



**COMPLETION
& PRODUCTION
SERVICES CO.**

**COMPENSATED
DENSITY / NEUTRON
PE LOG**

Company MID-CONTINENT ENERGY OPER. CO.
Well SLEEPER #1-20
Field WILDCAT
County LANE
State KANSAS

Company MID-CONTINENT ENERGY OPERATING, CO.
Well SLEEPER #1-20
Field WILDCAT
County LANE State KANSAS

Location: API # : 15-101-22408-0000
1000' FNL & 850' FEL
SE - SW - NE - NE
SEC 20 TWP 19S RGE 27W
Permanent Datum GROUND LEVEL Elevation 2718
Log Measured From KELLY BUSHING 10' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services DIL/MEL
Elevation
K.B. 2728
D.F. 2726
G.L. 2718

Date	11/9/12
Run Number	ONE
Depth Driller	4700
Depth Logger	4703
Bottom Logged Interval	4679
Top Log Interval	3600
Casing Driller	8 5/8"@307'
Casing Logger	307
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.2/58
pH / Fluid Loss	10.5/7.6
Source of Sample	FLOWLINE
Rim @ Meas. Temp	.750@100F
Rmf @ Meas. Temp	.563@100F
Rmc @ Meas. Temp	.900@100F
Source of Rmf / Rmc	MEASUREMENT
Rim @ BHT	.553@122F
Time Circulation Stopped	3 HOURS
Time Logger on Bottom	9:15 P.M.
Maximum Recorded Temperature	122F
Equipment Number	4854
Location	HAYS, KANSAS
Recorded By	JEFF LUEBBERS
Witnessed By	LARRY NICHOLSON

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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

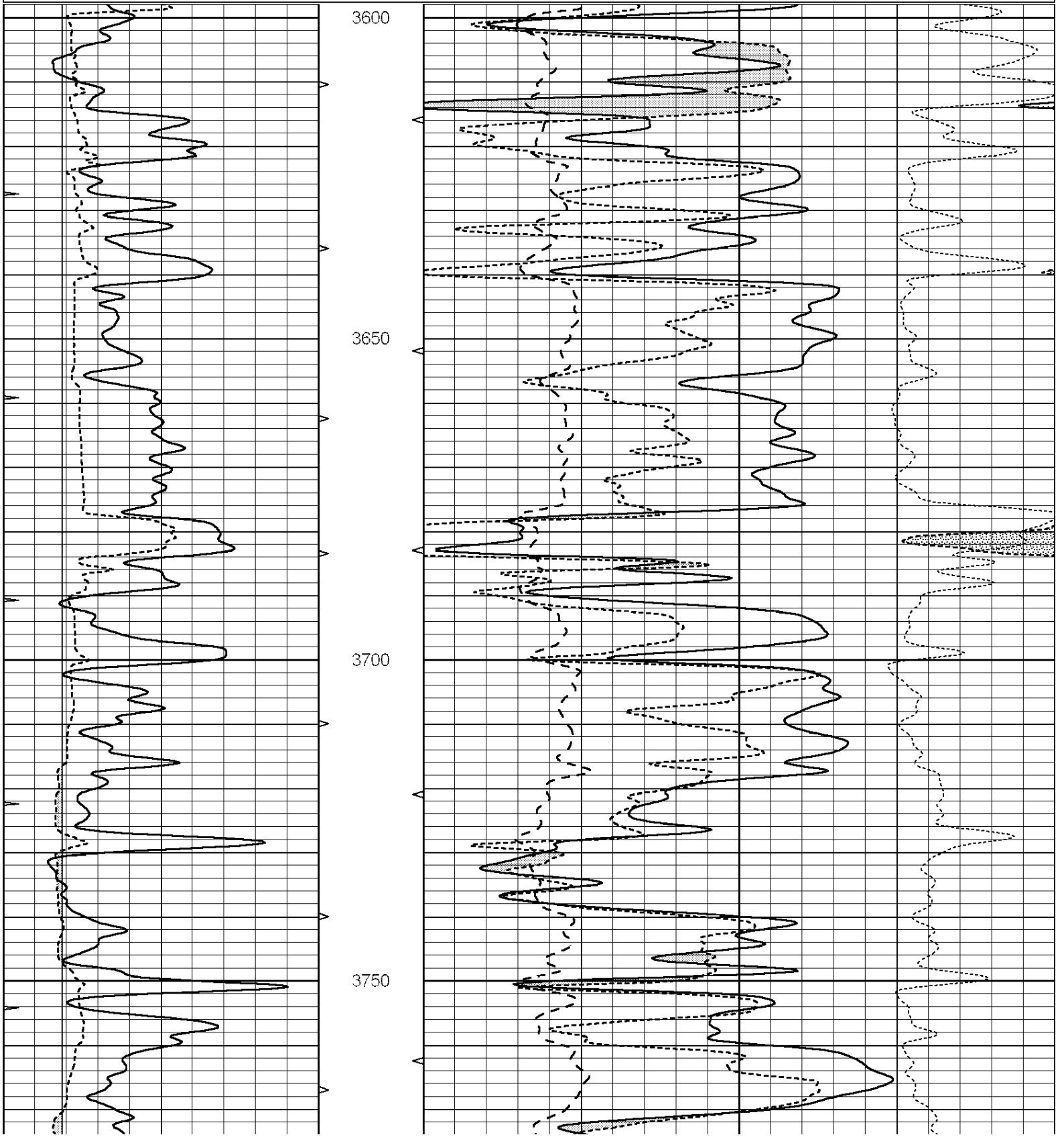
THANK YOU FOR USING "NABORS" HAYS, KANSAS (785) 628-6395
DIRECTIONS
ALAMOTA, KS. (HWY 96 & TURKEY RED RD.) 6S. TO "RD. 90", 1W., S. INTO

