Form 3160-5
(June 2015)

NMOCD
Artesia

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2

5. Lease Serial No.
NMLC028784A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
BURCH KEELY UNIT 962H

2. Name of Operator
COG OPERATING LLC
Contact: KANICIA CASTILLO
E-Mail: kcastillo@concho.com

9. API Well No.
30-015-44101

3a. Address
600 W ILLINOIS AVE
MIDLAND, TX 79701

3b. Phone No. (include area code)
Ph: 432-685-4332

10. Field and Pool or Exploratory Area
BK;GLORIETA-UPPER YESO

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 24 T17S R29E Mer NMP 296FNL 153FEL

11. County or Parish, State
EDDY COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Drilling Operations
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Please see attached logs.

OCD logs will be mailed.

NM OIL CONSERVATION
ARTESIA DISTRICT
NOV 07 2017
RECEIVED

DC 11-8-17
Accepted for record - NMOCD

14. I hereby certify that the foregoing is true and correct.
Electronic Submission #391799 verified by the BLM Well Information System
For COG OPERATING LLC, sent to the Carlsbad
Committed to AFMSS for processing by JENNIFER SANCHEZ on 10/16/2017 ()

Name *(Printed/Typed)* KANICIA CASTILLO — Title PREPARER

Signature (Electronic Submission) — Date 10/12/2017

ACCEPTED FOR RECORD
OCT 17 2017
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____ Title _____ Date _____

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

ALLIED HORIZONTAL WIRELINE SERVICES

Cased Hole Compensated Neutron Log

Company	COG Operating L.L.C.
Well	Burch Keely Unit 962 H
Field	Loco Hills Field
County	Eddy
State	New Mexico

Company COG Operating L.L.C.

Well Burch Keely Unit 962 H

Field Loco Hills Field

County Eddy State New Mexico

Location: API # : 30-015-44101

296 FT FNL & 153 FT FEL
Sec 24, T17S, R29E

	SEC	TWP	RGE	Elevation	
Permanent Datum				3618 FT	
Log Measured From			Ground Level	18 FT APD	
Drilling Measured From			Kelly Bushing		

Other Services: RCBL

Elevation: K.B. 3636 FT, D.F. 3635 FT, G.L. 3618 FT

Date	20-JULY-2017
Run Number	One
Depth Driller	10280 FT
Depth Logger	5333 FT
Bottom Logged Interval	5331 FT
Top Log Interval	Surface
Open Hole Size	8.75 FT
Type Fluid	Water
Density / Viscosity	8.33 lb/g
Max. Recorded Temp.	86 F
Estimated Cement Top	NA
Time Well Ready	17:00 PM
Time Logger on Bottom	20:00 PM
Equipment Number	12031
Location	Midland, TX
Recorded By	Jose Lagos
Witnessed By	Darin Chandler

Borehole Record

Run Number	Bit	From	To
One	17.5 IN	Surface	327 FT
Two	12.25 IN	327 FT	1092 FT
Three	8.75 IN	1092 FT	10280 FT

Tubing Record

	Size	Wgt/Ft	Top	Bottom
Casing Record				
Surface String	13.375 IN	54.5 PPF	Surface	327 FT
Prot. String	9.625 IN	40 PPF	Surface	1092 FT
Production String	7 IN	29 PPF	Surface	4309 FT
Liner	5.5 IN	17 PPF	4309 FT	10280 FT
Marker Joint	4206 FT-4229 FT			

<<< Fold Here >>>

Comments

Primary log on well.

Log correlated to casing Crossover at 4309 FT
Depth correction +1 FT
Well logged using a +18 FT K.B.

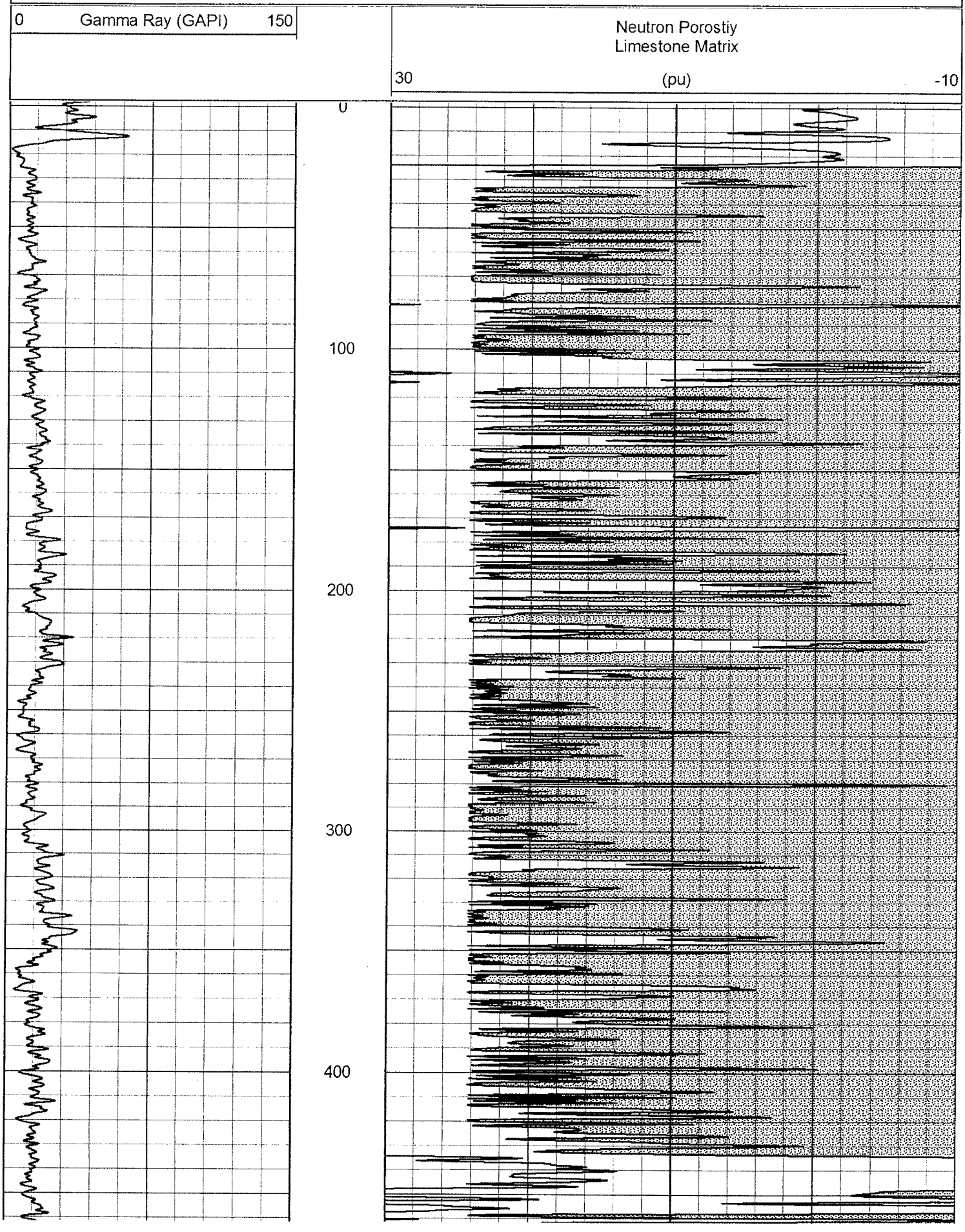
Items marked NA indicate information not provided by customer.

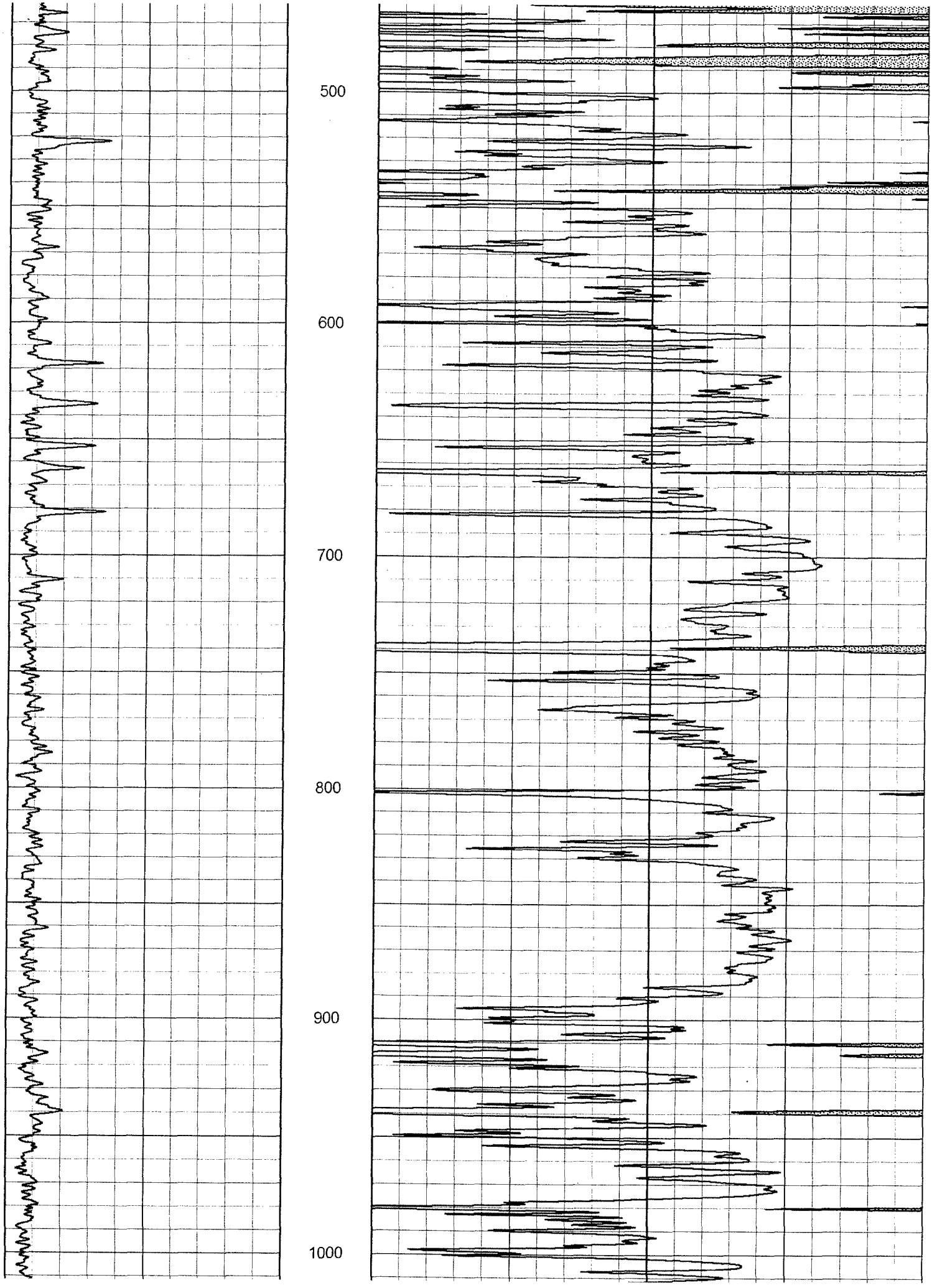
Thank You for Using Allied-Horizontal Wireline Services.

ALLIED HORIZONTAL WIRELINE SERVICES

Main Pass

Database File:	e:\bku-962\cog_bku-962h_rcbl-cnl_7-20-19.db
Dataset Pathname:	pass10
Presentation Format:	cnl2inch
Dataset Creation:	Thu Jul 20 20:12:12 2017 by Log 7.0 B1
Charted by:	Depth in Feet scaled 1:600

