



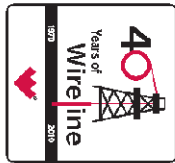
Weatherford

COMPACT TRIPLE COMBO

QUICKLOOK

LOG

COMPANY **BILL BARRETT CORPORATION**
WELL **GGU MILLER 14C-31-691**
FIELD **GIBSON GULCH**
PROVINCE/COUNTY **GARFIELD**
COUNTRY/STATE **U.S.A. / COLORADO**
LOCATION **SHL: 1579' FSL & 1359' FWL**
BHL: 815' FSL & 665' FWL



SEC **TWP** **RGE** **Other Services**
31 **6S** **91W**
API Number **05-045-19508**
Permit Number

Permanent Datum G.L., Elevation 6029 feet
Log Measured From K.B. @ 16 FEET above Permanent Datum
Drilling Measured From K.B.

Elevations: **feet**
KB **6045.00**
DF **6044.00**
GL **6029.00**

Date	14-APR-2011	
Run Number	ONE	
Depth Driller	7120.00	feet
Depth Logger	7118.00	feet
First Reading	7118.00	
Last Reading	743.00	
Casing Driller	735.00	feet
Casing Logger	743.00	feet
Bit Size	7.875	inches
Hole Fluid Type	LSND	
Density / Viscosity	11.45 lb/USg	49.00 CP
PH / Fluid Loss	10.10	10.80 ml/30Min
Sample Source	FLOW LINE	
Rm @ Measured Temp	1.64 @ 57.7	ohm-m
Rmf @ Measured Temp	1.31 @ 57.7	ohm-m
Rmc @ Measured Temp	1.97 @ 57.7	ohm-m
Source Rmf / Rmc	CALC	CALC
Rm @ BHT	0.61 @162.0	ohm-m
Time Since Circulation	8 HOURS	
Max Recorded Temp	164.00	deg F
Equipment Name	COMPACT	
Equipment / Base	13037	RK SPR
Recorded By	W. HANKS	
Witnessed By	R. WIRTH	

BOREHOLE RECORD

Last Edited: 14-APR-2011 16:30

Bit Size inches	Depth From feet	Depth To feet
8.750	764.00	5494.00
7.875	5494.00	7575.00

CASING RECORD

Type	Size inches	Depth From feet	Shoe Depth feet	Weight pounds/ft
SURFACE	9.625	0.00	764.00	36.00

REMARKS

SOFTWARE VERSION: WLS 11.02.3186

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

HARDWARE: MPD: (1) 8 INCH PROFILE PLATE
MAI: (2) 1 INCH STANDOFF
MFE: (1) 1 INCH STANDOFF
MDN: (1) DUAL BOWSPRING

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.

TOTAL HOLE VOLUME FROM TD TO SURFACE CASING = 2963 CU.FT.

ANNULAR VOLUME WITH 4.5 INCH PRODUCTION CASING = 2259 CU.FT.

ENGINEER(S): W. HANKS

OPERATOR(S): D. SMITH

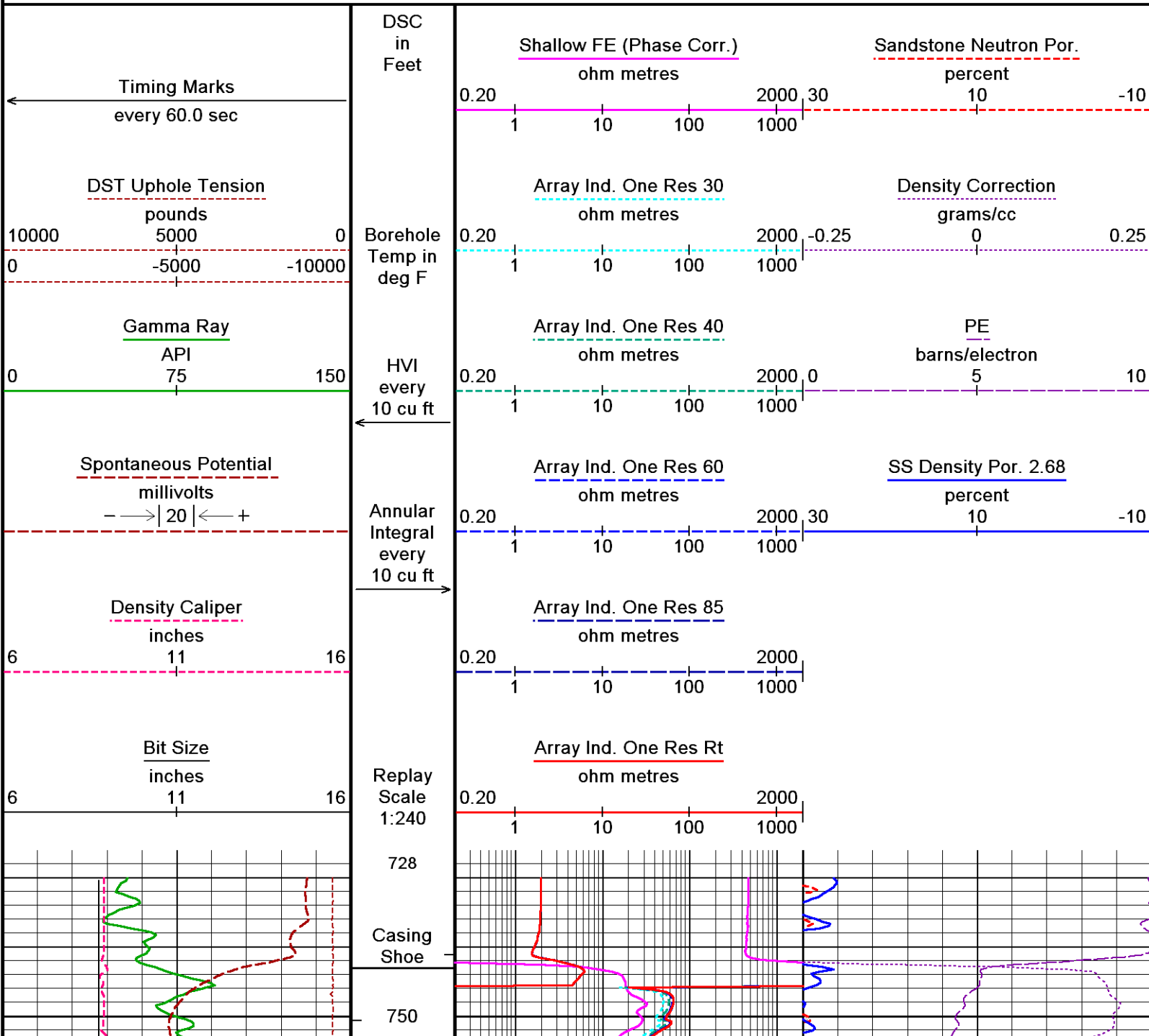
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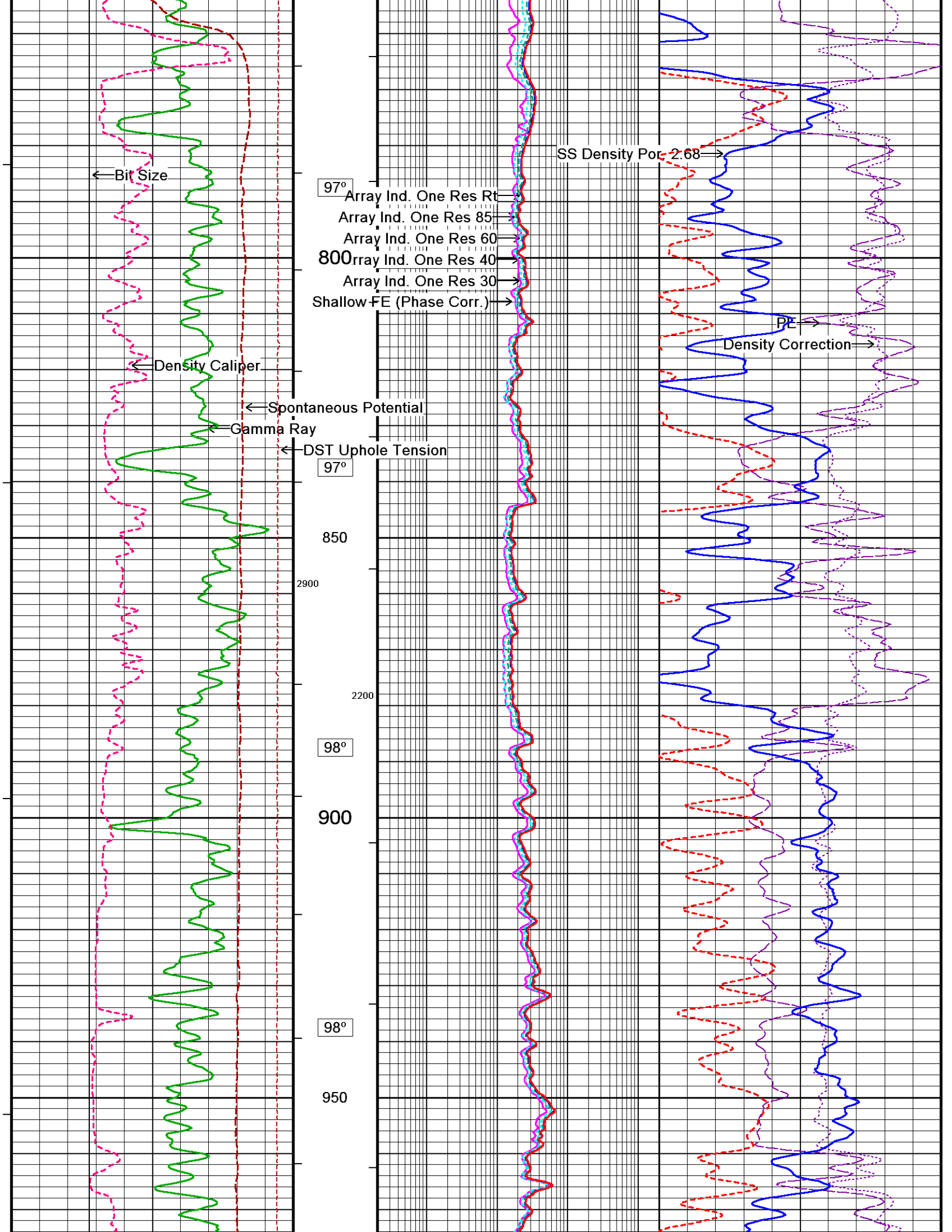
RIG: PATTERSON #51

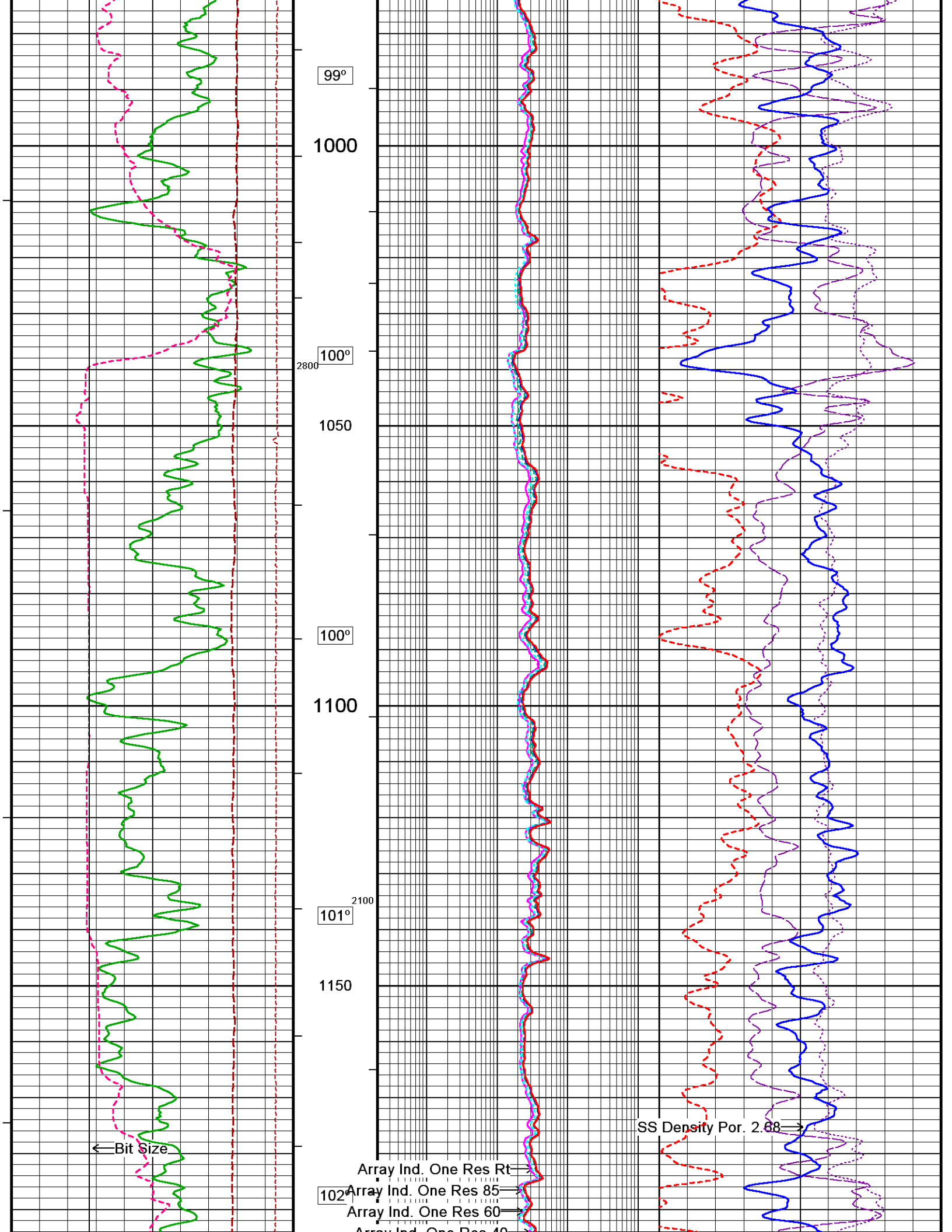
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or wilful negligence on our part, be liable or responsible for any loss, costs,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

