Tucker WIRELINE SERVICES

COMPENSATED NEUTRON

PEL DENSITY LOG

Company RUNNING FOXES PETROLEUM,
Well CLEAVER # 5-6A-2
Field DEVON
County BOURBON
State KANSAS
Country USA
API No. 15-011-23781-0000

File No : TUL-55989
Company : RUNNING FOXES PETROLEUM, INC
Well : CLEAVER # 5-6A-2
Field : DEVON
County : BOURBON
State : KANSAS
Country : USA
API No : 15-011-23781-0000

Location :
1330' FNL & 1310' FWL
NE NE SW NW

LSD : **Sect :** 6 **Twp :** 25S **Rge :** 24E

Permanent Datum:	GL	**Elevations:**			**Services:**
Drilling Measured From:	GL	**KB**	0.00	Ft	
Log Measured From:	GL	**DF**	0.00	Ft	
Above Permanent Datum:	0.00 Ft	**GL**	888.00	Ft	

Date	2011-10-25			
Run Number	1			
Depth--Driller	512.0 Ft			
Depth--Logger	507.0 Ft			
First Reading	507.0 Ft			
Last Reading	20.0 Ft			
Casing--Driller	20.0 Ft			
Casing--Logger	20.0 Ft			
Bit Size	--- In			
Casing Size	--- In			
Hole Fluid Type	WBM			
Density	0.0 LBS/GAL			
Fluid Loss	0.0 CC			
PH/Viscosity	0.0	0.0 SEC		
Sample Source	MEASURED			
RM@Measured Temp.	2.100 @ 73 F			
RMF@Measured Temp	1.780 @ 73 F			
RMC@Measured Temp.	2.420 @ 73 F			
Source RMF/RMC	CALCULATE	CALCULATE		
RM@BHT	0.000 @ 77 F			
Time Circulation Stopped	2011-10-25 08:55			
Max Recorded Temp.	77 F			
Equipment/Base	TRK 127	TULSA		
Recorded By	B. BAILEY S. TYLER			
Witnessed By	MR.GREEN			

Bitsize Intervals

Size (In)	Bottom (Ft)

Casing Strings

Size (In)	Weight (Lbs)	Bottom (Ft)

Run Number	1		
Date	2011-10-25		
Date/Time On Bottom	2011-10-25 11:55		
Depth to Fluid	176.0 Ft		
Salinity	0.000 PPM		
RMF@BHT	0.000 @ 77 F		
RMC@BHT	0.100 @ 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 UISING 2.875 PRODUCTION CASING.
SFL AND SP STOPPED AT 176' DUE TO FLUID DEPTH
PORN DISABLED 166' DUE TO FLUID DEPTH

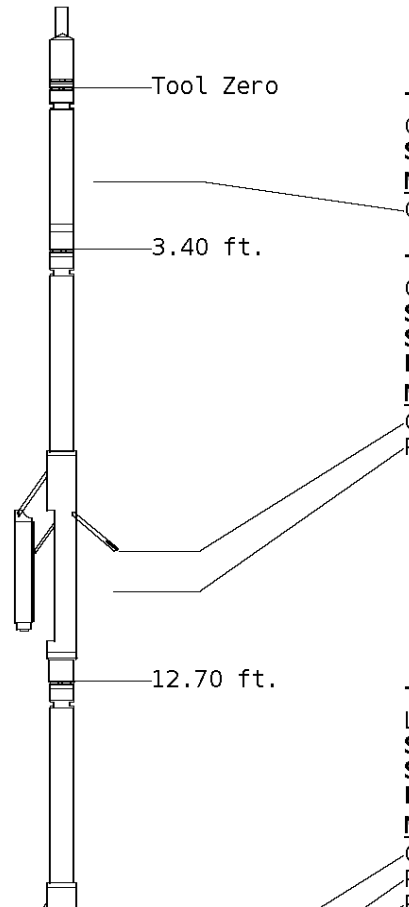
GRT: GRP.
CNT: PHIN, CLCNIN
LDT: PORL, LCORN, PECLN, LDENN, PORLLS, CLLDIN.
PIT: ILD, ILM, SPU, SFLAEC

OPERATORS:

M. GARNER
J. T.

Tool String Schematic

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



Tool: GRT-B **Length:** 3.40 **ft.** **O.D.** 3.60 **in.**
Gamma Ray Controller
Sonde ID :GRT-BA-14

Measure Point	Tool Offset	Stack Offset	Bottom Offset
GRP	2.00	2.00	41.49

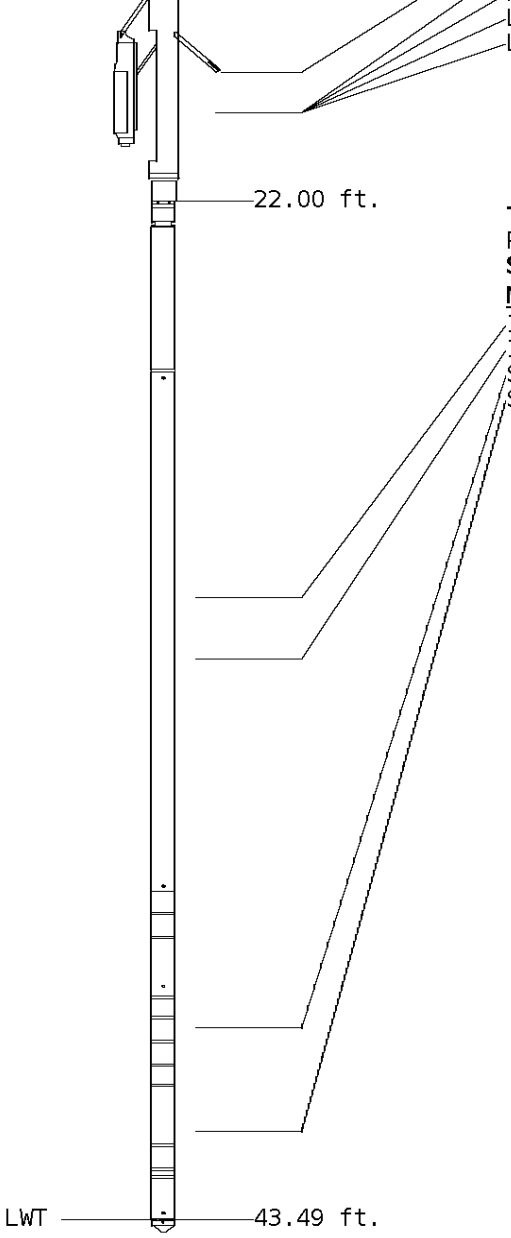
Tool: CNT-AA **Length:** 9.30 **ft.** **O.D.** 4.36 **in.**
Compensated Neutron A Pad on NDT-A
Sonde ID :NDT-AB-400
Source ID :N-1044
Pad ID :CNP-AA-116

