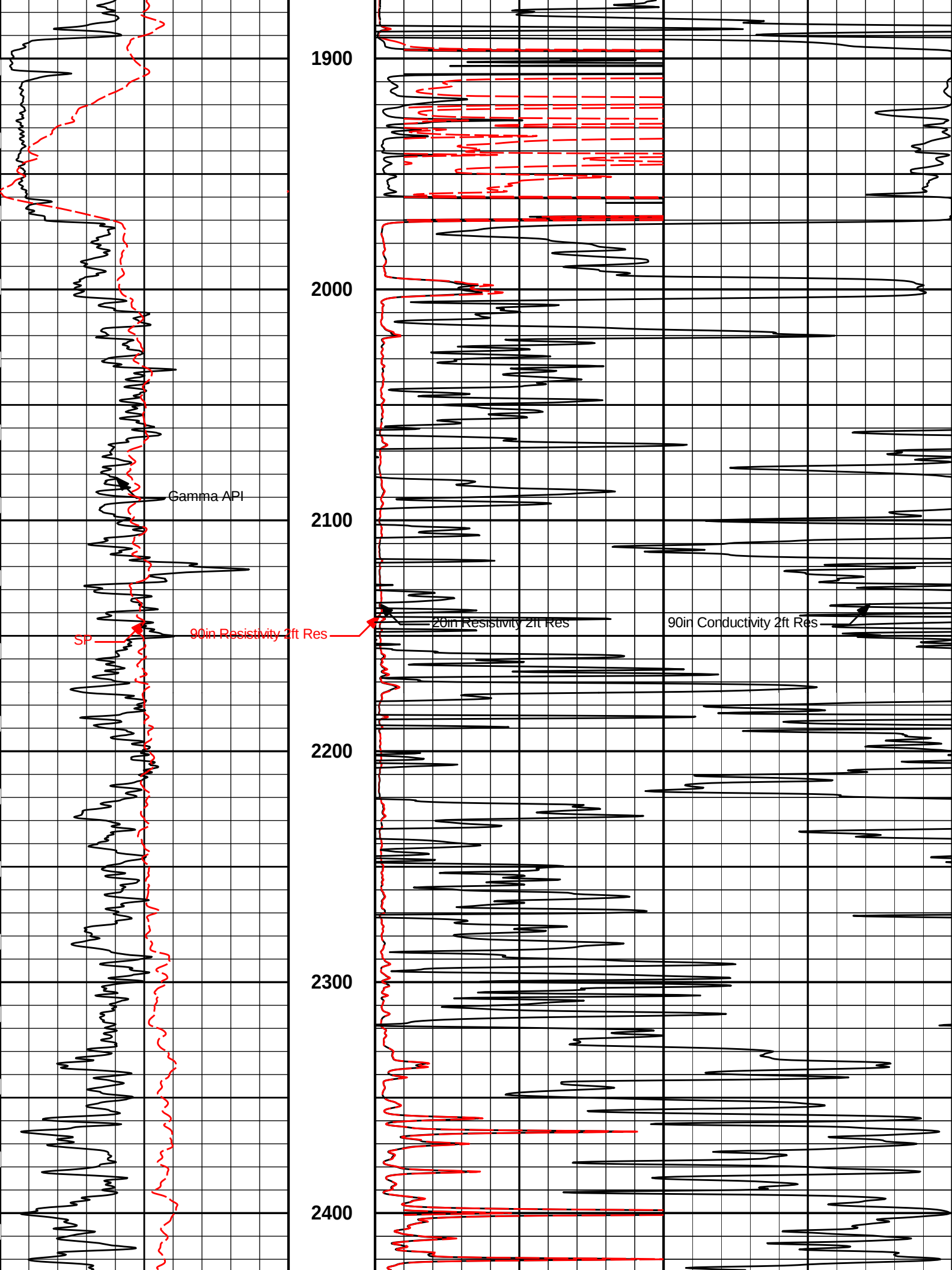


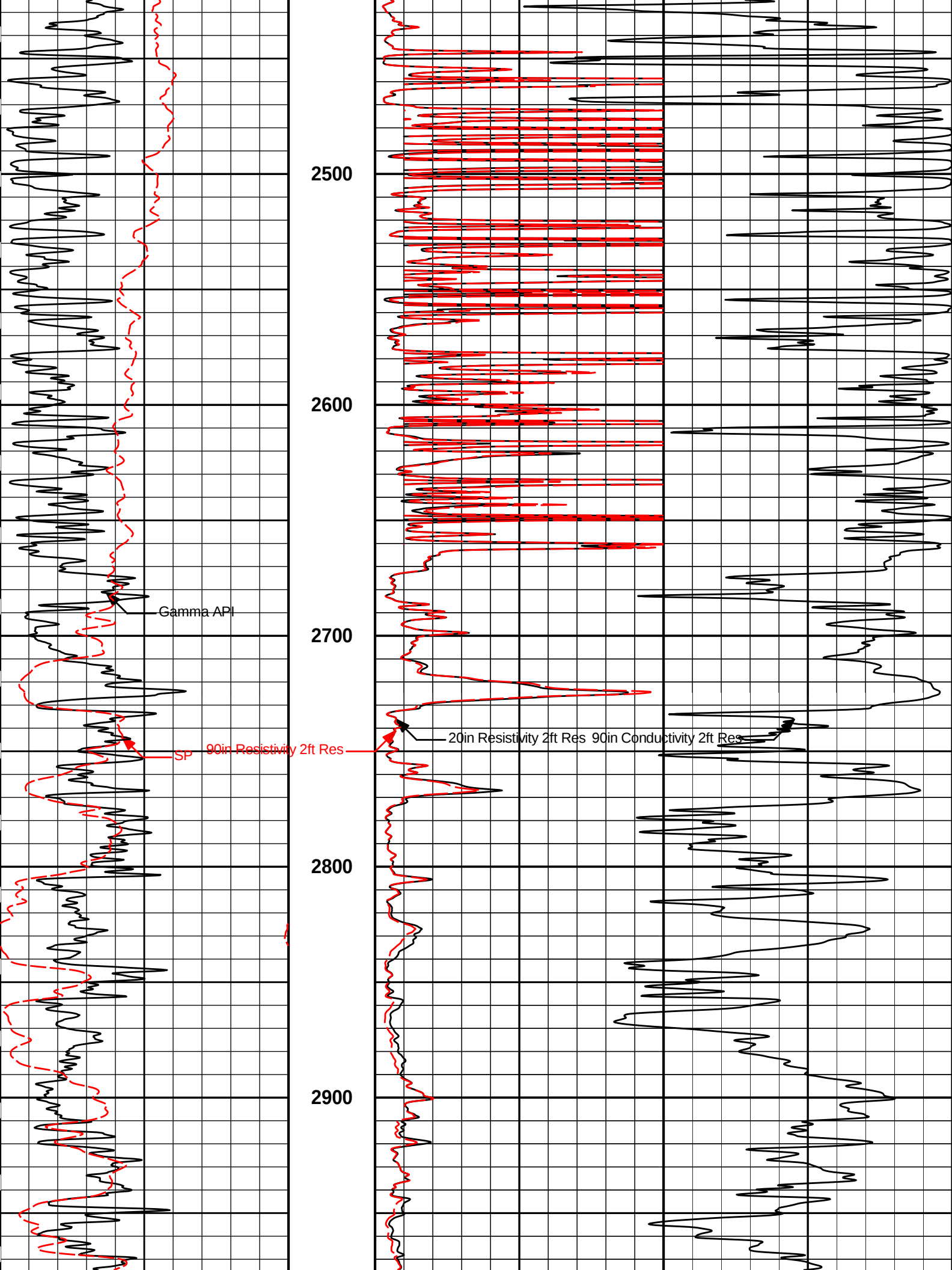
HALLBURTON

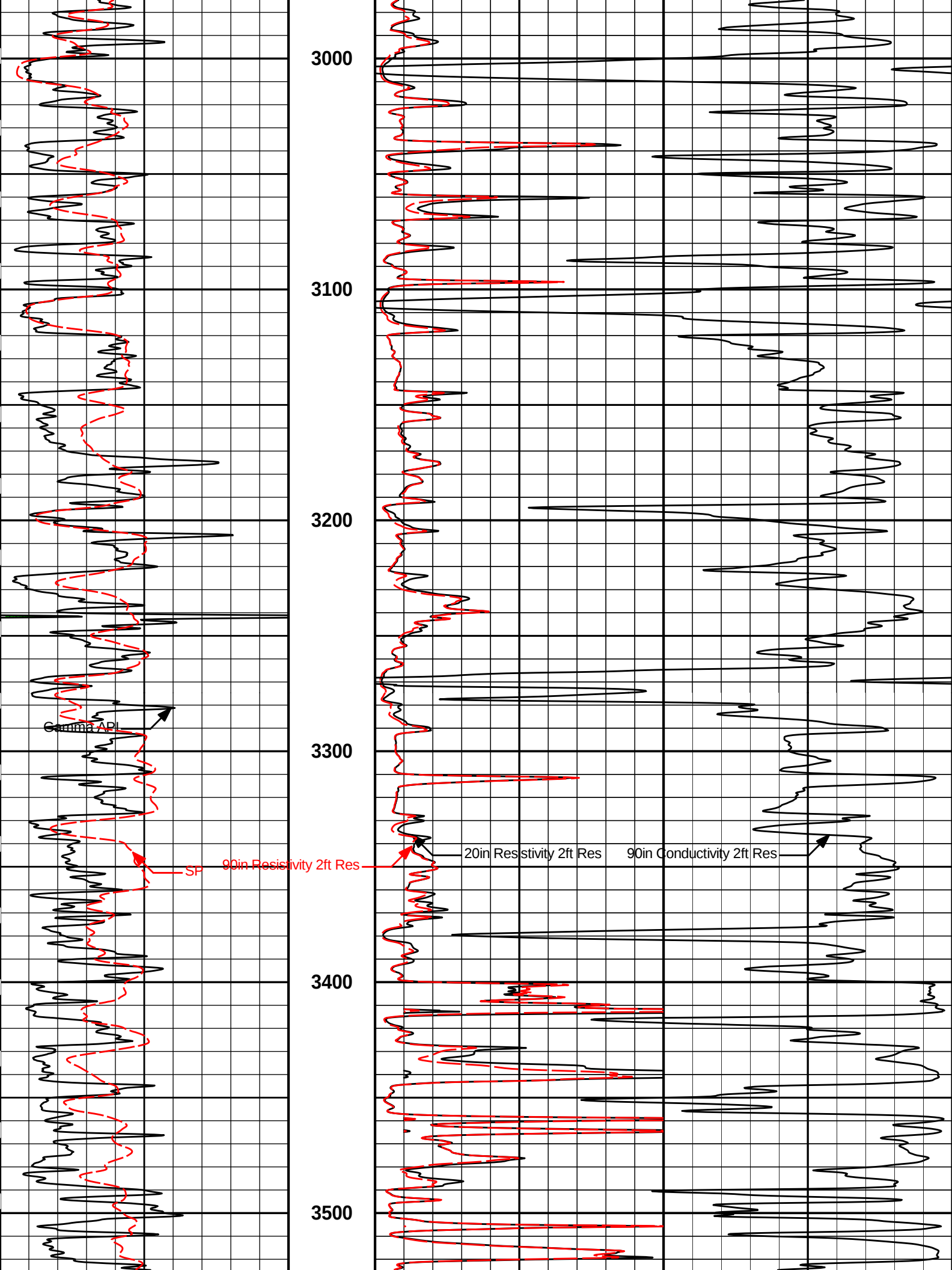
ARRAY COMPENSATED
RESISTIVITY
LOG

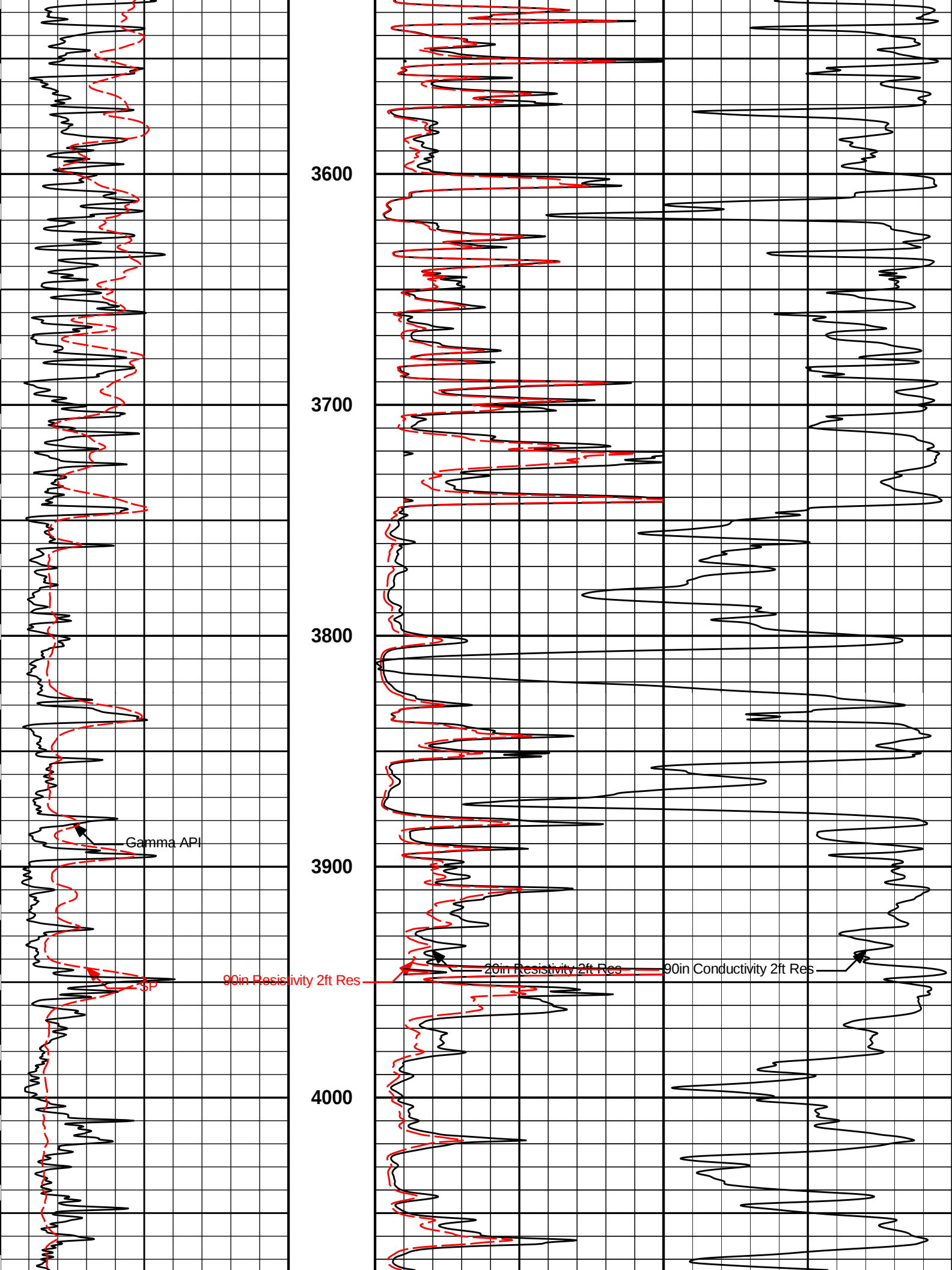
COMPANY										OXY USA, INC.									
WELL										BCU #409									
FIELD										HASKELL									
COUNTY										HASKELL									
STATE										ARKANSAS									
COMPANY										OXY USA, INC.									
WELL										BCU #409									
FIELD										HASKELL									
COUNTY										HASKELL									
STATE										ARKANSAS									
API No.										15-081-22000									
Location										(SHL) 1575' FNL & 1525' FEL									
Other Services:										ACRT SDL/DSN MICROLOG BSAT									
Permanent Datum										GL									
Log measured from										KB									
Drilling measured from										KB									
Date										07-Nov-12									
Run No.										ONE									
Depth - Driller										5758.00 ft									
Depth - Logger										5746.0 ft									
Bottom - Logged Interval										5736									
Top - Logged Interval										1803									
Casing - Driller										8.625 in @ 1803.0 ft									
Casing - Logger										1803.0 ft									
Bit Size										7.875 in									
Type Fluid in Hole										WBM									
Density										9.3 ppg									
Viscosity										38.00 s/qt									
PH										9.80 pH									
Fluid Loss										8.4 cpm									
Source of Sample										FLOWLINE									
Rm @ Meas. Temperature										0.850 ohmm @ 68.00 degF									
Rmf @ Meas. Temperature										0.64 ohmm @ 66.00 degF									
Rmc @ Meas. Temperature										1.275 ohmm @ 66.00 degF									
Source Rmf										CALC									
Rm @ BHT										0.42 ohmm @ 143.0 degF									
Time Since Circulation										8.0 hr									
Time on Bottom										07-Nov-12 05:10									
Max. Rec. Temperature										143.0 degF @ 5746.0 ft									
Equipment										786									
Recorded By										BOMAR									
Witnessed By										R. WEBSTER									
G. CHATTLE										G. FLAGG									

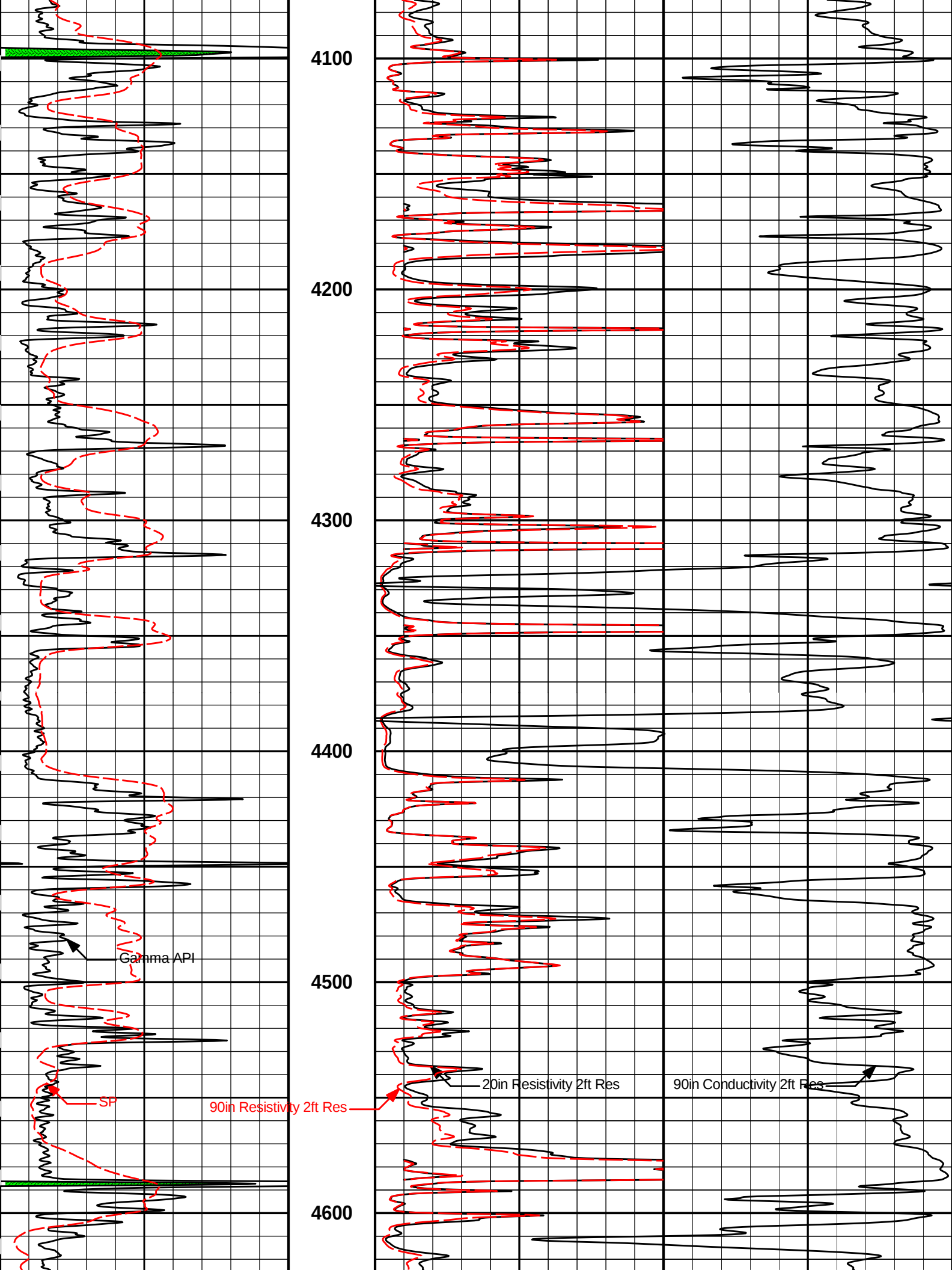
GENERAL				GAMMA		ACOUSTIC		DENSITY		NEUTRON				
Run	Depth		Speed	Scale		Scale		Matrix	Scale		Matrix	Scale		Matrix
No.	From	To	ft/min	L	R	L	R		L	R		L	R	
ONE	TD	CSG	REC	0	150	30	-10	47.6	30	-10	2.71	30	-10	LIME
DIRECTIONAL INFORMATION														
Maximum Deviation @								KOP @						
Remarks: 5.5 INCH CASING USED FOR ANNULAR HOLE VOLUME														
- FIELD NAME WAS LEFT BLANK AT CUSTOMERS REQUEST														
- ON TRIP IN HOLE WE PICKED UP SOME MUDCAKE ON MICROLOG PAD. IT CLEANED OFF DURING REPEAT PASS, AND WE DID NOT MAKE AN EXTRA														
PASS AT CUSTOMERS REQUEST														
- THERE WAS A SHIFT IN THE SP AROUND 5360 FT AND WE DID NOT MAKE ANOTHER PASS AT CUSTOMERS REQUEST														
HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.														
HALLIBURTON														

