

				DUAL NEUTRON PHOTO DENSITY MICROLOG			
COMPANY WELL FIELD COUNTY STATE LOCATION				UNION VALLEY PETROLEUM CORP. HARPER 1-17 CALDWELL SUMNER KANSAS 353' FSL & 336' FWL SW/SW			
SEC 17	TWP 35S	RGE 3W	Other Services				
Latitude		Longitude					
API Number		35-191-22839					
Permanent Datum GROUND LEVEL, Elevation 1141 feet							
Log Measured From KB, 13.00 feet above Permanent Datum							
Drilling Measured From KB							
Date	29-JAN-2022						
Run Number	ONE						
Service Order	S406-220128-122						
Depth Driller	4975.00			feet			
Depth Logger	4978.00			feet			
First Reading	4950.00			feet			
Last Reading	2800.00			feet			
Casing Driller	394.00			feet			
Casing Logger	394.00			feet			
Bit Size	7.875			inches			
Hole Fluid Type	GEL/CHEM						
Density / Viscosity	9.10	lb/USg	52.00	sec/qt			
PH / Fluid Loss	9.50		8.80	ml/30Min			
Sample Source	FLOWLINE						
Rm @ Measured Temp	1.34 @ 65.0			ohm-m			
Rmf @ Measured Temp	0.97 @ 65.0			ohm-m			
Rmc @ Measured Temp	1.63 @ 65.0			ohm-m			
Source Rmf / Rmc	CALC			CALC			
Rm @ BHT	0.69 @125.0			ohm-m			
Time Since Circulation	5 HOURS						
Max Recorded Temp	125.00			deg F			
Equipment / Base	406			ALVAR			
Recorded By	JOHN WELLS						
Witnessed By	DUSTIN JOHNSON						
RIG	DUKE #7						

REMARKS
-No SP Presented Due to Electrial Interference. -Logging Software Version 21.15 -Tools Ran:CBH, MTA, SHA, MCG, MML, MDN, MPD, SKJ, MSS, MFE, MAI -Hardware: MDN: Dual Bowspring MAI: 0.5 Inch Standoff Holefinder -2.71 Limestone Matrix Used for Calculating Porosity -Borehole Size and Rugosity Can Affect Log Quality -Scales and Intervals Presented as Per Customer's Request -Hole Volumes Calculated From TD to Surface Casing Shoe Using X.X Production Casing Hole Volume: 1810 Cubic Ft. Annular Volume: 1060 Cubic Ft. -Recon Petrotechnolgy Thanks You for Opportunity to Log This Well. -Any Questions or Comments, Please Call: 1-682-628-4841

BOREHOLE RECORD

Last Edited: 29-JAN-2022 00:05

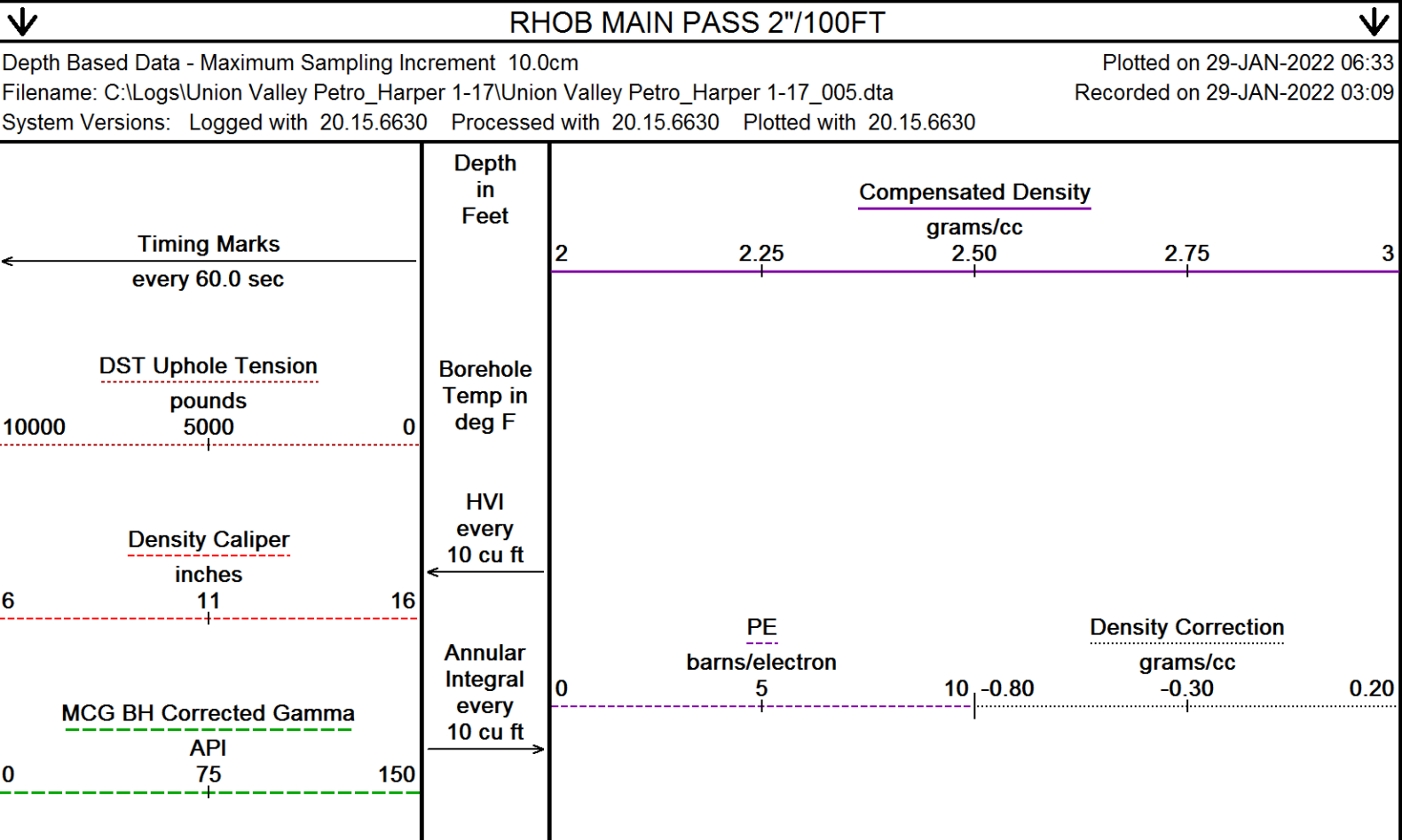
Bit Size inches	Depth From feet	Depth To feet
12.250	0.00	394.00
7.875	394.00	4975.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
Surface	8.625	0.00	394.00	24.00

In interpreting, communicating or providing information and/or making recommendations, either written or oral, as to logs or test or other data, type or amount of material, or Work or other service to be furnished, or manner of performance, or in predicting results to be obtained, the Contractor will give the Company the benefit of the Contractor's best judgment based on its experience and will perform all such Work in a good and workmanlike manner. Any interpretation of test or other data, and any recommendation or reservoir description based upon such interpretations, are opinions based upon inferences from measurements and empirical relationships and assumptions, which inferences and assumptions are not infallible, and with respect to which professional engineers and analysts may differ. ACCORDINGLY ANY INTERPRETATION OR RECOMMENDATION RESULTING FROM THE SERVICES WILL BE AT THE SOLE RISK OF THE COMPANY, AND THE CONTRACTOR CANNOT AND DOES NOT WARRANT THE ACCURACY, CORRECTNESS OR COMPLETENESS OF ANY SUCH INTERPRETATION OR RECOMMENDATION, WHICH INTERPRETATIONS AND RECOMMENDATIONS SHOULD NOT, THEREFORE, UNDER ANY CIRCUMSTANCES BE RELIED UPON AS THE SOLE OR MAIN BASIS FOR ANY DRILLING, COMPLETION, WELL TREATMENT, PRODUCTION OR FINANCIAL DECISION, OR ANY PROCEDURE INVOLVING ANY RISK TO THE SAFETY OF ANY DRILLING ACTIVITY, DRILLING RIG OR ITS CREW OR ANY OTHER INDIVIDUAL. THE COMPANY HAS FULL RESPONSIBILITY FOR ALL DECISIONS CONCERNING THE SERVICES.

 Powered by Weatherford tools, acquisition systems, and software



Bit Size
inches
6 11 16

Replay
Scale
1:600

2800

109°

2900

109°

3000

110°

3100

110°

3200

111°

← BIT

← GGCE

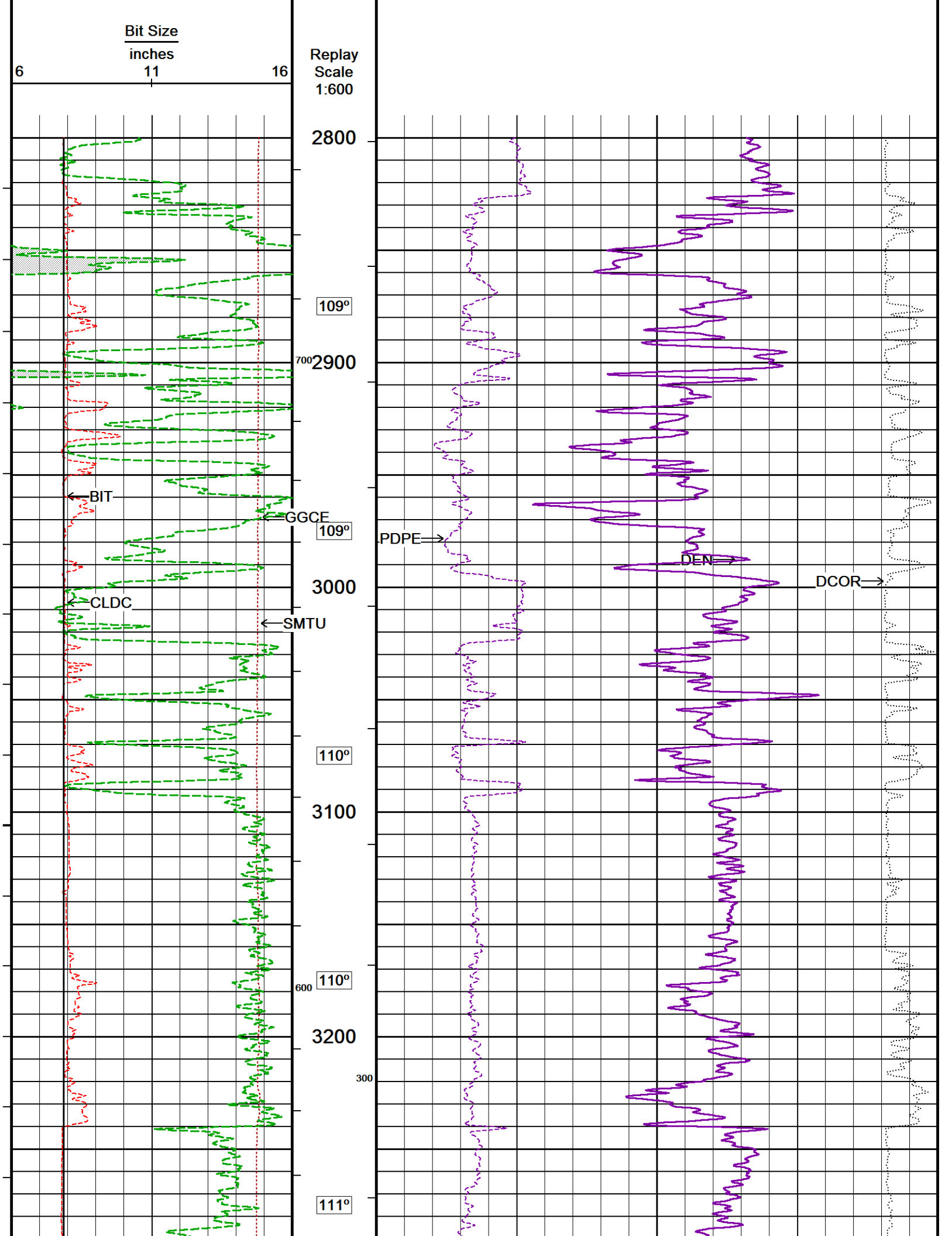
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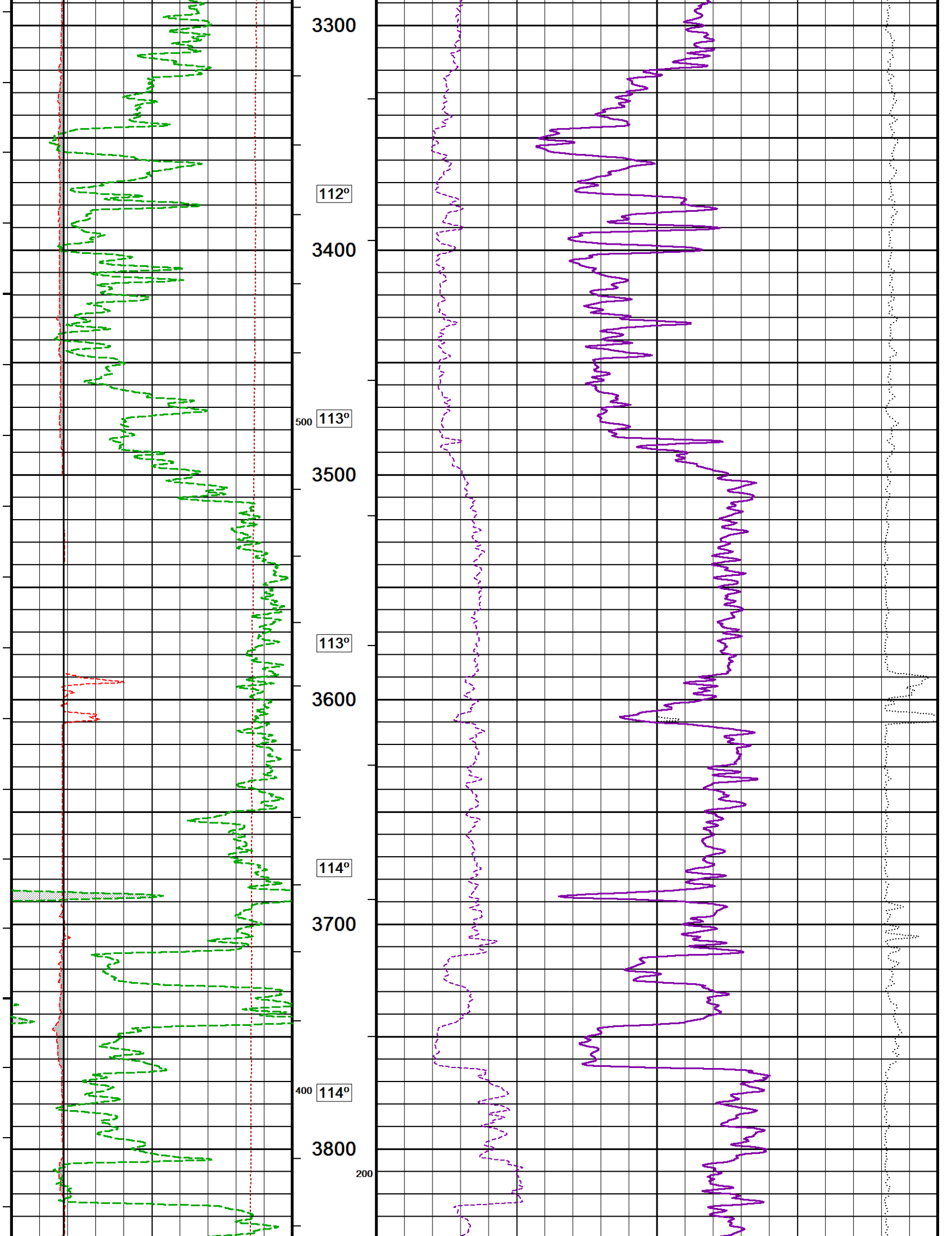
← SMTU

