COMPOSITE LOG

PIT-ML-LDT-CNT-GR-SP

Company DENNIS D. and/or PEGGY D. HODGES
Well HODGES #4
Field FINNERTY
County COFFEY
State KANSAS
Country USA
API No. 15-031-23370-0000

File No : TUL-58732
Company : DENNIS D. and/or PEGGY D. HODGES
Well : HODGES #4
Field : FINNERTY
County : COFFEY
State : KANSAS
Country : USA
API No : 15-031-23370-0000

Location :
SE NW SW NW
1910' FSL & 350' FWL

LSD : **Sect :** 12 **Twp :** 21S **Rge :** 13E

Permanent Datum:	GL	**Elevations:**		**Services:**	
Drilling Measured From:	GL	**KB**	0.00 Ft	CNT	PIT
Log Measured From:	GL	**DF**	0.00 Ft	LDT	
Above Permanent Datum:	0.00 Ft	**GL**	1137.00 Ft	MLT	

Date	10-09-2012			
Run Number	1			
Depth--Driller	1820.0 Ft			
Depth--Logger	1817.0 Ft			
First Reading	1817.0 Ft			
Last Reading	150.0 Ft			
Casing--Driller	150.0 Ft			
Casing--Logger	150.0 Ft			
Bit Size	7.875 In			
Casing Size	8.625 In			
Hole Fluid Type	CHEM-GEL			
Density	9.3 LBS/GAL			
Fluid Loss	10.4 CC			
PH/Viscosity	9.0	48.0 SEC		
Sample Source	MEASURED			
RM@Measured Temp.	1.200 @ 70 F			
RMF@Measured Temp	0.960 @ 70 F			
RMC@Measured Temp.	1.440 @ 70 F			
Source RMF/RMC	CALCULATED	CALCULATED		
RM@BHT	0.920 @ 93 F			
Time Circulation Stopped	10-09-2012 9:54 am			
Max Recorded Temp.	93 F			
Equipment/Base	TRK 127	TULSA		
Recorded By	SHELDON TYLER			
Witnessed By	DENNIS HODGES			

Casing Strings

Size (In)	Weight (Lbs)	Bottom (Ft)
8.625	32.00	150.00

Bitsize Intervals

Size (In)	Bottom (Ft)
7.875	1820.00

Run Number	1	
Date	10-09-2012	
Date/Time On Bottom	10-09-2012 11:54 am	
Depth to Fluid	0.0 Ft	
Salinity	0.000 PPM	
RMF@BHT	0.740 @ 93 F	
RMC@BHT	1.110 @ 93 F	

Run Number 1

Comments

ALL PRESENTATIONS AS PER CUSTOMER REQUEST

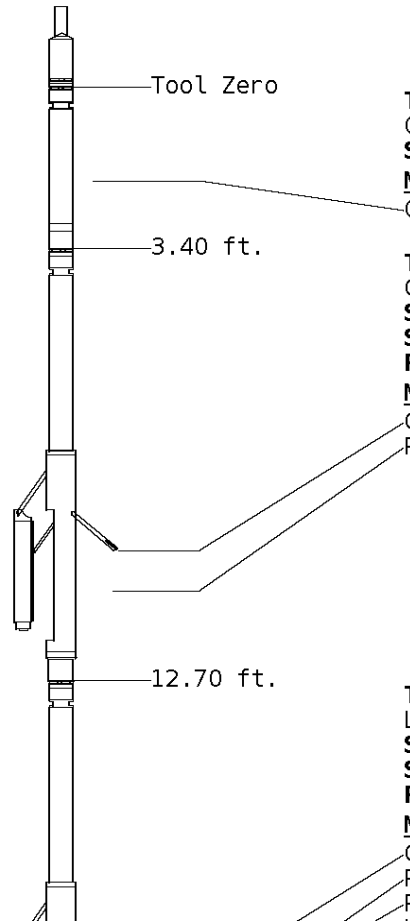
ALL PRESENTATIONS AS PER CUSTOMER REQUEST
GRT, CNT, LDT, MLT AND PIT RUN IN COMBINATION.
CALIPERS ORIENTED ON X-Y AXIS.
2.71 G/CC USED TO CALCULATED POROSITY.
ANNULAR HOLE VOLUME CALCULATED UISING 5.50" PRODUCTION CASING.
PHIN IS CALIPER CORRECTED.

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

OPERATORS:
J.T
A. DJAHO
D.HOPPER

Tool String Schematic

Total Tool Length - 53.15 **ft.**
Maximum Outside diameter - 6.00 **in.**
Net Weight in Air - 943.00 **lbs.**



Tool: GRT-B **Length:** 3.40 **ft.** **O.D.** 3.60 **in.**
Gamma Ray Controller
Sonde ID :GRT-BC-43

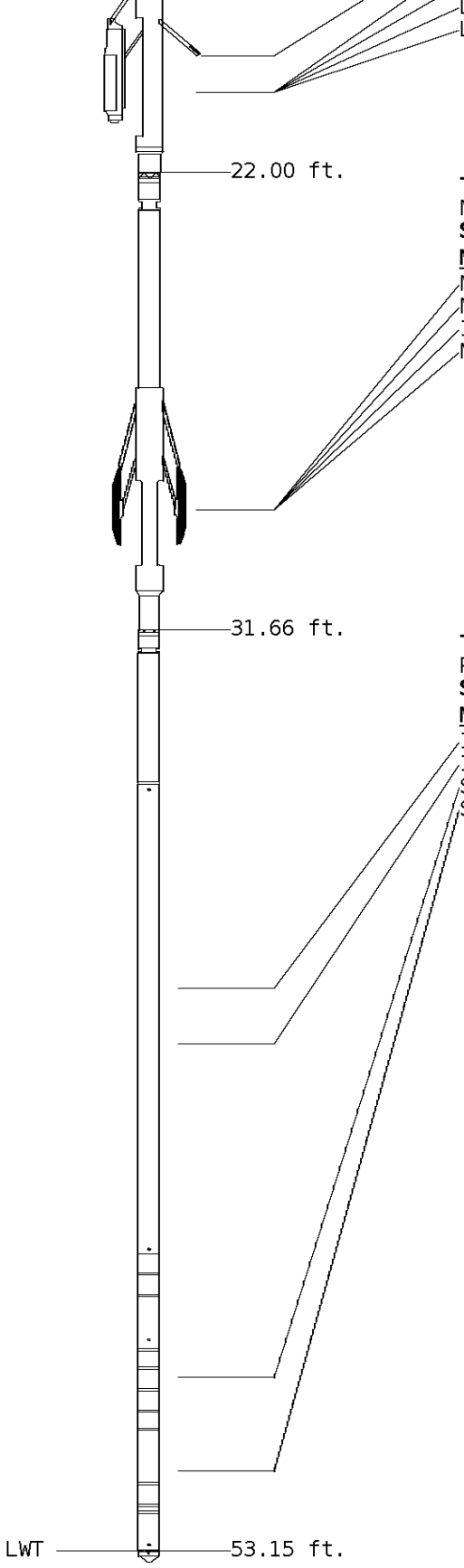
Measure Point	Tool Offset	Stack Offset	Bottom Offset
GRP	2.00	2.00	51.15

