

**RADIAL BOND LOG
WITH GAMMA RAY**

ENERGY SERVICES

Comp. ANADARKO PETROLEUM CORP
 Well CAMP 37-31
 Field WATTENBERG
 Co. WELD
 State CO

Company **ANADARKO PETROLEUM CORP**
 Well **CAMP 37-31**
 Field **WATTENBERG**
 County **WELD** State **CO**

Location: API #: 05-123-24070 Other Services
 SE/SE PERE
 SEC 31 TWP 3N RGE 6SW
 Permanent Datum GL Elevation 4940'
 Log Measured From KB 12' Above Perm. Datum
 Drilling Measured From KB
 K.B. Elevation 4952'
 D.F. 4951'
 G.L. 4940'

Date of Service	SEP 12TH, 2024		
Run Number	ONE		
Depth Driller or PBTD	8075'		
Depth Logger	4501'		
Bottom Log Interval	4498'		
Top Log Interval	SURFACE		
Open Hole Size	7.875"		
Type Fluid	WATER		
Fluid Level	SURFACE		
Fluid Density	8.3#		
Max. Recorded Temperature	145° F		
Max. Wellhead Pressure	ZERO		
Wellhead Connection	7 1/16" 5K		
Estimated Cement Top	SEE LOG		
Unit Number	5074		
Wireline Size	9/32"		
Location	PLATTEVILLE, CO		
Recorded By	GREG JACKSON		
Witnessed By	DAVE ALMAREZ		
	Size	W/Ft	Top
Tubing Record			Bottom
Surface Casing	8-5/8	24#	SURFACE 903'
Production Casing	4-1/2	11.5#	SURFACE 8055'
Liner Record			

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All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees.

Comments
 N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.
 LOG CORRELATED TO EXISTING BOND LOG OFF STATE SITE

THANK YOU FOR USING PIONEER ENERGY SERVICES!

Your Pioneer Energy Services Crew	Tool Data - Services	Serial Number
Engineer: G. JACKSON Operator: M. LLAMAS Operator: B. MATCHETT Operator:	BOND GAMMA RAY/CCL	

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)	
			Cable Head-Titan_144 1 7/16\" Titan Cable Head	1.03	1.44	2.00	
			Centralizer-275 Probe 2 3/4\" Probe Adjustable Spring Centralizer	2.88	2.75	15.00	
			PROBE-RBT-DIGITAL-RBL-DC (FW1304-34) Probe 2 3/4\" Radii Bond-Corrosion Package	8.75	2.75	100.00	
WVFS8	12.09						
WVFS7	12.09						
WVFS6	12.09						
WVFS5	12.09						
WVFS4	12.09						
WVFS3	12.09						
WVFS2	12.09						
WVFS1	12.09						
WVFCAL	12.09						
WVF3FT	12.09						
WVF5FT	11.09						
HEADVOLT	7.90						
			Centralizer-275 Probe 2 3/4\" Probe Adjustable Spring Centralizer	2.88	2.75	15.00	
CCL	4.20						
GCT_TEMP	3.41						
GR	2.83		PROBE-GR/CCL-DIGITAL-275 Probe GCT (140181) Probe 2 3/4\" Gamma Ray/Temp/CCL	4.69	2.75	60.00	
			Bullnose-PROBE Probe Go Pin Pressure Cap	0.33	1.38	1.00	

Dataset: oxy_camp 37-31_rcbi_9-12-24.db: field/well/run1/pass2
 Total length: 20.56 ft
 Total weight: 193.00 lb
 O.D.: 2.75 in

Log Variables

Database: C:\ProgramData\Warrior\Data\oxy_camp 37-31_rcbl_9-12-24.db
 Dataset: field/well/run1/pass2/_vars_

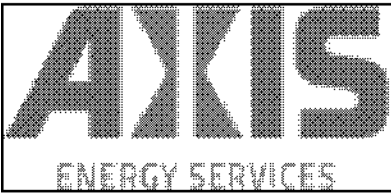
Top - Bottom

BOREID in 7.875	BOTTEMP degF 100	CASEOD in 4.5	CASETHCK in 0	CASEWGHT lb/ft 11.6	MAXAMPL mV 81.2	MINAMPL mV 1
MINATTN db/ft 0.08	PERFS No	PPT usec 0	SRFTEMP degF 0	TDEPTH ft 0		

Variable Description

BOREID : Borehole I.D.
 BOTTEMP : Bottom Hole Temperature
 CASEOD : Casing O.D.
 CASETHCK : Casing Thickness
 CASEWGHT : Casing Weight
 MAXAMPL : Maximum Amplitude

MINAMPL : Minimum Amplitude
 MINATTN : Minimum Attenuation
 PERFS : Perforation Flag
 PPT : Predicted Pipe Time
 SRFTEMP : Surface Temperature
 TDEPTH : Total Depth

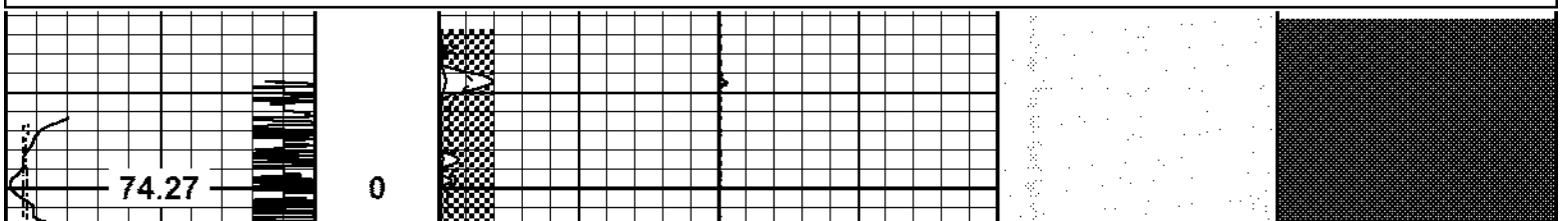


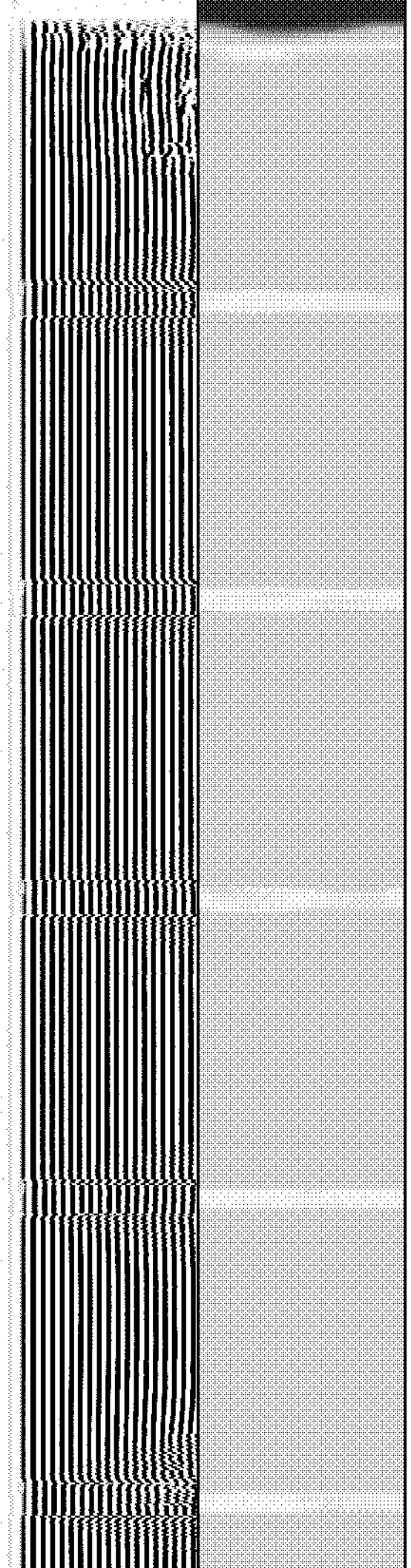
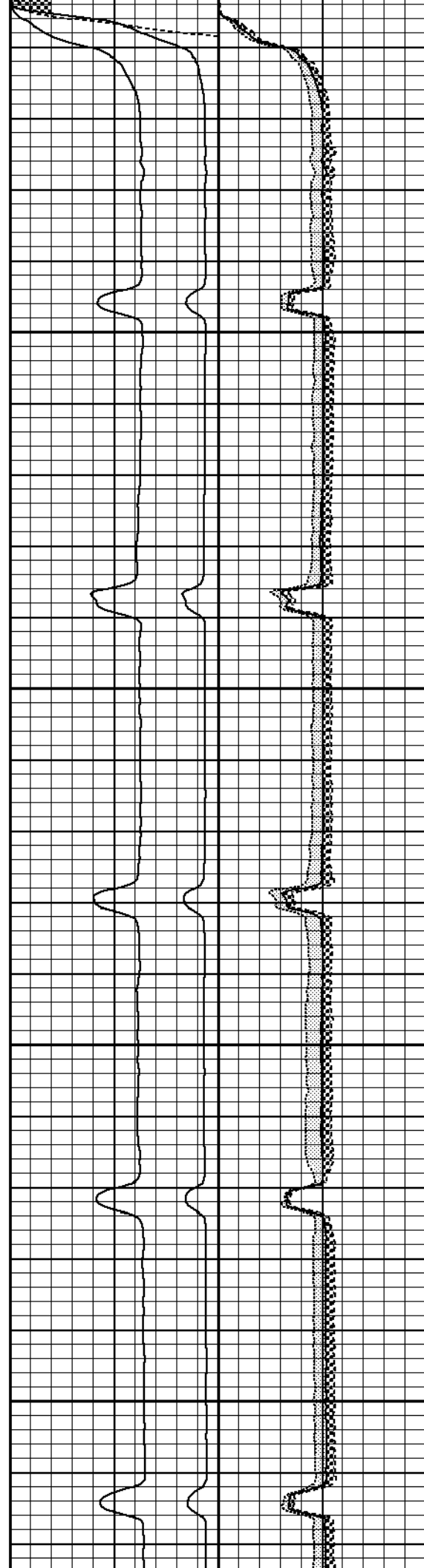
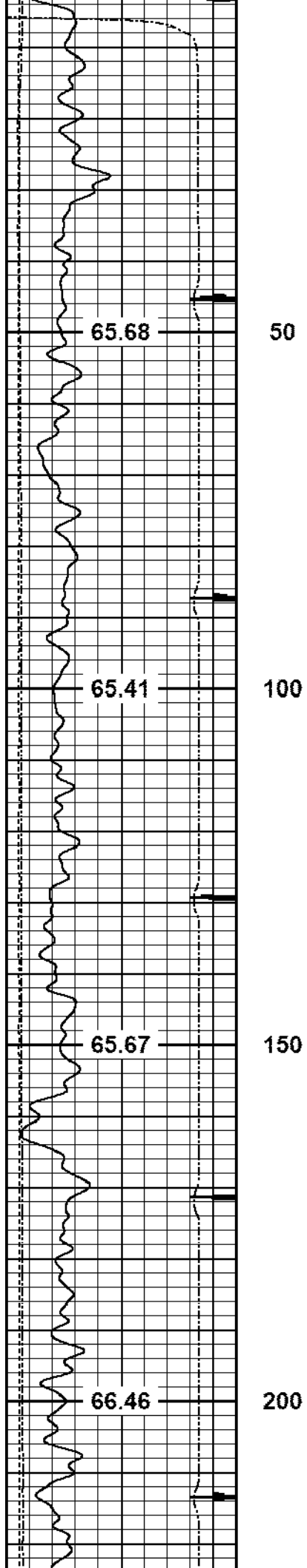
MAIN LOG

