

Tucker

ENERGY SERVICES

COMPENSATED NEUTRON

PEL DENSITY LOG

Company RUNNING FOX PETROLEUM INC Well HILL 7-22D-1 Field OSAGE County BOURBON State KANSAS Country USA API No. 15-011-24455		File No : TUL-59792 Company : RUNNING FOX PETROLEUM INC Well : HILL 7-22D-1 Field : OSAGE County : BOURBON State : KANSAS Country : USA API No : 15-011-24455	
Location : 2145 FNL & 1640 FEL		LSD : Sect : 22 Twp : 245 Rge : 25E	
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 871.00	LDT
Date	09-09-2014		PIT
Run Number	1		
Depth--Driller	460.0	Ft	
Depth--Logger	455.0	Ft	
First Reading	432.0	Ft	
Last Reading	20.0	Ft	
Casing--Driller	20.0	Ft	
Casing--Logger	20.0	Ft	
Bit Size	6.500	In	
Casing Size	8.625	In	
Hole Fluid Type	FRESH / NATIVE		
Density	0.0		
Fluid Loss	0.0		
PH/Viscosity	0.0	0.0	
Sample Source	MEASURED		
RMF@Measured Temp.	0.900 @ 70 F		
RMF@Measured Temp	0.900 @ 70 F		
RMF@Measured Temp.	1.200 @ 70 F		
Source RMF/RMC	CALCULATED/CALCULATED		
RM@BHT	0.900 @ 0 F		
Time Circulation Stopped	09-09-2014 7:00 am		
Max Recorded Temp.	0 F		
Equipment/Base	T-126 TULSA		
Recorded By	S.K DAVIS / A. S. DIAHO		
Witnessed By	C. TAYLOR		

The customer is hereby warned that by providing the log data herein, T. E. S. does not agree to provide any interpretation of log data, conversion of log data to physical rock parameters or recommendations. T. E. 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. E. 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. E. 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)	Top (Ft)
6.500	455.00	8.625	24.00	20.00	0.00

Run Number	1	
Date	09-09-2014	
Date/Time On Bottom		
Depth to Fluid	0.0 Ft	
Salinity	0.000	
RMF@BHT	0.800 @ 0 F	
RMC@BHT	1.000 @ 0 F	

Run Number 1

Comments

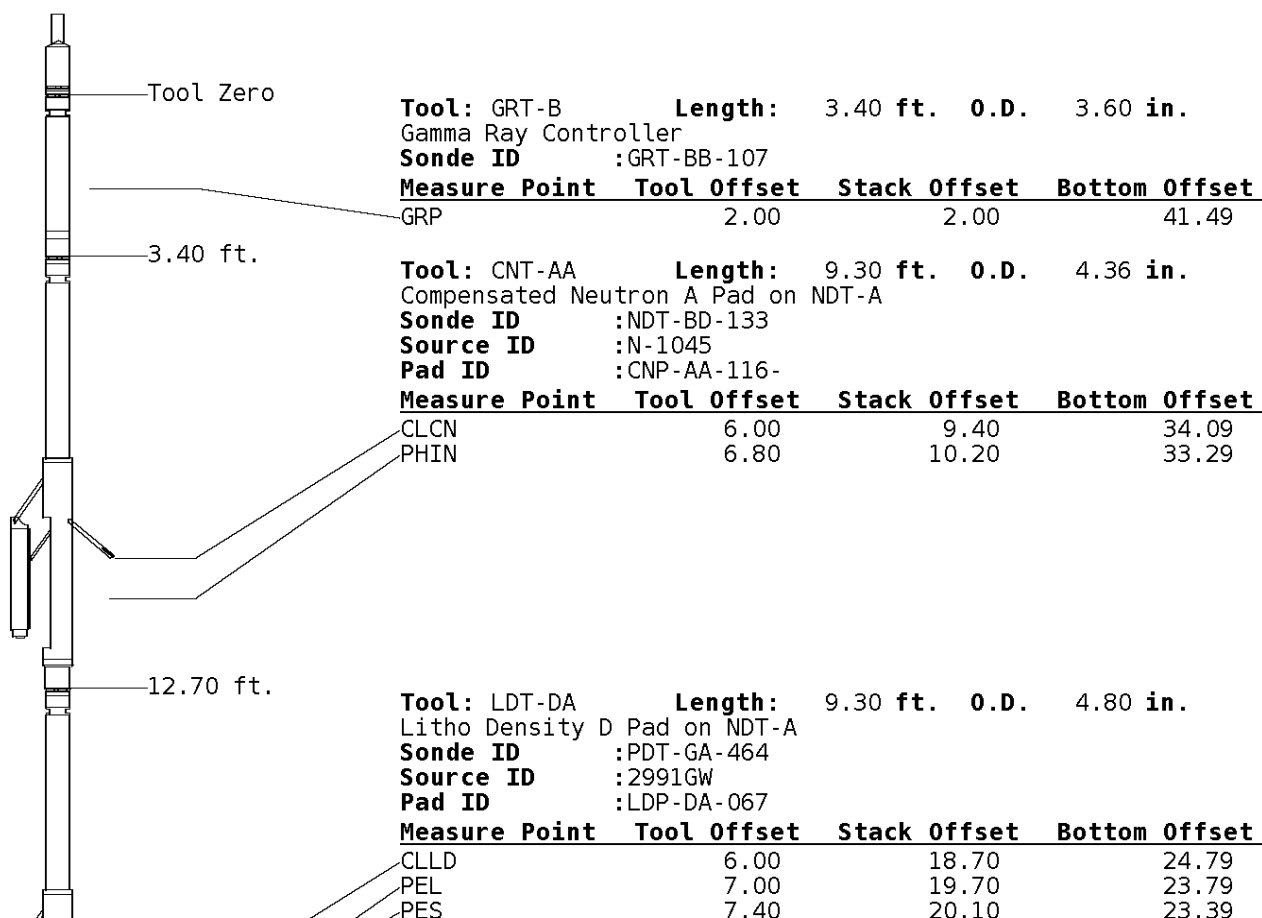
ALL PRESENTATION PER CUSTOMER REQUEST
 GRT,CNT,LDT,PIT RUN IN COMBINATION
 CALIPERS ORIENTED ON X-Y AXIS
 2.71 G/CC USED TO CALCULATE POROSITY
 ANNULAR & BOREHOLE VOLUME CALCULATED USING 2.875 PRODUCTION CASING
 PHIN IS CALIPER CORRECTED

