



COMPENSATED DENSITY / NEUTRON LOG

Company	RITCHIE EXPLORATION, INC.		
Well	#1 HARKNESS 15D		
Field	GRIGSTON SOUTH		
County	SCOTT	State	KANSAS
Location:	API # : 15-171-21295-0000 1052' FSL & 446' FEL		Other Services DIL/MEL SONIC
Permanent Datum	SEC 15 TWP 19S RGE 31W	Elevation	
Log Measured From	GROUND LEVEL	Elevation	2946
Drilling Measured From	KELLY BUSHING	K.B. 2953 D.F. 2951 G.L. 2946	
Date	9/8/22		
Run Number	ONE		
Depth Driller	4710		
Depth Logger	4708		
Bottom Logged Interval	4684		
Top Log Interval	3500		
Casing Driller	8 5/8" @ 221'		
Casing Logger	221		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 4,600 PPM	
Density / Viscosity	9.2/51		
pH / Fluid Loss	10.5/8.8		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.20 @ 93F		
Rmf @ Meas. Temp	.900 @ 93F		
Rmc @ Meas. Temp	1.44 @ 93F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.915 @ 122F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	4:30 P.M.		
Maximum Recorded Temperature	122F		
Equipment Number	922339		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	MAX LOVELY		

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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.

15-171-21295-0000

Comments

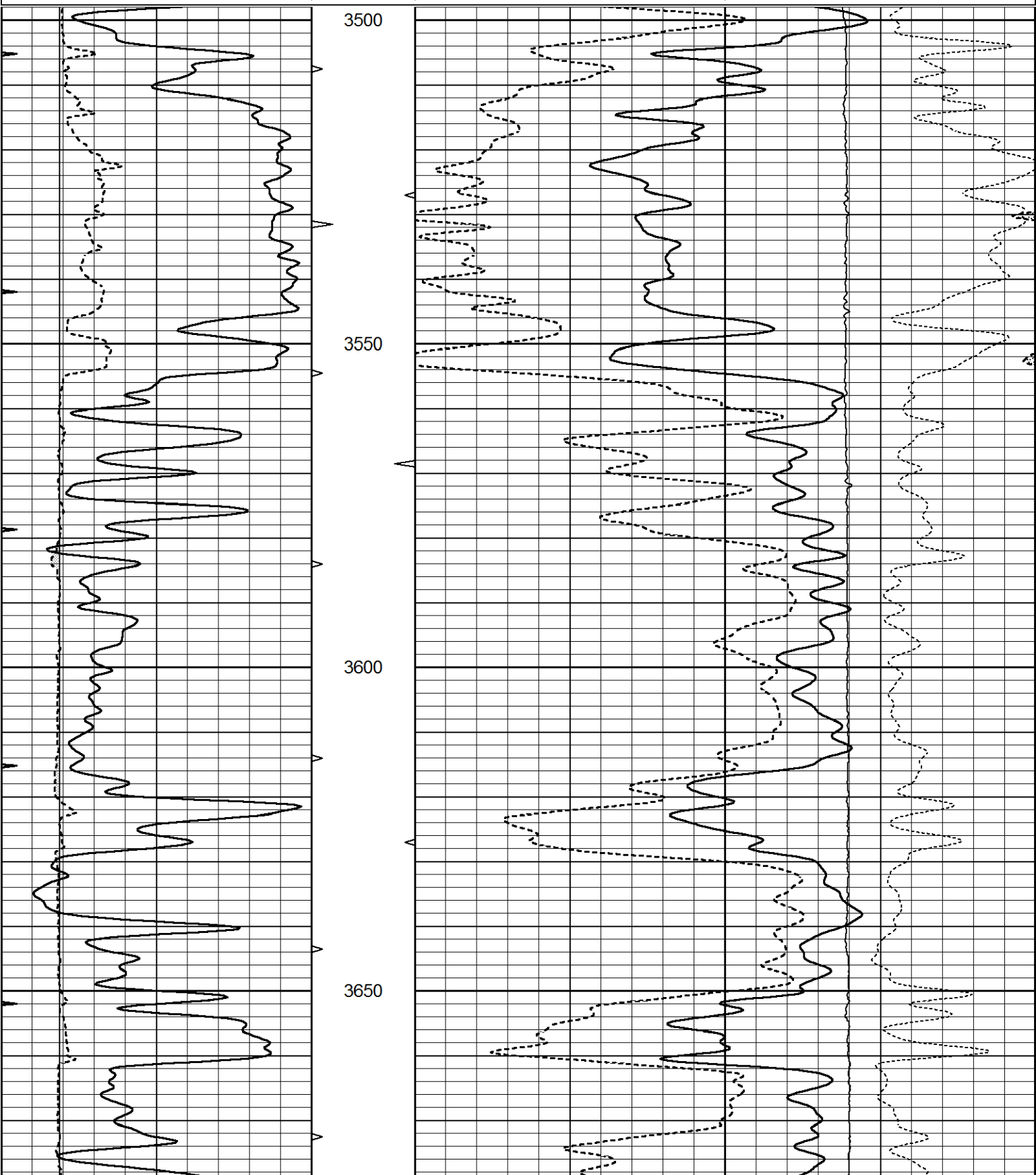
THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS
GRIGSTON, KS. & HWY 96, TAKE "VENISON RD." 6S., W. INTO