Measure Point	Tool Offset	Stack Offset	Bottom Offset
CLCN	6.00	9.40	34.09
PHIN	6.80	10.20	33.29

Tool: LDT-DA **Length:** 9.30 **ft.** **O.D.** 4.80 **in.**
Litho Density D Pad on NDT-A
Sonde ID :PDT-GA-465
Source ID :CSV-587
Pad ID :LDP-DA-01

Measure Point	Tool Offset	Stack Offset	Bottom Offset
CLLD	6.00	18.70	24.79
PEL	7.00	19.70	23.79
PES	7.40	20.10	23.39

LDEN	7.20	19.90	23.59
LCOR	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-18

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_CLEAVER_5-6A-2_0CT25_ST **Scale:** 1:240
Segment: V1.D1.S4 MAIN **Acquired:** 2011-10/25 12:00 3.2.0-10220
Reference: 0 **Processed:** 2011-10/25 12:00 3.2.0-10220

TENSION LBS
10000 — 0

BIT SIZE INCHES (IN)
4 — 14

Volume Dolo/Shale

DENSITY (X) CALIPER INCHES (IN)
14 — 24
4 — 14

Volume Quartz

PE CROSS-SECTION BARNS/ELECTRON
0 — 10

DENSITY CORRECTION G/CC
-0.25 — 0.25

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

Volume Calcite

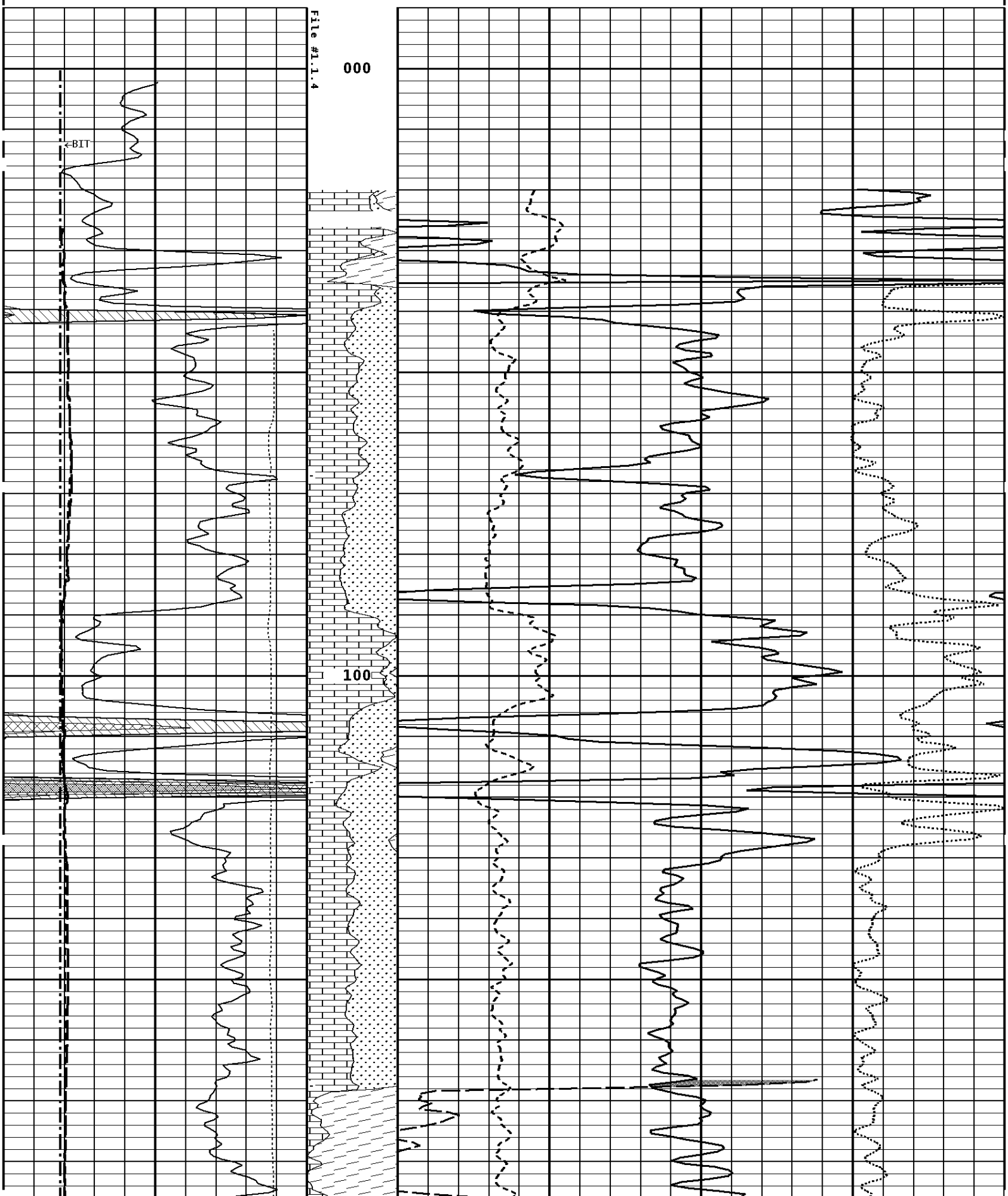
NEUTRON POROSITY PERCENT (LIMESTONE MATRIX)
30 — -10

