



Weatherford

COMPOSITE LOG

COMPANY				TAOS RESOURCES OPERATING COMPANY			
WELL				WEST MADDIX UNIT #26			
FIELD				MADDIX NORTH			
PROVINCE/COUNTY				COWLEY			
COUNTRY/STATE				U.S.A / KANSAS			
LOCATION				1485' FSL & 1155' FWL of NE-NW-SW-SW			
SEC 2	TWP 33 S	RGE 5 E	Other Services				
API Number		15-035-24568					
Permanent Datum GL, Elevation 1278 feet						Elevations:	
Log Measured From KB						KB 1288.00	
Drilling Measured From KB						DF 1287.00	
						GL 1278.00	
Date	31-MAY-2014						
Run Number	ONE						
Service Order	5820-88723623						
Depth Driller	3627.00			feet			
Depth Logger	3624.00			feet			
First Reading	3621.00			feet			
Last Reading	273.00			feet			
Casing Driller	277.00			feet			
Casing Logger	273.00			feet			
Bit Size	7.875			inches			
Hole Fluid Type	WBM						
Density / Viscosity	9.20 lb/USg		52.00	sec/qt			
PH / Fluid Loss	9.50		7.20	ml/30Min			
Sample Source	MUD TANK						
Rm @ Measured Temp	0.60 @ 72.0			ohm-m			
Rmf @ Measured Temp	0.48 @ 72.0			ohm-m			
Rmc @ Measured Temp	0.72 @ 72.0			ohm-m			
Source Rmf / Rmc	CALC		CALC				
Rm @ BHT	0.40 @ 111.0			ohm-m			
Time Since Circulation	4 HOURS						
Max Recorded Temp	111.00			deg F			
Equipment / Base	13026		OKC				
Recorded By	L.HEATON						
Witnessed By						M. SEELY	
SALES	B. CONCHEWSKI						

BOREHOLE RECORD

Last Edited: 31-MAY-2014 07:42

Bit Size inches	Depth From feet	Depth To feet
7.875	277.00	3627.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	8.625	0.00	277.00	24.00

REMARKS

TOOLS RAN: MCG, SGS, MMR, MDN, MPD, MFE, MSS, MAI RAN IN COMBINATION

HARDWARE:

MAI: TWO 0.5 INCH STANDOFFS USED.

MFE: ONE 0.5 INCH STANDOFF USED.

MDN: DUAL NEUTRON BOW SPRINGS USED.

MPD: 8 INCH PROFILE PLATE USED.

MSS: THREE 0.5 INCH STANDOFFS USED.

2.71 G/CC DENSITY MATRIX USED TO CALCULATE POROSITY.

ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST.

TOTAL HOLE VOLUME FROM TD TO SURFACE CASING = 1350 CU.FT.

ANNULAR HOLE VOLUME WITH 5.5 INCH PRODUCTION CASING FROM TD TO SURFACE CASING = 800 CU.FT.

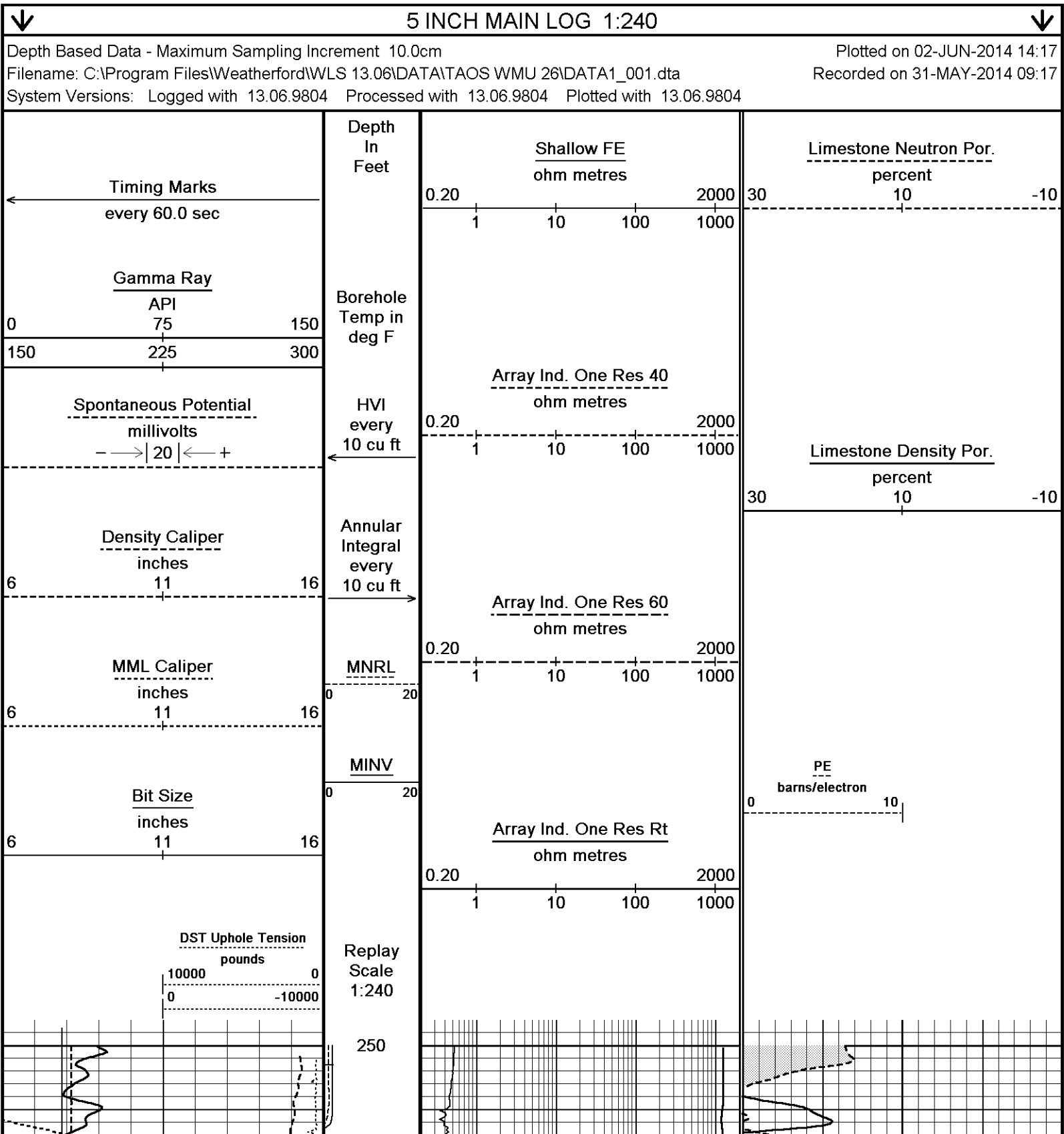
FIELD TICKET NUMBER: 5580-88723623

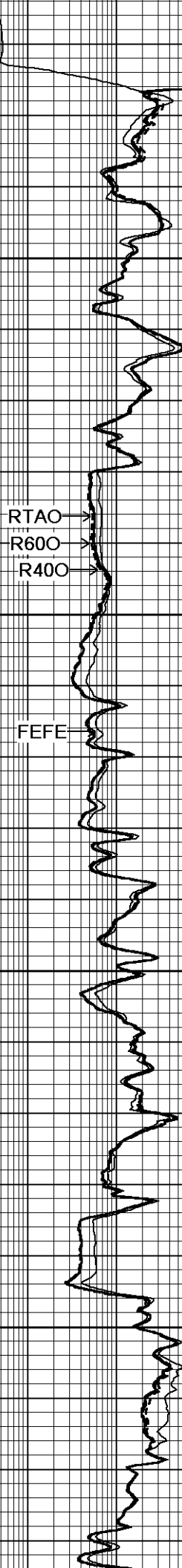
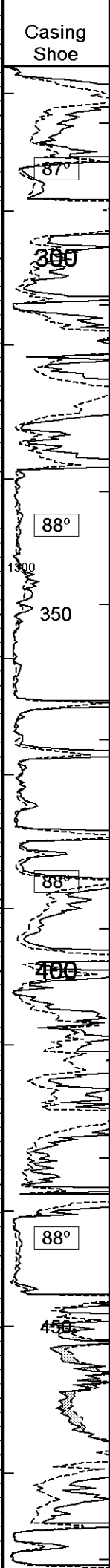
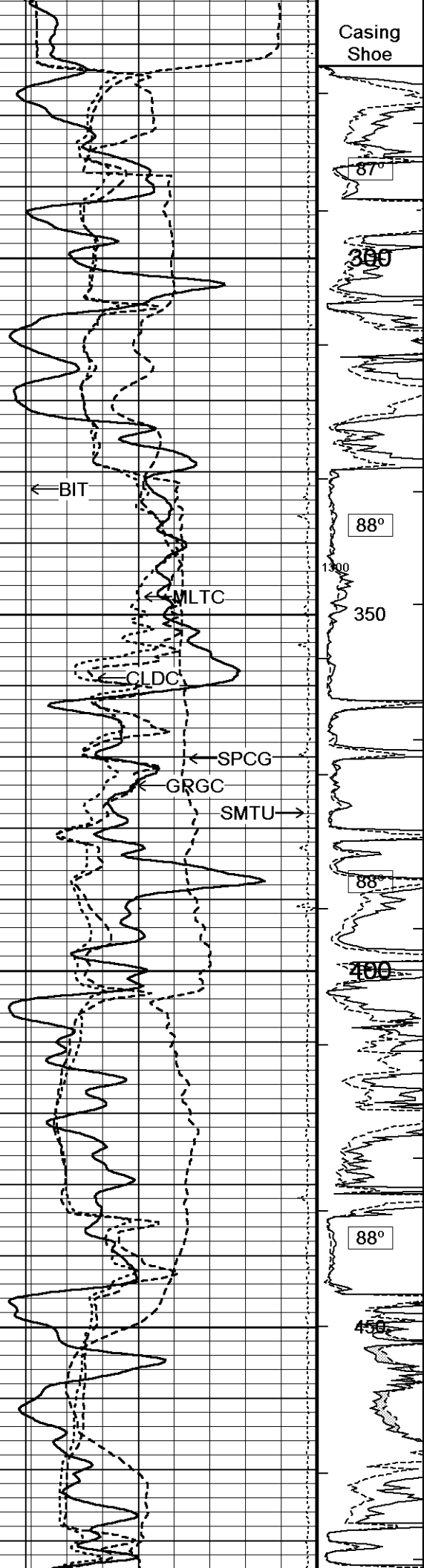
RIG: VAL DRILLING RIG #3

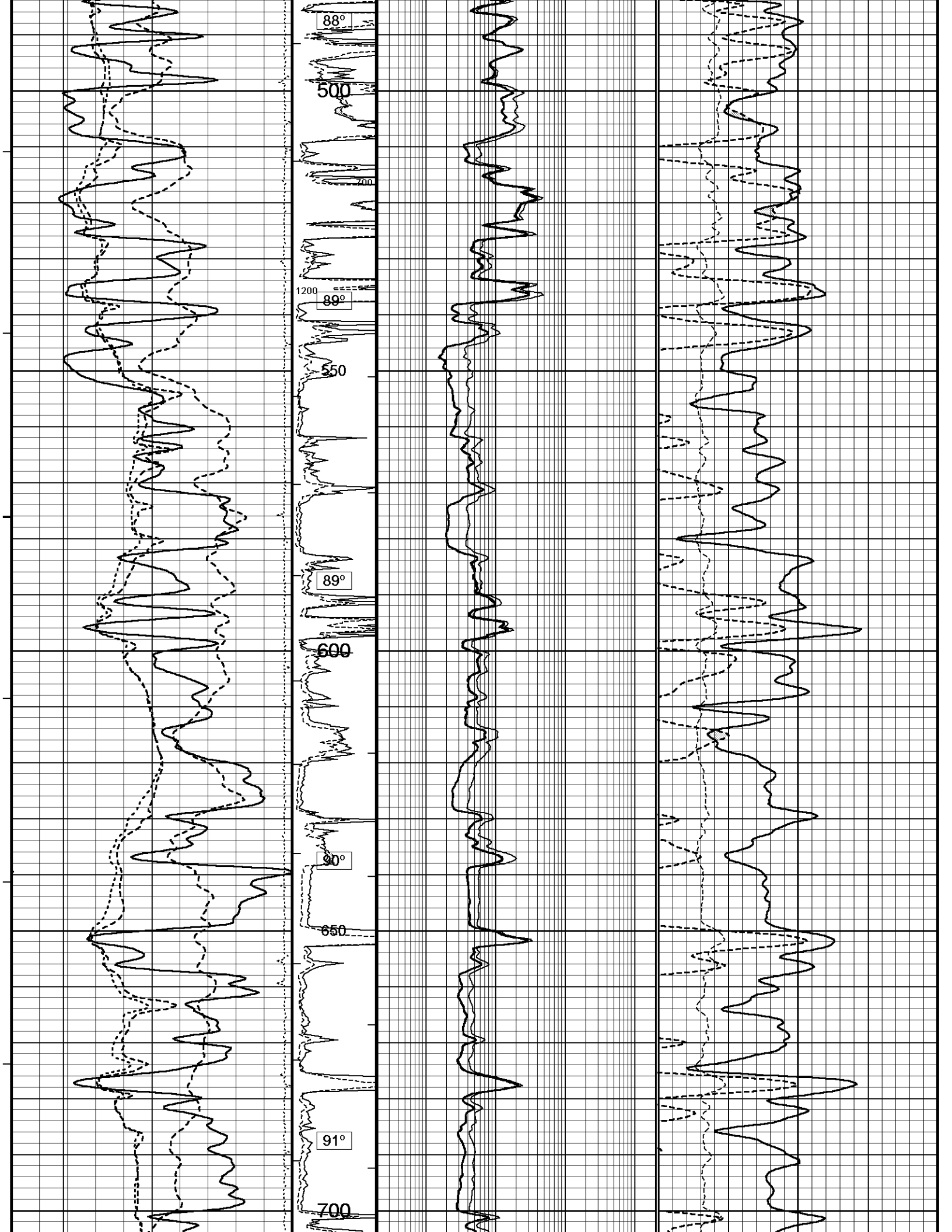
OPERATOR(S): NICK SCARNECHIA

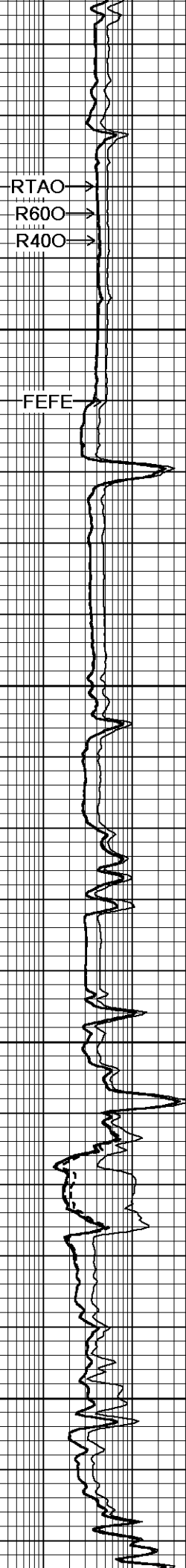
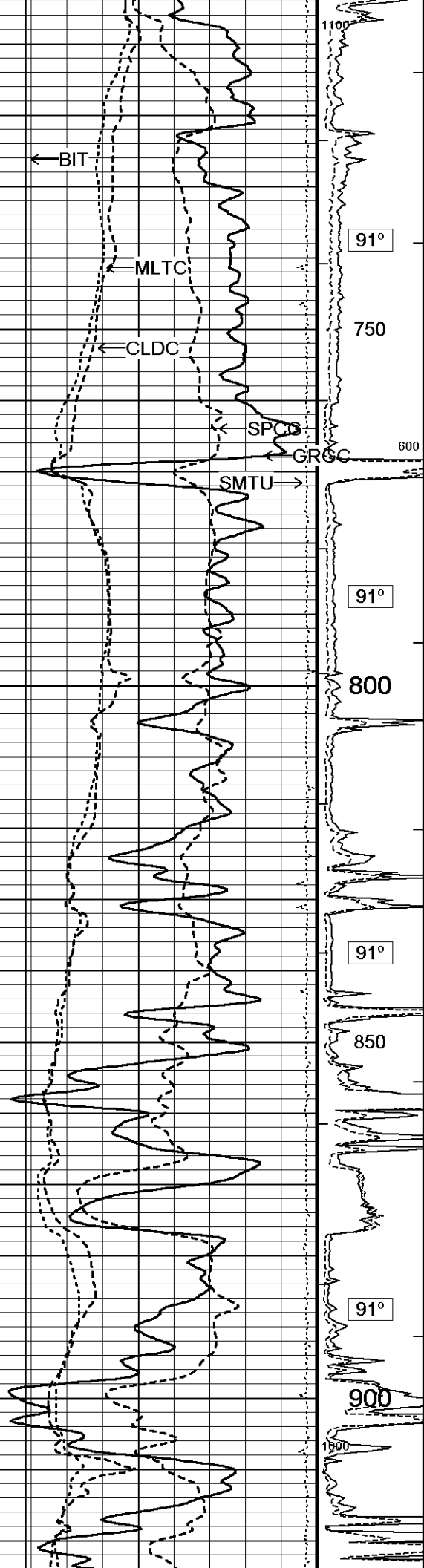
HOLE WASHOUTS AND RUGOSITY WILL AFFECT LOG QUALITY AND REPEATABILITY.

