



**COMPENSATED
DENSITY/NEUTRON
PE LOG**

Company GRIFFIN MANAGEMENT, LLC.

Well CROMER #1-1-4

Field

County BARBER

State KANSAS

Location: API #: 15-007-24378-0000

330' FNL & 400' FWL

Other Services
DILMEL
SONIC

SEC 4 TWP 30S RGE 15W

Elevation

Permanent Datum GROUND LEVEL Elevation 2011

Log Measured From KELLY BUSHING 11' A.G.L.

Drilling Measured From KELLY BUSHING

K.B. 2022
D.F. 2020
G.L. 2011

Date	4/15/21		
Run Number	ONE		
Depth Driller	4883		
Depth Logger	4882		
Bottom Logged Interval	4858		
Top Log Interval	2800		
Casing Driller	8 5/8" @ 266'		
Casing Logger	266'		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 5000 PPM	
Density / Viscosity	9.3/51		
pH / Fluid Loss	11.0/8.8		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.90 @ 60F		
Rmf @ Meas. Temp	.67 @ 60F		
Rmc @ Meas. Temp	1.08 @ 60F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.43 @ 124F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	////		
Maximum Recorded Temperature	124F		
Equipment Number	3802		
Location	HAYS, KANSAS		
Recorded By	JASON CAPPELLUCCI		
Witnessed By	ELI FELTS		

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, 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. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

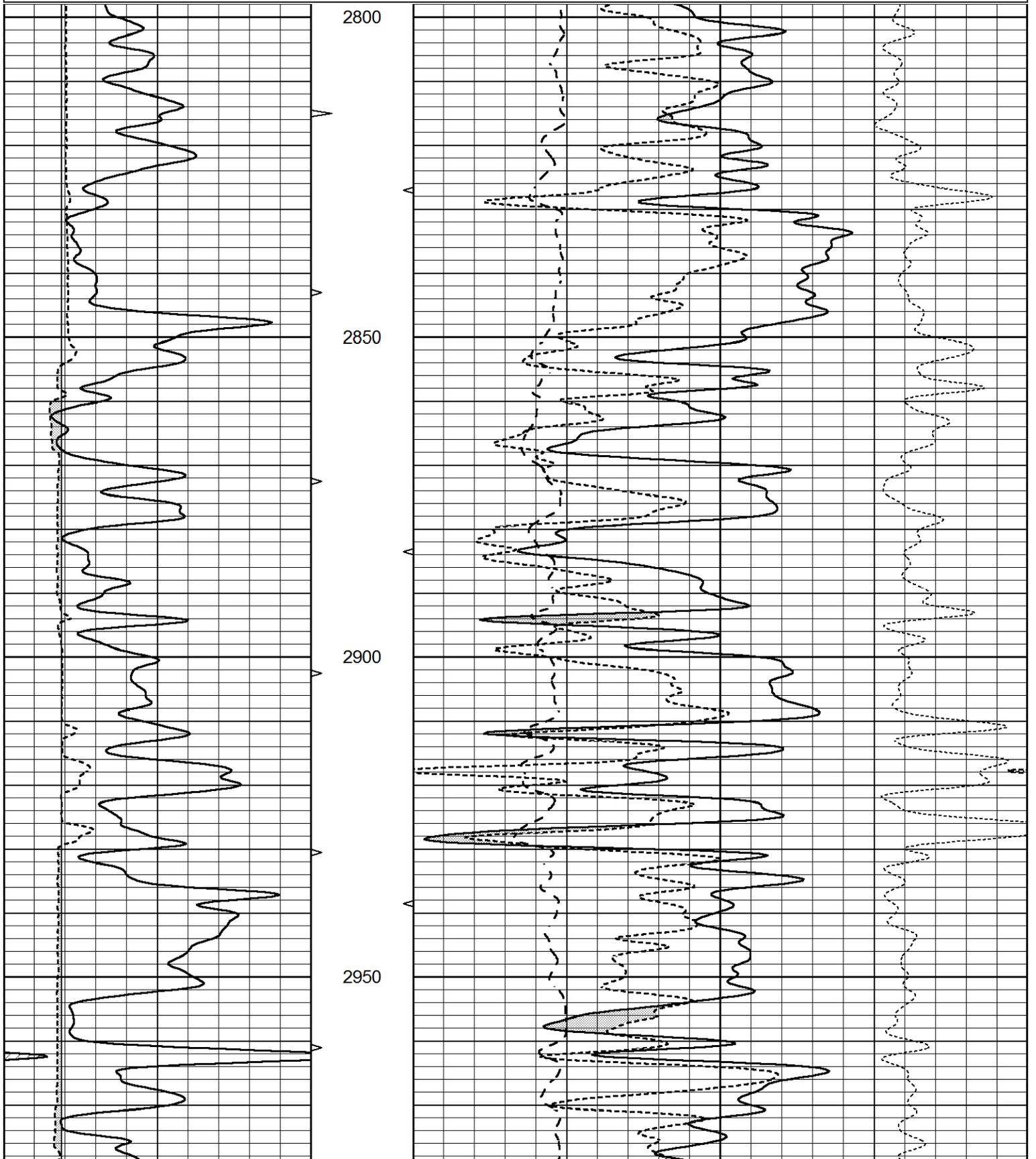
THANK YOU FOR USING ELI WIRELINE SERVICES, HAYS, KS. (785) 628-6395
DIRECTIONS
CROFT, KS. - 2 1/2 SOUTH TO THE SPLIT IN THE ROAD - EAST & NORTH INTO

