

Tucker
ENERGY SERVICES

COMPENSATED NEUTRON

PEL DENSITY LOG

Company		RUNNING FOXES PETROLEUM		N	
Well		BECKER #13-17C-1			
Field		BECKER			
County		LINN			
State		KANSAS			
Country		USA			
API No.		15-107-24807-0000			
File No		: TUL-58297			
Company		: RUNNING FOXES PETROLEUM INC.			
Well		: BECKER #13-17C-1			
Field		: BECKER			
County		: LINN			
State		: KANSAS			
Country		: USA			
API No		: 15-107-24807-0000			
Location :		495' FSL & 495' FWL			
		NE SW SW SW			
LSD :		Sect : 17		Twp : 23S	
				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 860.00	
Date		07-12-2013			
Run Number		1			
Depth--Driller		480.0 Ft			
Depth--Logger		480.0 Ft			
First Reading		457.0 Ft			
Last Reading		20.0 Ft			
Casing--Driller		20.0 Ft			
Casing--Logger		20.0 Ft			
Bit Size		6.750 In			
Casing Size		8.625 In			
Hole Fluid Type		FRESH			
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 @ 75 F			
RMF@Measured Temp		8.000 @ 75 F			
RMC@Measured Temp.		12.000 @ 75 F			
Source RMF/RMC		CALCULATED/CALCULATED			
RM@BHT		9.800 @ 77 F			
Time Circulation Stopped		07-12-2013 12:30 pm			
Max Recorded Temp.		77 F			
Equipment/Base		127 TULSA			
Recorded By		SHELDON TYLER			
Witnessed By		KURT HODGES			

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)
6.750	480.00	8.625	23.00	20.00

Run Number	1	
Date	07-12-2013	
Date/Time On Bottom	07-12-2013 2:30 pm	
Depth to Fluid	0.0 Ft	
Salinity	0.000 PPM	
RMF@BHT	7.840 @ 77 F	
RMC@BHT	11.760 @ 77 F	

Run Number 1

Comments

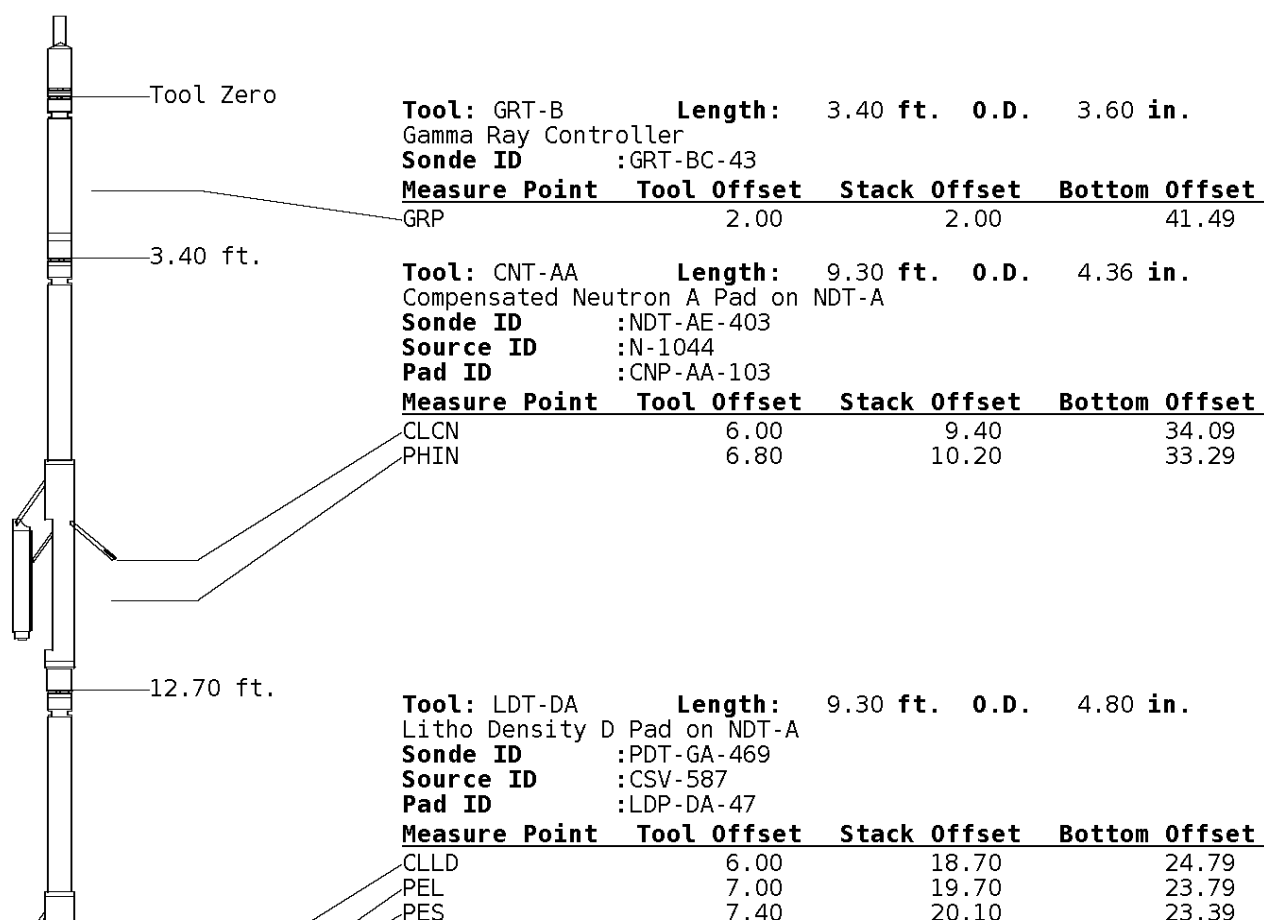
ALL PRESENTATIONS AS PER CUSTOMER REQUEST
 GRT, CNT, LDT, AND PIT RUN IN COMBINATION.
 CALIPERS ORIENTED ON X-Y AXIS.
 2.71 G/CC USED TO CALCULATED POROSITY.
 ANNULAR HOLE VOLUME CALCULATED USING 2.875" PRODUCTION CASING.
 HIRES PRESENTED FROM TD TO SCG.

