



NABORS

**COMPLETION
& PRODUCTION
SERVICES CO.**

**COMPENSATED
DENSITY / NEUTRON
PE LOG**

Company		EDISON OPERATING COMPANY, LLC.	
Well	WAITE #1A-21		
Field	VAN LIEU		
County	STAFFORD	State	KANSAS
Company		EDISON OPERATING COMPANY, LLC.	
Well	WAITE #1A-21		
Field	VAN LIEU		
County	STAFFORD	State	KANSAS
Location:	APL # : 15-185-23820-0000		Other Services DIL/MEL SONIC
SEC 21 TWP 24S RGE 13W			
Permanent Datum	GROUND LEVEL	Elevation	1923
Log Measured From	KELLY BUSHING 5' A.G.L.		
Drilling Measured From	KELLY BUSHING		
Date	8/8/13		
Run Number	ONE		
Depth Driller	4183		
Depth Logger	4180		
Bottom Logged Interval	4156		
Top Log Interval	3000		
Casing Driller	8 5/8"@300'		
Casing Logger	300		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 8,500 PPM	
Density / Viscosity	9.3/52		
pH / Fluid Loss	11.0/10.8		
Source of Sample	FLOWLINE		
Rin @ Meas. Temp	.300@90F		
Rinf @ Meas. Temp	.225@90F		
Rinc @ Meas. Temp	.360@90F		
Source of Rinf / Rinc	MEASUREMENT		
Rin @ BHT	.229@118F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	1:00 P.M.		
Maximum Recorded Temperature	118F		
Equipment Number	4854		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	ADAM NIGHSWONGER		

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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 "NABORS" HAYS, KANSAS (785) 628-6395
DIRECTIONS

ST. JOHN, KS.,S. TO (HWY 281 & 50 JUNCTION) 1W. ON HWY 50 TO "RD. SW 10TH", 1/4S., E. INTO



**COMPLETION
& PRODUCTION**

MAIN SECTION

Database File:

011200pe.db

Dataset Pathname:

pass3.13

Presentation Format:

ldt_neu

Dataset Creation:

