

HALLIBURTON

DUAL SPACED NEUTRON SPECTRAL DENSITY LOG

COMPANY	HERMAN L. LOEB, LLC		
WELL	DORA TAYLOR 3-22		
FIELD/BLOCK	MCKINNEY		
COUNTY	MEADE		
STATE	KANSAS		
Permanent Datum Log measured from Drilling measured from	GL KB KB	Sect. 22 Twp. 34S Rge. 26W	Elev. 2323.0 ft D.F. G.L.
Location SW-NE-SW-NW 1932' FNL 970' FWL			
API No. 15-119-21343-00-00 Other Services: ACRT BSAT MICRO			
COMPANY WELL FIELD/BLOCK COUNTY	HERMAN L. LOEB, LLC DORA TAYLOR 3-22 MCKINNEY MEADE KANSAS		

Date	27-Jul-13		
Run No.	ONE		
Depth - Driller	6600.00 ft		
Depth - Logger	6596.0 ft		
Bottom - Logged Interval	6562.0 ft		
Top - Logged Interval	4560.0 ft		
Casing - Driller	8.625 in @ 1324.0 ft		
Casing - Logger	1321.0 ft @		
Bit Size	7.875 in @		
Type Fluid in Hole	WATER BASED MUD		
Density	9.2 ppg	49.00 s/qt	
PH	11.00 pH	6.4 cp/m	
Source of Sample	MUD PIT		
Rm @ Meas. Temperature	0.650 ohmm	@ 75.00 degF	@
Rmf @ Meas. Temperature	0.55 ohmm	@ 75.00 degF	@
Rmc @ Meas. Temperature	0.760 ohmm	@ 75.00 degF	@
Source Rmf	Rmc	MEASURED	MEASURED
Rm @ BHT	0.40 ohmm	@ 125.0 degF	@
Time Since Circulation	8.0 hr		
Time on Bottom	27-Jul-13 21:41		
Max. Rec. Temperature	125.0 degF	@ 6596.0 ft	@
Equipment	11230668	LIBERAL	
Recorded By	THOMAS HYDE		
Witnessed By	T. PRMOLD		

Fold here

Service Ticket No.: 900610682 API Serial No.: 15-119-21343-00-00 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.	10811258	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]	Y	Serial No.	5068GW	Serial No.	DSN436
Distance to Source	10'	FWDA [Y/N]	Y	Strength	1.5 Ci	Strength	15 Ci

LOGGING DATA

GENERAL			GAMMA		ACOUSTIC		DENSITY			NEUTRON				
Run No.	Depth		Speed	Scale		Scale		Matrix	Scale		Matrix	Scale		Matrix
	From	To	ft/min	L	R	L	R		L	R		L	R	
ONE	6596	4550	REC	0	150				30	-10	2.71	30	-10	LIME

DIRECTIONAL INFORMATION

Maximum Deviation	@	KOP	@
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Remarks: ANNULAR HOLE VOLUME CALCULATED FOR 5.5 INCH CASING

CHLORIDES REPORTED AT 4800 MG/L

LCM REPORTED AT 4 PPB

TODAY'S CREW B. TERRELL K. KING

THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES LIBERAL, KANSAS 620-624-8123

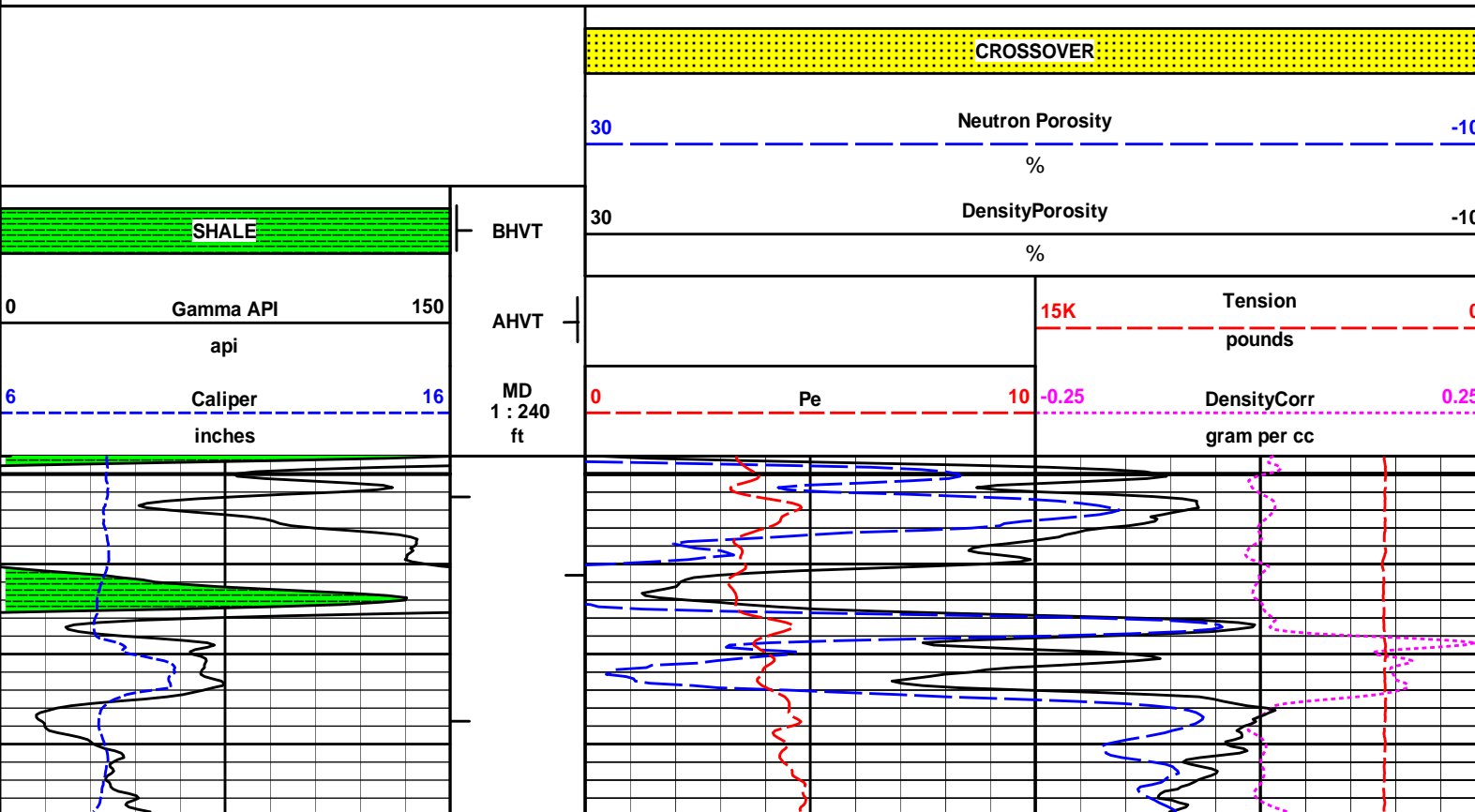
HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR 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.

