

HALLIBURTON

DUAL SPACED NEUTRON
SPECTRAL DENSITY
LOG

COMPANY		BEREXCO LLC.	
WELL		BARKER 2-23	
FIELD/BLOCK		WILDCAT	
COUNTY		FINNEY	
STATE		KANSAS	
Permanent Datum		GL	
Log measured from		KB	
Drilling measured from		KB	
Date		13-Mar-14	
Run No.		ONE	
Depth - Driller		5400.00 ft	
Depth - Logger		5402.0 ft	
Bottom - Logged Interval		5380.0 ft	
Top - Logged Interval		3700.0 ft	
Casing - Driller		8.625 in @ 1763.0 ft	
Casing - Logger		1756.0 ft	
Bit Size		7.875 in @	
Type Fluid in Hole		WATER BASED	
Density		9.4 ppg	
Viscosity		50.00 s/qt	
PH		8.50 pH	
Fluid Loss		8.8 cpm	
Source of Sample		MUD PIT	
Rm @ Meas. Temperature		0.980 ohmm @ 60.00 degF	
Rmf @ Meas. Temperature		0.86 ohmm @ 60.00 degF	
Rmc @ Meas. Temperature		1.150 ohmm @ 60.00 degF	
Source Rmf		MEASURED	
Rmc		MEASURED	
Rm @ BHT		0.58 ohmm @ 107.0 degF	
Time Since Circulation		4.0 hr	
Time on Bottom		13-Mar-14 09:58	
Max. Rec. Temperature		107.0 degF @ 5402.0 ft	
Equipment		11230668 LIBERAL	
Recorded By		THOMAS HYDE	
Witnessed By		P. WILSON	

COMPANY	BEREXCO LLC.
WELL	BARKER 2-23
FIELD/BLOCK	WILDCAT
COUNTY	FINNEY
STATE	KANSAS
API No.	15-055-22283-00-00
Location	NE-SW-SE-NE (SHL) 2194' FNL 988' FEL
Other Services:	ACRT MICRO
Sect. 23	Twp. 26S
Rge.	34W
Elev. 2942.0 ft	Elev.: K.B. 2954.0 ft
D.F.	2952.0 ft
G.L.	2942.0 ft

Fold here

Service Ticket No.: 901159970				API Serial No.: 15-055-22283-00-00				PGM Version: WL INSITE R3.8.4 (Build 5)							
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.		10748374		Serial No.				Serial No.		10685803		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.		5073 GW		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			
Run	Depth		Speed	Scale		Scale		Matrix	Scale		Matrix	Scale		Matrix	
No.	From	To	ft/min	L	R	L	R		L	R		L	R		
ONE	5402	1756	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															
LCM REPORTED AT 2 PPB															
CHLORIDES REPORTED AT 3500 MG/L															
TODAY'S CREW V. JAIME K. KING															
THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES LIBERAL, KANSAS 620-624-8123															
HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.															
														HALLIBURTON	

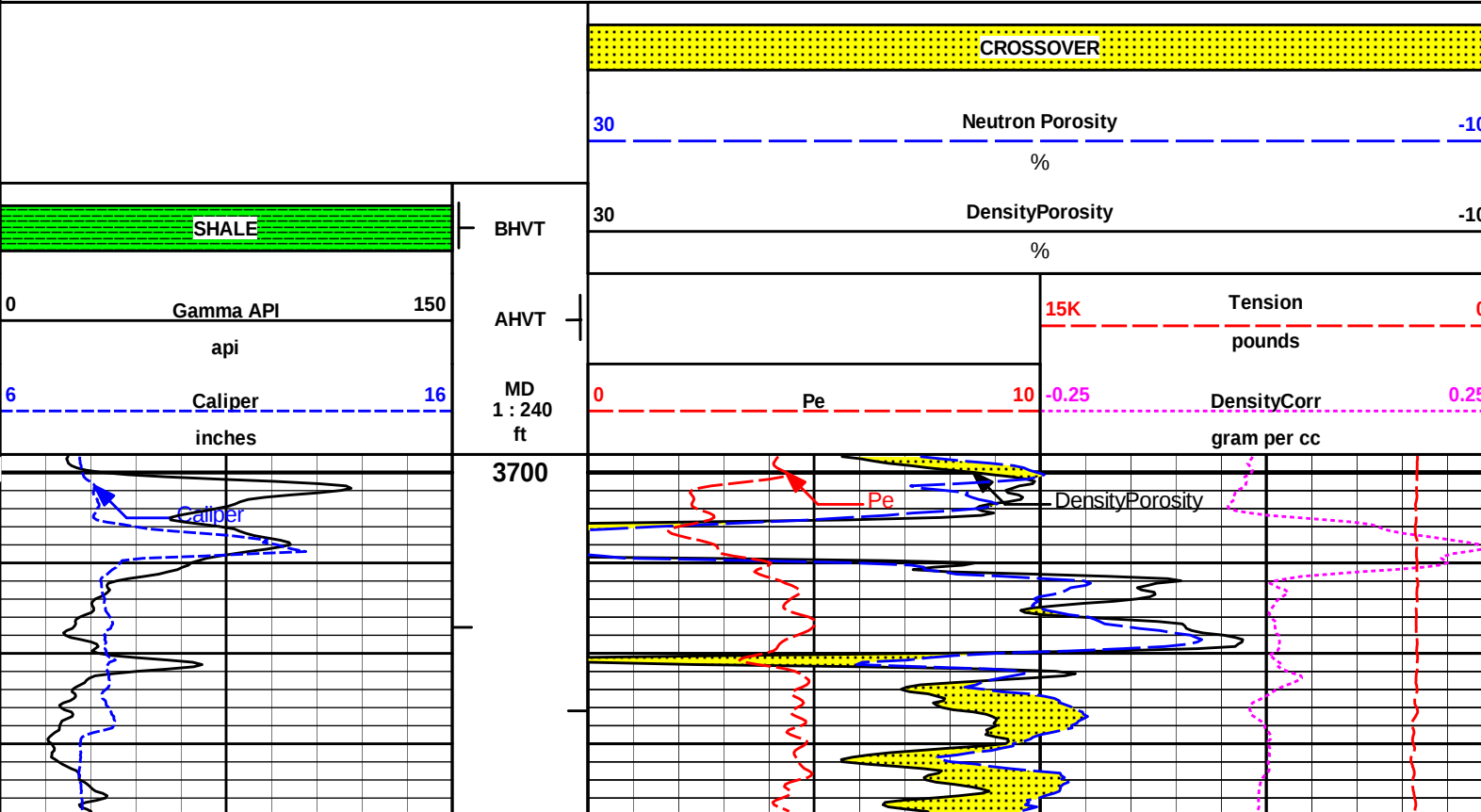
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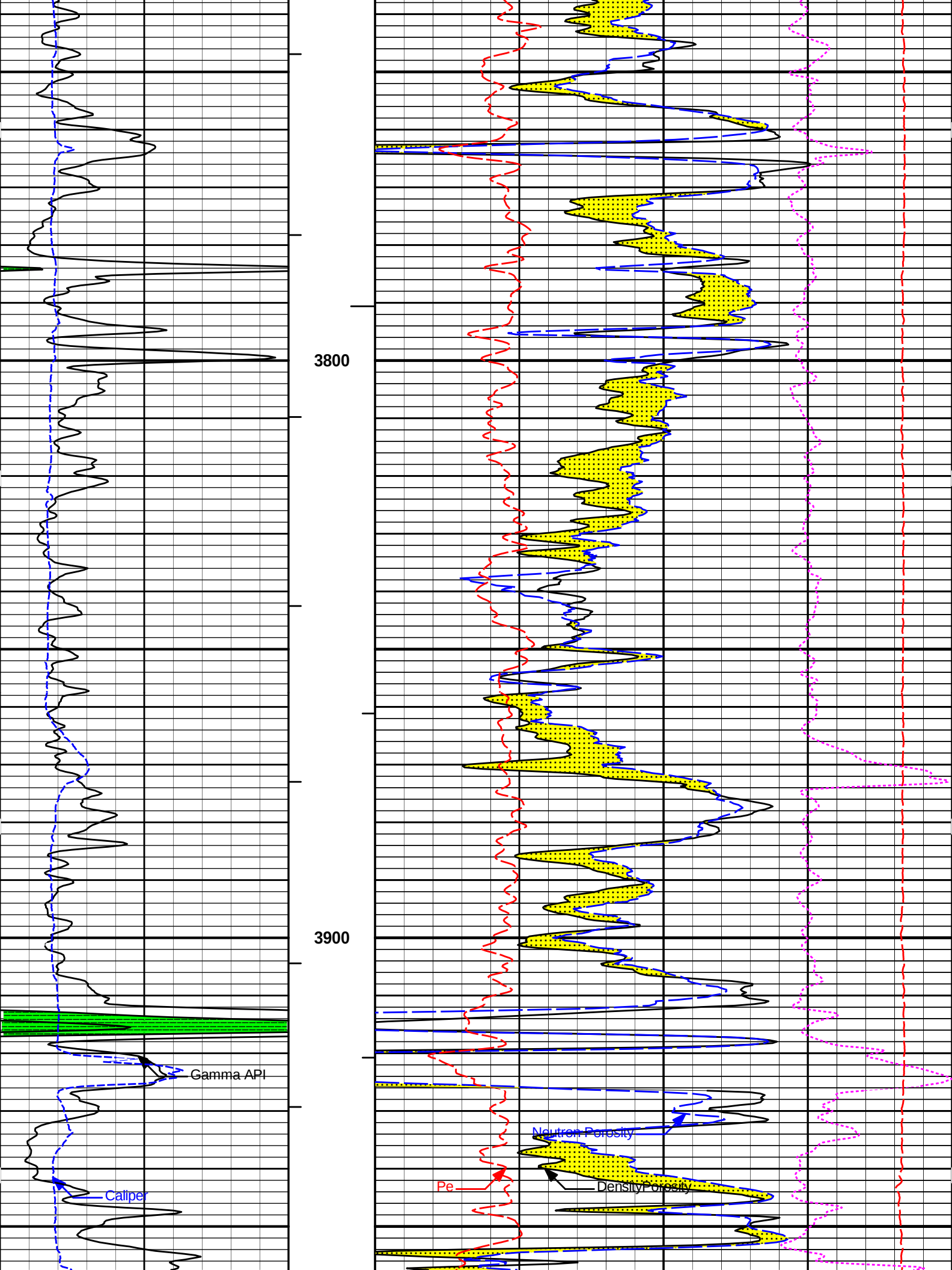
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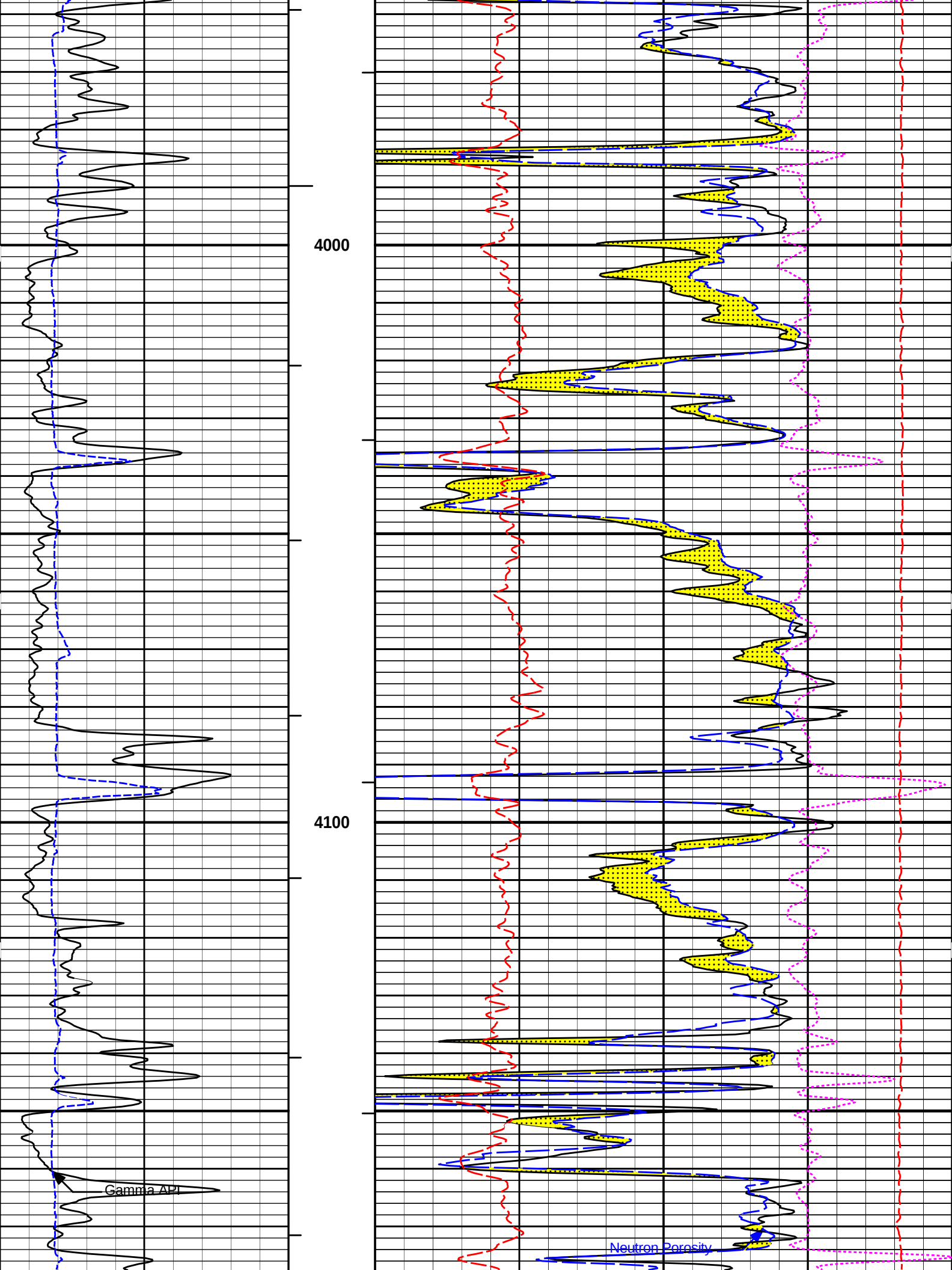
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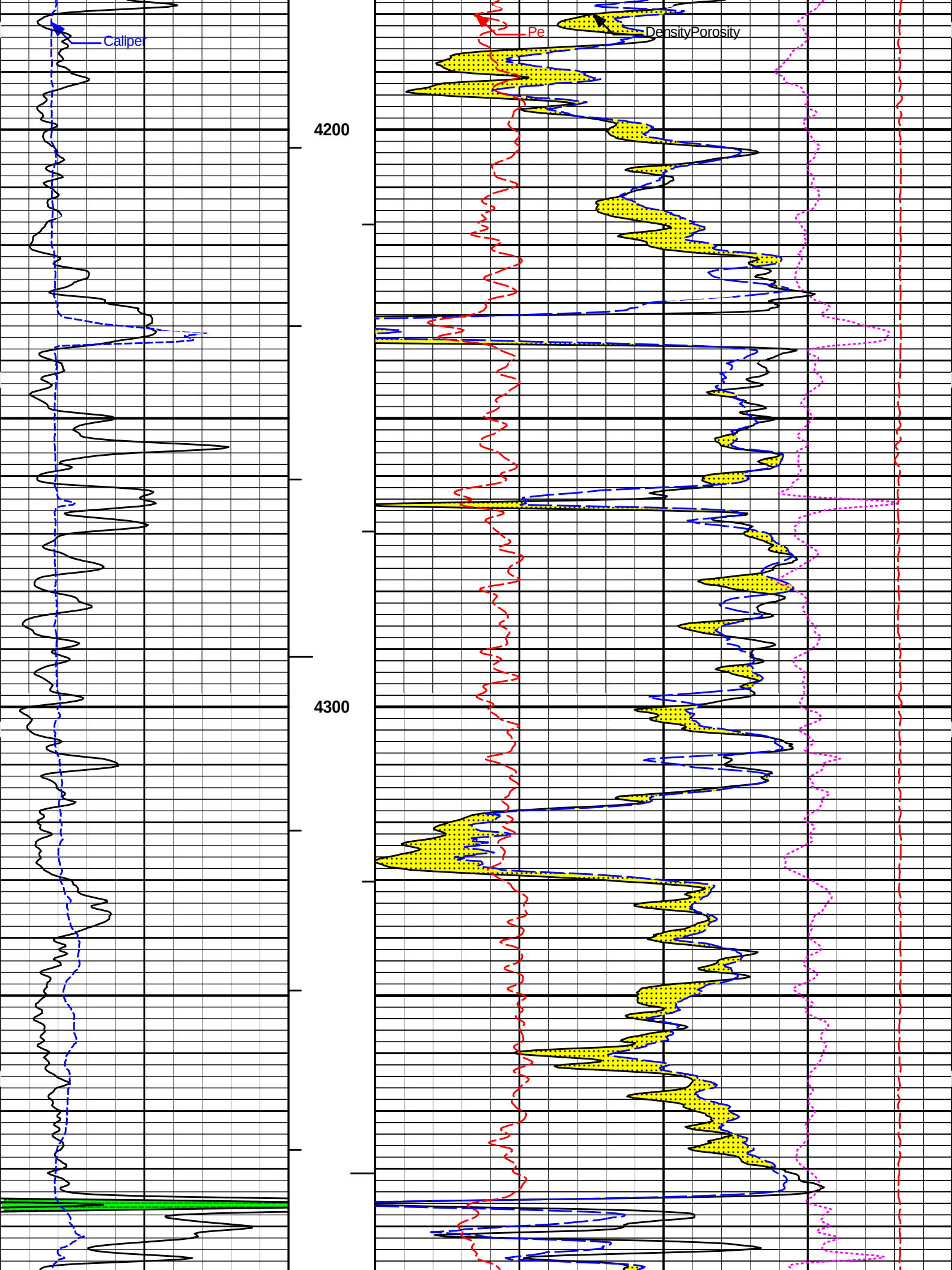
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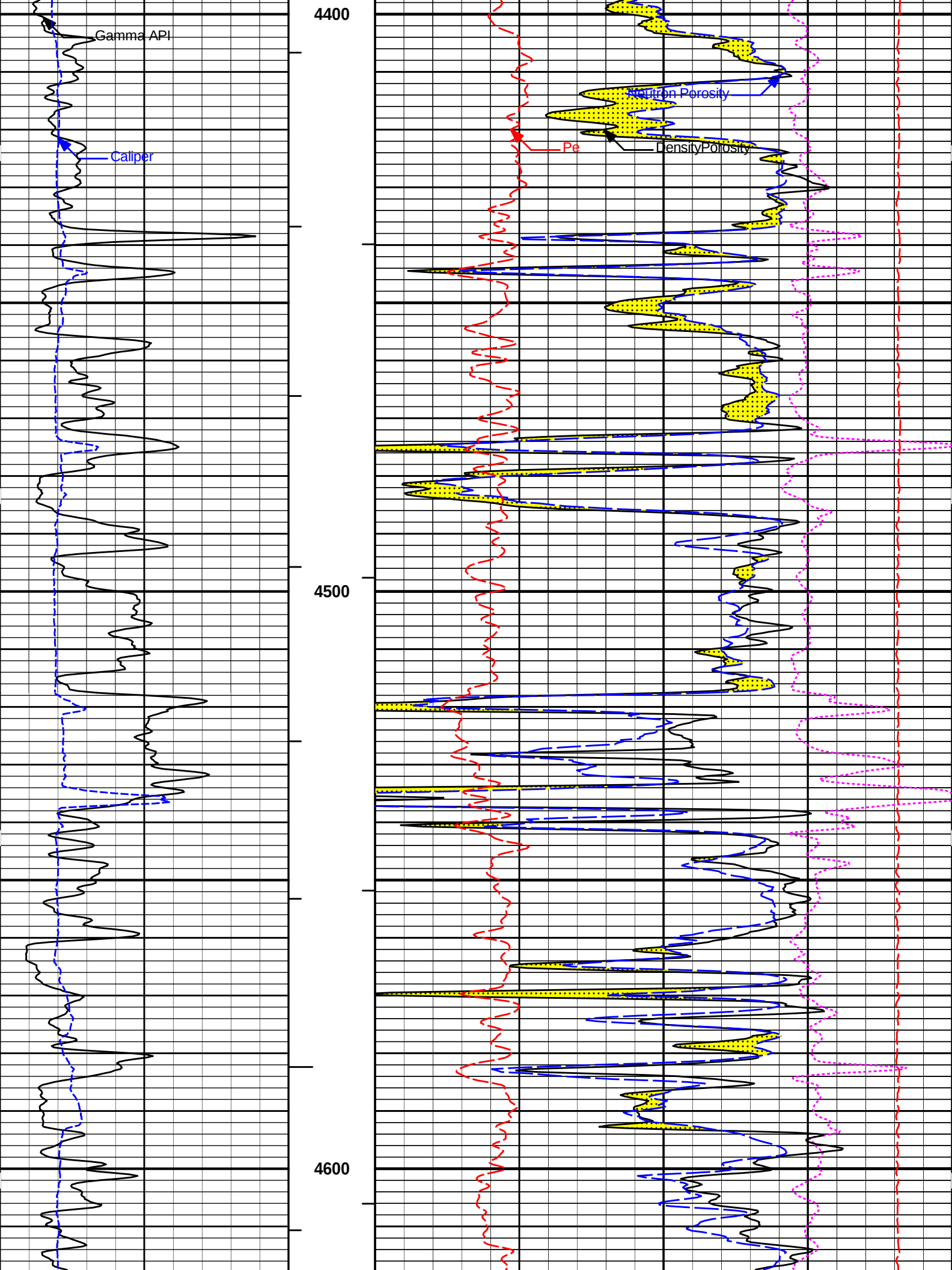
5 INCH MAIN LOG

