

Tucker
ENERGY SERVICES

**DUAL INDUCTION
RESISTIVITY LOG**

Company ANDERSON ENERGY INC.
Well EATON TRUST #1
Field WILDCAT
County ROOKS
State KANSAS
Country USA
API No. 15-163-24050

File No : TUL-56974
Company : ANDERSON ENERGY INC.
Well : EATON TRUST #1
Field : WILDCAT
County : ROOKS
State : KANSAS
Country : USA
API No : 15-163-24050

Location :
 1430' FSL & 510' FEL
 SW SE NE SE

LSD : **Sect** : 18 **Twp** : 10S **Rge** : 20W

Permanent Datum:	GL	Elevations:		Services:	
Drilling Measured From:	KB	KB 2151.00	Ft	CNT	CST
Log Measured From:	KB	DF 2150.00	Ft	LDT	PIT
Above Permanent Datum:	0.00 Ft	GL 2142.00	Ft	MLT	
Date	2012-06-29				
Run Number	1				
Depth--Driller	3900.0	Ft			
Depth--Logger	3900.0	Ft			
First Reading	3899.0	Ft			
Last Reading	310.0	Ft			
Casing--Driller	310.0	Ft			
Casing--Logger	310.0	Ft			
Bit Size	7.875	In			
Casing Size	8.625	In			
Hole Fluid Type	WBM				
Density	9.2 LBS/GAL				
Fluid Loss	7.2 CC				
PH/Viscosity	10.5	MEASURED	58.0	SEC	
Sample Source	MEASURED				
RM@Measured Temp.	1.400	@ 78	F		
RMF@Measured Temp	1.190	@ 78	F		
RMG@Measured Temp.	1.610	@ 78	F		
Source RMF/RMC	CALCULATED/CALCULATED				
RM@BHT	0.970 @ 115 F				
Time Circulation Stopped					
Max Recorded Temp.	115	F			
Equipment/Base	TRUCK 119	TULSA			
Recorded By	S. DAVIS				
Witnessed By	R. MARTIN				

The customer is hereby warned that by providing the log data herein, T. E. S. does not agree to provide any interpretation of log data, conversion of log data to physical rock parameters or recommendations. T. E. S. does not guarantee or warrant either expressly or impliedly, the accuracy of any interpretation of log data, conversion of log data to physical rock parameters or recommendations which may be given by T. E. S. personnel. Any interpretation, conversion or recommendation is not part of the consideration for the agreement between the parties and is not part of any part of the charge by T. E. S. for its services. Any user of the log data is warned that said user is not entitled to rely on interpretations, conversions or recommendations as aforesaid.

Bitsize Intervals		Casing Strings		
Size (In)	Bottom (Ft)	Size (In)	Weight (Lbs)	Bottom (Ft)
7.875	3900.00	8.625	30.00	310.00

Run Number	1	
Date	2012-06-29	
Date/Time On Bottom	2012-06-29 09:00	
Depth to Fluid	0.0	Ft
Salinity	1800.000	PPM
RMF@BHT	0.820	@ 115 F
RMC@BHT	1.110	@ 115 F

Run Number 1

Comments

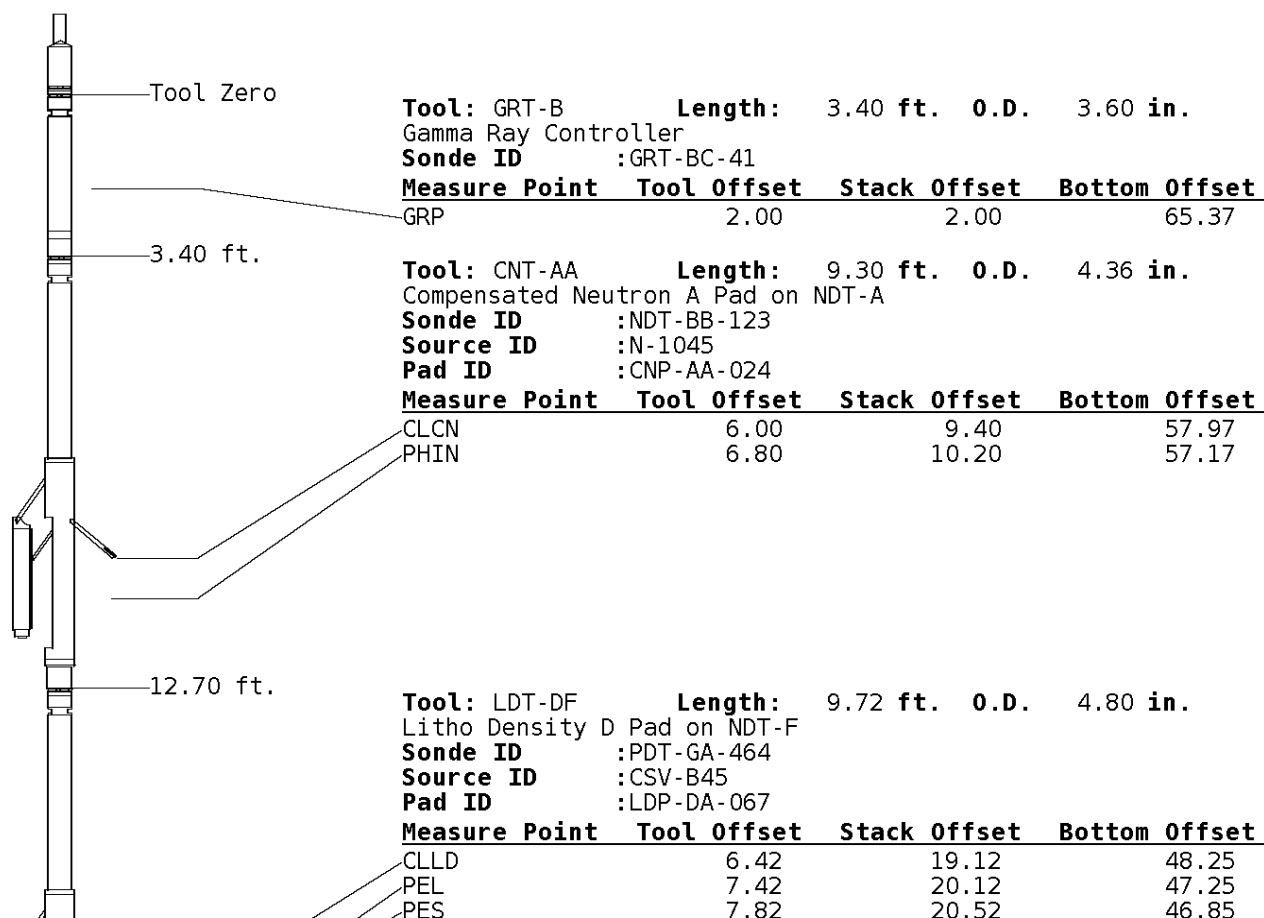
ALL PRESENTATIONS AS PER CUSTOMER REQUEST
 GRT, CNT, LDT, MLT, CST AND PIT RUN IN COMBINATION.
 CALIPERS ORIENTED ON X-Y AXIS.
 2.71 G/CC USED TO CALCULATED POROSITY.
 ANNULAR HOLE VOLUME CALCULATED USING 5.50 PRODUCTION CASING.
 CLOSED CALIPERS @ 2010' DUE TO WEIGHT & HOLE CONDITIONS
 ANHYDRITE SECTION @ 1640'

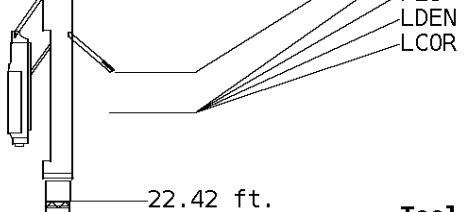
GRT: GRP.
 CNT: PHIN, CLCNIN
 LDT: PORL, LCORN, PECLN, LDENN, PORLLS, CLLDIN.
 MLT: NOR_R, INV_R, MSCLPIN.
 CST: PORS, DDCDTF, TT1PF, TT3PF, ITT.
 PIT: ILD, ILM, SPU, SFLAEC

OPERATORS:
 B. COLWILL
 R. BAKE

Tool String Schematic

Total Tool Length - 67.37 ft.
Maximum Outside diameter - 6.00 in.
Net Weight in Air - 1171.00 lbs.



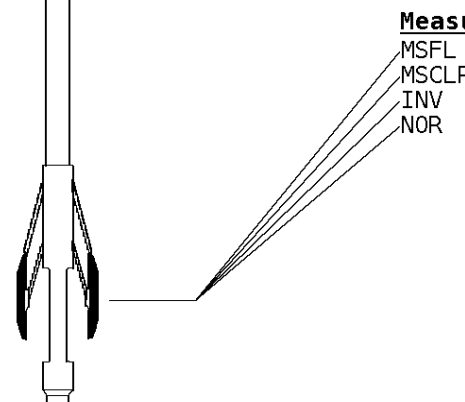


7.62 20.32 47.05
 7.62 20.32 47.05

22.42 ft.

Tool: MST-DA **Length:** 9.66 ft. **O.D.** 6.00 in.
 Micro Spherically Focused (IC)
Sonde ID :MST-DA-36

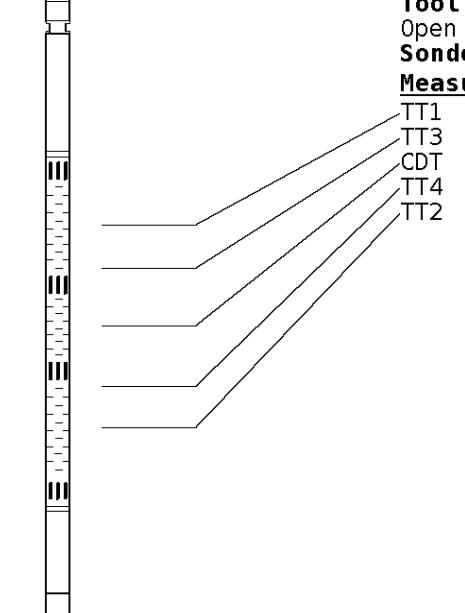
Measure Point	Tool Offset	Stack Offset	Bottom Offset
MSFL	7.60	30.02	37.35
MSCLP	7.60	30.02	37.35
INV	7.60	30.02	37.35
NOR	7.60	30.02	37.35



32.08 ft.

Tool: CST-AD **Length:** 13.80 ft. **O.D.** 3.60 in.
 Open Hole Sonic
Sonde ID :CST-AD-38

Measure Point	Tool Offset	Stack Offset	Bottom Offset
TT1	4.80	36.88	30.49
TT3	5.80	37.88	29.49
CDT	7.30	39.38	27.99
TT4	8.80	40.88	26.49
TT2	9.80	41.88	25.49



45.88 ft.

Tool: PIT-CA **Length:** 21.49 ft. **O.D.** 3.62 in.
 Phased Dual Induction w/ RM & D
Sonde ID :PIT-AC-022

Measure Point	Tool Offset	Stack Offset	Bottom Offset
ILD	8.92	54.80	12.56
ILM	10.10	55.98	11.39
SFLU	17.49	63.37	4.00
SP	20.60	66.48	0.88

LWT 67.37 ft.

Well File: and-ene-eat-tr-1-quint-jun-29

Scale: 1:600

Segment: V1.D1.S5 MN

Acquired: 2012-06/29 09:23 3.2.0-10932

Reference: 0

Processed: 2012-06/29 11:06 3.2.0-10932

RXO/RT

-160 40

TENSION
LBS

10000 0

SPONTANEOUS POTENTIAL
mV

→ | ← 20

GAMMA RAY
API UNITS

150 0 300 150

SHALLOW FOCUSED RESISTIVITY
OHMM

0.0 500.0
0.0 50.0

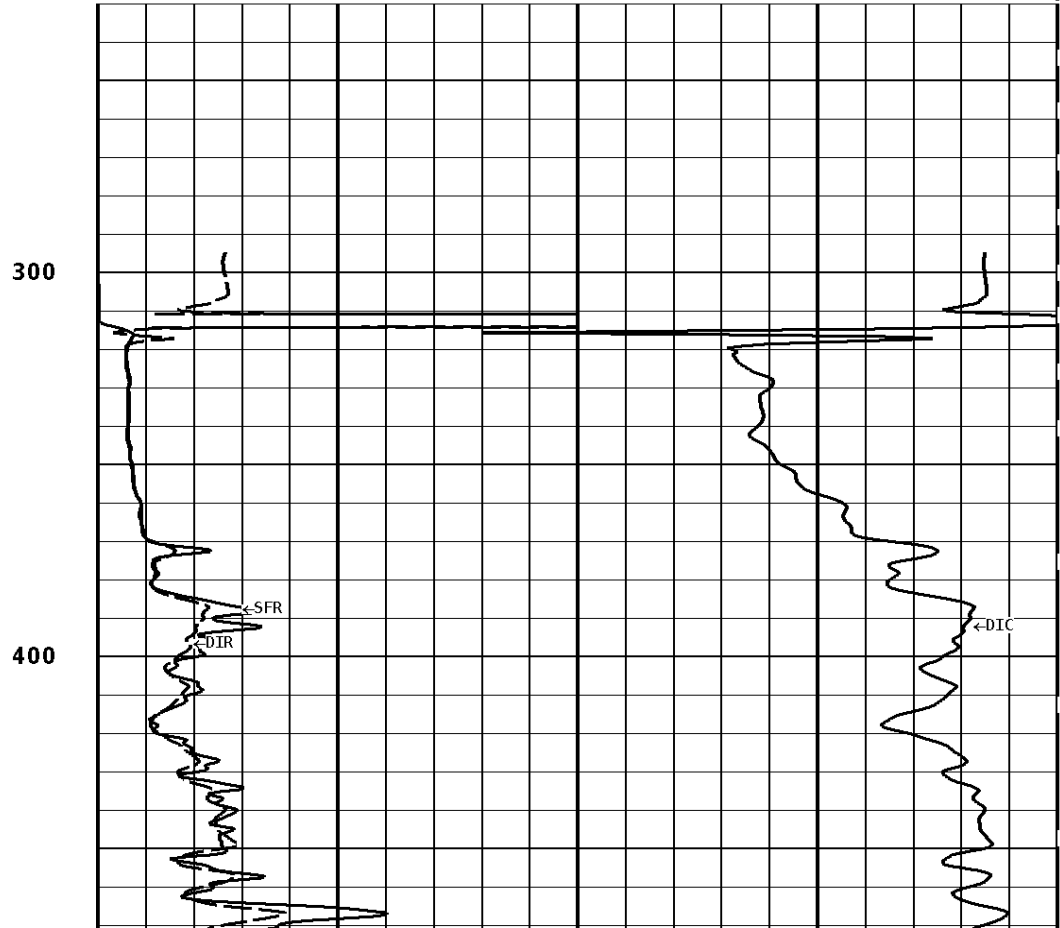
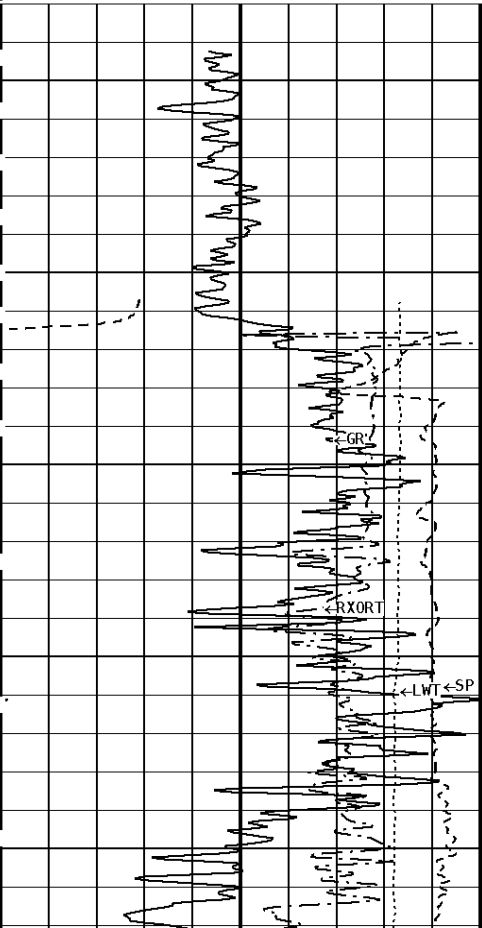
DEEP INDUCTION
OHMM

