

HALLIBURTON

ARRAY COMPENSATED TRUE RESISTIVITY LOG

COMPANY		EOG RESOURCES	
WELL		OBRATE 33 #1	
FIELD		NW SUBLETTE	
COUNTY		HASKELL	
STATE		KANSAS	
Permanent Datum		GL	
Log measured from		KB	
Drilling measured from		KB	
Date		24-May-11	
Run No.		1	
Depth - Driller		5756.00 ft	
Depth - Logger		5756.0 ft	
Bottom - Logged Interval		5747.0 ft	
Top - Logged Interval		1726.0 ft	
Casing - Driller		8.625 in @ 1729.0 ft	
Casing - Logger		1726.0 ft	
Bit Size		7.875 in @	
Type Fluid in Hole		WATER BASED MUD	
Density		8.9 ppq 60.00 s/qt	
PH		10.00 pH 8.0 cp/m	
Source of Sample		FLOW LINE	
Rm @ Meas. Temperature		1.310 ohmm @ 85.00 degF @	
Rmf @ Meas. Temperature		1.11 ohmm @ 82.00 degF @	
Rmc @ Meas. Temperature		1.590 ohmm @ 82.00 degF @	
Source Rmf		Rmc MEAS MEAS	
Rm @ BHT		0.82 ohmm @ 140.0 degF @	
Time Since Circulation		5.0 hr	
Time on Bottom		24-May-11 10:33	
Max. Rec. Temperature		130.0 degF @ 5756.0 ft @	
Equipment		Location 10546696 LIBERAL	
Recorded By		J. BOSH	
Witnessed By		W. SHAFFER	
		M. KNOX	

Fold here

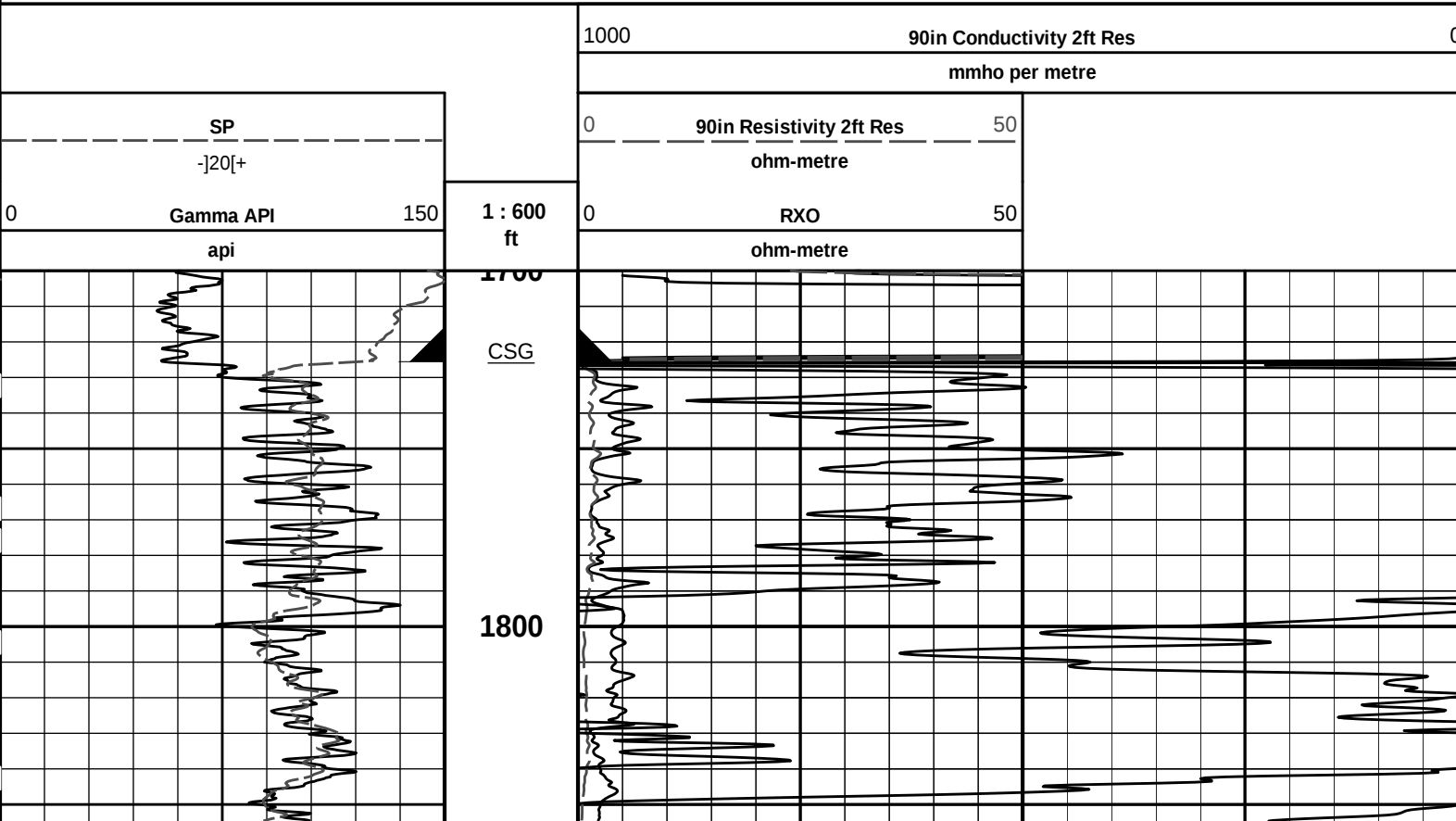
Service Ticket No.: 8167669				API Serial No.: 15-081-219360000				PGM Version: WL INSITE R3.2.0 (Build 7)											
CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE				RESISTIVITY SCALE CHANGES															
Date		Sample No.						Type Log		Depth		Scale Up Hole		Scale Down Hole					
Depth-Driller																			
Type Fluid in Hole																			
Density		Viscosity																	
Ph		Fluid Loss																	
Source of Sample								RESISTIVITY EQUIPMENT DATA											
Rm @ Meas. Temp		@		@		Run No.		Tool Type & No.		Pad Type		Tool Pos.		Other					
Rmf @ Meas. Temp.		@		@		ONE		ACRT S909		N/A		1.5" S.O.		N/A					
Rmc @ Meas. Temp.		@		@															
Source Rmf		Rmc																	
Rm @ BHT		@		@															
Rmf @ BHT		@		@															
Rmc @ BHT		@		@															
EQUIPMENT DATA																			
GAMMA				ACOUSTIC				DENSITY				NEUTRON							
Run No.		ONE		Run No.				Run No.				Run No.							
Serial No.		11050378		Serial No.				Serial No.				Serial No.							
Model No.		GTET		Model No.				Model No.				Model No.							
Diameter		3.625		No. of Cent.				Diameter				Diameter							
Detector Model No.		T-102		Spacing				Log Type				Log Type							
Type		SCINT.						Source Type				Source Type							
Length		8"		LSA [Y/N]				Serial No.				Serial No.							
Distance to Source		10'		FWDA [Y/N]				Strength				Strength							
LOGGING DATA																			
GENERAL				GAMMA				ACOUSTIC				DENSITY				NEUTRON			

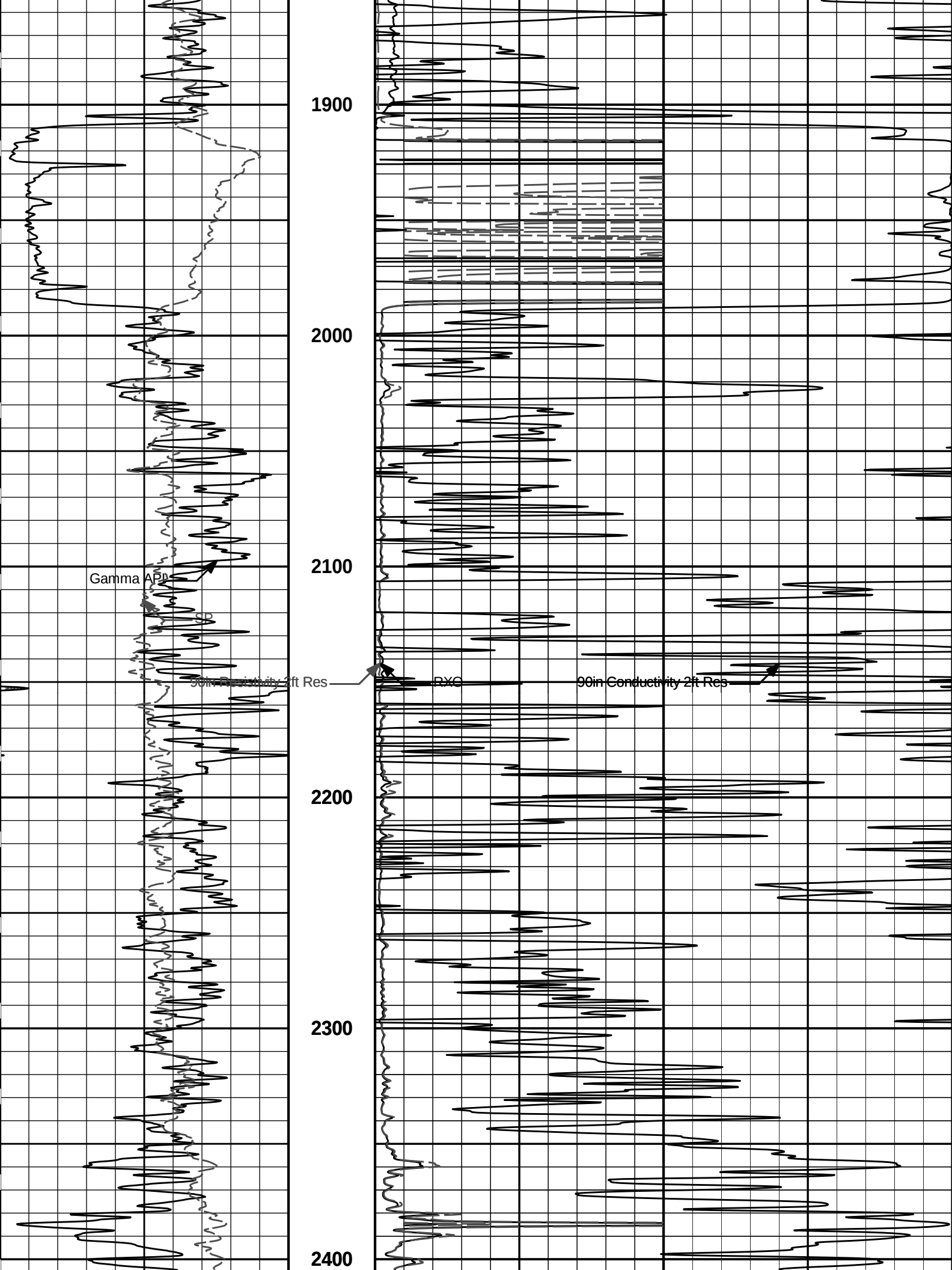
GENERAL				GAMMA				ACOUSTIC				DENSITY				NEUTRON			
Run	Depth		Speed	Scale		Scale		Matrix	Scale		Matrix	Scale		Matrix					
No.	From	To	ft/min	L	R	L	R		L	R		L	R						
ONE	TD	CSG	REC	0	150														
DIRECTIONAL INFORMATION																			
Maximum Deviation @								KOP @											
Remarks: ANNULAR HOLE VOLUME 5.5 INCH CASING																			
CHLORIDES: 700 MG/L																			
GPS COORDINATES: LAT: 37.39 N LONG: 100.55 W																			
TODAY'S CREW: V. JAIME, K. KELLY																			
THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES, LIBERAL, KS 620-624-8123																			
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																			

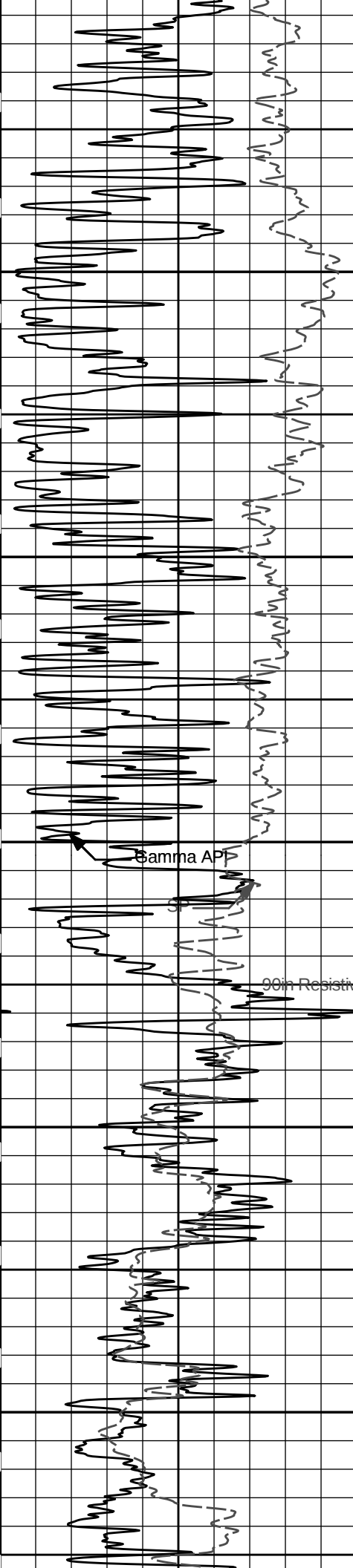
HALLIBURTON

Plot Time: 24-May-11 14:33:00
Plot Range: 1700 ft to 5761.67 ft
Data: OBRATE_33_1\Well Based\DAQ-0001-003\
Plot File: \\LOCAL-I\OBRATE_33_1\0001 SP-GTET-DSN-SDL-BSAT-ACRT-CHIA CRTIEOG_ACRT_2_MAIN

