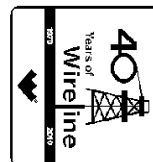




Weatherford

**COMPACT TRIPLE COMBO
QUICKLOOK
LOG**

COMPANY **BILL BARRETT CORPORATION**
WELL **KAUFMAN 12A-25-692**
FIELD **MAMM CREEK**
PROVINCE/COUNTY **GARFIELD**
COUNTRY/STATE **U.S.A. / COLORADO**
LOCATION **SHL: 2184' FSL & 1617' FWL**
BHL: 2490' FNL & 620' FWL



SEC 25 TWP 6S RGE 92W Other Services
API Number 05-045-19656
Permit Number

Permanent Datum G.L., Elevation 5922 feet
Log Measured From KB above Permanent Datum
Drilling Measured From K.B. @ 23 FT.

Elevations: feet
KB 5945.00
DF 5944.00
GL 5922.00

Date	03-JULY-2011		
Run Number	ONE		
Depth Driller	7602.00	feet	
Depth Logger	7596.00	feet	
First Reading	7593.00		
Last Reading	809.00		
Casing Driller	810.00	feet	
Casing Logger	809.00	feet	
Bit Size	7.875	inches	
Hole Fluid Type	LSND		
Density / Viscosity	10.50 lb/USg	48.00 CP	
PH / Fluid Loss	9.80	6.40 ml/30Min	
Sample Source	FLOW LINE		
Rm @ Measured Temp	2.55 @123.0	ohm-m	
Rmf @ Measured Temp	2.04 @123.0	ohm-m	
Rmc @ Measured Temp	3.06 @123.0	ohm-m	
Source Rmf / Rmc	CALC	CALC	
Rm @ BHT	1.607 @197.0	ohm-m	
Time Since Circulation	8 HOURS		
Max Recorded Temp	197.00	deg F	
Equipment Name	COMPACT		
Equipment / Base	13045	GD JCT	
Recorded By	D. KUNTZ		
Witnessed By	C. CROWTON		

BOREHOLE RECORD

Last Edited: 03-JUL-2011 18:31

Bit Size inches	Depth From feet	Depth To feet
8.750	809.00	4726.00
7.880	4726.00	7602.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	9.625	0.00	809.00	36.00

REMARKS

LOGGING SOFTWARE USED: 11.03.3186

TOOLS: SHA,MCG, MDN, MPD, SKJ, MFE AND MAI RAN IN COMBINATION.

HARDWARE: MPD: 8 INCH PROFILE PLATE USED.
TWO 0.5 INCH STANDOFFS USED ON INDUCTION.
ONE 0.5 INCH STANDOFF USED ON MFE.
DUAL BOWSPRING USED ON NEUTRON.

2.68 G/CC DENSITY MATRIX USED TO CALCULATE POROSITY

2.68 G/CC DENSITY MATRIX USED TO CALCULATE POROSITY.

ALL INTERVALS LOGGED AND SCALED PER CUSTOMER'S REQUEST.

TIGHT PULLS, BOREHOLE SIZE, AND RUGOSITY WILL AFFECT REPEATABILITY AND DATA QUALITY.

MORE REPEAT SECTIONS NOT PERFORMED DUE TO MULTIPLE TIGHT PULLS JUST ABOVE REPEAT SECTION.

TIGHT PULLS ENCOUNTERED AT FOLLOWING DEPTHS: BETWEEN 7080 FT AND 7190 FT, 6770 FT.

CALIPER CHECK IN CASING PRESENTED, REFERENCE I.D. = 8.92" (9 5/8", 36 LB/FT CASING).

8.75 INCH BIT CHANGE AT 4726 FT.

TOTAL HOLE VOLUME FROM TD TO SURFACE CASING = 2630 CU.FT.

ANNULAR VOLUME WITH 4.5 INCH PRODUCTION CASING = 1880 CU.FT.

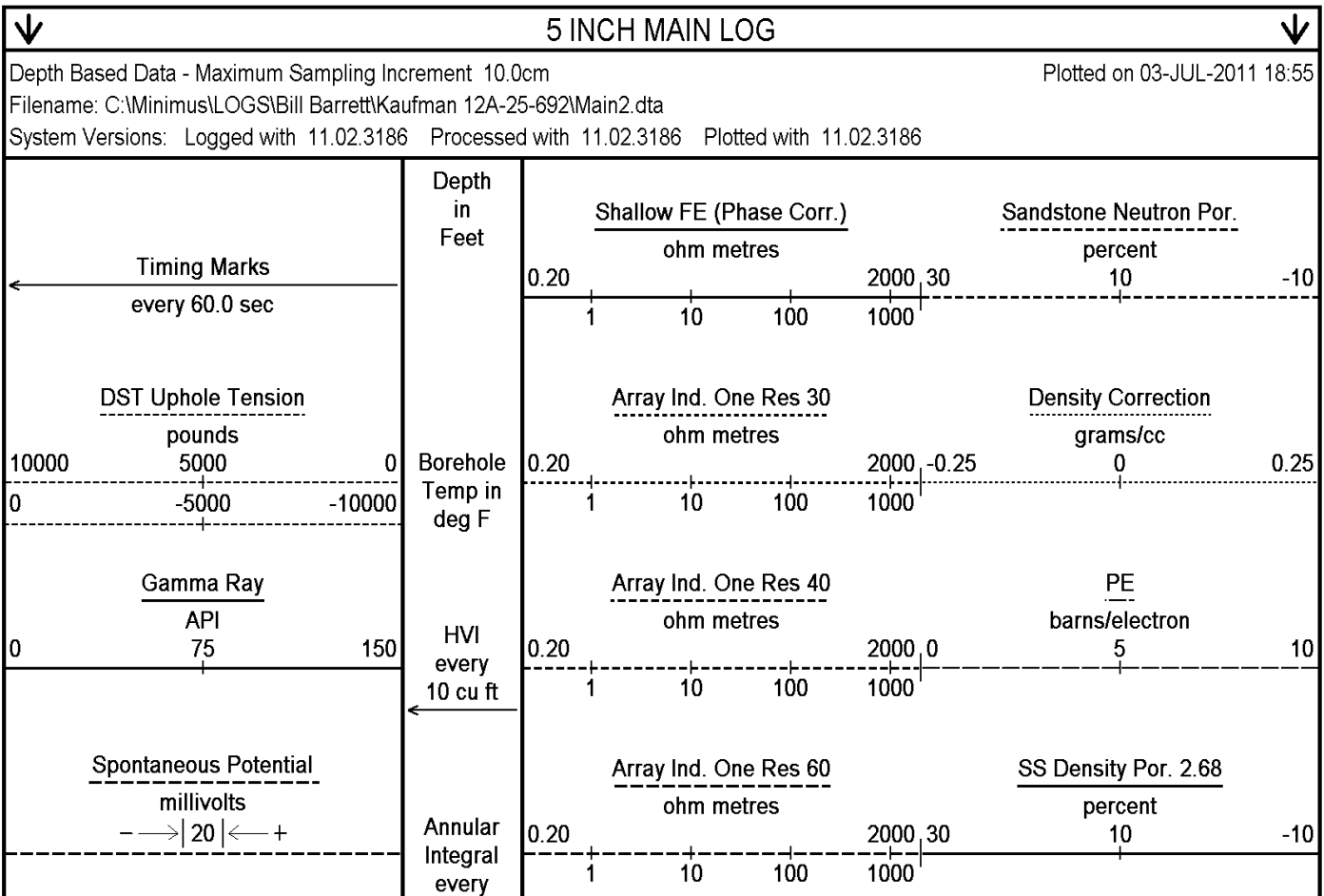
ENGINEER(S): D. KUNTZ

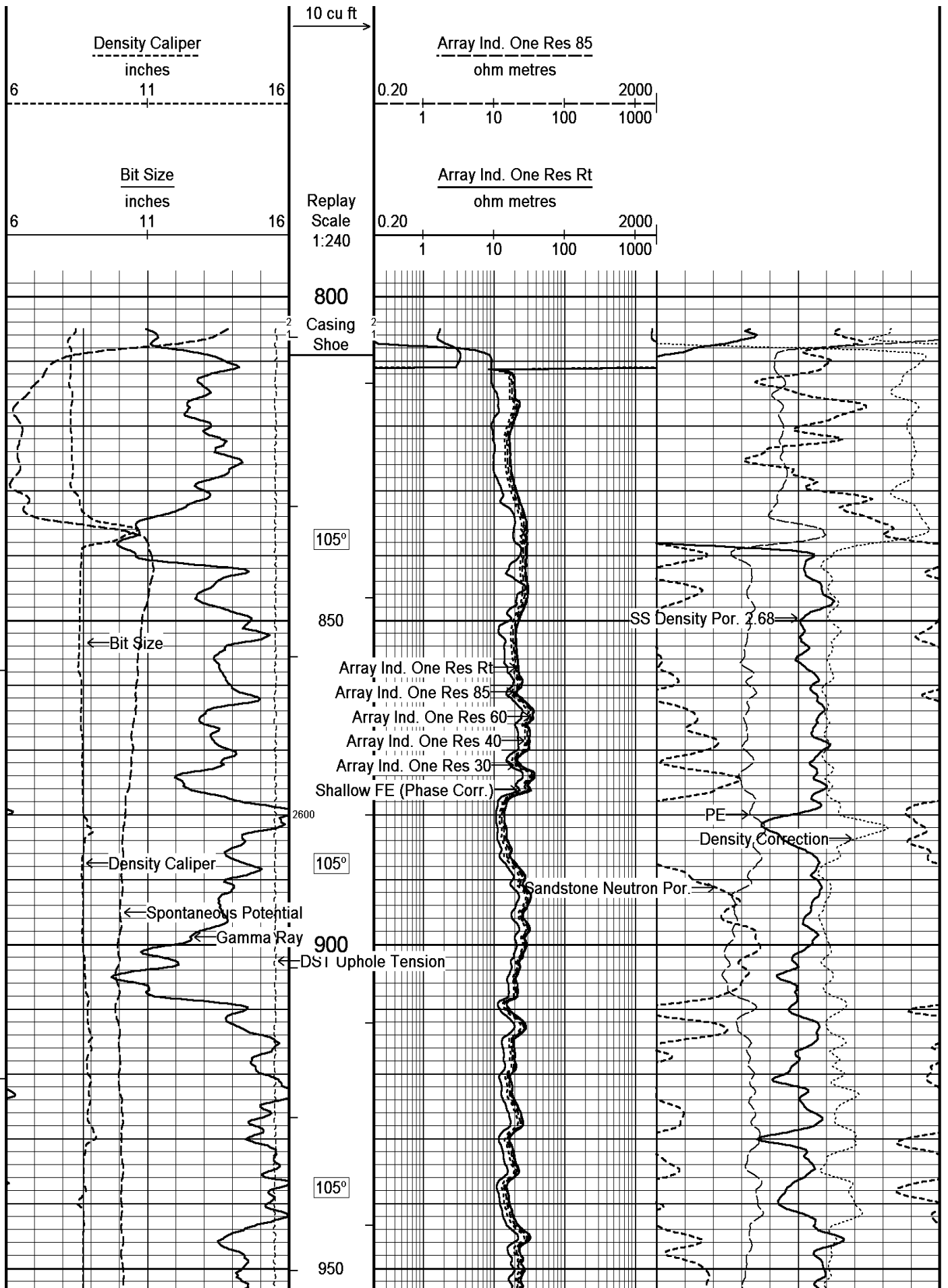
OPERATOR(S): S. KAISER

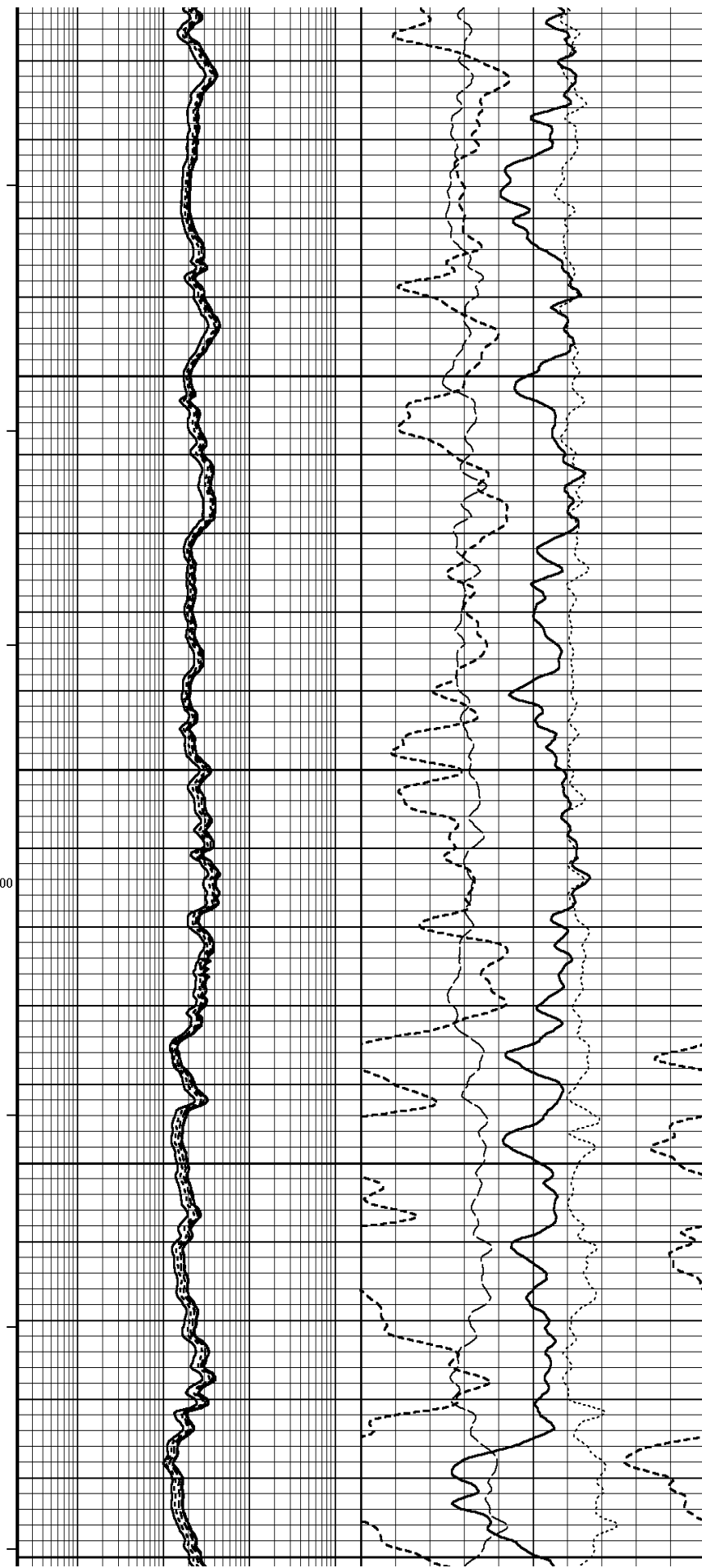
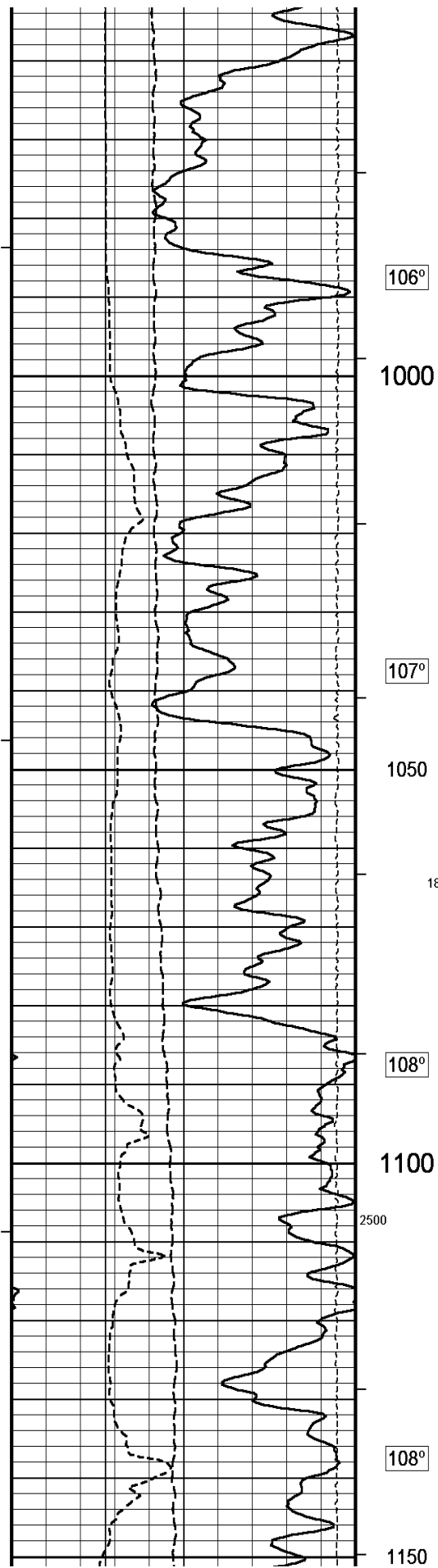
SERVICE ORDER: # 3524990

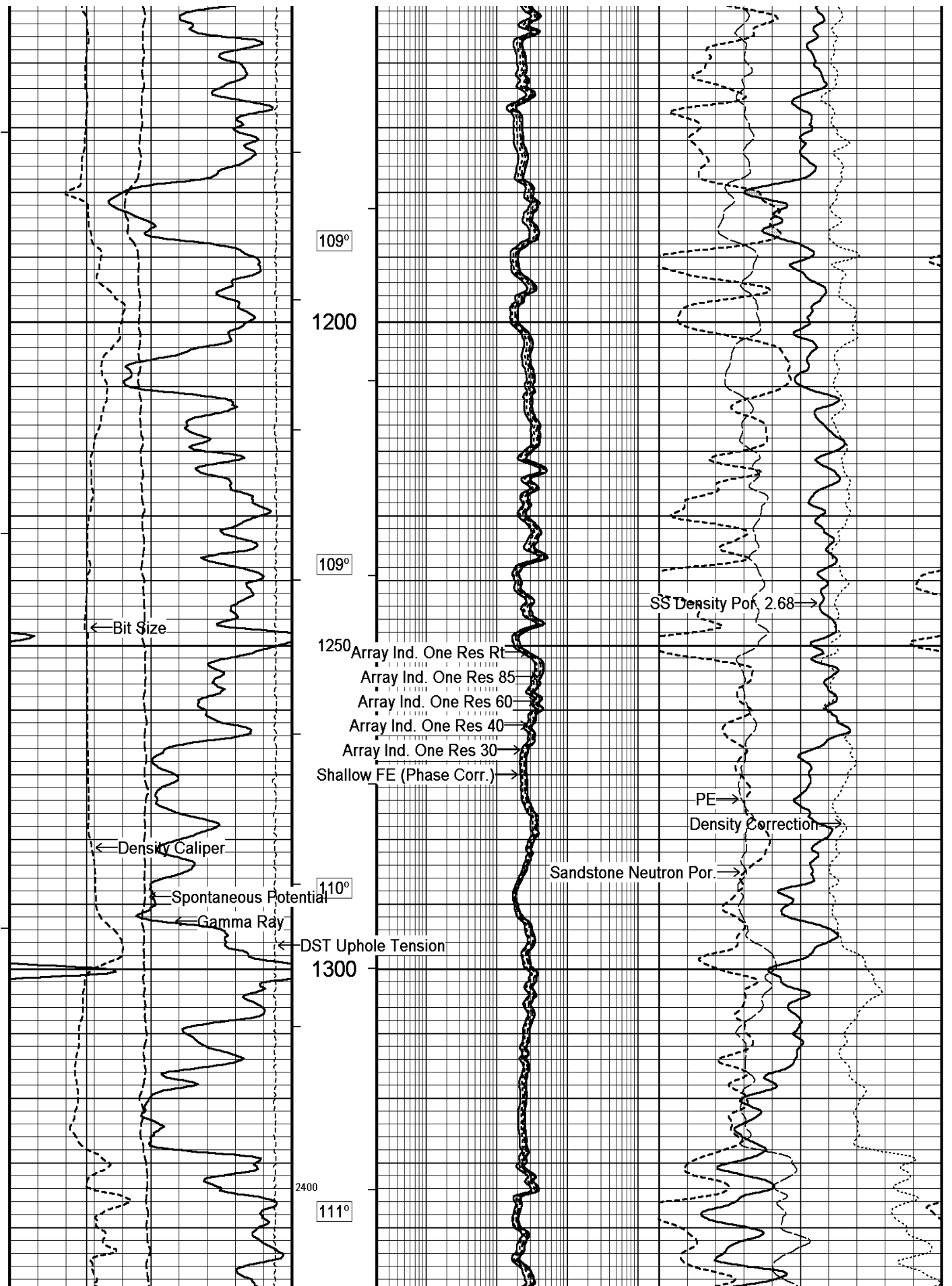
RIG: PATTERSON #307

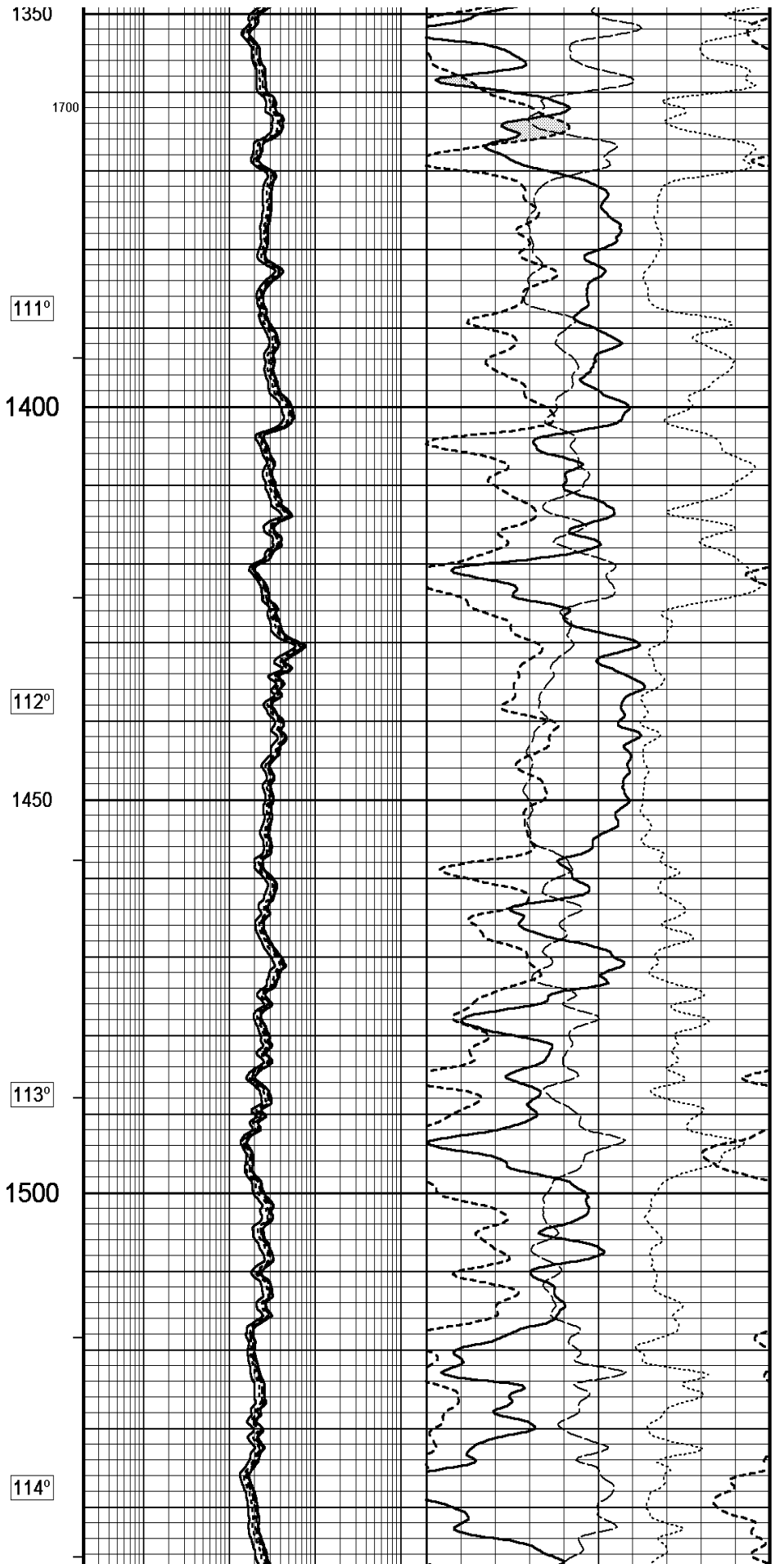
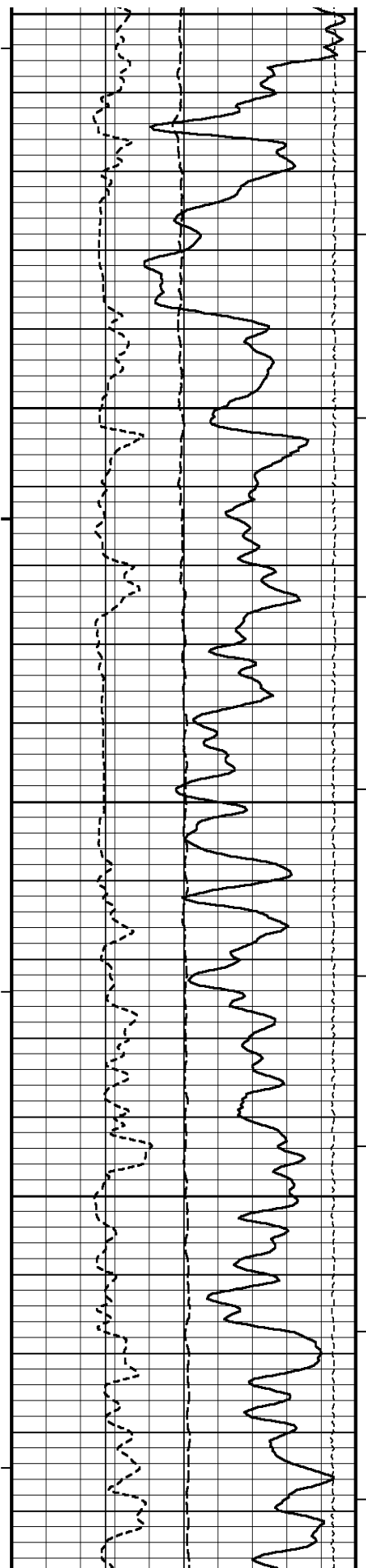
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs, 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.

