

# Tucker

**WIRELINE SERVICES**      **SHALLOW FOCUS SP LOG**

**PHASED INDUCTION**

<b>Company</b> RUNNING FOXES PETROLEUM <b>Well</b> C HEIM #2-19D <b>Field</b> LEAVENWORTH NORTHEAST <b>County</b> LEAVENWORTH <b>State</b> KANSAS <b>Country</b> USA <b>API No.</b> 15-103-21381-00-00		<b>File No</b> : TUL-58008 <b>Company</b> : RUNNING FOXES PETROLEUM INC. <b>Well</b> : C HEIM #2-19D <b>Field</b> : LEAVENWORTH NORTHEAST <b>County</b> : LEAVENWORTH <b>State</b> : KANSAS <b>Country</b> : USA <b>API No</b> : 15-103-21381-00-00	
<b>Location</b> : 990' FNL & 1650' FEL SE NW NE		<b>LSD</b> : <b>Sect</b> : 19 <b>Twp</b> : 08S <b>Rge</b> : 22E	
<b>Permanent Datum:</b> <b>Drilling Measured From:</b> <b>Log Measured From:</b> <b>Above Permanent Datum:</b>	GL KB KB 9.00 Ft	<b>Elevations:</b> KB 870.00 DF 869.00 GL 861.00	<b>Services:</b> Ft Ft Ft GRT CNT LDT MLT CST PTT
<b>Date</b>	08-24-2013		
<b>Run Number</b>	0		
<b>Depth--Driller</b>	2415.0	Ft	
<b>Depth--Logger</b>	2415.0	Ft	
<b>First Reading</b>	2414.0	Ft	
<b>Last Reading</b>	308.0	Ft	
<b>Casing--Driller</b>	308.0	Ft	
<b>Casing--Logger</b>	308.0	Ft	
<b>Bit Size</b>	7.875	In	
<b>Casing Size</b>	8.625	In	
<b>Hole Fluid Type</b>	WBM		
<b>Density</b>	9.2 LBS/GAL		
<b>Fluid Loss</b>	8.8 CC		
<b>PH/Viscosity</b>	9.0	MEASURED	49.0 SEC
<b>Sample Source</b>			
<b>RM@Measured Temp.</b>	0.950	@ 78 F	
<b>RMF@Measured Temp</b>	0.810	@ 78 F	
<b>RMG@Measured Temp.</b>	1.090	@ 78 F	
<b>Source RMF/RMC</b>	CALCULATED/CALCULATED		
<b>RM@BHT</b>	0.740 @ 102 F		
<b>Time Circulation Stopped</b>			
<b>Max Recorded Temp.</b>	102	F	
<b>Equipment/Base</b>	TRK 127	TULSA	
<b>Recorded By</b>	Z. HICKMAN		
<b>Witnessed By</b>	J. TAGLEIRI		

The customer is hereby warned that by providing the log data herein, Tucker Technologies, Inc. does not agree to provide any interpretation of log data, conversion of log data to physical rock parameters or recommendations. Tucker Technologies, Inc. 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 Tucker Technologies, Inc. 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 Tucker Technologies, Inc. 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)	Top (Ft)
7.875	2415.00	8.625	24.00	308.00	0.00

<b>Run Number</b>	0	
<b>Date</b>	08-24-2013	
<b>Date/Time On Bottom</b>	08-24-2013 12:30 am	
<b>Depth to Fluid</b>	0.0	Ft
<b>Salinity</b>	0.000	
<b>RMF@BHT</b>	0.631	@ 102 F
<b>RMC@BHT</b>	0.849	@ 102 F

**Run Number 0**

**Comments**

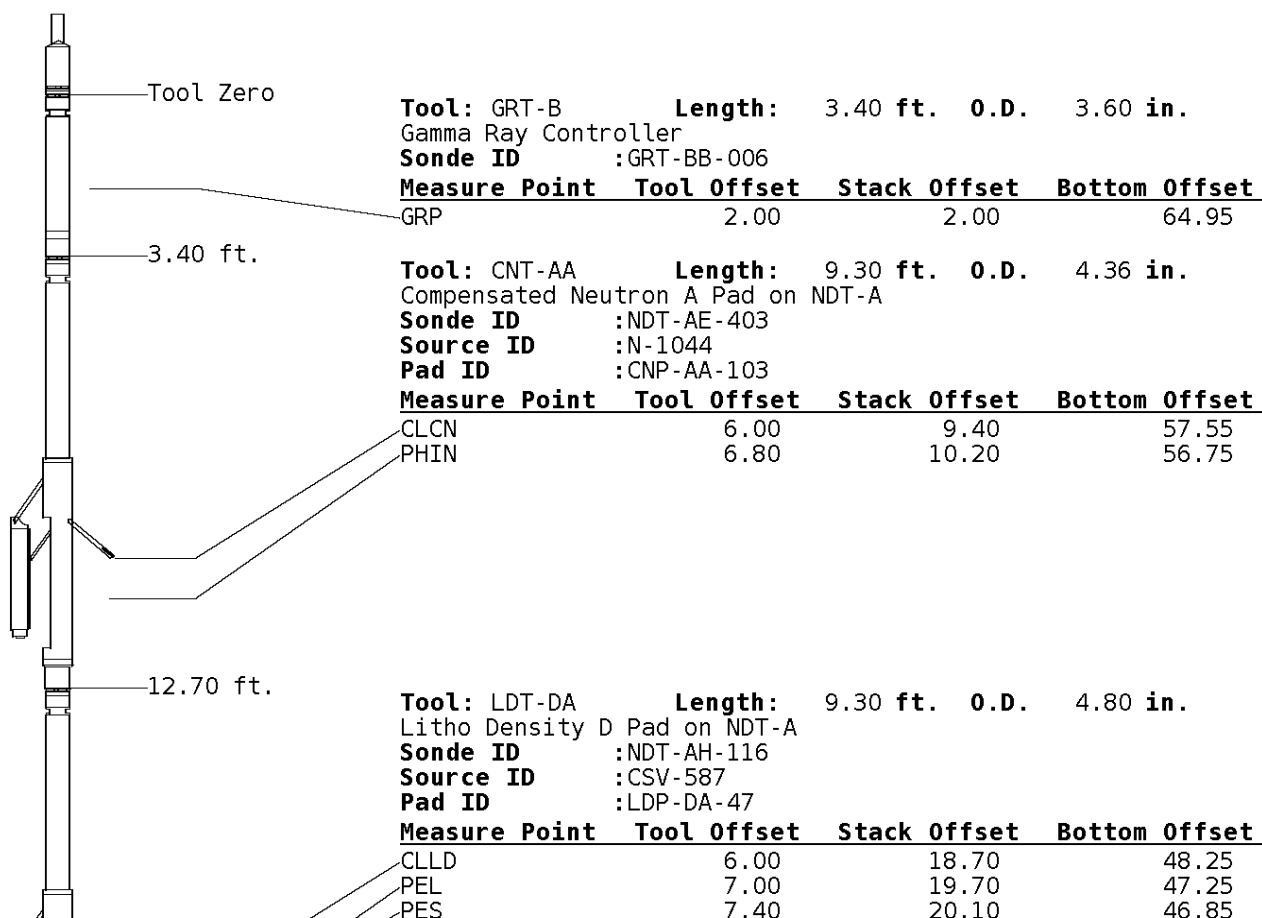
ALL PRESENTATIONS AS PER CUSTOMER REQUEST  
 GRT, CNT, LDT, MLT, CST AND PIT RUN IN COMBINATION.  
 CALIPERS ORIENTED ON X-Y AXIS.  
 2.71 G/CC USED TO CALCULATED POROSITY.  
 ANNULAR HOLE VOLUME CALCULATED USING 5.500" PRODUCTION CASING.  
 PHIN IS CALIPER CORRECTED

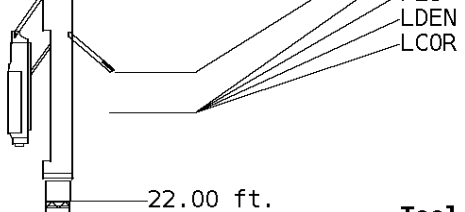
GRT: GRP.  
 CNT: PHIN, CLCNIN.  
 LDT: PORL,LCORN,PECLN,LDENN,PORLLS,CLLDIN.  
 MLT: NOR\_RF, INV\_RF, MSCLPIN.  
 CST: PORS, CDTF, TT1PF, TT2PF, TT3PF, TT4PF, ITT.  
 PIT: ILD, ILM, SPU, SFLAEC, CIRD

OPERATORS:  
 P.JACOBS  
 A. DJAHO

## Tool String Schematic

**Total Tool Length** - 66.95 ft.  
**Maximum Outside diameter** - 6.00 in.  
**Net Weight in Air** - 1171.00 lbs.

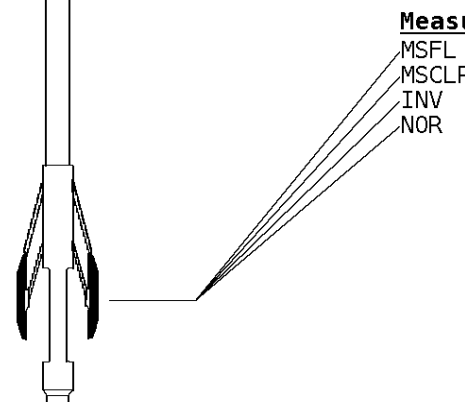




7.20 19.90 47.05  
 7.20 19.90 47.05

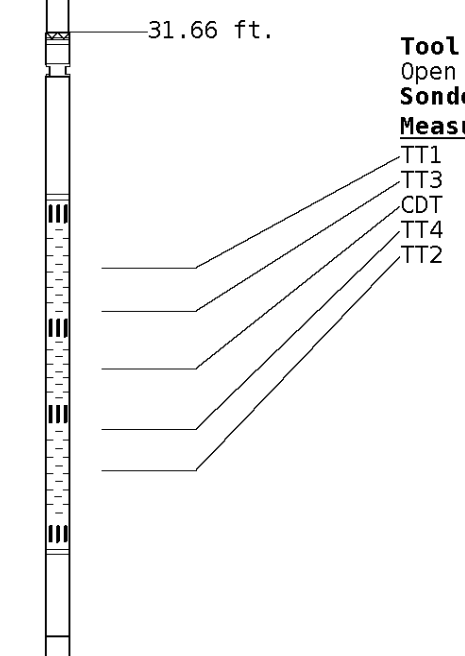
**Tool:** MST-DA      **Length:** 9.66 ft.   **O.D.** 6.00 in.  
 Micro Spherically Focused (IC)  
**Sonde ID** :MST-DA-36

Measure Point	Tool Offset	Stack Offset	Bottom Offset
MSFL	7.60	29.60	37.35
MSCLP	7.60	29.60	37.35
INV	7.60	29.60	37.35
NOR	7.60	29.60	37.35



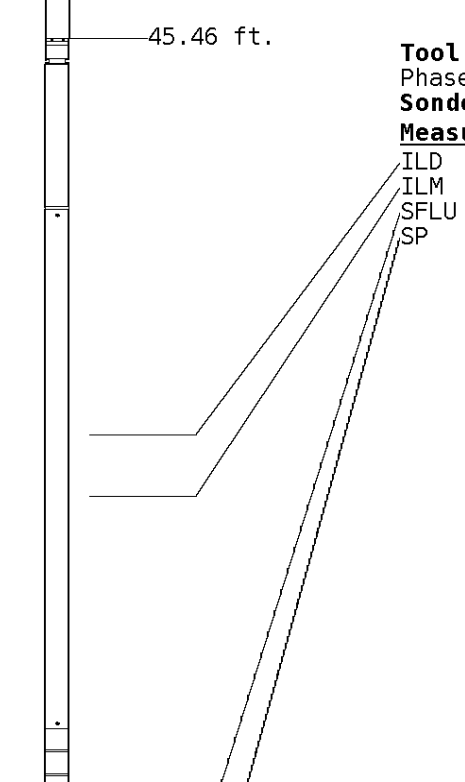
**Tool:** CST-AD      **Length:** 13.80 ft.   **O.D.** 3.60 in.  
 Open Hole Sonic  
**Sonde ID** :CST-AB-012

Measure Point	Tool Offset	Stack Offset	Bottom Offset
TT1	4.80	36.46	30.49
TT3	5.80	37.46	29.49
CDT	7.30	38.96	27.99
TT4	8.80	40.46	26.49
TT2	9.80	41.46	25.49



**Tool:** PIT-CA      **Length:** 21.49 ft.   **O.D.** 3.62 in.  
 Phased Dual Induction w/ RM & D  
**Sonde ID** :PIT-AB-18

Measure Point	Tool Offset	Stack Offset	Bottom Offset
ILD	8.92	54.38	12.56
ILM	10.10	55.56	11.39
SFLU	17.49	62.95	4.00
SP	20.60	66.06	0.88



LWT 66.95 ft.

Well File: RFP C HEIM 2-19D AUG 24 QUINT

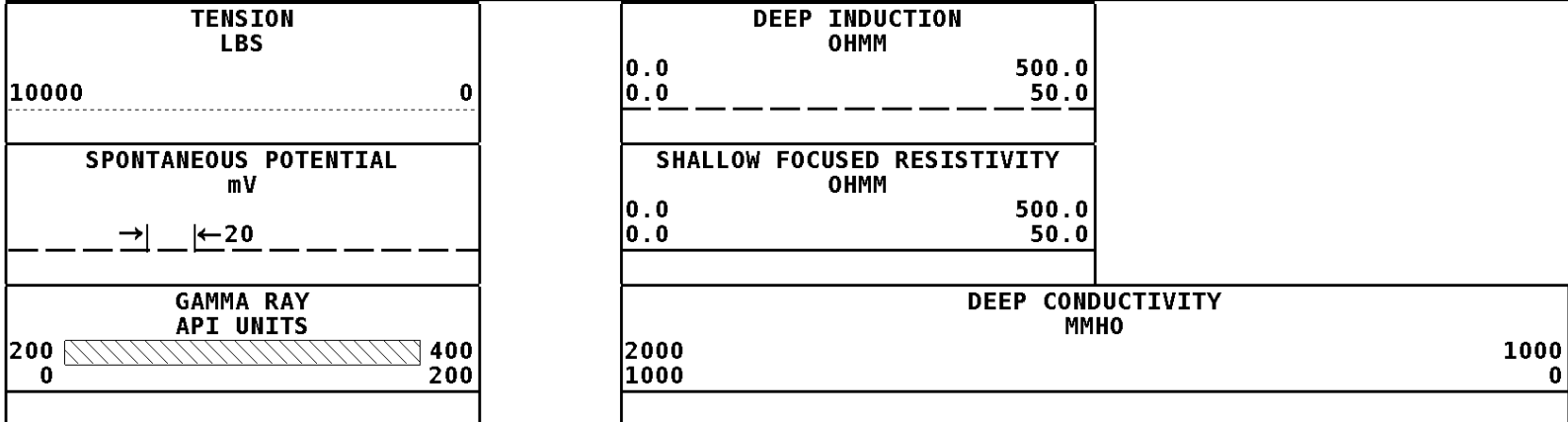
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Segment: V1.D1.S7 MAIN