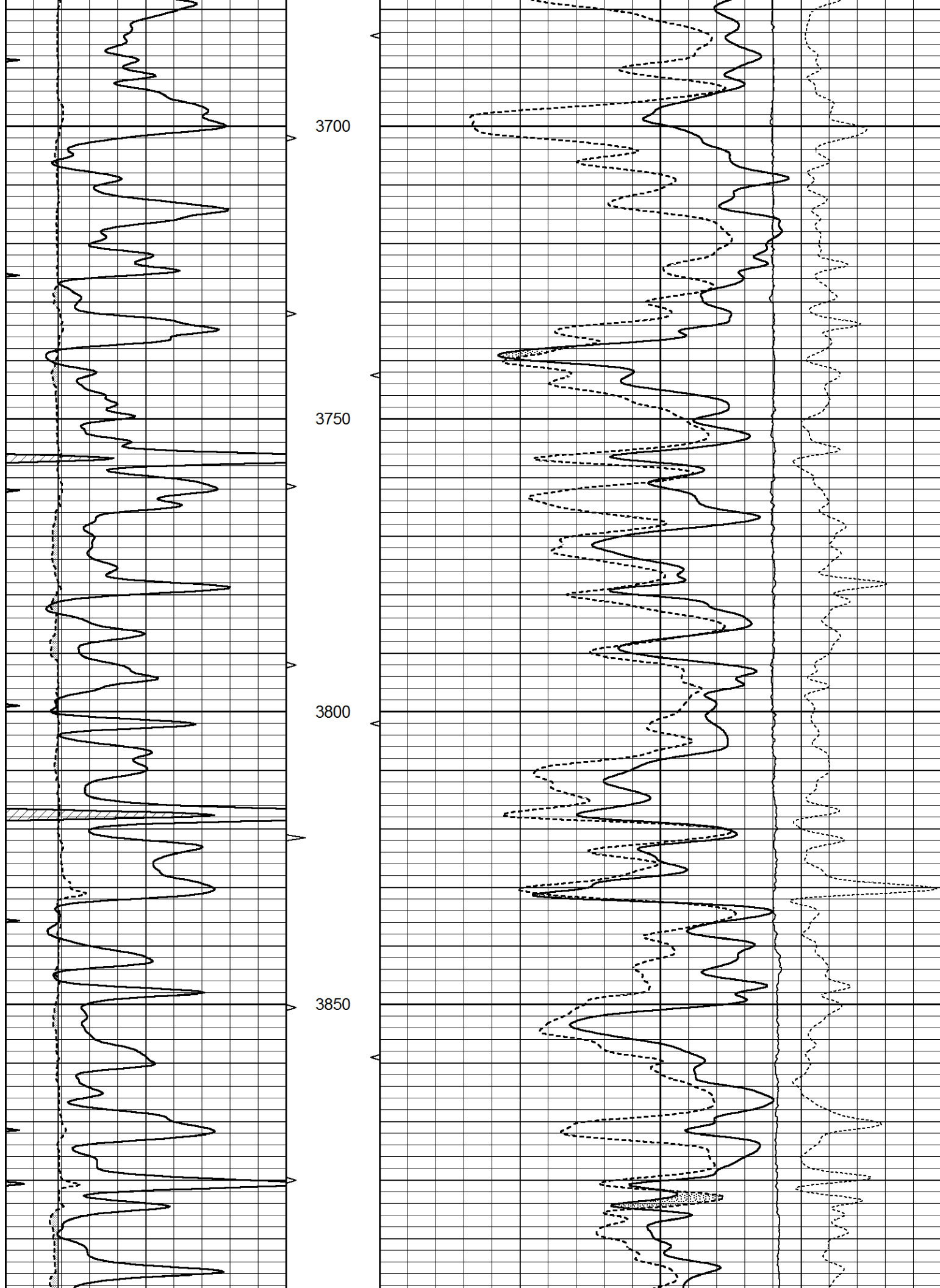


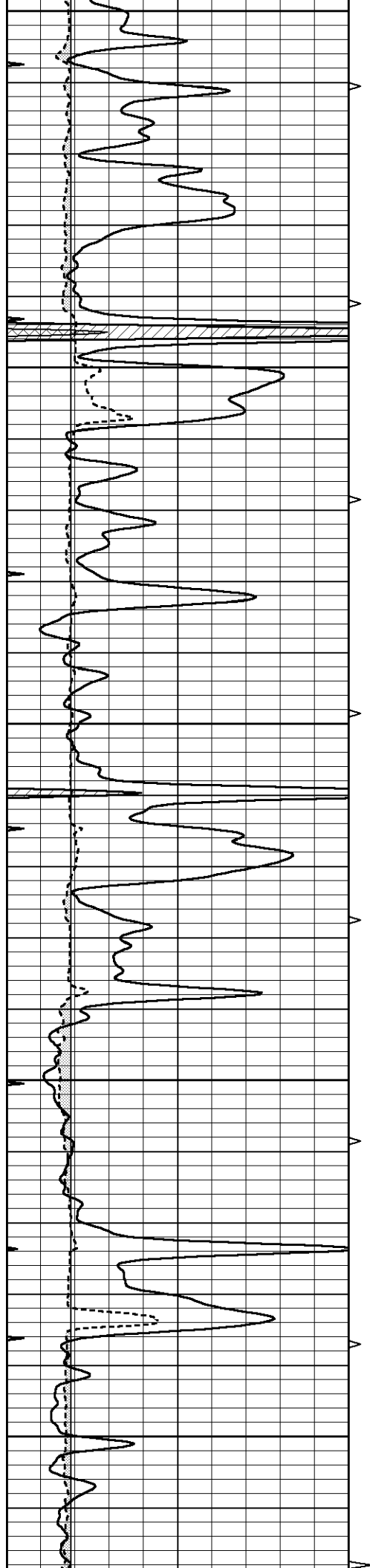
MAIN SECTION

Database File	6922ddn.db
Dataset Pathname	pass3.1M
Presentation Format	den_neu
Dataset Creation	Thu Sep 08 18:33:53 2022
Charted by	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)			-10	
6	DCAL (in)	16	10 (ft3)	0	30	COMPENSATED NEUTRON (pu)			-10
0	MINMK	20	TBHV			-0.25	CORRECTION (g/cc)	0.25	
			0 (ft3)	10		0	LTEN (lb)	5000	