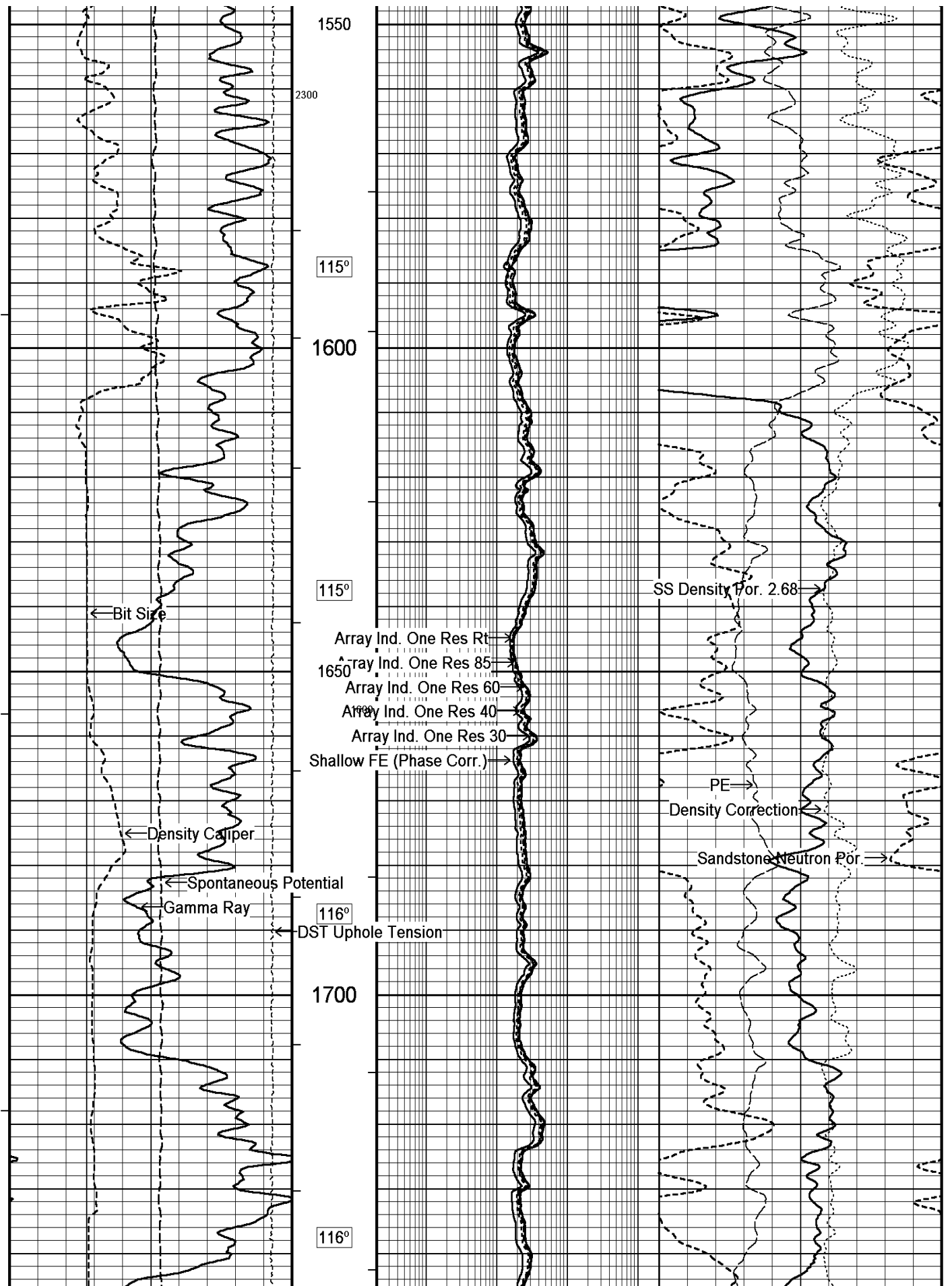


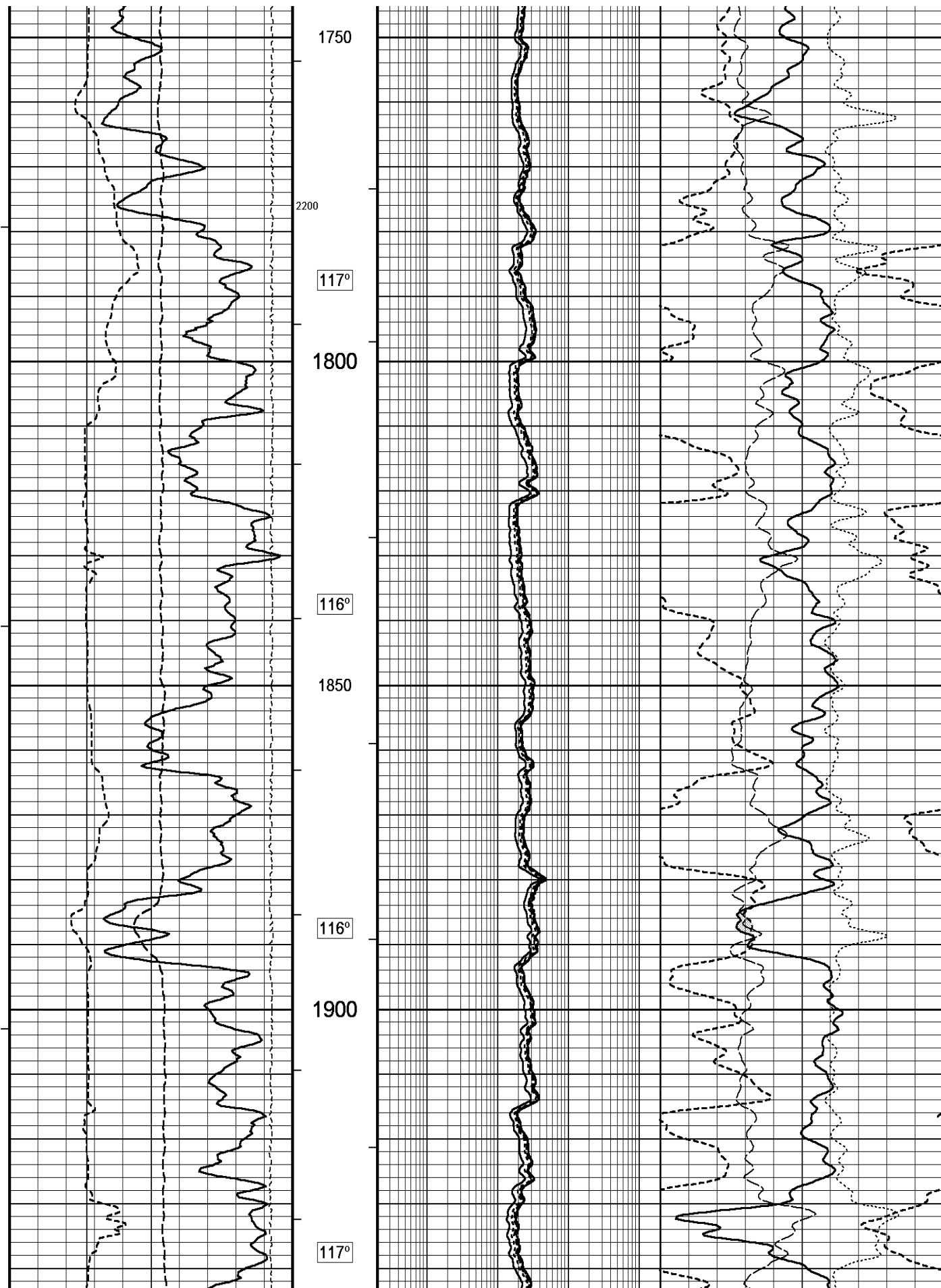


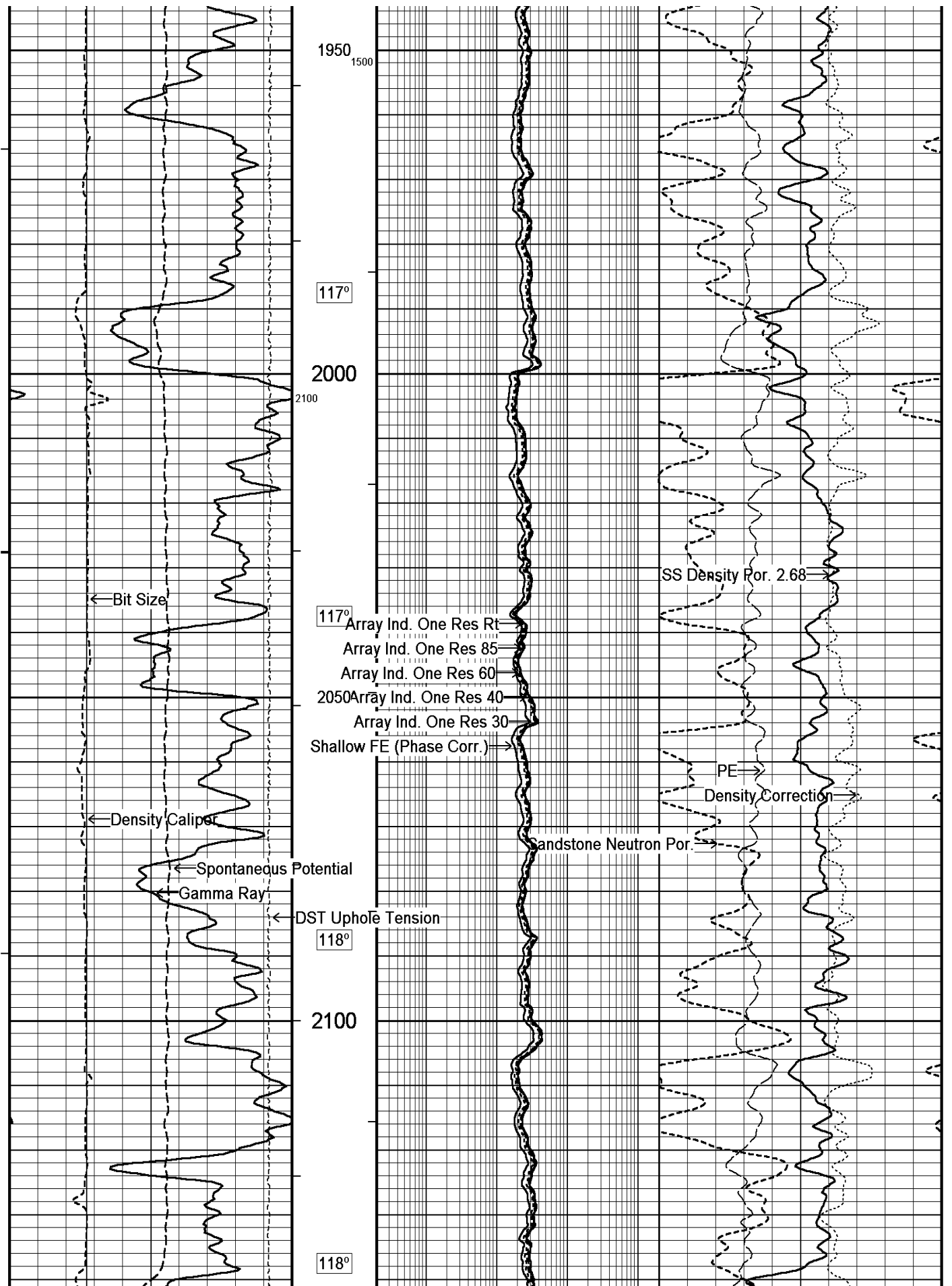


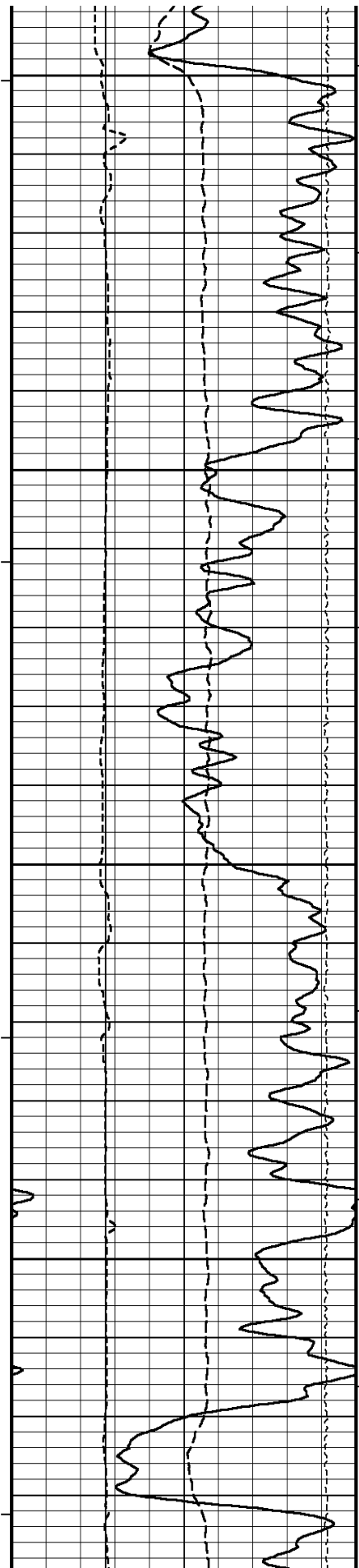












2150

119°

2200

119°

2000

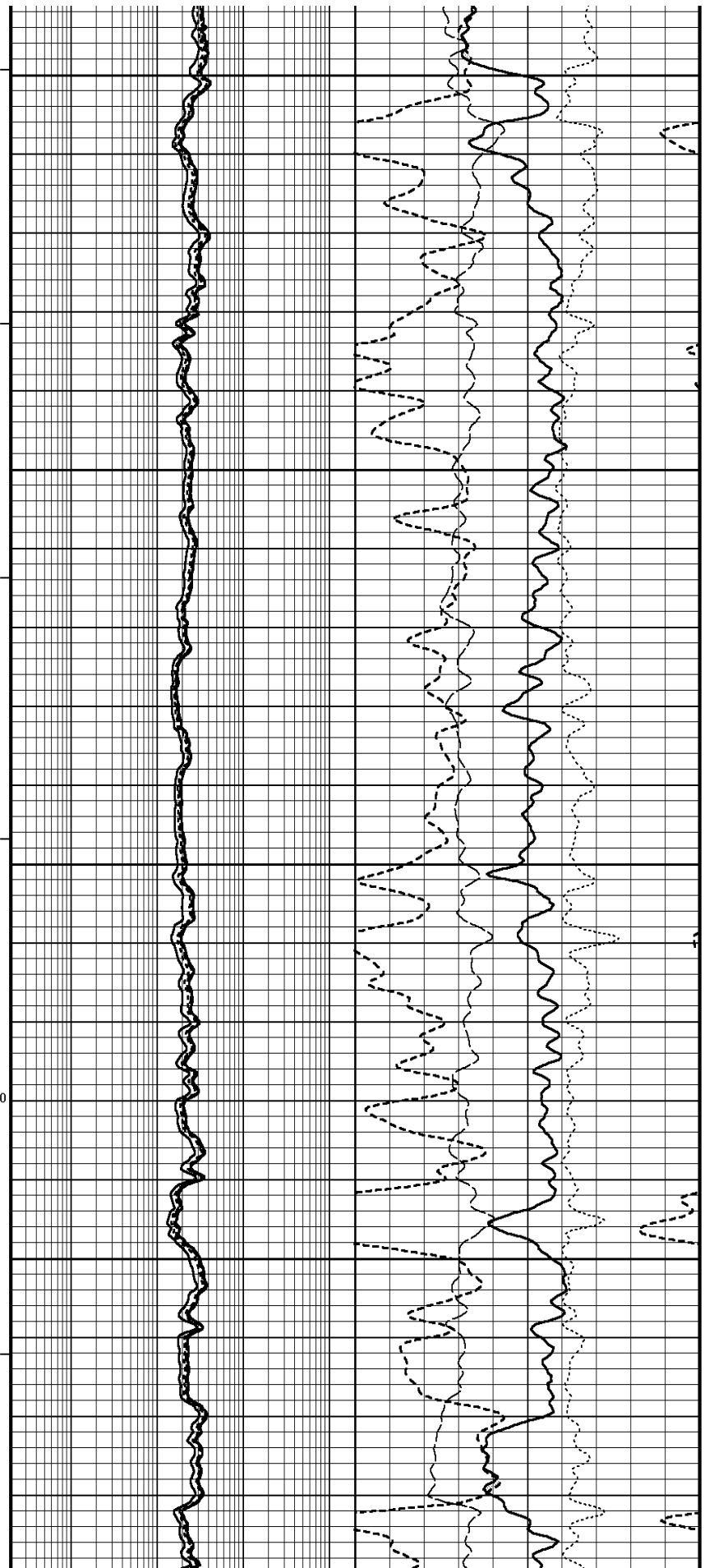
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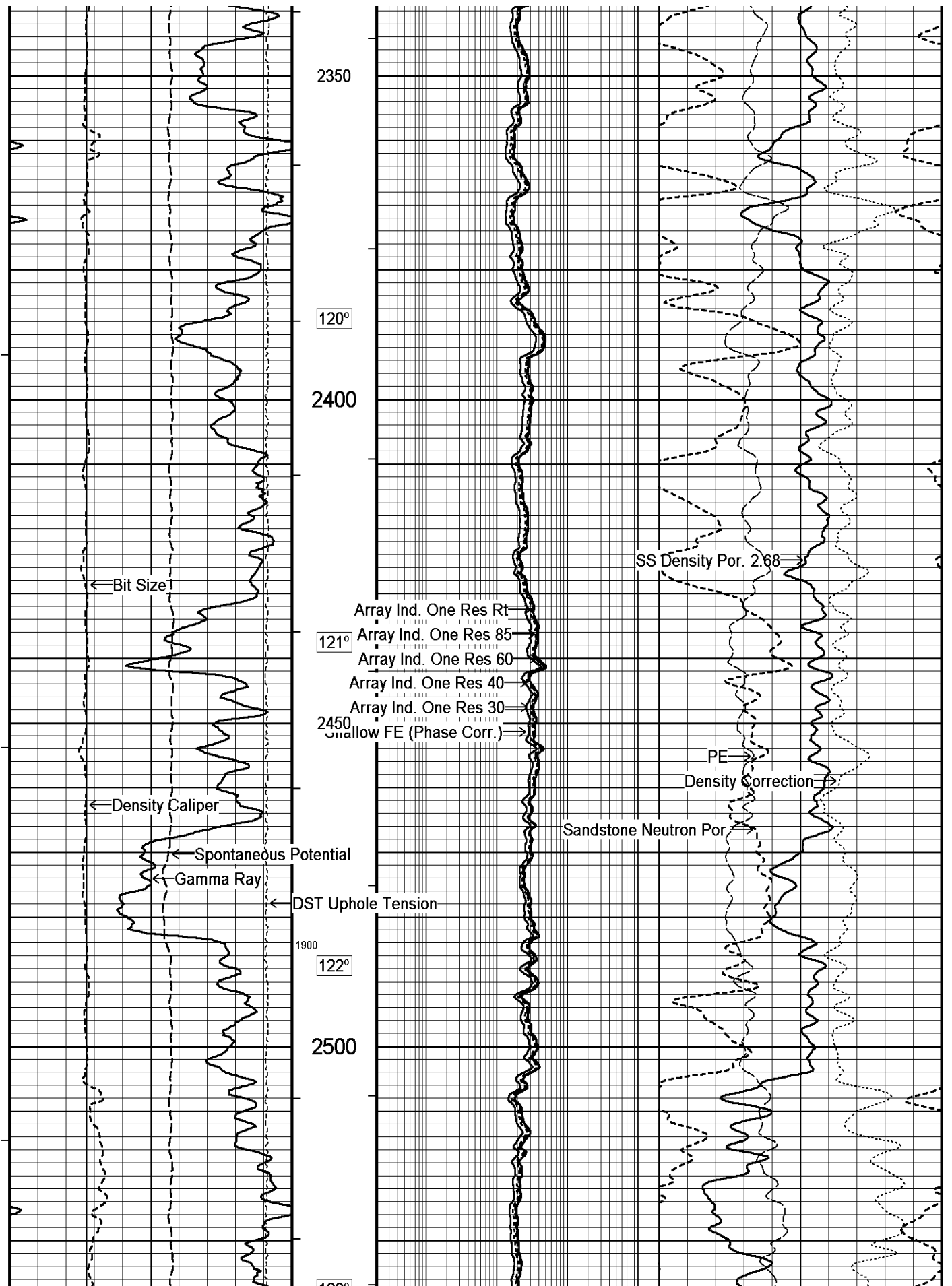
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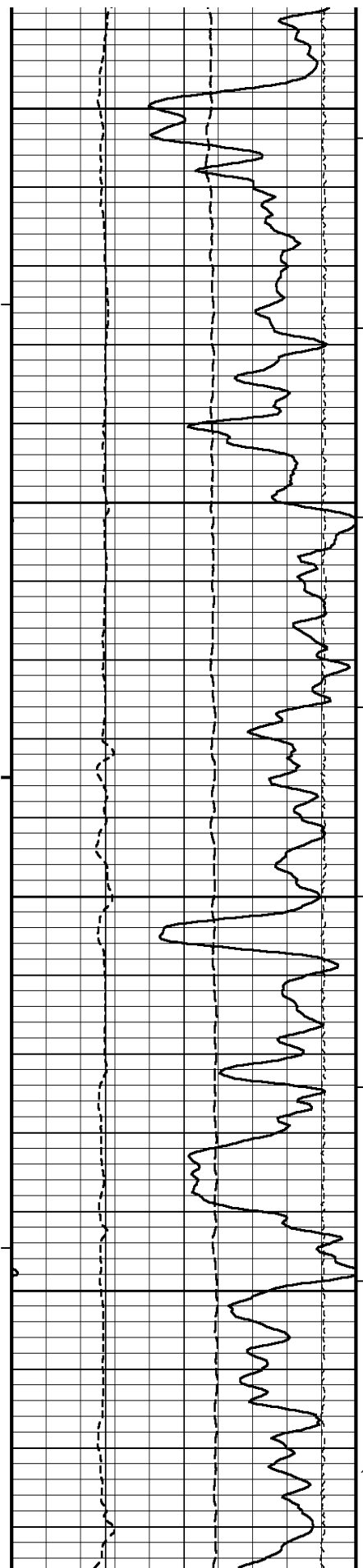
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2300

