



**SUPERIOR**  
Hays,  
Kansas

**COMPENSATED**  
DENSITY / NEUTRON  
PE LOG

Company LOTUS OPERATING CO. LLC.  
Well #2 KOPPITZ  
Field STRANATHAN  
County BARBER  
State KANSAS

Company LOTUS OPERATING COMPANY, LLC.  
Well #2 KOPPITZ  
Field STRANATHAN  
County BARBER State KANSAS

Location: API # : 15-007-23619-0000  
2385' FNL & 360' FEL

Other Services  
DIL/MEL  
SONIC

Elevation  
K.B. 1417  
D.F. 1415  
G.L. 1408

Date	11/24/10	Run Number	ONE
Depth Driller	5270	Depth Logger	5275
Bottom Logged Interval	5251	Top Log Interval	3700
Casing Driller	10 3/4" @ 283'	Casing Logger	283
Bit Size	7 7/8"	Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.6/44	pH / Fluid Loss	10.0/9.0
Source of Sample	FLOWLINE	Rim @ Meas. Temp	1.40 @ 64F
Rim @ Meas. Temp	1.05 @ 64F	Rmc @ Meas. Temp	1.68 @ 64F
Source of Rmf / Rmc	MEASUREMENT	Rim @ BHT	706 @ 127F
Time Circulation Stopped	3 HOURS	Time Logger on Bottom	8:30 A.M.
Maximum Recorded Temperature	127F	Equipment Number	0836
Location	HAYS, KANSAS	Recorded By	JEFF LUEBBERS
Witnessed By	TIM HELLMAN		

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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 SUPERIOR WELL SERVICE HAYS, KANSAS (785) 628-6395  
DIRECTIONS  
MEDICINE LODGE, KS. (HWY 160 & 281 JUNCTION) 17S. ON HWY 281 TO MM #7, 1W. ON "DRIFTWOOD RD." TO "T", 1/2S., W. INTO