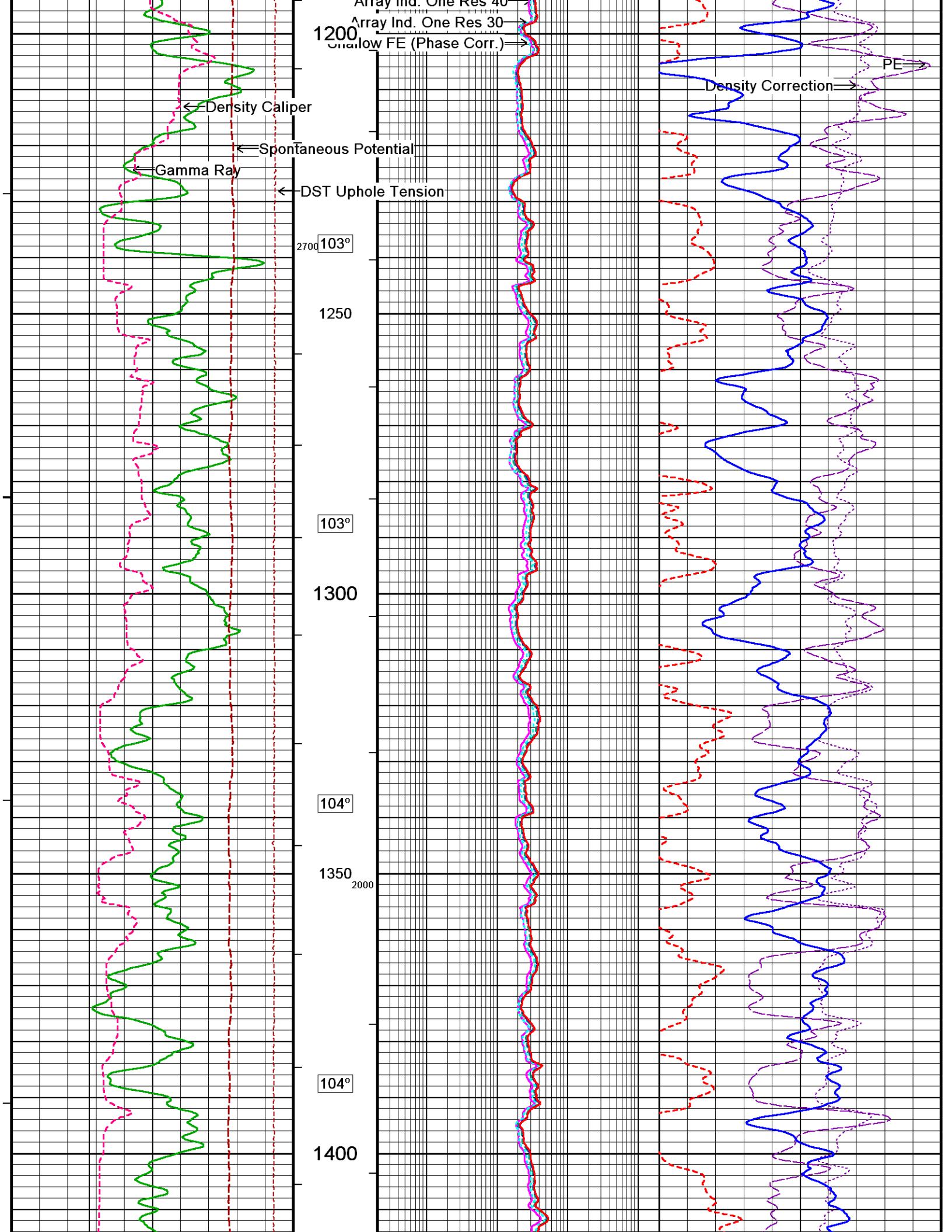
5 INCH MAIN LOG

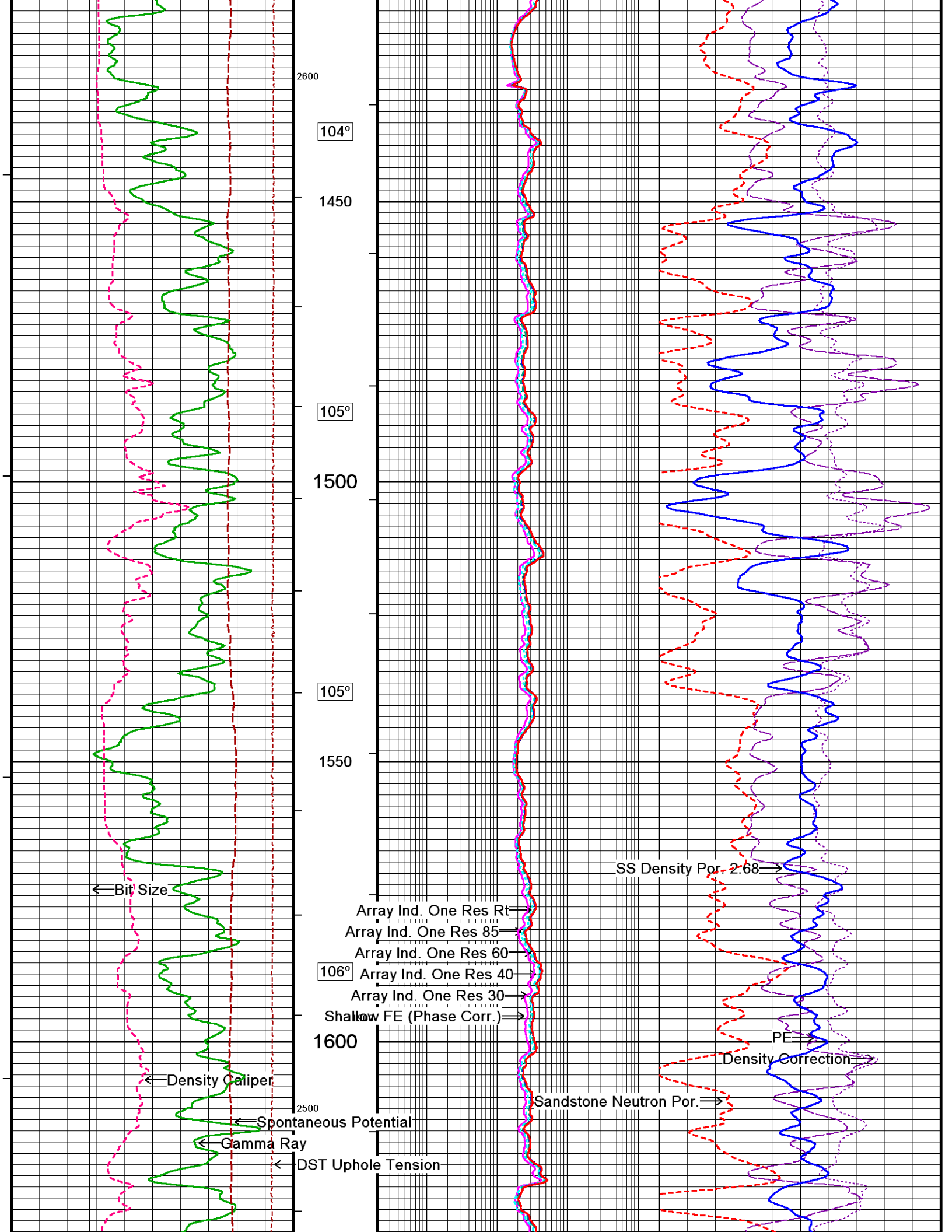
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 System Versions: Logged with 11.02.3186 Plotted with 11.02.2164