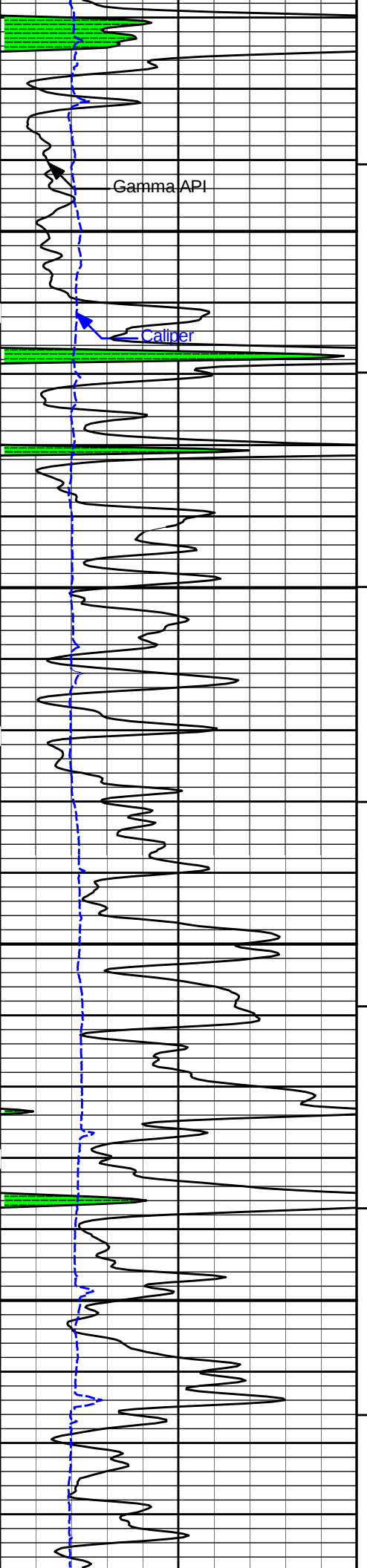






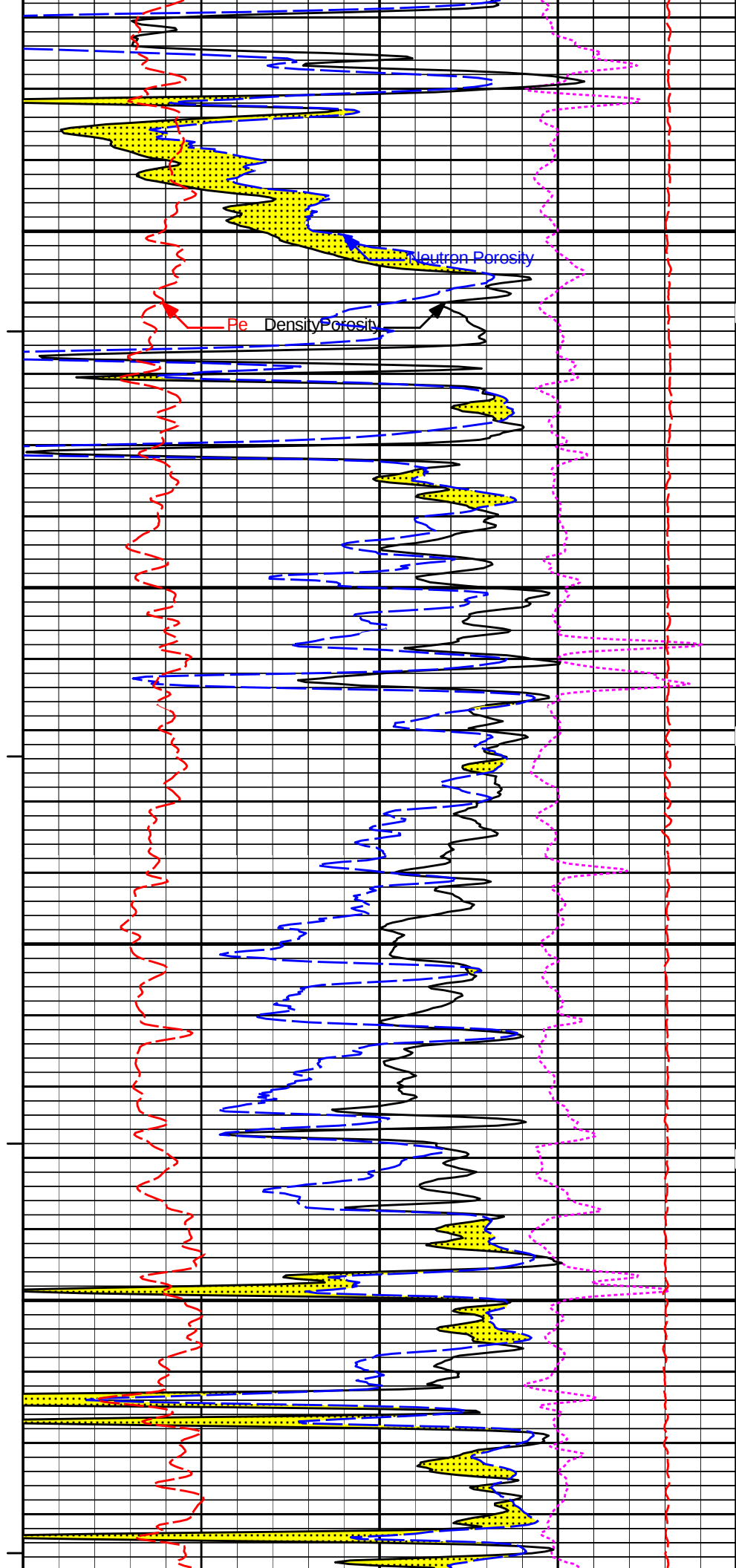


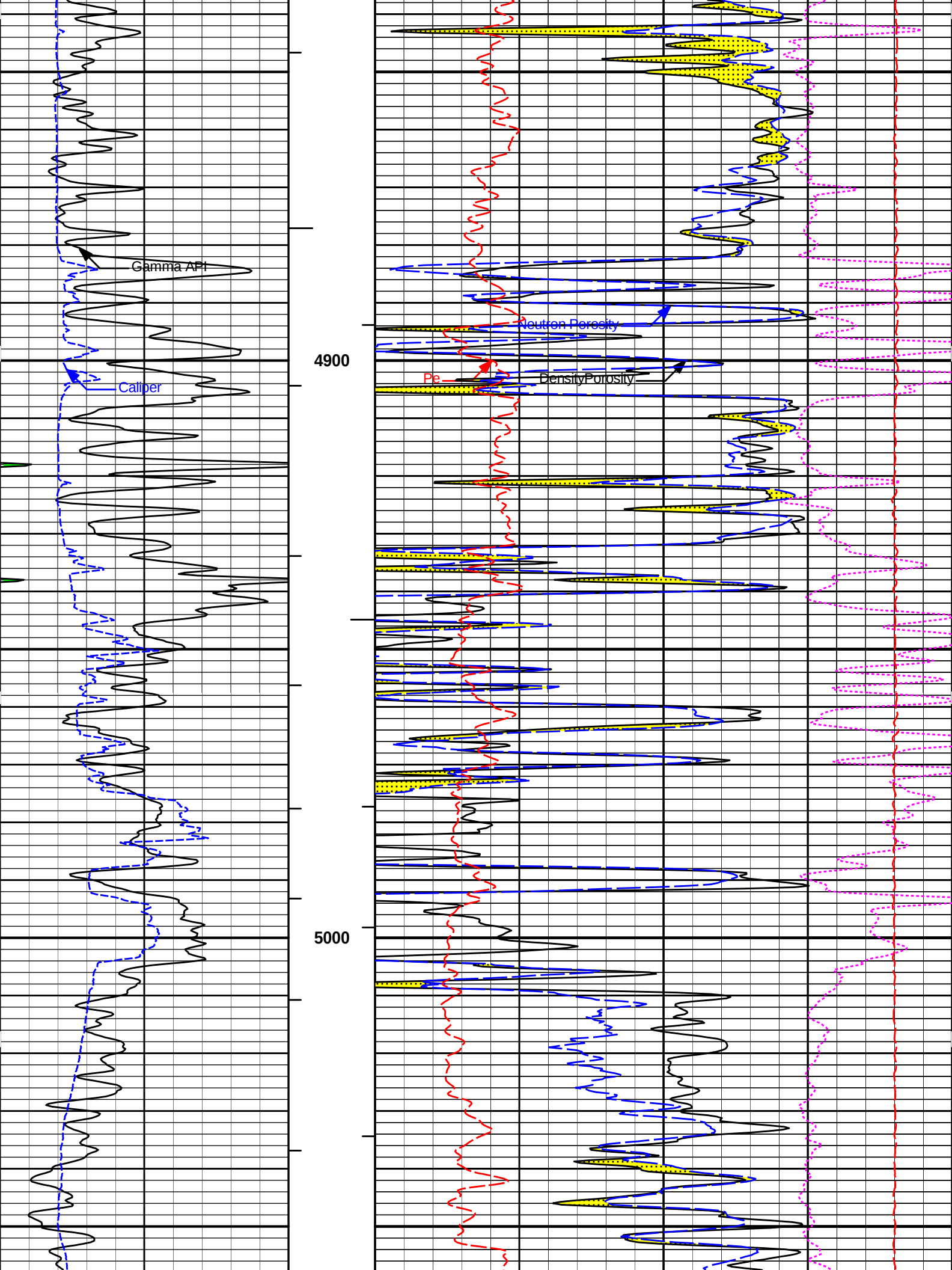


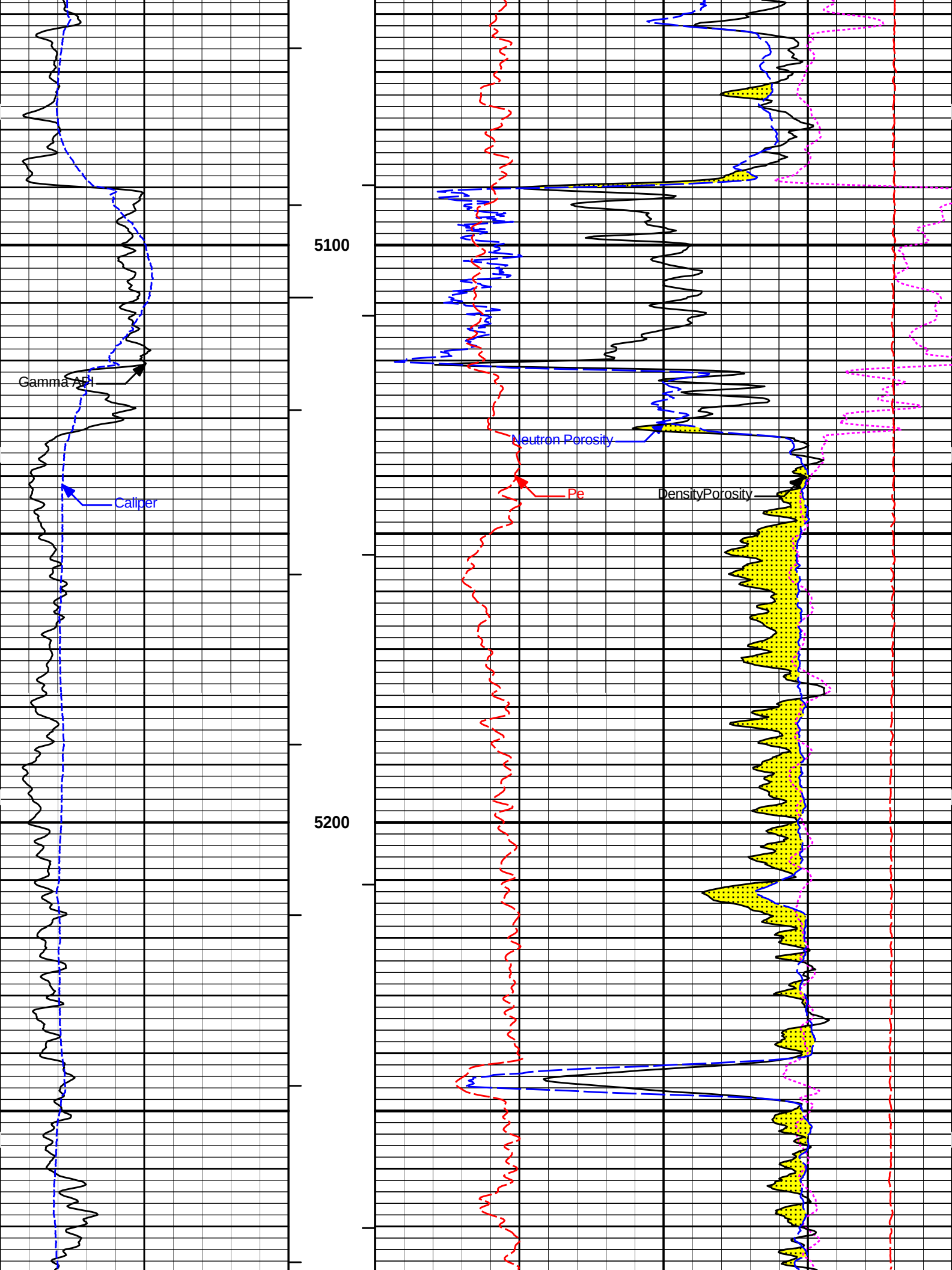


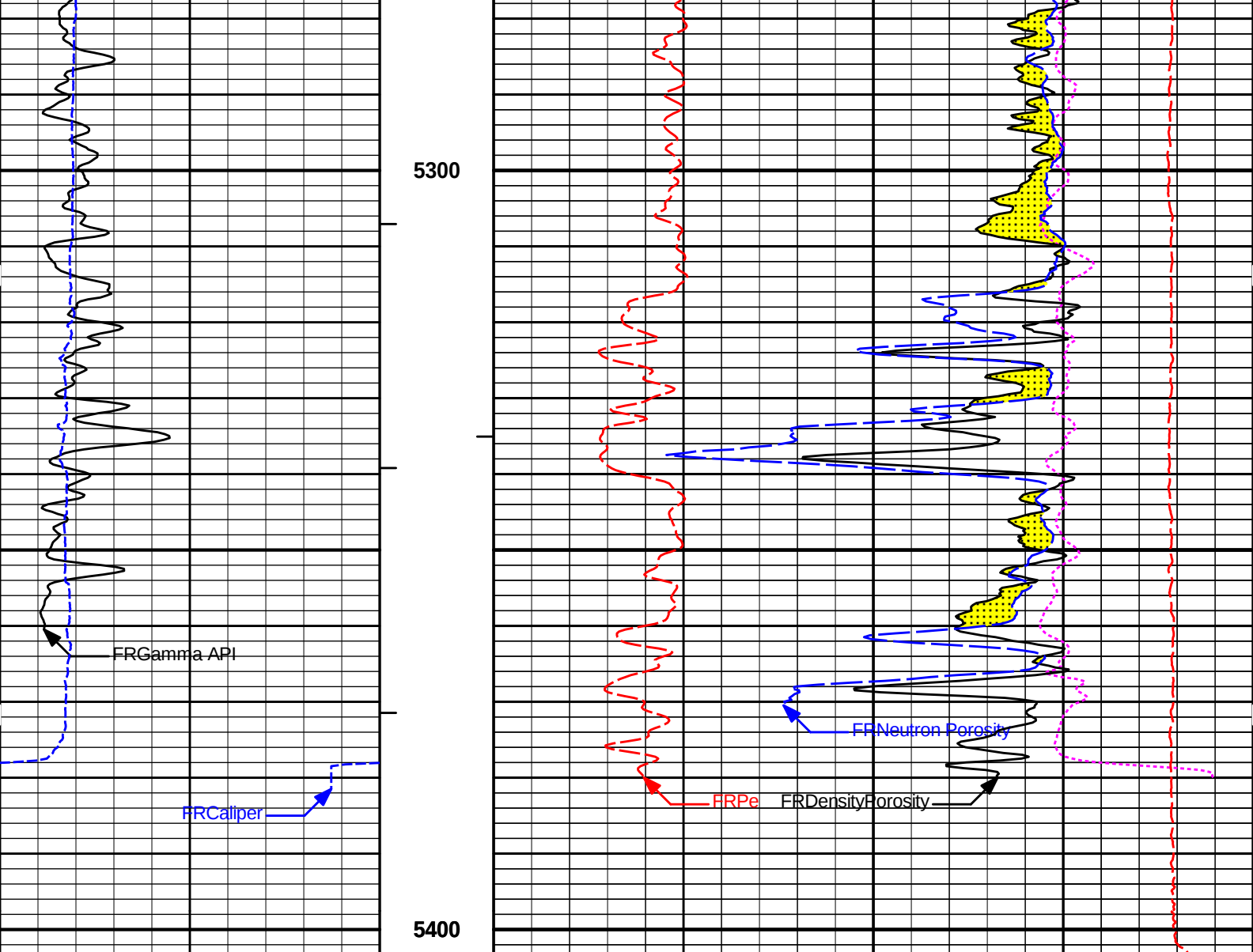
4700

4800









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

HALLIBURTON

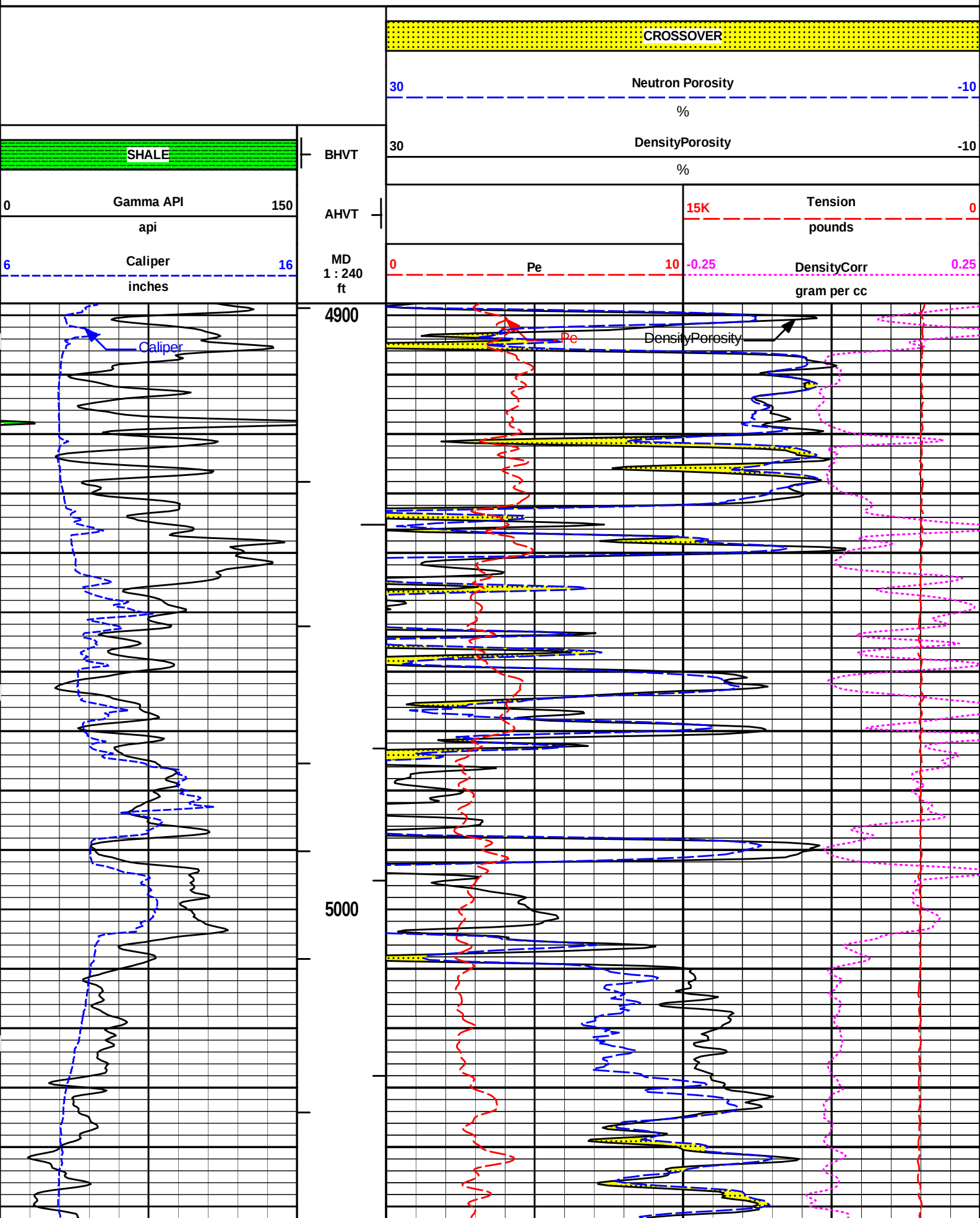