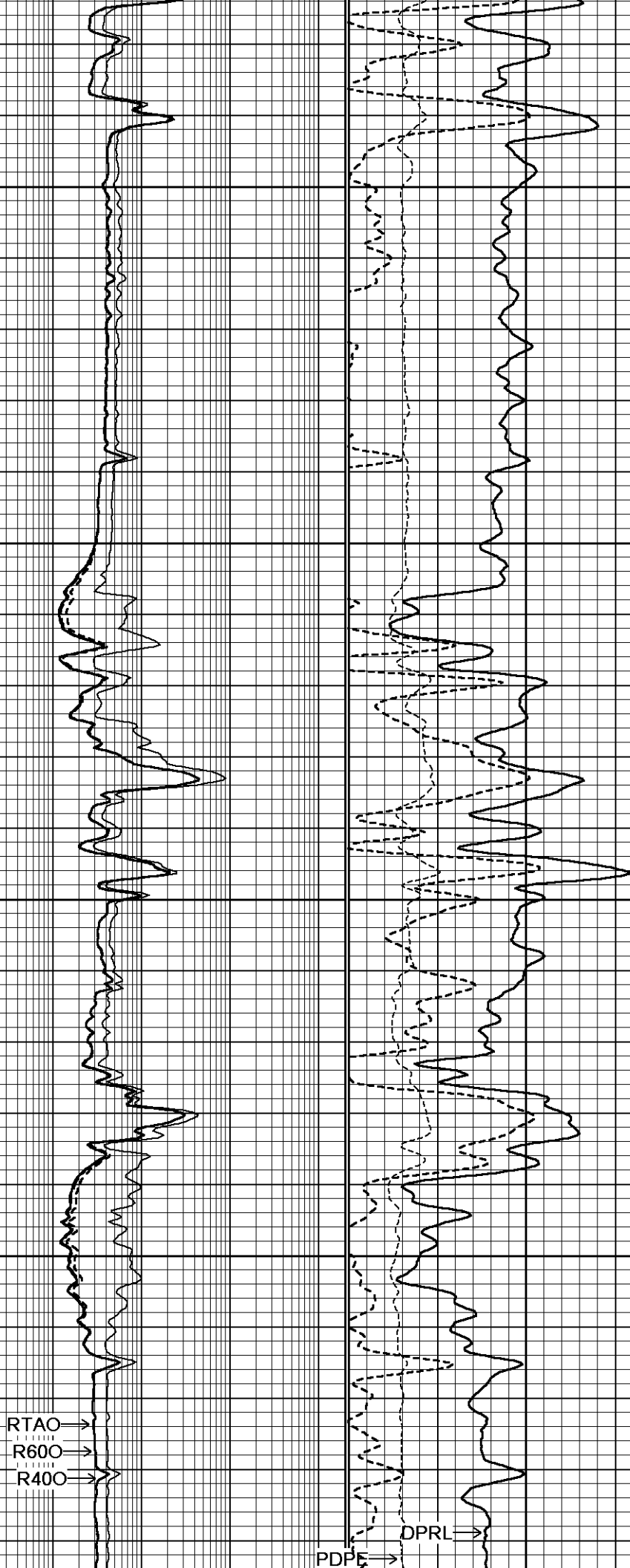
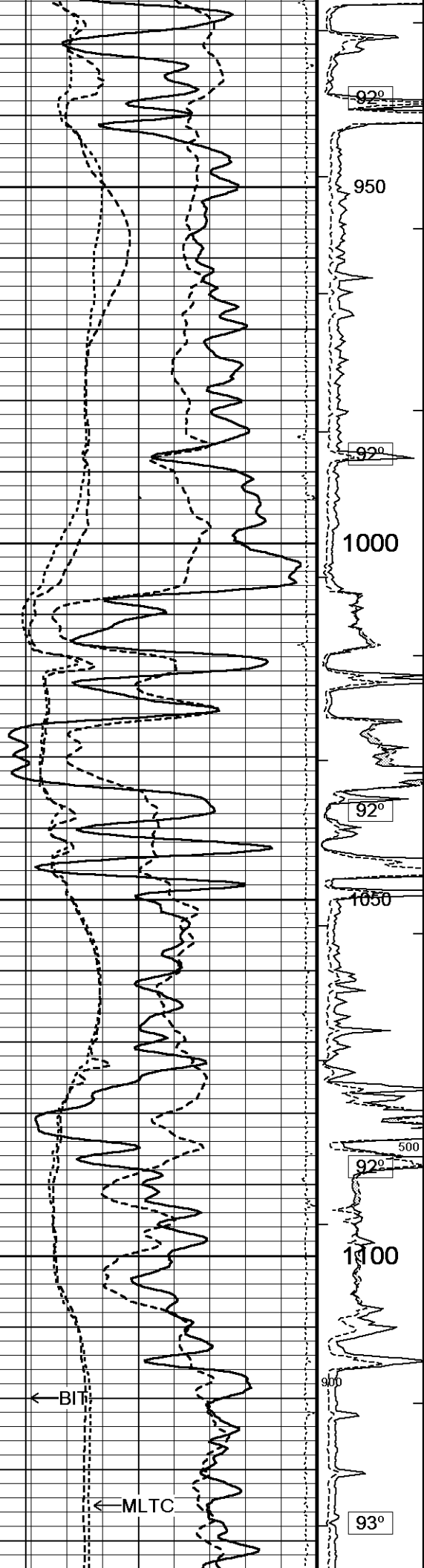
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions in our price schedule.

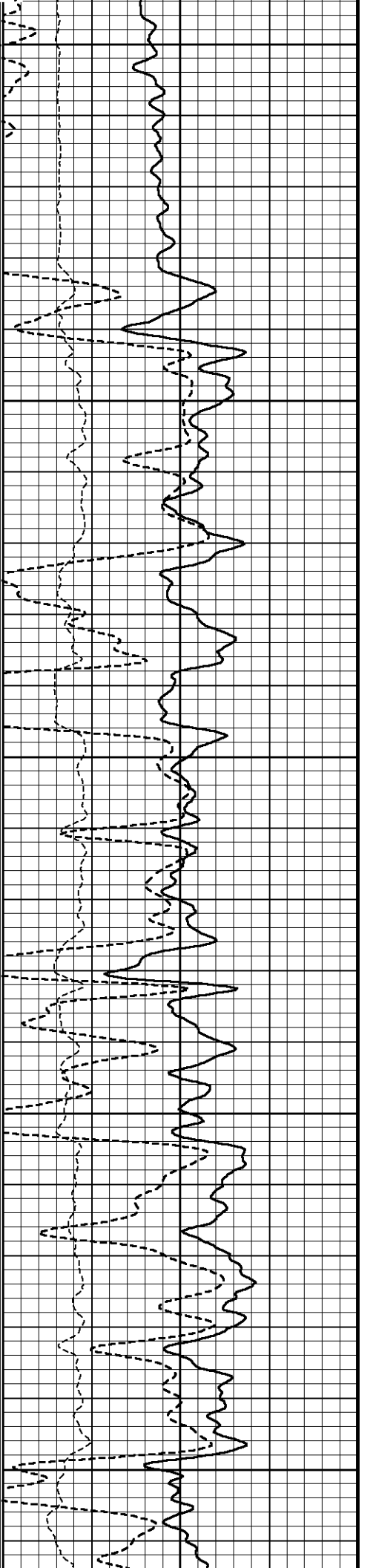
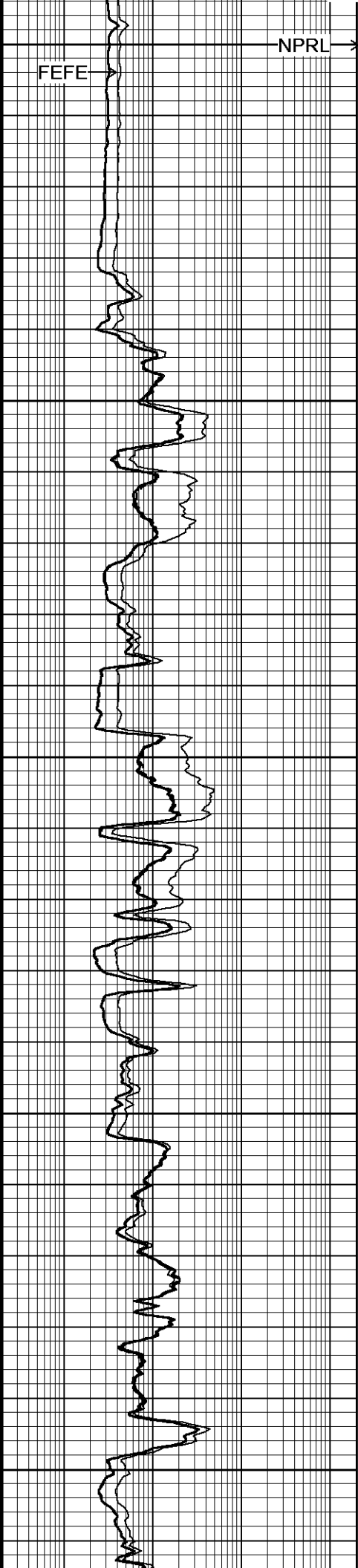
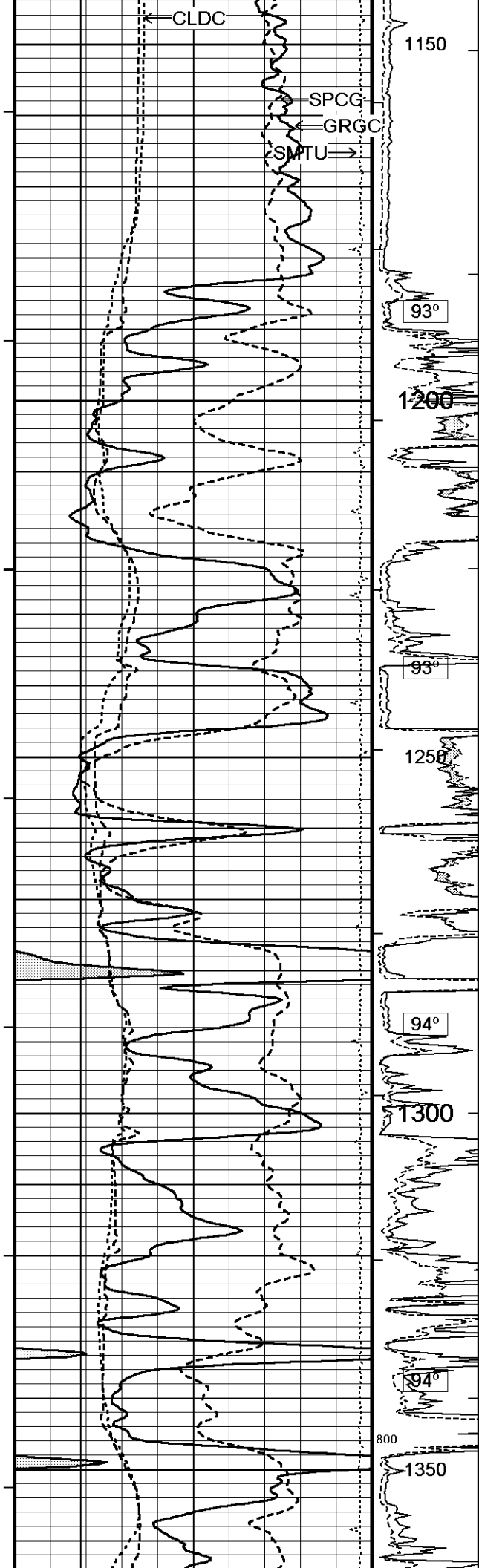


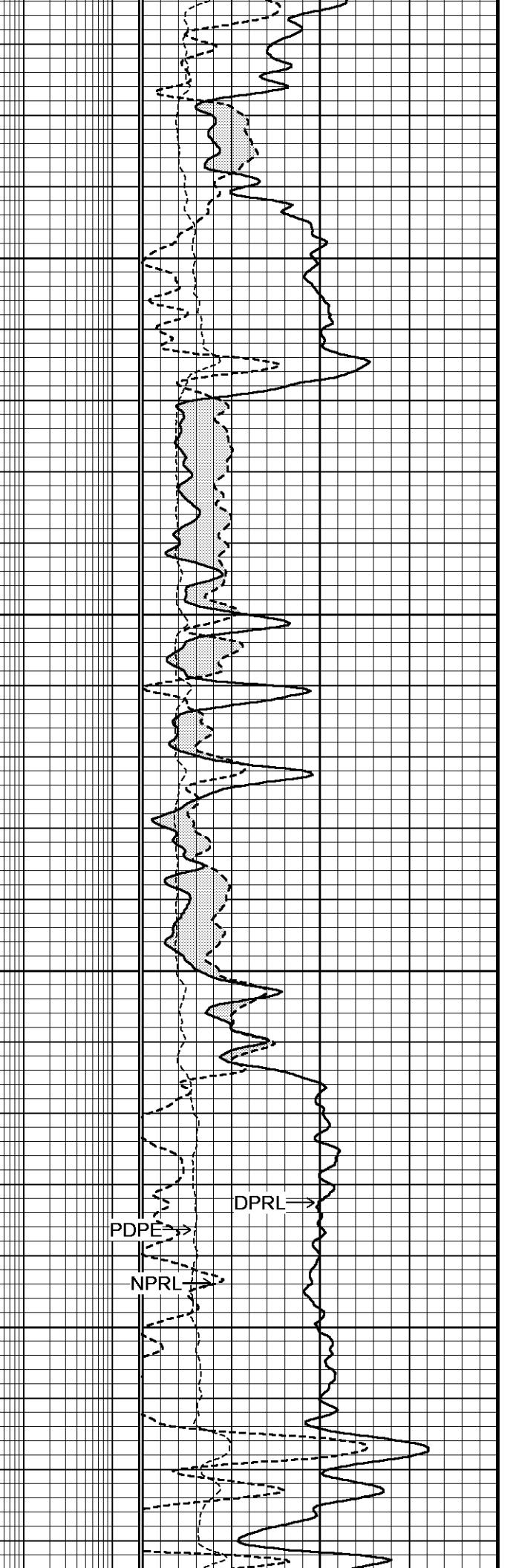
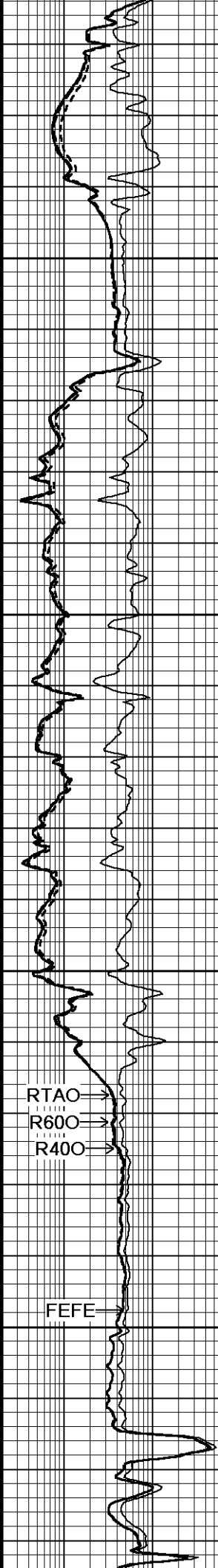
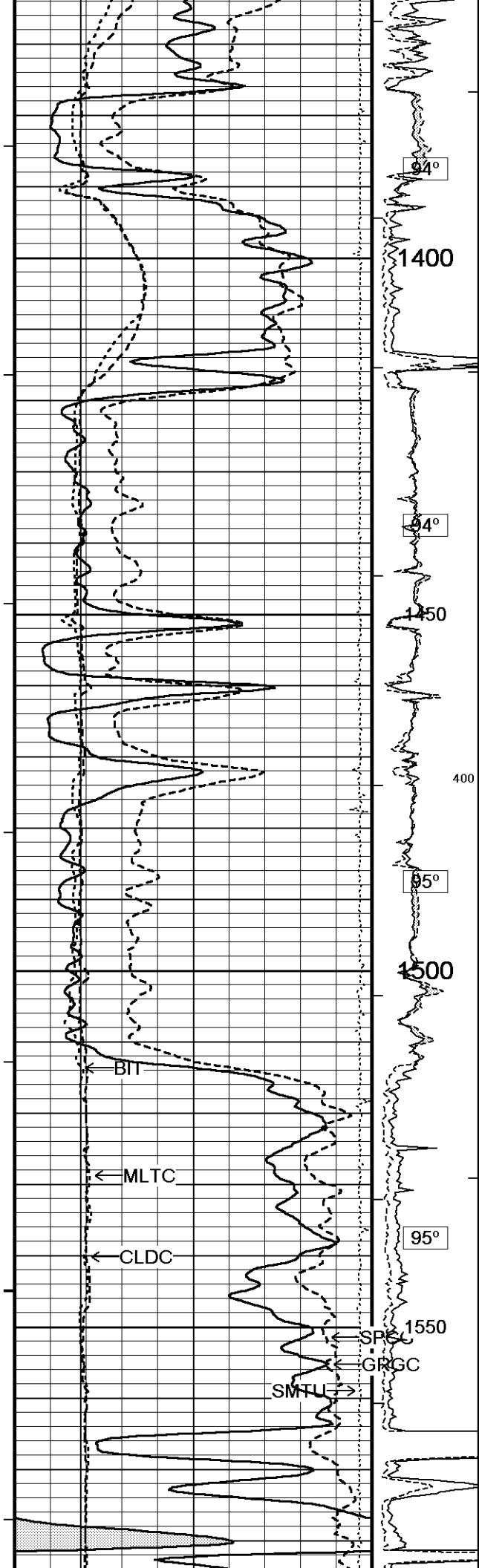