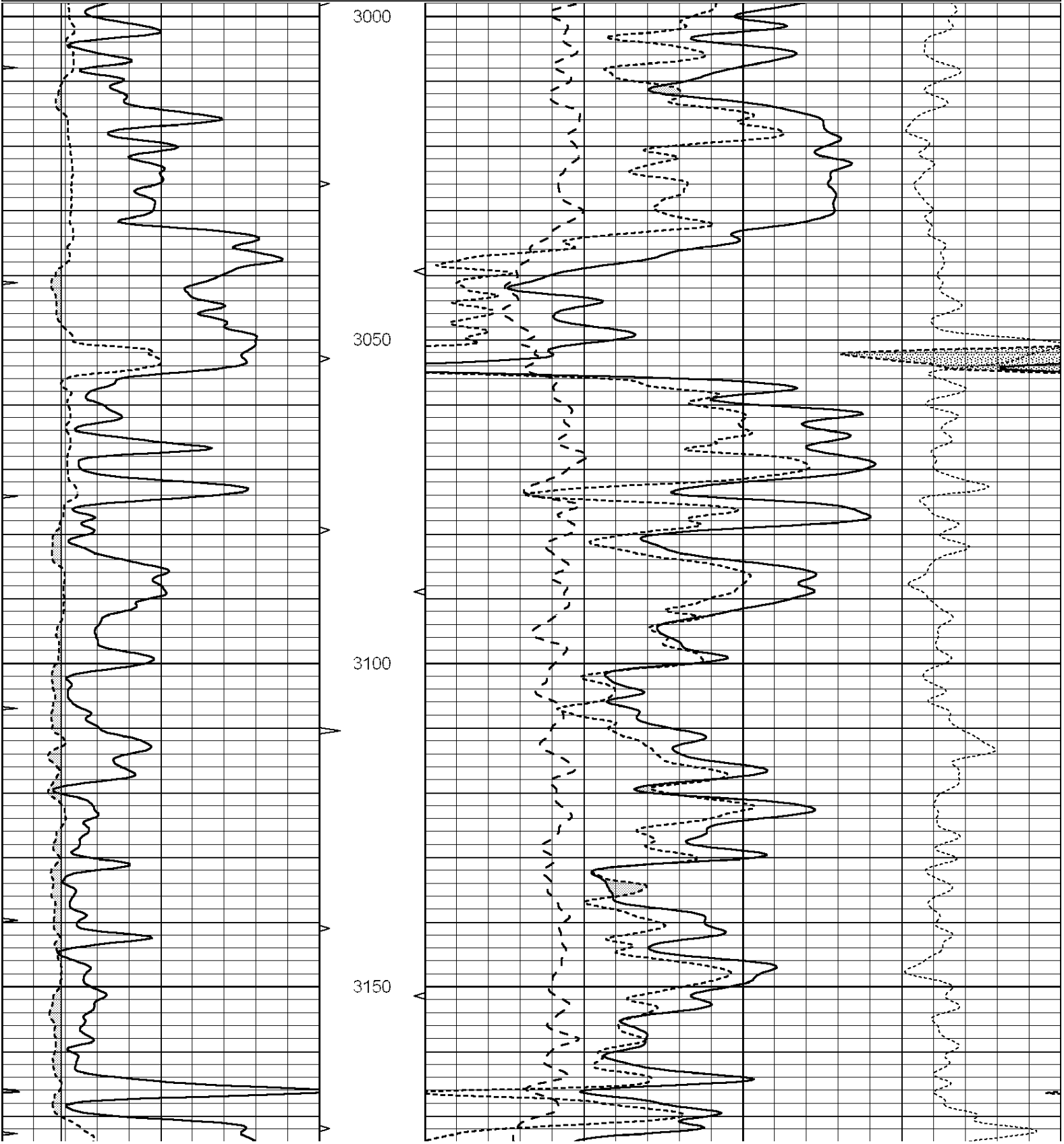
Thu Aug 08 15:15:00 2013

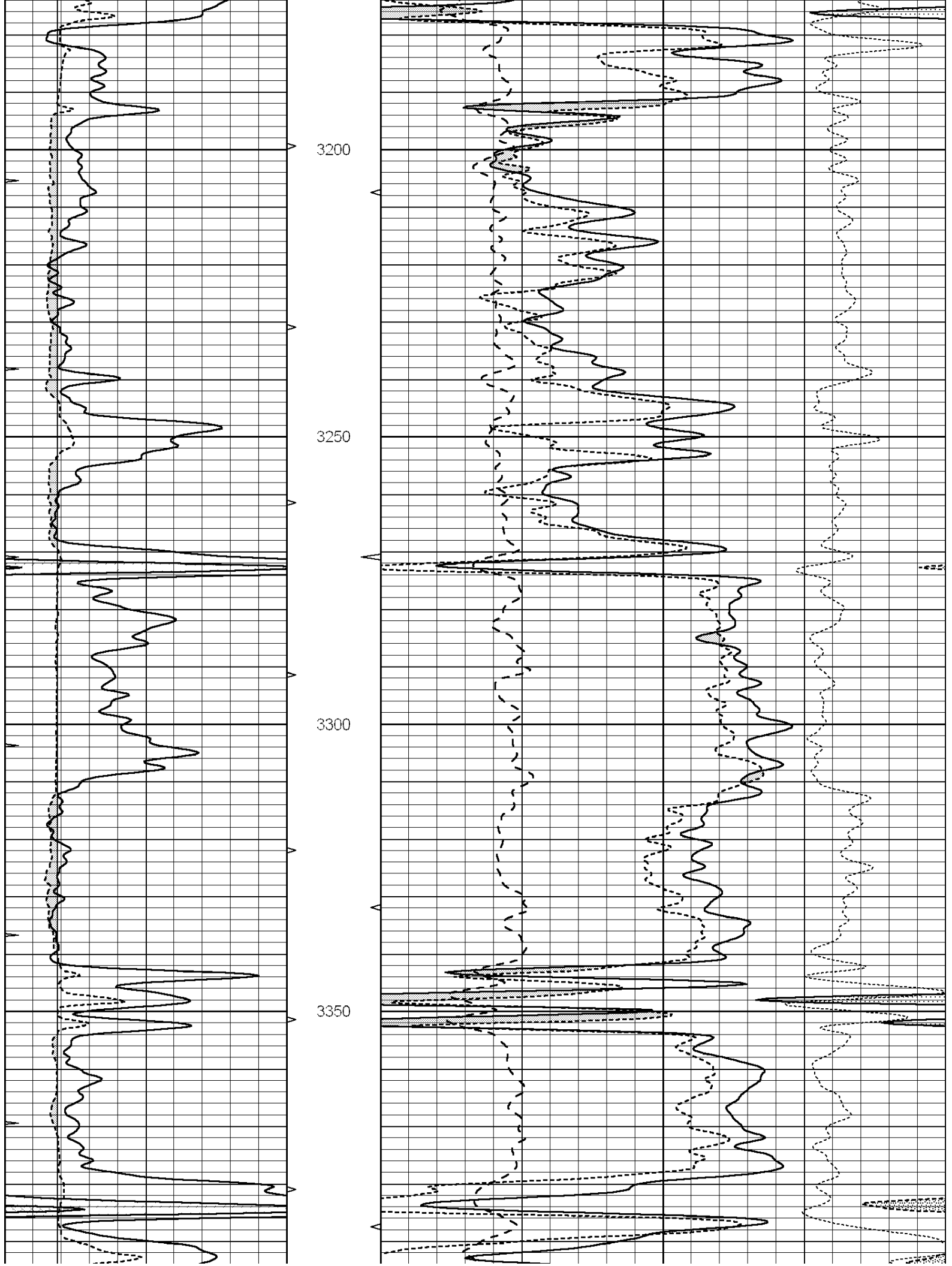
Charted by:

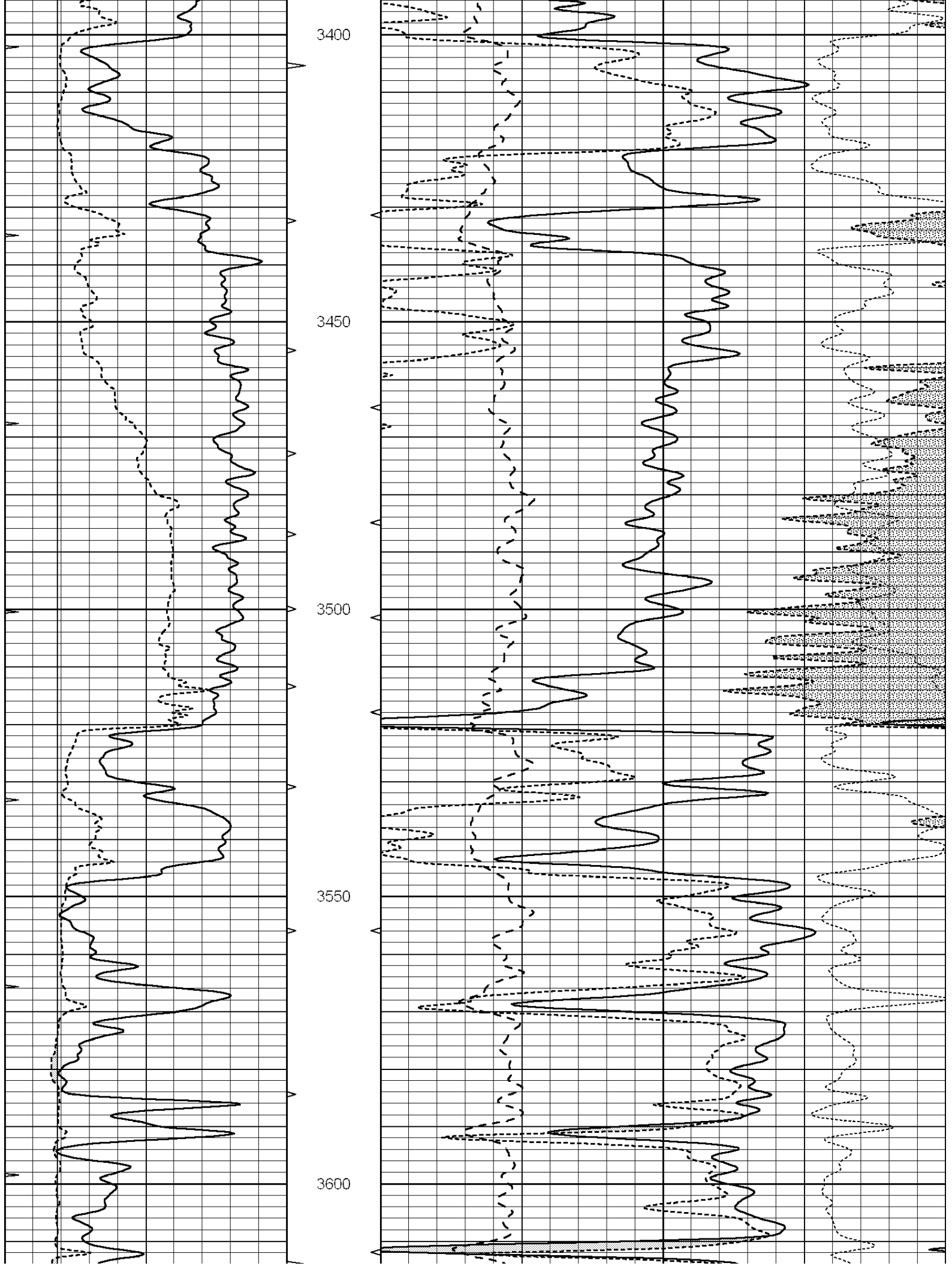
Depth in Feet scaled 1:240

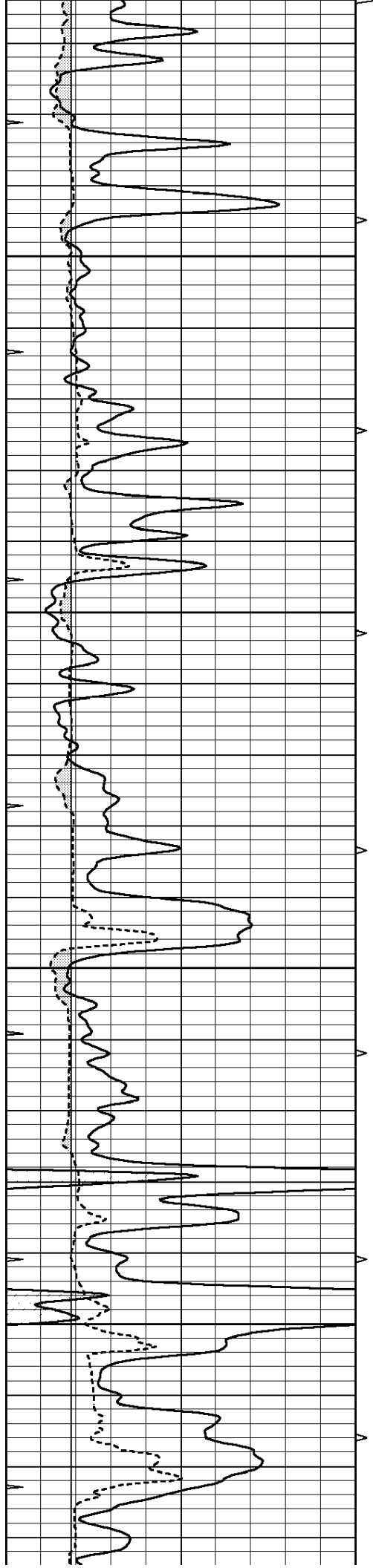
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)				-10	
6	CALIPER (in)	16	10 (ft3)	0	30	COMPENSATED NEUTRON (pu)				-10

