

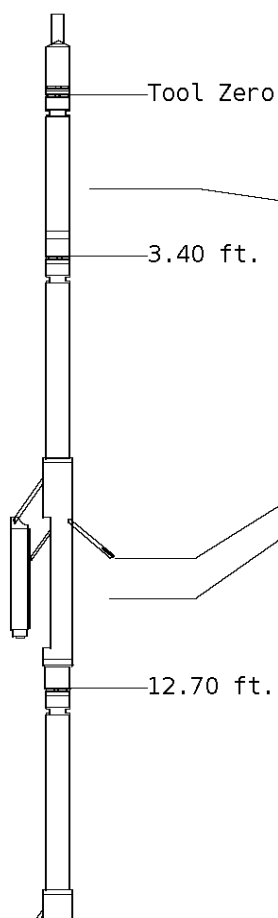
ALL PRESENTATIONS AS PER CUSTOMER REQUEST
 GRT, CNT, LDT, MLT AND PIT RUN IN COMBINATION
 CALIPERS ORIENTED ON X-Y AXIS
 2.71 G/CC USED TO CALCULATE POROSITY
 ANNULAR HOLE VOLUME CALCULATED USING 4.5" PRODUCTION CASING
 PHIN IS CALIPER CORRECTED
 NO REPEAT DUE TO CALIPERS FAILED TO CLOSE AFTER REPEAT, LOGGED OUT

GRT: GRP, GRX
 CNT: PHIN, CLCNIN, PHXN
 LDT: PORL, LCORN, PECLN, LDENN, PORLLS, CLLDIN, PRXL, PECLX, LDENNX, LCORX
 MLT: NOR_RF, INV_RF, MSCLPIN
 PIT: ILD, ILM, SPU, SFLAEC, CIRD

OPERATORS:
 J.OFFIEGBU
 R.FRANKLIN

Tool String Schematic

Total Tool Length - 53.15 ft.
Maximum Outside diameter - 6.00 in.
Net Weight in Air - 943.00 lbs.



Tool: GRT-B **Length:** 3.40 ft. **O.D.** 3.60 in.
 Gamma Ray Controller

Sonde ID :GRT-BA-017

Measure Point	Tool Offset	Stack Offset	Bottom Offset
GRP	2.00	2.00	51.15

Tool: CNT-AA **Length:** 9.30 ft. **O.D.** 4.36 in.
 Compensated Neutron A Pad on NDT-A

Sonde ID :NDT-BB-122

Source ID :N-1044

Pad ID :CNP-AA-115

Measure Point	Tool Offset	Stack Offset	Bottom Offset
CLCN	6.00	9.40	43.75
PHIN	6.80	10.20	42.95

Tool: LDT-DA **Length:** 9.30 ft. **O.D.** 4.80 in.
 Litho Density D Pad on NDT-A

Sonde ID :NDT-CA-137

Source ID :CSV-587

Pad ID :LDP-DA-47

Measure Point	Tool Offset	Stack Offset	Bottom Offset
CLLD	6.00	18.70	34.45
PEL	7.00	19.70	33.45
PES	7.40	20.10	33.05



7.20 19.90 33.25
 7.20 19.90 33.25

Tool: MST-DA **Length:** 9.66 ft. **O.D.** 6.00 in.
 Micro Spherically Focused (IC)
Sonde ID :MLT-DA-21

Measure Point	Tool Offset	Stack Offset	Bottom Offset
MSFL	7.60	29.60	23.55
MSCLP	7.60	29.60	23.55
INV	7.60	29.60	23.55
NOR	7.60	29.60	23.55

Tool: PIT-CA **Length:** 21.49 ft. **O.D.** 3.62 in.
 Phased Dual Induction w/ RM & D
Sonde ID :PIT-CA-062

Measure Point	Tool Offset	Stack Offset	Bottom Offset
ILD	8.92	40.58	12.56
ILM	10.10	41.76	11.39
SFLU	17.49	49.15	4.00
SP	20.60	52.26	0.88

LWT — 53.15 ft.

Well File: PICKRELL_HIGGINS_K_3_JAN16_MSTK **Scale:** 1:600 **Format:** DIL-600
Segment: V1.D1.S7_FINAL **Acquired:** Not Available
Reference: 0 **Processed:** Not Available

TENSION LBS
10000
0

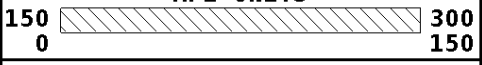
DEEP INDUCTION OHMM
0.0
0.0
500.0
50.0

SPONTANEOUS POTENTIAL mV
0.0

SHALLOW FOCUSED RESISTIVITY OHMM
0.0
500.0

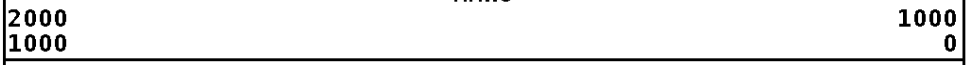
→ ← 30

GAMMA RAY
API UNITS

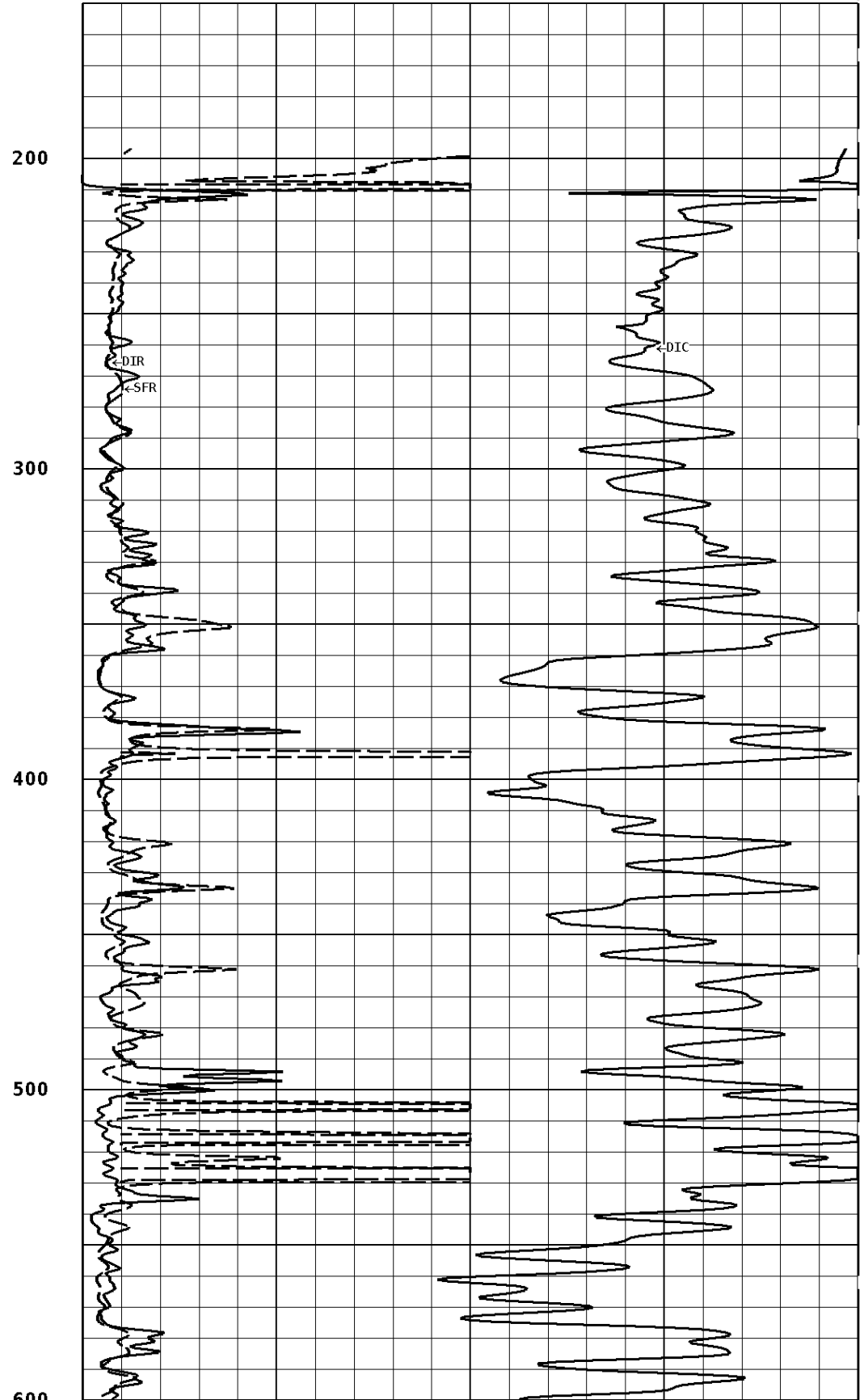
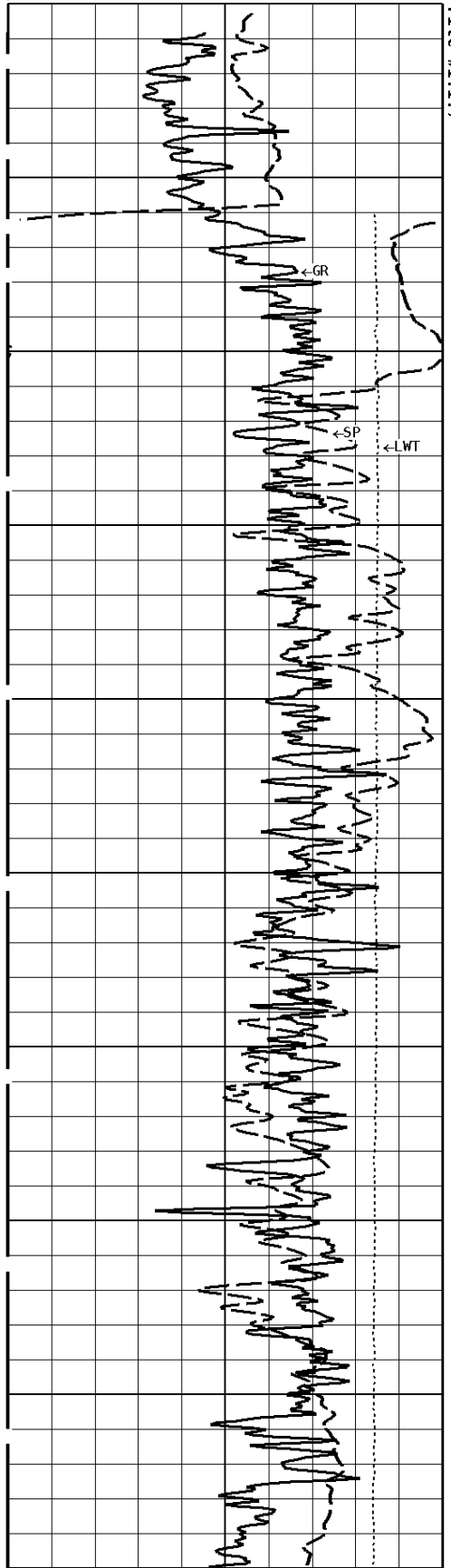


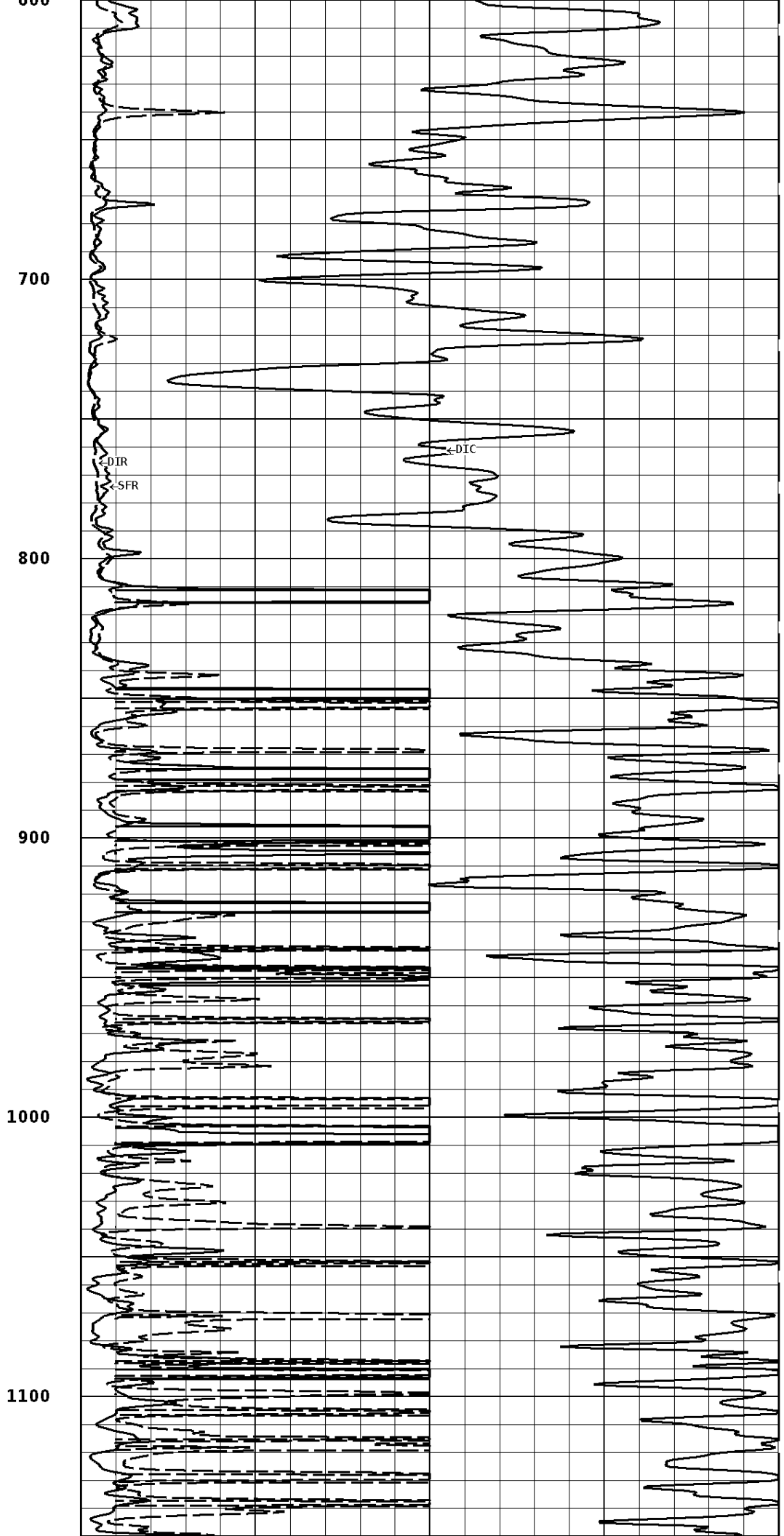
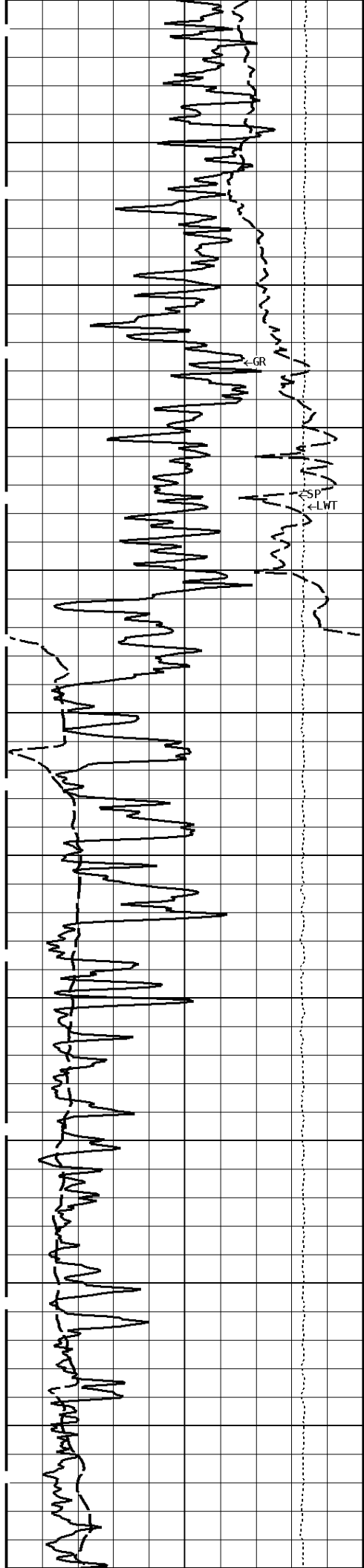
0.0 500.0
0.0 50.0