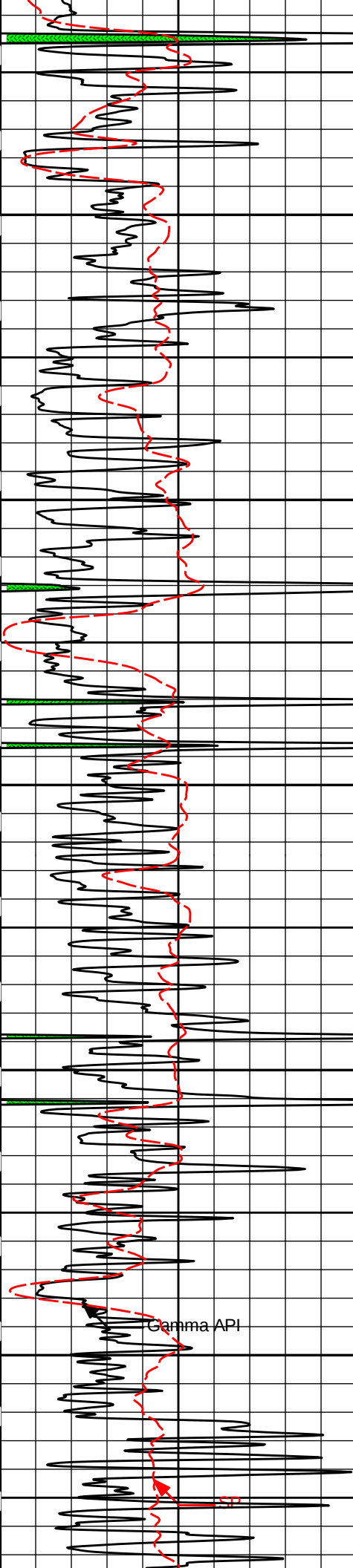












4700

4800

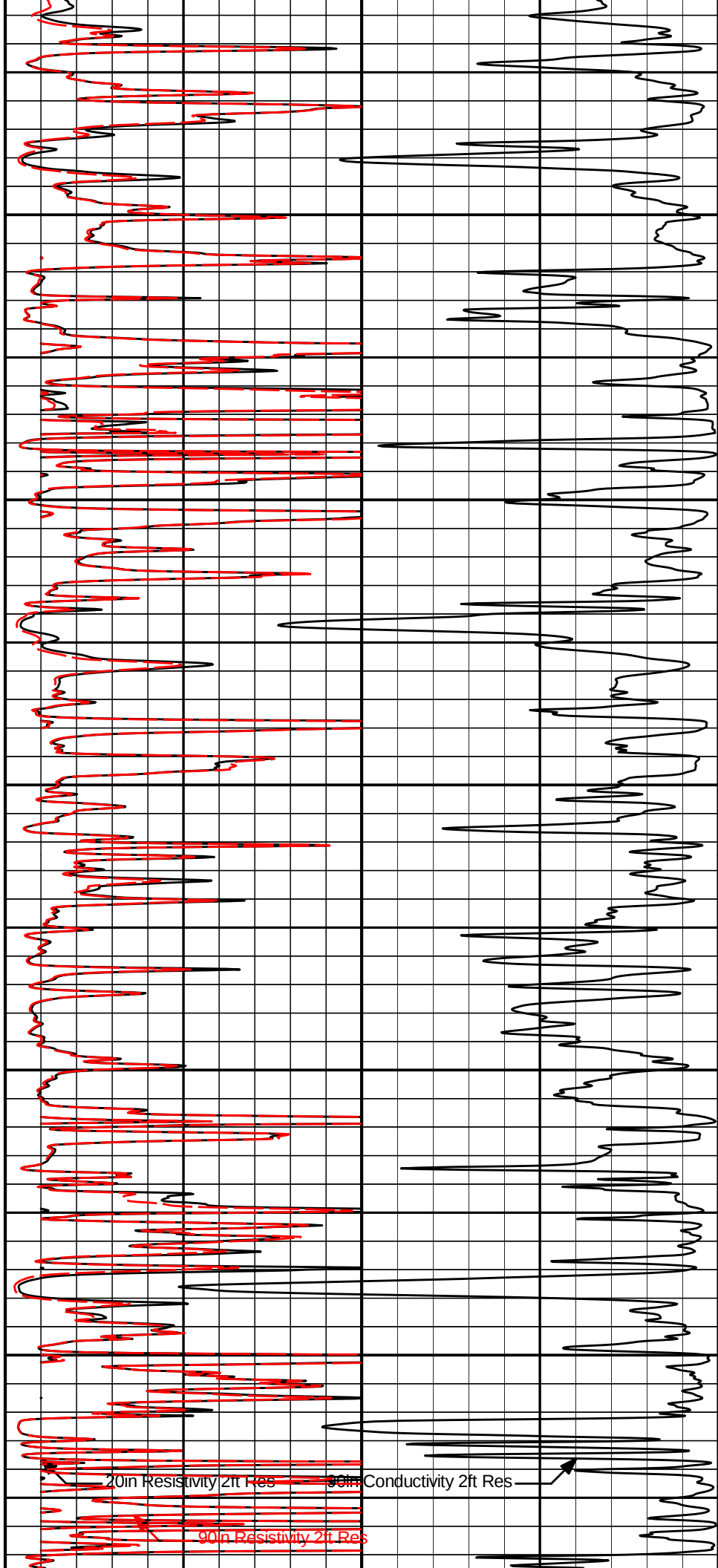
4900

5000

5100

Gamma API

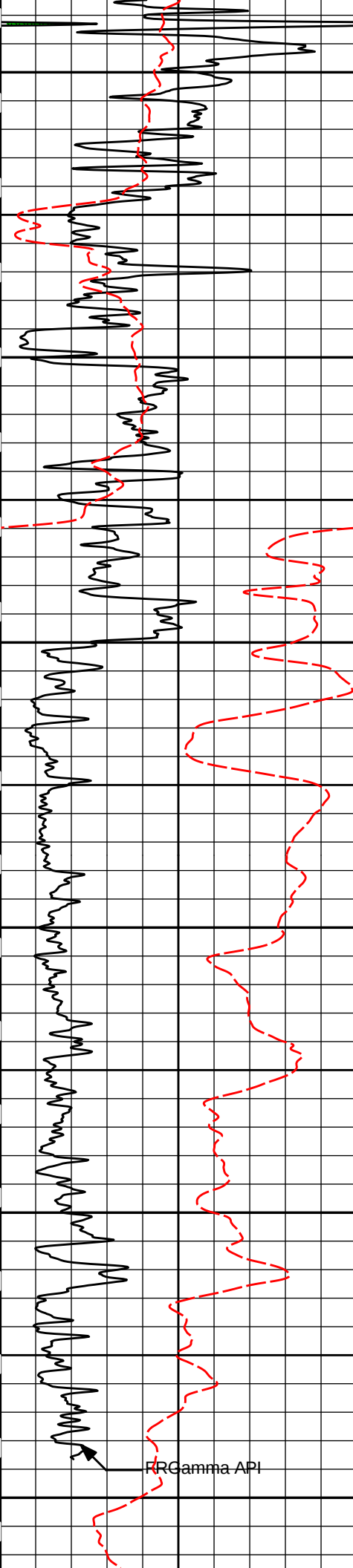
90In



20In Resistivity 2ft Res

90In Resistivity 2ft Res

90In Conductivity 2ft Res



5200

5300

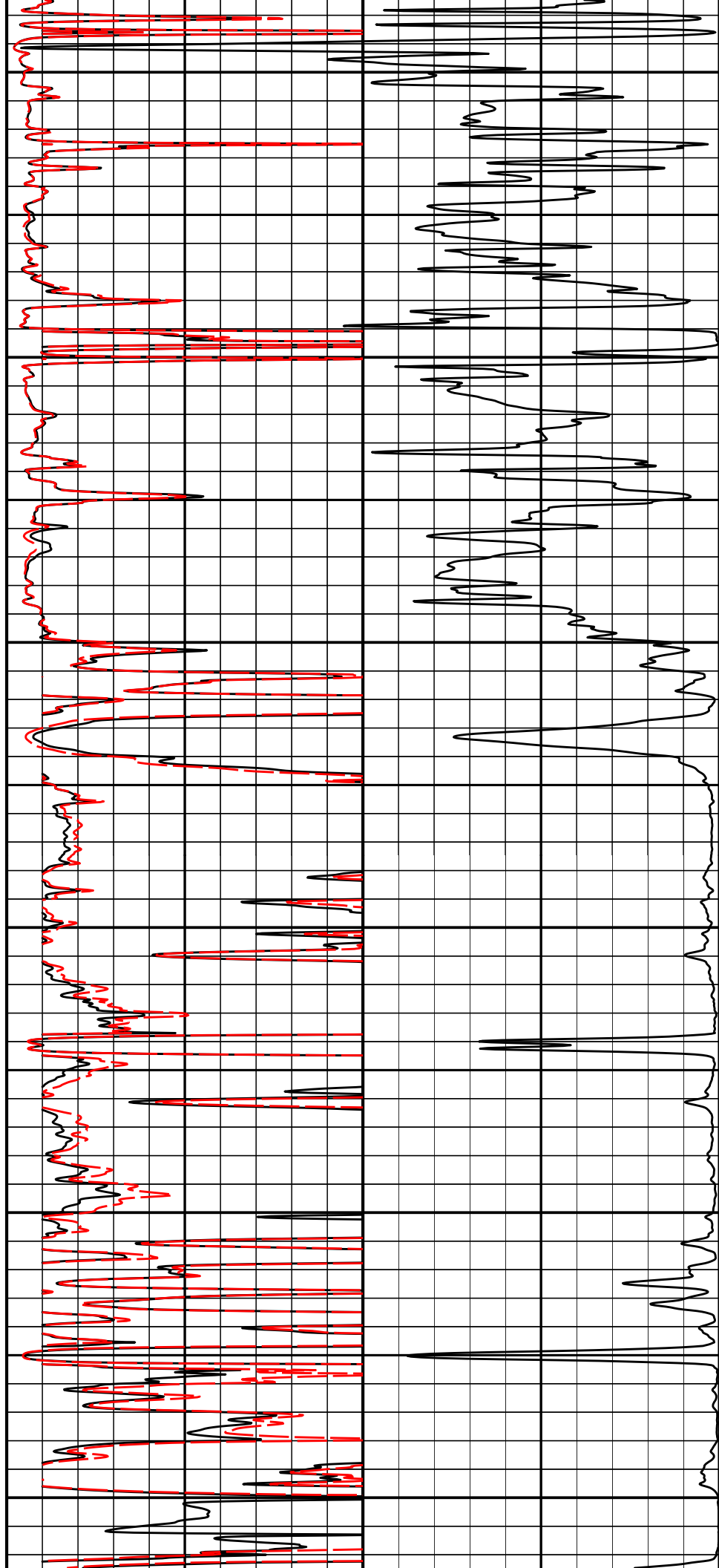
5400

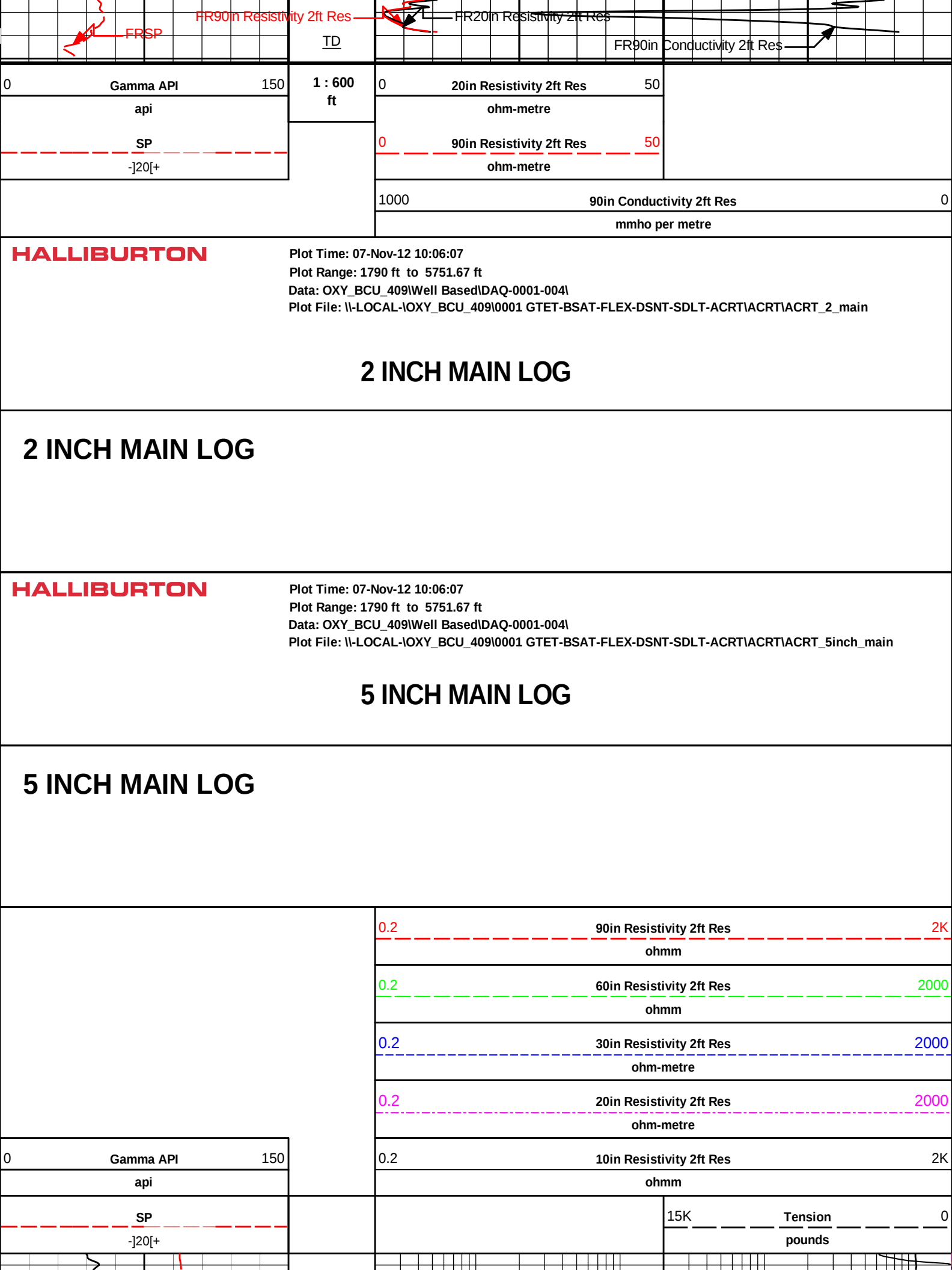
5500

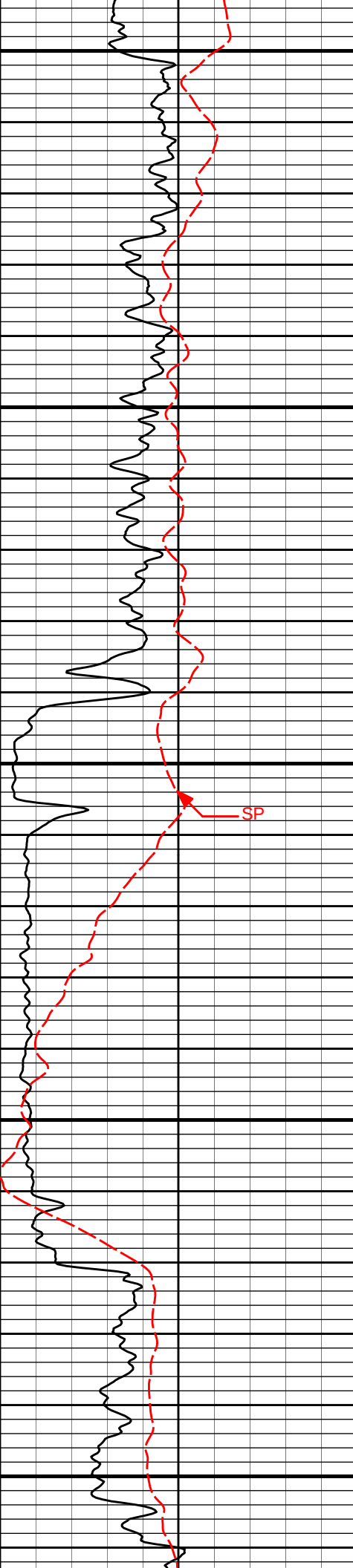
5600

5700

Gamma API



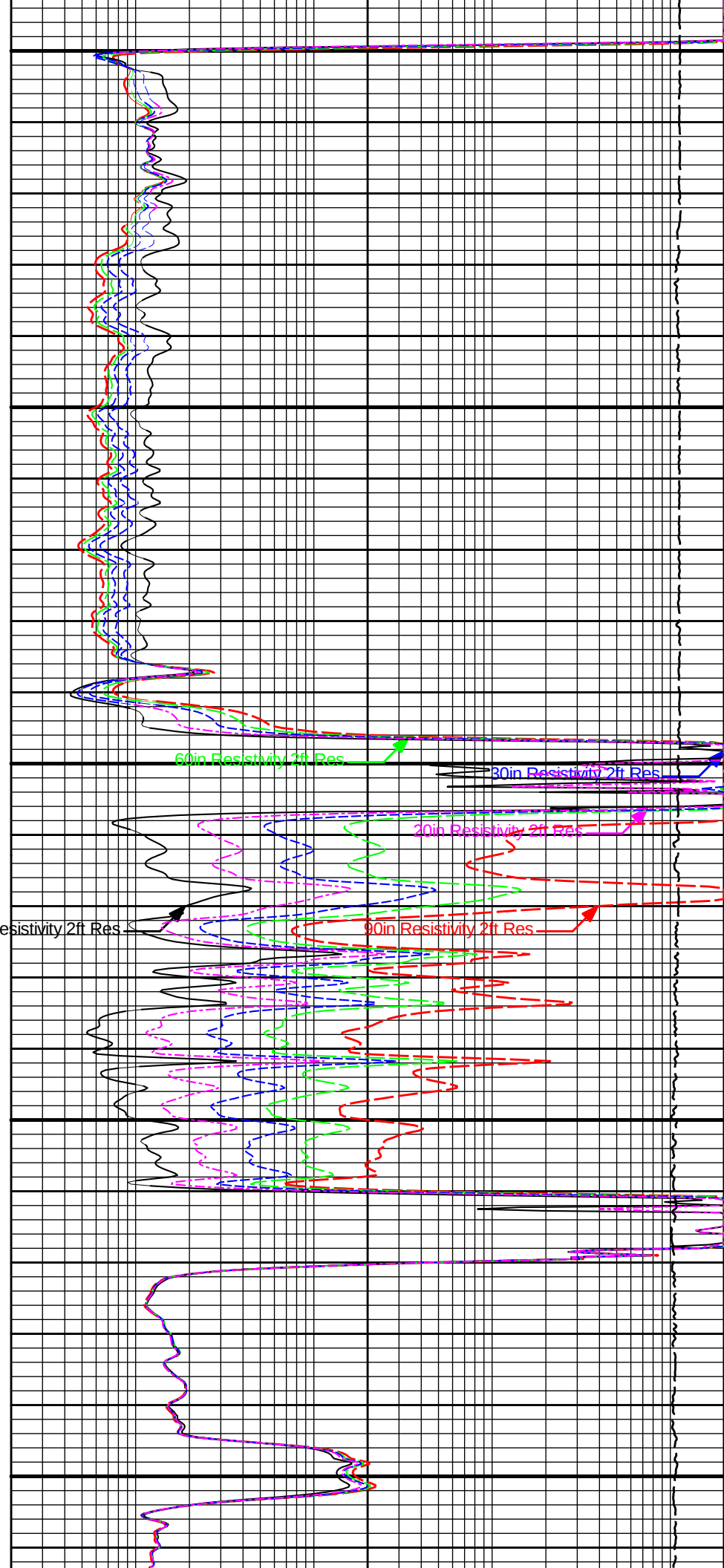


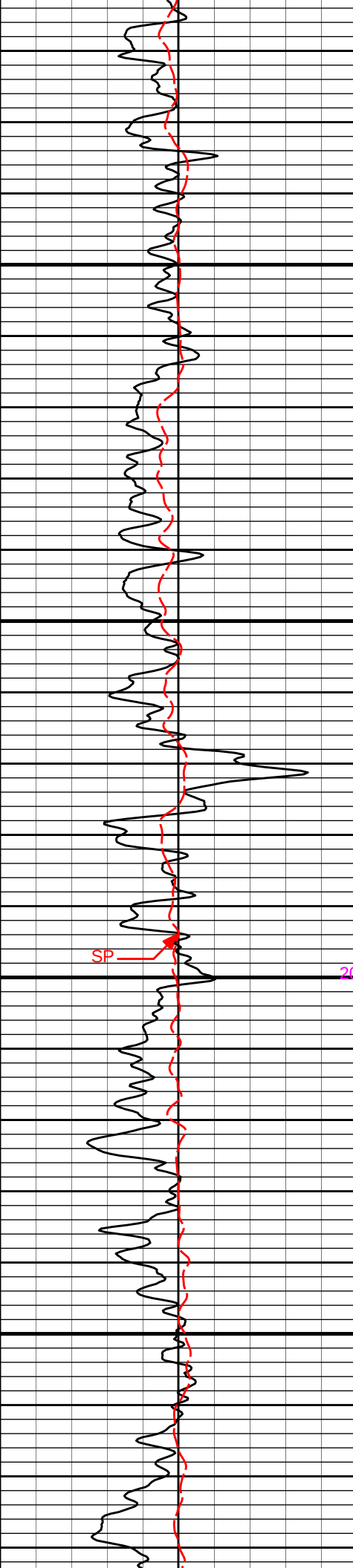


1800

1900

2000