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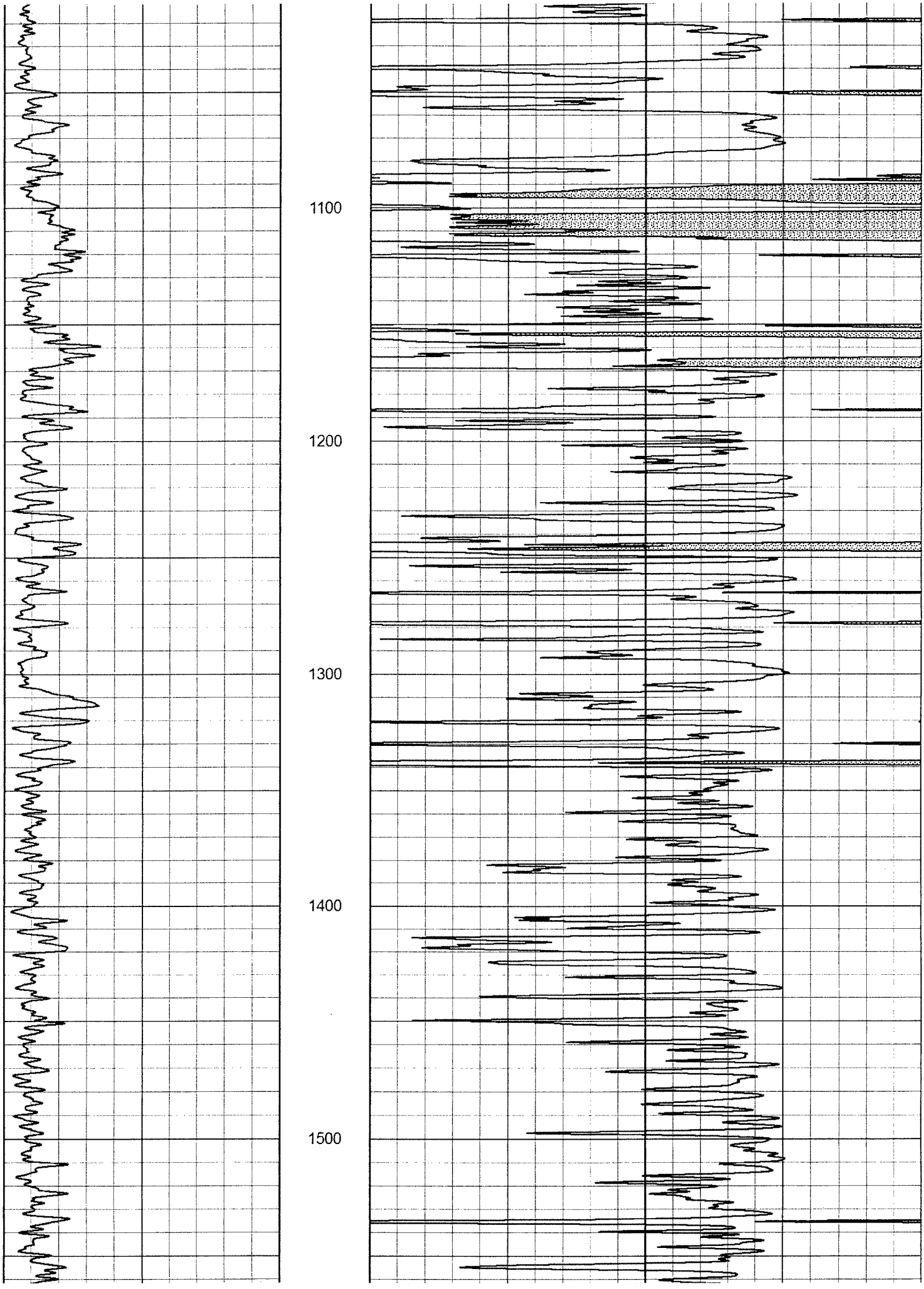
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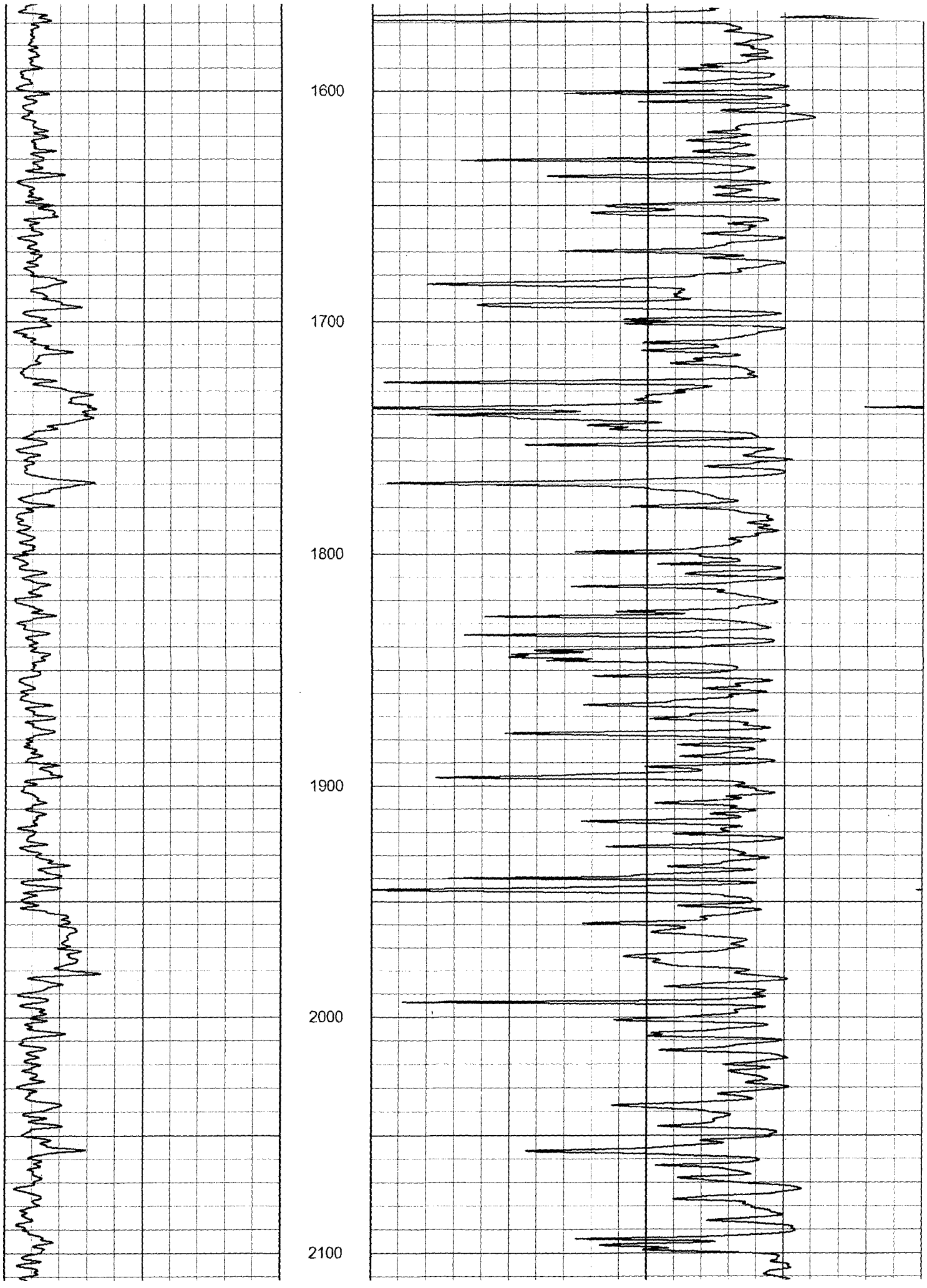
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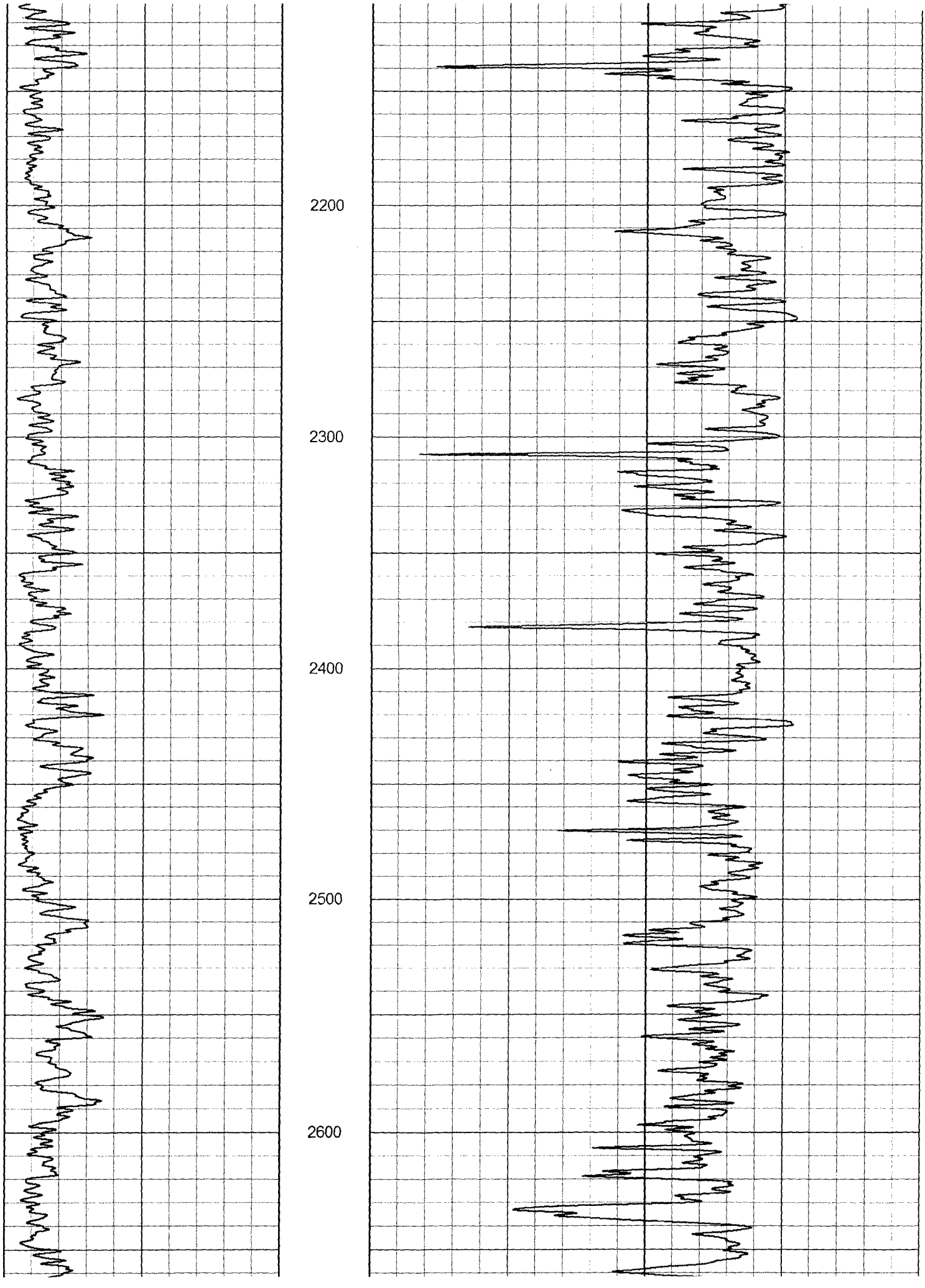
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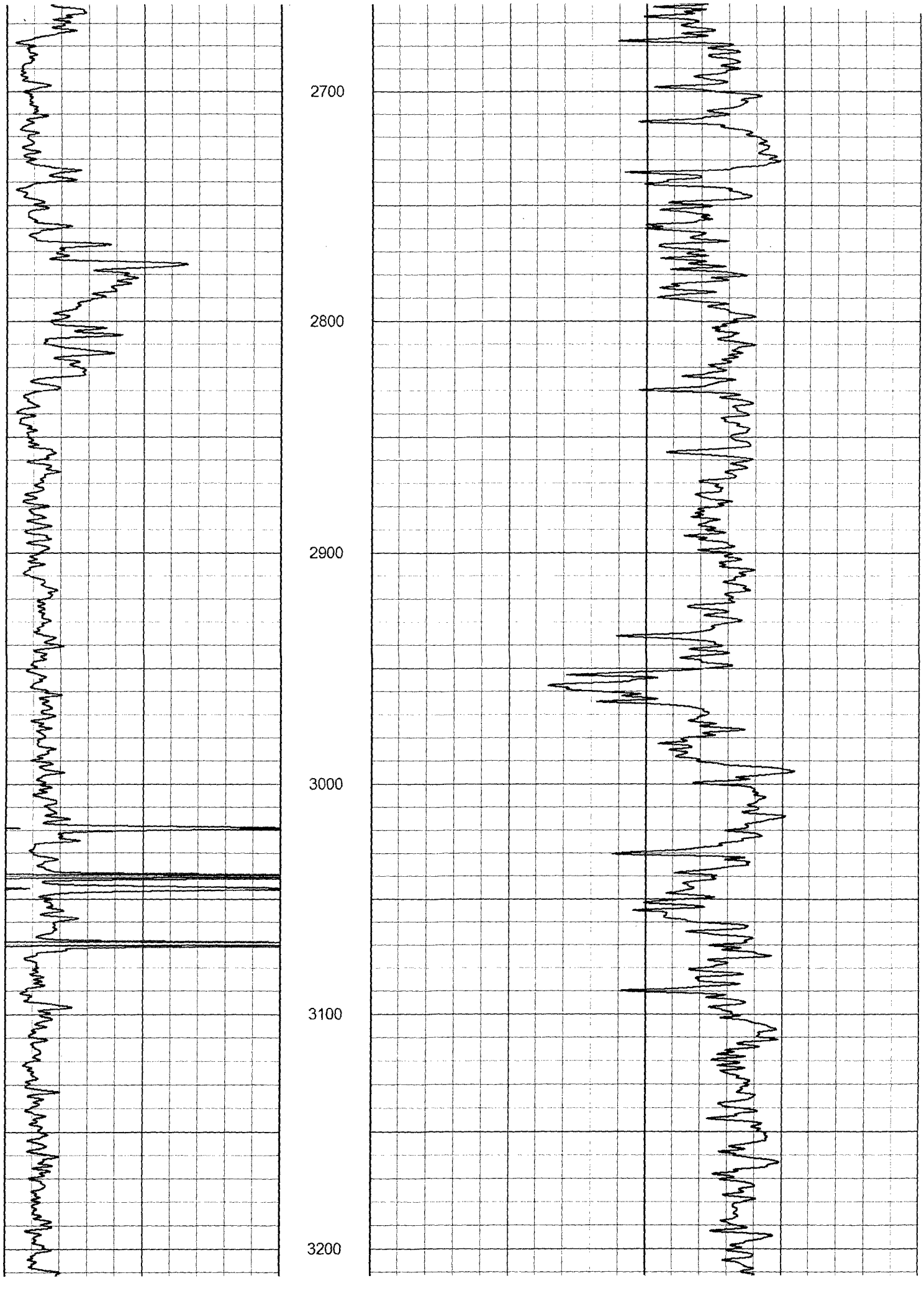
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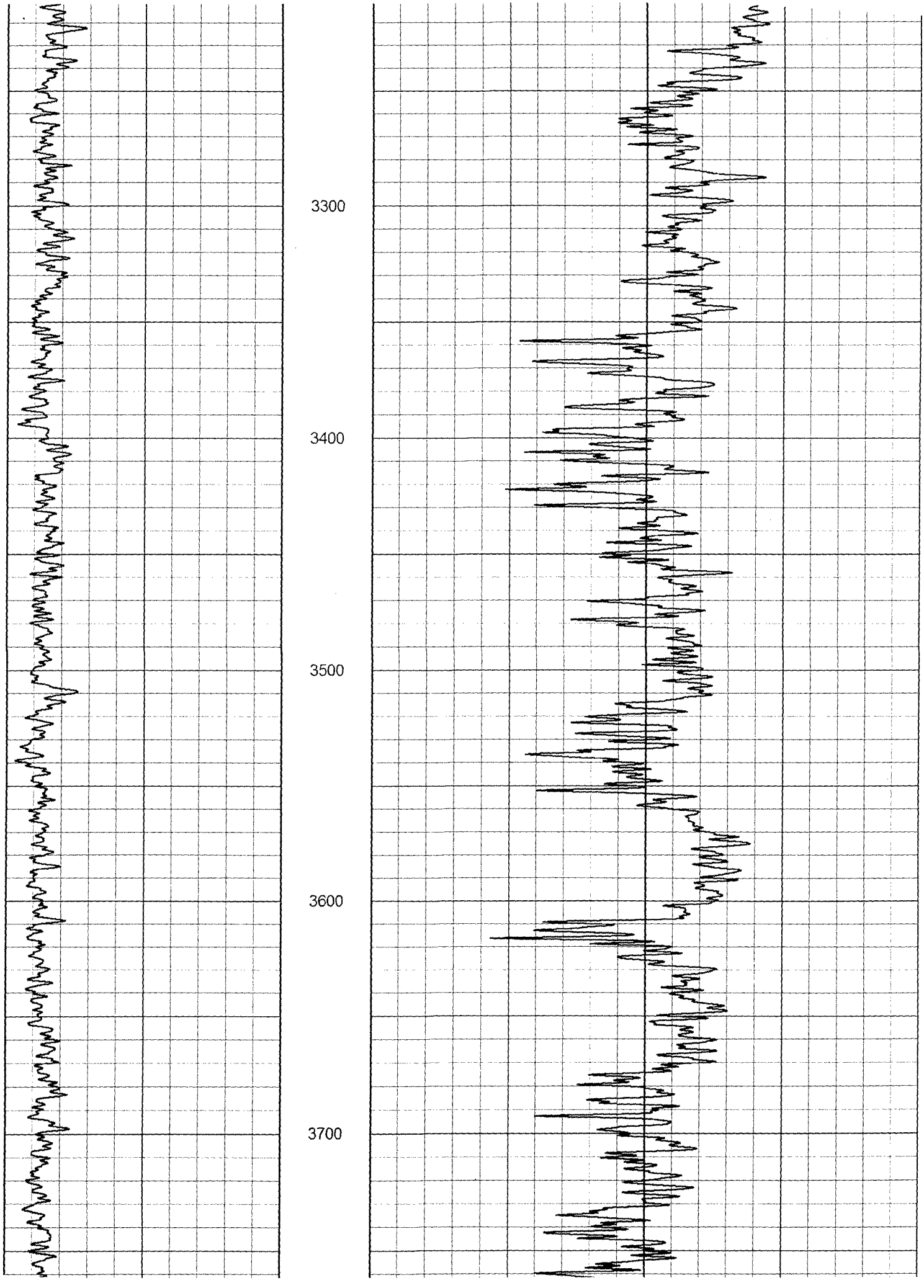
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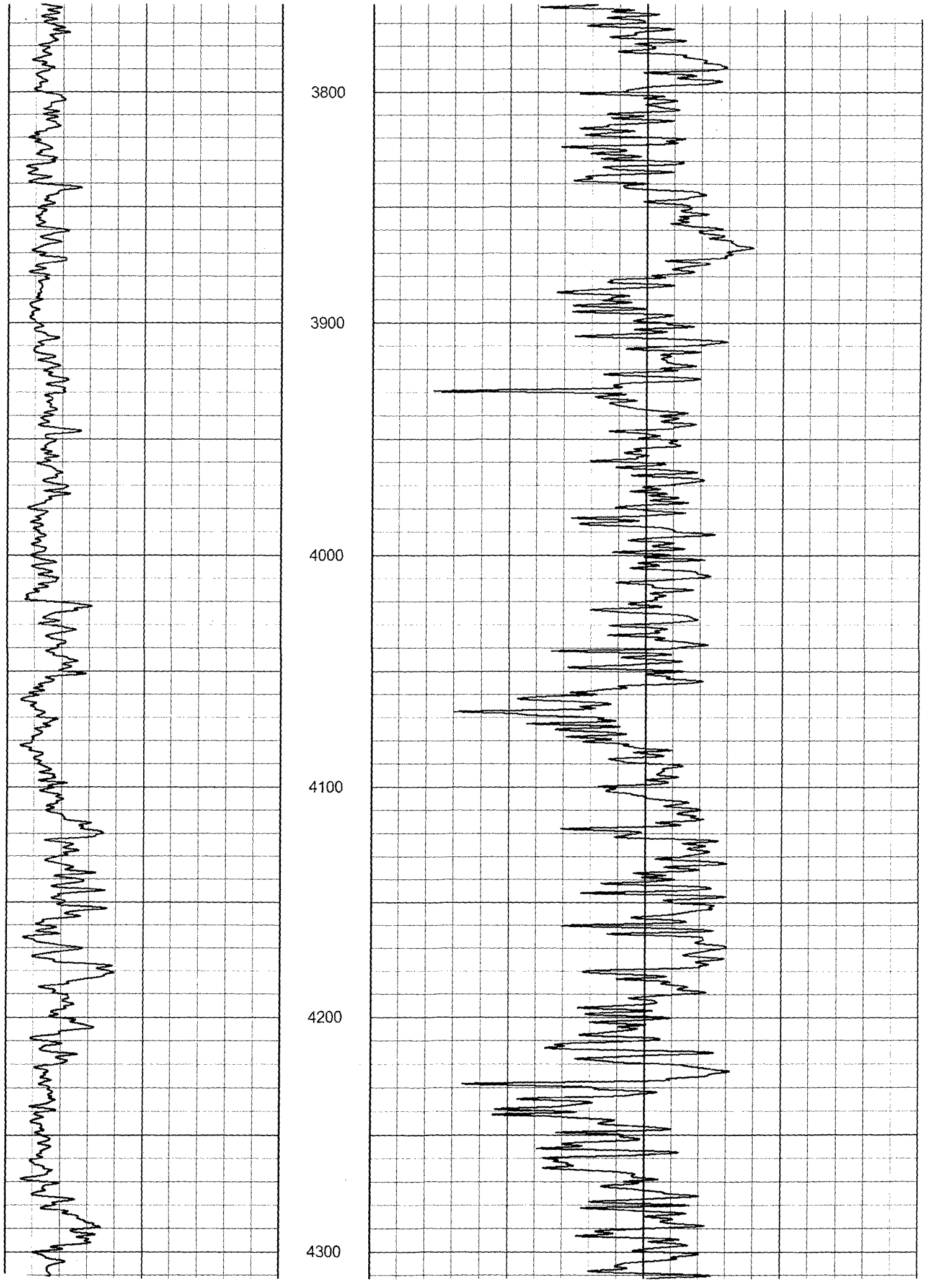
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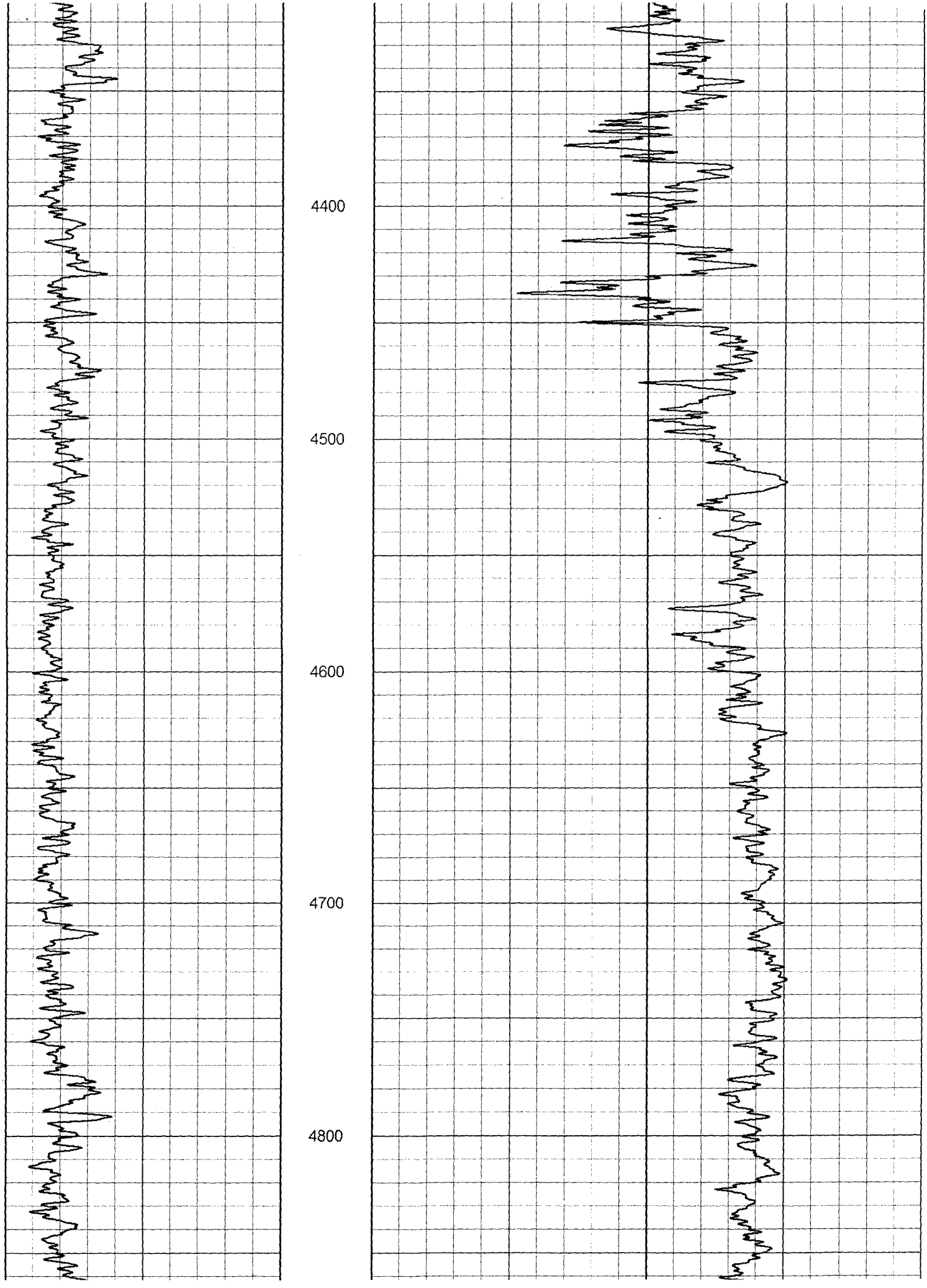
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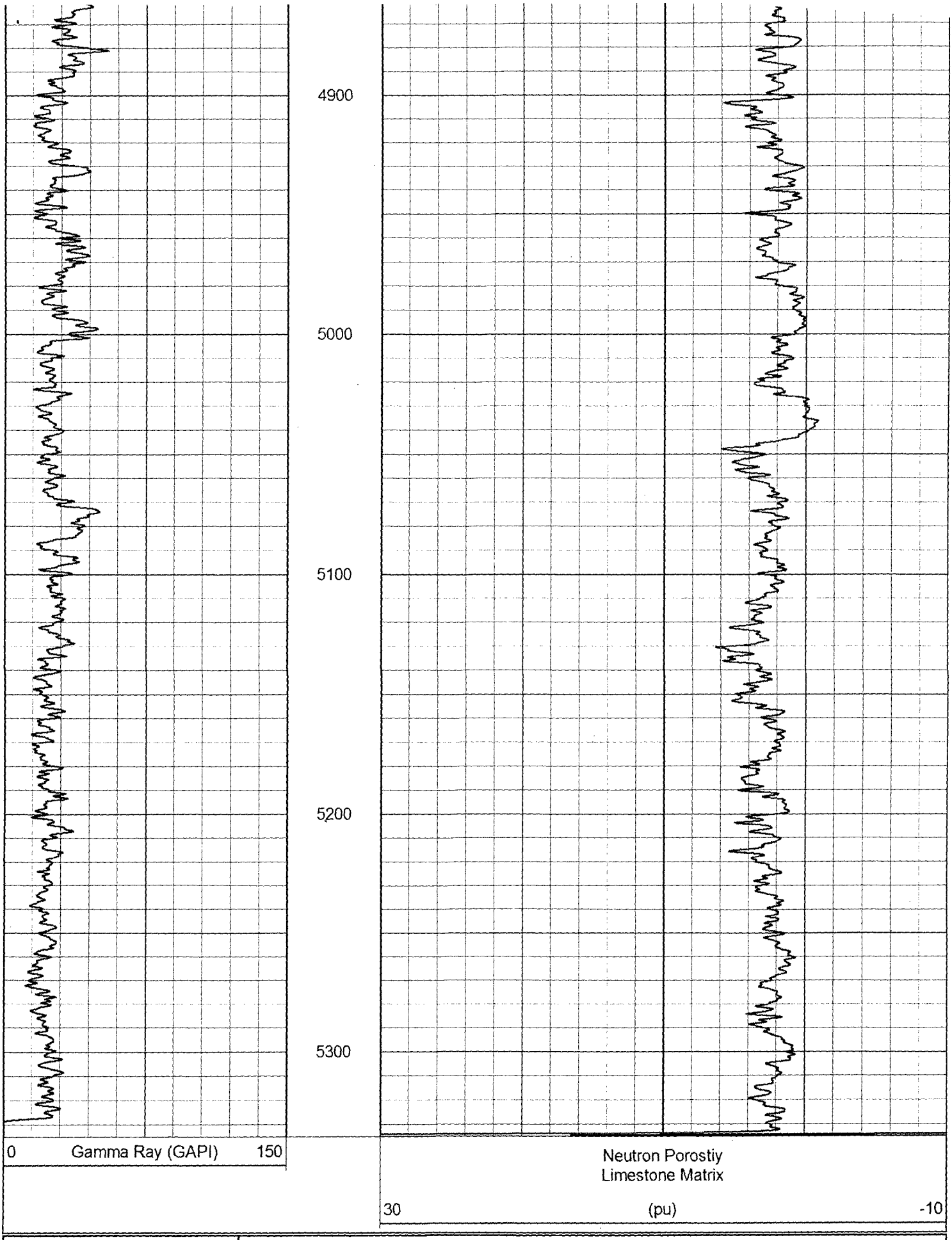