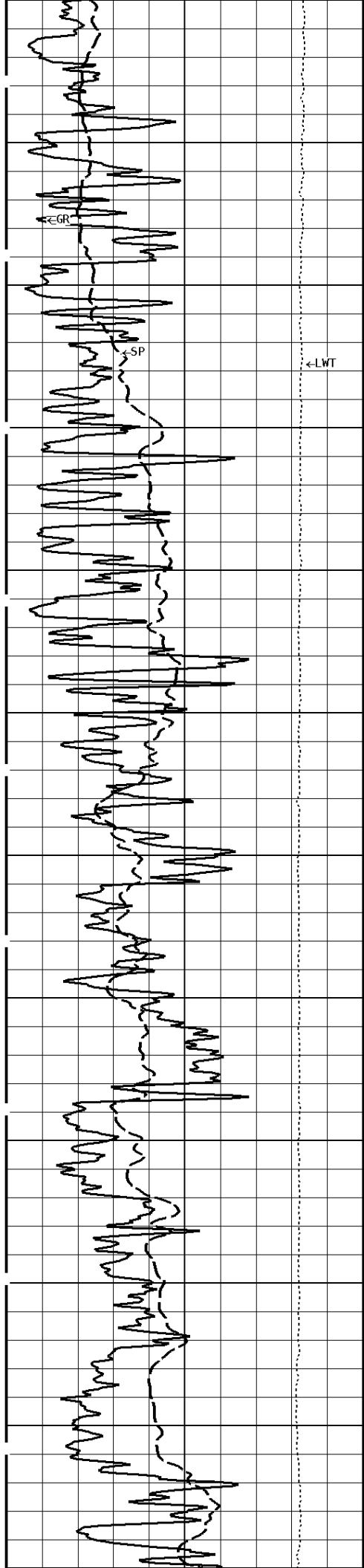
DEEP CONDUCTIVITY
MMHO



1:600 MAIN SECTION







1200

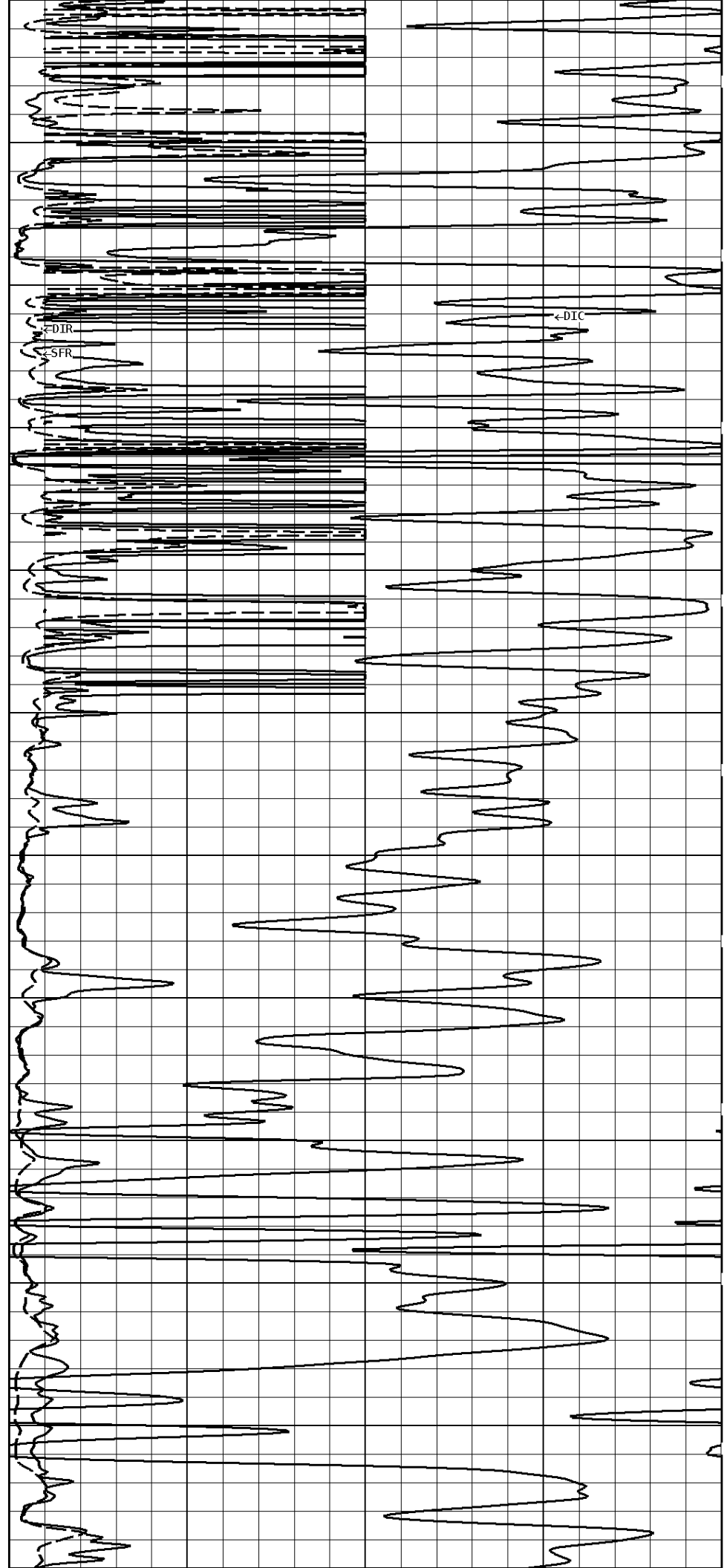
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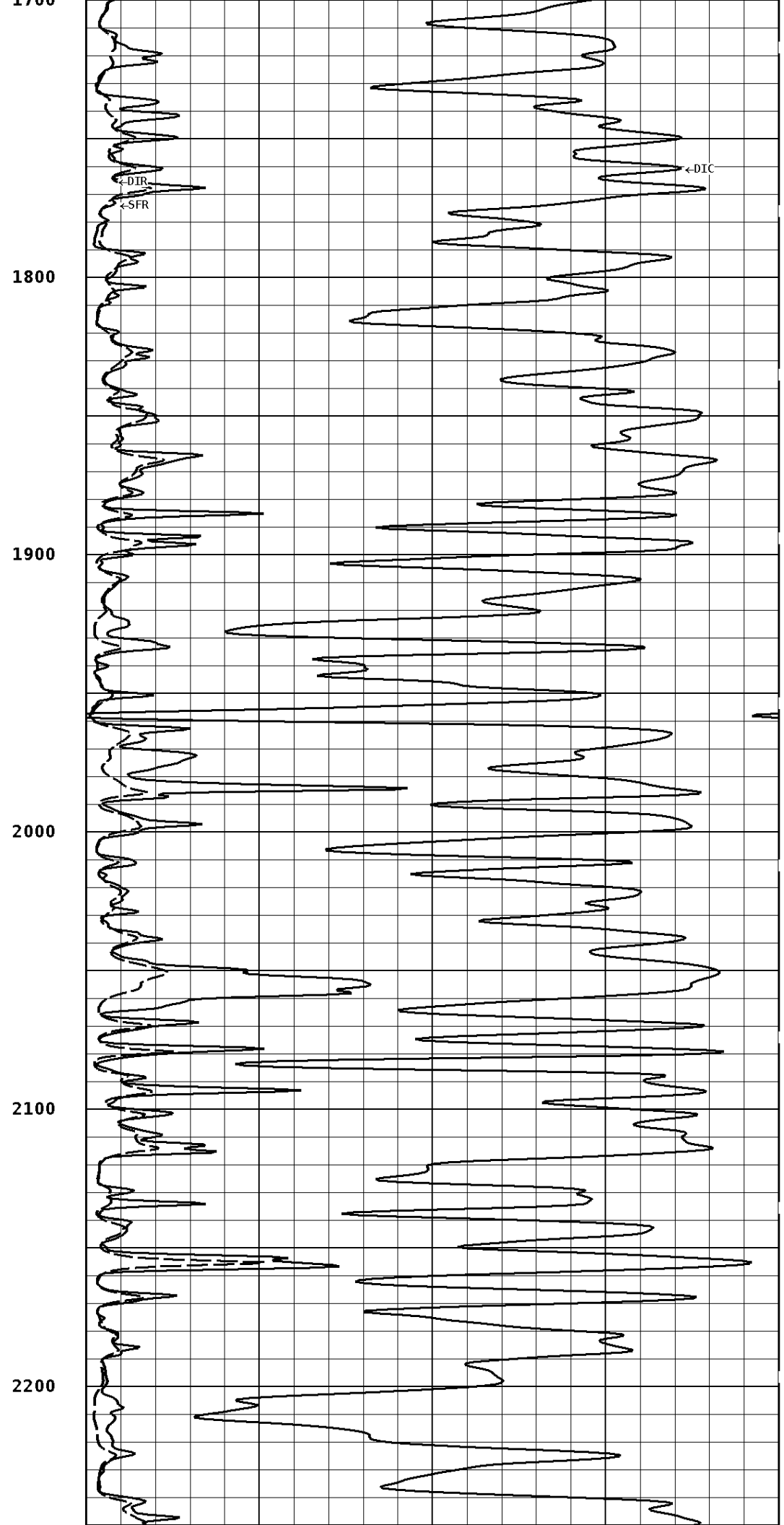
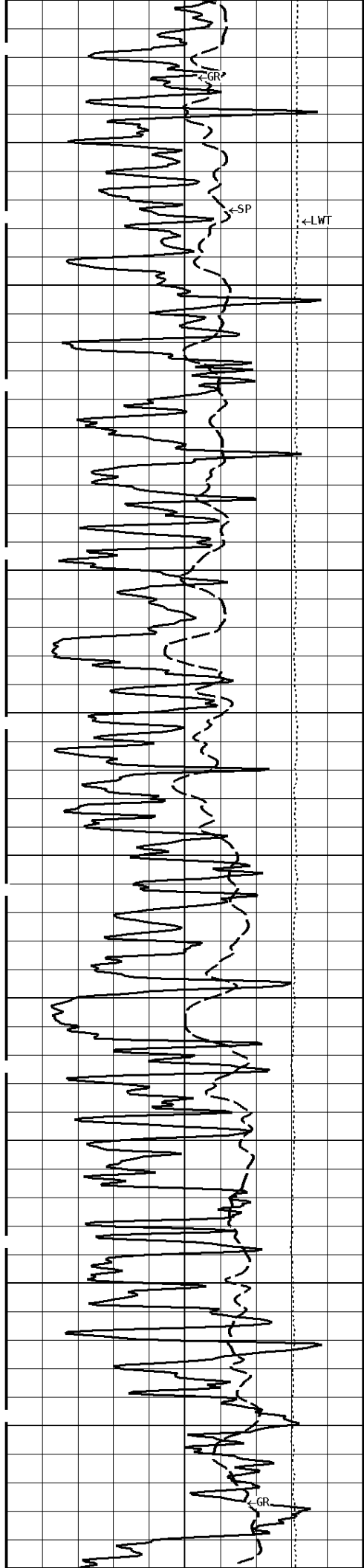
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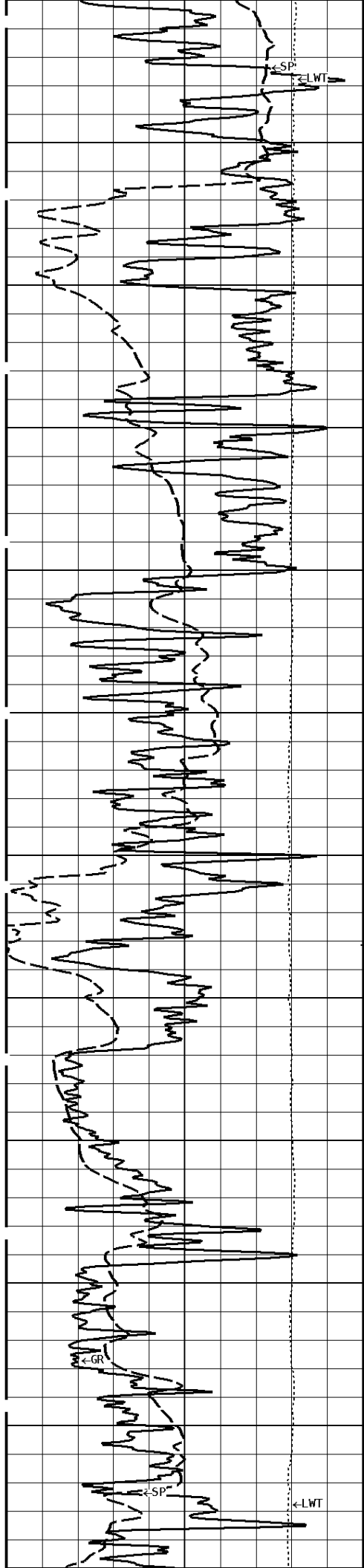
1500

1600

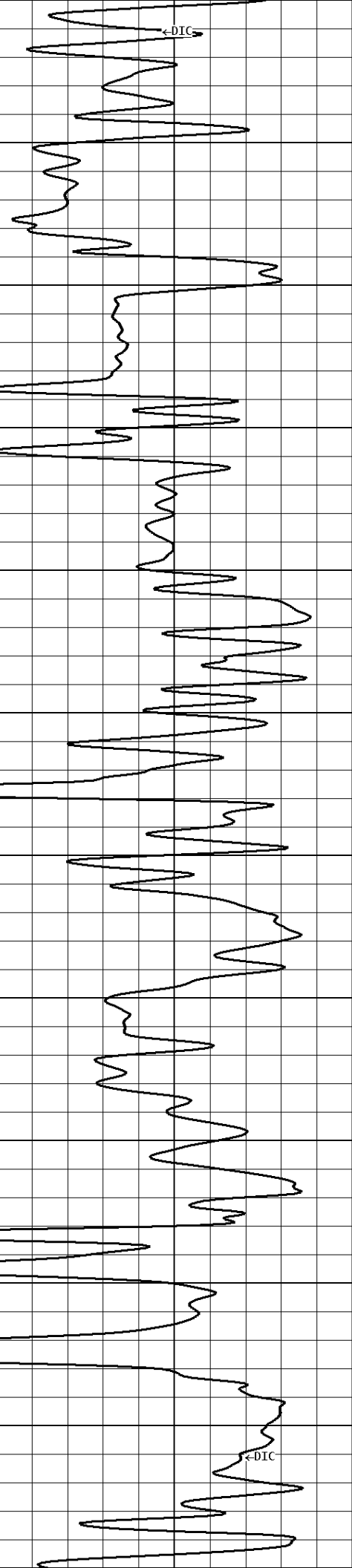
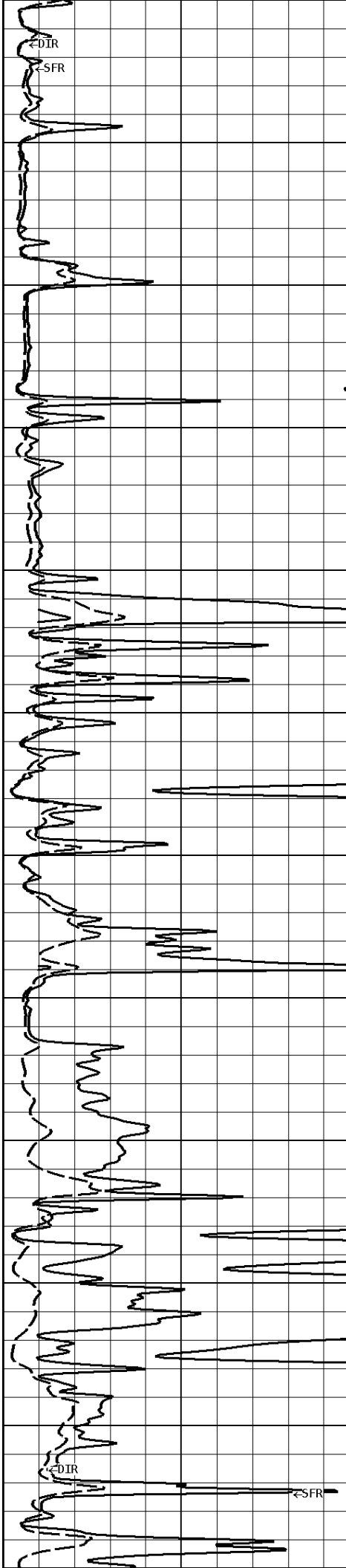
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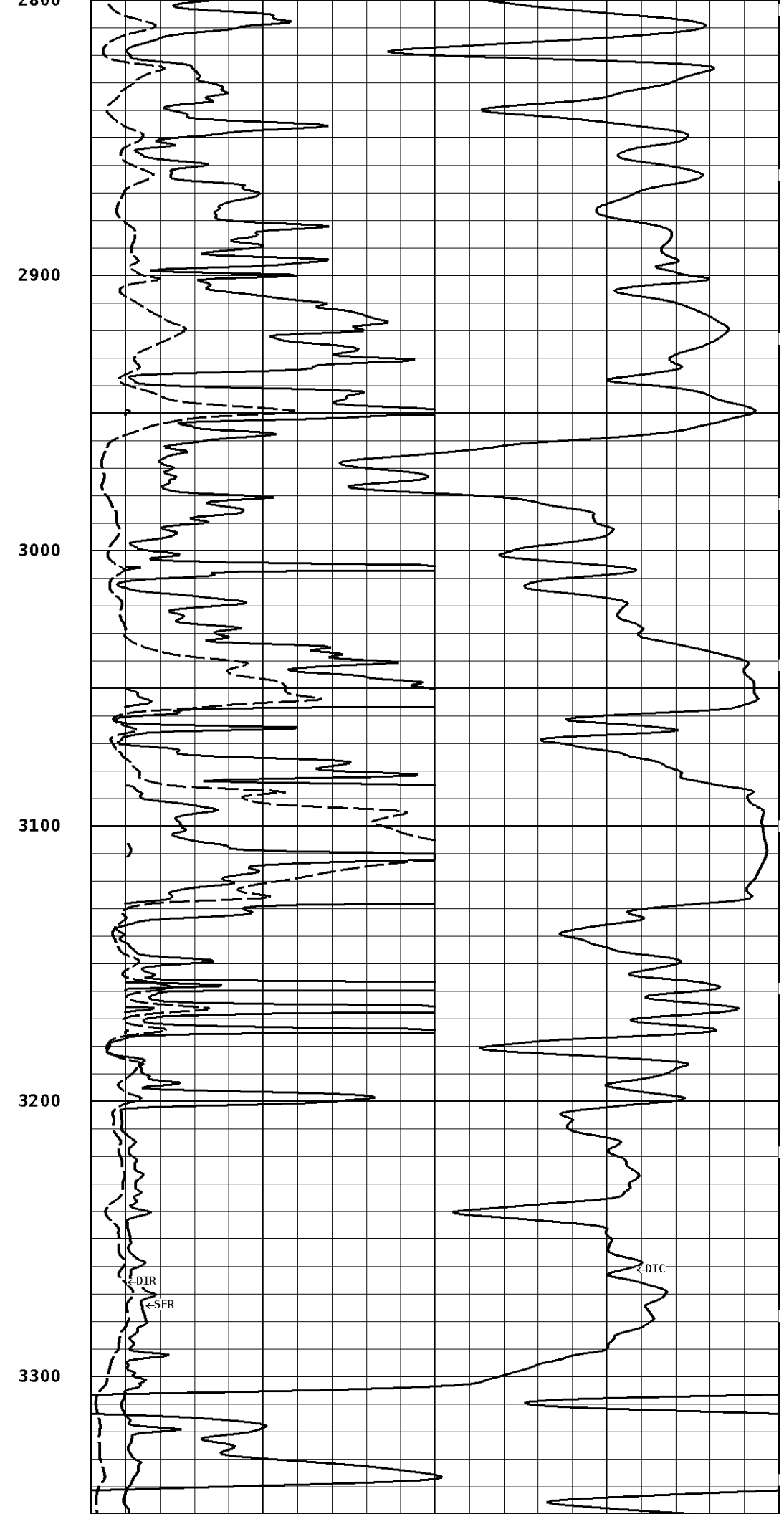
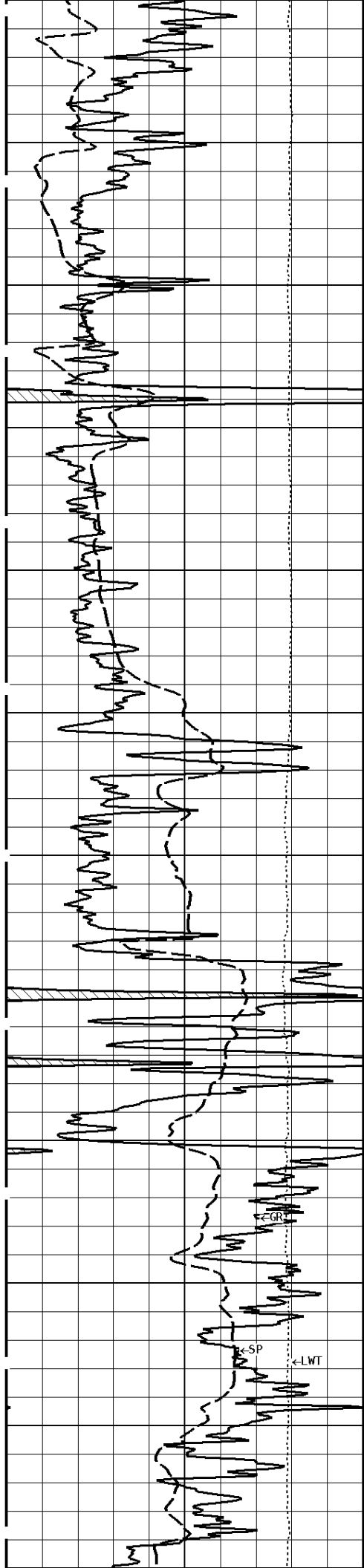


