

HALLIBURTON

ARRAY COMPENSATED TRUE RESISTIVITY LOG

HALLIBURTON										ARRAY COMPENSATED TRUE RESISTIVITY LOG														
COMPANY					OXY USA INC.					COMPANY					OXY USA INC.									
WELL					STRASSER A-2					WELL					STRASSER A-2									
FIELD					CONGDON NORTH					FIELD					CONGDON NORTH									
COUNTY					FINNEY					COUNTY					FINNEY									
STATE					KANSAS					STATE					KANSAS									
Permanent Datum					GL					API No.					15055221960000					Other Services:				
Log measured from					KB					Location					1894' FNL & 2343' FEL SW NW SW NE					MICROLOG DSNT, SDLT BSAT				
Drilling measured from					KB					Sect. 28					Twp. 23S					Rge. 32W				
Date					02-Jan-13																			
Run No.					ONE																			
Depth - Driller					5045.00 ft																			
Depth - Logger					5036.0 ft																			
Bottom - Logged Interval					5026.0 ft																			
Top - Logged Interval					1820.0 ft																			
Casing - Driller					8.625 in @ 1820.0 ft																			
Casing - Logger					1820.0 ft																			
Bit Size					7.875 in @																			
Type Fluid in Hole					WATER BASED MUD																			
Density					9.1 ppg					34.00 s/qt														
PH					9.90 pH					9.2 cpm														
Source of Sample					MUD PIT																			
Rm @ Meas. Temperature					0.300 ohmm @ 75.00 degF																			
Rmf @ Meas. Temperature					0.25 ohmm @ 75.00 degF																			
Rmc @ Meas. Temperature					0.380 ohmm @ 75.00 degF																			
Source Rmf					MEASURED					MEASURED														
Rm @ BHT					0.20 ohmm @ 115.0 degF																			
Time Since Circulation					7.0 hr																			
Time on Bottom					02-Jan-13 20:05																			
Max. Rec. Temperature					115.0 degF @ 5036.0 ft																			
Equipment					10546696					LIBERAL														
Recorded By					J. BOLLOW																			
Witnessed By					G. BILBY																			

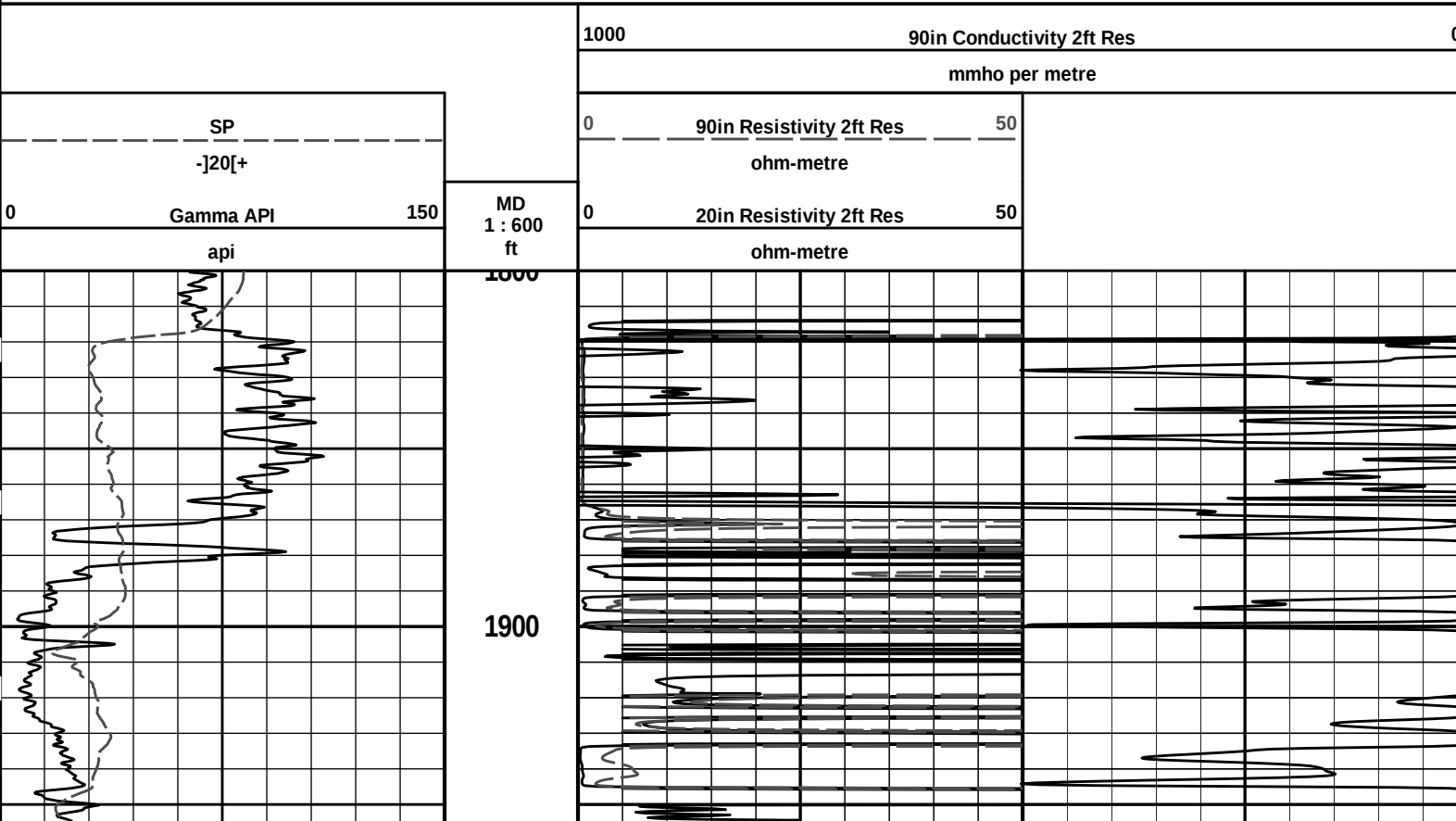
Fold here

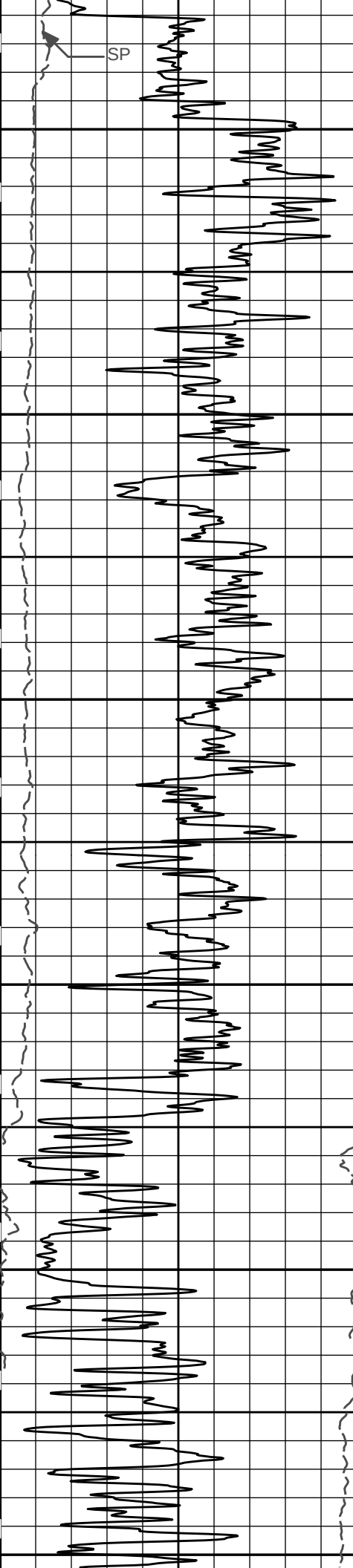
Service Ticket No.: 900095886						API Serial No.: 15055221960000						PGM Version: WL INSITE R3.6.0 (Build 3)																	
CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE												RESISTIVITY SCALE CHANGES																	
Date		Sample No.										Type Log		Depth		Scale Up Hole				Scale Down Hole									
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				N/A				CENT				N/A			
Rmc @ Meas. Temp.				@				@						I5059_S8385															
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.		11019627				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.		GTET				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											

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	5036	1820	REC	0	150									
DIRECTIONAL INFORMATION														
Maximum Deviation @								KOP @						
Remarks: ANNULAR HOLE VOLUME CALCULATED FOR 5.5-INCH CASING														
CHLORIDES REPORTED AT 9000 MG/L														
GTET-DSNT-SDLT-BSAT-ACRT RUN IN COMBINATION														
PRE-CALIBRATIONS NOT PERFORMED DUE TO EXTREMEM WEATHER CONDITIONS														
TODAY'S CREW: B. TERREL & F. VILLA														
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: 02-Jan-13 22:03:33
Plot Range: 1800 ft to 5039.17 ft
Data: STRASSER_A_2\Well Based\CASING\
Plot File: \\LOCAL-ISTRASSER_A_2\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CH\ACRT\ACRT_2_lib

2 INCH MAIN LOG





2000

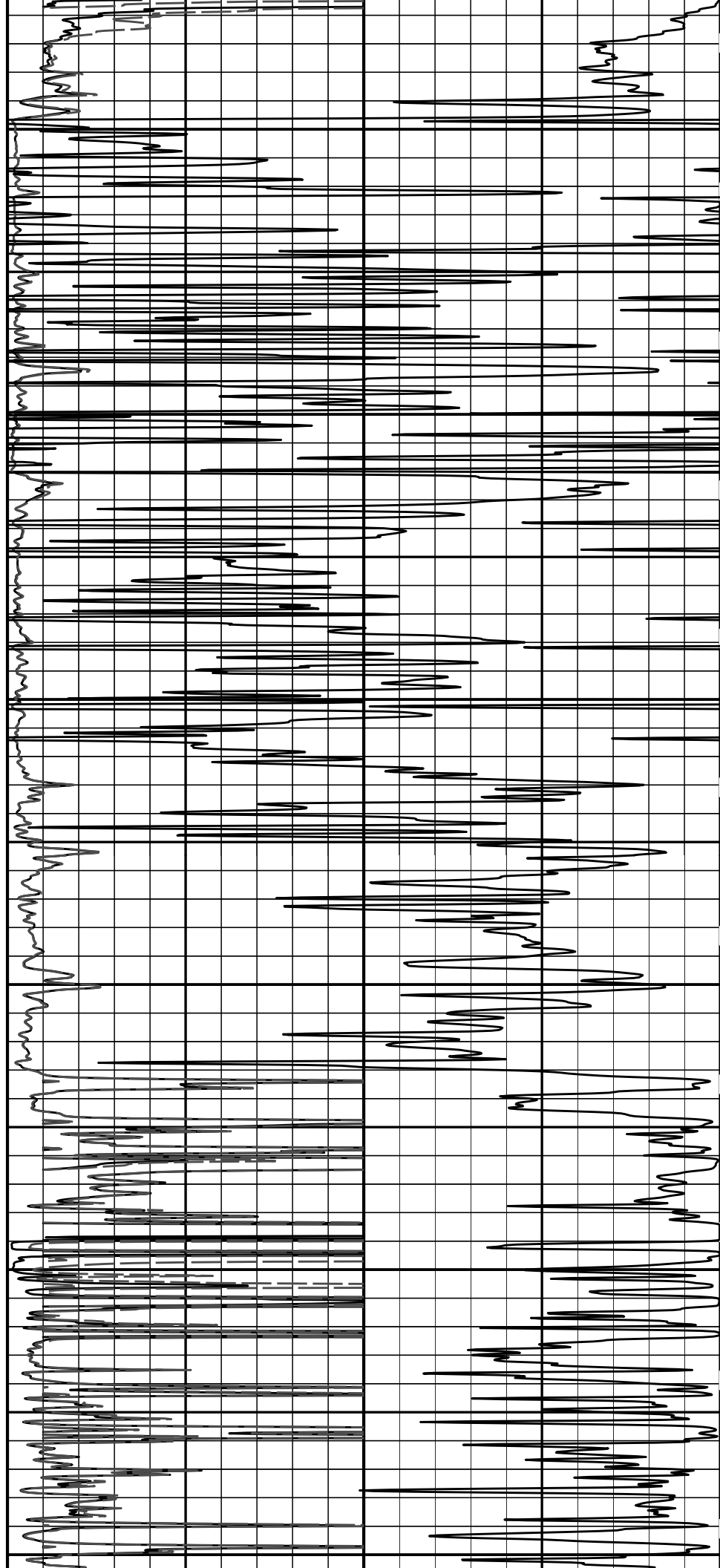
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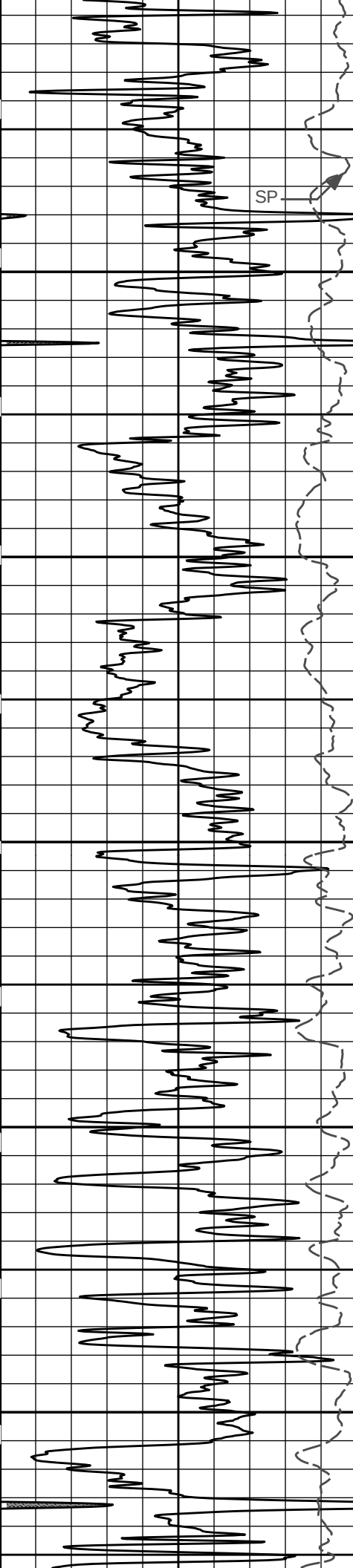
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2300

2400

2500





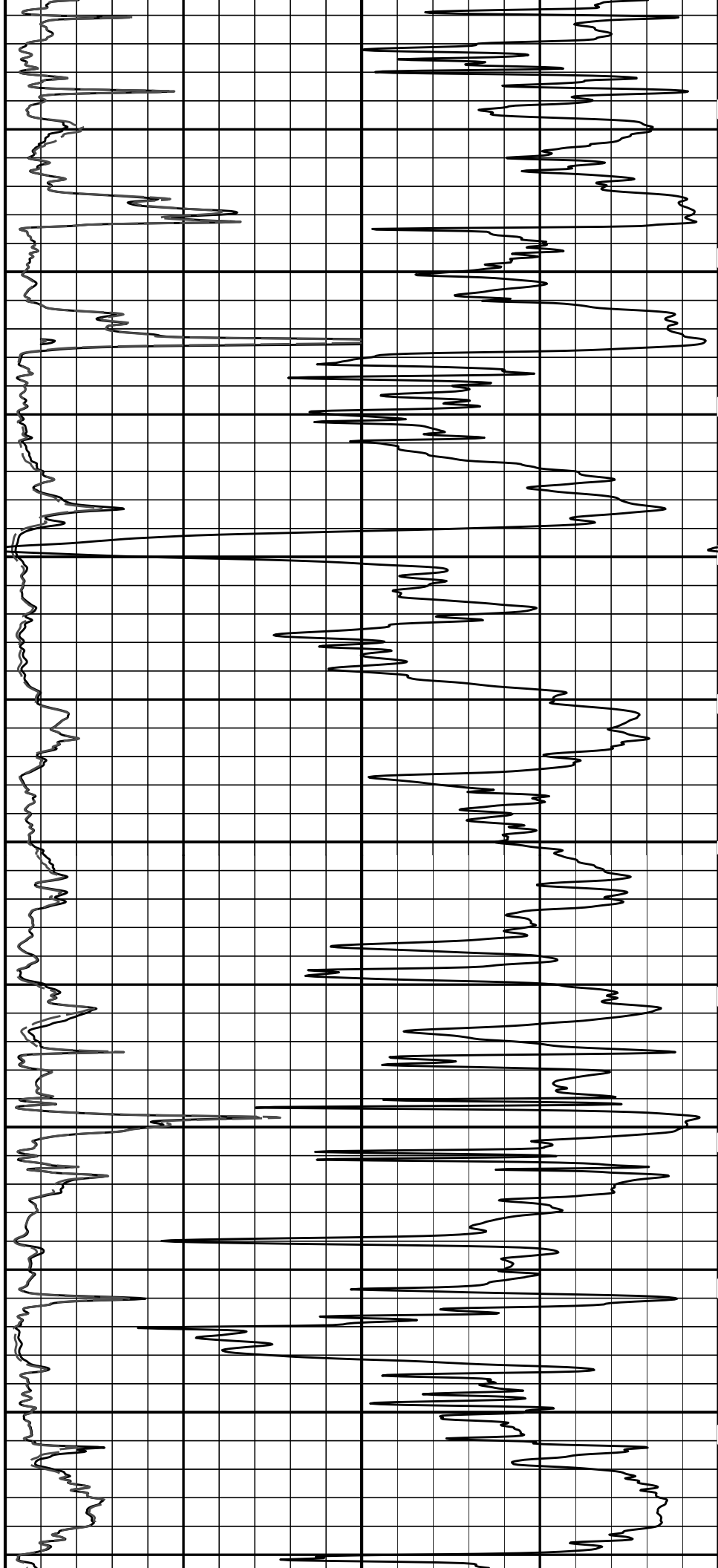
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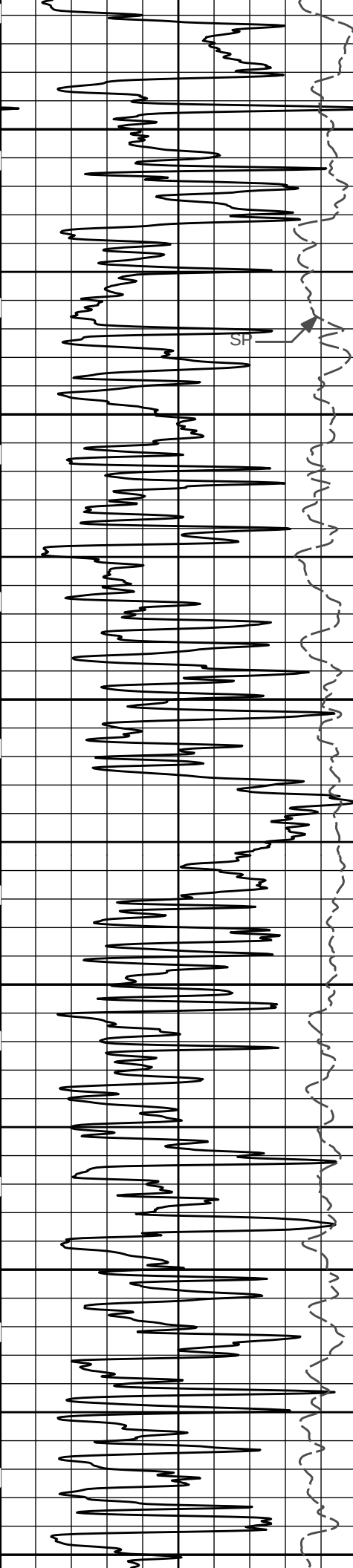
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2800