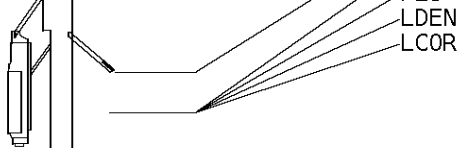
GRT: GRP, GRX
 CNT: PHIN, CLCNIN, PHXN
 LDT: PORL, LCORN, PECLN, LDENN, CLLDIN, PRXL, PECLX, LDENNX, LCORX
 PIT: ILD, ILM, SPU, SFLAEC, CIRD

OPERATORS:
 P. JACOBS
 A. DJAHO

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-AC-13

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

Well File: RFP_BECKER 13-17C-1 JULY12 STK

Scale: 1:240

Segment: V1.D1.S5 Reprocess of MAIN

Acquired: 2013-07/12 14:40 3.2.0-11535

Reference: 0

Processed: 2013-07/12 14:54 3.2.0-11535

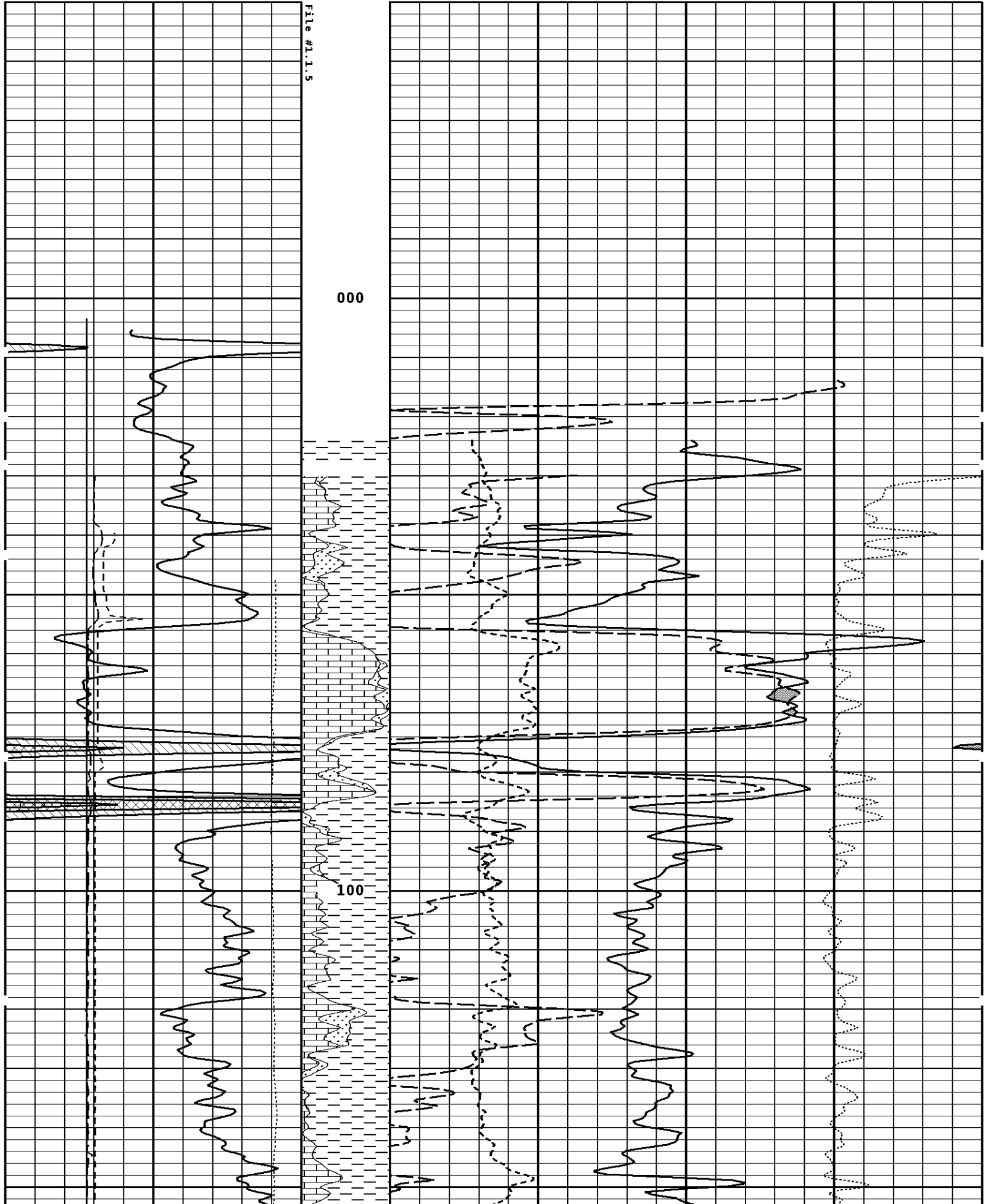
BIT SIZE INCHES (IN) 4 14			
NEUTRON (Y) CALIPER INCHES (IN) 14 24 4 14			
DENSITY (X) CALIPER INCHES (IN) 14 24 4 14		Volume Quartz 0 10	PE CROSS-SECTION BARNs/ELECTRON -0.25 0.25
TENSION LBS 10000 0		Volume Calcite 70 30 -10	DENSITY POROSITY (2.71g/cc) PERCENT 30 -10 -50
GAMMA RAY API UNITS 200 400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