0	MINMK	20	TBHV	0	PE	10	-0.25	CORRECTION (g/cc)	0.25	
			0 (ft3)	10						







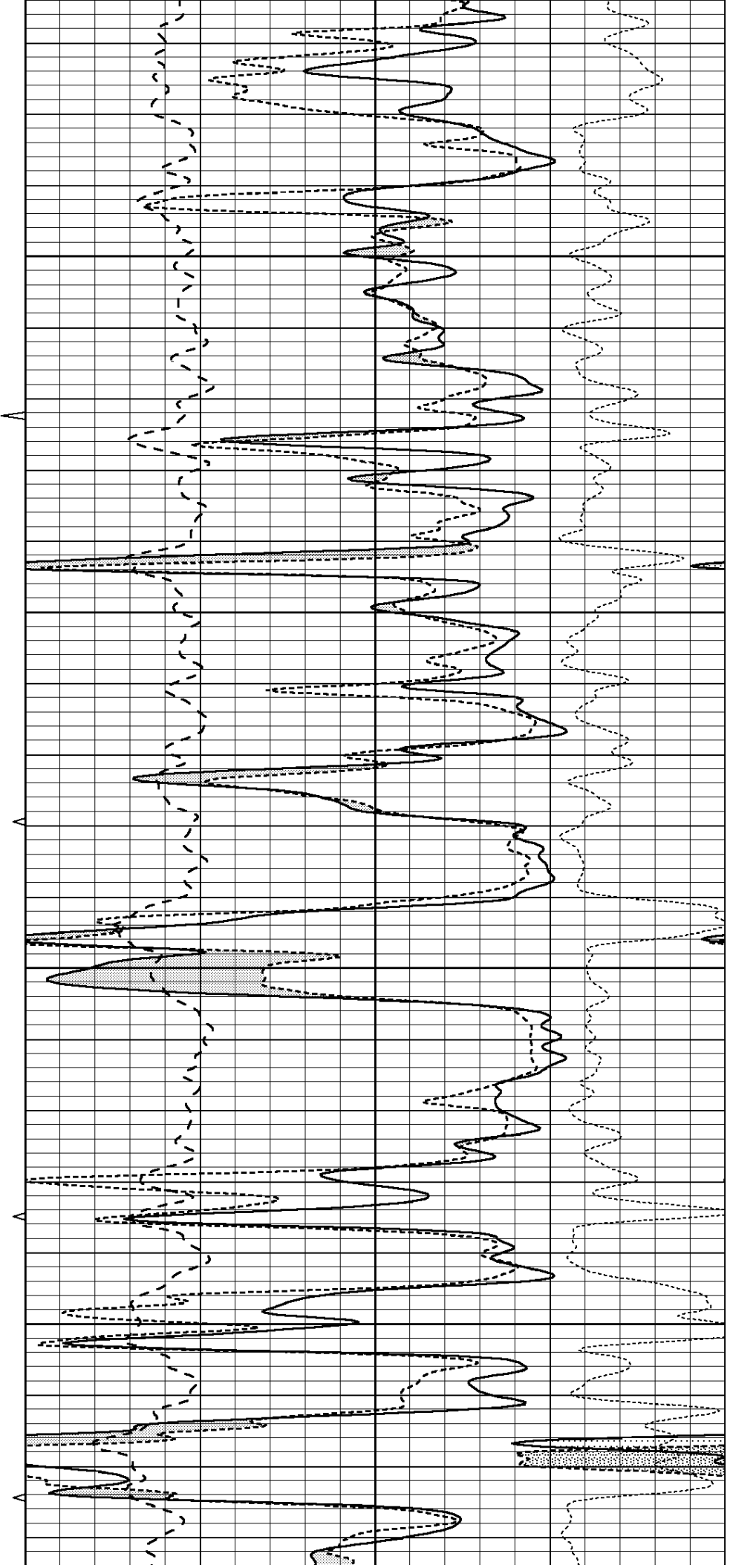


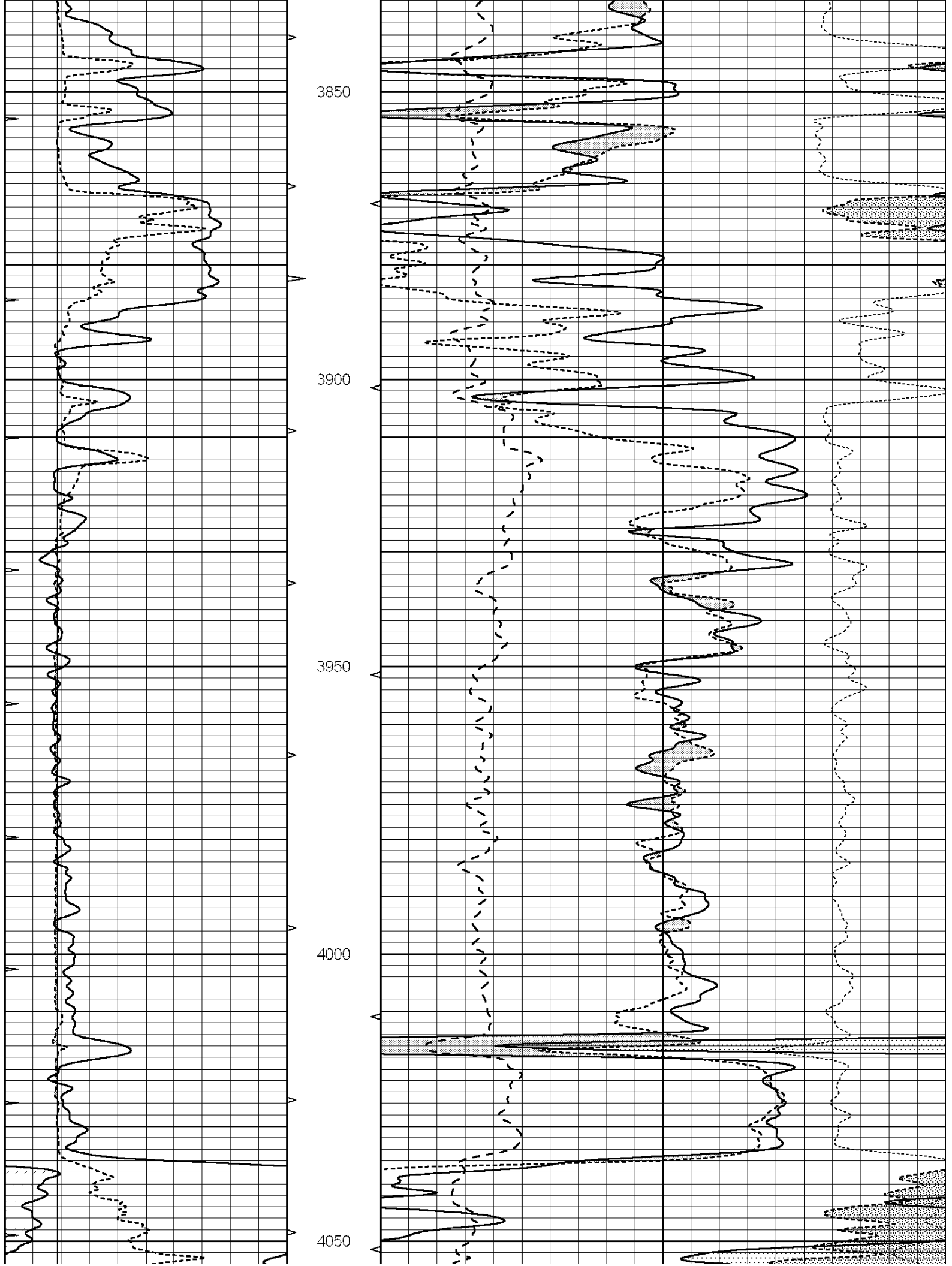
