Tucker WIRELINE SERVICES

COMPENSATED NEUTRON
PEL DENSITY LOG

File No. : TUL-56878
Company : RUNNING FOXES PETROLEUM, LLC
Well : GROSS 11-6B-1
Field :
County : BOURBON
State : KANSAS
Country : USA

Location : API#: 15-011-23771-00-00
2465' FSL & 1960' FWL
NE NW NE SW
Sect : 6 Twp : 25S Rge : 24E

Recorded By : B.BAILEY
Witnessed By : C.COUNTS

Date : JAN 3 2011
Run No. : 1

Permanent Datum :	GL	
Drilling Measured From :	GL	
Log Measured From:	GL	
Above Permanent Datum :	0.00	FT
Depth--Driller :	523.0	FT
Depth--Logger :	507.0	FT
Bottom Log Interval :	483.0	FT
Top Log Interval :	20.0	FT
Casing Depth--Driller:	20.0	FT
Casing Depth--Logger :	20.0	FT
Casing Diameter :	7.000	IN
Bit Size :	5.628	IN

Unit No. : 127
Location : TULSA

Elevations :
KB : FT
DF : FT
GL : 898.00 FT

Additional Services

PIT

Run Number 1

Depth To Fluid	0.0	FT		
Fluid Type In Hole :	NATIVE			
Density :	0.000	SG		
Viscosity :	0.000	SEC		
pH :	0.000			
Fluid Loss :	0.000			
Salinity :	0.000	KPPM		
			55	F
RM Source :	MEASURED			
RM :	10.000	OHMM at	55	F
RM at BHT :	7.463	OHMM at	76	F
RMF Source :	CALCULATED			
RMF :	8.500	OHMM at	55	F
RMF at BHT :	6.343	OHMM at	76	F
RMC Source :	CALCULATED			

RMC :	11.500	OHMM at	55	F
RMC at BHT :	8.582	OHMM at	76	F
Max Recorded Temp. :			76	F
Time Circulation Stopped :				
Operating Rig Time, Hrs. :			2.0	

- Source Serial Numbers -

Gamma	CSV-587
Neutron	N-1044

- Sonde Serial Numbers -

GRTB	GRT-BA-14
CNT	CNP-AA-116
LDTNG	LDP-NG-02
PIT_B	PIT-CA-074

Casing Strings

Size (IN)	Weight (LB/FT)	Bottom (FT)
7.000	32.00	20.00

- Comments -

ALL PRESENTATIONS AS PER CUSTOMER REQUEST.

GRT, CNT, LDT, PIT RAN IN COMBINATION
CALIPERS ORIENTED ON THE X-Y AXIS.
PHIN IS CALIPER CORRECTED.
2.71 G/CC USED TO CALCULATE POROSITY.
ANNULAR HOLE VOLUME CALCULATED USING 2.875" PRODUCTION CASING.
HOLE TOP FILLED.
SFL AND SP EFFECTED BY OIL IN HOLE.

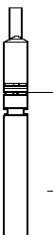
GRT: GRP.
CNT: PHIN, CLCNIN.
LDT: PORL, LCORN, PECLN, CLLDIN, LDENN, PORLLS, PECSN.
PIT: ILD, ILM, CIRD, SFLAEC, SPU.

OPERATORS:
M.BURKE
R.NITZ

THANK YOU FOR USING TUCKER WIRELINE SERVICES!

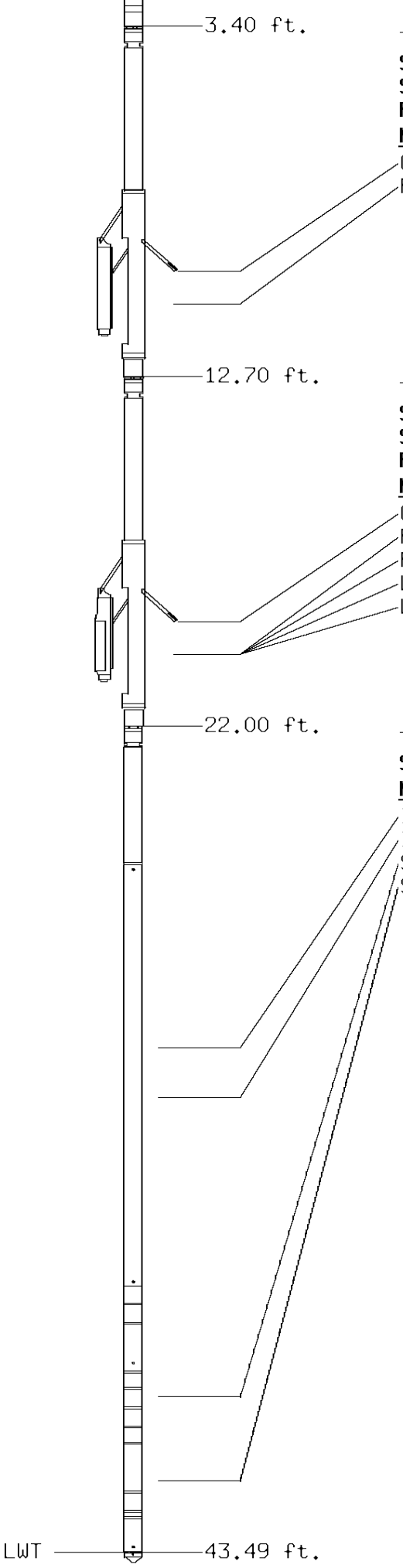
Tool String Schematic

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



Tool: GRTB **Length:** 3.40 **ft. O.D.:** 3.60 **in.**
Sonde ID : GRT-BA-14

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



Tool: CNT **Length:** 9.30 **ft. O.D.:** 4.36 **in.**
Sonde ID : CNP-AA-116
Source ID : N-1044
Pad ID : CNP-AA-116