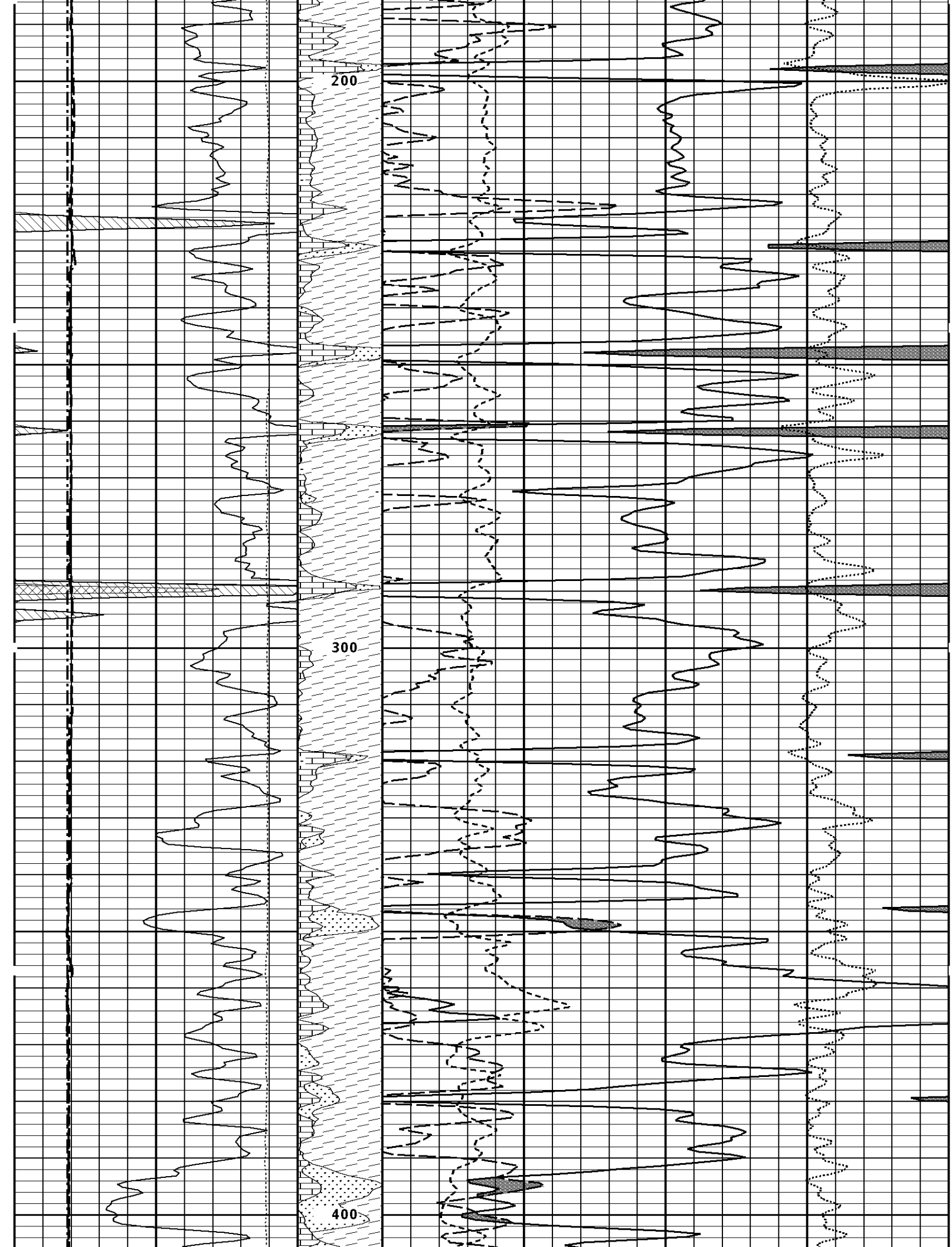
GAMMA RAY API UNITS
200 — 400
0 — 200

-BHV AHV- CU.FT

DENSITY POROSITY PERCENT (2.71 g/cc)
70 — 30
30 — -10
-10 — -50

1:240 MAIN SECTION

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300
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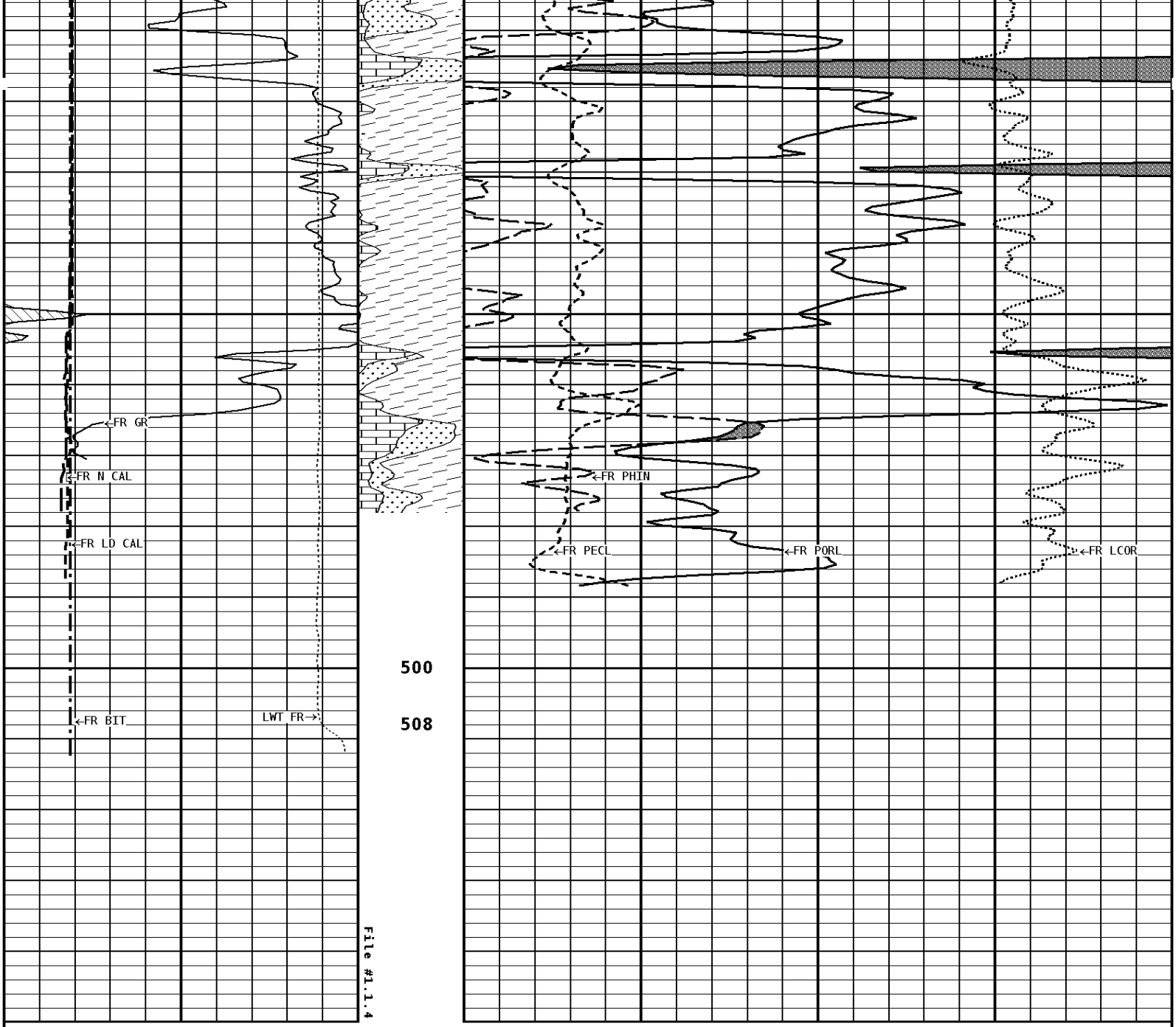


