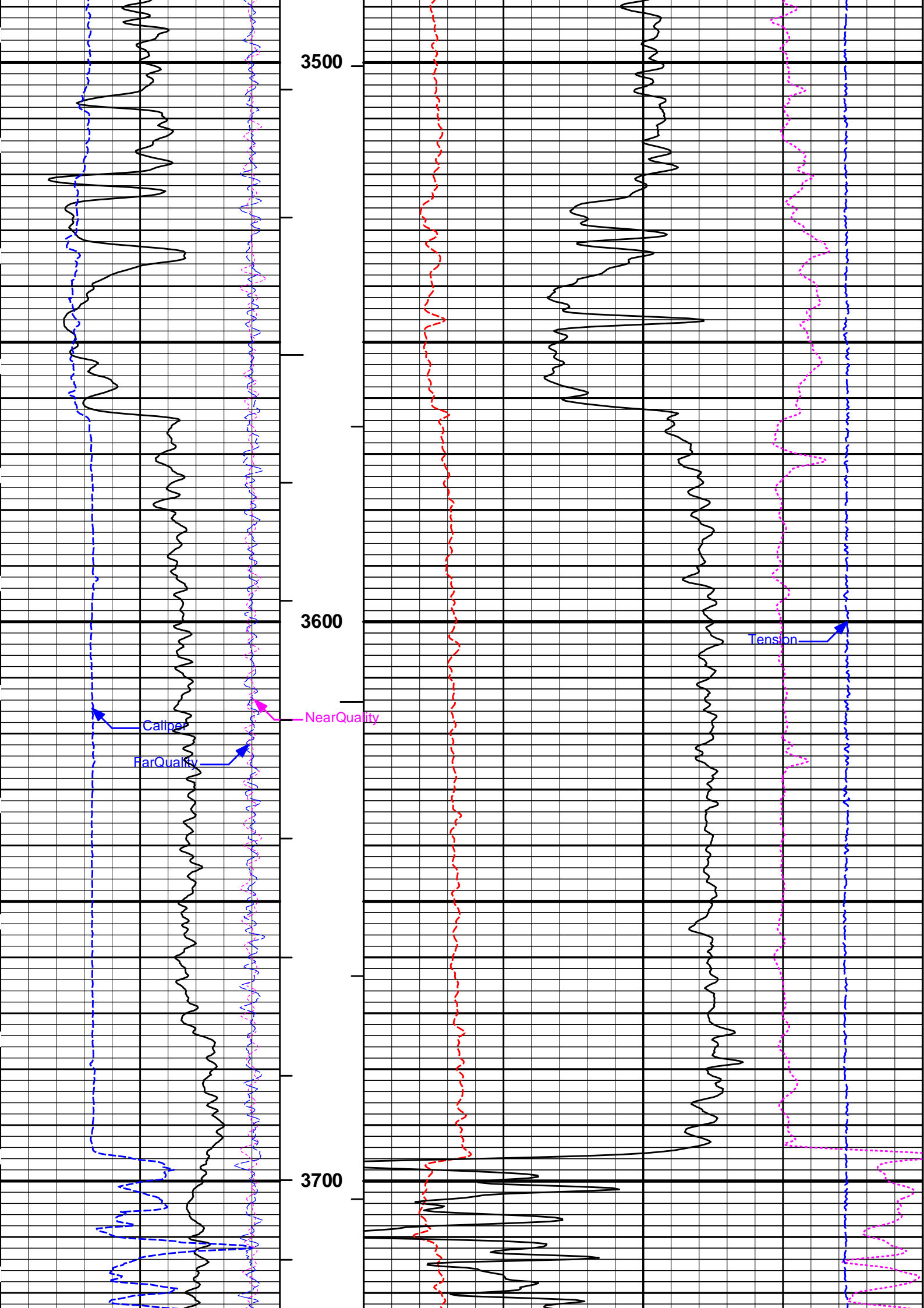


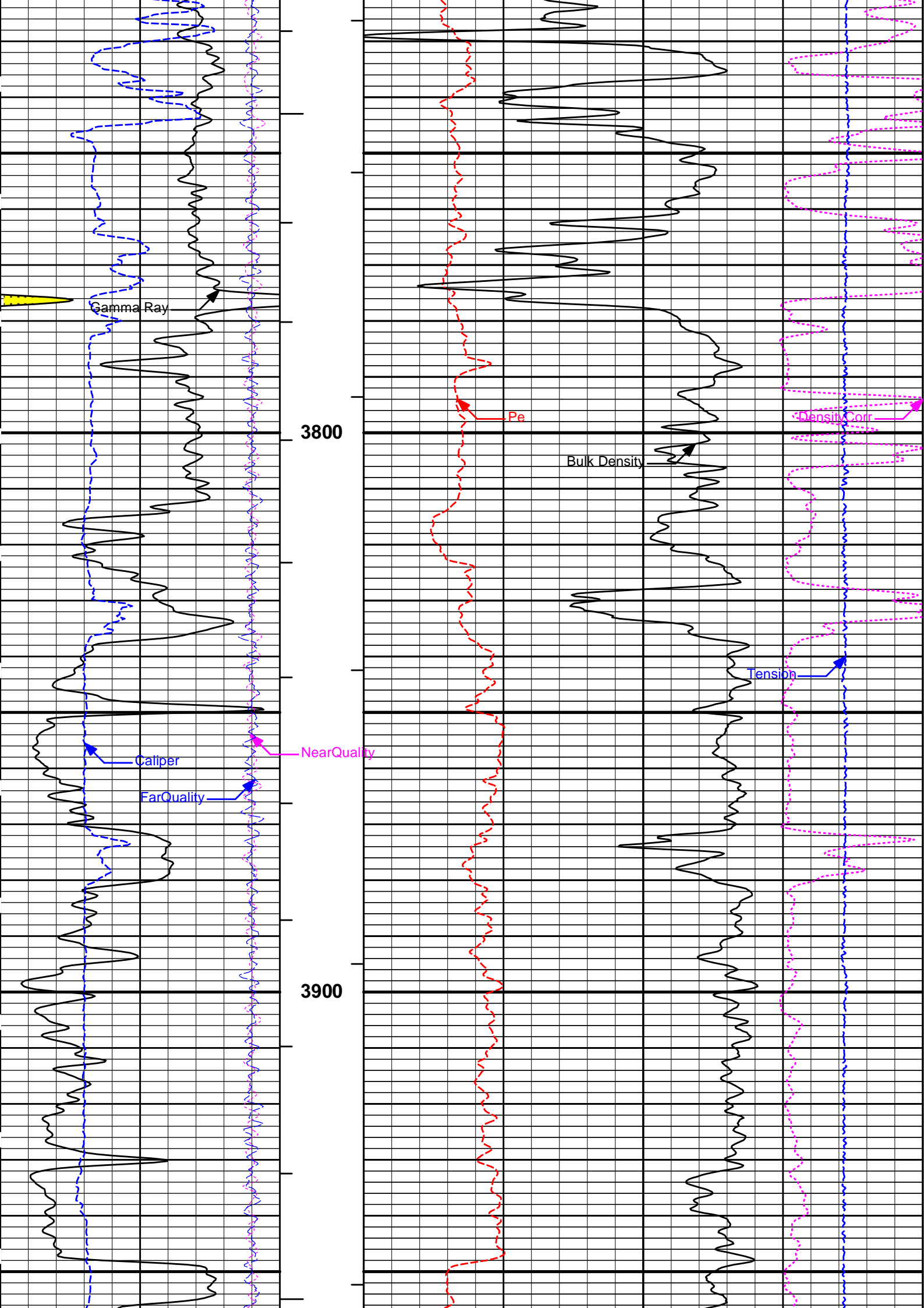


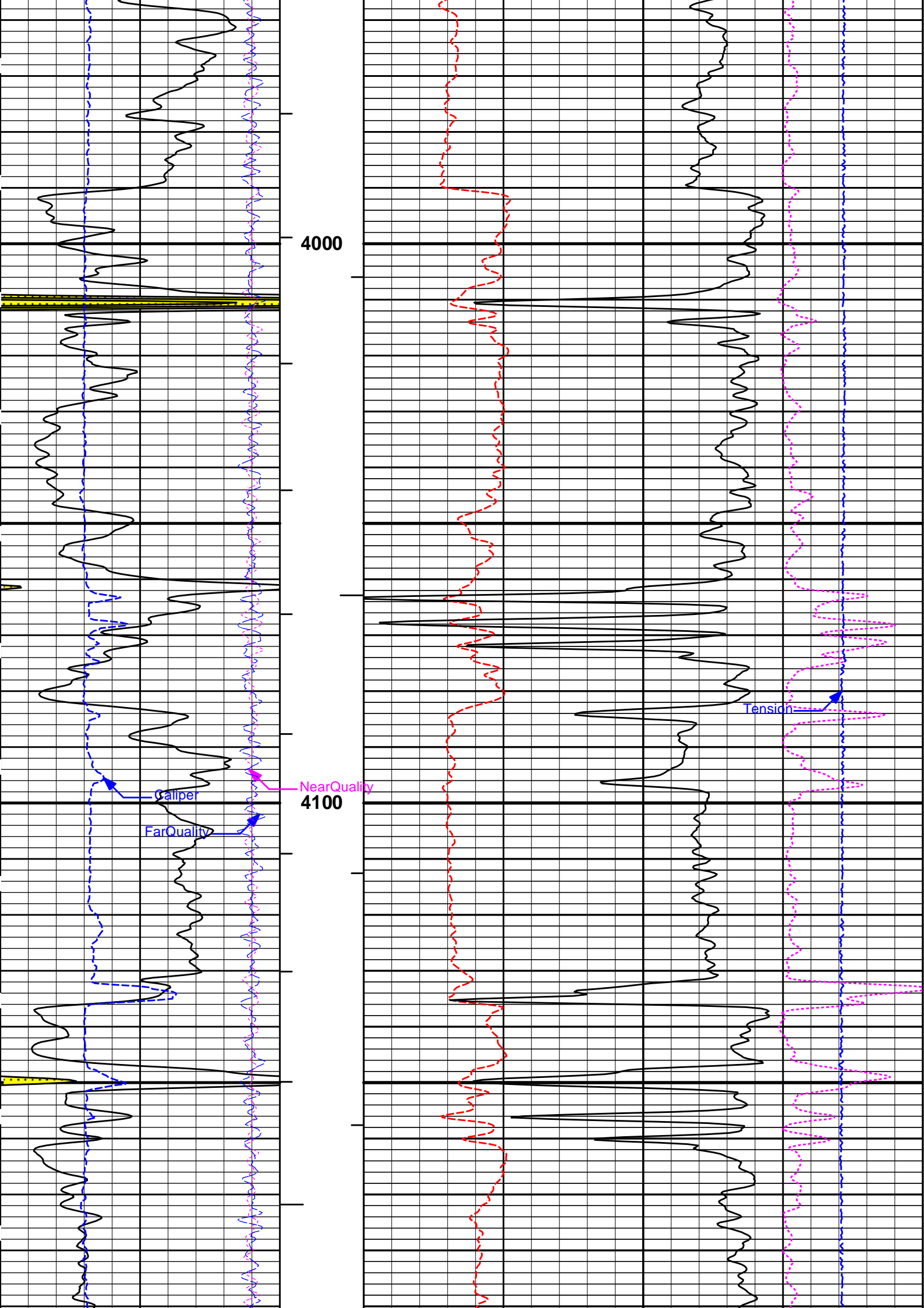


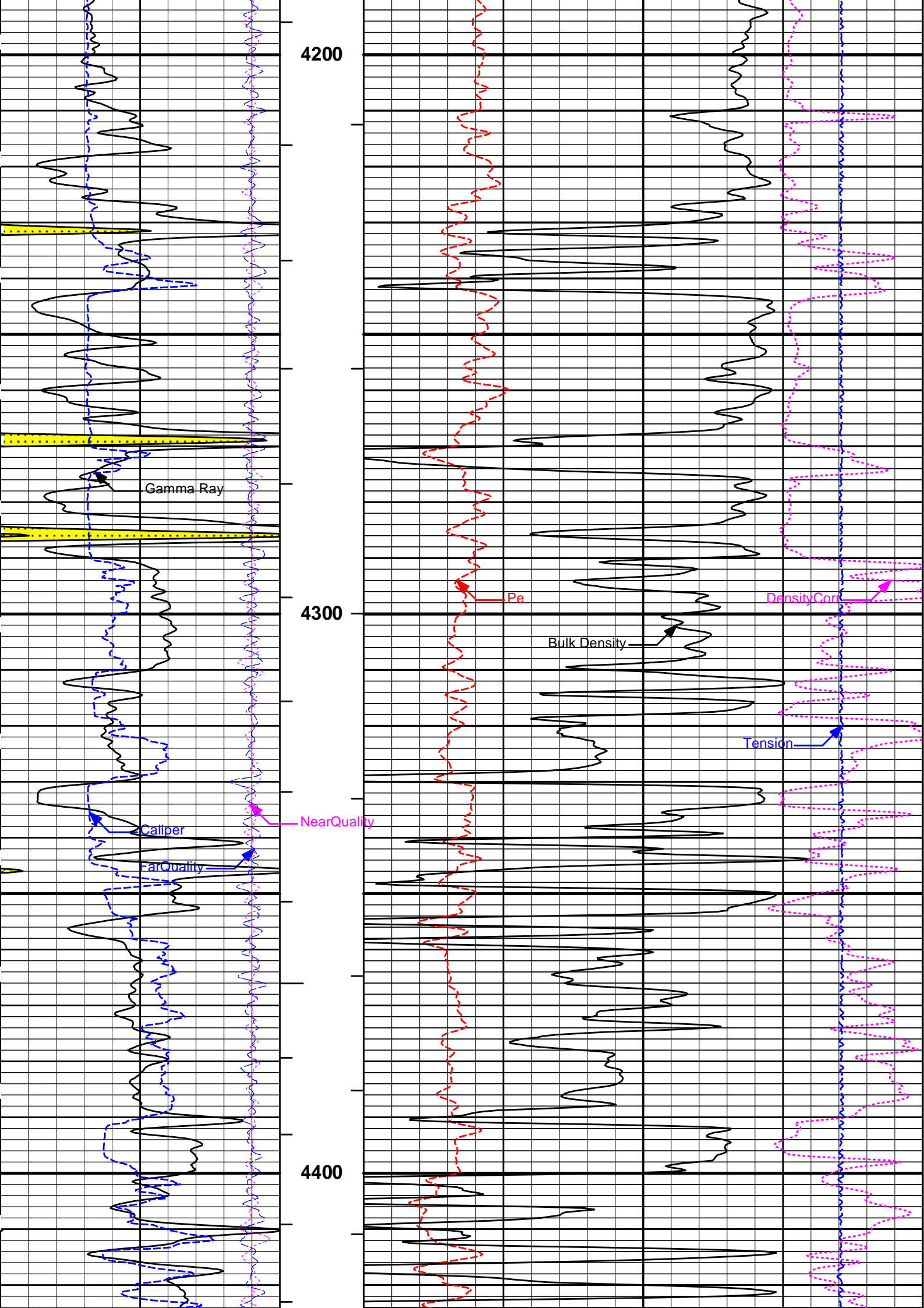


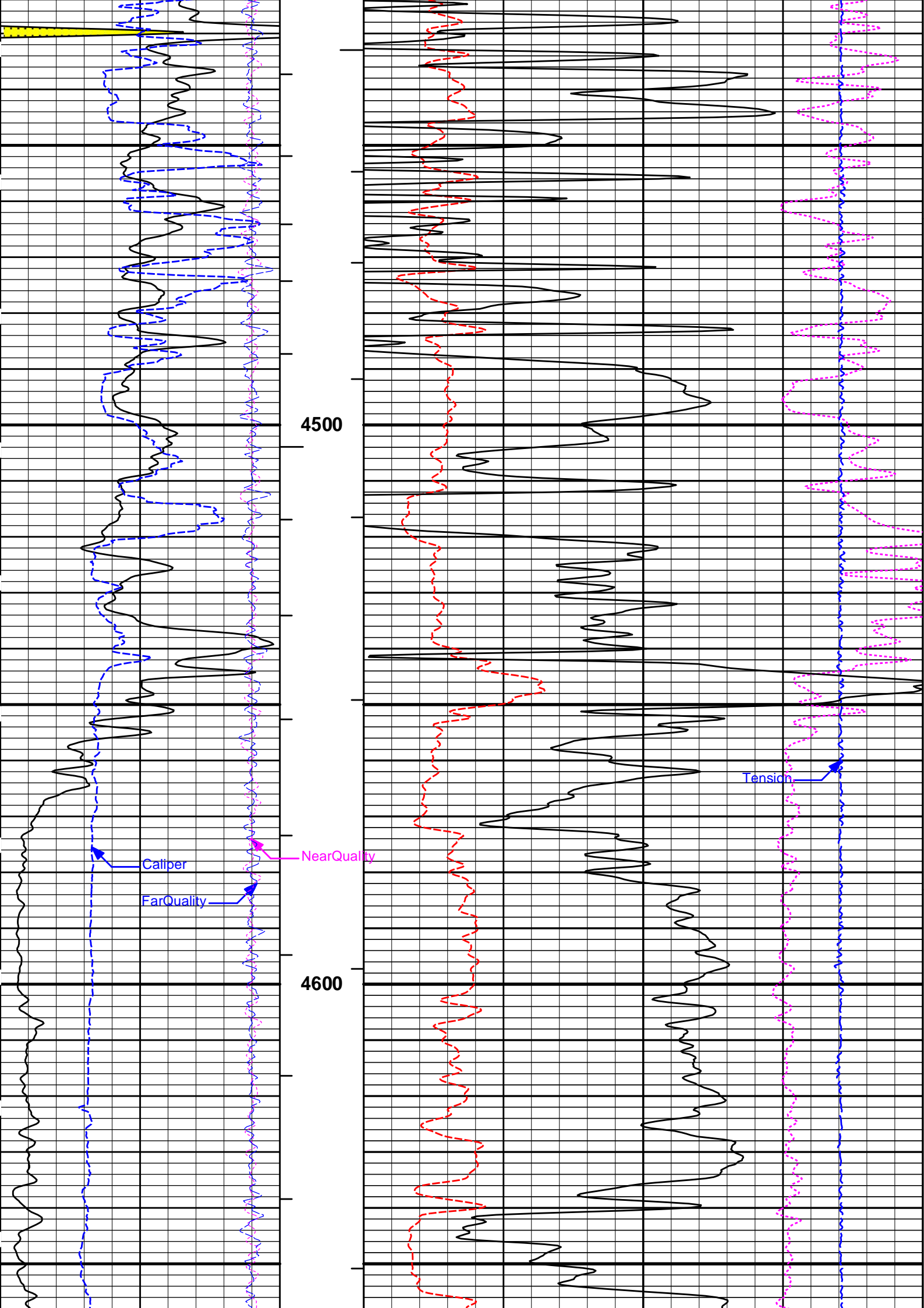