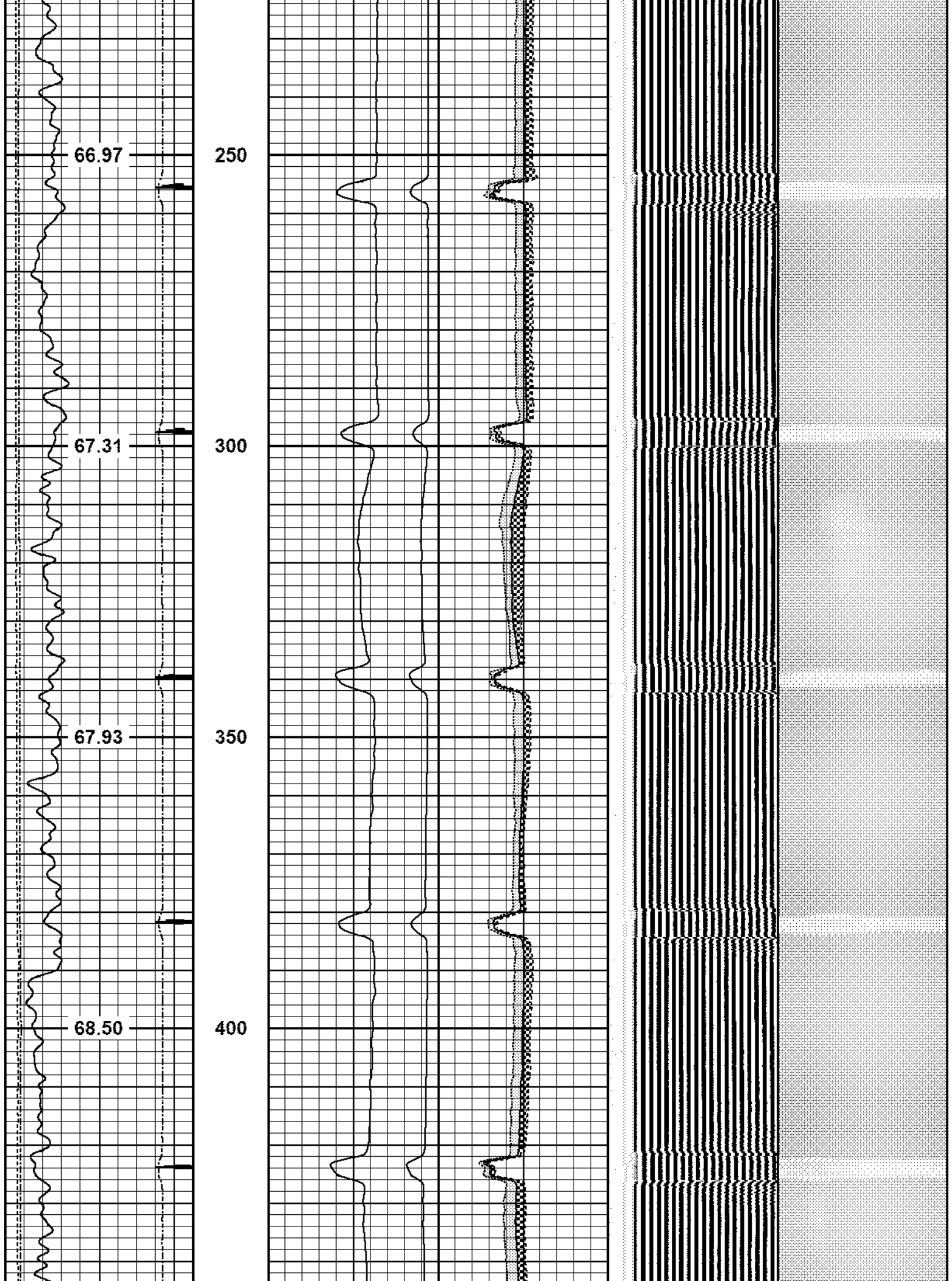
ZERO PSI APPLIED AT SURFACE

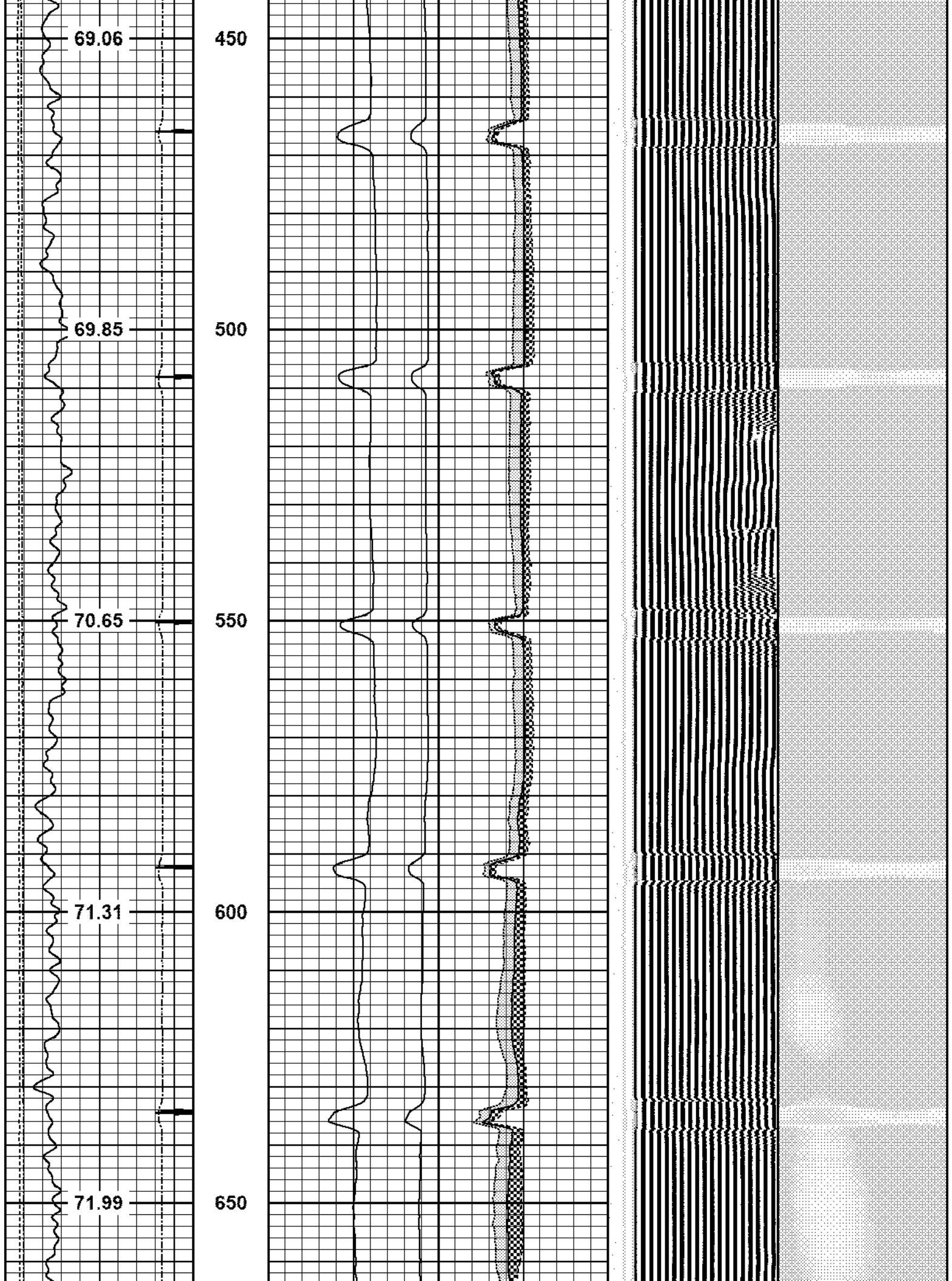
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 Presentation Format: pinr_scbl
 Dataset Creation: Thu Sep 12 13:48:36 2024
 Charted by: Depth in Feet scaled 1:240

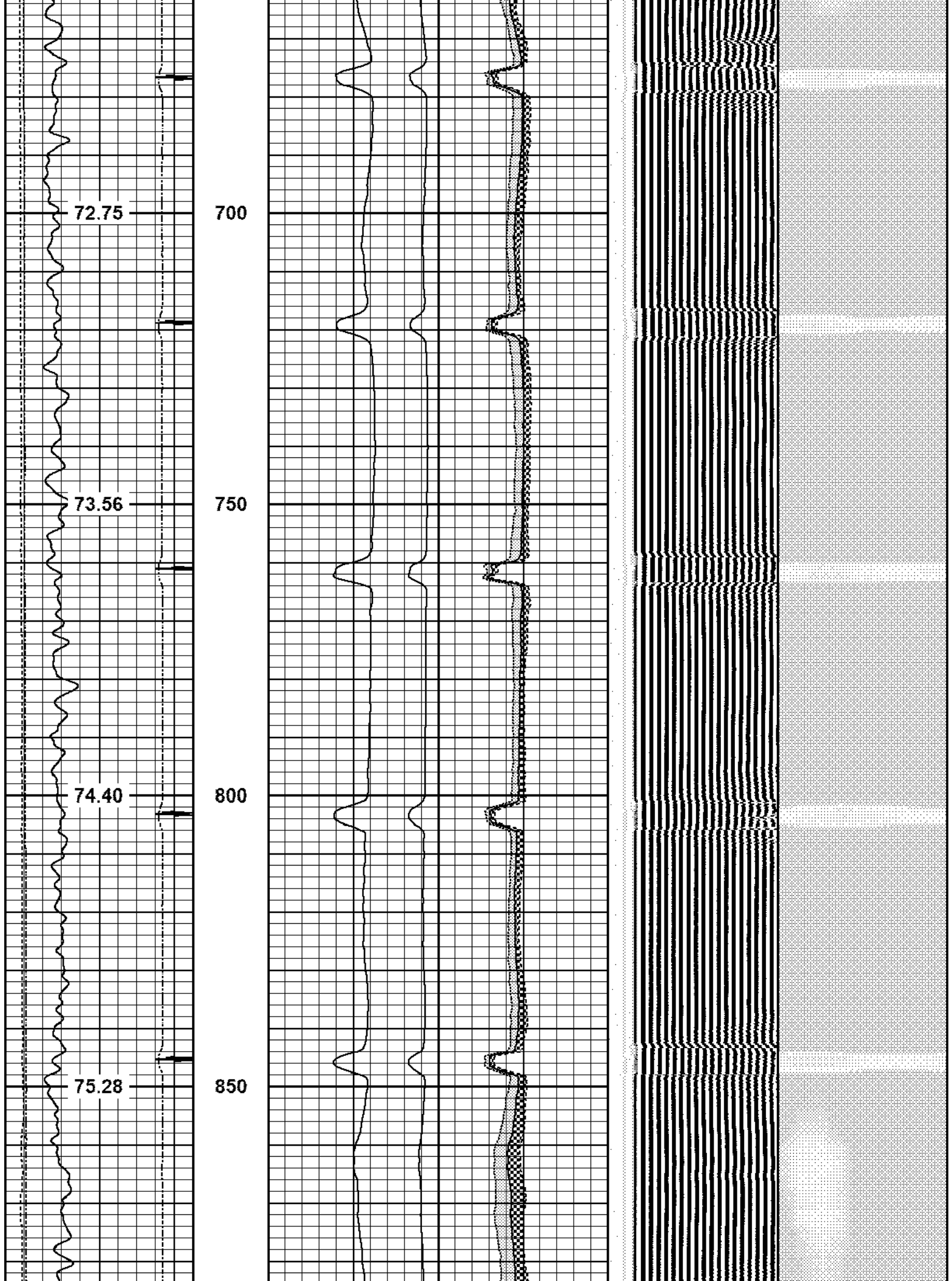
3Ft Travel Time 575 (usec) 175	3' Amplitude 0 (mV) 100	Sector Amplitude Average	VDL 200 (usec) 1200	1 Sector Map 8
-9 Collar Locator 1	3' Amplified Amplitude X 5	0 150		
Gamma Ray 0 (GAPI) 150	0 (mV) 20	Sector Amplitude Maximum		
Line Tension 0 (lb) 2000	1 BONDIX 0 0	0 150		
Line Speed -100 (ft/min) 100		Sector Amplitude Minimum		
TEMP (degF)		0 150		

