

Company **K3 OIL & GAS OPERATING COMPANY**
Well **EATON #3-18**
Field **WILDCAT**
County **LANE**
State **KANSAS**

RECON

**DUAL INDUCTION
LATEROLOG - SP
GAMMA RAY**

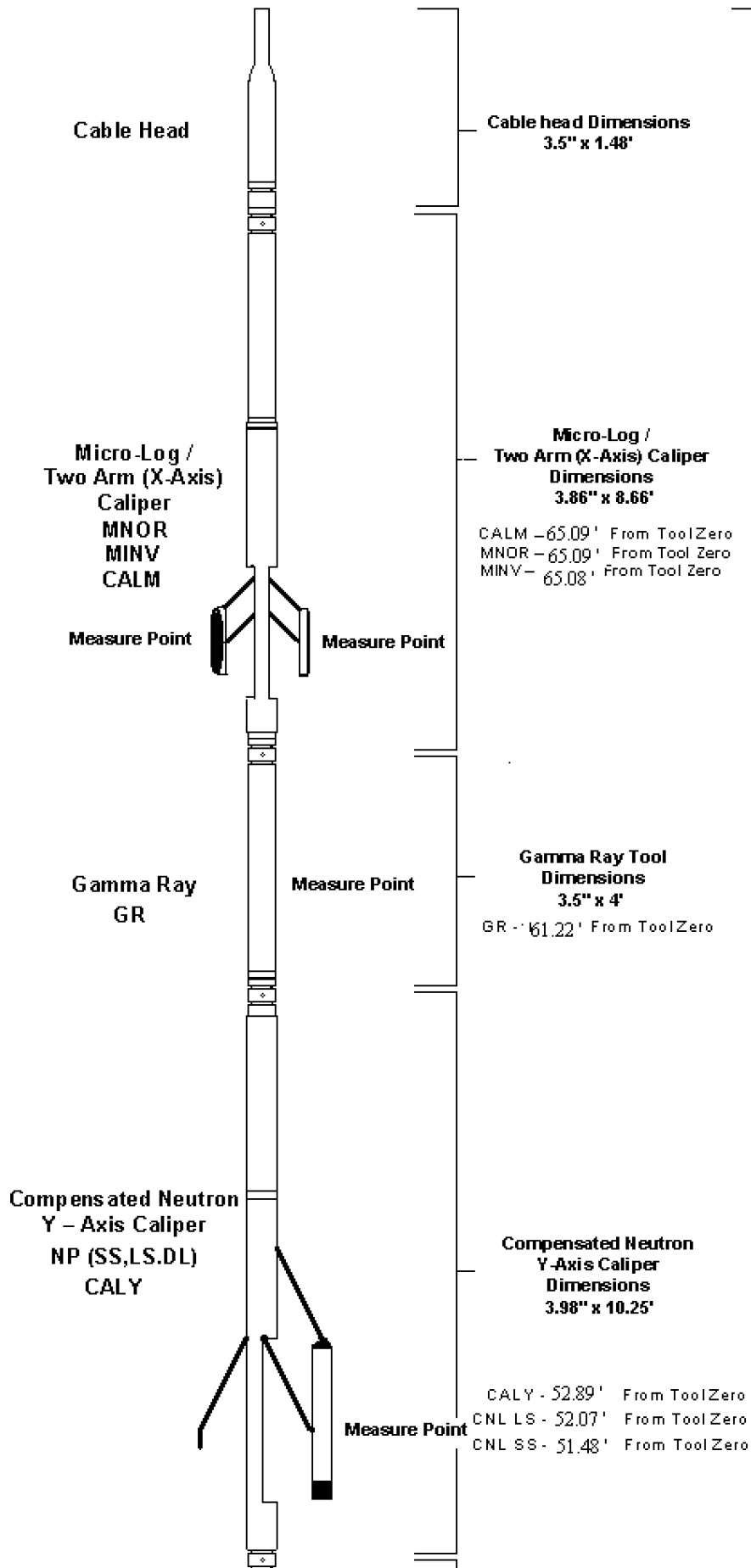
SEC		TWP		RGE		OTHER SERVICES:	
18		16S		28W		LDT CNL	
Location: 879' FNL & 1966' FWL				NE/SW/NE/NW		XY CALIPER MICROLOG BHC	
SURF. SAME		AP#:		015-101-22560-00-00			
Permanent Datum		Ground Level		Elev		ELEVATIONS	
Log Measured From		Kelly Bushing				K.B. 2657 G.L. 2649	
Drilling Measured From		Kelly Bushing				D.F. N/A	
Date		07-AUG-2015					
Run No.		ONE					
TD Driller		4540		ft		ft	
TD RECON		4540		ft		ft	
Bot Logged Interval		4539		ft		2100 ft	
Top Logged Interval		3500		ft		2000 ft	
Casing Depth Driller		8 5/8		in.		@ 305 in.	
Casing Depth RECON		8 5/8		in.		@ 304 in.	
Bit Size		7 7/8		in.		in.	
Drilling Fluid Type		WBM					
Density		9.3		Viscosity		49	
Fluid Loss		9.6		PH		8.0	
Source Of Sample		Flowline					
RM @ Measured Temp		3.37		Ohmm		@ 75 Ohmm	
RMF @ Measured Temp		2.53		Ohmm		@ 75 Ohmm	
RMC @ Measured Temp		3.01		Ohmm		@ 75 Ohmm	
RM @ MRT		1.91		Ohmm		@ 131 Ohmm	
Max Recorded Temp		131		DegF		DegF	
Time Drilling Stopped		07-AUG-2015		02:00			
Time Circulation Stopped		07-AUG-2015		04:45			
Time Logger On Bottom		07-AUG-2015		17:17			
Unit Num		Location		S406		OKLAHOMA CITY, OK	
Recorded By		K.HELDERMON					
Witnessed By		T.WILLIAMS					

All interpretations are based on inferences from electrical or other readings, and therefore, RECON cannot and will not guarantee the accuracy of any interpretations of log data. RECON shall not be liable for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from	interpretations made by any of our officers, agents or employees, except in the case of provable Gross Neglegence or willfull damage. Interpretations are also subject to the terms and conditions of our Price Schedule and General Service Agreement.
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RIG INFORMATION	
Drill Contr/Rig#	DUKE DRILLING #4

GENERAL REMARKS SECTION	
FIRST RUN IN THE HOLE CNL AND LDT LOGGED IN A LIMESTONE MATRIX TOP MARK - 283, BOTTOM MARK - 4387.5 CNL/LDT LOGGED MATRIX: 2.71 g/cc. CHLORIDES: 3800 LCM: TRACE THANK YOU FOR USING RECON PETROTECHNOLOGIES LTD.	AHV CALCULATED ON 5.5" PROD. CASING MICROLOG PAD APPEARS TO HAVE RIPPED AT ABOUT 4225' ON HDD REPEAT (FIRST PASS). CREW: M.CALLENINE

**DUAL INDUCTION – SP / BHC SONIC /
GAMMA RAY / LITHO-DENSITY / X CALIPER
COMPENSATED NEUTRON / Y-CALIPER
MICRO - LOG / M-CALIPER**



Digital Telemetry

**Digital Telemetry Section
Dimensions
3.5" x 3.15'**

**Tool String
Length Total
73.64 '**

**Compensated
Litho-Density (Pe)
X - Axis Caliper**

DP(SS,LS,DL)
RHOB
DRHO
PE
CALX
Measure Point

**Compensated Litho-Density
X-Axis Caliper
Dimensions
3.98" x 9.35'**

CALX - 38.94' From ToolZero
LDT w1 -
LDT w2 - -38.68' From ToolZero
LDT w3 -
LDT w4 -
LDT SS - 38.19' From ToolZero

**Borehole
Compensated
Sonic**

SP(SS,LS,DL)
DT
TTI
VDL
TT
Measure Point
Tool First Reading
Point

T-1
Transmitter 1

**Borehole Compensated Sonic
Tool Dimensions
3.5" x 15.75'**

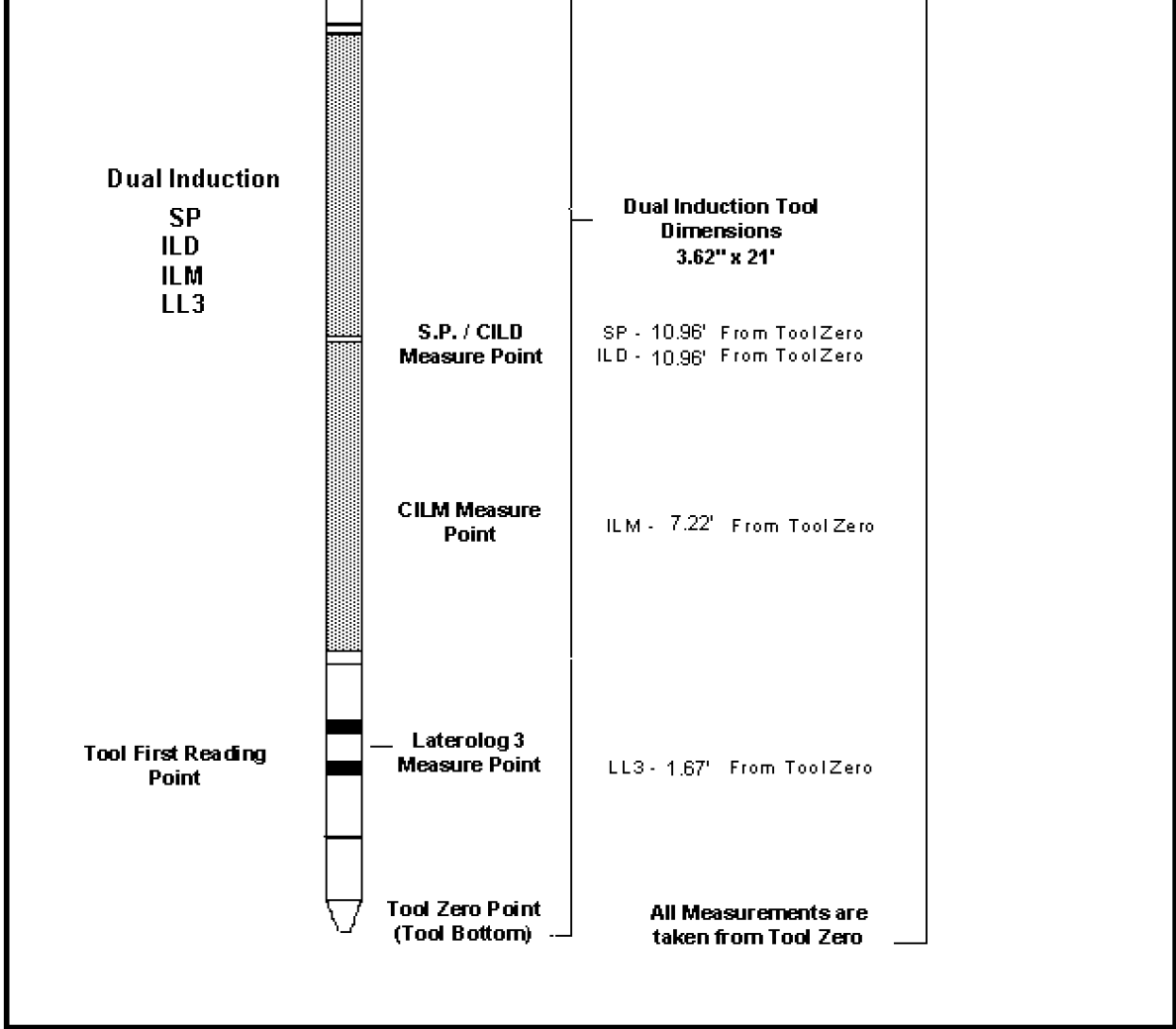
T1R1 - 33.35' From ToolZero
T1R2 - 31.35' From ToolZero

R-1
Receiver 1

R-2
Receiver 2

T2R1 - 28.54' From ToolZero
T2R2 - 28.37' From ToolZero

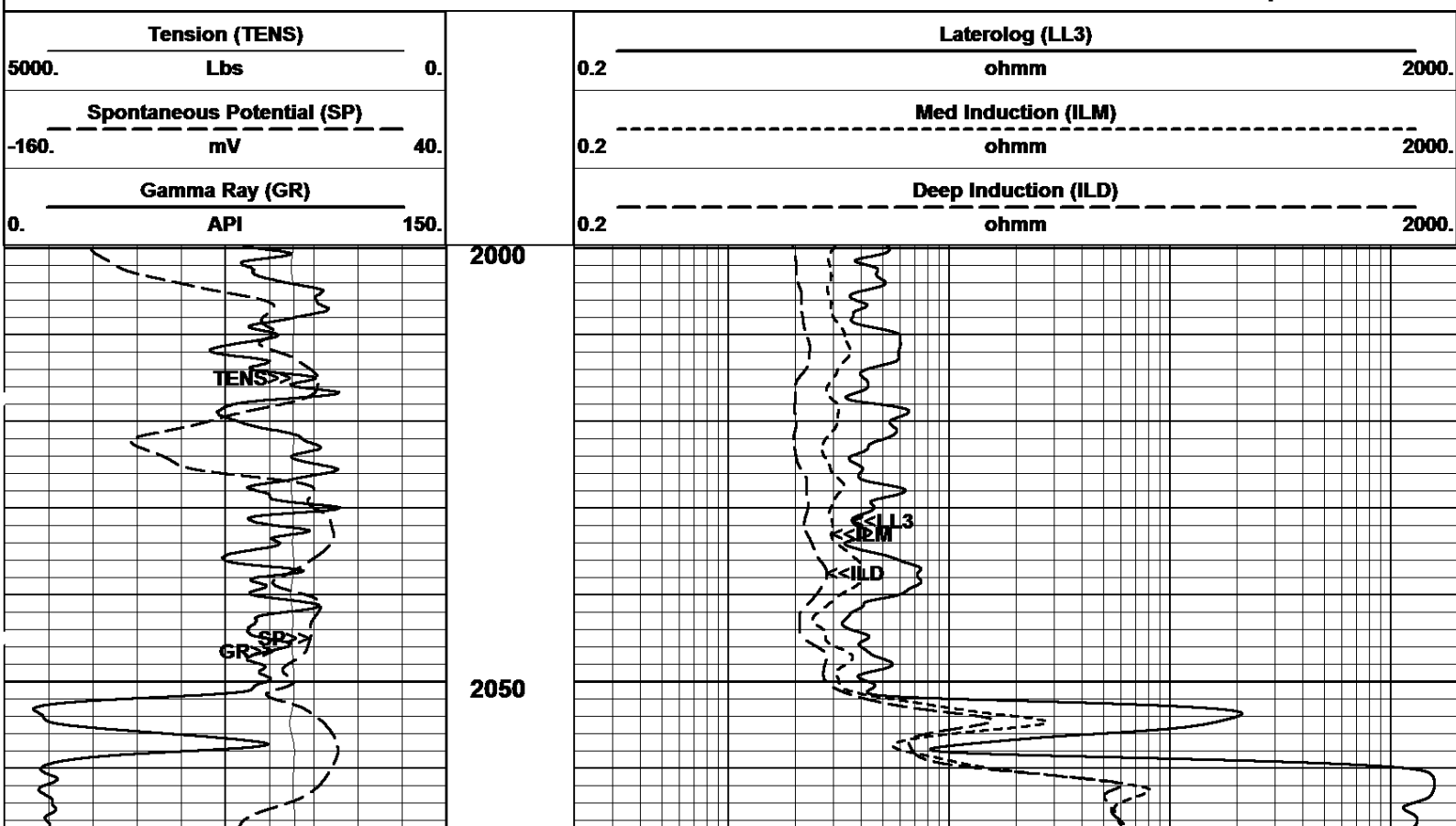
T-2
Transmitter 2

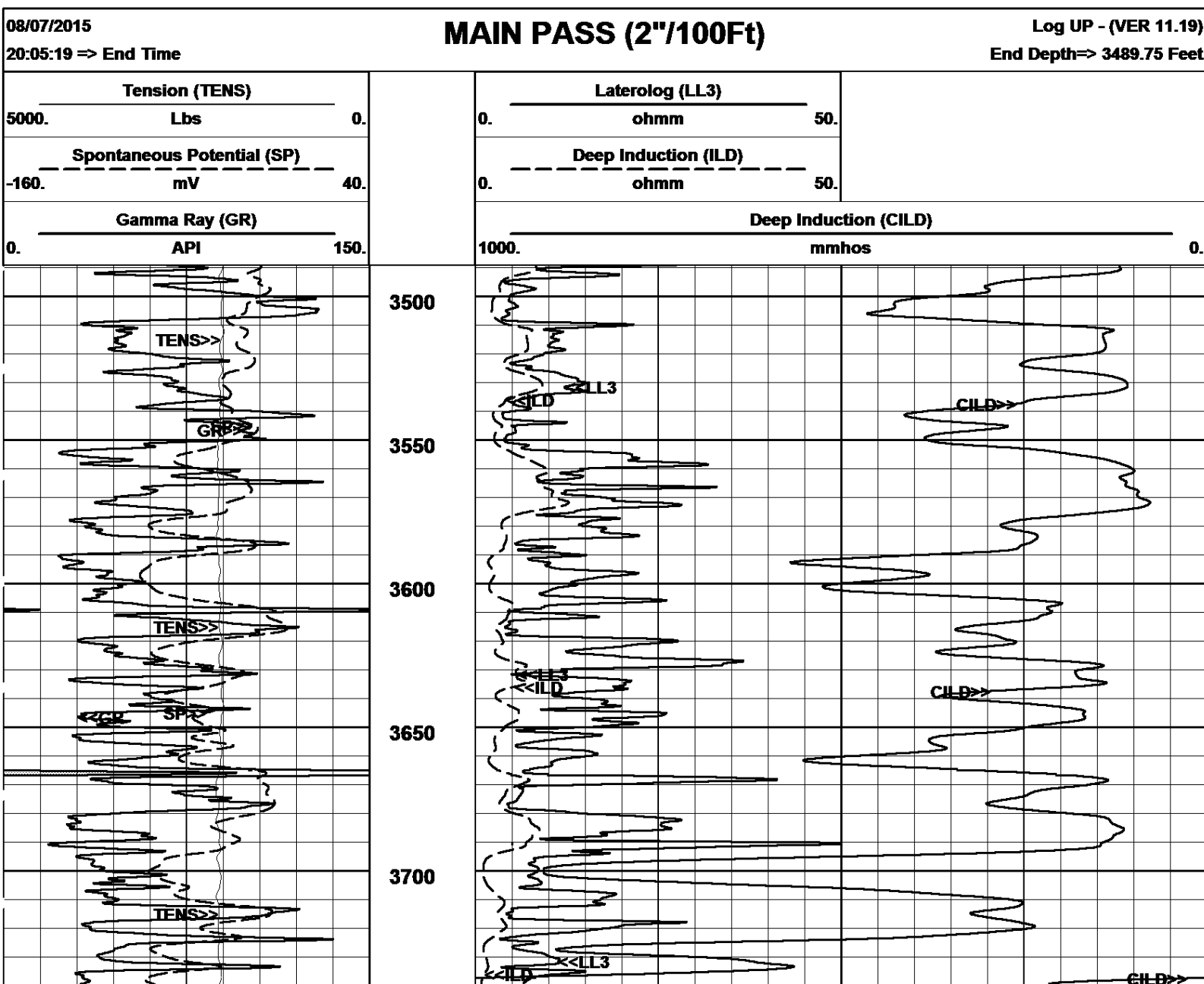
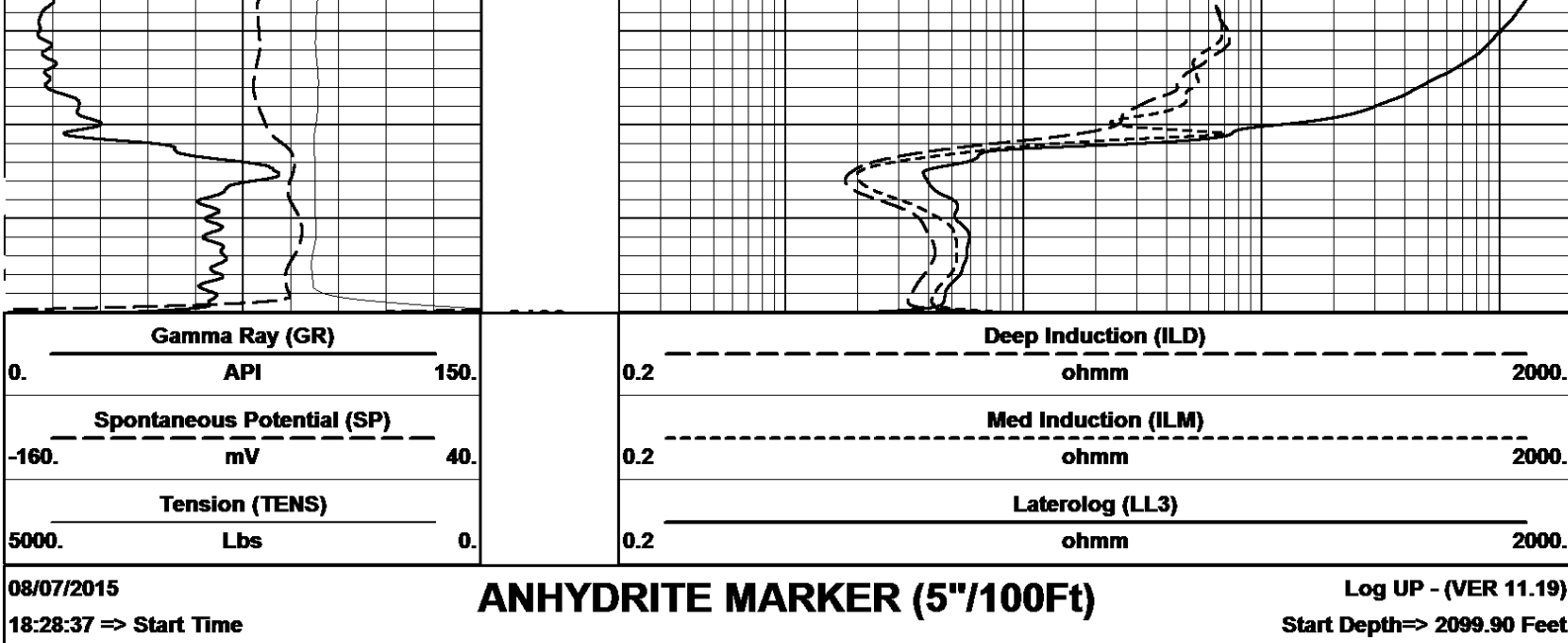