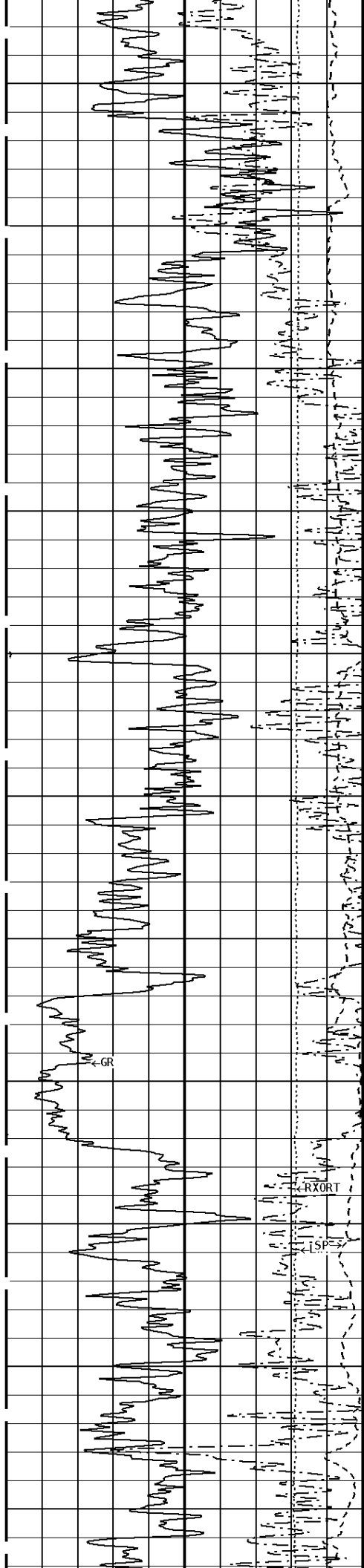
0.0 500.0
0.0 50.0

DEEP CONDUCTIVITY
MMHO

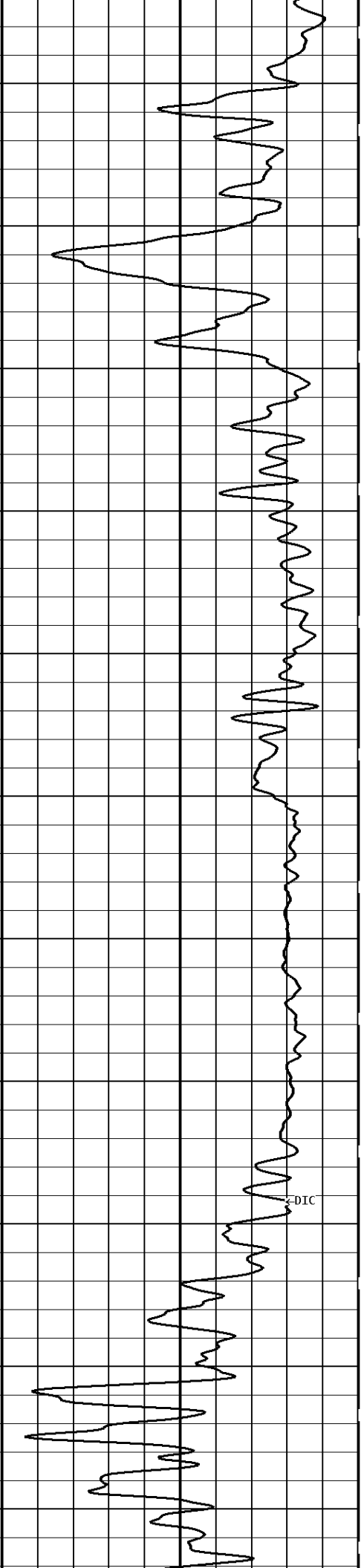
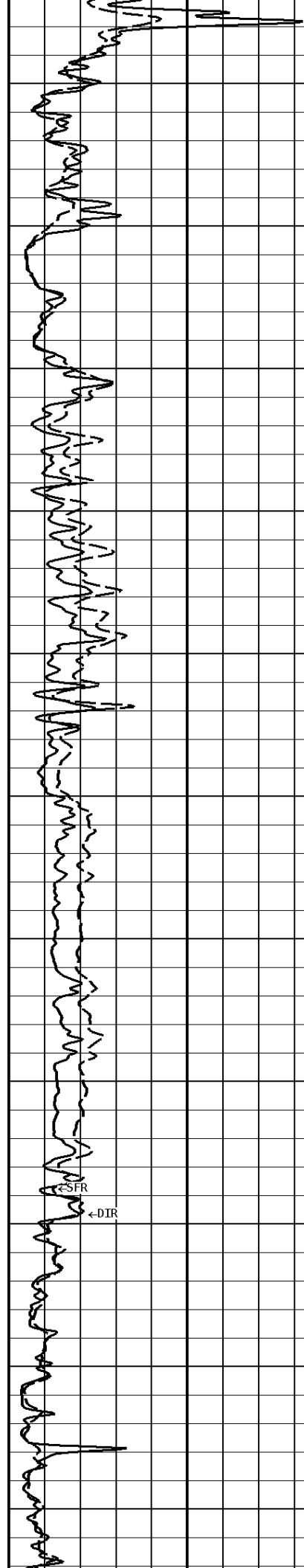
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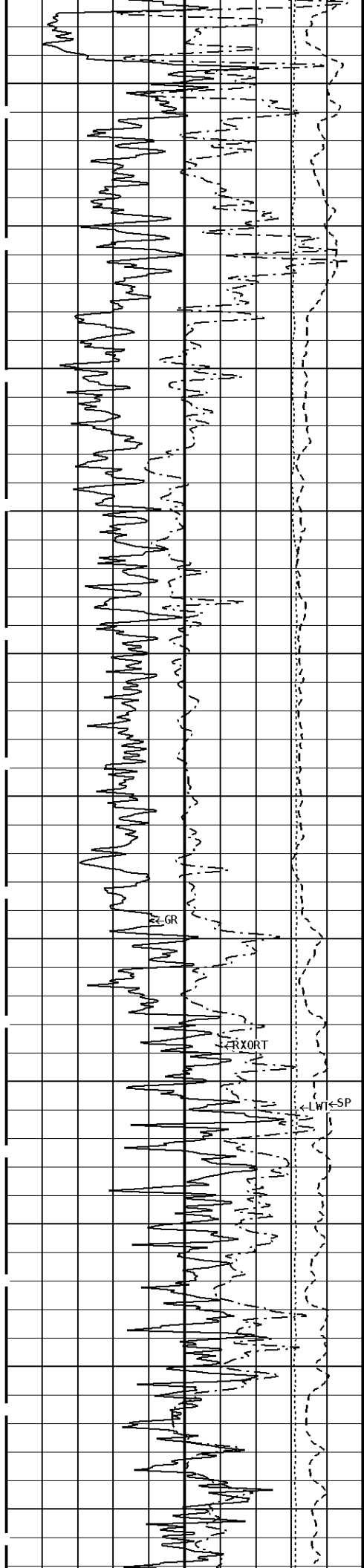
1:600 SECTION
2 INCH





500
600
700
800
900
1000





1100

1200

1300

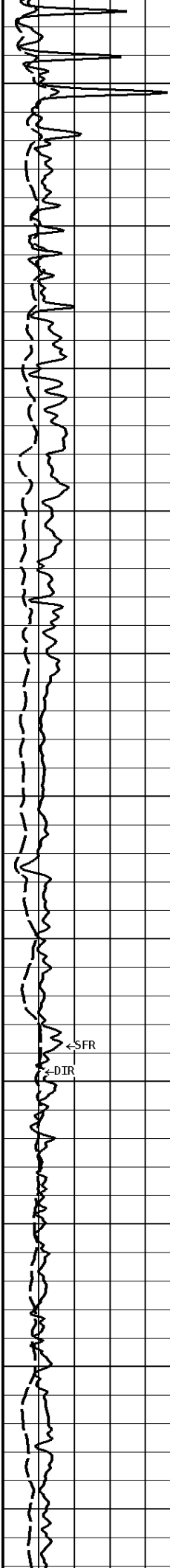
1400

1500

←GR

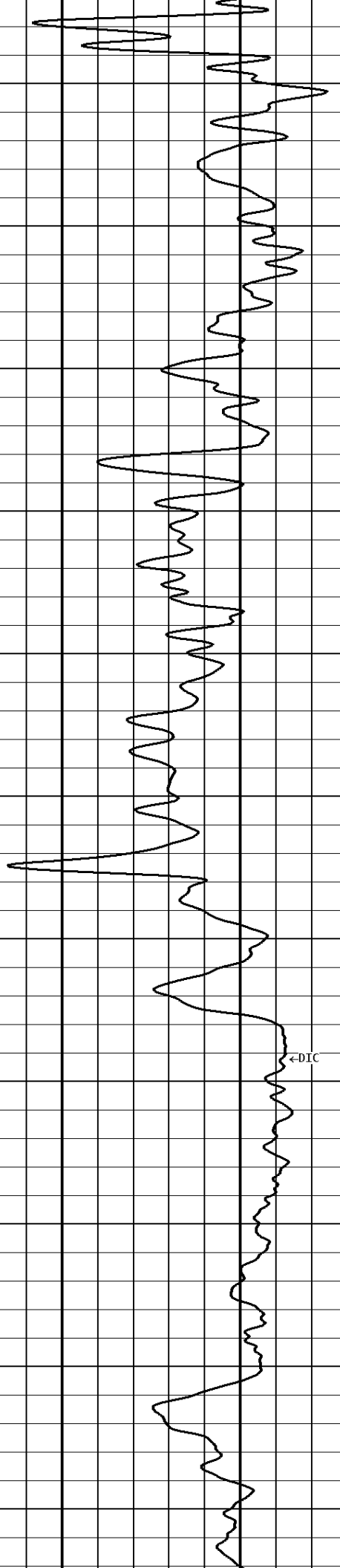
←RXORT

←LW-SP

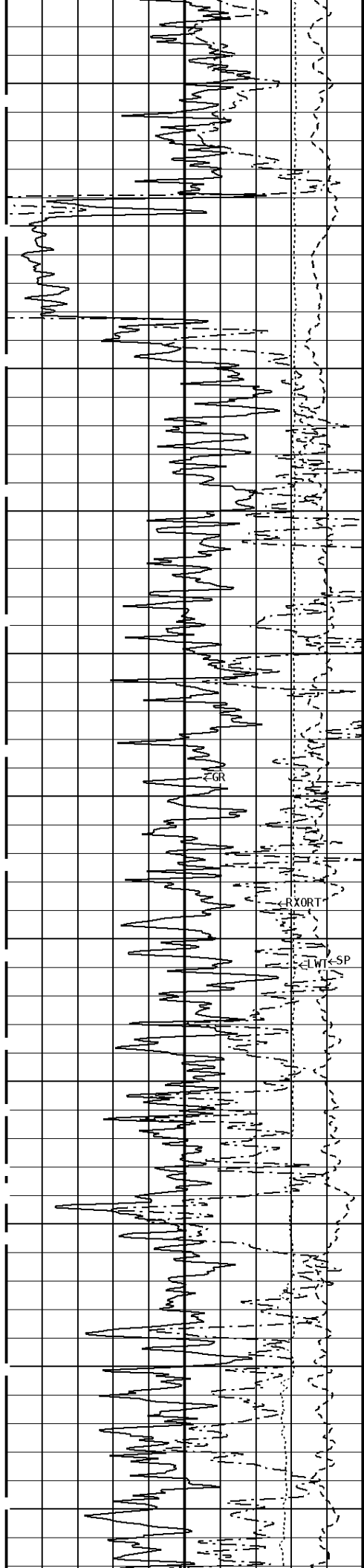


←SFR

←DIR



←DIC



1600

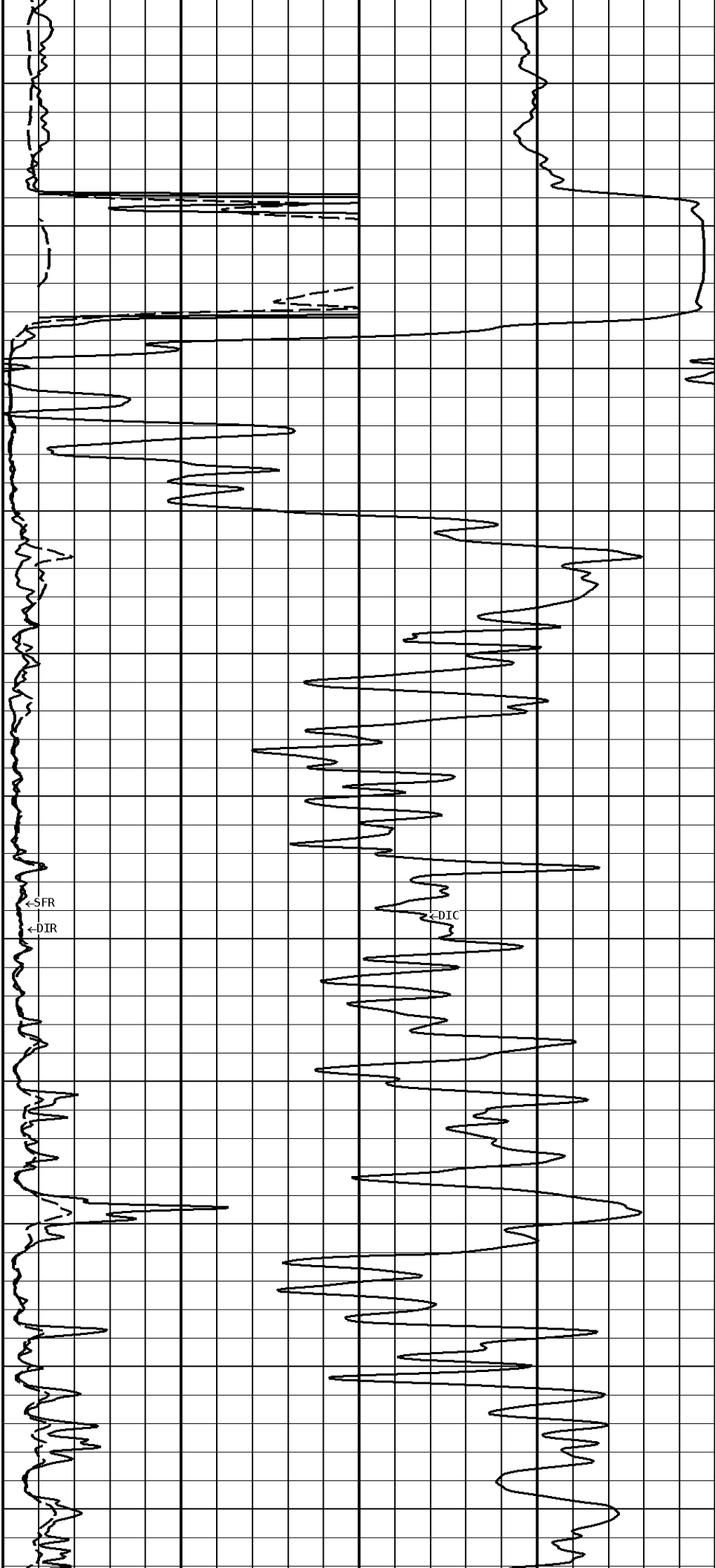
1700

1800

1900

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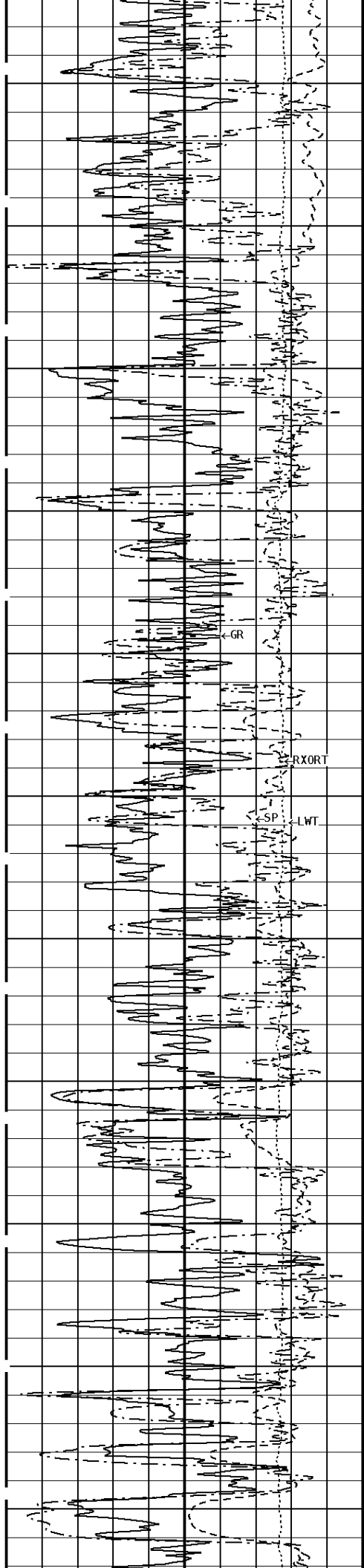
2100



←SFR

←DIR

←DIC



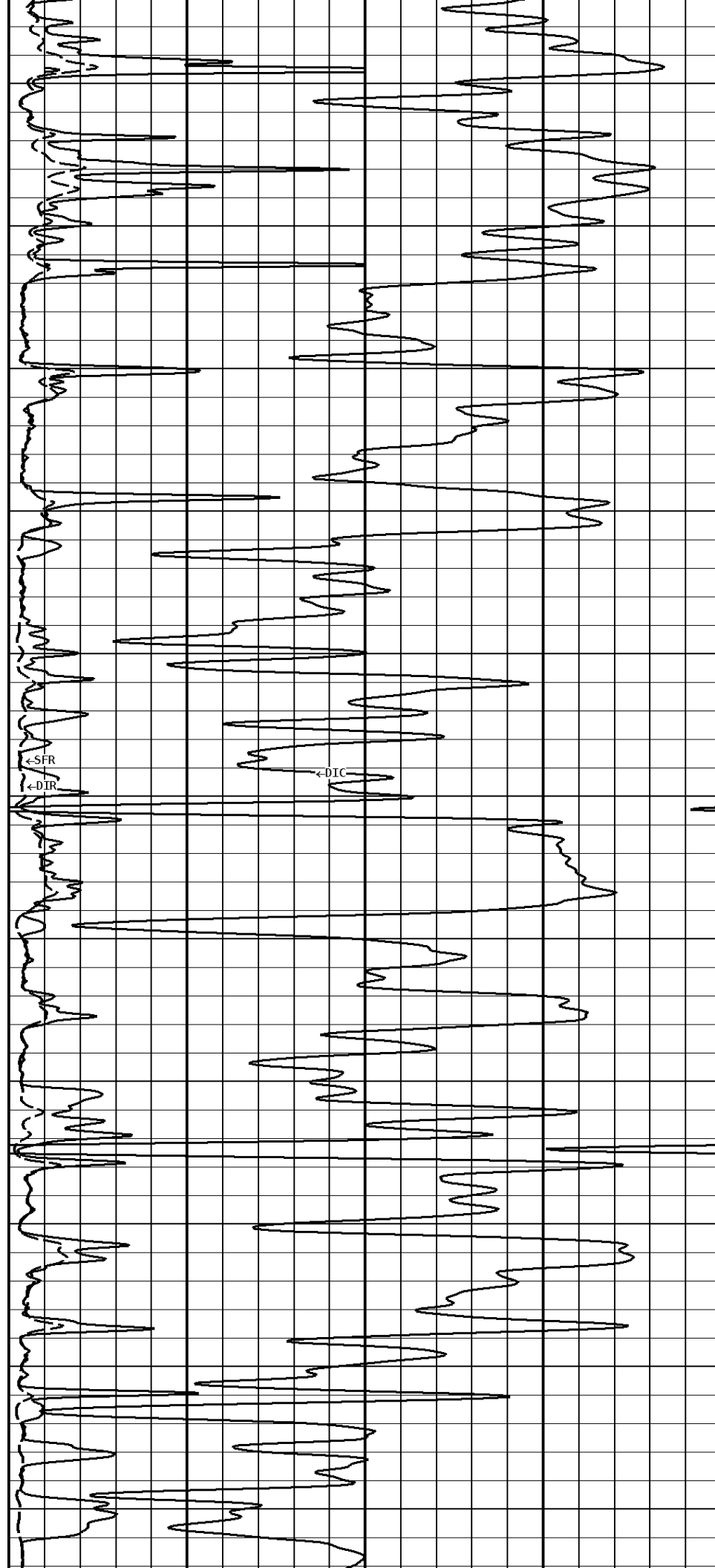
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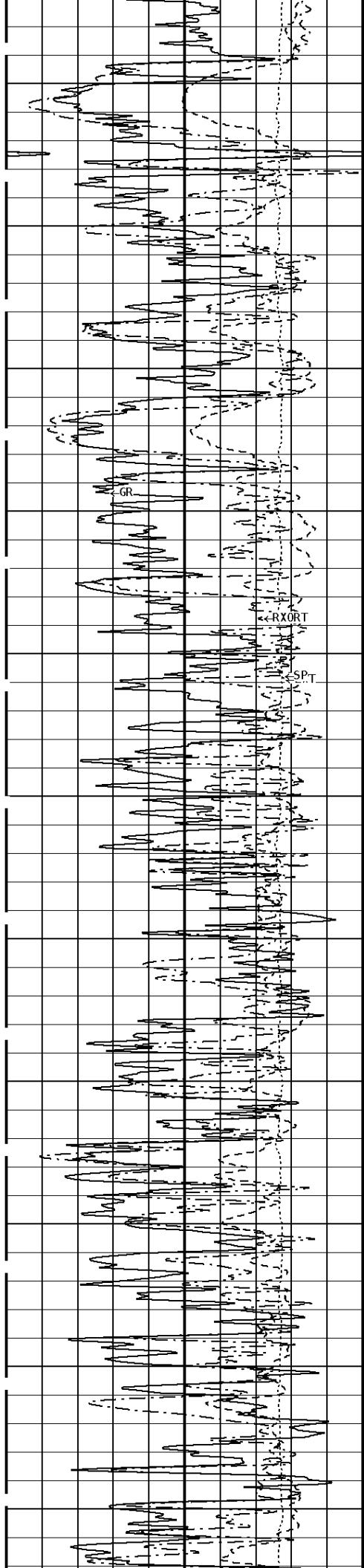
2300