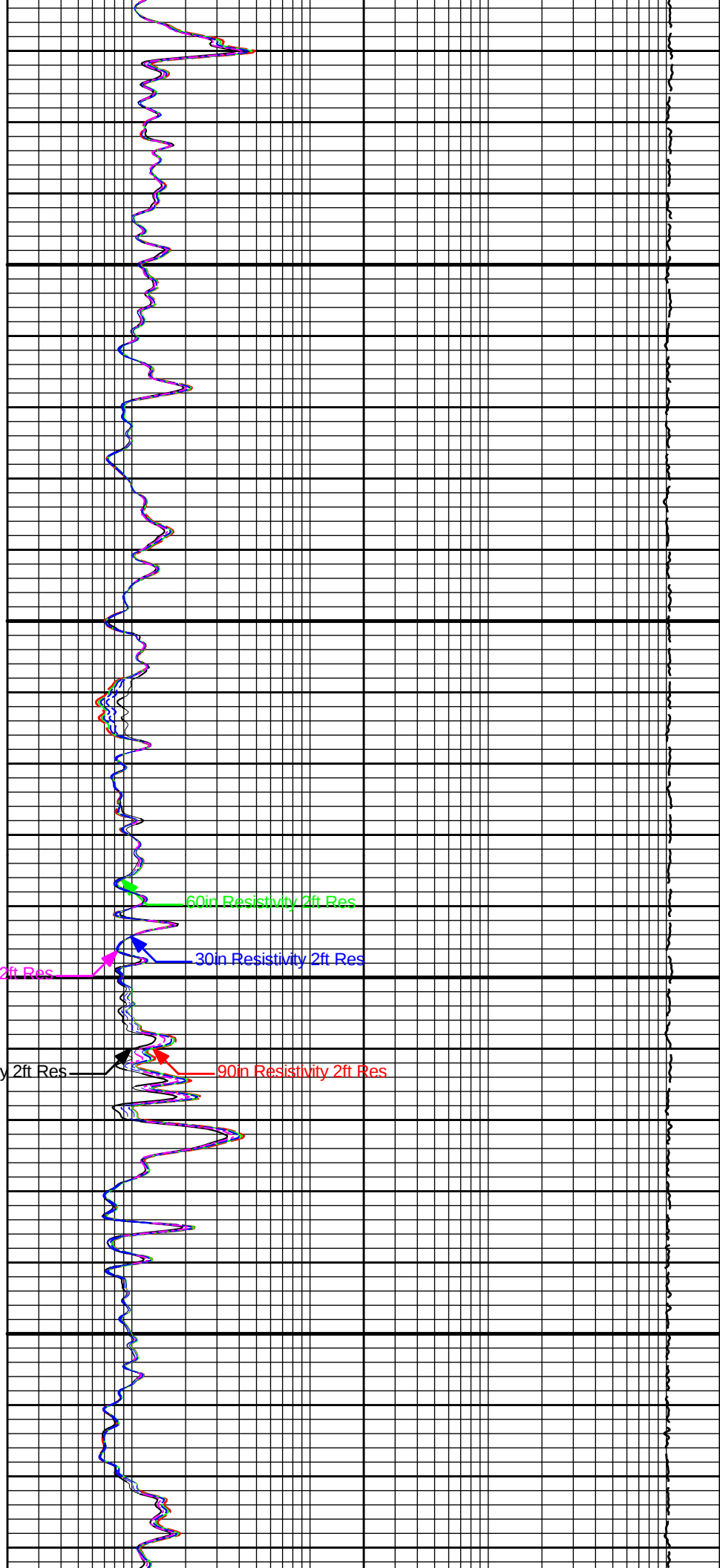
2100

SP

20in Resistivity 2ft Res

10in Resistivity 2ft Res

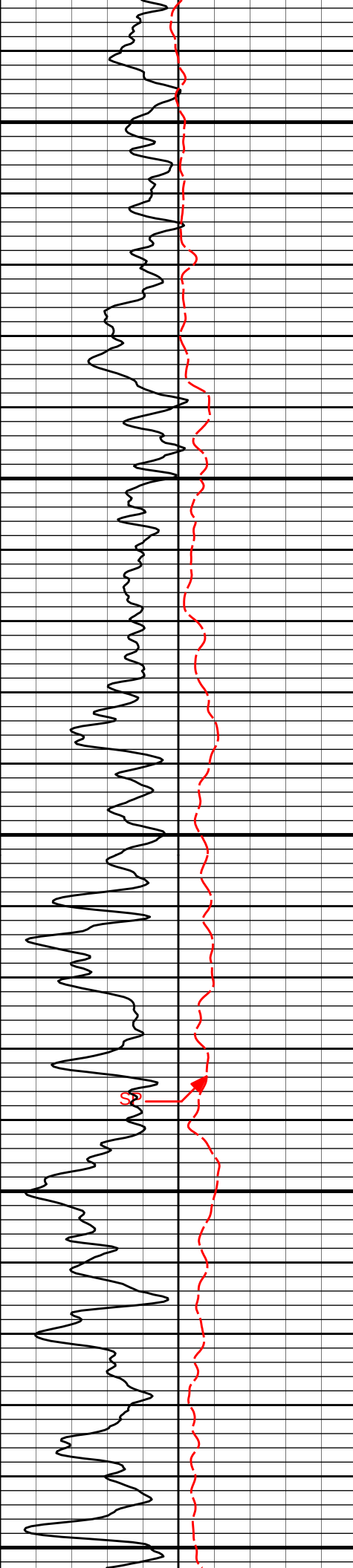
2200



60in Resistivity 2ft Res

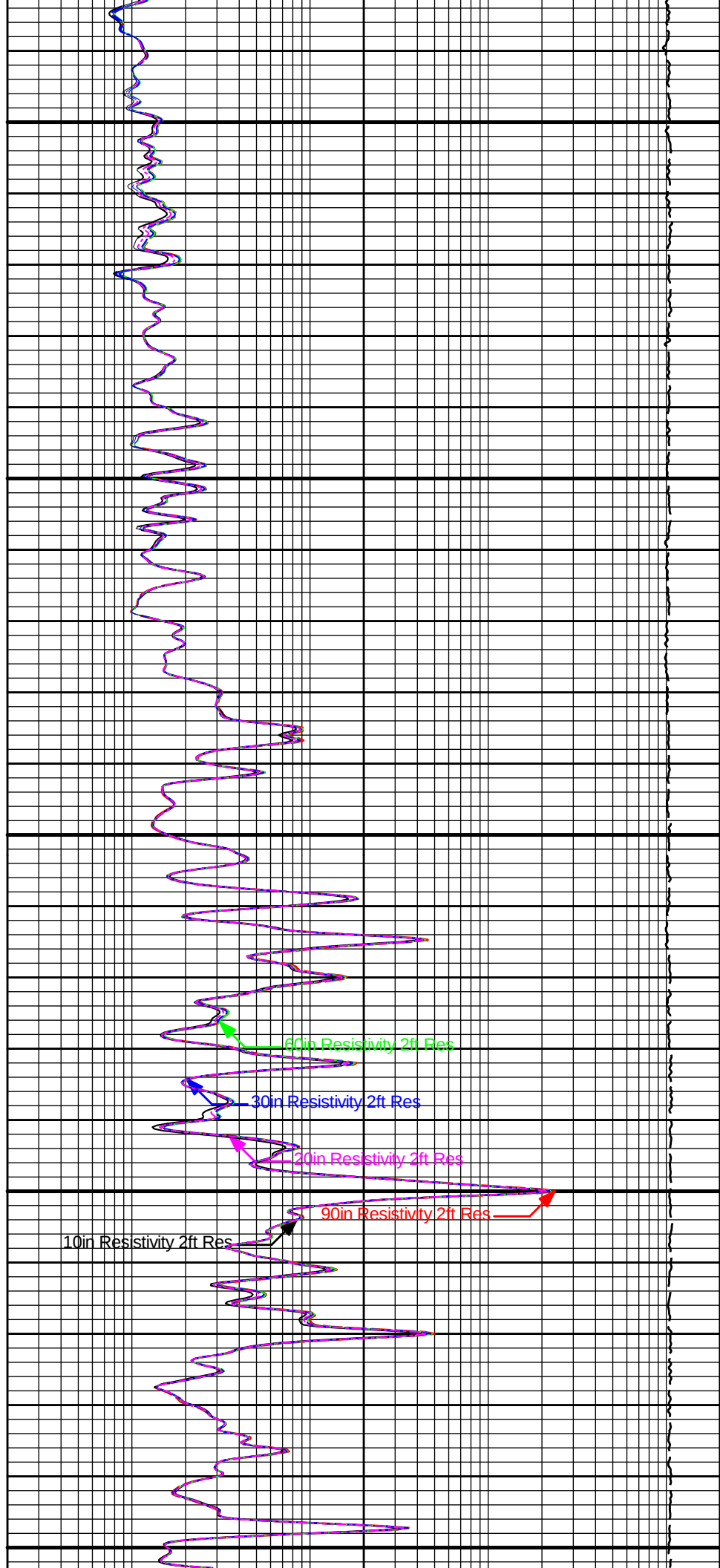
30in Resistivity 2ft Res

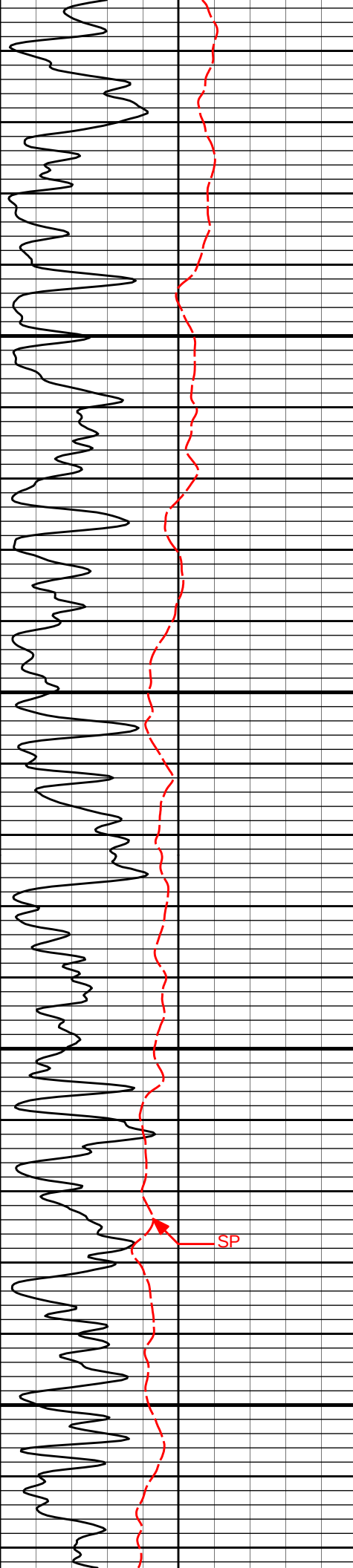
90in Resistivity 2ft Res



2300

2400

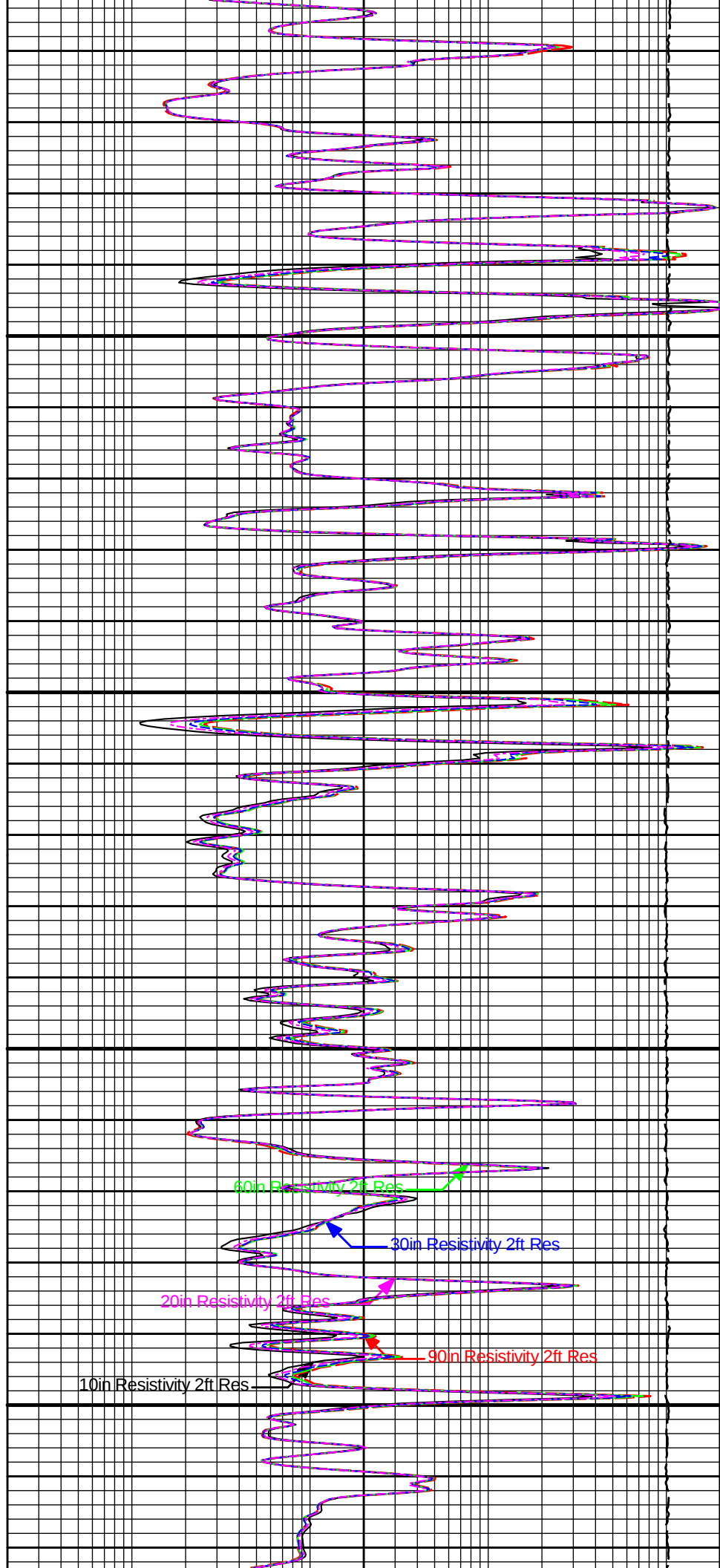


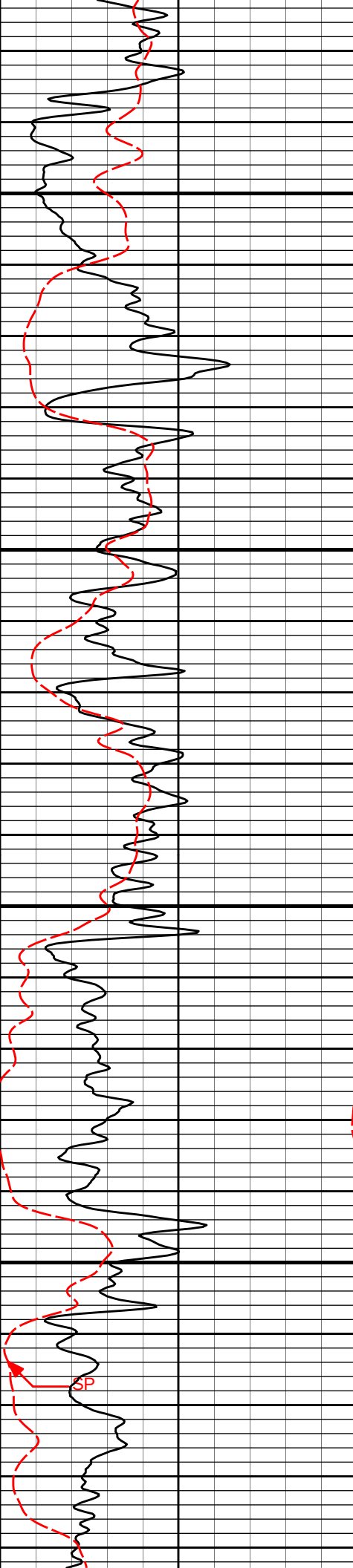


2500

2600

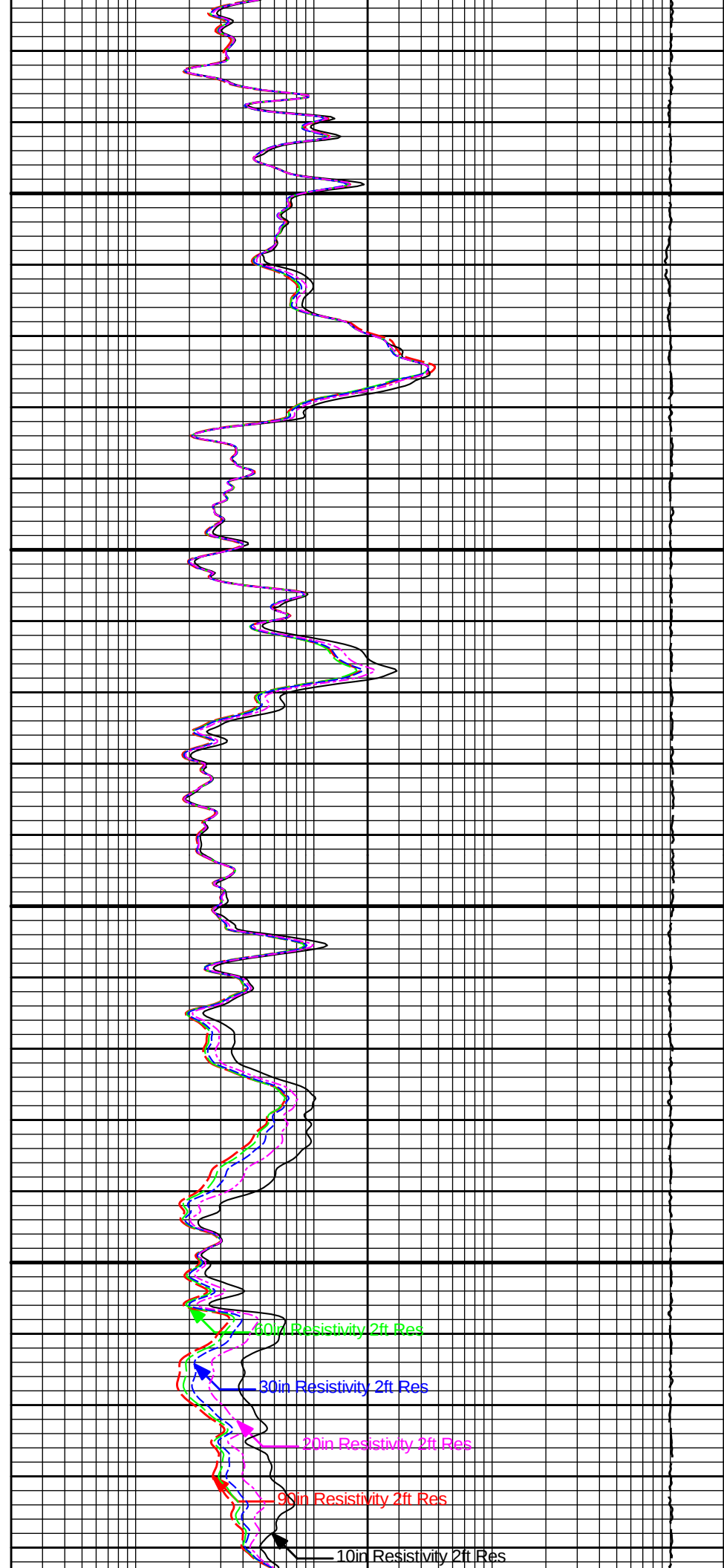
SP

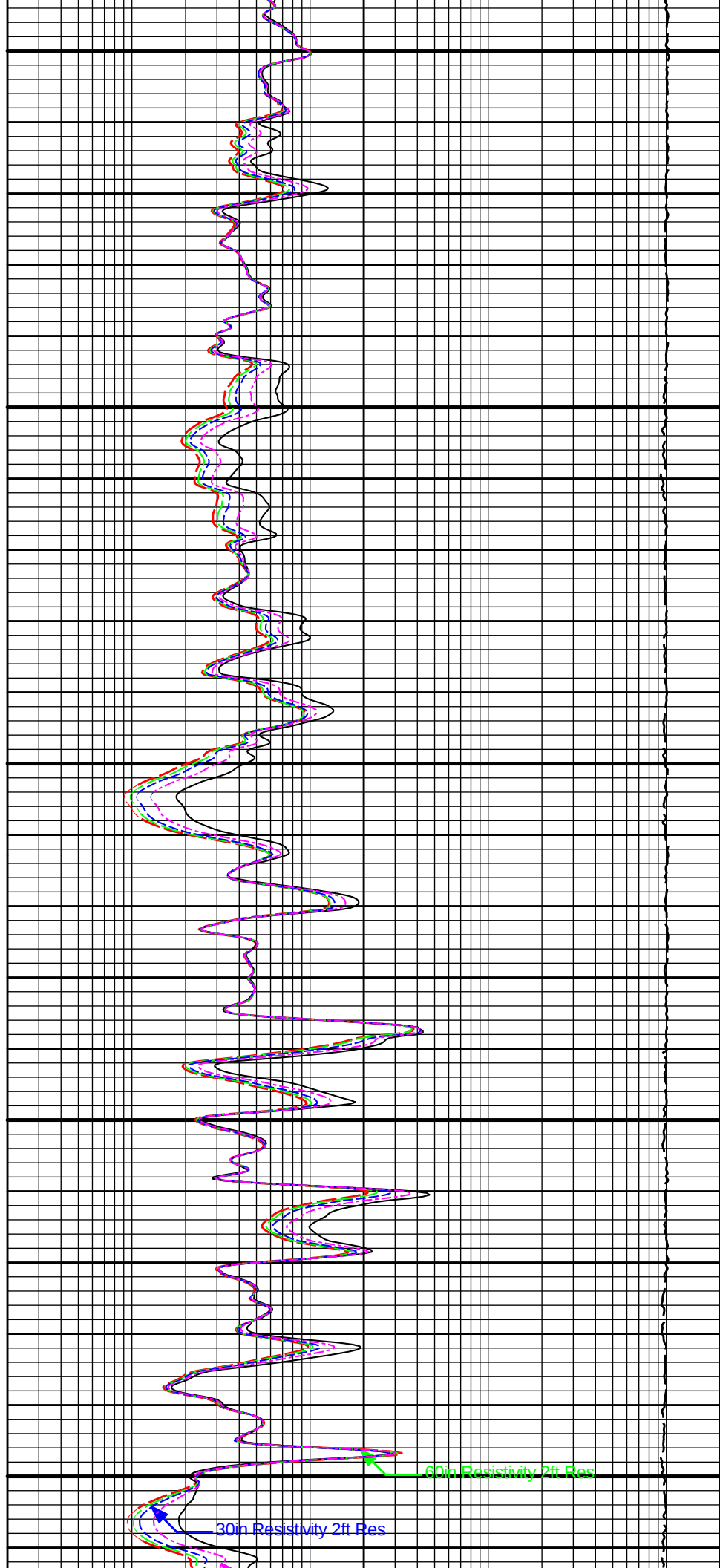
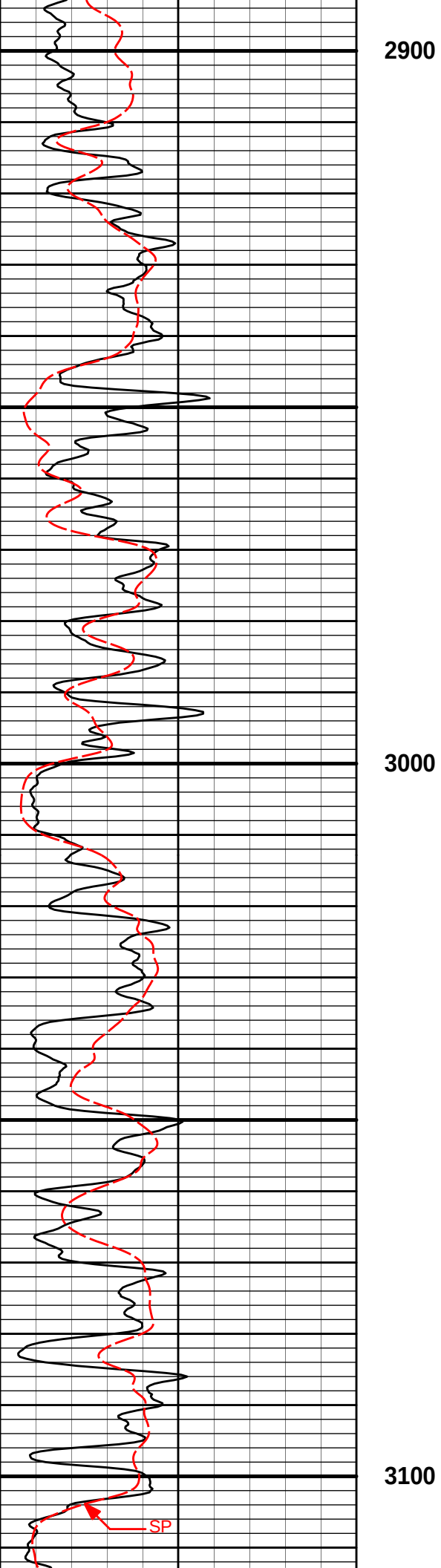


