

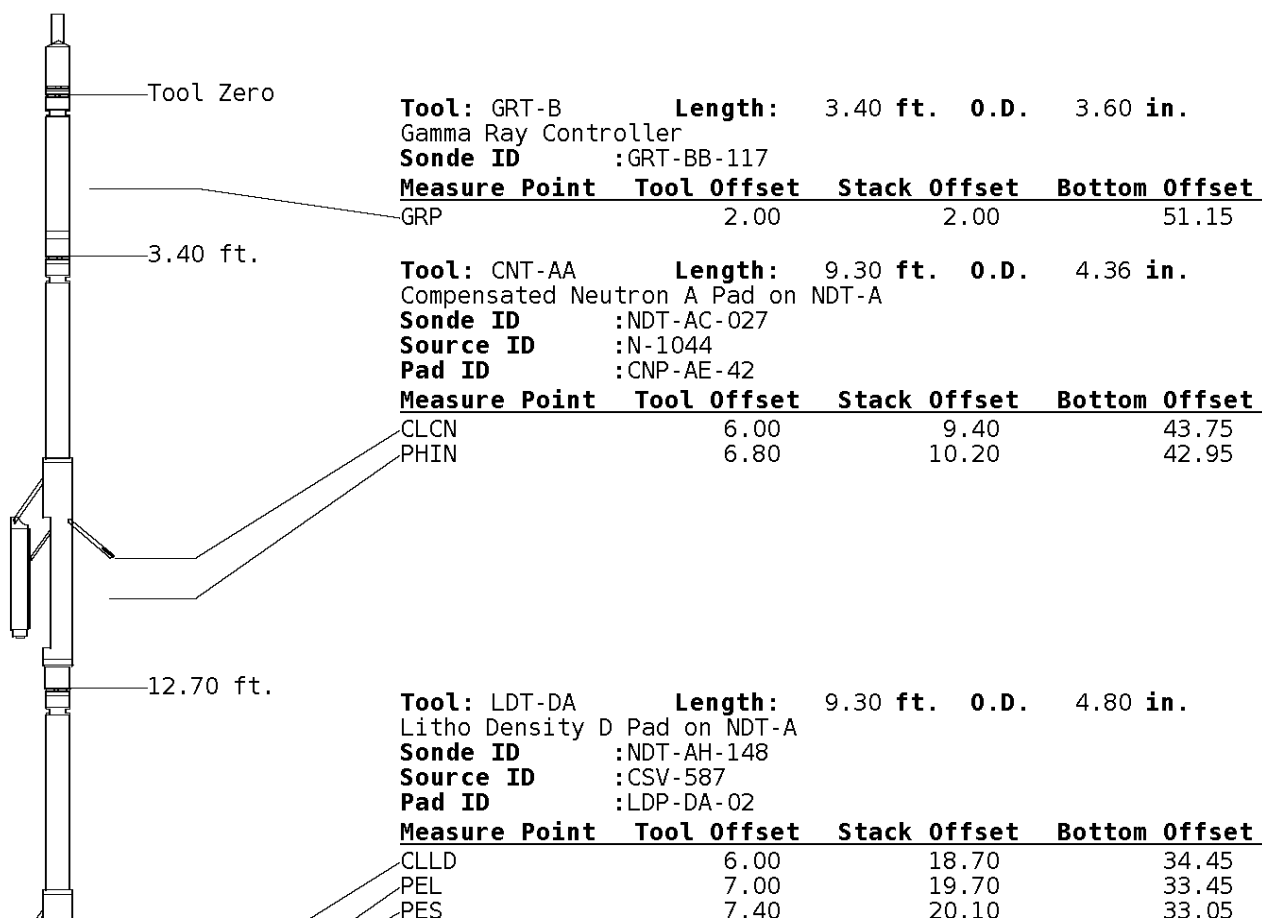
ALL PRESENTATIONS AS PER CUSTOMER REQUEST
 GRT, CNT, LDT, MLT AND PIT RUN IN COMBINATION
 CALIPERS ORIENTED ON X-Y AXIS
 2.71 G/CC USED TO CALCULATE POROSITY
 ANNULAR HOLE VOLUME CALCULATED USING 5.5" PRODUCTION CASING
 PHIN IS CALIPER CORRECTED
 CLIENT REQUESTED DETAIL PULLED TO 3700'

GRT: GRP, GRX
 CNT: PHIN, CLCNIN, PHXN
 LDT: PORL, LCORN, PECLN, LDENN, PORLLS, CLLDIN, PRXL, PECLX, LDENNX, LCORX
 MLT: NOR_RF, INV_RF, MSCLPIN
 PIT: ILD, ILM, SPU, SFLAEC, CIRD, EIRMDS, VEIRDDS

OPERATORS:
 A.DJAHO

Tool String Schematic

Total Tool Length - 53.15 ft.
Maximum Outside diameter - 6.00 in.
Net Weight in Air - 943.00 lbs.





7.20 19.90 33.25
 7.20 19.90 33.25

Tool: MST-DA **Length:** 9.66 ft. **O.D.** 6.00 in.
 Micro Spherically Focused (IC)
Sonde ID :MST-DA-25

Measure Point	Tool Offset	Stack Offset	Bottom Offset
MSFL	7.60	29.60	23.55
MSCLP	7.60	29.60	23.55
INV	7.60	29.60	23.55
NOR	7.60	29.60	23.55

Tool: PIT-CA **Length:** 21.49 ft. **O.D.** 3.62 in.
 Phased Dual Induction w/ RM & D
Sonde ID :PIT-CA-062

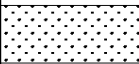
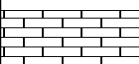
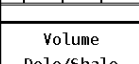
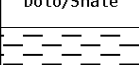

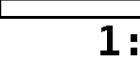
Measure Point	Tool Offset	Stack Offset	Bottom Offset
ILD	8.92	40.58	12.56
ILM	10.10	41.76	11.39
SFLU	17.49	49.15	4.00
SP	20.60	52.26	0.88

Well File: CHIEFTON AHS CATTLE 4 MAY2-MSTK **Scale:** 1:240 **Format:** NLD-240
Segment: V1.D1.S6 Repro-MAIN-FINAL **Acquired:** 2014-05/02 21:30 3.5.0-12850
Reference: 0 **Processed:** 2014-05/02 23:39 3.5.0-12850

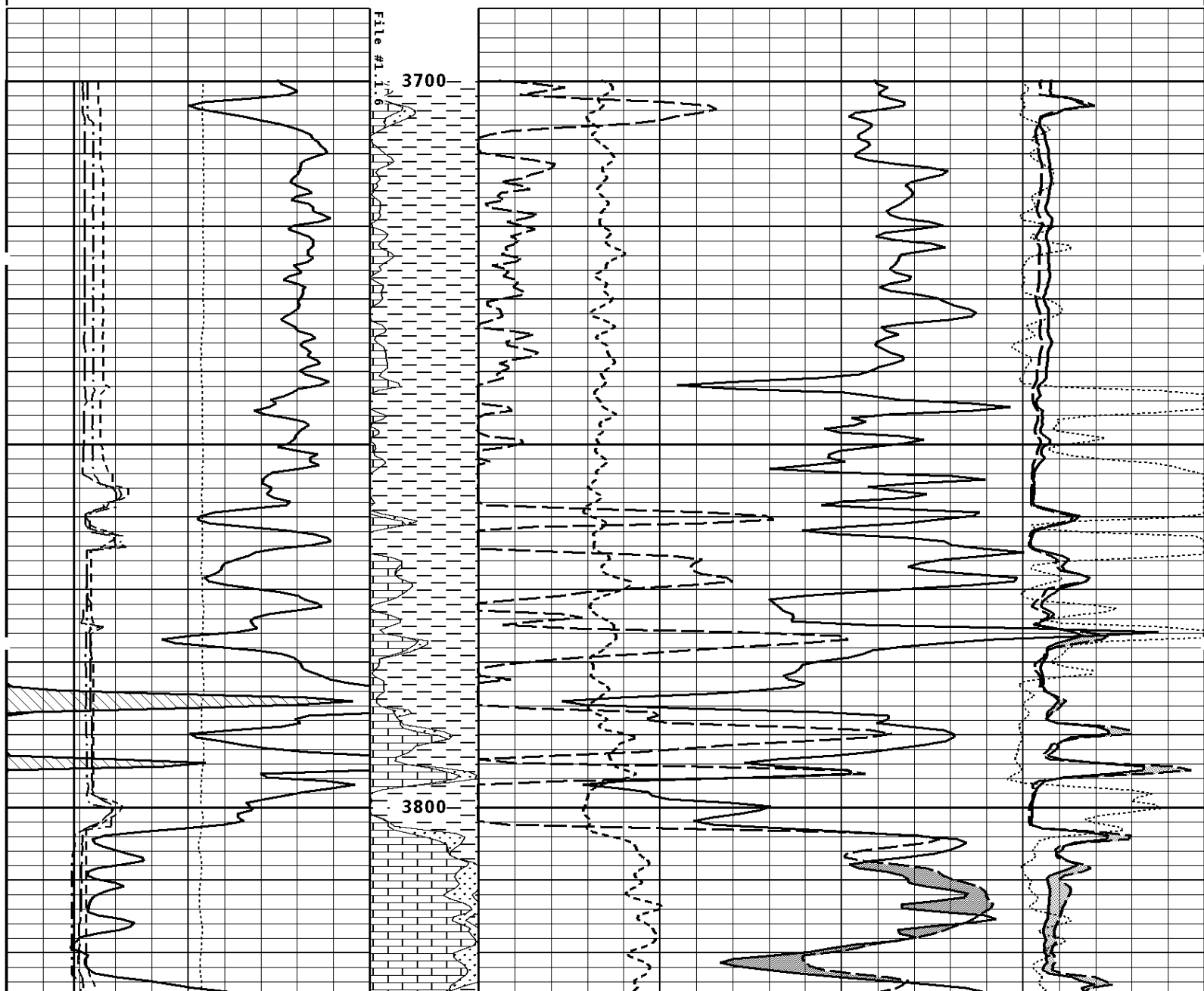
CALIPER MICRO INCHES (IN)	
16	26
6	16

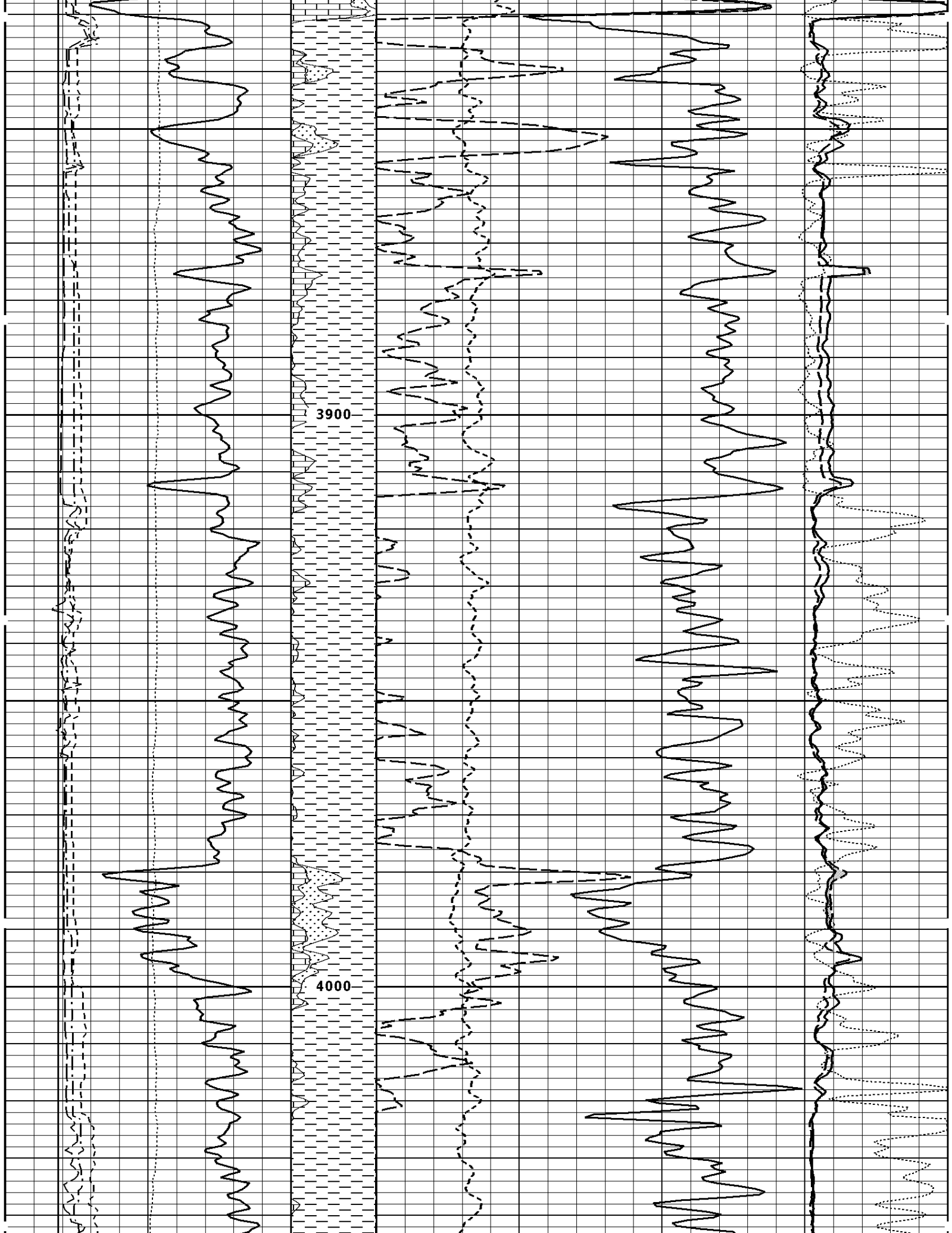
BIT SIZE INCHES (IN)

