

Tucker

WIRELINE SERVICES

COMPENSATED NEUTRON PEL DENSITY LOG

Company RUNNING FOXES PETROLEUM Well DICKERSON #10-22B-3 Field BRONSON-XENIA County ALLEN State KANSAS Country USA API No. 15-001-30362-00-00		File No : TUL-57688 Company : RUNNING FOXES PETROLEUM INC. Well : DICKERSON #10-22B-3 Field : BRONSON-XENIA County : ALLEN State : KANSAS Country : USA API No : 15-001-30362-00-00	
Location : 2145' FSL & 2475' FEL SW NW NW SE		LSD : Sect : 22 Twp : 24S Rge : 21E	
Permanent Datum:	GL	Elevations:	
Drilling Measured From:	GL	KB 0.00	Services:
Log Measured From:	GL	DF 0.00	CNT
Above Permanent Datum:	0.00 Ft	GL 1102.00	LDT
Date	04-19-2012		PIT
Run Number	1		
Depth--Driller	941.0	Ft	
Depth--Logger	938.0	Ft	
First Reading	915.0	Ft	
Last Reading	22.0	Ft	
Casing--Driller	22.0	Ft	
Casing--Logger	22.0	Ft	
Bit Size	6.750	In	
Casing Size	8.625	In	
Hole Fluid Type	FRESH / NATIVE		
Density	0.0	LBS/GAL	
Fluid Loss	0.0	CC	
PH/Viscosity	0.0	0.0 SEC	
Sample Source	MEASURED		
RM@Measured Temp.	10.000 @ 80 F		
RMF@Measured Temp	8.500 @ 80 F		
RMC@Measured Temp.	11.500 @ 80 F		
Source RMF/RMC	CALCULATED/CALCULATED		
RM@BHT	9.400 @ 86 F		
Time Circulation Stopped			
Max Recorded Temp.	86	F	
Equipment/Base	123	TULSA	
Recorded By	R. FRANKLIN		
Witnessed By	C. COUNTS		

The customer is hereby warned that by providing the log data herein, T. W. S. does not agree to provide any interpretation of log data, conversion of log data to physical rock parameters or recommendations. T. W. S. does not guarantee or warrant either expressly or impliedly, the accuracy of any interpretation of log data, conversion of log data to physical rock parameters or recommendations which may be given by T. W. S. personnel. Any interpretation, conversion or recommendation is not part of the consideration for the agreement between the parties and is not part of any part of the charge by T. W. S. for its services. Any user of the log data is warned that said user is not entitled to rely on interpretations, conversions or recommendations as aforesaid.

Bitsize Intervals		Casing Strings		
Size (In)	Bottom (Ft)	Size (In)	Weight (Lbs)	Bottom (Ft)
6.750	941.00	8.625	32.00	22.00

Run Number	1	
Date	04-19-2012	
Date/Time On Bottom	04-19-2012 13:15	
Depth to Fluid	0.0 Ft	
Salinity	0.000 PPM	
RMF@BHT	8.000 @ 86 F	
RMC@BHT	10.700 @ 86 F	

Run Number 1

Comments

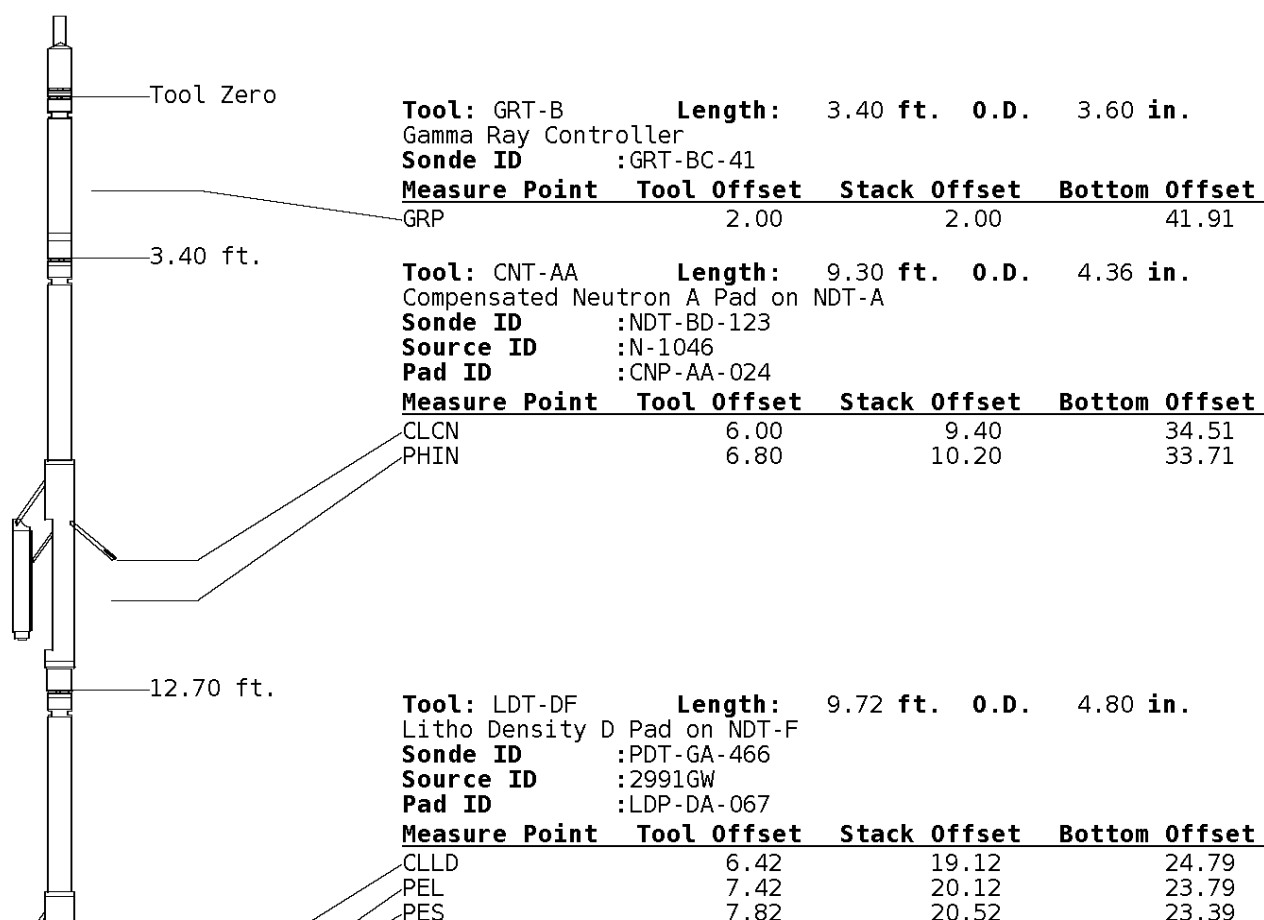
ALL PRESENTATIONS AS PER CUSTOMER REQUEST.
 GRT, CNT, LDT, AND PIT RUN IN COMBINATION.
 CALIPERS ORIENTED ON X-Y AXIS.
 2.17 G/CC USED TO CALCULATED POROSITY.
 ANNULAR HOLE VOLUME CALCULATED USING 4.50" PRODUCTION CASING.
 PHIN IS CALIPER CORRECTED.
 REPEAT PULLED UP HOLE DUE TO STICKEY HOLE CONDITIONS AT BOTTOM.

GRT: GRP.
 CNT: PHIN, CLCNIN.
 LDT: PORL, LCORN, PECLN, LDENN, PORLLS, CLLDIN.
 PIT: ILD, ILM, SPU, SFLAEC.

OPERATORS:
 J. THOMAS
 N. LOYD

Tool String Schematic

Total Tool Length - 43.91 ft.
Maximum Outside diameter - 4.80 in.
Net Weight in Air - 743.00 lbs.





7.62	20.32	23.59
7.62	20.32	23.59

22.42 ft.

Tool: PIT-CA **Length:** 21.49 ft. **O.D.** 3.62 in.
 Phased Dual Induction w/ RM & D
Sonde ID :PIT-AC-022

Measure Point	Tool Offset	Stack Offset	Bottom Offset
ILD	8.92	31.34	12.56
ILM	10.10	32.52	11.39
SFLU	17.49	39.91	4.00
SP	20.60	43.02	0.88

LWT 43.91 ft.