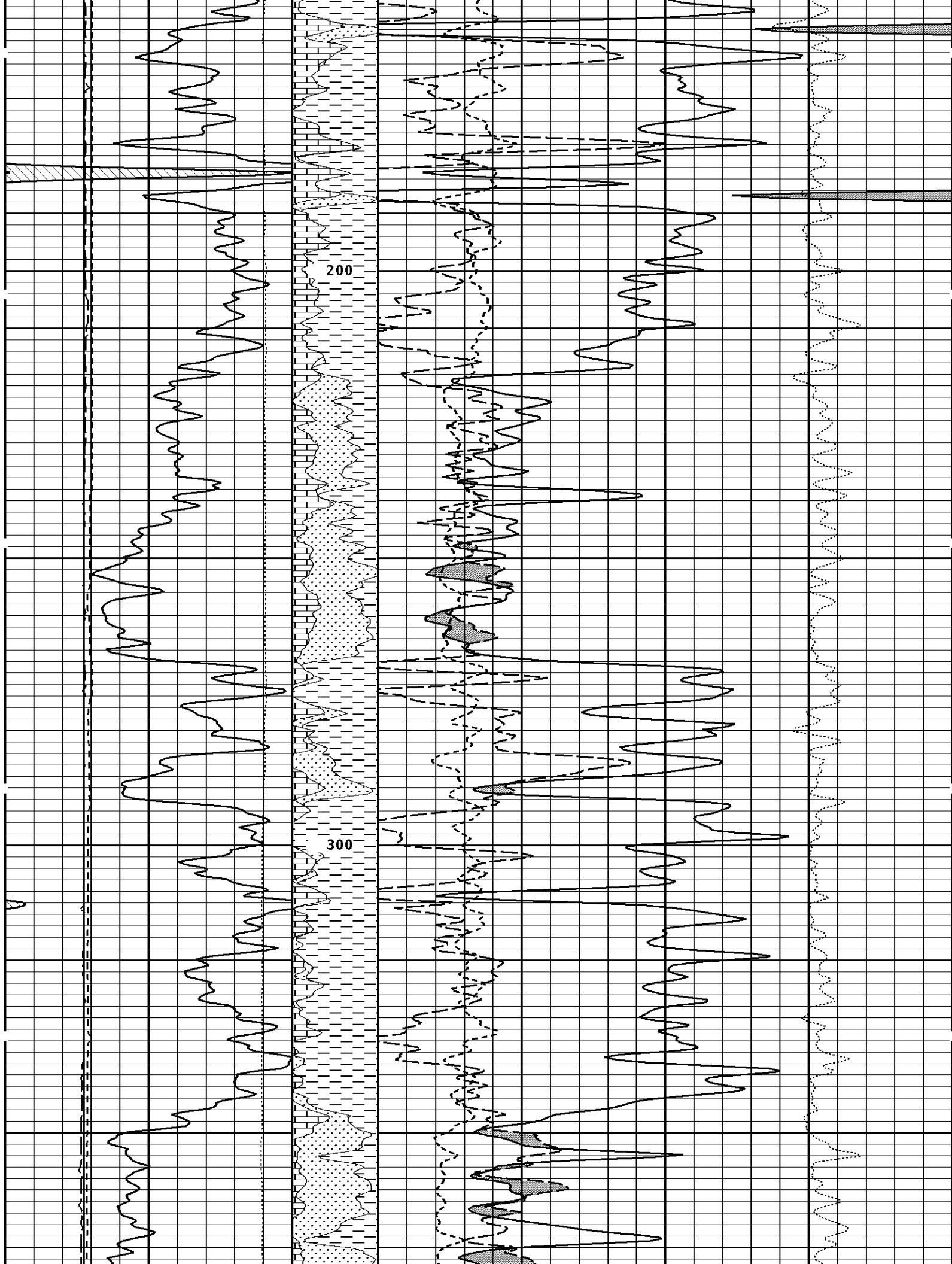
1:240 MAIN SECTION

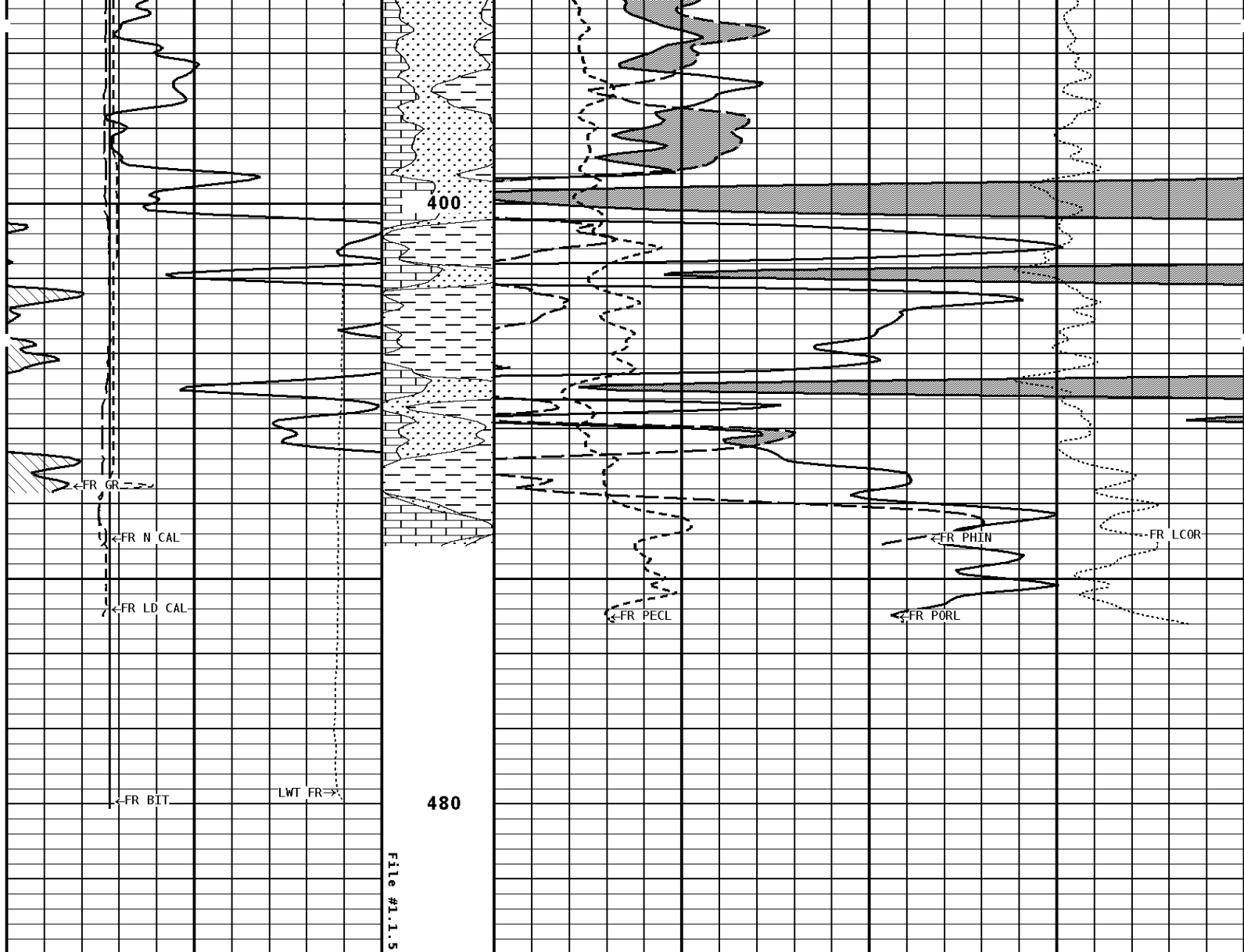
File #1.1.5

000

100







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 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			