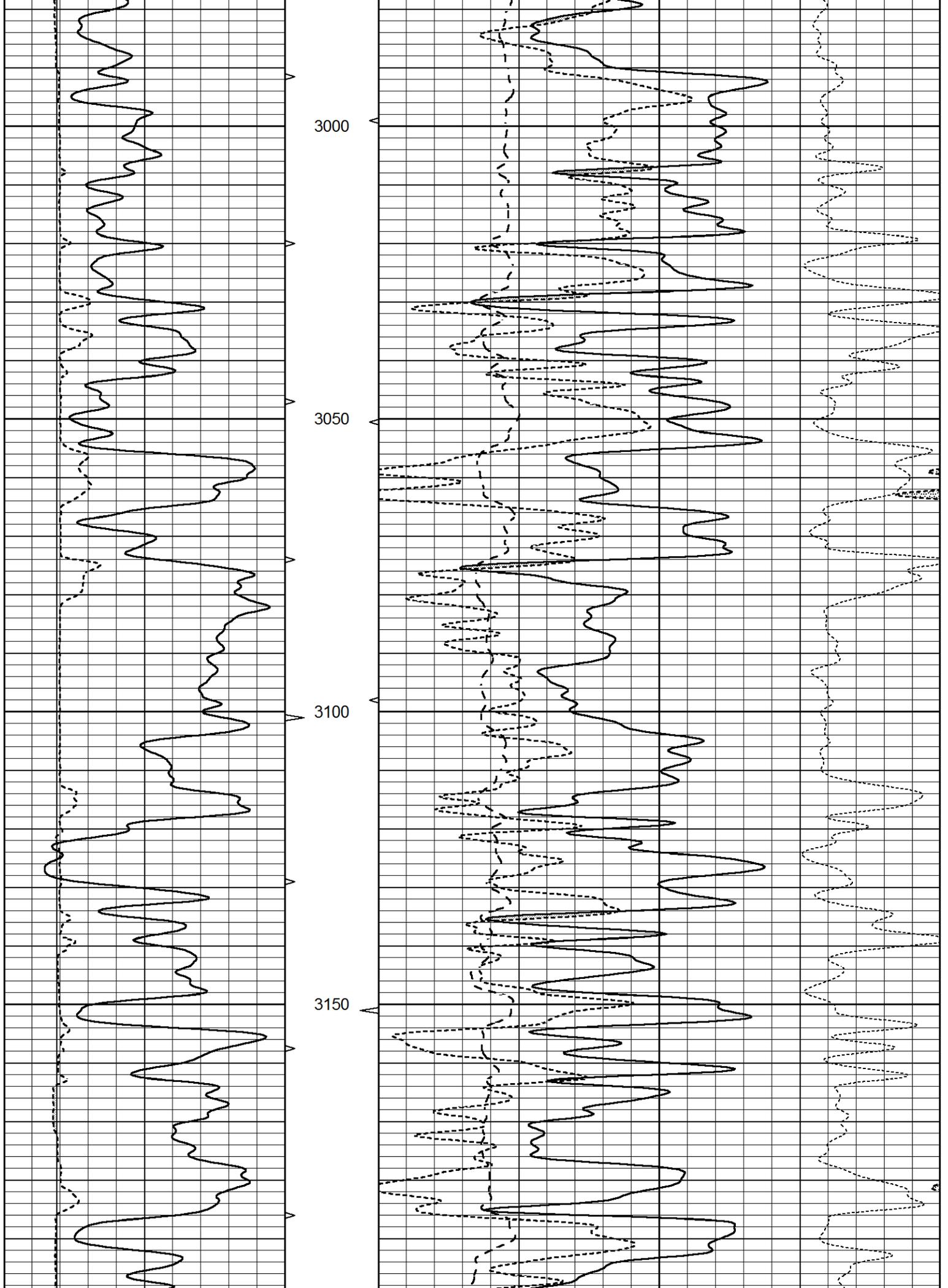


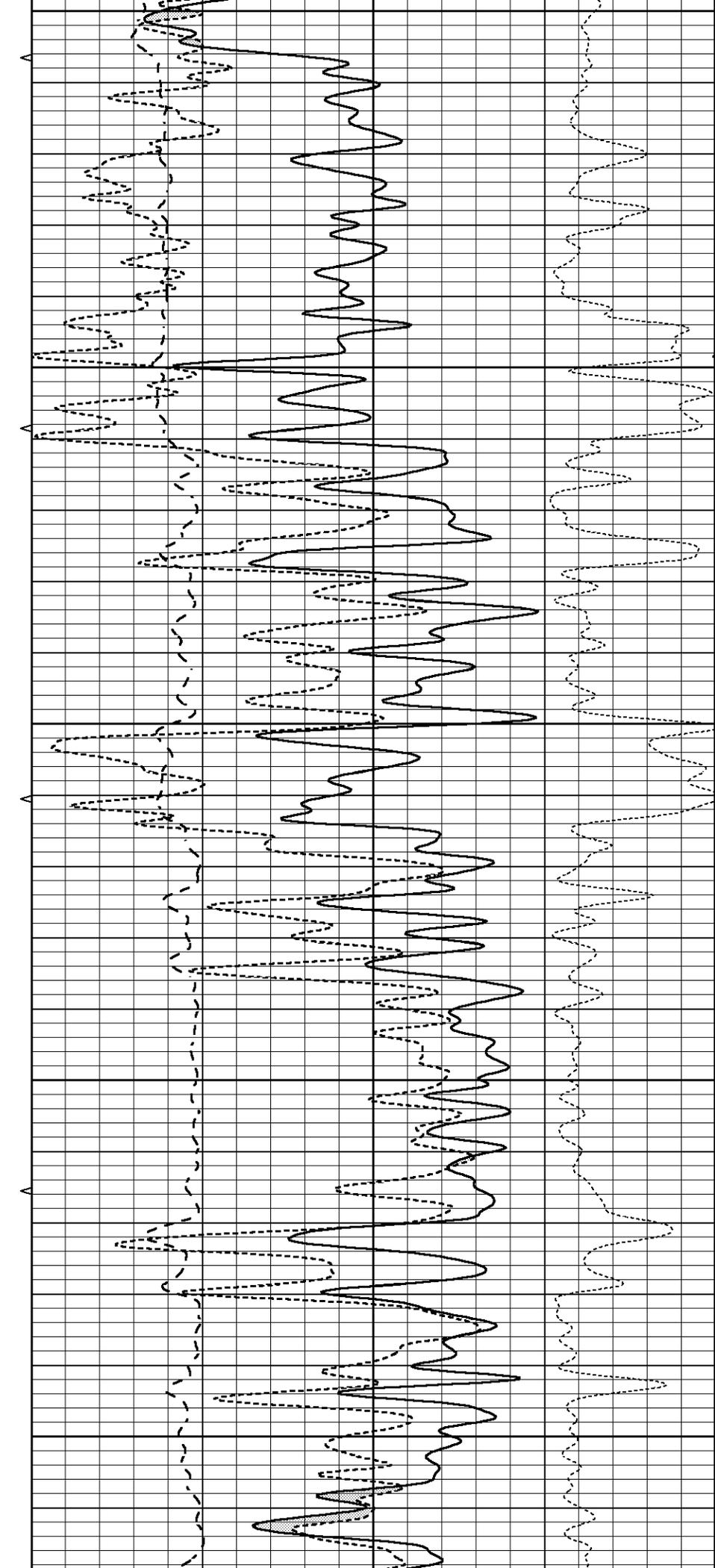
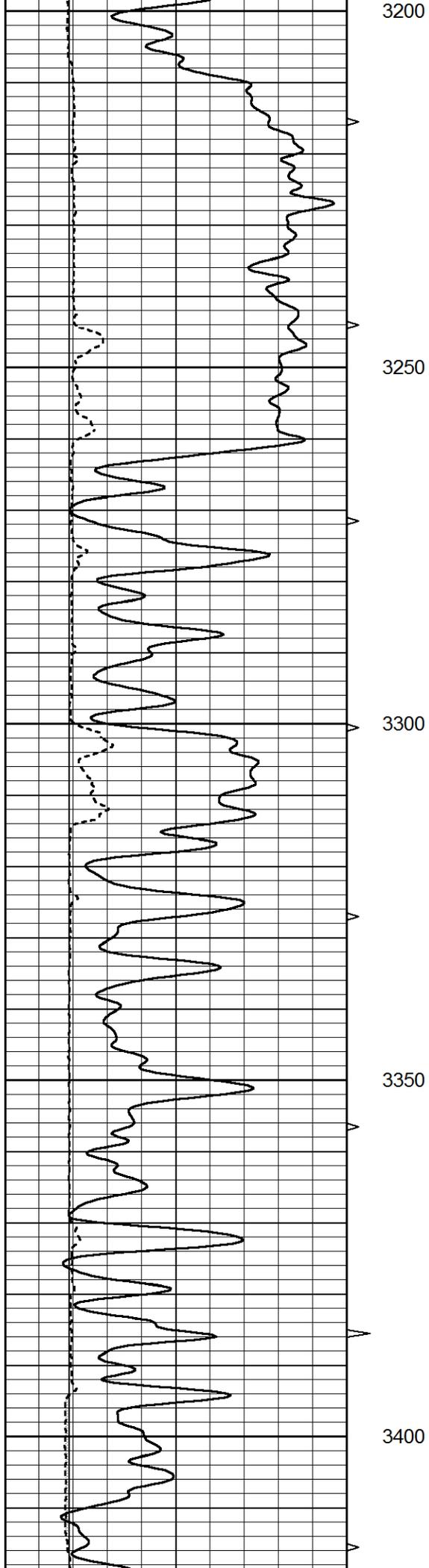
MAIN SECTION