Well File: RUN DIC 10-22B-3 APR 19 STK

Scale: 1:240

Segment: V1.D1.S4 MAIN

Acquired: 2012-04/19 13:11 3.2.0-10367

Reference: 0

Processed: 2012-04/19 13:59 3.2.0-10367

**TENSION
LBS**

10000 0

**BIT SIZE
INCHES (IN)**

4 14

**DENSITY (X) CALIPER
INCHES (IN)**

14 24
4 14

Volume
Quartz

**PE CROSS-SECTION
BARNs/ELECTRON**

**DENSITY CORRECTION
G/CC**

0 10 -0.25 0.25

**NEUTRON (Y) CALIPER
INCHES (IN)**

14 24
4 14

Volume
Calcite

**NEUTRON POROSITY
PERCENT (LIMESTONE MATRIX)**

70 30
30 -10
-10 -50

**GAMMA RAY
API UNITS**

200 400
0 200

Volume
Dolo/Shale

**DENSITY POROSITY
PERCENT (2.71 g/cc)**

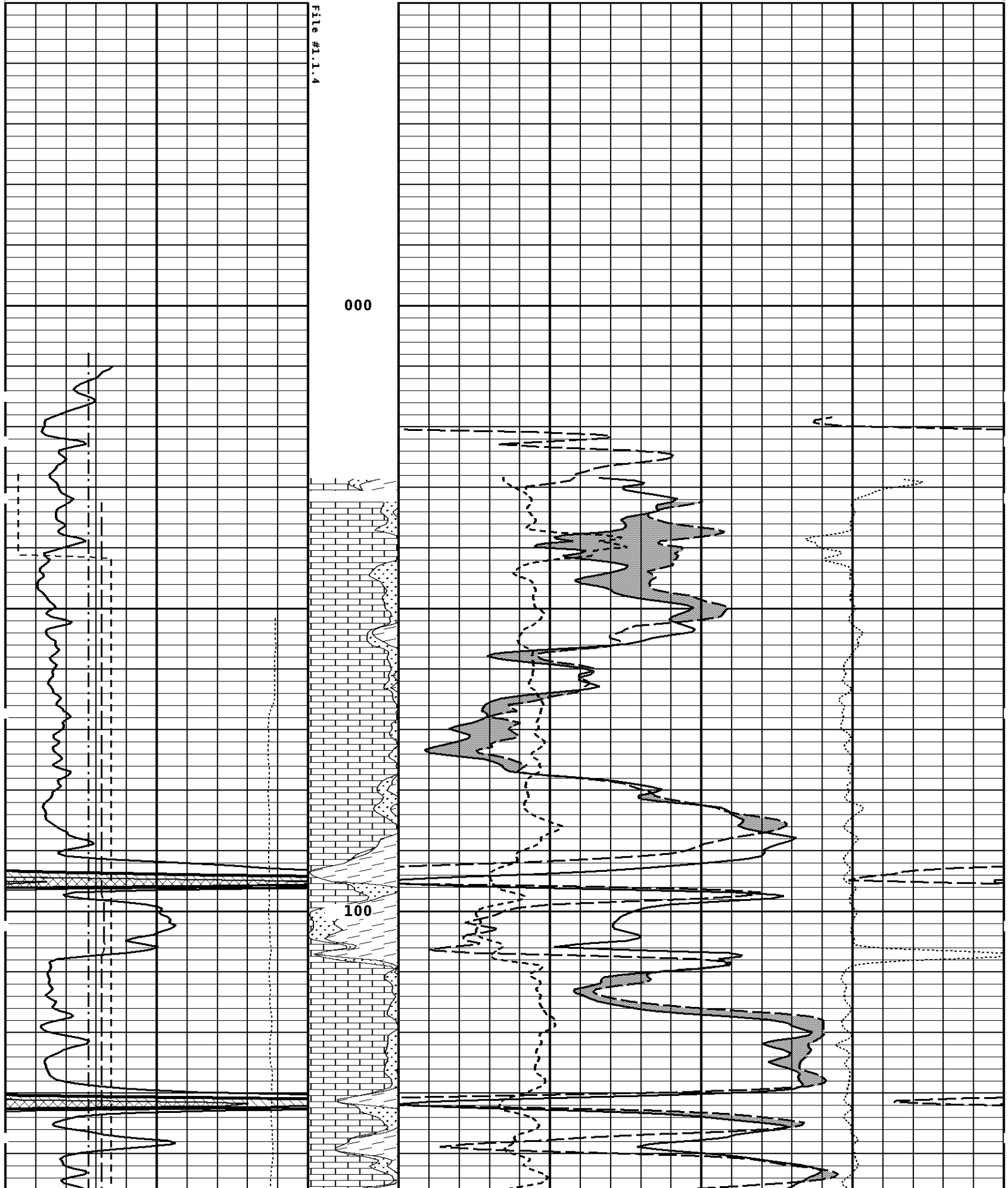
70 30
30 -10
-10 -50

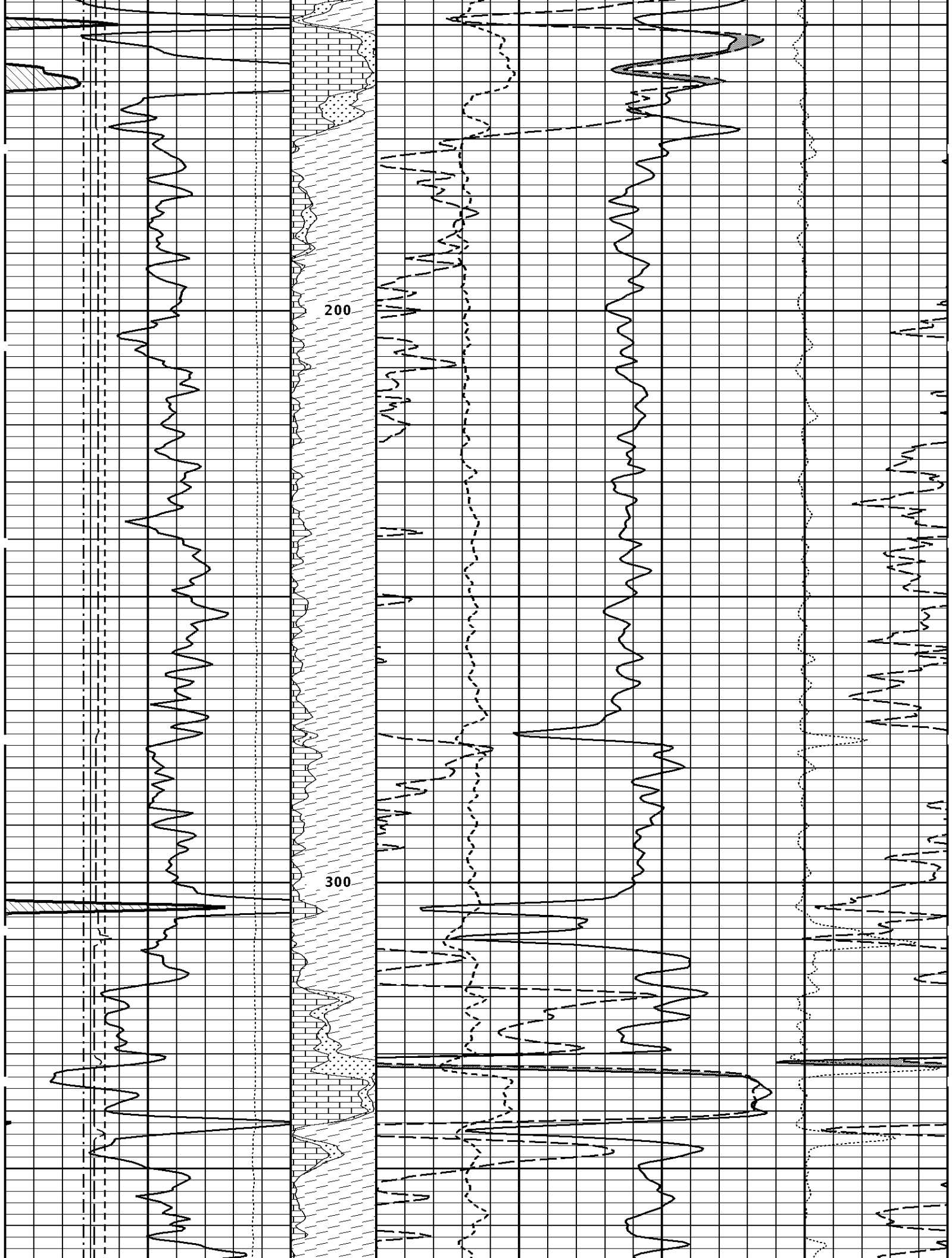
1:240 MAIN SECTION

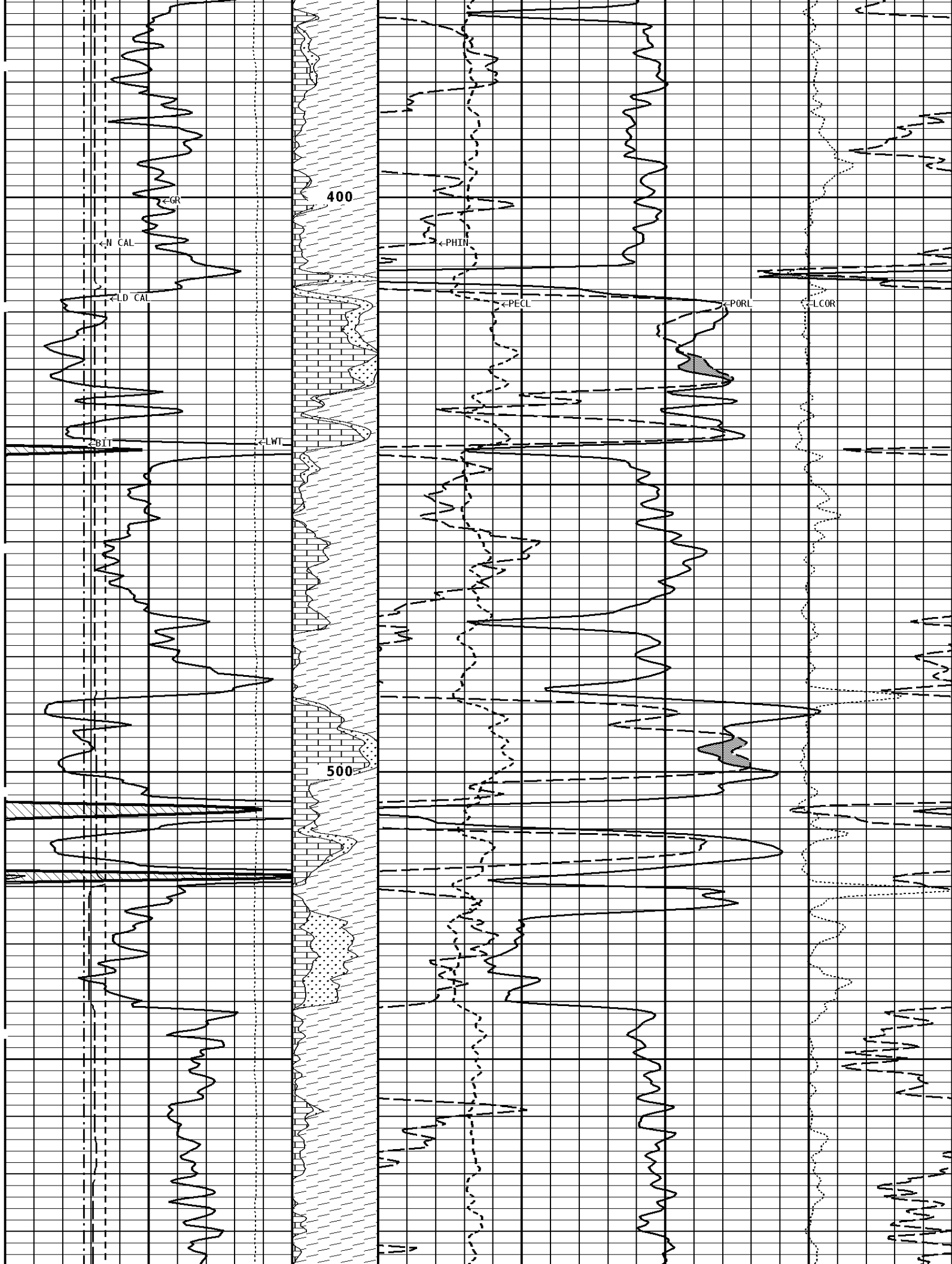
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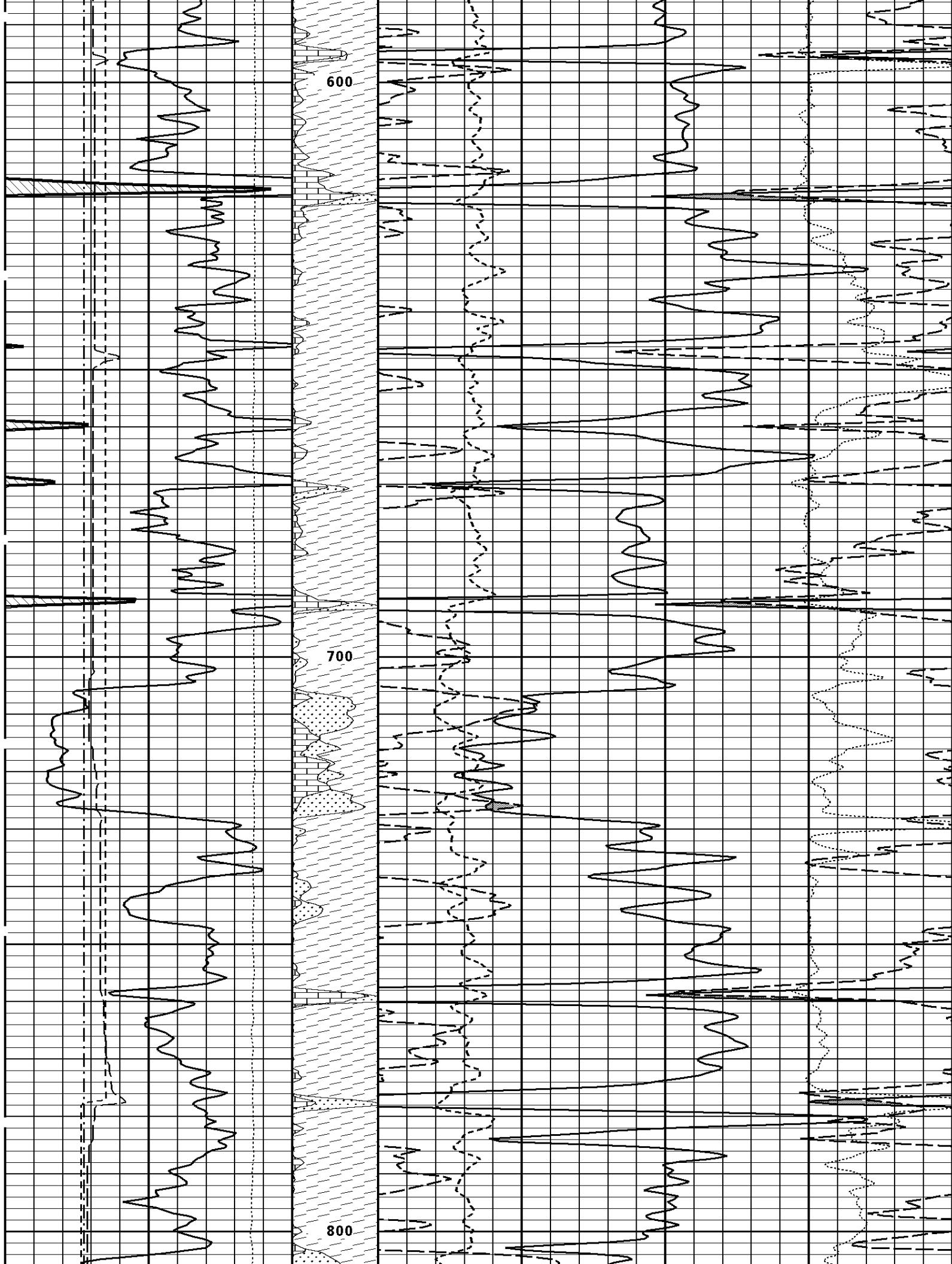
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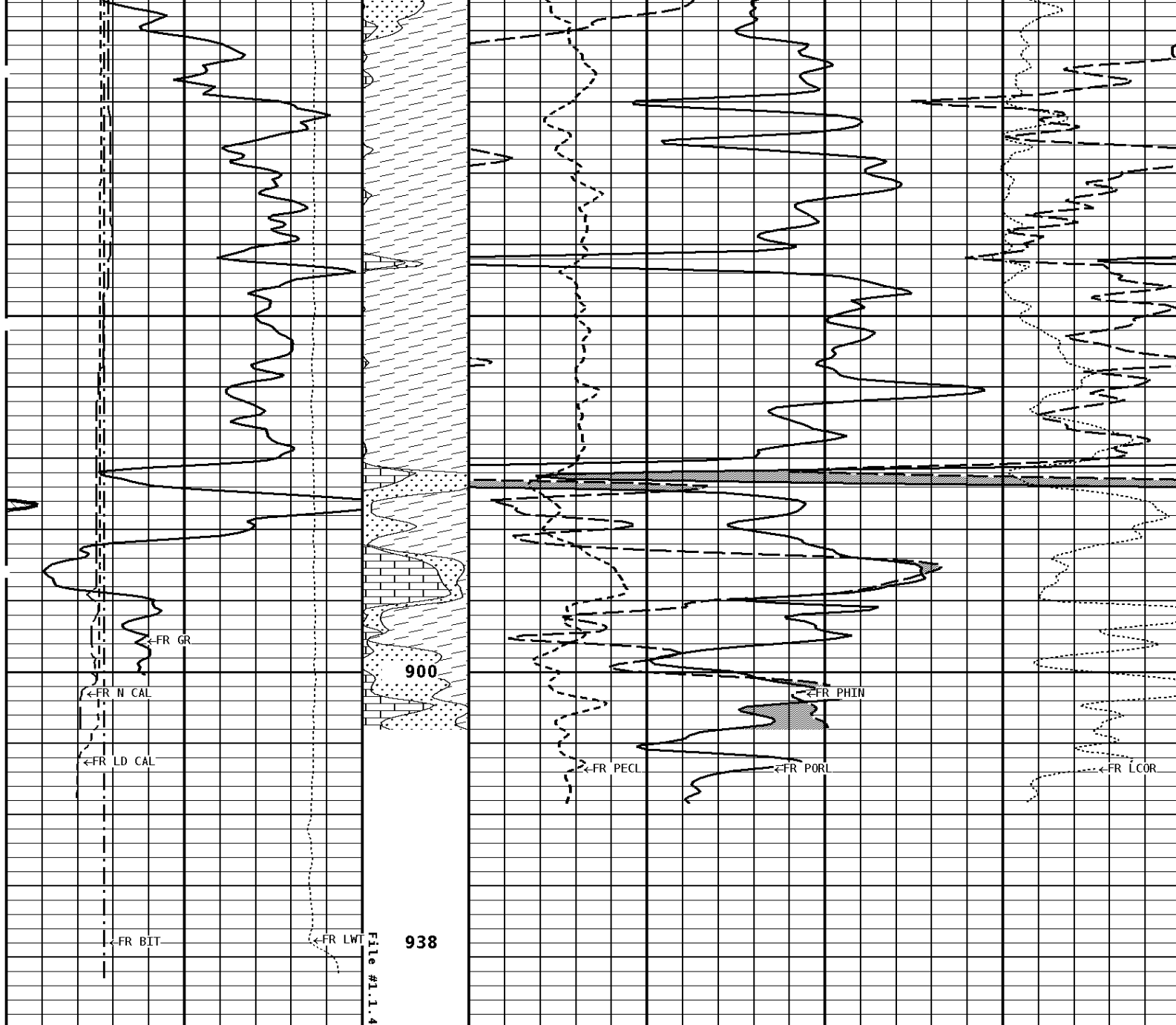
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1:240 MAIN SECTION