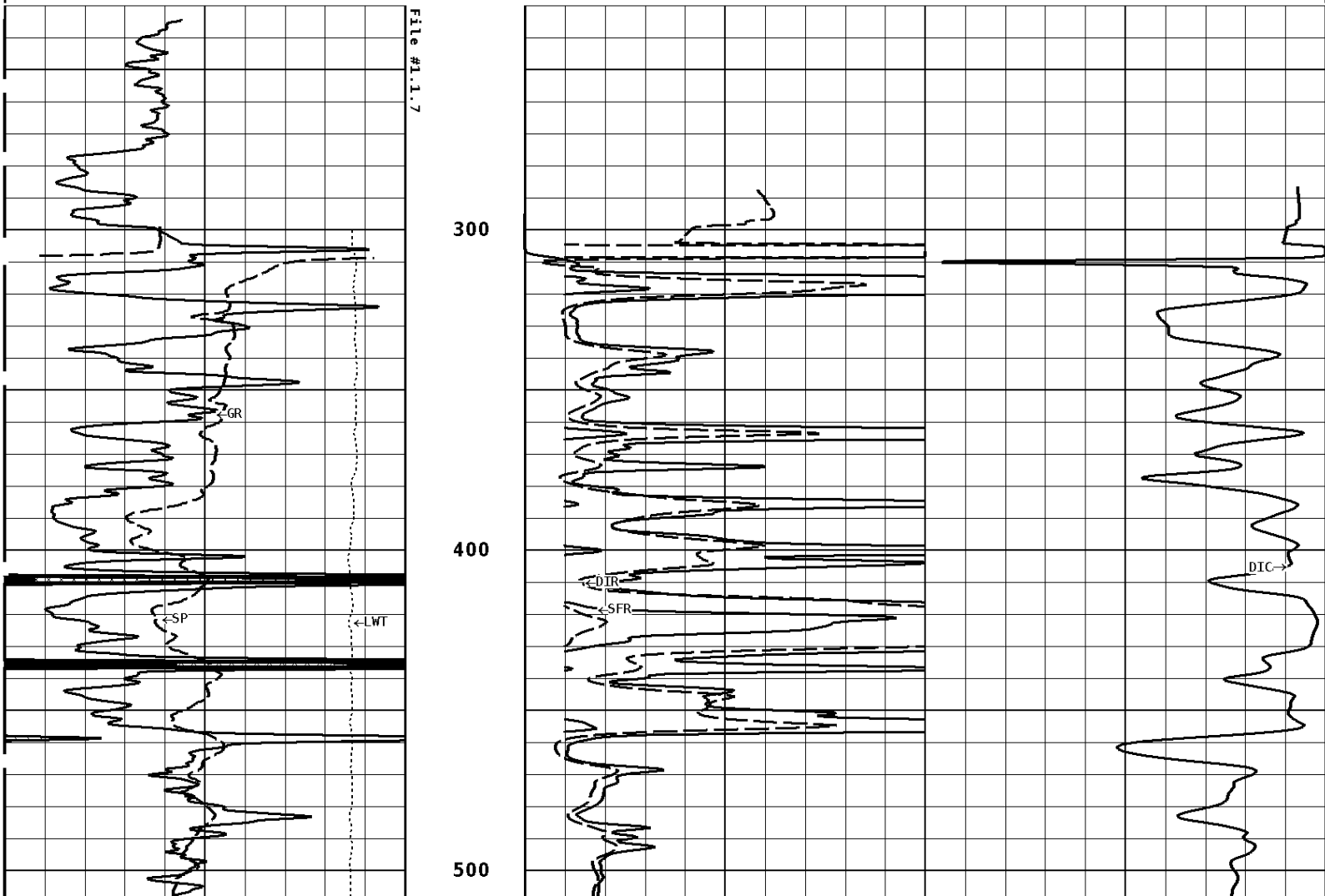
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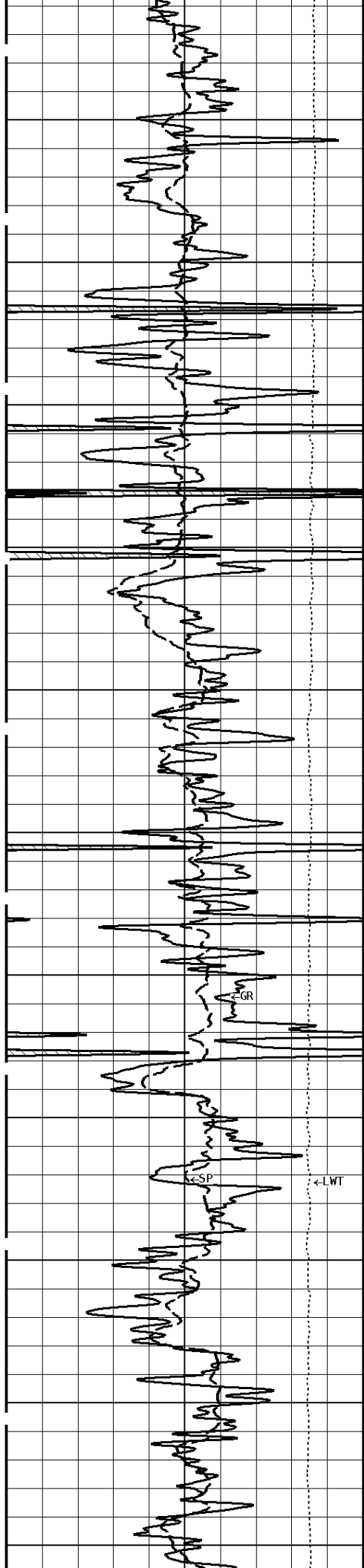
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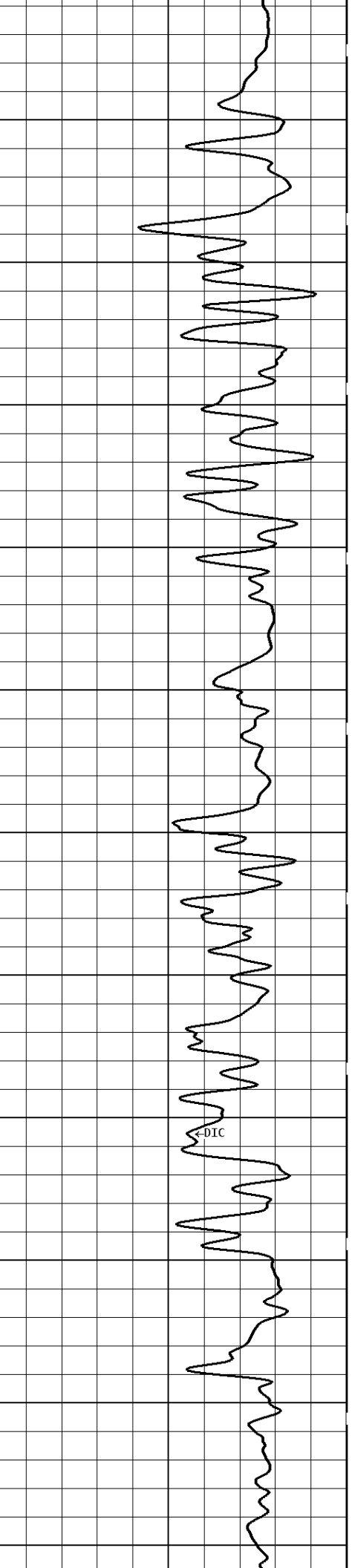
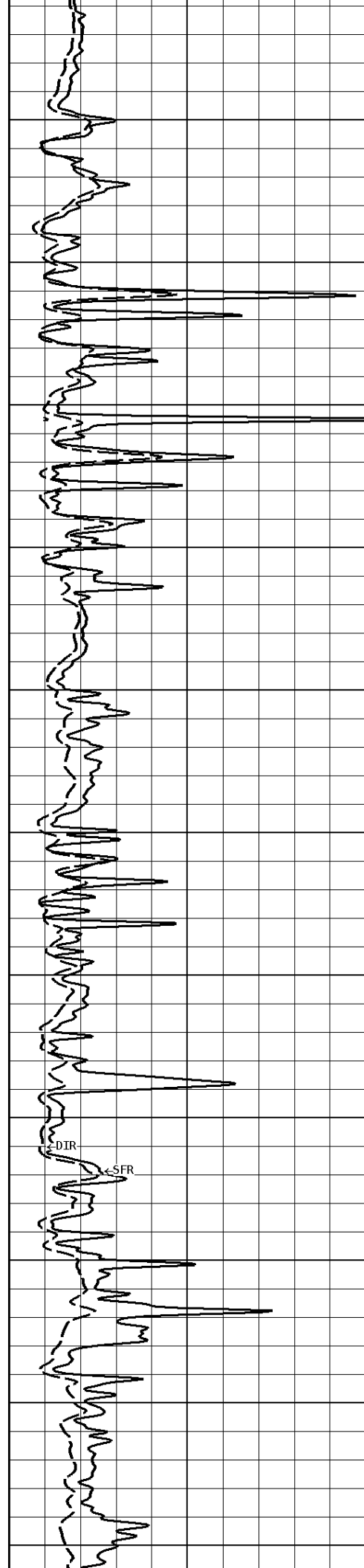


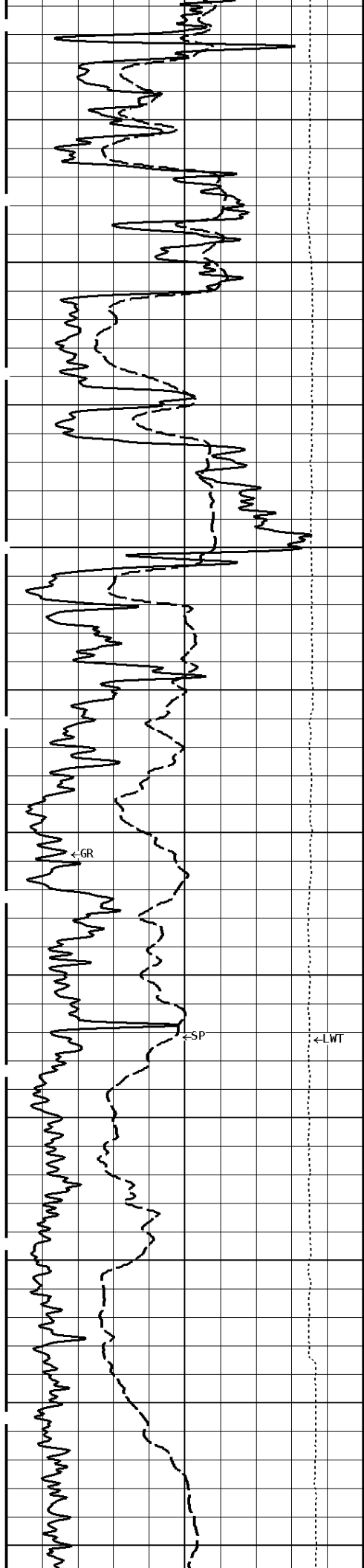
### 1:600 MAIN SECTION





600  
700  
800  
900  
1000





1100

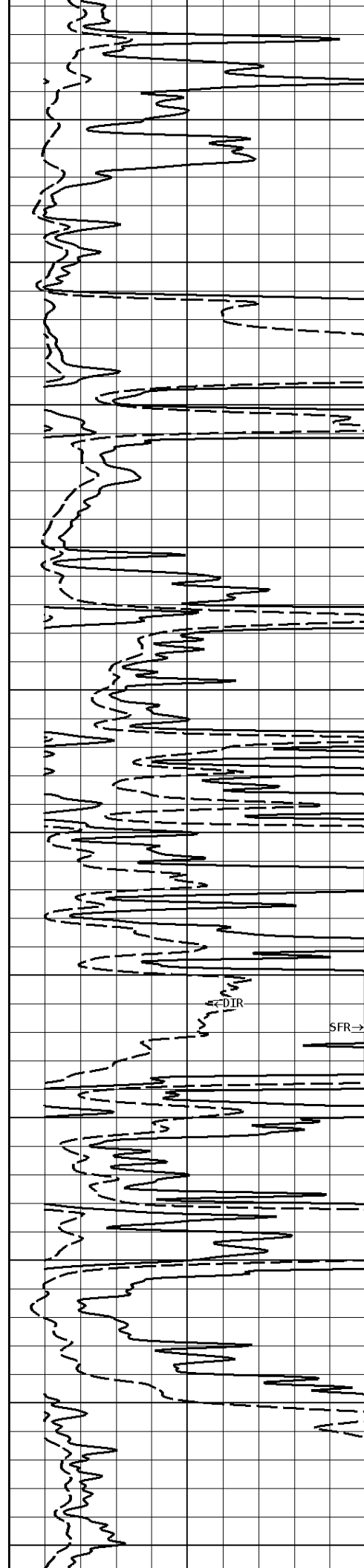
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1300

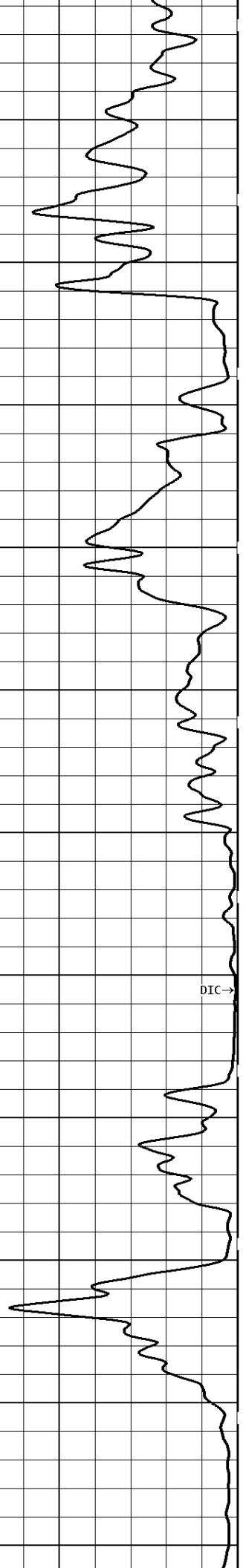
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1500