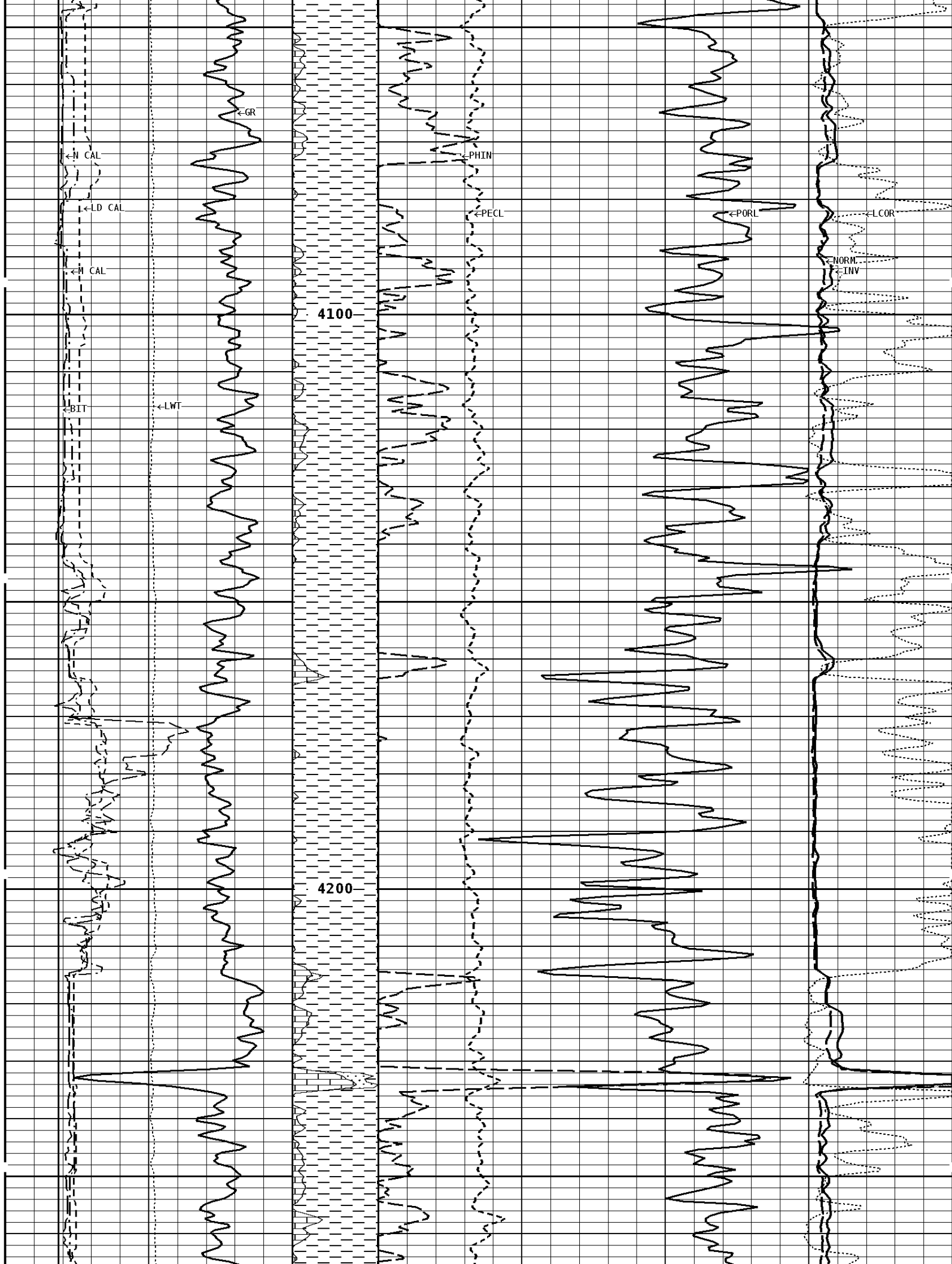
NORMAL
OHMH

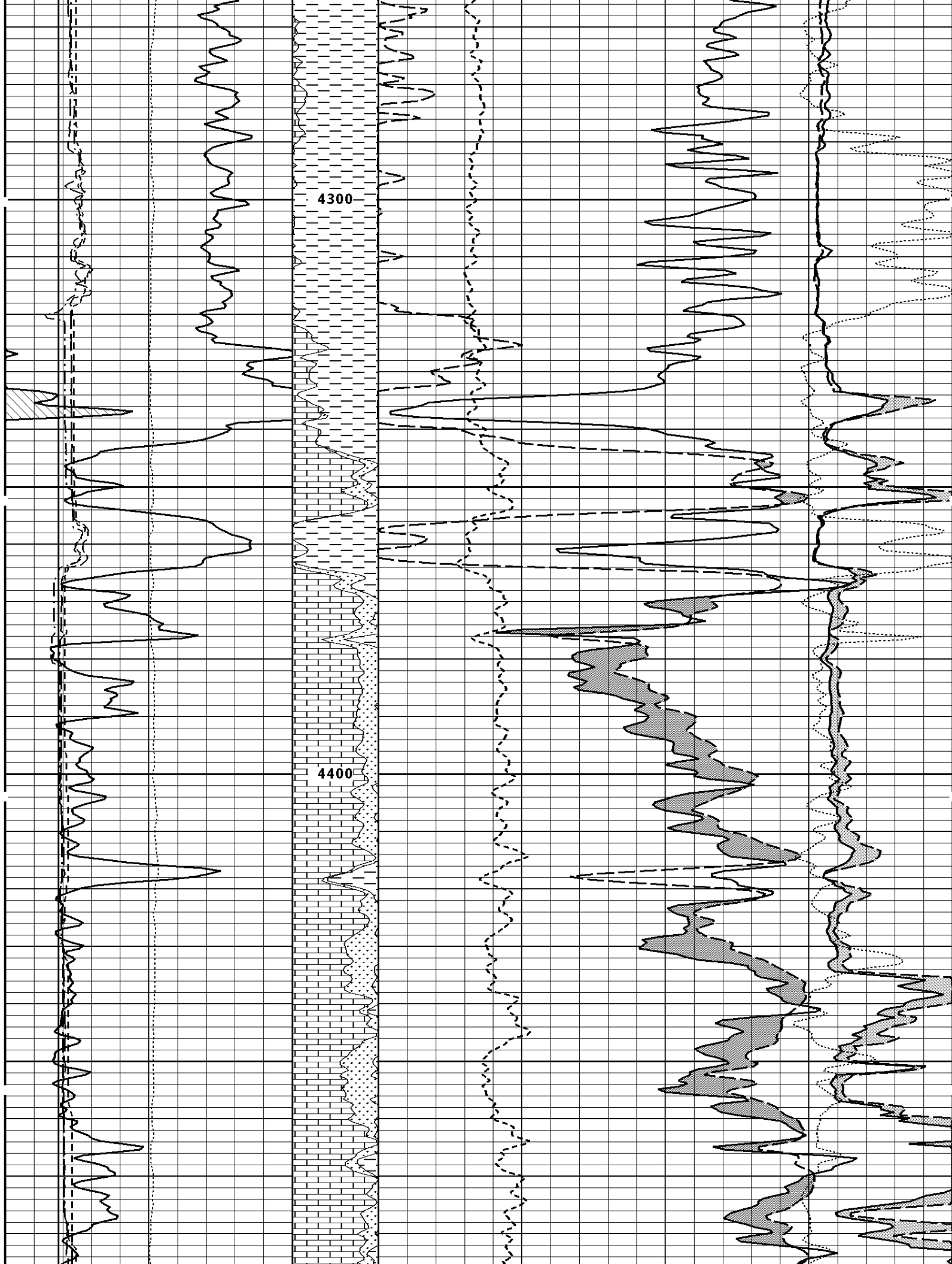
6	16			0	40
NEUTRON (Y) CALIPER INCHES (IN)				INVERSE OHM	
16	26			0	40
6	16				
DENSITY (X) CALIPER INCHES (IN)		Volume Quartz	PE CROSS-SECTION BARN/ELECTRON	DENSITY CORRECTION G/CC	
16	26				
6	16		0	10	-0.25
TENSION LBS		Volume Calcite	DENSITY POROSITY (2.71g/cc) PERCENT		
10000	0		70		30
			30		-10
			-10		-50
GAMMA RAY API UNITS		Volume DoLo/Shale	NEUTRON POROSITY (LIMESTONE) PERCENT		
150	300				
0	150		30		-10