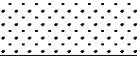
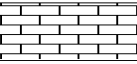
GAMMA RAY API UNITS 200 0 400 200	Volume Dolo/Shale 70 30 -10	DENSITY POROSITY PERCENT (2.71 g/cc) 30 -10 -50	
NEUTRON (Y) CALIPER INCHES (IN) 14 4 24 14	Volume Calcite 70 30 -10	NEUTRON POROSITY PERCENT (LIMESTONE MATRIX) 30 -10 -50	
DENSITY (X) CALIPER INCHES (IN) 14 4 24 14	Volume Quartz 0	PE CROSS-SECTION BARN/ELECTRON 10	DENSITY CORRECTION G/CC -0.25 0.25
BIT SIZE INCHES (IN)			

4	14
TENSION LBS	
10000	0

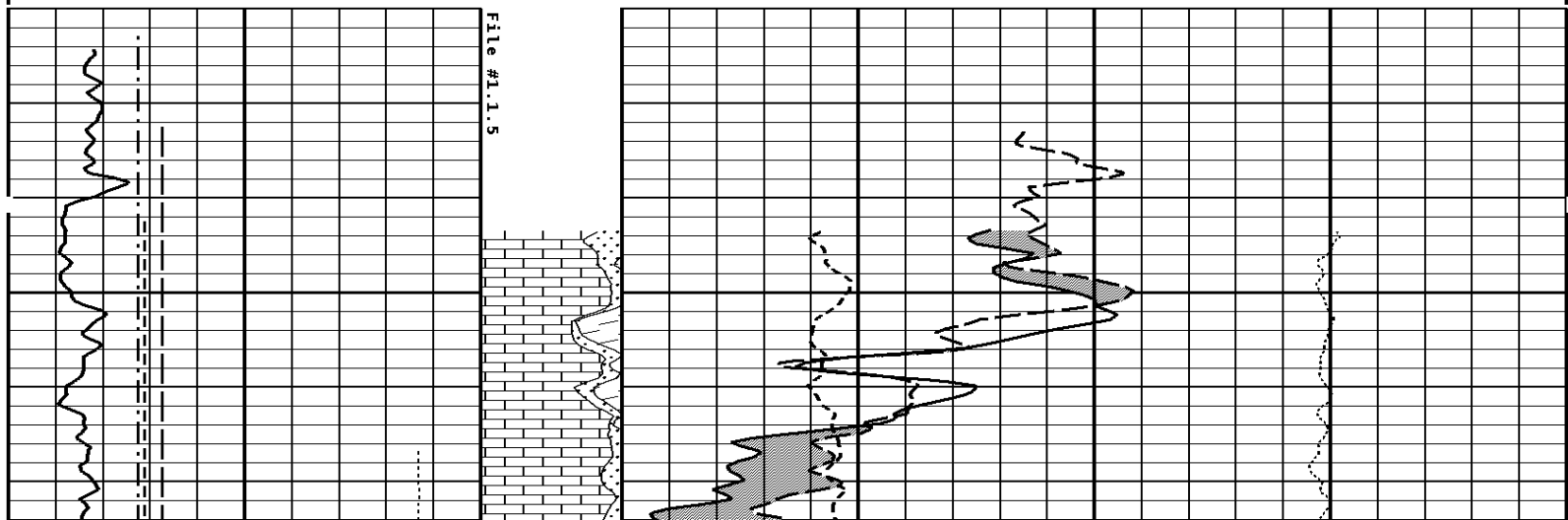
* Borehole Zone Factors *

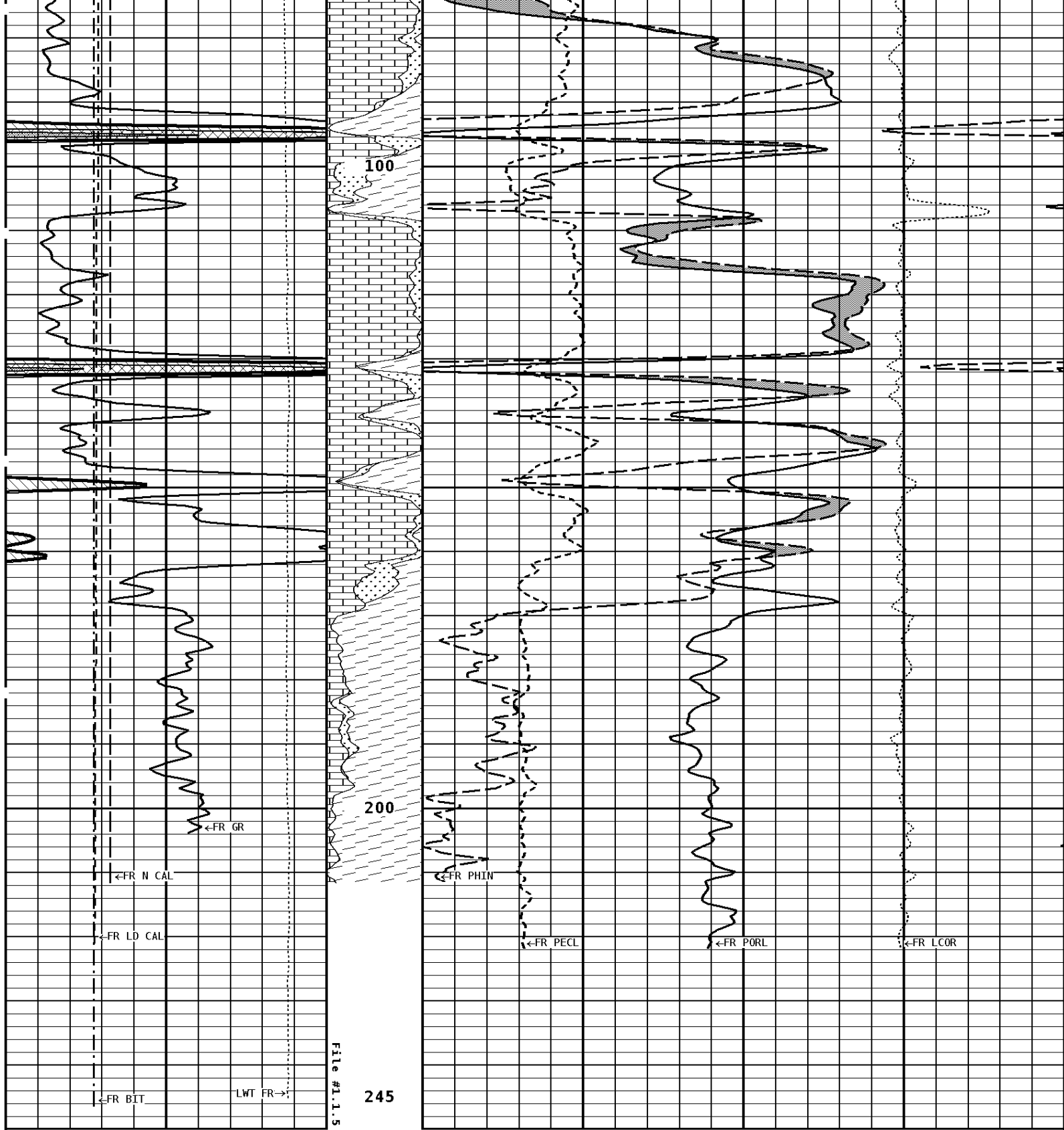
Zone 1 99999.0 to 0.0 Feet	
Matrix Density _____	2.71 g/cc
Fluid Density _____	1.00 g/cc
Formation Matrix _____	Limestone
Drill Bit Size _____	6.750 in
Casing Diameter _____	4.500 in
Casing Correction (PHI N) _____	Disable

Well File: RUN DIC 10-22B-3 APR 19 STK	Scale: 1:240
Segment: V1.D1.S5 REPEAT	Acquired: 2012-04/19 13:42 3.2.0-10367
Reference: 0	Processed: 2012-04/19 13:59 3.2.0-10367

TENSION LBS			
10000	0		
BIT SIZE INCHES (IN)			
4	14		
DENSITY (X) CALIPER INCHES (IN)		Volume Quartz	PE CROSS-SECTION BARNs/ELECTRON