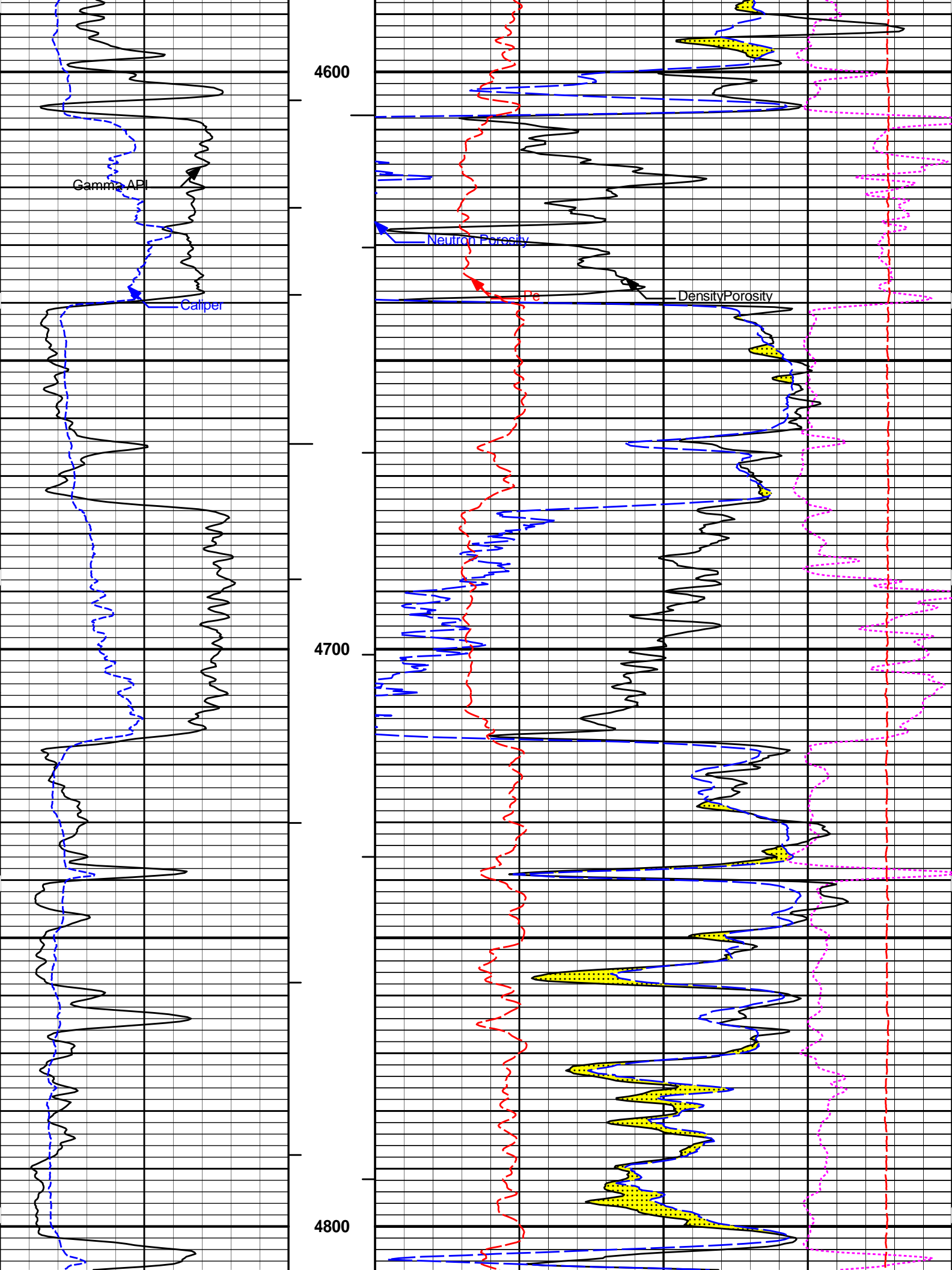
HALLIBURTON

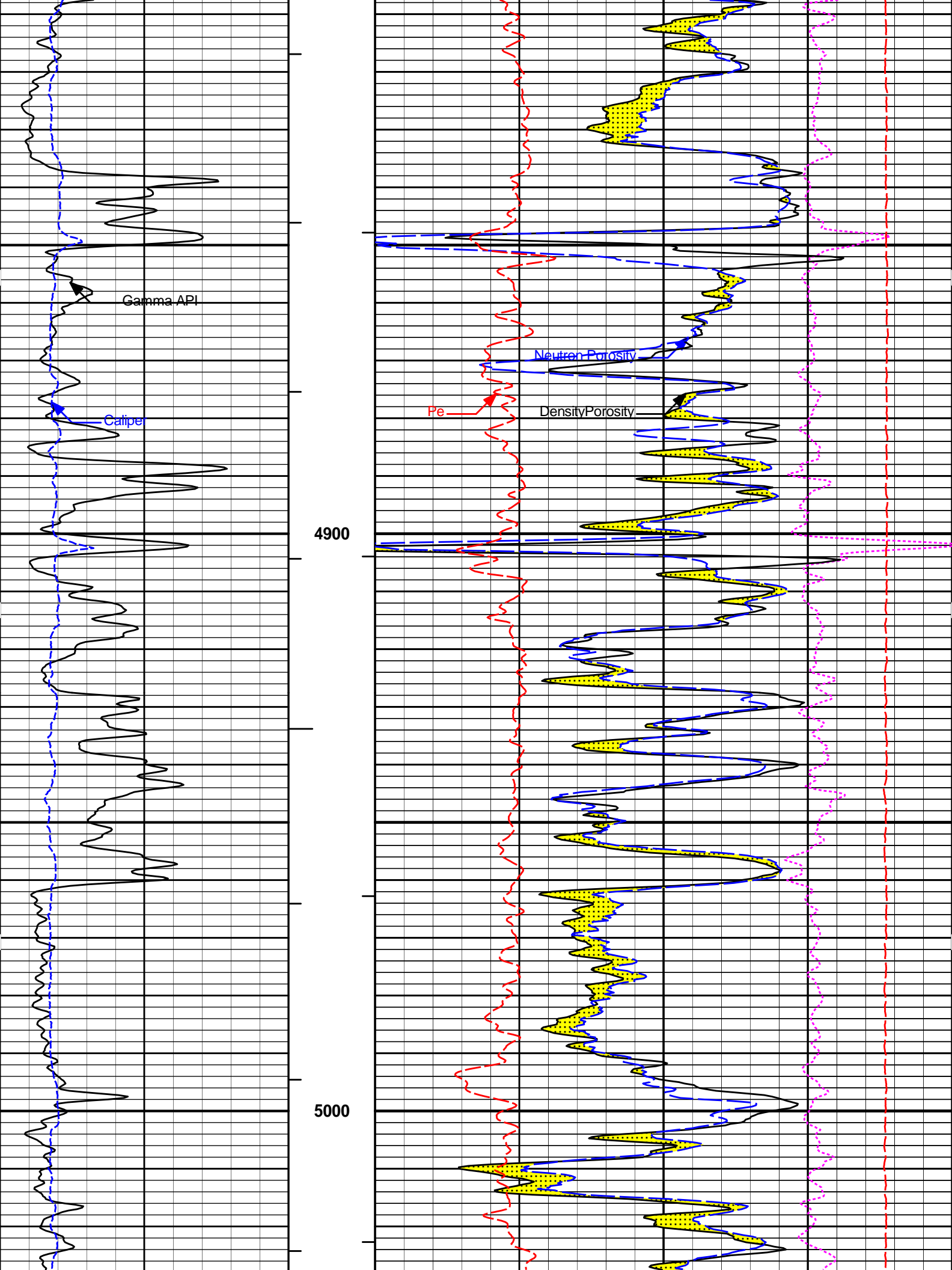


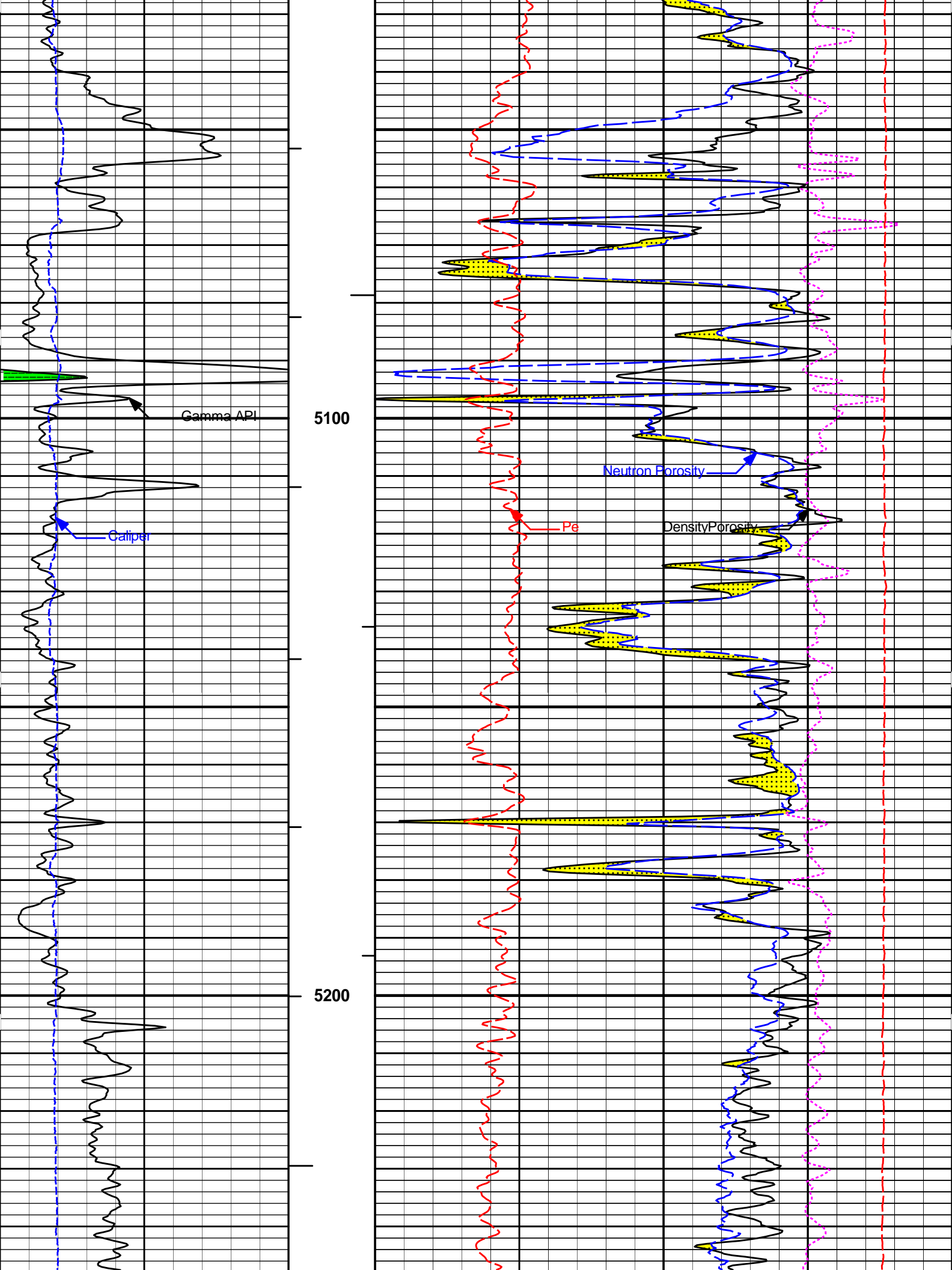
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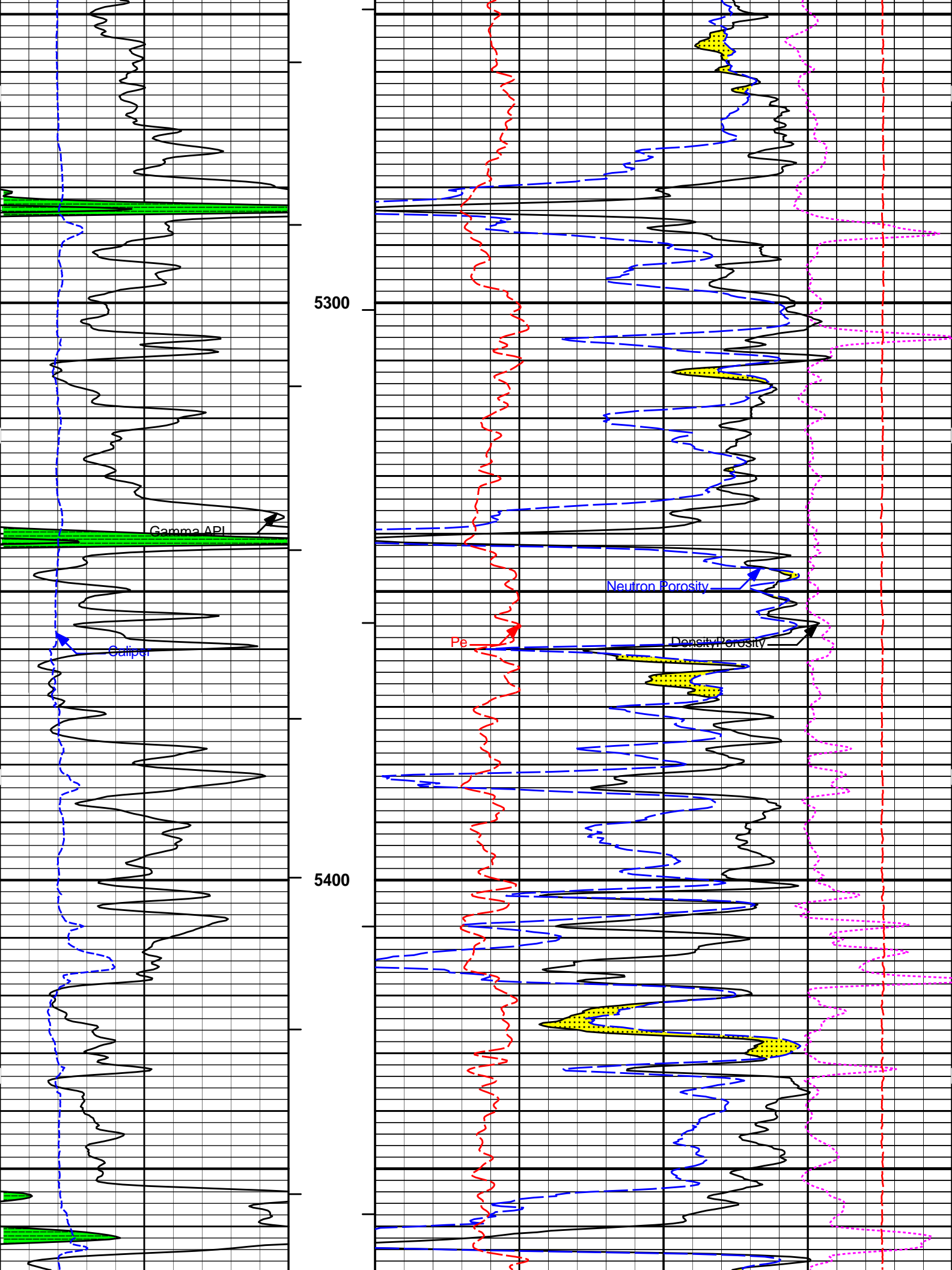
5 INCH MAIN LOG