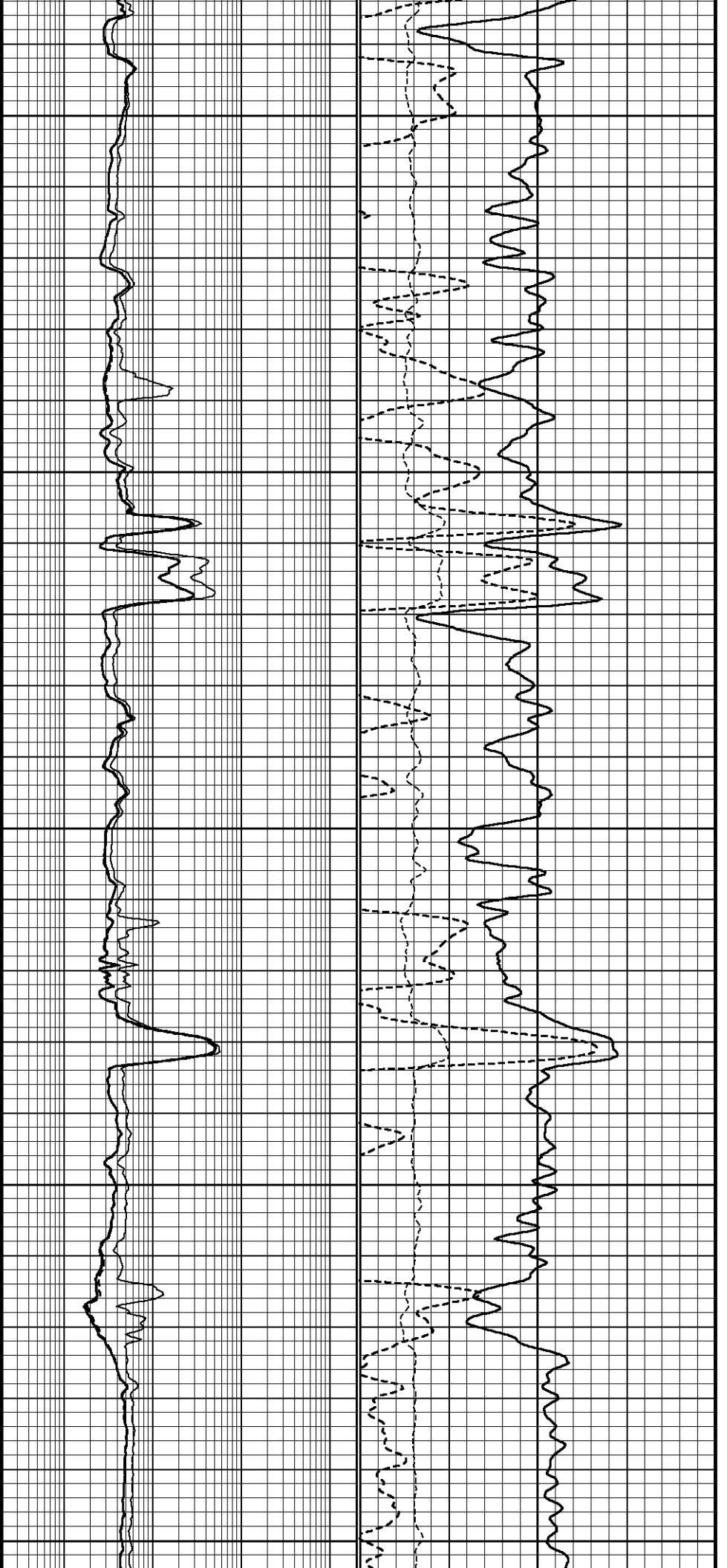
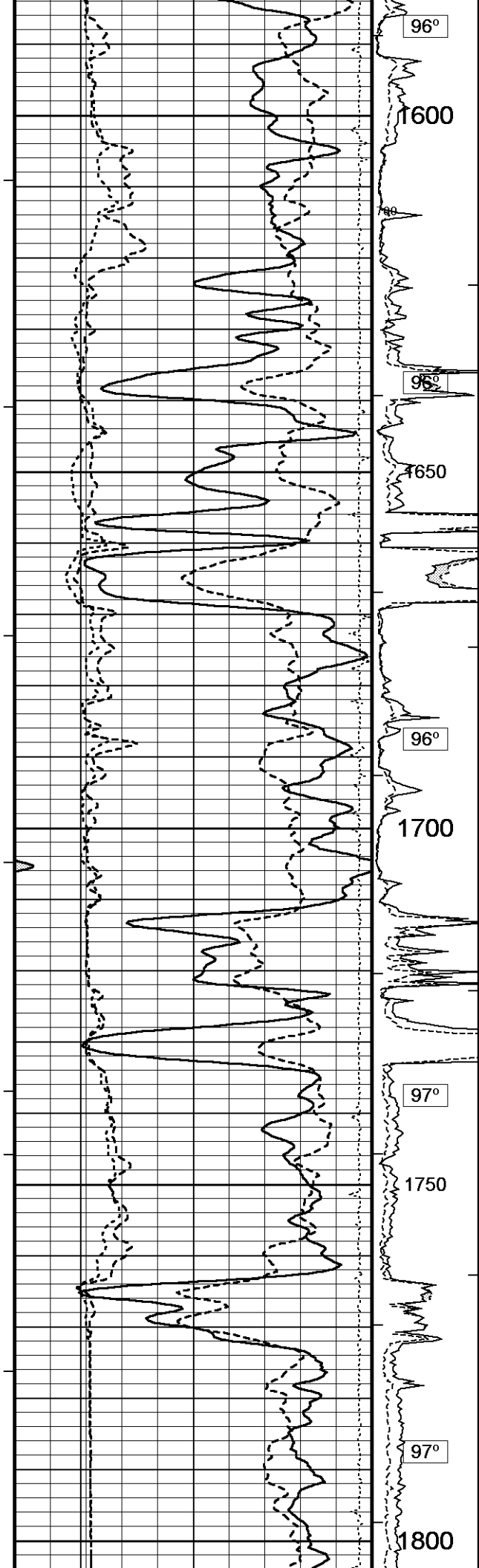


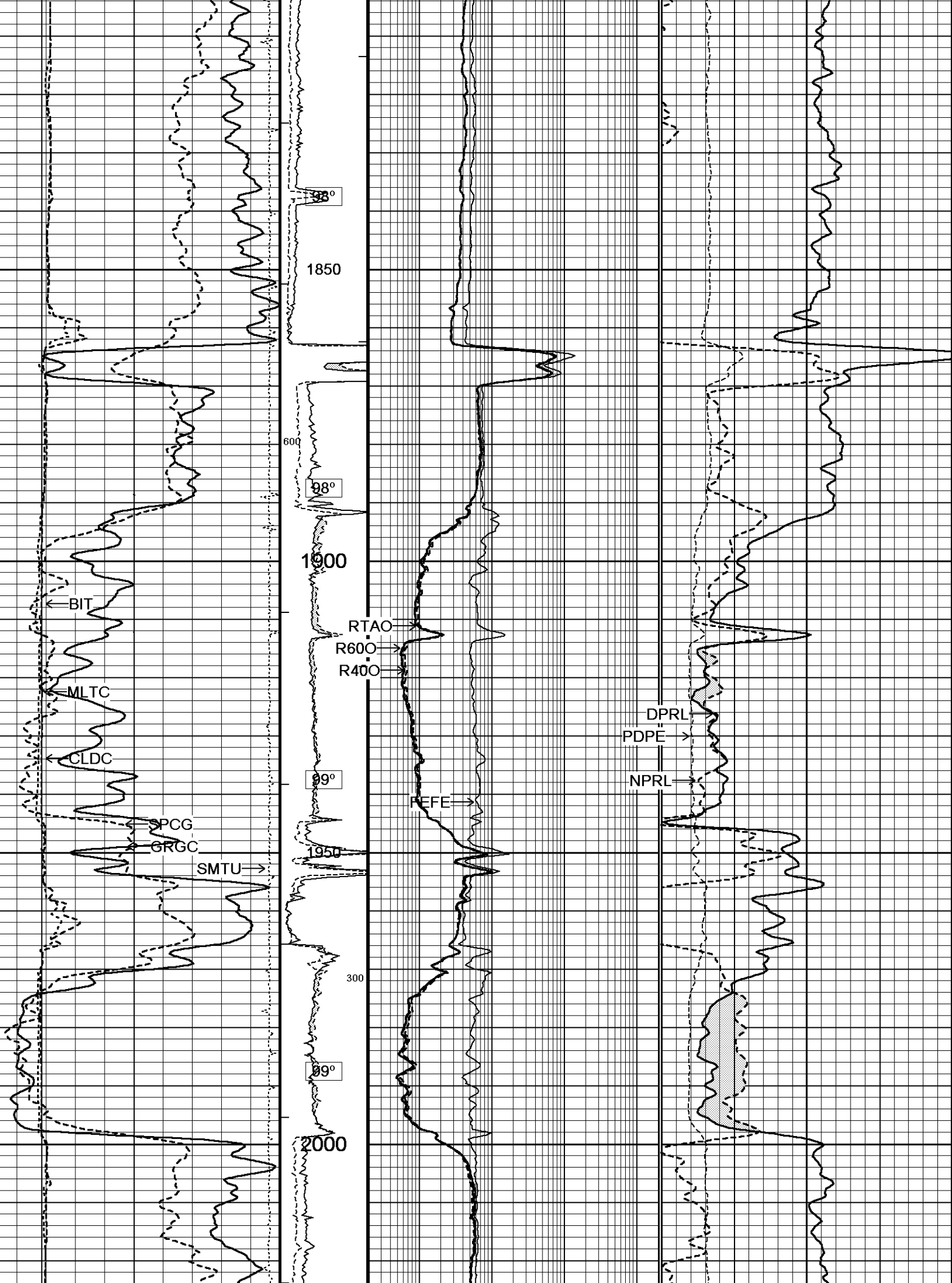


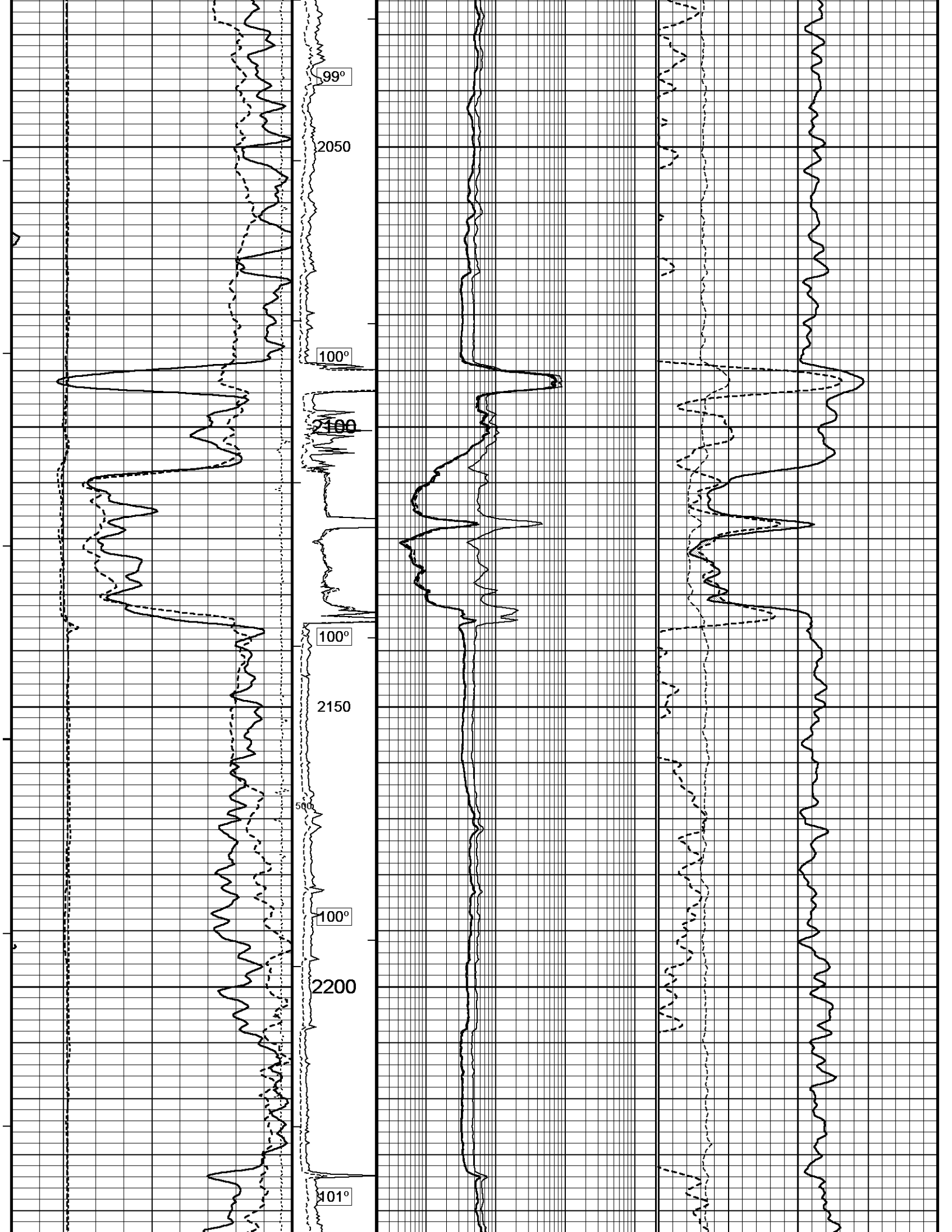


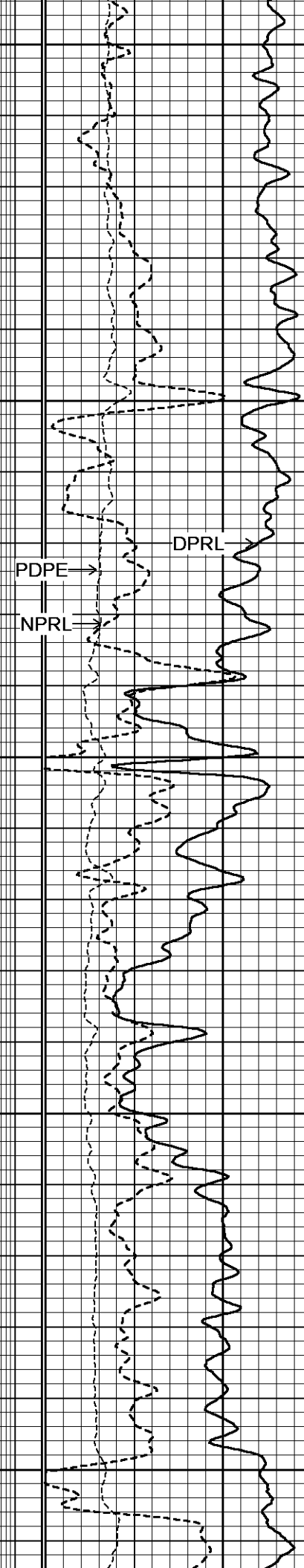
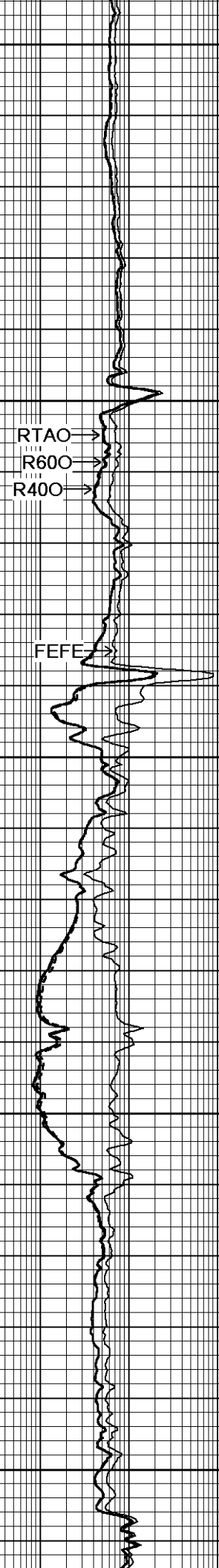
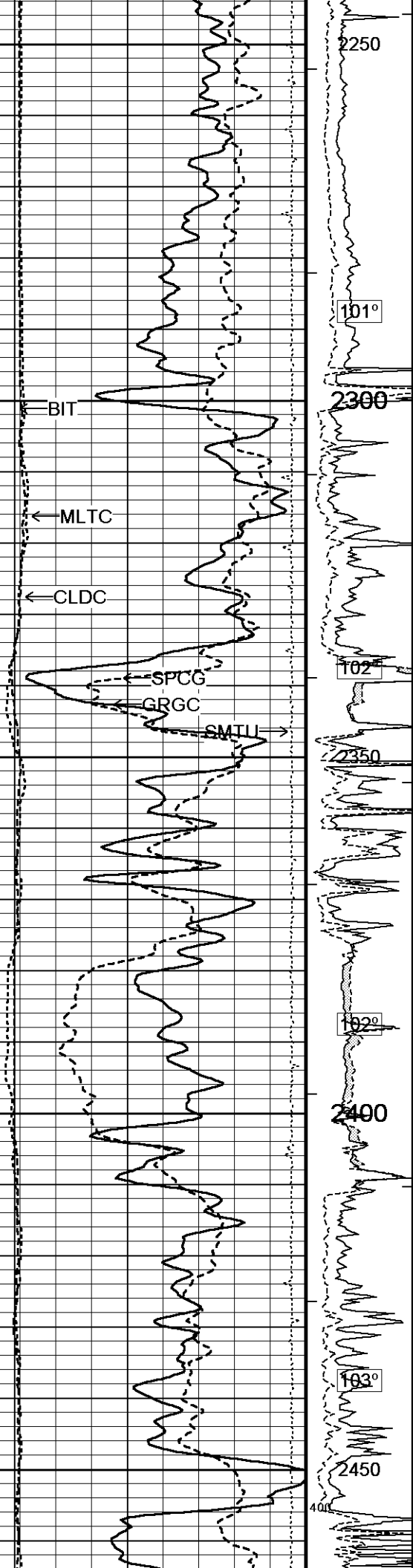