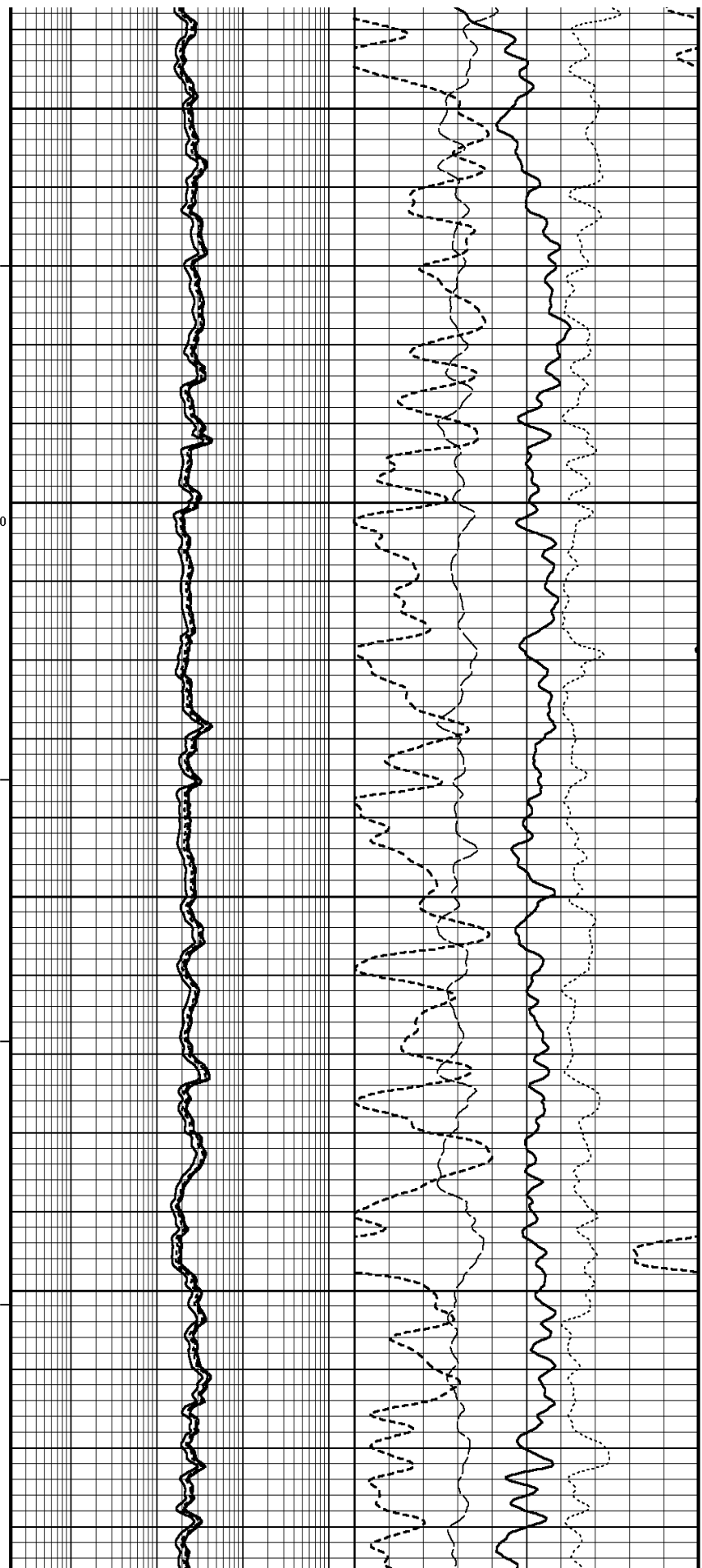
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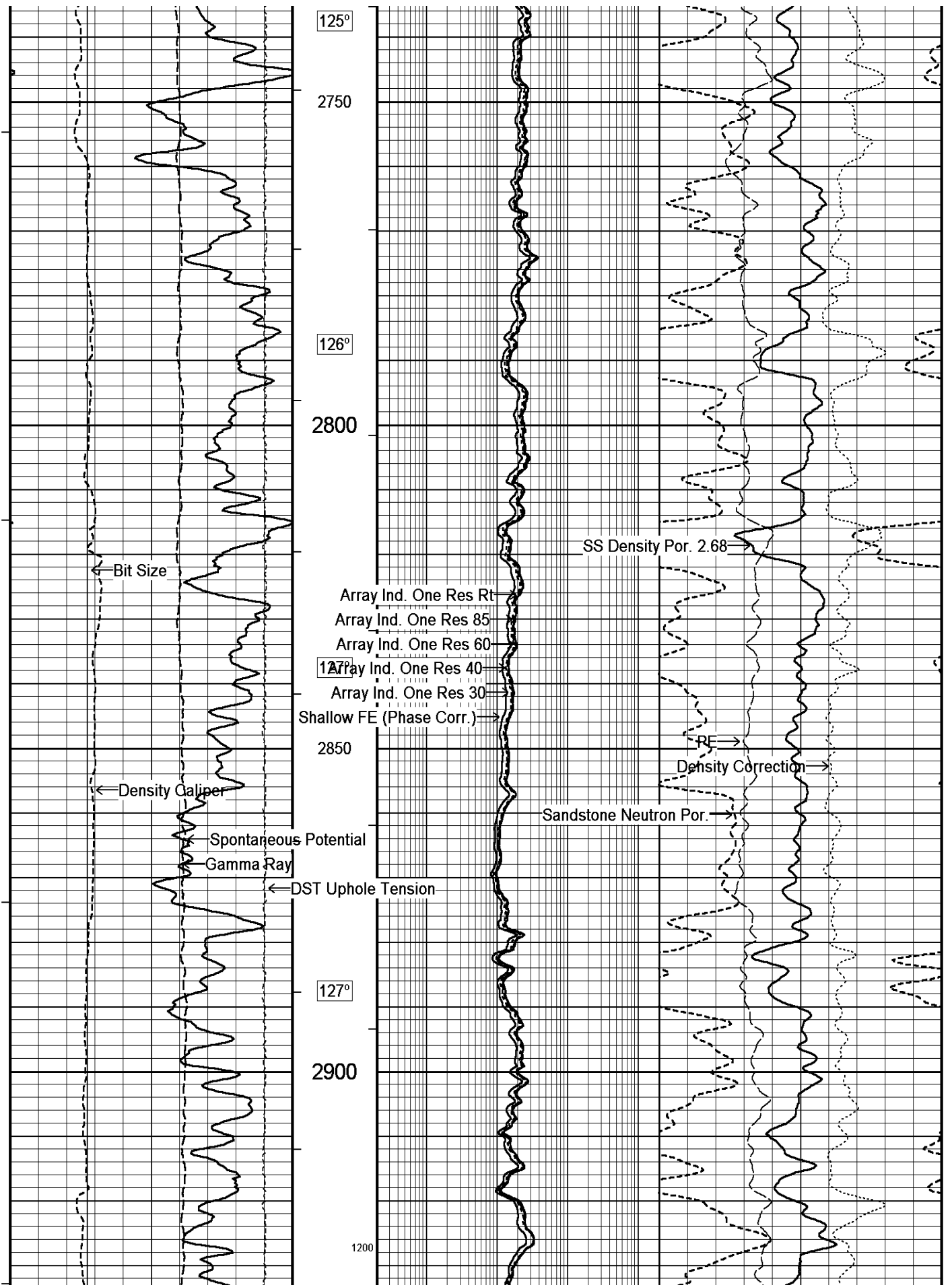


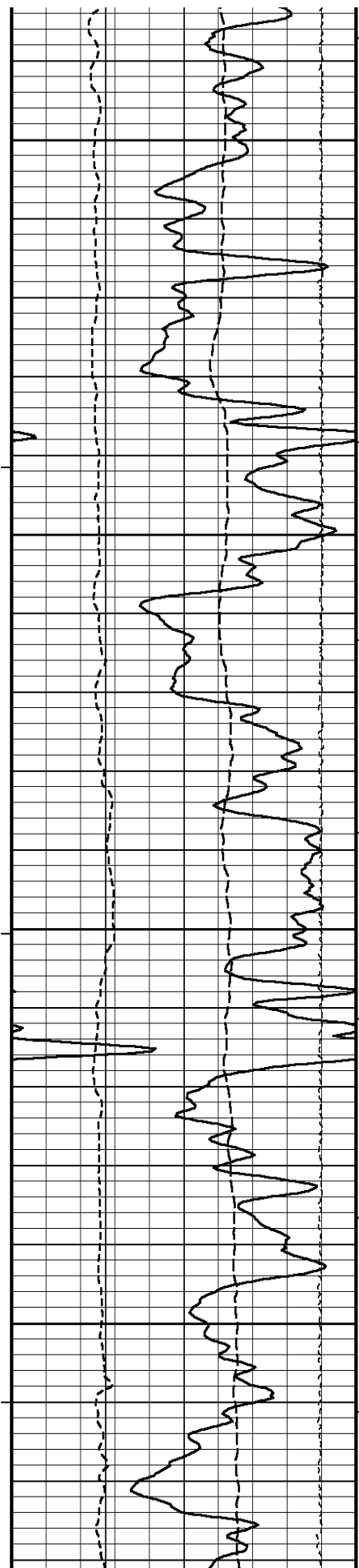




122°
2550
123°
2600
1300
123°
2650
124°
2700
1800







128°

2950

1700

129°

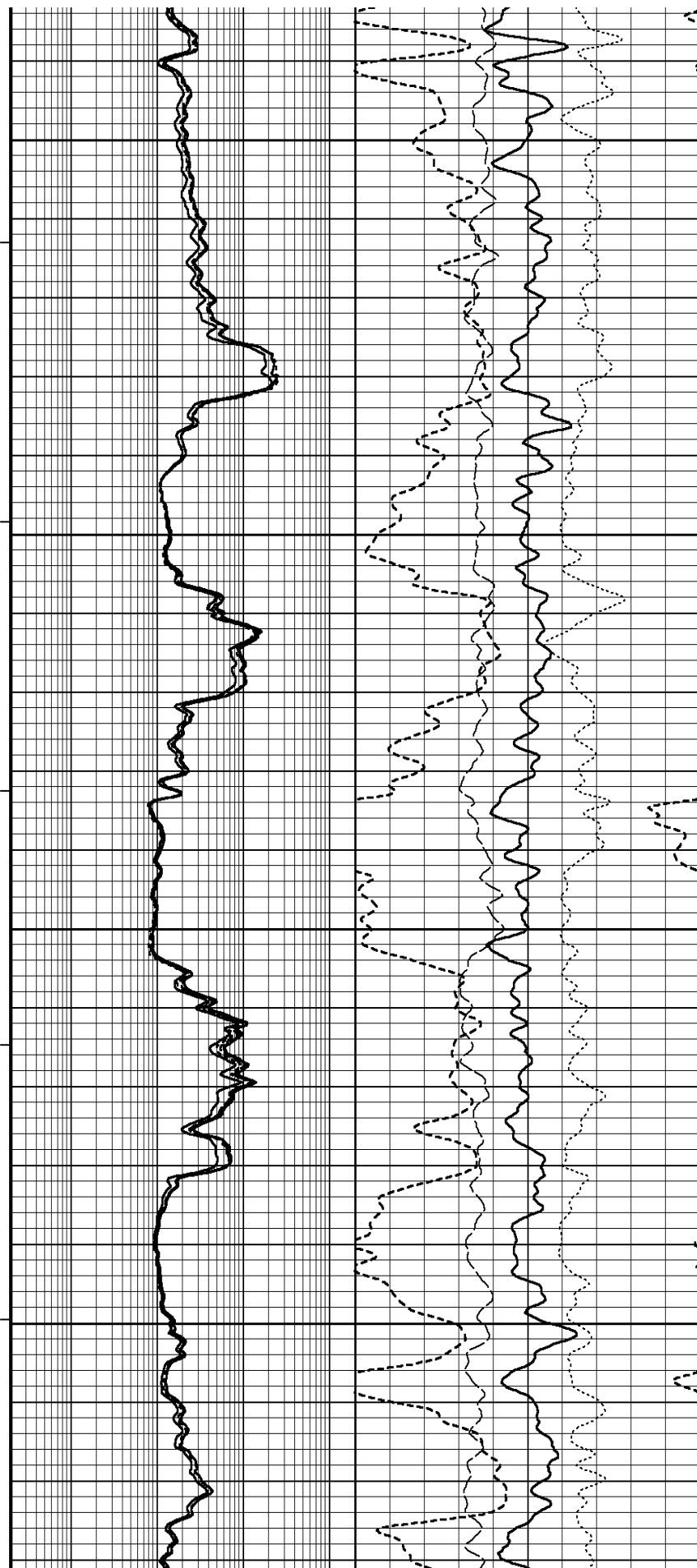
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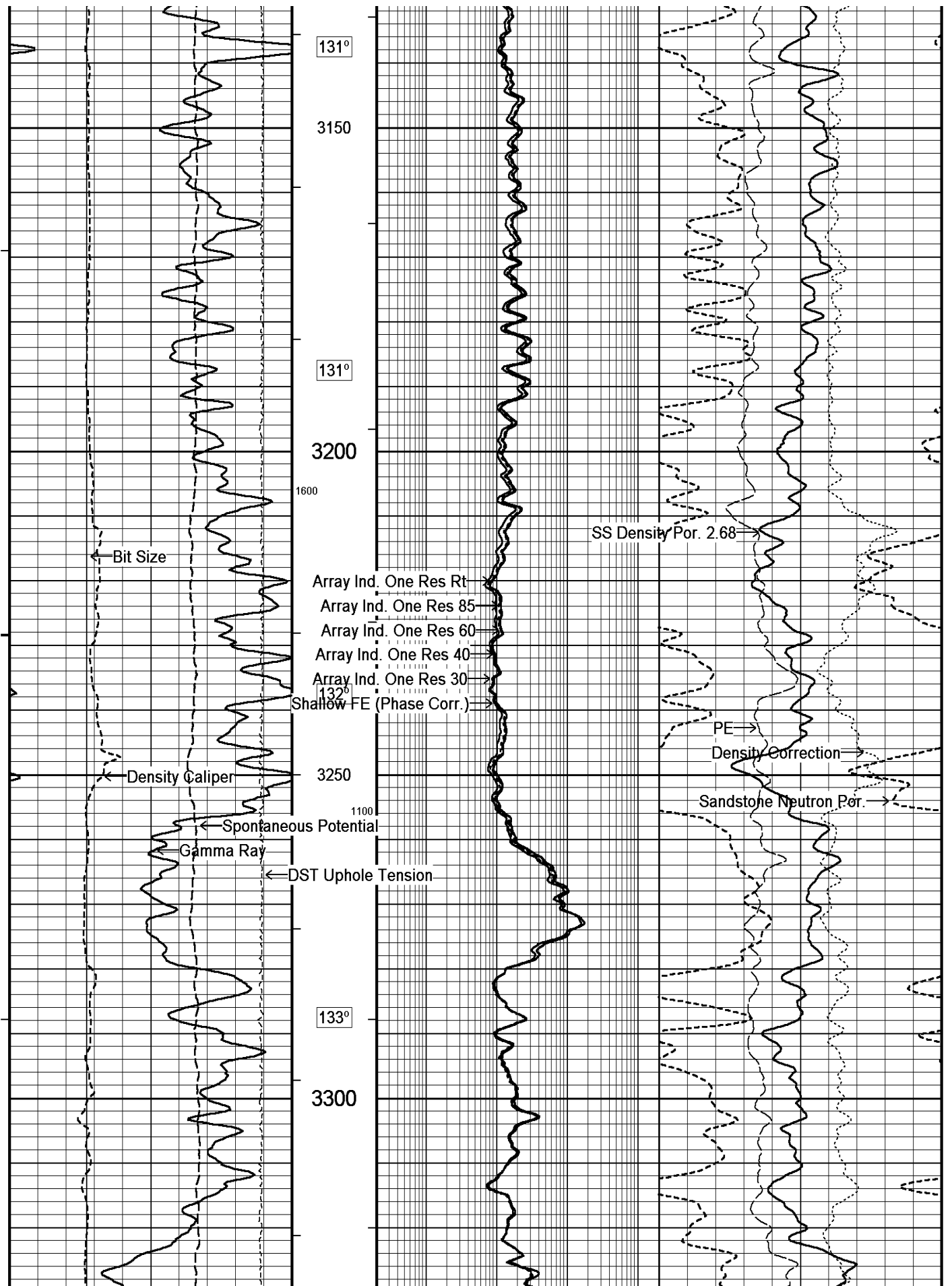
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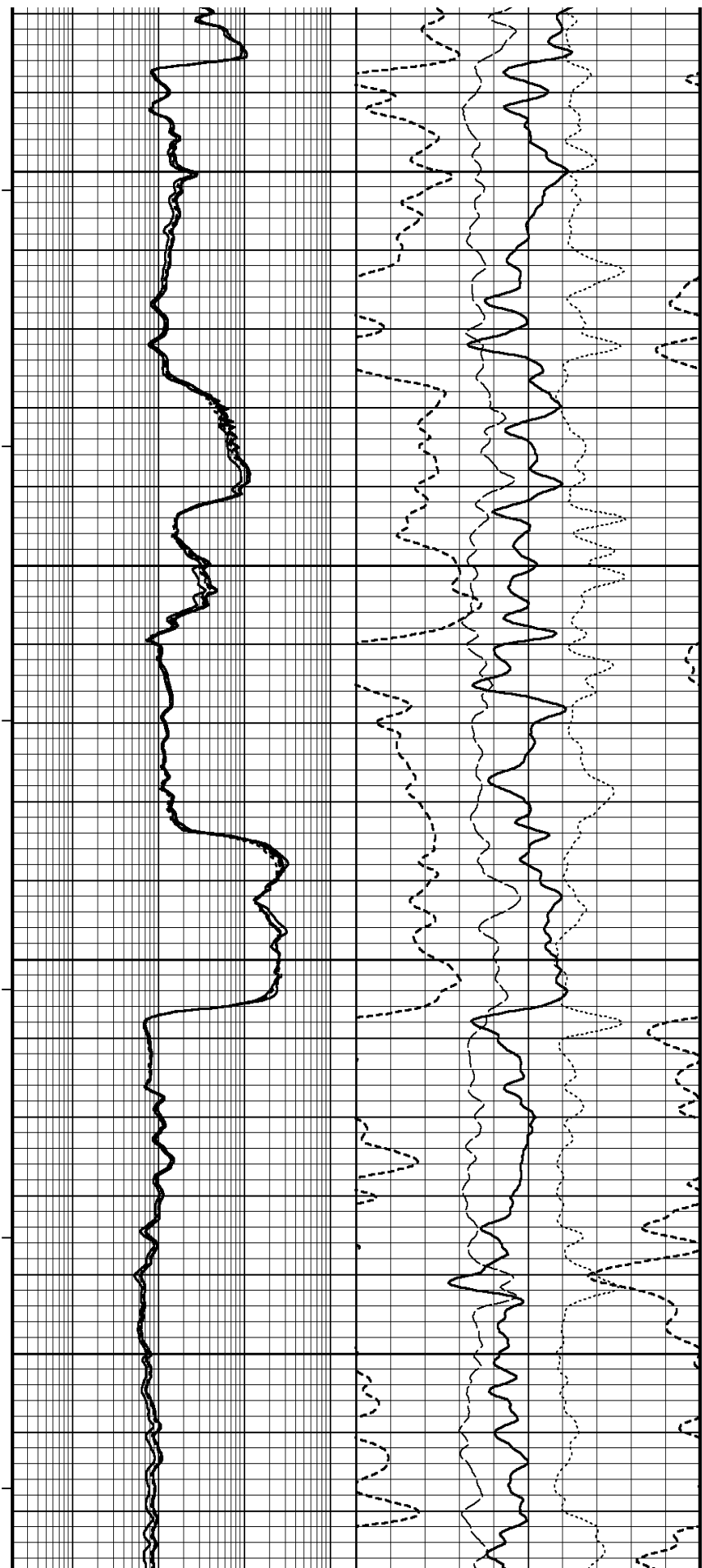
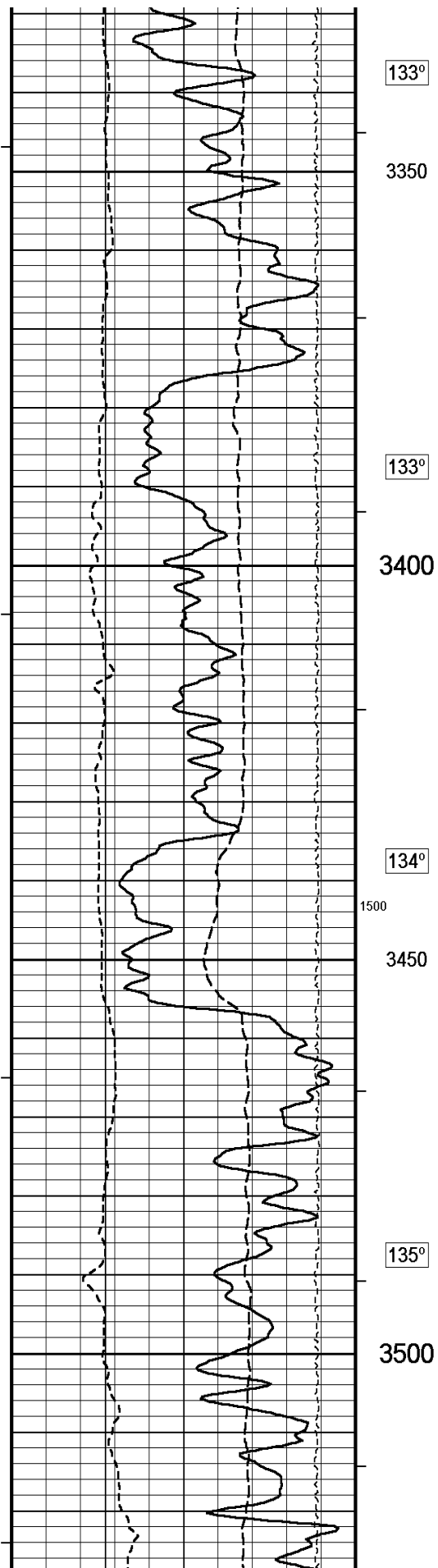
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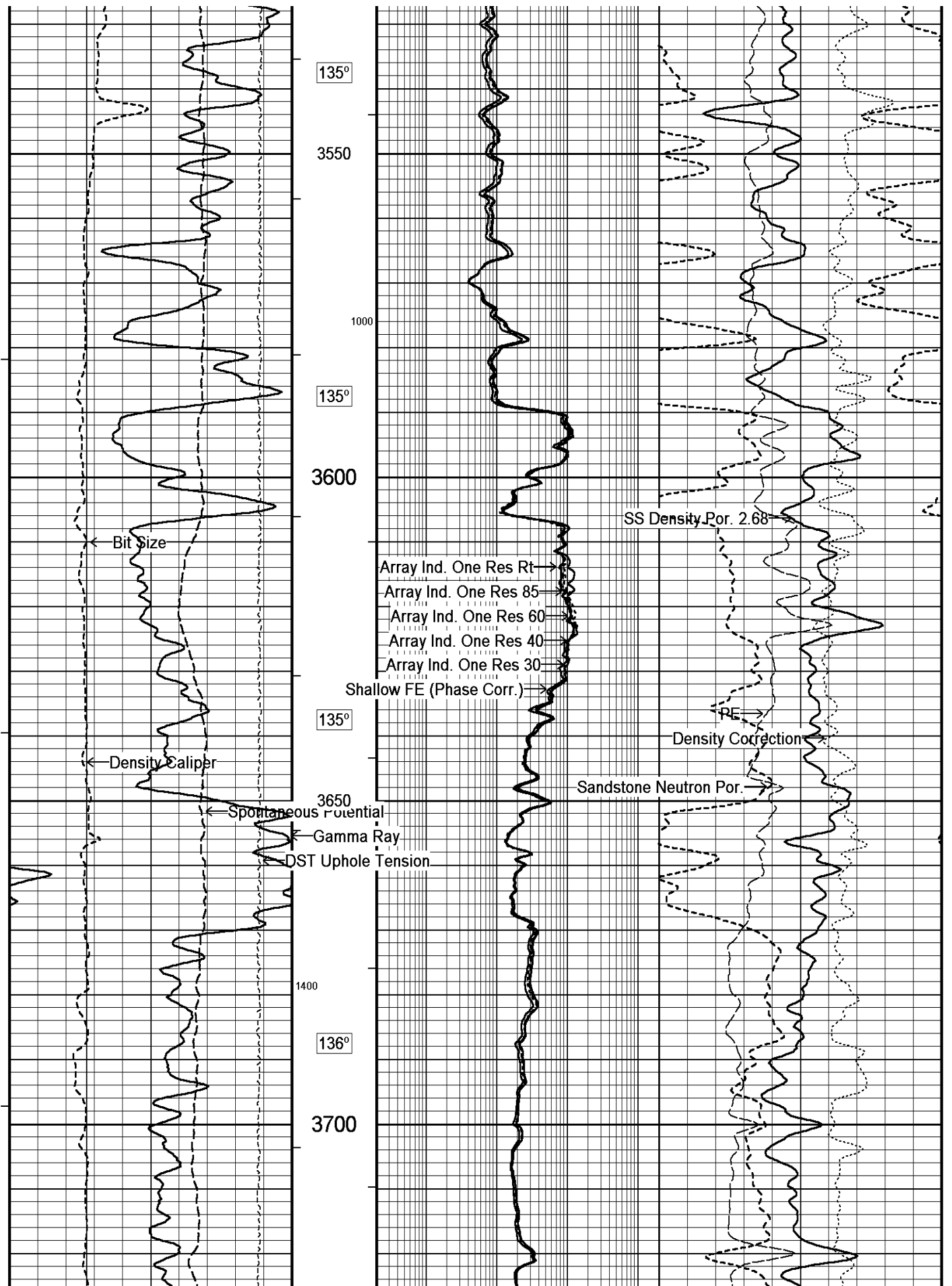
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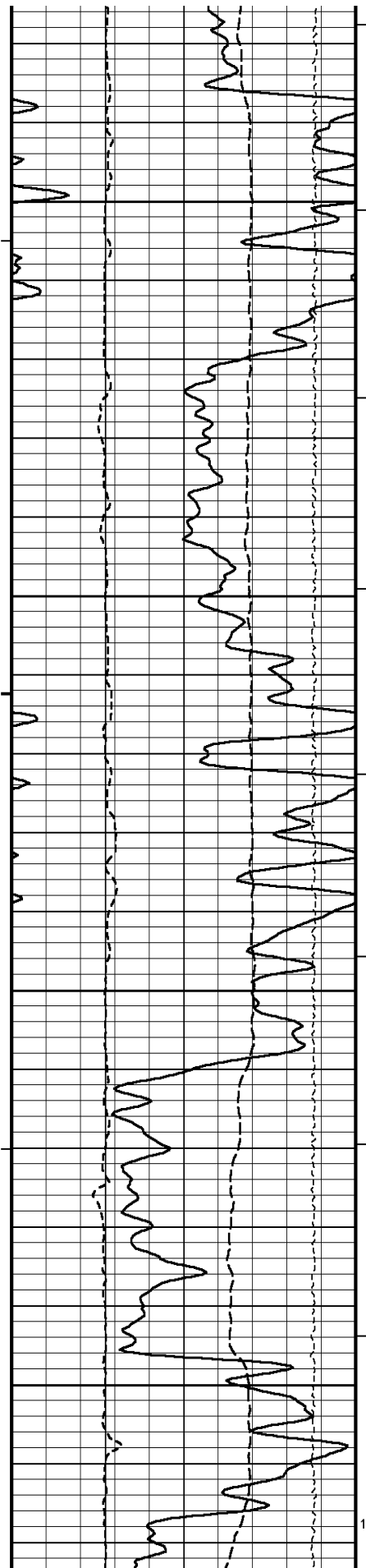
3100