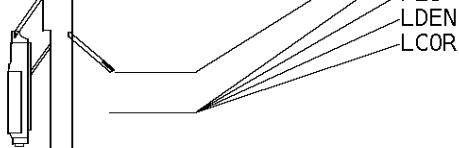
GRT; GRP
 CNT; PHIN, CLCNIN
 LDT; PORL, LCORN, PECLN, LDENN, CLLDIN
 PIT; ILD, ILM, SPU, SFLAEC, CIRD

OPERATORS;
 C. GONZALES
 J. OFFEIGBU

Tool String Schematic

Total Tool Length - 43.49 ft.
Maximum Outside diameter - 4.80 in.
Net Weight in Air - 743.00 lbs.





7.20	19.90	23.59
7.20	19.90	23.59

Tool: PIT-CA **Length:** 21.49 ft. **O.D.** 3.62 in.
 Phased Dual Induction w/ RM & D
Sonde ID :PIT-AB-005

Measure Point	Tool Offset	Stack Offset	Bottom Offset
ILD	8.92	30.92	12.56
ILM	10.10	32.10	11.39
SFLU	17.49	39.49	4.00
SP	20.60	42.60	0.88

LWT ————— 43.49 ft.

Well File: rfp-hill-7-22d-1-stk-sept-9	Scale: 1:240	Format: NLD-240
Segment: V1.D1.S5 MN	Acquired: 2014-09/09 09:33 3.3.0-12594	
Reference: 0	Processed: 2014-09/09 09:52 3.3.0-12594	

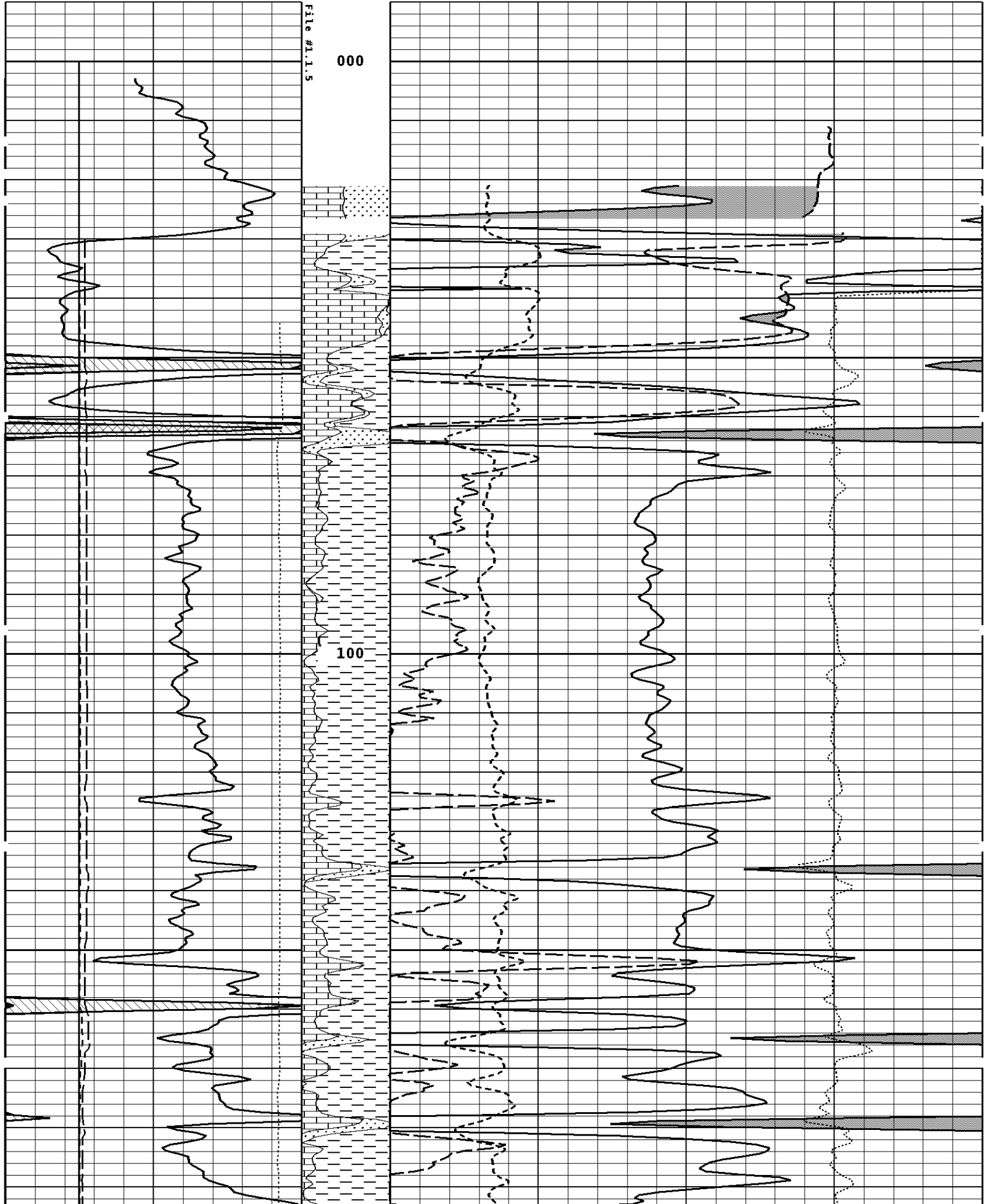
BIT SIZE INCHES (IN) 4 14			
NEUTRON (Y) CALIPER INCHES (IN) 14 24 4 14			
DENSITY (X) CALIPER INCHES (IN) 14 24 4 14		Volume Quartz 0 10	PE CROSS-SECTION BARNs/ELECTRON -0.25 0.25
TENSION LBS 10000 0		Volume Calcite 70 30 -10	DENSITY POROSITY (2.71g/cc) PERCENT 30 -10 -50
GAMMA RAY API UNITS 200 400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