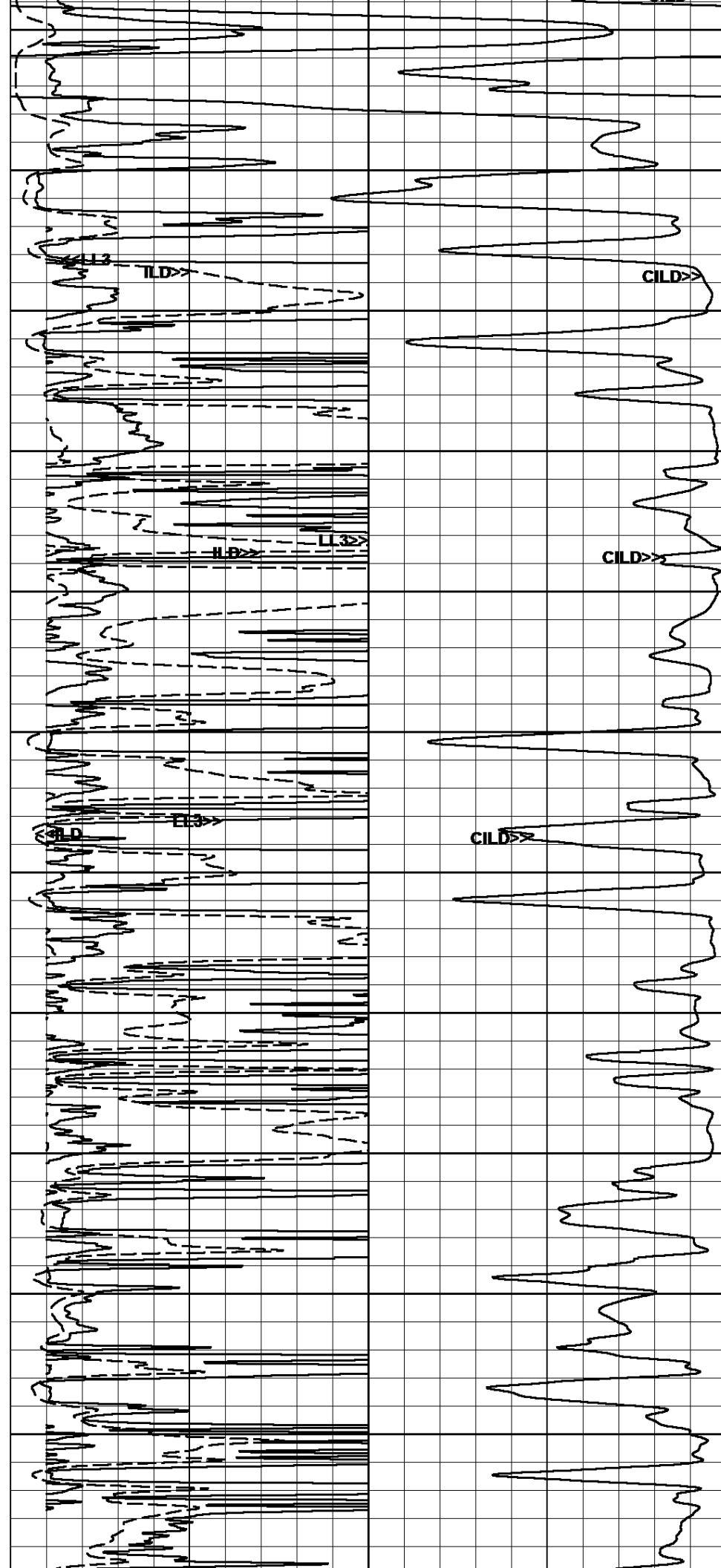
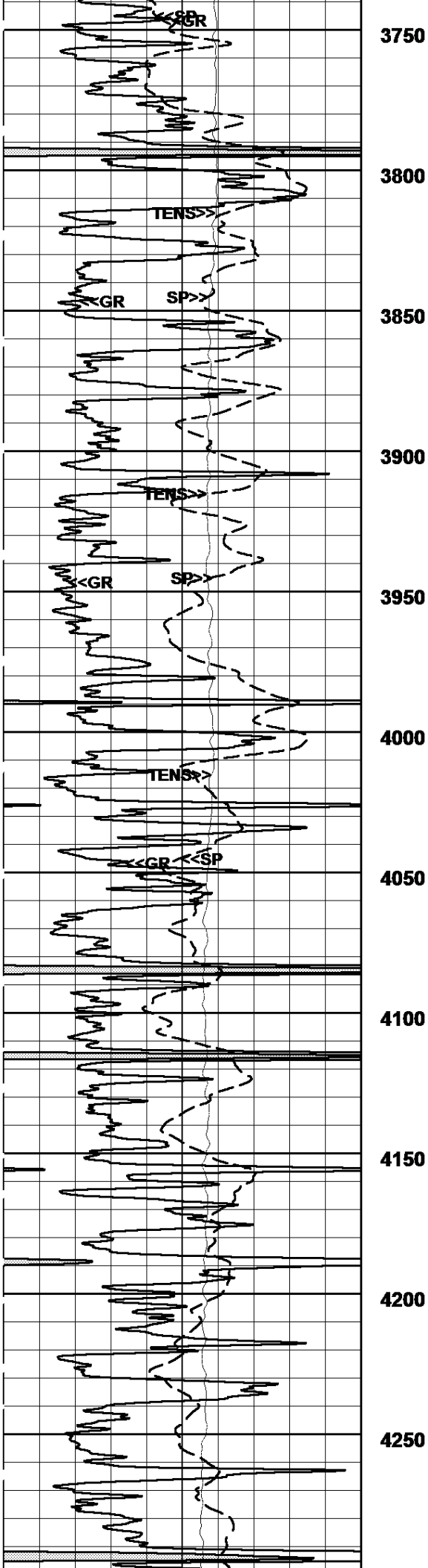
08/07/2015
20:05:19 => End Time

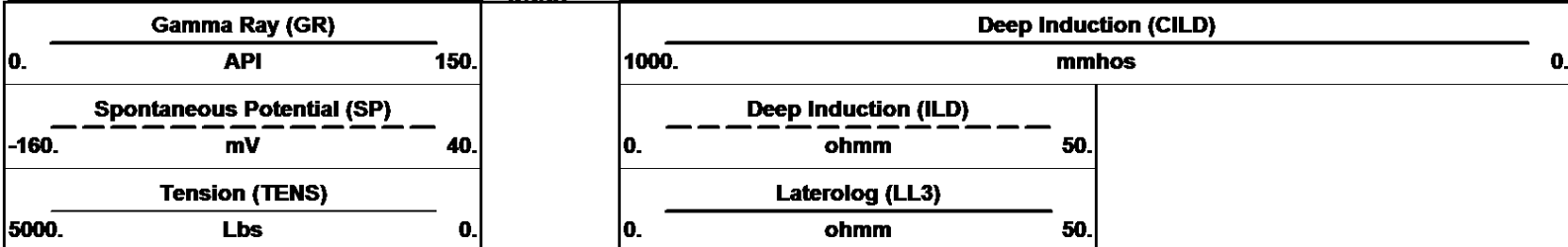
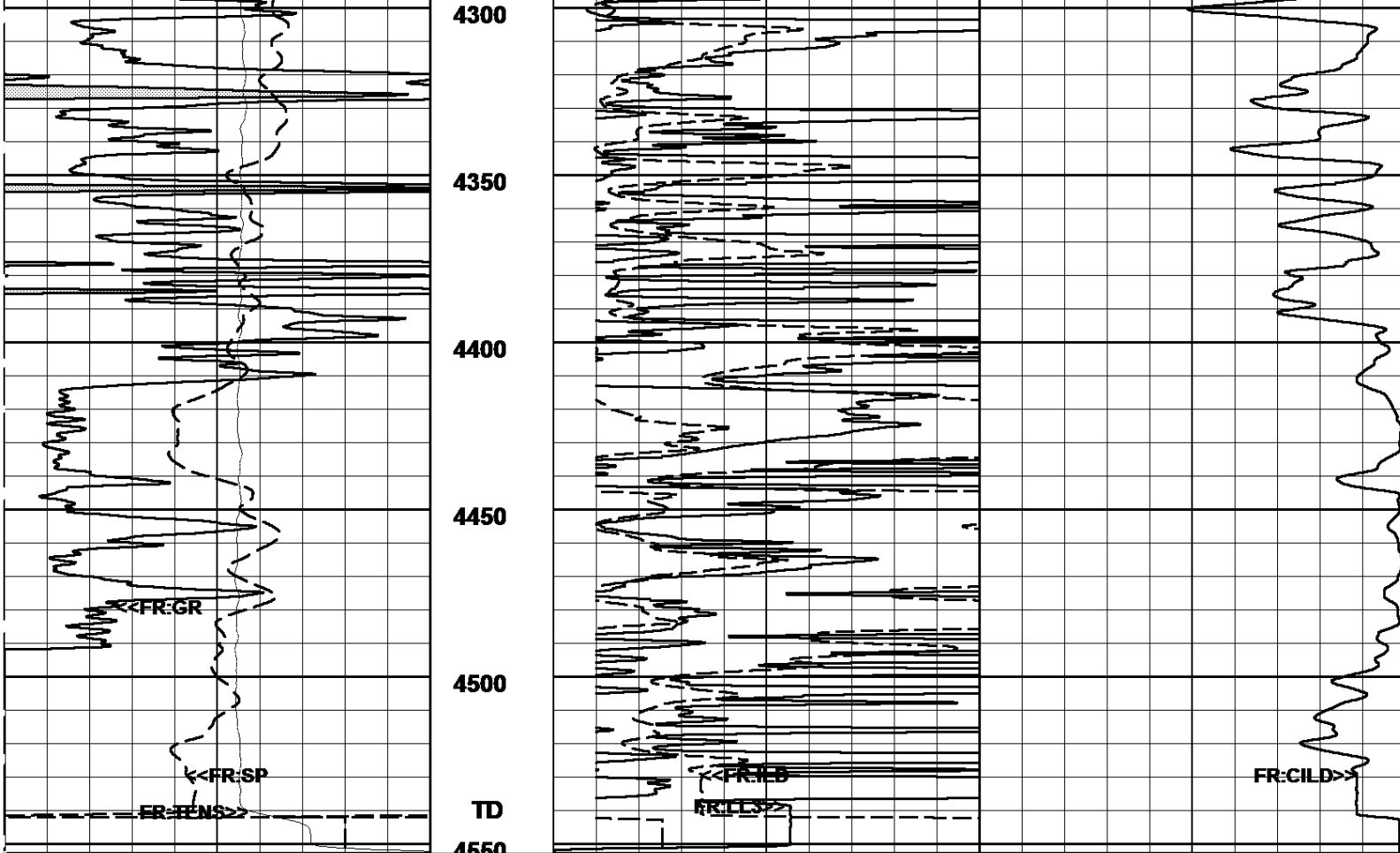
ANHYDRITE MARKER (5"/100ft)

Log UP - (VER 11.19)
End Depth=> 1999.90 Feet





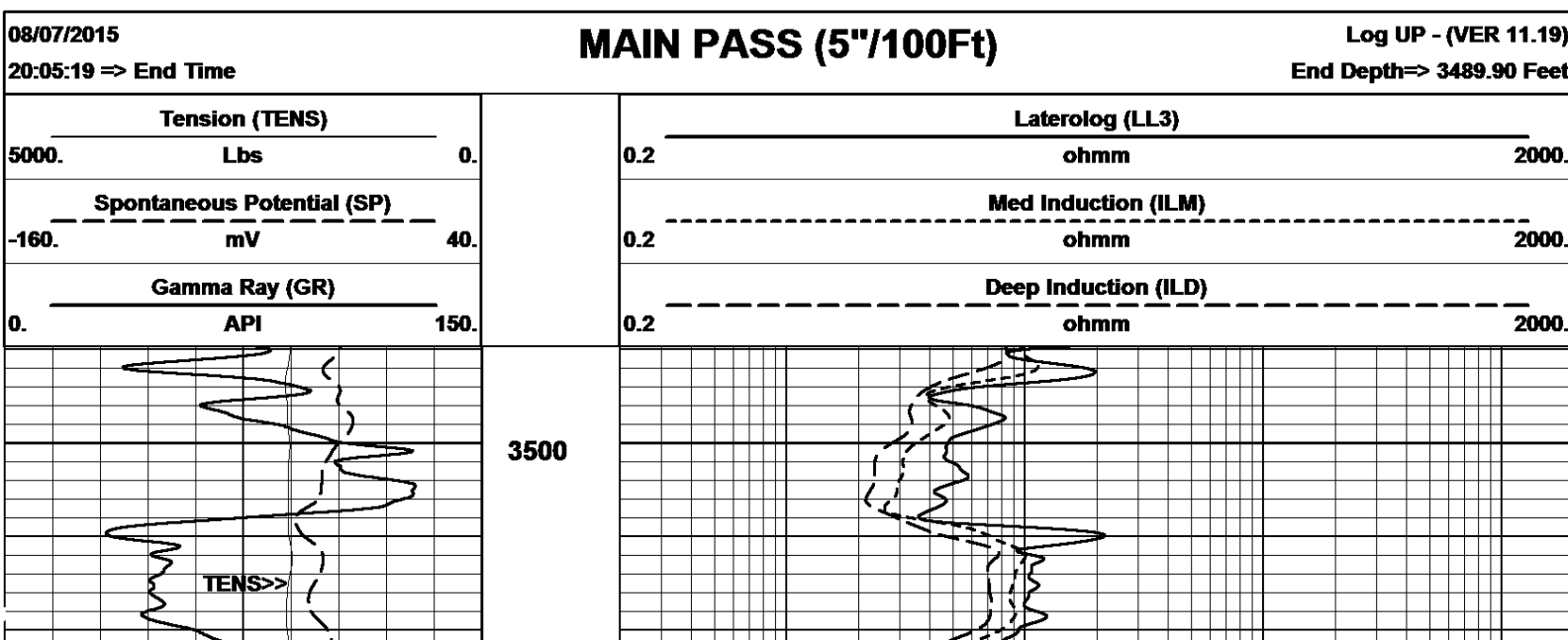


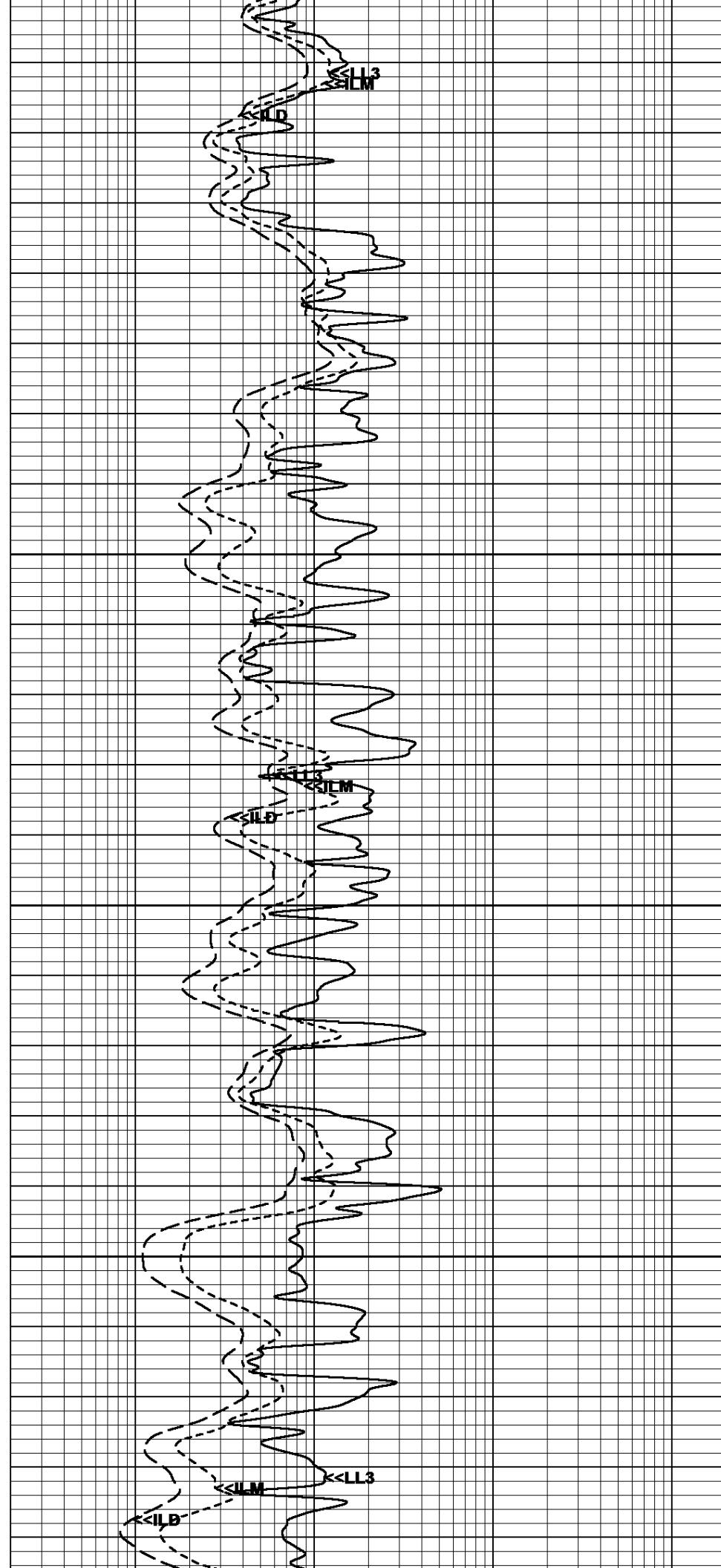
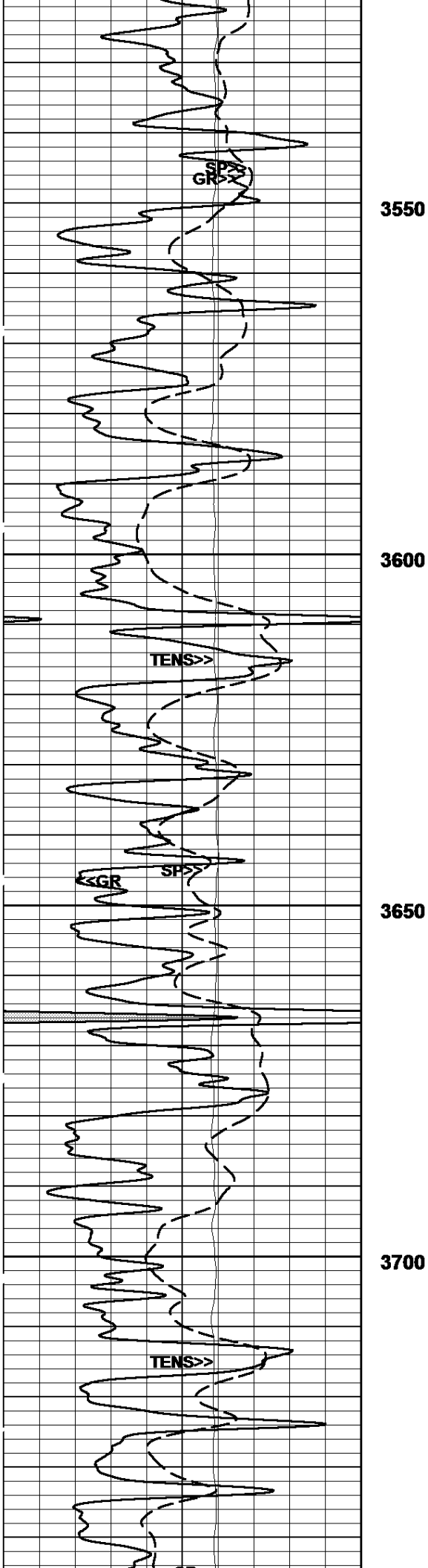


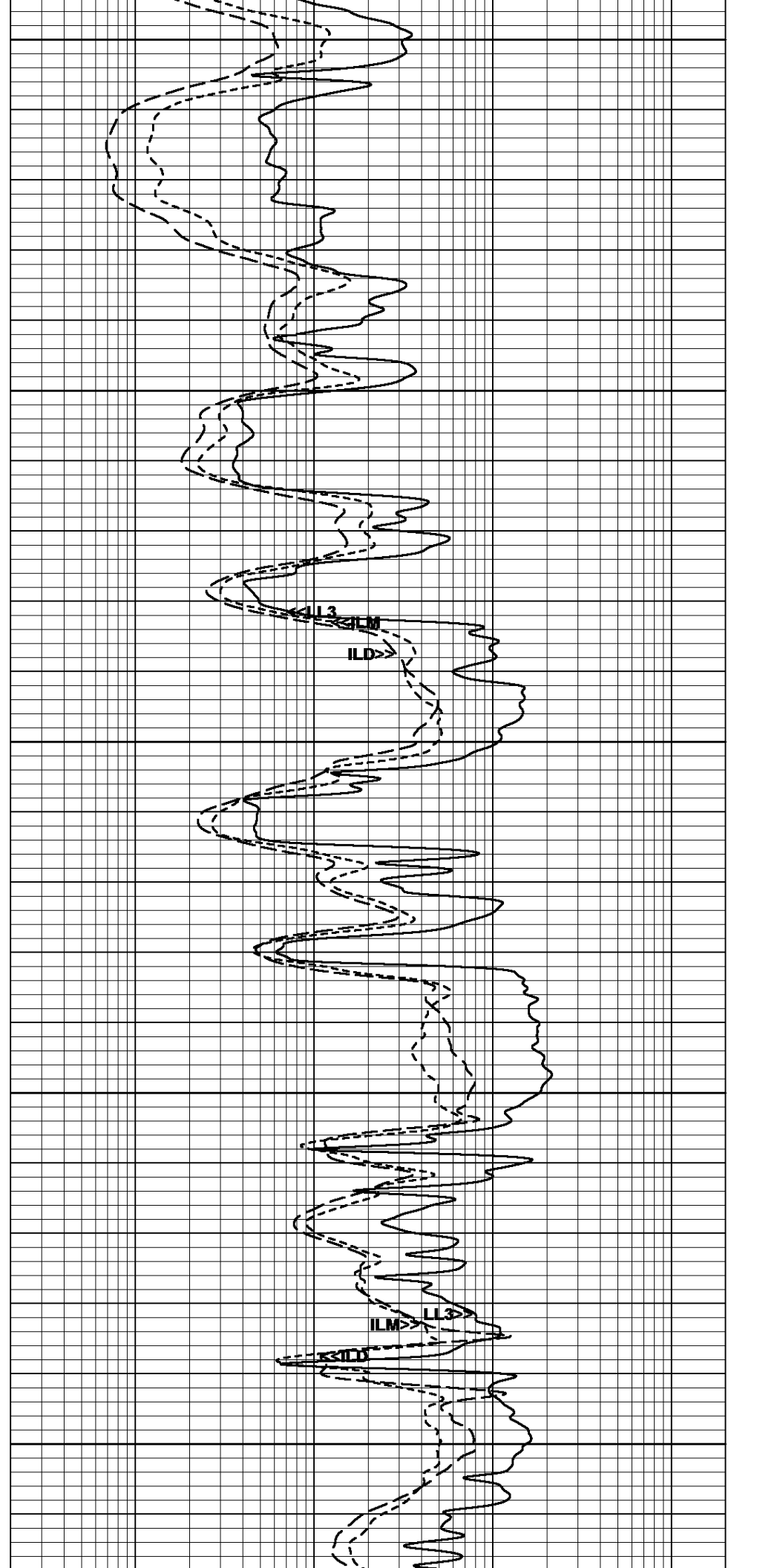
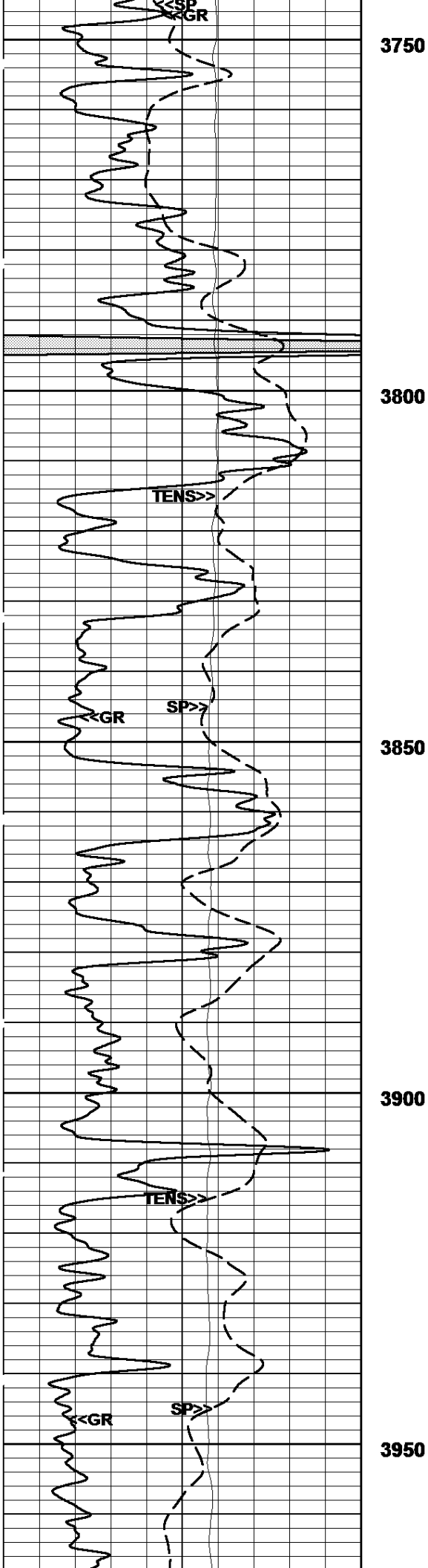
08/07/2015
18:28:37 ⇒ Start Time