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-103

Measure Point	Tool Offset	Stack Offset	Bottom Offset
CLCN	6.00	9.40	43.75
PHIN	6.80	10.20	42.95

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	34.45
PEL	7.00	19.70	33.45
PES	7.40	20.10	33.05



LDEN	7.20	19.90	33.25
LCOR	7.20	19.90	33.25

Tool: MST-DA **Length:** 9.66 **ft.** **O.D.** 6.00 **in.**
Micro Spherically Focused (IC)
Sonde ID :MLT-DA-21

Measure Point	Tool Offset	Stack Offset	Bottom Offset
MSFL	7.60	29.60	23.55
MSCLP	7.60	29.60	23.55
INV	7.60	29.60	23.55
NOR	7.60	29.60	23.55

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	40.58	12.56
ILM	10.10	41.76	11.39
SFLU	17.49	49.15	4.00
SP	20.60	52.26	0.88

Well File: DENNIS_HODGES_4_OCT9_MSTK **Scale:** 1:240
Segment: V1.D1.S5 Reprocess of MAIN **Acquired:** 2012-10/09 12:42 3.2.0-11172
Reference: 0 **Processed:** 2012-10/09 13:16 3.2.0-11172

SPONTANEOUS POTENTIAL
mV
→ ←20

CALIPER MICRO
INCHES (IN)
16 26

NORMAL
OHMM
0 40

INVERSE
OHMM

6 16

0 40

BIT SIZE
INCHES (IN)
6 16

DENSITY CORRECTION
G/CC
-0.75 0.25

NEUTRON (Y) CALIPER
INCHES (IN)
16 26
6 16

Volume
Quartz

PE CROSS-SECTION
BARNS/ELECTRON
0 20

DENSITY (X) CALIPER
INCHES (IN)
16 26
6 16

SHALLOW FOCUSED RESISTIVITY
OHMM
0.2 2000.0

PE CROSS-SECTION
BARNS/ELECTRON
0 20

TENSION
LBS
10000 0

Volume
Dolo/Shale

DEEP INDUCTION
OHMM
0.2 2000.0

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

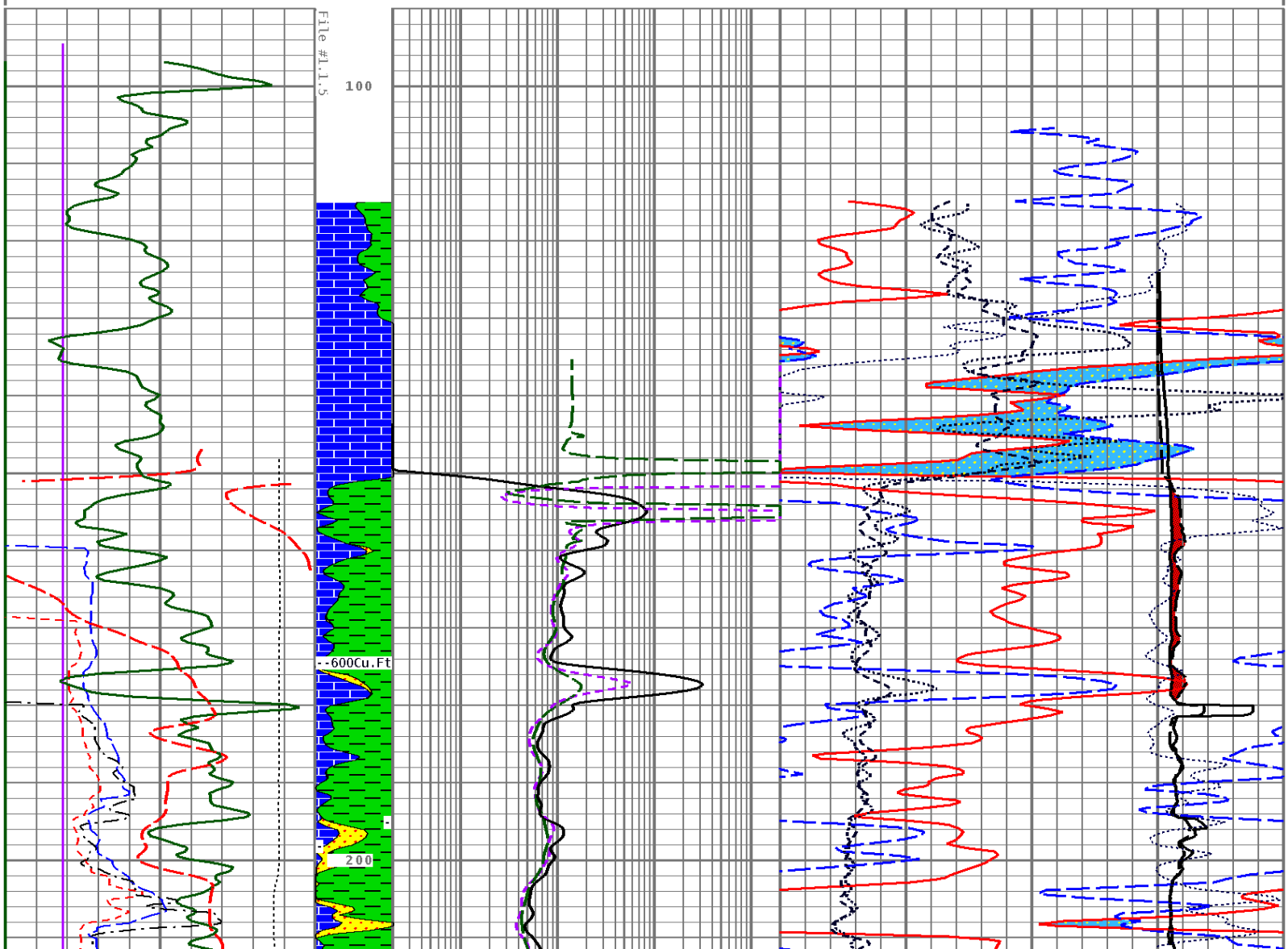
GAMMA RAY
API UNITS
200 400
0 200

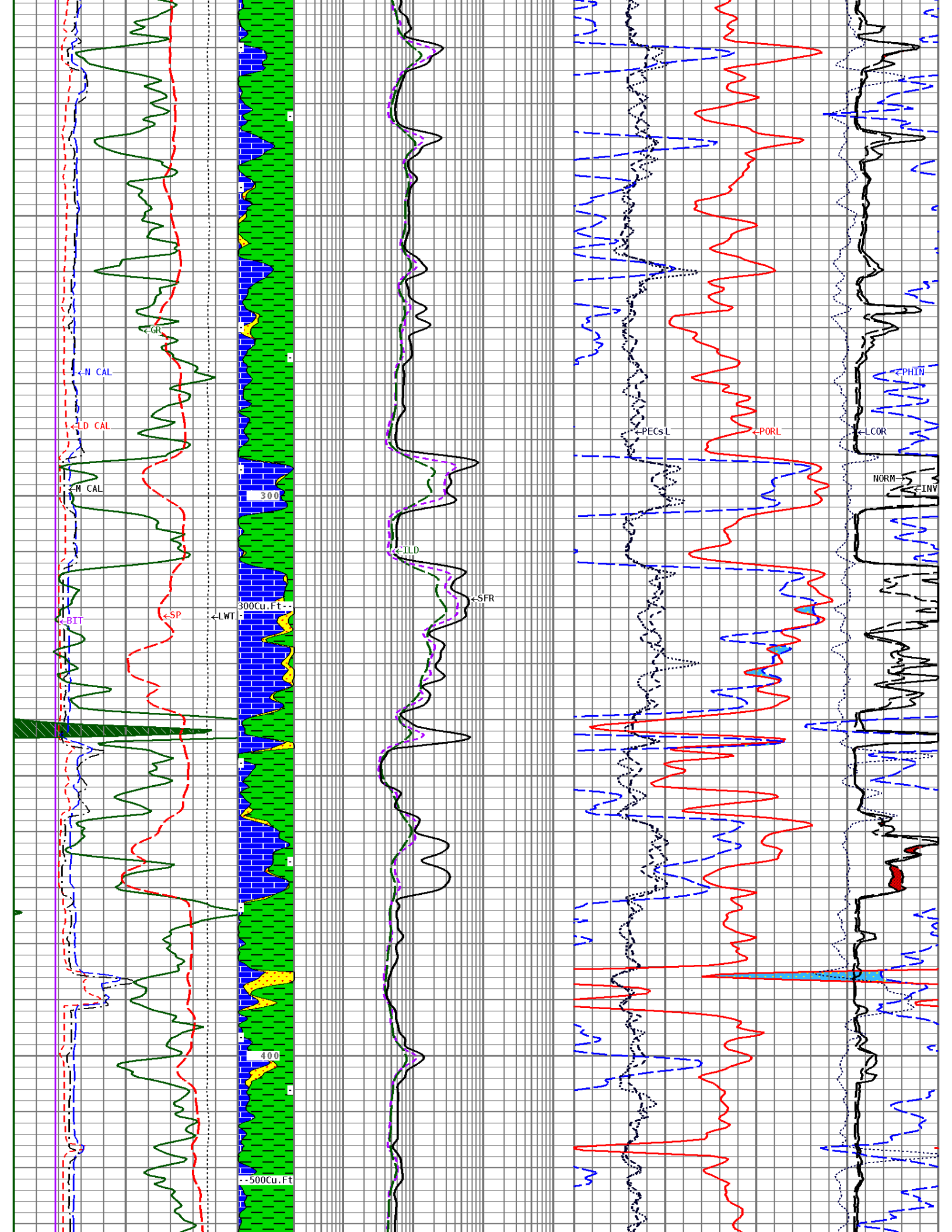
-BHV AHV-
CU.FT

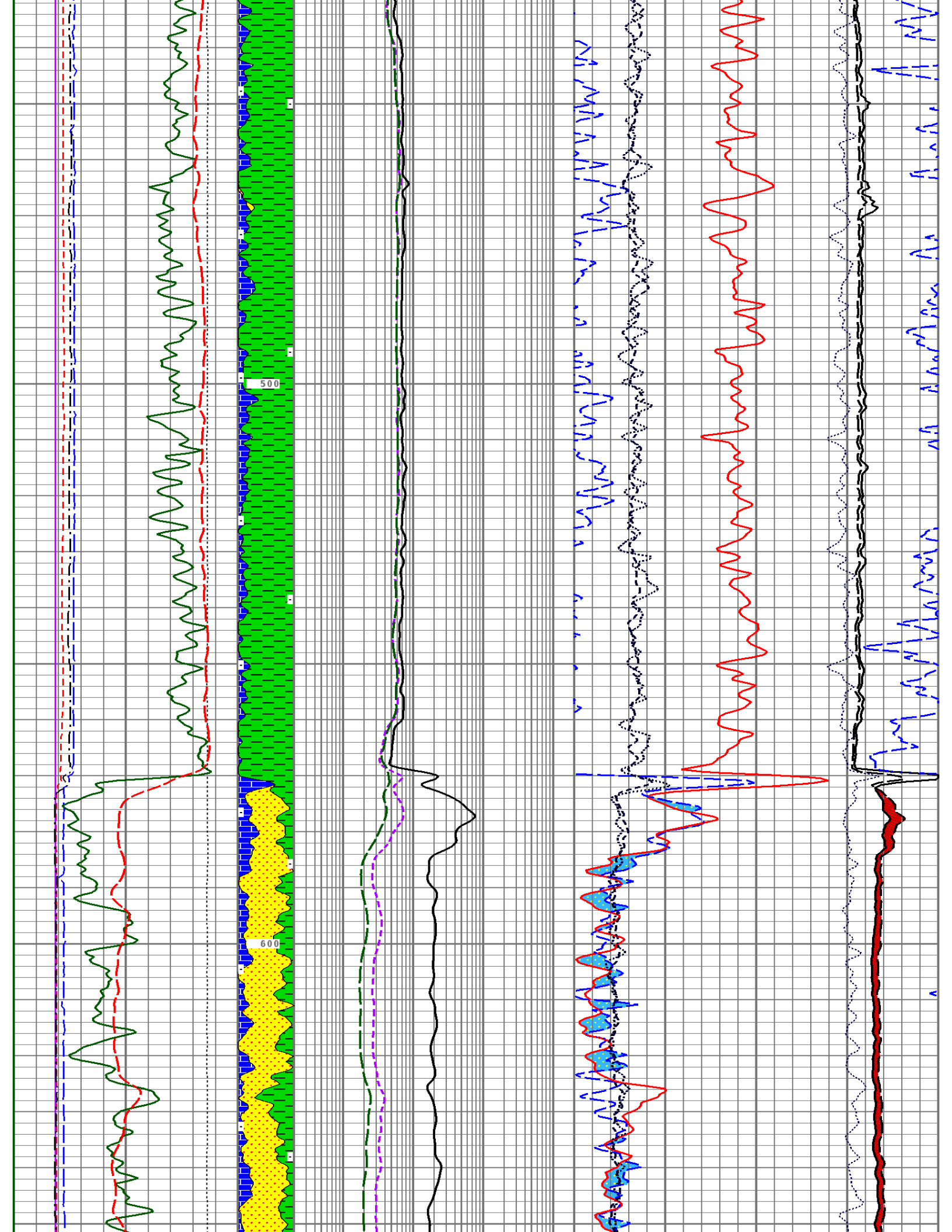
MEDIUM INDUCTION
OHMM
0.2 2000.0

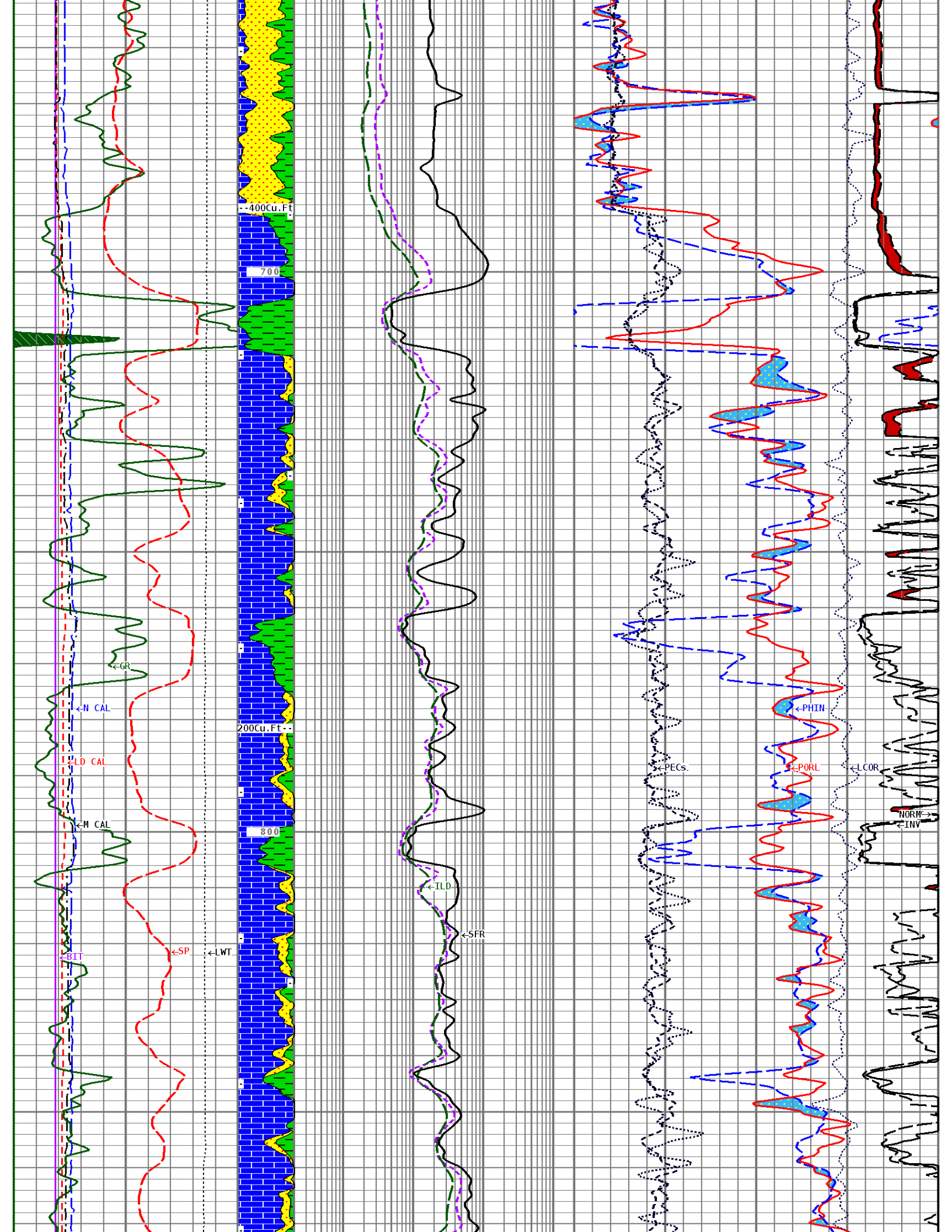
NEUTRON POROSITY (LIMESTONE)
PERCENT
70 30
30 -10
-10 -50

