

Tucker
WIRELINE SERVICES

COMPENSATED NEUTRON

PEL DENSITY LOG

Company RUNNING FOXES PETROLEUM
Well DUNLOP #1-12
Field WILDCAT
County BOURBON
State KANSAS
Country USA
API No. 15-011-23853-0000

File No : TUL-57002
Company : RUNNING FOXES PETROLEUM INC.
Well : DUNLOP #1-12
Field : WILDCAT
County : BOURBON
State : KANSAS
Country : USA
API No : 15-011-23853-0000

Location :
660' FNL & 660' FEL
NE NE

LSD : Sect : 12 Twp : 24S Rge : 22E

Permanent Datum: GL Elevations: KB 0.00 Ft CNT
Drilling Measured From: GL DF 0.00 Ft LDT
Log Measured From: GL DF 0.00 Ft PIT
Above Permanent Datum: 0.00 Ft GL 853.00 Ft

Date	2012-03-27	
Run Number	1	
Depth--Driller	642.0	Ft
Depth--Logger	640.0	Ft
First Reading	617.0	Ft
Last Reading	36.0	Ft
Casing--Driller	36.0	Ft
Casing--Logger	36.0	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.	4.000	@ 70 F
RMF@Measured Temp	3.200	@ 70 F
RMC@Measured Temp.	4.800	@ 70 F
Source RMF/RMC	CALCULATED/CALCULATED	
RM@BHT	3.520	@ 80 F
Time Circulation Stopped	2012-03-27 06:16	
Max Recorded Temp.	80	F
Equipment/Base	TRK 127	TULSA
Recorded By	SHELDON TYLER	
Witnessed By	C. COUNTS	

The customer is hereby warned that by providing the log data herein, T. W. S. does not agree to provide any interpretation of log data, conversion of log data to physical rock parameters or recommendations. T. W. 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. W. 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. W. 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	642.00	8.625	32.00	36.00

Run Number	1	
Date	2012-03-27	
Date/Time On Bottom	2012-03-27 08:15	
Depth to Fluid	0.0	Ft
Salinity	0.000	PPM
RMF@BHT	0.820	@ 80 F
RMC@BHT	4.220	@ 80 F

Run Number 1

Comments

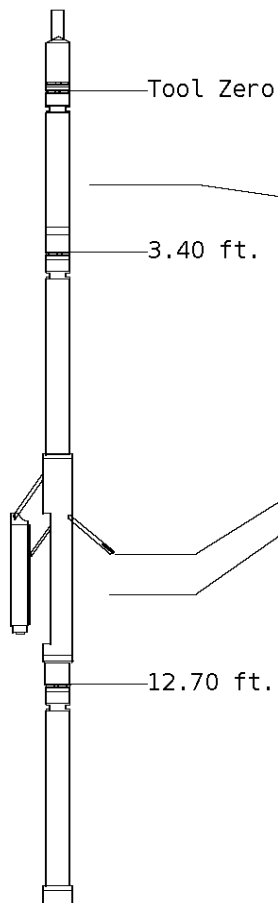
ALL PRESENTATIONS AS PER CUSTOMER REQUEST
 GRT, CNT, LDT, AND PIT RUN IN COMBINATION.
 CALIPERS ORIENTED ON X-Y AXIS.
 2.71 G/CC USED TO CALCULATED POROSITY.
 ANNULAR HOLE VOLUME CALCULATED USING 4.5" PRODUCTION CASING.

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

OPERATORS:
 M.BURKE
 A.DJAHO

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-121

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-BB-115

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

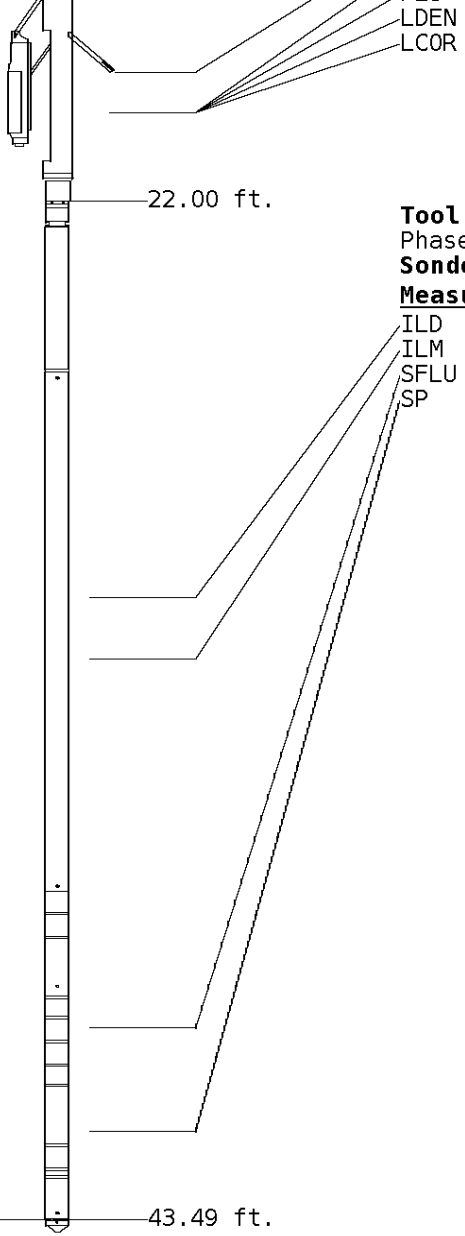
Tool: LDT-DA **Length:** 9.30 ft. **O.D.** 4.80 in.
 Litho Density D Pad on NDT-A