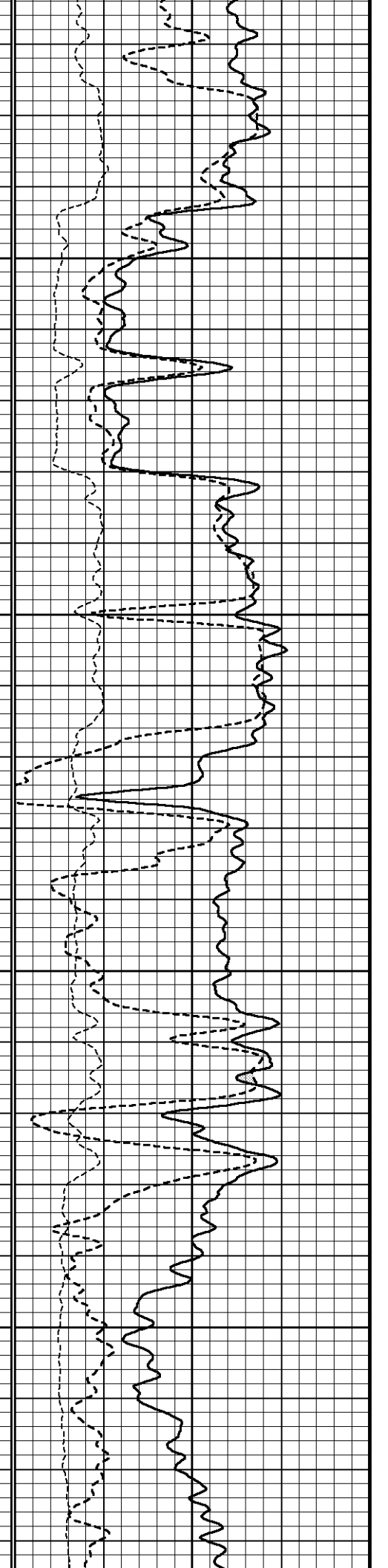
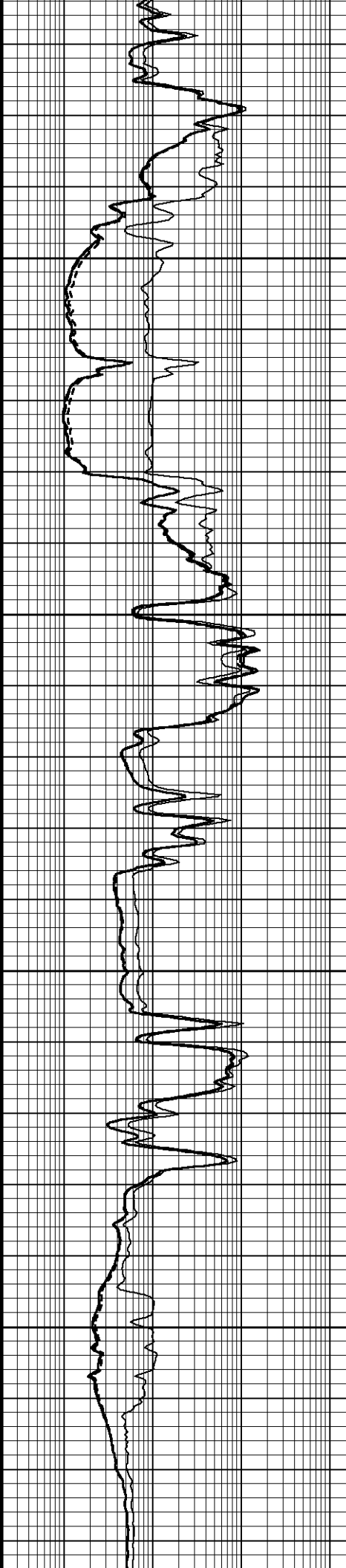
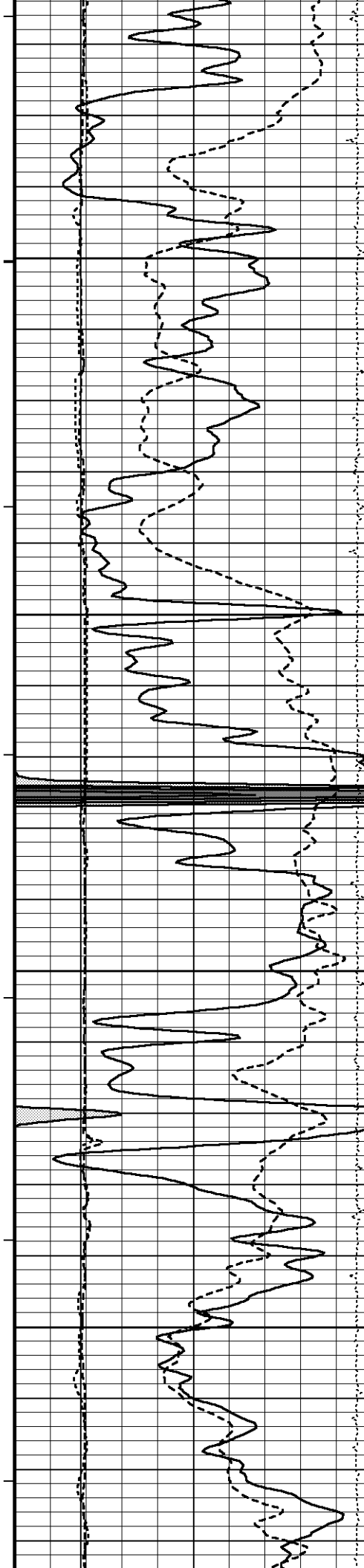


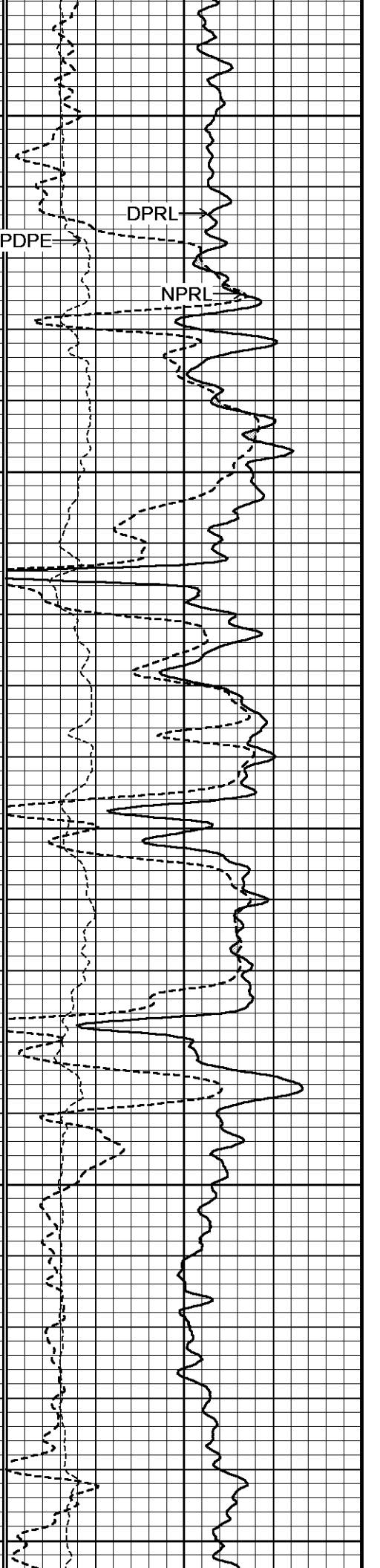
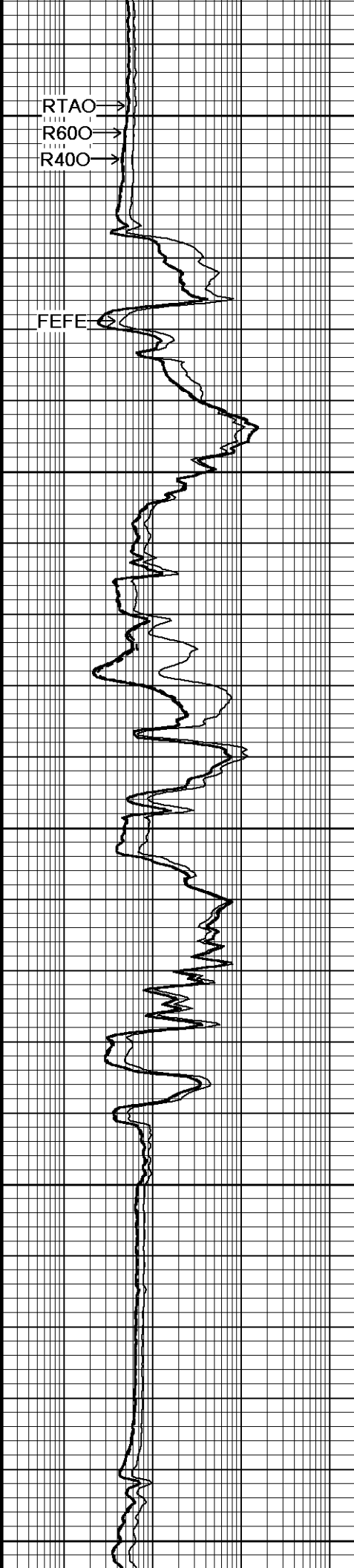
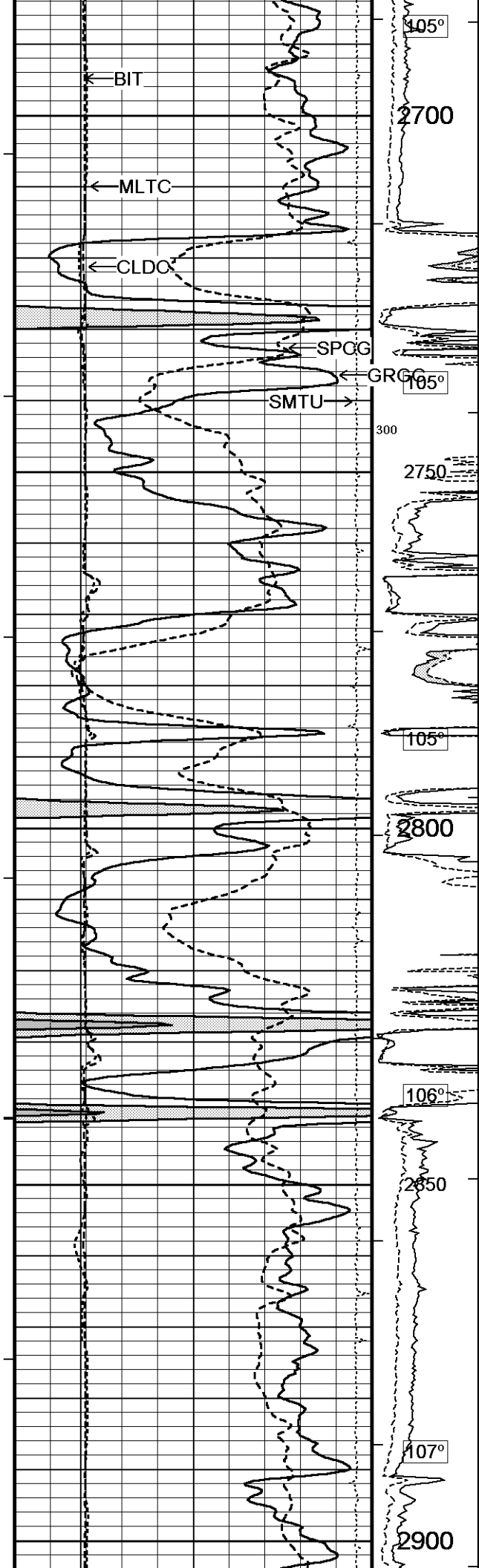


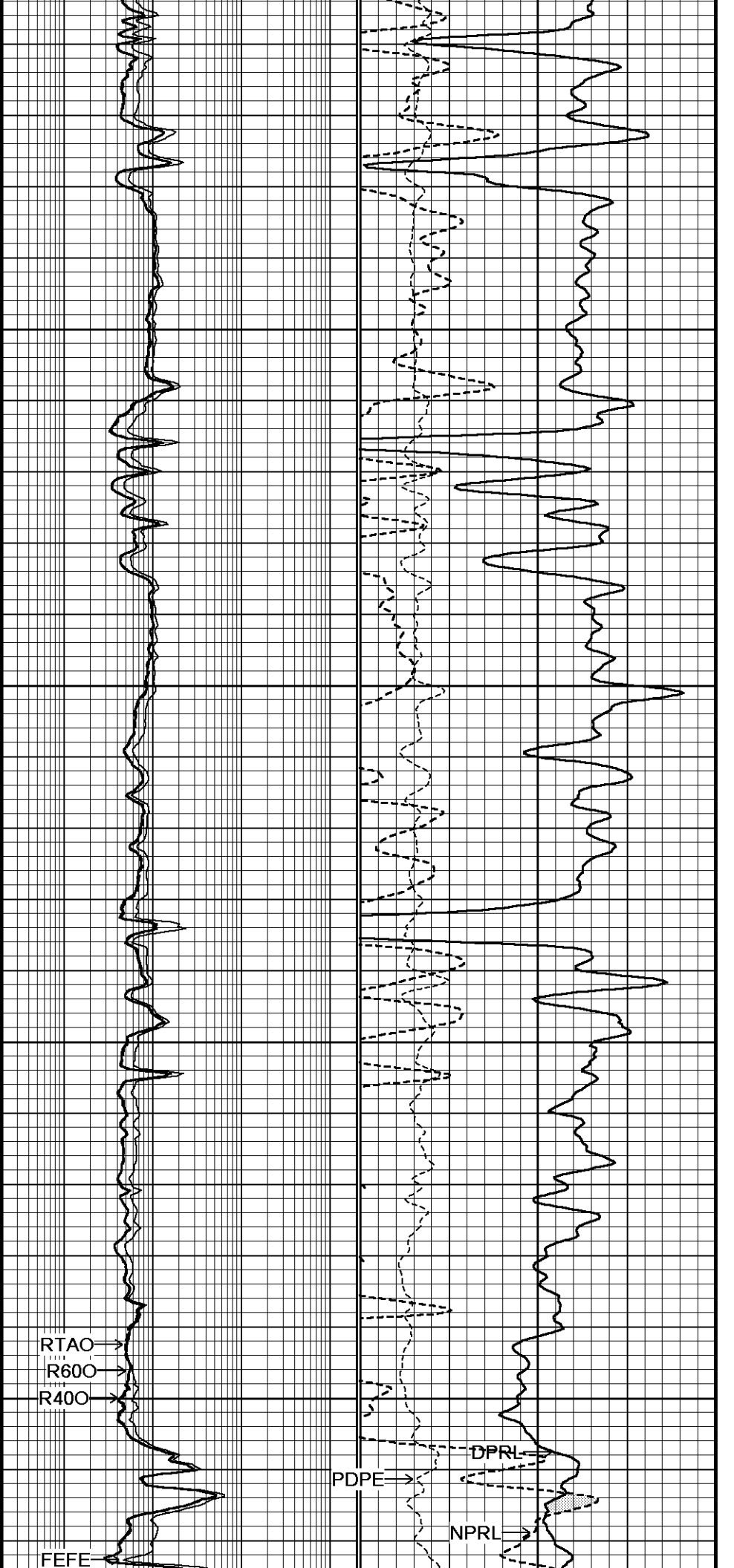
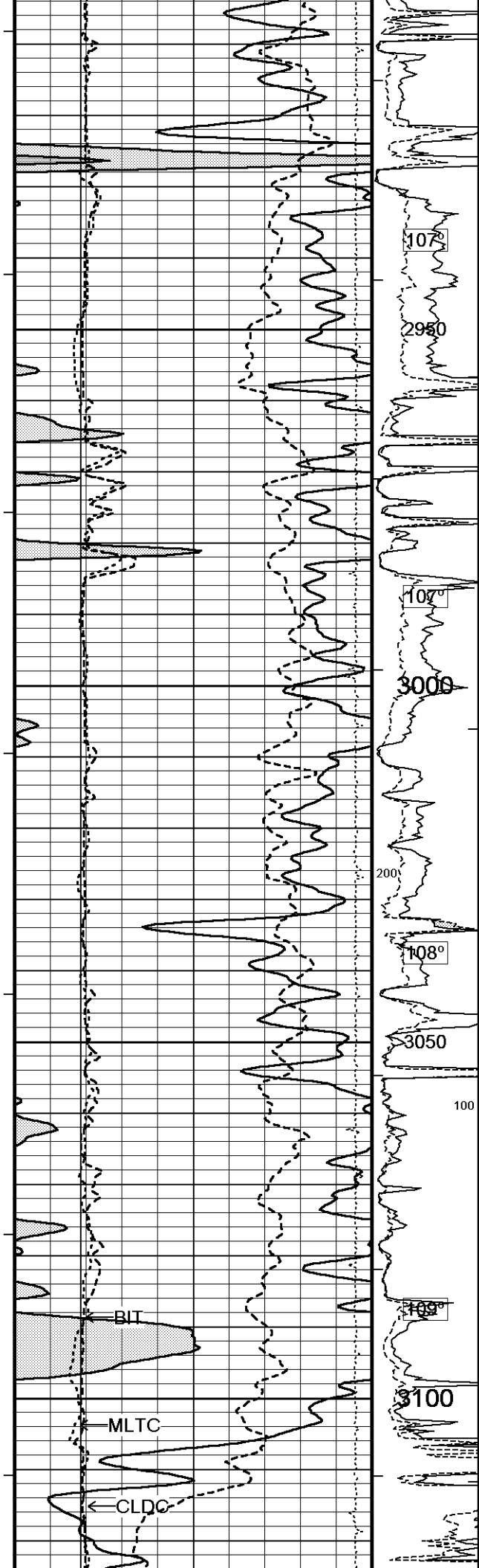