2 INCH MAIN LOG







2500

2600

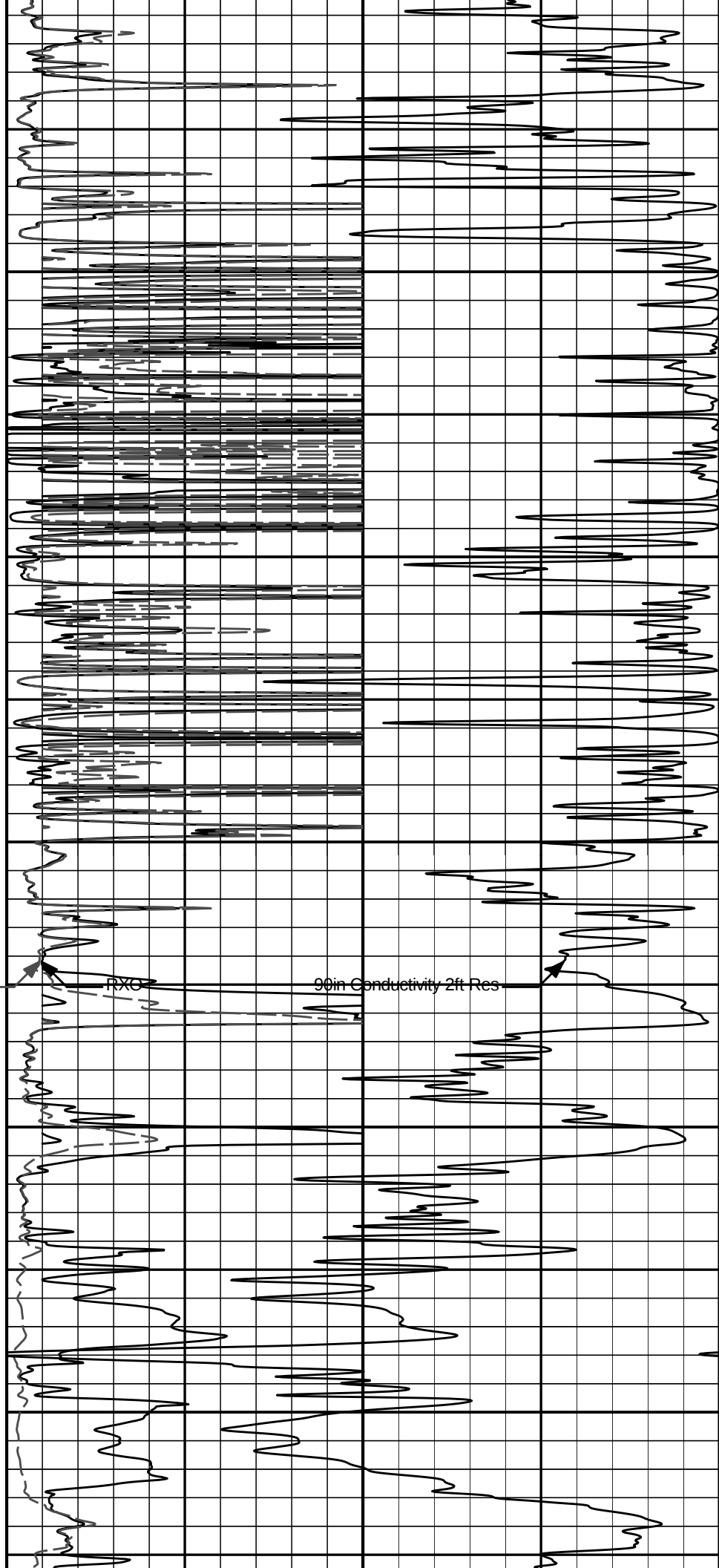
2700

2800

2900

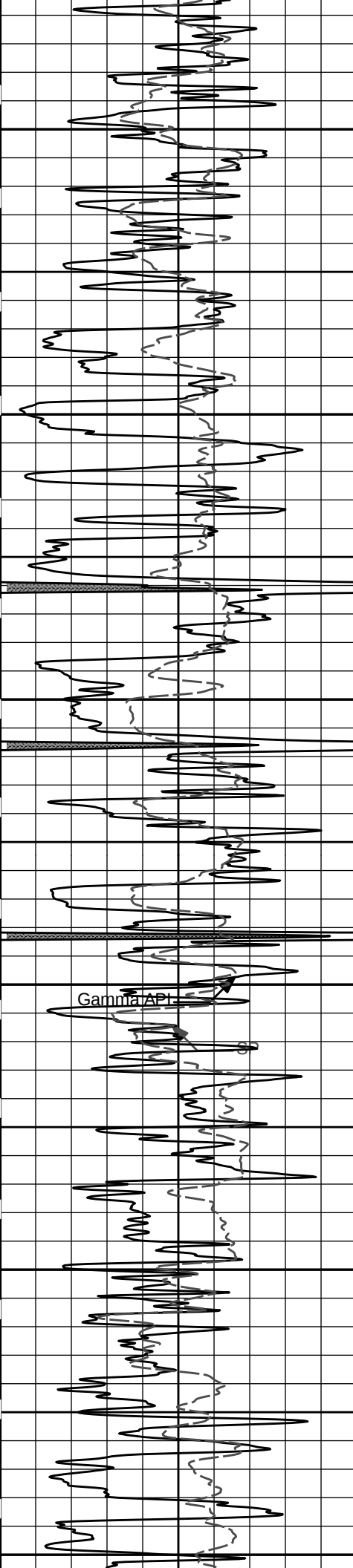
Gamma AP

90in Resistivity 2ft Res



RXO

90in Conductivity 2ft Res



3000

3100

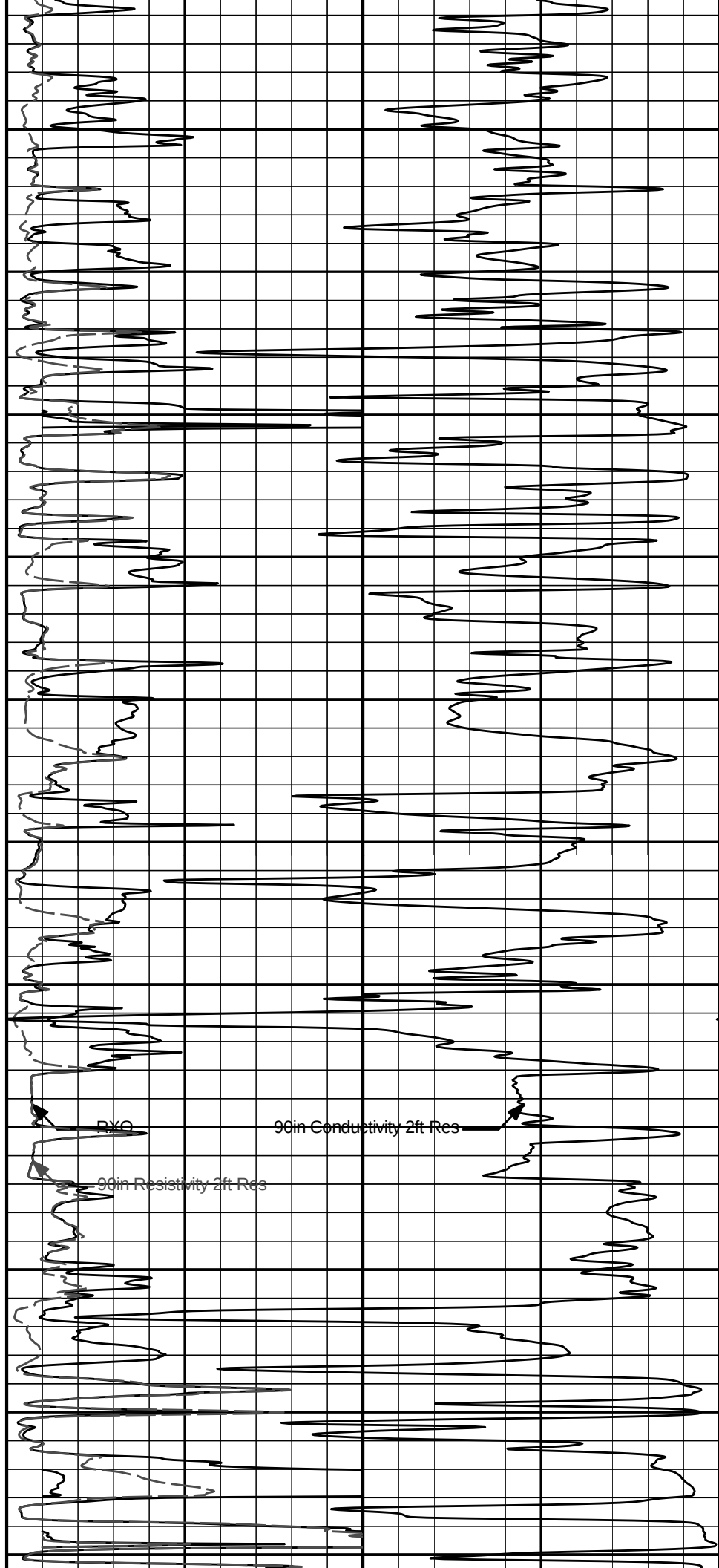
3200

3300

3400

3500

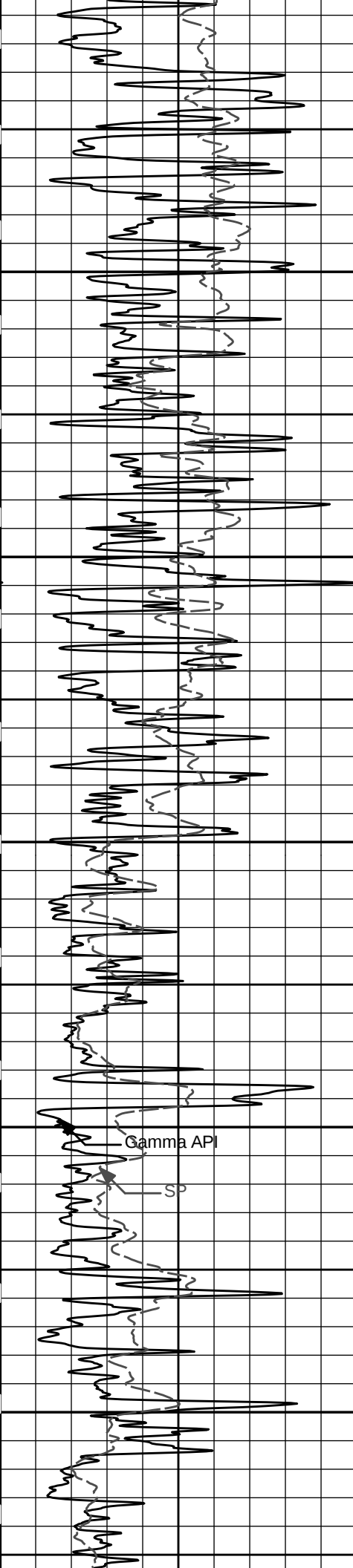
Gamma API



RXO

90in Resistivity 2ft Res

90in Conductivity 2ft Res



3600

3700

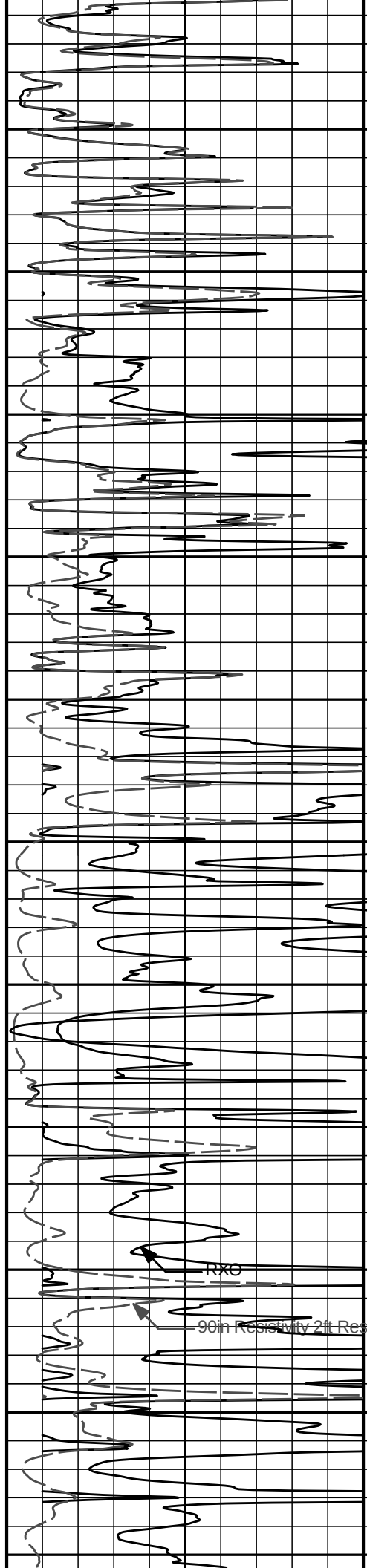
3800

3900

4000

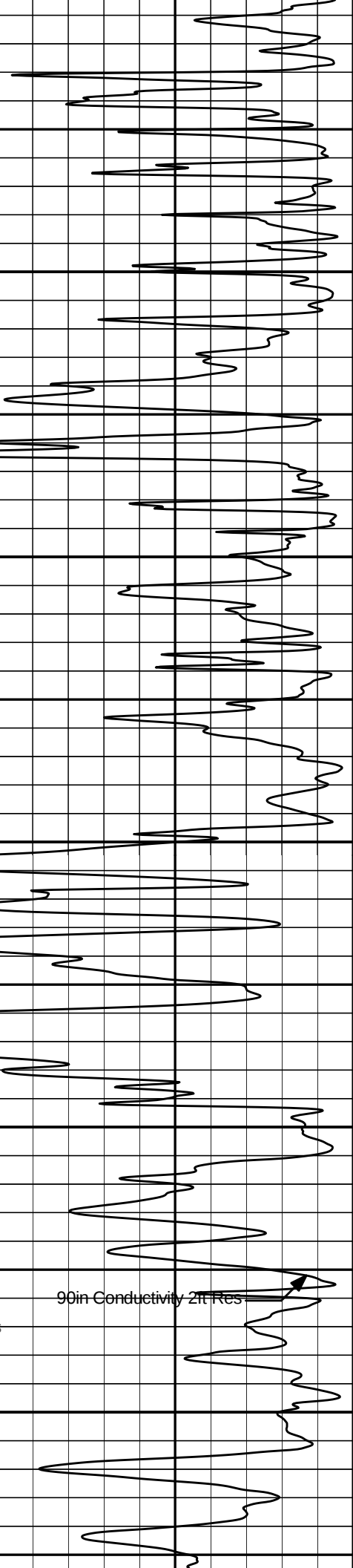
Gamma API

Sp

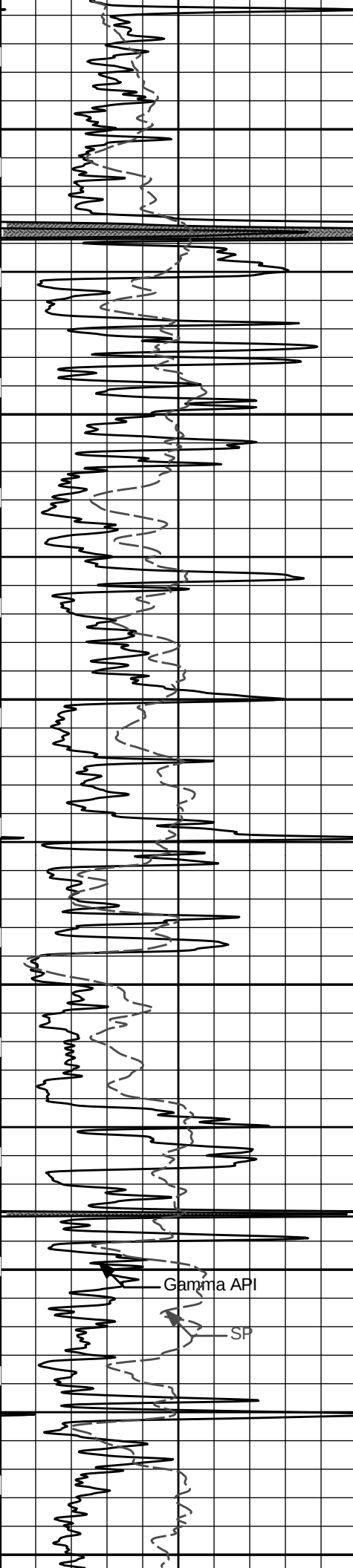


RXO

90in Resistivity 2ft Res



90in Conductivity 2ft Res



4100

4200