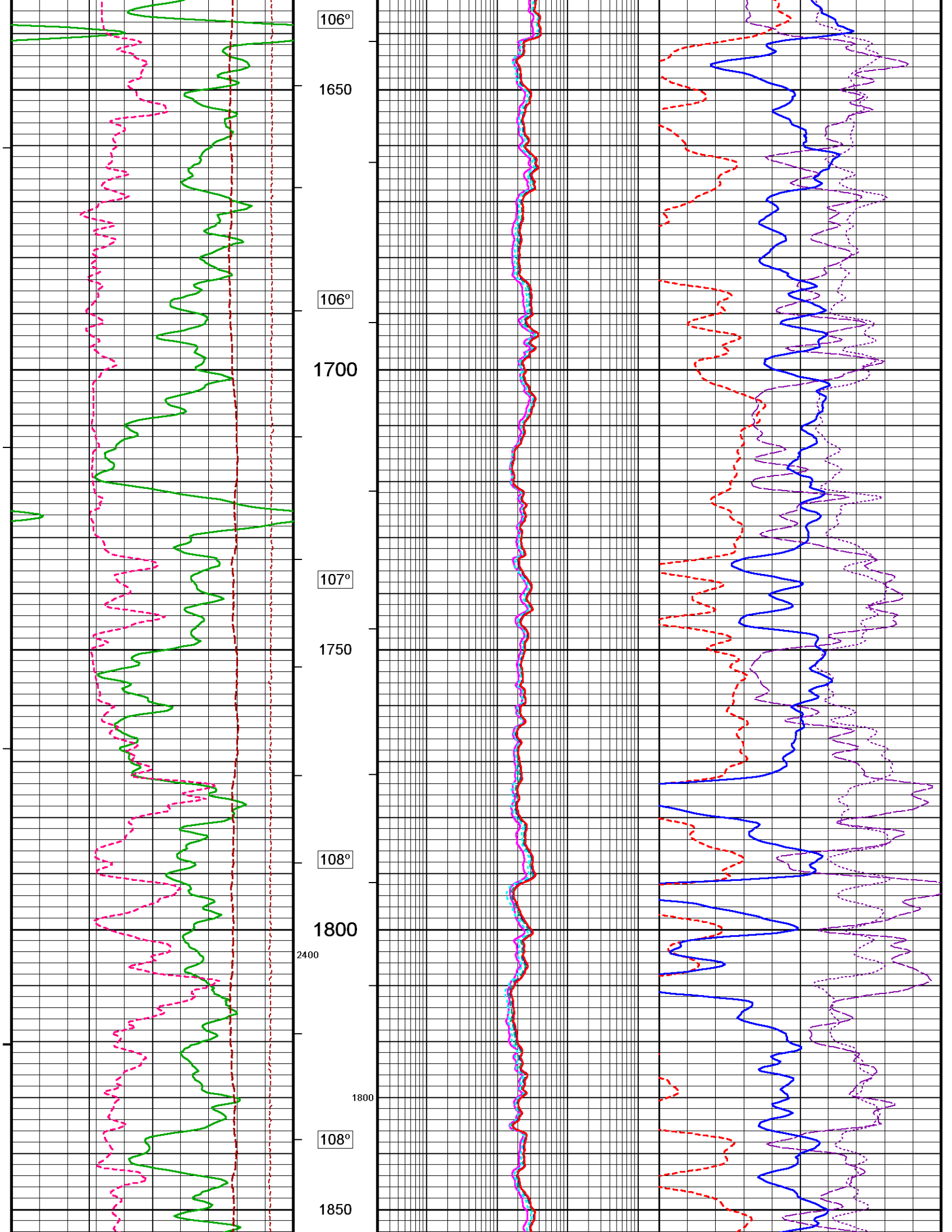


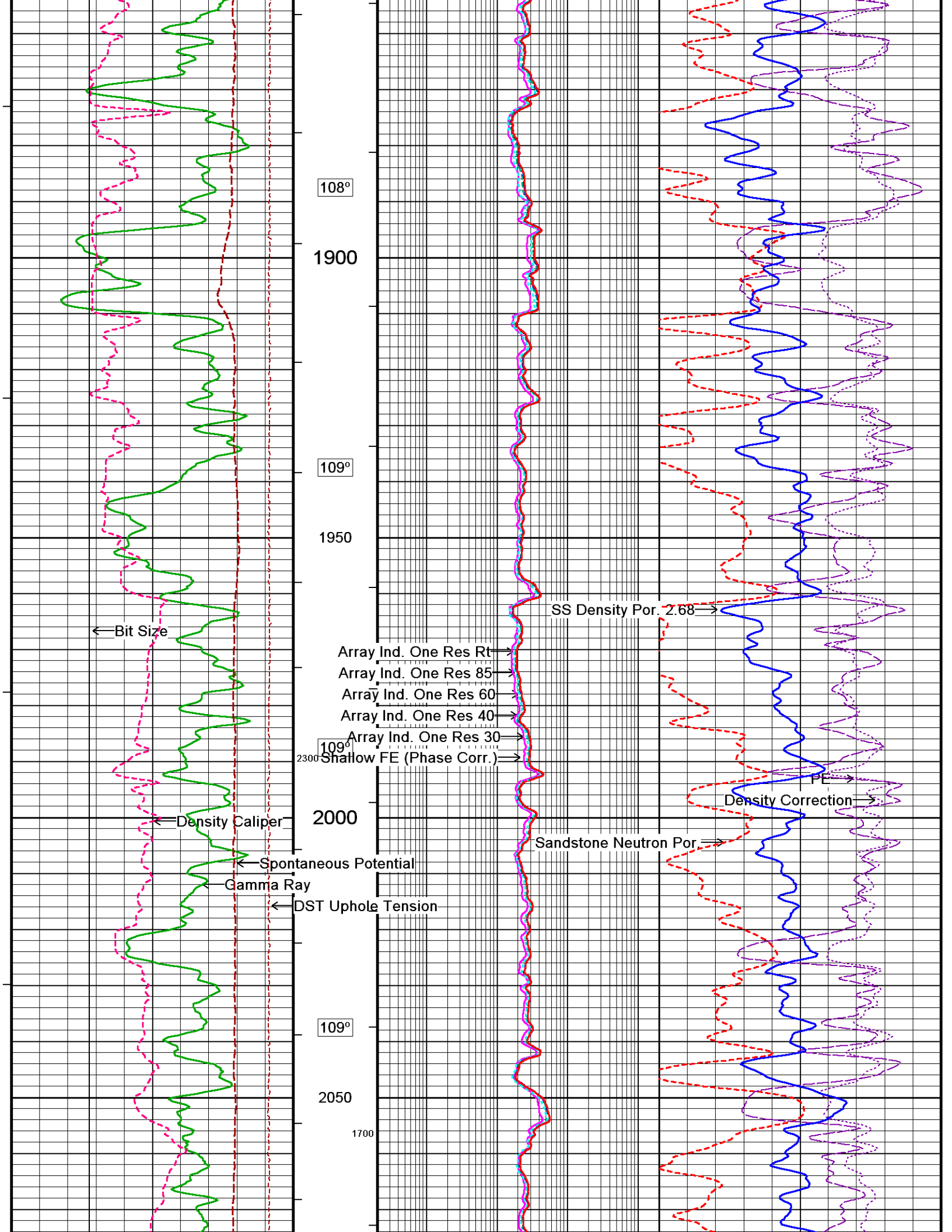


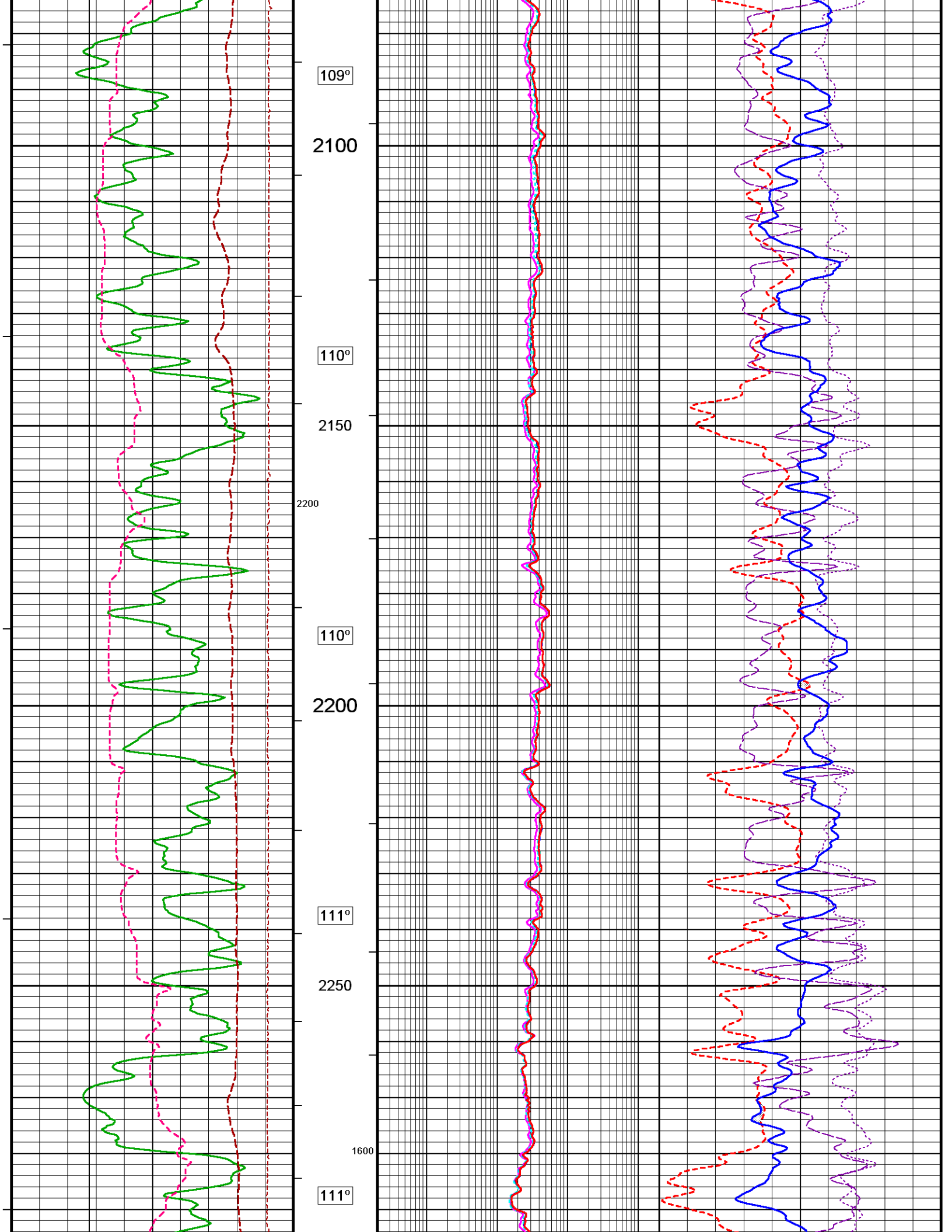


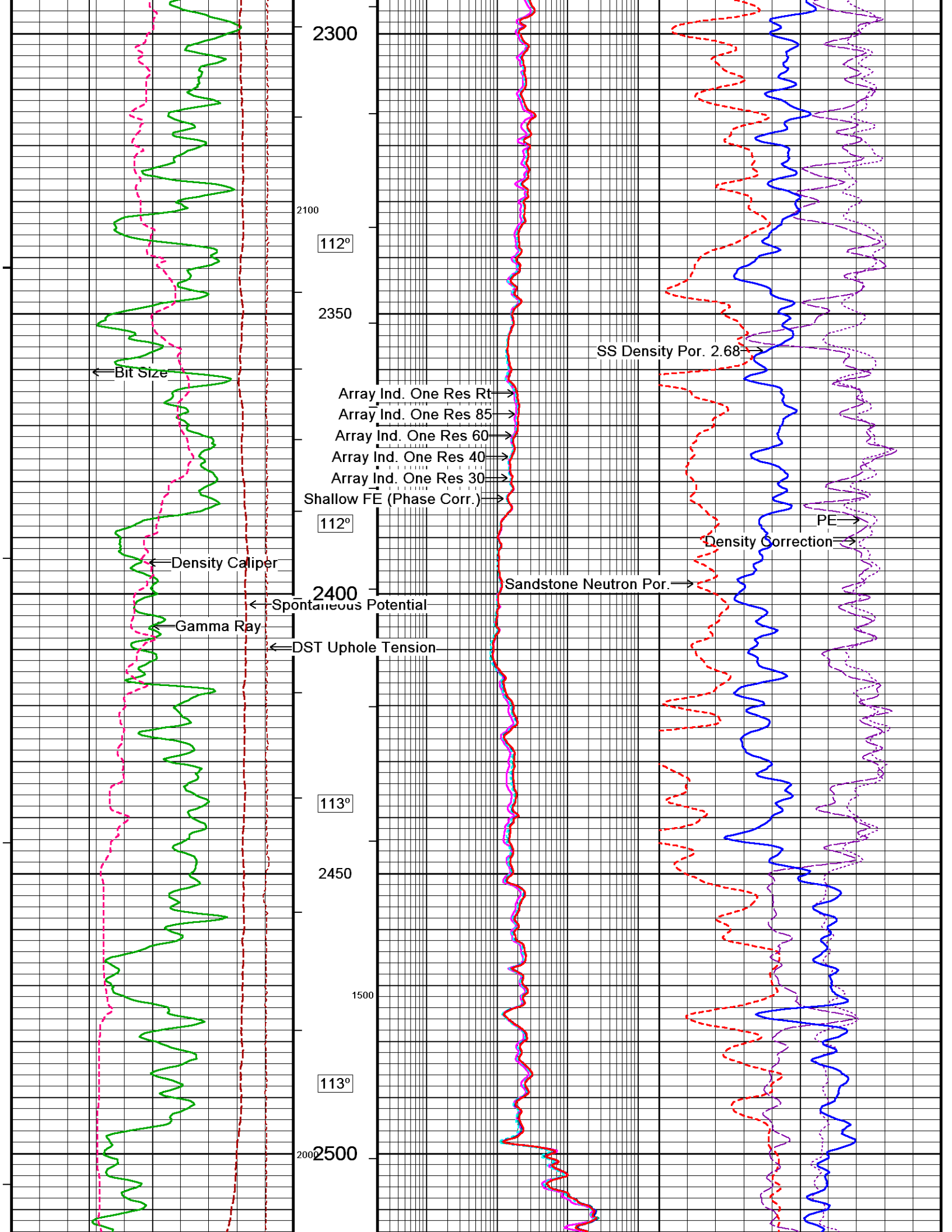


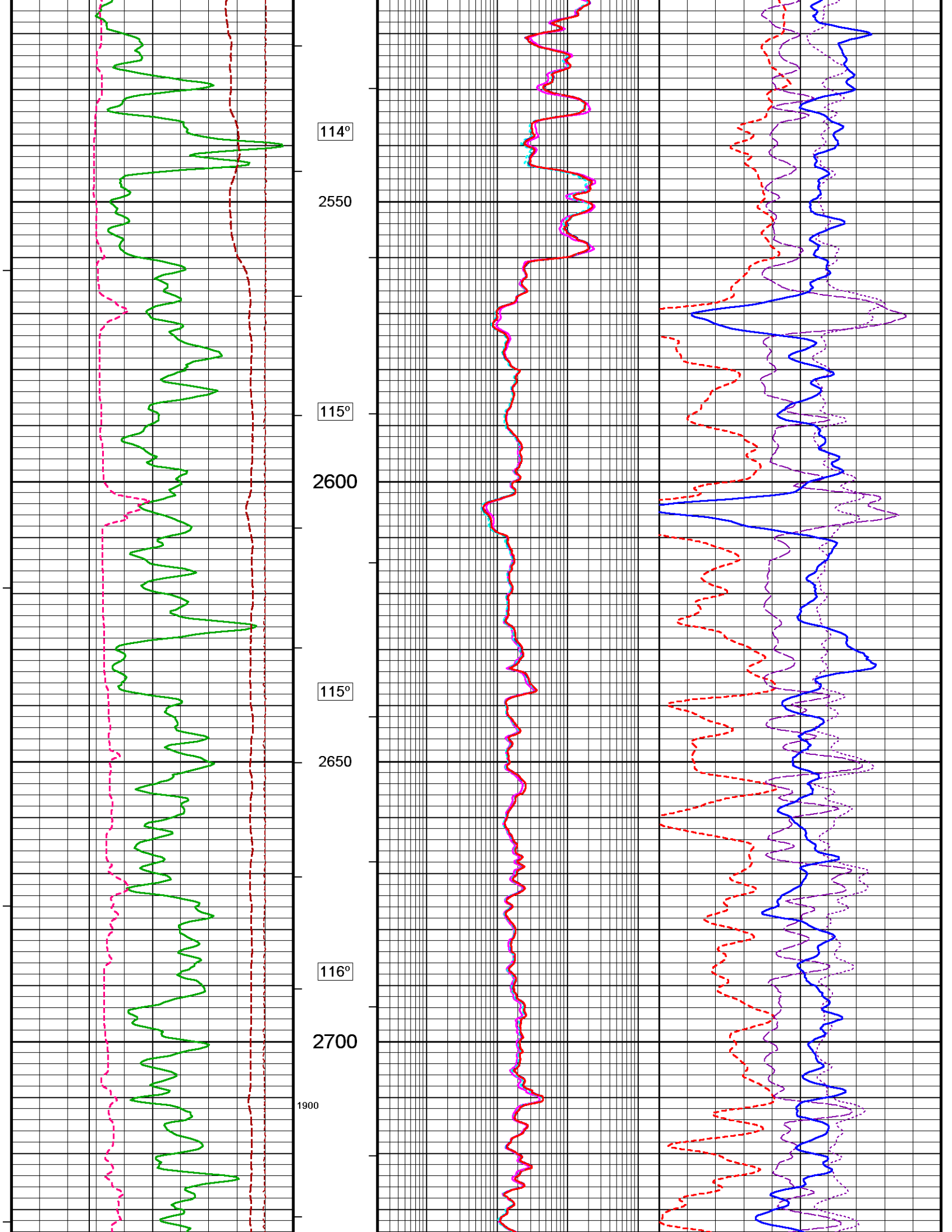


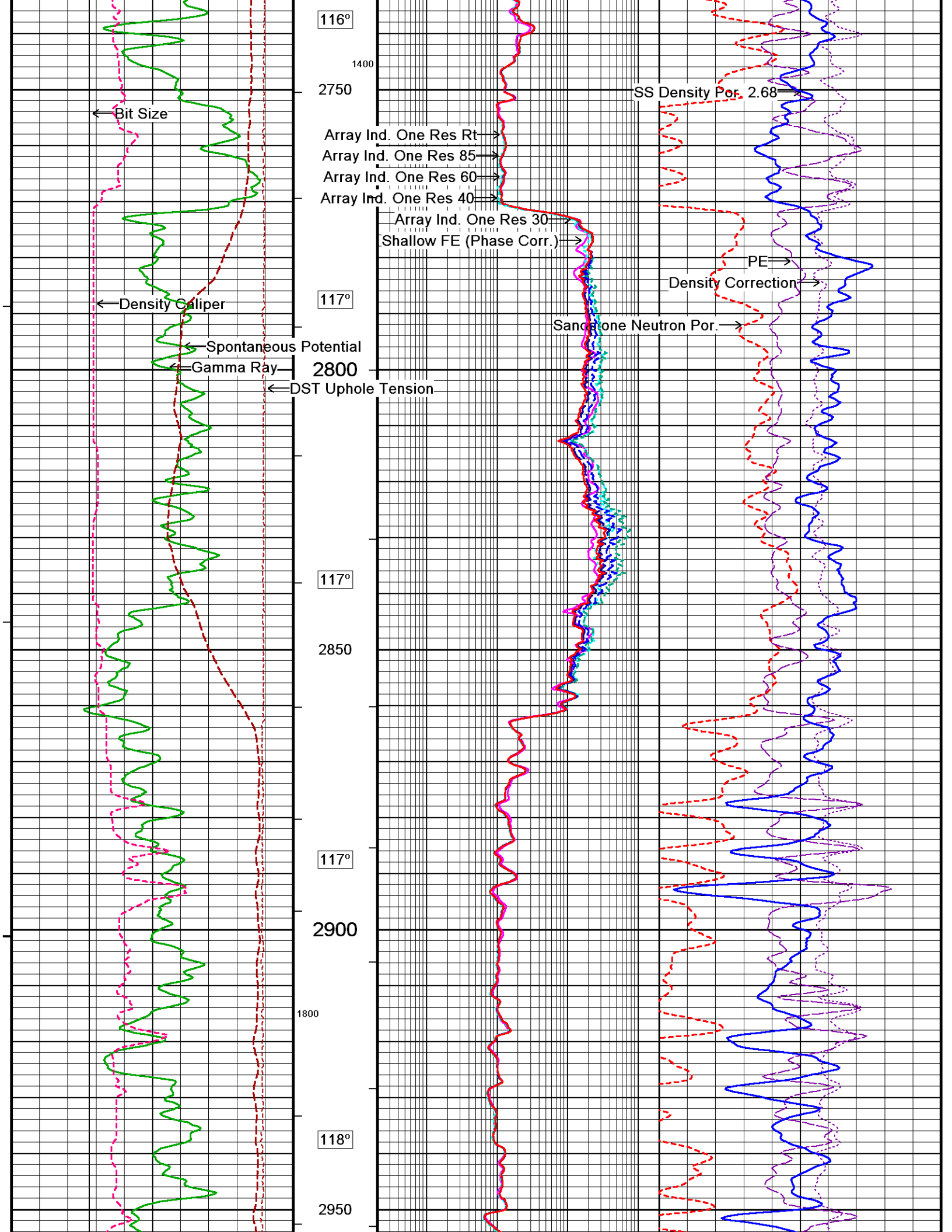


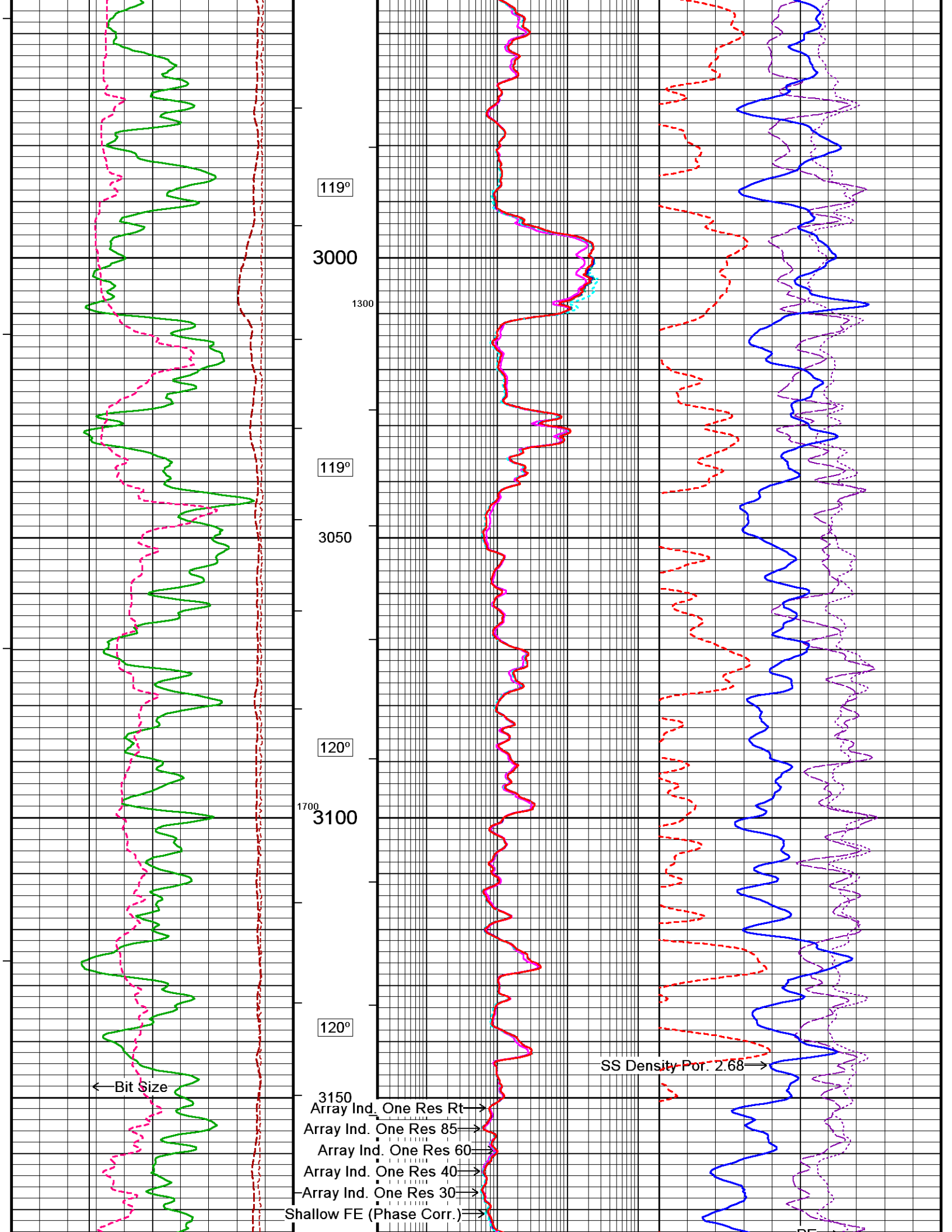