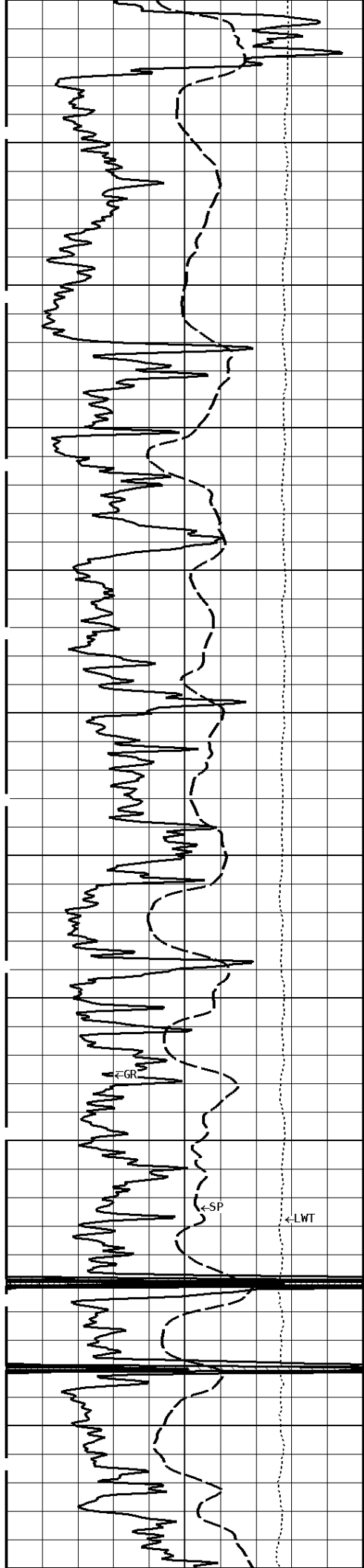




2300
2400
2500
2600
2700
2800







3400

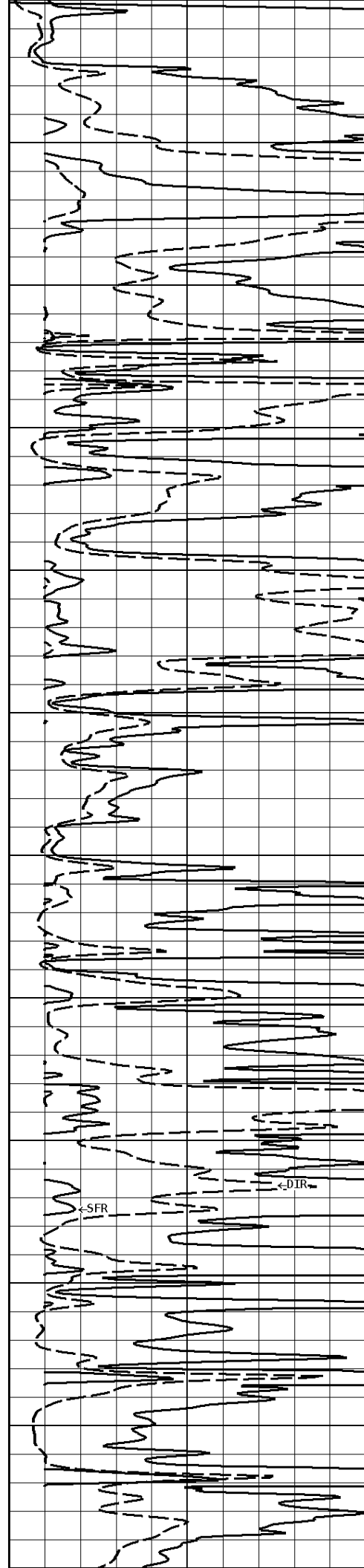
3500

3600

3700

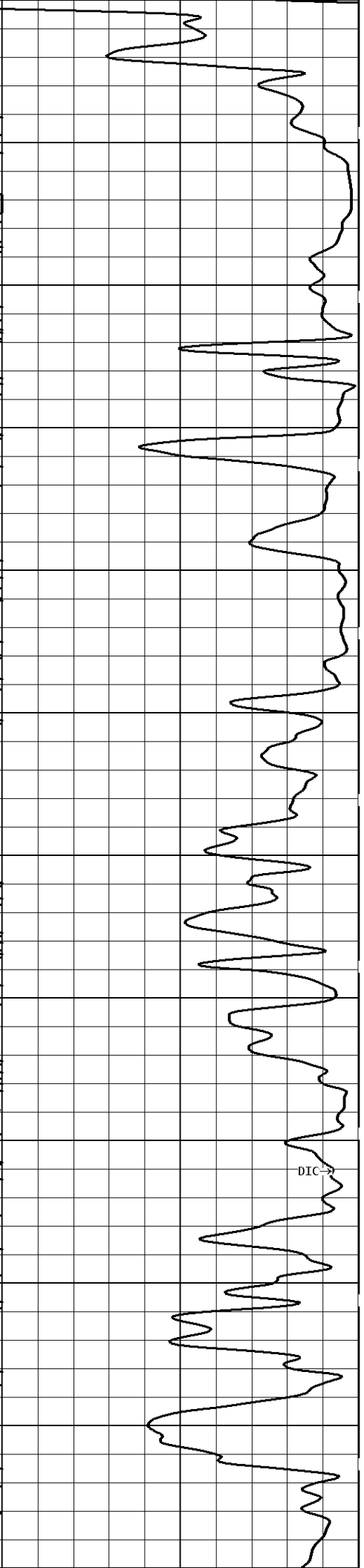
3800

3900

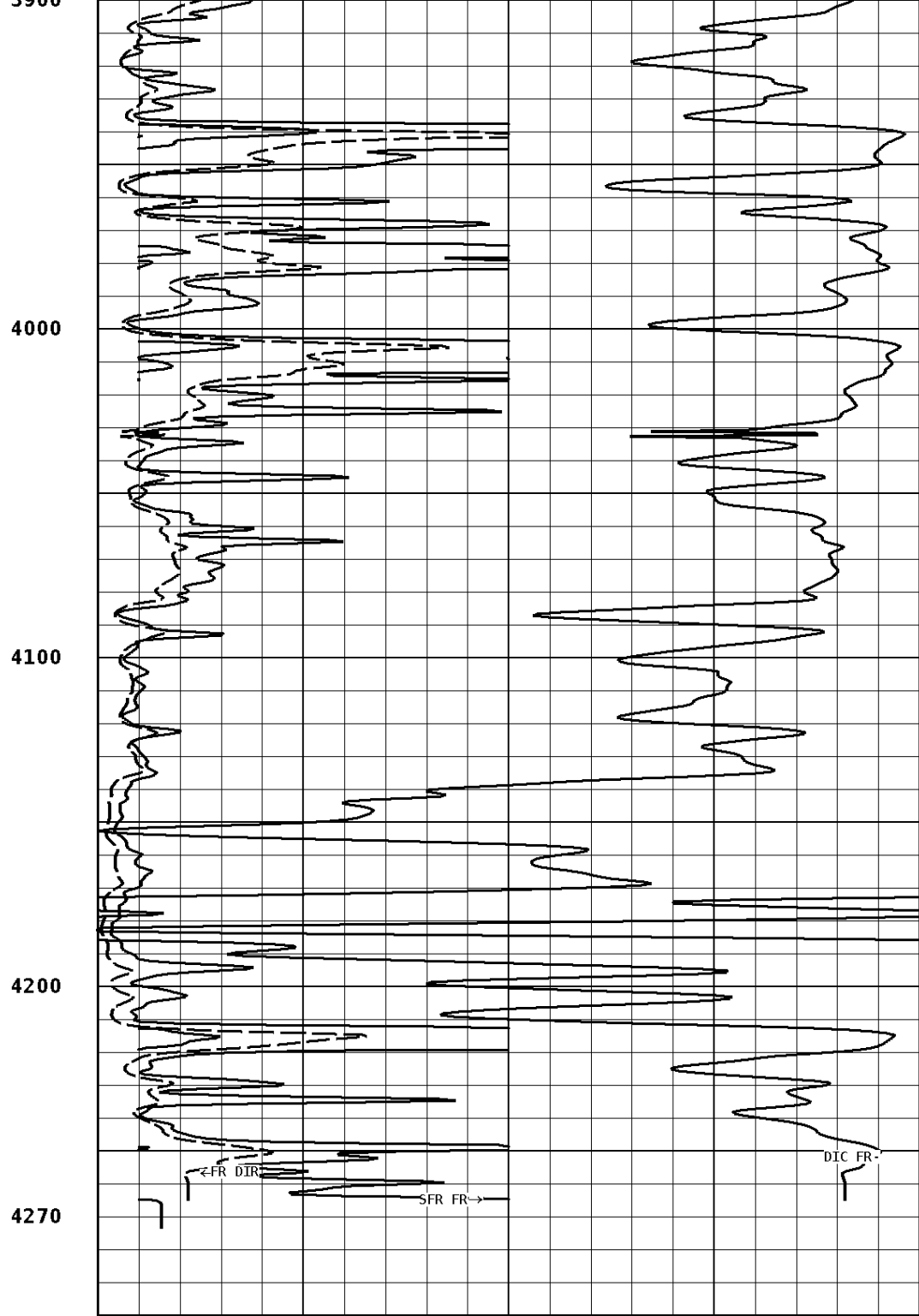
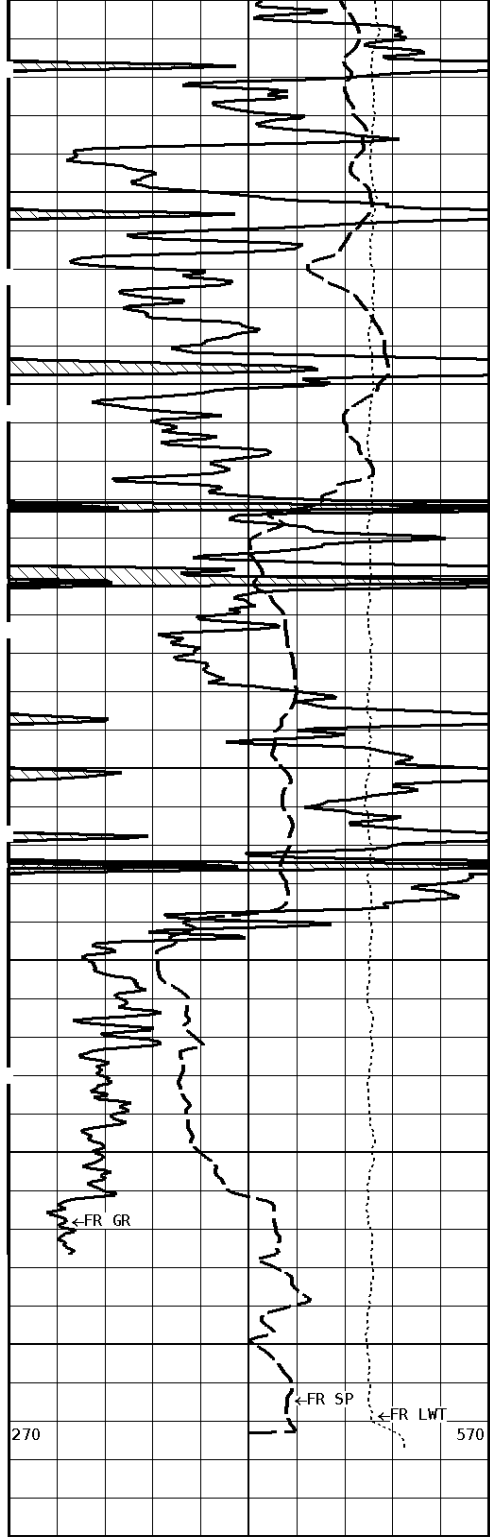


←SFR

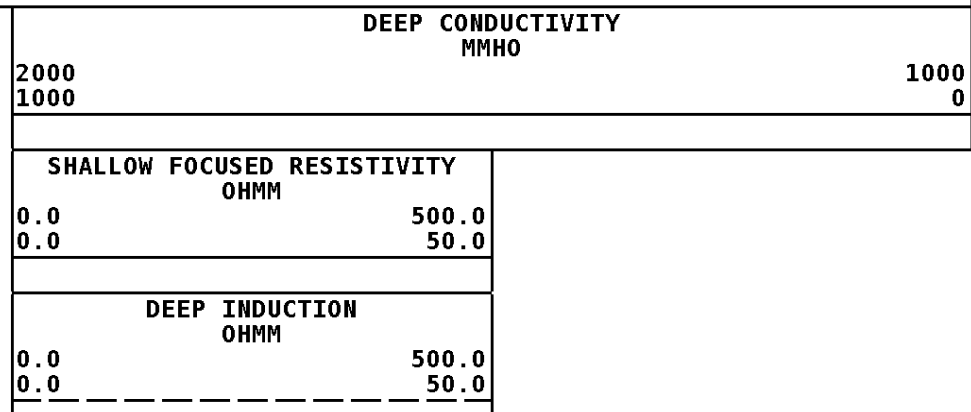
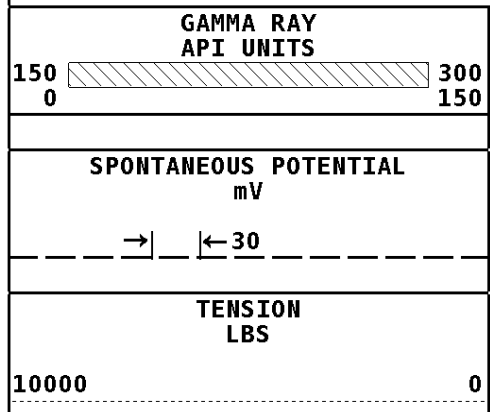
←DIR



DIC



1:600 MAIN SECTION

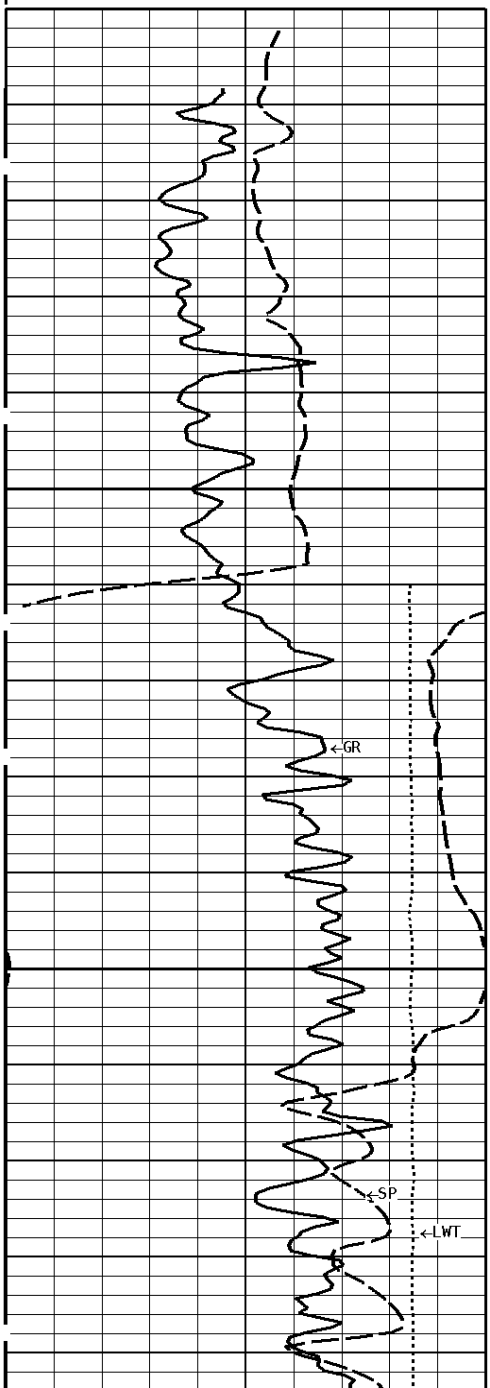


Well File: PICKRELL HIGGINS K 3 JAN16 MSTK
Segment: V1.D1.S7 FINAL
Reference: 0

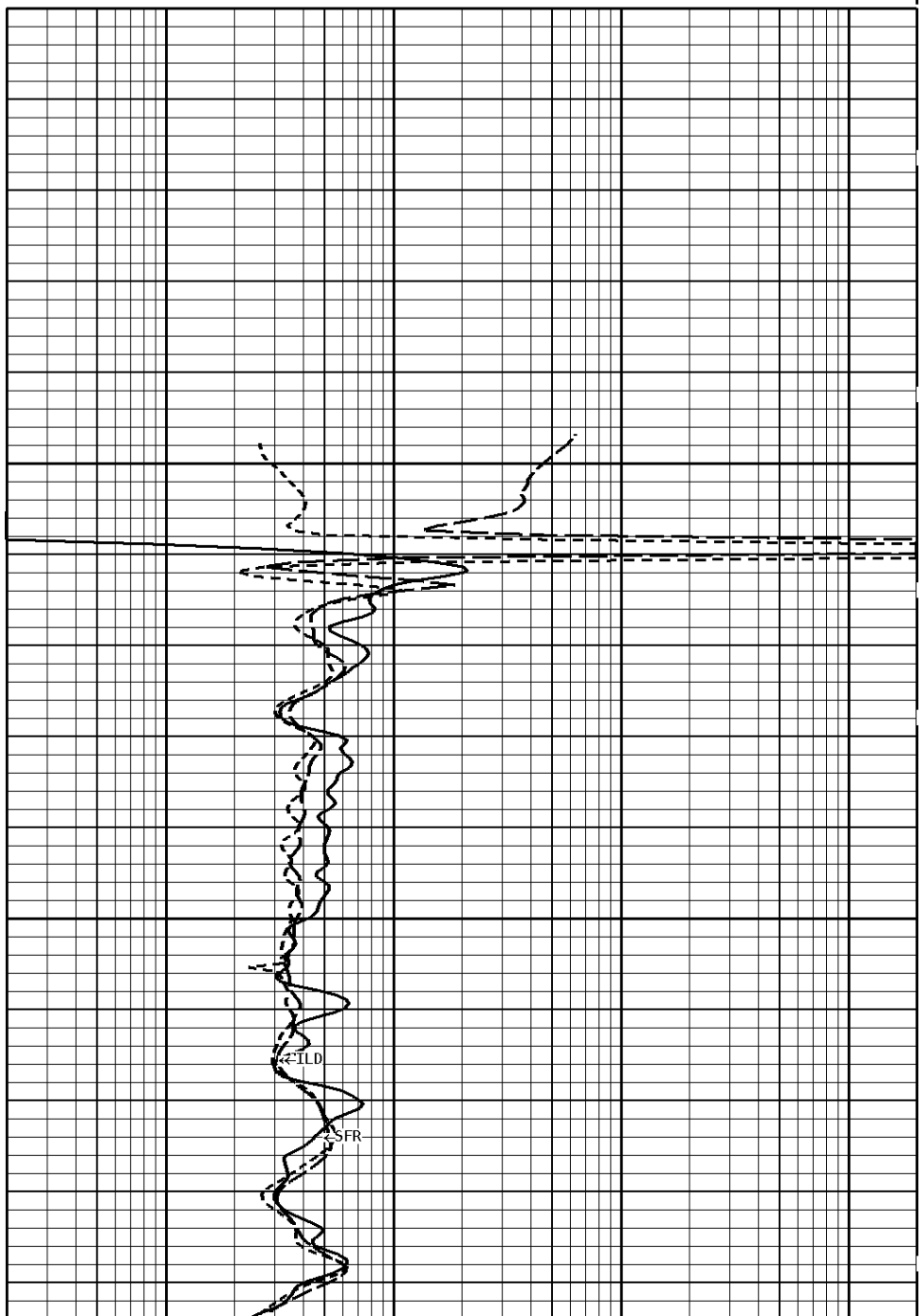
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Acquired: Not Available
Processed: Not Available

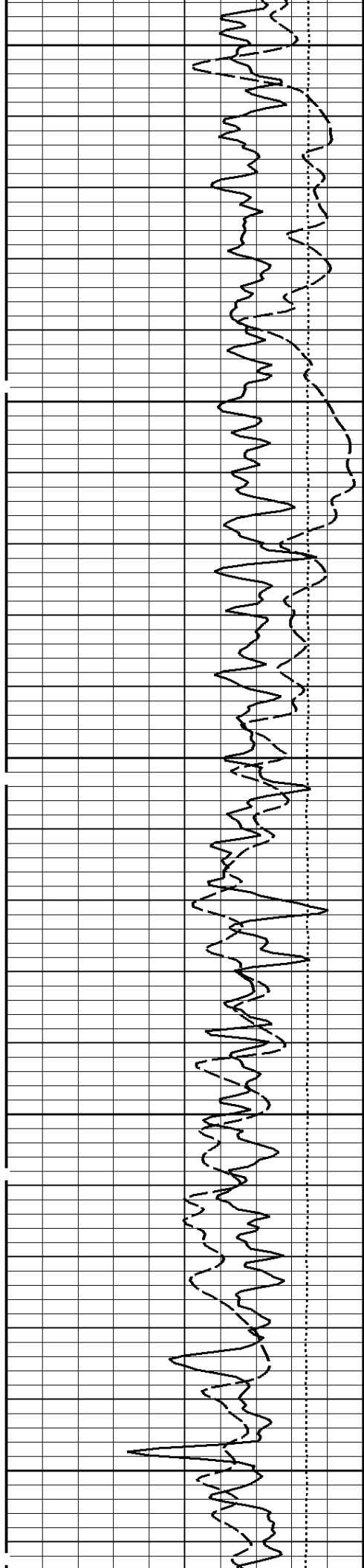
SPONTANEOUS POTENTIAL mV → ← 30	DEEP INDUCTION OHMM 0.2 ----- 2000.0
TENSION LBS 10000 ----- 0	MEDIUM INDUCTION OHMM 0.2 ----- 2000.0
GAMMA RAY API UNITS 150 0 ----- 300 150	SHALLOW FOCUSED RESISTIVITY OHMM 0.2 ----- 2000.0