Sonde ID :PDT-GA-469

Source ID :CSV-587

Pad ID :LDP-DA-02

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



7.20 19.90 23.59
 7.20 19.90 23.59

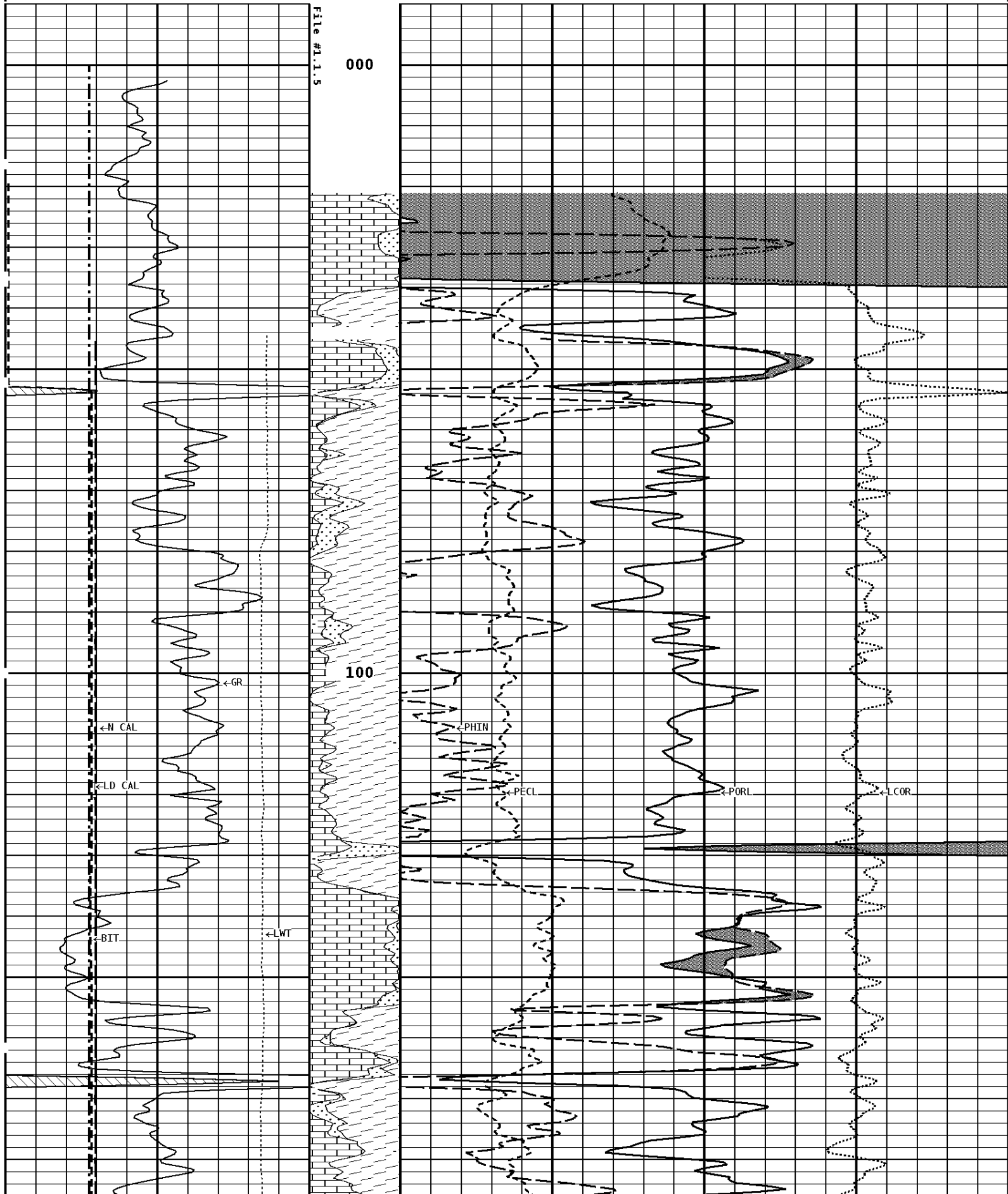
Tool: PIT-CA **Length:** 21.49 ft. **O.D.** 3.62 in.
 Phased Dual Induction w/ RM & D
Sonde ID :PIT-AC-13

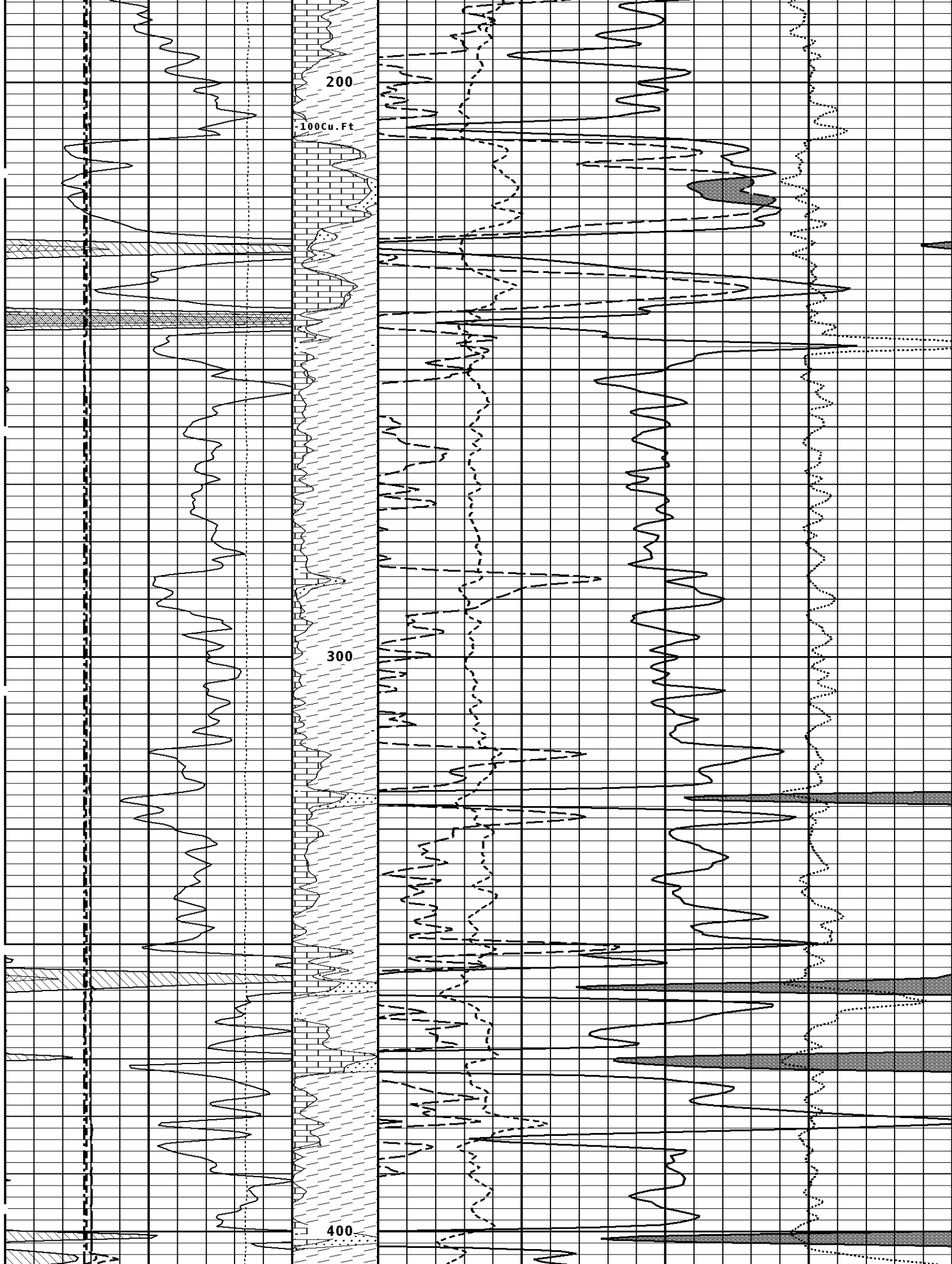
Measure Point	Tool Offset	Stack Offset	Bottom Offset
ILD	8.92	30.92	12.56
ILM	10.10	32.10	11.39
SFLU	17.49	39.49	4.00
SP	20.60	42.60	0.88