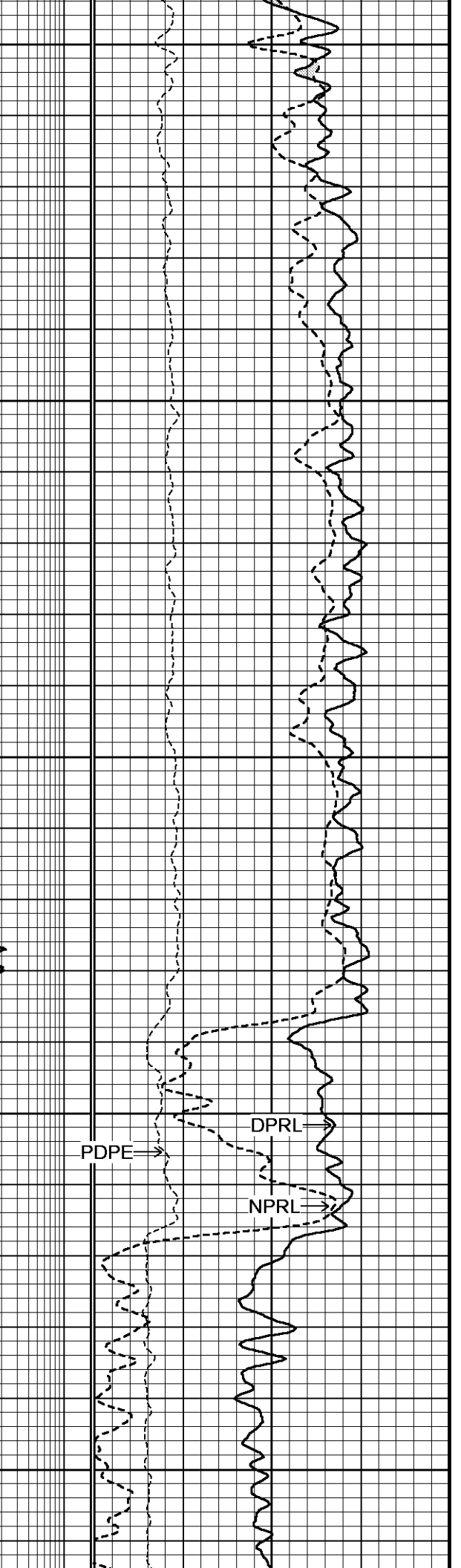
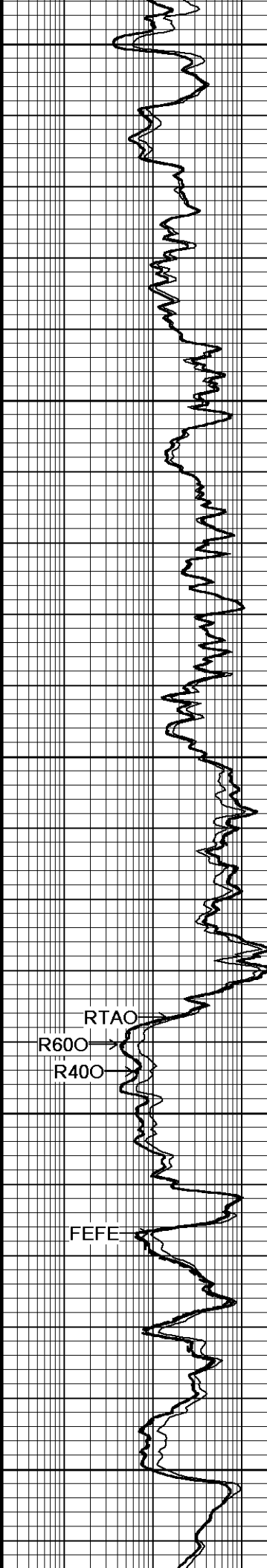
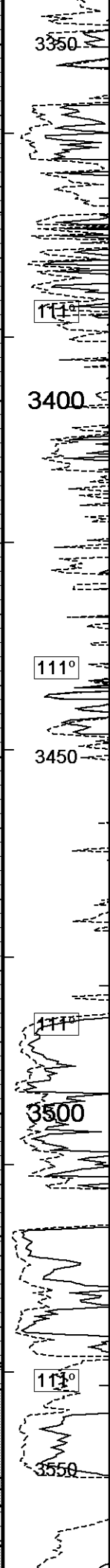
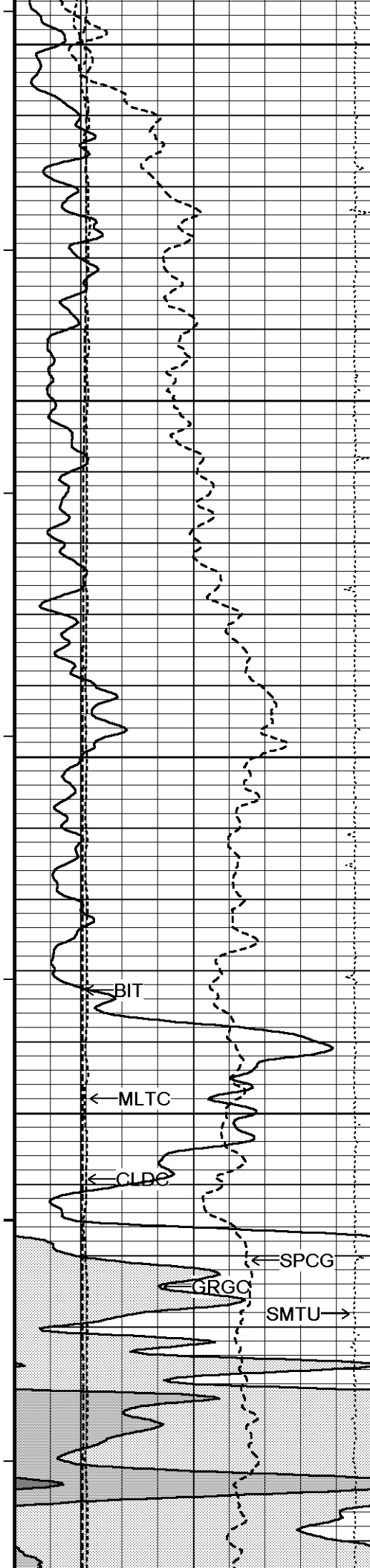


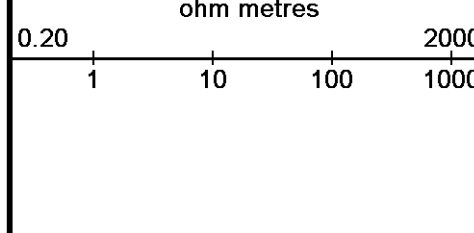
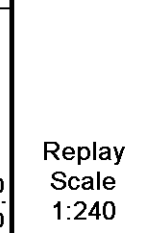
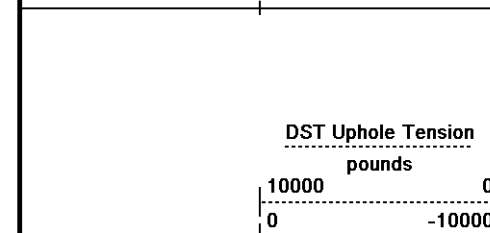
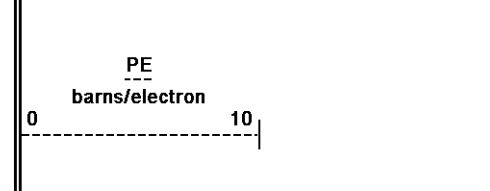
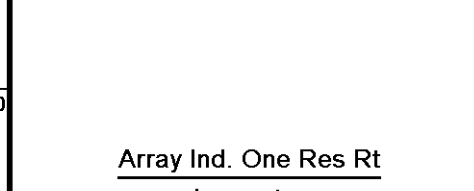
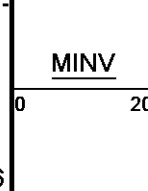
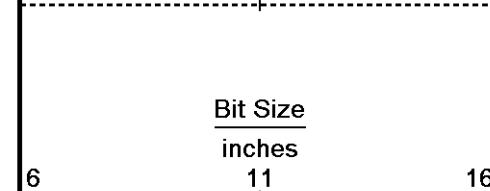
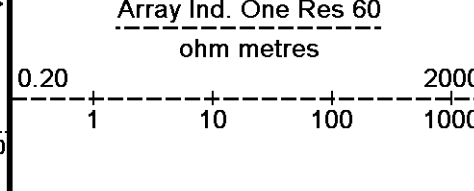
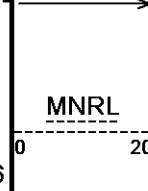
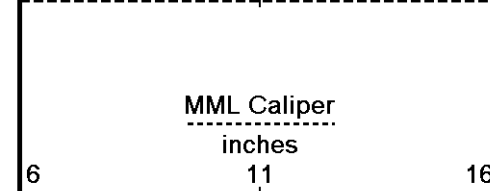
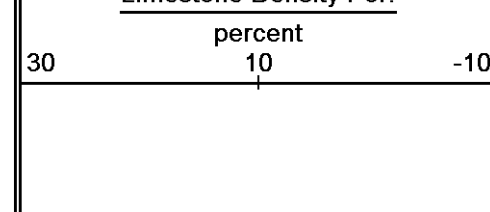
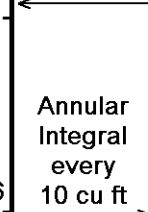
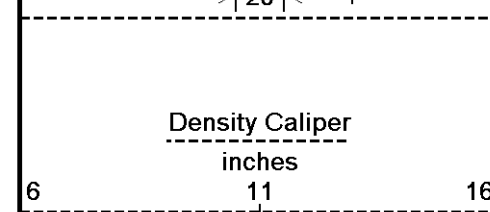
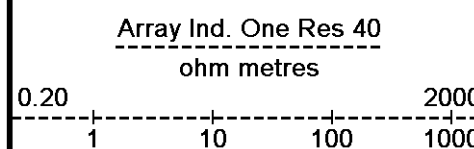
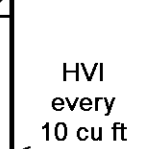
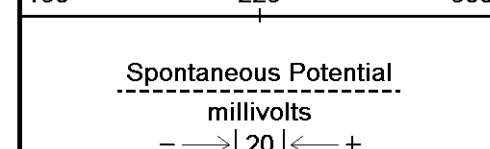
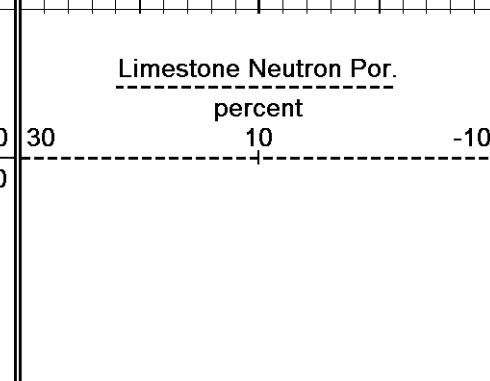
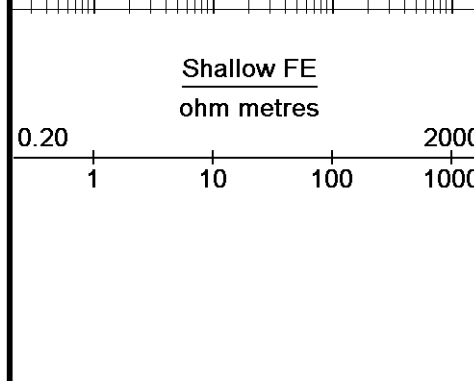
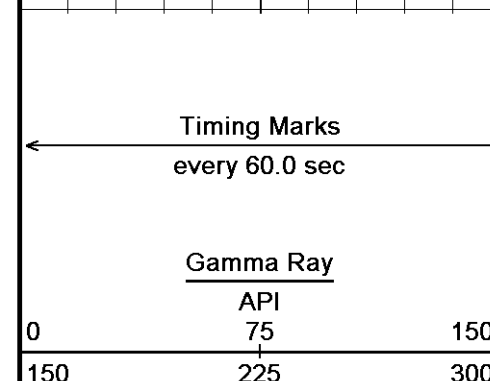
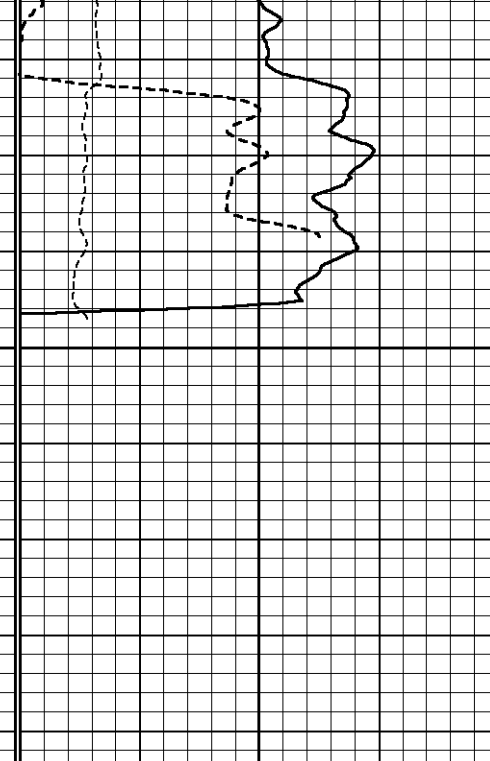
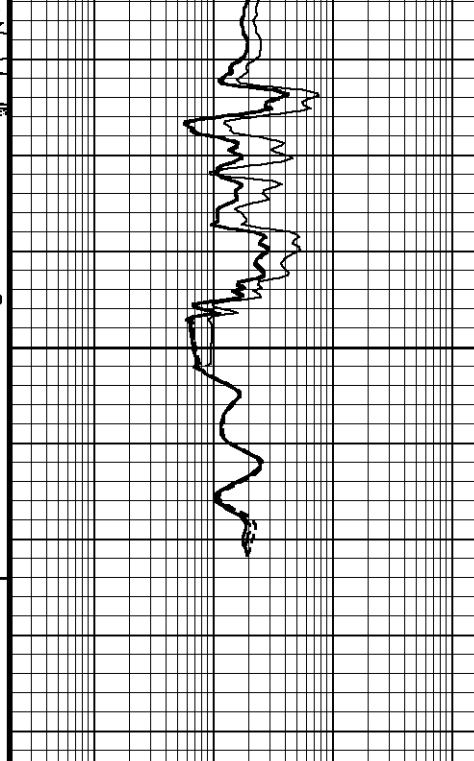
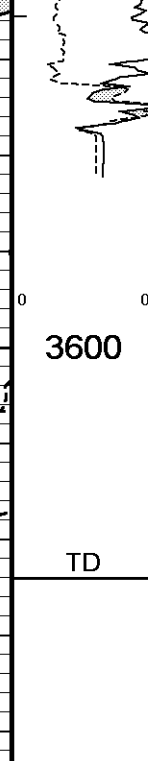
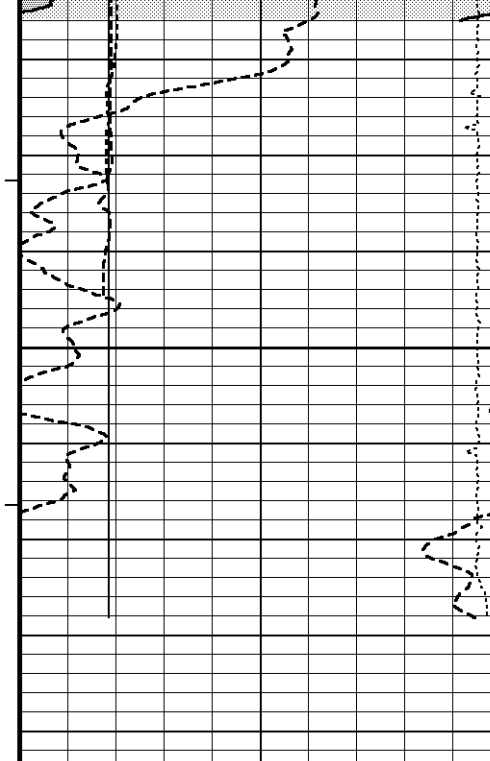