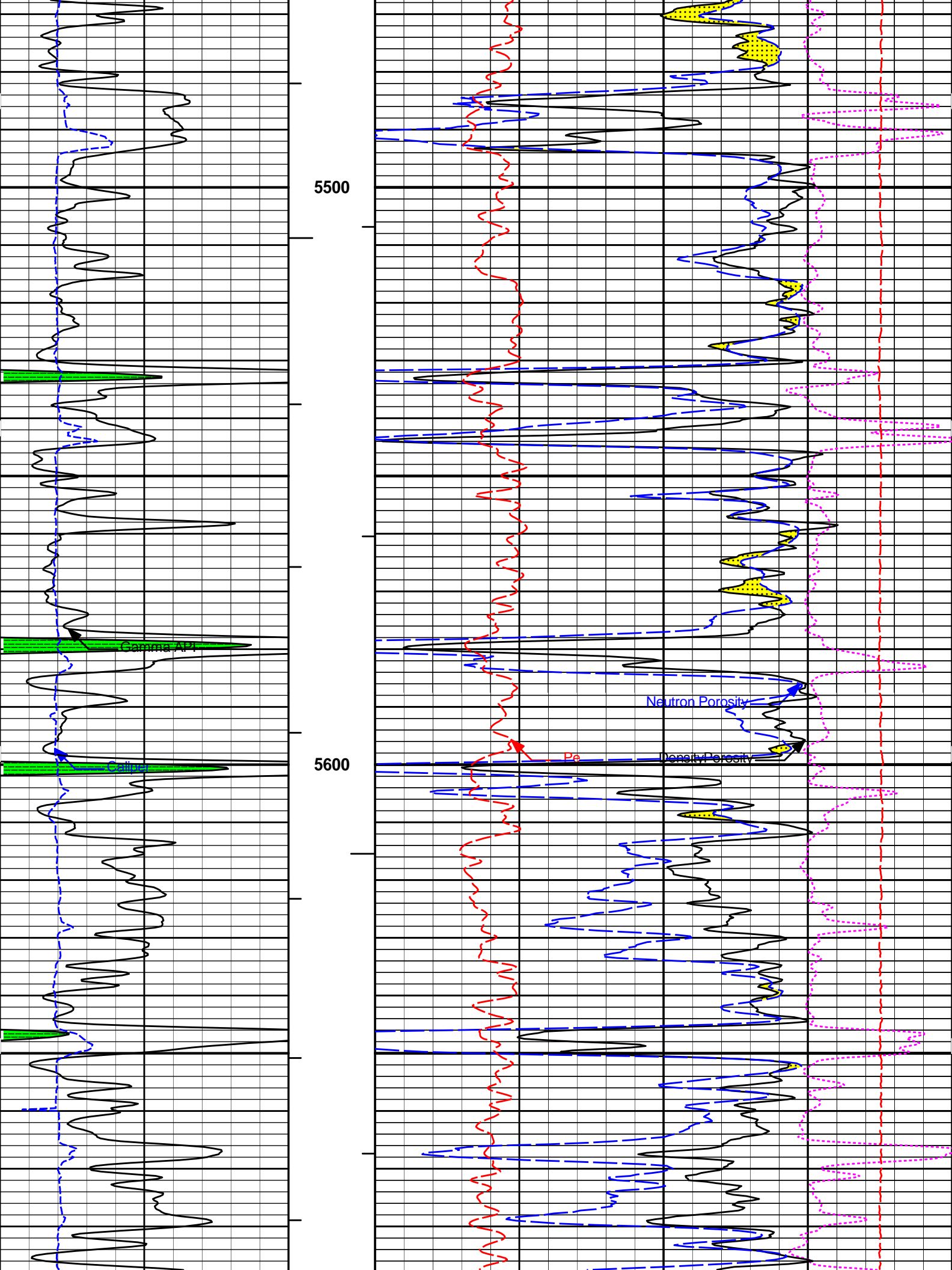


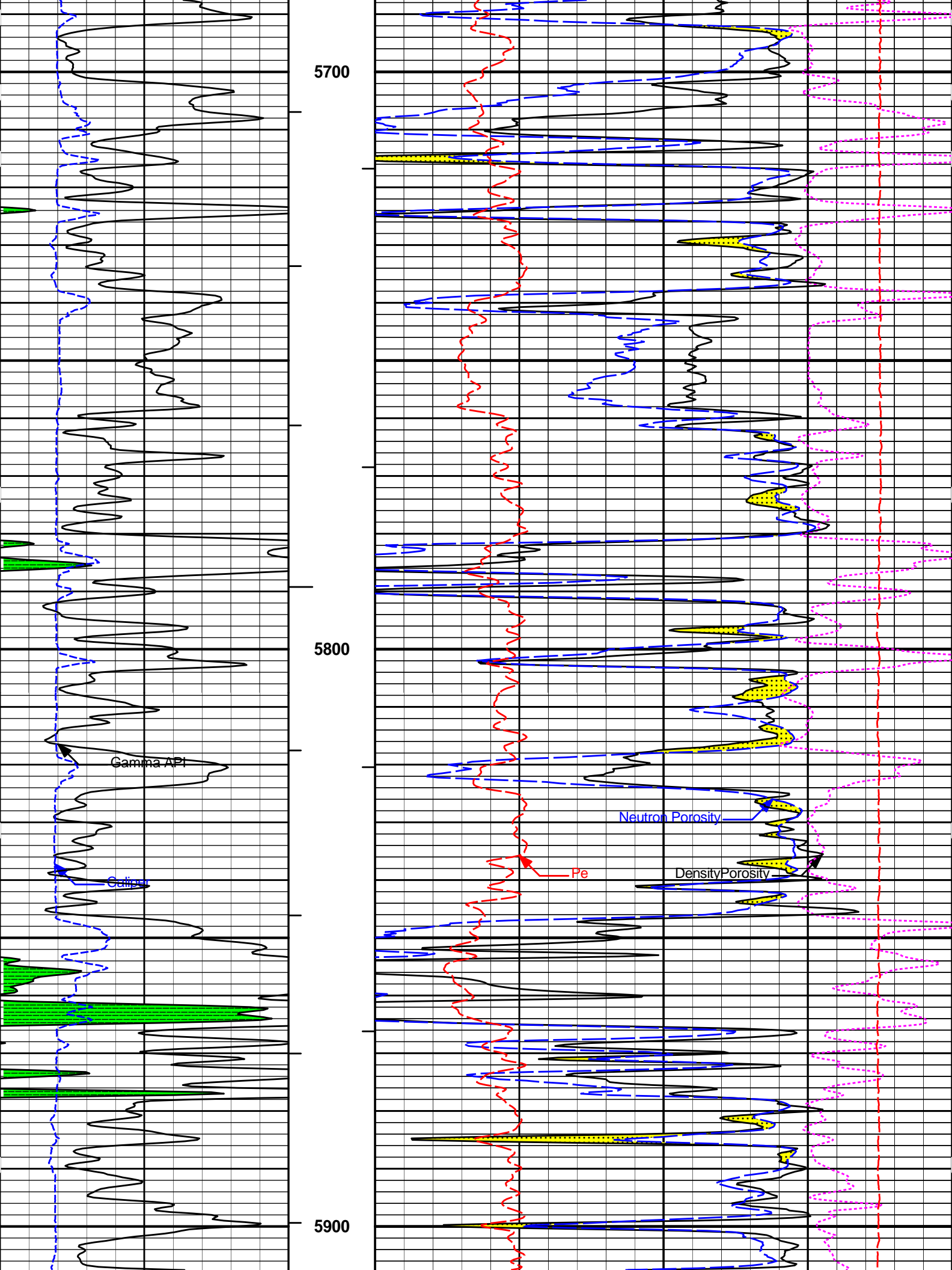


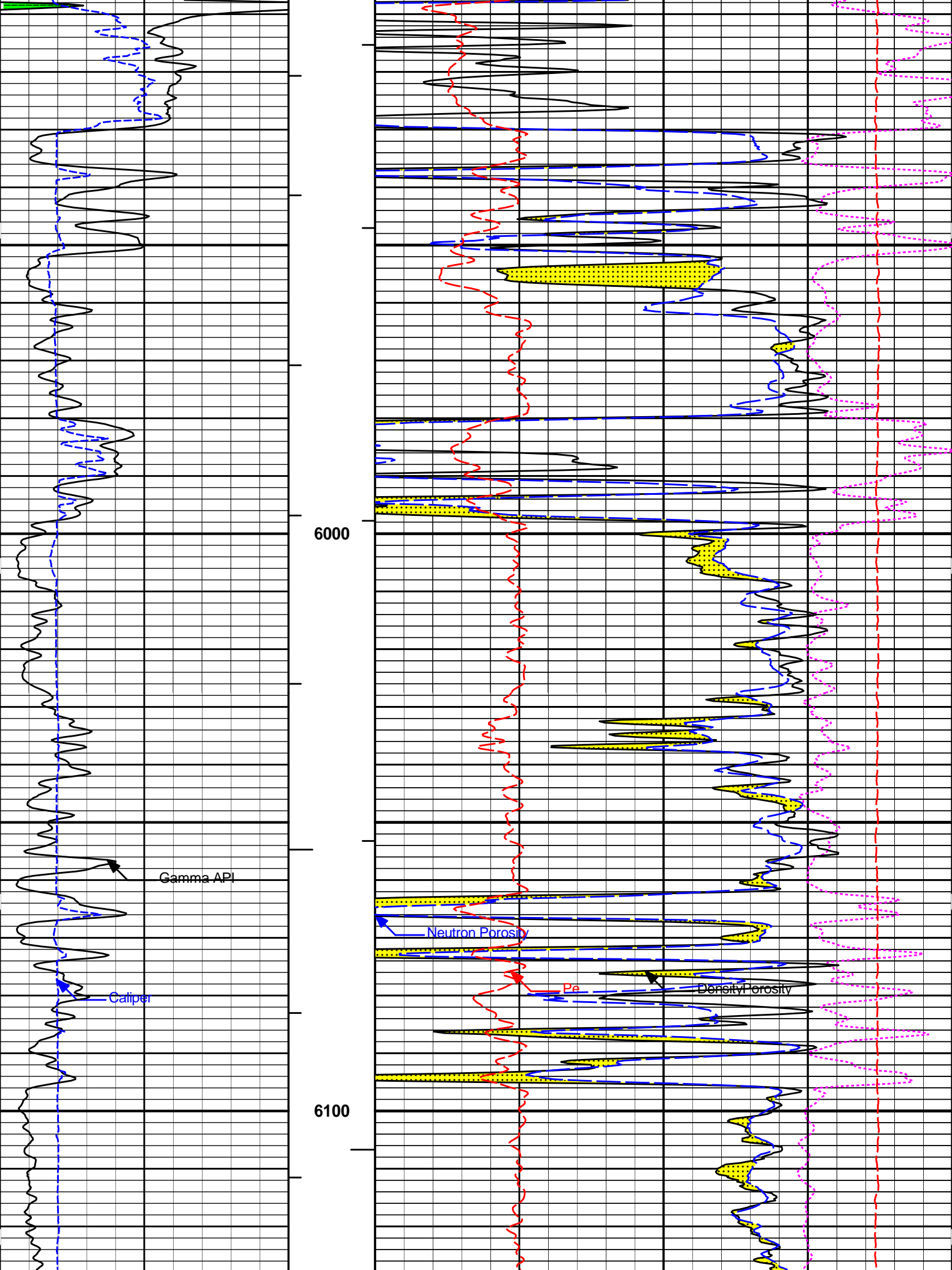


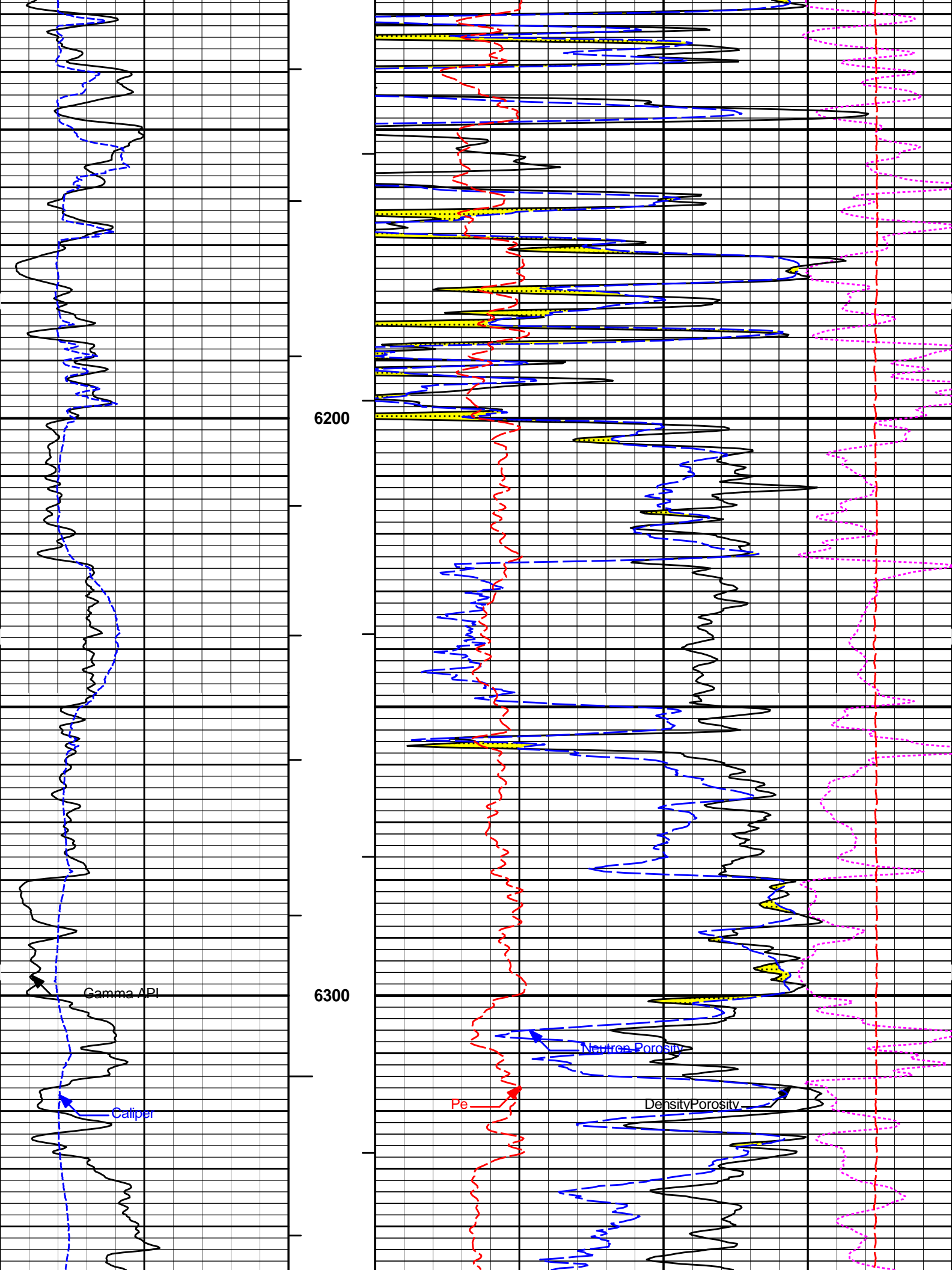


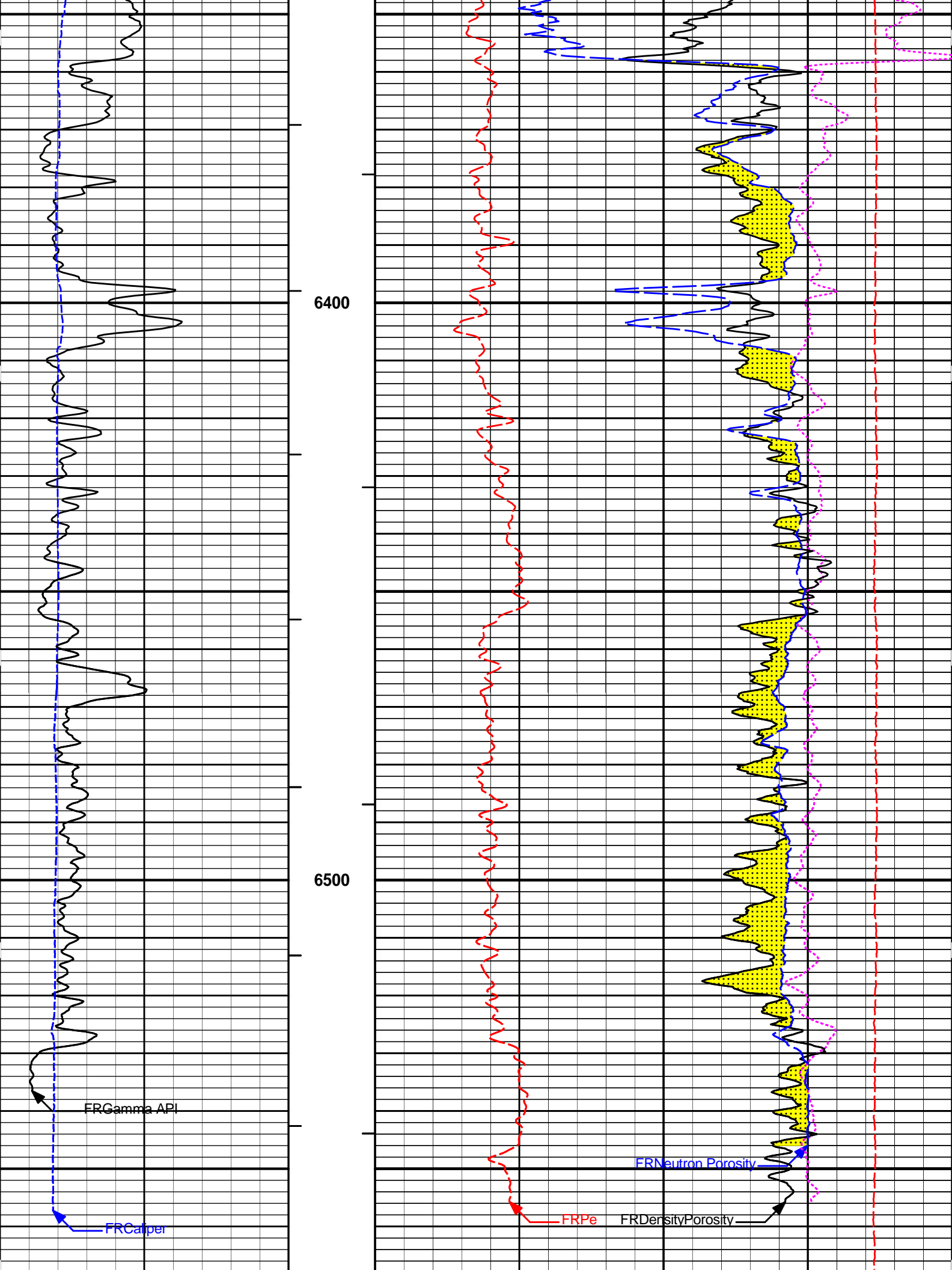


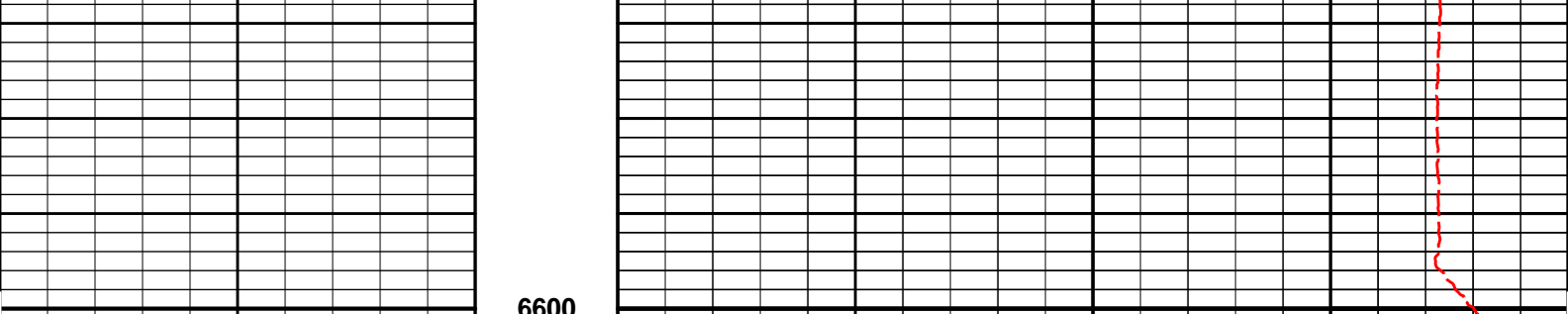












6600

6	Caliper	16
	inches	
0	Gamma API	150
	api	
SHALE		

MD	1 : 240	ft
AHVT		
BHVT		

0	Pe	10	-0.25	DensityCorr	0.25
				gram per cc	
			15K	Tension	0
				pounds	
30				DensityPorosity	-10
				%	
30				Neutron Porosity	-10
				%	
CROSSOVER					

HALLIBURTON

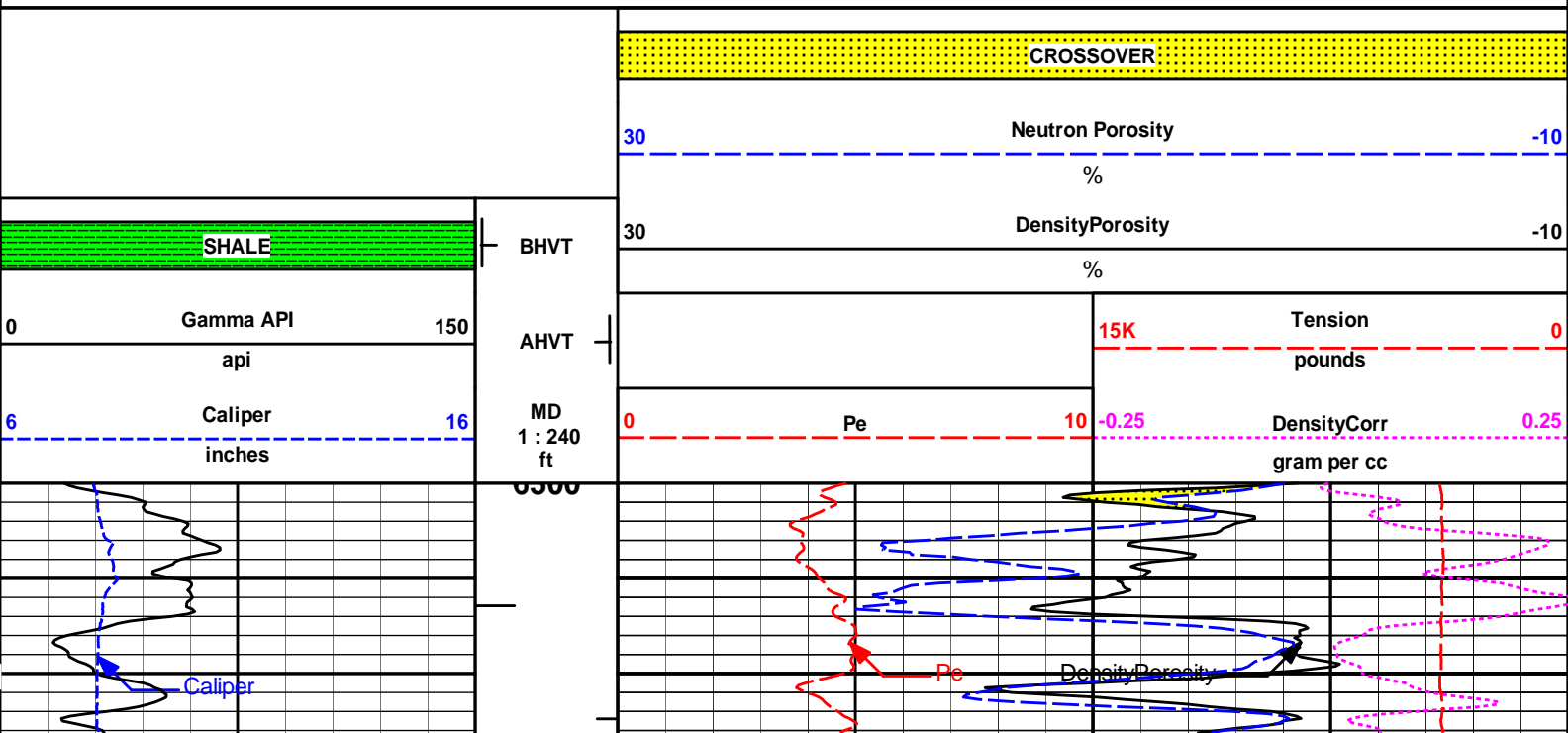
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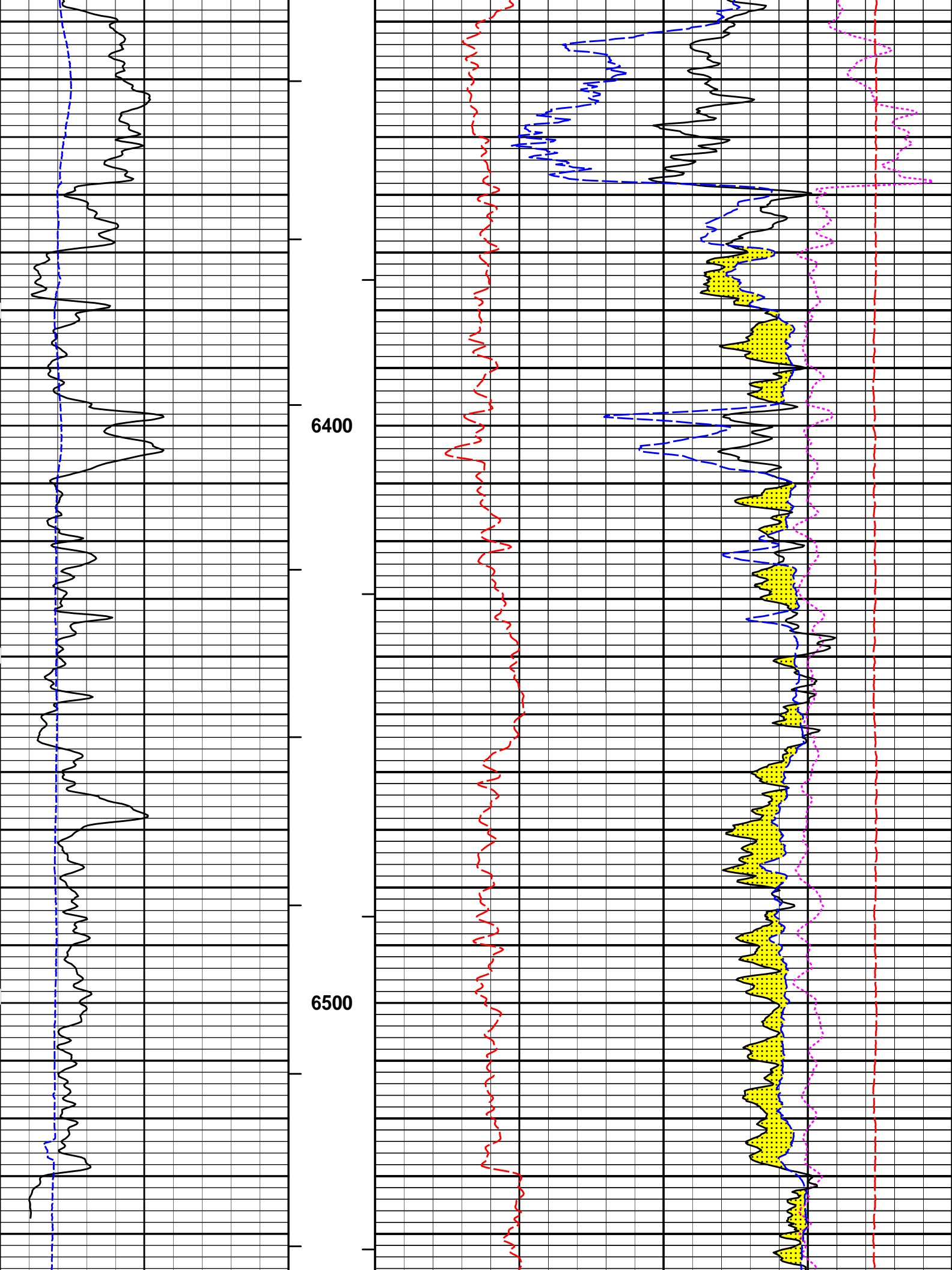
5 INCH MAIN LOG