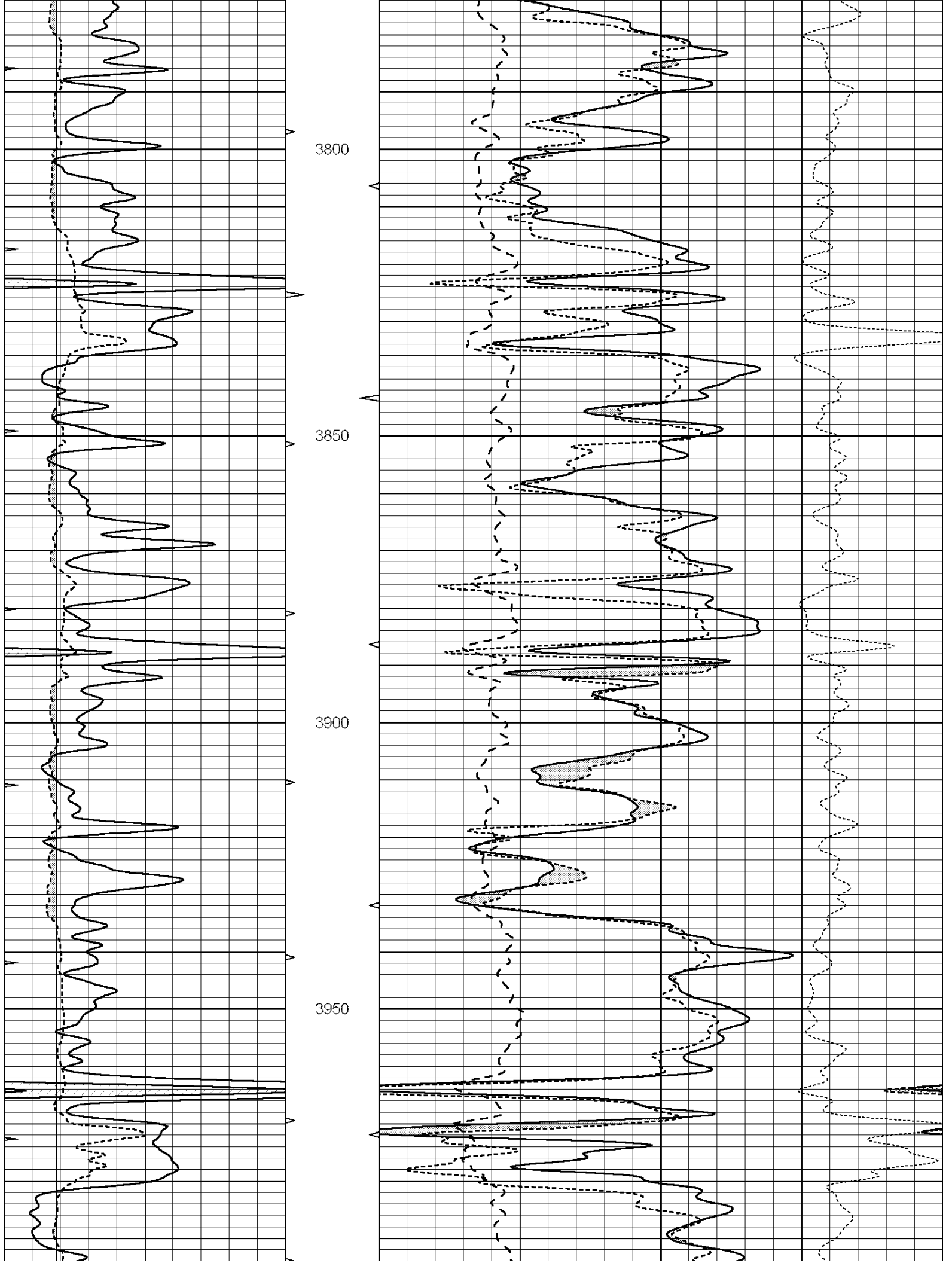


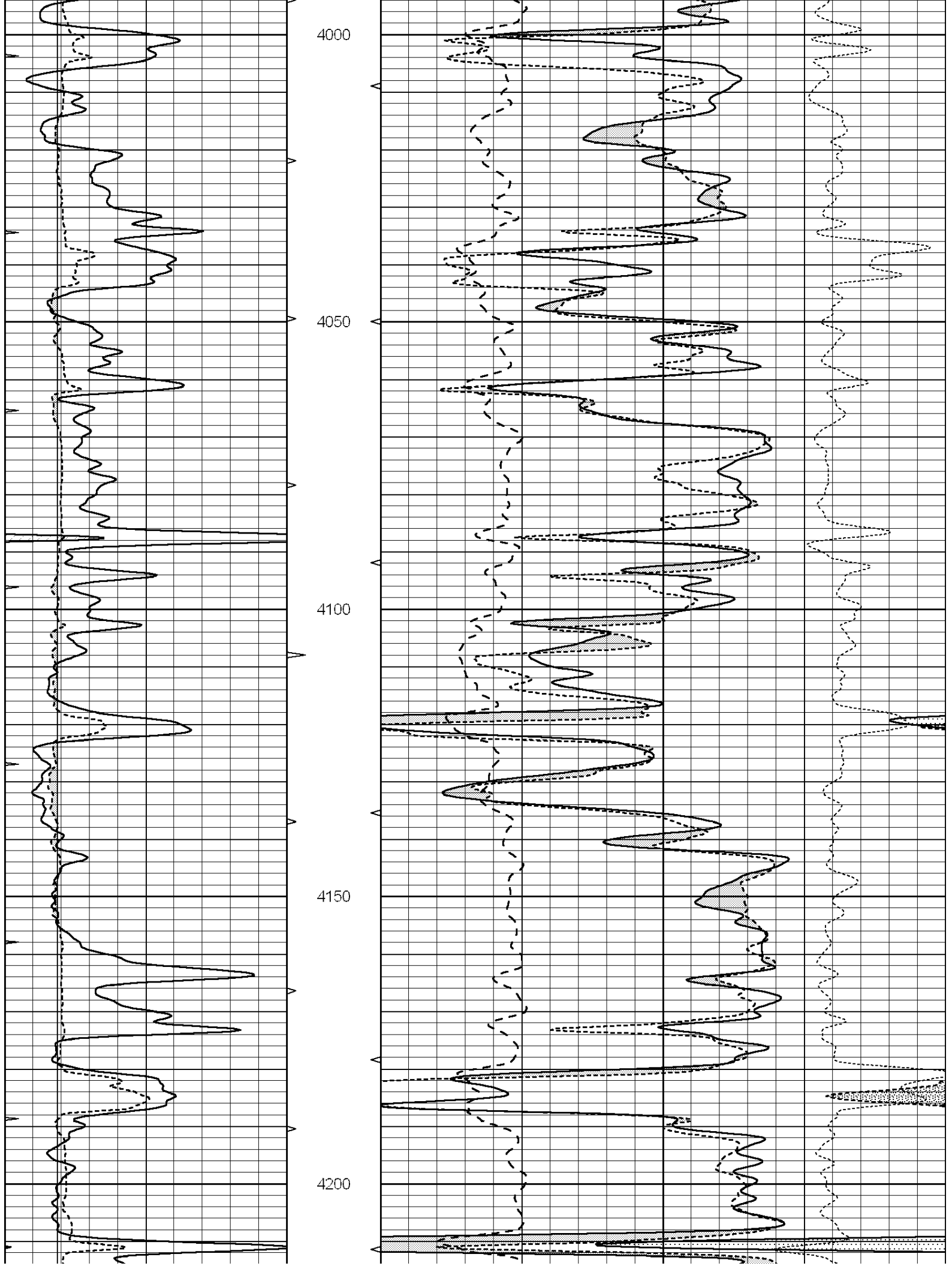
