

COMPENSATED DENSITY / NEUTRON PE LOG

Company	PETROLEUM DEVELOPMENT CO.	Company	PETROLEUM DEVELOPMENT COMPANY
Well	WLSR #1-13	Well	WLSR #1-13
Field	CONVICTION	Field	CONVICTION
County	KEARNY	County	KEARNY
State	KANSAS	State	KANSAS
Location:	API # : 15-093-21991-0000 1732' FNL & 412' FWL SE - NW - SW - NW	Other Services DIL/MEL SONIC	
Permanent Datum	GROUND LEVEL	Elevation	3017
Log Measured From	KELLY BUSHING 8' A.G.L.	K.B. 3025 D.F. 3023 G.L. 3017	
Drilling Measured From	KELLY BUSHING		
SEC 13 TWP 22S RGE 35W			
Date	9/16/21		
Run Number	ONE		
Depth Driller	4980		
Depth Logger	4976		
Bottom Logged Interval	4952		
Top Log Interval	3700		
Casing Driller	8 5/8"@1847'		
Casing Logger	1842		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 4,800 PPM	
Density / Viscosity	9.3/50		
pH / Fluid Loss	9.0/8.8		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.550@80F		
Rmf @ Meas. Temp	.413@80F		
Rmc @ Meas. Temp	.660@80F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.352@125F		
Time Circulation Stopped	2.5 HOURS		
Time Logger on Bottom	4.45 A.M.		
Maximum Recorded Temperature	125F		
Equipment Number	922339		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	KEN LeBLANC	COLE HINDS	

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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.

15-093-21991-0000

Comments

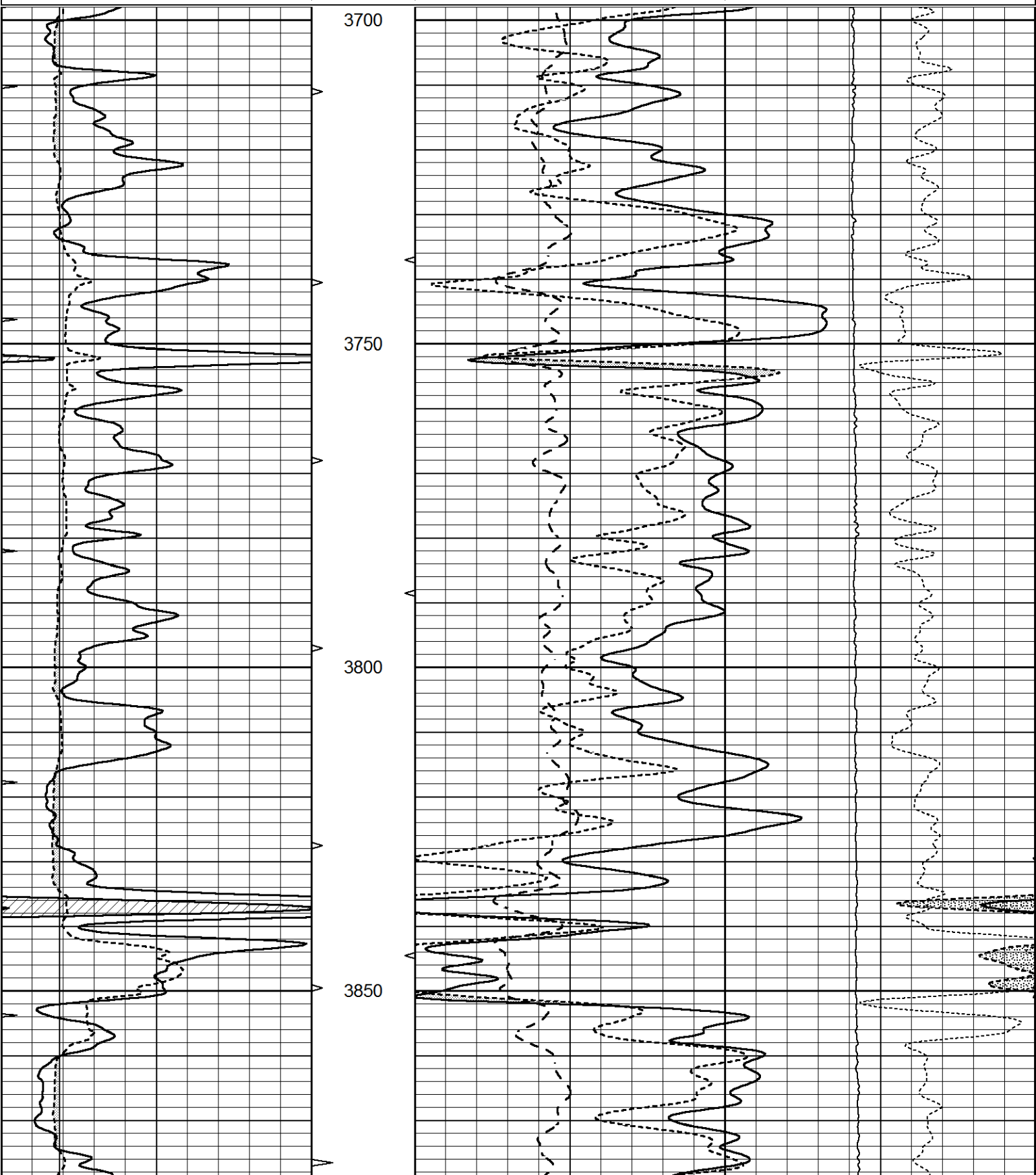
THANK YOU FOR USING E.L.I. WIRELINE SERVICES HAYS, KANSAS (785)628-6395
DIRECTIONS
DEERFIELD, KS., W. ON HWY 50 TO 1 MILE W. OF (FINNEY/KEARNY CO. LINE) 8N. ON BLKTOP, E. I