2900

3000





3100

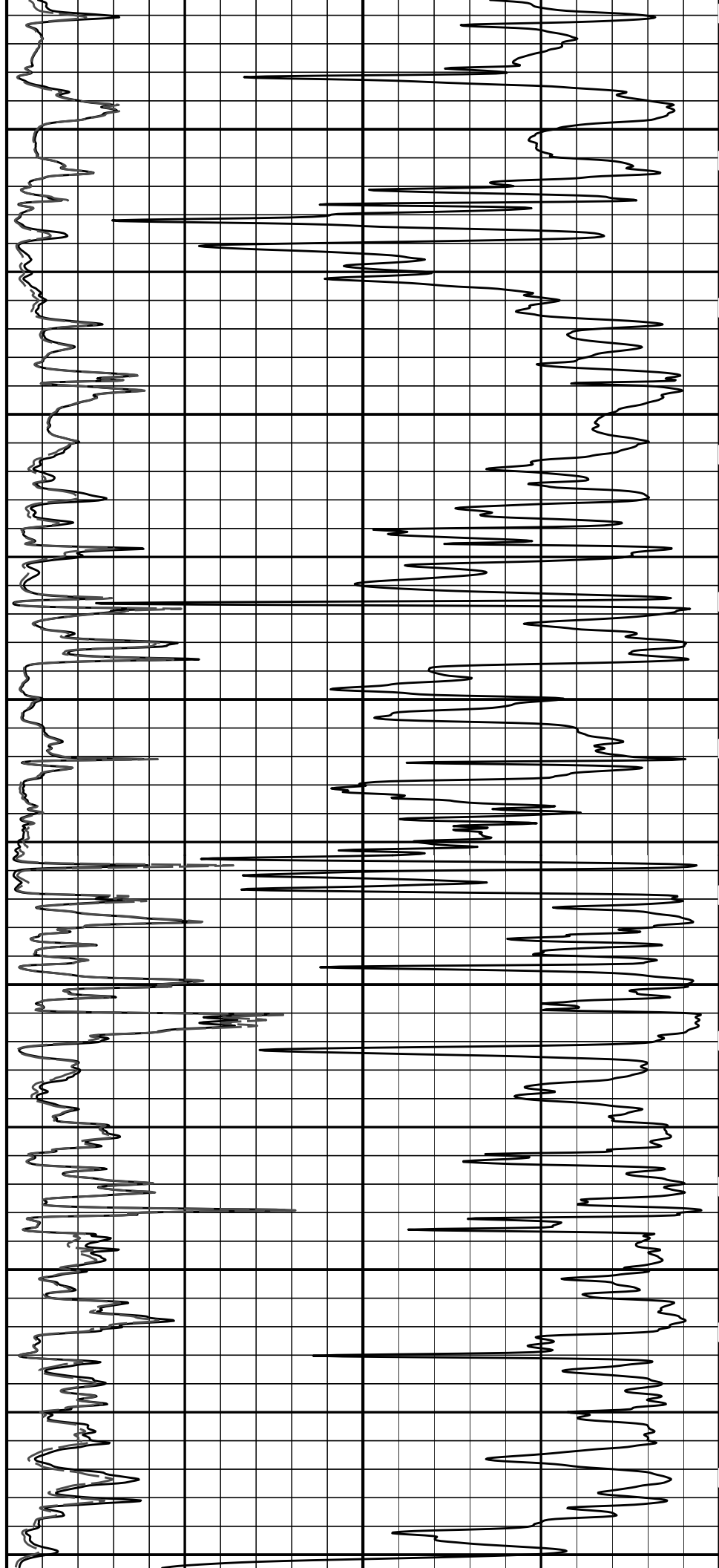
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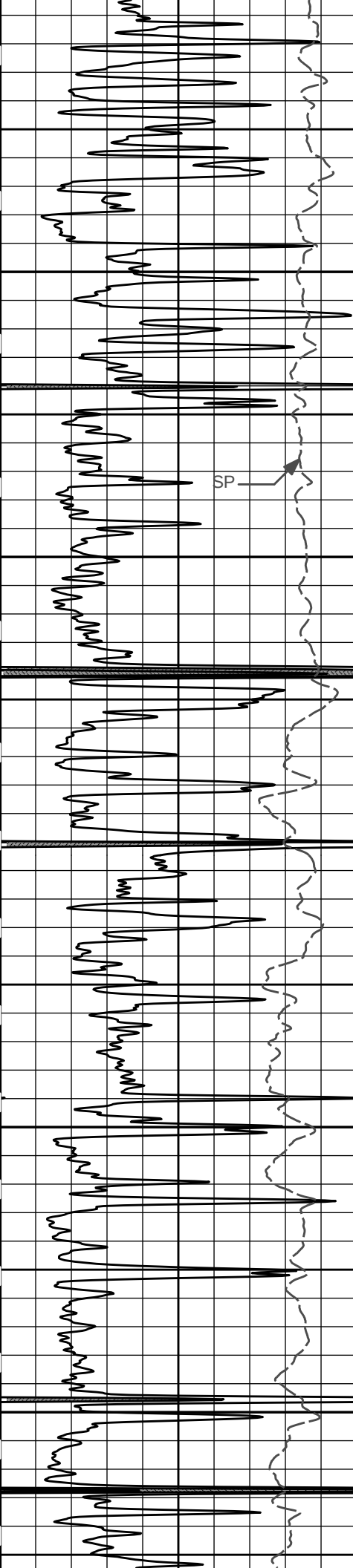
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3400

3500

3600





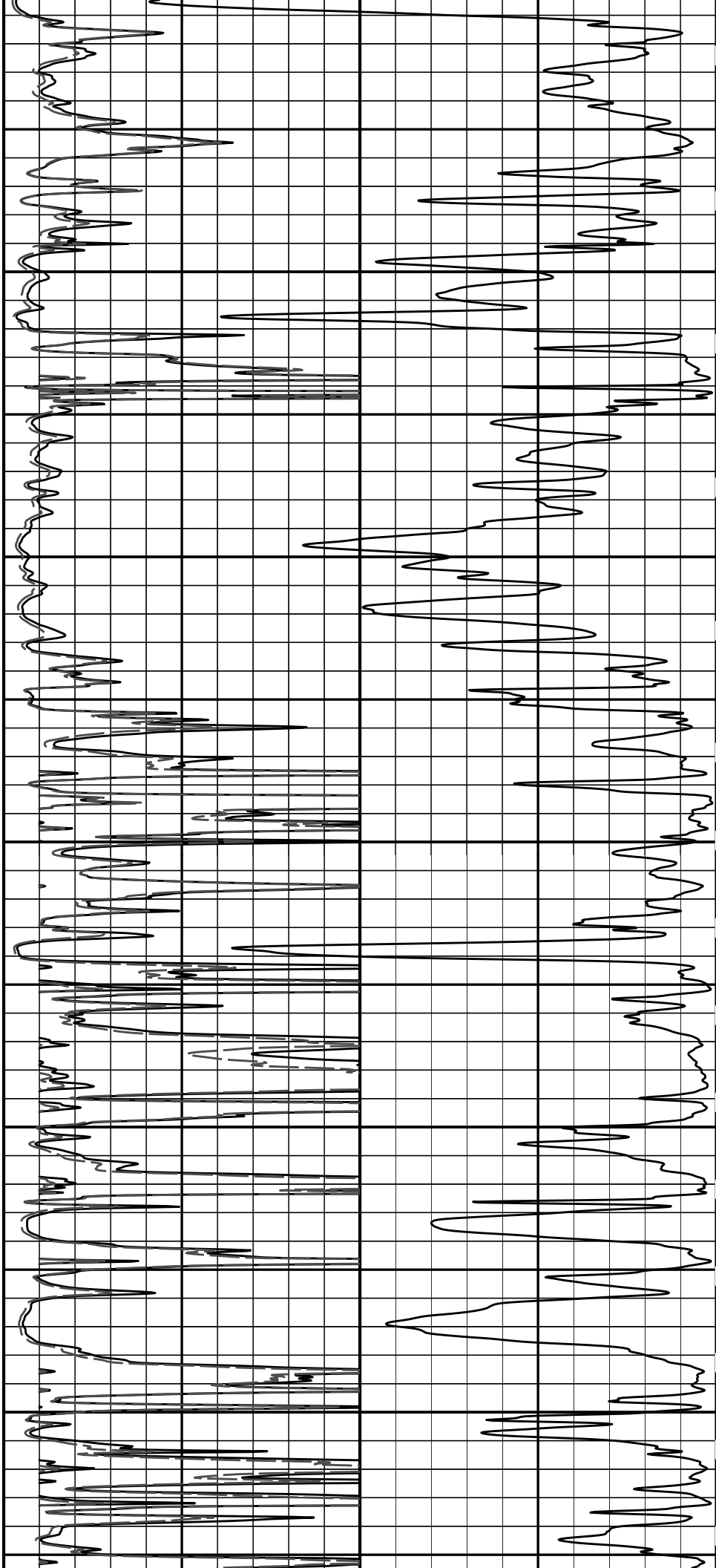
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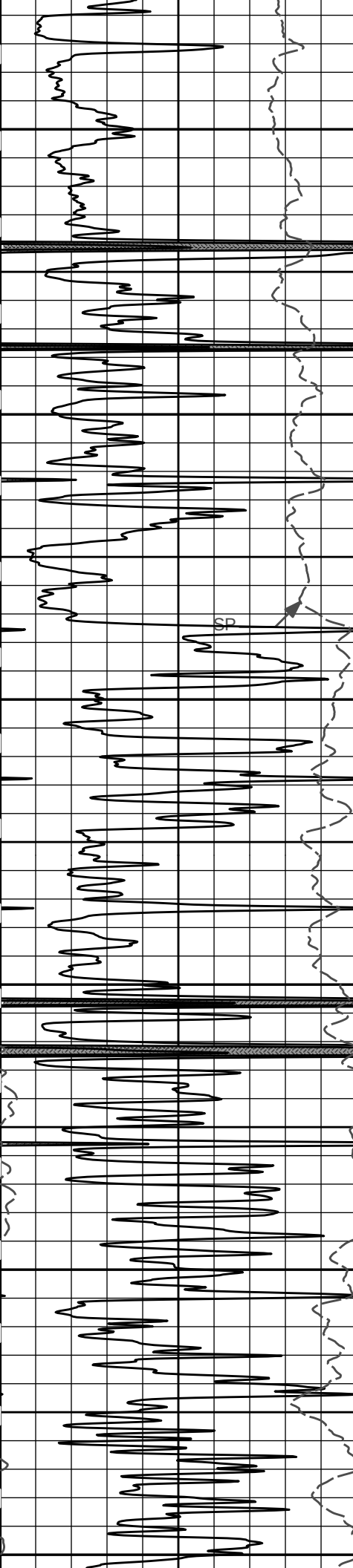
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3900

4000

4100





4200

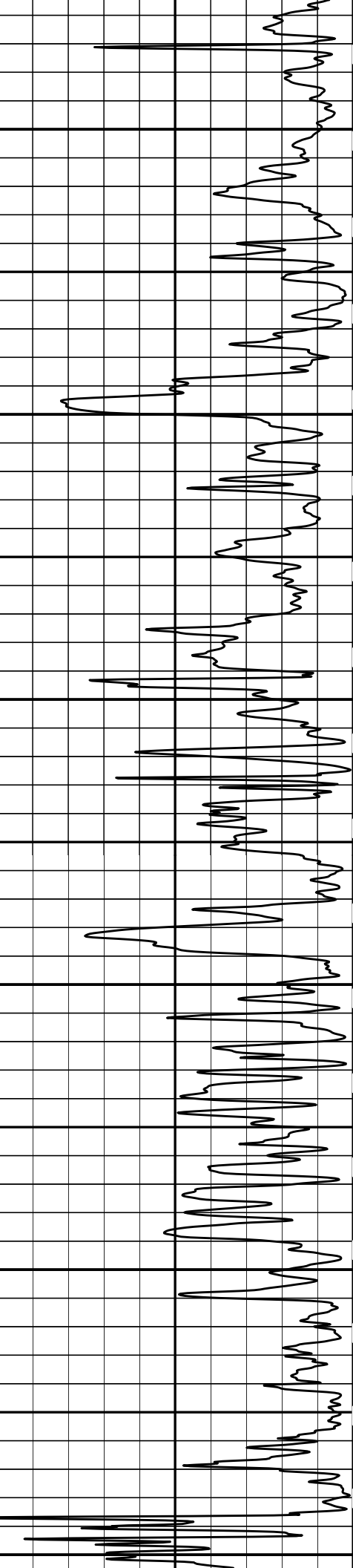
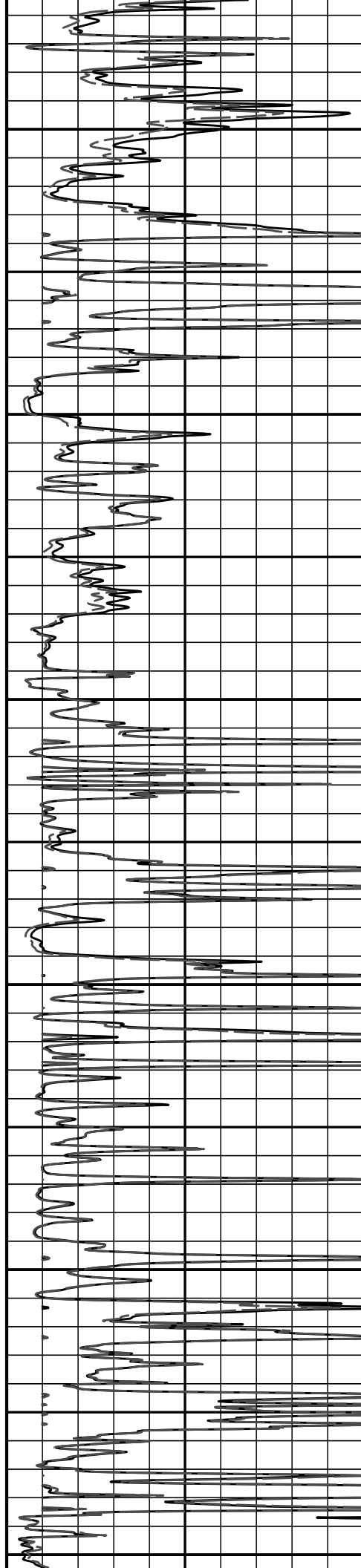
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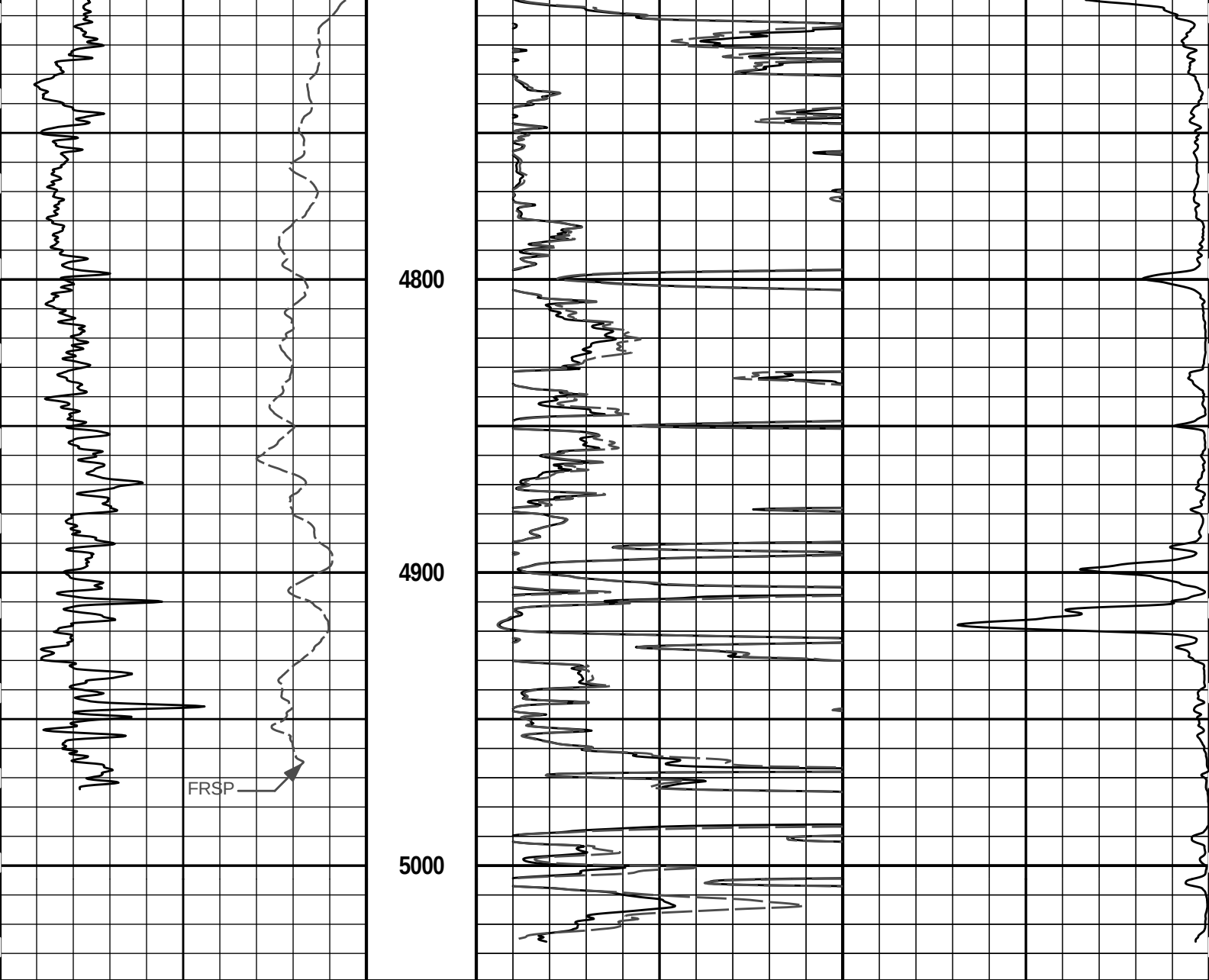
4400