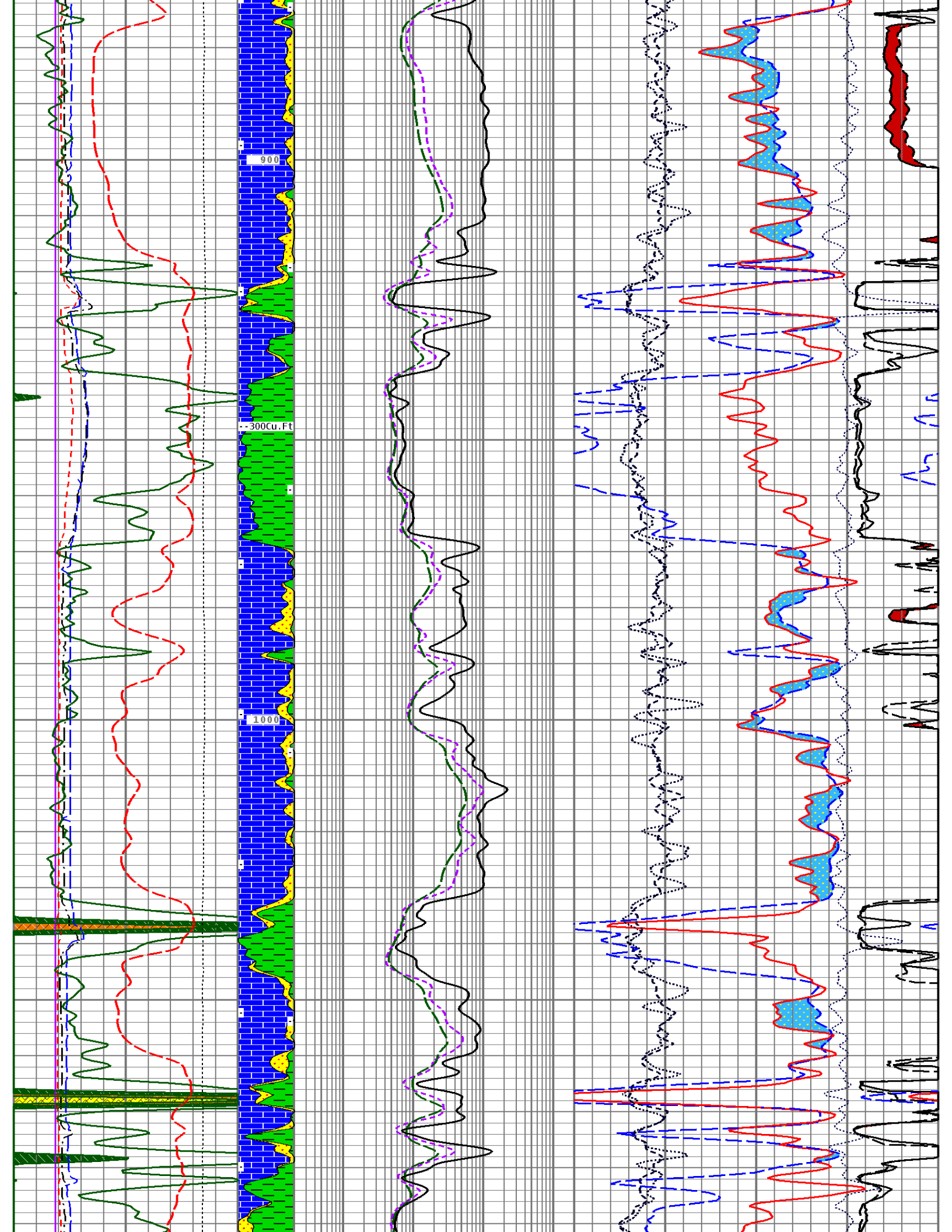
1:240 MAIN SECTION

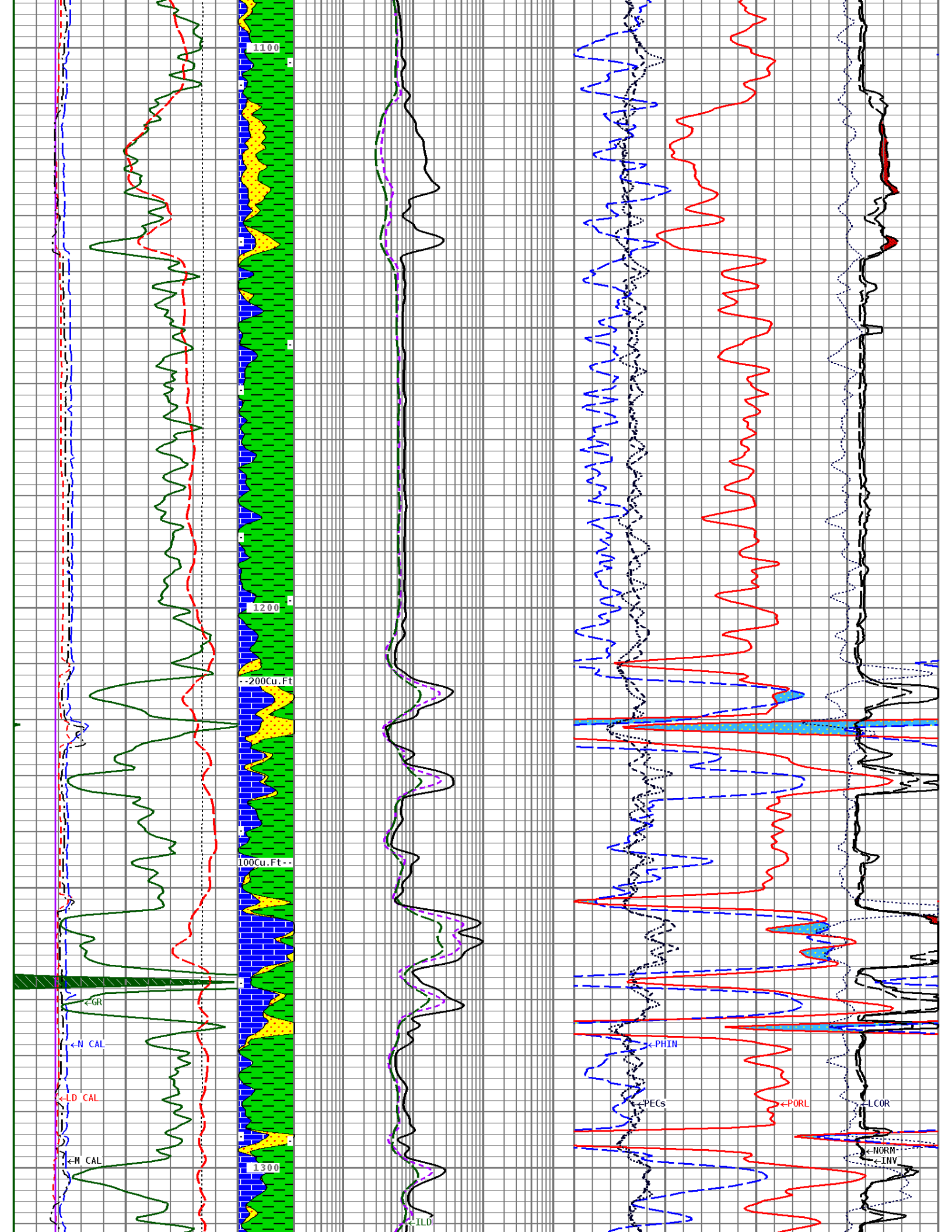


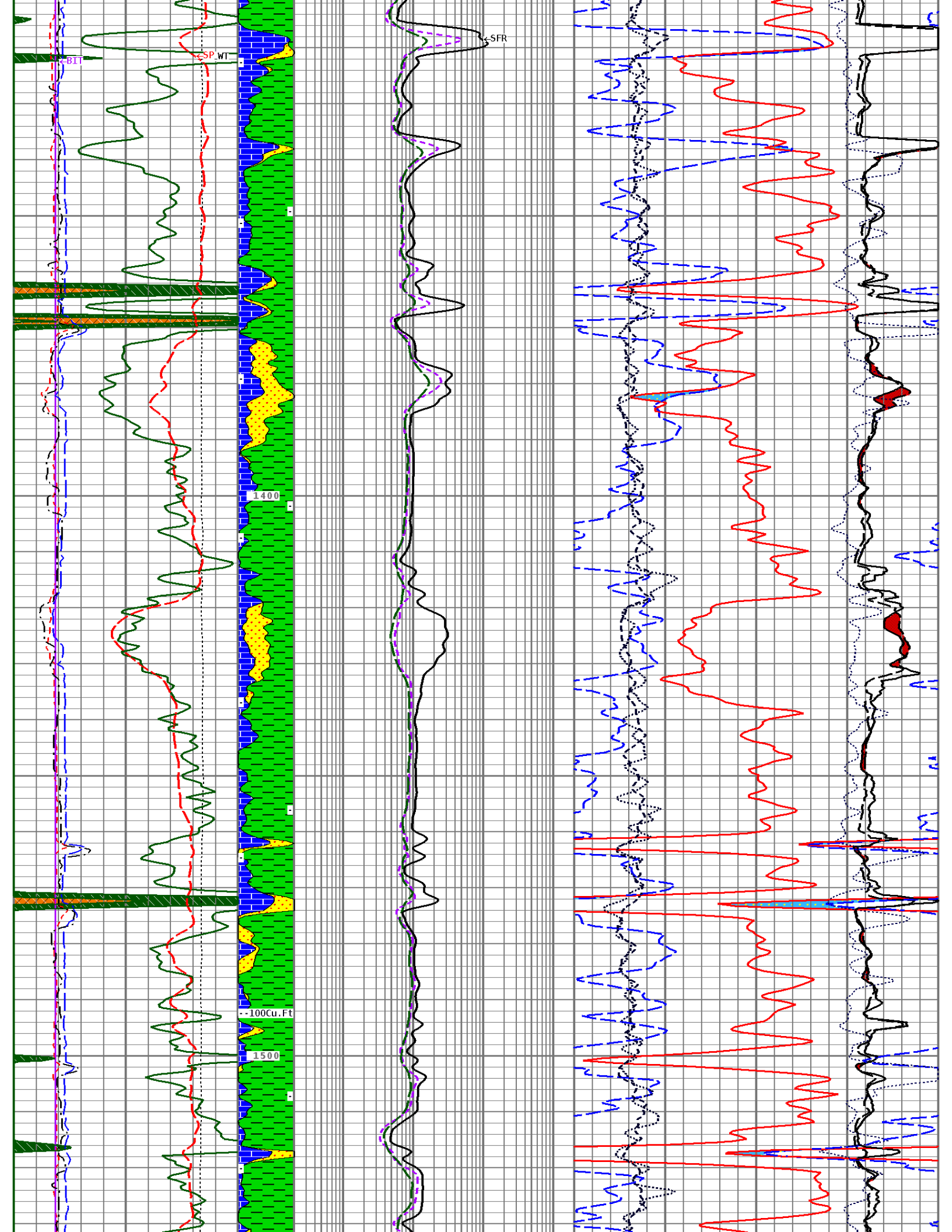

GR
N CAL
LD CAL
M CAL
BIT
SP
LWT
300
300Cu.Ft--
400
--500Cu.Ft
ILD
SFR