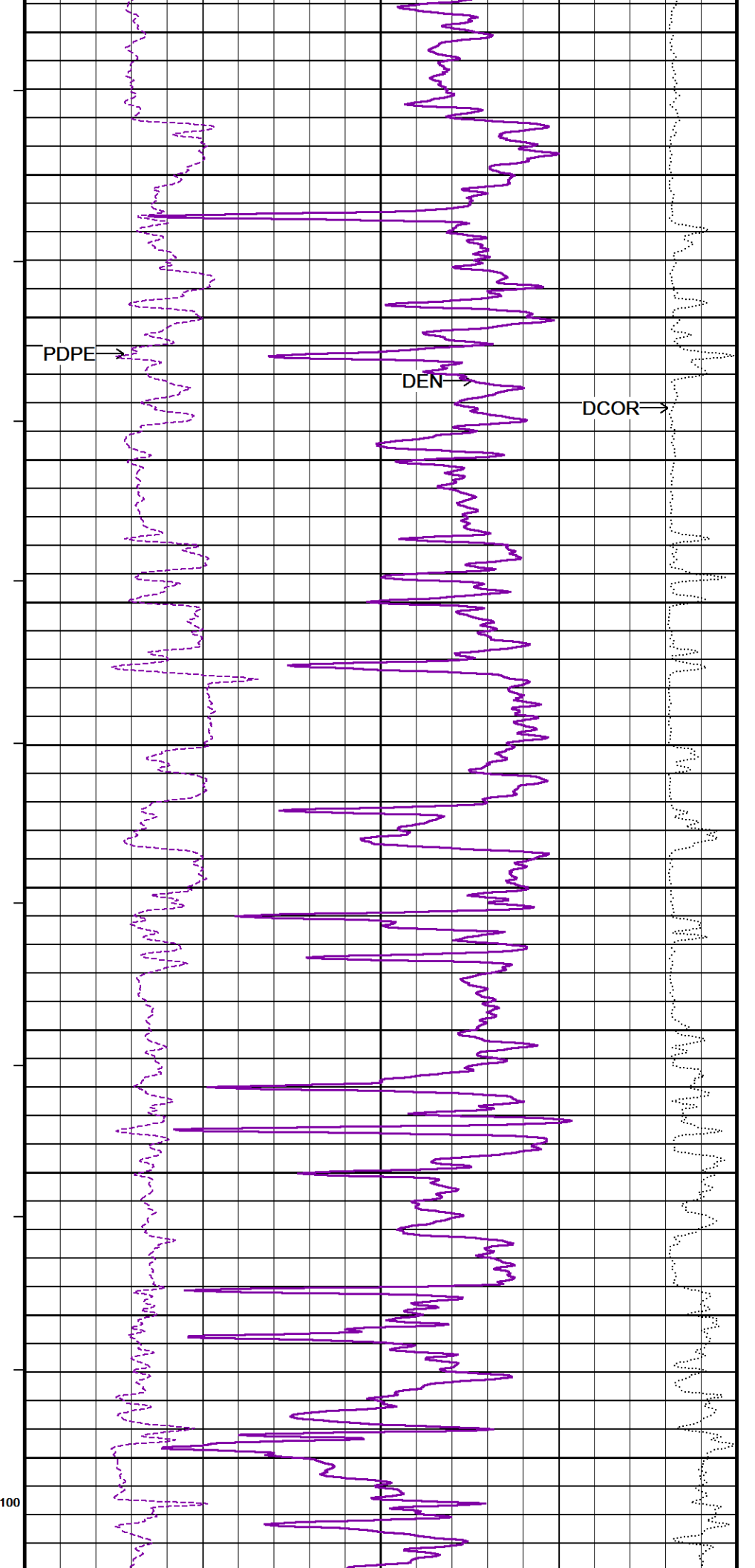
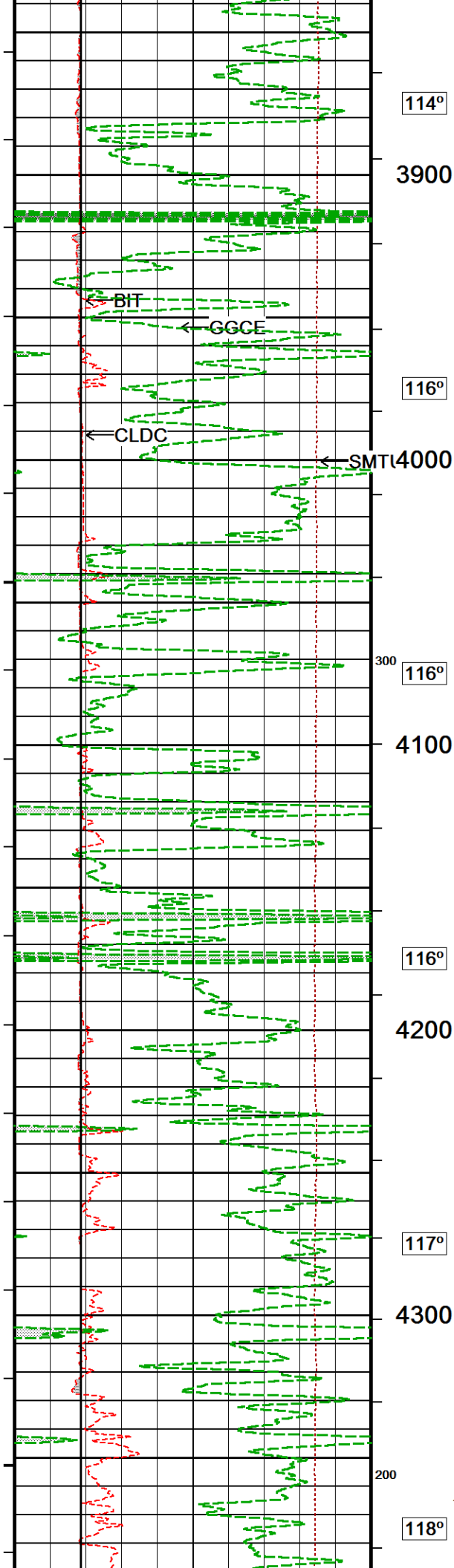
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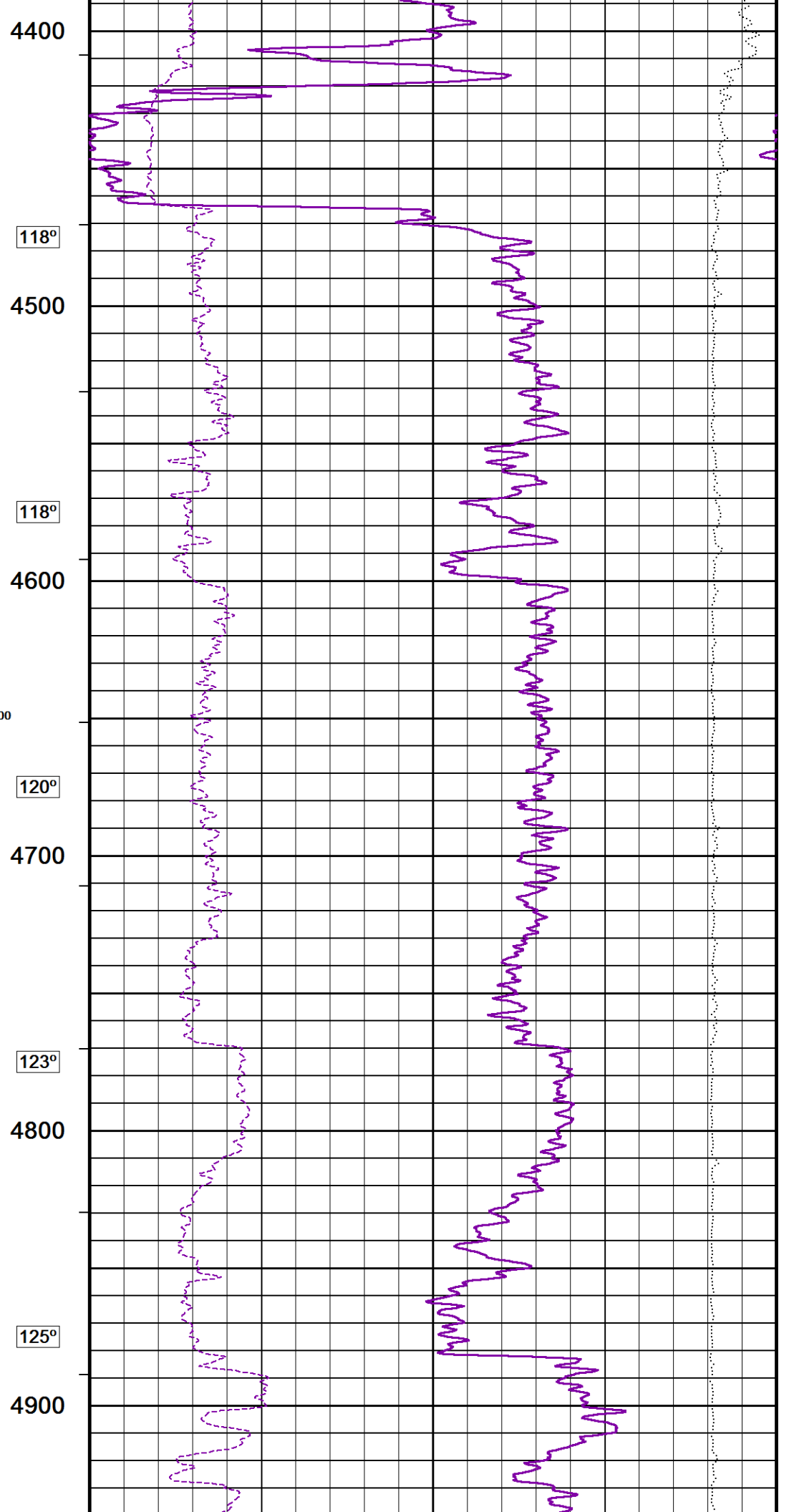
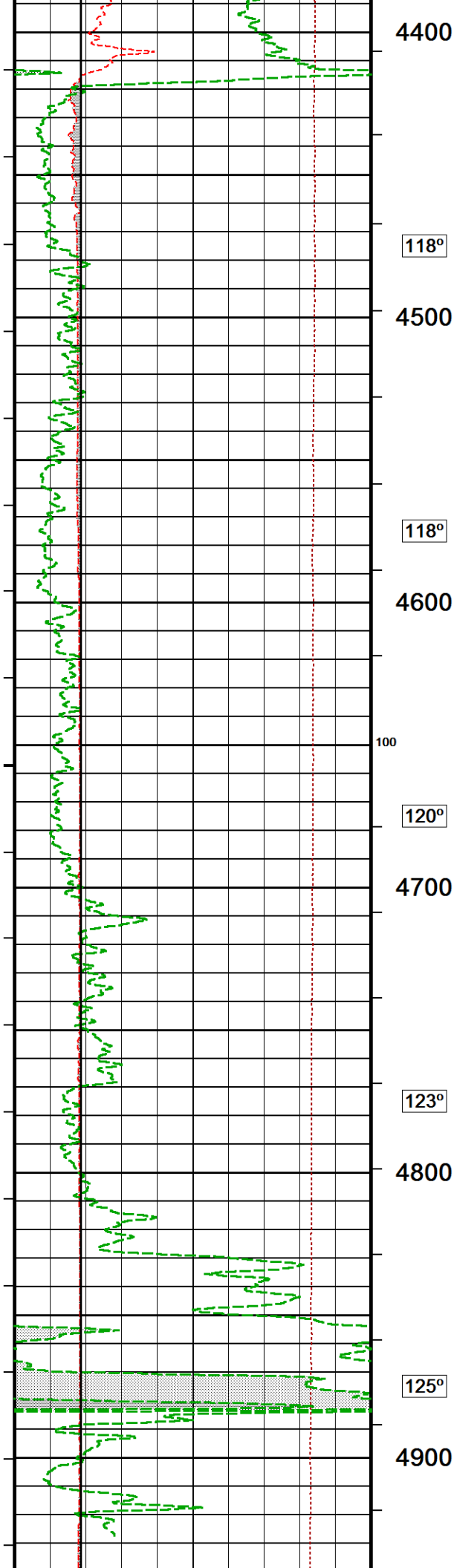
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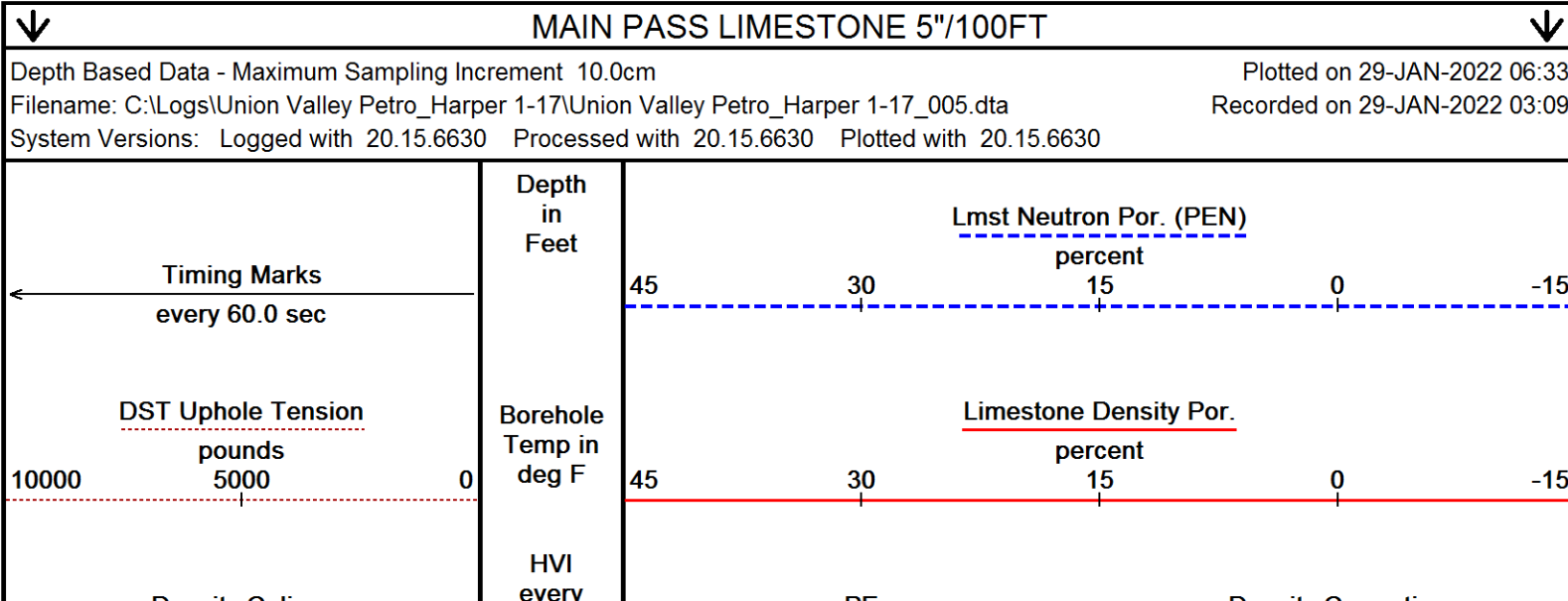
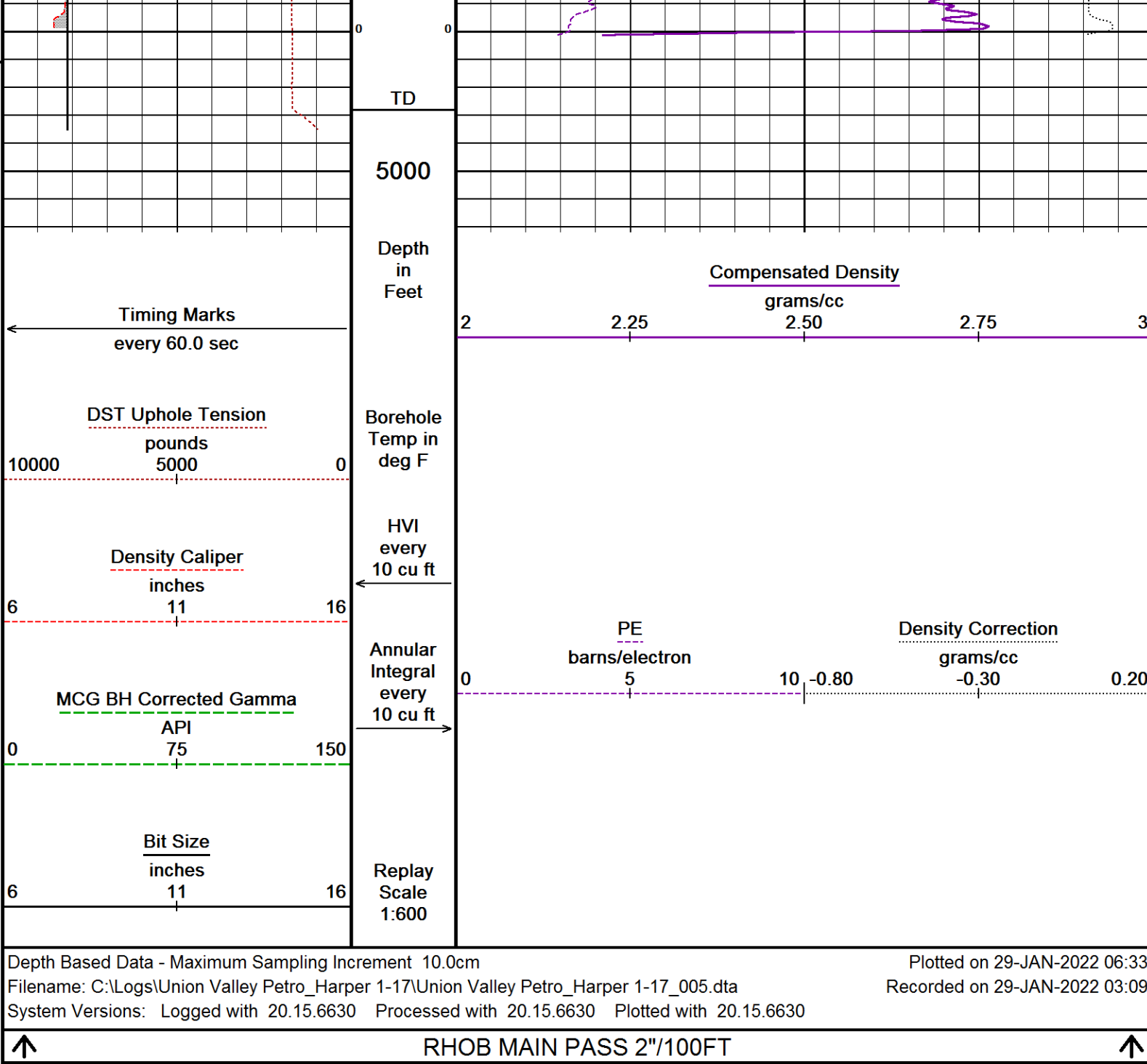
DCOR →