1:240 MAIN SECTION



200

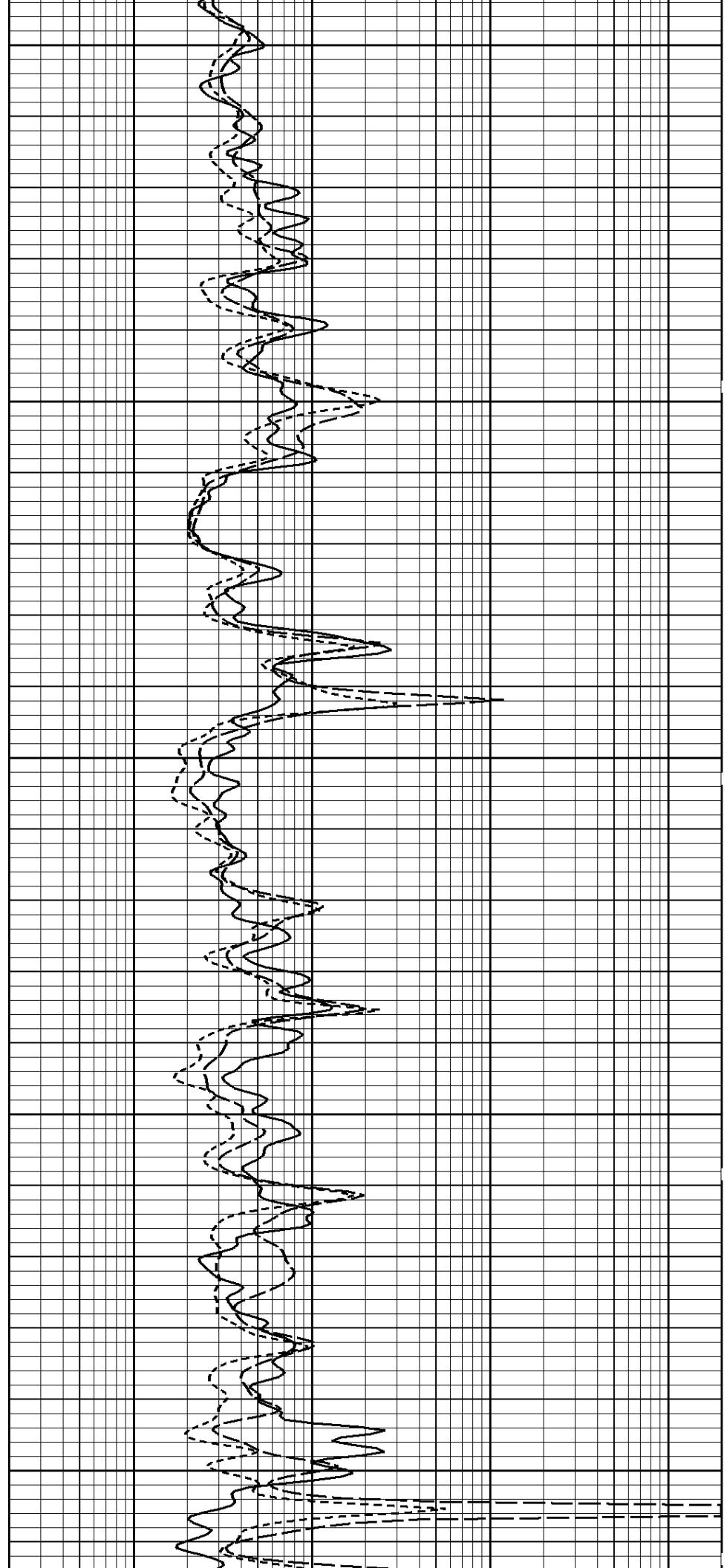


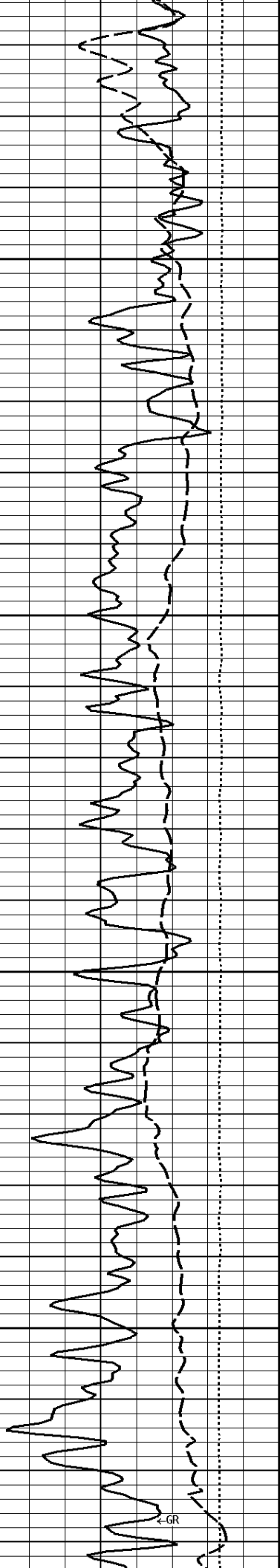


300

400

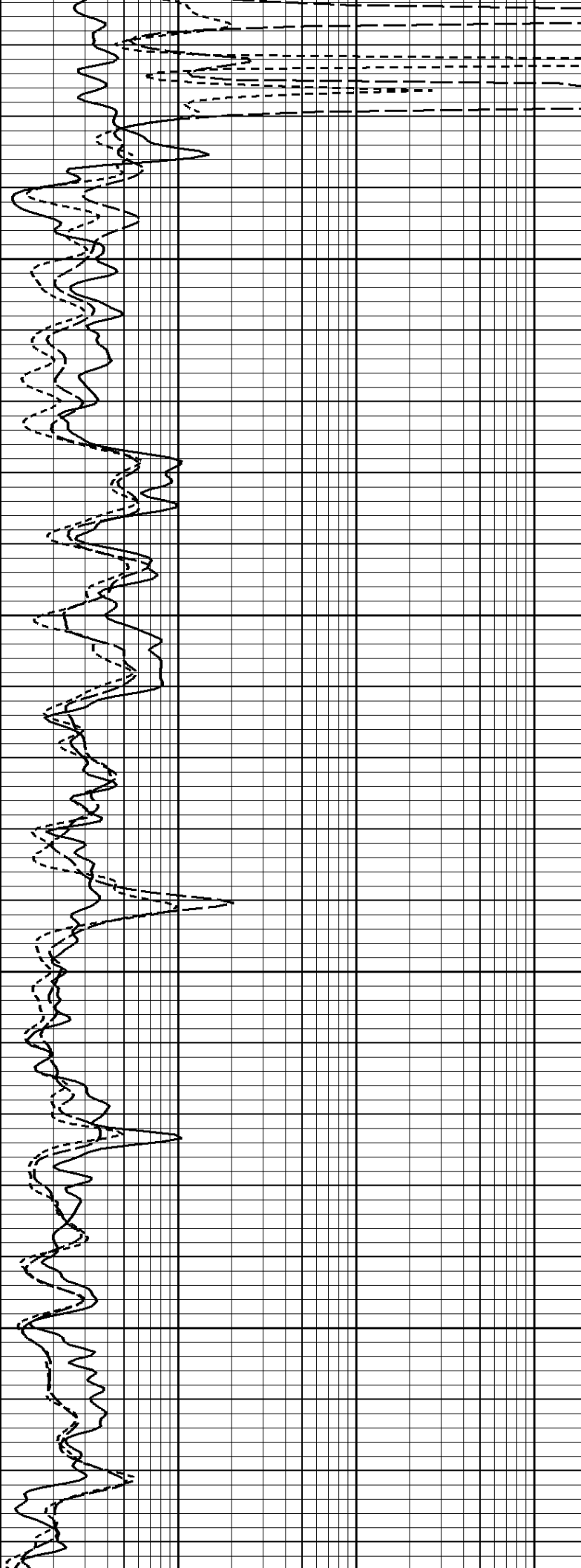
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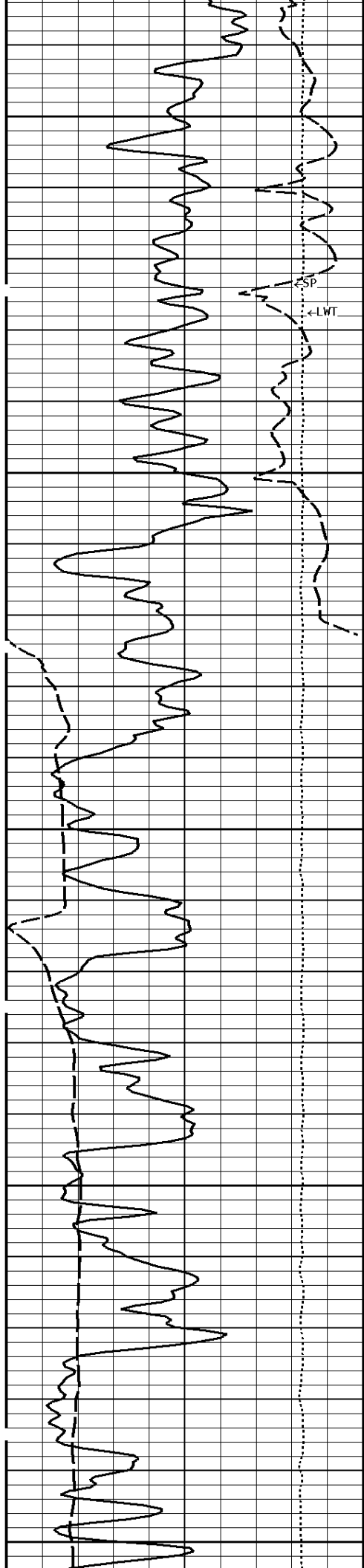




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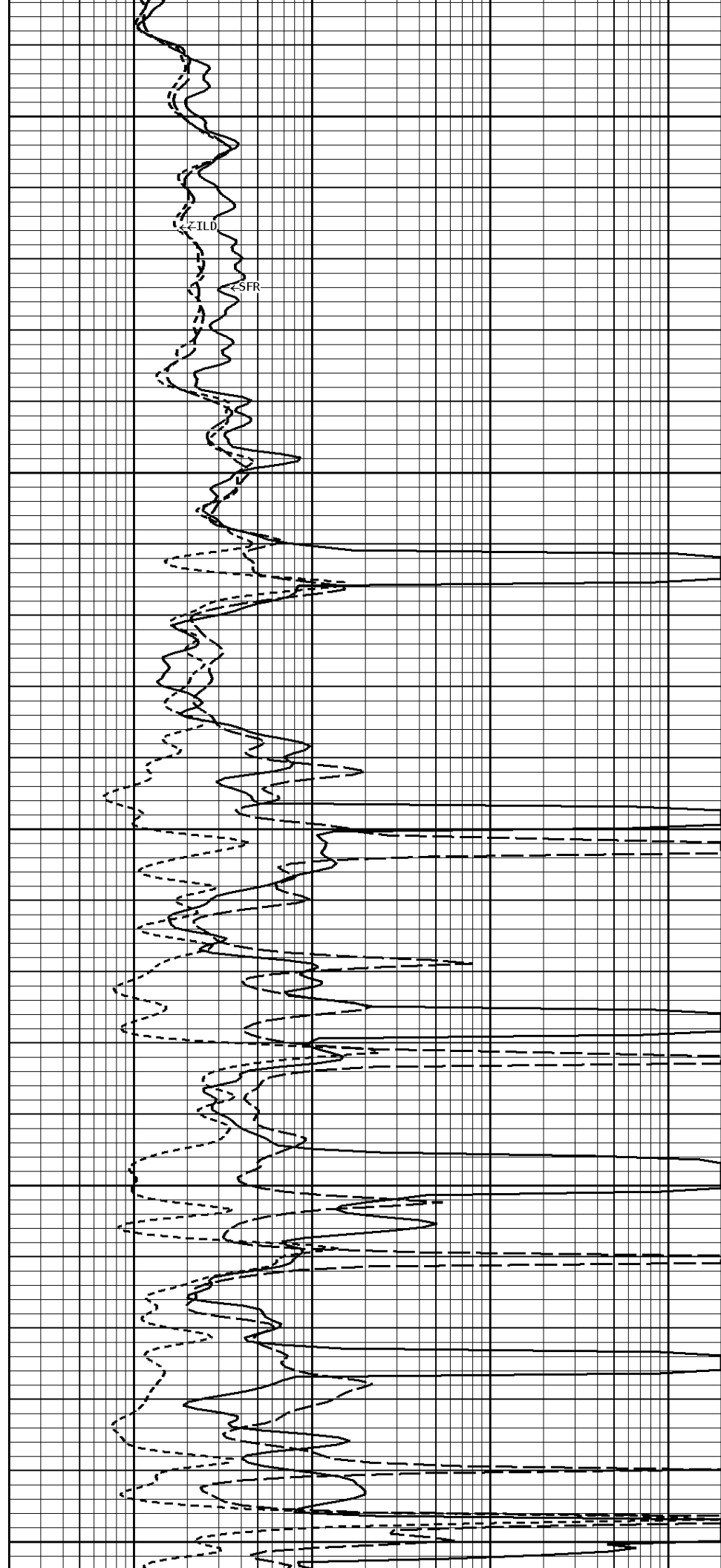
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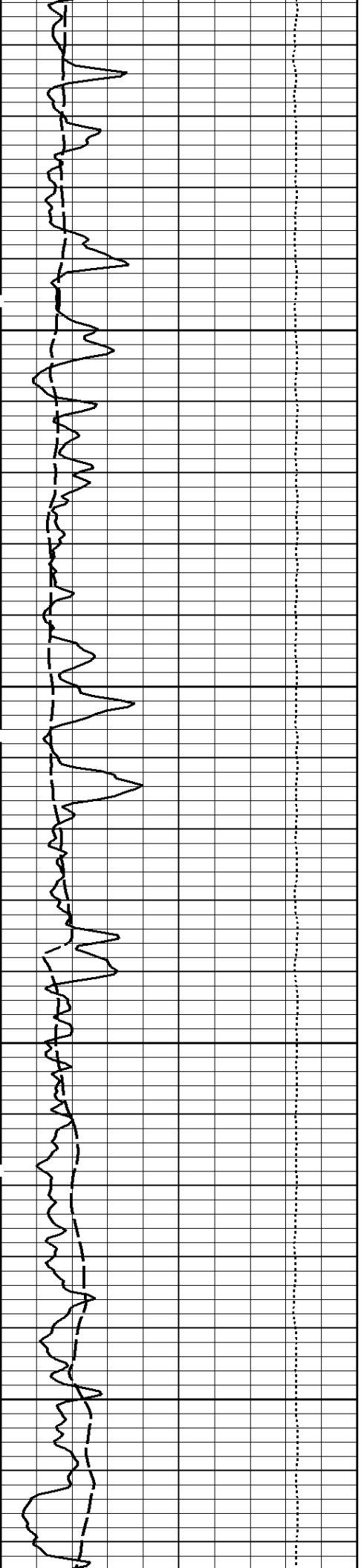




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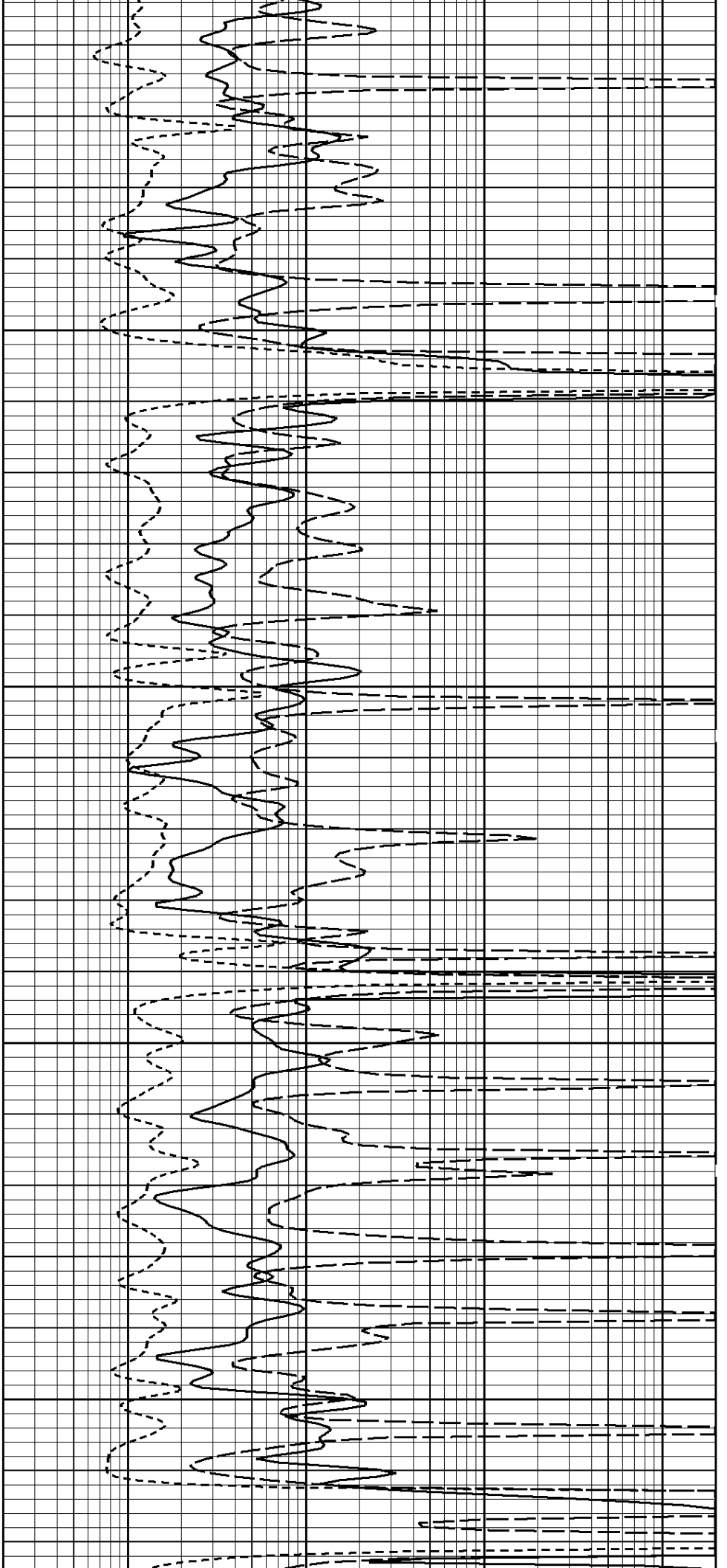
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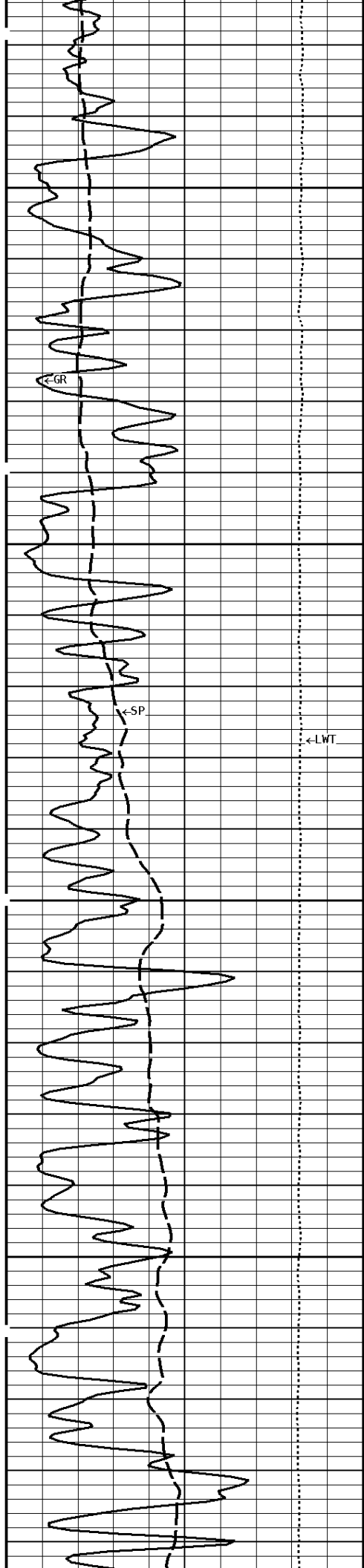




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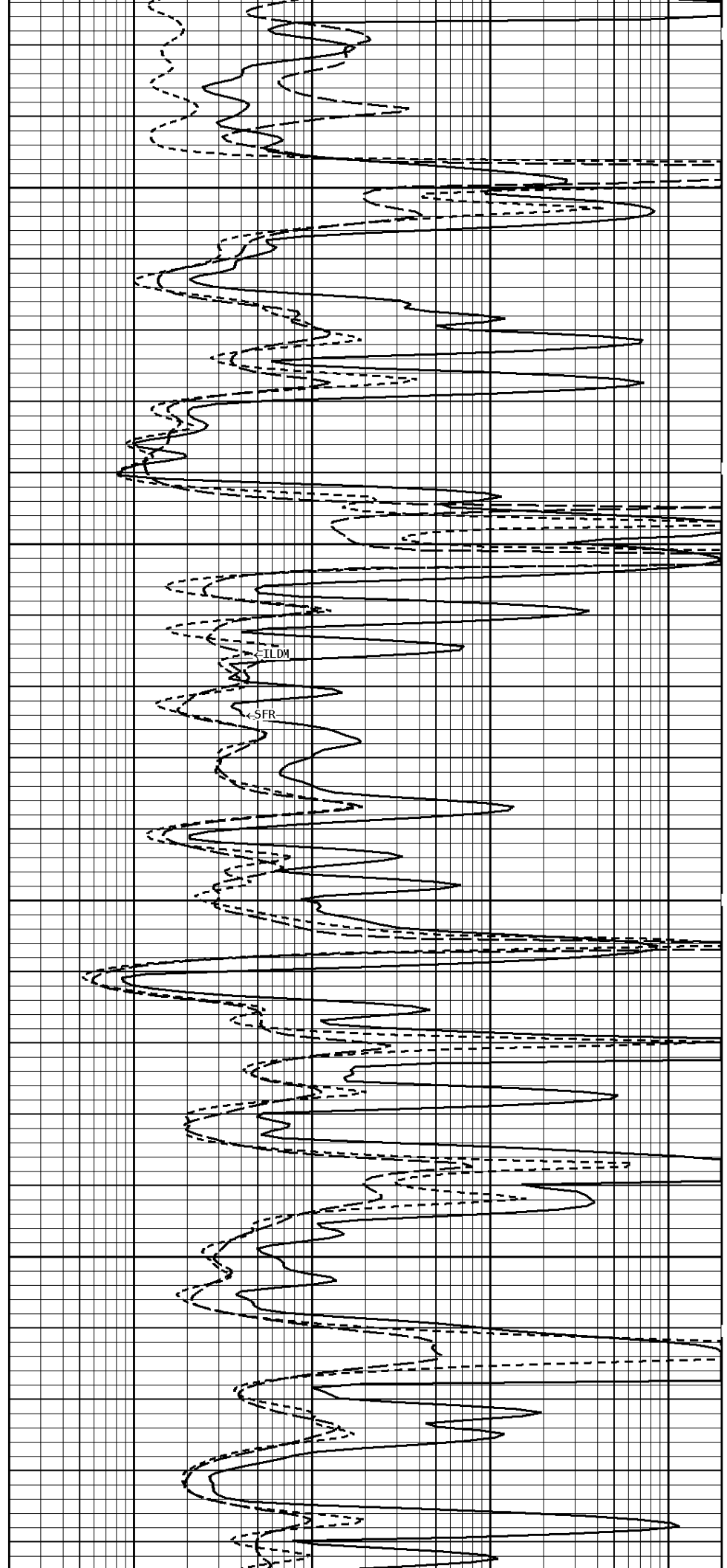
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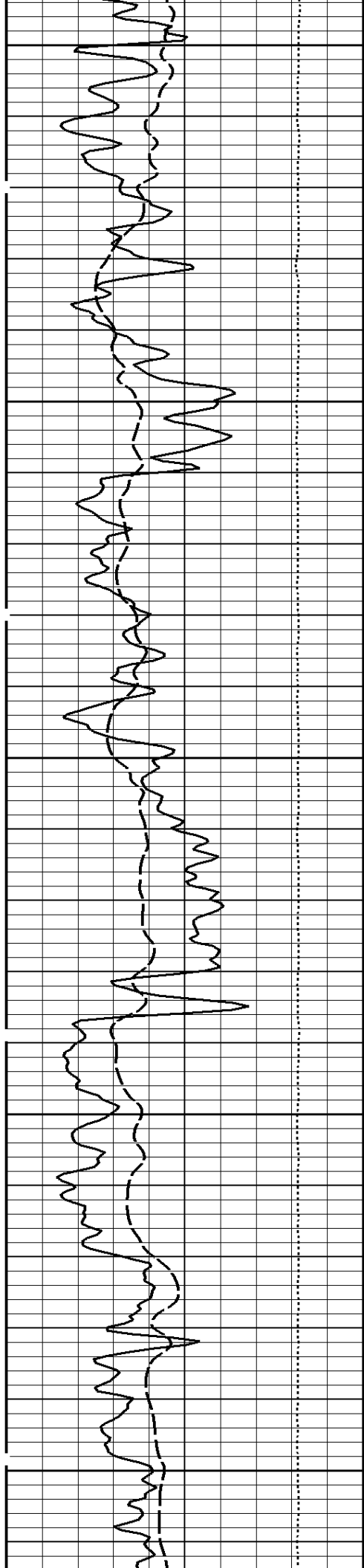