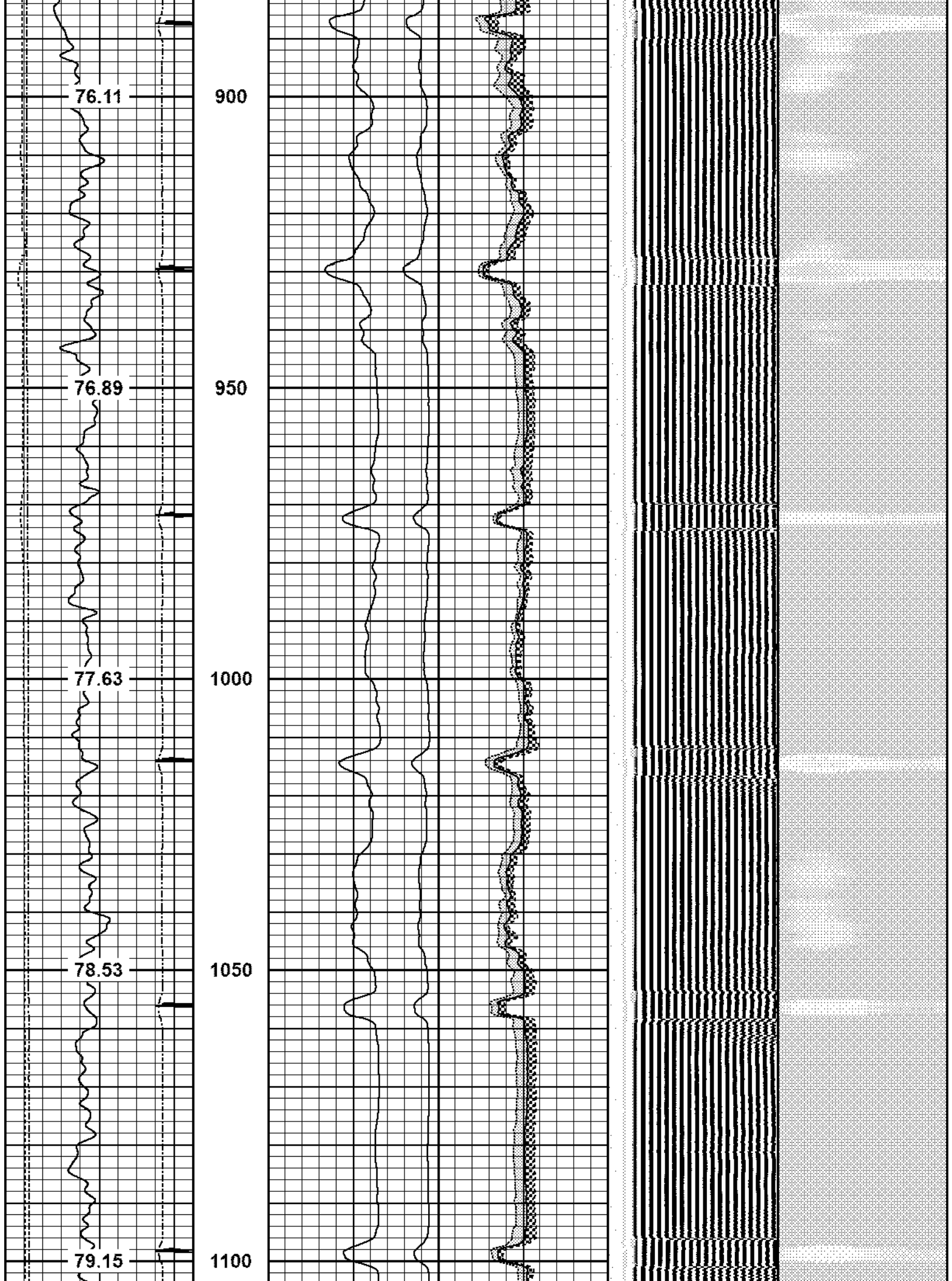


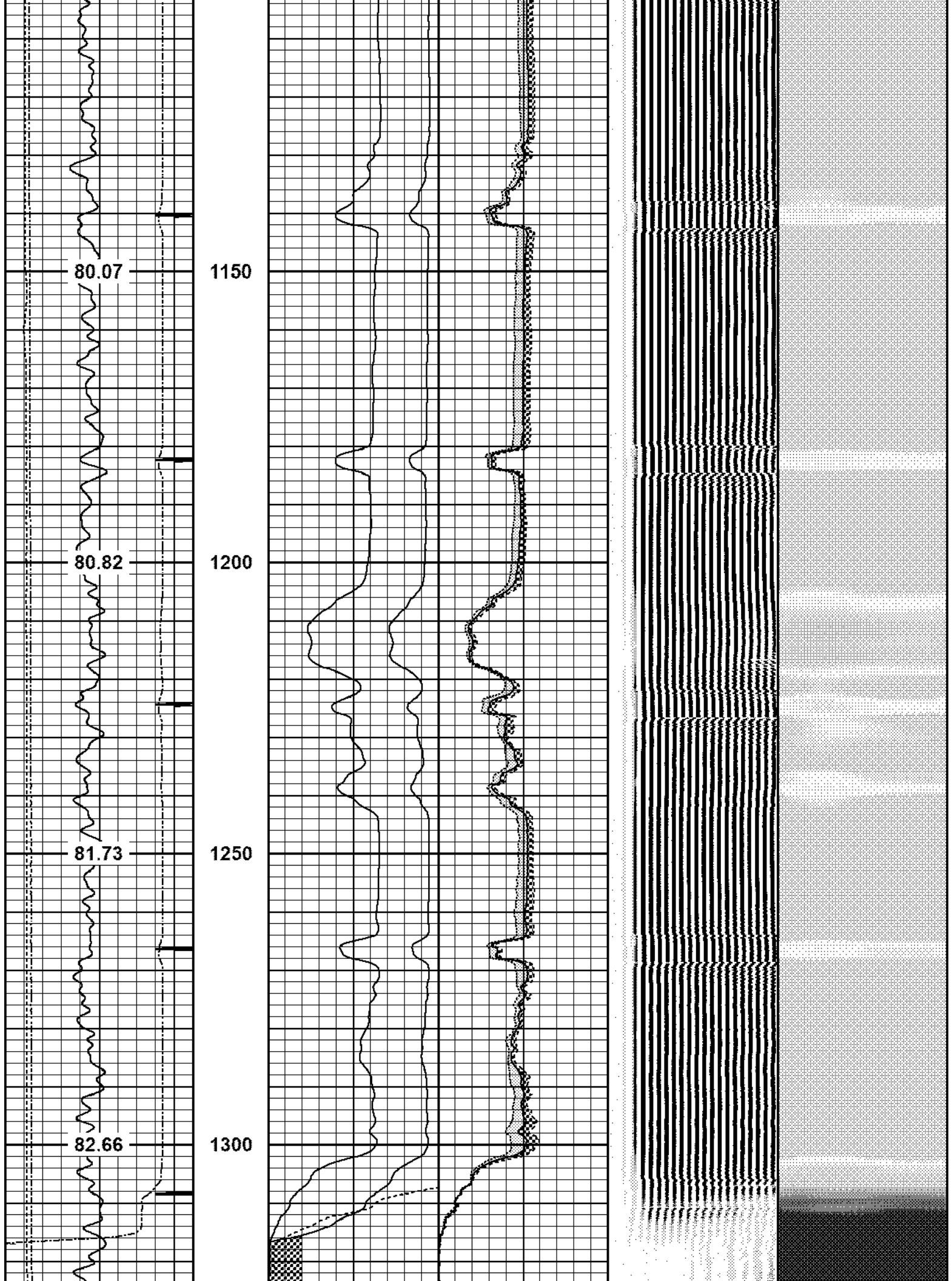


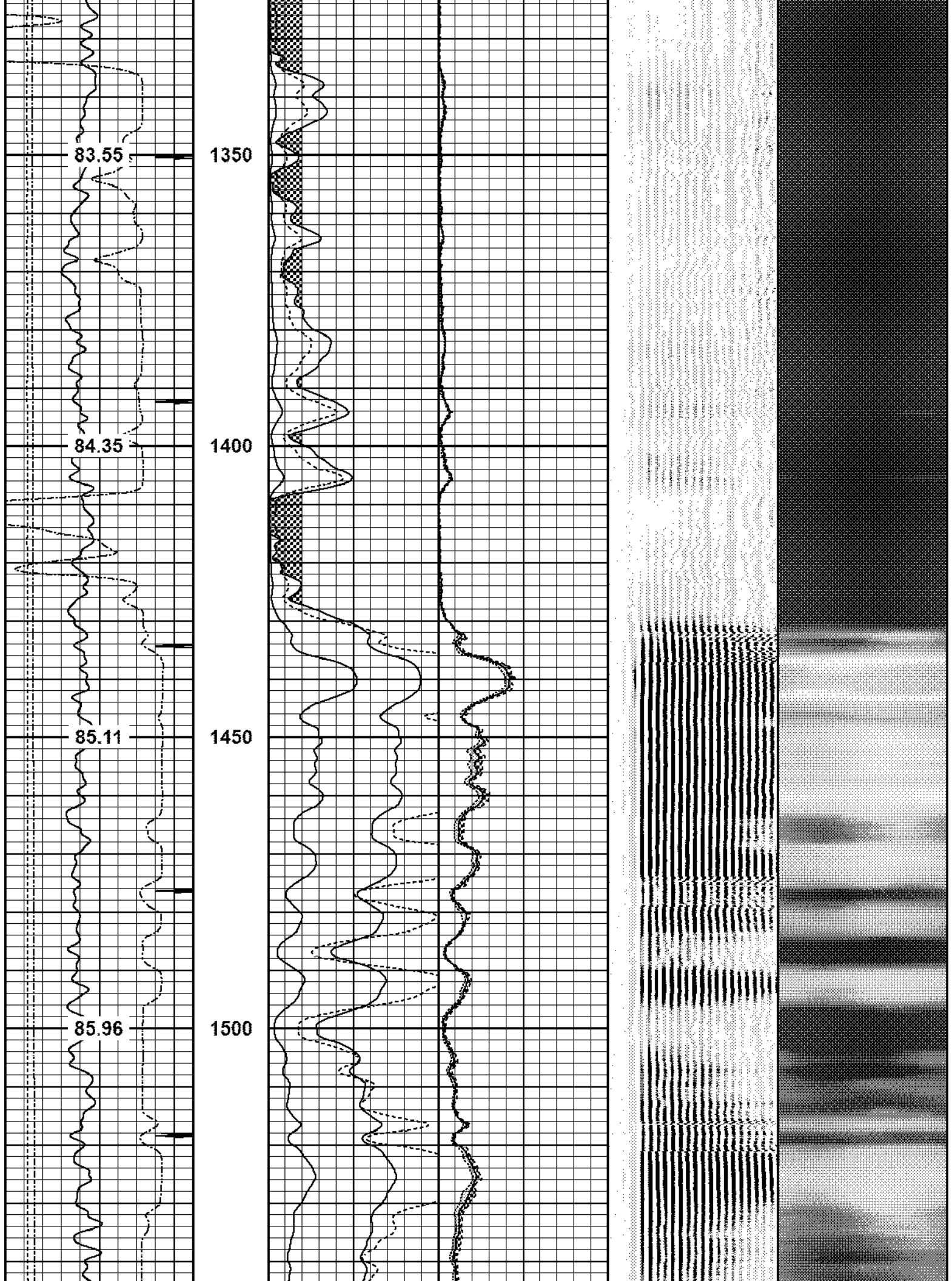


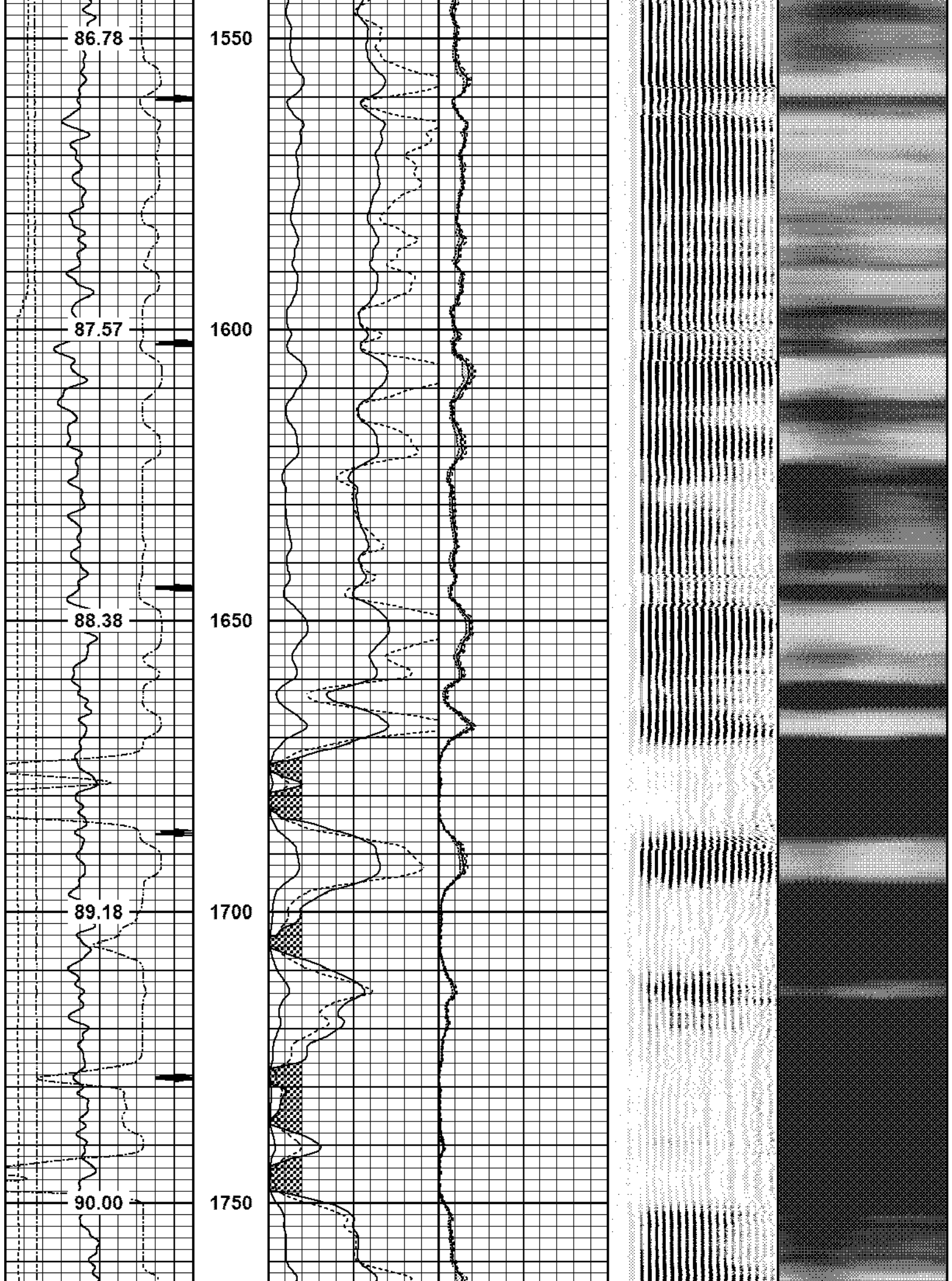


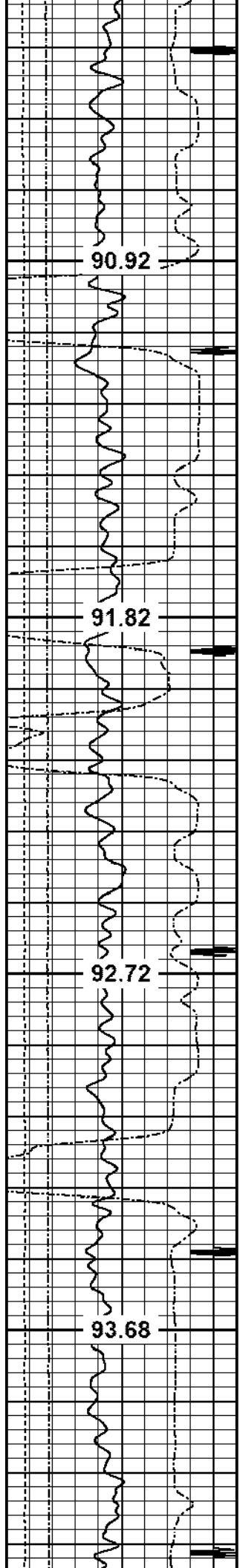










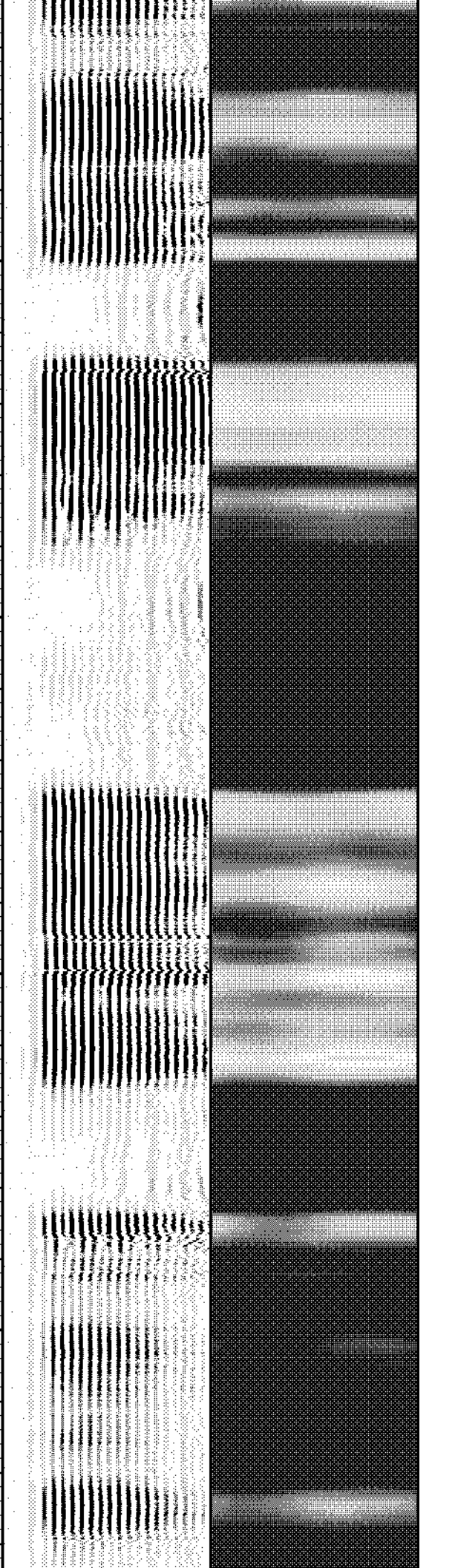
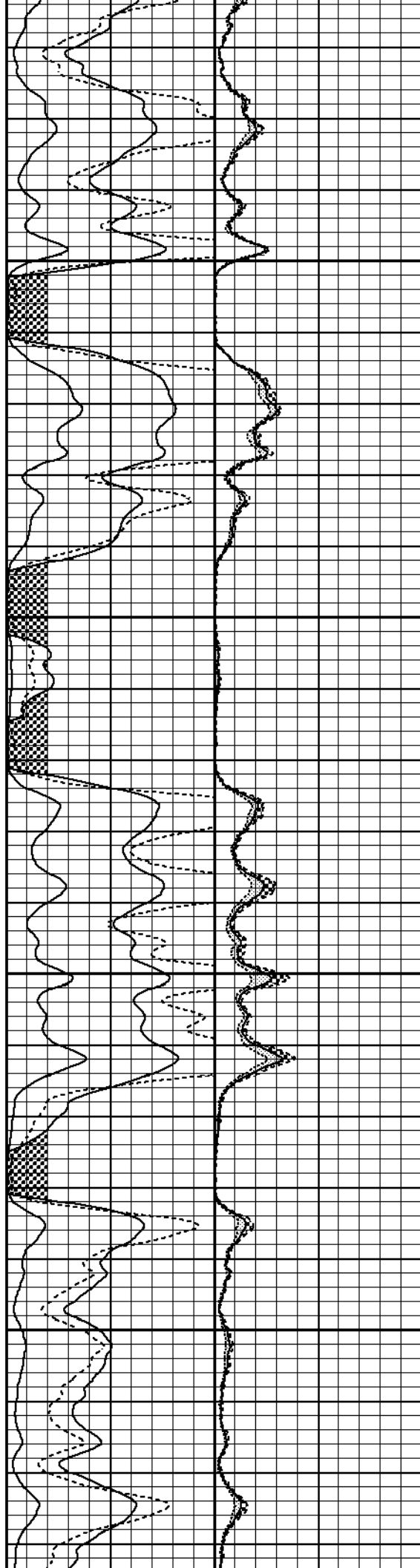


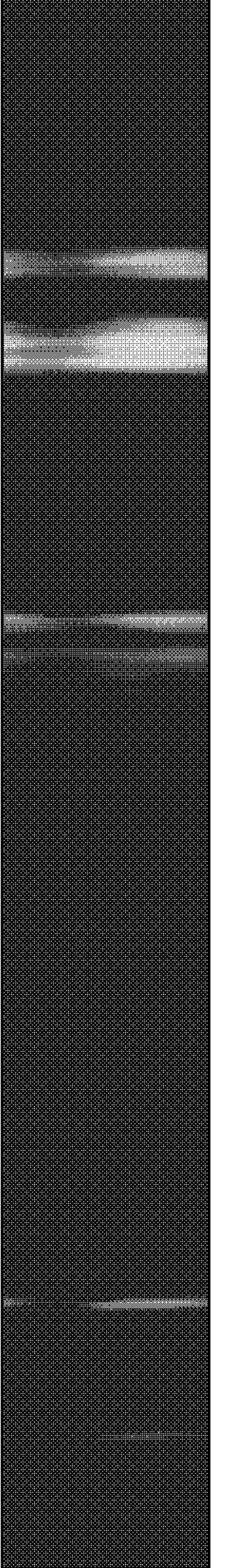
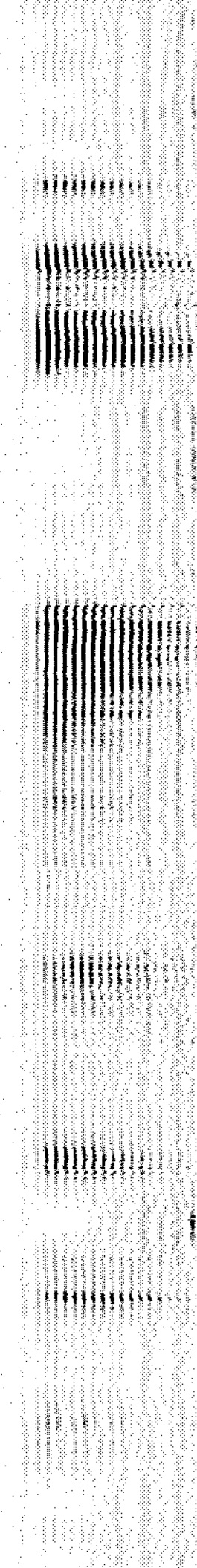
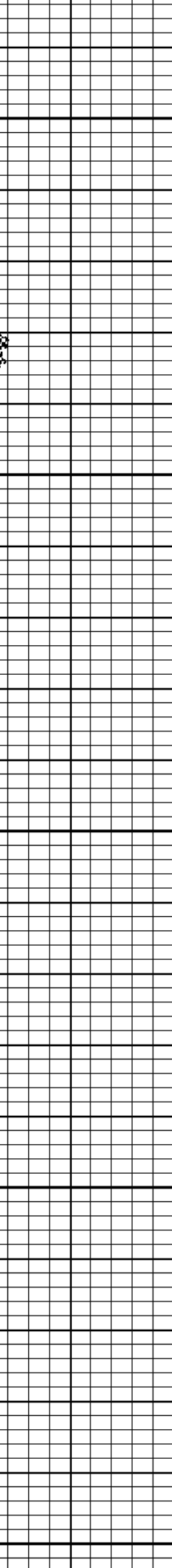