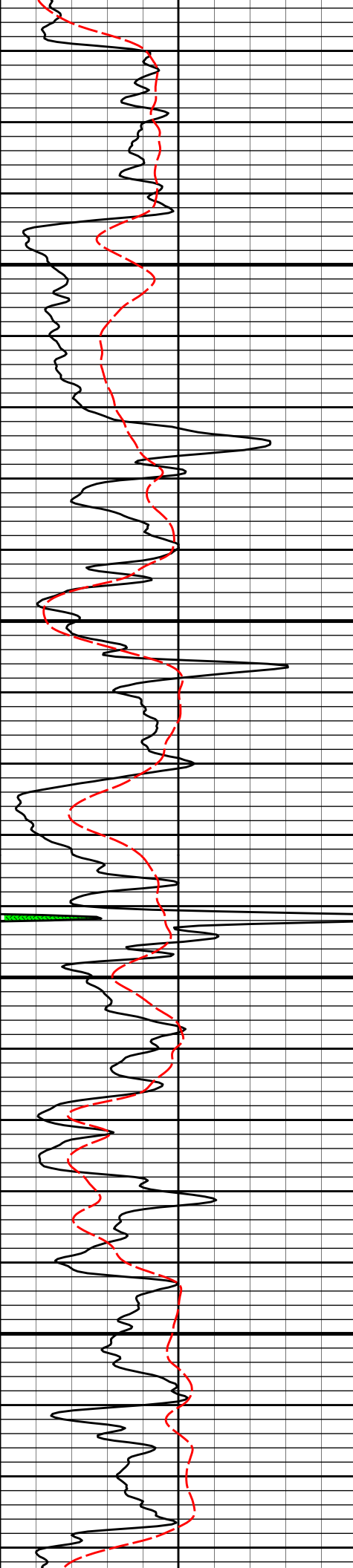


2700

2800

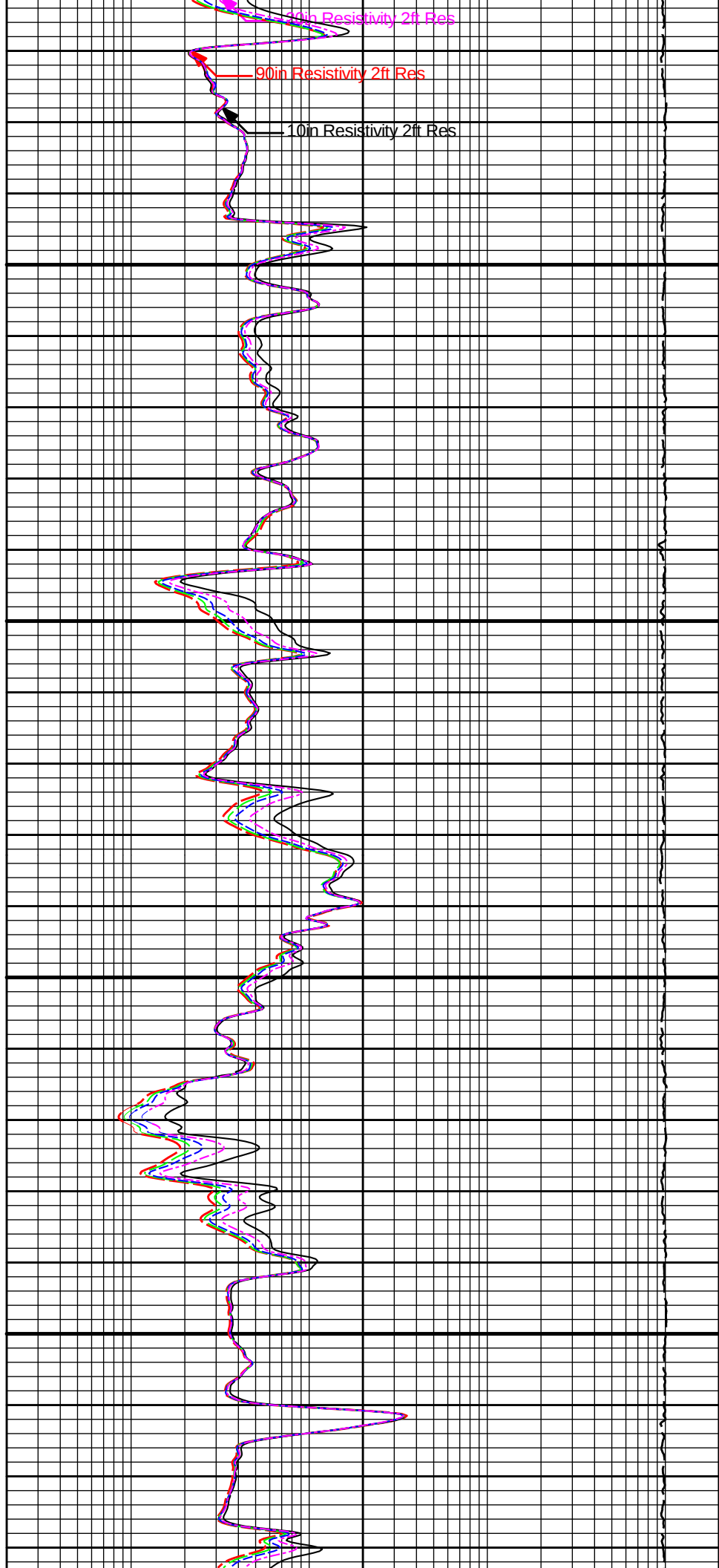


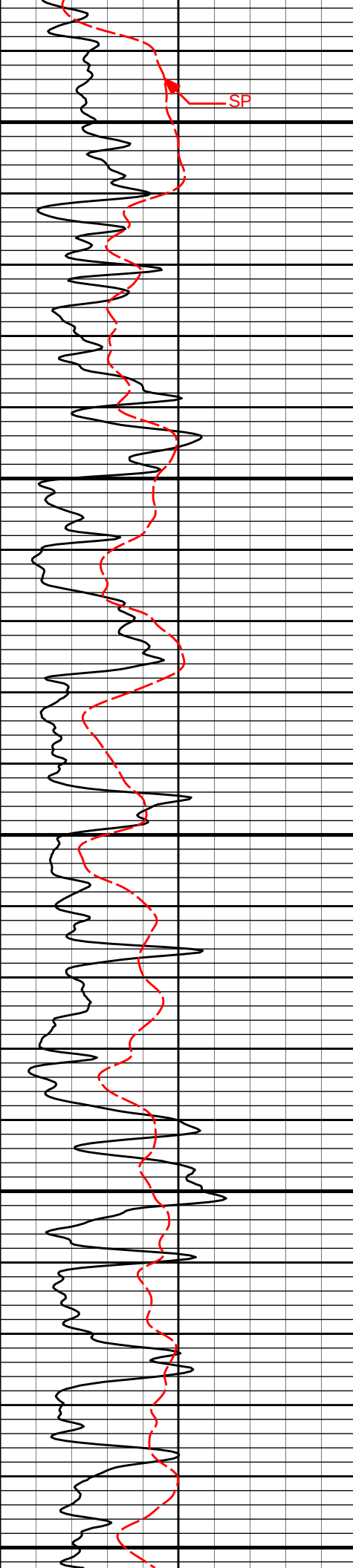




3200

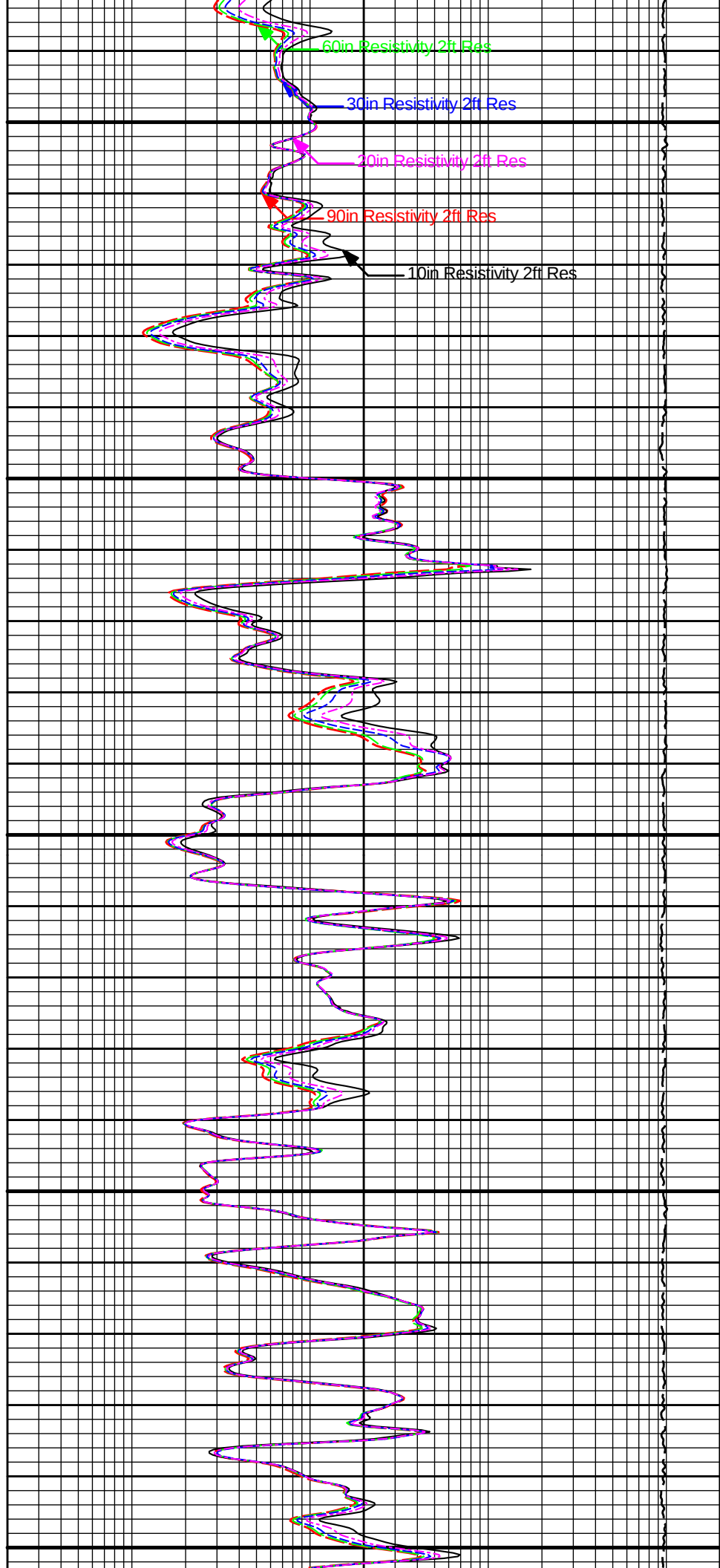
3300

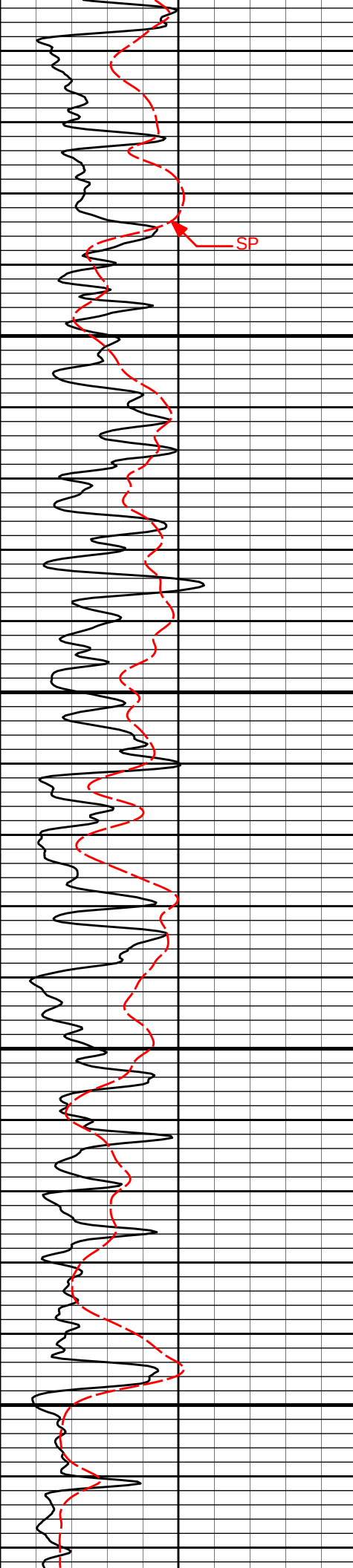




3400

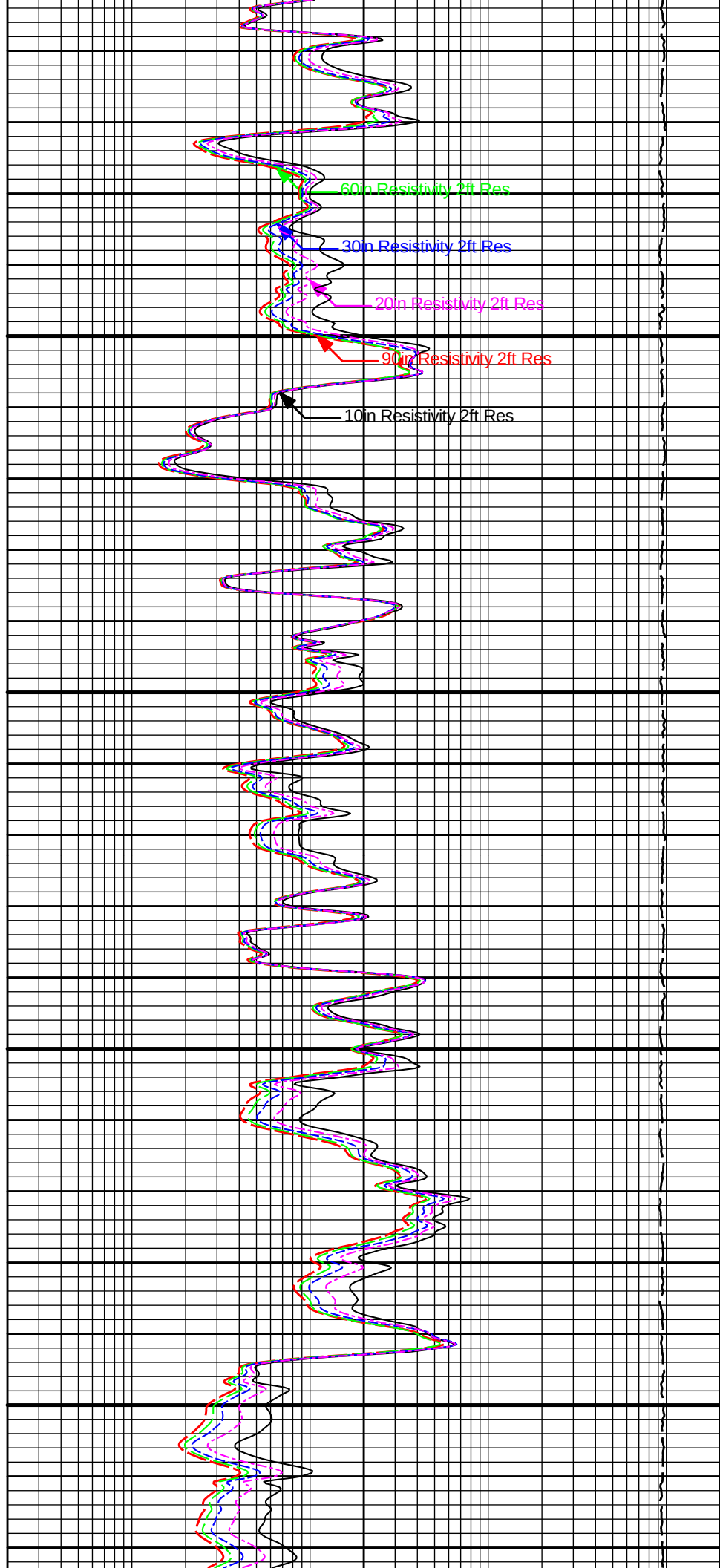
3500

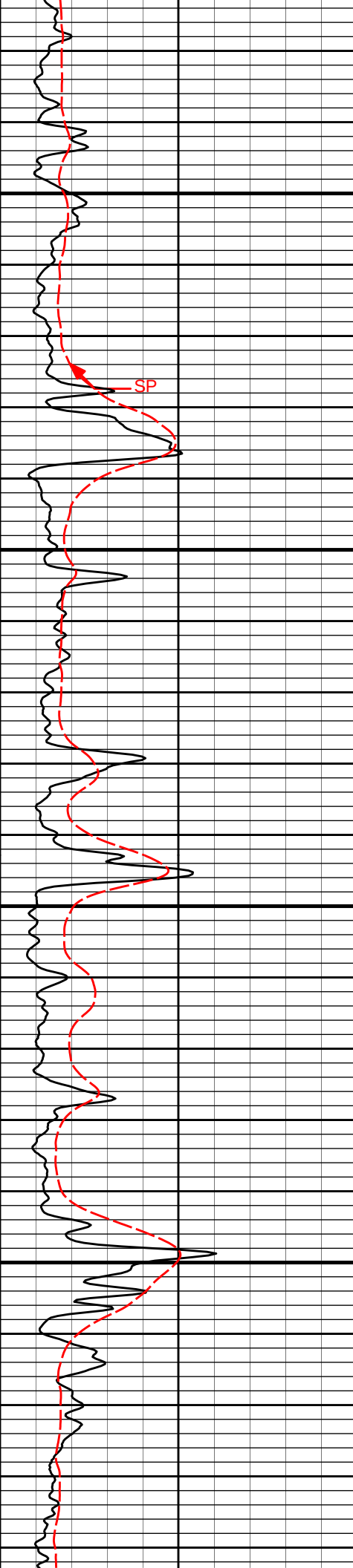




3600

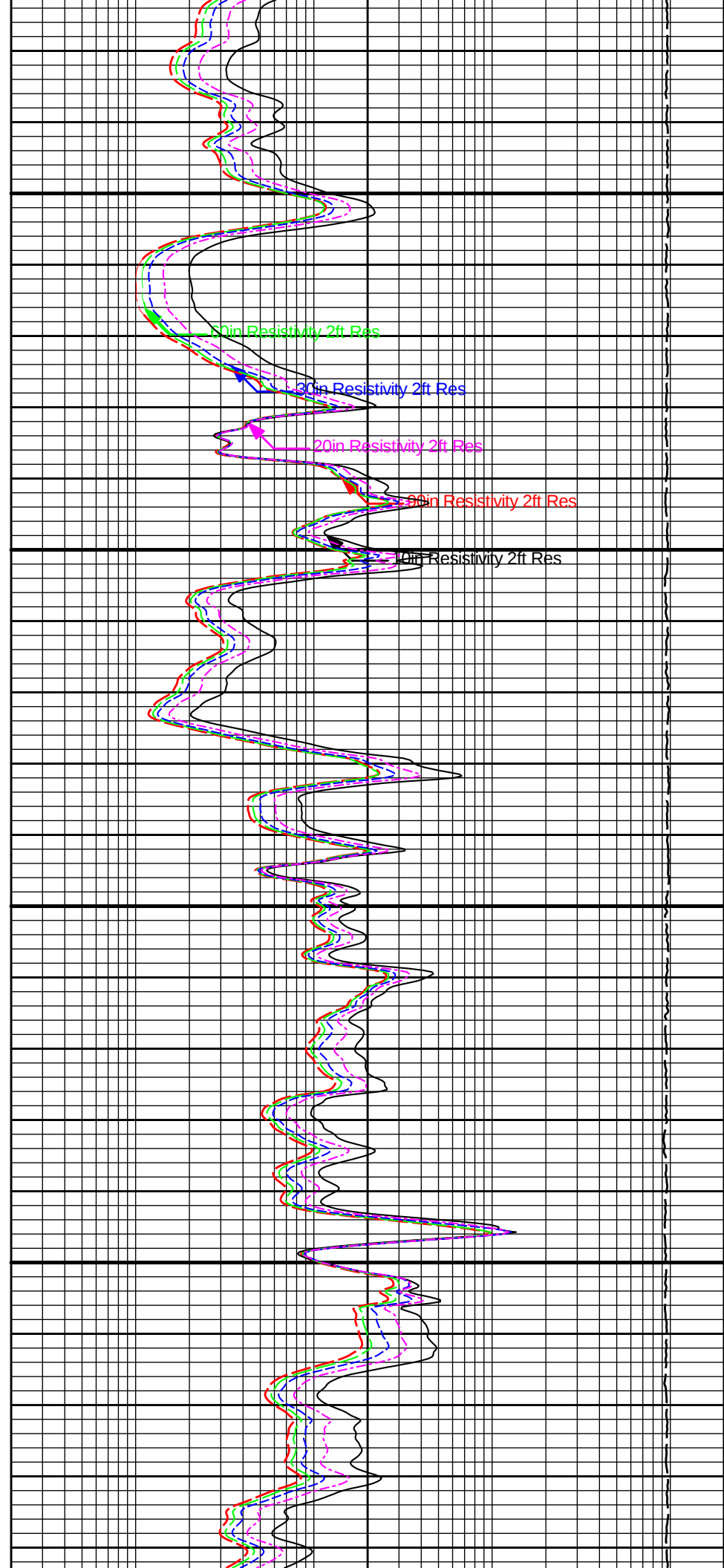
3700

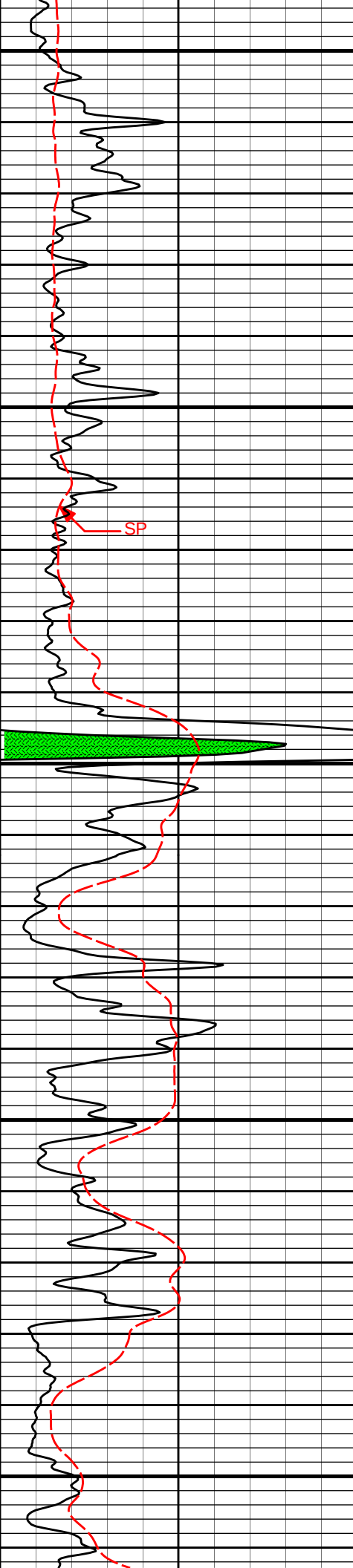




3800

3900

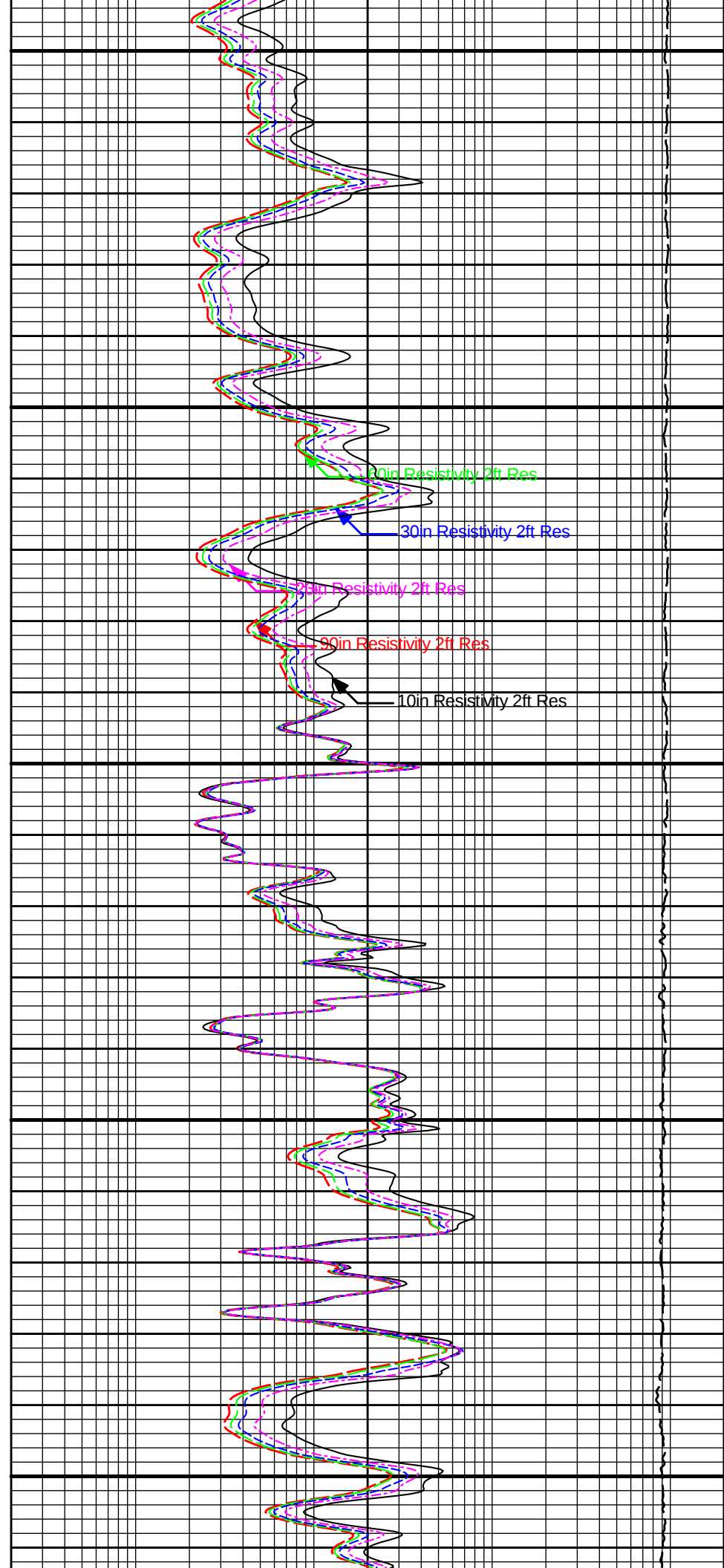


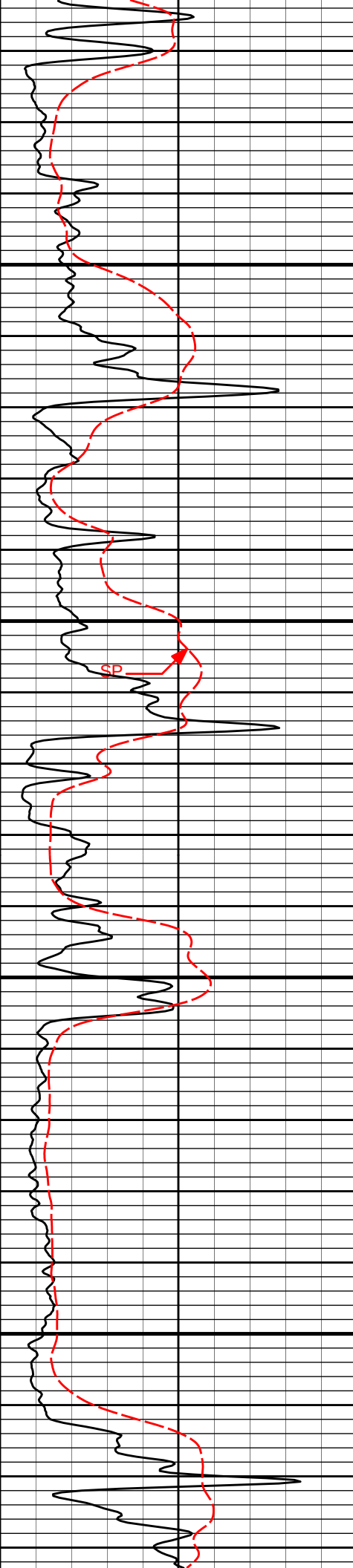


4000

4100

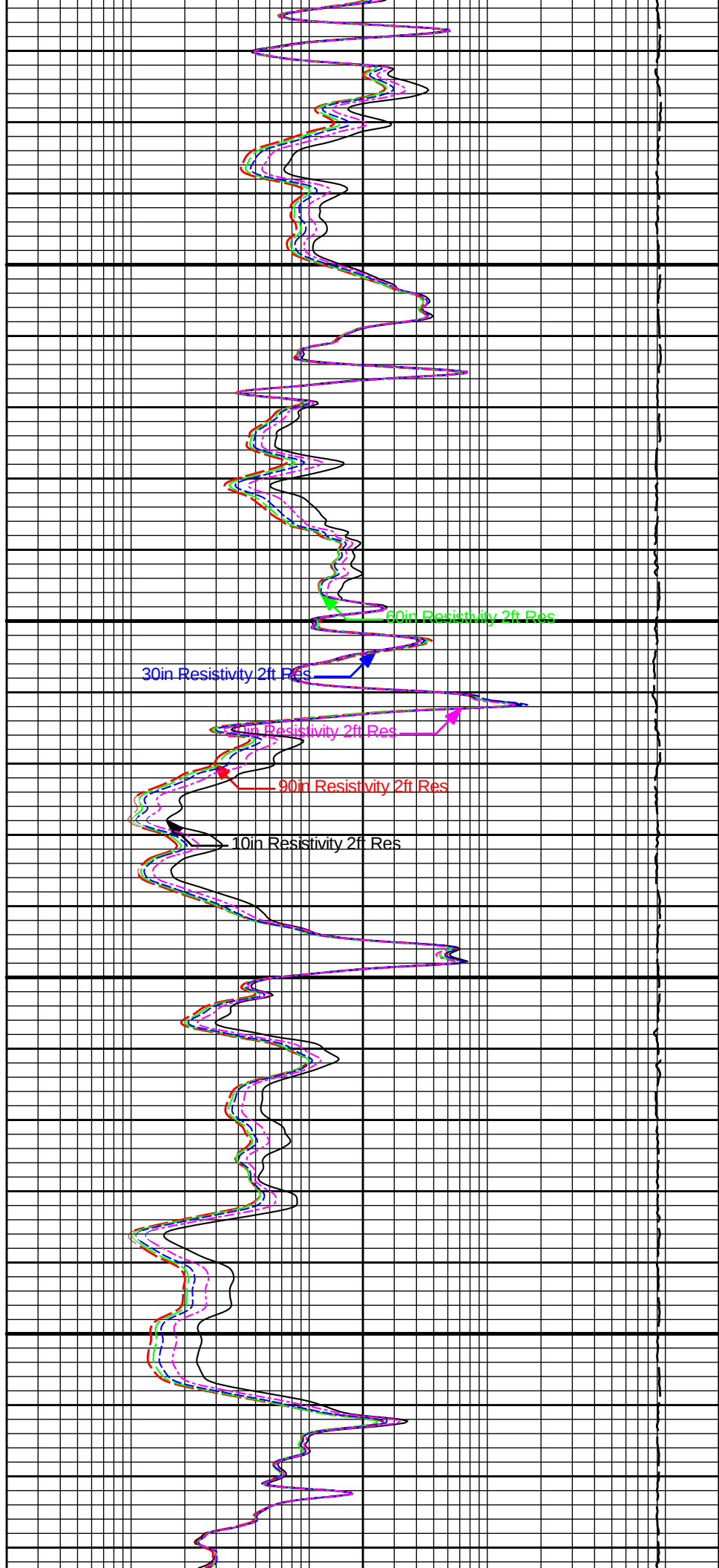
4200

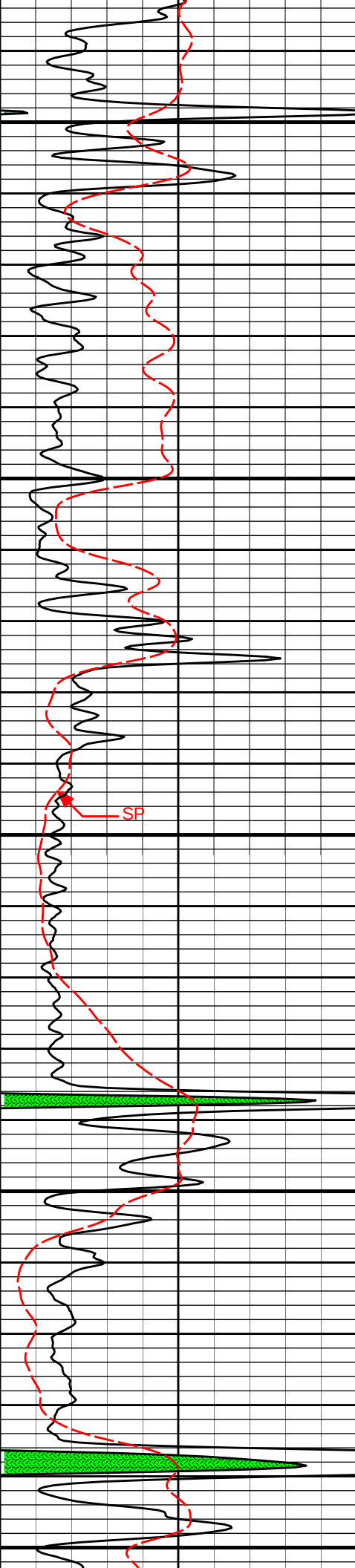




4300

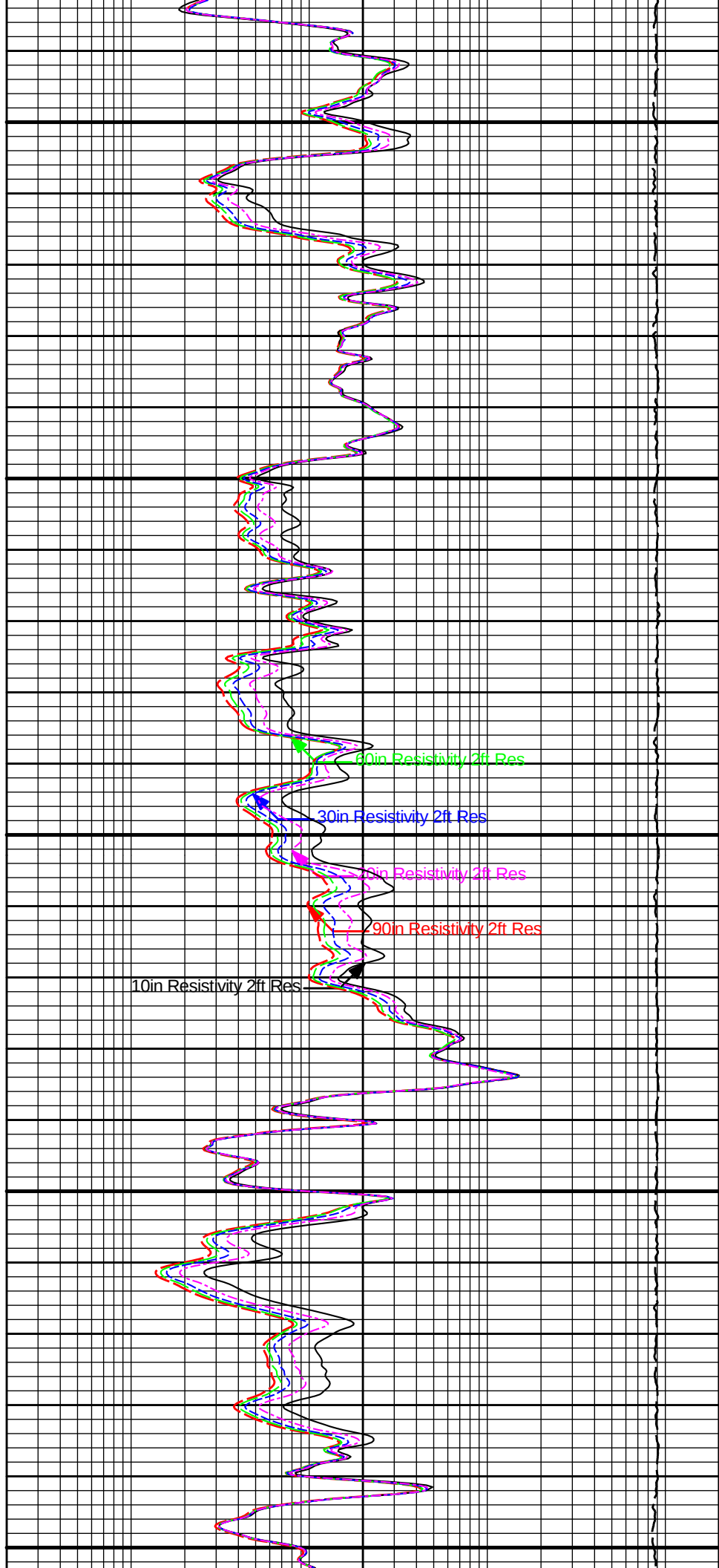
4400





4500

4600



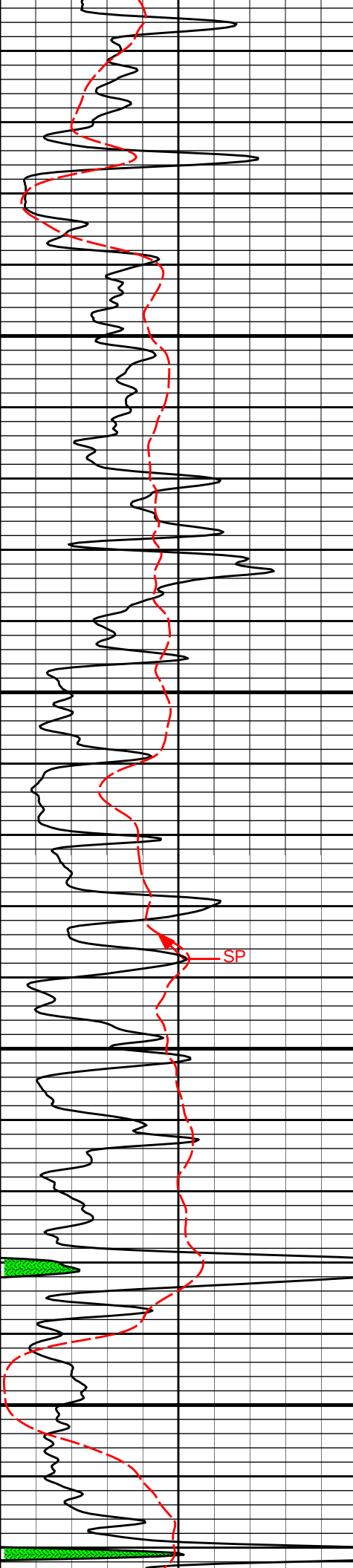
10in Resistivity 2ft Res

30in Resistivity 2ft Res

60in Resistivity 2ft Res

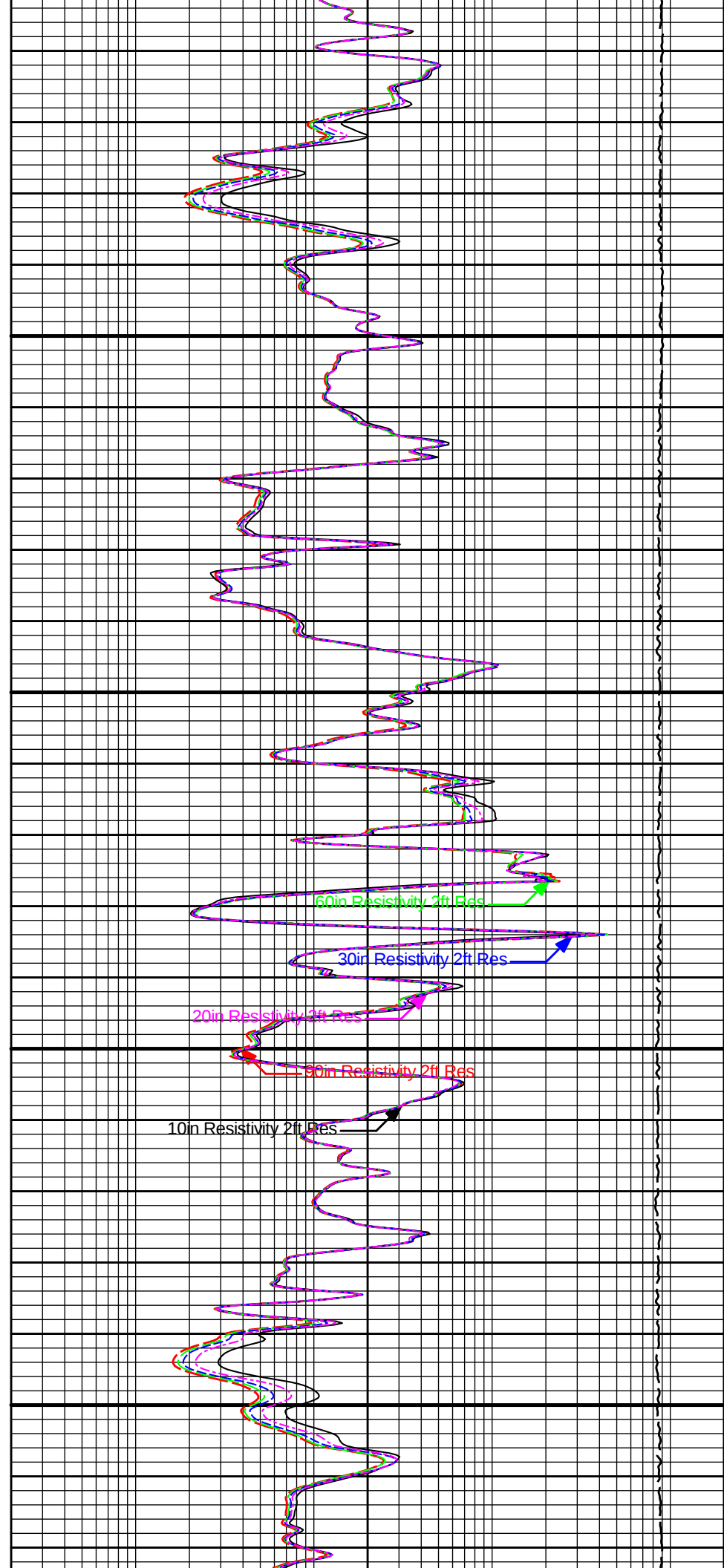