14	24		0 10 -0.25 0.25
4	14		
NEUTRON (Y) CALIPER INCHES (IN)		Volume Calcite	NEUTRON POROSITY PERCENT (LIMESTONE MATRIX)
14	24		70 30 -10 -50
4	14		
GAMMA RAY API UNITS		Volume Dolo/Shale	DENSITY POROSITY PERCENT (2.71 g/cc)
200	400		70 30 -10 -50
0	200		

1:240 REPEAT SECTION





1:240 REPEAT SECTION

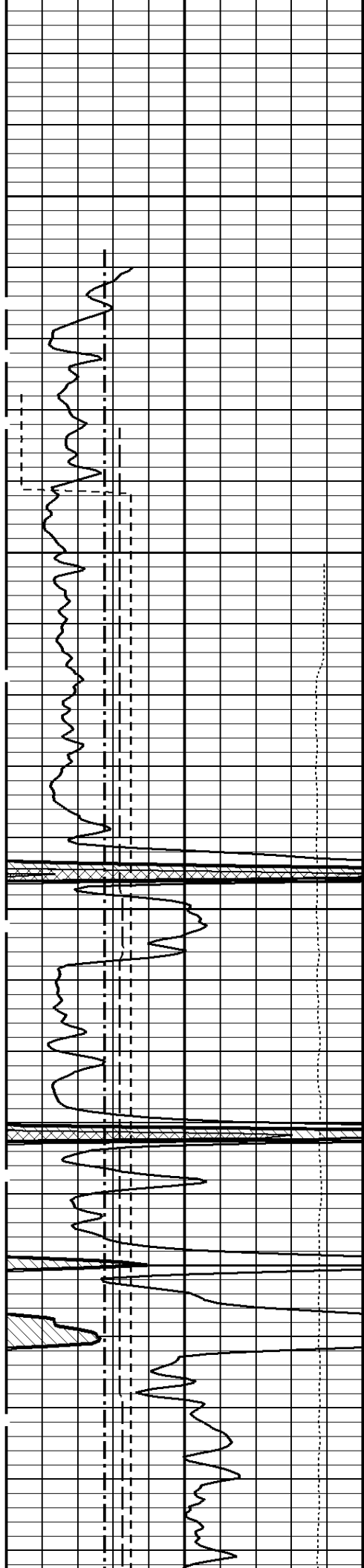
GAMMA RAY API UNITS 200 0 400 200	Volume Dolo/Shale 70 30 -10	DENSITY POROSITY PERCENT (2.71 g/cc) 30 -10 -50
NEUTRON (Y) CALIPER INCHES (IN)	Volume Calcite	NEUTRON POROSITY PERCENT (LIMESTONE MATRIX)

*** 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_____			6.750	in
Casing Diameter_____			4.500	in
Casing Correction (PHI N)_____			Disable	

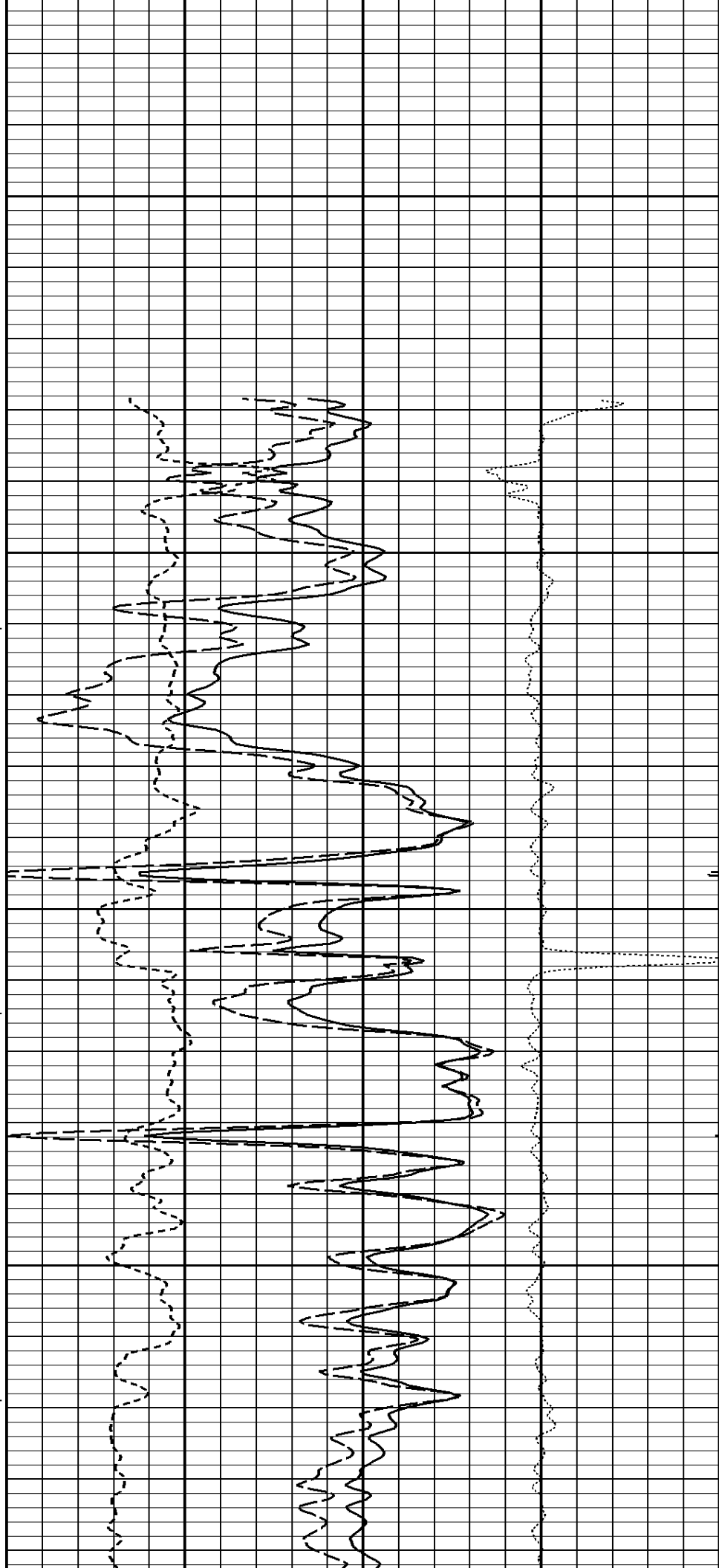
TENSION LBS			
10000	0		
BIT SIZE INCHES (IN)			
4	14		
DENSITY (X) CALIPER INCHES (IN)		PE CROSS-SECTION BARNs/ELECTRON	DENSITY CORRECTION G/CC
14	24	0	10
4	14	-0.25	0.25
NEUTRON (Y) CALIPER INCHES (IN)		DENSITY POROSITY PERCENT (2.71 g/cc)	
14	24	70	30
4	14	30	-10
		-10	-50
GAMMA RAY API UNITS		COMPENSATED BULK DENSITY G/CC	
200	400	3.0	4.0
0	200	2.0	3.0
		1.0	2.0