136°

3750

137°

3800

137°

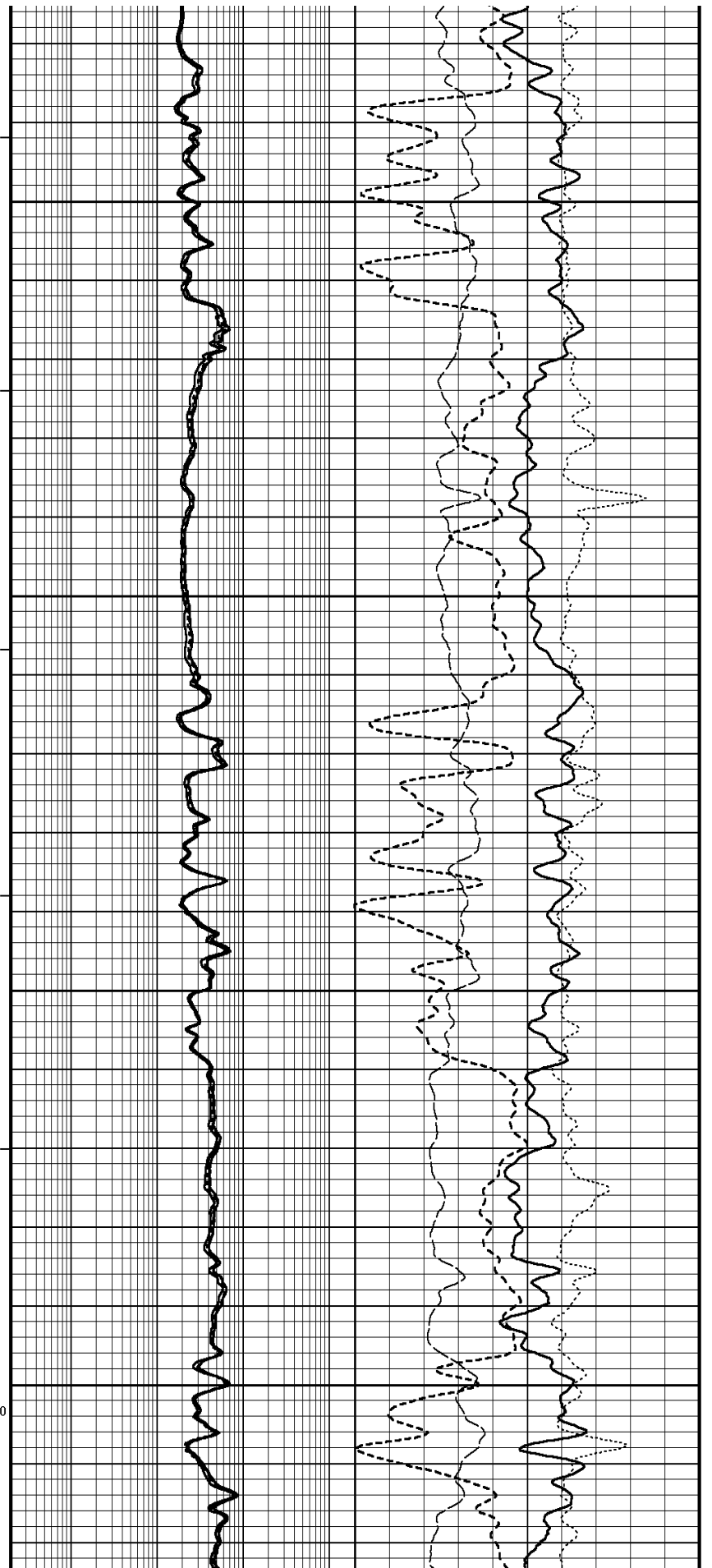
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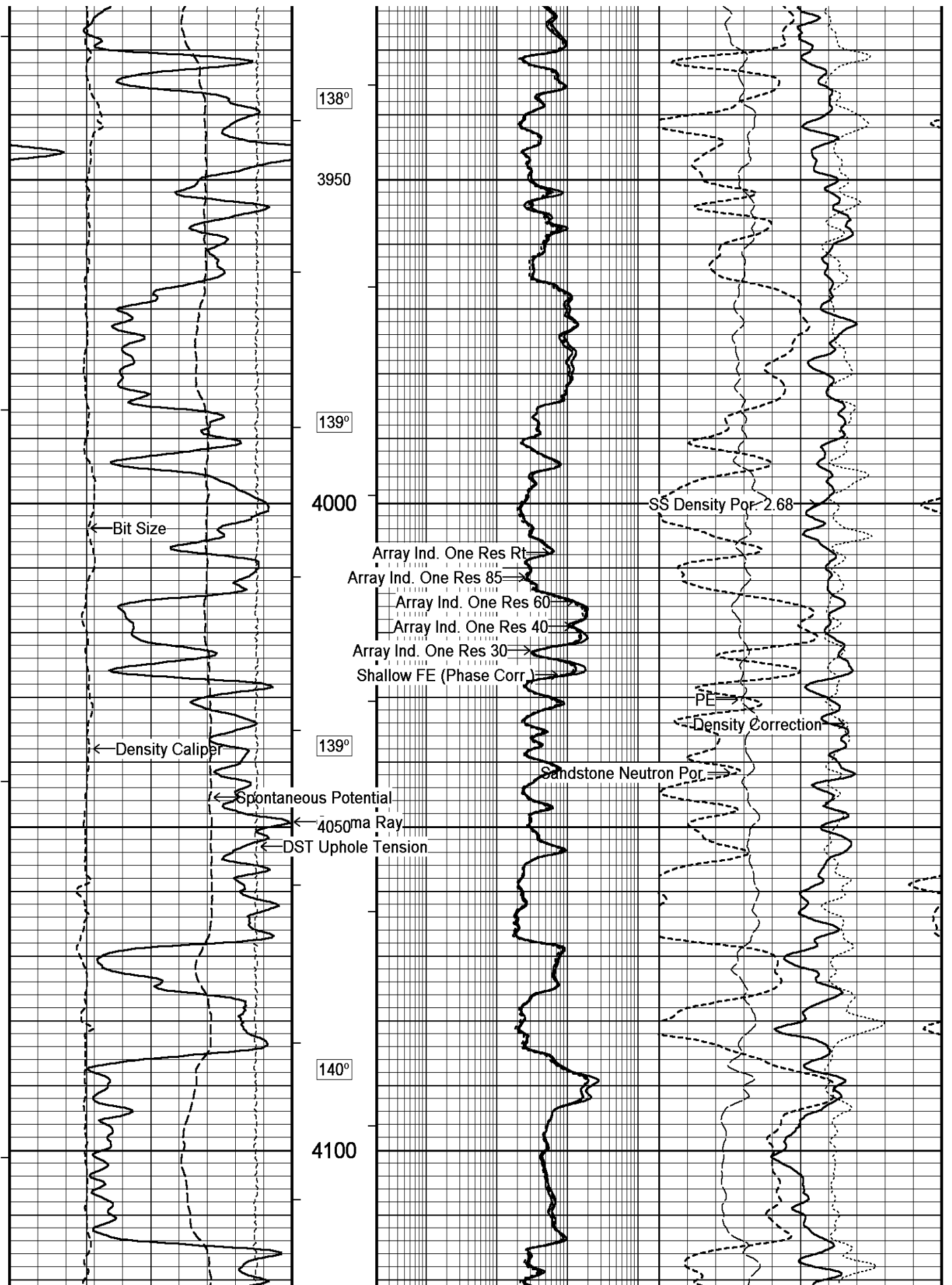
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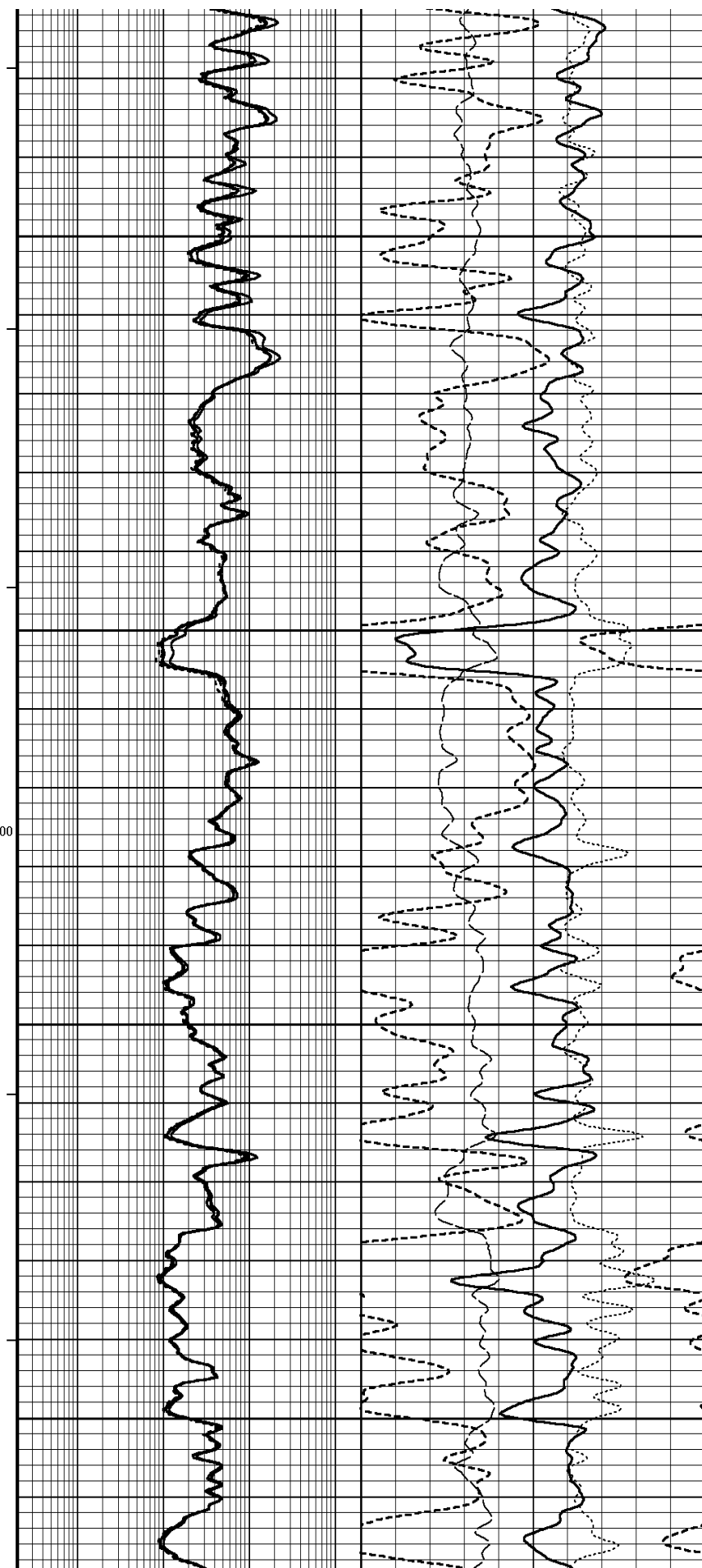
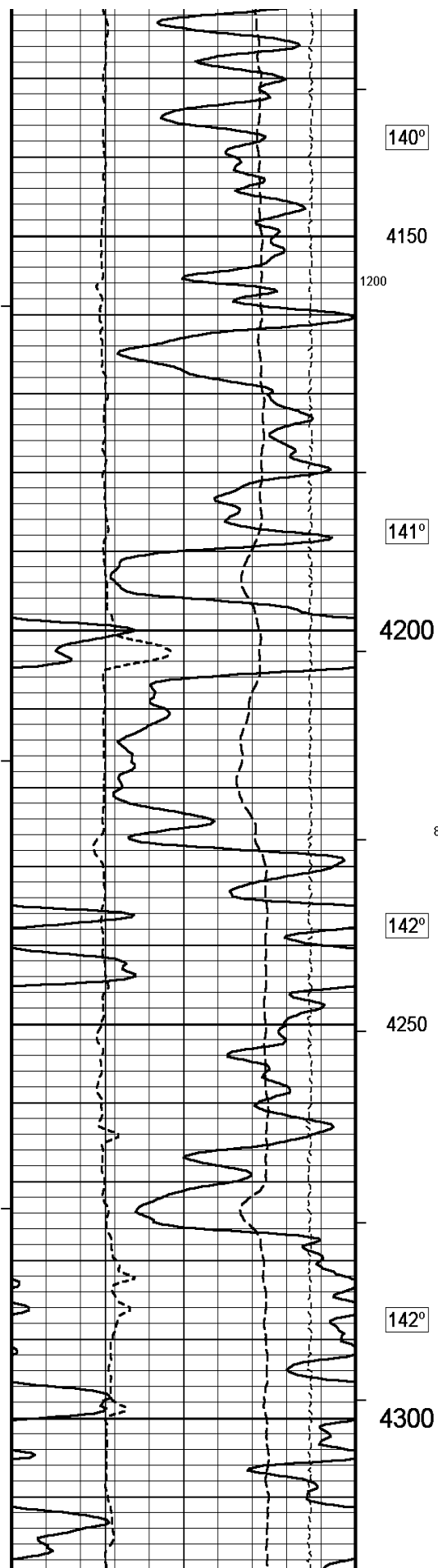
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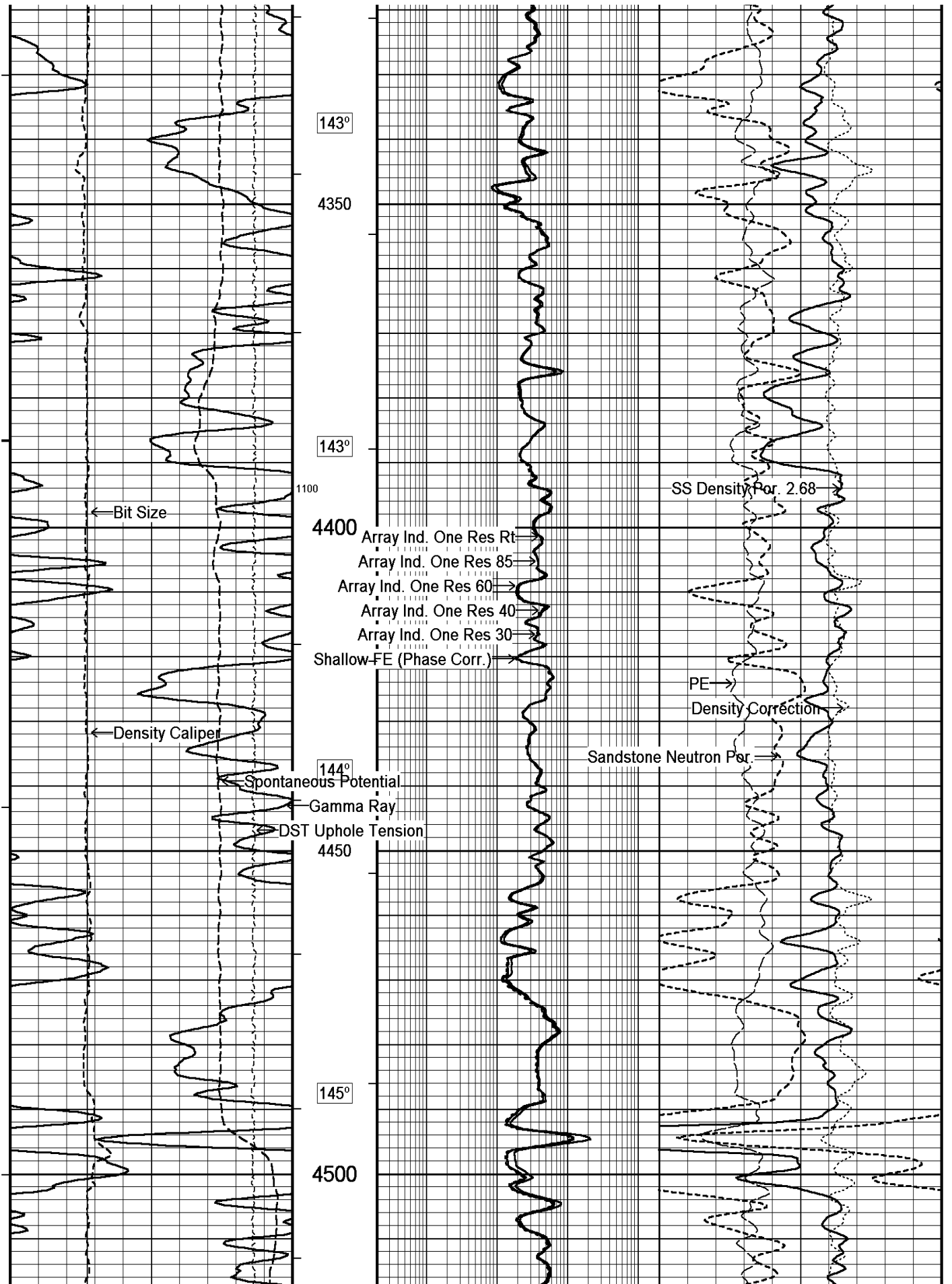
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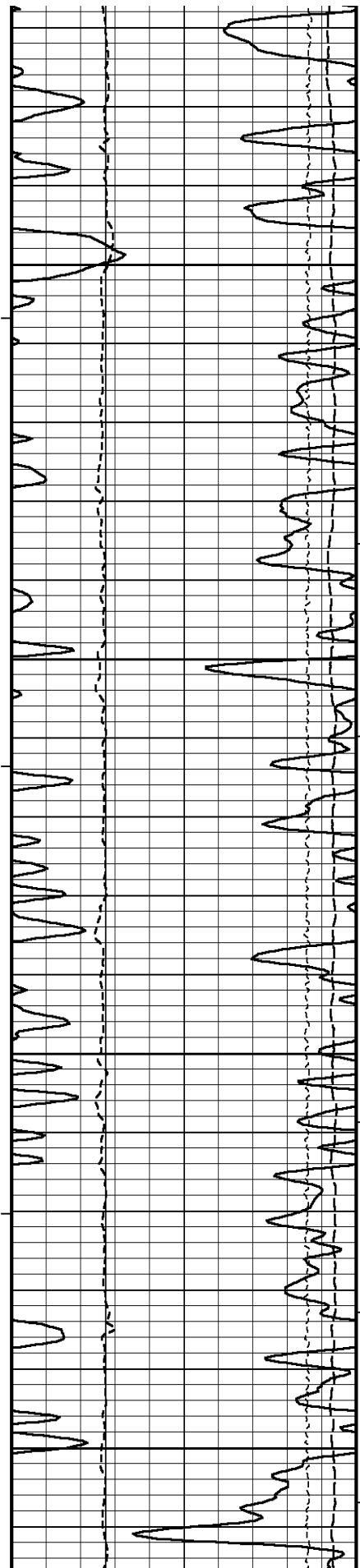
1300