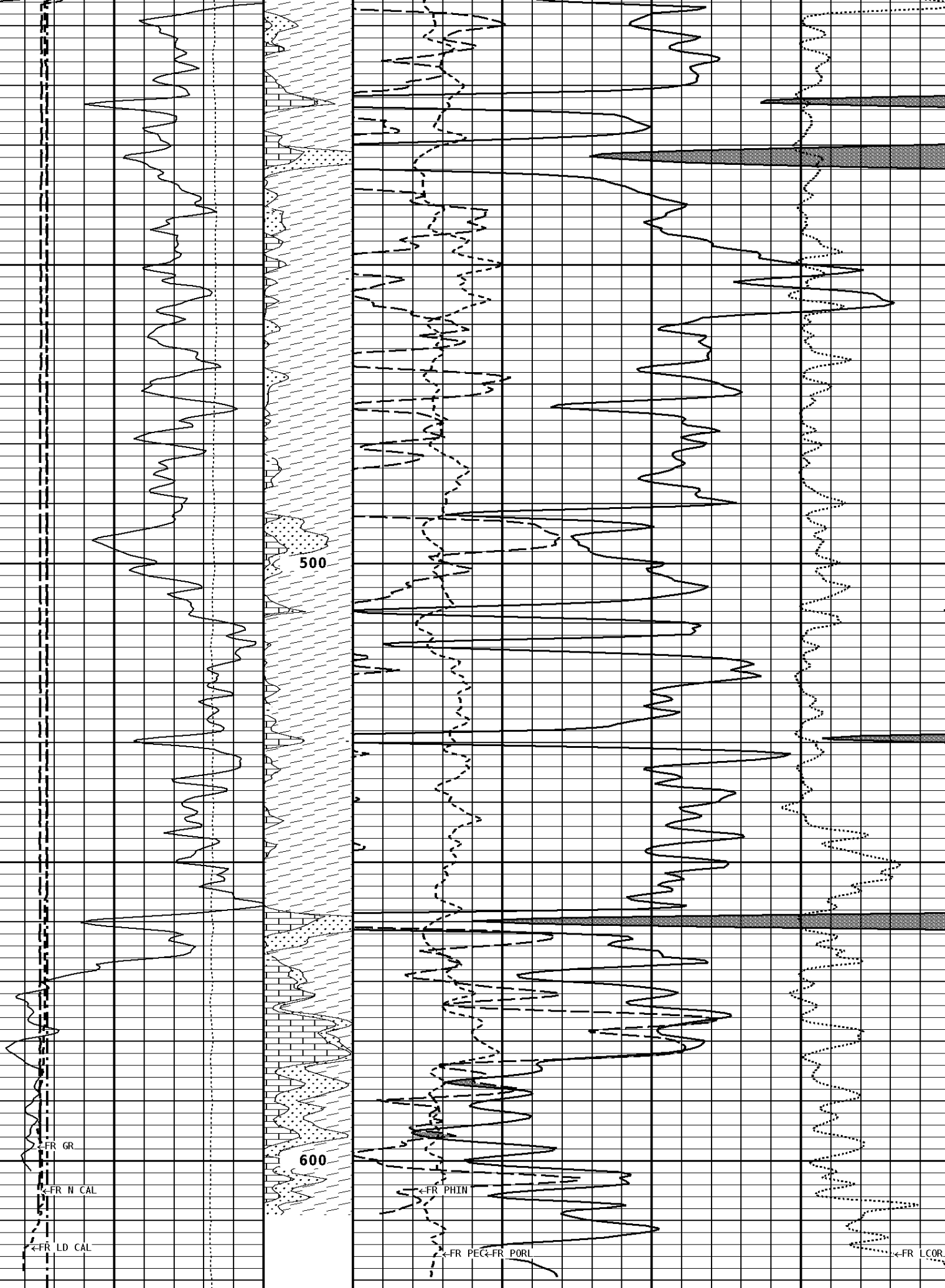
Well File: RFP_DUNLOP 1-12_MAR27_STK **Scale:** 1:240
Segment: V1.D1.S5 Reprocess of MAIN **Acquired:** 2012-03/27 09:11 3.2.0-10367
Reference: 0 **Processed:** 2012-03/27 09:27 3.2.0-10367

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

1:240 MAIN SECTION







500

600

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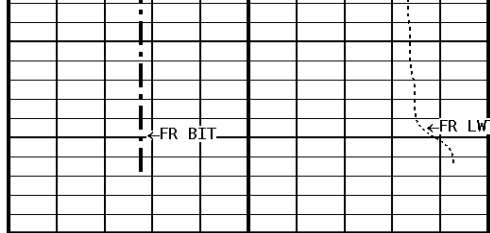
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<FR L COR



640

1:240 MAIN SECTION

GAMMA RAY API UNITS 200 400 0 200		-BHV AHV- CU. FT 70 30 -10		DENSITY POROSITY PERCENT (2.71 g/cc) 30 -10 -50	
NEUTRON (Y) CALIPER INCHES (IN) 14 4 24 14		Volume Calcite 		NEUTRON POROSITY PERCENT (LIMESTONE MATRIX) 30 -10	
DENSITY (X) CALIPER INCHES (IN) 14 4 24 14		Volume Quartz 		PE CROSS-SECTION BARNS/ELECTRON 0 10 -0.25 0.25	
BIT SIZE INCHES (IN) 4 14		Volume DoLo/Shale 			
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 _____	6.750 in
Casing Diameter _____	4.500 in
Casing Correction (PHI N) _____	Disable

Well File: RFP_DUNLOP 1-12_MAR27_STK	Scale: 1:240
Segment: V1.D1.S3 Reprocess of REPEAT	Acquired: 2012-03/27 09:00 3.2.0-10367
Reference: 0	Processed: 2012-03/27 09:07 3.2.0-10367

TENSION LBS 10000 0					
BIT SIZE INCHES (IN) 4 14		Volume DoLo/Shale 			
DENSITY (X) CALIPER INCHES (IN) 14 4 24 14		Volume Quartz 		PE CROSS-SECTION BARNS/ELECTRON 0 10 -0.25 0.25	
NEUTRON (Y) CALIPER INCHES (IN) 14 24		Volume Calcite 		NEUTRON POROSITY PERCENT (LIMESTONE MATRIX)	