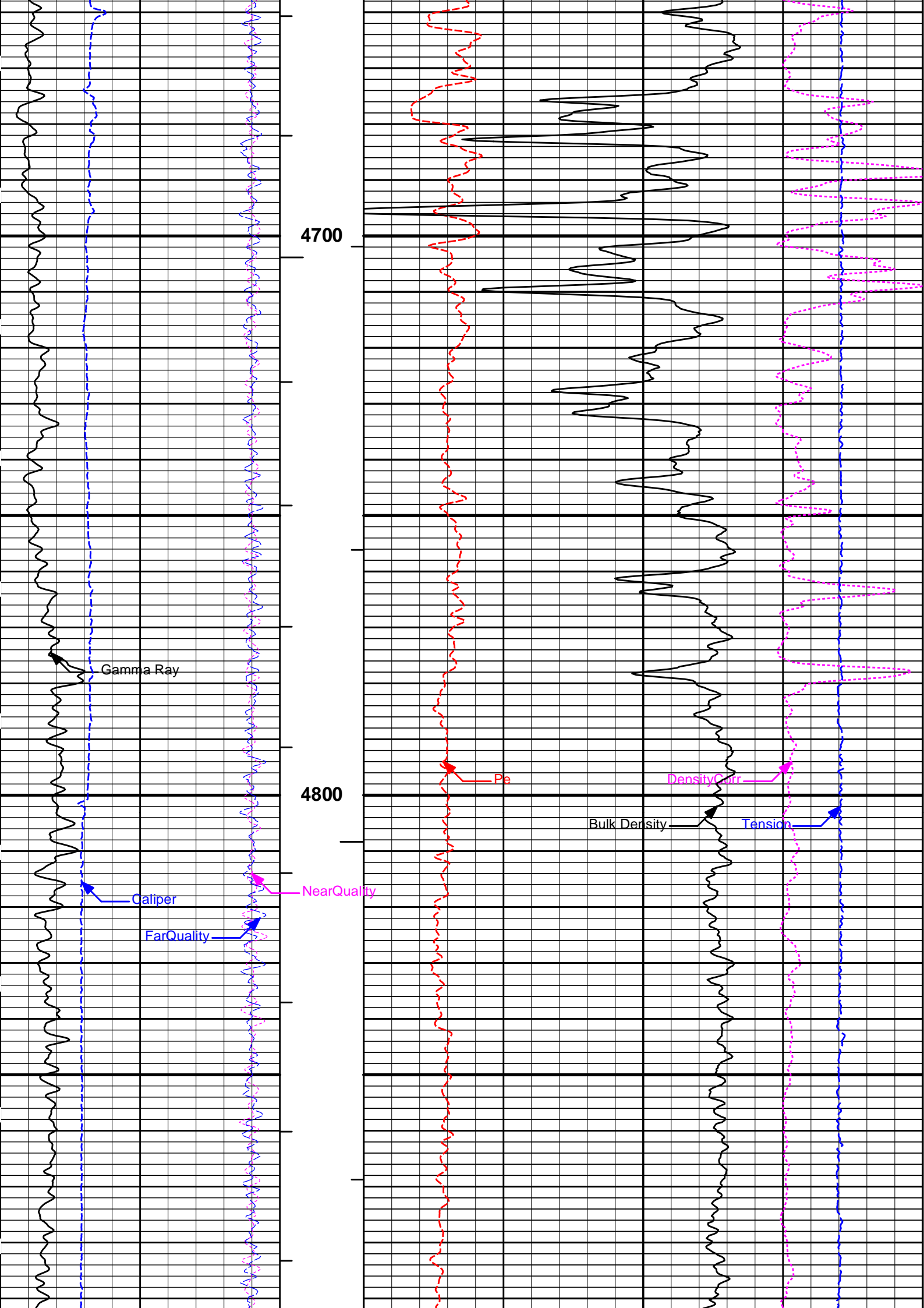


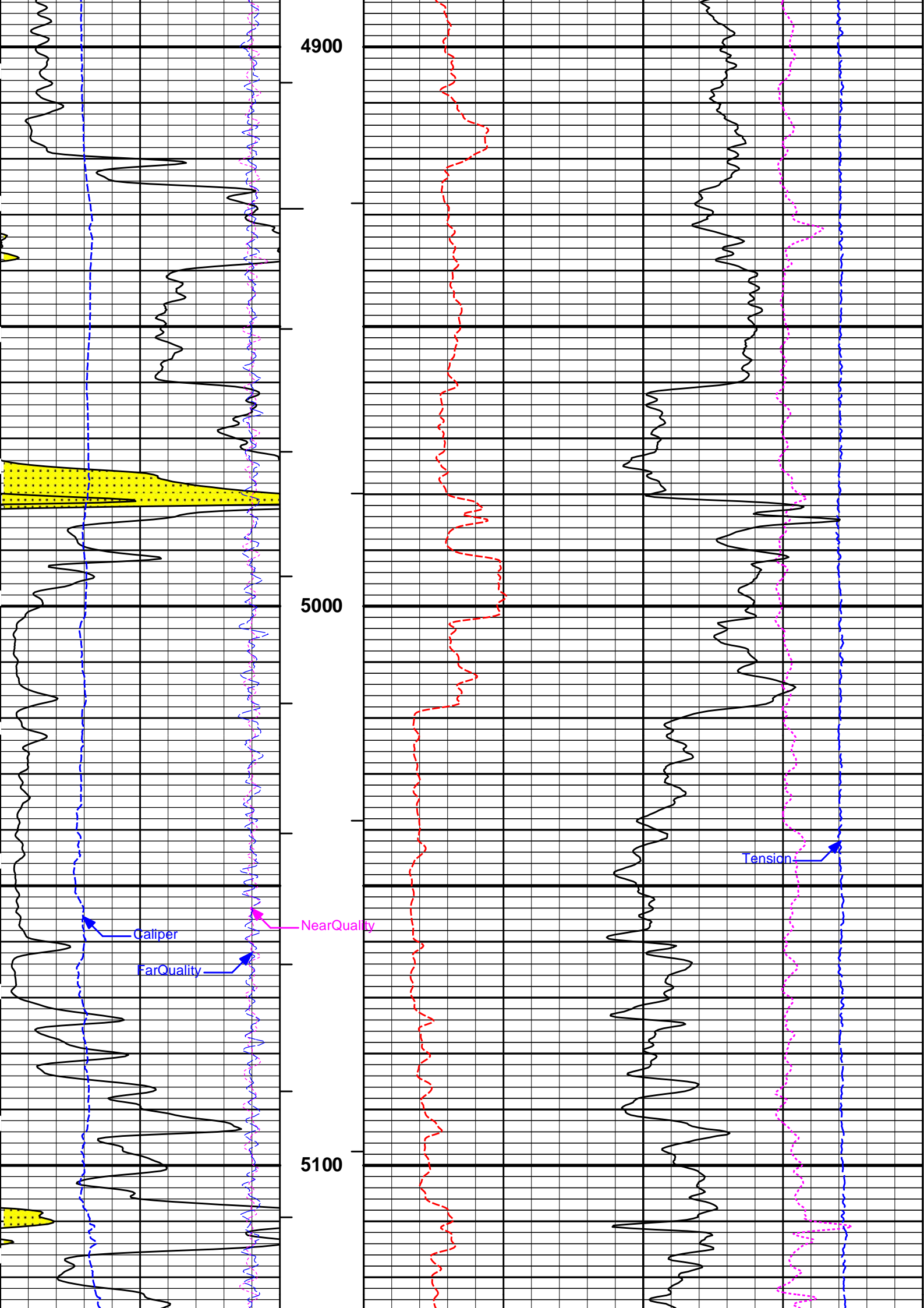


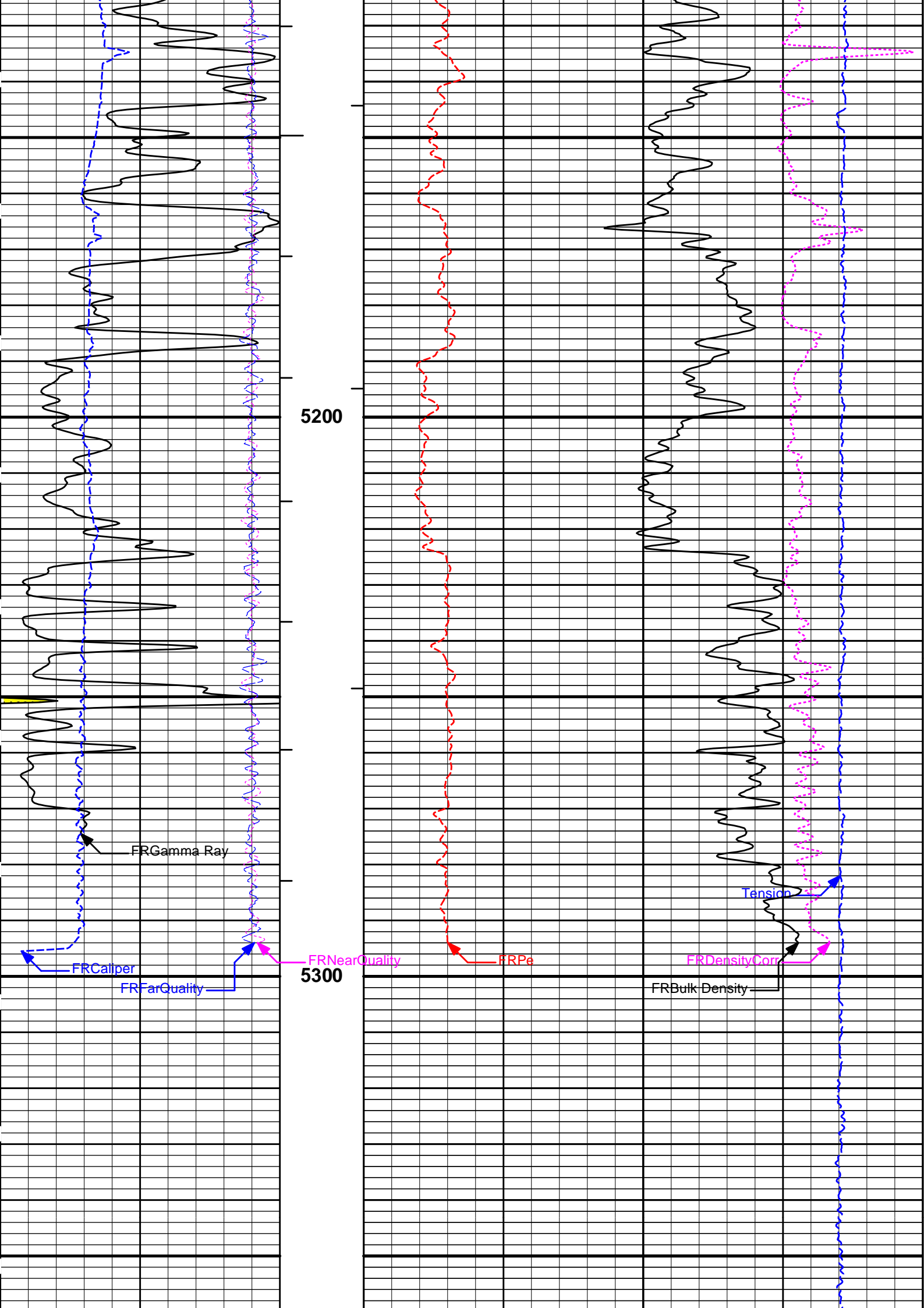


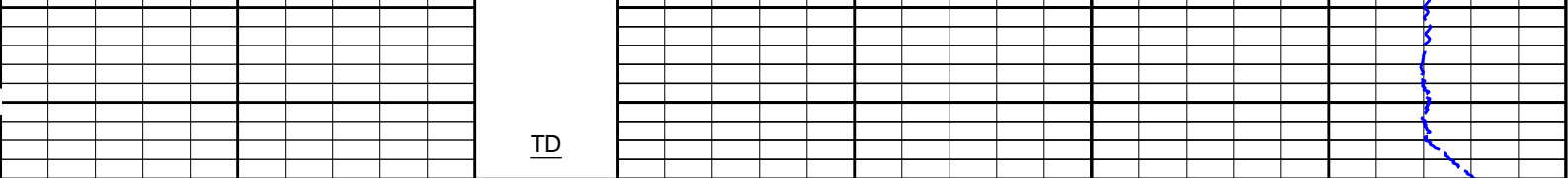












6	Caliper inches	16	1 : 240 ft	0	Pe	10	-0.25	DensityCorr g/cc	0.25
-18	NearQuality	2	BHV ft3				15K	Tension pounds	0
18	FarQuality	-2	AHV ft3	2	Bulk Density				3
					g/cc				
0	Gamma Ray api	150							