PECsL
PORL
PHIN
LCOR
NORM
INV


500
600


400Cu.Ft
700
GR
N CAL
200Cu.Ft
LD CAL
M CAL
800
ILD
SFR
BIT
SP
LWT
PHIN
PECs
PORL
LCOR
NORM
INV


900
--300Cu.Ft
1000


1100
1200
--200Cu.Ft
100Cu.Ft--
1300
←GR
←N CAL
←LD CAL
←M CAL
←ILD
←PHIN
←PECs
←PORL
←LCOR
←NORM
←INV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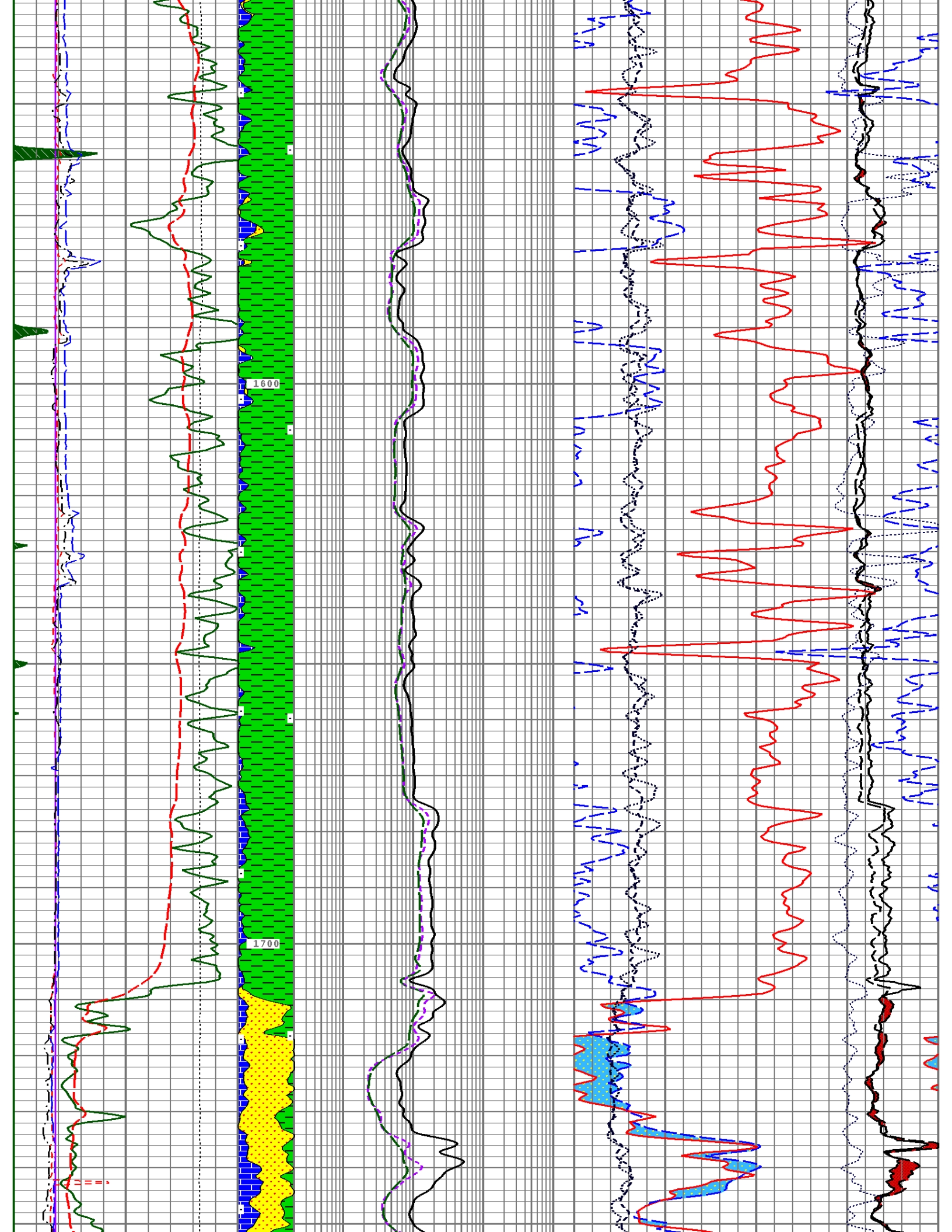
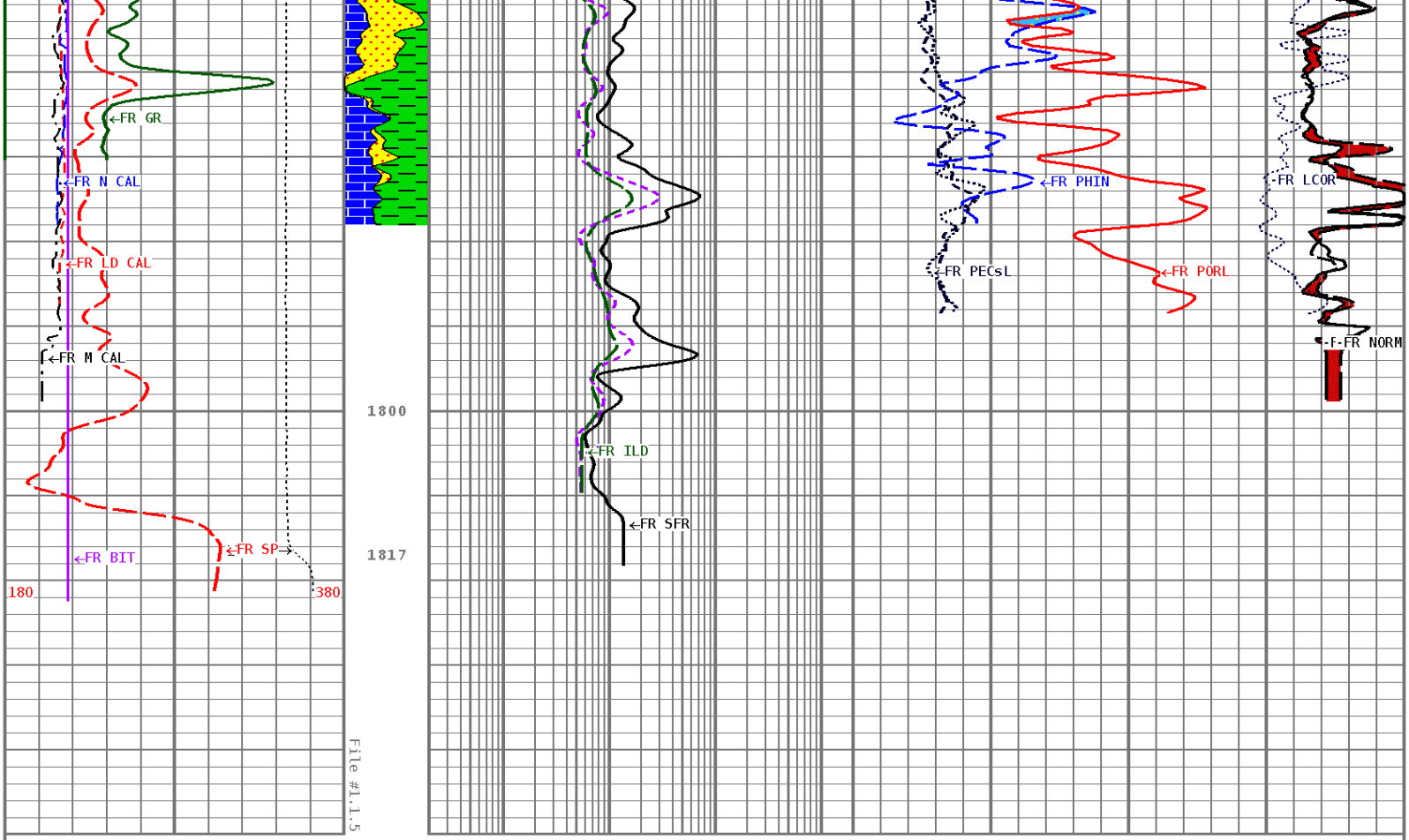
SP_WT
SFR
1400
--100Cu.Ft
1500