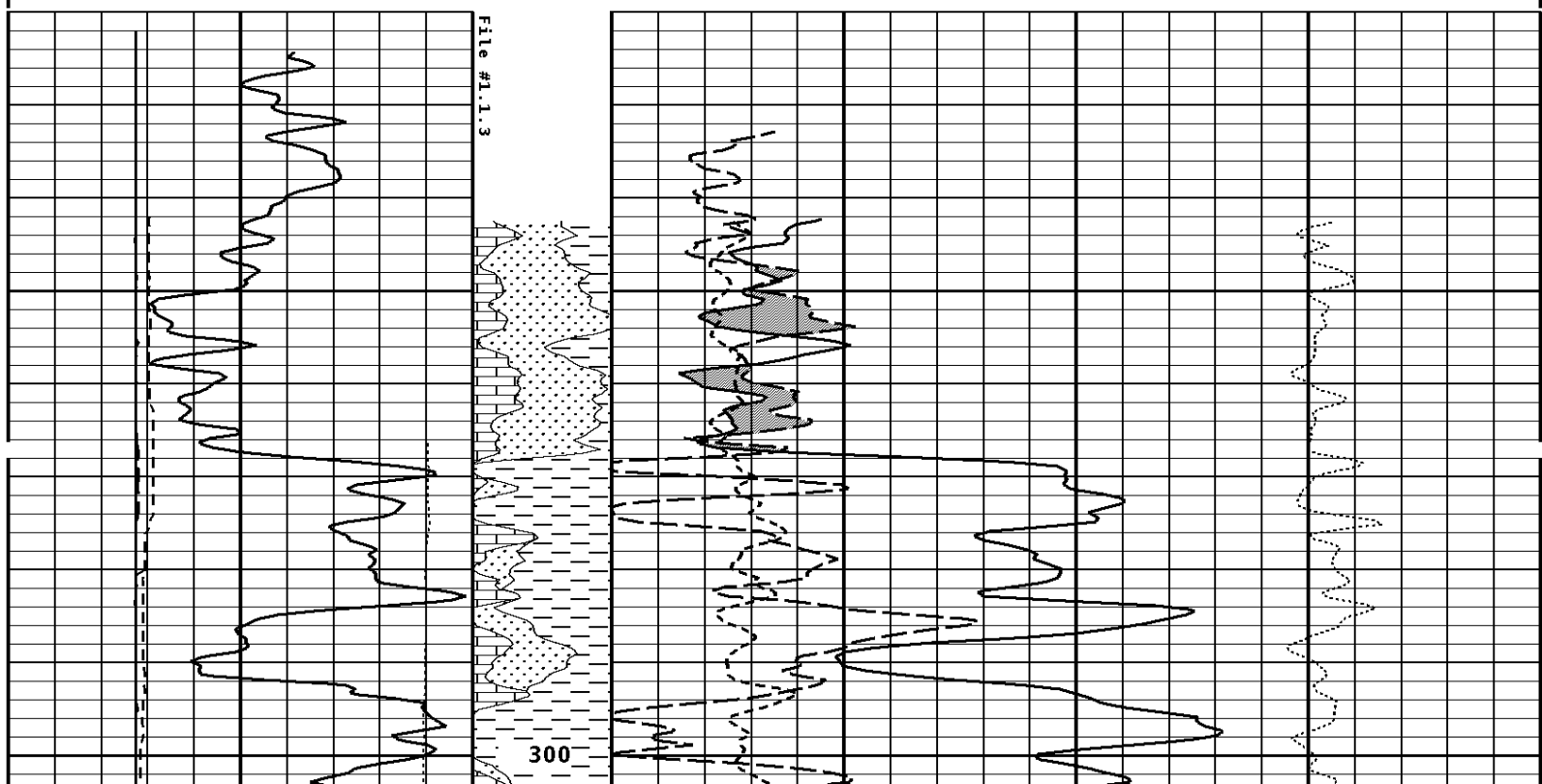
*** Borehole Zone Factors ***

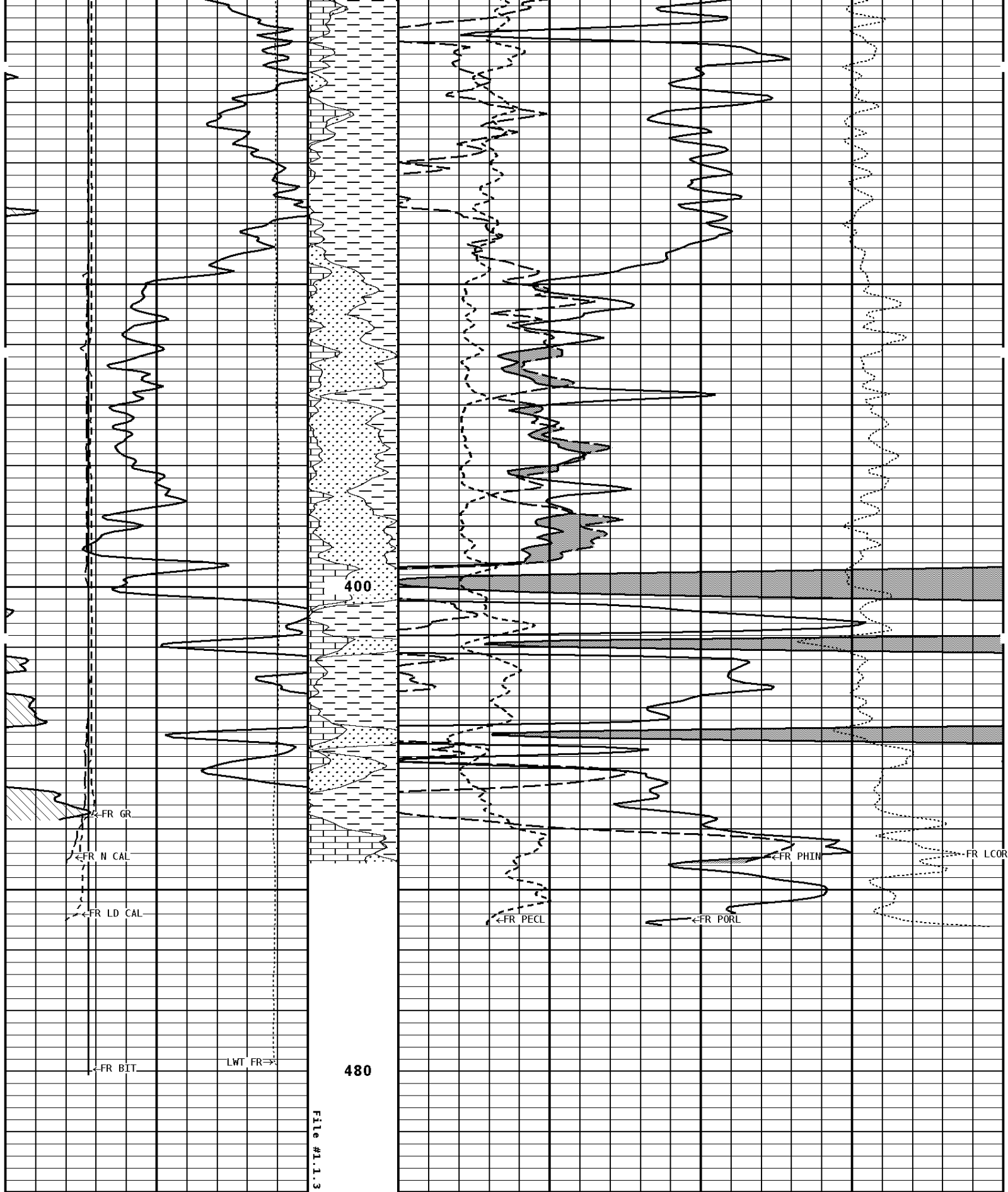
Zone 1 99999.0 to 0.0 Feet			
Matrix Density	_____	2.71	g/cc
Fluid Density	_____	1.00	g/cc
Formation Matrix	_____	Limestone	
Drill Bit Size	_____	6.750	in
Casing Diameter	_____	2.875	in
Casing Thickness	_____	0.250	in
Casing Correction (PHI N)	_____	Disable	

Well File: RFP BECKER 13-17C-1 JULY12 STK	Scale: 1:240
Segment: V1.D1.S3 Reprocess of REPEAT	Acquired: 2013-07/12 14:30 3.2.0-11535
Reference: 0	Processed: 2013-07/12 14:37 3.2.0-11535