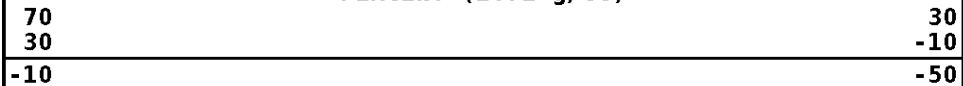
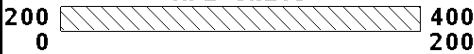
4 14

30 -10

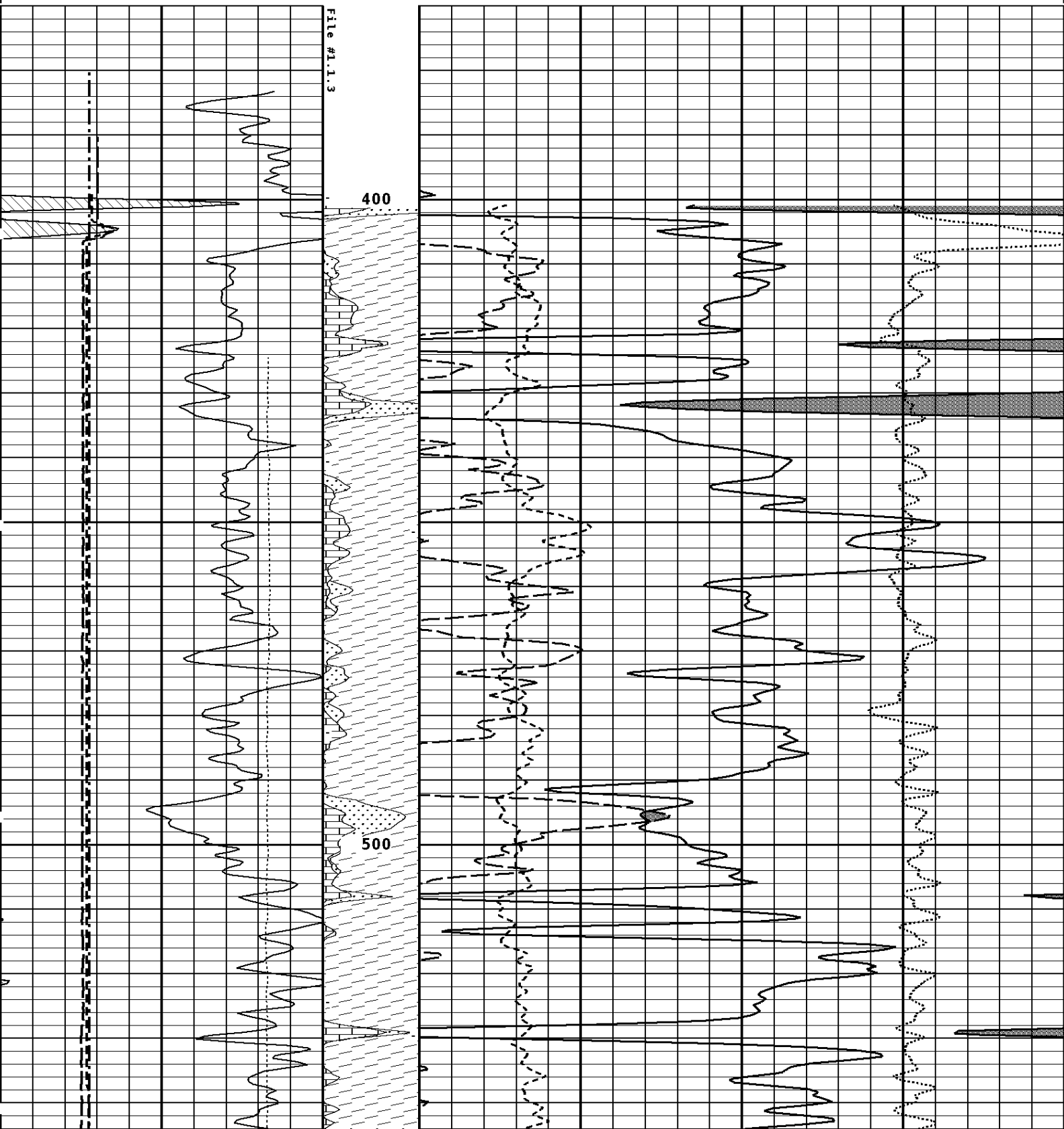
GAMMA RAY
API UNITS

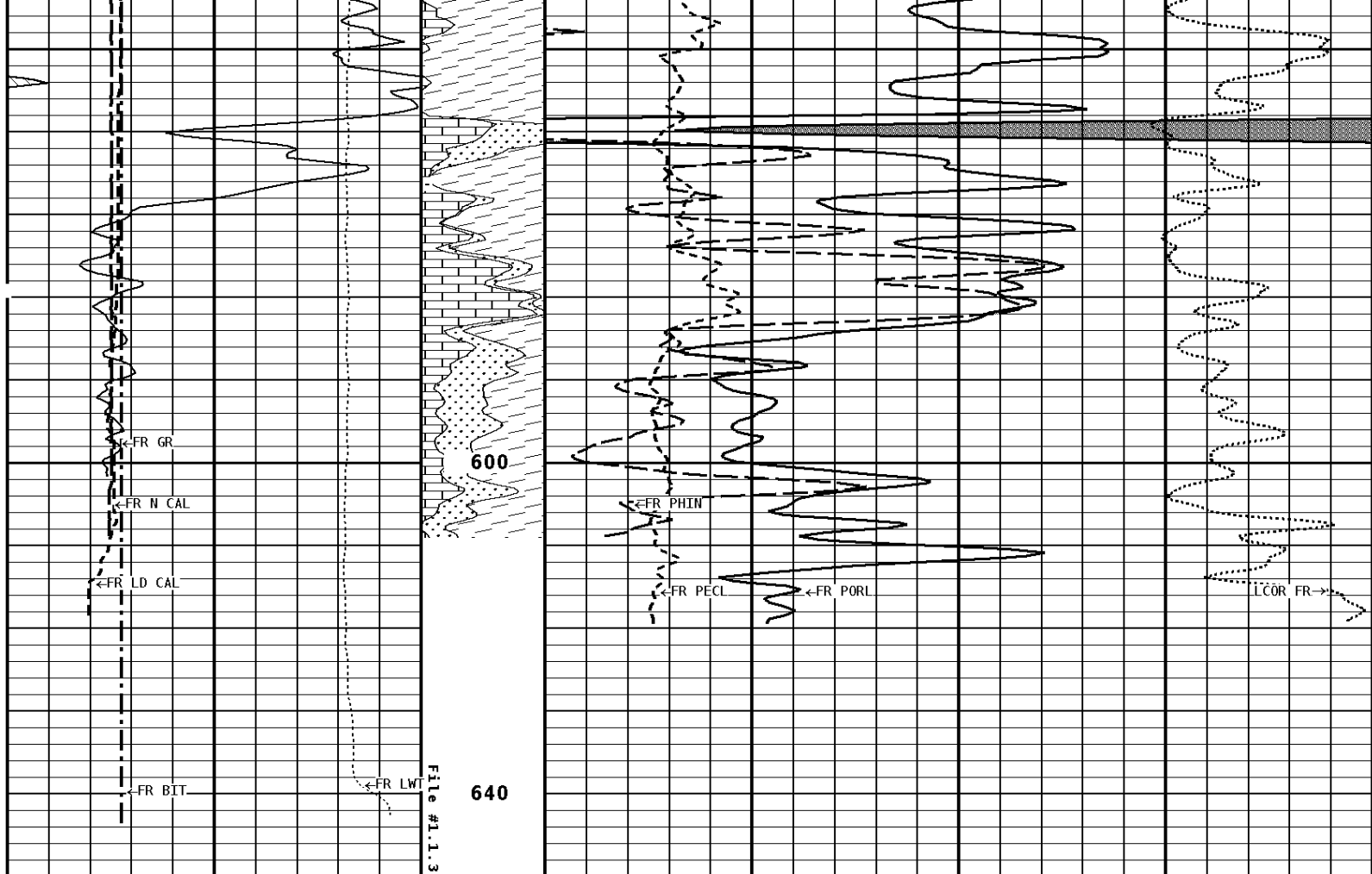
- BHV AHV -
CU. FT

DENSITY POROSITY
PERCENT (2.71 g/cc)



1:240 REPEAT SECTION





1:240 REPEAT SECTION

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