1600
1700



1:240 MAIN SECTION

GAMMA RAY
API UNITS
200 0 400 200

TENSION
LBS
10000 0

DENSITY (X) CALIPER
INCHES (IN)
16 6 26 16

NEUTRON (Y) CALIPER
INCHES (IN)
16 6 26 16

BIT SIZE
INCHES (IN)
6 16

CALIPER MICRO
INCHES (IN)
16 6 26 16

SPONTANEOUS POTENTIAL
mV
→ ←20

-BHV AHV-
CU.FT

Volume
Dolo/Shale

Volume
Quartz

MEDIUM INDUCTION
OHMM
0.2 2000.0

DEEP INDUCTION
OHMM
0.2 2000.0

SHALLOW FOCUSED RESISTIVITY
OHMM
0.2 2000.0

NEUTRON POROSITY (LIMESTONE)
PERCENT
70 30 -10
30 -10 -50

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

PE CROSS-SECTION
BARNS/ELECTRON
0 20

PE CROSS-SECTION
BARNS/ELECTRON
0 20

DENSITY CORRECTION
G/CC
-0.75 0.25

INVERSE
OHMM
0 40

NORMAL
OHMM
0 40

* Borehole Zone Factors *

Zone 1 99999.0 to 0.0 Feet

Matrix Density	2.71	g/cc
Cementation Exponent	2.00	
A	1.00	
Fluid Density	1.00	g/cc
Formation Matrix	Limestone	
Drill Bit Size	7.875	in
Casing Diameter	5.500	in
Casing Thickness	0.250	in
Casing Correction (PHI N)	Disable	
Hole Substance	Fluid	
BHT Depth	1820.000	ft
Borehole Temperature	93.0	degF
Temperature Gradient	1.00	DFHF
Resistivity Of Mud	1.200	ohm/m
Standoff	0.0	
U Fluid	0.398	
Grain Density Mineral 1	2.710	g/cc
Grain Density Mineral 2	2.644	g/cc
Grain Density Mineral 3	2.877	g/cc
U Mineral 1	13.770	
U Mineral 2	4.779	
U Mineral 3	8.997	
Resistivity Of Mud Temperature	70.00	degF
MSTNG Normal Correction	0.00	ohm/m
MSTNG Inverse Correction	0.00	ohm/m

Well File: DENNIS_HODGES_4_OCT9_MSTK **Scale:** 1:240
Segment: V1.D1.S3 Reprocess of REPEAT **Acquired:** 2012-10/09 12:31 3.2.0-11172
Reference: 0 **Processed:** 2012-10/09 12:38 3.2.0-11172