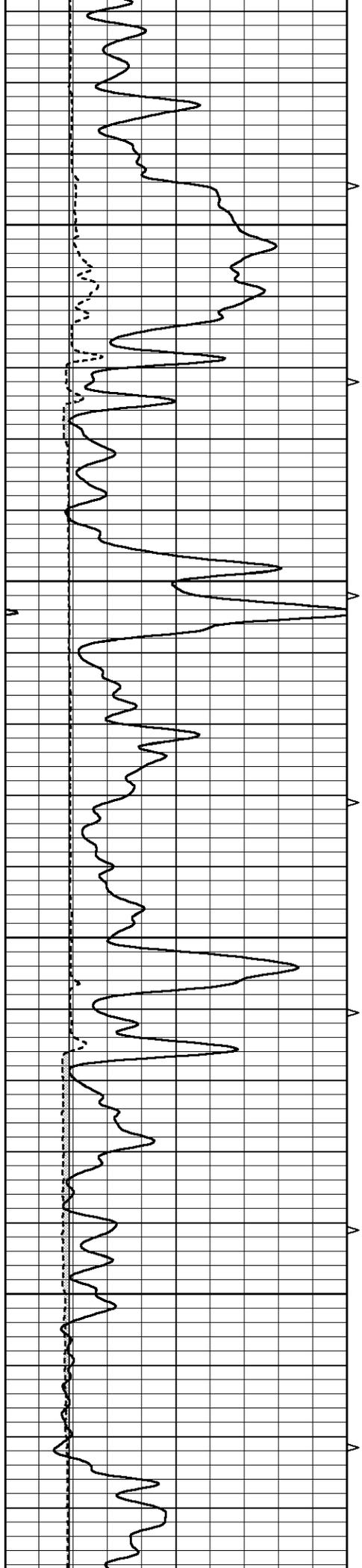
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 Presentation Format _ldt_neu
 Dataset Creation Thu Apr 15 10:42:22 2021
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0	COMPENSATED NEUTRON (pu)	-10
			TBHV	0	PE	10 -0.25
			0 (ft3)	10	CORRECTION (g/cc)	0.25