2400

2500

2600





2700

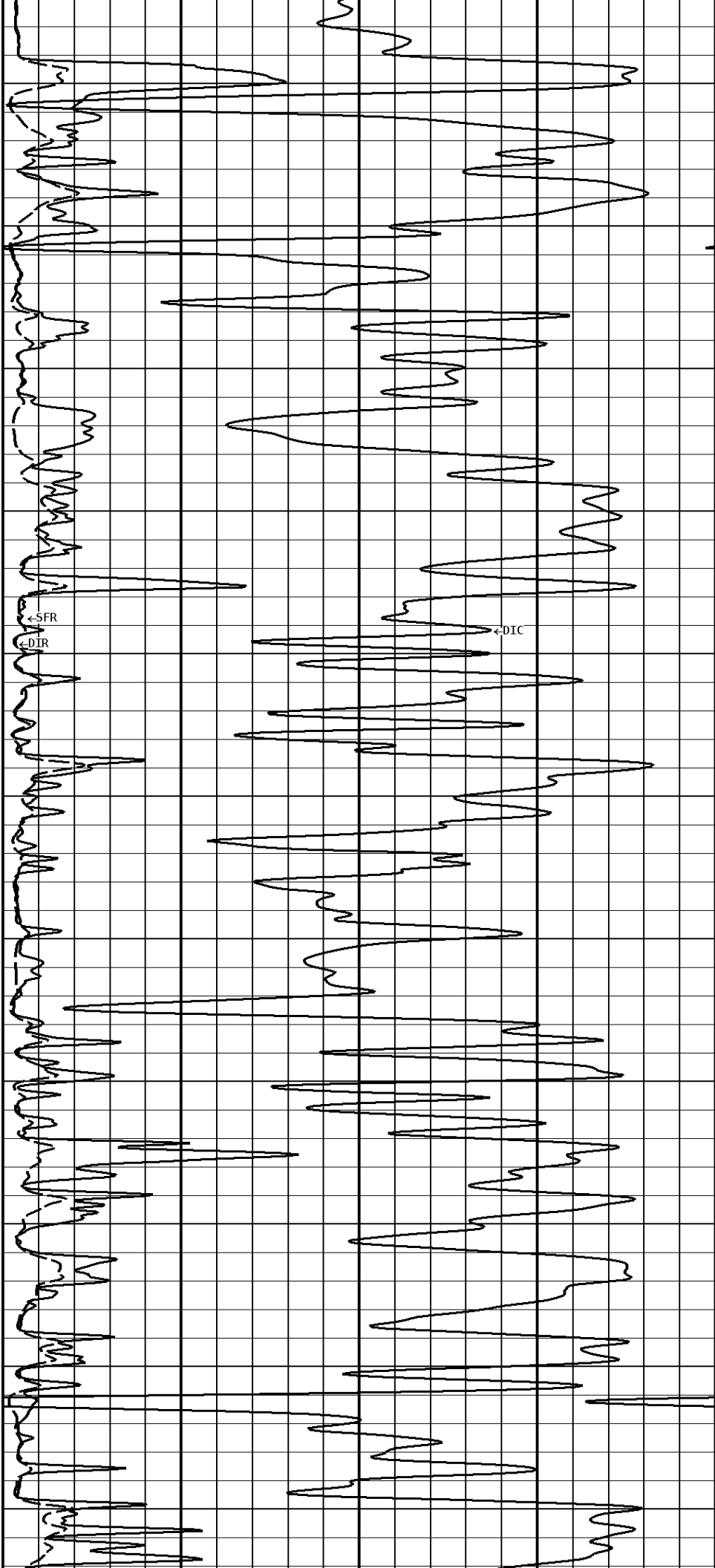
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2900

3000

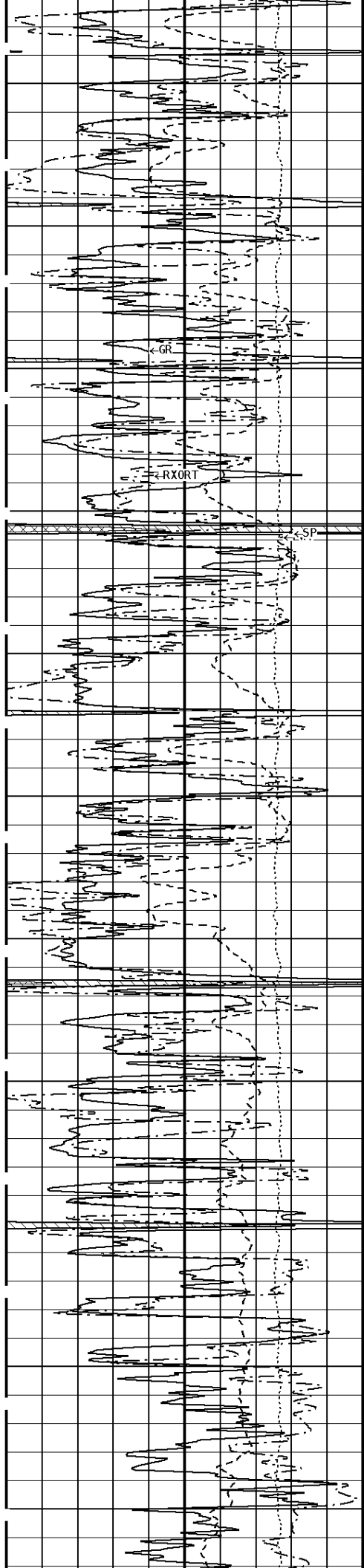
3100

3200



SFR
DIC

DIC



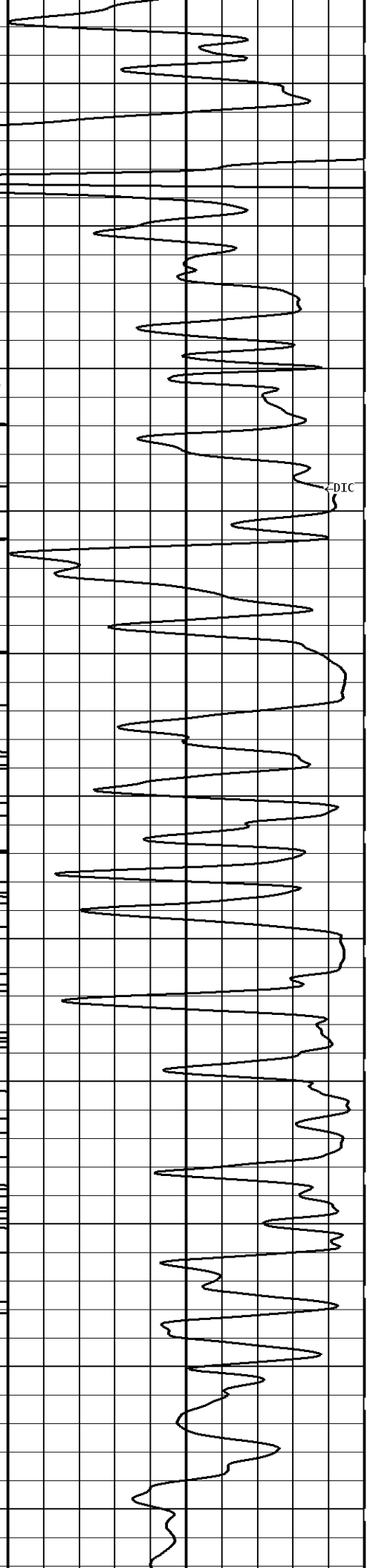
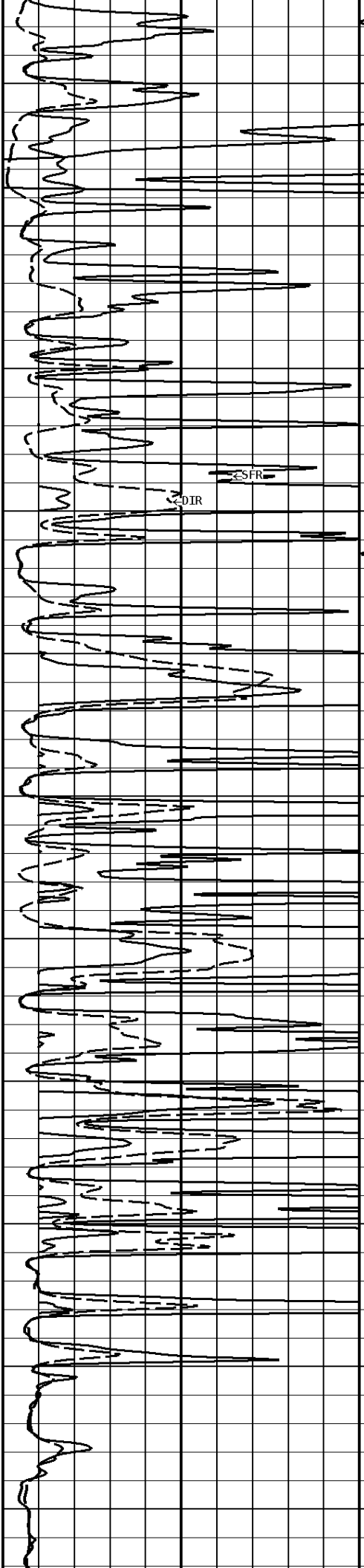
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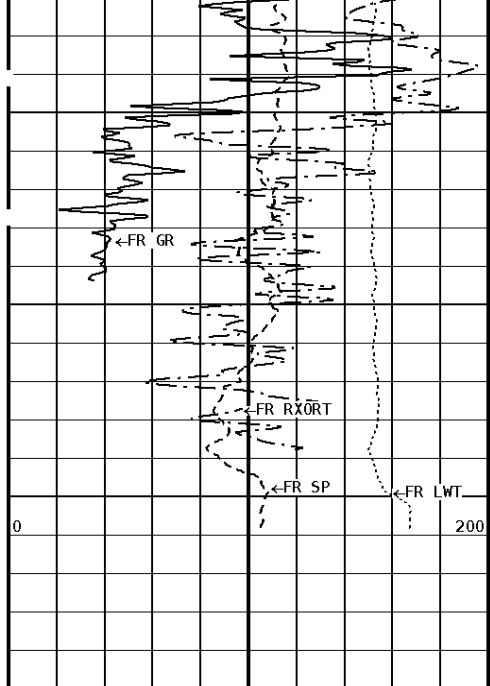
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3500

3600

3700

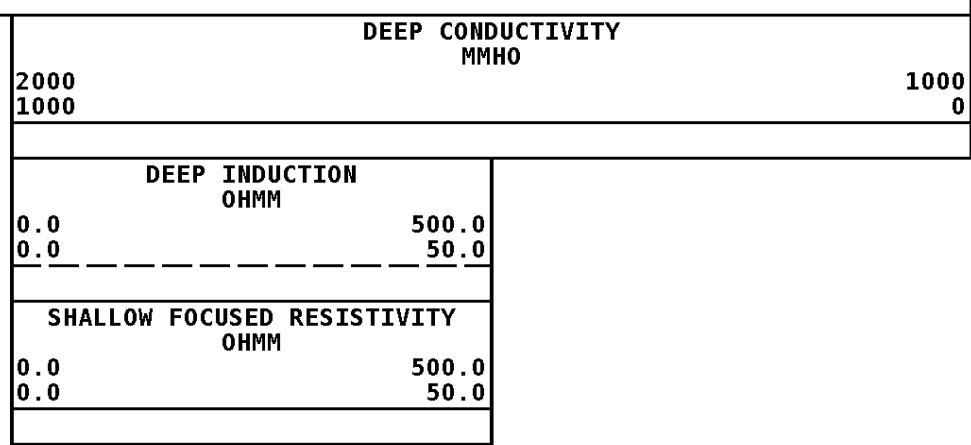
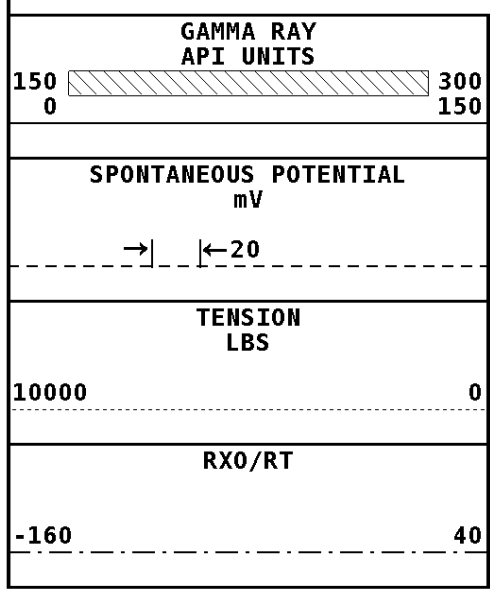
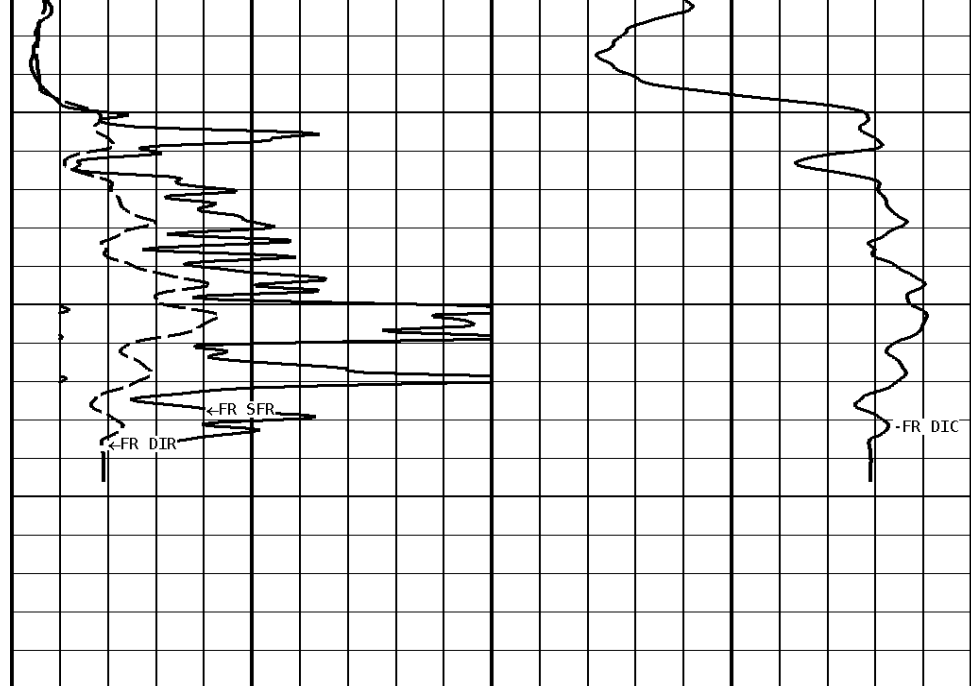




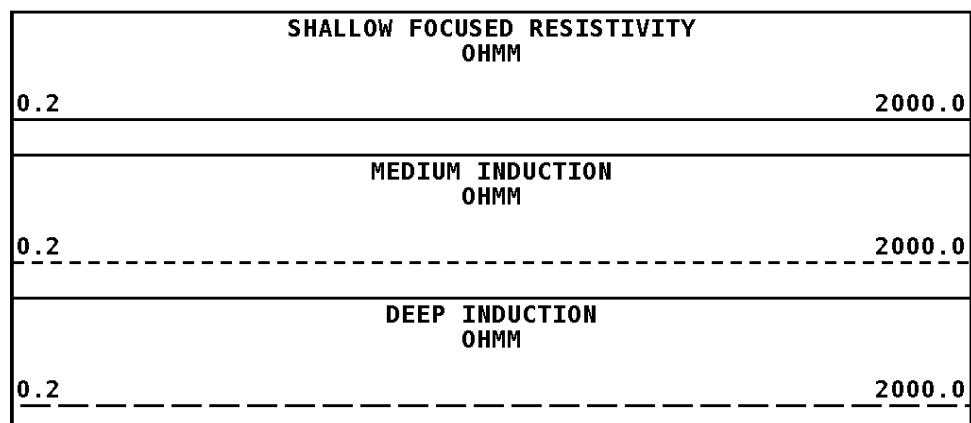
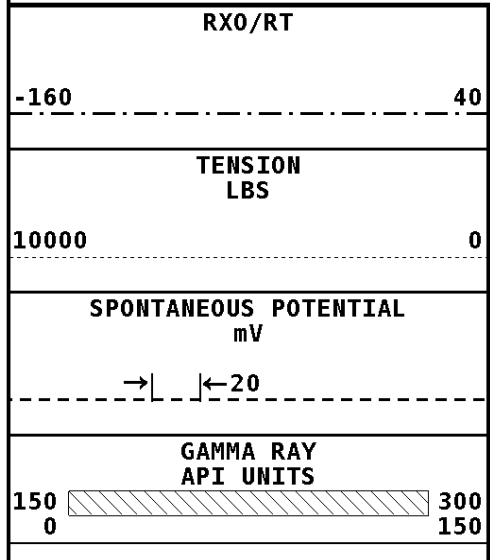
File #1.1.5

3800

3900

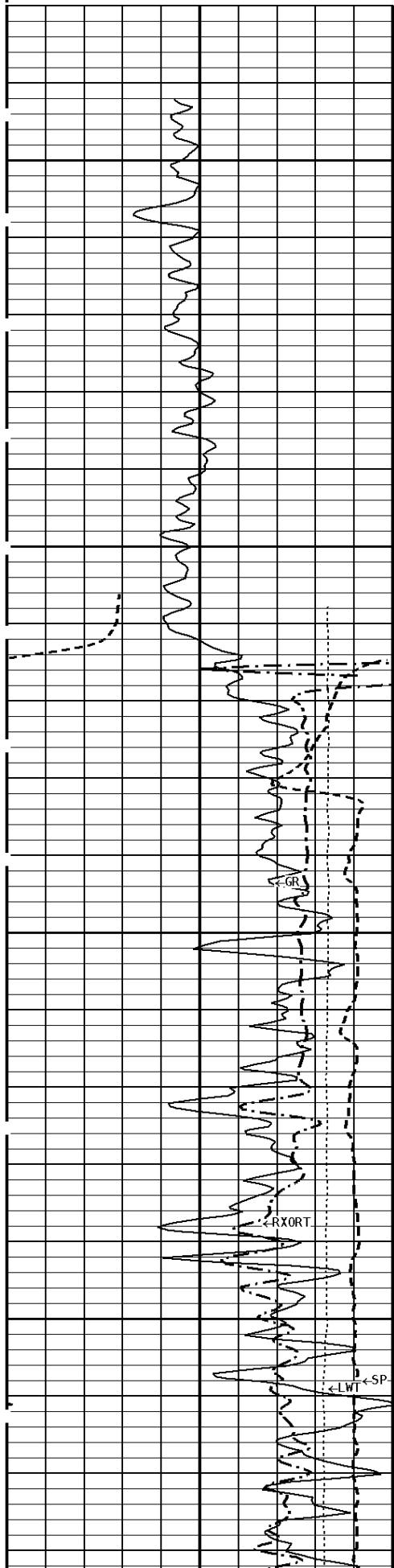


Well File: and-ene-eat-tr-1-quint-jun-29 Scale: 1:240
 Segment: V1.D1.S5 MN Acquired: 2012-06/29 09:23 3.2.0-10932
 Reference: 0 Processed: 2012-06/29 11:06 3.2.0-10932