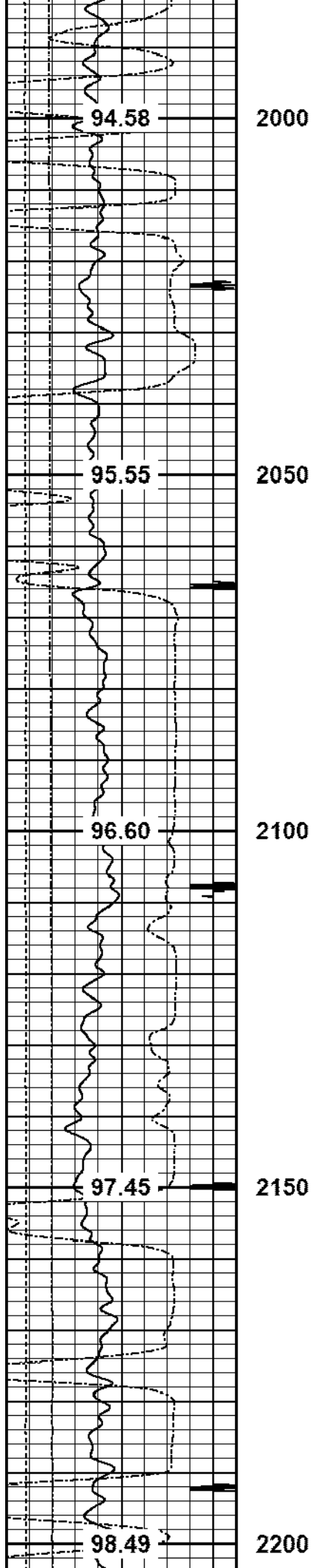
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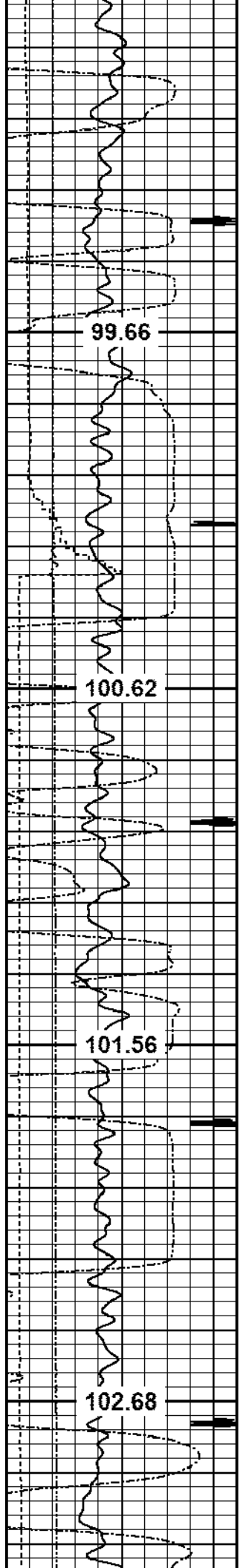
1850

1900

1950





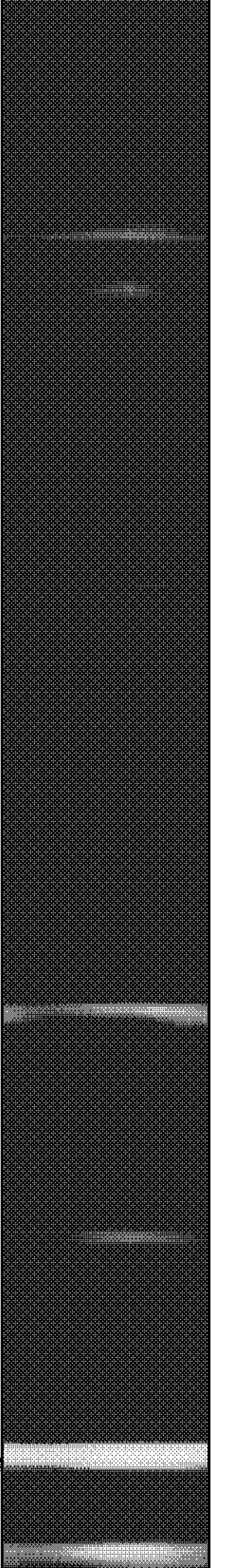
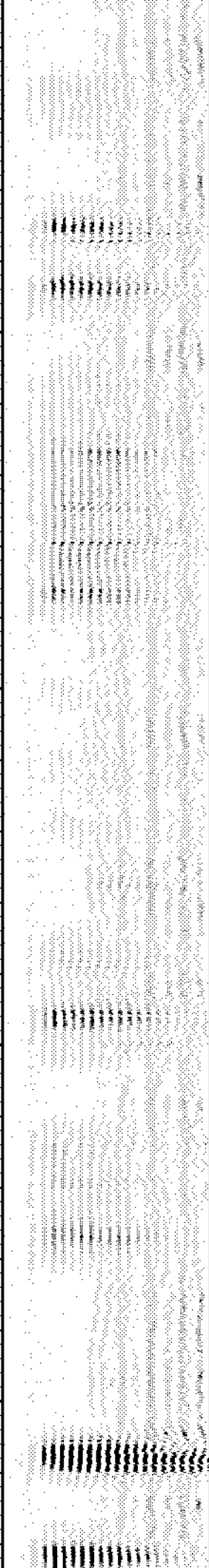
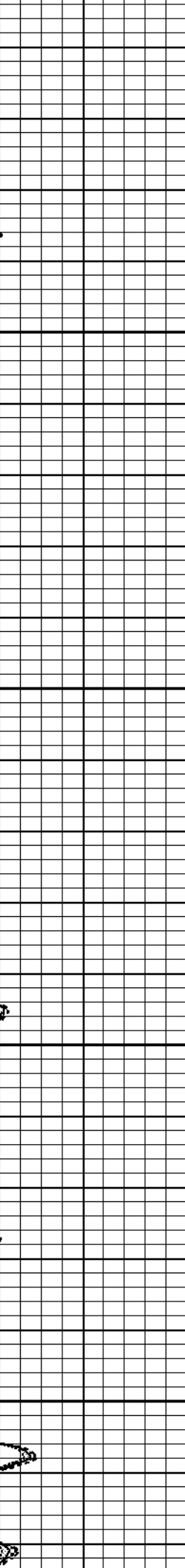
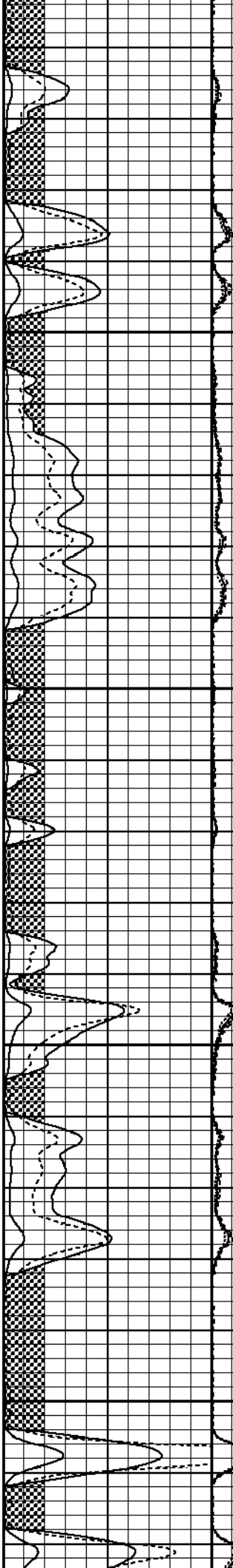


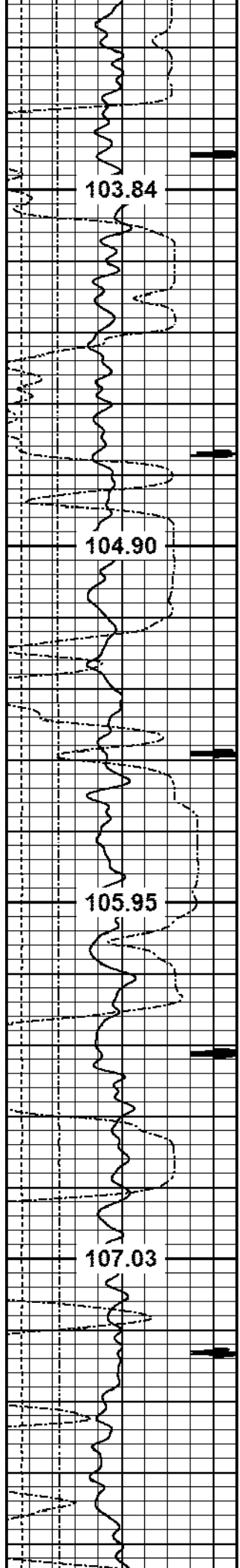
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2300