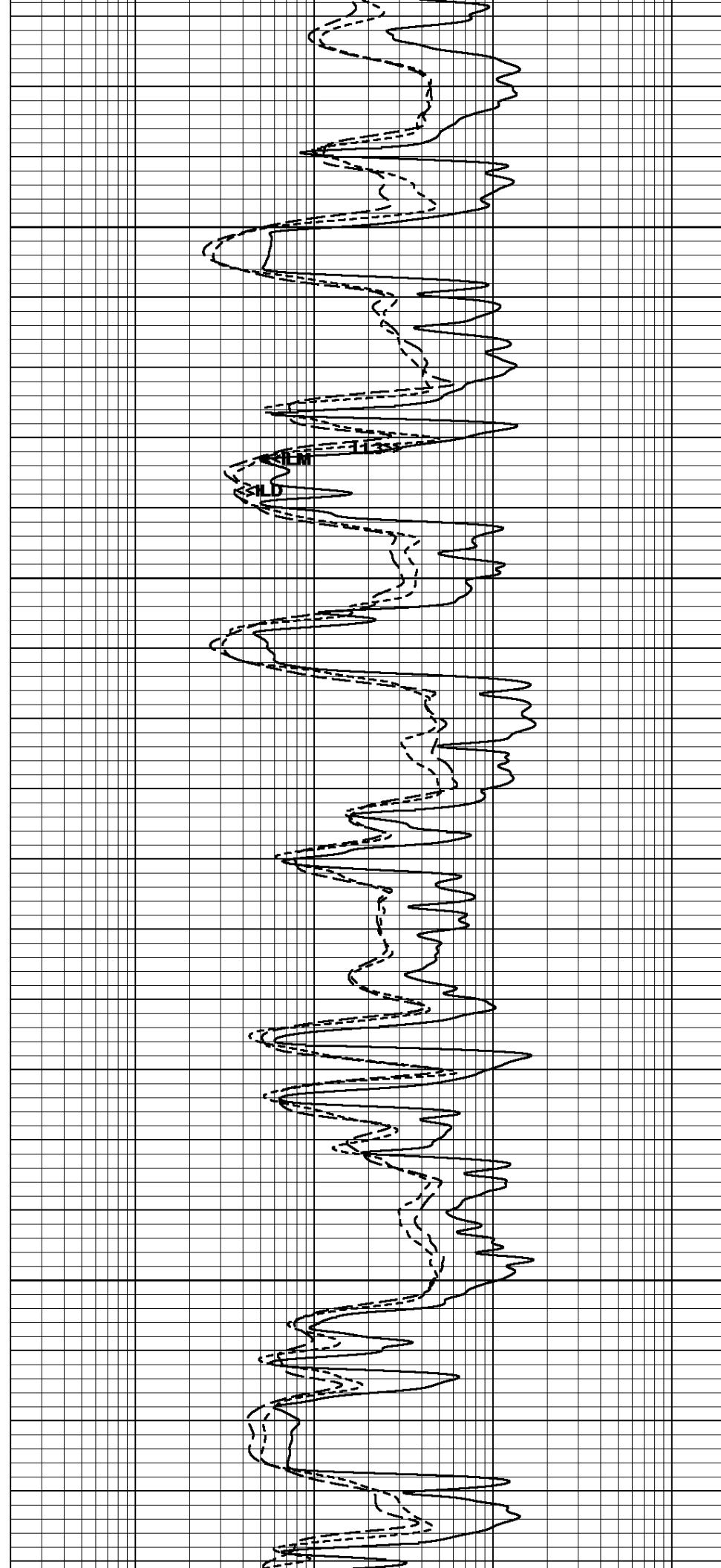
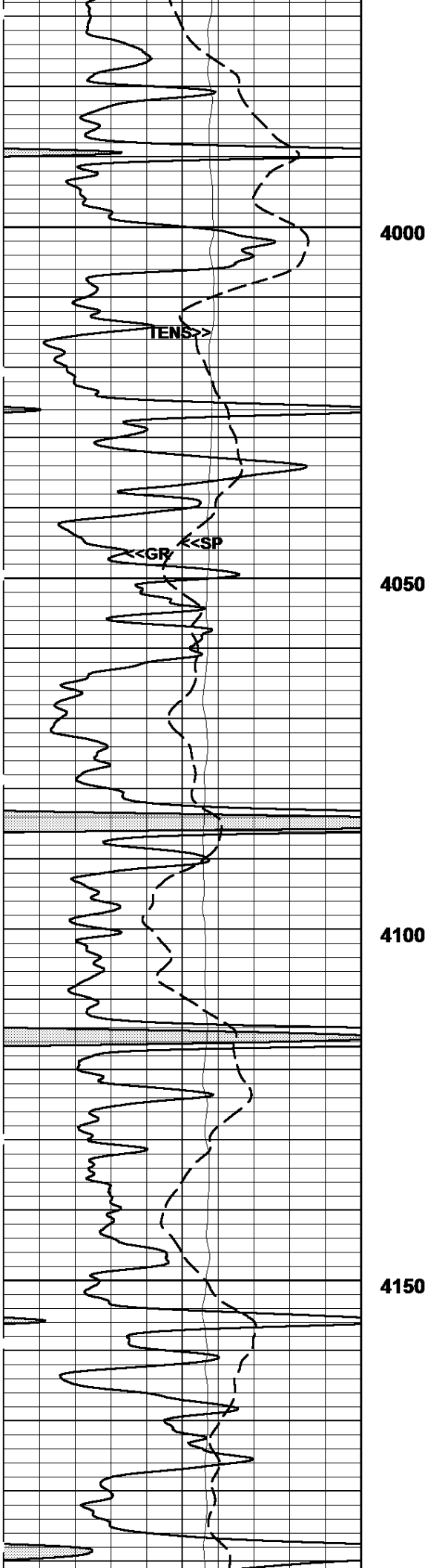
MAIN PASS (2"/100Ft)

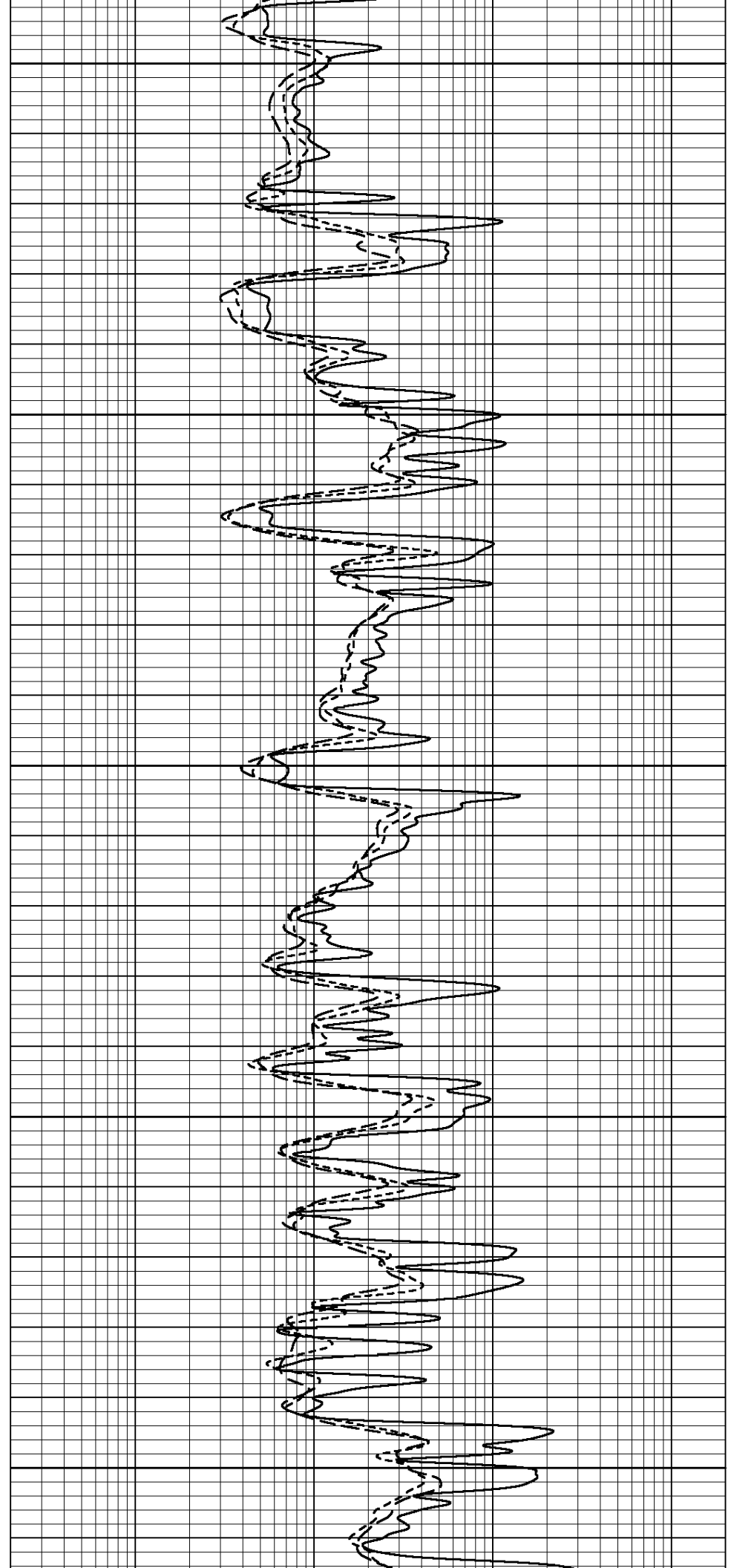
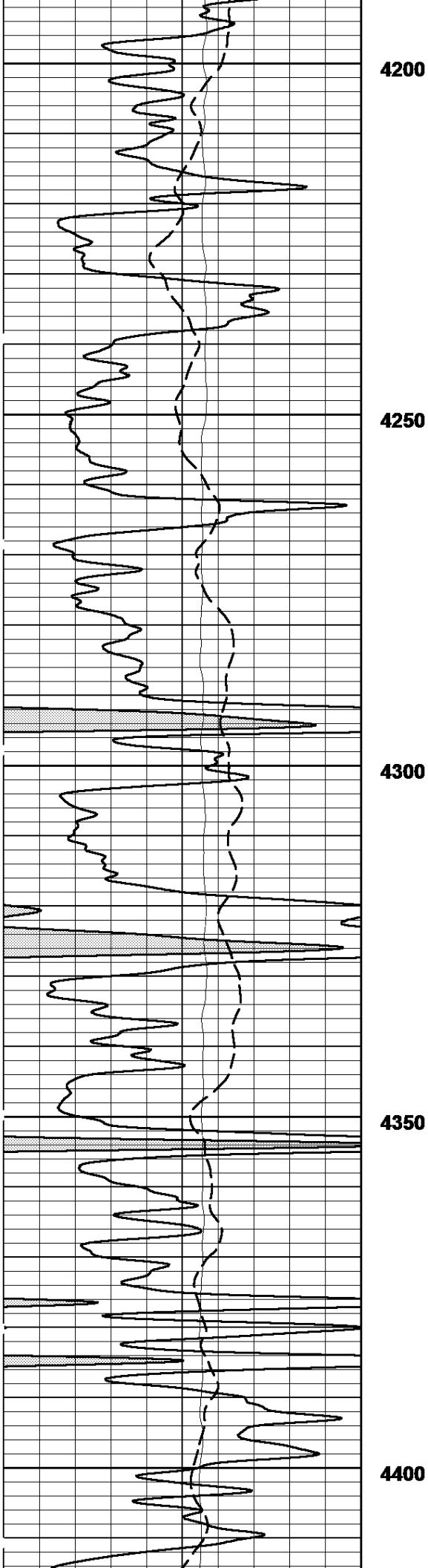
Log UP - (VER 11.19)
Start Depth⇒ 4552.50 Feet

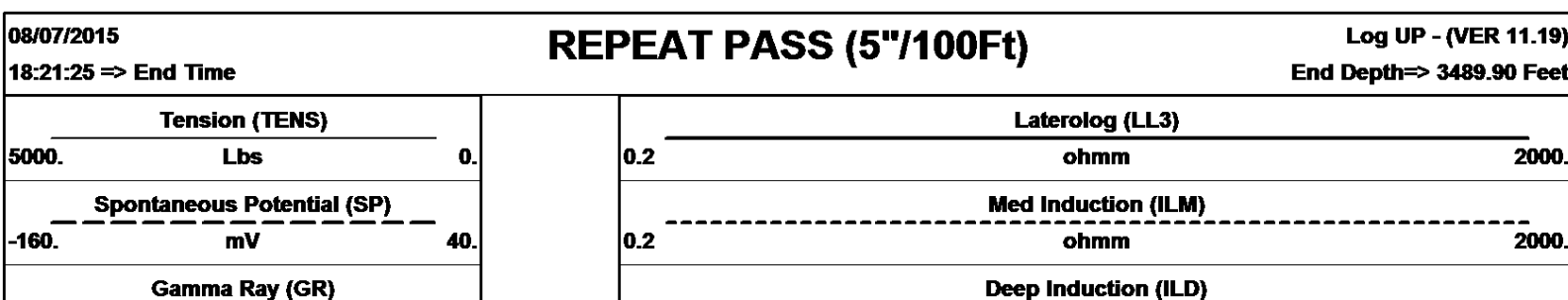
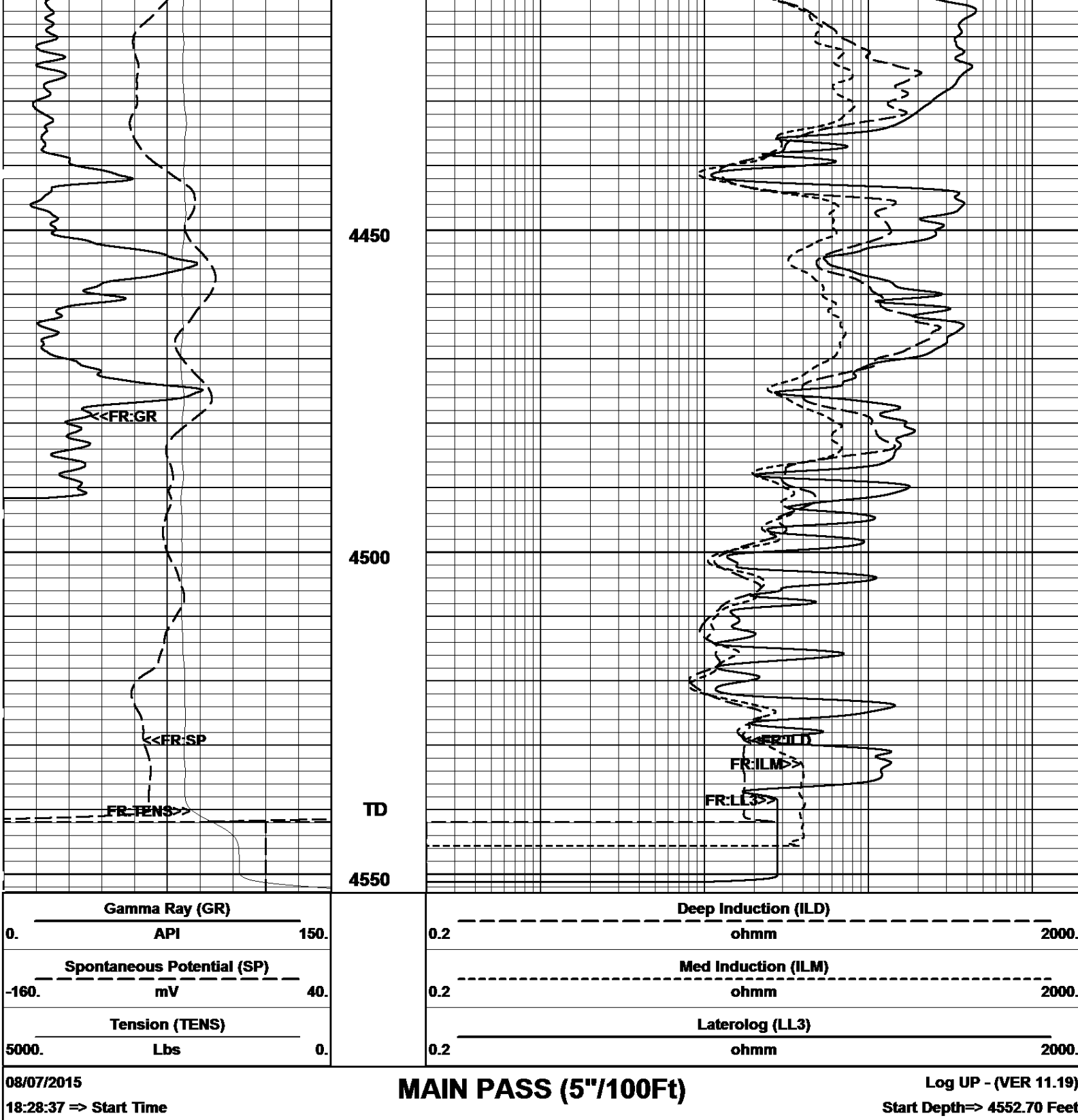


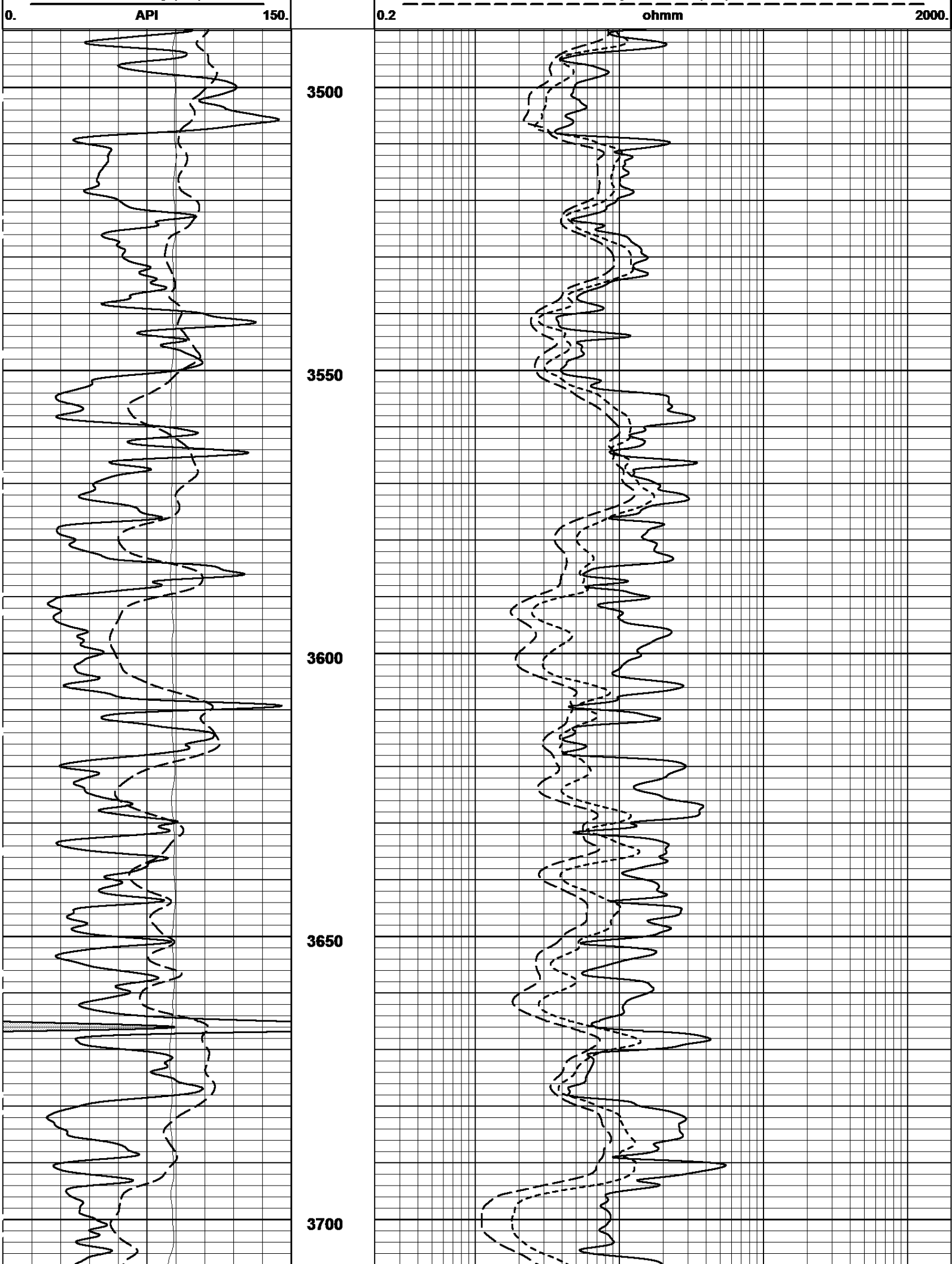


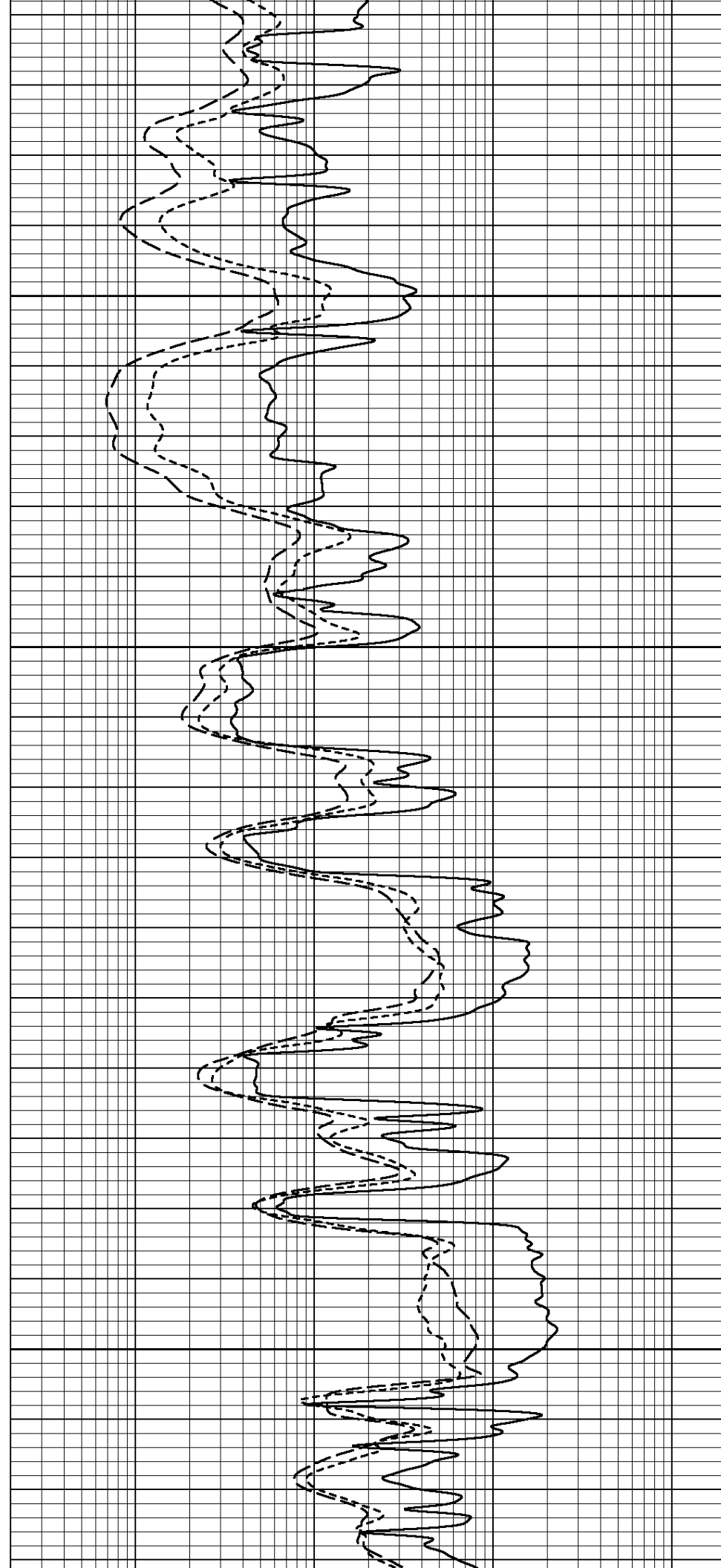
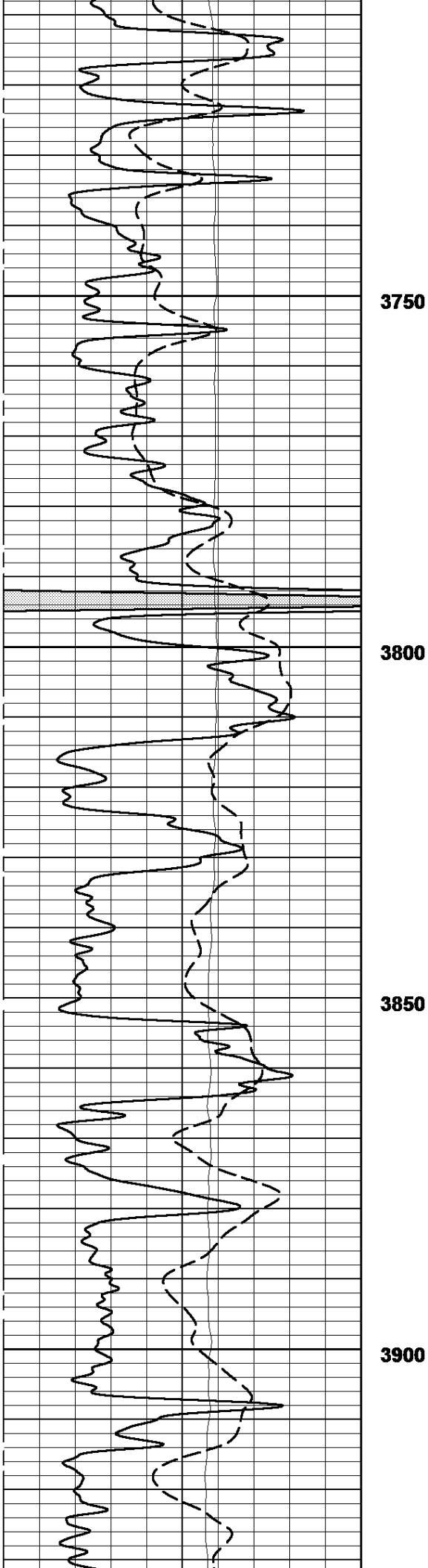