1200

1300

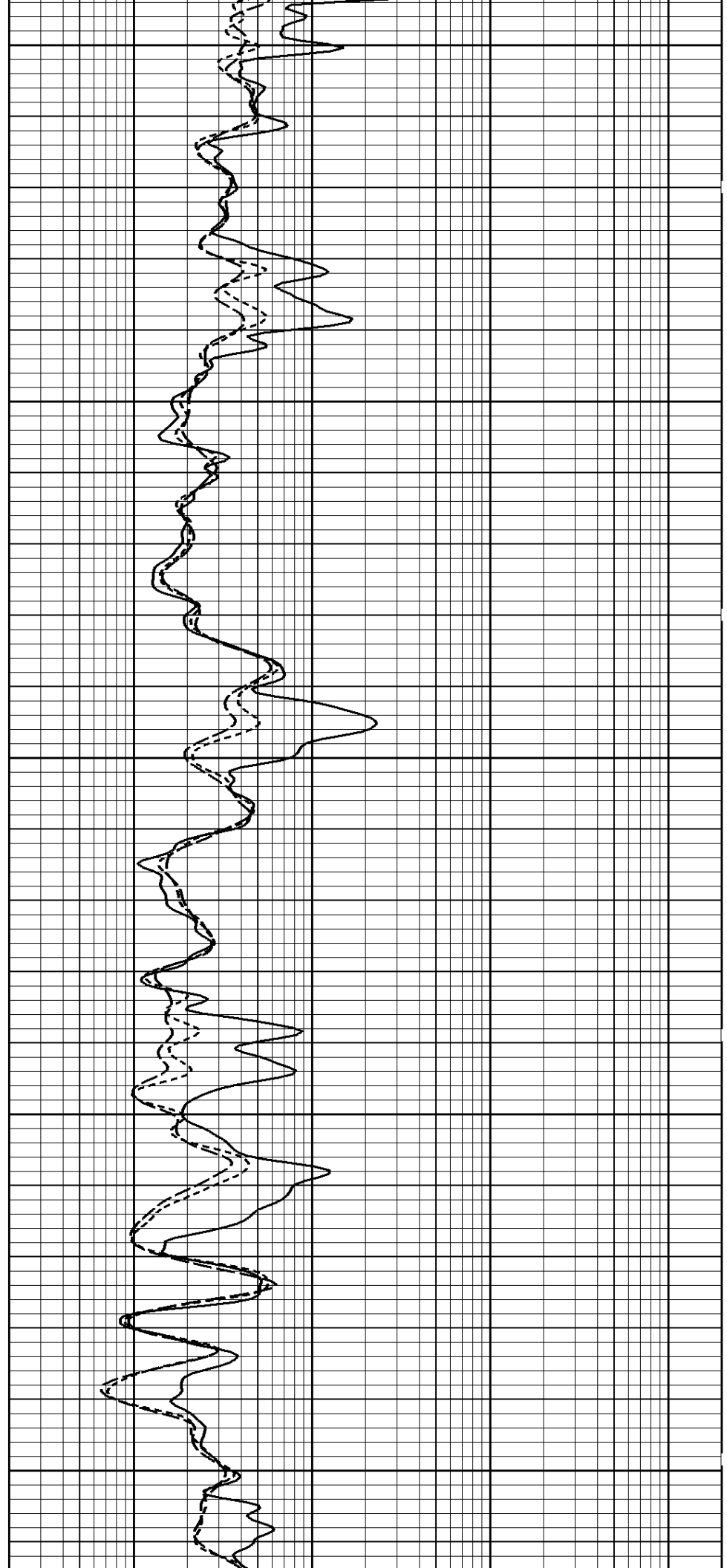


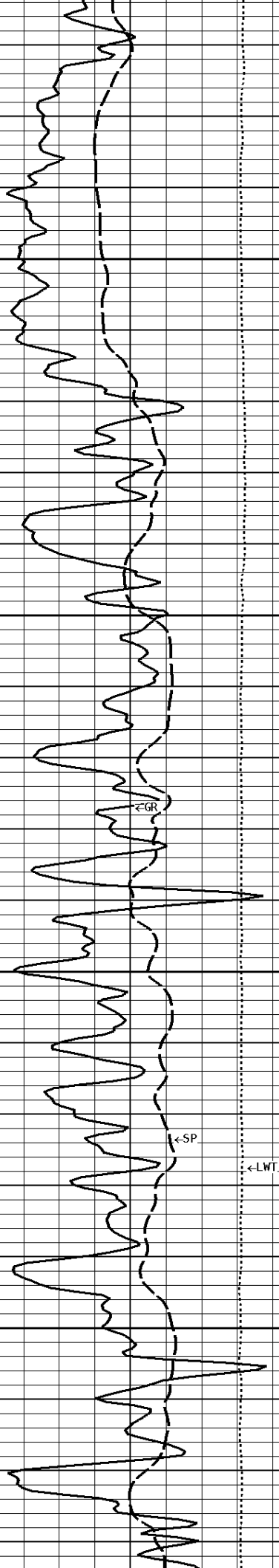


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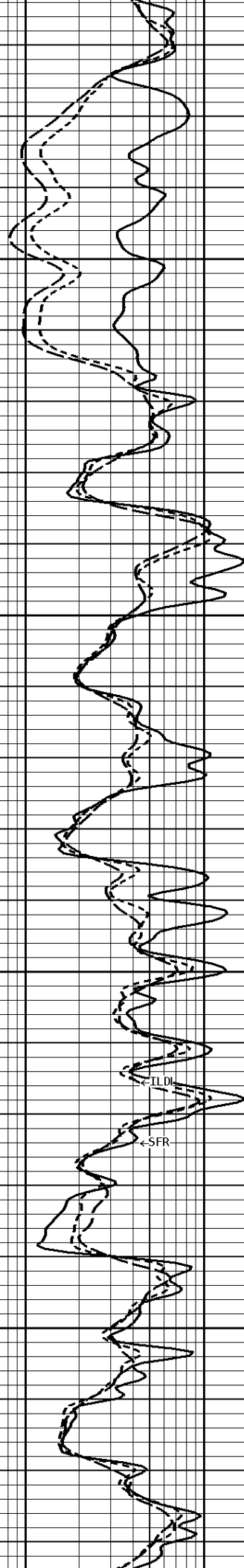
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1600

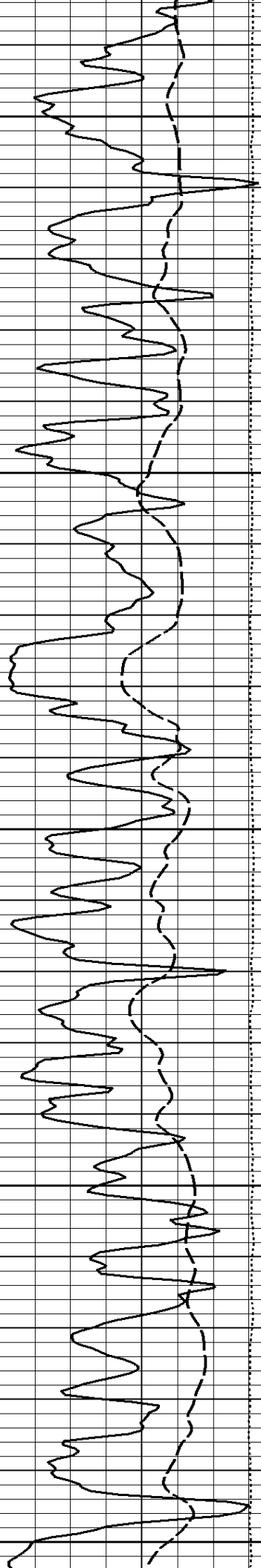




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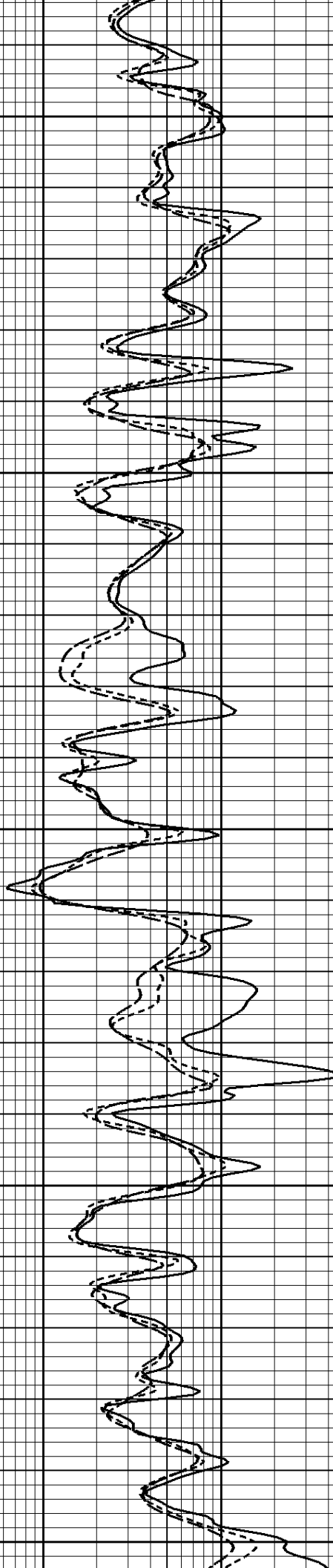


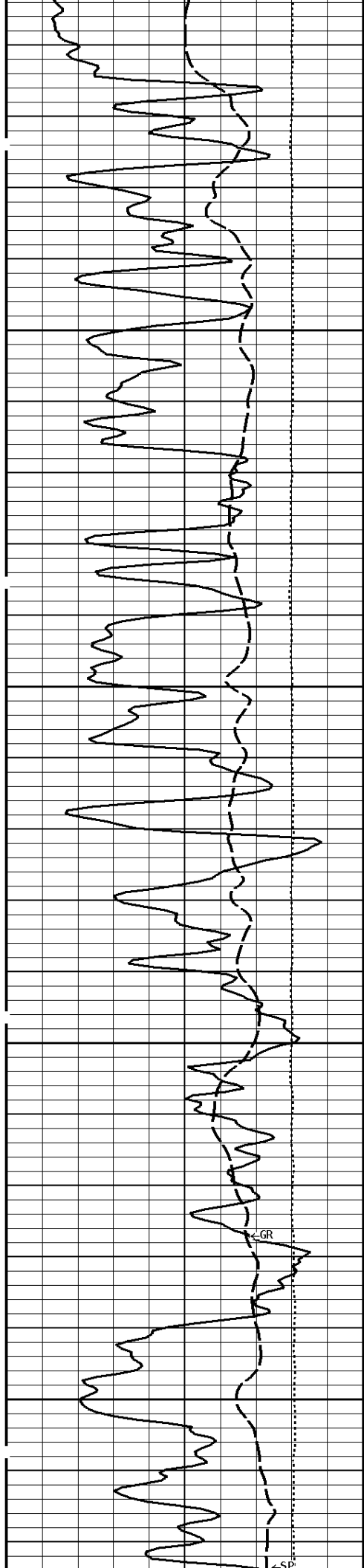
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1900

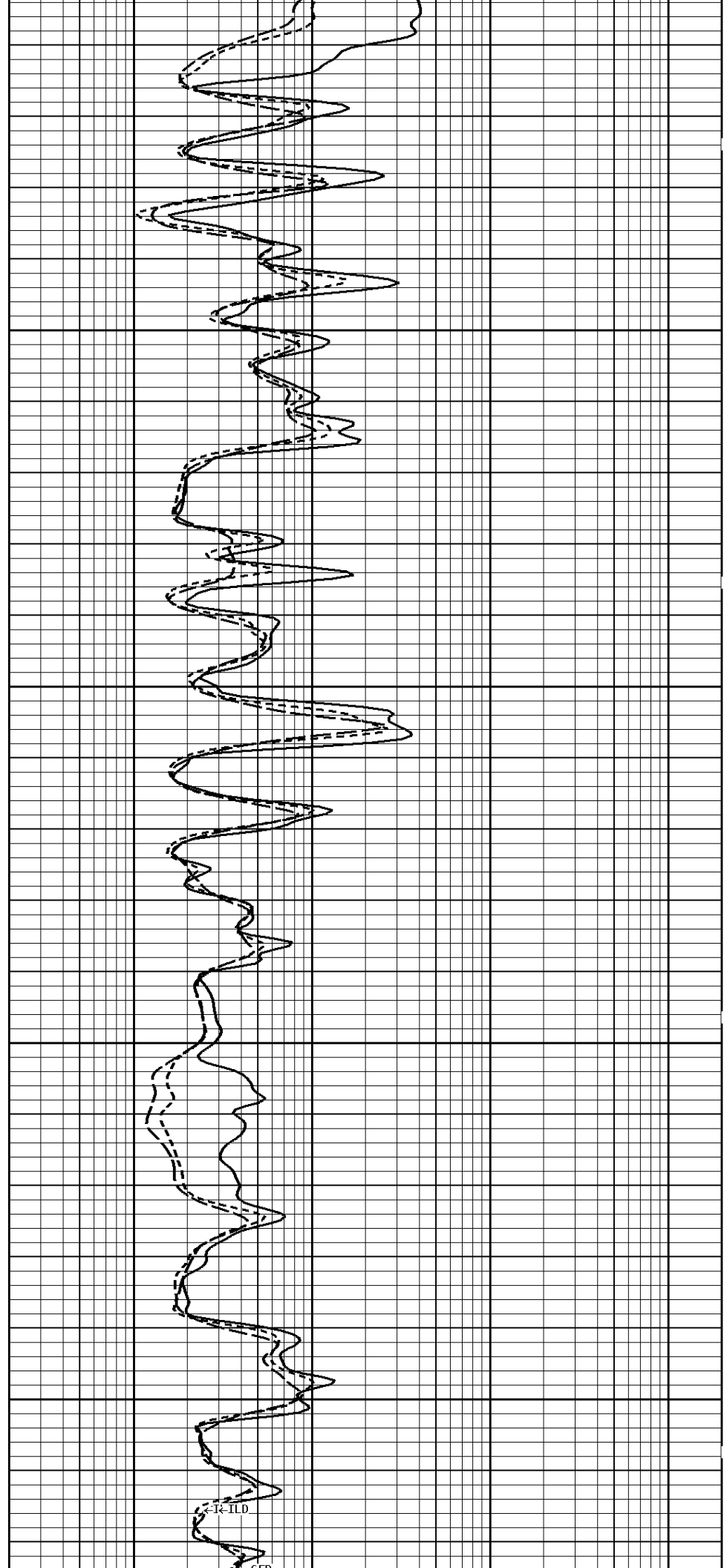
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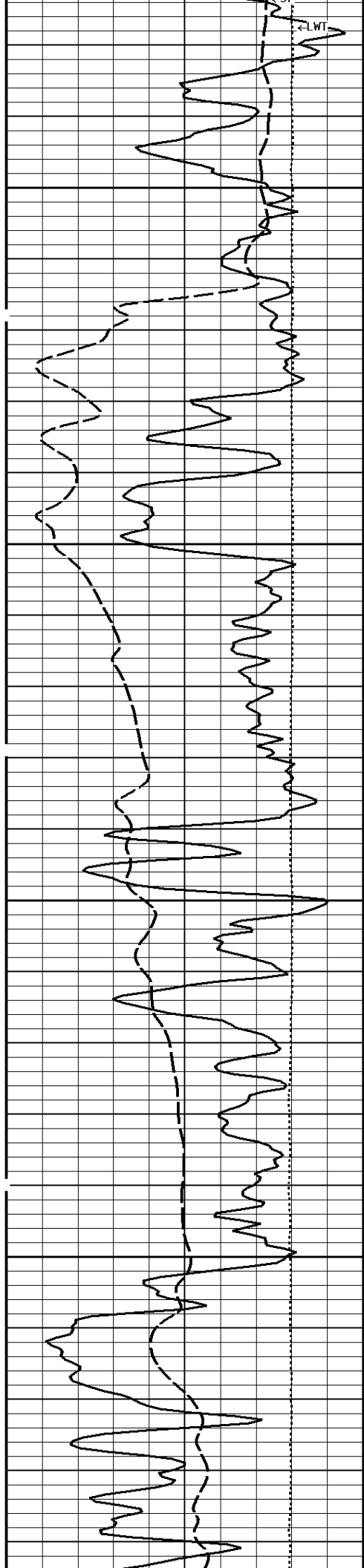
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2200