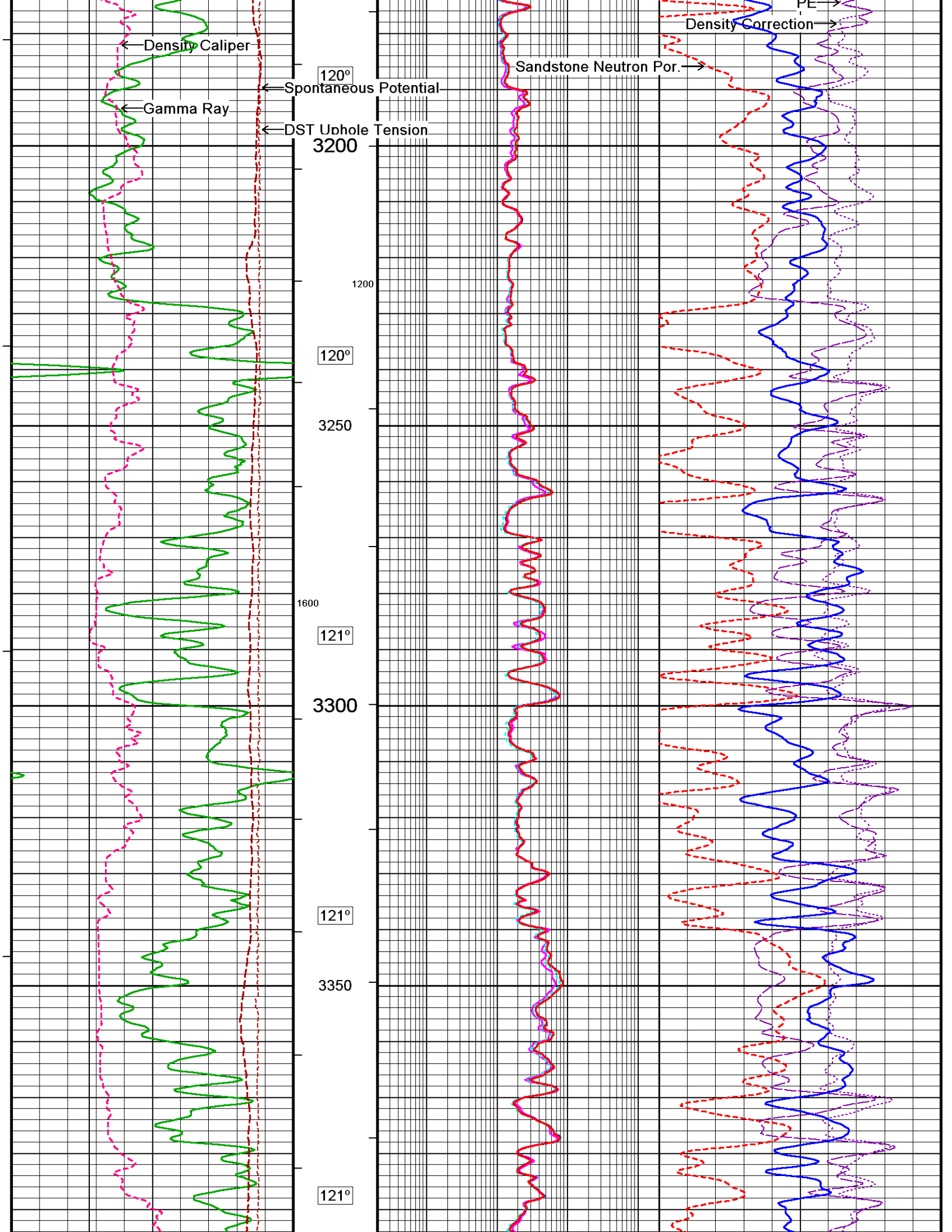


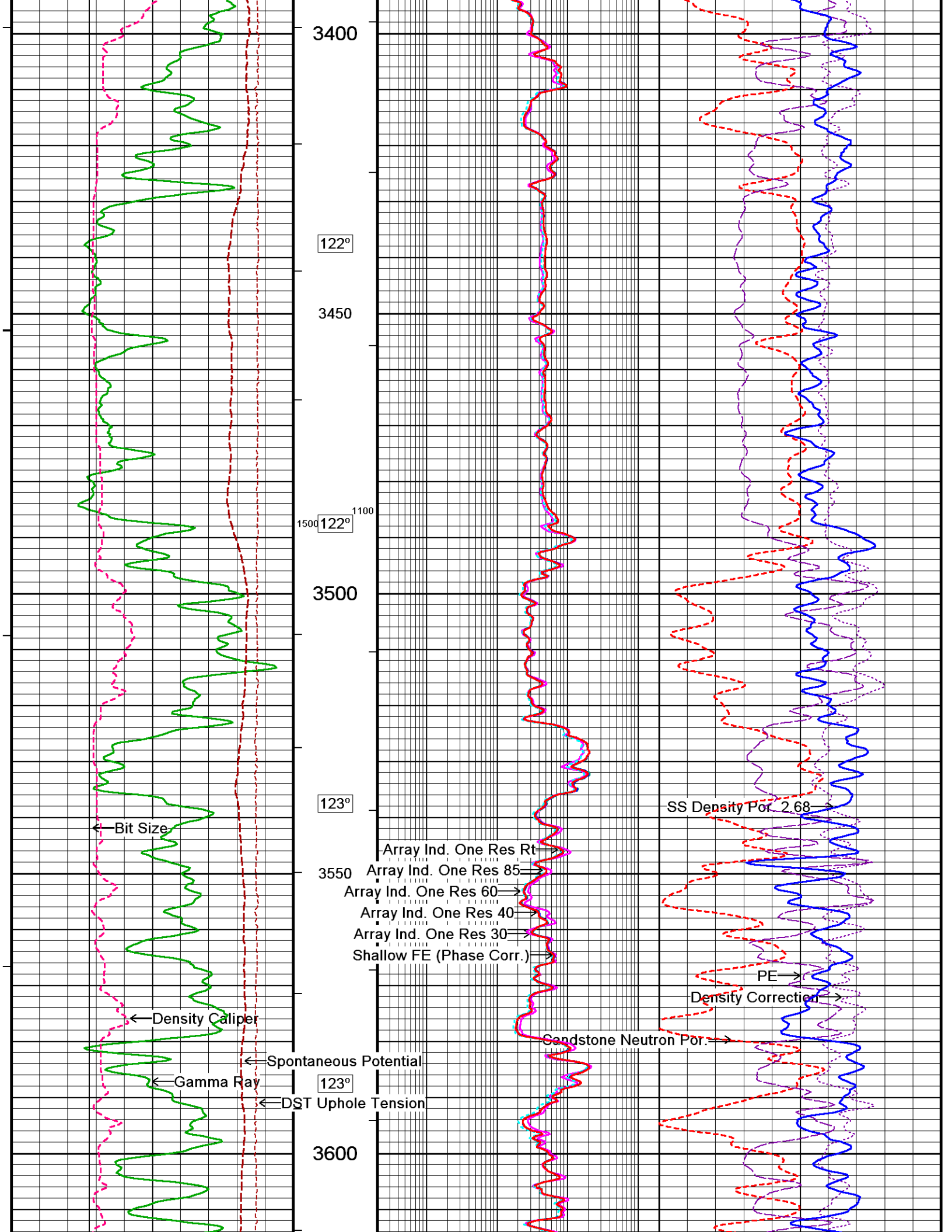


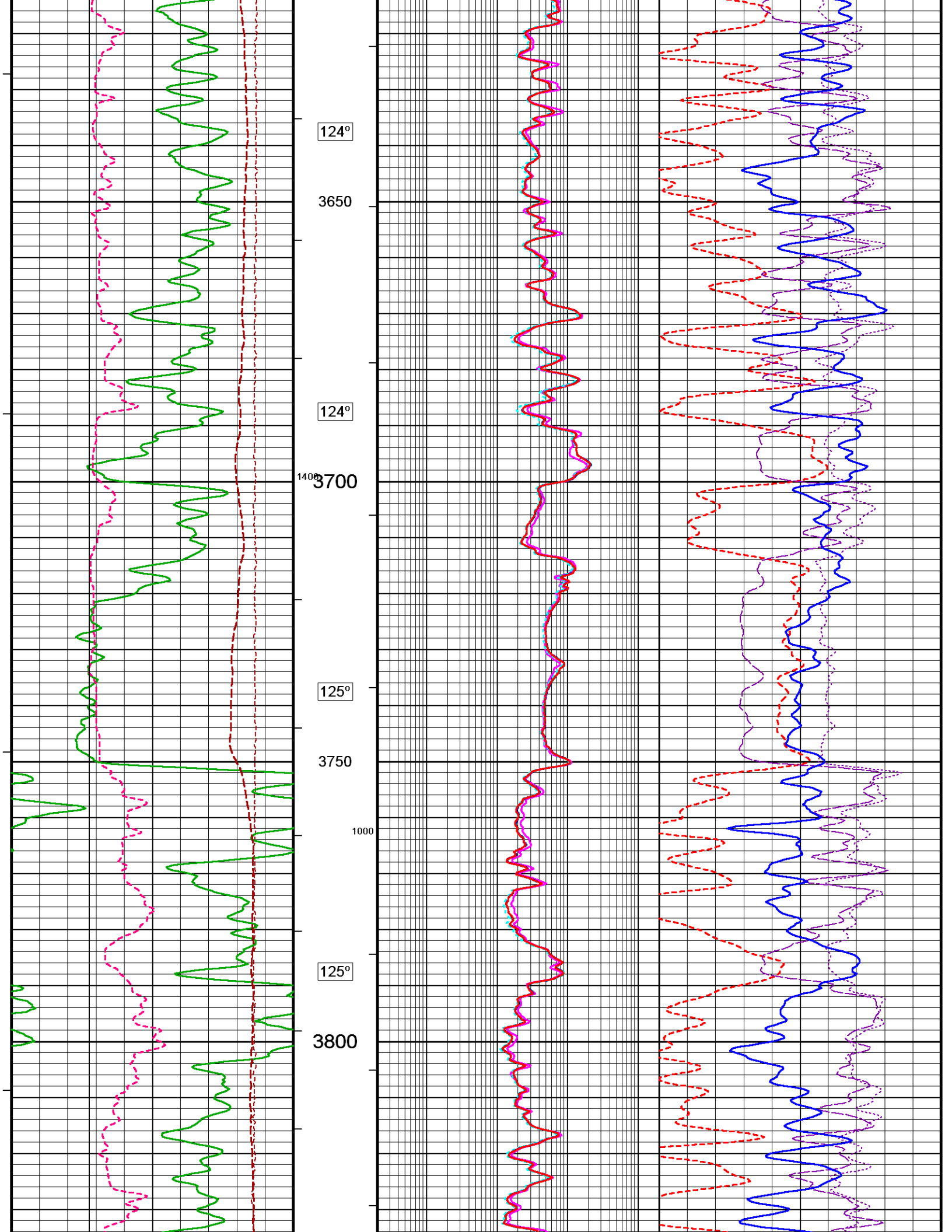


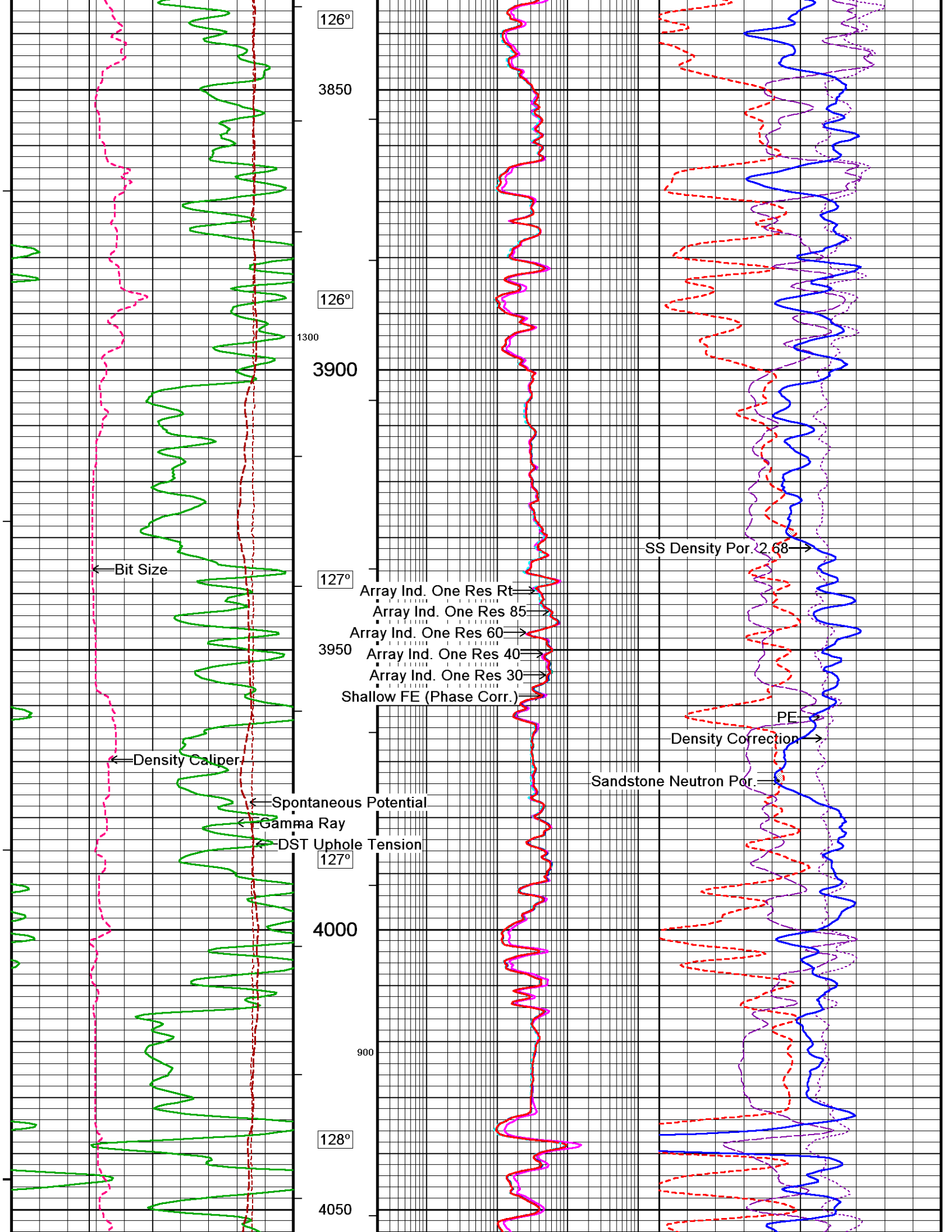


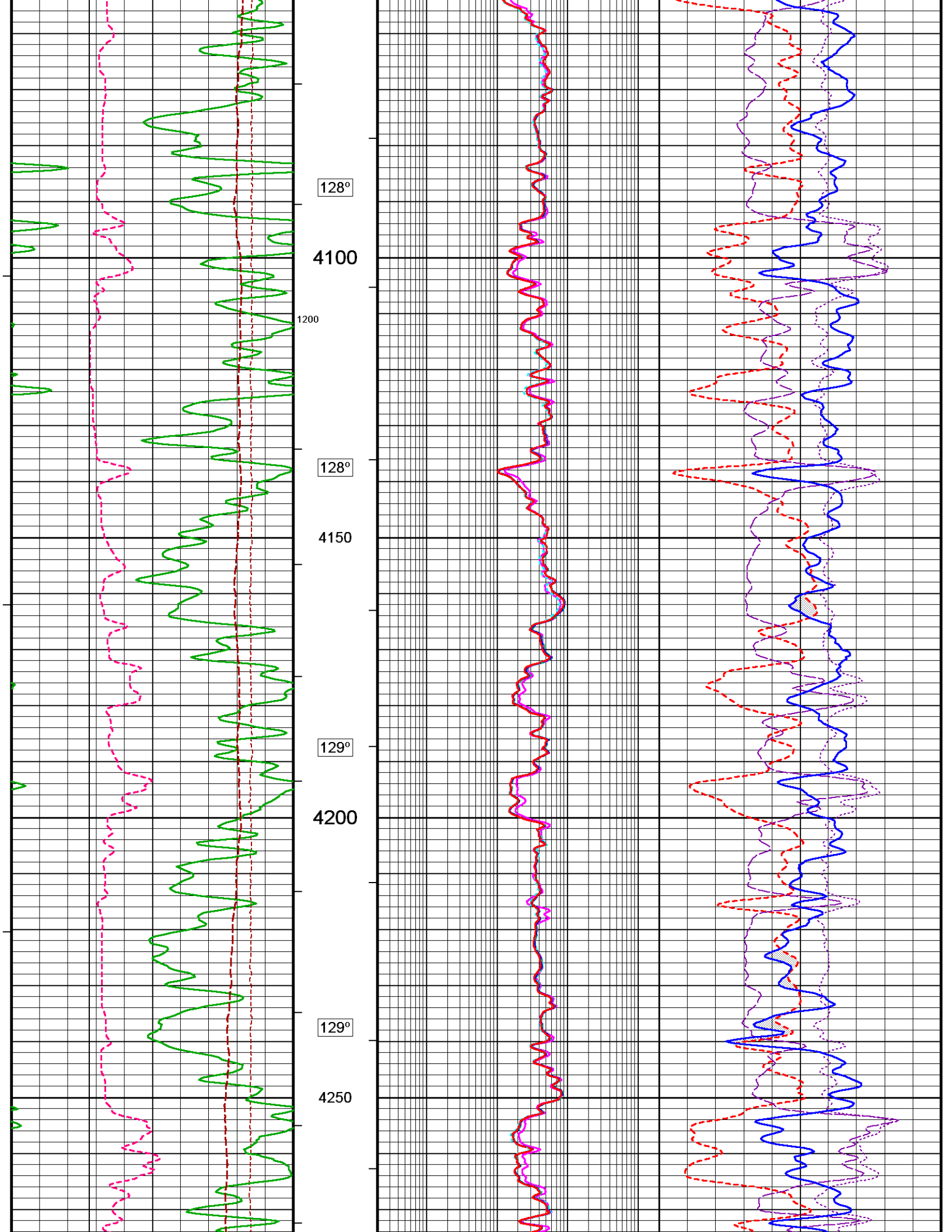


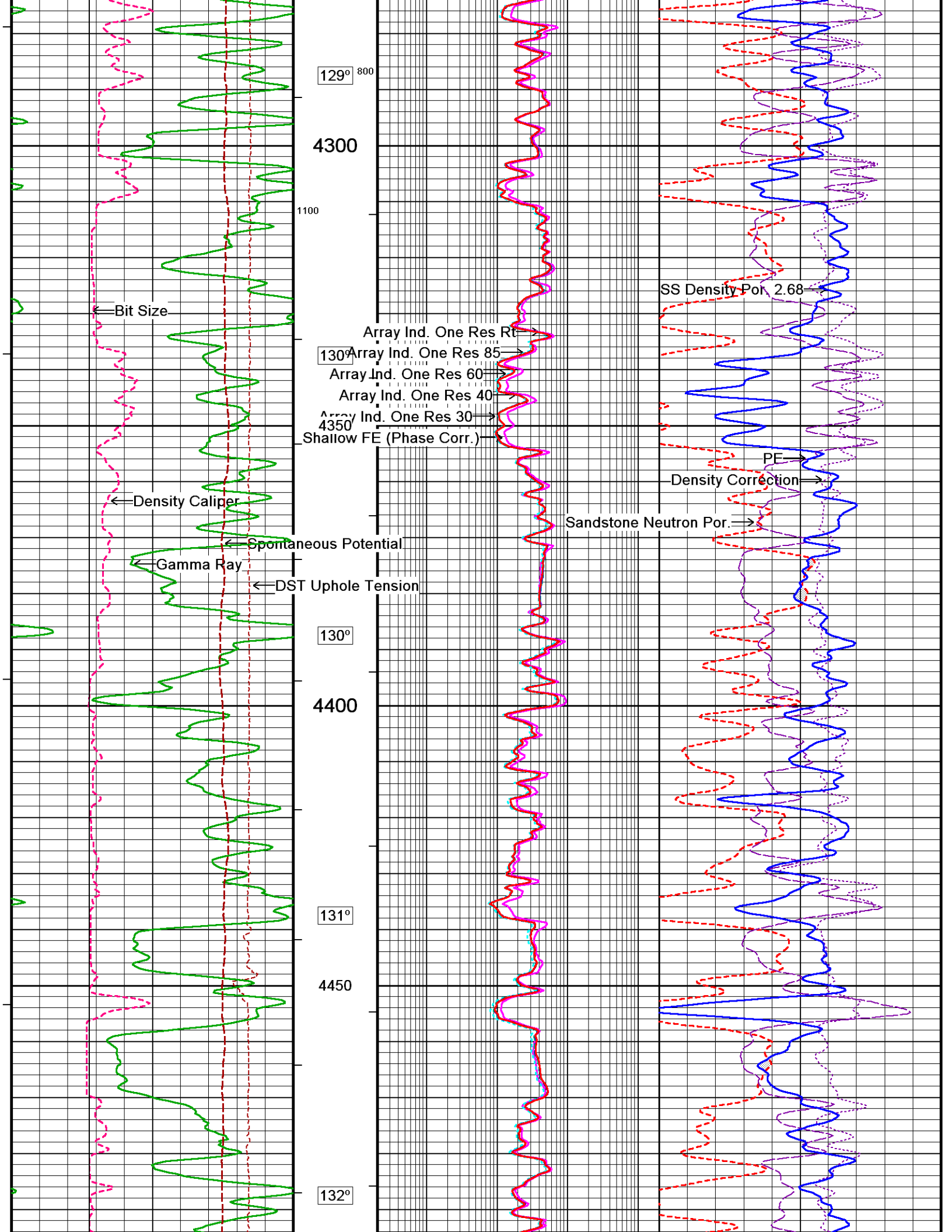


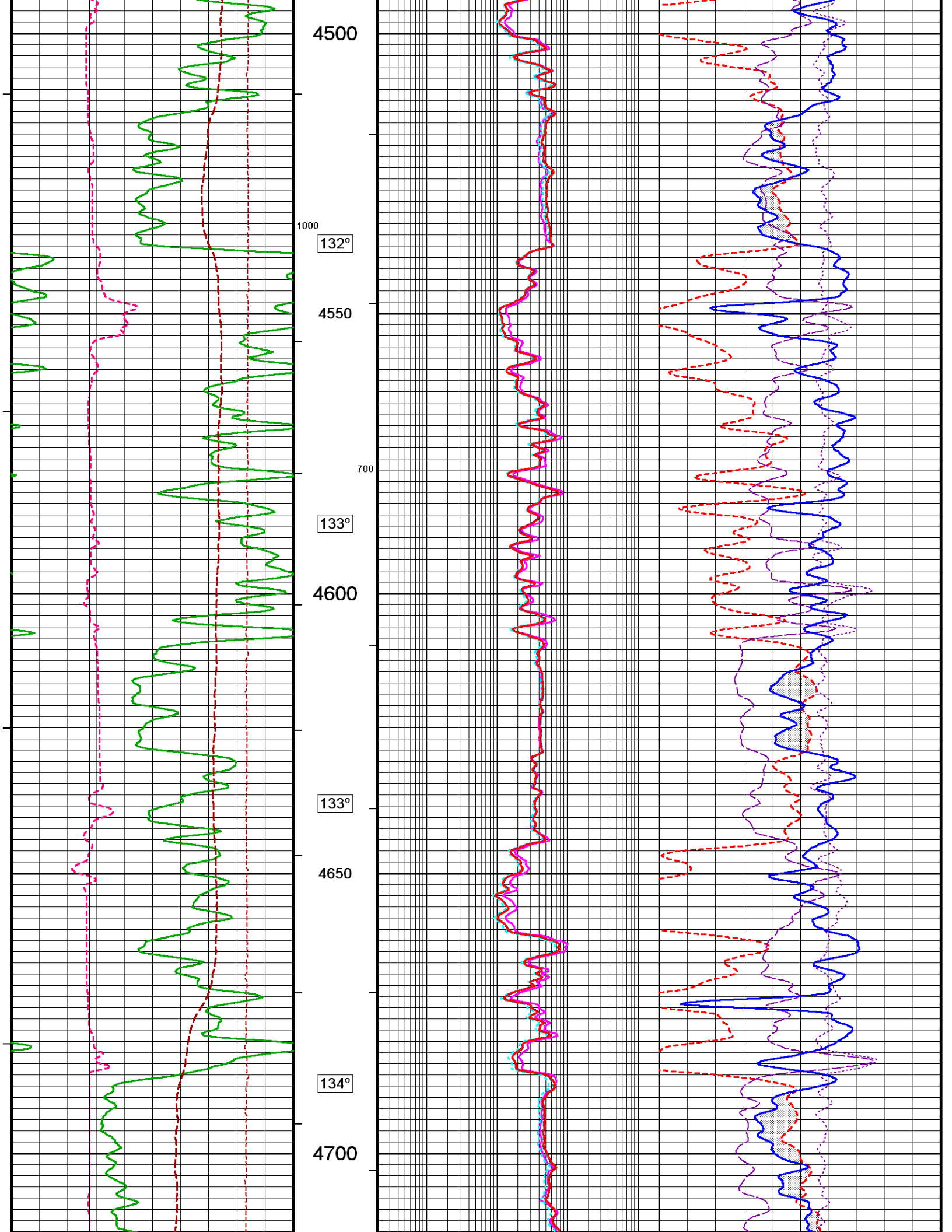