2350

2400





103.84

2450

104.90

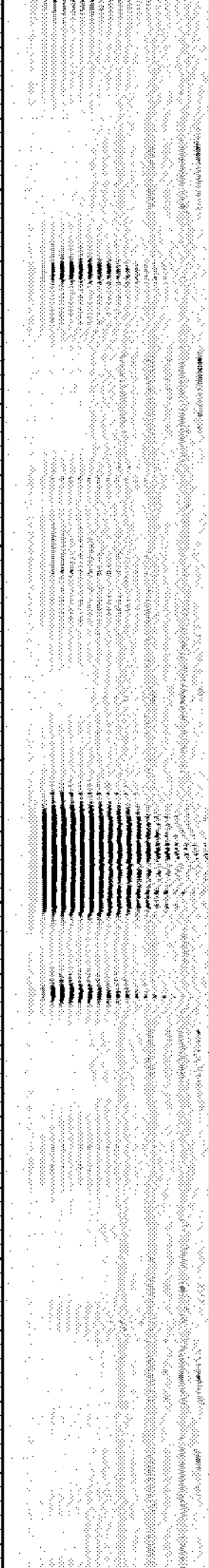
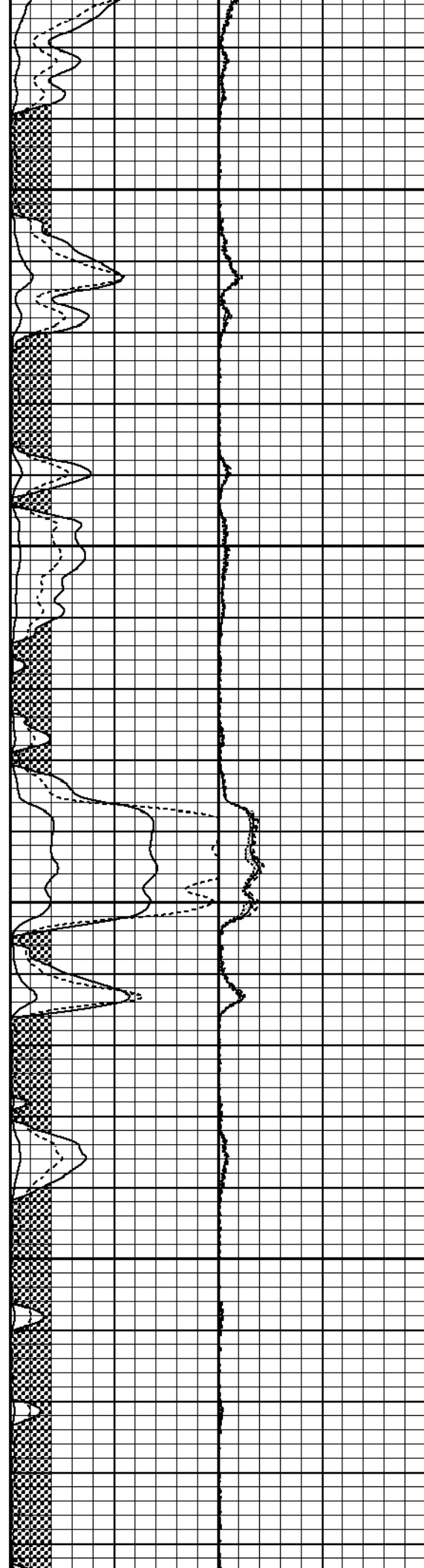
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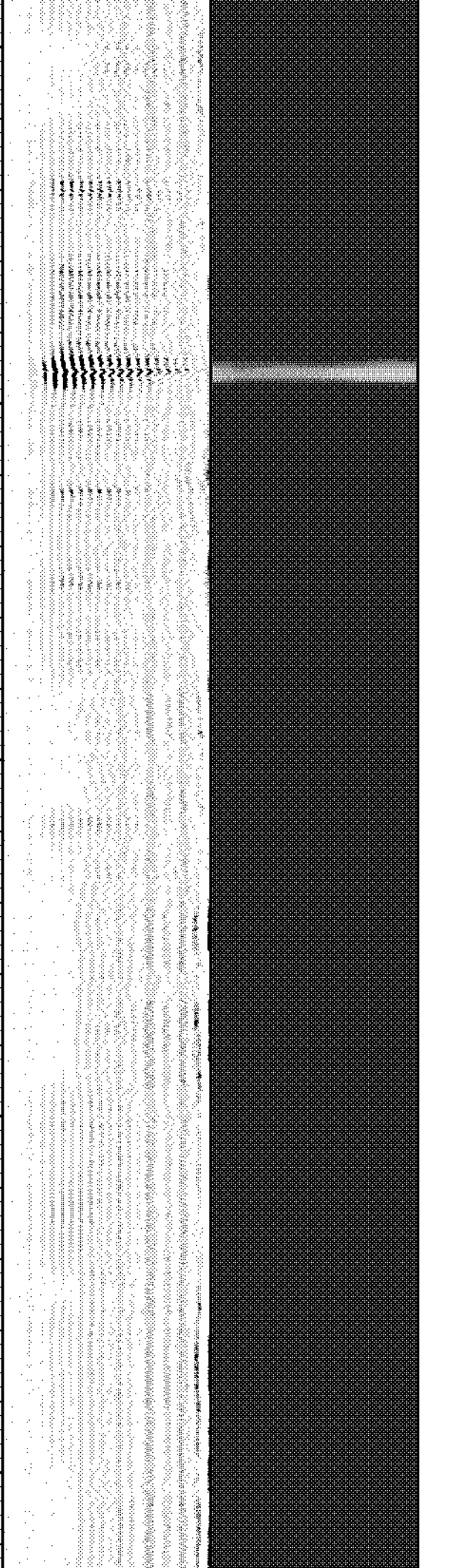
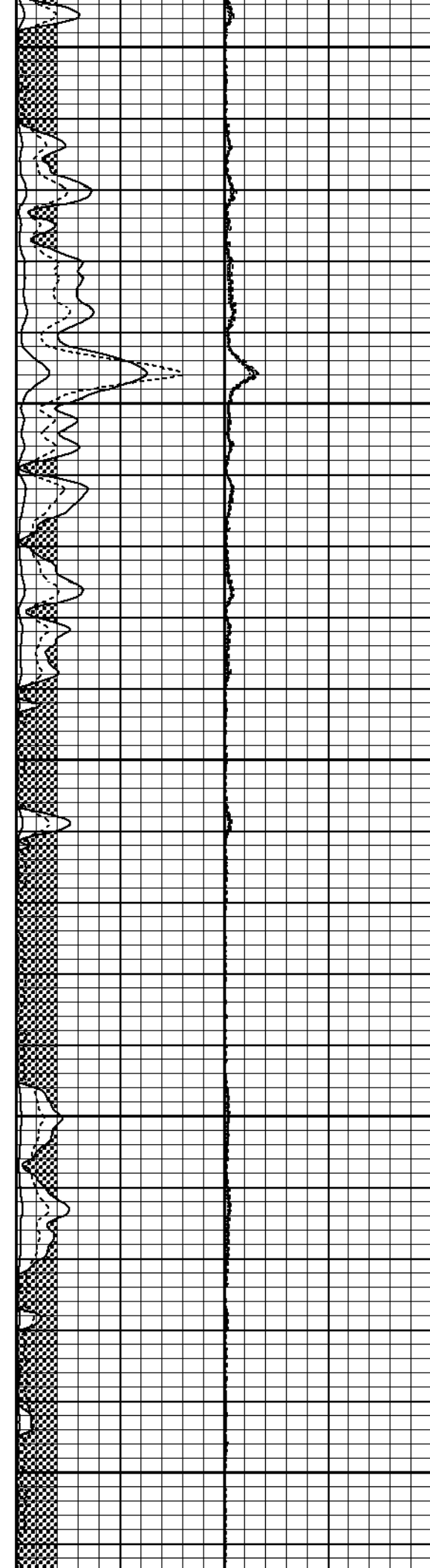
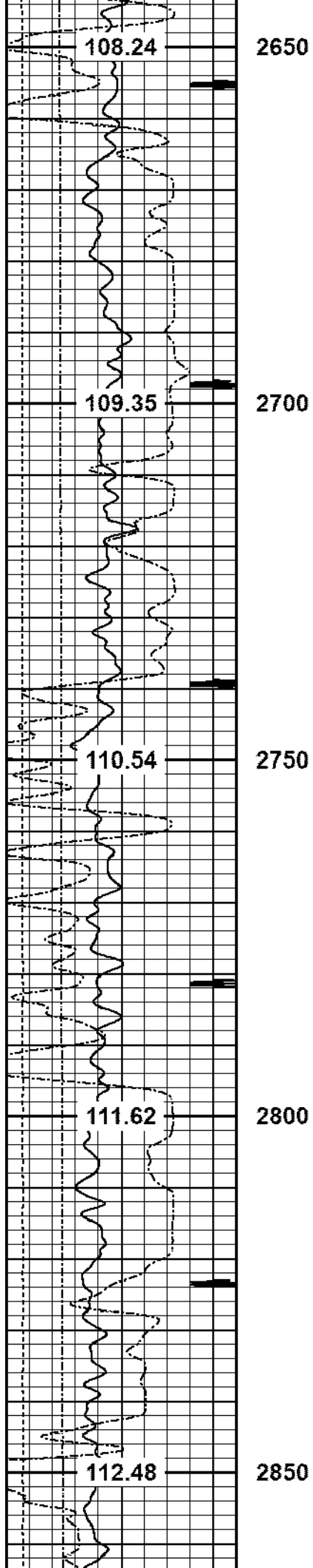
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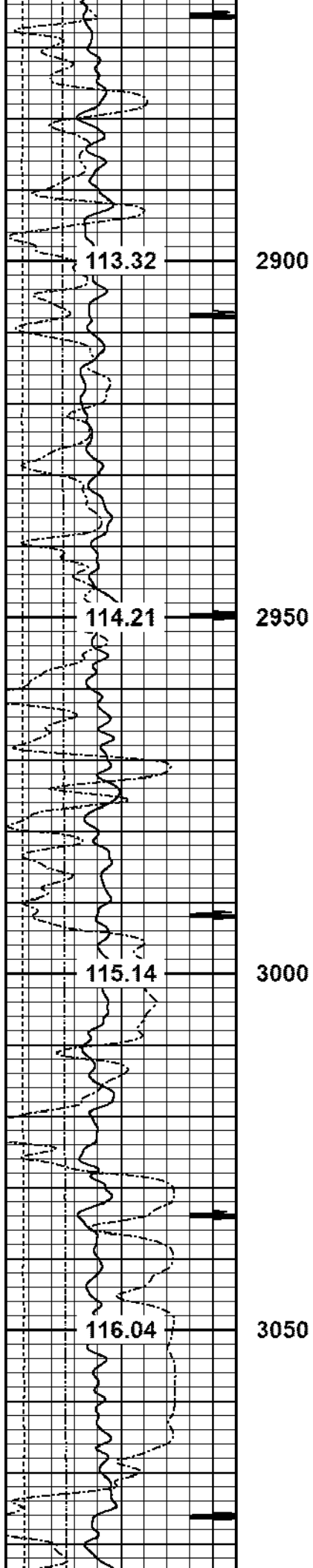
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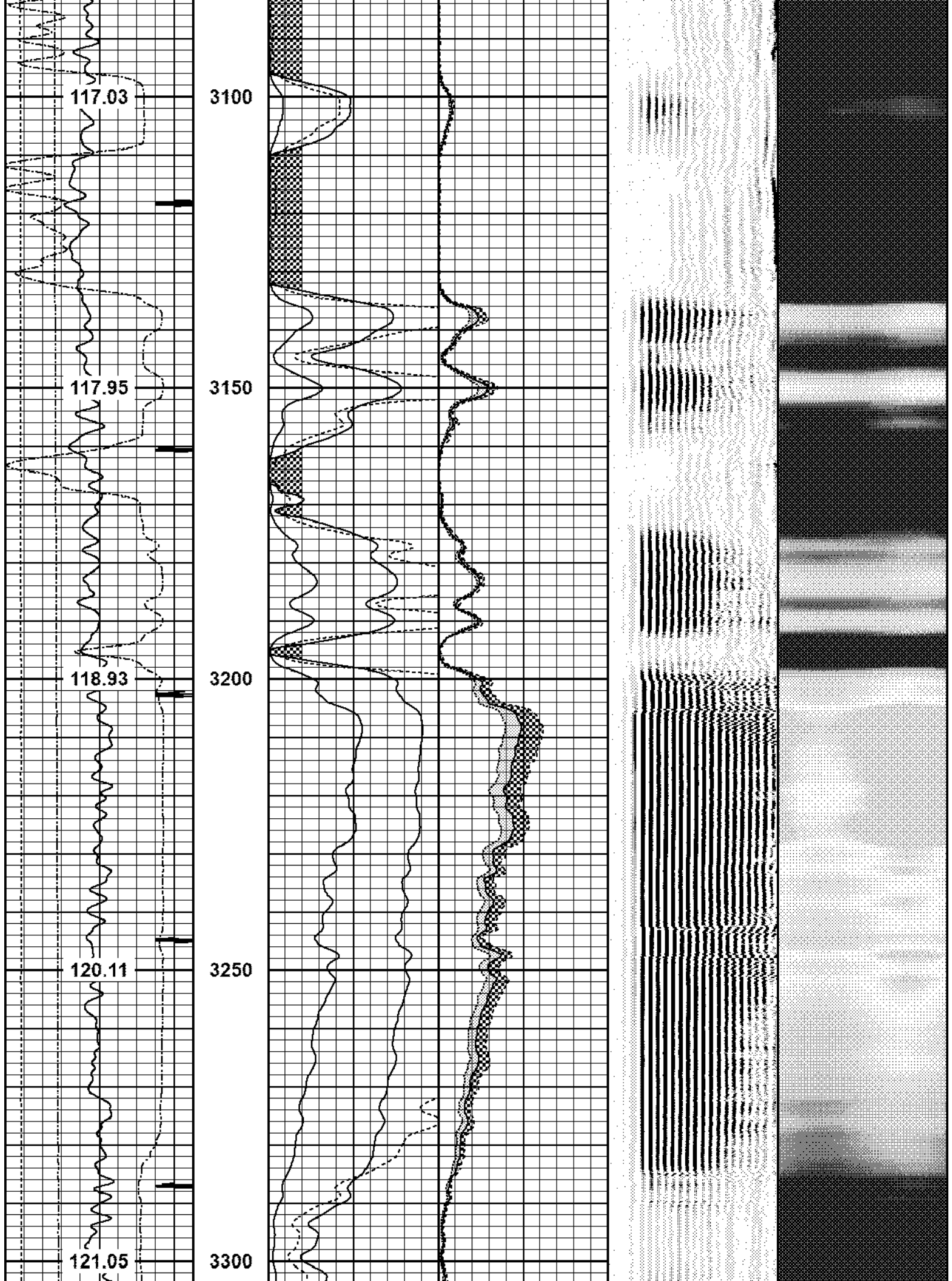
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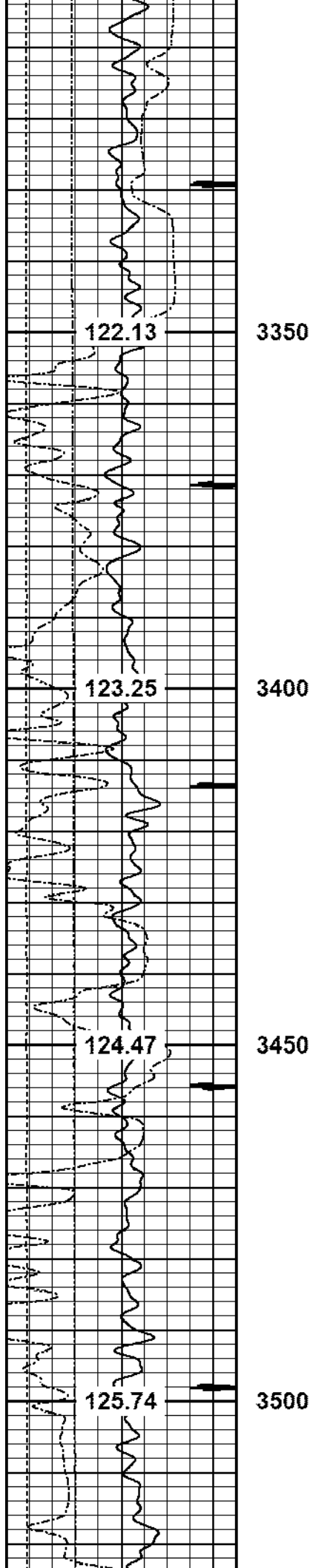
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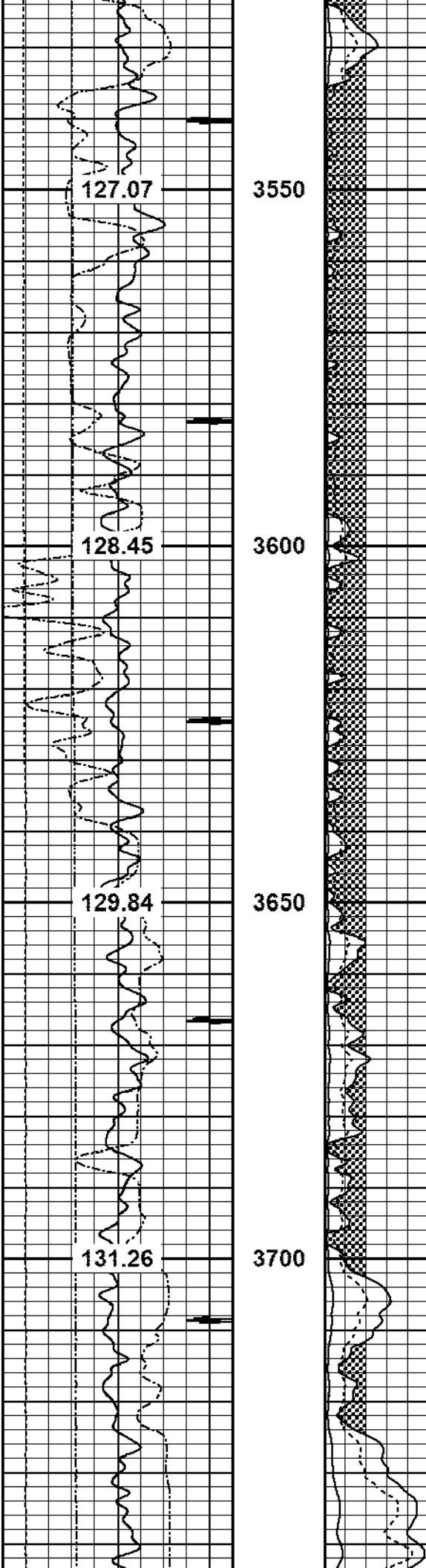