1:240 MAIN SECTION

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

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	5.875	in
Casing Diameter	2.875	in
Casing Correction (PHI N)	Disable	

Well File:	RFP_CLEAVER_5-6A-2_OCT25_ST
Segment:	V1.D1.S3 Reprocess REPEAT
Reference:	0
Scale:	1:240
Acquired:	2011-10/25 11:52 3.2.0-10220
Processed:	2011-10/25 11:59 3.2.0-10220

TENSION LBS		
10000		0

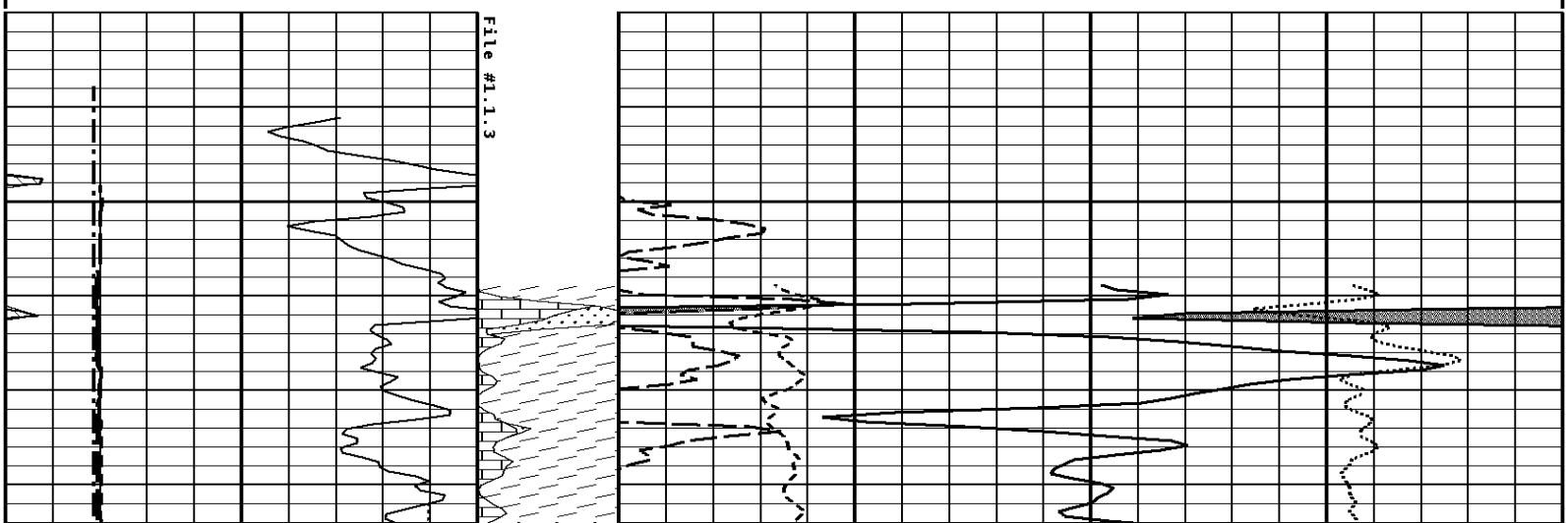
BIT SIZE INCHES (IN)	Volume Dolo/Shale	
4		14