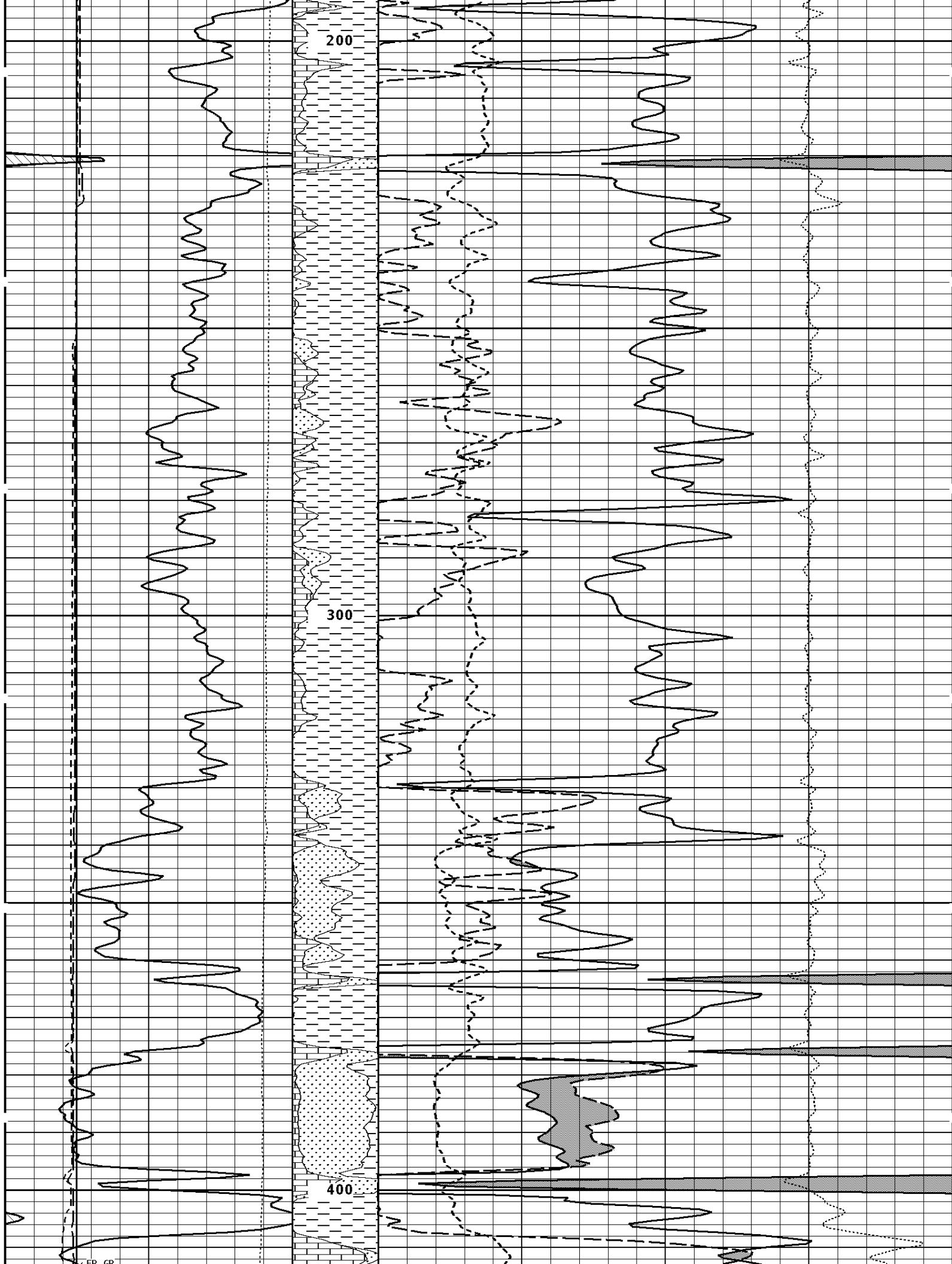
1:240 MAIN SECTION

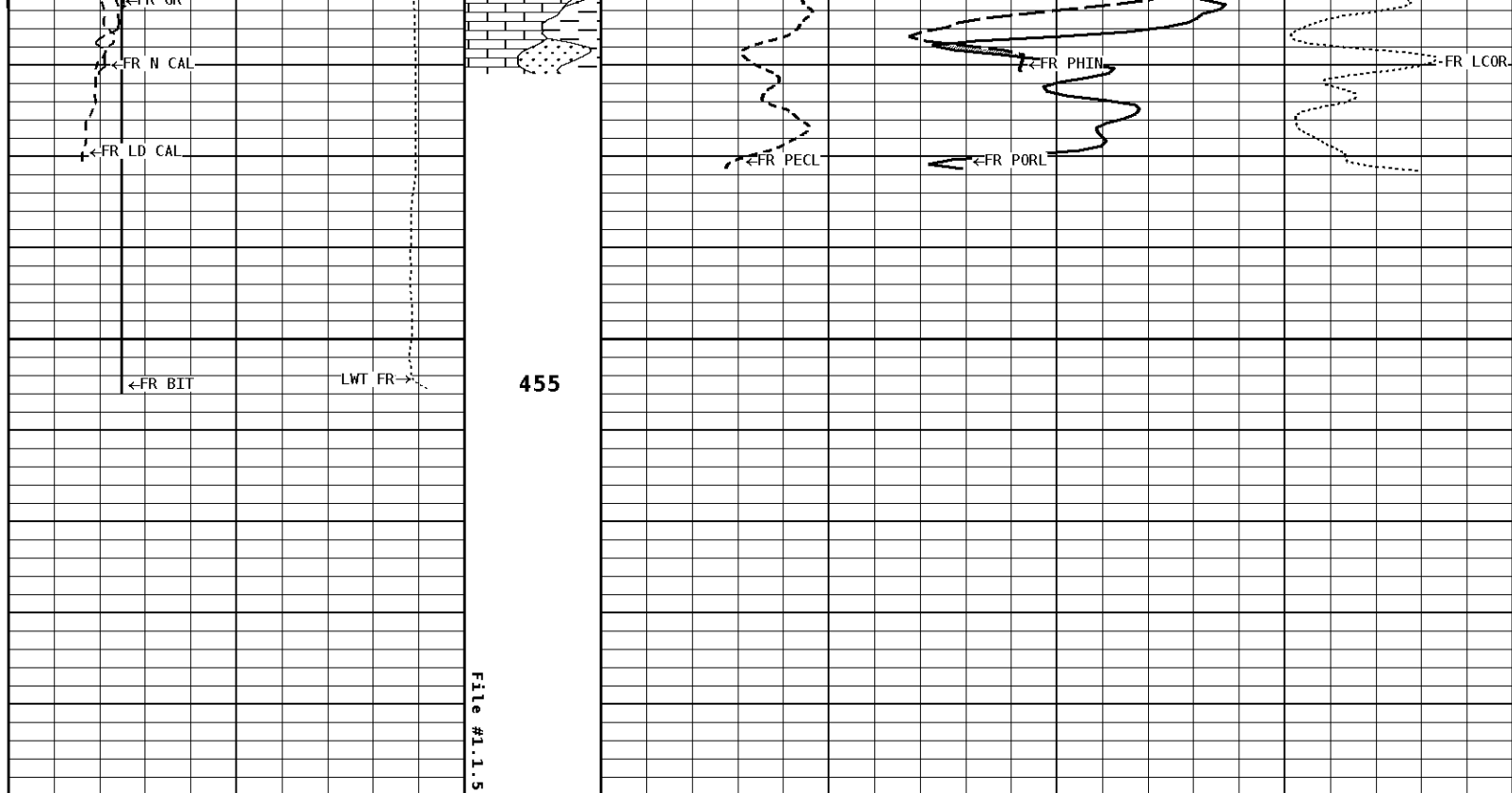
File #1.1.5

000

100







1:240 MAIN SECTION

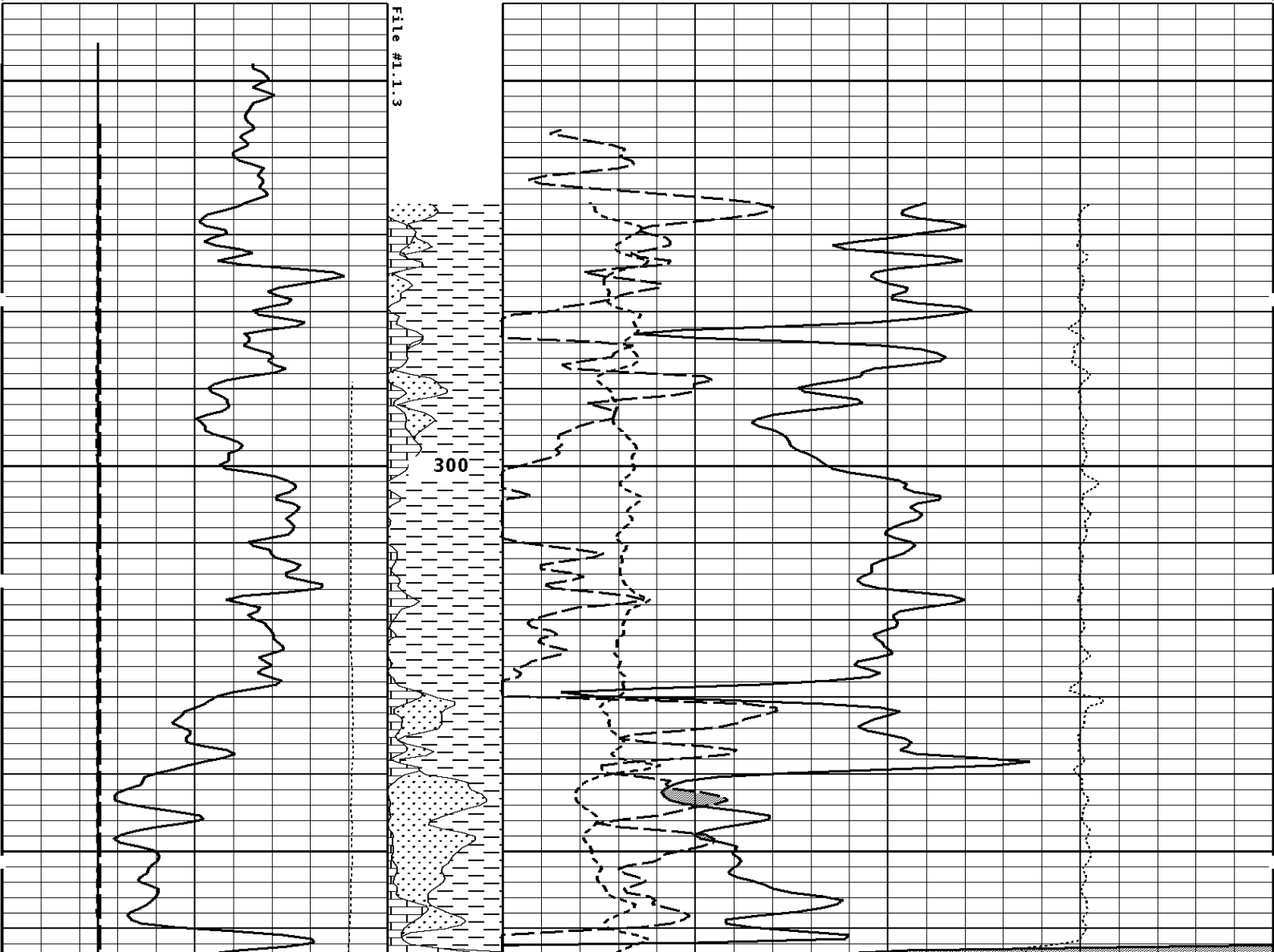
GAMMA RAY API UNITS		Volume Dolo/Shale	NEUTRON POROSITY (LIMESTONE) PERCENT	
200	400		30	-10
0	200			
TENSION LBS		Volume Calcite	DENSITY POROSITY (2.71g/cc) PERCENT	
10000	0		70	30
			30	-10
			-10	-50
DENSITY (X) CALIPER INCHES (IN)		Volume Quartz	PE CROSS-SECTION BARN/ ELECTRON	DENSITY CORRECTION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