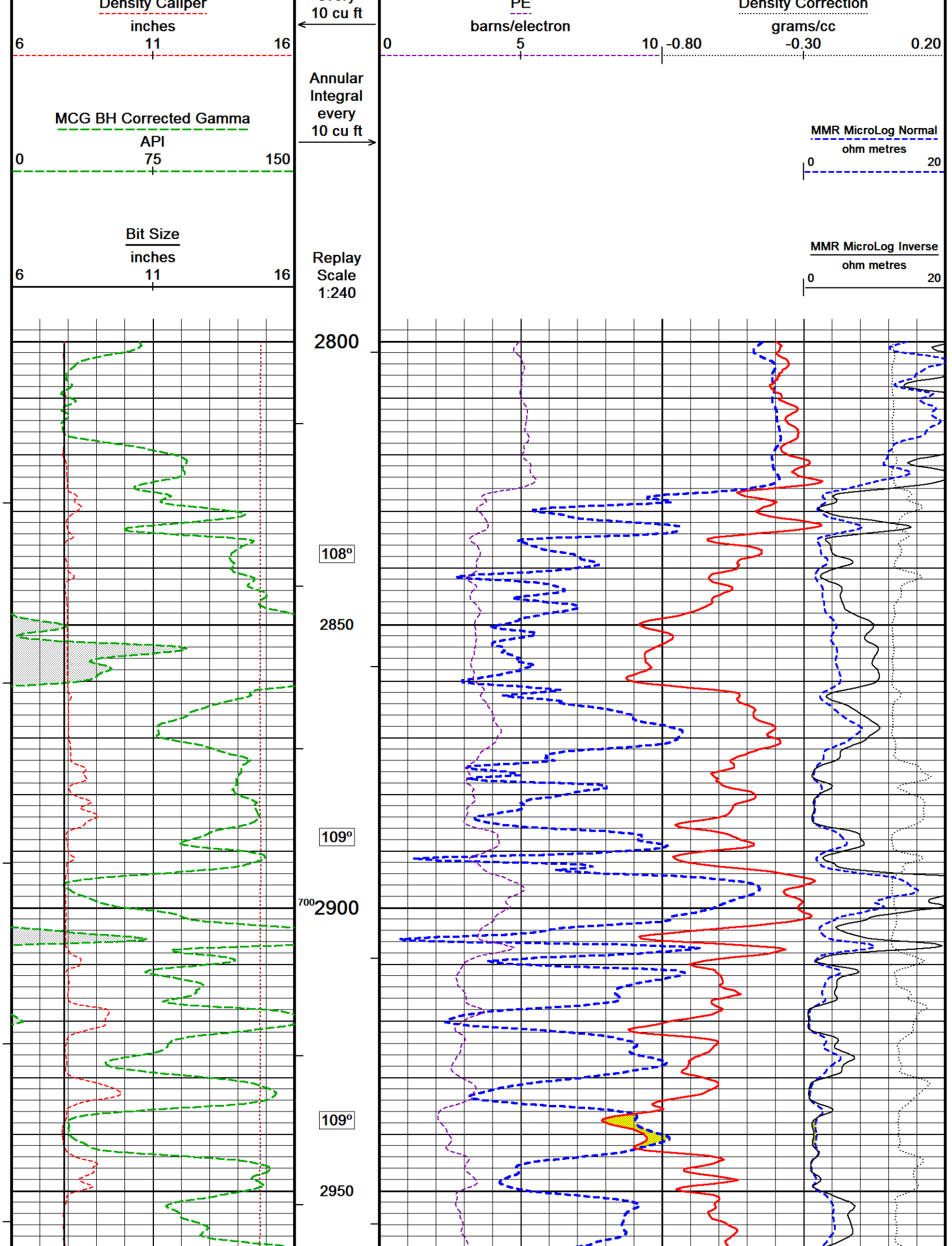


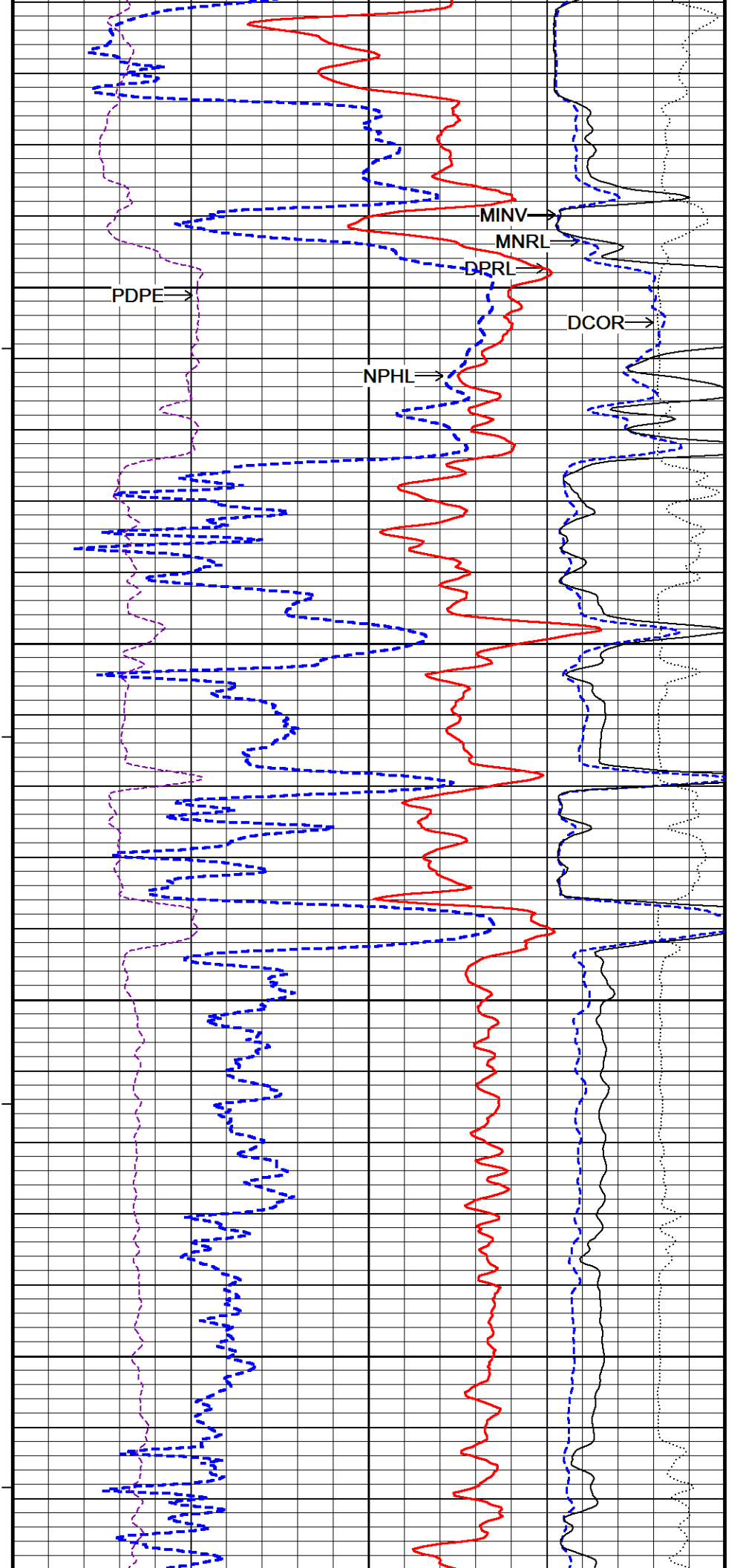
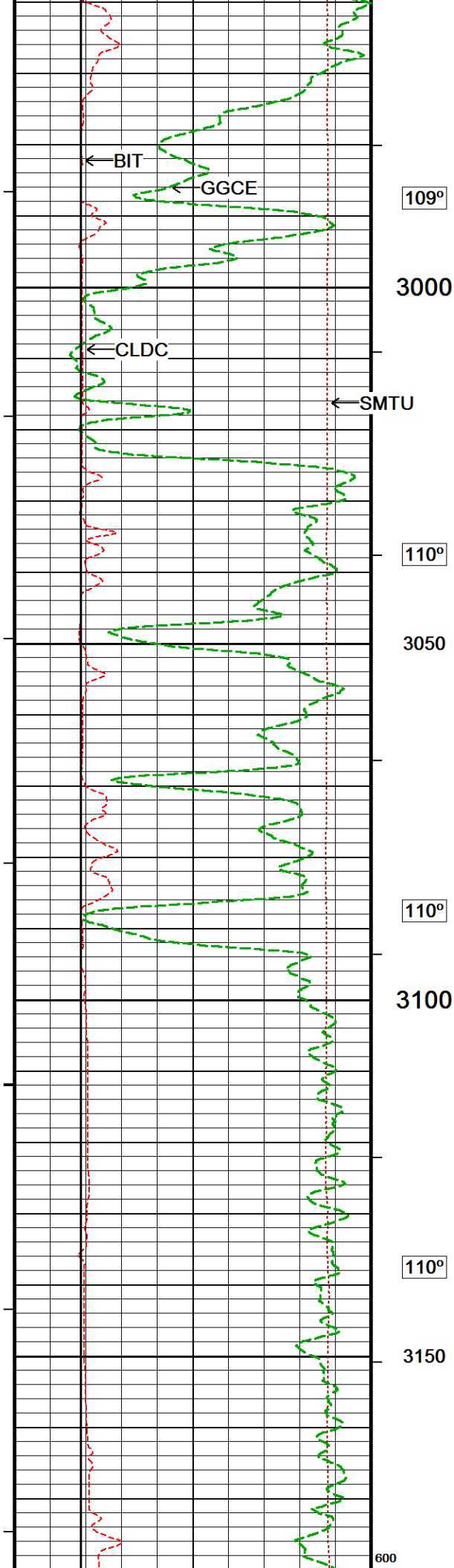