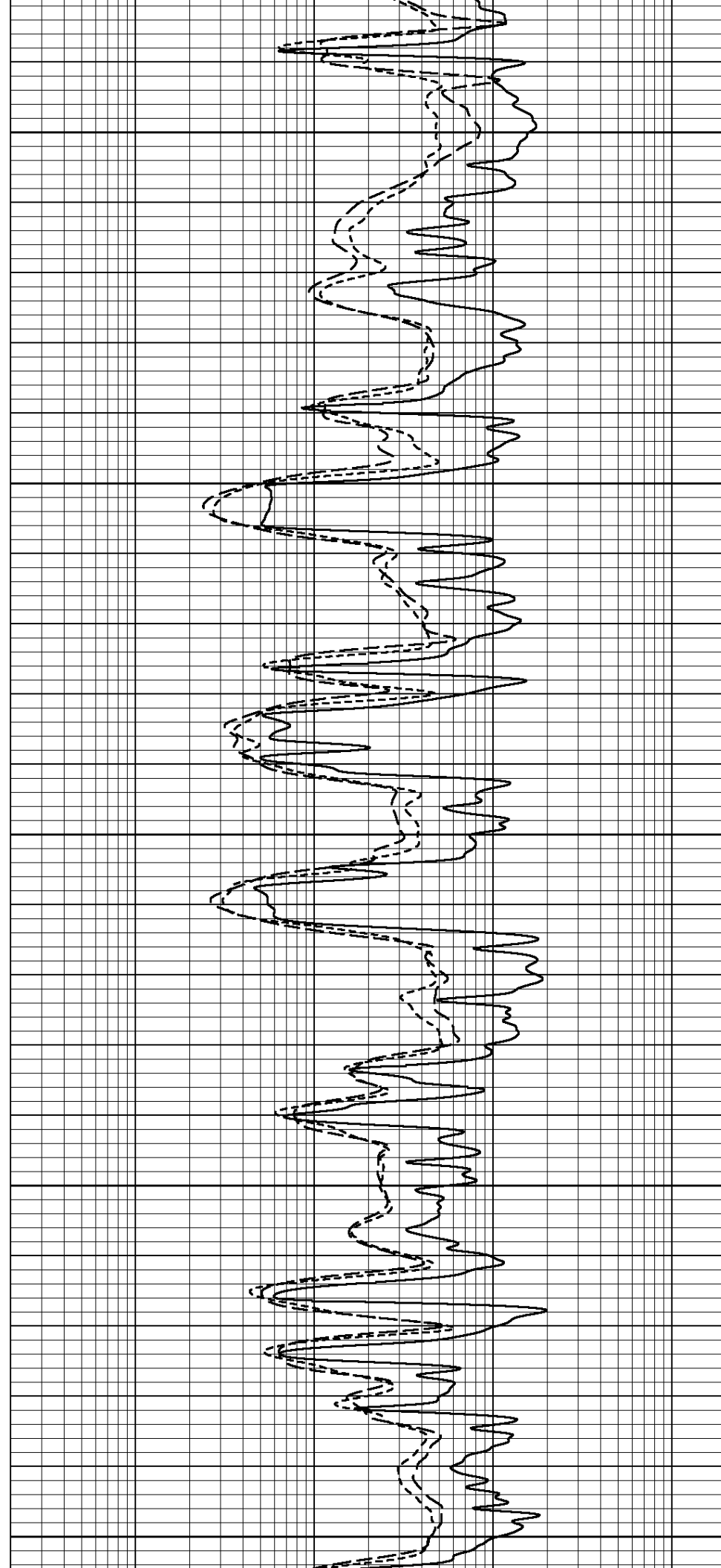
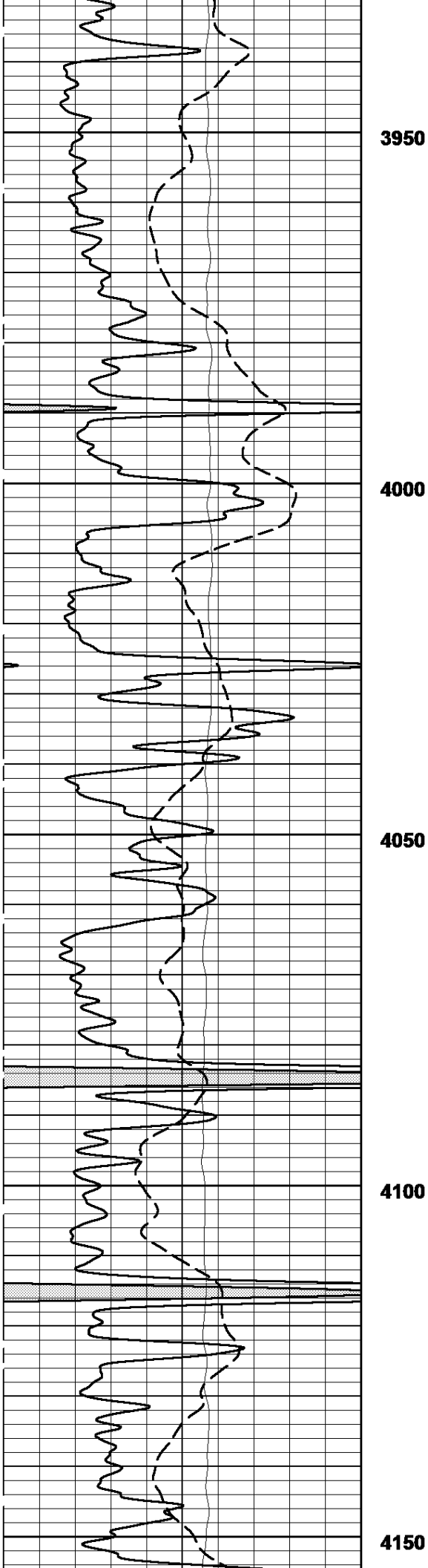


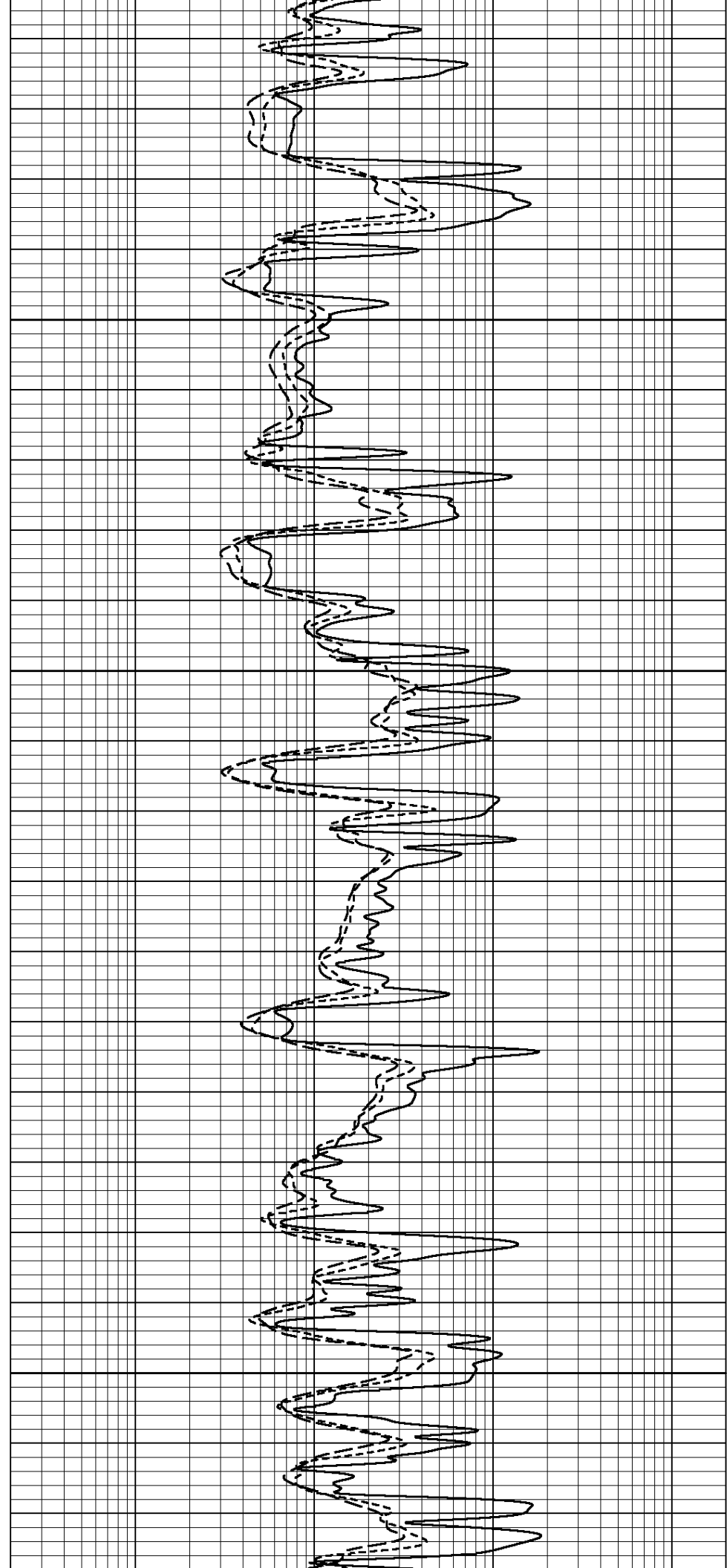
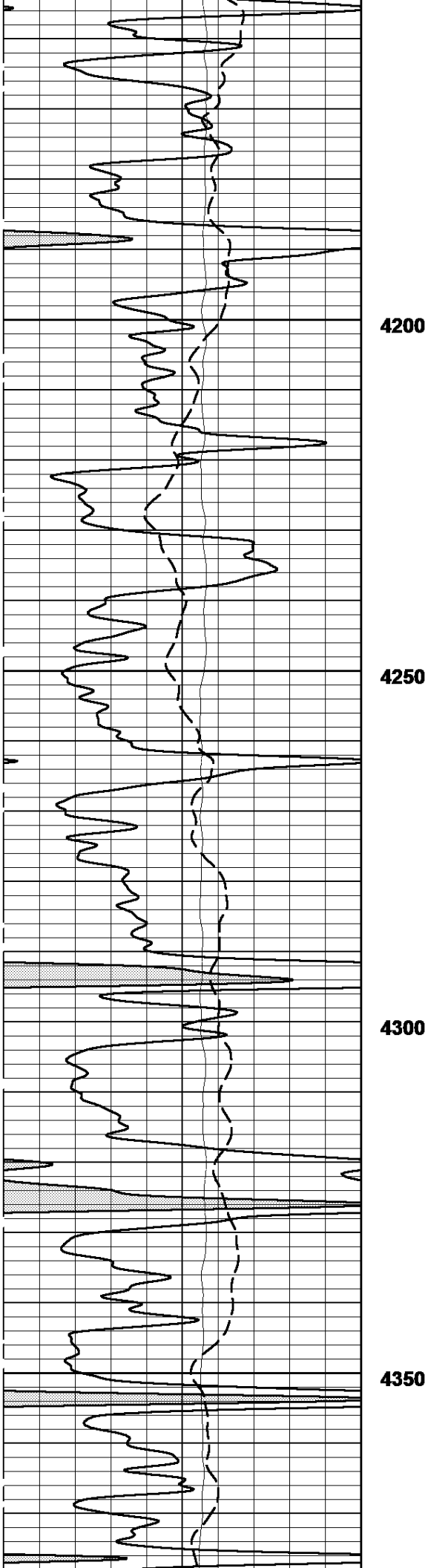


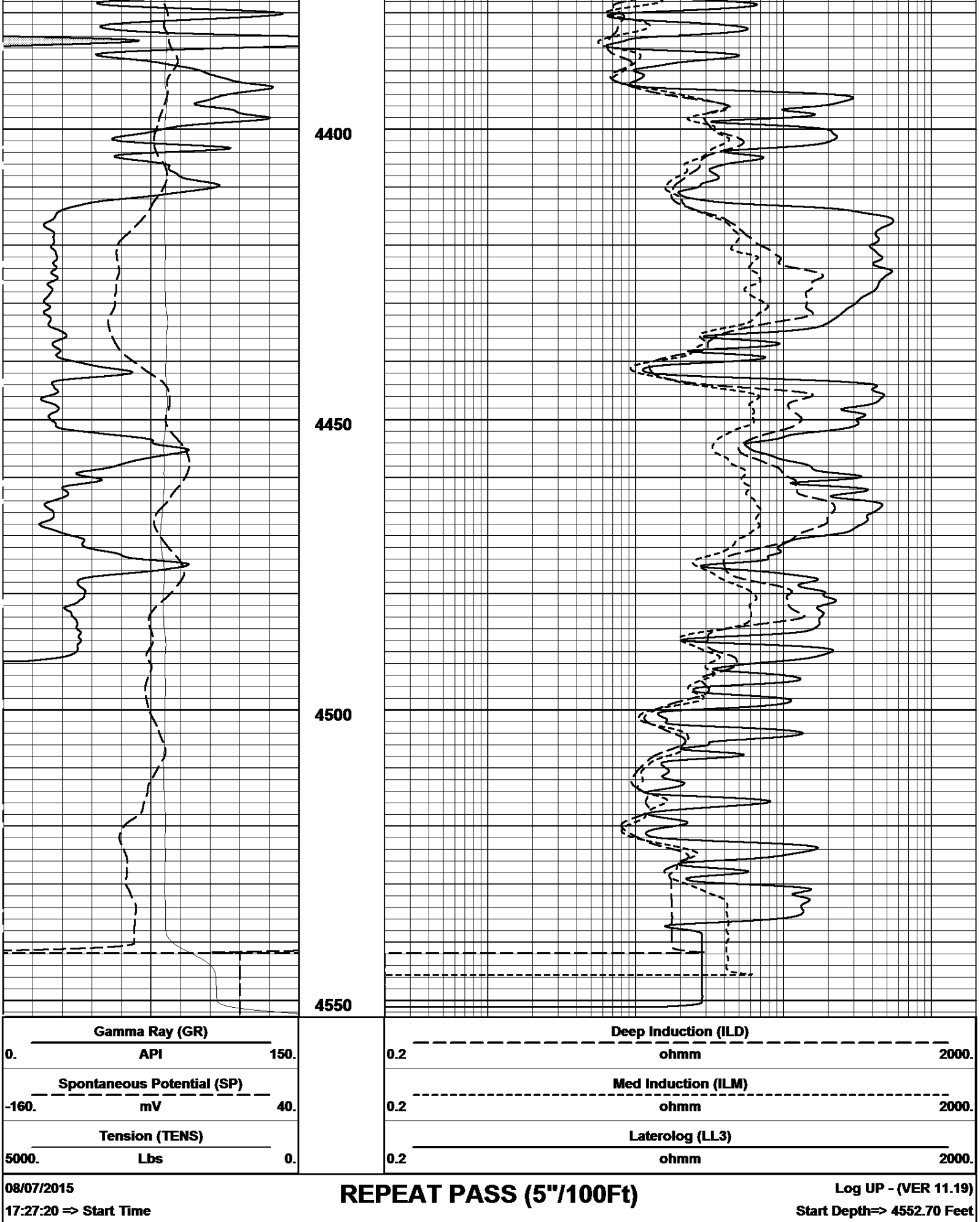










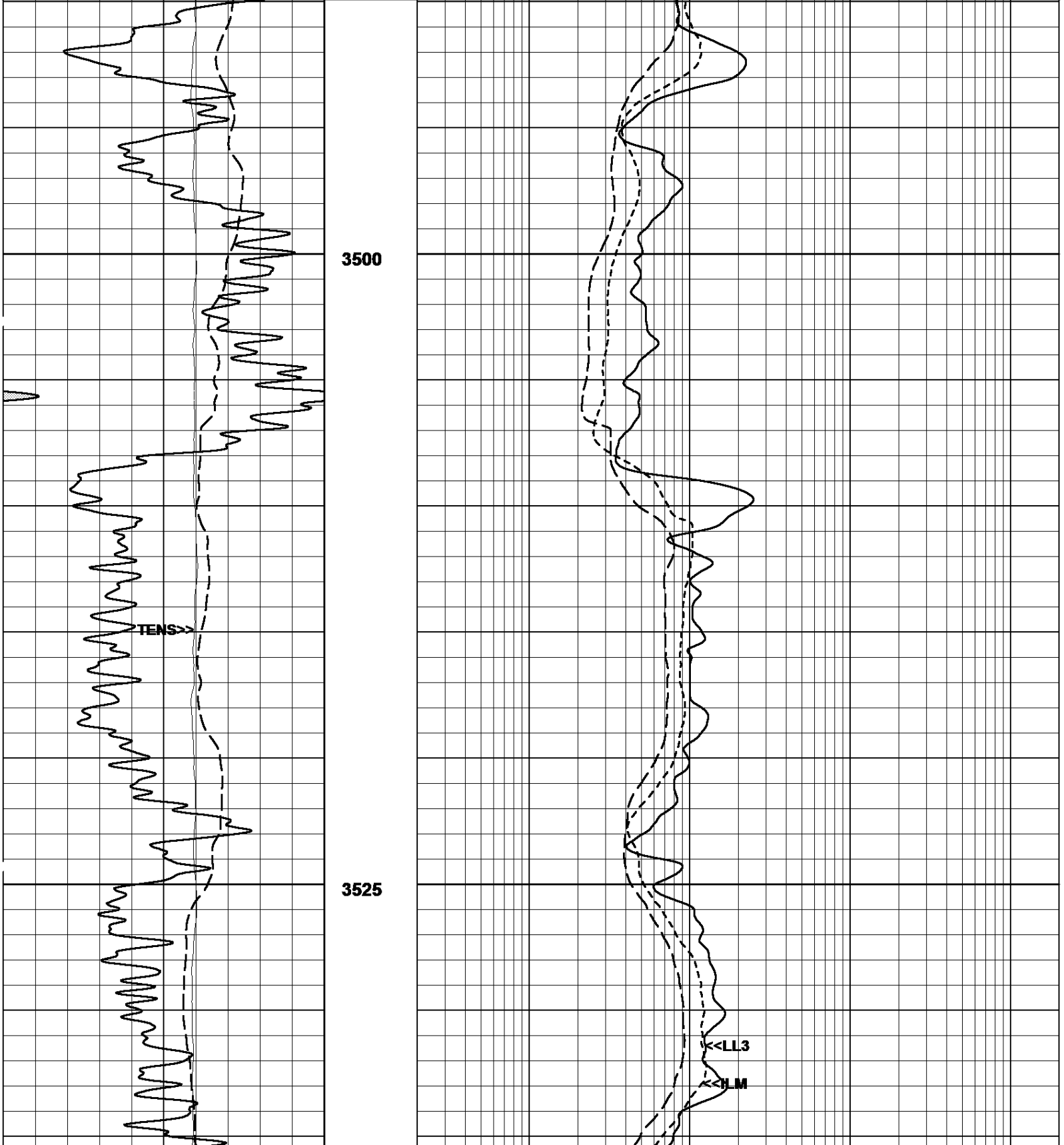


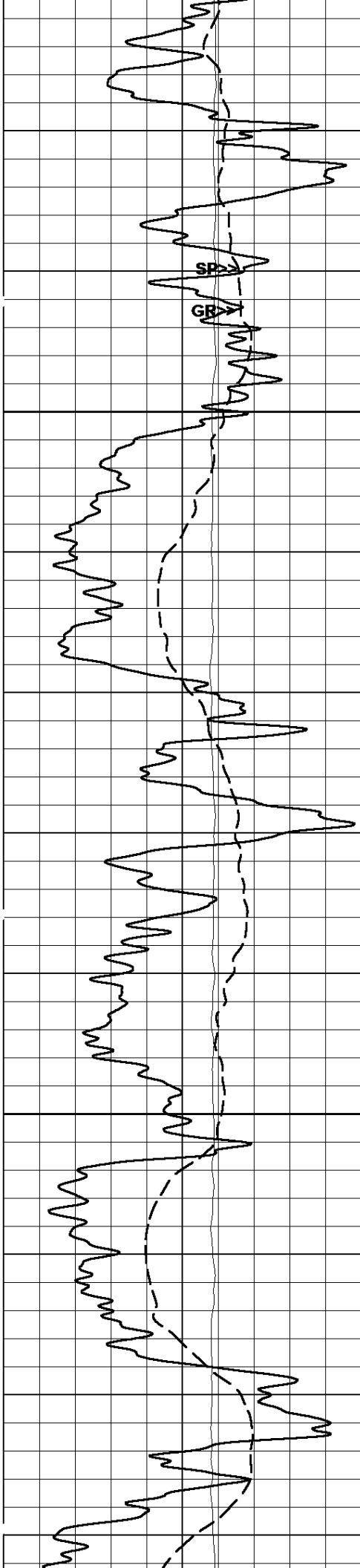
08/07/2015
18:21:25 => End Time

HIGH DEFINITION PASS (20"/100Ft)

Log UP - (VER 11.19)
End Depth=> 3489.97 Feet

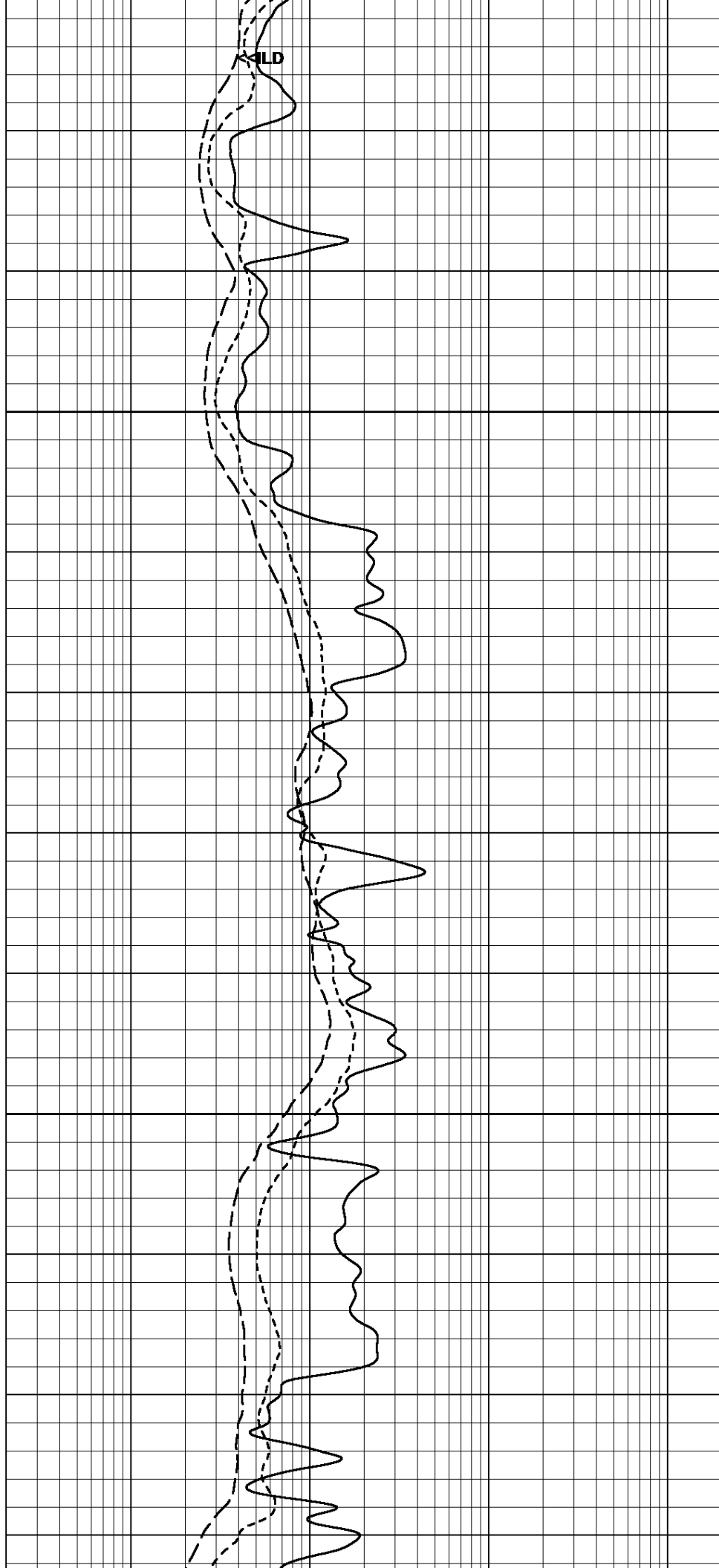
Tension (TENS)			Laterolog (LL3)		
5000.	Lbs	0.	0.2	ohmm	2000.
Spontaneous Potential (SP)			Med Induction (ILM)		
-160.	mV	40.	0.2	ohmm	2000.
Gamma Ray (GR)			Deep Induction (ILD)		
0.	API	150.	0.2	ohmm	2000.