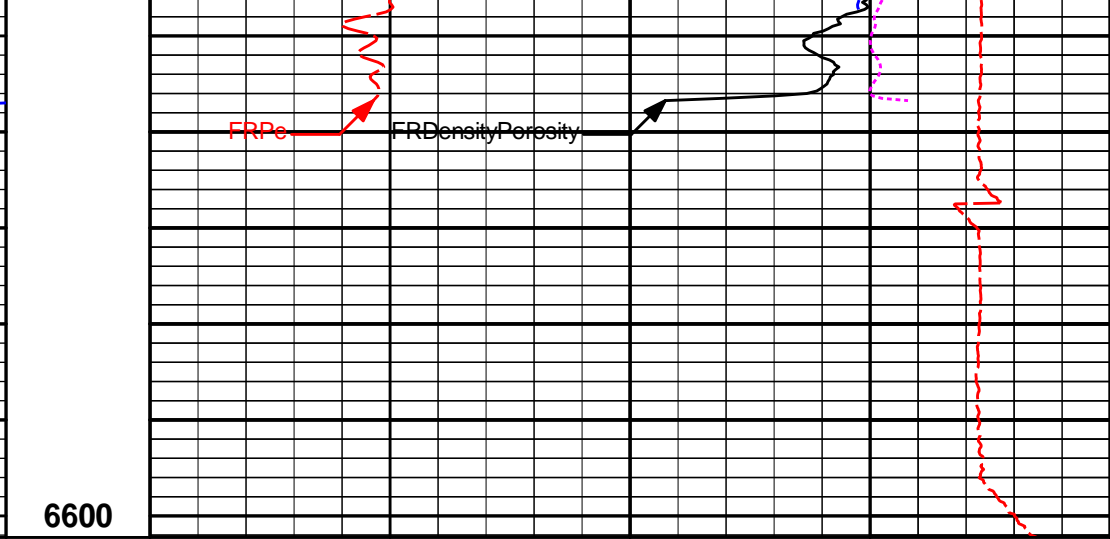
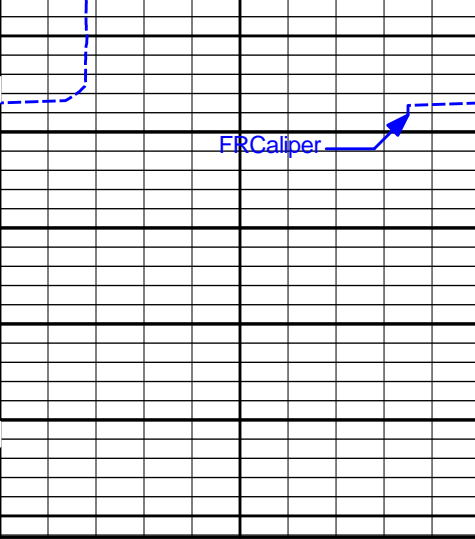
HALLIBURTON

Plot Time: 27-Jul-13 22:26:12
 Plot Range: 6300 ft to 6602.25 ft
 Data: DORA_TAY_322\Well Based\DAQ-0001-002\
 Plot File: \\PORO\Poro_IQ_5_REP_LIB

REPEAT SECTION







6	Caliper	16
	inches	
0	Gamma API	150
	api	
SHALE		

6600	MD	1 : 240	ft
	AHVT		
	BHVT		

0	Pe	10	-0.25	DensityCorr	0.25
				gram per cc	
			15K	Tension	0
				pounds	
30	DensityPorosity				-10
				%	
30	Neutron Porosity				-10
				%	
CROSSOVER					

HALLIBURTON

Plot Time: 27-Jul-13 22:26:21
 Plot Range: 6300 ft to 6602.25 ft
 Data: DORA_TAY_322\Well Based\DAQ-0001-002\
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REPEAT SECTION

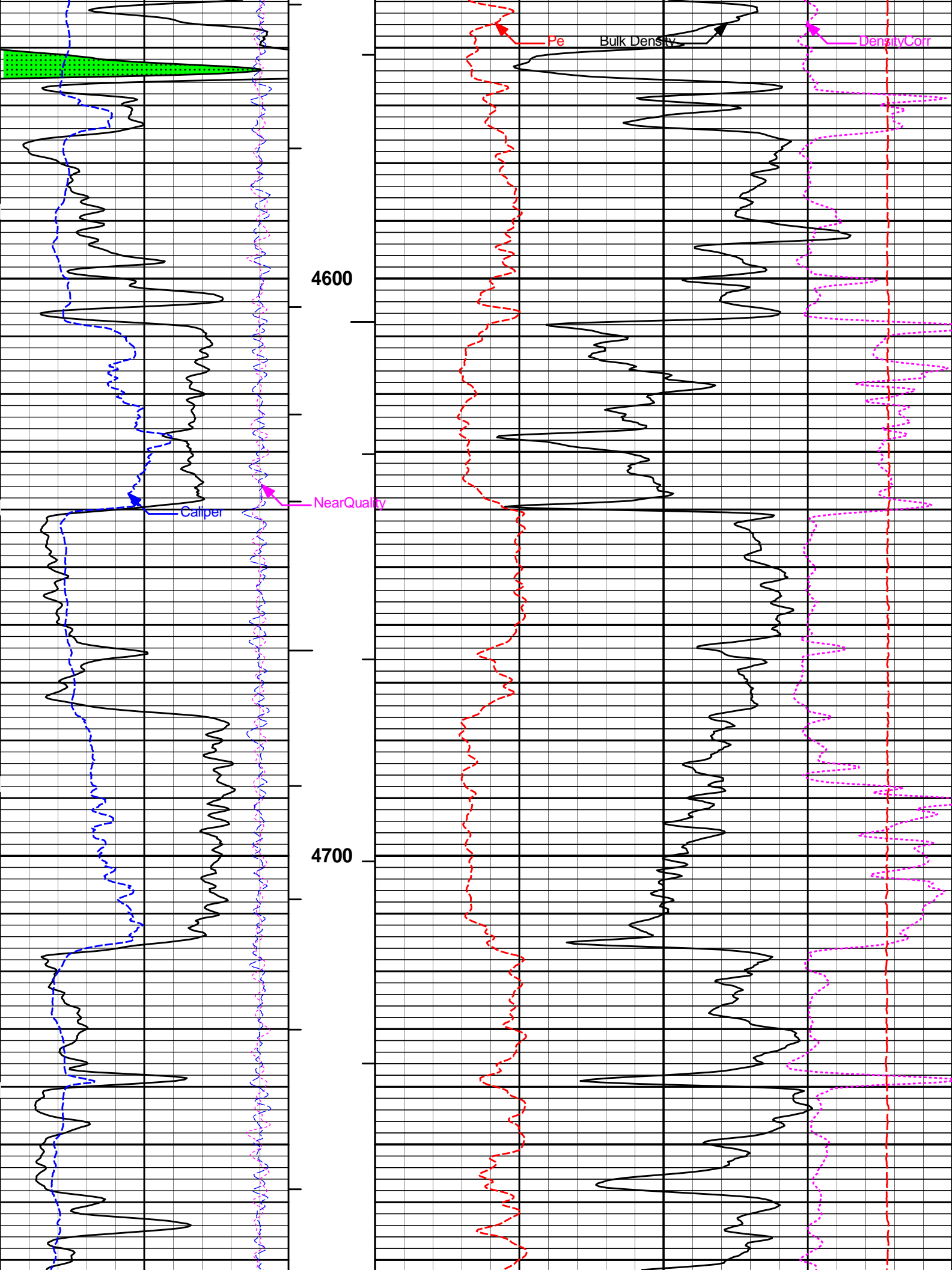
HALLIBURTON

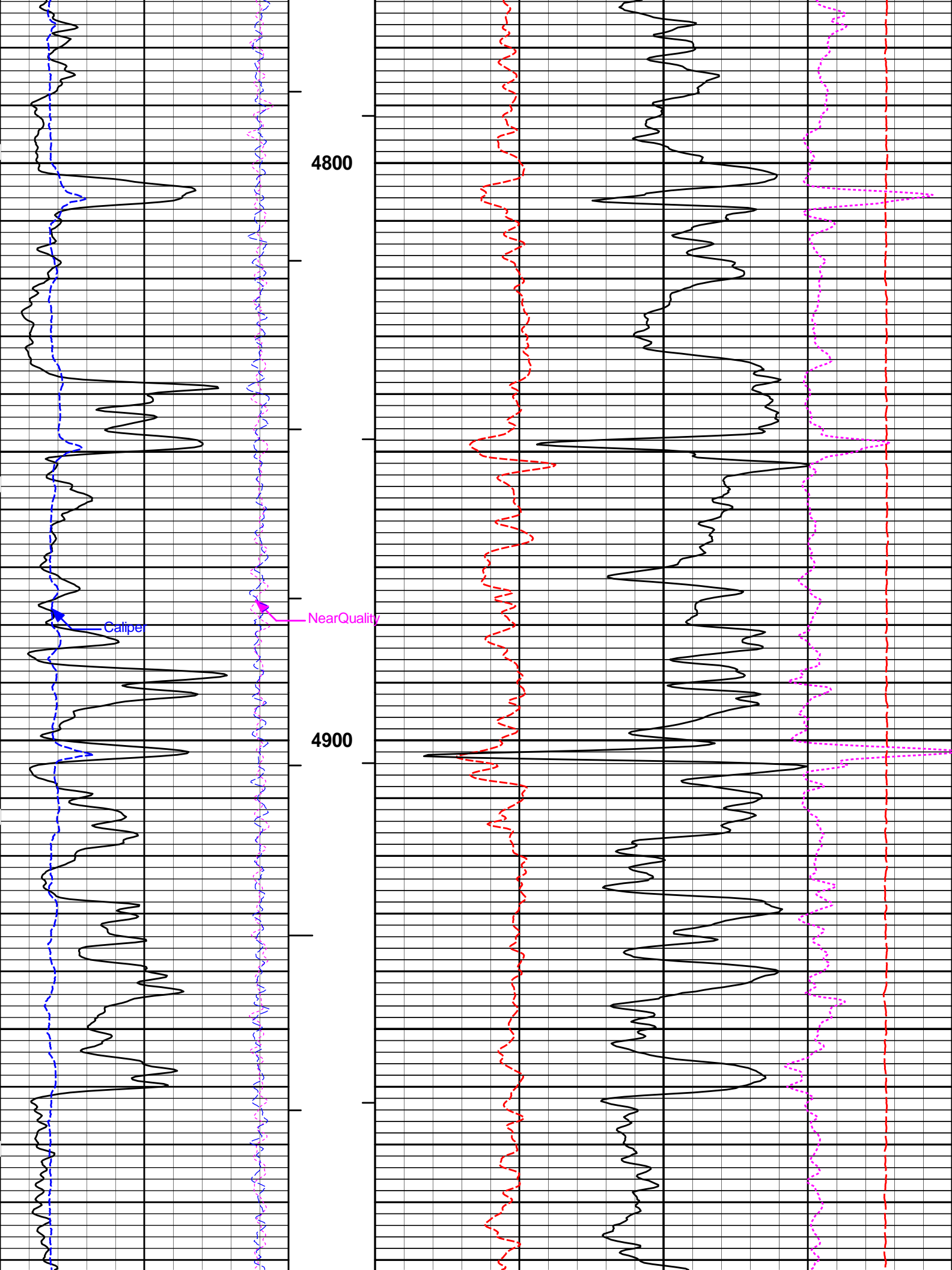
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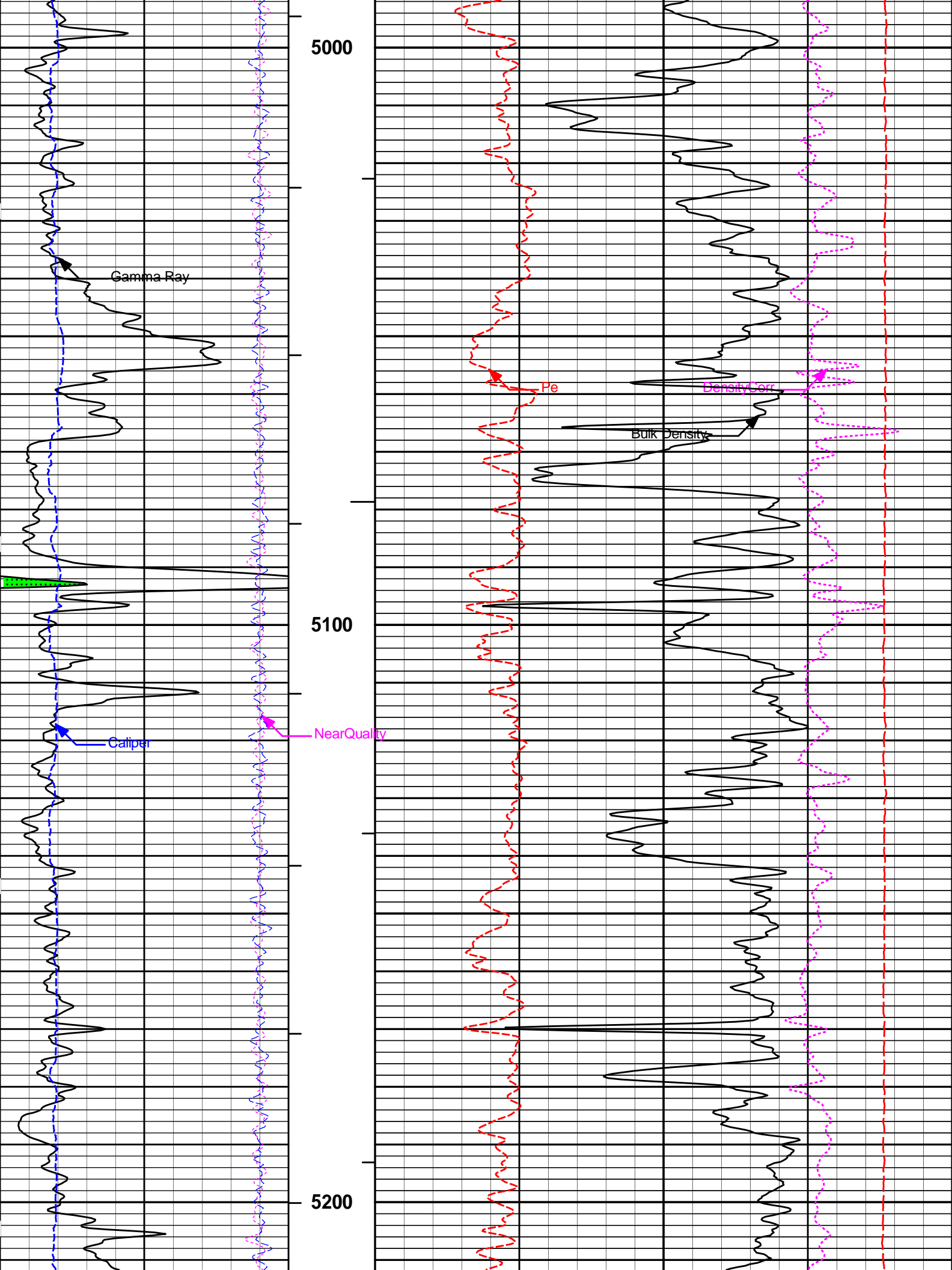
5 INCH MAIN LOG

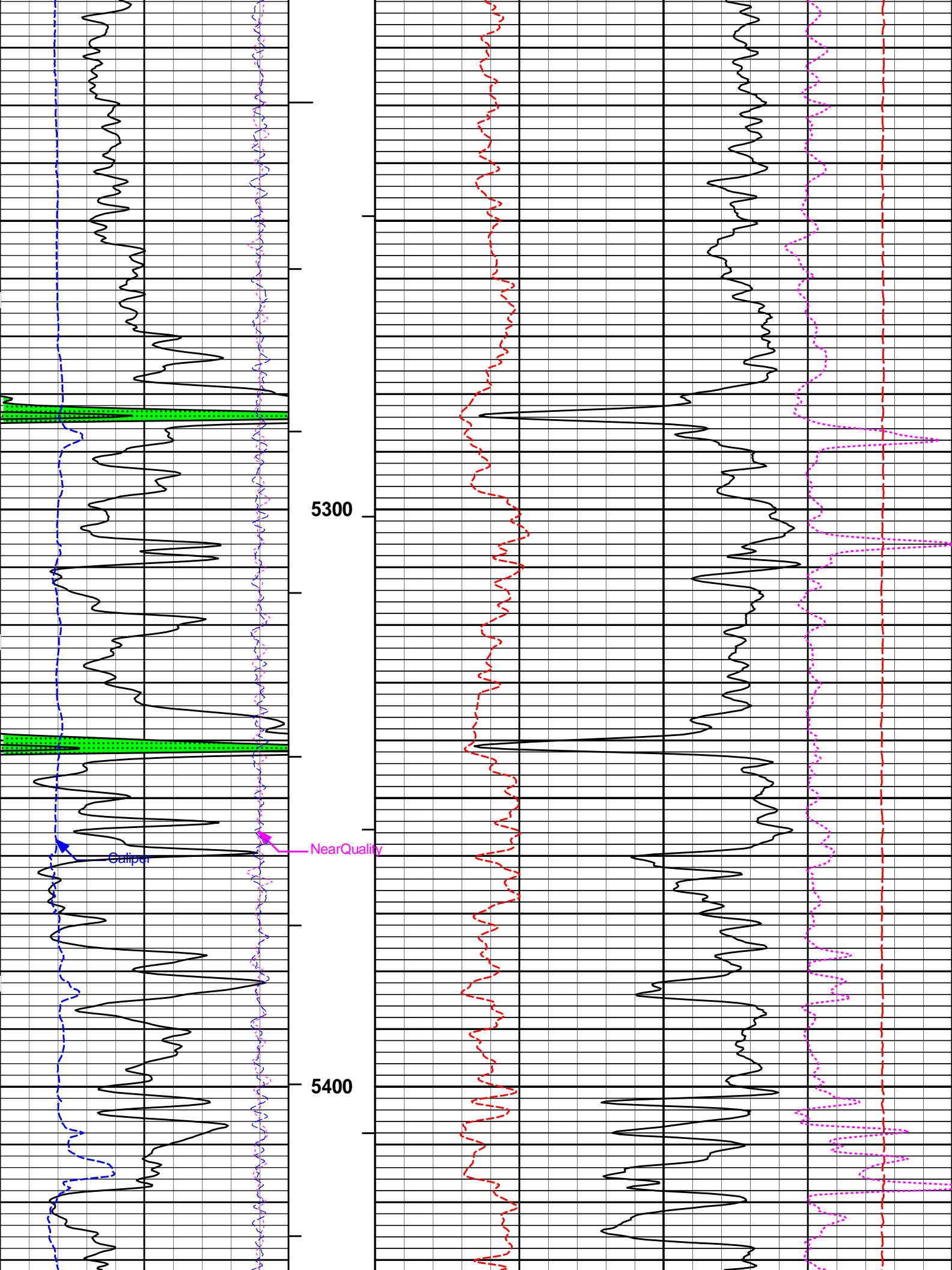
SHALE		
0	Gamma Ray	150
	api	
18	FarQuality	-2
-18	NearQuality	2
6	Caliper	16
	inches	