3650

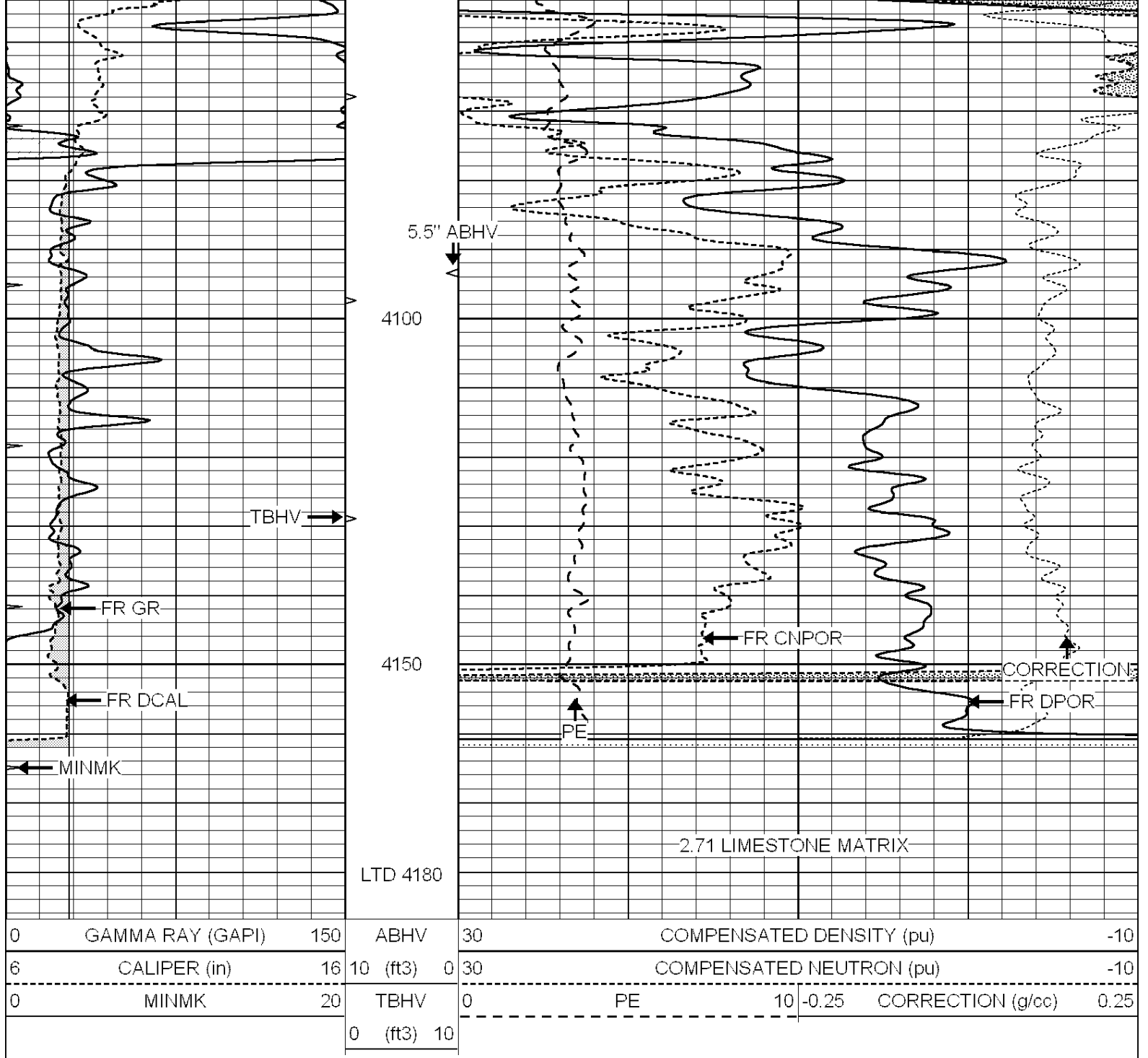
3700

3750

3800





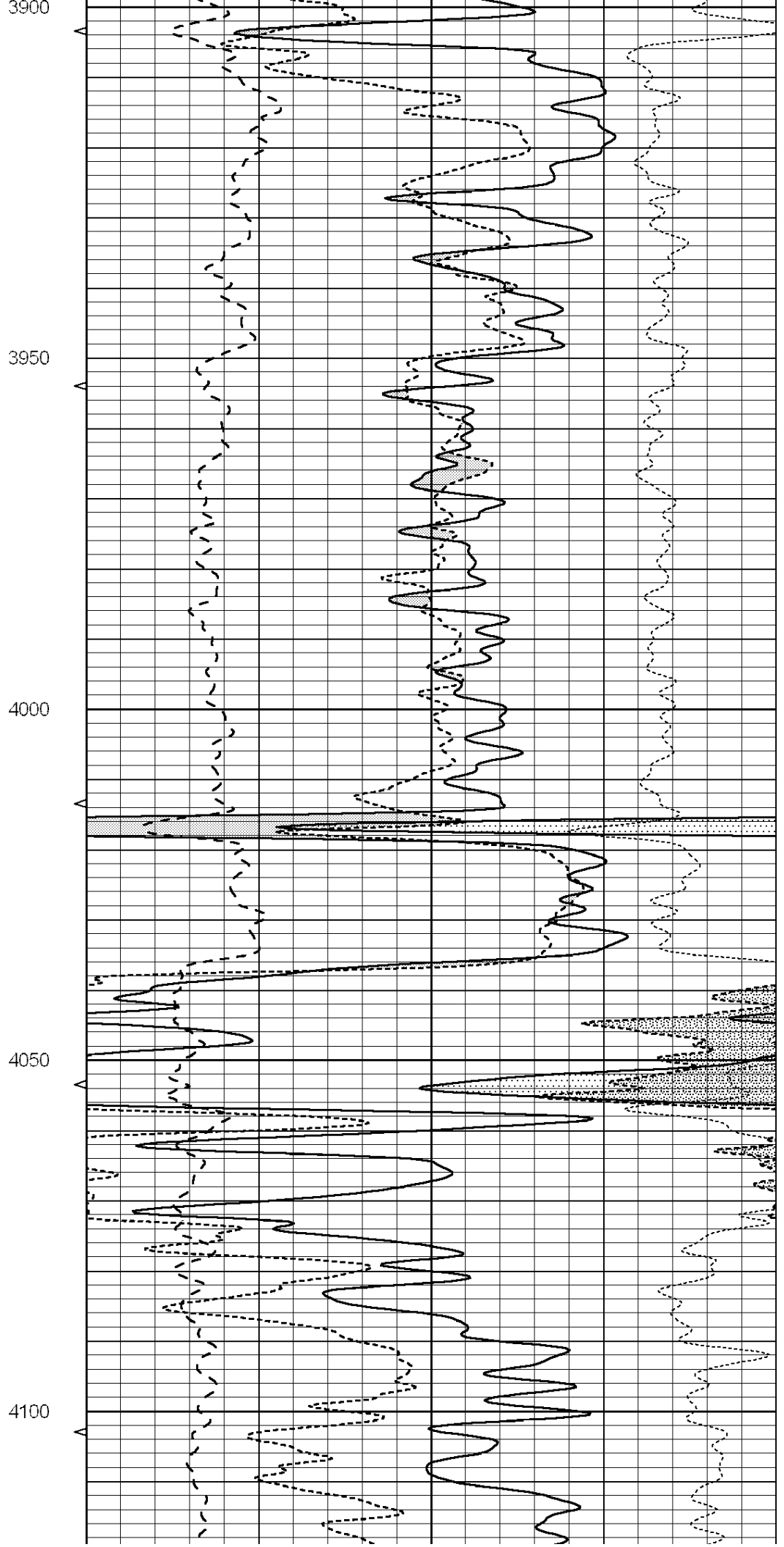
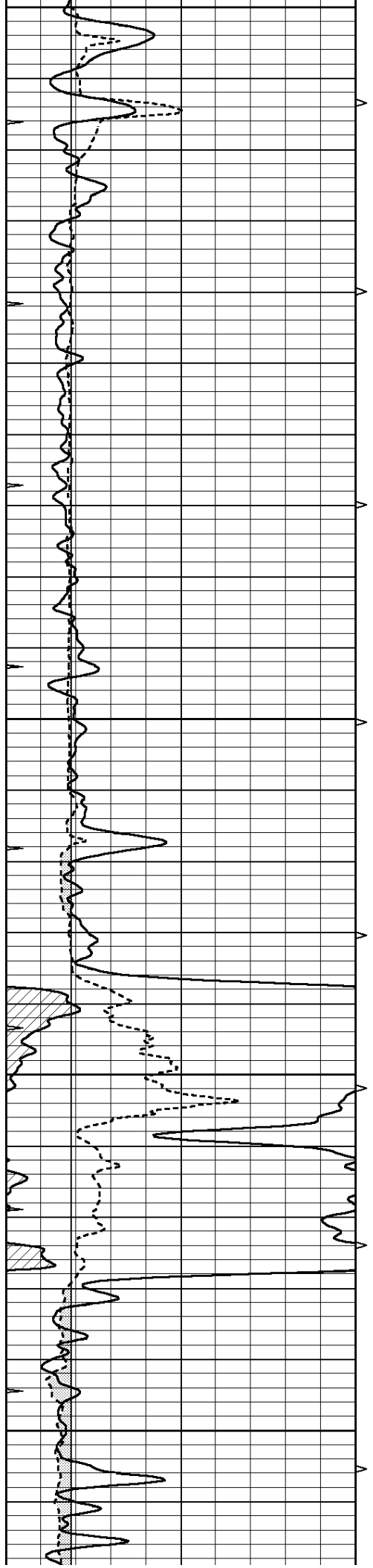