145°

4550⁷⁰⁰

146°

4600

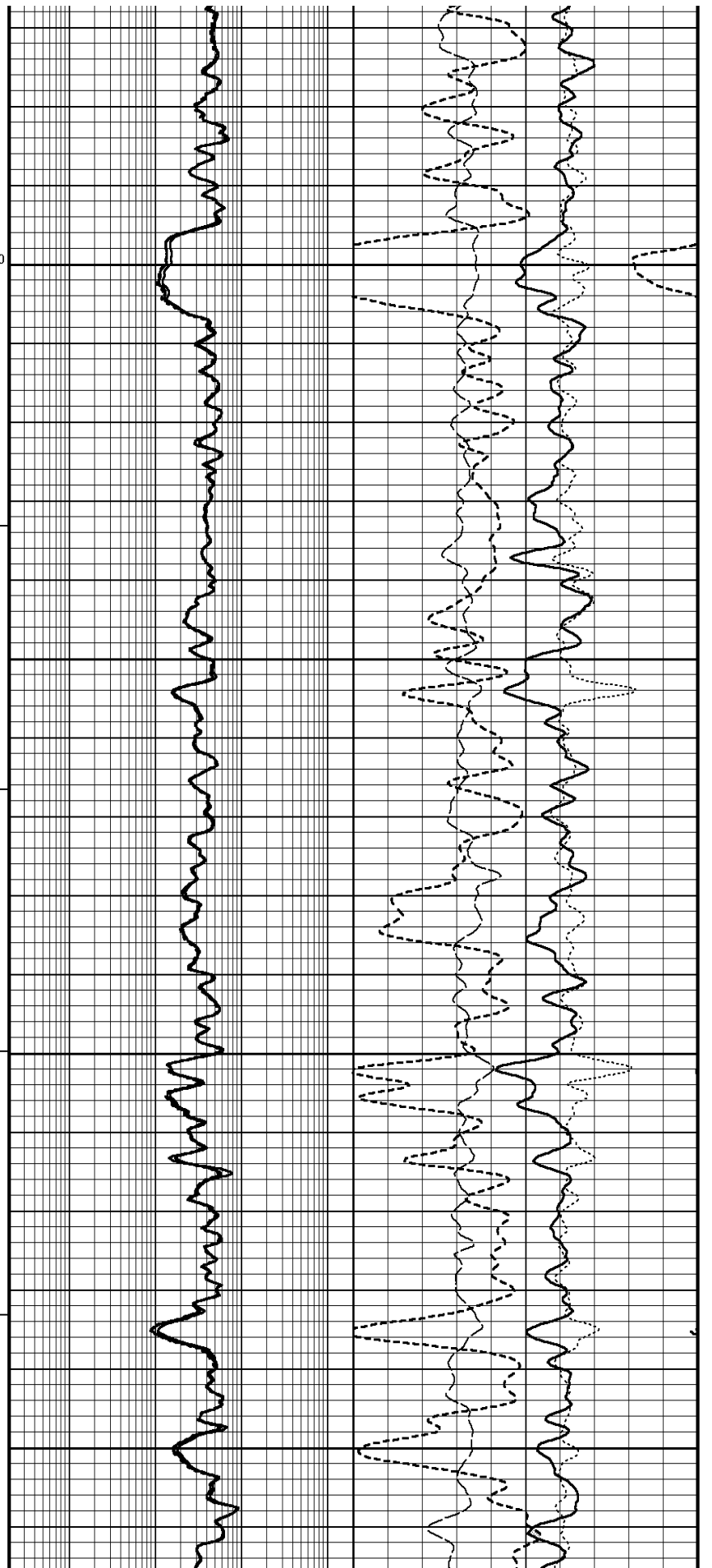
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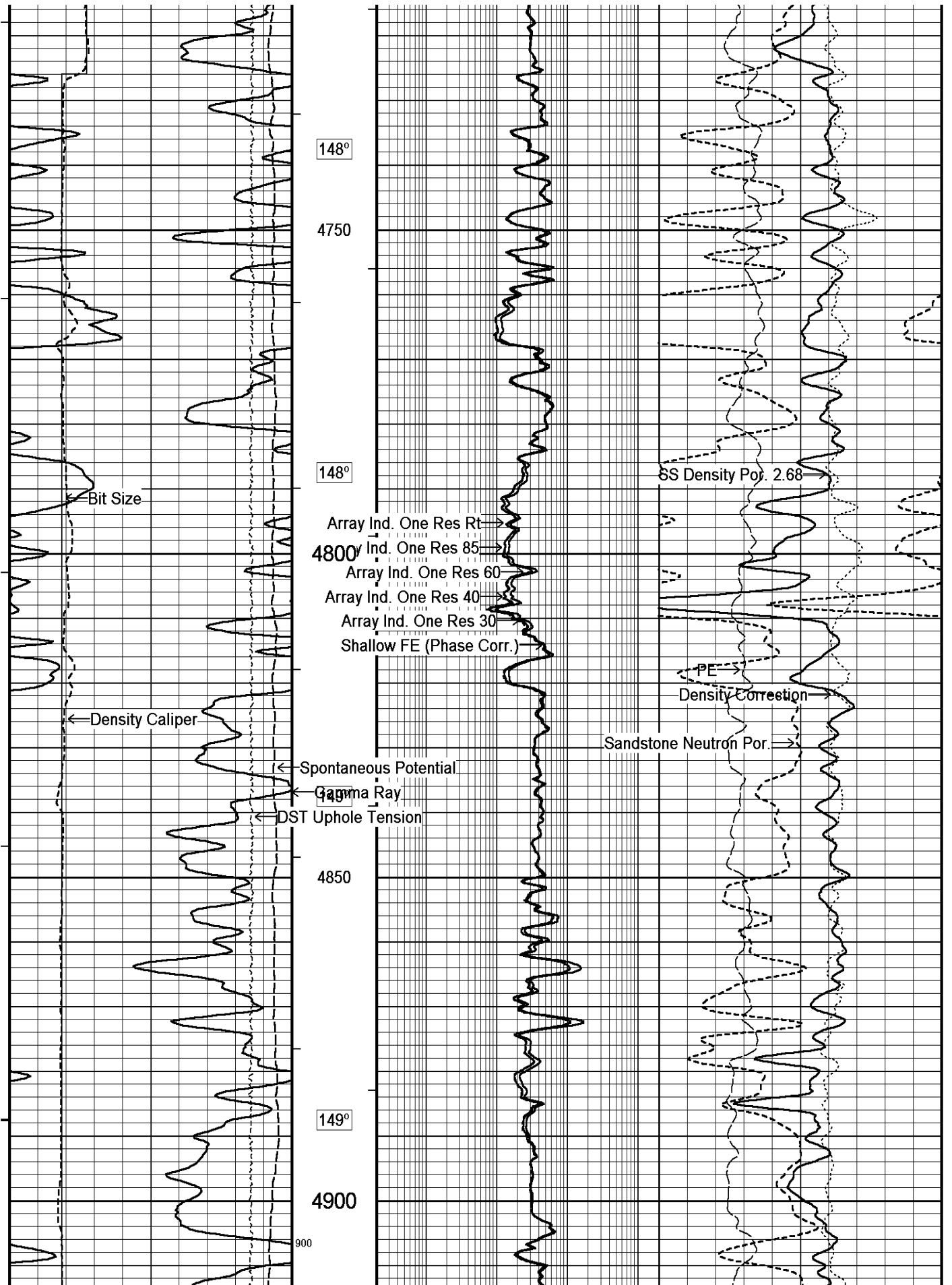
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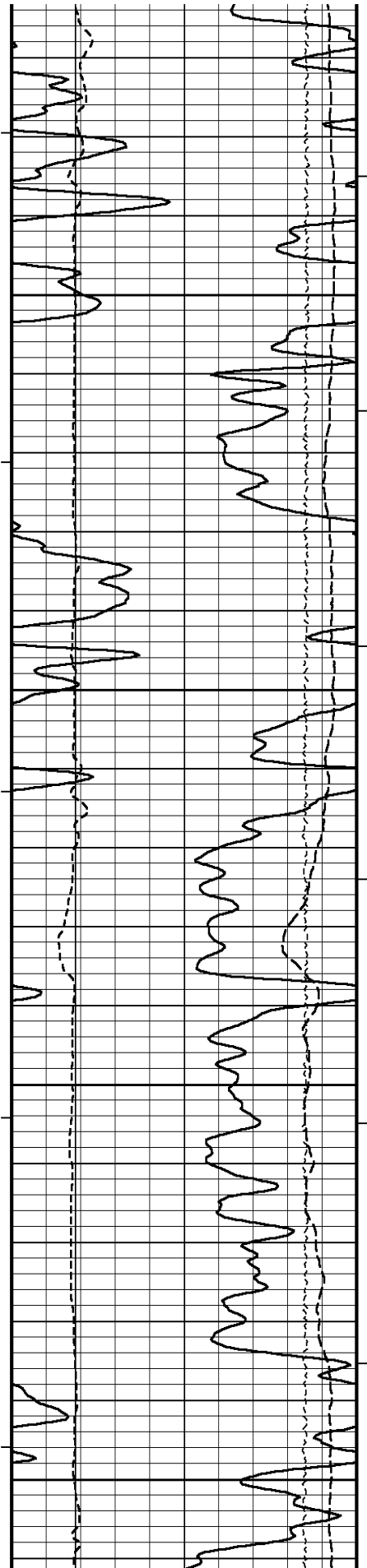
4650

147°

4700







150°

4950

151°

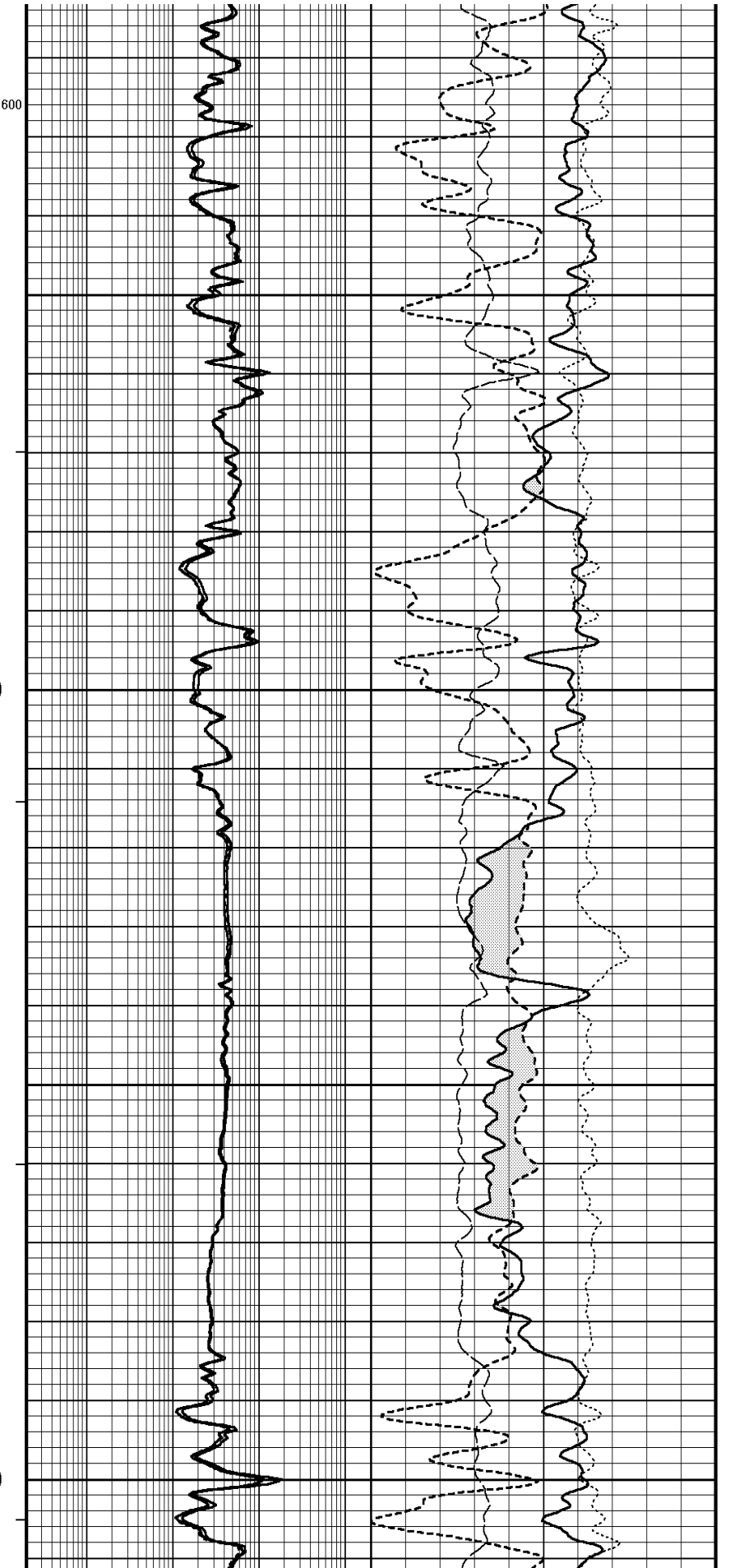
5000

151°

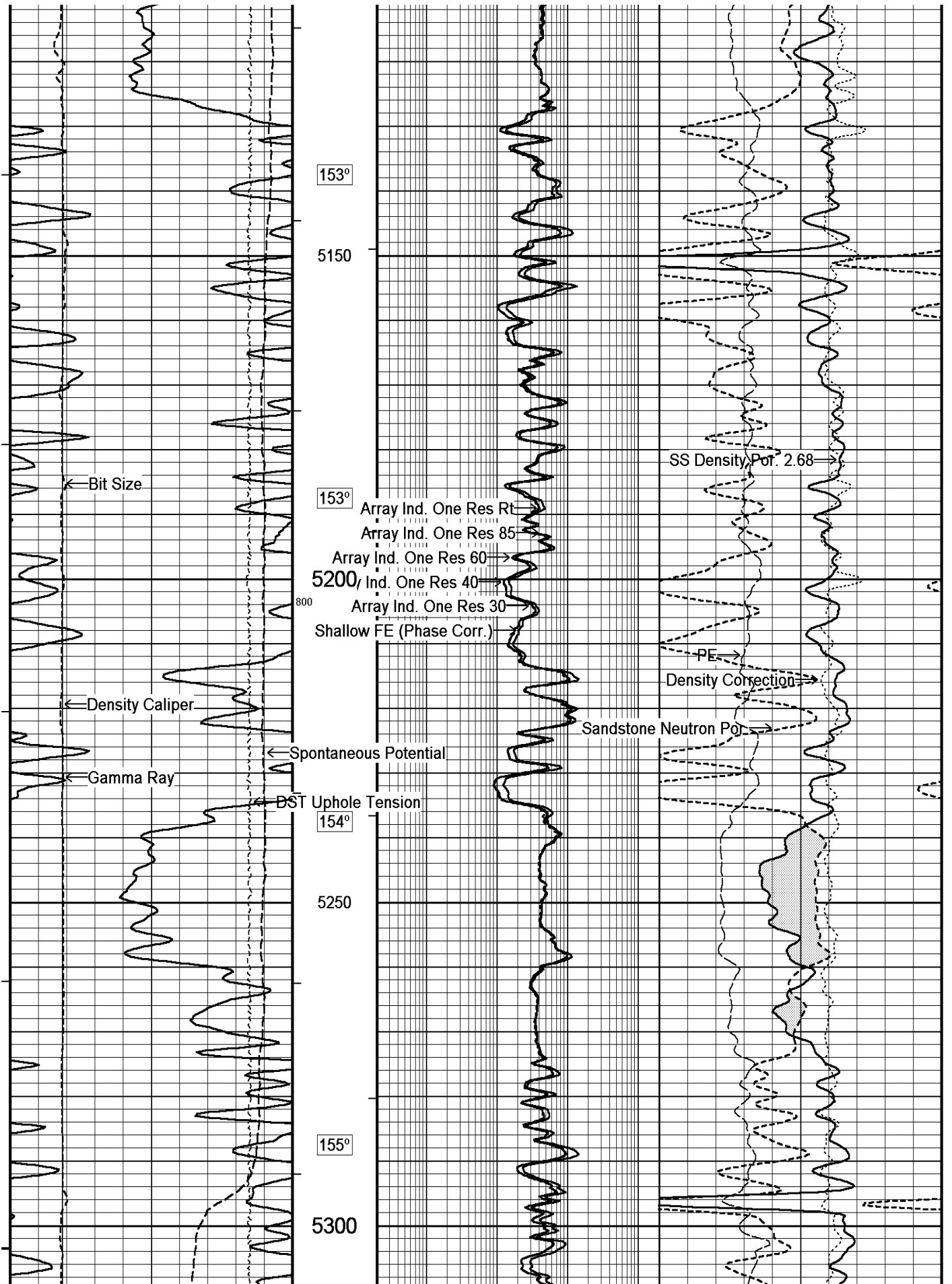
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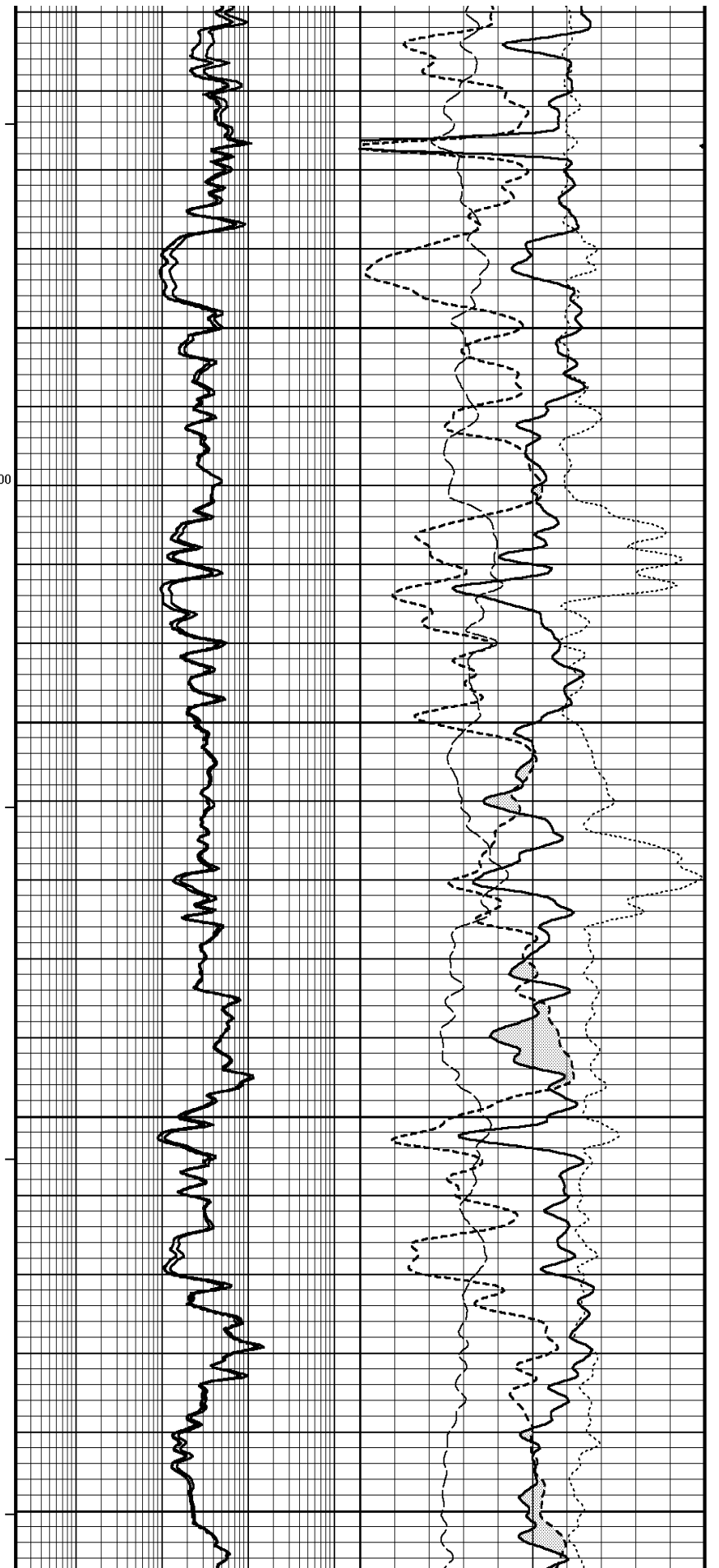
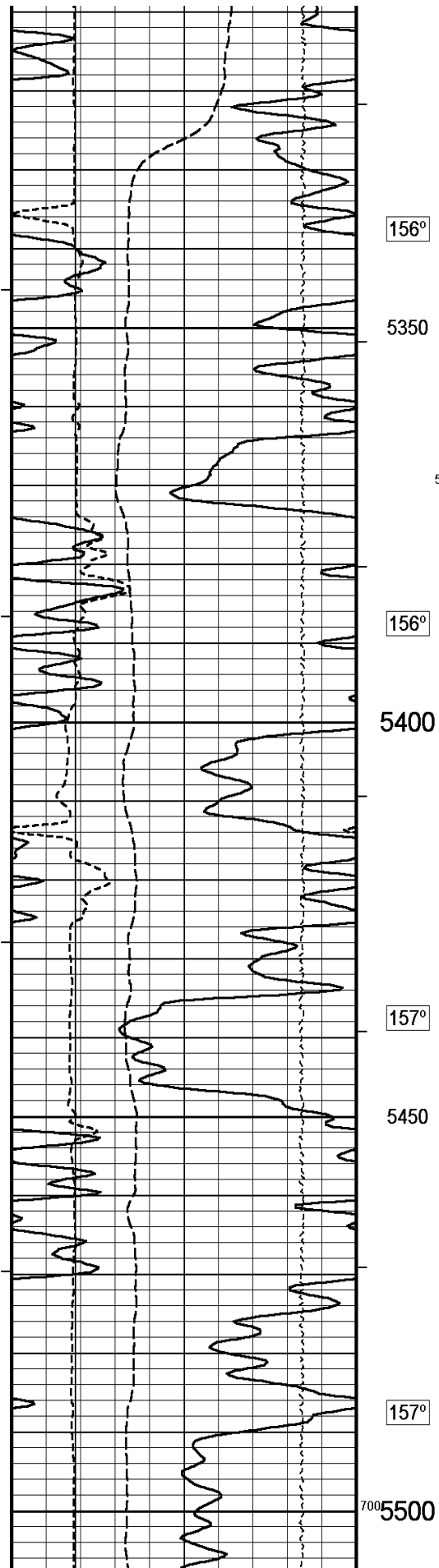
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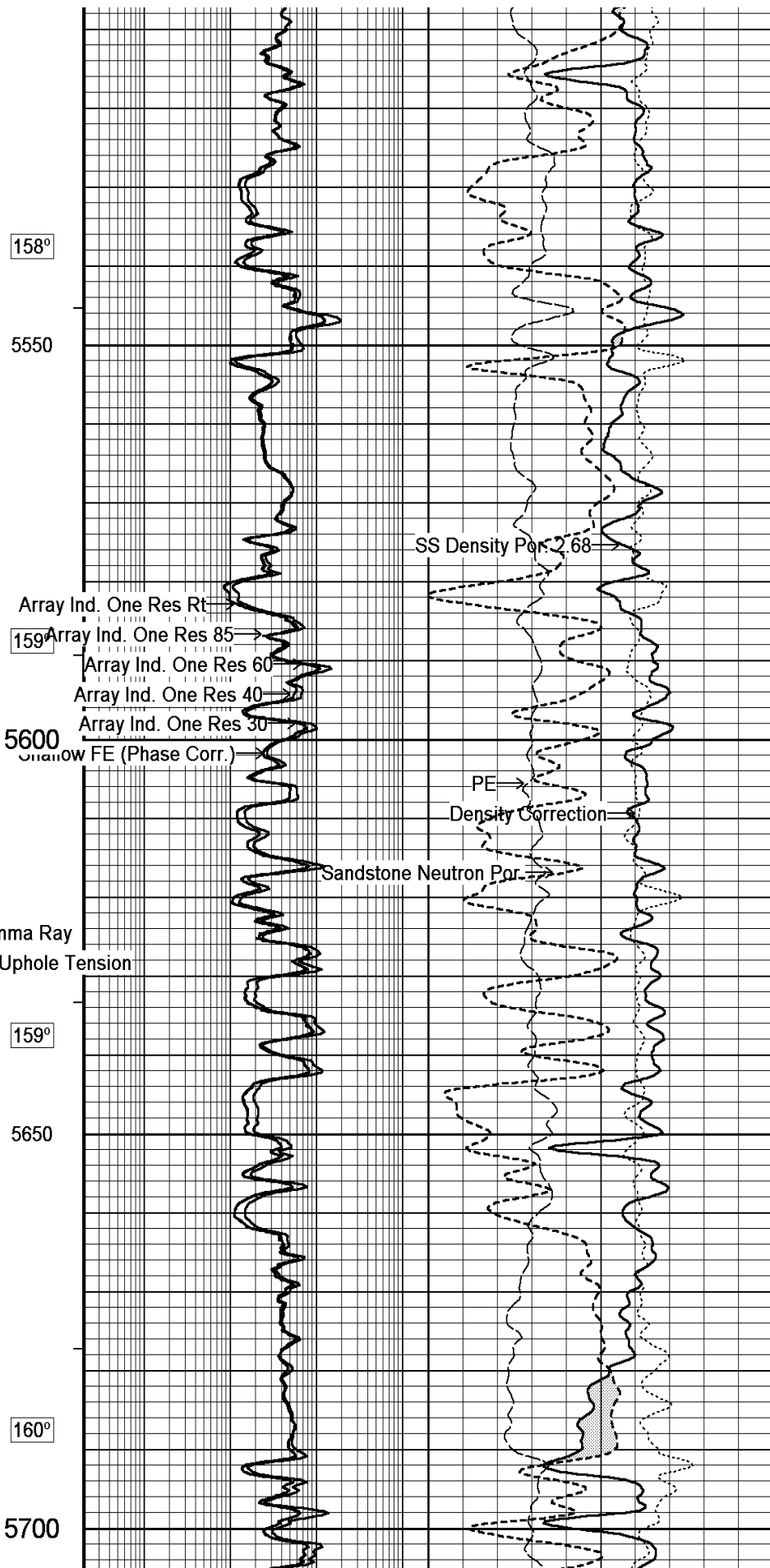
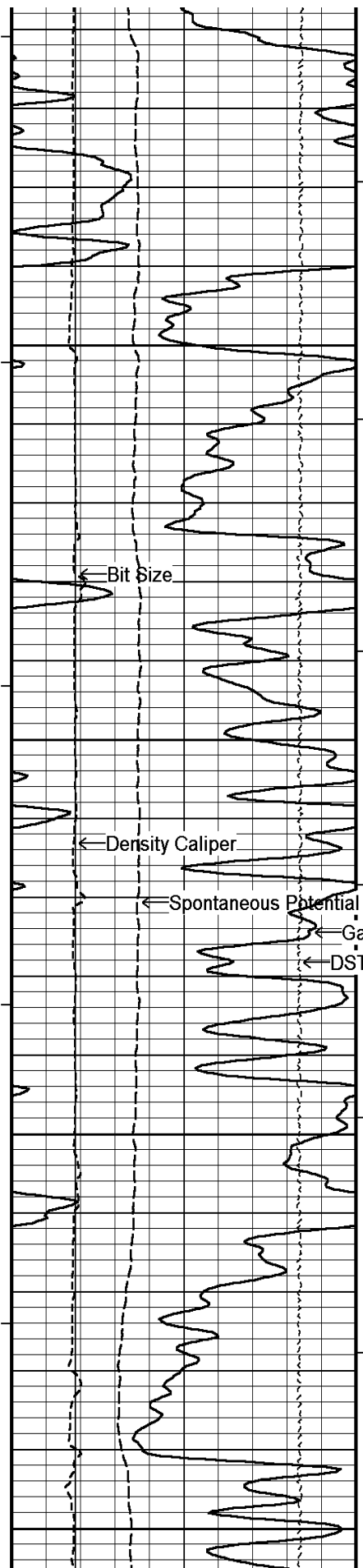
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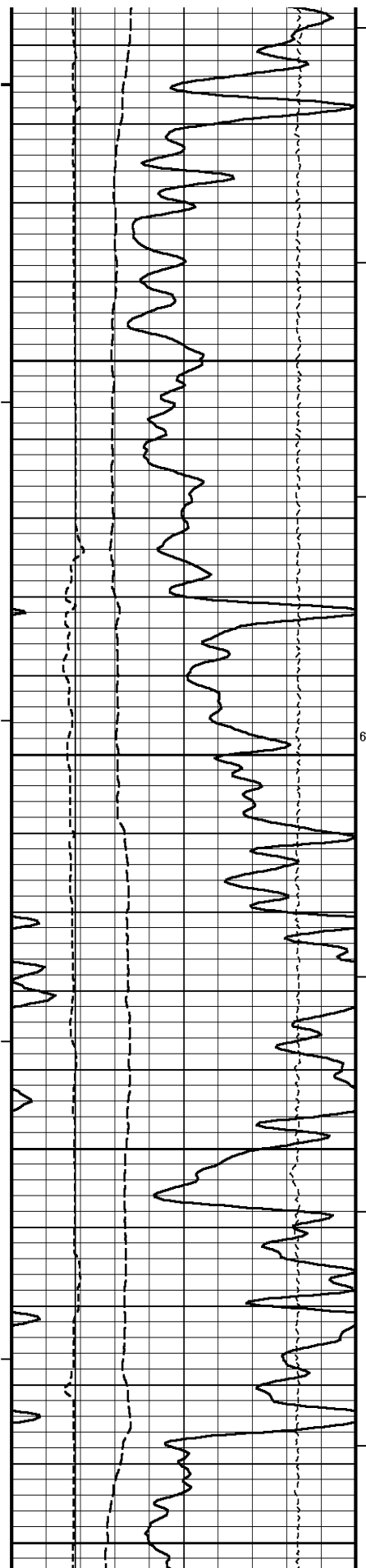