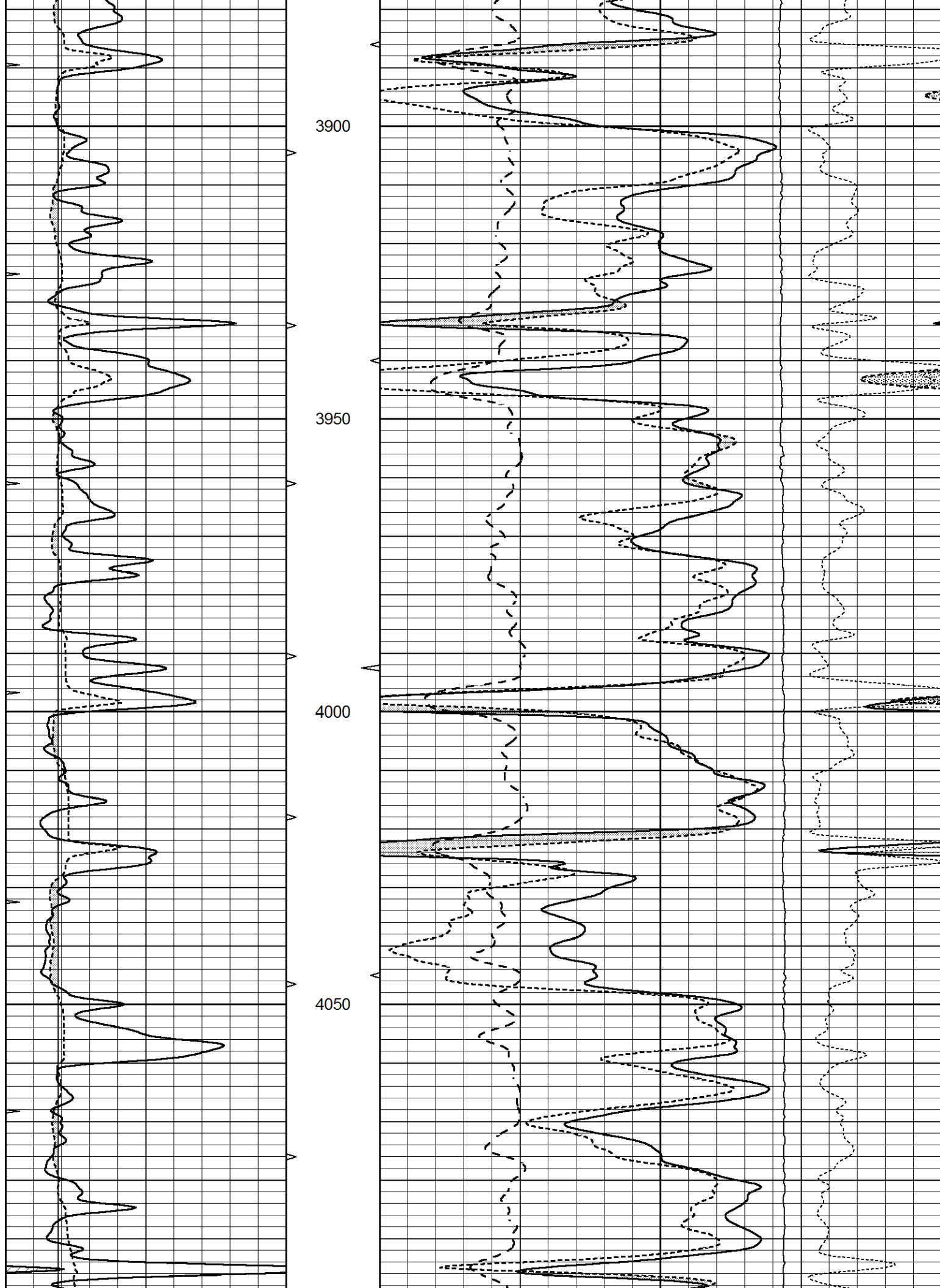


MAIN SECTION

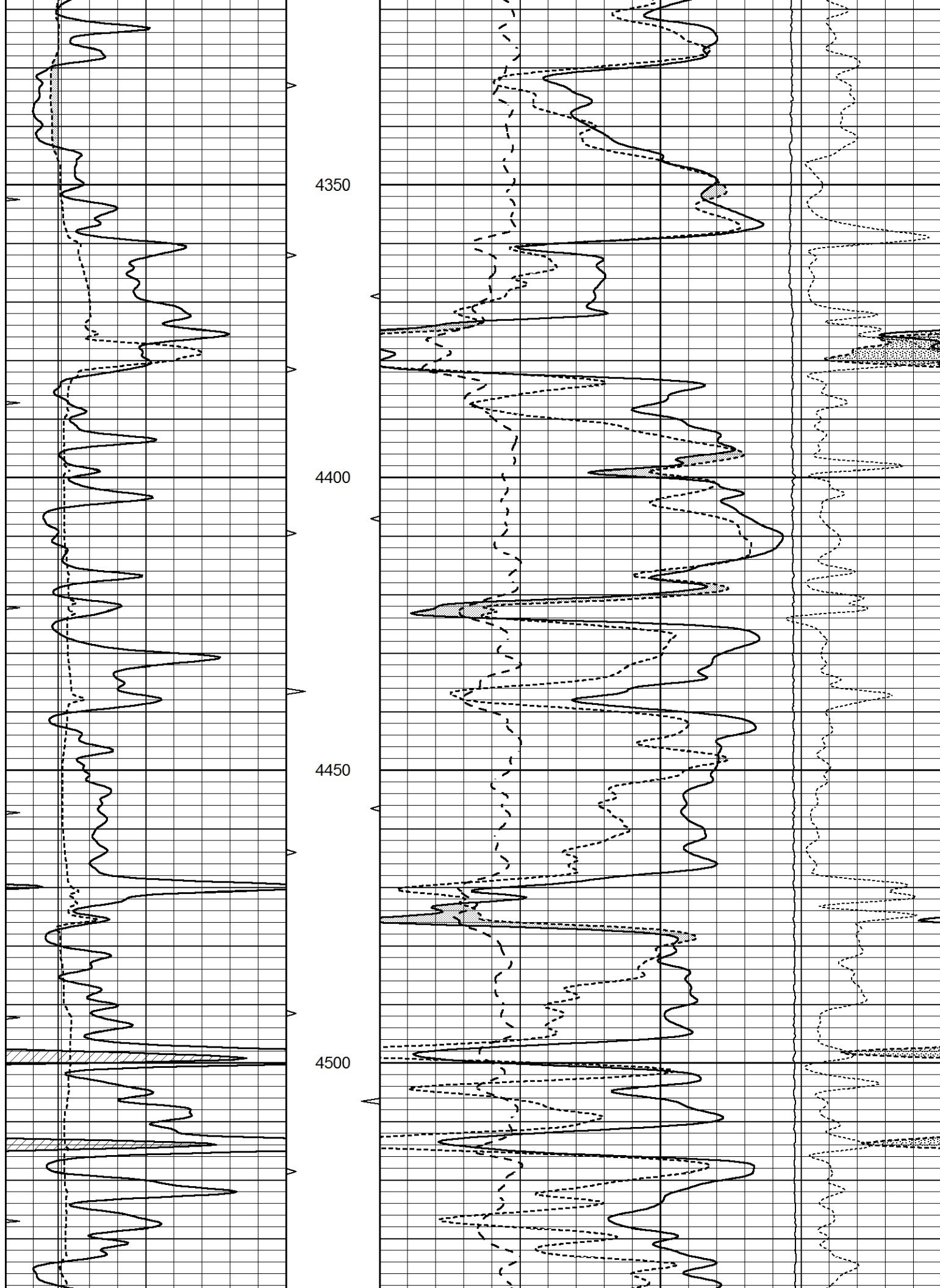
Database File	5657pe.db
Dataset Pathname	pass3.2M
Presentation Format	ldt_neu
Dataset Creation	Thu Sep 16 06:38:55 2021
Charted by	Depth in Feet scaled 1:240