Measure Point	Stack Offset	Tool Offset	Bottom Offset
CLCN	9.40	6.00	34.09
PHIN	10.24	6.84	33.25

Tool: LDTNG **Length:** 9.30 **ft. O.D.:** 4.80 **in.**
Sonde ID : LDP-NG-02
Source ID : CSV-587
Pad ID : LDP-NG-02

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

Tool: PIT **Length:** 21.49 **ft. O.D.:** 3.62 **in.**
Sonde ID : PIT-CA-074

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

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

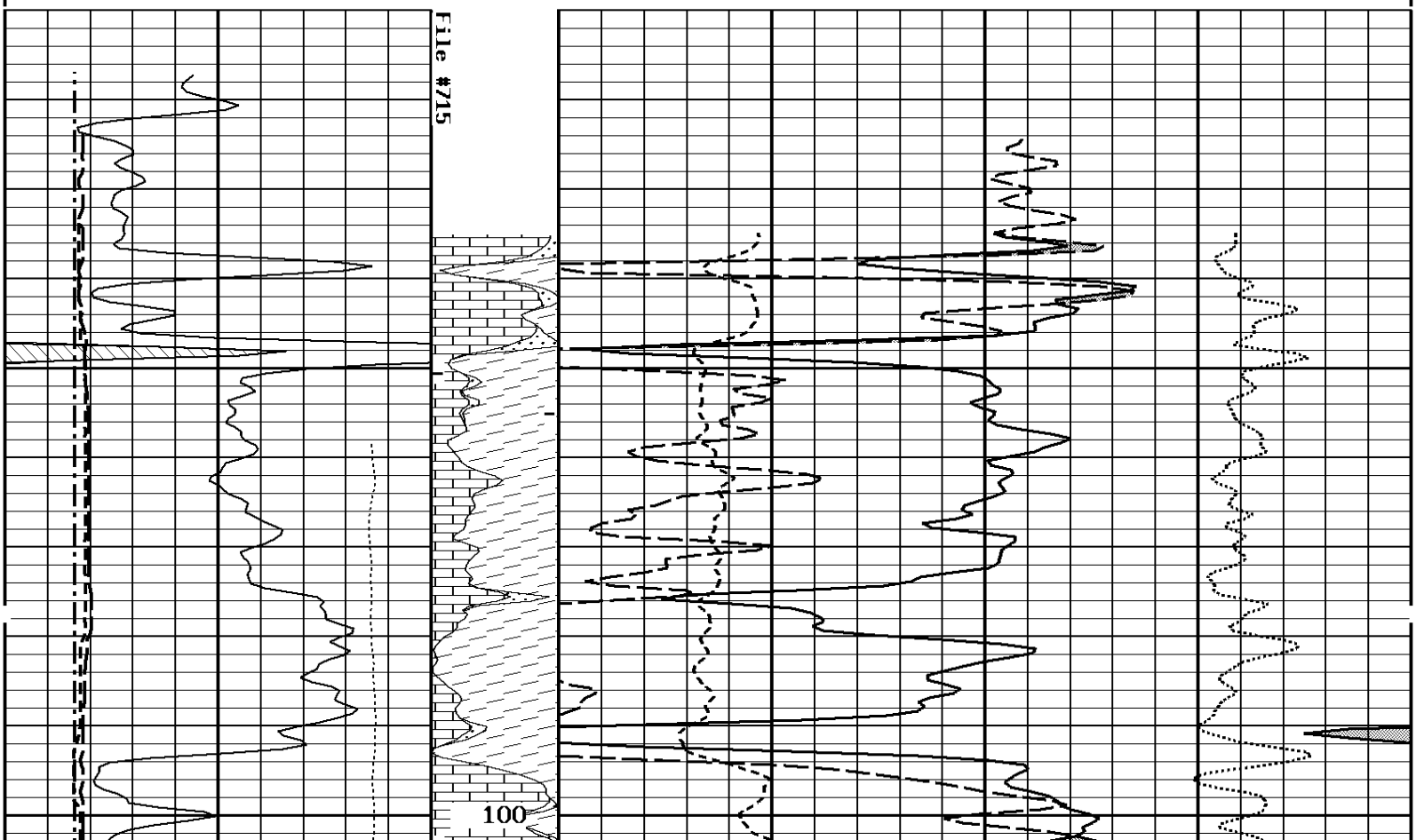
NEUTRON POROSITY
PERCENT (LIMESTONE MATRIX)
30 -10