4300

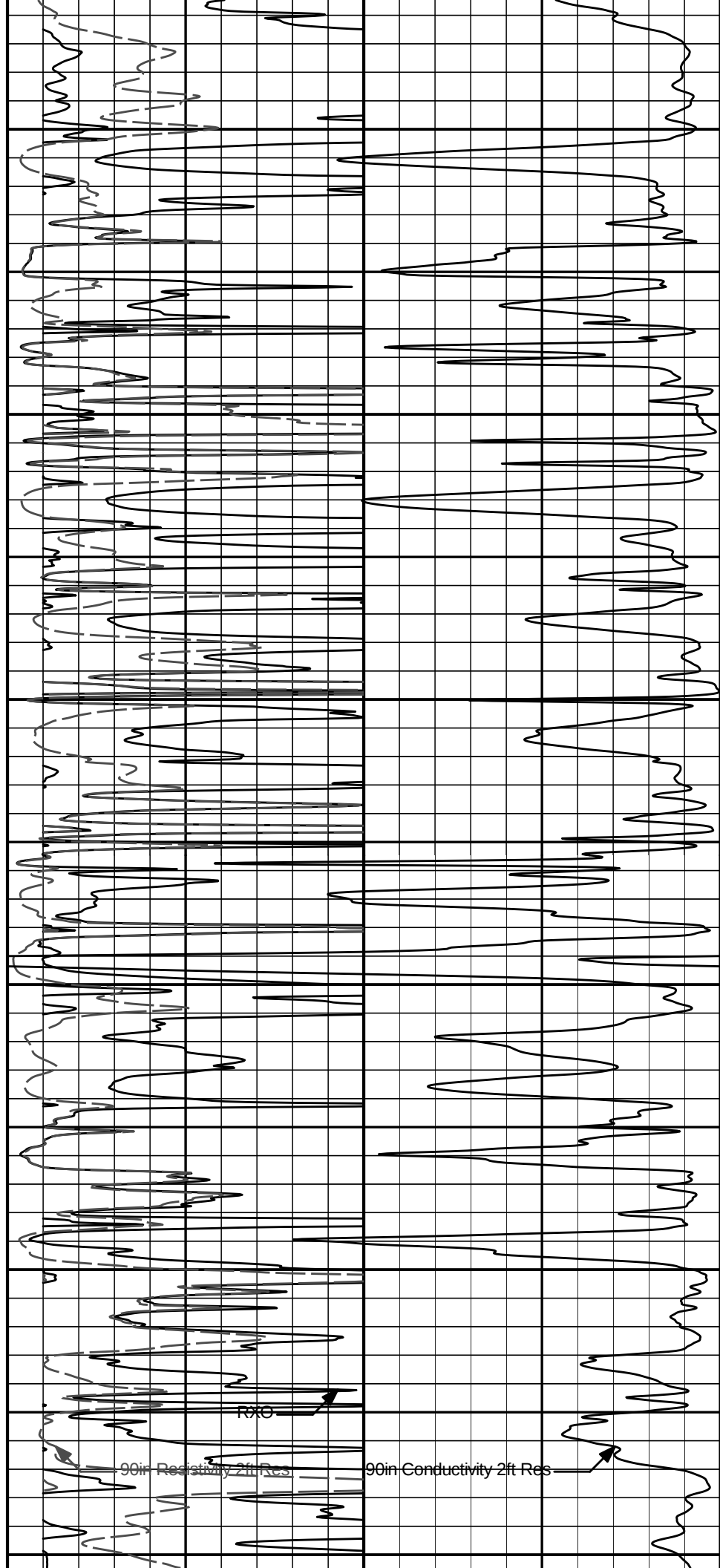
4400

4500

4600

Gamma API

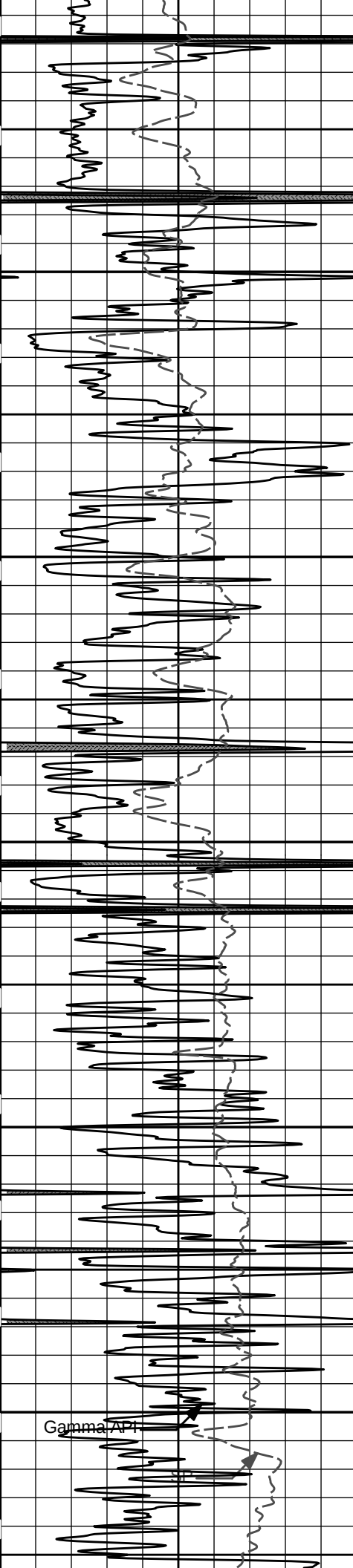
SP



RXO

90in Resistivity 2ft Res

90in Conductivity 2ft Res



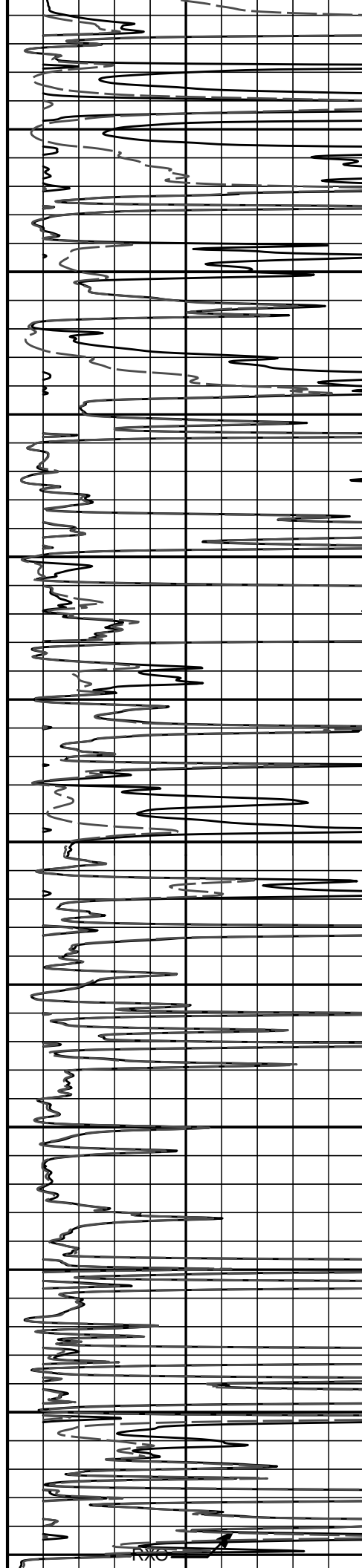
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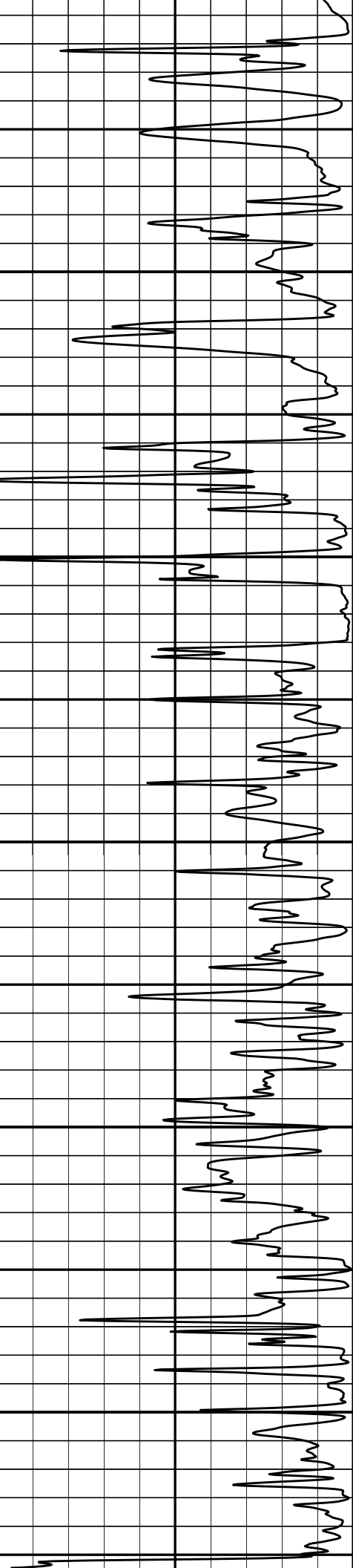
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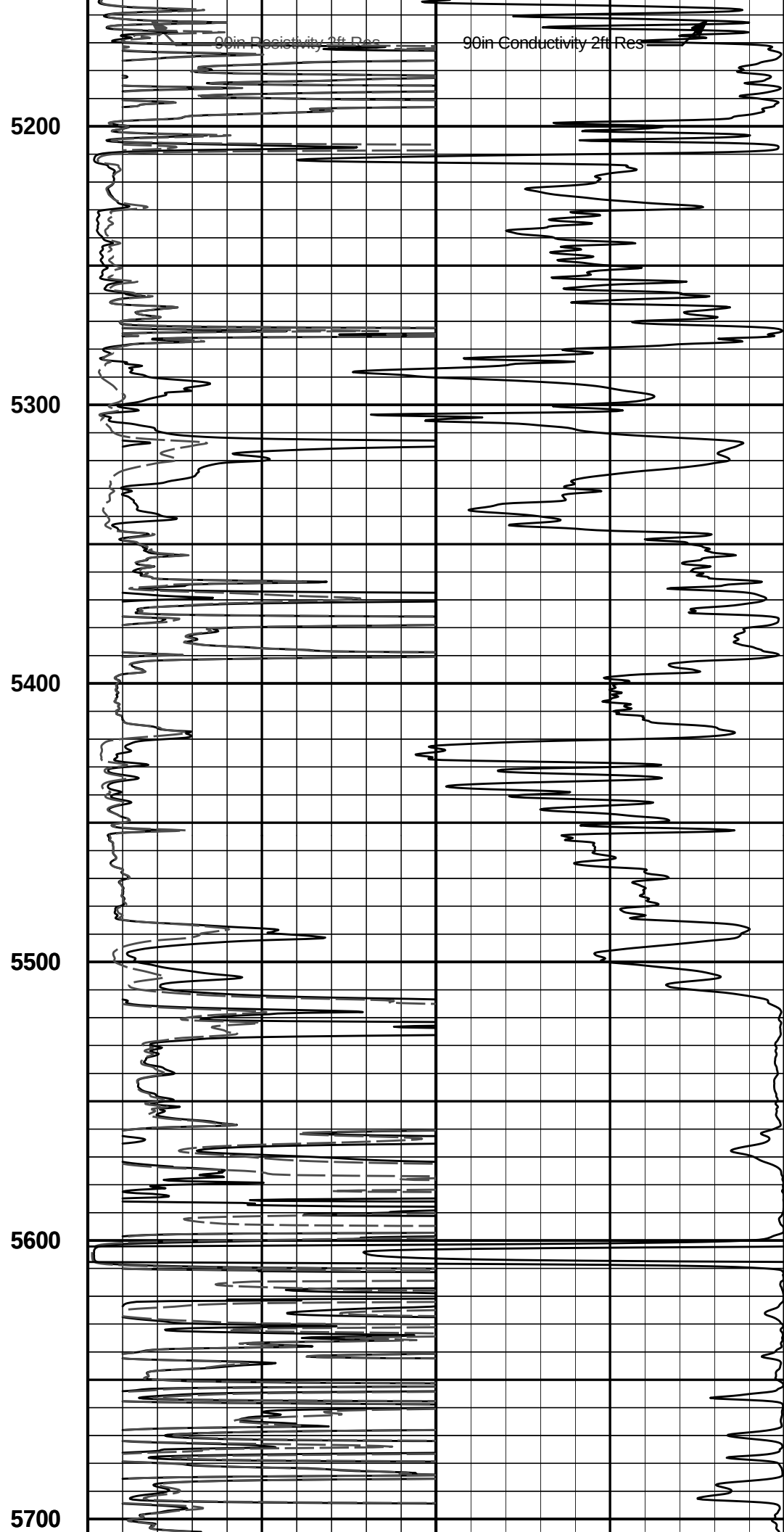
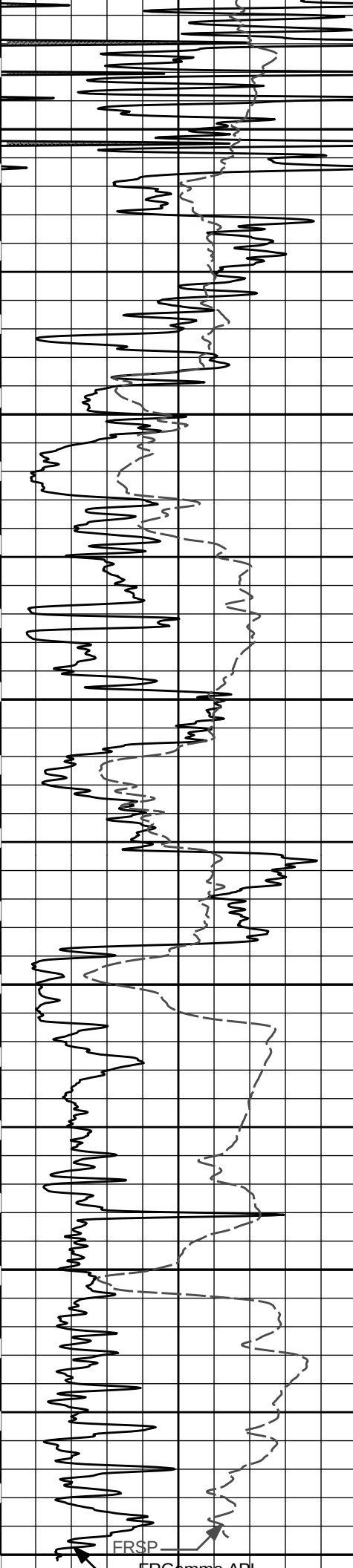
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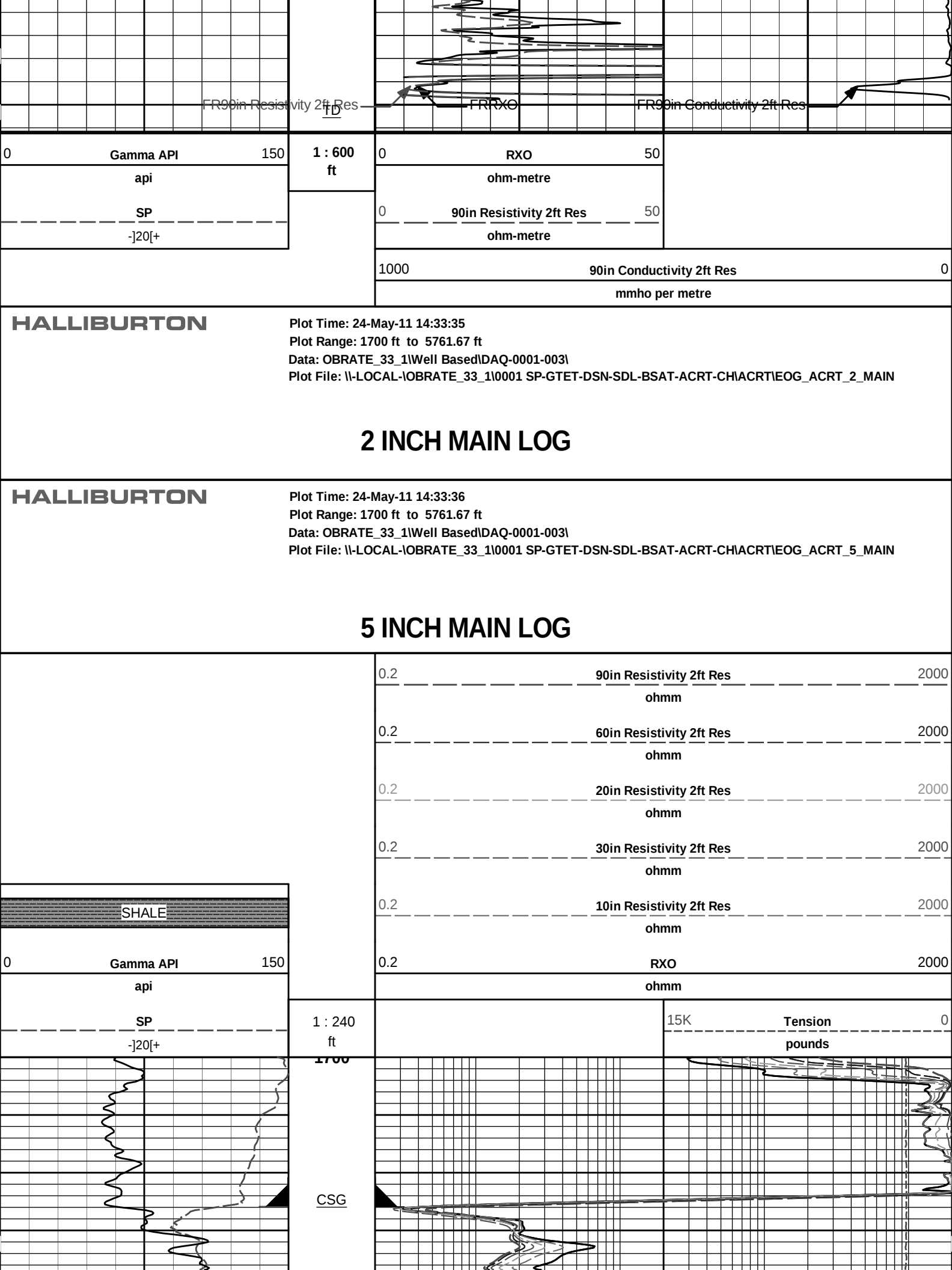
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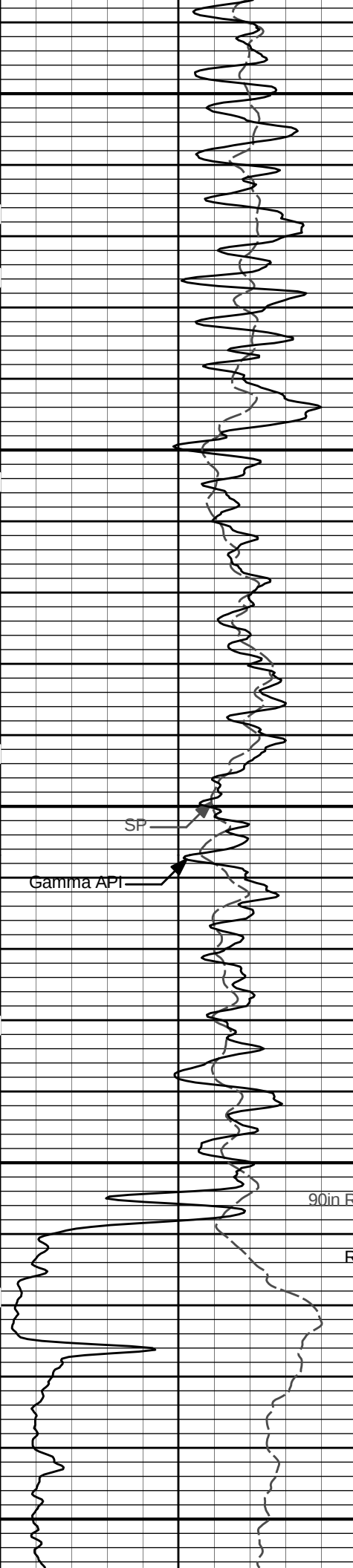