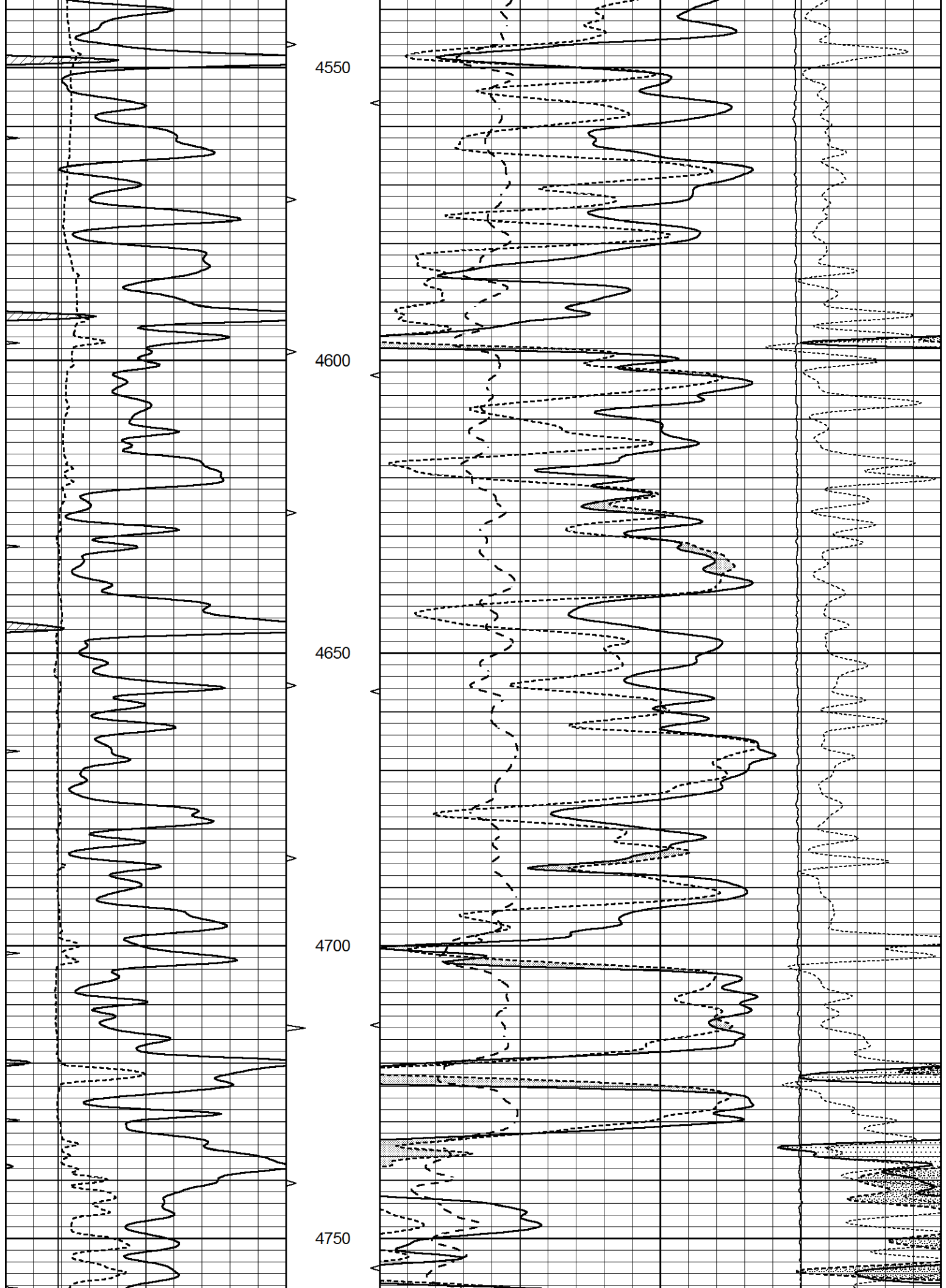
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV	0	PE	10 -0.25
			0 (ft3)	10		CORRECTION (g/cc) 0.25
					0	LTEN (lb) 5000