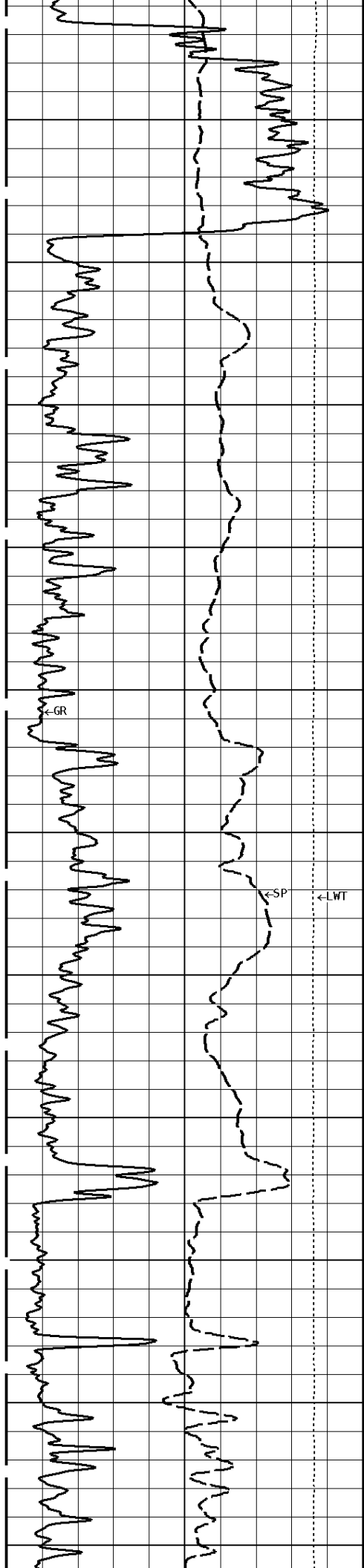
1600



SFR →



DIC →



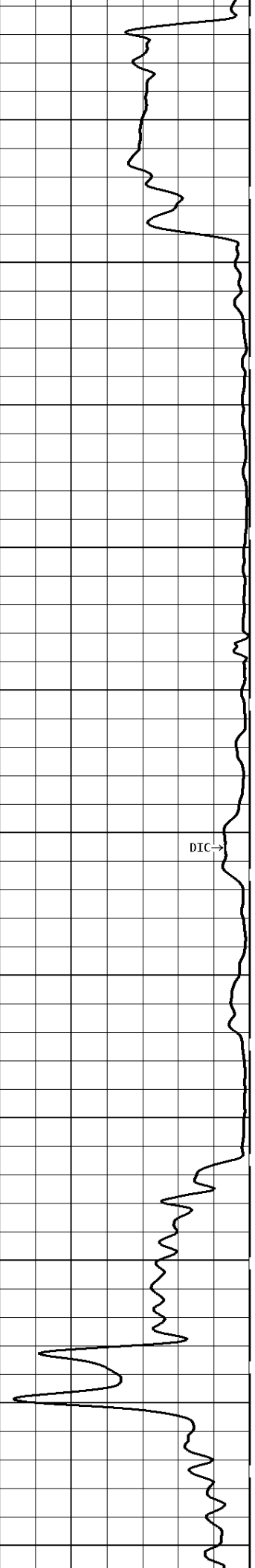
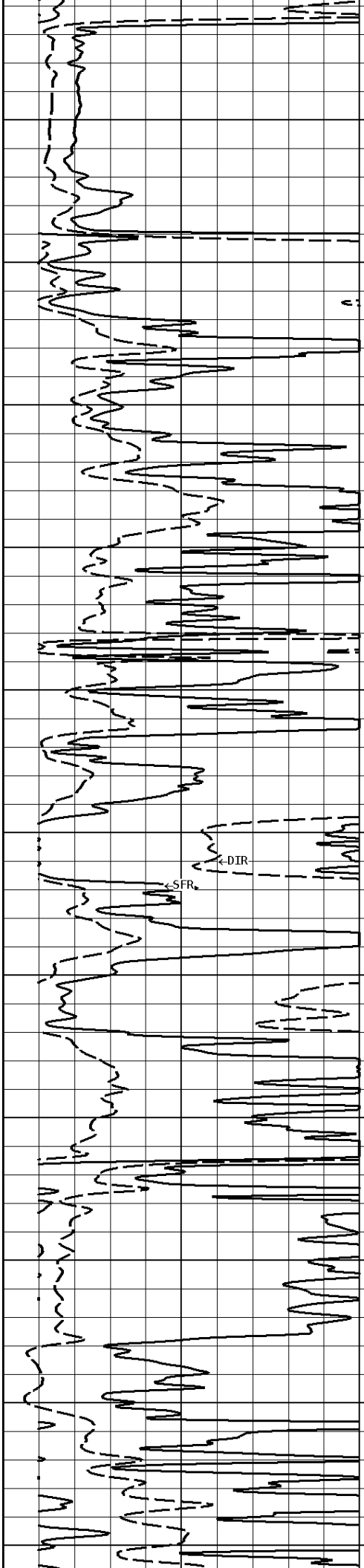
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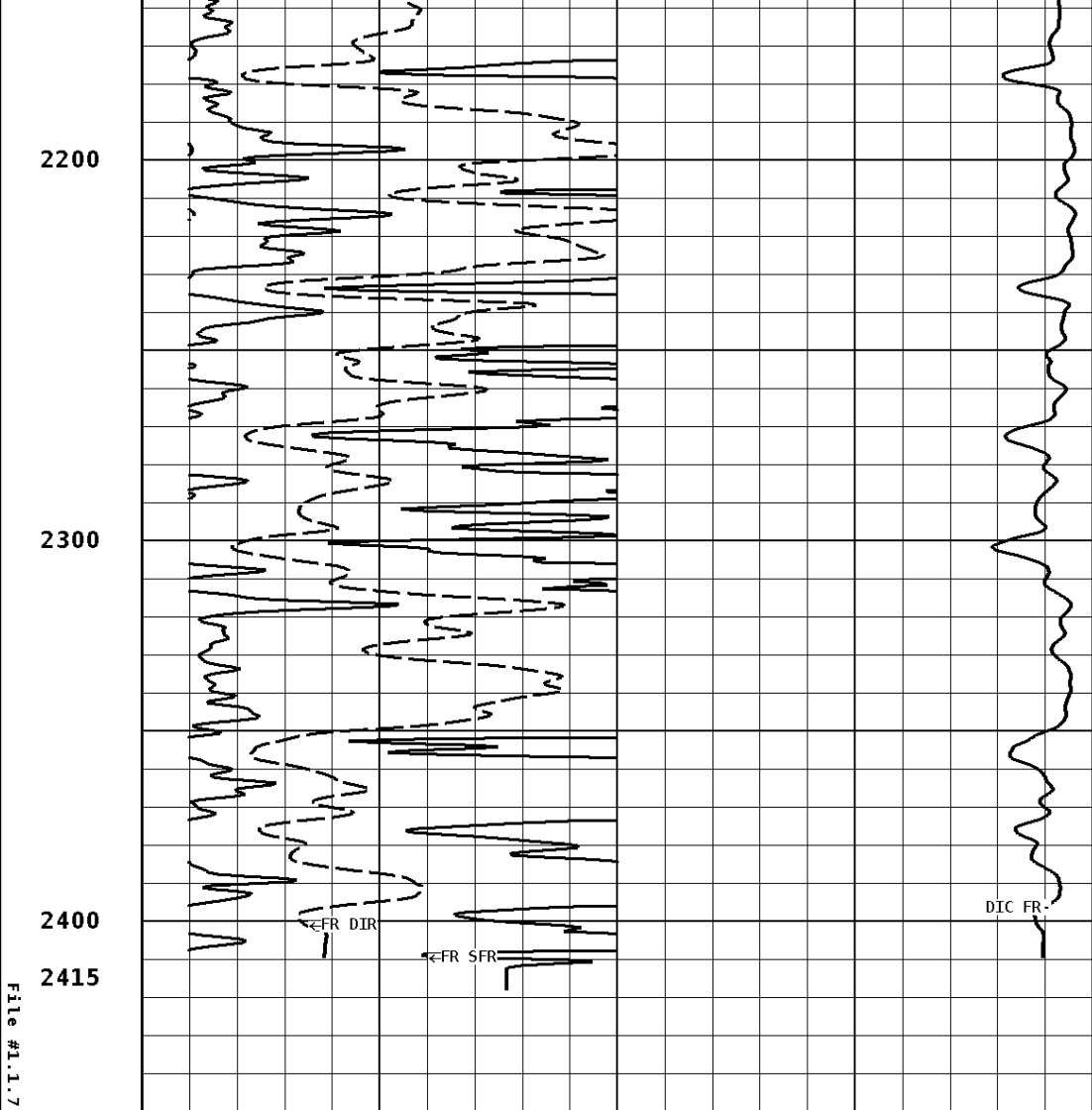
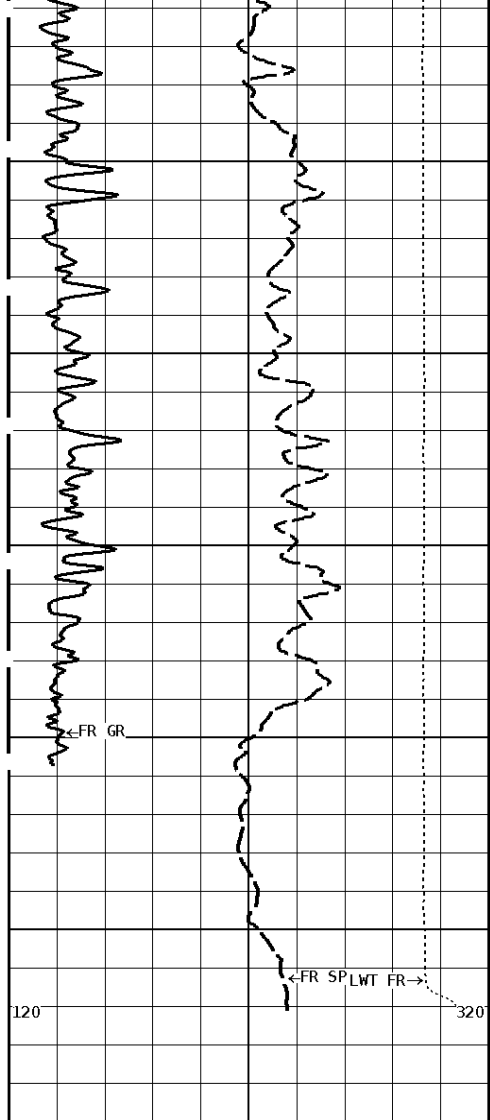
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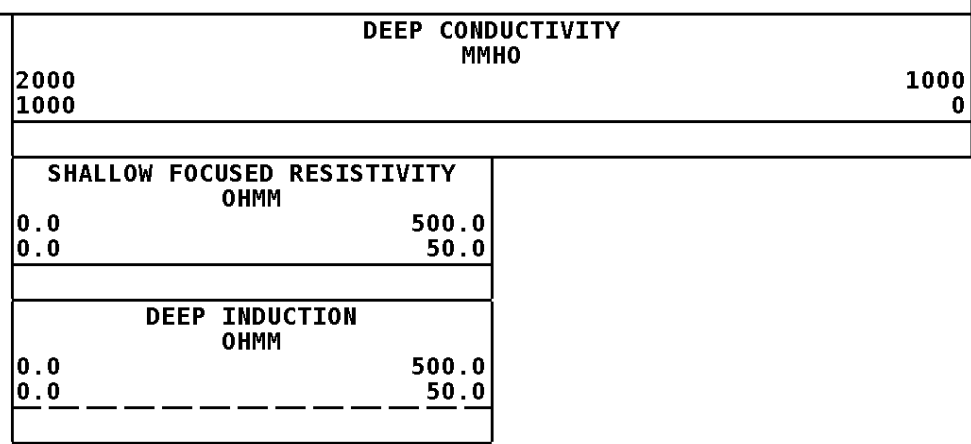
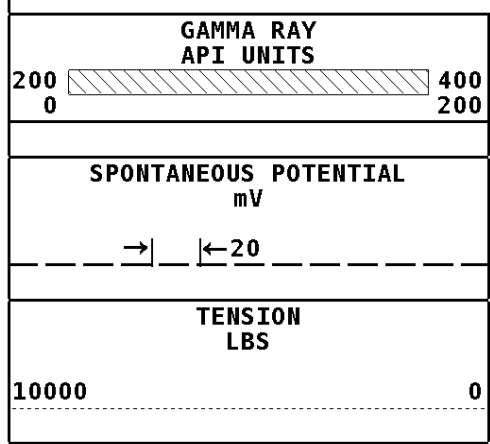
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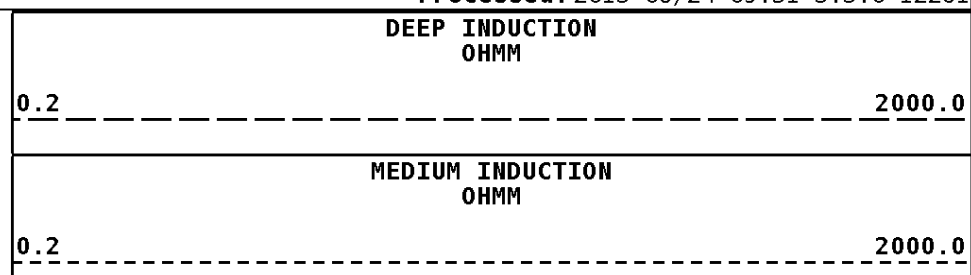
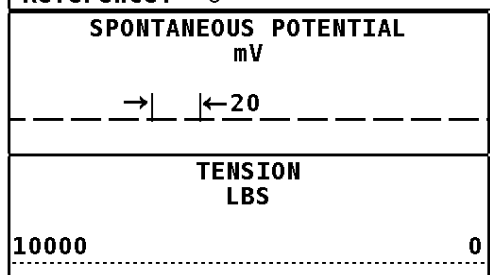




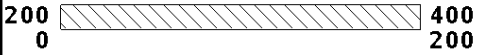
**1:600 MAIN SECTION**



<b>Well File:</b> RFP C HEIM 2-19D AUG 24 QUINT	<b>Scale:</b> 1:240	<b>Format:</b> DIL-240
<b>Segment:</b> V1.D1.S7 MAIN	<b>Acquired:</b> 2013-08/24 08:47 3.3.0-12261	
<b>Reference:</b> 0	<b>Processed:</b> 2013-08/24 09:51 3.3.0-12261	



GAMMA RAY  
API UNITS

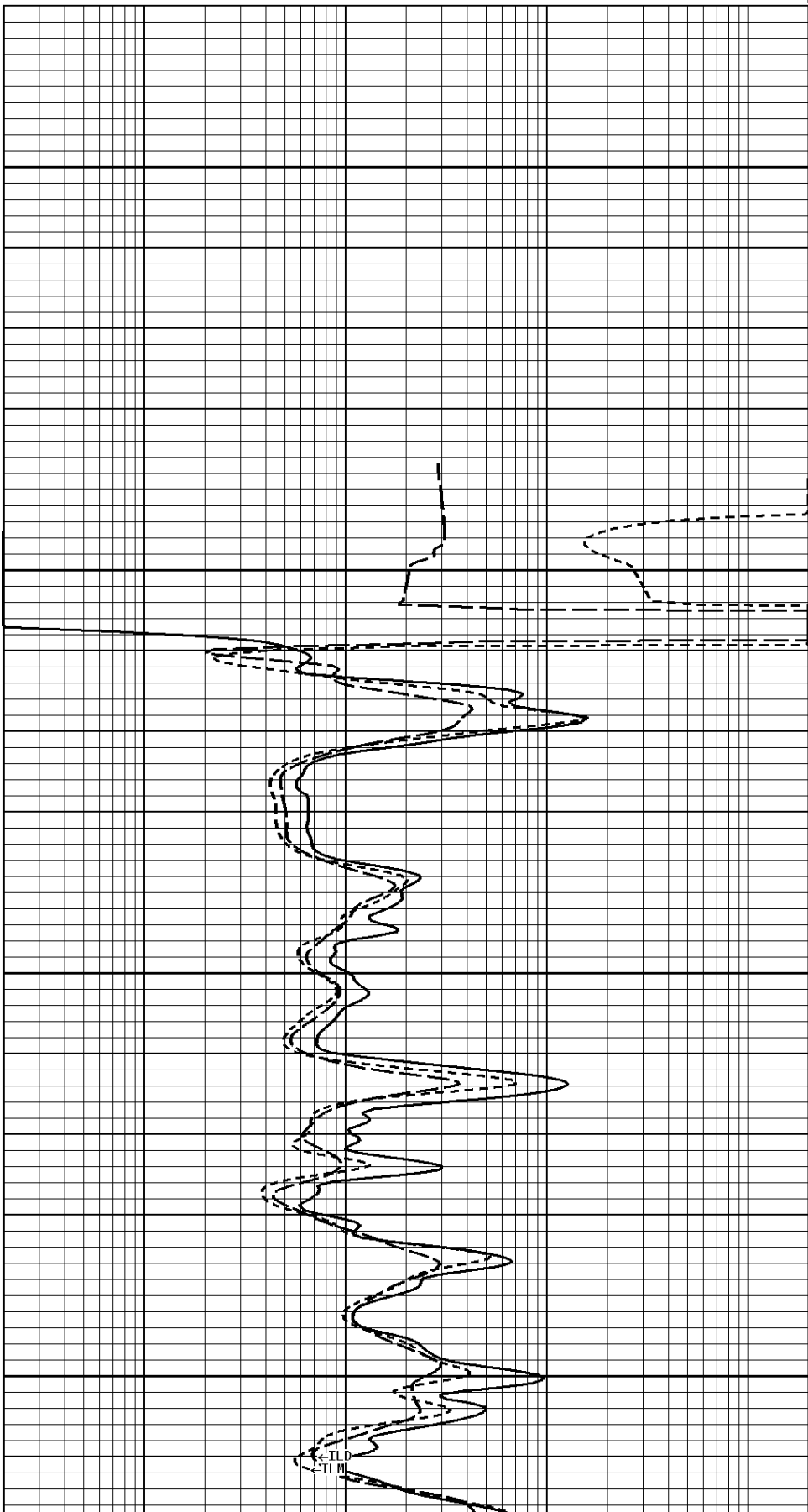
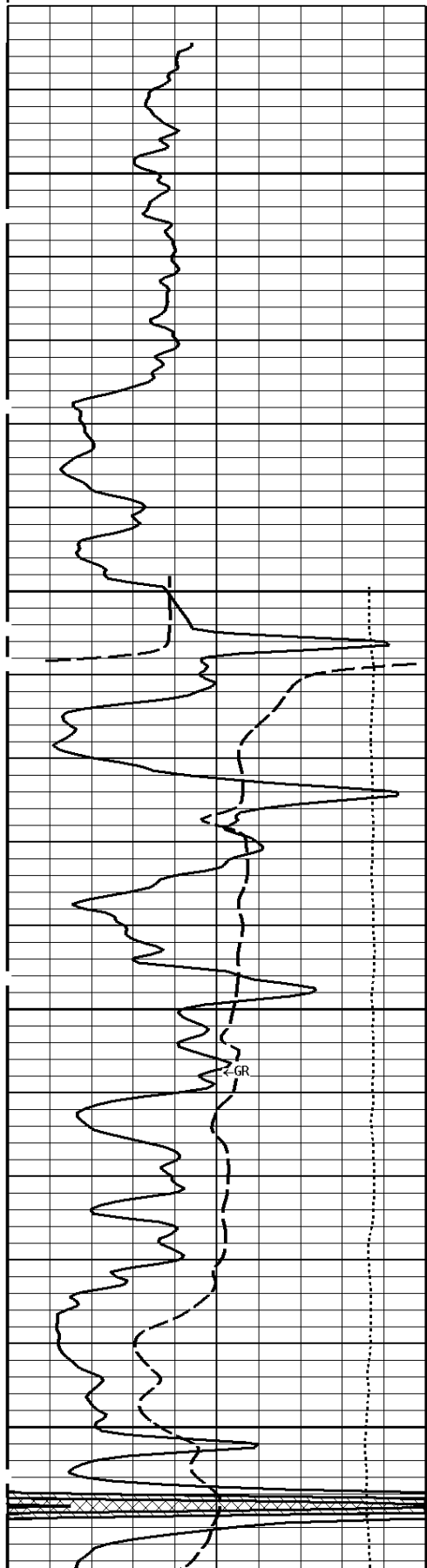