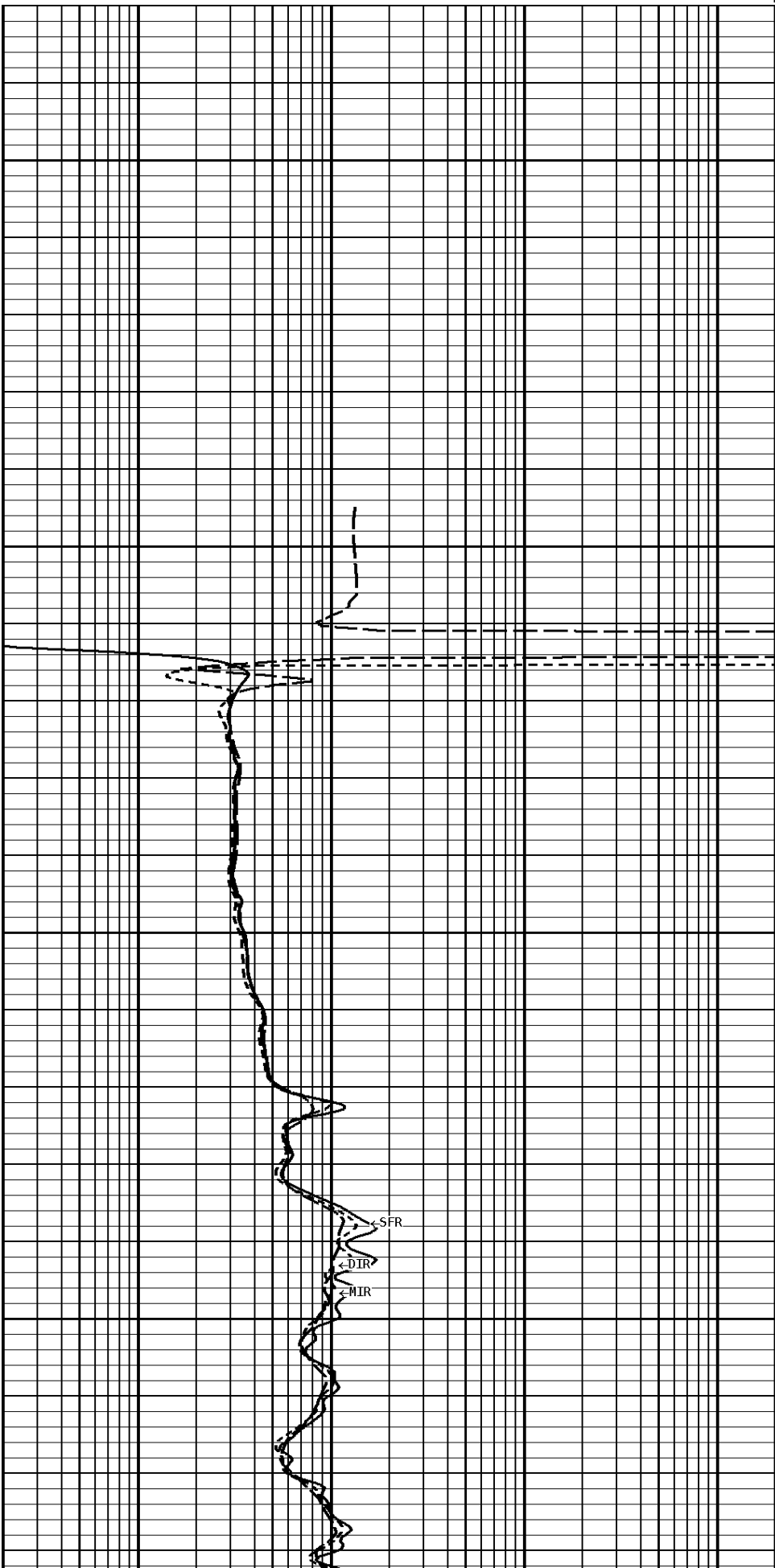
1:240 MAIN SECTION

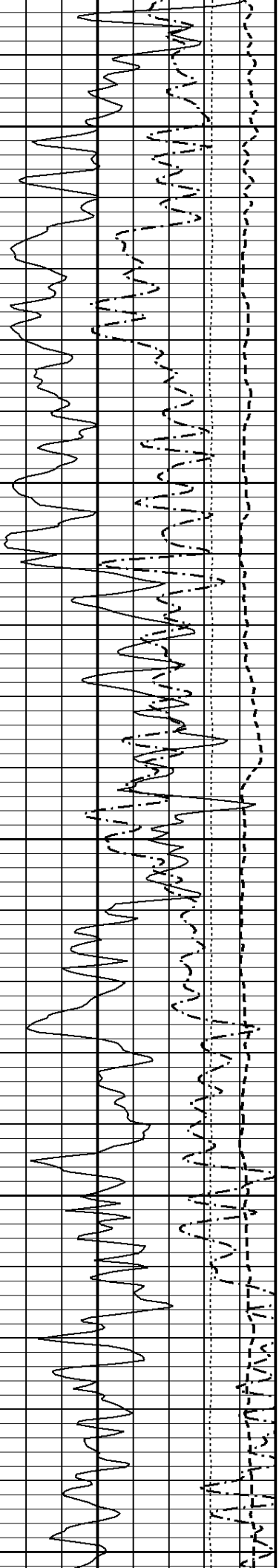
File #1.1.5



300

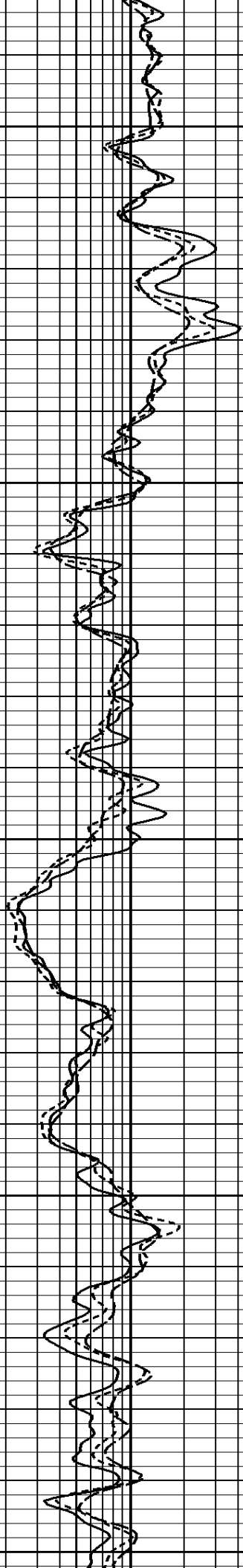
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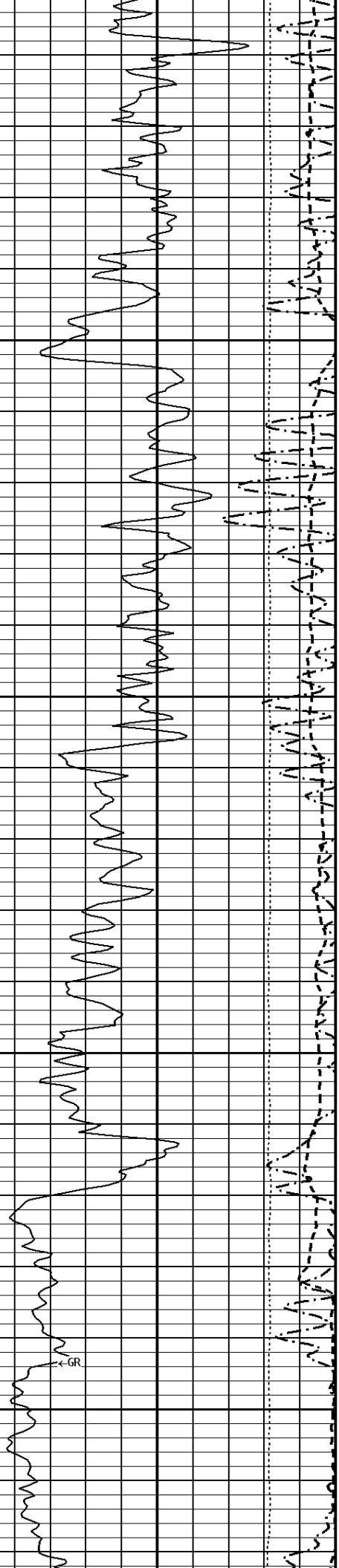




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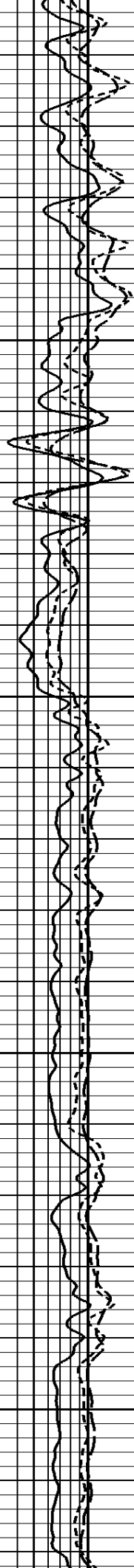
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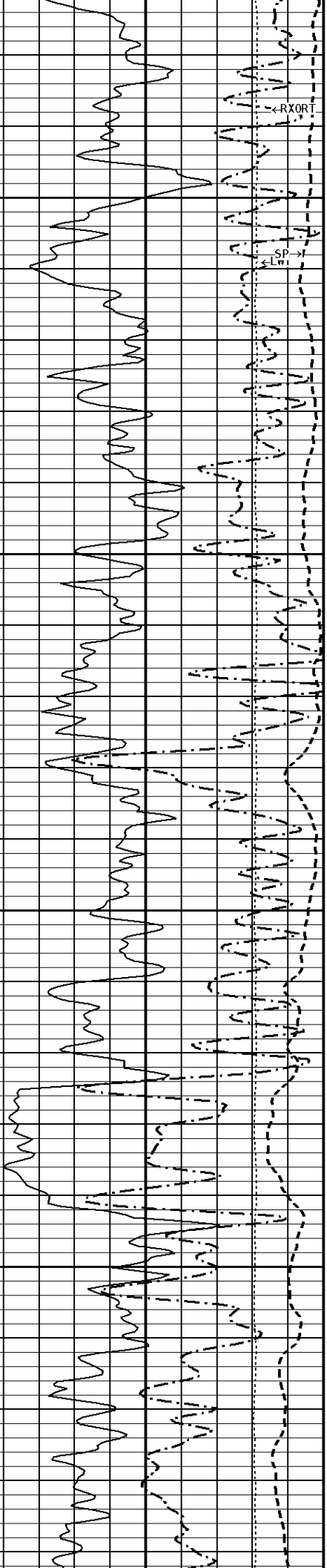




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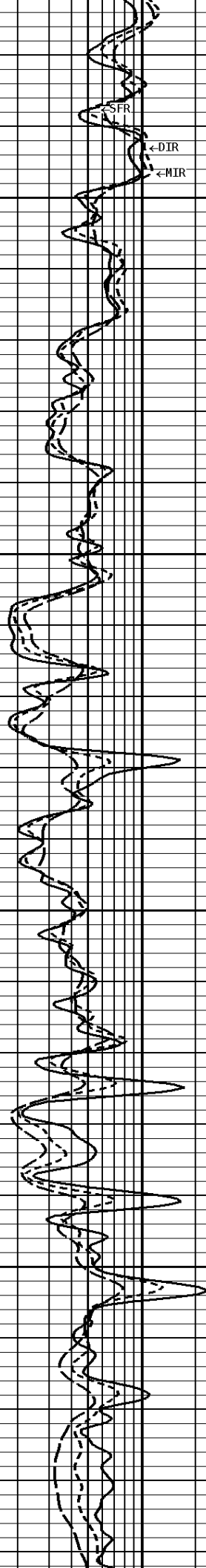
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900

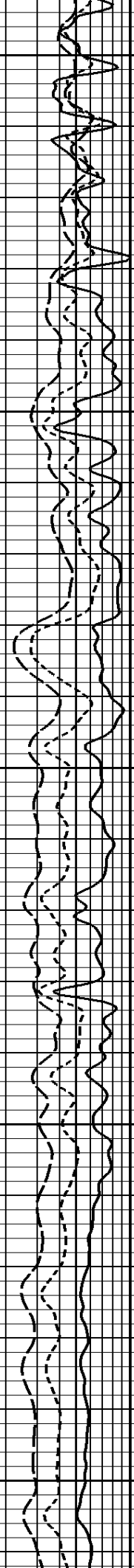
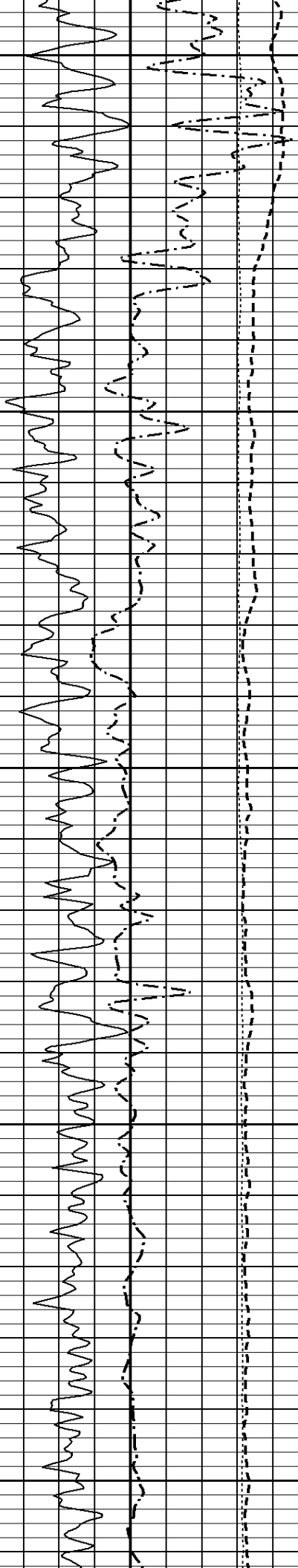
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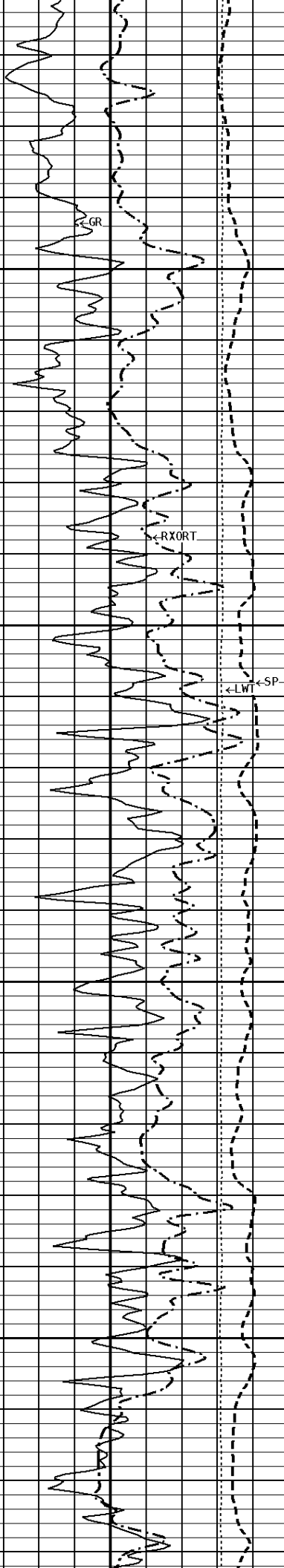


1100

1200

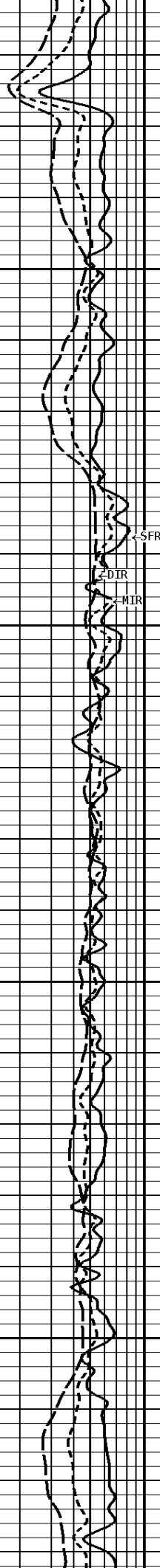
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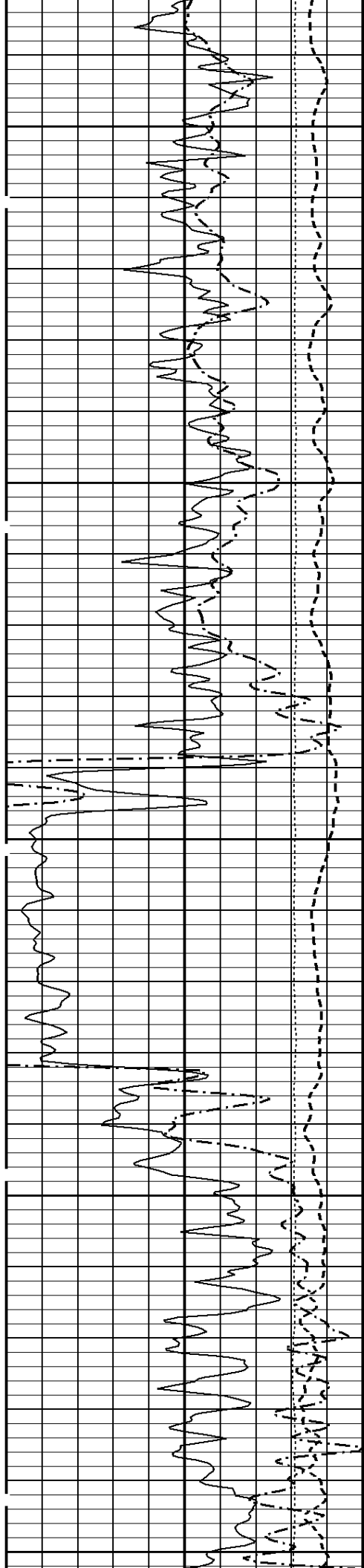




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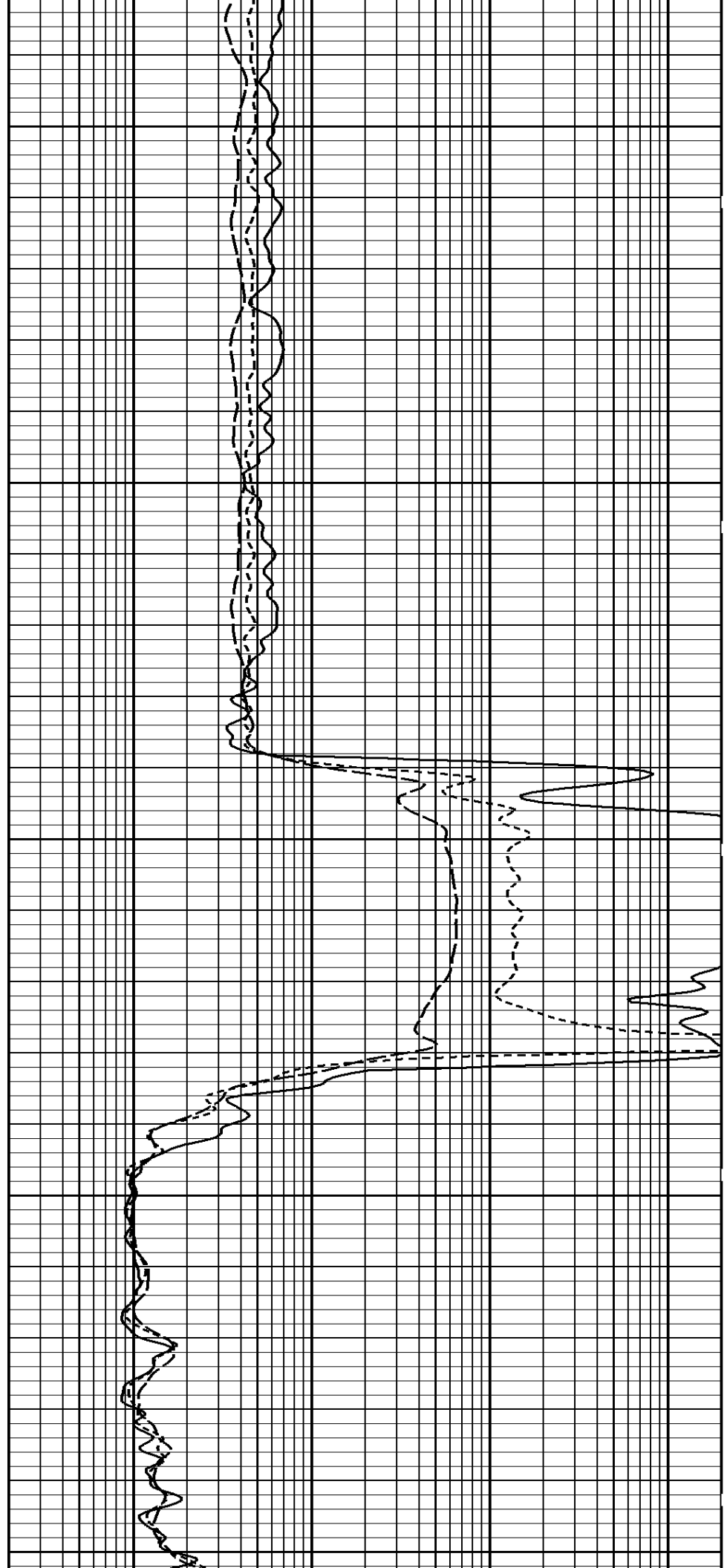
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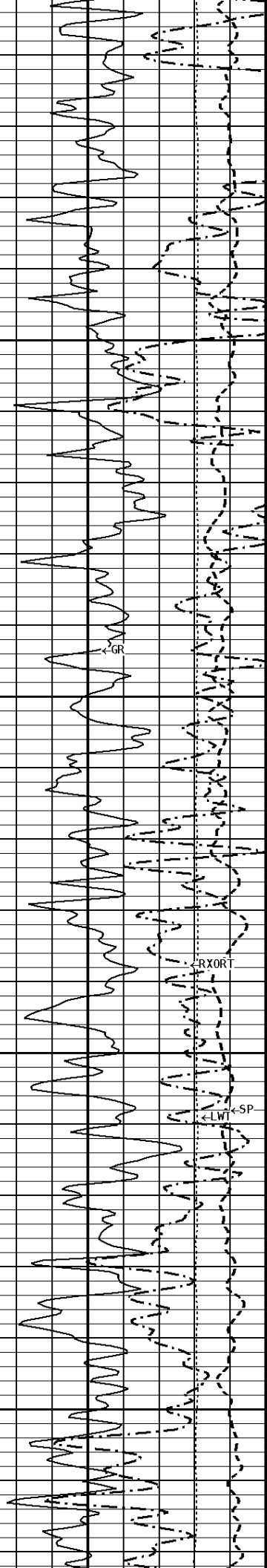