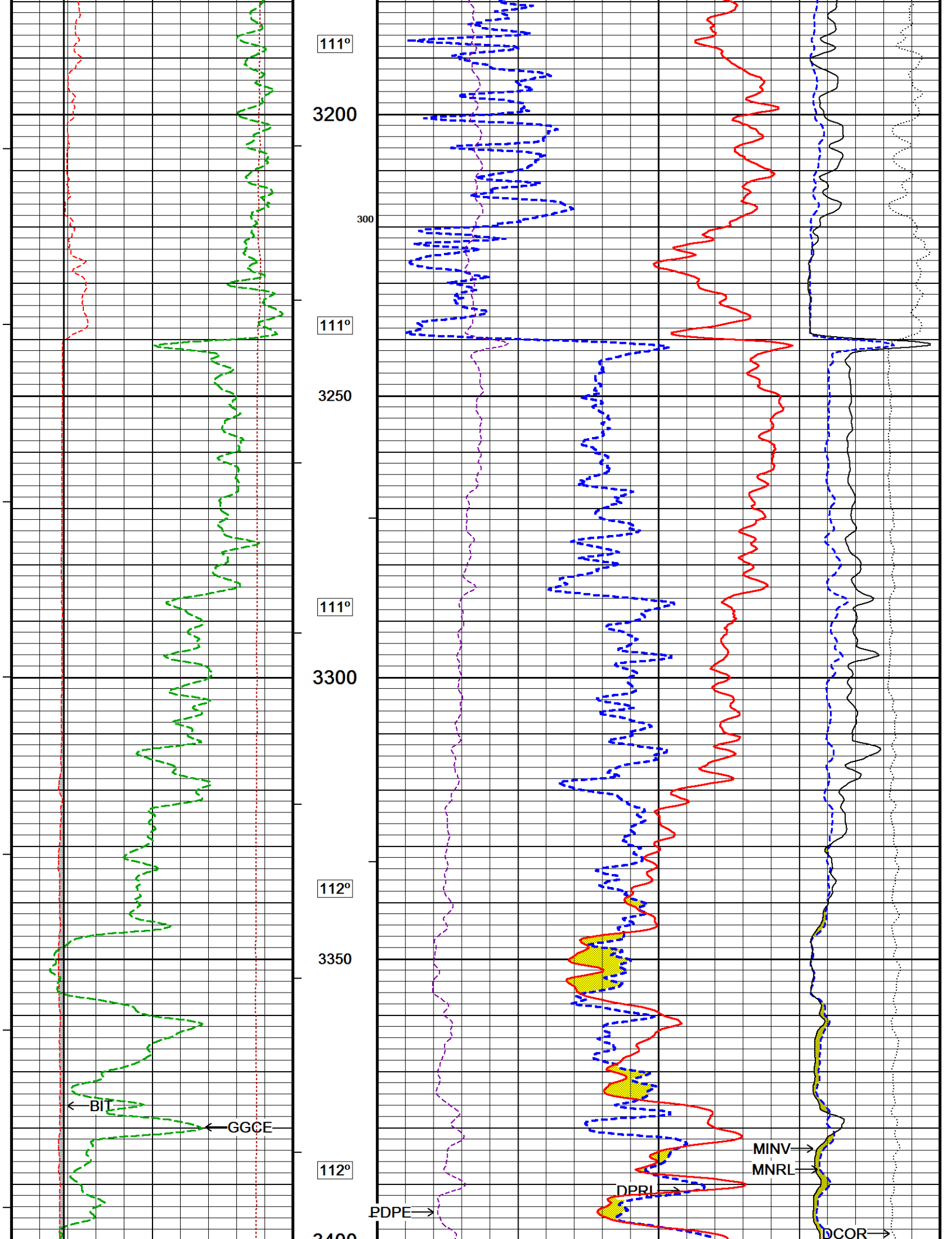


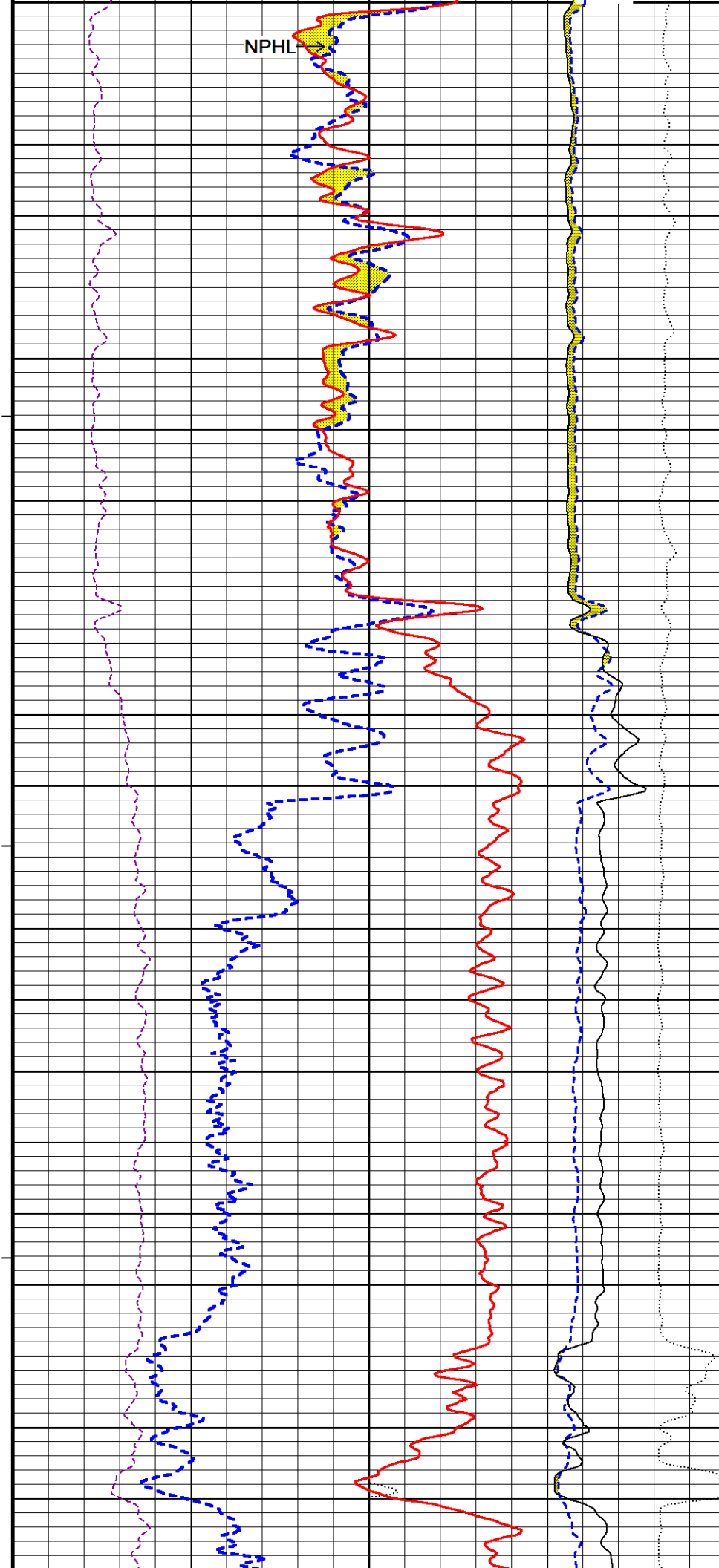
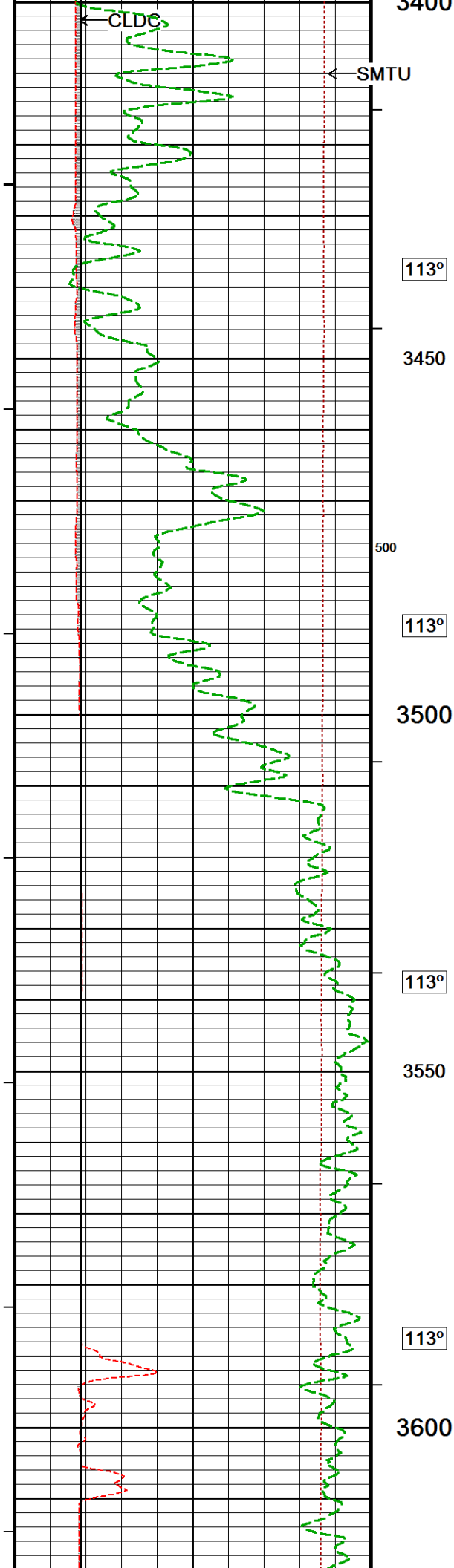


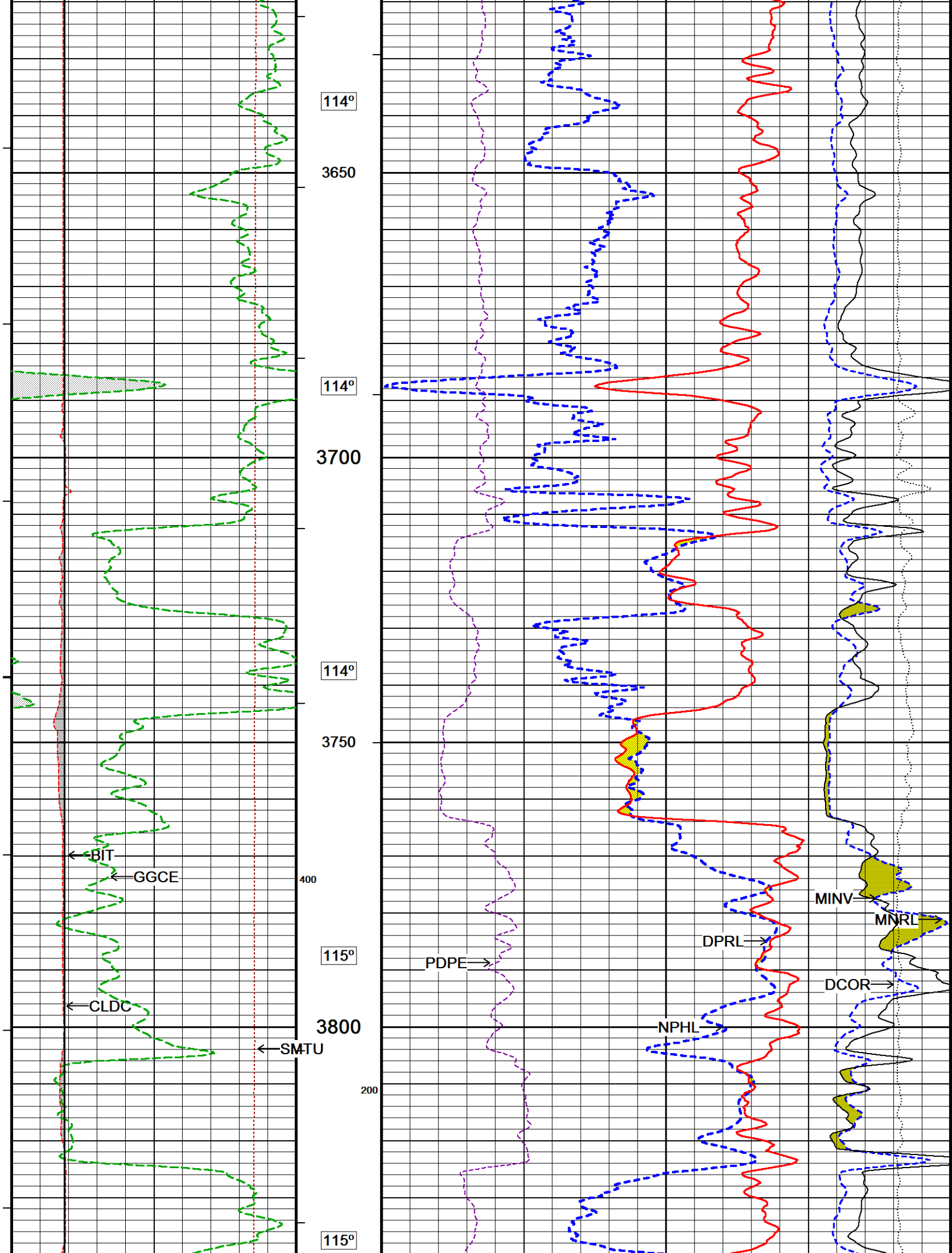


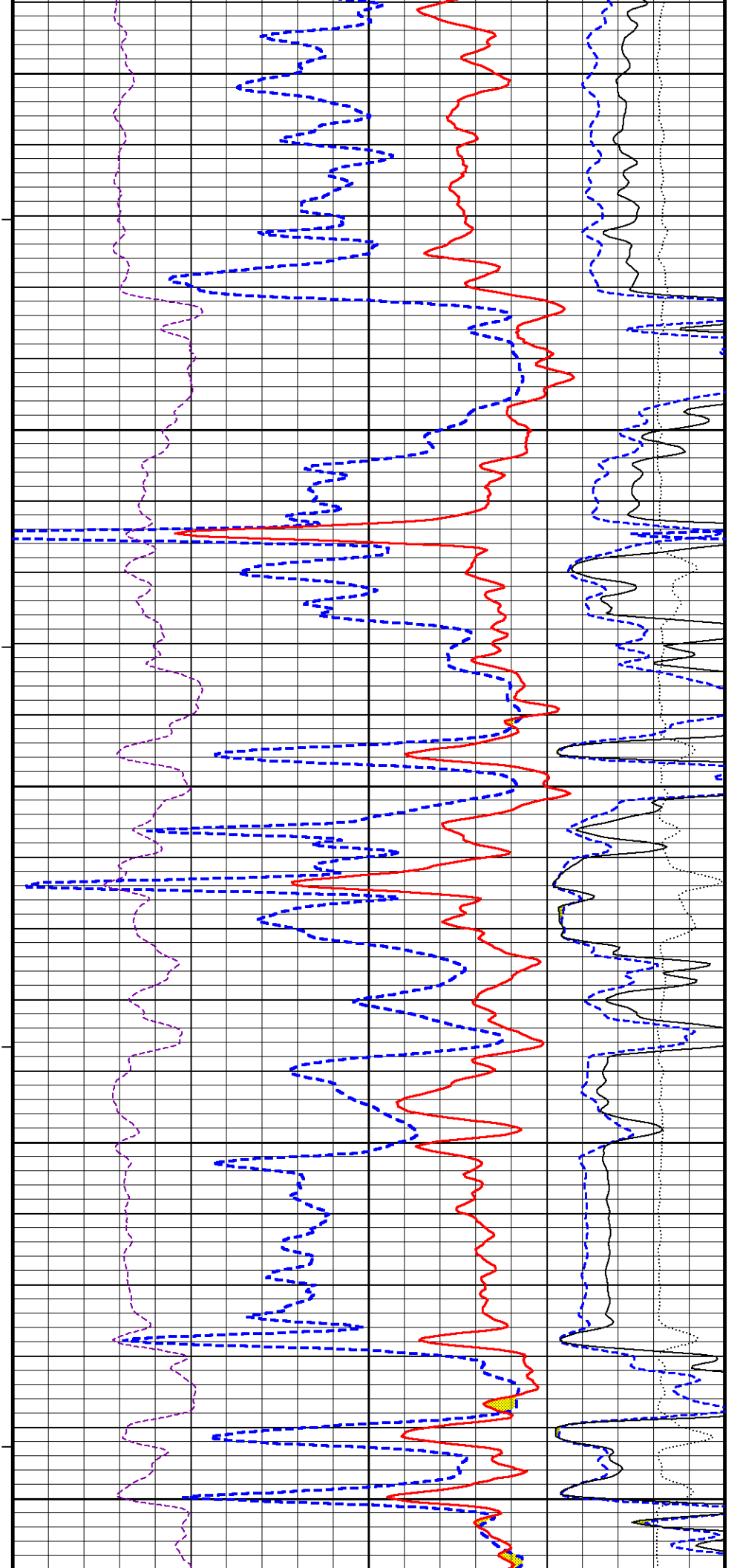
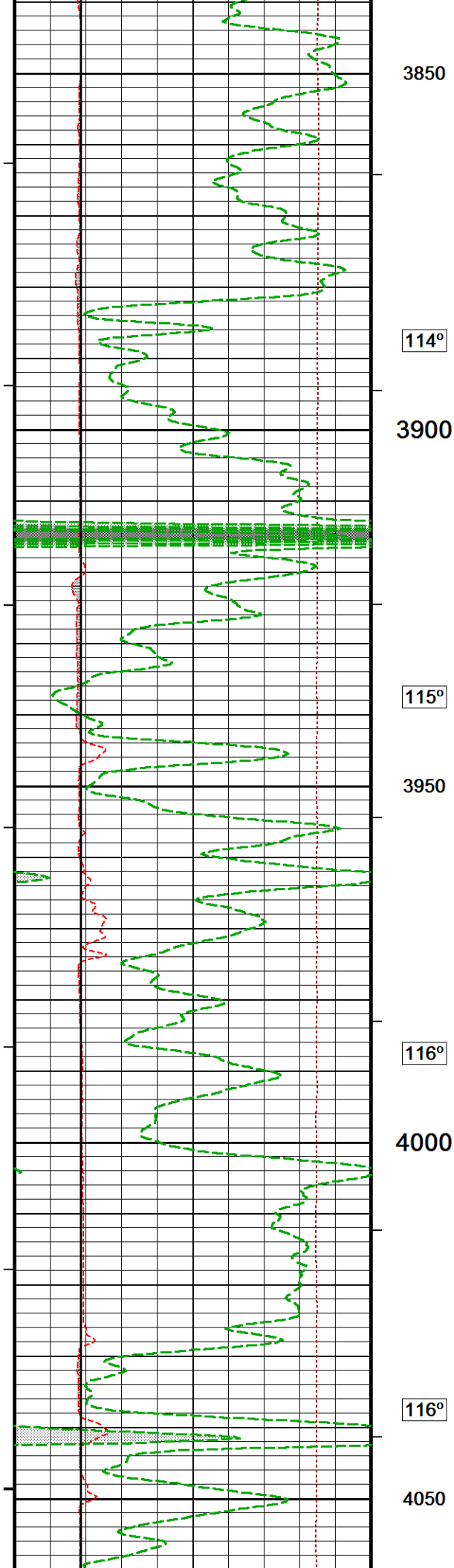