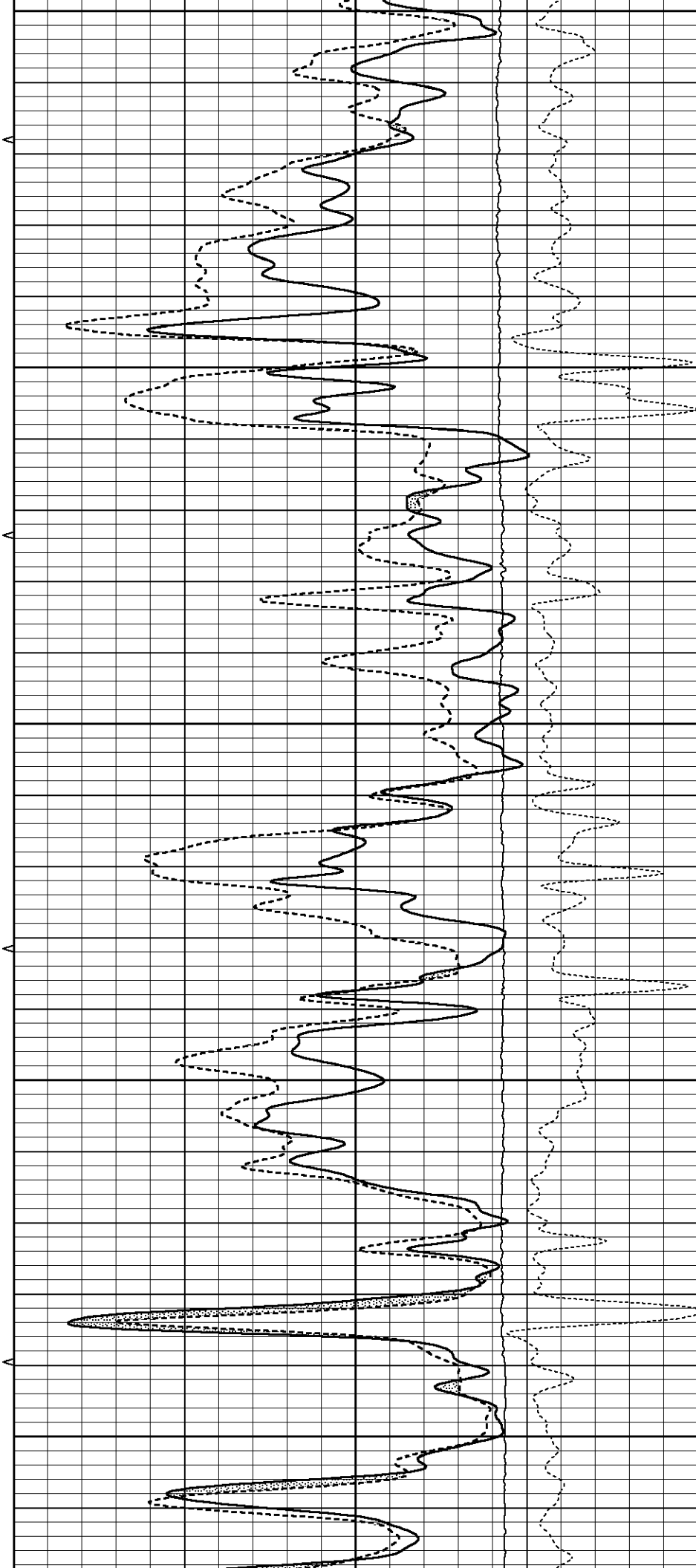
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