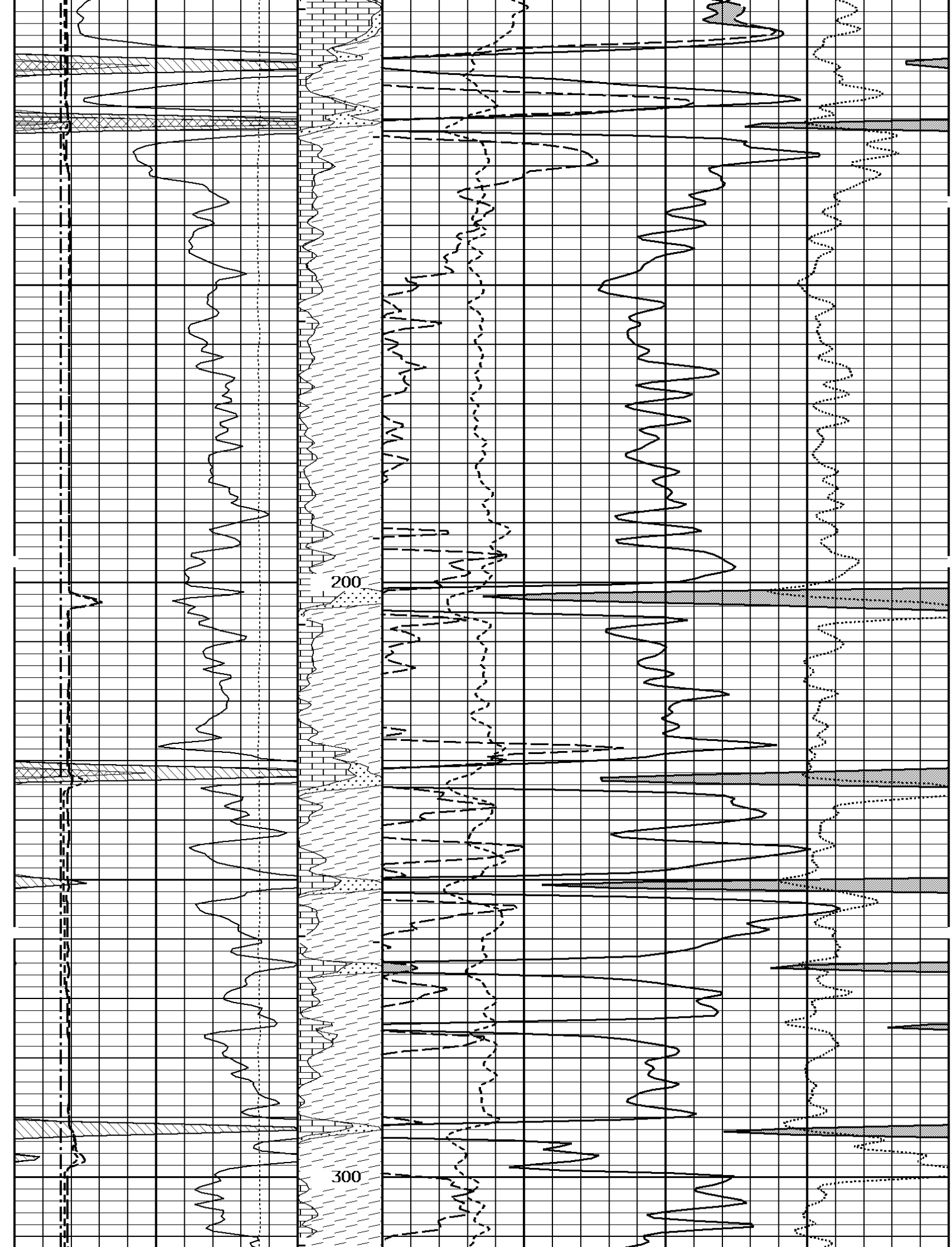
GAMMA RAY
API UNITS
200 400
0 200

-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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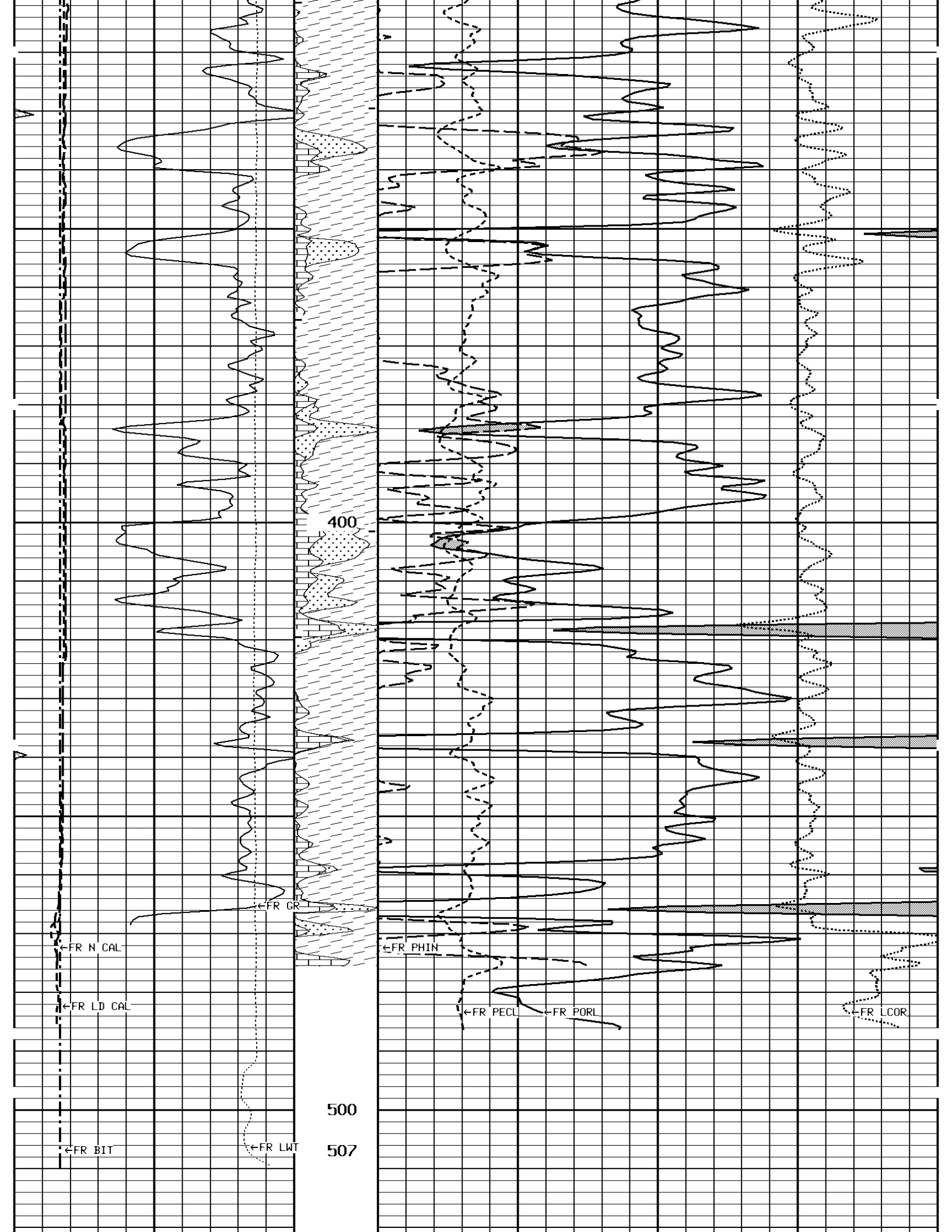
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←FR GR
←FR N CAL
←FR LD CAL
←FR PHIN
←FR PECL
←FR PORL
←FR LCOR
500
←FR BIT
←FR LWT
507

File #715

1:240 MAIN SECTION

GAMMA RAY API UNITS	-BHV AHV- CU.FT	DENSITY POROSITY PERCENT (2.71 g/cc)	
