

ALL PRESENTATIONS AS PER CUSTOMER REQUEST.

GRT, CNT, LDT, CST, MLT, AND PIT RUN IN COMBINATION.

2.71 G/CC DENSITY MATRIX USED TO CALCULATE POROSITY.

5.5" PRODUCTION CASING USED TO CALCULATE ANNULAR HOLE VOLUME.

CALIPERS ORIENTED ON X-Y AXIS.

PHIN IS CALIPER CORRECTED

GRT: GRP

CNT: PHIN, PHINDOL, CLCNIN

LDT: PORL, PORLDOL, LCORN, LDENN, PECLN, CLLDIN

MLT: MSFI, MSFN, CLMRIN.

CST: PORS, ITT, TT1, TT2, TT3, TT4, CDTF,

PIT: ILD, ILM, SFLAEC, SPU, CIRD

OPERATORS:

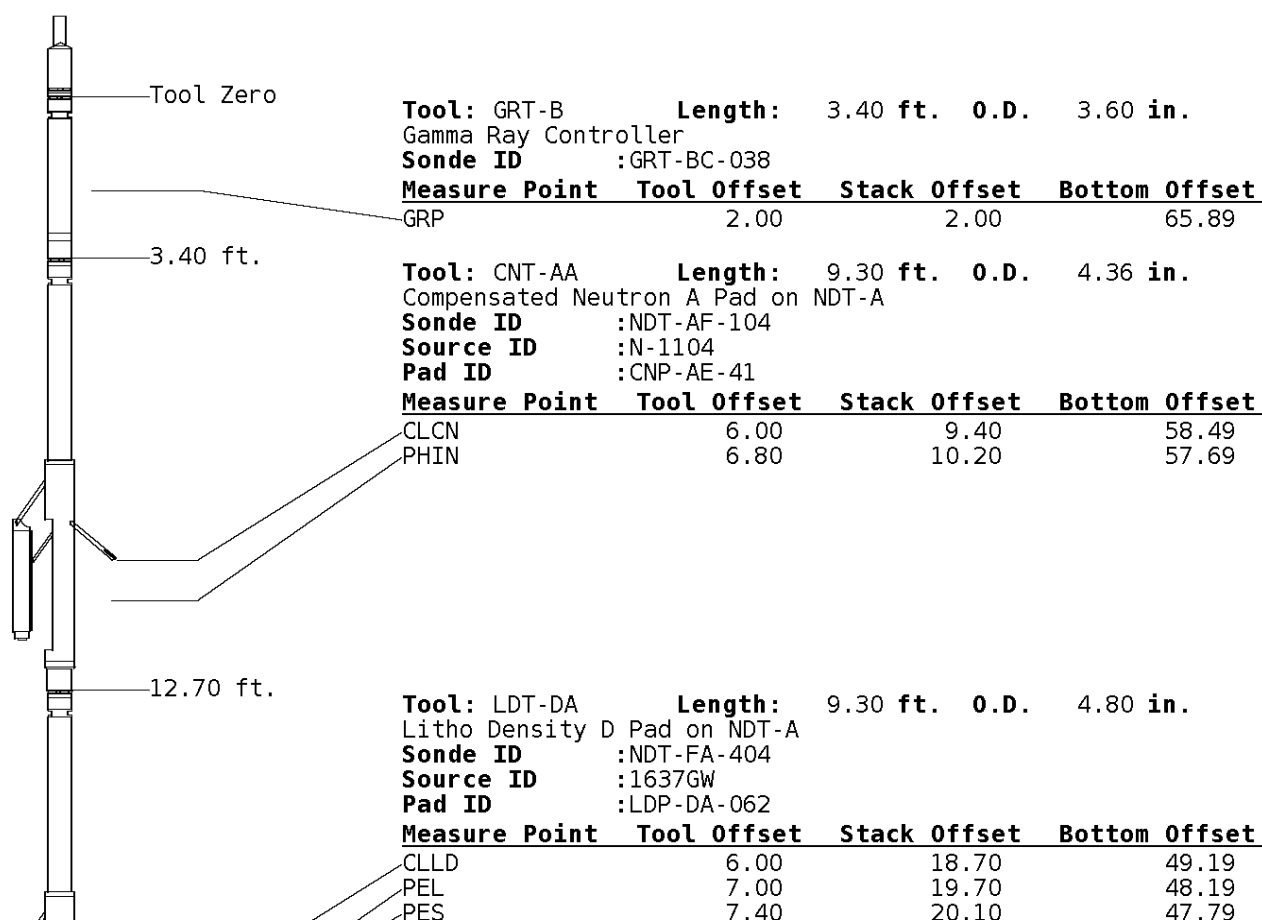
D.LEGLEGITER

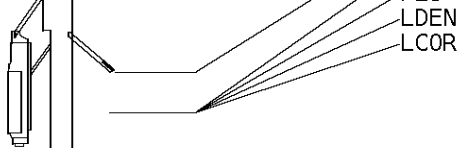
D.RAGSDALE

J.VAUGHN

Tool String Schematic

Total Tool Length - 67.89 ft.
Maximum Outside diameter - 6.00 in.
Net Weight in Air - 1171.00 lbs.



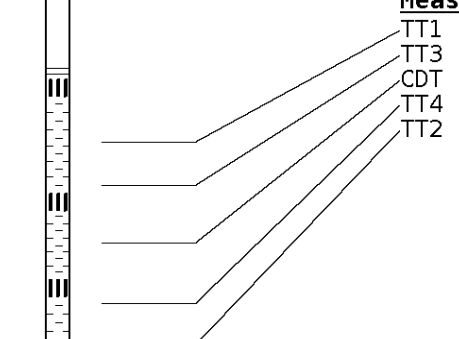


7.20	19.90	47.99
7.20	19.90	47.99

22.00 ft.

Tool: CST-AD **Length:** 13.80 ft. **O.D.** 3.60 in.
 Open Hole Sonic
Sonde ID : CST-AB-24

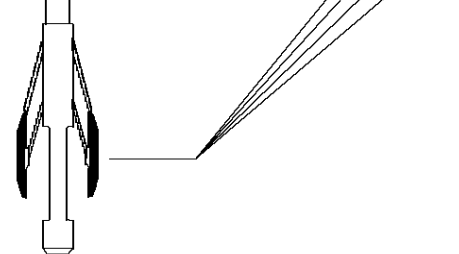
Measure Point	Tool Offset	Stack Offset	Bottom Offset
TT1	4.80	26.80	41.09
TT3	5.80	27.80	40.09
CDT	7.30	29.30	38.59
TT4	8.80	30.80	37.09
TT2	9.80	31.80	36.09



35.80 ft.

Tool: MLT-AB **Length:** 10.60 ft. **O.D.** 6.00 in.
 Micro Log Tool
Sonde ID : MLT-012

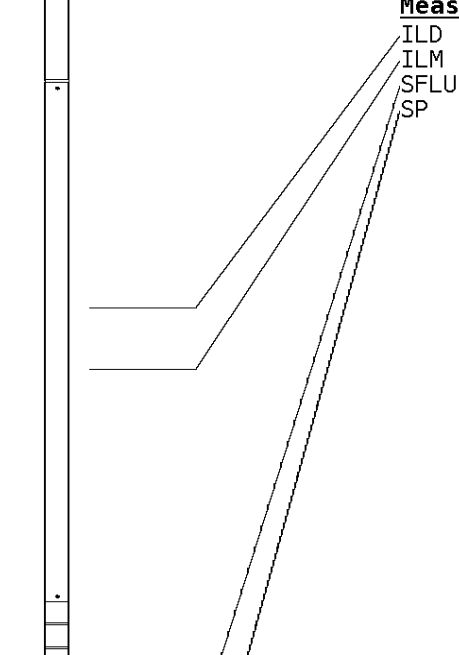
Measure Point	Tool Offset	Stack Offset	Bottom Offset
MSFL	8.90	44.70	23.19
CLMR	7.60	43.40	24.49
MSFN	8.90	44.70	23.19
MSFI	8.90	44.70	23.19



46.40 ft.

Tool: PIT-CA **Length:** 21.49 ft. **O.D.** 3.62 in.
 Phased Dual Induction w/ RM & D
Sonde ID : PIT-AC-043

Measure Point	Tool Offset	Stack Offset	Bottom Offset
ILD	8.92	55.32	12.56
ILM	10.10	56.50	11.39
SFLU	17.49	63.89	4.00
SP	20.60	67.00	0.88



LWT 67.89 ft.

Well File: GRAND MESA PREISSER 1-34 DEC-14 QUINT

Scale: 1:600

Format: DIL-600

Segment: V1.D1.S3 mn

Acquired: 2019-12/14 12:23 3.4.1-13972

Reference: 0

Processed: 2019-12/14 12:23 3.4.1-13972

TENSION
LBS

10000

0

DEEP INDUCTION
OHMM

0.0

500.0

0.0

50.0

SPONTANEOUS POTENTIAL
mV

→

←20

SHALLOW FOCUSED RESISTIVITY
OHMM

0.0

500.0

0.0

50.0

GAMMA RAY
API UNITS

150

0

300

150

DEEP CONDUCTIVITY
MMHO

2000

1000

1000

0

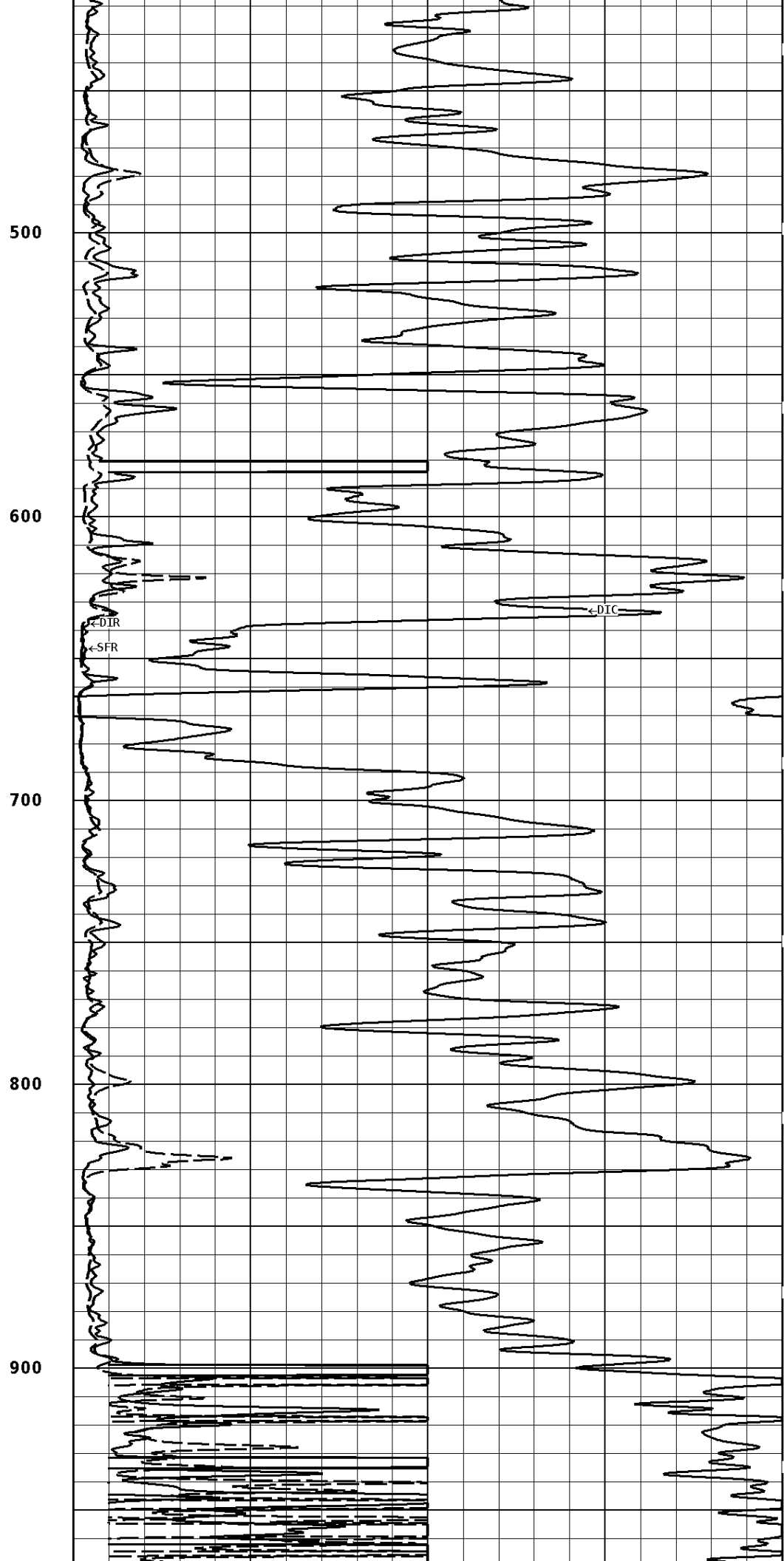
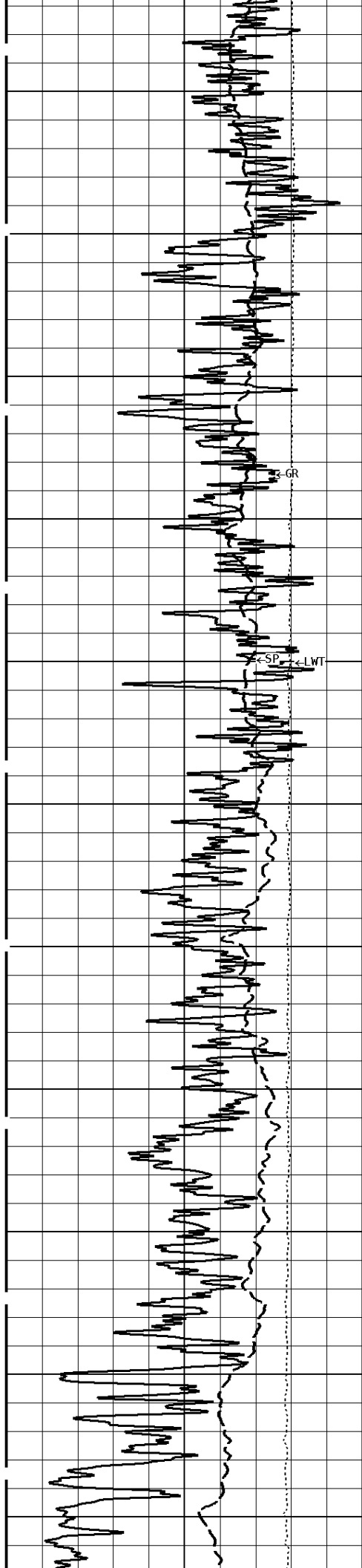
1:600 MAIN SECTION

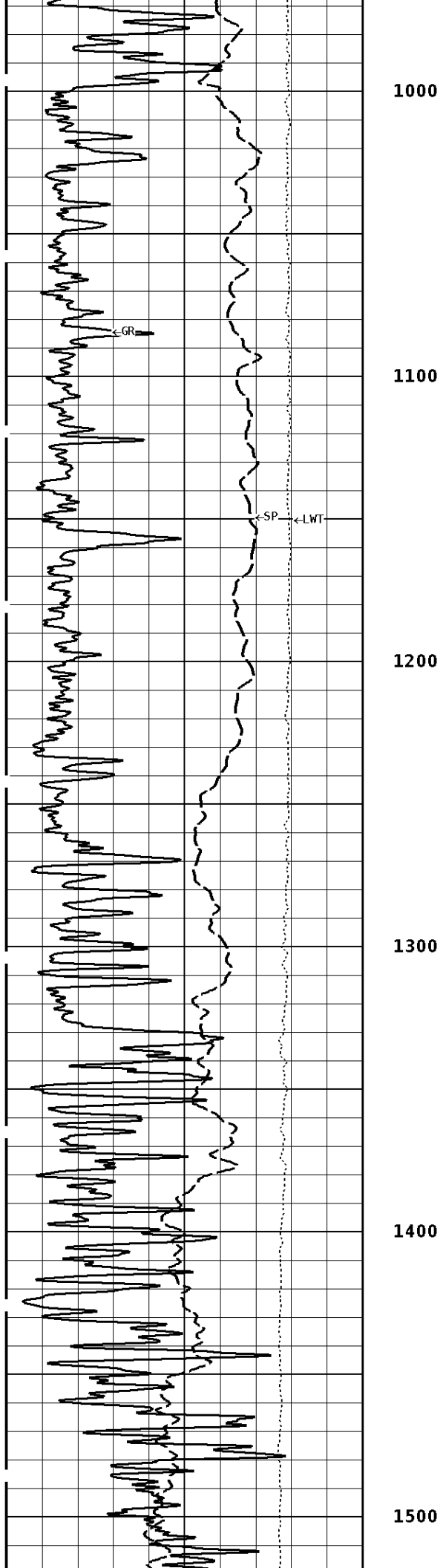
File #1.1.3

200

300

400





1000

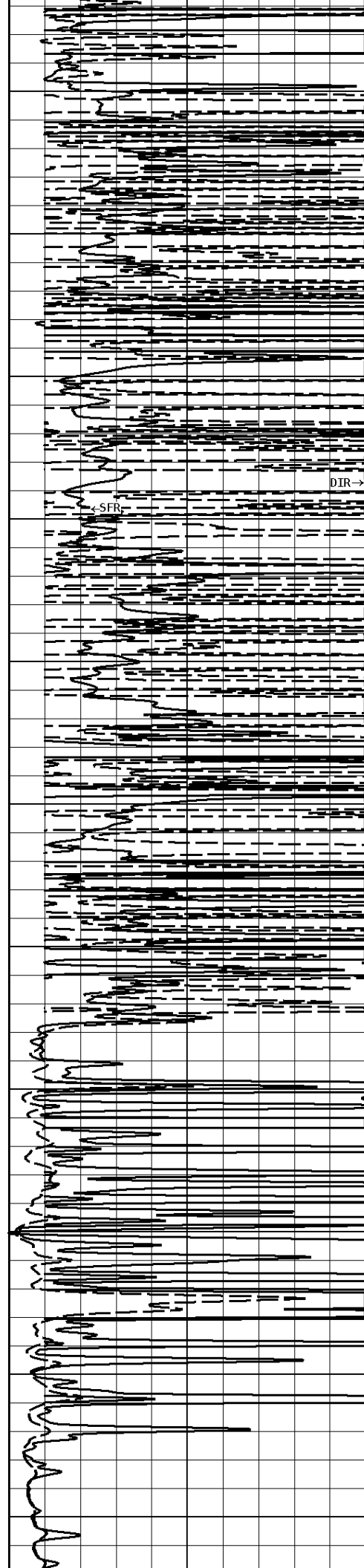
1100

1200

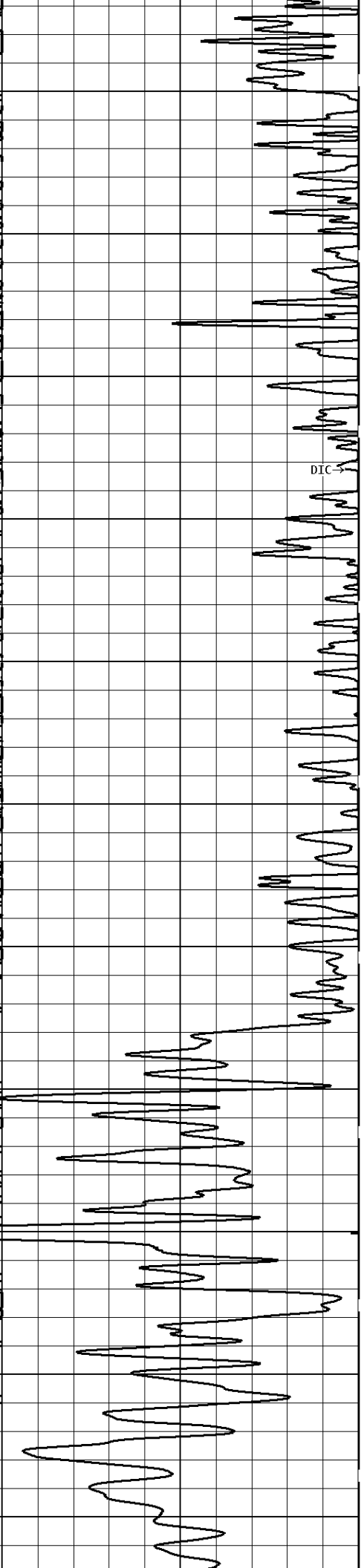
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1400