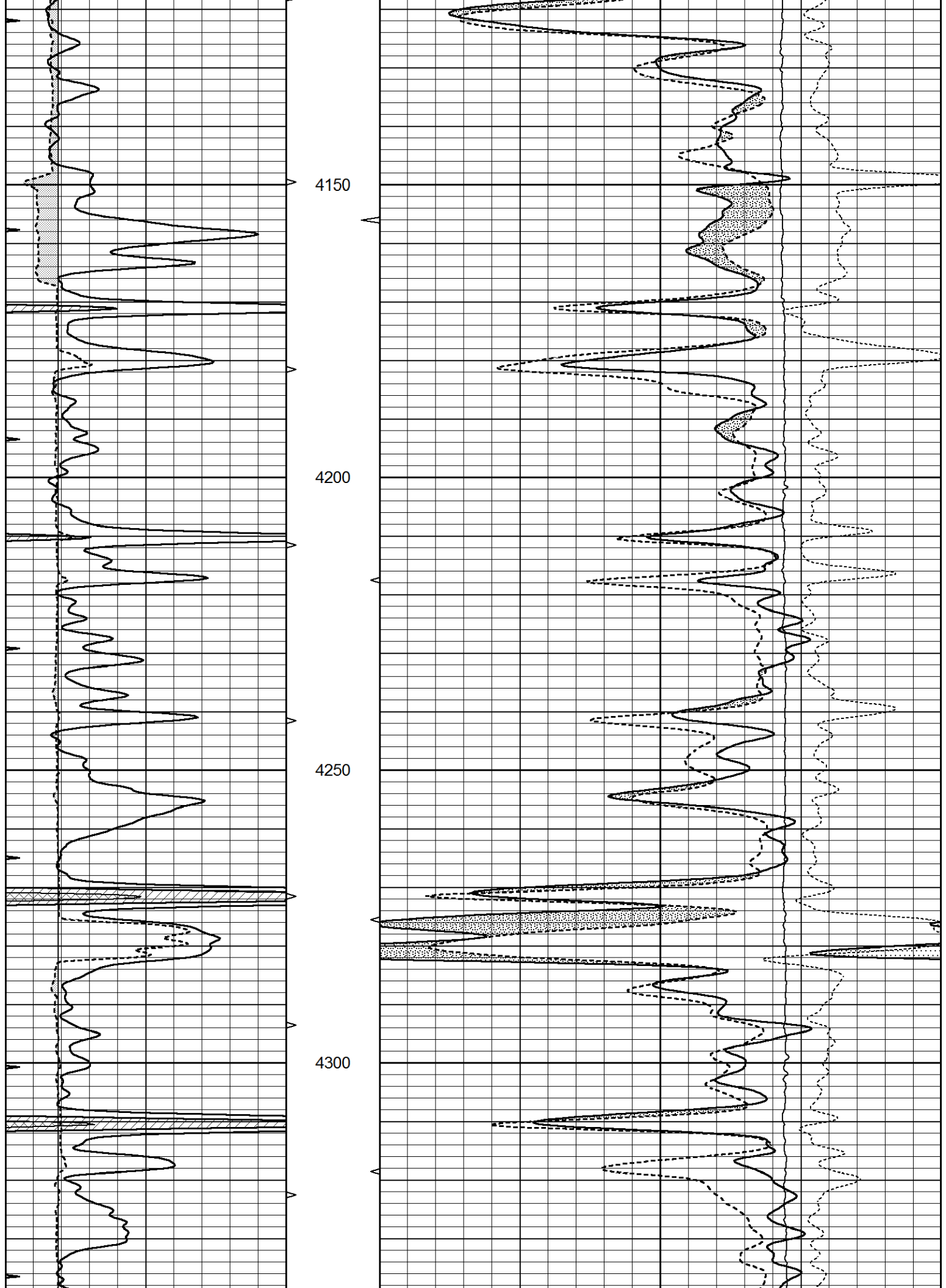
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