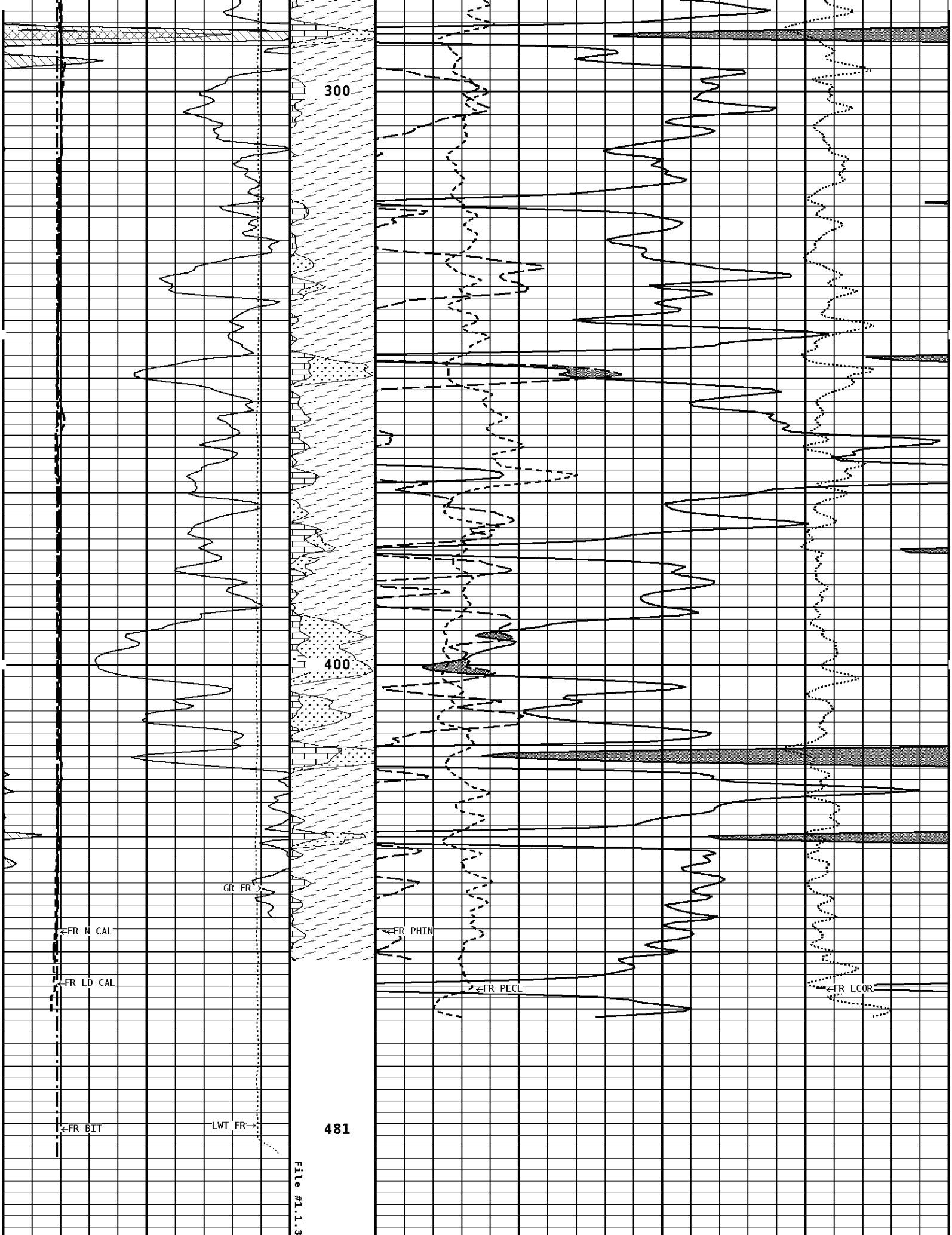
DENSITY (X) CALIPER INCHES (IN)	Volume Quartz	PE CROSS-SECTION BARNS/ELECTRON	DENSITY CORRECTION G/CC
14 / 4		0	10 / -0.25 / 0.25

NEUTRON (Y) CALIPER INCHES (IN)	Volume Calcite	NEUTRON POROSITY PERCENT (LIMESTONE MATRIX)
14 / 4		30 / -10

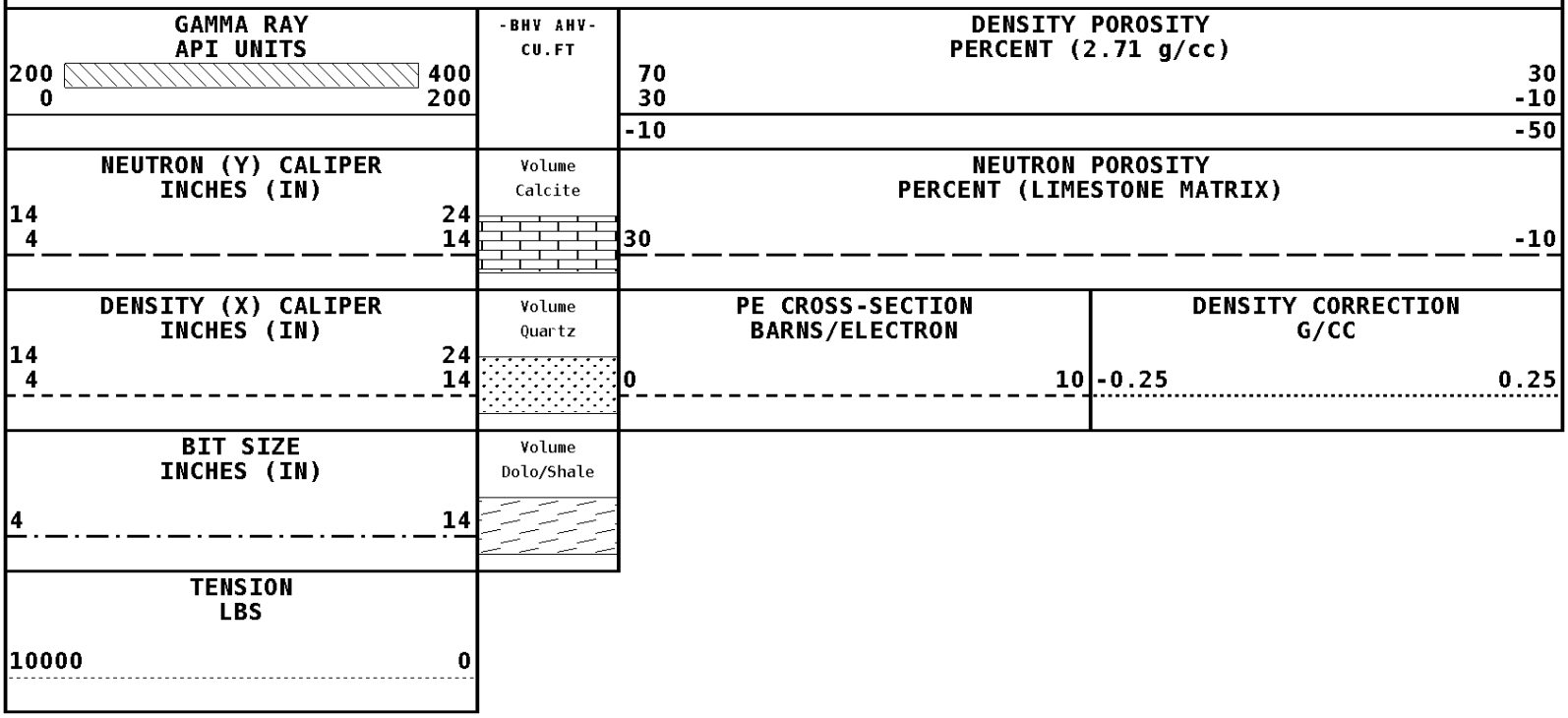
GAMMA RAY API UNITS	-BHV AHV- CU.FT	DENSITY POROSITY PERCENT (2.71 g/cc)
200 / 0		70 / 30 / -10
400 / 200		30 / -10 / -50

