

COMPENSATED DENSITY/NEUTRON PE LOG

Company RED OAK ENERGY, INC.

Well NILS UNIT #1-13

Field WILDCAT

County GREELEY State KANSAS

Location: API #: 15-071-20895-0000

1362' FNL & 120' FWL

Other Services
DIL/MEL

SEC 13 TWP 16S RGE 42W

Elevation

Permanent Datum GROUND LEVEL Elevation 3784
Log Measured From KELLY BUSHING 8' A.G.L.
Drilling Measured From KELLY BUSHING

K.B. 3792
D.F. 3790
G.L. 3784

Date 7/14/21

Run Number ONE

Depth Driller 5159

Depth Logger 5160

Bottom Logged Interval 5136

Top Log Interval 3900

Casing Driller 8 5/8" @ 388'

Casing Logger 388'

Bit Size 7 7/8

Type Fluid in Hole CHEMICAL MUD

Density / Viscosity 9.3/71

pH / Fluid Loss 9.0/8.8

Source of Sample FLOWLINE

Rm @ Meas. Temp .90 @ 82F

Rmf @ Meas. Temp .67 @ 82F

Rmc @ Meas. Temp 1.08 @ 82F

Source of Rmf / Rmc MEASUREMENT

Rm @ BHT .58 @ 126F

Time Circulation Stopped 2 HOURS

Time Logger on Bottom 1111

Maximum Recorded Temperature 126F

Equipment Number 3802

Location HAYS, KANSAS

Recorded By JASON CAPPELLUCCI

Witnessed By SEAN DEENIHAN

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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

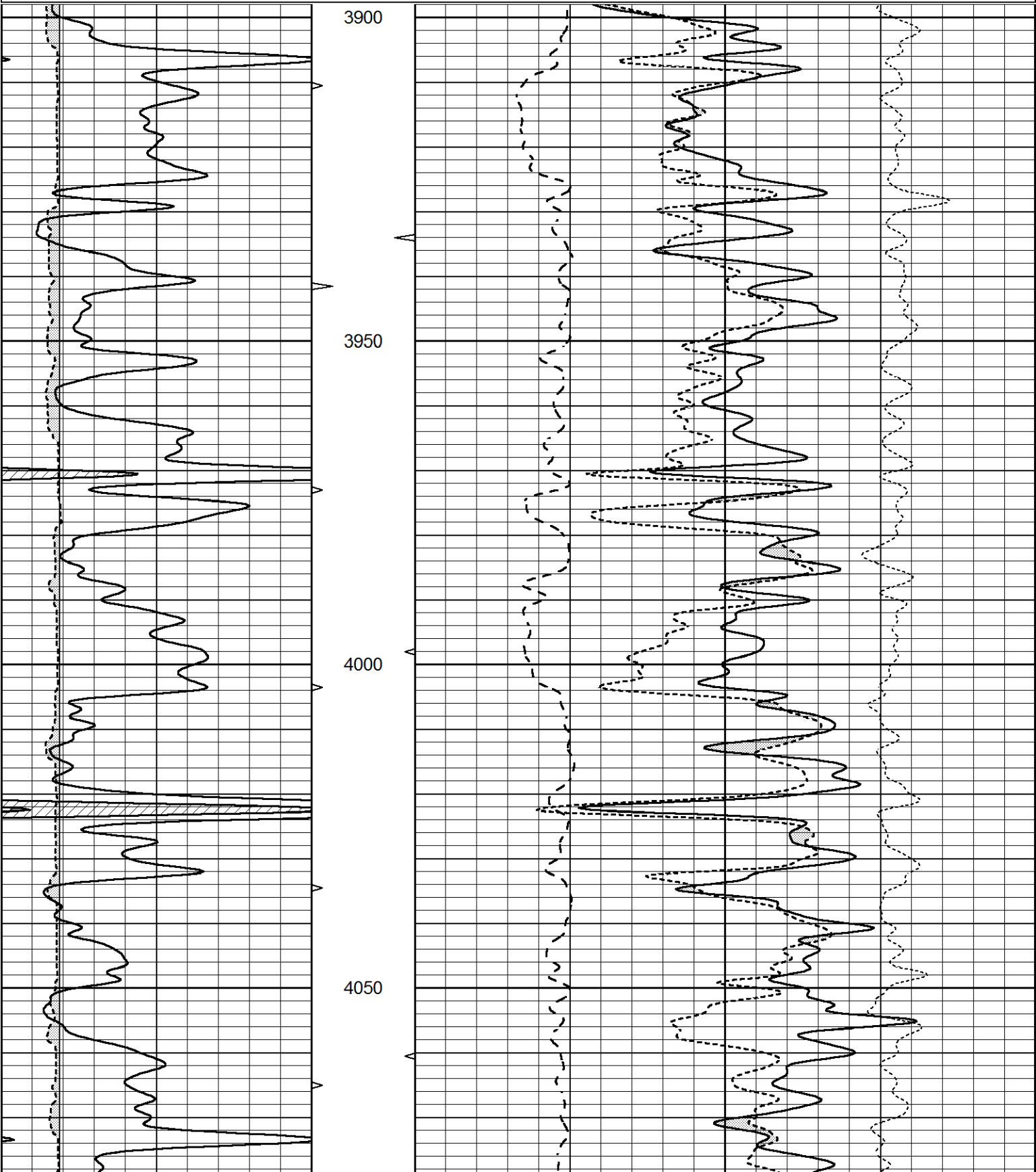
THANK YOU FOR USING ELI WIRELINE SERVICES, HAYS, KS. (785) 628-6395
DIRECTIONS
SHARON SPRINGS, KS. - SOUTH TO COUNTY LINE - 3 SOUTH TO D RD. - 8 WEST
TO RD. 7 - 3/4 NORTH - EAST INTO