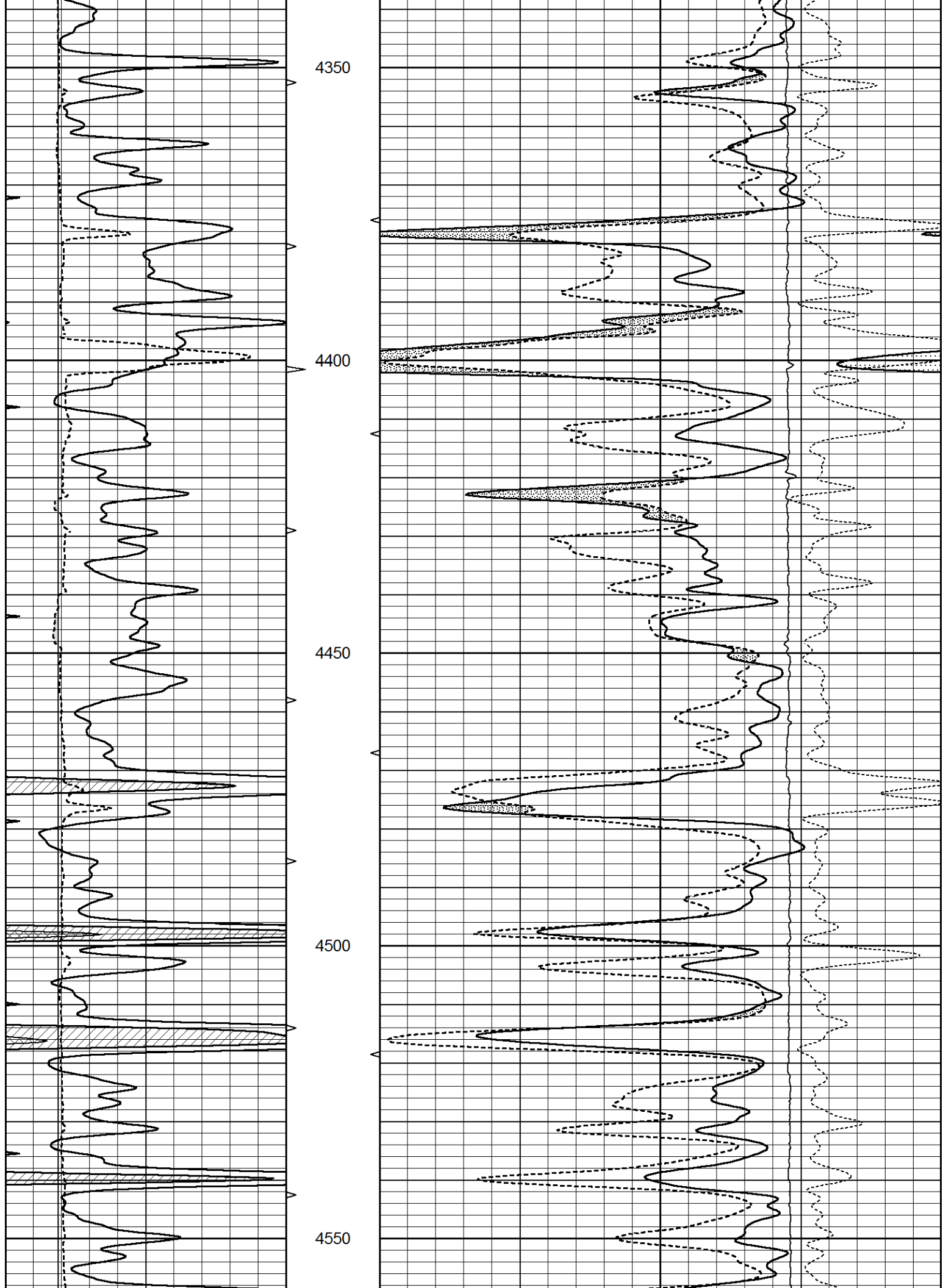
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