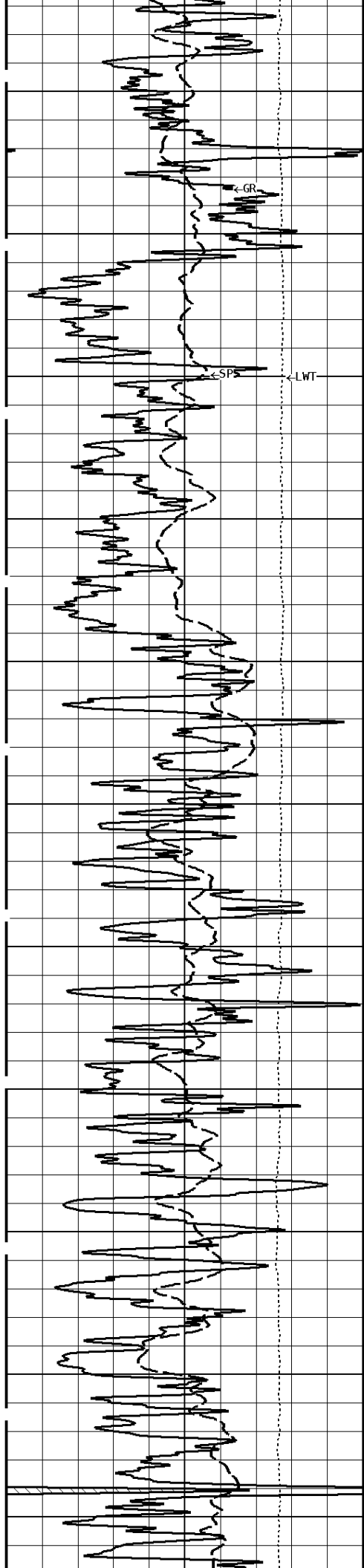
1500



DIR →



DIC →



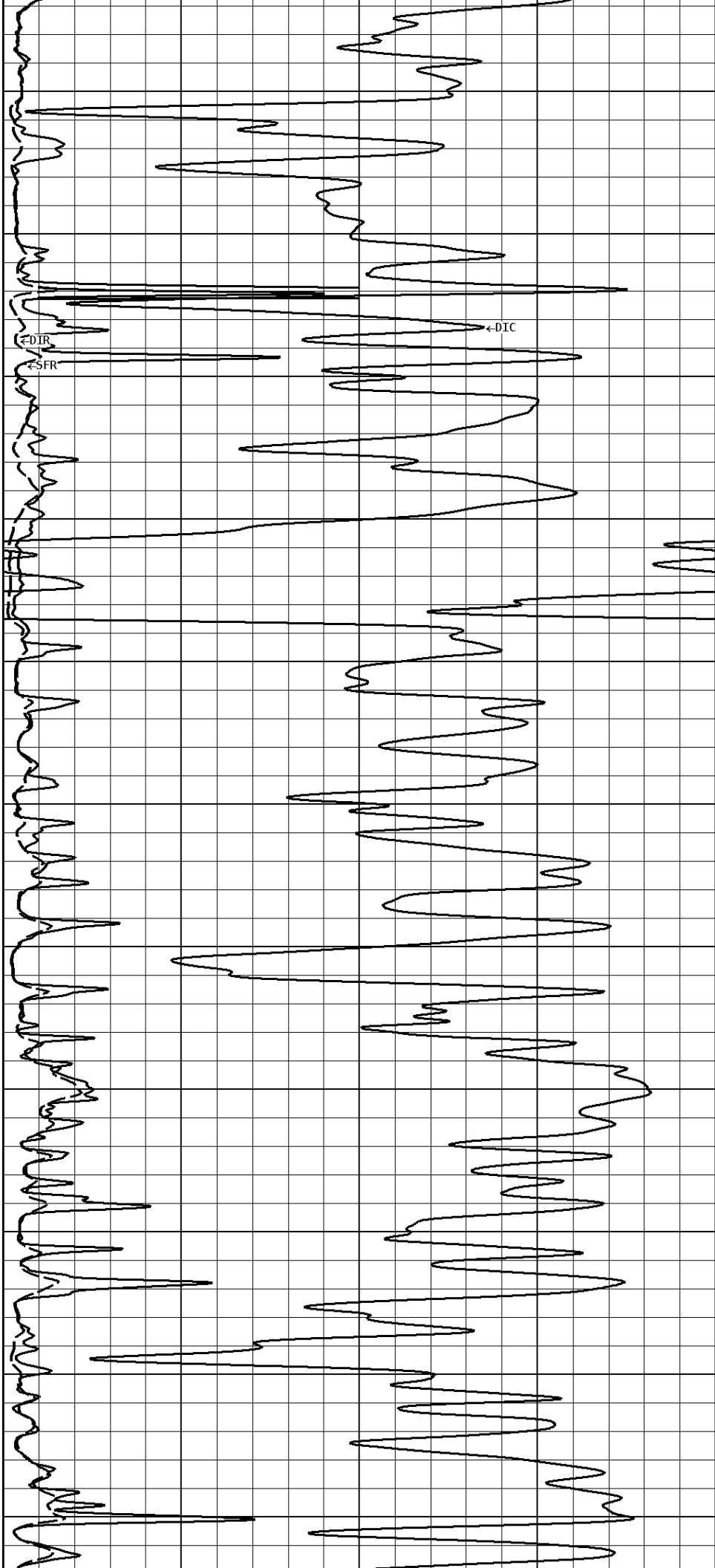
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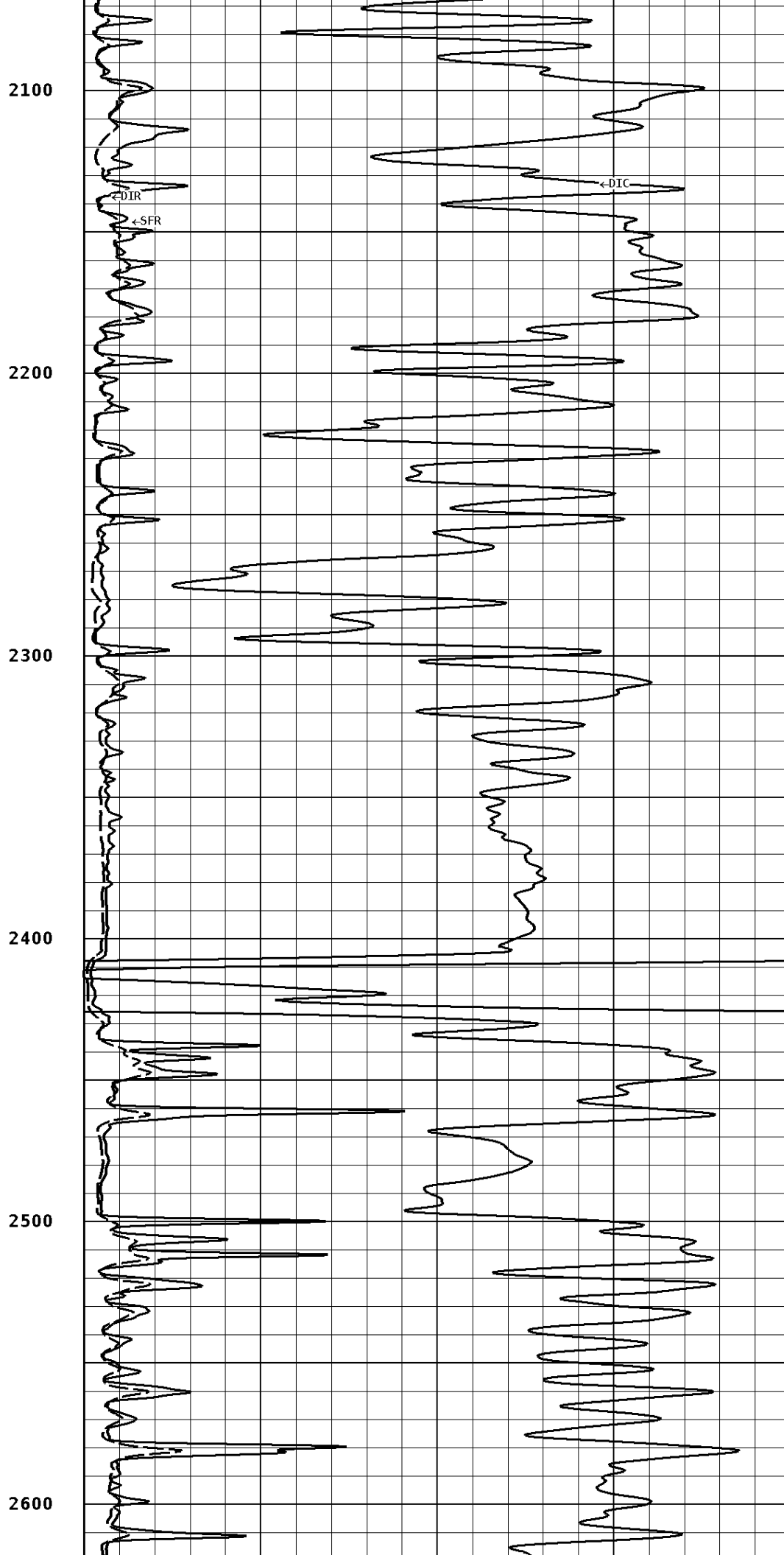
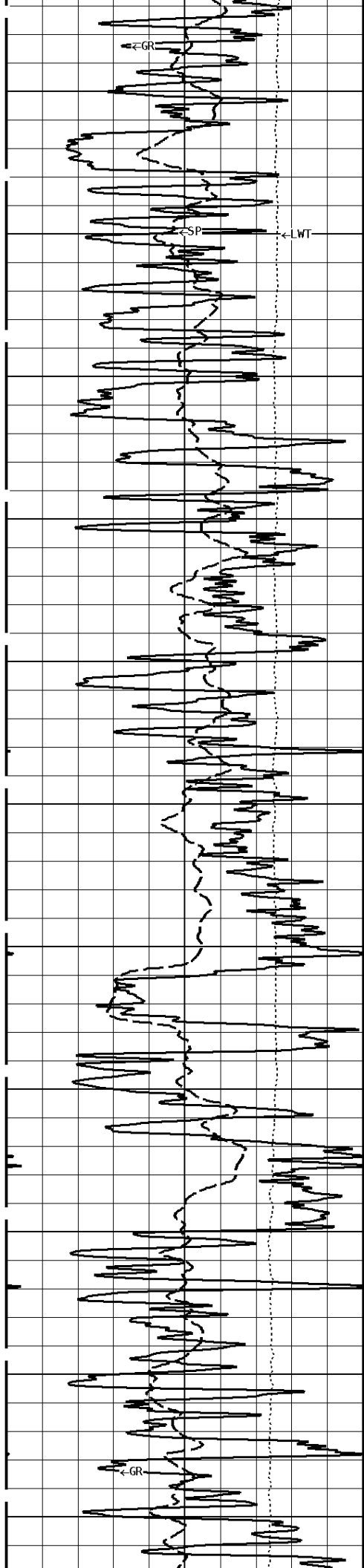
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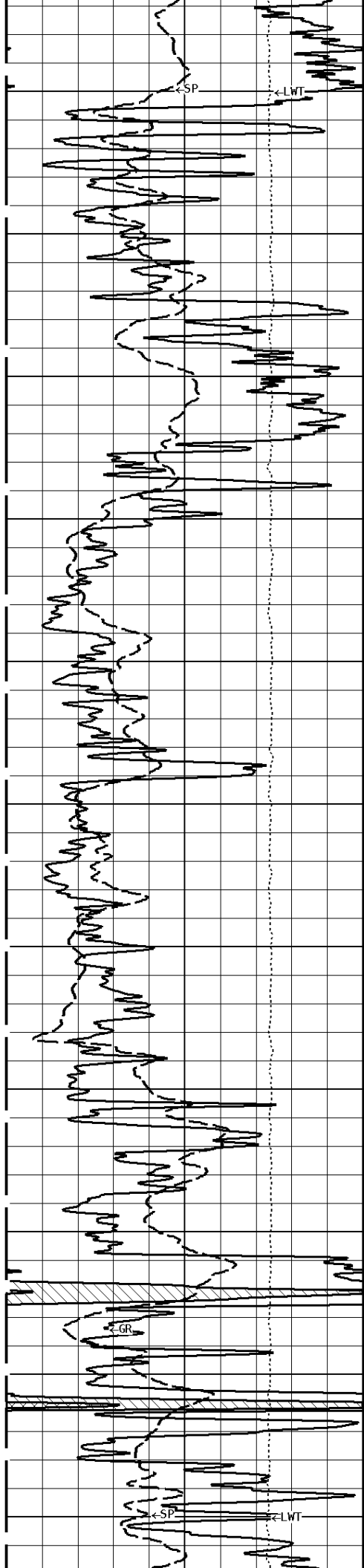
1800

1900

2000







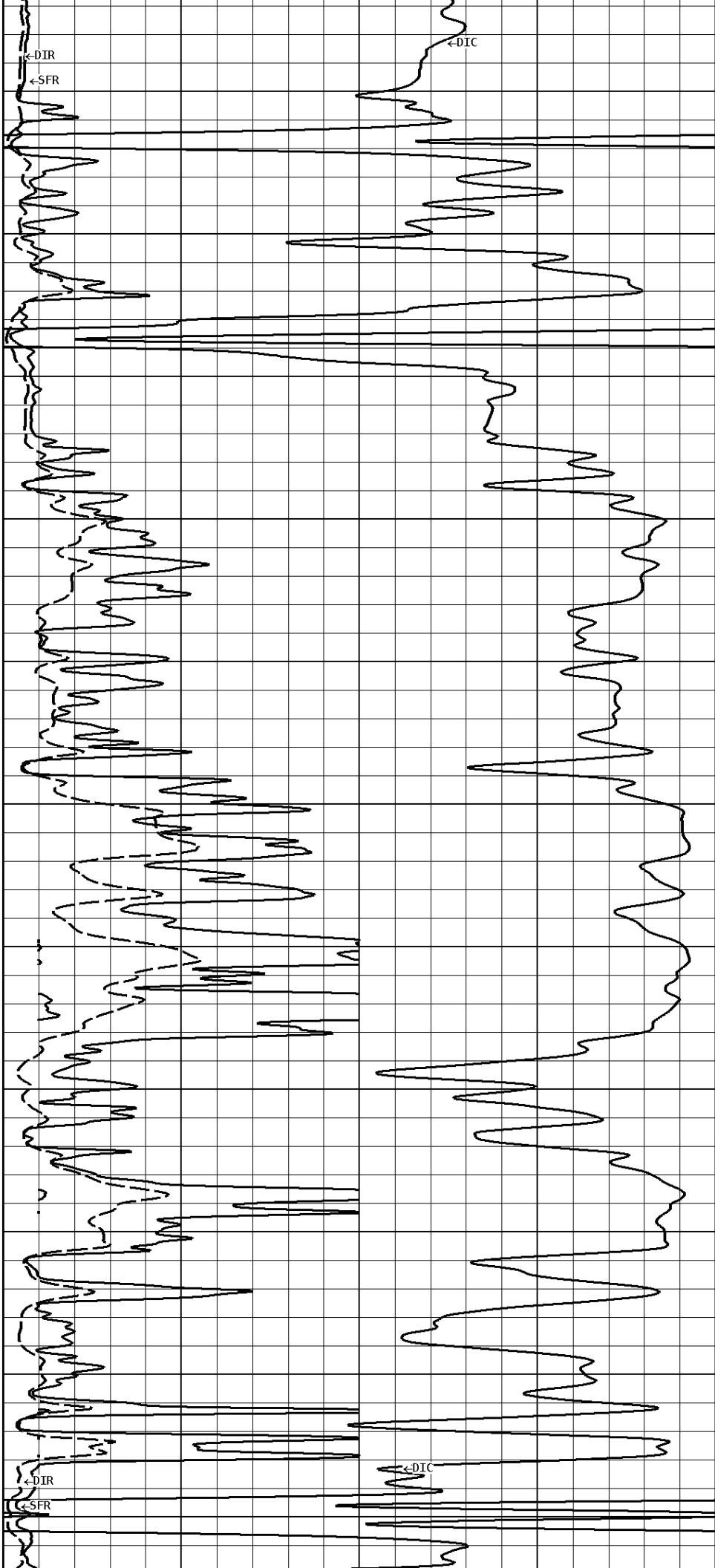
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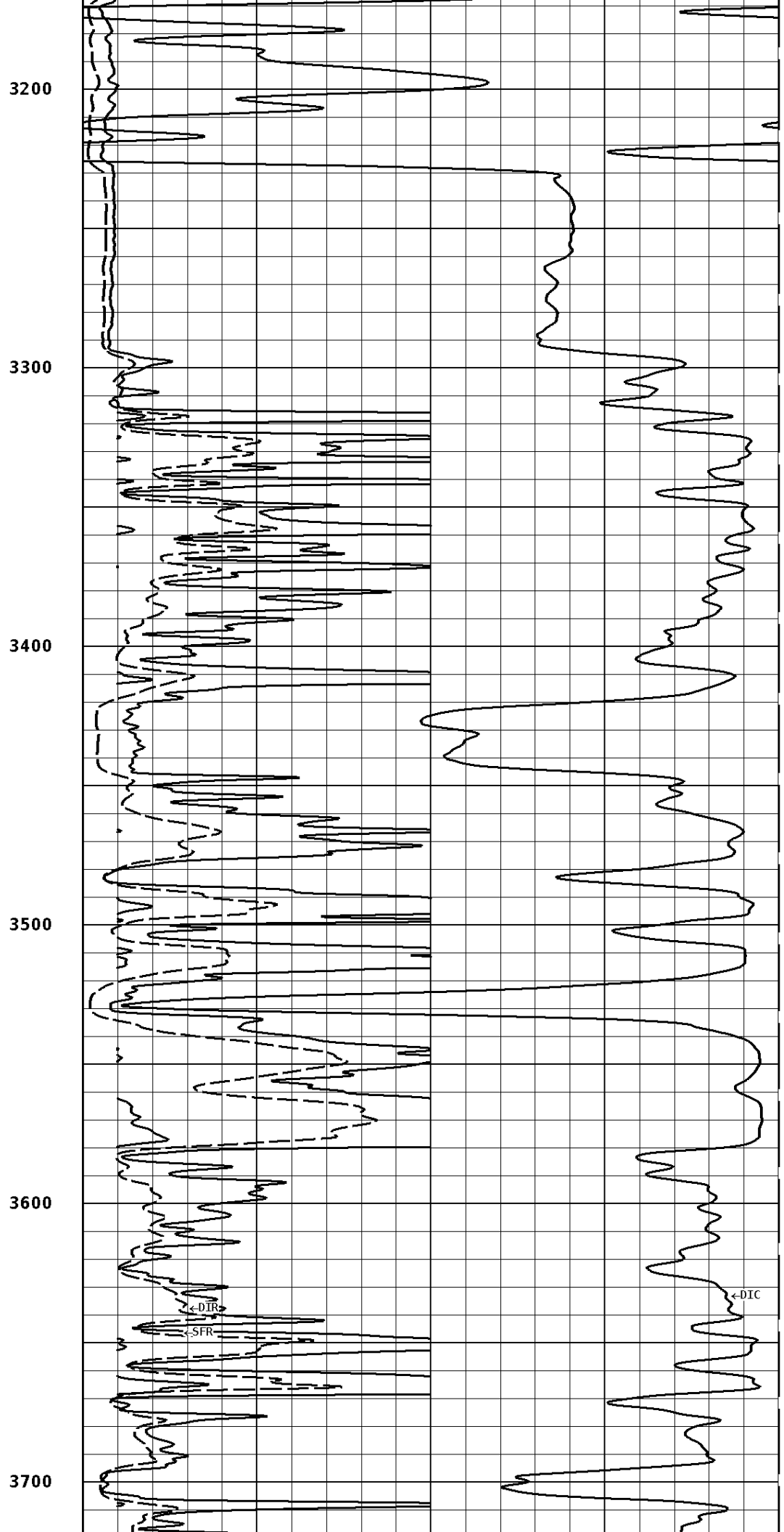
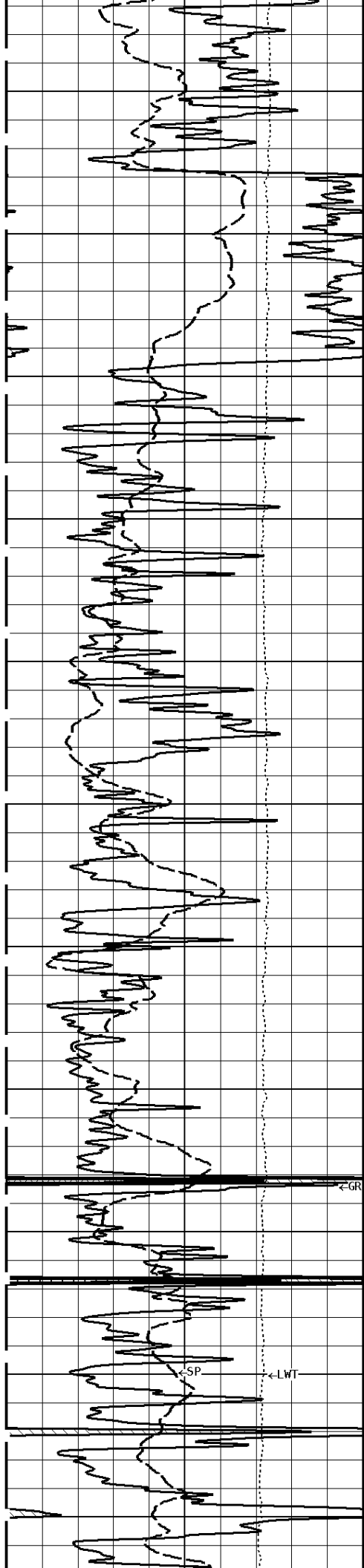
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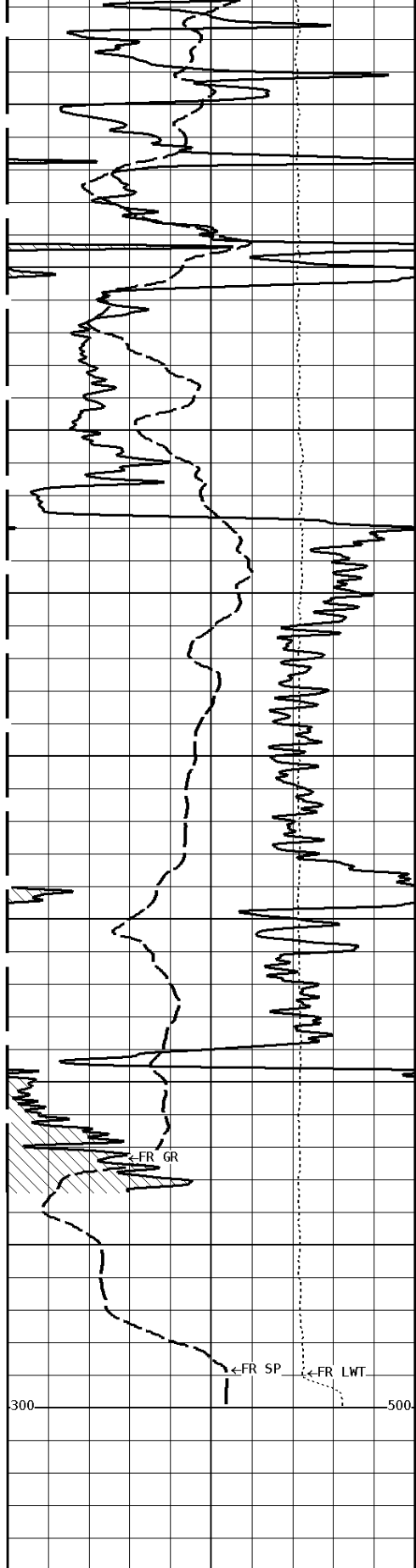
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3000

