Weatherford®

ARRAY INDUCTION SHALLOW FOCUSED ELECTRIC LOG

COMPANY	CMX, INC.
WELL	#1 JOHNNY B. GOODE
FIELD	STRANATHAN
PROVINCE/COUNTY	BARBER
COUNTRY/STATE	U.S.A. / KANSAS
LOCATION	2000' FSL & 1455' FEL SE NE NW SE

SEC	TWP	RGE	Other Services
6	35S	11W	MPD/MDN
API Number 15-007-24087			MML
Permit Number			MSS

Permanent Datum GL, Elevation 1371 feet
Log Measured From KB
Drilling Measured From KB @ 8 FEET

Elevations:	feet
KB	1379.00
DF	1377.00
GL	1371.00

Date	03-OCT-2013			
Run Number	ONE			
Service Order	3541120			
Depth Driller	5190.00	feet		
Depth Logger	5194.00	feet		
First Reading	5191.00	feet		
Last Reading	1013.00	feet		
Casing Driller	1012.00	feet		
Casing Logger	1013.00	feet		
Bit Size	7.875	inches		
Hole Fluid Type	CHEMICAL			
Density / Viscosity	9.40 lb/USg	64.00 CP		
PH / Fluid Loss	9.40	11.20 ml/30Min		
Sample Source	FLOWLINE			
Rm @ Measured Temp	0.68 @ 80.0	ohm-m		
Rmf @ Measured Temp	0.54 @ 80.0	ohm-m		
Rmc @ Measured Temp	0.82 @ 80.0	ohm-m		
Source Rmf / Rmc	CALC	CALC		
Rm @ BHT	0.46 @119.0	ohm-m		
Time Since Circulation	3 HOURS			
Max Recorded Temp	119.00	deg F		
Equipment / Base	13057	KANSAS		
Recorded By	D. COLE		J. LAPOINT	
Witnessed By	L. KASTEN			
JOB#	LB13-289			

BOREHOLE RECORD

Last Edited: 04-OCT-2013 11:38

Bit Size inches	Depth From feet	Depth To feet
7.875	1013.00	5194.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	8.625	0.00	1013.00	24.00

REMARKS

- SOFTWARE ISSUE: WLS 13.05.9583.
- RUN 1: MCG, MML, MDN, MPD, MFE, MSS, MAI RUN IN COMBINATION.
  - HARDWARE: DUAL ECCENTRALISER USED ON MDN
    0.5 INCH STANDOFF USED ON MFE.
    TWO 0.5 INCH STANDOFFS USED ON MSS.
    0.5 INCH STANDOFF USED ON MAI.
- 2.71 G/CC LIMESTONE DENSITY MATRIX USED TO CALCULATE POROSITY.
- BOREHOLE RUGOSITY, TIGHT PULLS, AND WASHOUTS WILL AFFECT DATA QUALITY.
- ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST.
- TOTAL HOLE VOLUME FROM TD TO 3700 FEET CASING: 590 CU. FT.
- ANNULAR HOLE VOLUME WITH 5.5 INCH PRODUCTION CASING FROM TD TO 3700 FEET: 348 CU. FT.

- RIG: DUKE RIG 2

- ENGINEER: DUANE COLE AND JOHN LAPOINT

- OPERATOR(S): CARLOS RAMIREZ

2 INCH MAIN

Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 06-OCT-2013 13:02
Filename: E:\CMX #1 Johnny B Goode DATA\CMX #1 Johnny B Goode Main.dta
Recorded on 04-OCT-2013 08:57
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

Timing Marks
every 60.0 sec

Gamma Ray
API
0 75 150
150 225 300

Spontaneous Potential
millivolts
– → | 20 | ← +

Bit Size
inches
6 11 16

DST Uphole Tension
pounds
5000 0

Depth In Feet

Borehole Temp in deg F

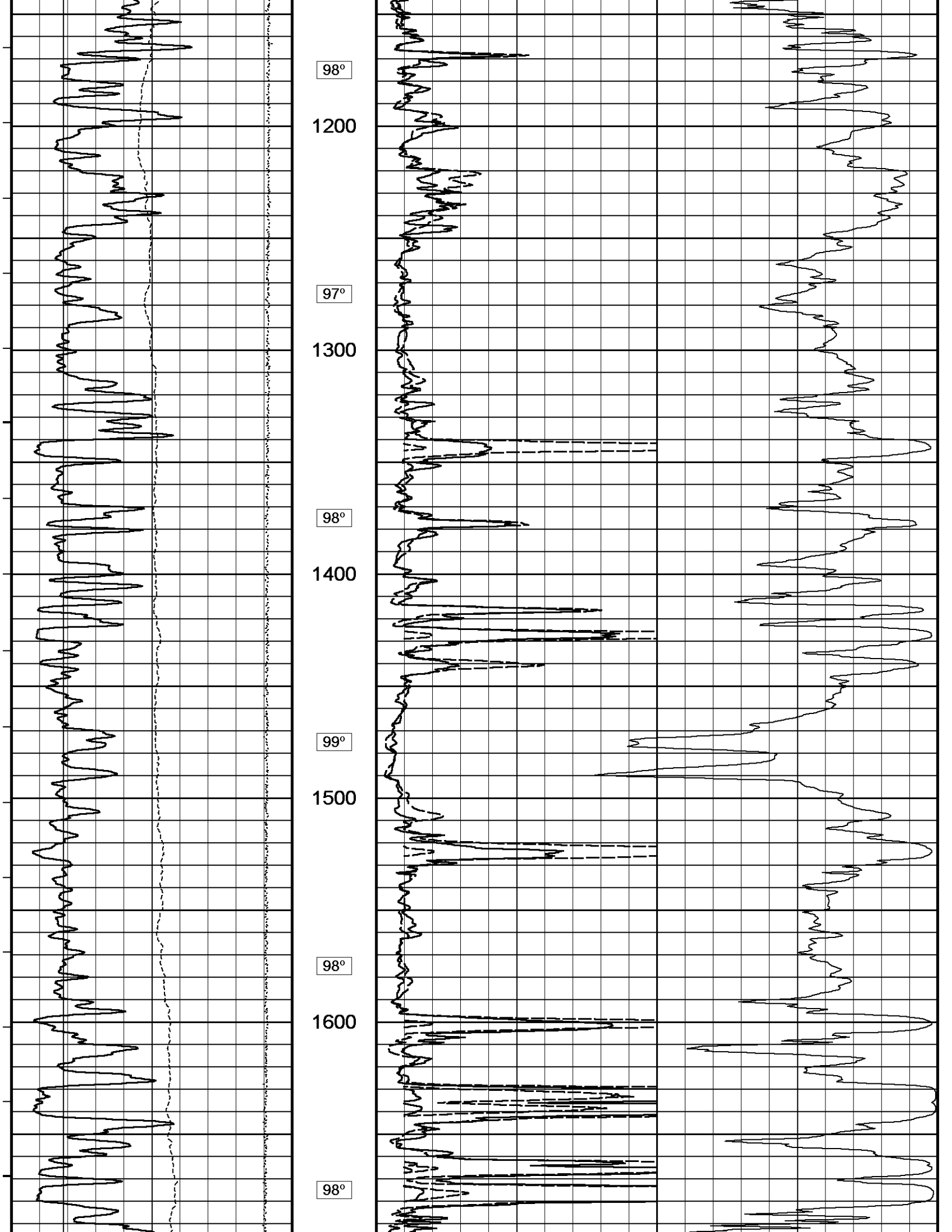
Array Ind. One Cond Ct
mmhos
1000 750 500 250 0
2000 1750 1500 1250 1000

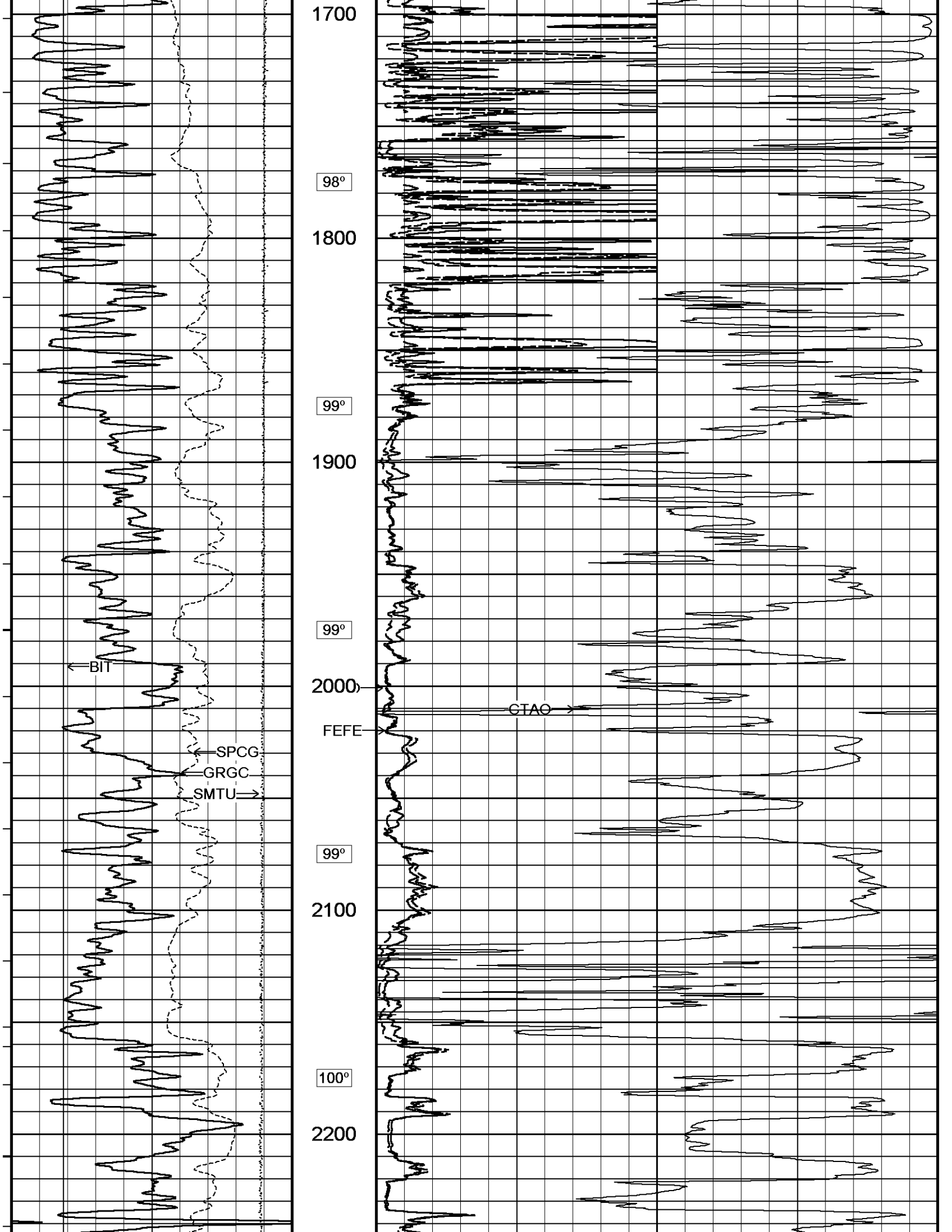
Shallow FE
ohm metres
0 25 50
0 250 500

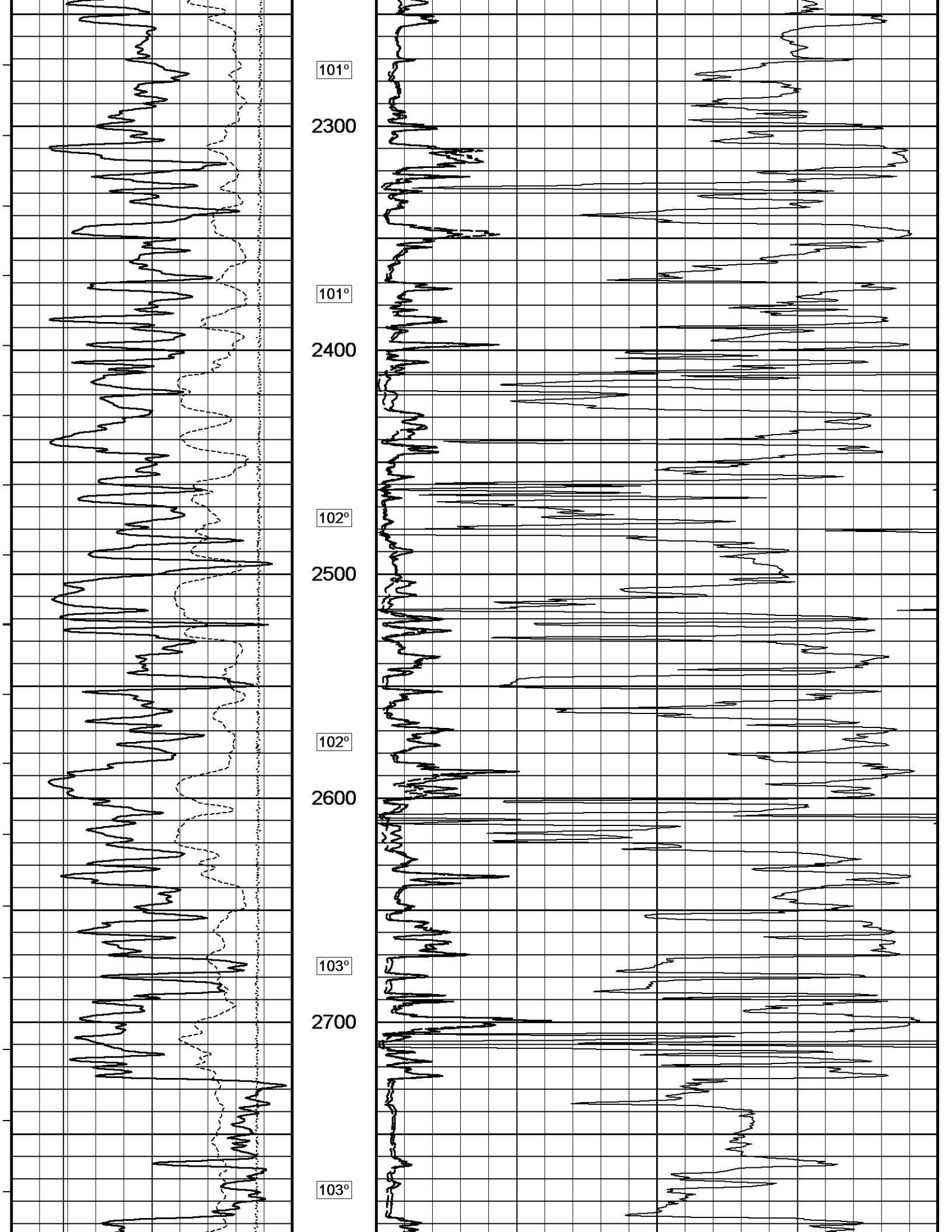
Array Ind. One Res Rt
ohm metres
0 25 50
0 250 500

