

Tucker
ENERGY SERVICES

COMPENSATED NEUTRON

PEL DENSITY LOG

Company		RUNNING FOXES PETROLEUM		N	
Well		HILL #2-22A-3			
Field		OSAGE			
County		BOURBON			
State		KANSAS			
Country		USA			
API No.		15-011-24454			
File No		TUL-59784			
Company		RUNNING FOXES PETROLEUM INC.			
Well		HILL #2-22A-3			
Field		OSAGE			
County		BOURBON			
State		KANSAS			
Country		USA			
API No		15-011-24454			
Location		495' FNL & 1970' FEL SW NE NW NE			
LSD :		Sect : 22		Twp : 24S Rge : 25E	
Permanent Datum:		GL		Elevations:	
Drilling Measured From:		GL		KB 0.00	
Log Measured From:		GL		DF 0.00	
Above Permanent Datum:		0.00 Ft		GL 871.00	
Date		08-22-2014			
Run Number		1			
Depth--Driller		440.0 Ft			
Depth--Logger		432.0 Ft			
First Reading		419.0 Ft			
Last Reading		20.0 Ft			
Casing--Driller		20.0 Ft			
Casing--Logger		20.0 Ft			
Bit Size		6.250 In			
Casing Size		8.625 In			
Hole Fluid Type		FRESH / NATIVE			
Density		0.0			
Fluid Loss		0.0			
PH/Viscosity		0.0			
Sample Source		MEASURED			
RMF@Measured Temp.		1.300 @ 80 F			
RMF@Measured Temp		1.100 @ 80 F			
RMC@Measured Temp.		1.500 @ 80 F			
Source RMF/RMC		CALCULATED/CALCULATED			
RM@BHT		1.200 @ 80 F			
Time Circulation Stopped					
Max Recorded Temp.		80 F			
Equipment/Base		T-126 TULSA			
Recorded By		S.K. DAVIS			
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)
6.250	432.00	8.625	24.00	20.00	0.00

Run Number	1	
Date	08-22-2014	
Date/Time On Bottom	08-22-2014 9:45 am	
Depth to Fluid	0.0 Ft	
Salinity	0.000	
RMF@BHT	1.000 @ 80 F	
RMC@BHT	1.300 @ 80 F	

Run Number 1

Comments

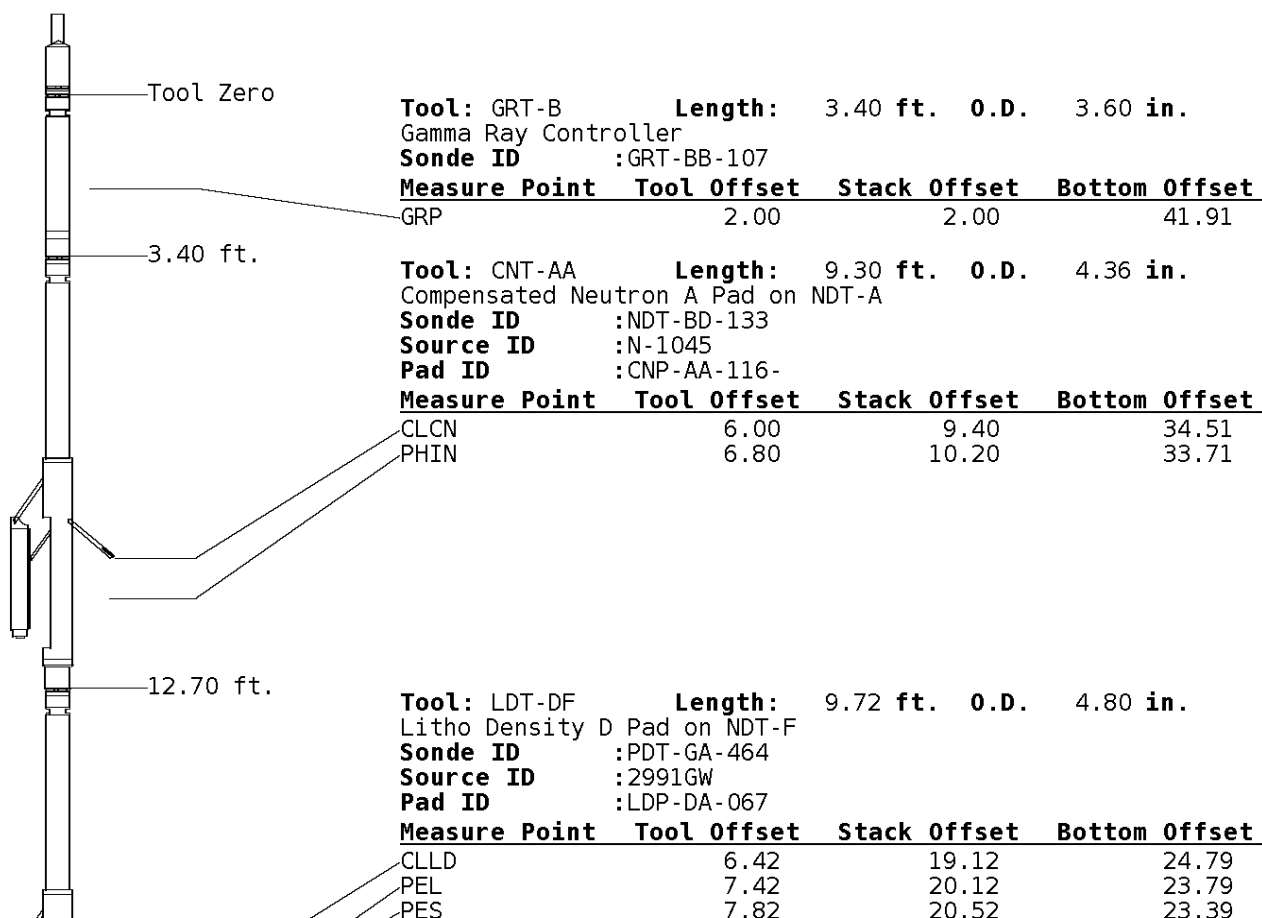
ALL PRESENTATION PER CUSTOMER REQUEST
 GRT,CNT,LDT,PIT RUN IN COMBINATION
 CALIPERS ORIENTED ON X-Y AXIS
 2.71 G/CC USED TO CALCULATE POROSITY
 ANNULAR & BOREHOLE VOLUME CALCULATED USING 2.875 PRODUCTION CASING
 PHIN IS CALIPER CORRECTED