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

1:240 REPEAT SECTION





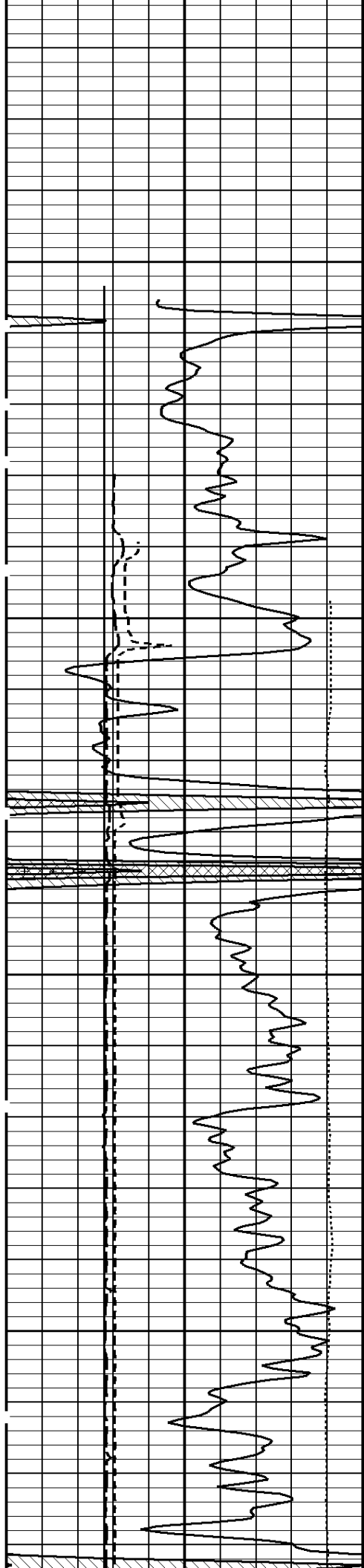
1:240 REPEAT SECTION

GAMMA RAY
API UNITS

Volume
Dolo/Shale

NEUTRON POROSITY (LIMESTONE)
PERCENT

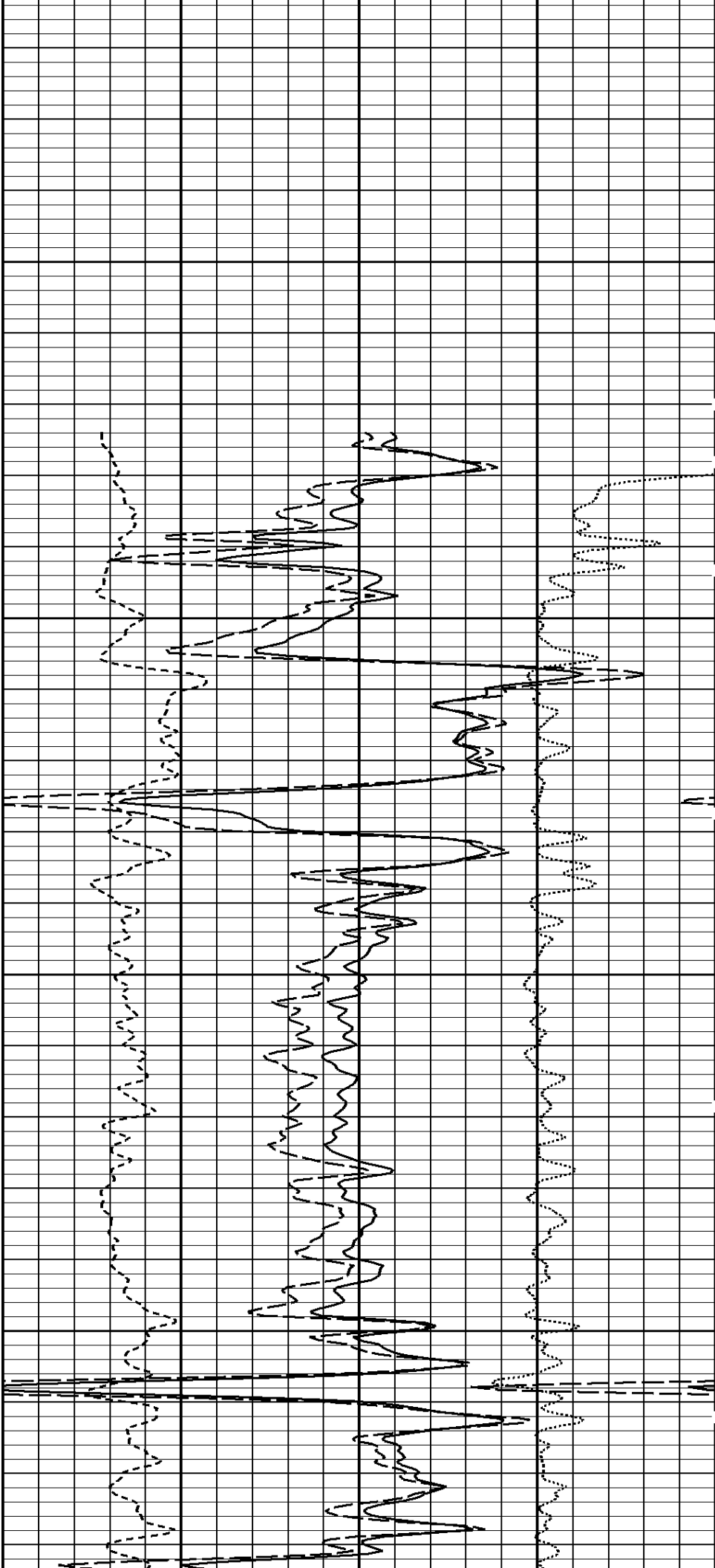
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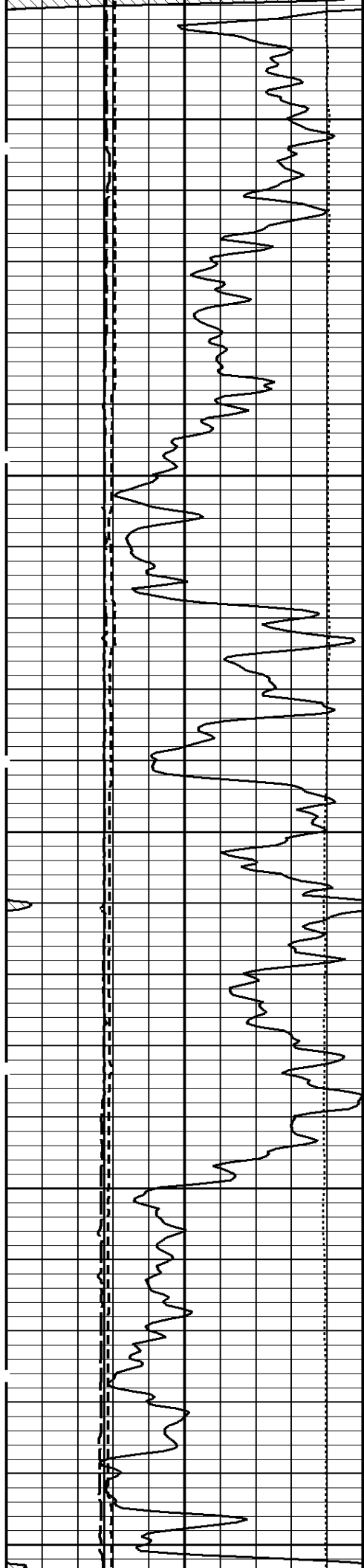