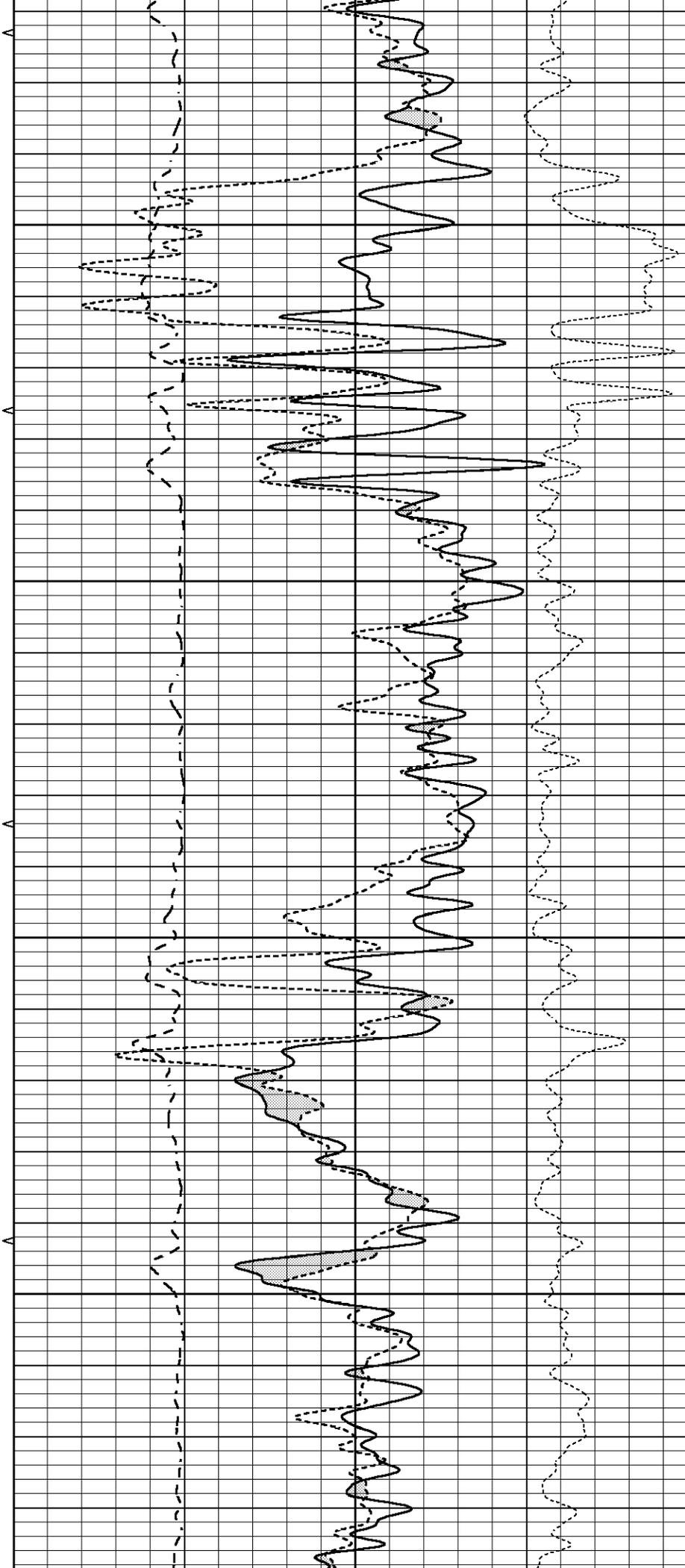


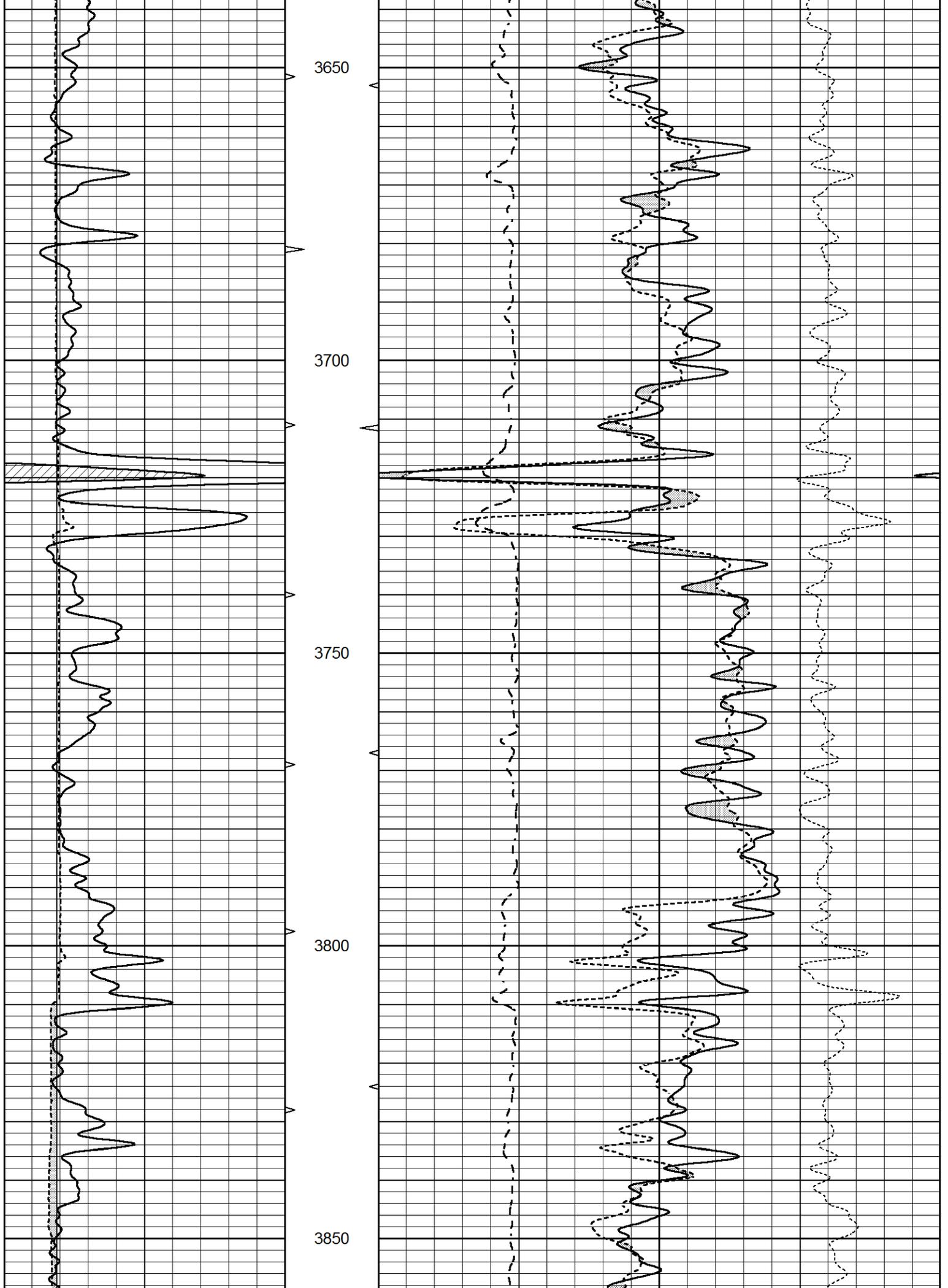
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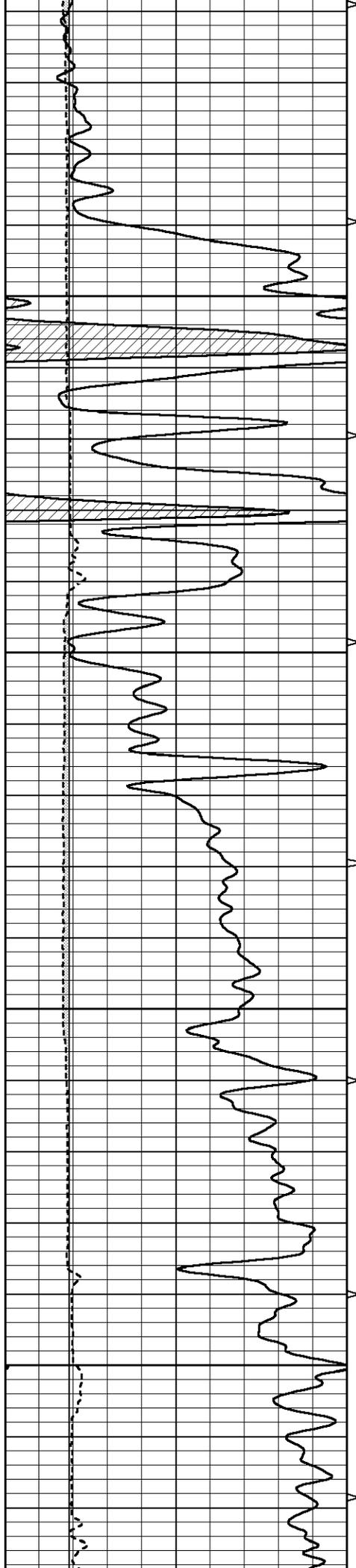
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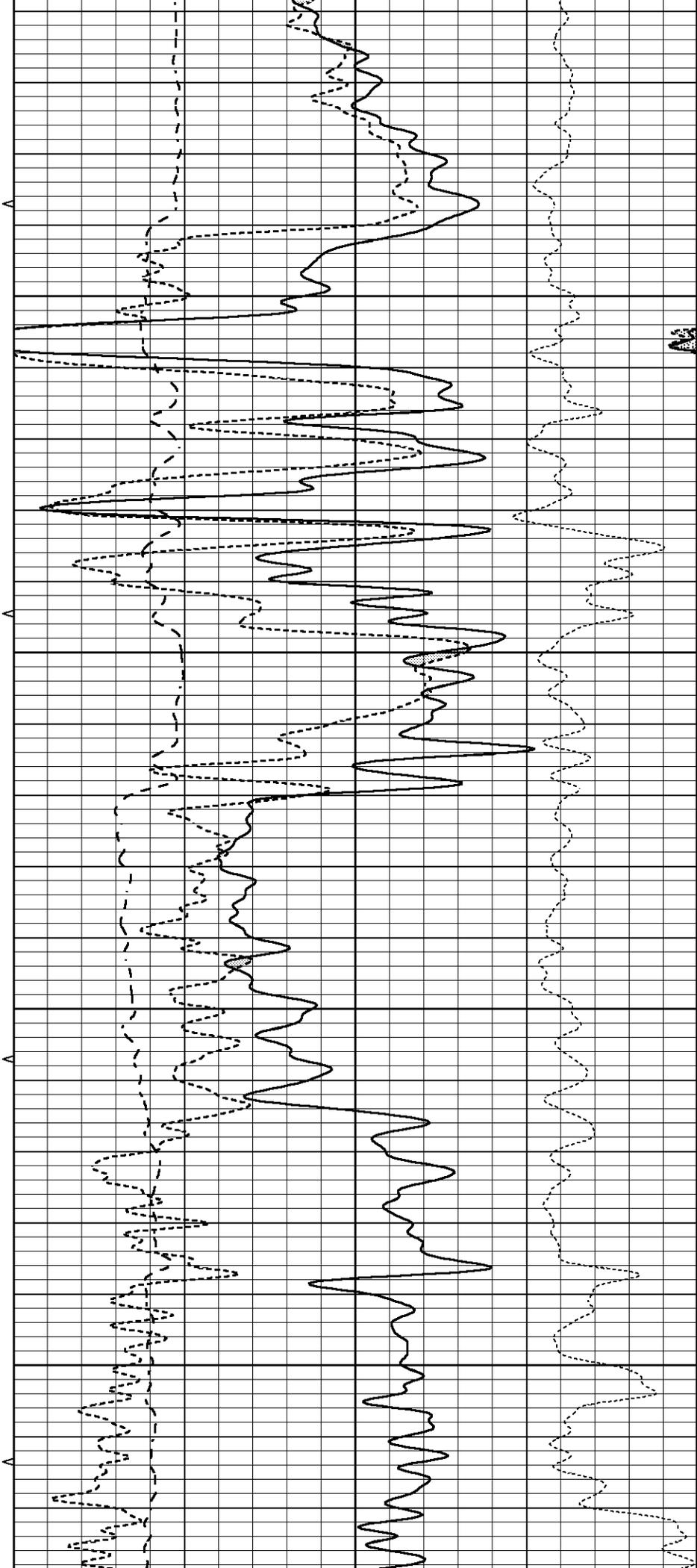