127.07

3550

128.45

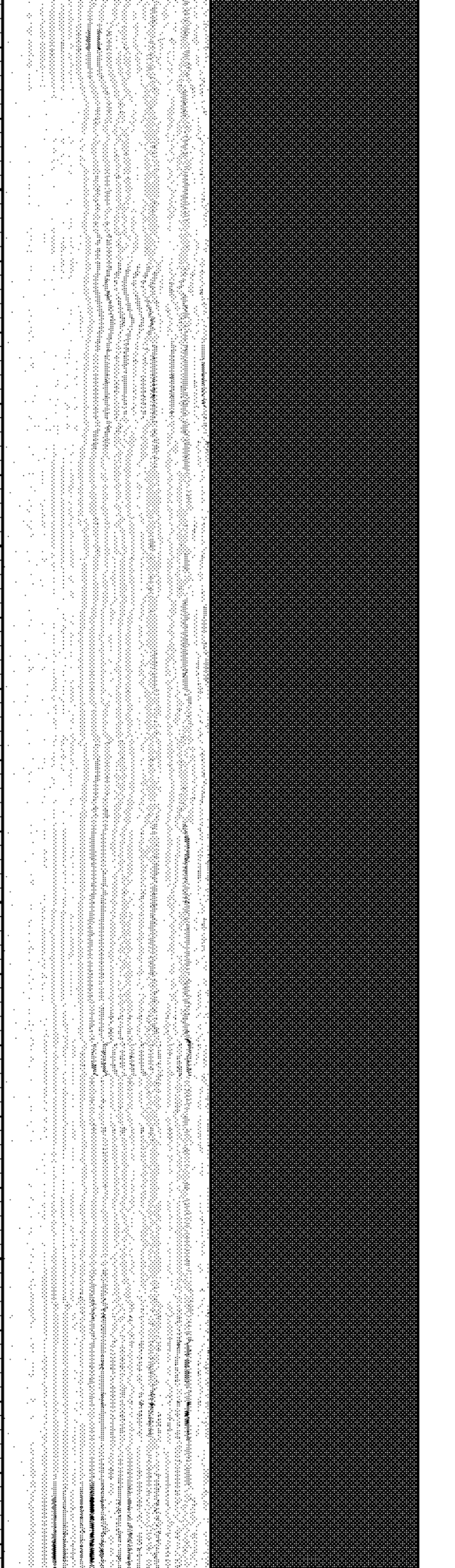
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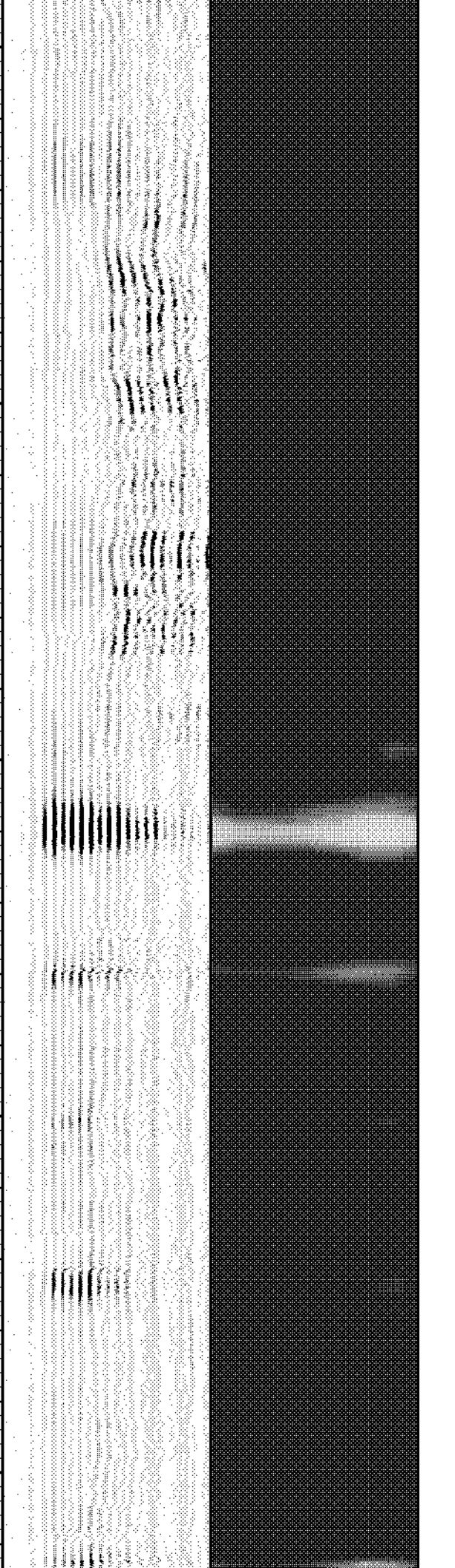
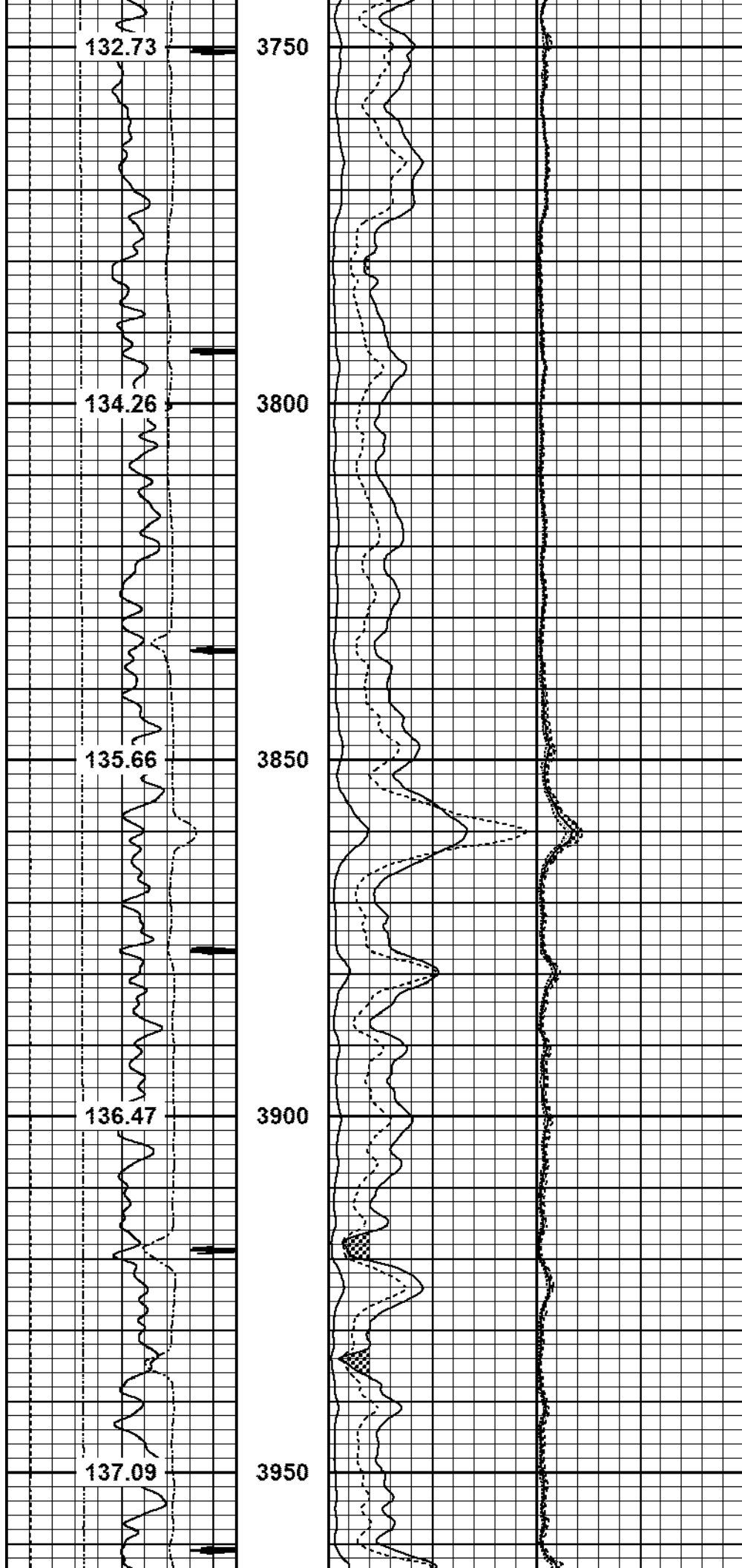
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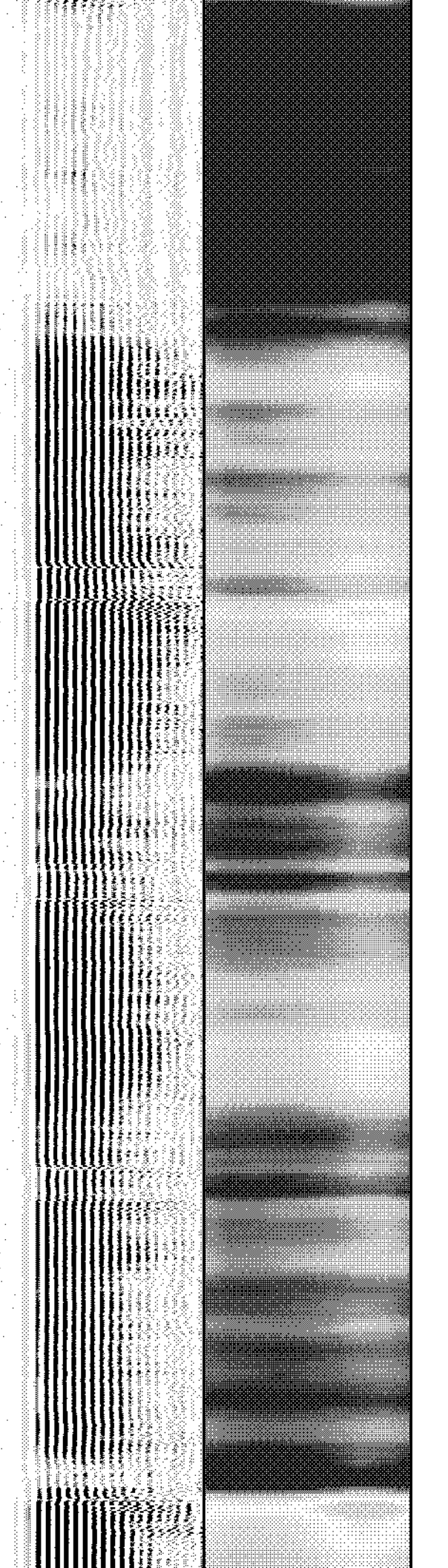
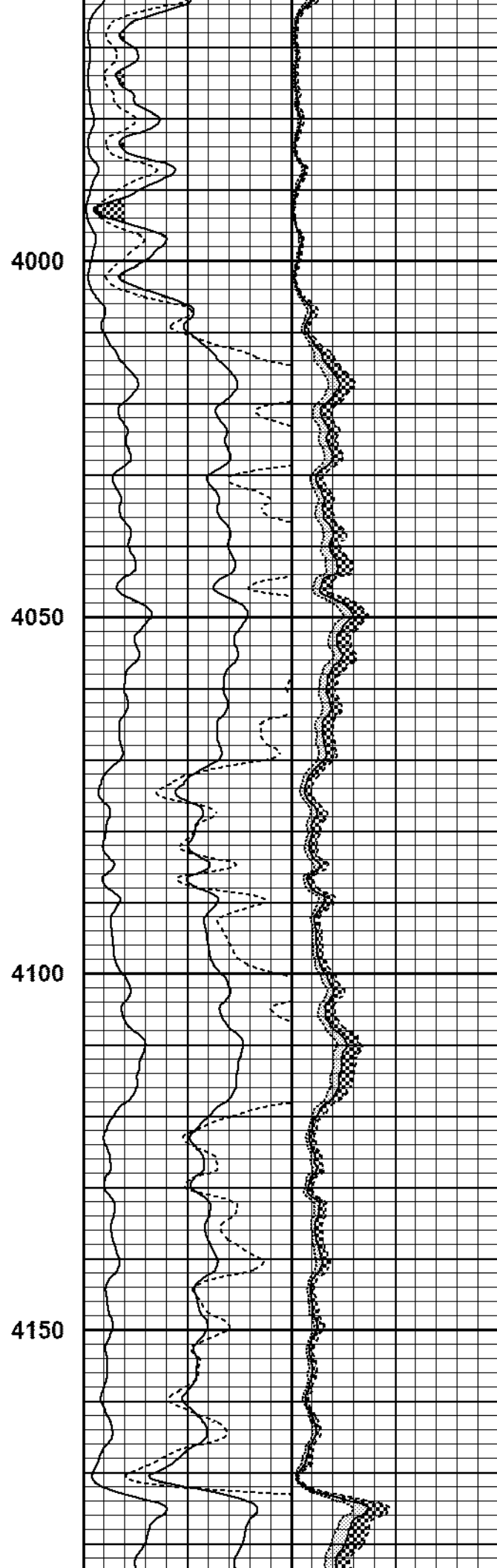
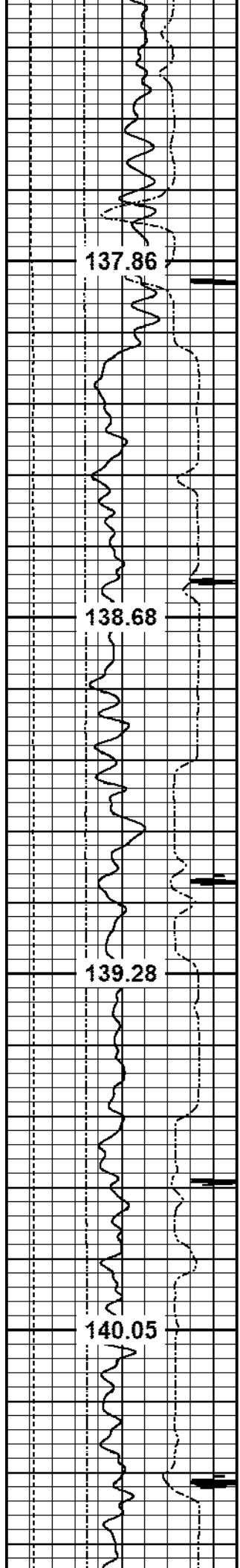
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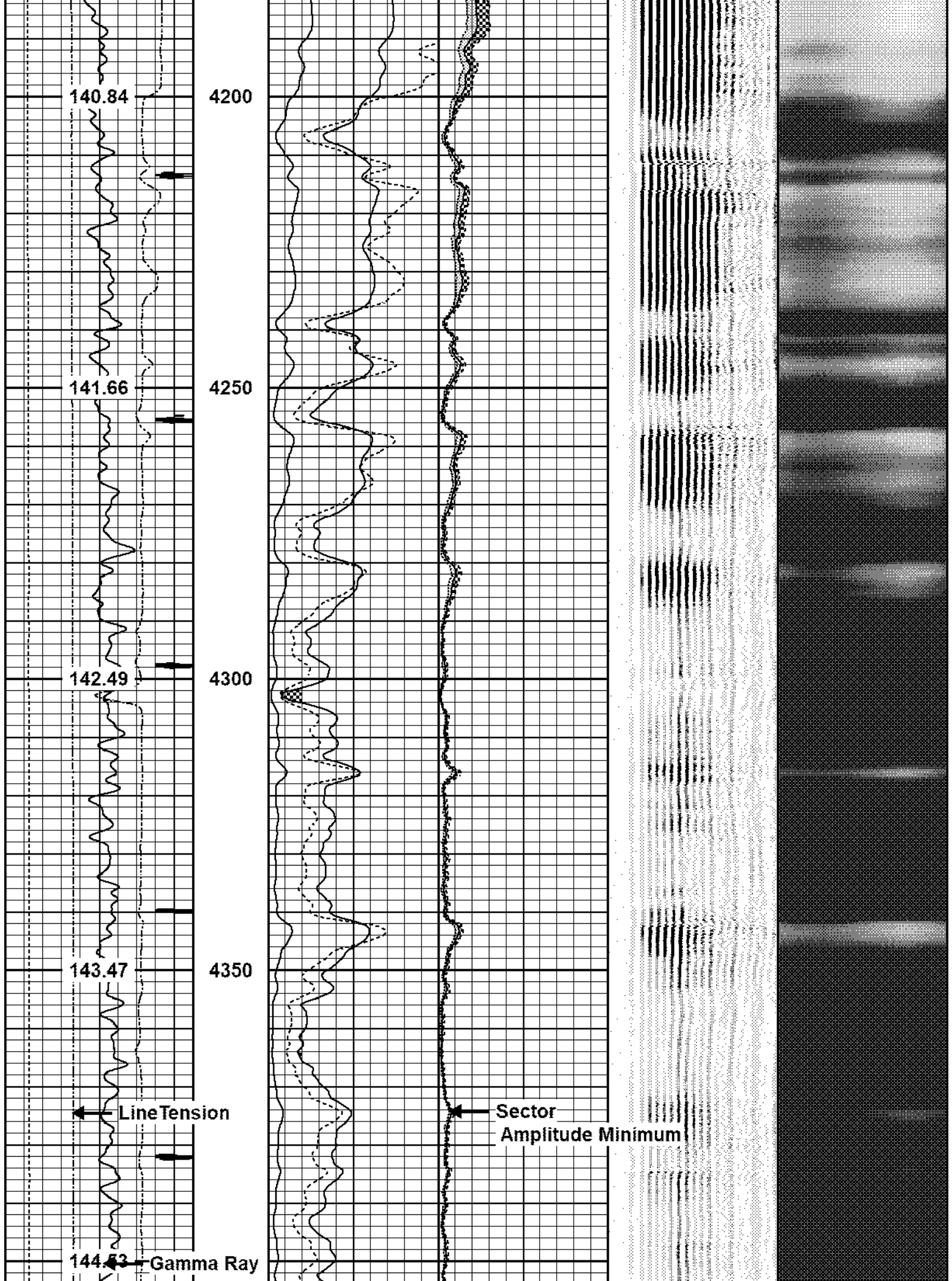