HALLIBURTON

Plot Time: 05-Oct-17 08:46:26
 Plot Range: 312 ft to 5378.08 ft
 Data: DESTINY_LINDA\Well Based\DAQ-0001-004\
 Plot File: \\-LOCAL-DESTINY_LINDA\0001 GTET-DSNT-SDLT-FLEX-ICT-IDT-WSTT-ACRTSDL-DSM\BULKD_5_MAIN_IQ

5 INCH MAIN LOG

MAIN SECTION 5" PER 100'

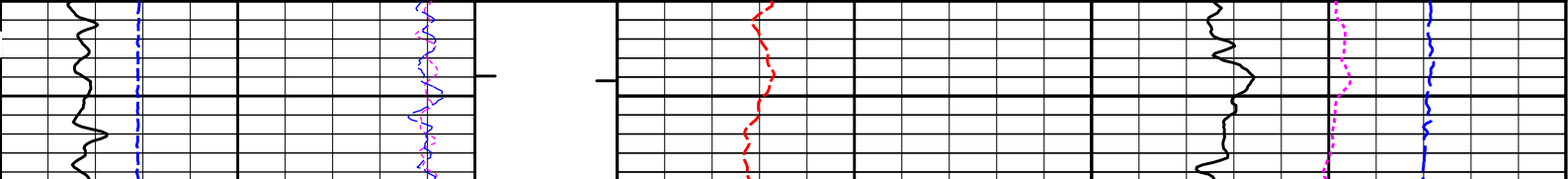
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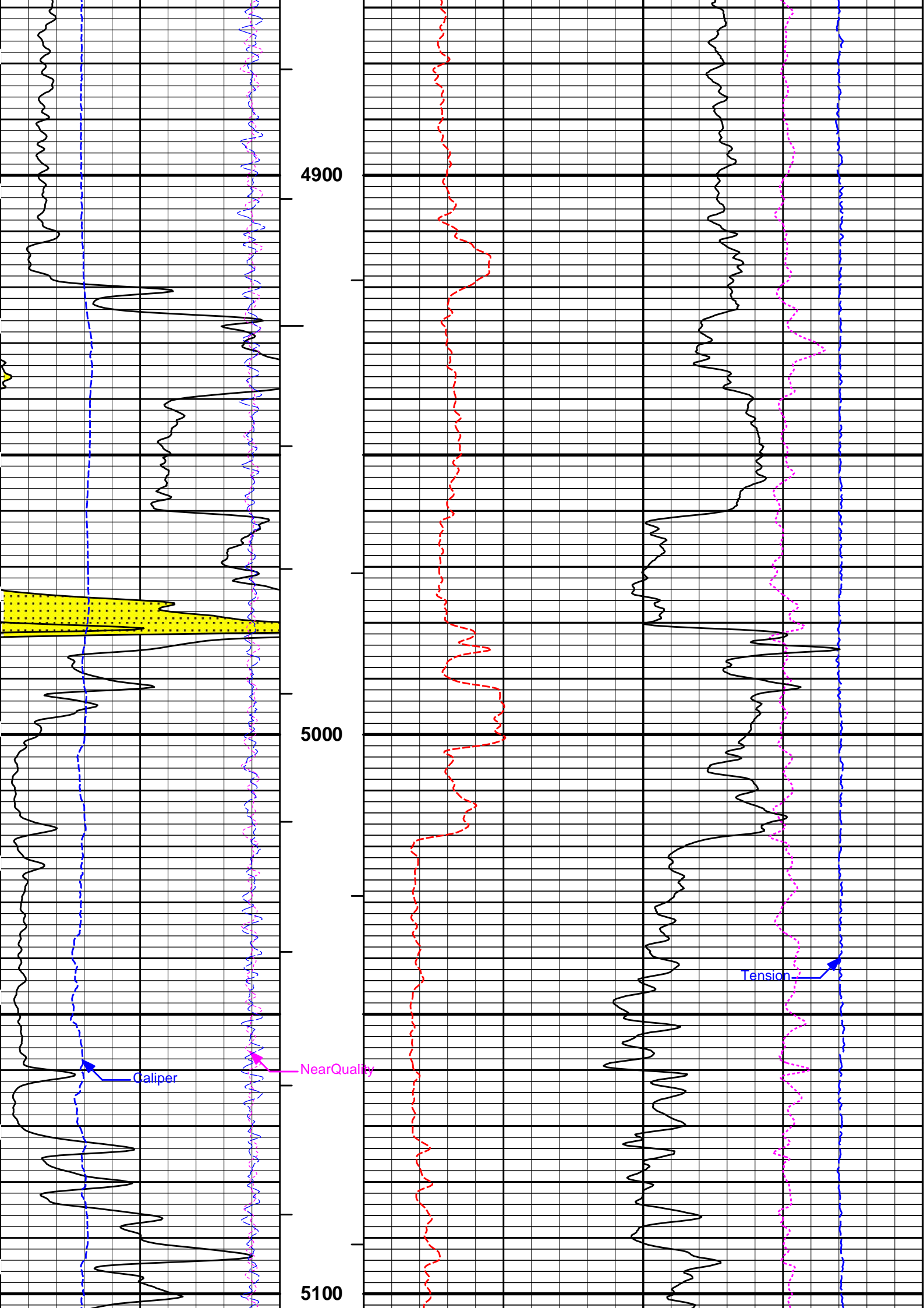
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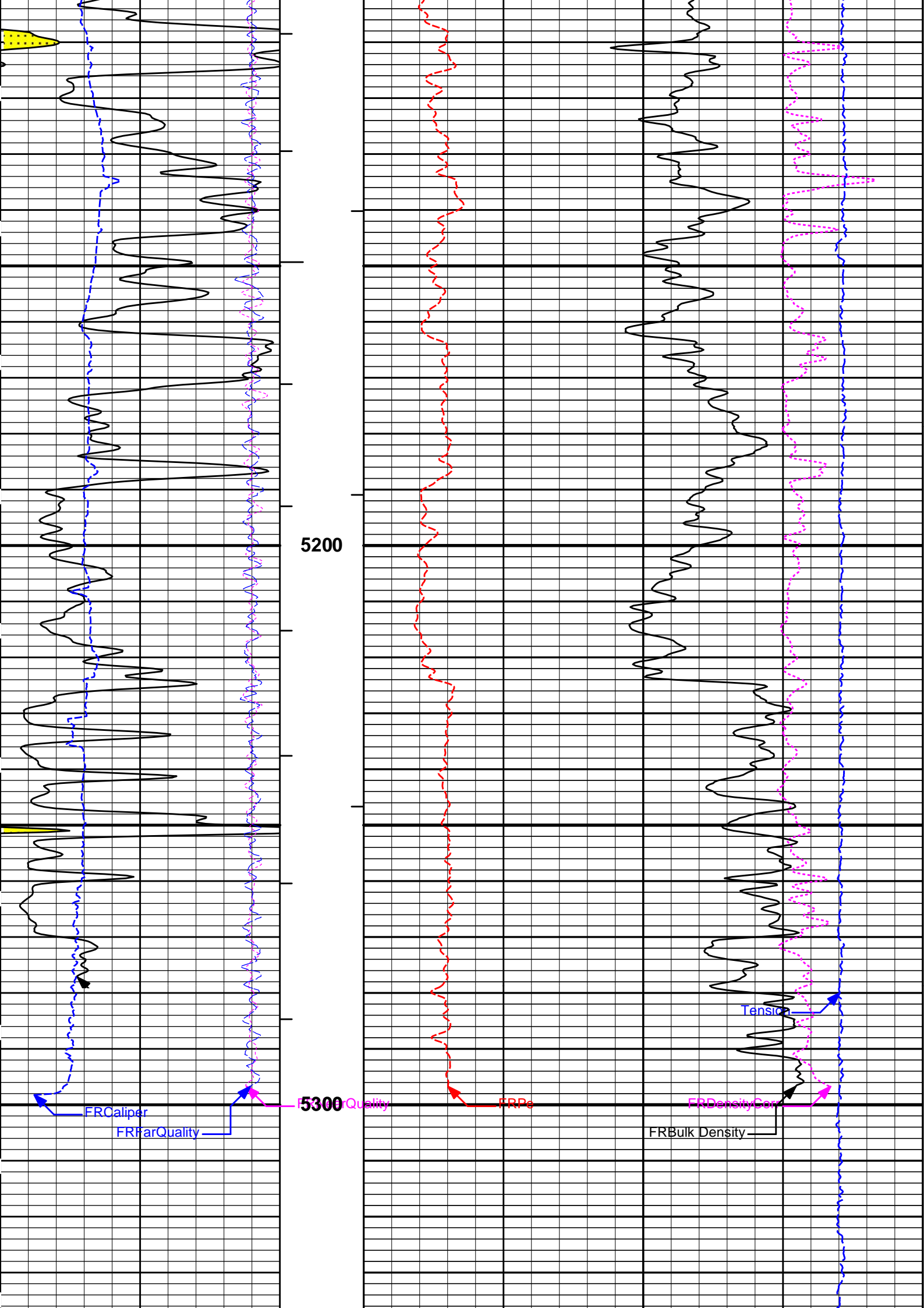
REPEAT SECTION

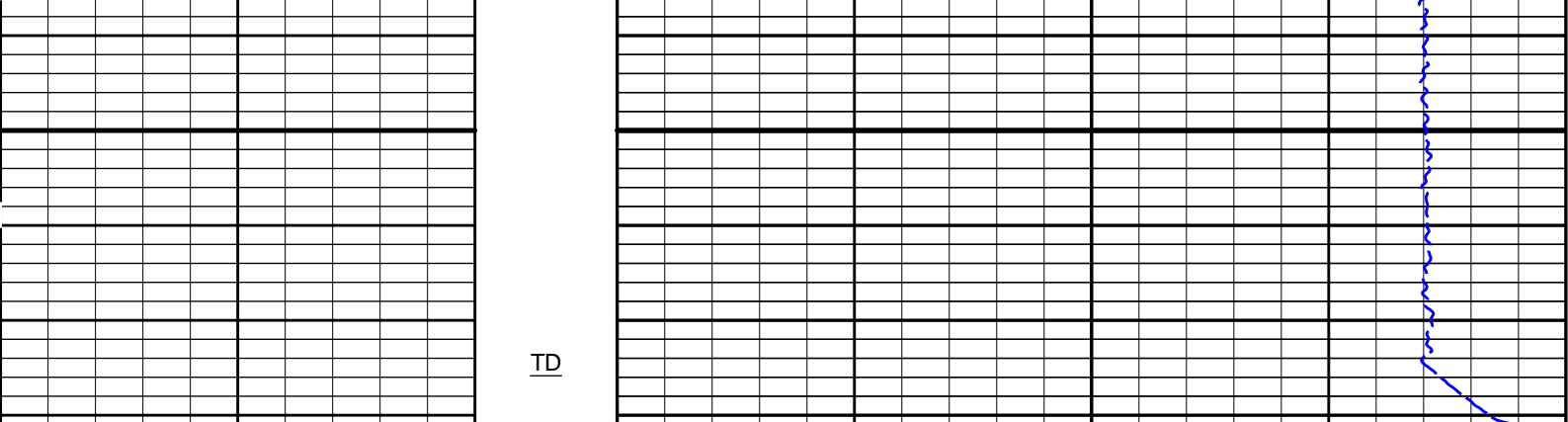
REPEAT SECTION

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









TD

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

HALLIBURTON

Plot Time: 05-Oct-17 08:46:28
 Plot Range: 4850 ft to 5381 ft
 Data: DESTINY_LINDA\Well Based\DAQ-0001-003\
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REPEAT SECTION