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 Plot Range: 3698 ft to 5403.33 ft
 Data: BARKER_2-23\Well Based\DETAIL\
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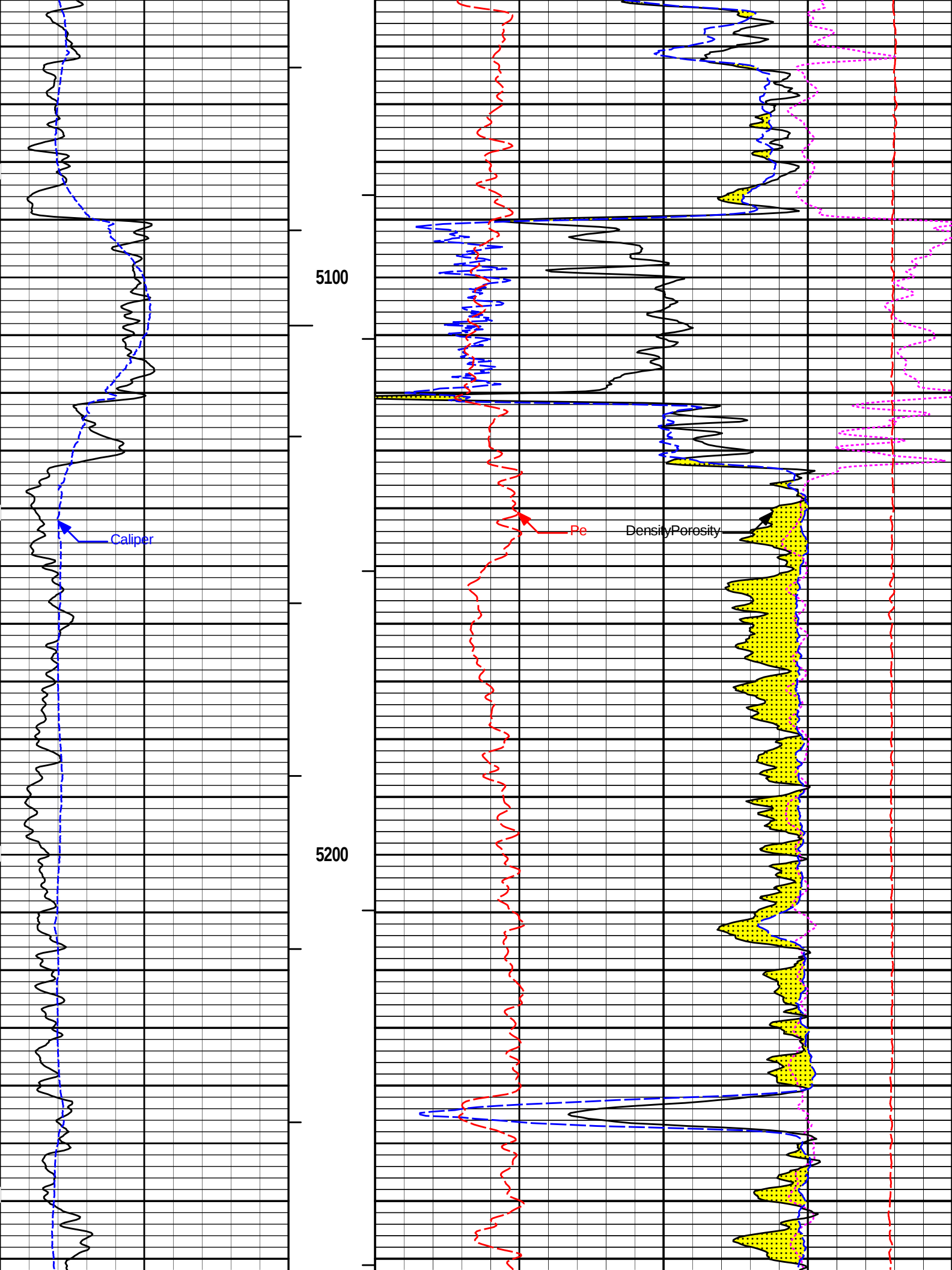
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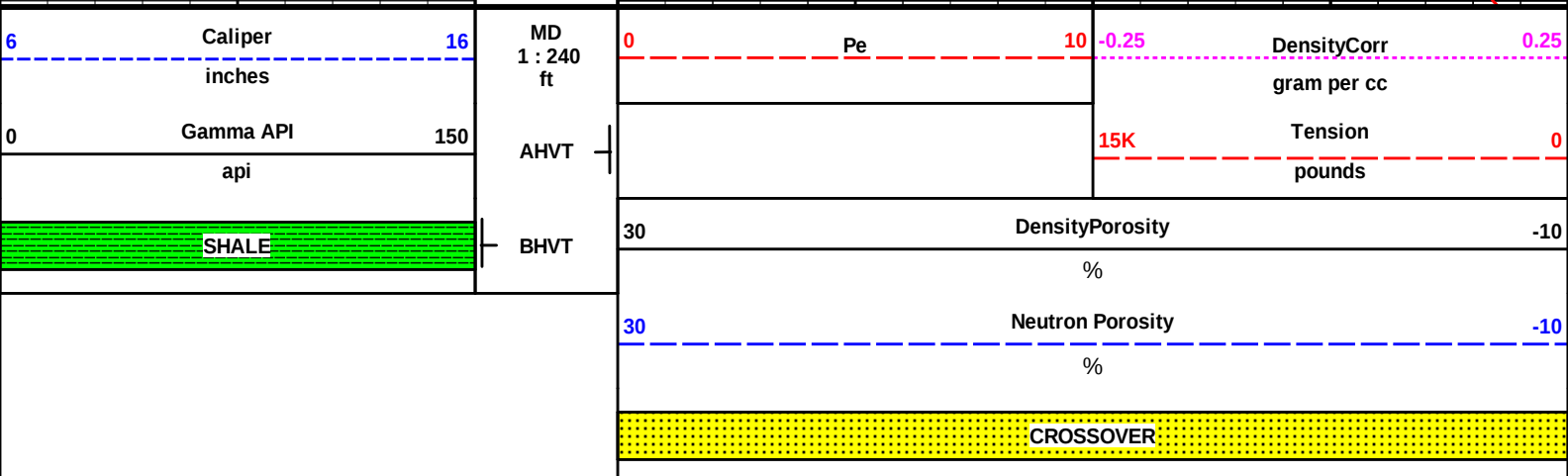
HALLIBURTON