MAIN SECTION

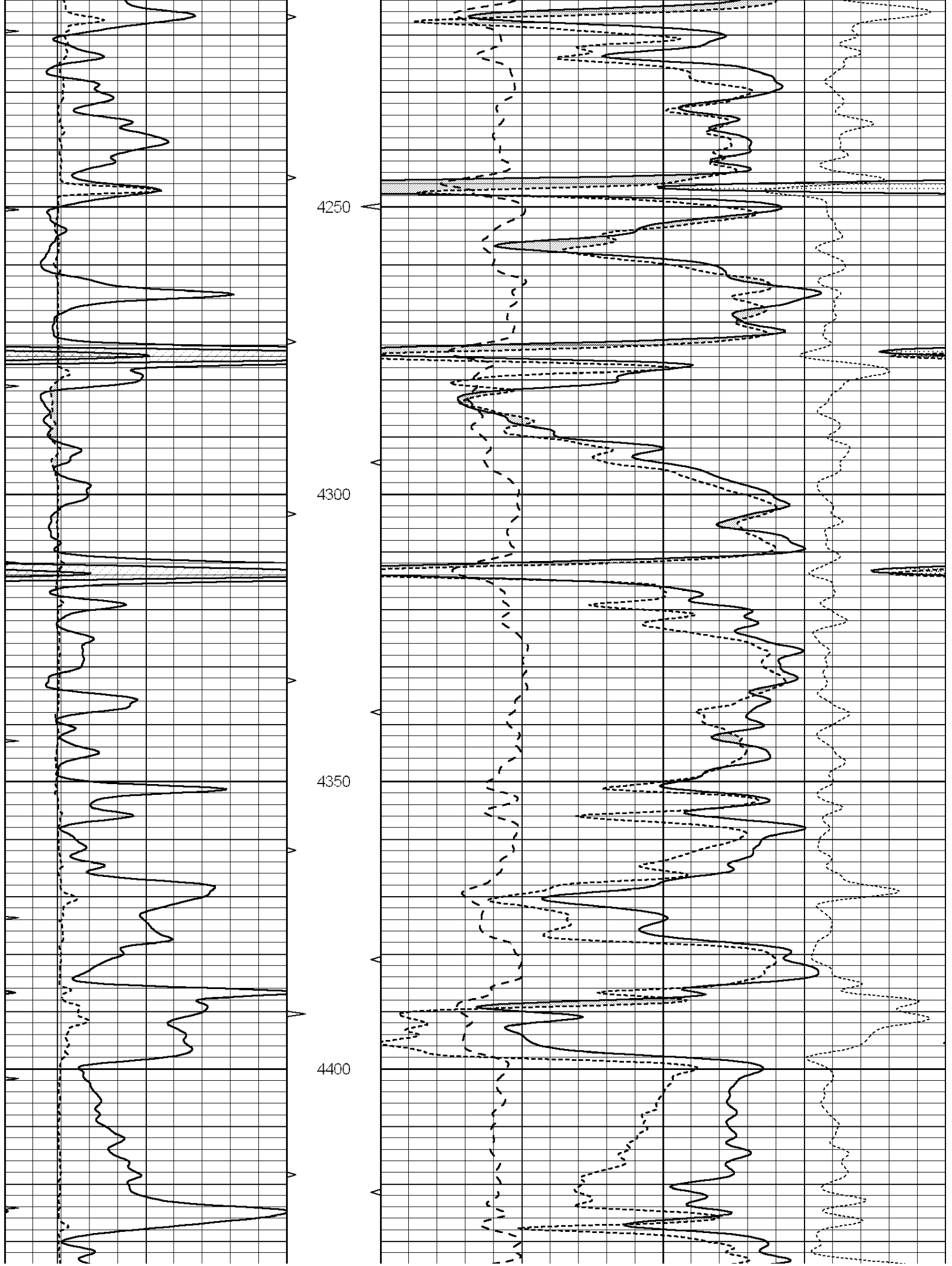
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 Charted by: Depth in Feet scaled 1:240