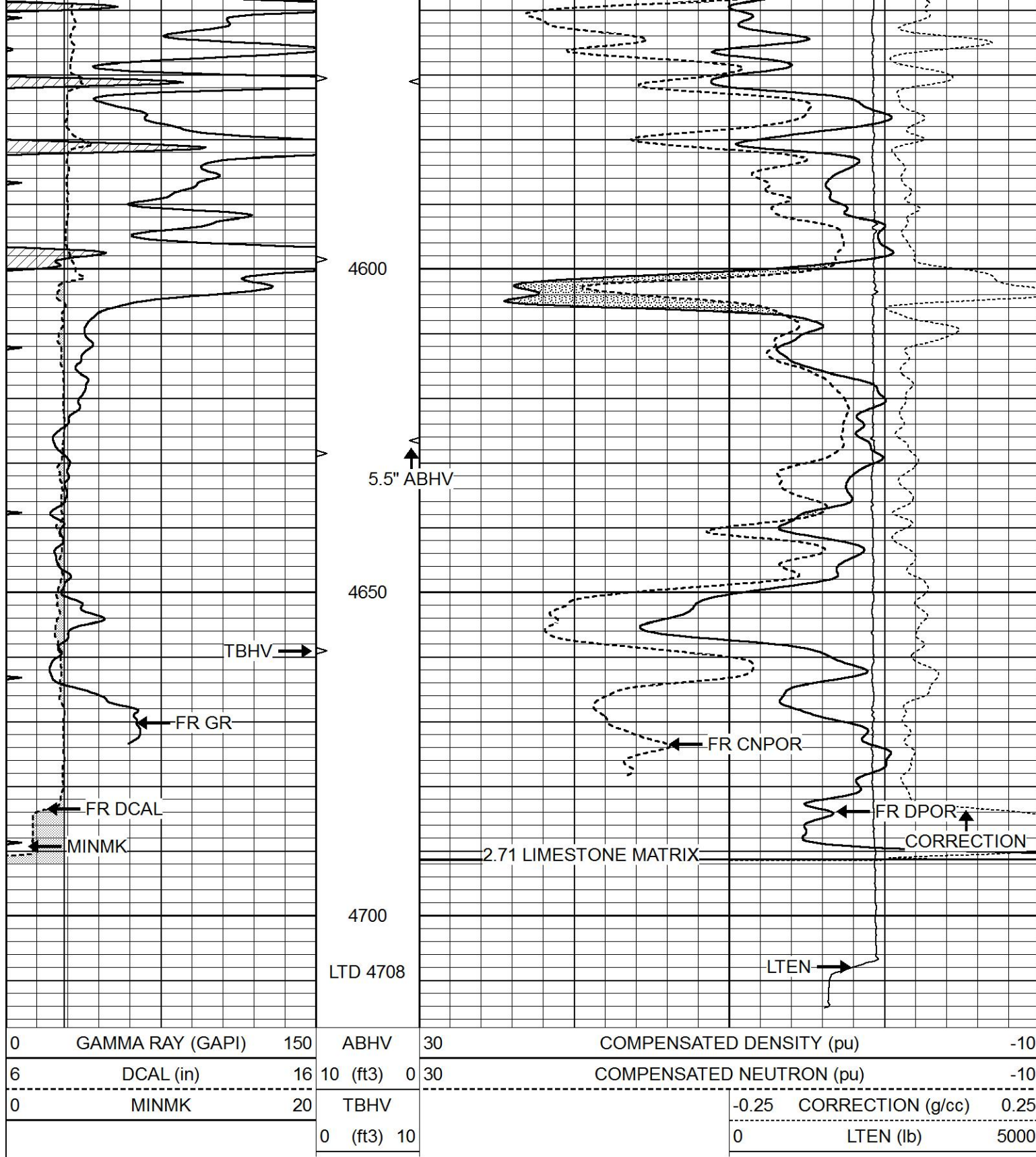
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4100