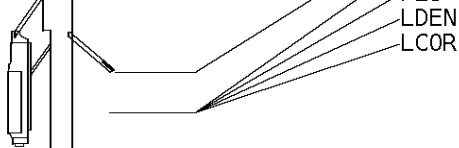
GRT; GRP
 CNT; PHIN, CLCNIN
 LDT; PORL, LCORN, PECLN, LDENN, CLLDIN
 PIT; ILD, ILM, SPU, SFLAEC, CIRD

OPERATORS;
 D. DUNCAN
 C. GONZALES
 J. THOMAS

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

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	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: rfp-hill-2-22a-3-stk-aug-22

Scale: 1:240 **Format:** NLD-240

Segment: V1.D1.S5 MN

Acquired: 2014-08/22 09:46 3.3.0-12594

Reference: 0

Processed: 2014-08/22 10:05 3.3.0-12594

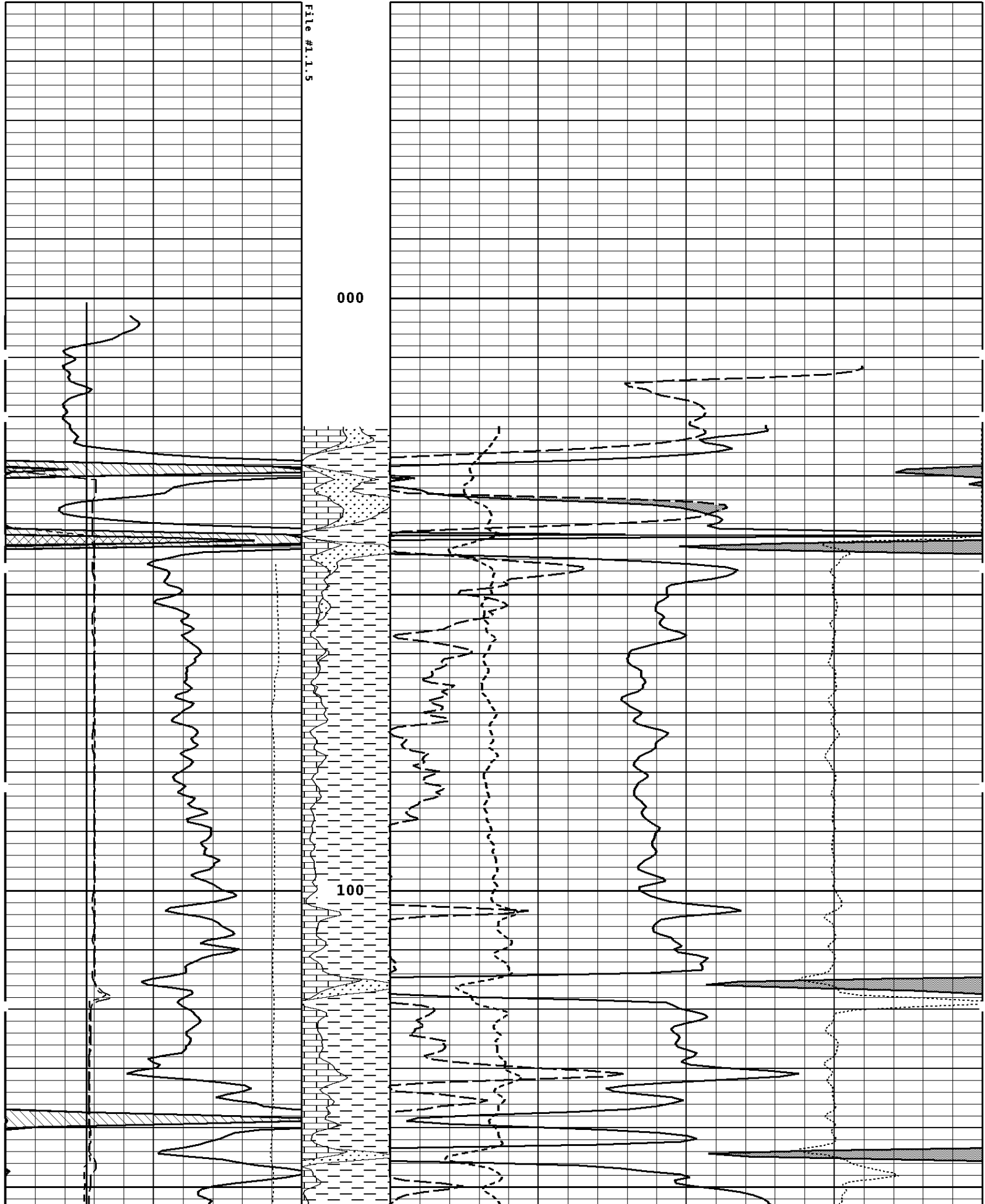
BIT SIZE INCHES (IN) 4 14			
NEUTRON (Y) CALIPER INCHES (IN) 14 24 4 14			
DENSITY (X) CALIPER INCHES (IN) 14 24 4 14		Volume Quartz 0 10	PE CROSS-SECTION BARNs/ELECTRON -0.25 0.25
TENSION LBS 10000 0		Volume Calcite 70 30 -10	DENSITY POROSITY (2.71g/cc) PERCENT 30 -10 -50
GAMMA RAY API UNITS 200 400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