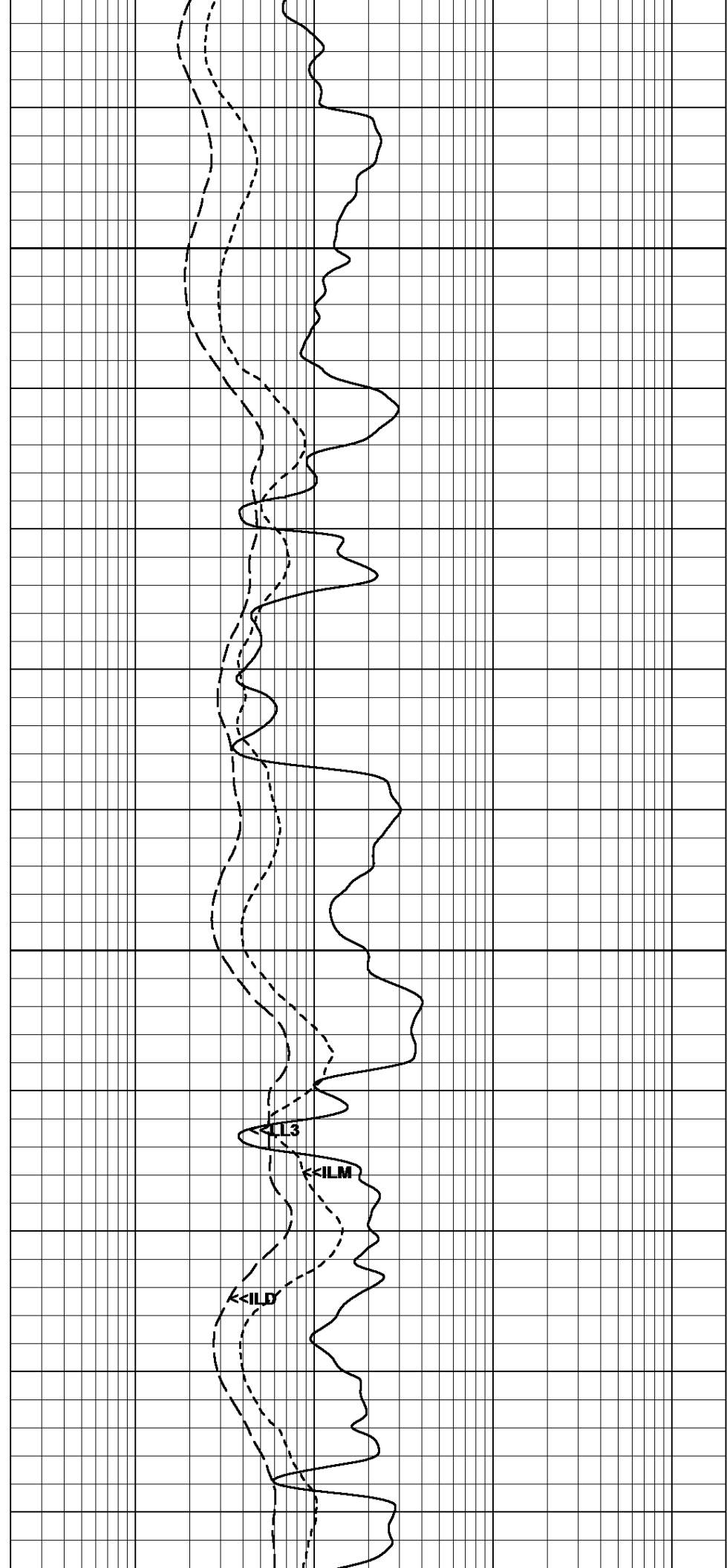
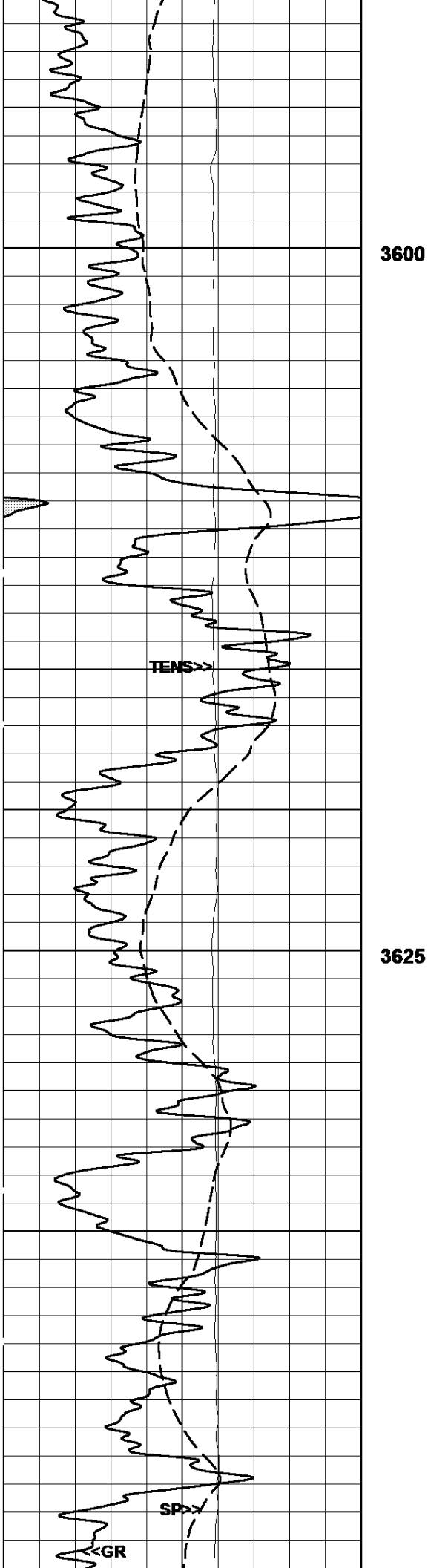


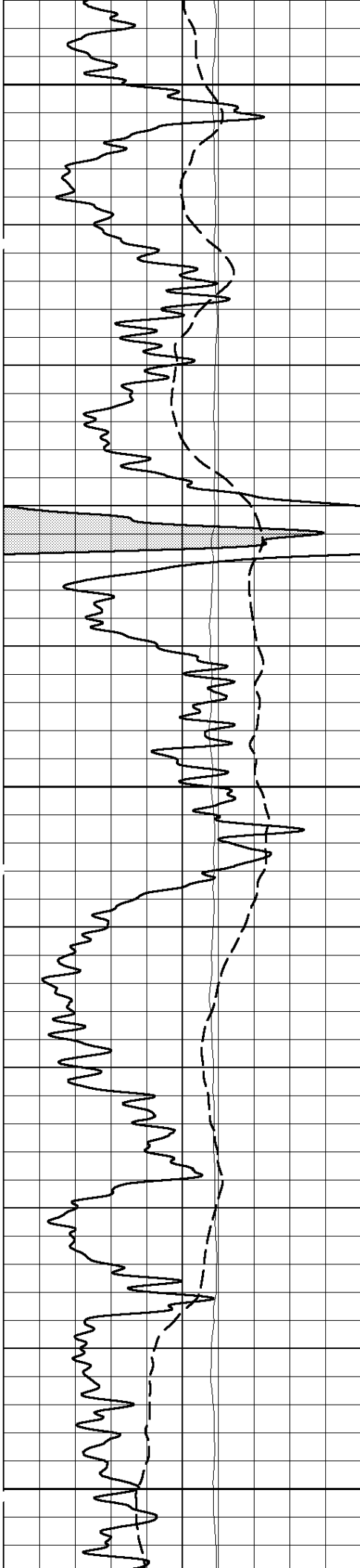


3550

3575



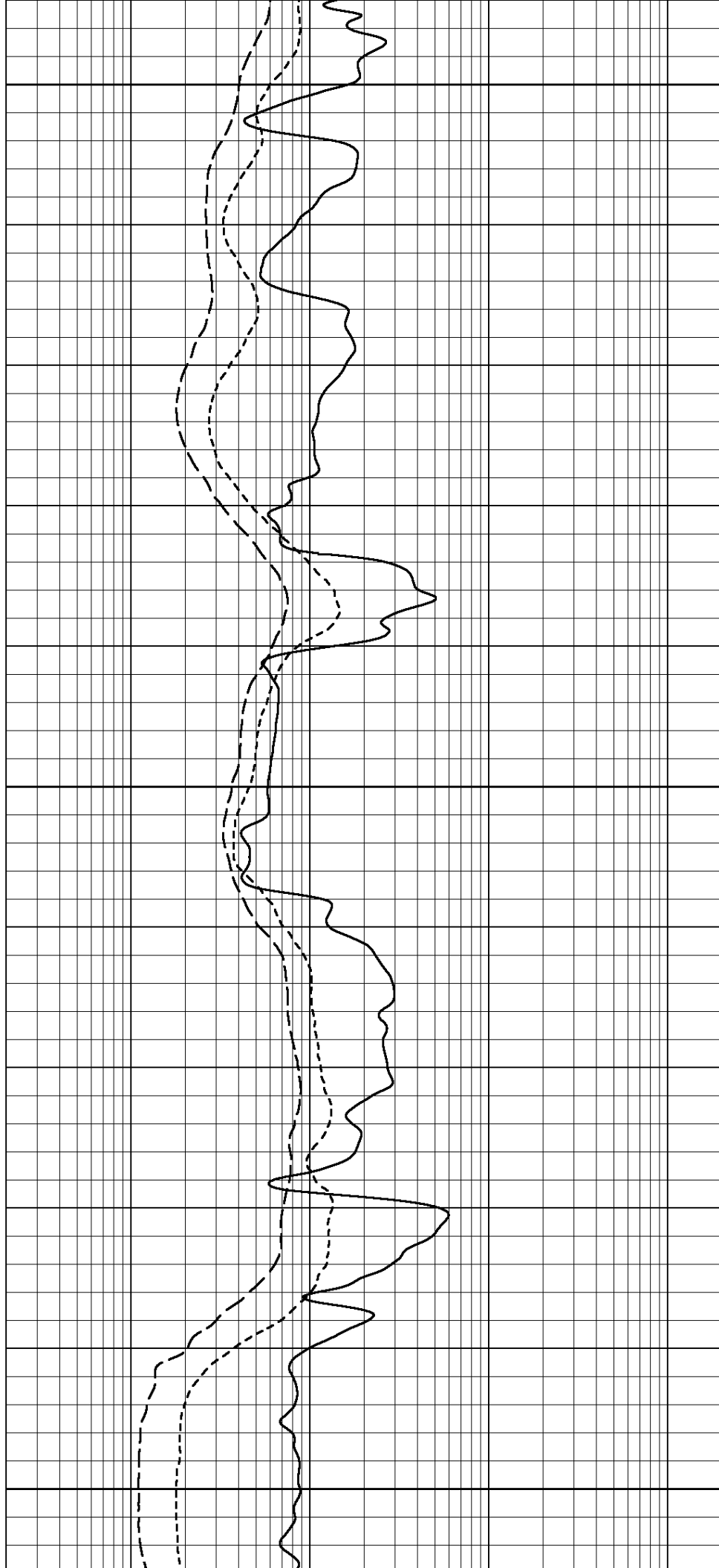




3650

3675

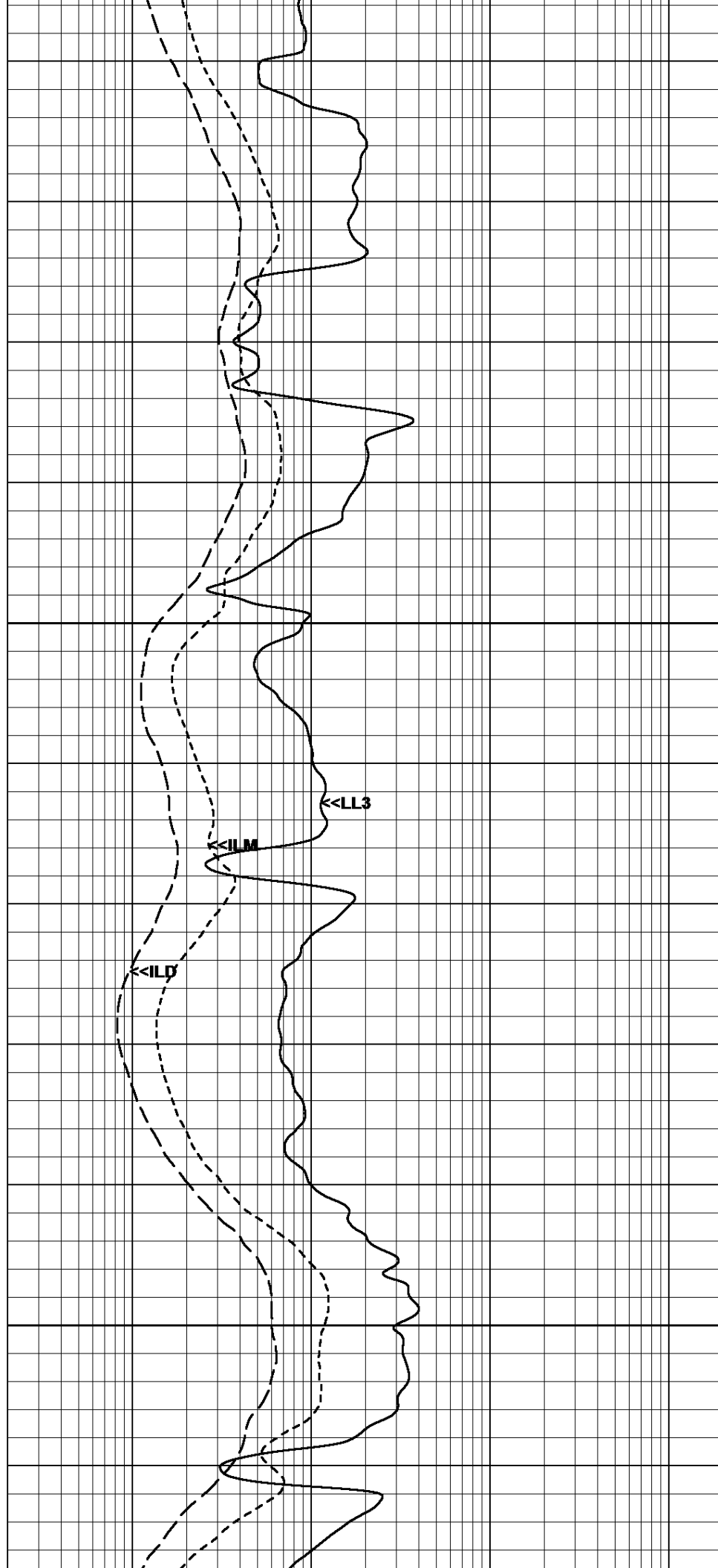
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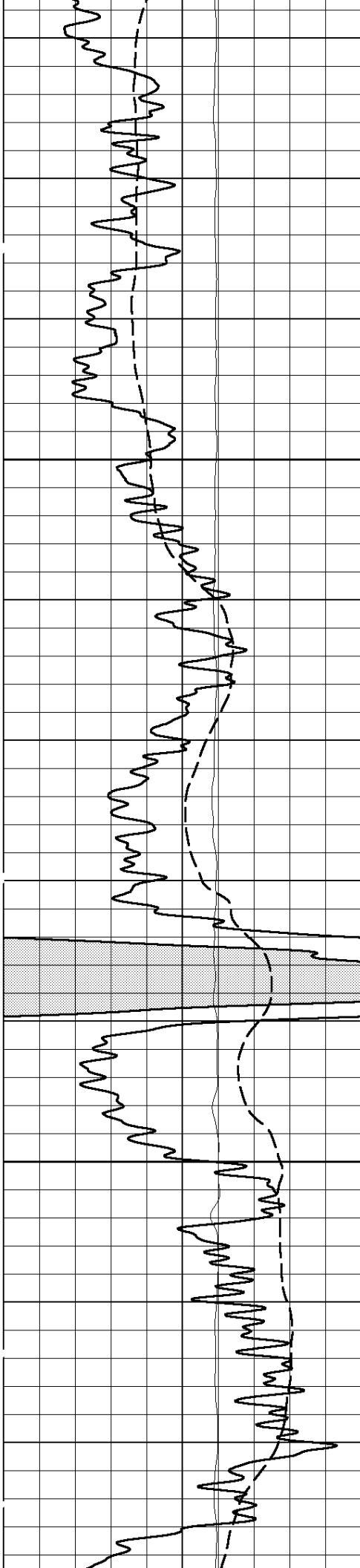




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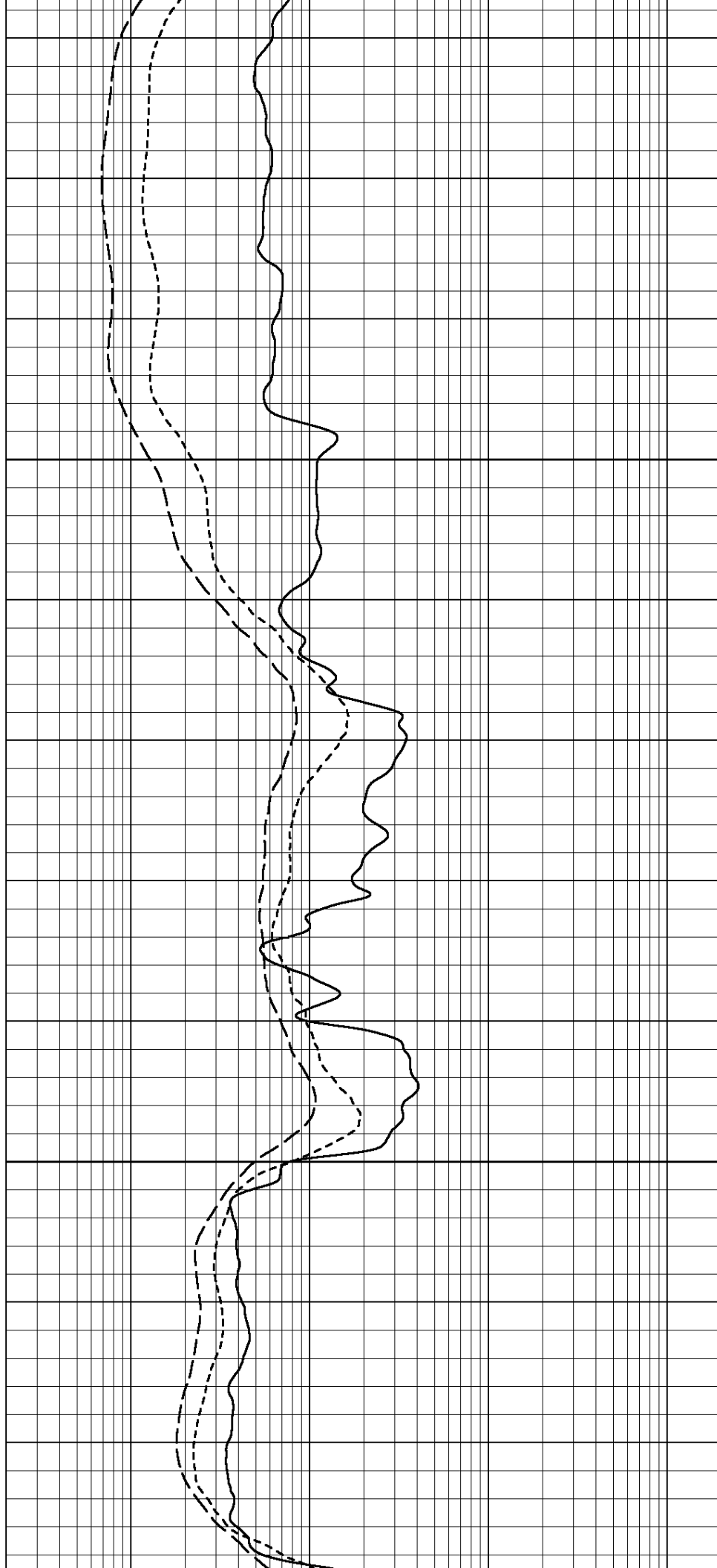
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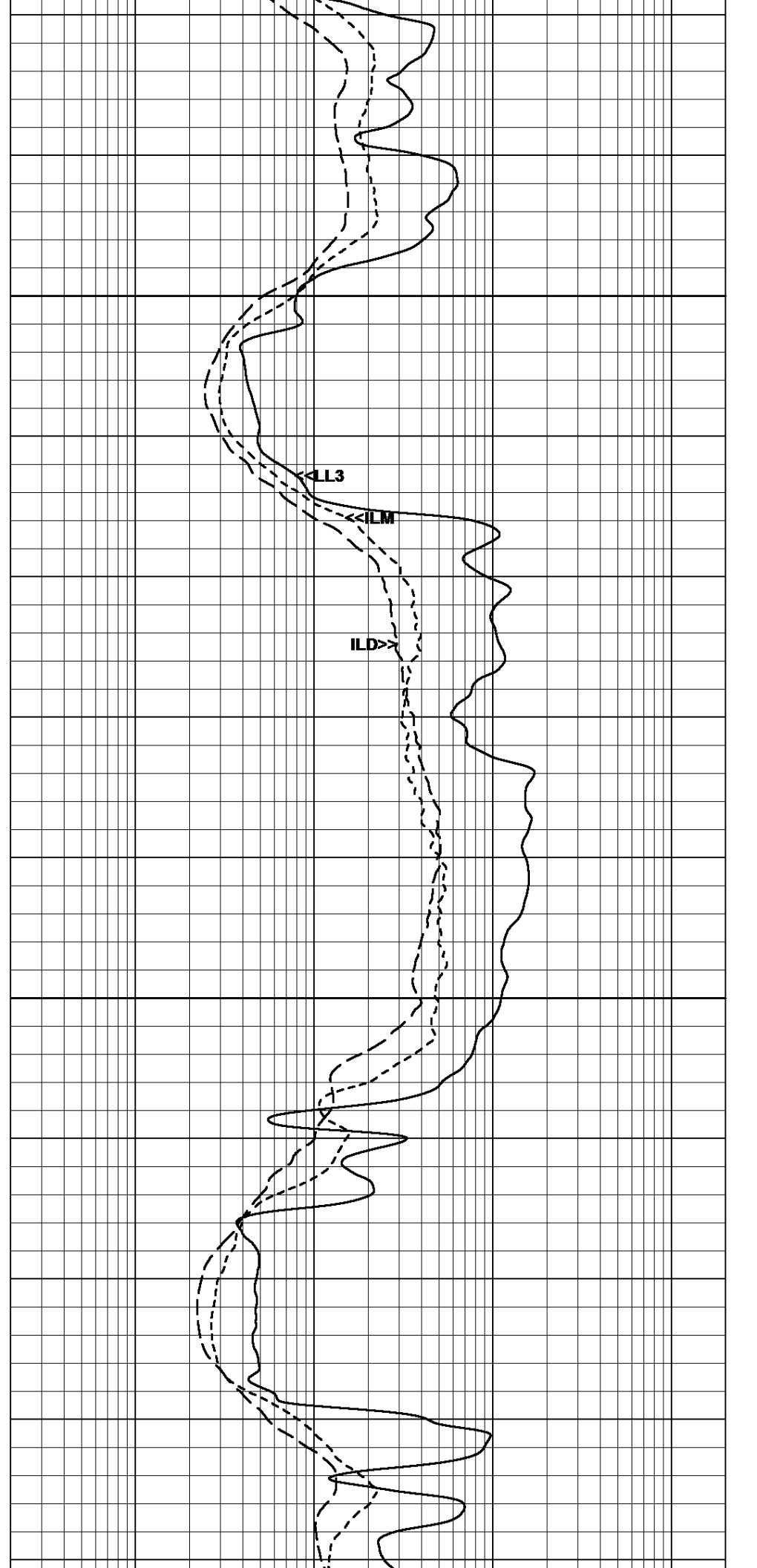
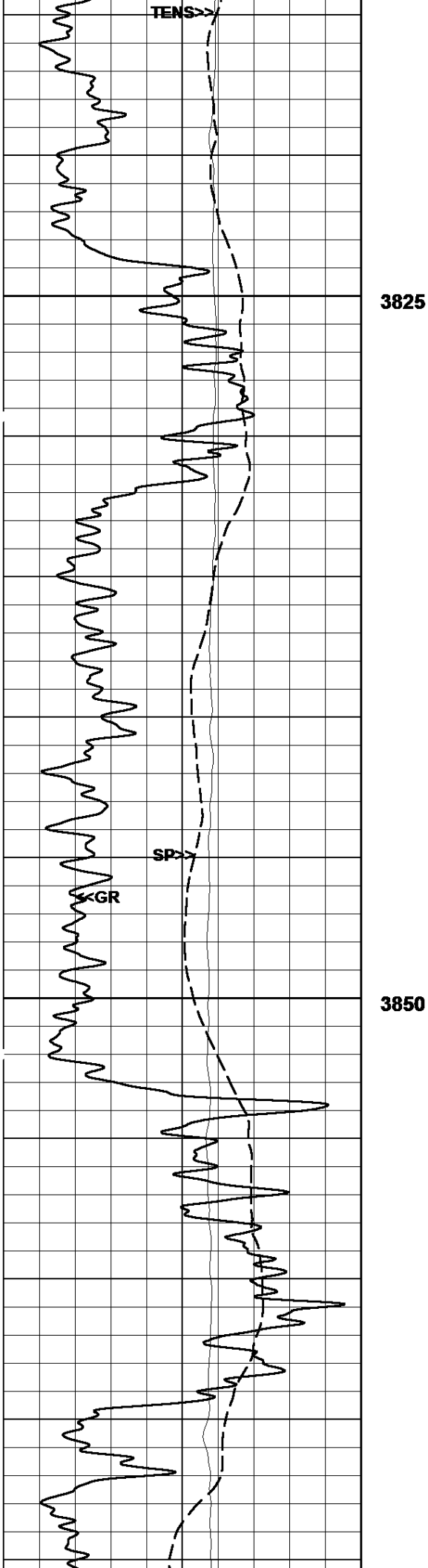