Plot Time: 13-Mar-14 10:35:54
 Plot Range: 4898 ft to 5404.5 ft
 Data: BARKER_2-23\Well Based\DAQ-0001-002\
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REPEAT SECTION



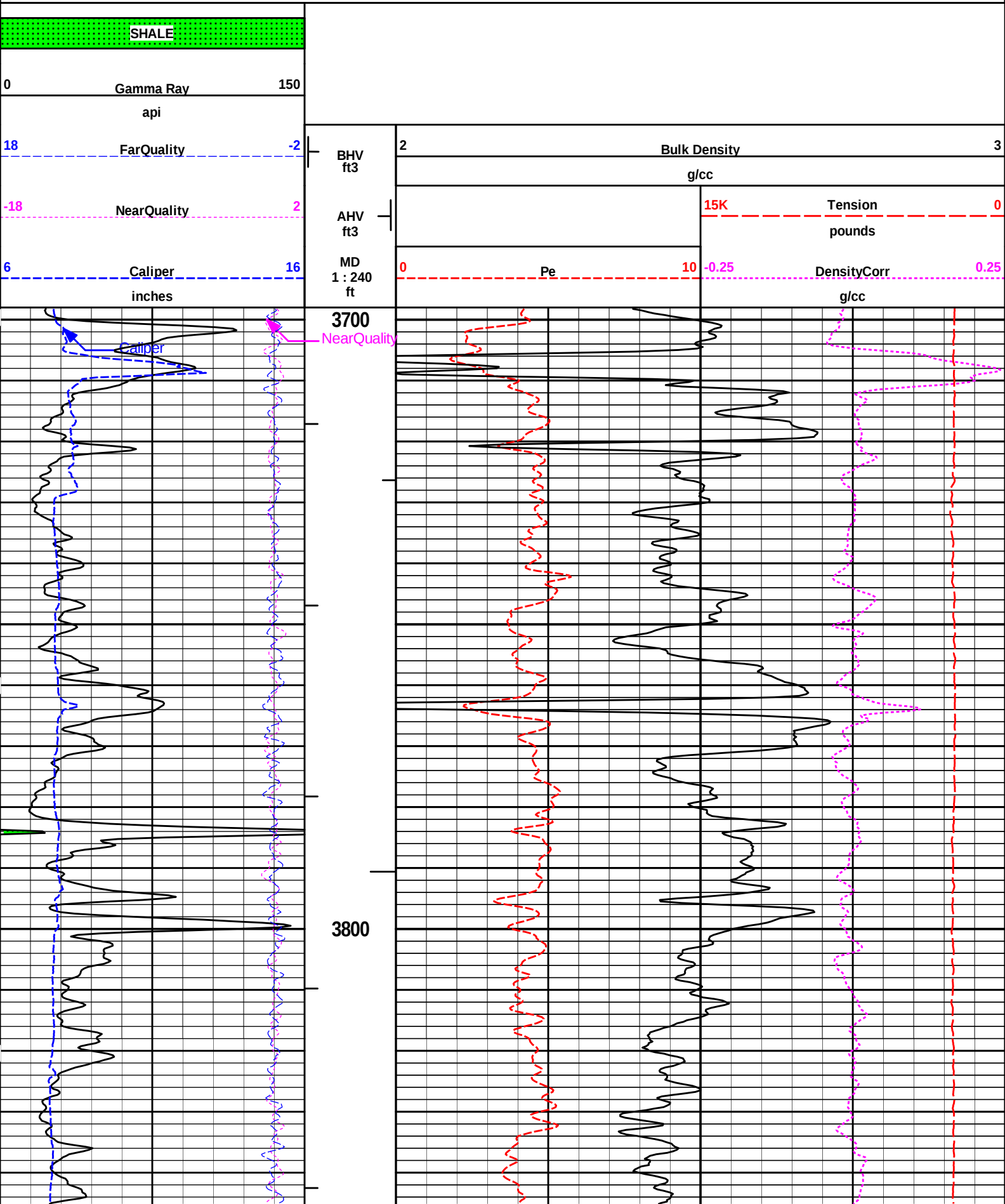


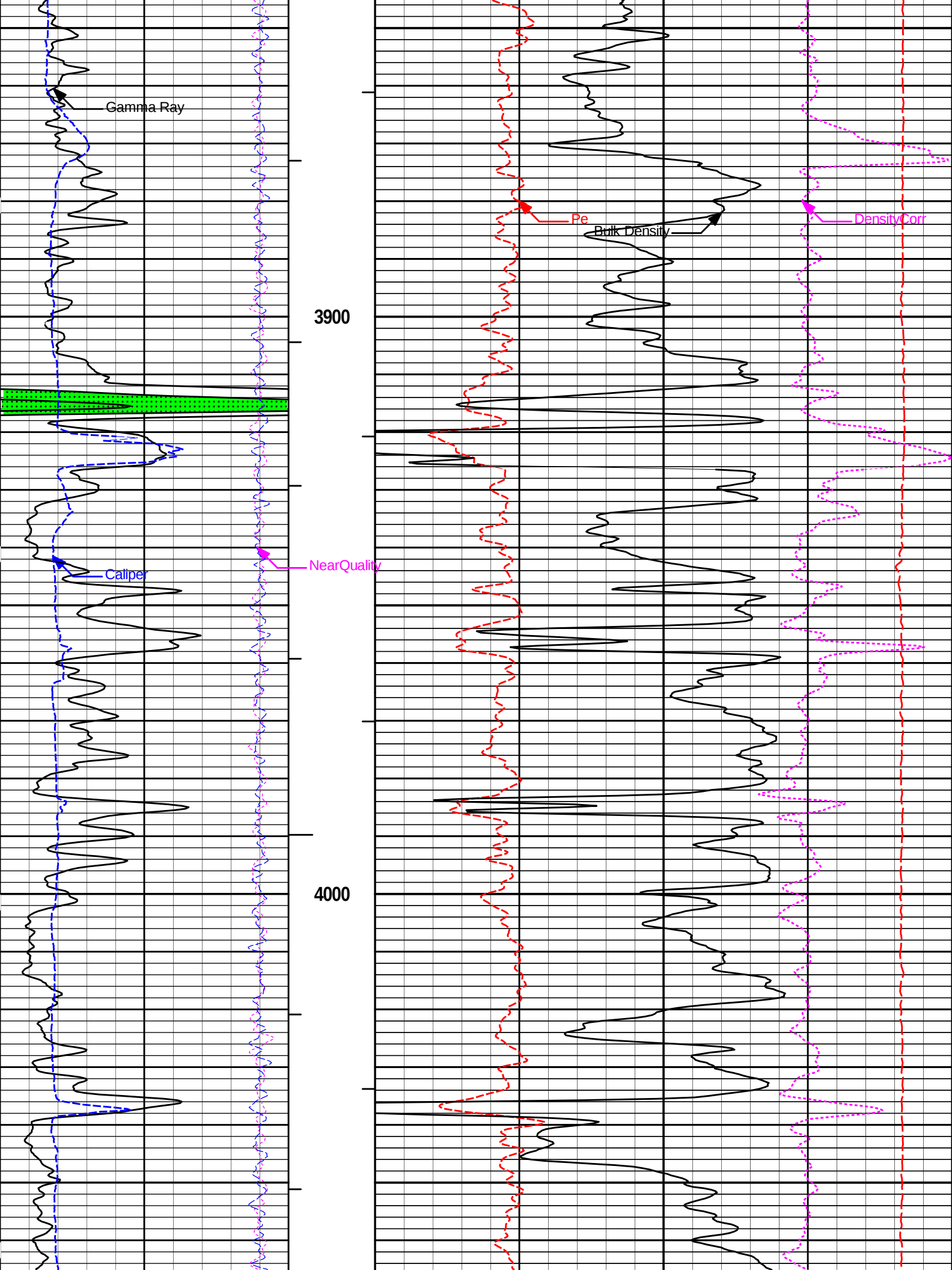


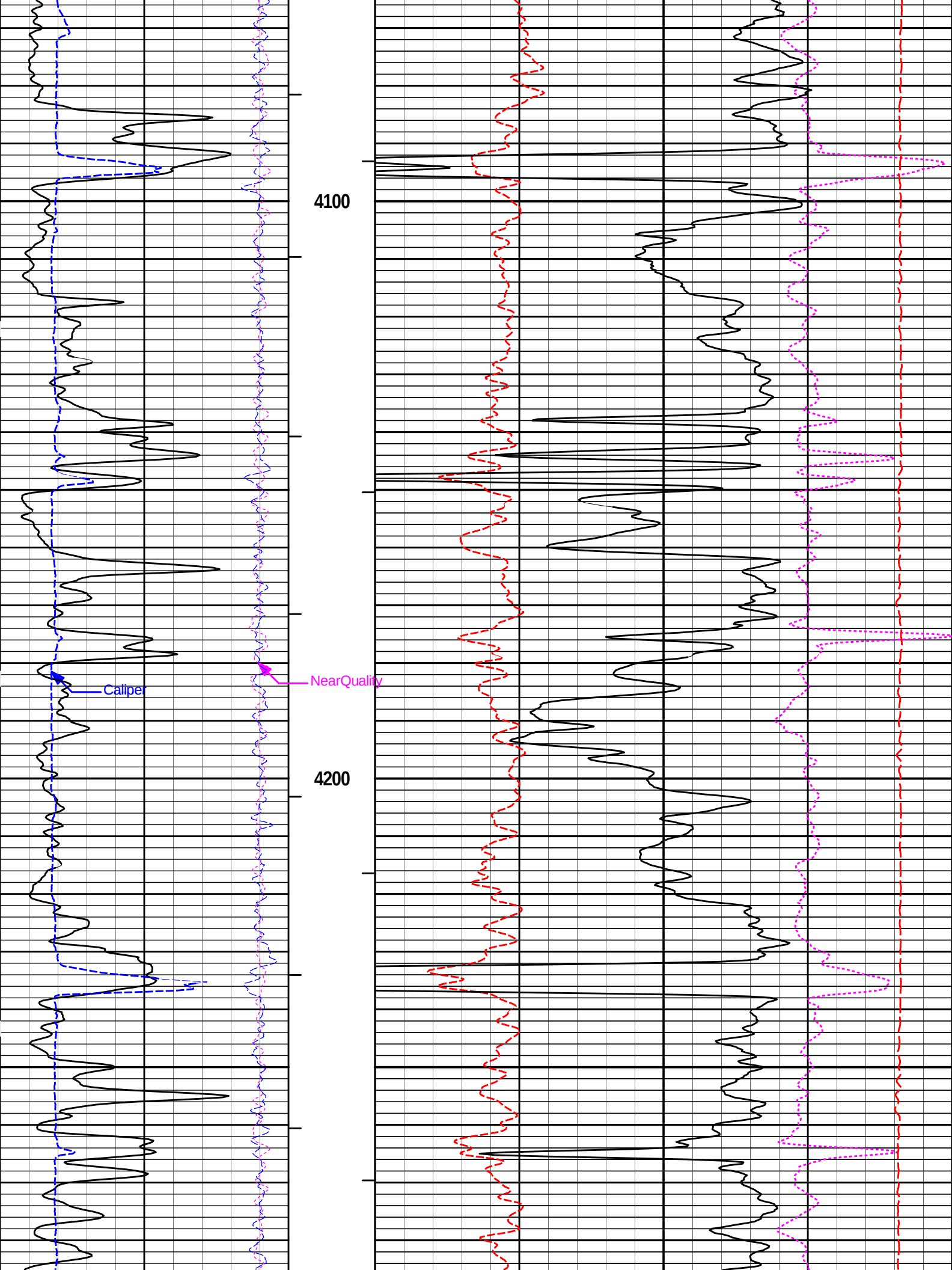
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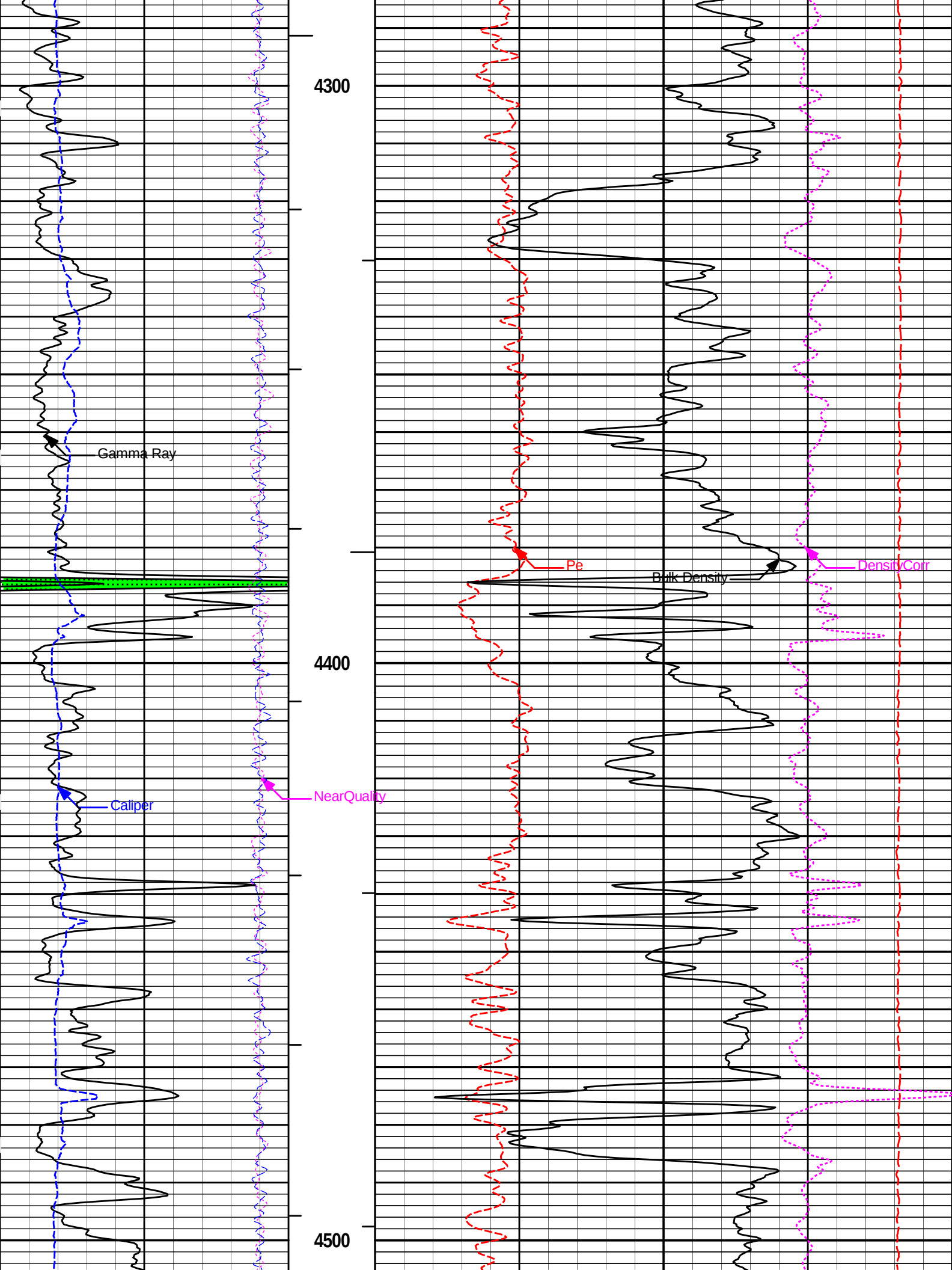
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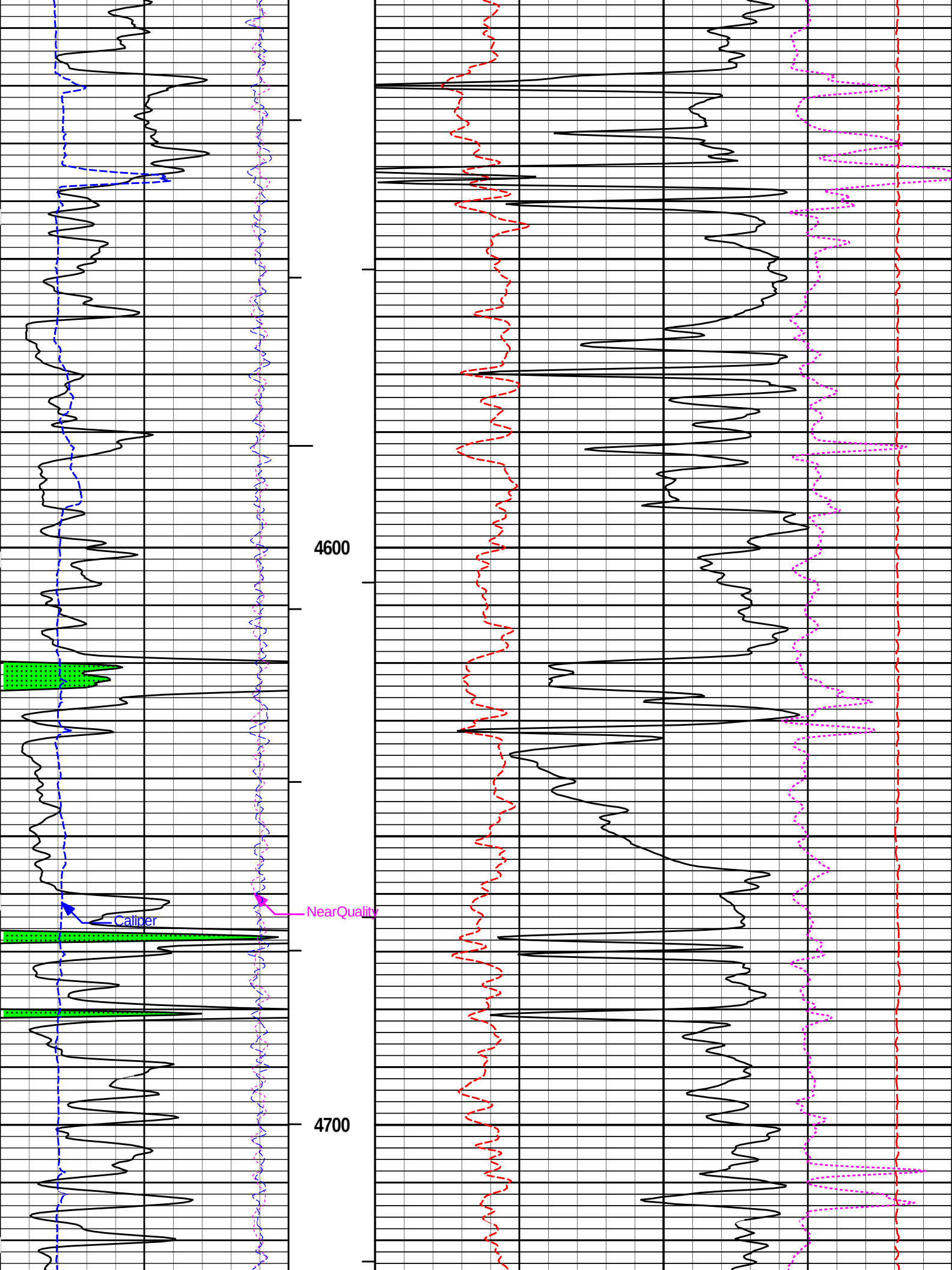
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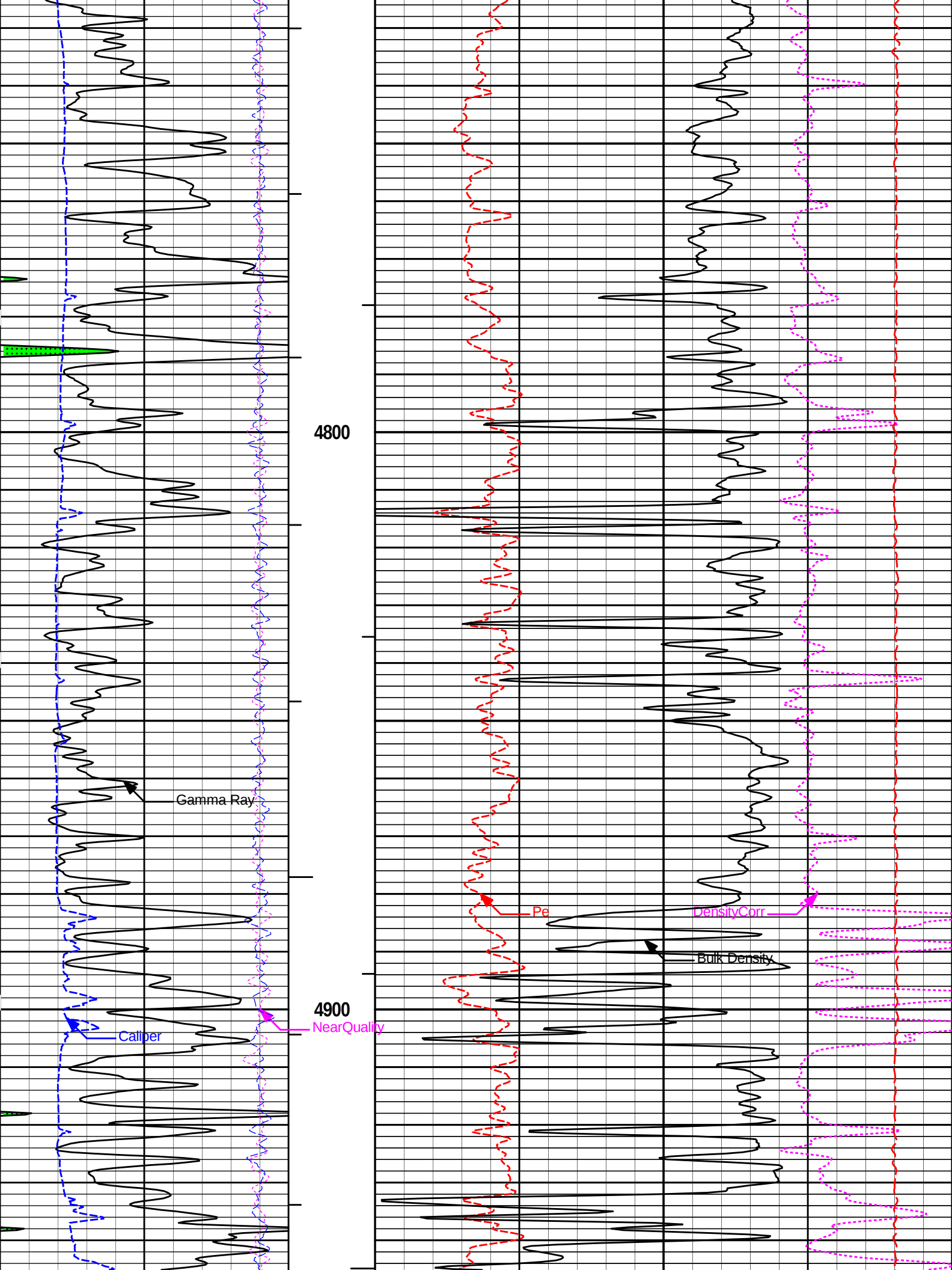