4500

4600

4700





0	Gamma API	150	MD 1 : 600 ft	0	20in Resistivity 2ft Res	50
	api				ohm-metre	
	SP			0	90in Resistivity 2ft Res	50
	-120[+				ohm-metre	
				1000	90in Conductivity 2ft Res	0
					mmho per metre	

HALLIBURTON

Plot Time: 02-Jan-13 22:03:36
Plot Range: 1800 ft to 5039.17 ft
Data: STRASSER_A_2\Well Based\CASING\
Plot File: \\-LOCAL-\\STRASSER_A_2\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CHIACRT\ACRT_2_lib

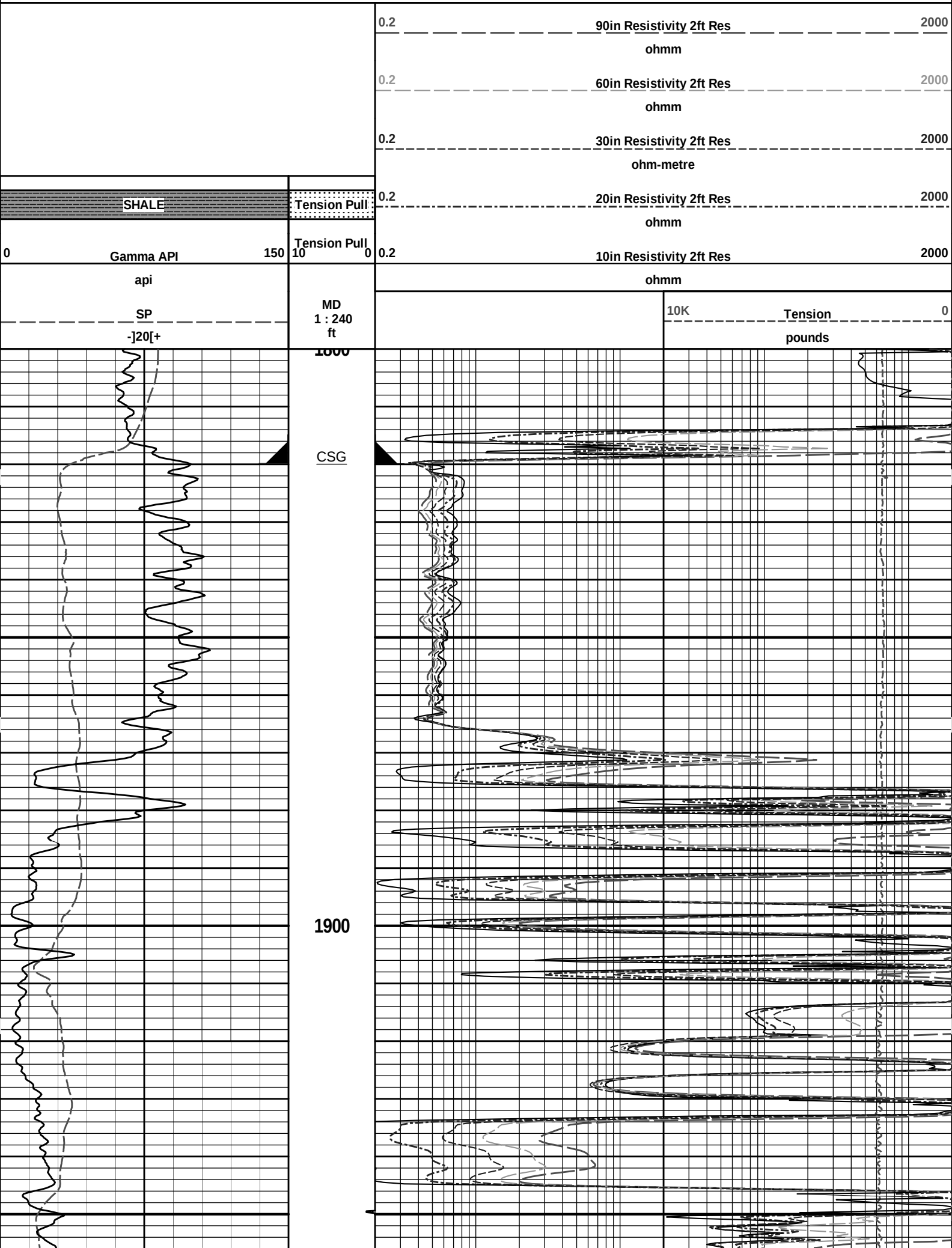
2 INCH MAIN LOG

HALLIBURTON

Plot Time: 02-Jan-13 22:03:36
Plot Range: 1800 ft to 5039.17 ft
Data: STRASSER_A_2\Well Based\CASING\
Plot File: \\-LOCAL-\\STRASSER_A_2\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CHIACRT\ACRT_5_main_lib

5 INCH MAIN LOG

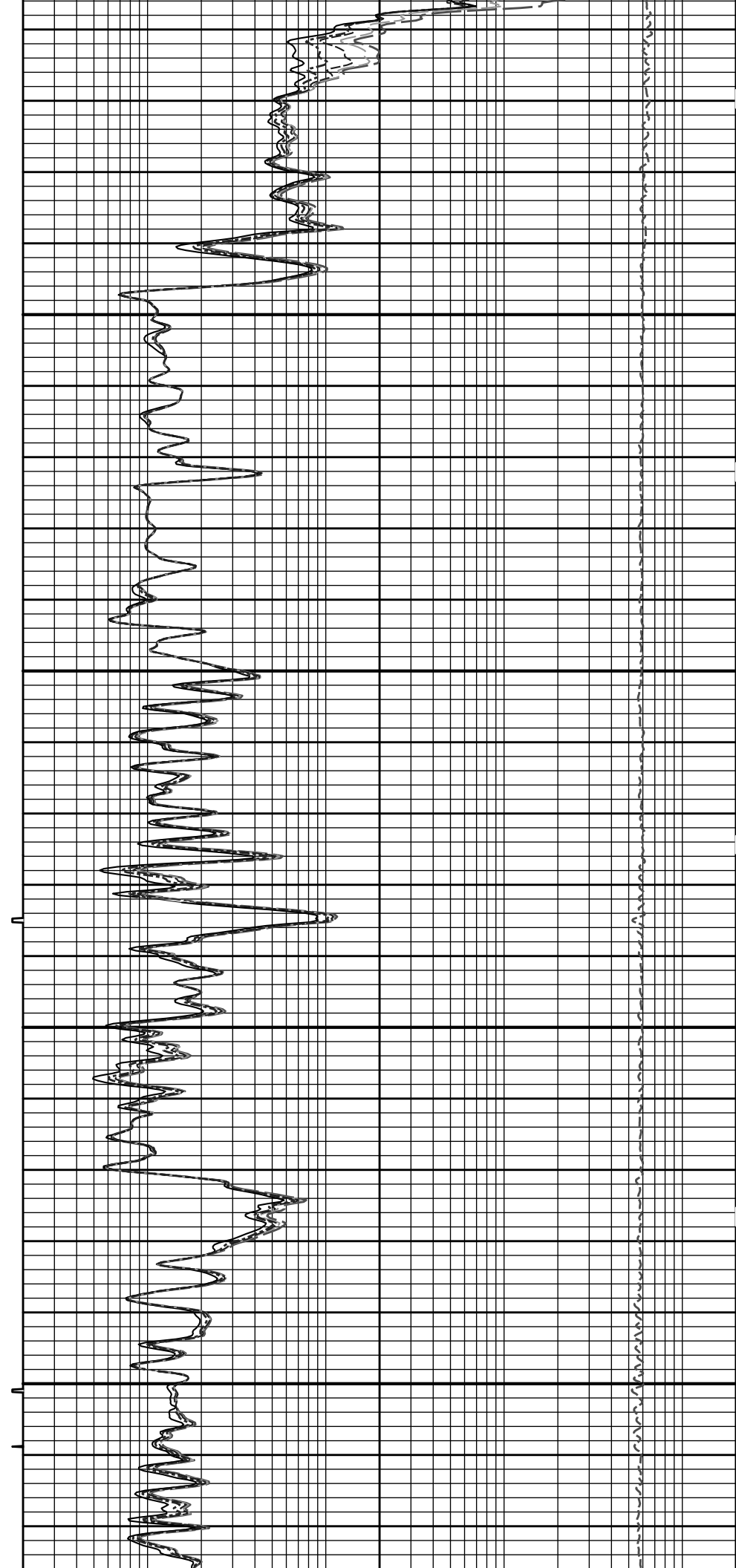
5 INCH MAIN LOG

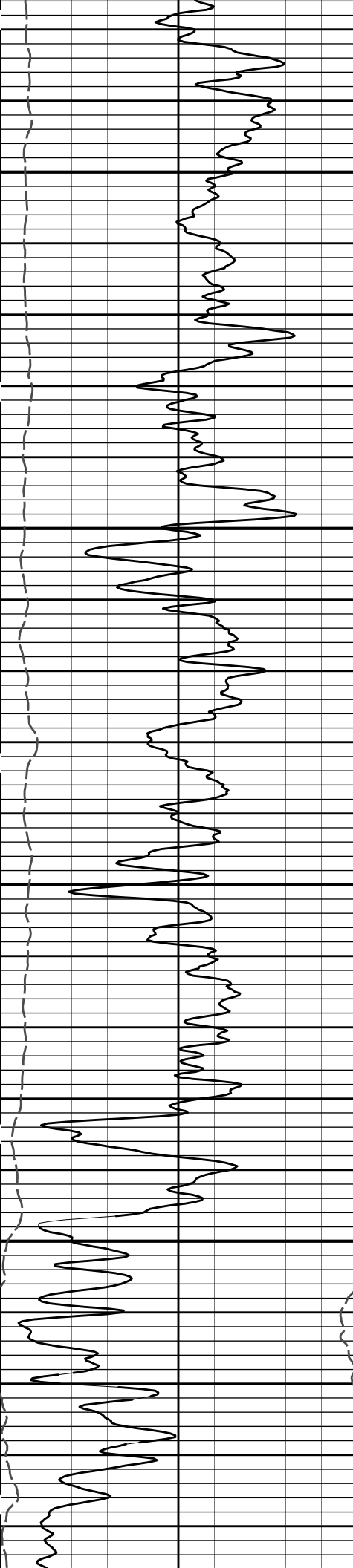




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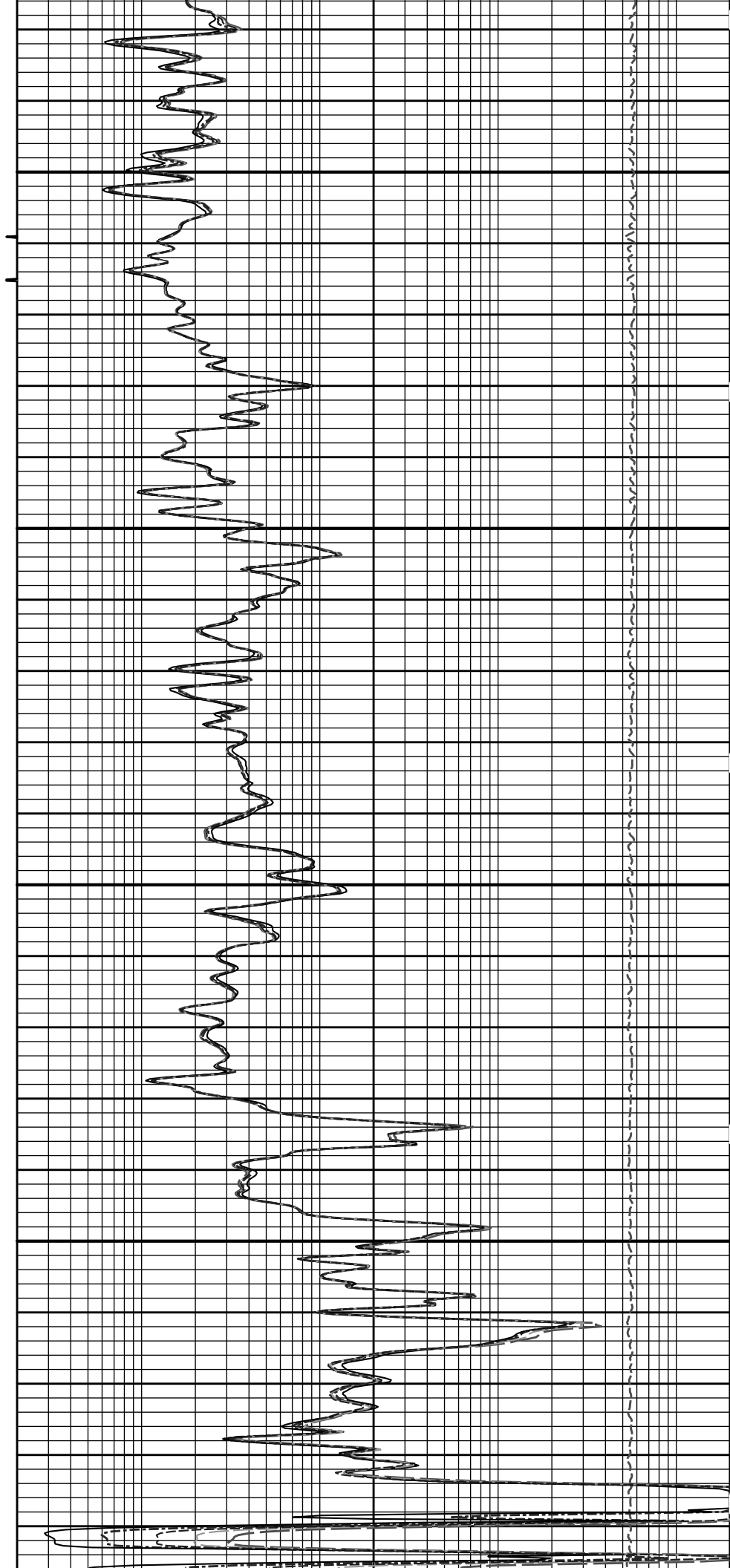
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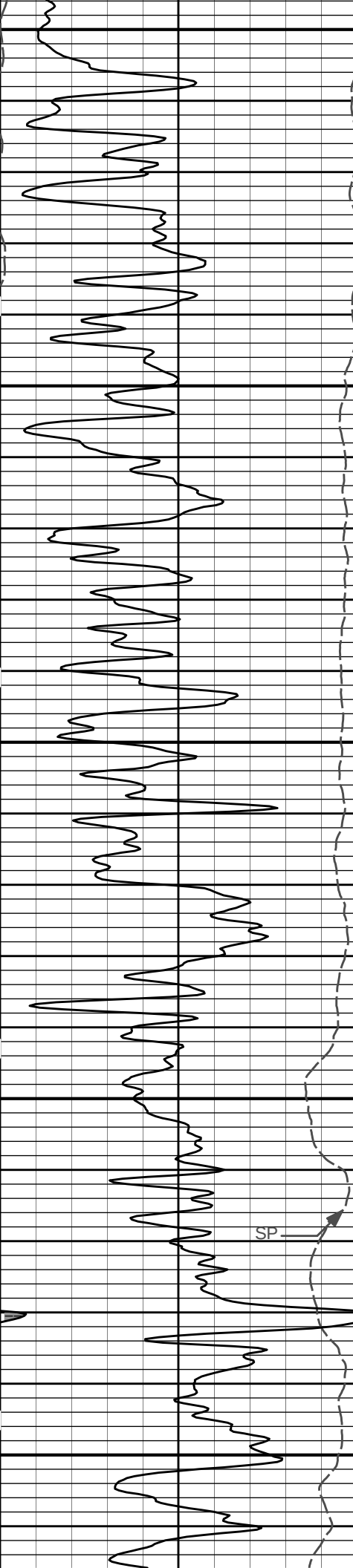




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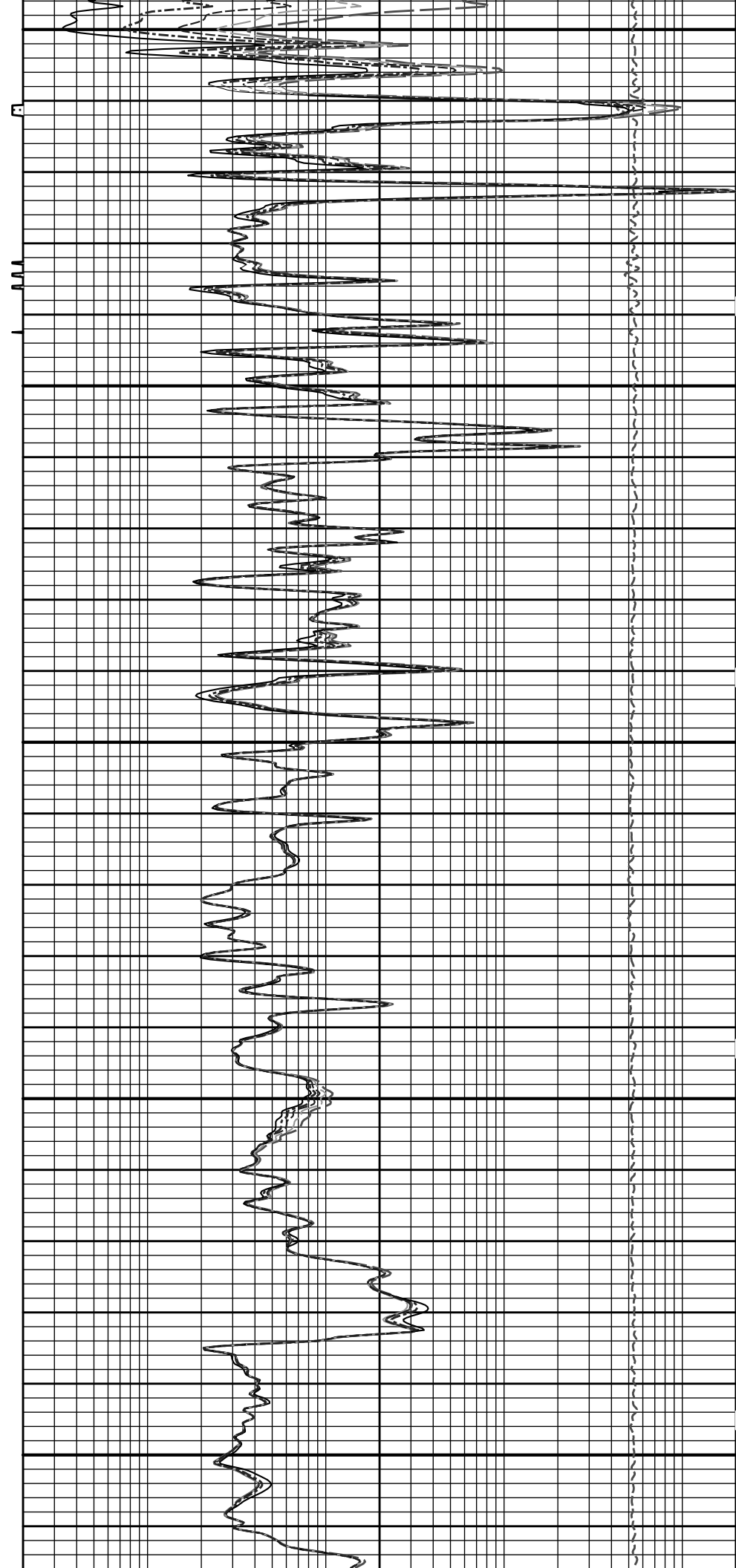