90in Resistivity 2ft Res

120in Resistivity 2ft Res



4700

4800



60in Resistivity 2ft Res

30in Resistivity 2ft Res

20in Resistivity 2ft Res

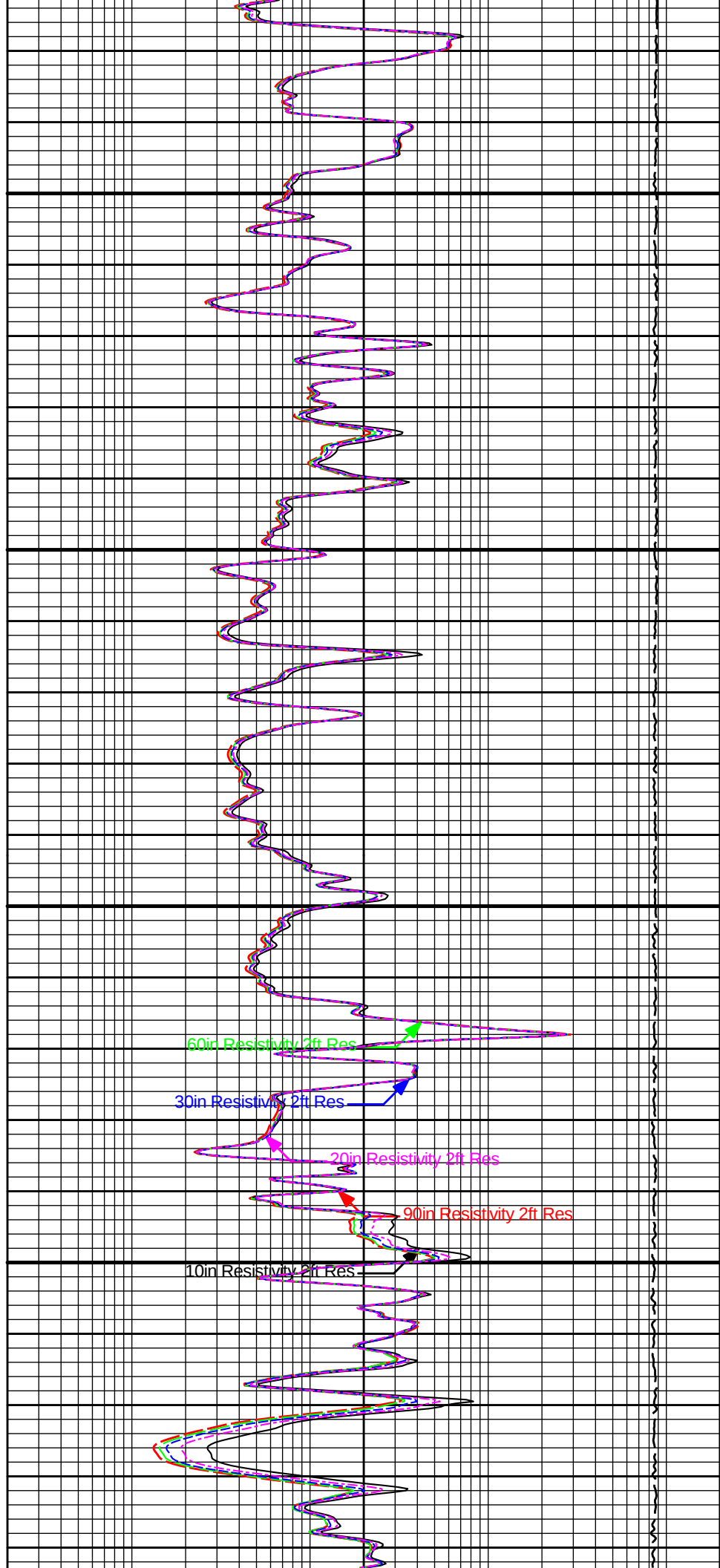
90in Resistivity 2ft Res

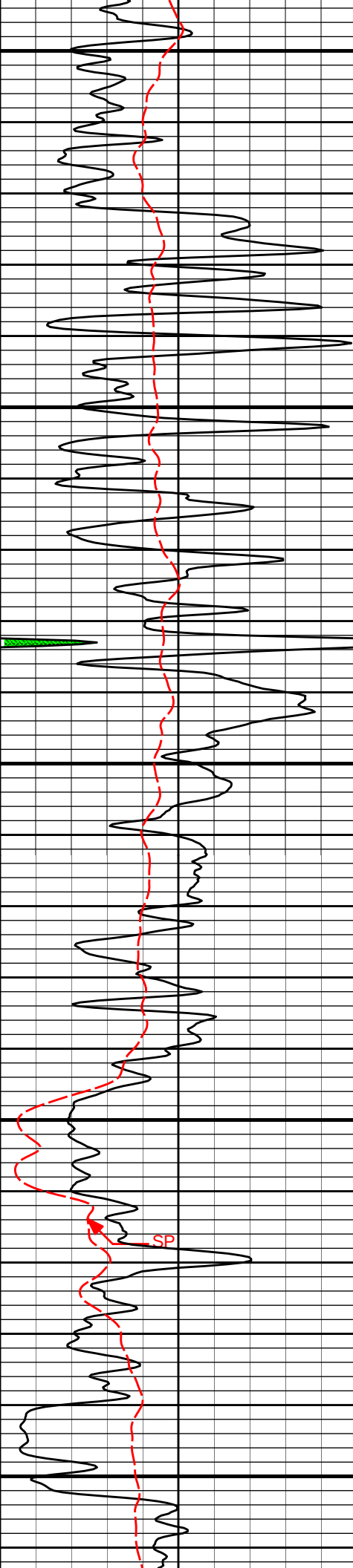
10in Resistivity 2ft Res



4900

5000

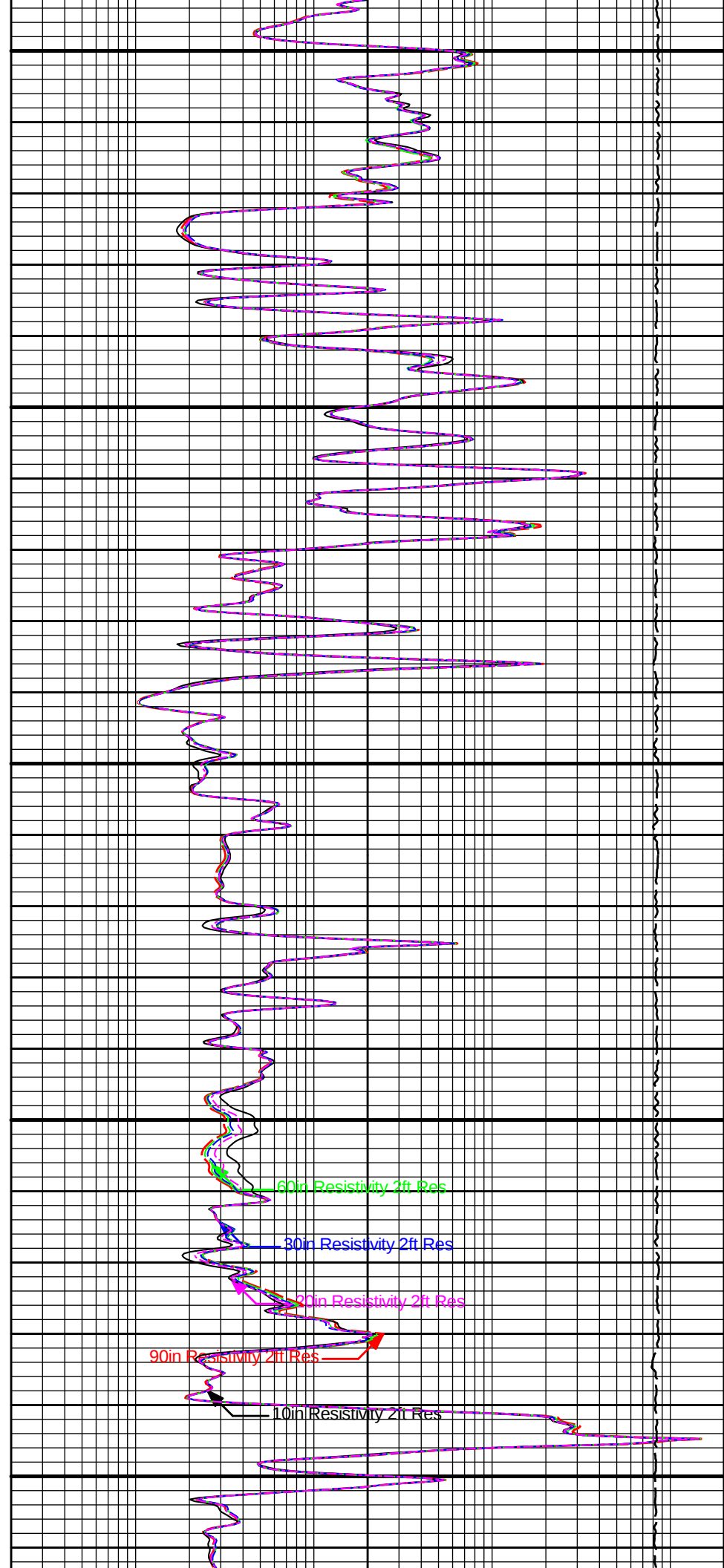


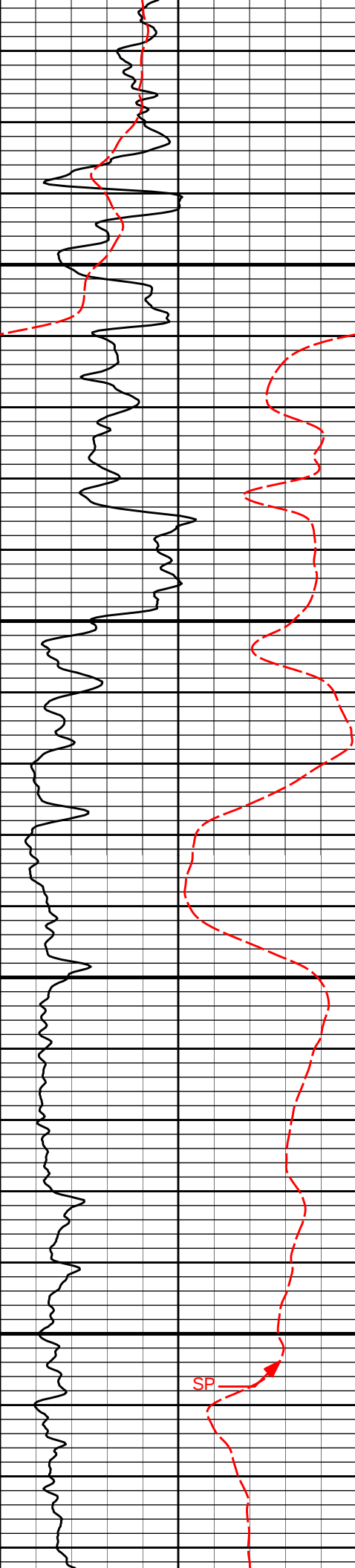


5100

5200

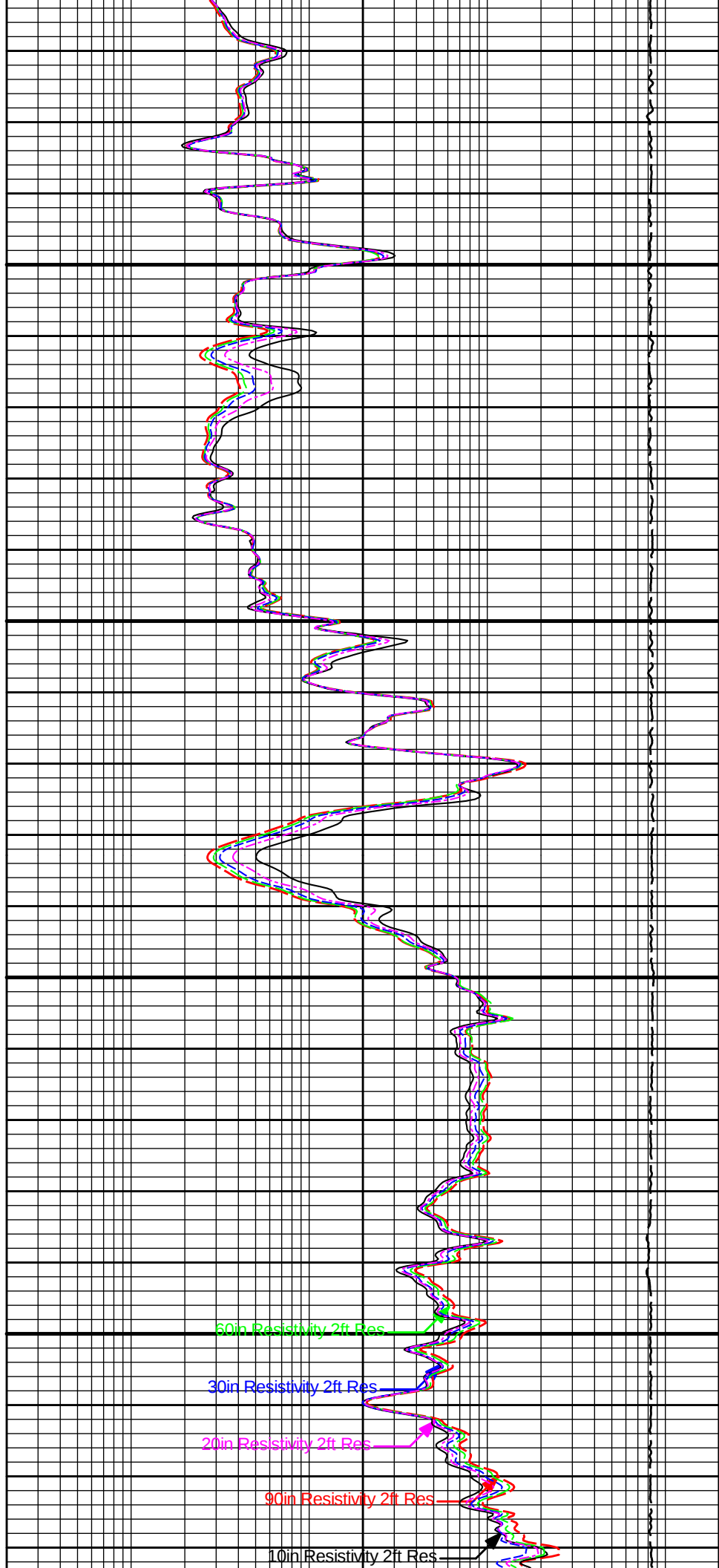
5300





5400

5500

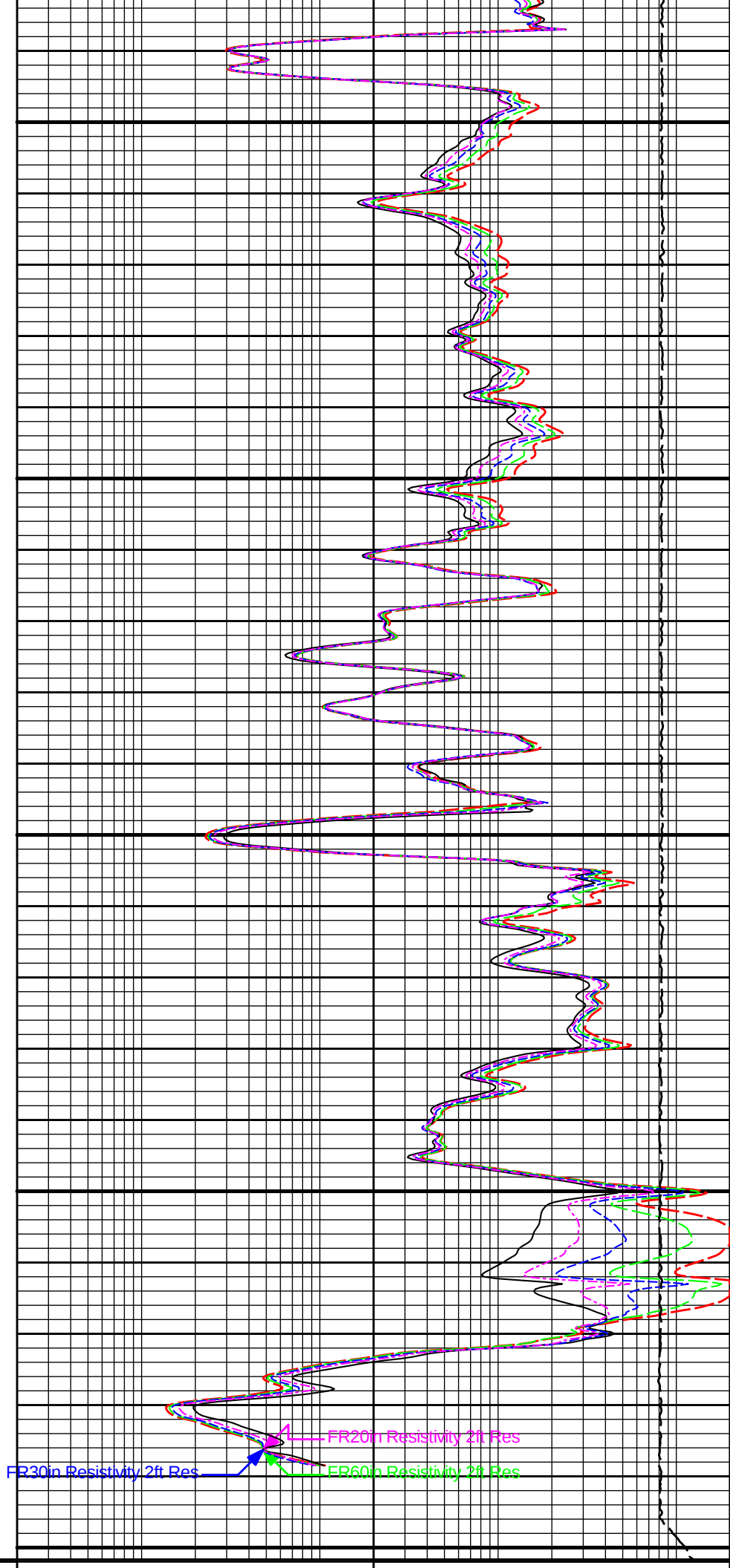




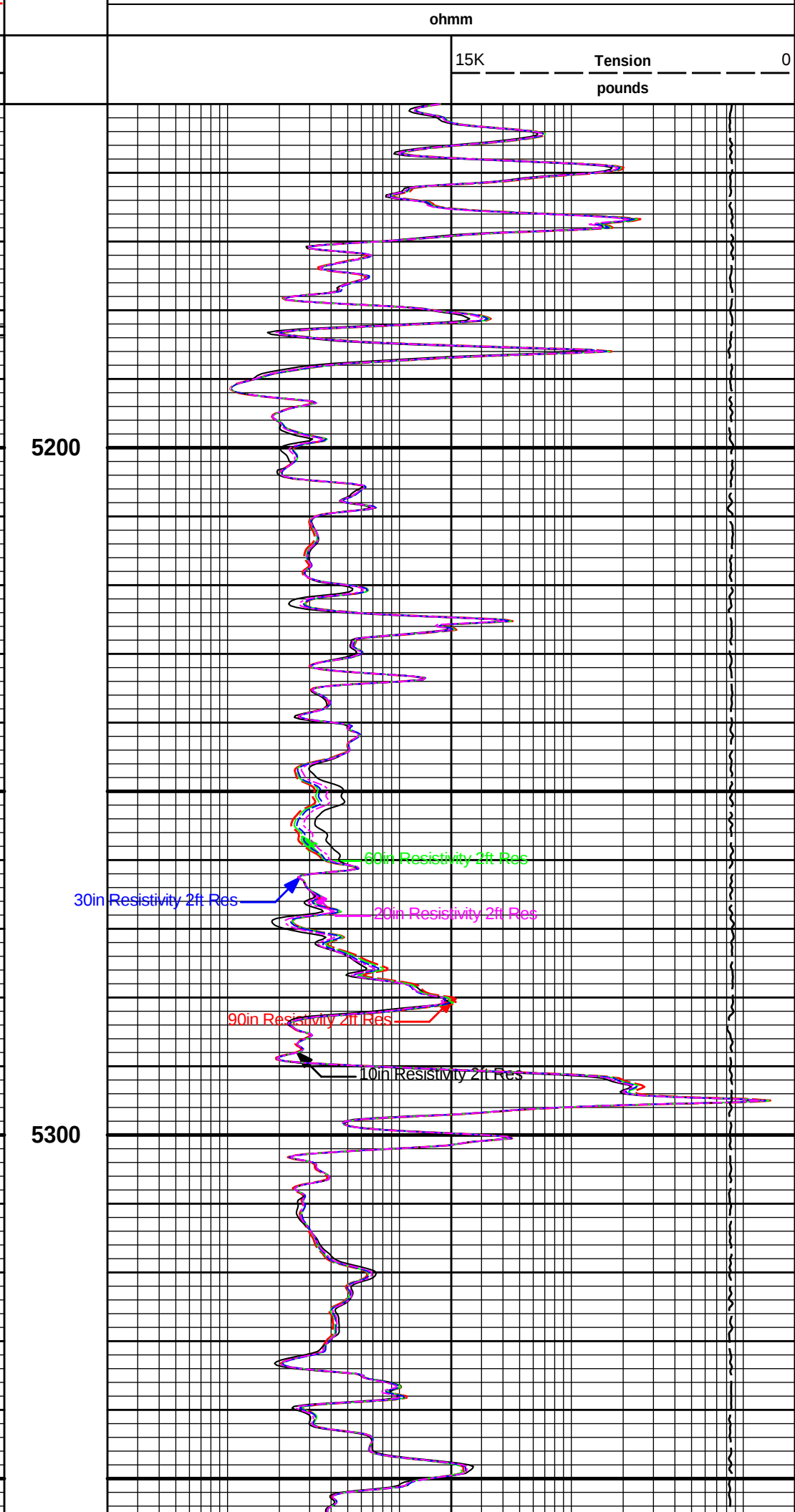
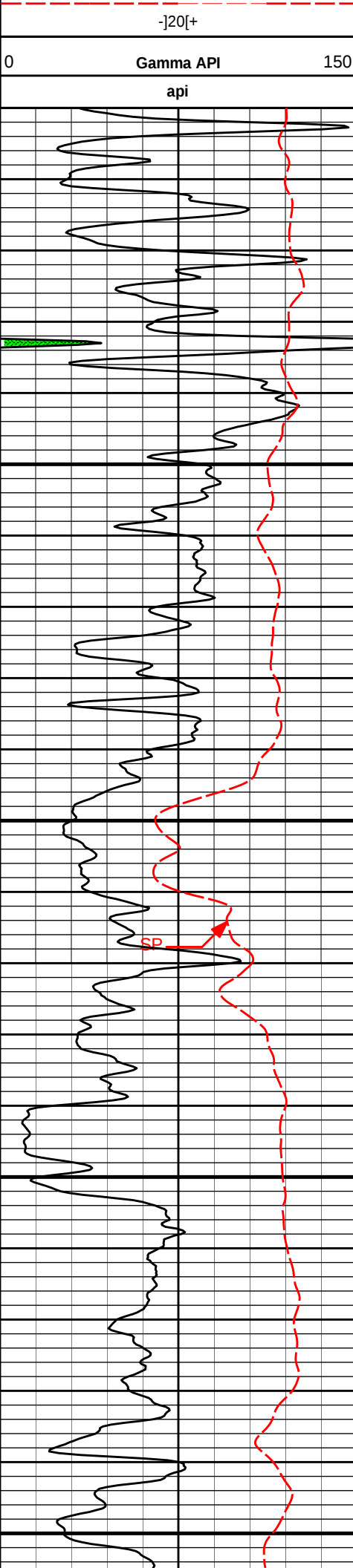
5600

5700

TD



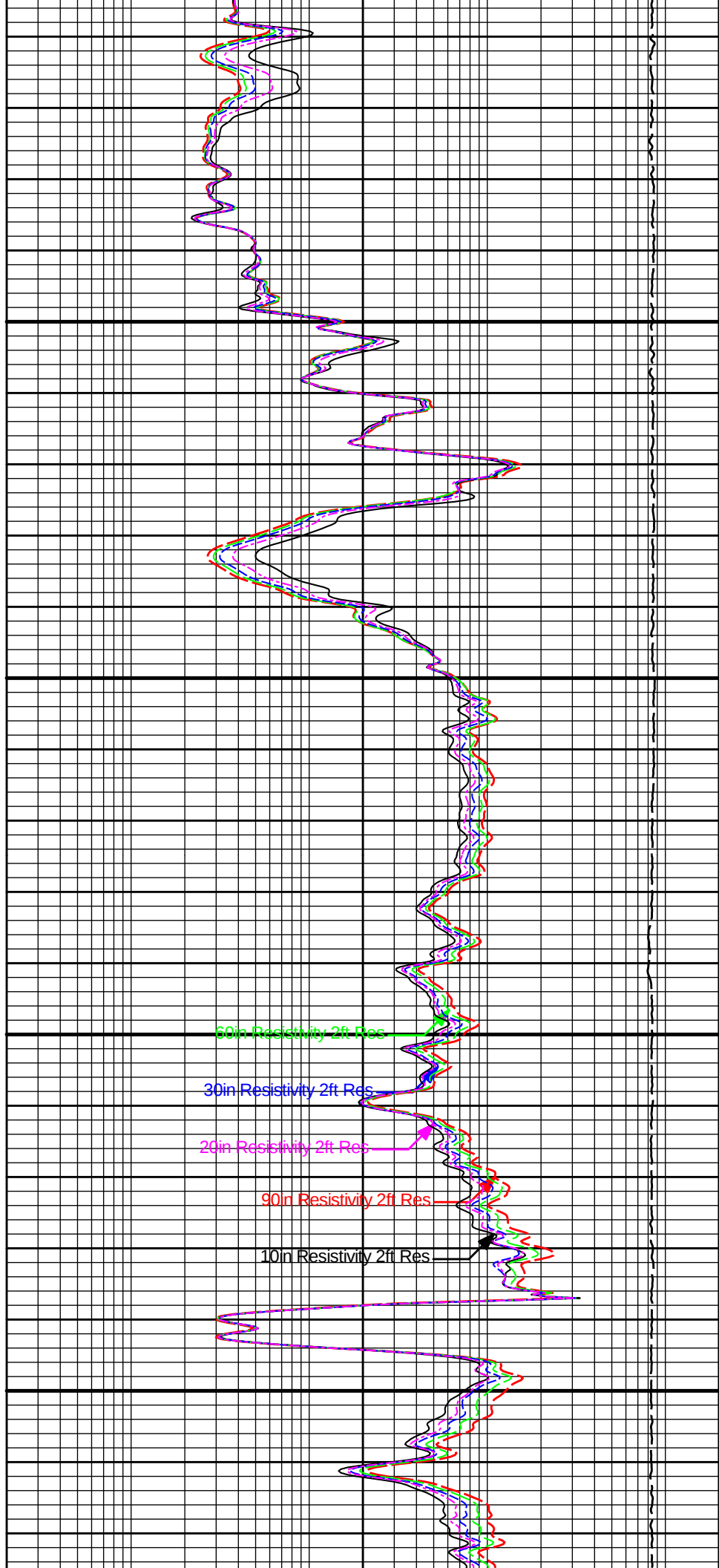
SP		15K		Tension		0	
-]20[+				pounds			
0	Gamma API	150		0.2	10in Resistivity 2ft Res	2K	
api					ohmm		
				0.2	20in Resistivity 2ft Res	2000	
					ohm-metre		
				0.2	30in Resistivity 2ft Res	2000	
					ohm-metre		