ALLIED HORIZONTAL

Main Pass

ALLIED HORIZONTAL WIRELINE SERVICES

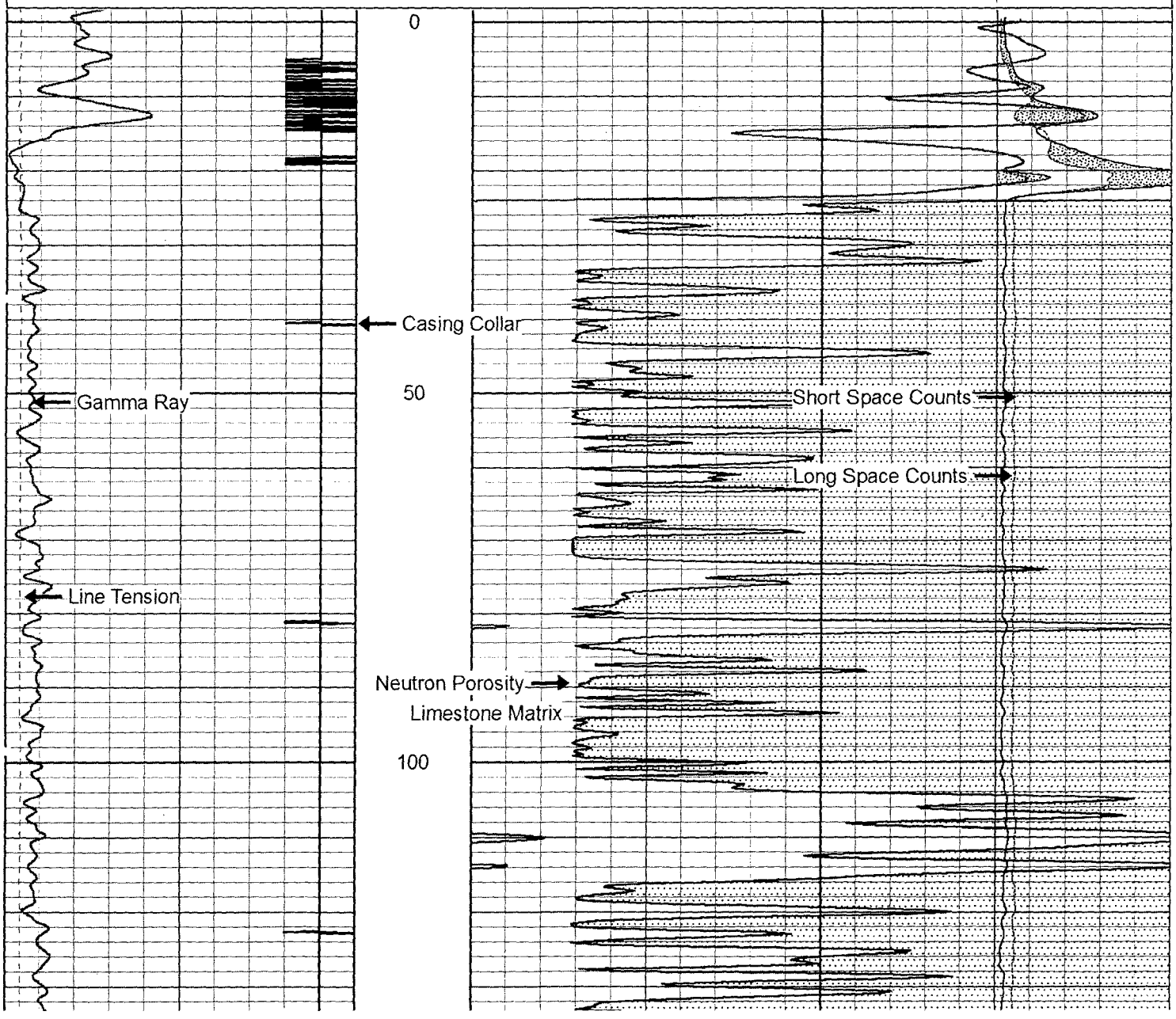
Main Pass

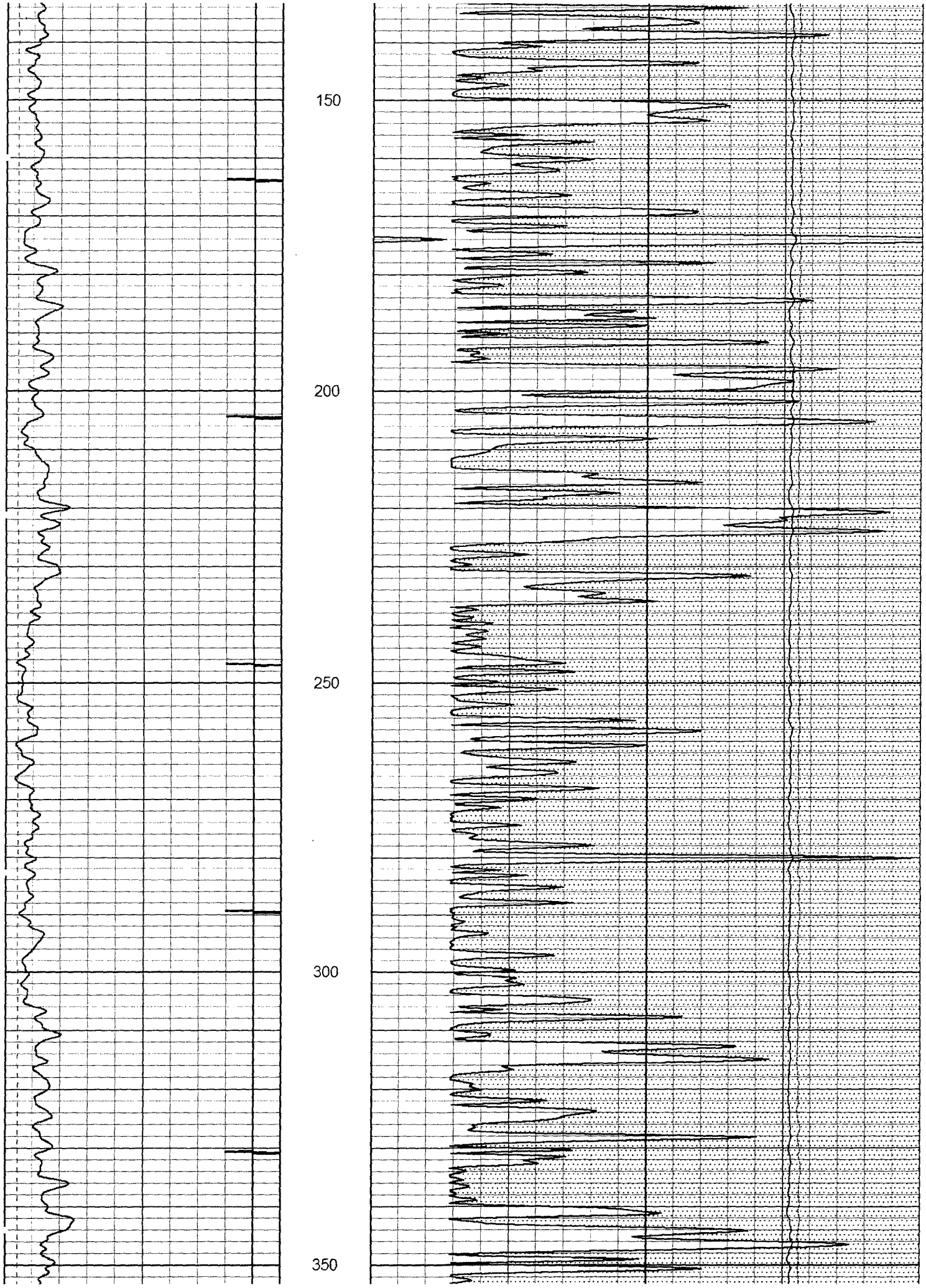
Database File:	e:\bku-962\cog_bku-962h_rcbl-cnl_7-20-19.db
Dataset Pathname:	pass10
Presentation Format:	cnlspray
Dataset Creation:	Thu Jul 20 20:12:12 2017 by Log 7.0 B1
Charted by:	Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
9	*Casing Collar*	-1
0	Line Tension (lb)	5000