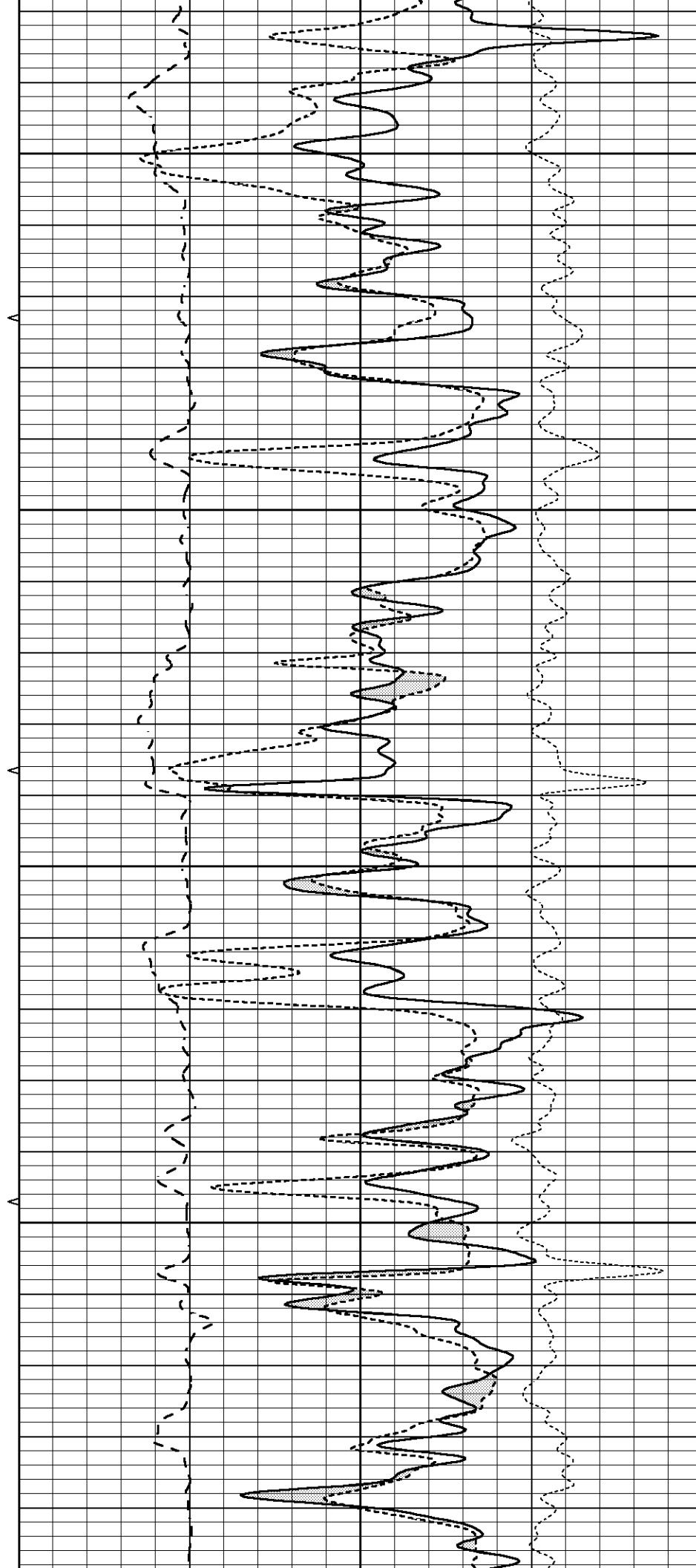
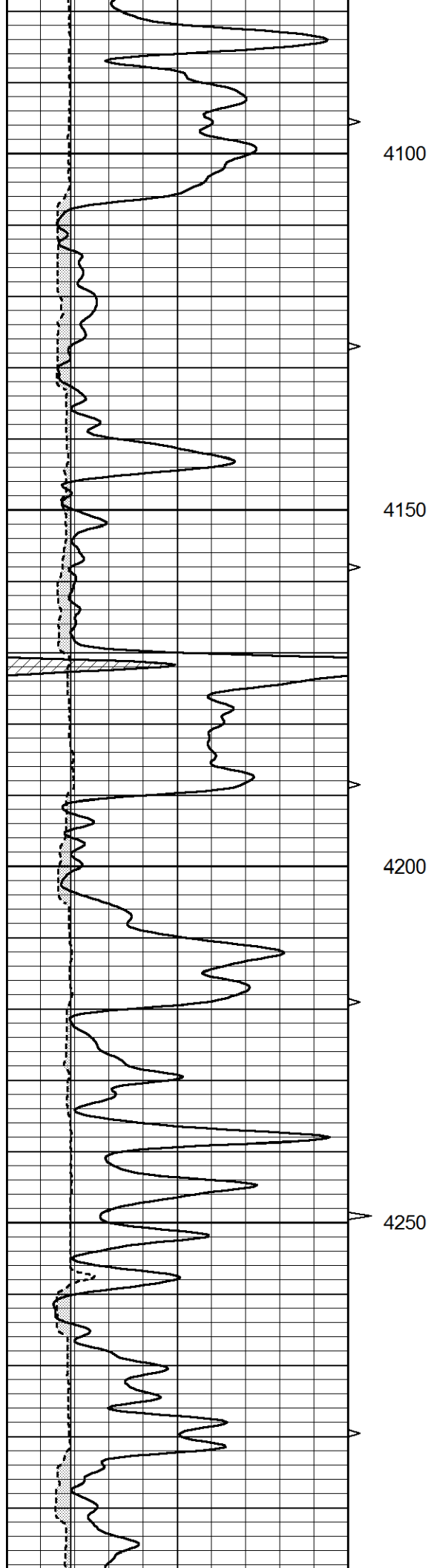