600









161°

5750

161°

600
5800

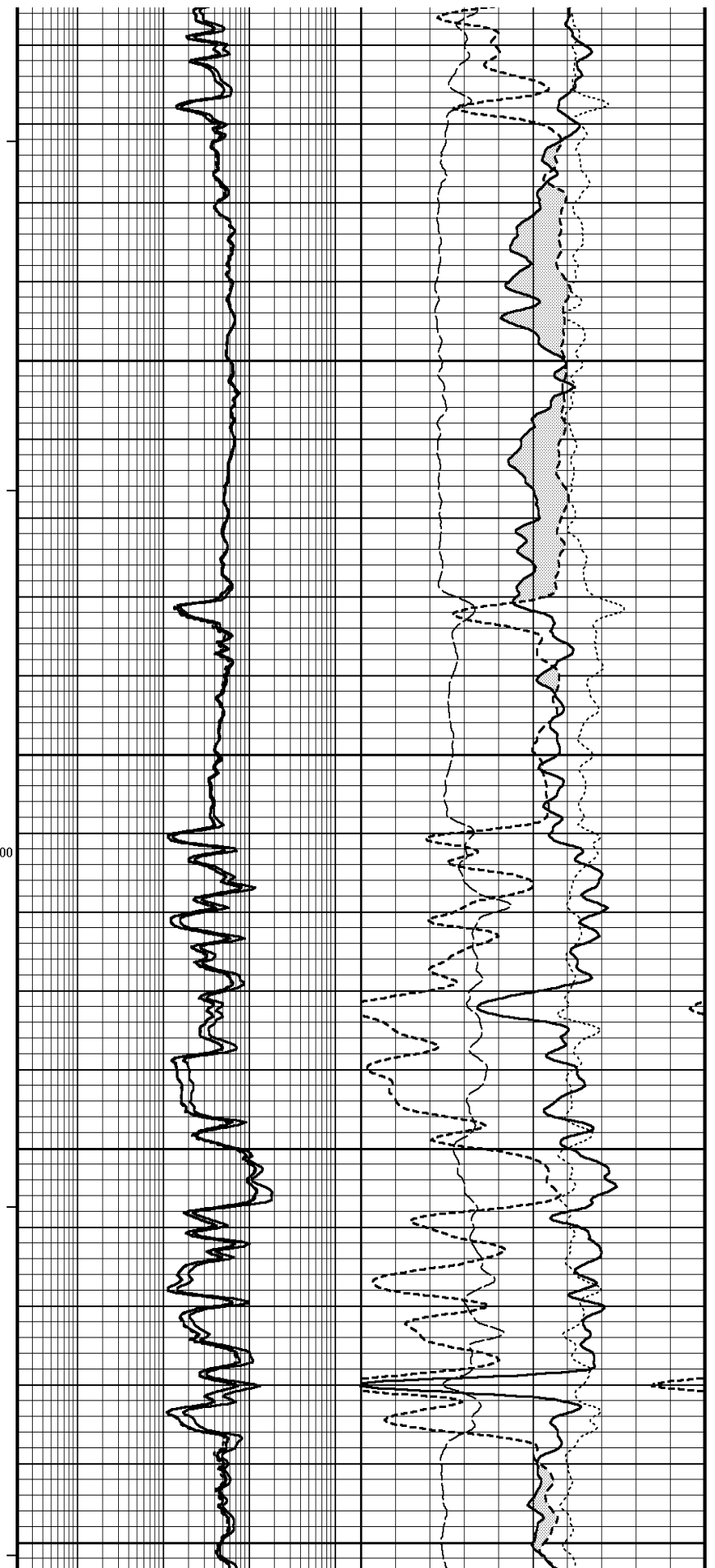
400

162°

5850

163°

5900



161°

5750

161°

600
5800

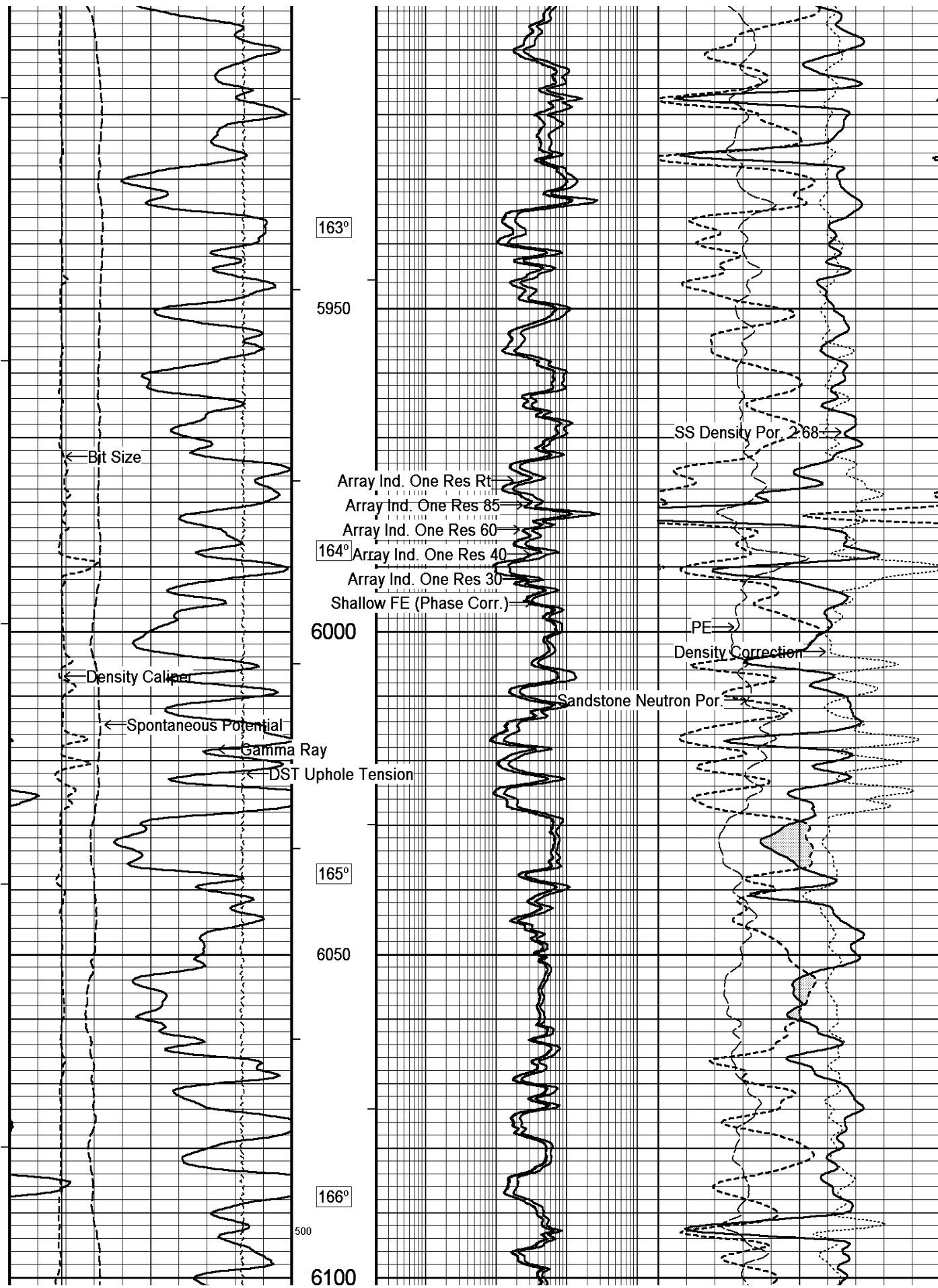
400

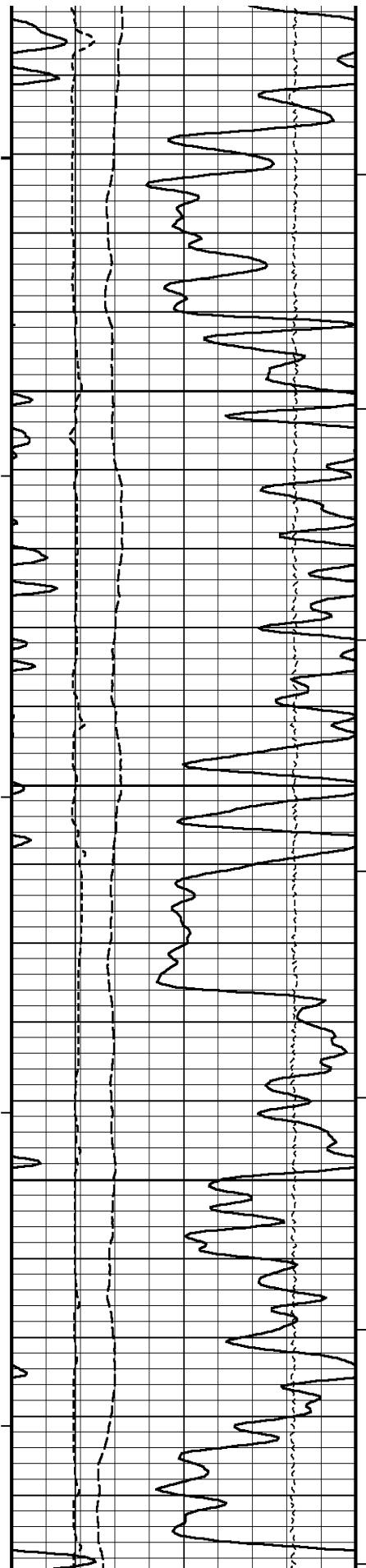
162°

5850

163°

5900





166°

6150

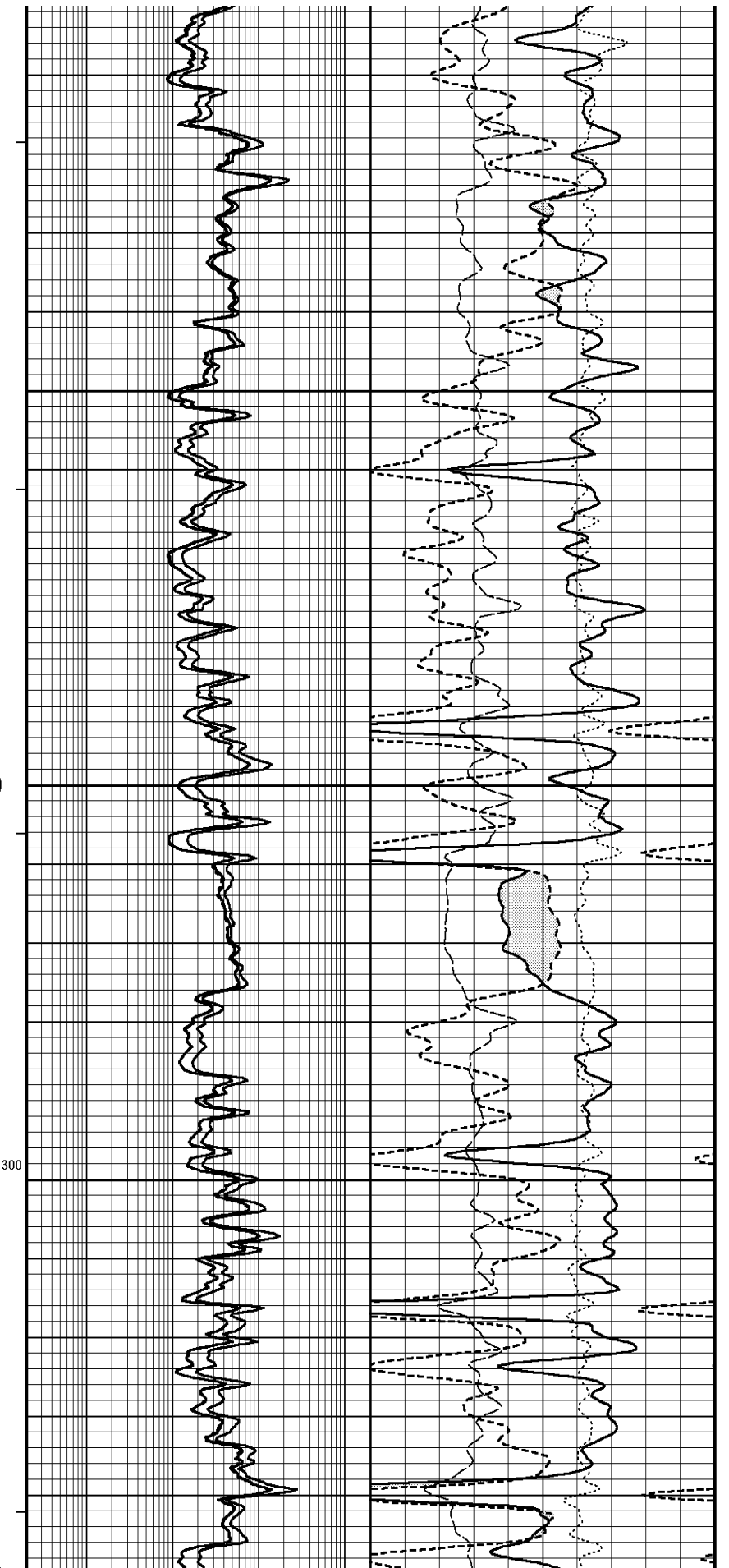
167°

6200

168°

6250

169°



166°

6150

167°

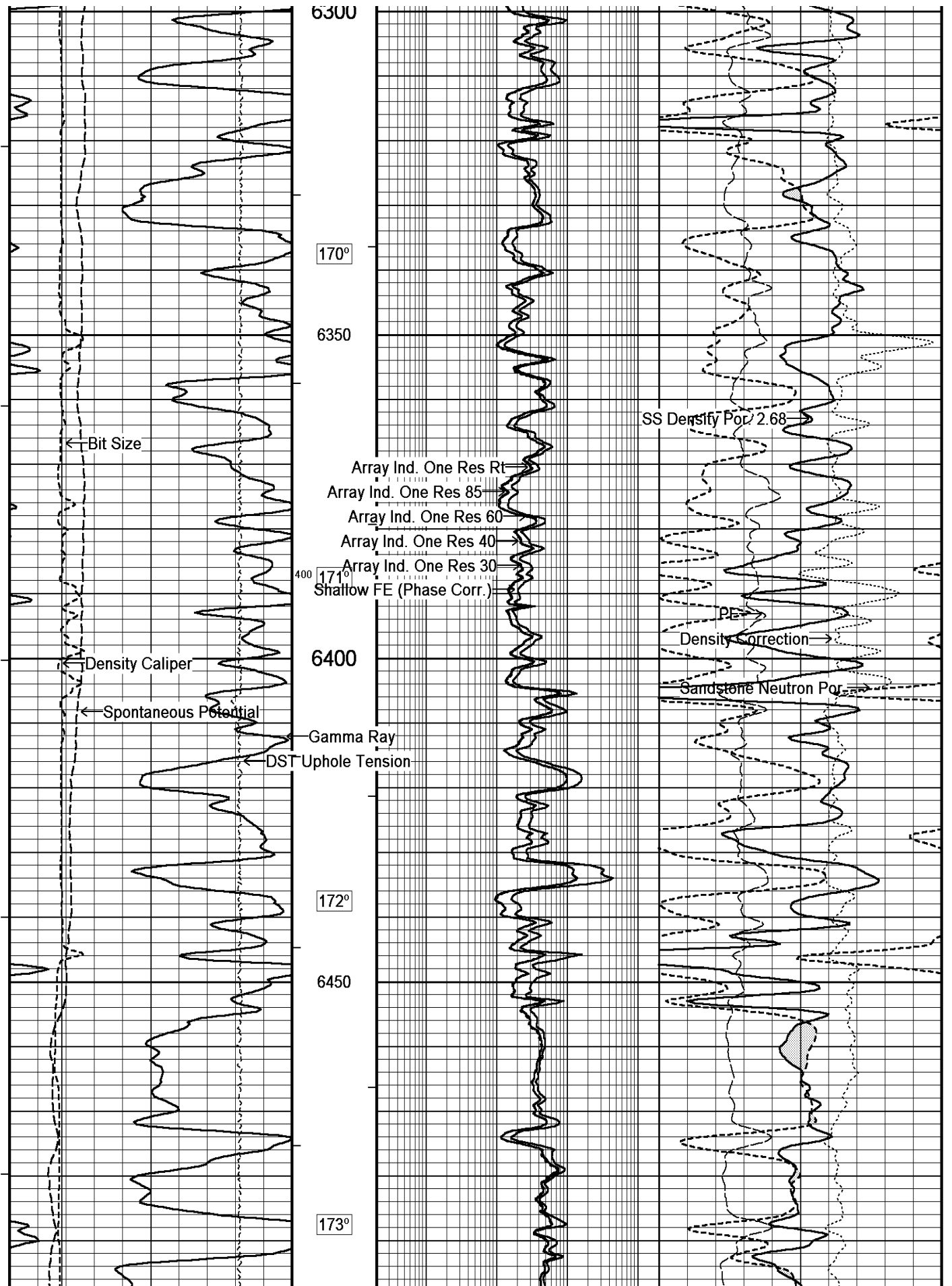
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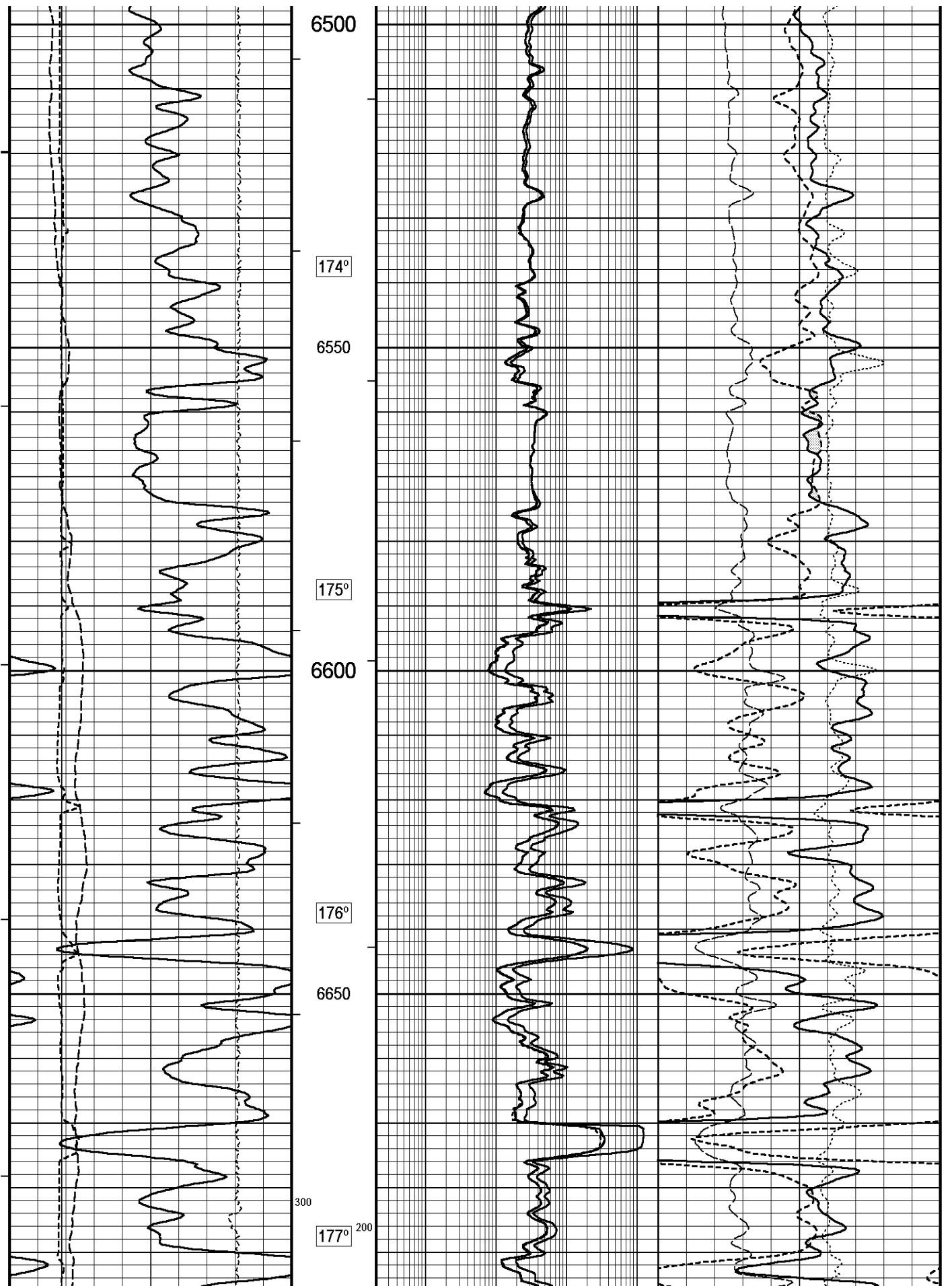
168°