*** Borehole Zone Factors ***

Zone 1 99999.0 to 0.0 Feet Matrix Density 2.71 g/cc

Matrix Density	2.71	g/cc
Fluid Density	1.00	g/cc
Formation Matrix	Limestone	
Drill Bit Size	6.750	in
Casing Diameter	4.500	in
Casing Correction (PHI N)	Disable	

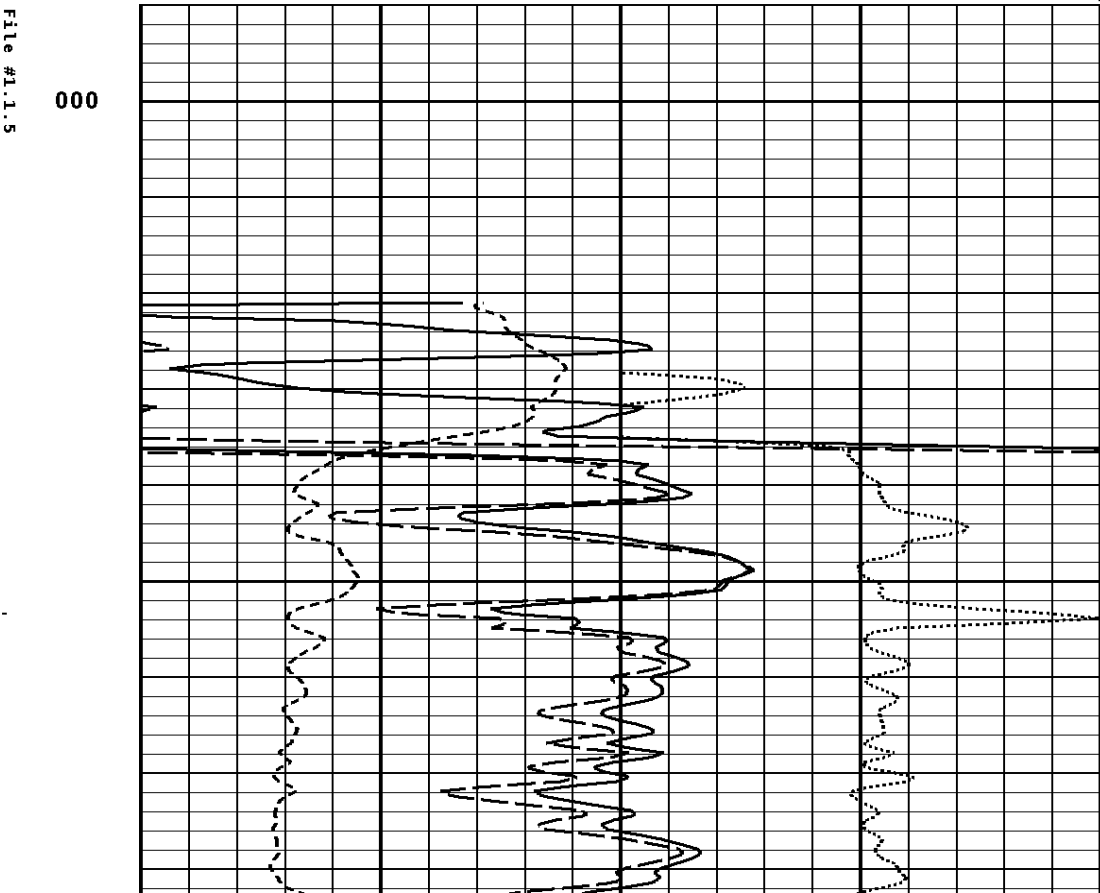
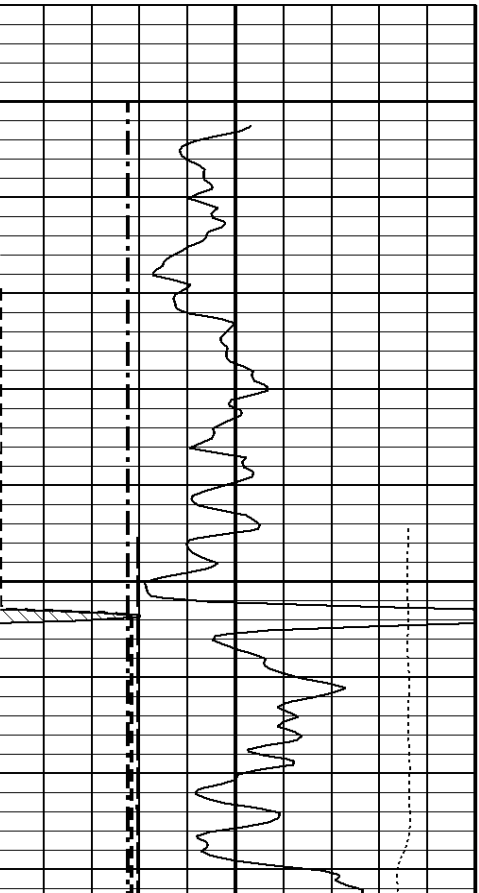
Well File: RFP_DUNLOP 1-12_MAR27_STK
 Segment: V1.D1.S5 Reprocess of MAIN
 Reference: 0