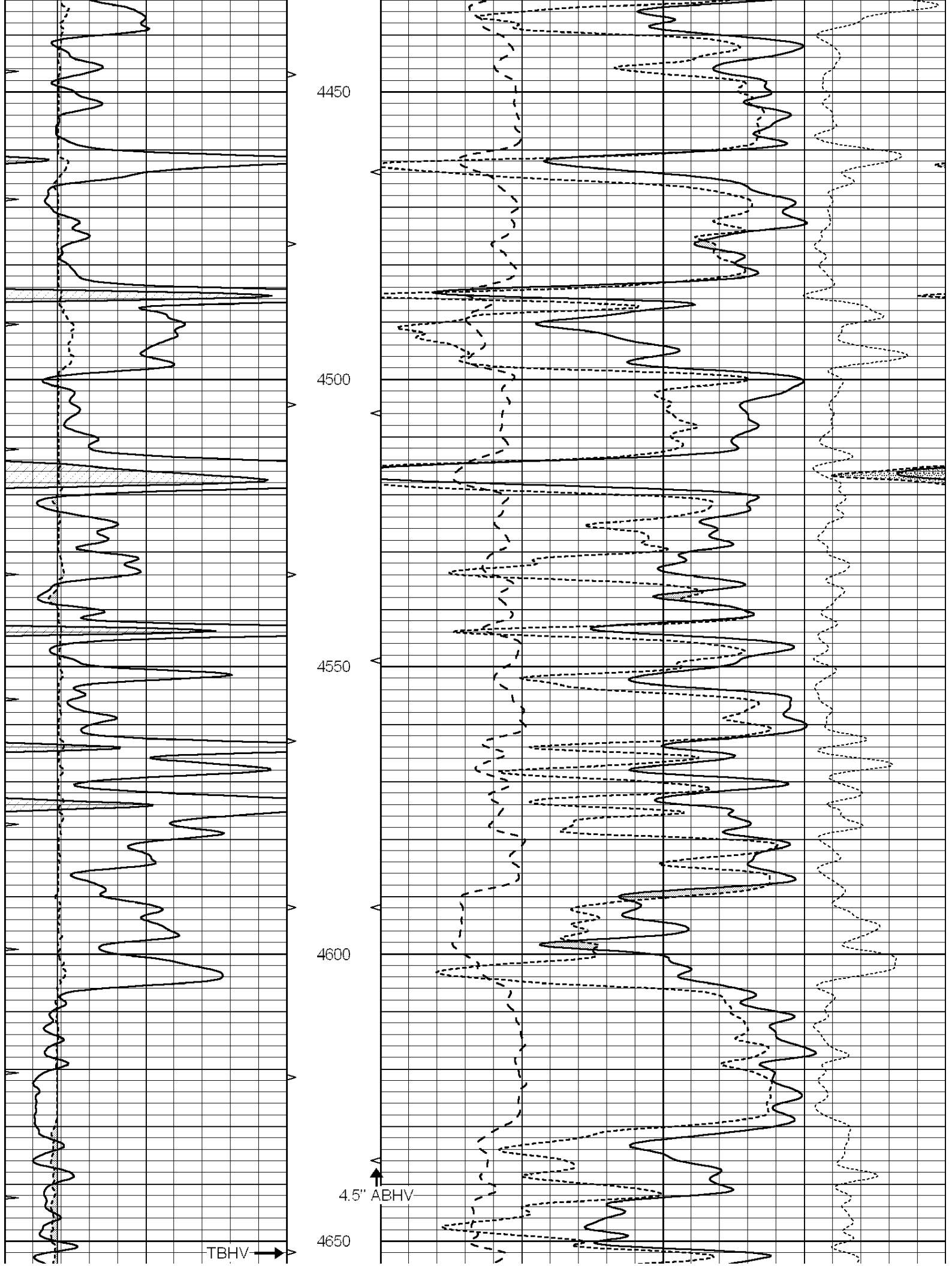
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)		-10
6	CALIPER (in)	16	10 (ft3)	0	COMPENSATED NEUTRON (pu)		-10
0	MINMK	20	TBHV	0	PE	10	-0.25 CORRECTION (g/cc) 0.25
			0 (ft3)	10			