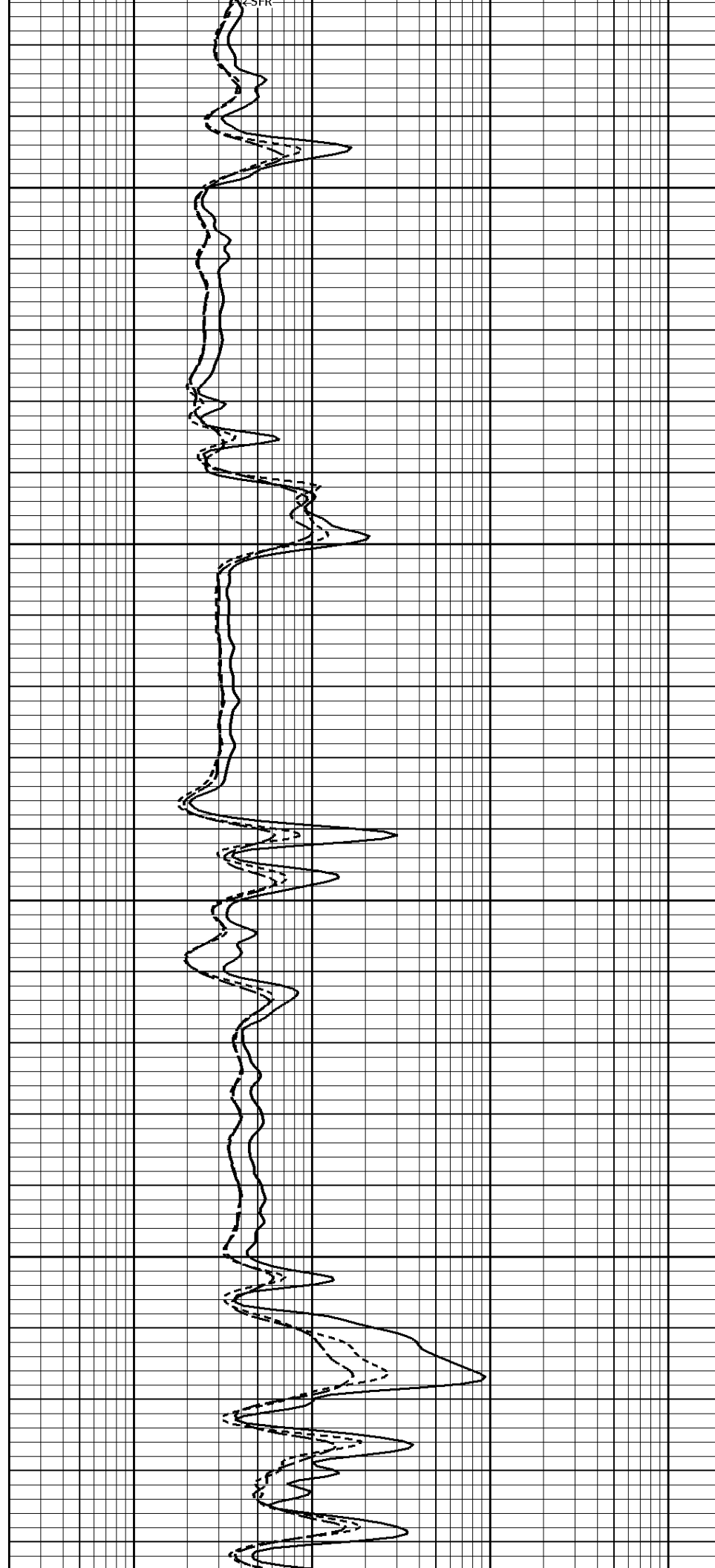
R-ILD

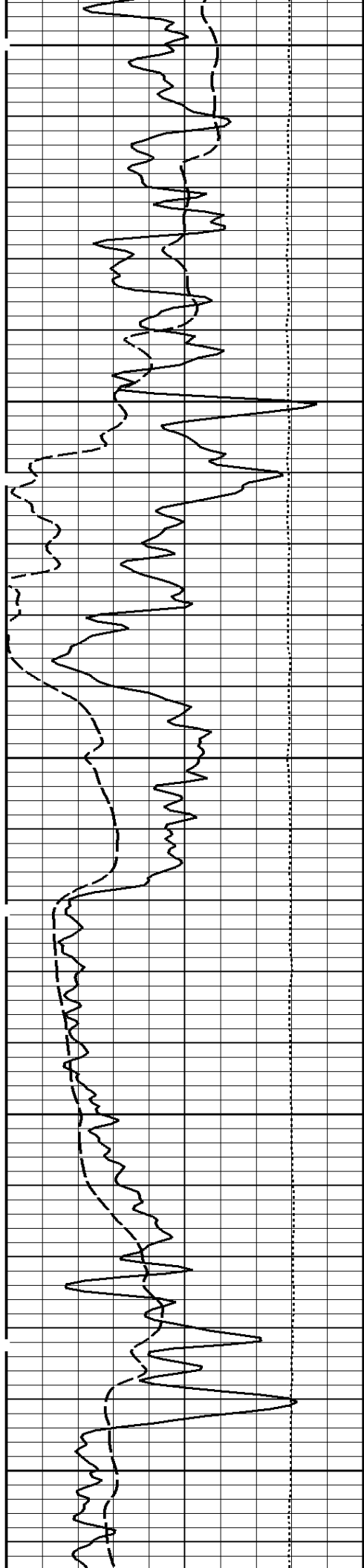
LSP



2300

2400

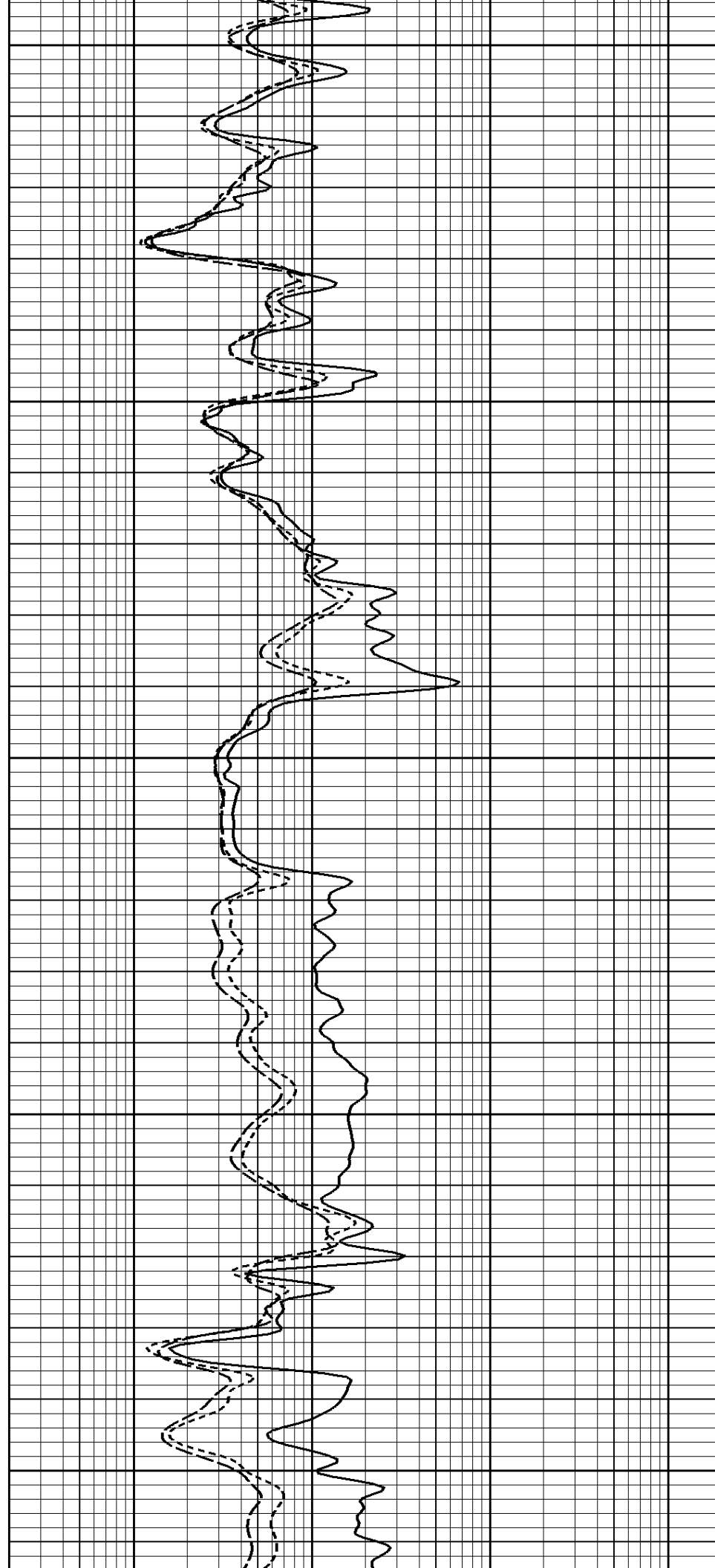


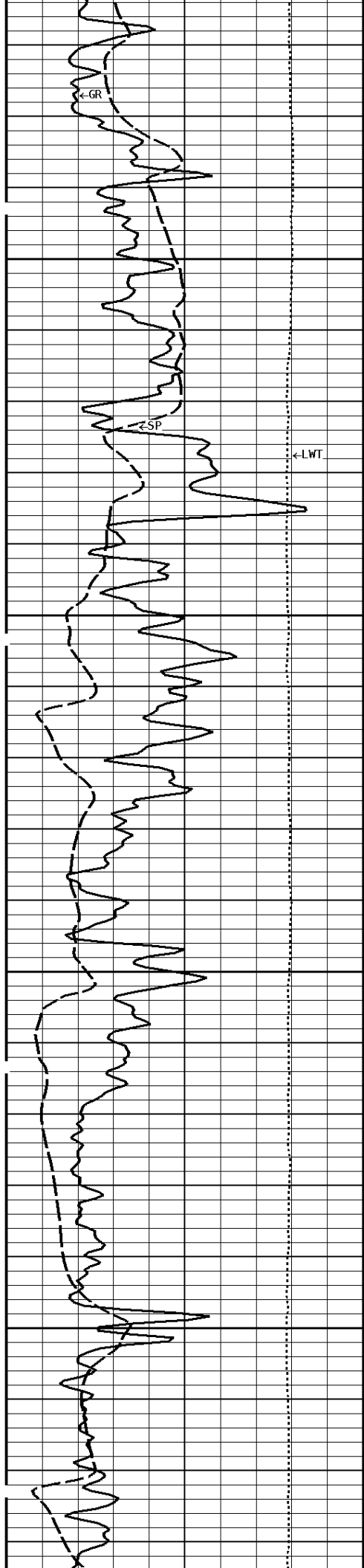


2500

2600

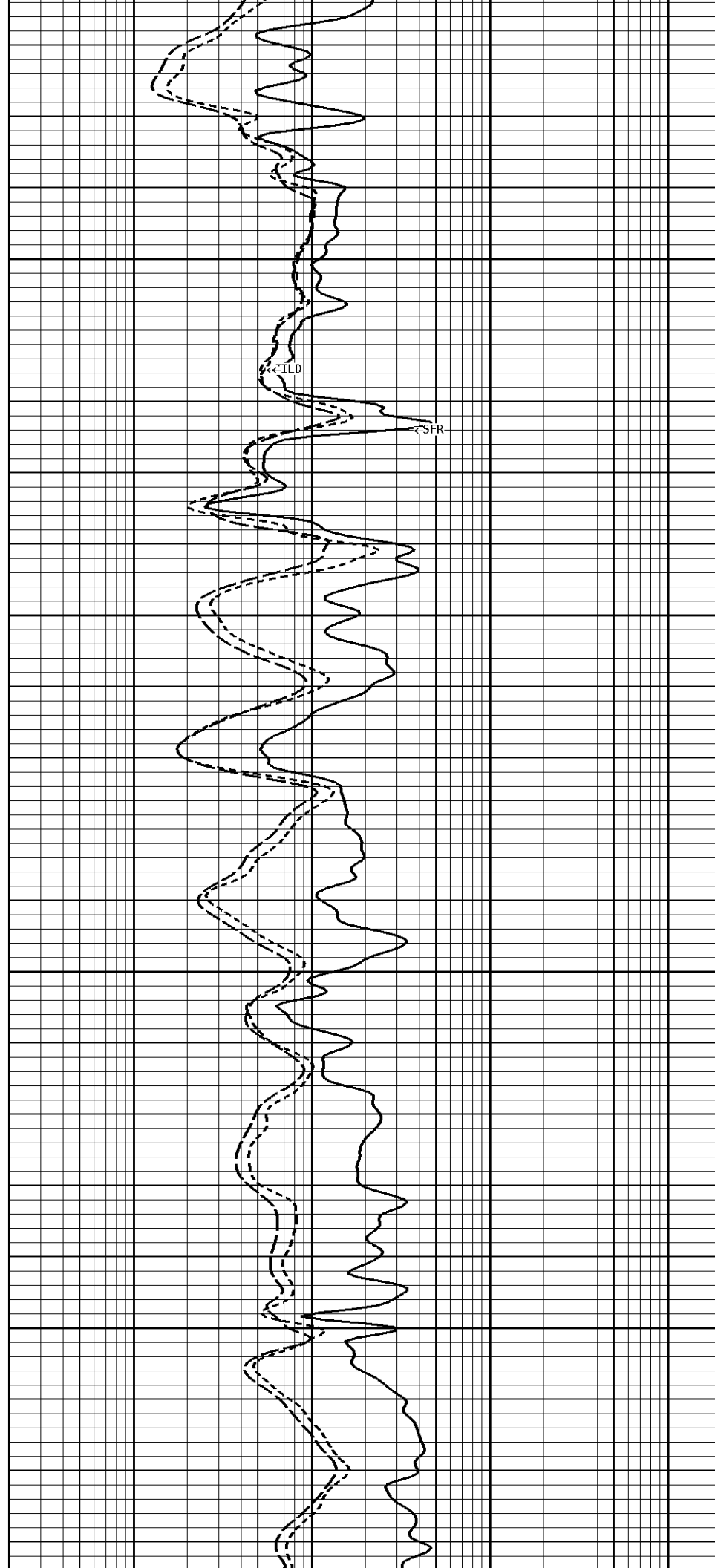
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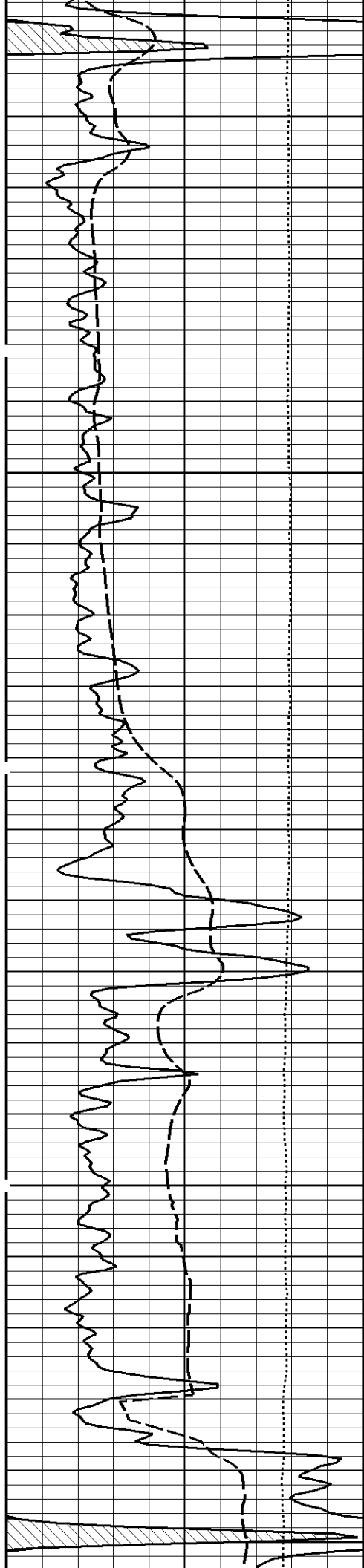




2800

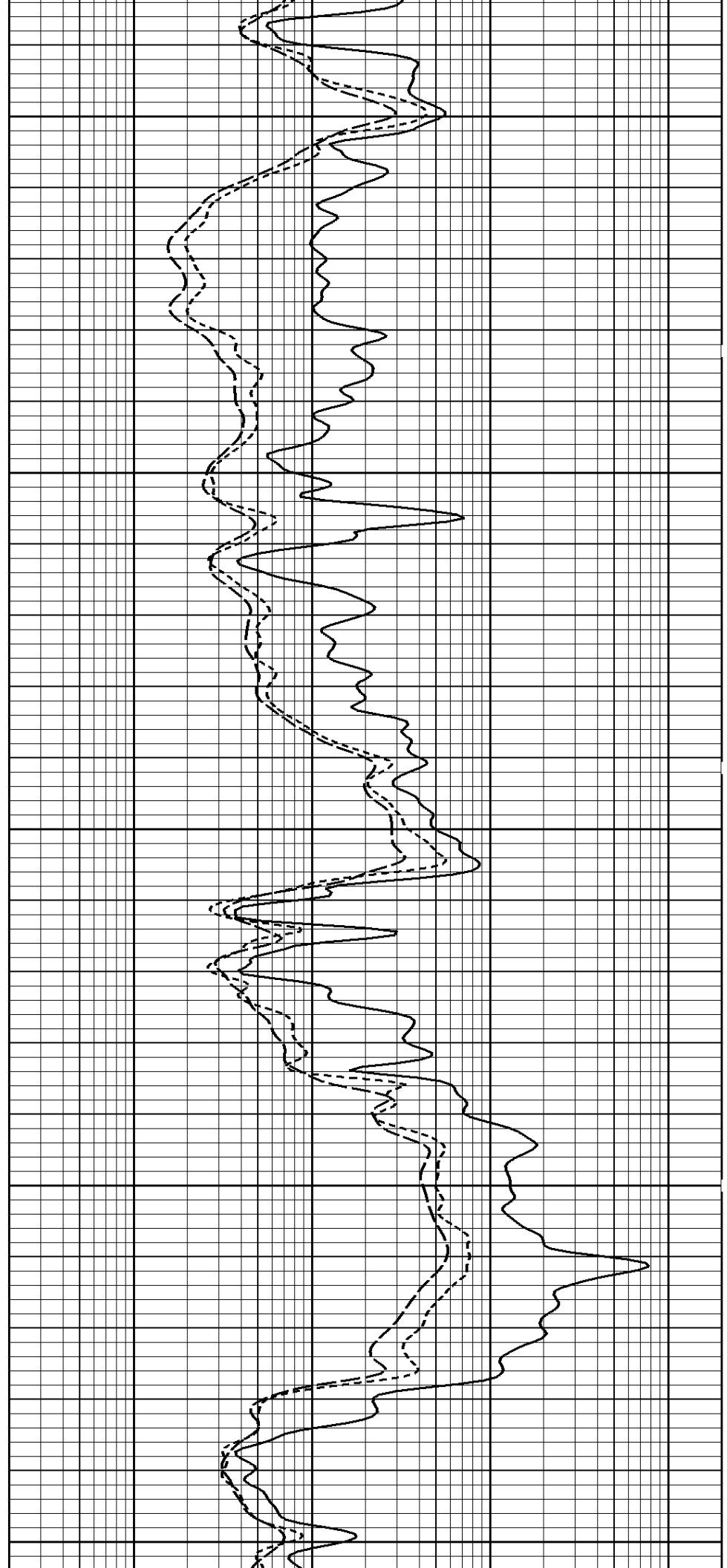
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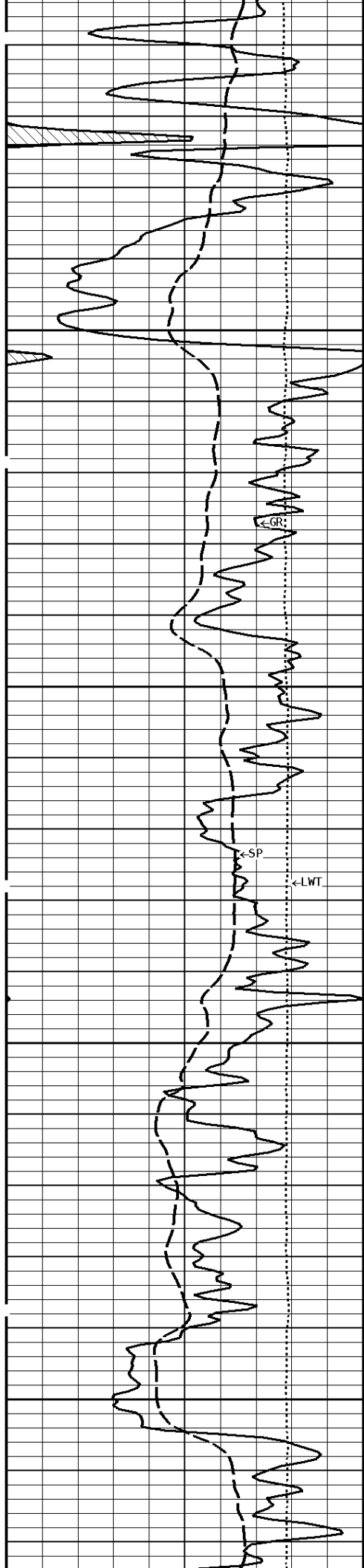




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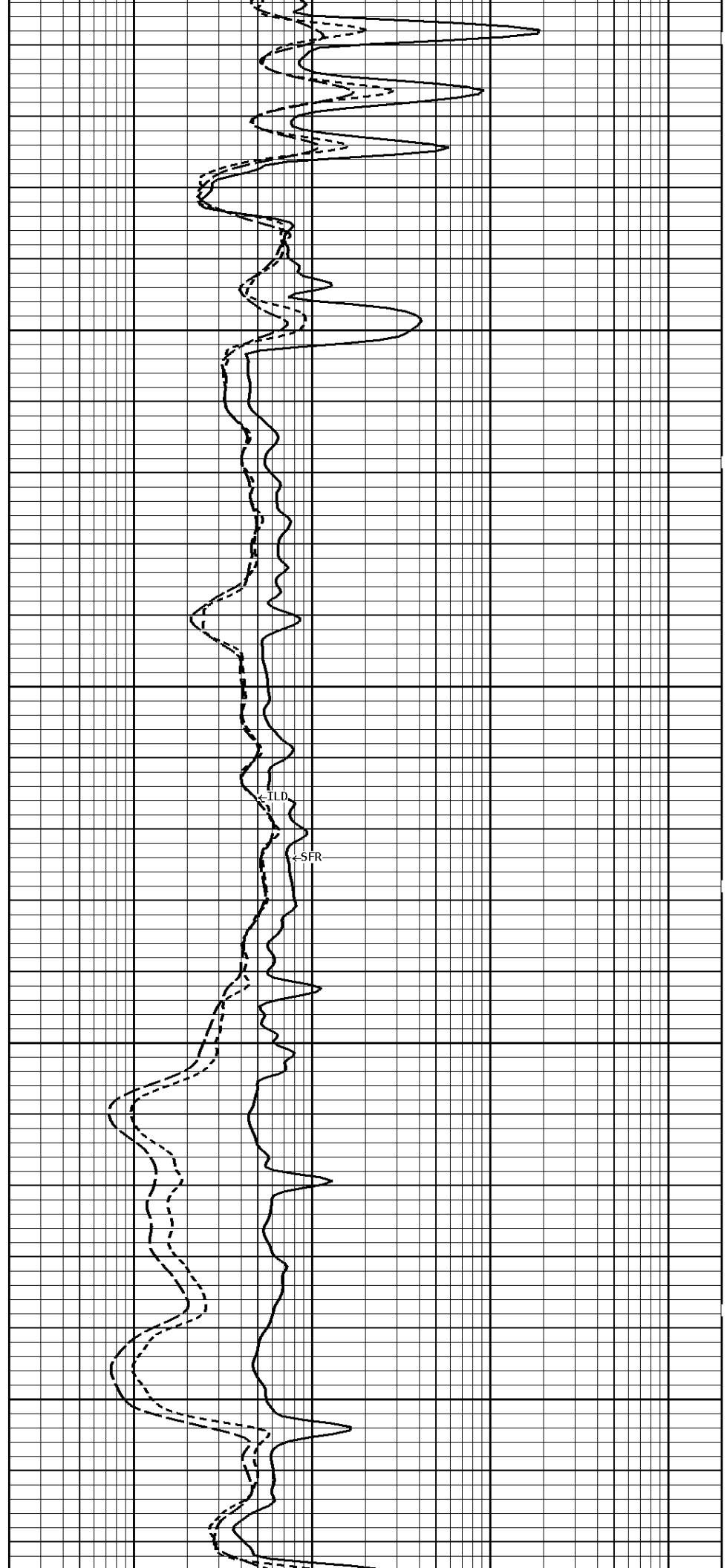
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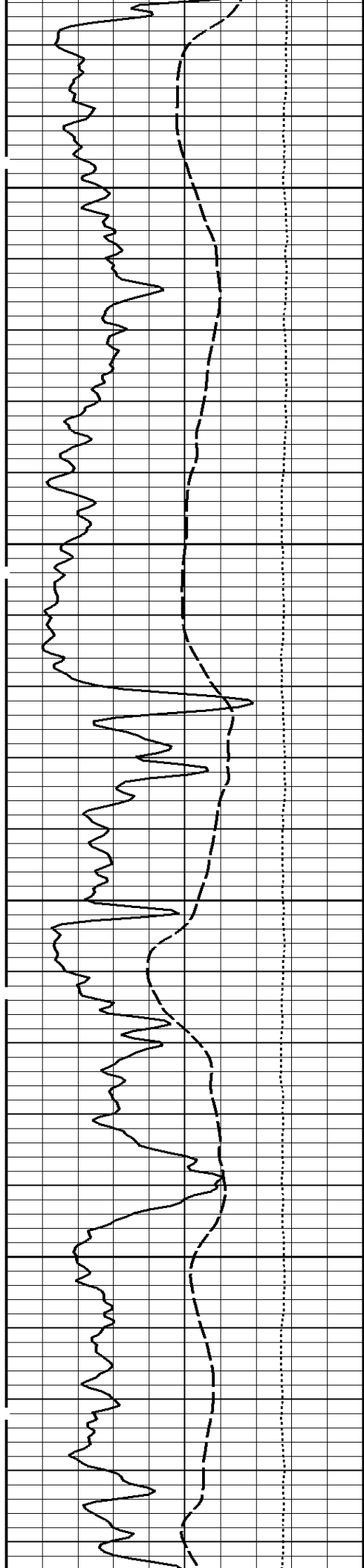