1600

1700





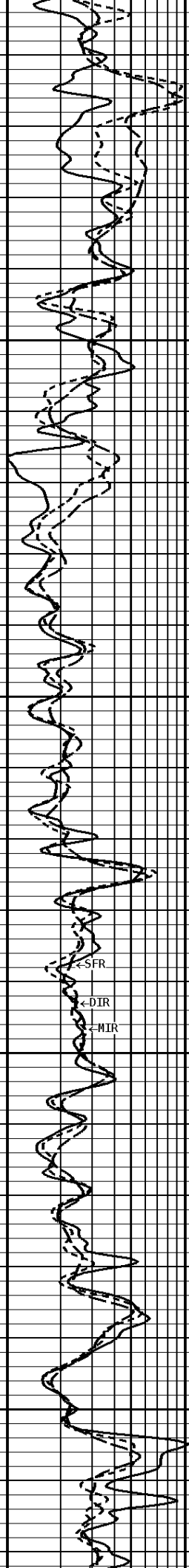
1800

1900

←SP

←RXOR T

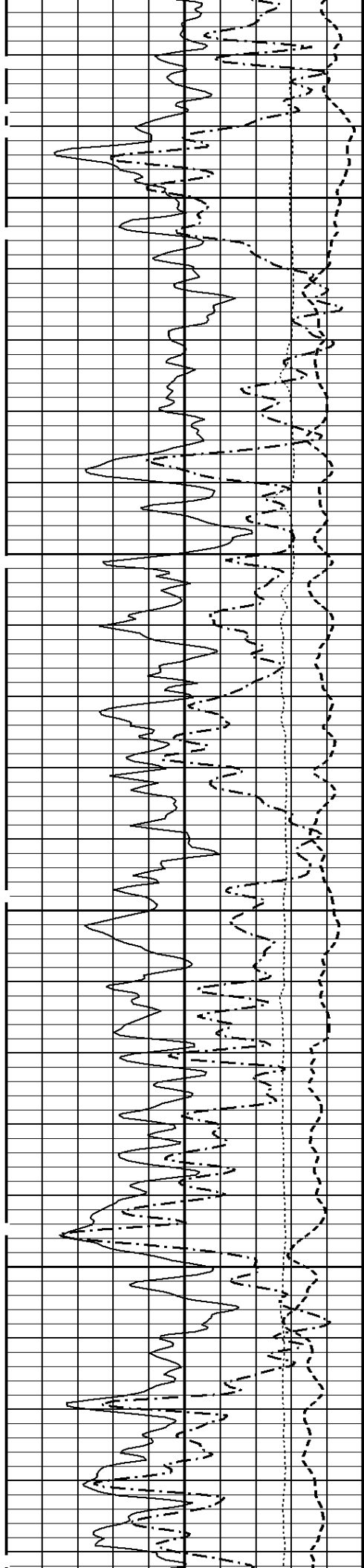
←SP



←SFR

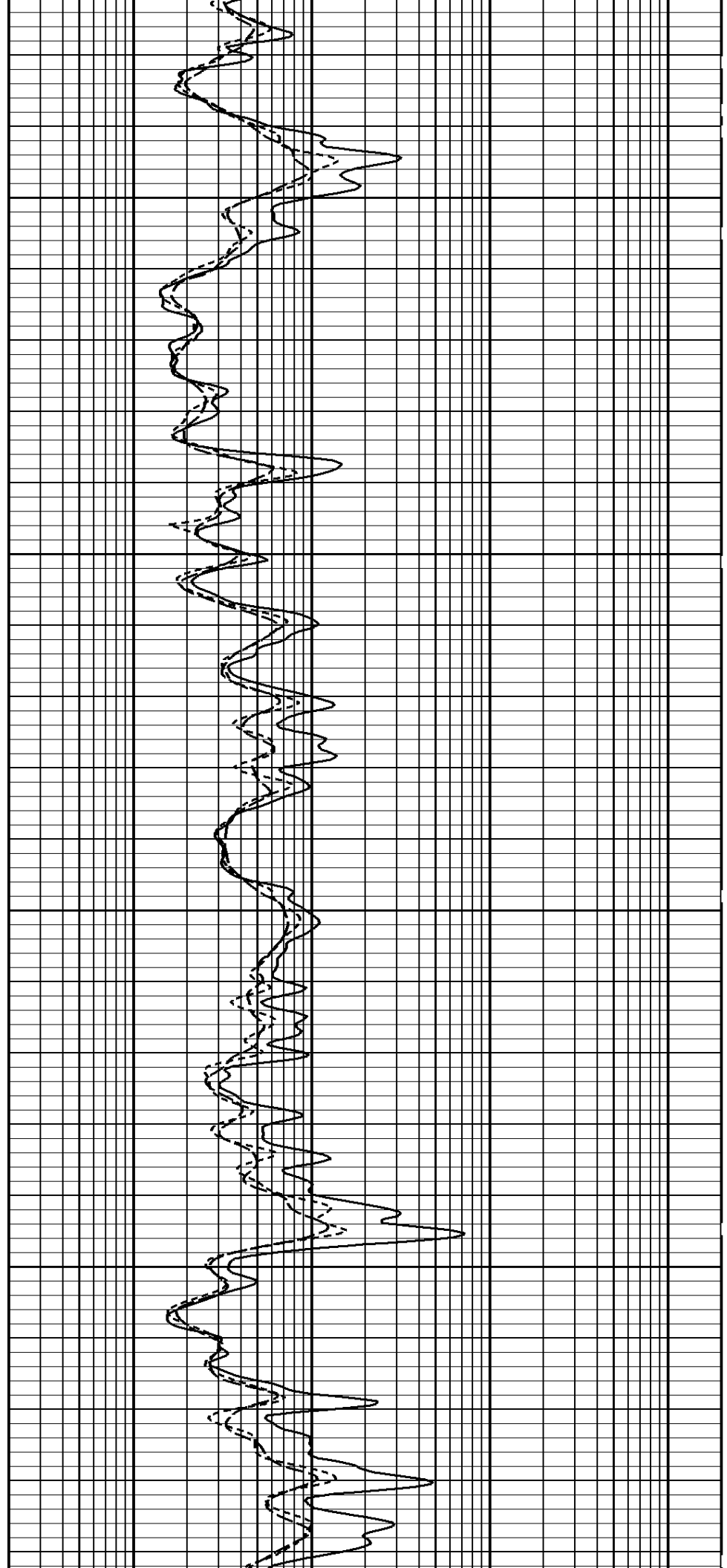
←DIR

←MIR



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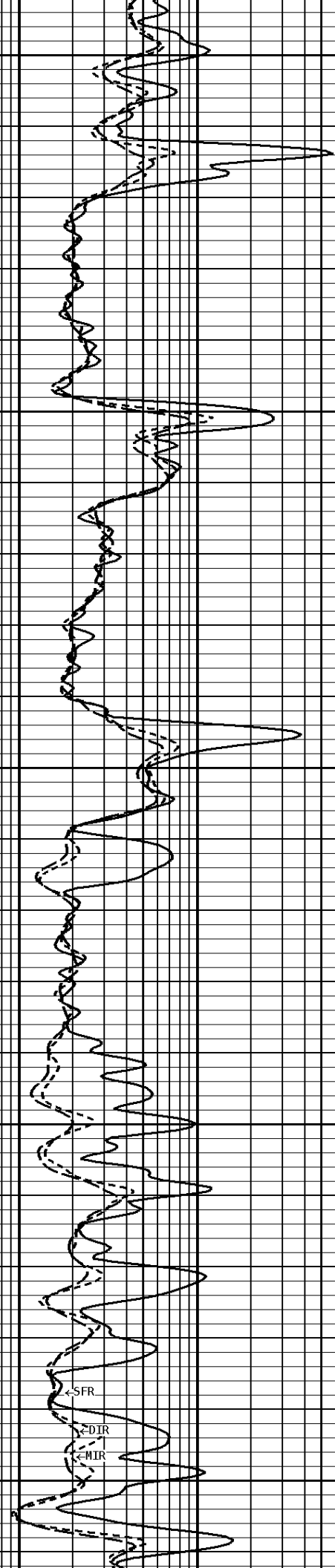
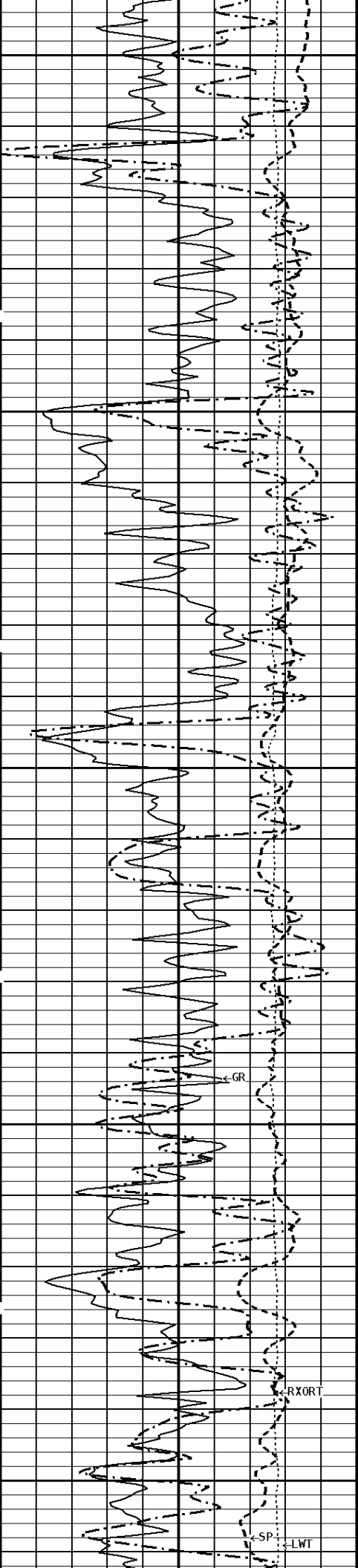
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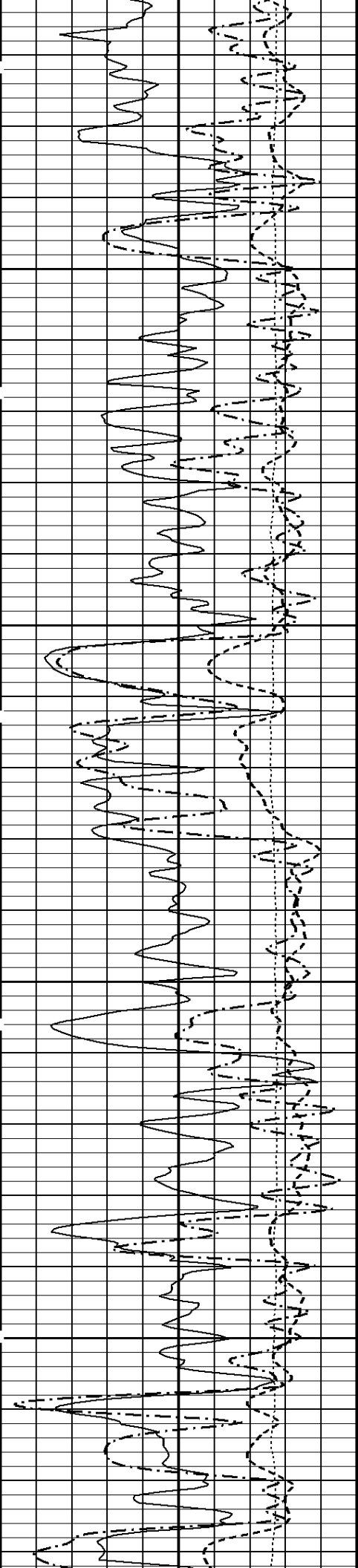


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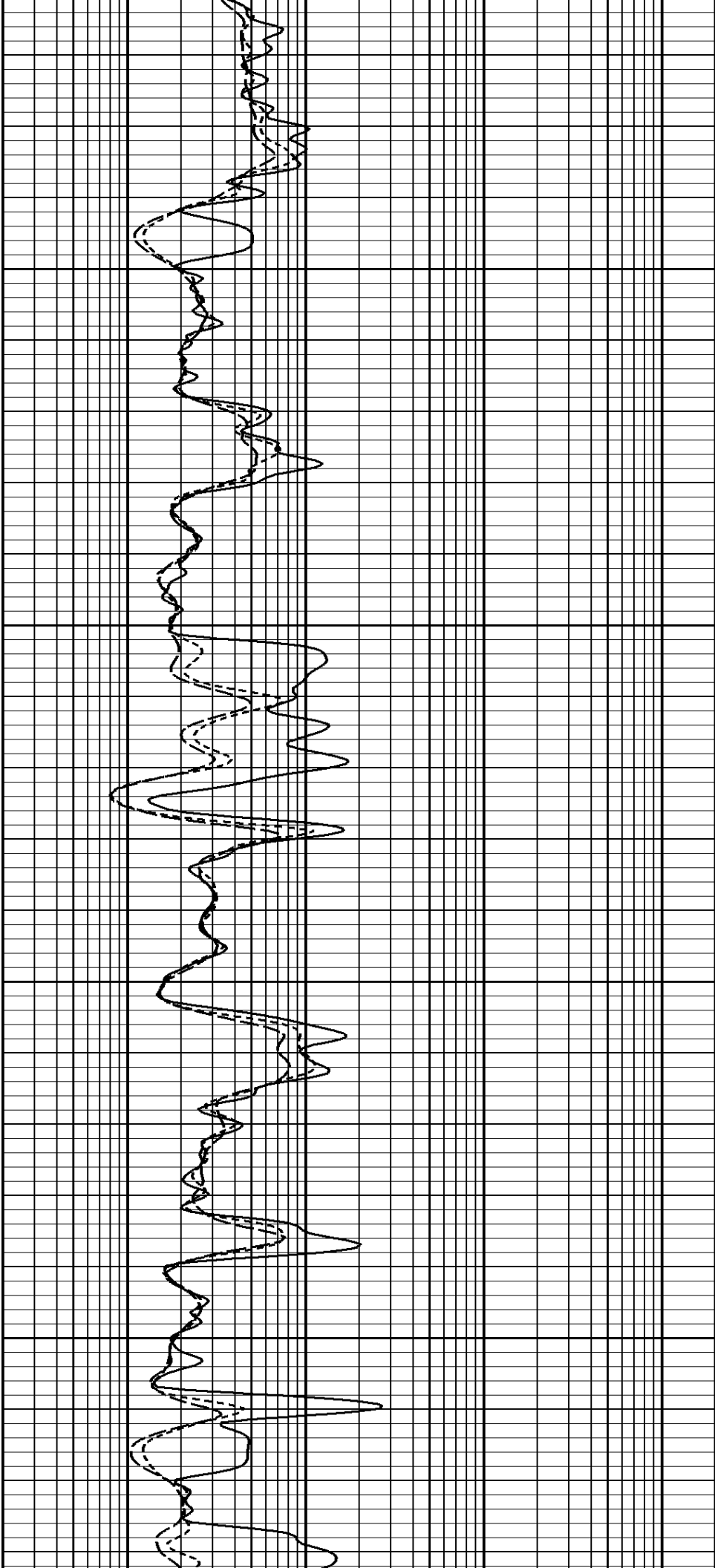
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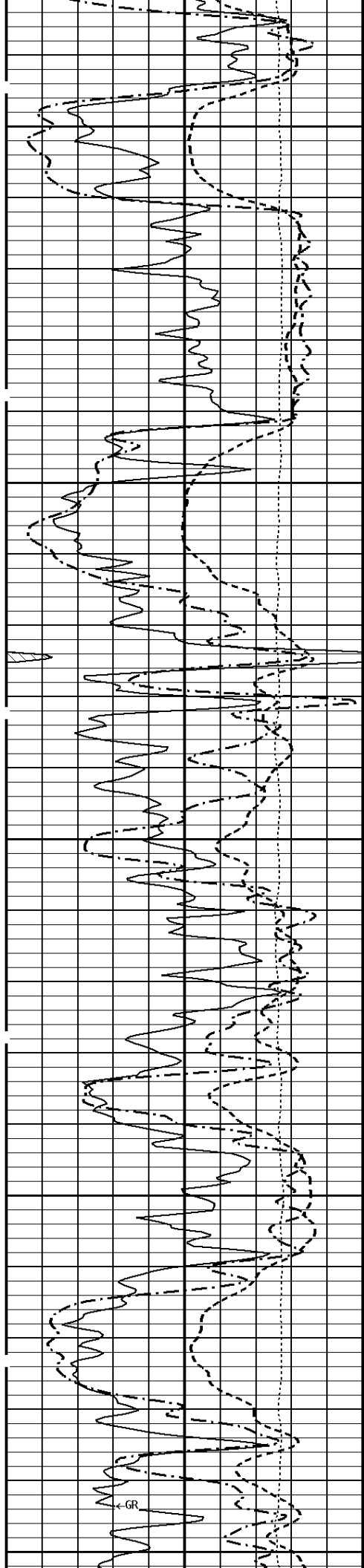