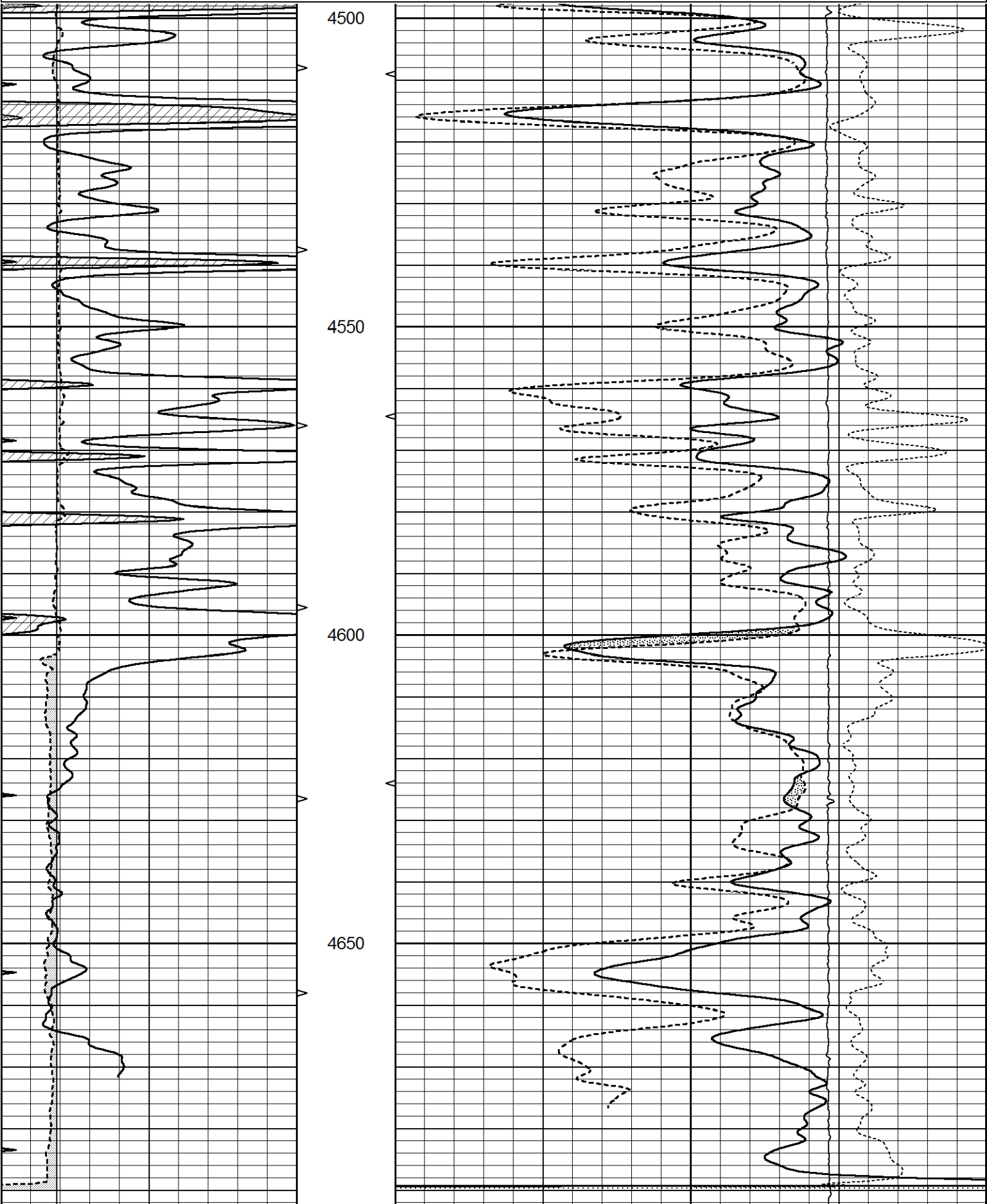




REPEAT SECTION

Database File 6922ddn.db
Dataset Pathname pass2.1R
Presentation Format den_neu
Dataset Creation Thu Sep 08 17:36:00 2022
Created by Earth Logging International

0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	DCAL (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10	0 LTEN (lb)	5000



			4700				
0	GAMMA RAY (GAPI)	150		ABHV	30	COMPENSATED DENSITY (pu)	-10
6	DCAL (in)	16		10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20		TBHV			
			0 (ft3)	10	-0.25 CORRECTION (g/cc)		0.25
					0 LTEN (lb)		5000

Window 1	1154.2	10019.5	3137.9	2795.6	cps
Window 2	1054.4	8597.6	2733.4	2469.5	cps
Window 3	902.3	5241.4	1832.1	1719.3	cps
Window 4	251.9	261.1	255.8	252.9	cps
Long Space	0.0	7543.2	1679.0	1415.0	cps
Short Space	4.4	2049.3	1321.7	1116.8	cps
Rho		1.7100	2.5900	0.0000	g/cc
Pe		2.0000	2.7500	5.7900	
Rib Angle	: 43.7	Rib Slope	: 0.957	Density/Spine Ratio	: 0.562
Spine Angle	: 73.7	Spine Slope	: 3.426	Spine Intercept	: -17.2

Before Survey Verification			Performed Wed Dec 31 18:00:00 1969		
Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

After Survey Verification			Performed Wed Dec 31 18:00:00 1969		
Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

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Compensated Neutron Calibration Report
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Serial Number:	070808PMC
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:	070558
Tool Model:	OPEN_GR
Performed:	Mon Sep 05 14:32:31 2022

Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.3000	GAPI/cps