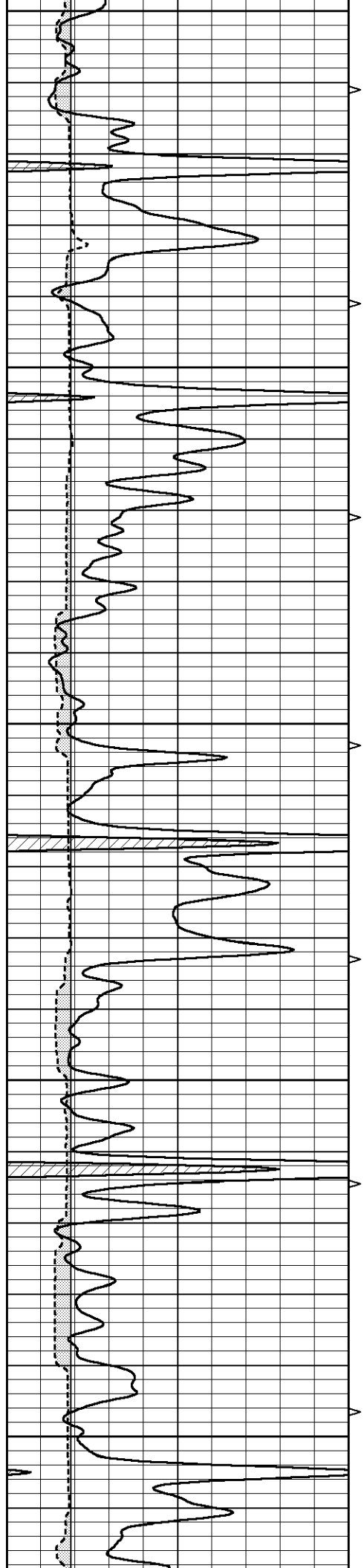
MAIN SECTION

Database File	5631pe.db
Dataset Pathname	pass3.1
Presentation Format	_ldt_neu
Dataset Creation	Wed Jul 14 09:57:21 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