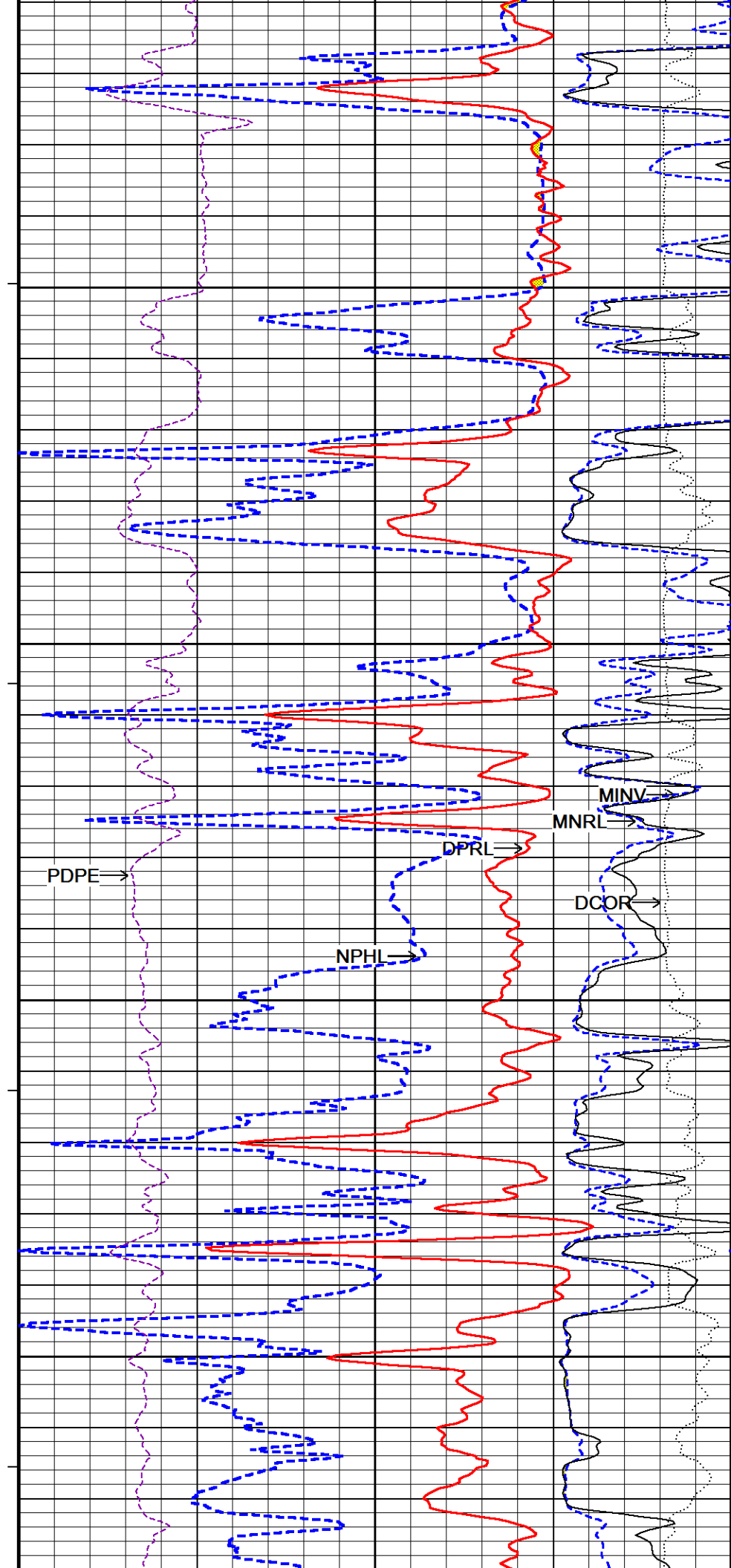
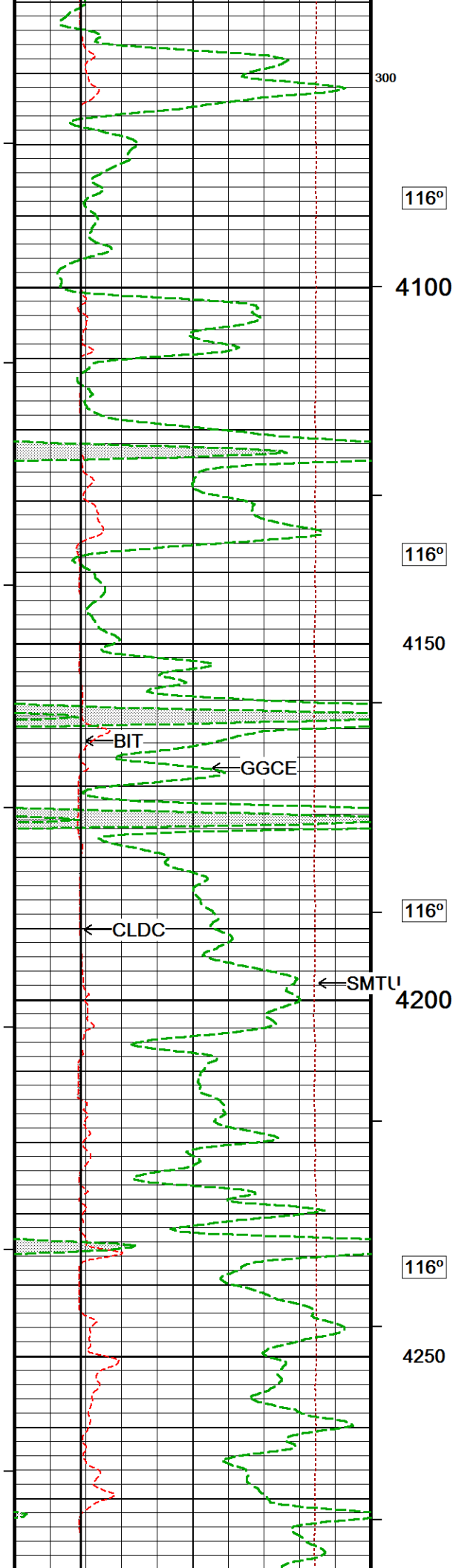