REPEAT SECTION

HALLIBURTON

CALIBRATION REPORT

SURFACE TENSION SHOP CALIBRATION

Tool Name: Depth Panel - PROT01	Reference Calibration Date: 07-Sep-17 10:42:25
Engineer: MICHAEL RICHTER	Calibration Date: 01-Oct-17 13:42:57
Software Version: WL INSITE R5.0.5 (Build 8)	Calibration Version: 1

SURFACE TENSION LOAD CELL				
Measurement	Load Cell Value	Measurement	Calibrated	Units
Low	10816.53	58.43	0.00	lbs
High	17331.66	7897.67	7830.00	lbs

DOWNHOLE TENSION SHOP CALIBRATION

Tool Name: CH_HOS - CH_HOS_I	Reference Calibration Date: 01-Oct-17 13:46:35
Engineer: WHITLOCK	Calibration Date: 05-Oct-17 02:55:06
Software Version: WL INSITE R5.0.5 (Build 8)	Calibration Version: 1

DOWNHOLE LOAD CELL				
Measurement	Tool Value	Measurement	Calibrated	Units
Low	-480.42	44.31	0.00	lbs

NATURAL GAMMA RAY TOOL SHOP CALIBRATION**Tool Name:** GTET - 11021139**Reference Calibration Date:** 03-Aug-17 01:40:19**Engineer:** WHITLOCK**Calibration Date:** 23-Sep-17 12:22:06**Software Version:** WL INSITE R5.0.5 (Build 8)**Calibration Version:** 1

Calibrator Source S/N: TB79

Calibrator API Reference:222.00 api

Equivalent Calibrator API Reference:225.9 api

Measurement	Measured	Calibrated	Units
Background	18.8	18.6	api
Background + Calibrator	247.0	244.5	api
Calibrator	228.2	225.9	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION**Tool Name:** GTET - 11021139**Reference Calibration Date:** 23-Sep-17 12:22:06**Engineer:** WHITLOCK**Calibration Date:** 04-Oct-17 10:26:06**Software Version:** WL INSITE R5.0.5 (Build 8)**Calibration Version:** 1

Calibrator Source S/N: TB79

Calibrator API Reference:222.00 api

Equivalent Calibrator API Reference:225.9 api

Field Verification	Shop	Field	Units
Background	18.6	20.9	api
Background + Calibrator	244.5	245.7	api
Calibrator	225.9	224.8	api

Shop	Field	Difference	Tolerance
225.9	224.8	1.1	+/- 9.00

DUAL SPACED NEUTRON SHOP CALIBRATION**Tool Name:** DSNT - 11020487**Reference Calibration Date:** 05-Jun-17 14:14:28**Engineer:** MICHAEL RICHTER**Calibration Date:** 03-Aug-17 01:56:12**Software Version:** WL INSITE R5.0.5 (Build 8)**Calibration Version:** 1

Logging Source S/N: DSN-436

Tank Serial Number: EL RENO

Reference value assigned to Tank: 56.100

Snow Block S/N: 12156883

Calibration Tank Water Temperature: 72 degF

Min. Tool Housing Outside Diameter: 3.625 in

CALIBRATION CONSTANTS

Measurement	Prev. Value	New Value	Control Limit On New Value
Gain:	0.99837	0.99685	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):	0.2363	0.2358	0.0005	+/- 0.0020
Calibrated Ratio:	10.5757	10.5596	0.016	+/- 0.050

VERIFIER

Measurement	Value	Control Limit
Snow-Block Porosity (decp):	0.0746	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 - 11020487 **Reference Calibration Date:** 03-Aug-17 01:56:12
Engineer: WHITLOCK **Calibration Date:** 04-Oct-17 10:36:11
Software Version: WL INSITE R5.0.5 (Build 8) **Calibration Version:** 1

Logging Source S/N: DSN-436
 Snow Block S/N: 12156883

NEUTRON FIELD-CHECK SUMMARY

	Shop	Field	Difference	Control Limit On Change
Snow-Block Porosity (decp):	0.0746	0.0691	-0.0054	+/- 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:** 06-Nov-16 12:09:13
Engineer: MICHAEL RICHTER **Calibration Date:** 15-Mar-17 09:33:53
Software Version: WL INSITE R5.0.5 (Build 8) **Calibration Version:** 1
Host Tool Name: DSNT - 11020487

CALIBRATION COEFFICIENTS

Measurement	Previous Value	New Value	Control Limit On New Value
Pad Offset	-4335.63	-4512.85	-7000.00 - -1000.00
Pad Gain	0.0003910	0.0004190	0.0002000 - 0.0006000
Arm Offset	-3121.03	-2559.45	-5000.00 - 3000.00
Arm Gain	0.0005117	0.0005078	0.000300 - 0.000700
Arm Power	-0.000003980	-0.000003959	-0.000010000 - 0.000010000

The ring diameter is computed from: $\text{DIAMETER} = \text{PAD EXTENSION} + \text{ARM EXTENSION} + \text{TOOL DIAMETER}$

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)	1.94	2.00	0.06	+/- 0.20
Medium Ring (in)	3.57	3.75	0.18	+/- 0.20
RING DIAMETER:				
Small Ring (in)	6.31	6.50	0.19	+/- 0.20
Medium Ring (in)	8.08	8.25	0.17	+/- 0.20
Large Ring (in)	14.92	15.00	0.08	+/- 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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SDLT CALIPER FIELD CALIBRATION

Tool Name: SDLT - 11014296 **Reference Calibration Date:** 15-Mar-17 09:33:53
Engineer: WHITLOCK **Calibration Date:** 04-Oct-17 10:11:22
Software Version: WL INSITE R5.0.5 (Build 8) **Calibration Version:** 1

MEASURED CALIPER VALUES				
Measurement	Shop	Field	Change	Control Limit On New Value
Pad Extension	3.75	3.84	0.09	+/- 0.10
Ring Diameter	8.25	8.31	0.06	+/- 0.15

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

ICT SHOP CALIBRATION

Tool Name:	ICT Mandrel - 11019427	Reference Calibration Date:	13-Mar-17 09:40:53
Engineer:	WHITLOCK	Calibration Date:	18-Jul-17 15:19:04
Software Version:	WL INSITE R5.0.5 (Build 8)	Calibration Version:	1

CALIPERS AND RINGS				
Ring	Measured	Calibrated	Units	
CALIPER 1:				
Small Ring	3.66	3.65	in	
Medium Ring	7.95	8.00	in	
Large Ring	14.93	15.00	in	
X-Large Ring	20.97	21.00	in	
CALIPER 2:				
Small Ring	3.61	3.65	in	
Medium Ring	7.93	8.00	in	
Large Ring	14.88	15.00	in	
X-Large Ring	20.97	21.00	in	
CALIPER 3:				
Small Ring	3.56	3.65	in	
Medium Ring	7.98	8.00	in	
Large Ring	14.88	15.00	in	
X-Large Ring	20.99	21.00	in	
CALIPER 4:				
Small Ring	3.61	3.65	in	
Medium Ring	8.12	8.00	in	
Large Ring	15.14	15.00	in	
X-Large Ring	21.13	21.00	in	
CALIPER 5:				
Small Ring	3.67	3.65	in	
Medium Ring	8.17	8.00	in	
Large Ring	15.15	15.00	in	
X-Large Ring	21.07	21.00	in	
CALIPER 6:				
Small Ring	3.71	3.65	in	
Medium Ring	7.97	8.00	in	
Large Ring	14.91	15.00	in	
X-Large Ring	21.02	21.00	in	

ICT FIELD CALIBRATION

Tool Name:	ICT Mandrel - 11019427	Reference Calibration Date:	18-Jul-17 15:19:04
Engineer:	WHITLOCK	Calibration Date:	18-Jul-17 15:21:59
Software Version:	WL INSITE R5.0.5 (Build 8)	Calibration Version:	1

CALIPERS				
Caliper	Shop	Field	Units	
Caliper 1		8.00	7.99	in
Caliper 2		8.00	8.01	in
Caliper 3		8.00	8.04	in

Caliper 4	8.00	7.94	in
Caliper 5	8.00	7.89	in
Caliper 6	8.00	7.94	in

ACCELEROMETER AND MAGNETOMETER SHOP CALIBRATION

Tool Name: IDT - 10967514	Reference Calibration Date: 10-Nov-14 11:33:34
Engineer: COTHREN	Calibration Date: 14-Dec-16 12:26:23
Software Version: WL INSITE R4.6.4 (Build 3)	Calibration Version: 1

Reference Gravity Field: 1.0000 g
Reference Magnetic Field: 51335.0000 nT

* QF : value of 0 is shown for bad quality if | data - reference | > (2 * standard deviation) and > (0.5% of reference value)

ACCELEROMETER CALIBRATION RAW DATA VALUE					
Raw Acc X	Raw Acc Y	Raw Acc Z	Quality(Gravity)	Quality Error(%)	QF
0.1268	-0.7113	-0.0141	0.9994	99.9424	1
-0.7403	-0.0252	-0.0129	0.9992	99.9235	1
-0.0432	0.7420	-0.0113	1.0003	99.9746	1
0.7158	0.0658	-0.0112	0.9999	99.9905	1
-0.0175	0.7407	-0.0100	0.9977	99.7671	1
-0.2114	0.6948	0.0680	1.0009	99.9141	1
0.0781	0.7377	-0.0090	1.0012	99.8774	1
0.7151	0.0759	-0.0091	1.0001	99.9870	1
0.0491	-0.7229	-0.0102	1.0006	99.9353	1
-0.7344	0.1122	-0.0101	1.0002	99.9807	1
-0.1668	0.0184	0.3437	0.9999	99.9925	1
-0.7176	0.0946	-0.1010	1.0005	99.9493	1