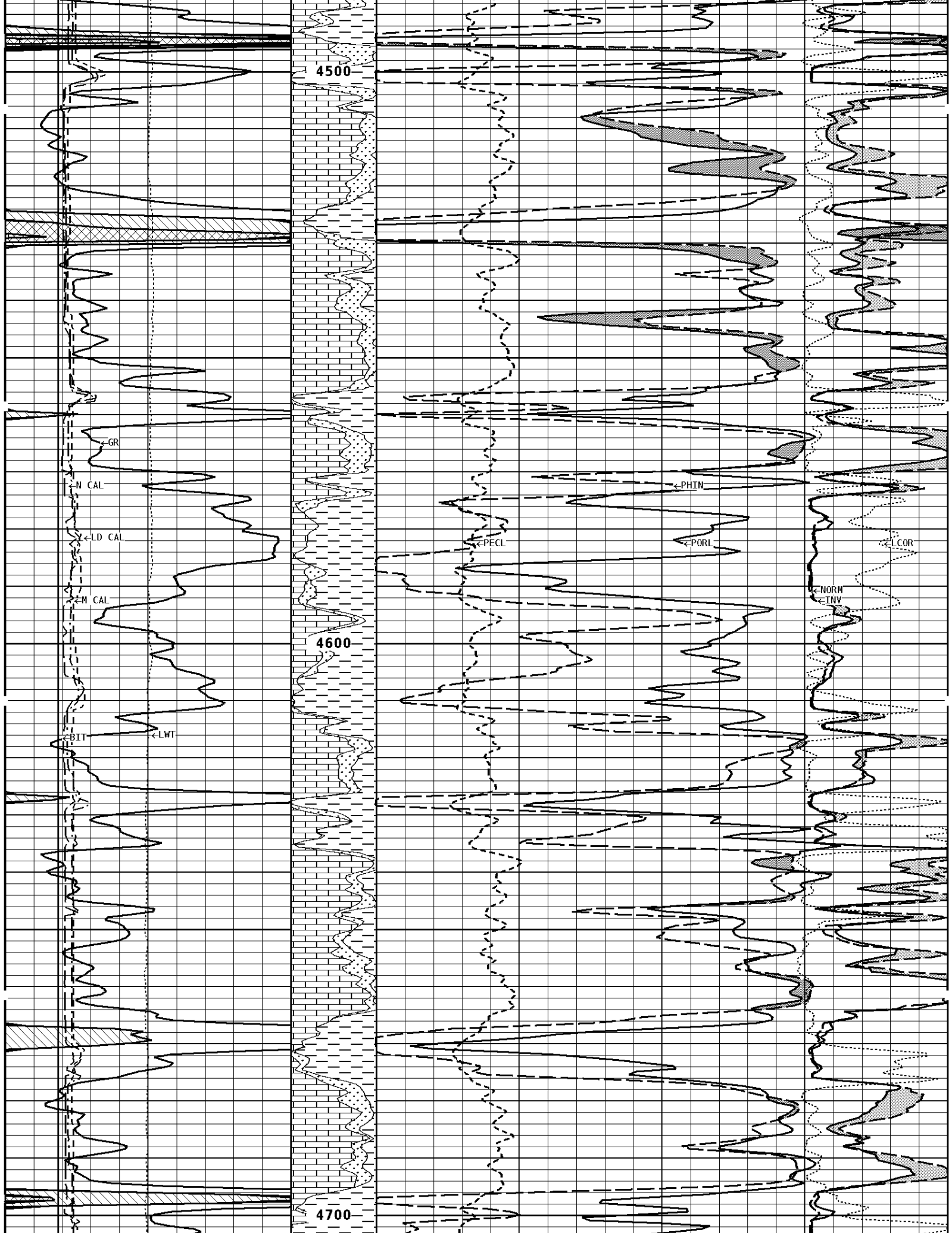
1:240 MAIN SECTION











4500

4600

4700

GR

N CAL

LD CAL

M CAL

BLT

LWT

PECL

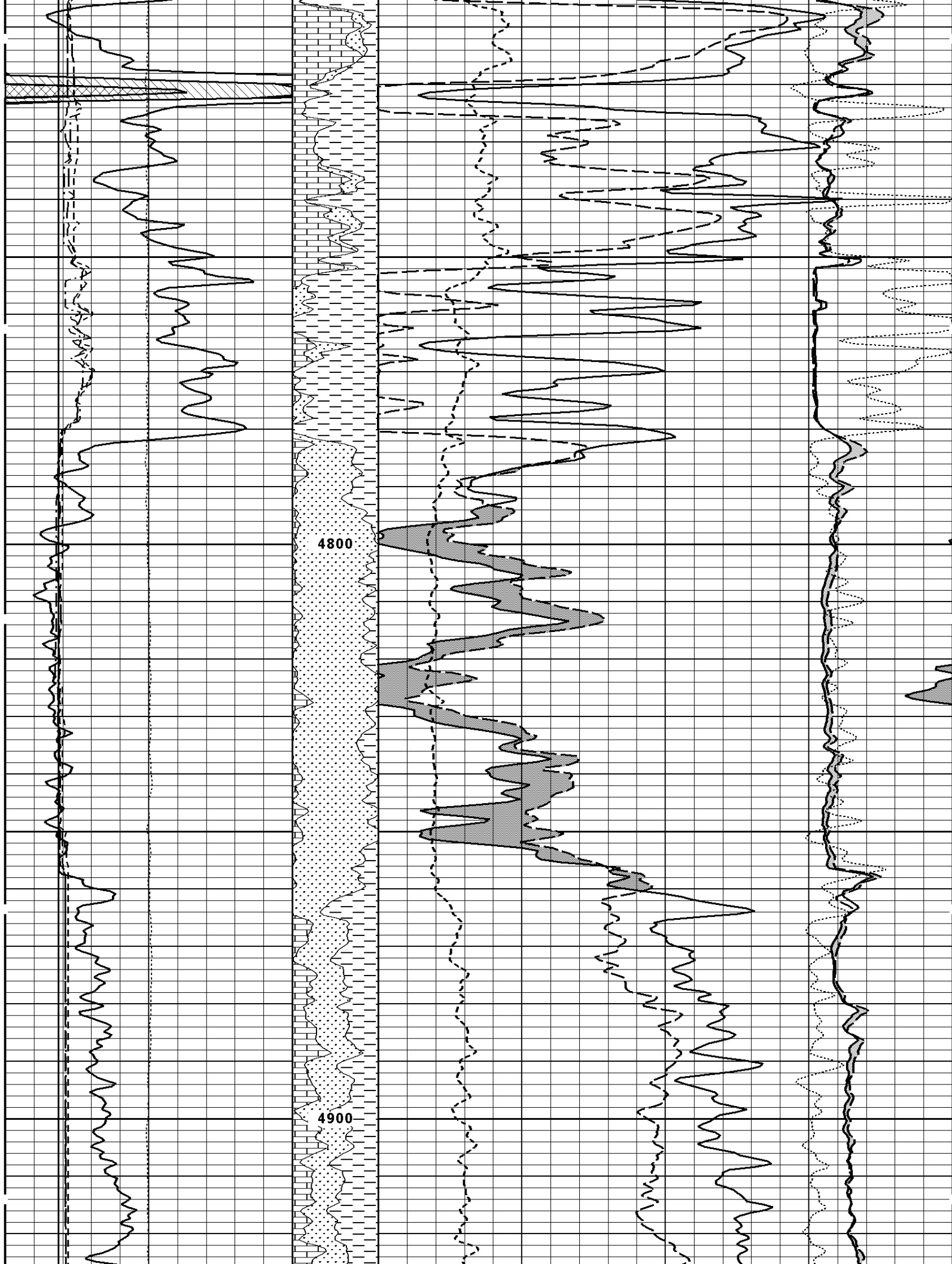
PHIN

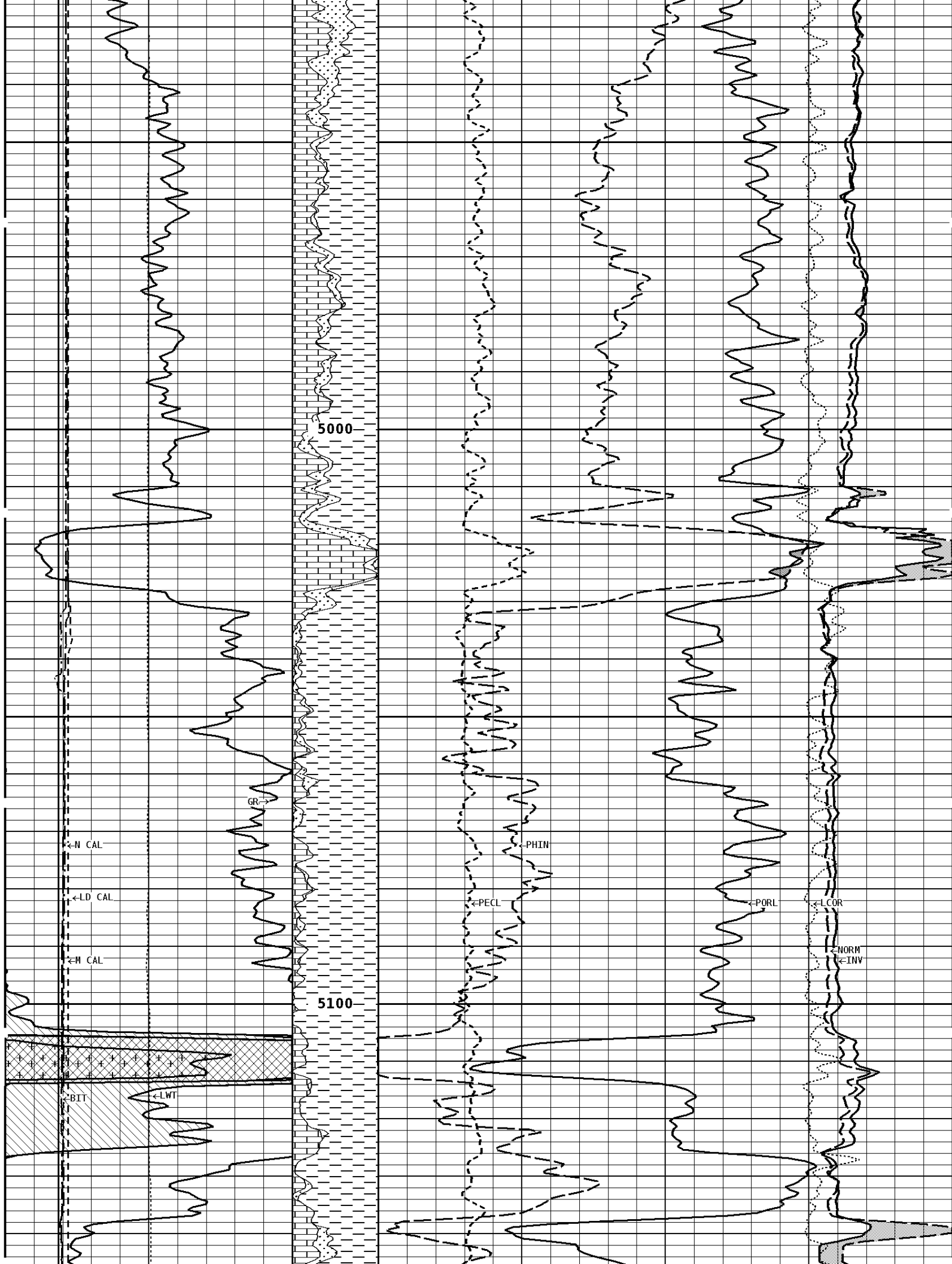
PORI

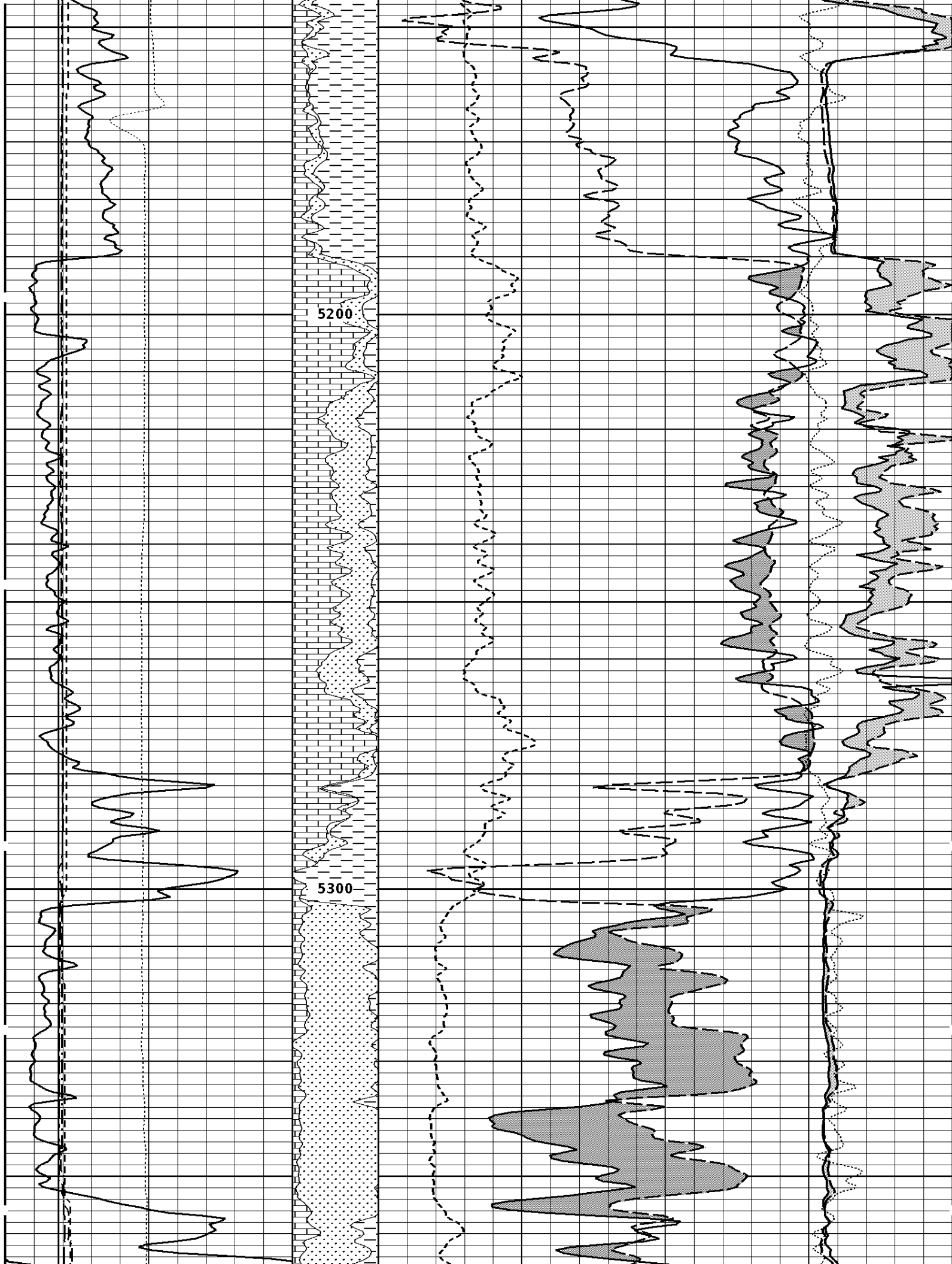
LCOR

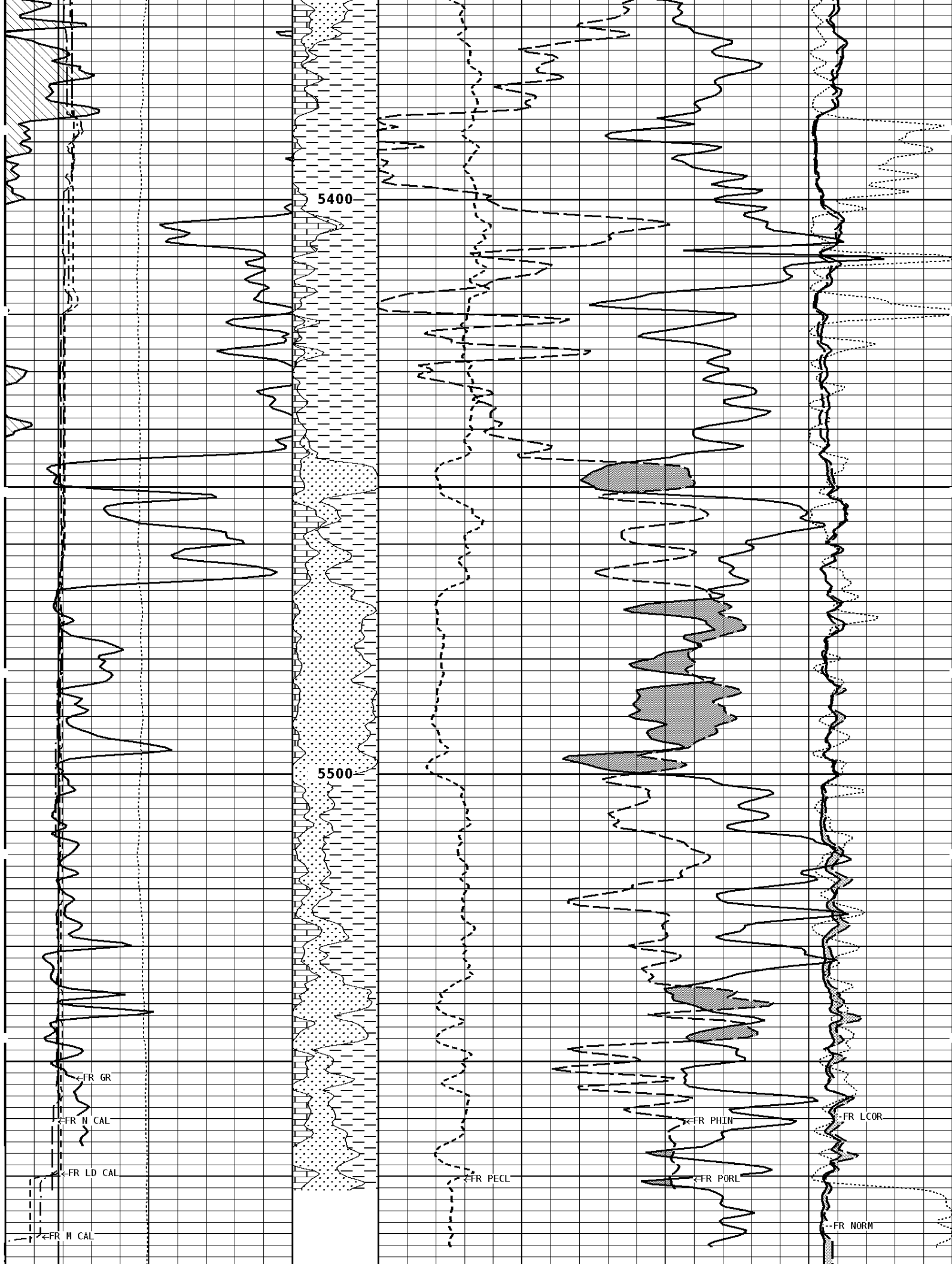
NORM

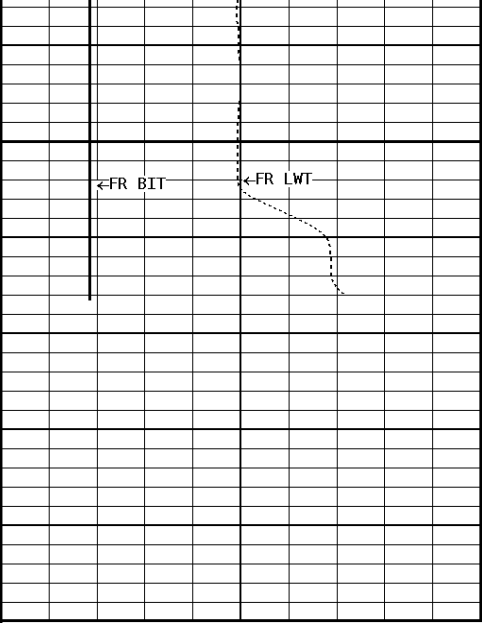
INV











5600
5605

1:240 MAIN SECTION

GAMMA RAY API UNITS 150 0 300 150		Volume Dolo/Shale 30	NEUTRON POROSITY (LIMESTONE) PERCENT ----- -10	
TENSION LBS 10000 0		Volume Calcite 70 30 -10	DENSITY POROSITY (2.71g/cc) PERCENT ----- 30 -10 -50	
DENSITY (X) CALIPER INCHES (IN) 16 6 26 16		Volume Quartz 0	PE CROSS-SECTION BARNS/ELECTRON ----- 10	DENSITY CORRECTION G/CC ----- -0.25 0.25
NEUTRON (Y) CALIPER INCHES (IN) 16 6 26 16				INVERSE OHH 0 ----- 40
BIT SIZE INCHES (IN) 6 ----- 16				NORMAL OHH 0 ----- 40
CALIPER MICRO INCHES (IN) 16 6 26 16				

*** Borehole Zone Factors ***

Zone 1 99999.0 to 0.0 Feet		
Matrix Density _____	2.71	g/cc
Fluid Density _____	1.00	g/cc
Formation Matrix _____	Limestone	
Drill Bit Size _____	7.875	in
Casing Diameter _____	5.500	in
Casing Thickness _____	0.250	in
Casing Correction (PHI N) _____	Disable	

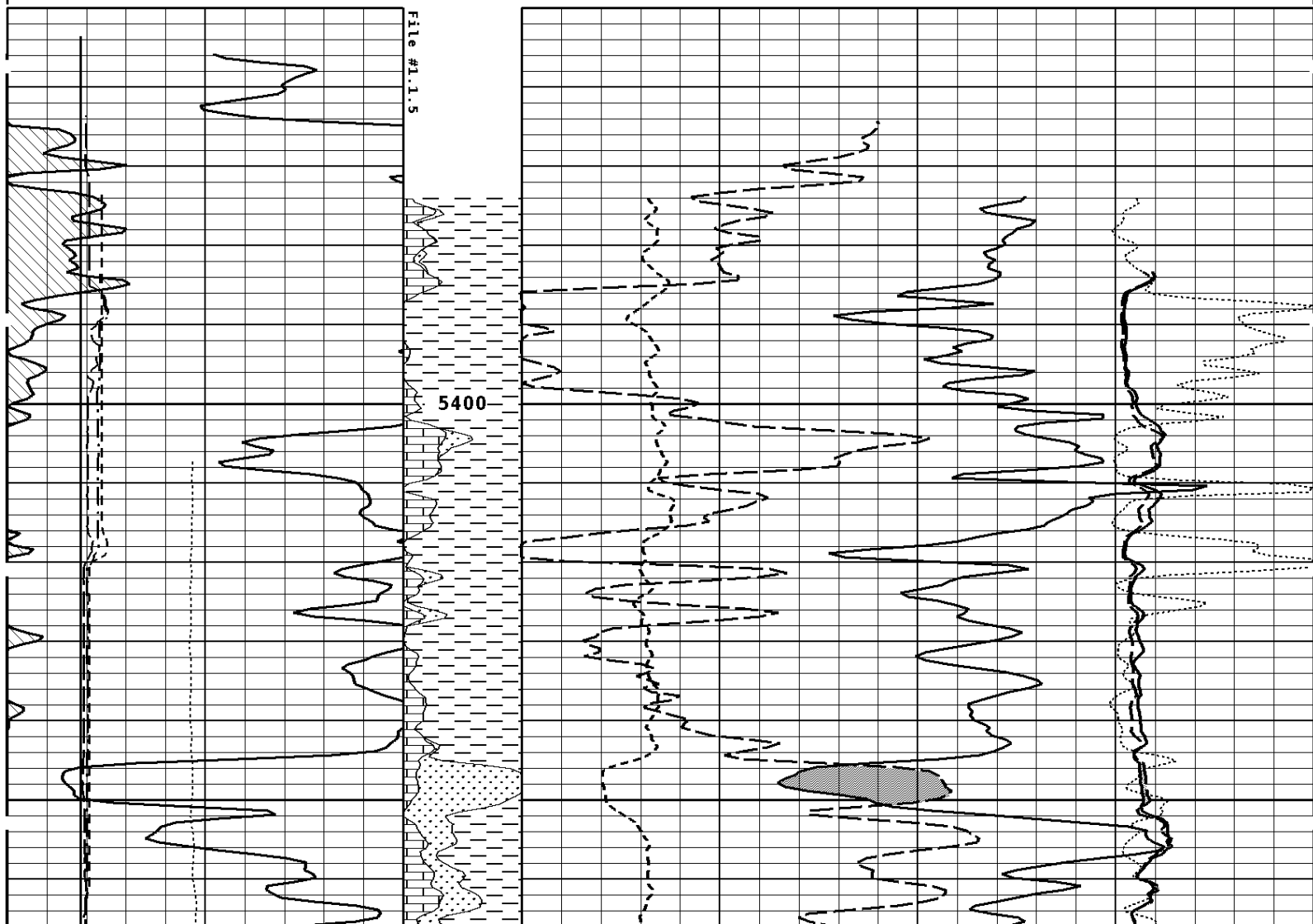
CALIPER MICRO

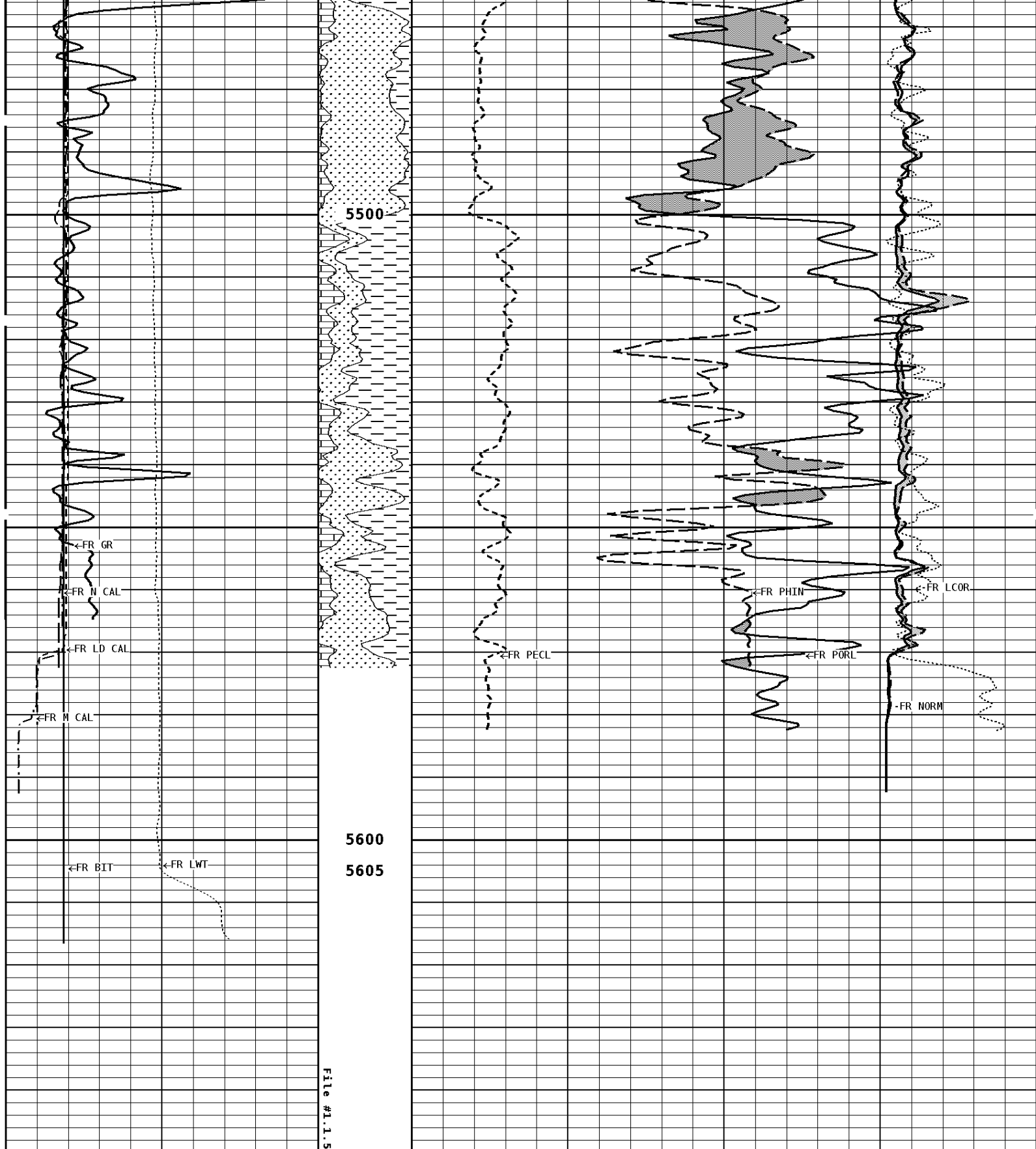
16 6	26 16
BIT SIZE INCHES (IN)	
6	16