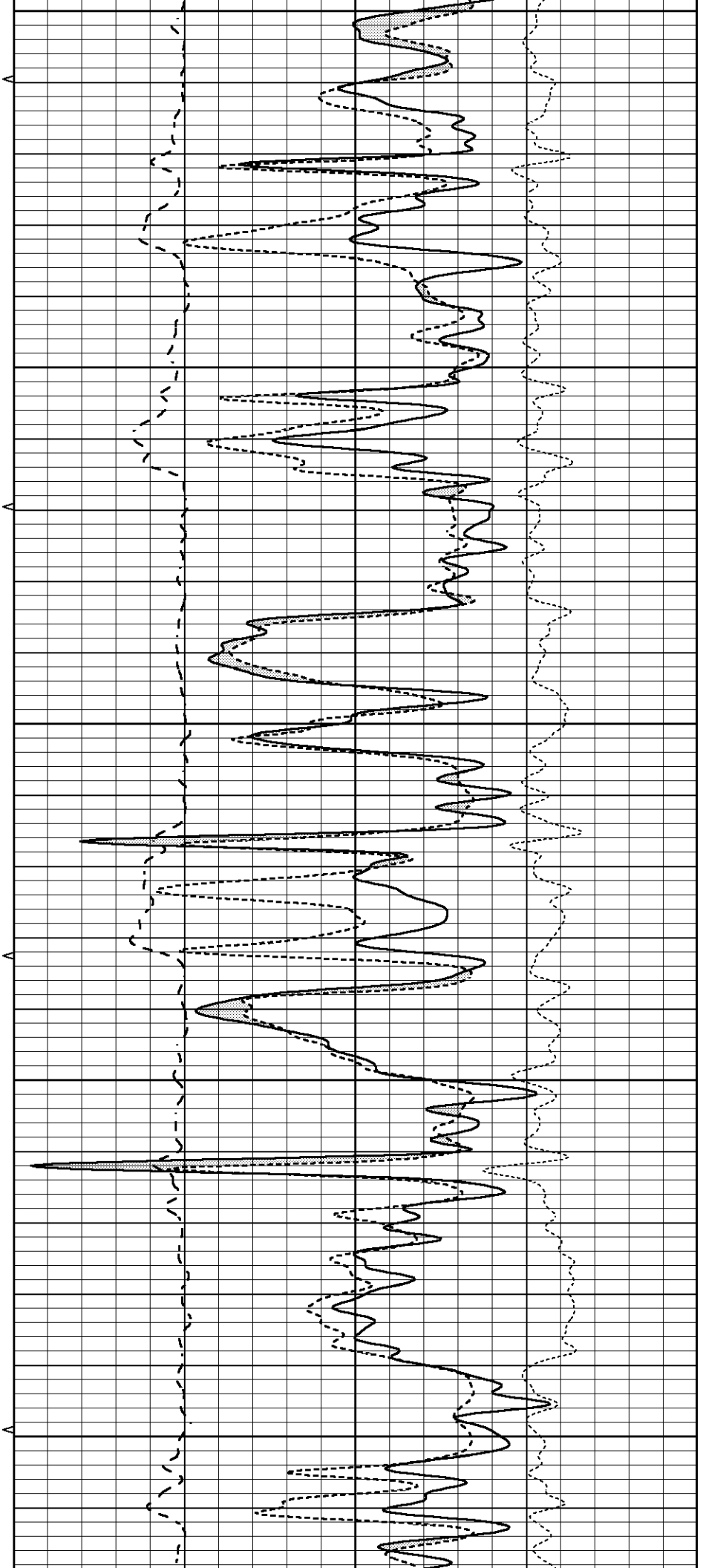
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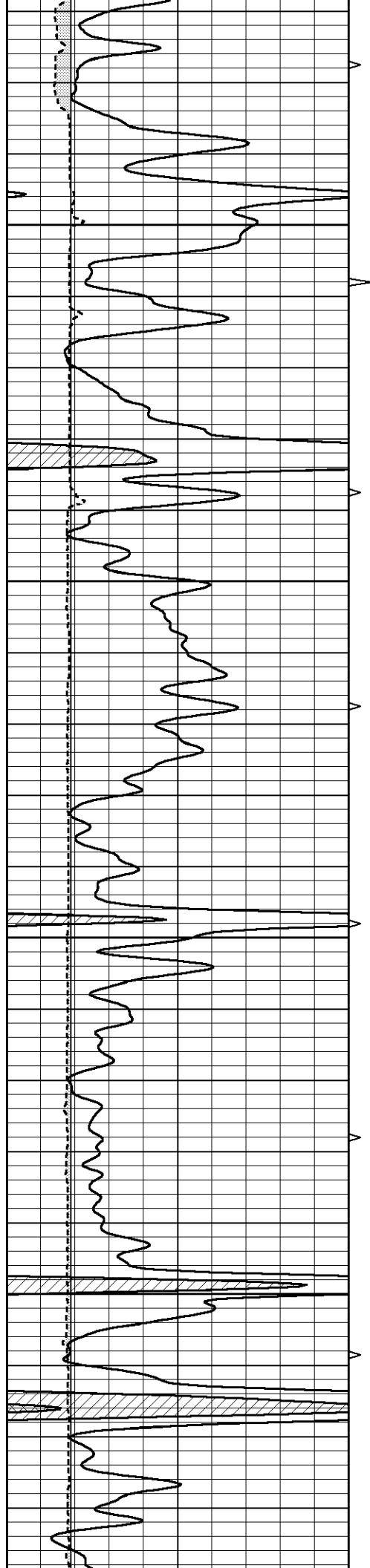