SPONTANEOUS POTENTIAL mV
→| |←20

NORMAL OHMM
0 40

CALIPER MICRO INCHES (IN)
16 26
6 16

INVERSE OHMM
0 40

BIT SIZE INCHES (IN)
6 16

DENSITY CORRECTION G/CC
-0.75 0.25

NEUTRON (Y) CALIPER INCHES (IN)
16 26
6 16

Volume Quartz

PE CROSS-SECTION BARNS/ELECTRON
0 20

DENSITY (X) CALIPER INCHES (IN)
16 26
6 16

SHALLOW FOCUSED RESISTIVITY OHMM
0.2 2000.0

PE CROSS-SECTION BARNS/ELECTRON
0 20

TENSION LBS
10000 0

Volume Dolo/Shale

DEEP INDUCTION OHMM
0.2 2000.0

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

GAMMA RAY API UNITS
200 400
0 200

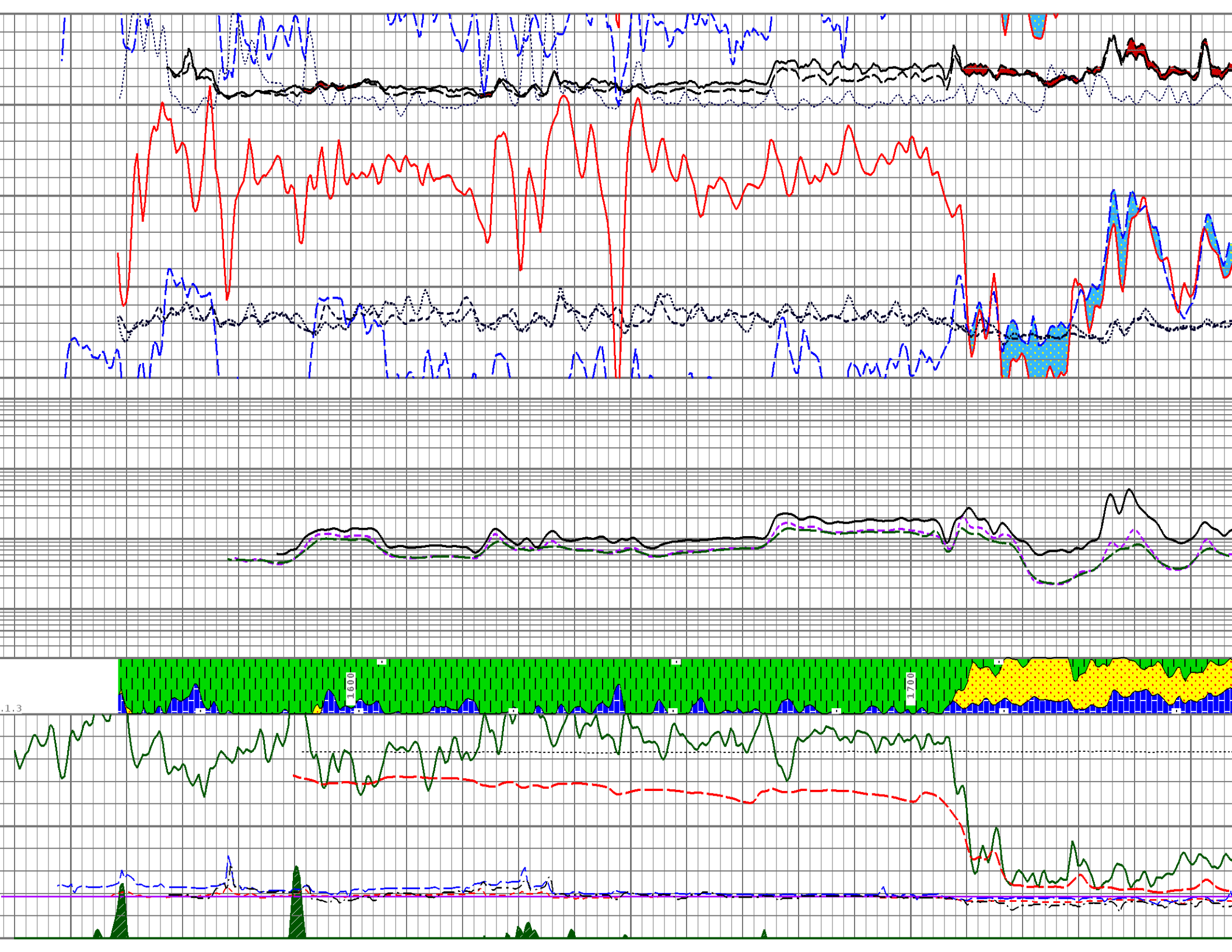
-BHV AHV-
CU.FT

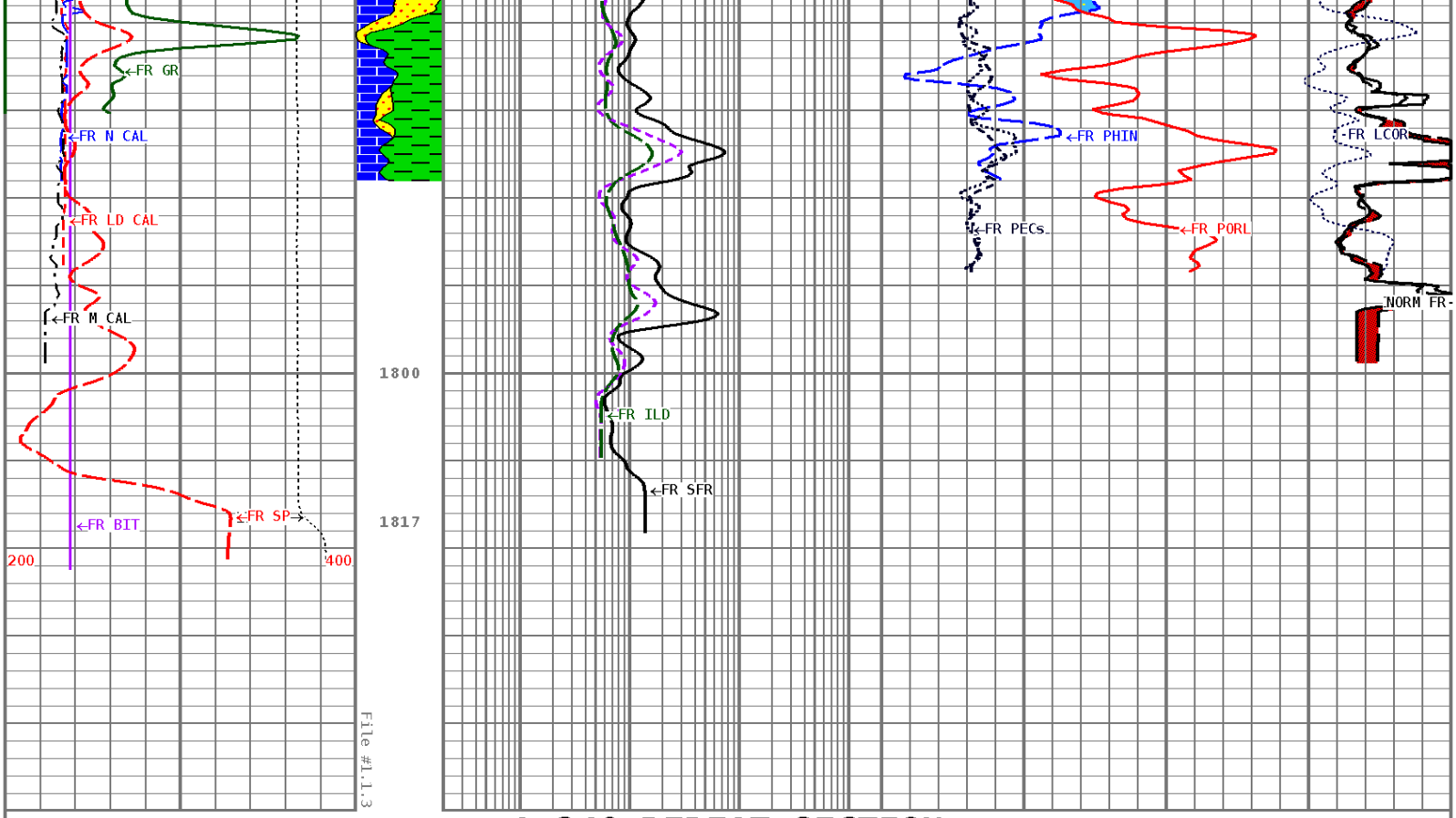
MEDIUM INDUCTION OHMM
0.2 2000.0

NEUTRON POROSITY (LIMESTONE) PERCENT
70 30
30 -10
-10 -50

1:240 REPEAT SECTION

File #1


1600
1700



1:240 REPEAT SECTION

GAMMA RAY API UNITS 200 400 0 200	-BHV AHV- CU.FT	MEDIUM INDUCTION OHMM 0.2 2000.0	NEUTRON POROSITY (LIMESTONE) PERCENT 70 30 30 -10 -10 -50
TENSION LBS 10000 0	Volume Dolo/Shale	DEEP INDUCTION OHMM 0.2 2000.0	DENSITY POROSITY (2.71g/cc) PERCENT 70 30 30 -10 -10 -50
DENSITY (X) CALIPER INCHES (IN) 16 26 6 16		SHALLOW FOCUSED RESISTIVITY OHMM 0.2 2000.0	PE CROSS-SECTION BARNS/ELECTRON 0 20
NEUTRON (Y) CALIPER INCHES (IN) 16 26 6 16	Volume Quartz		PE CROSS-SECTION BARNS/ELECTRON 0 20
BIT SIZE INCHES (IN) 6 16			DENSITY CORRECTION G/CC -0.75 0.25
CALIPER MICRO INCHES (IN) 16 26 6 16			INVERSE OHMM 0 40
SPONTANEOUS POTENTIAL mV → | ←20			NORMAL OHMM 0 40

* Borehole Zone Factors *

Zone 1 99999.0 to 0.0 Feet

Matrix Density	2.71	g/cc
Cementation Exponent	2.00	
A	1.00	
Fluid Density	1.00	g/cc
Formation Matrix	Limestone	
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BHT Depth	1820.000	ft
Borehole Temperature	93.0	degF
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Grain Density Mineral 2	2.644	g/cc
Grain Density Mineral 3	2.877	g/cc
U Mineral 1	13.770	
U Mineral 2	4.779	
U Mineral 3	8.997	
Resistivity Of Mud Temperature	70.00	degF
MSTNG Normal Correction	0.00	ohm/m
MSTNG Inverse Correction	0.00	ohm/m