NEUTRON (Y) CALIPER INCHES (IN)	
16 6	26 16

NORMAL OHM	
0	40
INVERSE OHM	
0	40

16 6	26 16	Volume Quartz	PE CROSS-SECTION BARNS/ELECTRON	DENSITY CORRECTION G/CC
			0	10 -0.25
TENSION LBS		Volume Calcite	DENSITY POROSITY (2.71g/cc) PERCENT	
10000	0		70	30
			30	-10
			-10	-50
GAMMA RAY API UNITS		Volume Dolo/Shale	NEUTRON POROSITY (LIMESTONE) PERCENT	
150 0	300 150		30	-10

1:240 REPEAT SECTION





1:240 REPEAT SECTION

<p>GAMMA RAY API UNITS</p> <p>150 0 300 150</p>	<p>Volume DoLo/Shale</p> <p>30</p>	<p>NEUTRON POROSITY (LIMESTONE) PERCENT</p> <p>-10</p>
<p>TENSION LBS</p>	<p>Volume Calcite</p>	<p>DENSITY POROSITY (2.71g/cc) PERCENT</p>

LBS		Calcite	70	PERCENT	30
10000	0		30		-10
			-10		-50
DENSITY (X) CALIPER INCHES (IN)		Volume Quartz	PE CROSS-SECTION BARN/ ELECTRON		DENSITY CORRECTION G/CC
16	26		0	10	-0.25
6	16				0.25
NEUTRON (Y) CALIPER INCHES (IN)					INVERSE OHMH
16	26				0
6	16				40
BIT SIZE INCHES (IN)					NORMAL OHMH
6	16				0
					40
CALIPER MICRO INCHES (IN)					
16	26				
6	16				

*** Borehole Zone Factors ***

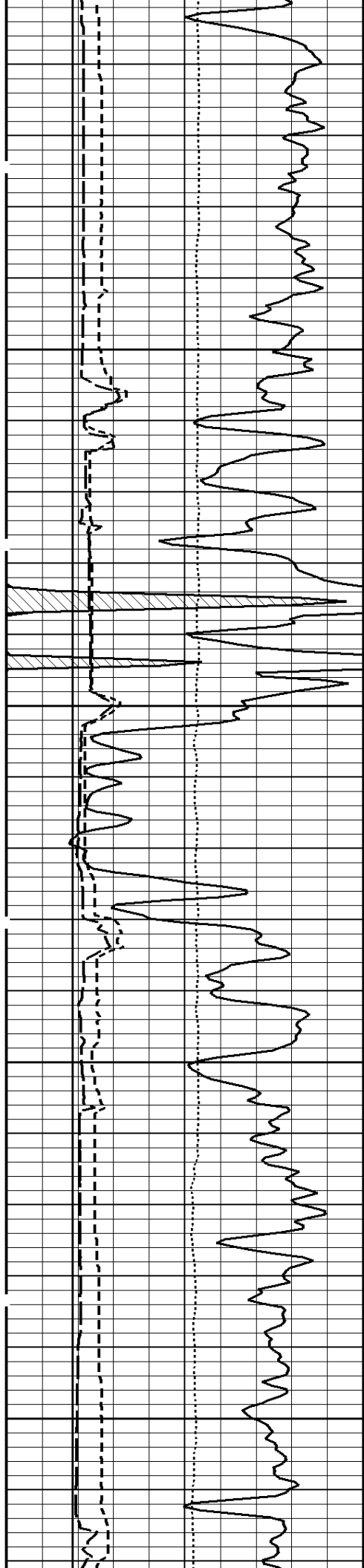
Zone 1 99999.0 to 0.0 Feet		
Matrix Density	_____	2.71 g/cc
Fluid Density	_____	1.00 g/cc
Formation Matrix	_____	Limestone
Drill Bit Size	_____	7.875 in
Casing Diameter	_____	5.500 in
Casing Thickness	_____	0.250 in
Casing Correction (PHI N)	_____	Disable