Neutron Porosity
Limestone Matrix
30 (pu) -10

Long Space Counts
0 (cps) 1500
Short Space Counts
0 (cps) 7000

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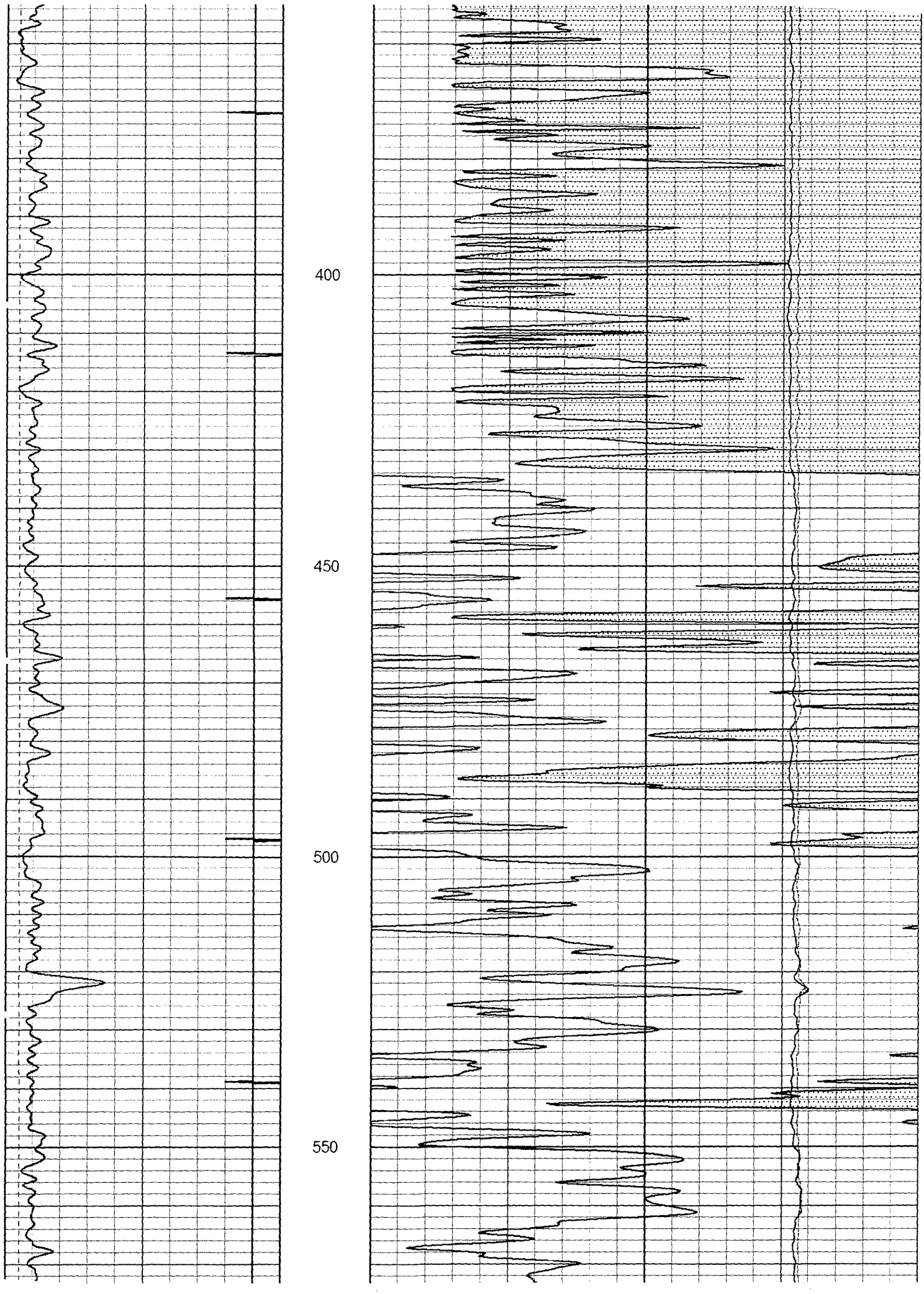
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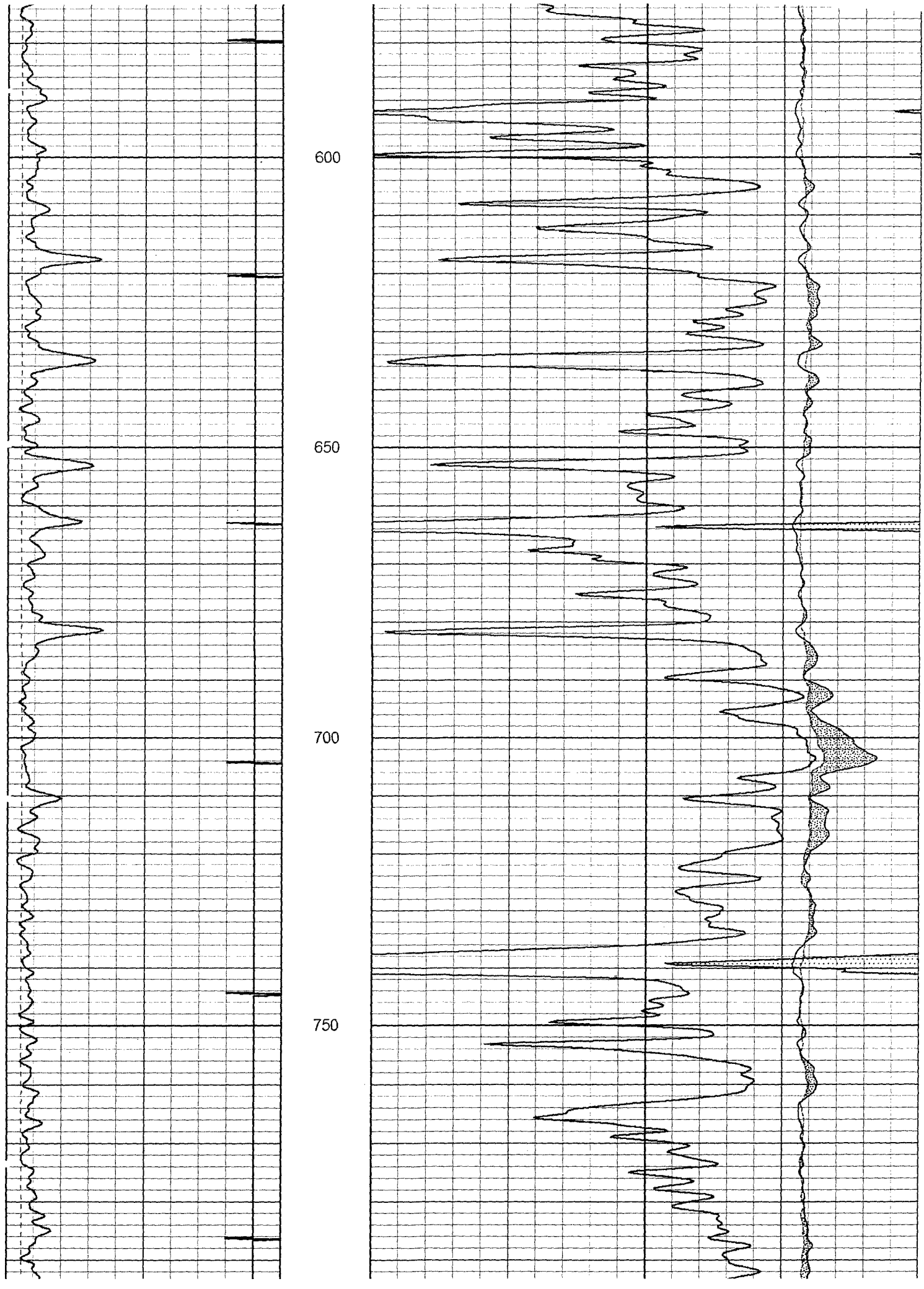
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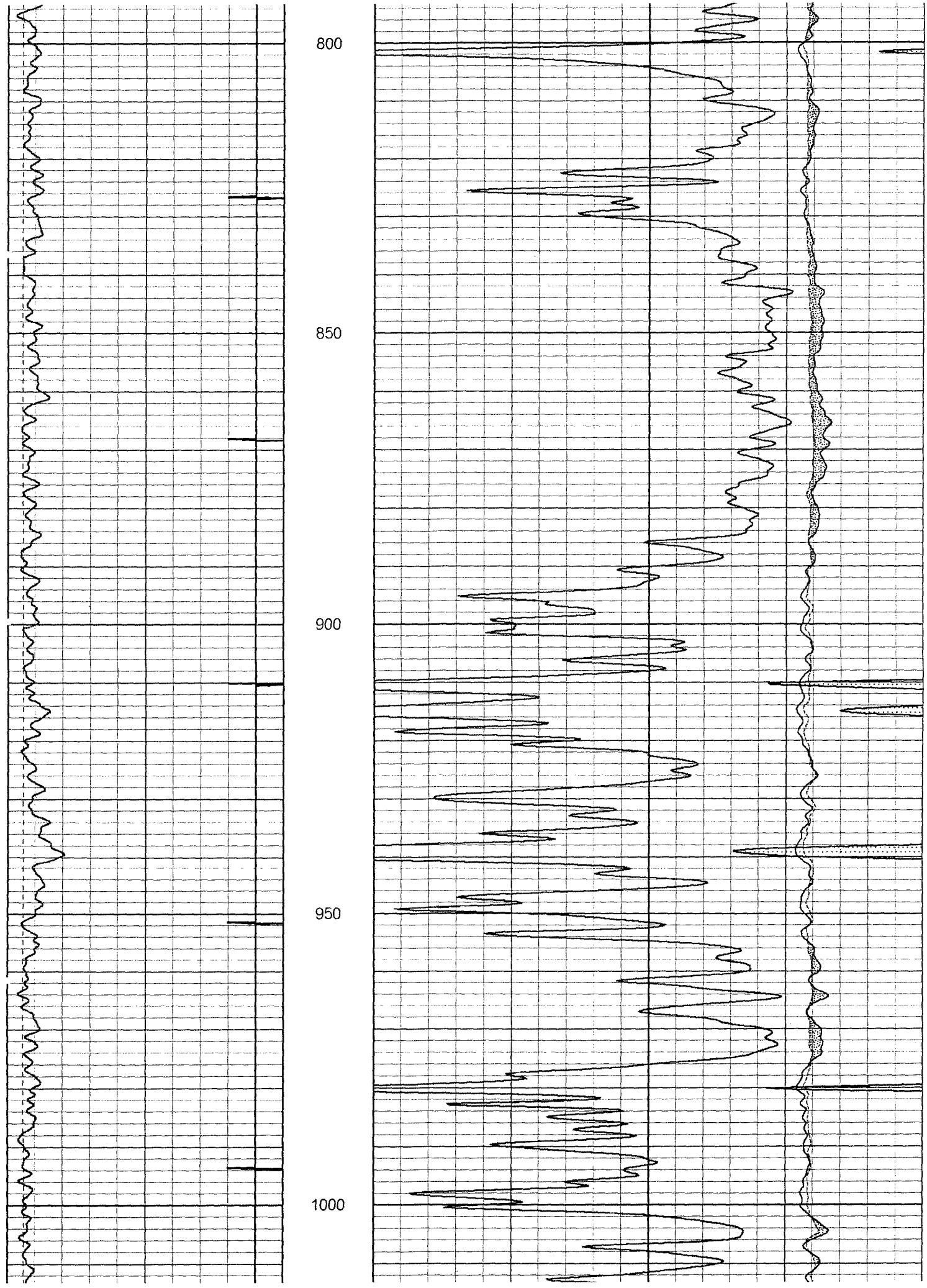
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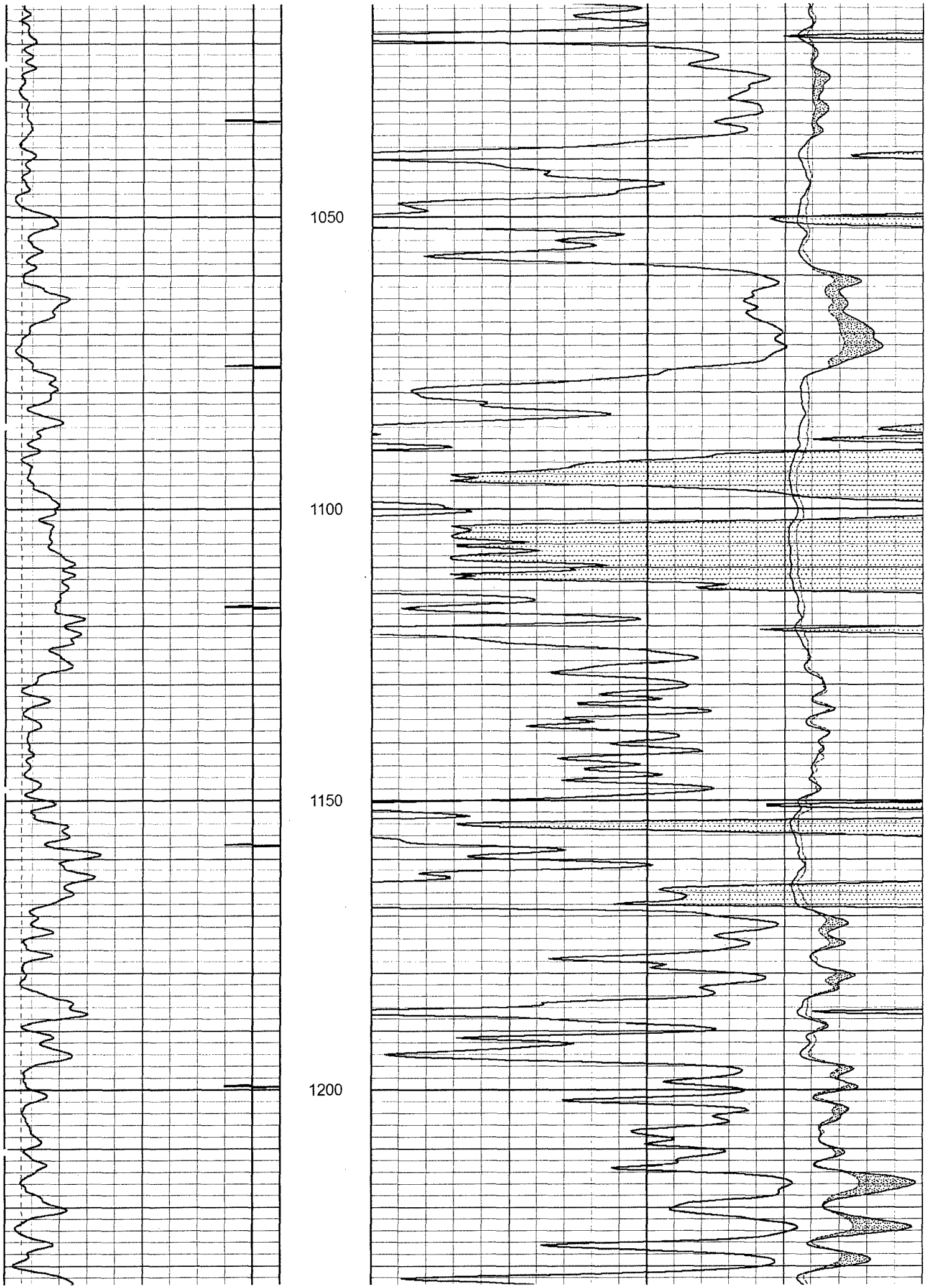
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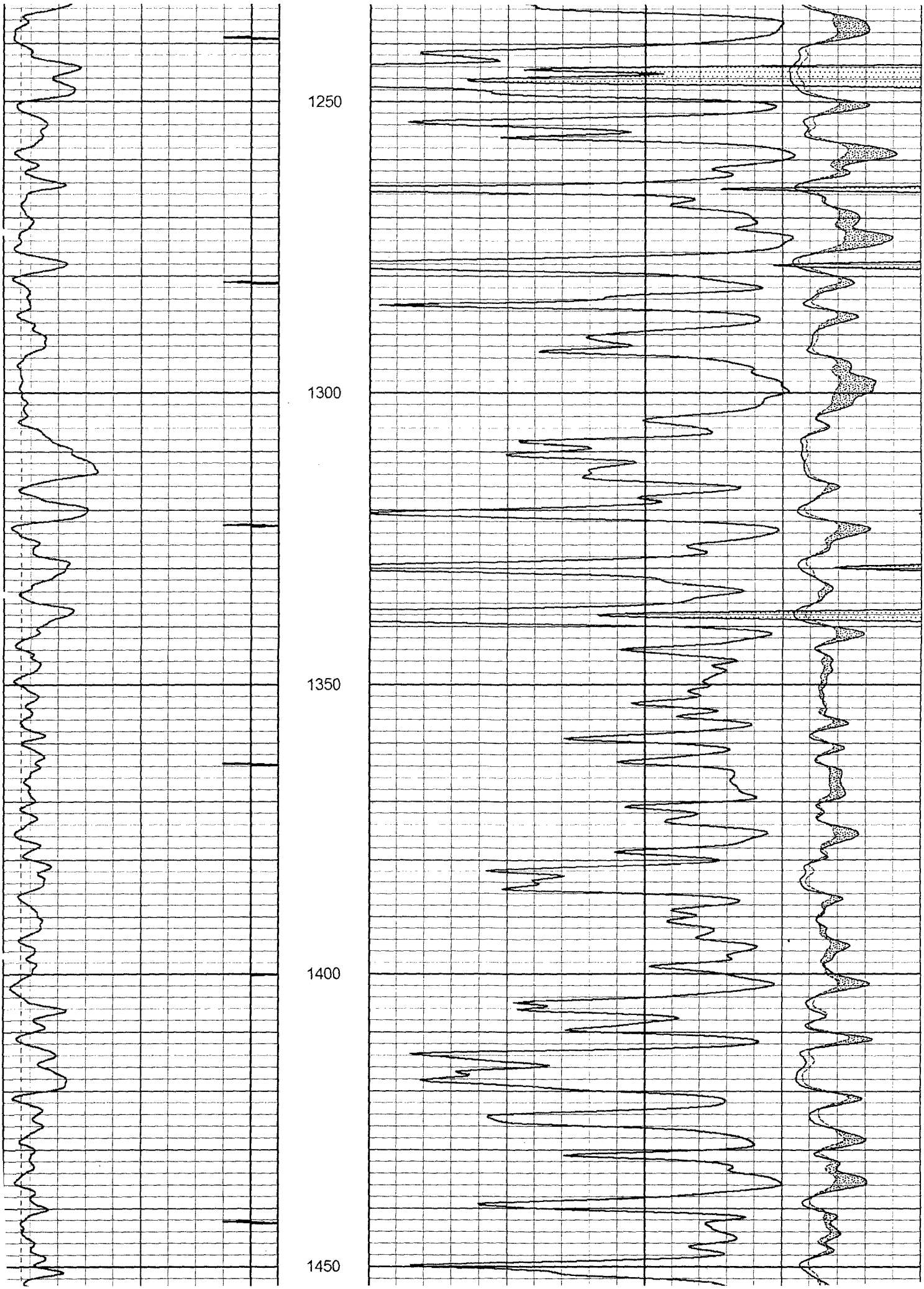
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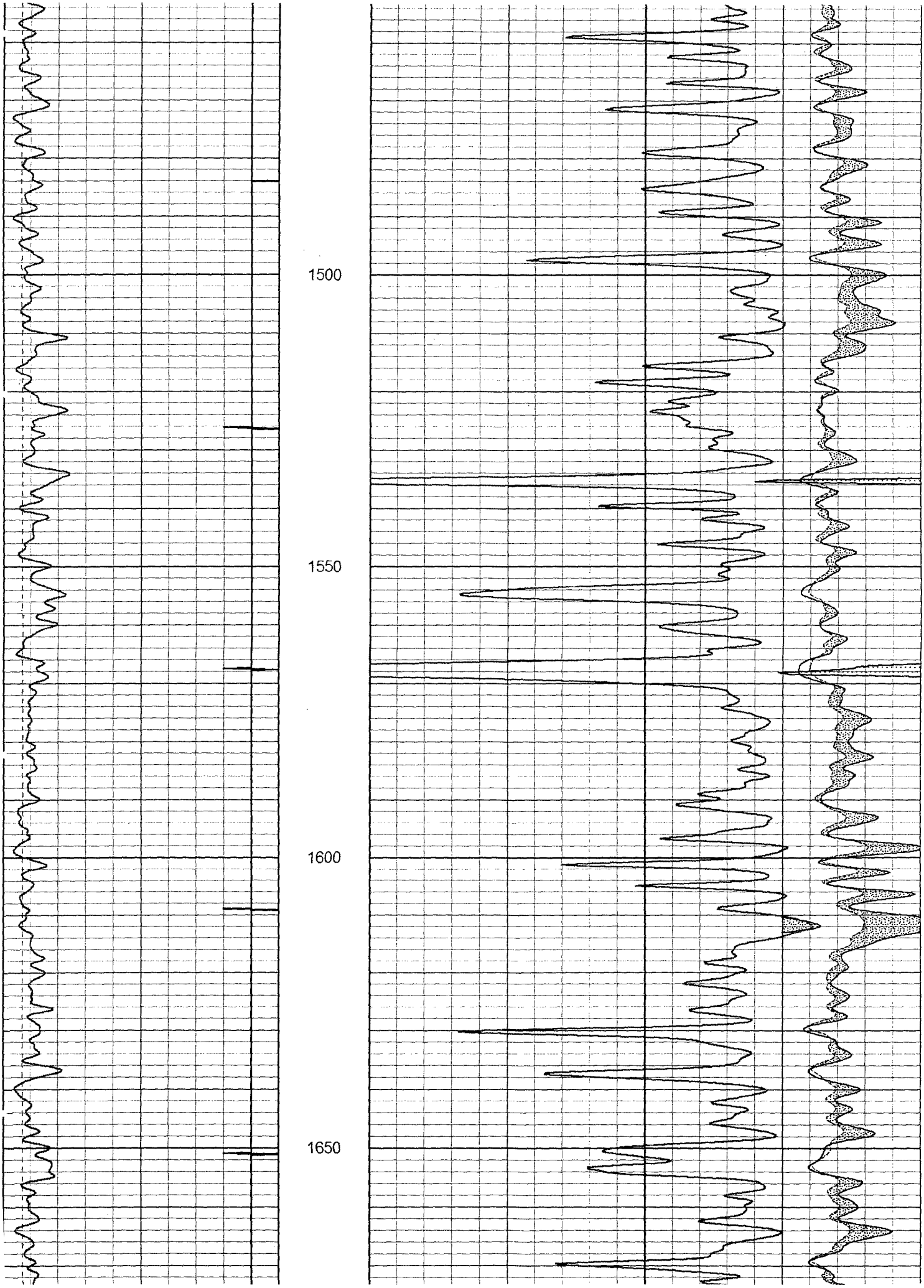
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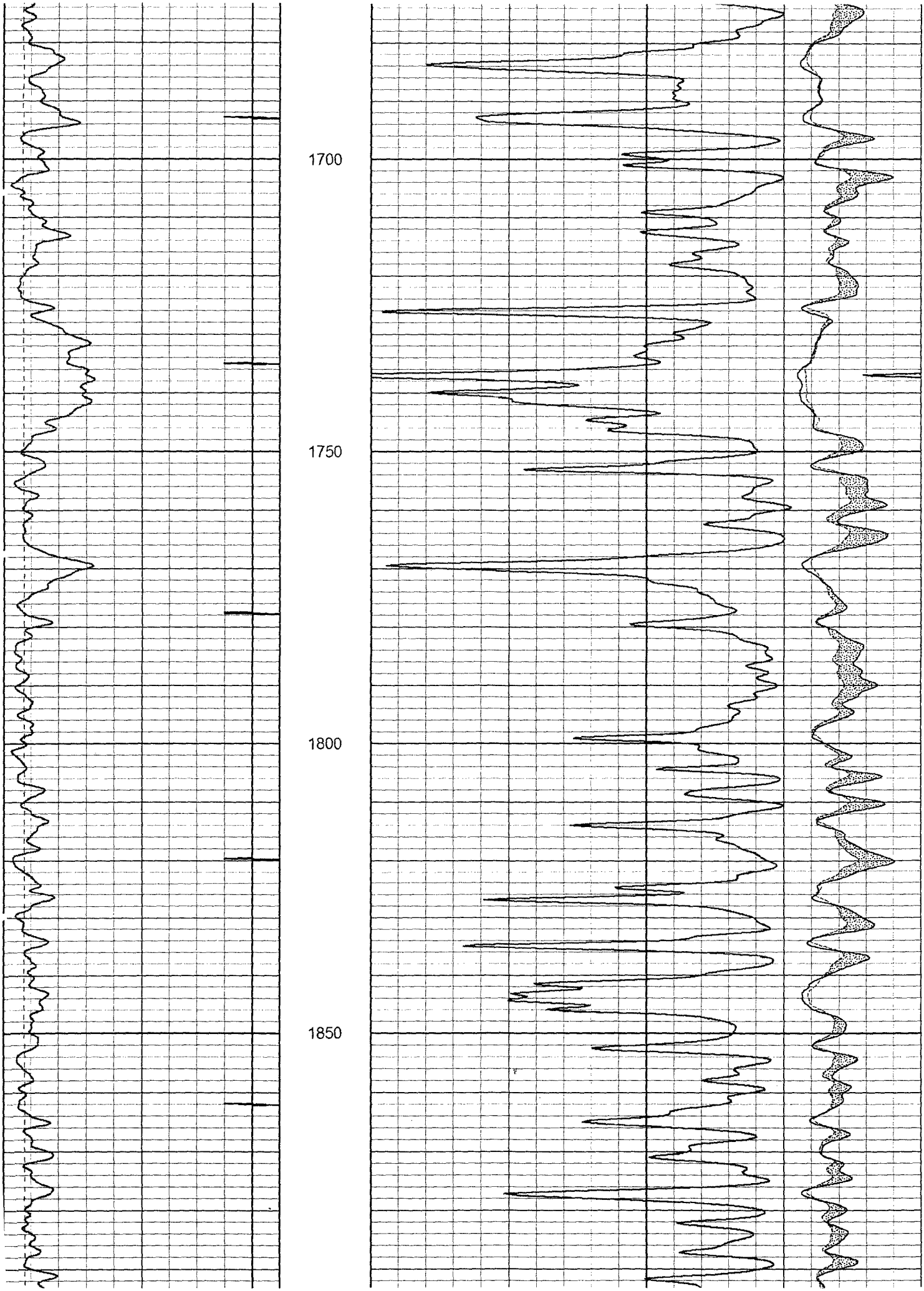