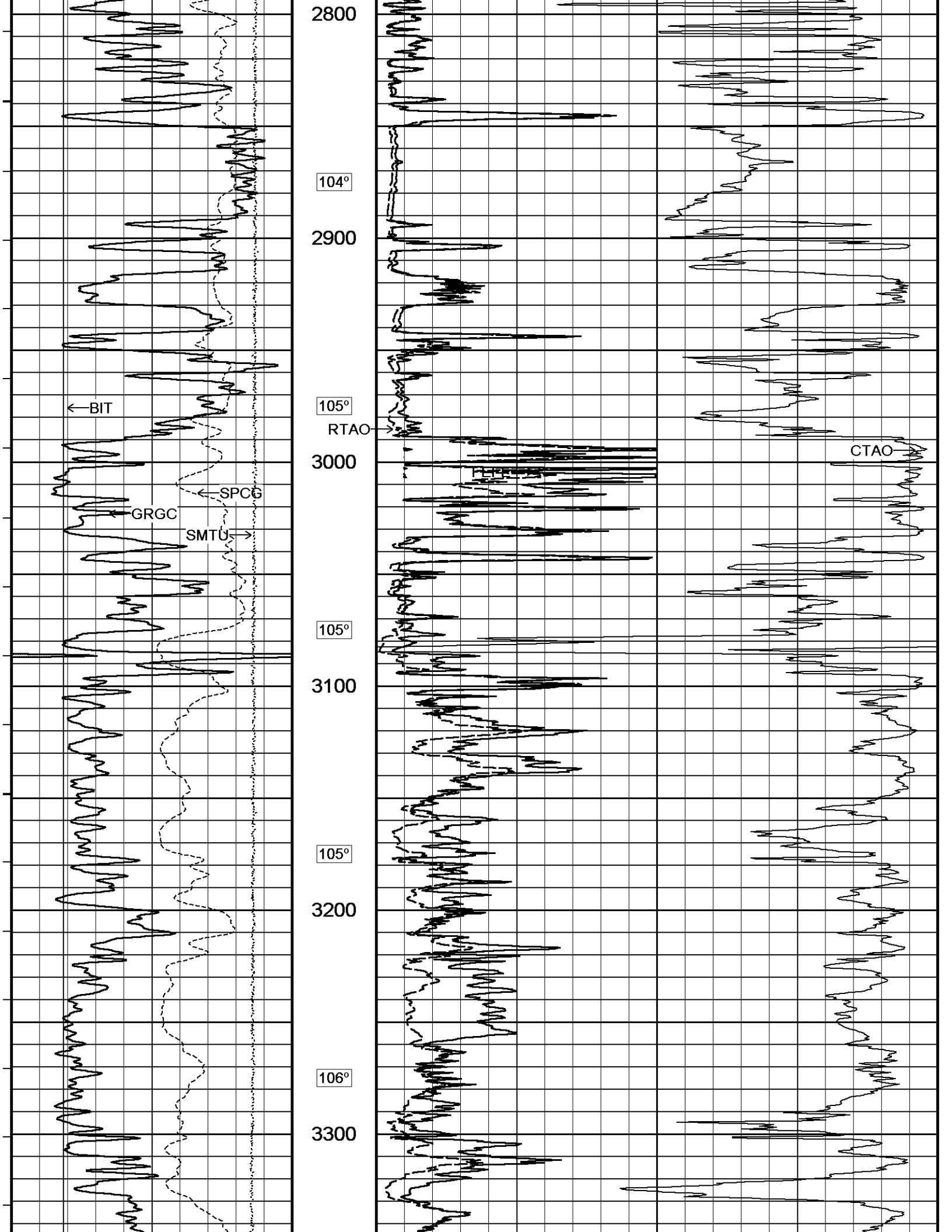
Replay Scale 1:600

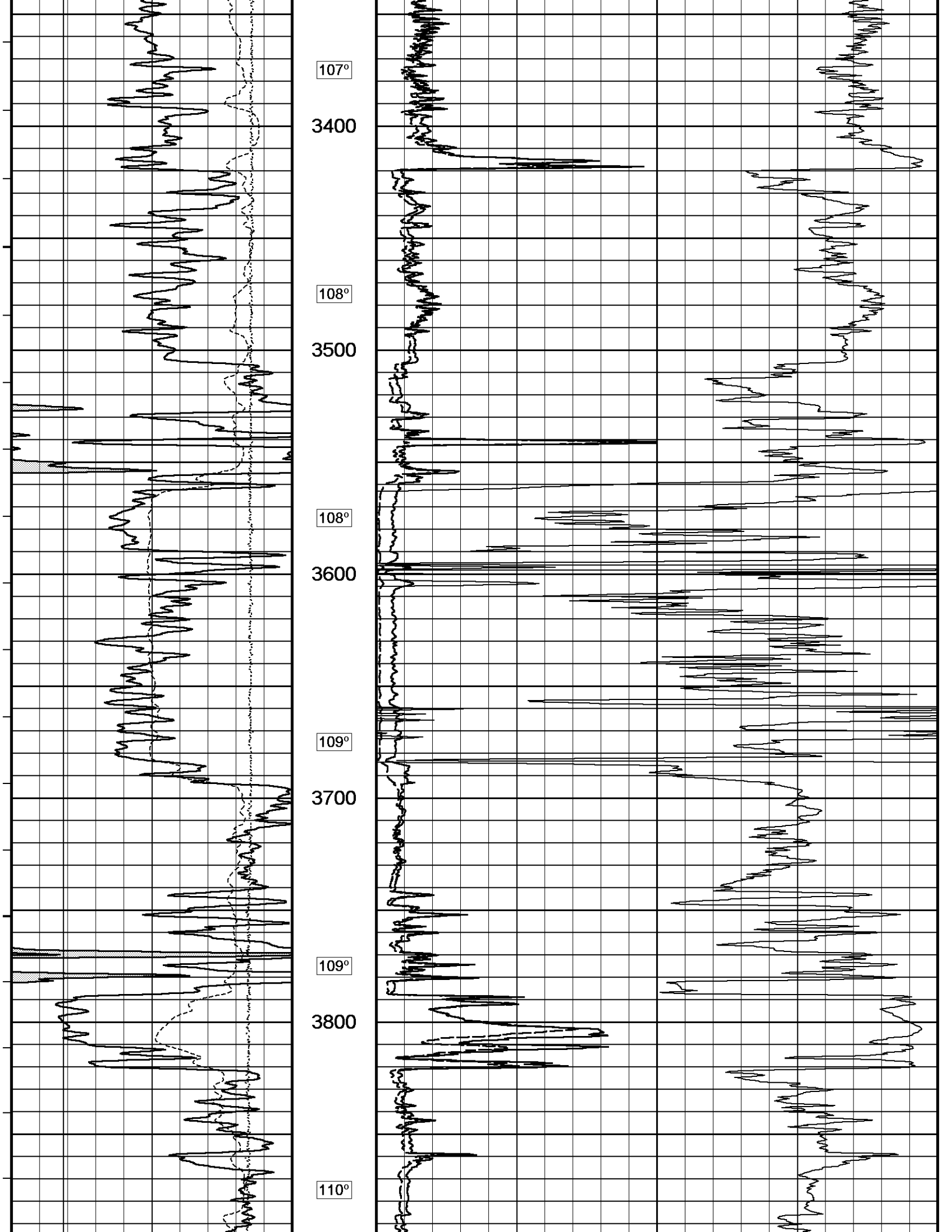
1000
Shoe
RTAO
CTAO
FEFE
BIT
SPCG
GRGC
SMTU
97°
1100

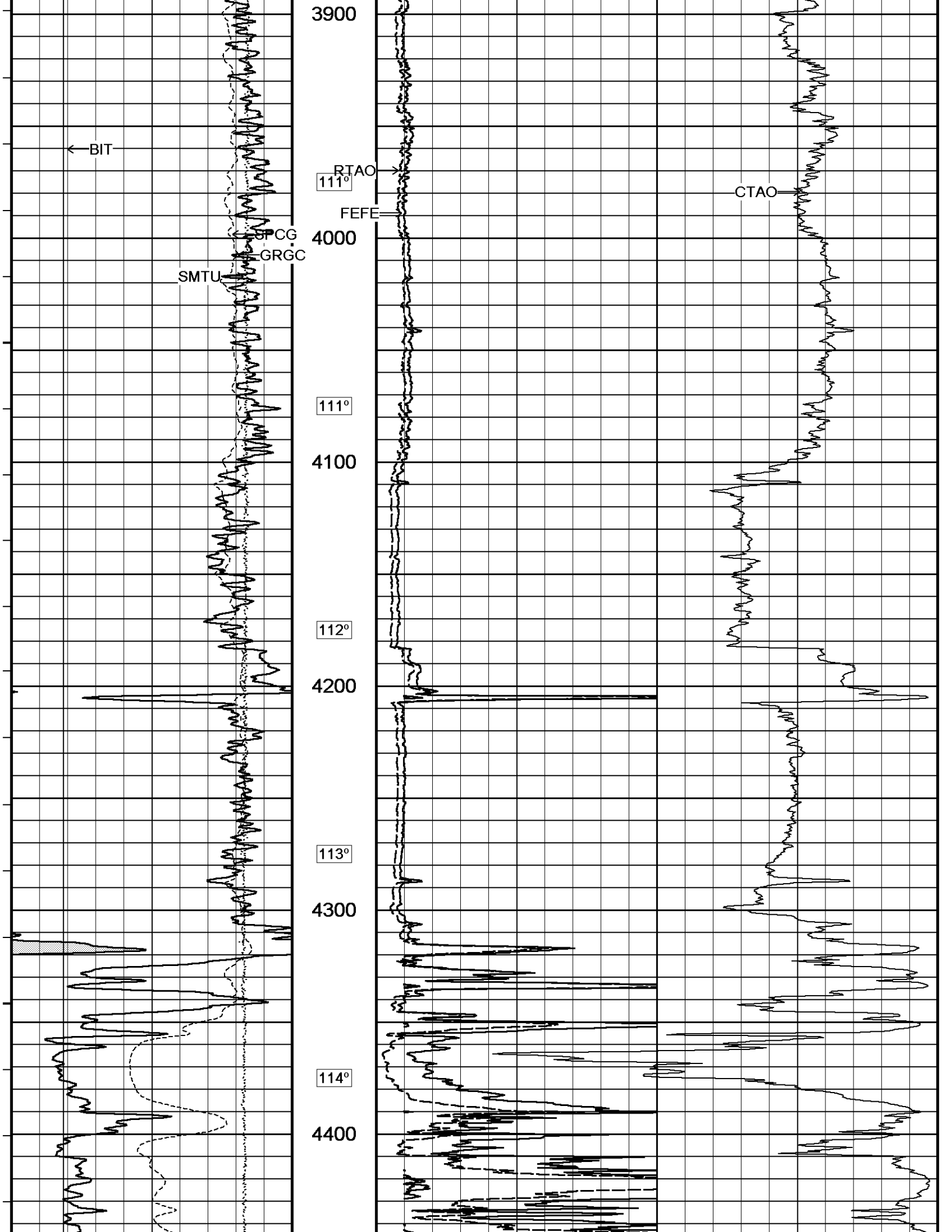

98°
1200
97°
1300
98°
1400
99°
1500
98°
1600
98°

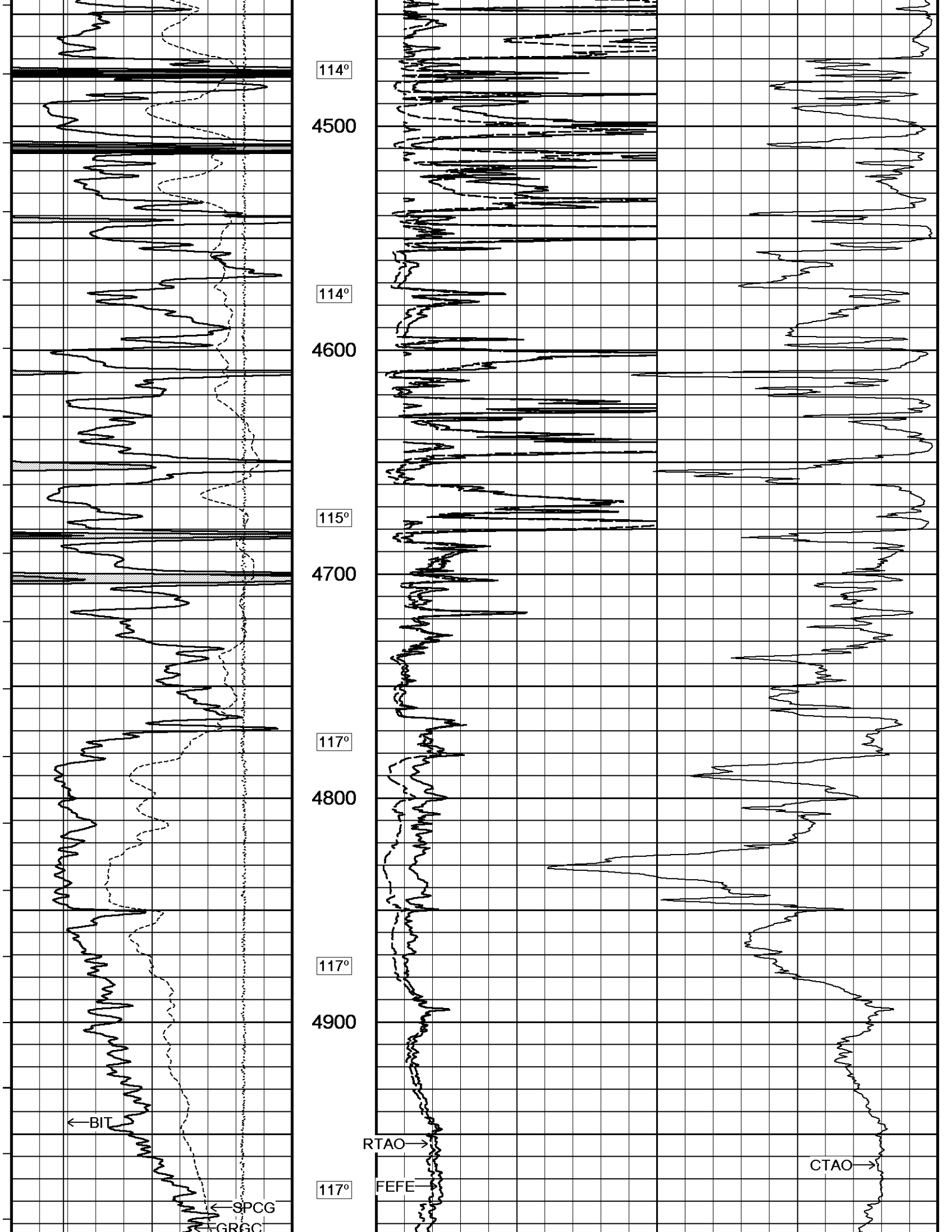

1700
98°
1800
99°
1900
99°
BIT
2000
CTAO
FEFE
SPCG
GRGC
SMTU
99°
2100
100°
2200

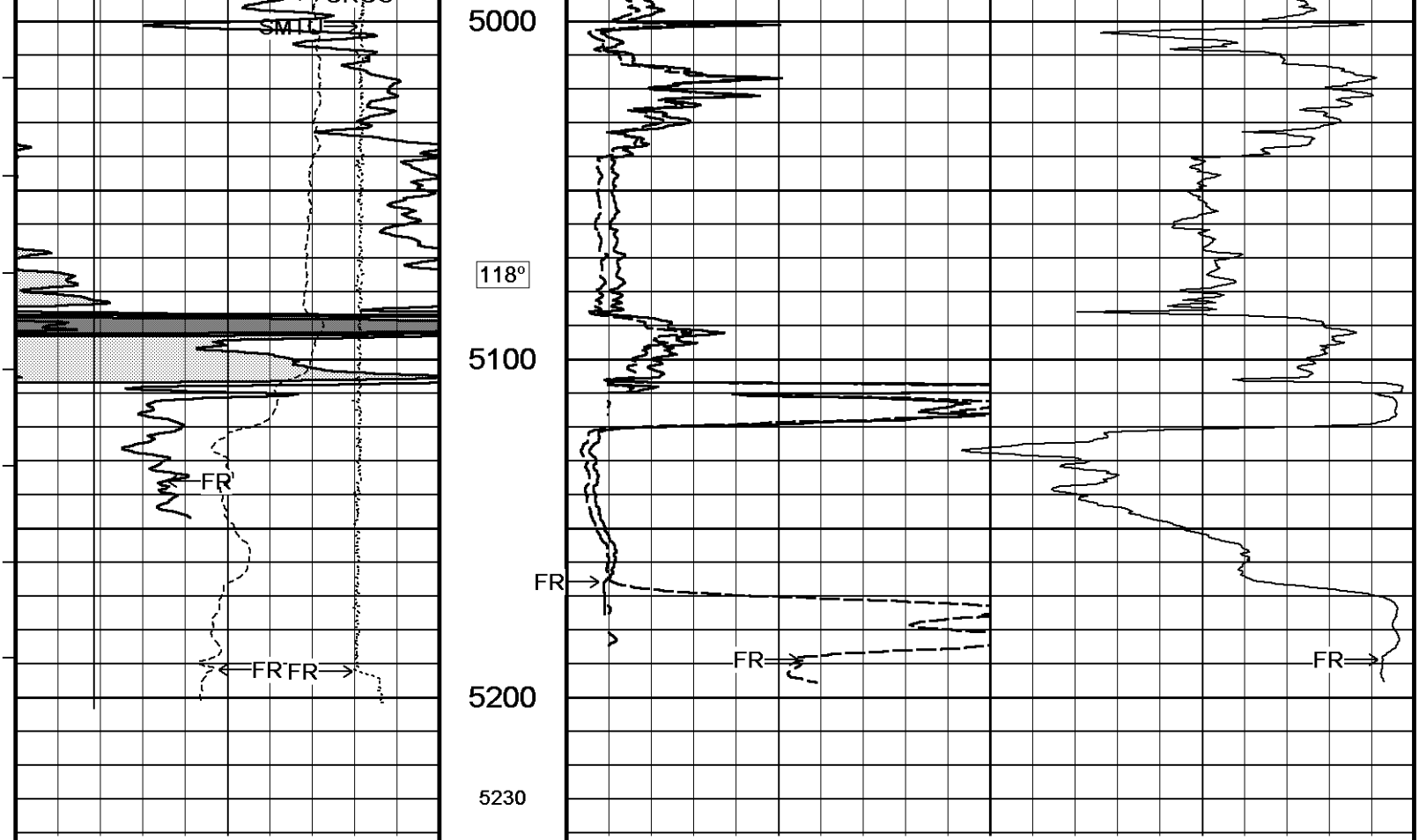

101°
2300
101°
2400
102°
2500
102°
2600
103°
2700
103°


2800
104°
2900
BIT
105°
RTAO
3000
CTAO
SPCG
GRGC
SMTU
105°
3100
105°
3200
106°
3300


107°
3400
108°
3500
108°
3600
109°
3700
109°
3800
110°


3900
BIT
RTAO
111°
CTAO
FEFE
GPCG
4000
GRGC
SMTU
111°
4100
112°
4200
113°
4300
114°
4400


114°
4500
114°
4600
115°
4700
117°
4800
117°
4900
117°
BIT
SPCG
GRGC
RTAO
FEFE
CTAO



Depth In Feet

Timing Marks
every 60.0 sec

Gamma Ray
API
0 75 150
150 225 300

Spontaneous Potential
millivolts
– → | 20 | ← +

Bit Size
inches
6 11 16

DST Uphole Tension
pounds
5000 0

Array Ind. One Cond Ct
mmhos
1000 750 500 250 0
2000 1750 1500 1250 1000

Shallow FE
ohm metres
0 25 50
0 250 500

Borehole Temp in deg F

Array Ind. One Res Rt
ohm metres
0 25 50
0 250 500

Replay Scale 1:600

Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 06-OCT-2013 13:02
Filename: E:\CMX #1 Johnny B Goode DATA\CMX #1 Johnny B Goode Main.dta
Recorded on 04-OCT-2013 08:57
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