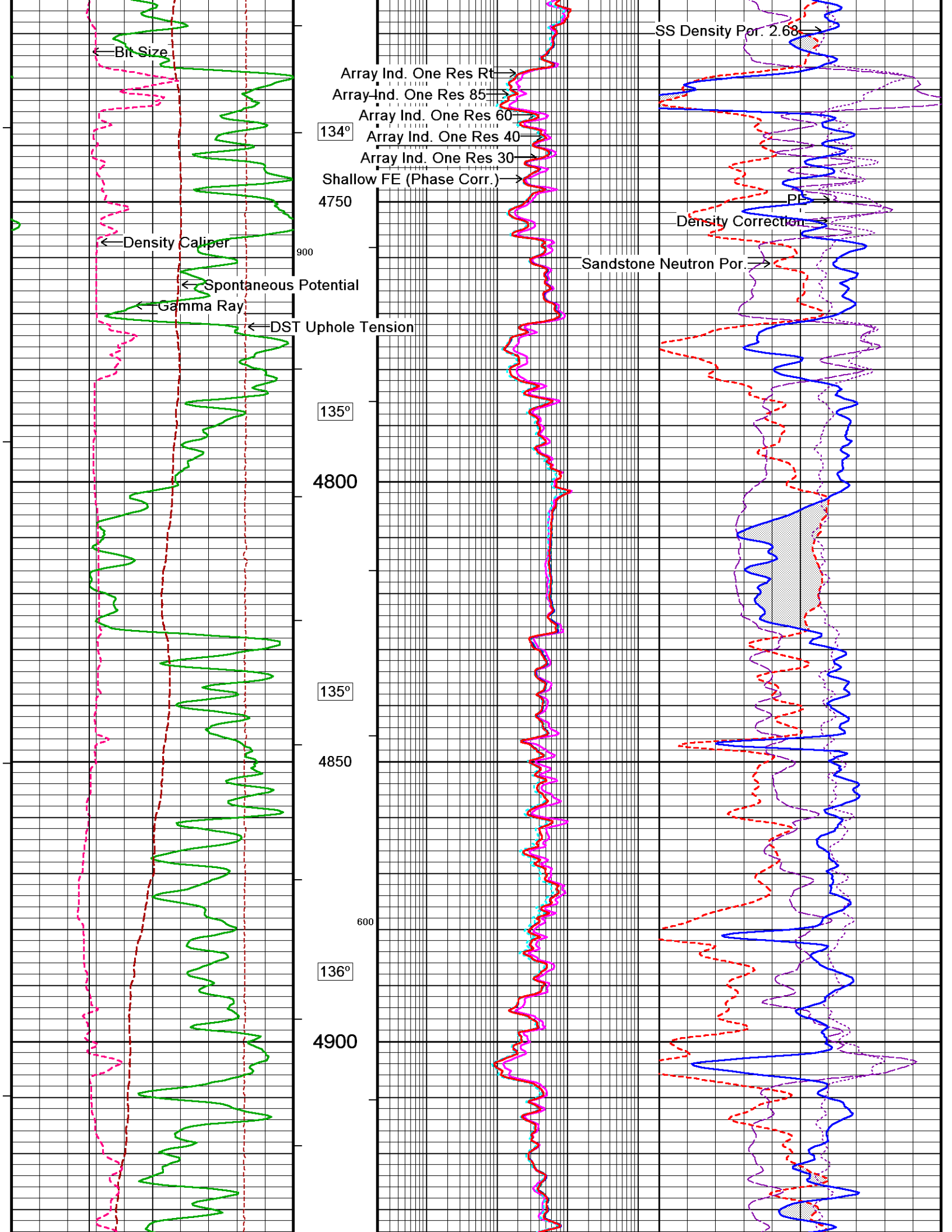


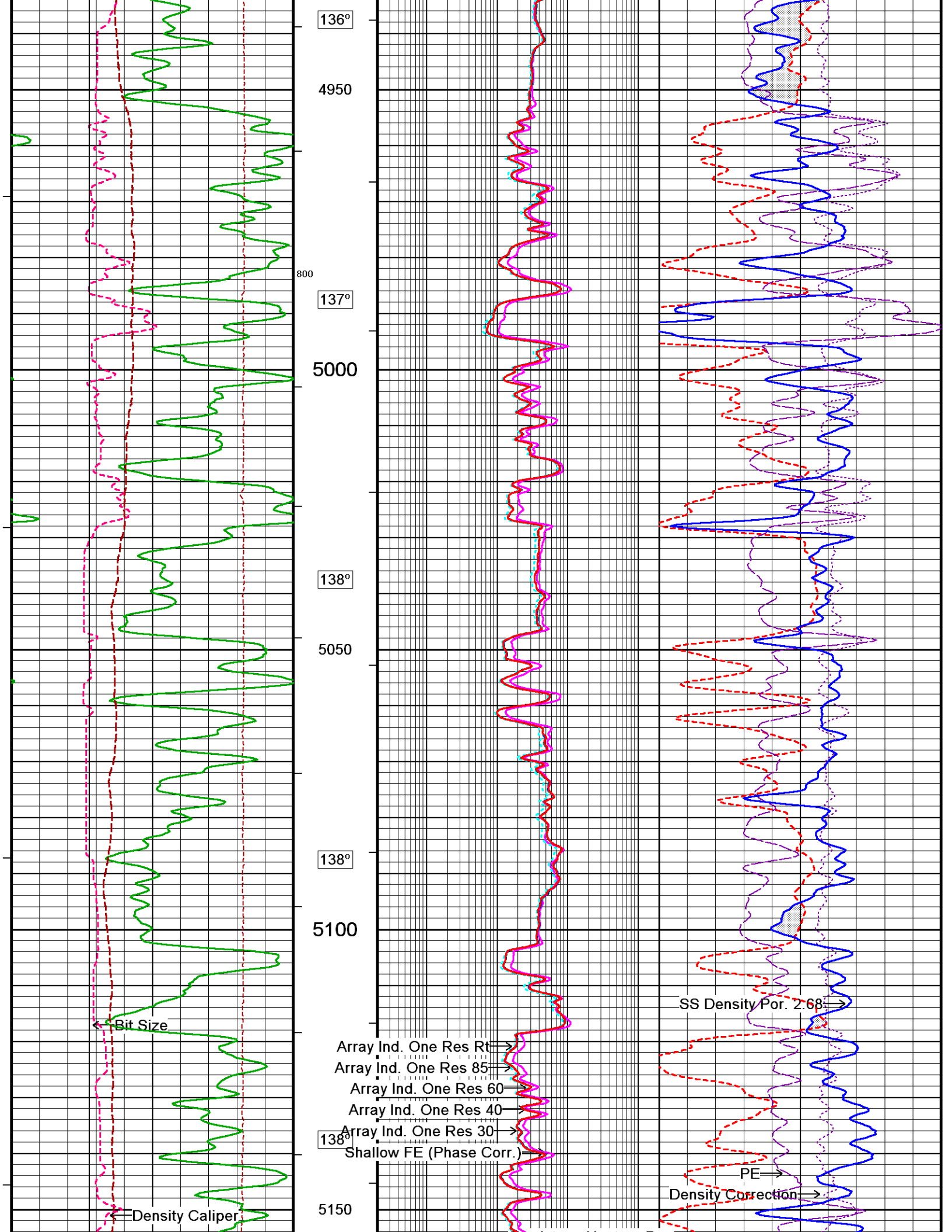


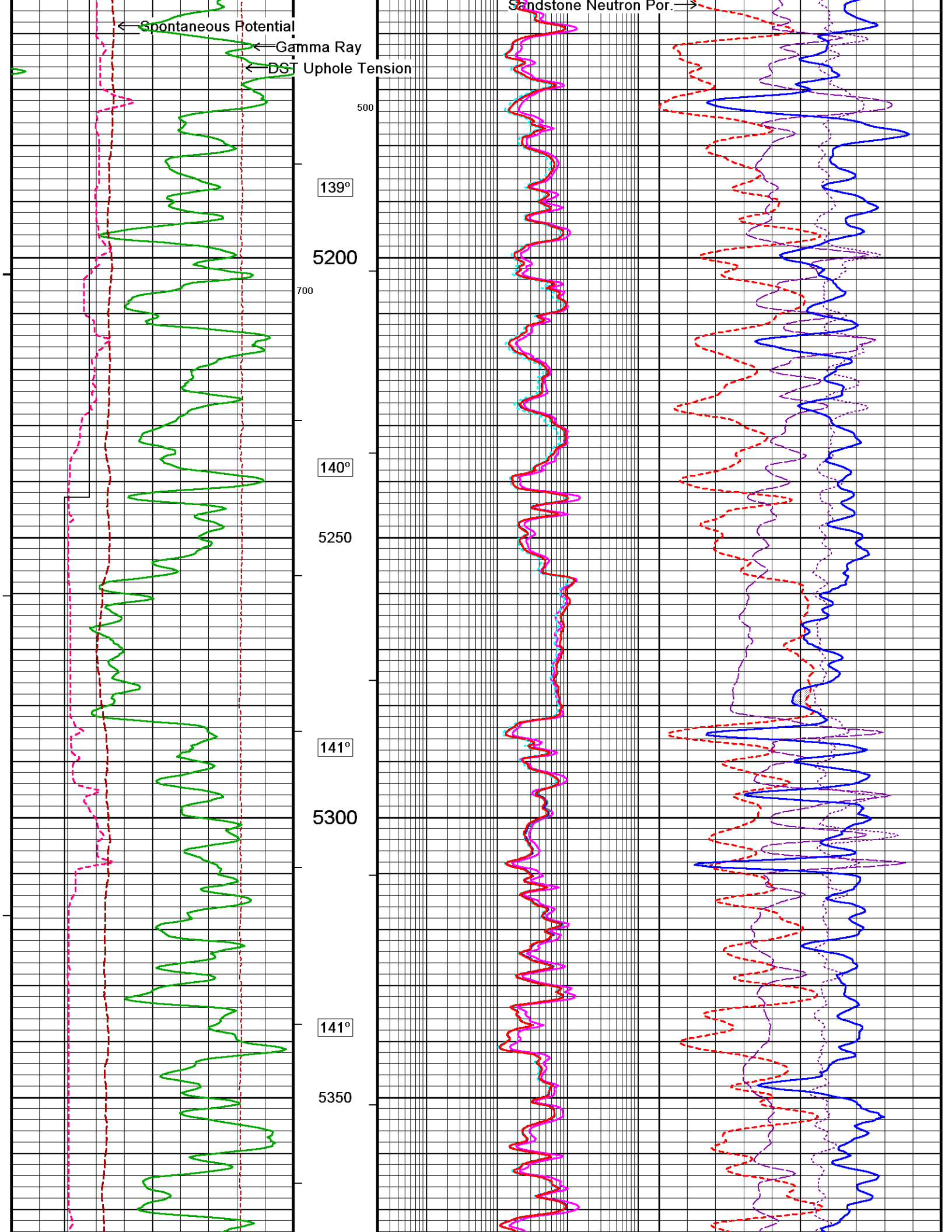


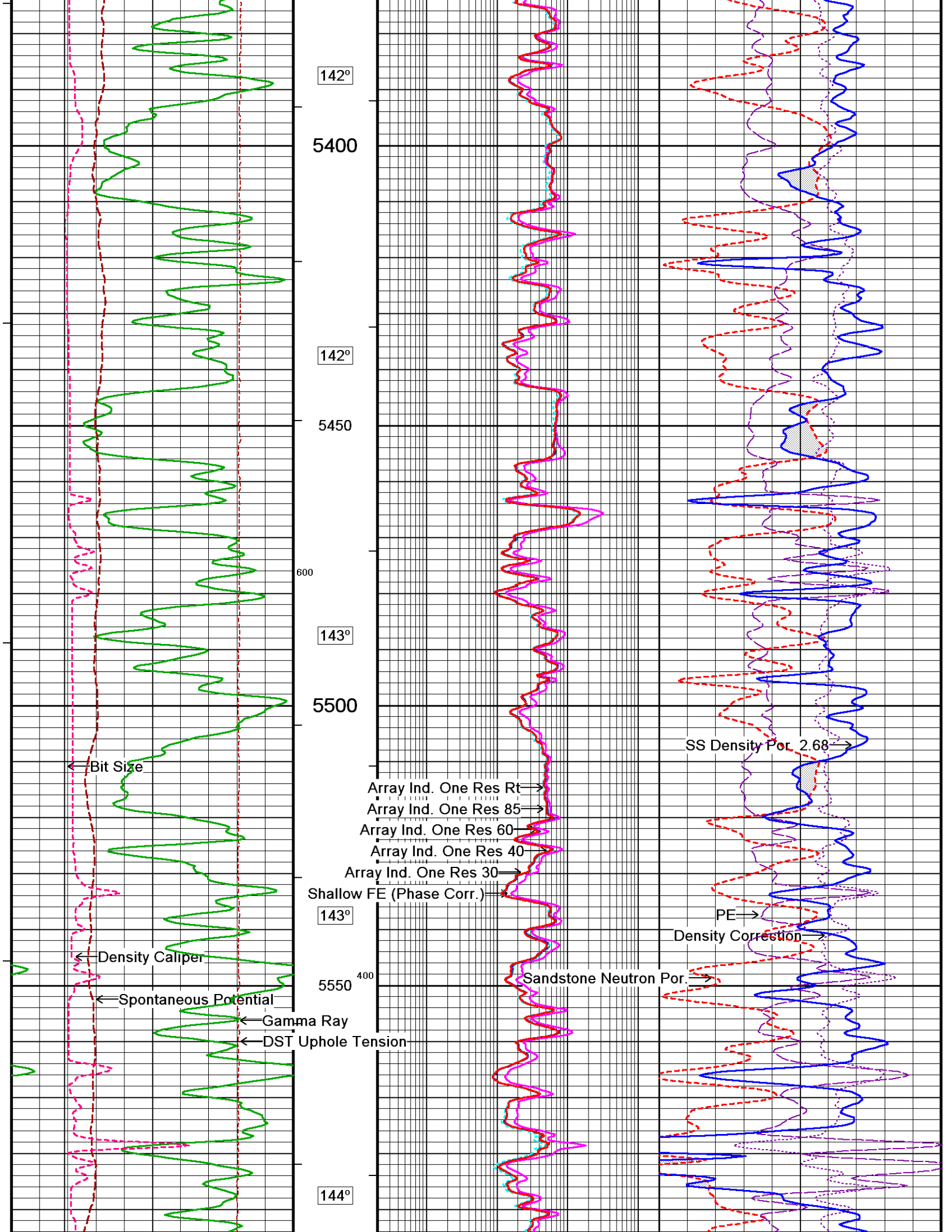


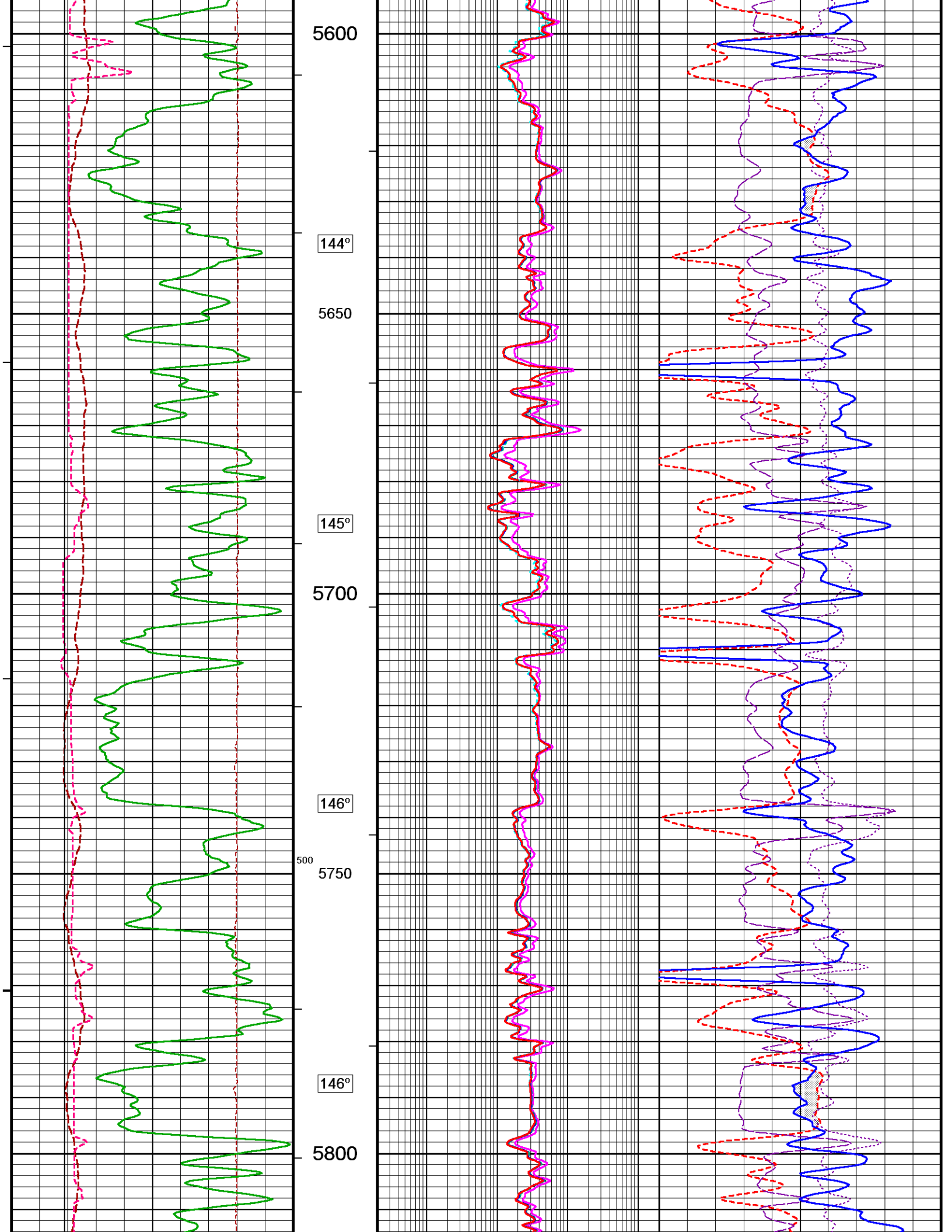


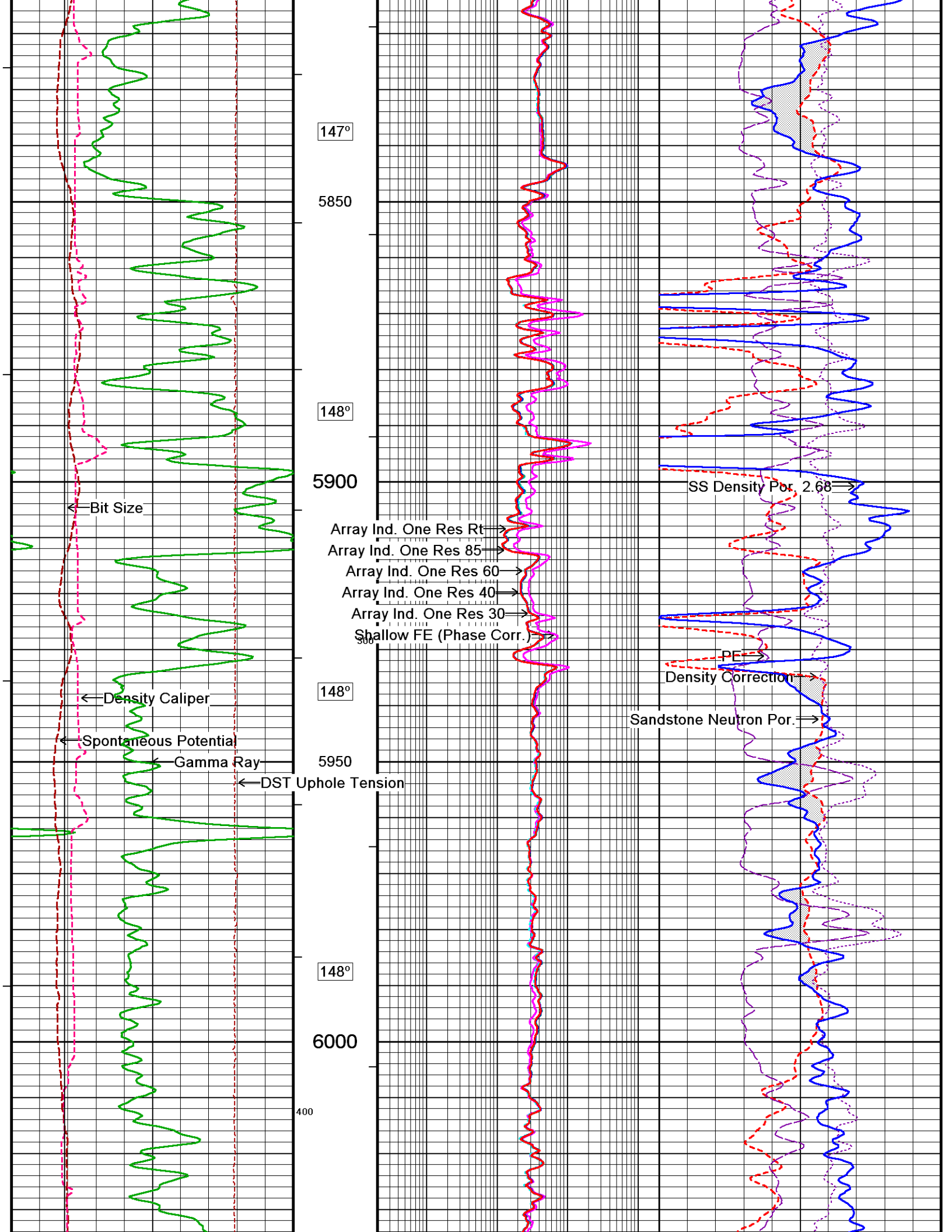


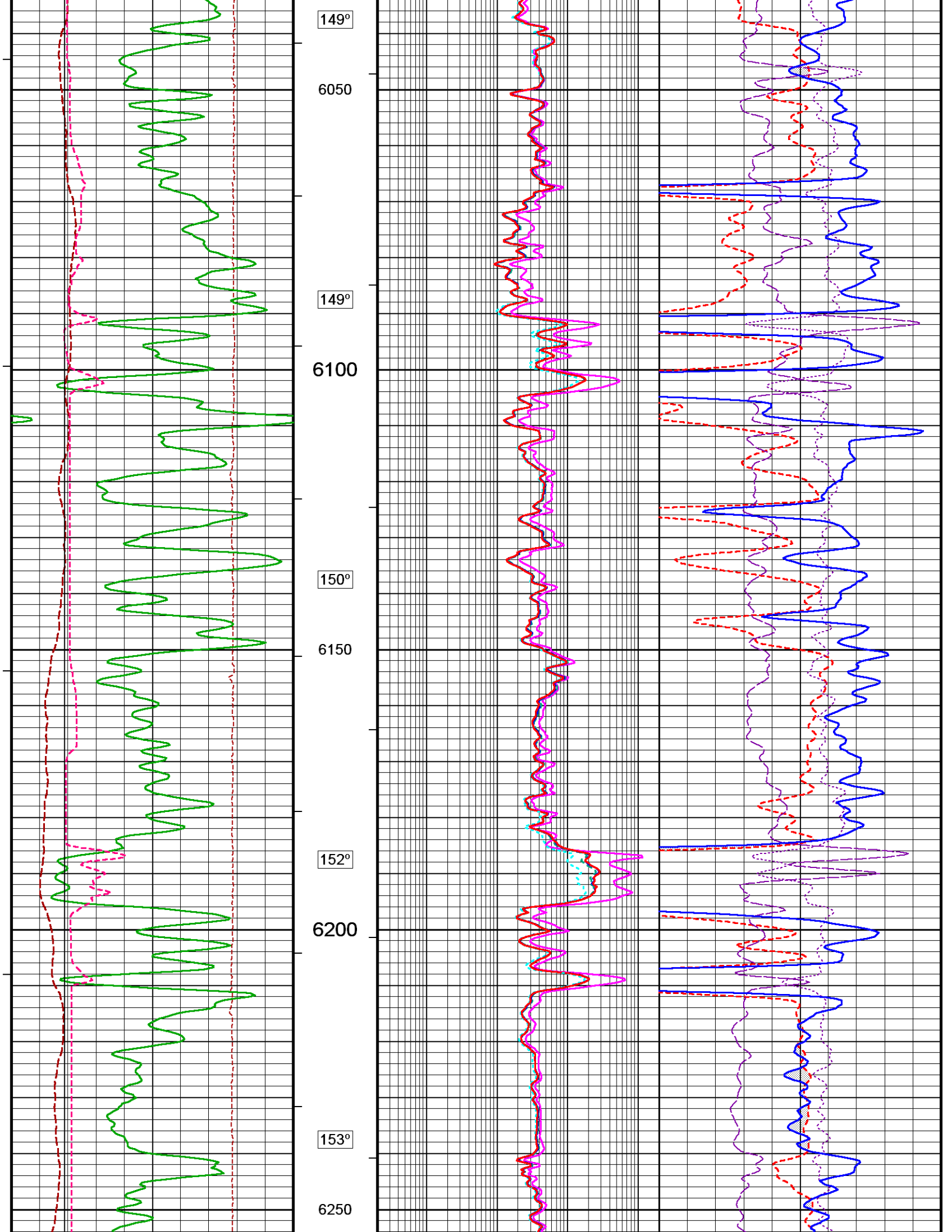