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--100Cu.Ft

100

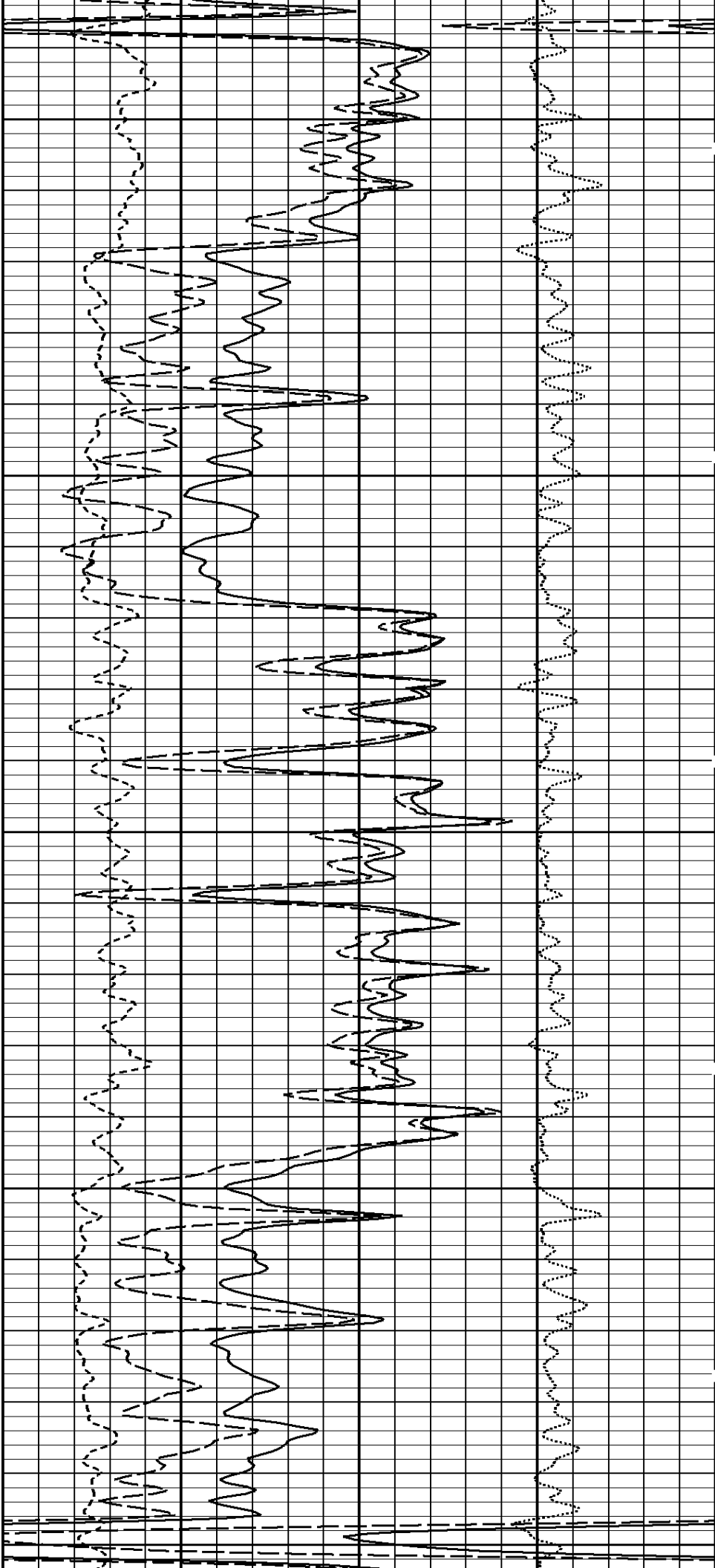


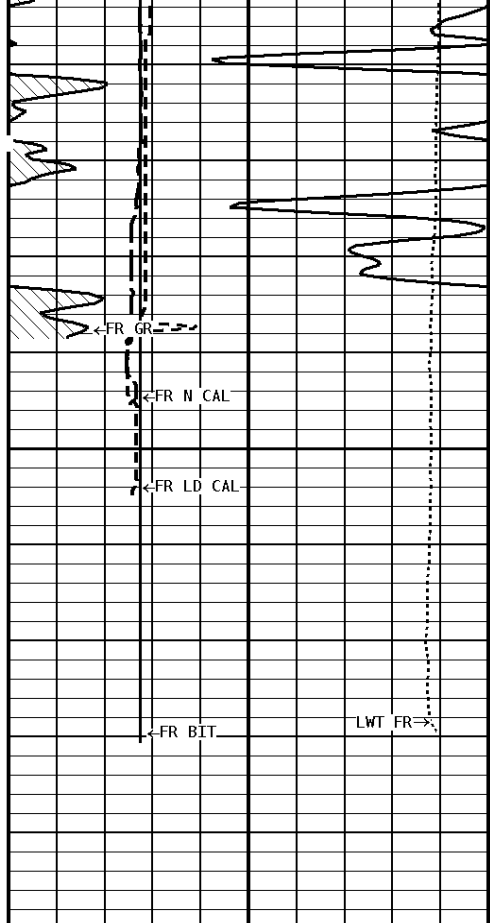


200

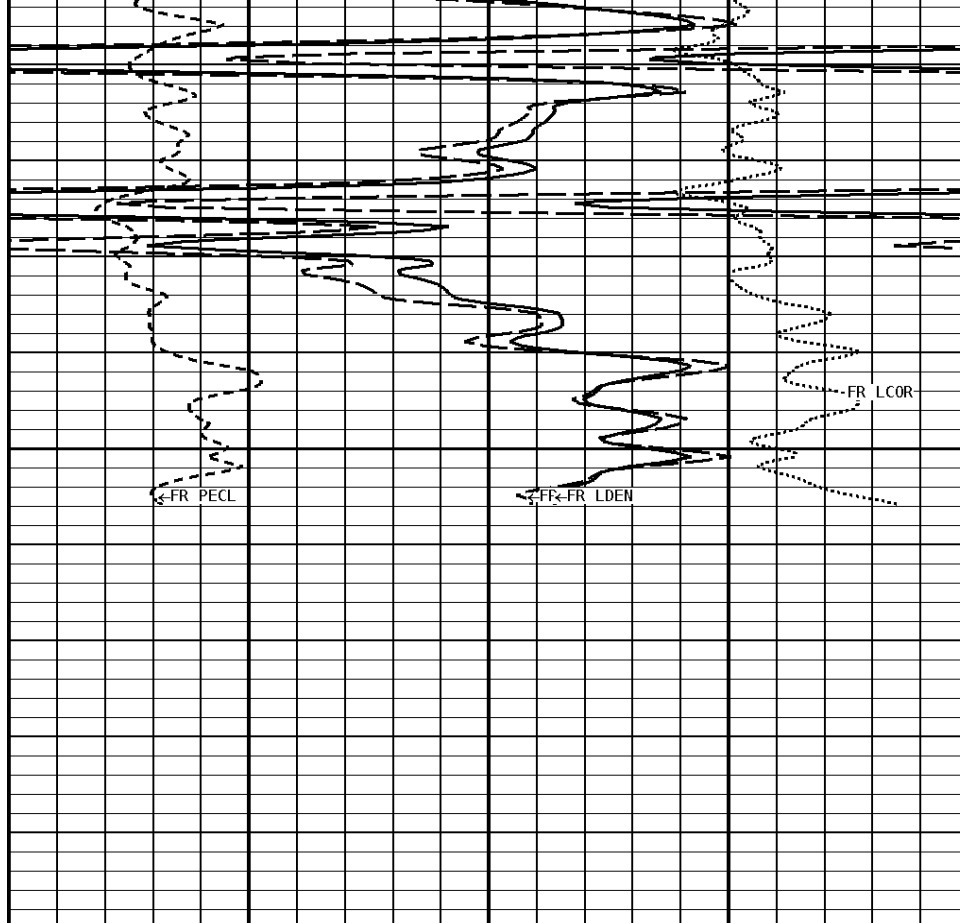
300

400





480



1:240 MAIN SECTION BULK DENSITY

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

DENSITY POROSITY (2.71g/cc) PERCENT 70 30 -10 30 -10 -50	
COMPENSATED BULK DENSITY G/CC 3.0 4.0 2.0 3.0 1.0 2.0	
PE CROSS-SECTION BARN/ 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	6.750	in
Casing Diameter	2.875	in
Casing Correction (PHI N)	Disable	

*** Calibration Summary ***

Shop Calibration					
GRT-B					
Performed : 27-JUN-2013			Time : 10:03		
Sensor Suite : GR-GR5			ID : GRT-BC-43		
	Measured	Units	Calibrated	Units	
	Background	Jig	Jig		
GR	46	309	175		GRAPI
Shop Calibration					
CNT-AA					
Performed : 27-JUN-2013			Time : 13:55		
Sensor Suite : CALI-BCN			ID : NDT-AE-403		
	Jig - Measured		Jig - Calibrated	Units	
	Ring#1 Ring#2		Ring#1 Ring#2		
CL # 1	8.0 14.0		6.0 12.0		IN.
Performed : 27-Jun-2013			Time : 14:00		
Sensor Suite : BHC NEUT			ID : CNP-AA-103		
Source ID : N-1044					
	Tank		Verification	Units	