2 INCH MAIN

10 INCH HI-RES

Depth Based Data - Maximum Sampling Increment 2.5cm
Plotted on 06-OCT-2013 13:02
Filename: E:\CMX #1 Johnny B Goode DATA\CMX #1 Johnny B Goode High-Res.dta
Recorded on 04-OCT-2013 07:57
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

Timing Marks
every 60.0 sec

Gamma Ray
API
0 75 150
150 225 300

Spontaneous Potential
millivolts
− → | 20 | ← +

DST Uphole Tension
pounds
5000 0

Depth in Feet

Borehole Temp in deg F

HVI every 10 cu ft

Annular Integral every 10 cu ft

Replay Scale 1:120

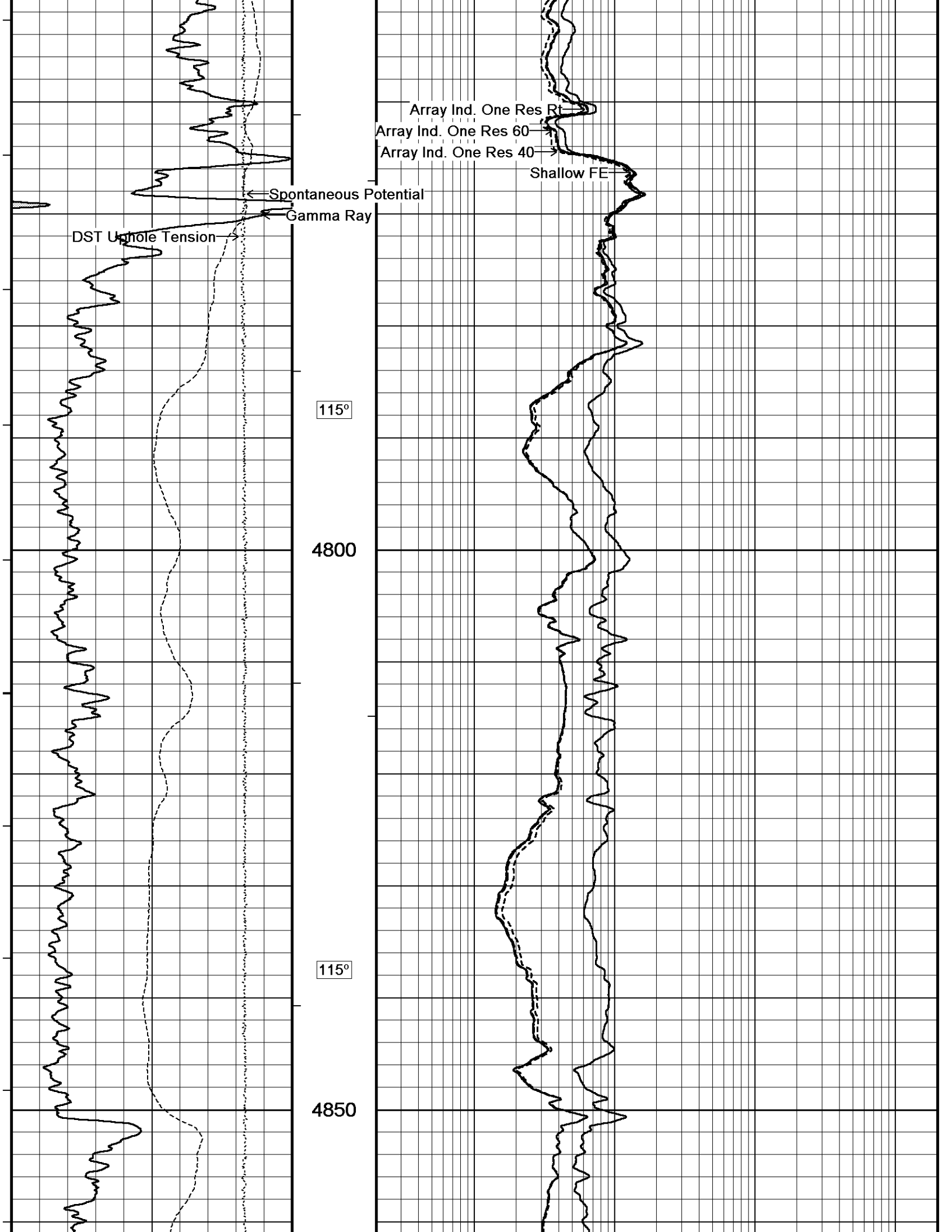
Shallow FE
ohm metres
0.20 2000
1 10 100 1000

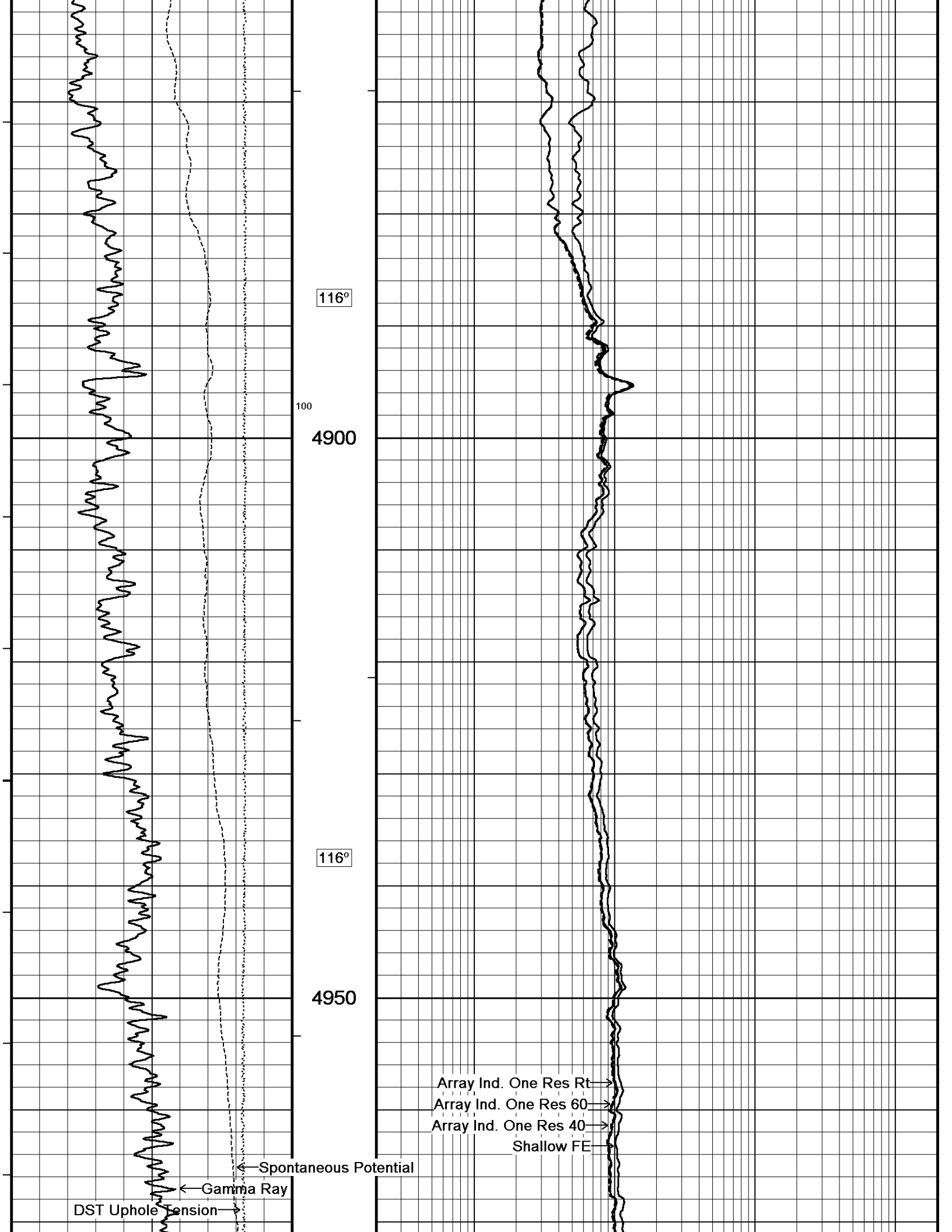
Array Ind. One Res 40
ohm metres
0.20 2000
1 10 100 1000

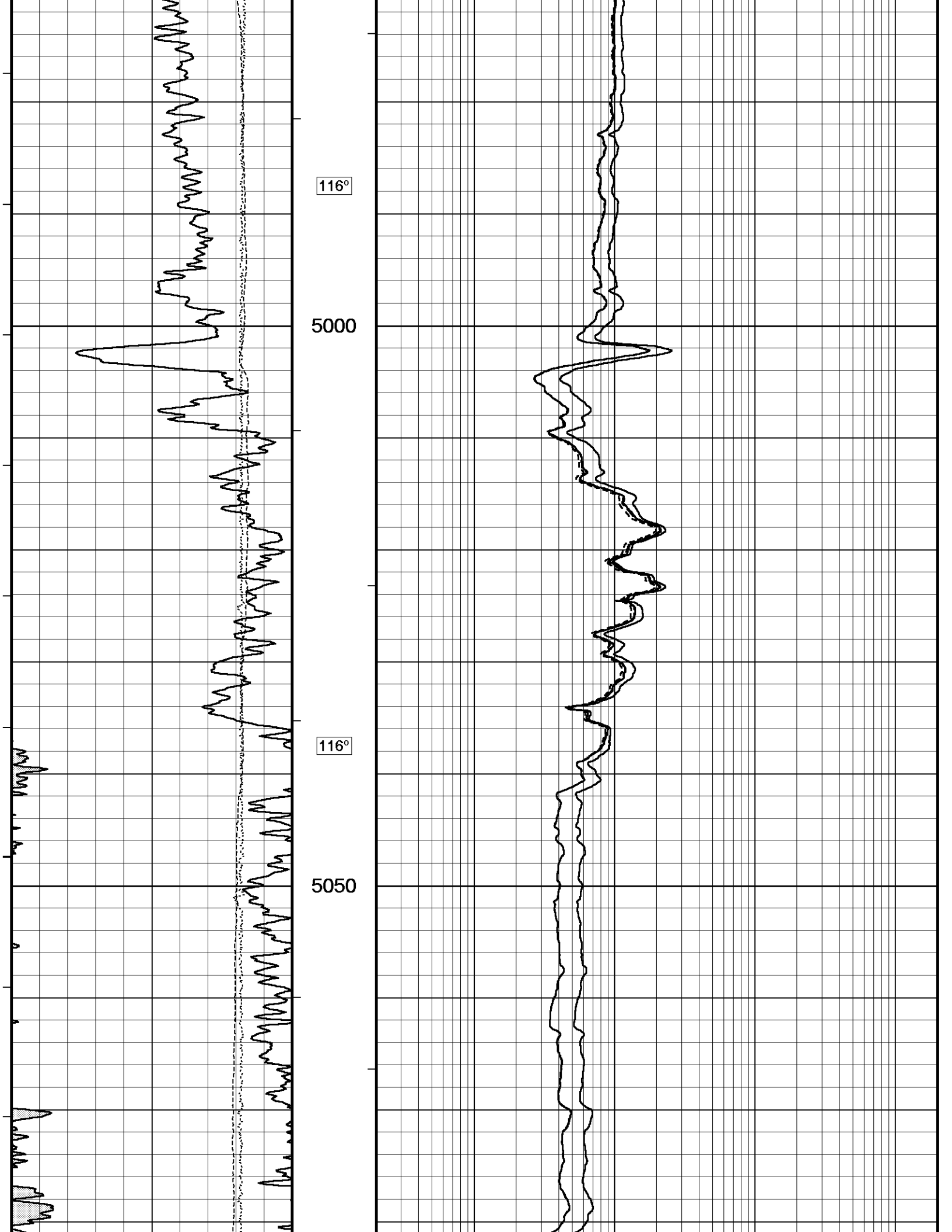
Array Ind. One Res 60
ohm metres
0.20 2000
1 10 100 1000

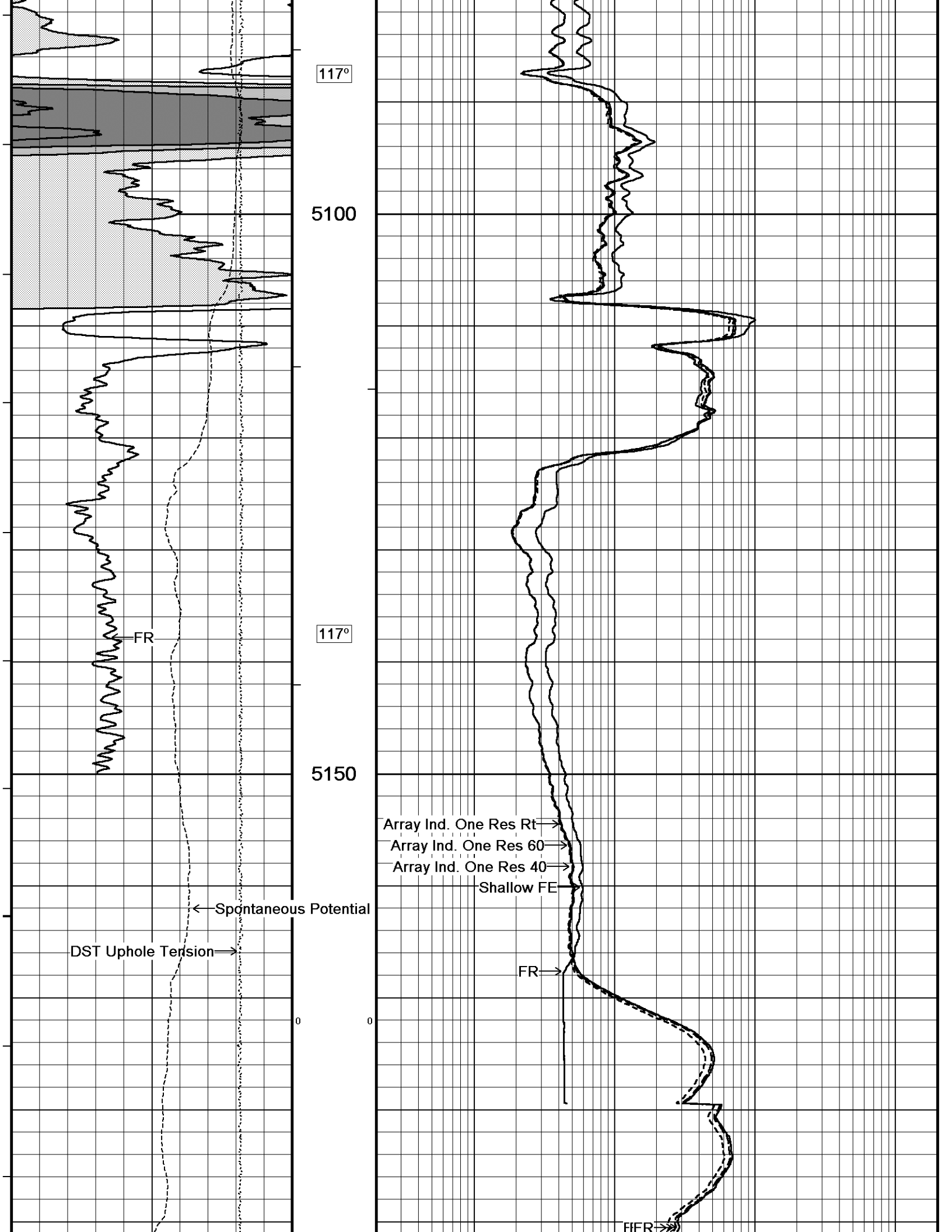
Array Ind. One Res Rt
ohm metres
0.20 2000
1 10 100 1000