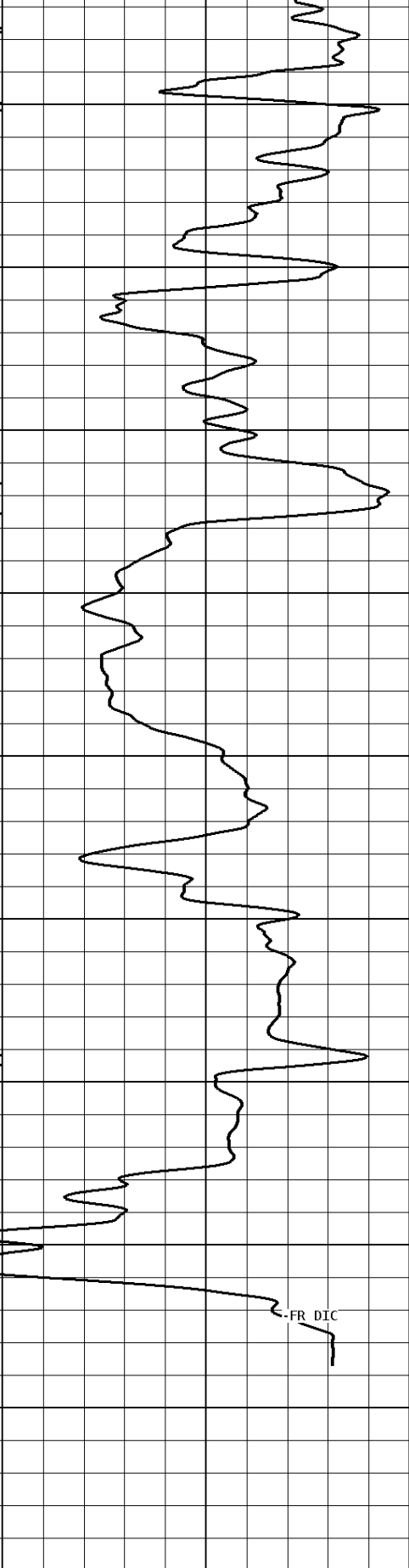
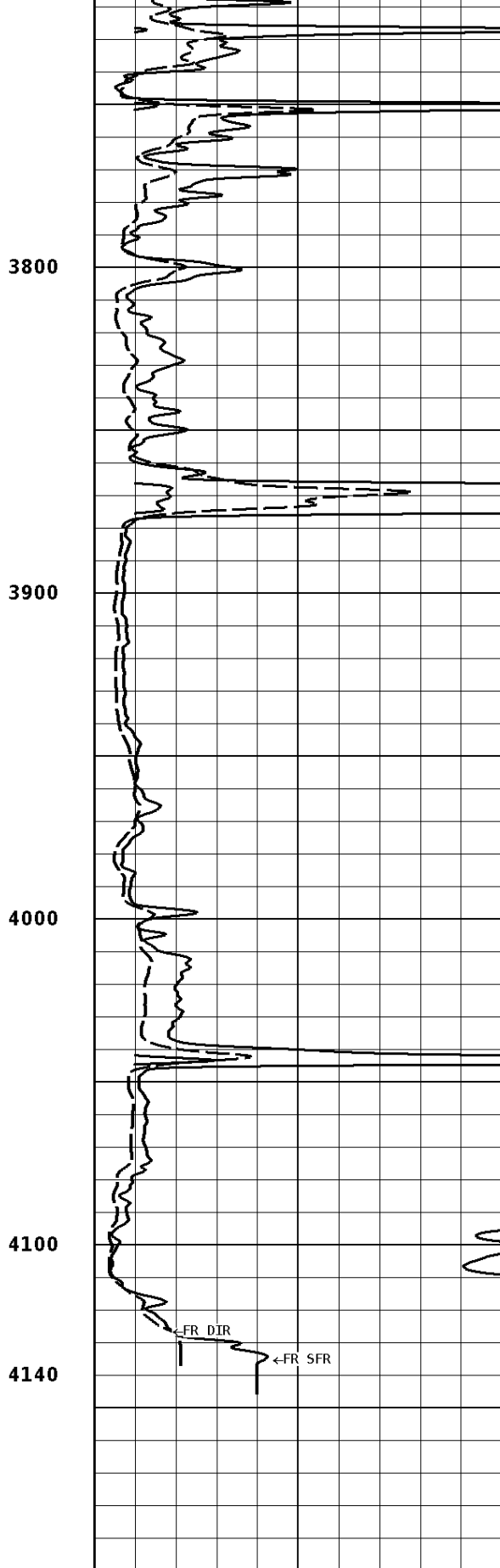
3100







File #1.1.3



1:600 MAIN SECTION



SPONTANEOUS POTENTIAL mV → ←20
TENSION LBS 100000 0

SHALLOW FOCUSED RESISTIVITY OHMM	
0.0	500.0
0.0	50.0
DEEP INDUCTION OHMM	
0.0	500.0
0.0	50.0

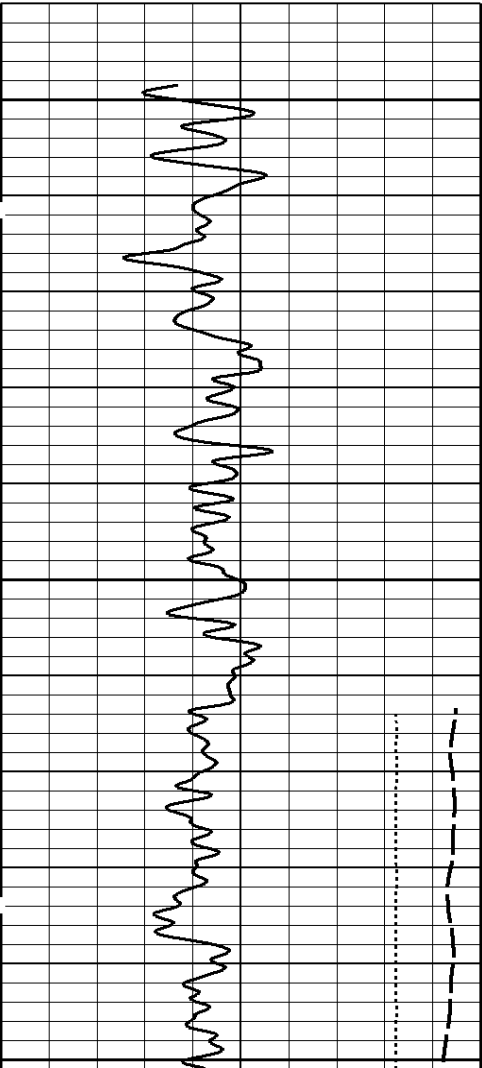
Well File: GRAND MESA PREISSER 1-34 DEC-14 QUINT
Segment: V1.D1.S3 mn
Reference: 0

Scale: 1:240
Acquired: 2019-12/14 12:23 3.4.1-13972
Processed: 2019-12/14 12:23 3.4.1-13972

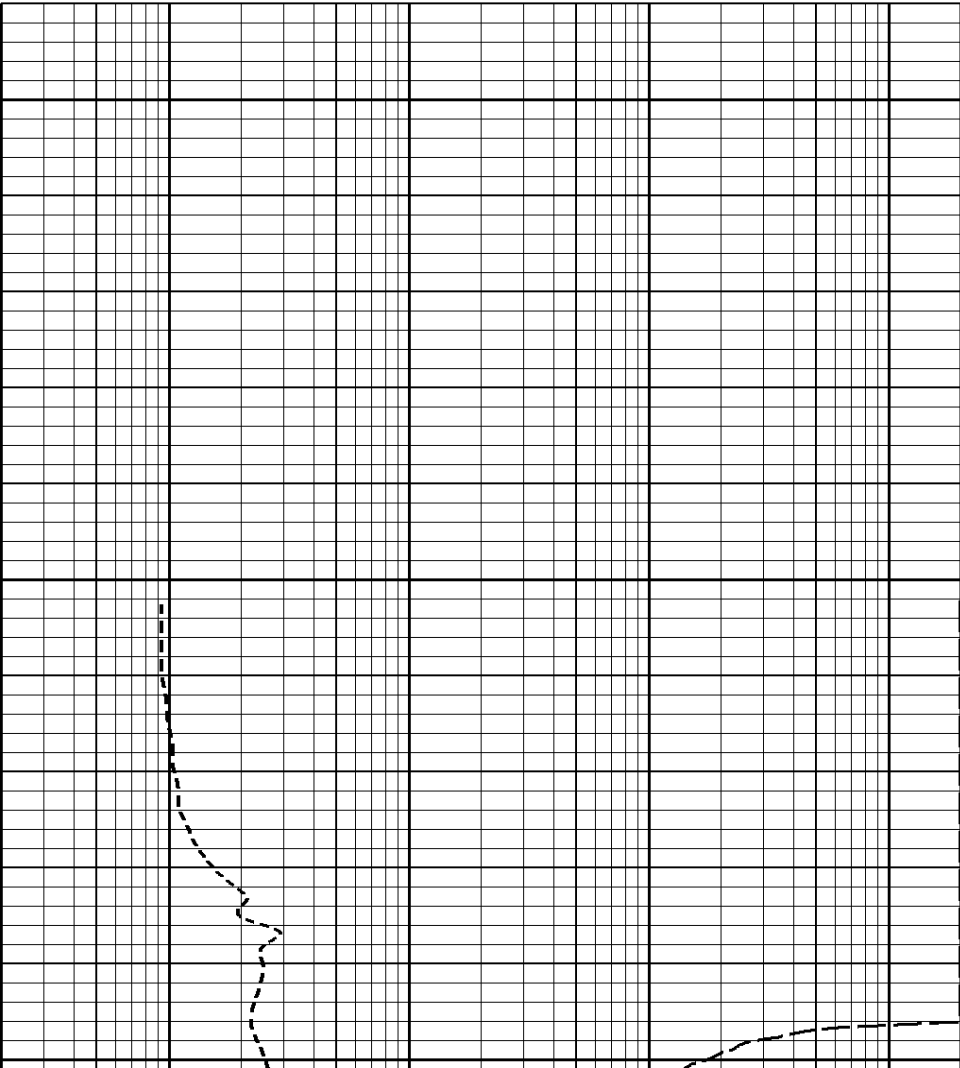
Format: DIL-240

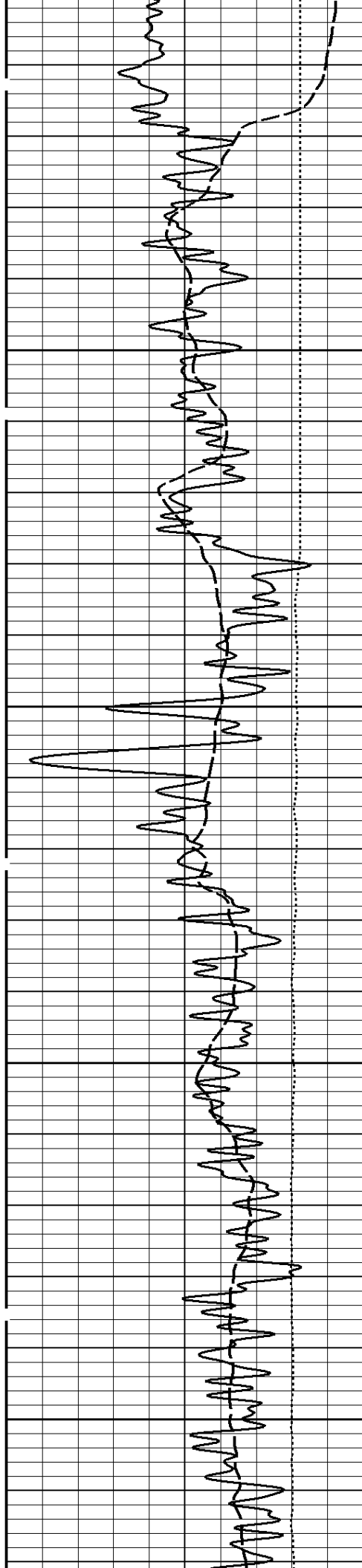
SPONTANEOUS POTENTIAL mV → ←20		DEEP INDUCTION OHMM 0.22000.0
TENSION LBS 100000 0		MEDIUM INDUCTION OHMM 0.22000.0
GAMMA RAY API UNITS 1500 300150		SHALLOW FOCUSED RESISTIVITY OHMM 0.22000.0

1:240 MAIN SECTION



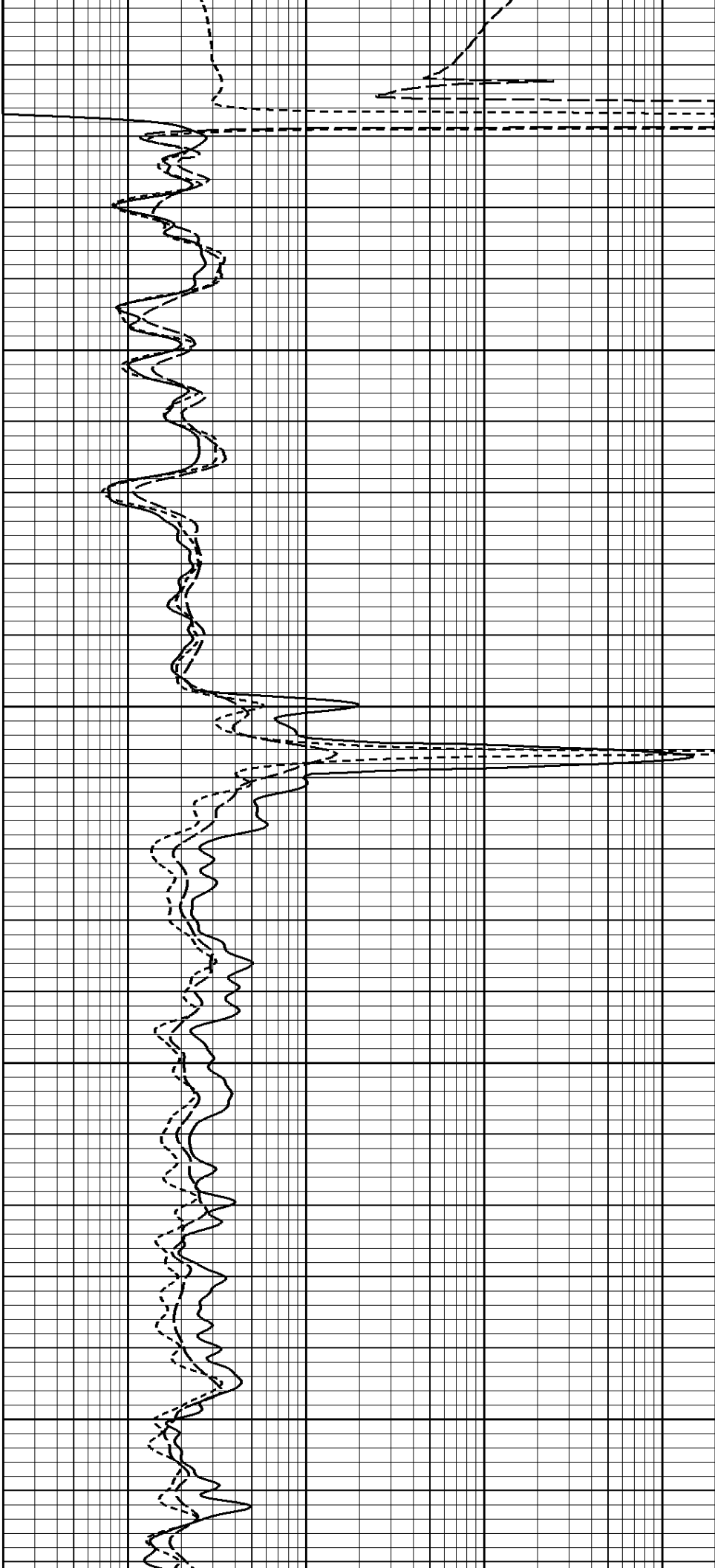
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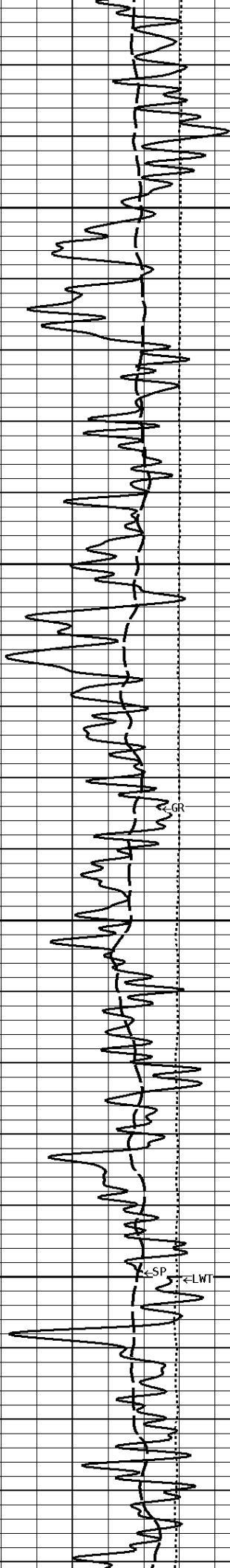




300

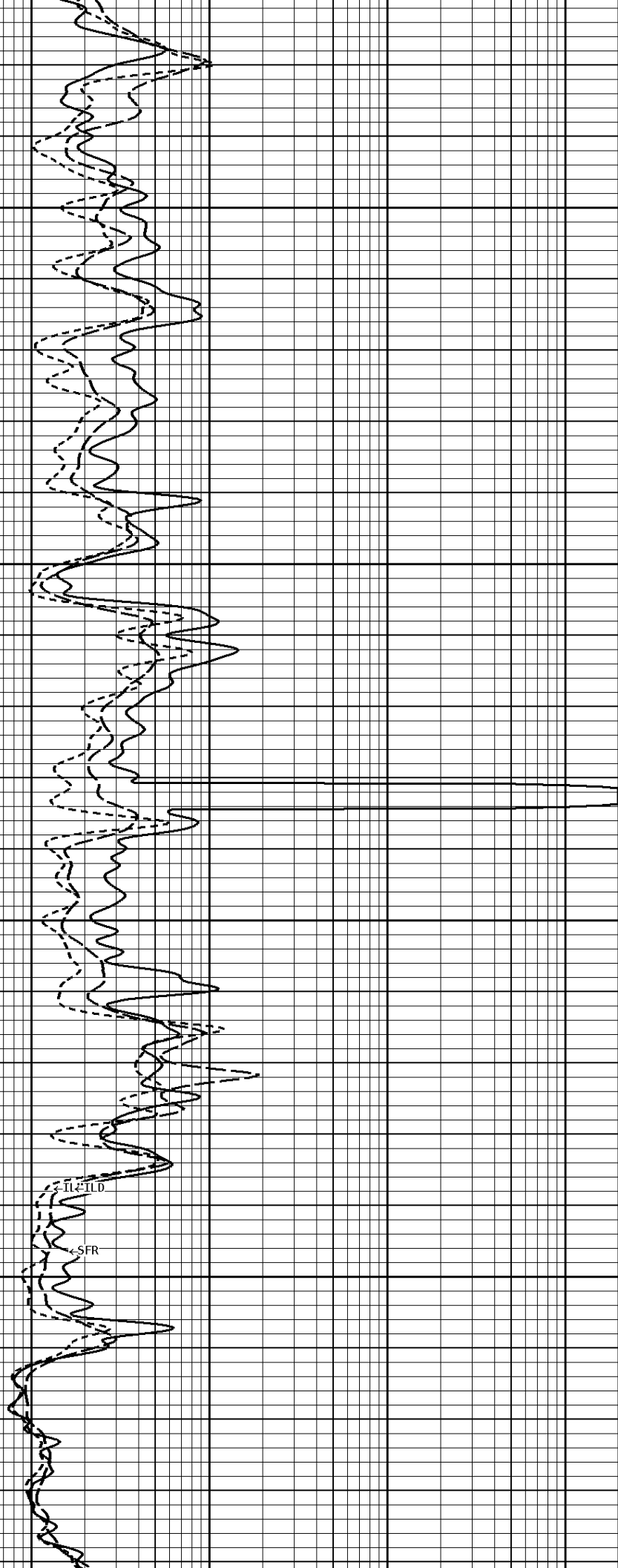
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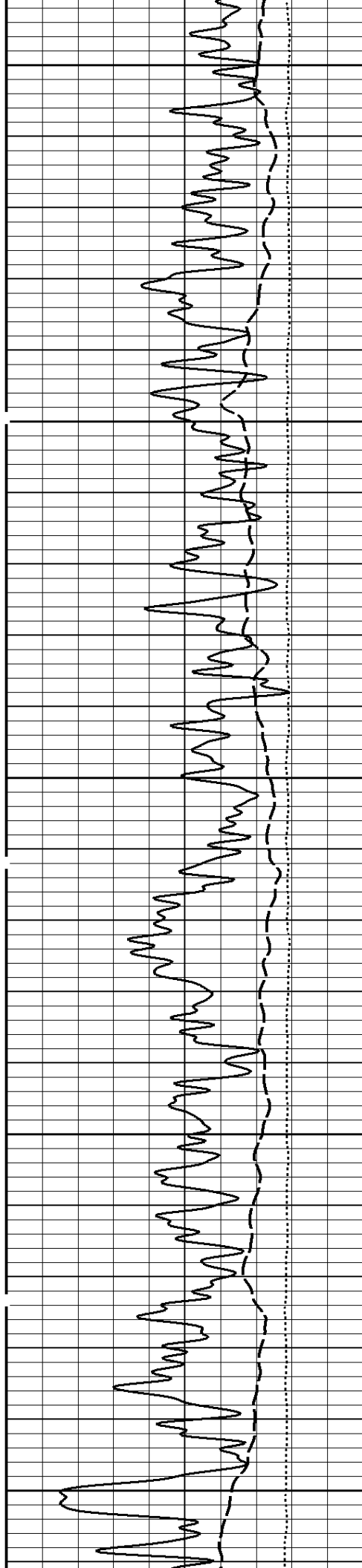