Well File: CHIEFTON AHS CATTLE 4 MAY2-MSTK Scale: 1:240 Format: LDT-240
 Segment: V1.D1.S6 Repro-MAIN-FINAL Acquired: 2014-05/02 21:30 3.5.0-12850
 Reference: 0 Processed: 2014-05/02 23:39 3.5.0-12850

BIT SIZE INCHES (IN)				PE CROSS-SECTION BARN/ ELECTRON		DENSITY CORRECTION G/CC	
6	16			0	10	-0.25	0.25
NEUTRON (Y) CALIPER INCHES (IN)				COMPENSATED BULK DENSITY G/CC			
16	26			3.0	4.0		
6	16			2.0	3.0		
DENSITY (X) CALIPER INCHES (IN)				1.0	2.0		
16	26			DENSITY POROSITY (2.71g/cc) PERCENT			
6	16			70	30		
TENSION LBS				30	-10		
10000	0			-10	-50		
GAMMA RAY API UNITS		- BHV AHV - CU. FT					
150	300						
0	150						

1:240 MAIN SECTION
BULK DENSITY

File #1.1.1		3700		
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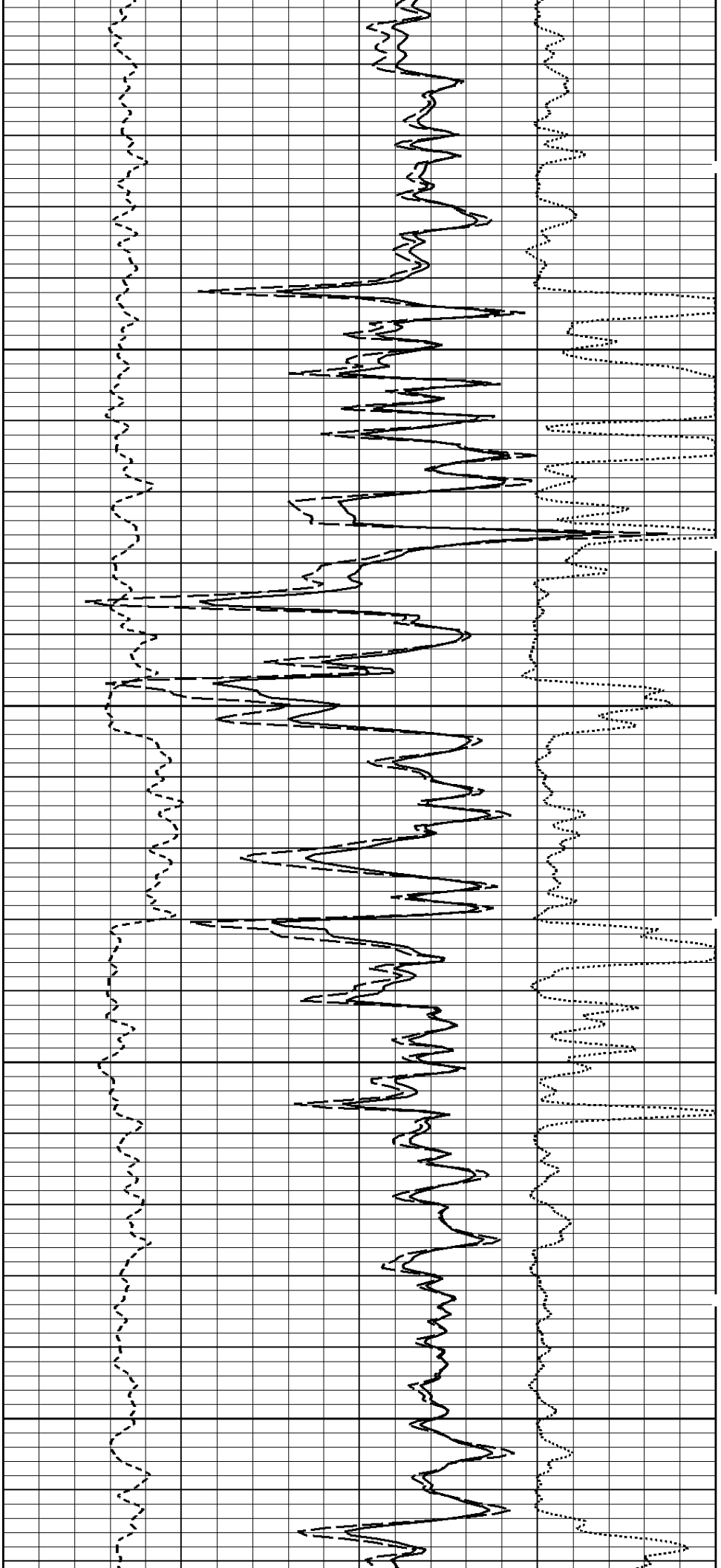


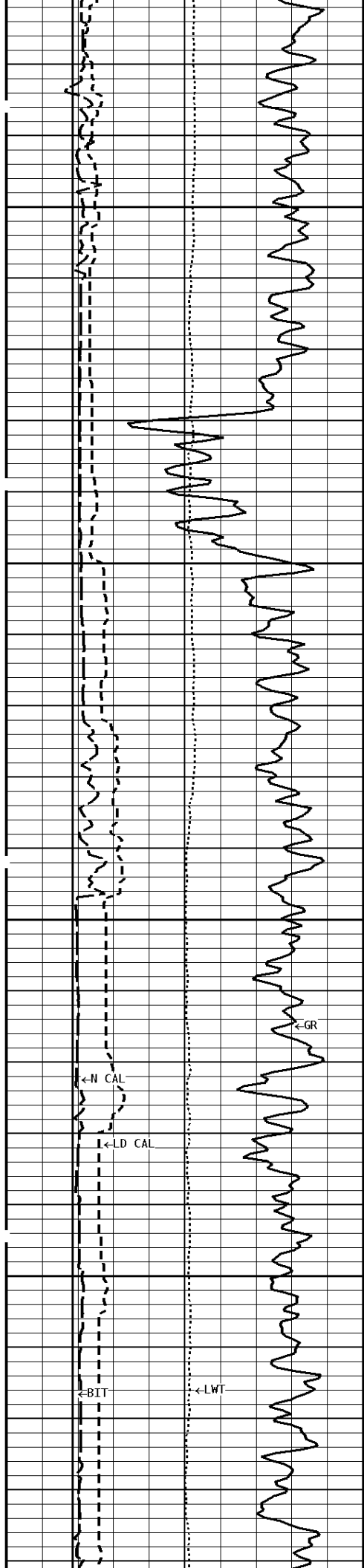
400Cu.Ft--

3800

3900

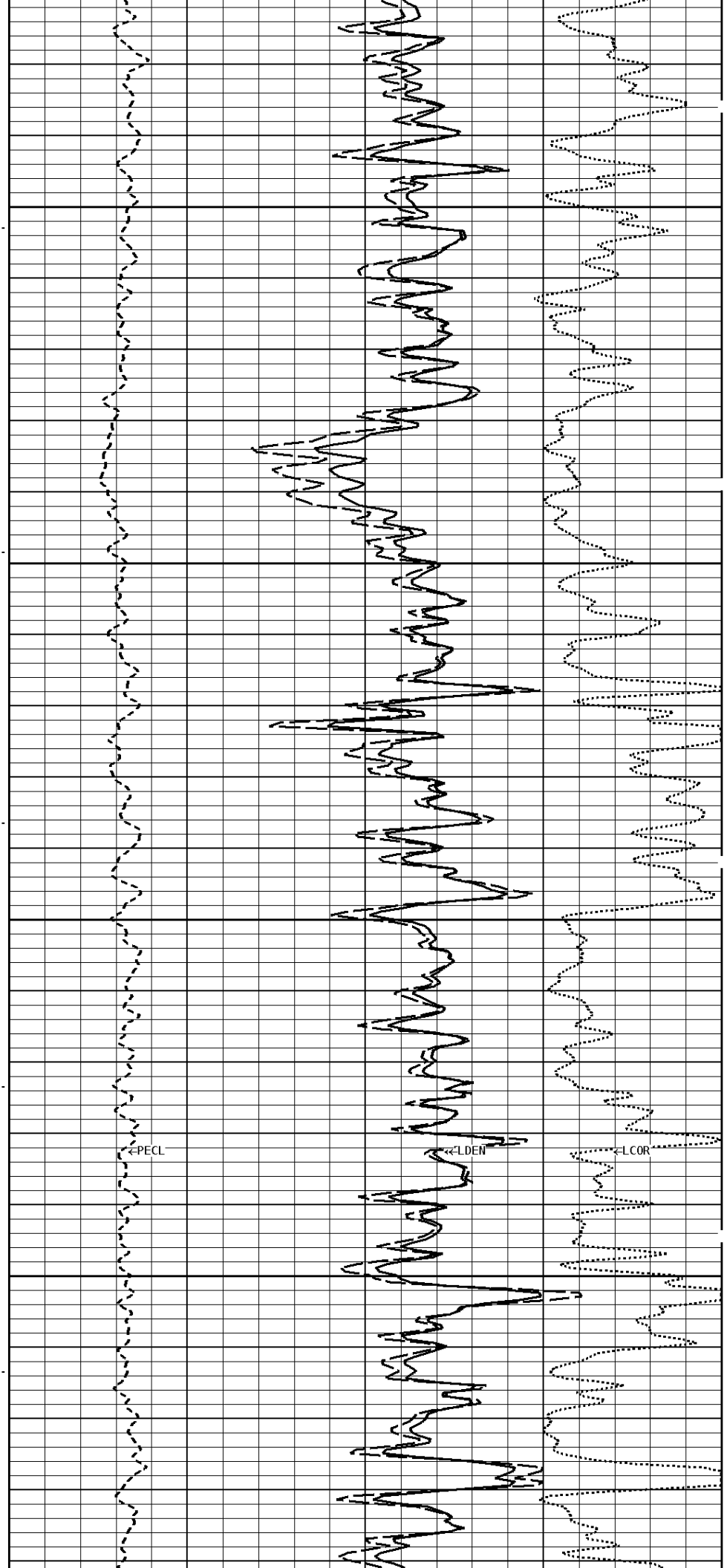
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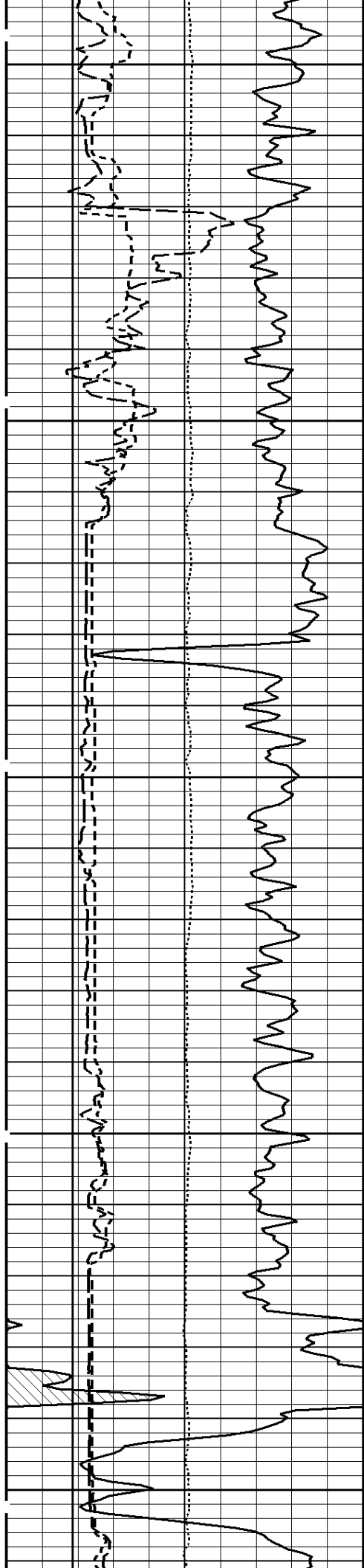