				0.2	60in Resistivity 2ft Res	2000	
					ohmm		
				0.2	90in Resistivity 2ft Res	2K	
					ohmm		
HALLIBURTON Plot Time: 07-Nov-12 10:06:11 Plot Range: 1790 ft to 5751.67 ft Data: OXY_BCU_409\Well Based\DAQ-0001-004\ Plot File: \\-LOCAL-\\OXY_BCU_409\0001 GTET-BSAT-FLEX-DSNT-SDLT-ACRT\ACRT\ACRT_5inch_main 5 INCH MAIN LOG							
5 INCH MAIN LOG							
HALLIBURTON Plot Time: 07-Nov-12 10:06:11 Plot Range: 5150 ft to 5751.5 ft Data: OXY_BCU_409\Well Based\DAQ-0001-002\ Plot File: \\-LOCAL-\\OXY_BCU_409\0001 GTET-BSAT-FLEX-DSNT-SDLT-ACRT\ACRT\ACRT_5inch_main REPEAT SECTION							
REPEAT SECTION							
				0.2	90in Resistivity 2ft Res	2K	
				ohmm			
		0.2		60in Resistivity 2ft Res	2000		
				ohmm			
		0.2		30in Resistivity 2ft Res	2000		
				ohm-metre			
		0.2		20in Resistivity 2ft Res	2000		
				ohm-metre			
SP				0.2	10in Resistivity 2ft Res	2K	