1:240 REPEAT SECTION





1:240 REPEAT SECTION

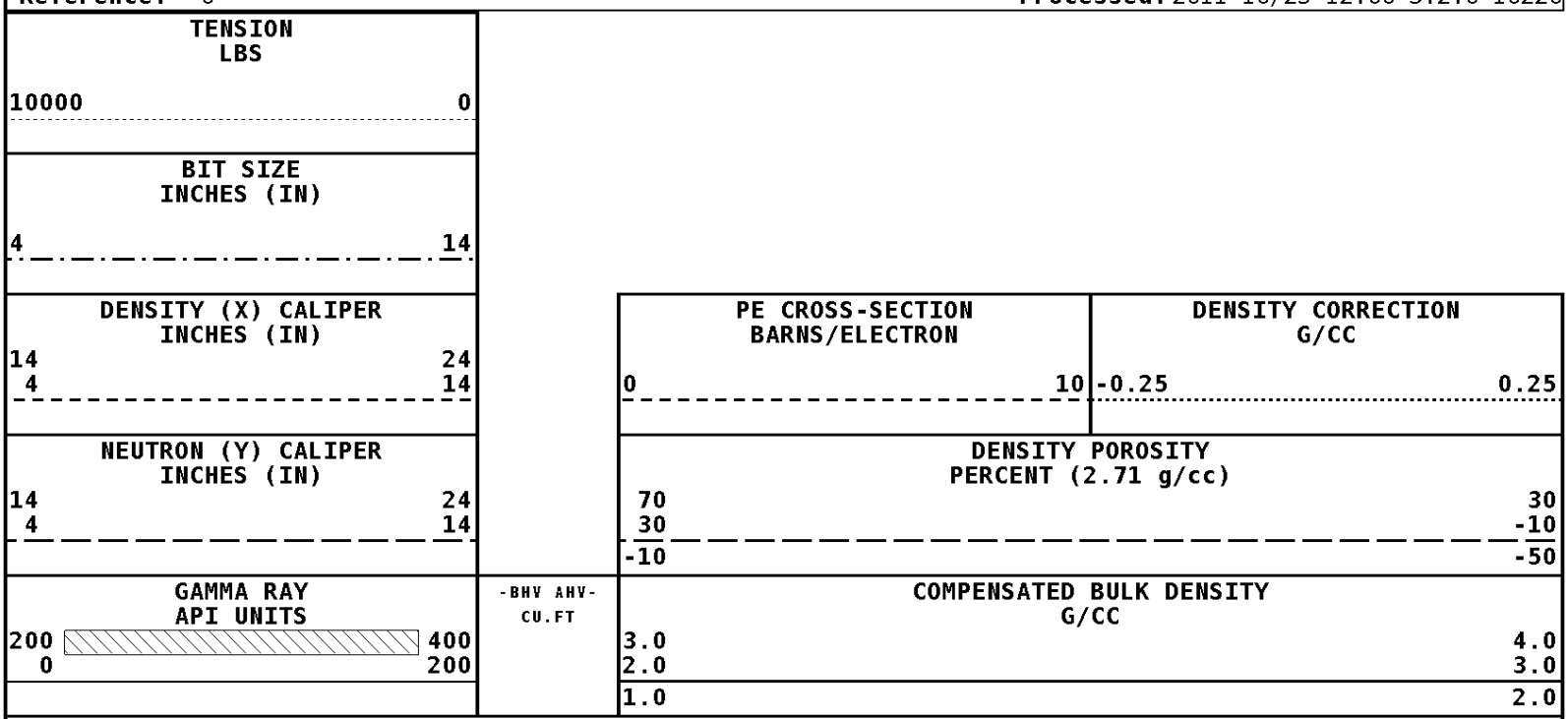


*** Borehole Zone Factors ***

Zone 1 99999.0 to 0.0 Feet

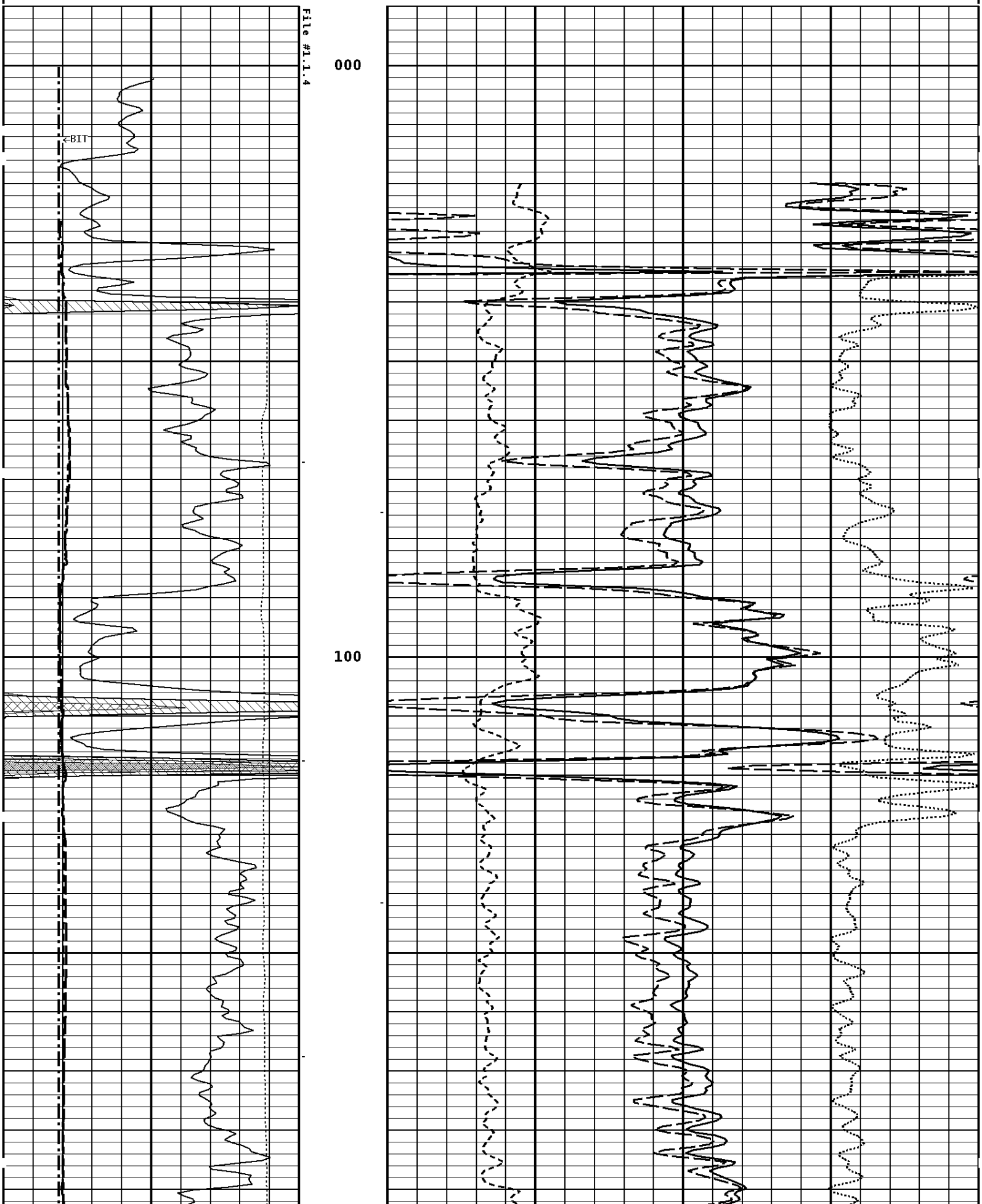
Matrix Density	2.71	g/cc
Fluid Density	1.00	g/cc
Formation Matrix	Limestone	
Drill Bit Size	5.875	in
Casing Diameter	2.875	in
Casing Correction (PHI N)	Disable	