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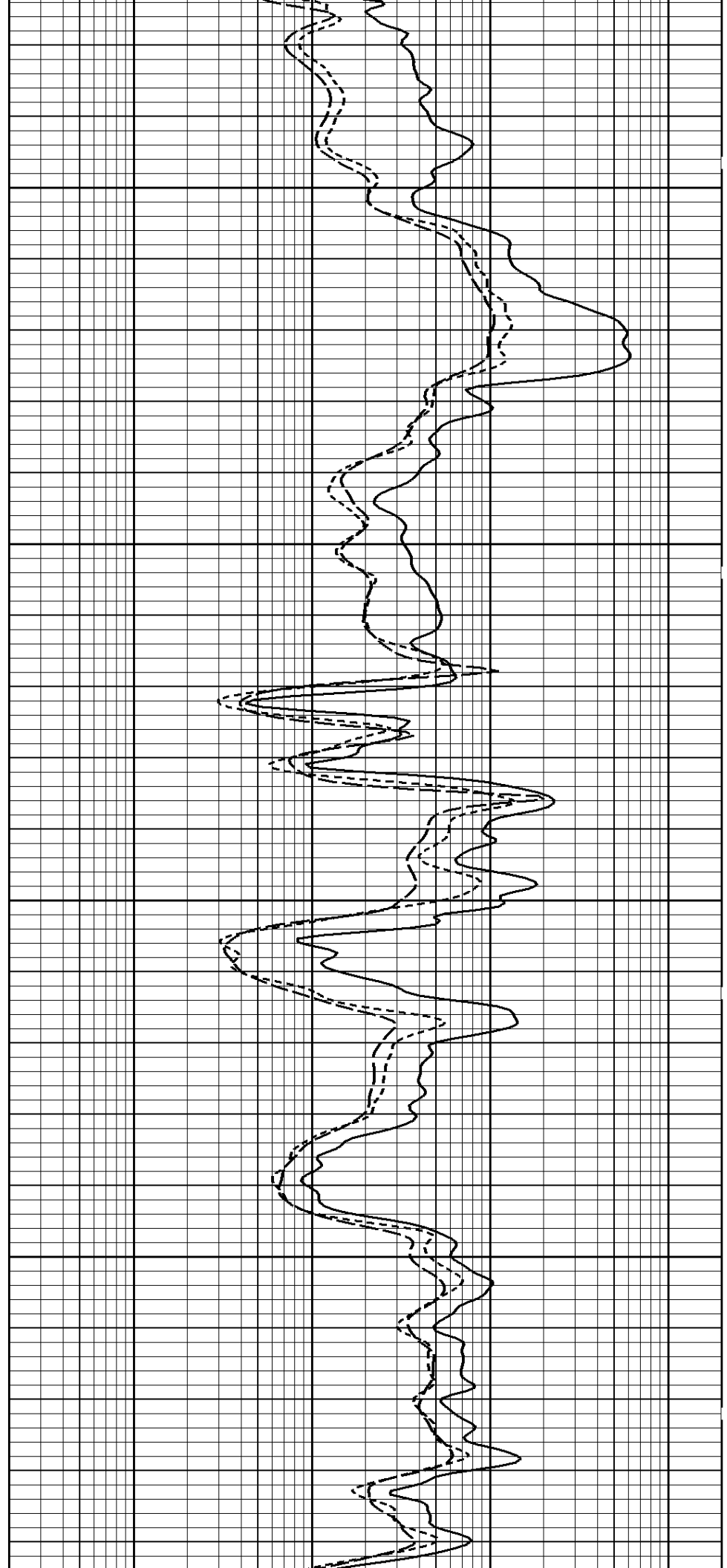
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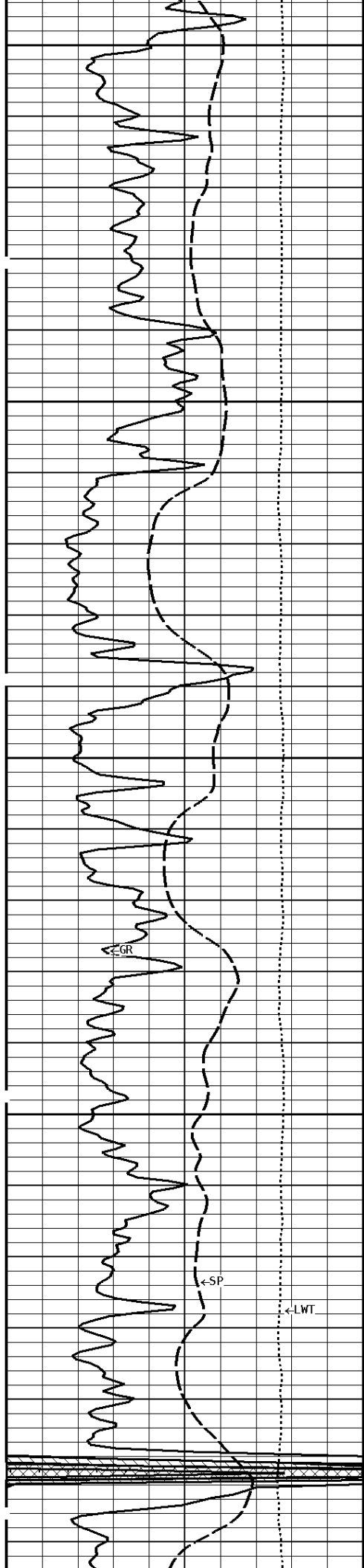




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3500

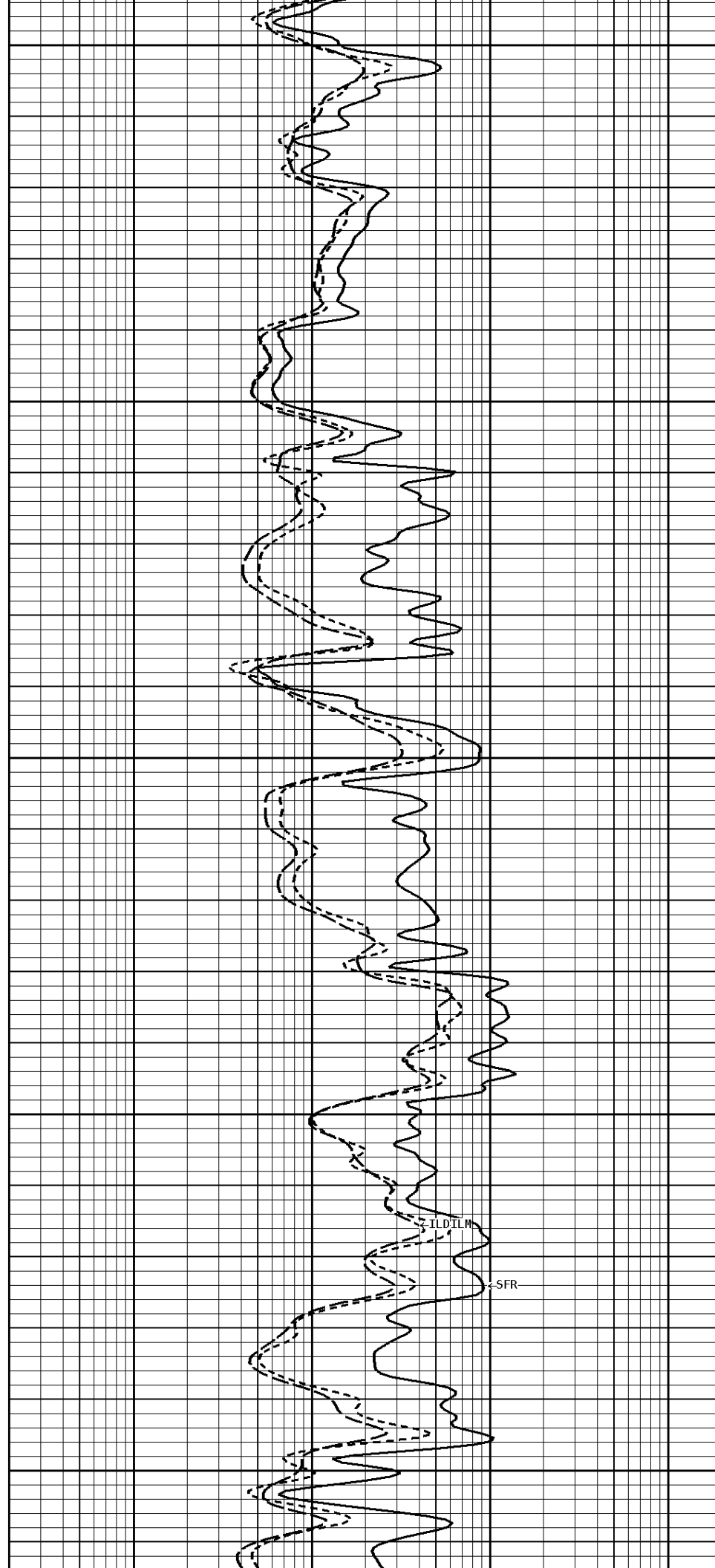




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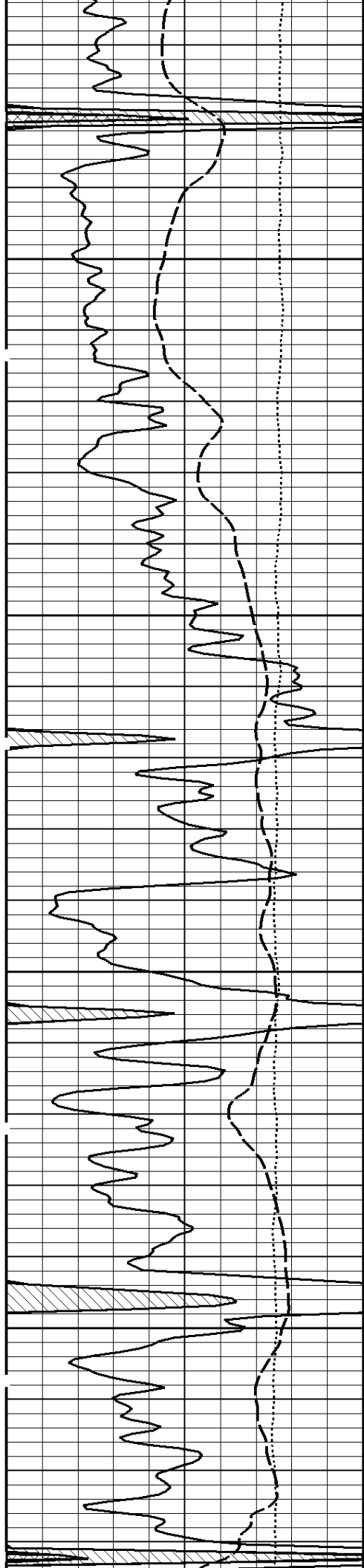
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3800



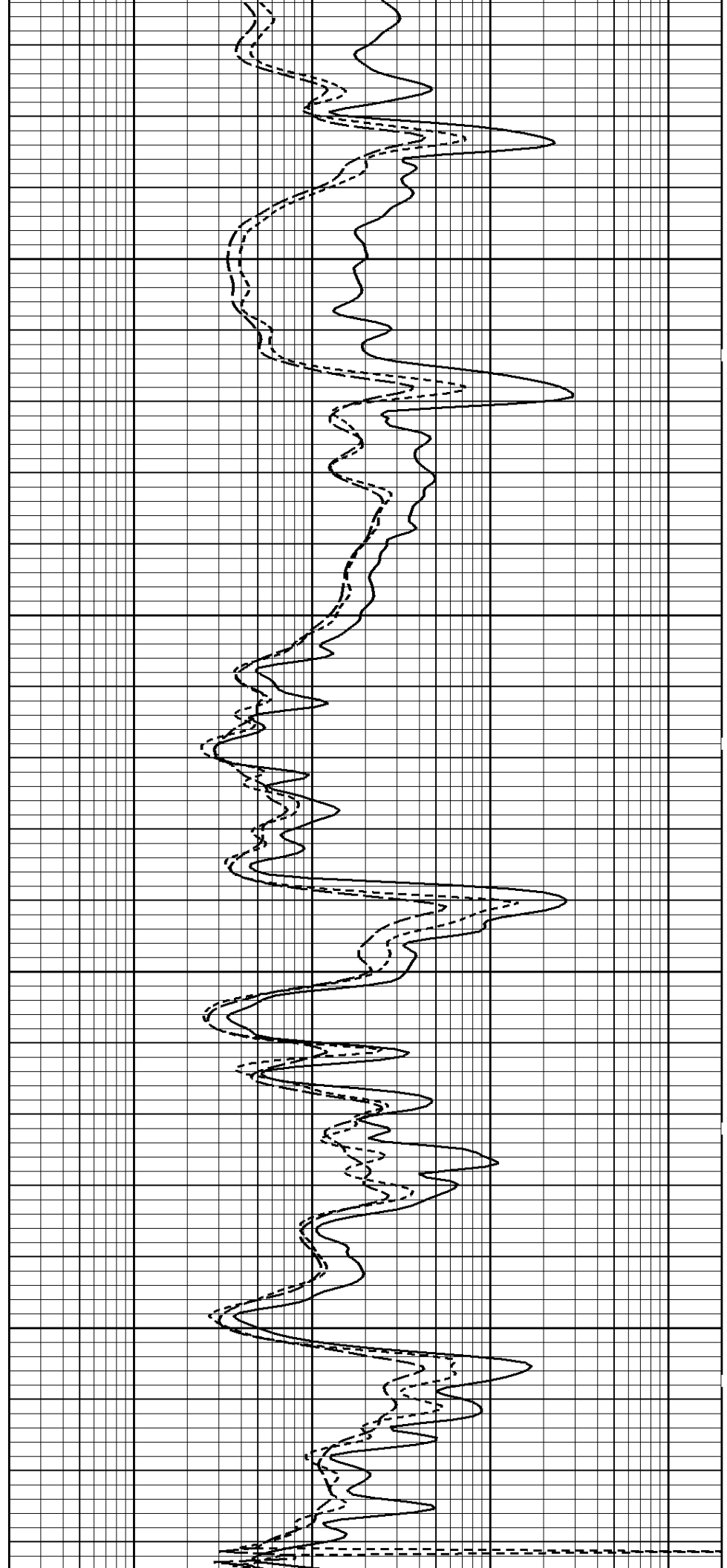
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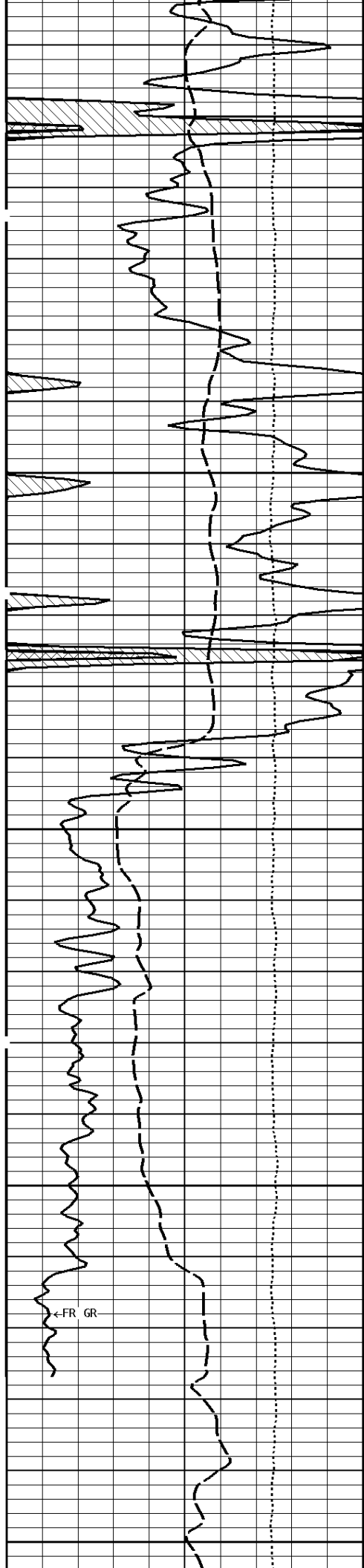
←SFR



3900

4000

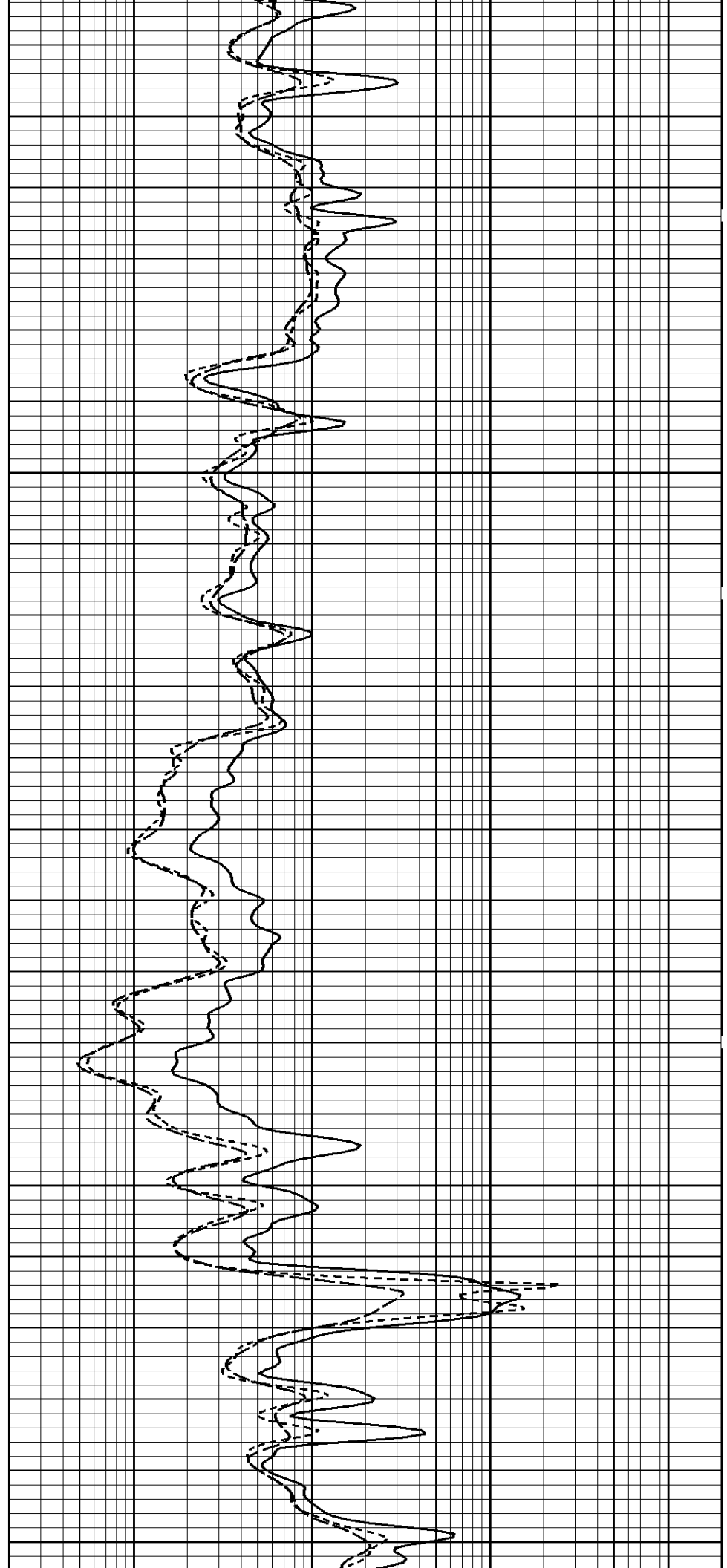


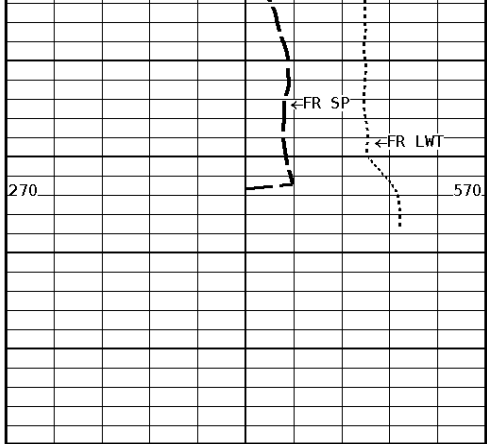


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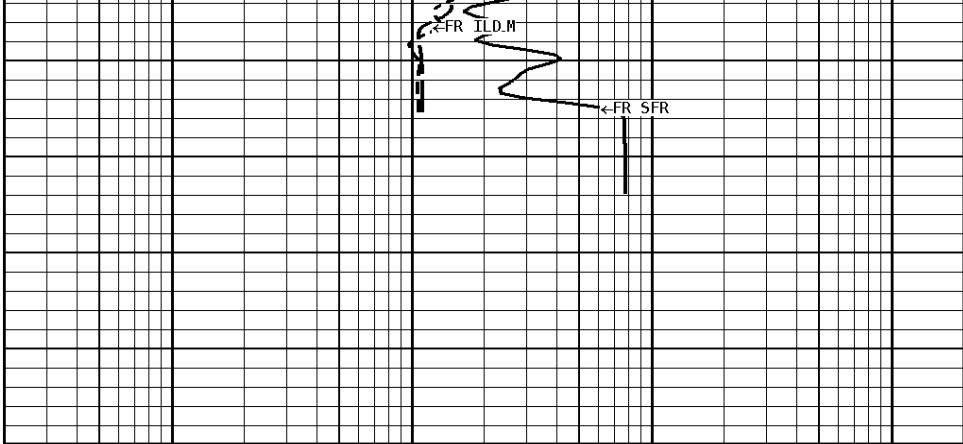
4200