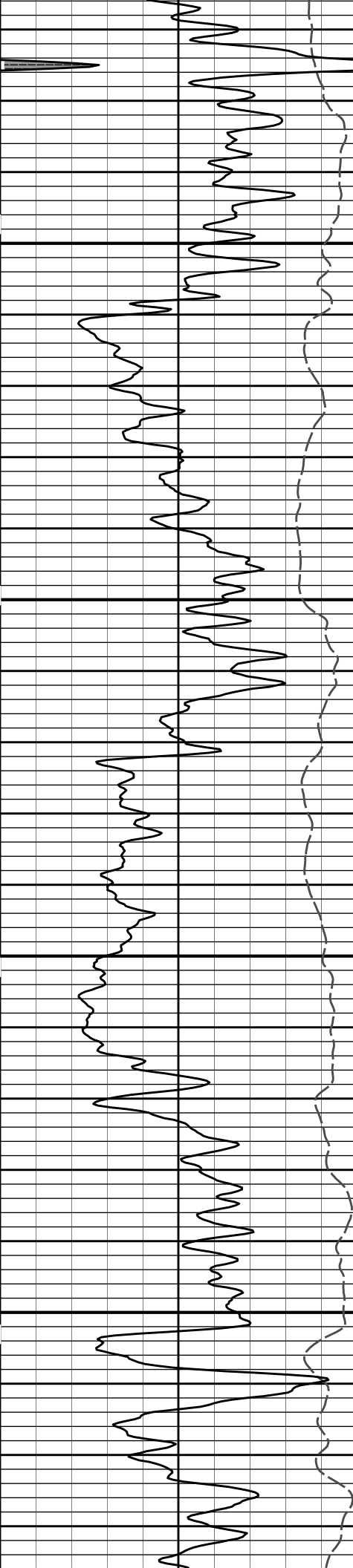


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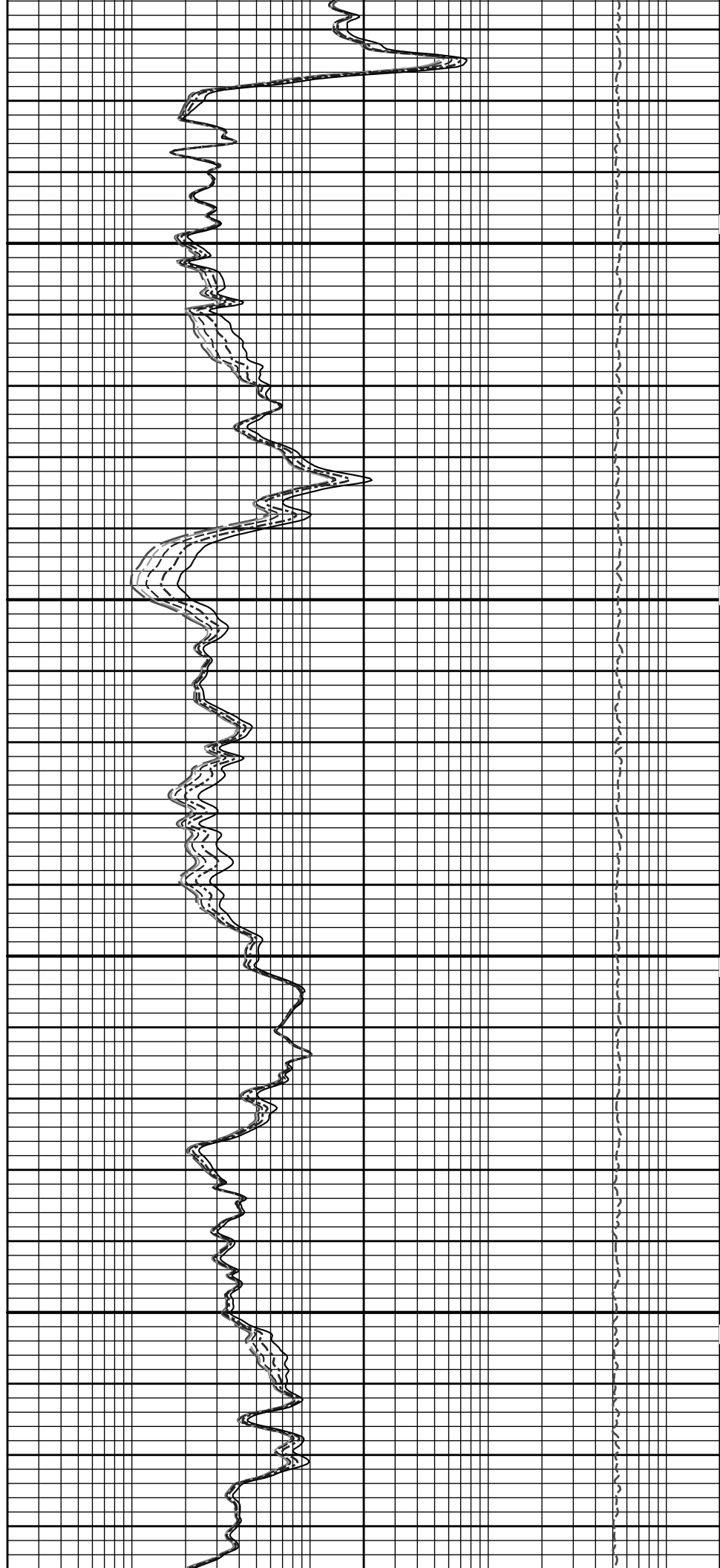
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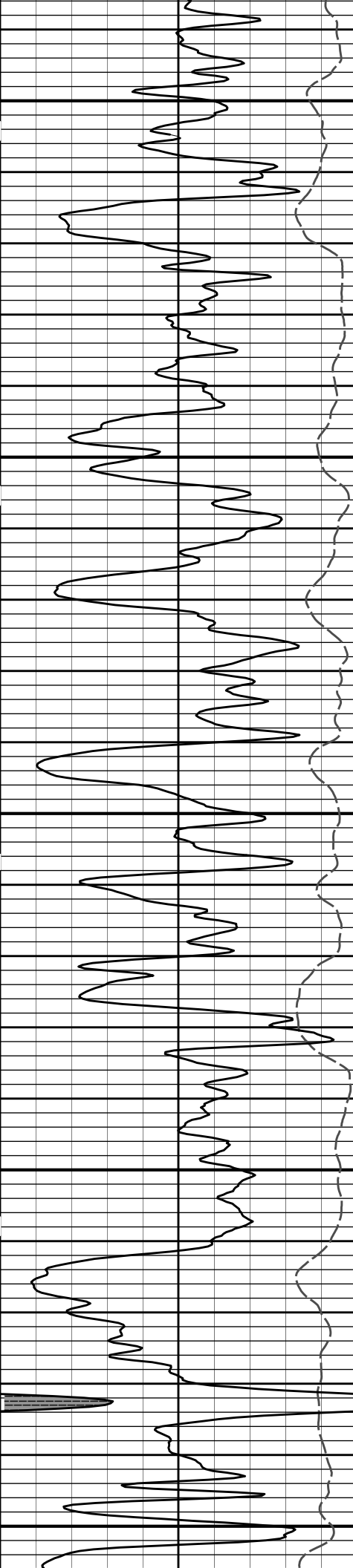




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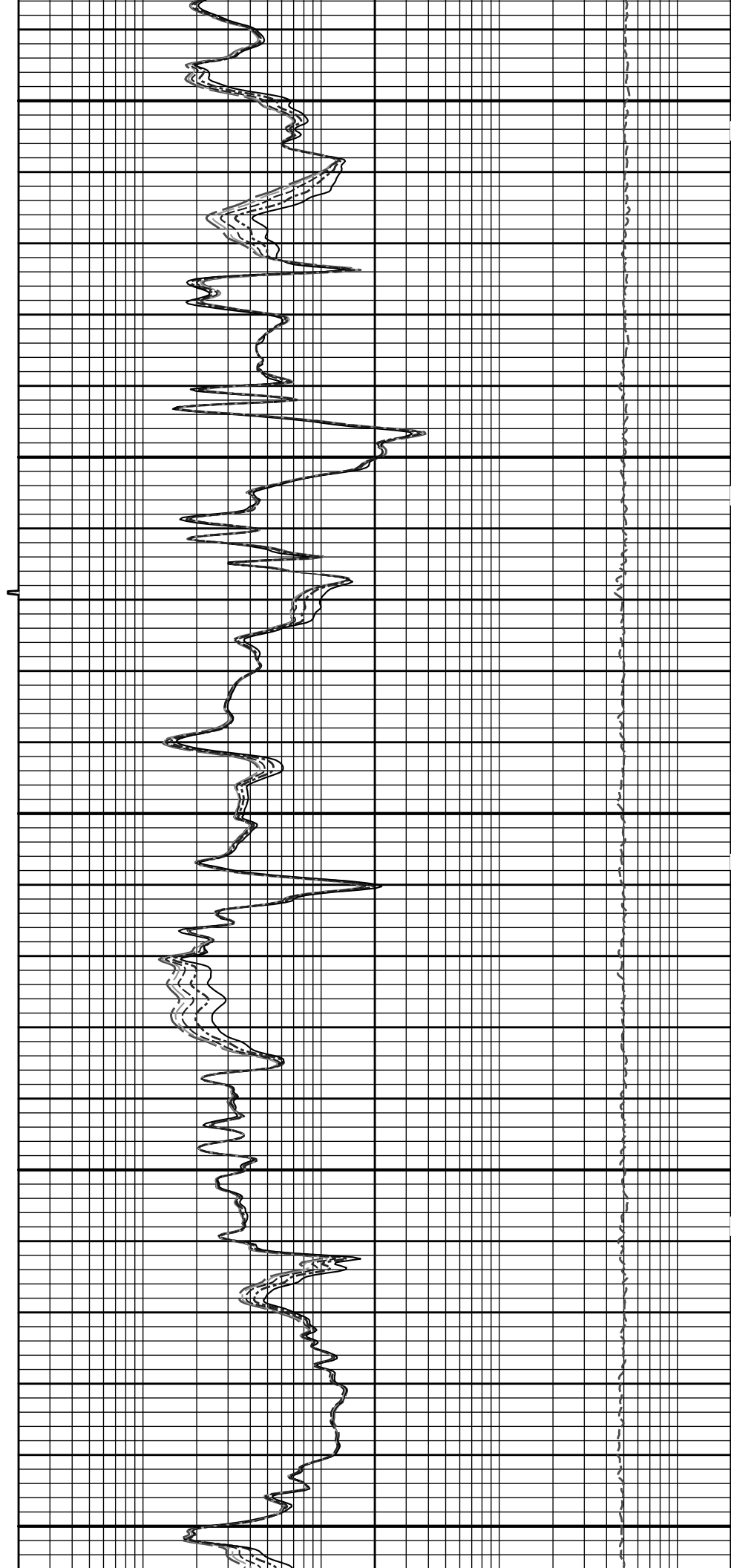
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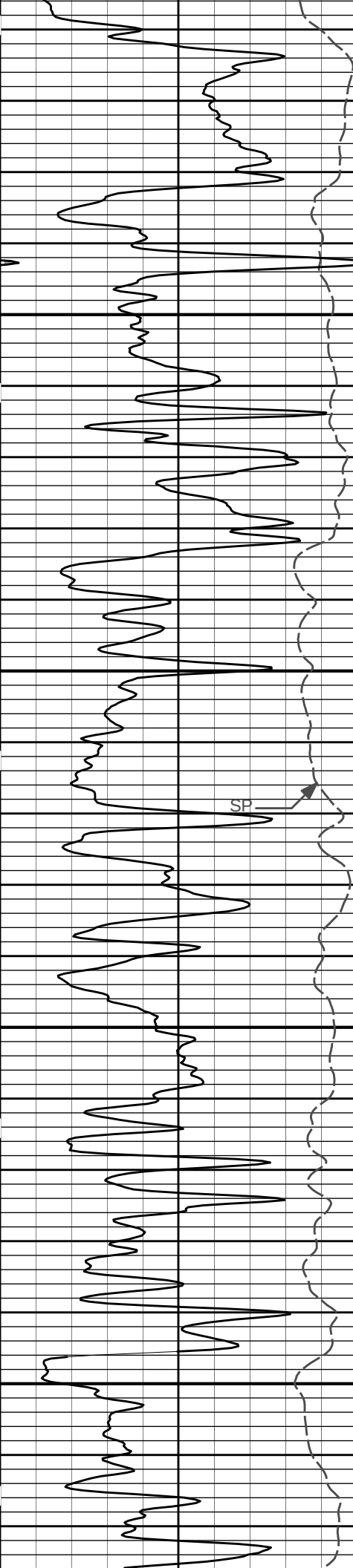




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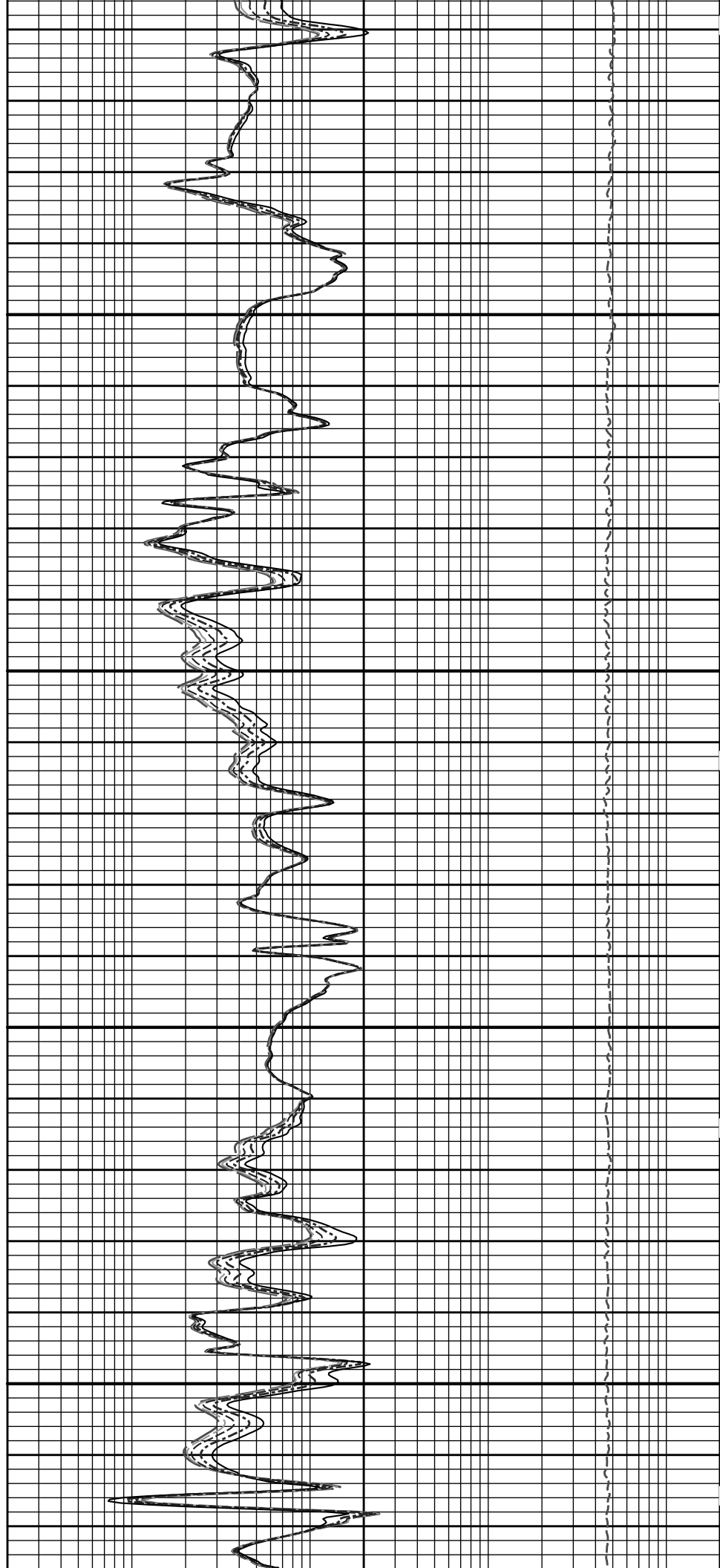
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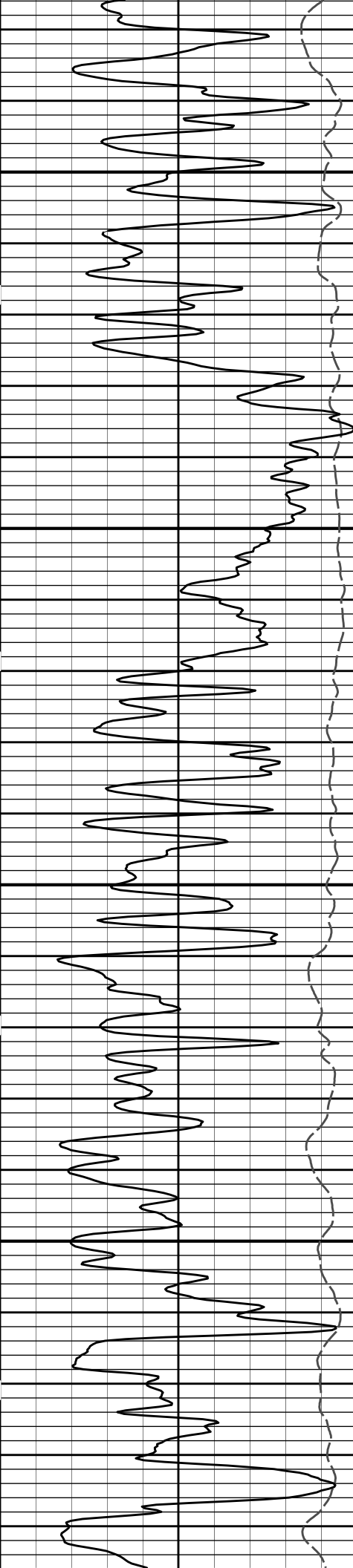