SHALLOW FOCUSED RESISTIVITY  
OHMM

0.2

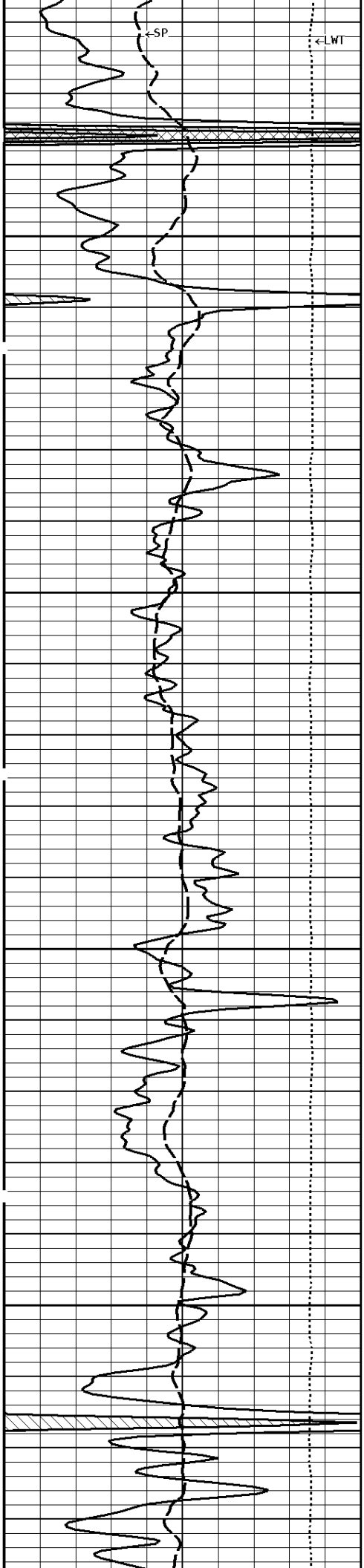
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# 1:240 MAIN SECTION



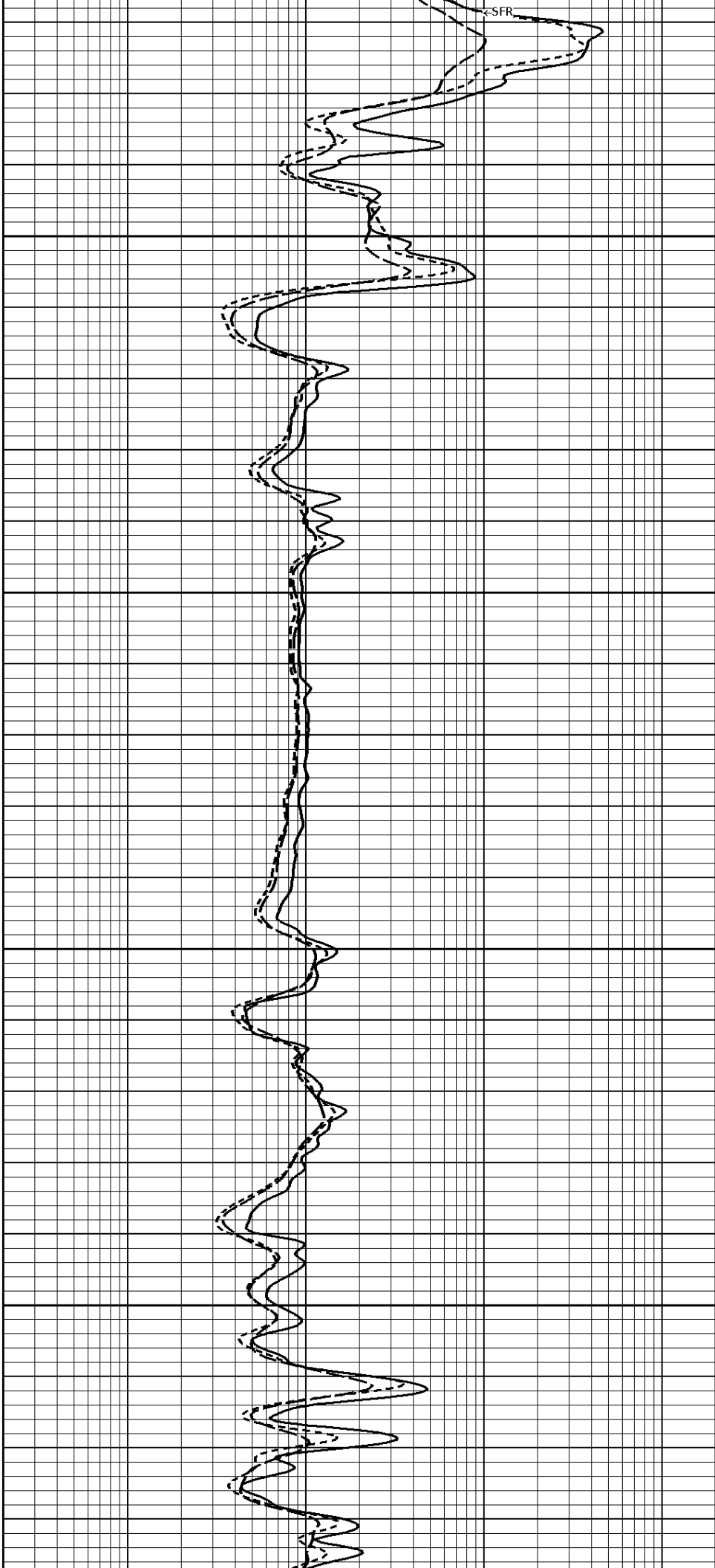
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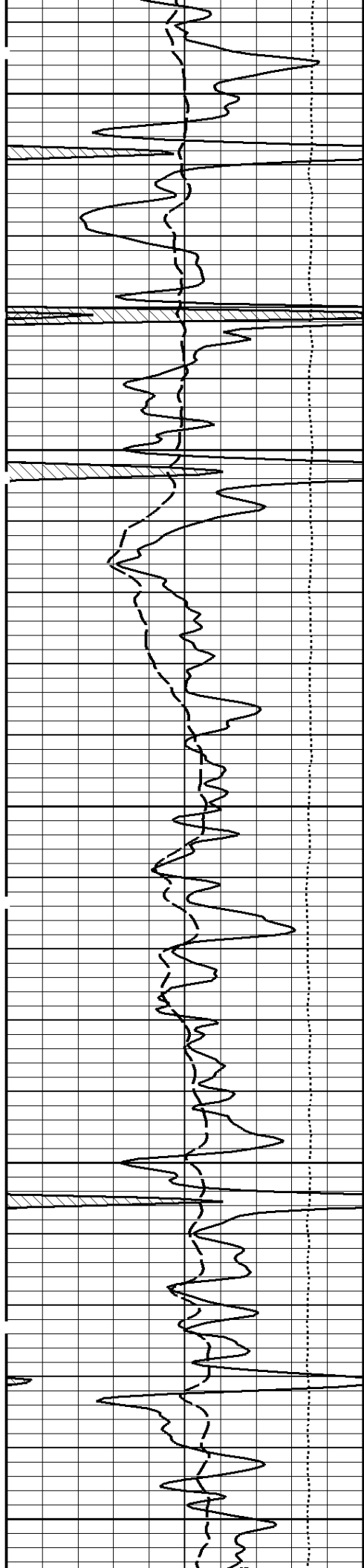
400



500

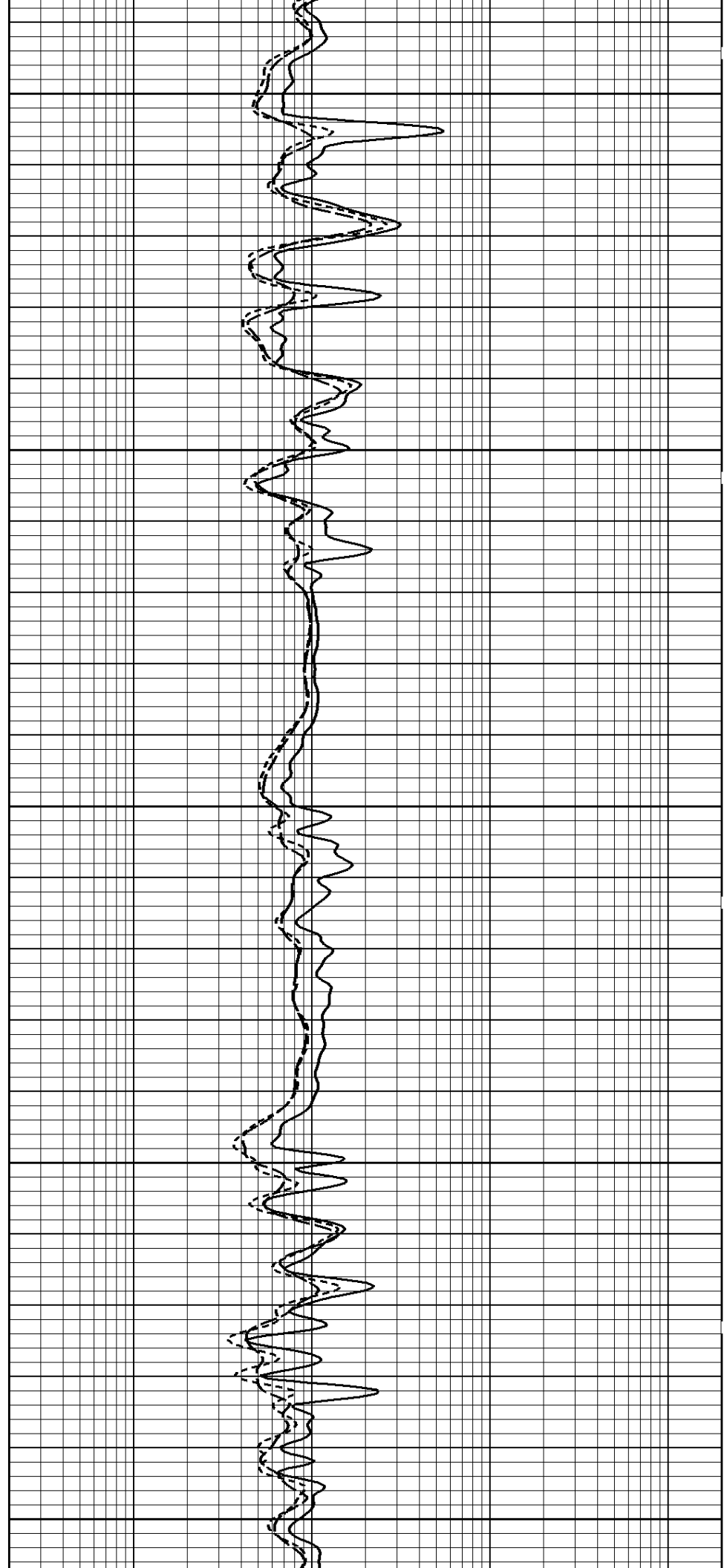
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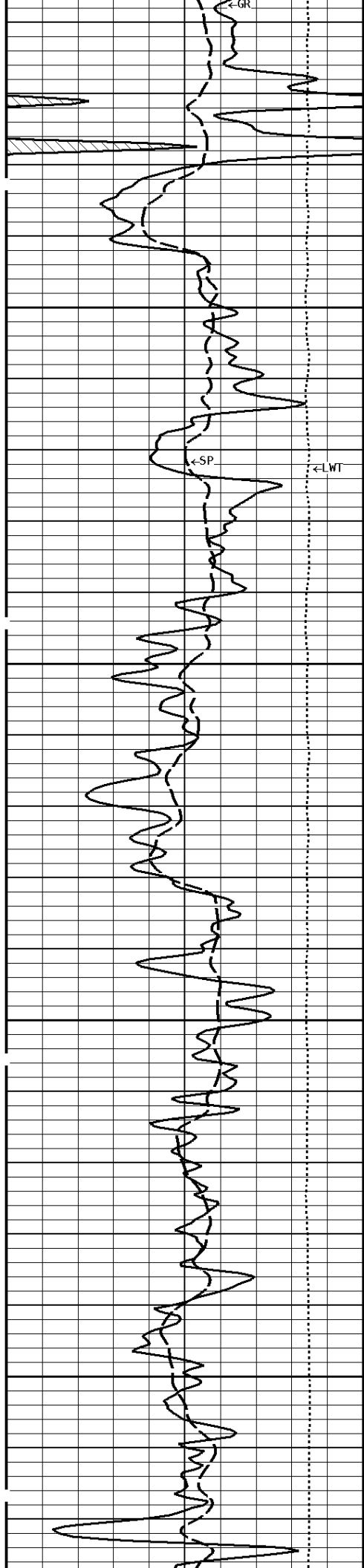




700

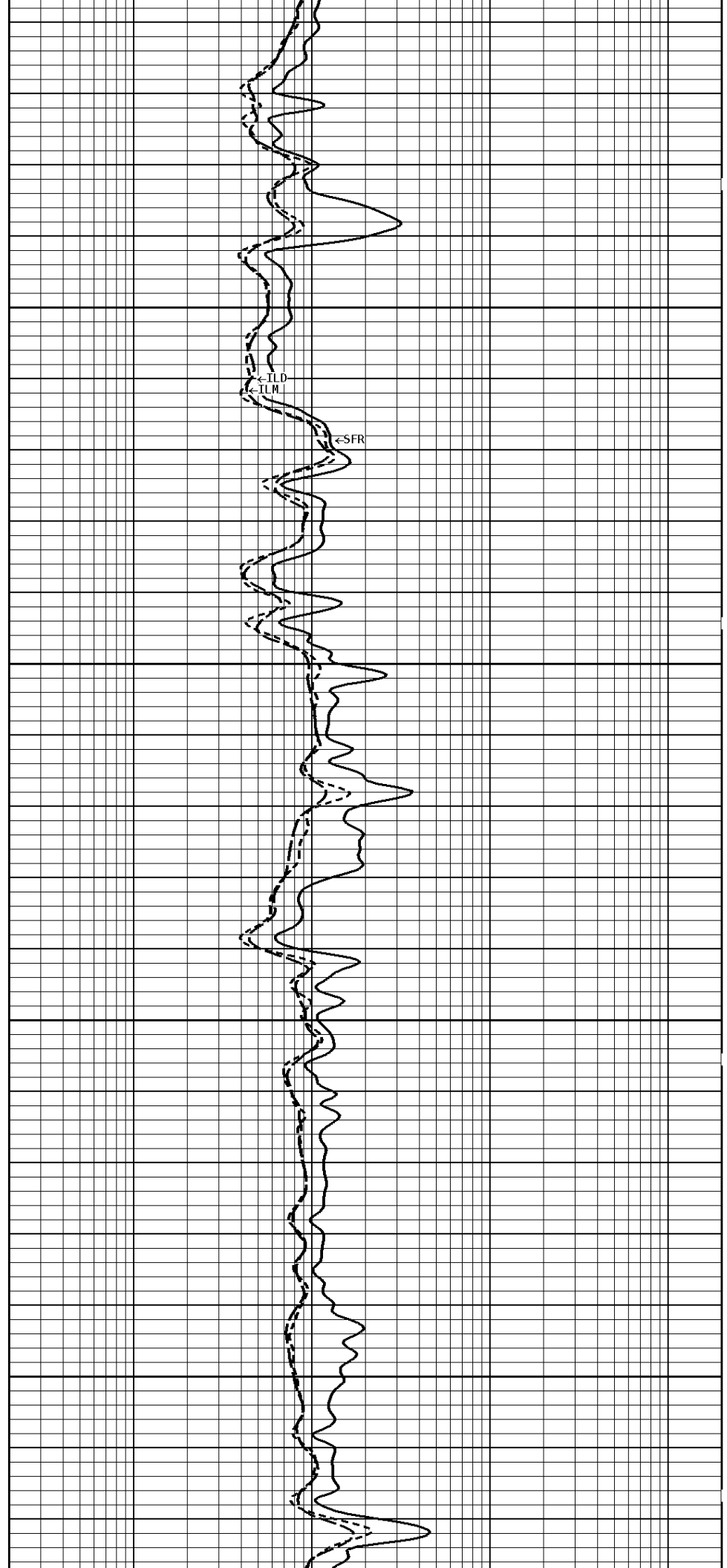
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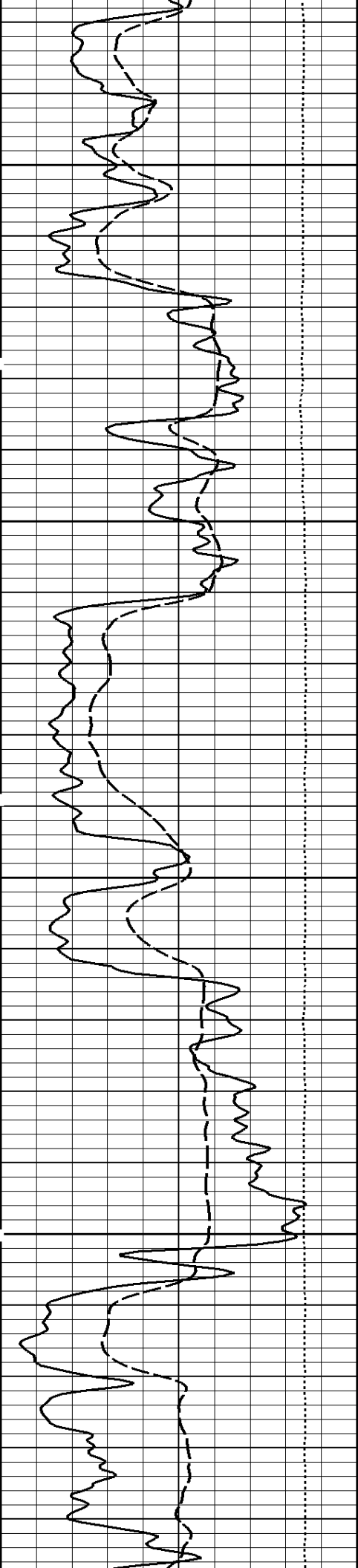