↑

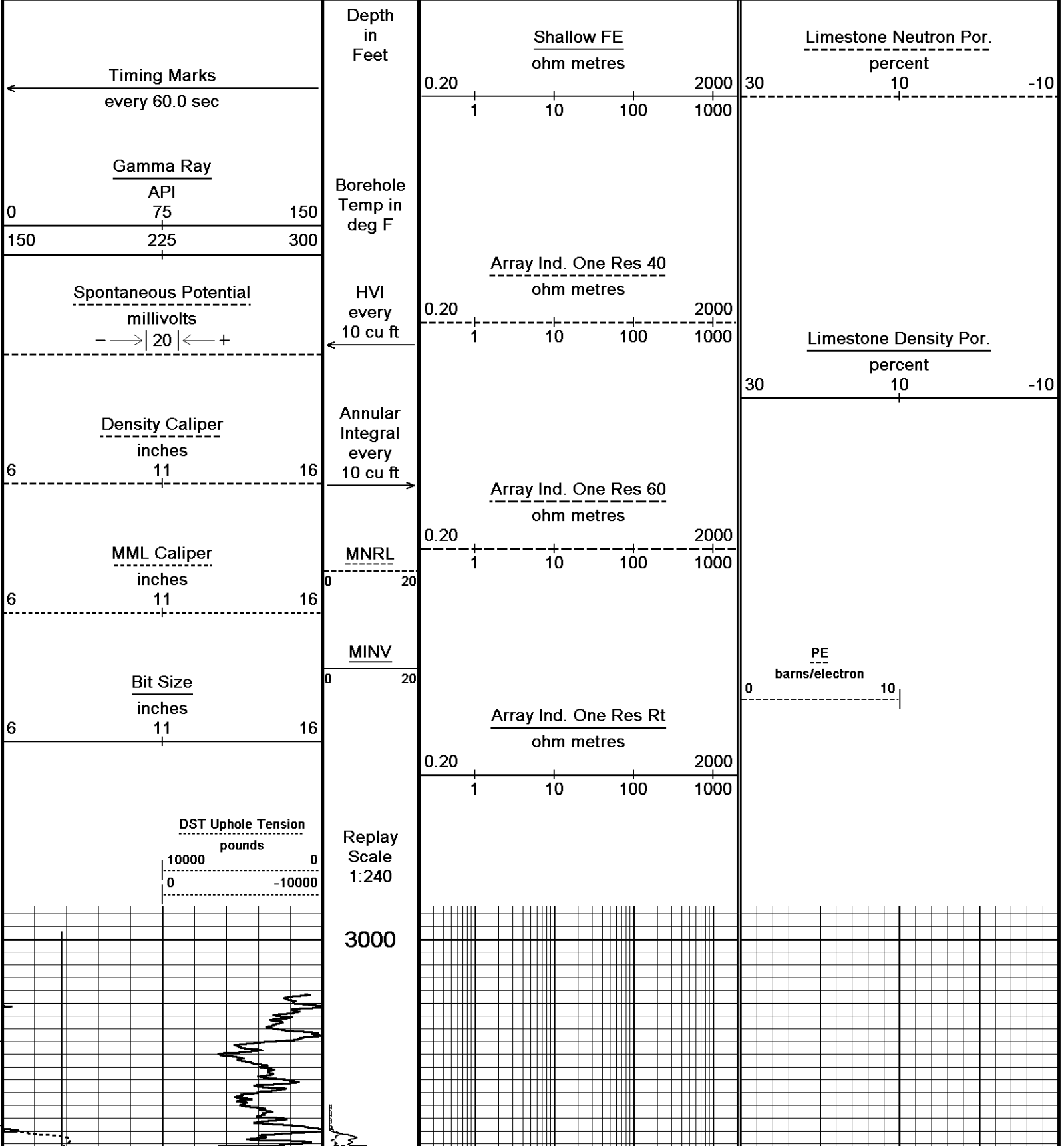
5 INCH MAIN LOG 1:240

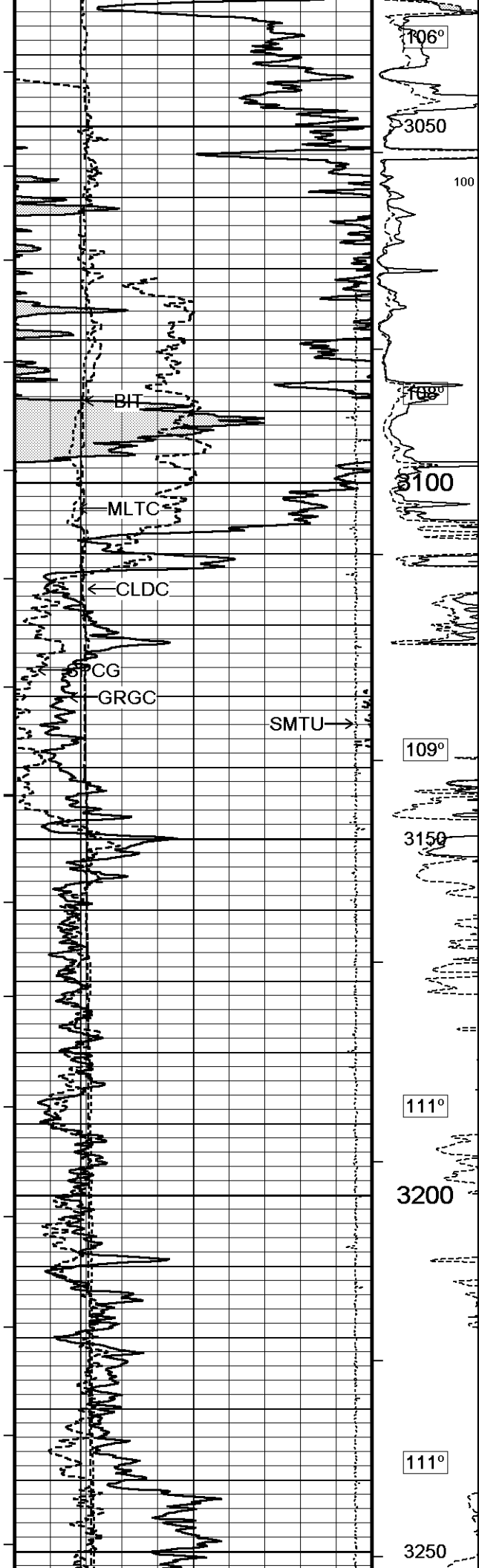
↑

↓

10 INCH HIGH RESOLUTION LOG 1:240

↓



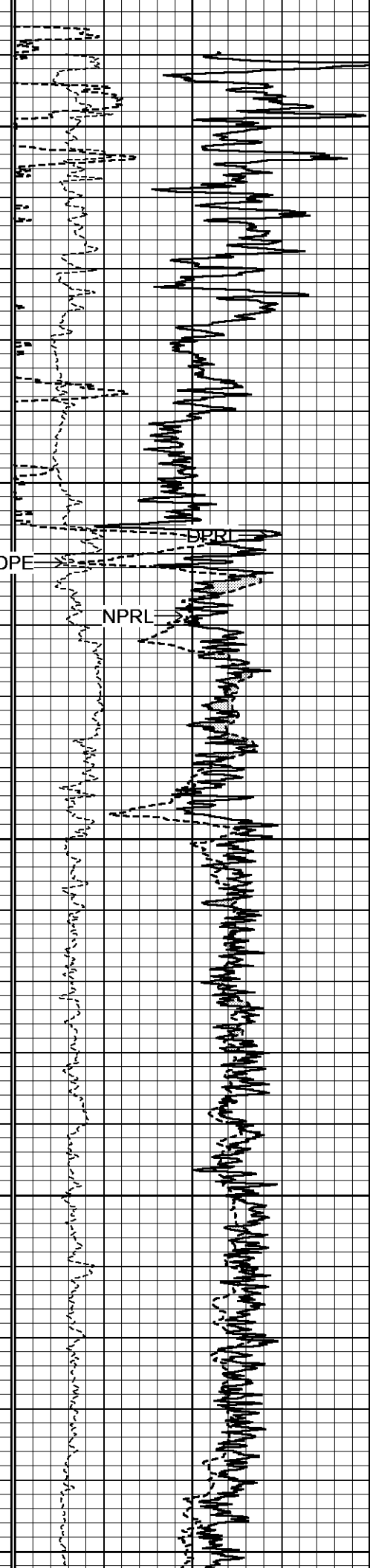


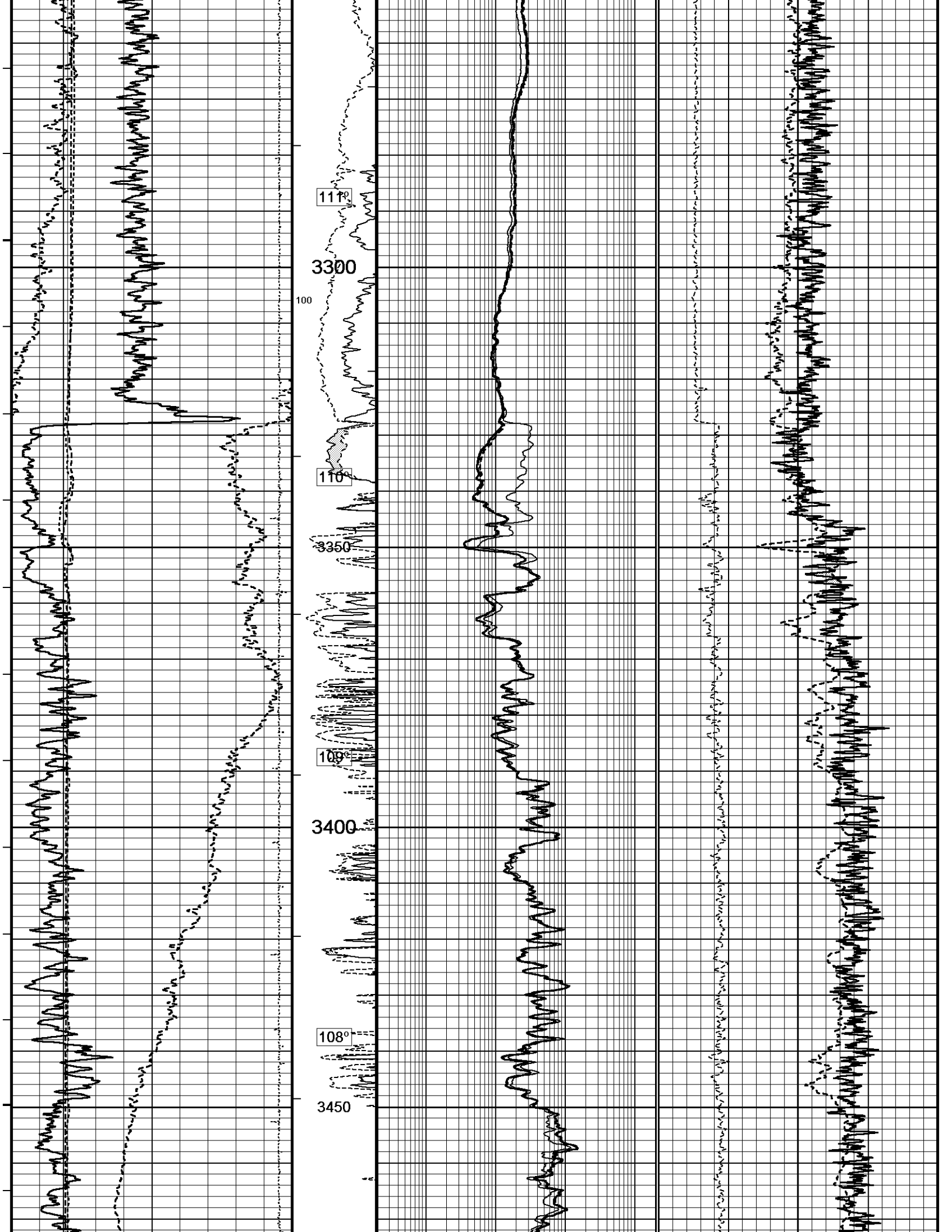
RTAO
R600
R400

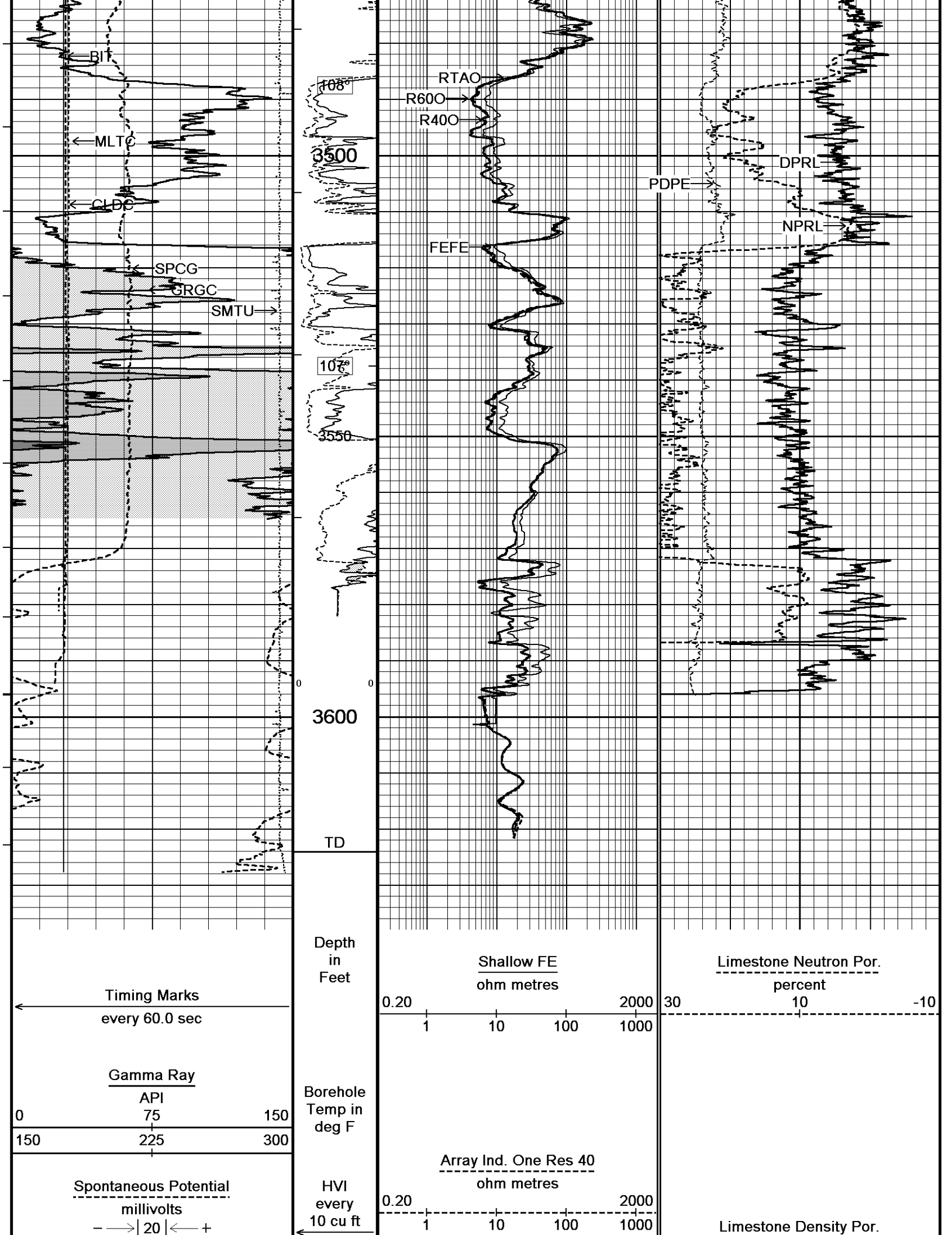
FEFE

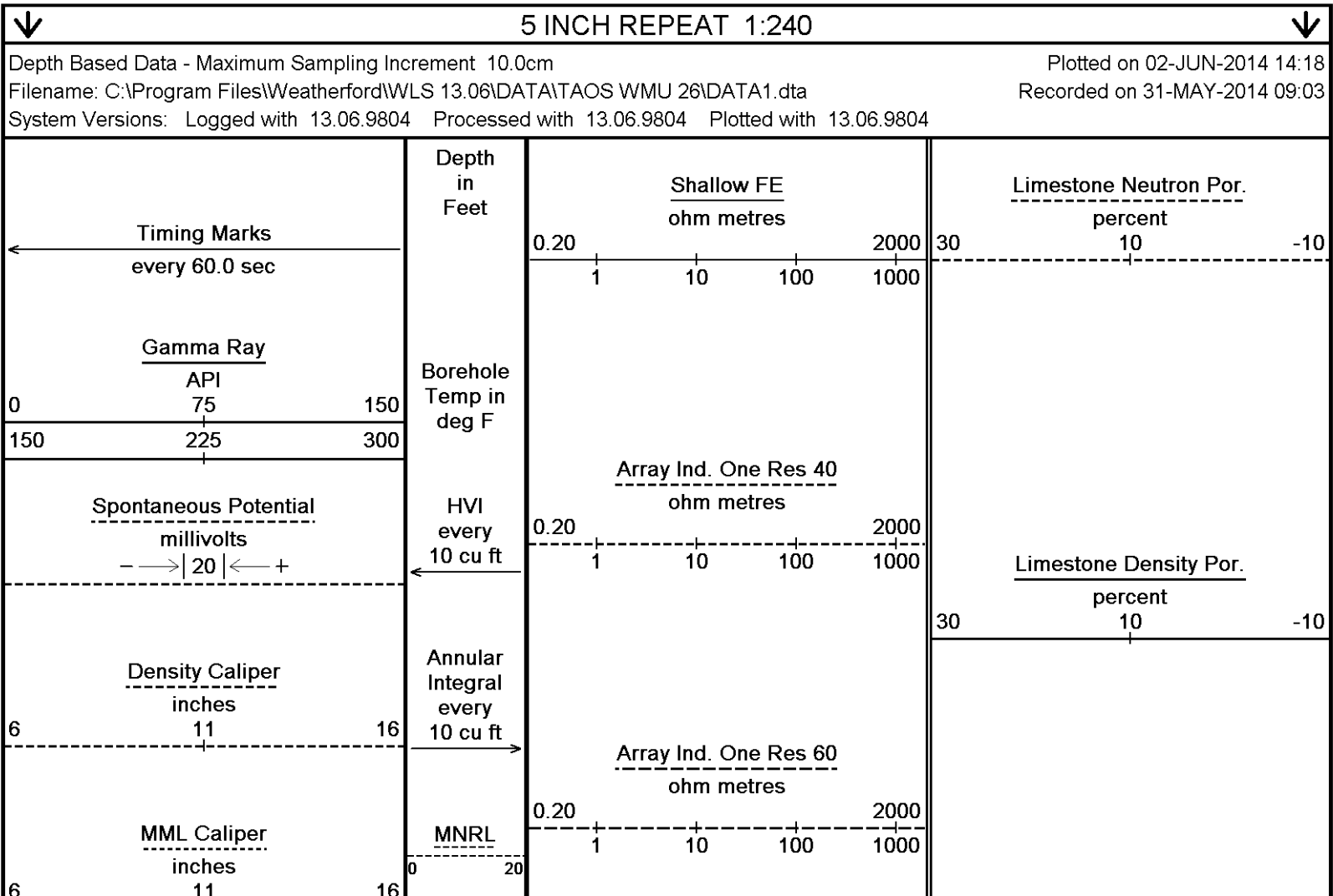
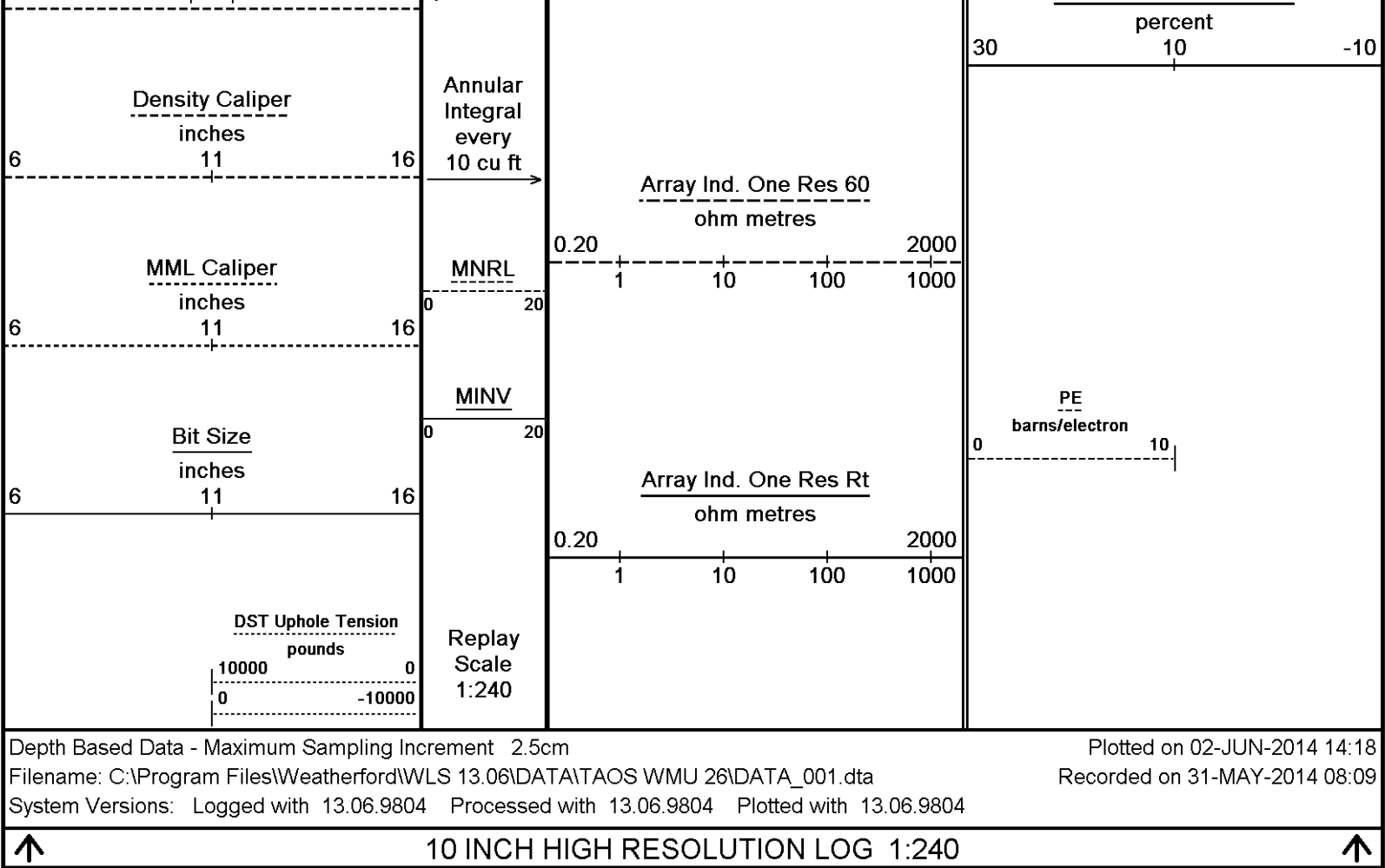
PDPE