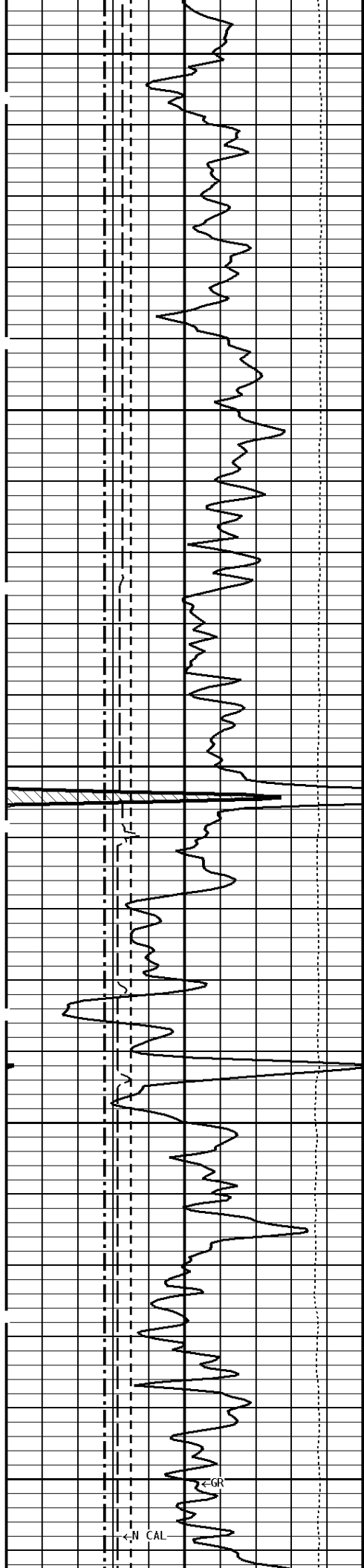
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100