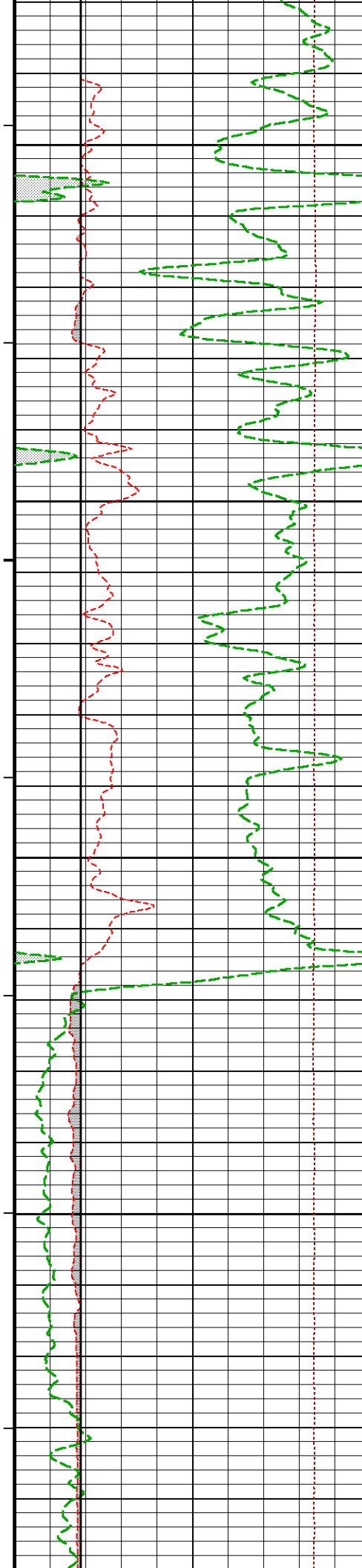




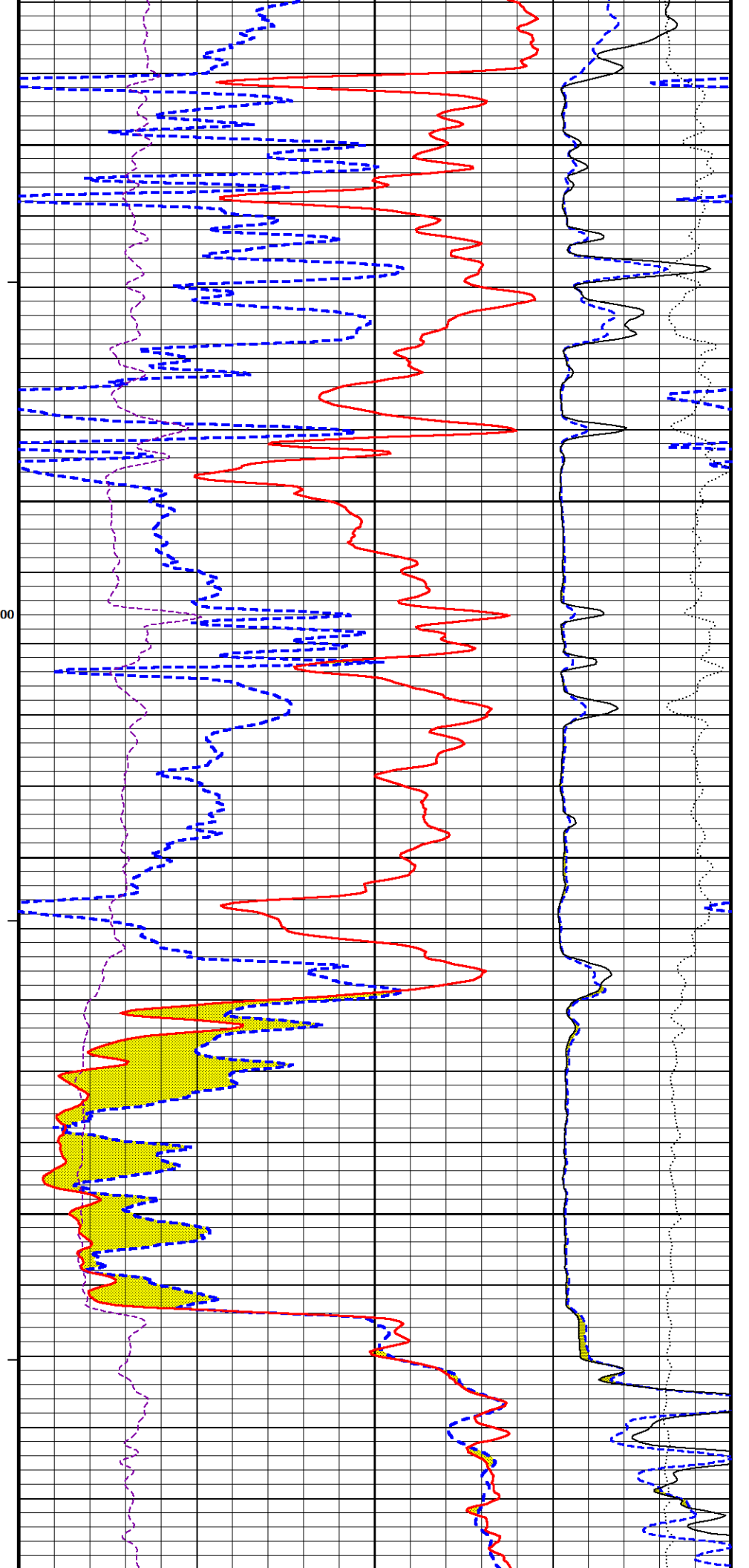


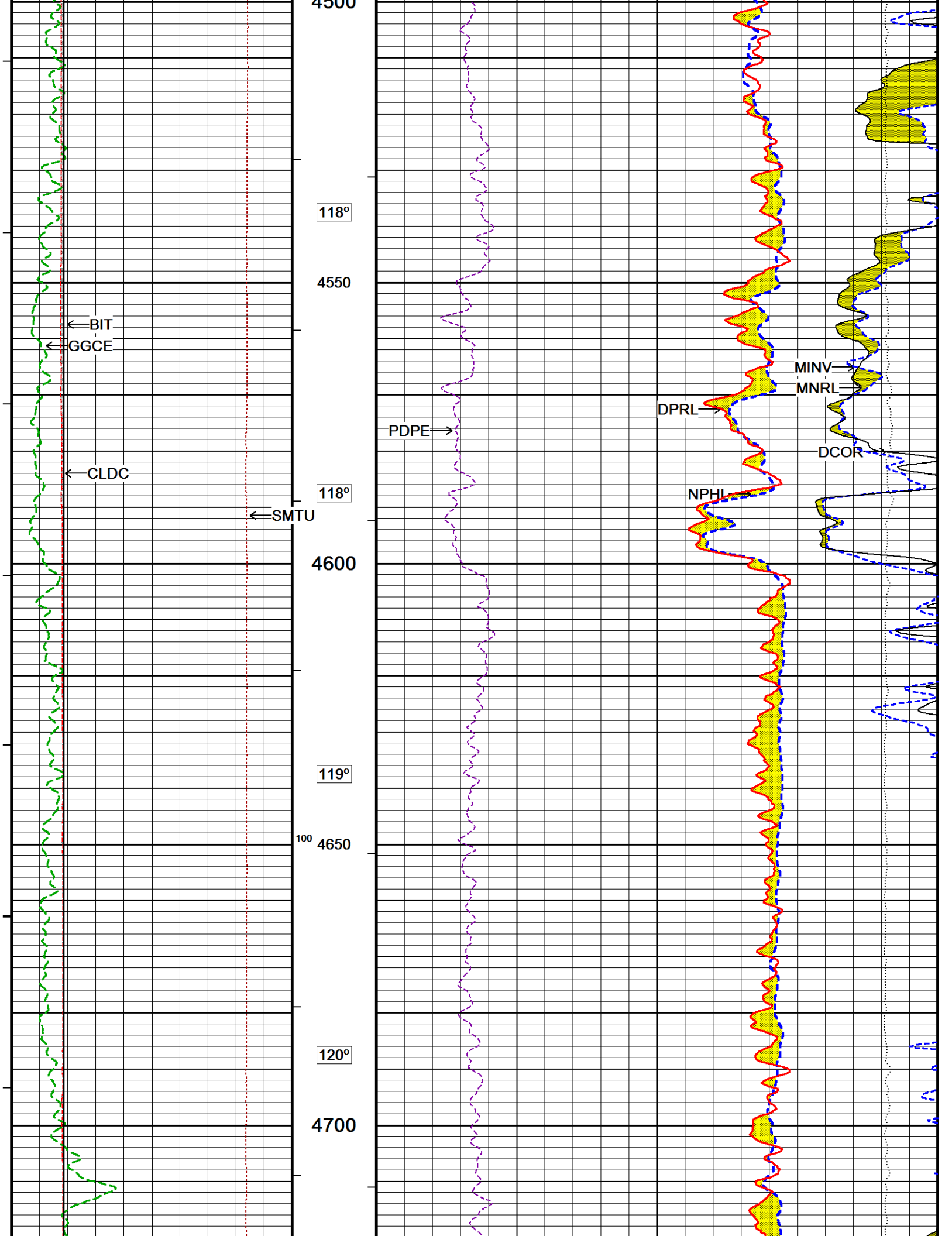


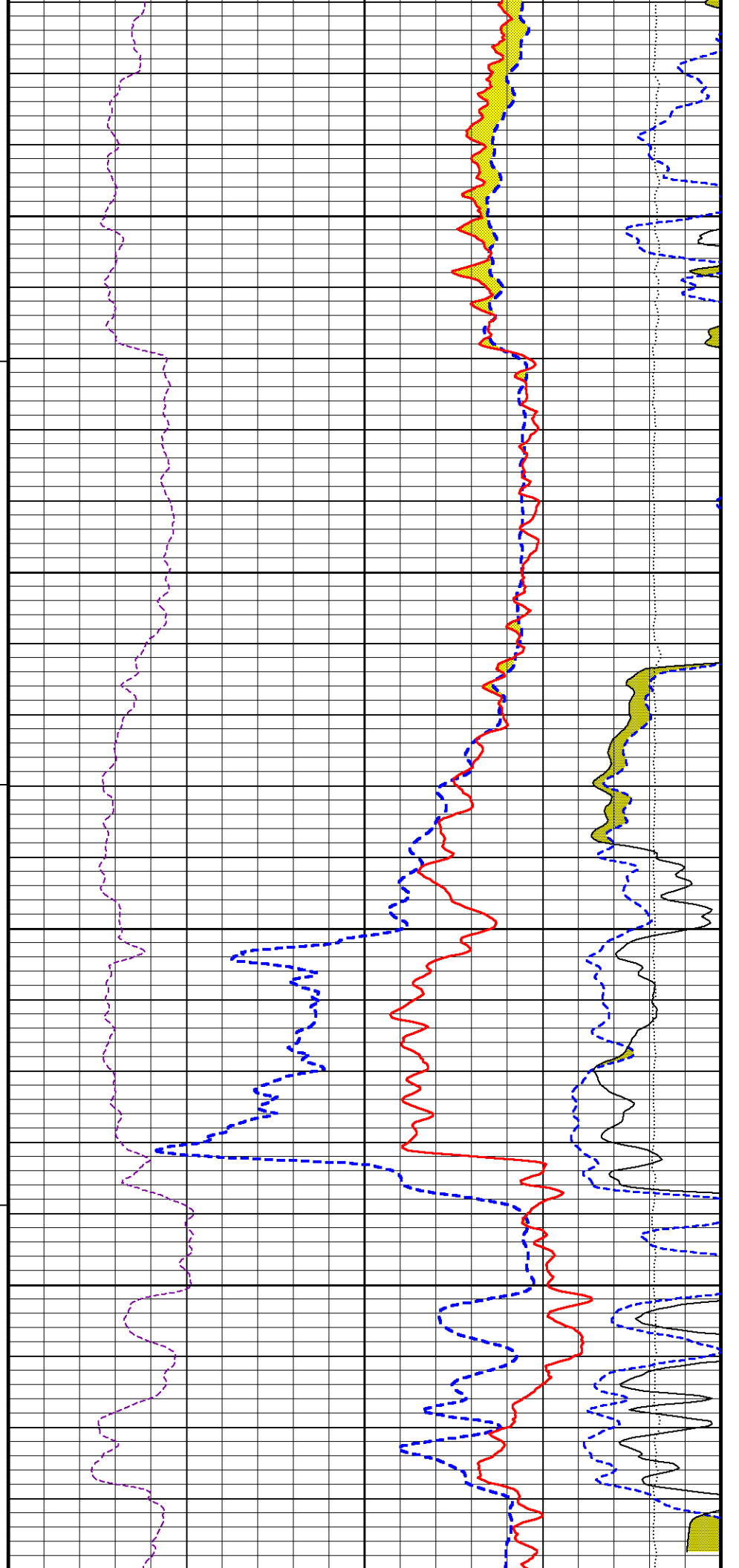
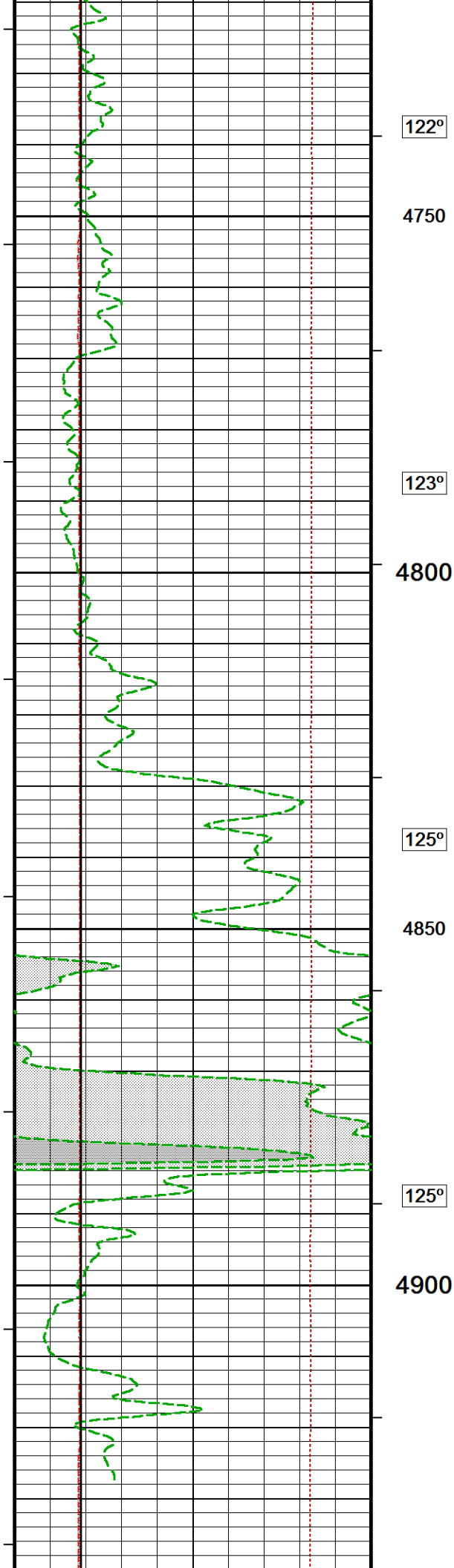


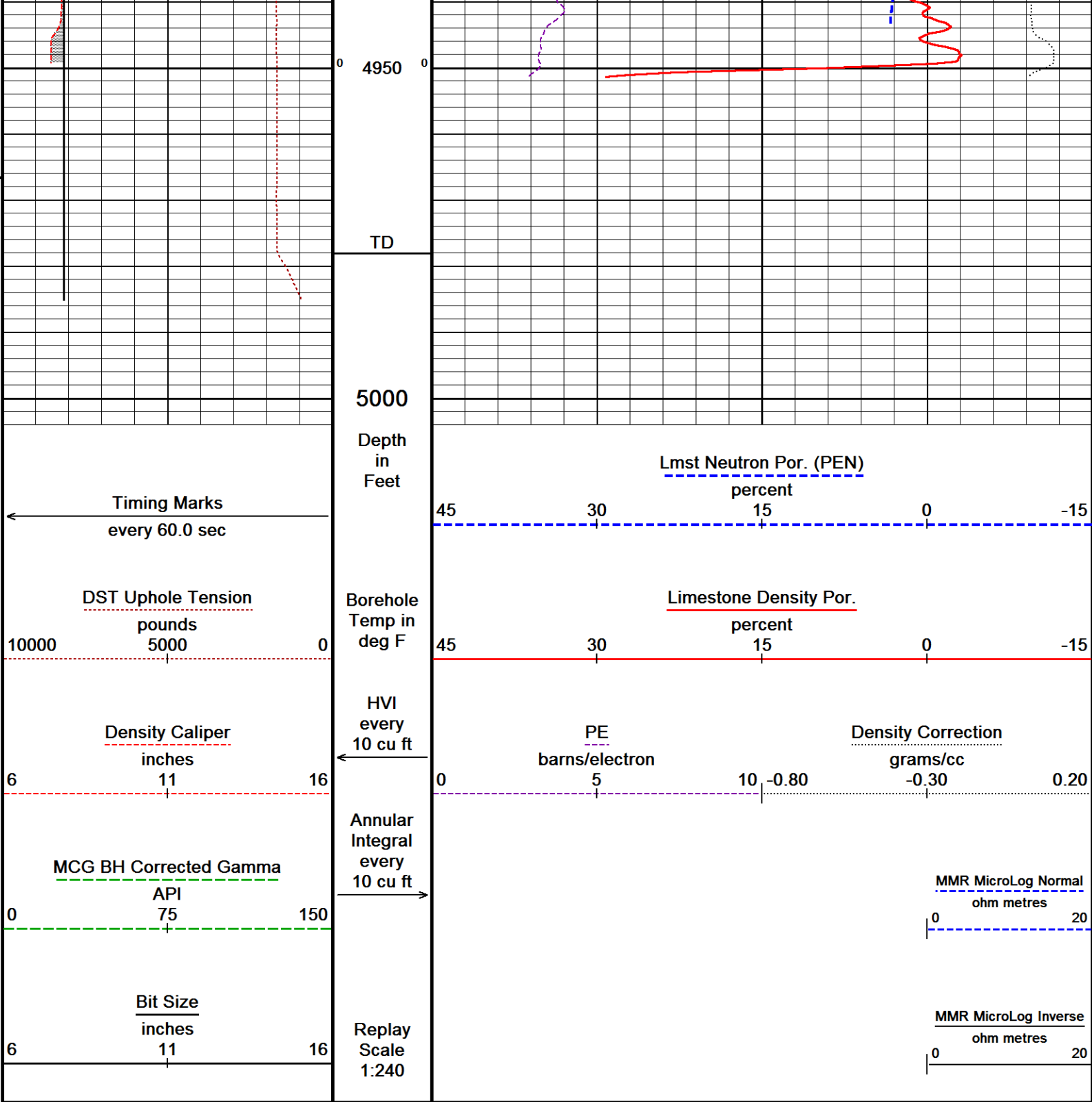


117°
4300
117°
4350
200
100
118°
4400
118°
4450
119°
4500









Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Logs\Union Valley Petro_Harper 1-17\Union Valley Petro_Harper 1-17_005.dta
System Versions: Logged with 20.15.6630 Processed with 20.15.6630 Plotted with 20.15.6630

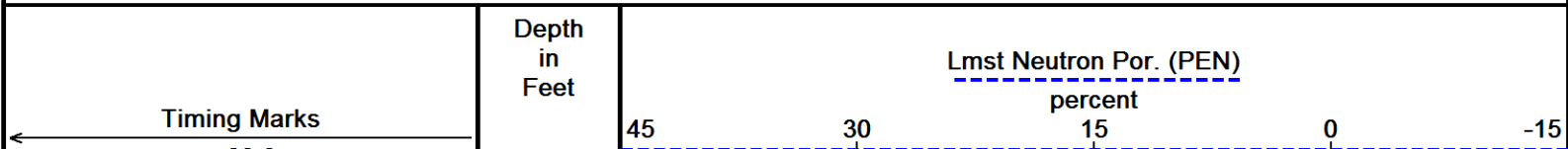
Plotted on 29-JAN-2022 06:33
Recorded on 29-JAN-2022 03:09

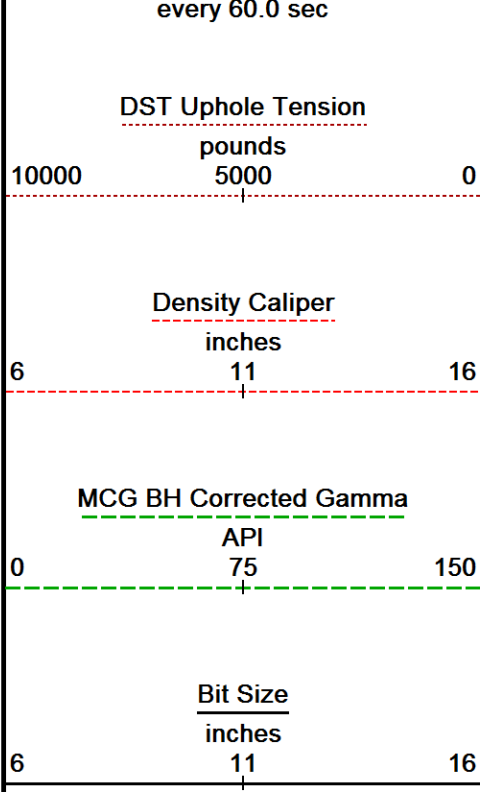
MAIN PASS LIMESTONE 5"/100FT

REPEAT PASS 5"/100FT

Depth Based Data - Maximum Sampling Increment 10.0cm
Filename: C:\Logs\Union Valley Petro_Harper 1-17\Union Valley Petro_Harper 1-17_004.dta
System Versions: Logged with 20.15.6630 Processed with 20.15.6630 Plotted with 20.15.6630