500

600

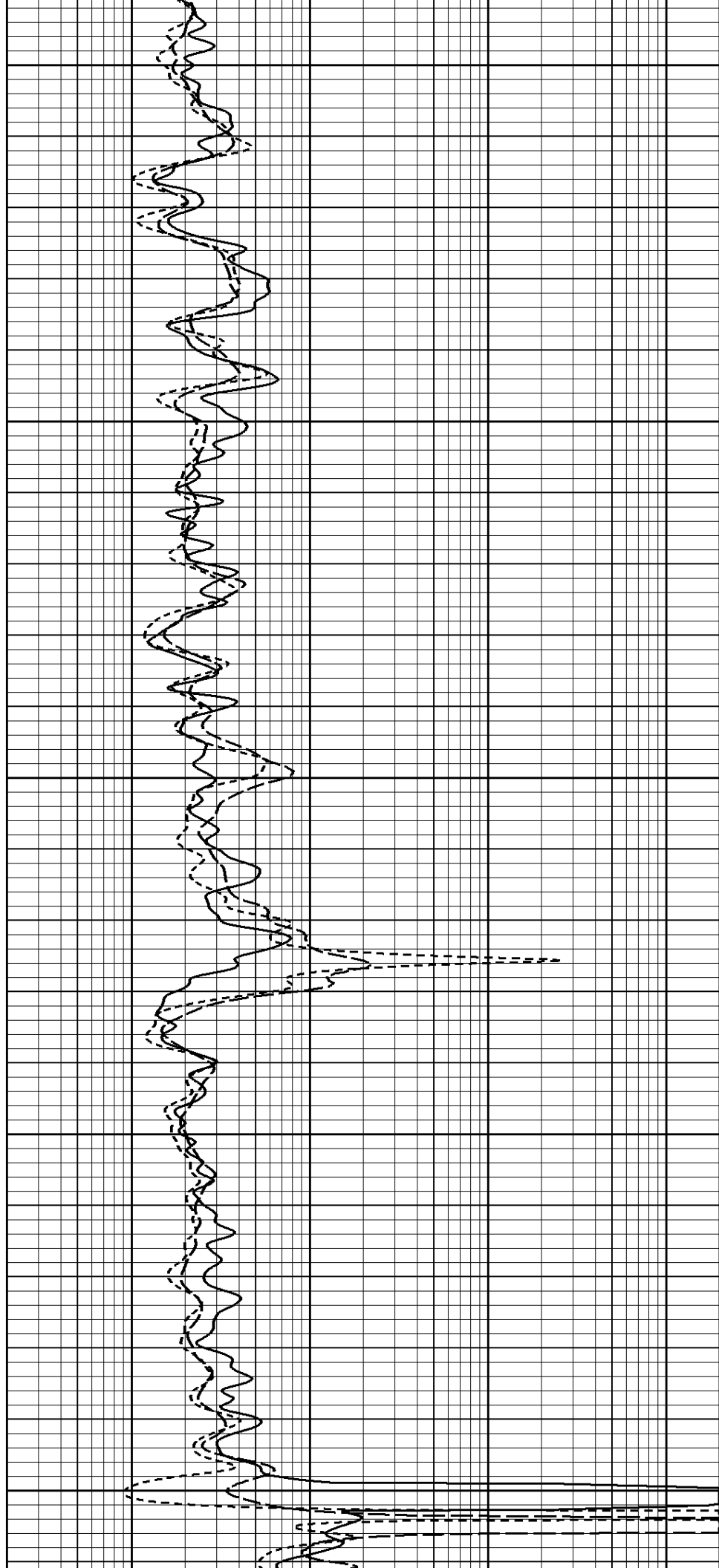


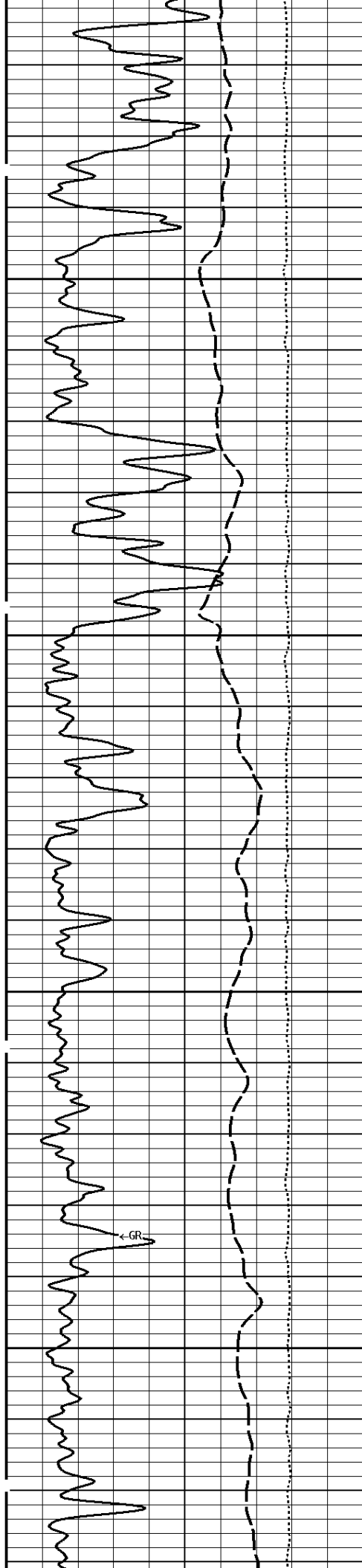


700

800

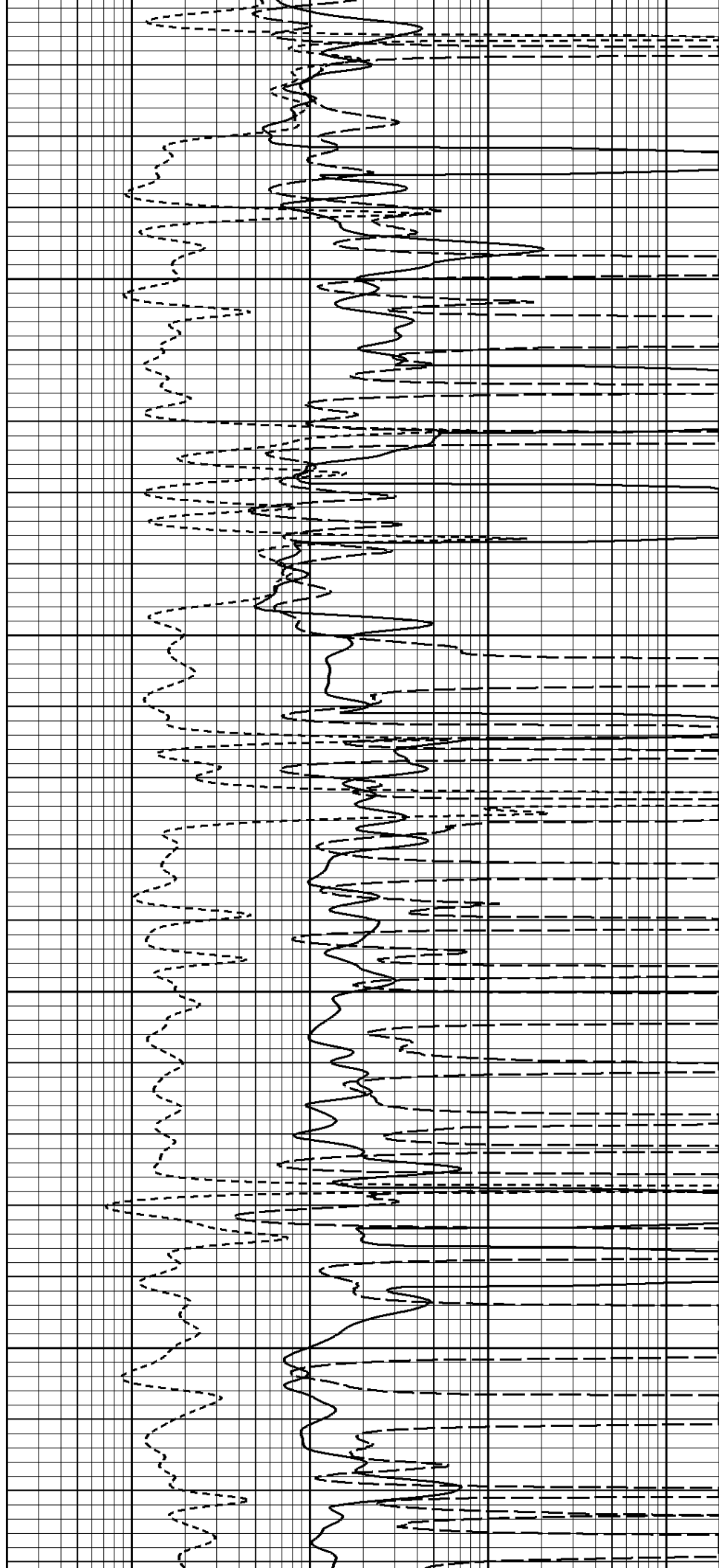
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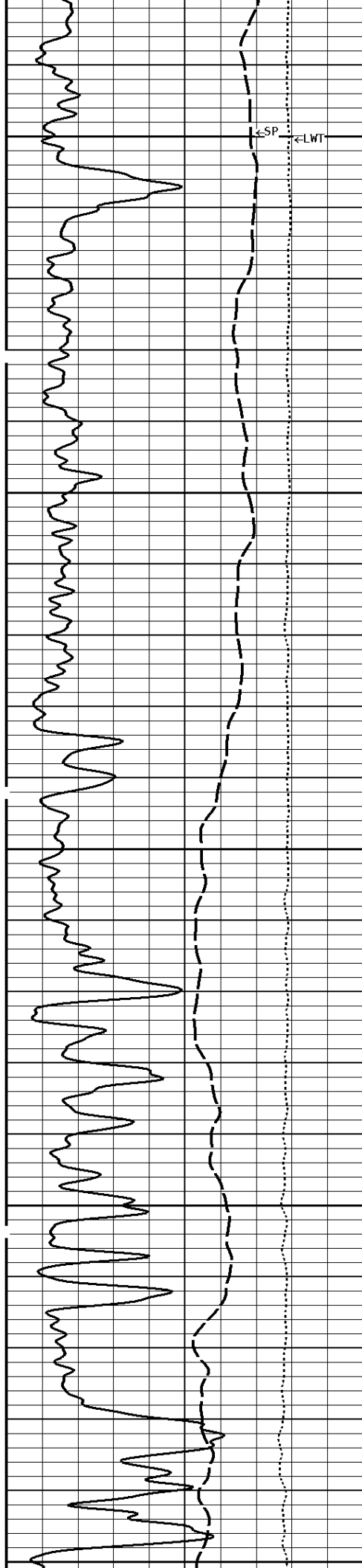




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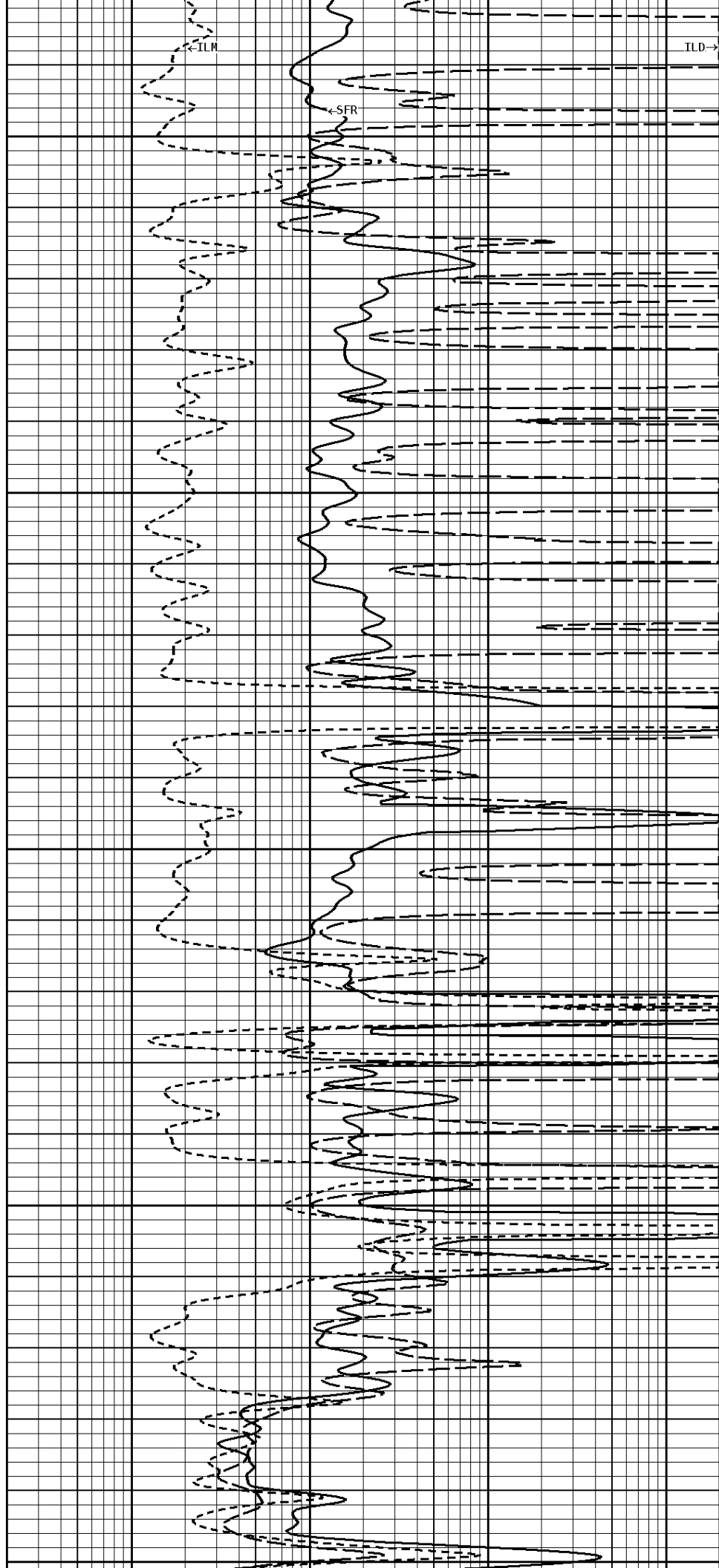
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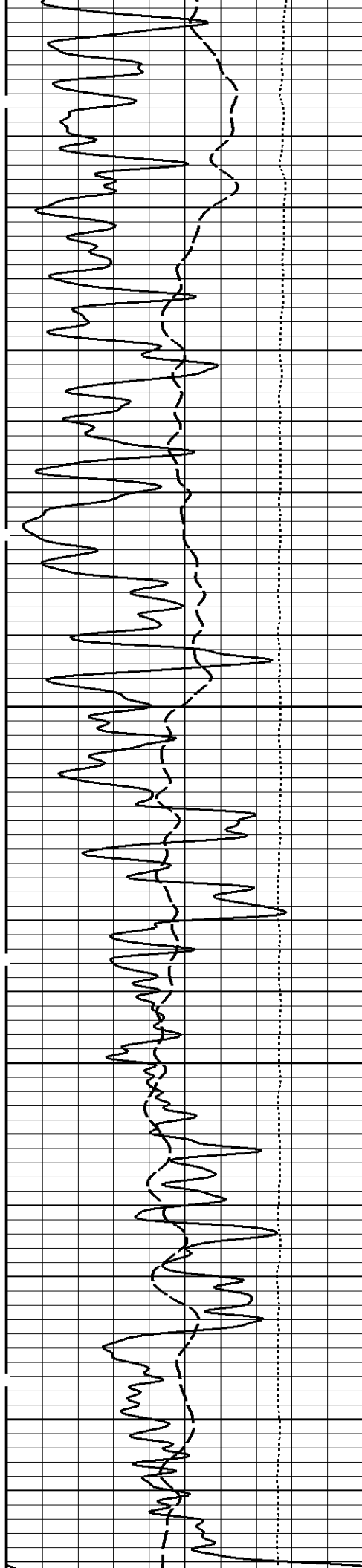




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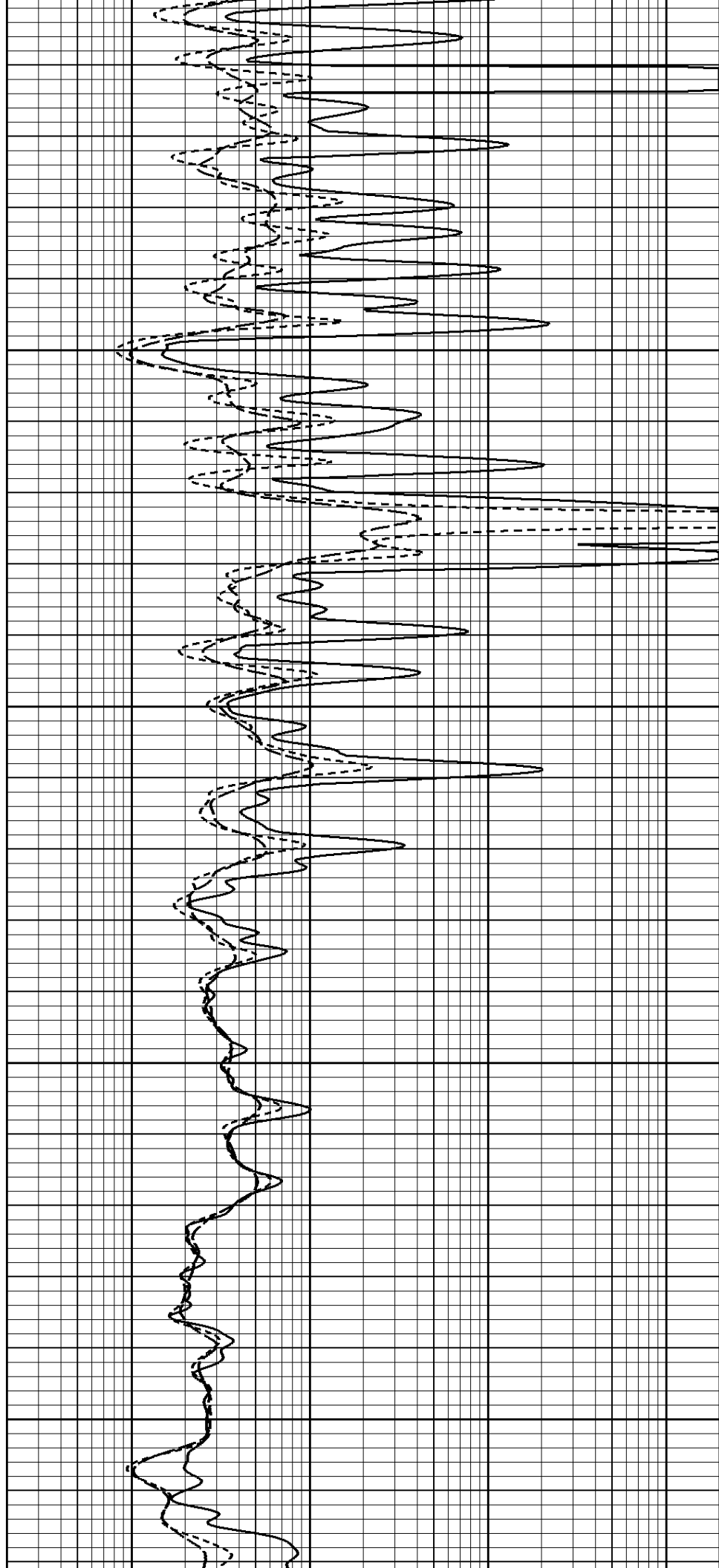
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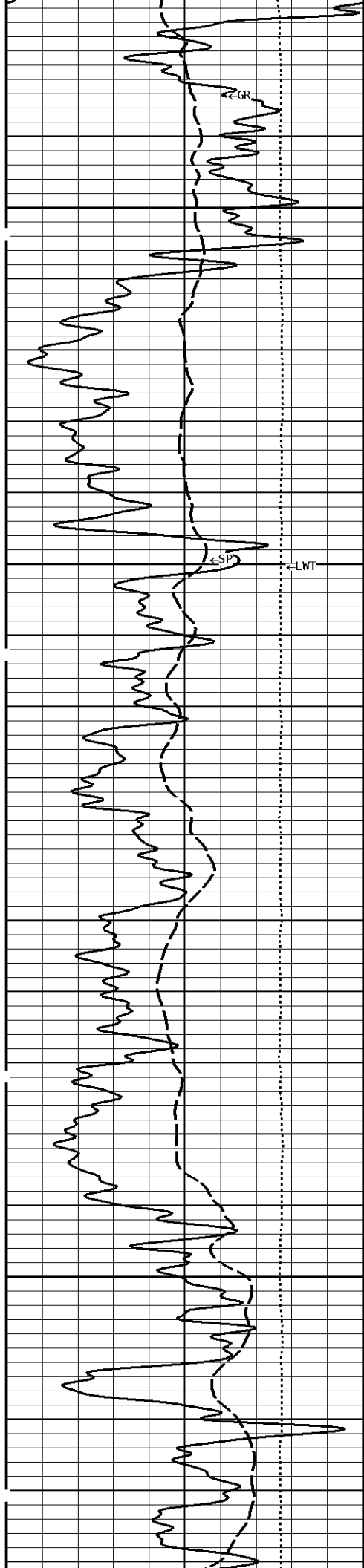




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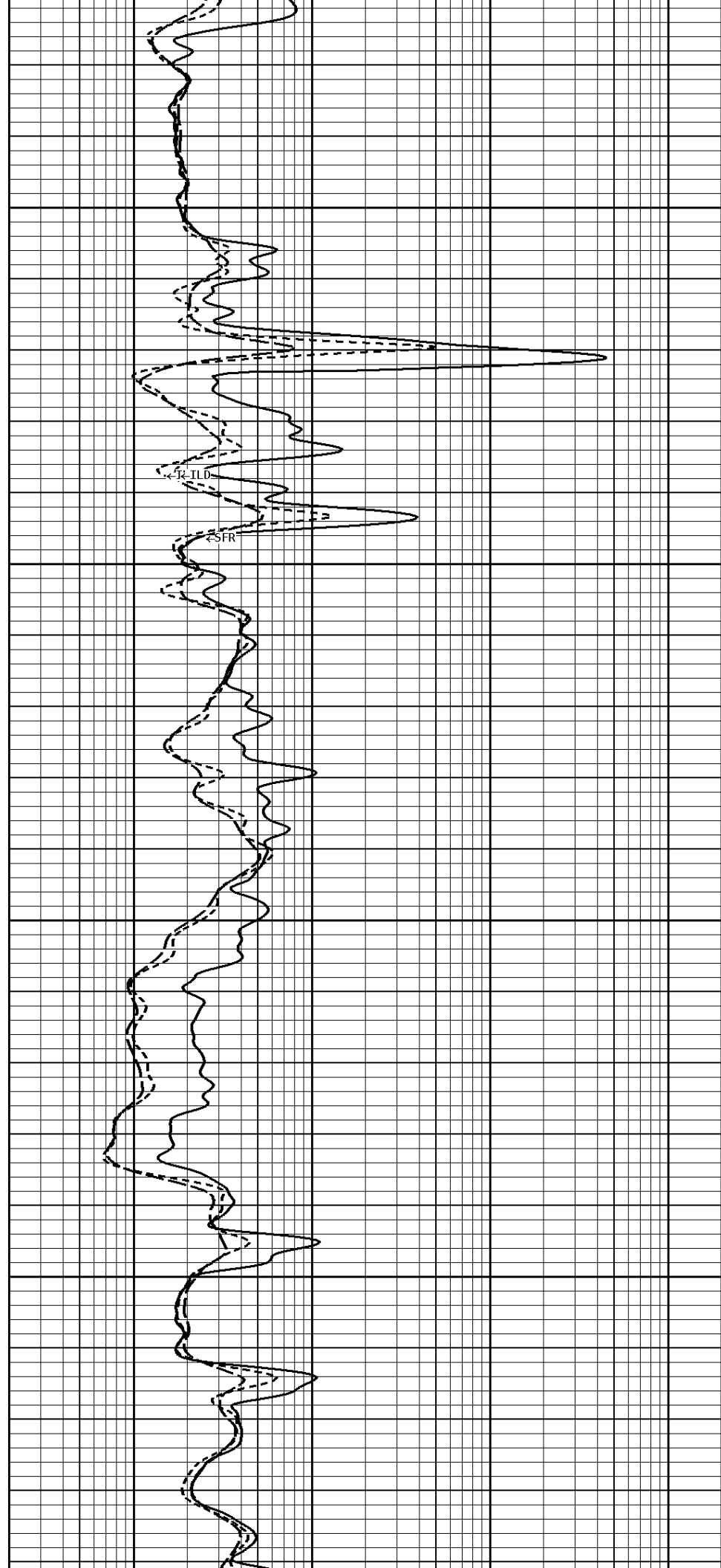
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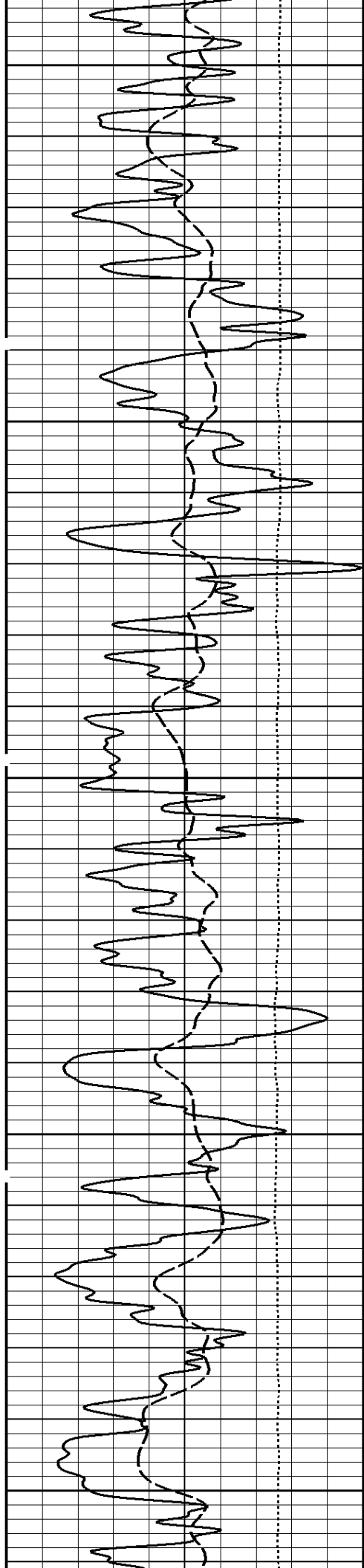