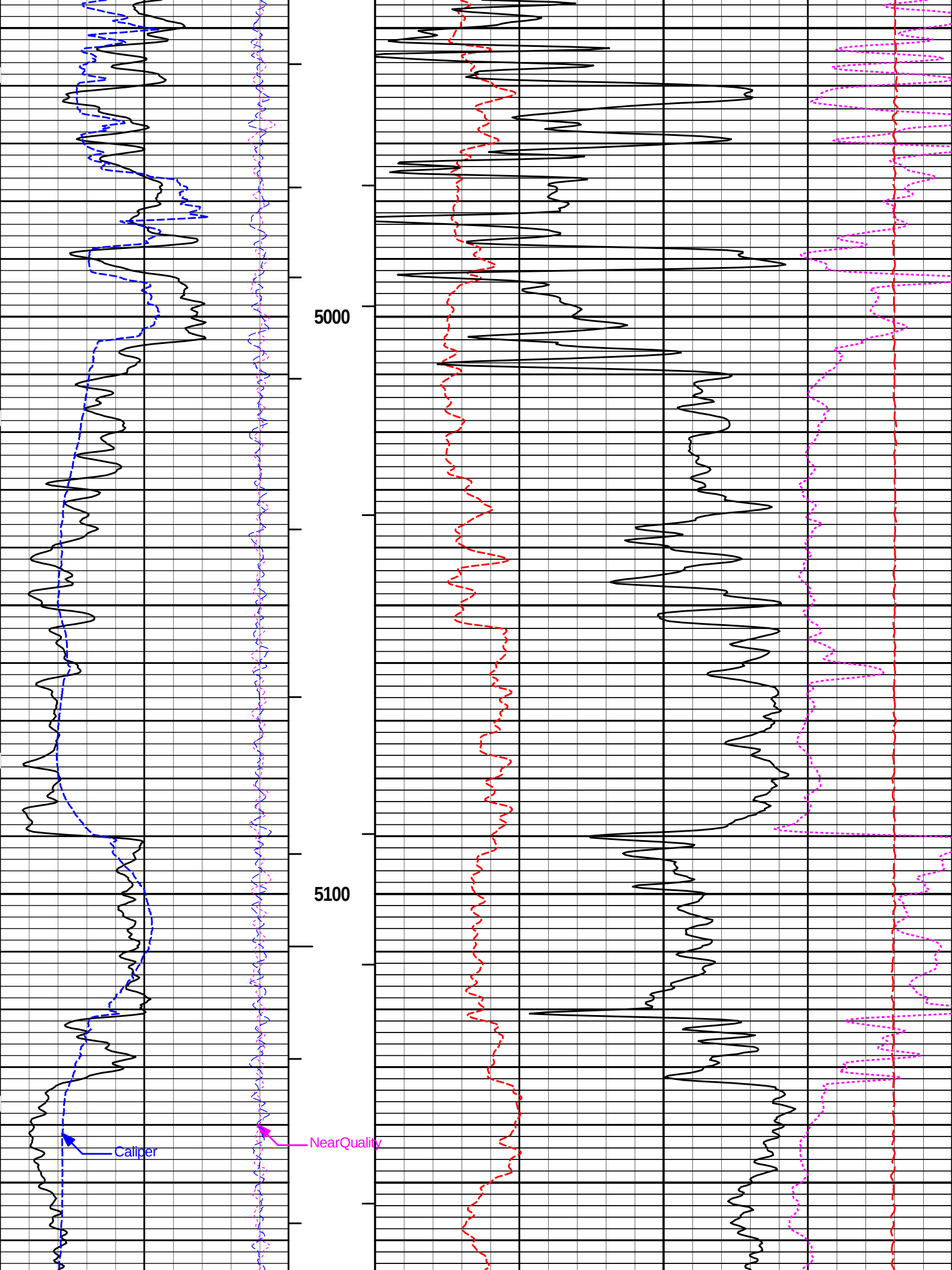


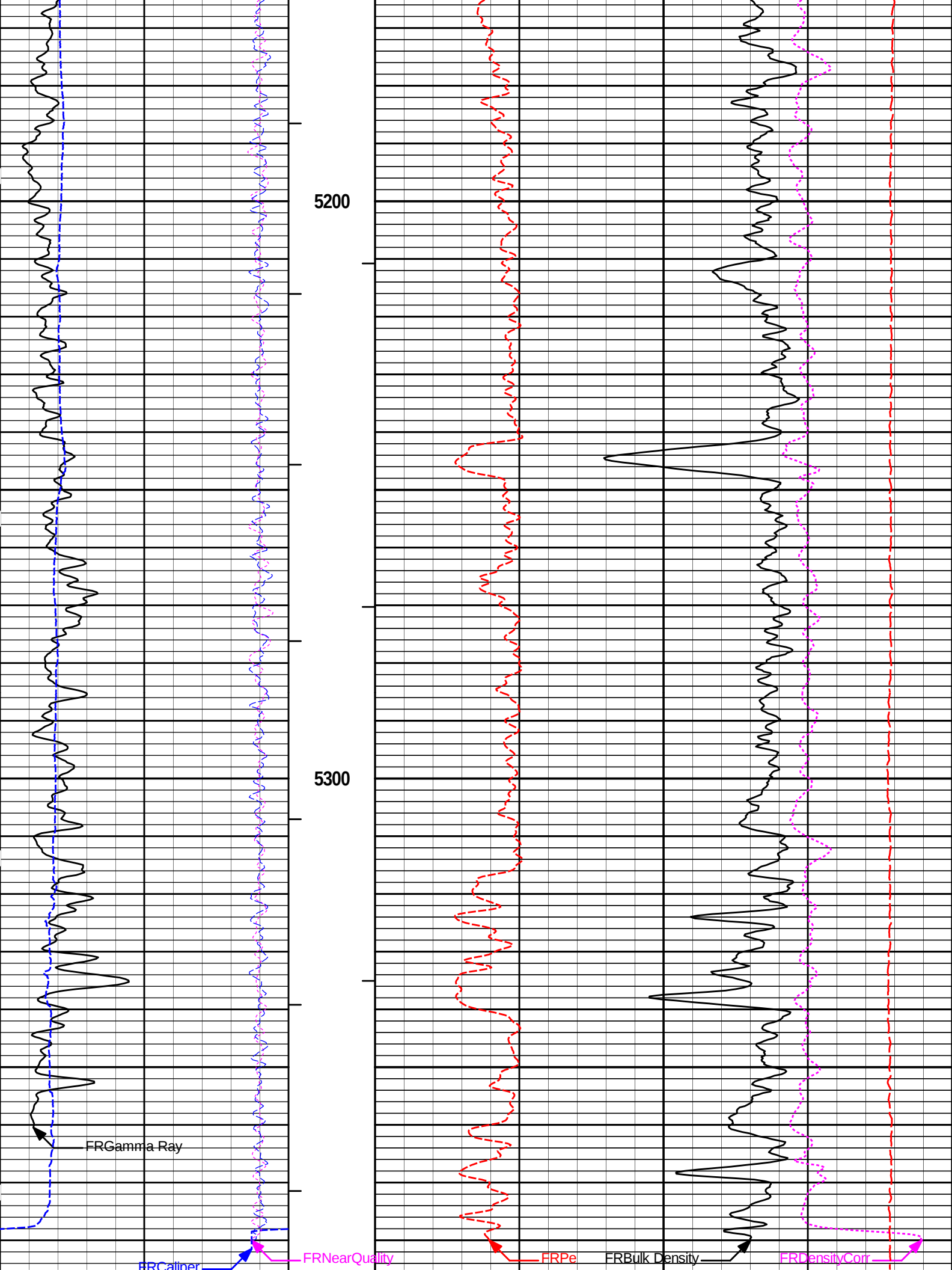


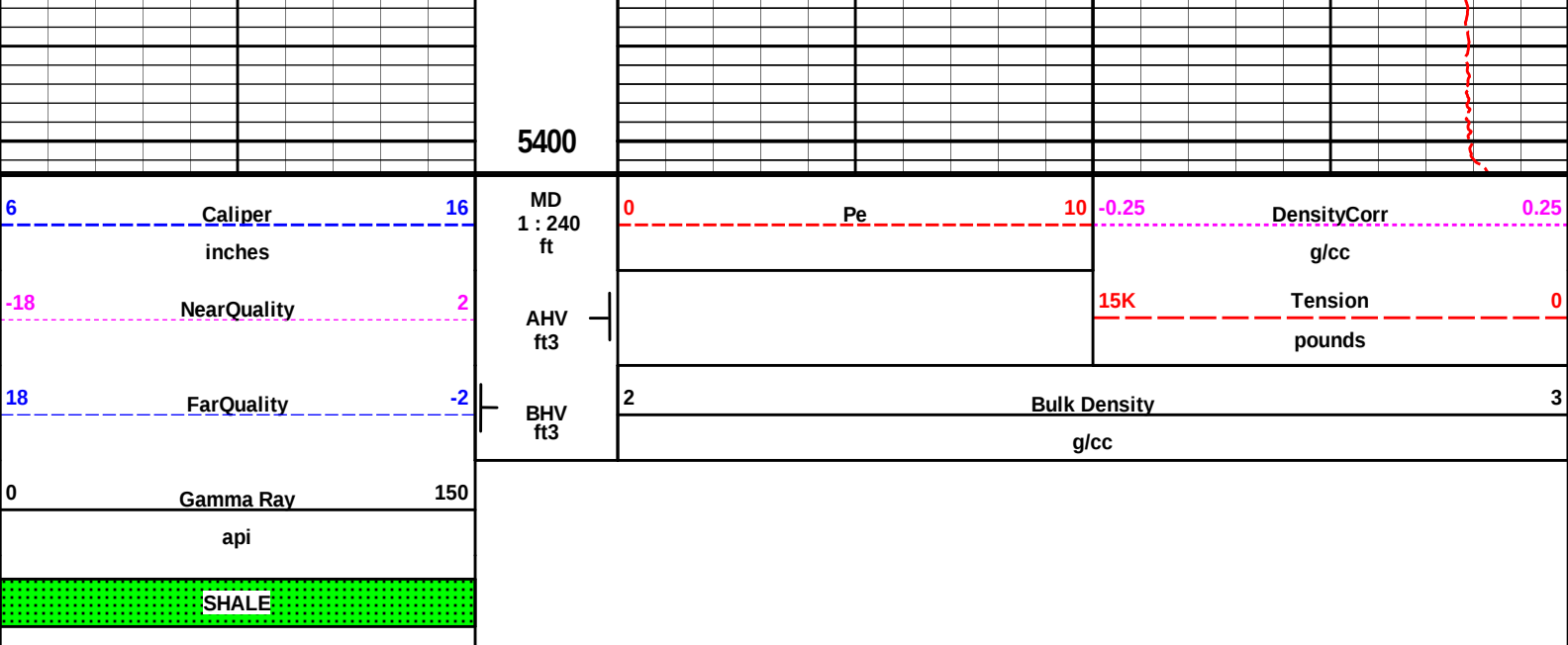












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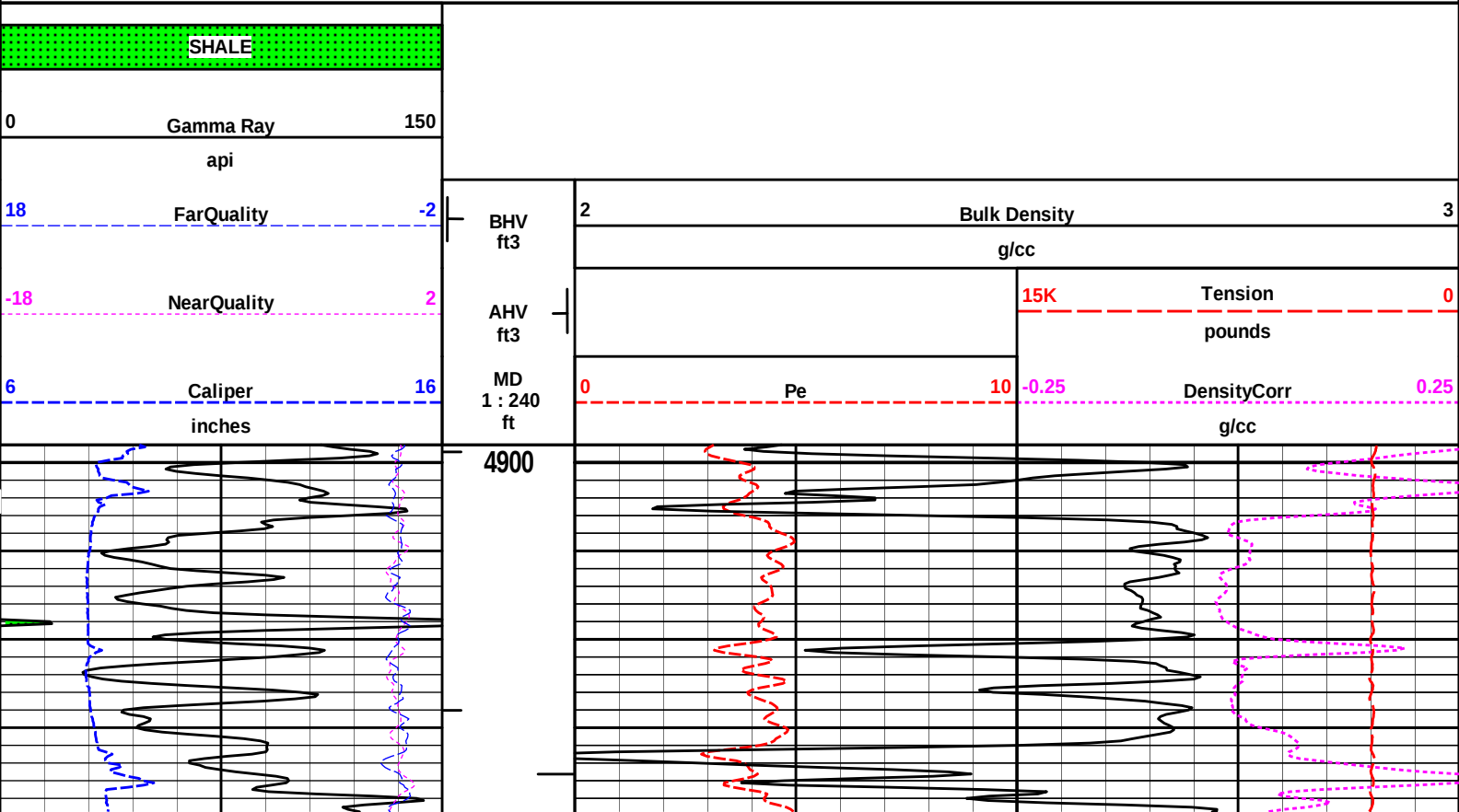
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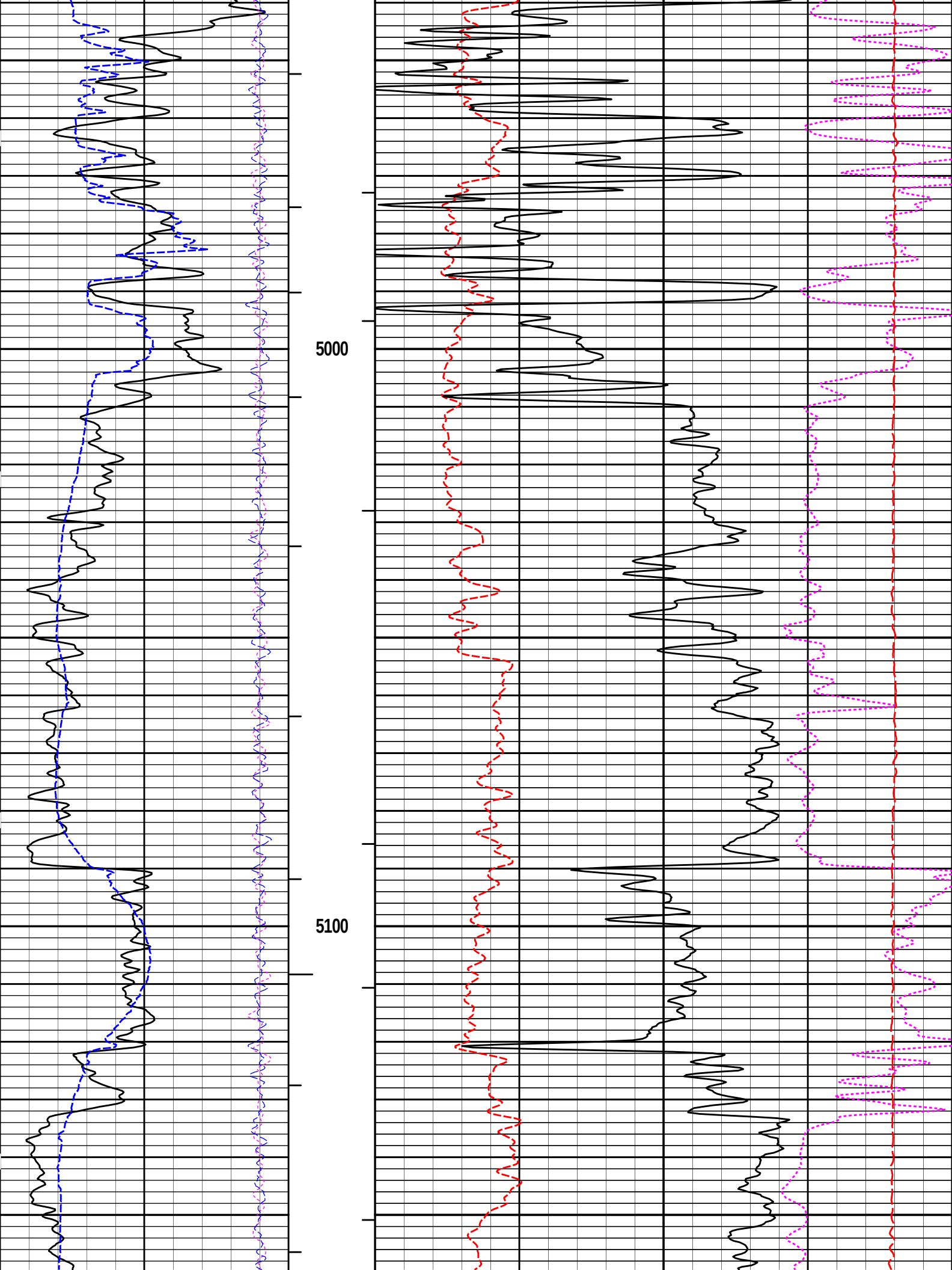
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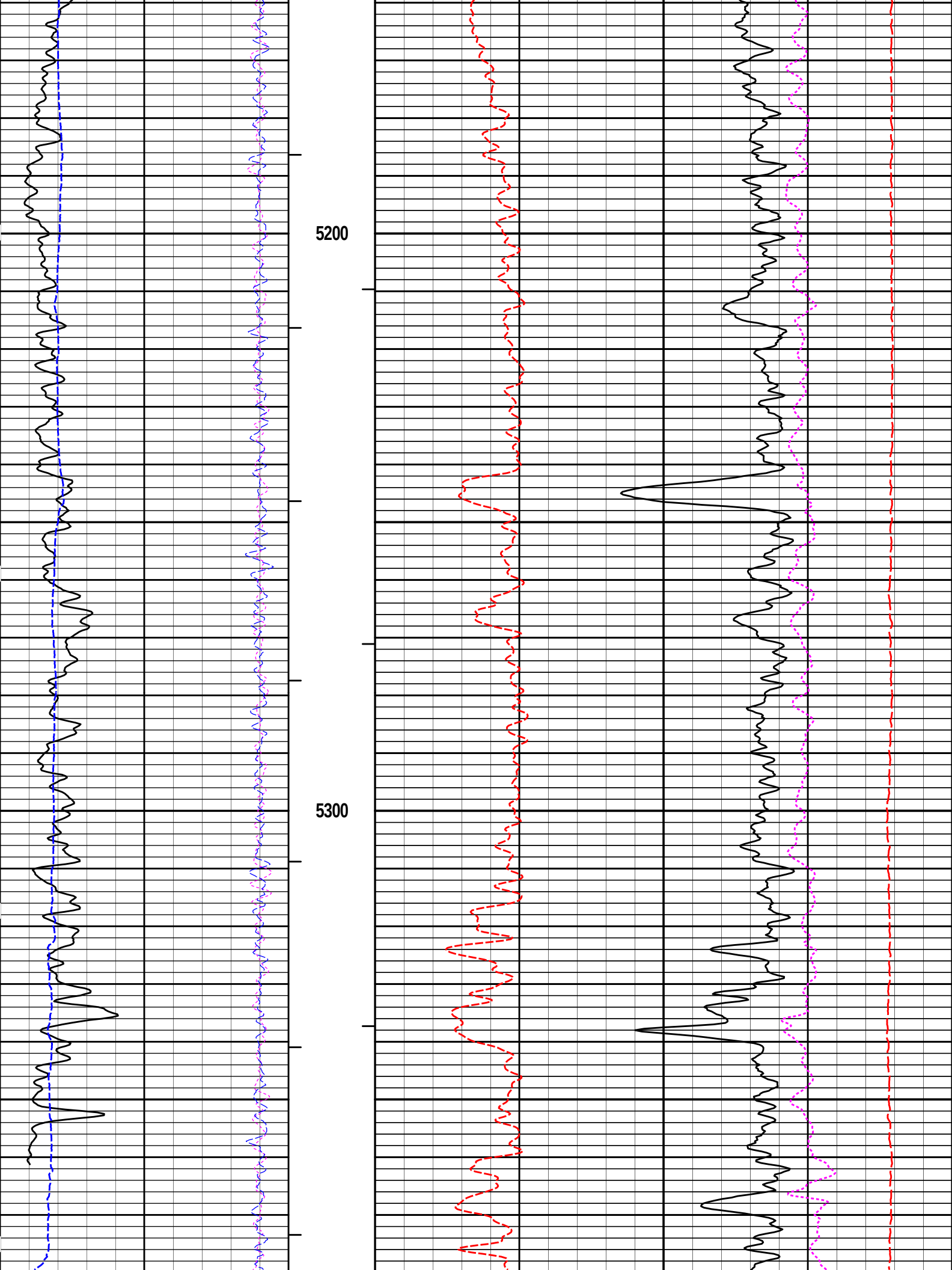
HALLIBURTON

Plot Time: 13-Mar-14 10:36:00
Plot Range: 4898 ft to 5404.5 ft
Data: BARKER_2-23\Well Based\\DAQ-0001-002\
Plot File: \\-LOCAL-\\BARKER_2-23\\0001 SP-GTET-DSN-SDL-ACRT-BNIPORO\\BULKD_5_REP_LIB

REPEAT SECTION







			5400							
6	Caliper	16	MD 1 : 240 ft	0	Pe	10	-0.25	DensityCorr	0.25	
						g/cc				
-18	NearQuality	2	AHV ft3			15K		Tension	0	
						pounds				
18	FarQuality	-2	BH ft3	Bulk Density						3
				g/cc						
0	Gamma Ray	150	SHALE							
api										

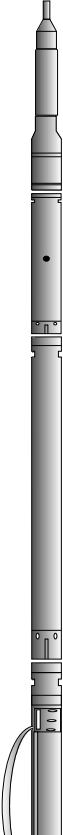
HALLIBURTON

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Plot File: \\-LOCAL-\\BARKER_2-23\\0001 SP-GTET-DSN-SDL-ACRT-BNIPORO\\BULKD_5_REP_LIB

REPEAT SECTION

HALLIBURTON

TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