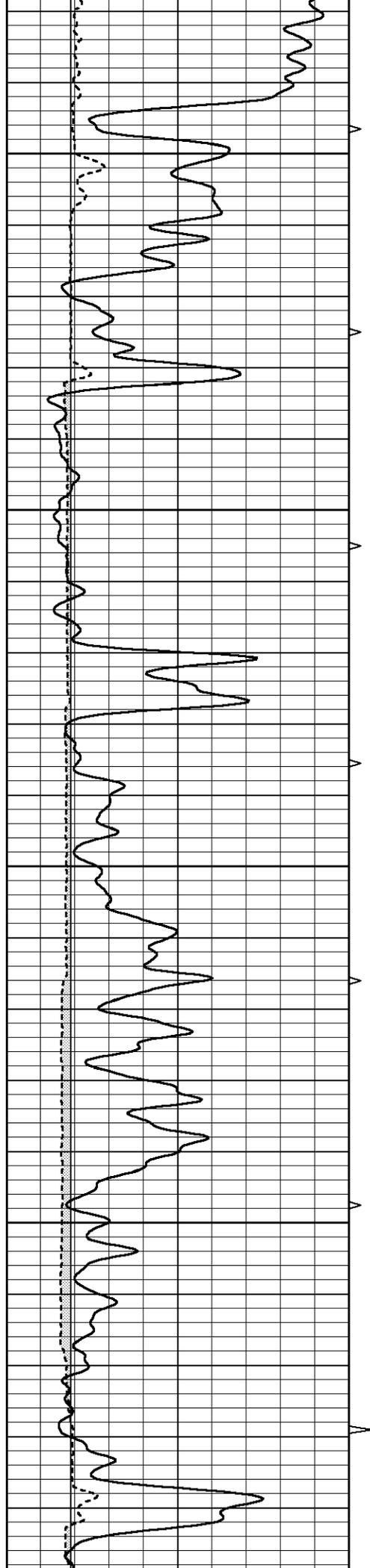
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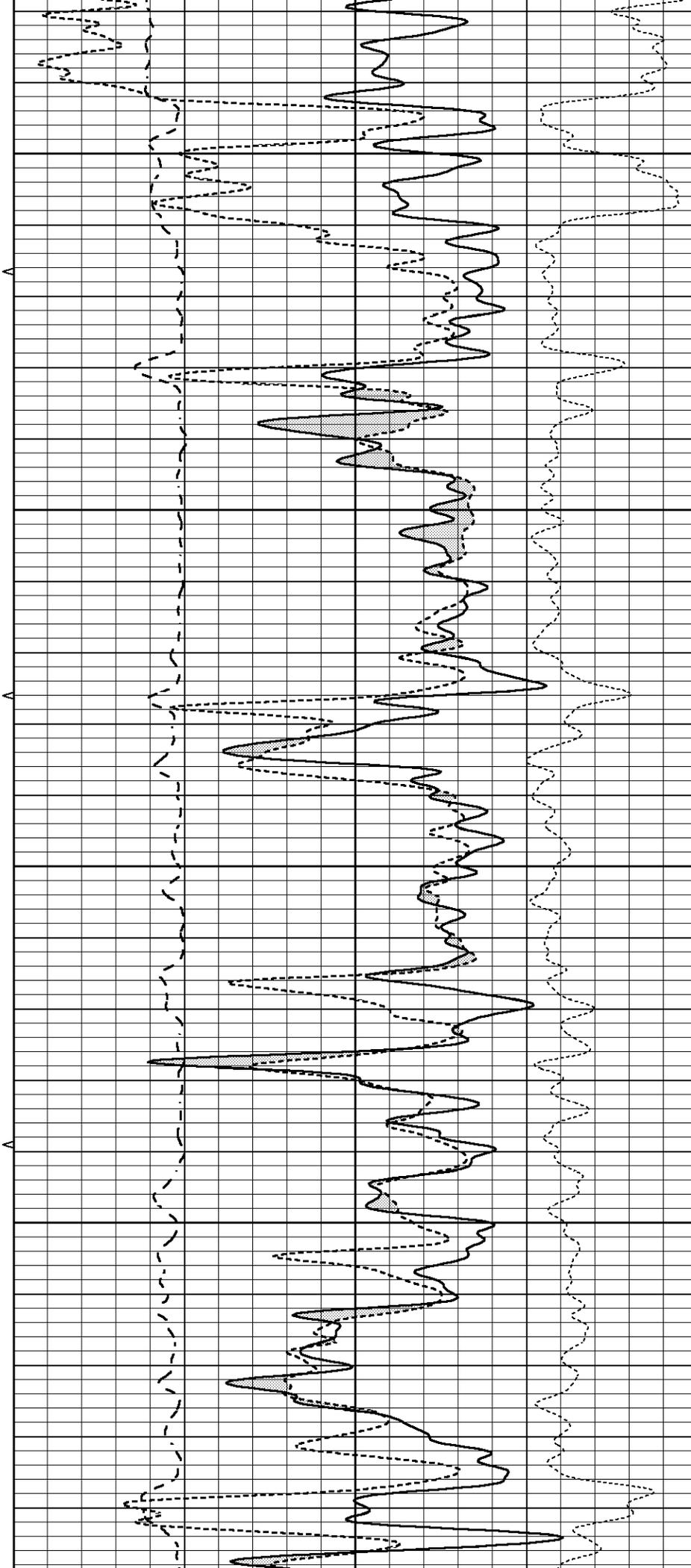