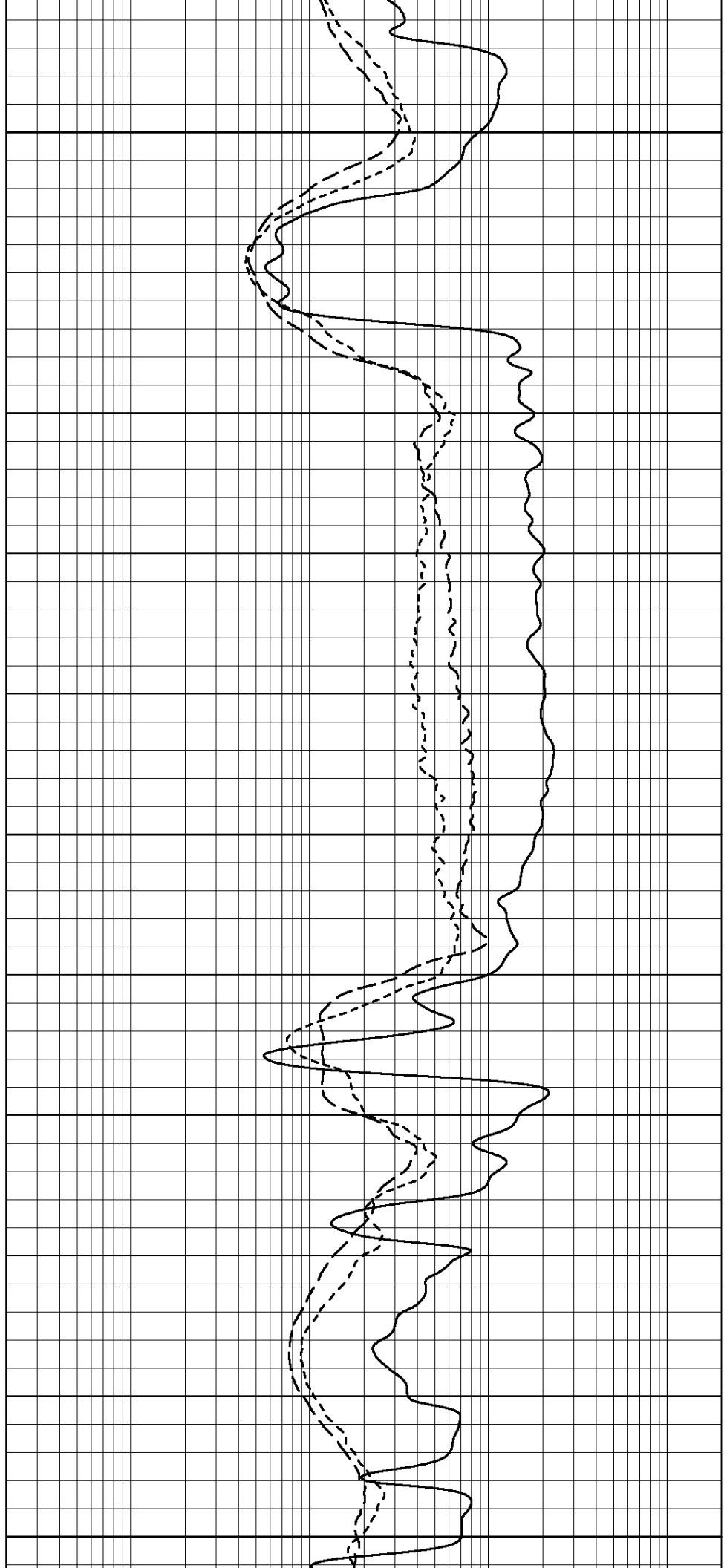
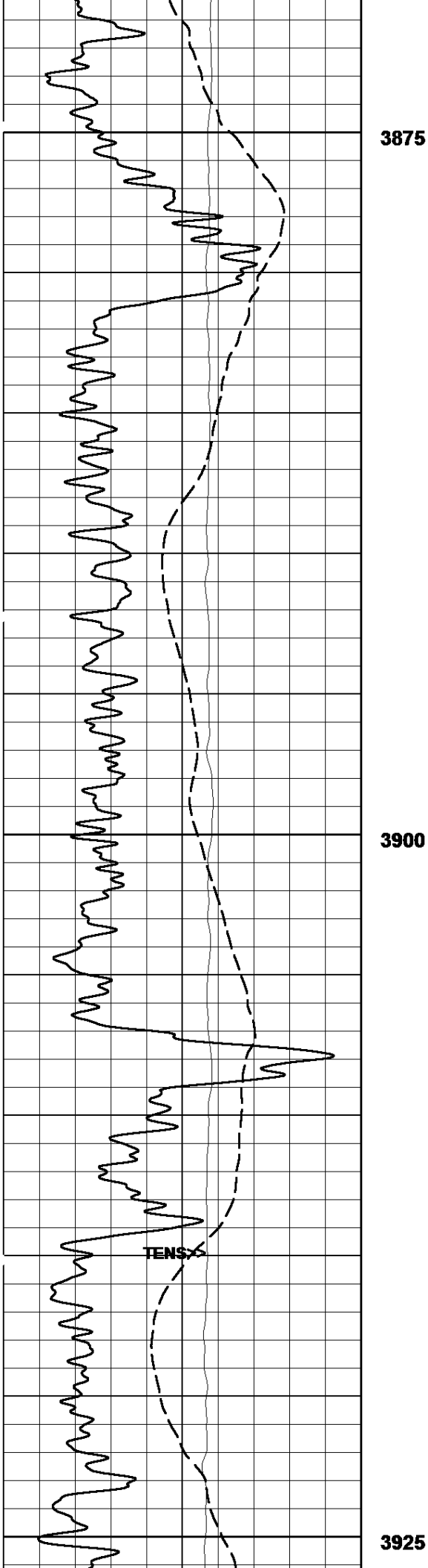


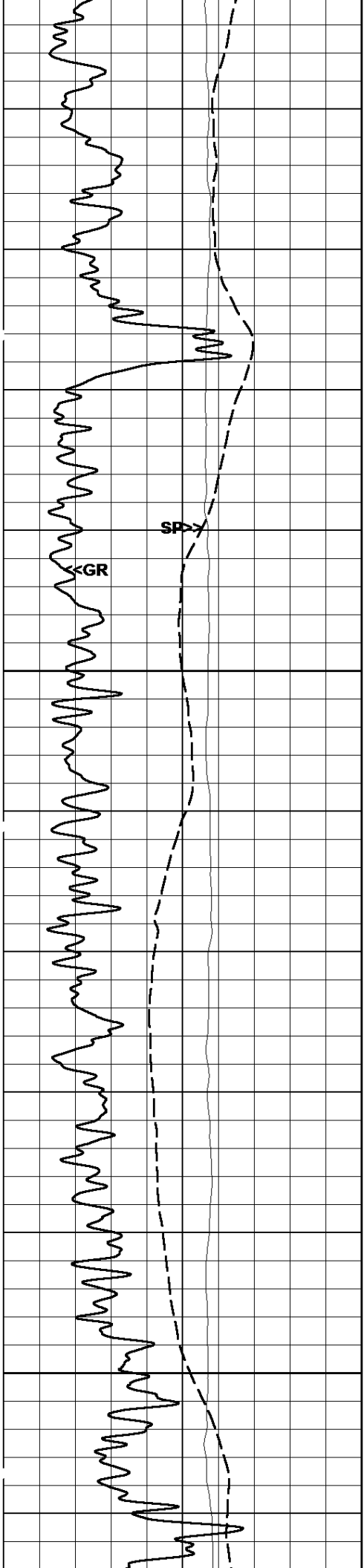
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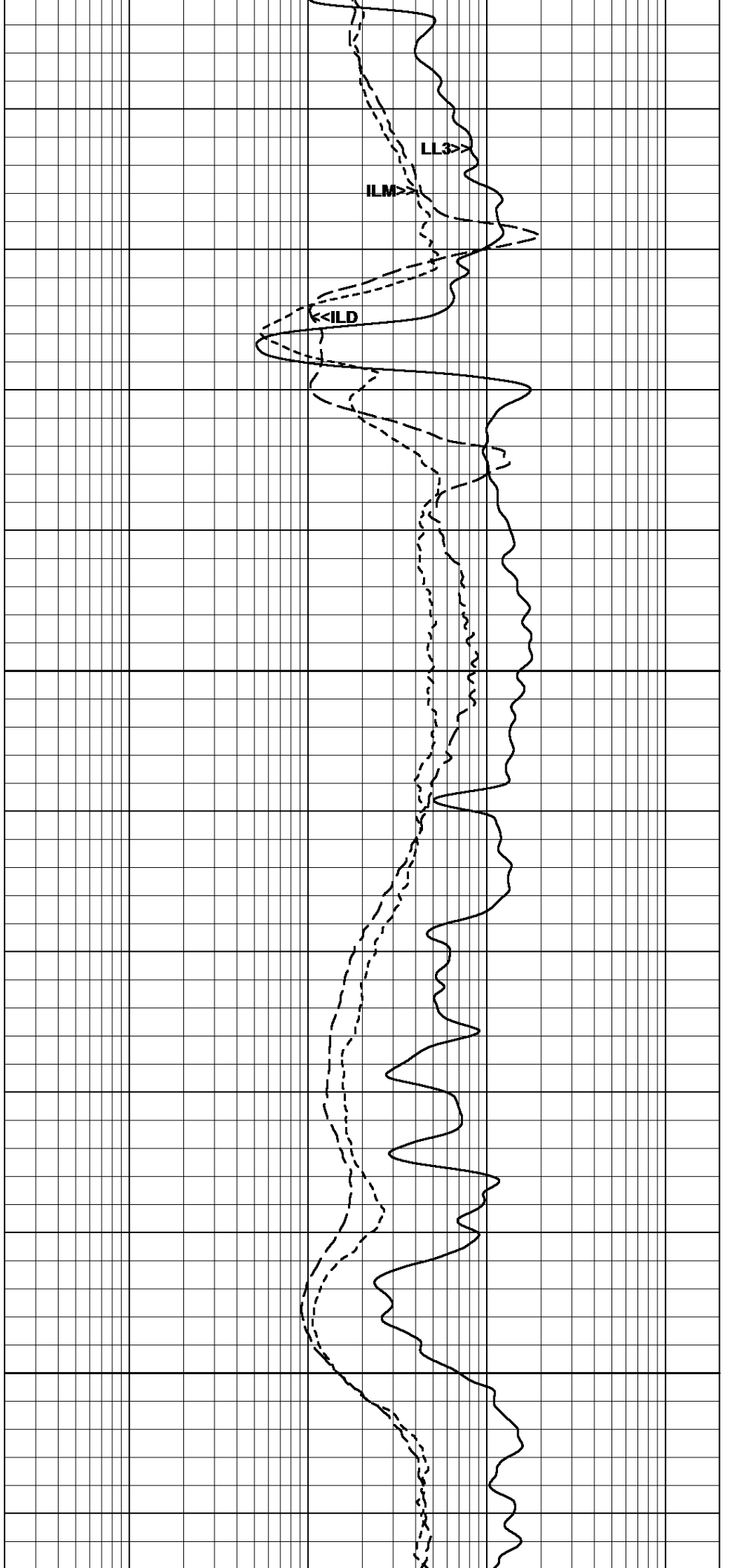


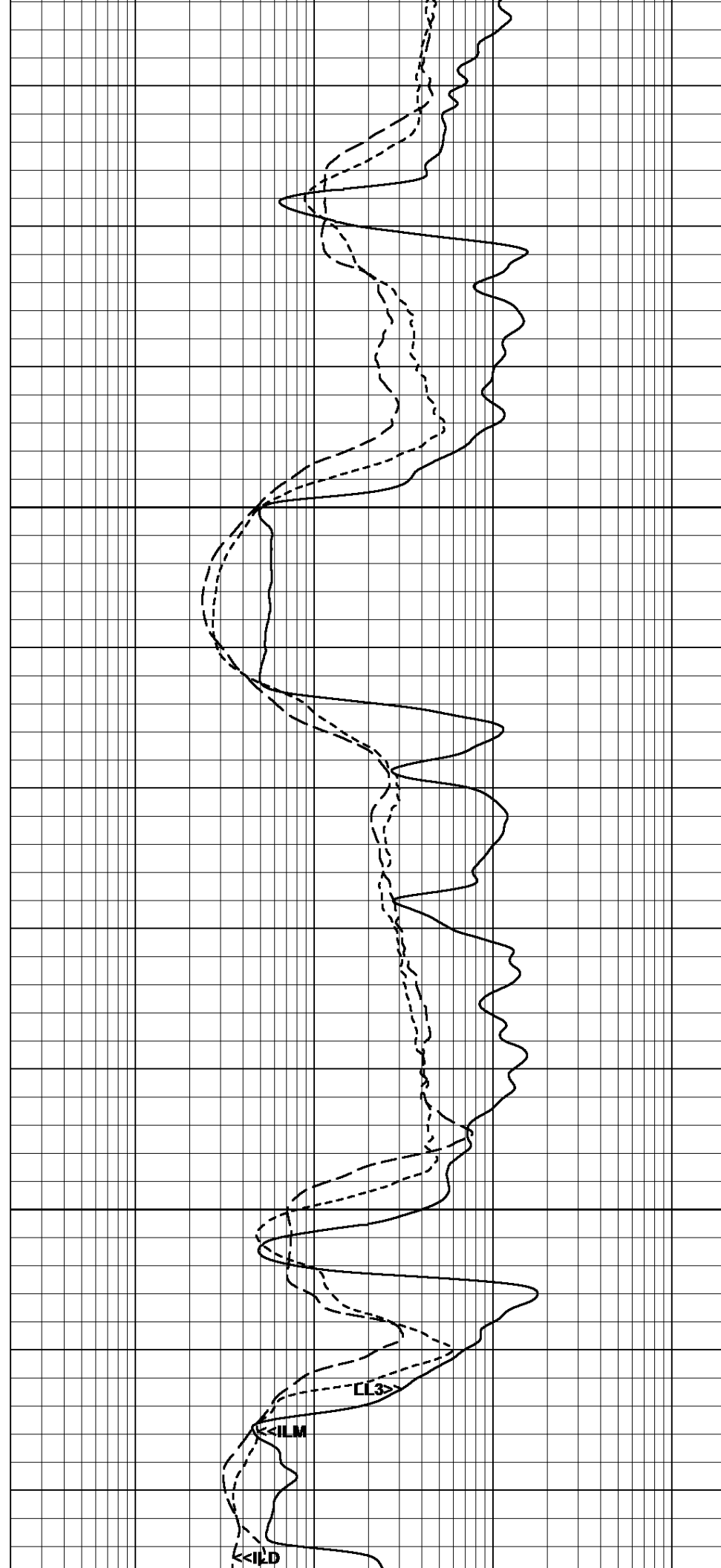
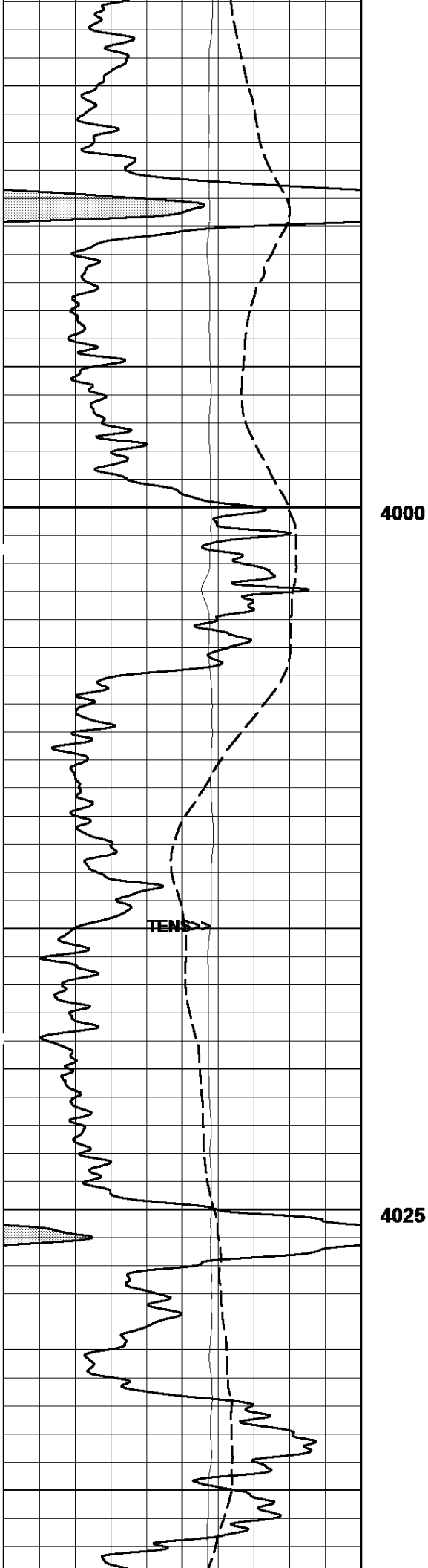


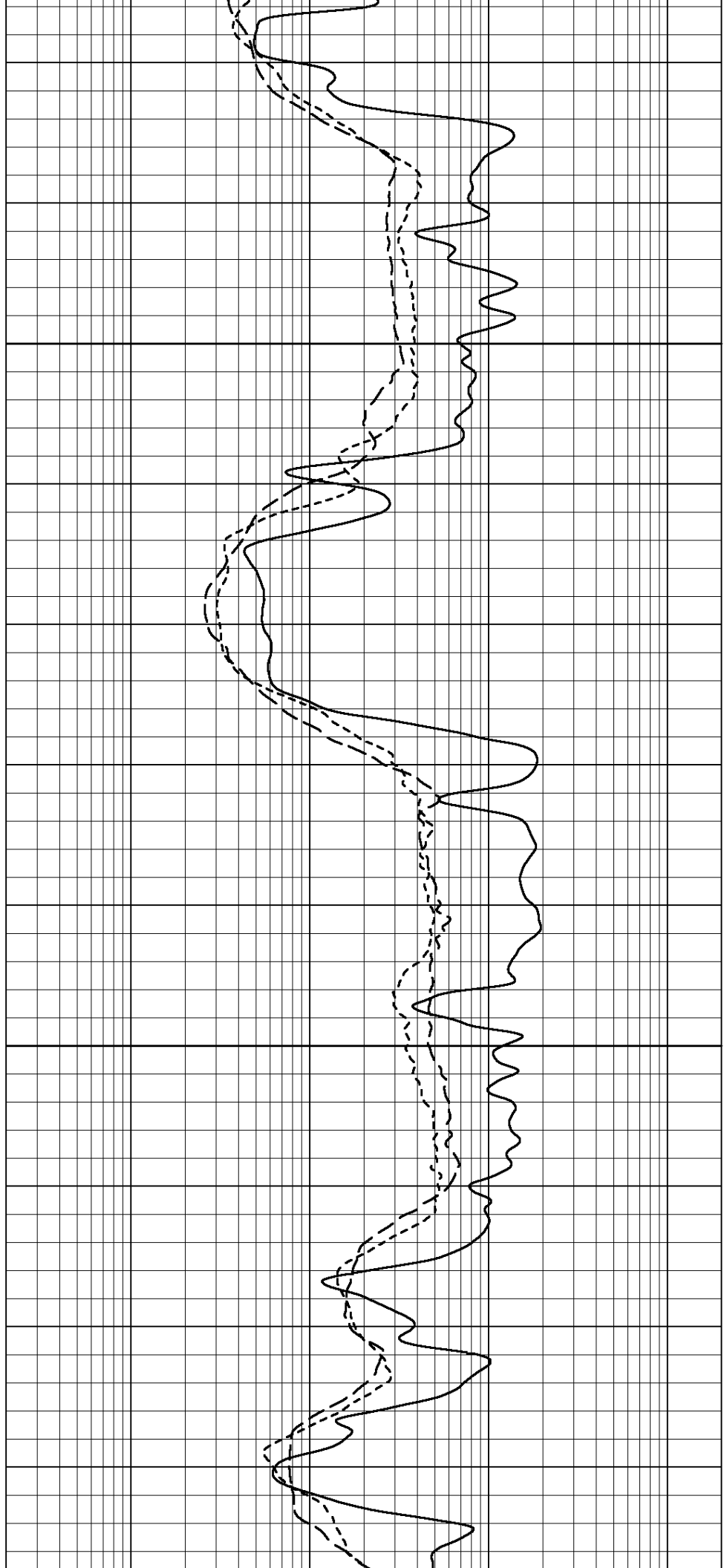
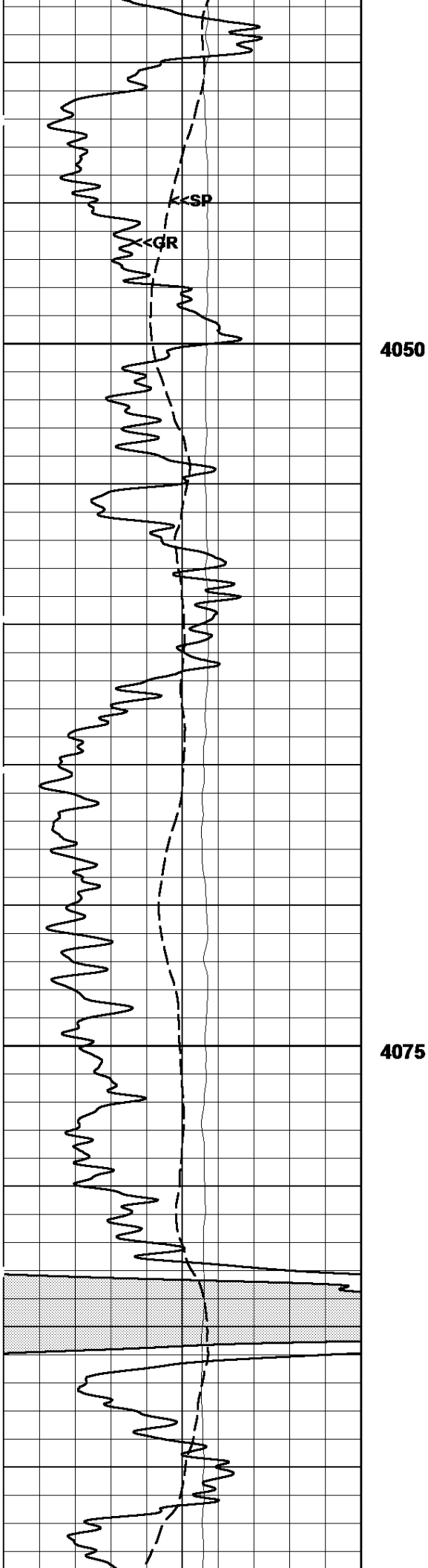


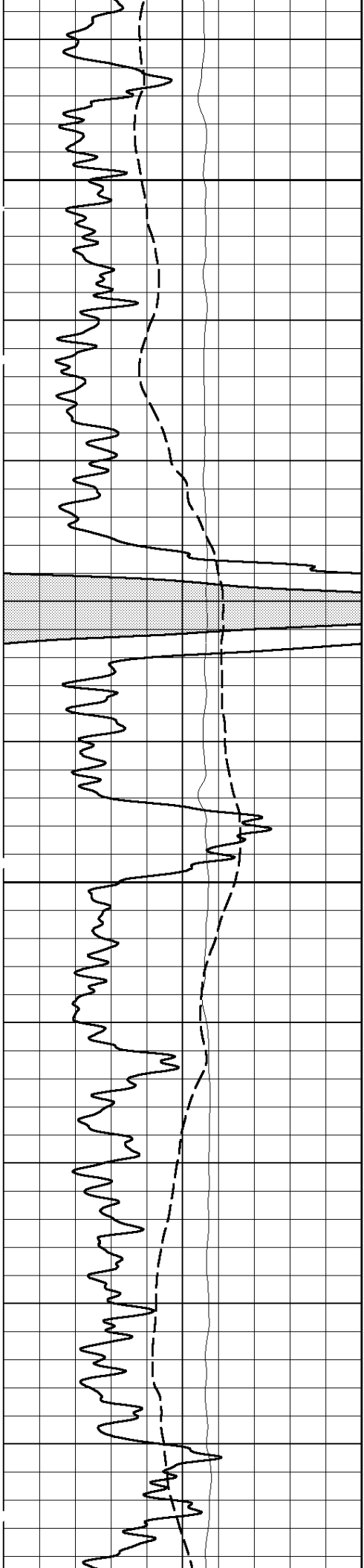
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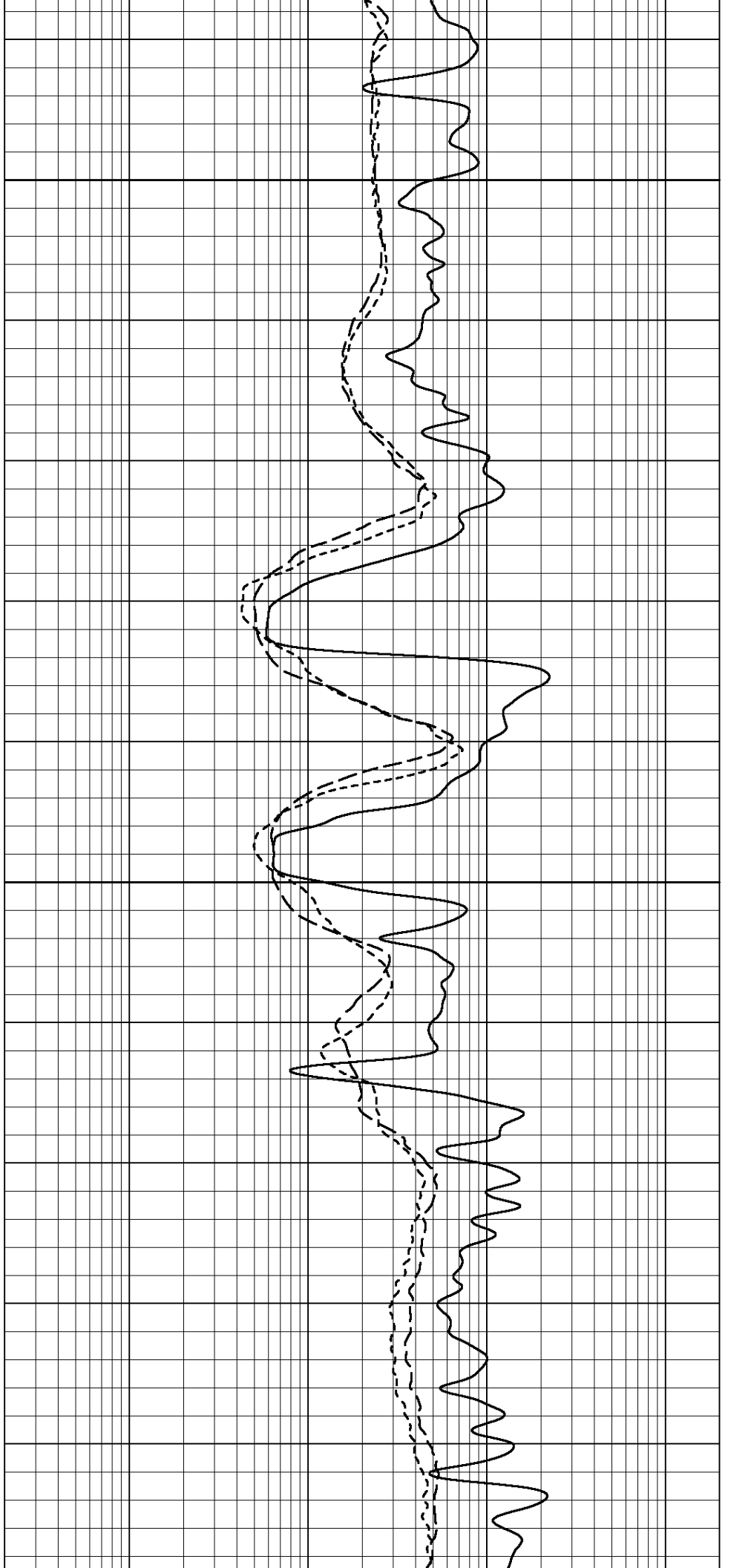