CH_HOS-954 37.50 lbs		Ø 2.750 in →		← Temperature @ 55.29 ft	3.03 ft	56.32 ft
XOHD-00000001 20.00 lbs		Ø 2.750 in → Ø 3.625 in →			0.95 ft	53.29 ft
SP Sub-12345678 60.00 lbs		Ø 3.625 in →		← SP @ 50.56 ft	3.74 ft	52.34 ft
						48.60 ft
GTET-10748374 165.00 lbs		Ø 3.625 in →		← GammaRay @ 42.54 ft	8.52 ft	
						40.08 ft
DSN Decentralizer- 10755066 6.60 lbs		Ø 5.000 in* →				

Data: BARKER 2-23\0001 SP-GTET-DSN-SDL-ACRT-BN\IDLE Date: 13-Mar-14 08:11:41

CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION

Tool Name: GTET - 10748374

Reference Calibration Date: 03-Feb-14 18:18:39

Engineer: THOMAS HYDE

Calibration Date: 05-Mar-14 16:34:57

Software Version: WL INSITE R3.8.4 (Build 5)

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	36.2	36.0	api
Background + Calibrator	269.0	268.0	api
Calibrator	232.8	232.0	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION

Tool Name: GTET - 10748374

Reference Calibration Date: 05-Mar-14 16:34:57

Engineer: THOMAS HYDE

Calibration Date: 13-Mar-14 08:11:26

Software Version: WL INSITE R3.8.4 (Build 5)

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	36.0	40.5	api
Background + Calibrator	268.0	268.7	api
Calibrator	232.0	228.2	api