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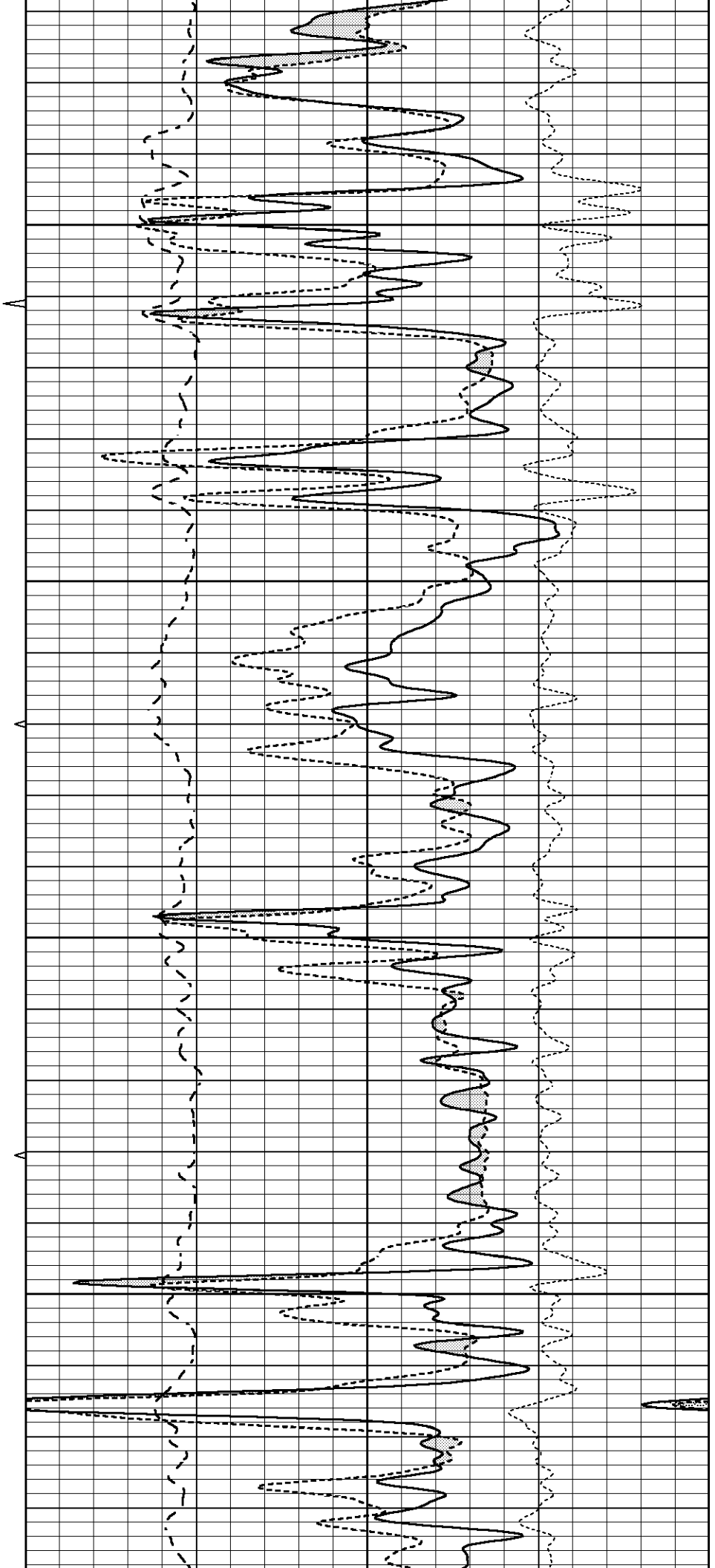