200 400		70	30
0 200		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	DENSITY CORRECTION G/CC
14 24			
4 14		0 10	-0.25 0.25
BIT SIZE INCHES (IN)	Volume Dolo/Shale		
4 14			
TENSION LBS			
10000 0			

* Borehole Zone Factors *

Zone 1 99999.0 to 0.0 F

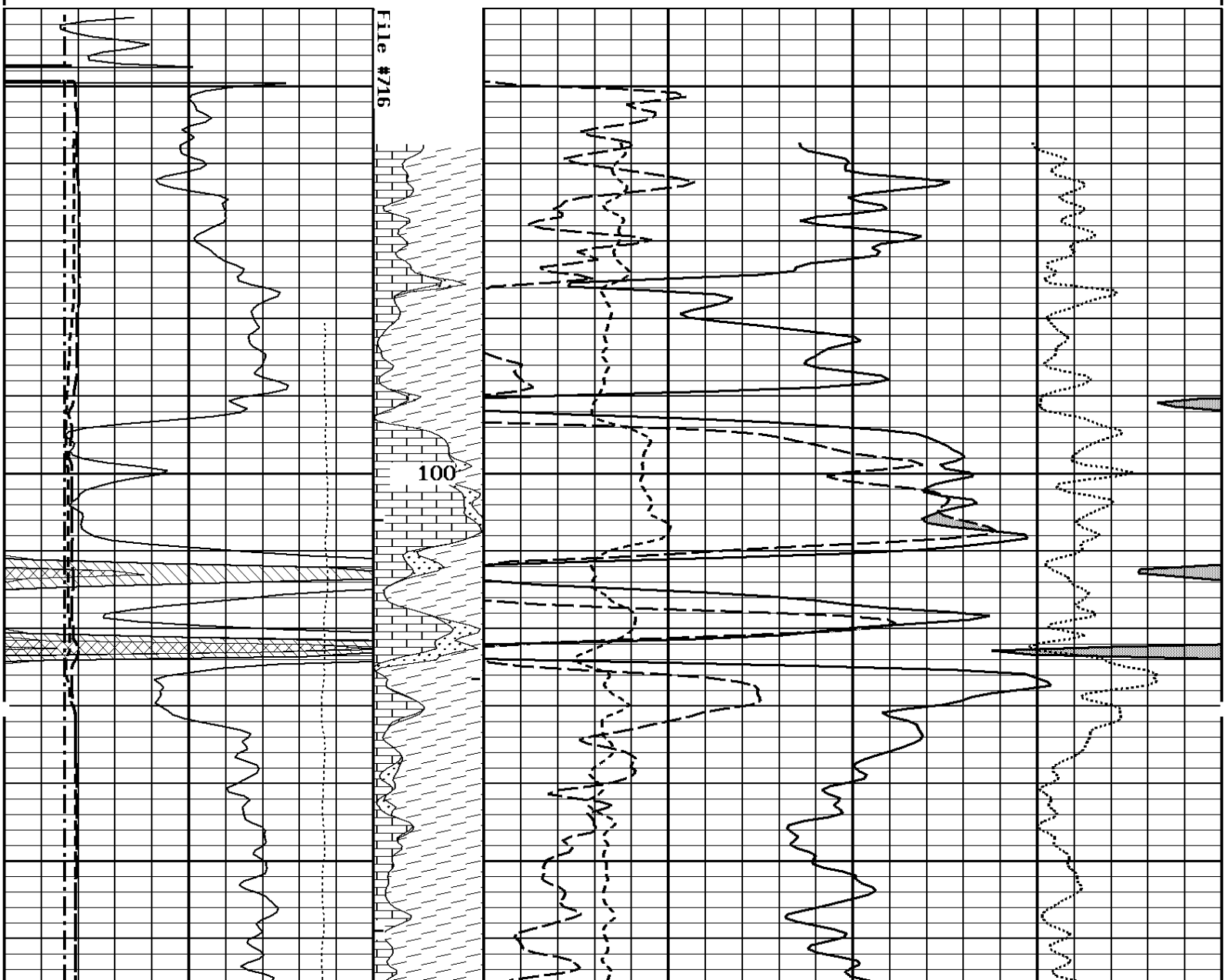
Matrix Density	2.71	G/C3
Fluid Density	1.00	G/C3
Formation Matrix	Limestone	
Drill Bit Size	5.625	IN
Production Casing Diameter	2.875	IN
Casing Correction (PHI N)	Disable	