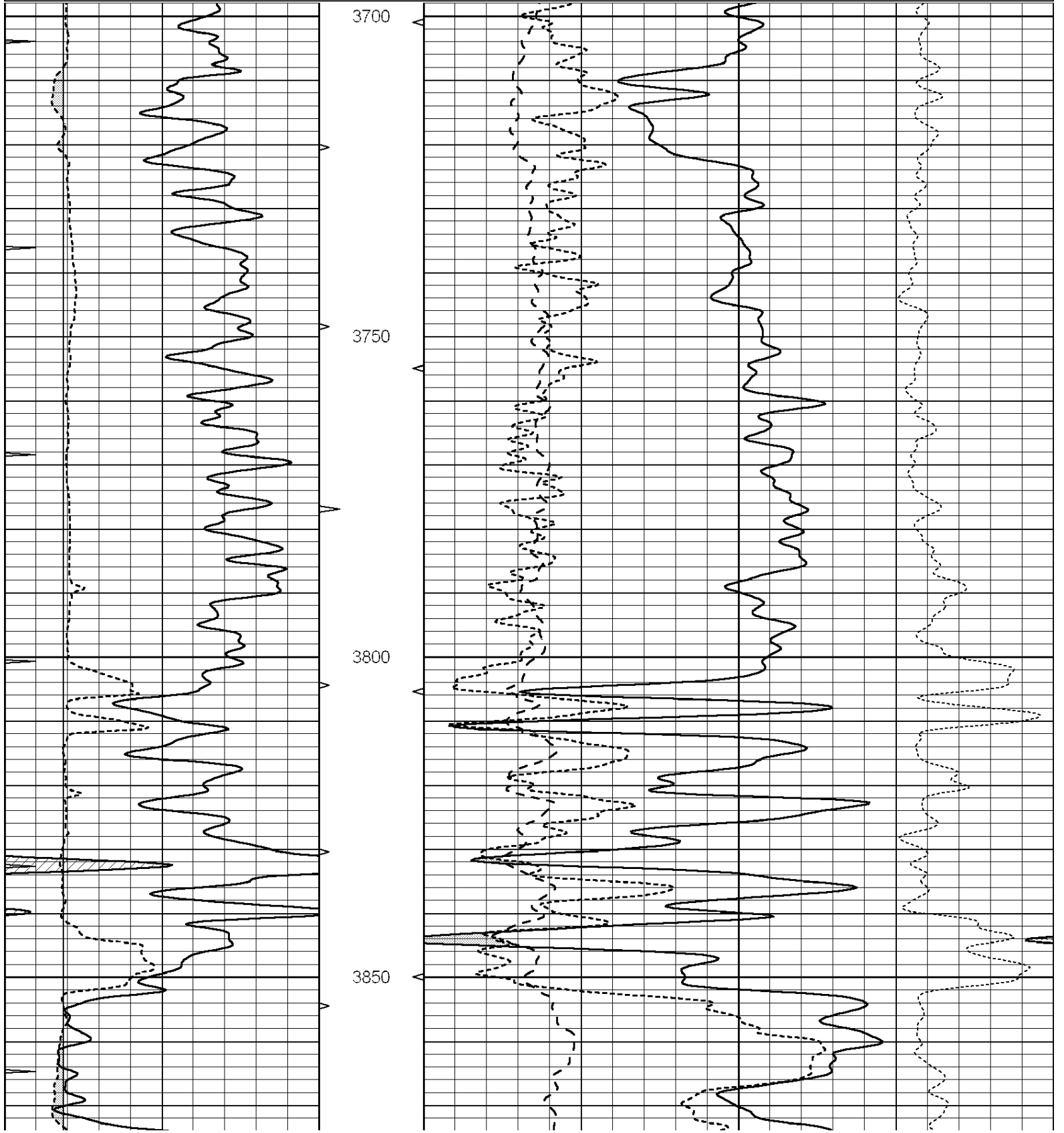


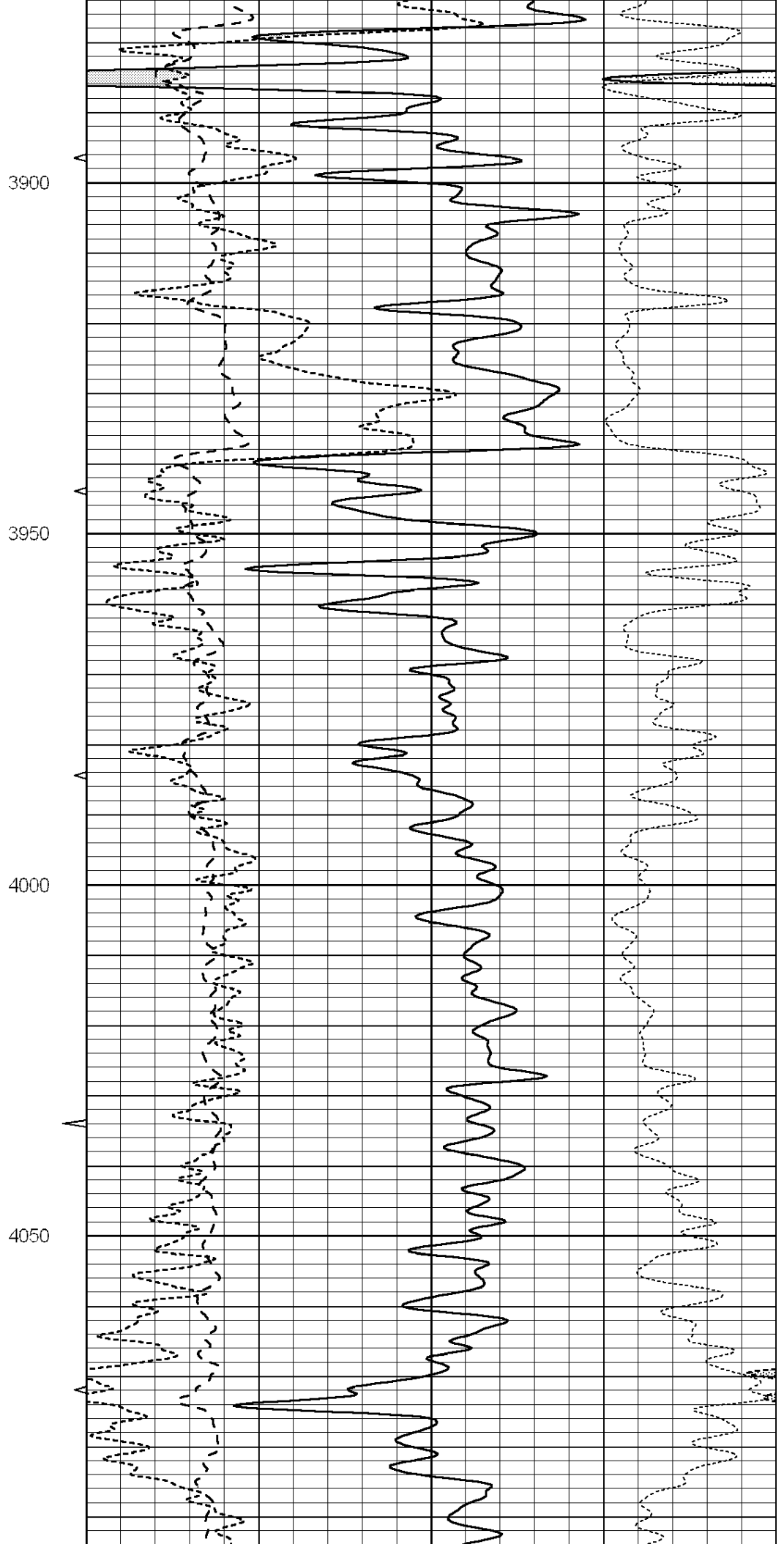
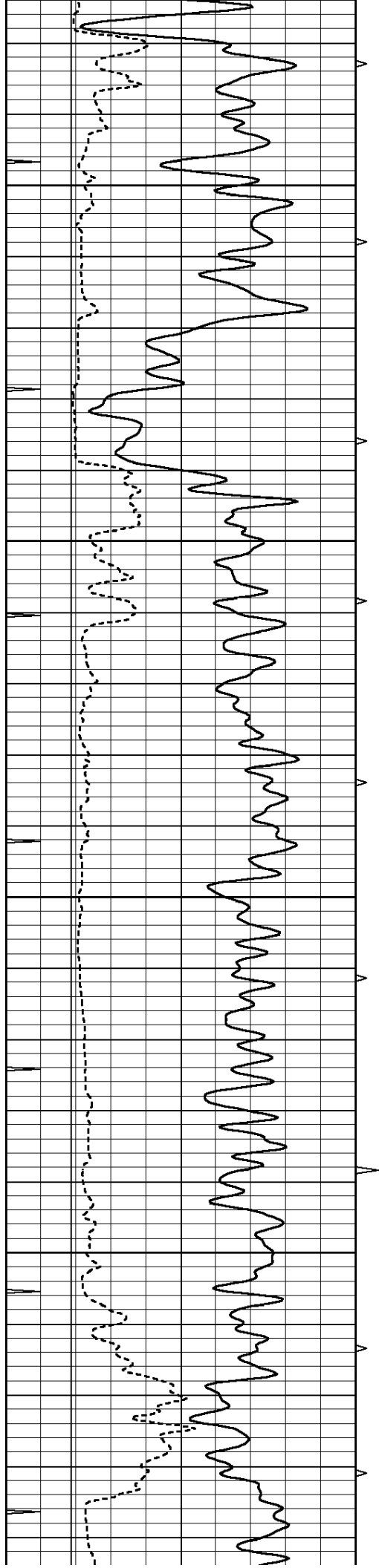