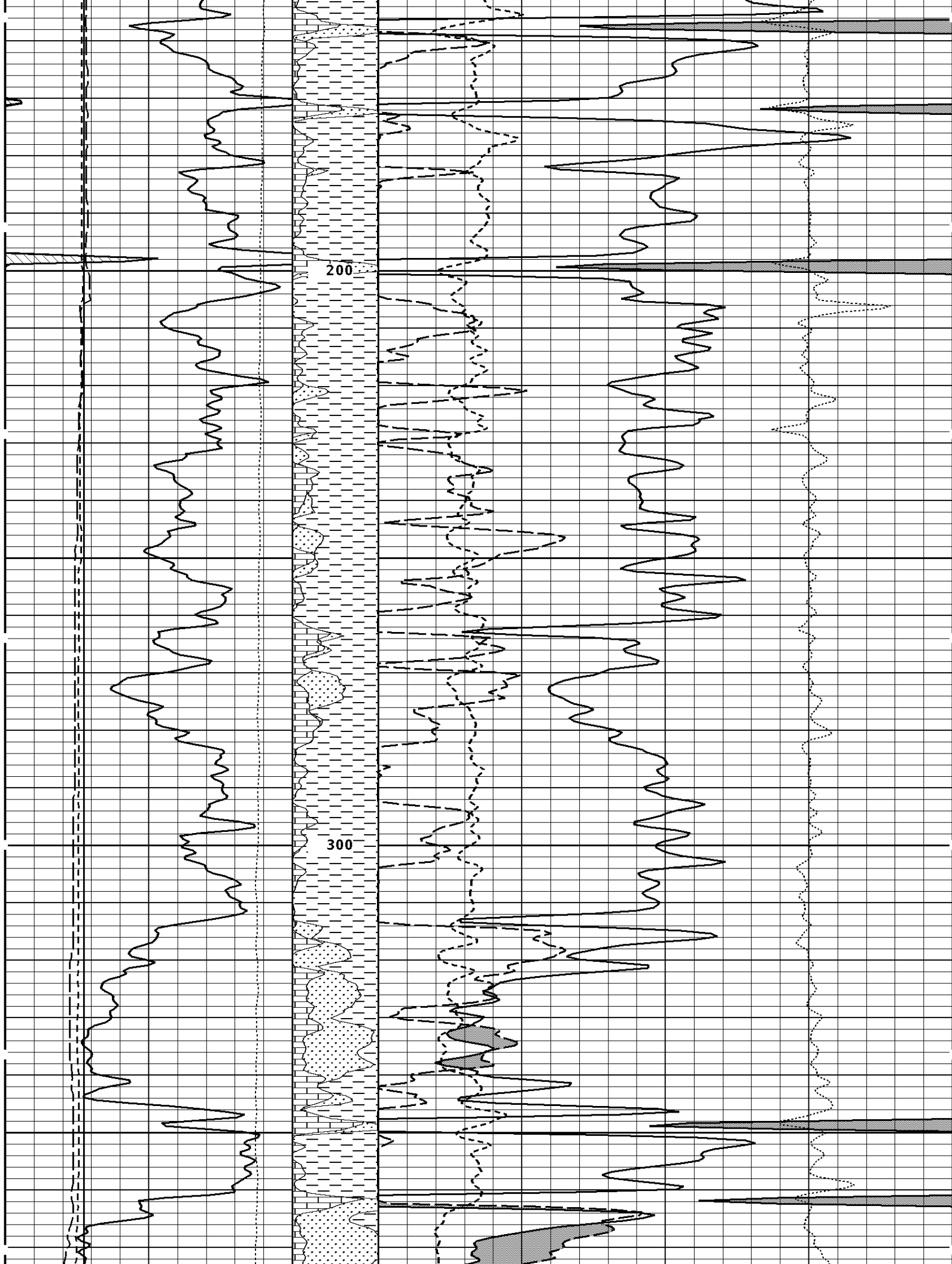
1:240 MAIN SECTION

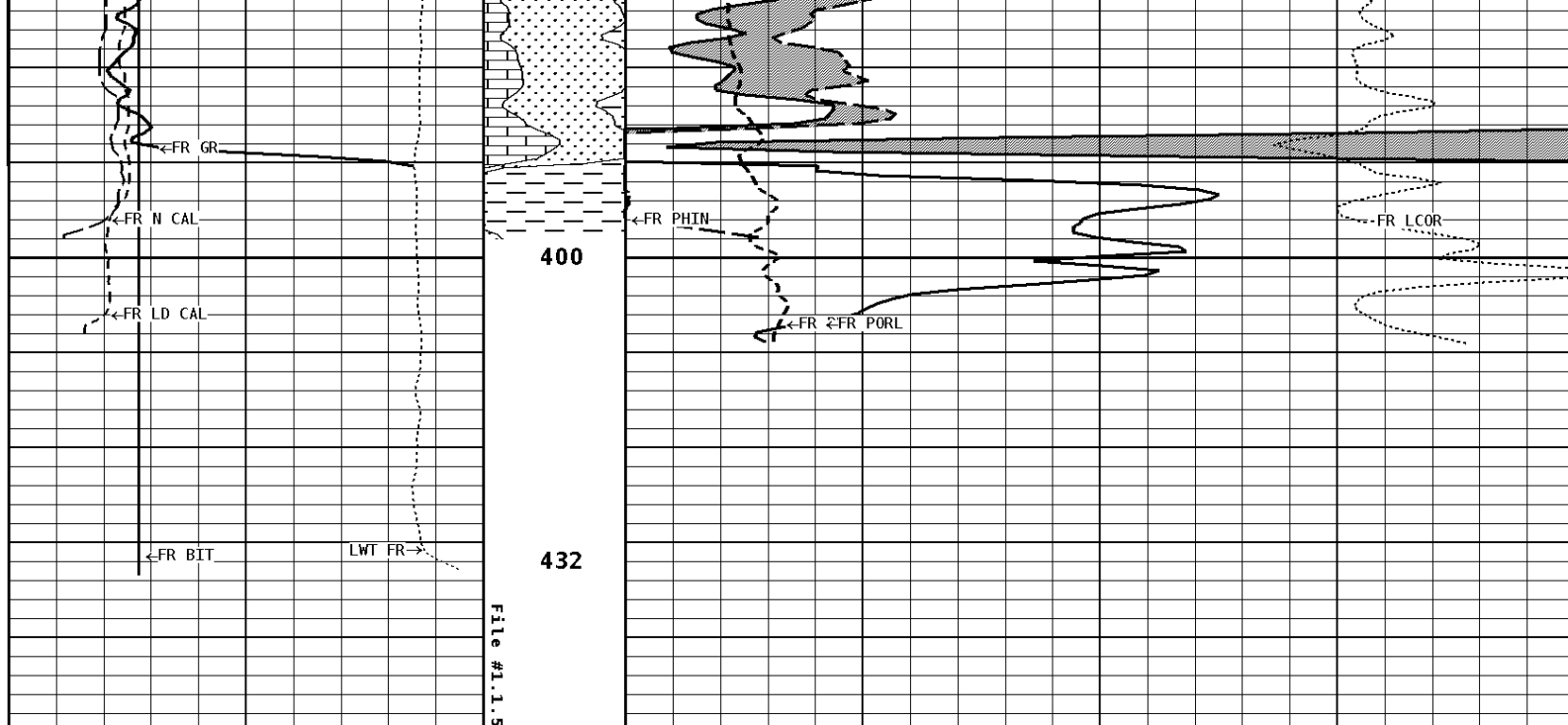
File #1.1.5

000

100







1:240 MAIN SECTION

GAMMA RAY API UNITS 200 0 400 200	Volume Dolo/Shale	NEUTRON POROSITY (LIMESTONE) PERCENT 30 -10	
TENSION LBS 10000 0	Volume Calcite	DENSITY POROSITY (2.71g/cc) PERCENT 70 30 -10 -50	
DENSITY (X) CALIPER INCHES (IN) 14 4 24 14	Volume Quartz	PE CROSS-SECTION BARNS/ELECTRON 0 10	DENSITY CORRECTION G/CC -0.25 0.25
NEUTRON (Y) CALIPER INCHES (IN) 14 4 24 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		6.750	in
Casing Diameter		2.875	in
Casing Thickness		0.250	in
Casing Correction (PHI N)		Disable	