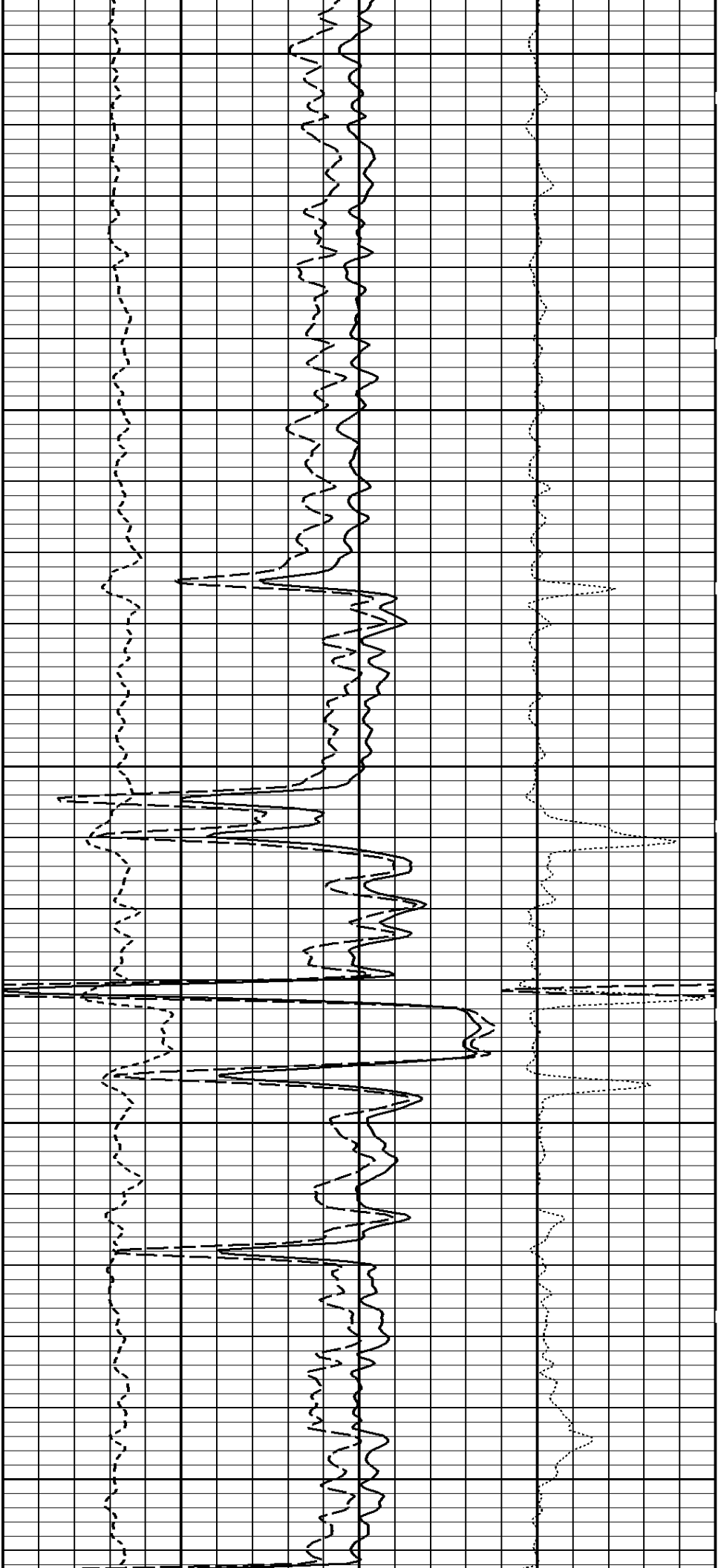


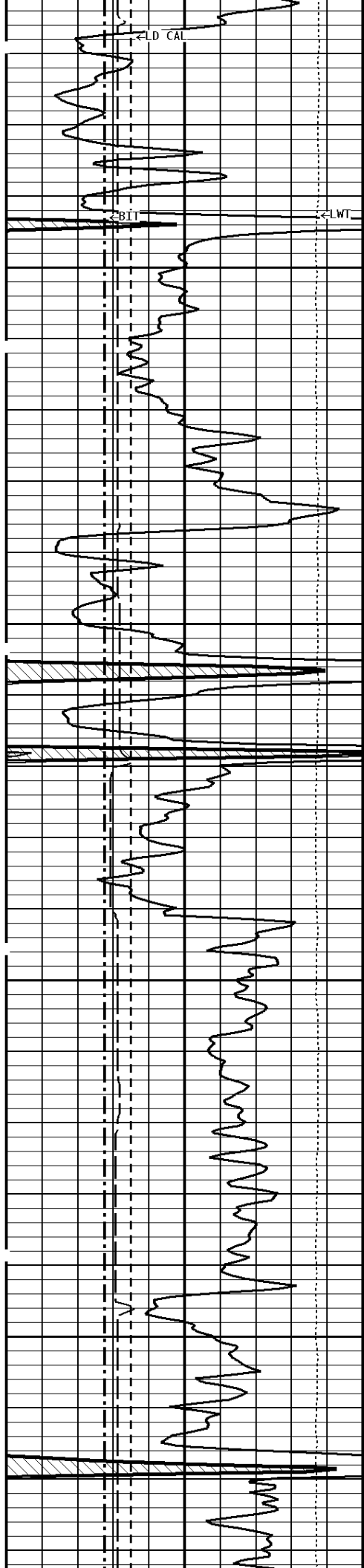
200
--200Cu.Ft

300

100Cu.Ft--

400

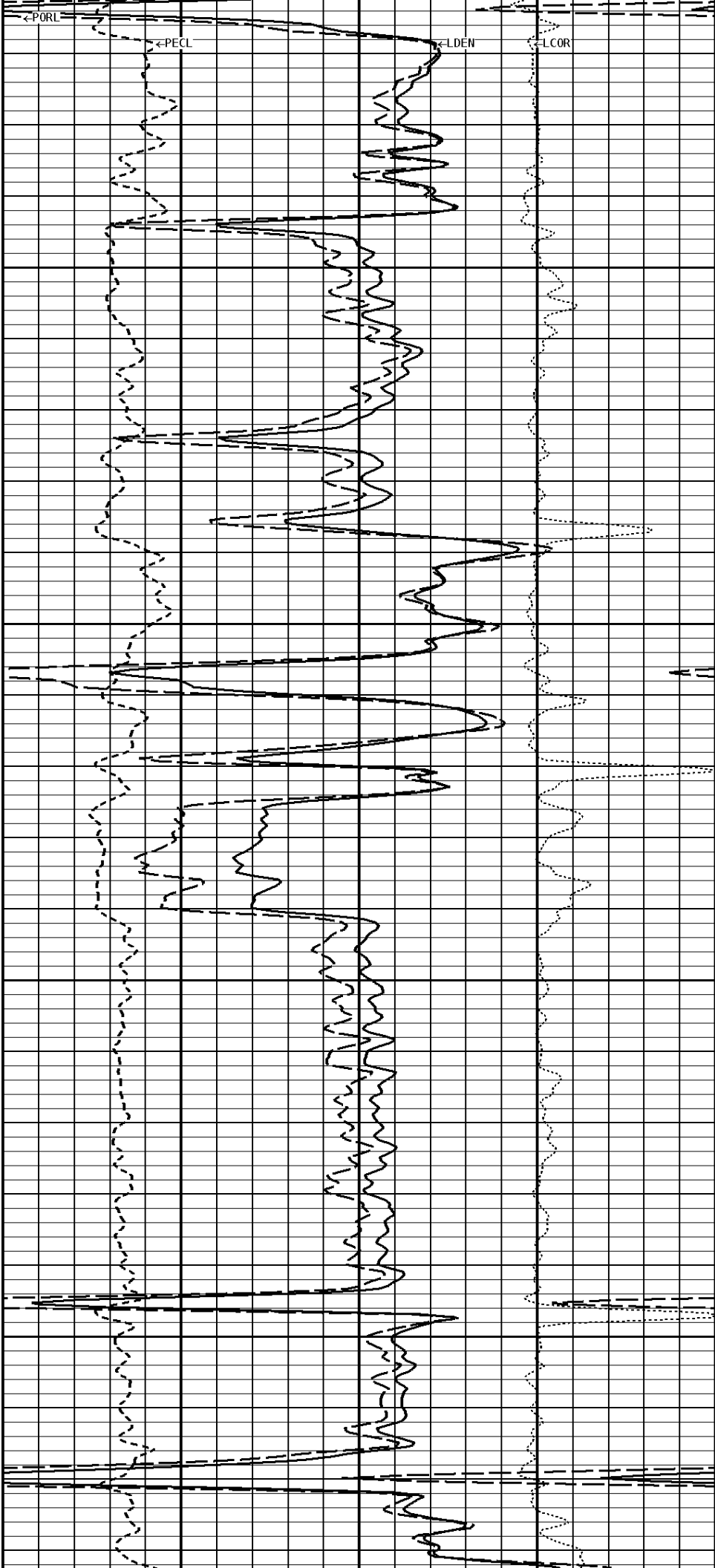


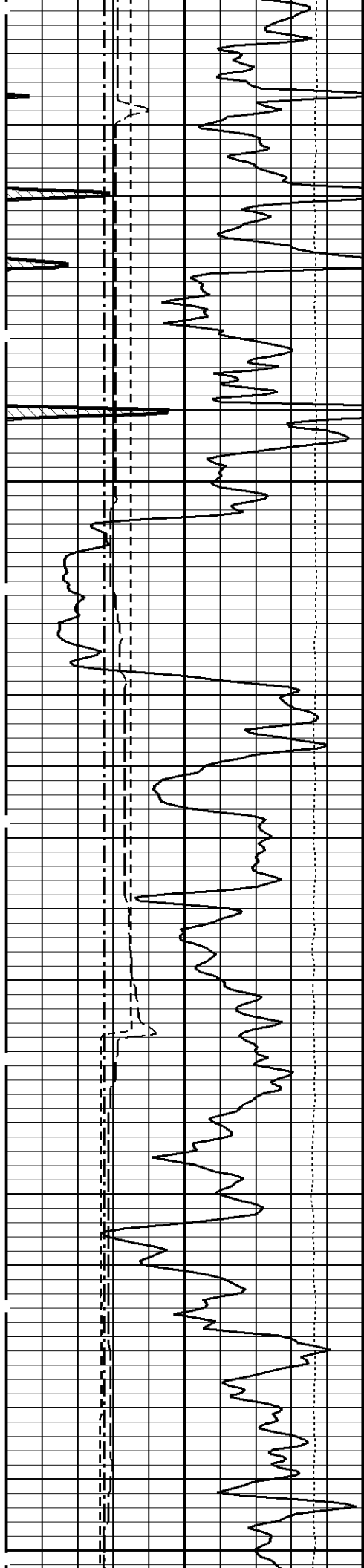


500

--100Cu.Ft

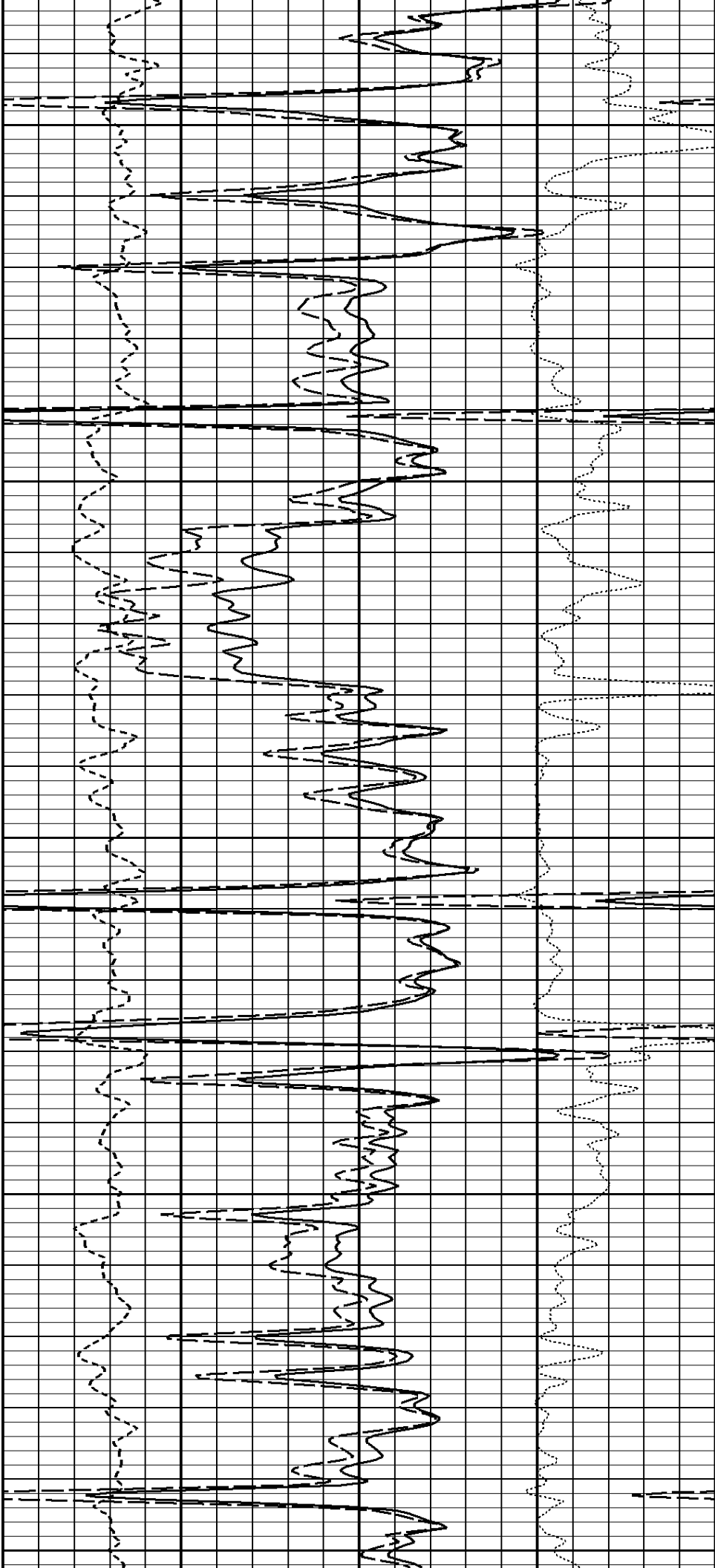
600

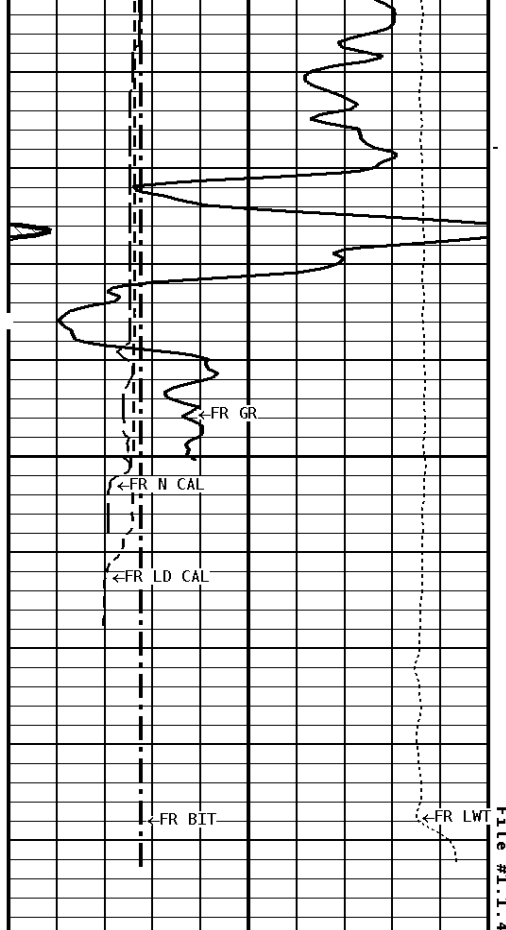




700

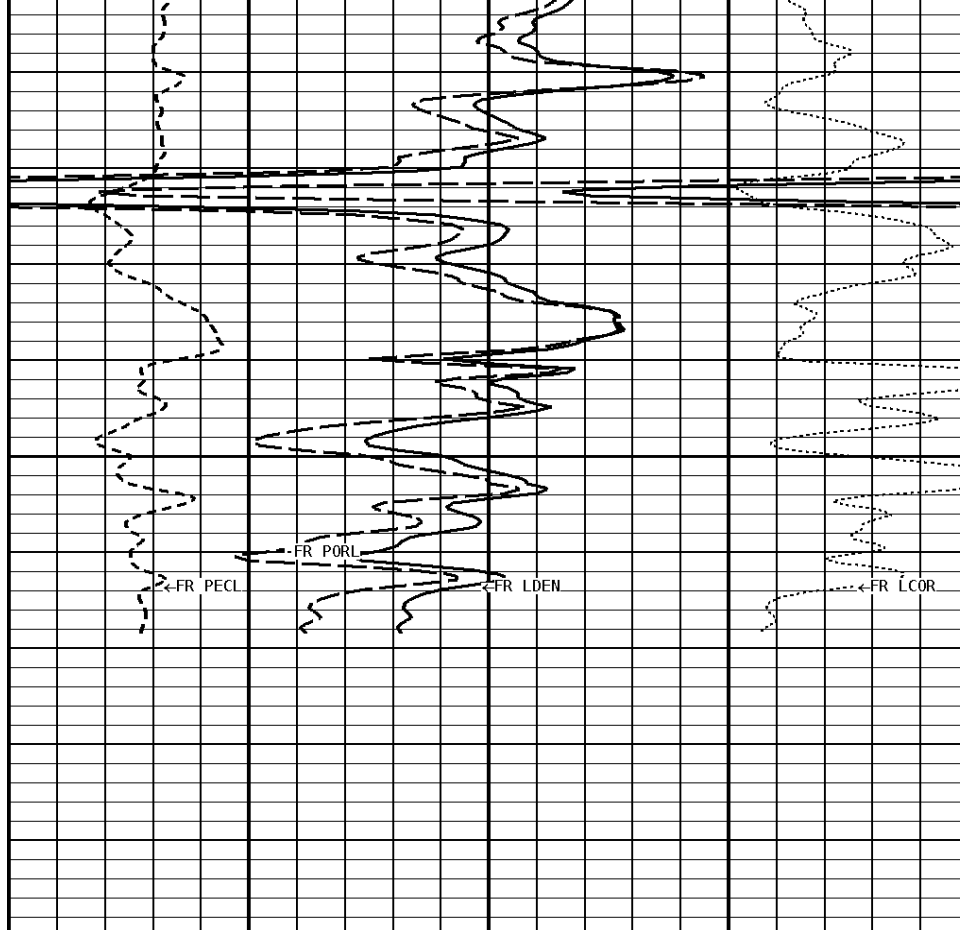
800





900

938



1:240 MAIN SECTION BULK DENSITY

GAMMA RAY API UNITS 200 0 400 200		COMPENSATED BULK DENSITY G/CC 3.0 2.0 1.0 4.0 3.0 2.0	
NEUTRON (Y) CALIPER INCHES (IN) 14 4 24 14		DENSITY POROSITY PERCENT (2.71 g/cc) 70 30 -10 30 -10 -50	
DENSITY (X) CALIPER INCHES (IN) 14 4 24 14		PE CROSS-SECTION BARN/SECTRON 0 10	DENSITY CORRECTION G/CC -0.25 0.25
BIT SIZE INCHES (IN) 4 14			
TENSION LBS 10000 0			

* 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	_____	6.750	in

*** Calibration Summary ***

Shop Calibration GRT-B					
Performed : 04-APR-2011			Time : 19:28		
Sensor Suite : GR-GR5			ID : GRT-BC-41		
	Measured	Units	Calibrated	Units	
	Background	Jig	Jig		
GR	46	346	175		GRAPI

Shop Calibration CNT-AA					
Performed : 26-Jan-2012			Time : 10:38		
Sensor Suite : CALI-BCN			ID : NDT-BD-123		
	Jig - Measured		Jig - Calibrated		Units