4000

4100



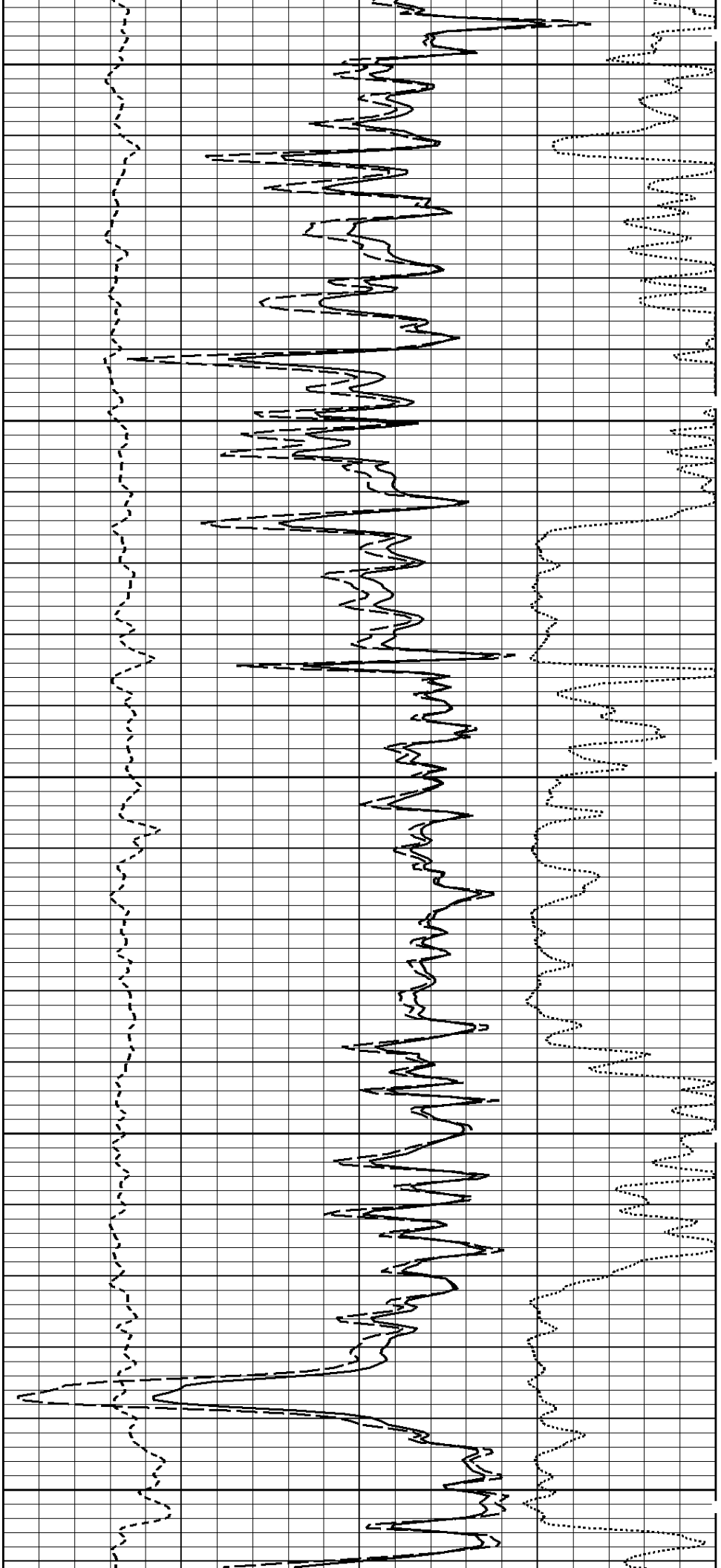


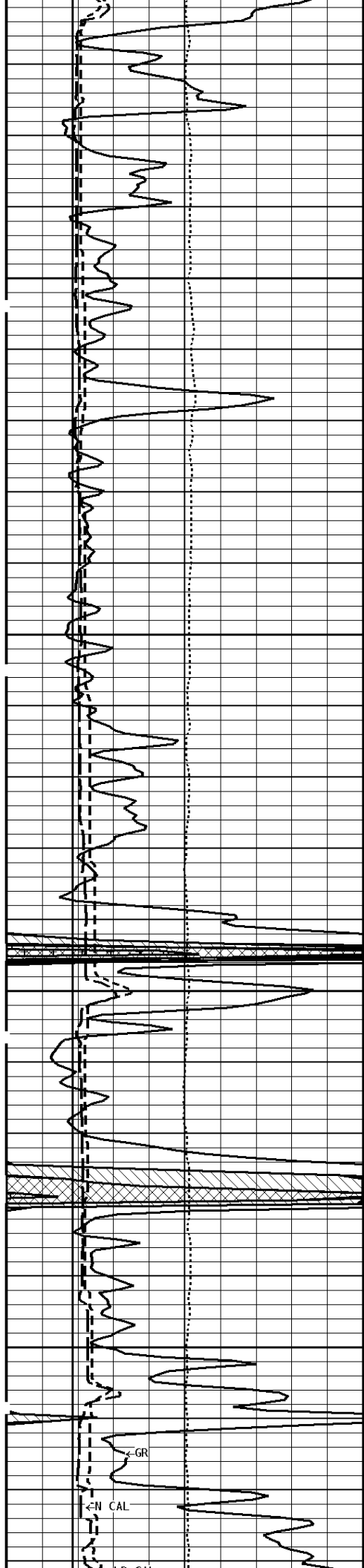
300Cu.Ft--

--500Cu.Ft

4200

4300

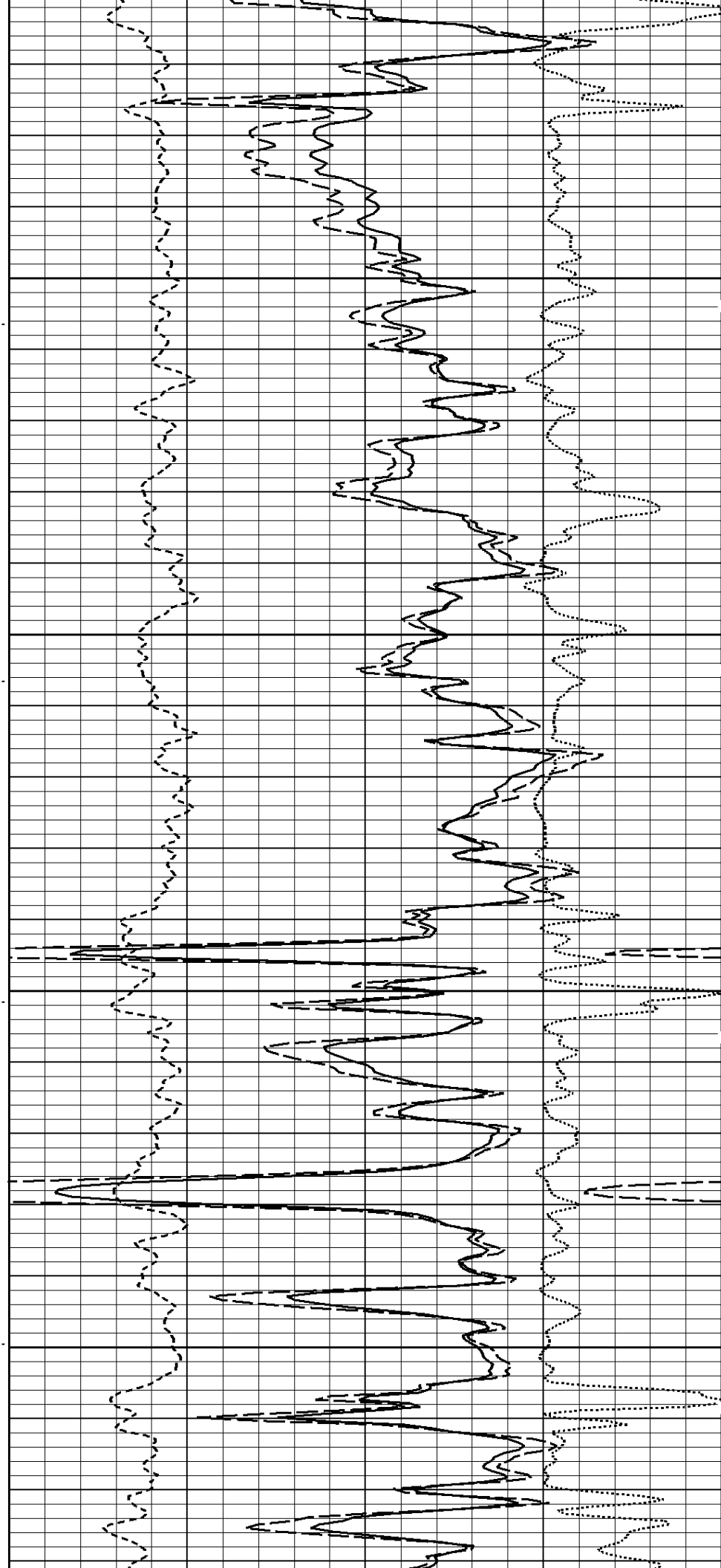


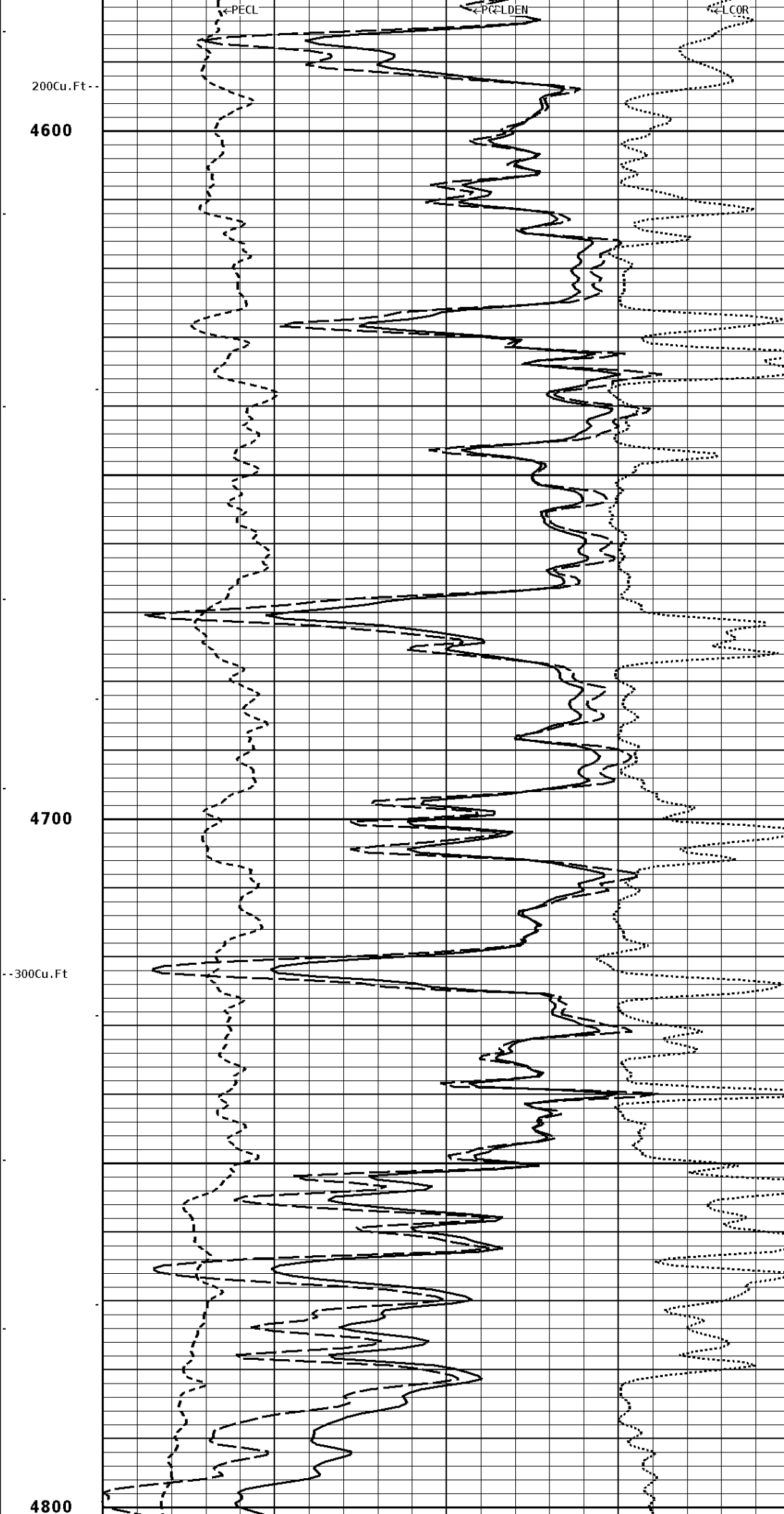
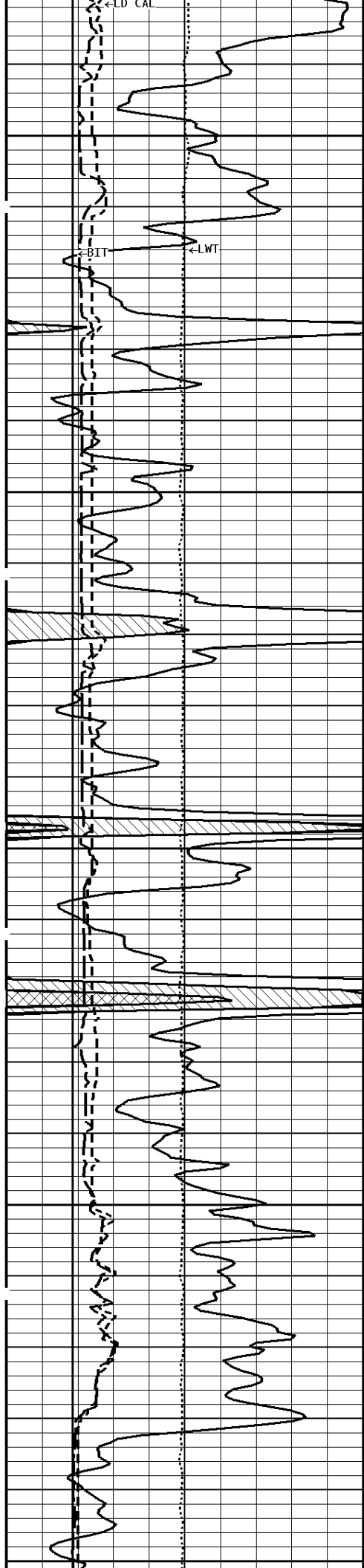