RHO



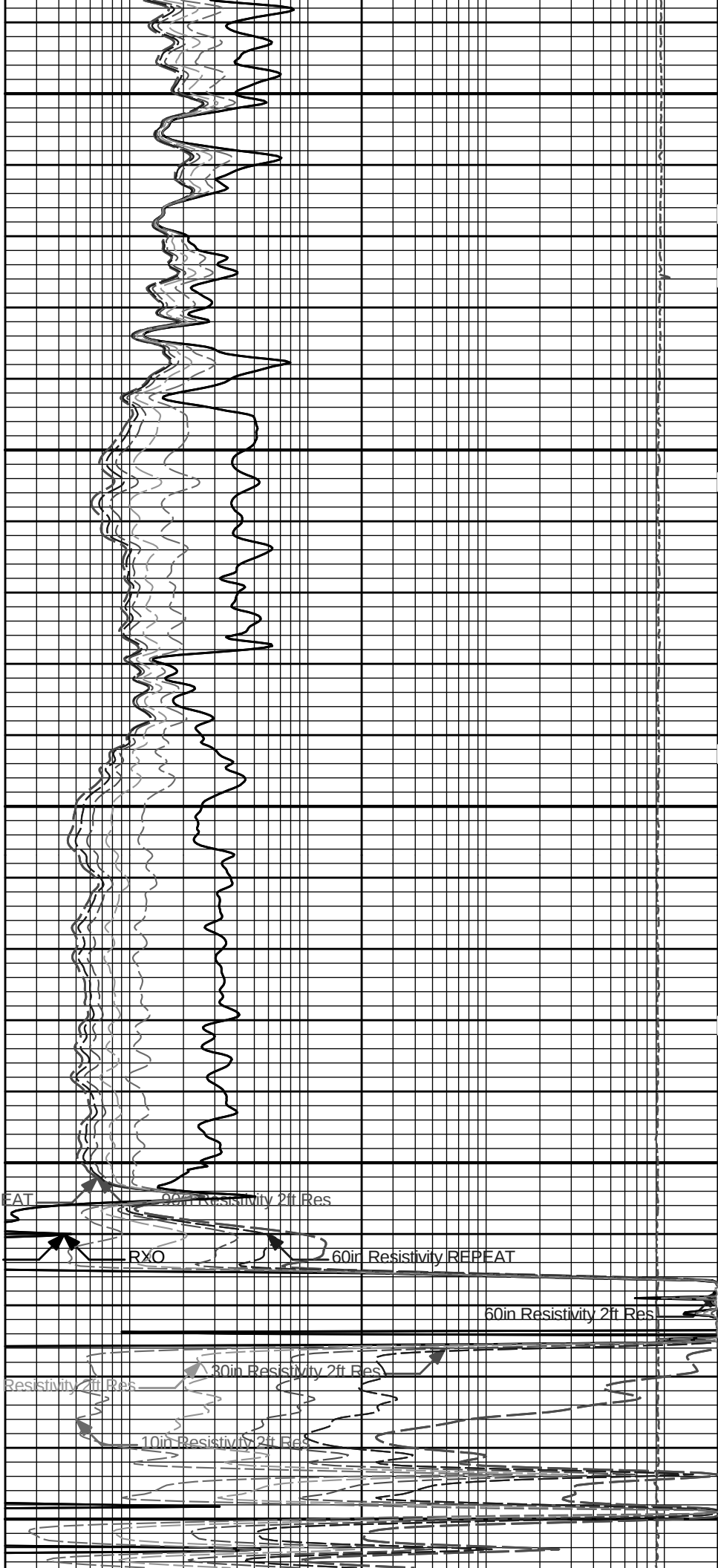


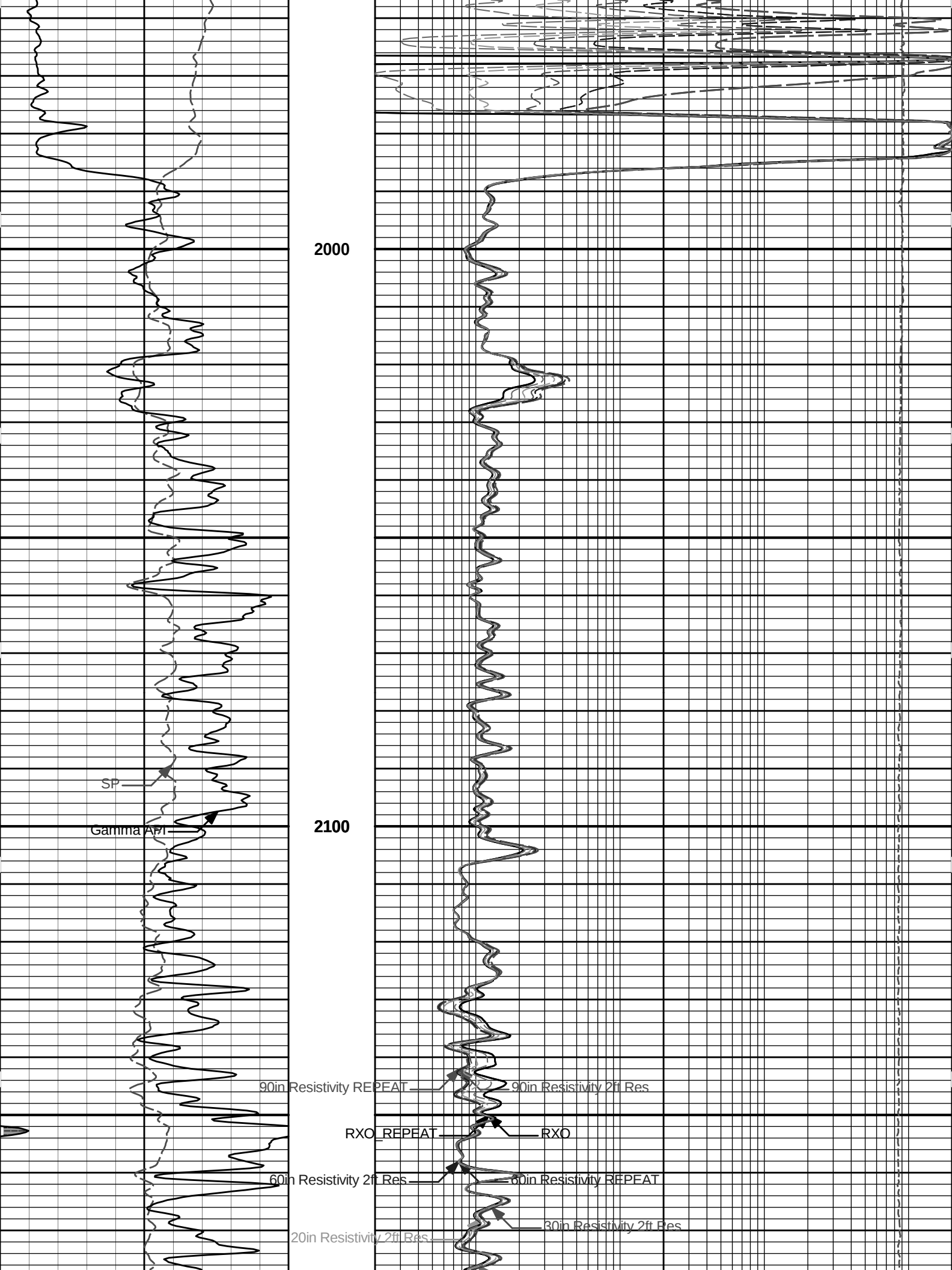




1800

1900



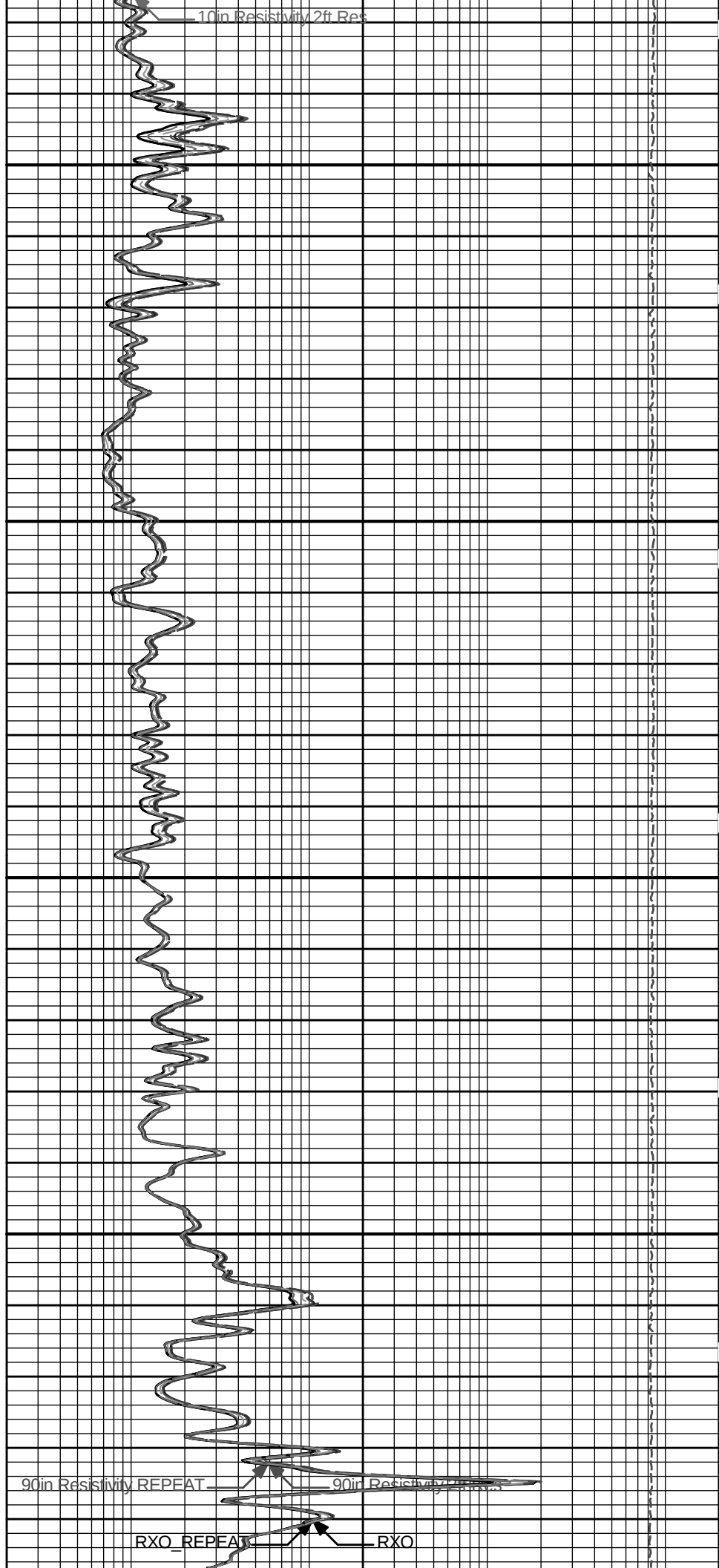




2200

2300

SP
Gamma API



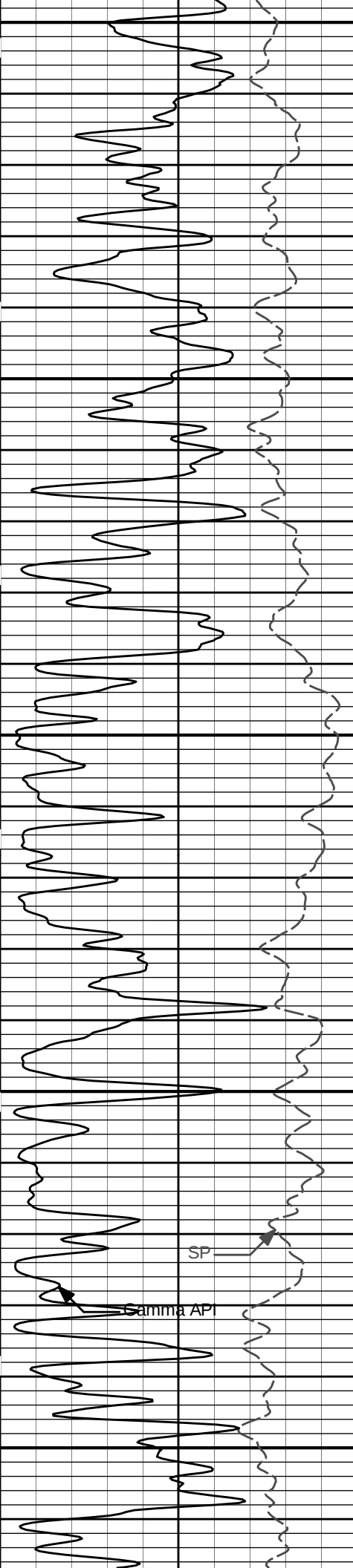
10in Resistivity 2ft Res

90in Resistivity REPEAT

90in Resistivity 2ft Res

RXO_REPEAT

RXO



2400

60in Resistivity 2ft Res

60in Resistivity REPEAT

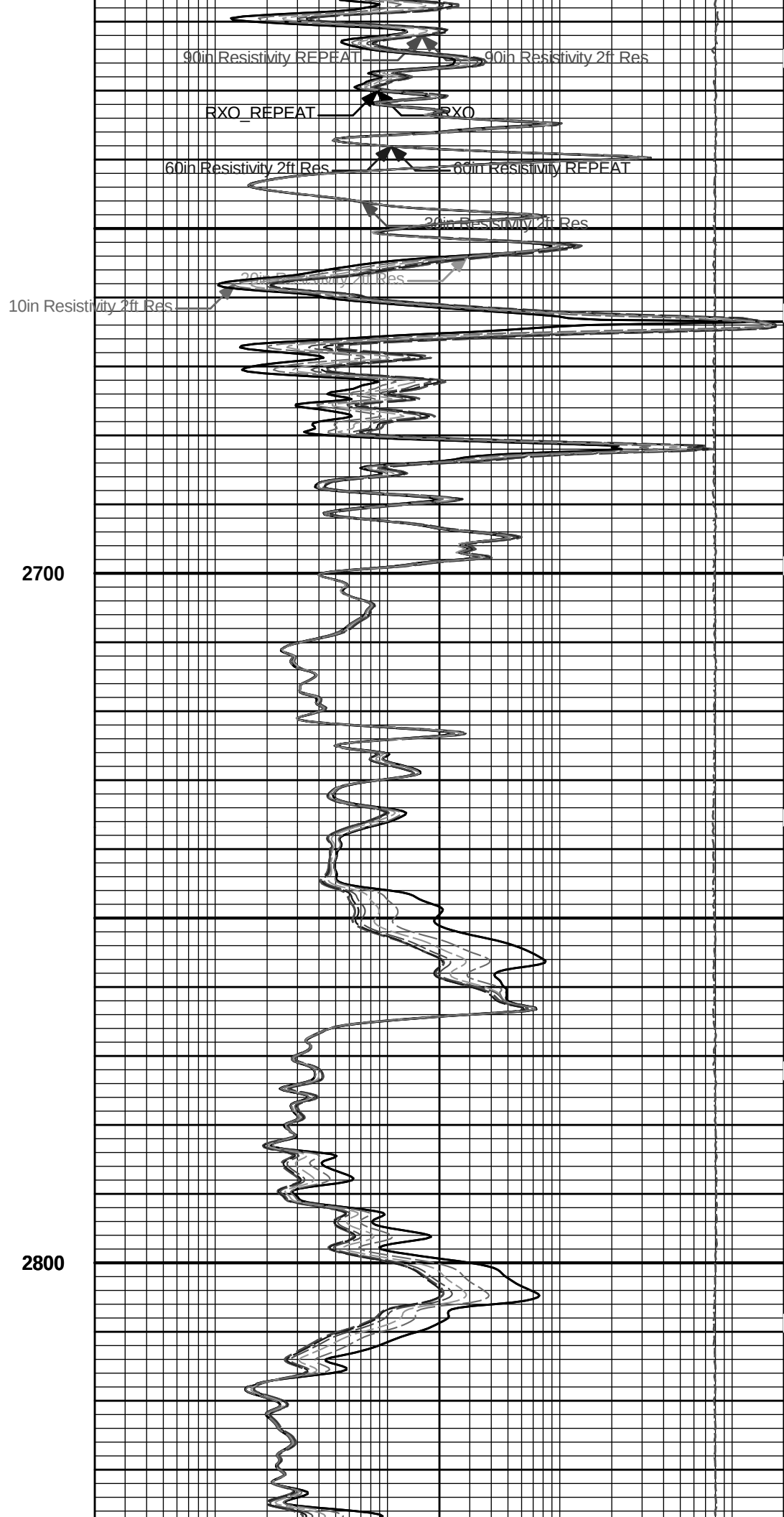
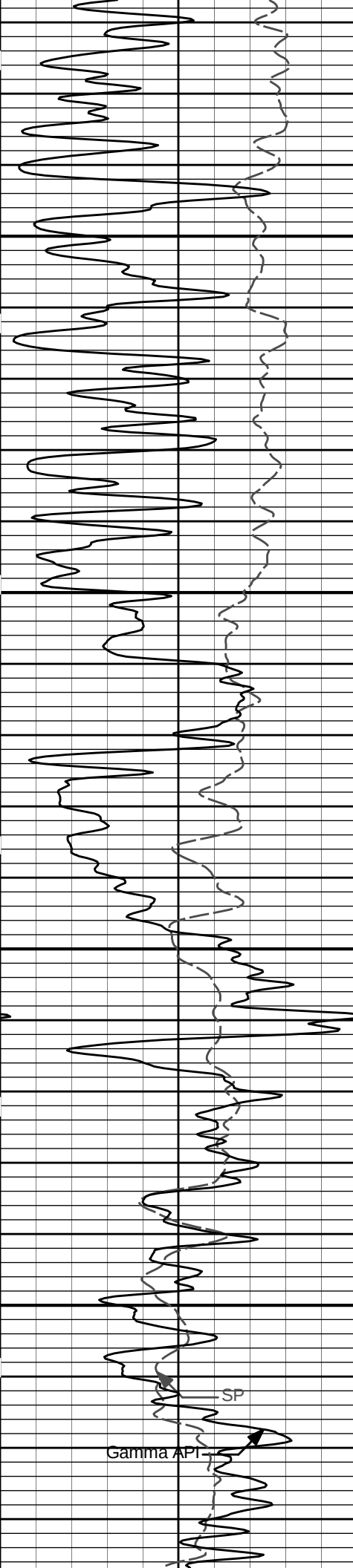
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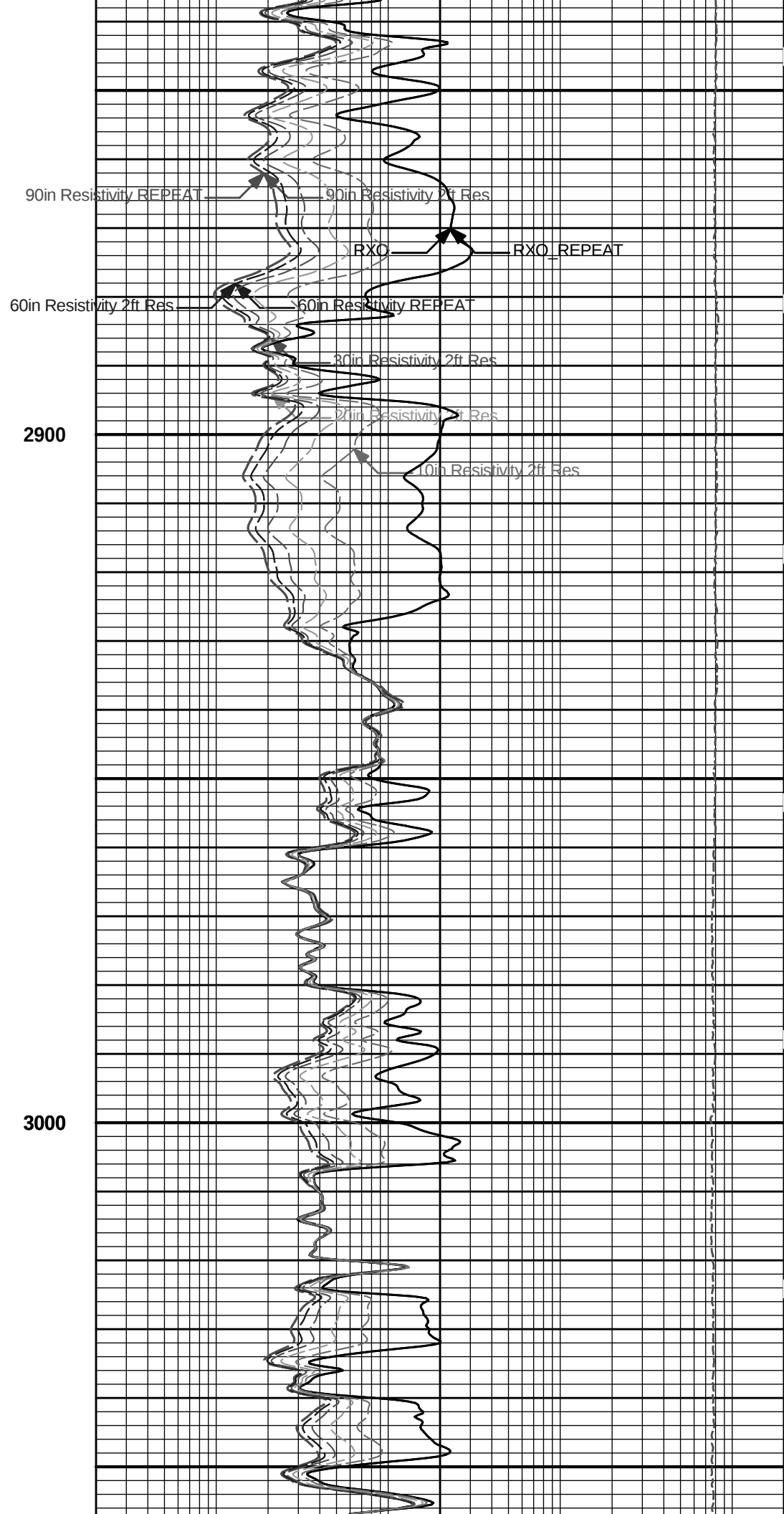
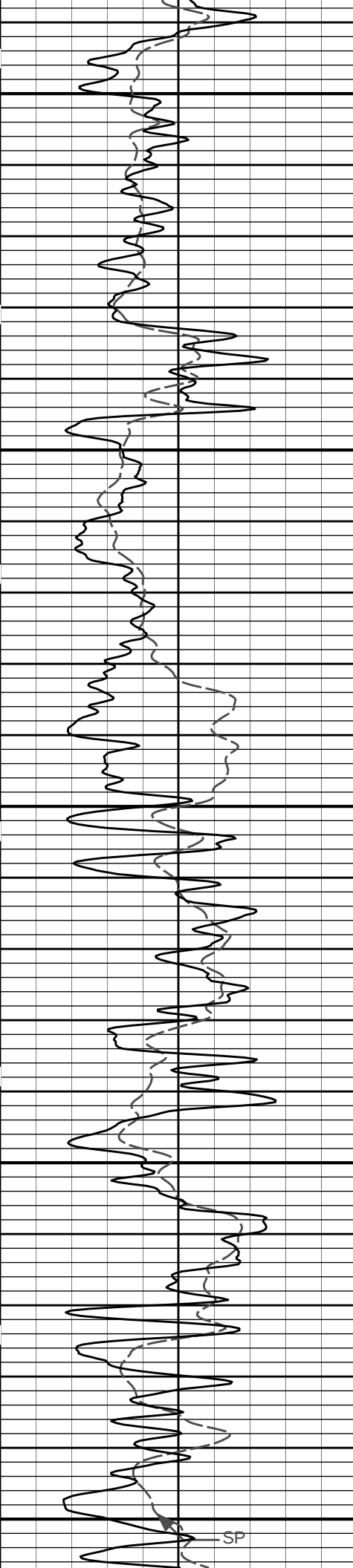
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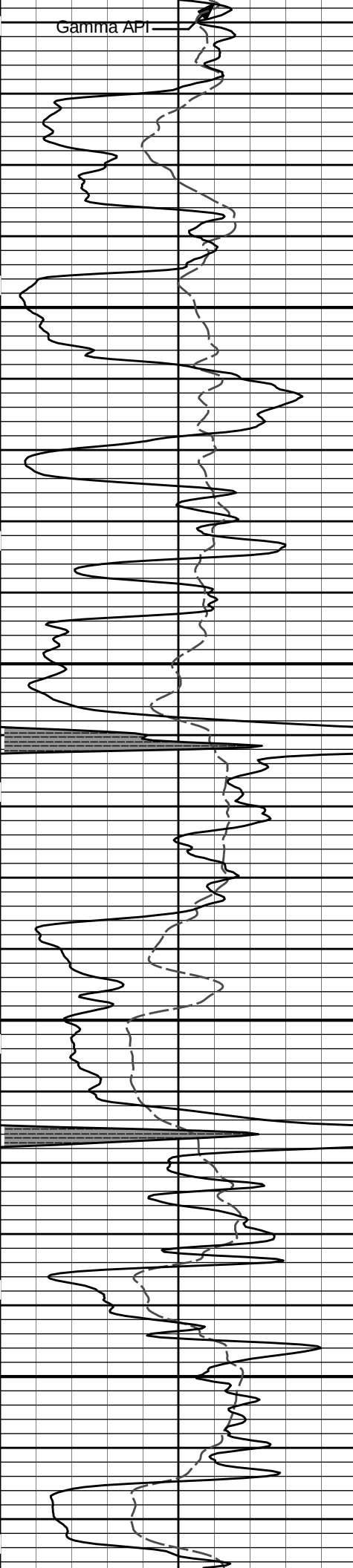
10in Resistivity 2ft Res