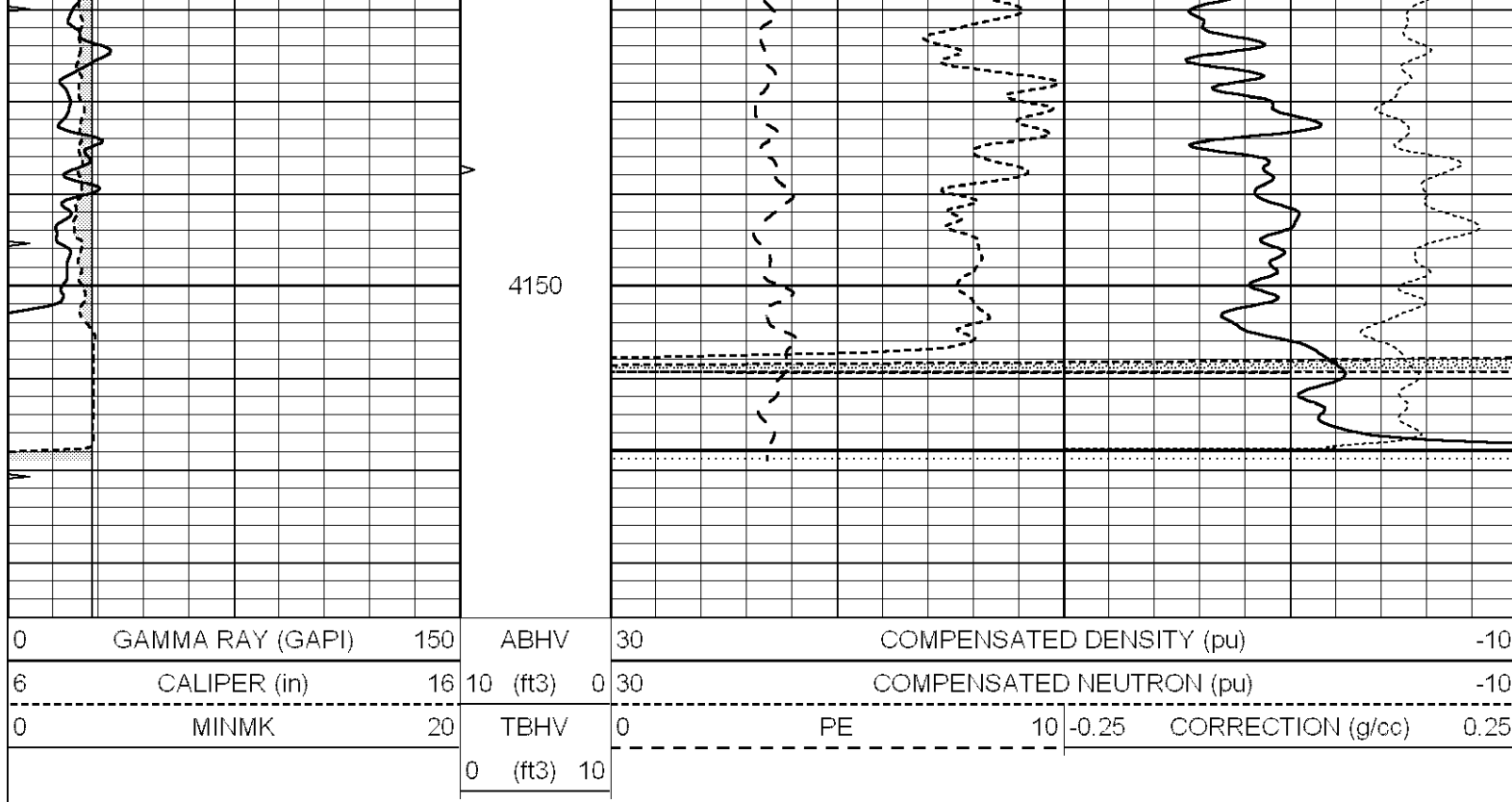
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REPEAT SECTION