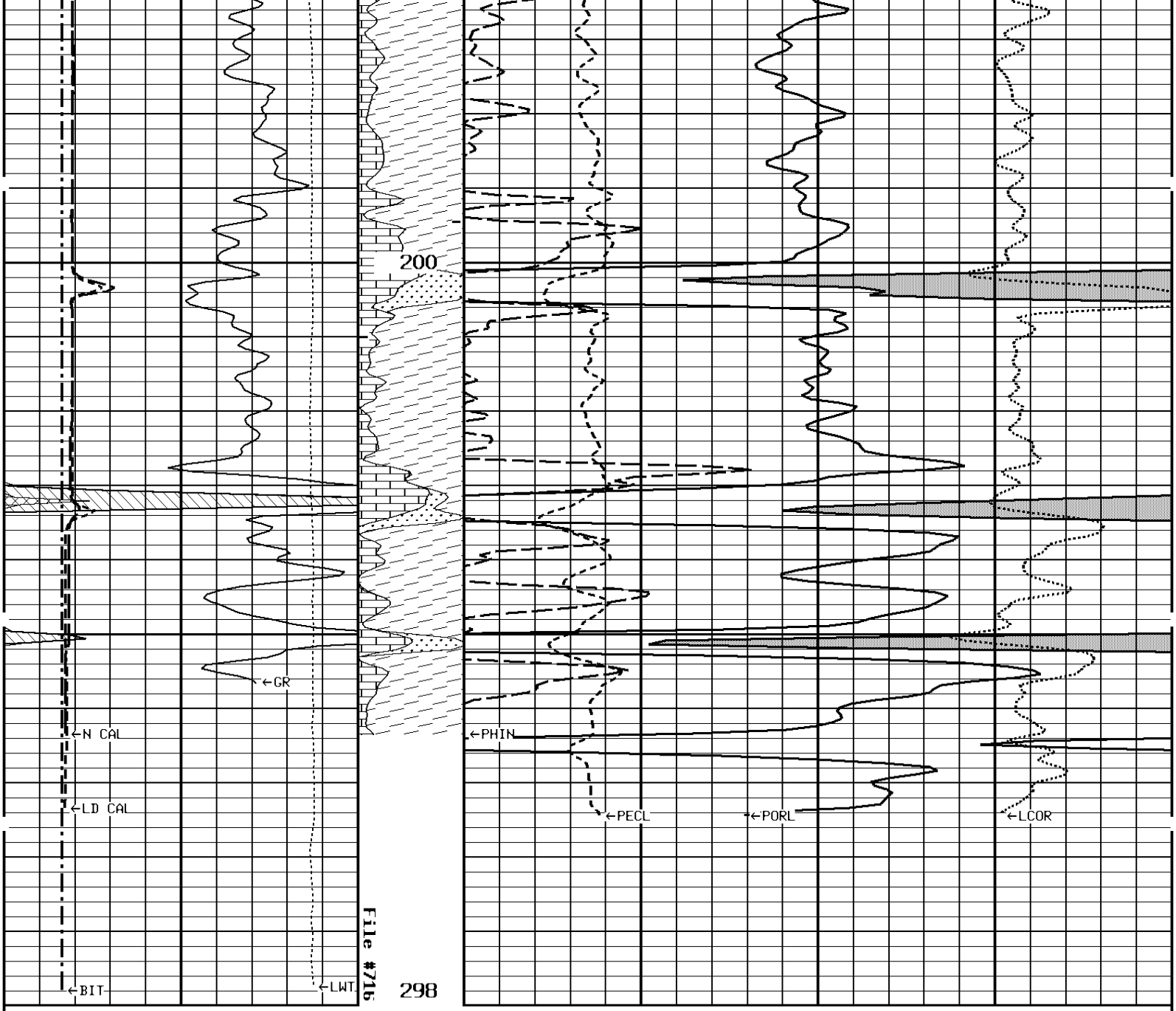
TENSION LBS	
10000	0
BIT SIZE INCHES (IN)	Volume Dolo/Shale
4 14	