2500

2600

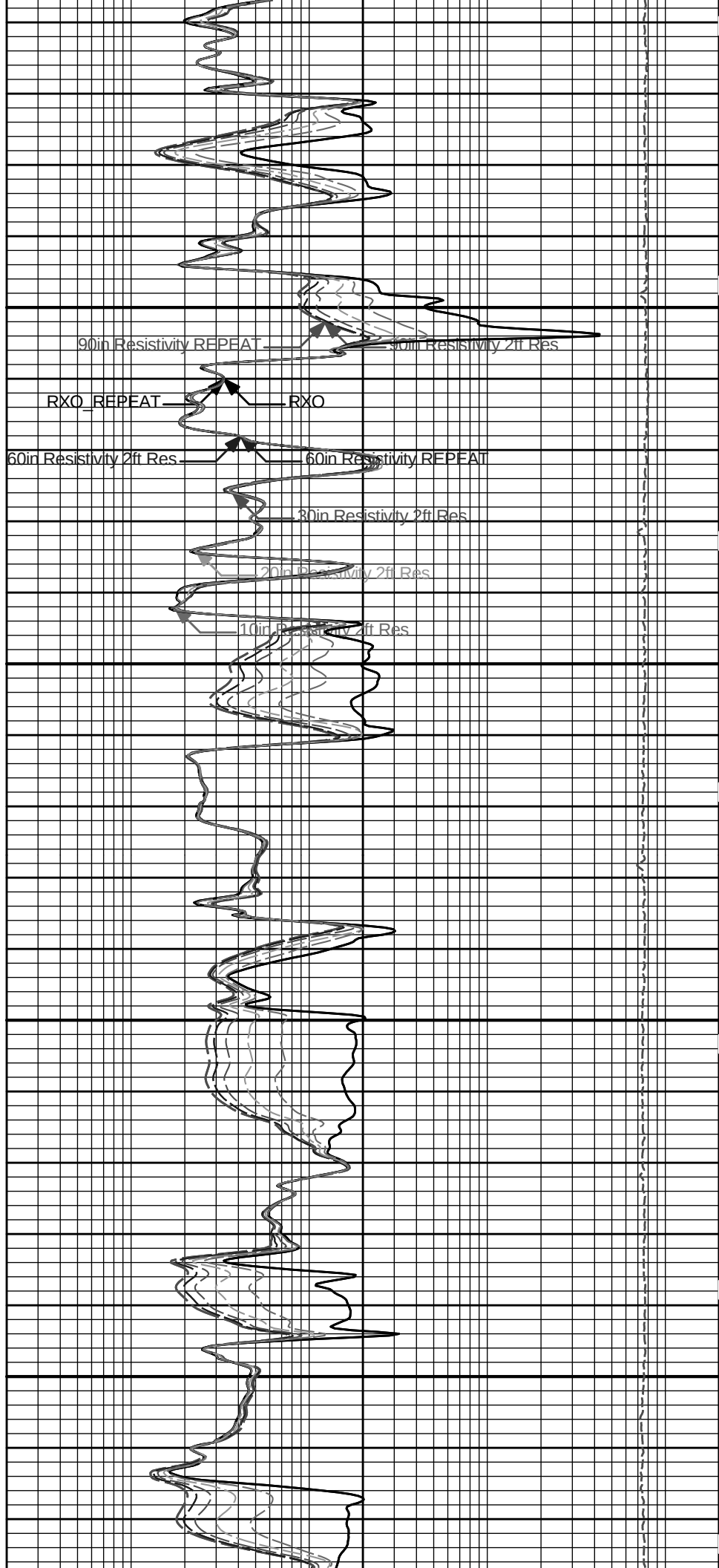


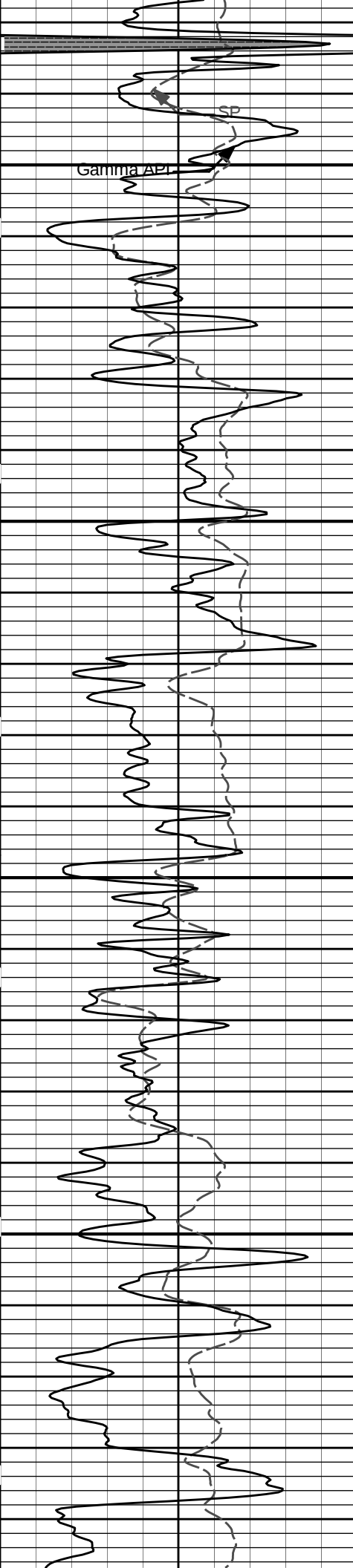




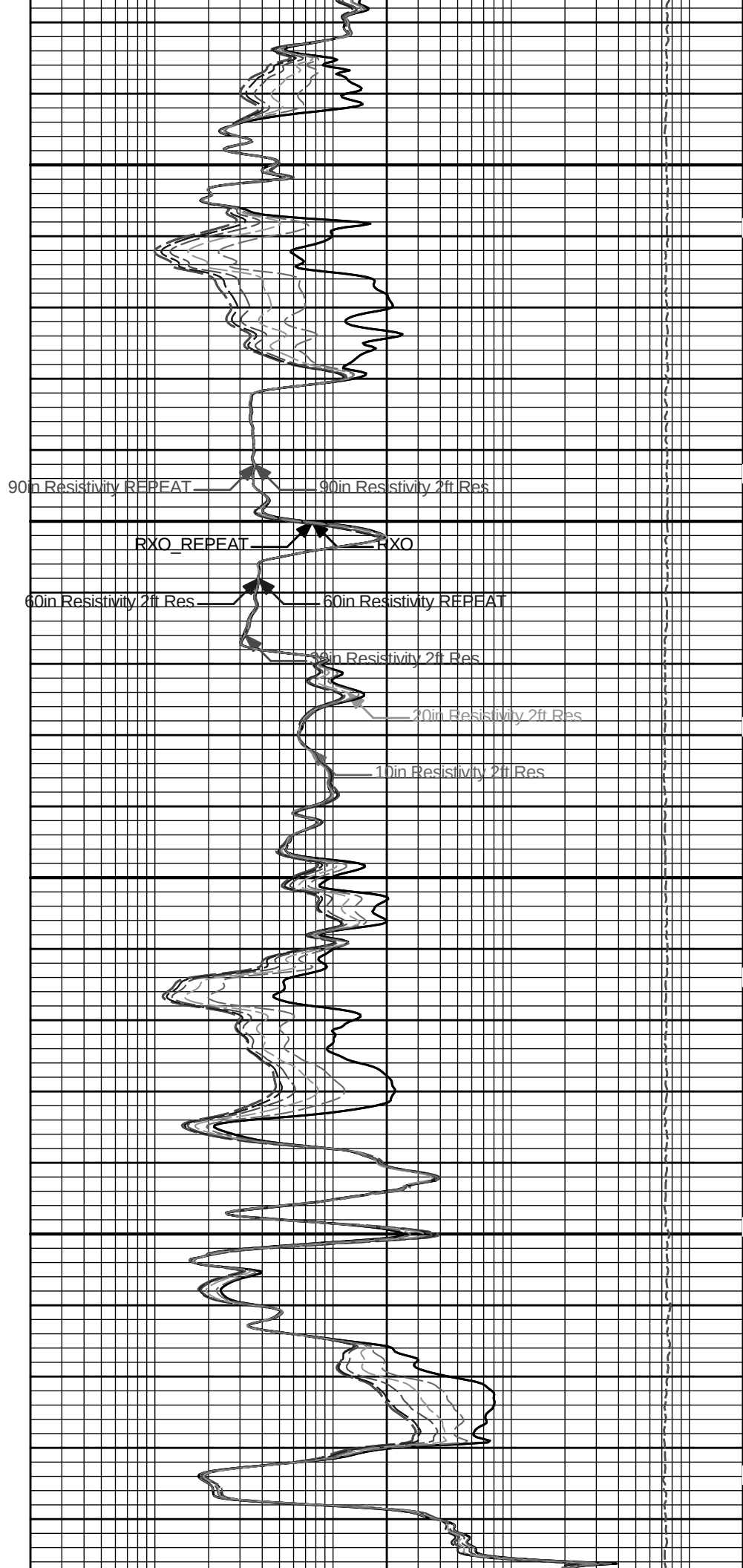
3100

3200





3300



3400

3500

3600

3700

SP

Gamma API

90in Resistivity REPEAT

90in Resistivity 2ft Res

RXO_REPEAT

RXO

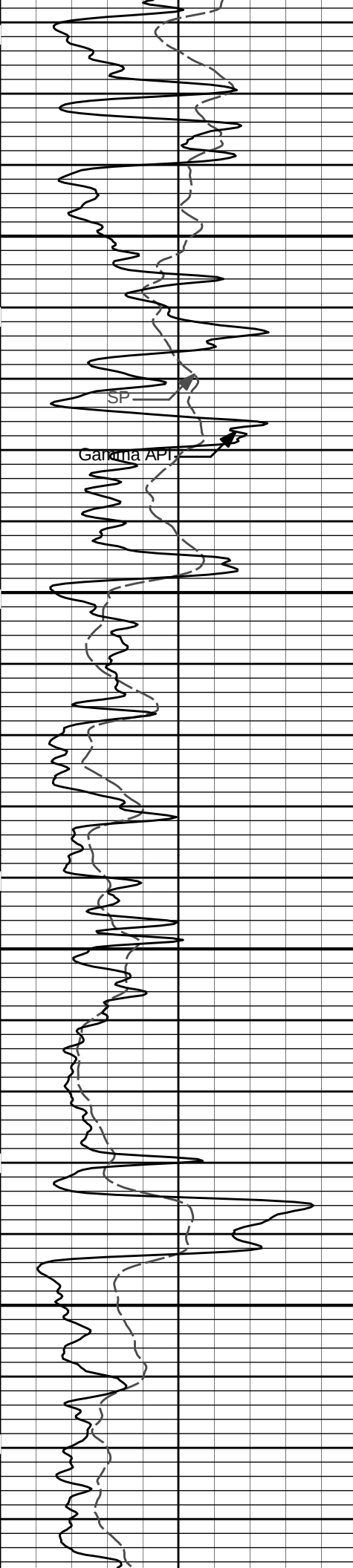
60in Resistivity 2ft Res

60in Resistivity REPEAT

30in Resistivity 2ft Res

20in Resistivity 2ft Res

10in Resistivity 2ft Res

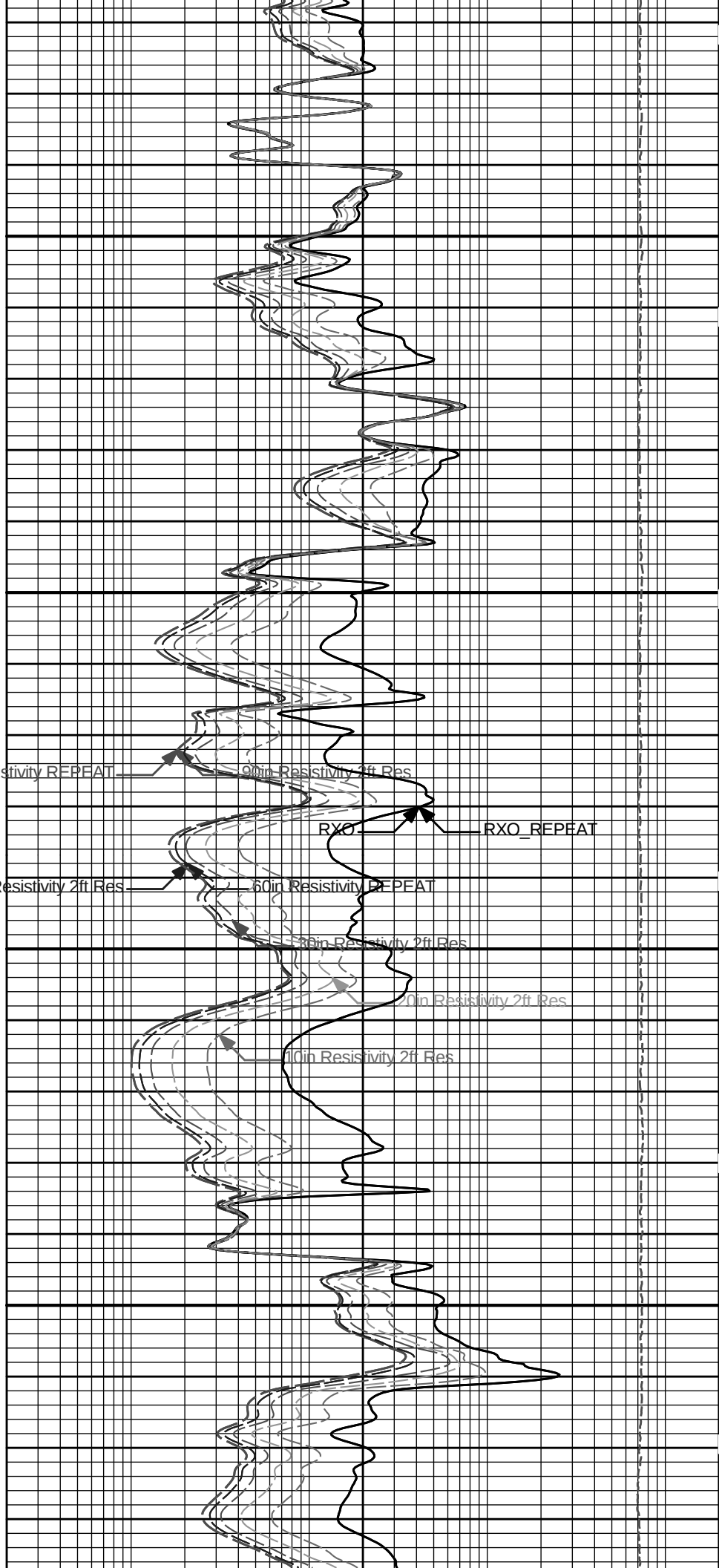


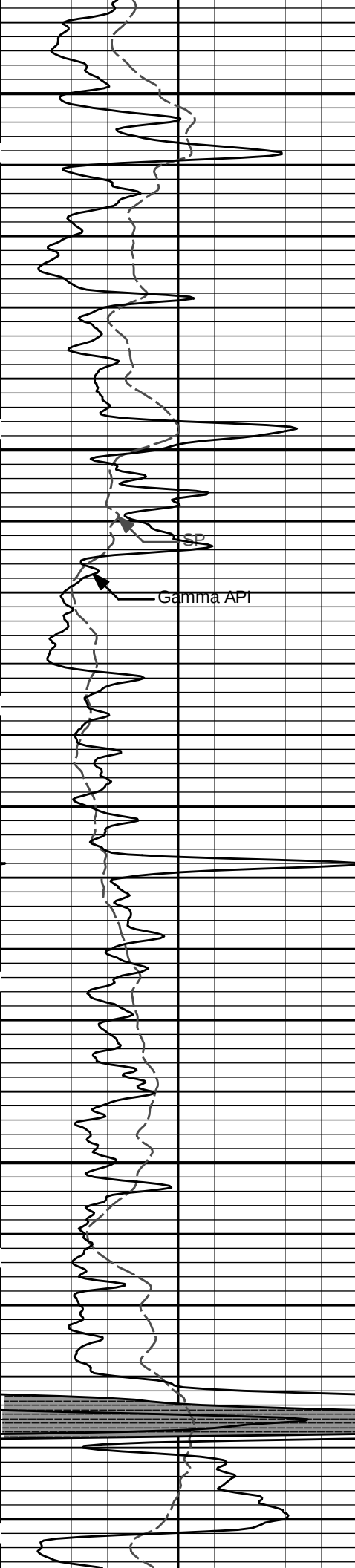
3800

90in Resistivity REPEAT

60in Resistivity 2ft Res

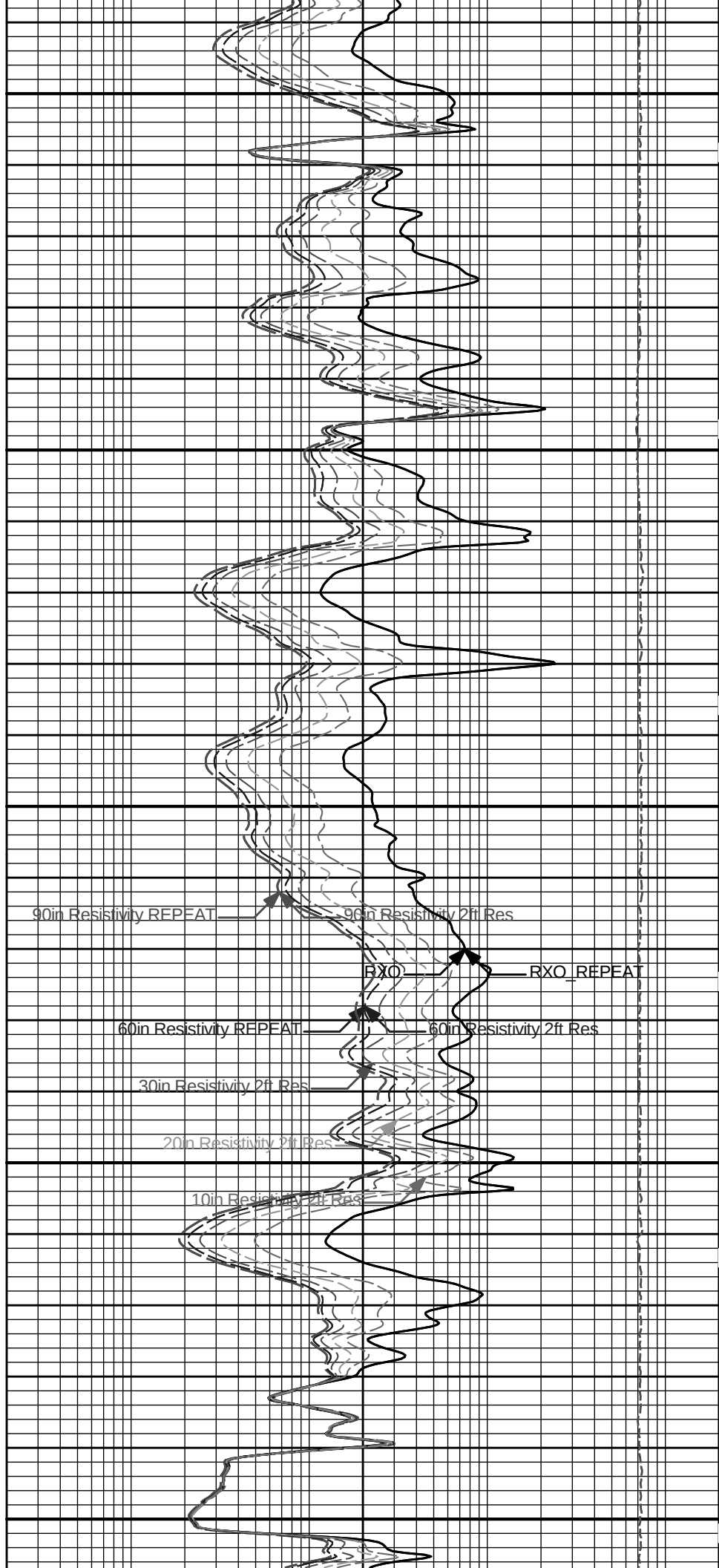
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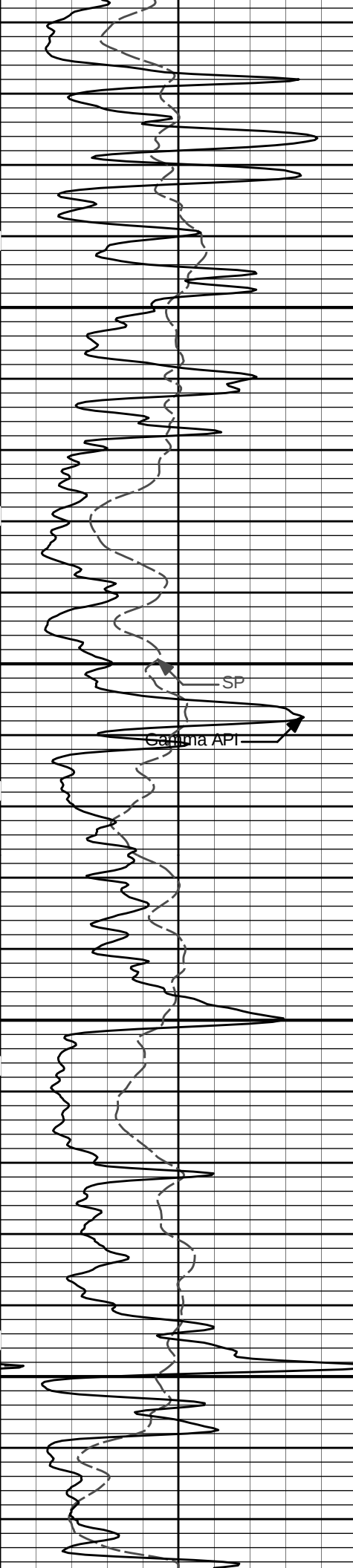




4000

4100

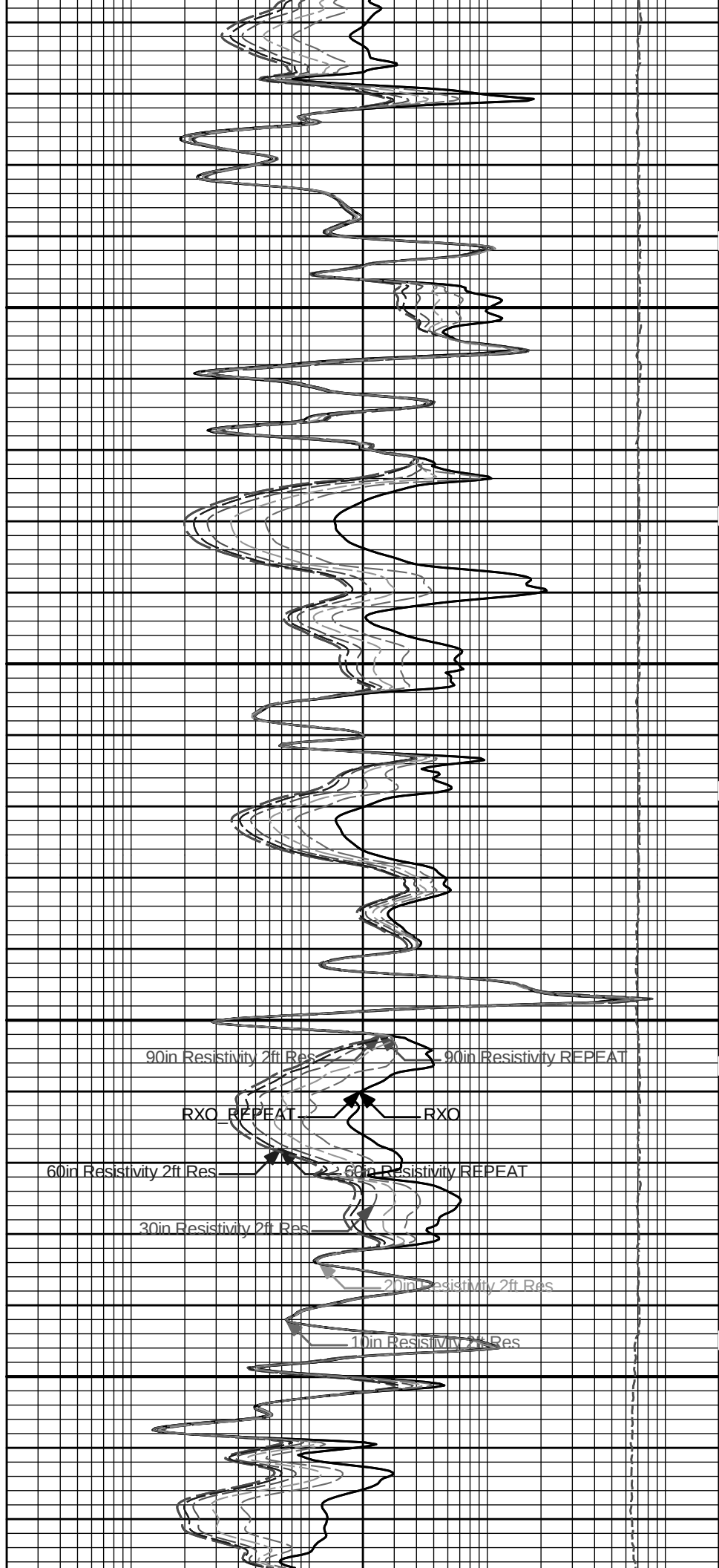


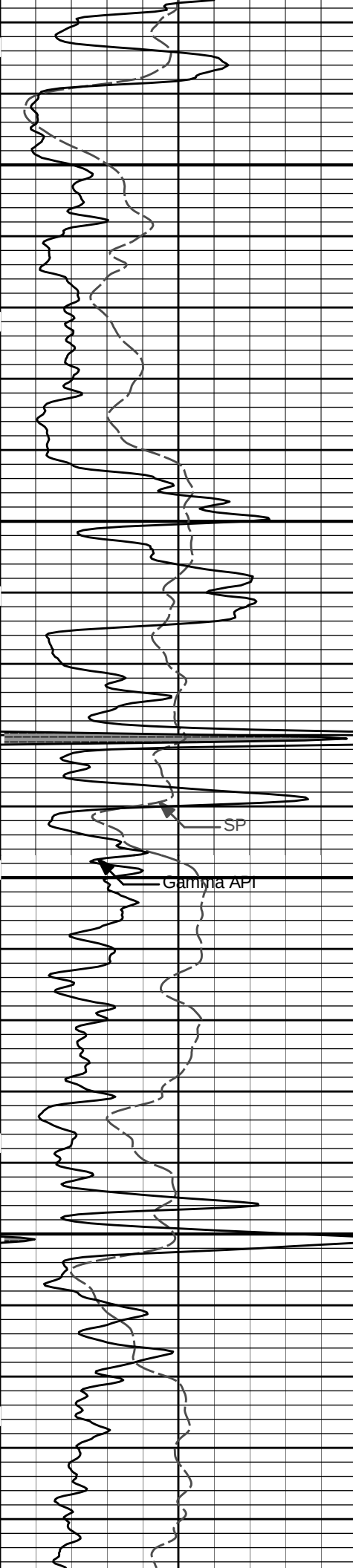


4200

SP
Gamma API

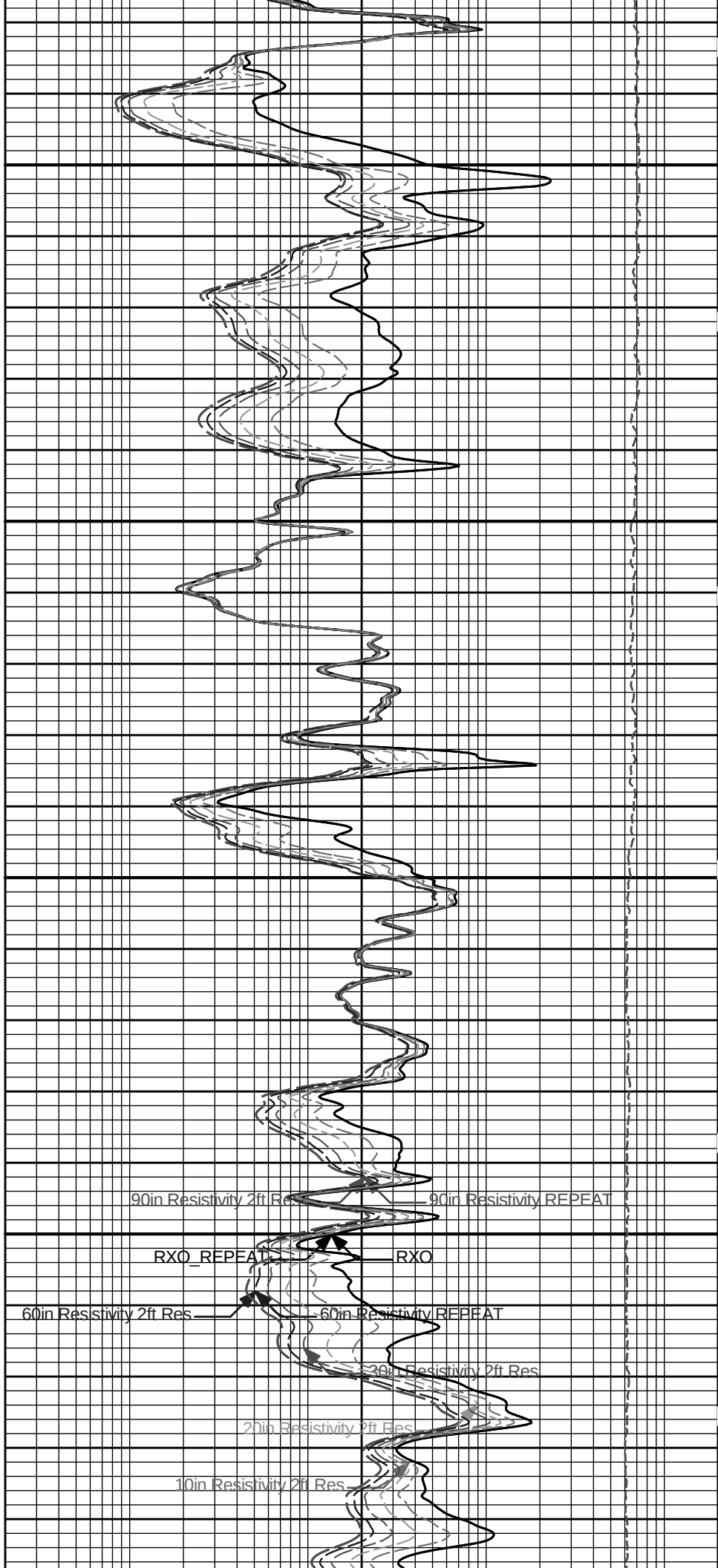
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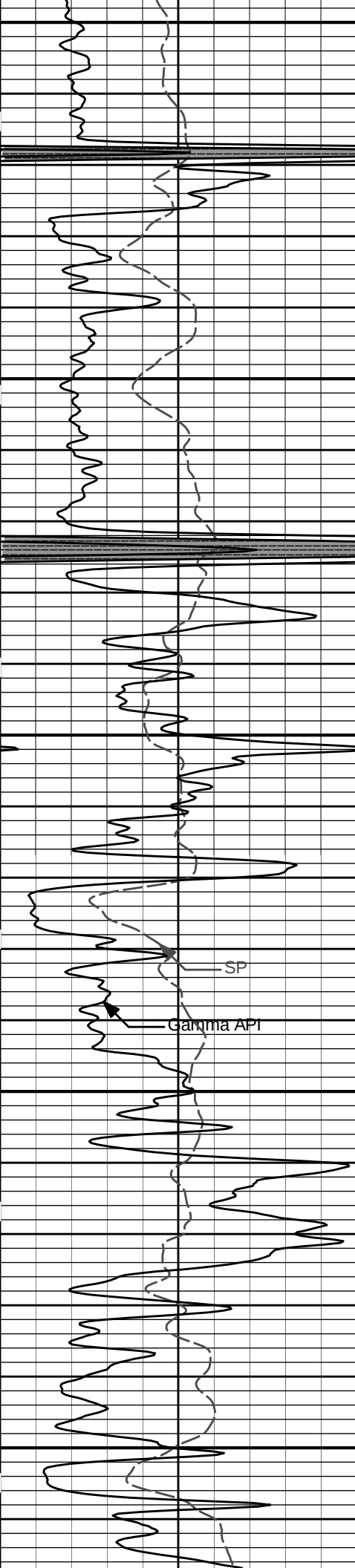