←FR GR

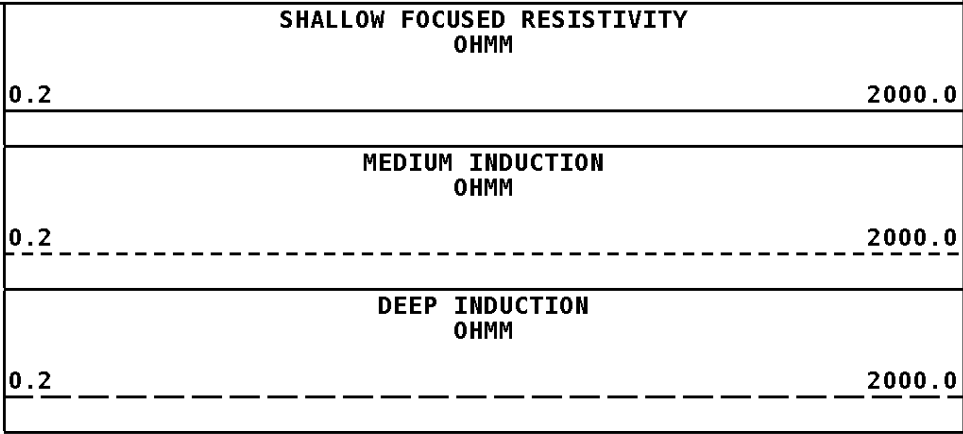
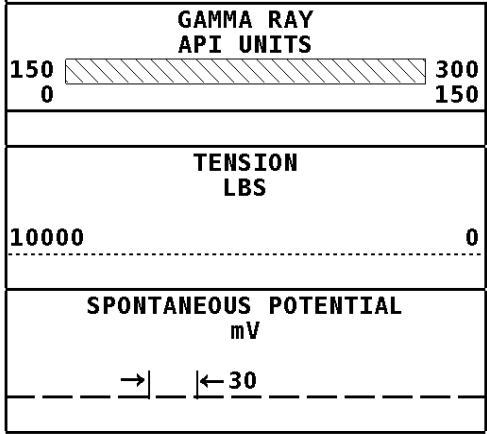




4270



1:240 MAIN SECTION



*** Calibration Summary ***

Shop Calibration						
GRT-B						
Performed : 02-Jan-2015			Time : 13:01			
Sensor Suite : GR-GR5			ID : GRT-BA-017			
	Measured	Units	Calibrated	Units		
GR	Background	Jig	Jig	GRAPI		
	61	378	175			
Shop Calibration						
PIT-CA						
Performed : 10-Nov-2014			Time : 10:45			
Sensor Suite : P-IND-T			ID : PIT-CA-062			
Medium						
	Measured		Calibrated		Units	
	R	X	R	X		
Air	130581	130719	-1.4	-1.4	MMHOS	
Zero	131070	131071	25.8	5.1	MMHOS	
Reference	253678	249876	5025.8	5005.1	MMHOS	
Loop	131482	220909	3831.0	3757.5	MMHOS	
Sonde Error			-1.0	-15.6	MMHOS	
Cond			5025.8	5005.1	MMHOS	
Deep						
	Measured		Calibrated		Units	
	R	X	R	X		
Air	129104	131422	1.0	0.9	MMHOS	
Zero	131066	131070	40.8	-16.1	MMHOS	
Reference	234020	231481	2040.8	1983.9	MMHOS	
Loop	130025	221327	1809.7	1773.8	MMHOS	
Sonde Error			-8.4	-11.7	MMHOS	
Cond			2040.8	1983.9	MMHOS	
Temperature						
	Measured		Calibrated		Units	
	Low	High	Low	High		
	16980.0	56920.0	70.0	350.0	DEGF	

Performed : 10-Nov-2014
 Sensor Suite : SFL

Time : 10:35
 ID : PIT-CA-062

	Internal				Units
	Measured		Calibrated		
	Zero	Reference	Zero	Reference	
Im	32763.6	48943.6	0.0	7028.0	uA
Ib	32767.1	48748.6	0.0	1750.0	mA
MOM1	32729.9	57504.3	0.0	175.0	mV
Equivalent SFL				43.97	OHMM

Performed : 10-Nov-2014
 Sensor Suite : P-SP

Time : 10:33
 ID : PIT-CA-062

	Internal				Units
	Measured		Calibrated		
	Zero	Reference	Zero	Reference	
	32765.9	58978.1	0.0	1000.0	mV

Well File: PICKRELL HIGGINS_K 3 JAN16 MSTK

Scale: 1:1200 Format: DIL1200

Segment: V1.D1.S7 FINAL

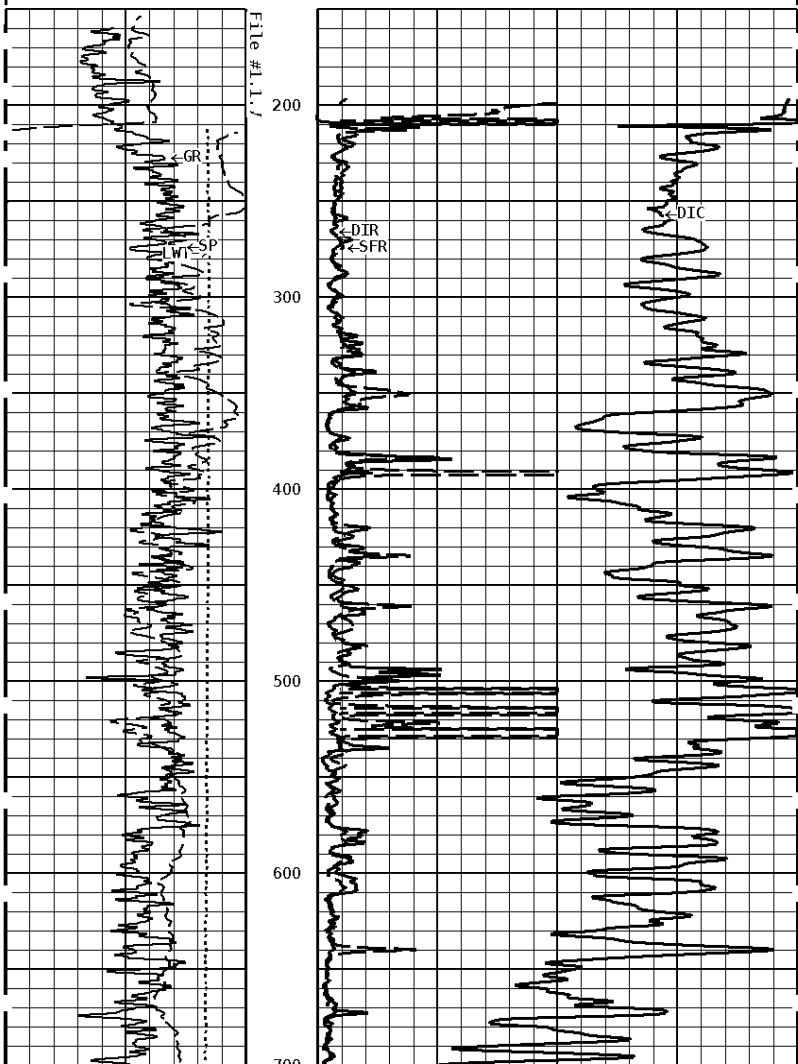
Acquired: Not Available

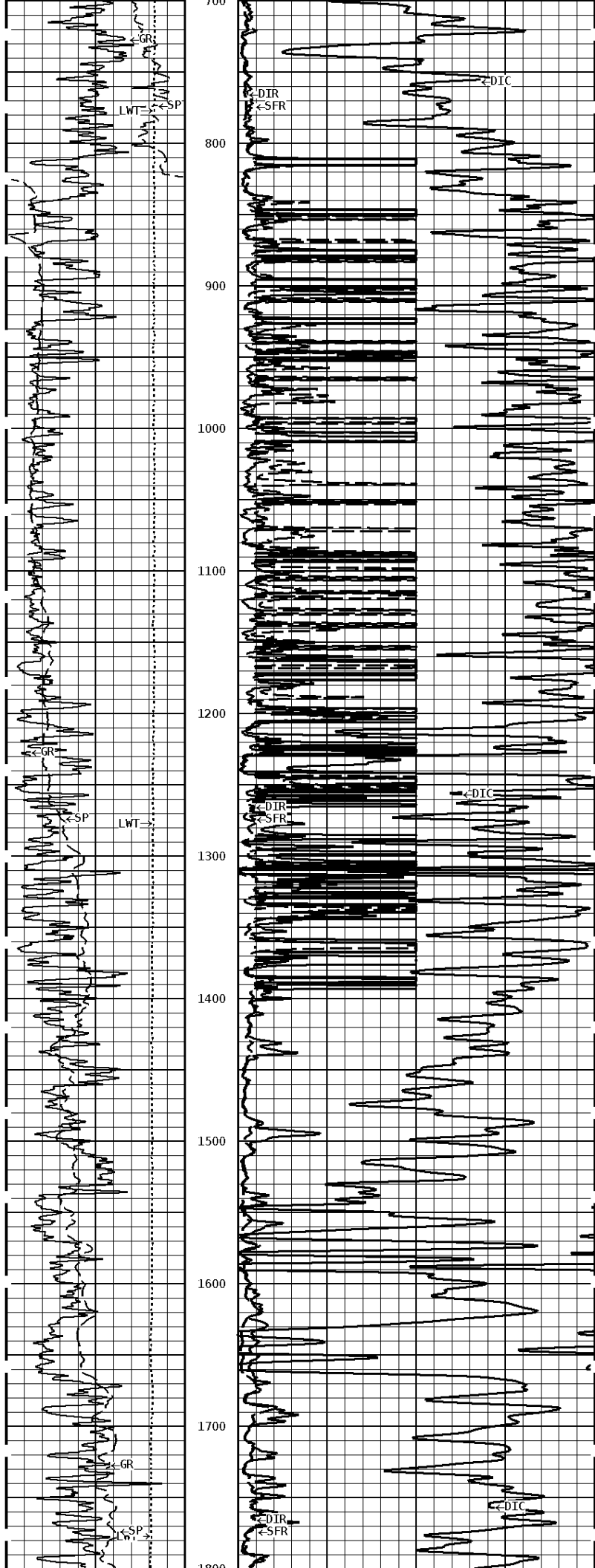
Reference: 0

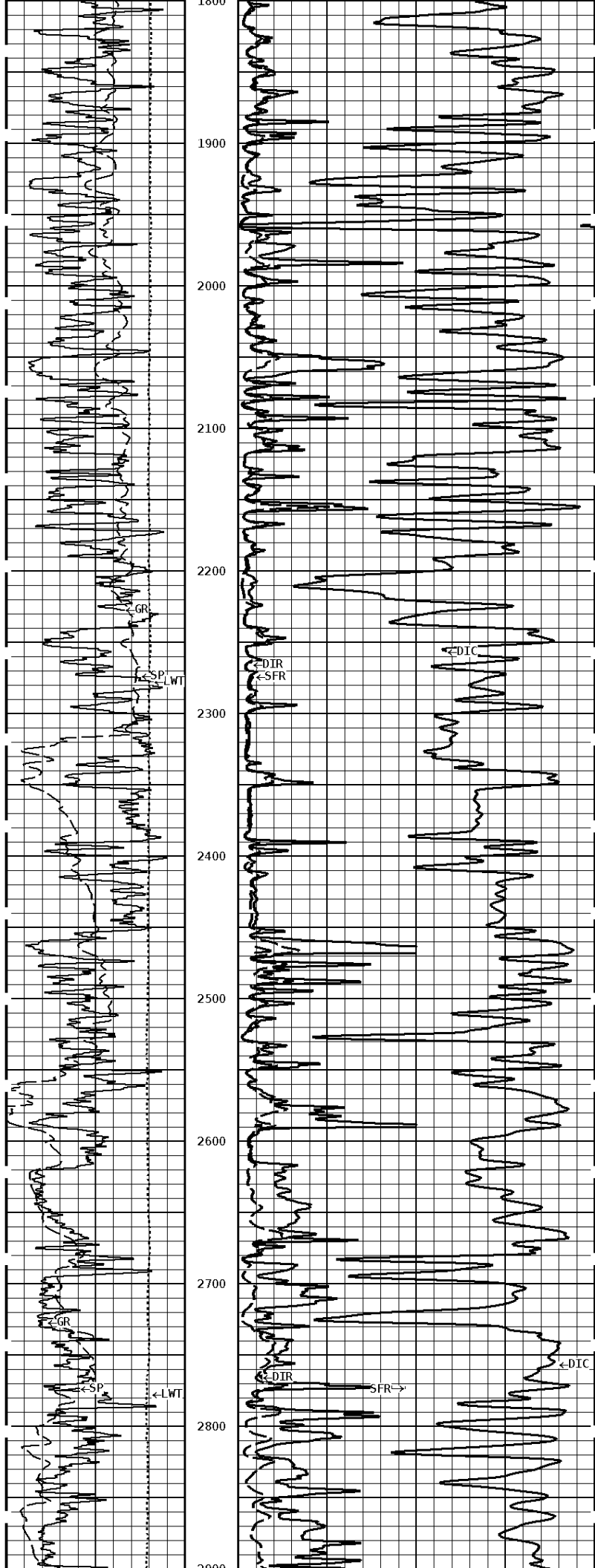
Processed: Not Available

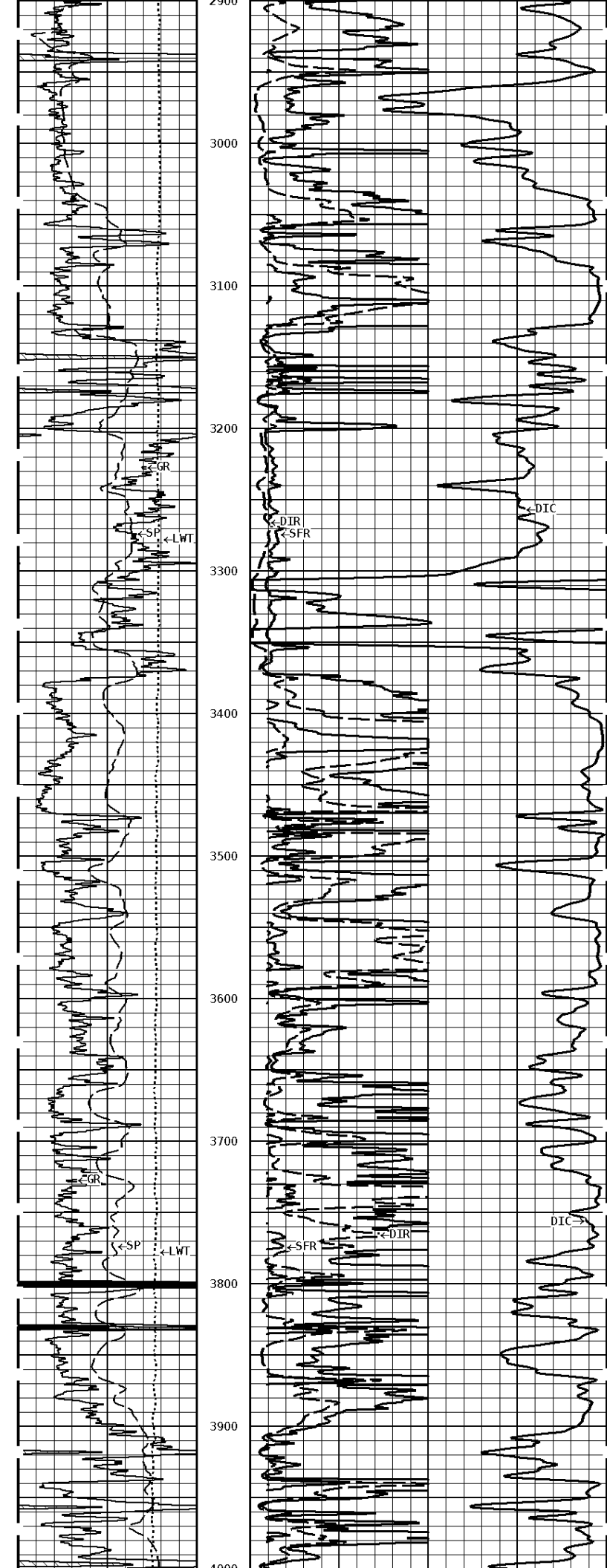
TENSION LBS 10000 ----- 0	DEEP INDUCTION OHMM 0.0 500.0 0.0 50.0
SPONTANEOUS POTENTIAL mV → ← 30	SHALLOW FOCUSED OHMM 0.0 500.0 0.0 50.0
GAMMA RAY API UNITS 150 0 300 150	DEEP CONDUCTIVITY MHMO 2000 1000 1000 0

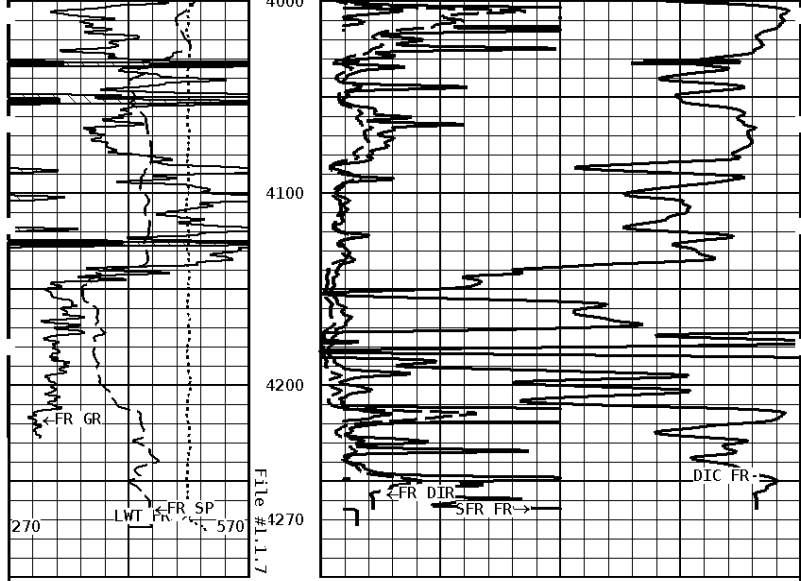
1:1200 MAIN SECTION











1:1200 MAIN SECTION

GAMMA RAY API UNITS 150 300 0 150	DEEP CONDUCTIVITY OHMM 2000 1000 1000 0
SPONTANEOUS POTENTIAL mV → ← 30	SHALLOW FOCUSED OHMM 0.0 500.0 0.0 50.0
TENSION LBS 10000 0	DEEP INDUCTION OHMM 0.0 500.0 0.0 50.0



Company: PICKRELL DRILLING COMPANY, INC.
 Well: HIGGINS K #3
 Location: 1320' FNL & 2310' FWL
 Logged: 01-15-2015
 K.B. Elev: 1504.0 Ft