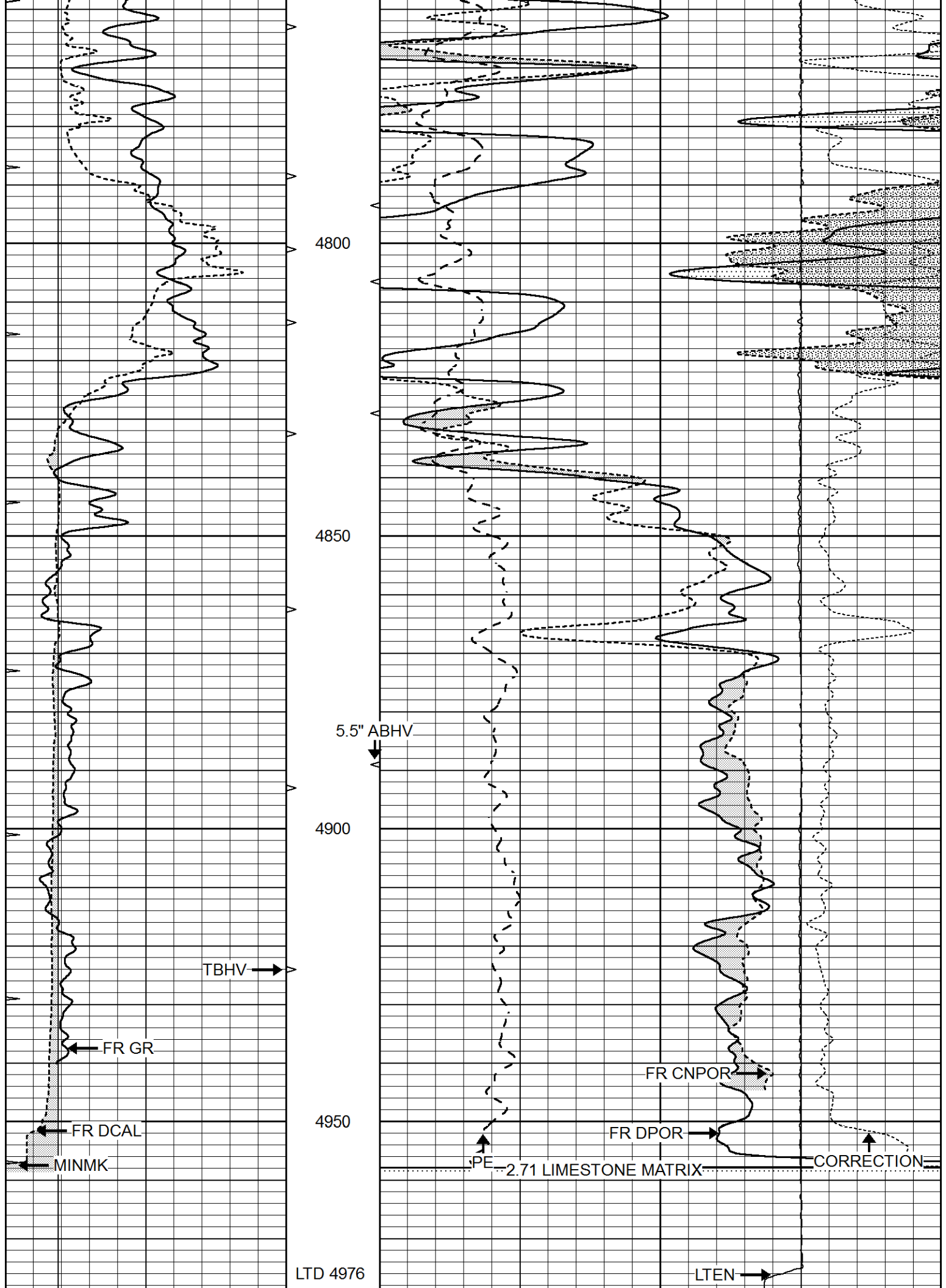












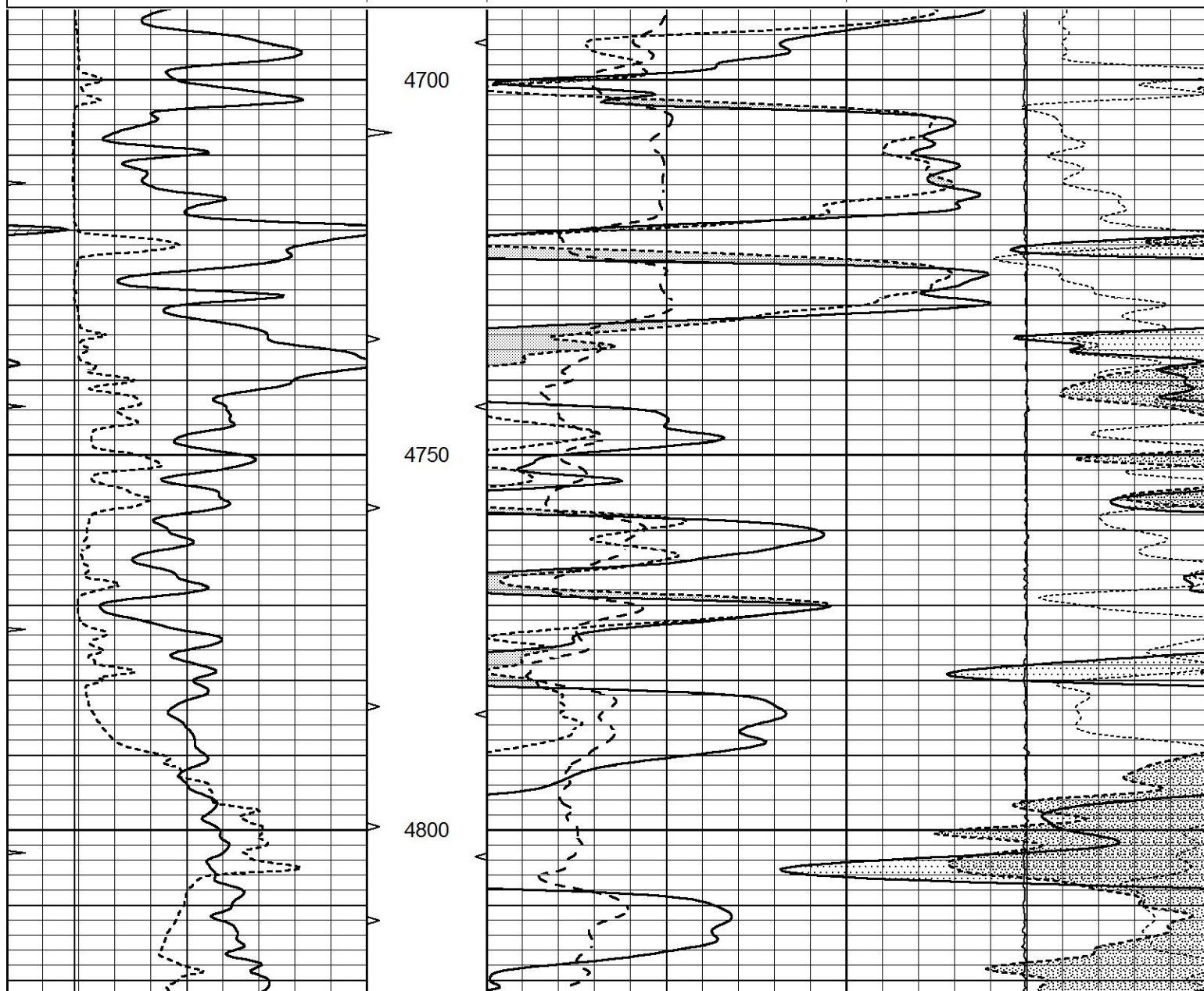
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3) 0	30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV	0	PE	10 -0.25 CORRECTION (g/cc) 0.25
			0 (ft3) 10		0	LTEN (lb) 5000