Scale: 1:240
 Acquired: 2012-03/27 09:11 3.2.0-10367
 Processed: 2012-03/27 09:27 3.2.0-10367

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

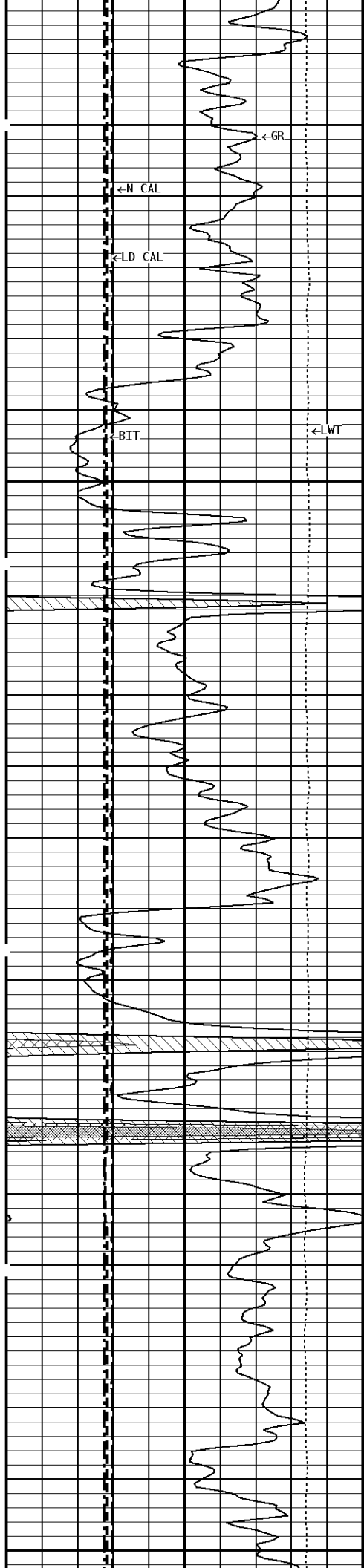
PE CROSS-SECTION BARNs/ELECTRON		DENSITY CORRECTION G/CC	
0	10	-0.25	0.25
DENSITY POROSITY PERCENT (2.71 g/cc)			
70			30
30			-10
-10			-50
-BHV AHV- CU. FT		COMPENSATED BULK DENSITY G/CC	
3.0			4.0
2.0			3.0
1.0			2.0