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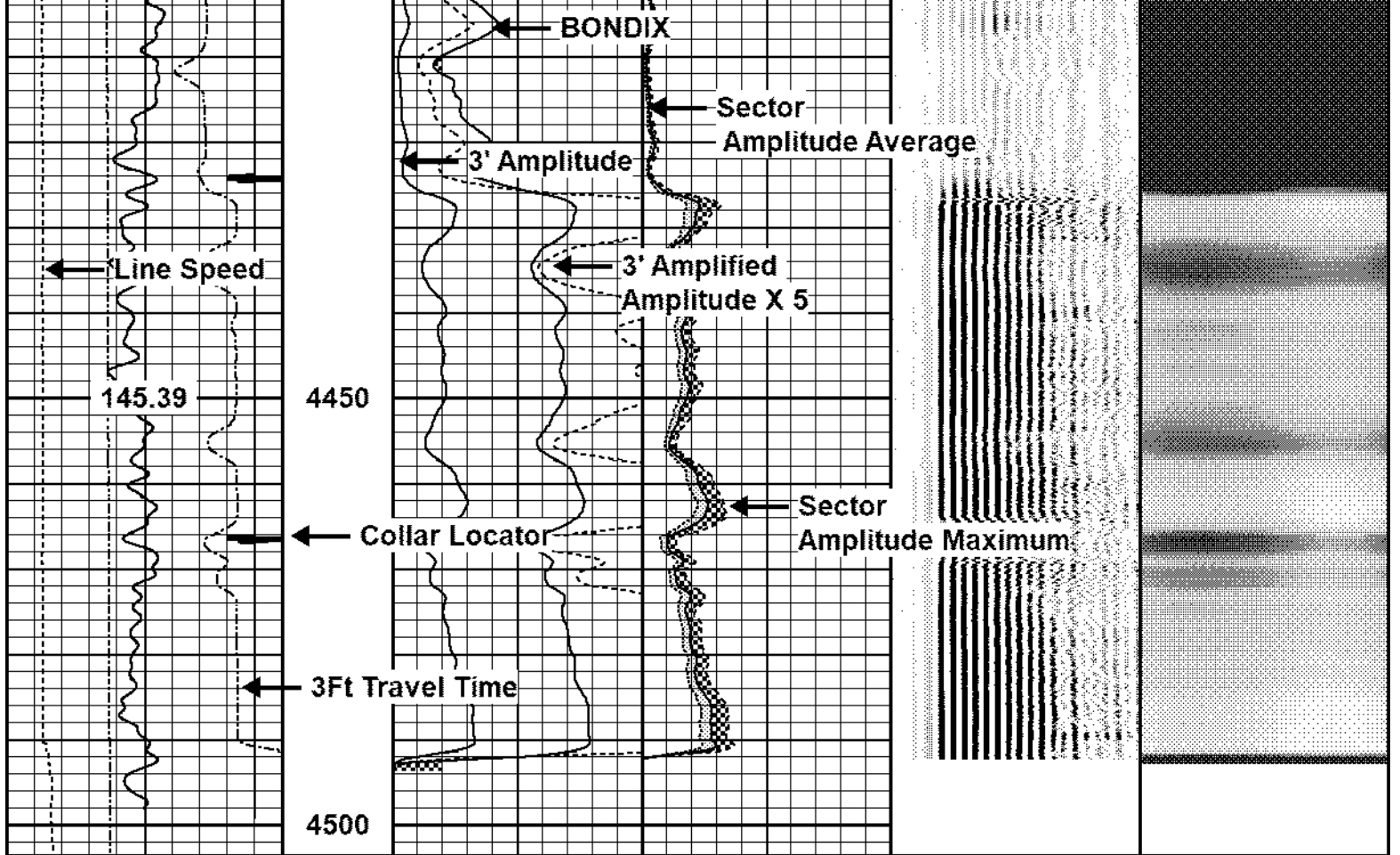
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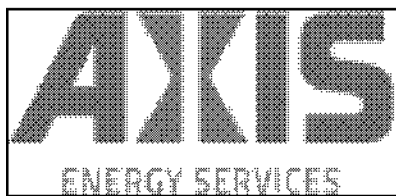








3Ft Travel Time 575 (usec) 175	3' Amplitude 0 (mV) 100	Sector Amplitude Average 0 150	VDL 200 (usec) 1200	1 Sector Map 8
-9 Collar Locator 1	3' Amplified Amplitude X 5 0 (mV) 20	Sector Amplitude Maximum 0 150		
Gamma Ray 0 (GAPI) 150	1 BONDIX 0 0	Sector Amplitude Minimum 0 150		
LineTension 0 (lb) 2000				
Line Speed -100 (ft/min) 100				
TEMP (degF)				