ACCELEROMETER QUALITY SUMMARY	
Average Calculated Gravity Field	1.0000 g
Standard Deviation Calculated Gravity Field	0.0009 g

ACCELEROMETER GAIN AND OFFSET		
	GAIN	OFFSET
ACC X	1.3699508905	0.0160978194
ACC Y	1.3627022505	-0.0118573820
ACC Z	2.7102901936	0.0454349816

* QF : value of 0 is shown for bad quality if | data - reference | > (3 * standard deviation) and > (1% of reference value)

MAGNETOMETER CALIBRATION RAW DATA VALUE					
Raw Mag X	Raw Mag Y	Raw Mag Z	Quality(Magnetic)	Quality Error(%)	QF
0.3189	1.2136	-0.0366	51305.3477	99.9422	1
1.1457	-0.4995	-0.0357	51326.3047	99.9831	1
-0.4790	-1.1617	-0.0382	51247.0586	99.8287	1
-1.1473	0.4544	-0.0380	51335.7422	99.9986	1
-0.0417	-1.1452	0.5204	51472.4219	99.7323	1
0.3664	-1.1738	-0.2978	51207.5703	99.7518	1
-0.0956	-1.1427	-0.5514	51429.5430	99.8158	1
-1.1056	-0.1453	-0.5516	51324.2305	99.9790	1
-0.1284	1.1286	-0.5495	51366.8320	99.9380	1
1.1259	-0.1261	-0.5477	51451.1289	99.7738	1
0.6240	-0.3637	1.0059	51288.5703	99.9096	1
0.9562	-0.0795	-0.8158	51261.5703	99.8570	1

MAGNETOMETER QUALITY SUMMARY	
Average Calculated Magnetic Field	51334.6953 nT
Standard Deviation Calculated Magnetic Field	82.5240 nT

	(mmho/m)	(mmho/m)	Pass/Fail	(mmho/m)	(mmho/m)	Pass/Fail	(mmho/m)	(mmho/m)	Pass/Fail
A1 (80")	0.000	< 0.750	Pass	0.000	< 0.750	Pass	0.000	< 0.750	Pass
A2 (50")	0.000	< 0.750	Pass	0.000	< 0.750	Pass	0.000	< 0.750	Pass
A3 (29")	0.000	< 0.750	Pass	0.000	< 0.750	Pass	0.000	< 0.750	Pass
A4 (17")	0.000	< 0.750	Pass	0.000	< 0.750	Pass	0.000	< 0.750	Pass
A5 (10")	0.000	< 0.750	Pass	0.000	< 0.750	Pass	0.000	< 0.750	Pass
A6 (6")	0.000	< 0.750	Pass	0.000	< 0.750	Pass	0.000	< 0.750	Pass

AVERAGES

	R12KHz			R36KHz			R72KHz		
	Measured (mmho/m)	Expected (mmho/m)	Pass/Fail	Measured (mmho/m)	Expected (mmho/m)	Pass/Fail	Measured (mmho/m)	Expected (mmho/m)	Pass/Fail
A1 (80")	0.000	< 0.500	Pass	-0.001	> -0.500	Pass	-0.006	> -0.500	Pass
A2 (50")	0.000	< 0.500	Pass	-0.001	> -0.500	Pass	-0.005	> -0.500	Pass
A3 (29")	-0.000	< 0.500	Pass	-0.001	> -0.500	Pass	-0.003	> -0.500	Pass
A4 (17")	-0.003	> -0.500	Pass	-0.008	> -0.500	Pass	-0.027	> -0.500	Pass
A5 (10")	-0.012	> -0.500	Pass	-0.020	> -0.500	Pass	-0.043	> -0.500	Pass
A6 (6")	0.015	< 0.500	Pass	0.074	< 0.500	Pass	0.160	< 0.500	Pass

GAIN TOLERANCE

R12KHz

	Measured (mmho/m)	Last Month (mmho/m)	Difference (mmho/m)	Tolerance (mmho/m)	Pass/Fail
A1 (80")	-223155904.000	-223150640.000	5264.000	11157532.000	Pass
A2 (50")	-220713888.000	-220710416.000	3472.000	11035520.800	Pass
A3 (29")	-216614880.000	-216612000.000	2880.000	10830600.000	Pass
A4 (17")	-214578320.000	-214578224.000	96.000	10728911.200	Pass
A5 (10")	-214986432.000	-214982096.000	4336.000	10749104.800	Pass
A6 (6")	-214394544.000	-214391936.000	2608.000	10719596.800	Pass

R36KHz

	Measured (mmho/m)	Last Month (mmho/m)	Difference (mmho/m)	Tolerance (mmho/m)	Pass/Fail
A1 (80")	60628184.000	60610992.000	17192.000	3030549.600	Pass
A2 (50")	62049960.000	62033248.000	16712.000	3101662.400	Pass
A3 (29")	53214172.000	53197224.000	16948.000	2659861.200	Pass
A4 (17")	50561756.000	50544860.000	16896.000	2527243.000	Pass
A5 (10")	52600244.000	52584856.000	15388.000	2629242.800	Pass
A6 (6")	50656572.000	50641704.000	14868.000	2532085.200	Pass

R72KHz

	Measured (mmho/m)	Last Month (mmho/m)	Difference (mmho/m)	Tolerance (mmho/m)	Pass/Fail
A1 (80")	-92698504.000	-92694664.000	3840.000	4634733.200	Pass
A2 (50")	-89662344.000	-89657152.000	5192.000	4482857.600	Pass
A3 (29")	-89109216.000	-89105528.000	3688.000	4455276.400	Pass
A4 (17")	-84842648.000	-84836840.000	5808.000	4241842.000	Pass
A5 (10")	-83337800.000	-83332480.000	5320.000	4166624.000	Pass
A6 (6")	-84561904.000	-84554136.000	7768.000	4227706.800	Pass

PASS/FAIL SUMMARY

Std Deviation Verification	Pass
Average Verification	Pass
Gain Tolerance Verification	Pass

MICRO LOG SHOP CALIBRATION

Tool Name: Microlog Pad - 11014296 Reference Calibration Date: 06-Jun-17 12:12:34

Engineer: MICHAEL RICHTER Calibration Date: 03-Aug-17 02:26:45

CALIBRATION COEFFICIENT SUMMARY

Measurement	Micro Log Normal		Micro Log Lateral		Units
	Measured	Calibrated	Measured	Calibrated	
Tool Zero	-0.21	-0.43	-0.01	0.00	ohmm
Calibration Point #1	0.23	0.00	-0.01	0.00	ohmm
Calibration Point #2	20.26	20.00	20.00	20.00	ohmm
Internal Reference	19.85	19.59	20.01	20.01	ohmm

Measurement	Micro Log Normal Tool Value		Micro Log Lateral Tool Value		Units
	Tool Zero		-0.14		
Calibration Point #1		115.47		-2.05	V
Calibration Point #2		5448.88		6908.76	V
Internal Reference		5338.32		6913.91	V

MICRO LOG FIELD CHECK

Tool Name: Microlog Pad - 11014296 **Reference Calibration Date:** 03-Aug-17 02:26:45
Engineer: WHITLOCK **Calibration Date:** 04-Oct-17 10:56:14
Software Version: WL INSITE R5.0.5 (Build 8) **Calibration Version:** 1

Measurement	Micro Log Normal		Micro Log Lateral		Units
	Shop	Field	Shop	Field	
Tool Zero	-0.43	-0.44	0.00	0.01	ohmm
Internal Reference	19.59	19.46	20.01	19.88	ohmm

Summary

Signal	Shop	Field	Difference	Tolerance
Microlog Normal	19.59	19.46	0.13	+/- 0.80
Microlog Lateral	20.01	19.88	0.13	+/- 0.80

SPECTRAL DENSITY SHOP CALIBRATION

Tool Name: SDLT Pad - 10809130 **Reference Calibration Date:** 25-May-17 12:11:12
Engineer: MICHAEL RICHTER **Calibration Date:** 03-Aug-17 02:19:19
Software Version: WL INSITE R5.0.5 (Build 8) **Calibration Version:** 1

Logging Source S/N: 5155GW
 Aluminum Block S/N: EL RENO Density: 2.581g/cc Pe: 3.170
 Magnesium Block S/N: EL RENO MG Density: 1.687g/cc Pe: 2.594

DENSITY CALIBRATION SUMMARY

Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	1.0466	0.9648	0.90 - 1.10
Near Dens Gain	1.0202	0.9664	0.90 - 1.10
Near Peak Gain	1.0587	0.9808	0.90 - 1.10
Near Lith Gain	1.0474	0.9899	0.90 - 1.10
Far Bar Gain	1.0144	1.0063	0.90 - 1.10
Far Dens Gain	1.0018	0.9910	0.90 - 1.10
Far Peak Gain	0.9968	0.9885	0.90 - 1.10
Far Lith Gain	0.9703	0.9595	0.90 - 1.10

Near Bar Offset	-0.1512	0.5881	NONE
Near Dens Offset	0.0840	0.5517	NONE
Near Peak Offset	-0.2272	0.4091	NONE
Near Lith Offset	-0.1986	0.2702	NONE
Far Bar Offset	0.0686	0.1331	NONE

Far Dens Offset	0.1508	0.2380	NONE
Far Peak Offset	0.1449	0.2044	NONE
Far Lith Offset	0.2786	0.3450	NONE
Near Bar Background	815.93	813.79	700 - 1450
Near Dens Background	269.20	265.74	230 - 480
Near Peak Background	115.80	115.36	100 - 210
Near Lith Background	146.10	144.32	125 - 260
Far Bar Background	479.68	477.53	450 - 900
Far Dens Background	184.50	185.37	175 - 345
Far Peak Background	72.51	72.20	70 - 140
Far Lith Background	76.60	75.50	75 - 145

CALIBRATION BLOCK SUMMARY				
Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.689	1.687	-0.002	+/- 0.015
Pe	2.521	2.561	0.040	+/- 0.150
ALUMINUM				
Density (g/cc)	2.574	2.580	0.006	+/- 0.01500
Pe	3.085	3.134	0.049	+/- 0.150

TOOL SUMMARY				
Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	0.0002	+/- 0.0110	-0.0029	+/- 0.0140
Magnesium Block	-0.0013	+/- 0.0110	-0.0010	+/- 0.0140
Aluminum Block	-0.0009	+/- 0.0110	-0.0014	+/- 0.0140
Resolution	8.91	6.00 - 11.50	9.49	6.00 - 11.50
Internal Verifier(B+D+P+L)	1339	1200 - 2700	811	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 - 10809130	Reference Calibration Date:	03-Aug-17 02:19:19
Engineer:	WHITLOCK	Calibration Date:	04-Oct-17 11:00:05
Software Version:	WL INSITE R5.0.5 (Build 8)	Calibration Version:	1