**1:240 MAIN SECTION
BULK DENSITY**



File #1.1.5

000

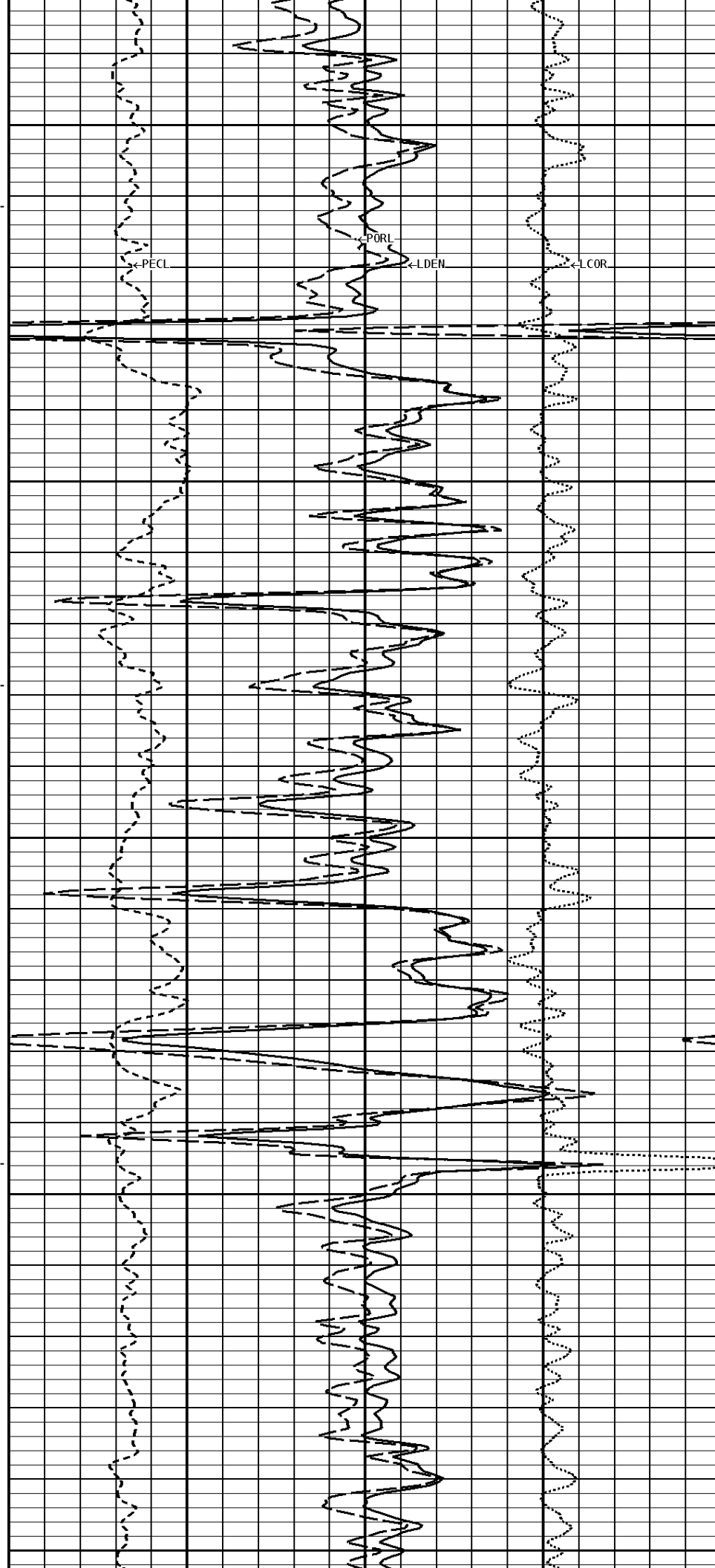


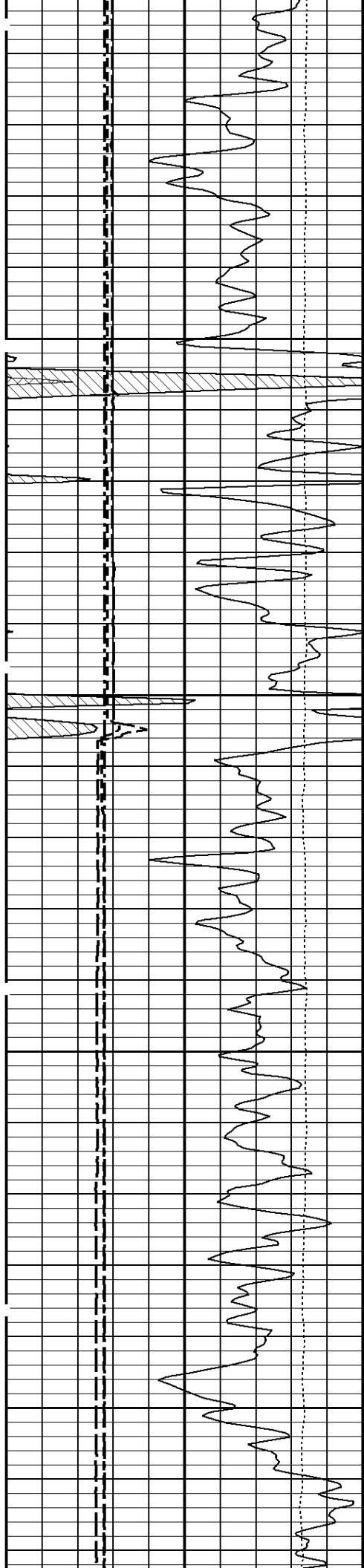
100

200

300

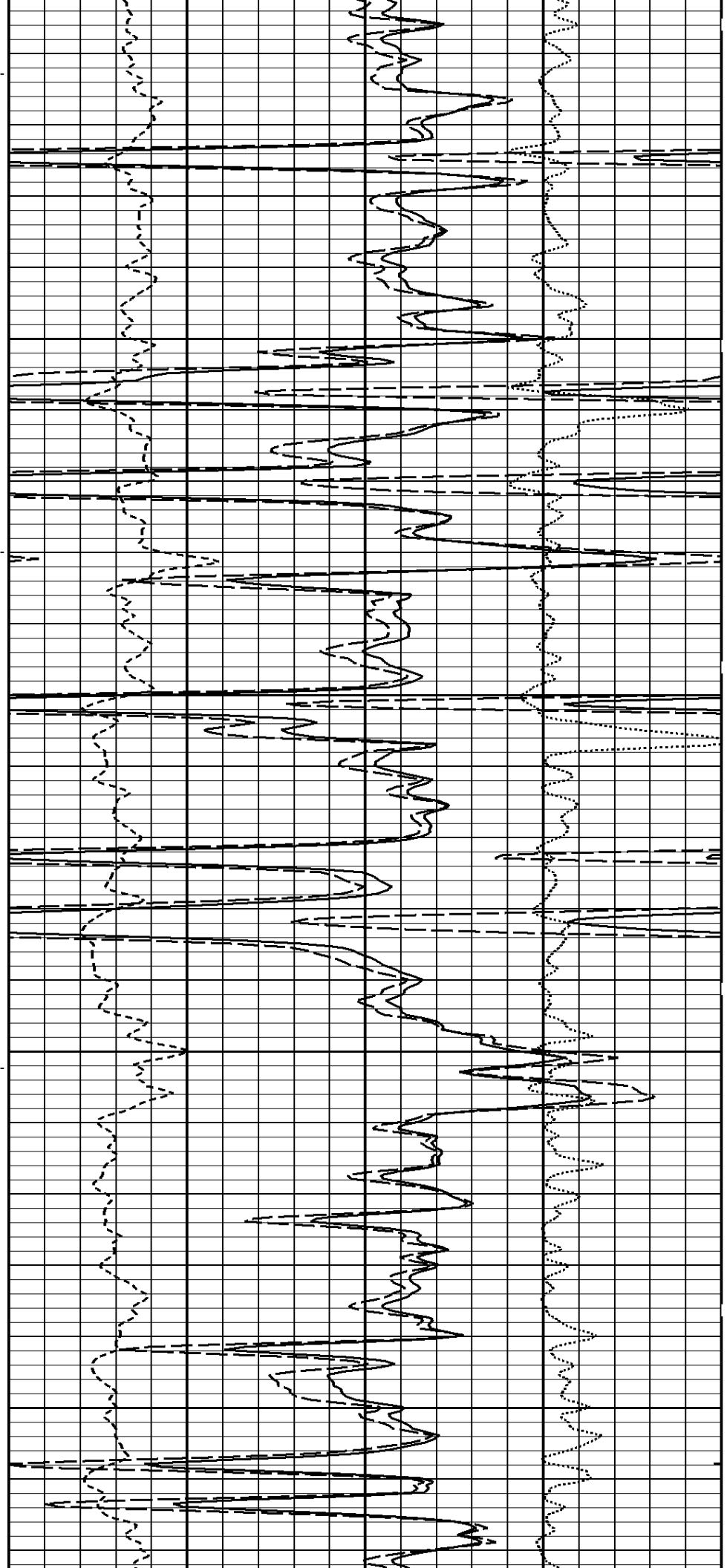
100Cu. Ft

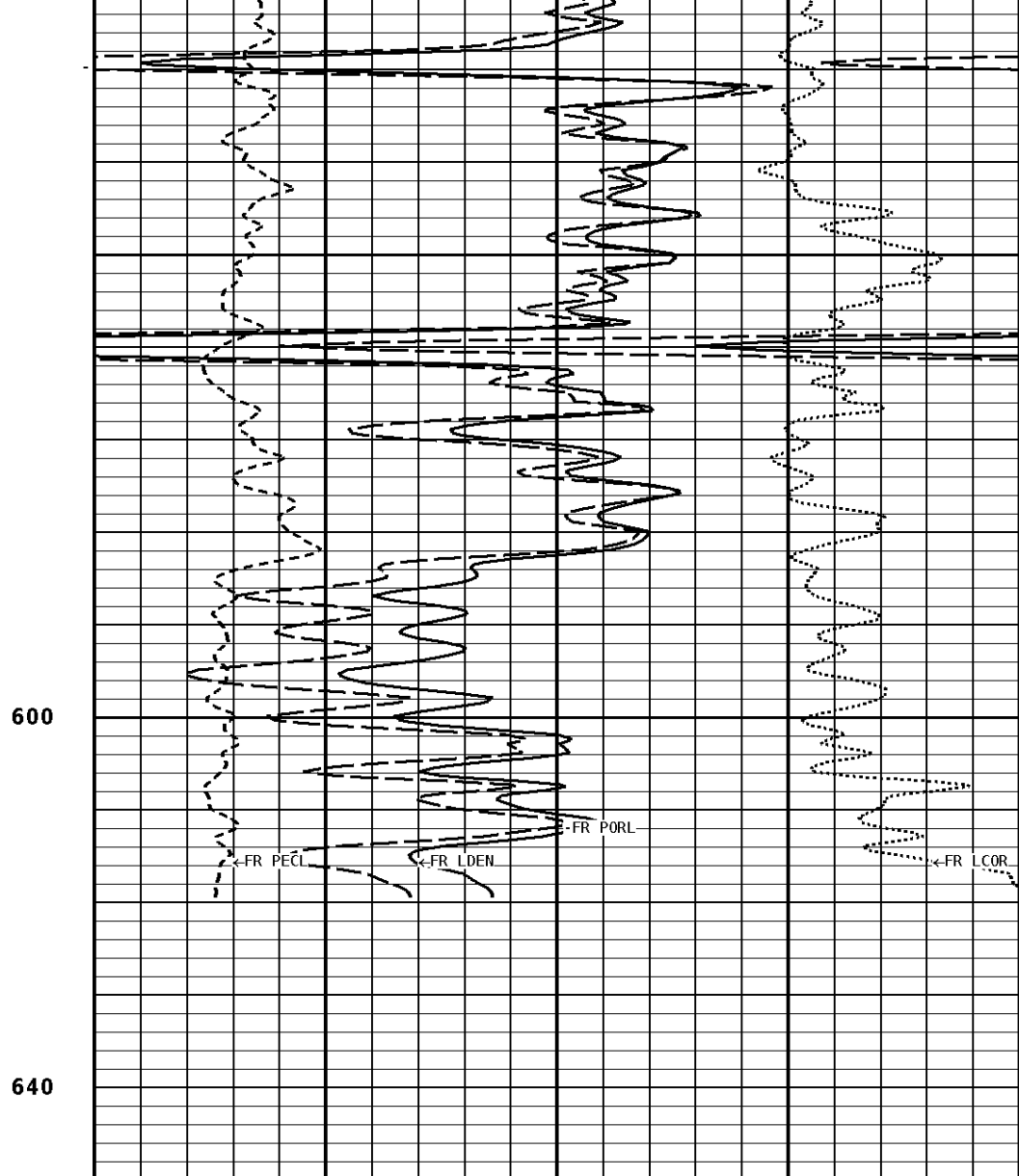
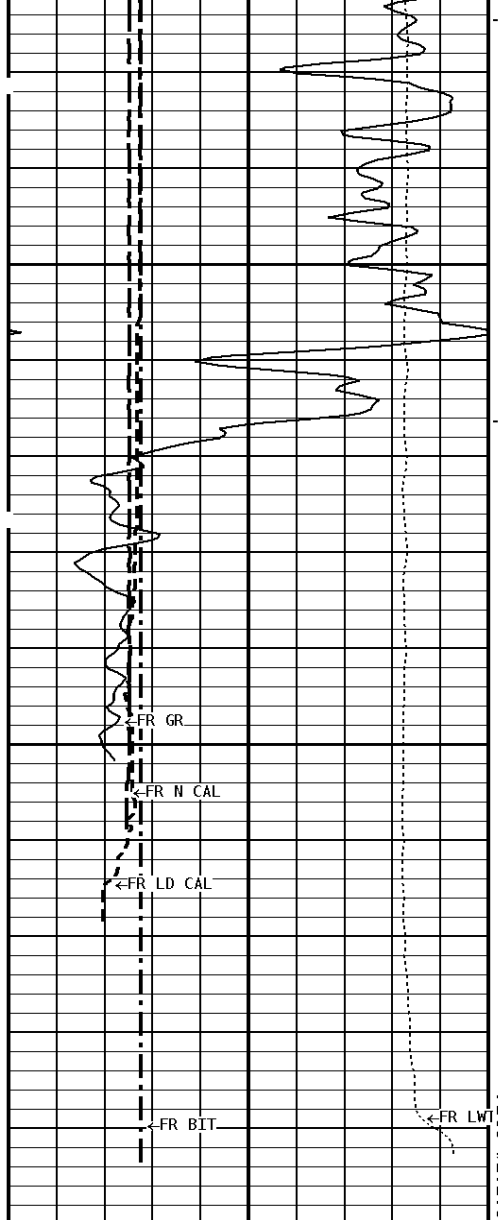




400

500





**1:240 MAIN SECTION
BULK DENSITY**

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

*** 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	_____	4.500 in
Casing Correction (PHI N)	_____	Disable

*** Calibration Summary ***

Shop Calibration					
GRT-B					
Performed : 16-May-2011			Time : 10:12		
Sensor Suite : GR-GR5			ID : GRT-BA-121		
	Background	Measured Jig	Units	Calibrated Jig	Units
GR	51	355	CPS	175	GRAPI
Shop Calibration					
CNT-AA					
Performed : 23-JAN-2012			Time : 23:49		
Sensor Suite : CALI-BCN			ID : NDT-BB-115		
	Jig - Measured	Jig - Calibrated		Units	
	Ring#1 Ring#2	Ring#1	Ring#2		
CL # 1	8.5 14.5	6.0	12.0	IN.	
Performed : 15-Feb-2012			Time : 05:14		
Sensor Suite : BHC NEUT			ID : CNP-AA-116		
Source ID : N-1044					