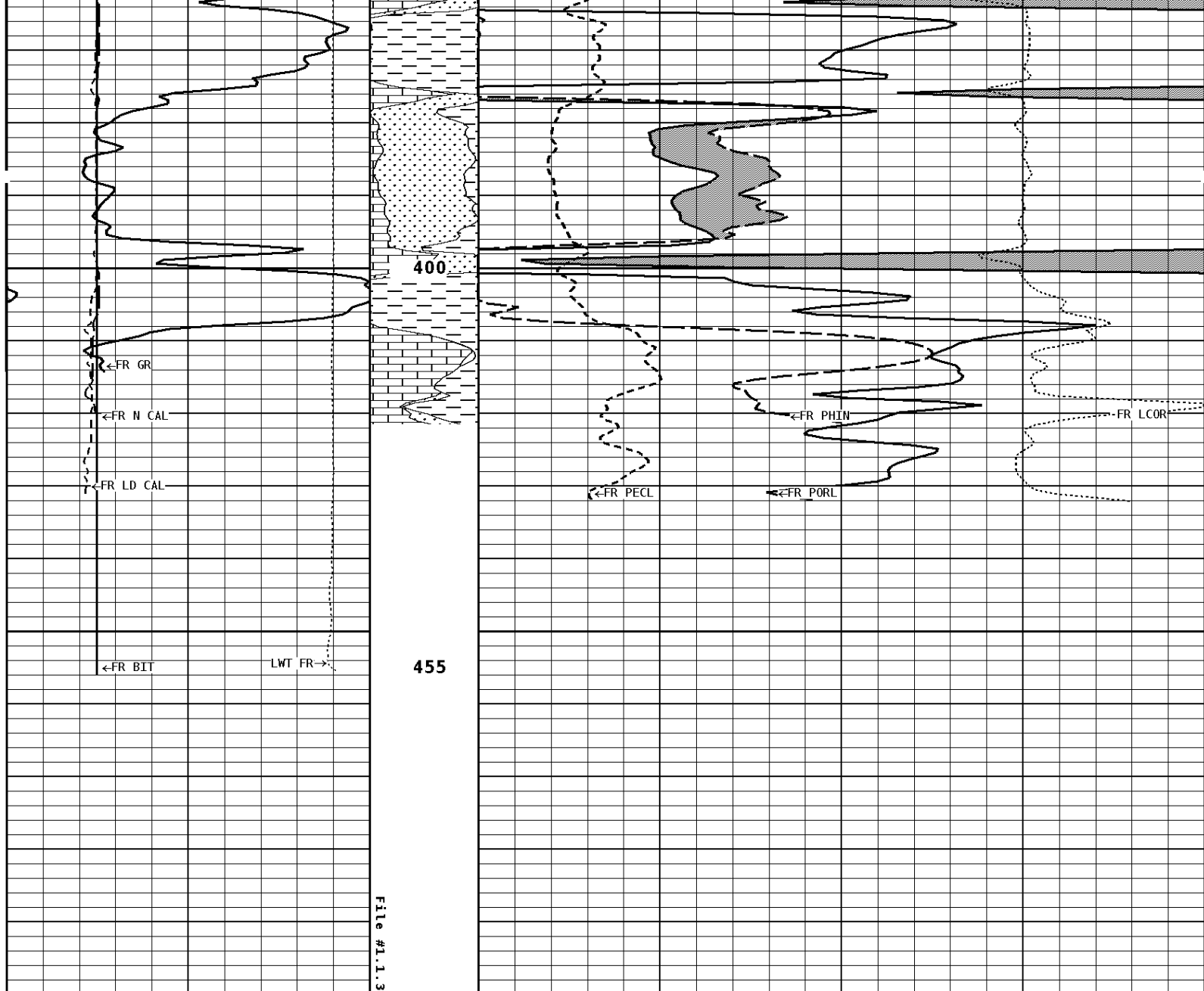
* Borehole Zone Factors *

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		6.500 in
Casing Diameter		2.875 in
Casing Thickness		0.250 in
Casing Correction (PHI N)		Disable

BIT SIZE INCHES (IN)					
4	14				
NEUTRON (Y) CALIPER INCHES (IN)					
14	24				
4	14				
DENSITY (X) CALIPER INCHES (IN)		Volume Quartz	PE CROSS-SECTION BARNs/ELECTRON	DENSITY CORRECTION G/CC	
14	24				
4	14		0	10	-0.25
					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		
200	400				
0	200		30		-10

1:240 REPEAT SECTION





1:240 REPEAT SECTION

GAMMA RAY API UNITS 200 400	Volume Dolo/Shale 30 -10	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) 14 4 24 14	Volume Quartz 0 10	PE CROSS-SECTION BARNS/ELECTRON 10	DENSITY CORRECTION G/CC -0.25 0.25
NEUTRON (Y) CALIPER INCHES (IN) 14 4 24 14			
BIT SIZE INCHES (IN)			

* 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	6.500	in
Casing Diameter	2.875	in
Casing Thickness	0.250	in
Casing Correction (PHI N)	Disable	