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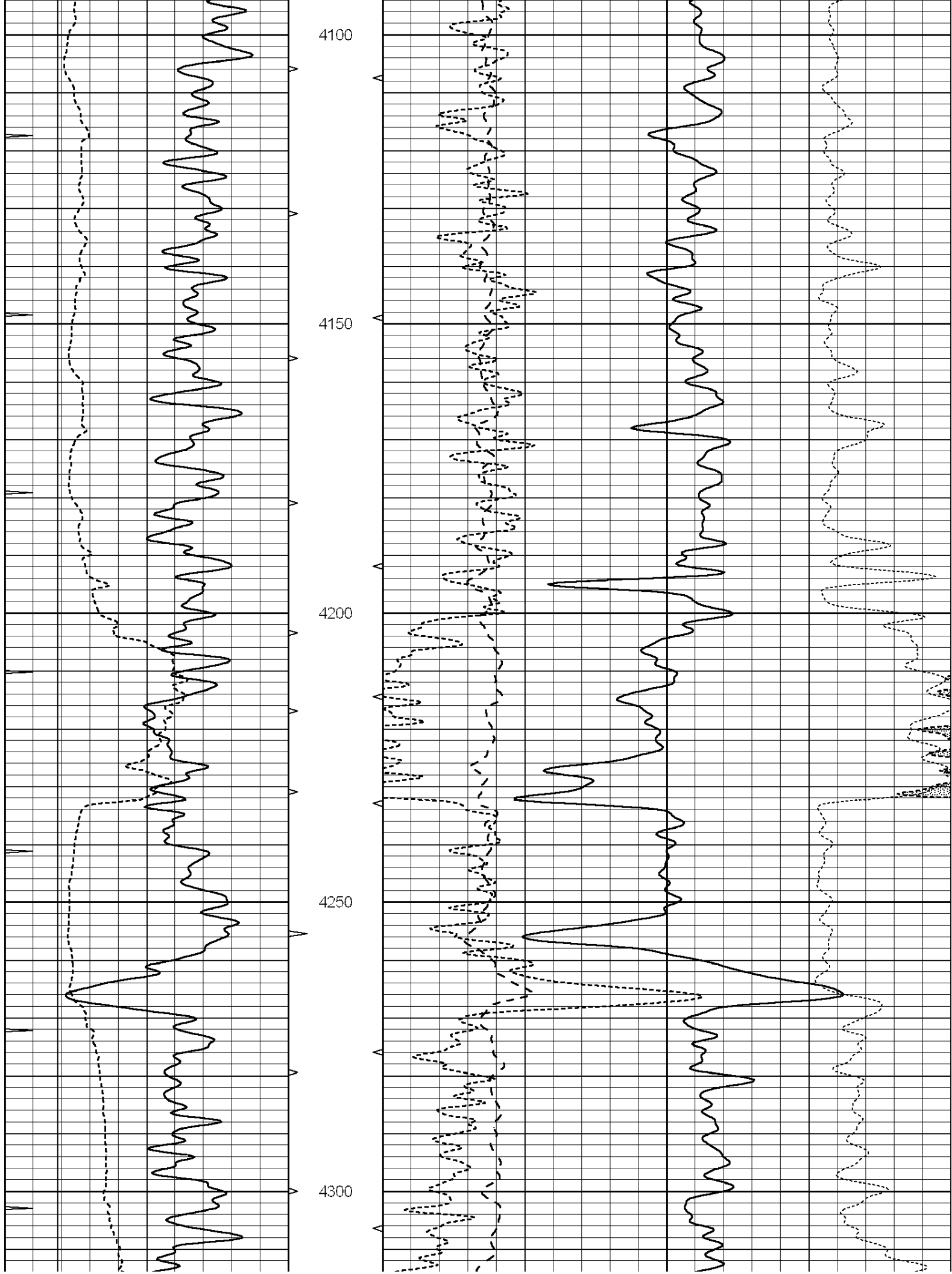
**MAIN SECTION**