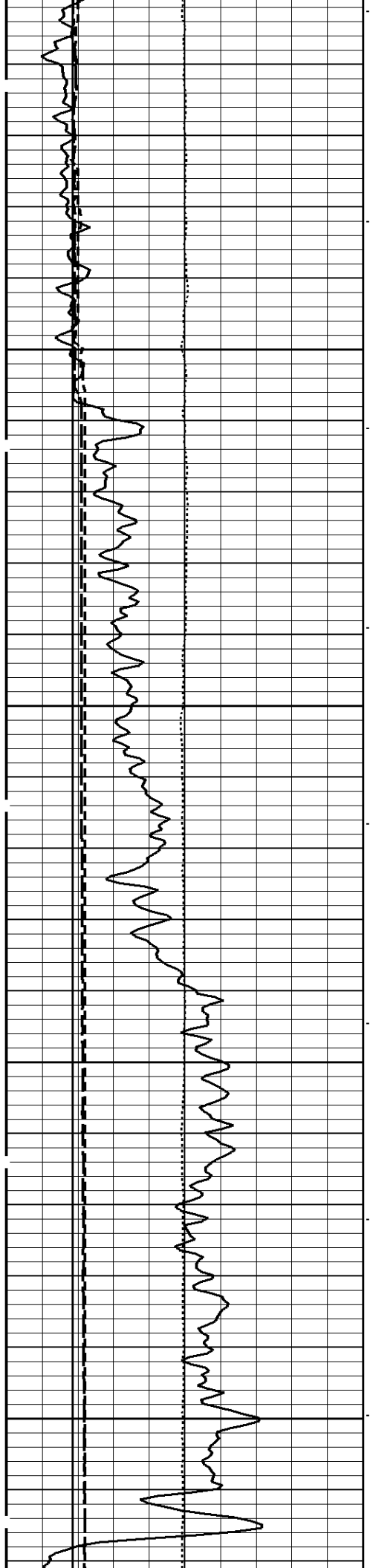
4400

400Cu.Ft

4500

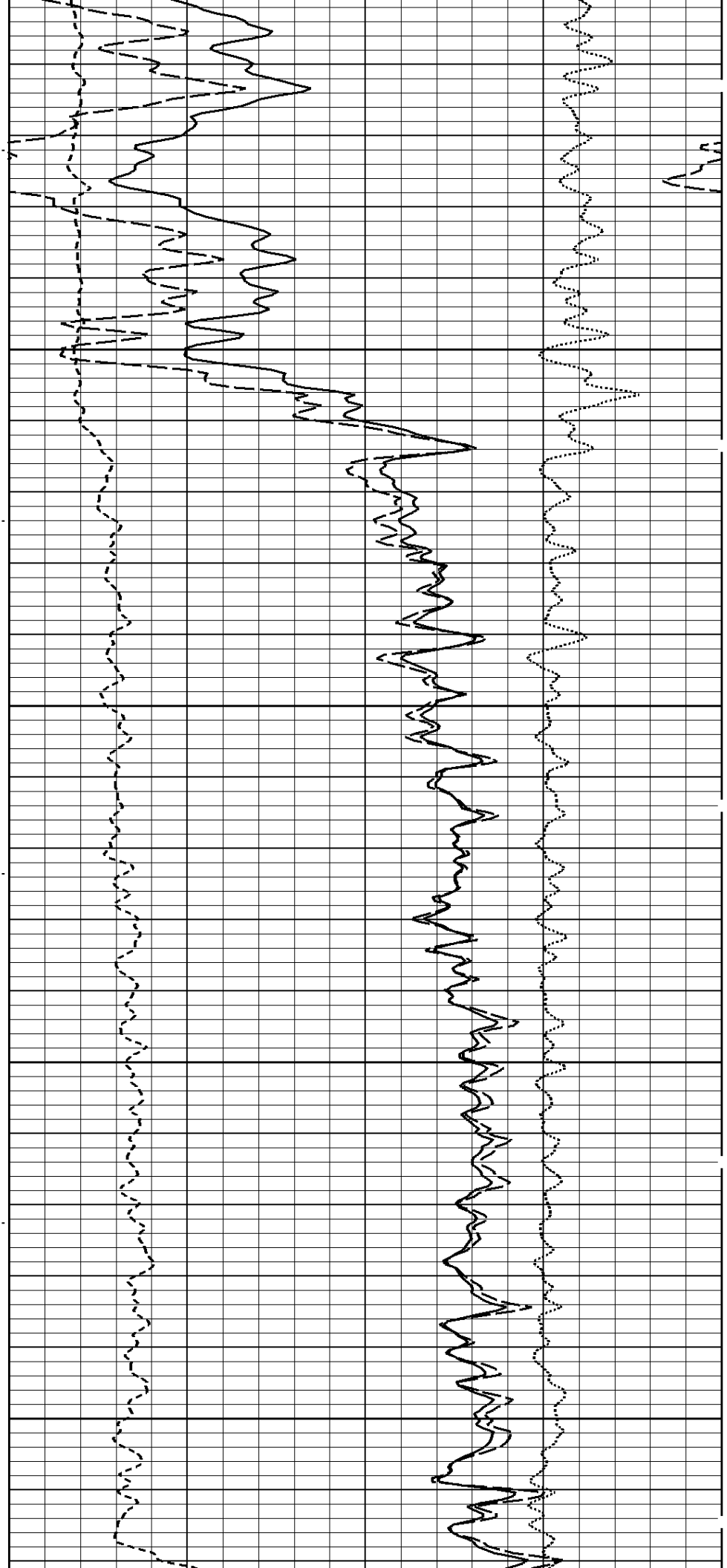


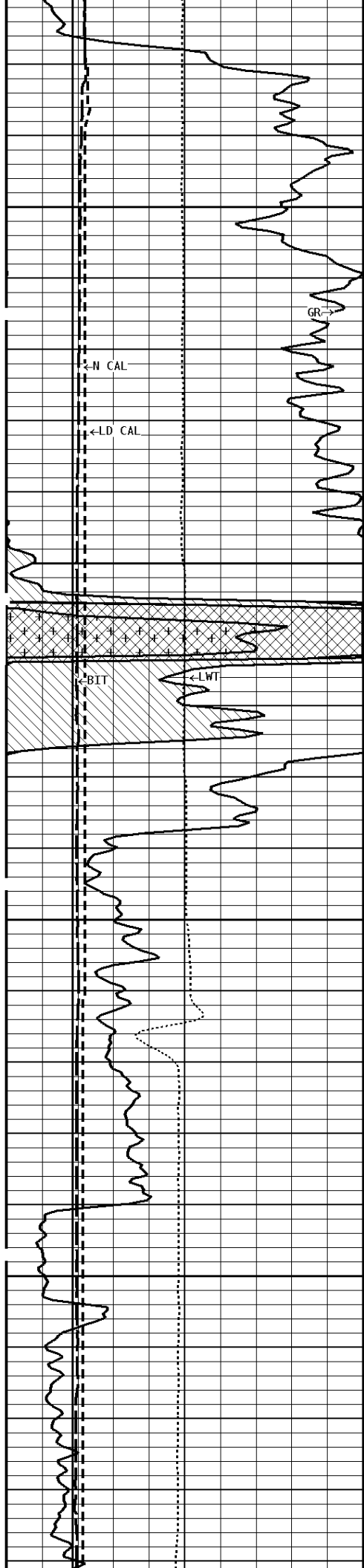




4900

200Cu.Ft

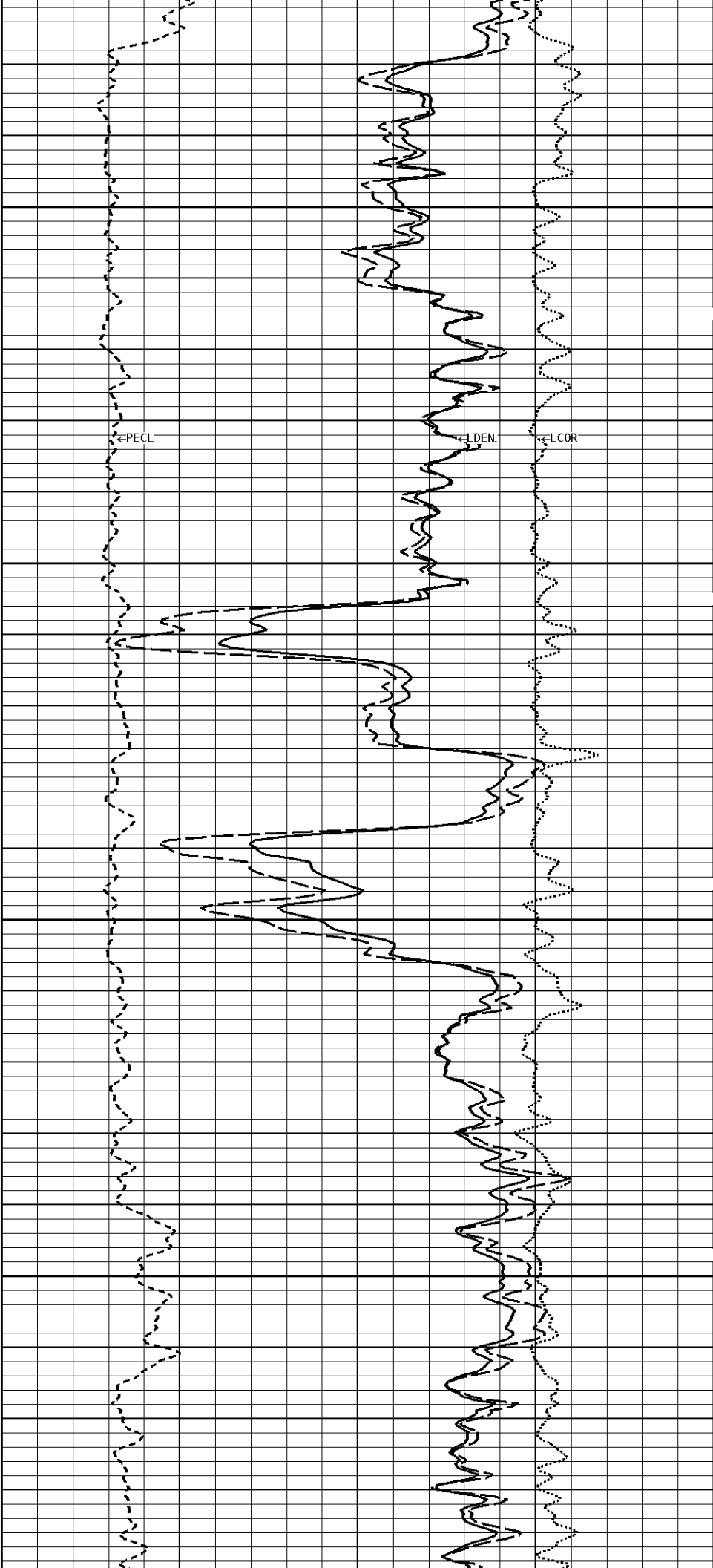


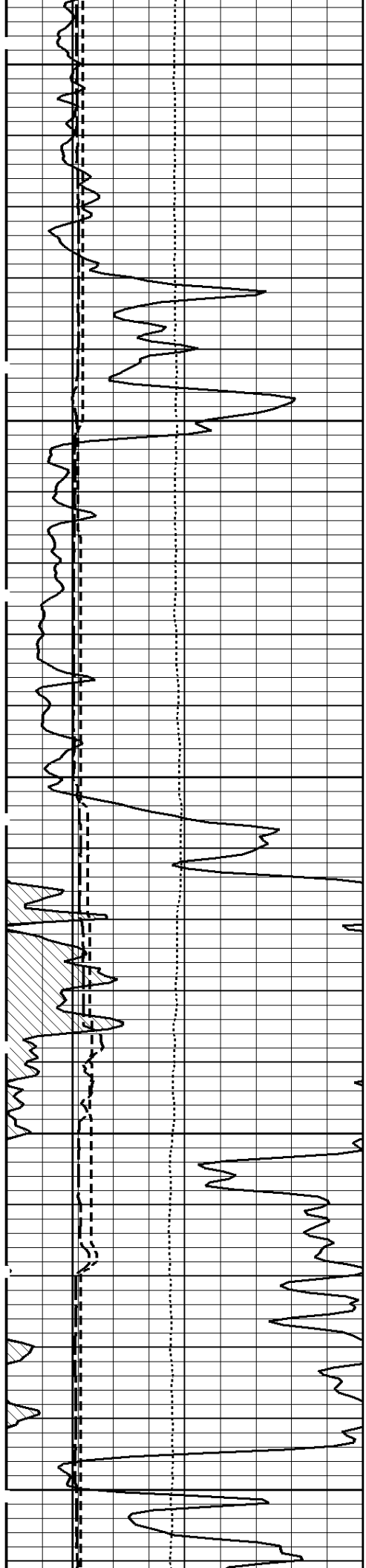


100Cu.Ft--

5100

5200

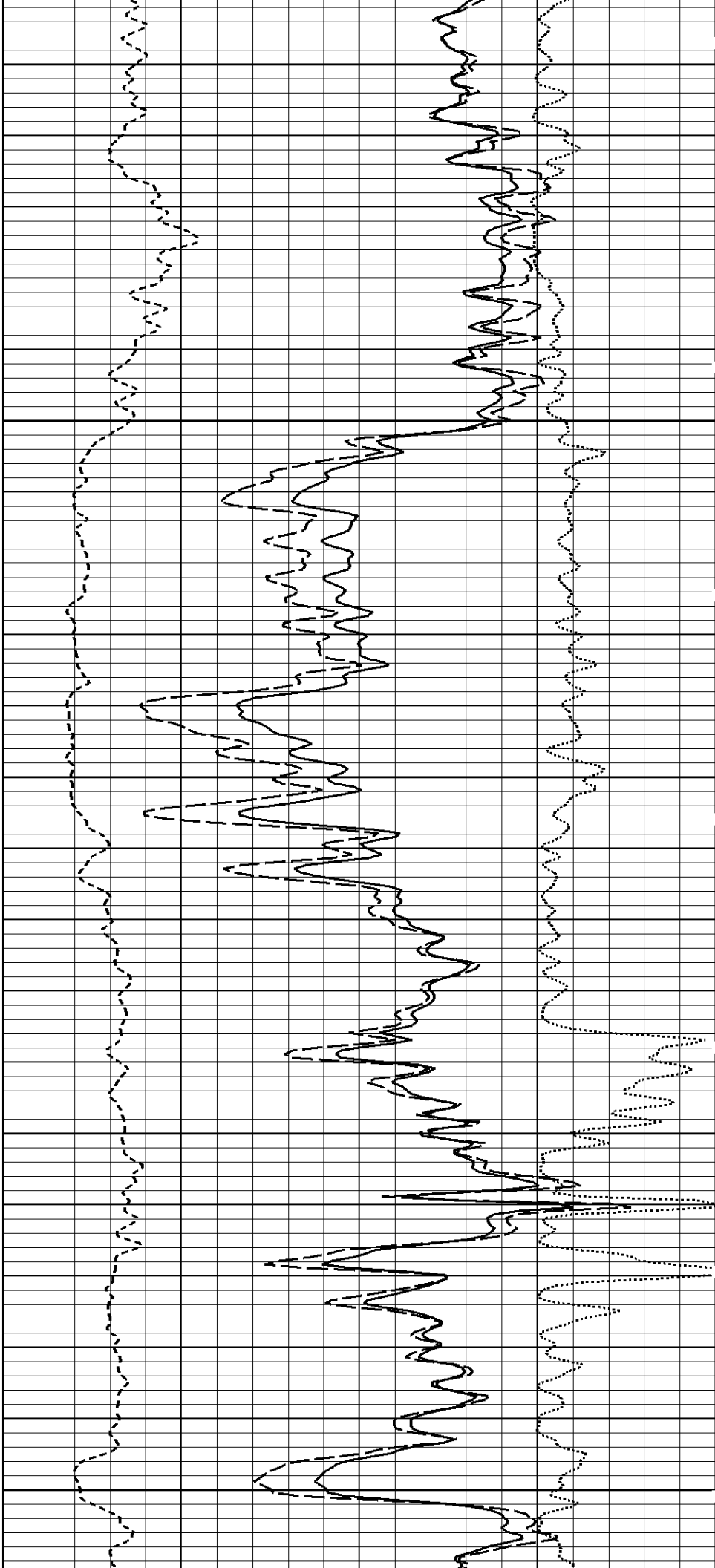


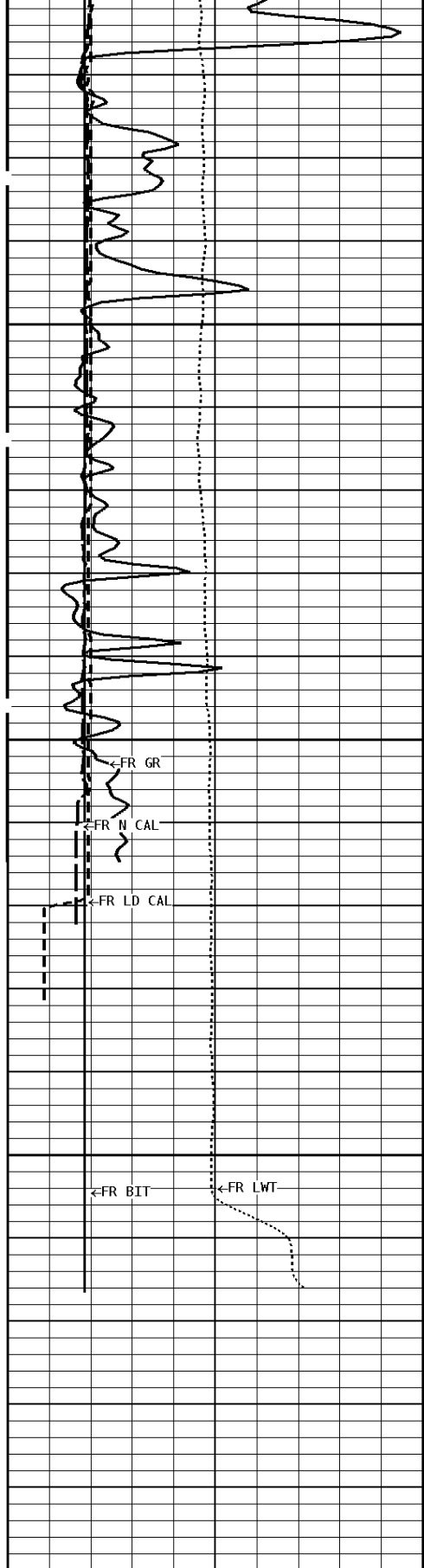


-100Cu.Ft

5300

5400



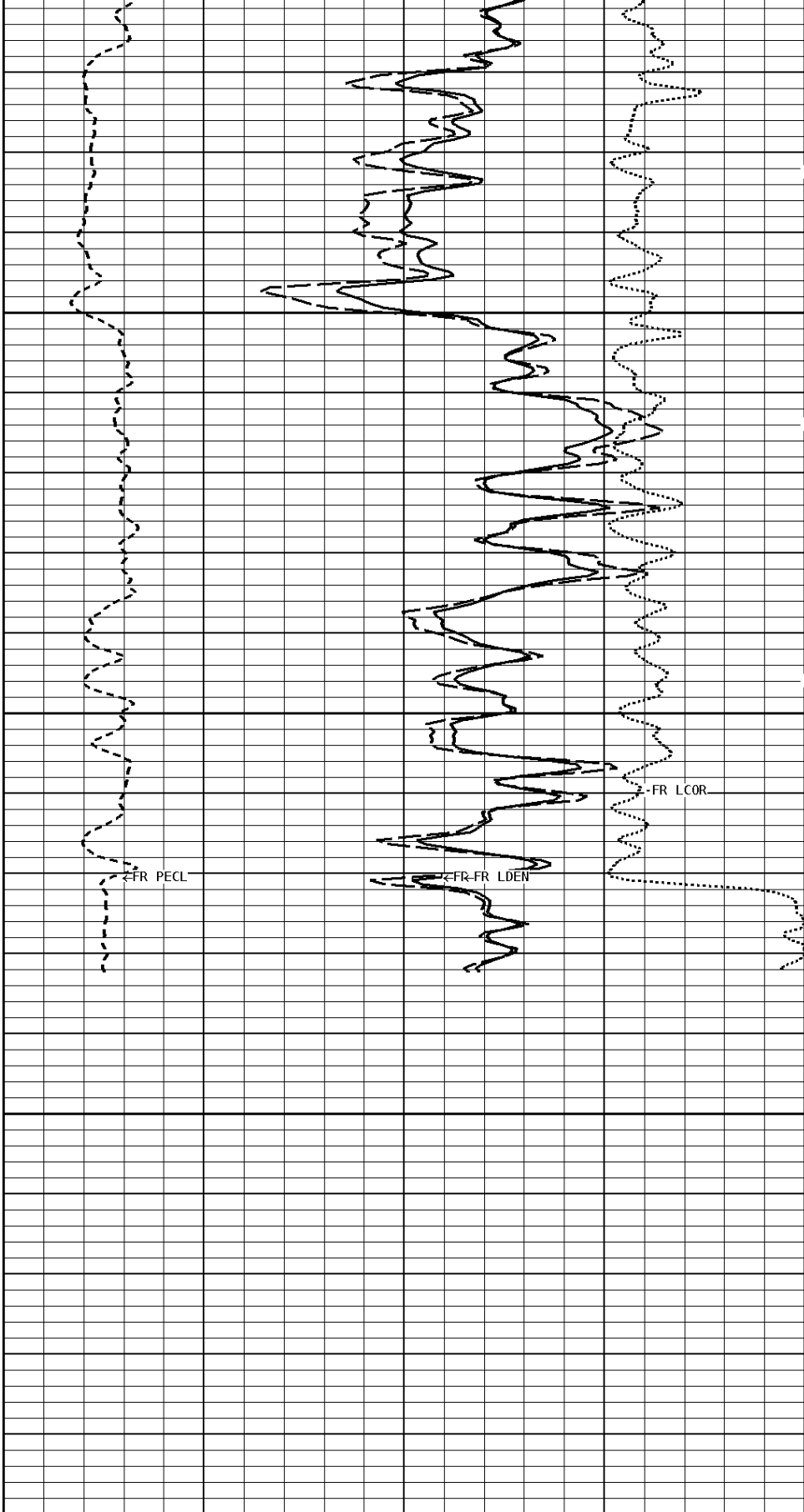


File #1.1.6

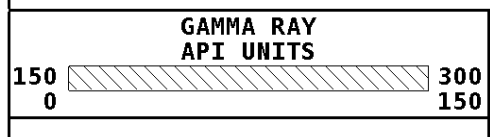
5500

5600

5605



1:240 MAIN SECTION
BULK DENSITY



- BHV AHV - CU. FT		DENSITY POROSITY (2.71g/cc) PERCENT	
150	300	70	30
0	150	30	-10
		-10	-50

TENSION LBS	
10000	0
DENSITY (X) CALIPER INCHES (IN)	
16 6	26 16
NEUTRON (Y) CALIPER INCHES (IN)	
16 6	26 16
BIT SIZE INCHES (IN)	
6	16

COMPENSATED BULK DENSITY G/CC	
3.0 2.0 1.0	4.0 3.0 2.0
PE CROSS-SECTION BARNs/ELECTRON	
0	10
DENSITY CORRECTION G/CC	
-0.25	
0.25	

*** Borehole Zone Factors ***

Zone 1 99999.0 to 0.0 Feet			
Matrix Density	_____	2.71	g/cc
Fluid Density	_____	1.00	g/cc
Formation Matrix	_____	Limestone	
Drill Bit Size	_____	7.875	in
Casing Diameter	_____	5.500	in
Casing Correction (PHI N)	_____	Disable	

*** Calibration Summary ***

Shop Calibration GRT-B					
Performed : 29-APR-2014		Time : 09:39			
Sensor Suite : GR-GR5		ID : GRT-BB-117			
	Background	Measured Jig	Units	Calibrated Jig	Units
GR	43	344	CPS	175	GRAPI
Shop Calibration CNT-AA					
Performed : 29-Apr-2014		Time : 10:47			
Sensor Suite : CALI-BCN		ID : NDT-AC-027			
	Jig - Measured	Jig - Calibrated		Units	
CL # 1	Ring#1 Ring#2	Ring#1	Ring#2	Ring#1	Ring#2
	8.0 14.6	6.0	12.0	IN.	
Performed : 29-Apr-2014		Time : 10:37			
Sensor Suite : BHC NEUT		ID : CNP-AE-42			
Source ID : N-1044					
	Tank	Measured	Calibrated	Verification Jig	Units
N/F		3.6372	3.6893	3.7053	
Porosity		19.7	20.5	20.7	%
Shop Calibration LDT-DA					
Performed : 12-SEP-2013		Time : 09:45			