Well File: rfp-hill-7-22d-1-stk-sept-9

Segment: V1.D1.S5 MN

Reference: 0

Scale: 1:240

Format: LDT-240

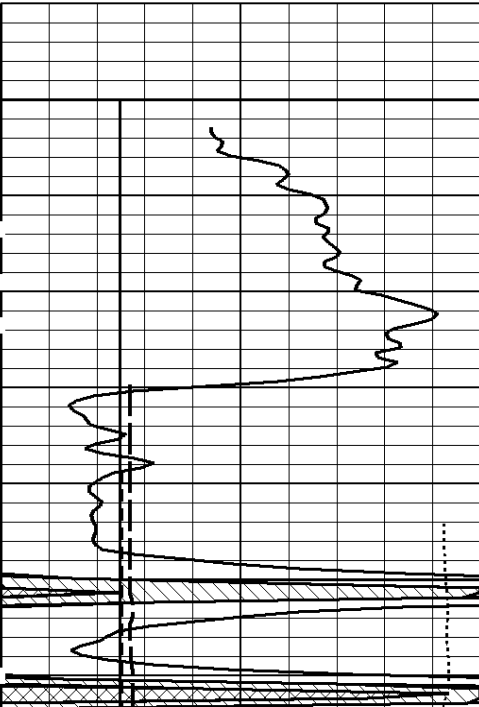
Acquired: 2014-09/09 09:33 3.3.0-12594

Processed: 2014-09/09 09:52 3.3.0-12594

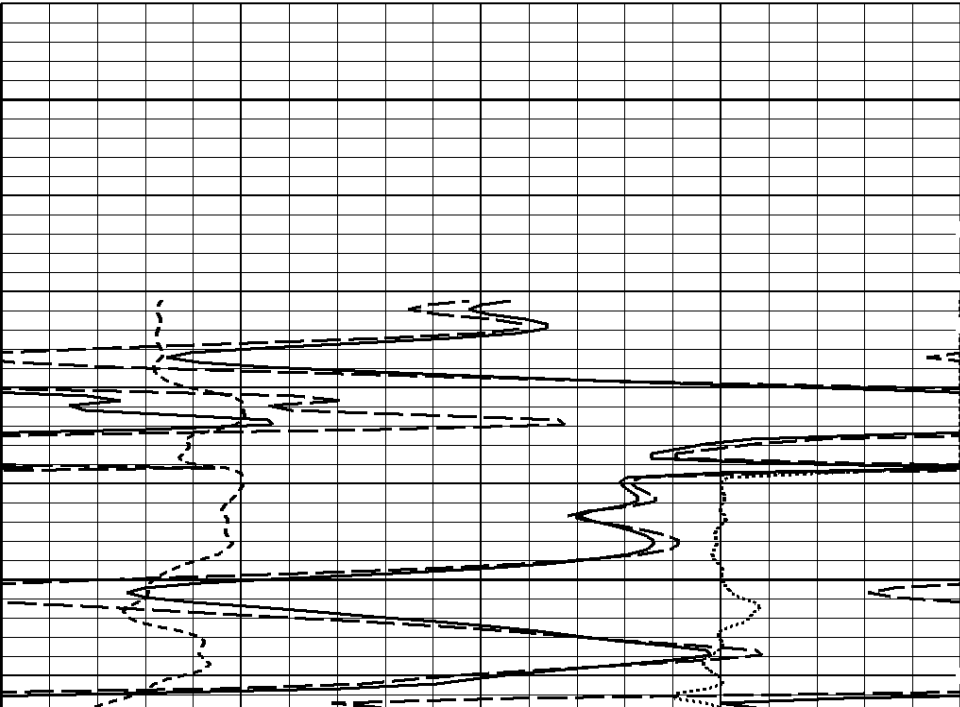
BIT SIZE INCHES (IN)	
4	14
NEUTRON (Y) CALIPER INCHES (IN)	
14	24
4	14
DENSITY (X) CALIPER INCHES (IN)	
14	24
4	14
TENSION LBS	
10000	0
GAMMA RAY API UNITS	
200	400
0	200

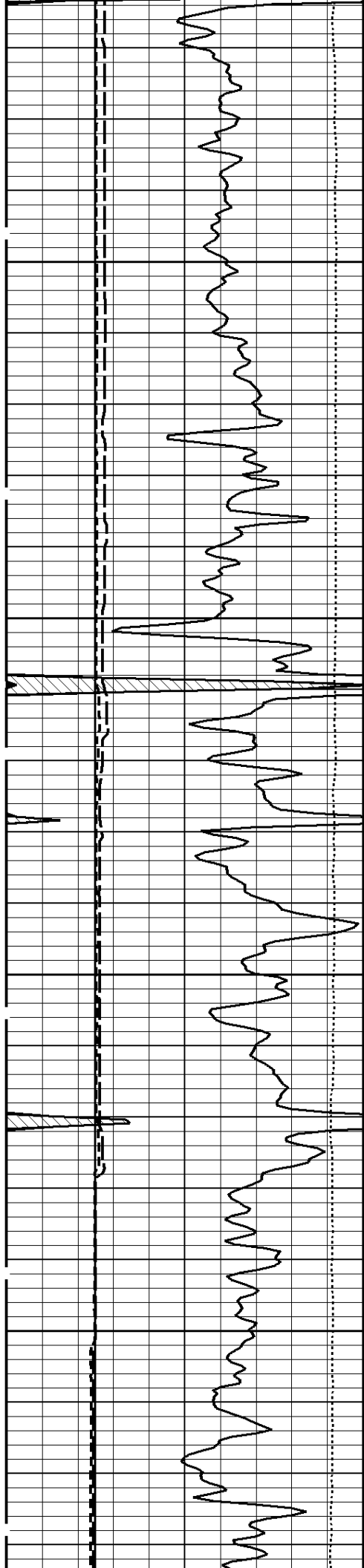
PE CROSS-SECTION BARNS/ELECTRON		DENSITY CORRECTION G/CC	
0	10	-0.25	0.25
COMPENSATED BULK DENSITY G/CC			
3.0			4.0
2.0			3.0
1.0			2.0
DENSITY POROSITY (2.71g/cc) PERCENT			
70			30
30			-10
-10			-50