Plotted on 29-JAN-2022 06:33
Recorded on 29-JAN-2022 02:54



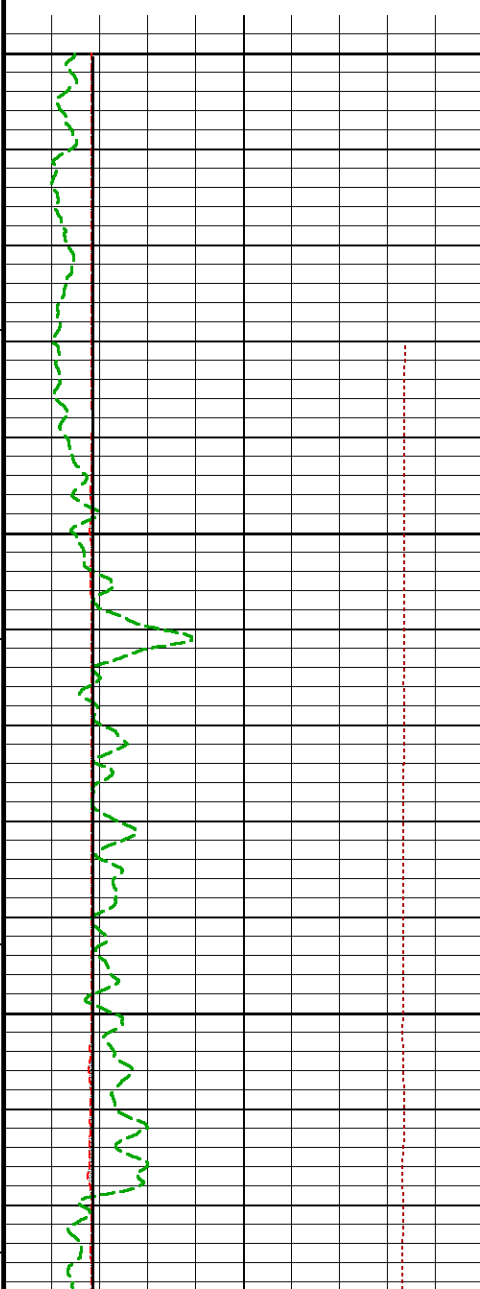
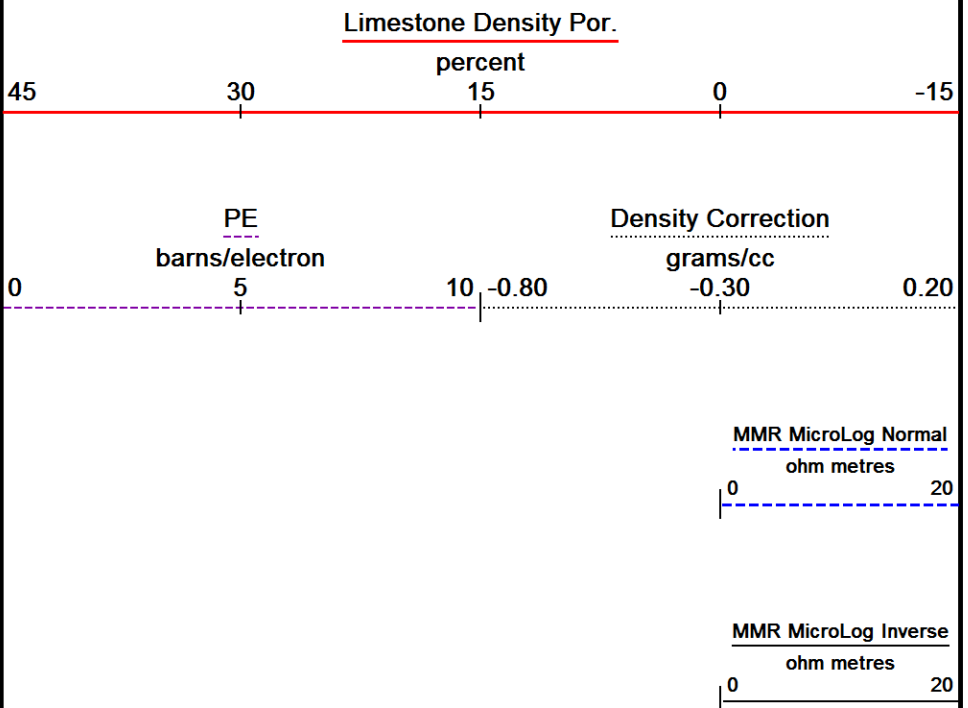