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4500

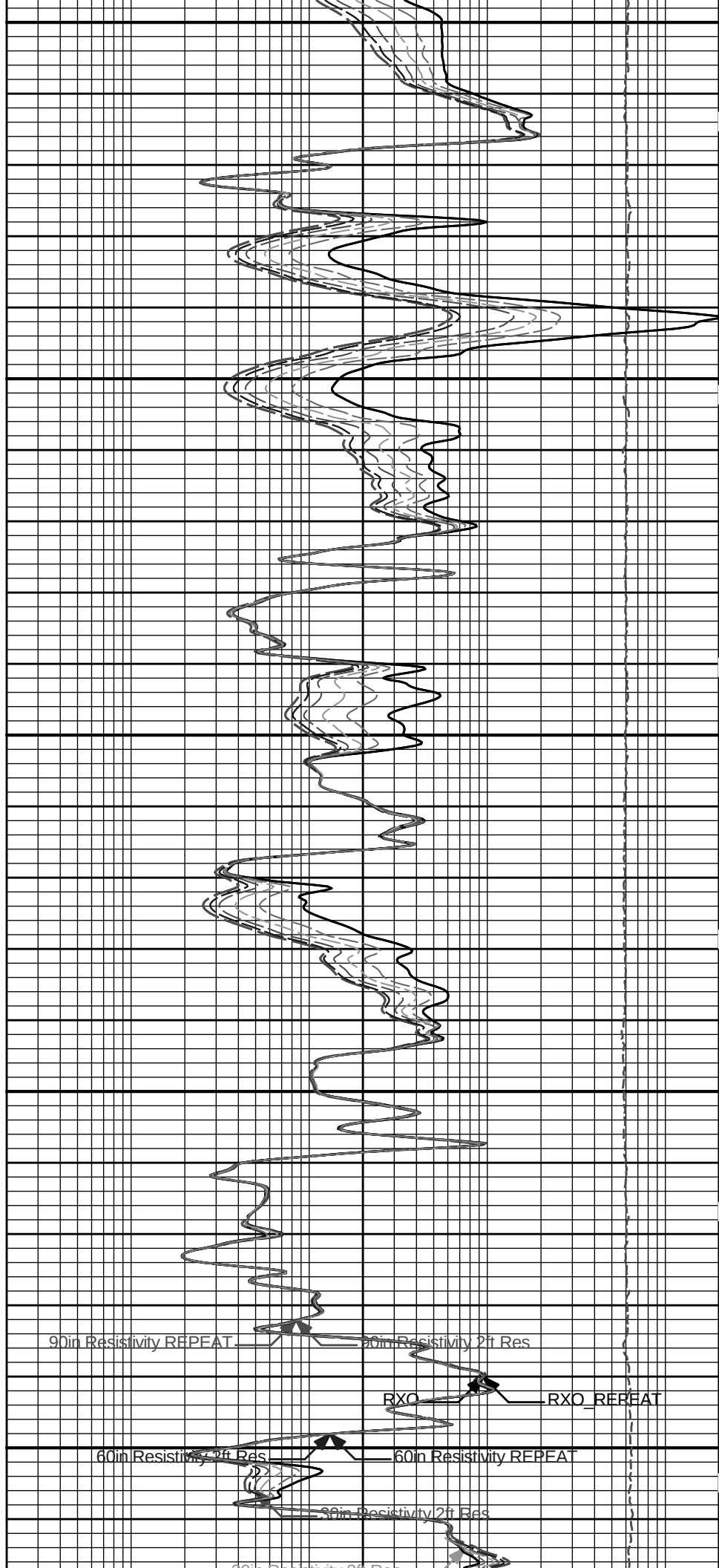


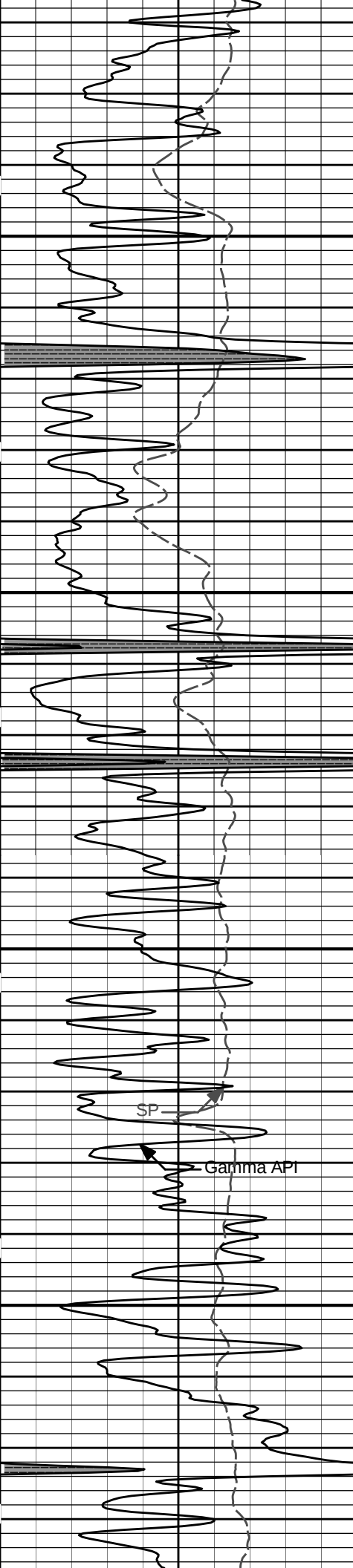


4600

4700

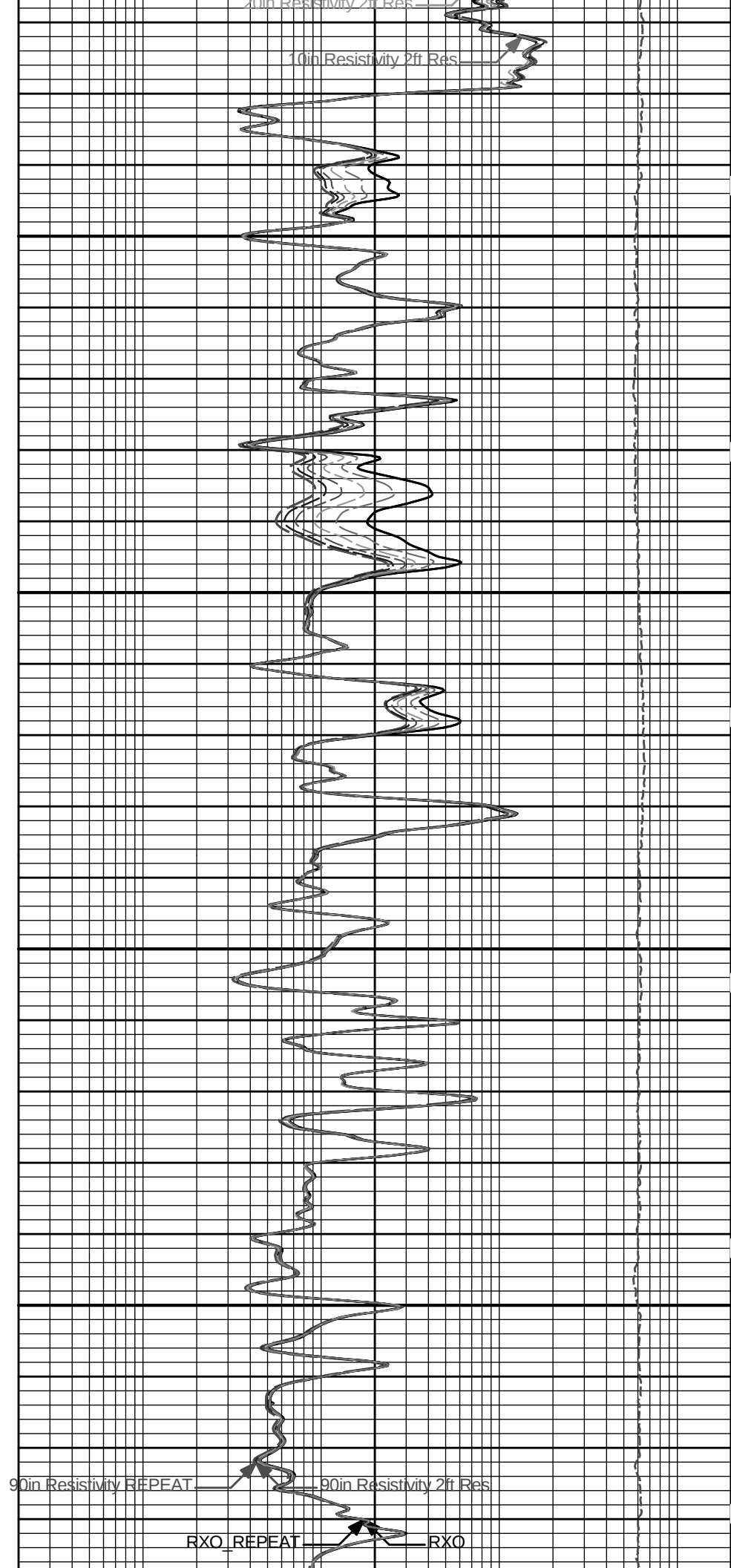
4800





4900

5000



10in Resistivity 2ft Res

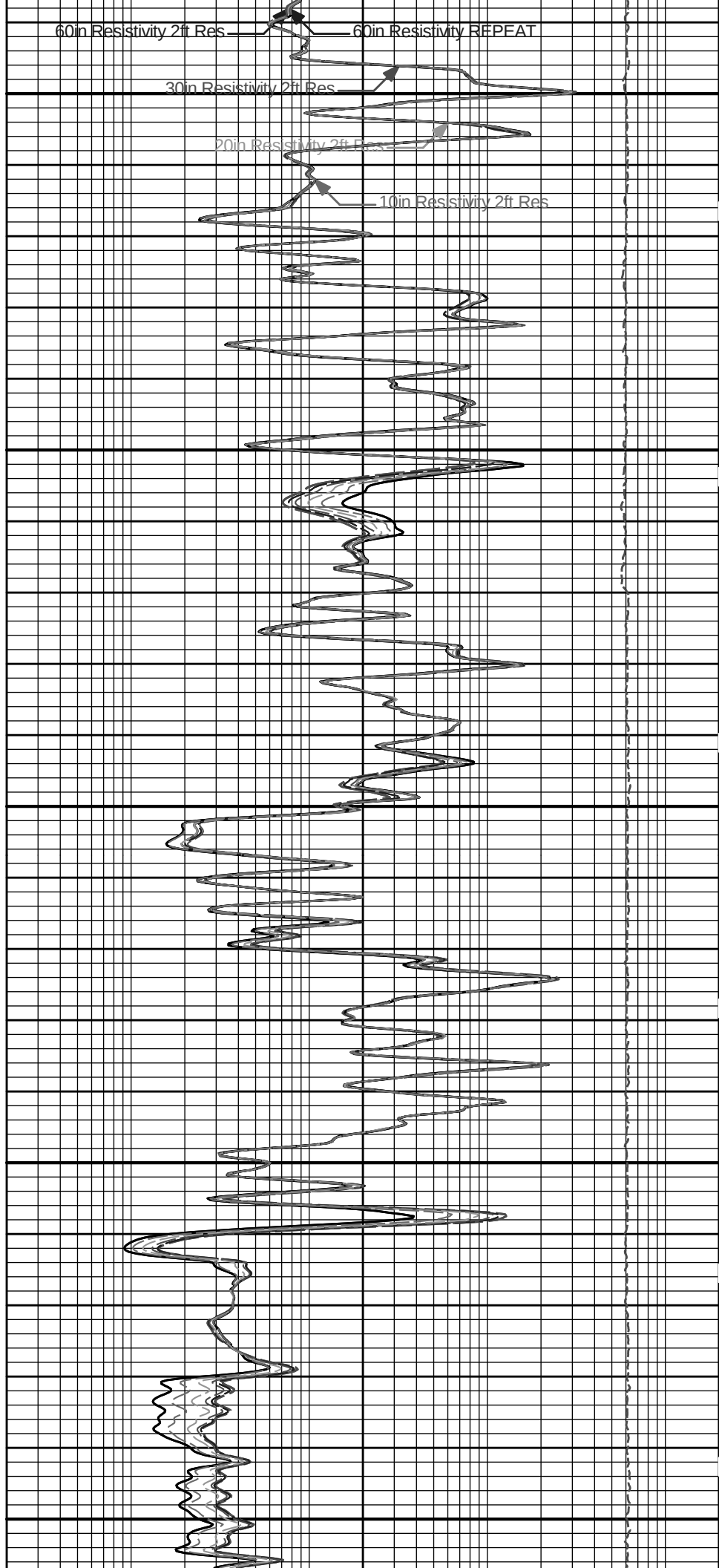
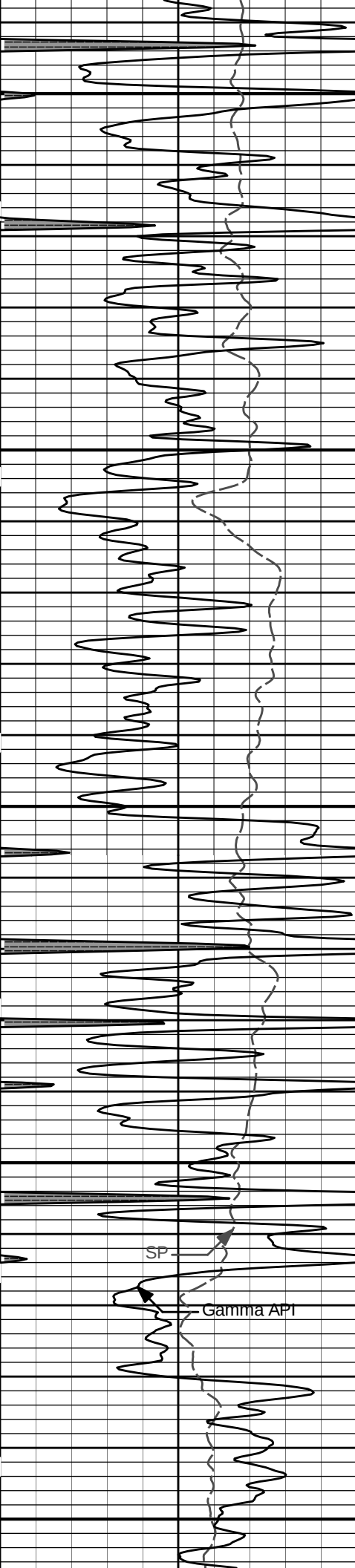
10in Resistivity 7ft Res

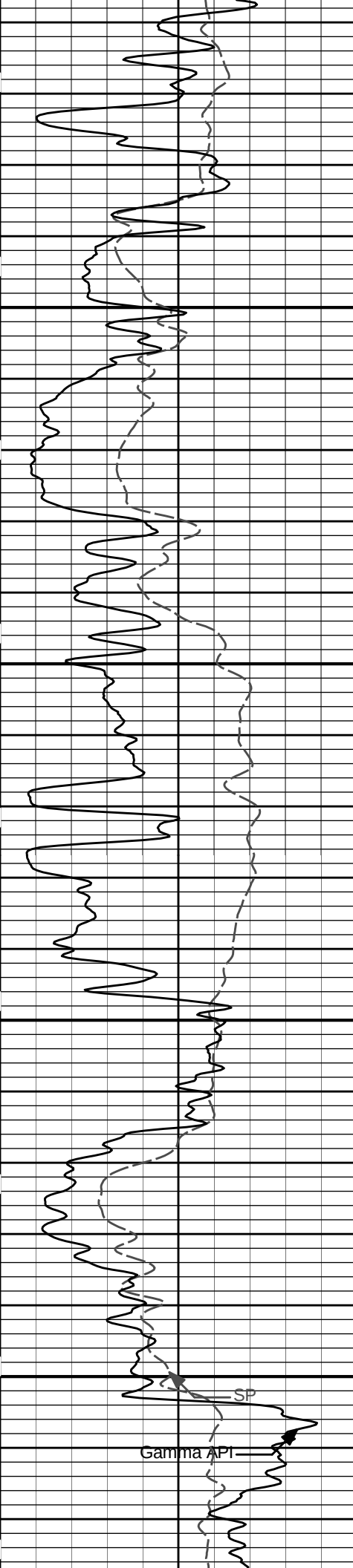
90in Resistivity REPEAT

90in Resistivity 2ft Res

RXO_REPEAT

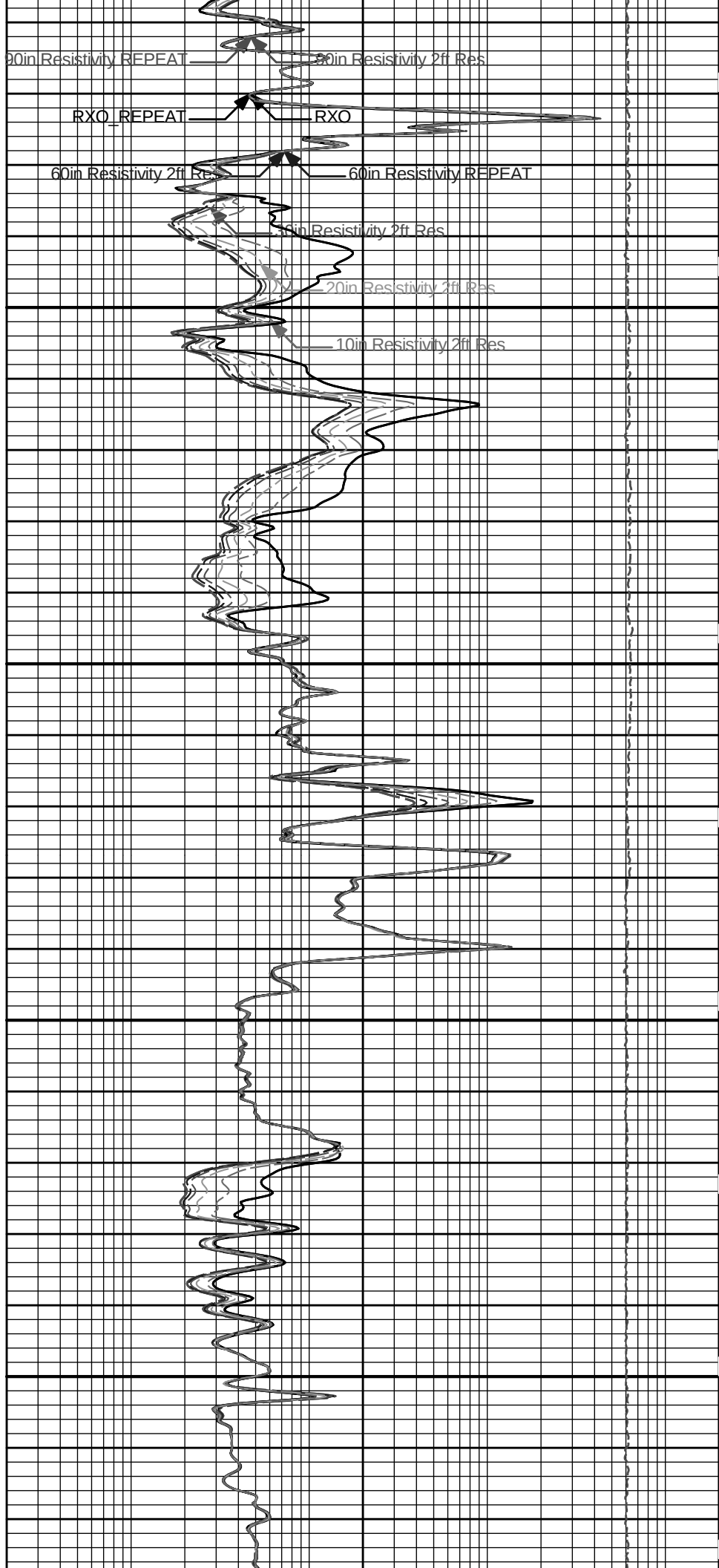
RXO

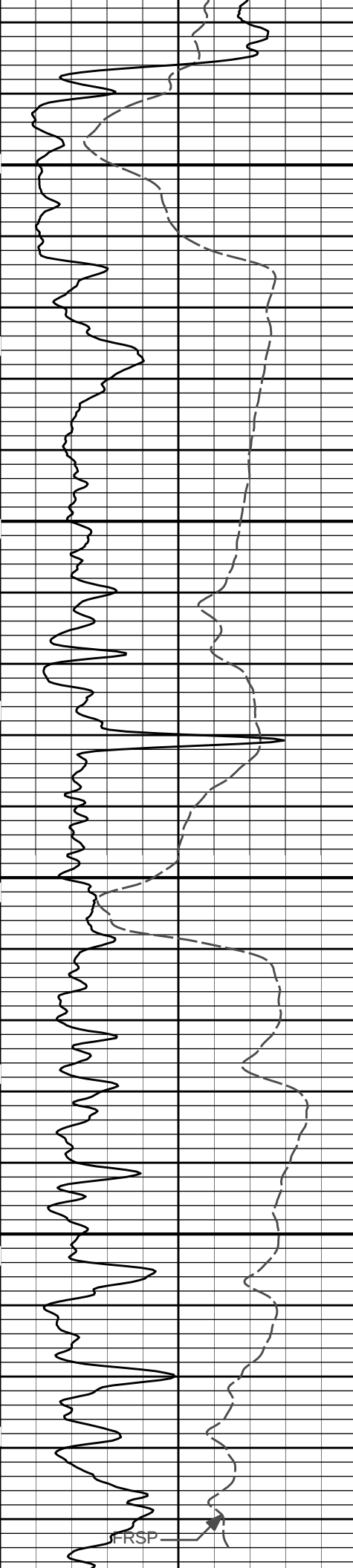




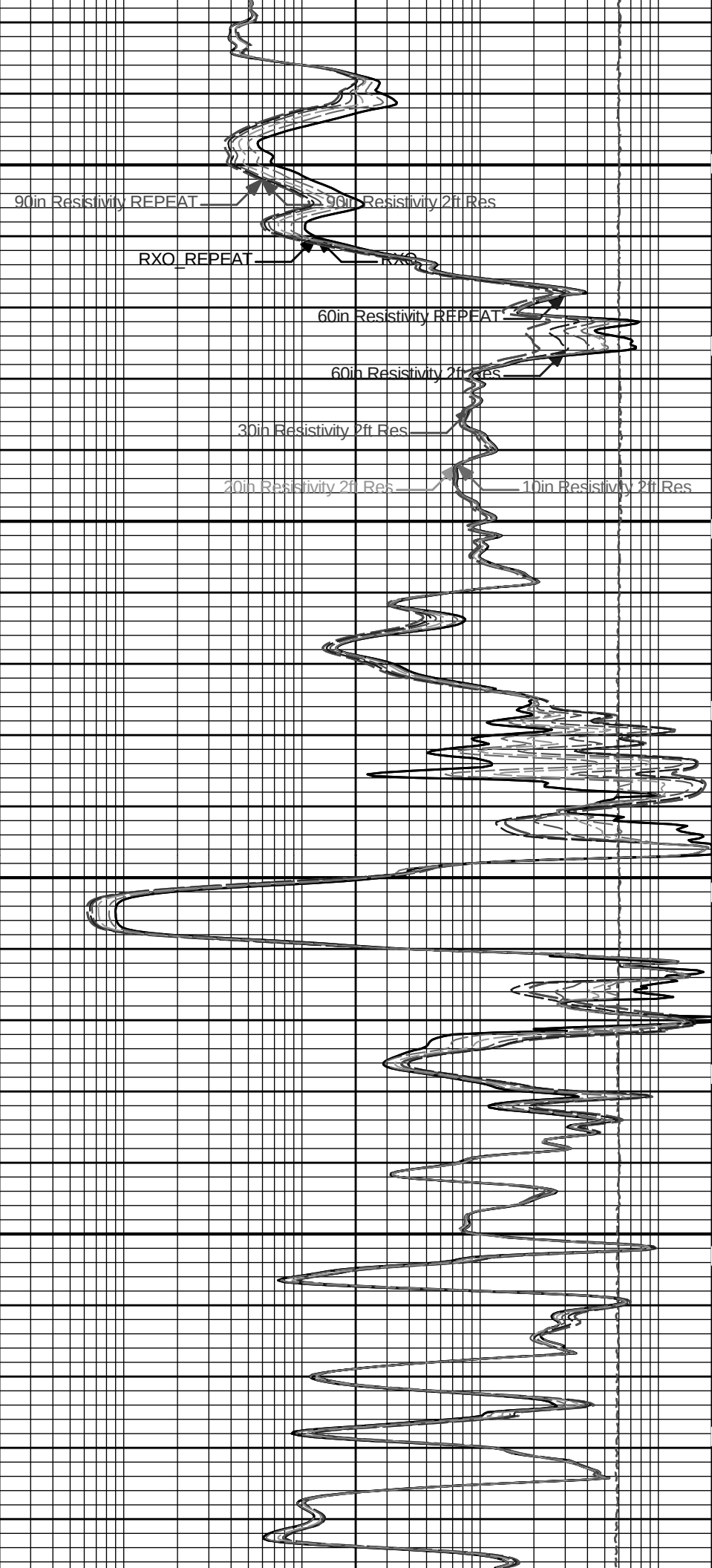
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5400