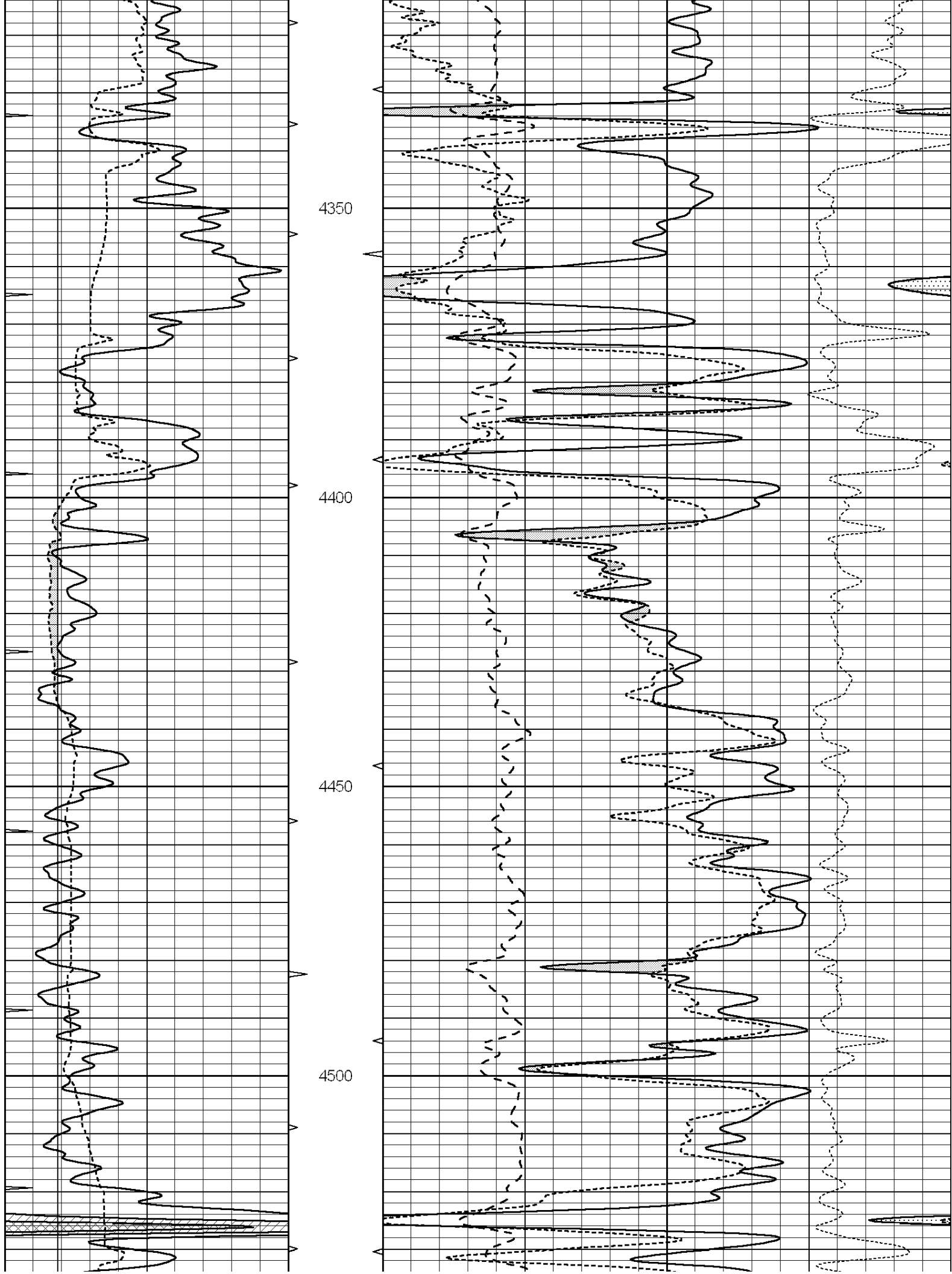
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 Dataset Pathname: pass3.4  
 Presentation Format: ldt\_neu  
 Dataset Creation: Wed Nov 24 09:42:59 2010 by Calc Open-Cased 090629  
 Charted by: Depth in Feet scaled 1:240