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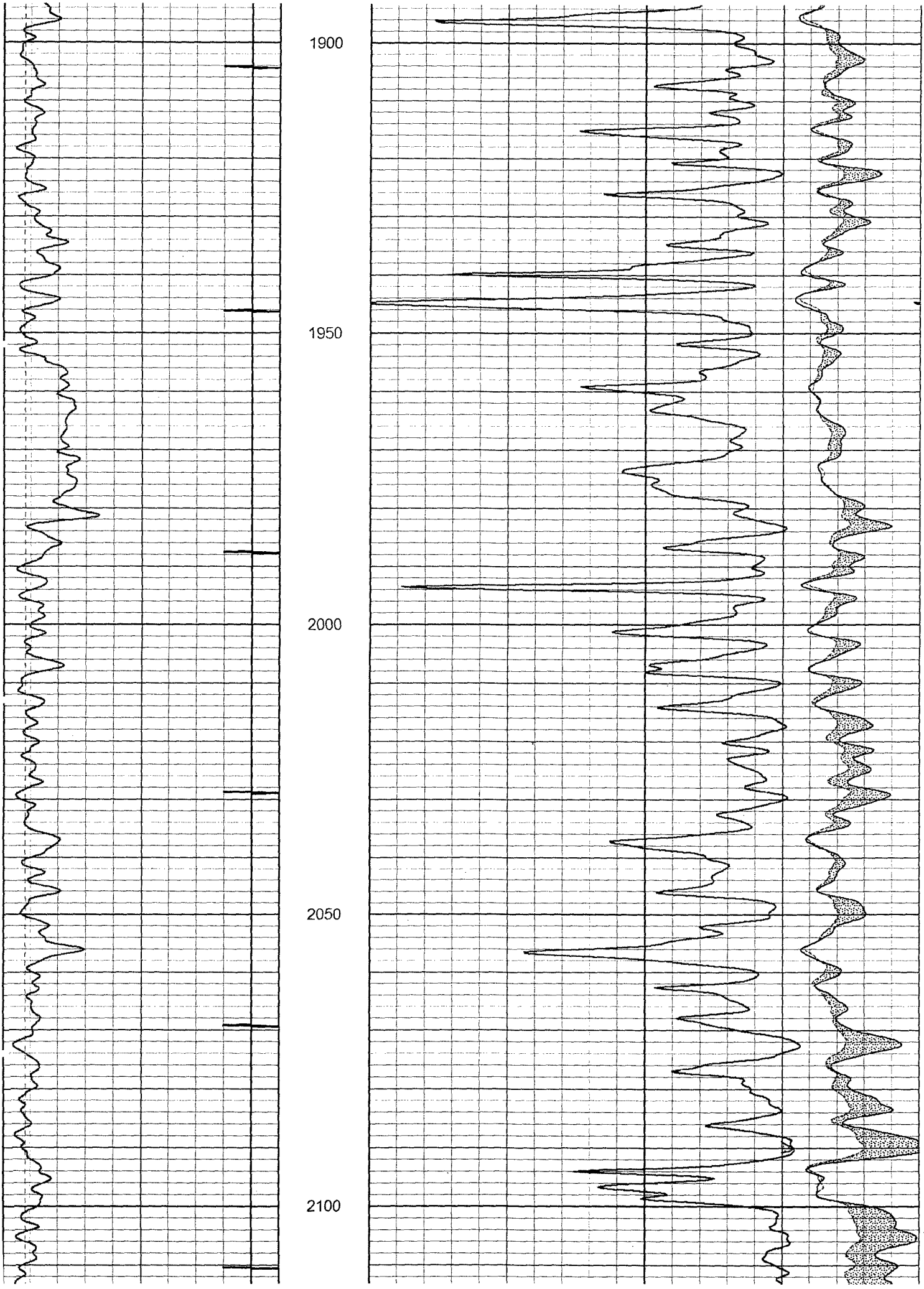
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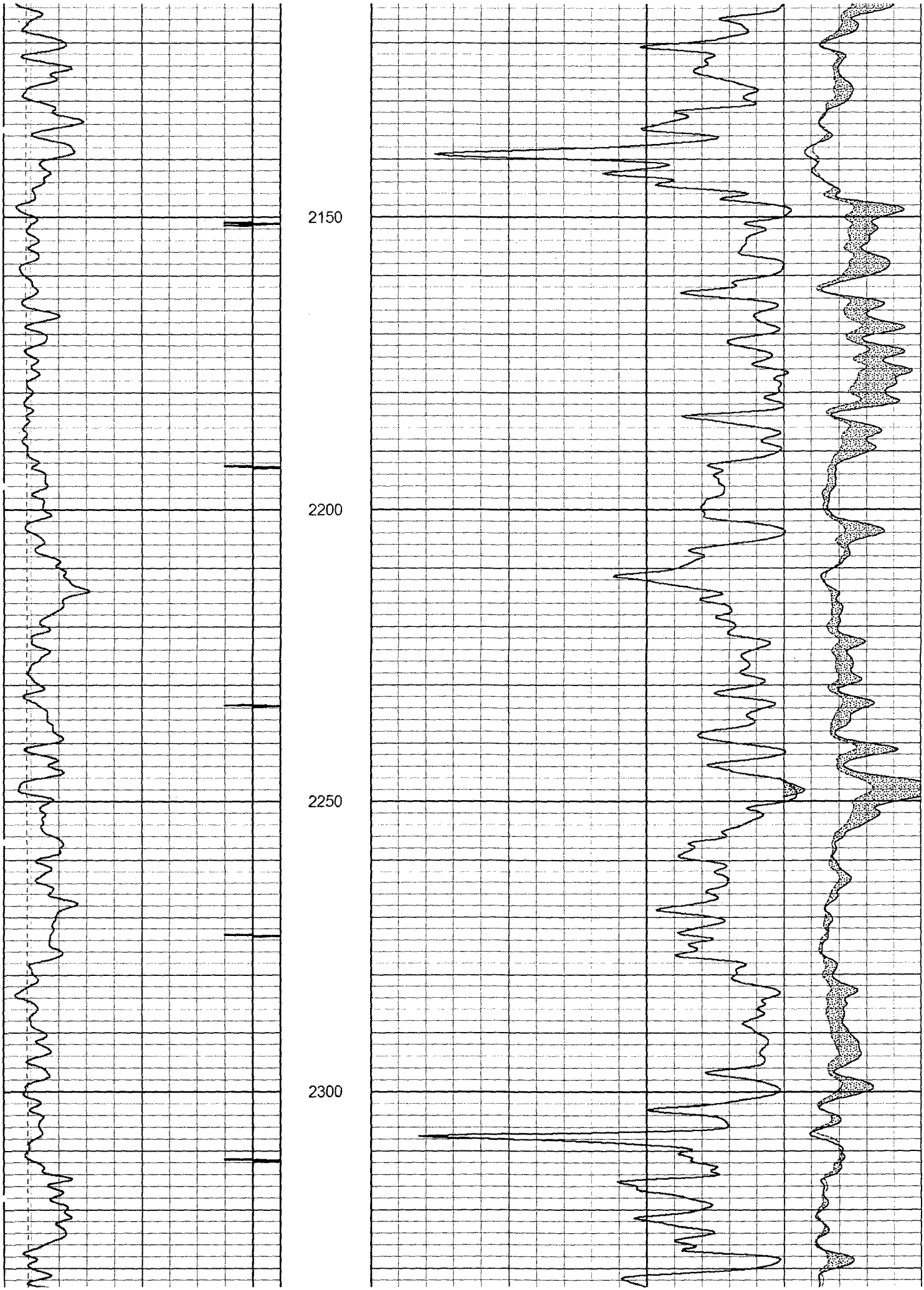
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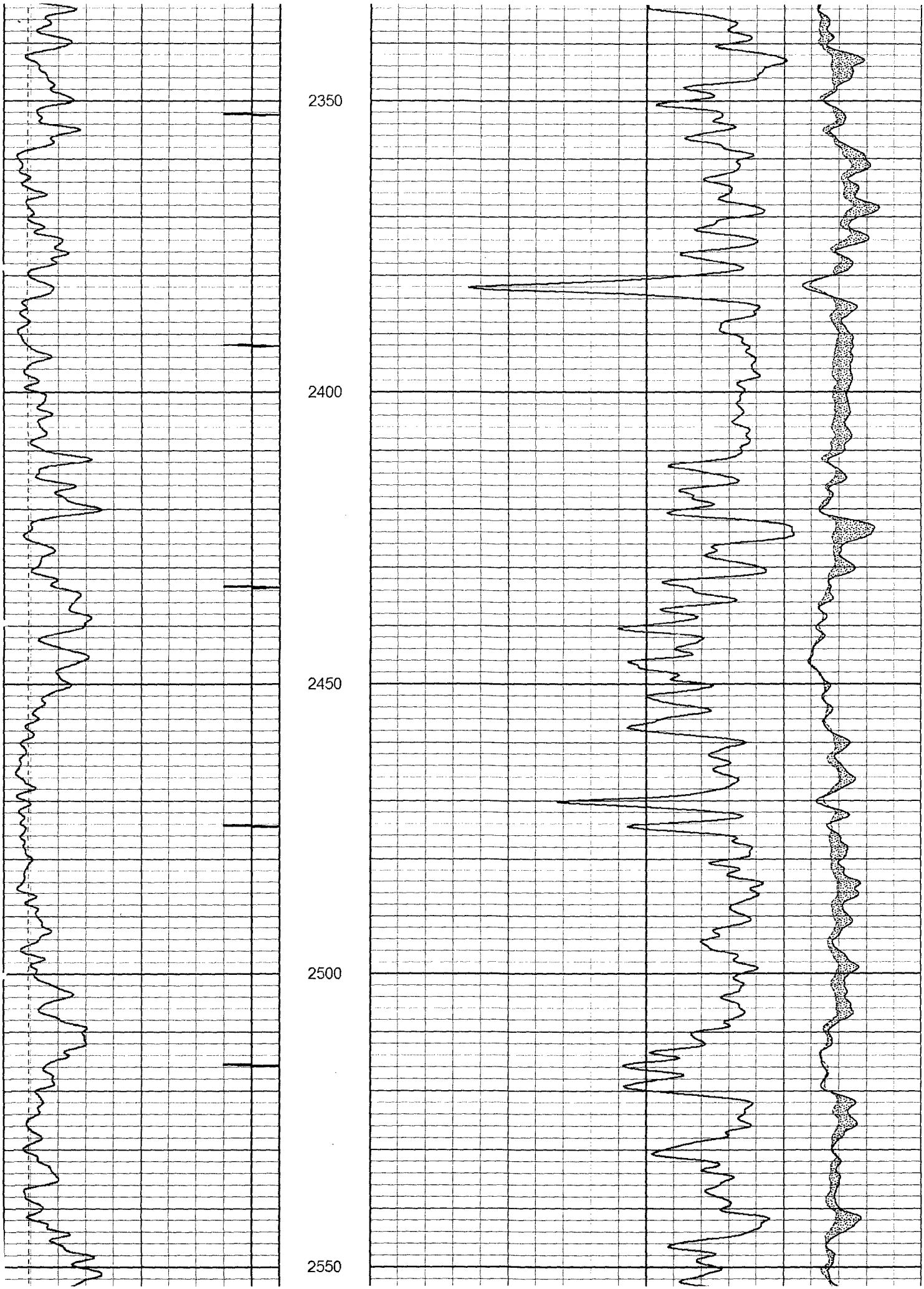
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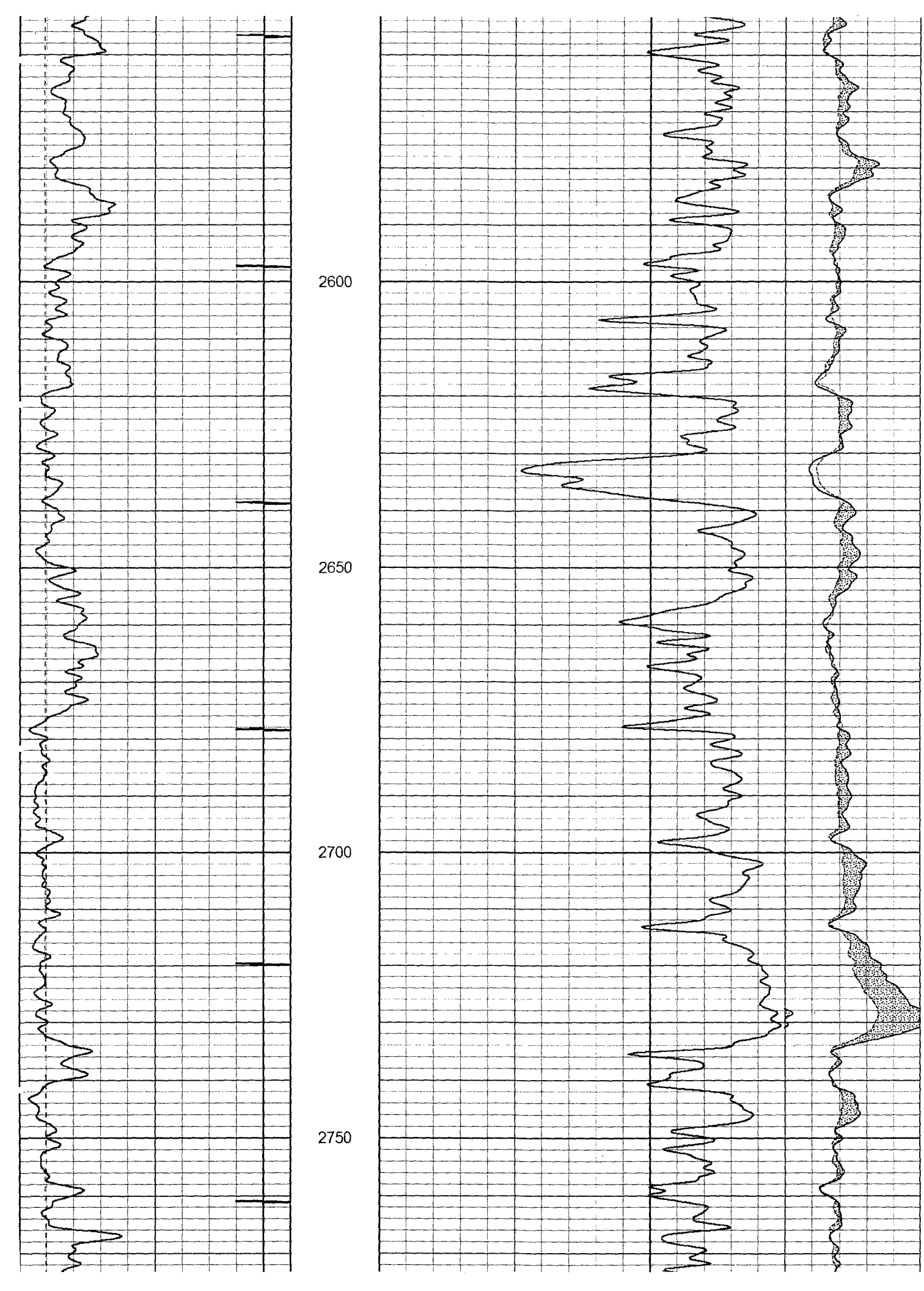
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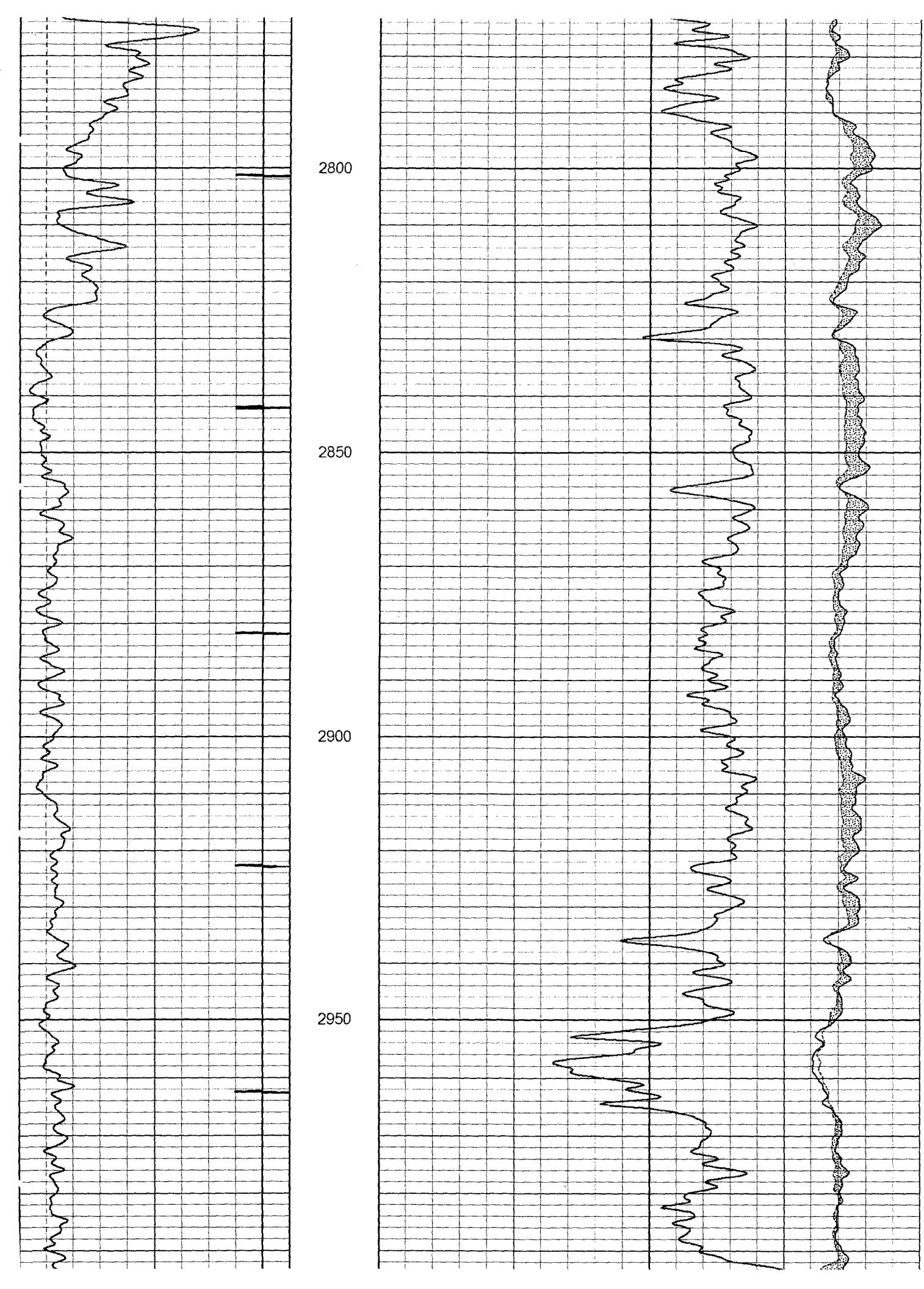
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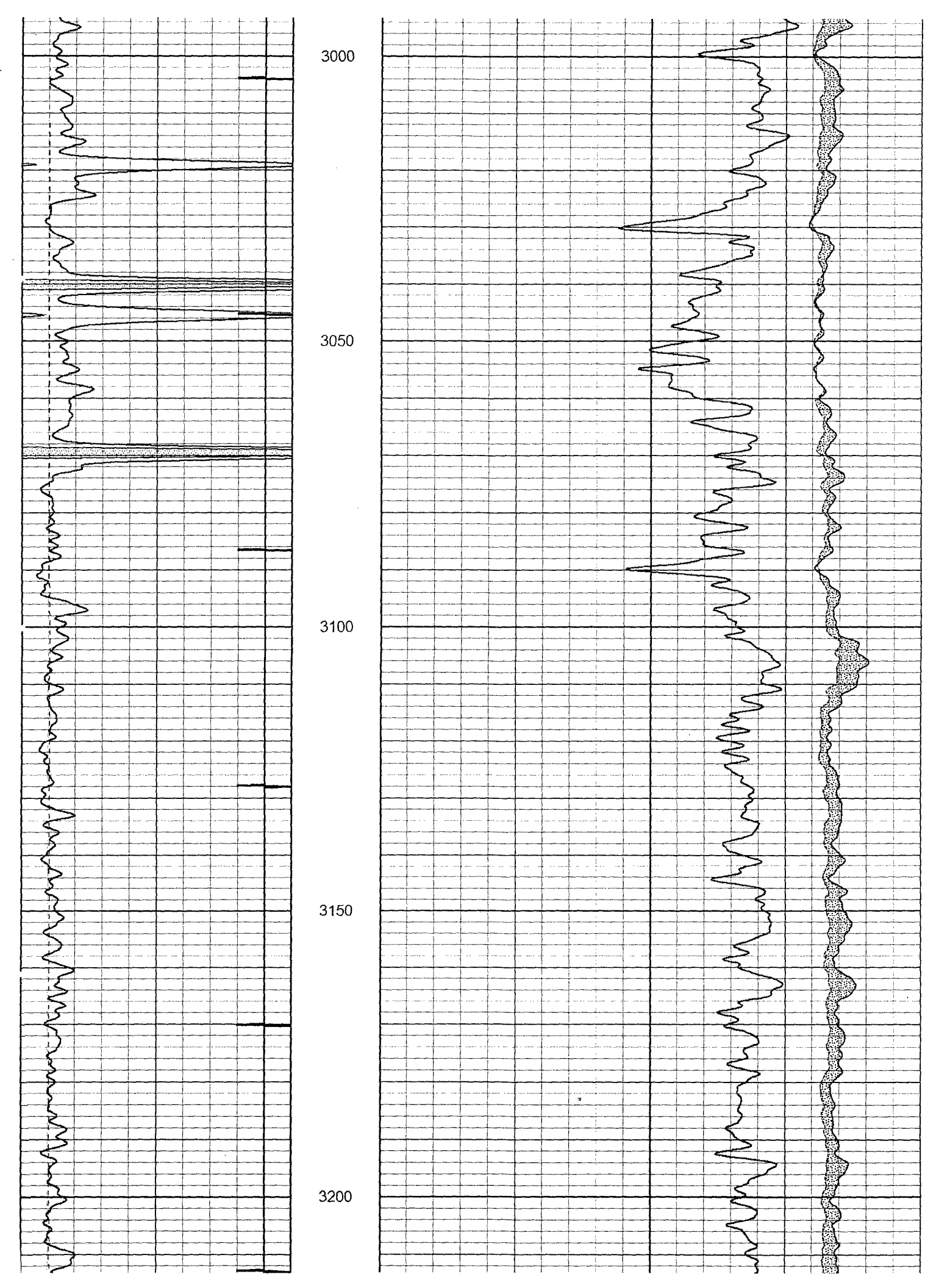
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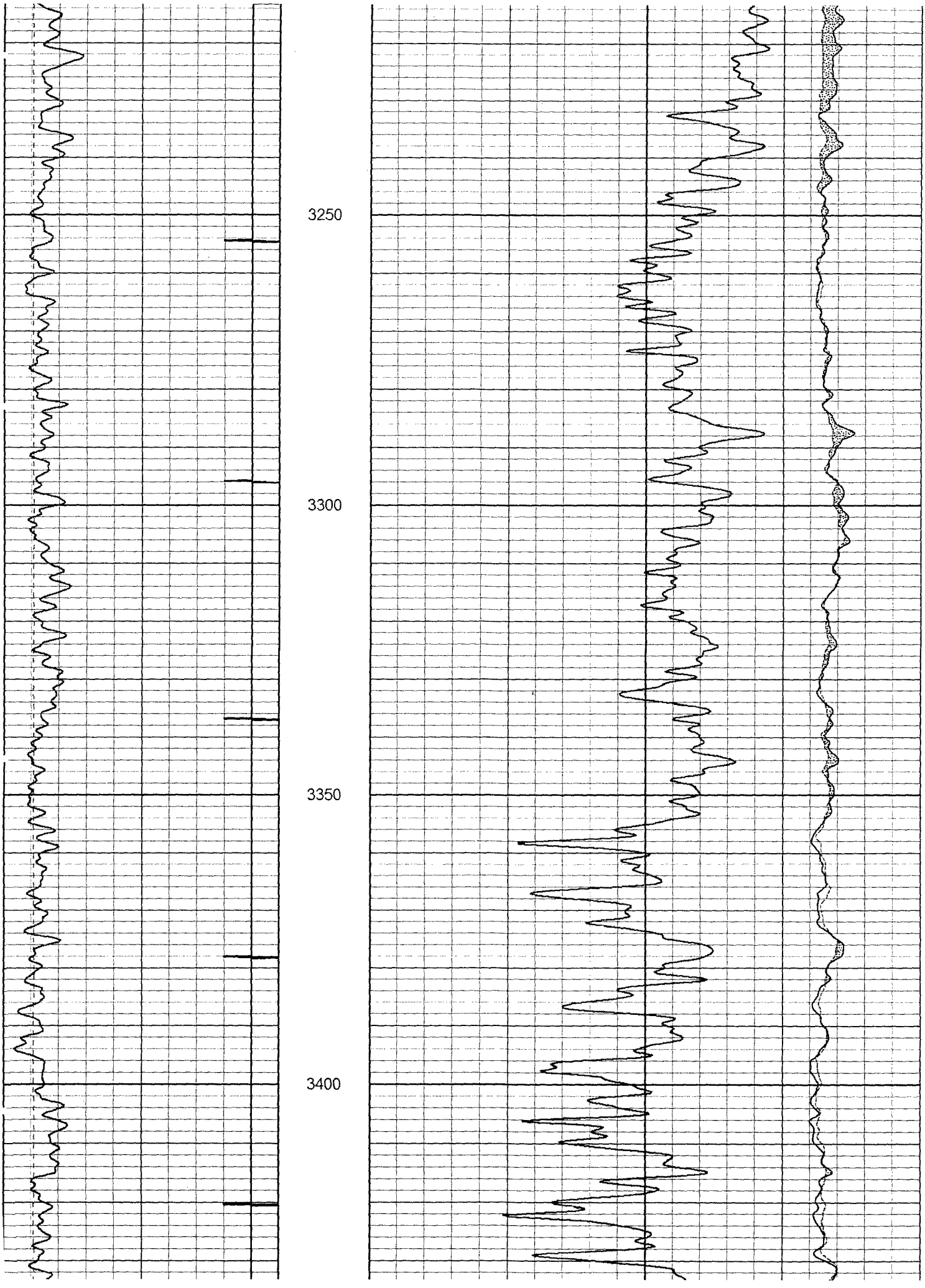
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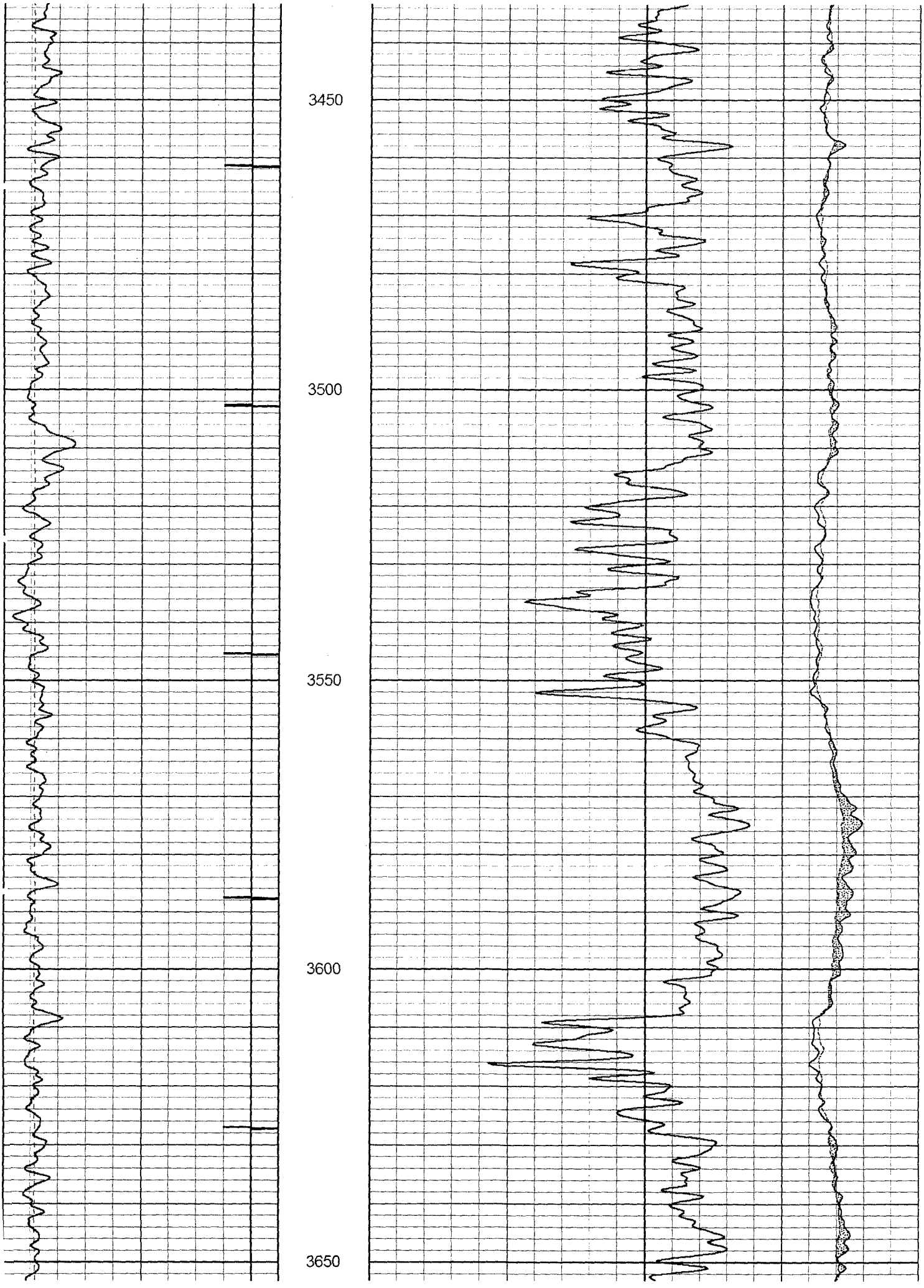
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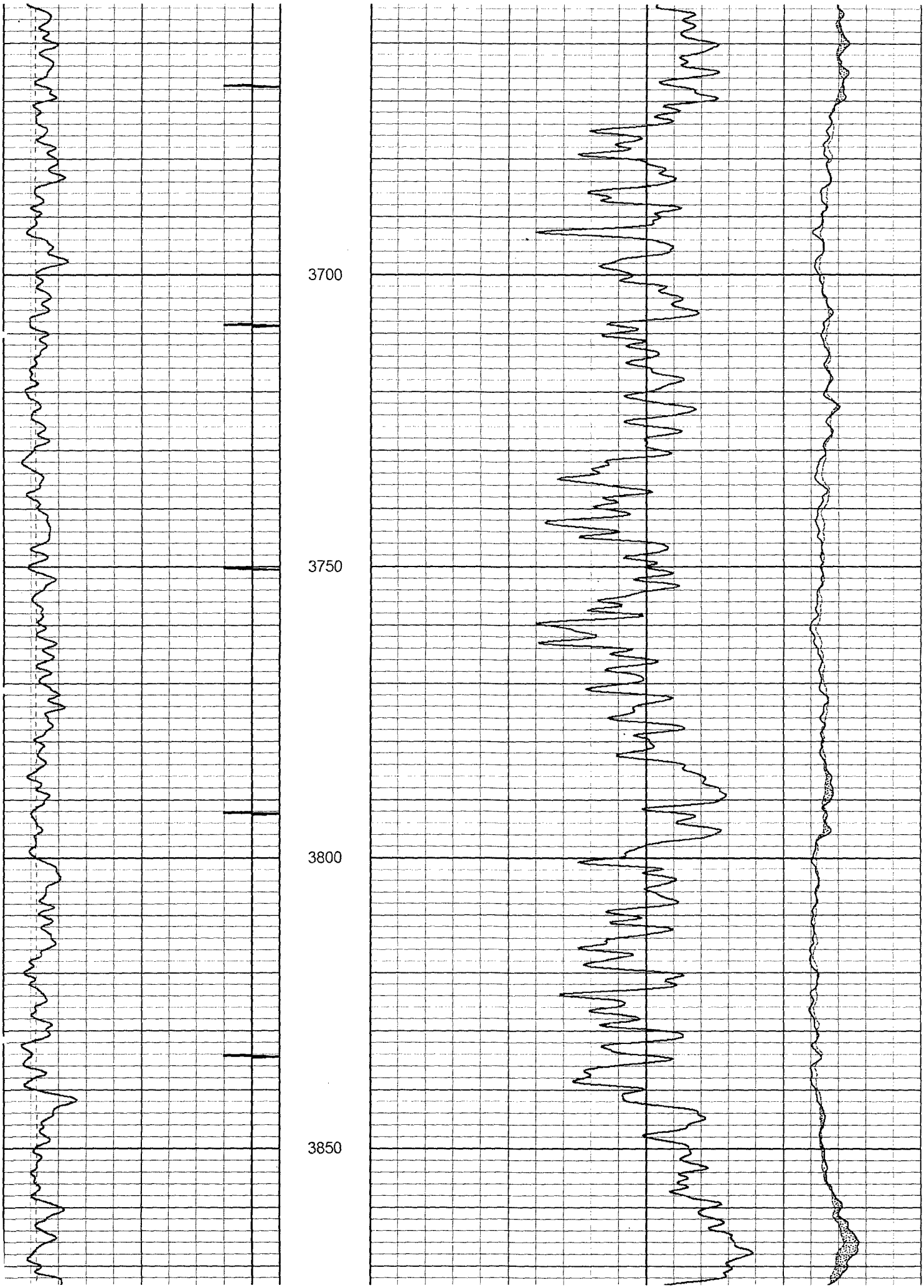