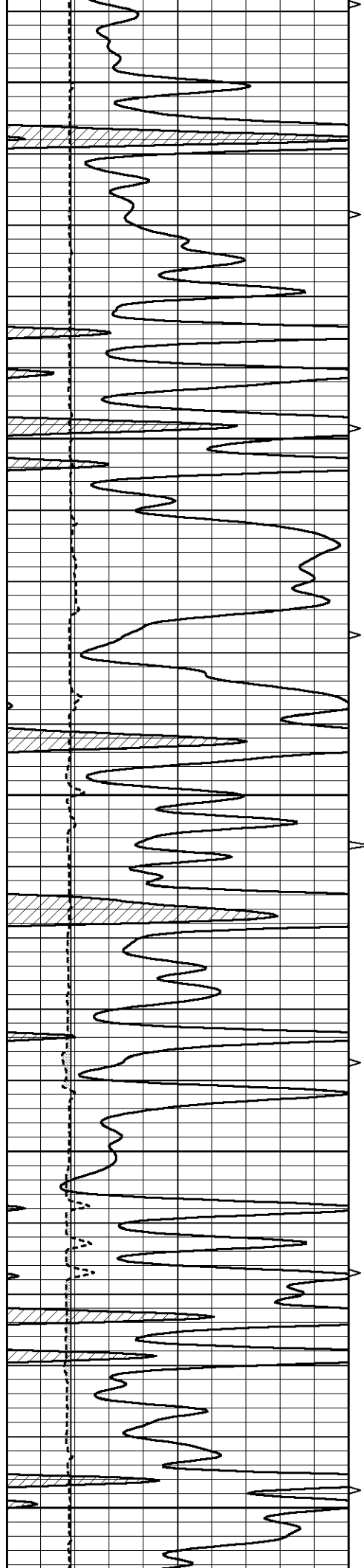
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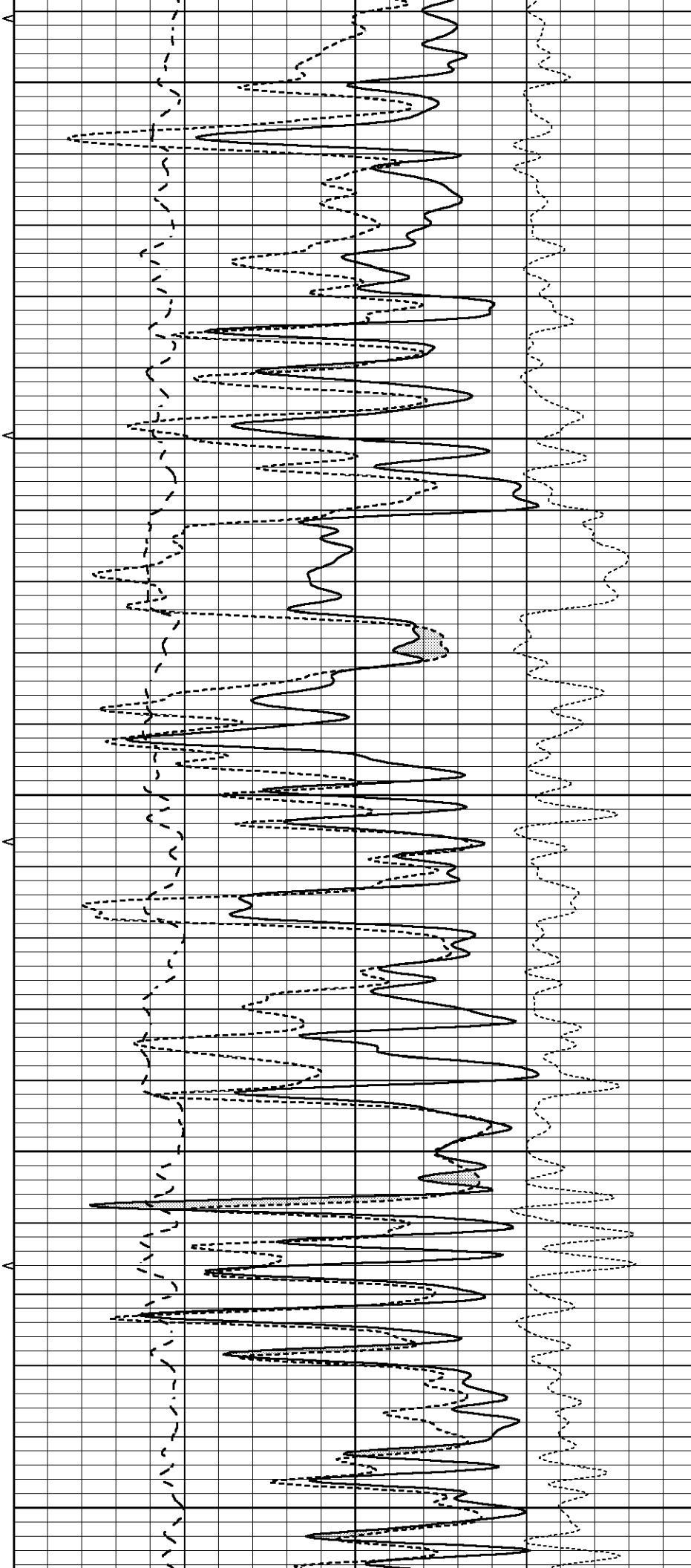
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