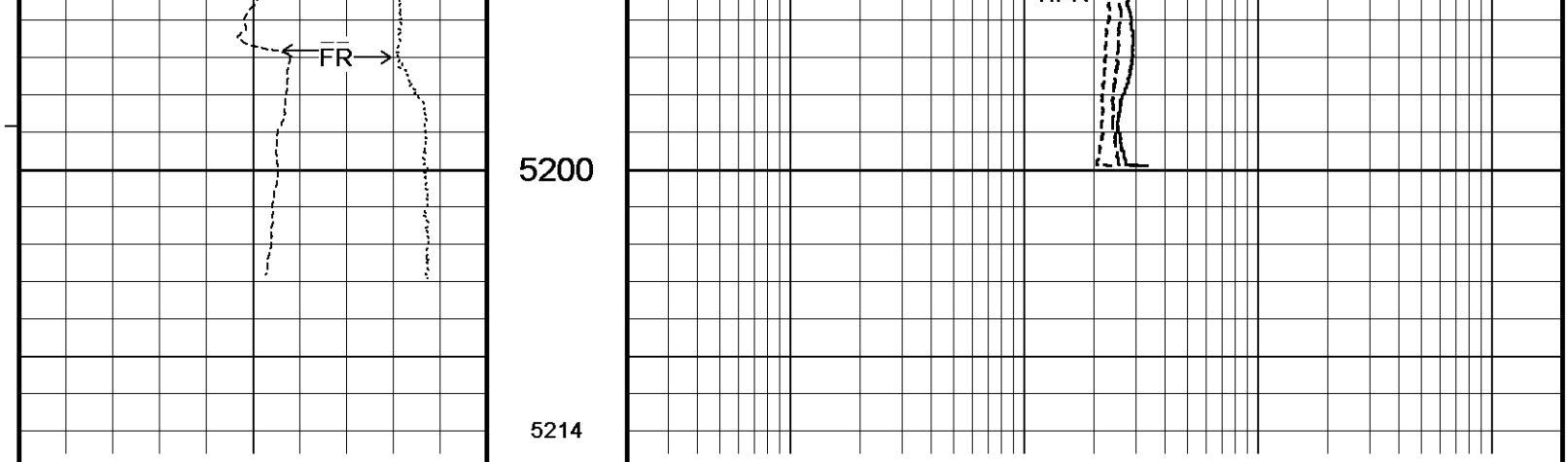
4694
4700
100
114°
4750


Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow FE
Spontaneous Potential
Gamma Ray
DST Uphole Tension
115°
4800
115°
4850


116°
100
4900
116°
4950
Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow FE
Spontaneous Potential
Gamma Ray
DST Uphole Tension


116°
5000
116°
5050


117°
5100
117°
FR
5150
Array Ind. One Res Rt
Array Ind. One Res 60
Array Ind. One Res 40
Shallow FE
Spontaneous Potential
DST Uphole Tension
FR
0
0



5214

Depth in Feet

Timing Marks
every 60.0 sec

Gamma Ray
API
0 75 150
150 225 300

Spontaneous Potential
millivolts
– → | 20 | ← +

DST Uphole Tension
pounds
5000 0

Borehole Temp in deg F

HVI every 10 cu ft

Annular Integral every 10 cu ft

Replay Scale 1:120

Shallow FE
ohm metres
0.20 2000
1 10 100 1000

Array Ind. One Res 40
ohm metres
0.20 2000
1 10 100 1000

Array Ind. One Res 60
ohm metres
0.20 2000
1 10 100 1000

Array Ind. One Res Rt
ohm metres
0.20 2000
1 10 100 1000

Depth Based Data - Maximum Sampling Increment 2.5cm
Plotted on 06-OCT-2013 13:02
Filename: E:\CMX #1 Johnny B Goode DATA\CMX #1 Johnny B Goode High-Res.dta
Recorded on 04-OCT-2013 07:57
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

10 INCH HI-RES

5 INCH MAIN

Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 06-OCT-2013 13:02
Filename: E:\CMX #1 Johnny B Goode DATA\CMX #1 Johnny B Goode Main.dta
Recorded on 04-OCT-2013 08:57
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