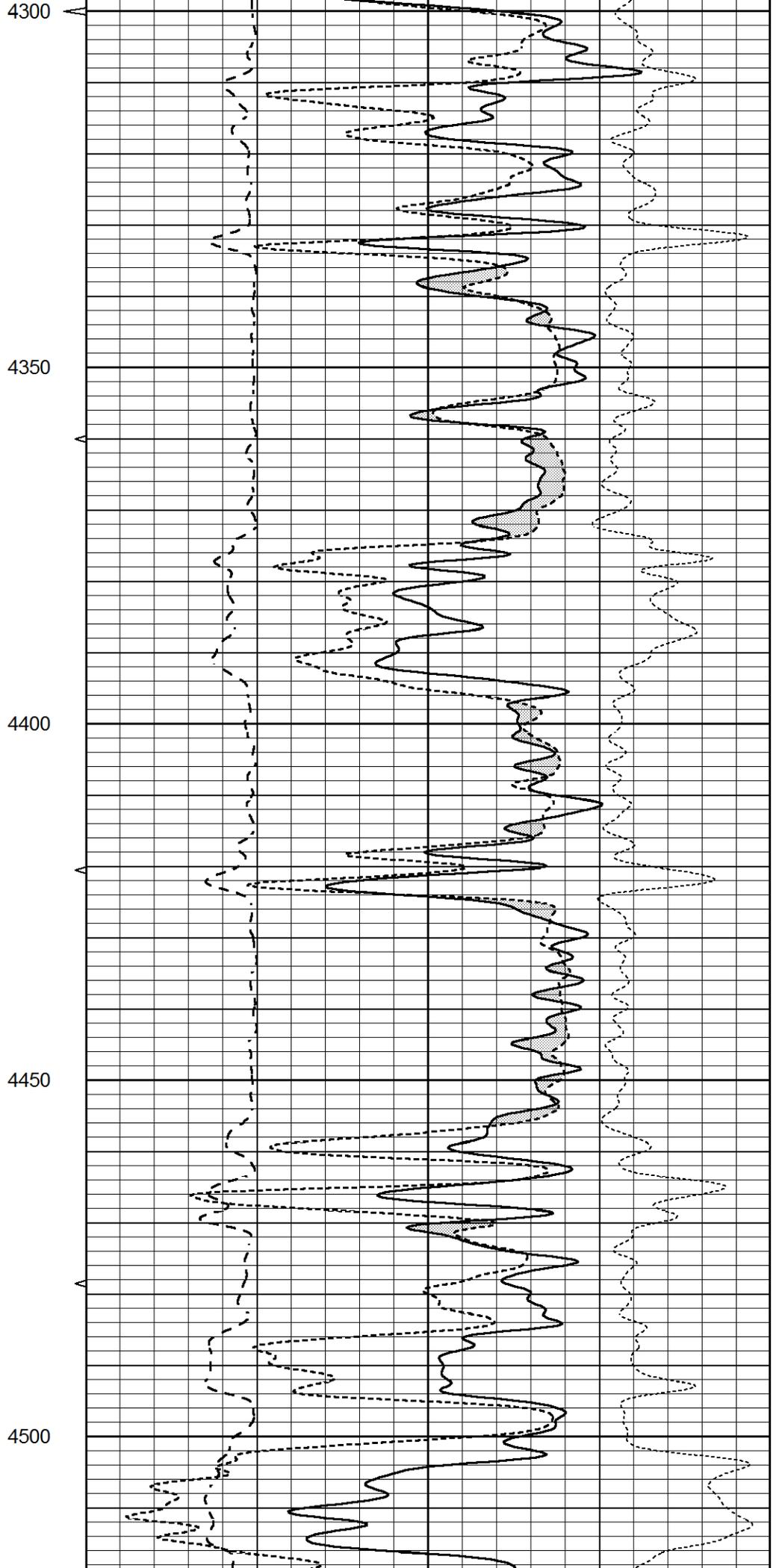
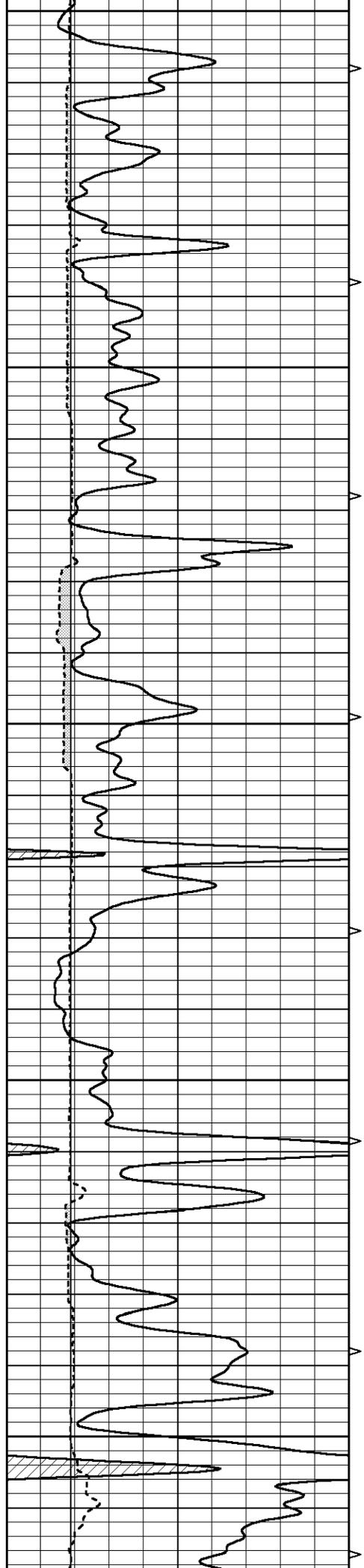
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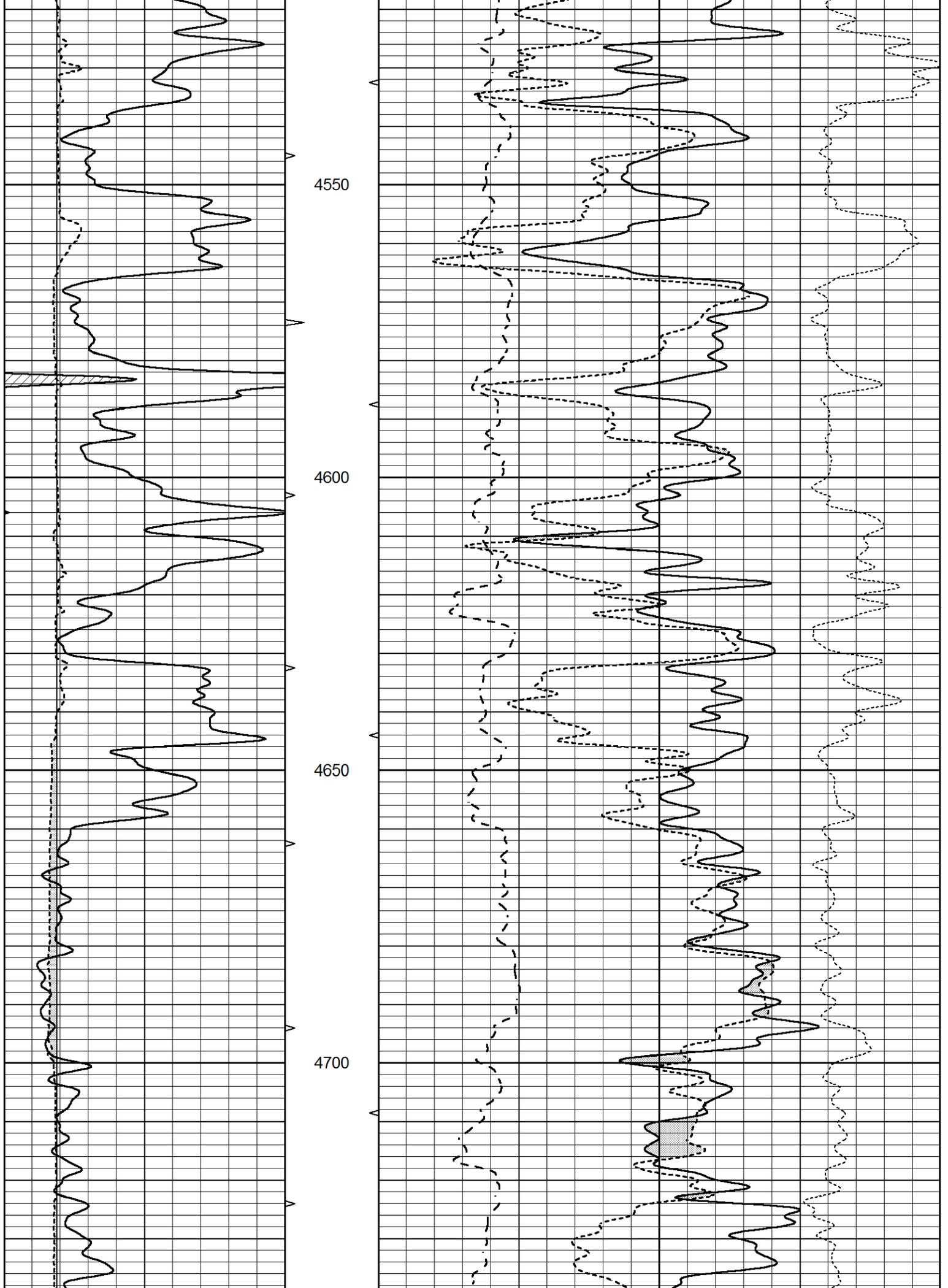