Shop	Field	Difference	Tolerance
232.0	228.2	3.8	+/- 9.00

DUAL SPACED NEUTRON SHOP CALIBRATION

Tool Name: DSNT - 10755066

Reference Calibration Date: 05-Mar-14 17:46:46

Engineer: THOMAS HYDE

Calibration Date: 05-Mar-14 18:05:08

Software Version: WL INSITE R3.8.4 (Build 5)

Calibration Version: 1

Logging Source S/N: DSN-436
Tank Serial Number: 105060
Reference value assigned to Tank: 51.680
Snow Block S/N: 08910
Calibration Tank Water Temperature: 65 degF
Min. Tool Housing Outside Diameter: 3.620 in

CALIBRATION CONSTANTS			
Measurement	Prev. Value	New Value	Control Limit On New Value
Gain:	0.952	0.952	0.900 - 1.100

WATER TANK SUMMARY (Horizontal Water Tank)				
Measurement	Current Reading (Previous Coef.)	Calibrated (New Coef.)	Change	Control Limit On Change
Porosity (decn):	0.2107	0.2106	0.0001	+/- 0.0020

Porosity (decp):	9.72	9.72	0.002	+/- 0.050
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VERIFIER		
Measurement	Value	Control Limit
Snow-Block Porosity (decp):	0.0664	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 - 10755066	Reference Calibration Date:	05-Mar-14 18:05:08
Engineer:	THOMAS HYDE	Calibration Date:	13-Mar-14 08:13:03
Software Version:	WL INSITE R3.8.4 (Build 5)	Calibration Version:	1

Logging Source S/N: DSN-436
Snow Block S/N: 08910

NEUTRON FIELD-CHECK SUMMARY				
	Shop	Field	Difference	Control Limit On Change
Snow-Block Porosity (decp):	0.0664	0.0663	-0.0001	+/- 0.0150

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

DENSITY CALIPER SHOP CALIBRATION

Tool Name:	SDLT - 10685803	Reference Calibration Date:	05-Mar-14 15:32:23
Engineer:	THOMAS HYDE	Calibration Date:	05-Mar-14 15:46:02
Software Version:	WL INSITE R3.8.4 (Build 5)	Calibration Version:	1
Host Tool Name:	DSNT - 10755066		

CALIBRATION COEFFICIENTS			
Measurement	Previous Value	New Value	Control Limit On New Value
Pad Offset	-4774.73	-4775.17	-7000.00 - -1000.00
Pad Gain	0.0003992	0.0003992	0.000200 - 0.000600
Arm Offset	-3514.36	-3506.74	-5000.00 - 3000.00
Arm Gain	0.0004988	0.0004993	0.000300 - 0.000700
Arm Power	-0.000002944	-0.000003000	-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)	2.00	2.00	0.00	+/- 0.20
Medium Ring (in)	3.75	3.75	0.00	+/- 0.20
RING DIAMETER:				
Small Ring (in)	6.49	6.50	0.01	+/- 0.20
Medium Ring (in)	8.24	8.25	0.01	+/- 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		

SDLT CALIPER FIELD CALIBRATION				
Tool Name:	SDLT - 10685803	Reference Calibration Date:	05-Mar-14 15:46:02	
Engineer:	THOMAS HYDE	Calibration Date:	13-Mar-14 08:13:49	
Software Version:	WL INSITE R3.8.4 (Build 5)	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	8.25	0.00	+/- 0.15

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

SPECTRAL DENSITY SHOP CALIBRATION				
Tool Name:	SDLT Pad - 10714945	Reference Calibration Date:	05-Mar-14 16:57:56	
Engineer:	THOMAS HYDE	Calibration Date:	05-Mar-14 17:15:52	
Software Version:	WL INSITE R3.8.4 (Build 5)	Calibration Version:	1	

Logging Source S/N: 5073GW				
Aluminum Block S/N: LIBERAL ALUMINUM		Density: 2.598g/cc	Pe: 3.170	
Magnesium Block S/N: LIBERAL MAG BLOCK		Density: 1.684g/cc	Pe: 2.598	

DENSITY CALIBRATION SUMMARY			
Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	1.0367	1.0360	0.90 - 1.10
Near Dens Gain	1.0129	1.0136	0.90 - 1.10
Near Peak Gain	1.0442	1.0442	0.90 - 1.10
Near Lith Gain	0.9998	0.9985	0.90 - 1.10
Far Bar Gain	1.0088	1.0073	0.90 - 1.10
Far Dens Gain	0.9969	0.9969	0.90 - 1.10
Far Peak Gain	0.9884	0.9882	0.90 - 1.10
Far Lith Gain	0.9679	0.9670	0.90 - 1.10
Near Bar Offset	-0.0338	-0.0269	NONE
Near Dens Offset	0.1584	0.1517	NONE
Near Peak Offset	-0.1177	-0.1179	NONE
Near Lith Offset	0.2167	0.2279	NONE
Far Bar Offset	0.1253	0.1396	NONE
Far Dens Offset	0.2077	0.2080	NONE
Far Peak Offset	0.2690	0.2707	NONE
Far Lith Offset	0.3916	0.3988	NONE
Near Bar Background	951.77	953.38	700 - 1450
Near Dens Background	317.60	314.87	230 - 480
Near Peak Background	138.51	136.87	100 - 210
Near Lith Background	167.96	169.35	125 - 260

Near Lith Background	157.155	155.155	110 - 120
Far Bar Background	484.67	491.80	450 - 900
Far Dens Background	190.34	190.10	175 - 345
Far Peak Background	74.44	74.98	70 - 140
Far Lith Background	77.24	78.75	75 - 145

CALIBRATION BLOCK SUMMARY				
Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.684	1.684	0.000	+/- 0.015
Pe	2.555	2.555	0.000	+/- 0.150
ALUMINUM				
Density (g/cc)	2.598	2.598	0.000	+/- 0.01500
Pe	3.124	3.124	0.000	+/- 0.150

TOOL SUMMARY				
Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	-0.0006	+/- 0.0110	-0.0005	+/- 0.0140
Magnesium Block	0.0010	+/- 0.0110	0.0008	+/- 0.0140
Aluminum Block	0.0002	+/- 0.0110	-0.0006	+/- 0.0140
Resolution	9.74	6.00 - 11.50	9.28	6.00 - 11.50
Internal Verifier(B+D+P+L)	1574	1200 - 2700	836	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 - 10714945	Reference Calibration Date:	05-Mar-14 17:15:52
Engineer:	THOMAS HYDE	Calibration Date:	13-Mar-14 08:17:19
Software Version:	WL INSITE R3.8.4 (Build 5)	Calibration Version:	1

Pad Temperature: 70.4 degF

DENSITY FIELD CALIBRATION SUMMARY				
Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1574.474	1575.633	1.159	15.964
Far (B+D+P+L) cps	835.640	830.323	-5.317	15.902
Near Resolution	9.74	9.88	0.140	0.50
Far Resolution	9.28	9.30	0.020	1.00

PASS/FAIL SUMMARY	
Bkg Quality Check:	Passed
Bkg Resolution Check:	Passed

CALIBRATION SUMMARY

Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-10748374						
Gamma Ray Calibrator	232.0	228.2	-----	3.8	+/- 9.00	api
DSNT-10755066						
Snow-Block Porosity	0.0664	0.0663	-----	0.0001	+/- 0.0150	decp
SDLT-10685803						
Pad Extension	3.75	3.77	-----	-0.02	+/-0.10	in
Ring Diameter	8.25	8.25	-----	0.00	+/-0.15	in
SDLT Pad-10714945						
Near(B+D+P+L)	1574.474	1575.633	-----	-1.159	+/-15.964	cps
Far(B+D+P+L)	835.640	830.323	-----	5.317	+/-15.902	cps

Data: BARKER 2-2310001 SP-GTET-DSN-SDI -ACRT-BNWDI F Date: 13-Mar-14 08:40:00

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	9.400	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	40.0	degF
	SHARED	TD	Total Well Depth	5400.00	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	DSNO	DSN Standoff - 0.25 in (6.35 mm) Recommended	0.250	in
DSNT	DNTP	Temperature Correction Type	None	
DSNT	DPRS	DSN Pressure Correction Type	None	
DSNT	SHCO	View More Correction Options	No	
DSNT	UTVD	Use TVD for Gradient Corrections?	No	
DSNT	LHWT	Logging Horizontal Water Tank?	No	
SDLT	CLOK	Process Caliper Outputs?	Yes	
SDLT Pad	DNOK	Process Density?	Yes	
SDLT Pad	DNOK	Process Density EVR?	No	
SDLT Pad	CB	Logging Calibration Blocks?	No	
SDLT Pad	SPVT	SDLT Pad Temperature Valid?	Yes	
SDLT Pad	DTWN	Disable temperature warning	No	
SDLT Pad	DMA	Formation Density Matrix	2.710	g/cc
SDLT Pad	DFL	Formation Density Fluid	1.000	g/cc
Microlog Pad	MLOK	Process MicroLog Outputs?	Yes	
ACRt Sonde	RTOK	Process ACRt?	Yes	
ACRt Sonde	MNSO	Minimum Tool Standoff	1.50	in
ACRt Sonde	TCS1	Temperature Correction Source	FP Lwr & FP Up	
ACRt Sonde	TPOS	Tool Position	Free Hanging	
ACRt Sonde	RMOP	Rmud Source	Mud Cell	
ACRt Sonde	RMIN	Minimum Resistivity for MAP	0.20	ohmm
ACRt Sonde	RMIN	Maximum Resistivity for MAP	200.00	ohmm
ACRt Sonde	THQY	Threshold Quality	0.50	
ACRt Sonde	MRFX	Fixed mud resistivity	2000	ohmm
BOTTOM				
Data: BARKER_2-23I0001 SP-GTET-DSN-SDL-ACRT-BNIDLE			Date: 13-Mar-14 08:41:42	

HALLIBURTON INPUTS, DELAYS AND FILTERS TABLE				
Mnemonic	Input Description	Delay (ft)	Filter Type	Filter Length (ft)
Depth Panel				
TENS	Tension	0.00	NO	
CH_HOS				
DHTN	DownholeTension	0.00	BLK	0.000
SP Sub				
PLTC	Plot Control Mask	50.56	NO	
SP	Spontaneous Potential	50.56	BLK	1.250
SPR	Raw Spontaneous Potential	50.56	NO	
SPO	Spontaneous Potential Offset	50.56	NO	
GTET				
TPUL	Tension Pull	42.54	NO	
GR	Natural Gamma Ray API	42.54	TRI	1.750

GRU	Unfiltered Natural Gamma Ray API	42.54	NO	
EGR	Natural Gamma Ray API with Enhanced Vertical Resolution	42.54	W	1.416 , 0.750
ACCZ	Accelerometer Z	0.00	BLK	0.083
DEVI	Inclination	0.00	NO	
DSNT				
TPUL	Tension Pull	32.30	NO	
RNDS	Near Detector Telemetry Counts	32.40	BLK	1.417
RFDS	Far Detector Telemetry Counts	33.15	TRI	0.583
DNTT	DSN Tool Temperature	32.40	NO	
DSNS	DSN Tool Status	32.30	NO	
ERND	Near Detector Telemetry Counts EVR	32.40	BLK	0.000
ERFD	Far Detector Telemetry Counts EVR	33.15	BLK	0.000
ENTM	DSN Tool Temperature EVR	32.40	NO	
SDLT				
TPUL	Tension Pull	22.40	NO	
PCAL	Pad Caliper	22.40	TRI	0.250
ACAL	Arm Caliper	22.40	TRI	0.250
ACRt Sonde				
TPUL	Tension Pull	2.73	NO	
F1R1	ACRT 12KHz - 80in R value	8.98	BLK	0.000
F1X1	ACRT 12KHz - 80in X value	8.98	BLK	0.000
F1R2	ACRT 12KHz - 50in R value	6.48	BLK	0.000
F1X2	ACRT 12KHz - 50in X value	6.48	BLK	0.000
F1R3	ACRT 12KHz - 29in R value	4.98	BLK	0.000
F1X3	ACRT 12KHz - 29in X value	4.98	BLK	0.000
F1R4	ACRT 12KHz - 17in R value	3.98	BLK	0.000
F1X4	ACRT 12KHz - 17in X value	3.98	BLK	0.000
F1R5	ACRT 12KHz - 10in R value	3.48	BLK	0.000
F1X5	ACRT 12KHz - 10in X value	3.48	BLK	0.000
F1R6	ACRT 12KHz - 6in R value	3.23	BLK	0.000
F1X6	ACRT 12KHz - 6in X value	3.23	BLK	0.000
F2R1	ACRT 36KHz - 80in R value	8.98	BLK	0.000
F2X1	ACRT 36KHz - 80in X value	8.98	BLK	0.000
F2R2	ACRT 36KHz - 50in R value	6.48	BLK	0.000
F2X2	ACRT 36KHz - 50in X value	6.48	BLK	0.000
F2R3	ACRT 36KHz - 29in R value	4.98	BLK	0.000
F2X3	ACRT 36KHz - 29in X value	4.98	BLK	0.000
F2R4	ACRT 36KHz - 17in R value	3.98	BLK	0.000
F2X4	ACRT 36KHz - 17in X value	3.98	BLK	0.000
F2R5	ACRT 36KHz - 10in R value	3.48	BLK	0.000
F2X5	ACRT 36KHz - 10in X value	3.48	BLK	0.000
F2R6	ACRT 36KHz - 6in R value	3.23	BLK	0.000
F2X6	ACRT 36KHz - 6in X value	3.23	BLK	0.000
F3R1	ACRT 72KHz - 80in R value	8.98	BLK	0.000
F3X1	ACRT 72KHz - 80in X value	8.98	BLK	0.000
F3R2	ACRT 72KHz - 50in R value	6.48	BLK	0.000
F3X2	ACRT 72KHz - 50in X value	6.48	BLK	0.000
F3R3	ACRT 72KHz - 29in R value	4.98	BLK	0.000
F3X3	ACRT 72KHz - 29in X value	4.98	BLK	0.000
F3R4	ACRT 72KHz - 17in R value	3.98	BLK	0.000
F3X4	ACRT 72KHz - 17in X value	3.98	BLK	0.000
F3R5	ACRT 72KHz - 10in R value	3.48	BLK	0.000
F3X5	ACRT 72KHz - 10in X value	3.48	BLK	0.000

F3R6	ACRT 72KHz - 6in R value	3.23	BLK	0.000
F3X6	ACRT 72KHz - 6in X value	3.23	BLK	0.000
RMUD	Mud Resistivity	12.52	BLK	0.000
F1RT	Transmitter Current Raw 12K X Receiver	2.73	BLK	0.000
F1XT	Transmitter Reference 12 KHz Imaginary Signal	2.73	BLK	0.000
F2RT	Transmitter Reference 36 KHz Real Signal	2.73	BLK	0.000
F2XT	Transmitter Reference 36 KHz Imaginary Signal	2.73	BLK	0.000
F3RT	Transmitter Reference 72 KHz Real Signal	2.73	BLK	0.000
F3XT	Transmitter Reference 72 KHz Imaginary Signal	2.73	BLK	0.000
TFPU	Upper Feedpipe Temperature Calculated	2.73	BLK	0.000
TFPL	Lower Feedpipe Temperature Calculated	2.73	BLK	0.000
ITMP	Instrument Temperature	2.73	BLK	0.000
TCVA	Temperature Correction Values Loop Off	2.73	NO	
TIDV	Instrument Temperature Derivative	2.73	NO	
TUDV	Upper Temperature Derivative	2.73	NO	
TLDV	Lower Temperature Derivative	2.73	NO	
TRBD	Receiver Board Temperature	2.73	NO	