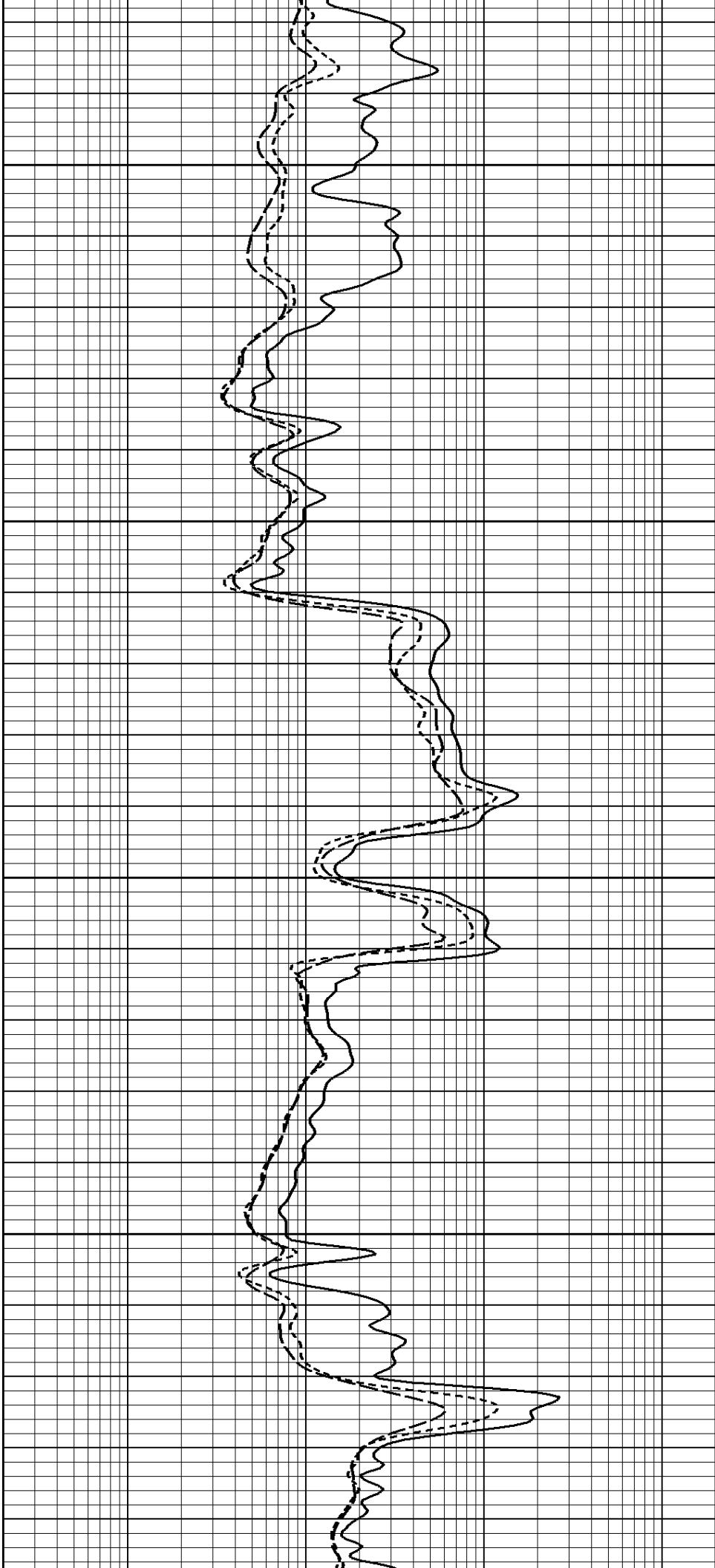
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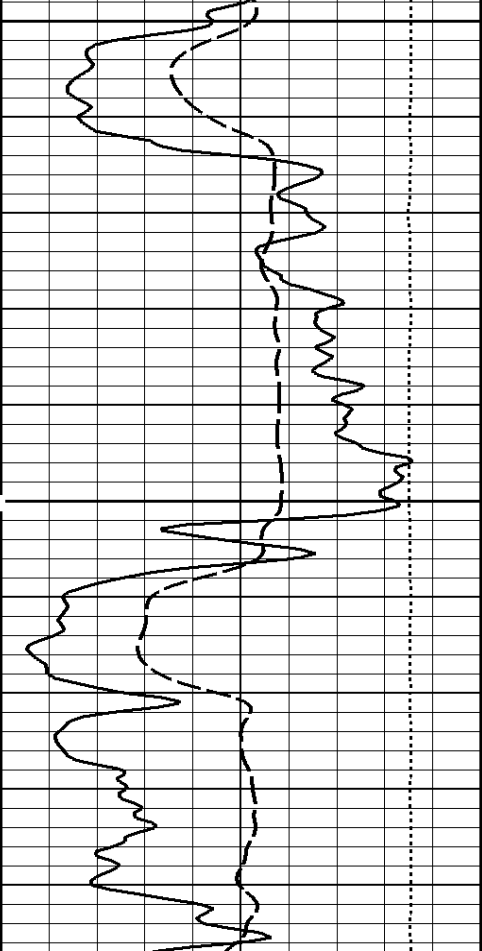


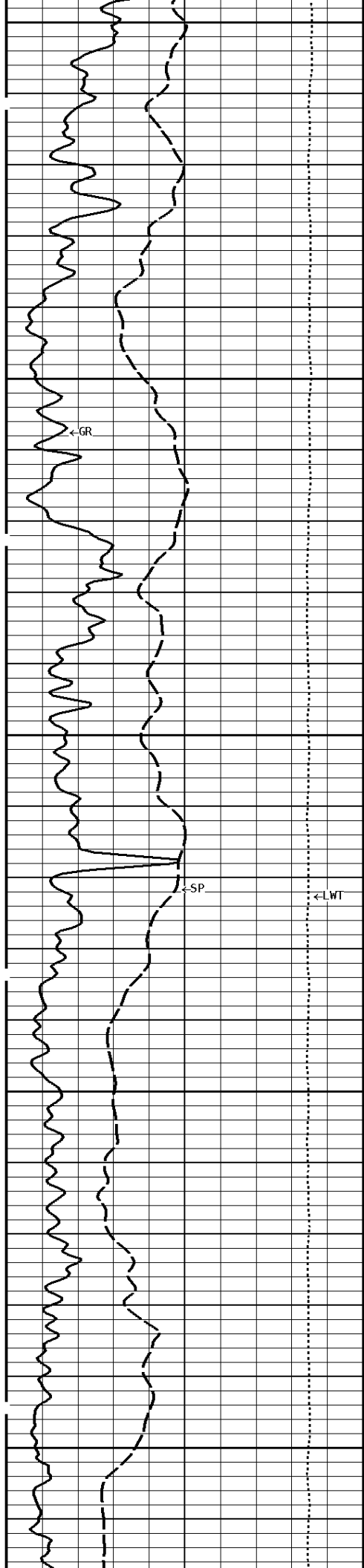


1100



1200

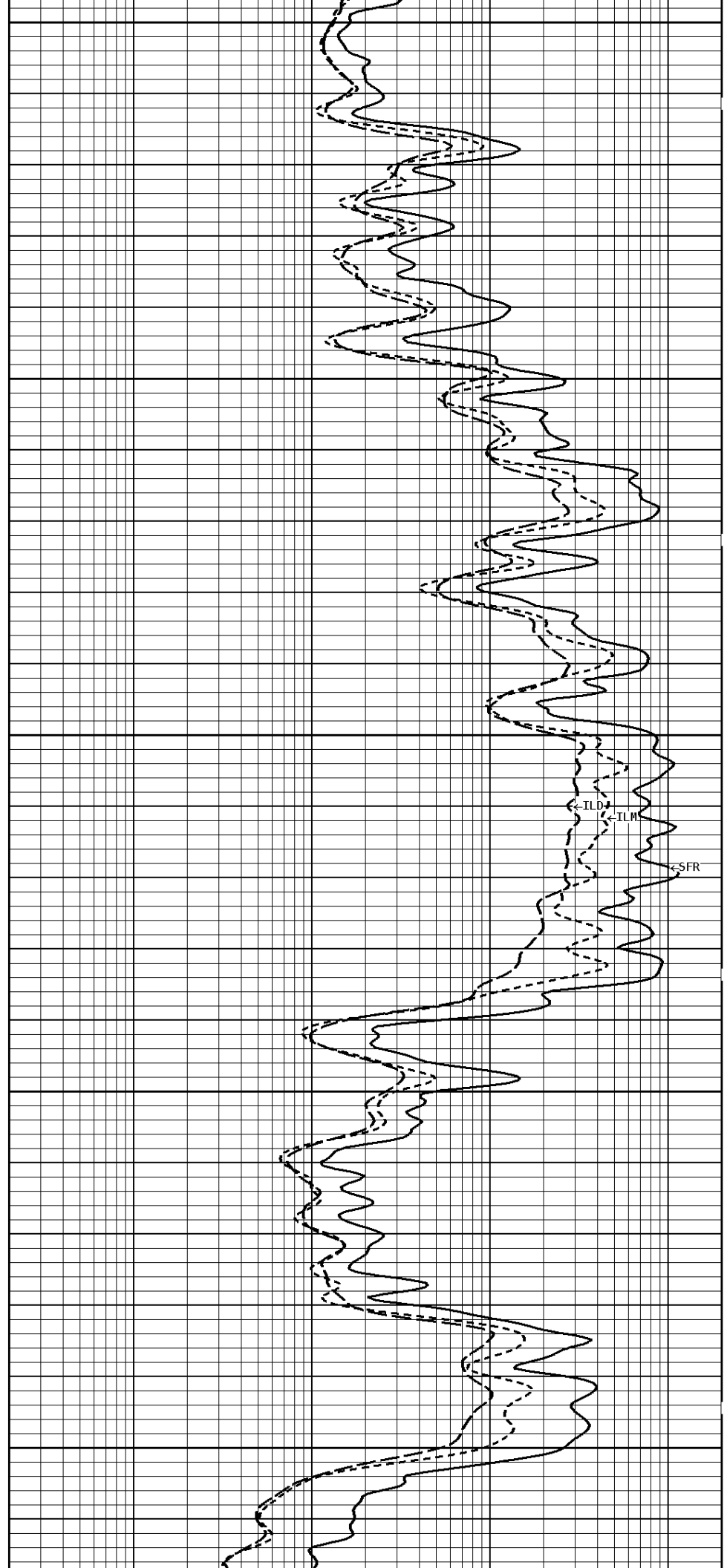




1300

1400

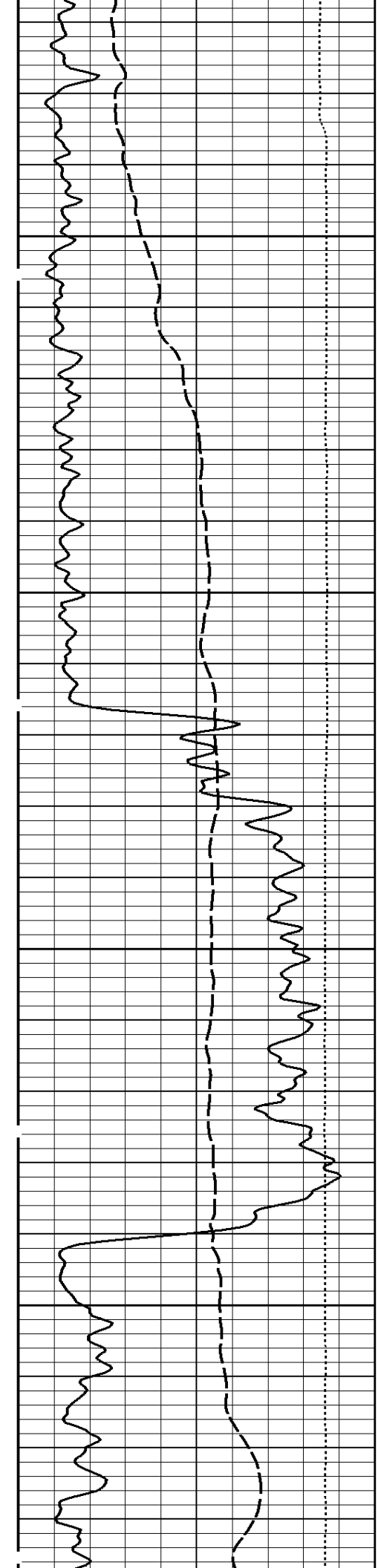
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ILD

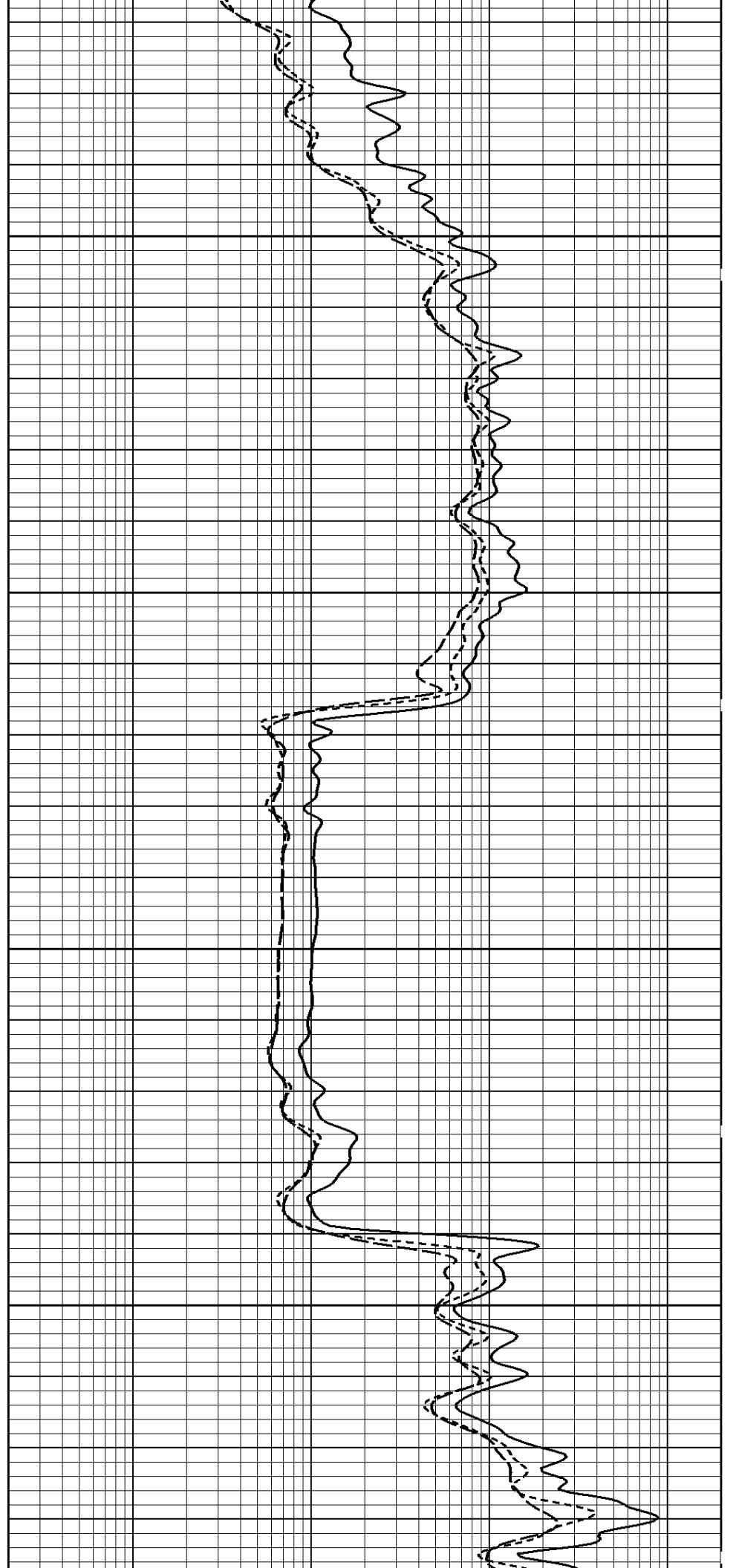
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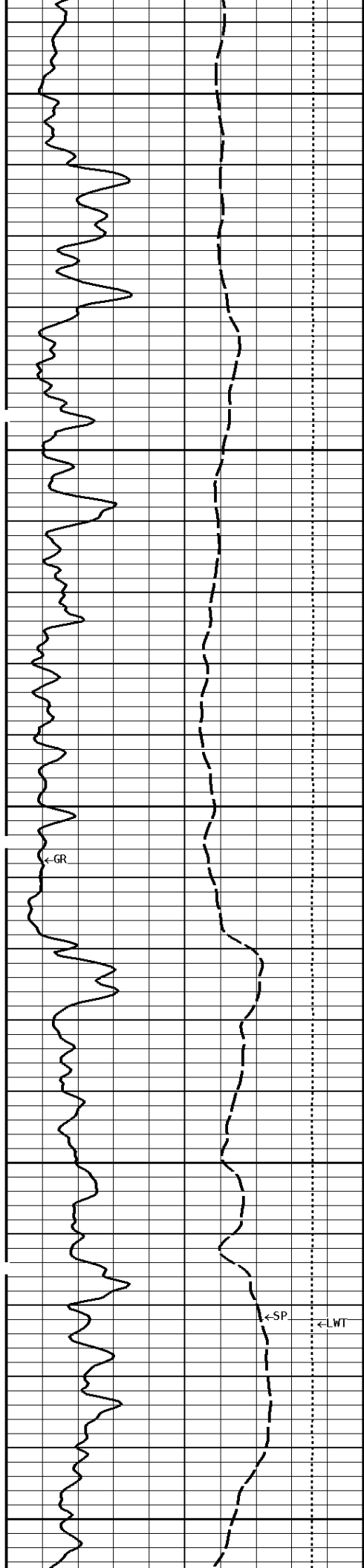
SFR