	Ring#1	Ring#2	Ring#1	Ring#2	
CL # 1	6.4	11.4	6.0	12.0	IN.

Performed : 10-Apr-2012			Time : 09:56		
Sensor Suite : BHC NEUT			ID : CNP-AA-024		
Source ID : N-1046					
	Tank	Verification	Units		
	Measured	Calibrated	Jig		
N/F	3.8829	3.6893	3.6889		
Porosity	23.6	20.5	20.5		%

Shop Calibration LDT-DF					
Performed : 26-OCT-2011			Time : 09:52		
Sensor Suite : CALI-LTH			ID : PDT-GA-466		
	Jig - Measured		Jig - Calibrated		Units
	Ring#1	Ring#2	Ring#1	Ring#2	
CL # 1	8.2	12.7	6.0	12.0	IN.

Performed : 25-Jan-2012			Time : 11:26		
Sensor Suite : BHCPELNG			ID : LDP-DA-067		
Source ID : 2991GW					
Short Space					
	BKGD	Al	Mg	Al+Fe	Units
LSW1	65	1156	1881	748	CPS
LSW2	71	1352	2166	967	CPS
LSW3	259	3083	4989	2607	CPS
LSW4	316	2838	4180	2501	CPS
LSW5	39	70	79	66	CPS
LSW6	73	80	78	79	CPS
LSW7	54	57	58	56	CPS
LSW8	7	9	11	9	CPS
QS	0.148	0.172	0.149	0.168	
PES			2.778	5.967	
SSDN		2.600	1.680		G/CC
Long Space					
	BKGD	Al	Mg	Al+Fe	Units
LLW1	93	1346	5490	813	CPS
LLW2	104	2407	9385	1742	CPS
LLW3	401	4286	16345	3711	CPS
LLW4	515	2008	6544	1816	CPS
LLW5	57	68	133	67	CPS
LLW6	171	164	159	169	CPS
LLW7	108	104	99	103	CPS
LLW8	3	6	18	6	CPS
QL	0.227	0.223	0.231	0.240	
PEL			2.697	5.458	
LSDN		2.600	1.680		G/CC