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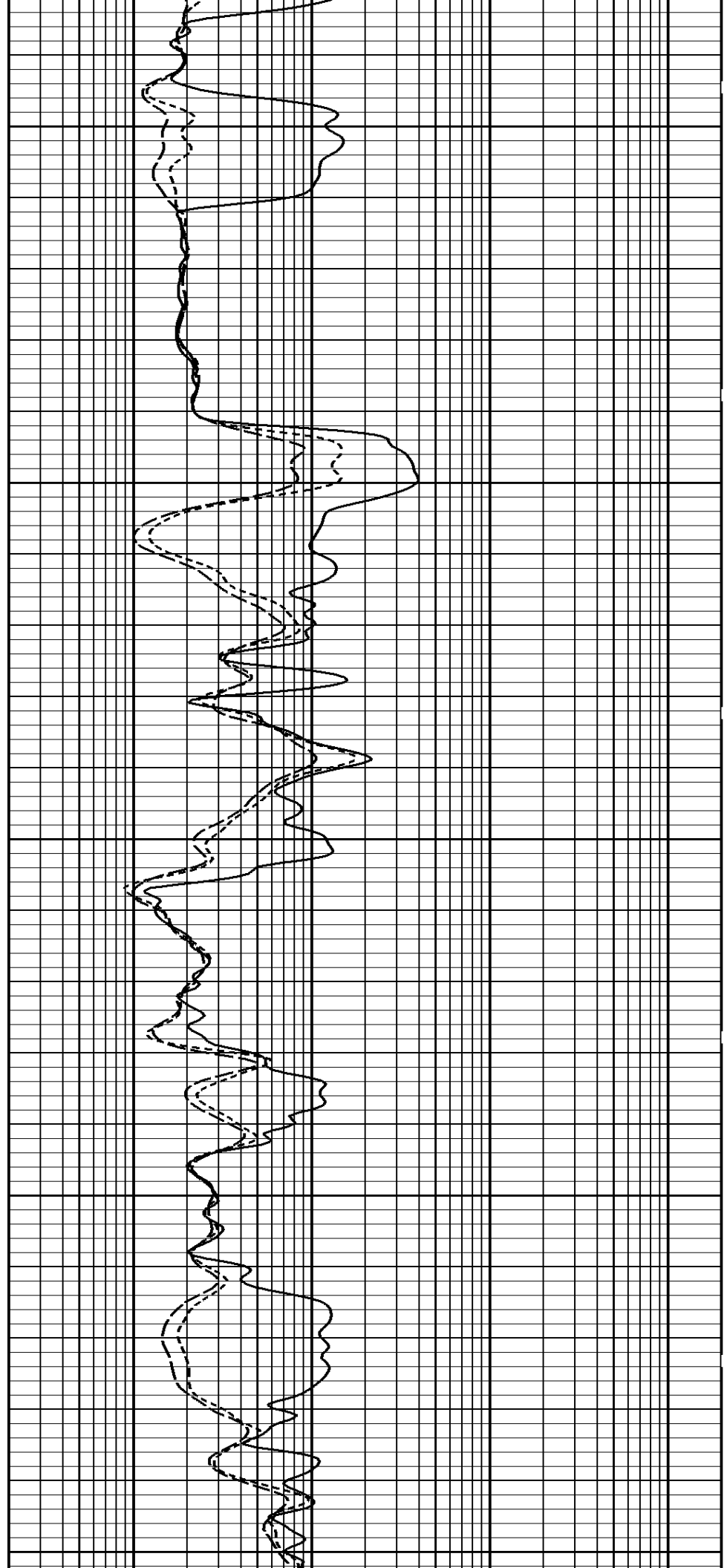
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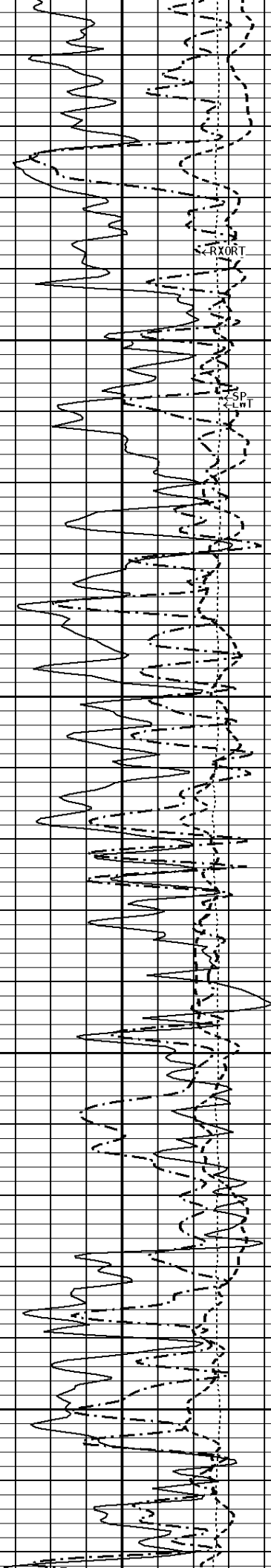




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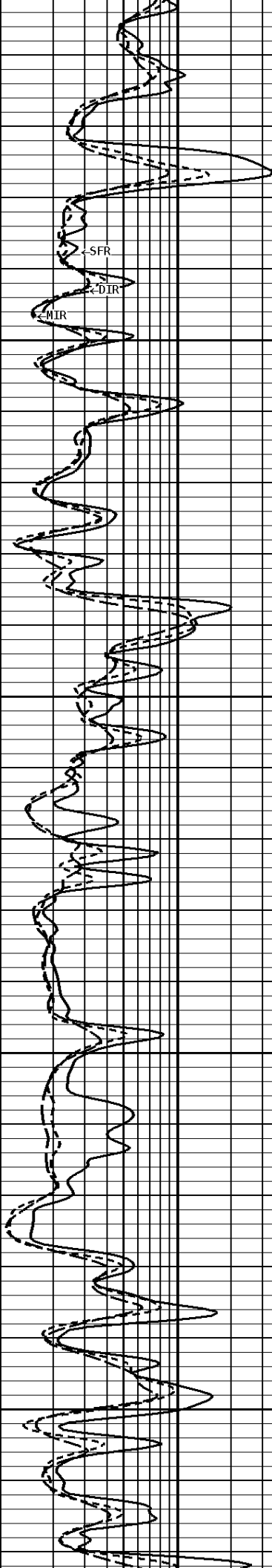
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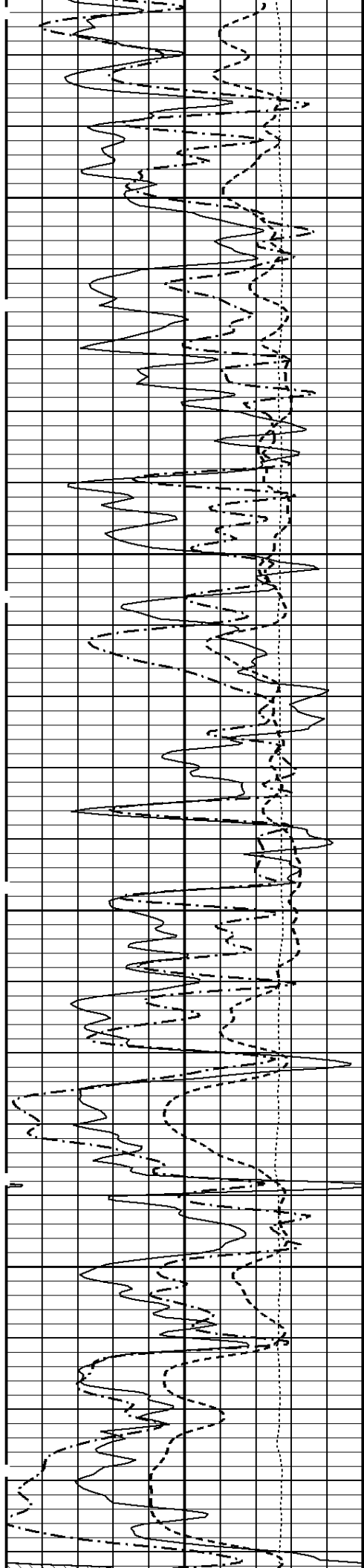




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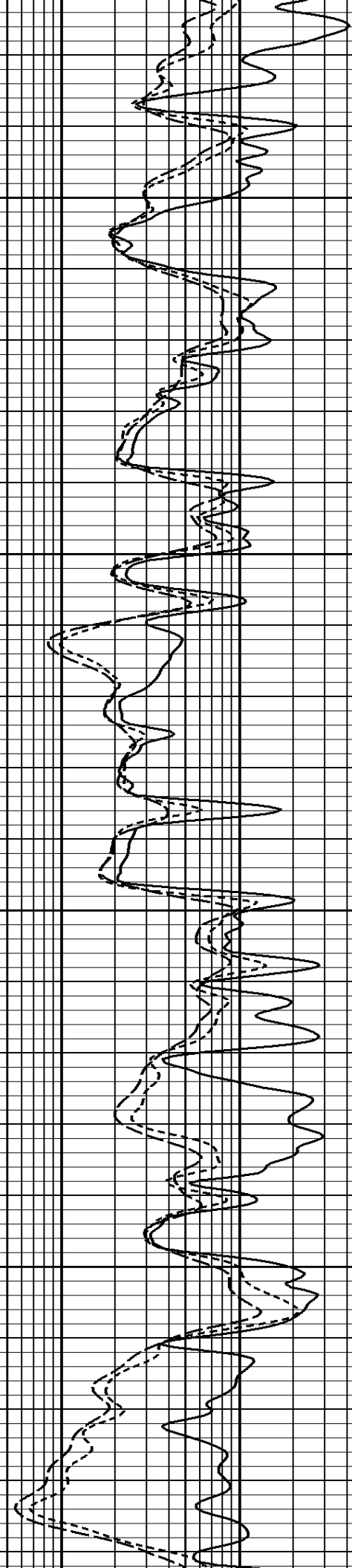
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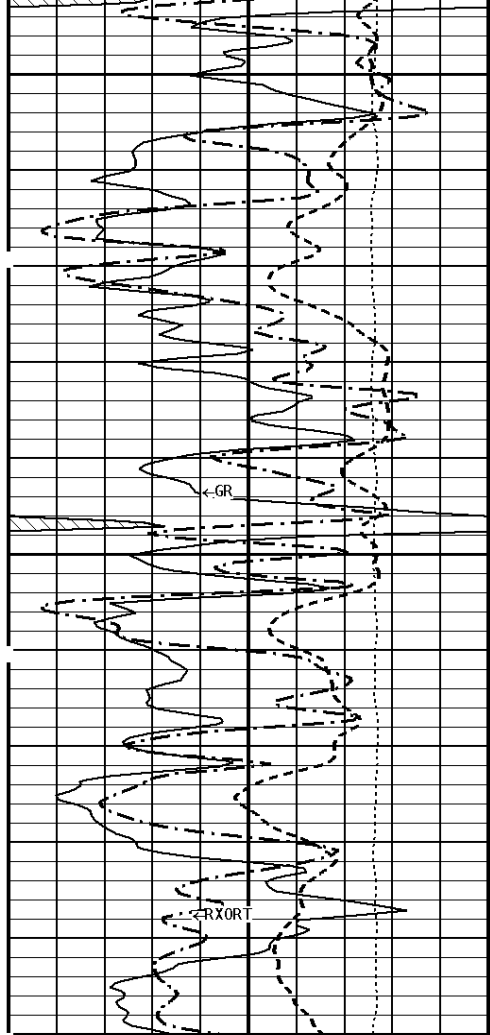


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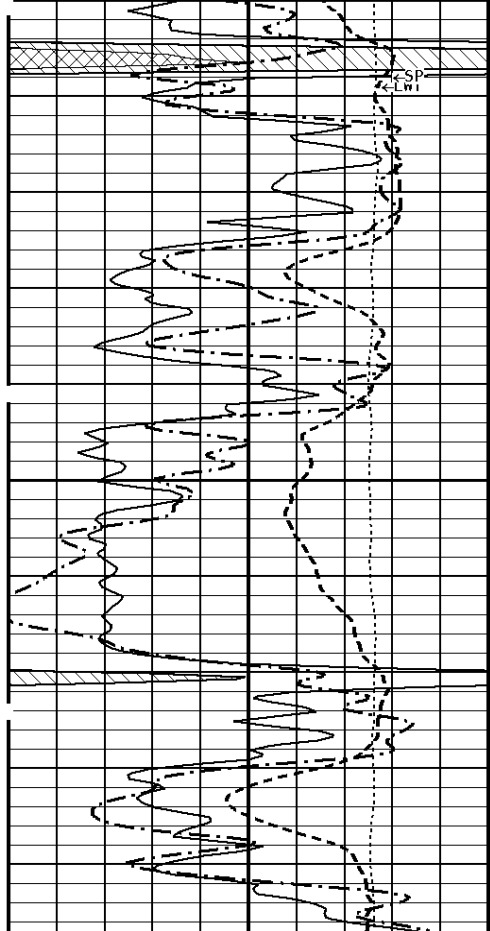
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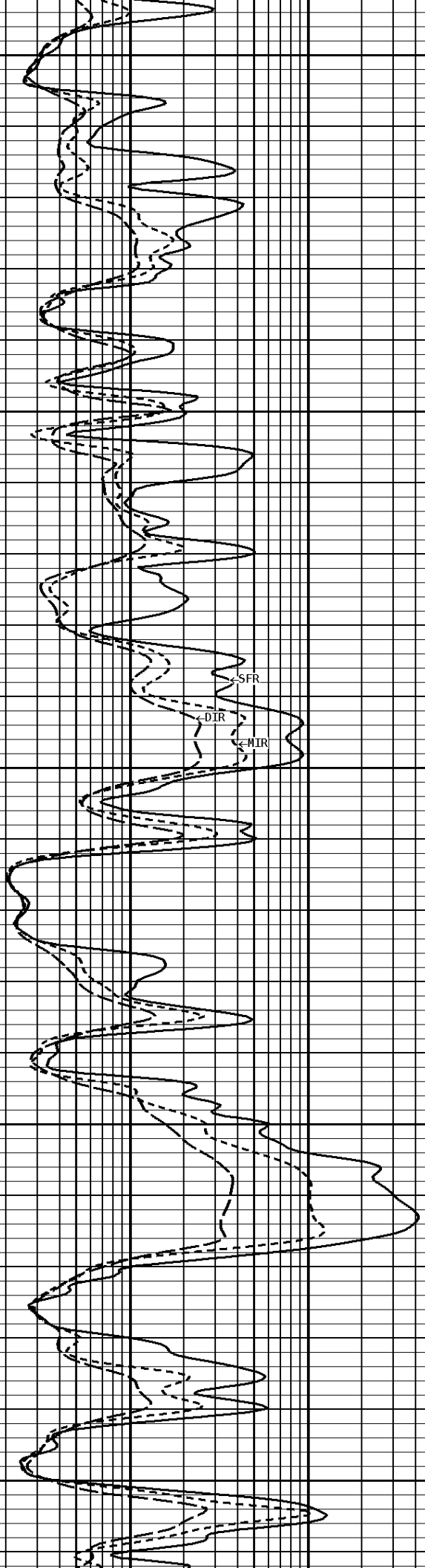
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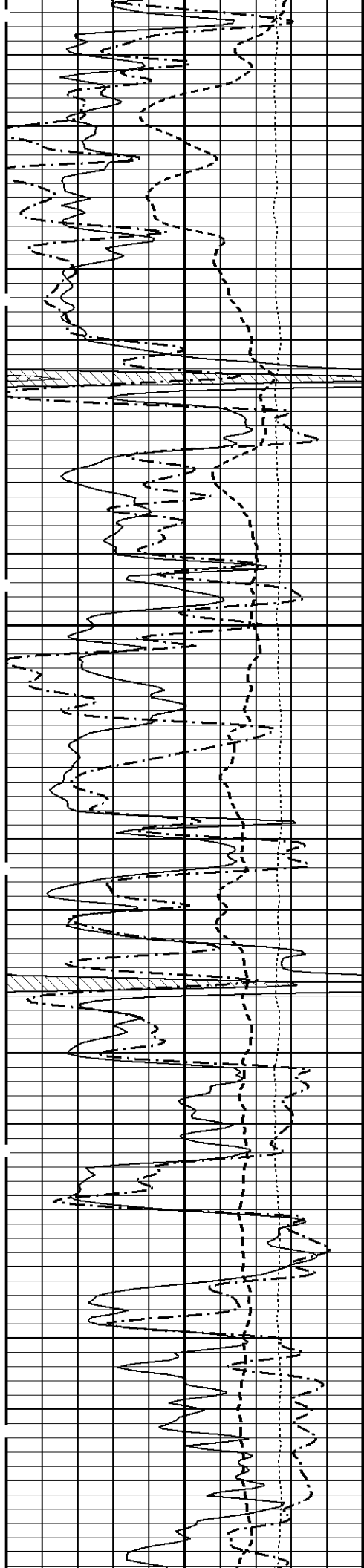


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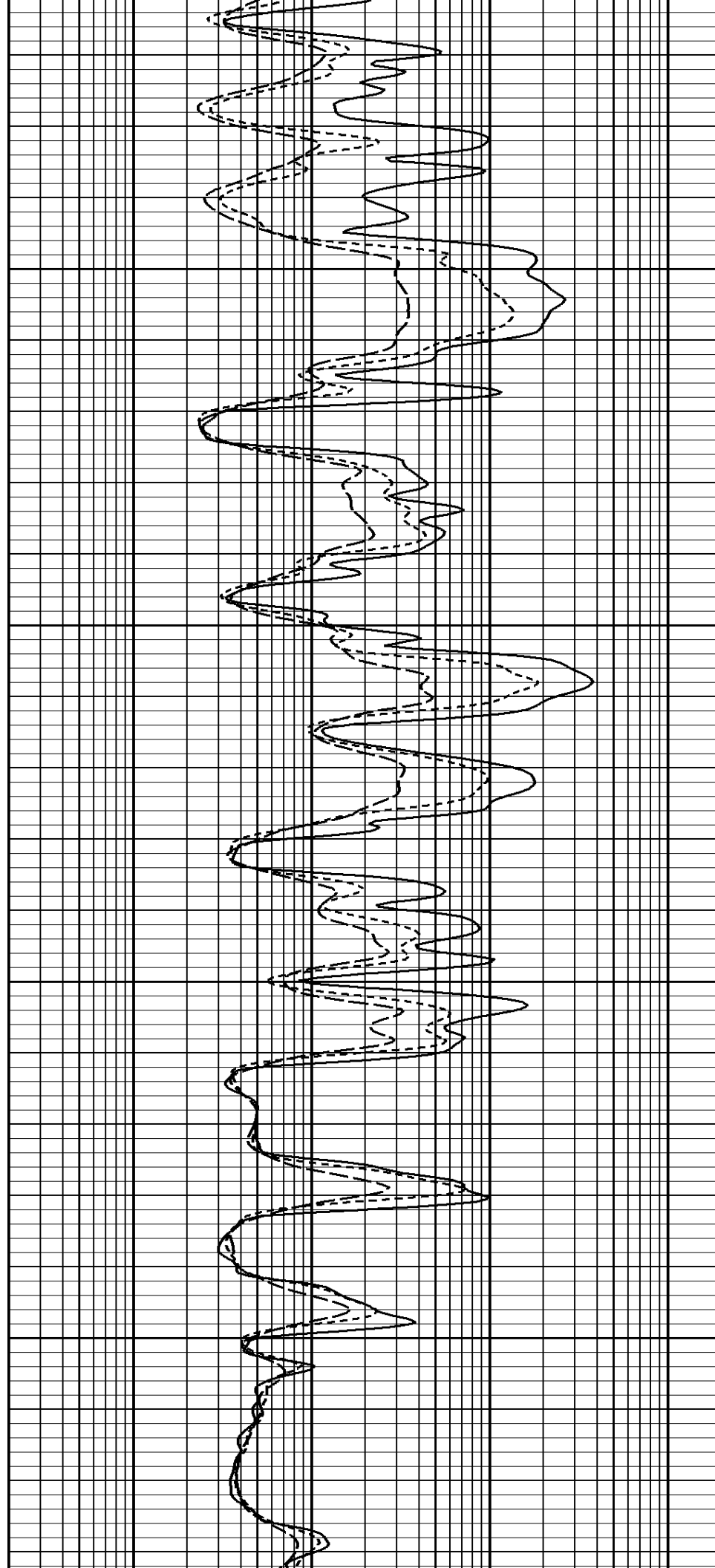
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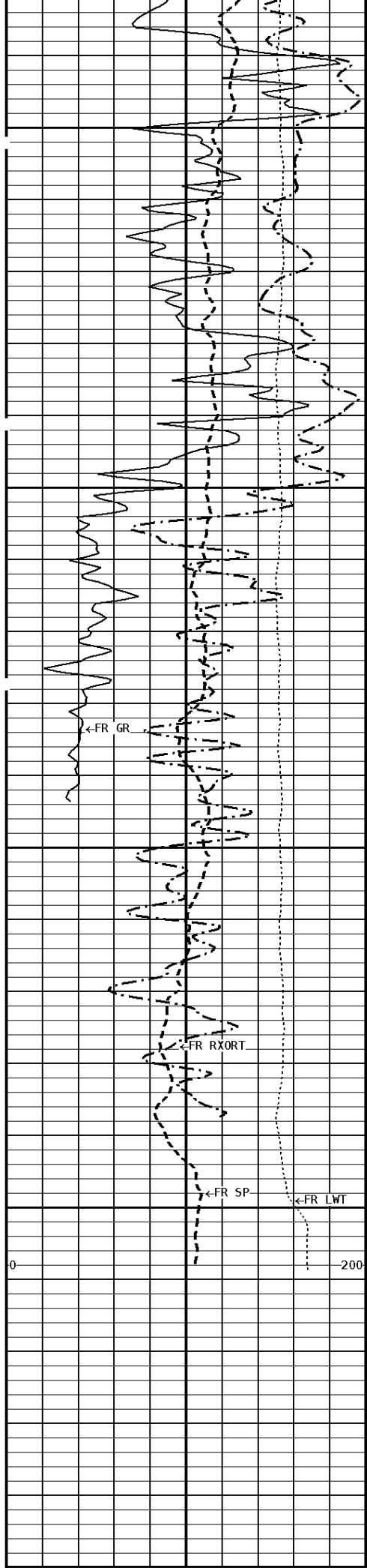