1600

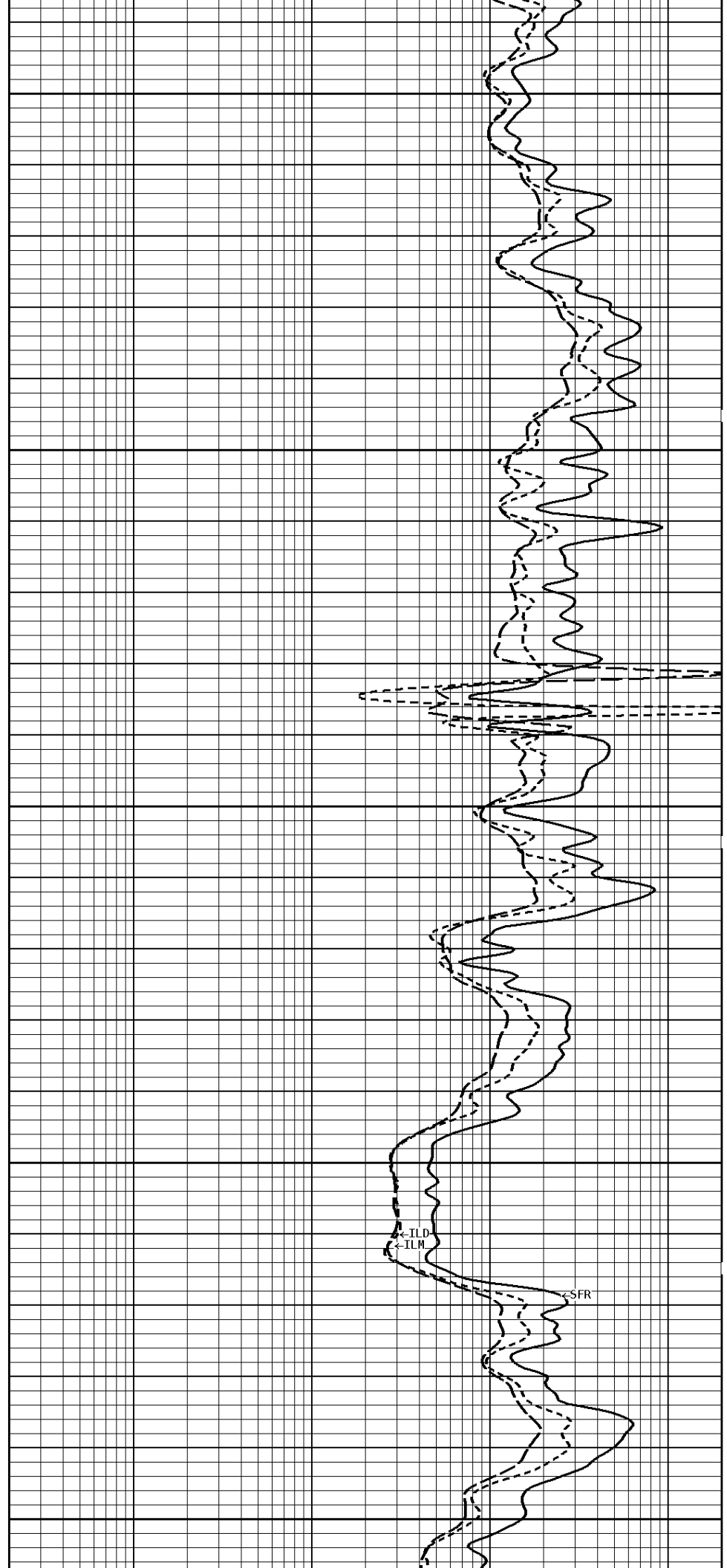
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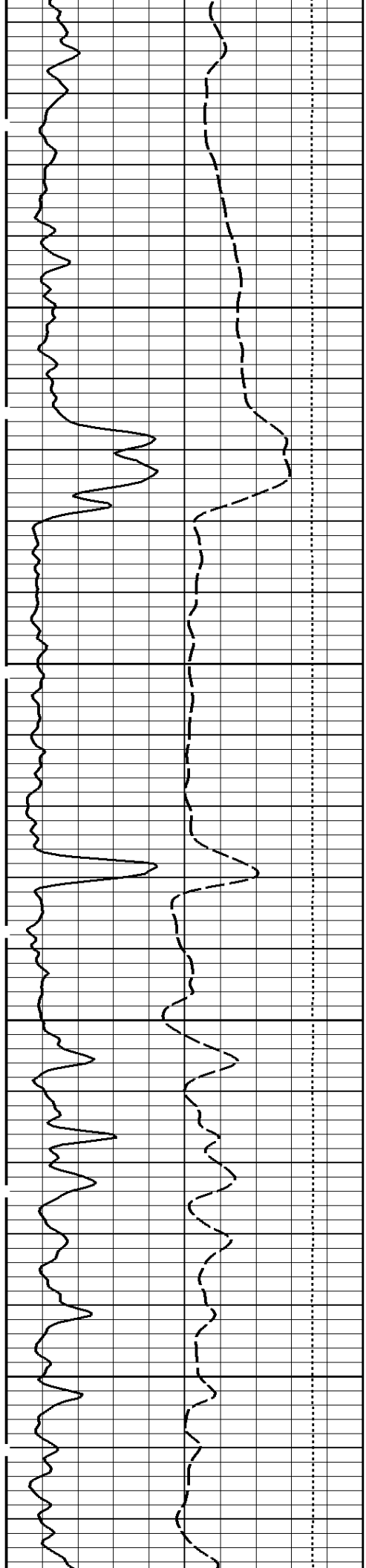




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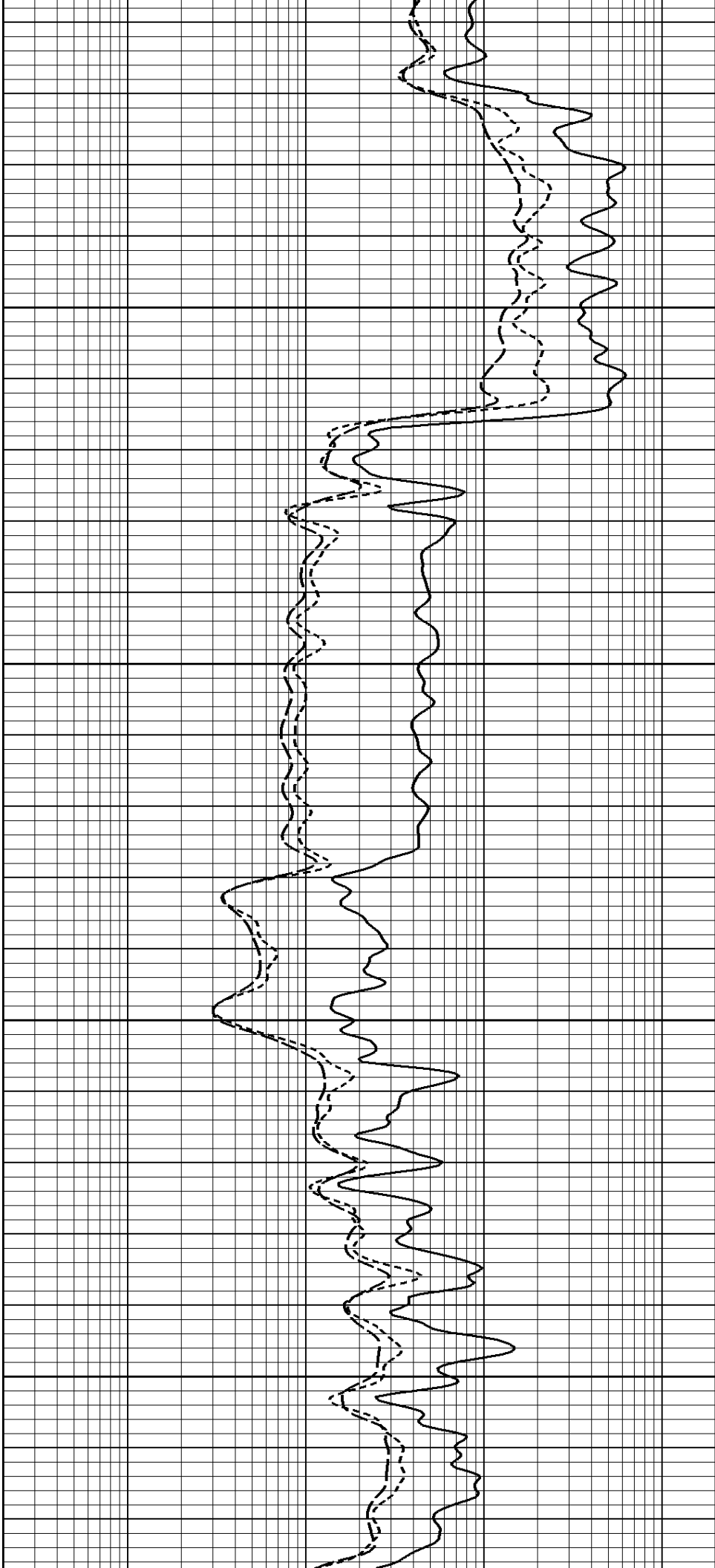
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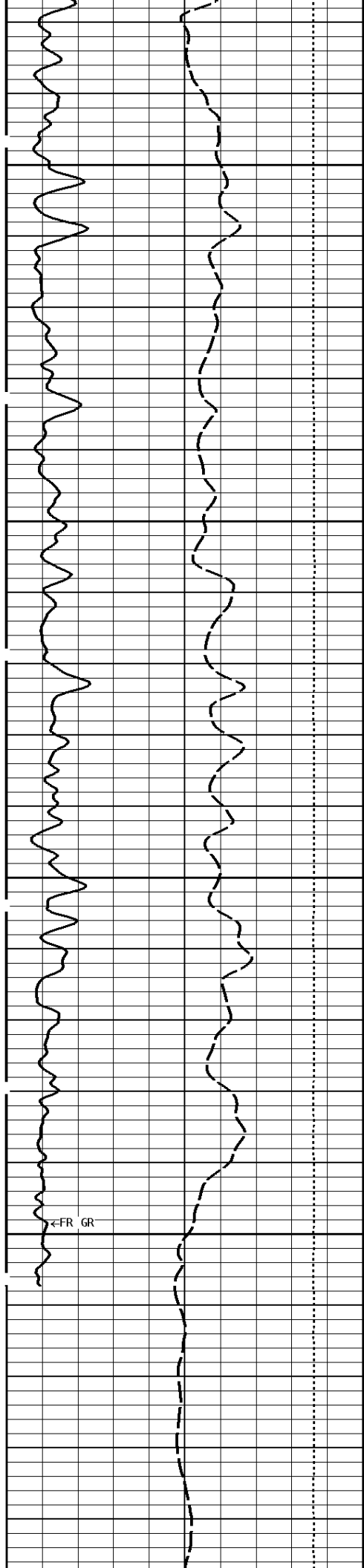




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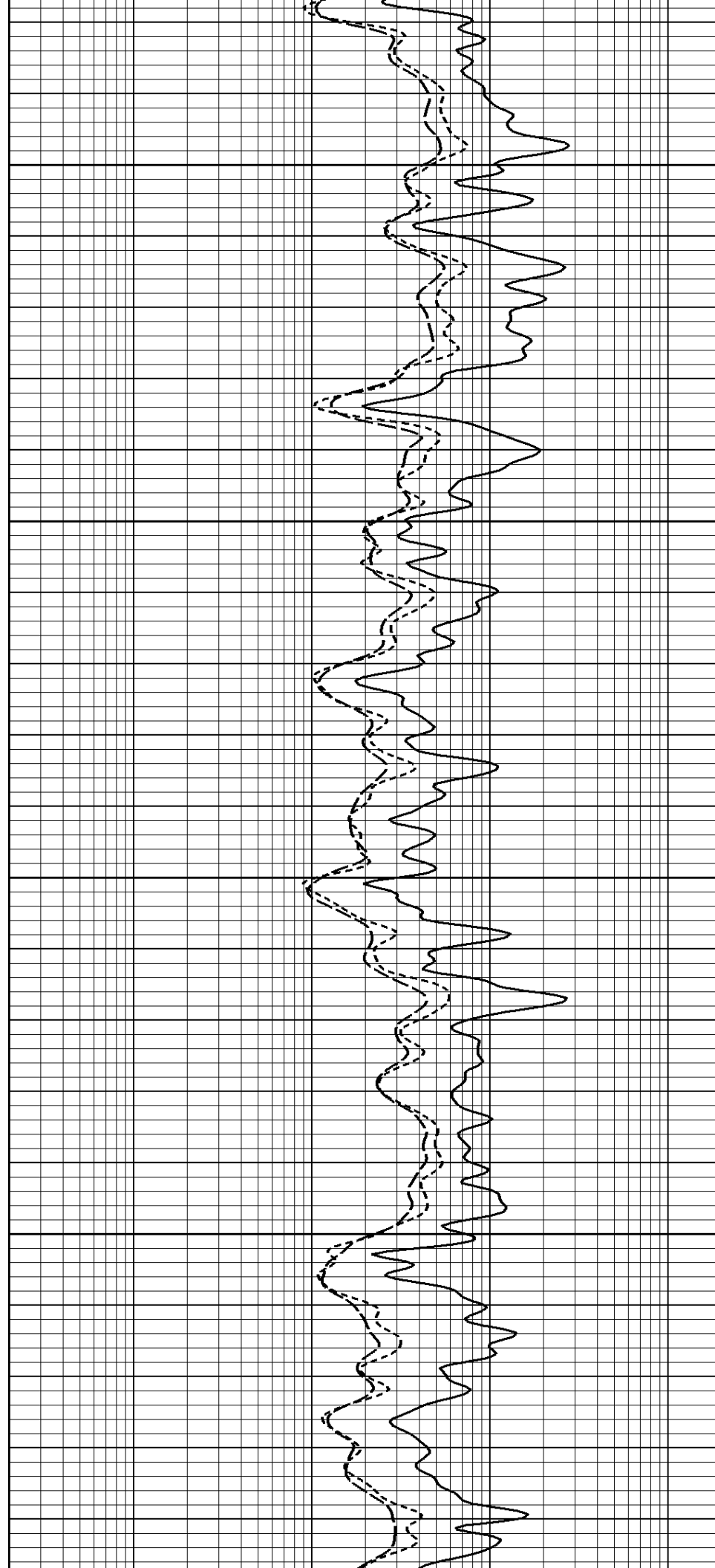