1:240 MAIN SECTION
BULK DENSITY



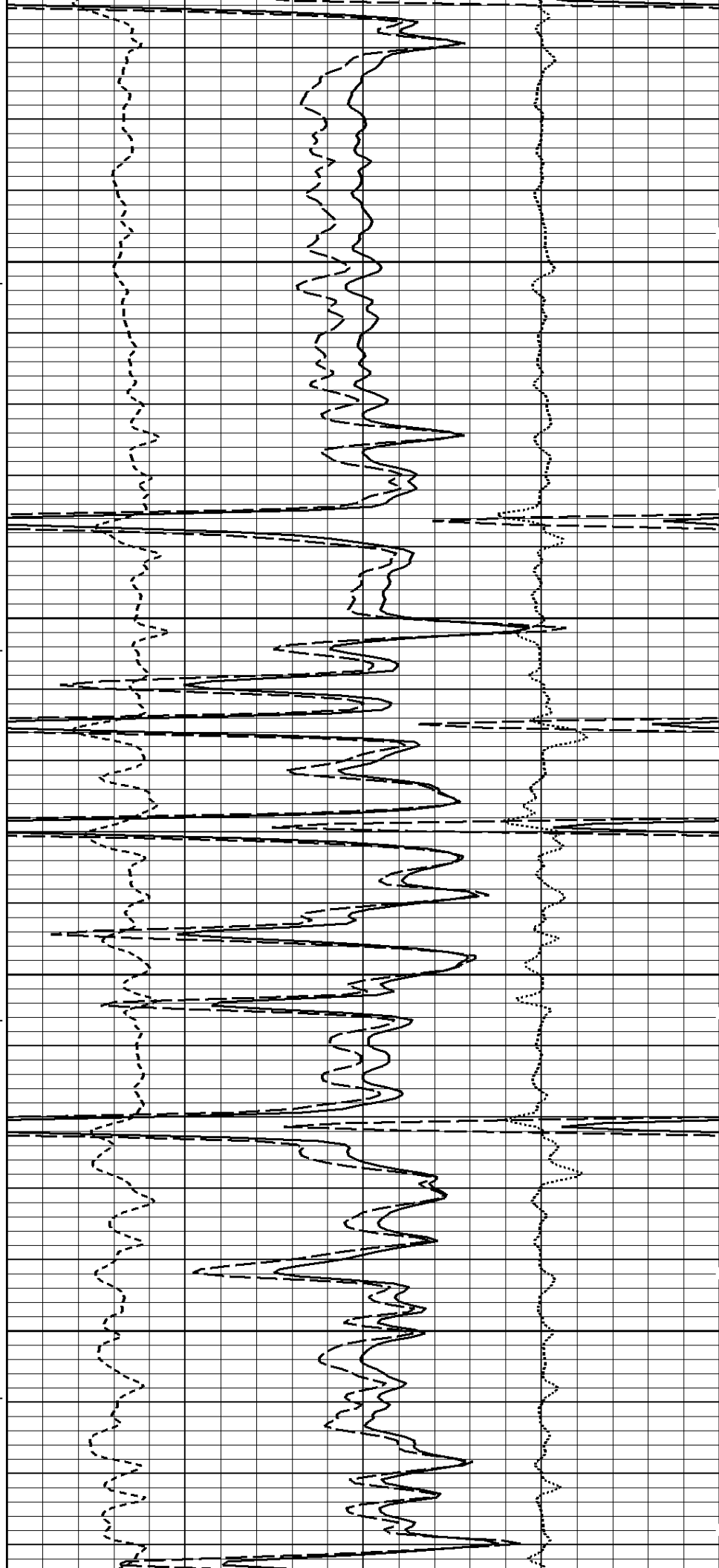
000

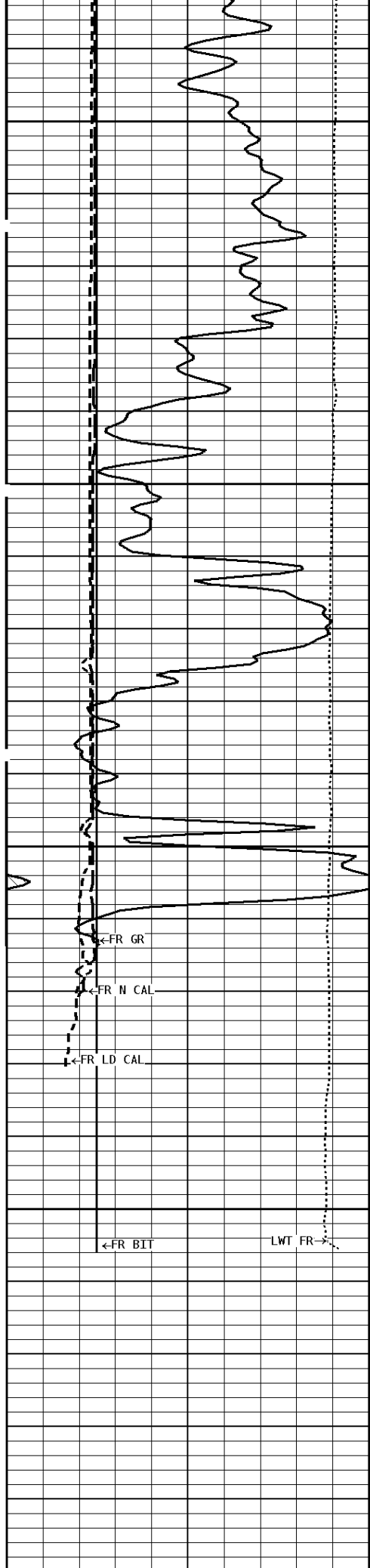




100

200

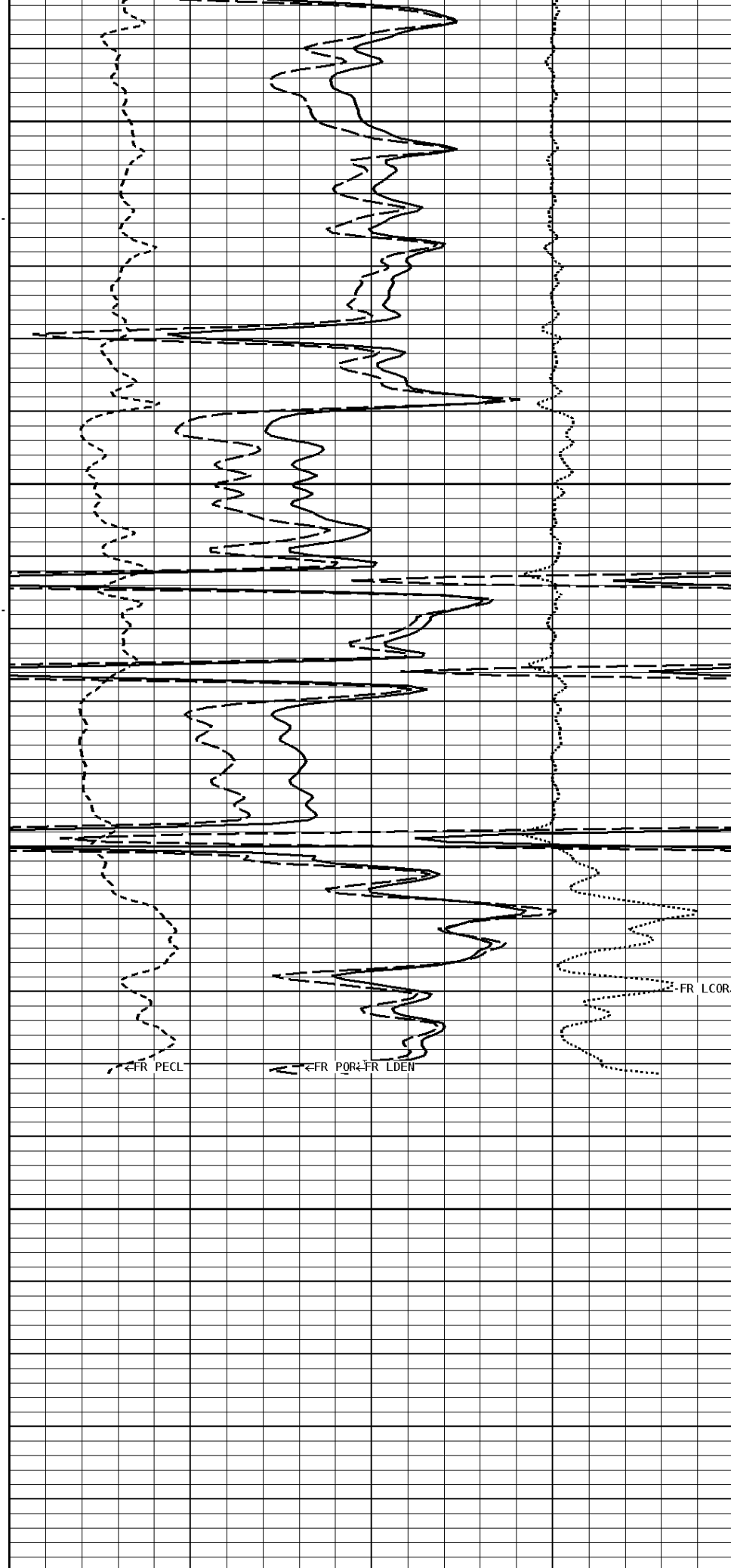




300

400

455



1:240 MATN SECTION

TYPE II CORE SECTION

BULK DENSITY

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

NEUTRON (Y) CALIPER INCHES (IN)				
14	24			
4	14			

BIT SIZE INCHES (IN)				
4	14			

* 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				6.500	in
Casing Diameter				2.875	in
Casing Correction (PHI N)				Disable	

* Calibration Summary *

Shop Calibration GRT-B					
Performed : 21-APR-2014			Time : 11:21		
Sensor Suite : GR-GR5			ID : GRT-BB-107		
	Measured	Units	Calibrated	Units	
GR	Background	Jig	Jig		
	75	381	175	GRAPI	
Shop Calibration CNT-AA					
Performed : 26-AUG-2014			Time : 09:27		
Sensor Suite : CALI-BCN			ID : NDT-BD-133		
	Jig - Measured		Jig - Calibrated	Units	
	Ring#1 Ring#2		Ring#1 Ring#2		
CL # 1	9.5 14.0		6.0 12.0	IN.	
Shop Calibration CNP-AA					
Performed : 26-Aug-2014			Time : 10:54		
Sensor Suite : BHC NEUT			ID : CNP-AA-116-		
Source ID : N-1045					
	Tank		Verification	Units	
	Measured	Calibrated	Jig		