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3700

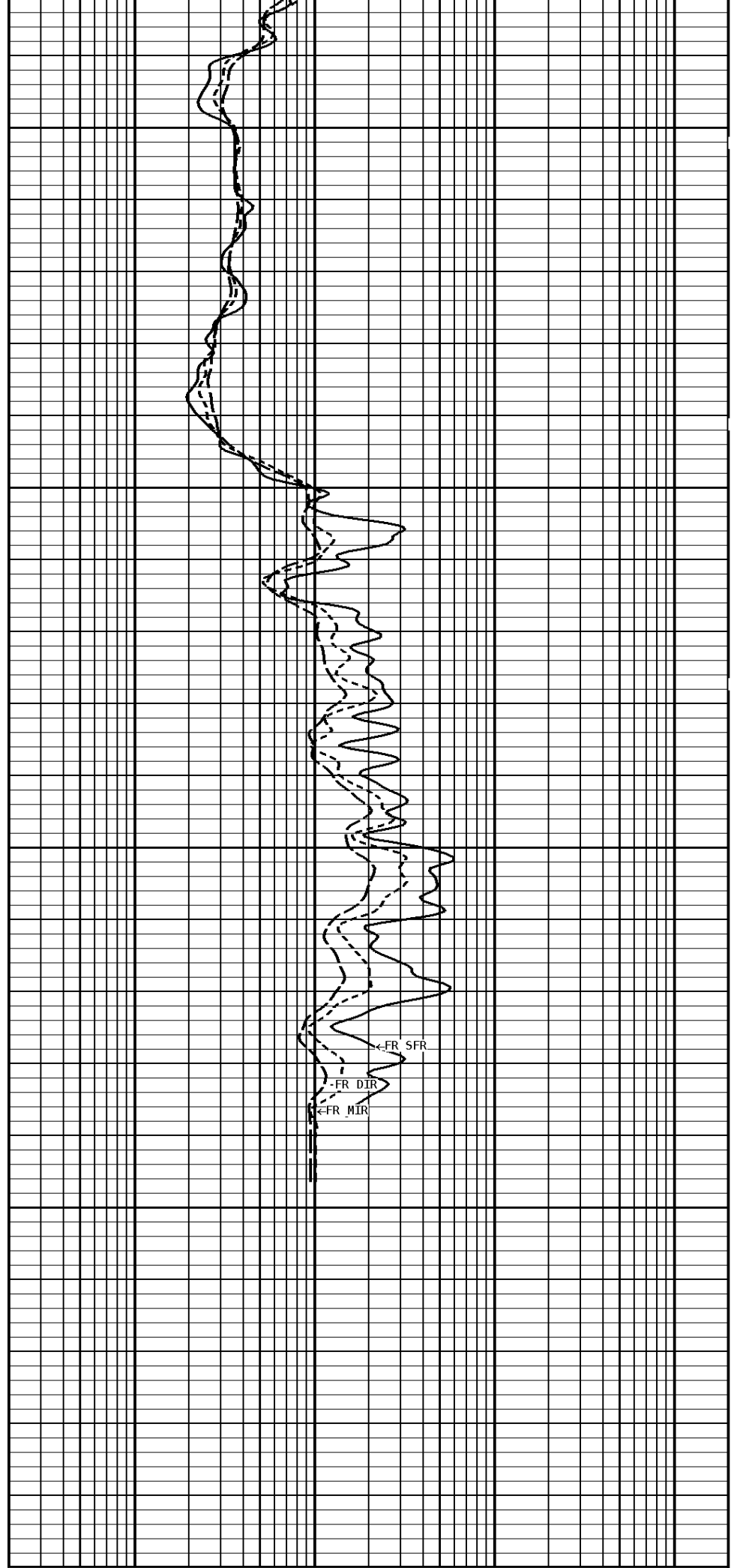




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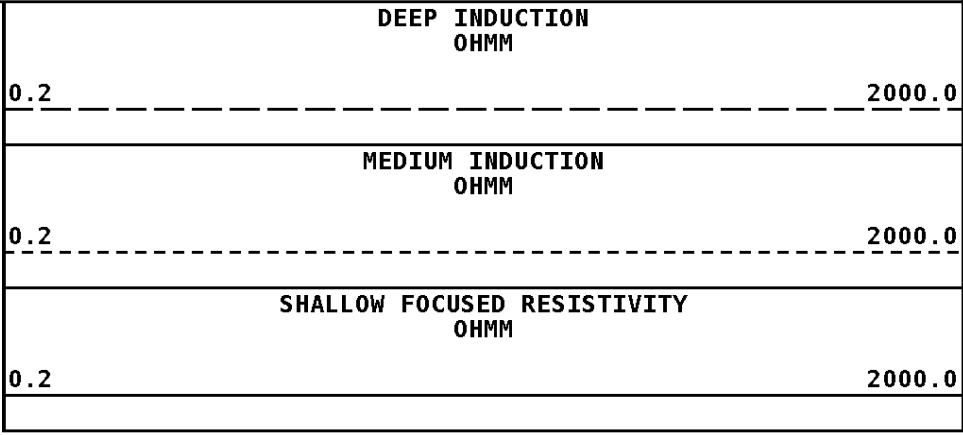
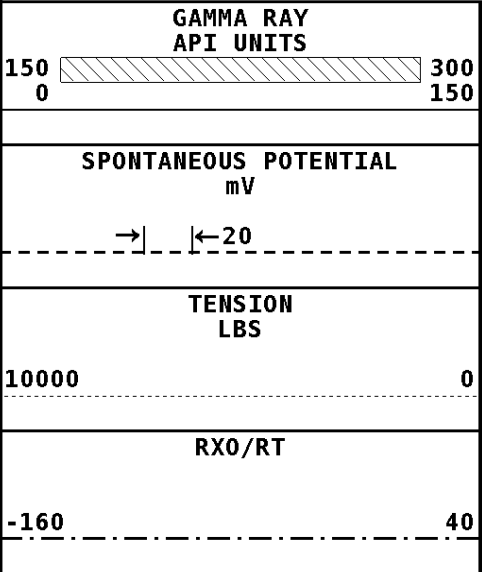
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File #1.1.5



1-240 MAIN SECTION

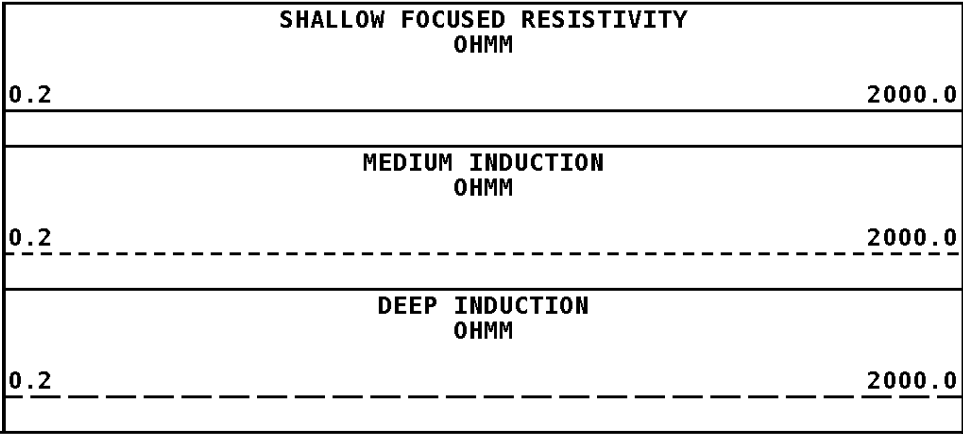
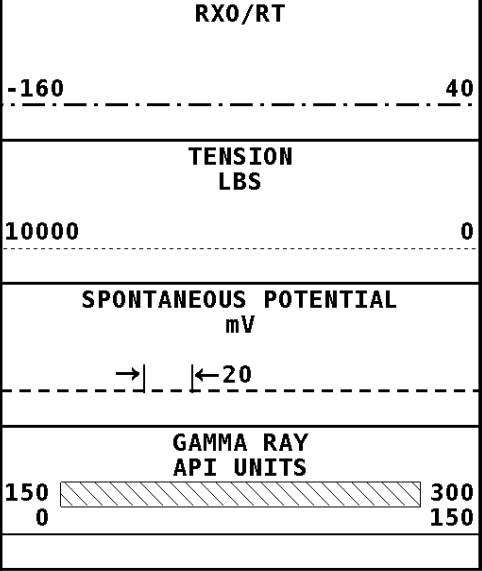
1:240 MAIN SECTION



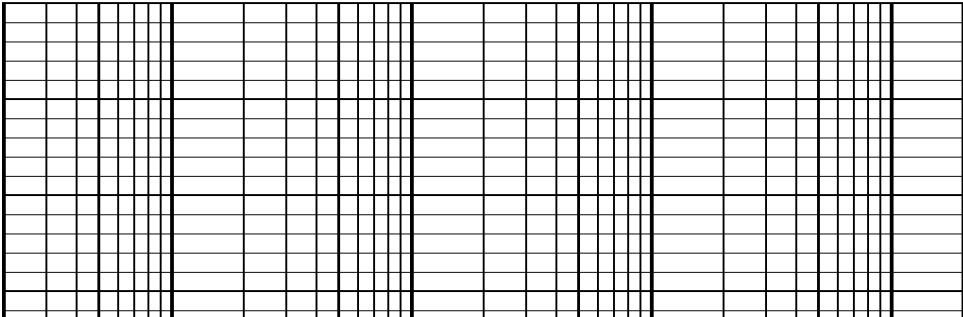
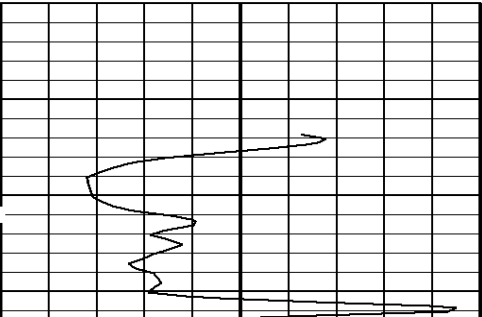
* Borehole Zone Factors *

Zone 1 99999.0 to 0.0 Feet	
Drill Bit Size _____	7.875 in
Resistivity Of Mud _____	1.400 ohm/m
Resistivity Of Mud Temperature _____	78.00 degF

Well File: and-ene-eat-tr-1-quint-jun-29	Scale: 1:240
Segment: V1.D1.S4 RP	Acquired: 2012-06/29 09:07 3.2.0-10932
Reference: 0	Processed: 2012-06/29 11:06 3.2.0-10932



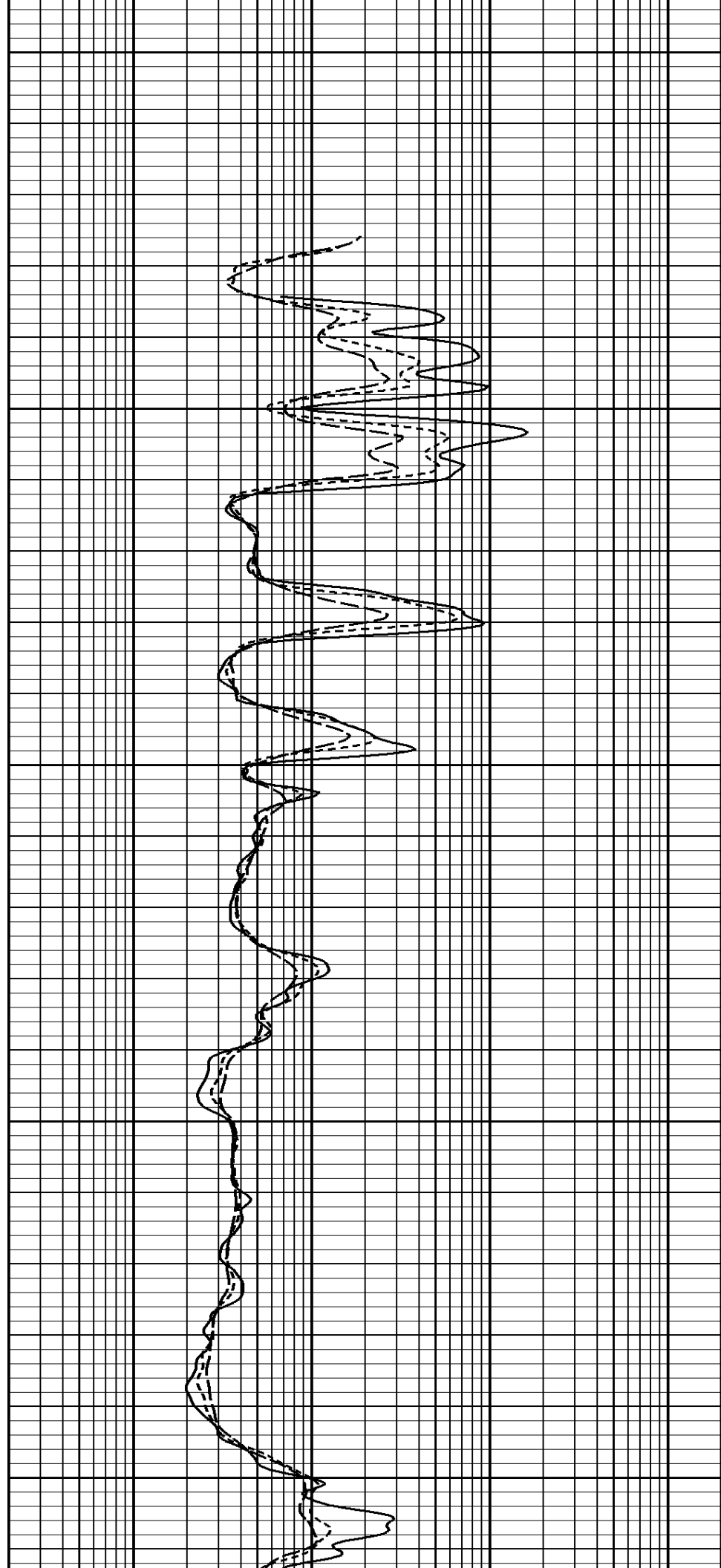
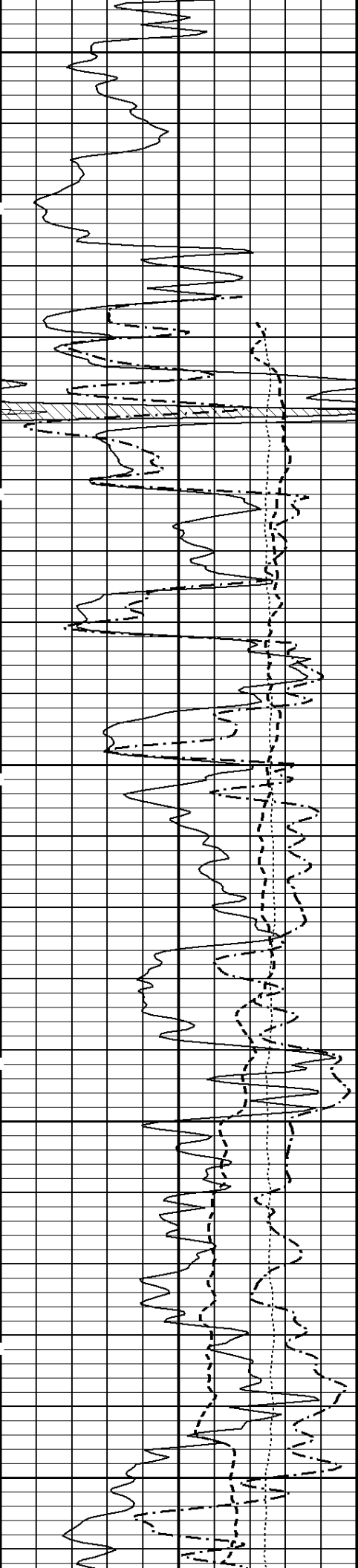
1:240 REPEAT SECTION