1600

1700

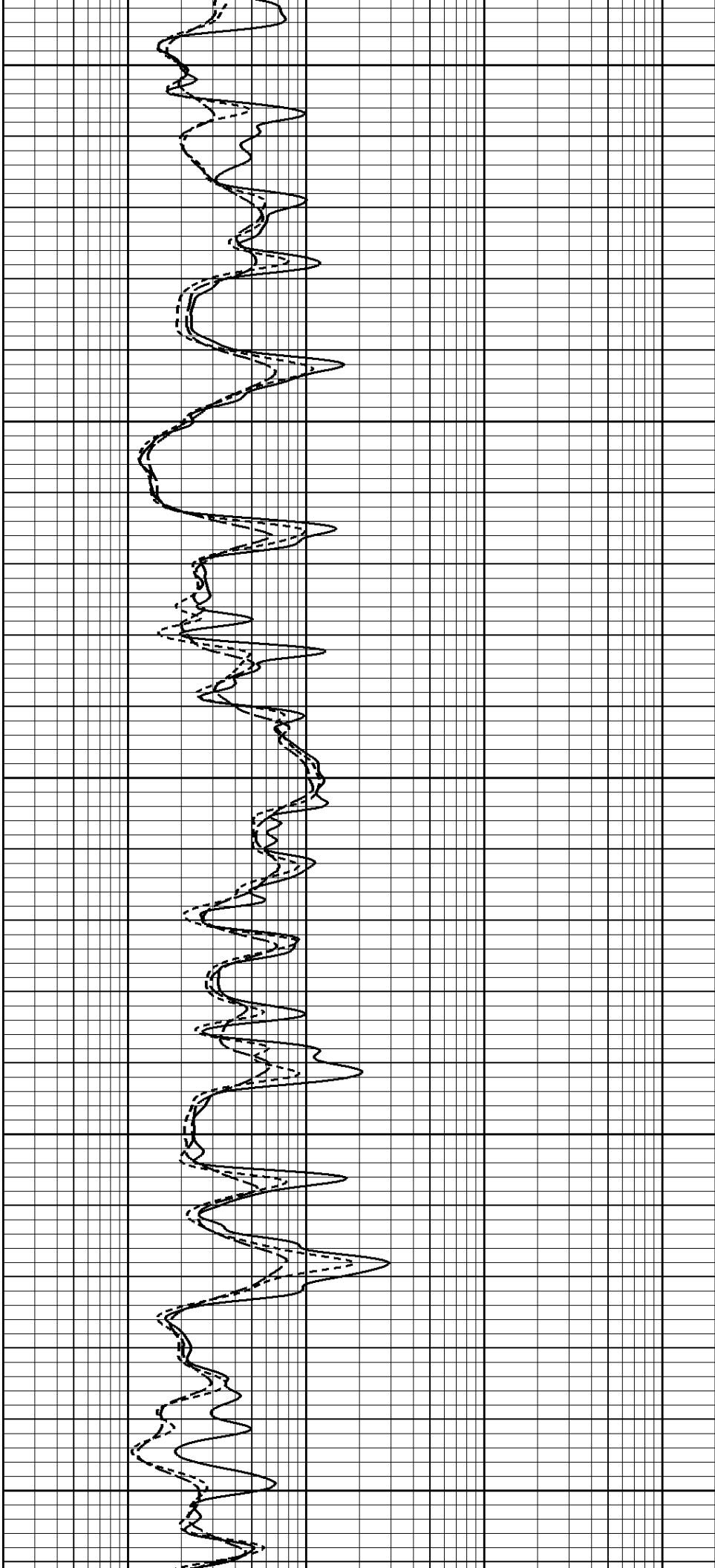


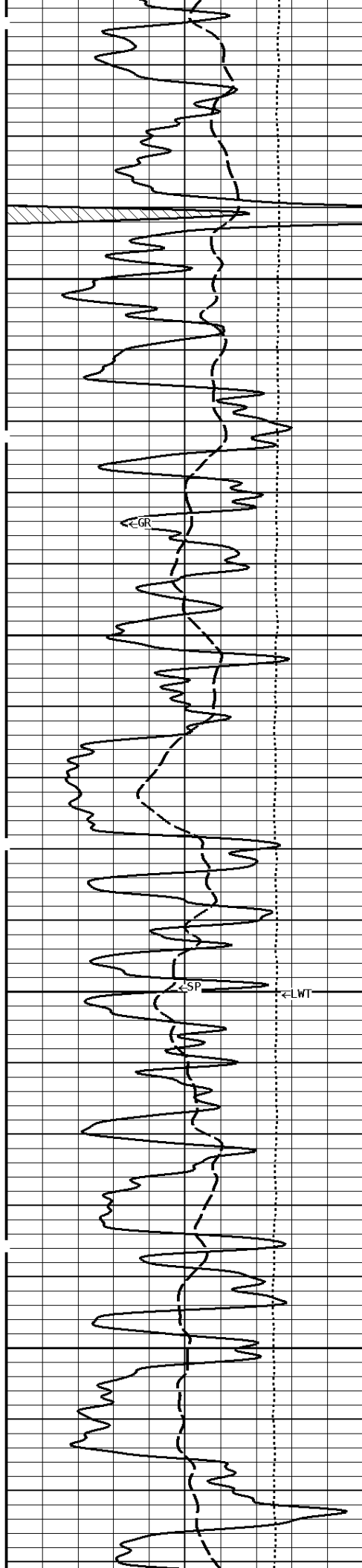


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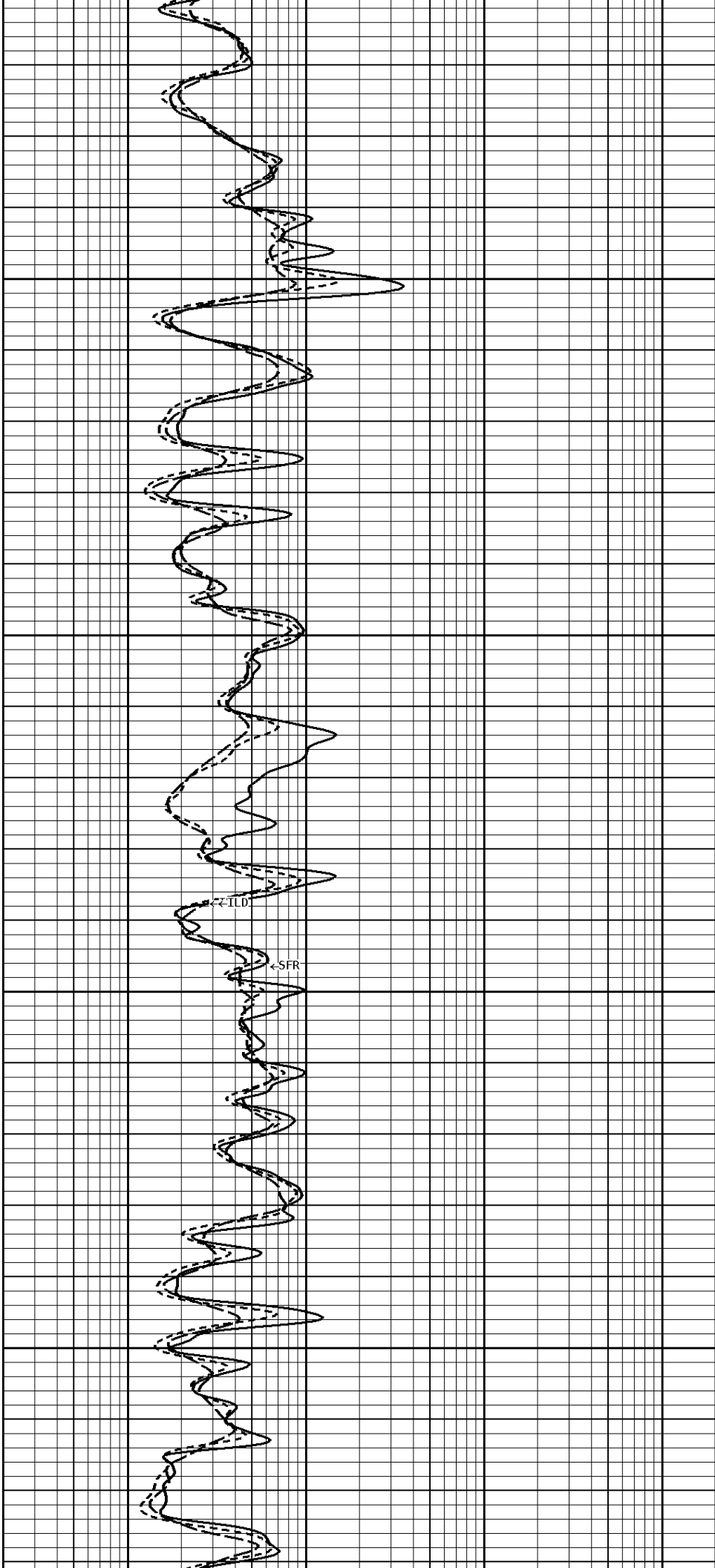
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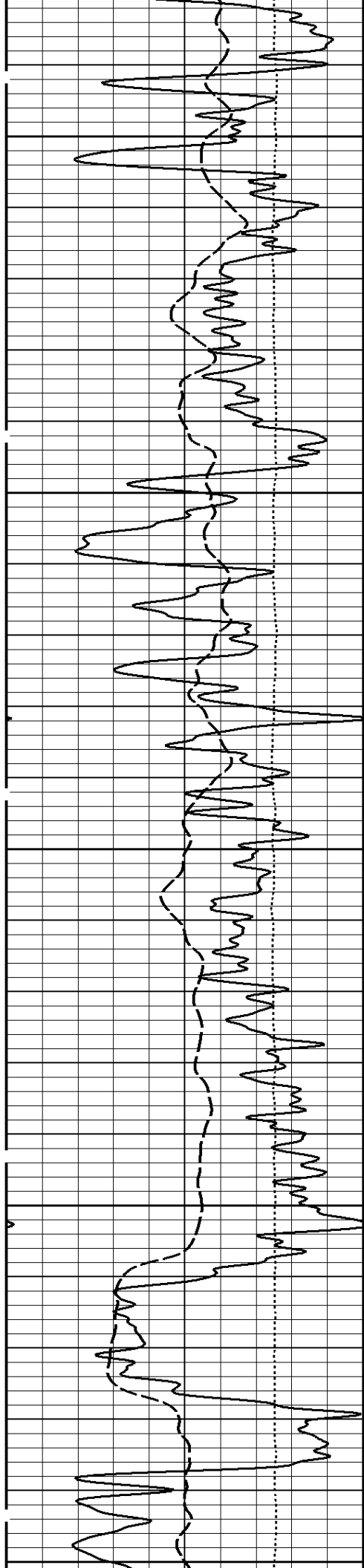




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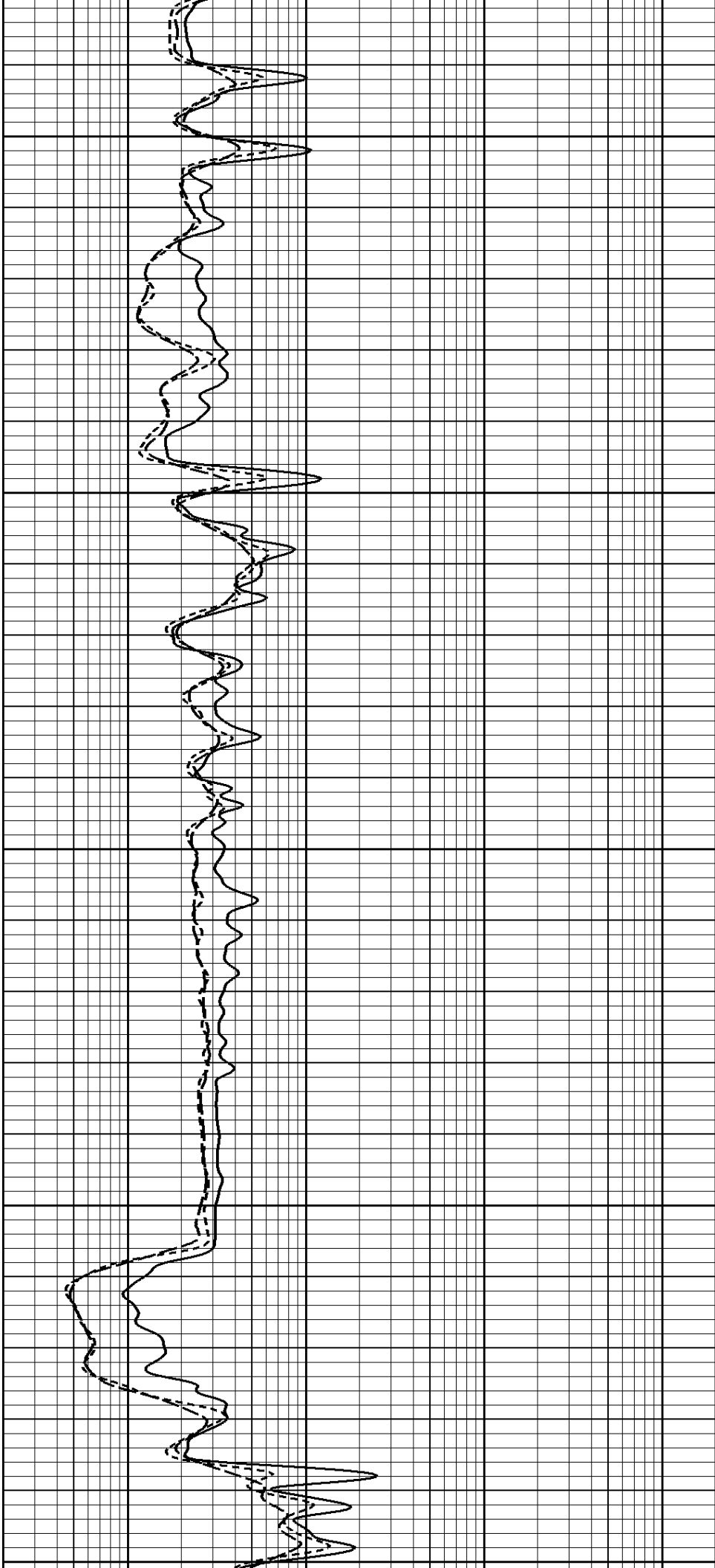
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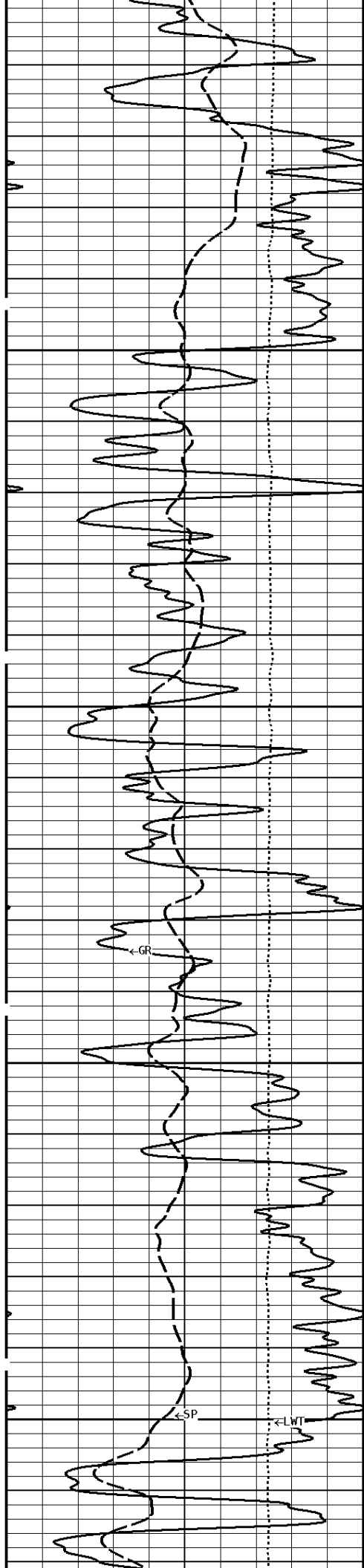




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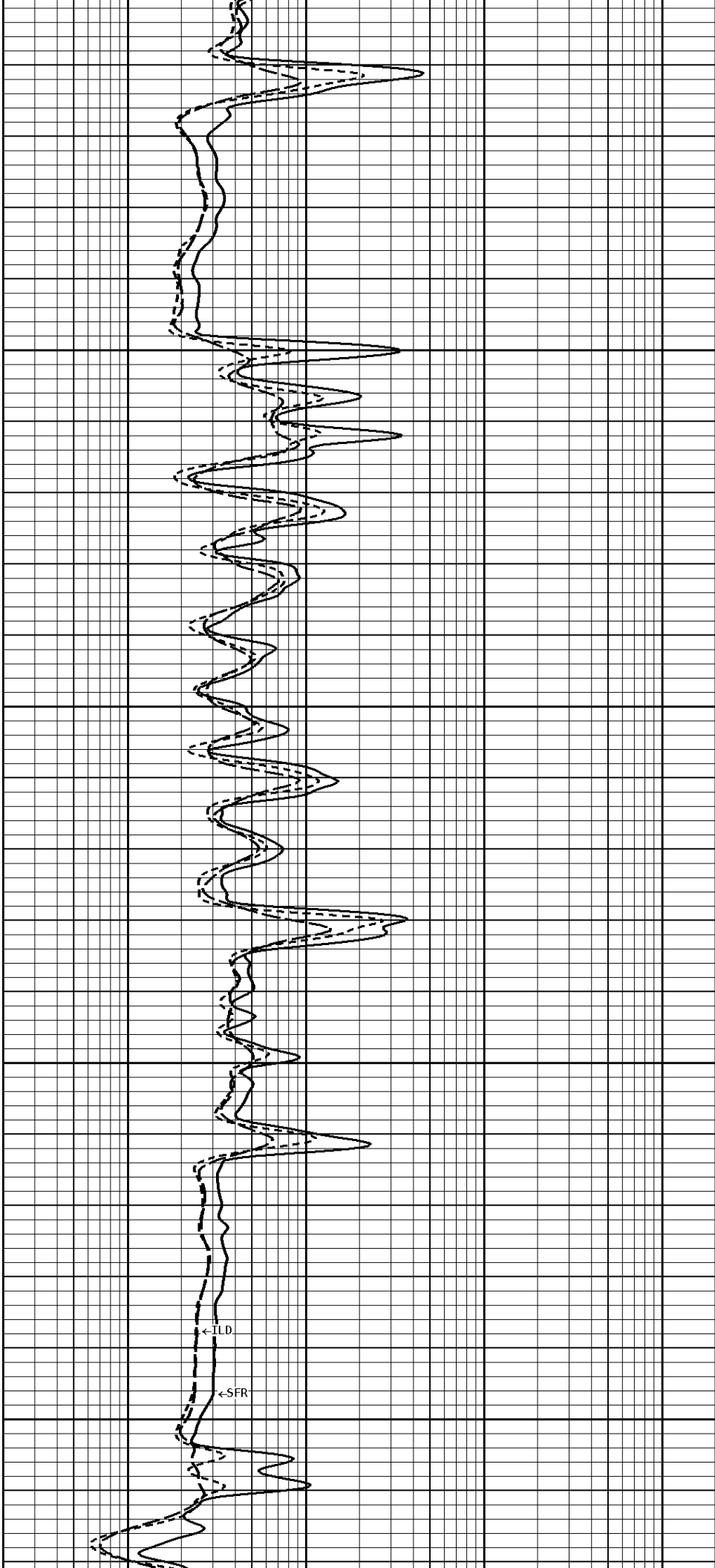
2400