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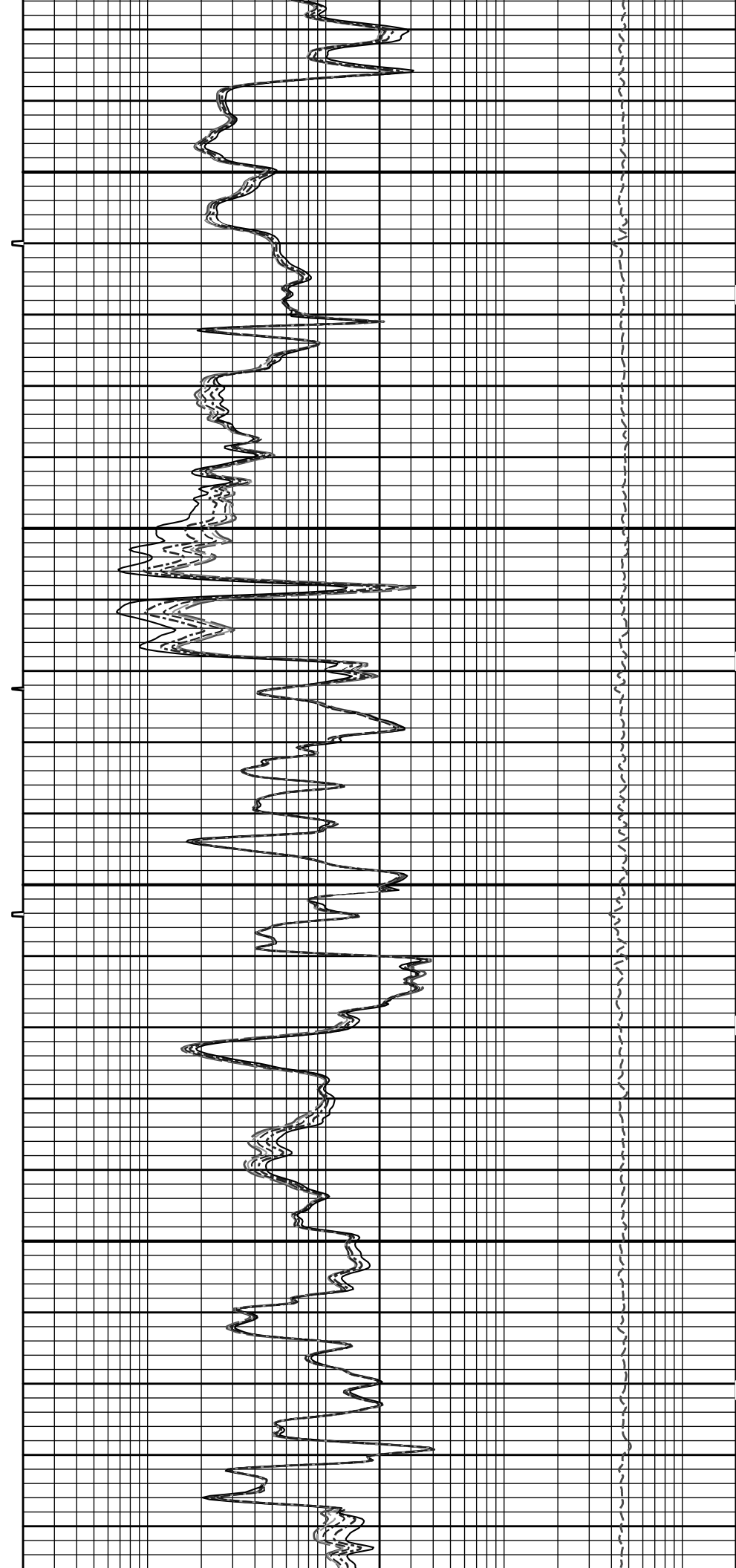
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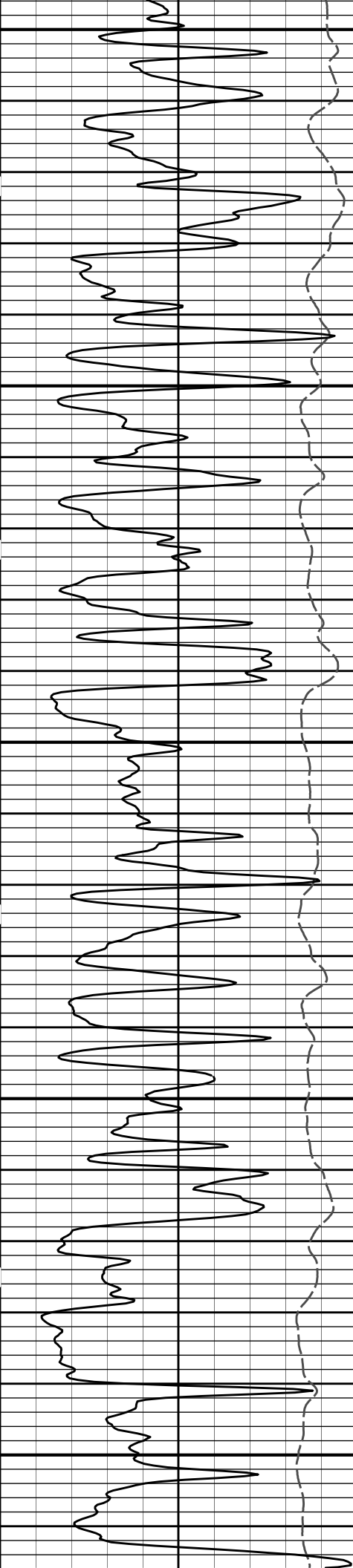




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3400

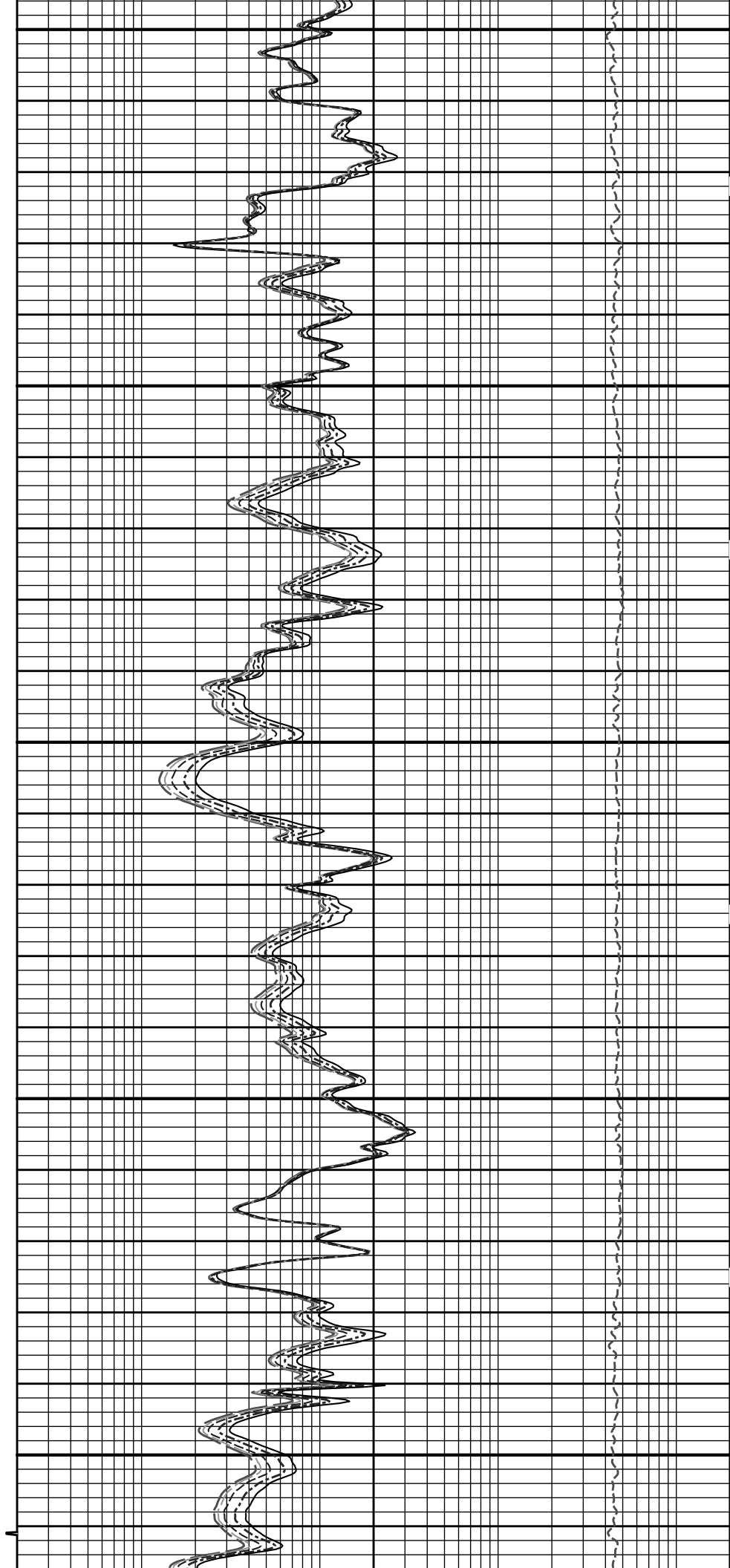


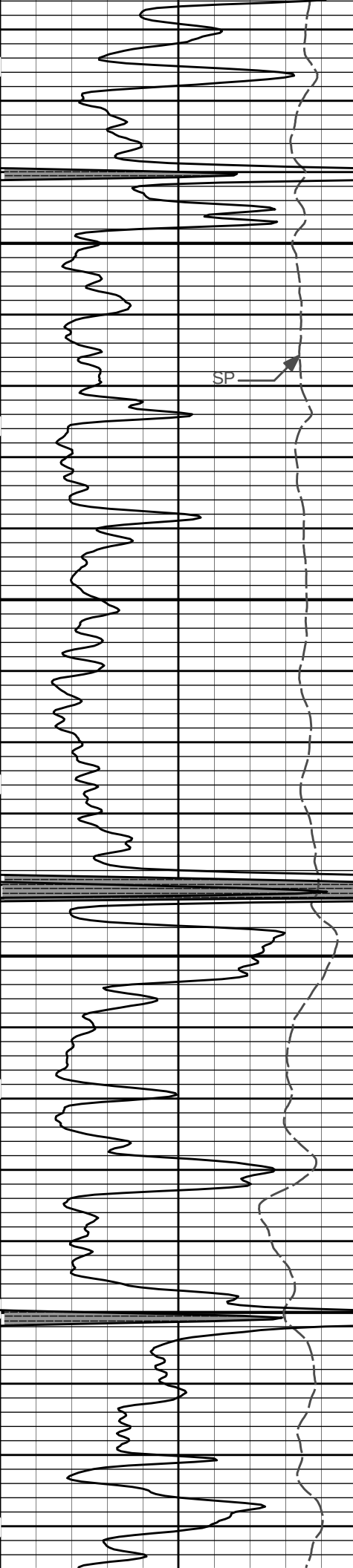


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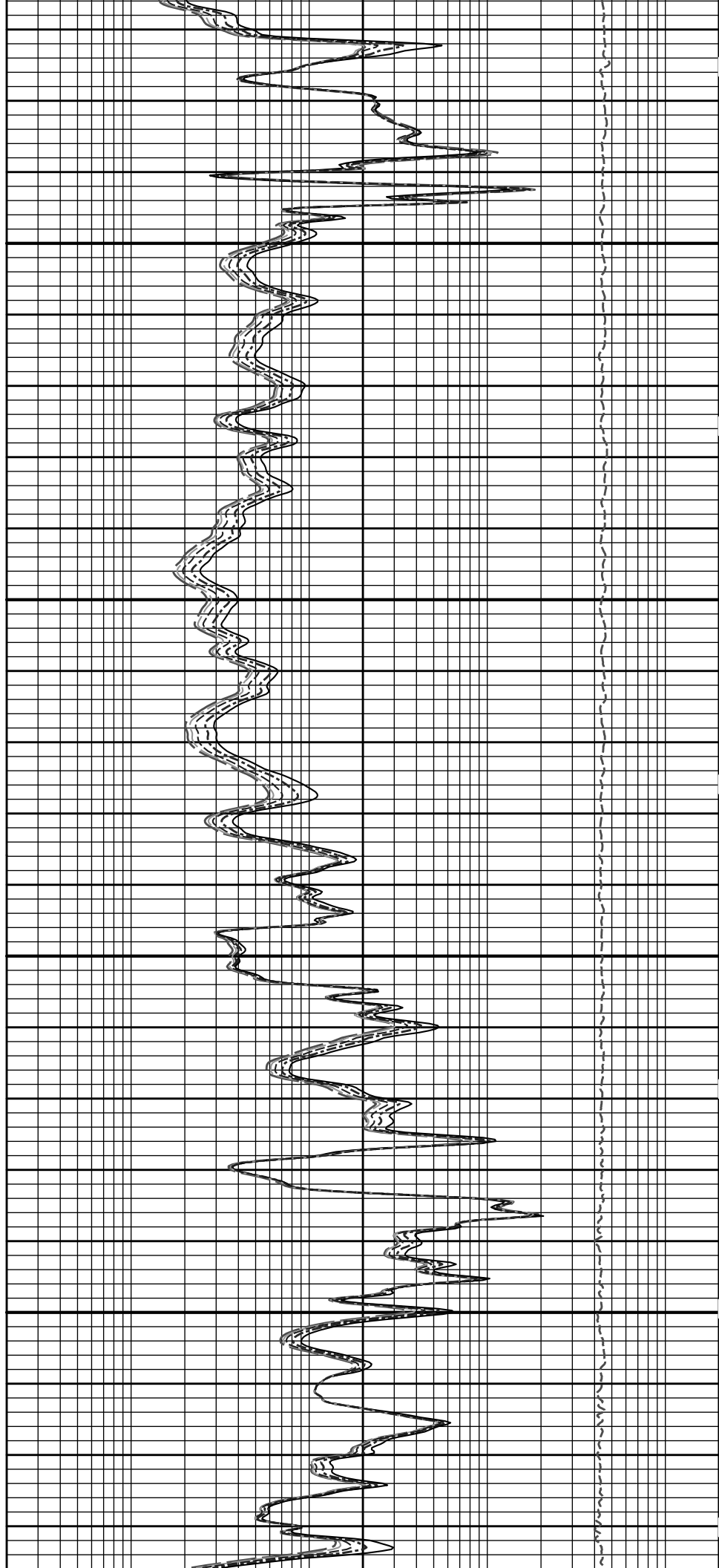
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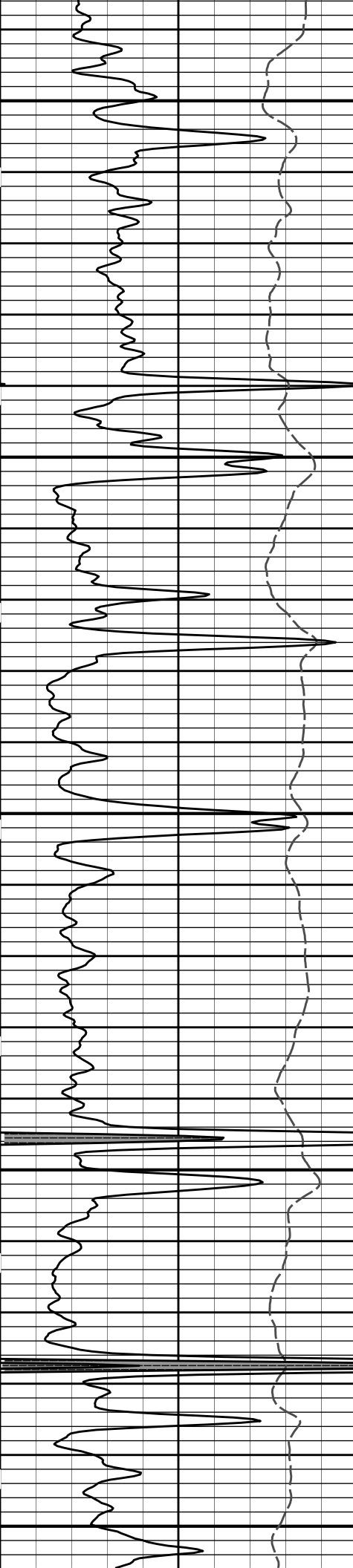