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
NEUTRON (Y) CALIPER INCHES (IN)	**Volume Calcite**	**NEUTRON POROSITY PERCENT (LIMESTONE MATRIX)**	
14 24 4 14		30 -10	
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	

1:240 REPEAT SECTION





1:240 REPEAT 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 / DENSITY CORRECTION G/CC
14 24 4 14		0 10 / -0.25 0.25

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

TENSION LBS
10000 — 0

* Borehole Zone Factors *

Zone 1 99999.0 to 0.0 F

Matrix Density	2.71	G/C3
Fluid Density	1.00	G/C3
Formation Matrix	Limestone	
Drill Bit Size	5.625	IN
Production Casing Diameter	2.875	IN
Casing Correction (PHI N)	Disable	

TENSION LBS
10000 — 0

BIT SIZE INCHES (IN)
4 — 14

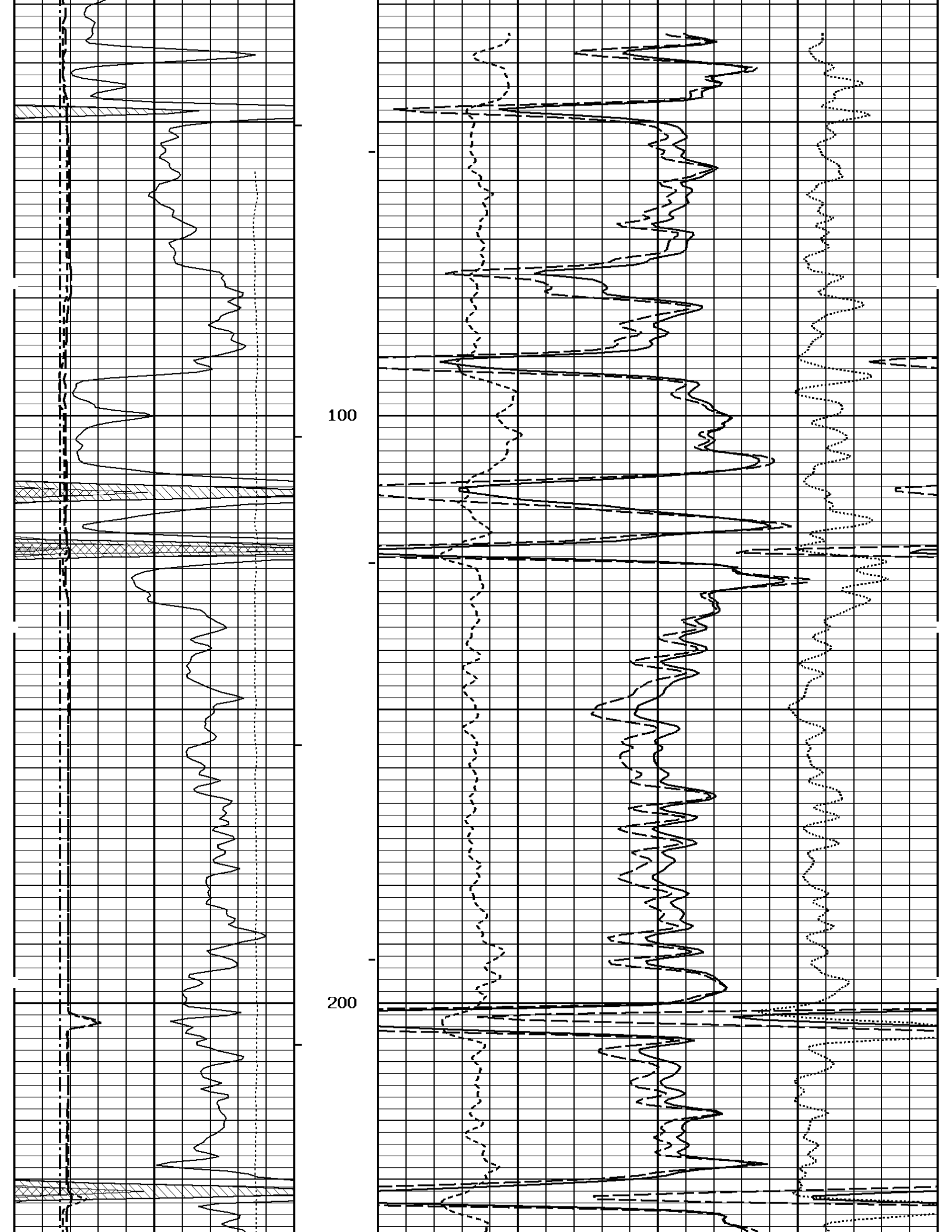
DENSITY (X) CALIPER INCHES (IN)		PE CROSS-SECTION BARNS/ELECTRON	DENSITY CORRECTION G/CC
14	24		
4	14	0 — 10	-0.25 — 0.25

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		-BHV AHV- CU.FT	COMPENSATED BULK DENSITY G/CC	
200	400		3.0	4.0
0	200		2.0	3.0
			1.0	2.0