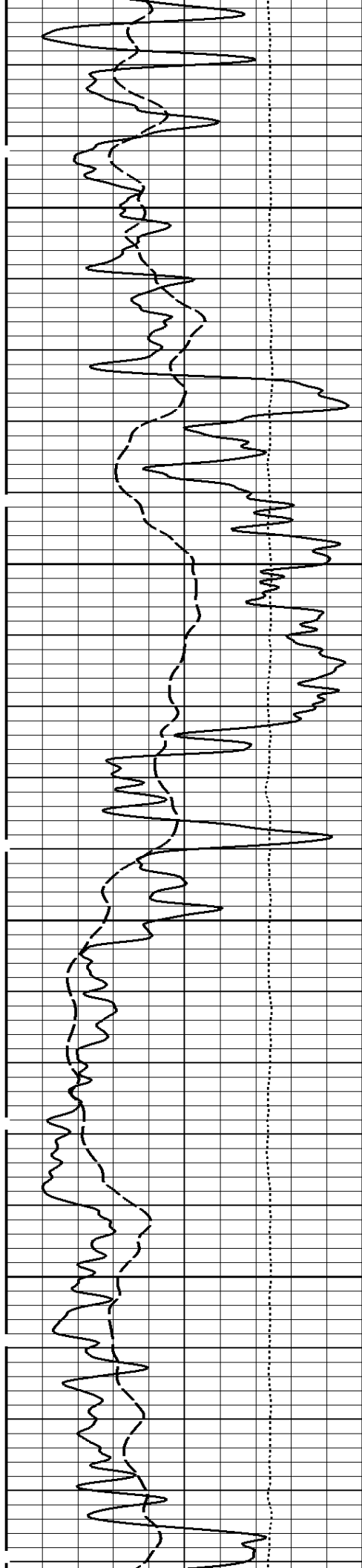
2500

2600



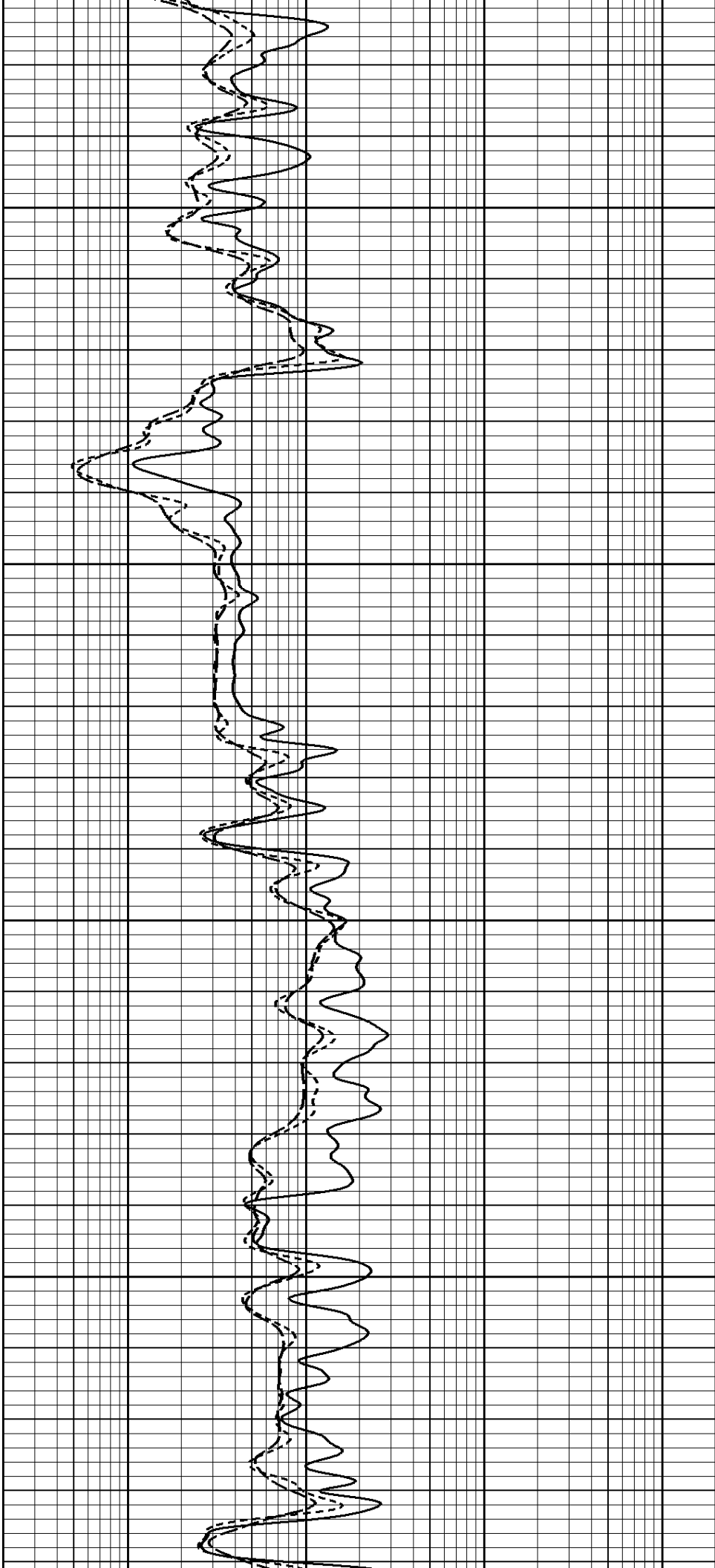
←ILD

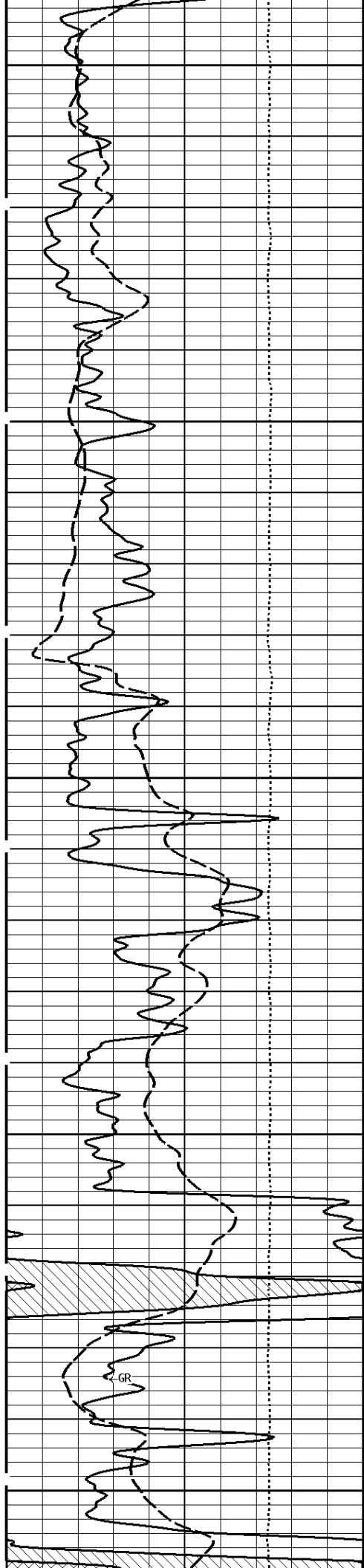
←SFR



2700

2800

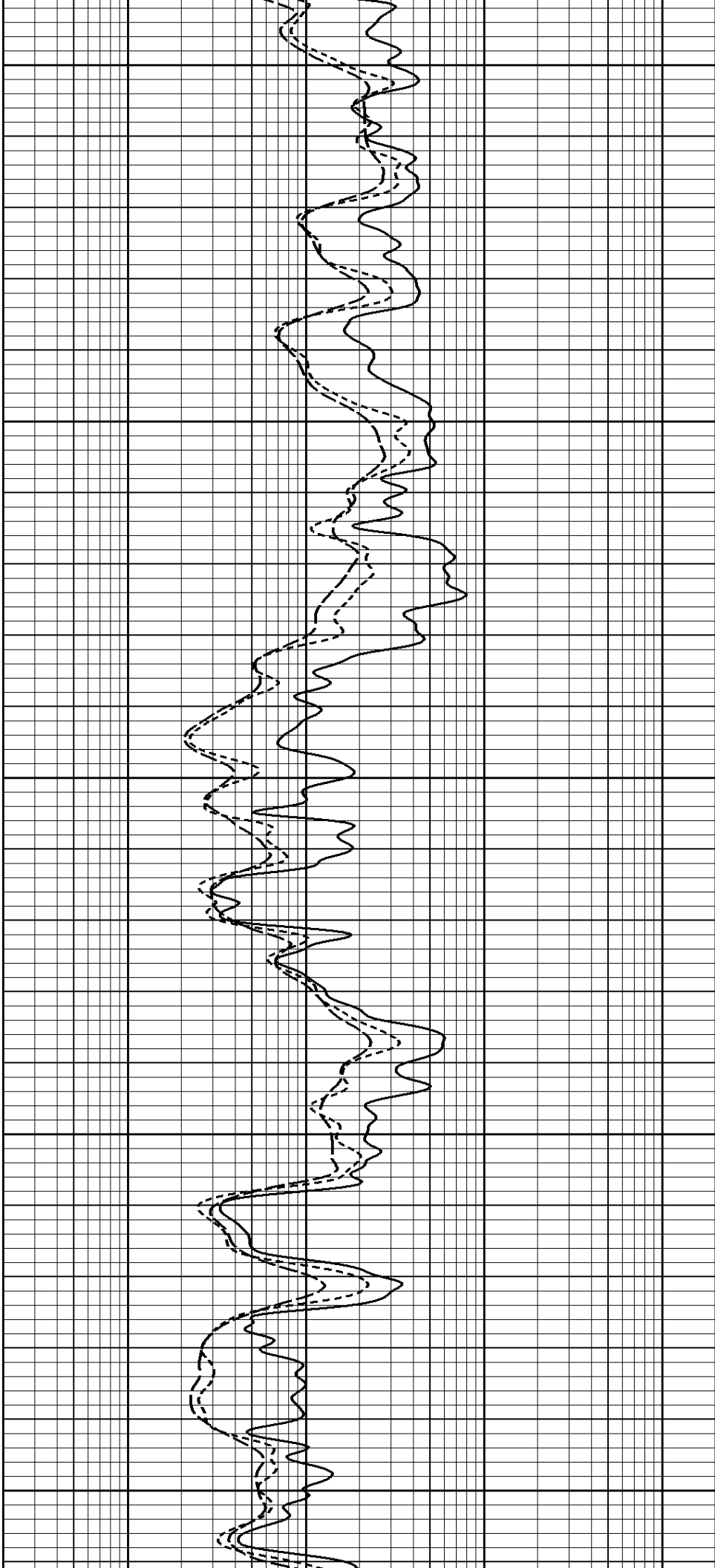


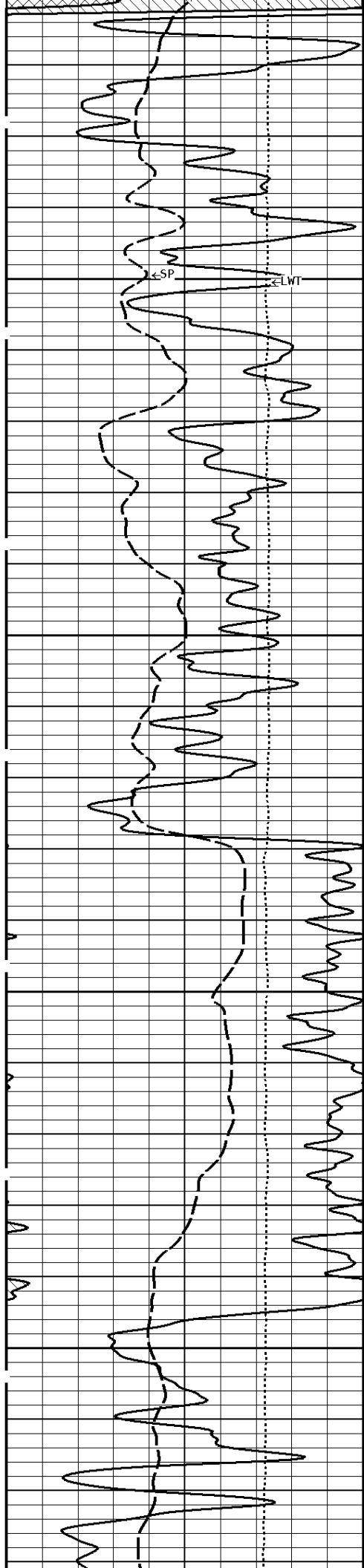


2900

3000

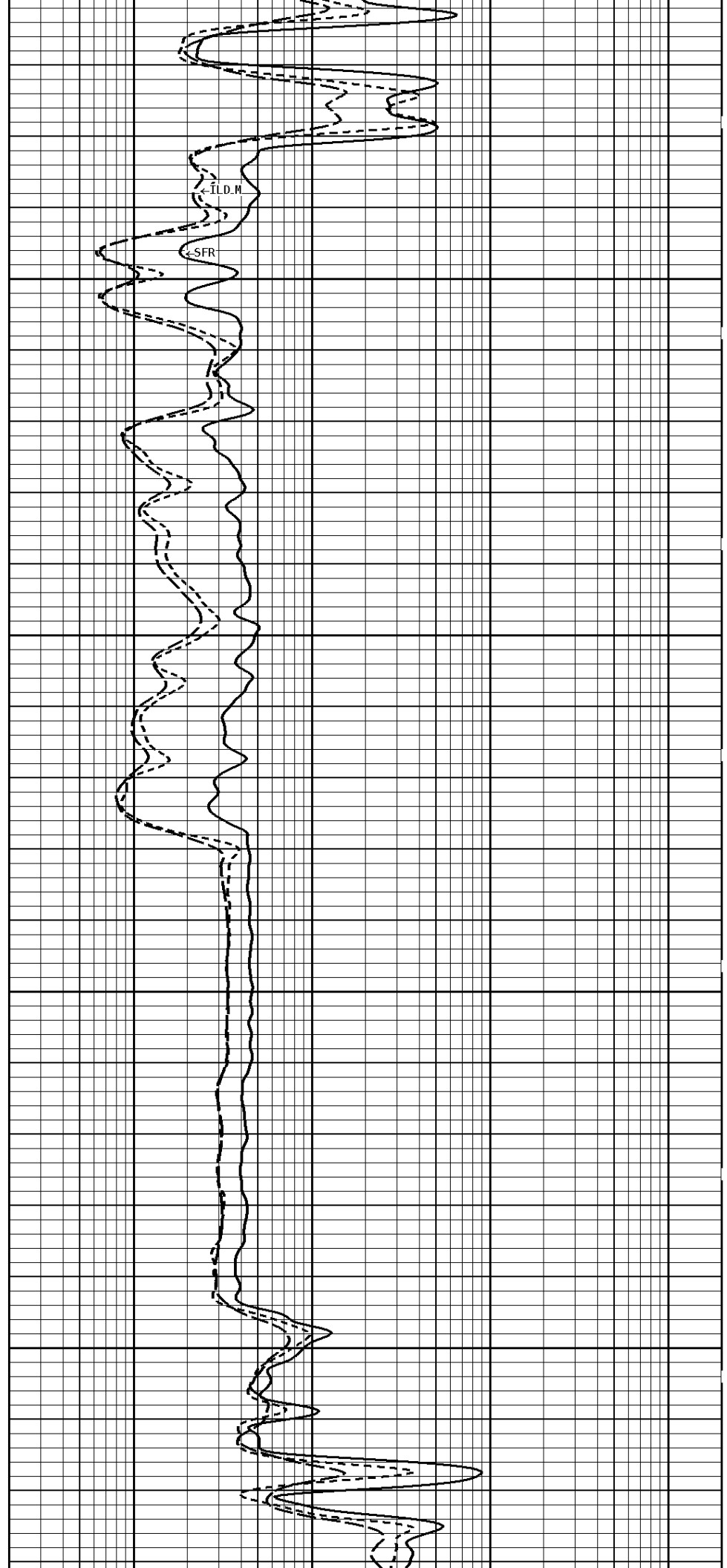
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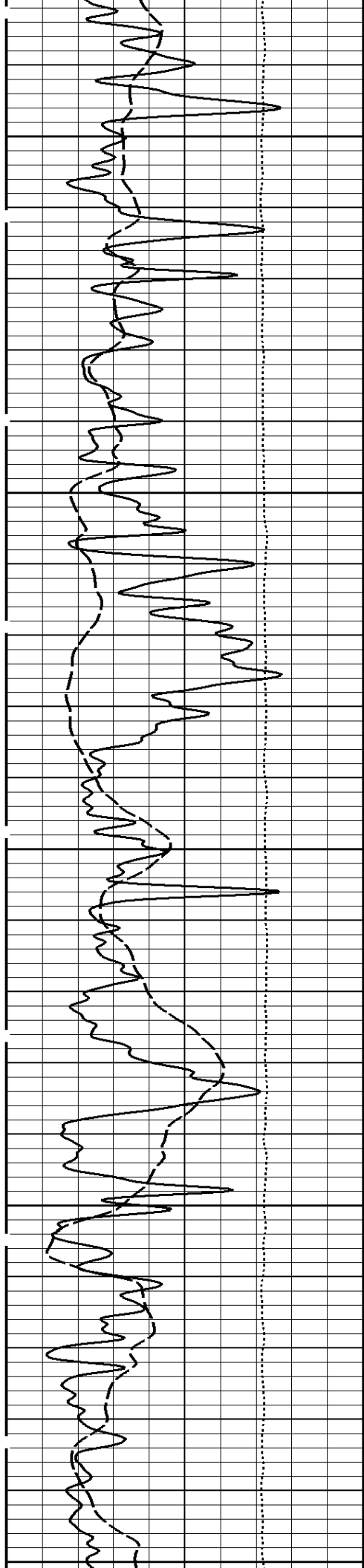




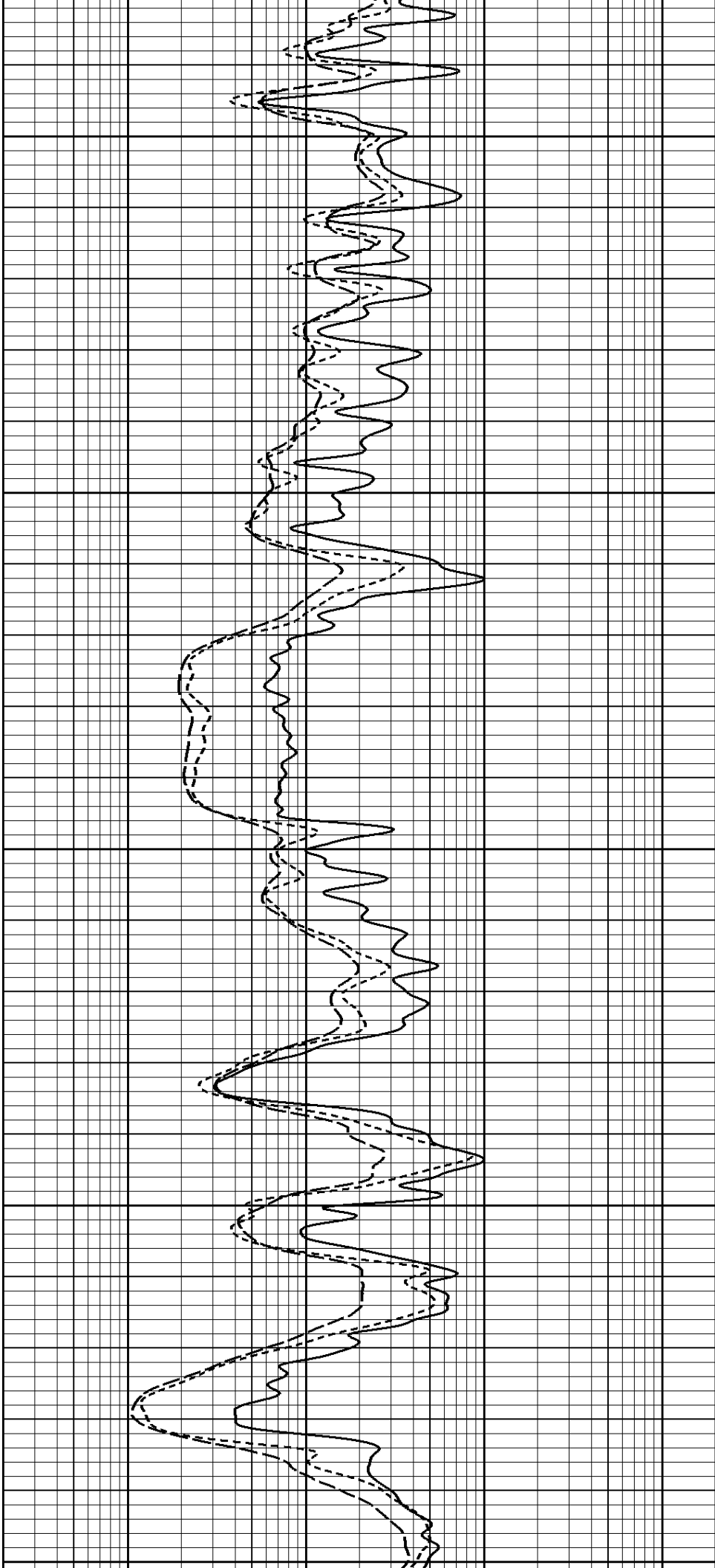
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3300