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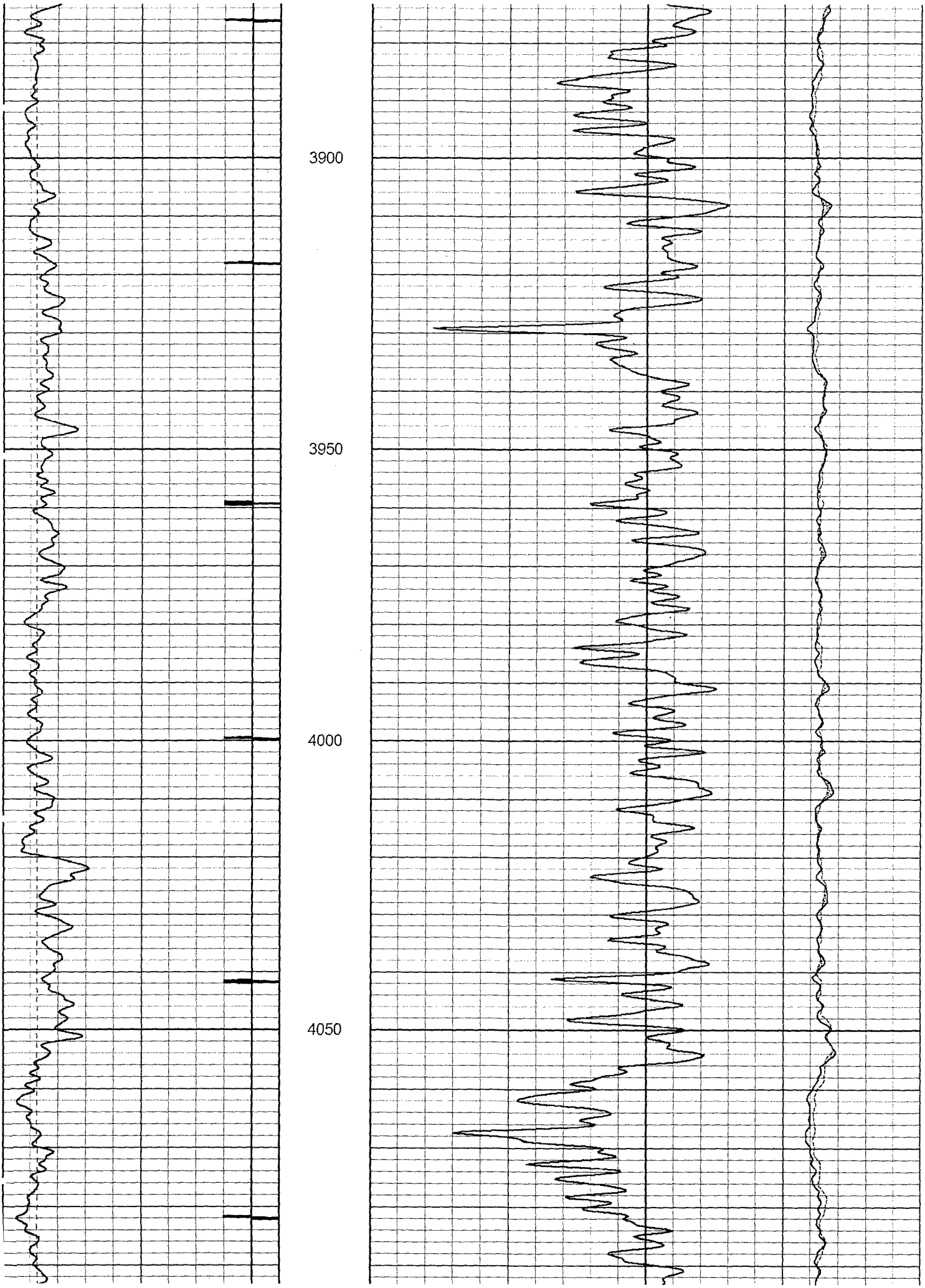
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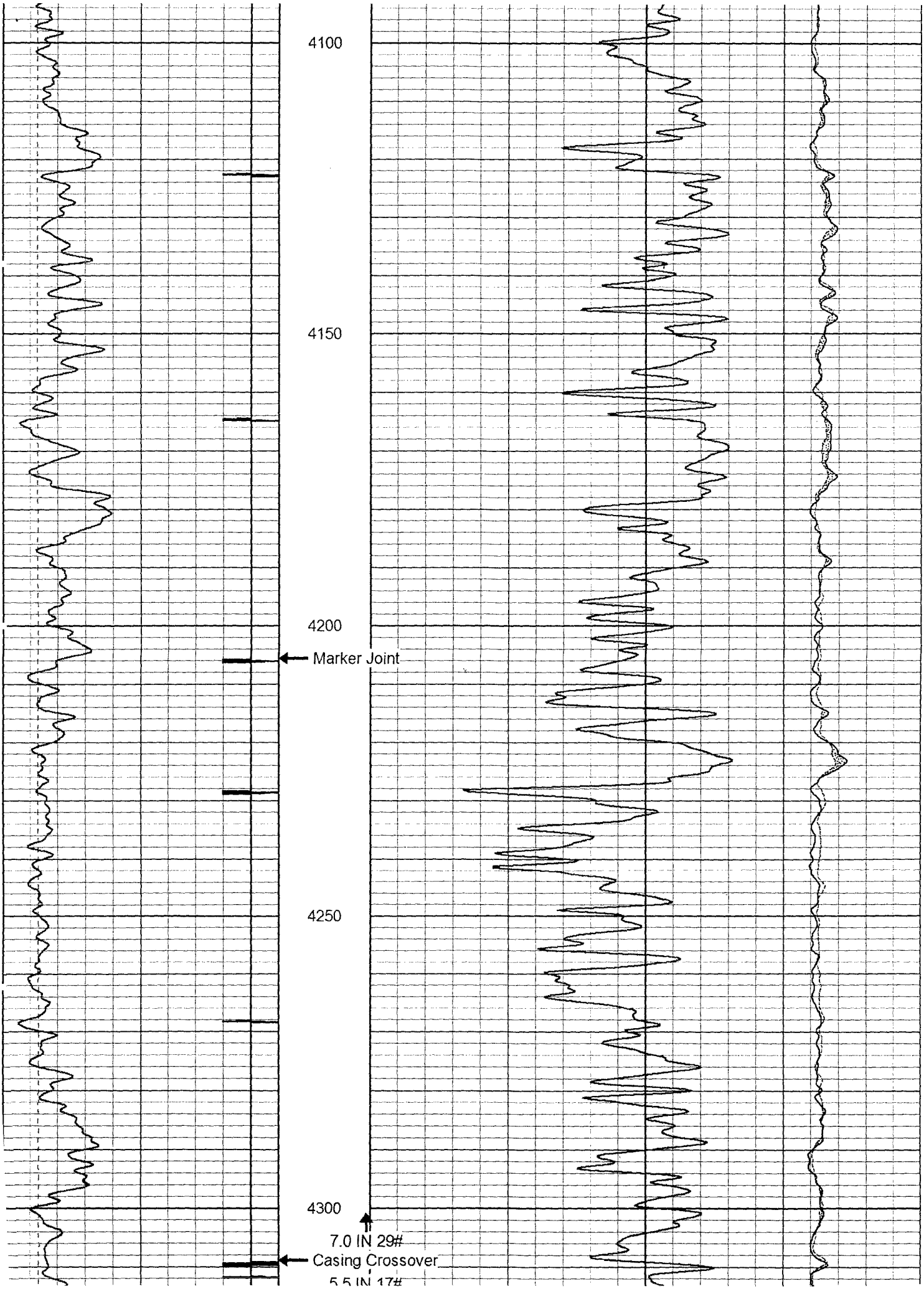
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Marker Joint
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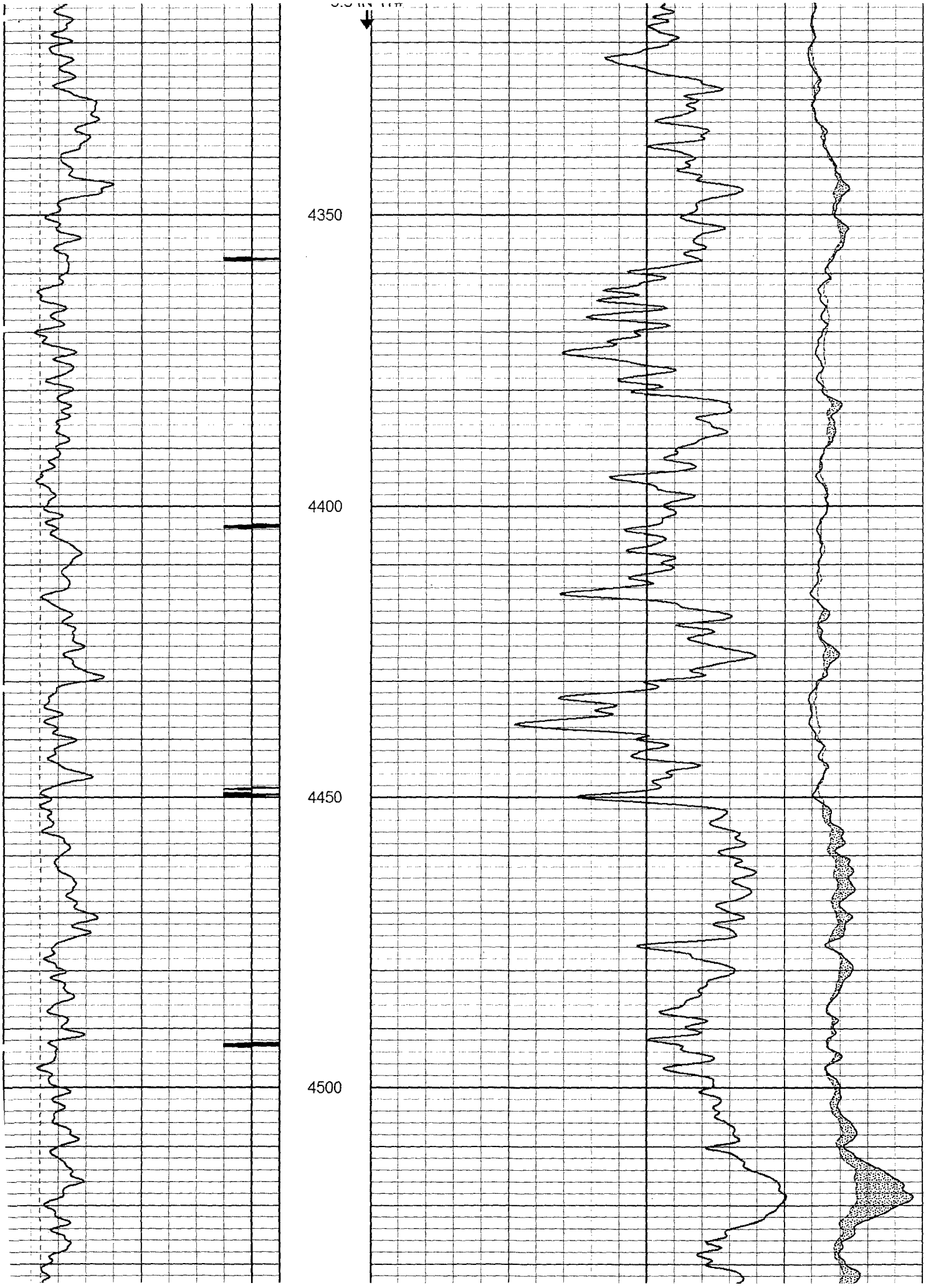
7.0 IN 29#
Casing Crossover
5.5 IN 17#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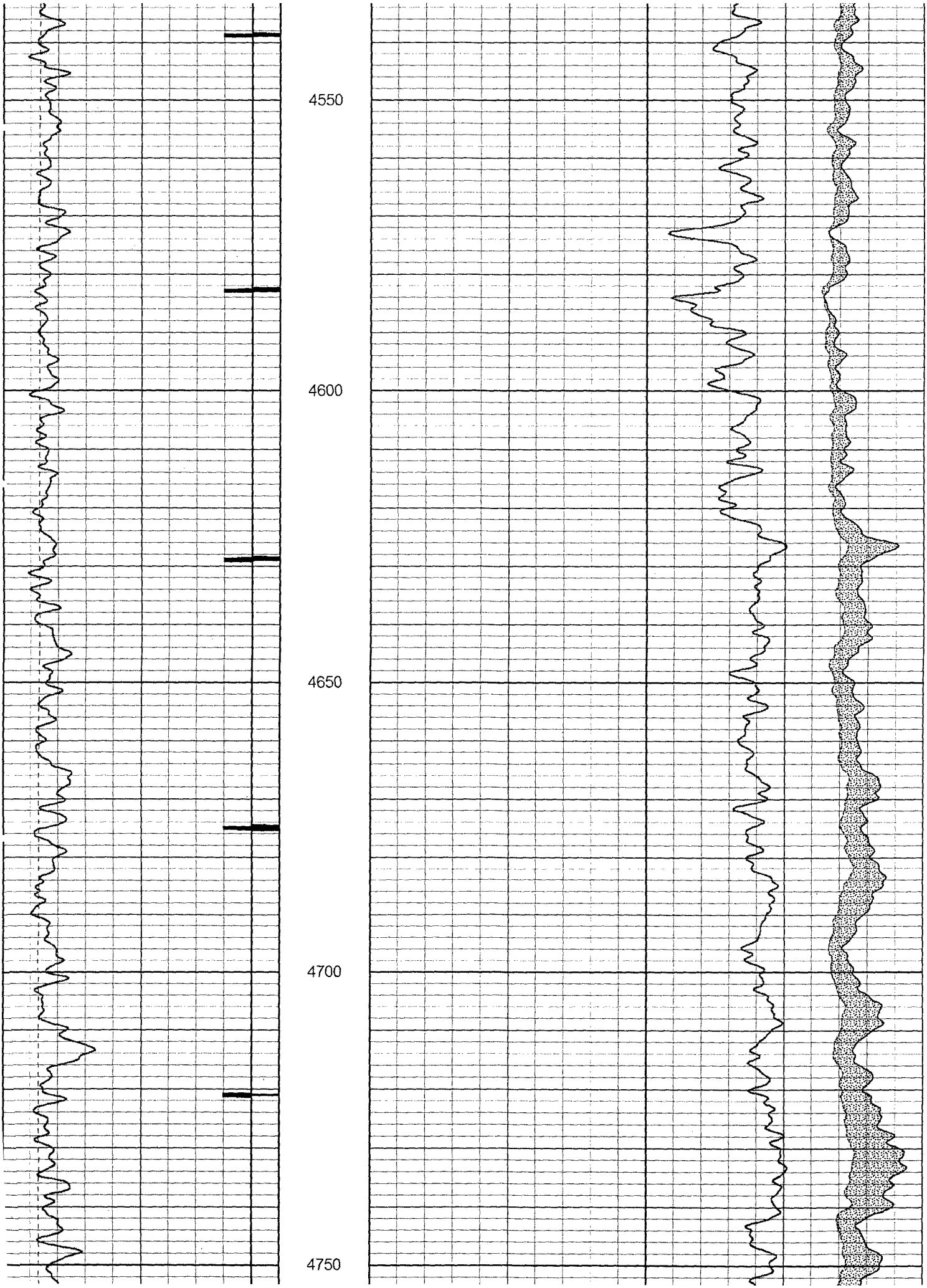
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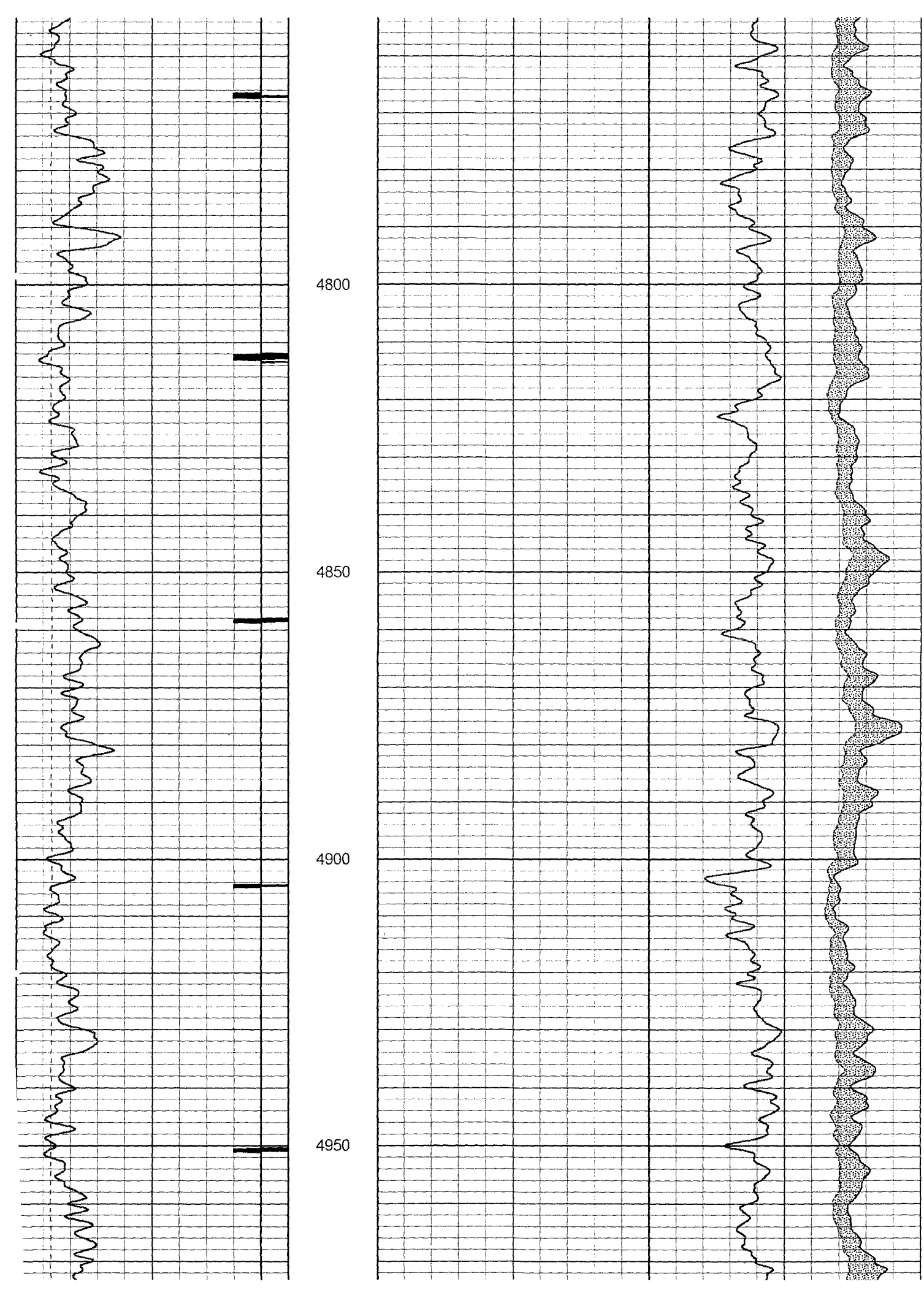
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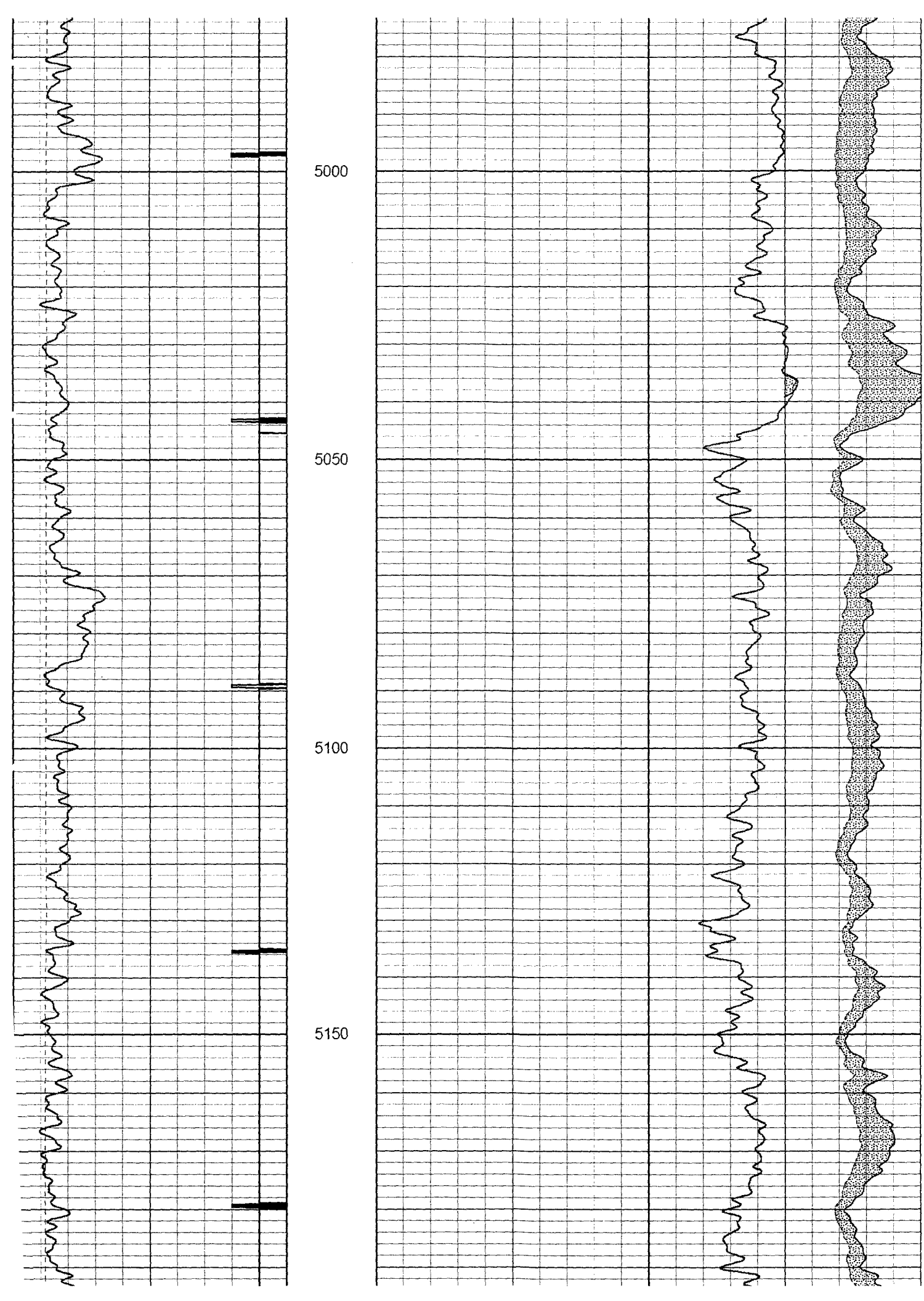
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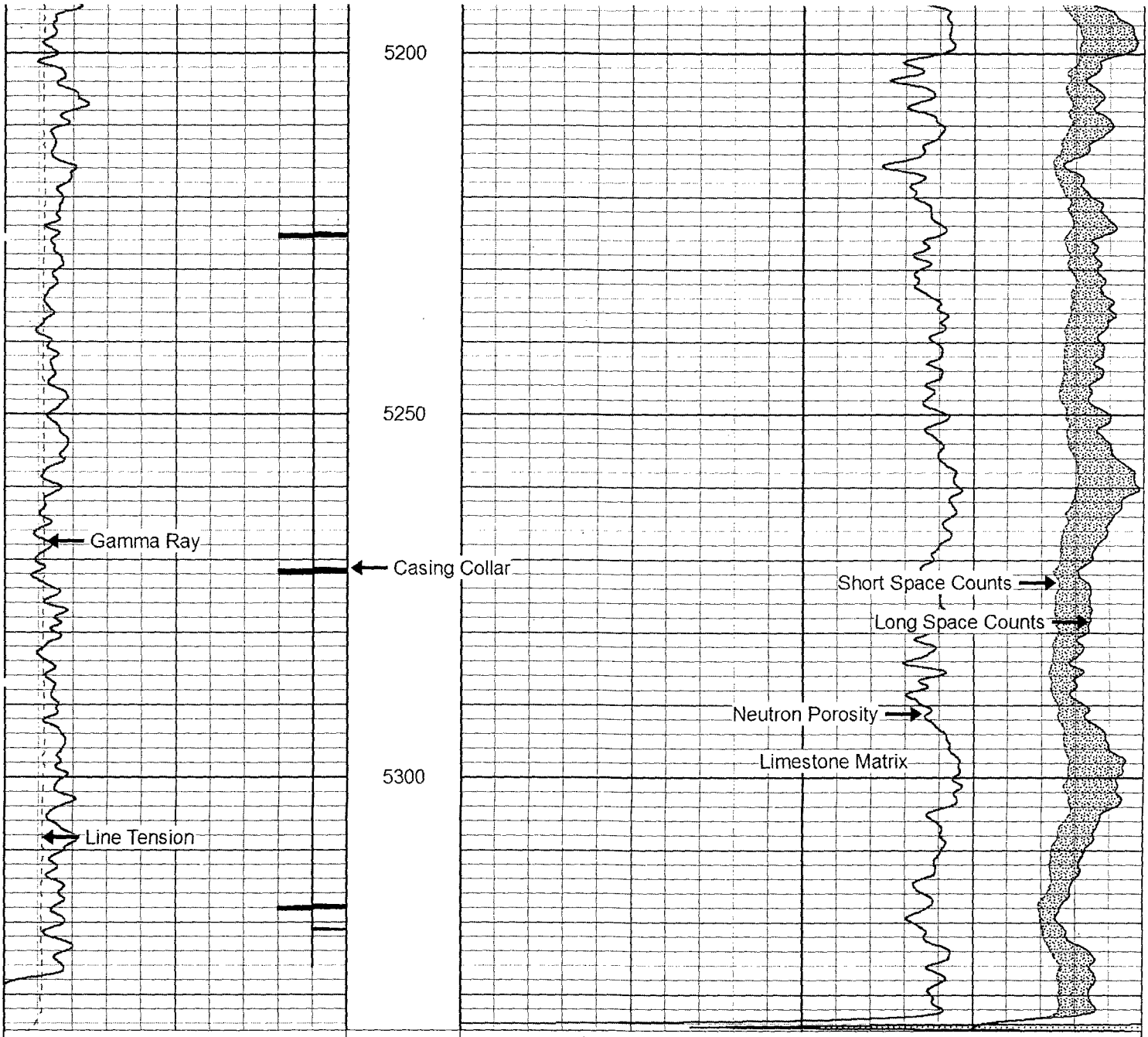