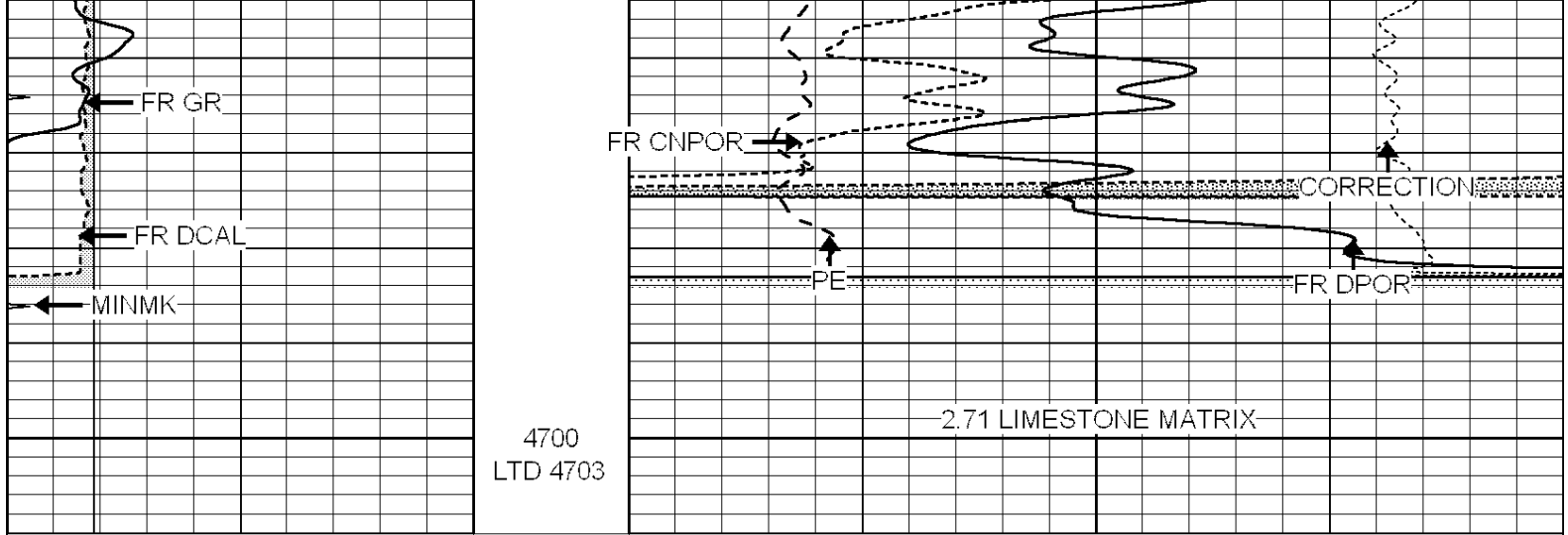












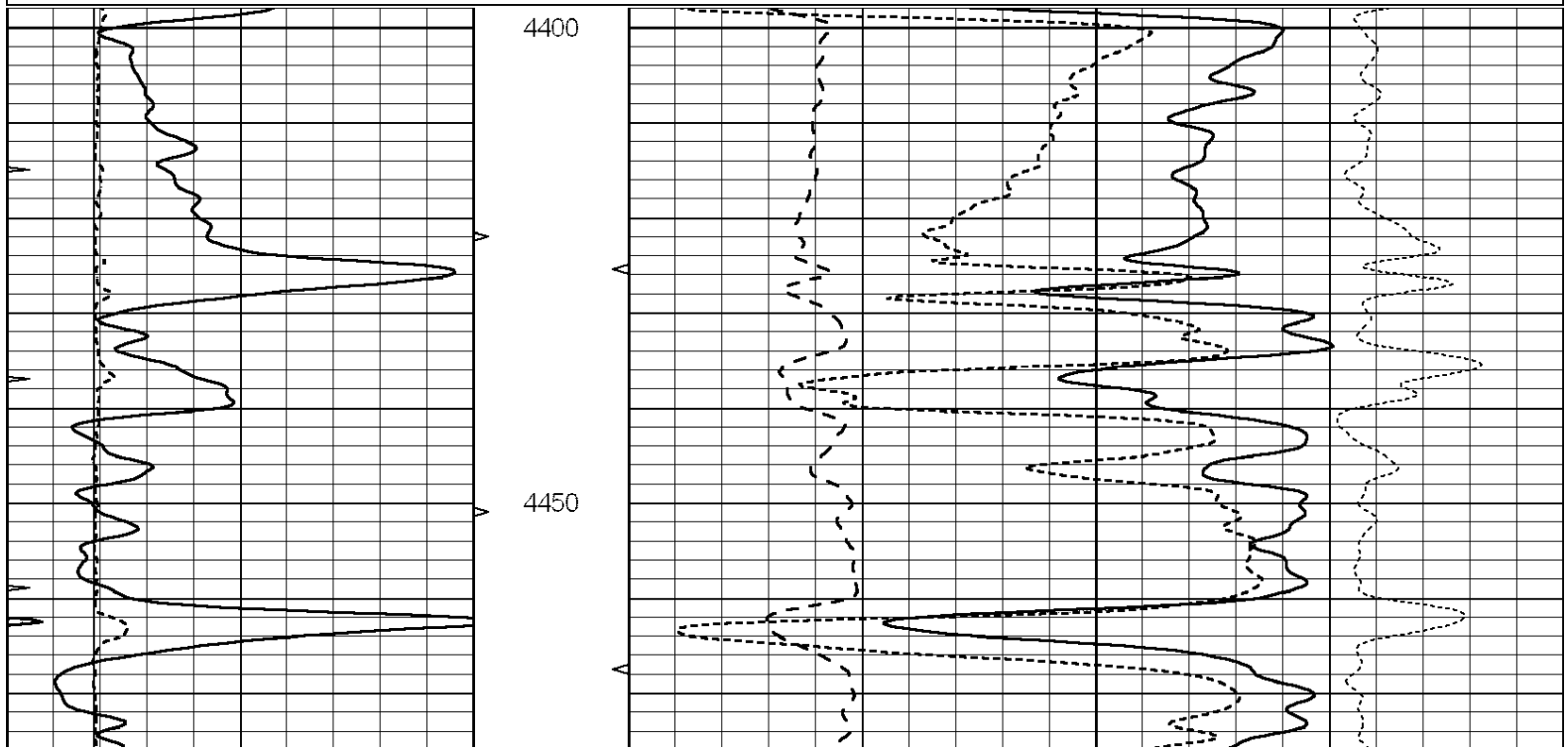
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6	CALIPER (in)	16	10 (ft3)	0	30	COMPENSATED NEUTRON (pu)	-10		
0	MINMK	20	TBHV	0	PE	10	-0.25	CORRECTION (g/cc)	0.25
			0 (ft3)	10					