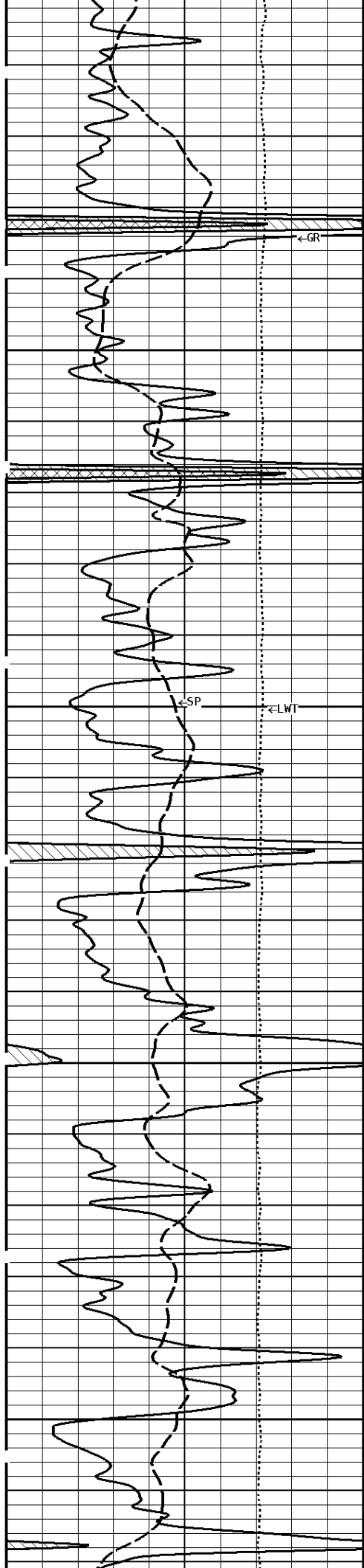




3400

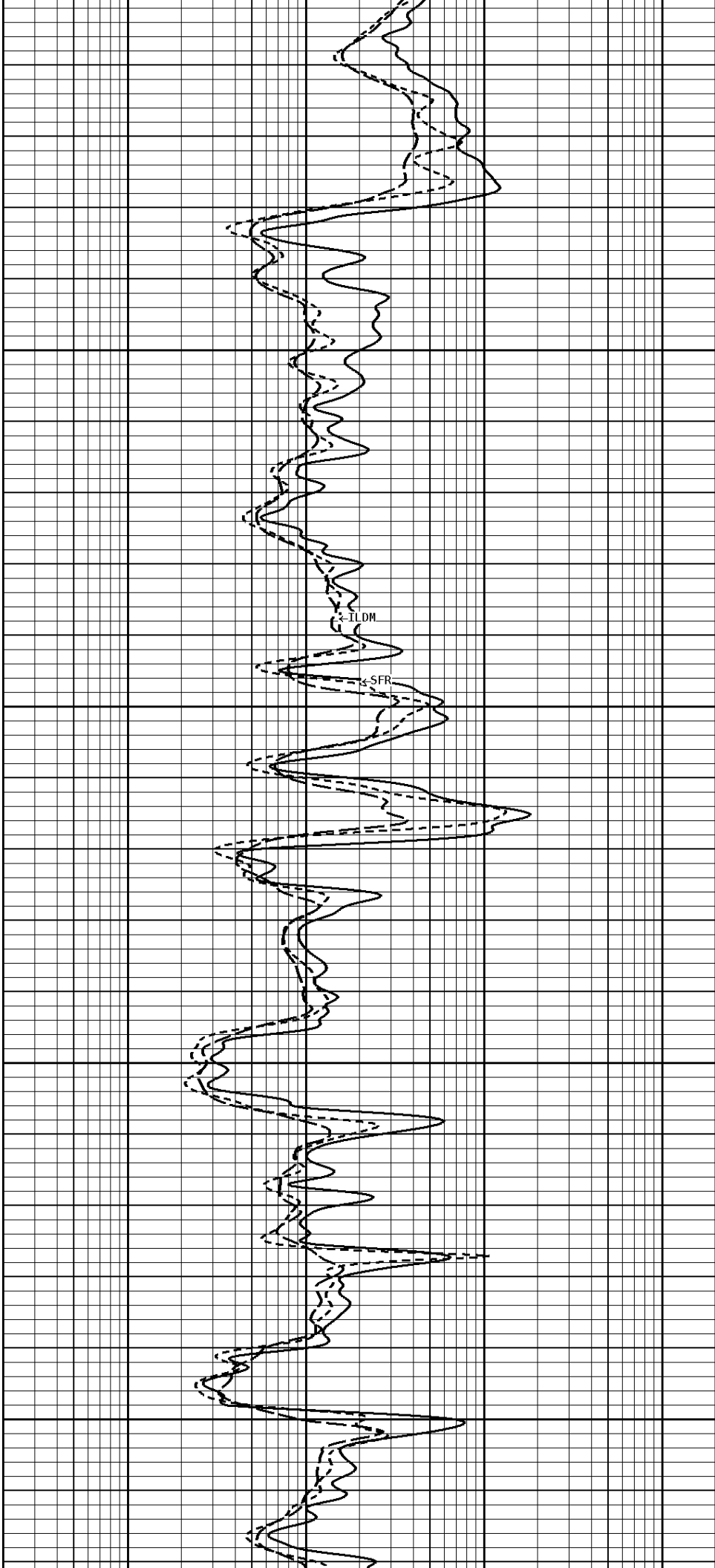


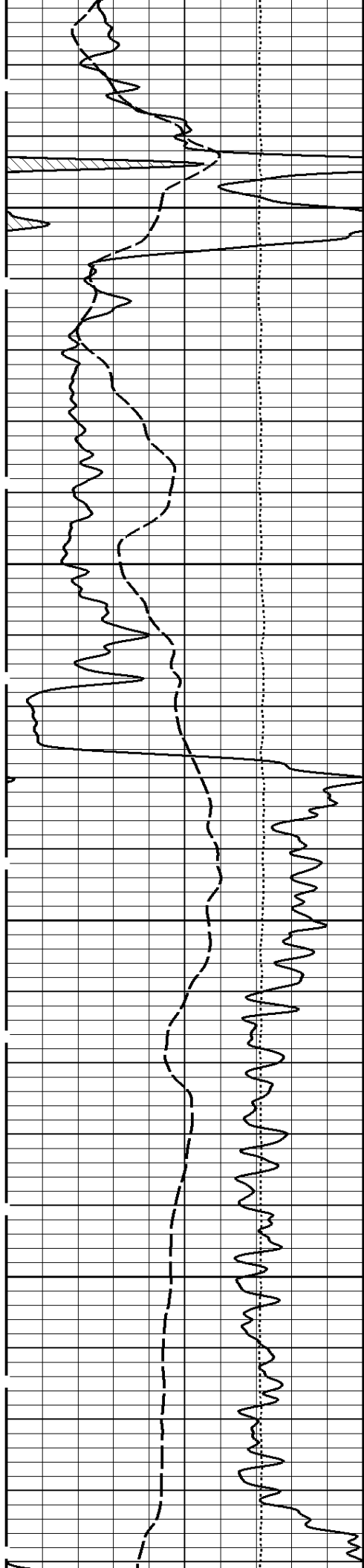
3500



3600

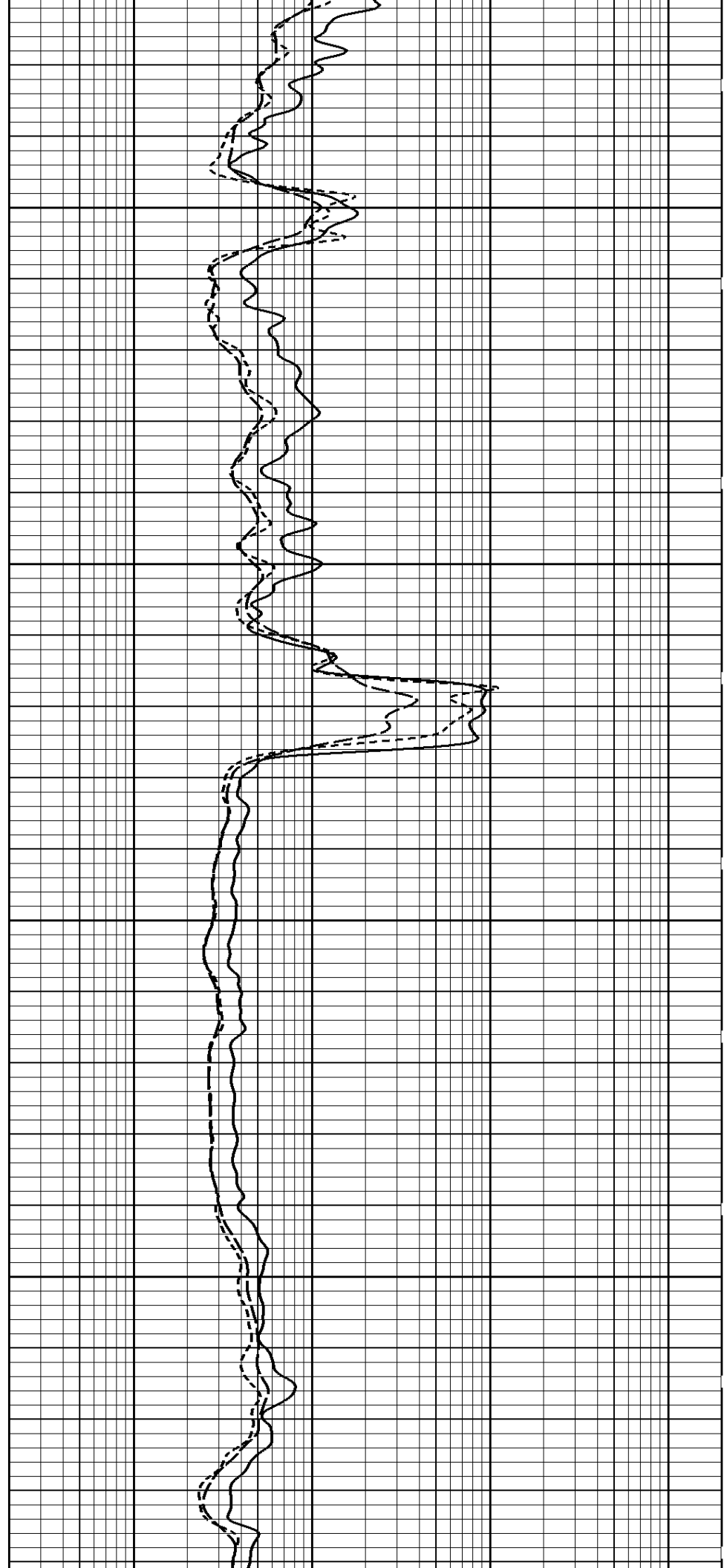
3700

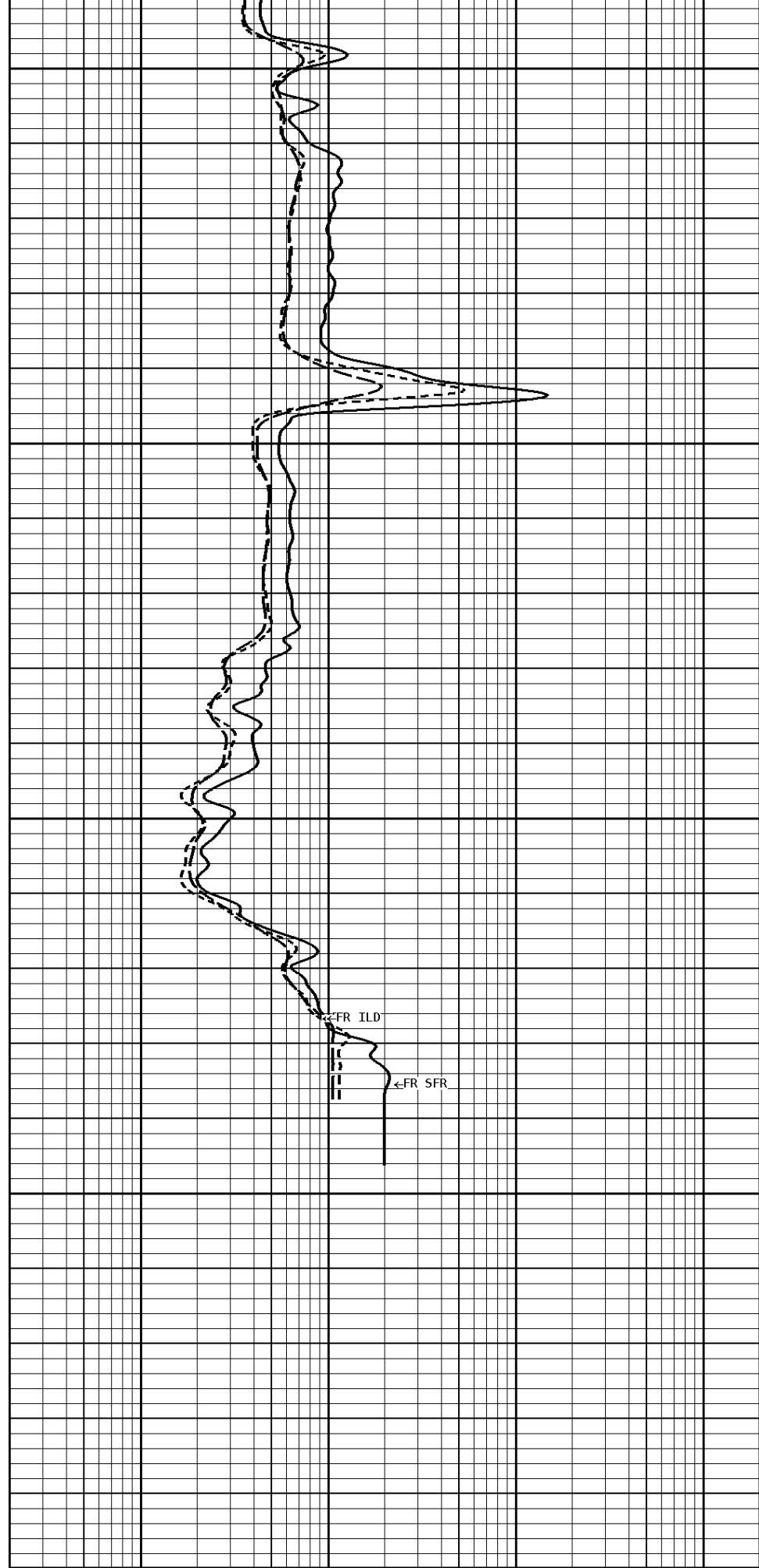
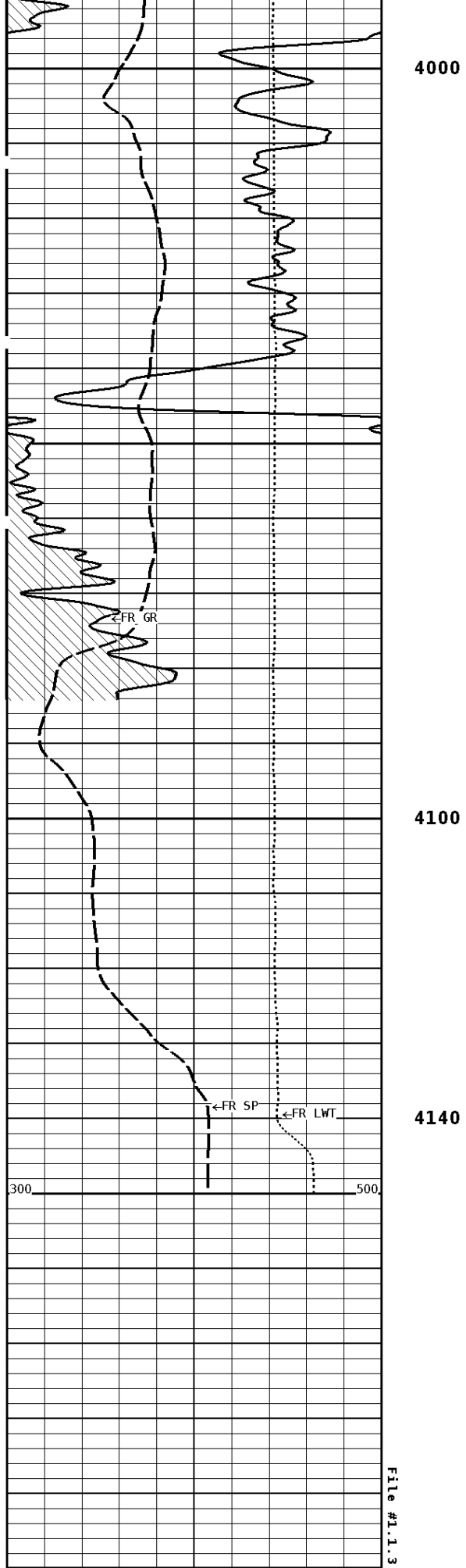




3800

3900





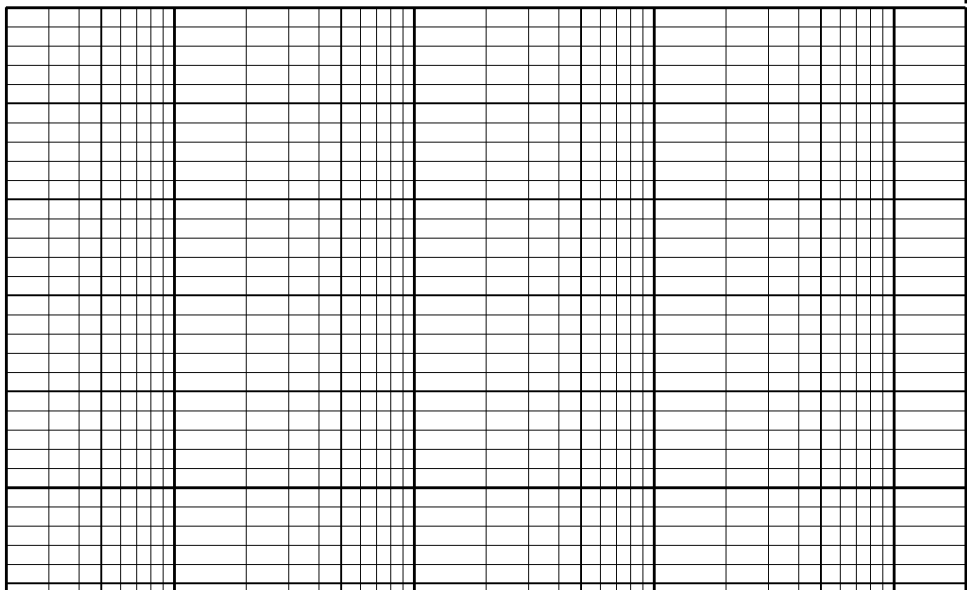
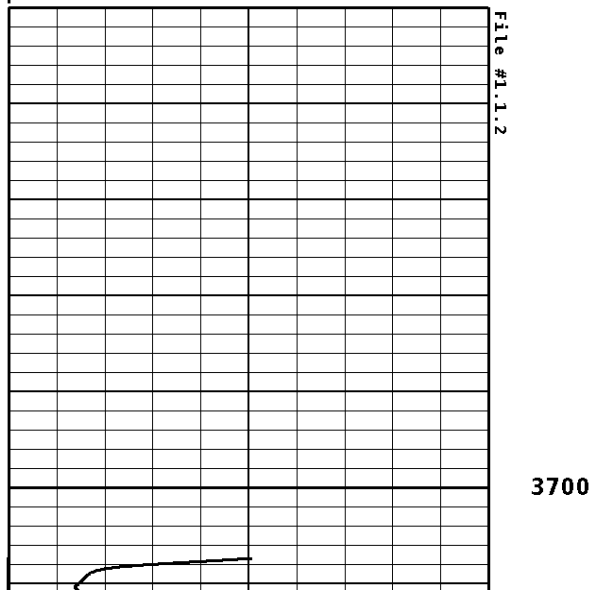
1:240 MAIN SECTION

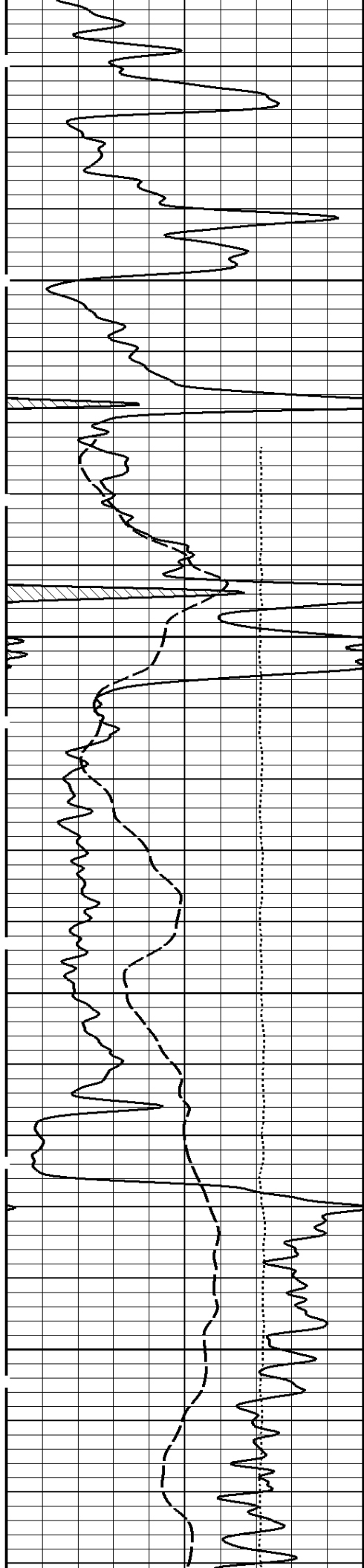
SHALLOW FOCUSED RESISTIVITY OHMM	
0.2	2000.0
MEDIUM INDUCTION OHMM	
0.2	2000.0
DEEP INDUCTION OHMM	
0.2	2000.0

Zone 1 99999.0 to 0.0 Feet			
Drill Bit Size		7.875	in
Casing Diameter		5.500	in
BHT Depth		4140.000	ft
Borehole Temperature		112.0	degF
Temperature Gradient		1.00	DFHF
Resistivity Of Mud		1.400	ohmm
Resistivity Of Mud Temperature		58.00	degF

Well File: GRAND MESA PREISSER_1-34_DEC-14_QUINT		Scale: 1:240	Format: DIL-240
Segment: V1.D1.S2 re		Acquired: 2019-12/14 12:05 3.4.1-13972	
Reference: 0		Processed: 2019-12/14 12:05 3.4.1-13972	
SPONTANEOUS POTENTIAL mV 		DEEP INDUCTION OHMM 0.2 ----- 2000.0	
TENSION LBS 10000 ----- 0		MEDIUM INDUCTION OHMM 0.2 ----- 2000.0	
GAMMA RAY API UNITS 150  300 0 ----- 150		SHALLOW FOCUSED RESISTIVITY OHMM 0.2 ----- 2000.0	