REPEAT SECTION

ZERO PSI APPLIED AT SURFACE

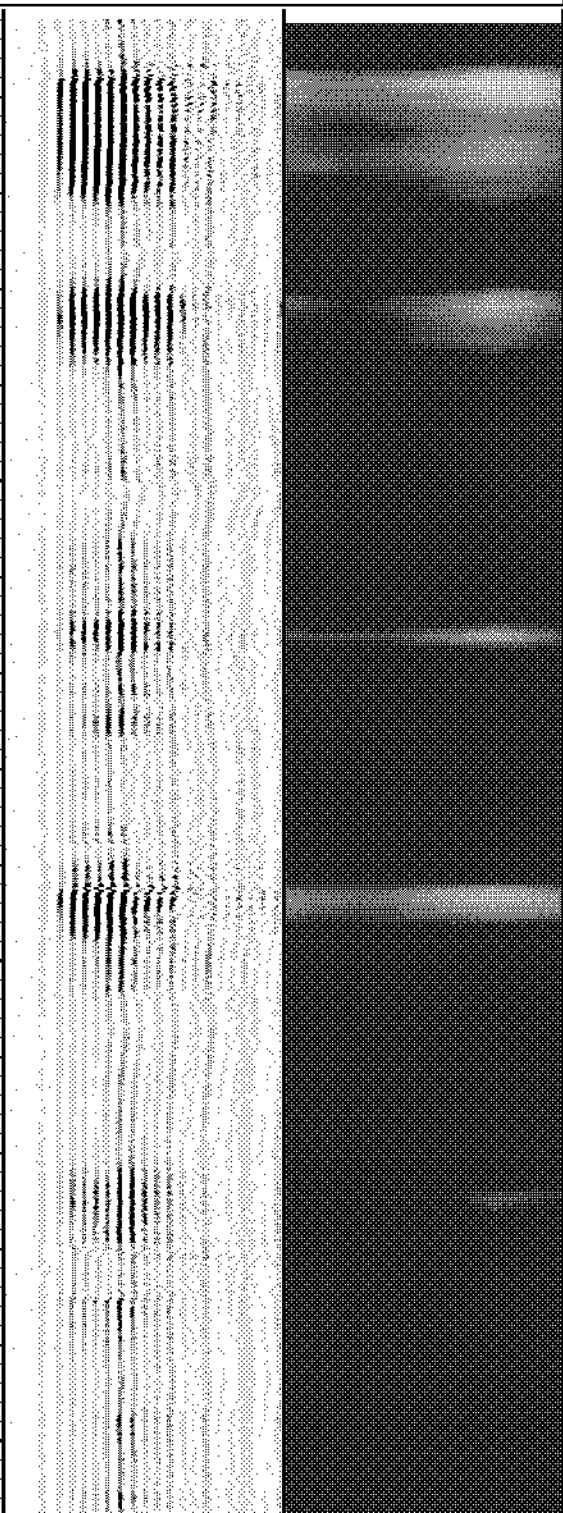
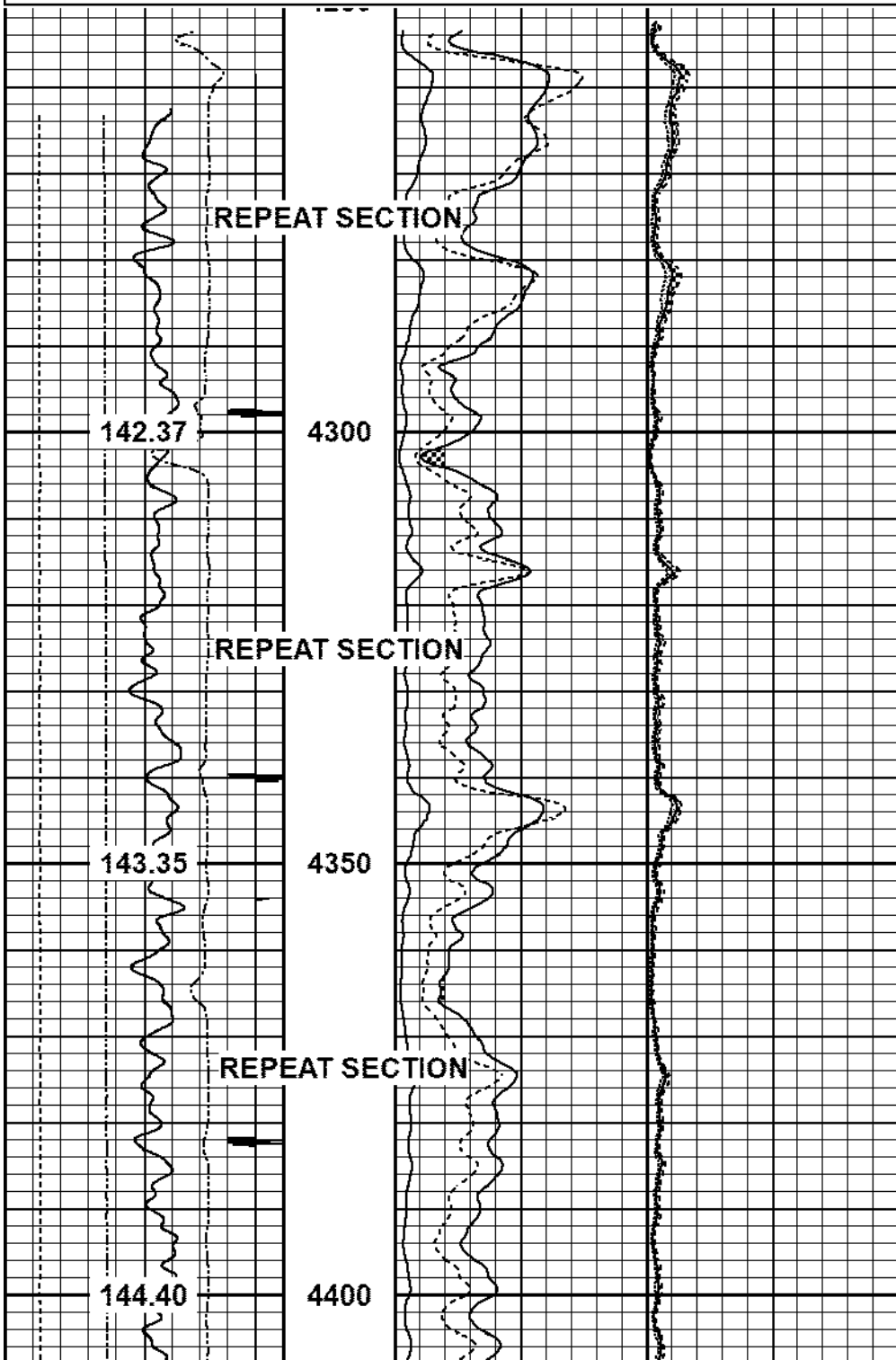
Database File	oxy_camp 37-31_rcbl_9-12-24.db
Dataset Pathname	pass1
Presentation Format	pinr_scbl
Dataset Creation	Thu Sep 12 13:43:08 2024
Charted by	Depth in Feet scaled 1:240

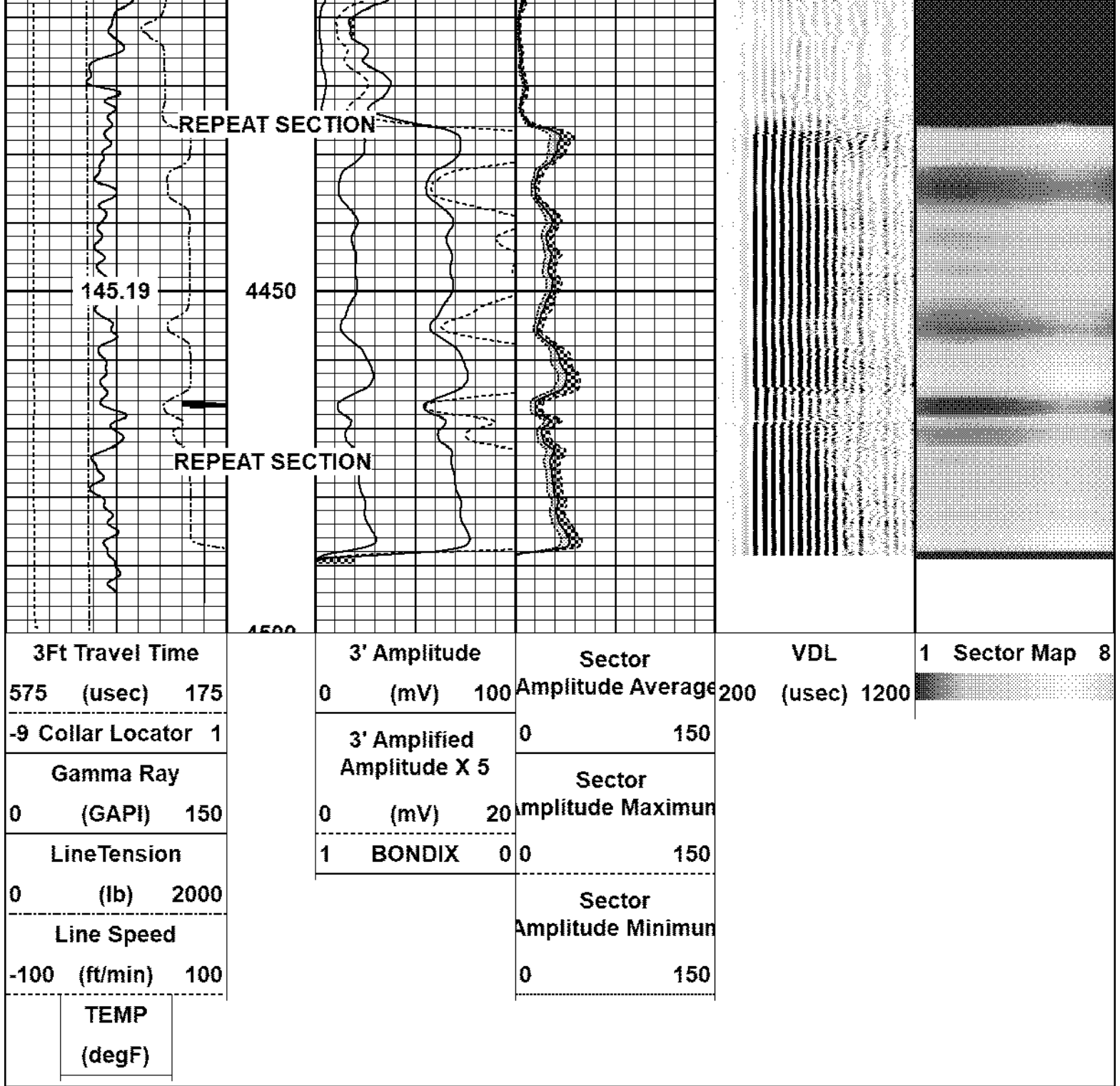
3Ft Travel Time	3' Amplitude	Sector	VDL	1 Sector Map 8
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575	(usec)	175
-9 Collar Locator 1		
Gamma Ray		
0	(GAPI)	150
Line Tension		
0	(lb)	2000
Line Speed		
-100	(ft/min)	100
TEMP		
(degF)		

0	(mV)	100	Amplitude Average	200	(usec)	1200
3' Amplified Amplitude X 5		0	Sector	150		
0	(mV)	20	Amplitude Maximum			
1	BONDIX	0	0	150		
			Sector Amplitude Minimum			
			0	150		

Sector Map	
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Calibration Report

Database File oxy_camp 37-31_rcbl_9-12-24.db
 Dataset Pathname pass2
 Dataset Creation Thu Sep 12 13:48:36 2024

Gamma Ray Calibration Report

Serial Number: 140181
 Tool Model: 275 Probe GCT
 Performed: Tue Apr 11 10:14:32 2023

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity:

0.5500

GAPI/cps

Segmented Cement Bond Log Calibration Report

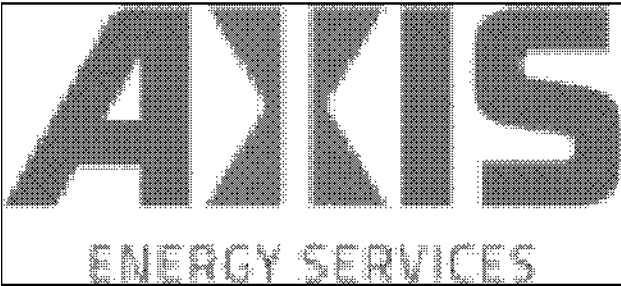
Serial Number: FW1304-34
 Tool Model: RBL-DC
 Calibration Casing Diameter: 4.500 in
 Calibration Depth: 28.183 ft

Master Calibration, performed Thu Sep 12 13:24:16 2024:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.017	1.484	0.800	81.196	54.800	-0.126
CAL	1.544	1.542				
5'	0.028	1.683	0.800	81.196	48.572	-0.563
SUM						
S1	0.010	1.496	0.000	100.000	67.321	-0.696
S2	0.021	1.746	0.000	100.000	57.964	-1.190
S3	0.019	1.764	0.000	100.000	57.293	-1.088
S4	0.020	1.729	0.000	100.000	58.532	-1.187
S5	0.018	1.560	0.000	100.000	64.855	-1.173
S6	0.019	1.442	0.000	100.000	70.298	-1.367
S7	0.020	1.373	0.000	100.000	73.919	-1.496
S8	0.021	1.418	0.000	100.000	71.578	-1.514

Air Zero Calibration, performed Thu Sep 12 13:23:58 2024:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.000		0.000			0.000
5'	0.000		0.000			0.000
SUM						
S1	0.000		0.000			0.000
S2	0.000		0.000			0.000
S3	0.000		0.000			0.000
S4	0.000		0.000			0.000
S5	0.000		0.000			0.000
S6	0.000		0.000			0.000
S7	0.000		0.000			0.000
S8	0.000		0.000			0.000



Company ANADARKO PETROLEUM CORP
 Well CAMP 37-31
 Field WATTENBERG
 County WELD
 State CO