Well File: rfp-hill-2-22a-3-stk-aug-22

Scale: 1:240

Format: NLD-240

Segment: V1.D1.S4 RP

Acquired: 2014-08/22 09:33 3.3.0-12594

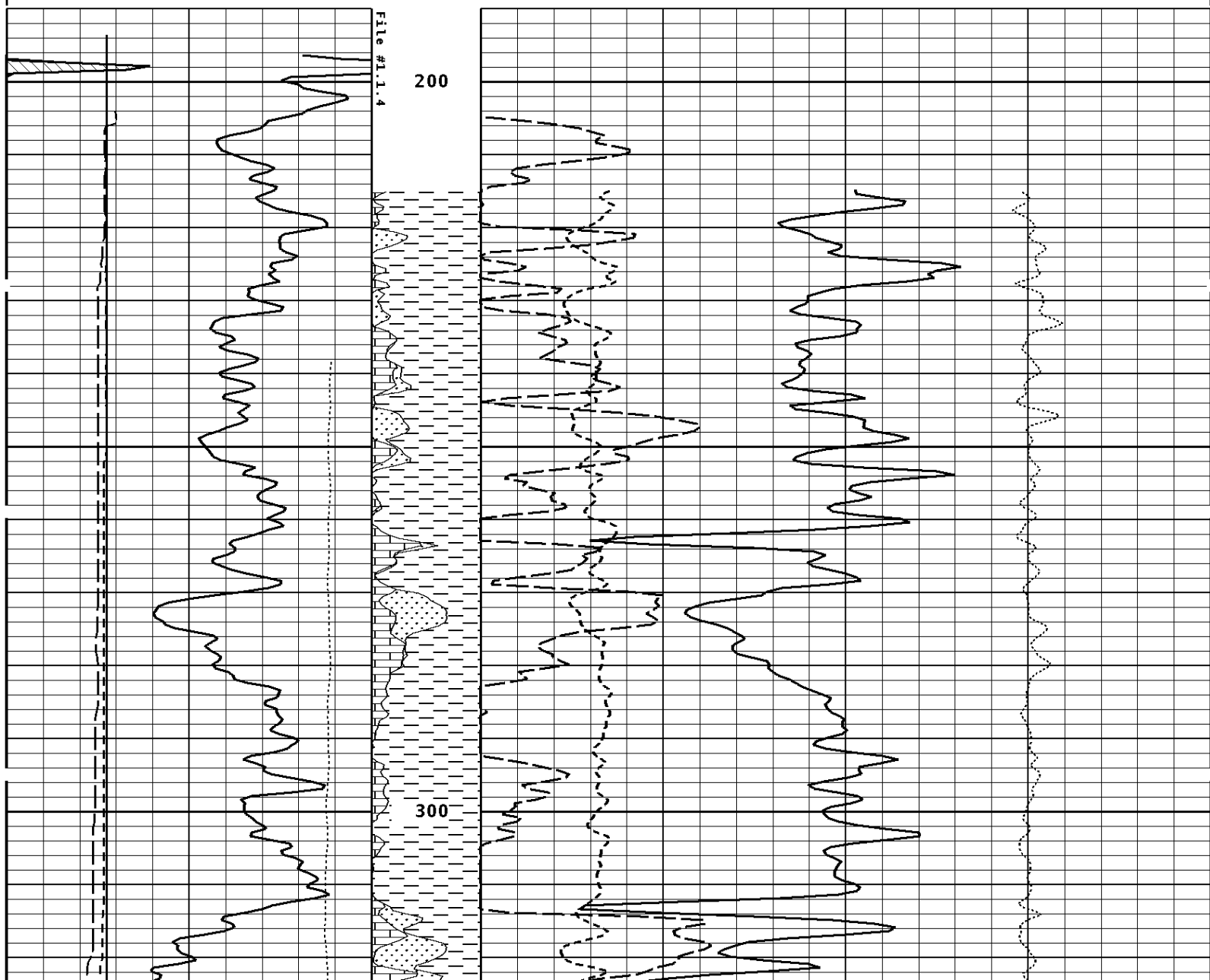
Reference: 0

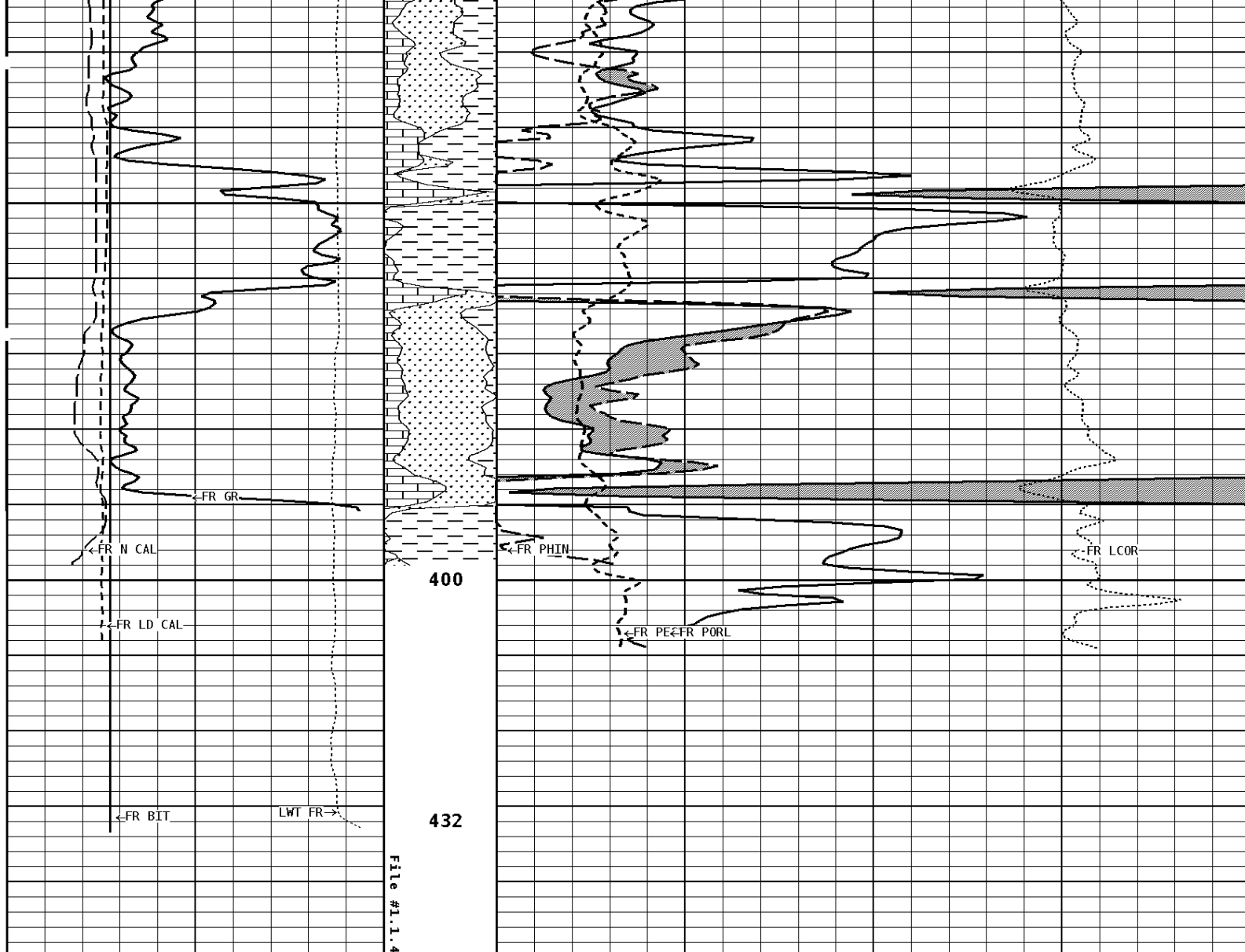
Processed: 2014-08/22 10:05 3.3.0-12594

BIT SIZE
INCHES (IN)