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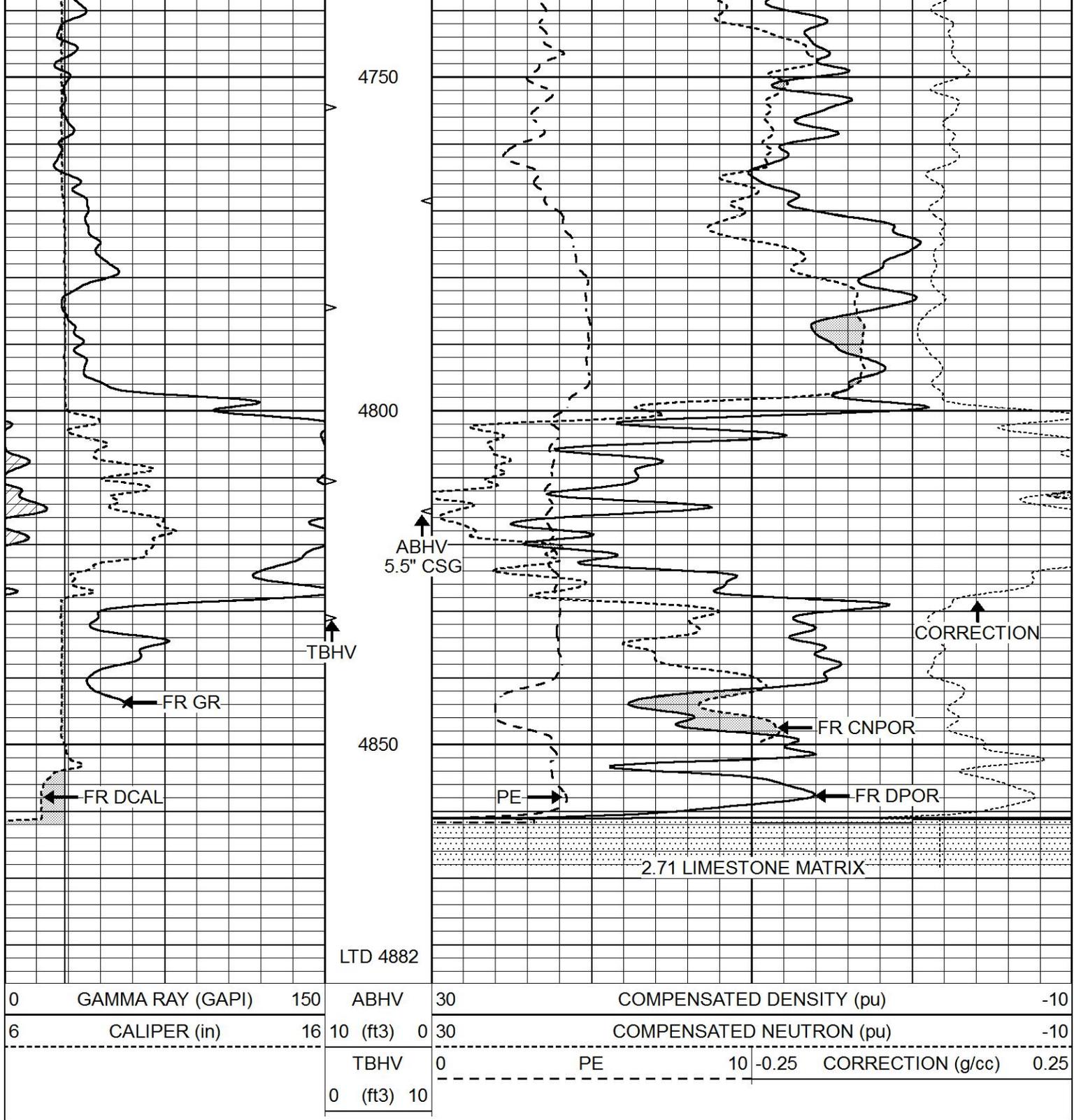
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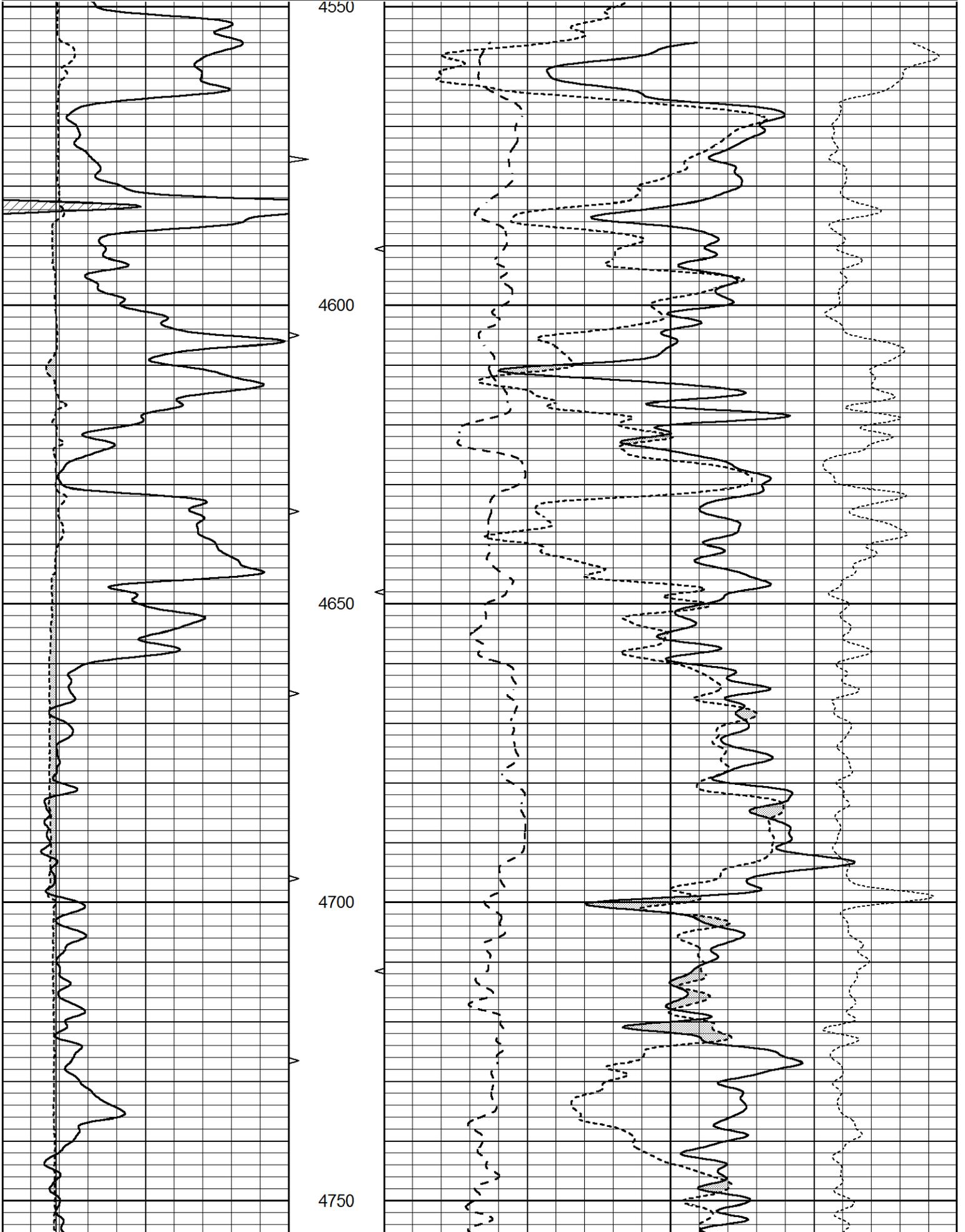