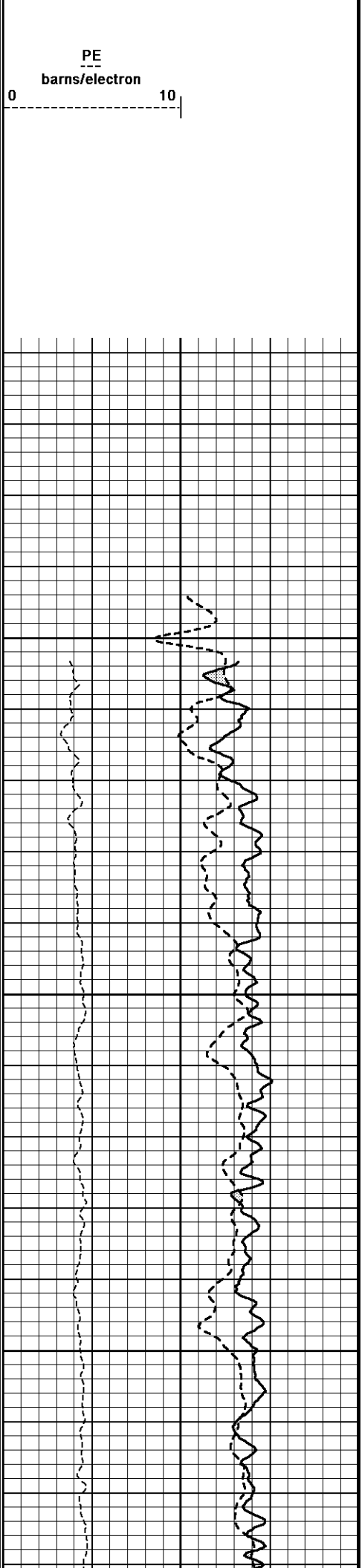
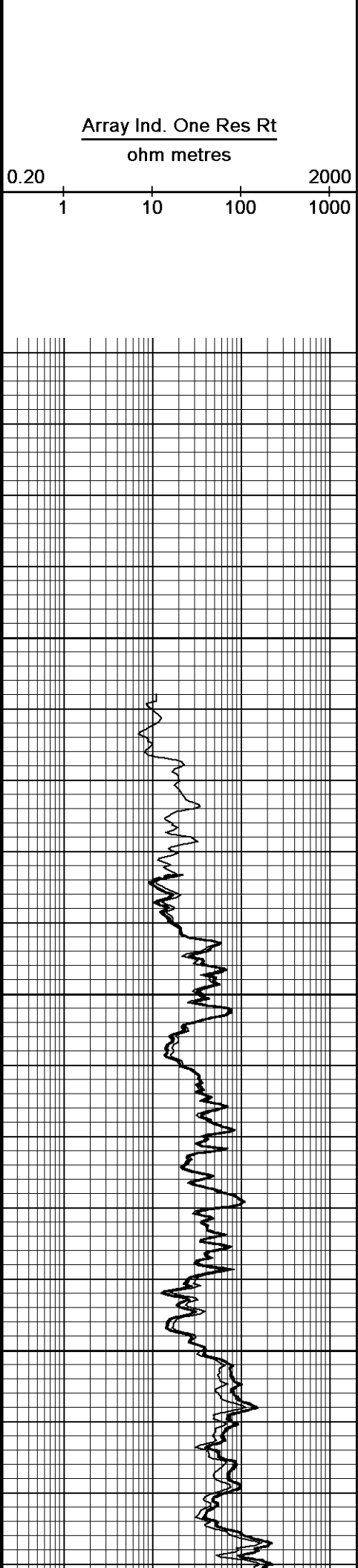
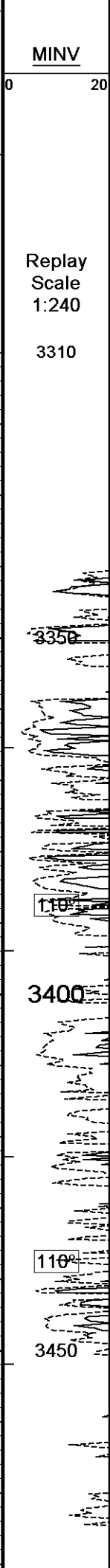
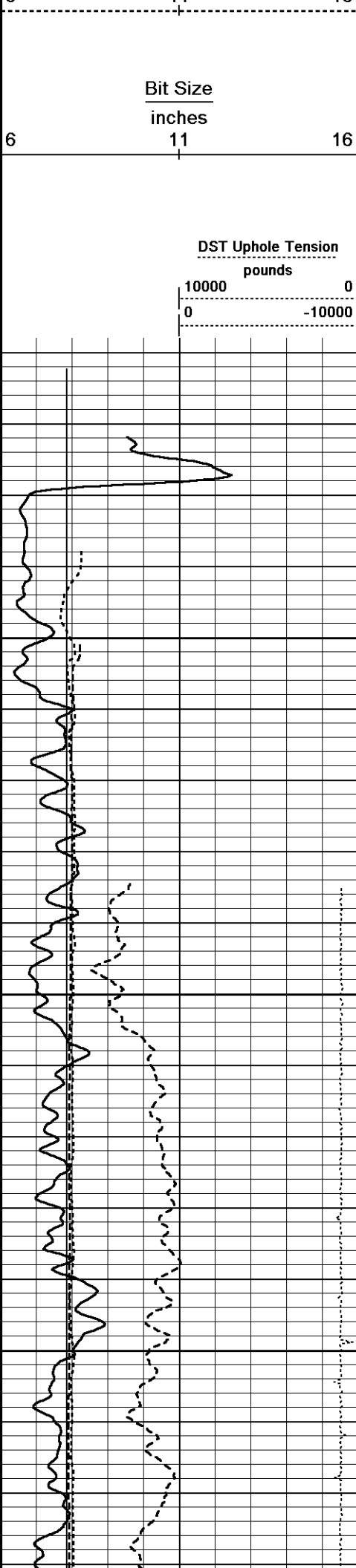
NPRL

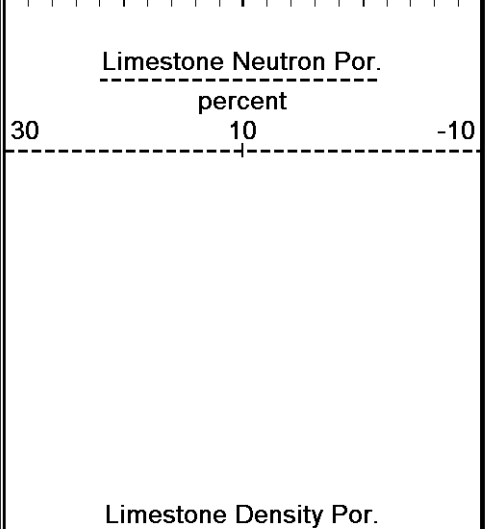
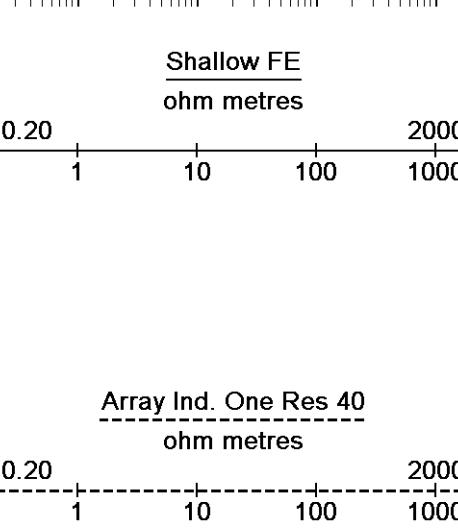
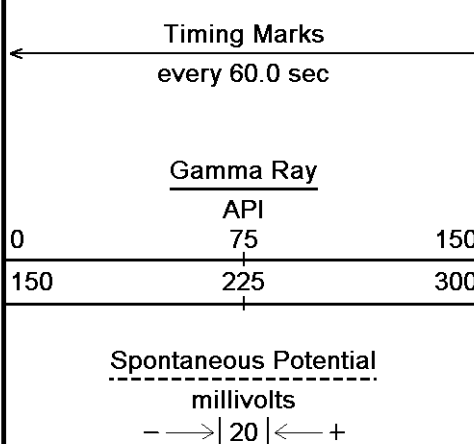
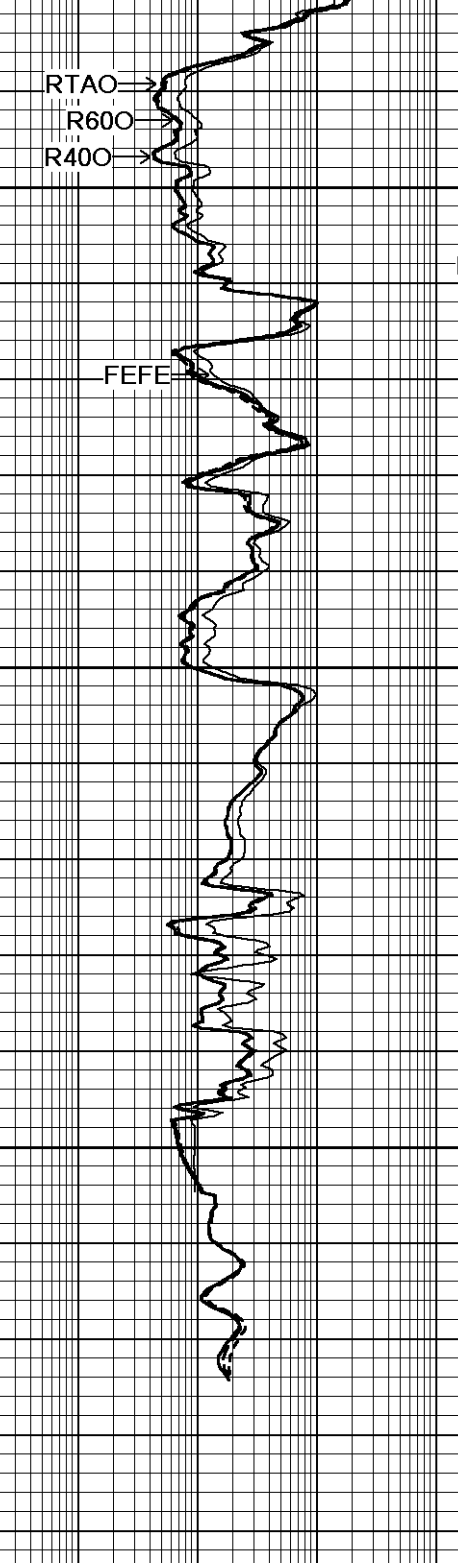
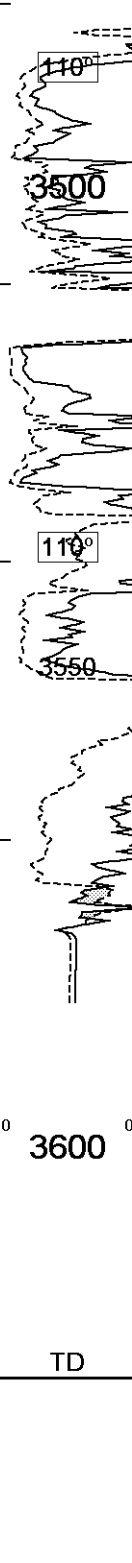
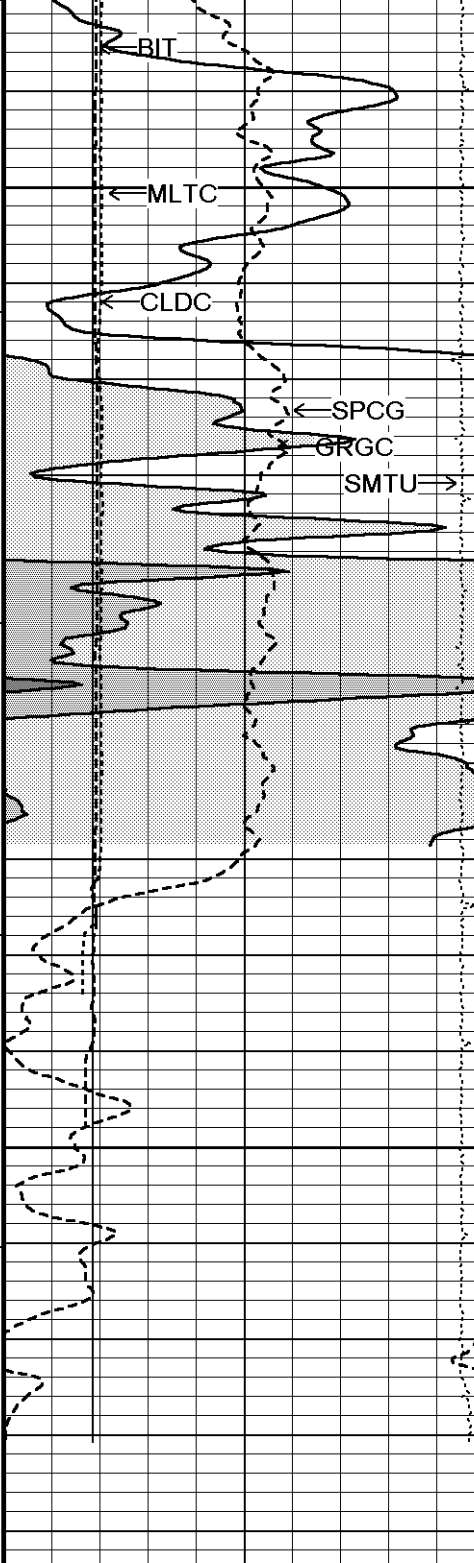


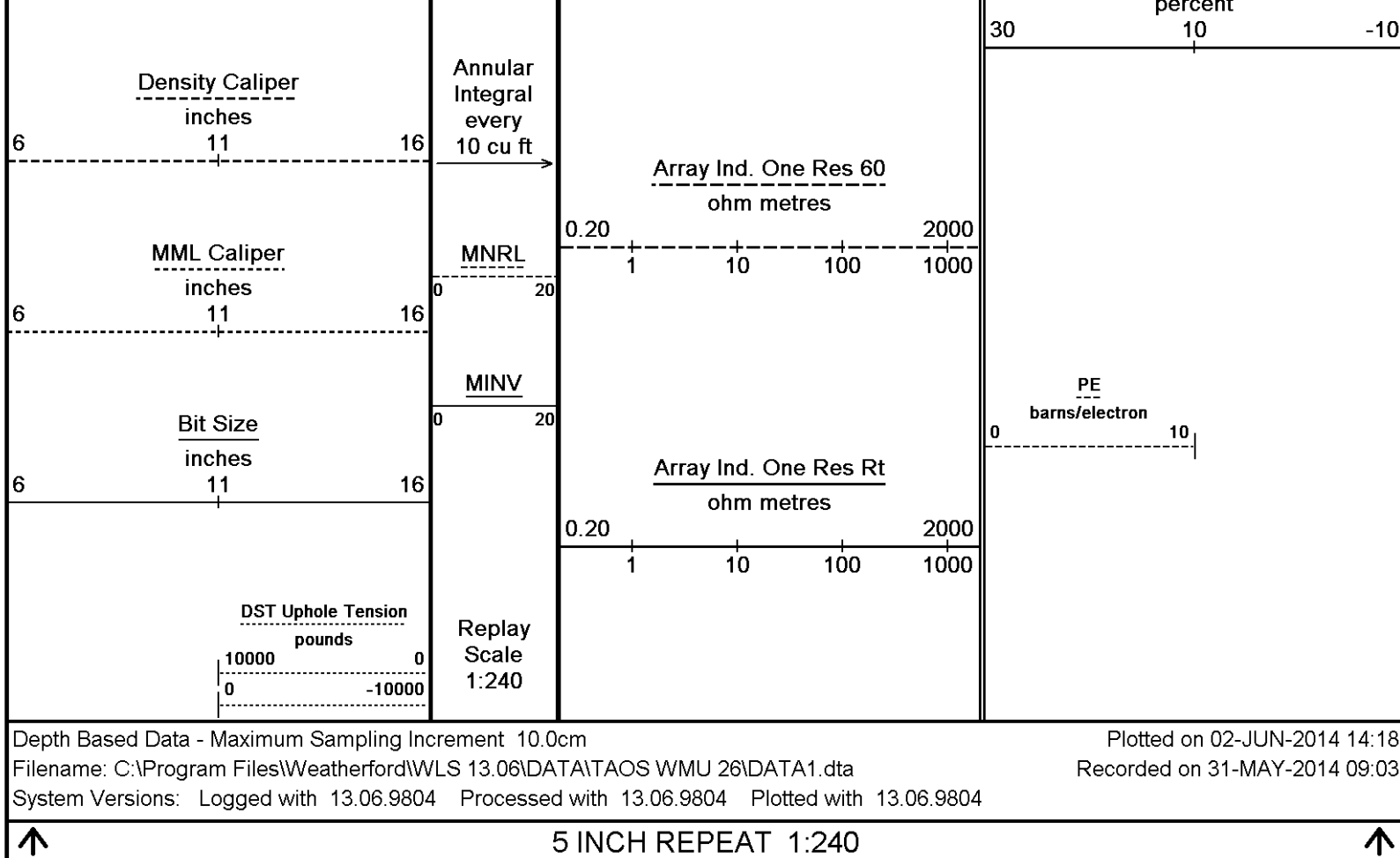












BEFORE SURVEY CALIBRATION		
C:\Program Files\Weatherford\WLS 13.06\DATA\TAOS WMU 26\DATA1_001.dta		
General Constants All 000		Last Edited on 31-MAY-2014,07:50
General Parameters Mud Resistivity 0.500 ohm-metres Mud Resistivity Temperature 72.000 degrees F Water Level 0.000 feet Borehole Fluid Processing 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 Density Caliper Rwa Parameters Porosity used Limestone Density Por. Resistivity used Array Ind. One Res Rt RWA Constant A 0.610 RWA Constant M 2.150 SW/APOR Tool Source 0.000		
Down-hole Tension Calibration SMS 0		
		Field Calibration on 11-MAY-2014 05:04
Reading No	Measured	Calibrated (lbs)
1	14333.61	0.00
2	14375.40	302.00
High Resolution Temperature Calibration MCG-D.K 475		
		Field Calibration on 26-APR-2014,10:32
	Measured	Calibrated(Deg F)
Lower	50.00	50.00
Upper	100.00	100.00