ALLIED HORIZONTAL WIRELINE SERVICES

Main Pass

ALLIED HORIZONTAL WIRELINE SERVICES

Repeat Pass

Database File:	e:\bku-962\cog_bku-962h_rcbl-cnl_7-20-19.db
Dataset Pathname:	pass8
Presentation Format:	cnlspray
Dataset Creation:	Thu Jul 20 19:58:37 2017 by Log 7.0 B1
Charted by:	Depth in Feet scaled 1:240

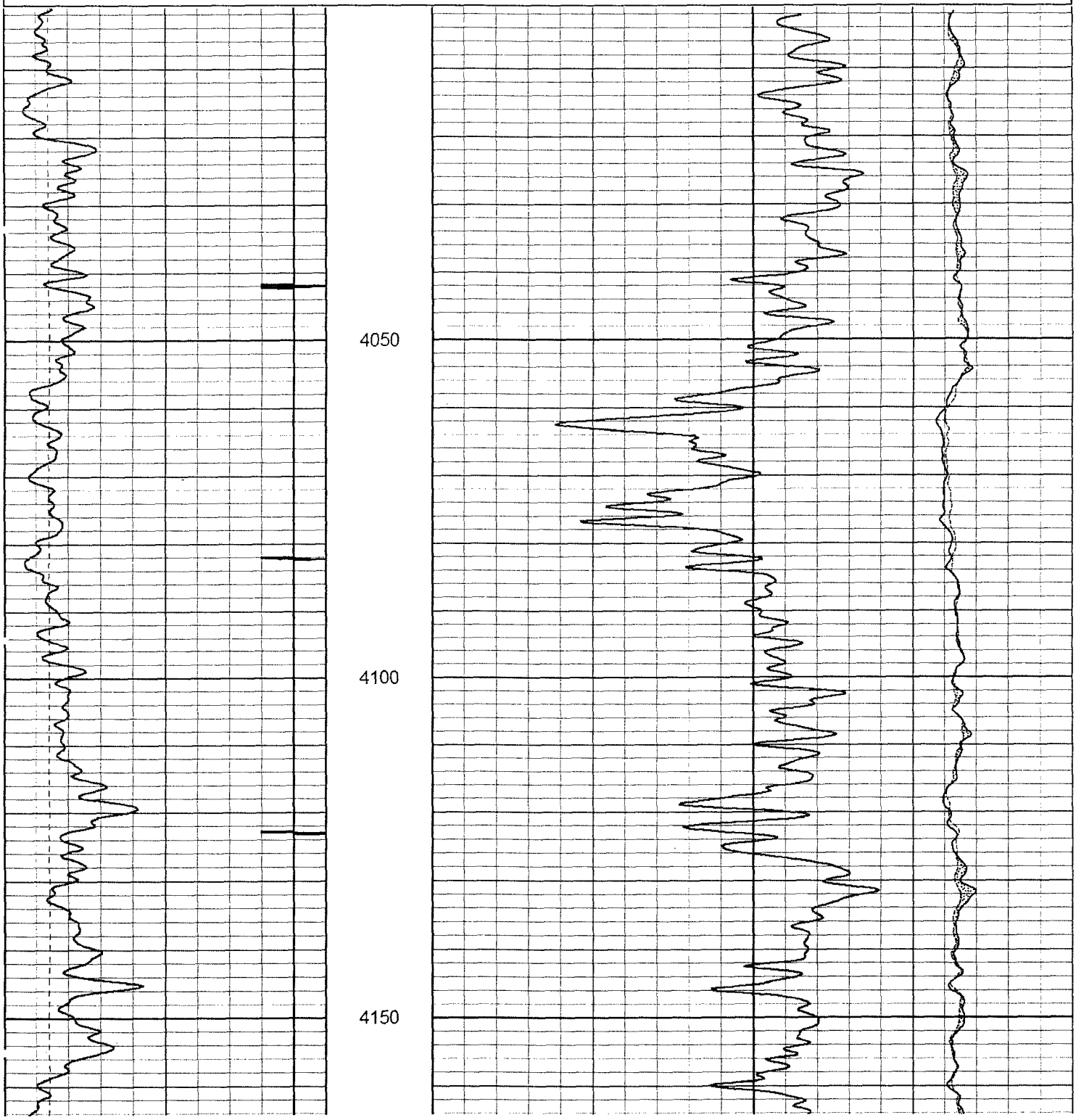
0	Gamma Ray (GAPI)	150
9	*Casing Collar*	-1
0	Line Tension (lb)	5000

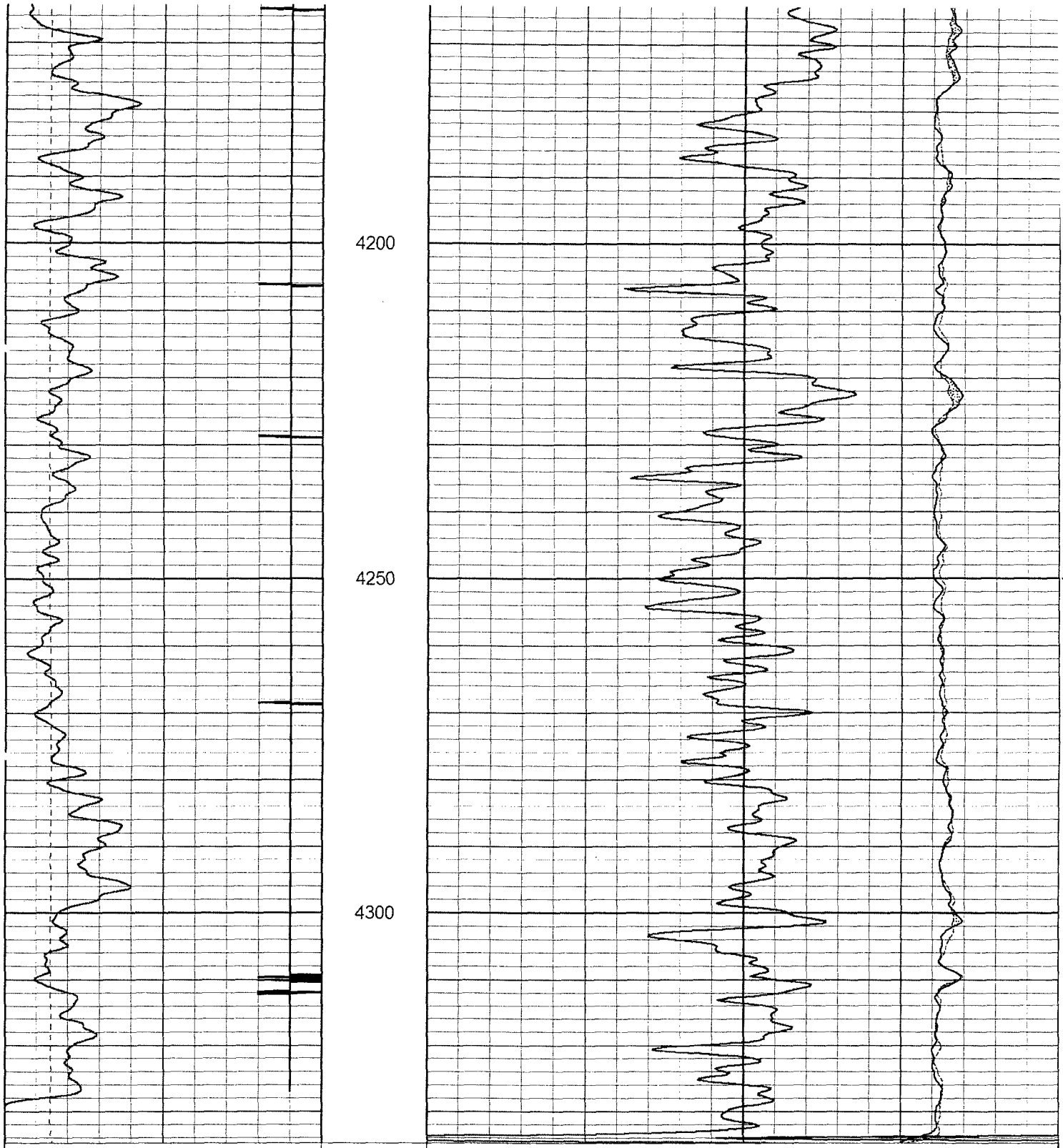
Neutron Porosity
Limestone Matrix

30 (pu) -10

Long Space Counts
0 (cps) 1500

Short Space Counts
0 (cps) 7000





0	Gamma Ray (GAPI)	150
9	*Casing Collar*	-1
0	Line Tension (lb)	5000

Neutron Porosity
Limestone Matrix

30 (pu) -10

Long Space Counts		
0	(cps)	1500
Short Space Counts		
0	(cps)	7000

ALLIED HORIZONTAL

Repeat Pass

Log Variables

Database:e:\bku-962\cog_bku-962h_rcbl-cnl_7-20-19.db
Dataset: field/well/run1/pass10

Top - 4309.00 ft

XXXX	CMTTKCOR	CSTKCOR	SZCOR	CASED?	NPORSEL	**CMNTTHCK in**	**CASETHCK in**
0	On	On	On	Yes	Limestone	**0.875**	**0.408**
PPT usec	**CASEWGHT lb/ft**	**MAXAMPL mV**	MINAMPL mV	MINATTN db/ft	SRFTEMP degF	**CASEOD in**	PERFS
284	**29**	**62.2**	1	0.8	0	**7**	0
TDEPTH ft	BOTTEMP degF	BOREID in					
0	100	8.75					

4309.00 ft - Bottom

XXXX	CMTTKCOR	CSTKCOR	SZCOR	CASED?	NPORSEL	CMNTTHCK in	CASETHCK in
0	On	On	On	Yes	Limestone	1.625	0.304
PPT usec	CASEWGHT lb/ft	MAXAMPL mV	MINAMPL mV	MINATTN db/ft	SRFTEMP degF	CASEOD in	PERFS
263	17	71.921	1	0.8	0	5.5	0
TDEPTH ft	BOTTEMP degF	BOREID in					
0	100	8.75					

Calibration Report

Database File: e:\bku-962\cog_bku-962h_rcbl-cnl_7-20-19.db
Dataset Pathname: pass10
Dataset Creation: Thu Jul 20 20:12:12 2017 by Log 7.0 B1

Compensated Neutron Calibration Report

Serial Number: FW1502-03
Tool Model: 275BL

RATIO CALIBRATION — Tue May 30 21:17:00 2017

	Measured	Target	Normalization
Sleeve Down	0.0000	0.0000	m=1.0690
Sleeve Up	2.7834	2.9755	b=0.0000

Gamma Ray Calibration Report

Serial Number: 11135
Tool Model: Probe275
Performed: Wed May 31 07:57:37 2017

Calibrator Value: 1058.0 GAPI

Background Reading: 82.3 cps
Calibrator Reading: 1944.4 cps

Sensitivity:	0.5682	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	FW1408-30	
Tool Model:	RBTC3	
Calibration Casing Diameter:	7.000	in
Calibration Depth:	1510.967	ft