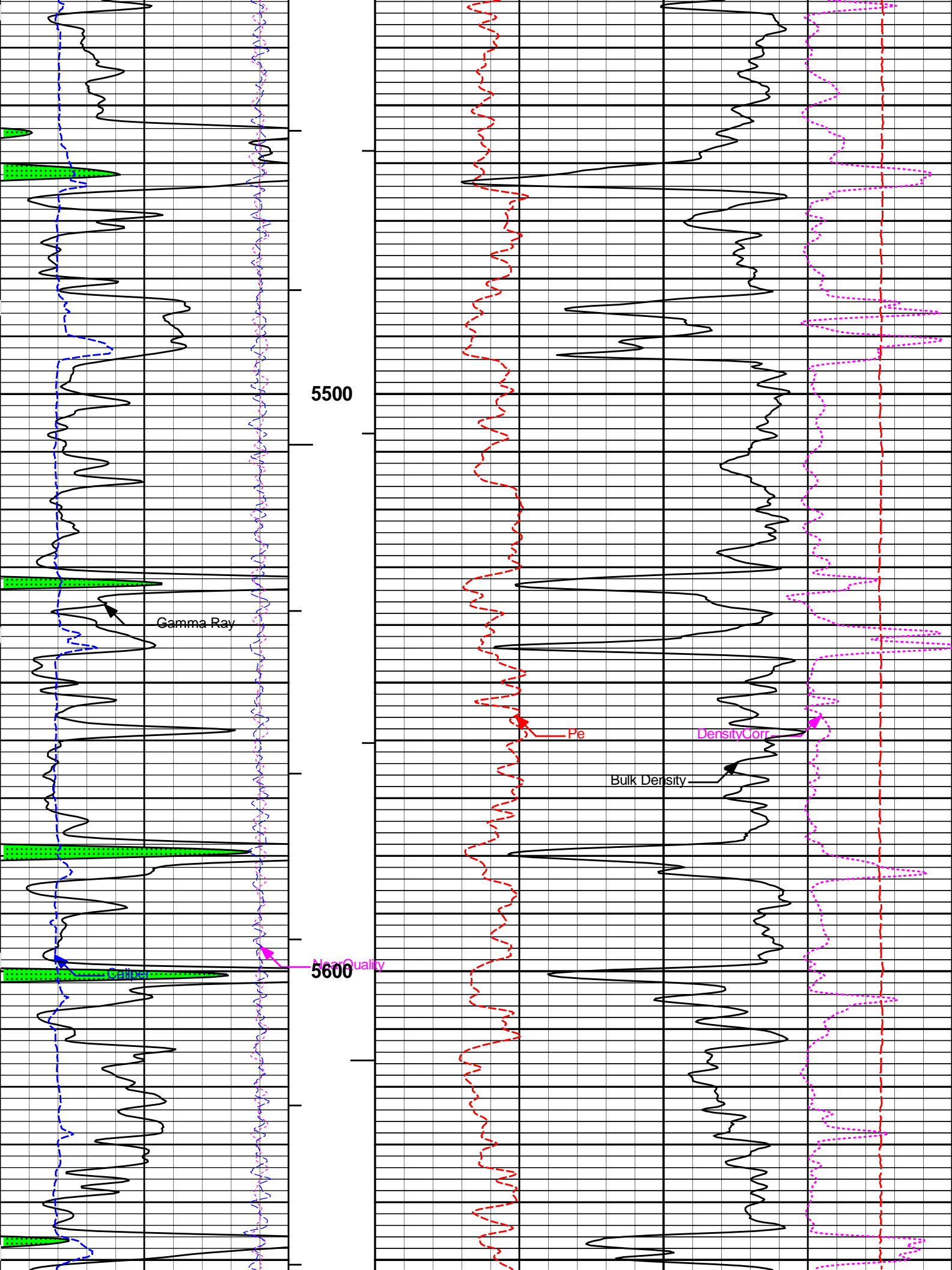
	BHV	2	Bulk Density	3			
	ft3		g/cc				
	AHV		15K	Tension	0		
	ft3			pounds			
	MD	0	Pe	10	-0.25	DensityCorr	0.25
	1 : 240					g/cc	
	ft						