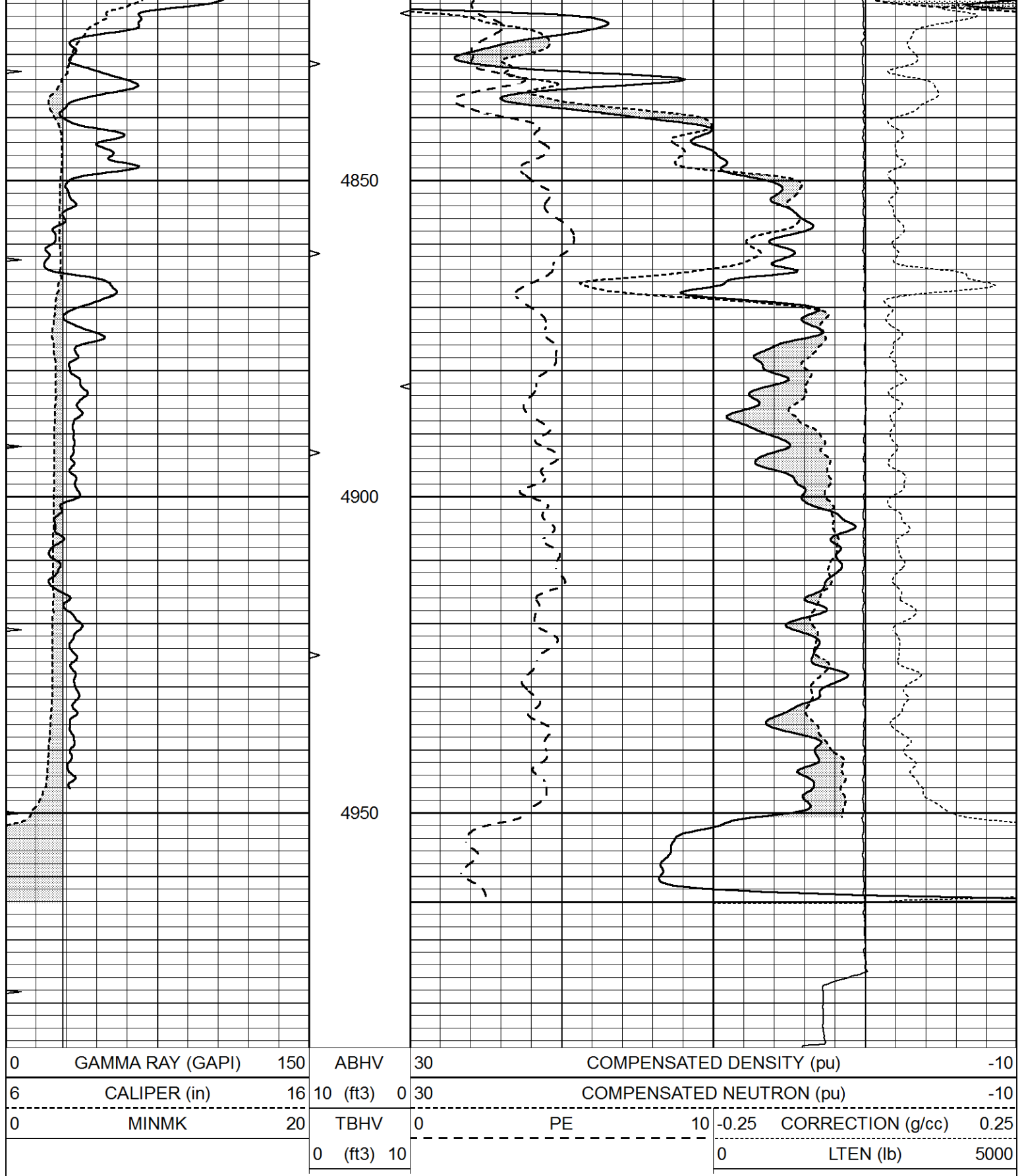


REPEAT SECTION

Database File 5657pe.db
 Dataset Pathname pass2.3R
 Presentation Format ldt_neu
 Dataset Creation Thu Sep 16 06:36:54 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
0	MINMK	20	TBHV	0	PE	10 -0.25 CORRECTION (g/cc) 0.25
			0 (ft3) 10		0	LTEN (lb) 5000





Calibration Report

Database File 5657pe.db
 Dataset Pathname pass3.2M
 Dataset Creation Thu Sep 16 06:38:55 2021

Dual Induction Calibration Report

Serial-Model:

PROBE9-DILG

Surface Calibration								
Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	720.000	-16.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	720.000	-24.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.011	0.610	V	0.000	400.000	mmho/m	667.135	-7.256
Medium	0.005	0.712	V	0.000	464.000	mmho/m	655.677	-3.102

Downhole Calibration								
Readings				References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	14.508	388.384	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	166.367	504.400	mmho/m	1.000	0.000
LL3		7.500	V		1400.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		4000.000	mmho-m		

After Survey Verification								
Readings				Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