Pre-filter Length 11

SP Calibration MCG-D.K 475

Field Calibration on 26-APR-2014,10:32

	Measured	Calibrated (mV)
Reference 1	100.0	100.0
Reference 2	-100.0	-100.0

Gamma Calibration MCG-D.K 475

Field Calibration on 30-MAY-2014,20:18

	Measured	Calibrated (API)
Background	36	25
Calibrator (Gross)	1058	721
Calibrator (Net)	1022	696

Gamma Constants MCG-D.K 475

Last Edited on 31-MAY-2014,07:44

Gamma Calibrator Number	36	
Mud Density	1.10	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl		kppm
K Mud Type	Chloride	
K Mud Concentration	0.00	%

Micro Normal and Micro Inverse Calibration MML-A 7

Base Calibration on 12-MAR-2014 13:49

Field Check on 30-MAY-2014 20:07

Base Calibration

		Measured	Calibrated (ohm-m)
Channel	Resistor 1	Resistor 2	Resistor 1 Resistor 2
Micro Normal	12.1	59.6	5.0 25.0
Micro Inverse	15.6	77.8	5.0 25.0

Channel	Base Check (ohm-m)	Field Check (ohm-m)
Micro Normal	63.5	63.5
Micro Inverse	48.6	48.6

Micro Normal and Micro Inverse Constants MML-A 7

Last Edited on 30-MAY-2014,20:05

Pad Type	8-12 in Soft Rubber Inflatable 006-9011-159
Micro Normal K Factor	1.0000
Micro Inverse K Factor	1.0000
Standoff Offset	N/A inches

Caliper Calibration MML-A 7

Base Calibration on 12-MAR-2014 14:05

Field Calibration on 26-APR-2014,10:33

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	14367	5.96
2	17548	7.97
3	20740	9.84
4	24637	11.91
5	0	0.00
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
9.81	9.84

Neutron Calibration MDN-C.A 460

Base Calibration on 12-MAY-2014 09:00

Field Check on 30-MAY-2014,20:19

Base Calibration

	Measured	Calibrated (cps)
	Near Far	Near Far
	3014 93	3714 110
Ratio	32.513	33.764

Field Calibrator at Base

	Calibrated (cps)
	2359 3502
Ratio	0.674

Field Check	Calibrated (cps)	
	2350	3509
Ratio	0.670	
Neutron Constants MDN-C.A 460		
Last Edited on 30-MAY-2014,20:19		
Neutron Source Id	P14043B	
Neutron Jig Number	N639	
Epithermal Neutron	No	
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	Constant Value	
Formation Pressure	0.00	kpsi
Temperature Source	Constant Value	
Temperature	68.00	degrees F
Mud Salinity	0.00	kppm
Salinity Correction	Not Applied	
Formation Fluid Salinity Source	Constant Value	
Formation Fluid Salinity	0.00	kppm
Barite Mud Correction	Not Applied	

FE Calibration MFE-A.A 54		
Base Calibration on 12-MAY-2014 09:34		
Field Check on 30-MAY-2014 20:14		
Base Calibration		
	Measured	Calibrated (ohm-m)
Reference 1	9.8	1.3
Reference 2	967.7	126.8
Base Check		282.4
Field Check		282.5

FE Constants MFE-A.A 54		
Last Edited on 30-MAY-2014,20:12		
Running Mode	No Sleeve	
MFE K Factor	0.1268	
Caliper Source for FE correction	Density Caliper	
Caliper Value for FE correction	N/A	inches
Rm Source for FE correction	Temperature Corr	
Temp. for Rm Corr.	MCG External Temperature	
Stand-off	0.5	inches

Sonic Constants MSS-C.K 336			Last Edited on		
Maximum Boundary Contrast	100.00		micro-sec/ft		
Fluid Transit Time	189.00		micro-sec/ft		
Limestone Transit Time	47.50		micro-sec/ft		
Sandstone Transit Time	55.50		micro-sec/ft		
Dolomite Transit Time	43.50		micro-sec/ft		
Sonic used for Porosities	3-5' Compensated				
Correction for Sonde Skew	Applied				
Cycle Stretch Algorithm	Applied				
MN3FT	0.00		micro-sec		
MX3FT	1500.00		micro-sec		
Hunt-Raymer Constant	83.13		micro-sec/ft		
Sonde Mode	Compensated				
Hole Type	Open Hole				
Sonde Parameters					
	Measured	Calibrated			
Offset	0.0000	0.0000			
Free Pipe	0.0000				
Peak Amplitude Source					
Waveform	Start Time (micro-sec)	Width (micro-sec)	Pre Gain	Start Gain	Discriminator (mV)
3'	N/A	N/A	N/A	N/A	N/A
4'	N/A	N/A	N/A	N/A	N/A

4'	N/A	N/A	N/A	N/A	N/A
5'	N/A	N/A	N/A	N/A	N/A
6'	N/A	N/A	N/A	N/A	N/A

Processed Fixed Gate Parameters

Waveform Used For Processing	N/A			
Start Time (micro-sec)	End Time (micro-sec)	Discriminator (mV)		Depth (m)
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	0.00	0.00		0.00

Full Waveform Parameters

Use 3' Waveform to derive TR	No	
Use 4' Waveform to derive TR	No	
Use 5' Waveform to derive TR	No	
Use 6' Waveform to derive TR	No	
3' Waveform Discriminator Level	0.30	mV
4' Waveform Discriminator Level	0.30	mV
5' Waveform Discriminator Level	0.15	mV
6' Waveform Discriminator Level	0.15	mV
3' Waveform Filter		
4' Waveform Filter		
5' Waveform Filter		
6' Waveform Filter		
Semblance Level	0.50	
Semblance Window Width	120.00	micro-sec
Sonic 1 Despiker	100.00	micro-sec/ft
Sonic 2 Despiker	100.00	micro-sec/ft

High Resolution Temperature Calibration MAI-A.A 102

Field Calibration on 09-APR-2014,22:06

	Measured	Calibrated(Deg F)
Lower	50.00	50.00
Upper	100.00	100.00

High Resolution Temperature Constants MAI-A.A 102

Last Edited on 09-APR-2014,22:16

Pre-filter Length	11
-------------------	----

Induction Calibration MAI-A.A 102

Base Calibration on 18-MAR-2014,09:37

Field Check on 30-MAY-2014 20:18

Base Calibration

Test Loop Calibration		Measured		Calibrated (mmho/m)	
Channel		Low	High	Low	High
1		18.0	481.9	9.3	966.2
2		6.6	378.8	7.6	821.4
3		4.0	256.0	5.2	566.0
4		3.8	134.5	2.6	279.2

Array Temperature	86.5	Deg F
-------------------	------	-------

Channel	Base Check (mmho/m)		Field Check (mmho/m)	
	Low	High	Low	High
1			12.5	3810.0
2			30.1	3604.2
3			28.4	3131.9
4			16.1	2100.5
Deep			14.4	2019.3
Medium			45.0	4178.3
Shallow			48.7	5350.0

Array Temperature	0.0	Deg F
-------------------	-----	-------

Induction Constants MAI-A.A 102

Last Edited on 30-MAY-2014,20:14

Induction Model	RtAP-WBM		
Caliper for Borehole Corr.	Density Caliper		
Hole Size for Borehole Correction	N/A	inches	
Tool Centred	No		

Stand-off Type		Fins	
Stand-off	0.50	inches	
Number of Fins on Stand-off	6.0000		
Stand-off Fin Angle	60.00	degrees	
Stand-off Fin Width	0.5000	inches	
Borehole Corr. Rm Source	Temperature Corr		
Temp. for Rm Corr.	MCG External Temperature		
Squasher Start	0.0020	mhos/metre	
Squasher Offset	N/A	mhos/metre	

Borehole Normalisation

DRM1	0.0000	DRC1	0.0000
DRM2	0.0000	DRC2	0.0000
MRM1	0.0000	MRC1	0.0000
MRM2	0.0000	MRC2	0.0000
SRM1	0.0000	SRC1	0.0000
SRM2	0.0000	SRC2	0.0000

Calibration Site Corrections

Channel 1	0.00	mmhos/metre
Channel 2	0.00	mmhos/metre
Channel 3	0.00	mmhos/metre
Channel 4	0.00	mmhos/metre

Apparent Porosity and Water Saturation Constants

Archie Constant (A)	1.00	
Cementation Exponent (M)	2.00	
Saturation Exponent (N)	2.00	
Saturation of Water for Apor	100.00	percent
Resistivity of Water for Apor and Sw	0.05	ohm-m
Resistivity of Mud Filtrate for Sw	0.00	ohm-m
Source for Rt	0.00	
Source for Rxo	0.00	

Caliper Calibration MPD-A.A 11

Base Calibration on 21-APR-2014 10:42
Field Calibration on 11-MAY-2014 00:45

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	19600	3.98
2	29656	5.98
3	39776	7.97
4	49377	9.84
5	60416	11.91
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
7.89	7.97

Photo Density Calibration MPD-A.A 11

Base Calibration on 21-APR-2014 10:27
Field Check on 30-MAY-2014 20:11

Density Calibration

Base Calibration	Measured	Calibrated (sdu)
	Near Far	Near Far
Reference 1	47839 25404	59869 31110
Reference 2	19923 2423	24557 2522

Field Check at Base

1160.9	1245.5
--------	--------

Field Check

1152.6	1241.3
--------	--------

PE Calibration

Base Calibration	Measured	Calibrated
	WS WH Ratio	Ratio
Background	211 1037	
Reference 1	17508 47664	0.371 0.369
Reference 2	5284 19791	0.271 0.271

Field Check at Base

Field Check at Base	210.6	1037.5
Field Check	208.8	1032.4

Density Constants MPD-A.A 11		Last Edited on 31-MAY-2014,07:44	
Density Source Id	263		
Nylon Calibrator Number	633		
Aluminium Calibrator Number	633		
Density Shoe Profile	8 inch		
Caliper Source for Processing	Density Caliper		
PE Correction to Density	Not Applied		
Mud Density	1.10	gm/cc	
Mud Density Z/A Multiplier	1.11		
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		
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		

Spectral Gamma Calibration			SGS-E.J 132			Base Calibration on 31-MAY-2014,09:21			Field Calibration on 31-MAY-2014,09:21		
Base Calibration											
Potassium Calibrator											
		Gate 1	Gate 2	Gate 3	Gate 4	Gate 5					
	Background	76.2	24.3	2.4	0.9	1.4					
	Calibrator (Gross)	201.7	114.2	16.7	0.8	1.3					
	Calibrator (Net)	125.5	90.0	14.3	-0.1	-0.1					
Concentrations		K %	U ppm	Th ppm							
		5.8	0.0	0.0							
Uranium Calibrator											
		Gate 1	Gate 2	Gate 3	Gate 4	Gate 5					
	Background	76.2	24.3	2.4	0.9	1.4					
	Calibrator (Gross)	529.1	178.6	15.7	6.9	3.8					
	Calibrator (Net)	452.9	154.3	13.3	6.0	2.4					
Concentrations		K %	U ppm	Th ppm							
		0.0	14.8	0.0							
Thorium Calibrator											
		Gate 1	Gate 2	Gate 3	Gate 4	Gate 5					
	Background	76.2	24.3	2.4	0.9	1.4					
	Calibrator (Gross)	393.6	136.9	10.3	6.6	14.2					
	Calibrator (Net)	317.4	112.6	8.0	5.8	12.7					
Concentrations		K %	U ppm	Th ppm							
		0.0	0.0	44.3							
Mixture Calibrator											
		Gate 1	Gate 2	Gate 3	Gate 4	Gate 5					
	Background	76.2	24.3	2.4	0.9	1.4					
	Calibrator (Gross)	943.2	372.0	38.7	12.7	15.6					
	Calibrator (Net)	867.0	347.7	36.3	11.8	14.1					
Field Calibration											
Gamma Ray											
		Measured		Calibrated (API)							
	Background	110		22							

Calibrator (Gross)	1387	272
Calibrator (Net)	1277	250

Mixture Calibrator

	Gate 1	Gate 2	Gate 3	Gate 4	Gate 5
Background	76.2	24.3	2.4	0.9	1.4
Calibrator (Gross)	943.2	372.0	38.7	12.7	15.6
Calibrator (Net)	867.0	347.7	36.3	11.8	14.1

Spectral Gamma Constants SGS-E.J 132

Last Edited on 31-MAY-2014,08:51

Background Calibrator Number	496	
Mixture Calibrator Number	525	
Potassium Calibrator Number	499	
Uranium Calibrator Number	505	
Thorium Calibrator Number	502	
Mud Density	1.10	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Centred	
Concentration of KCl		kppm
K Mud Type	Chloride	
K Mud Concentration	0.00	%

DOWNHOLE EQUIPMENT

C:\Program Files\Weatherford\WLS 13.06\DATA\TAOS WMU 26\DATA1.dta

Compact Comms Gamma
MCG-D.K 475 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Spectral Gamma Ray Sub
SGS-E.J 132 LG: 7.78 ft WT: 105.8 lb OD: 3.54 in

Compact Micro-log
MML-A 7 LG: 7.97 ft WT: 81.6 lb OD: 2.24 in

Compact Neutron
MDN-C.A 460 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

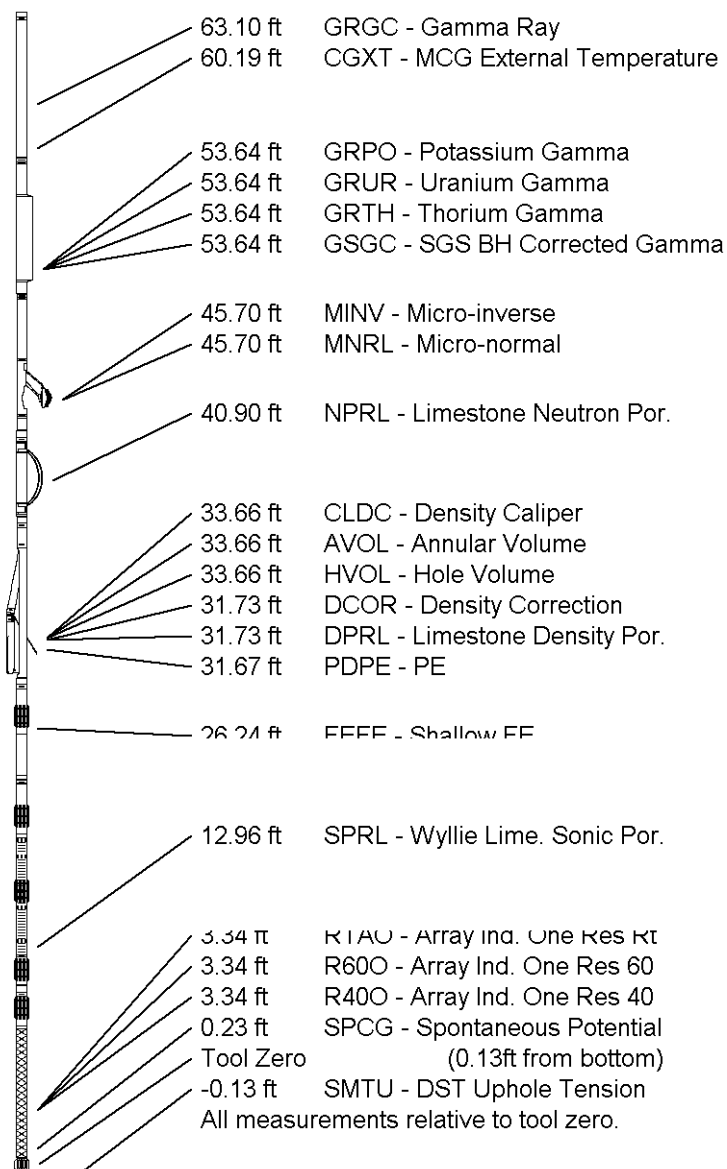
Compact Density/Caliper
MPD-A.A 11 LG: 9.53 ft WT: 90.4 lb OD: 2.45 in

Compact Focussed Electric
MFE-A.A 54 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

Compact Sonic
MSS-C.K 336 LG: 12.52 ft WT: 72.8 lb OD: 2.24 in

Compact Induction
MAI-A.A 102 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 68.39 ft Weight: 562.2 lb



COMPANY	TAOS RESOURCES OPERATING COMPANY		
WELL	WEST MADDIX UNIT #26		
FIELD	MADDIX NORTH		
PROVINCE/COUNTY	COWLEY		
COUNTRY/STATE	U.S.A / KANSAS		

Elevation Kelly Bushing	1288.00	feet	First Reading	3621.00	feet
Elevation Drill Floor	1287.00	feet	Depth Driller	3627.00	feet
Elevation Ground Level	1278.00	feet	Depth Logger	3624.00	feet



Weatherford®

COMPOSITE LOG