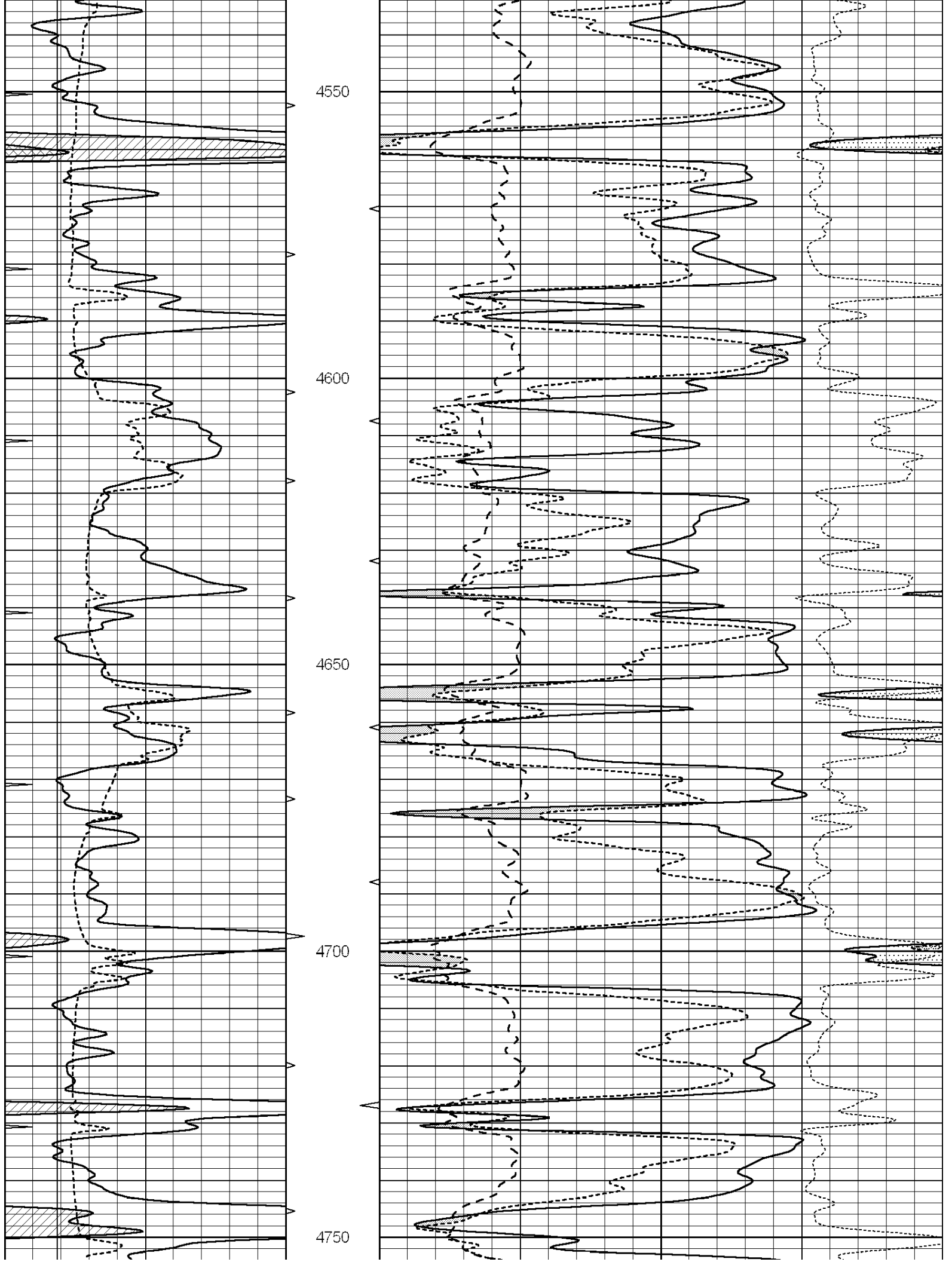
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10			
6	CALIPER (in)	16	10 (ft3)	0	30	COMPENSATED NEUTRON (pu)	-10		
0	MINMK	10	TBHV	0	PE	10	-0.25	CORRECTION (g/cc)	0.25
			0 (ft3)	10					