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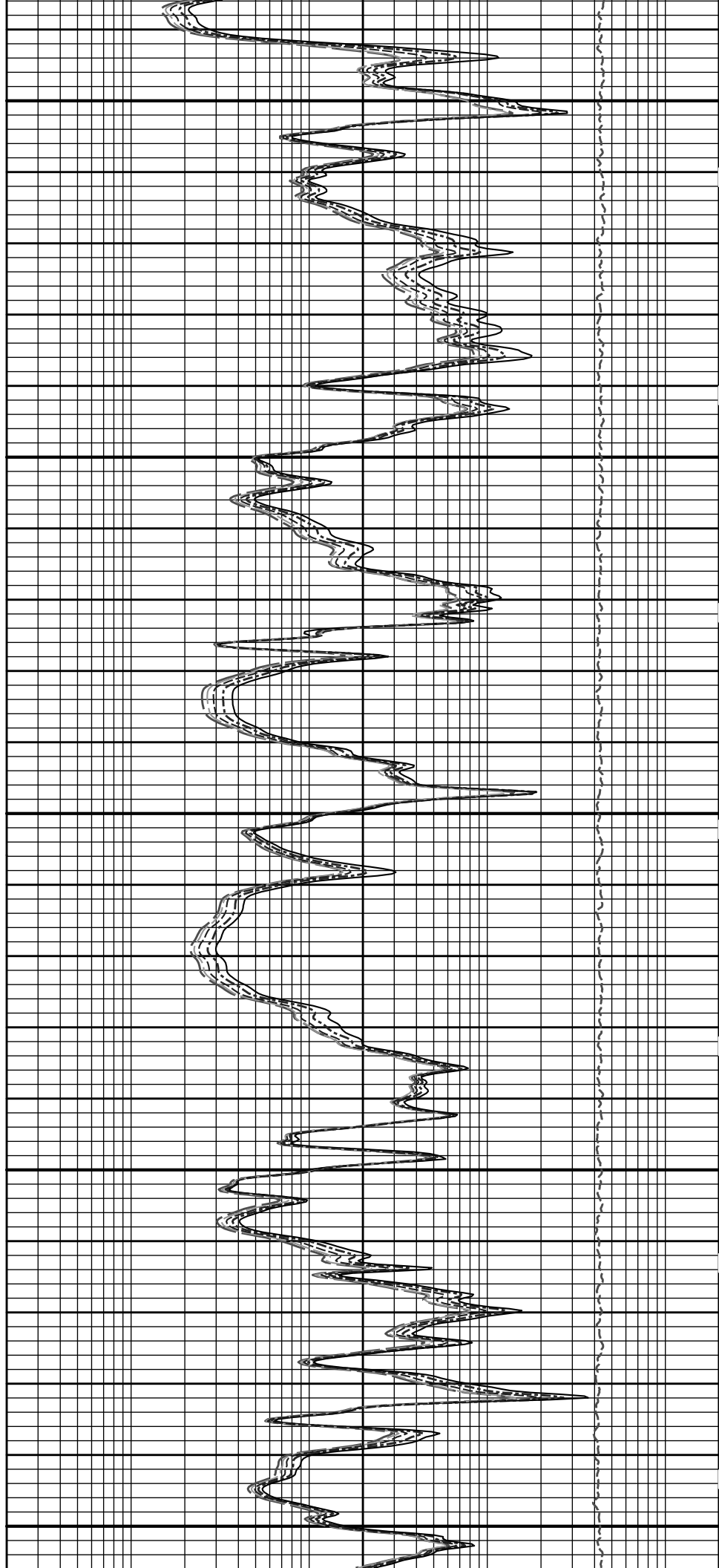
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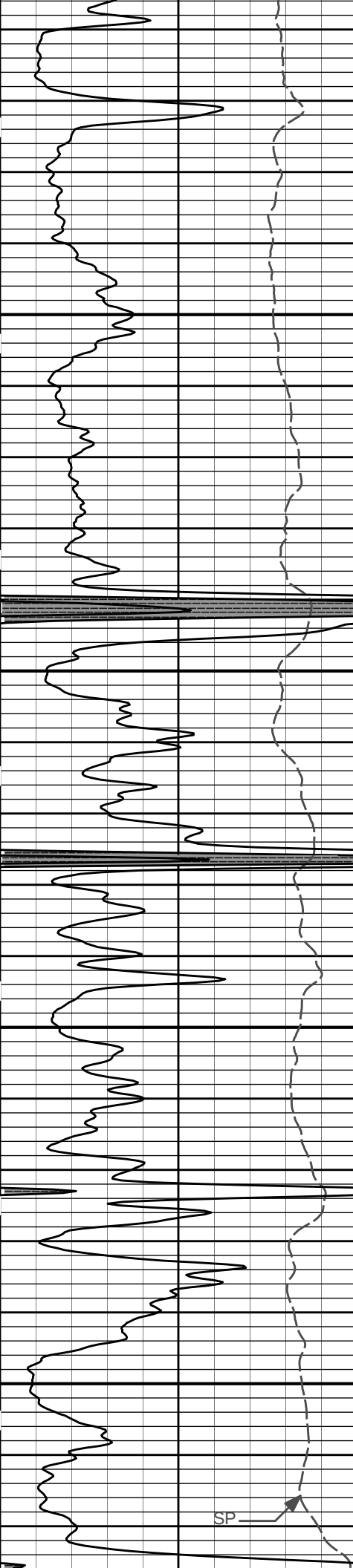




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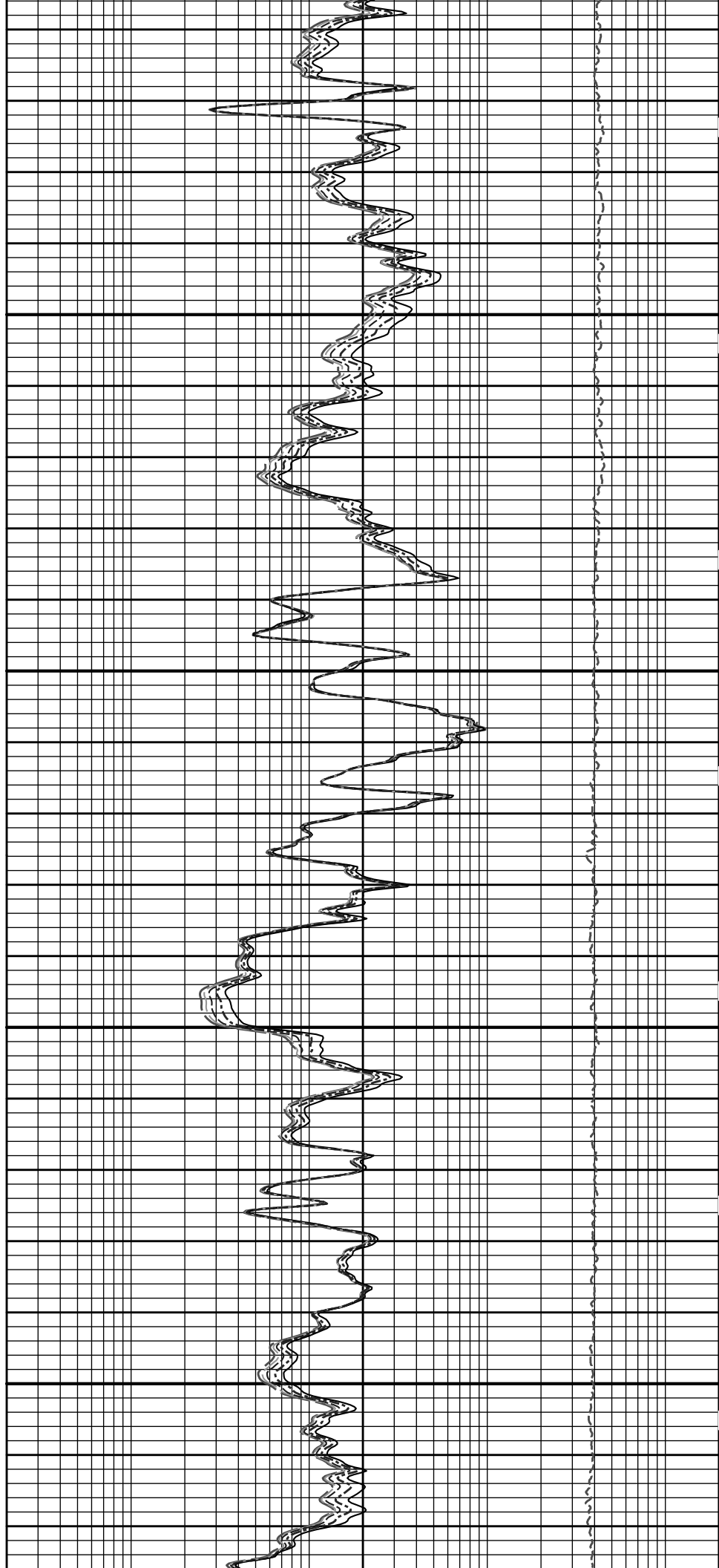
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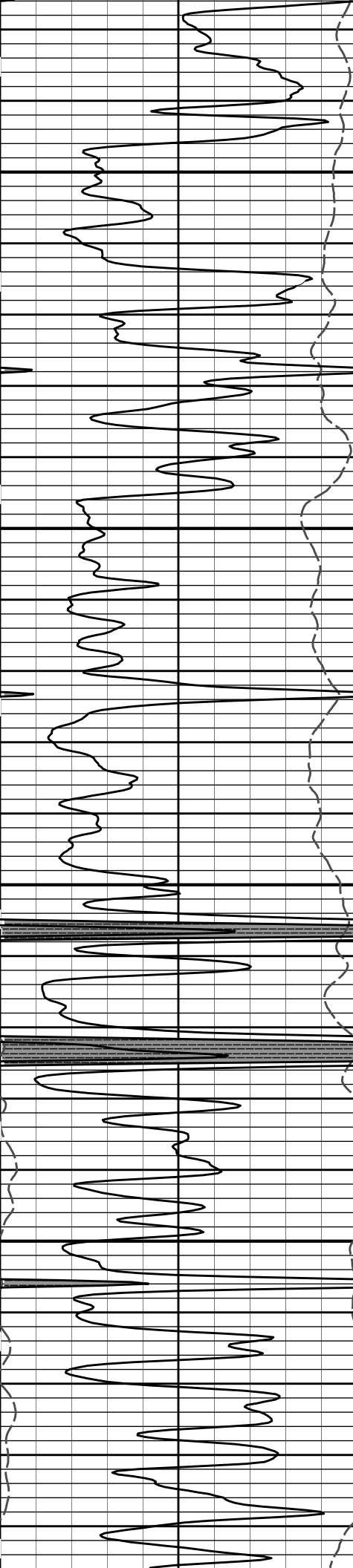




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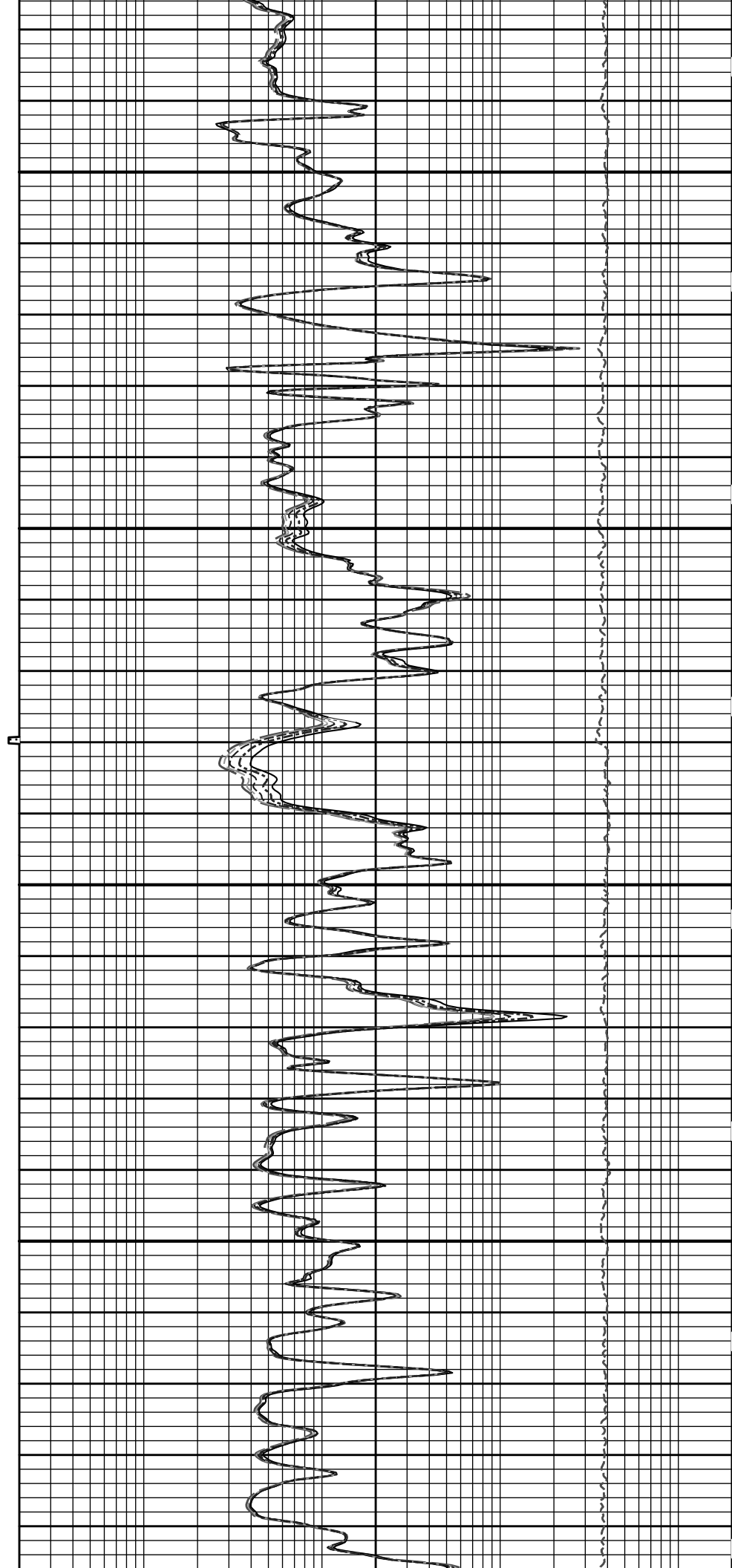
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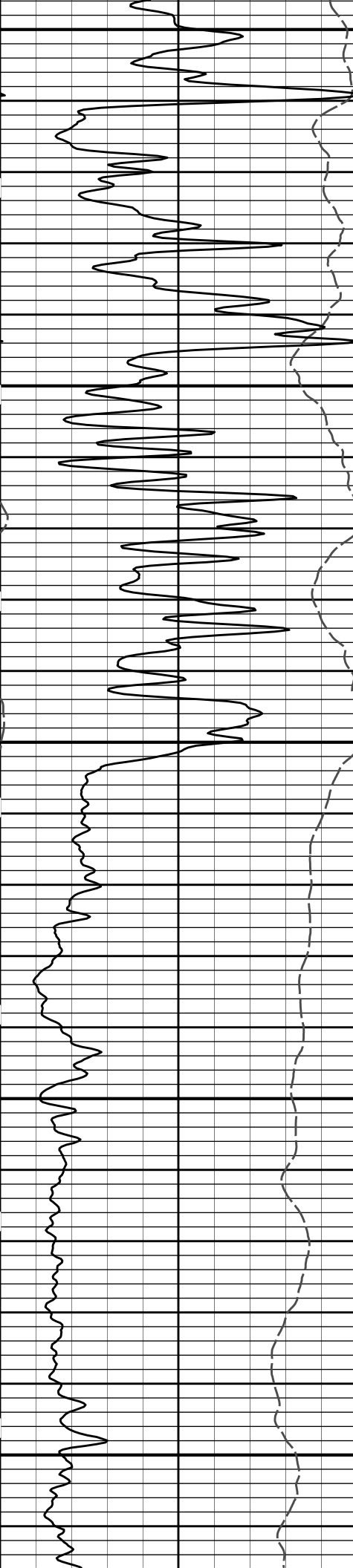




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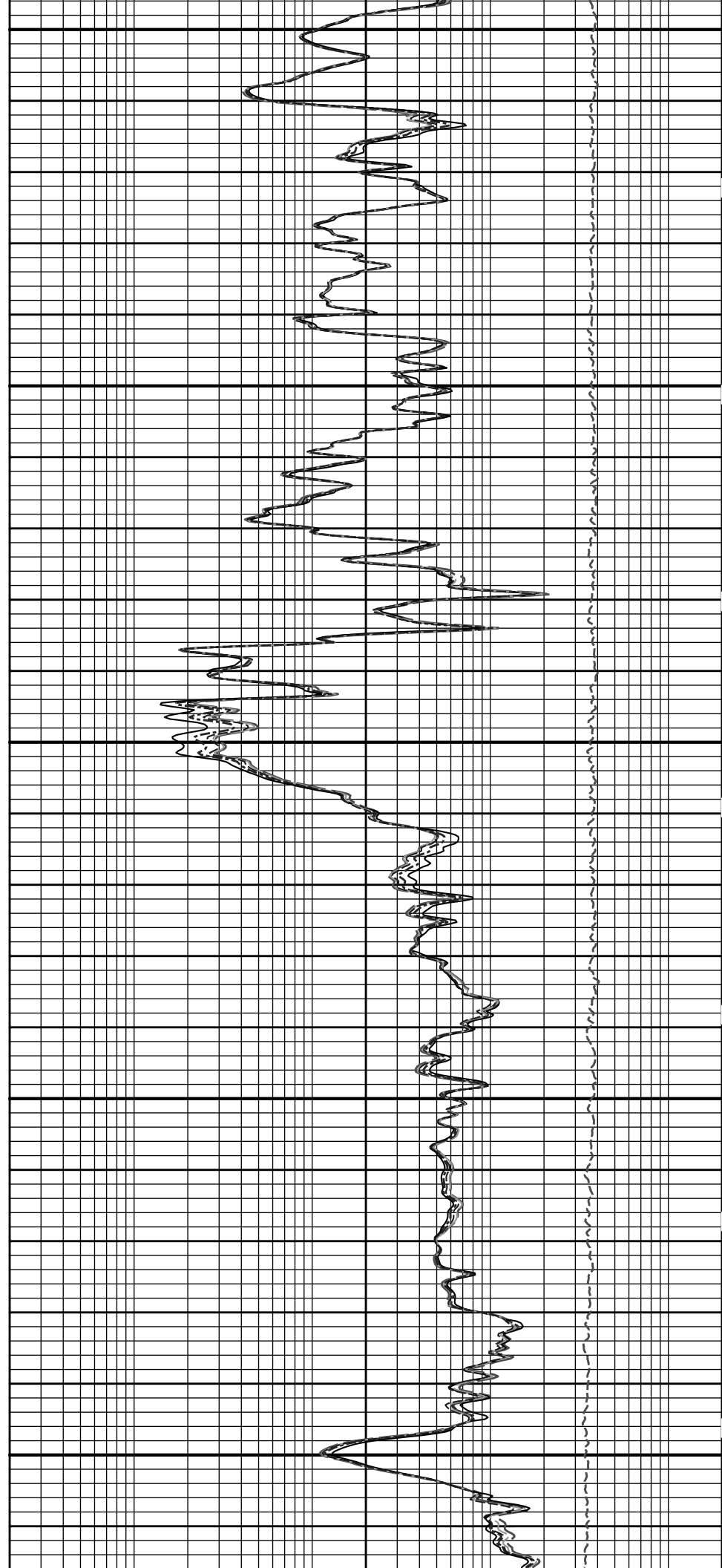