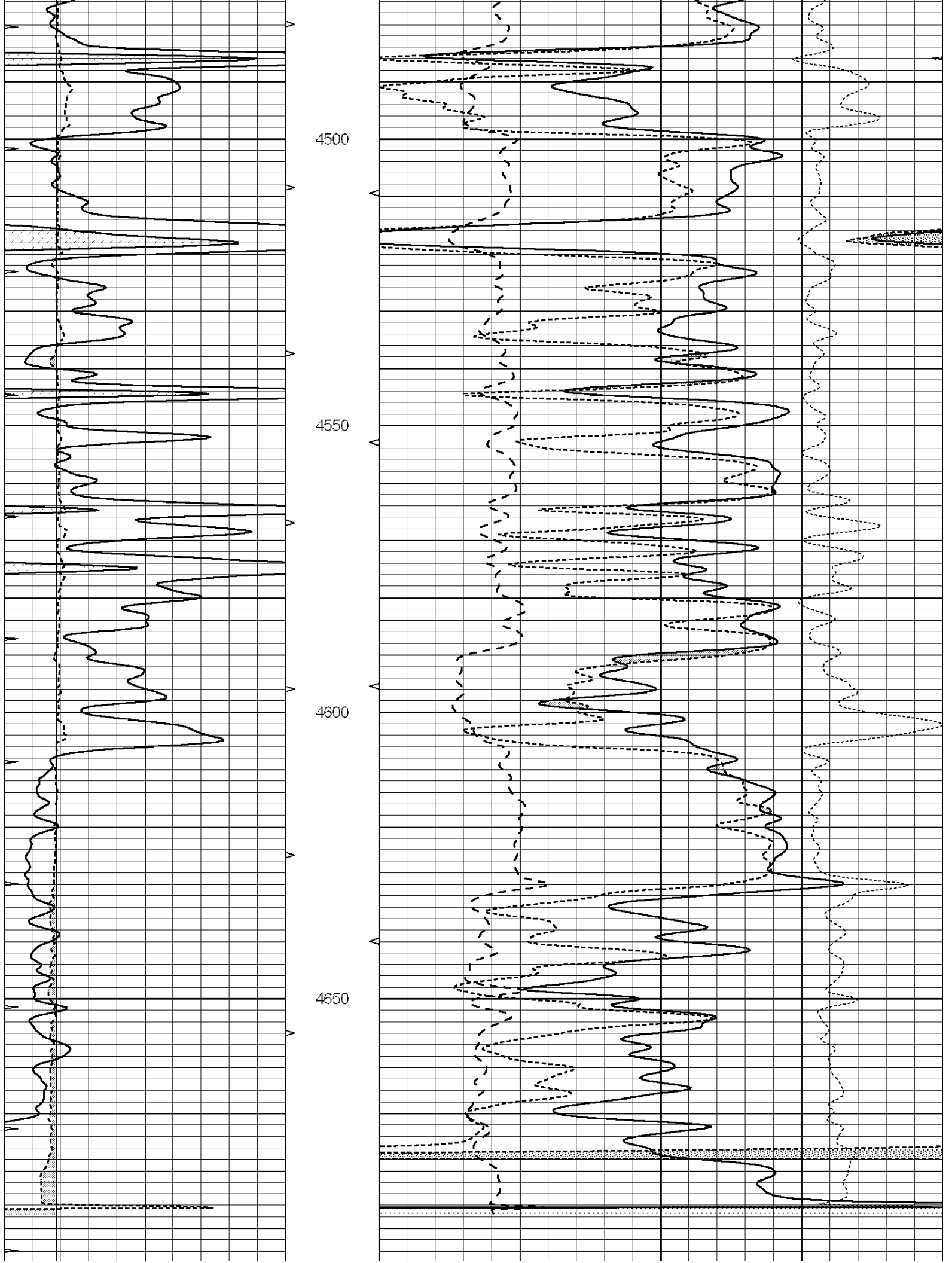


REPEAT SECTION

Database File: 010009pe.db
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 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					





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 Sep 19 15:58:00 2012	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.3000	GAPI/cps