Depth in Feet

Timing Marks
every 60.0 sec

Gamma Ray
API
0 75 150
150 225 300

Spontaneous Potential

Borehole Temp in deg F

HVI every 10 cu ft

Annular Integral

Shallow FE
ohm metres
0.20 2000
1 10 100 1000

Array Ind. One Res 40
ohm metres
0.20 2000
1 10 100 1000

Array Ind. One Res 60

millivolts
– → | 20 | ← +

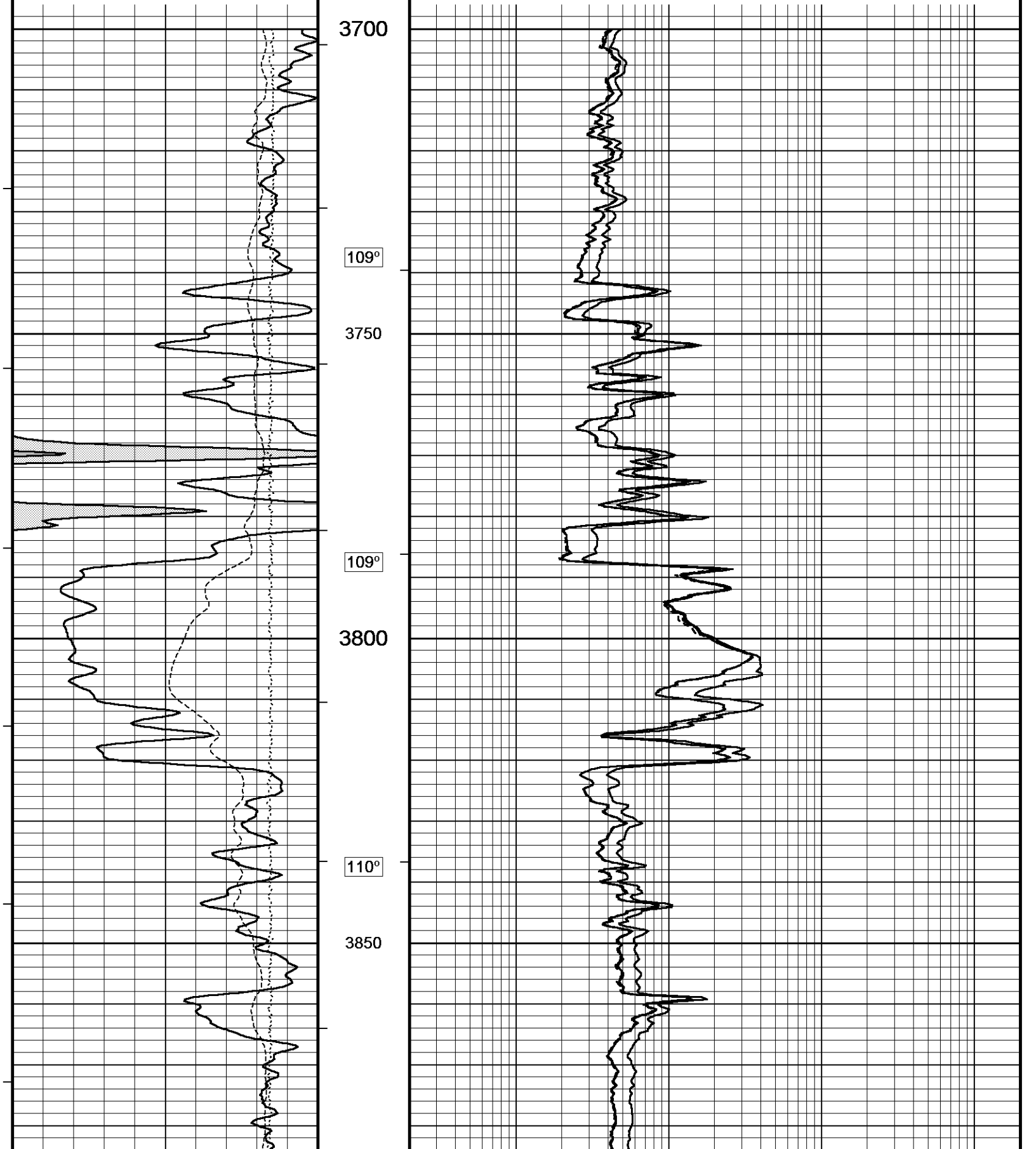
every
10 cu ft

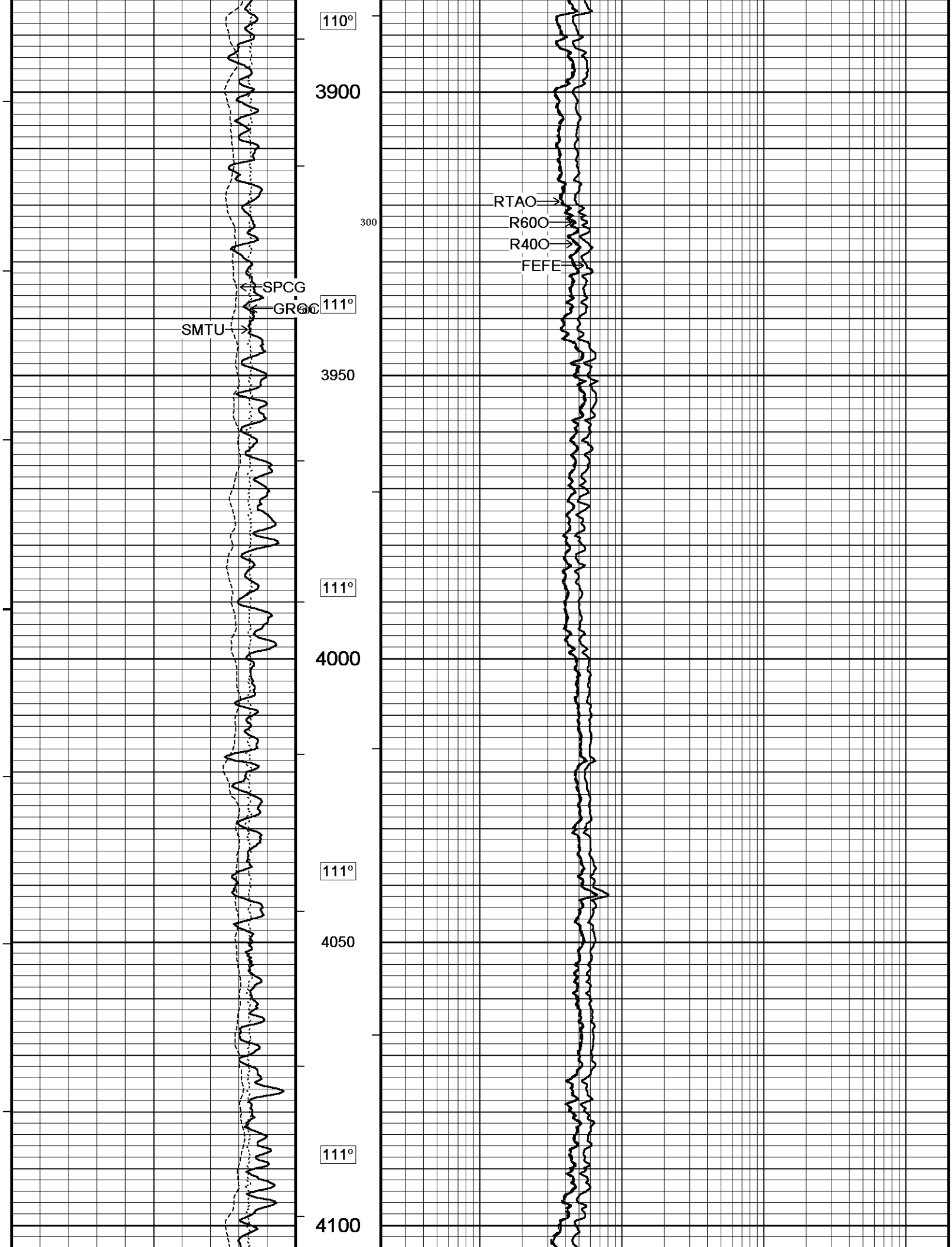
ohm metres
0.20 2000
1 10 100 1000

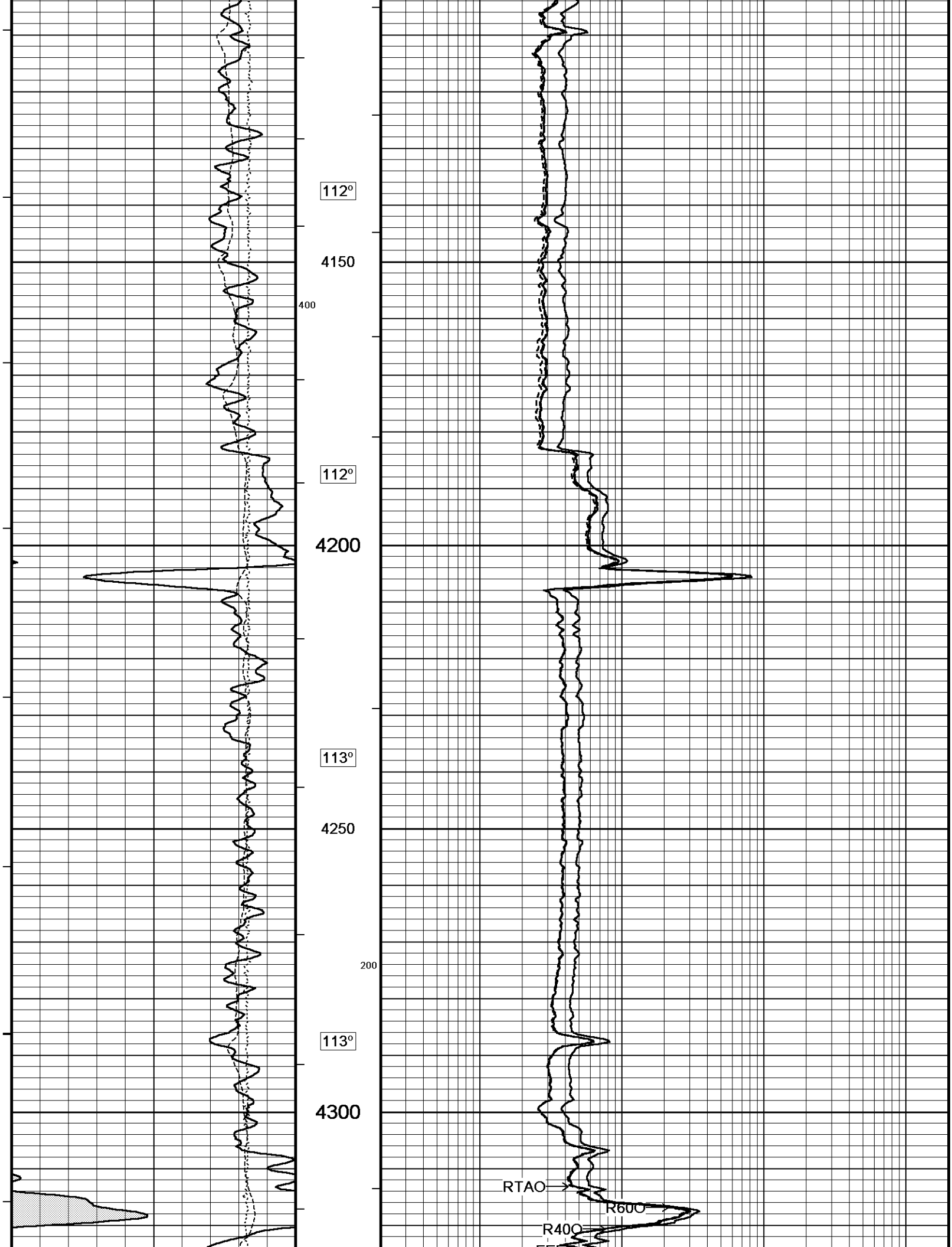
DST Uphole Tension
pounds
5000 0

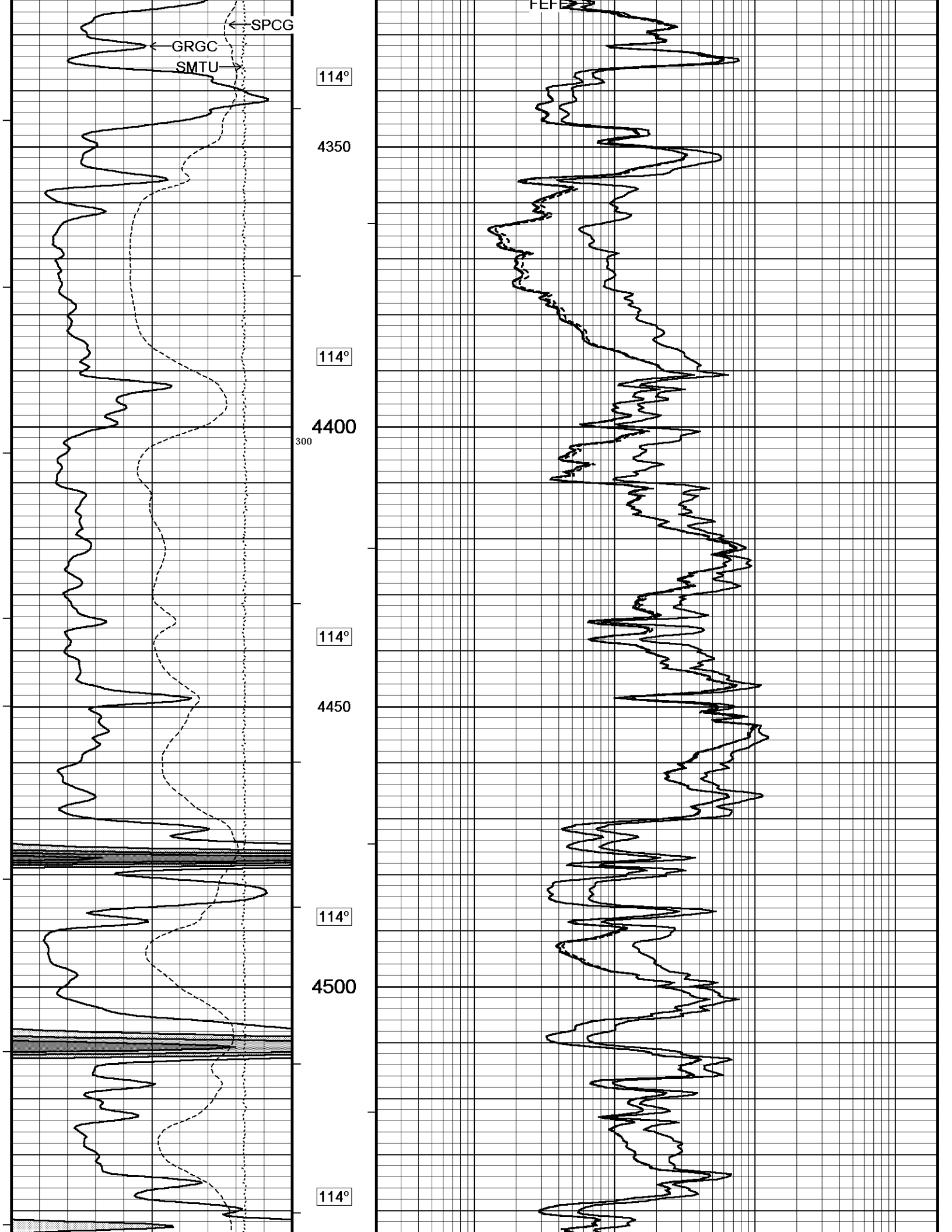
Replay
Scale
1:240

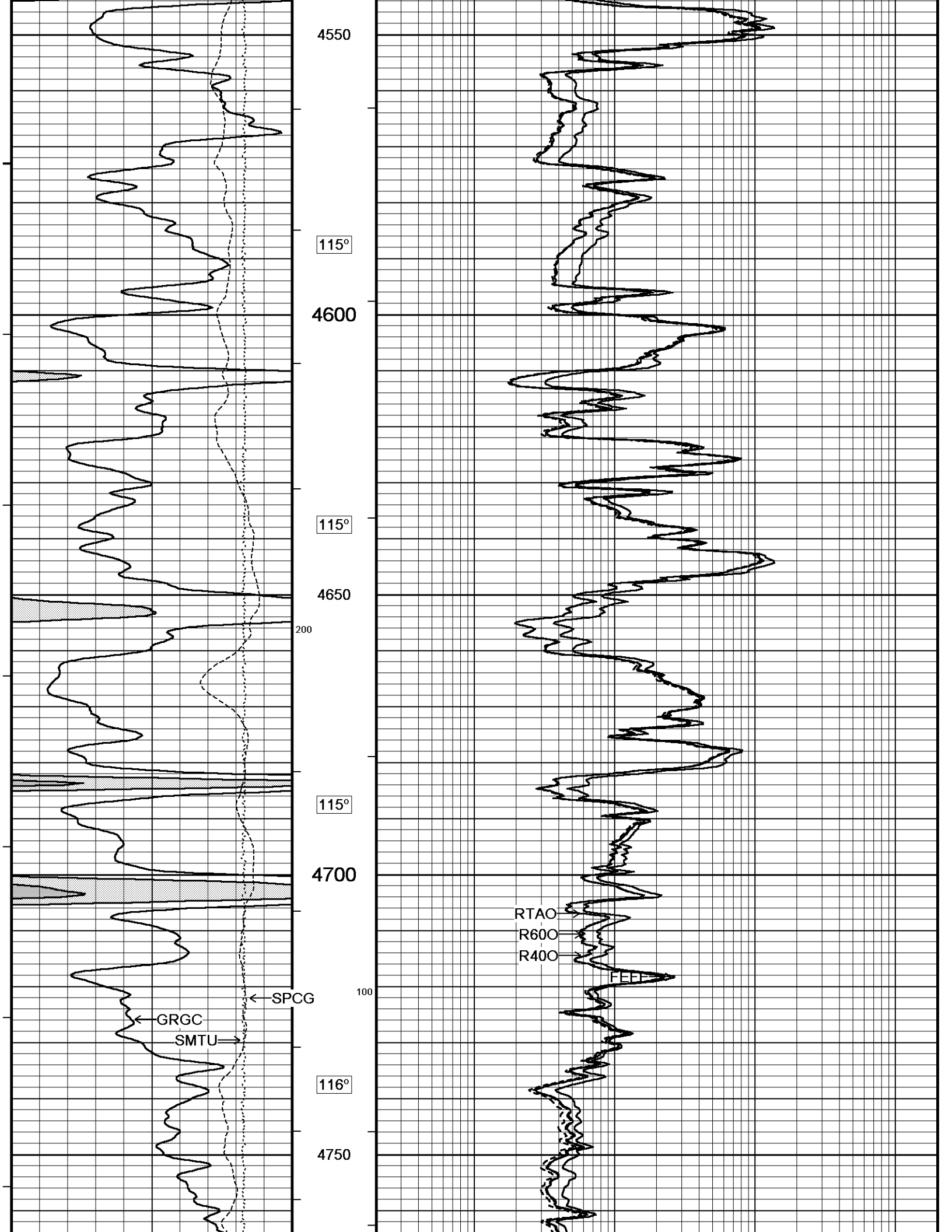
Array Ind. One Res Rt
ohm metres
0.20 2000
1 10 100 1000