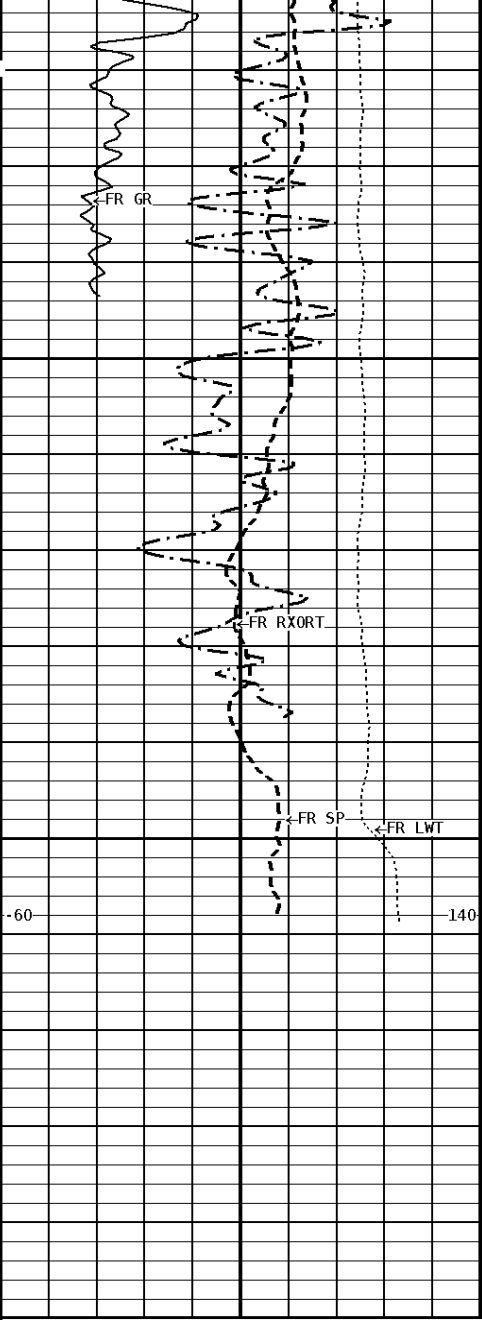


3600

3700

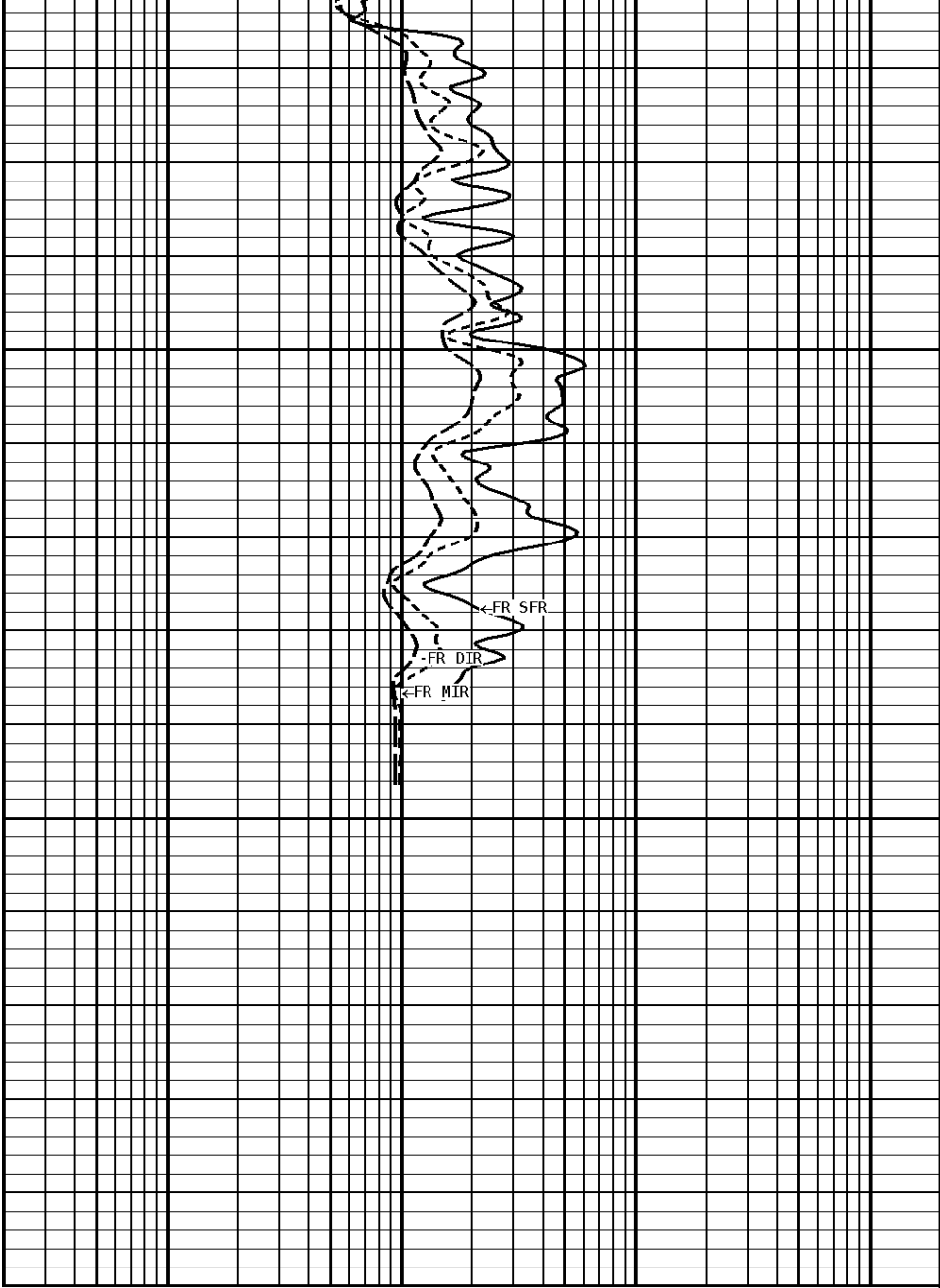
3800





File #1.1.4

3900



1:240 REPEAT SECTION

GAMMA RAY API UNITS	
150 0	300 150
SPONTANEOUS POTENTIAL mV	
→	←20
TENSION LBS	
10000	0
RXO/RT	
-160	40

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

* Borehole Zone Factors *

Zone 1 99999.0 to 0.0 Feet	
Drill Bit Size _____	7.875 in
Resistivity Of Mud _____	1.400 ohm/m
Resistivity Of Mud Temperature _____	78.00 degF

*** Calibration Summary ***

Shop Calibration					
GRT-B					
Performed : 04-APR-2011			Time : 19:28		
Sensor Suite : GR-GR5			ID : GRT-BC-41		
	Measured	Units	Calibrated	Units	
GR	Background	Jig	Jig		
	46	346	175		GRAPI
Shop Calibration					
PIT-CA					
Performed : 09-MAR-2012			Time : 15:54		
Sensor Suite : P-IND-T			ID : PIT-AC-022		
Medium					
	Measured		Calibrated		Units
	R	X	R	X	
Air	129413	131202	-7.0	-7.0	MMHOS
Zero	131066	131071	65.6	-17.0	MMHOS
Reference	248746	249346	5065.6	4983.0	MMHOS
Loop	147468	174966	2610.2	1076.0	MMHOS
Sonde Error			-2.1	-6.8	MMHOS
Cond			5065.6	4983.0	MMHOS
Deep					
	Measured		Calibrated		Units
	R	X	R	X	
Air	129586	130432	0.0	0.0	MMHOS
Zero	131077	131073	31.9	6.9	MMHOS
Reference	238783	239471	2031.9	2006.9	MMHOS
Loop	148920	177248	1222.8	504.8	MMHOS
Sonde Error			-0.8	-9.2	MMHOS
Cond			2031.9	2006.9	MMHOS
Temperature					
	Measured		Calibrated		Units
	Low	High	Low	High	
	16980.0	56920.0	70.0	350.0	DEGF
Performed : 30-Jan-2012			Time : 11:24		
Sensor Suite : SFL			ID : PIT-AC-022		
Internal					
	Measured		Calibrated		Units
	Zero	Reference	Zero	Reference	
Im	32763.2	50516.1	0.0	7028.0	uA
Ib	32769.0	50217.9	0.0	1750.0	mA
MOM1	32796.4	60221.5	0.0	175.0	mV
Equivalent SFL				43.97	OHMM
Performed : 30-Jan-2012			Time : 11:26		
Sensor Suite : P-SP			ID : PIT-AC-022		
Internal					
	Measured		Calibrated		Units
	Zero	Reference	Zero	Reference	
	32785.2	58904.5	0.0	1000.0	mV
Performed : 18-Jan-2007			Time : 12:24		
Sensor Suite : P-RMUD			ID : PIT-AC-022		
Internal					
	Measured		Calibrated		Units
	Zero	Reference	Zero	Reference	
Rmi	8.3	54204.1	0.0	290.6	mA
Rmv	8.2	54136.7	0.0	290.6	mV
Equivalent Rm				0.9037	OHMM

LBS
10000 0

SPONTANEOUS POTENTIAL
mV
→ | ← 20

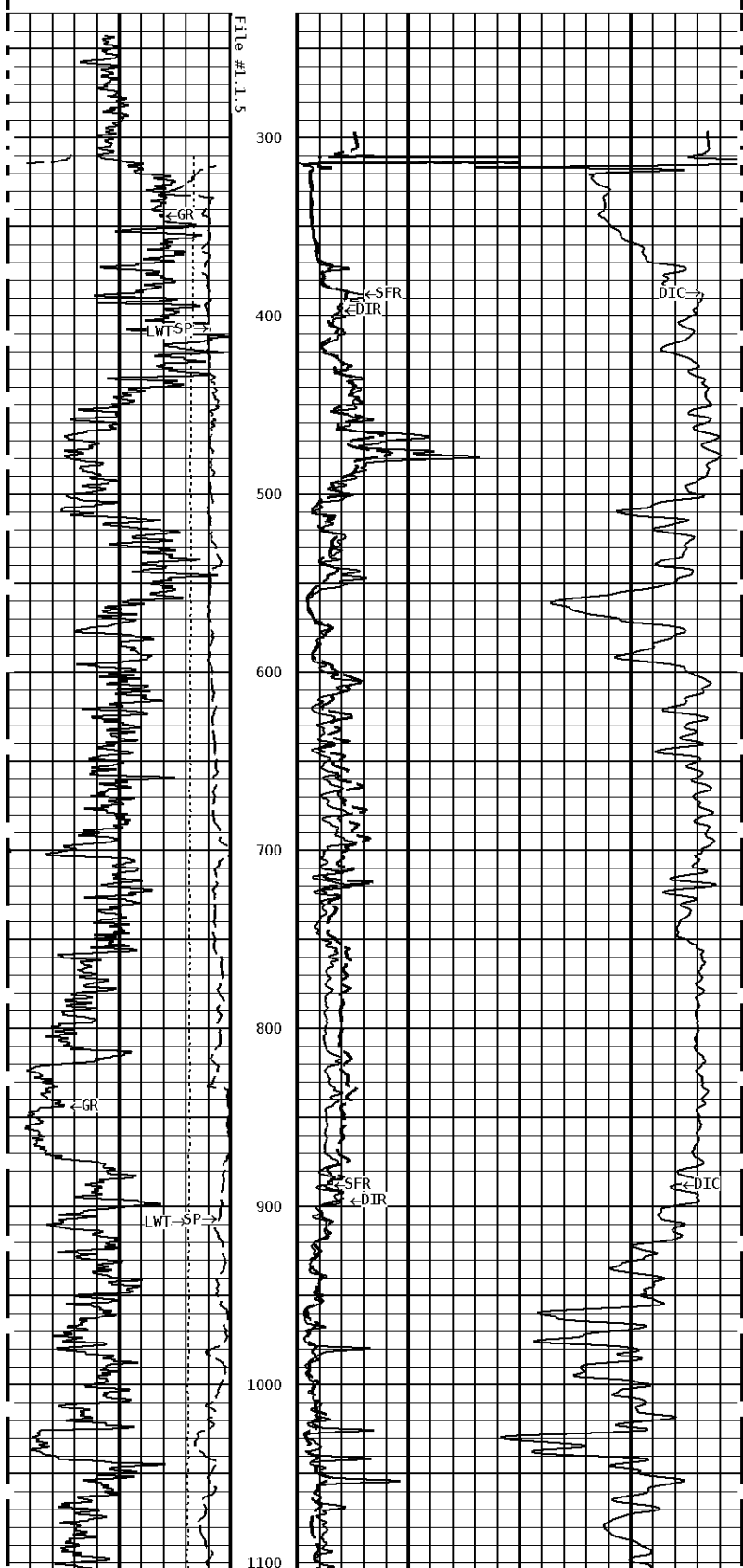
GAMMA RAY
API UNITS
150 300
0 150

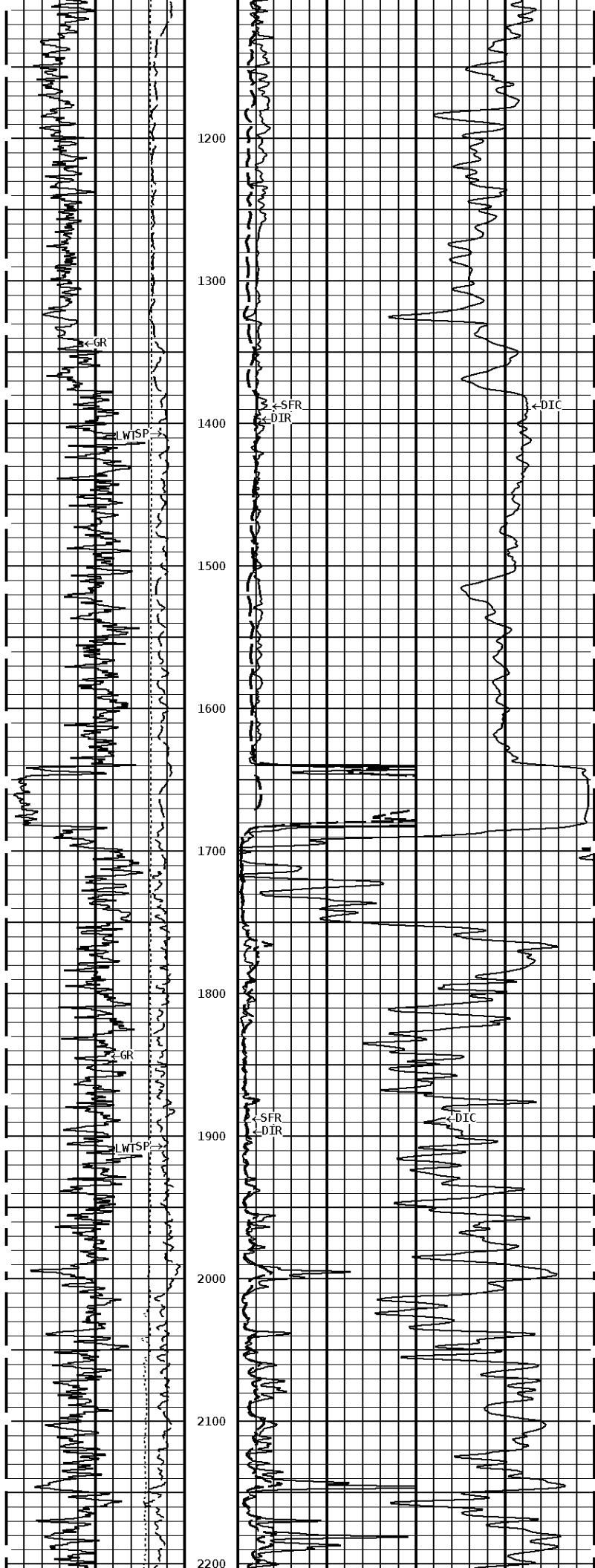
OHMM
0.0 500.0
0.0 50.0

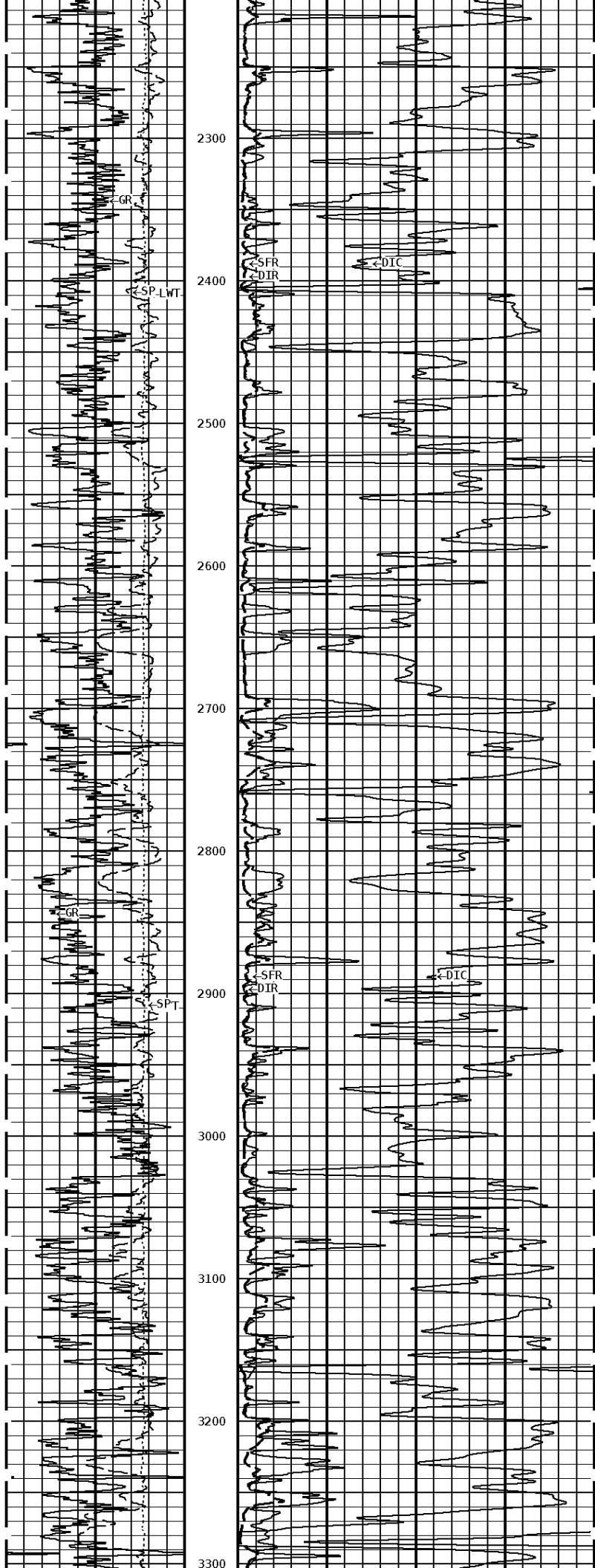
SHALLOW FOCUSED
OHMM
0.0 500.0
0.0 50.0

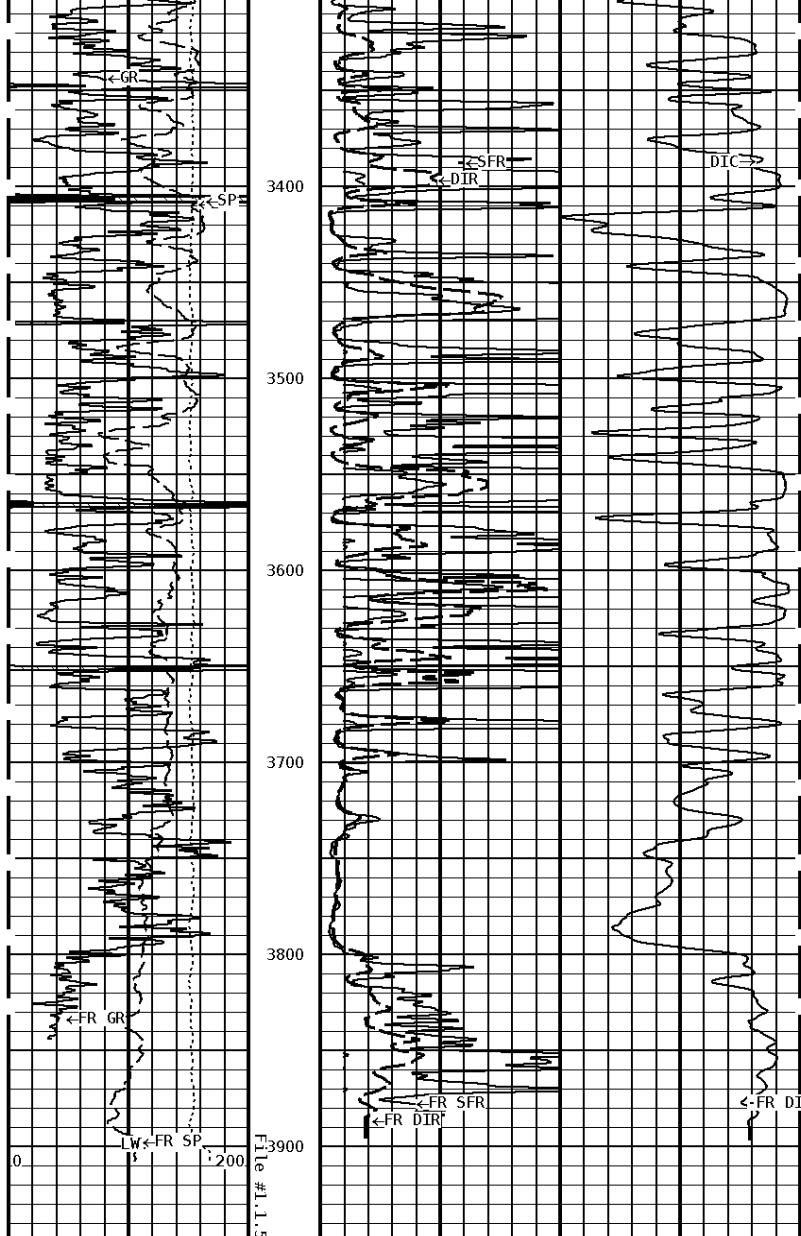
DEEP CONDUCTIVITY
MHMO
2000 1000
1000 0

1:1200 MAIN SECTION









1:1200 MAIN SECTION

GAMMA RAY API UNITS	
150 0	300 150
SPONTANEOUS POTENTIAL mV	
→	← 20
TENSION LBS	
10000	0

DEEP CONDUCTIVITY MHMO	
2000 1000	1000 0
SHALLOW FOCUSED OHMM	
0.0	500.0
0.0	50.0
DEEP INDUCTION OHMM	
0.0	500.0
0.0	50.0