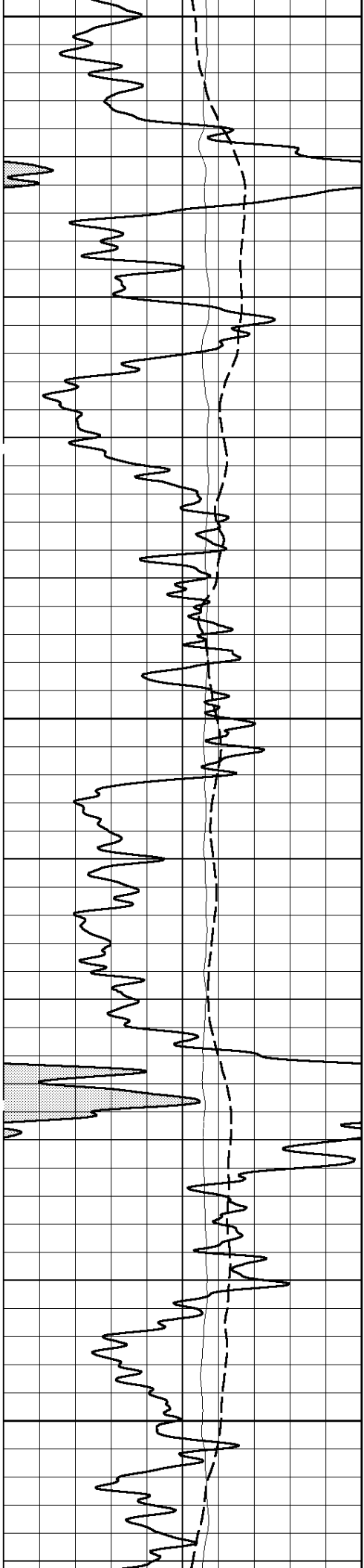




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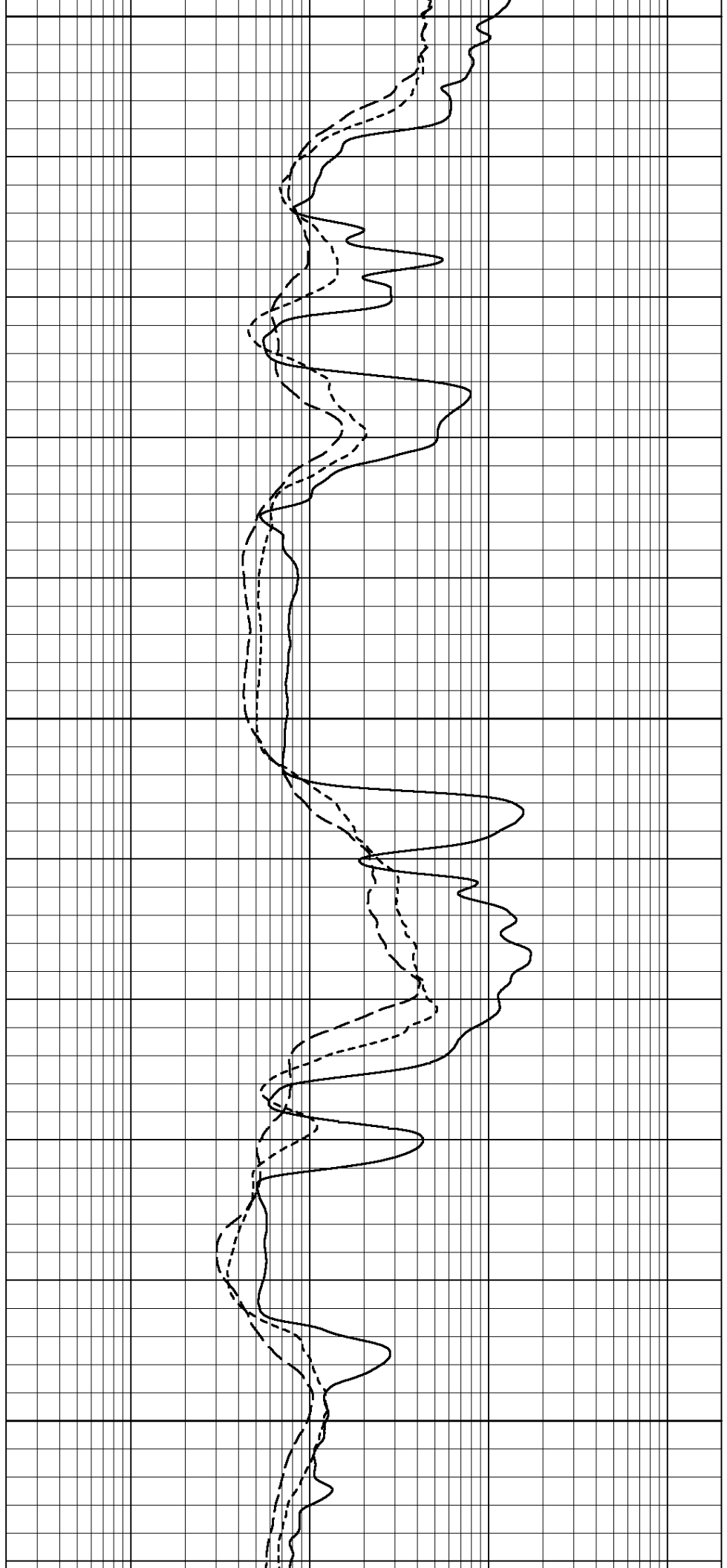


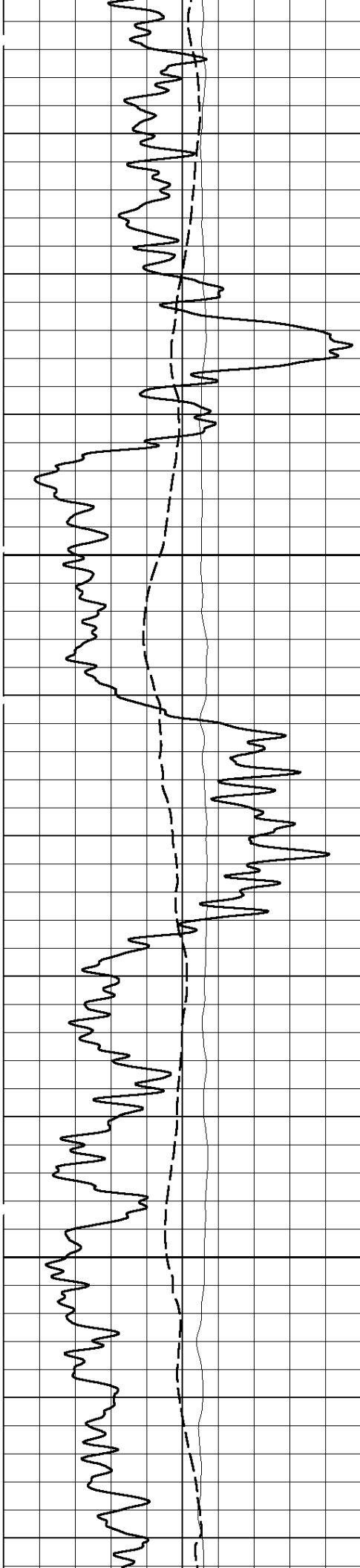


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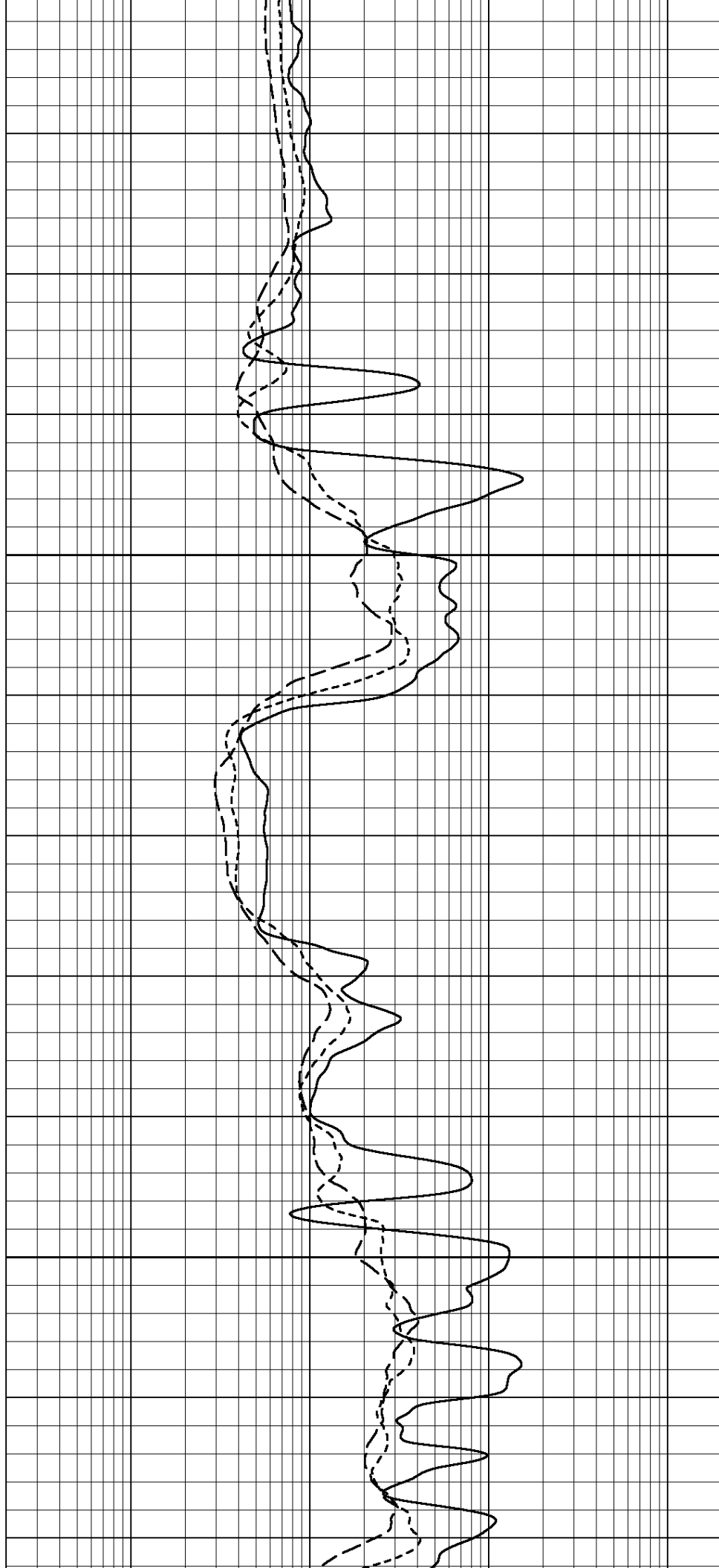
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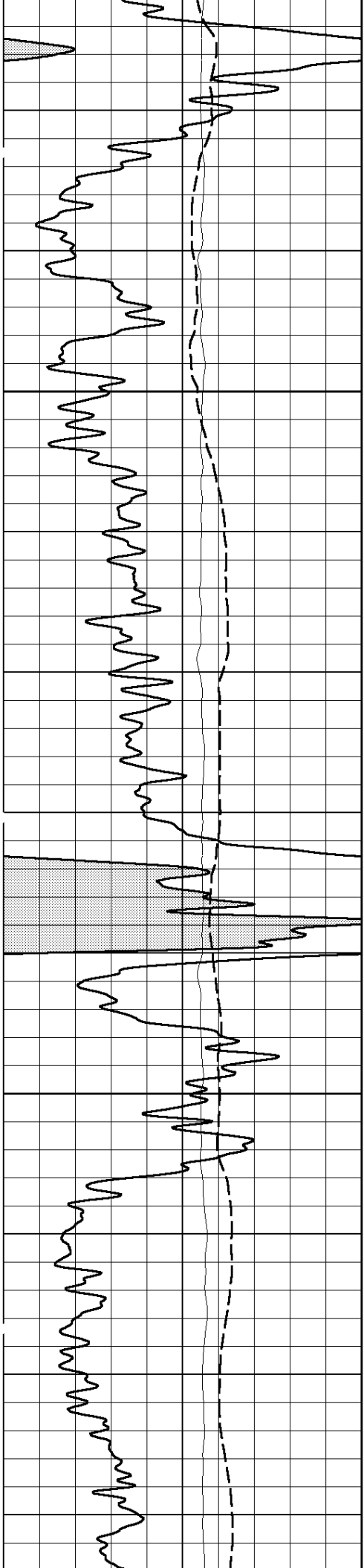




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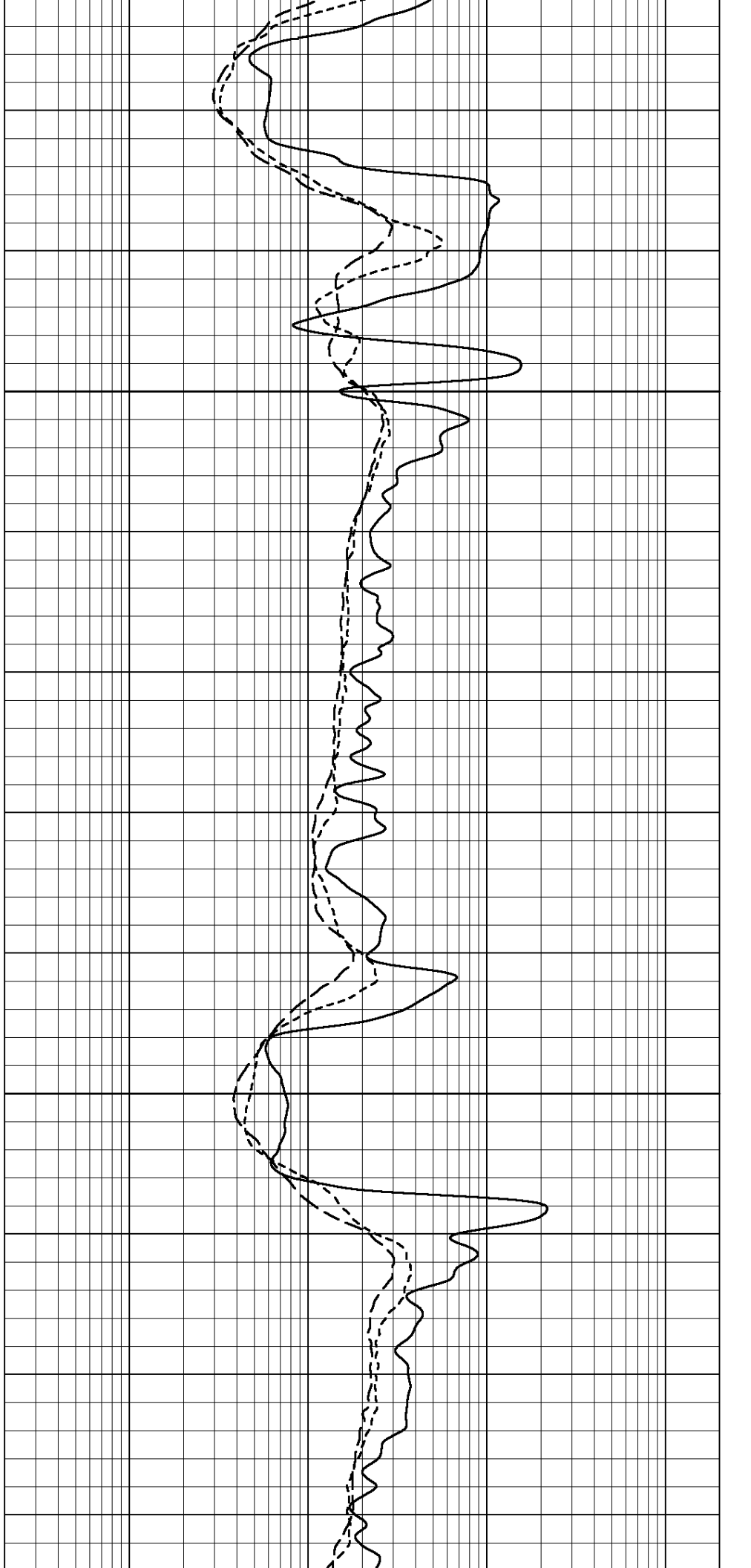
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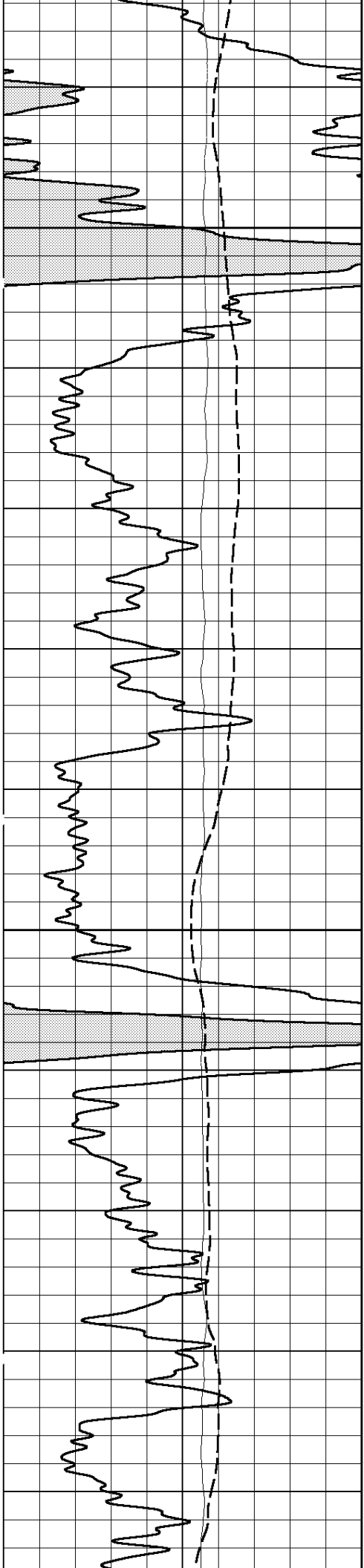




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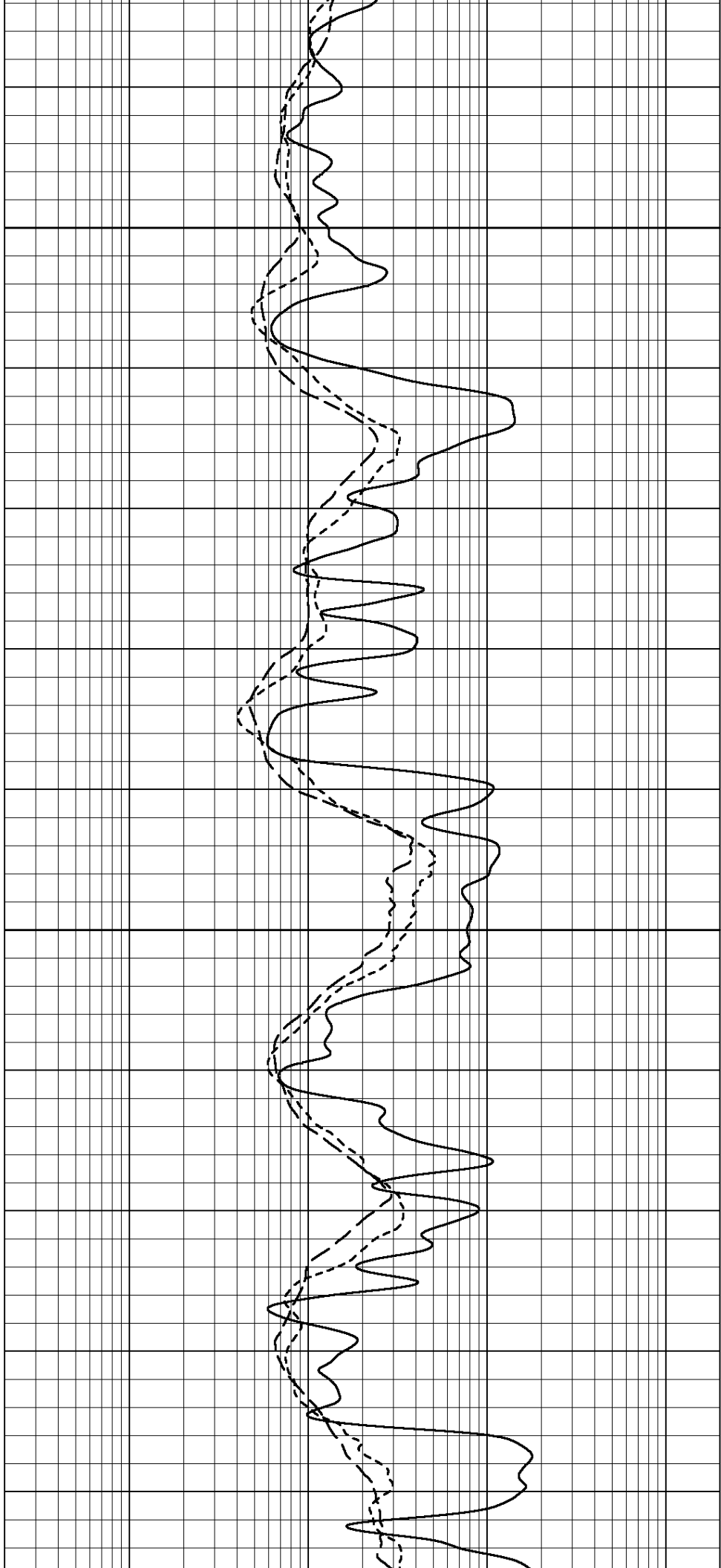
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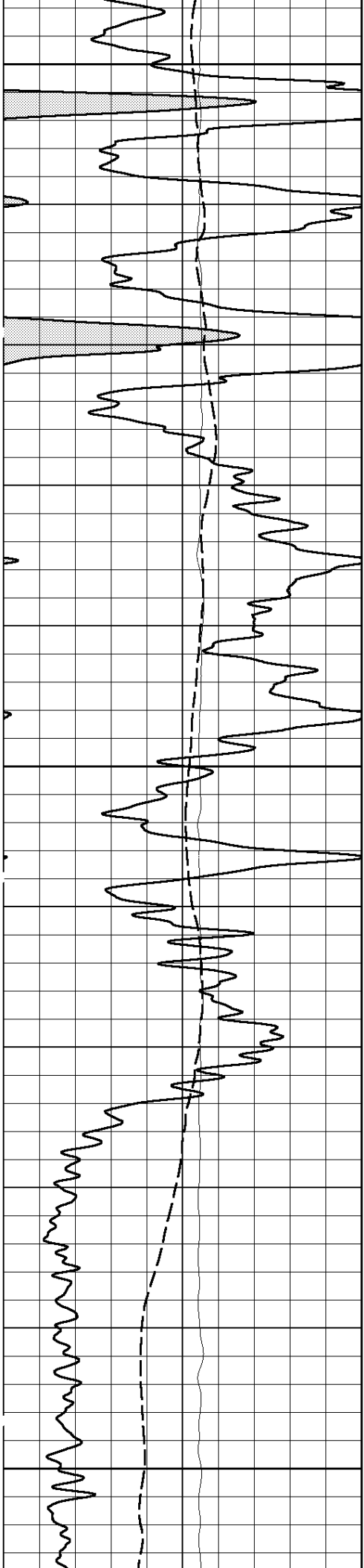