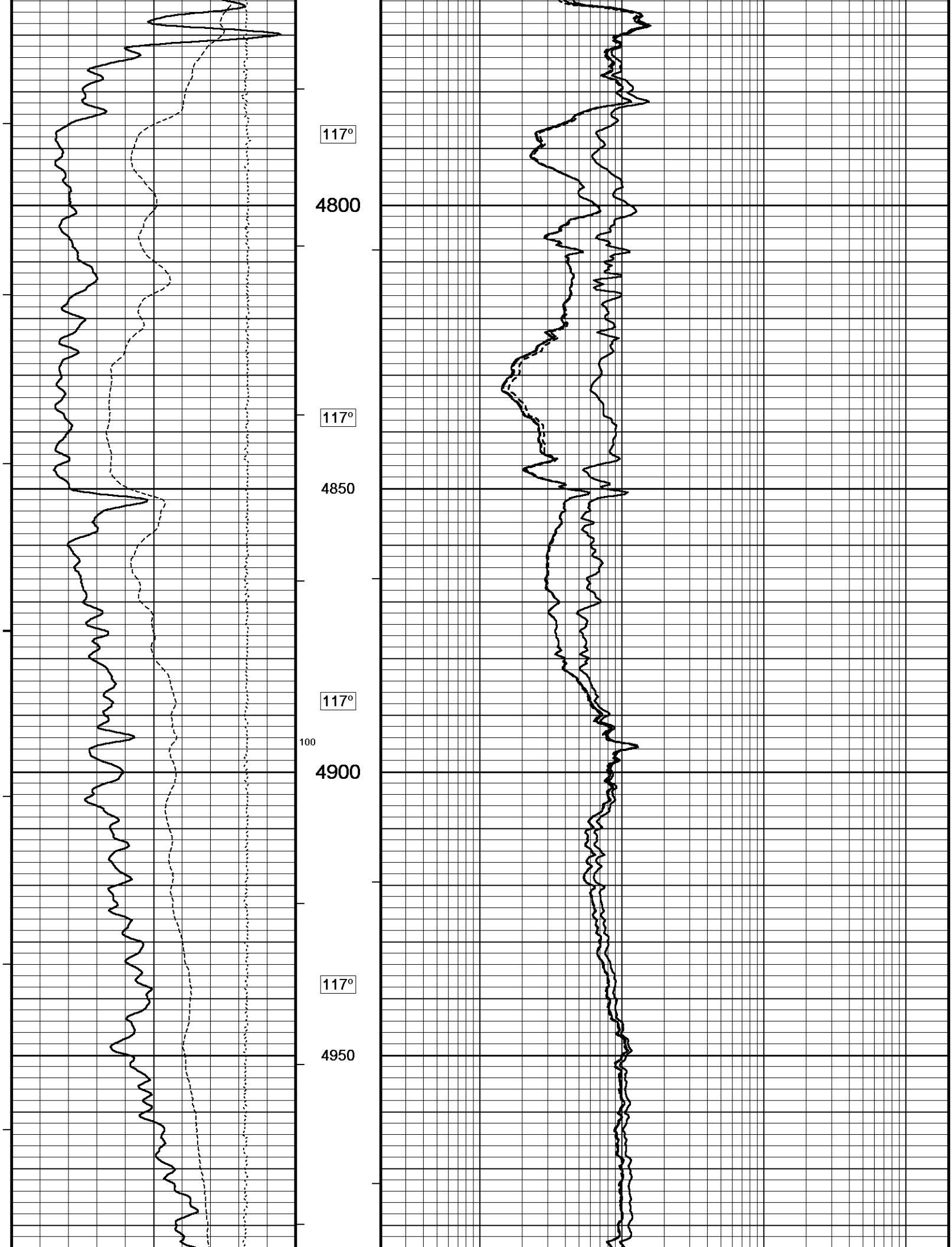


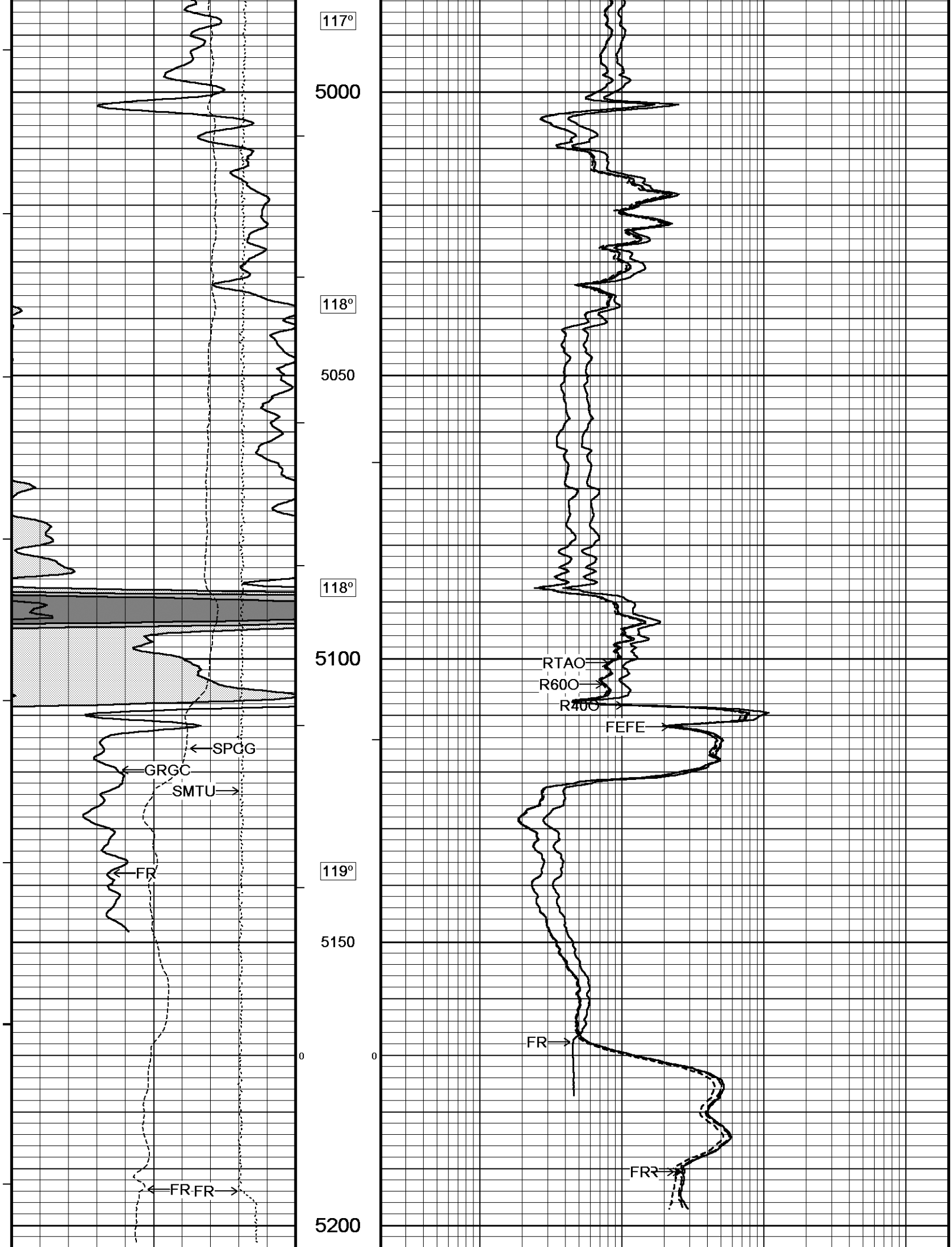

110°
3900
300
RTAO
R60O
R40O
FEFE
SPCG
GRGC
111°
SMTU
3950
111°
4000
111°
4050
111°
4100

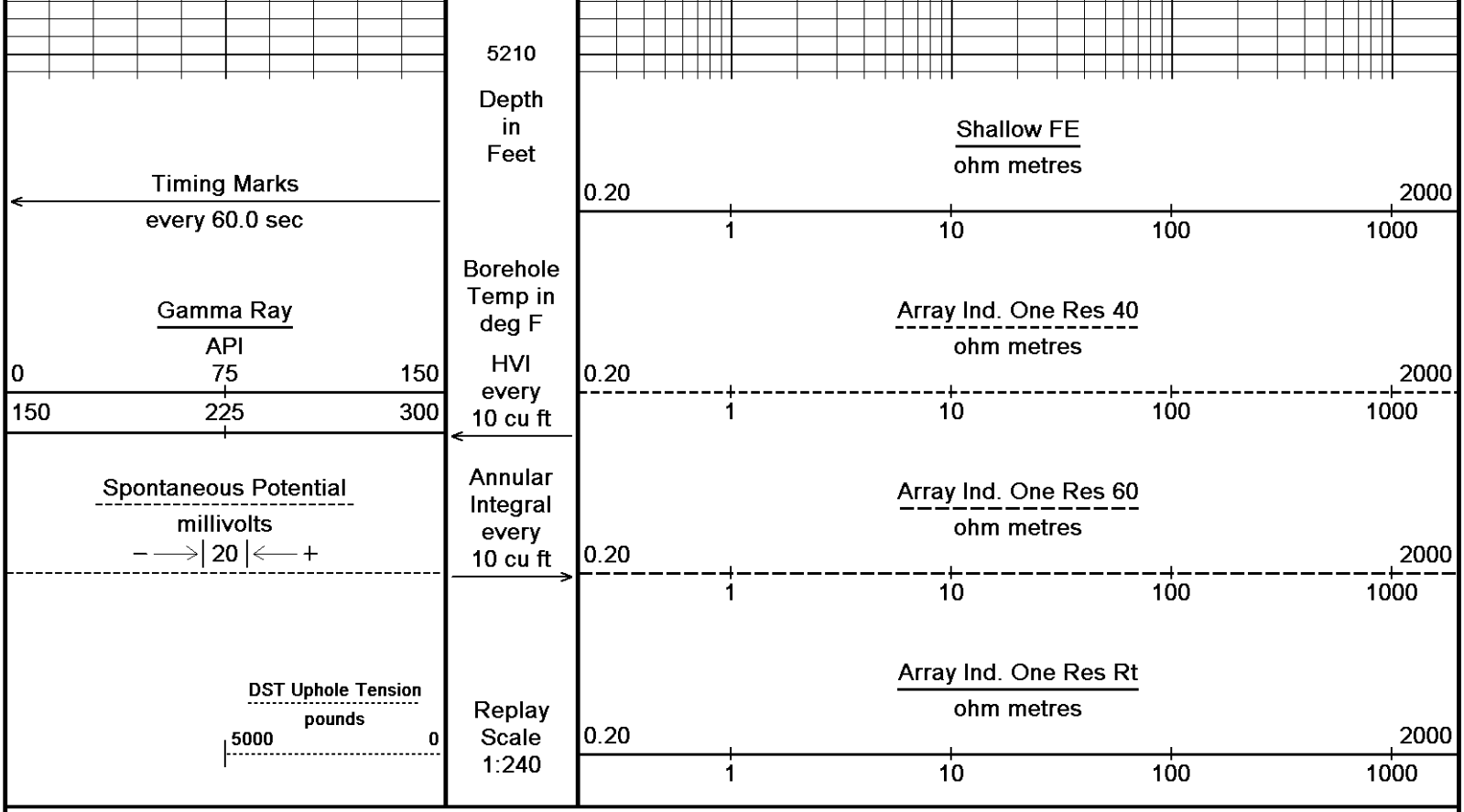

112°
4150
400
112°
4200
113°
4250
200
113°
4300
RTAO
R60O
R40O


SPCG
GRGC
SMTU
FEFE
114°
4350
114°
4400
300
114°
4450
114°
4500
114°


4550
115°
4600
115°
4650
200
115°
4700
100
116°
4750
SPCG
GRGC
SMTU
RTAO
R60O
R40O
FEET


117°
4800
117°
4850
117°
100
4900
117°
4950


117°
5000
118°
5050
118°
5100
119°
5150
5200
SPCG
GRGC
SMTU
FR
FR
FR
RTAO
R60O
R40O
FEFE
FR
FR
0
0

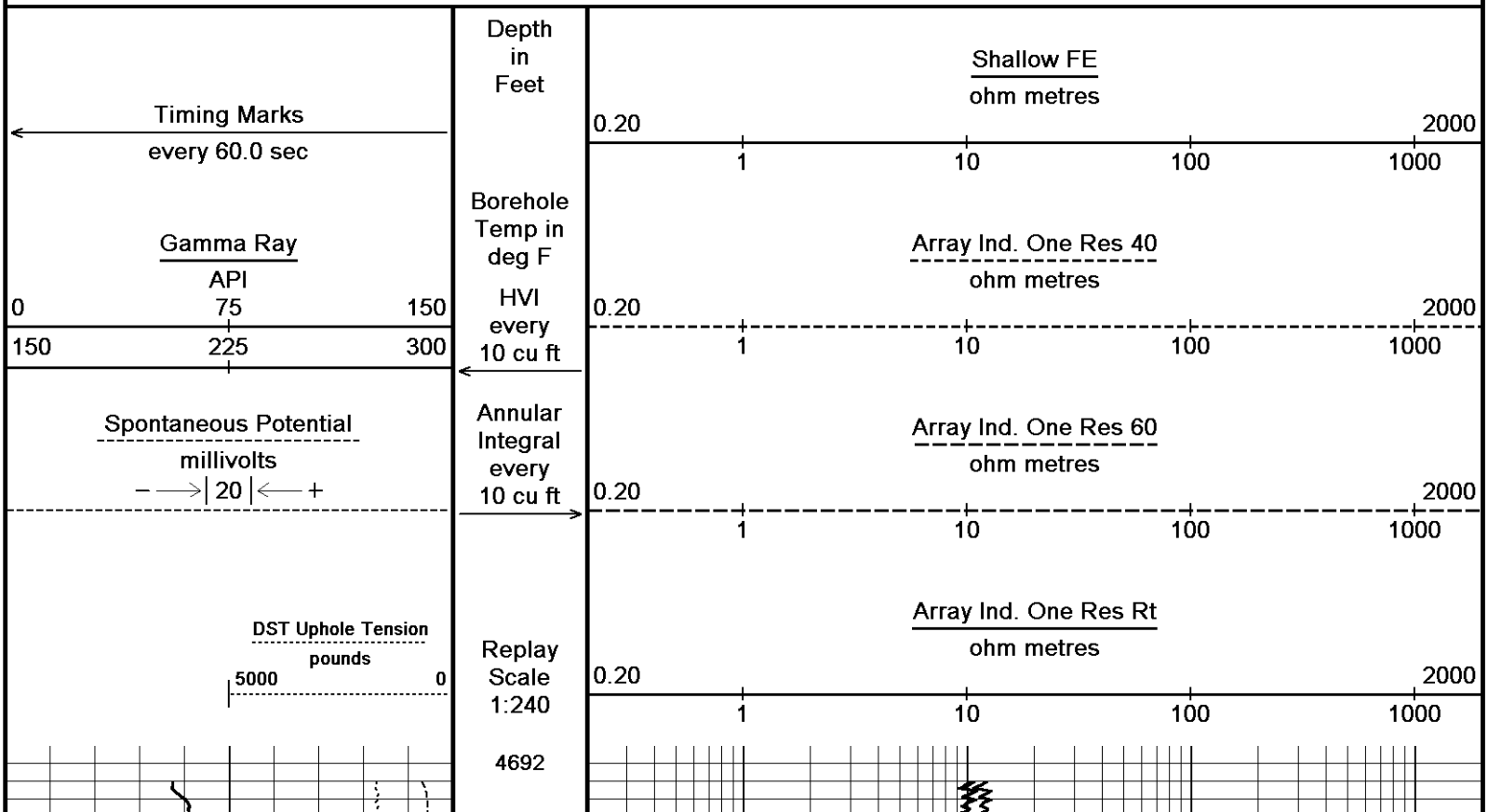


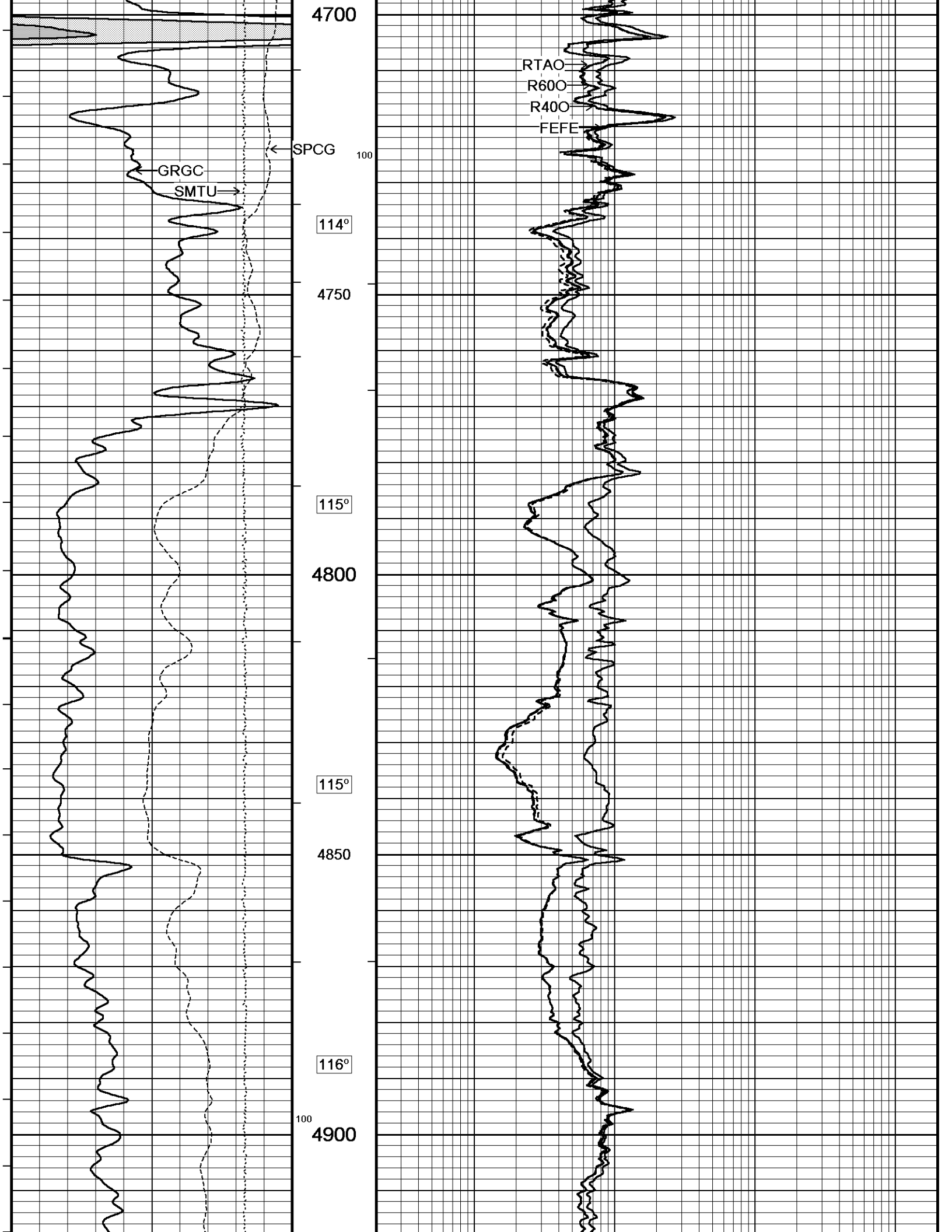
Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 06-OCT-2013 13:02
Filename: E:\CMX #1 Johnny B Goode DATA\CMX #1 Johnny B Goode Main.dta — Recorded on 04-OCT-2013 08:57
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

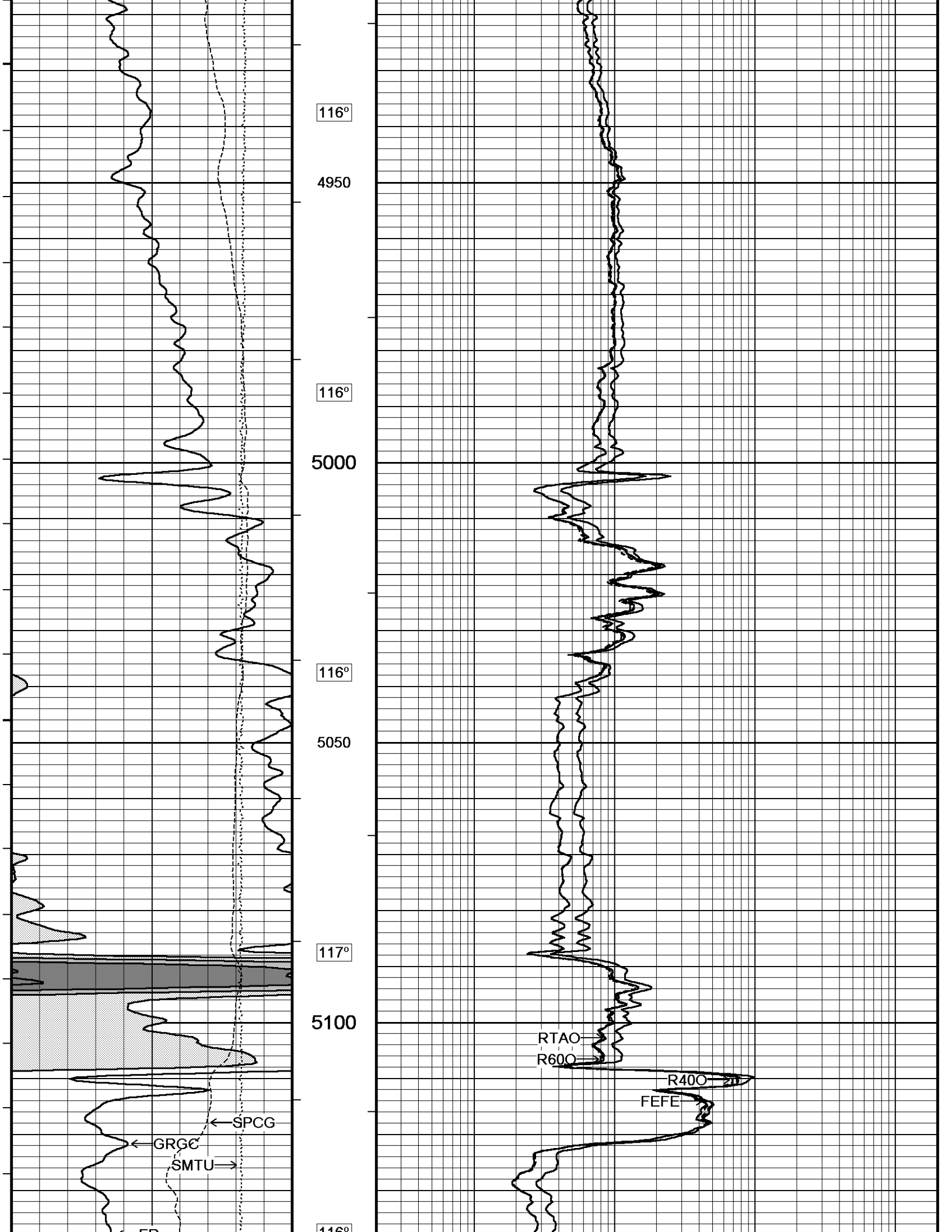
5 INCH MAIN

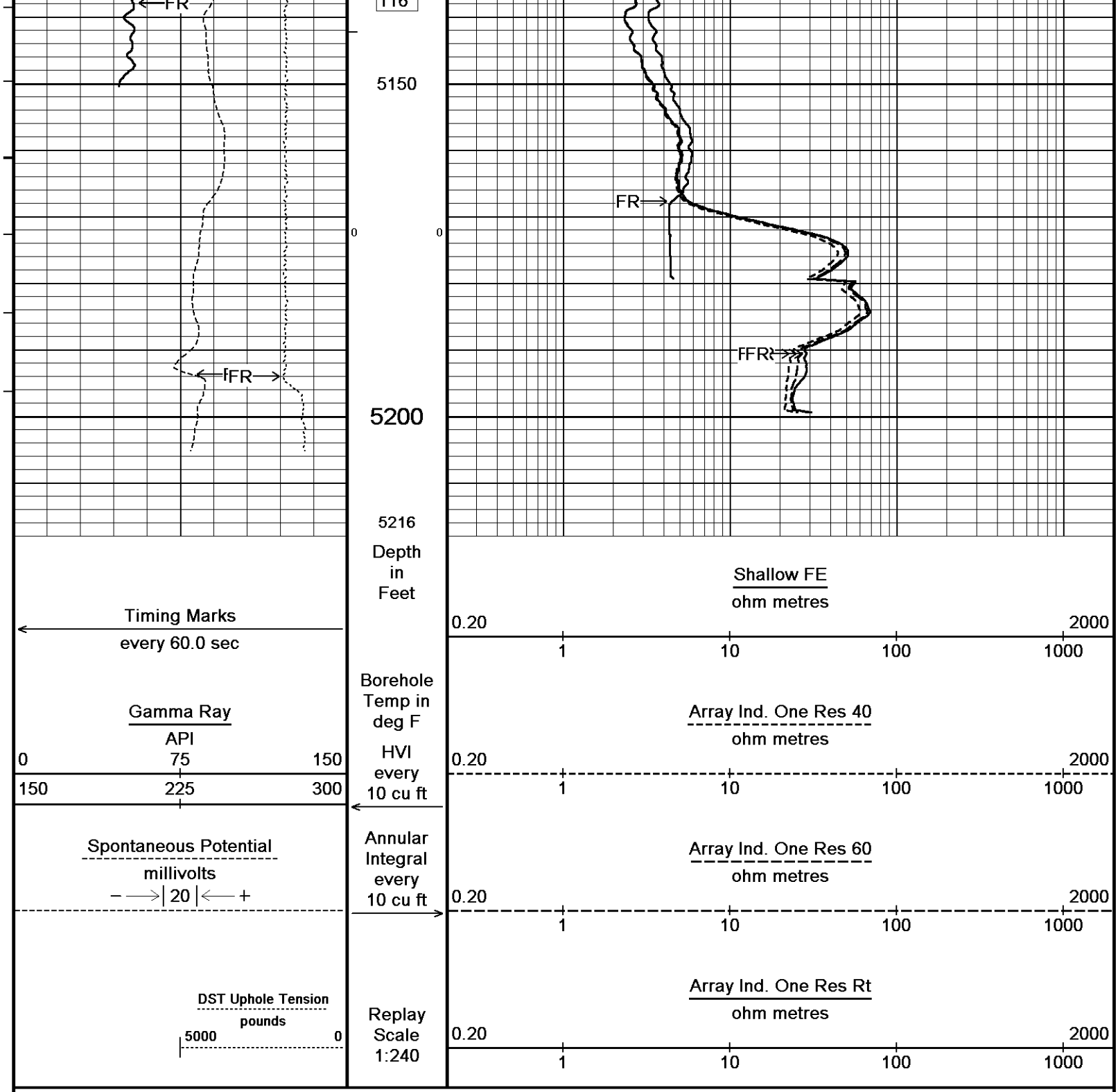
REPEAT SECTION

Depth Based Data - Maximum Sampling Increment 10.0cm — Plotted on 06-OCT-2013 13:02
Filename: E:\CMX #1 Johnny B Goode DATA\CMX #1 Johnny B Goode Repeat.dta — Recorded on 04-OCT-2013 07:57
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583