Pad Temperature: 70.0 degF

DENSITY FIELD CALIBRATION SUMMARY				
Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1339.219	1341.398	2.179	14.801
Far (B+D+P+L) cps	810.608	809.039	-1.569	15.737
Near Resolution	8.91	8.94	0.030	0.50
Far Resolution	9.49	9.33	-0.160	1.00

PASS/FAIL SUMMARY

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

CALIBRATION SUMMARY

Sensor	Shop	Field	Post	Difference	Tolerance	Units
Depth Panel-PROT01						
Tension Zero	0.00	-----	-----	0.00	-----	lbs
Tension Cal	7830.00	-----	-----	0.00	-----	lbs
CH_HOS-CH_HOS_I						
DH Tension Zero	0.00	-----	-----	0.00	-----	lbs
DH Tension Cal	2250.00	-----	-----	0.00	-----	lbs
GTET-11021139						
Gamma Ray Calibrator	225.9	224.8	-----	1.1	+/- 9.00	api
DSNT-11020487						
Snow-Block Porosity	0.0746	0.0691	-----	0.0055	+/- 0.0150	decp
SDLT-11014296						
Pad Extension	3.75	3.84	-----	-0.09	+/-0.10	in
Ring Diameter	8.25	8.31	-----	-0.06	+/-0.15	in
ICT Mandrel-11019427						
Caliper 1	8.00	7.99	-----	0.01	+/-0.25	in
Caliper 2	8.00	8.01	-----	-0.01	+/-0.25	in
Caliper 3	8.00	8.04	-----	-0.04	+/-0.25	in
Caliper 4	8.00	7.94	-----	0.06	+/-0.25	in
Caliper 5	8.00	7.89	-----	0.11	+/-0.25	in
Caliper 6	8.00	7.94	-----	0.06	+/-0.25	in
ACRt Sonde-11038385						
Mud Cell	1.00	-----	-----	0	-----	ohm-m
Microlog Pad-11014296						
MicroLog Normal	19.59	19.46	-----	0.13	+/-0.80	ohmm
MicroLog Lateral	20.01	19.88	-----	0.13	+/-0.80	ohmm
SDLT Pad-10809130						
Near(B+D+P+L)	1339.219	1341.398	-----	-2.179	+/-14.801	cps
Far(B+D+P+L)	810.608	809.039	-----	1.569	+/-15.737	cps

Data: DESTINY_LINDA\0001 GTET-DSNT-SDLT-FLEX-ICT-IDT-WSTT-ACRTIDLE

Date: 05-Oct-17 02:55:28



PARAMETERS REPORT

Depth (ft)	Tool Name	Mnemonic	Description	Value	Units
TOP					
	SHARED	BS	Bit Size	8.750	in
	SHARED	UBS	Use Bit Size instead of Caliper for all applications.	No	
	SHARED	MDBS	Mud Base	Water	
	SHARED	MDWT	Borehole Fluid Weight	9.100	ppg
	SHARED	WAGT	Weighting Agent	Barite	
	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	7.000	in

SHARED	CSTR	Compressive Strength	1000.00	psia
SHARED	ST	Surface Temperature	75.0	degF
SHARED	TD	Total Well Depth	5400.00	ft
SHARED	BHT	Bottom Hole Temperature	130.0	degF
SHARED	SVTM	Navigation and Survey Master Tool	IDT	
SHARED	AZTM	High Res Z Accelerometer Master Tool	IDT	
SHARED	TEMM	CBM Temperature Master Tool	GTET	
Rwa / CrossPlot	XPOK	Process Crossplot?	Yes	
Rwa / CrossPlot	FCHO	Select Source of F	Automatic	
Rwa / CrossPlot	AFAC	Archie A factor	0.6200	
Rwa / CrossPlot	MFAC	Archie M factor	2.1500	
Rwa / CrossPlot	RMFR	Rmf Reference	0.10	ohmm
Rwa / CrossPlot	TMFR	Rmf Ref Temp	75.00	degF
Rwa / CrossPlot	RWA	Resistivity of Formation Water	0.05	ohmm
Rwa / CrossPlot	ADP	Use Air Porosity to calculate CrossplotPhi	No	
Rwa / CrossPlot	BHSM	Borehole Size Source Tool	ICT Mandrel	
Rwa / CrossPlot	ROIN	Input for RO Calculation	Rwa	
GTET	GROK	Process Gamma Ray?	Yes	
GTET	GEOK	Process Gamma Ray EVR?	No	
GTET	TPOS	Tool Position for Gamma Ray Tools.	Eccentered	
GTET	BHSM	Borehole Size Source Tool	SDLT	
DSNT	DNOK	Process DSN?	Yes	
DSNT	DEOK	Process DSN EVR?	No	
DSNT	NLIT	Neutron Lithology	Limestone	
DSNT	DNSO	DSN Standoff - 0.25 in (6.35 mm) Recommended	0.250	in
DSNT	DNTT	Temperature Correction Type	None	
DSNT	DPRS	DSN Pressure Correction Type	None	
DSNT	SHCO	View More Correction Options	No	
DSNT	UTVD	Use TVD for Gradient Corrections?	No	
DSNT	LHWT	Logging Horizontal Water Tank?	No	
DSNT	BHSM	Borehole Size Source Tool	SDLT	
SDLT	CLOK	Process Caliper Outputs?	Yes	
Microlog Pad	MLOK	Process MicroLog Outputs?	Yes	
SDLT Pad	DNOK	Process Density?	Yes	
SDLT Pad	DNOK	Process Density EVR?	No	
SDLT Pad	CB	Logging Calibration Blocks?	No	
SDLT Pad	SPVT	SDLT Pad Temperature Valid?	Yes	
SDLT Pad	DTWN	Disable temperature warning	No	
SDLT Pad	DMA	Formation Density Matrix	2.710	g/cc
SDLT Pad	DFL	Formation Density Fluid	1.000	g/cc
SDLT Pad	BHSM	Borehole Size Source Tool	SDLT	
ICT Mandrel	CLOK	Process Caliper Outputs?	Yes	
ICT Mandrel	DARM	Disable Caliper Arm	No	
ICT Mandrel	ATDS	Arm To Disable	0	
ICT Mandrel	REPM	Method to replace arm?	Caliper Average	
ICT Mandrel	ARMV	Diameter to use for disabled arm	0.00	in
ICT Mandrel	DARM	Disable Second Caliper Arm	No	
ICT Mandrel	ATDS	Second Arm To Disable	0	
ICT Mandrel	REPM	Method to replace second arm?	Caliper Average	
ICT Mandrel	ARMV	Diameter to use for second disabled arm	0.00	in
ICT Mandrel	NAVS	Navigation Source Tool	IDT	
ICT Mandrel	CL10	Radius 1 Offset	0.00	in
ICT Mandrel	CL20	Radius 2 Offset	0.00	in
ICT Mandrel	CL30	Radius 3 Offset	0.00	in

ICT Mandrel	CL40	Radius 4 Offset	0.00	in
ICT Mandrel	CL50	Radius 5 Offset	0.00	in
ICT Mandrel	CL60	Radius 6 Offset	0.00	in
ICT Mandrel	BHVC	Radius type for borehole volume calculations	Elliptical	
ICT Mandrel	CCL	Caliper Correction Algorithm	None	
IDT	WRTI	Survey Writing Interval	30	ft
IDT	SOPT	Smoothing Option	None	
WSTT-I Receivers	WSOK	Process WSTT?	Yes	
WSTT-I Receivers	AFIL	Adaptive Filtering?	No	
WSTT-I Receivers	PINT	Process 1 Sample and Skip	0	
WSTT-I Receivers	PROM	Process Mode: M=1,MX=2,MY=3,MXY=4	4	
WSTT-I Receivers	DTSH	Delta -T Shale	100.00	uspf
WSTT-I Receivers	DTMT	Delta -T Matrix Type	Limestone 47.6	
WSTT-I Receivers	DTMA	Delta -T Matrix	57.00	uspf
WSTT-I Receivers	DTFL	Delta -T Pore Fluid	189.00	uspf
WSTT-I Receivers	RHOM	Matrix Density	2.7100	g/cc
WSTT-I Receivers	RHOF	Fluid Density	1.0000	g/cc
WSTT-I Receivers	SMTH	Semblance Threshold	0.25	
WSTT-I Receivers	VPVS	VPVS Ratio for Porosity	1.40	
WSTT-I Receivers	APEQ	Acoustic Porosity Equation	Wylie	
WSTT-I Receivers	NAVS	Navigation Source Tool	IDT	
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	RMAX	Maximum Resistivity for MAP	200.00	ohmm
ACRt Sonde	THQY	Threshold Quality	0.50	
ACRt Sonde	MRFX	Fixed mud resistivity	2000	ohmm
ACRt Sonde	BHSM	Borehole Size Source Tool	SDLT	
ACRt Sonde	MBFL	Apply Corkscrew Effect?	No	