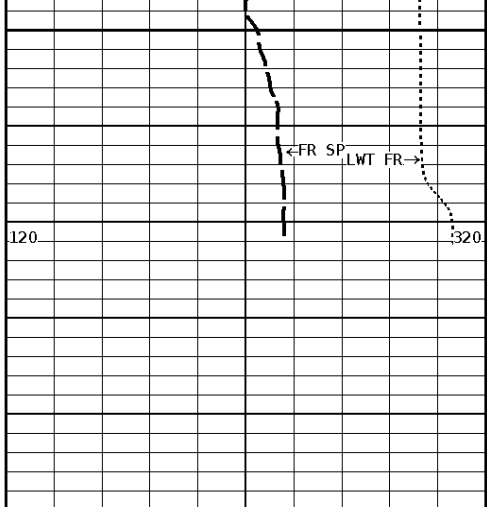


2200

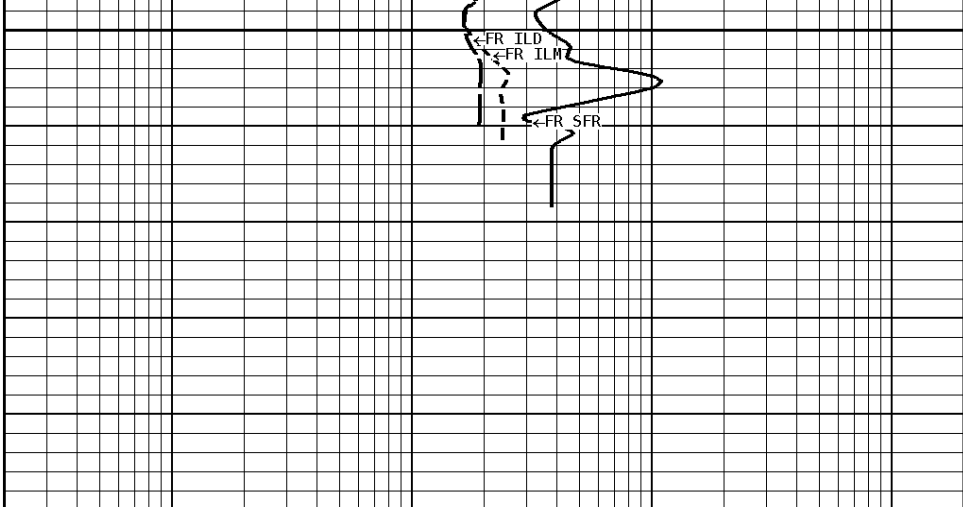
2300

←FR GR

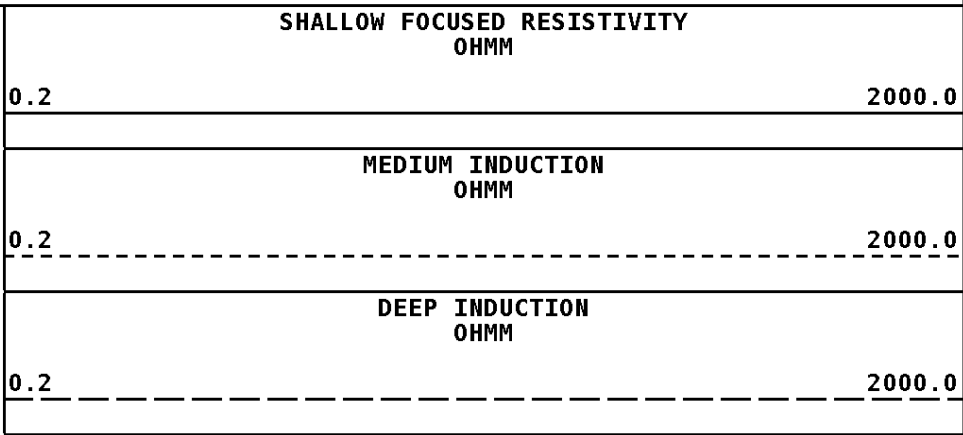
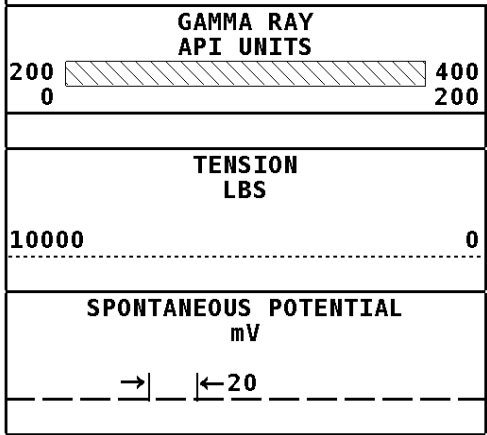




File #1.1.7



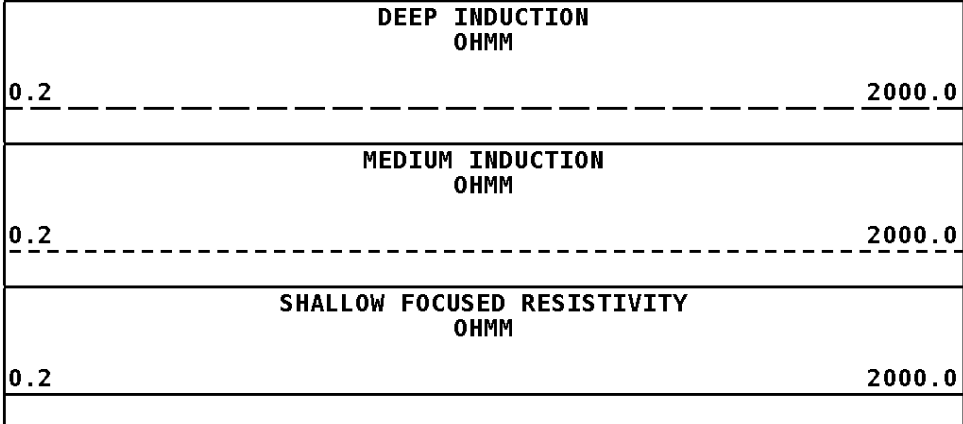
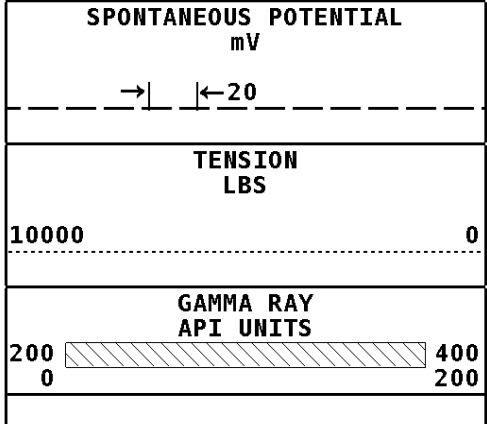
**1:240 MAIN SECTION**



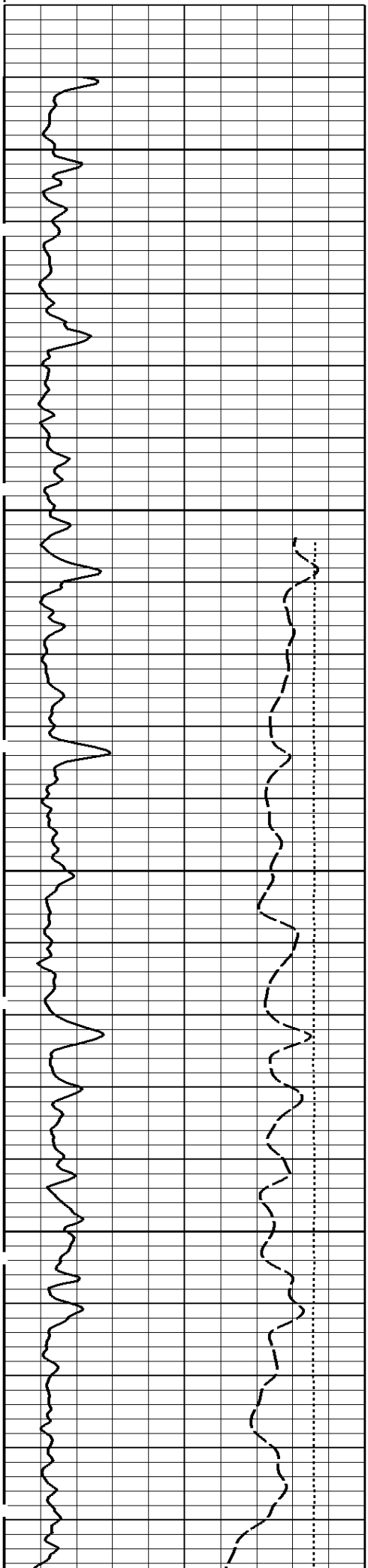
**\* Borehole Zone Factors \***

Zone 1		99999.0 to 0.0 Feet	
Drill Bit Size	_____	7.875	in
Casing Diameter	_____	4.500	in
BHT Depth	_____	2415.000	ft
Borehole Temperature	_____	102.0	degF
Temperature Gradient	_____	1.00	DFHF
Resistivity Of Mud	_____	0.950	ohm/m
Resistivity Of Mud Temperature	_____	78.00	degF

Well File: RFP C HEIM 2-19D AUG 24 QUINT      Scale: 1:240      Format: DIL-240  
 Segment: V1.D1.S6 REPEAT      Acquired: 2013-08/24 08:34 3.3.0-12261  
 Reference: 0      Processed: 2013-08/24 09:51 3.3.0-12261