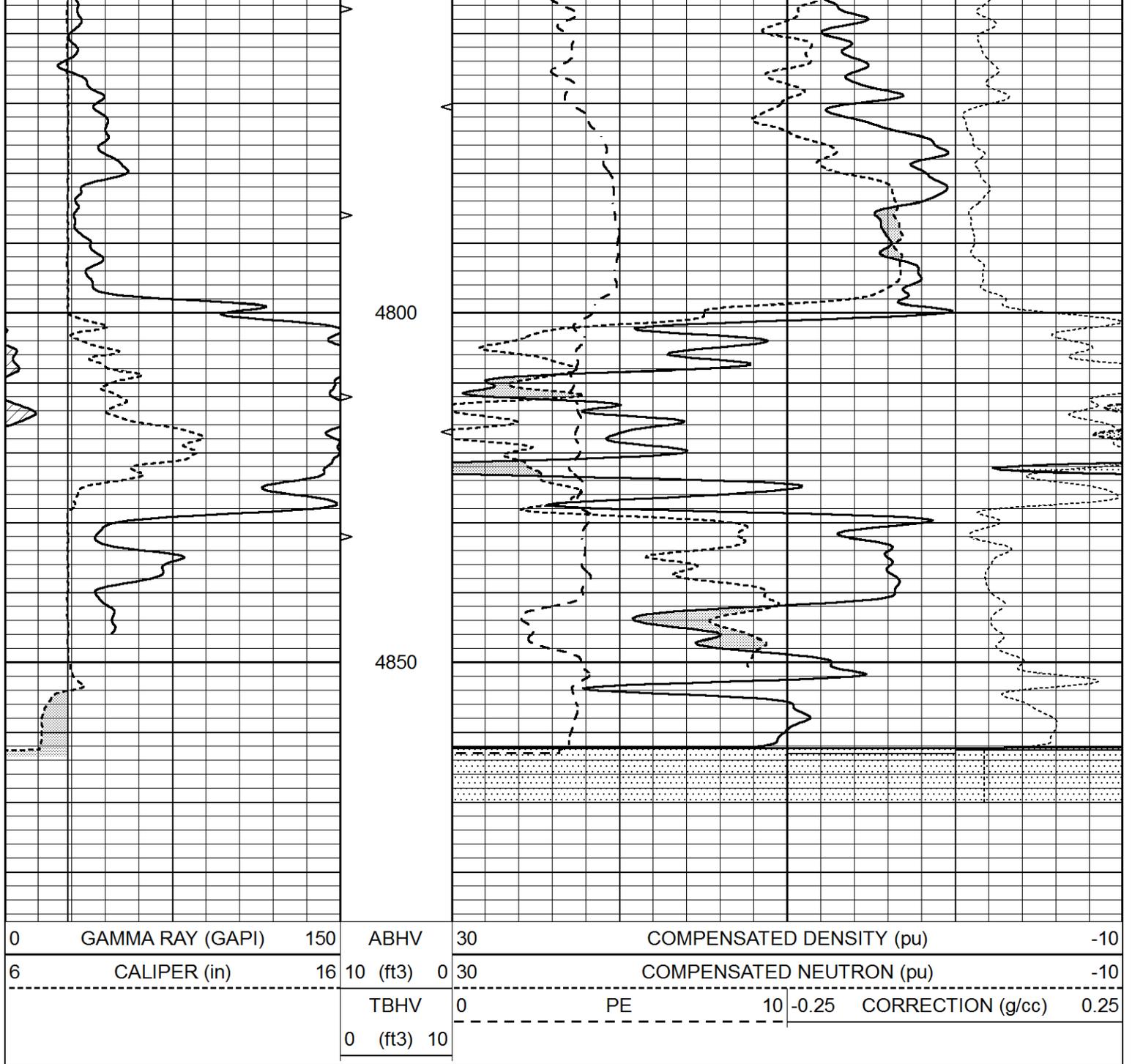
REPEAT SECTION

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 Presentation Format _ldt_neu
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 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10	
6	CALIPER (in)	16	10 (ft3)	0	30	COMPENSATED NEUTRON (pu)	-10

6	CALIPER (in)	16	10 (ft3)	0	50	COMPENSATED NEUTRON (pu)	-10
	TBHV	0	PE	10	-0.25	CORRECTION (g/cc)	0.25
	0 (ft3)	10					





Calibration Report

Database File 5213pe.db
 Dataset Pathname pass2.1
 Dataset Creation Thu Apr 15 10:05:58 2021

Dual Induction Calibration Report

Serial-Model: FW1410-55-Probe
 Surface Cal Performed: Tue Feb 19 11:44:18 2019
 Downhole Cal Performed: Tue Feb 19 11:44:24 2019
 After Survey Verification Performed: Tue Feb 19 11:44:27 2019

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop	V	Air	Loop	mmho/m	m	b
Deep	0.011	0.656	V	1.000	400.000	mmho/m	618.595	-5.524
Medium	-0.000	0.731	V	1.000	464.000	mmho/m	632.856	1.197

Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.007	0.649	V	0.000	400.000	mmho/m	623.784	-4.595
Medium	0.004	0.743	V	0.000	464.000	mmho/m	627.284	-2.251

Downhole Calibration								
	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	-0.824	395.917	mmho/m	-0.976	397.550	mmho/m	1.004	-0.149
Medium	3.565	471.327	mmho/m	3.468	471.590	mmho/m	1.001	-0.099
LL3		7.503	V		1500.000	Ohm-m		
		0.001	V		20.000	Ohm-m		
		-7.481	V		3745.000	mmho-m		

After Survey Verification								
	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	-0.824	395.917	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	3.565	471.327	mmho/m	1.000	0.000
LL3		0.000	Ohm-m		1500.000	Ohm-m		
		0.000	Ohm-m		20.000	Ohm-m		
		0.000	mmho-m		3745.000	mmho-m		

Litho Density Calibration Report
Serial: 140703
Model: V4_10P
Source Number: 74GBq-19

Master Calibration				Performed: Wed Dec 02 12:04:44 2020			
	Background	Aluminum		Magnesium			
Window 1	595.38	5386.50		23898.92	cps		
Window 2	52.78	1248.21		5993.75	cps		
Window 4	251.36	1200.30		5155.55	cps		
Window 5	545.15	9066.30		17240.12	cps		
Window 6	43.35	1491.73		2929.24	cps		
Window 8	258.76	2917.82		5450.26	cps		
Bulk Density	-	2.6020		1.6830	g/cc		
Pe	-	3.0000		2.5070	b/e		
LS Alpha:	: -1.8726	SS Alpha:	: -0.7656	LS CPE:		: 1.0742	
LS Beta:	: 127345.0723	SS Beta:	: 20293.3834	SS CPE:		: 1.5427	

Before Survey Background Counts Verification			Performed: Wed Dec 31 18:00:00 1969		
Window 1	0.00	cps			
Window 2	0.00	cps			
Window 4	0.00	cps			
Window 5	0.00	cps			
Window 6	0.00	cps			
Window 8	0.00	cps			

After Survey Background Counts Verification			Performed: Wed Dec 31 18:00:00 1969		
Window 1	0.00	cps			
Window 2	0.00	cps			
Window 4	0.00	cps			

Window 5	0.00	cps
Window 6	0.00	cps
Window 8	0.00	cps

Lithodensity Caliper Calibration Performed: Wed Dec 02 12:04:44 2020

Results		Readings		References (in)		Gain	Offset
Low	High	Low	High				
8003.0	11159.9	8.0	14.0			0.0	-7.2

Before Survey Caliper Verification Performed:

	Reference	Reading
Caliper (in)	_____	_____

After Survey Caliper Verification Performed:

	Reference	Reading
Caliper (in)	_____	_____

Compensated Neutron Calibration Report

Serial Number:	080621PMC
Tool Model:	NABORS

PRE-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

POST-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number:	7
Tool Model:	Probe1
Performed:	Tue Jan 19 17:50:08 2021
Calibrator Value:	1.0 GAPI
Background Reading:	0.0 cps
Calibrator Reading:	1.0 cps
Sensitivity:	0.5300 GAPI/cps