4700
SPCG
100
GRGC
SMTU
114°
4750
115°
4800
115°
4850
116°
100
4900
RTAO
R60O
R40O
FEFE


116°
4950
116°
5000
116°
5050
117°
5100
SPCG
GRGC
SMTU
RTAO
R60O
R40O
FEFE



Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 06-OCT-2013 13:02
Filename: E:\CMX #1 Johnny B Goode DATA\CMX #1 Johnny B Goode Repeat.dta
Recorded on 04-OCT-2013 07:57
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

REPEAT SECTION

BEFORE SURVEY CALIBRATION

E:\CMX #1 Johnny B Goode DATA\CMX #1 Johnny B Goode Repeat.dta

General Constants All 000

Last Edited on 03-OCT-2013,13:09

General Parameters

Mud Resistivity	0.720	ohm-metres
Mud Resistivity Temperature	83.000	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	MMR Caliper	

Rwa Parameters		
Porosity used	Crossplot Porosity	
Resistivity used	Array Ind. Six Res Rt	
RWA Constant A	1.000	
RWA Constant M	2.000	
SW/APOR Tool Source	0.000	

Down-hole Tension Calibration SMS 0

Field Calibration on 04-OCT-2013 07:05

Reading No	Measured	Calibrated (lbs)
1	15062.30	0.00
2	16928.28	480.60

SP Calibration MCG-D.K 442

Field Calibration on 09-AUG-2013,09:34

	Measured	Calibrated (mV)
Reference 1	100.9	100.0
Reference 2	-100.5	-100.0

High Resolution Temperature Calibration MCG-D.K 442

Field Calibration on 09-AUG-2013,09:35

	Measured	Calibrated(Deg F)
Lower	50.00	50.00
Upper	75.00	75.00

High Resolution Temperature Constants MCG-D.K 442

Last Edited on 09-AUG-2013,09:35

Pre-filter Length	11

Gamma Calibration MCG-D.K 442

Field Calibration on 03-OCT-2013 10:32

	Measured	Calibrated (API)
Background	72	49
Calibrator (Gross)	1140	774
Calibrator (Net)	1067	725

Gamma Constants MCG-D.K 442

Last Edited on 03-OCT-2013,10:25

Gamma Calibrator Number	GRC38	
Mud Density	1.00	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 Laterolog Calibration MMR-A 11

Base Calibration on 31-DEC-1999 00:00
Field Check on 31-DEC-1999 00:00

Base Calibration

Measured		Calibrated (ohm-m)	
Ref 1	Ref 2	Ref 1	Ref 2
0.0	0.0	0.0	0.0

Base Check (ohm-m)	Field Check (ohm-m)
0.0	0.0

Micro Laterolog Constants MMR-A 11

Last Edited on

Pad Type	6 in Solid Nylon B23059	
Micro Laterolog K Factor	0.0128	
Standoff Offset	0.0000	inches

Mudcake Thickness Correction Constants		
Mud Cake Source	Constant Value	
Mud Cake Thickness	0.4000	inches
Mud Cake Thickness Caliper		
Mud Cake Resistivity	0.1500	ohm-m

Mud Cake Resistivity	0.1500	ohm-m
Mud Cake Resistivity Temp.	68.00	Deg F
Mud Cake Resistivity Source	Constant Value	
Temp. Source Rmc Correc.	MCG External Temperature	

Caliper Calibration MMR-A 11

Base Calibration on 01-OCT-2013 09:07
Field Calibration on 03-OCT-2013 10:24

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	14311	5.98
2	17410	7.97
3	20706	9.86
4	24667	11.92
5	0	0.00
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
7.95	7.97

Micro Normal and Micro Inverse Calibration MMR-A 11

Base Calibration on 01-OCT-2013 08:58
Field Check on 01-OCT-2013 09:00

Base Calibration

	Measured		Calibrated (ohm-m)	
Channel	Resistor 1	Resistor 2	Resistor 1	Resistor 2
Micro Normal	12.1	58.8	5.0	25.0
Micro Inverse	15.4	76.4	5.0	25.0

Channel	Base Check (ohm-m)	Field Check (ohm-m)
Micro Normal	77.8	77.8
Micro Inverse	59.6	59.6

Micro Normal and Micro Inverse Constants MMR-A 11

Last Edited on 18-APR-2013,13:52

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	0.0000	inches

Neutron Calibration MDN-A.B 65

Base Calibration on 12-SEP-2013 15:12
Field Check on 03-OCT-2013 10:37

Base Calibration

	Measured		Calibrated (cps)	
	Near	Far	Near	Far
	3130	94	3714	110
Ratio	33.369		33.764	

Field Calibrator at Base

	Calibrated (cps)	
	1648	2461
Ratio	0.670	

Field Check

	Calibrated (cps)	
	1640	2460
Ratio	0.674	

Neutron Constants MDN-A.B 65

Last Edited on 03-OCT-2013,13:09

Neutron Source Id	PN-521	
Neutron Jig Number	5824NE	
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	None	
Formation Pressure	N/A	kpsi
Temperature Source	Constant Value	
Temperature	68.00	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	

FE Calibration MFE-B.J 352

Base Calibration on 12-SEP-2013 11:04
Field Check on 03-OCT-2013 10:16

Base Calibration

	Measured	Calibrated (ohm-m)
Reference 1	0.0	0.0
Reference 2	963.1	126.8
Base Check		281.6
Field Check		281.7

FE Constants MFE-B.J 352

Last Edited on 03-OCT-2013,13:08

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-A.A 126

Last Edited on 03-OCT-2013,13:10

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 Sonic	
Correction for Sonde Skew	Applied	
Cycle Stretch Algorithm	Applied	
MN3FT	N/A	micro-sec
MX3FT	N/A	micro-sec
Hunt-Raymer Constant	83.13	micro-sec/ft
Sonde Mode	Compensated	
Hole Type	Open Hole	

Sonde Parameters

	Measured	Calibrated
Offset	N/A	0.0000
Free Pipe	N/A	N/A

Peak Amplitude Source N/A

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
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)	N/A
N/A	N/A	N/A	
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	

Full Waveform Parameters

Use 3' Waveform to derive TR	N/A	
Use 4' Waveform to derive TR	N/A	
Use 5' Waveform to derive TR	N/A	
Use 6' Waveform to derive TR	N/A	
3' Waveform Discriminator Level	N/A	mV
4' Waveform Discriminator Level	N/A	mV
5' Waveform Discriminator Level	N/A	mV

5' Waveform Discriminator Level	N/A	mV
6' Waveform Discriminator Level	N/A	mV
3' Waveform Filter	N/A	
4' Waveform Filter	N/A	
5' Waveform Filter	N/A	
6' Waveform Filter	N/A	
Semblance Level	N/A	
Semblance Window Width	N/A	micro-sec
Sonic 1 Despiker	N/A	N/A
Sonic 2 Despiker	N/A	N/A

High Resolution Temperature Calibration MAI-A.A 45

Field Calibration on 21-AUG-2013,11:21

	Measured	Calibrated(Deg F)
Lower	50.00	50.00
Upper	75.00	75.00

High Resolution Temperature Constants MAI-A.A 45

Last Edited on 21-AUG-2013,11:21

Pre-filter Length	11

Induction Calibration MAI-A.A 45

Base Calibration on 21-MAY-2013,16:47
Field Check on 03-OCT-2013 10:14

Base Calibration

Test Loop Calibration	Measured		Calibrated (mmho/m)	
Channel	Low	High	Low	High
1	14.4	472.6	9.3	966.2
2	5.7	374.0	7.6	821.4
3	3.4	261.2	5.2	566.0
4	2.5	133.9	2.6	279.2

Array Temperature	0.0	Deg F

Channel	Base Check (mmho/m)		Field Check (mmho/m)	
	Low	High	Low	High
1			19.1	3851.7
2			31.8	3629.0
3			28.7	3049.0
4			18.3	2078.8
Deep			16.1	1910.9
Medium			42.5	4059.9
Shallow			49.8	5482.7

Array Temperature	71.1	Deg F

Induction Constants MAI-A.A 45

Last Edited on 03-OCT-2013,13:07

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	8.0000	
Stand-off Fin Angle	45.00	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	

Photo Density Calibration MPD-B 31

Base Calibration on 12-SEP-2013 14:34
Field Check on 03-OCT-2013 10:22

Density Calibration

Base Calibration	Measured		Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	44533	22959	59556	30836
Reference 2	18249	1888	24941	2541
Field Check at Base	671.8	823.4		
Field Check	668.3	827.1		

PE Calibration

Base Calibration	Measured			Calibrated
	WS	WH	Ratio	Ratio
Background	125	598		
Reference 1	18732	44423	0.425	0.371
Reference 2	5465	18167	0.304	0.272
Field Check at Base	125.0	597.9		
Field Check	122.7	592.4		

Density Constants MPD-B 31

Last Edited on 03-OCT-2013,10:18

Density Source Id	254	
Nylon Calibrator Number	DNCE695	
Aluminium Calibrator Number	DACD698	
Density Shoe Profile	8 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.00	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	

Caliper Calibration MPD-B 31

Base Calibration on 12-SEP-2013 14:44
Field Calibration on 03-OCT-2013 10:17

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	17985	3.99
2	27104	5.98

2	27104	5.98
3	35456	7.97
4	43696	9.86
5	52880	11.92
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
7.92	7.97

DOWNHOLE EQUIPMENT

E:\CMX #1 Johnny B Goode DATA\CMX #1 Johnny B Goode Repeat.dta

CBH-C, Cablehead, 11 pin
CBH-CA 170 LG: 2.40 ft WT: 24.3 lb OD: 2.24 in

Compact Comms Gamma
MCG-D.K 442 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Compact Micro-Resistivity
MMR-A 11 LG: 8.59 ft WT: 81.6 lb OD: 4.88 in

Compact Neutron
MDN-A.B 65 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

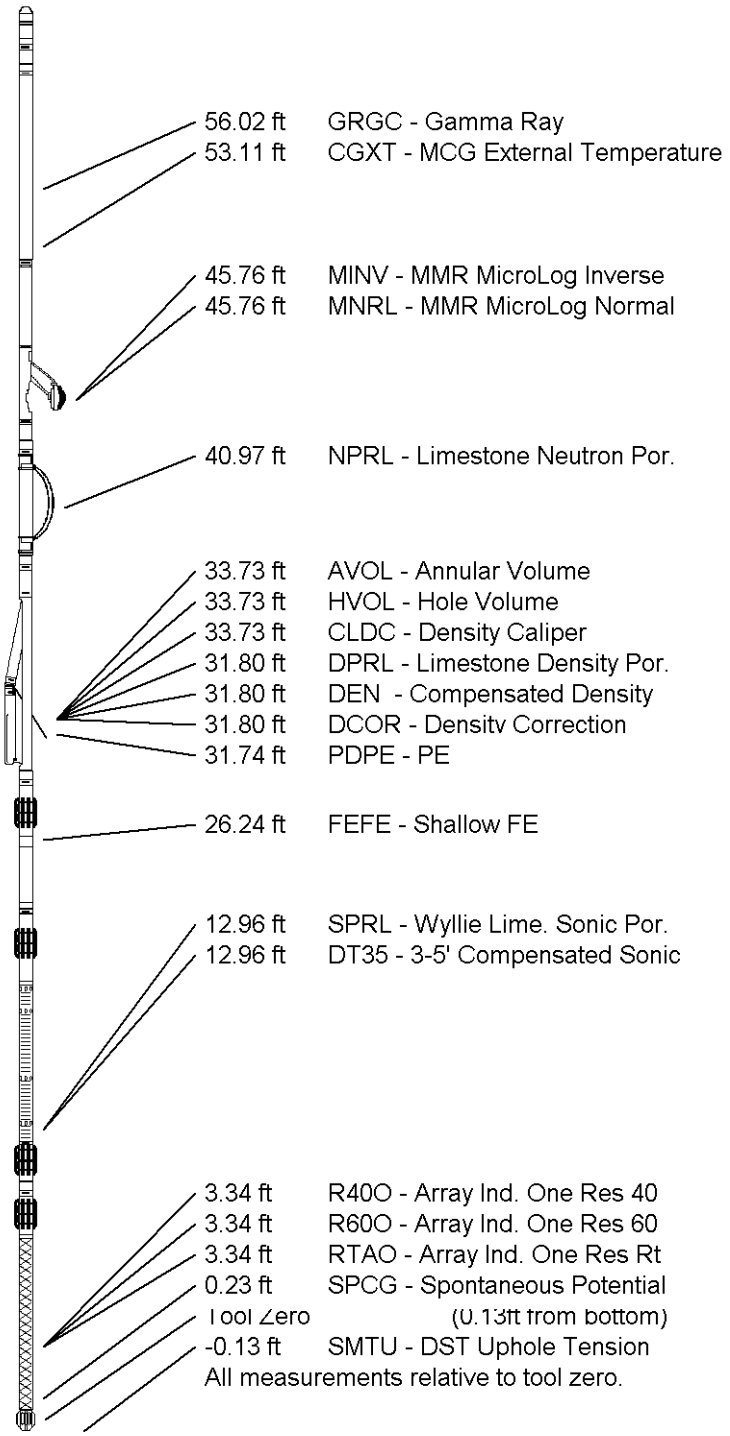
Compact Density/Caliper
MPD-B 31 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in

Compact Focussed Electric
MFE-B.J 352 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

Compact Sonic
MSS-A.A 126 LG: 12.52 ft WT: 72.8 lb OD: 2.24 in

Compact Induction
MAI-A.A 45 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 63.70 ft Weight: 480.6 lb



COMPANY	CMX, INC.
WELL	#1 JOHNNY B. GOODE
FIELD	STRANATHAN

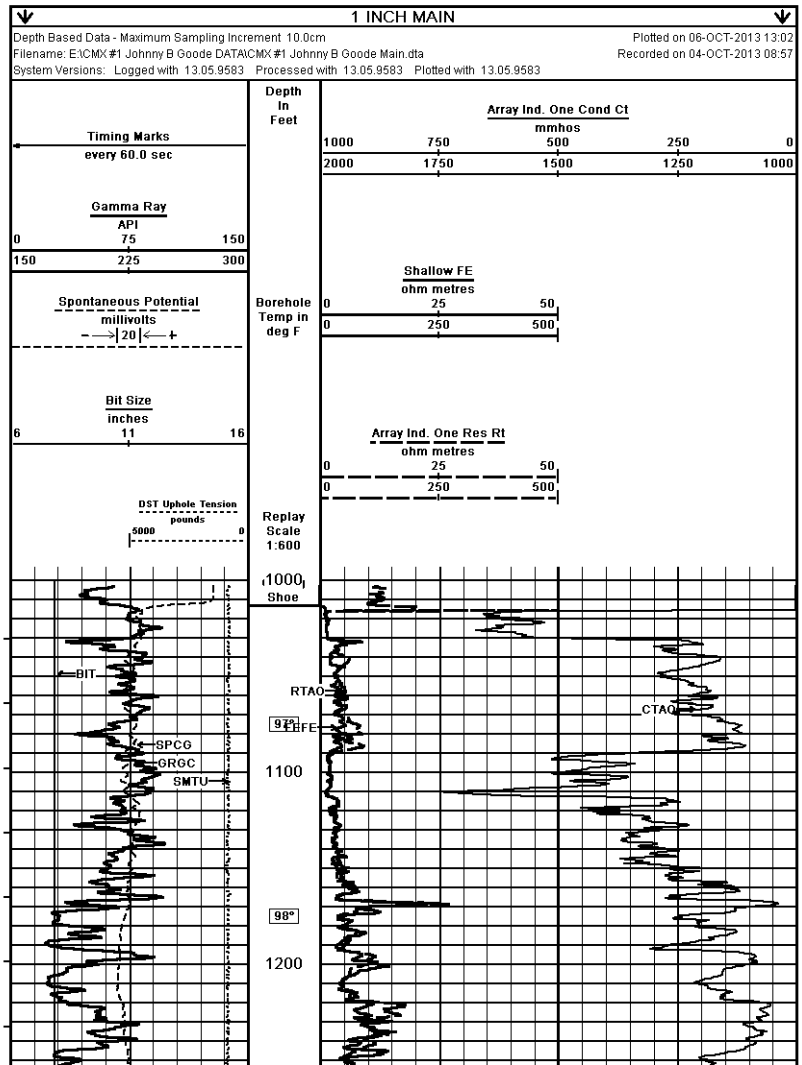
PROVINCE/COUNTY	BARBER				
COUNTRY/STATE	U.S.A. / KANSAS				
Elevation Kelly Bushing	1379.00	feet	First Reading	5191.00	feet
Elevation Drill Floor	1377.00	feet	Depth Driller	5190.00	feet
Elevation Ground Level	1371.00	feet	Depth Logger	5194.00	feet