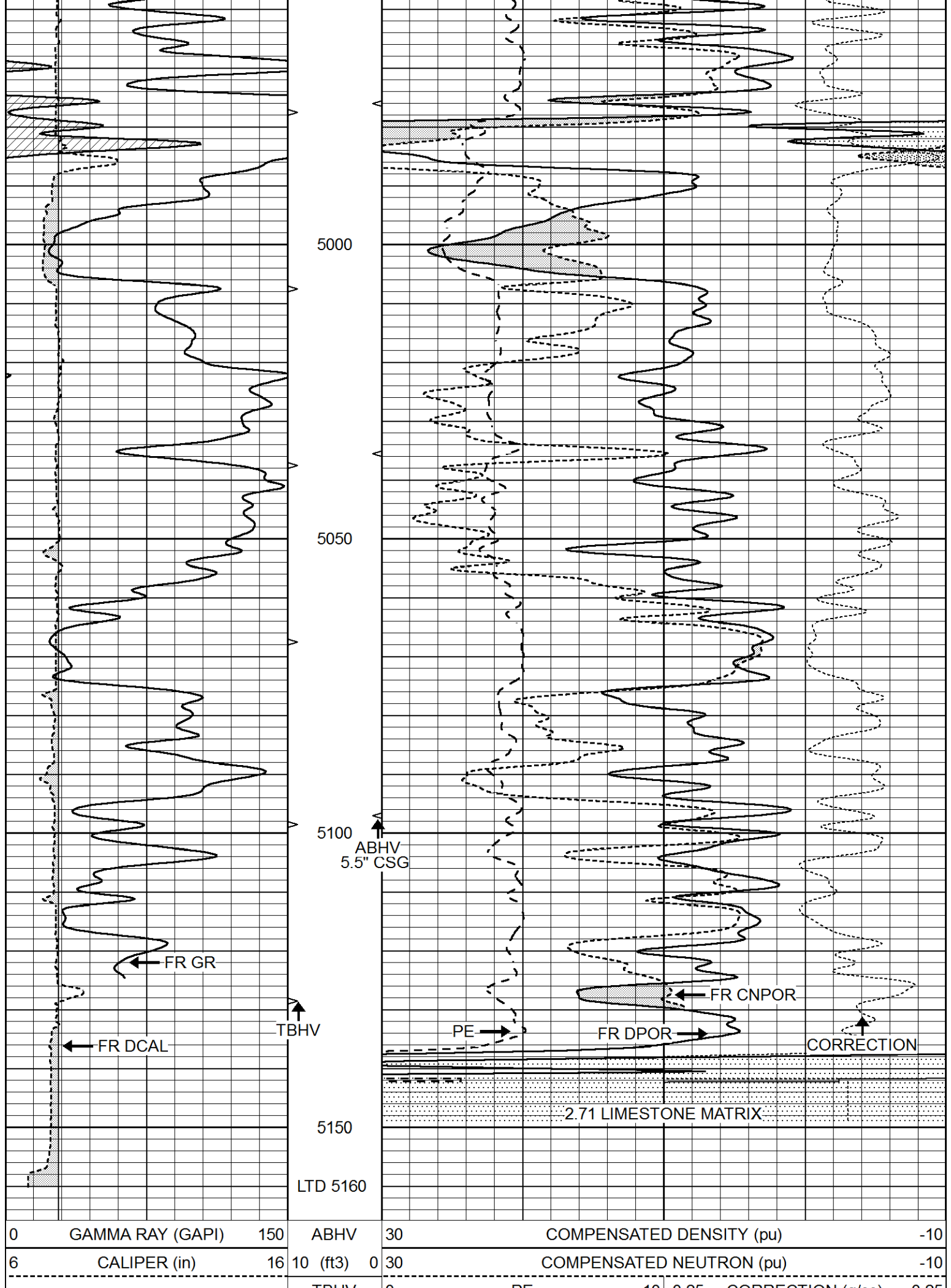
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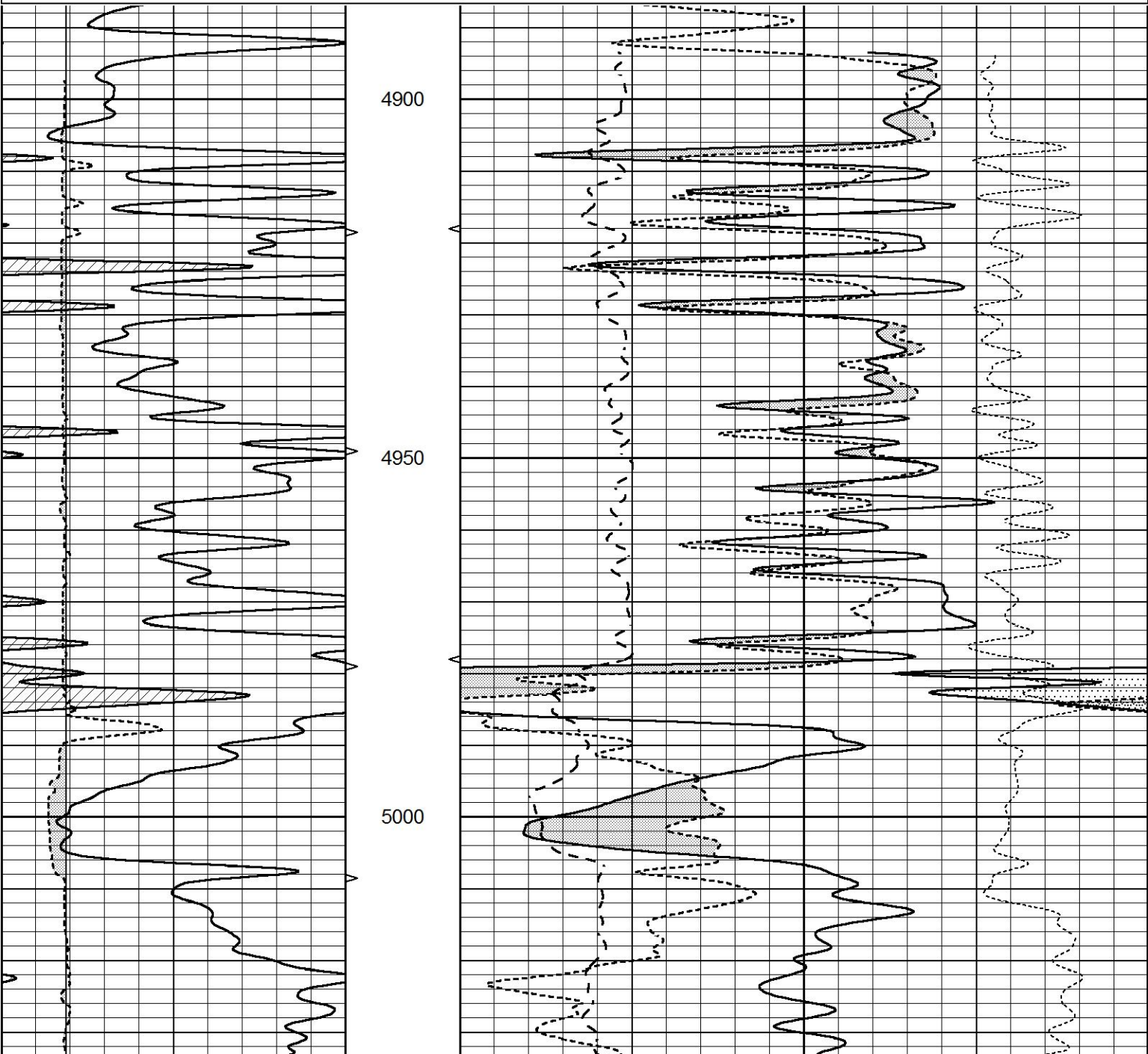