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

1:240 REPEAT SECTION





1:240 REPEAT SECTION

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

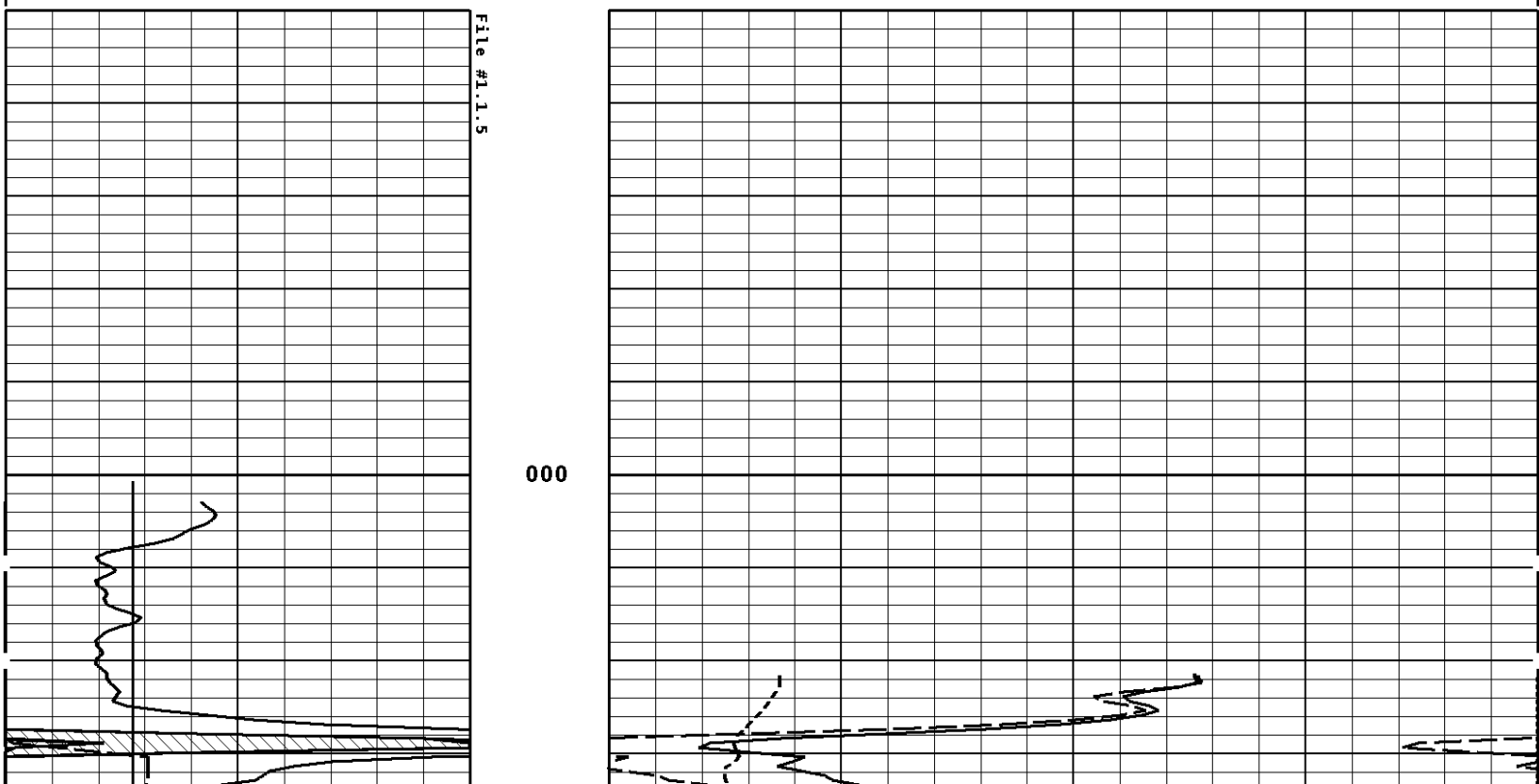
*** Borehole Zone Factors ***

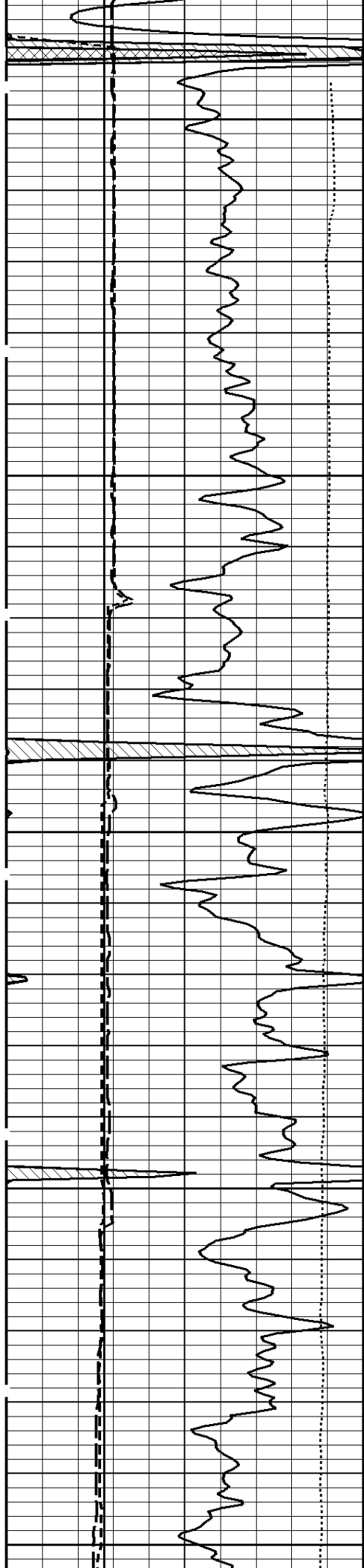
Zone 1 99999.0 to 0.0 Feet		
Matrix Density	_____	2.71 g/cc
Fluid Density	_____	1.00 g/cc
Formation Matrix	_____	Limestone
Drill Bit Size	_____	6.750 in
Casing Diameter	_____	2.875 in
Casing Thickness	_____	0.250 in
Casing Correction (PHI N)	_____	Disable

Well File: rfp-hill-2-22a-3-stk-aug-22	Scale: 1:240	Format: LDT-240
Segment: V1.D1.S5 MN	Acquired: 2014-08/22 09:46 3.3.0-12594	
Reference: 0	Processed: 2014-08/22 10:05 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		PE CROSS-SECTION BARNs/ELECTRON	
10000	0	0	10
		-0.25	0.25
		DENSITY CORRECTION G/CC	
		COMPENSATED BULK DENSITY G/CC	
		3.0	4.0
		2.0	3.0
		1.0	2.0
GAMMA RAY API UNITS		DENSITY POROSITY (2.71g/cc) PERCENT	
200	400	70	30
0	200	30	-10
		-10	-50