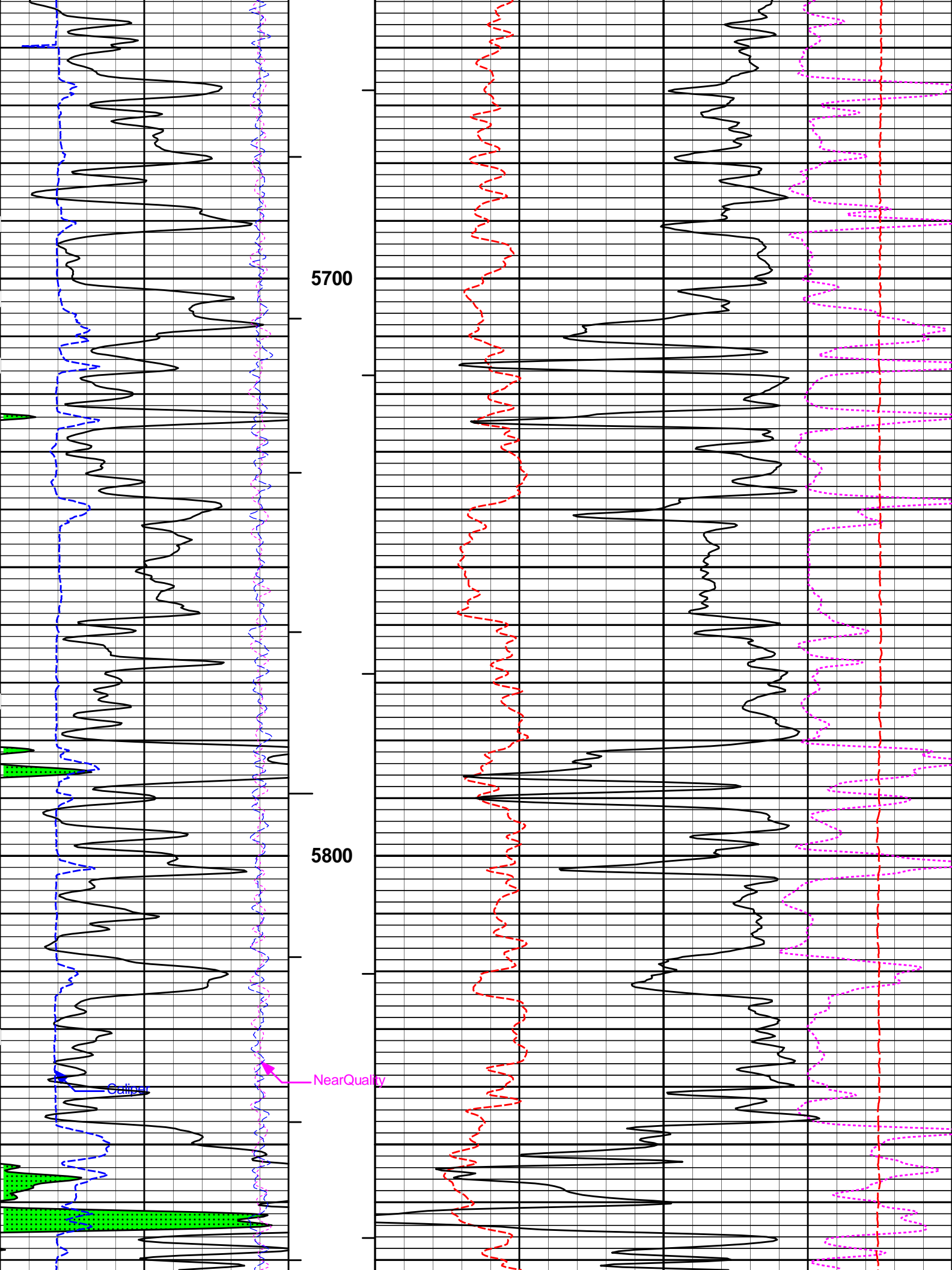


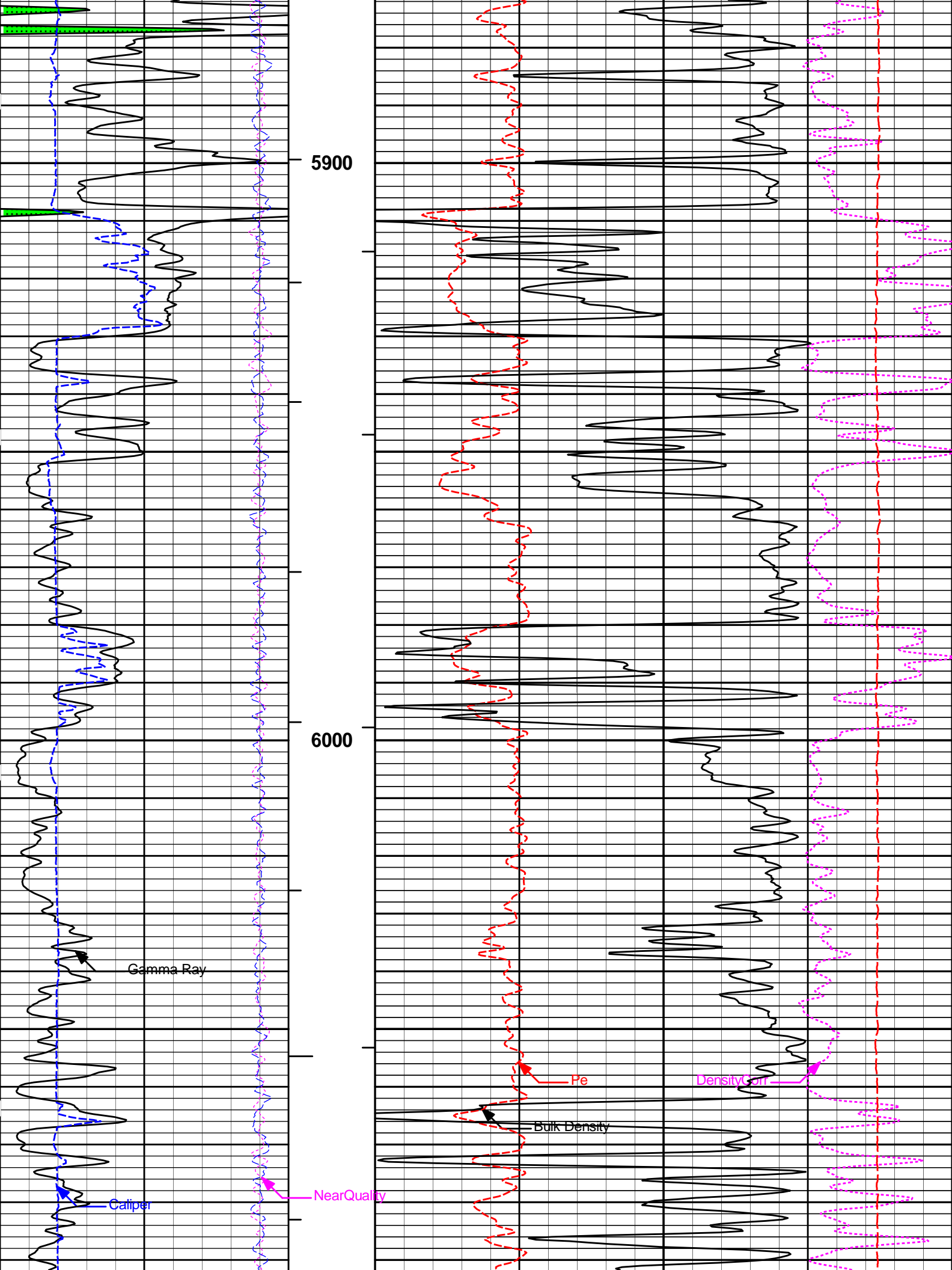


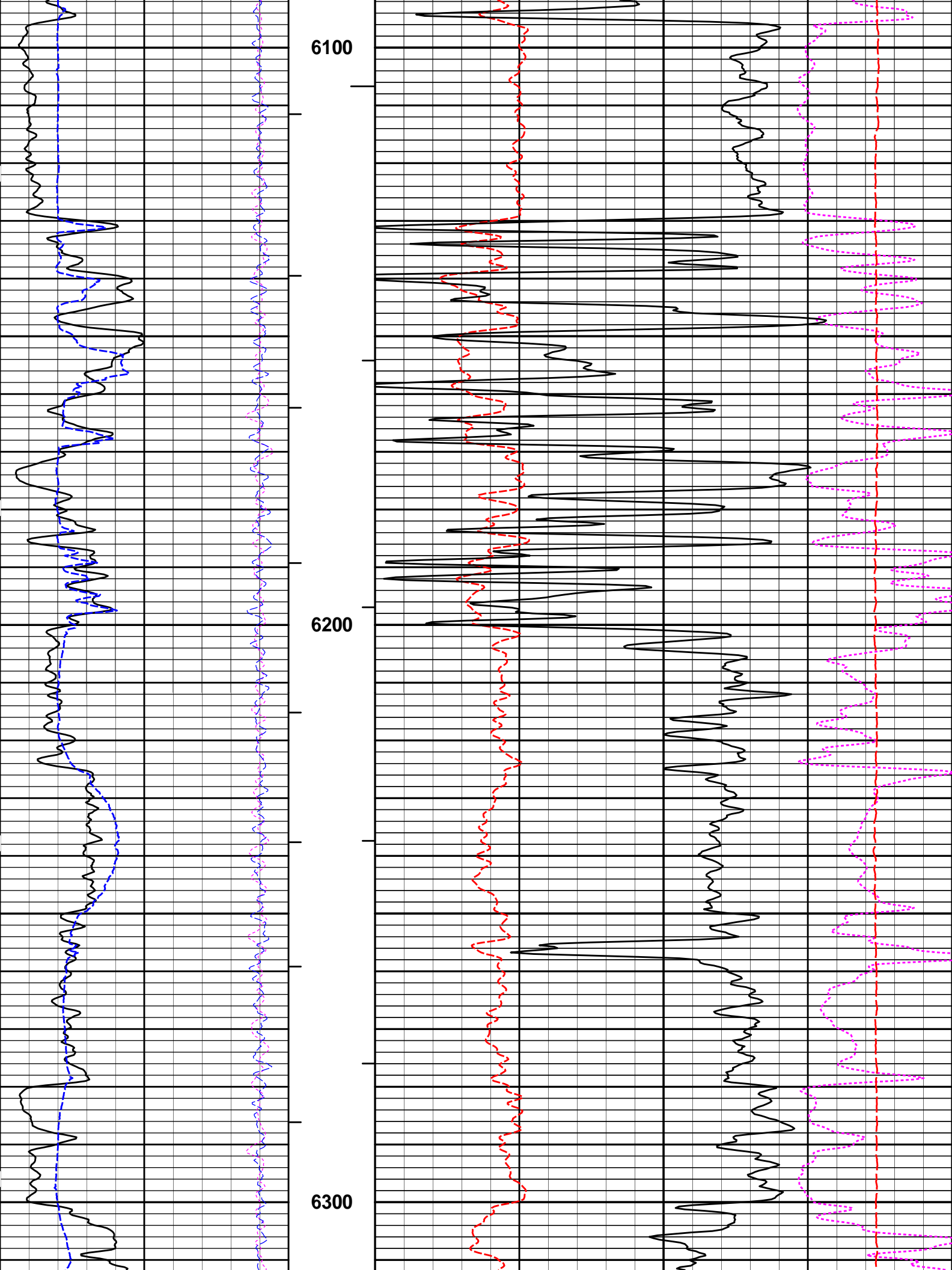


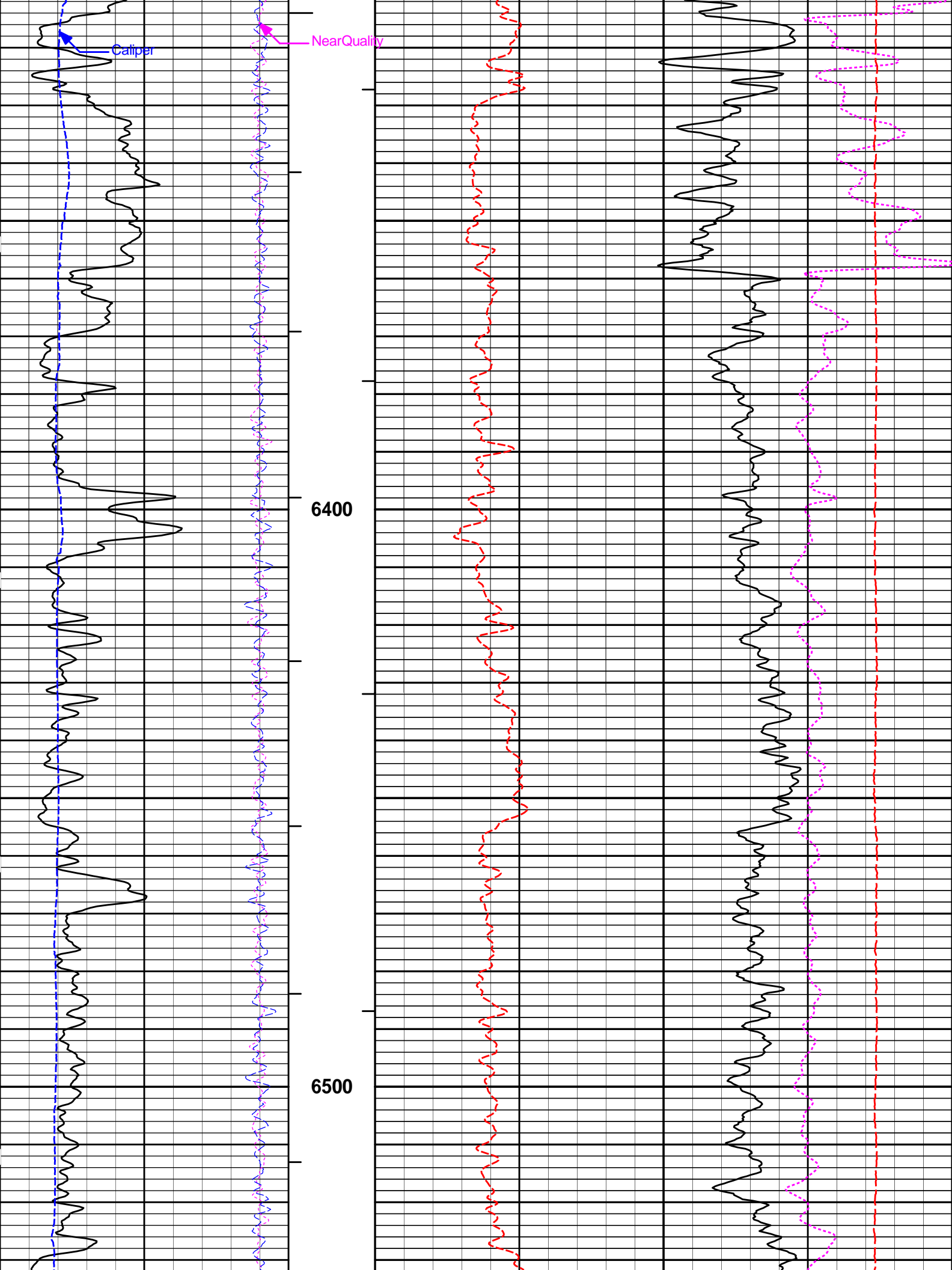


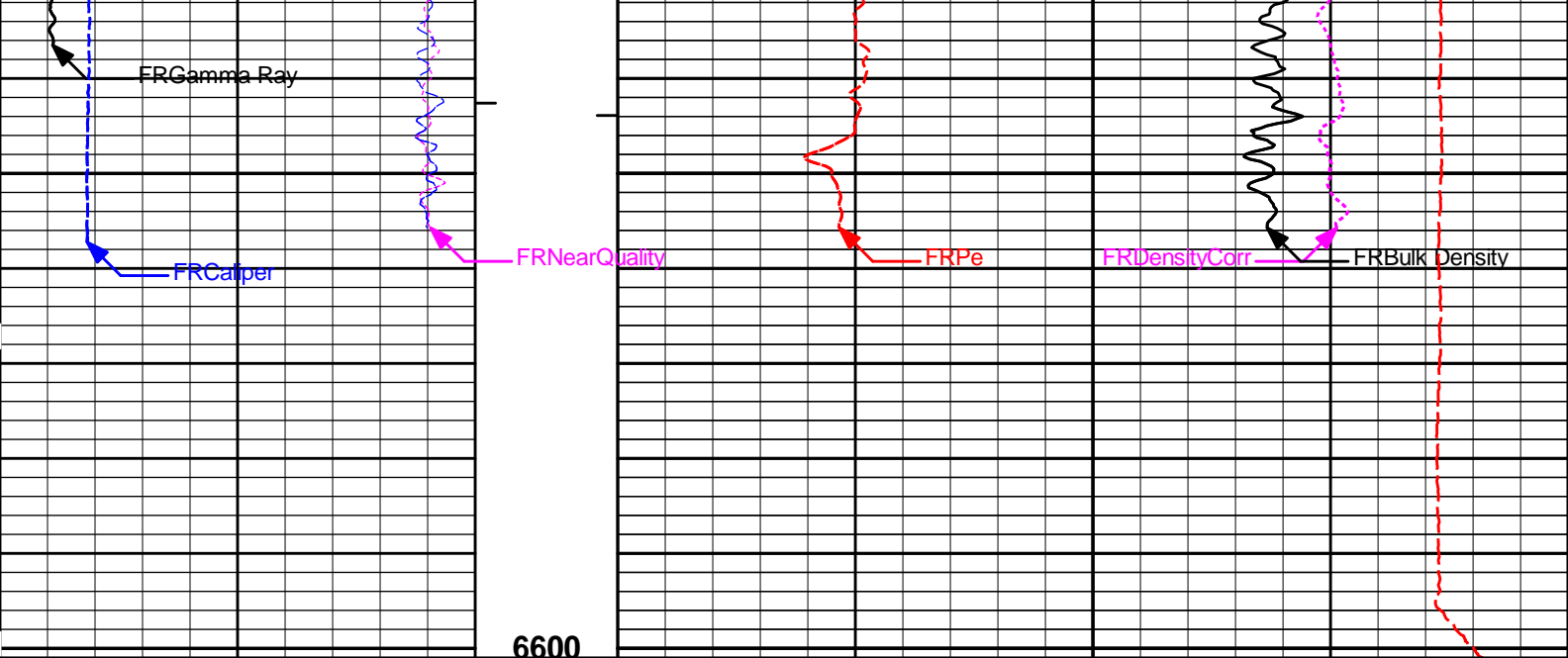












6	Caliper	16	MD	0	Pe	10	-0.25	DensityCorr	0.25
	inches		1 : 240					g/cc	
-18	NearQuality	2	AHV				15K	Tension	0
			ft3					pounds	
18	FarQuality	-2	BHV	2	Bulk Density				3
			ft3		g/cc				
0	Gamma Ray	150							
	api								
	SHALE								

HALLIBURTON

Plot Time: 27-Jul-13 22:26:45
 Plot Range: 4548 ft to 6601 ft
 Data: DORA_TAY_322\Well Based\DAQ-0001-003\
 Plot File: \\LOCAL-IDORA_TAY_322\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-BMPORO\BULKD_5_MAIN_LIB

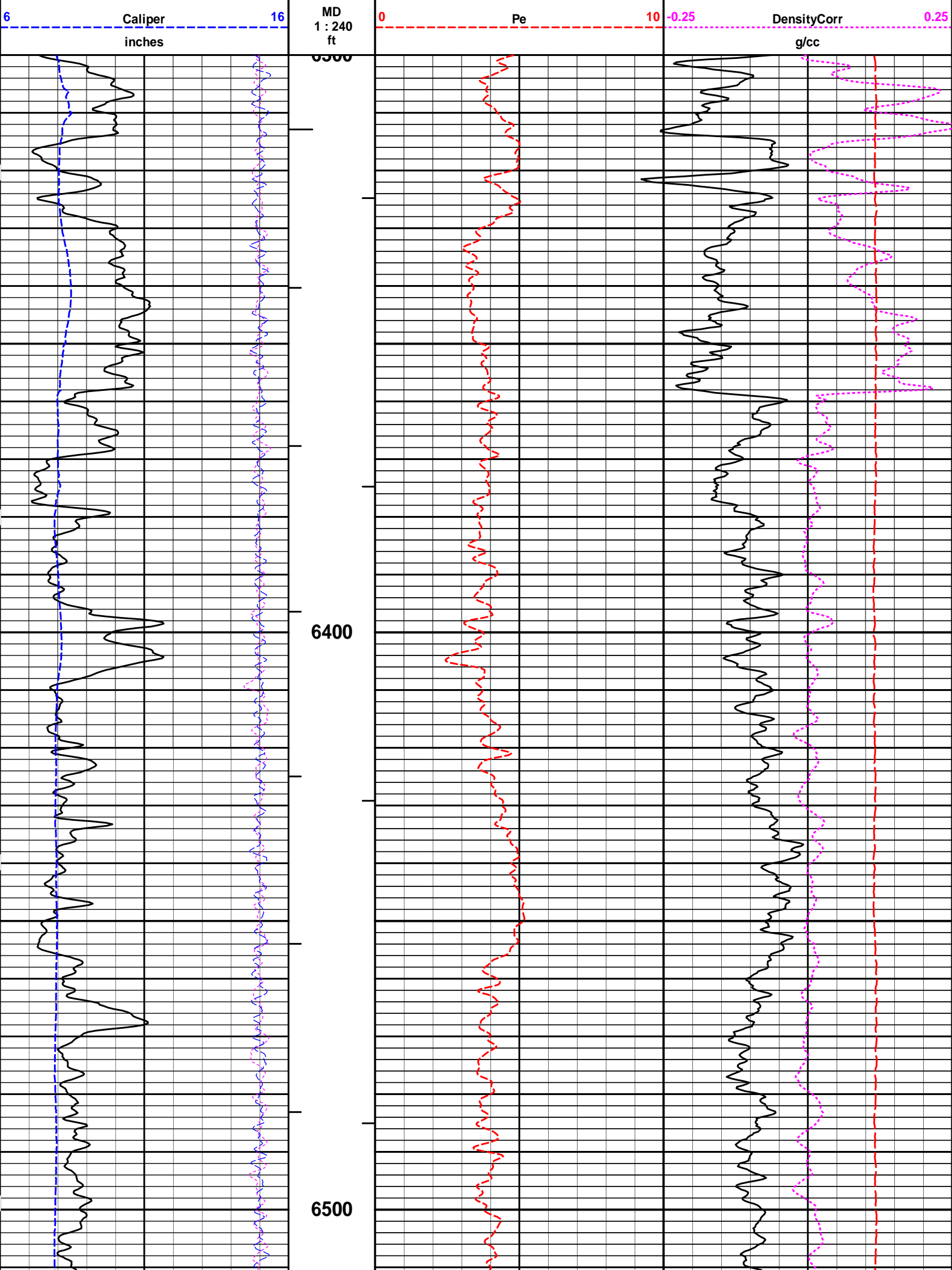
5 INCH MAIN LOG

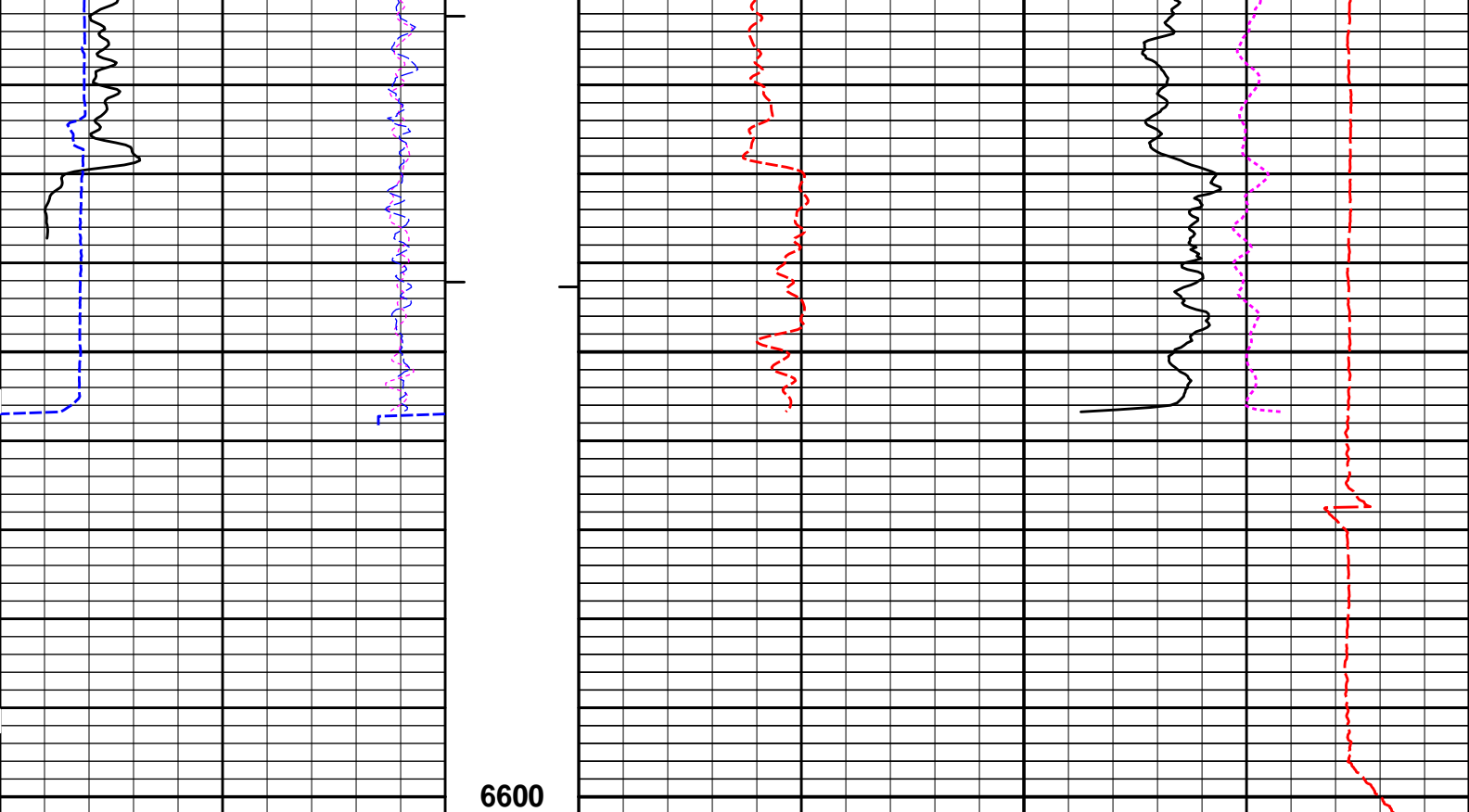
HALLIBURTON

Plot Time: 27-Jul-13 22:26:45
 Plot Range: 6300 ft to 6602.25 ft
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 Plot File: \\LOCAL-IDORA_TAY_322\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-BMPORO\BULKD_5_REP_LIB

REPEAT SECTION

	SHALE								
0	Gamma Ray	150							
	api								
18	FarQuality	-2	BHV	2	Bulk Density				3
			ft3		g/cc				
-18	NearQuality	2	AHV				15K	Tension	0
			ft3					pounds	





6600

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



HALLIBURTON

Plot Time: 27-Jul-13 22:26:50
 Plot Range: 6300 ft to 6602.25 ft
 Data: DORA_TAY_322\Well Based\DAQ-0001-002\
 Plot File: \\-LOCAL-IDORA_TAY_322\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-BNIPORO\BULKD_5_REP_LIB

REPEAT SECTION

HALLIBURTON

TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
Cable Head- 12345678 30.00 lbs		∅ 3.625 in →			1.92 ft	75.71 ft
SP Sub-12345678 60.00 lbs		∅ 3.625 in →		← SP @ 72.01 ft	3.74 ft	73.79 ft