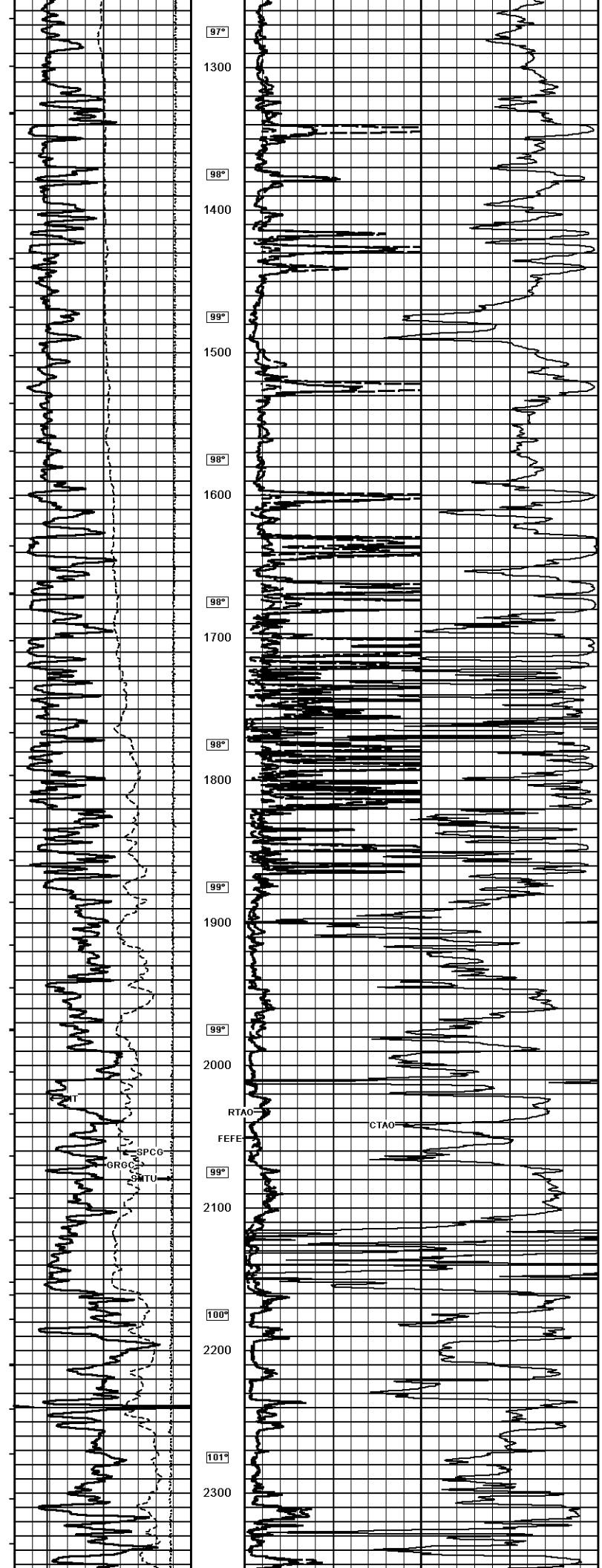
Weatherford®

ARRAY INDUCTION SHALLOW FOCUSED ELECTRIC LOG

COMPANY	CMX, INC.
WELL	#1 JOHNNY B. GOODE
FIELD	STRANATHAN
PROVINCE/COUNTY	BARBER
COUNTRY/STATE	U.S.A. / KANSAS
LOCATION	2000' FSL & 1455' FEL
	SE NE NW SE
SEC	6
TWP	35S
RGE	11W
API Number	15-007-24087
Other Services	MPD/MDN, MML, MSS
Permanent Datum	GL Elevation 1371 feet
Log Measured From	KB
Drilling Measured From	KB @ 8 FEET
Elevations: KB	1379.00 feet
DF	1377.00
GL	1371.00
Date	03-OCT-2013
Run Number	ONE
Service Order	3541120
Depth Driller	5190.00 feet
Depth Logger	5194.00 feet
First Reading	5191.00 feet
Last Reading	1013.00 feet
Casing Driller	1012.00 feet
Casing Logger	1013.00 feet
Bit Size	7.875 inches
Hole Fluid Type	CHEMICAL
Density/Viscosity	9.40 lb/USg 64.00 CP
PH / Fluid Loss	9.40 11.20 ml/30Min
Sample Source	FLOWLINE
Rm @ Measured Temp	0.68 @ 80.0 ohm-m
Rmf @ Measured Temp	0.54 @ 80.0 ohm-m
Rmc @ Measured Temp	0.82 @ 80.0 ohm-m
Source Rmf / Rmc	CALC CALC
Rm @ BHT	0.46 @ 119.0 ohm-m
Time Since Circulation	3 HOURS
Max Recorded Temp	119.00 deg F
Equipment / Base	13057 KANSAS
Recorded By	D. COLE
Witnessed By	L. KASTEN
JOB#	LB13-289
	J. LAPOINT

ARRAY INDUCTION
SHALLOW FOCUSED
ELECTRIC LOG

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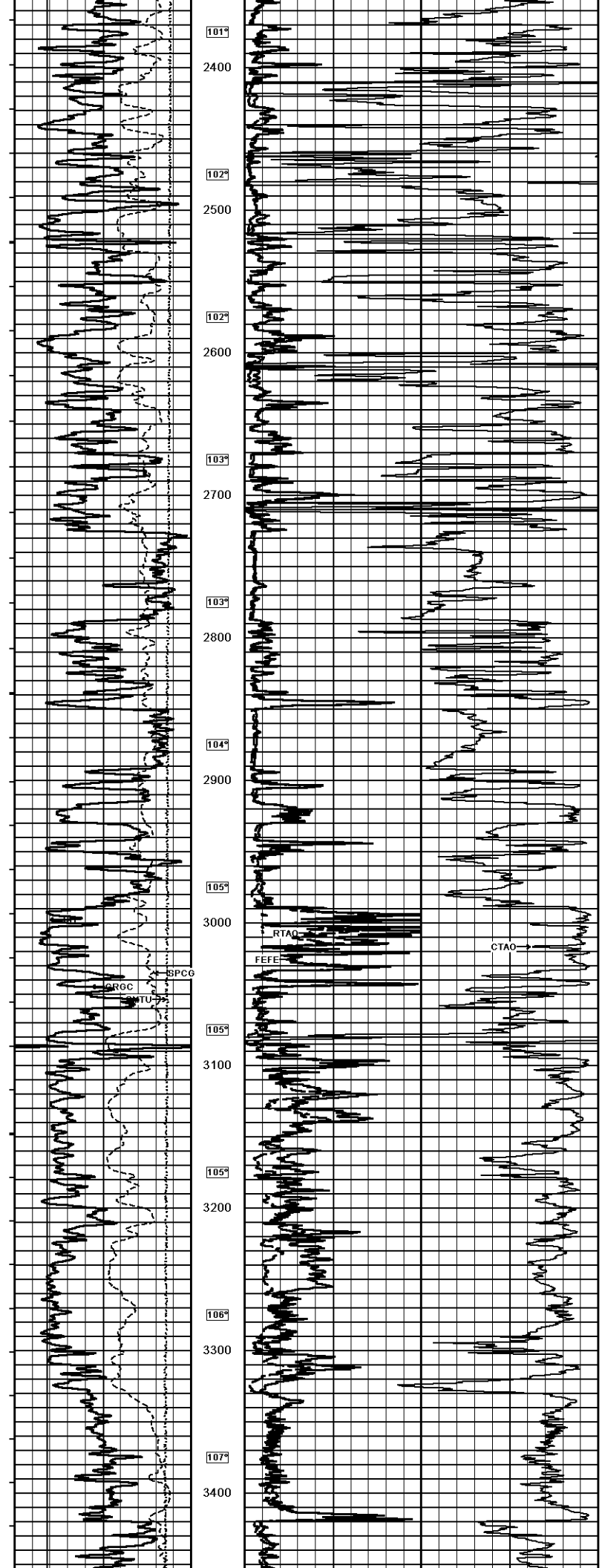
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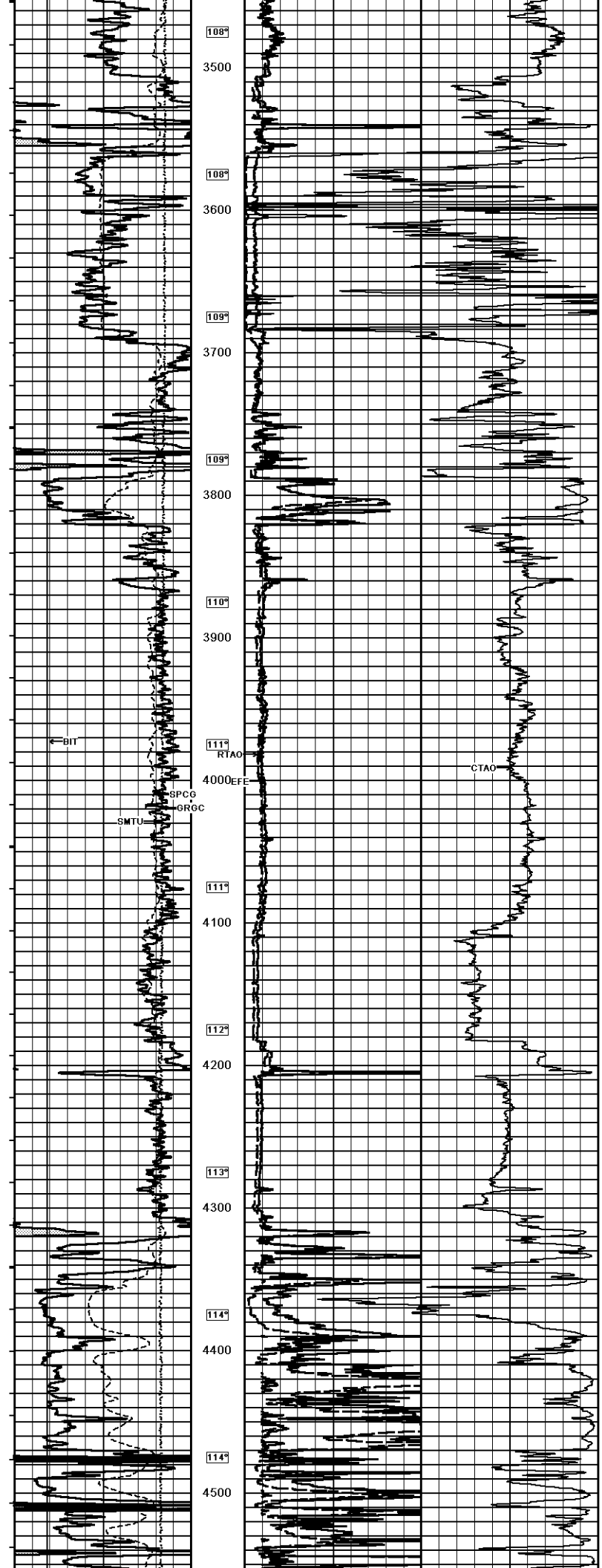
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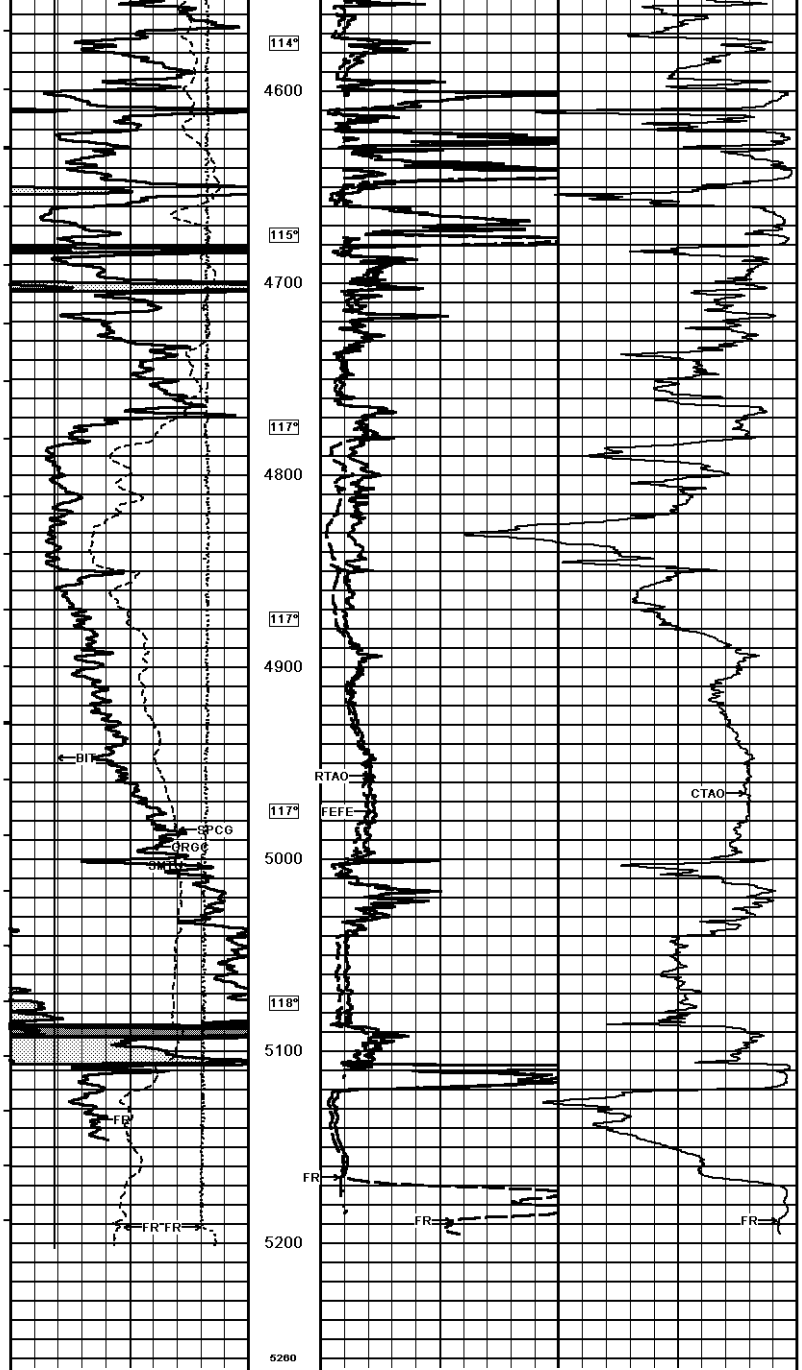

Depth Based Data - Maximum Sampling Increment 10.0cm
Plotted on 06-OCT-2013 13:02
Filename: E:\CMX #1 Johnny B Goode DATA\CMX #1 Johnny B Goode Main.dta
Recorded on 04-OCT-2013 08:57
System Versions: Logged with 13.05.9583 Processed with 13.05.9583 Plotted with 13.05.9583

1 INCH MAIN

COMPANY	CMX, INC.
WELL	#1 JOHNNY B. GOODE
FIELD	STRANATHAN
PROVINCE/COUNTY	BARBER
COUNTRY/STATE	U.S.A. / KANSAS

Elevation Kelly Bushing	1379.00	feet	First Reading	5191.00	feet
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Weatherford

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SHALLOW FOCUSED
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