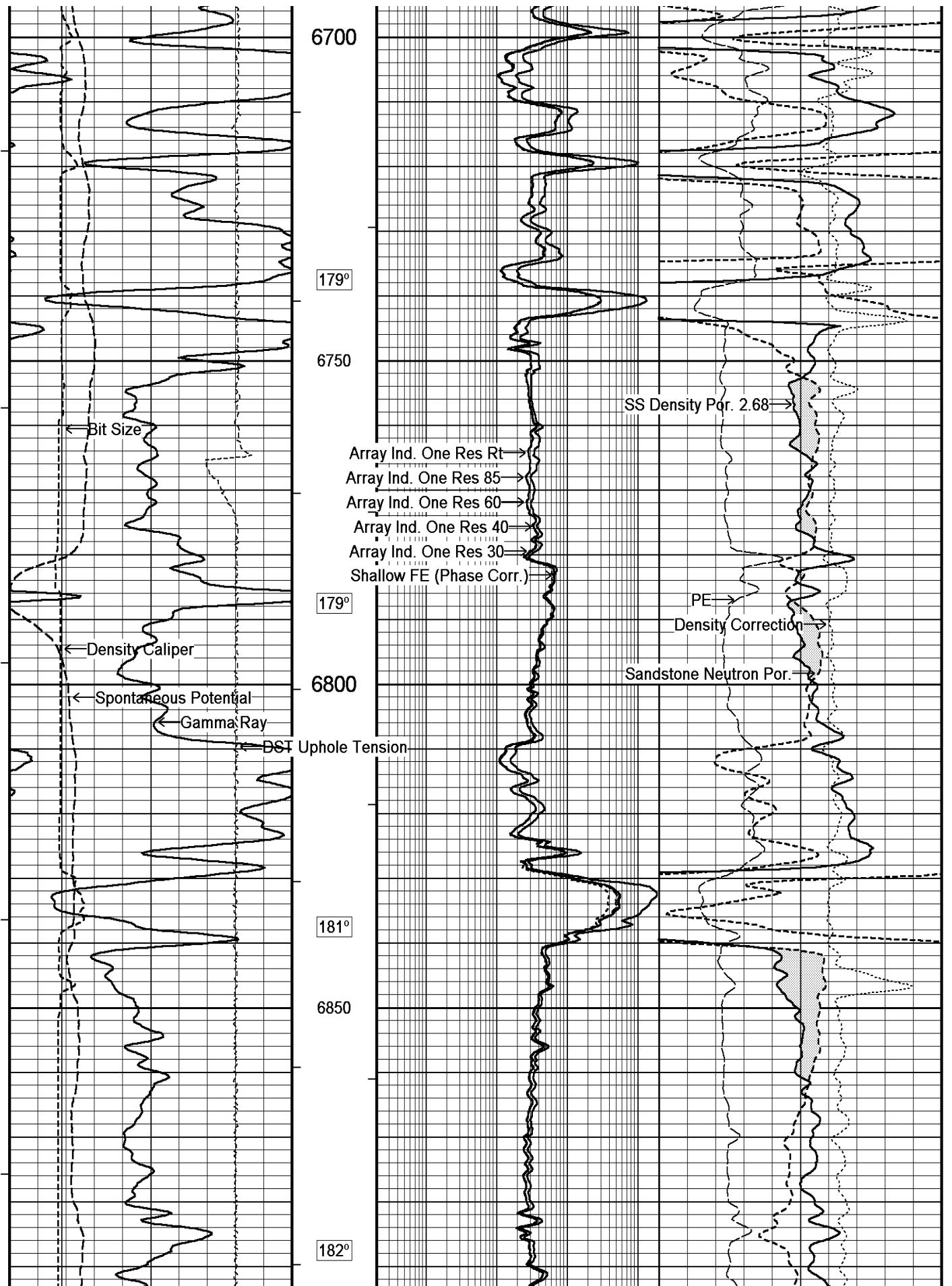
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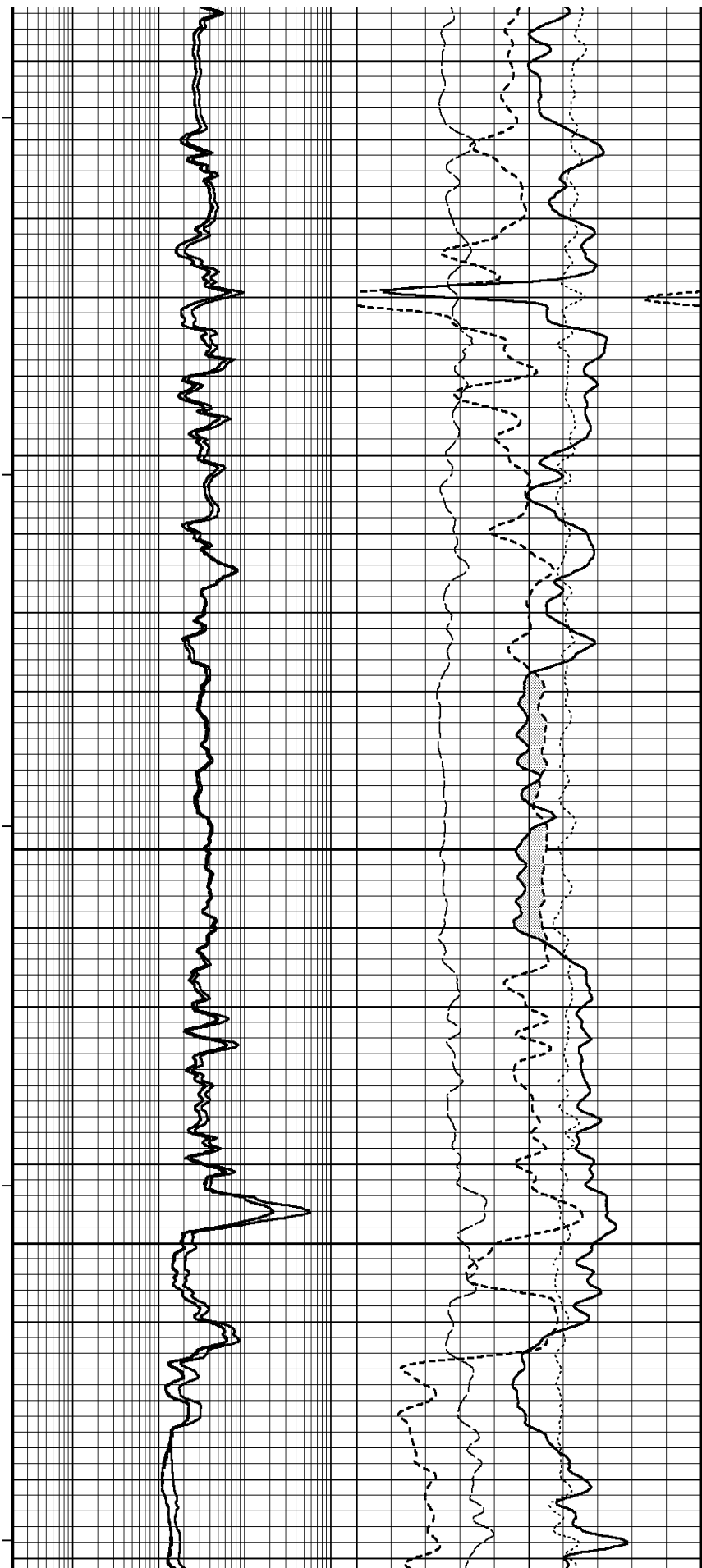
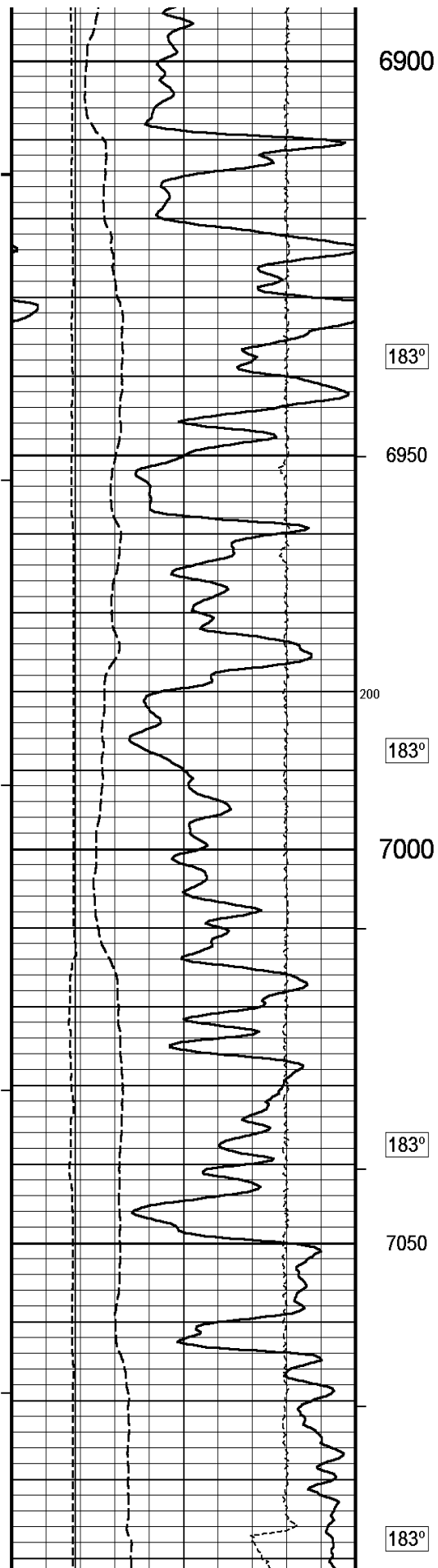
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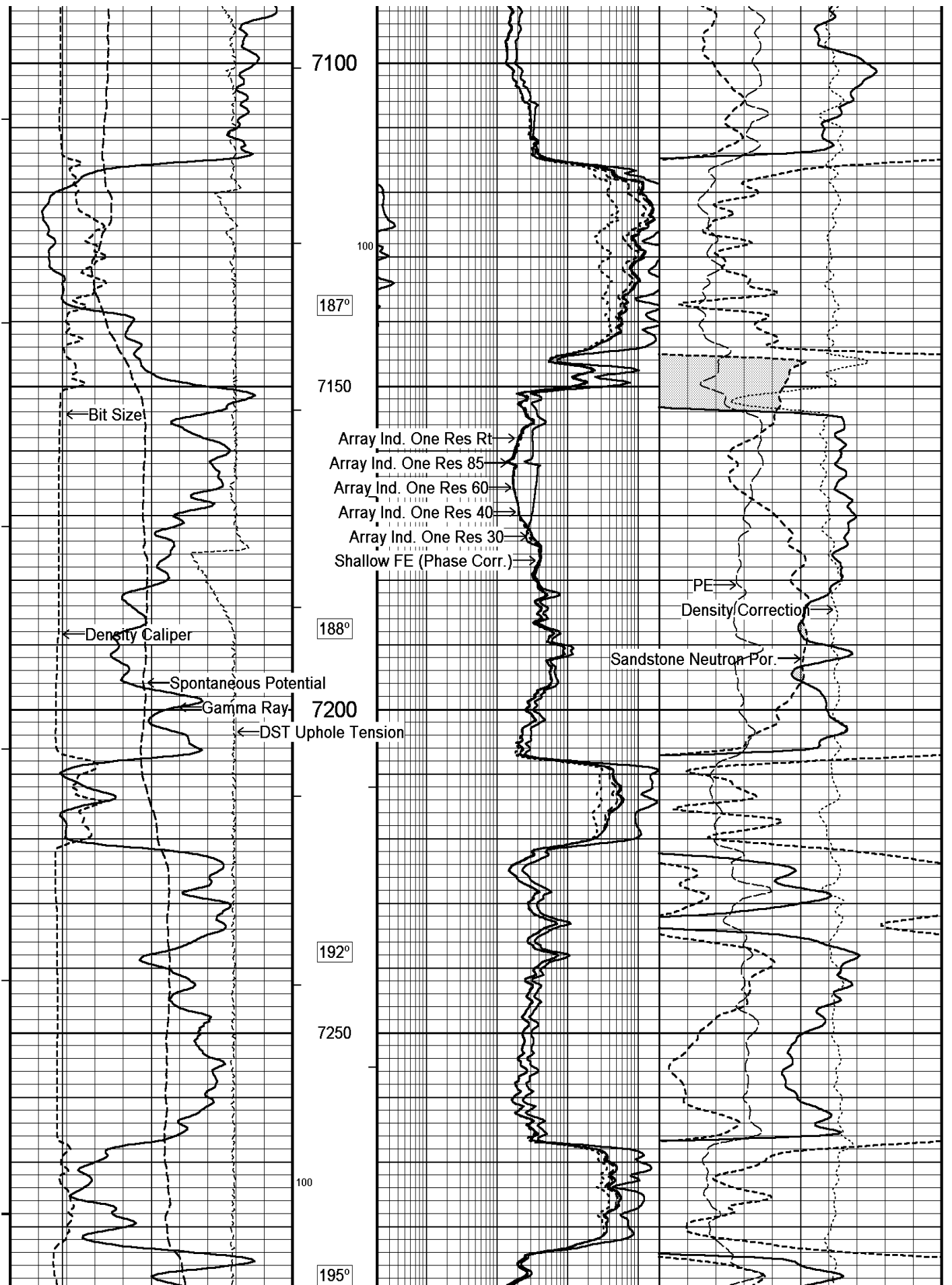
300

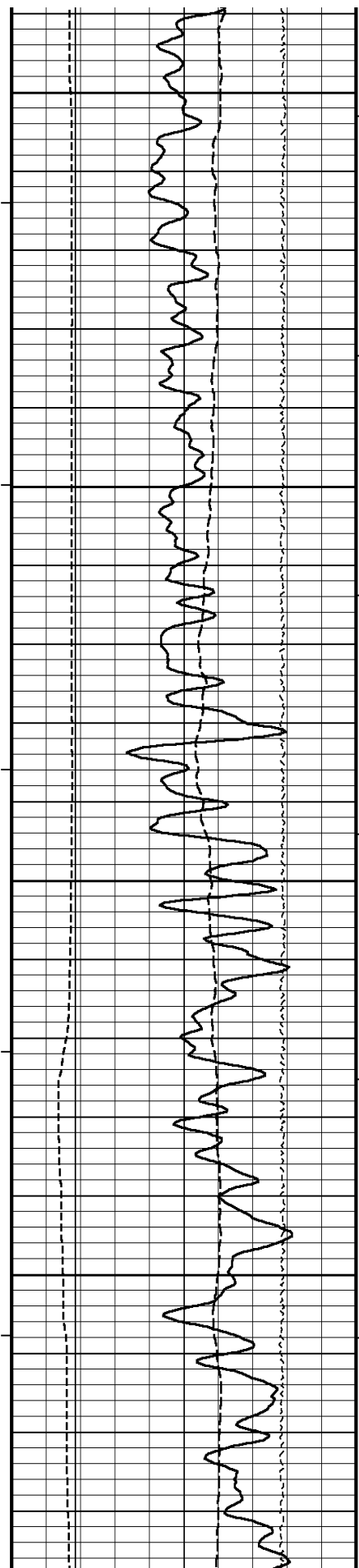












7300

196°

7350

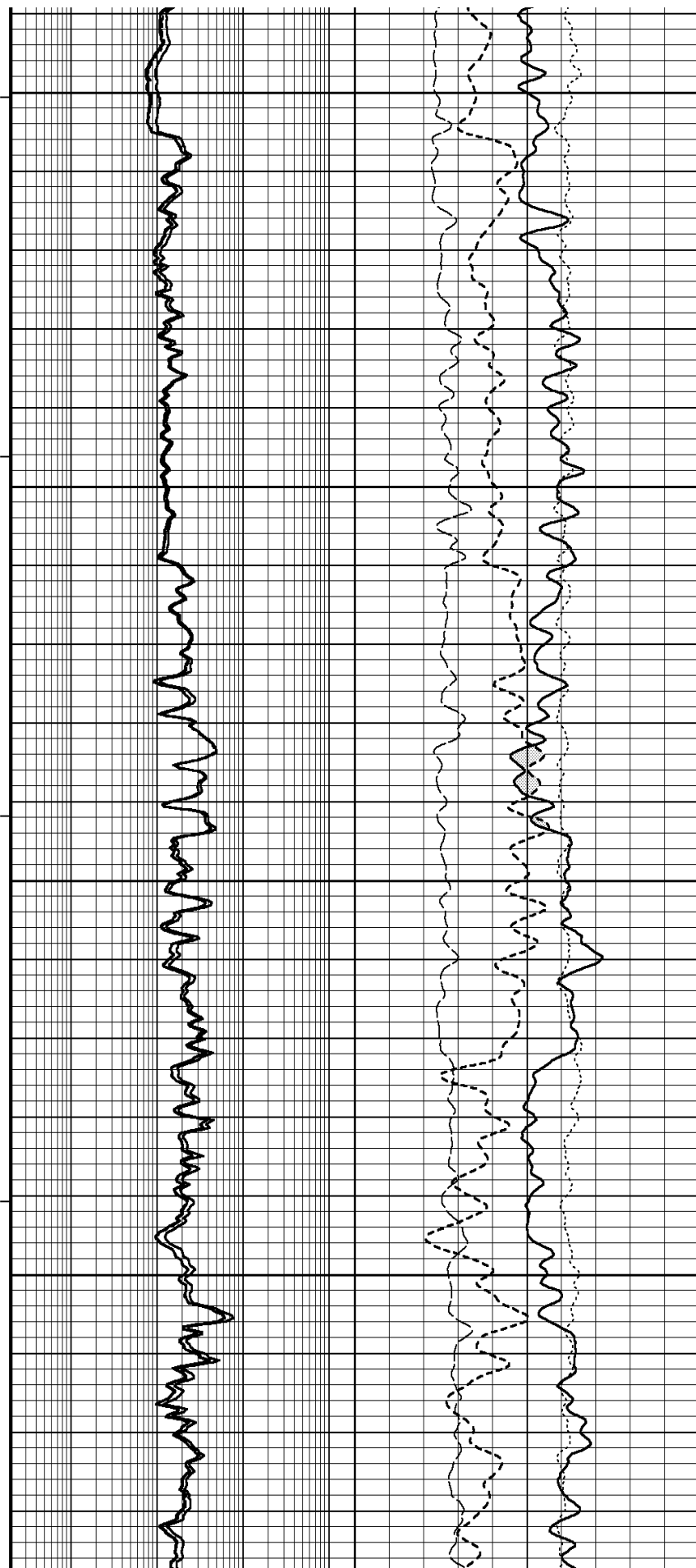
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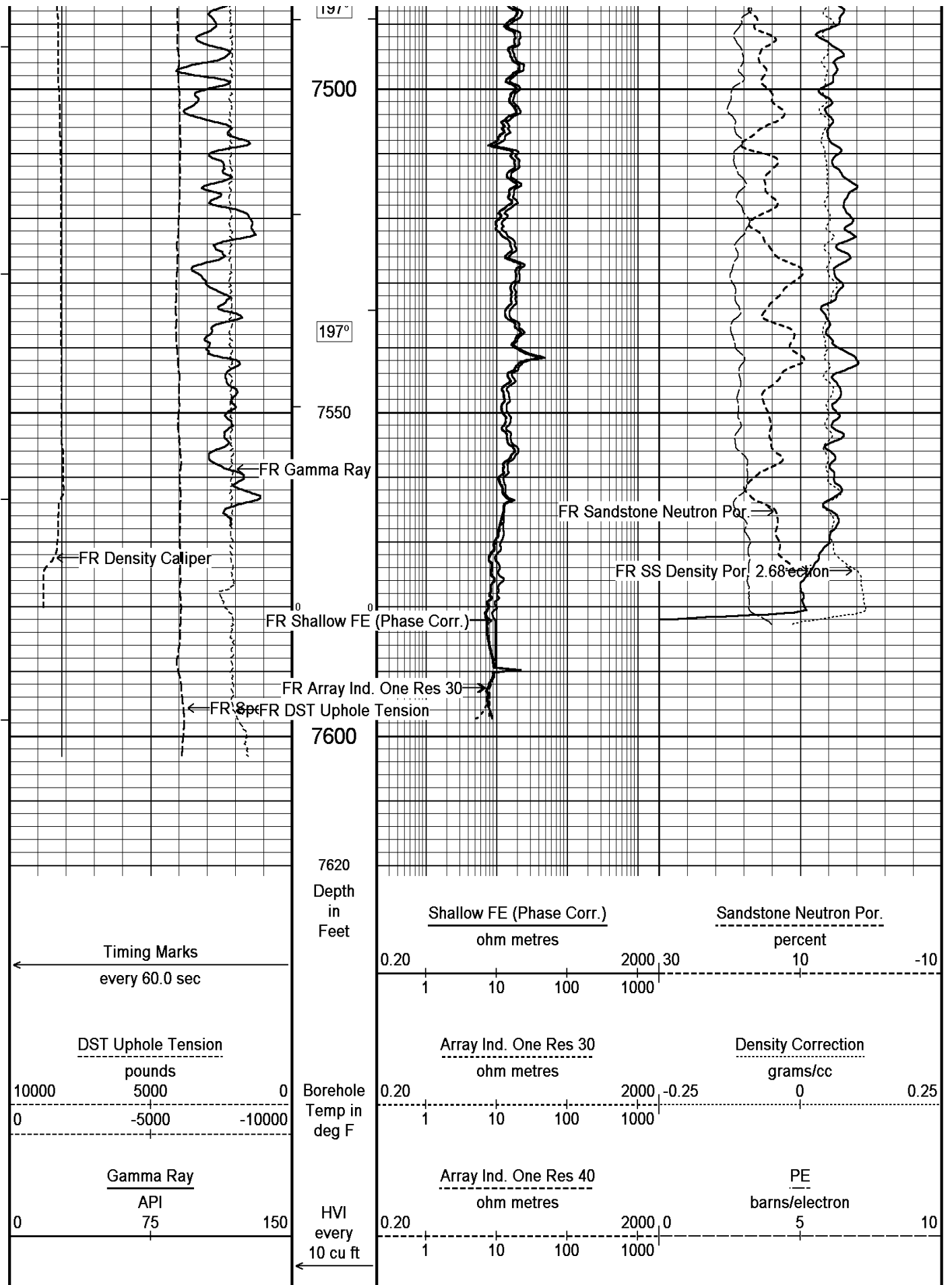
7400

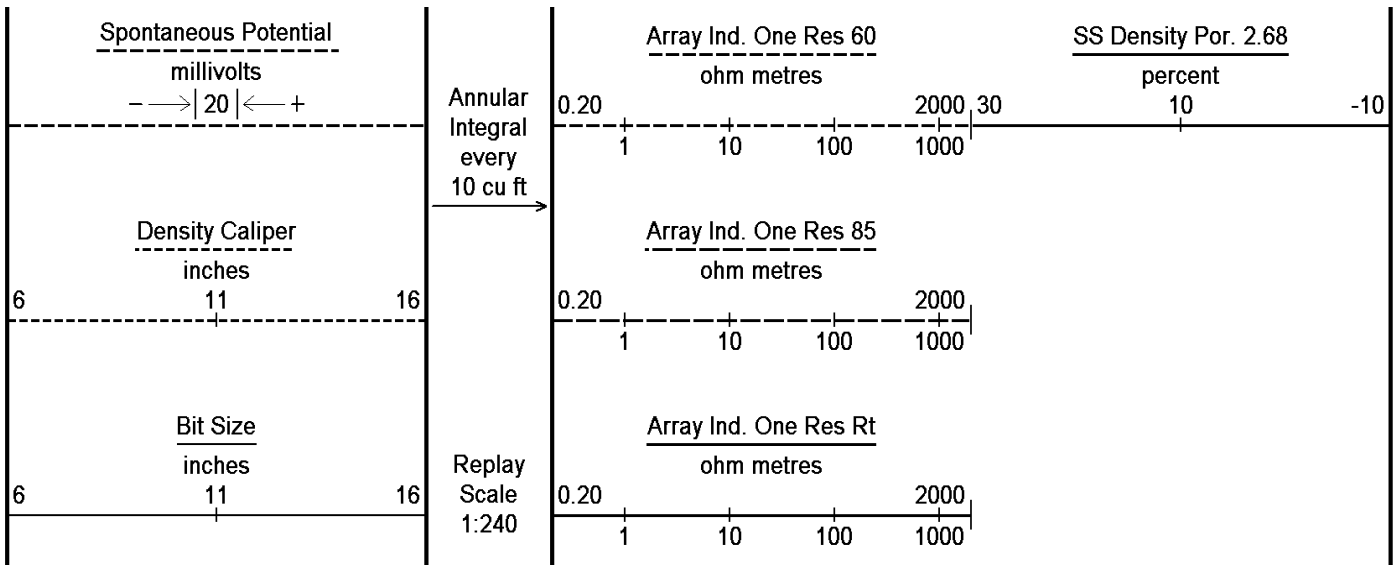
196°

7450

4070

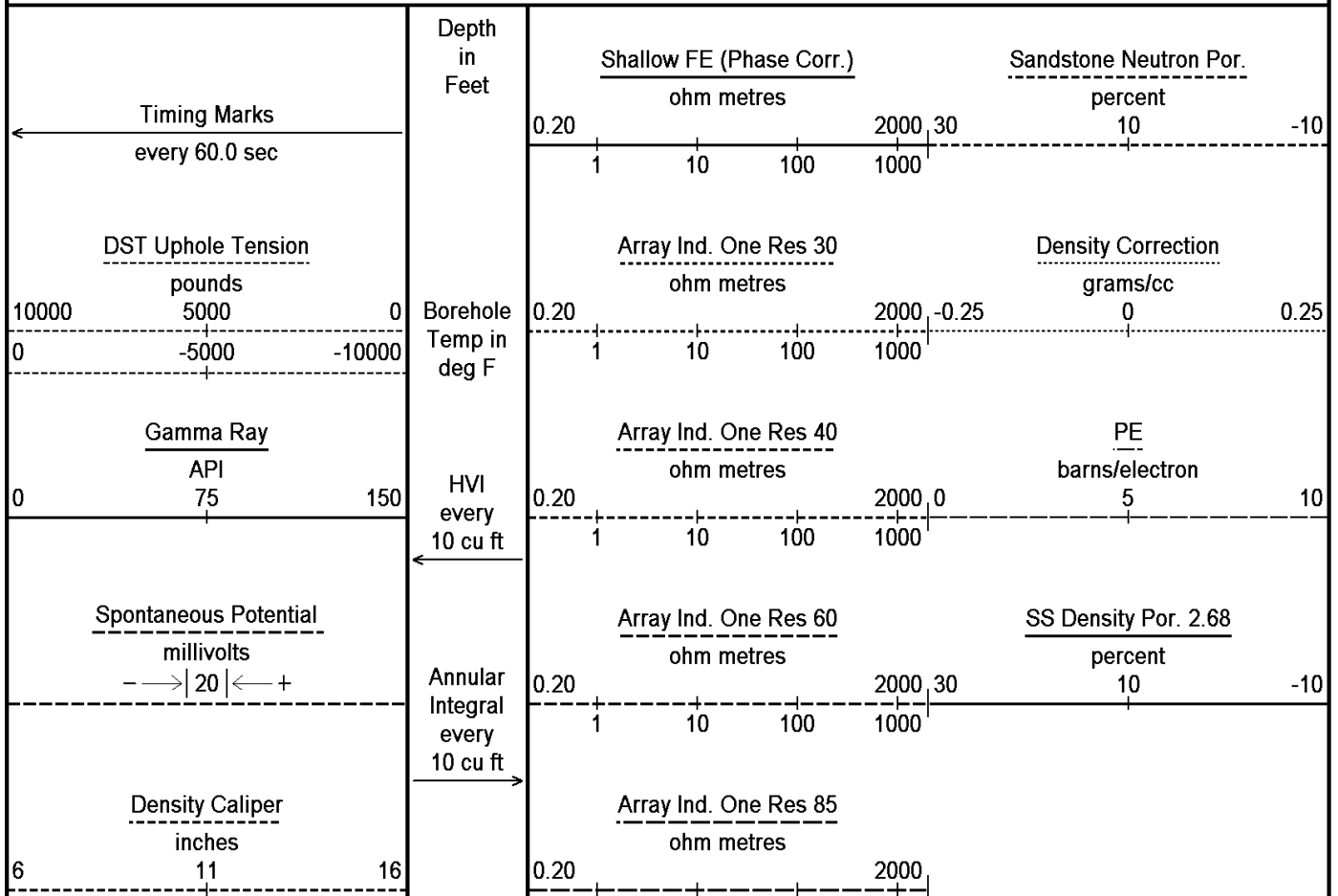
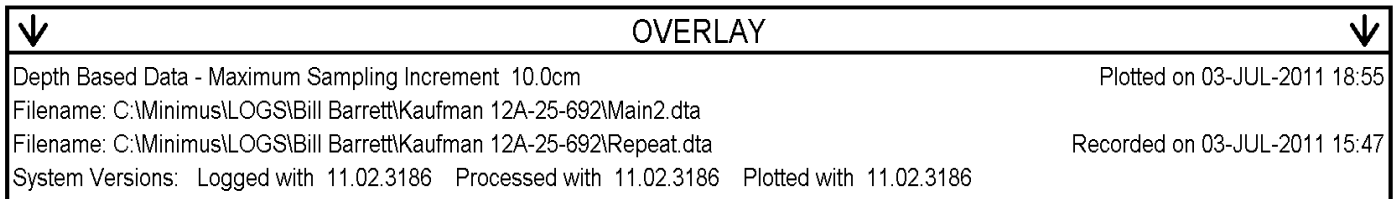