GTET-10811258
165.00 lbs

Ø 3.625 in →

8.52 ft

70.05 ft

← GammaRay @ 63.99 ft

DSN Decentralizer-
10755066
6.60 lbs

Ø 5.000 in* →

Ø 3.625 in →

9.69 ft

61.53 ft

DSNT-10755066
174.00 lbs

← DSN Far @ 54.59 ft
← DSN Near @ 53.84 ft

SDLT-10685803
360.00 lbs

SDLT Pad-10673790
65.00 lbs
Microlog Pad-10685803
8.00 lbs

Ø 4.500 in →

Ø 4.750 in* →

Ø 4.750 in* →

10.81 ft

51.84 ft

Microlog @ 44.03 ft
SDL Caliper @ 43.84 ft
SDL @ 43.83 ft

Flex Joint-00000001
140.00 lbs

Ø 3.625 in →

5.67 ft

41.03 ft

Centralizer 25-00000001
8.00 lbs

Ø 4.000 in* →

35.36 ft

BSAT-10747684
300.00 lbs

Ø 3.625 in →

15.77 ft

← Sonic Receivers @ 26.84 ft

ACRt Instrument-
10929776
50.00 lbs

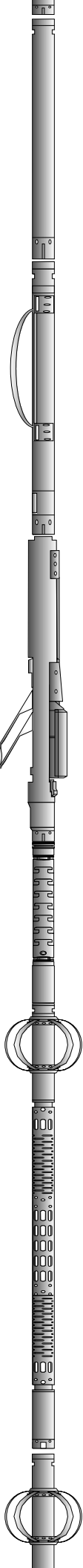
Centralizer 25-00000002
8.00 lbs

Ø 4.000 in* →

Ø 3.625 in →

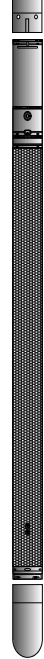
5.03 ft

19.58 ft



ACRt Sonde-
10929775
200.00 lbs

Ø 3.625 in →



← Mud Resistivity @ 13.19 ft

← ACRt @ 9.21 ft

14.22 ft

14.55 ft

Bull Nose-00000001
5.00 lbs

Ø 2.750 in →

0.33 ft

0.33 ft

0.00 ft

Mnemonic	Tool Name	Serial Number	Weight (lbs)	Length (ft)	Accumulated Length (ft)	Max. Log. Speed (fpm)
CH	Standard OH Cable Head	12345678	30.00	1.92	73.79	300.00
SP	SP Sub	12345678	60.00	3.74	70.05	300.00
GTET	Gamma Telemetry Tool	10811258	165.00	8.52	61.53	60.00
DSNT	Dual Spaced Neutron	10755066	174.00	9.69	51.84	60.00
DCNT	DSN Decentralizer	10755066	6.60	5.13	* 55.17	300.00
SDLT	Spectral Density Tool	10685803	360.00	10.81	41.03	60.00
MICP	Microlog Pad	10685803	8.00	1.00	* 43.53	60.00
SDLP	Density Insite Pad	10673790	65.00	2.55	* 43.24	60.00
FLEX	Flex Joint	00000001	140.00	5.67	35.36	300.00
BSAT	Borehole Sonic Array Tool	10747684	300.00	15.77	19.58	60.00
OBCEN	Centralizer - 25 in. Overbody	00000001	8.00	2.08	* 32.82	300.00
ACRt	Array Compensated True Resistivity Instrument Section	10929776	50.00	5.03	14.55	300.00
OBCEN	Centralizer - 25 in. Overbody	00000002	8.00	2.08	* 16.30	300.00
ACRt	Array Compensated True Resistivity Sonde Section	10929775	200.00	14.22	0.33	300.00
BLNS	Bull Nose	00000001	5.00	0.33	0.00	300.00
Total			1,579.60	75.71		

* Not included in Total Length and Length Accumulation.

Data: DORA_TAY_322\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-BN\IDLE Date: 27-Jul-13 19:55:30

HALLIBURTON

CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION

Tool Name: GTET - 10811258

Reference Calibration Date: 05-Jun-13 10:17:04

Engineer: S. INGERSOLL

Calibration Date: 01-Jul-13 12:19:31

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	35.8	34.7	api
Background + Calibrator	274.6	266.7	api
Calibrator	238.8	232.0	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION

Tool Name: GTET - 10811258

Reference Calibration Date: 01-Jul-13 12:19:31

Engineer: THOMAS HYDE

Calibration Date: 27-Jul-13 20:09:40

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	34.7	42.5	api
Background + Calibrator	266.7	266.0	api
Calibrator	232.0	223.6	api

Shop	Field	Difference	Tolerance
232.0	223.6	8.4	+/- 9.00

DUAL SPACED NEUTRON SHOP CALIBRATION

Tool Name: DSNT - 10755066

Reference Calibration Date: 19-May-13 13:08:19

Engineer: S. INGERSOLL

Calibration Date: 01-Jul-13 16:27:31

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: 62 degF

Min. Tool Housing Outside Diameter: 3.620 in

CALIBRATION CONSTANTS			
Measurement	Prev. Value	New Value	Control Limit On New Value
Gain:	0.953	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 (decp):	0.2110	0.2106	0.0003	+/- 0.0020
Calibrated Ratio:	9.73	9.72	0.011	+/- 0.050

VERIFIER		
Measurement	Value	Control Limit
Snow-Block Porosity (decp):	0.0662	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: 01-Jul-13 16:27:31

Engineer: THOMAS HYDE

Calibration Date: 27-Jul-13 20:06:10

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):	0.0662	0.0660	-0.0002	+/- 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:	20-Jun-13 16:09:36
Engineer:	S. INGERSOLL	Calibration Date:	01-Jul-13 15:30:20
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	-4578.27	-4092.36	-7000.00 - -1000.00
Pad Gain	0.0003895	0.0003815	0.000200 - 0.000600
Arm Offset	-2279.74	-2703.47	-5000.00 - 3000.00
Arm Gain	0.0004915	0.0005069	0.000300 - 0.000700
Arm Power	-0.000003324	-0.000004137	-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)	1.85	2.00	0.15	+/- 0.20
Medium Ring (in)	3.64	3.75	0.11	+/- 0.20
RING DIAMETER:				
Small Ring (in)	6.47	6.50	0.03	+/- 0.20
Medium Ring (in)	8.18	8.25	0.07	+/- 0.20
Large Ring (in)	14.88	15.00	0.12	+/- 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 - 10685803	Reference Calibration Date:	01-Jul-13 15:30:20
Engineer:	THOMAS HYDE	Calibration Date:	27-Jul-13 20:04:32
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	3.79	0.04	+/- 0.10
Ring Diameter	8.25	8.33	0.08	+/- 0.15

PASS/FAIL SUMMARY

Pad Extension Check:	Passed
Diameter Check:	Passed

SPECTRAL DENSITY SHOP CALIBRATION

Tool Name: SDLT Pad - 10673790	Reference Calibration Date: 18-May-13 21:41:33
Engineer: S. INGERSOLL	Calibration Date: 01-Jul-13 12:50:36
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	1.0467	1.0402	0.90 - 1.10
Near Dens Gain	1.0386	1.0308	0.90 - 1.10
Near Peak Gain	1.0598	1.0600	0.90 - 1.10
Near Lith Gain	1.0491	1.0179	0.90 - 1.10
Far Bar Gain	1.0107	1.0098	0.90 - 1.10
Far Dens Gain	0.9993	0.9981	0.90 - 1.10
Far Peak Gain	0.9920	0.9920	0.90 - 1.10
Far Lith Gain	0.9604	0.9603	0.90 - 1.10
Near Bar Offset	-0.1729	-0.1107	NONE
Near Dens Offset	-0.0887	-0.0193	NONE
Near Peak Offset	-0.2382	-0.2385	NONE
Near Lith Offset	-0.1653	0.0962	NONE
Far Bar Offset	0.0790	0.0820	NONE
Far Dens Offset	0.1500	0.1581	NONE
Far Peak Offset	0.1726	0.1658	NONE
Far Lith Offset	0.3450	0.3403	NONE
Near Bar Background	864.83	861.54	700 - 1450
Near Dens Background	283.75	282.76	230 - 480
Near Peak Background	124.36	123.64	100 - 210
Near Lith Background	152.79	154.08	125 - 260
Far Bar Background	576.79	576.20	450 - 900
Far Dens Background	226.46	226.25	175 - 345
Far Peak Background	90.61	89.12	70 - 140
Far Lith Background	93.93	93.55	75 - 145

CALIBRATION BLOCK SUMMARY

Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.679	1.684	0.005	+/- 0.015
Pe	2.554	2.562	0.008	+/- 0.150
ALUMINUM				
Density (g/cc)	2.591	2.598	0.007	+/- 0.01500
Pe	3.154	3.131	-0.023	+/- 0.150

TOOL SUMMARY

Measurement	Near Detector	Far Detector
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Measurement	Value	Control Limits	Value	Control Limits
QUALITY				
Background	0.0002	+/- 0.0110	-0.0002	+/- 0.0140
Magnesium Block	-0.0001	+/- 0.0110	0.0009	+/- 0.0140
Aluminum Block	0.0002	+/- 0.0110	0.0013	+/- 0.0140
Resolution	8.58	6.00 - 11.50	8.79	6.00 - 11.50
Internal Verifier(B+D+P+L)	1422	1200 - 2700	985	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 - 10673790

Reference Calibration Date: 01-Jul-13 12:50:36

Engineer: THOMAS HYDE

Calibration Date: 27-Jul-13 19:57:56

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

Calibration Version: 1

Pad Temperature: 82.3 degF

DENSITY FIELD CALIBRATION SUMMARY

Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1422.026	1419.627	-2.399	15.221
Far (B+D+P+L) cps	985.123	983.856	-1.267	16.837
Near Resolution	8.58	8.57	-0.010	0.50
Far Resolution	8.79	8.85	0.060	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
GTET-10811258						
Gamma Ray Calibrator	232.0	223.6	-----	8.4	+/- 9.00	api
DSNT-10755066						
Snow-Block Porosity	0.0662	0.0660	-----	0.0002	+/- 0.0150	decp
SDLT-10685803						
Pad Extension	3.75	3.79	-----	-0.04	+/-0.10	in
Ring Diameter	8.25	8.33	-----	-0.08	+/-0.15	in
SDLT Pad-10673790						
Near(B+D+P+L)	1422.026	1419.627	-----	2.399	+/-15.221	cps
Far(B+D+P+L)	985.123	983.856	-----	1.267	+/-16.837	cps

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	9.200	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	6600.00	ft
	SHARED	BHT	Bottom Hole Temperature	200.0	degF
	SHARED	SVTM	Navigation and Survey Master Tool	NONE	
	SHARED	AZTM	High Res Z Accelerometer Master Tool	GTET	
	SHARED	TEMM	Temperature Master Tool	NONE	
	SHARED	BHSM	Borehole Size Master Tool	NONE	
	Rwa / CrossPlot	XPOK	Process Crossplot?	Yes	
	Rwa / CrossPlot	FCHO	Select Source of F	Automatic	
	Rwa / CrossPlot	AFAC	Archie A factor	0.6200	
	Rwa / CrossPlot	MFAC	Archie M factor	2.1500	
	Rwa / CrossPlot	RMFR	Rmf Reference	0.10	ohmm
	Rwa / CrossPlot	TMFR	Rmf Ref Temp	75.00	degF
	Rwa / CrossPlot	RWA	Resistivity of Formation Water	0.05	ohmm
	Rwa / CrossPlot	ADP	Use Air Porosity to calculate CrossplotPhi	No	
	GTET	GROK	Process Gamma Ray?	Yes	
	GTET	GRSO	Gamma Tool Standoff	0.000	in
	GTET	GEOK	Process Gamma Ray EVR?	No	
	GTET	TPOS	Tool Position for Gamma Ray Tools.	Eccentered	
	DSNT	DNOK	Process DSN?	Yes	
	DSNT	DEOK	Process DSN EVR?	No	
	DSNT	NLIT	Neutron Lithology	Limestone	
	DSNT	DNSO	DSN Standoff - 0.25 in (6.35 mm) Recommended	0.250	in
	DSNT	DNTP	Temperature Correction Type	None	
	DSNT	DPRS	DSN Pressure Correction Type	None	
	DSNT	SHCO	View More Correction Options	No	
	DSNT	UTVD	Use TVD for Gradient Corrections?	No	
	DSNT	LHWT	Logging Horizontal Water Tank?	No	
	SDLT	CLOK	Process Caliper Outputs?	Yes	
	SDLT Pad	DNOK	Process Density?	Yes	
	SDLT Pad	DNOK	Process Density EVR?	No	
	SDLT Pad	CB	Logging Calibration Blocks?	No	
	SDLT Pad	SPVT	SDLT Pad Temperature Valid?	Yes	
	SDLT Pad	DTWN	Disable temperature warning	No	

SDLT Pad	DMA	Formation Density Matrix	2.710	g/cc
SDLT Pad	DFL	Formation Density Fluid	1.000	g/cc
Microlog Pad	MLOK	Process MicroLog Outputs?	Yes	
BSAT	MBOK	Compute BCAS Results?	Yes	
BSAT	FLLO	Frequency Filter Low Pass Value?	5000	Hz
BSAT	FLHI	Frequency Filter High Pass Value?	27000	Hz
BSAT	DTFL	Delta -T Fluid	189.00	uspf
BSAT	DTMT	Delta -T Matrix Type	User define	
BSAT	DTMA	Delta -T Matrix	47.60	uspf
BSAT	DTSH	Delta -T Shale	100.00	uspf
BSAT	SPEQ	Acoustic Porosity Equation	Wylie	
ACRt Sonde	RTOK	Process ACRt?	Yes	
ACRt Sonde	MNSO	Minimum Tool Standoff	1.50	in
ACRt Sonde	TCS1	Temperature Correction Source	FP Lwr & FP Upr	
ACRt Sonde	TPOS	Tool Position	Free Hanging	
ACRt Sonde	RMOP	Rmud Source	Mud Cell	
ACRt Sonde	RMIN	Minimum Resistivity for MAP	0.20	ohmm
ACRt Sonde	RMIN	Maximum Resistivity for MAP	200.00	ohmm
ACRt Sonde	THQY	Threshold Quality	0.50	
ACRt Sonde	MRFX	Fixed mud resistivity	2000	ohmm

BOTTOM

Data: DORA_TAY_3220001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-BNIDLE

Date: 27-Jul-13 20:29:08



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	72.01	NO	
SP	Spontaneous Potential	72.01	BLK	1.250
SPR	Raw Spontaneous Potential	72.01	NO	
SPO	Spontaneous Potential Offset	72.01	NO	
GTET				
TPUL	Tension Pull	63.99	NO	
GR	Natural Gamma Ray API	63.99	TRI	1.750
GRU	Unfiltered Natural Gamma Ray API	63.99	NO	
EGR	Natural Gamma Ray API with Enhanced Vertical Resolution	63.99	W	1.416 , 0.750
ACCZ	Accelerometer Z	0.00	BLK	0.083
DEVI	Inclination	0.00	NO	
DSNT				
TPUL	Tension Pull	53.74	NO	
RNDS	Near Detector Telemetry Counts	53.84	BLK	1.417
RFDS	Far Detector Telemetry Counts	54.59	TRI	0.583
DNTT	DSN Tool Temperature	53.84	NO	
DSNS	DSN Tool Status	53.74	NO	
ERND	Near Detector Telemetry Counts EVR	53.84	BLK	0.000
ERFD	Far Detector Telemetry Counts EVR	54.59	BLK	0.000
ENTM	DSN Tool Temperature EVR	53.84	NO	

SDLT				
TPUL	Tension Pull	43.84	NO	
PCAL	Pad Caliper	43.84	TRI	0.250
ACAL	Arm Caliper	43.84	TRI	0.250
BSAT				
TPUL	Tension Pull	26.84	NO	
STAT	Status	26.84	NO	
DLYT	Delay Time	26.84	NO	
SI	Sample Interval	26.84	NO	
TXRX	Raw Telemetry 10 Receivers	26.84	NO	
FRMC	Tool Frame Count	26.84	NO	
GMOD	Gain processing mode	19.58	NO	
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	43.83	NO	
NAB	Near Above	43.66	BLK	0.920
NHI	Near Cesium High	43.66	BLK	0.920
NLO	Near Cesium Low	43.66	BLK	0.920
NVA	Near Valley	43.66	BLK	0.920
NBA	Near Barite	43.66	BLK	0.920
NDE	Near Density	43.66	BLK	0.920
NPk	Near Peak	43.66	BLK	0.920
NLI	Near Lithology	43.66	BLK	0.920
NBAU	Near Barite Unfiltered	43.66	BLK	0.250
NLIU	Near Lithology Unfiltered	43.66	BLK	0.250
FAB	Far Above	44.01	BLK	0.250
FHI	Far Cesium High	44.01	BLK	0.250
FLO	Far Cesium Low	44.01	BLK	0.250
FVA	Far Valley	44.01	BLK	0.250
FBA	Far Barite	44.01	BLK	0.250
FDE	Far Density	44.01	BLK	0.250
FPK	Far Peak	44.01	BLK	0.250
FLI	Far Lithology	44.01	BLK	0.250
PTMP	Pad Temperature	43.84	BLK	0.920
NHV	Near Detector High Voltage	43.24	NO	
FHV	Far Detector High Voltage	43.24	NO	
ITMP	Instrument Temperature	43.24	NO	
DDHV	Detector High Voltage	43.24	NO	