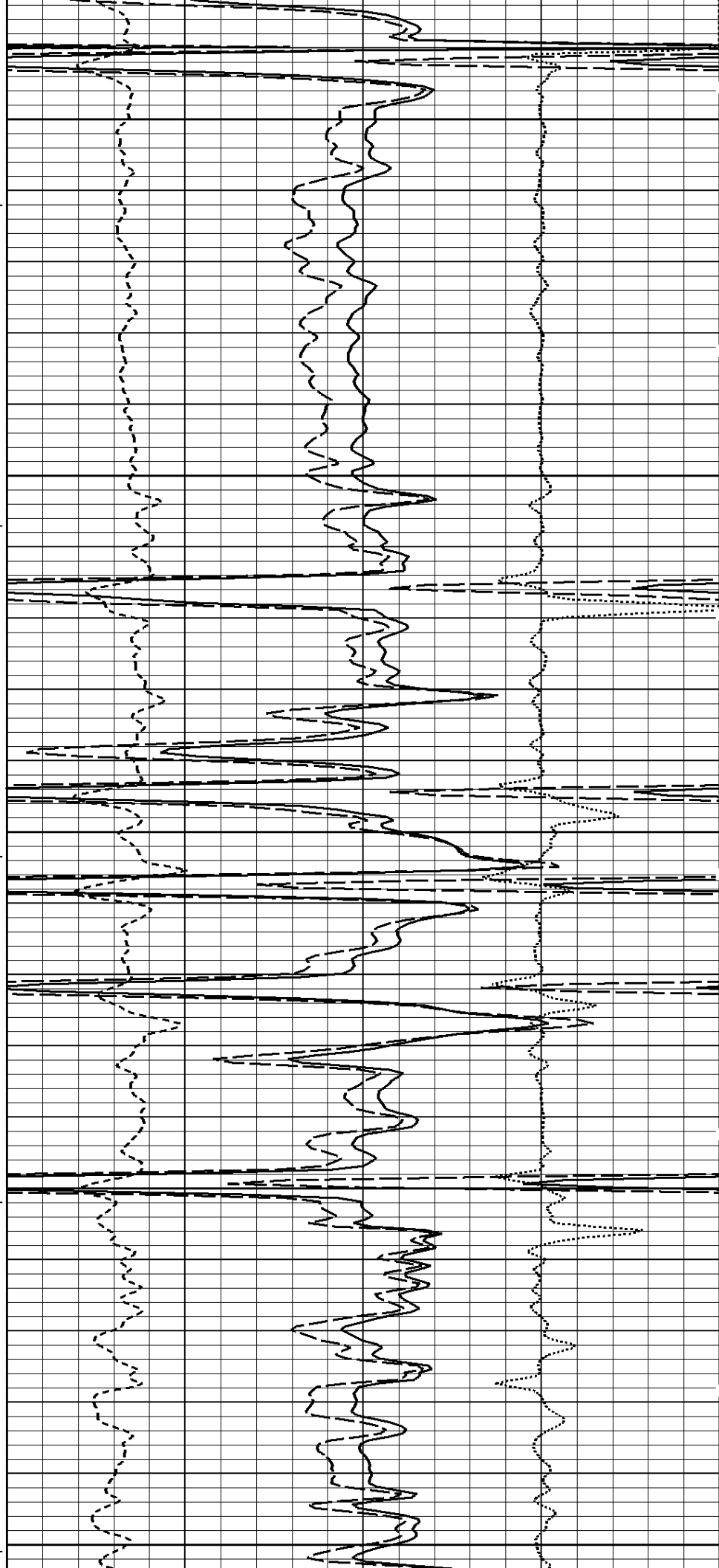
1:240 MAIN SECTION
BULK DENSITY

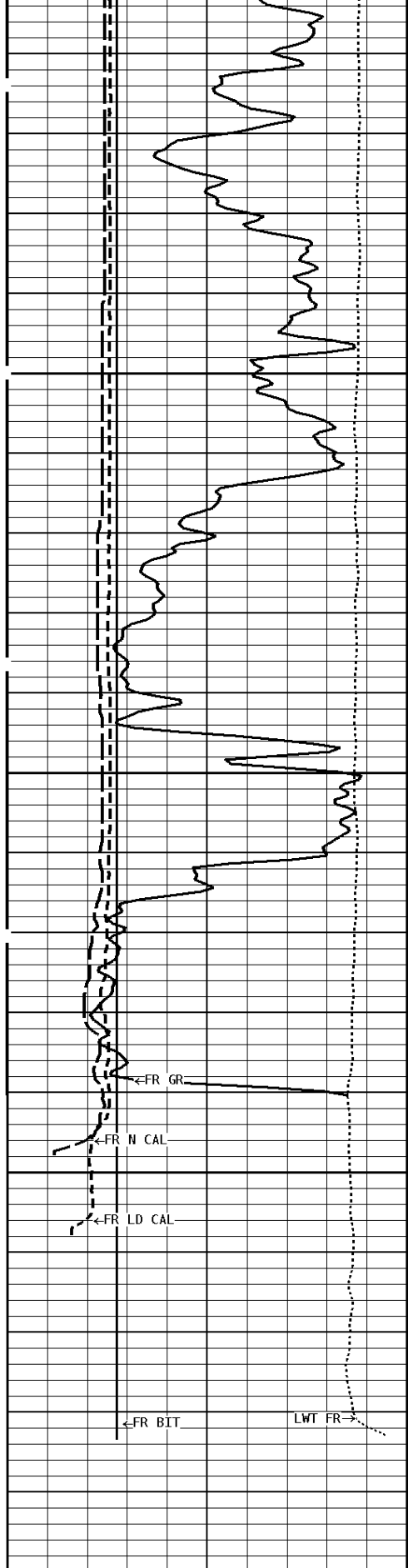




100

200



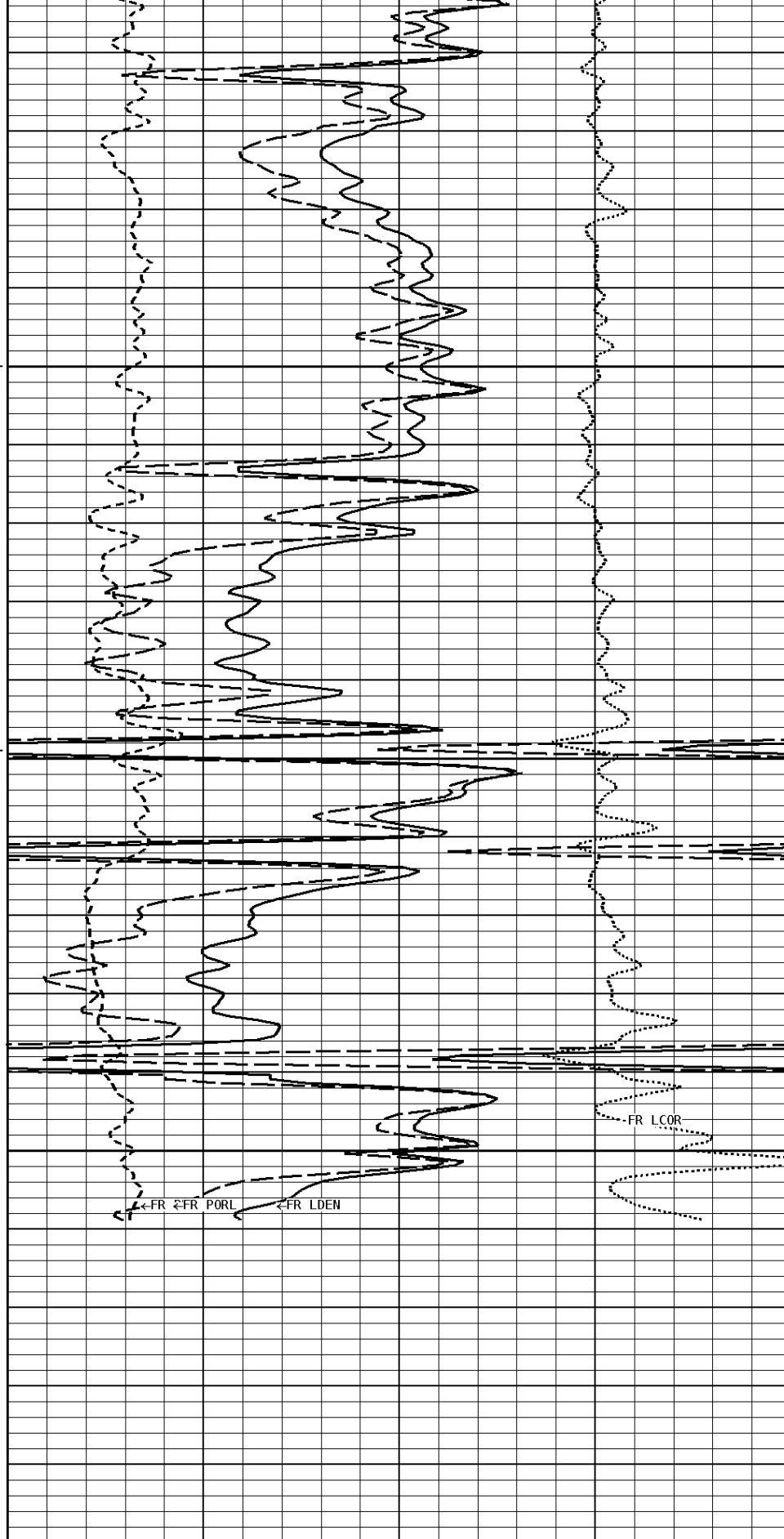


File #1.1.5

300

400

432



1:240 MAIN SECTION BULK DENSITY

GAMMA RAY
API UNITS

-BHV AHV-
CU. FT

DENSITY POROSITY (2.71g/cc)
PERCENT

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

70	30	50
-10		-50
COMPENSATED BULK DENSITY G/CC		
3.0		4.0
2.0		3.0
1.0		2.0
PE CROSS-SECTION BARN/ ELECTRON		DENSITY CORRECTION G/CC
0	10	-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		6.750	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					
GR	Background	Measured Jig	Units	Calibrated Jig	Units
	75	381	CPS	175	GRAPI
Shop Calibration CNT-AA Performed : 04-AUG-2014 Time : 11:39 Sensor Suite : CALI-BCN ID : NDT-BD-133					
CL # 1	Jig - Measured	Jig - Calibrated			Units
	Ring#1 Ring#2	Ring#1 Ring#2			IN.
	9.3 13.8	6.0 12.0			
Performed : 04-Aug-2014 Time : 11:49 Sensor Suite : BHC NEUT ID : CNP-AA-116- Source ID : N-1045					
N/F	Tank	Verification			Units
Porosity	Measured Calibrated	Jig			
	3.8438 3.6893	3.6954			%