LL3		1.000	Ohm-m		1.000	Ohm-m		
		0.000	Ohm-m		0.000	Ohm-m		
		1.000	mmho-m		1.000	mmho-m		

Litho Density Calibration Report								
Serial: 003				Model: PRB				

Master Calibration					Performed Fri Mar 05 10:51:07 2021			
	Background	Magnesium	Aluminum	Aluminum+Fe				
Window 1	1570.6	10682.1	3457.0	3096.9				cps
Window 2	1451.7	9432.7	3101.4	2816.5				cps
Window 3	1334.0	7160.6	2532.0	2369.3				cps
Window 4	370.4	373.1	366.4	370.9				cps
Long Space	0.0	7981.0	1649.7	1364.8				cps
Short Space	2.8	3522.0	2211.0	1823.6				cps
Rho		1.7100	2.5900	0.0000				g/cc
Pe		2.0000	2.7500	5.7900				
Rib Angle	: 43.5	Rib Slope	: 0.951	Density/Spine Ratio			: 0.535	
Spine Angle	: 73.5	Spine Slope	: 3.386	Spine Intercept			: -18.7	

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	cps
Window 2	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	cps
Short Space	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	
Compensated Neutron Calibration Report				
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:	Fri Sep 03 05:25:49 2021			
Calibrator Value:	1.0	GAPI		
Background Reading:	0.0	cps		
Calibrator Reading:	1.0	cps		
Sensitivity:	0.2800	GAPI/cps		