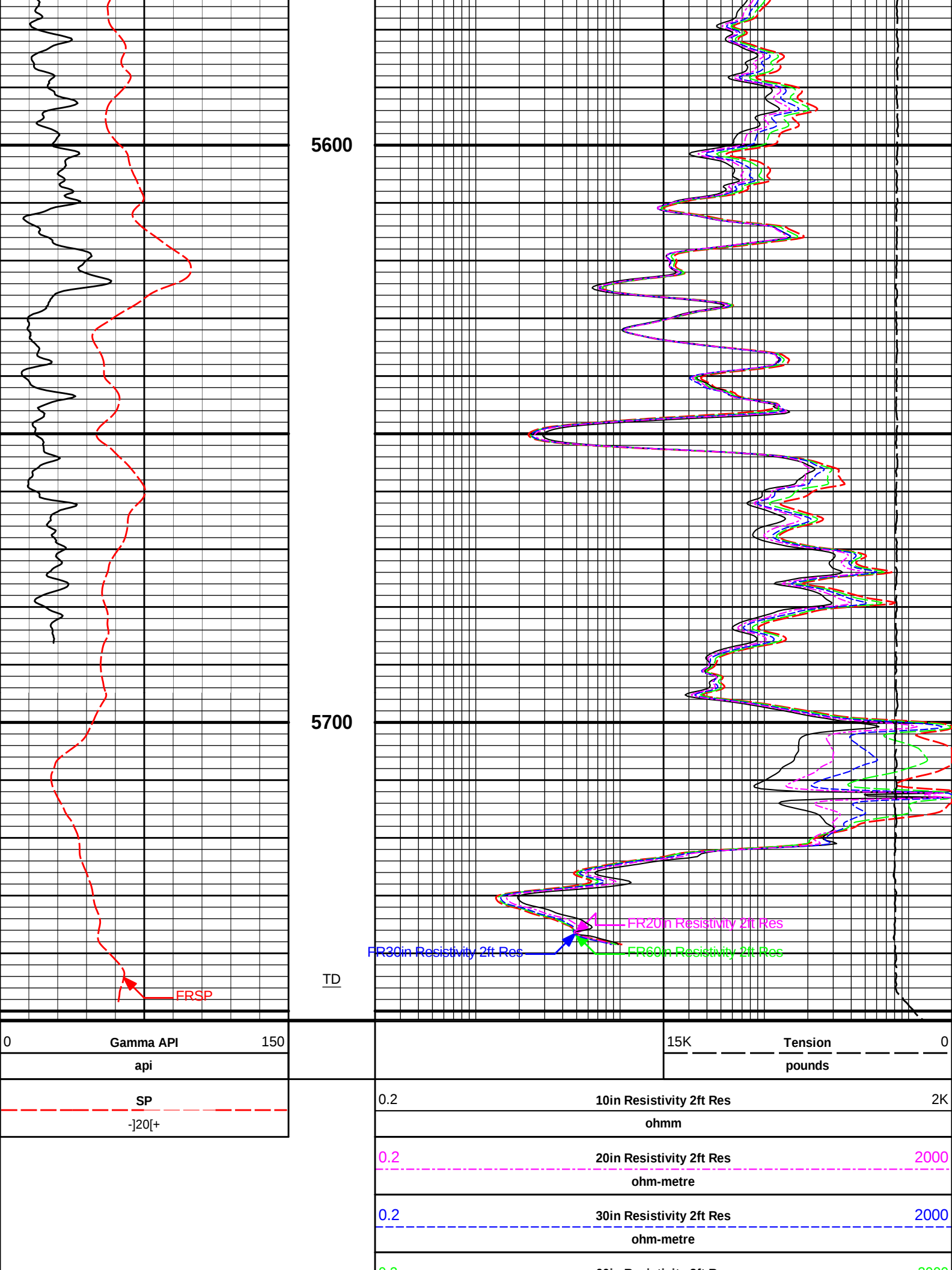




5400

5500





5600

5700

TD

Gamma API

150

api

SP

-]20[+

FRSP

FR30in Resistivity 2ft Res

FR20in Resistivity 2ft Res

FR60in Resistivity 2ft Res

15K

Tension

pounds

0

0.2

10in Resistivity 2ft Res

2K

ohmm

0.2

20in Resistivity 2ft Res

2000

ohm-metre

0.2

30in Resistivity 2ft Res

2000

ohm-metre

0.2

20in Resistivity 2ft Res

2000

	0.2	60in Resistivity 2ft Res	2000
		ohmm	
	0.2	90in Resistivity 2ft Res	2K
		ohmm	

HALLIBURTON

Plot Time: 07-Nov-12 10:06:17
Plot Range: 5150 ft to 5751.5 ft
Data: OXY_BCU_409\Well Based\DAQ-0001-002\
Plot File: \\-LOCAL-IOXY_BCU_409\0001 GTET-BSAT-FLEX-DSNT-SDLT-ACRT\ACRT\ACRT_5inch_main

REPEAT SECTION

REPEAT SECTION

HALLIBURTON

CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION

Tool Name:	GTET - 10957072	Reference Calibration Date:	28-Sep-12 11:47:26
Engineer:	WHITLOCK	Calibration Date:	19-Oct-12 09:36:06
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1

Calibrator Source S/N: TB-79
Calibrator API Reference:222.00 api
Equivalent Calibrator API Reference:225.9 api

Measurement	Measured	Calibrated	Units
Background	28.2	28.3	api
Background + Calibrator	253.0	254.2	api
Calibrator	224.8	225.9	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION

Tool Name:	GTET - 10957072	Reference Calibration Date:	19-Oct-12 09:36:06
Engineer:	WHITLOCK	Calibration Date:	02-Nov-12 10:31:10
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1

Calibrator Source S/N: TB-79
Calibrator API Reference:222.00 api
Equivalent Calibrator API Reference:225.9 api

Field Verification	Shop	Field	Units
Background	28.3	32.4	api
Background + Calibrator	254.2	257.2	api
Calibrator	225.9	224.9	api

Shop	Field	Difference	Tolerance
225.9	224.9	1.0	+/- 9.00

DUAL SPACED NEUTRON SHOP CALIBRATION

Tool Name:	DSNT - 10958654	Reference Calibration Date:	01-Oct-12 10:43:35
Engineer:	BOMAR	Calibration Date:	31-Oct-12 11:19:07

Software Version: WL INSITE R3.6.0 (Build 3)		Calibration Version: 1		
Logging Source S/N: DSN-373 Tank Serial Number: FTSM HORIZONTAL TANK Reference value assigned to Tank: 56.100 Snow Block S/N: FTSM Calibration Tank Water Temperature: 65 degF Min. Tool Housing Outside Diameter: 3.625 in				
CALIBRATION CONSTANTS				
Measurement	Prev. Value	New Value	Control Limit On New Value	
Gain:	1.003	1.004	0.900 - 1.100	
WATER TANK SUMMARY (Horizontal Water Tank)				
Measurement	Current Reading (Previous Coef.)	Calibrated (New Coef.)	Change	Control Limit On Change
Porosity (decp):	0.2356	0.2358	0.0002	+/- 0.0020
Calibrated Ratio:	10.55	10.56	0.005	+/- 0.050
VERIFIER				
Measurement	Value	Control Limit		
Snow-Block Porosity (decp):	0.0823	0.02000 - 0.09000		
PASS/FAIL SUMMARY				
Background Check:		Passed		
Gain-Range Check:		Passed		
Snow-Block Check:		Passed		

DUAL SPACED NEUTRON FIELD CALIBRATION				
Tool Name:	DSNT - 10958654	Reference Calibration Date:	31-Oct-12 11:19:07	
Engineer:	WHITLOCK	Calibration Date:	02-Nov-12 10:24:48	
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1	
Logging Source S/N: DSN-373 Snow Block S/N: FTSM				
NEUTRON FIELD-CHECK SUMMARY				
	Shop	Field	Difference	Control Limit On Change
Snow-Block Porosity (decp):	0.0823	0.0815	-0.0007	+/- 0.0150
PASS/FAIL SUMMARY				
Block Change Check:		Passed		
Snow Block Stat Check:		Passed		
Temperature Check:		Passed		

DENSITY CALIPER SHOP CALIBRATION			
Tool Name:	SDLT - 10948154	Reference Calibration Date:	28-Sep-12 12:58:00
Engineer:	WHITLOCK	Calibration Date:	19-Oct-12 09:40:11
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1
Host Tool Name:	DSNT - 10958654		

CALIBRATION COEFFICIENTS			
Measurement	Previous Value	New Value	Control Limit On New Value

	New Value		
Pad Offset	-3312.31	-3265.50	-7000.00 - -1000.00
Pad Gain	0.0003805	0.0003806	0.000200 - 0.000600
Arm Offset	-1904.24	-1304.85	-5000.00 - 3000.00
Arm Gain	0.0004922	0.0004547	0.000300 - 0.000700
Arm Power	-0.000003642	-0.000001216	-0.000010000 - 0.000010000

The ring diameter is computed from: DIAMETER = PAD EXTENSION + ARM EXTENSION + TOOL DIAMETER

Tool Diameter: 4.50 in

CALIBRATION RINGS				
Measurement	Current Reading (Previous Coeff.)	Calibrated (New Coeff.)	Change	Control Limit On New Value
PAD EXTENSION:				
Small Ring (in)	1.98	2.00	0.02	+/- 0.20
Medium Ring (in)	3.73	3.75	0.02	+/- 0.20
RING DIAMETER:				
Small Ring (in)	6.33	6.50	0.17	+/- 0.20
Medium Ring (in)	8.18	8.25	0.07	+/- 0.20
Large Ring (in)	14.93	15.00	0.07	+/- 0.20

PASS/FAIL SUMMARY	
Calibration-Coefficients Range Check:	Passed
Ring-Measurement Check:	Passed
PASS/FAIL SUMMARY	
Calibration-Coefficients Range Check:	Passed

SPECTRAL DENSITY SHOP CALIBRATION			
Tool Name:	SDLT Pad - 10809130	Reference Calibration Date:	25-Oct-12 12:05:23
Engineer:	WHITLOCK	Calibration Date:	25-Oct-12 12:36:53
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1

Logging Source S/N: 20784B		
Aluminum Block S/N: FTSM AL BLOCK	Density: 2.581g/cc	Pe: 3.170
Magnesium Block S/N: FTSM MG BLOCK	Density: 1.687g/cc	Pe: 2.594

DENSITY CALIBRATION SUMMARY			
Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	1.0572	1.0843	0.90 - 1.10
Near Dens Gain	1.0304	1.0557	0.90 - 1.10
Near Peak Gain	1.0469	1.0799	0.90 - 1.10
Near Lith Gain	1.0532	1.0771	0.90 - 1.10
Far Bar Gain	1.0160	1.0192	0.90 - 1.10
Far Dens Gain	1.0020	1.0062	0.90 - 1.10
Far Peak Gain	1.0035	1.0053	0.90 - 1.10
Far Lith Gain	0.9848	0.9870	0.90 - 1.10
Near Bar Offset	-0.3261	-0.5659	NONE
Near Dens Offset	-0.0735	-0.2880	NONE
Near Peak Offset	-0.2305	-0.4954	NONE
Near Lith Offset	-0.3075	-0.4929	NONE
Far Bar Offset	-0.0030	-0.0328	NONE
Far Dens Offset	0.1109	0.0724	NONE
Far Peak Offset	0.0886	0.0719	NONE
Far Lith Offset	0.2153	0.1984	NONE
Near Bar Background	798.70	802.87	700 - 1450

Near Dens Background	267.07	265.25	230 - 480
Near Peak Background	118.79	118.45	100 - 210
Near Lith Background	141.02	142.19	125 - 260
Far Bar Background	505.02	504.67	450 - 900
Far Dens Background	194.21	193.65	175 - 345
Far Peak Background	76.04	76.55	70 - 140
Far Lith Background	79.03	80.60	75 - 145

CALIBRATION BLOCK SUMMARY				
Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.675	1.687	0.013	+/- 0.015
Pe	2.603	2.559	-0.044	+/- 0.150
ALUMINUM				
Density (g/cc)	2.571	2.581	0.011	+/- 0.01500
Pe	3.168	3.132	-0.036	+/- 0.150

TOOL SUMMARY				
Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	0.0008	+/- 0.0110	0.0012	+/- 0.0140
Magnesium Block	0.0002	+/- 0.0110	-0.0012	+/- 0.0140
Aluminum Block	-0.0000	+/- 0.0110	-0.0005	+/- 0.0140
Resolution	8.80	6.00 - 11.50	9.39	6.00 - 11.50
Internal Verifier(B+D+P+L)	1329	1200 - 2700	855	800 - 1700

PASS/FAIL SUMMARY	
Background Quality Check:	Passed
Background Range Check:	Passed
Background Resolution Check:	Passed
Background Verification Check:	Passed
Magnesium Quality Check:	Passed
Aluminum Quality Check:	Passed
Gains Check:	Passed
Changes in Calibration Blocks:	Passed

SPECTRAL DENSITY FIELD CHECK			
Tool Name:	SDLT Pad - 10809130	Reference Calibration Date:	25-Oct-12 12:36:53
Engineer:	WHITLOCK	Calibration Date:	02-Nov-12 10:30:56
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1

Pad Temperature: 65.5 degF

DENSITY FIELD CALIBRATION SUMMARY				
Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1328.762	1323.759	-5.003	14.747
Far (B+D+P+L) cps	855.466	855.481	0.015	16.030
Near Resolution	8.80	8.90	0.100	0.50
Far Resolution	9.39	9.42	0.030	1.00

PASS/FAIL SUMMARY

PASS/FAIL SUMMARY							
Bkg Quality Check:			Passed				
Bkg Resolution Check:			Passed				
Bkg Verification Check:			Passed				
MICRO LOG SHOP CALIBRATION							
Tool Name:		Microlog Pad - 10948154		Reference Calibration Date: 28-Sep-12 12:02:01			
Engineer:		WHITLOCK		Calibration Date: 25-Oct-12 11:35:30			
Software Version:		WL INSITE R3.6.0 (Build 3)		Calibration Version: 1			
Host Tool Name:		DSNT - 10958654					
	CALIBRATION COEFFICIENT SUMMARY						
	Measurement	Micro Log Normal		Micro Log Lateral			
		Measured	Calibrated	Measured	Calibrated	Units	
	Tool Zero	-0.20	-0.10	-0.01	-0.02	ohmm	
	Calibration Point #1	-0.10	0.00	0.01	0.00	ohmm	
	Calibration Point #2	18.47	20.00	20.00	20.00	ohmm	
	Internal Reference	18.36	19.89	20.01	20.01	ohmm	
	Measurement	Micro Log Normal Tool Value		Micro Log Lateral Tool Value		Units	
	Tool Zero	3.47		-1.67		V	
	Calibration Point #1	30.49		4.02		V	
	Calibration Point #2	5285.60		6862.74		V	
	Internal Reference	5255.77		6865.49		V	
	MICRO LOG FIELD CHECK						
	Tool Name:		Microlog Pad - 10948154		Reference Calibration Date: 25-Oct-12 11:35:30		
Engineer:		WHITLOCK		Calibration Date: 02-Nov-12 10:25:29			
Software Version:		WL INSITE R3.6.0 (Build 3)		Calibration Version: 1			
	Measurement	Micro Log Normal		Micro Log Lateral			
		Shop	Field	Shop	Field	Units	
	Tool Zero	-0.10	-0.11	-0.02	-0.02	ohmm	
	Internal Reference	19.89	19.82	20.01	19.94	ohmm	
	Summary						
	Signal	Shop		Field		Tolerance	
	Microlog Normal	19.89		19.82		+/- 0.80	
	Microlog Lateral	20.01		19.94		+/- 0.80	
	SDLT CALIPER FIELD CALIBRATION						
Tool Name:		SDLT - 10948154		Reference Calibration Date: 19-Oct-12 09:40:11			
Engineer:		WHITLOCK		Calibration Date: 19-Oct-12 09:47:40			
Software Version:		WL INSITE R3.6.0 (Build 3)		Calibration Version: 1			
	MEASURED CALIPER VALUES						
	Measurement	Shop		Field		Change	Control Limit On New Value
	Pad Extension	3.75		3.75		-0.00	+/- 0.10
	Ring Diameter	8.25		8.27		0.02	+/- 0.15
PASS/FAIL SUMMARY							
Pad Extension Check:				Passed			
Diameter Check:				Passed			

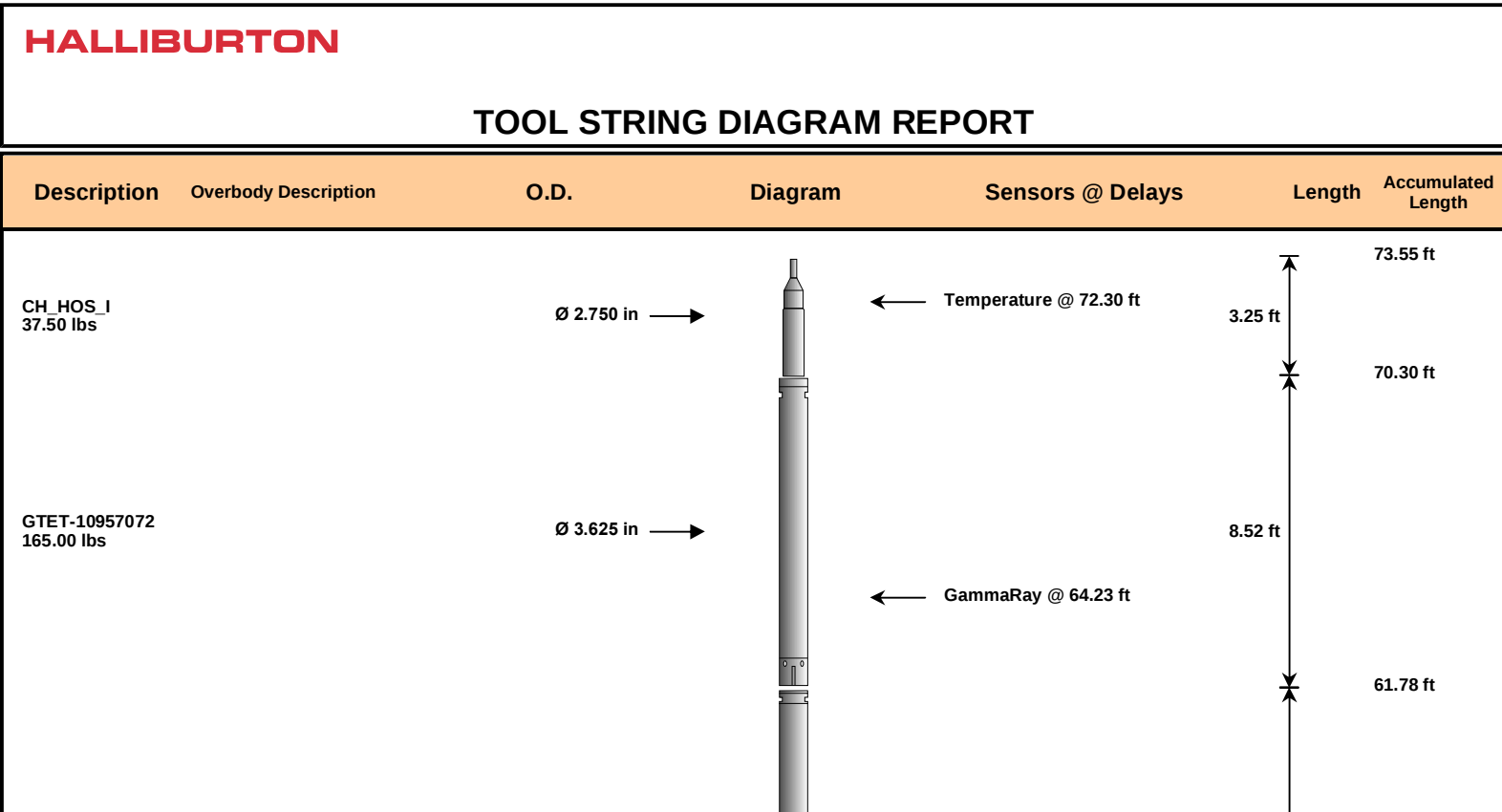
ARRAY COMPENSATED TRUE RESISTIVITY SHOP CALIBRATION									
Tool Name:		ACRt Sonde - 10937724				Reference Calibration Date:		04-Oct-12 09:47:21	
Engineer:		HOFKAMP				Calibration Date:		04-Oct-12 09:55:19	
Software Version:		WL INSITE R3.6.0 (Build 3)				Calibration Version:		1	
Host Tool Name:		ACRt Instrument - 10940590							
TYPICAL GAIN RANGE									
Subarray	R12KHz			R36KHz			R72KHz		
	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper
A1 (80")	0.95	1.08	1.05	0.95	1.06	1.05	0.95	1.04	1.05
A2 (50")	0.95	1.06	1.05	0.95	1.04	1.05	0.95	1.03	1.05
A3 (29")	0.95	1.04	1.05	0.95	1.02	1.05	0.95	1.01	1.05
A4 (17")	0.95	1.05	1.05	0.95	1.02	1.05	0.95	1.02	1.05
A5 (10")	N/A	N/A	N/A	0.95	1.02	1.05	0.95	1.01	1.05
A6 (6")	N/A	N/A	N/A	0.95	1.01	1.05	0.95	1.00	1.05
TYPICAL SONDE OFFSET RANGE									
Subarray	R12KHz			R36KHz			R72KHz		
	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper
A1 (80")	-5	3.09	2	-6	-3.79	-2	-8	-6.71	-2
A2 (50")	-7	-0.48	0	-7	-4.10	0	-7	-5.27	0
A3 (29")	-27	-11.25	-9	-9	-4.09	-3	-7	-4.50	-1
A4 (17")	-180	-103.98	-60	-45	-31.96	-15	-39	-25.54	-13
A5 (10")	N/A	N/A	N/A	-150	-93.76	-50	-80	-45.68	-10
A6 (6")	N/A	N/A	N/A	175	287.27	525	90	152.74	270
TRANSMITTER CURRENT GAIN					R-MUD VERIFICATION				
Signal	Lower		R	Upper	Signal	Lower (ohm-m)	Measured (ohm-m)	Upper (ohm-m)	
12K		0.6	0.83	1.3	Mud Cell	0.95	1.00	1.05	
36K		1.0	1.16	2.0					
72K		1.0	1.30	2.0					
PASS/FAIL SUMMARY									
GAIN RANGE CHK					FAIL				
SONDE OFFSET RANGE CHK					FAIL				
Tx CURRENT GAIN					PASS				
Rmud VERIFICATION					PASS				
TOOL OUT OF TOLERANCE									
CALIBRATION SUMMARY									
Sensor		Shop	Field	Post	Difference	Tolerance	Units		
GTET-10957072									
Gamma Ray Calibrator		225.9	224.9	-----	1.0	+/- 9.00	api		
DSNT-10958654									
Snow-Block Porosity		0.0823	0.0815	-----	0.0008	+/- 0.0150	decp		
SDLT-10948154									
Pad Extension		3.75	3.75	-----	0.00	+/-0.10	in		
Ring Diameter		8.25	8.27	-----	-0.02	+/-0.15	in		
SDLT Pad-10809130									
Near(R+D+D+L)		1228.762	1222.750		5.002	+/- 14.747	cns		