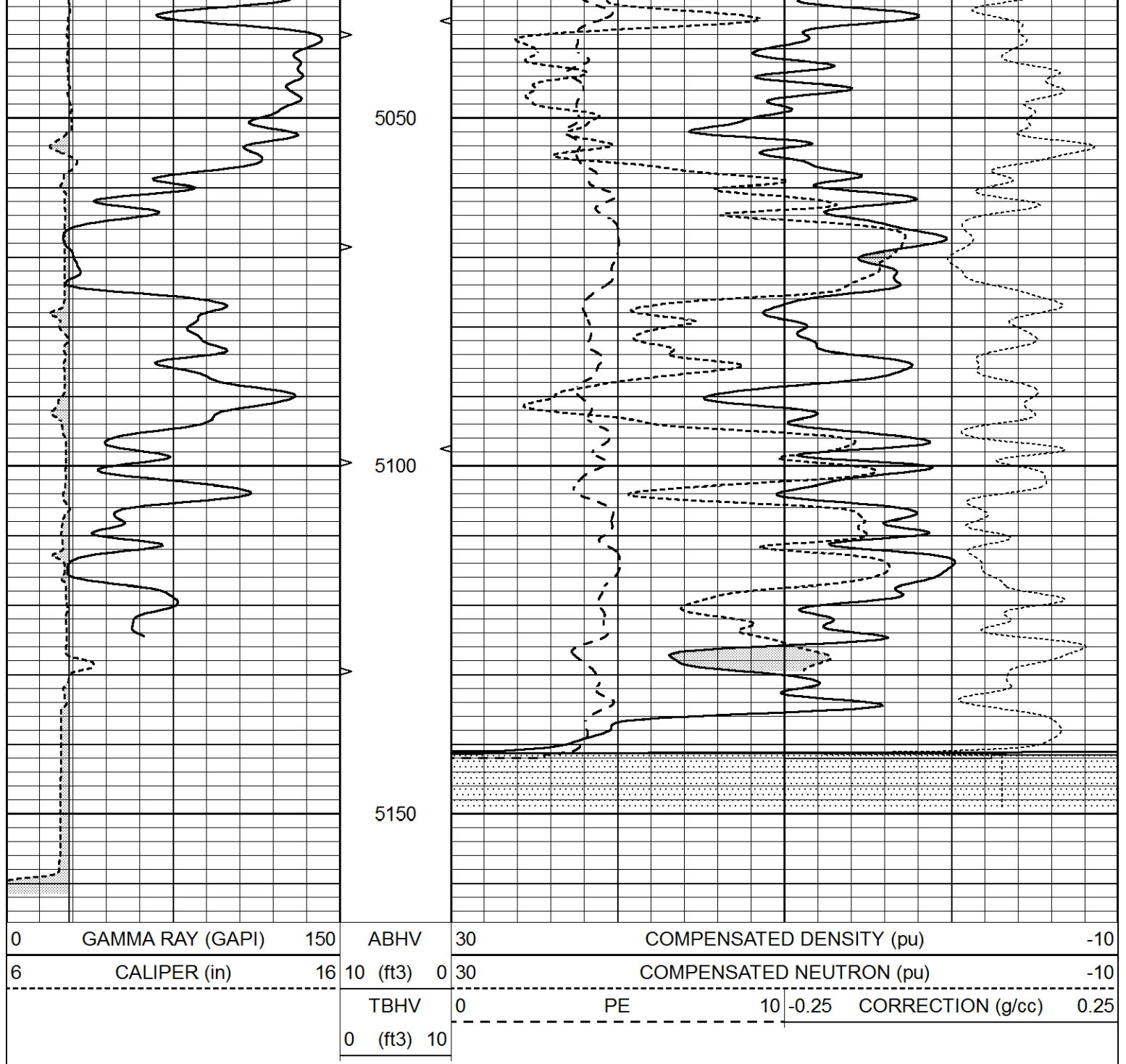


REPEAT SECTION

Database File 5631pe.db
 Dataset Pathname pass2.1
 Presentation Format _ldt_neu
 Dataset Creation Wed Jul 14 10:22:15 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	30	COMPENSATED NEUTRON (pu)	-10
			TBHV	0	PE	10 -0.25 CORRECTION (g/cc) 0.25
			0 (ft3) 10			





Calibration Report

Database File 5631pe.db
Dataset Pathname pass2.1
Dataset Creation Wed Jul 14 10:22:15 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		Air	Loop		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

Medium	-0.000	0.751	V	0.000	404.000	mmho/m	632.030	1.157
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: 140704								
Model: V4_10P								
Source Number: 74GBq-19								
Master Calibration				Performed: Mon Dec 07 12:12:14 2020				
	Background	Aluminum	Magnesium					
Window 1	557.73	5525.14	24361.20	cps				
Window 2	47.08	1245.09	5901.17	cps				
Window 4	239.06	1250.70	5456.76	cps				
Window 5	564.08	8300.56	16134.07	cps				
Window 6	44.21	1356.78	2705.40	cps				
Window 8	267.87	2686.97	5150.30	cps				
Bulk Density	-	2.6020	1.6830	g/cc				
Pe	-	3.0000	2.5070	b/e				
LS Alpha:	: -1.8719	SS Alpha:	: -0.8000	LS CPE:	: 1.1424			
LS Beta:	: 135562.6841	SS Beta:	: 20128.7209	SS CPE:	: 1.5489			
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: Mon Dec 07 12:12:14 2020

Results	Readings	References (in)			
Low	High	Low	High	Gain	Offset
664.3	1102.8	8.0	14.0	0.0	-1.1

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