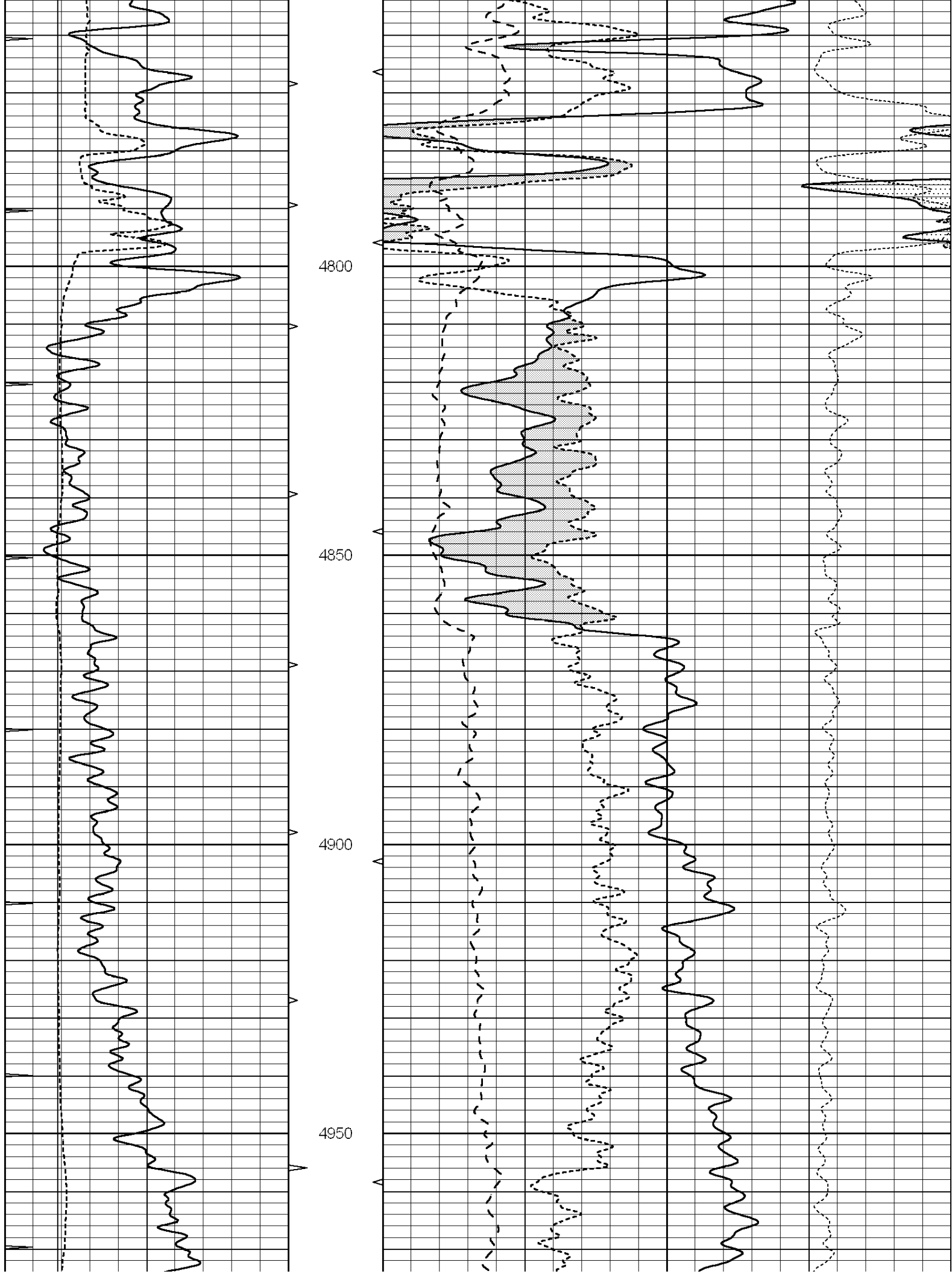


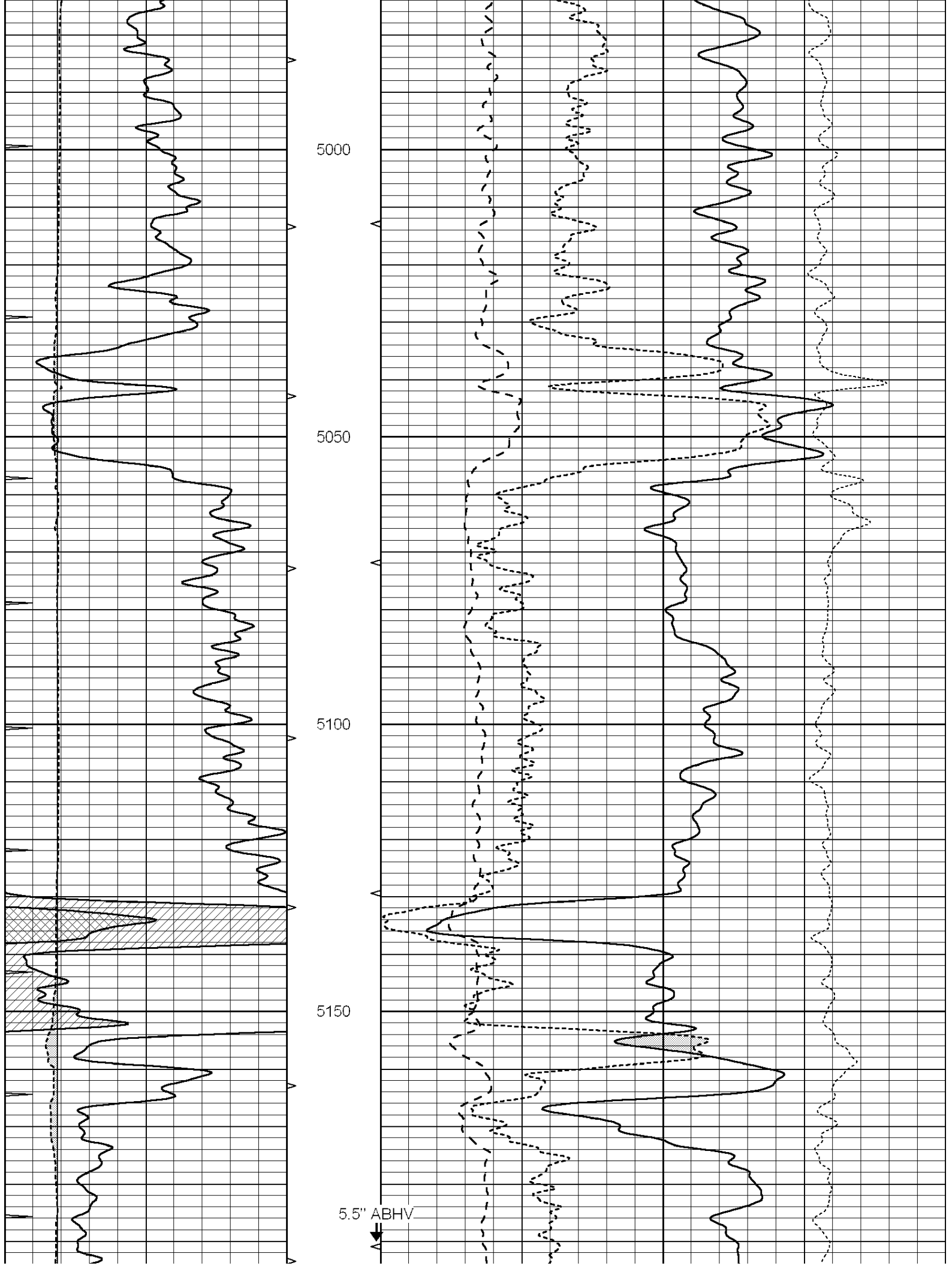


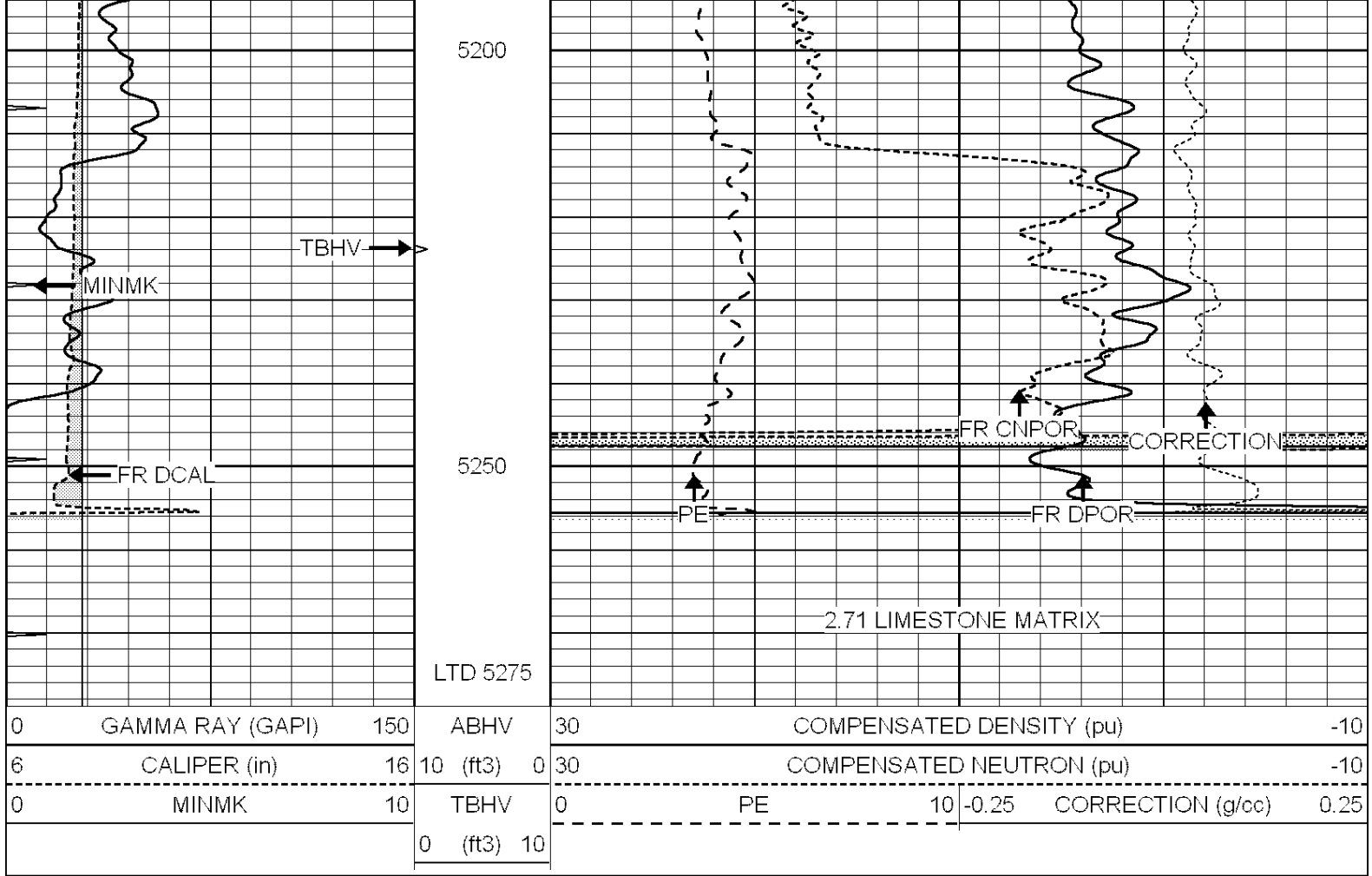










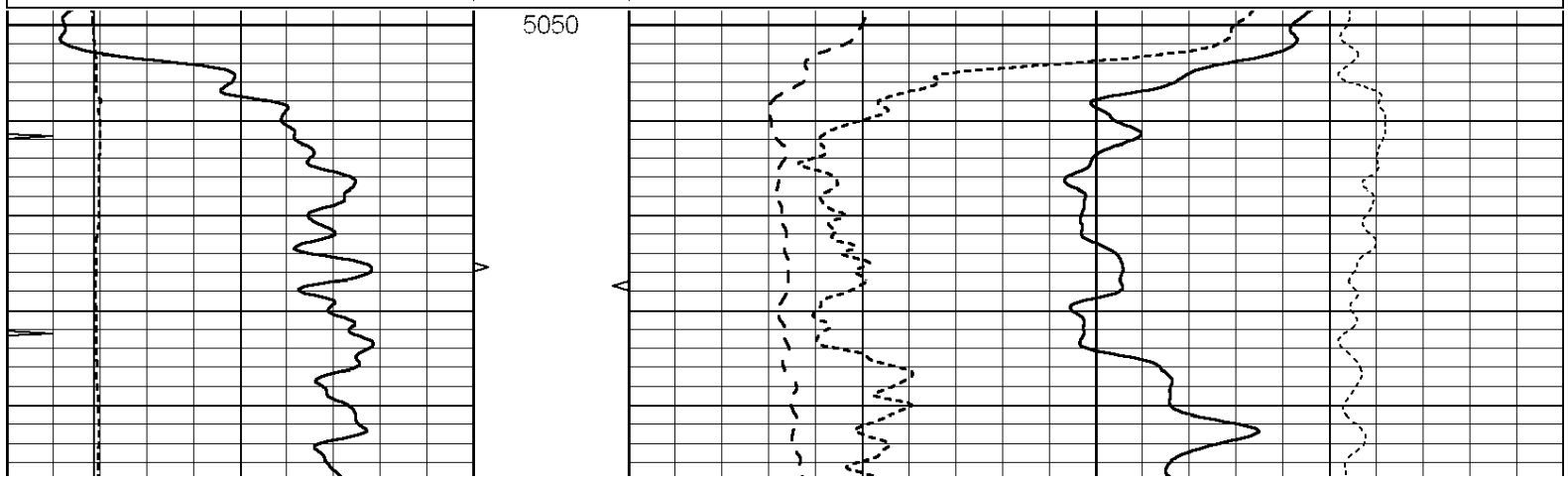


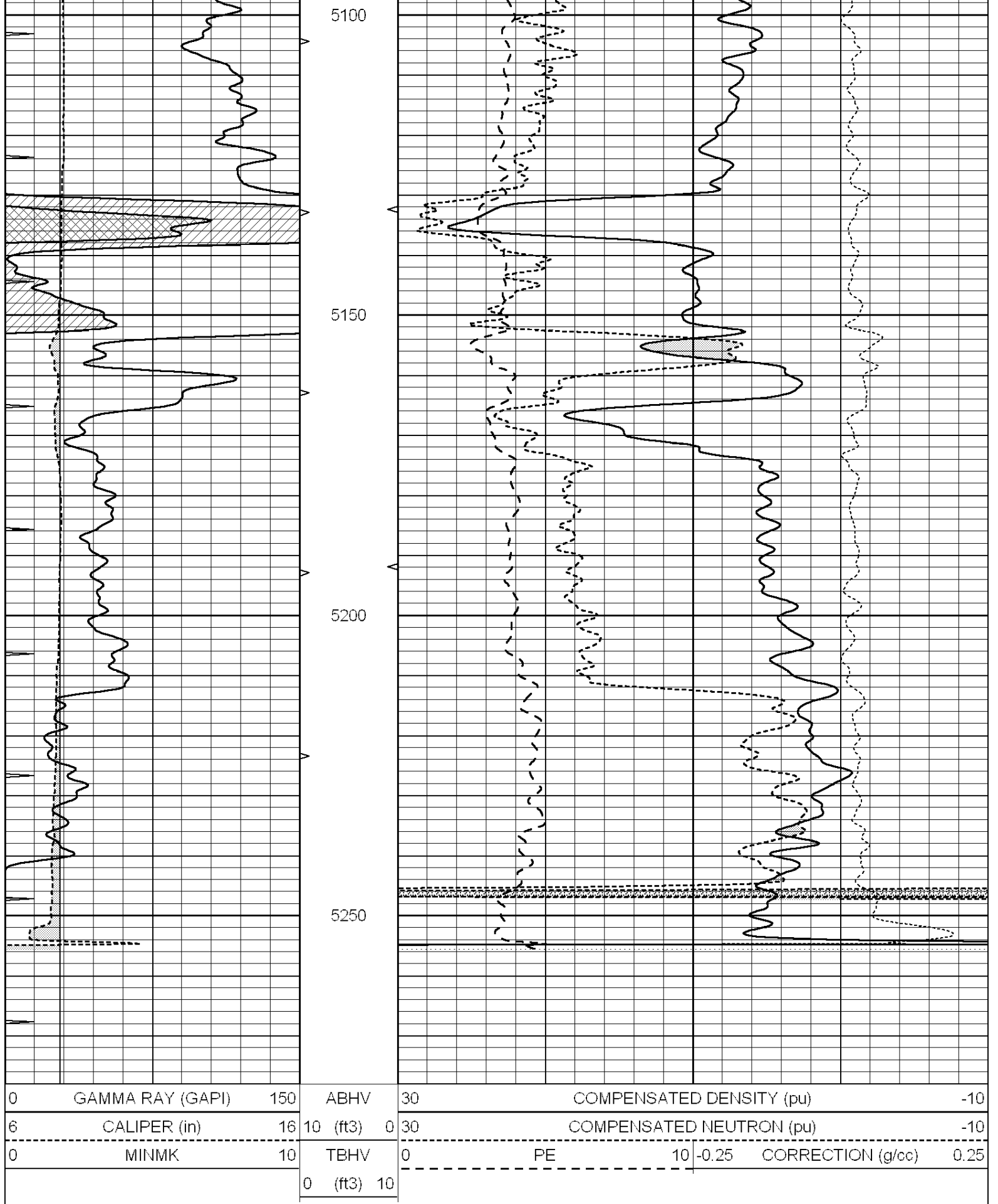
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Hays,  
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# REPEAT SECTION

Database File: 005817pe.db  
 Dataset Pathname: pass2.6  
 Presentation Format: ldt\_neu  
 Dataset Creation: Wed Nov 24 10:08:03 2010 by Calc Open-Cased 090629  
 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	10	TBHV	0	PE	10	-0.25	CORRECTION (g/cc)	0.25
			0 (ft3)	10					





Calibration Report

Database File: 005817pe.db  
 Dataset Pathname: pass3.4  
 Dataset Creation: Wed Nov 24 09:42:59 2010 by Calc Open-Case 090629