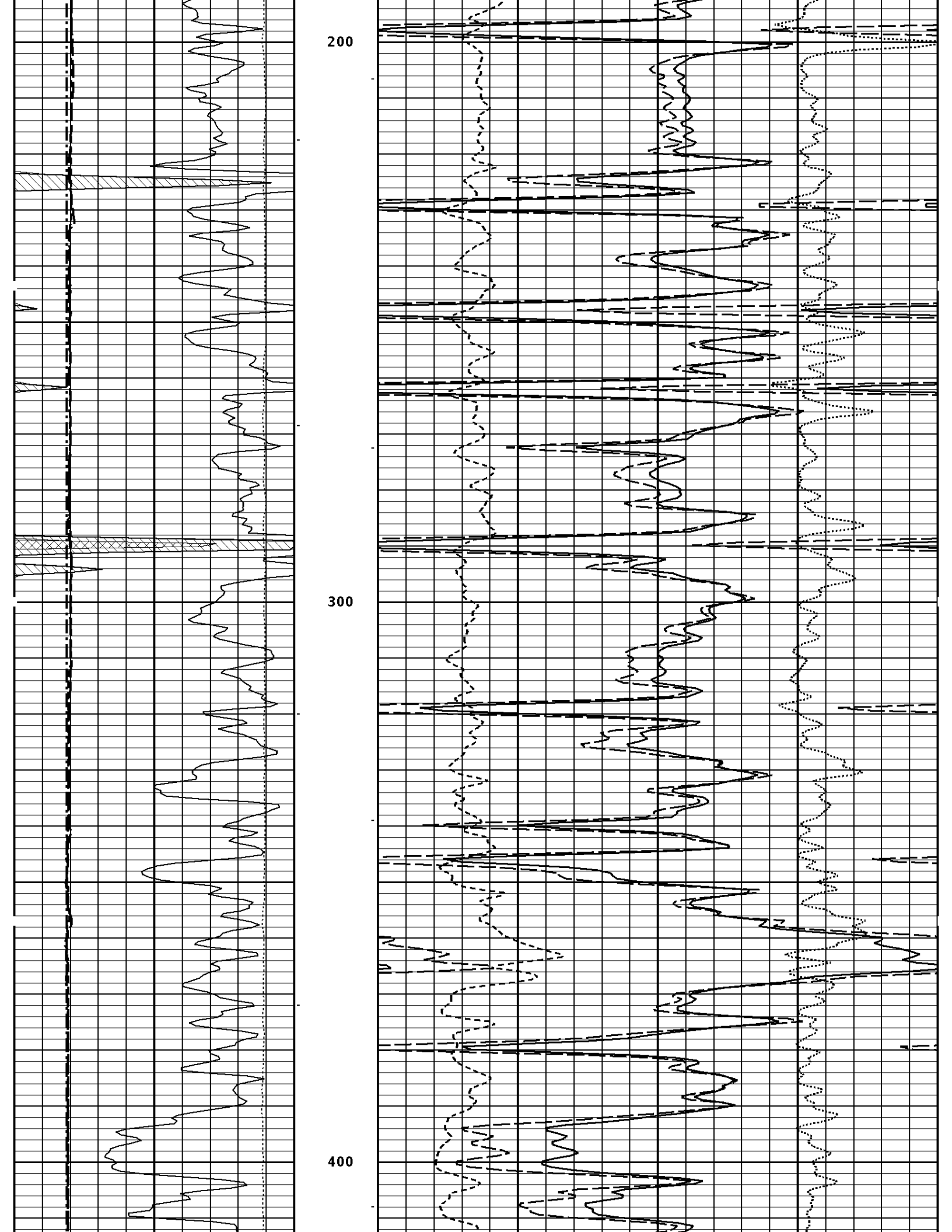
Well File: RFP_CLEAVER_5-6A-2_OCT25_ST **Scale:** 1:240
Segment: V1.D1.S4 MAIN **Acquired:** 2011-10/25 12:00 3.2.0-10220
Reference: 0 **Processed:** 2011-10/25 12:00 3.2.0-10220