	Measured	Calibrated	Jig		
N/F	4.0957	3.6893	3.7154		
Porosity	27.2	20.5	20.9		%
Shop Calibration					
LDT-DA					
Performed : 27-JUN-2013			Time : 10:04		
Sensor Suite : CALI-LTH			ID : PDT-GA-469		
	Jig - Measured		Jig - Calibrated	Units	
	Ring#1 Ring#2		Ring#1 Ring#2		
CL # 1	7.3 10.5		6.0 12.0		IN.
Performed : 27-Jun-2013			Time : 10:23		
Sensor Suite : BHCPELNG			ID : LDP-DA-47		
Source ID : CSV-587					
Short Space					
	BKGD	Al	Mg	Al+Fe	Units
LSW1	73	407	648	284	CPS
LSW2	77	490	782	366	CPS
LSW3	281	1251	1949	1078	CPS
LSW4	347	1200	1670	1074	CPS
LSW5	33	40	42	40	CPS
LSW6	92	93	92	94	CPS
LSW7	58	60	59	61	CPS
LSW8	2	3	3	3	CPS
QS	0.227	0.217	0.219	0.213	
PES			2.778	5.967	
SSDN		2.600	1.680		G/CC
Long Space					
	BKGD	Al	Mg	Al+Fe	Units
LLW1	102	447	1778	300	CPS
LLW2	111	828	3433	607	CPS
LLW3	445	1830	6660	1603	CPS
LLW4	594	1160	2923	1081	CPS
LLW5	66	70	85	69	CPS
LLW6	188	186	181	186	CPS
LLW7	117	118	111	119	CPS
LLW8	4	5	9	5	CPS
QL	0.233	0.226	0.241	0.222	
PEL			2.697	5.458	
LSDN		2.600	1.680		G/CC



Company: RUNNING FOXES PETROLEUM INC.
 Well: BECKER #13-17C-1
 Location: 495' FSL & 495' FWL
 Logged: 07-12-2013
 K.B. Elev: 0.0 Ft