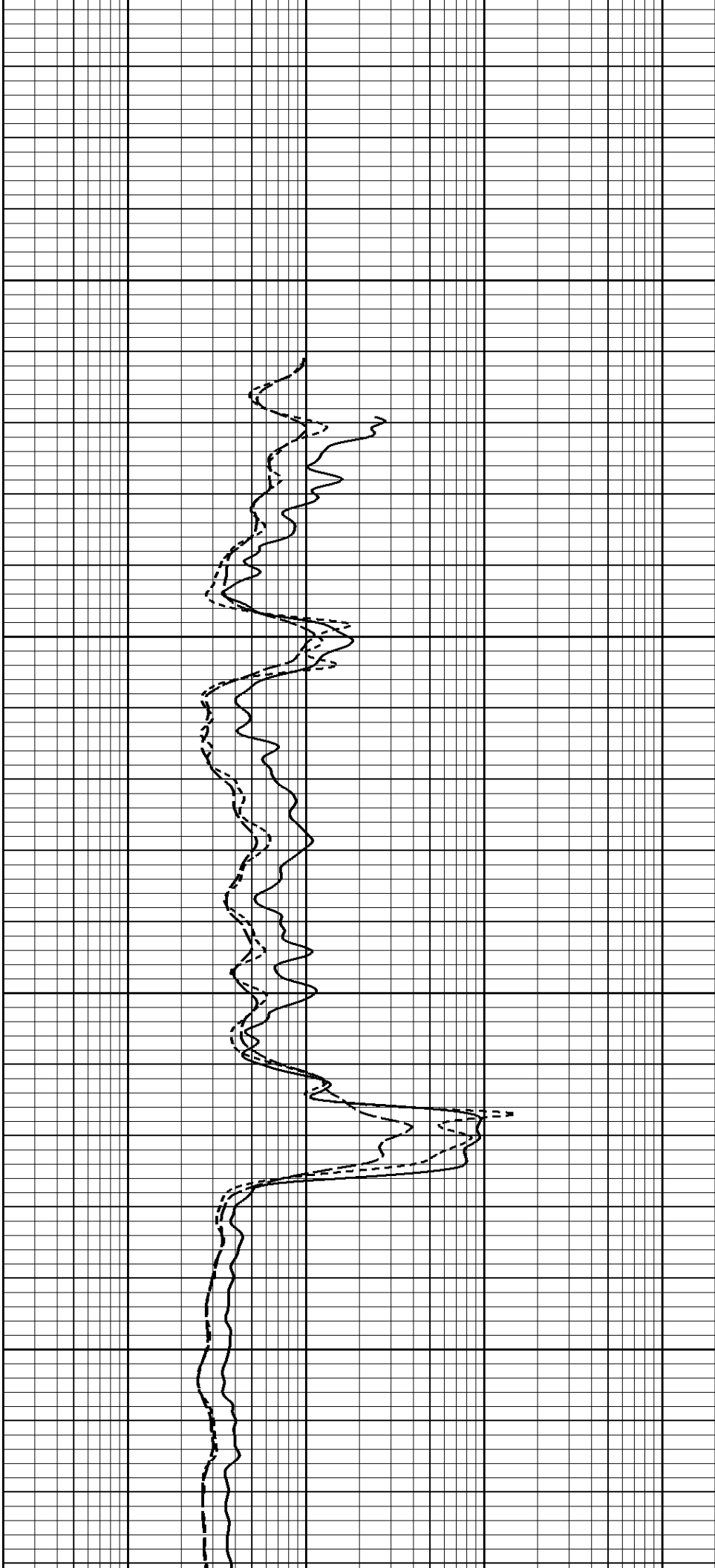
1:240 REPEAT SECTION

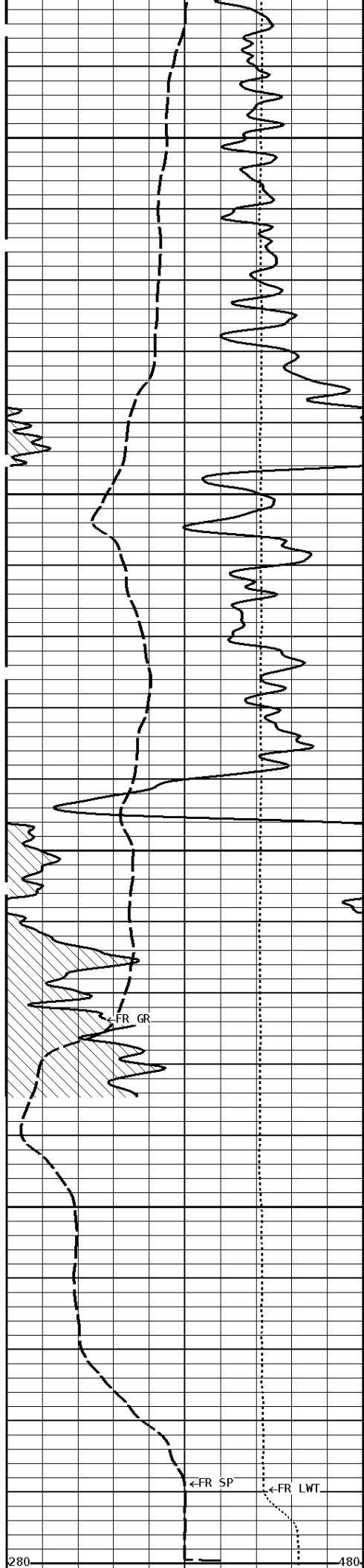




3800

3900

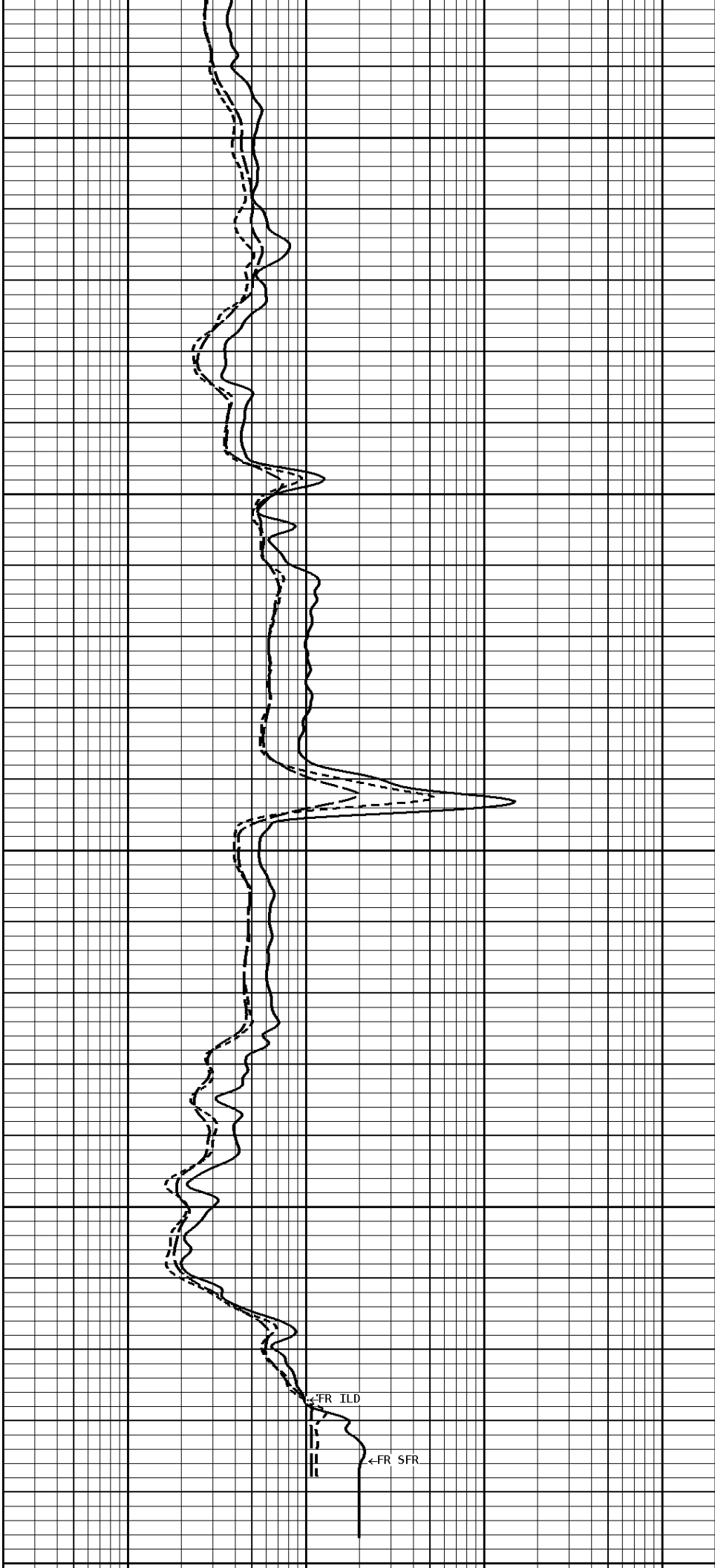




4000

4100

4140



<FR ILD

<FR SFR

File #1.1.2

1:240 REPEAT SECTION

GAMMA RAY API UNITS 150  300 0 150		SHALLOW FOCUSED RESISTIVITY OHMM 0.2 2000.0	
TENSION LBS 10000 0		MEDIUM INDUCTION OHMM 0.2 2000.0	
SPONTANEOUS POTENTIAL mV → ← 20		DEEP INDUCTION OHMM 0.2 2000.0	

*** Borehole Zone Factors ***

Zone 1 99999.0 to 0.0 Feet			
Drill Bit Size		7.875	in
Casing Diameter		5.500	in
BHT Depth		4140.000	ft
Borehole Temperature		112.0	degF
Temperature Gradient		1.00	DFHF
Resistivity Of Mud		1.400	ohmm
Resistivity Of Mud Temperature		58.00	degF

*** Calibration Summary ***

Shop Calibration					
GRT-B					
Performed : 24-JUN-2019			Time : 12:20		
Sensor Suite : GR-GR5			ID : GRT-BC-038		
	Measured	Units	Calibrated	Units	
GR	Background	Jig	Jig		
	36	266	160	GRAPI	
Shop Calibration					
PIT-CA					
Performed : 10-MAY-2019			Time : 11:27		
Sensor Suite : P-IND-T			ID : PIT-AC-043		
	Measured		Calibrated		Units
	R	X	R	X	
Air	131492	129685	0.0	0.0	MMHOS
Zero	131066	131062	-18.1	59.6	MMHOS
Reference	244915	244454	4981.9	5059.6	MMHOS
Loop	130404	210498	3515.7	3611.2	MMHOS
Sonde Error			-0.5	-1.7	MMHOS
Cond			4981.9	5059.6	MMHOS
					Deon

Measured			Calibrated		Units
R	X	R	X		
Air	131939	129230	0.0	-0.0	MMHOS
Zero	131079	131067	-15.6	35.3	MMHOS
Reference	220620	224092	1984.4	2035.3	MMHOS
Loop	129308	206166	1595.4	1712.8	MMHOS
Sonde Error			-0.6	-7.8	MMHOS
Cond			1984.4	2035.3	MMHOS

Temperature					Units
Measured		Calibrated			
Low	High	Low	High		
16980.0	56920.0	70.0	350.0	DEGF	

Performed : 10-May-2019		Time : 14:03	
Sensor Suite : SFL		ID : PIT-AC-043	

Internal					Units
Measured		Calibrated			
Zero	Reference	Zero	Reference		
Im	32732.6	48929.1	0.0	7028.0	uA
Ib	32768.6	49680.1	0.0	1750.0	mA
MOM1	32722.0	56290.6	0.0	175.0	mV
Equivalent SFL				43.97	OHMM

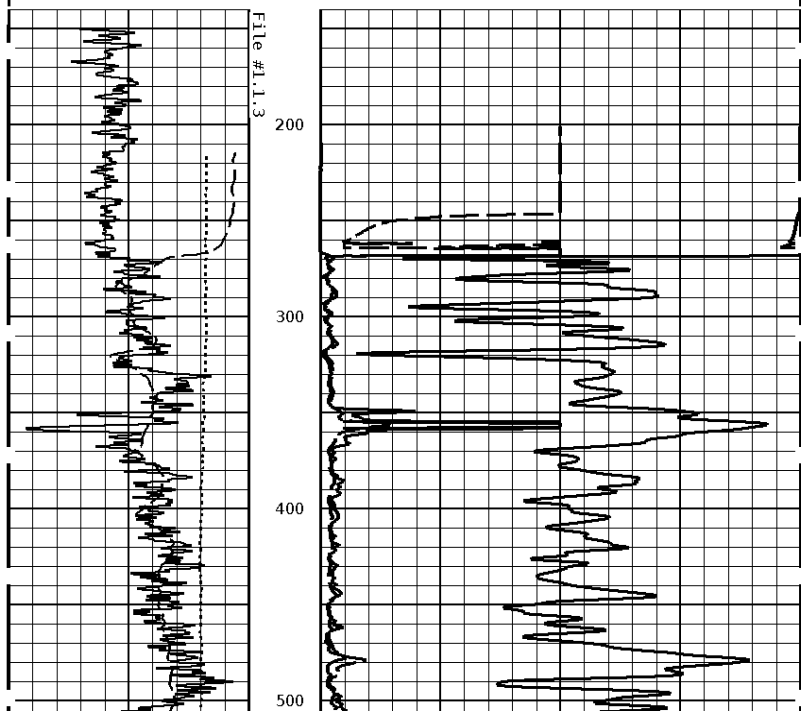
Performed : 10-MAY-2019		Time : 11:16	
Sensor Suite : P-SP		ID : PIT-AC-043	

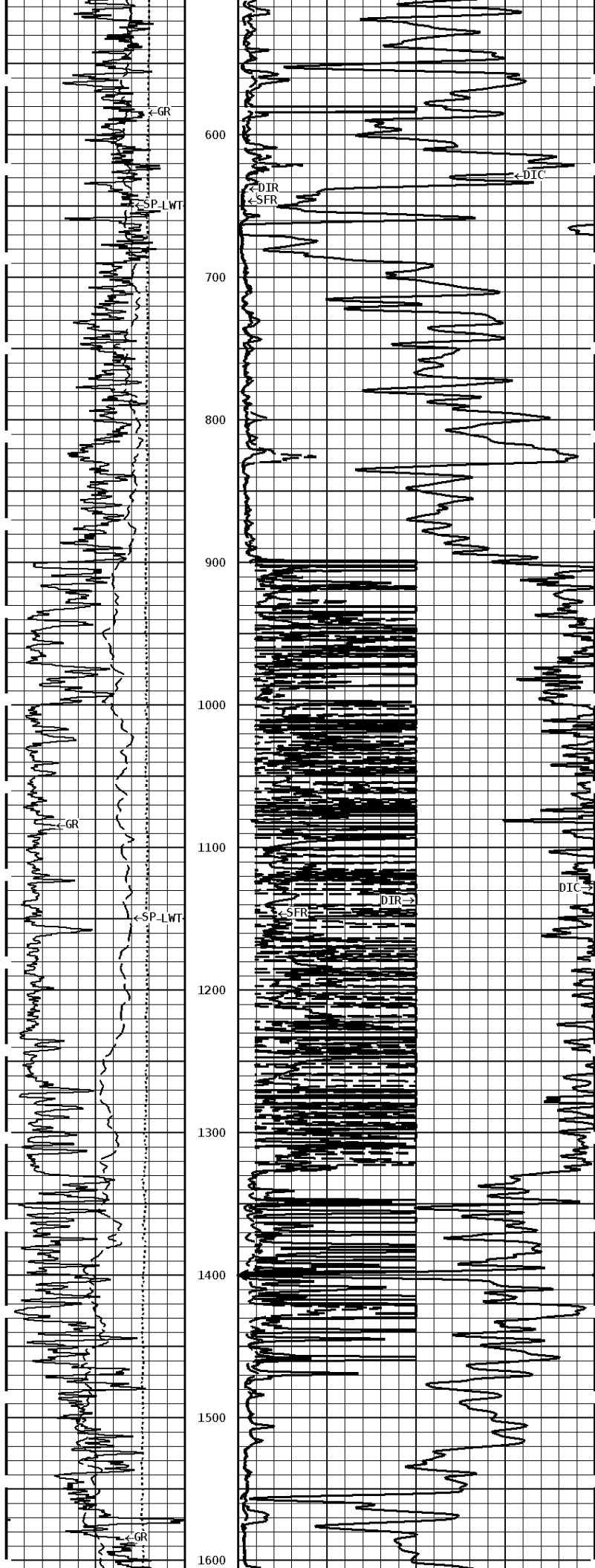
Internal					Units
Measured		Calibrated			
Zero	Reference	Zero	Reference		
32774.5	58935.9	0.0	1000.0	mV	

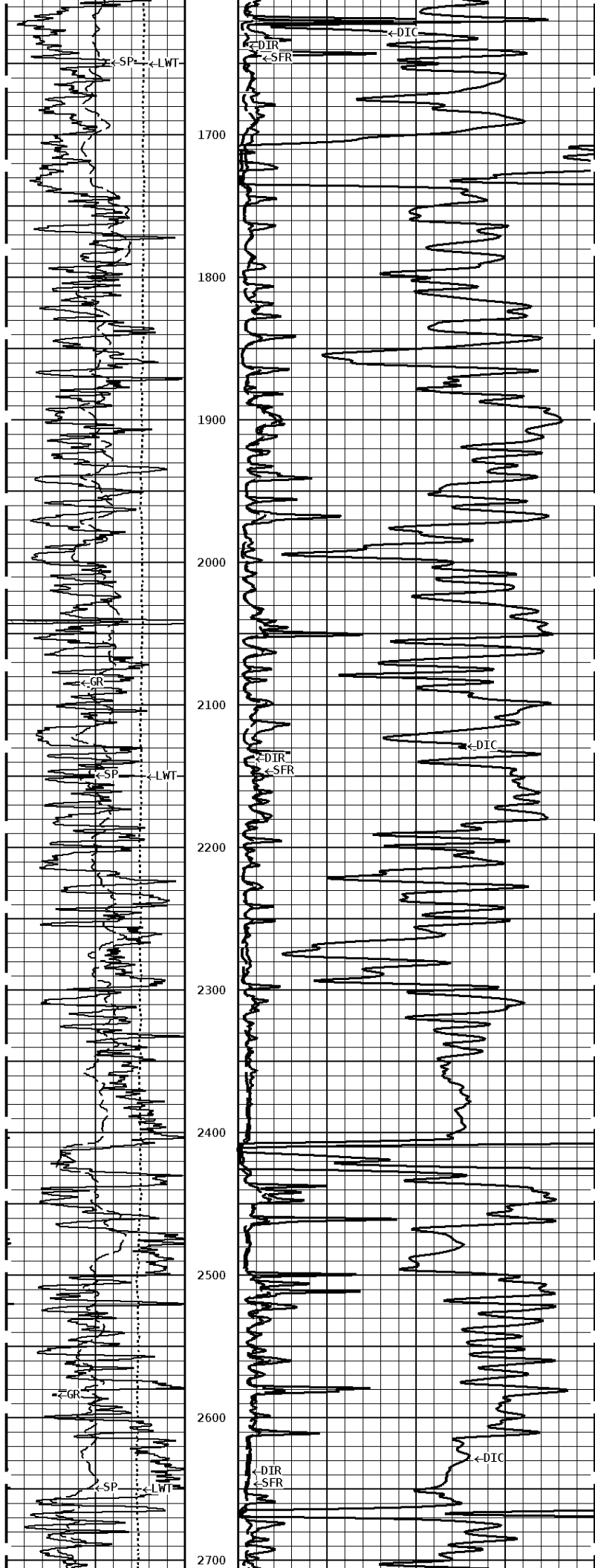
Well File: GRAND MESA PREISSER 1-34 DEC-14 QUINT	Scale: 1:1200	Format: DIL1200
Segment: V1.D1.S3 mn	Acquired: 2019-12/14 12:23 3.4.1-13972	
Reference: 0	Processed: 2019-12/14 12:23 3.4.1-13972	

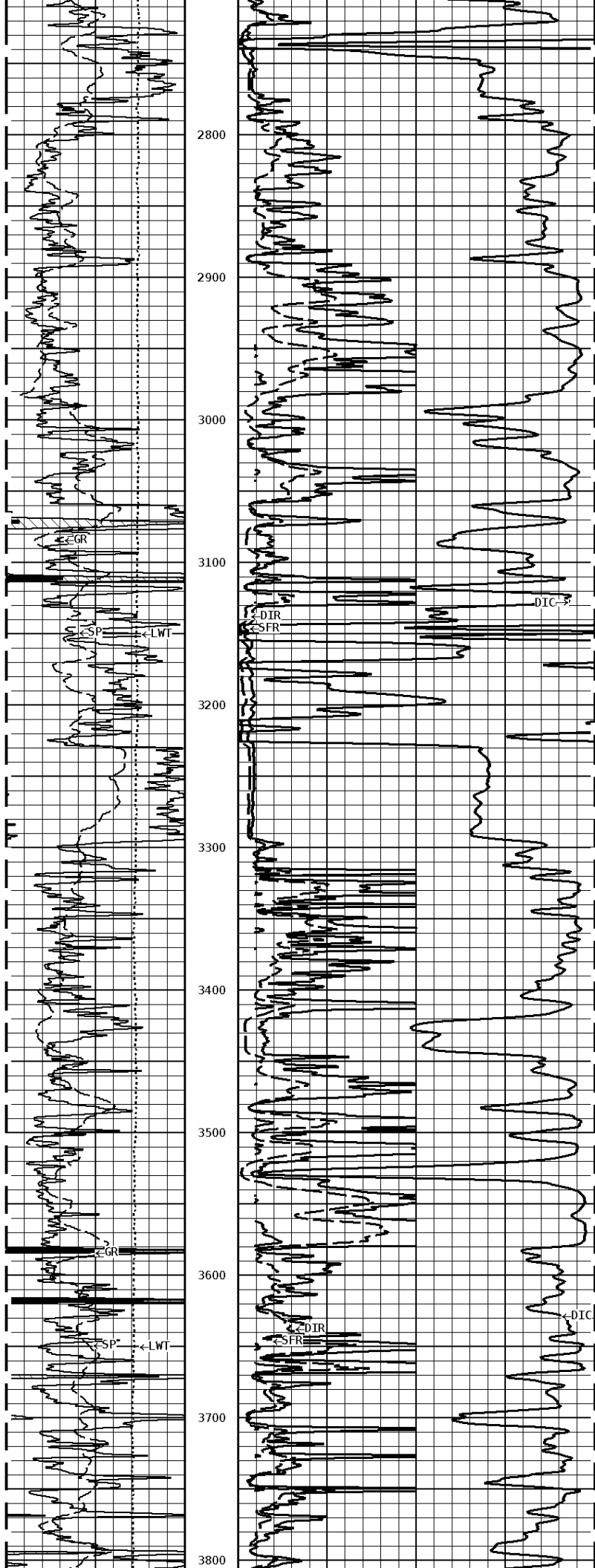
TENSION LBS 10000 ----- 0	DEEP INDUCTION OHMM 0.0 ----- 500.0 0.0 ----- 50.0
SPONTANEOUS POTENTIAL mV → ← 20	SHALLOW FOCUSED OHMM 0.0 ----- 500.0 0.0 ----- 50.0
GAMMA RAY API UNITS 150 0 300 150	DEEP CONDUCTIVITY MHMO 2000 ----- 1000 1000 ----- 0

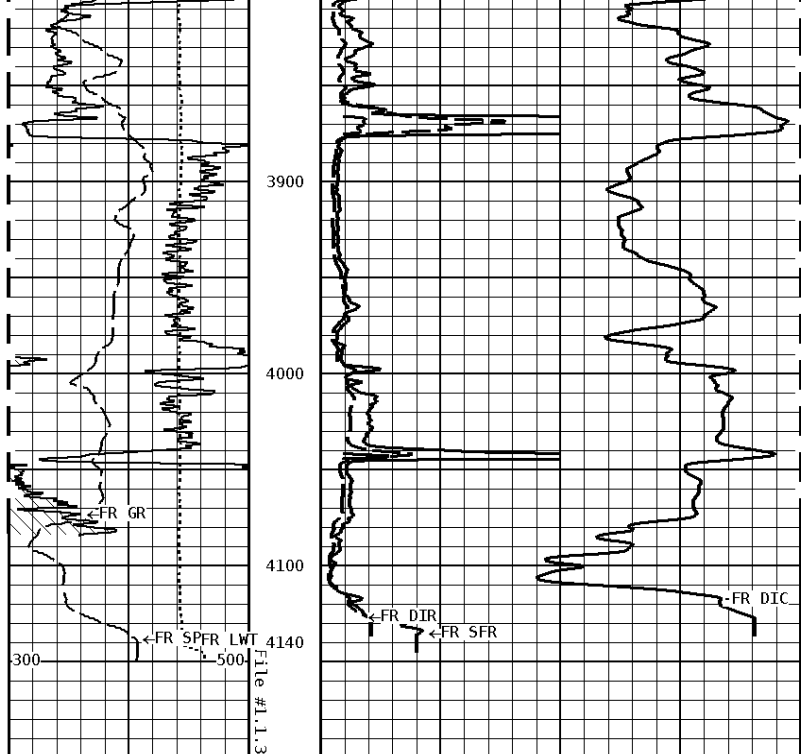
1:1200 MAIN SECTION











GAMMA RAY API UNITS 150 0 300 150	DEEP CONDUCTIVITY MHO 2000 1000 1000 0
SPONTANEOUS POTENTIAL mV → ← 20	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

STEP

energy services

Company: GRAND MESA OPERATING COMPANY

Well: PREISSER #1-34

Location: 330' FNL & 1620' FEL

Logged: 12-14-2019

K.B. Elev: 1687.0 Ft