	Tank	Calibrated	Verification	Units	
	Measured		Jig		
N/F	3.8777	3.6893	3.7052		
Porosity	23.5	20.5	20.7	%	
Shop Calibration					
LDT-DA					
Performed : 25-OCT-2011			Time : 13:55		
Sensor Suite : CALI-LTH			ID : PDT-GA-469		
	Jig - Measured	Jig - Calibrated		Units	
	Ring#1 Ring#2	Ring#1	Ring#2		
CL # 1	6.8 12.8	6.0	12.0	IN.	
Performed : 22-Feb-2012			Time : 11:13		
Sensor Suite : BHCPENLNG			ID : LDP-DA-02		
Source ID : CSV-587					
Short Space					
	BKGD	Al	Mg	Al+Fe	Units
LSW1	71	449	721	305	CPS
LSW2	71	539	883	391	CPS
LSW3	275	1353	2141	1154	CPS
LSW4	349	1311	1828	1161	CPS
LSW5	33	43	45	41	CPS
LSW6	90	93	93	93	CPS
LSW7	58	61	58	60	CPS
LSW8	2	3	3	2	CPS
QS	0.218	0.209	0.230	0.221	
PES			2.778	5.967	
SSDN		2.600	1.680		G/CC
Long Space					
	BKGD	Al	Mg	Al+Fe	Units
LLW1	106	594	2466	376	CPS
LLW2	114	1035	4294	746	CPS
LLW3	441	1998	7385	1731	CPS
LLW4	573	1171	3007	1080	CPS
LLW5	62	68	84	66	CPS
LLW6	184	183	176	186	CPS
LLW7	117	116	110	119	CPS
LLW8	4	5	10	5	CPS
QL	0.221	0.222	0.232	0.221	
PEL			2.697	5.458	

LSDN

2.600

1.680

G/CC