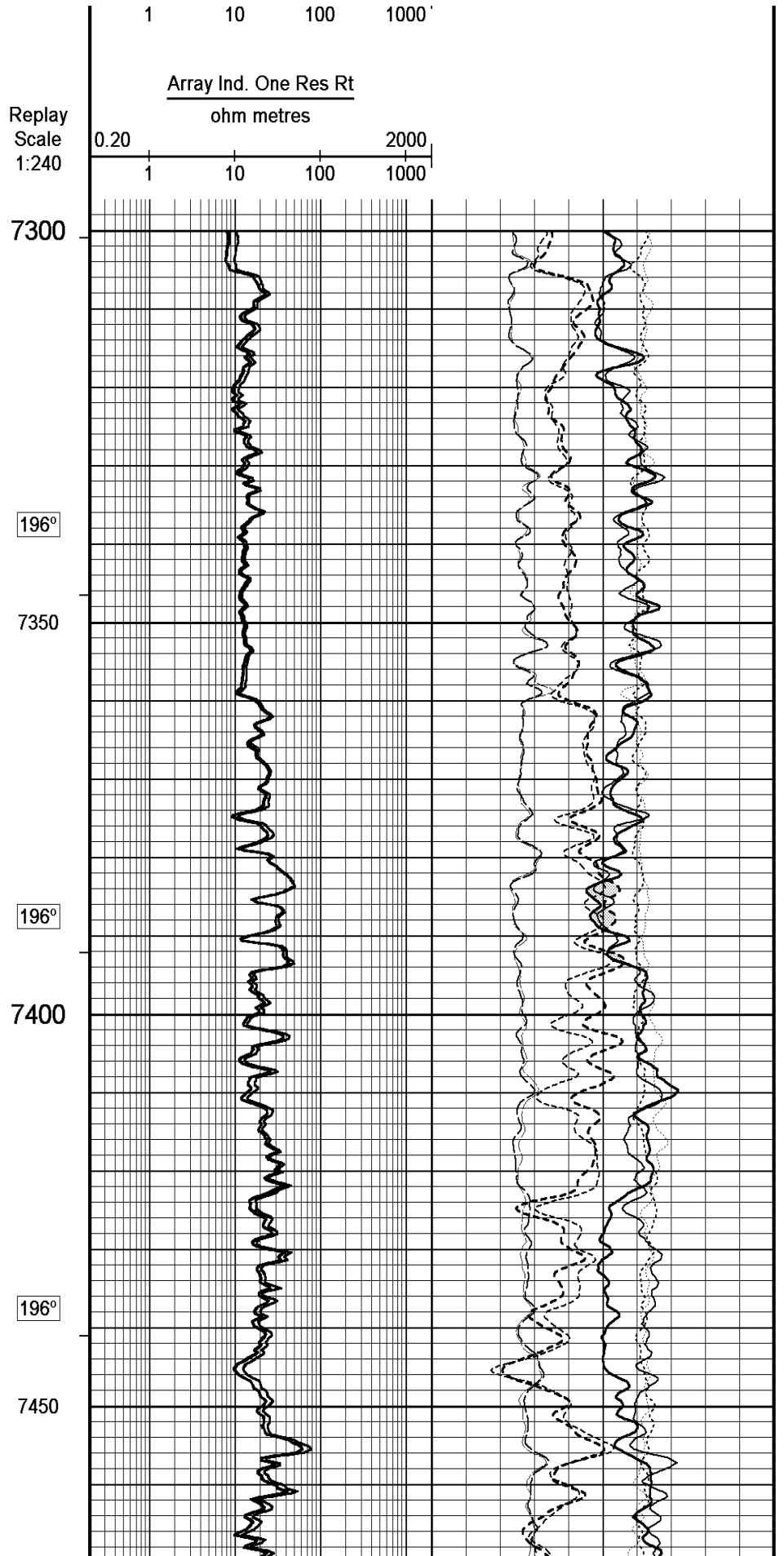
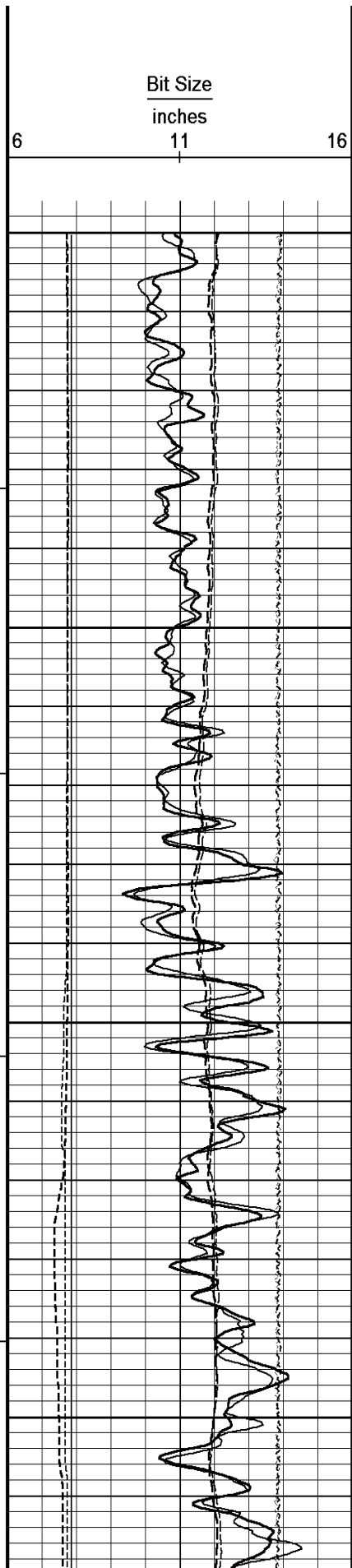


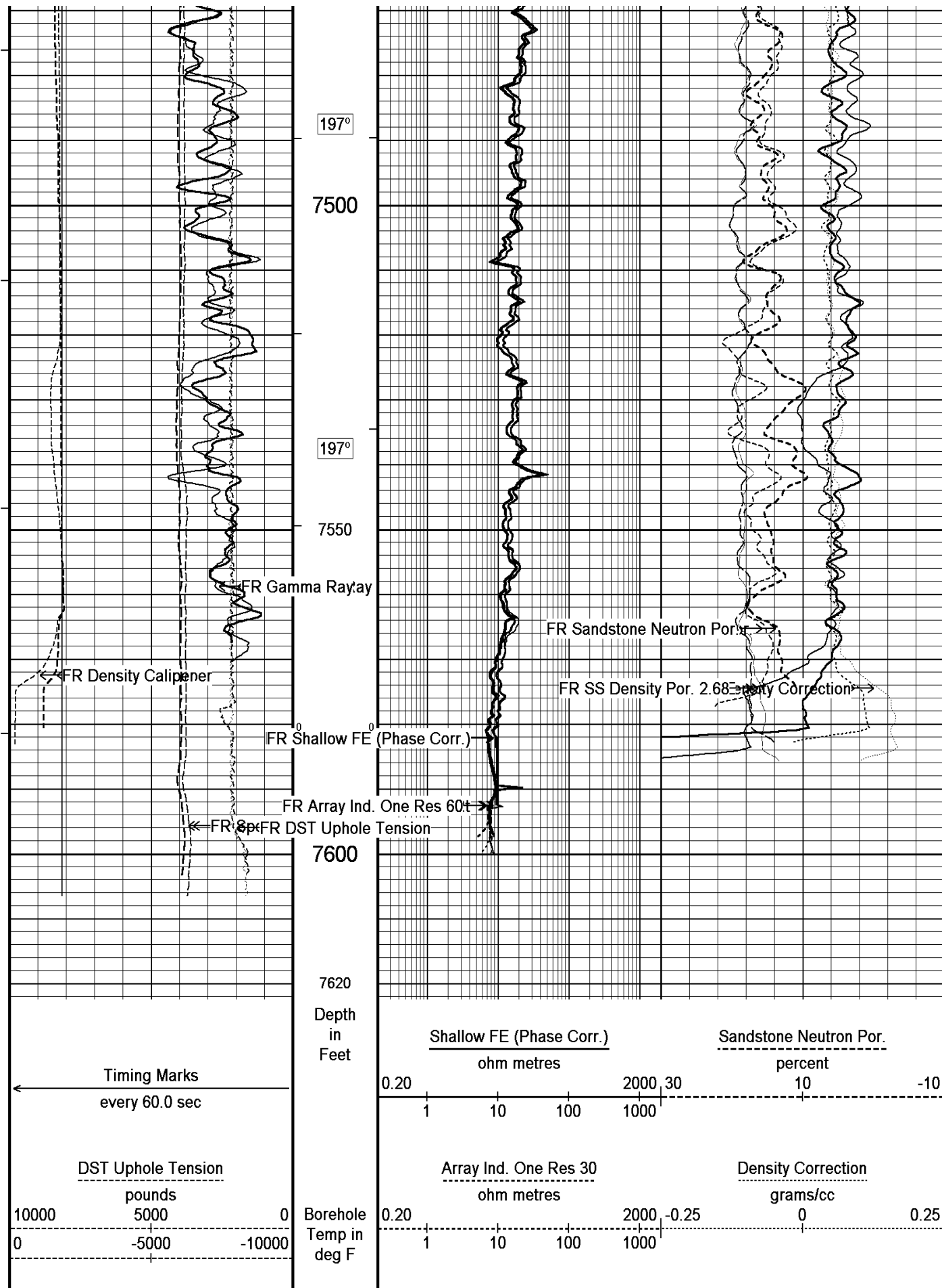


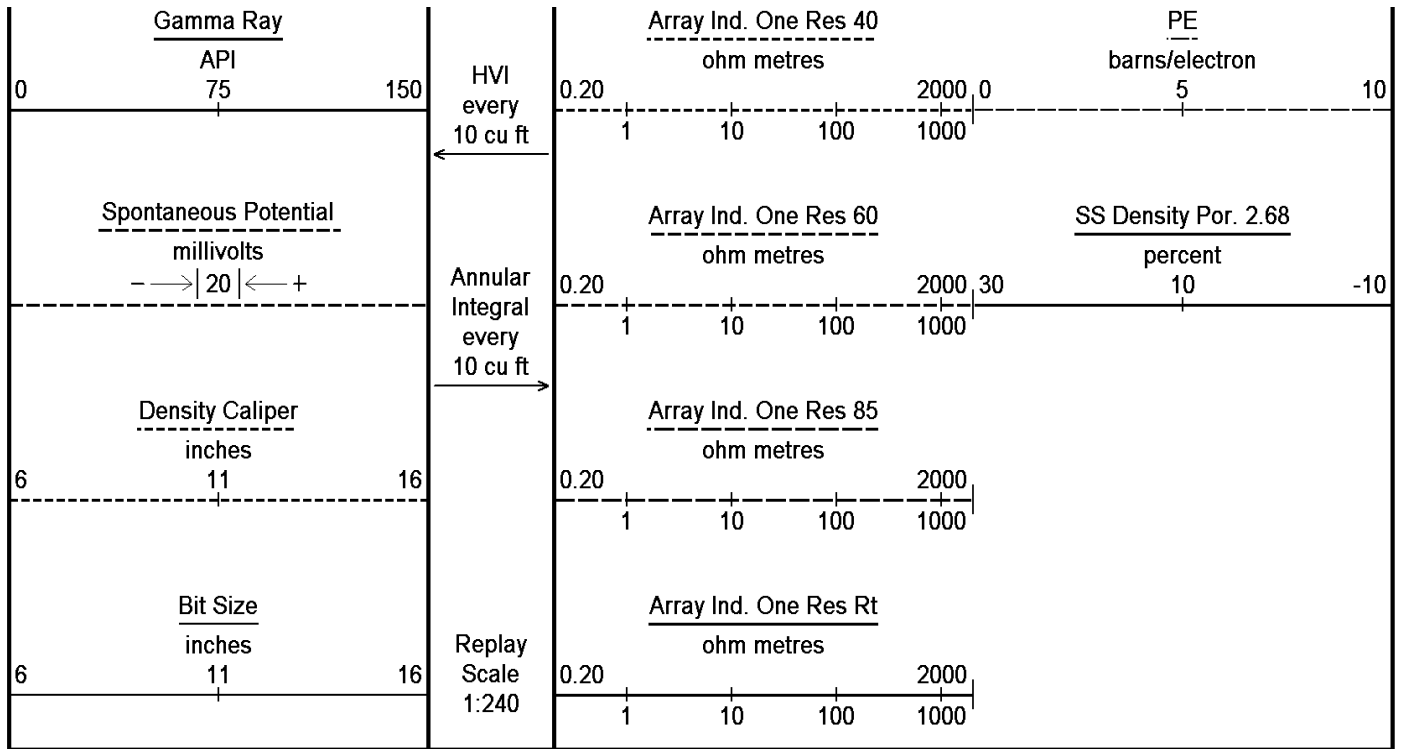
Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 03-JUL-2011 18:55
 Filename: C:\Minimus\LOGS\Bill Barrett\Kaufman 12A-25-692\Main2.dta
 System Versions: Logged with 11.02.3186 Processed with 11.02.3186 Plotted with 11.02.3186

↑ **5 INCH MAIN LOG** ↑









Depth Based Data - Maximum Sampling Increment 10.0cm Plotted on 03-JUL-2011 18:55
 Filename: C:\Minimus\LOGS\Bill Barrett\Kaufman 12A-25-692\Main2.dta
 Filename: C:\Minimus\LOGS\Bill Barrett\Kaufman 12A-25-692\Repeat.dta Recorded on 03-JUL-2011 15:47
 System Versions: Logged with 11.02.3186 Processed with 11.02.3186 Plotted with 11.02.3186

↑ OVERLAY ↑

BEFORE SURVEY CALIBRATION		
C:\Minimus\LOGS\Bill Barrett\Kaufman 12A-25-692\Main2.dta		
General Constants All 000		Last Edited on 03-JUL-2011,14:25
General Parameters		
Mud Resistivity	2.550	ohm-metres
Mud Resistivity Temperature	123.000	degrees F
Water Level	0.000	feet
Density/Neutron 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	4.500	inches
Caliper for Differential Caliper	Density Caliper	
Rwa Parameters		
Porosity used	Base Density Porosity	
Resistivity used	Array Ind. One Res Rt	
RWA Constant A	0.610	
RWA Constant M	2.150	
High Resolution Temperature Calibration MCG-D.A 342		Field Calibration on 03-JUL-2011,14:28
	Measured	Calibrated(Deg F)
Lower	10.00	10.00
Upper	100.00	100.00
High Resolution Temperature Constants MCG-D.A 342		Last Edited on 8-DEC-2009 15:54

High Resolution Temperature Constants MCG-D.A 342		Last Edited on 03-JUL-2011,14:26		
Pre-filter Length	11			
Gamma Calibration MCG-D.A 342		Field Calibration on 03-JUL-2011 02:35		
	Measured	Calibrated (API)		
Background	131	89		
Calibrator (Gross)	905	616		
Calibrator (Net)	774	527		
Gamma Constants MCG-D.A 342		Last Edited on 03-JUL-2011,14:26		
Gamma Calibrator Number	GRC-174			
Mud Density	1.00	gm/cc		
Caliper Source for Processing	Density Caliper			
Tool Position	Eccentred			
Concentration of KCl	0.00	kppm		
Neutron Calibration MDN-B.A 306		Base Calibration on 03-JUL-2011,04:56 Field Check on 03-JUL-2011,04:57		
Base Calibration				
	Measured		Calibrated (cps)	
	Near	Far	Near	Far
	2904	91	3714	110
Ratio	32.005		33.764	
Field Calibrator at Base				
			Calibrated (cps)	
			2292	3382
Ratio			0.678	
Field Check				
			Calibrated (cps)	
			2367	3457
Ratio			0.685	
Neutron Constants MDN-B.A 306		Last Edited on 03-JUL-2011,14:30		
Neutron Source Id	p44384b			
Neutron Jig Number	6584			
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	7.00	cu		
Dolomite Sigma	4.70	cu		
Formation Pressure Source	None			
Formation Pressure	N/A	kpsi		
Temperature Source	None			
Temperature	N/A	degrees F		
Mud Salinity	0.00	kppm		
Formation Fluid Salinity Source	None			
Formation Fluid Salinity	N/A	kppm		
Barite Mud Correction	Not Applied			
FE Calibration MFE-B.A 179		Base Calibration on 09-JUN-2011 13:34 Field Check on 03-JUL-2011 04:05		
Base Calibration				
	Measured	Calibrated (ohm-m)		
Reference 1	0.0	0.0		
Reference 2	961.3	126.8		
Base Check			280.4	
Field Check			280.8	
FE Constants MFE-B.A 179		Last Edited on 03-JUL-2011,14:26		

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

Induction Calibration MAI-B.A 301

Base Calibration on 09-JUN-2010, 11:38
 Field Check on 03-JUL-2011 04:07

Base Calibration

Test Loop Calibration Channel	Measured		Calibrated (mmho/m)	
	Low	High	Low	High
1	17.5	487.4	9.3	966.2
2	5.9	392.1	7.6	821.4
3	3.8	259.5	5.2	566.0
4	2.0	137.2	2.6	279.2

Array Temperature 71.1 Deg F

Channel	Base Check (mmho/m)		Field Check (mmho/m)	
	Low	High	Low	High
1	0.0	0.0	12.3	3734.3
2	0.0	0.0	30.1	3445.0
3	0.0	0.0	28.2	3059.1
4	0.0	0.0	19.1	2020.6
Deep	0.0	0.0	16.5	2016.6
Medium	0.0	0.0	41.8	4069.9
Shallow	0.0	0.0	46.0	5043.1

Array Temperature 0.0 67.3 Deg F

Induction Constants MAI-B.A 301

Last Edited on 03-JUL-2011, 14:33

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	

Photo Density Calibration MPD-C.A 298

Base Calibration on 12-JUN-2011 14:53
Field Check on 03-JUL-2011 04:03

Density Calibration				
Base Calibration				
	Near	Measured Far	Near	Calibrated (sdu) Far
Reference 1	50099	16826	53237	19445
Reference 2	23038	2568	25135	2545

Field Check at Base
1239.2 1382.1

Field Check
1237.6 1381.3

PE Calibration				
Base Calibration				
	WS	Measured WH	Ratio	Calibrated Ratio
Background	225	1107		
Reference 1	17368	49908	0.351	0.320
Reference 2	6575	22894	0.291	0.274

Field Check at Base
225.4 1107.1

Field Check
224.2 1107.5

Density Constants MPD-C.A 298

Last Edited on 03-JUL-2011,14:31

Density Source Id	P44263B	
Nylon Calibrator Number	532	
Aluminium Calibrator Number	532	
Density Shoe Profile	8 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.26	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)
2.68	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.A 298


Base Calibration on 12-JUN-2011 15:04
Field Calibration on 03-JUL-2011,14:32

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	17760	3.98
2	26044	5.96
3	33840	7.96
4	42001	9.86
5	51232	11.88
6	N/A	N/A

Field Calibration	Measured Caliper (in)	Actual Caliper (in)
	7.95	7.96

AFTER SURVEY CALIBRATION					
C:\Minimus\LOGS\Bill Barrett\Kaufman 12A-25-692\Main2.dta					
Gamma Check MCG-D.A 342			Field Calibration on 03-JUL-2011 02:35 After Survey Check on 03-JUL-2011 10:19		
	Before (API)		After (API)		
Background	89		107		
Calibrator (Gross)	616		634		
Calibrator (Net)	527		527		
FE Check MFE-B.A 179			Before Survey Check 03-JUL-2011 04:05 After Survey Check on 03-JUL-2011 18:52		
	Before (ohm-m)		After (ohm-m)		
	280.8		280.6		
Induction Check MAI-B.A 301			Before Survey Check on 03-JUL-2011 04:07 After Survey Check on 03-JUL-2011 18:54		
Channel	Before Survey (mmho/m)		After Survey (mmho/m)		
	Low	High	Low	High	
1	12.3	3734.3	14.2	3733.1	
2	30.1	3445.0	30.9	3442.5	
3	28.2	3059.1	28.7	3056.9	
4	19.1	2020.6	19.4	2019.0	
Deep	16.5	2016.6	16.9	2015.3	
Medium	41.8	4069.9	42.3	4066.6	
Shallow	46.0	5043.1	47.1	5039.3	
Array Temperature	67.3		90.6	Deg F	
Photo Density Check MPD-C.A 298			Before Survey Check on 03-JUL-2011 04:03 After Survey Check on 03-JUL-2011 18:51		
Density Check					
	Near		Far		
	Before	After	Before	After	
	1237.6	1240.1	1381.3	1382.2	
PE Check					
	Before		After		
WS	224.2		223.3		
WH	1107.5		1104.5		

DOWNHOLE EQUIPMENT	
C:\Minimus\LOGS\Bill Barrett\Kaufman 12A-25-692\Main2.dta	
MCB-A 11B Tension Cablehead	
MCB-A 95 LG: 2.18 ft WT: 19.8 lb OD: 2.24 in	
SHA 1A Cement Spigot Head Adapter	

SHA-J.A Compact Swivel Head Adaptor
 SHA-J.A 213 LG: 2.30 ft WT: 22.0 lb OD: 2.24 in

Compact Comms Gamma
 MCG-D.A 342 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Compact Neutron
 MDN-B.A 306 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

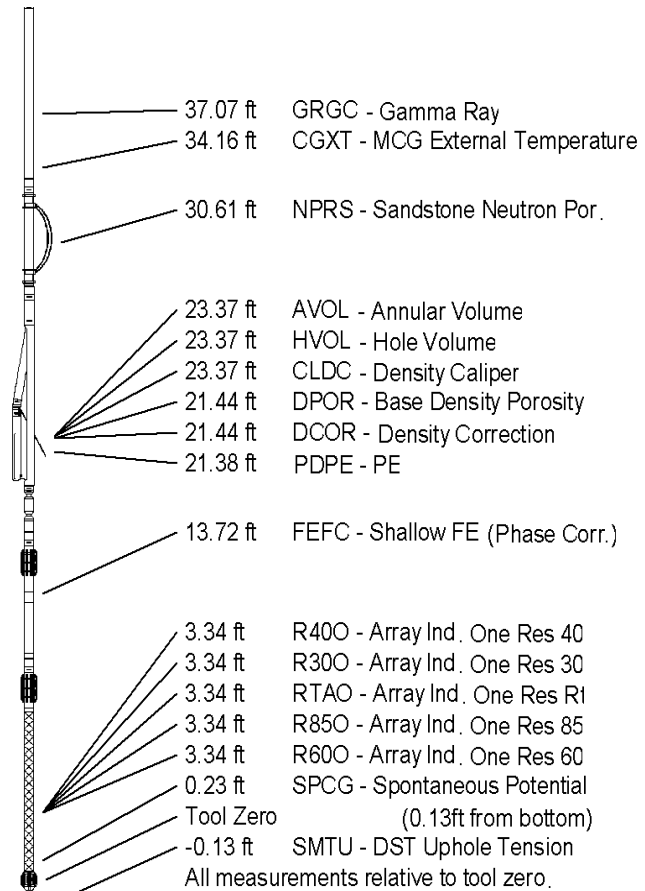
Compact Density/Caliper
 MPD-C.A 298 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in

SKJ-D.A Compact Knuckle Joint
 SKJ-D.A 115 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

Compact Focussed Electric
 MFE-B.A 179 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

Compact Induction
 MAI-B.A 301 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 46.83 ft Weight: 368.2 lb



COMPANY	BILL BARRETT CORPORATION
WELL	KAUFMAN 12A-25-692
FIELD	MAMM CREEK
PROVINCE/COUNTY	GARFIELD
COUNTRY/STATE	U.S.A. / COLORADO

Elevation Kelly Bushing	5945.00	feet	First Reading	7593.00	
Elevation Drill Floor	5944.00	feet	Depth Driller	7602.00	feet
Elevation Ground Level	5922.00	feet	Depth Logger	7596.00	feet



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