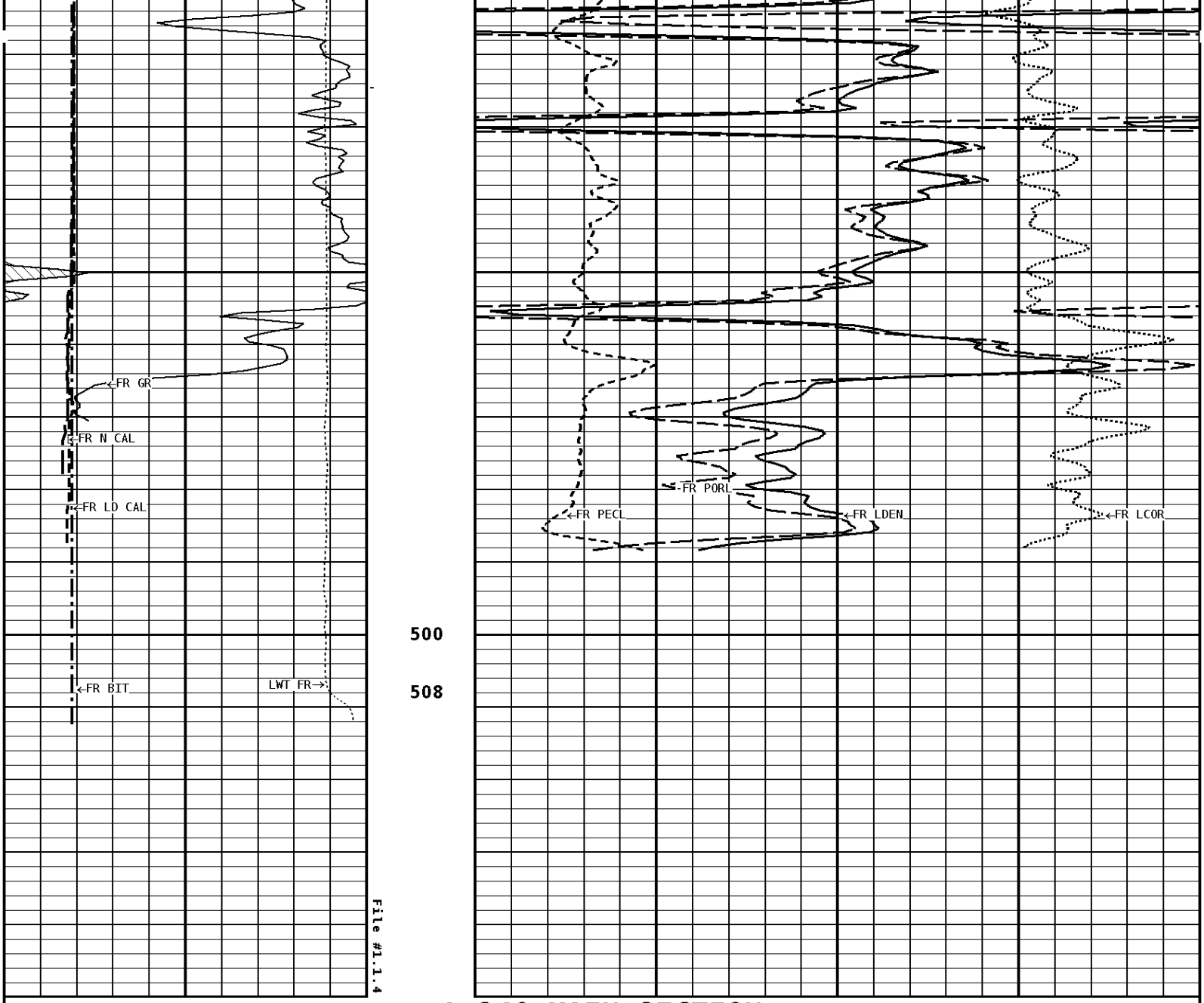


1:240 MAIN SECTION
BULK DENSITY

BULK DENSITY




200
300
400



1:240 MAIN SECTION
BULK DENSITY

GAMMA RAY API UNITS	-BHV AHV- CU.FT	COMPENSATED BULK DENSITY G/CC
200 400 0 200		3.0 4.0 2.0 3.0 1.0 2.0
NEUTRON (Y) CALIPER INCHES (IN)		DENSITY POROSITY PERCENT (2.71 g/cc)
14 24 4 14		70 30 30 -10 -10 -50
DENSITY (X) CALIPER INCHES (IN)		PE CROSS-SECTION BARNS/ELECTRON 0 10
14 24 4 14		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	5.875	in
Casing Diameter	2.875	in
Casing Correction (PHI N)	Disable	

* Calibration Summary *

Shop Calibration GRT-B

Performed : 16-MAY-2011 Time : 09:49
Sensor Suite : GR-GR5 ID : GRT-BA-14

	Measured Background	Measured Jig	Units	Calibrated Jig	Units
GR	50	361	CPS	175	GRAPI

Shop Calibration CNT-AA

Performed : 21-MAR-2011 Time : 11:09
Sensor Suite : CALI-BCN ID : NDT-AB-400

	Jig - Measured Ring#1	Jig - Measured Ring#2	Jig - Calibrated Ring#1	Jig - Calibrated Ring#2	Units
CL # 1	8.4	14.4	6.0	12.0	IN.

Performed : 13-Jul-2011 Time : 11:29
Sensor Suite : BHC NEUT ID : CNP-AA-116
Source ID : N-1044

	Tank Measured	Tank Calibrated	Verification Jig	Units
N/F	3.8805	3.6893	3.7029	
Porosity	23.5	20.5	20.7	%

Shop Calibration LDT-DA

Performed : 15-MAY-2011 Time : 08:26
Sensor Suite : CALI-LTH ID : PDT-GA-465

	Jig - Measured Ring#1	Jig - Measured Ring#2	Jig - Calibrated Ring#1	Jig - Calibrated Ring#2	Units
CL # 1	6.2	12.2	6.0	12.0	IN.

Performed : 13-Jul-2011 Time : 12:09
Sensor Suite : BHCPELNG ID : LDP-DA-01
Source ID : CSV-587

Short Space

	BKGD	Al	Mg	Al+Fe	Units
LSW1	64	489	798	327	CPS
LSW2	69	564	908	409	CPS
LSW3	259	1341	2112	1147	CPS
LSW4	310	1227	1704	1093	CPS
LSW5	31	39	42	38	CPS
LSW6	79	79	78	79	CPS
LSW7	48	52	52	51	CPS
LSW8	3	4	4	4	CPS
QS	0.240	0.209	0.202	0.221	
PES			2.778	5.967	
SSDN		2.600	1.680		G/CC

Long Space

	BKGD	Al	Mg	Al+Fe	Units
LLW1	109	613	2504	393	CPS
LLW2	123	1058	4276	772	CPS
LLW3	469	2037	7352	1776	CPS
LLW4	607	1182	2992	1113	CPS
LLW5	69	73	90	72	CPS
LLW6	197	190	183	191	CPS

LLW7	120	121	118	122	CPS
LLW8	8	9	14	8	CPS
QL	0.243	0.222	0.217	0.220	
PEL			2.697	5.458	
LSDN		2.600	1.680		G/CC