Microlog Pad

TPUL	Tension Pull	44.03	NO	
MINV	Microlog Lateral	44.03	BLK	0.750
MNOR	Microlog Normal	44.03	BLK	0.750

Data: DORA_TAY_322\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-BN\IDLE

Date: 27-Jul-13 20:29:20

HALLIBURTON

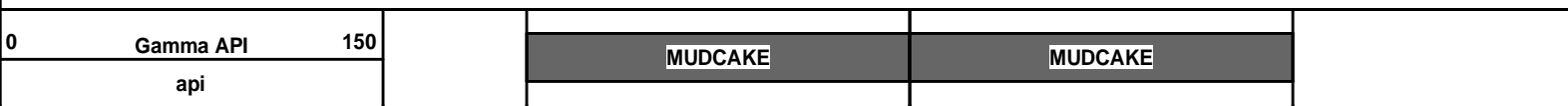
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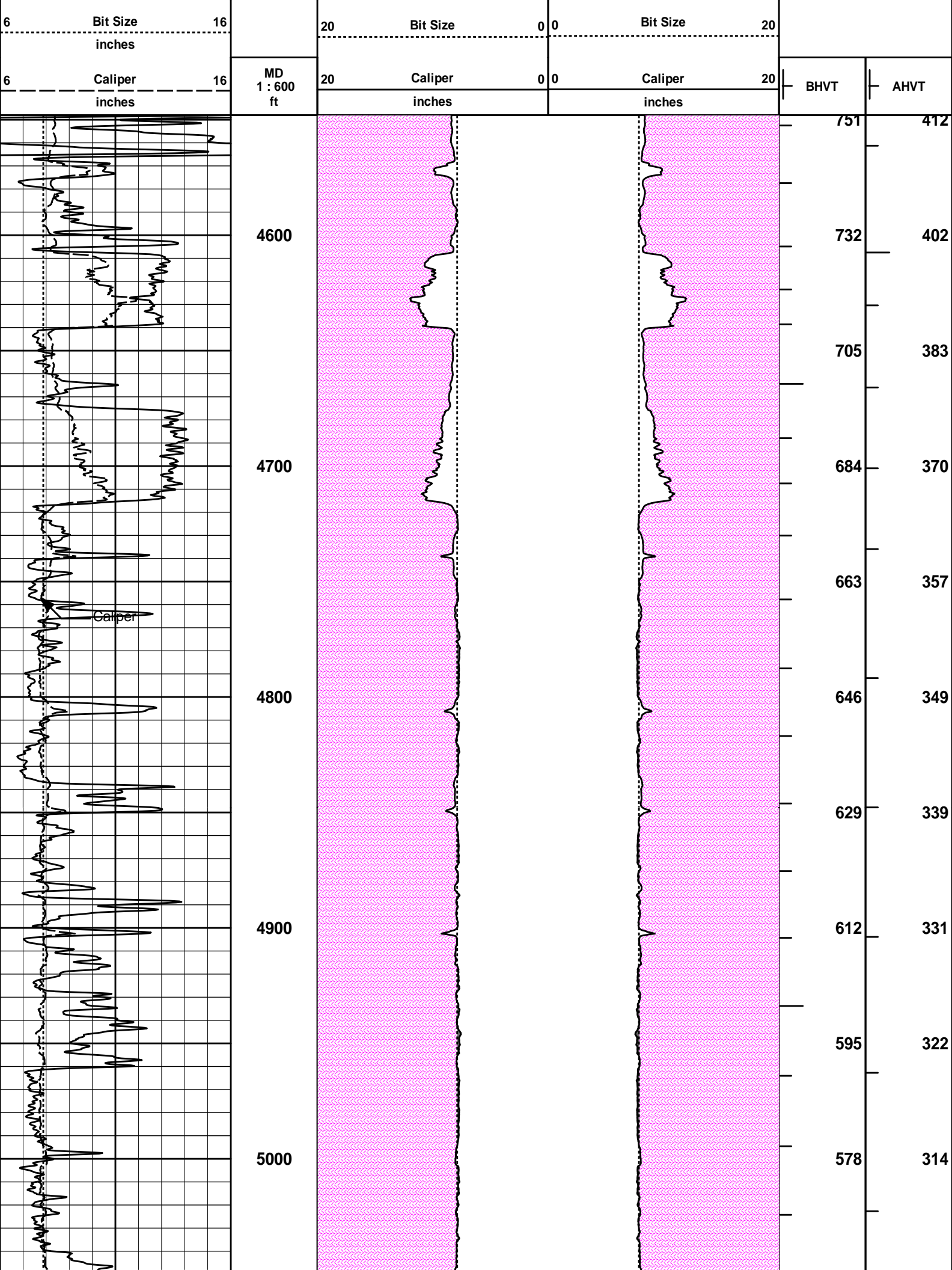
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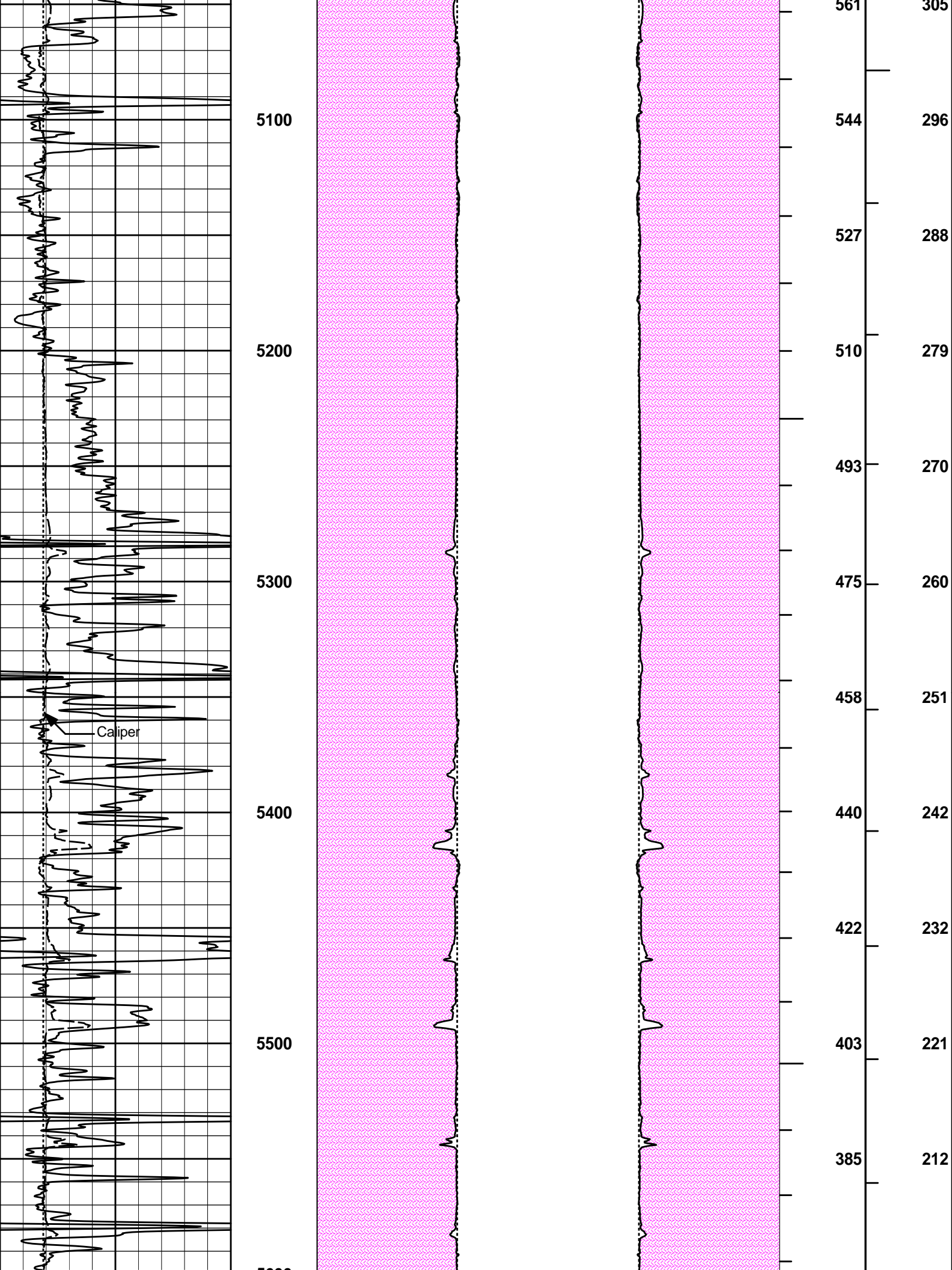
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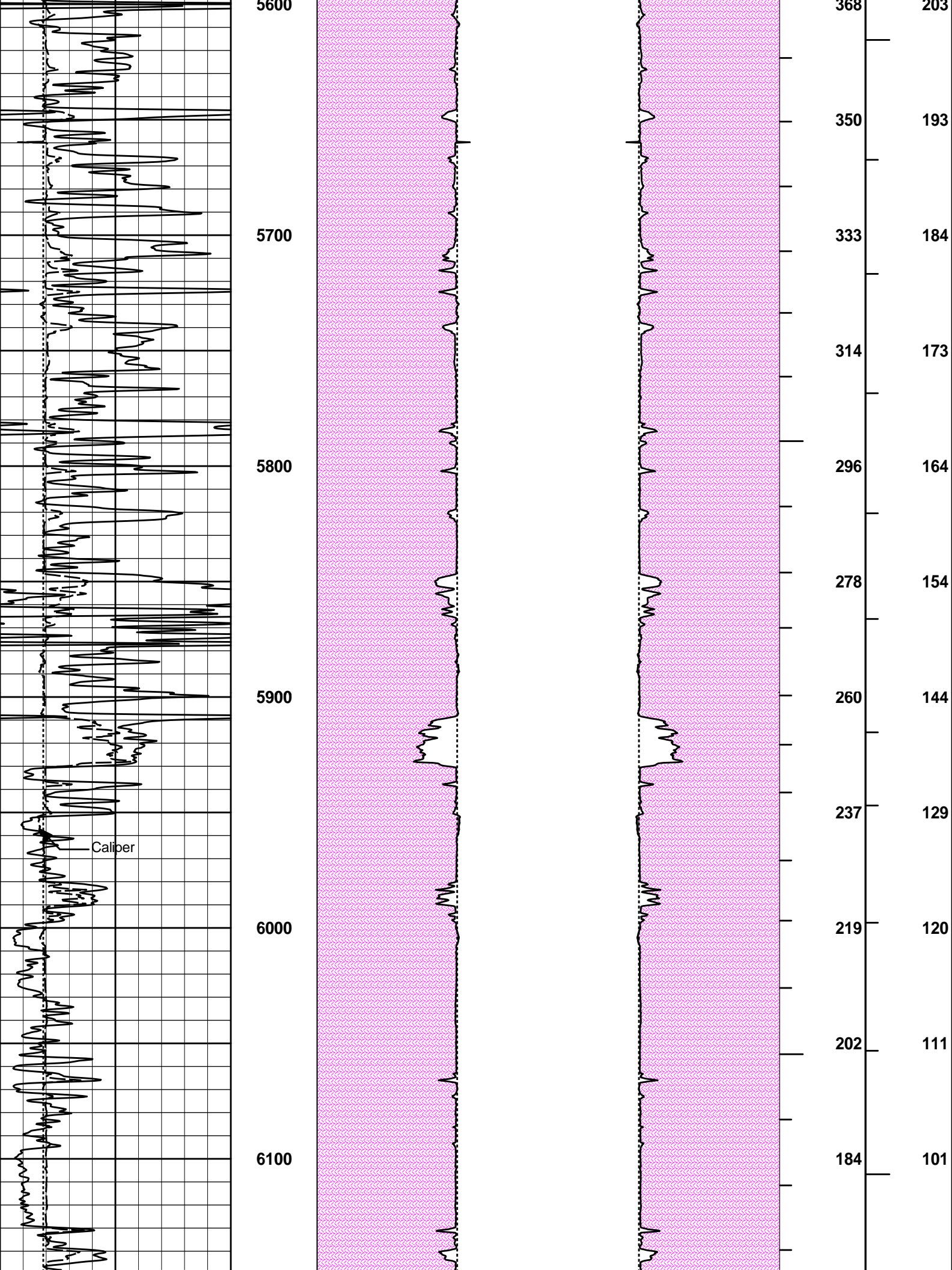
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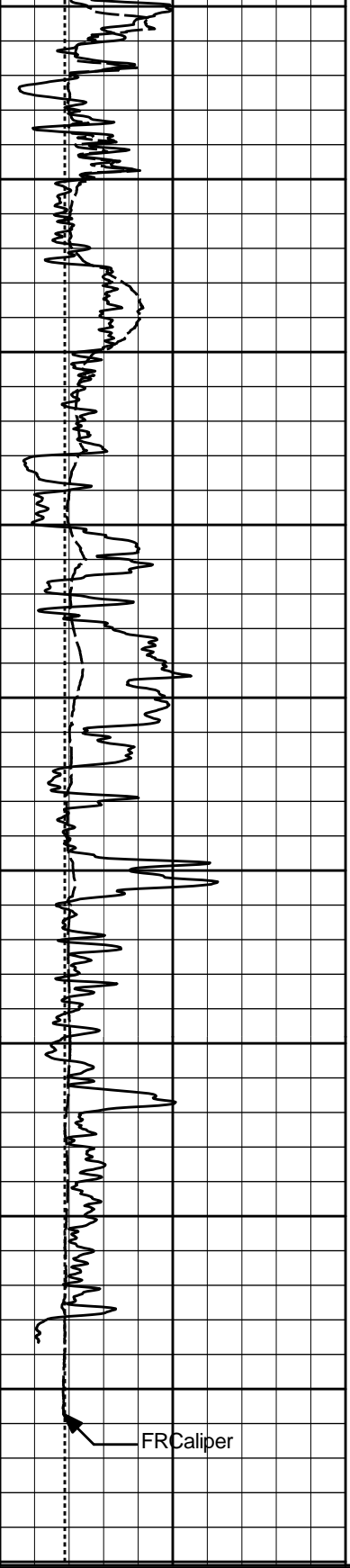
ANNULAR HOLE VOLUME PLOT











6200

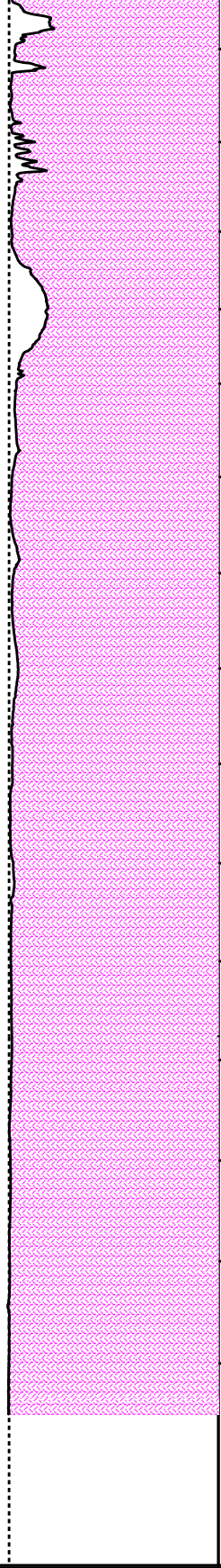
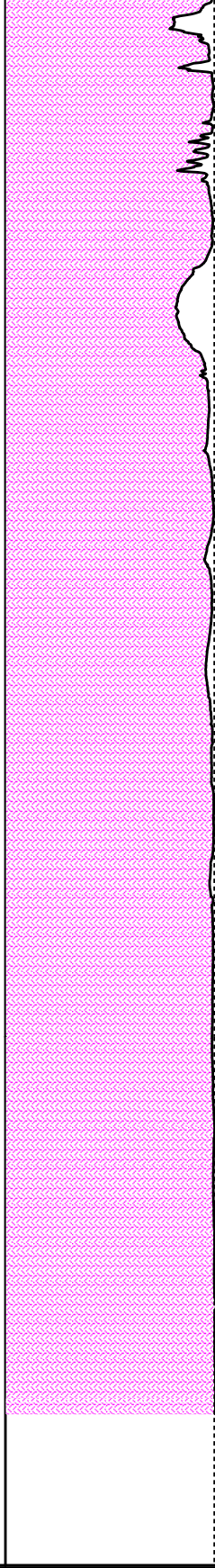
6300

6400

6500

6600

FRCaliper



145

105

69

34

18

79

55

36

18

9

6	Caliper	16
	inches	
6	Bit Size	16
	inches	
0	Gamma API	150
	api	

MD	1 : 600
ft	

20	Caliper	0 0	20
	inches		
20	Bit Size	0 0	20
MUDCAKE			

20	Caliper	20
	inches	
20	Bit Size	20
MUDCAKE		

BHVT

AHVT

ANNULAR HOLE VOLUME PLOT

COMPANY	HERMAN L. LOEB, LLC		
WELL	DORA TAYLOR 3-22		
FIELD	MCKINNEY		
COUNTY	MEADE	STATE	KANSAS
HALLIBURTON		DUAL SPACED NEUTRON SPECTRAL DENSITY LOG	