1:240 MAIN SECTION
BULK DENSITY

File #715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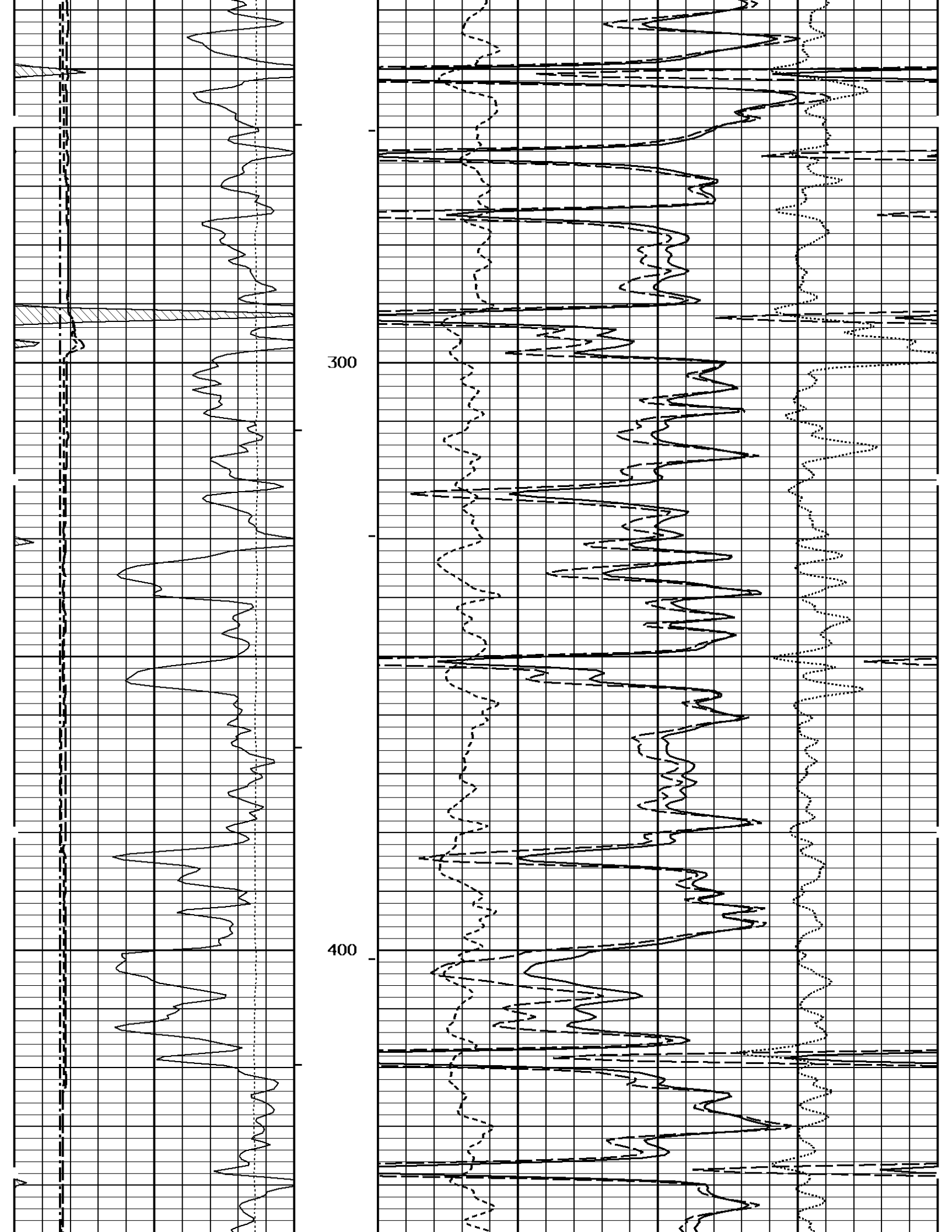
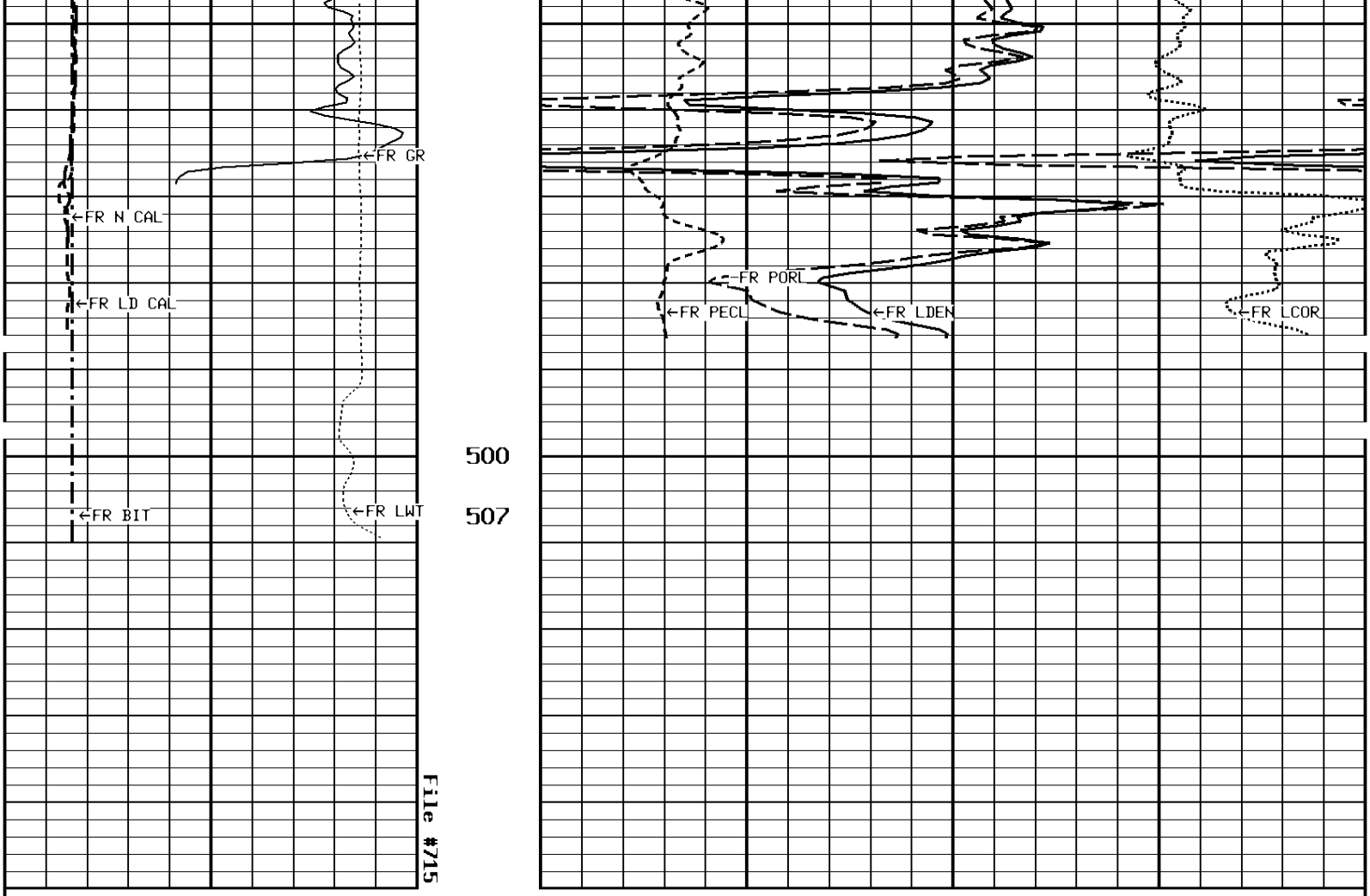
200