Borehole
Temp in
deg F

HVI
every
10 cu ft

Annular
Integral
every
10 cu ft

Replay
Scale
1:240



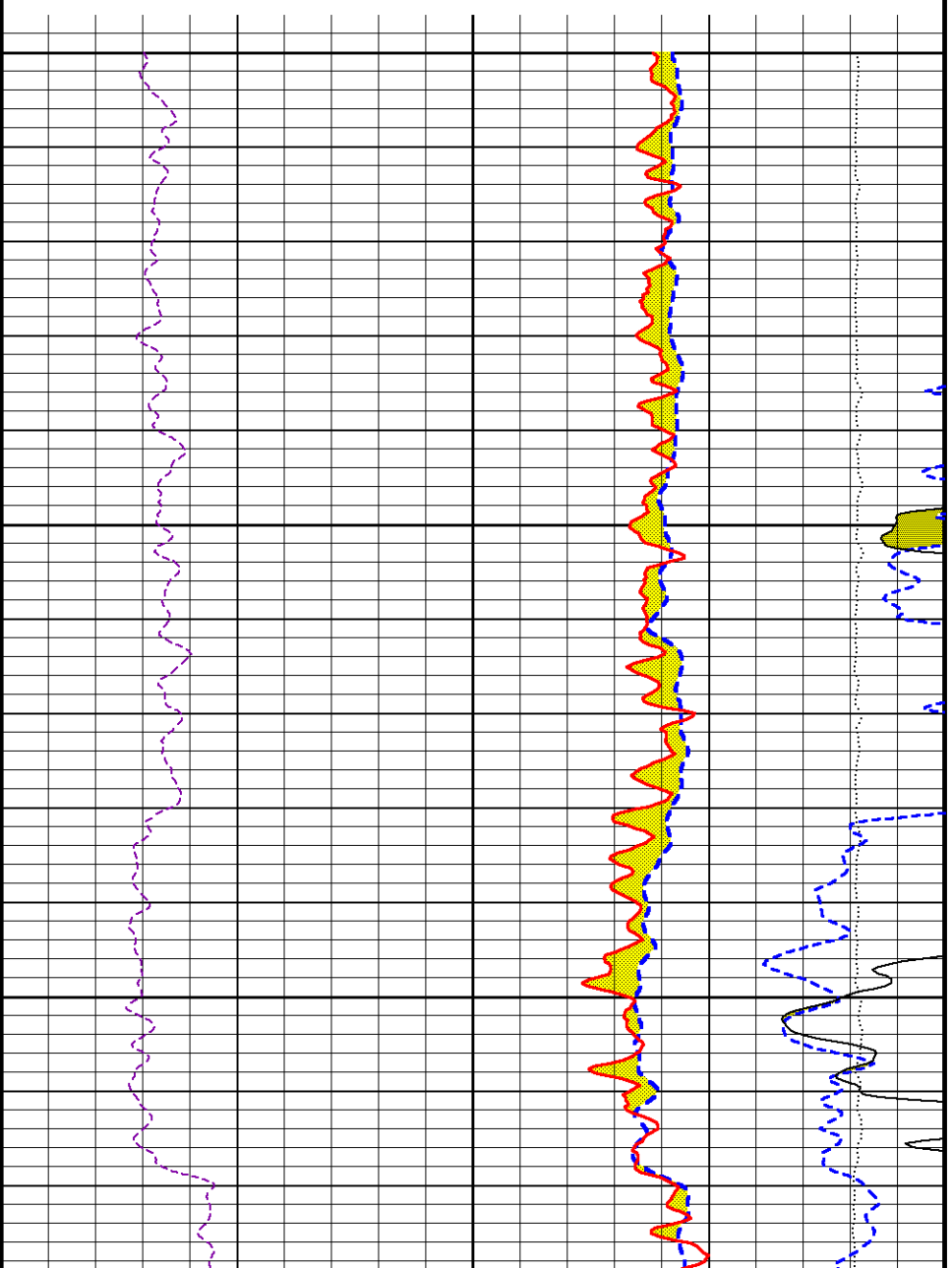
4650

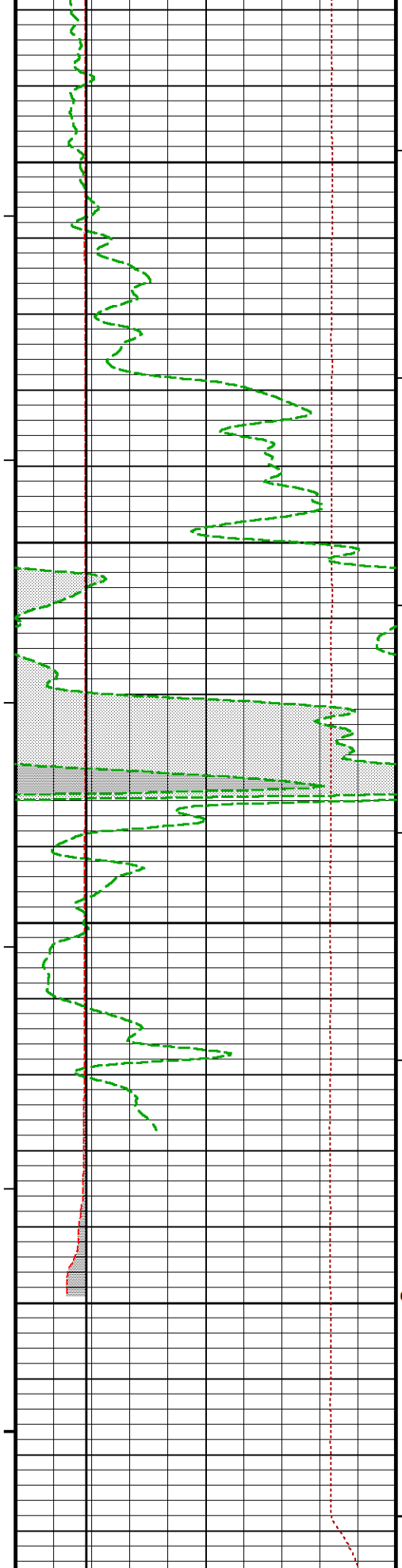
119°

4700

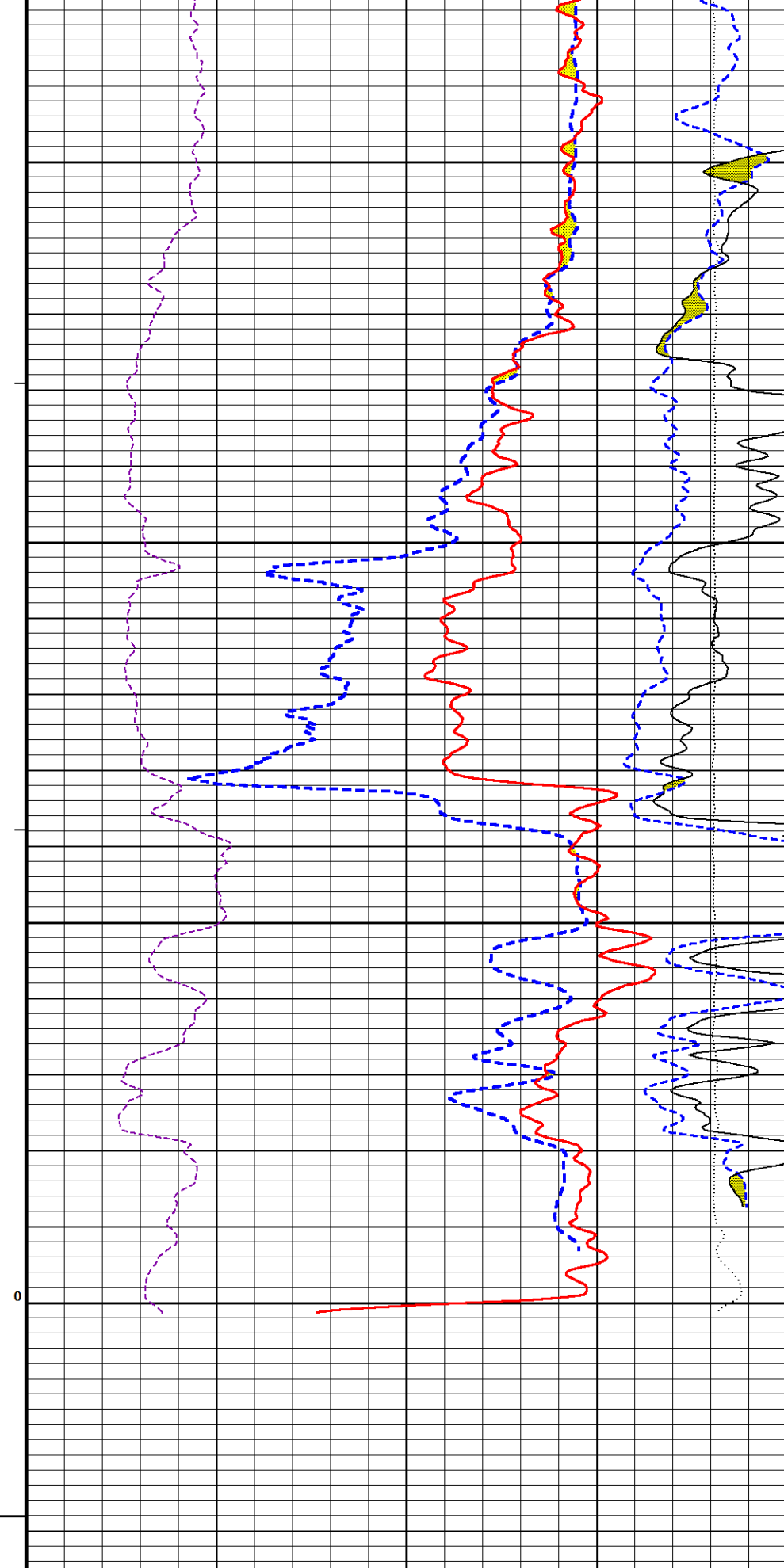
120°

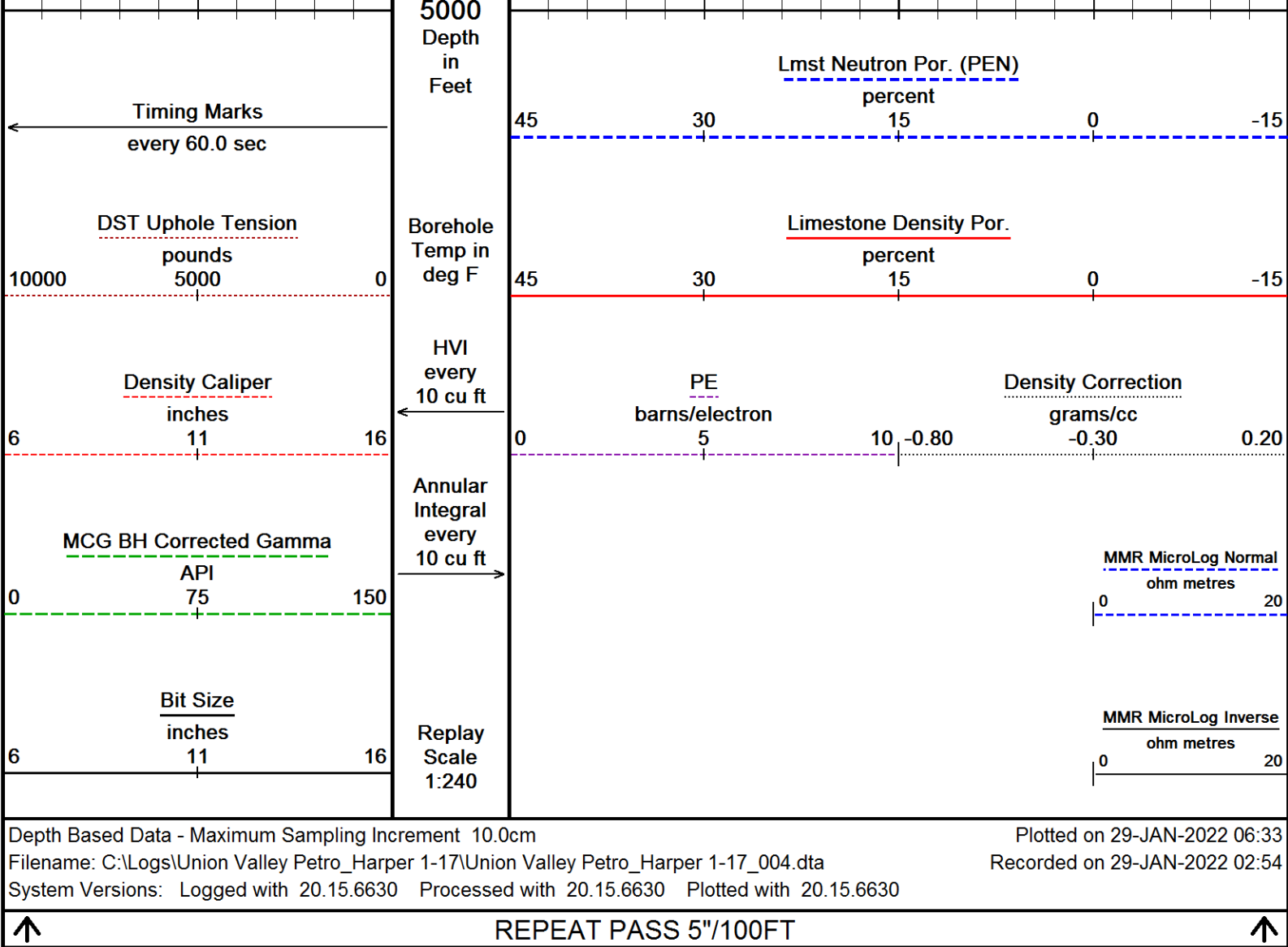
4750





122°
4800
123°
4850
124°
4900
0
4950
TD





BEFORE SURVEY CALIBRATION		
C:\Logs\Union Valley Petro_Harper 1-17\Union Valley Petro_Harper 1-17_005.dta		
General Constants All 000		Last Edited on 29-JAN-2022,02:51
General Parameters		
Mud Resistivity	1.340	ohm-metres
Mud Resistivity Temperature	65.000	degrees F
Water Level	0.000	feet
Borehole Fluid Processing	Wet Hole	
Hole/Annular Volume and Differential Caliper Parameters		
HVOL Method	Single Caliper	
HVOL Caliper 1	Density Caliper	
HVOL Caliper 2	N/A	
Annular Volume Diameter	5.500	inches
Caliper for Differential Caliper	None	
Rwa Parameters		
Porosity used	Limestone Density Por.	
Resistivity used	Array Ind. Four Res Rt	
RWA Constant A	0.620	
RWA Constant M	2.150	
SW/APOR Tool Source	0.000	

High Resolution Temperature Calibration MCG-E.A 574		
	Measured	Calibrated(Deg F)
Lower	0.00	0.00
Upper	0.00	0.00
Field Calibration on 21-JAN-2022,22:54		

Pre-filter Length 11

Gamma Calibration MCG-E.A 574

Field Calibration on 04-JAN-2022 15:47

	Measured	Calibrated (API)
Background	68	46
Calibrator (Gross)	856	580
Calibrator (Net)	788	534

Gamma Calibration Tolerances MCG-E.A 574

Ratio	1.476	1.40	1.475	1.55	Counts/API
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Gamma Constants MCG-E.A 574

Last Edited on 29-JAN-2022,00:01

Gamma Calibrator Number	GRCC-225	
GRC-M Calibrator Jig in Use?	NO	
Inactive Background Jig in Use?	NO	
Mud Density	1.09	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Potassium Equivalence	Chloride	
K Mud Concentration	0.00	%

Micro Normal and Micro Inverse Calibration MMR-A 32

Base Calibration on 08-JAN-2022 11:50

Field Check on 08-JAN-2022 11:52

	Resistor 1 (ohm)	Resistor 2 (ohm)
	10.0	50.0
Base Calibration		
	Measured	Calibrated (ohm-m)
Micro Normal	9.9 49.5	5.1100 25.5500
Micro Inverse	10.0 49.2	3.3800 16.9000
Channel	Base Check (ohm-m)	Field Check (ohm-m)
Micro Normal	94.0	94.0
Micro Inverse	62.7	62.7

Micro Normal & Micro Inverse Calibration Tolerance MMR-A 32

Micro Normal Res. 1	9.9	-5%	10.0	+5%	ohm	Micro Normal Res. 2	49.5	-5%	50.0	+5%	ohm
Micro Inverse Res. 1	10.0	-5%	10.0	+5%	ohm	Micro Inverse Res. 2	49.2	-5%	50.0	+5%	ohm
Micro Normal Base Check	94.0	-2%	94.01	+2%	ohm-m						
Micro Inverse Base Check	62.7	-2%	62.53	+2%	ohm-m						
Micro Normal Field Check	94.0	-2%	94.0	+2%	ohm-m						
Micro Inverse Field Check	62.7	-2%	62.7	+2%	ohm-m						

Micro Normal and Micro Inverse Constants MMR-A 32

Last Edited on 29-JAN-2022,00:02

Pad Type	8-12 in Soft Rubber Inflatable 006-9011-159
Micro Normal K Factor	0.5110
Micro Inverse K Factor	0.3380
Standoff Offset	0.5000 inches

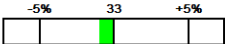
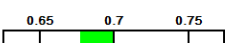
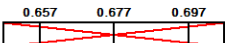
Neutron Calibration MDN-C.A 462

Base Calibration on 24-JAN-2022,12:38

Base Calibration				
	Measured	Calibrated (cps)		
	Near Far	Near Far		
	3008 92	3714 110		
Ratio	32.666	33.764		
Field Calibrator at Base		Calibrated (cps)		
		2317 3421		
Ratio		0.677		

Ratio

Neutron Calibration Tolerances MDN-C.A 462

Ratio	32.666	
Base Check	0.677	
Field Check	0.000	

Neutron Constants MDN-C.A 462

Last Edited on 29-JAN-2022,02:38

Neutron Source Id	P58130B	
Neutron Jig Number	NJ5224	
Air Hole Processing	Legacy	
Caliper Source for Processing	Density Caliper	
Stand-off	0.00	inches
Mud Density	1.00	gm/cc
Limestone Sigma	7.10	cu
Sandstone Sigma	4.26	cu
Dolomite Sigma	4.70	cu
Formation Pressure Source	None	
Formation Pressure	N/A	kpsi
Temperature Source	Constant Value	
Temperature	20.00	degrees F
Mud Salinity	0.00	kppm
Salinity Correction	Not Applied	
Formation Fluid Salinity Source	None	
Formation Fluid Salinity	N/A	kppm
Barite Mud Correction	Not Applied	

Photo Density Calibration MPD-C.J 380

Base Calibration on 04-JAN-2022 14:51

Field Check on 24-JAN-2022,12:49

Density Calibration		Measured		Calibrated (sdu)	
Base Calibration		Near	Far	Near	Far
Background		942	1031		
Reference 1		51780	24064	59553	30910
Reference 2		20988	2147	25010	2543

Field Check at Base

942.1 1030.7

Field Check

934.2 1034.1

PE Calibration		Measured		Calibrated
Base Calibration		WS	WH	Ratio
Background		167	843	
Reference 1	21068	51620	0.412	0.371
Reference 2	5964	20883	0.289	0.273

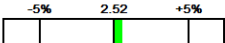
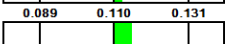
Field Check at Base

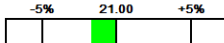
166.8 842.5

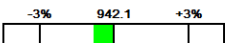
Field Check

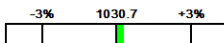
168.4 830.9

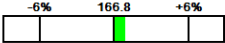
Photo Density Calibration Tolerances MPD-C.J 380

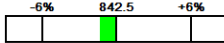
Near Density Ratio	2.54	
PE Calibration	0.115	

Far Density Ratio	20.63	
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Near Den. Field Check	934.2	
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Far Den. Field Check	1034.1	
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PE WS Field Check	168.4	
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PE WH Field Check	830.9	
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Density Source Id	H79951B	
Nylon Calibrator Number	DNC-E662	
Aluminium Calibrator Number	DAC-D687	
Density Shoe Profile	8 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.09	gm/cc
Mud Density Type	Non-Barite	
Mud Filtrate Density	1.00	gm/cc
Dry Hole Mud Filtrate Density	1.00	gm/cc
DNCT	0.00	gm/cc
CRCT	0.00	gm/cc
Density Z/A Correction	Hybrid	
Precision Enhanced Density Processing	Not Applied	

Matrix Density (gm/cc)	Depth (ft)
2.71	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00
0.00	0.00

Caliper Calibration MPD-C.J 380

Base Calibration on 04-JAN-2022 15:08

Field Calibration on 04-JAN-2022 15:10

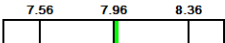
Base Calibration

Reading No	Measured	Calibrator Size (in)
1	16803	4.01
2	25320	5.96
3	34064	7.96
4	42221	9.86
5	51519	11.92
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
7.99	7.96

Caliper Calibration Tolerances MPD-C.J 380

Long Arm Field Cal. 7.99  in

DOWNHOLE EQUIPMENT

C:\Logs\Union Valley Petro_Harper 1-17\Union Valley Petro_Harper 1-17_005.dta

Cablehead, 11 pin
CBH-CA 226 LG: 2.40 ft WT: 24.3 lb OD: 2.244 in

11C-11B Compact Tool Adaptor
MTA-K.B 304 LG: 1.53 ft WT: 13.2 lb OD: 2.240 in

Compact Swivel Head Adaptor
SHA-J.B 574 LG: 2.30 ft WT: 22.0 lb OD: 2.244 in

Compact Comms Gamma
MCG-E.A 574 LG: 8.70 ft WT: 63.9 lb OD: 2.244 in

Compact Micro-Resistivity
MMR-A 32 LG: 8.59 ft WT: 81.6 lb OD: 4.882 in

Compact Neutron
MDN-A 122 LG: 5.84 ft WT: 58.7 lb OD: 2.242 in



58.18 ft GGCE - MCG BH Corrected Gamma

56.00 ft CCLG - Casing Collar Locator

55.28 ft CGXT - MCG External Temperature

47.93 ft MINV - Micro-inverse

47.93 ft MNRL - Micro-normal

Compact Density/Caliper
MPD-C.J 380 LG: 9.59 ft WT: 90.4 lb OD: 2.449 in

Compact Knuckle Joint
SKJ-E.B 557 LG: 2.17 ft WT: 24.3 lb OD: 2.244 in

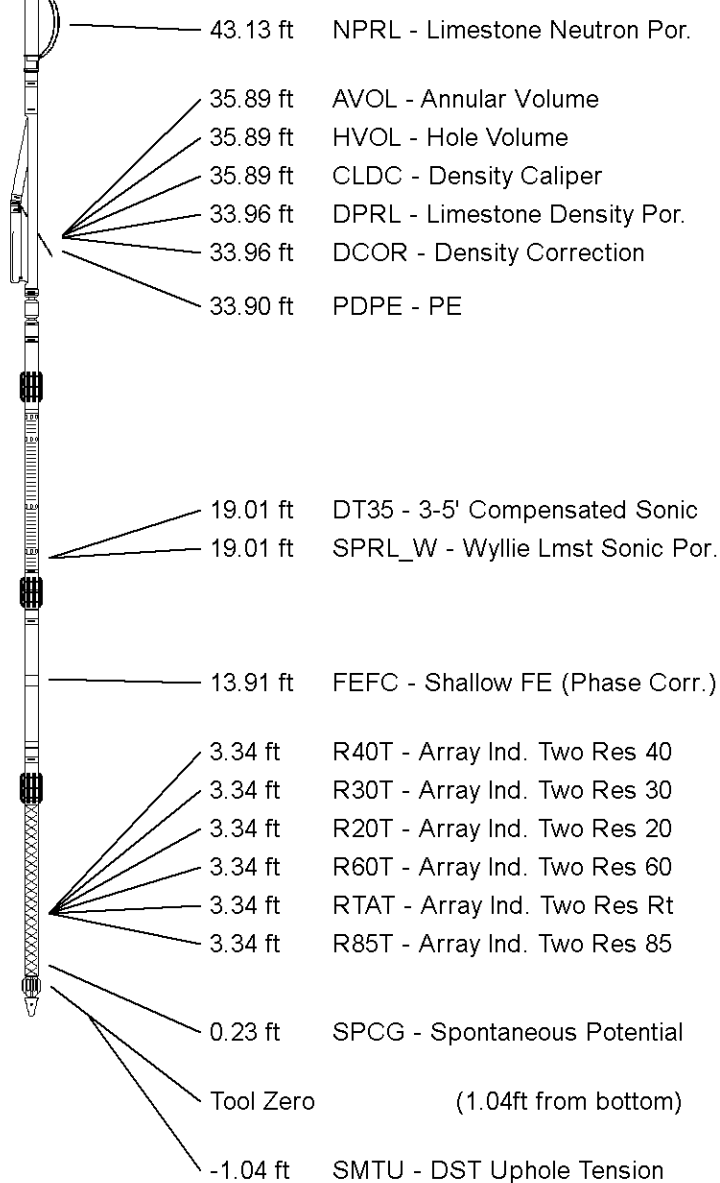
Compact Sonic
MSS-C.K 376 LG: 12.52 ft WT: 72.8 lb OD: 2.244 in

Compact Focussed Electric
MFE-C.A 396 LG: 6.05 ft WT: 48.5 lb OD: 2.244 in

Compact Induction
MAI-C.A 446 LG: 10.81 ft WT: 48.5 lb OD: 2.240 in

Pressure Bung + Hole Finder
HFS 3 LG: 0.91 ft WT: 6.6 lb OD: 2.240 in

Total Length: 70.59 ft Weight: 546.7 lb



All measurements relative to tool zero.

COMPANY	UNION VALLEY PETROLEUM CORP.
WELL	HARPER 1-17
FIELD	CALDWELL
PROVINCE/COUNTY	SUMNER
COUNTRY/STATE	KANSAS

Elevation Kelly Bushing	1154.00	feet	Last Reading	2800.00	feet
Elevation Drill Floor	1153.00	feet	First Reading	4950.00	feet
Elevation Ground Level	1141.00	feet	Depth Driller	4975.00	feet
			Depth Logger	4978.00	feet

RECON

DUAL NEUTRON
PHOTO DENSITY
MICROLOG