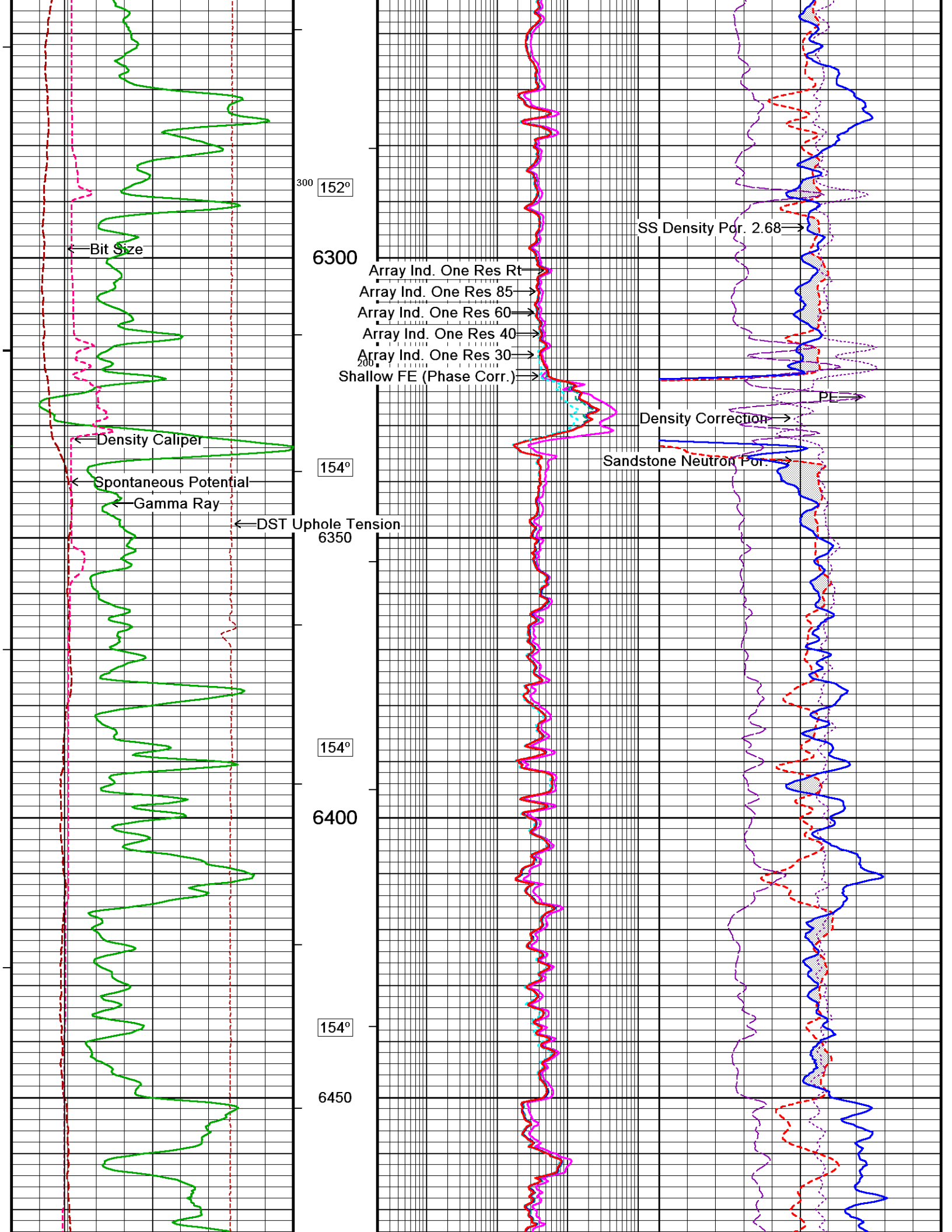


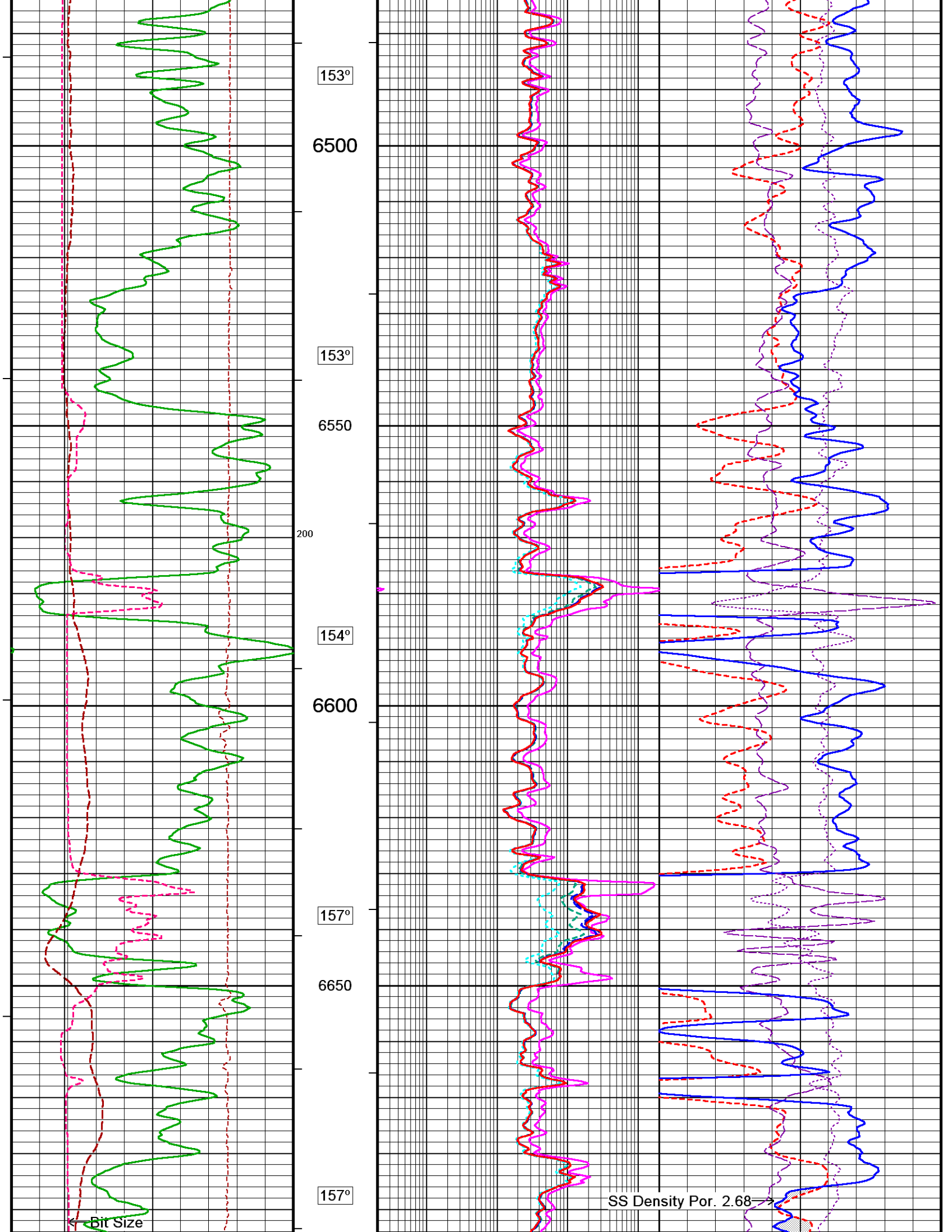


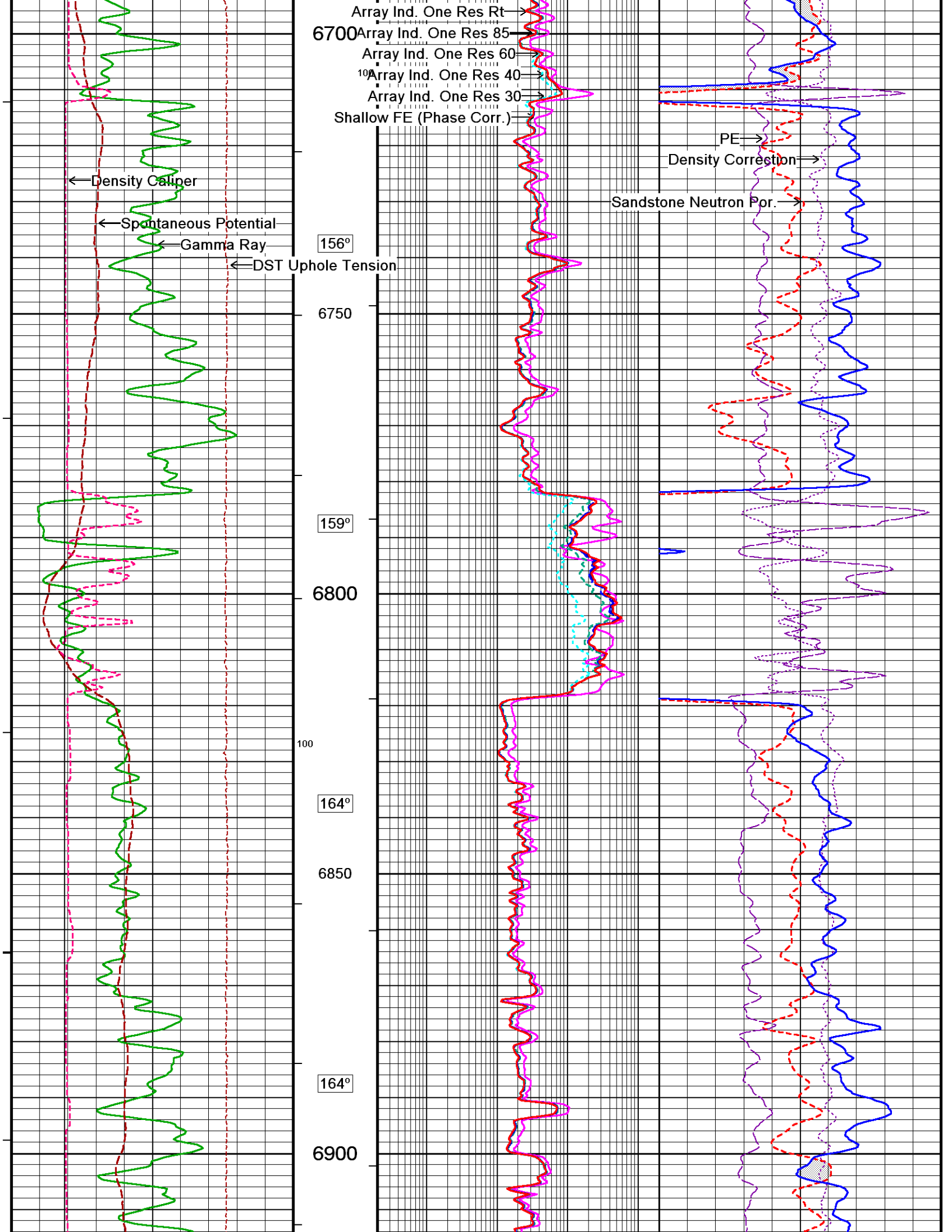












Array Ind. One Res Rt
6700 Array Ind. One Res 85
Array Ind. One Res 60
10 Array Ind. One Res 40
Array Ind. One Res 30
Shallow FE (Phase Corr.)