Database File: 011200pe.db
Dataset Pathname: pass2.6
Presentation Format: ldt_neu
Dataset Creation: Thu Aug 08 13:02:01 2013 by Calc SOC 120430
Charted by: Depth in Feet scaled 1:240

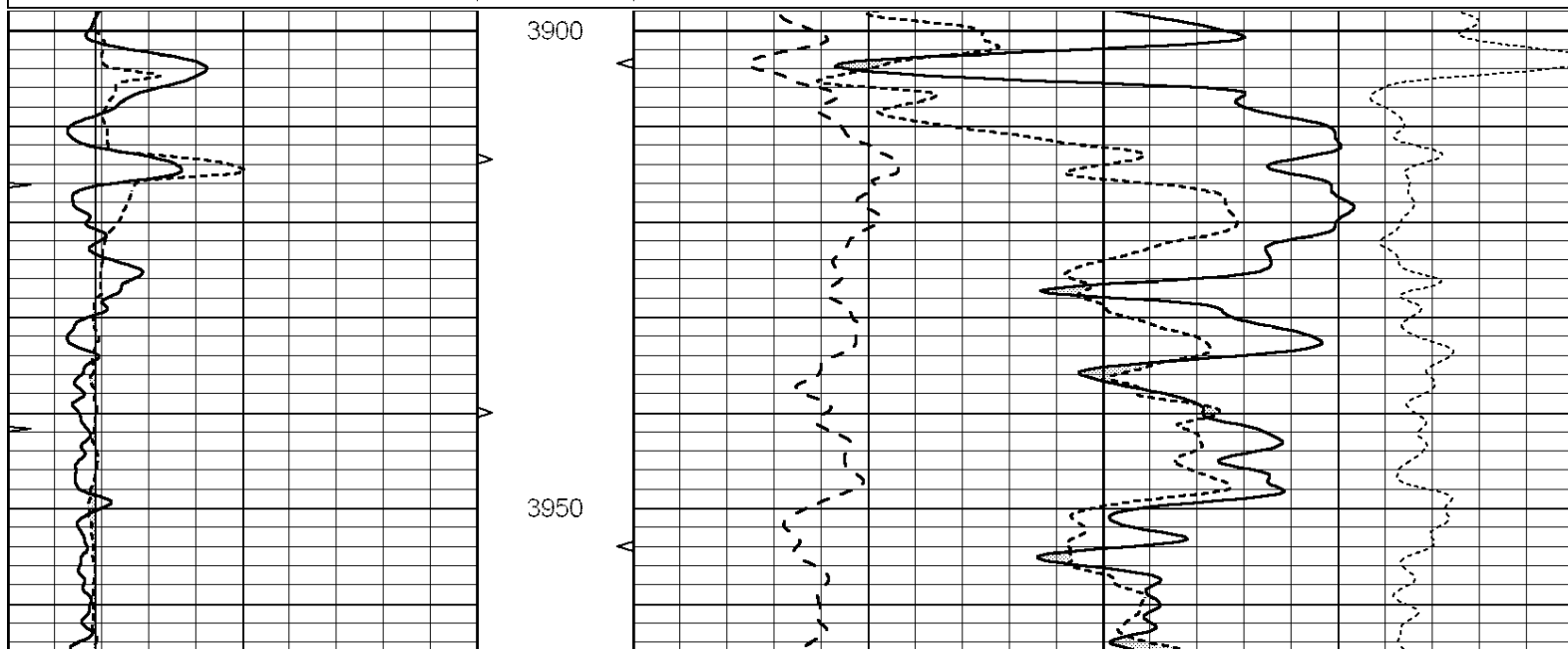
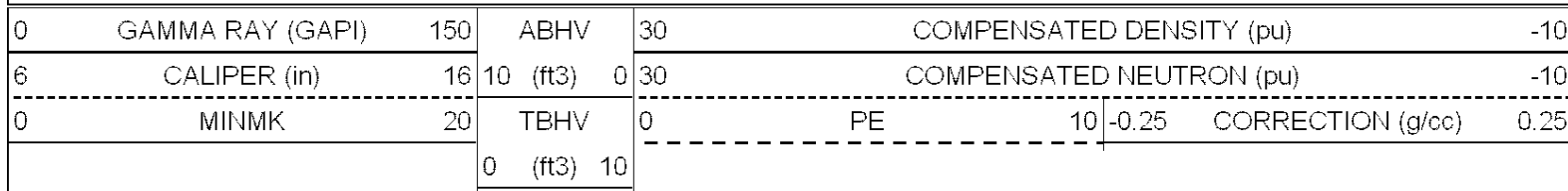
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV	0	PE	10 -0.25 CORRECTION (g/cc) 0.25
			0 (ft3)	10		