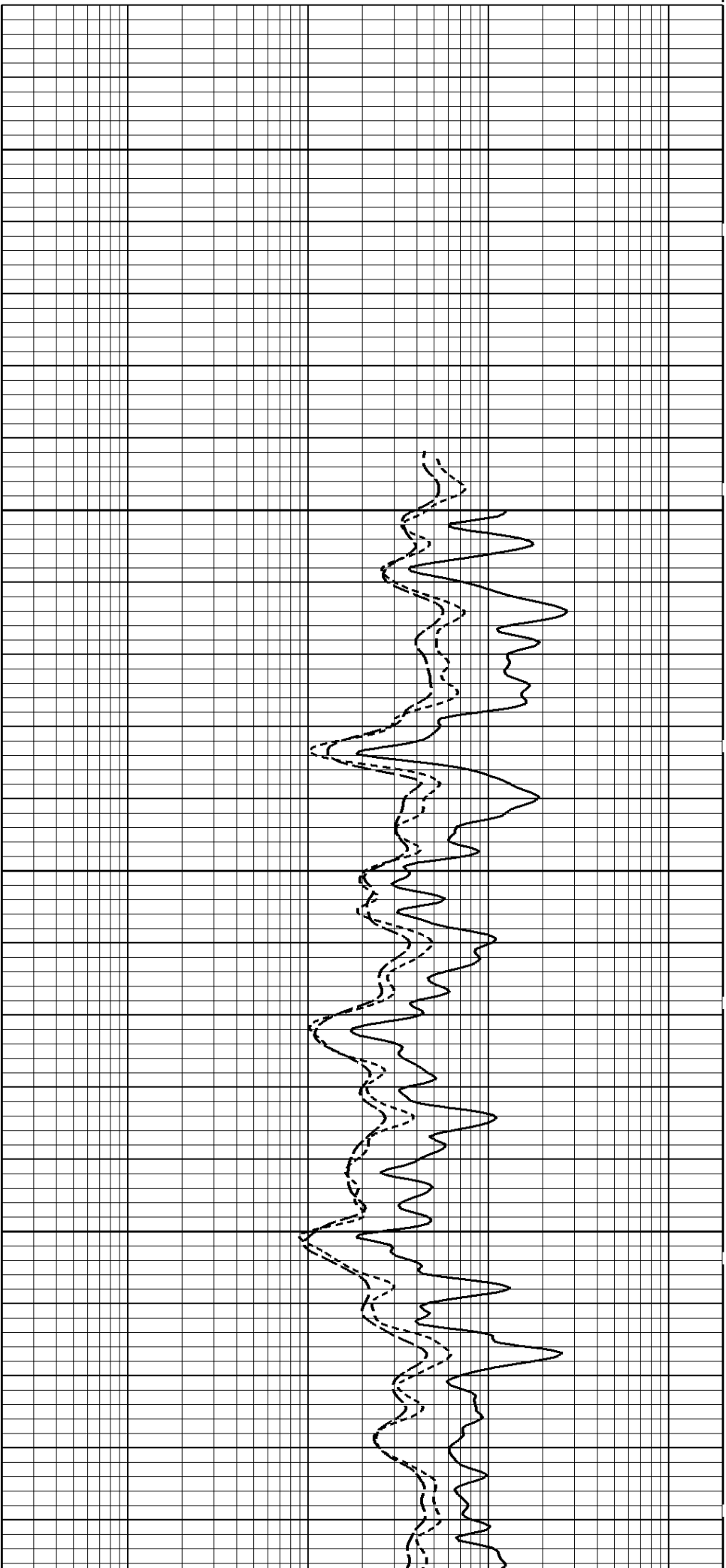


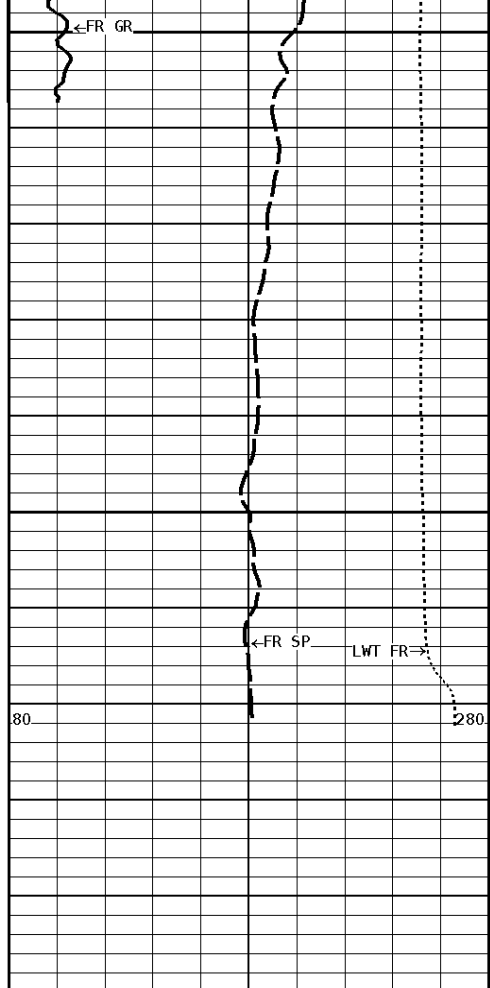
**1:240 REPEAT SECTION**



2200

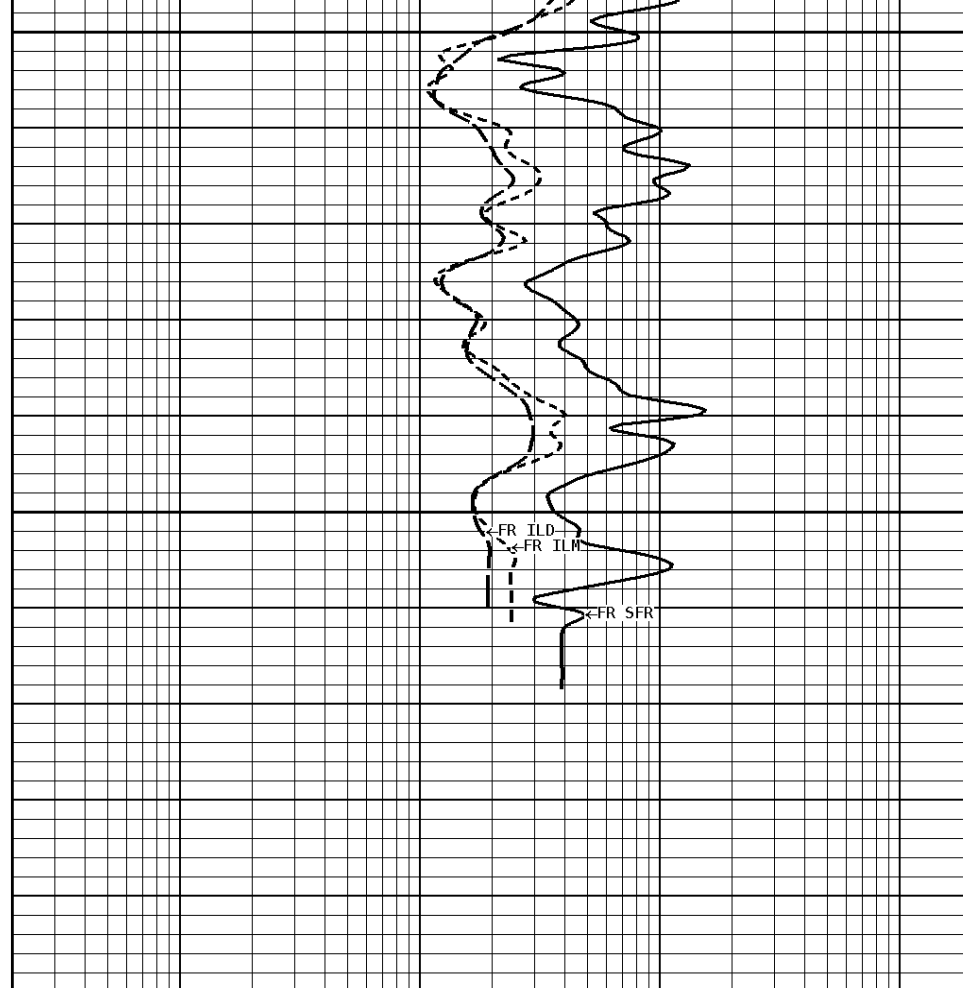
2300



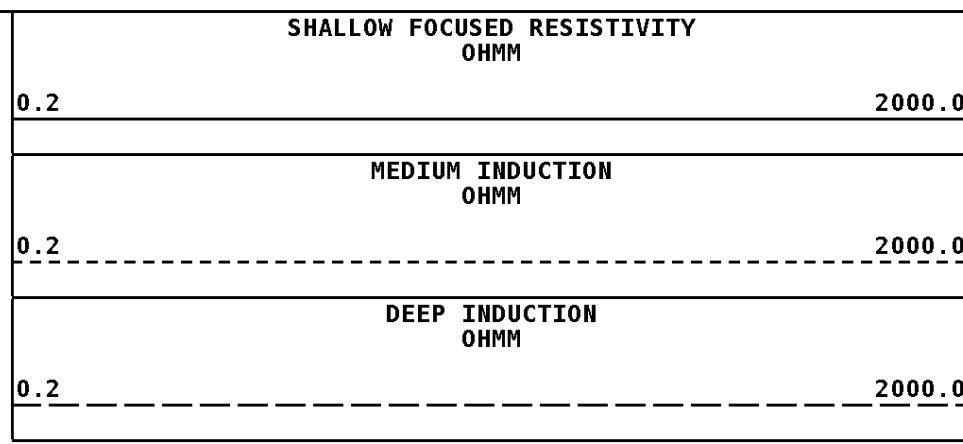
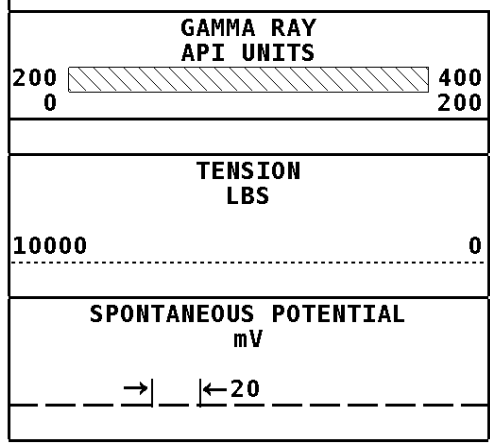


2400

2415



**1:240 REPEAT SECTION**



**\* Borehole Zone Factors \***

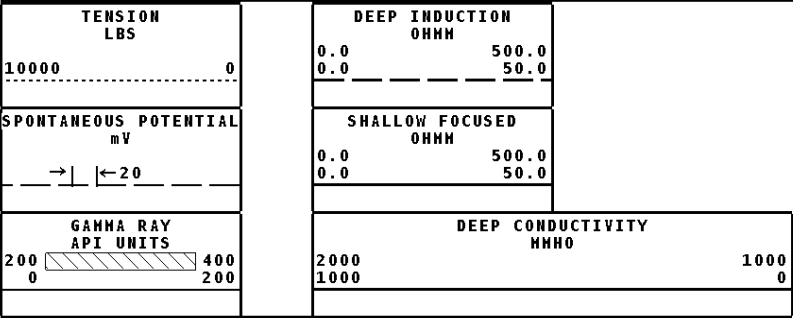
Zone 1		99999.0	to	0.0	Feet
Drill Bit Size	_____	7.875	in		
Casing Diameter	_____	4.500	in		
BHT Depth	_____	2415.000	ft		
Borehole Temperature	_____	102.0	degF		
Temperature Gradient	_____	1.00	DFHF		
Resistivity Of Mud	_____	0.950	ohm/m		
Resistivity Of Mud Temperature	_____	78.00	degF		

**\* Calibration Summary \***

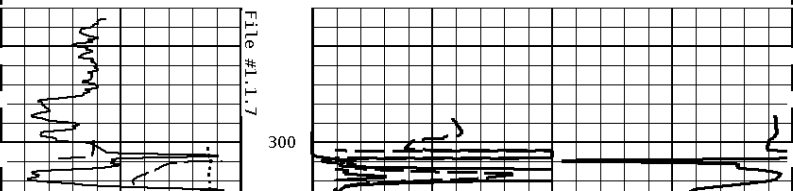
Shop Calibration		GRT-B	
Performed :	05-Aug-2013	Time :	09:36
Sensor Suite :	GR-GR5	ID :	GRT-BB-006

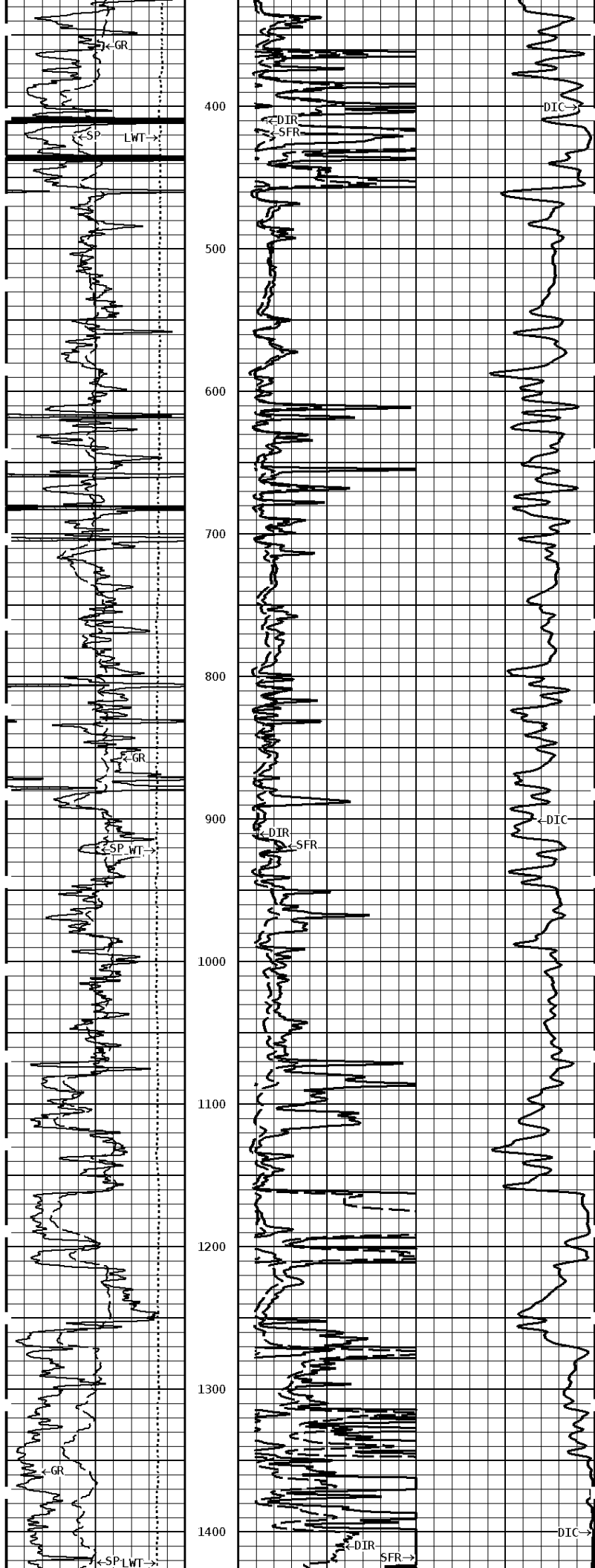
GR	Background	Measured Jig	Units	Calibrated Jig	Units
	60	375	CPS	175	GRAPI
<b>Shop Calibration PIT-CA</b>					
Performed : 10-JUL-2013			Time : 11:19		
Sensor Suite : P-IND-T			ID : PIT-AB-18		
Medium					
	Measured		Calibrated		Units
	R	X	R	X	
Air	131384	129986	3.8	4.6	MMHOS
Zero	131067	131064	-9.2	44.2	MMHOS
Reference	252222	253263	4990.8	5044.2	MMHOS
Loop	128539	217451	3465.2	3700.8	MMHOS
Sonde Error			-2.9	-5.4	MMHOS
Cond			4990.8	5044.2	MMHOS
Deep					
	Measured		Calibrated		Units
	R	X	R	X	
Air	129398	131212	0.6	0.2	MMHOS
Zero	131085	131069	32.5	-4.7	MMHOS
Reference	230469	232593	2032.5	1995.3	MMHOS
Loop	126018	216942	1621.5	1757.1	MMHOS
Sonde Error			-3.9	-0.7	MMHOS
Cond			2032.5	1995.3	MMHOS
Temperature					
	Measured		Calibrated		Units
	Low	High	Low	High	
	16980.0	56920.0	70.0	350.0	DEGF
Performed : 10-Jul-2013			Time : 11:07		
Sensor Suite : SFL			ID : PIT-AB-18		
Internal					
	Measured		Calibrated		Units
	Zero	Reference	Zero	Reference	
Im	32769.2	49588.2	0.0	7028.0	uA
Ib	32770.9	49430.6	0.0	1750.0	mA
MOM1	32814.1	56064.4	0.0	175.0	mV
Equivalent SFL				43.97	OHMM
Performed : 10-Jul-2013			Time : 11:04		
Sensor Suite : P-SP			ID : PIT-AB-18		
Internal					
	Measured		Calibrated		Units
	Zero	Reference	Zero	Reference	
	32788.4	58999.8	0.0	1000.0	mV

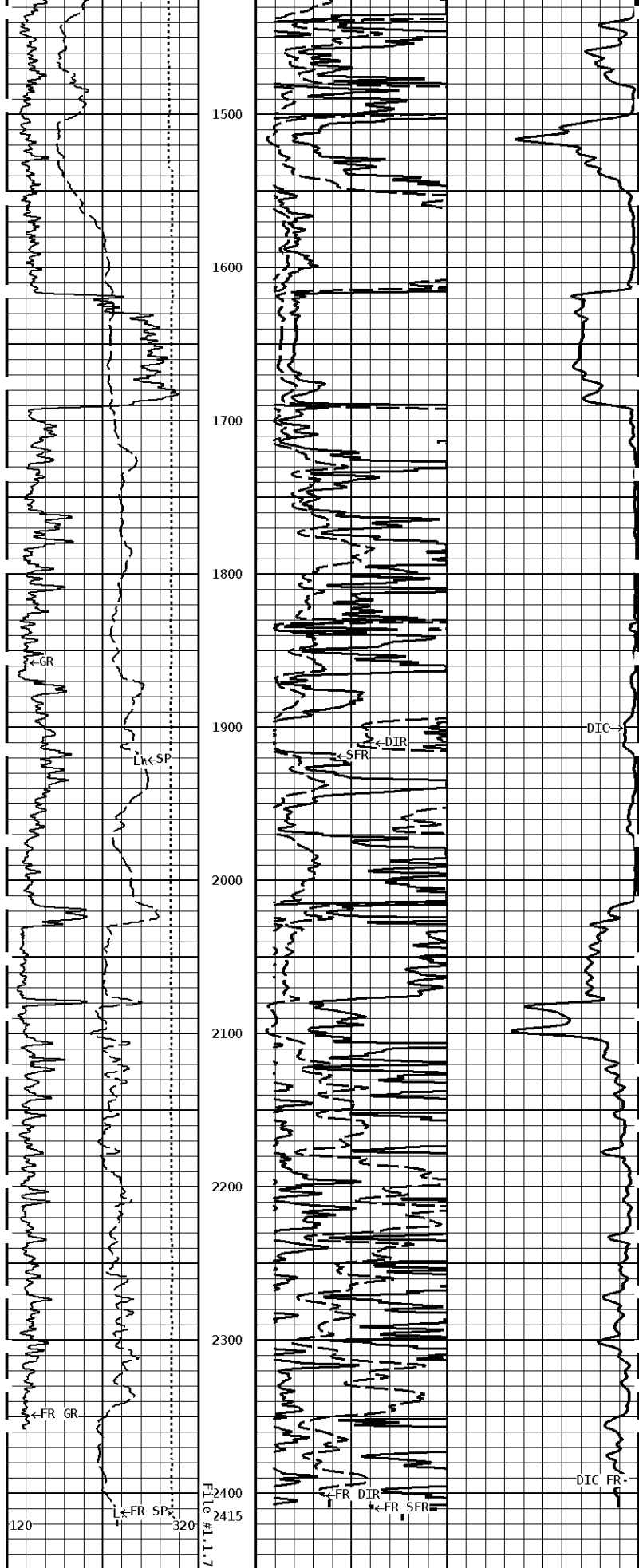
**Well File:** RFP\_C HEIM 2-19D AUG 24 QUINT **Scale:** 1:1200 **Format:** DIL1200  
**Segment:** V1.D1.S7 MAIN **Acquired:** 2013-08/24 08:47 3.3.0-12261  
**Reference:** 0 **Processed:** 2013-08/24 09:51 3.3.0-12261



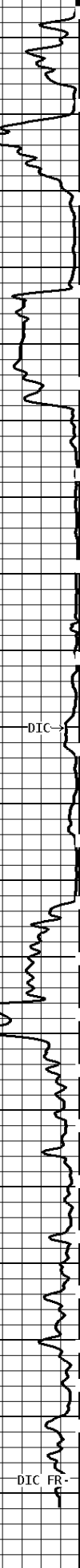
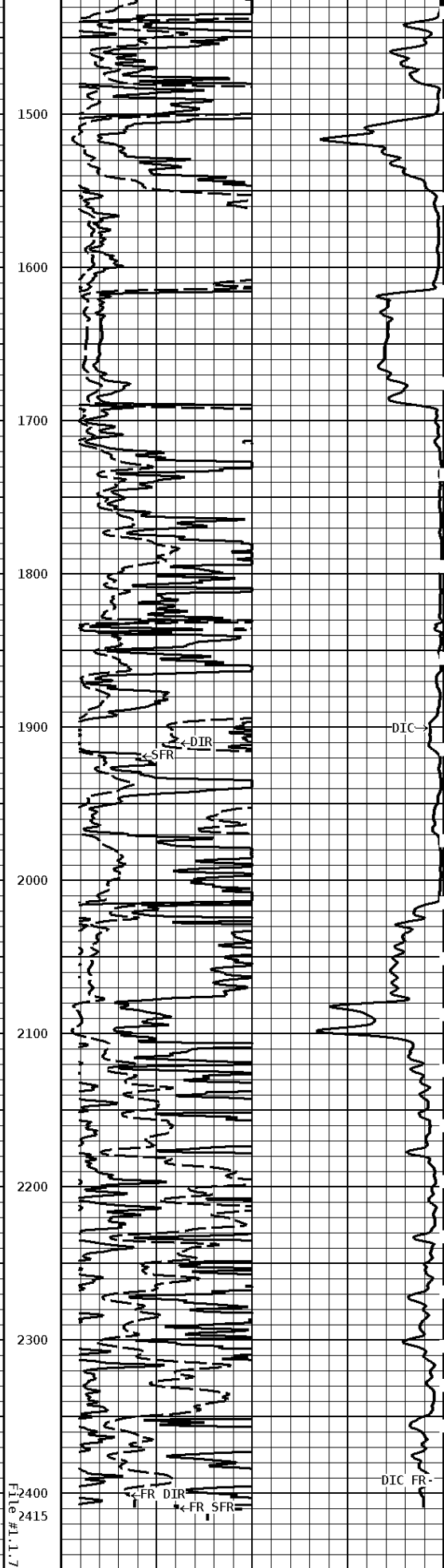
**1:1200 MAIN SECTION**







1:1200 MAIN SECTION



L.T.#

2400  
2415

<b>GAMMA RAY</b> <b>API UNITS</b>	
200	400
0	200
<b>SPONTANEOUS POTENTIAL</b> mV	
→   ← 20	
<b>TENSION</b> LBS	
10000	0

<b>DEEP CONDUCTIVITY</b> HHMO	
2000	1000
1000	0
<b>SHALLOW FOCUSED</b> OHMM	
0.0	500.0
0.0	50.0
<b>DEEP INDUCTION</b> OHMM	
0.0	500.0
0.0	50.0



**Tucker**  
 WIRELINE SERVICES

Company: RUNNING FOXES PETROLEUM INC.  
 Well: C HEIM #2-19D  
 Location: 990' FNL & 1650' FEL  
 Logged: 08-24-2013  
 K.B. Elev: 870.0 Ft