← Density Caliper
← Spontaneous Potential
← Gamma Ray
← DST Uphole Tension

PE →
Density Correction →
Sandstone Neutron Por. →

156°

6750

159°

6800

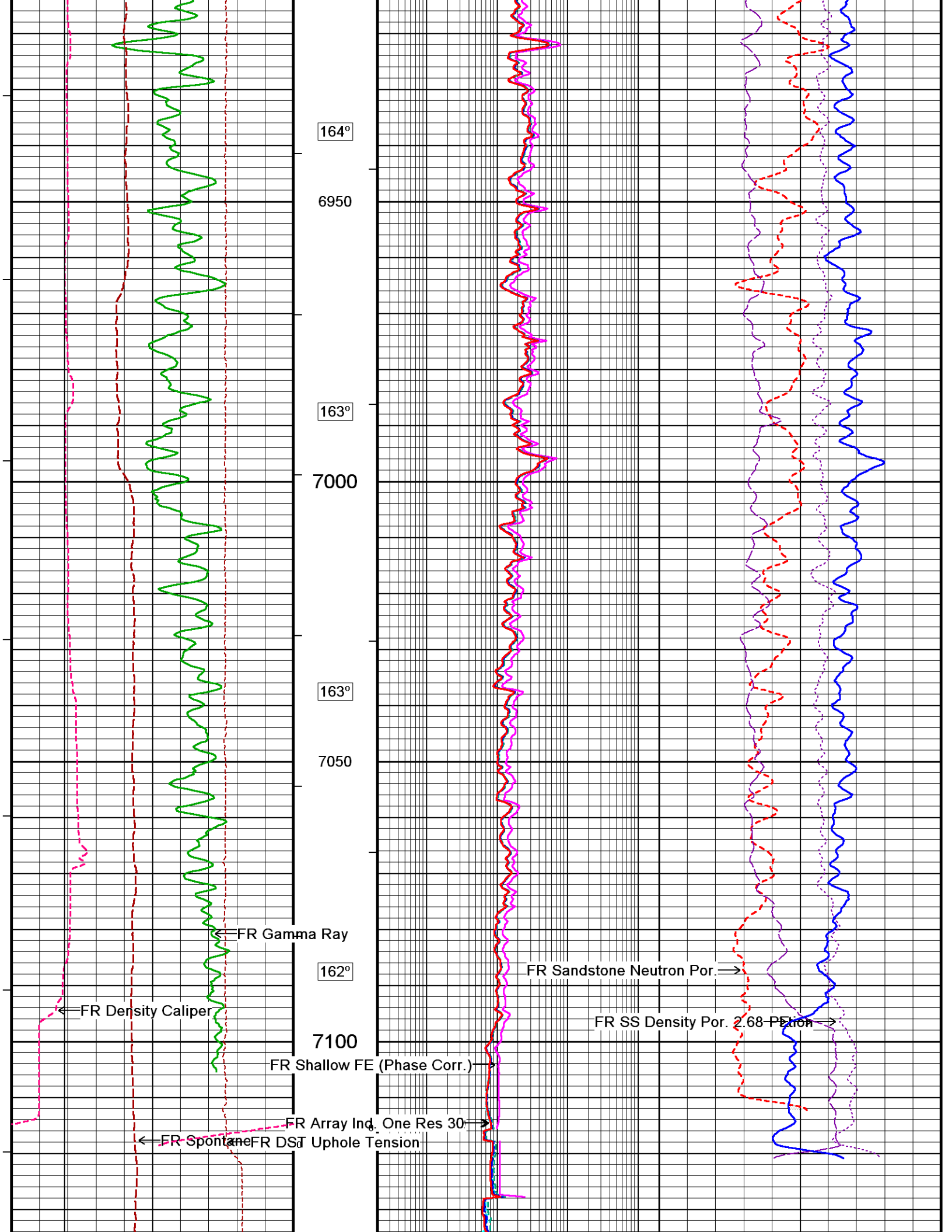
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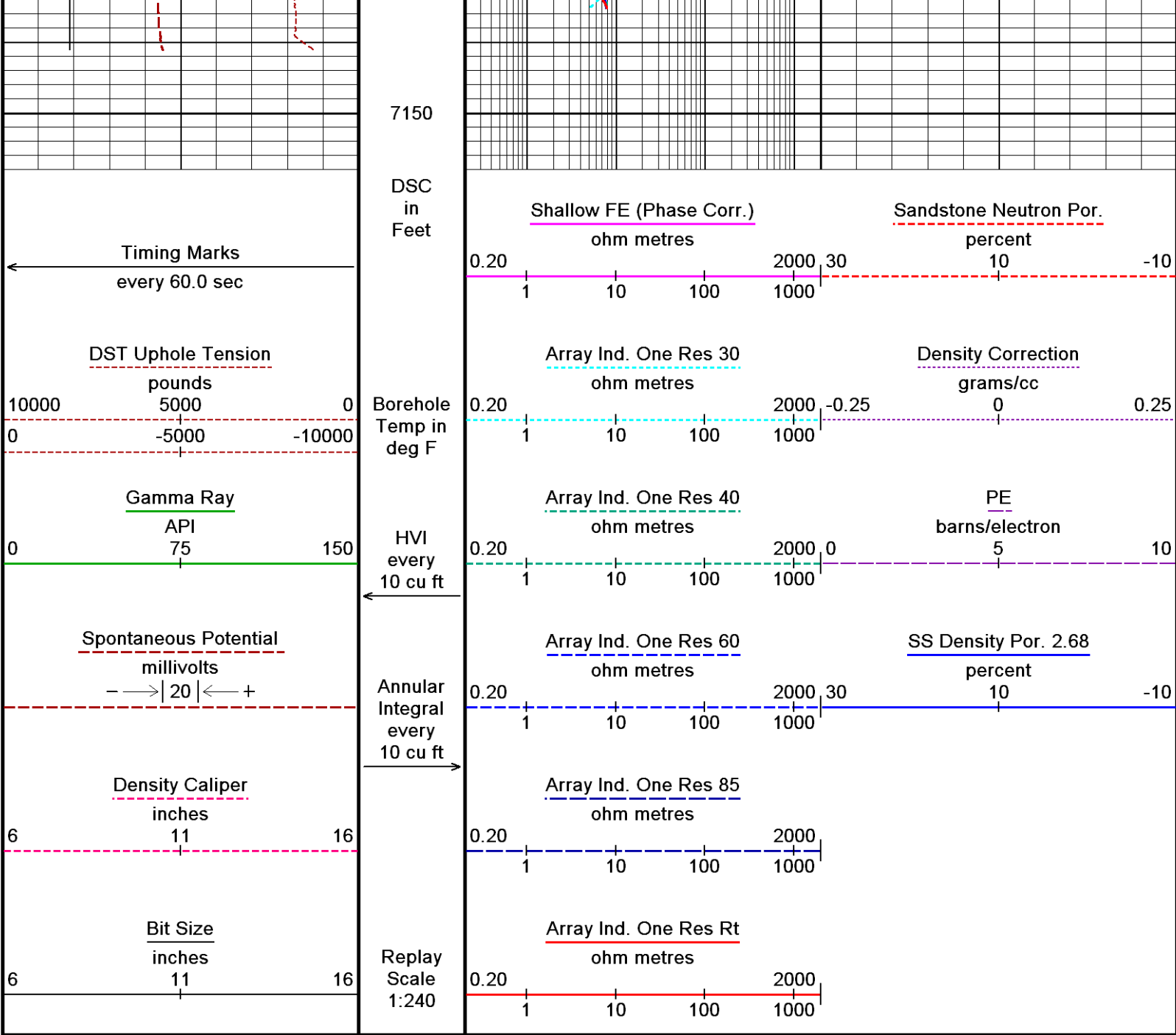
164°

6850

164°

6900



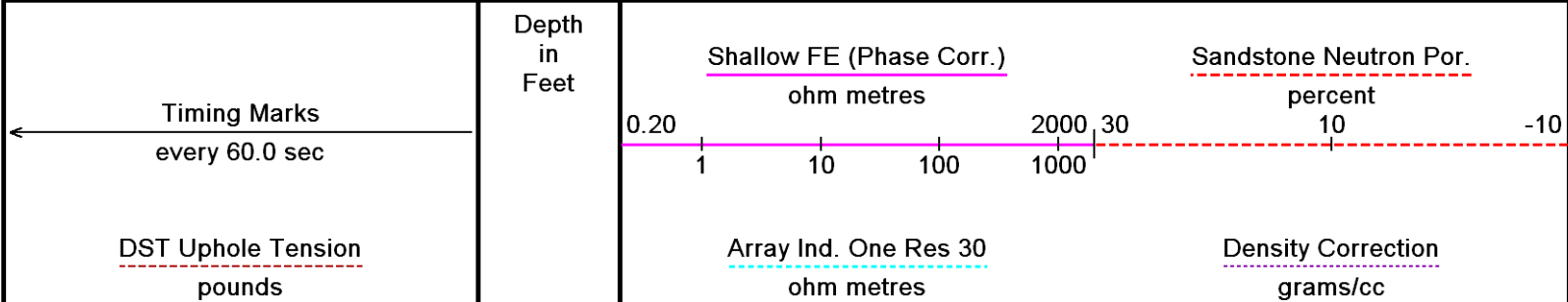


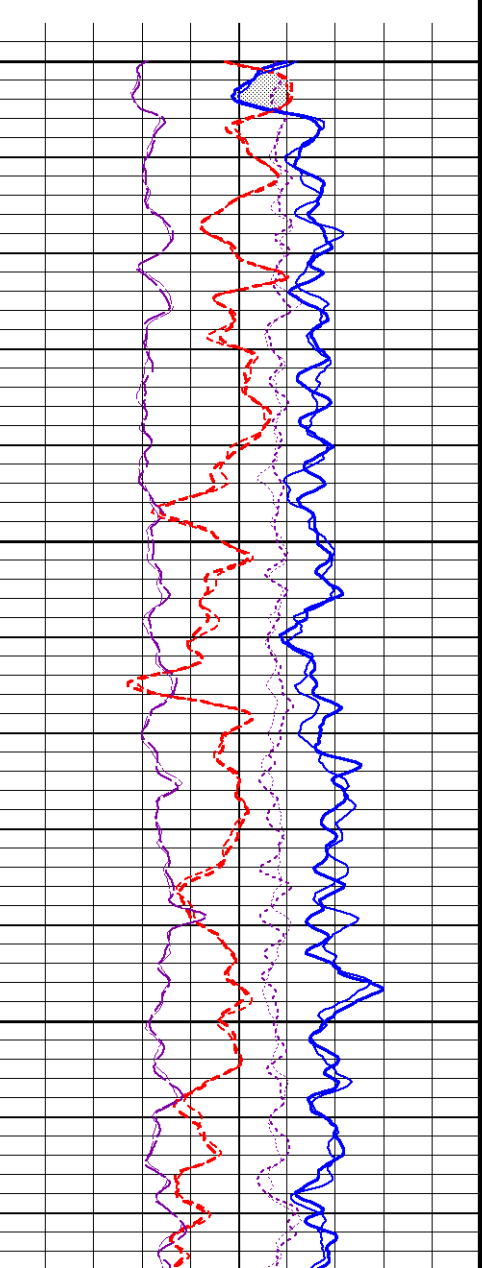
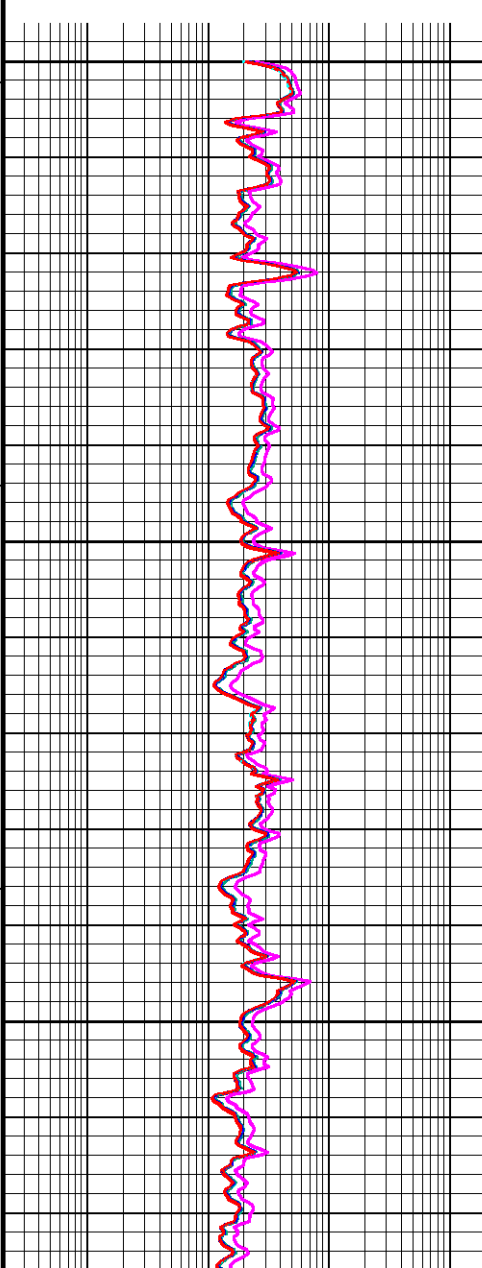
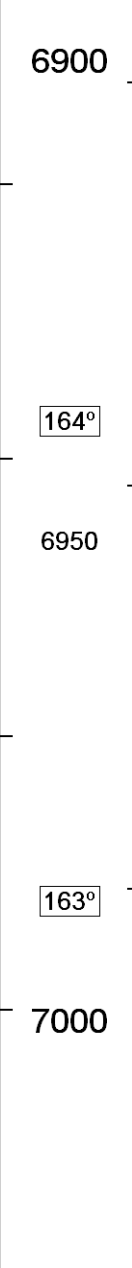
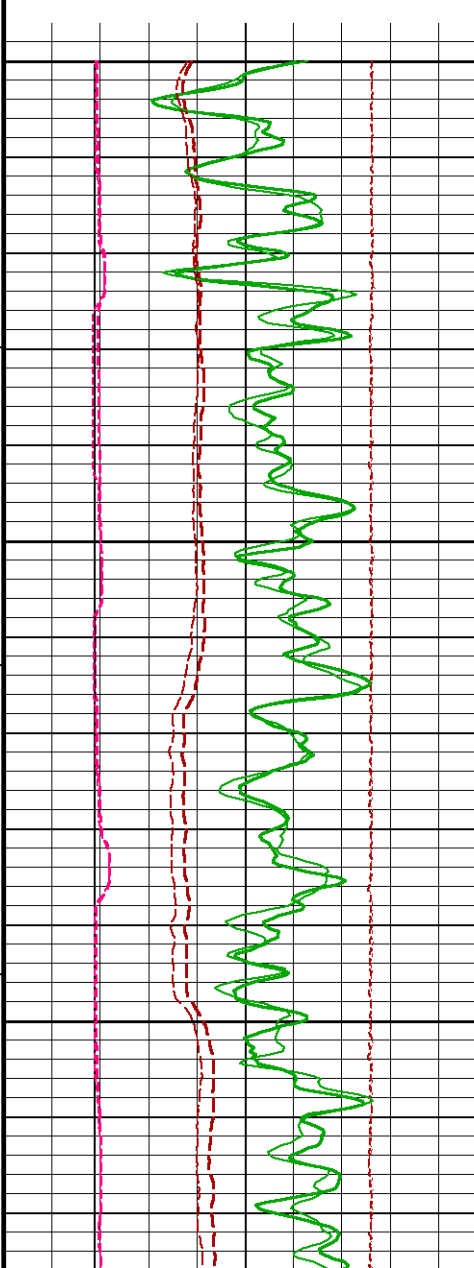
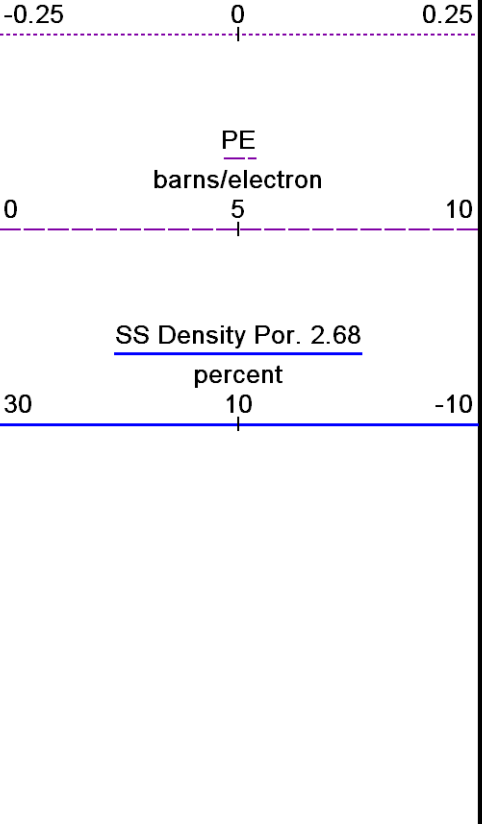
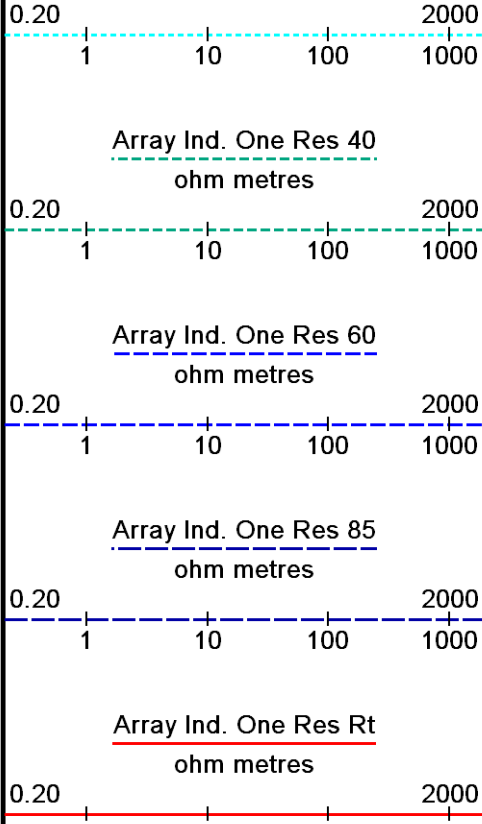
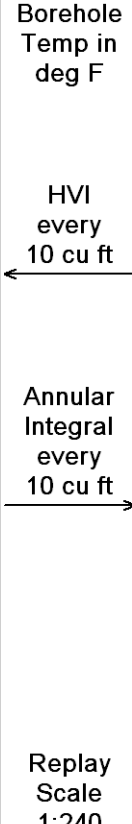
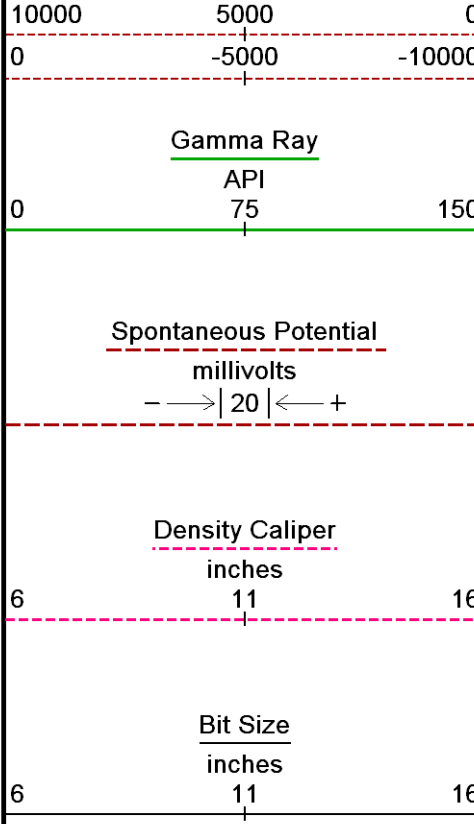
Depth Based Data - Maximum Sampling Increment 10.0cm
 Plotted on 15-APR-2011 13:15
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 Recorded on 14-APR-2011 19:14
 System Versions: Logged with 11.02.3186 Plotted with 11.02.2164