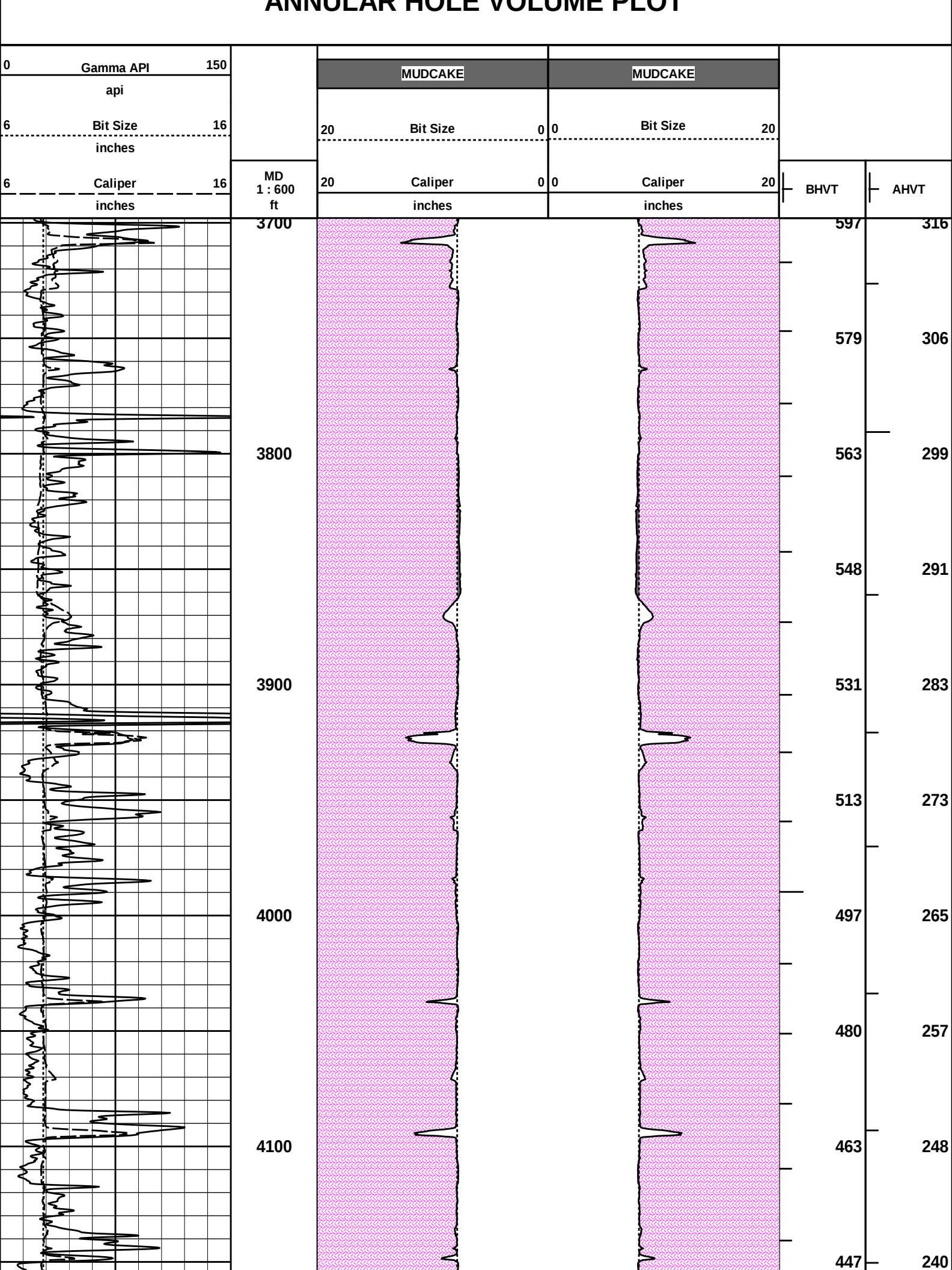
SDLT Pad				
TPUL	Tension Pull	22.39	NO	
NAB	Near Above	22.21	BLK	0.920
NHI	Near Cesium High	22.21	BLK	0.920
NLO	Near Cesium Low	22.21	BLK	0.920
NVA	Near Valley	22.21	BLK	0.920
NBA	Near Barite	22.21	BLK	0.920
NDE	Near Density	22.21	BLK	0.920
NPK	Near Peak	22.21	BLK	0.920
NLI	Near Lithology	22.21	BLK	0.920
NBAU	Near Barite Unfiltered	22.21	BLK	0.250
NLIU	Near Lithology Unfiltered	22.21	BLK	0.250
FAB	Far Above	22.56	BLK	0.250
FHI	Far Cesium High	22.56	BLK	0.250
FLO	Far Cesium Low	22.56	BLK	0.250
FVA	Far Valley	22.56	BLK	0.250
FBA	Far Barite	22.56	BLK	0.250
FDE	Far Density	22.56	BLK	0.250
FPK	Far Peak	22.56	BLK	0.250
FLI	Far Lithology	22.56	BLK	0.250
PTMP	Pad Temperature	22.40	BLK	0.920
NHV	Near Detector High Voltage	21.79	NO	
FHV	Far Detector High Voltage	21.79	NO	
ITMP	Instrument Temperature	21.79	NO	
DDHV	Detector High Voltage	21.79	NO	

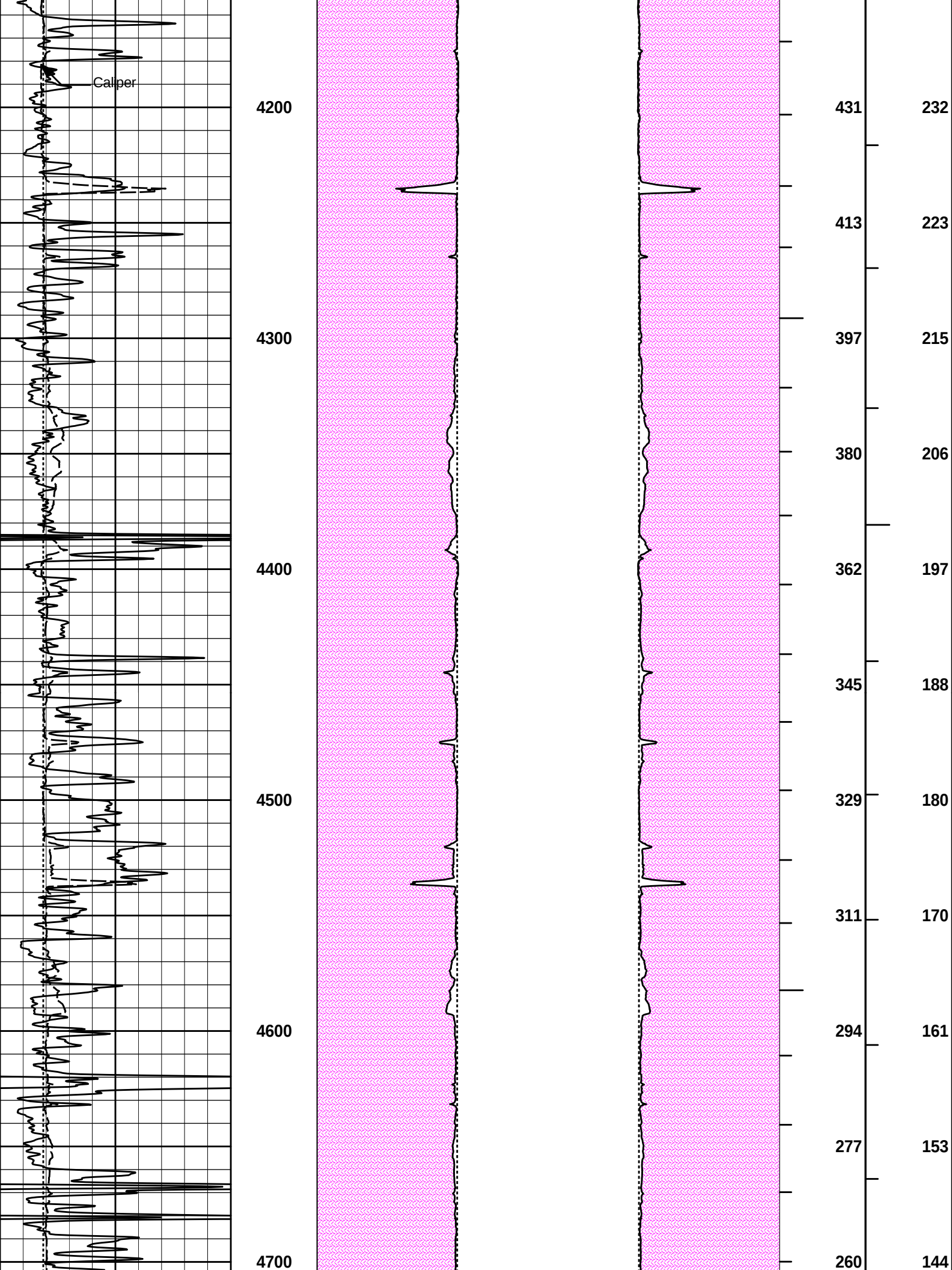
Microlog Pad				
TPUL	Tension Pull	22.58	NO	
MINV	Microlog Lateral	22.58	BLK	0.750
MNOR	Microlog Normal	22.58	BLK	0.750

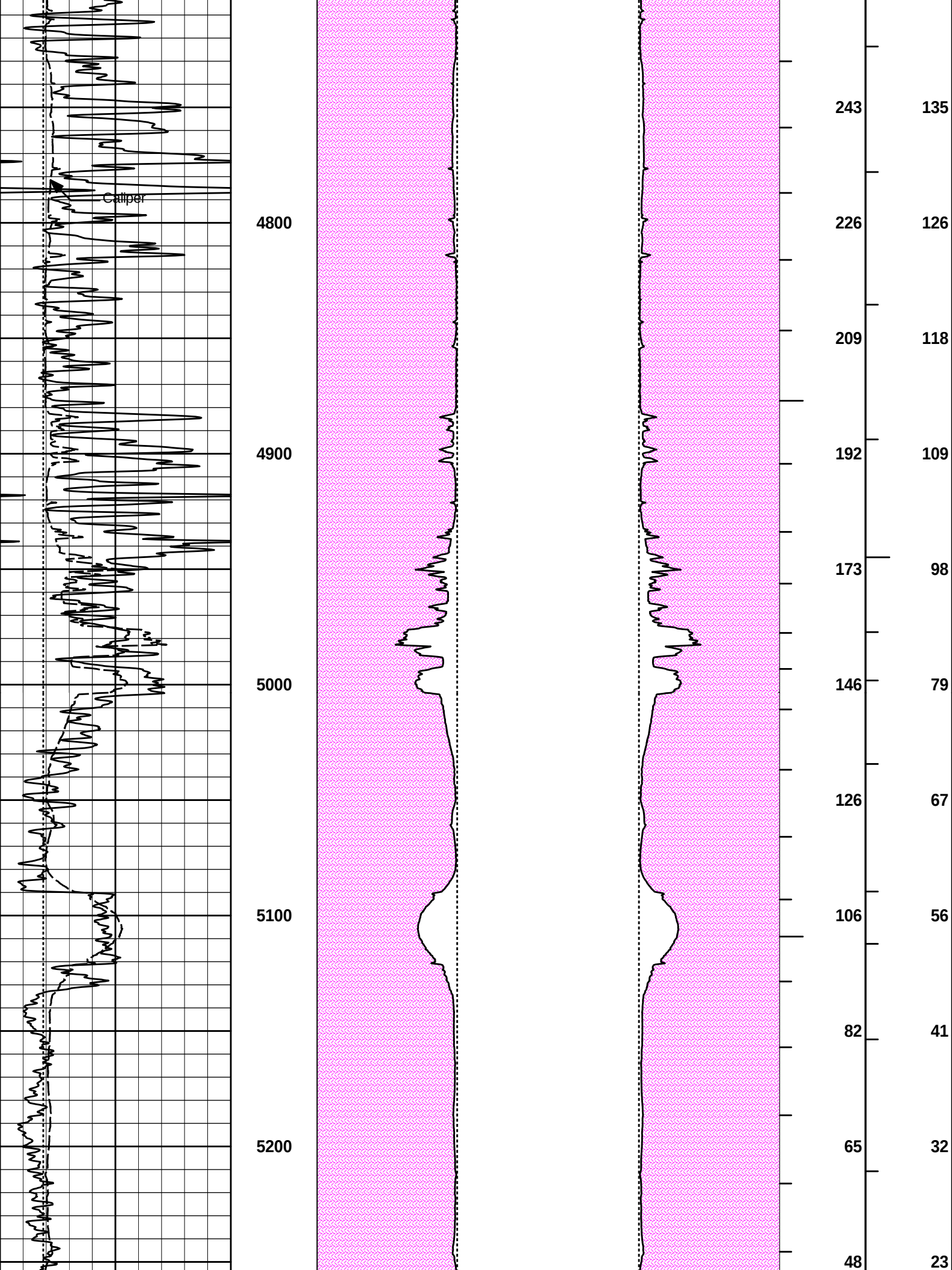
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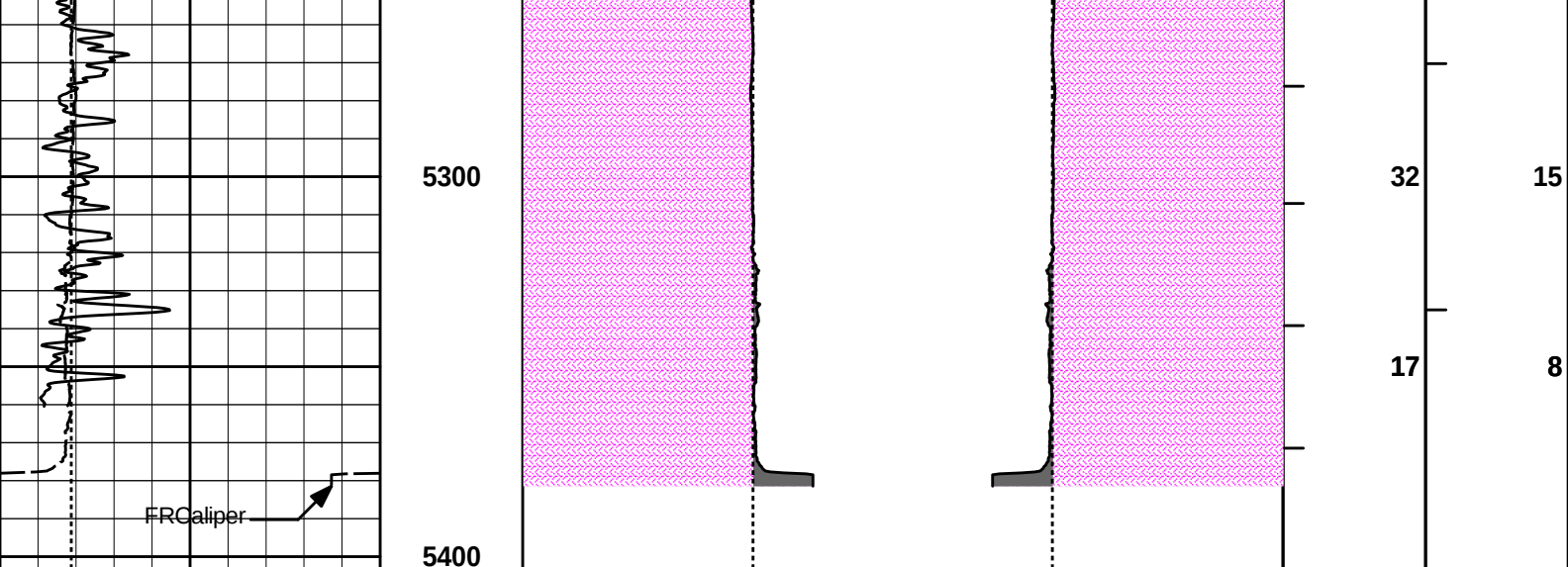
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Data: BARKER_2-23\Well Based\DETAIL\
Plot File: \\-LOCAL-\\BARKER_2-23\0001 SP-GTET-DSN-SDL-ACRT-BN\POROI\AHV_2_IQ_LIB

ANNUAL AB HOLE VOLUME PLOT









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

HALLIBURTON

Plot Time: 13-Mar-14 10:36:05
Plot Range: 3698 ft to 5403.33 ft
Data: BARKER_2-23\Well Based\DETAIL\
Plot File: \\-LOCAL-\\BARKER_2-23\\0001 SP-GTET-DSN-SDL-ACRT-BNIPORO\\AHV_2_IQ_LIB

ANNULAR HOLE VOLUME PLOT

COMPANY	BEREXCO LLC.		
WELL	BARKER 2-23		
FIELD	WILDCAT		
COUNTY	FINNEY	STATE	KANSAS
HALLIBURTON		DUAL SPACED NEUTRON SPECTRAL DENSITY LOG	