BOTTOM

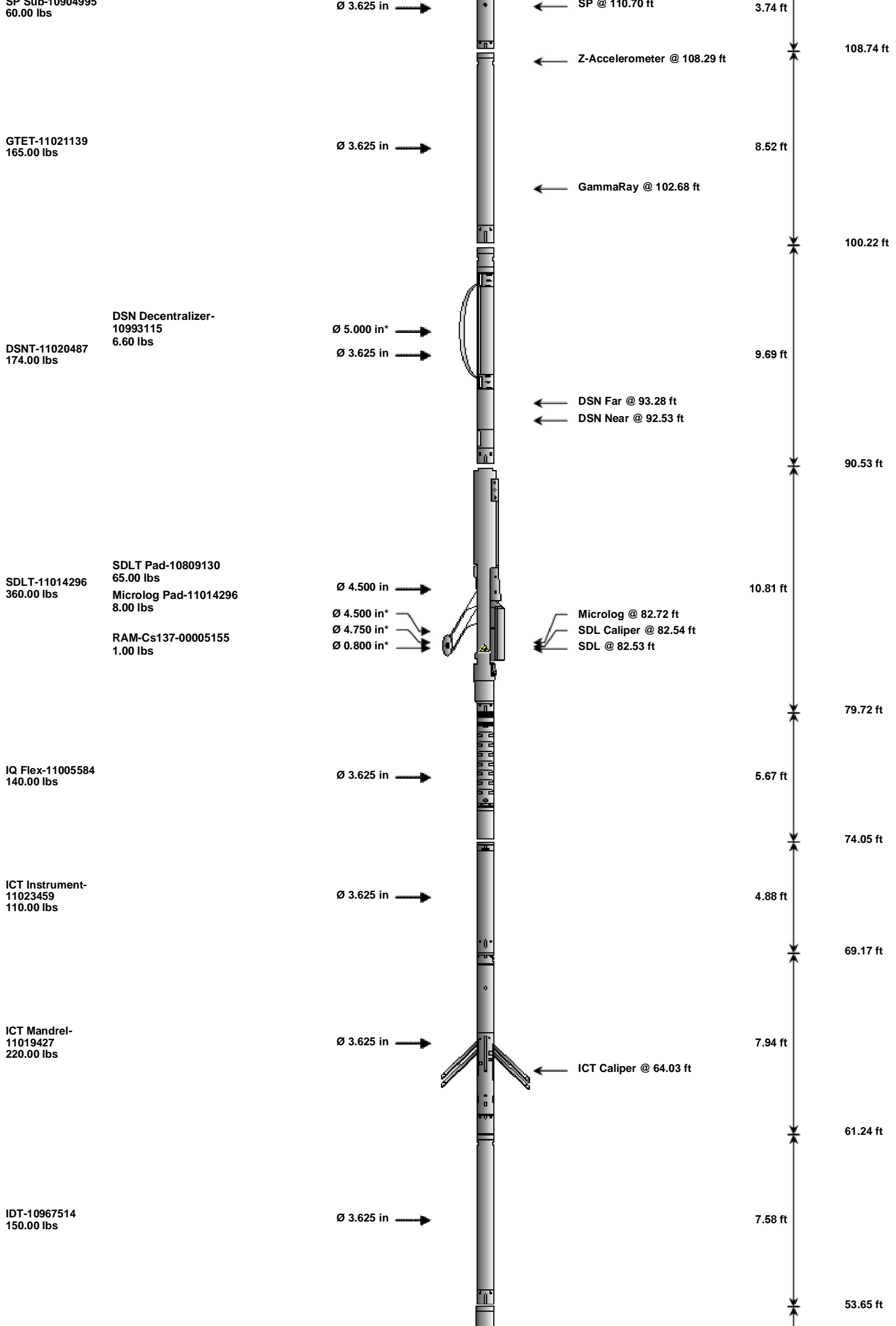
Data: DESTINY_LINDA\0001 GTET-DSNT-SDLT-FLEX-ICT-IDT-WSTT-ACRT001 05-Oct-17 03:00 Dn @115.8f

Date: 05-Oct-17 03:02:13

HALLIBURTON

TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
CH_HOS_I 37.50 lbs		Ø 2.750 in		Temperature @ 115.43 ft	2.25 ft	115.68 ft
XOHD-11021555 20.00 lbs		Ø 2.750 in Ø 3.625 in			0.95 ft	113.43 ft
SP Sub 10001005						



SP Sub-10904995
60.00 lbs

Ø 3.625 in →

← SP @ 110.70 ft

3.74 ft

← Z-Accelerometer @ 108.29 ft

108.74 ft

GTET-11021139
165.00 lbs

Ø 3.625 in →

8.52 ft

← GammaRay @ 102.68 ft

100.22 ft

DSNT-11020487
174.00 lbs

DSN Decentralizer-
10993115
6.60 lbs

Ø 5.000 in* →

Ø 3.625 in →

9.69 ft

← DSN Far @ 93.28 ft

← DSN Near @ 92.53 ft

90.53 ft

SDLT-11014296
360.00 lbs

SDLT Pad-10809130
65.00 lbs
Microlog Pad-11014296
8.00 lbs
RAM-Cs137-00005155
1.00 lbs

Ø 4.500 in →

Ø 4.500 in* →

Ø 4.750 in* →

Ø 0.800 in* →

10.81 ft

← Microlog @ 82.72 ft

← SDL Caliper @ 82.54 ft

← SDL @ 82.53 ft

79.72 ft

IQ Flex-11005584
140.00 lbs

Ø 3.625 in →

5.67 ft

74.05 ft

ICT Instrument-
11023459
110.00 lbs

Ø 3.625 in →

4.88 ft

69.17 ft

ICT Mandrel-
11019427
220.00 lbs

Ø 3.625 in →

7.94 ft

← ICT Caliper @ 64.03 ft

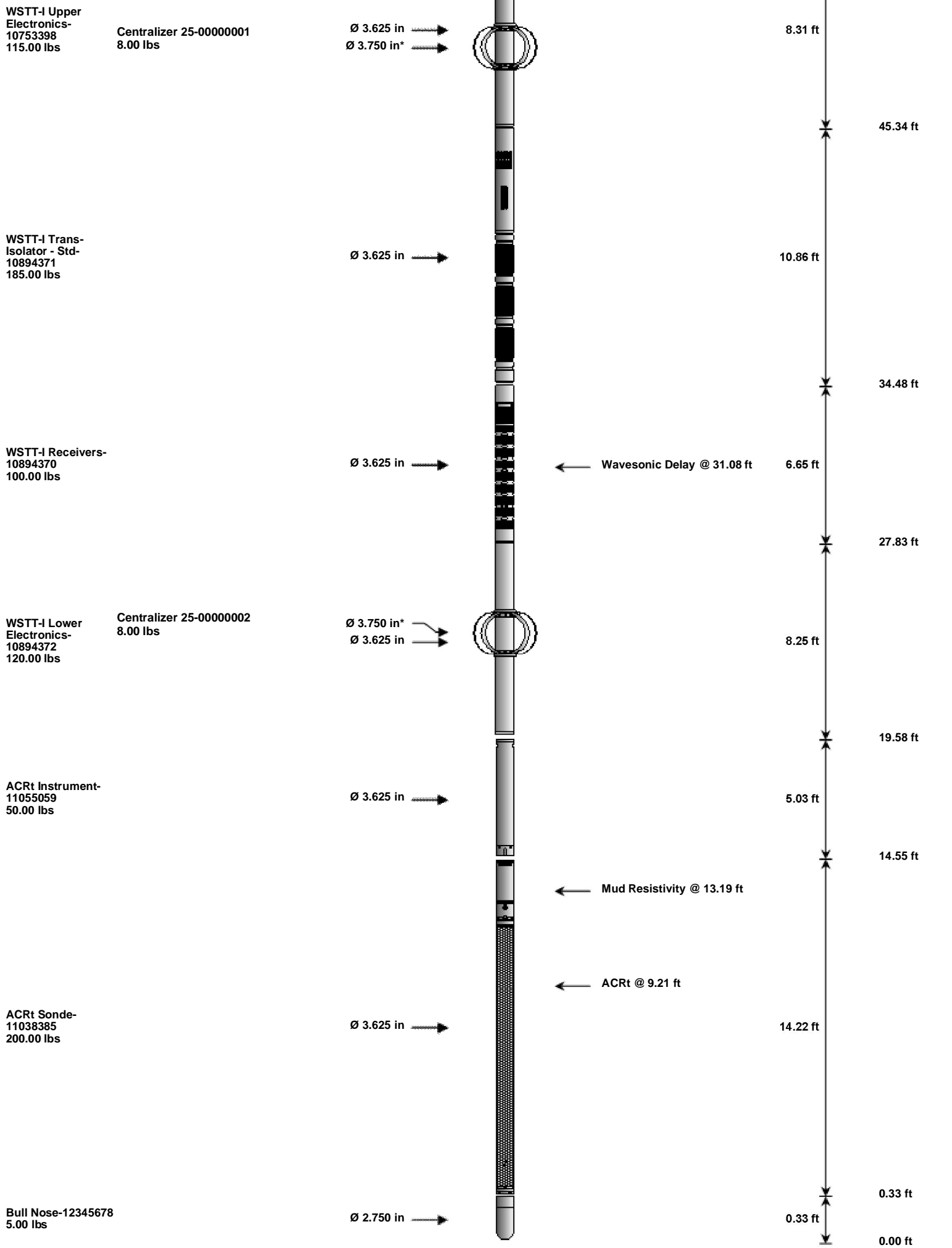
61.24 ft

IDT-10967514
150.00 lbs

Ø 3.625 in →

7.58 ft

53.65 ft



Mnemonic	Tool Name	Serial Number	Weight (lbs)	Length (ft)	Accumulated Length (ft)	Max.Log. Speed (fpm)
CH_HOS	Hostile Cable Head with Load Cell	CH_HOS_I	37.50	2.25	113.43	300.00
XOHD	Hostile to Dits Cross Over	11021555	20.00	0.95	112.48	300.00

SP	SP Sub	10904995	60.00	3.74	108.74	300.00
GTET	Gamma Telemetry Tool	11021139	165.00	8.52	100.22	60.00
DSNT	Dual Spaced Neutron	11020487	174.00	9.69	90.53	60.00
DCNT	DSN Decentralizer	10993115	6.60	5.13 *	93.86	300.00
SDLT	Spectral Density Tool	11014296	360.00	10.81	79.72	60.00
SDLP	Density Insite Pad	10809130	65.00	2.55 *	81.93	60.00
Cs137	Logging Source, SDLT-I, 1.78 Ci - Cs137	00005155	1.00	0.80 *	82.16	300.00
MICP	Microlog Pad	11014296	8.00	1.00 *	82.22	60.00
IQF	IQ Flex tool	11005584	140.00	5.67	74.05	300.00
ICT	Six Independent Arm Caliper Instrument	11023459	110.00	4.88	69.17	60.00
ICT	Six Independent Arm Caliper Mandrel	11019427	220.00	7.94	61.24	60.00
IDT	Insite Directional Tool	10967514	150.00	7.58	53.65	60.00
WSTT	WaveSonic Insite - Upper Electronics	10753398	115.00	8.31	45.34	100.00
OBCEN	Centralizer - 25 in. Overbody	00000001	8.00	2.08 *	47.71	300.00
WSTT	WaveSonic Insite - Trans-Isolator - Std	10894371	185.00	10.86	34.48	100.00
WSTT	WaveSonic Insite - Receivers	10894370	100.00	6.65	27.83	30.00
WSTT	WaveSonic Insite - Lower Electronics	10894372	120.00	8.25	19.58	100.00
OBCEN	Centralizer - 25 in. Overbody	00000002	8.00	2.08 *	23.00	300.00
ACRt	Array Compensated True Resistivity Instrument Section	11055059	50.00	5.03	14.55	120.00
ACRt	Array Compensated True Resistivity Sonde Section	11038385	200.00	14.22	0.33	120.00
BLNS	Bull Nose	12345678	5.00	0.33	0.00	300.00
Total			2,308.10	115.68		

* Not included in Total Length and Length Accumulation.

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