5 INCH MAIN LOG

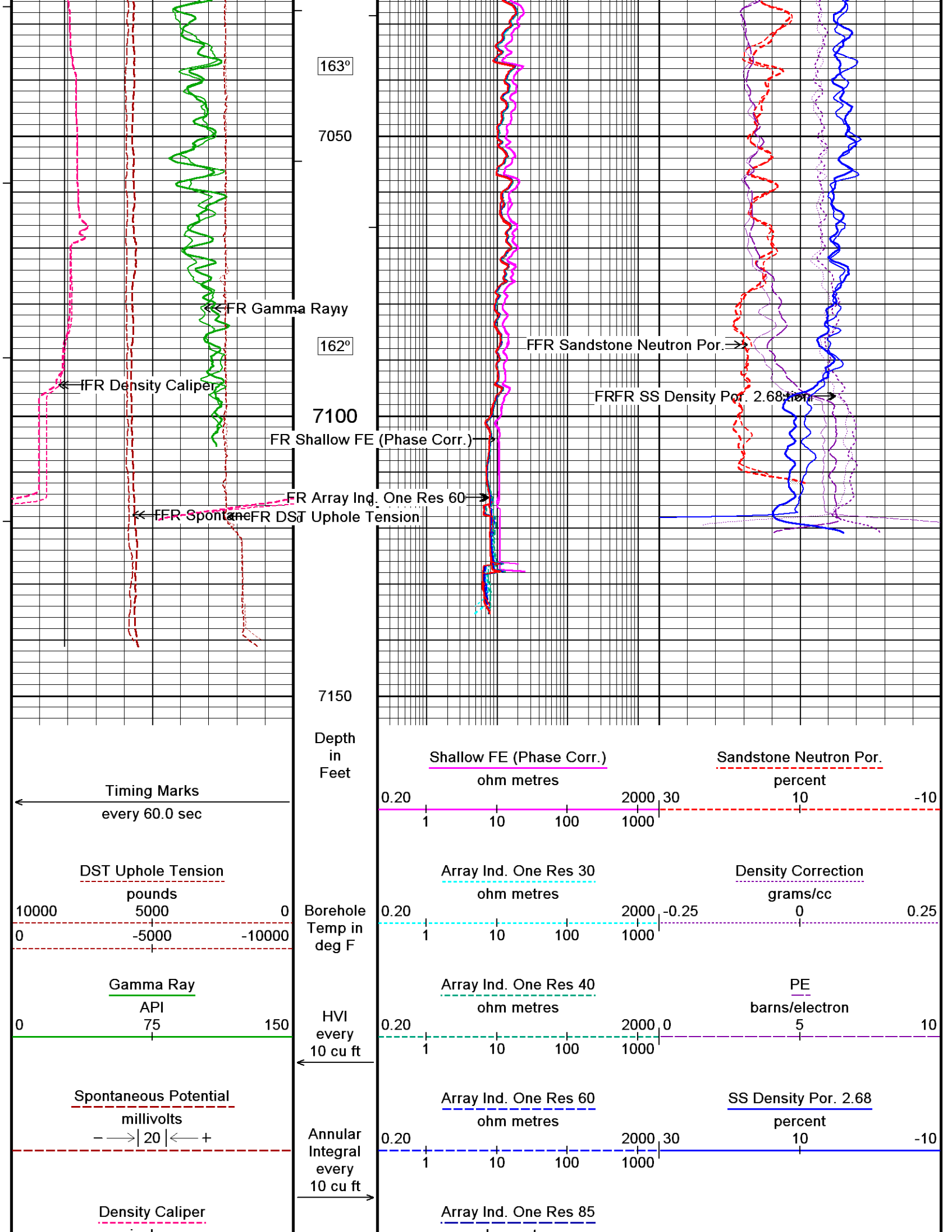
OVERLAY

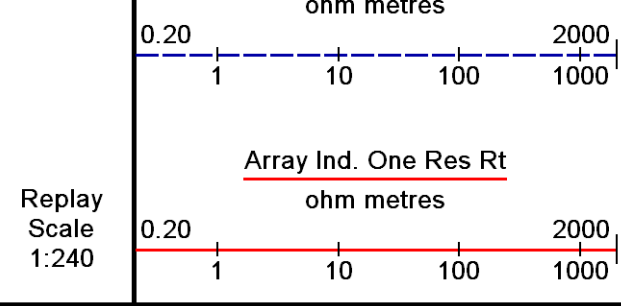
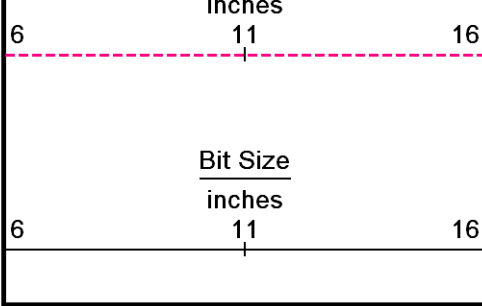
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 Recorded on 14-APR-2011 19:14
 Filename: C:\DOCUME~1\rodgerbx\LOCALS~1\TempW...Bill Barrett GGU Miller 14C-31-691_002.dta
 Recorded on 14-APR-2011 18:58
 System Versions: Logged with 11.02.3186 Plotted with 11.02.2164





6900
 164°
 6950
 163°
 7000





Depth Based Data - Maximum Sampling Increment 10.0cm
 Plotted on 15-APR-2011 13:15
 Filename: C:\DOCUME~1\rodgerbx\LOCALS~1\TempW...Bill Barrett GGU Miller 14C-31-691_003.dta
 Recorded on 14-APR-2011 19:14
 Filename: C:\DOCUME~1\rodgerbx\LOCALS~1\TempW...Bill Barrett GGU Miller 14C-31-691_002.dta
 Recorded on 14-APR-2011 18:58
 System Versions: Logged with 11.02.3186 Plotted with 11.02.2164

↑ OVERLAY ↑

BEFORE SURVEY CALIBRATION
 C:\DOCUME~1\rodgerbx\LOCALS~1\Temp\Weatherford PreView\0\Bill Barrett GGU Miller 14C-31-691_003.dta

General Constants All 000 Last Edited on 14-APR-2011,18:18

General Parameters		
Mud Resistivity	1.640	ohm-metres
Mud Resistivity Temperature	57.700	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	None	
Rwa Parameters		
Porosity used	Base Density Porosity	
Resistivity used	Array Ind. Two Res Rt	
RWA Constant A	0.610	
RWA Constant M	2.150	

Down-hole Tension Calibration SMS 0 Field Calibration on 14-APR-2011 17:55

Reading No	Measured	Calibrated (lbs)
1	15011.69	0.00
2	15925.39	350.00

High Resolution Temperature Calibration MCG-C 145 Field Calibration on 17-NOV-2010,12:09

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

High Resolution Temperature Constants MCG-C 145 Last Edited on 24-NOV-2009,08:49

Pre-filter Length 11

SP Calibration MCG-C 145 Field Calibration on 25-MAR-2011 10:39

	Measured	Calibrated (mV)
Reference 1	103.7	100.1
Reference 2	-96.4	-100.1

Gamma Calibration MCG-C 145 Field Calibration on 13-APR-2011 03:48

	Measured	Calibrated (API)
Background	72	50
Calibrator (Gross)	764	530
Calibrator (Net)	692	480

Gamma Constants MCG-C 145 Last Edited on 14-APR-2011,16:37

Gamma Calibrator Number	GRCC 112	
Mud Density	1.00	gm/cc
Caliper Source for Processing	Density Caliper	
Tool Position	Eccentred	
Concentration of KCl	0.00	kppm

Micro Normal and Micro Inverse Calibration MDN-B.A 191

Base Calibration on 3-MAY-2007 19:21
Field Check on

Base Calibration

Channel	Measured		Calibrated (ohm-m)	
	Resistor 1	Resistor 2	Resistor 1	Resistor 2
Micro Normal	8.2	41.0	10.0	50.0
Micro Inverse	8.2	41.2	10.0	50.0

Channel	Base Check (ohm-m)	Field Check (ohm-m)
Micro Normal	0.0	0.0
Micro Inverse	0.0	0.0

Micro Normal and Micro Inverse Constants MDN-B.A 191

Last Edited on 13-FEB-2007,11:14

Pad Type	0
Micro Normal K Factor	1.0000
Micro Inverse K Factor	1.0000
Standoff Offset	N/A inches

Neutron Calibration MDN-B.A 191

Base Calibration on 25-MAR-2011 17:12
Field Check on 25-MAR-2011 17:27

Base Calibration

Ratio	Measured		Calibrated (cps)	
	Near	Far	Near	Far
	2849	87	3714	110
	32.715		33.764	

Field Calibrator at Base

Ratio	Calibrated (cps)
	1625 2417
	0.672

Field Check

Ratio	Calibrated (cps)
	1629 2428
	0.671

Neutron Constants MDN-B.A 191

Last Edited on 14-APR-2011,16:38

Neutron Source Id	P44382B
Neutron Jig Number	6531NK
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 220

Base Calibration on 30-MAR-2011 14:59
Field Check on 13-APR-2011 04:02

Base Calibration

	Measured	Calibrated (ohm-m)
Reference 1	0.0	0.0
Reference 2	969.9	126.8
Base Check		279.2
Field Check		279.7

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	1.0	inches

Induction Calibration MAI-B.J 362

Base Calibration on 25-MAR-2011,10:28

Field Check on 13-APR-2011 03:54

Base Calibration

Test Loop Calibration		Measured		Calibrated (mmho/m)	
Channel	Low	High	Low	High	
1	16.0	468.7	9.3	966.2	
2	6.2	374.5	7.6	821.4	
3	3.6	258.3	5.2	566.0	
4	1.8	133.1	2.6	279.2	

Array Temperature	74.8	Deg F
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Channel	Base Check (mmho/m)		Field Check (mmho/m)		
	Low	High	Low	High	
1	14.3	3873.2	14.5	3873.6	
2	30.4	3605.8	30.3	3605.8	
3	28.4	3069.3	28.4	3069.2	
4	19.7	2079.0	19.7	2078.8	
Deep	17.4	1954.0	17.4	1953.8	
Medium	41.1	4077.4	41.1	4077.3	
Shallow	45.4	5400.9	45.3	5401.3	

Array Temperature	51.3	54.9	Deg F
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Induction Constants MAI-B.J 362

Last Edited on 14-APR-2011,16:39

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	1.00	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

High Resolution Temperature Calibration MAI-B.J 362

Field Calibration on 17-NOV-2010,12:11

	Measured	Calibrated(Deg F)
Lower	10.00	50.00
Upper	100.00	212.00

High Resolution Temperature Constants MAI-B.J 362

Last Edited on

Pre-filter Length 11

Caliper Calibration MPD-C.A 215

Base Calibration on 25-MAR-2011 13:44

Field Calibration on 25-MAR-2011 13:46

Base Calibration

Reading No	Measured	Calibrator Size (in)
1	15503	3.99
2	24031	5.96
3	32776	7.99
4	40832	9.86
5	50287	11.93
6	N/A	N/A

Field Calibration

Measured Caliper (in)	Actual Caliper (in)
8.02	7.99

Photo Density Calibration MPD-C.A 215

Base Calibration on 25-MAR-2011 15:30

Field Check on 25-MAR-2011 15:37

Density Calibration

Base Calibration

	Measured		Calibrated (sdu)	
	Near	Far	Near	Far
Reference 1	43828	15039	52994	19128
Reference 2	20830	2475	25185	2558

Field Check at Base

1314.9 1399.1

Field Check

1314.9 1394.6

PE Calibration

Base Calibration

	WS	Measured		Calibrated Ratio
		WH	Ratio	
Background	238	1173		
Reference 1	14612	43655	0.338	0.309
Reference 2	5801	20682	0.285	0.274

Field Check at Base

237.9 1173.1

Field Check

237.8 1170.0

Density Constants MPD-C.A 215

Last Edited on 14-APR-2011,16:26

Density Source Id	2859GW	
Nylon Calibrator Number	DNC-E-527	
Aluminium Calibrator Number	DAC-D-527	
Density Shoe Profile	8 inch	
Caliper Source for Processing	Density Caliper	
PE Correction to Density	Not Applied	
Mud Density	1.37	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)	2.68	
		Depth (ft)
		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

DOWNHOLE EQUIPMENT

C:\DOCUME~1\rodgerbx\LOCALS~1\Temp\Weatherford PreView\0\Bill Barrett GGU Miller 14C-31-691_003.dta

MCB-A.A 11B Tension Cablehead
 MCB-A.A 102 LG: 2.40 ft WT: 19.8 lb OD: 2.24 in

SHA-F Compact Swivel Head Adaptor
 SHA-F 57 LG: 2.74 ft WT: 26.5 lb OD: 2.24 in

Compact Comms Gamma
 MCG-C 145 LG: 8.70 ft WT: 63.9 lb OD: 2.24 in

Compact Neutron
 MDN-B.A 191 LG: 5.04 ft WT: 50.7 lb OD: 2.24 in

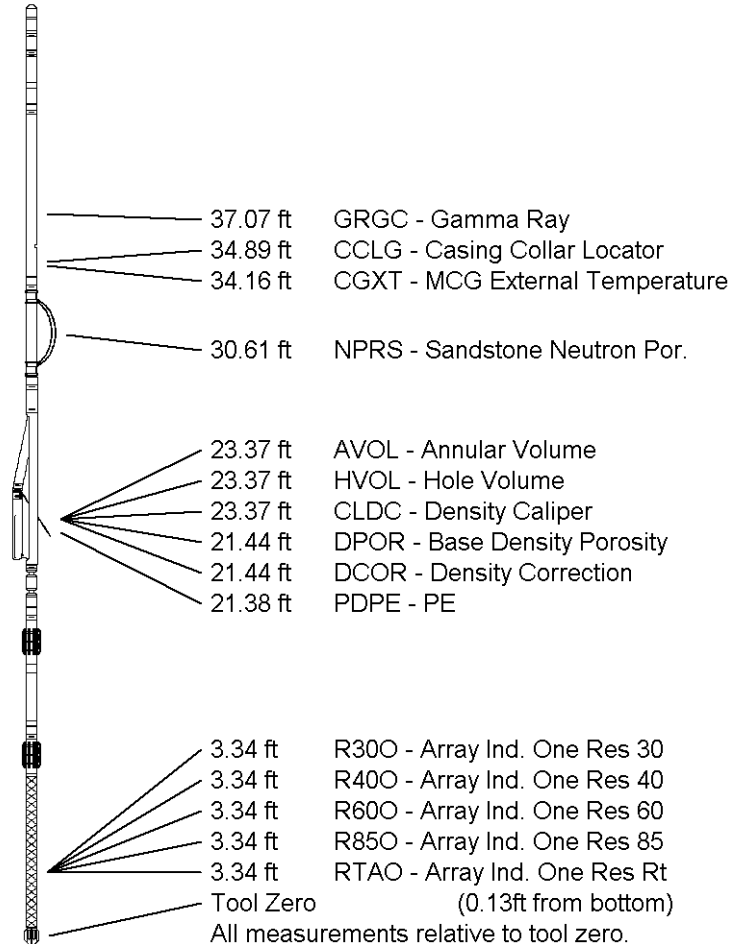
Compact Density/Caliper
 MPD-C.A 215 LG: 9.59 ft WT: 90.4 lb OD: 2.45 in

SKJ-D.A Compact Knuckle Joint
 SKJ-D.A 65 LG: 2.17 ft WT: 24.3 lb OD: 2.24 in

Compact Focussed Electric
 MFE-B.A 220 LG: 6.05 ft WT: 48.5 lb OD: 2.24 in

Compact Induction
 MAI-B.J 362 LG: 10.81 ft WT: 48.5 lb OD: 2.24 in

Total Length: 47.49 ft Weight: 372.6 lb



COMPANY	BILL BARRETT CORPORATION
WELL	GGU MILLER 14C-31-691
FIELD	GIBSON GULCH
PROVINCE/COUNTY	GARFIELD
COUNTRY/STATE	U.S.A. / COLORADO

Elevation Kelly Bushing	6045.00	feet	First Reading	7118.00	
Elevation Drill Floor	6044.00	feet	Depth Driller	7120.00	feet
Elevation Ground Level	6029.00	feet	Depth Logger	7118.00	feet



COMPACT TRIPLE COMBO
 QUICKLOOK
 LOG