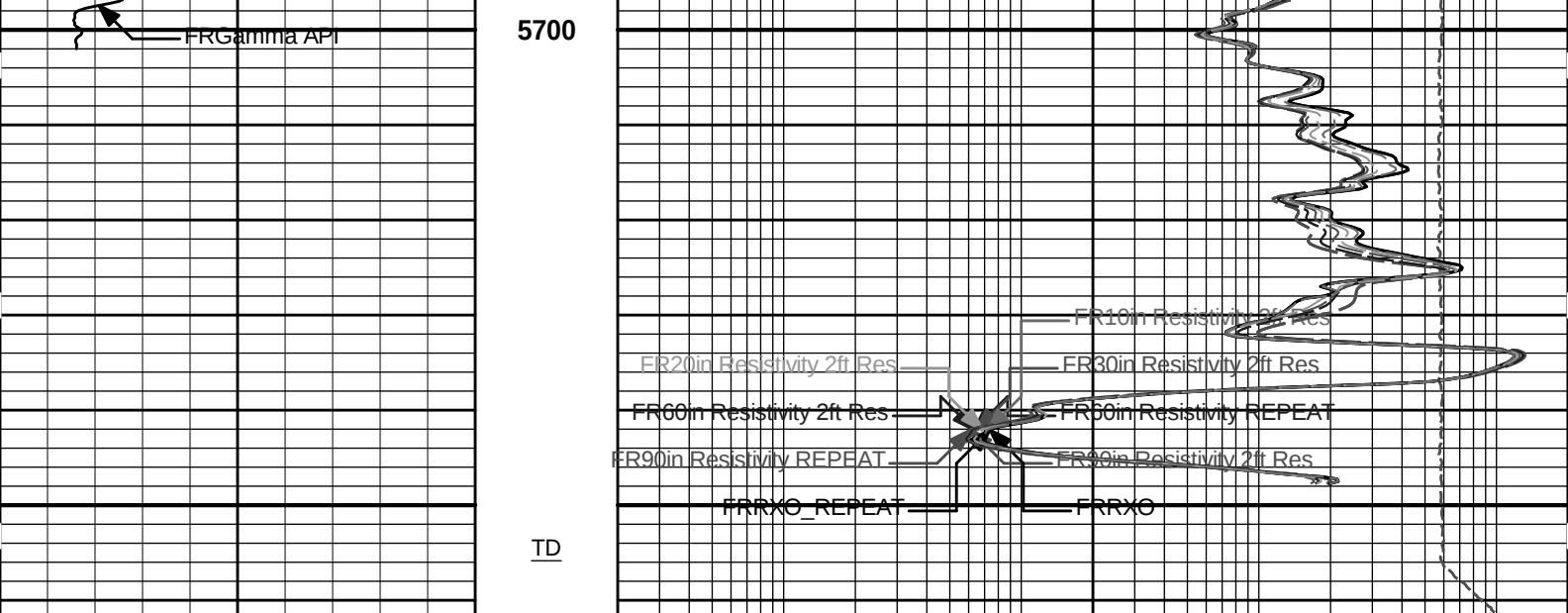




5500



5600



SP	1 : 240 ft		15K	Tension	0
-]20[+				pounds	
0	Gamma API	150	0.2	RXO	2000
api				ohmm	
SHALE		0.2	10in Resistivity 2ft Res	2000	
			ohmm		
		0.2	30in Resistivity 2ft Res	2000	
			ohmm		
		0.2	20in Resistivity 2ft Res	2000	
			ohmm		
	0.2	60in Resistivity 2ft Res	2000		
		ohmm			
	0.2	90in Resistivity 2ft Res	2000		
		ohmm			

HALLIBURTON

Plot Time: 24-May-11 14:33:54
Plot Range: 1700 ft to 5761.67 ft
Data: OBRATE_33_1\Well Based\DAQ-0001-003\
Plot File: \\-LOCAL-IOBRATE_33_1\0001 SP-GTET-DSN-SDL-BSAT-ACRT-CHIACRTIEOG_ACRT_5_MAIN

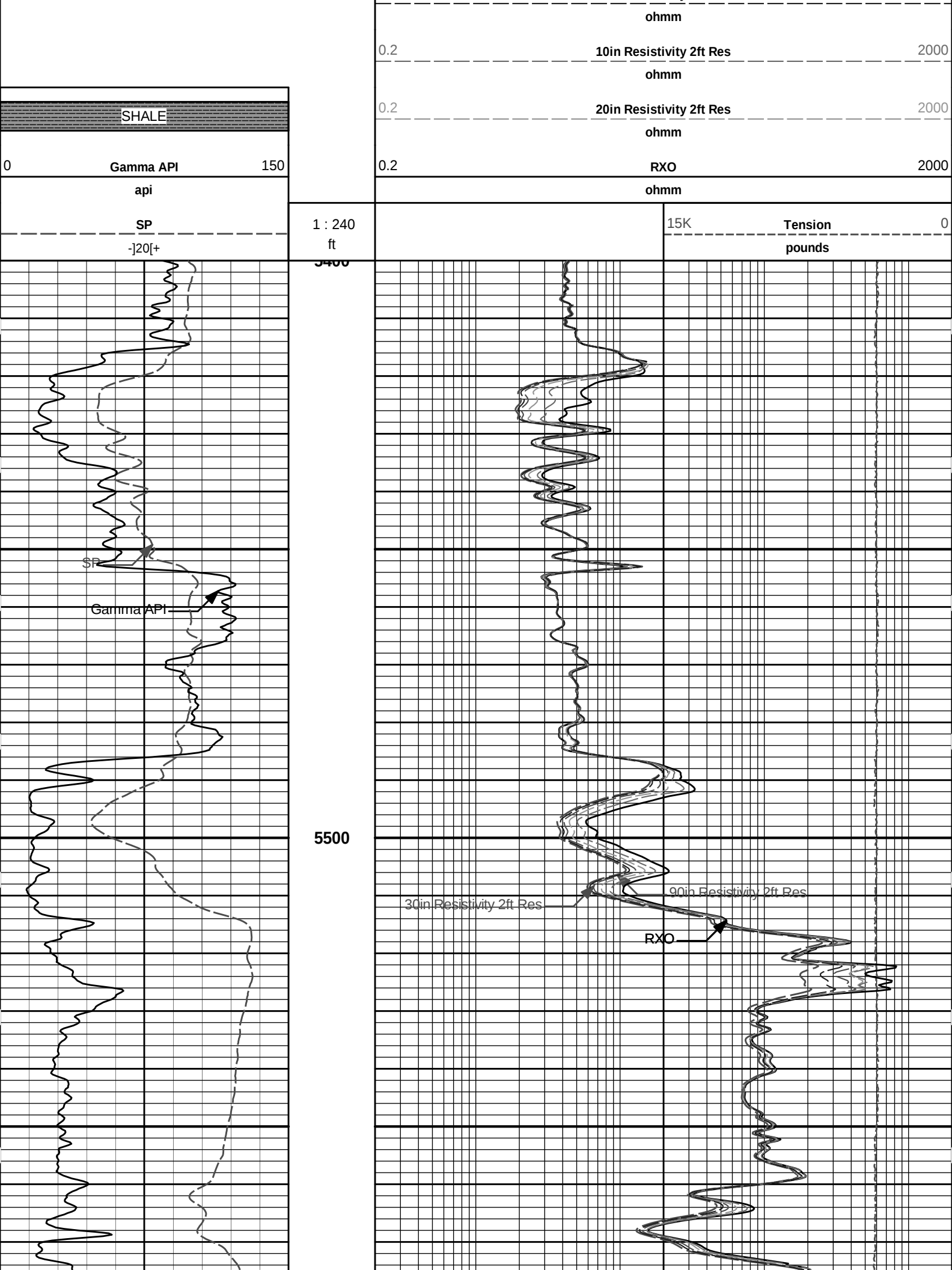
5 INCH MAIN LOG

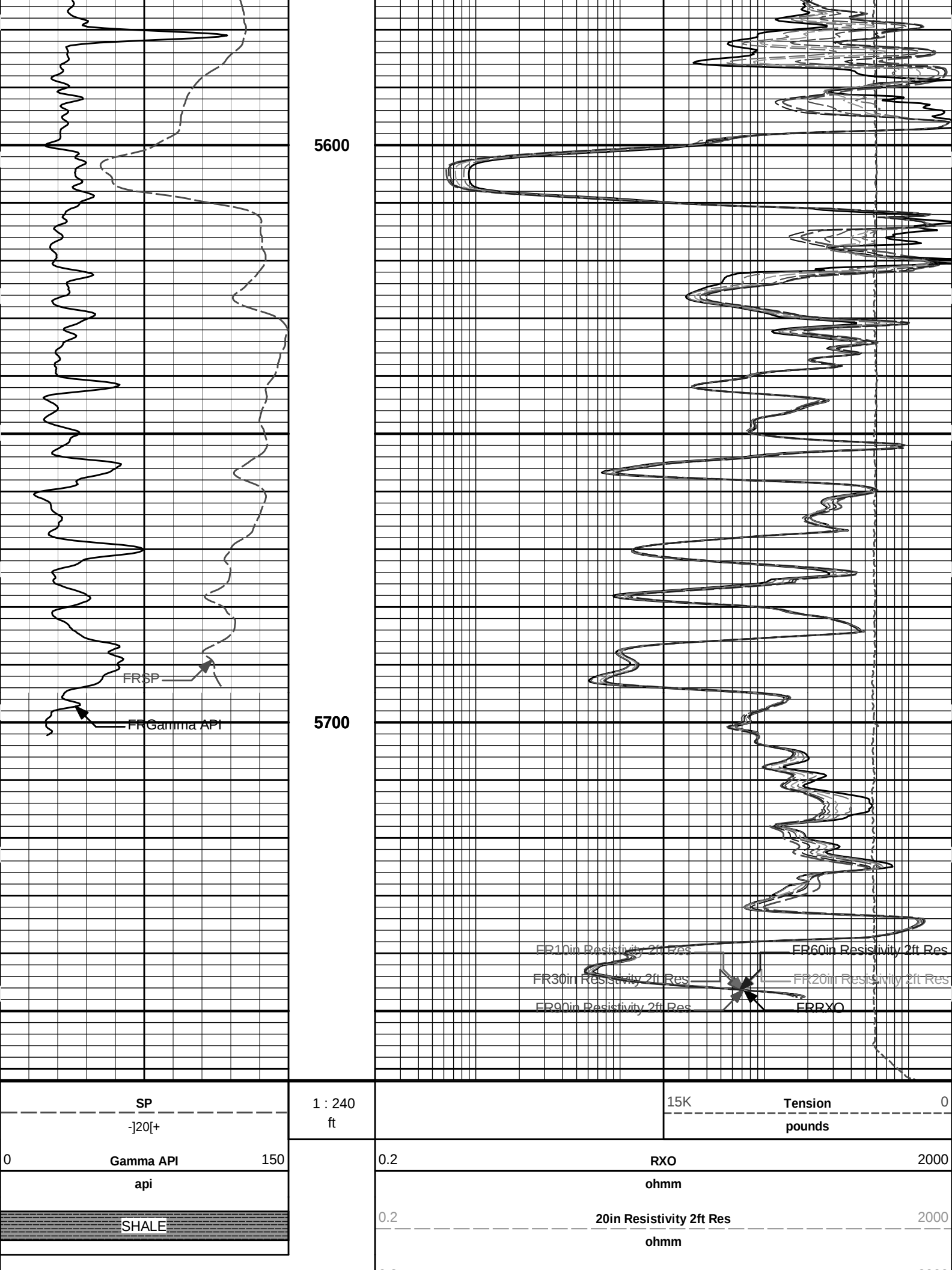
HALLIBURTON

Plot Time: 24-May-11 14:33:54
Plot Range: 5400 ft to 5761.92 ft
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Plot File: \\-LOCAL-IOBRATE_33_1\0001 SP-GTET-DSN-SDL-BSAT-ACRT-CHIACRTIEOG_ACRT_5_REPEAT

REPEAT SECTION

	0.2	90in Resistivity 2ft Res		2000	
		ohmm			
		30in Resistivity 2ft Res		2000	
	0.2	ohmm			
		60in Resistivity 2ft Res		2000	





SP		1 : 240 ft	15K		Tension pounds	0	
-]20[+							
0	Gamma API	150		0.2	RXO	2000	
api				ohmm			
SHALE				0.2	20in Resistivity 2ft Res		2000
				ohmm			

	0.2	10in Resistivity 2ft Res	2000
		ohmm	
0.2		60in Resistivity 2ft Res	2000
		ohmm	
0.2		30in Resistivity 2ft Res	2000
		ohmm	
0.2		90in Resistivity 2ft Res	2000
		ohmm	

HALLIBURTON

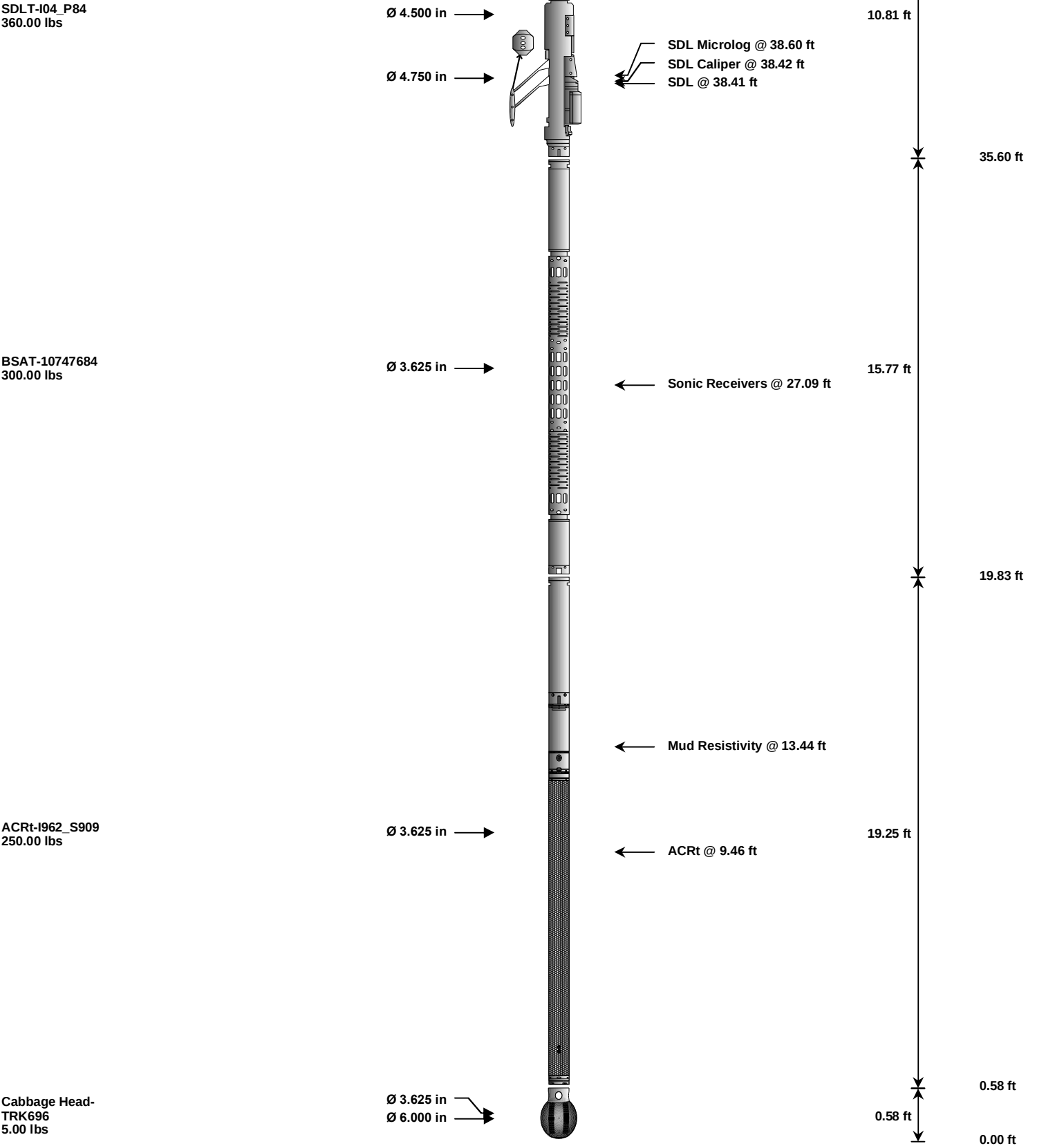
Plot Time: 24-May-11 14:34:00
Plot Range: 5400 ft to 5761.92 ft
Data: OBRATE_33_1\Well Based\DAQ-0001-002\
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REPEAT SECTION

HALLIBURTON

TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
CH_HOS-CH_696 37.50 lbs		Ø 2.750 in →		← Temperature @ 71.31 ft	3.03 ft	72.34 ft
XOHD-TRK696 20.00 lbs		Ø 2.750 in → Ø 3.625 in →			0.95 ft	69.31 ft
SP Sub-PROT01 60.00 lbs		Ø 3.625 in →		← SP @ 66.59 ft	3.74 ft	68.36 ft
						64.63 ft
GTET-11050378 165.00 lbs		Ø 3.625 in →		← GammaRay @ 58.56 ft	8.52 ft	
						56.10 ft
DSNT-11055304 174.00 lbs	DSN Decentralizer- 10755066 6.60 lbs	Ø 3.625 in* → Ø 3.625 in →		← DSN Far @ 49.17 ft ← DSN Near @ 48.42 ft	9.69 ft	
						46.42 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_696	37.50	3.03	69.31	300.00
XOHD	Hostile to Dits Cross Over		TRK696	20.00	0.95	68.36	300.00
SP	SP Sub		PROT01	60.00	3.74	64.63	300.00
GTET	Gamma Telemetry Tool		11050378	165.00	8.52	56.10	60.00
DSNT	Dual Spaced Neutron		11055304	174.00	9.69	46.42	60.00
DCNT	DSN Decentralizer		10755066	6.60	5.13	* 49.75	300.00
SDLT	Spectral Density Tool		I04_P84	360.00	10.81	35.60	60.00
BSAT	Borehole Sonic Array Tool		10747684	300.00	15.77	19.83	60.00
ACRt	Array Compensated True Resistivity		I962_S909	250.00	19.25	0.58	300.00
CBHD	Cabbage Head		TRK696	5.00	0.58	0.00	300.00

Total	1,378.10	72.34
* Not included in Total Length and Length Accumulation.		
Data: OBRATE_33_110001 SP-GTET-DSN-SDL-BSAT-ACRT-CH1DLE	Date: 24-May-11 10:50:38	

HALLIBURTON

CALIBRATION REPORT

ARRAY COMPENSATED TRUE RESISTIVITY SHOP CALIBRATION

Tool Name:	ACRt - I962_S909	Reference Calibration Date:	11-Mar-11 11:34:39
Engineer:	J. BOSH	Calibration Date:	03-May-11 14:28:43
Software Version:	WL INSITE R3.2.0 (Build 7)	Calibration Version:	1

TYPICAL GAIN RANGE

Subarray	R12KHz			R36KHz			R72KHz		
	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper
A1 (80")	0.95	1.0070	1.05	0.95	1.0135	1.05	0.95	1.0116	1.05
A2 (50")	0.95	1.0142	1.05	0.95	1.0207	1.05	0.95	1.0200	1.05
A3 (29")	0.95	1.0002	1.05	0.95	1.0054	1.05	0.95	1.0025	1.05
A4 (17")	0.95	1.0154	1.05	0.95	1.0186	1.05	0.95	1.0185	1.05
A5 (10")	N/A	N/A	N/A	0.95	1.0014	1.05	0.95	0.9993	1.05
A6 (6")	N/A	N/A	N/A	0.95	0.9915	1.05	0.95	0.9892	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	-0.379	2	-6	-3.567	-2	-8	-4.476	-2
A2 (50")	-7	-1.215	-1	-6	-3.265	-2	-7	-4.141	-2
A3 (29")	-27	-14.722	-9	-9	-4.487	-3	-7	-2.504	-1
A4 (17")	-180	-102.056	-60	-45	-31.086	-15	-39	-25.940	-13
A5 (10")	N/A	N/A	N/A	-150	-98.114	-50	-80	-44.687	-10
A6 (6")	N/A	N/A	N/A	175	285.394	525	90	149.184	270