N/F	3.8316	3.6893	3.6896		
Porosity	22.7	20.5	20.5	%	
Shop Calibration LDT-DA					
Performed : 04-Sep-2014			Time : 10:46		
Sensor Suite : CALI-LTH			ID : PDT-GA-464		
	Jig - Measured		Jig - Calibrated	Units	
	Ring#1 Ring#2		Ring#1 Ring#2		
CL # 1	9.5 14.0		6.0 12.0	IN.	

CL #1	7.9	11.4	6.0	12.0	IN.
Performed : 04-Sep-2014 Time : 09:56 Sensor Suite : BHCPELNG ID : LDP-DA-067 Source ID : 2991GW					
Short Space					
	BKGD	Al	Mg	Al+Fe	Units
LSW1	61	1040	1699	685	CPS
LSW2	68	1208	1928	882	CPS
LSW3	243	2774	4473	2360	CPS
LSW4	295	2581	3779	2259	CPS
LSW5	44	74	79	70	CPS
LSW6	59	66	65	67	CPS
LSW7	47	51	50	51	CPS
LSW8	12	15	16	14	CPS
QS	0.110	0.129	0.127	0.136	
PES			2.778	5.967	
SSDN		2.600	1.680		G/CC
Long Space					
	BKGD	Al	Mg	Al+Fe	Units
LLW1	89	1220	5044	739	CPS
LLW2	101	2072	8185	1525	CPS
LLW3	376	3785	14530	3279	CPS
LLW4	481	1808	5784	1633	CPS
LLW5	53	62	111	58	CPS
LLW6	161	156	150	157	CPS
LLW7	100	99	94	98	CPS
LLW8	3	6	15	5	CPS
QL	0.232	0.226	0.231	0.232	
PEL			2.697	5.458	
LSDN		2.600	1.680		G/CC



Company: RUNNING FOX PETROLEUM INC
 Well: HILL 7-22D-1
 Location: 2145 FNL & 1640 FEL
 Logged: 09-09-2014
 K.B. Elev: 0.0 Ft