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 F

Matrix Density	2.71	G/C3
Fluid Density	1.00	G/C3
Formation Matrix	Limestone	
Drill Bit Size	5.625	IN
Production Casing Diameter	2.875	IN
Casing Correction (PHI N)	Disable	

* Calibration Summary *

Shop Calibration GRTB

Performed : 21-Aug-2009 Time : 15:26
Sensor Suite : GR-GR5 ID : GRT-BA-14

	Measured Background	Measured Jig	Units	Calibrated Jig	Units
GR	49	347	CPS	175	GRAPI

Shop Calibration CNT

Performed : 23-Nov-2010 Time : 10:59
Sensor Suite : BHC NEUT ID : CNP-AA-116
Source ID : N-1044

	Tank Measured	Tank Calibrated	Verification Jig	Units
N/F	3.8765	3.6890	3.6823	
Porosity	23.4	20.5	20.4	%

Performed : 07-MAR-2010 Time : 09:04
Sensor Suite : CALI-BCN ID : CNP-AA-116

	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.

Shop Calibration LDTNG

Performed : 14-APR-2009 Time : 14:57
Sensor Suite : CALIPEL ID : LDP-NG-02

	Jig - Measured Ring#1	Jig - Measured Ring#2	Jig - Calibrated Ring#1	Jig - Calibrated Ring#2	Units
CL # 1	7.1	13.1	6.0	12.0	IN.

Performed : 23-Nov-2010 Time : 16:38
Sensor Suite : BHCPELNG ID : LDP-NG-02
Source ID : CSV-587

	Short Space BKGD	Short Space Al	Short Space Mg	Short Space Al+Fe	Units
LSW1	72	464	748	315	CPS
LSW2	73	563	902	407	CPS
LSW3	284	1413	2187	1196	CPS
LSW4	364	1352	1878	1207	CPS
LSW5	35	44	45	43	CPS
LSW6	96	96	95	94	CPS
LSW7	61	60	60	61	CPS
LSW8	2	3	3	2	CPS
QS	0.223	0.231	0.226	0.213	
PEF			2.228	5.962	

PE5			2.778	5.967	
SSDN		2.600	1.680		G/CC

Long Space

	BKGD	Al	Mg	Al+Fe	Units
LLW1	109	617	2532	389	CPS
LLW2	119	1058	4337	769	CPS
LLW3	450	2050	7522	1782	CPS
LLW4	589	1207	3071	1115	CPS
LLW5	66	69	86	68	CPS
LLW6	192	188	178	190	CPS
LLW7	118	119	114	120	CPS
LLW8	4	5	10	5	CPS
QL	0.239	0.225	0.219	0.226	
PEL			2.697	5.458	
LSDN		2.600	1.680		G/CC