TRANSMITTER CURRENT GAIN

Signal	Lower	R	Upper
12K	0.6	0.8865	1.3
36K	1.0	1.3495	2.0
72K	1.0	1.5711	2.0

R-MUD VERIFICATION

Signal	Lower (ohm-m)	Measured (ohm-m)	Upper (ohm-m)
Mud Cell	0.95	1.002	1.05

CALIBRATION SUMMARY

Sensor	Shop	Field	Post	Difference	Tolerance	Units
ACRt-I962_S909						
Mud Cell	1.002	-----	-----	0.000	-----	ohm-m

Data: OBRATE_33_110001 SP-GTET-DSN-SDL-BSAT-ACRT-CH1DLE	Date: 24-May-11 10:50:16
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HALLIBURTON

PARAMETERS REPORT

Depth (ft)	Tool Name	Mnemonic	Description	Value	Units
TOP					
	DSNT	DNOK	Process DSN?	No	
	SDLT	DNOK	Process Density?	No	
	SDLT	MLOK	Process MicroLog Outputs?	No	
2340.00					
	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	8.900	ppg
	SHARED	WAGT	Weighting Agent	Natural	
	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	1.310	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	75.0	degF
	SHARED	TD	Total Well Depth	5756.00	ft
	SHARED	BHT	Bottom Hole Temperature	140.0	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	
	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	Eccentered	
	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	DNOK	Process Density?	Yes	
	SDLT	DNOK	Process Density EVR?	No	
	SDLT	CB	Logging Calibration Blocks?	No	
	SDLT	SPVT	SDLT Pad Temperature Valid?	Yes	
	SDLT	DTWN	Disable temperature warning	No	
	SDLT	DMA	Formation Density Matrix	2.710	g/cc
	SDLT	DFL	Formation Density Fluid	1.000	g/cc
	SDLT	CLOK	Process Caliper Outputs?	Yes	
	SDLT	MLOK	Process MicroLog Outputs?	Yes	
	BSAT	MBOK	Compute BCAS Results?	Yes	
	BSAT	FLLO	Frequency Filter Low Pass Value?	7000	Hz
	BSAT	FLHI	Frequency Filter High Pass Value?	27000	Hz
	BSAT	DTFL	Delta -T Fluid	189.00	uspf
	BSAT	DTMT	Delta -T Matrix Type	User define	
	BSAT	DTMA	Delta -T Matrix	47.60	uspf
	BSAT	DTSH	Delta -T Shale	100.00	uspf
	BSAT	SPEQ	Acoustic Porosity Equation	Wylie	

Data: OBRATE_33_1\0001 SP-GTET-DSN-SDL-BSAT-ACRT-CHIDLE Date: 24-May-11 12:54:40

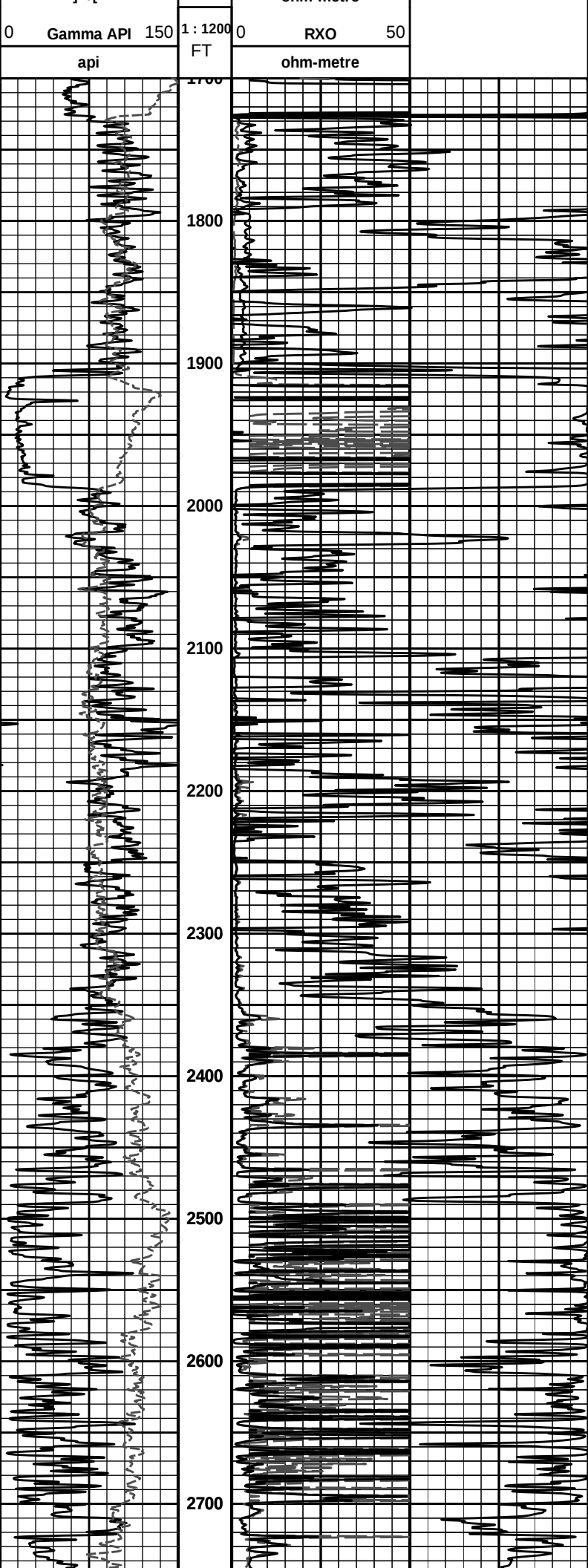
INPUTS, DELAYS AND FILTERS TABLE

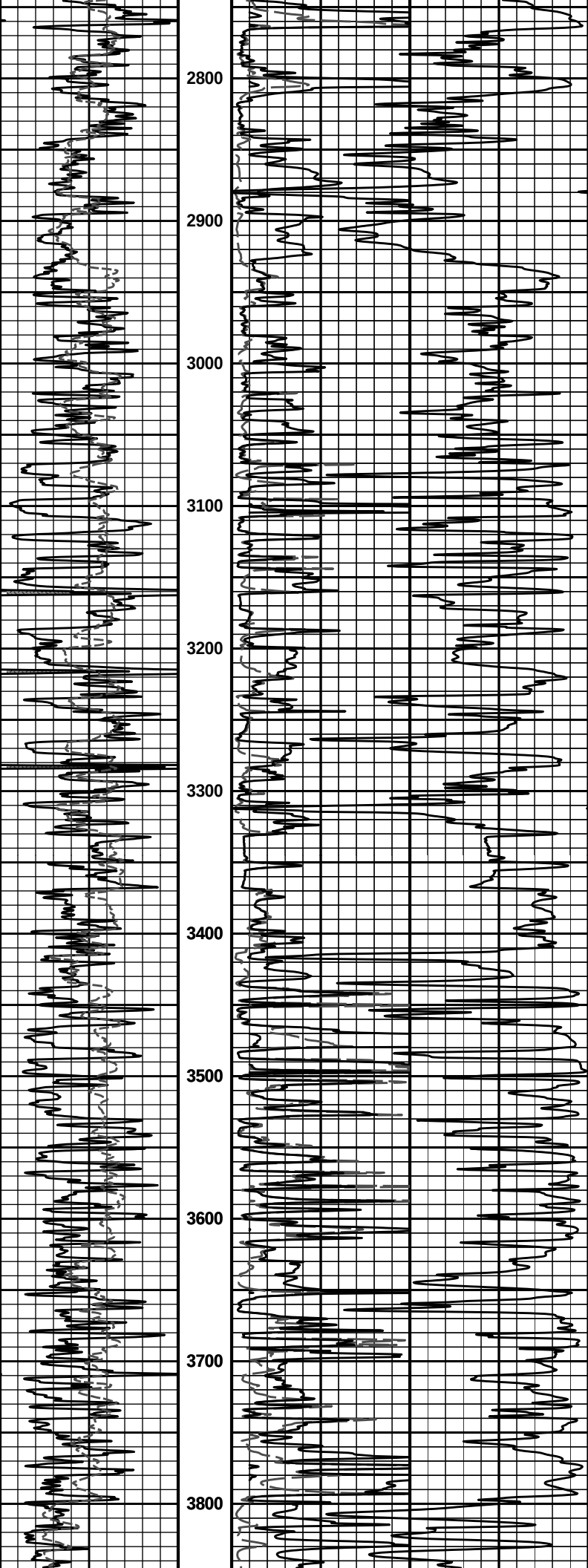
NLI	Near Lithology	38.24	BLK	0.920
NBAU	Near Barite Unfiltered	38.24	BLK	0.250
NLIU	Near Lithology Unfiltered	38.24	BLK	0.250
FAB	Far Above	38.58	BLK	0.250
FHI	Far Cesium High	38.58	BLK	0.250
FLO	Far Cesium Low	38.58	BLK	0.250
FVA	Far Valley	38.58	BLK	0.250
FBA	Far Barite	38.58	BLK	0.250
FDE	Far Density	38.58	BLK	0.250
FPK	Far Peak	38.58	BLK	0.250
FLI	Far Lithology	38.58	BLK	0.250
PTMP	Pad Temperature	38.42	BLK	0.920
NHV	Near Detector High Voltage	35.60	NO	
FHV	Far Detector High Voltage	35.60	NO	
ITMP	Instrument Temperature	35.60	NO	
DDHV	Detector High Voltage	35.60	NO	
TPUL	Tension Pull	38.42	NO	
PCAL	Pad Caliper	38.42	TRI	0.250
ACAL	Arm Caliper	38.42	TRI	0.250
TPUL	Tension Pull	38.60	NO	
MINV	Microlog Lateral	38.60	BLK	0.750
MNOR	Microlog Normal	38.60	BLK	0.750
BSAT				
TPUL	Tension Pull	27.09	NO	
STAT	Status	27.09	NO	
DLYT	Delay Time	27.09	NO	
SI	Sample Interval	27.09	NO	
TXRX	Raw Telemetry 10 Receivers	27.09	NO	
FRMC	Tool Frame Count	27.09	NO	
ACRt				
TPUL	Tension Pull	2.97	NO	
F1R1	ACRT 12KHz - 80in R value	9.22	BLK	0.000
F1X1	ACRT 12KHz - 80in X value	9.22	BLK	0.000
F1R2	ACRT 12KHz - 50in R value	6.72	BLK	0.000
F1X2	ACRT 12KHz - 50in X value	6.72	BLK	0.000
F1R3	ACRT 12KHz - 29in R value	5.22	BLK	0.000
F1X3	ACRT 12KHz - 29in X value	5.22	BLK	0.000
F1R4	ACRT 12KHz - 17in R value	4.22	BLK	0.000
F1X4	ACRT 12KHz - 17in X value	4.22	BLK	0.000
F1R5	ACRT 12KHz - 10in R value	3.72	BLK	0.000
F1X5	ACRT 12KHz - 10in X value	3.72	BLK	0.000
F1R6	ACRT 12KHz - 6in R value	3.47	BLK	0.000
F1X6	ACRT 12KHz - 6in X value	3.47	BLK	0.000
F2R1	ACRT 36KHz - 80in R value	9.22	BLK	0.000
F2X1	ACRT 36KHz - 80in X value	9.22	BLK	0.000
F2R2	ACRT 36KHz - 50in R value	6.72	BLK	0.000
F2X2	ACRT 36KHz - 50in X value	6.72	BLK	0.000
F2R3	ACRT 36KHz - 29in R value	5.22	BLK	0.000
F2X3	ACRT 36KHz - 29in X value	5.22	BLK	0.000
F2R4	ACRT 36KHz - 17in R value	4.22	BLK	0.000
F2X4	ACRT 36KHz - 17in X value	4.22	BLK	0.000
F2R5	ACRT 36KHz - 10in R value	3.72	BLK	0.000
F2X5	ACRT 36KHz - 10in X value	3.72	BLK	0.000
F2R6	ACRT 36KHz - 6in R value	3.47	BLK	0.000

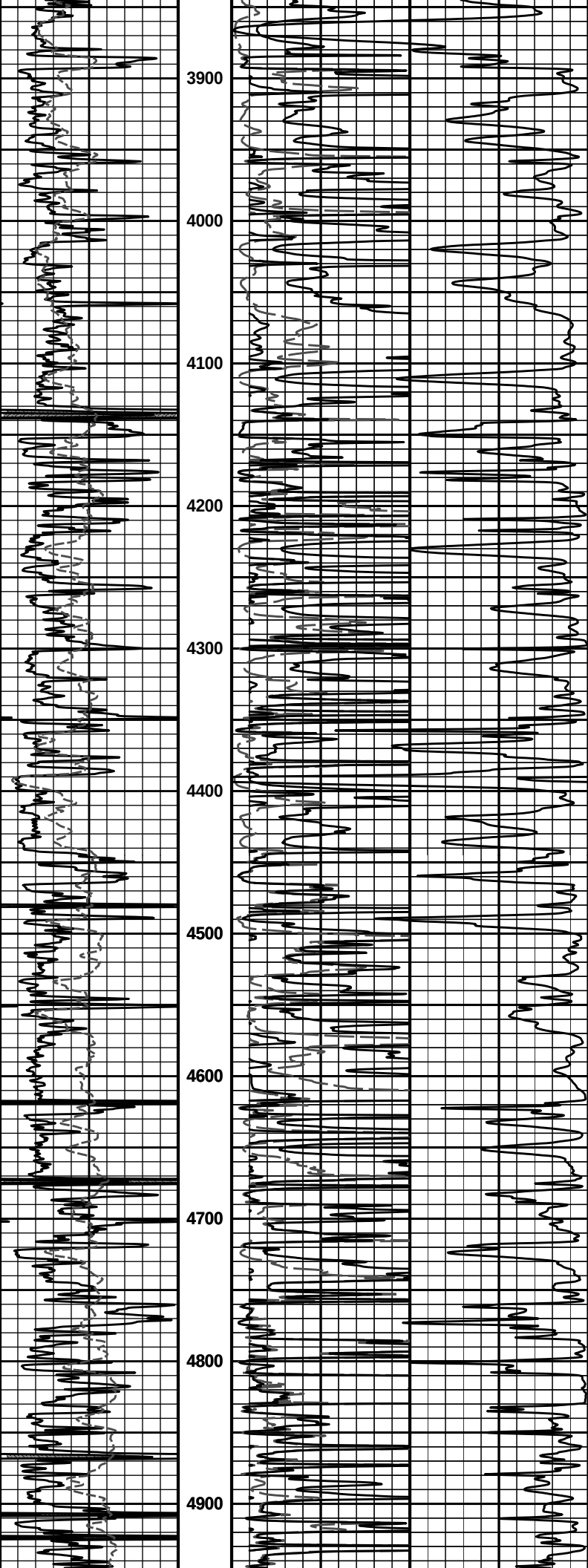
F2X6	ACRT 36KHz - 6in X value	3.47	BLK	0.000
F3R1	ACRT 72KHz - 80in R value	9.22	BLK	0.000
F3X1	ACRT 72KHz - 80in X value	9.22	BLK	0.000
F3R2	ACRT 72KHz - 50in R value	6.72	BLK	0.000
F3X2	ACRT 72KHz - 50in X value	6.72	BLK	0.000
F3R3	ACRT 72KHz - 29in R value	5.22	BLK	0.000
F3X3	ACRT 72KHz - 29in X value	5.22	BLK	0.000
F3R4	ACRT 72KHz - 17in R value	4.22	BLK	0.000
F3X4	ACRT 72KHz - 17in X value	4.22	BLK	0.000
F3R5	ACRT 72KHz - 10in R value	3.72	BLK	0.000
F3X5	ACRT 72KHz - 10in X value	3.72	BLK	0.000
F3R6	ACRT 72KHz - 6in R value	3.47	BLK	0.000
F3X6	ACRT 72KHz - 6in X value	3.47	BLK	0.000
RMUD	Mud Resistivity	12.76	BLK	0.000
F1RT	Transmitter Reference 12 KHz Real Signal	2.97	BLK	0.000
F1XT	Transmitter Reference 12 KHz Imaginary Signal	2.97	BLK	0.000
F2RT	Transmitter Reference 36 KHz Real Signal	2.97	BLK	0.000
F2XT	Transmitter Reference 36 KHz Imaginary Signal	2.97	BLK	0.000
F3RT	Transmitter Reference 72 KHz Real Signal	2.97	BLK	0.000
F3XT	Transmitter Reference 72 KHz Imaginary Signal	2.97	BLK	0.000
TFPU	Upper Feedpipe Temperature Calculated	2.97	BLK	0.000
TFPL	Lower Feedpipe Temperature Calculated	2.97	BLK	0.000
ITMP	Instrument Temperature	2.97	BLK	0.000
TCVA	Temperature Correction Values Loop Off	2.97	NO	
TIDV	Instrument Temperature Derivative	2.97	NO	
TUDV	Upper Temperature Derivative	2.97	NO	
TLDV	Lower Temperature Derivative	2.97	NO	
TRBD	Receiver Board Temperature	2.97	NO	
Data: OBRATE_33_110001 SP-GTET-DSN-SDL-BSAT-ACRT-CH1DLE			Date: 24-May-11 10:52:43	

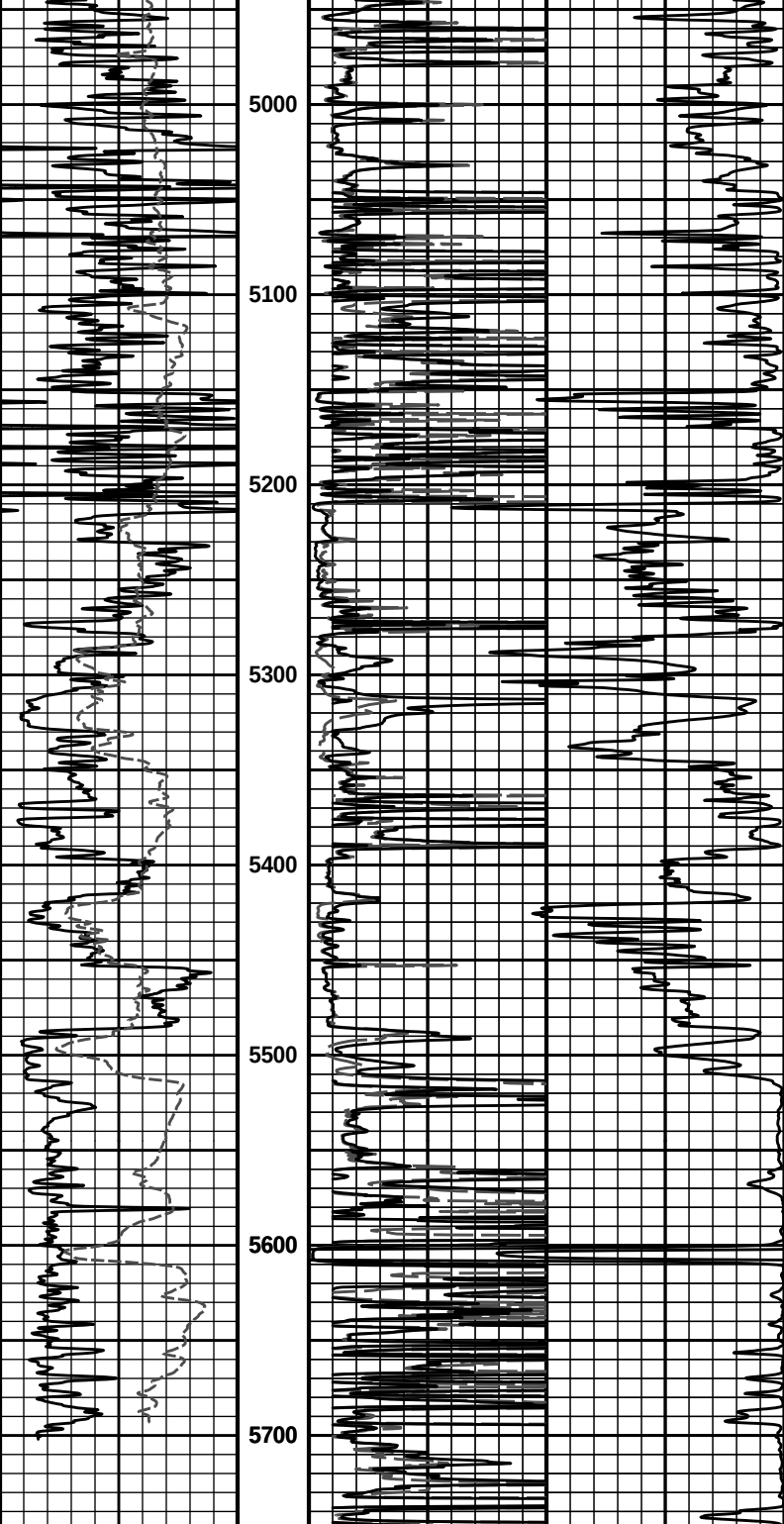
COMPANY	EOG RESOURCES		
WELL	OBRATE 33 #1		
FIELD	NW SUBLETTE		
COUNTY	HASKELL	STATE	KANSAS
HALLIBURTON		ARRAY COMPENSATED TRUE RESISTIVITY LOG	

HALLIBURTON		
Plot Time: 24-May-11 14:34:05		
Plot Range: 1700 ft to 5747.75 ft		
Data: OBRATE_33_1\Well Based\DAQ-0001-003\		
Plot File: \\LOCAL\OBRATE_33_110001 SP-GTET-DSN-SDL-BSAT-ACRT-CH1ACRTIEOG_ACRT_1_MAIN		
1 INCH MAIN LOG		
SP	1000	90in Conductivity 2ft Res 0
	mmho per metre	
	90in Resistivity 1ft Res 50	
-120 +	ohm-metre	









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

HALLIBURTON
 Plot Time: 24-May-11 14:34:09
 Plot Range: 1700 ft to 5747.75 ft
 Data: OBRATE_33_1\Well Based\DAQ-0001-003\
 Plot File: \\LOCAL-IOBRATE_33_1\0001 SP-GTET-DSN-SDL-BSAT-ACRT-CHIACRTIEOG_ACRT_1_MAIN

1 INCH MAIN LOG