Dual Induction Calibration Report

Serial-Model: DIL3-GEAR  
 Performed: Wed Nov 24 06:45:02 2010

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	0.000	400.000	mmho/m	640.000	-6.000
Medium	0.013	0.740	V	0.000	462.500	mmho/m	700.000	-18.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.002	0.645	V	0.000	400.000	mmho/m	622.059	-1.071
Medium	0.007	0.740	V	0.000	462.500	mmho/m	631.393	-4.555

Litho Density Calibration Report  
 Serial: 006 Model: PRB  
 Performed Sun Aug 15 09:48:41 2010

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	1686.6	11612.8	3932.0	12718.8	cps
Window 2	1531.4	9204.7	3267.8	9851.9	cps
Window 3	1198.3	4733.6	1952.5	4920.6	cps
Window 4	317.3	321.2	325.9	303.6	cps
Long Space	0.0	7673.3	1736.4	8320.4	cps
Short Space	1.7	2548.5	1657.2	2628.8	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	
Rib Angle	: 43.8	Rib Slope	: 0.961	Density/Spine Ratio	: 0.569
Spine Angle	: 73.8	Spine Slope	: 3.453	Spine Intercept	: -18.1

Caliper

	Readings	Reference
Low Ref	3.2	6.5
High Ref	6.2	14.0
	Gain: 2.4	Offset: -1.3

Compensated Neutron Calibration Report

Serial Number: NEU\_3I  
 Tool Model: G

CALIBRATION

Detector	Readings	Target	Normalization
Short Space	997.00 cps	1000.00 cps	1.0000
Long Space	986.00 cps	1000.00 cps	1.0000

Gamma Ray Calibration Report

Serial Number: GR4  
 Tool Model: OPEN  
 Performed: Wed Nov 24 08:39:58 2010

Calibrator Value: 200.0 GAPI

Background Reading: 0.0 cps  
 Calibrator Reading: 189.0 cps

Sensitivity: 1.0000 GAPI/cps