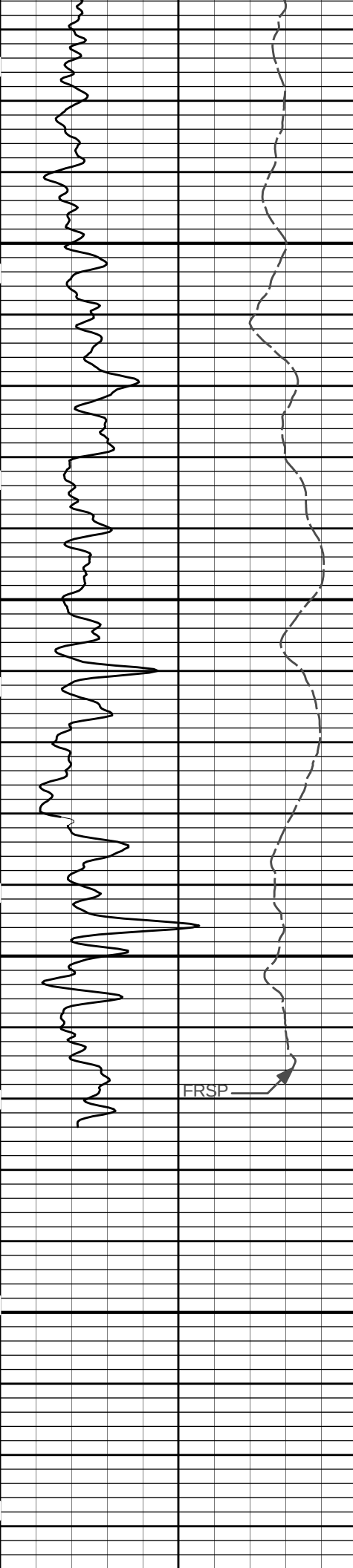


4600

4700

4800

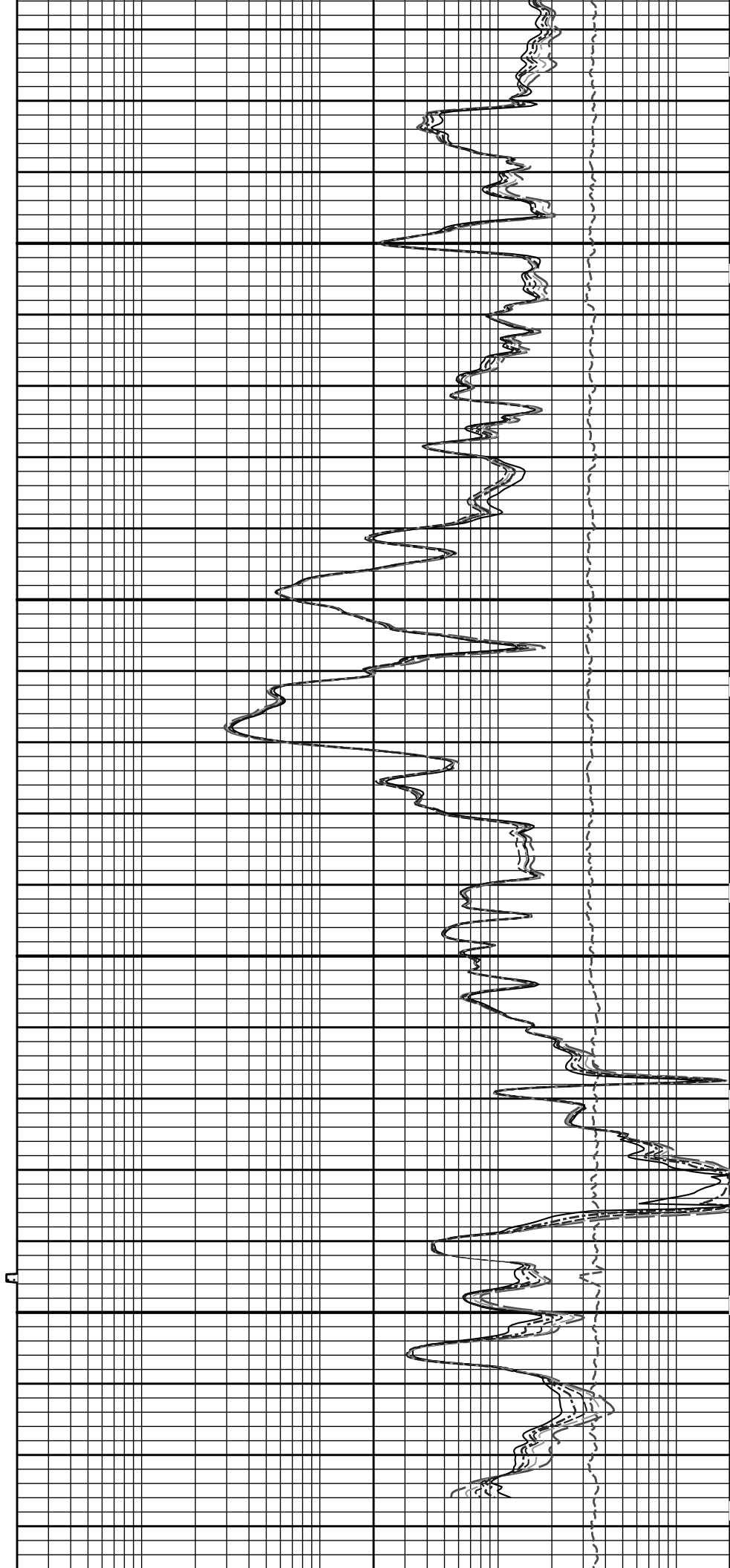


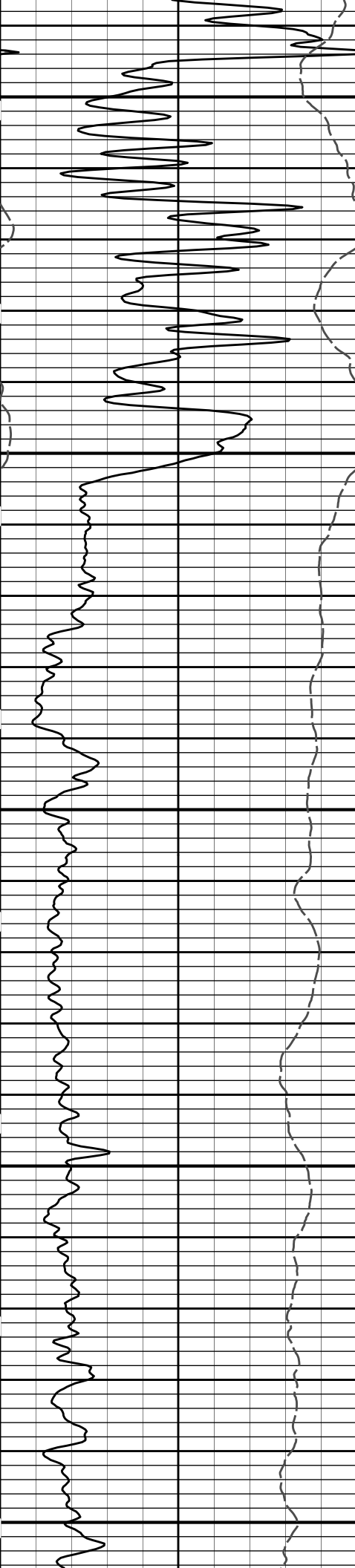


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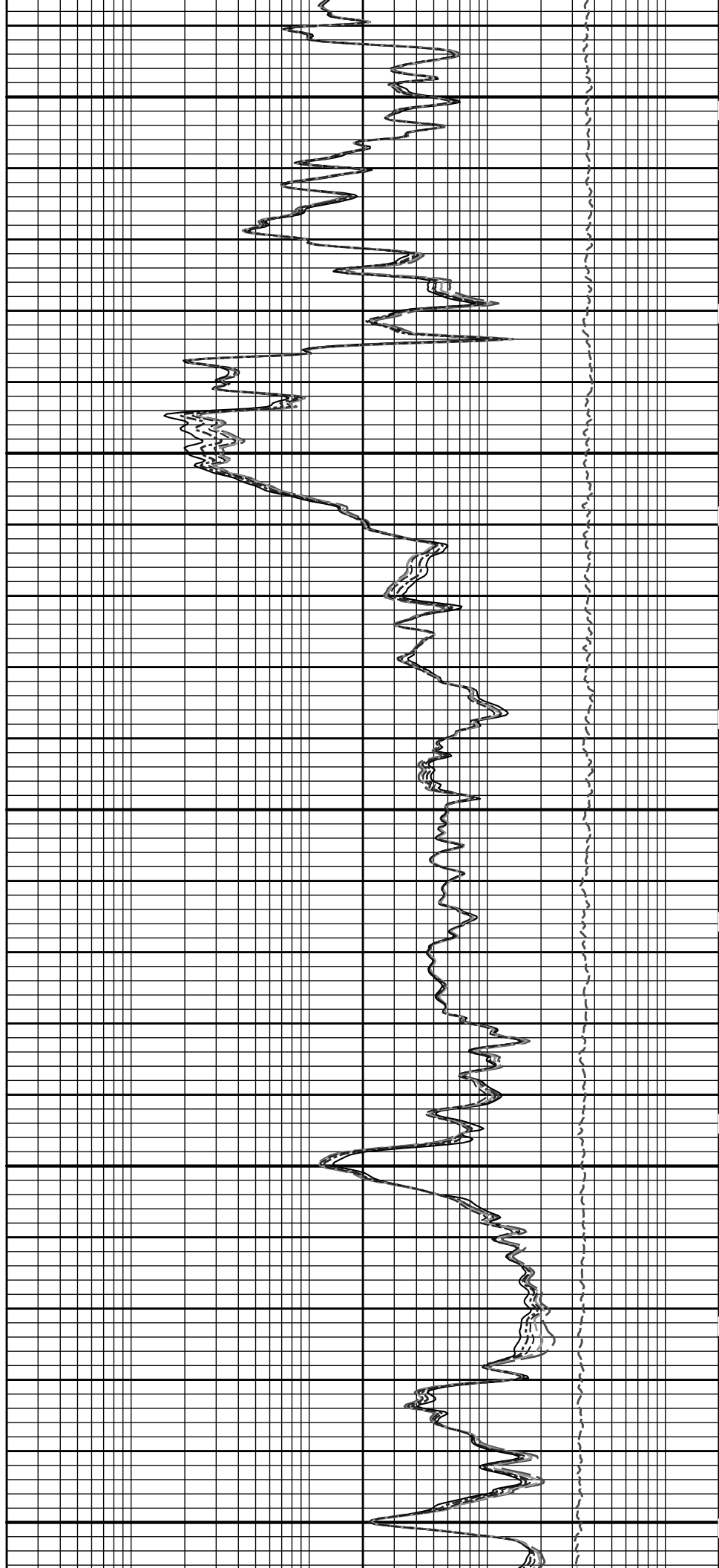
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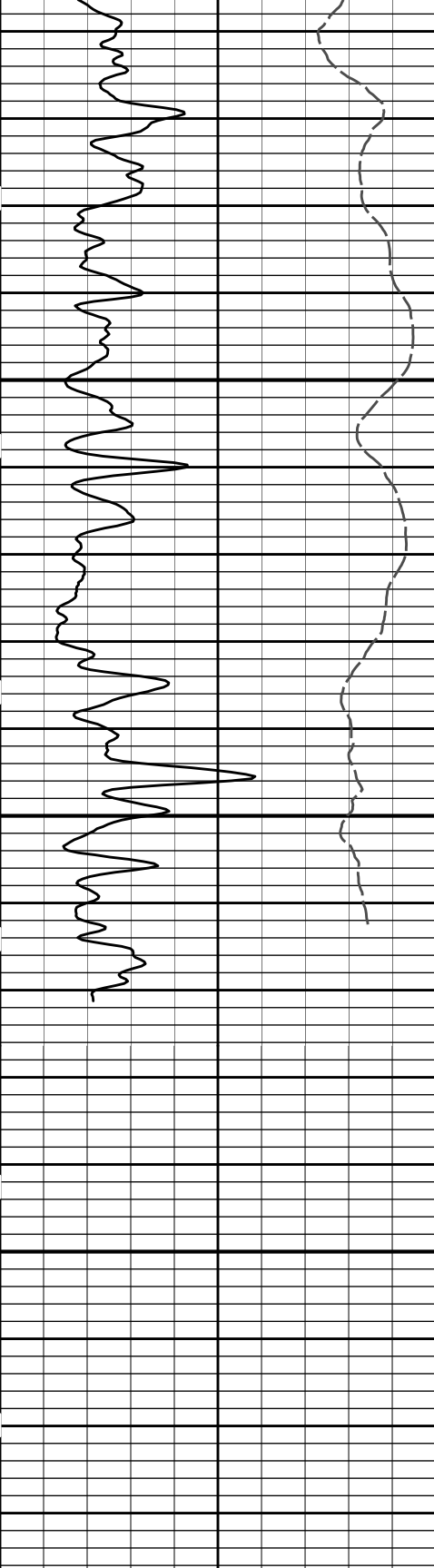




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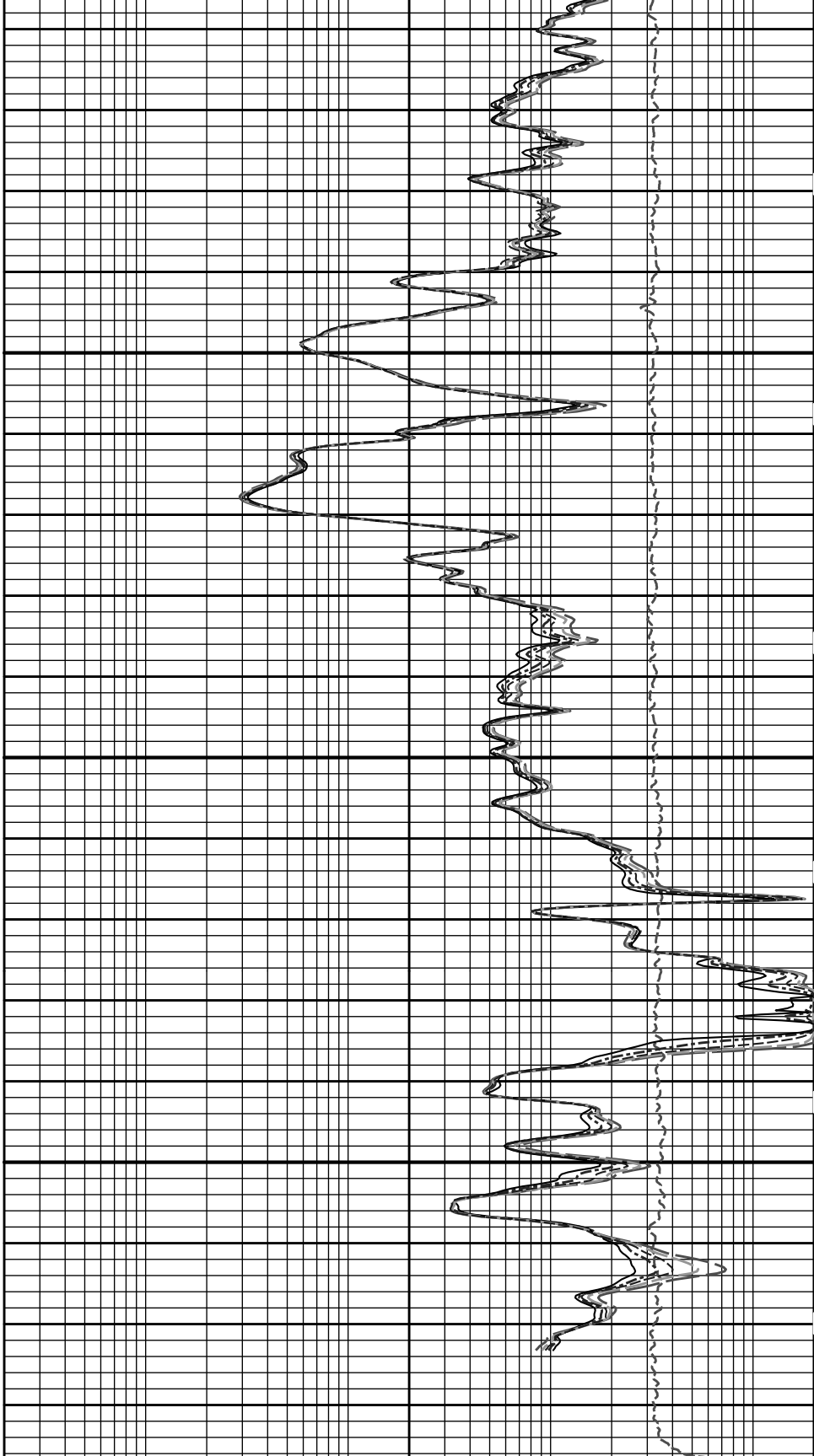
4800





4900

5000



SP		
-]20[+		
0	Gamma API	150
api		
SHALE		

MD
1 : 240
ft

	10K	Tension	0
	pounds		
0.2	10in Resistivity 2ft Res		2000
ohmm			
0.2	20in Resistivity 2ft Res		2000
ohmm			
0.2	30in Resistivity 2ft Res		2000
ohm-metre			

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

HALLIBURTON

Plot Time: 02-Jan-13 22:03:45
Plot Range: 4600 ft to 5036.5 ft
Data: STRASSER_A_2\Well Based\REPEAT_STRASSER_A_2\
Plot File: \\-LOCAL-\\STRASSER_A_2\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CH\ACRT\ACRT_5_repeat.lib

REPEAT SECTION

HALLIBURTON

CALIBRATION REPORT

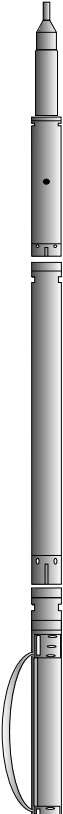
NATURAL GAMMA RAY TOOL SHOP CALIBRATION				
Tool Name:	GTET - 11048627	Reference Calibration Date:	15-Oct-12 10:58:20	
Engineer:	S. INGERSOLL	Calibration Date:	20-Dec-12 17:00:35	
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1	
Calibrator Source S/N: TB146				
Calibrator API Reference:265.00 api				
Equivalent Calibrator API Reference:269.6 api				
	Measurement	Measured	Calibrated	Units
	Background	51.6	51.2	api
	Background + Calibrator	323.1	320.9	api
	Calibrator	271.5	269.6	api

ARRAY COMPENSATED TRUE RESISTIVITY SHOP CALIBRATION			
Tool Name:	ACRt Sonde - 11038385	Reference Calibration Date:	21-Nov-12 12:04:08
Engineer:	T. HYDE	Calibration Date:	19-Dec-12 11:44:50
Software Version:	WL INSITE R3.6.0 (Build 3)	Calibration Version:	1
Host Tool Name:	ACRt Instrument - I5059_S8385		

TYPICAL GAIN RANGE									
Subarray	R12KHz			R36KHz			R72KHz		
	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper
A1 (80")	0.95	1.02	1.05	0.95	1.02	1.05	0.95	1.02	1.05
A2 (50")	0.95	1.02	1.05	0.95	1.02	1.05	0.95	1.02	1.05
A3 (29")	0.95	1.00	1.05	0.95	1.01	1.05	0.95	1.01	1.05
A4 (17")	0.95	1.00	1.05	0.95	1.01	1.05	0.95	1.01	1.05
A5 (10")	N/A	N/A	N/A	0.95	1.01	1.05	0.95	1.01	1.05
A6 (6")	N/A	N/A	N/A	0.95	0.99	1.05	0.95	0.99	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	-0.50	2	-6	-4.51	-2	-8	-4.71	-2
A2 (50")	-7	-2.33	0	-7	-3.72	0	-7	-4.50	0
A3 (29")	-27	-14.54	-9	-9	-4.28	-3	-7	-2.32	-1
A4 (17")	-180	-103.20	-60	-45	-32.35	-15	-39	-25.77	-13
A5 (10")	N/A	N/A	N/A	-150	-81.84	-50	-80	-41.17	-10