Near(B+D+P+L)	1326.762	1325.759	-----	3.003	+/-14.747	cps
Far(B+D+P+L)	855.466	855.481	-----	-0.015	+/-16.030	cps
Microlog Pad-10948154						
MicroLog Normal	19.89	19.82	-----	0.07	+/-0.80	ohmm
MicroLog Lateral	20.01	19.94	-----	0.07	+/-0.80	ohmm
ACRt Sonde-10937724						
Mud Cell	1.00	-----	-----	0.00	-----	ohm-m

Data: OXY BCU 409\0001 GTET-BSAT-FLEX-DSNT-SDLT-ACRT\004 MAIN										Date: 07-Nov-12 06:39:16	
HALLIBURTON											
PARAMETERS REPORT											

Depth (ft)	Tool Name	Mnemonic	Description	Value	Units
TOP					
	SHARED	BS	Bit Size	7.875	in
	SHARED	UBS	Use Bit Size instead of Caliper for all applications.	No	
	SHARED	MDBS	Mud Base	Water	
	SHARED	MDWT	Borehole Fluid Weight	9.300	ppg
	SHARED	WAGT	Weighting Agent	Barite	
	SHARED	BSAL	Borehole salinity	0.00	ppm
	SHARED	FSAL	Formation Salinity NaCl	0.00	ppm
	SHARED	KPCT	Percent K in Mud by Weight?	0.00	%
	SHARED	RMUD	Mud Resistivity	2.000	ohmm
	SHARED	TRM	Temperature of Mud	75.0	degF
	SHARED	CSD	Logging Interval is Cased?	No	
	SHARED	ICOD	AHV Casing OD	5.500	in
	SHARED	ST	Surface Temperature	45.0	degF
	SHARED	TD	Total Well Depth	5758.00	ft
	SHARED	BHT	Bottom Hole Temperature	150.0	degF
	SHARED	SVTM	Navigation and Survey Master Tool	NONE	
	SHARED	AZTM	High Res Z Accelerometer Master Tool	GTET	
	SHARED	TEMM	Temperature Master Tool	NONE	
	SHARED	BHSM	Borehole Size Master Tool	NONE	
	Rwa / CrossPlot	XPOK	Process Crossplot?	Yes	
	Rwa / CrossPlot	FCHO	Select Source of F	Automatic	
	Rwa / CrossPlot	AFAC	Archie A factor	0.6200	
	Rwa / CrossPlot	MFAC	Archie M factor	2.1500	
	Rwa / CrossPlot	RMFR	Rmf Reference	0.10	ohmm
	Rwa / CrossPlot	TMFR	Rmf Ref Temp	75.00	degF
	Rwa / CrossPlot	RWA	Resistivity of Formation Water	0.05	ohmm
	Rwa / CrossPlot	ADP	Use Air Porosity to calculate CrossplotPhi	No	
	GTET	GROK	Process Gamma Ray?	Yes	
	GTET	GRSO	Gamma Tool Standoff	0.000	in
	GTET	GEOK	Process Gamma Ray EVR?	No	
	GTET	TPOS	Tool Position for Gamma Ray Tools.	Centered	
	BSAT	MBOK	Compute BCAS Results?	Yes	
	BSAT	FLLO	Frequency Filter Low Pass Value?	5000	Hz
	BSAT	FLHI	Frequency Filter High Pass Value?	15000	Hz
	BSAT	DTFL	Delta -T Fluid	189.00	uspf
	BSAT	DTMT	Delta -T Matrix Type	Limestone 47.5	

BSAT	DTSH	Delta -T Shale	100.00	uspf
BSAT	SPEQ	Acoustic Porosity Equation	Wylie	
DSNT	DNOK	Process DSN?	Yes	
DSNT	DEOK	Process DSN EVR?	No	
DSNT	NLIT	Neutron Lithology	Limestone	
DSNT	DNSO	DSN Standoff - 0.25 in (6.35 mm) Recommended	0.250	in
DSNT	DNTP	Temperature Correction Type	None	
DSNT	DPRS	DSN Pressure Correction Type	None	
DSNT	SHCO	View More Correction Options	No	
DSNT	UTVD	Use TVD for Gradient Corrections?	No	
DSNT	LHWT	Logging Horizontal Water Tank?	No	
SDLT	CLOK	Process Caliper Outputs?	Yes	
SDLT Pad	DNOK	Process Density?	Yes	
SDLT Pad	DNOK	Process Density EVR?	No	
SDLT Pad	CB	Logging Calibration Blocks?	No	
SDLT Pad	SPVT	SDLT Pad Temperature Valid?	Yes	
SDLT Pad	DTWN	Disable temperature warning	No	
SDLT Pad	DMA	Formation Density Matrix	2.710	g/cc
SDLT Pad	DFL	Formation Density Fluid	1.000	g/cc
Microlog Pad	MLOK	Process MicroLog Outputs?	Yes	
ACRt Sonde	RTOK	Process ACRt?	Yes	
ACRt Sonde	MNSO	Minimum Tool Standoff	1.50	in
ACRt Sonde	TCS1	Temperature Correction Source	FP Lwr & FP Up	
ACRt Sonde	TPOS	Tool Position	Free Hanging	
ACRt Sonde	RMOP	Rmud Source	Mud Cell	
ACRt Sonde	RMIN	Minimum Resistivity for MAP	0.20	ohmm
ACRt Sonde	RMIN	Maximum Resistivity for MAP	200.00	ohmm
ACRt Sonde	THQY	Threshold Quality	0.50	
ACRt Sonde	MRFX	Fixed mud resistivity	2000	ohmm
BOTTOM				
Data: OXY_BCU_409\0001 GTET-BSAT-FLEX-DSNT-SDLT-ACRT\004 MAIN			Date: 07-Nov-12 06:40:23	



BSAT-10747686
300.00 lbs

Ø 3.625 in →

← Sonic Receivers @ 53.26 ft

15.77 ft

IQ Flex-1
140.00 lbs

Ø 3.625 in →

5.67 ft

46.00 ft

40.33 ft

DSNT-10958654
174.00 lbs

DSN Decentralizer-
10951378
6.60 lbs

Ø 5.000 in* →

Ø 3.625 in →

9.69 ft

← DSN Far @ 33.39 ft

← DSN Near @ 32.64 ft

30.64 ft

SDLT-10948154
360.00 lbs

SDLT Pad-10809130
65.00 lbs
Microlog Pad-10948154
8.00 lbs

Ø 4.500 in →

Ø 4.750 in* →

Ø 4.750 in* →

10.81 ft

Microlog @ 22.83 ft
SDL Caliper @ 22.65 ft
SDL @ 22.64 ft

19.83 ft

ACRt Instrument-
10940590
50.00 lbs

ShortAxisKit-10940590
60.00 lbs

Ø 3.625 in →

Ø 5.380 in* →

5.03 ft

14.80 ft

← Mud Resistivity @ 13.44 ft

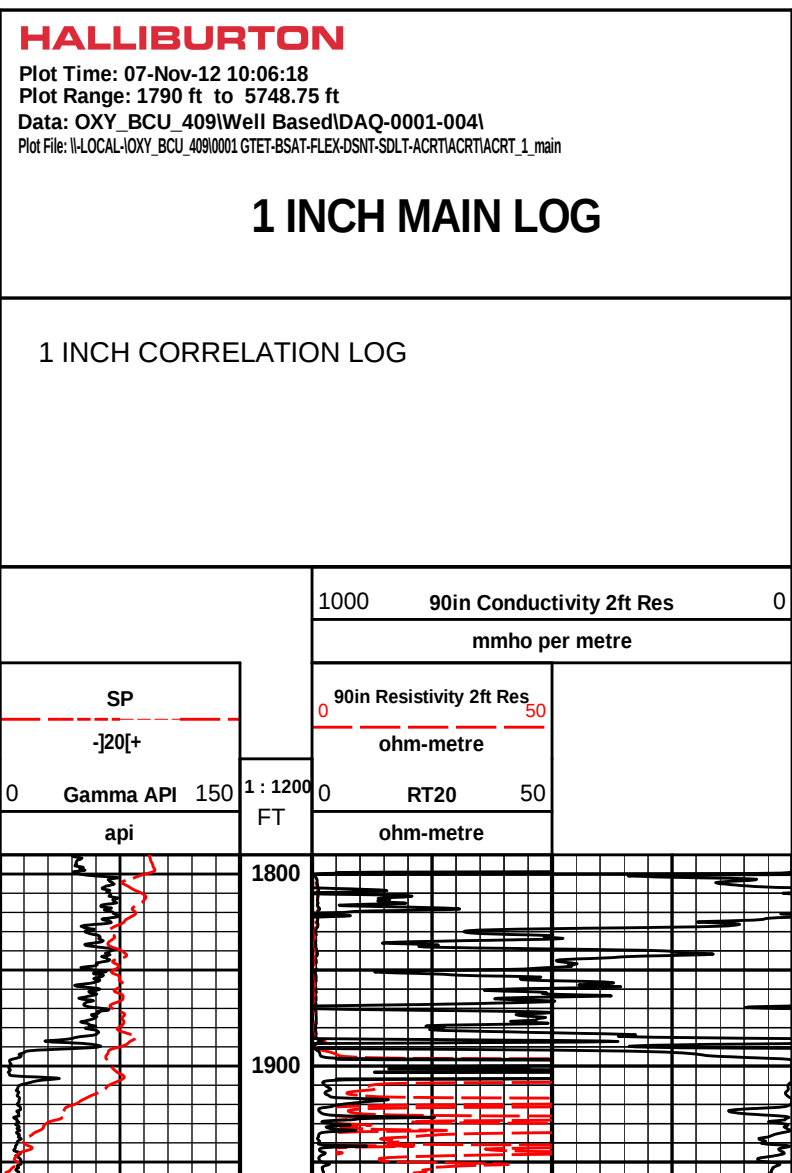
← ACRt @ 9.46 ft

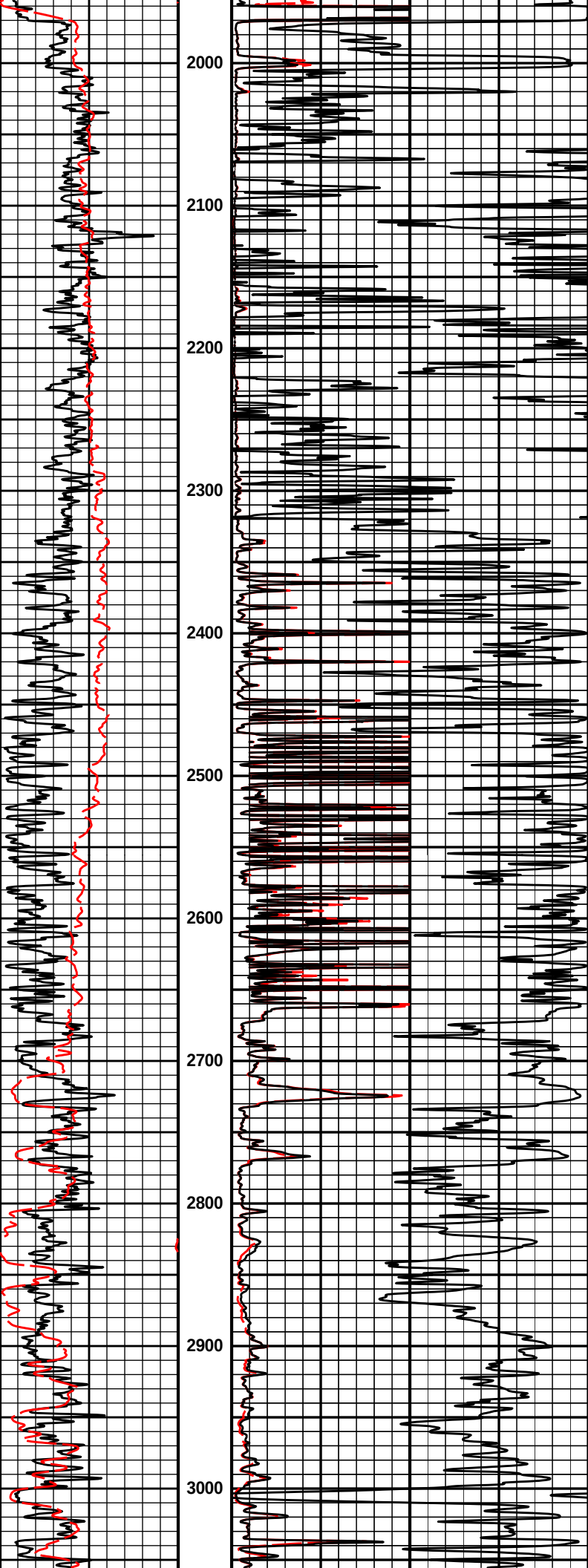
ACRt Sonde-
10937724
200.00 lbs

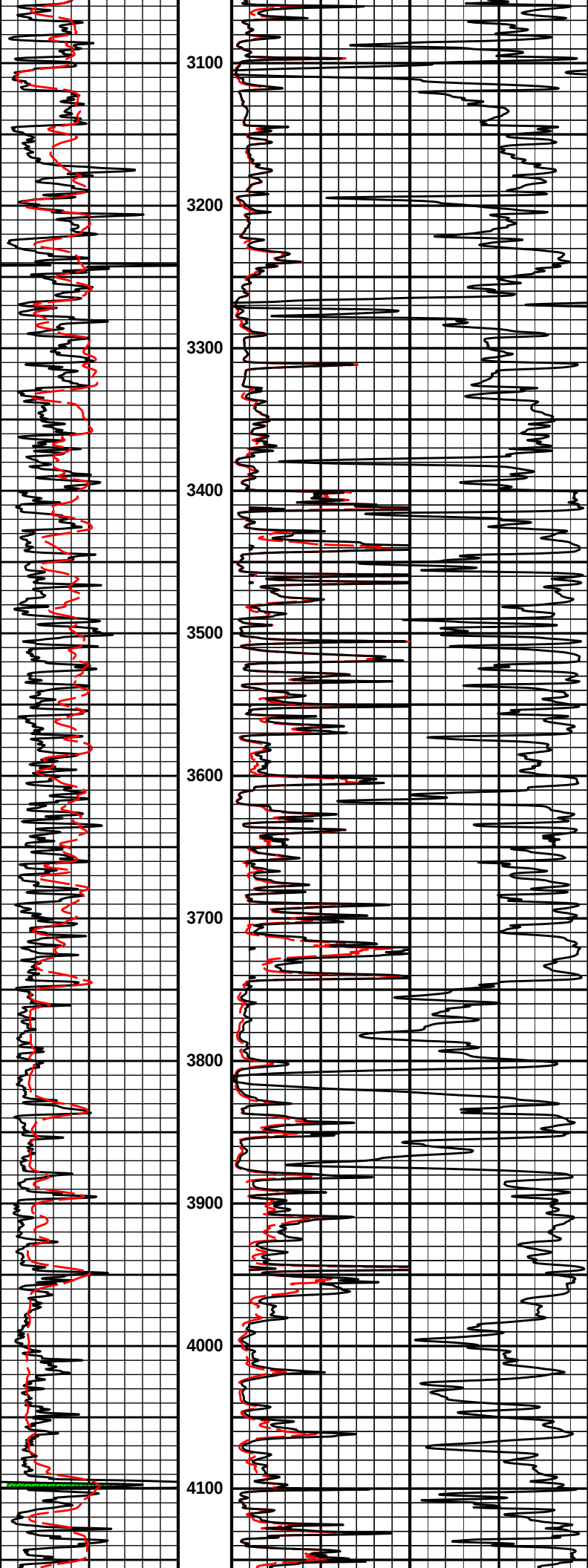
Ø 3.625 in →

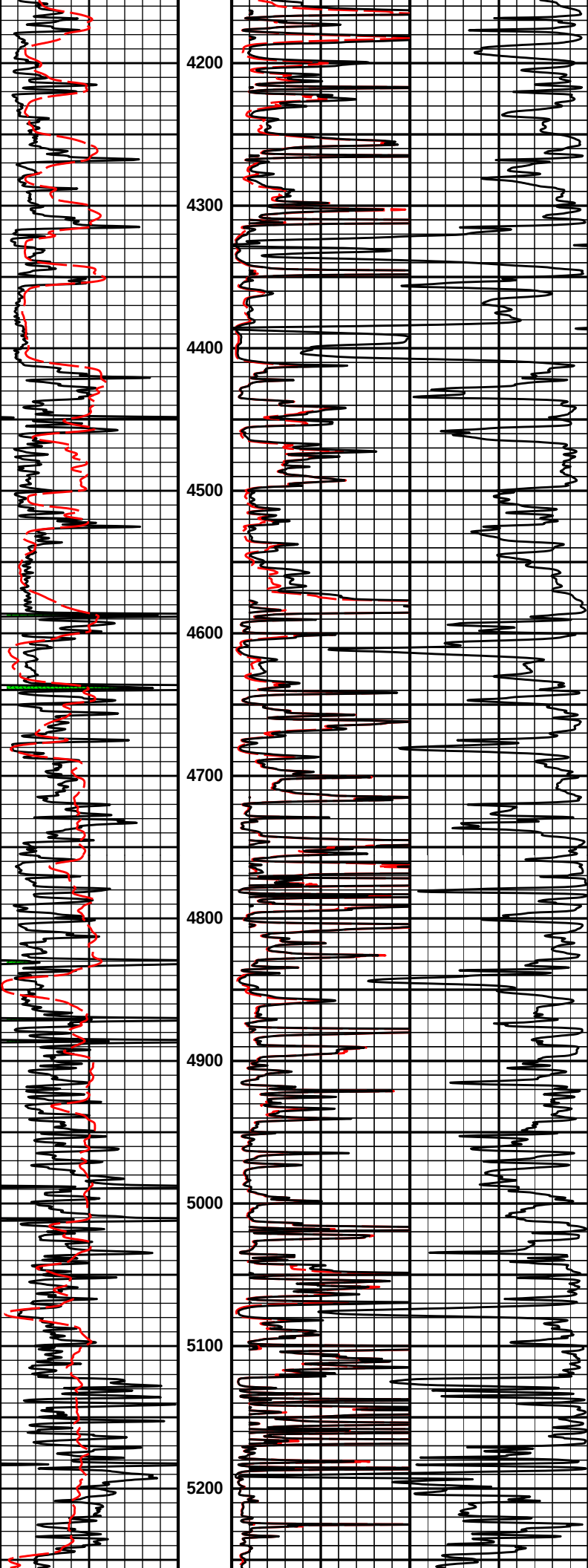
14.22 ft

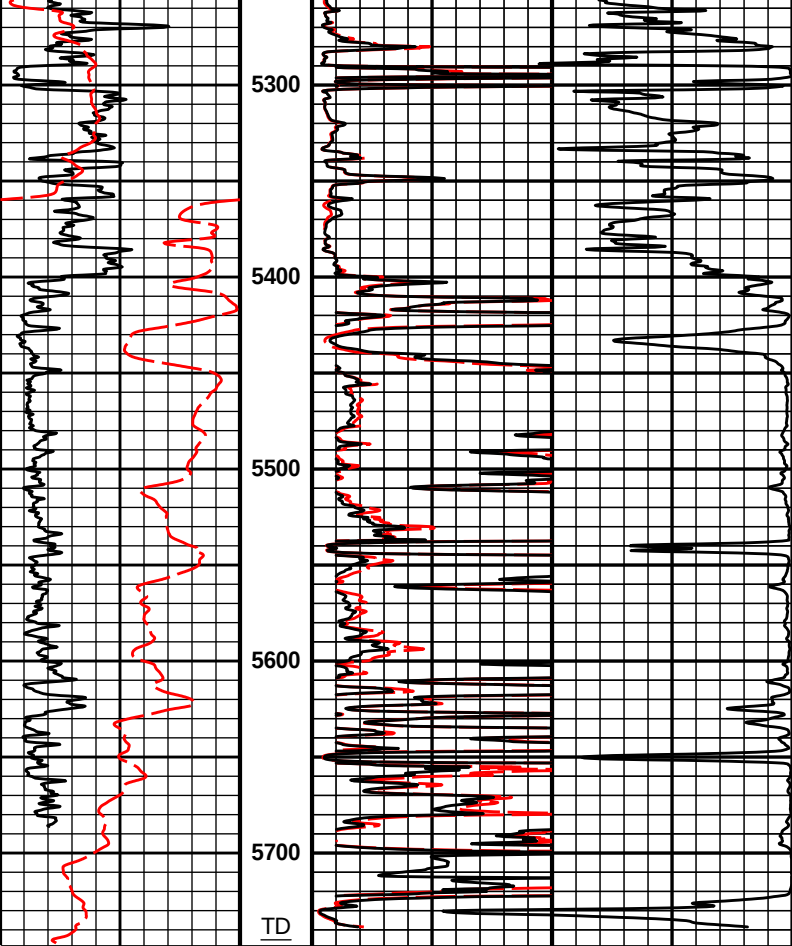
SP Ring-1 0.00 lbs		Ø 3.625 in*	→		←	SP @ 1.86 ft			0.58 ft										
Cabbage Head-001 10.00 lbs		Ø 3.625 in	↘																
		Ø 6.000 in	→						0.00 ft										
Mnemonic	Tool Name	Serial Number	Weight (lbs)	Length (ft)	Accumulated Length (ft)	Max.Log. Speed (fpm)													
CH_HOS	Hostile Cable Head with Load Cell	CH_HOS_I	37.50	3.25	70.30	300.00													
GTET	Gamma Telemetry Tool	10957072	165.00	8.52	61.78	60.00													
BSAT	Borehole Sonic Array Tool	10747686	300.00	15.77	46.00	60.00													
IQF	IQ Flex tool	1	140.00	5.67	40.33	300.00													
DSNT	Dual Spaced Neutron	10958654	174.00	9.69	30.64	60.00													
DCNT	DSN Decentralizer	10951378	6.60	5.13	*	33.97	300.00												
SDLT	Spectral Density Tool	10948154	360.00	10.81	19.83	60.00													
MICP	Microlog Pad	10948154	8.00	1.00	*	22.33	60.00												
SDLP	Density Insite Pad	10809130	65.00	2.55	*	22.04	60.00												
ACRt	Array Compensated True Resistivity Instrument Section	10940590	50.00	5.03	14.80	300.00													
SAK	Short Axis Kit for logging short axis of a borehole.	10940590	60.00	1.02	*	14.80	300.00												
ACRt	Array Compensated True Resistivity Sonde Section	10937724	200.00	14.22	0.58	300.00													
SP	SP Ring	1	0.00	0.25	*	1.86	300.00												
CBHD	Cabbage Head	001	10.00	0.58	0.00	300.00													
Total			1,576.10	73.55															
			* Not included in Total Length and Length Accumulation.																
Data: OXY_BCU_409\0001 GTET-BSAT-FLEX-DSNT-SDLT-ACRT\004 MAIN			Date: 07-Nov-12 06:41:10																











0	Gamma API	150	1 : 1200	0	RT20	50	
	api		FT		ohm-metre		
	SP				90in Resistivity 2ft Res		
	- 20 +				ohm-metre		
				1000	90in Conductivity 2ft Res	0	
					mmho per metre		

HALLIBURTON

Plot Time: 07-Nov-12 10:06:20
Plot Range: 1790 ft to 5748.75 ft
Data: OXY_BCU_409\Well Based\DAQ-0001-004\
Plot File: \\LOCAL\OXY_BCU_409\0001 GTET-BSAT-FLEX-DSNT-SDLT-ACRT\ACRTIACRT_1_main

1 INCH MAIN LOG

1 INCH CORRELATION LOG