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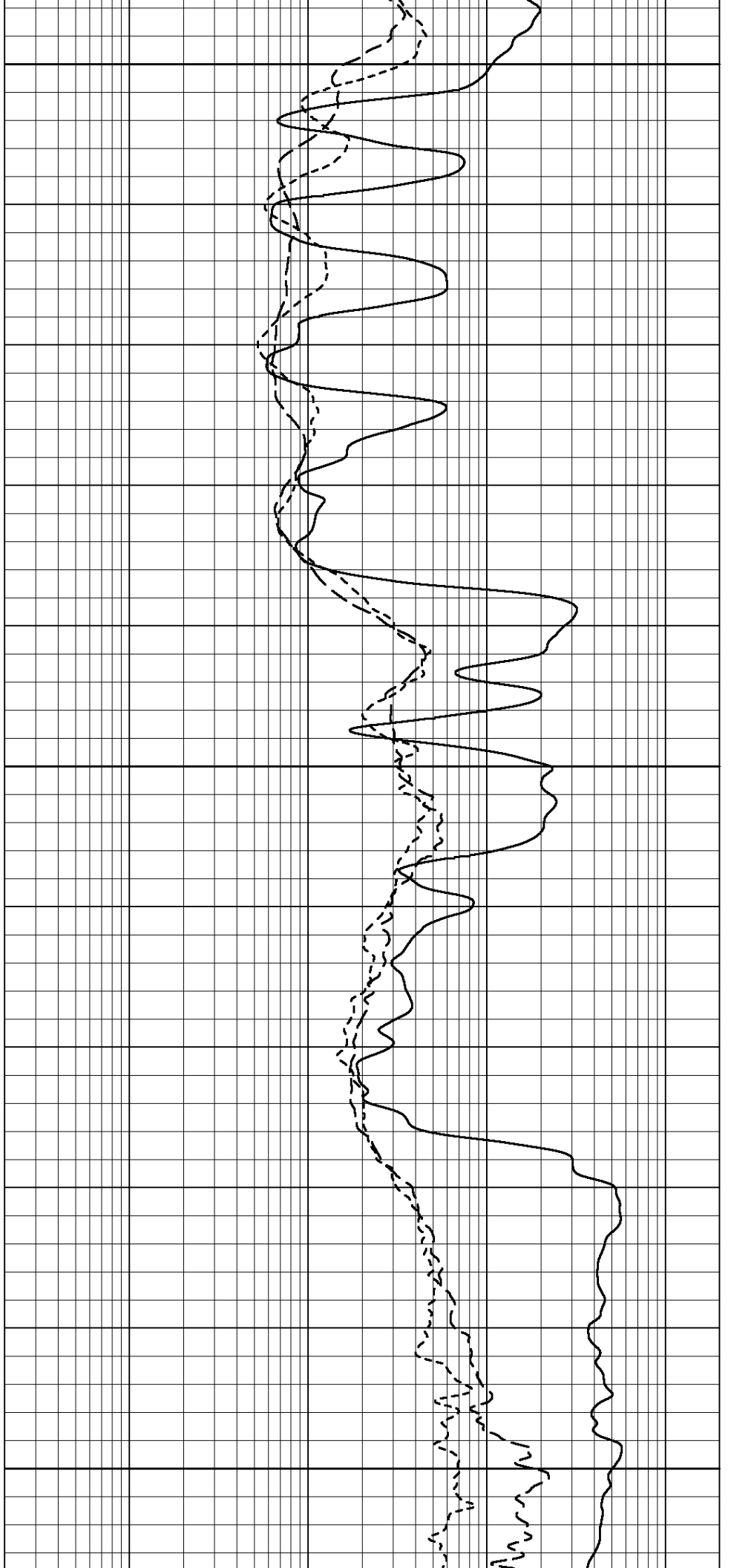


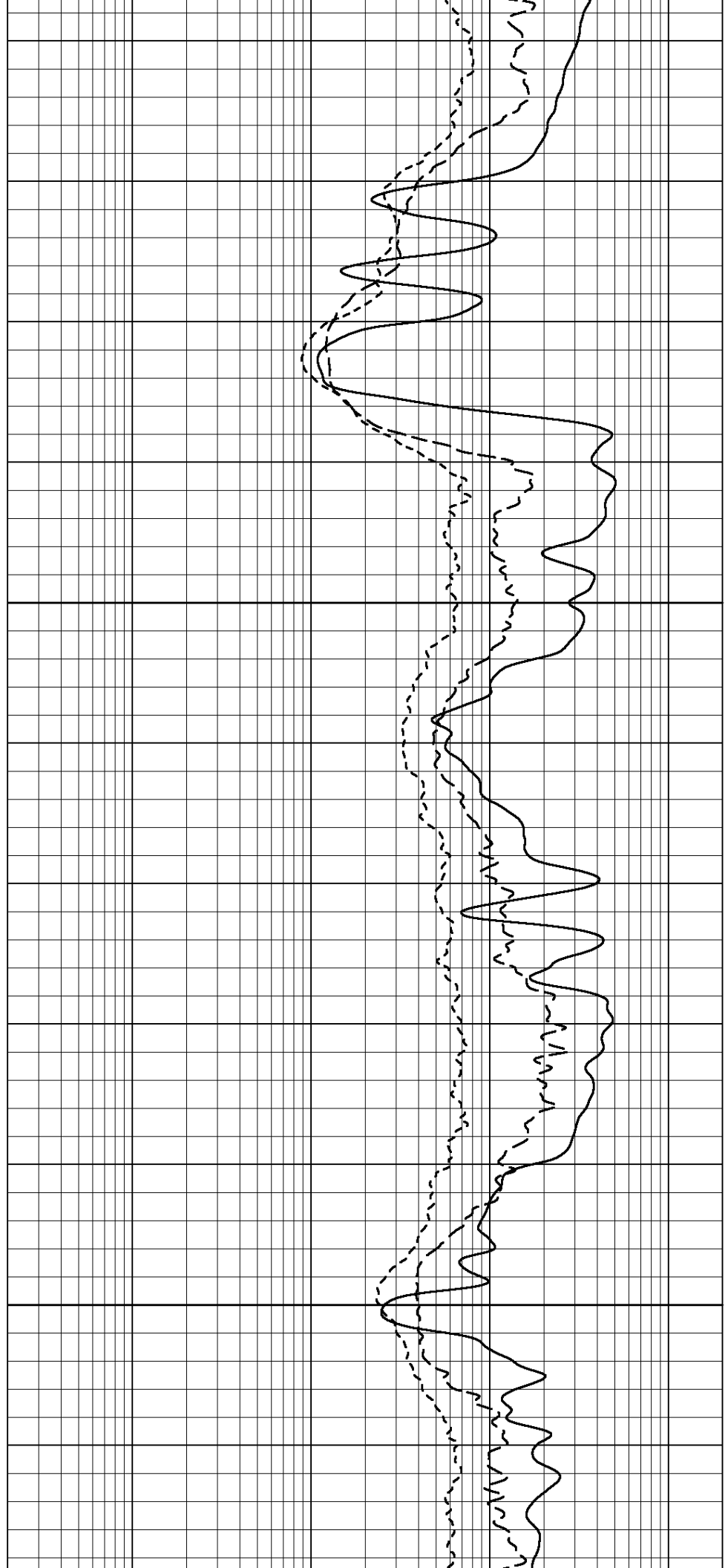
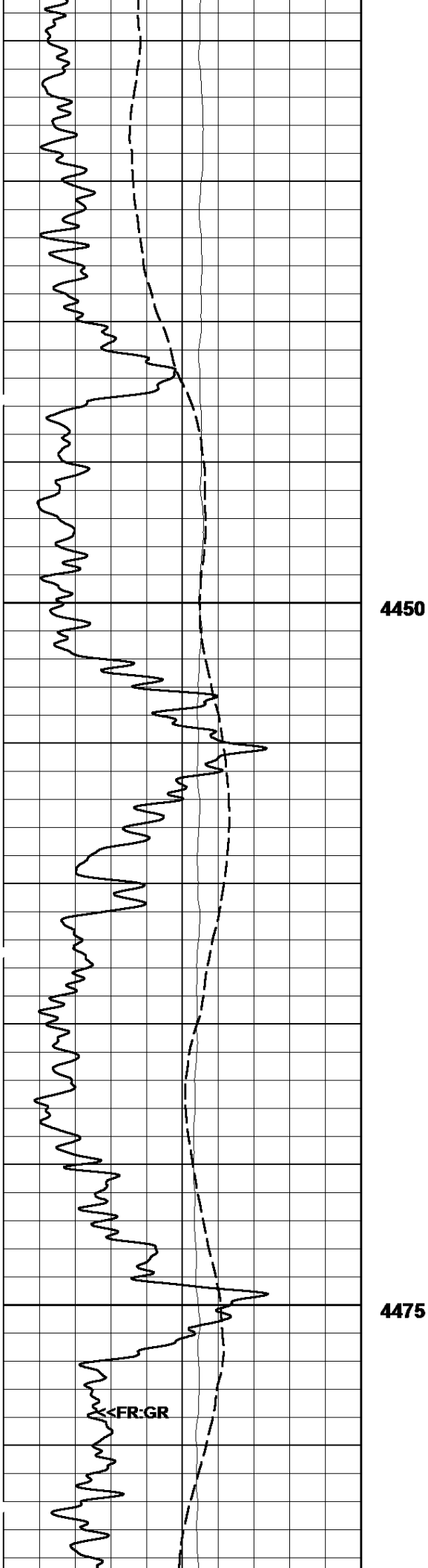


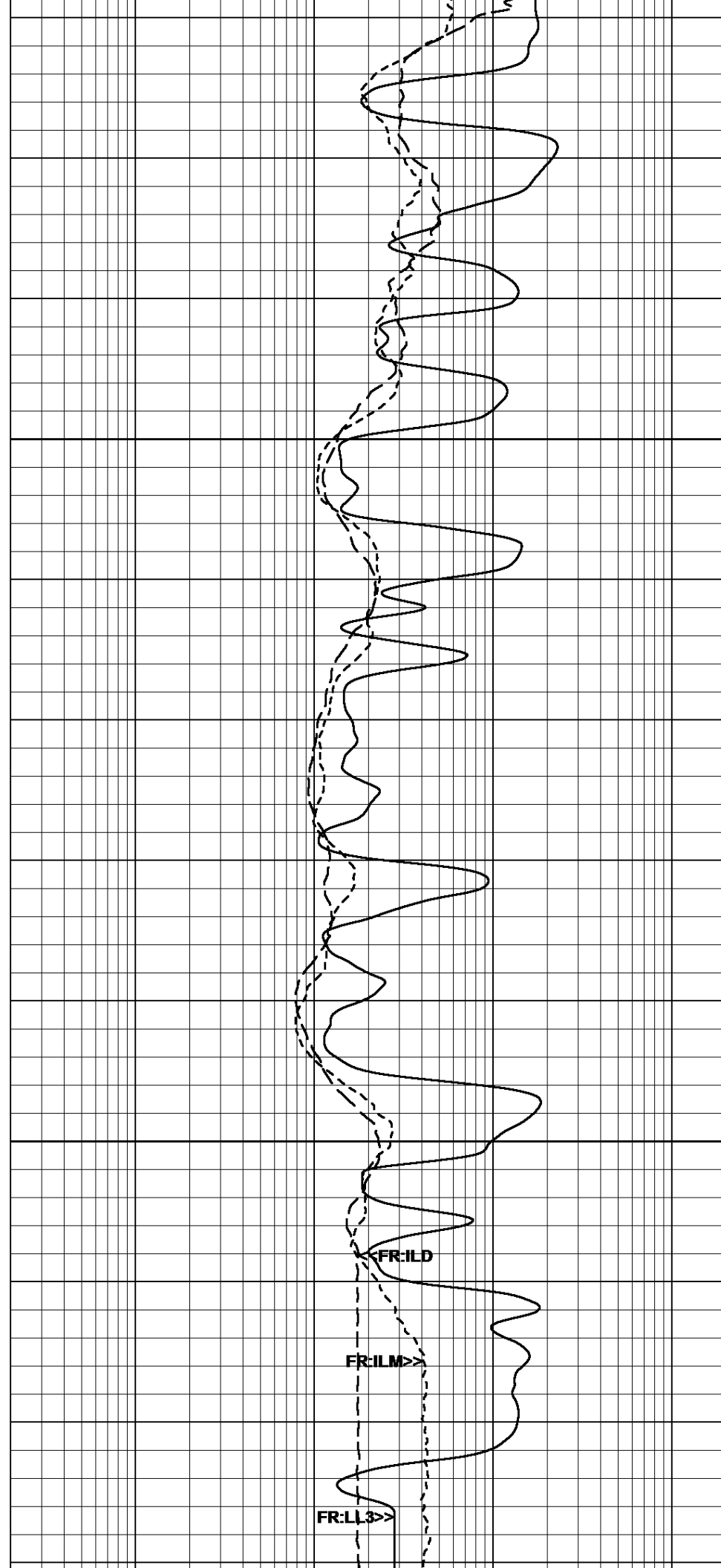
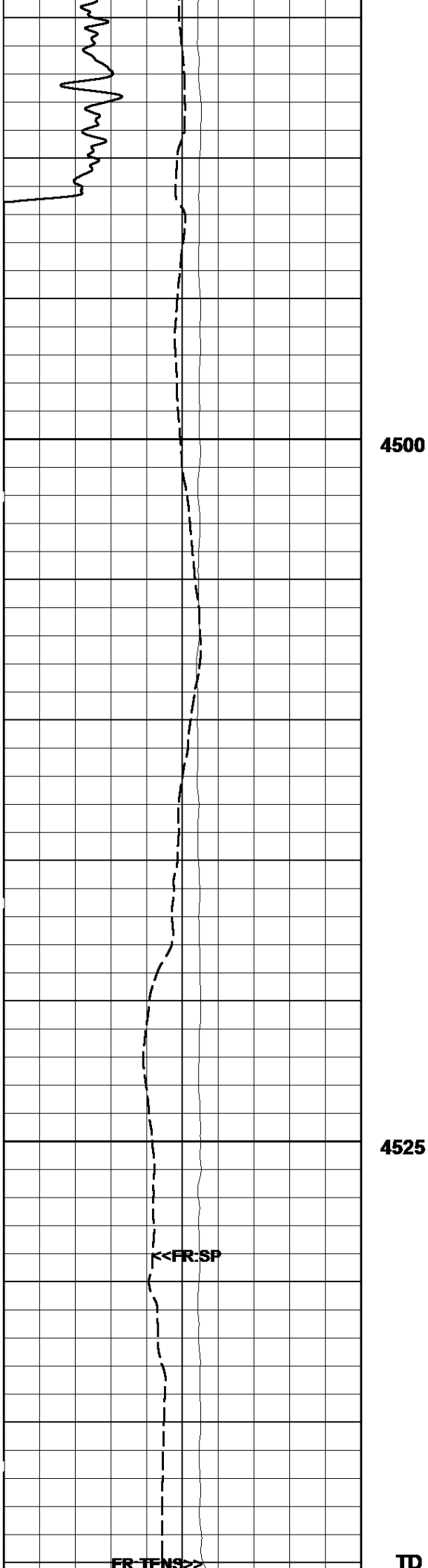
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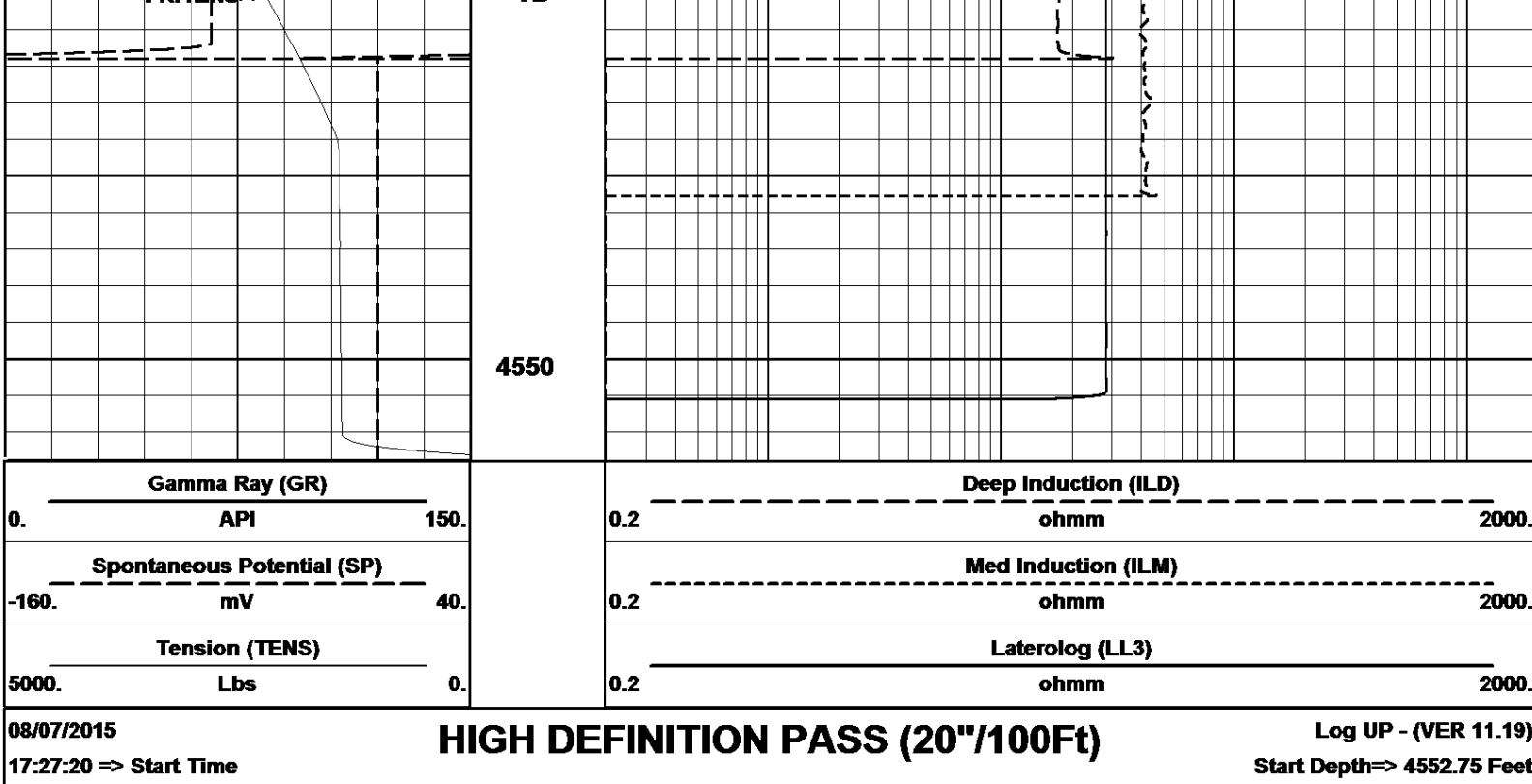
4400

4425









Induction Resistivity / Conductivity Calibrations

TOOL TYPE
SERIAL NUM

Slim Hole Induction
RD1002

LOOP TYPE
LOOP NUM

MASTER CALIBRATIONS

	OPEN LOOP(mmho)		CLOSED LOOP(mmho)		LOOP VERIFIER(mV)		CALIBRATION DATE	CALIBRATION TIME
	NO SKIN		NO SKIN	W/ SKIN	ZERO(mV)	SPAN(mV)		
DEEP INDUCTION	-0.000		400.000	499.231	-0.210	640.710	M/D/Y> 3/20/2015	H:M:S> 13:39:15
MED INDUCTION	0.000		462.500	501.895	-27.502	757.422	M/D/Y> 3/20/2015	H:M:S> 14:2:41
SHALLOW LATERLOG	CALIBRATOR LOW(ohm)		CALIBRATOR HI(ohm)		LOW(mV)	HI(mV)		
	2.000		500.000		9.859	2518.169		

WELL SITE CALIBRATIONS

GAMMA RAY CALIBRATION

SERIAL NUM
BLANKET NUM

RG3007
1A

MASTER CALIBRATIONS

MASTER CALIBRATIONS

	BackGrnd	CalVal: 175.000 API	Gain/Offset	CALIBRATION DATE	CALIBRATION TIME
BASE CALS	31.235 - raw	207.385 - raw	0.993 - gain 0.000 - off	M/D/Y> 8/6/2015	H:M:S> 12:41:47

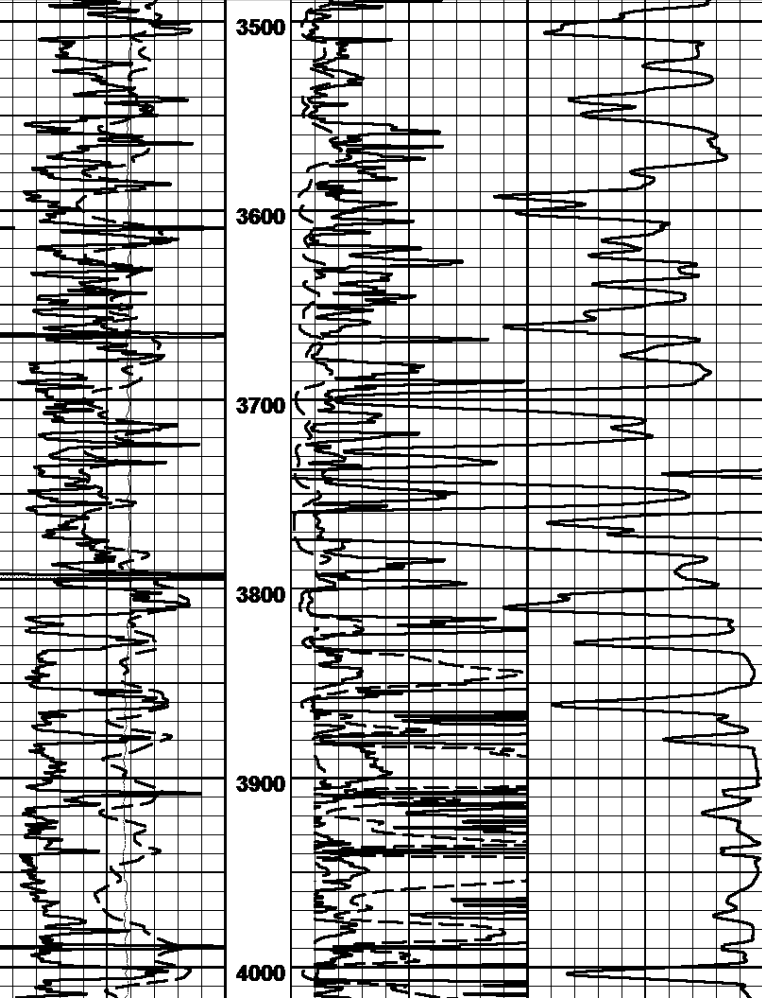
Company	K3 OIL & GAS OPERATING COMPANY
Well	EATON #3-18
Field	WILDCAT
County	LANE
State	KANSAS

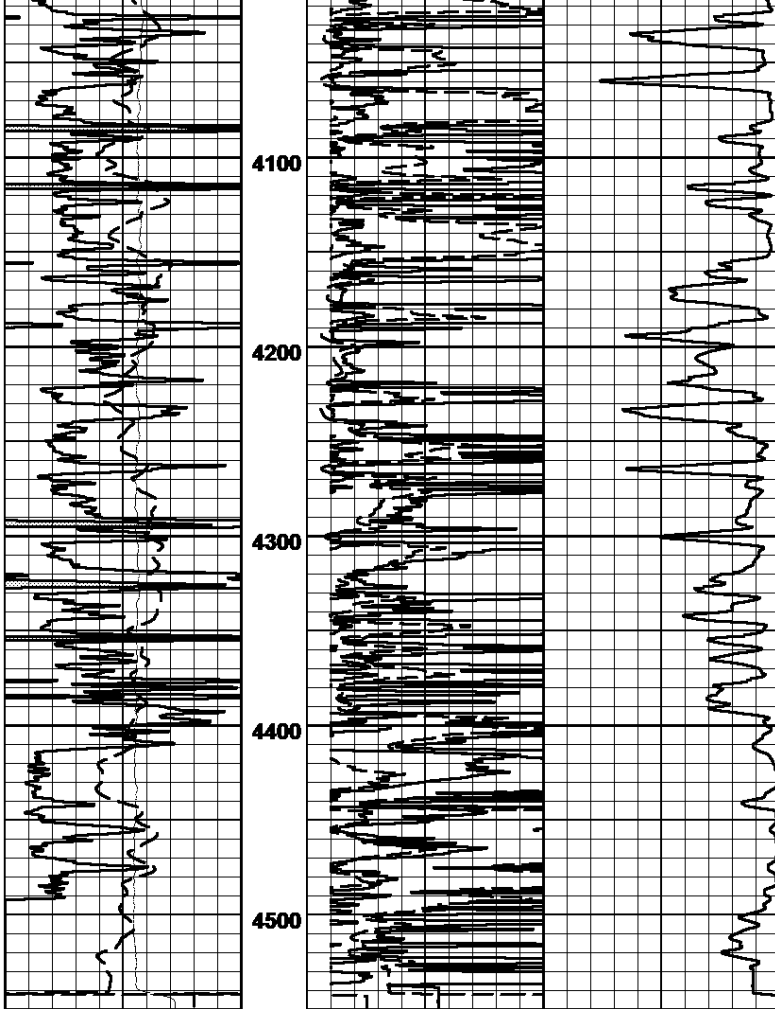


DUAL INDUCTION
LATEROLOG - SP
GAMMA RAY

08/07/2015 **MAIN PASS (1"/100FT) Log UP - (VER 11.19)**
 20:05:19 => End Time End Depth=> 3489.50 Feet

Tension (TENS) 5000. Lbs 0.	Laterolog (LL3) 0. ohmm 50.	
ontaneous Potential (SP) -160. mV 40.	Deep Induction (ILD) 0. ohmm 50.	
Gamma Ray (GR) 0. API 150.	Deep Induction (CILD) 1000. mmhos 0.	





Gamma Ray (GR)		Deep Induction (CILD)	
0.	API 150.	1000.	mmhos 0.
Spontaneous Potential (SP)		Deep Induction (ILD)	
-160.	mV 40.	0.	ohmm 50.
Tension (TENS)		Laterolog (LL3)	
5000.	Lbs 0.	0.	ohmm 50.

08/07/2015 MAIN PASS (1"/100FT) Log UP - (VER 11.19)
18:28:37 => Start Time Start Depth=> 4552.50 Feet