A6 (6")	N/A	N/A	N/A	175	340.34	525	90	169.06	270
TRANSMITTER CURRENT GAIN					R-MUD VERIFICATION				
Signal	Lower	R	Upper	Signal	Lower (ohm-m)	Measured (ohm-m)	Upper (ohm-m)		
12K	0.6	0.86	1.3	Mud Cell	0.95	1.00	1.05		
36K	1.0	1.34	2.0						
72K	1.0	1.61	2.0						
PASS/FAIL SUMMARY									
GAIN RANGE CHK					PASS				
SONDE OFFSET RANGE CHK					PASS				
Tx CURRENT GAIN					PASS				
Rmud VERIFICATION					PASS				
TOOL OK TO LOG									
CALIBRATION SUMMARY									
Sensor	Shop	Field	Post	Difference	Tolerance	Units			
GTET-11048627									
Gamma Ray Calibrator	269.6	-----	-----	0.0	+/- 9.00	api			
ACRt Sonde-11038385									
Mud Cell	1.00	-----	-----	0.00	-----	ohm-m			
Data: STRASSER_A_2i0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CHiIDLE									
Date: 02-Jan-13 18:02:24									

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 @ 76.03 ft	3.03 ft	77.06 ft		
SP Sub-11441455 60.00 lbs		Ø 3.625 in →		← SP @ 72.26 ft	3.74 ft	74.03 ft		
GTET-11048627 165.00 lbs		Ø 3.625 in →		← GammaRay @ 64.23 ft	8.52 ft	70.30 ft		
						61.78 ft		
DSN Decentralizer-11019643 6.60 lbs		Ø 5.000 in* →						
DSNT-11019643 174.00 lbs		Ø 3.625 in →			9.69 ft			

SDLT-10950489
360.00 lbs

SDLT Pad-10844781
65.00 lbs
Microlog Pad-10950489
8.00 lbs

Ø 4.500 in →

Ø 4.750 in* →

Ø 4.750 in* →

← DSN Far @ 54.84 ft
← DSN Near @ 54.09 ft

10.81 ft

52.09 ft

Microlog @ 44.28 ft
SDL Caliper @ 44.09 ft
SDL @ 44.08 ft

Flex Joint-001
140.00 lbs

Ø 3.625 in →

5.67 ft

41.28 ft

Centralizer 29-1
12.00 lbs

Ø 4.000 in* →

35.61 ft

BSAT-10747684
300.00 lbs

Ø 3.625 in →

← Sonic Receivers @ 27.09 ft

15.77 ft

ACRt Instrument-
I5059_S8385
50.00 lbs

Centralizer 29-2
12.00 lbs

Ø 4.000 in* →

Ø 3.625 in →

← Mud Resistivity @ 13.44 ft

5.03 ft

19.83 ft

← ACRt @ 9.46 ft

14.80 ft

ACRt Sonde-
11038385
200.00 lbs

Ø 3.625 in →

14.22 ft

Cabbage Head- TRK696 10.00 lbs		Ø 3.625 in Ø 6.000 in				0.58 ft 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 696	37.50	3.03	74.03	300.00
SP	SP Sub		11441455	60.00	3.74	70.30	300.00
GTET	Gamma Telemetry Tool		11048627	165.00	8.52	61.78	60.00
DSNT	Dual Spaced Neutron		11019643	174.00	9.69	52.09	60.00
DCNT	DSN Decentralizer		11019643	6.60	5.13	*	55.42 300.00
SDLT	Spectral Density Tool		10950489	360.00	10.81	41.28	60.00
MICP	Microlog Pad		10950489	8.00	1.00	*	43.78 60.00
SDLP	Density Insite Pad		10844781	65.00	2.55	*	43.49 60.00
FLEX	Flex Joint		001	140.00	5.67	35.61	300.00
BSAT	Borehole Sonic Array Tool		10747684	300.00	15.77	19.83	60.00
OBCEN	Centralizer - 29 in.Overbody		1	12.00	2.42	*	32.77 300.00
ACRt	Array Compensated True Resistivity Instrument Section		I5059_S8385	50.00	5.03	14.80	300.00
OBCEN	Centralizer - 29 in.Overbody		2	12.00	2.42	*	16.39 300.00
ACRt	Array Compensated True Resistivity Sonde Section		11038385	200.00	14.22	0.58	300.00
CBHD	Cabbage Head		TRK696	10.00	0.58	0.00	300.00
Total				1,600.10	77.06		
* Not included in Total Length and Length Accumulation.							
Data: STRASSER_A_2I0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CHIDLE							
Date: 02-Jan-13 18:00:16							

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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	9.100	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	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	75.0	degF
	SHARED	TD	Total Well Depth	5045.00	ft
	SHARED	BHT	Bottom Hole Temperature	200.0	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.	Eccentered	
DSNT	DNOK	Process DSN?	Yes	
DSNT	DEOK	Process DSN EVR?	No	
DSNT	NLIT	Neutron Lithology	Limestone	
DSNT	DSNO	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	
BSAT	MBOK	Compute BCAS Results?	Yes	
BSAT	FLLO	Frequency Filter Low Pass Value?	5000	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	
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: STRASSER_A_2I0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CHIDLE			Date: 02-Jan-13 18:01:17	

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INPUTS, DELAYS AND FILTERS TABLE

Mnemonic	Input Description	Delay (ft)	Filter Type	Filter Length (ft)
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Depth Panel				
TENS	Tension	0.00	NO	
CH_HOS				
DHTN	DownholeTension	0.00	BLK	0.000
SP Sub				
PLTC	Plot Control Mask	72.25	NO	
SP	Spontaneous Potential	72.25	BLK	1.250
SPR	Raw Spontaneous Potential	72.25	NO	
SPO	Spontaneous Potential Offset	72.25	NO	
GTET				
TPUL	Tension Pull	64.23	NO	
GR	Natural Gamma Ray API	64.23	TRI	1.750
GRU	Unfiltered Natural Gamma Ray API	64.23	NO	
EGR	Natural Gamma Ray API with Enhanced Vertical Resolution	64.23	W	1.416 , 0.750
ACCZ	Accelerometer Z	0.00	BLK	0.083
DEVI	Inclination	0.00	NO	
DSNT				
TPUL	Tension Pull	53.99	NO	
RNDS	Near Detector Telemetry Counts	54.09	BLK	1.417
RFDS	Far Detector Telemetry Counts	54.84	TRI	0.583
DNTT	DSN Tool Temperature	54.09	NO	
DSNS	DSN Tool Status	53.99	NO	
ERND	Near Detector Telemetry Counts EVR	54.09	BLK	0.000
ERFD	Far Detector Telemetry Counts EVR	54.84	BLK	0.000
ENTM	DSN Tool Temperature EVR	54.09	NO	
SDLT				
TPUL	Tension Pull	44.09	NO	
PCAL	Pad Caliper	44.09	TRI	0.250
ACAL	Arm Caliper	44.09	TRI	0.250
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	
GMOD	Gain processing mode	19.83	NO	
ACRt Sonde				
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

F1X0	ACRT 12KHz - 0in X 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	
SDLT Pad				
TPUL	Tension Pull	44.08	NO	
NAB	Near Above	43.90	BLK	0.920
NHI	Near Cesium High	43.90	BLK	0.920
NLO	Near Cesium Low	43.90	BLK	0.920
NVA	Near Valley	43.90	BLK	0.920
NBA	Near Barite	43.90	BLK	0.920
NDE	Near Density	43.90	BLK	0.920
NPK	Near Peak	43.90	BLK	0.920
NLI	Near Lithology	43.90	BLK	0.920
NBAU	Near Barite Unfiltered	43.90	BLK	0.250
NLIU	Near Lithology Unfiltered	43.90	BLK	0.250
FAB	Far Above	44.26	BLK	0.250
FHI	Far Cesium High	44.26	BLK	0.250
FHLO	Far Cesium Low	44.26	BLK	0.250

FLO	Far Cesium Low	44.26	BLK	0.250
FVA	Far Valley	44.26	BLK	0.250
FBA	Far Barite	44.26	BLK	0.250
FDE	Far Density	44.26	BLK	0.250
FPK	Far Peak	44.26	BLK	0.250
FLI	Far Lithology	44.26	BLK	0.250
PTMP	Pad Temperature	44.09	BLK	0.920
NHV	Near Detector High Voltage	43.49	NO	
FHV	Far Detector High Voltage	43.49	NO	
ITMP	Instrument Temperature	43.49	NO	
DDHV	Detector High Voltage	43.49	NO	

Microlog Pad				
TPUL	Tension Pull	44.28	NO	
MINV	Microlog Lateral	44.28	BLK	0.750
MNOR	Microlog Normal	44.28	BLK	0.750

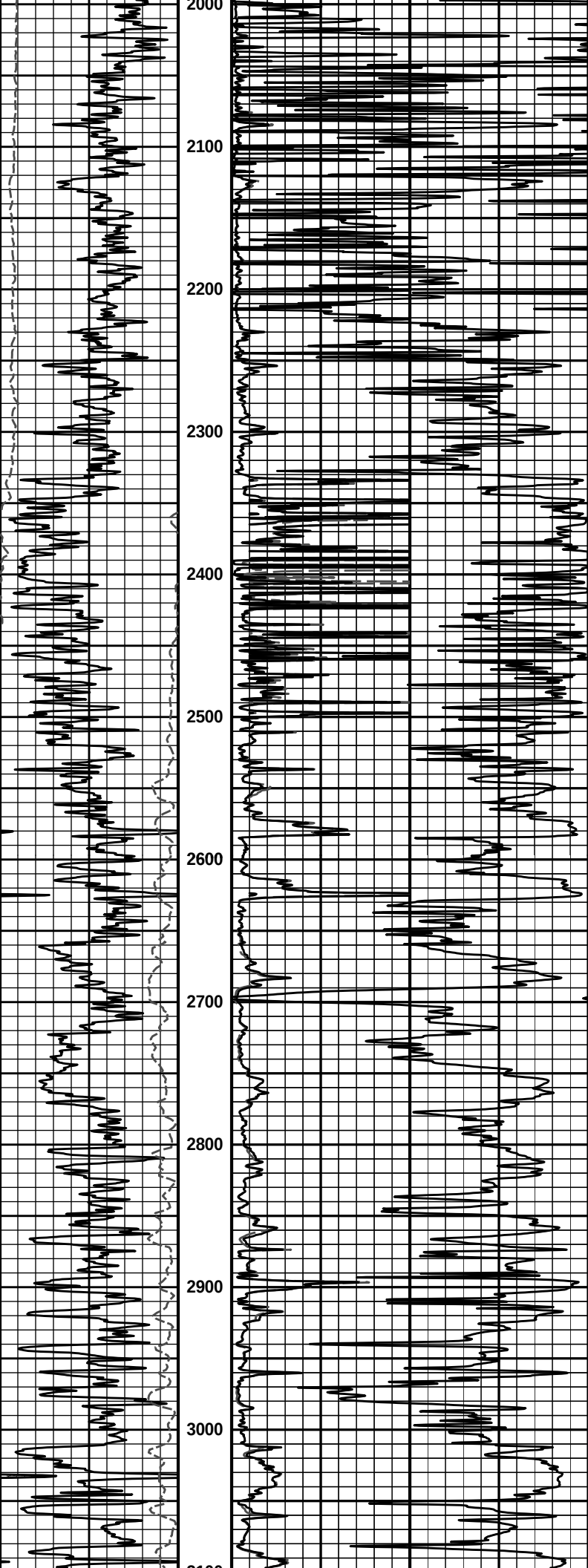
COMPANY	OXY USA INC.		
WELL	STRASSER A-2		
FIELD	CONGDON NORTH		
COUNTY	FINNEY	STATE	KANSAS
HALLIBURTON		ARRAY COMPENSATED TRUE RESISTIVITY LOG	

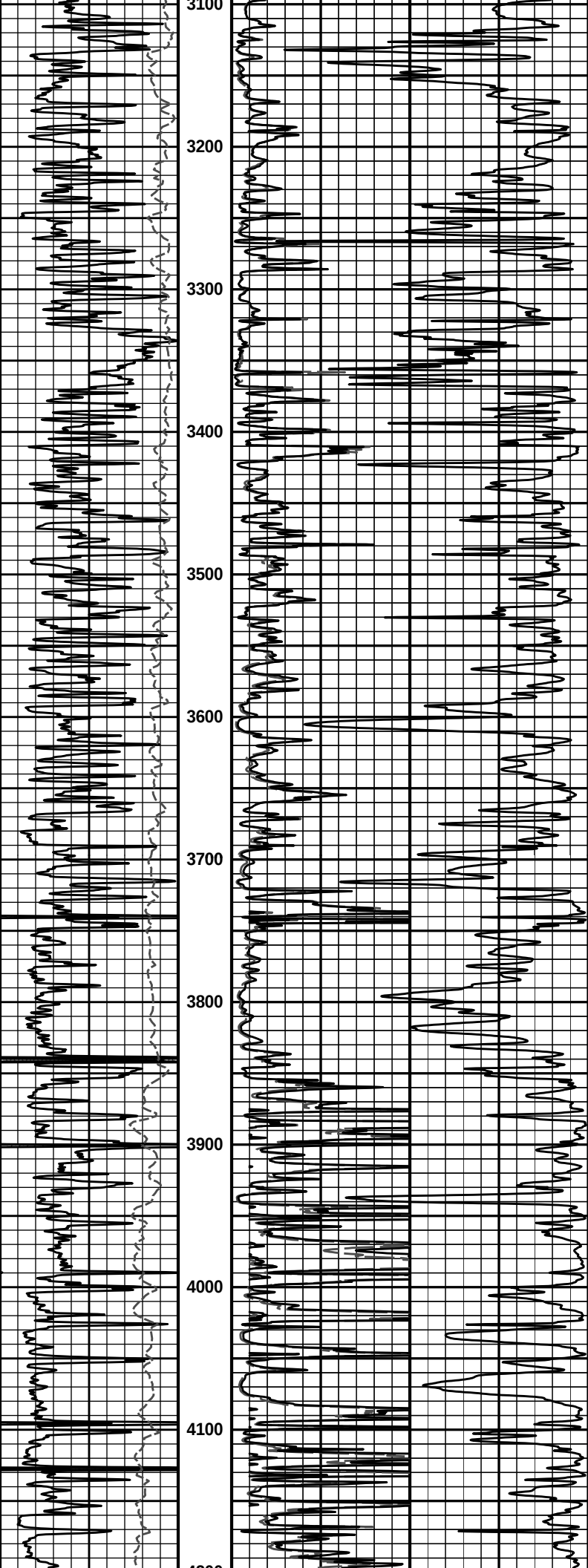
HALLIBURTON

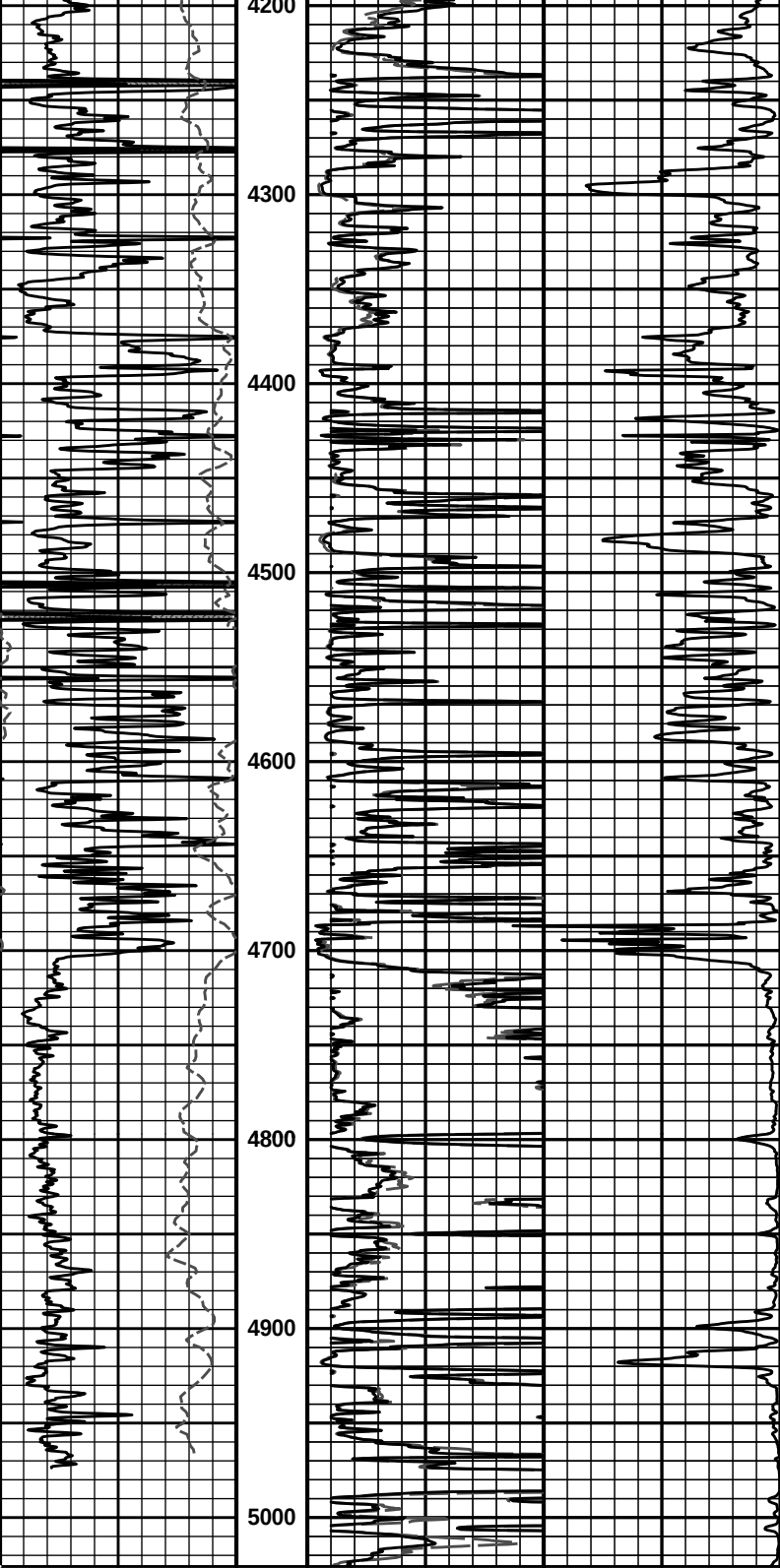
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Plot Range: 1800 ft to 5026 ft
Data: STRASSER_A_2\Well Based\CASING\
Plot File: \\LOCAL-ISTRASSER_A_2...\\ACRT_1.lib

1 INCH MAIN LOG

		1000	90in Conductivity 2ft Res	0
		mmho per metre		
SP		90in Resistivity 2ft Res		
-]20[+		0	50	
		ohm-metre		
0	Gamma API	150	20in Resistivity 2ft Res	
			0	50
api		ohm-metre		
		1000		
		1900		
		2800		







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

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Plot Time: 02-Jan-13 22:03:50
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Data: STRASSER_A_2\Well Based\CASING\
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1INCH MAIN LOG