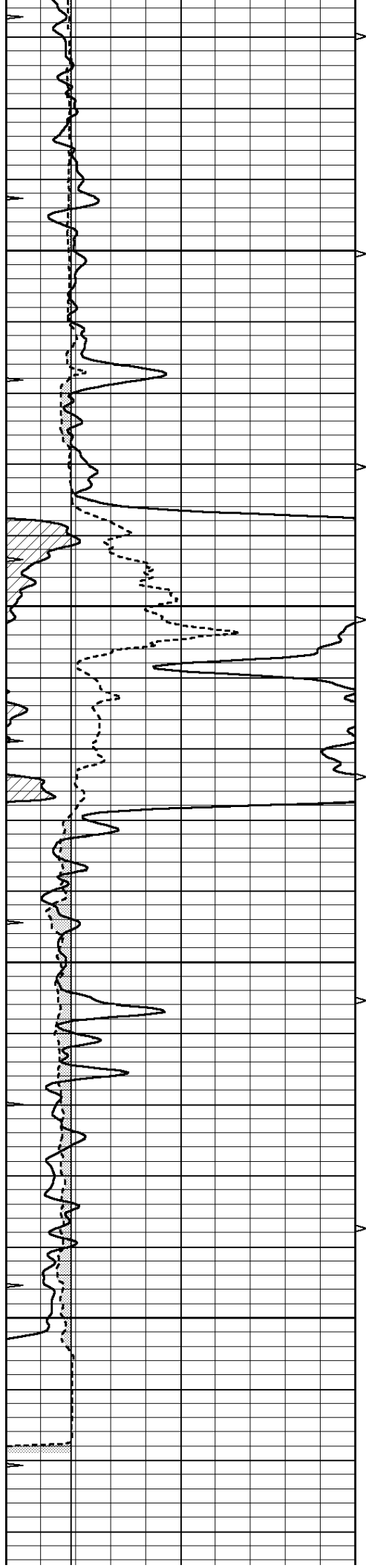




REPEAT SECTION

Database File: 011200pe.db
 Dataset Pathname: pass2.10
 Presentation Format: ldt_neu
 Dataset Creation: Thu Aug 08 15:26:05 2013
 Charted by: Depth in Feet scaled 1:240



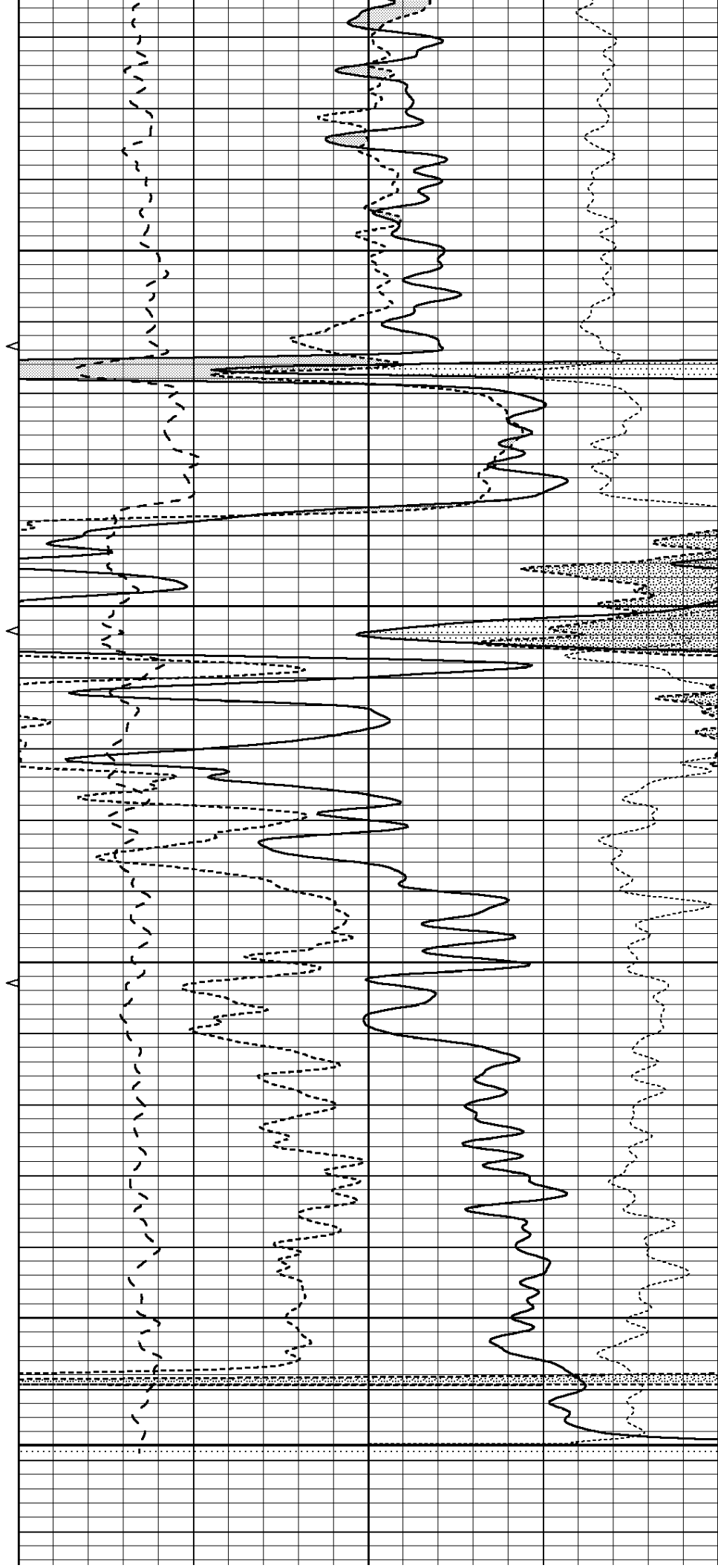


4000

4050

4100

4150



Litho Density Calibration Report					
Serial: 004N		Model: PRB			
Master Calibration		Performed Mon Jun 03 09:36:56 2013			
	Background	Magnesium	Aluminum	Sandstone	
Window 1	1417.6	10391.4	3464.6	11537.5	cps
Window 2	1295.0	8959.7	3050.1	9816.4	cps
Window 3	1105.1	5464.2	2051.0	5838.8	cps
Window 4	315.0	317.7	312.9	319.8	cps
Long Space	0.0	7664.6	1755.0	8521.3	cps

Short Space	1.8	1582.4	1040.8	1699.4	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe		0.0000	2.5700	1.5500	
Rib Angle	: 44.1	Rib Slope	: 0.970	Density/Spine Ratio	: 0.574
Spine Angle	: 74.1	Spine Slope	: 3.519	Spine Intercept	: -17.0

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

Serial Number:	070808
Tool Model:	Probe

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:	070559	
Tool Model:	OPEN_GR	
Performed:	Wed Jun 12 18:25:42 2013	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.3500	GAPI/cps