	22.9 20.5	20.6			
Shop Calibration LDT-DF Performed : 04-AUG-2014 Time : 09:37 Sensor Suite : CALI-LTH ID : PDT-GA-464					
CL # 1	Jig - Measured	Jig - Calibrated			Units
	Ring#1 Ring#2	Ring#1 Ring#2			IN.
	7.8 11.2	6.0 12.0			
Performed : 04-Aug-2014 Time : 09:57 Sensor Suite : BHCPELNG ID : LDP-DA-067 Source ID : 2991GW					
BKGD	Short Space				Units
	Al Mg	Al+Fe			

LSW1	63	1046	1691	691	CPS
LSW2	68	1207	1925	882	CPS
LSW3	241	2775	4479	2374	CPS
LSW4	294	2582	3786	2296	CPS
LSW5	44	74	79	70	CPS
LSW6	59	66	66	66	CPS
LSW7	47	50	51	51	CPS
LSW8	11	14	16	14	CPS
QS	0.122	0.139	0.125	0.133	
PES			2.778	5.967	
SSDN		2.600	1.680		G/CC
Long Space					
	BKGD	Al	Mg	Al+Fe	Units
LLW1	89	1212	5025	742	CPS
LLW2	101	2059	8176	1531	CPS
LLW3	376	3788	14527	3290	CPS
LLW4	484	1807	5811	1640	CPS
LLW5	52	62	111	61	CPS
LLW6	160	157	149	159	CPS
LLW7	103	98	95	99	CPS
LLW8	3	5	15	5	CPS
QL	0.216	0.229	0.222	0.233	
PEL			2.697	5.458	
LSDN		2.600	1.680		G/CC



Tucker
ENERGY SERVICES

Company: RUNNING FOXES PETROLEUM INC.

Well: HILL #2-22A-3

Location: 495' FNL & 1970' FEL

Logged: 08-22-2014

K.B. Elev: 0.0 Ft