Sensor Suite : CALI-LTH		ID : NDT-AH-148			
	Jig - Measured	Jig - Calibrated		Units	
CL # 1	Ring#1 Ring#2	Ring#1	Ring#2	Ring#1	Ring#2
	7.8 12.2	6.0	12.0	IN.	
Performed : 29-Apr-2014		Time : 11:09			
Sensor Suite : BHCPENLG		ID : LDP-DA-02			
Source ID : CSV-587					
	Short Space	BKGD	Al	Mg	Al+Fe
LSW1		65	432	700	291
LSW2		67	514	843	372
LSW3		260	1293	2049	1102
					Units
					CPS
					CPS
					CPS

LSW4	334	1240	1750	1108	CPS
LSW5	31	42	43	39	CPS
LSW6	86	88	88	86	CPS
LSW7	54	55	55	55	CPS
LSW8	2	3	3	3	CPS
QS	0.228	0.231	0.236	0.218	
PES			2.778	5.967	
SSDN		2.600	1.680		G/CC
Long Space					
	BKGD	Al	Mg	Al+Fe	Units
LLW1	102	568	2360	362	CPS
LLW2	112	984	4108	717	CPS
LLW3	418	1909	7085	1657	CPS
LLW4	547	1108	2892	1030	CPS
LLW5	62	65	81	64	CPS
LLW6	178	174	170	175	CPS
LLW7	108	108	103	109	CPS
LLW8	4	5	10	5	CPS
QL	0.246	0.233	0.245	0.235	
PEL			2.697	5.458	
LSDN		2.600	1.680		G/CC

Shop Calibration						
MST-DA						
Performed : 29-Mar-2014			Time : 04:22			
Sensor Suite : CALI-MSN			ID : MST-DA-25			
Jig - Measured Jig - Calibrated Units						
		Ring#1	Ring#2	Ring#1	Ring#2	Units
CL # 1		6.7	12.4	6.0	12.0	IN.
Performed : 29-Mar-2014			Time : 04:24			
Sensor Suite : MSTDA-NI			ID : MST-DA-25			
Internal						
Measured Calibrated						
	Zero	Reference	Units	Zero	Reference	Units
INV-V	0.0	30010.6		0.00	1546.00	MV
NOR-V	0.1	30159.6		0.00	1546.00	MV
IN-C	0.0	57334.5		0.00	15.46	UA
INV-R					32.34	OHMM
NOR-R					55.11	OHMM
Performed : 29-Mar-2014			Time : 04:25			
Sensor Suite : MSTDAMSF			ID : MST-DA-25			
Internal						
Measured Calibrated						
	Zero	Reference	Units	Zero	Reference	Units
MSFC	6.9	42184.2		0.00	1522.00	UA
MSFB	32757.2	32562.9		0.00	1522.00	MA
MOM1	0.0	43971.1		0.00	1522.00	MV
MSFRA					43.30	OHMM



Company: CHIEFTON OIL CO., INC.
Well: AHS CATTLE CO. #4
Location: 1805' FNL & 2305' FEL
Logged: 05-02-2014
K.B. Elev: 1368.0 Ft