Master Calibration, performed Thu Jul 20 19:42:42 2017:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.018	0.506	1.000	62.165	125.313	-1.302
CAL	0.504	0.723				
5'	0.025	0.513	1.000	62.165	125.341	-2.189
SUM						
S1	0.029	0.479	0.000	100.000	222.054	-6.408
S2	0.019	0.484	0.000	100.000	215.143	-4.194
S3	0.018	0.512	0.000	100.000	202.717	-3.747
S4	0.019	0.550	0.000	100.000	188.486	-3.603
S5	0.019	0.563	0.000	100.000	183.751	-3.463
S6	0.019	0.542	0.000	100.000	191.290	-3.589
S7	0.018	0.504	0.000	100.000	205.964	-3.721
S8	0.018	0.480	0.000	100.000	216.428	-3.987

Internal Reference Calibration, performed Thu Jul 06 15:30:05 2017:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.504	0.723	1.000	0.000

Air Zero Calibration, performed Thu Jul 20 06:03:10 2017:

	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

Service Ticket No.	27421	API No.	30-015-41489	PGM Ver	Warrior 7.0 CH

The Well Name, Location, Borehole Description, and / or Cementing Data Furnished by Client

EQUIPMENT DATA

Compensated Netron Tool		Logging Gamma Ray		Radial Bond Tool			
Run No.	One	Run No.	One	Run No.	One	Run No.	
Serial No.	FW1502-03	Serial No.	11135	Serial No.	FW1408-30	Serial No.	
Model No.	CNT	Model No.	GRT	Model No	RCBT	Model No	

Diameter	2.75 IN	Diameter	2.75 IN	Diameter	2.75 IN	Diameter	

LOGGING DATA

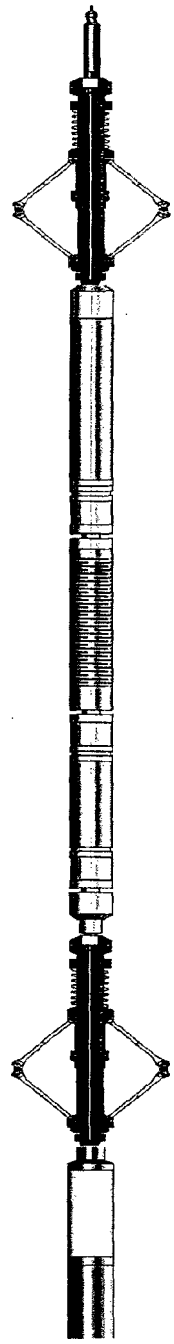
General Data

Pass	Depths		Well Head	Speed	Logging Run Comments
No.	From	To	Pressure	Ft/Min	
pass10	5333 FT	Surface	1500 PSI	60 FT/MIN	Main Pass
pass8	4334 FT	4001 FT	0 PSI	60 FT/MIN	Repeat Pass

Pass	Scale		Scale		Scale		Scale	
No.	L	R	L	R	L	R	L	L

DIRECTIONAL INFORMATION

Maximum Deviation	90 DEG	deg. @	5320 FT	KOP	4343 FT	

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			CHD-STNDRD (GOI) Standard Cable Head	1.00	1.69	10.00
			AppliedVar Applied Variable Roller Centralizer	2.83	2.75	40.00
Temp	18.77					
WVF3FT	16.53		RBT-RBTC3 (FW1408-30) Probe 2.75" Radii Bond Tool (Corrosion Modified)	8.92	2.75	90.00
WVFCAL	16.53					
WVFS1	16.53					
WVFS2	16.53					
WVFS3	16.53					
WVFS4	16.53					
WVFS5	16.53					
WVFS6	16.53					
WVFS7	16.53					
WVFS8	16.53					
WVF5FT	15.53					
			AppliedVar Applied Variable Roller Centralizer	2.83	2.75	40.00
CCL	8.54					
GR	7.21		GR-Probe275 (11135)	4.78	2.75	57.00

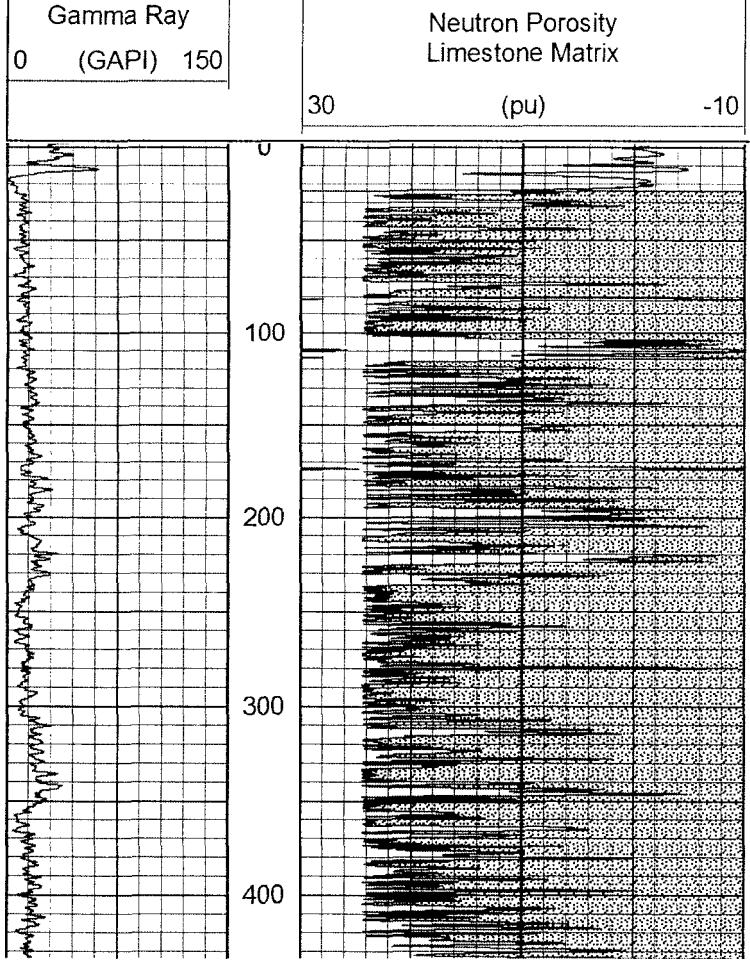
			Probe 2 3/4" Logging Gamma Ray			
			CNT-275BL (FW1502-03) Probe 2.75" Compensated Neutron Tool	4.67	2.75	76.00
CNLSC CNSSC	1.46 1.08					

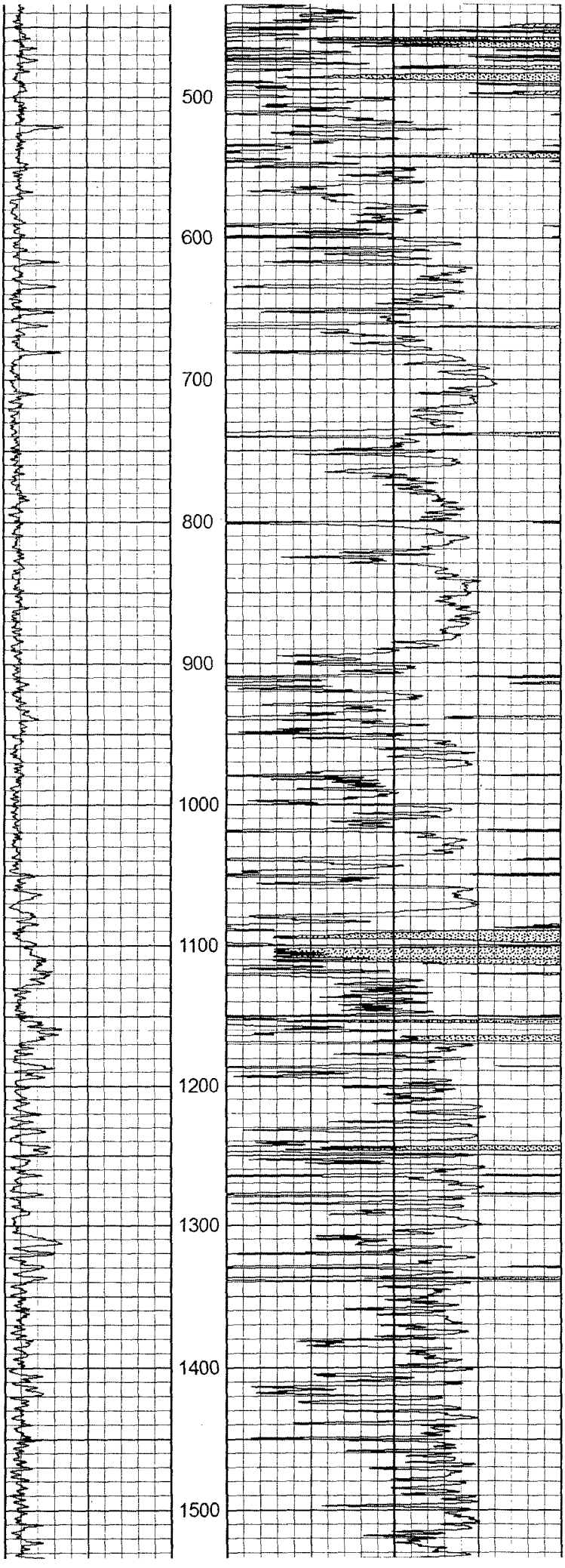
Dataset:	cog_bku-962h_rcbl-cnl_7-20-19.db: field/well/run1/pass10
Total Length:	25.03 ft
Total Weight:	313.00 lb
O.D.	2.75 in

ALLIED HORIZONTAL WIRELINE SERVICES

Main Pass

Database File:	e:\bku-962\cog_bku-962h_rcbl-cnl_7-20-19.db
Dataset Pathname:	pass10
Presentation Format:	cnl1inch
Dataset Creation:	Thu Jul 20 20:12:12 2017 by Log 7.0 B1
Charted by:	Depth in Feet scaled 1:1200

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800
900
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1400
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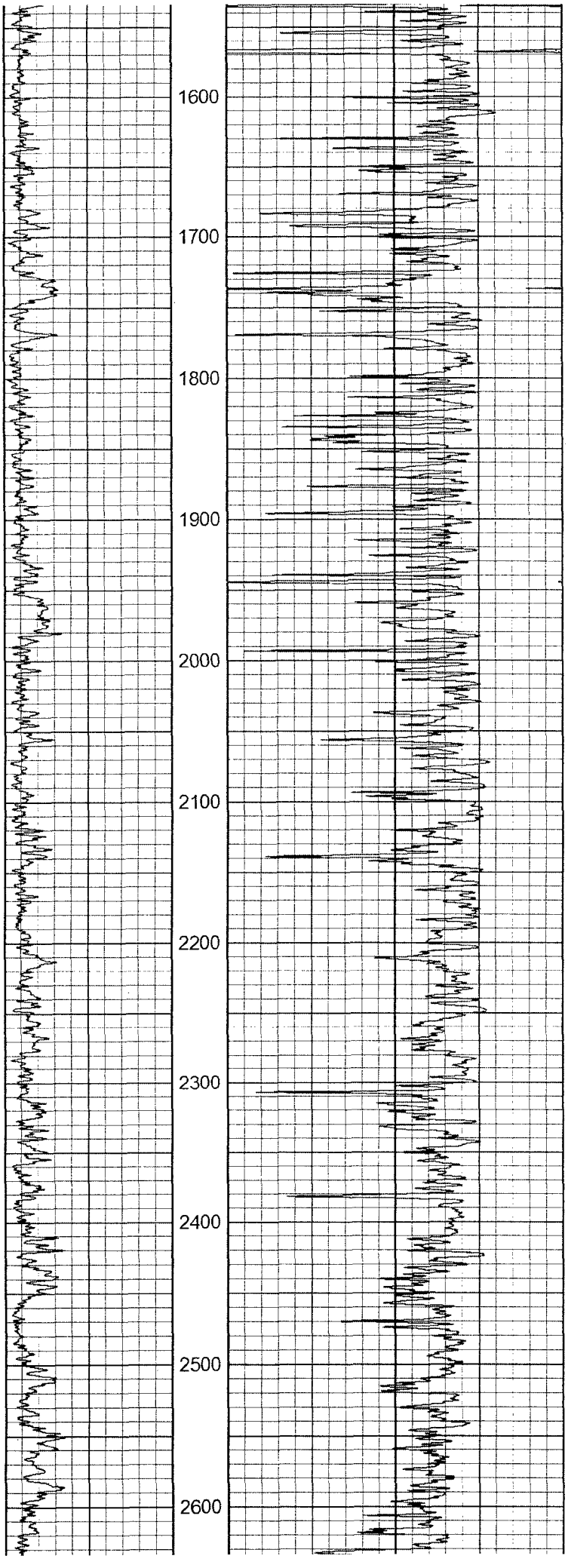
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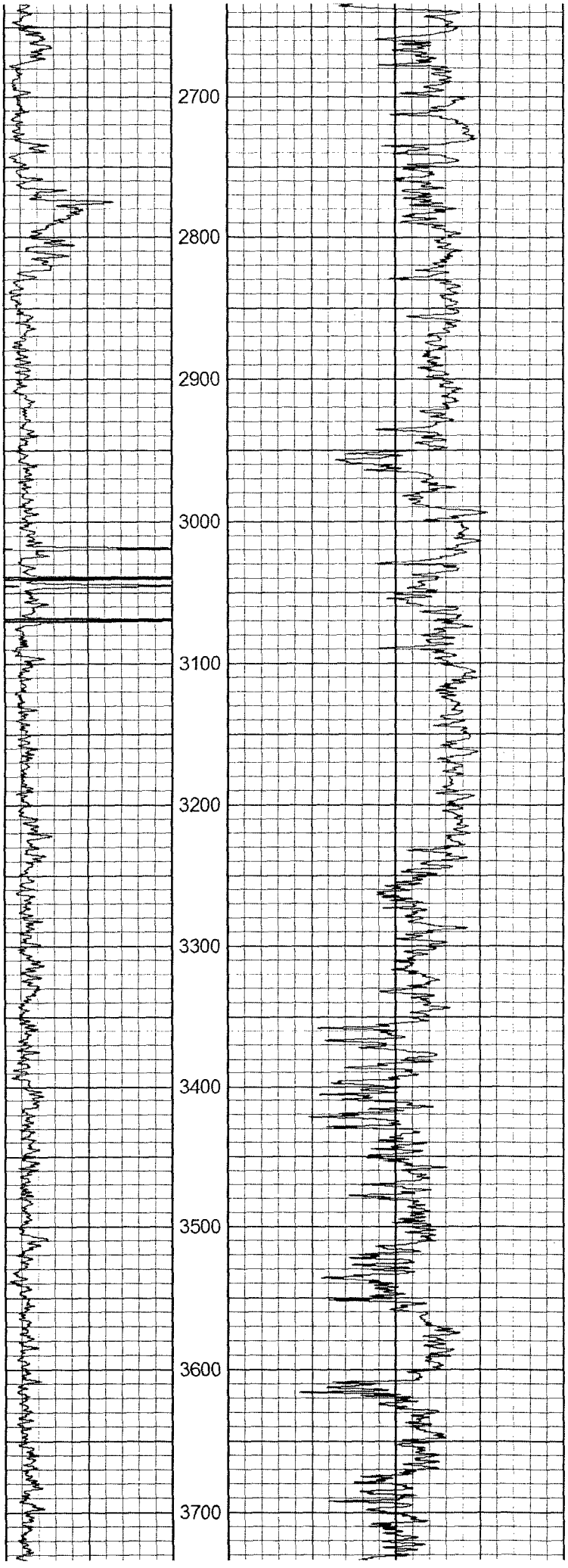
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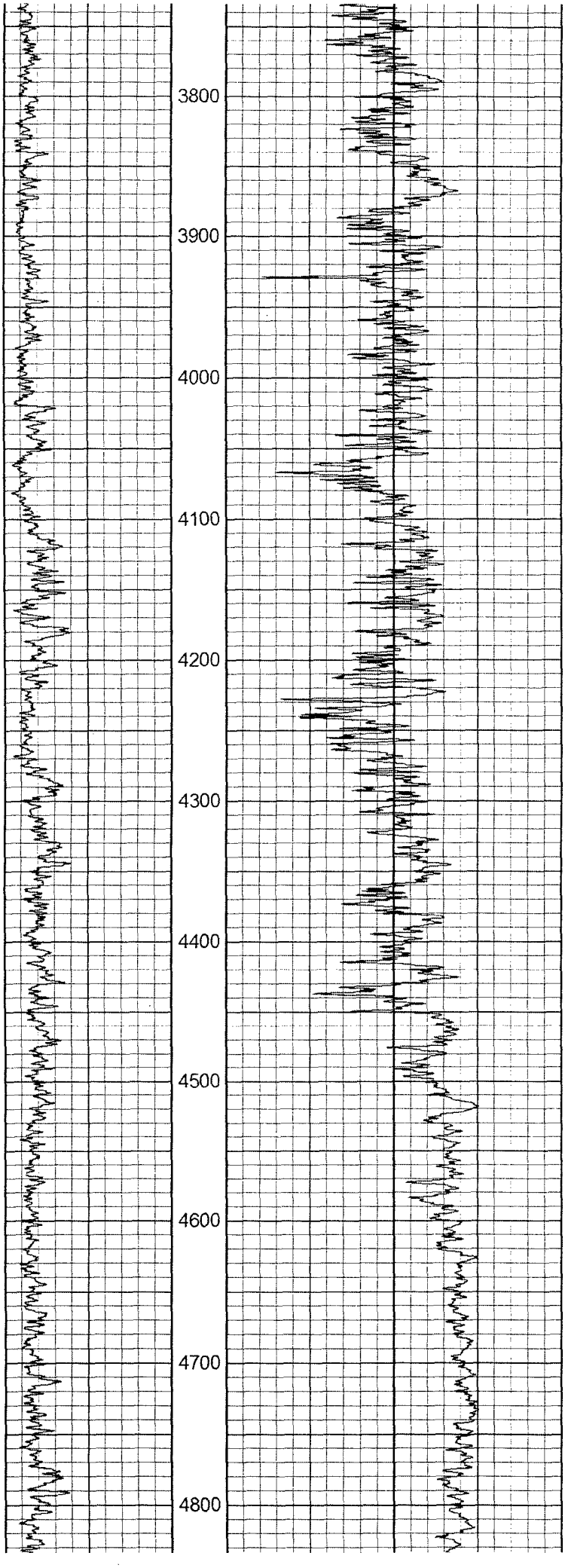
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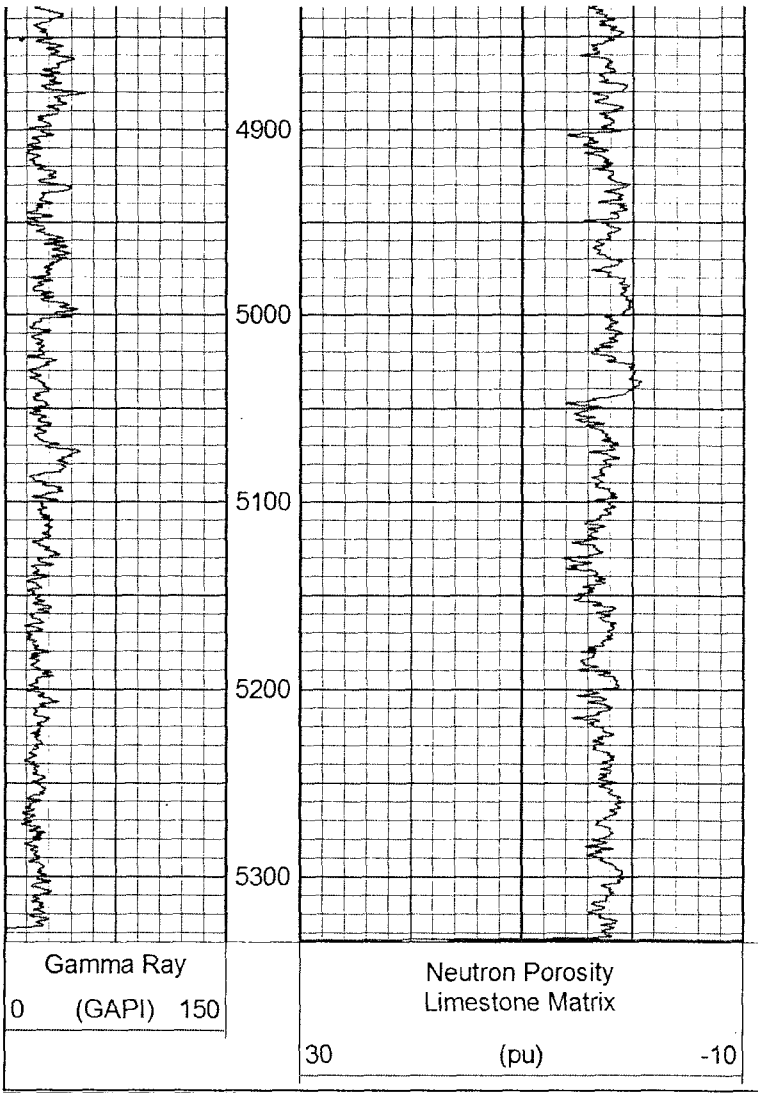

ALLIED HORIZONTAL WIRELINE SERVICES

Main Pass

Company	COG Operating L.L.C.
Well	Burch Keely Unit 962 H
Field	Loco Hills Field
County	Eddy
State	New Mexico

Cased Hole Compensated Neutron Log