



SUPERIOR
Hays,
Kansas

COMPENSATED
DENSITY / NEUTRON
LOG

Company	MID - CONTINENT ENERGY	Company	MID - CONTINENT ENERGY OPERATING CO.
Well	#1-16 HUTCHINS	Well	#1-16 HUTCHINS
Field	WILDCAT	Field	WILDCAT
County	LANE	County	LANE
State	KANSAS	State	KANSAS
Location:	API # : 15-101-22186-0000	Other Services	DIL/MEL
	1400' FSL & 2145' FEL		
	SEC 16 TWP 19S RGE 29W		
Permanent Datum	GROUND LEVEL	Elevation	2837
Log Measured From	KELLY BUSHING 5' A.G.L.		
Drilling Measured From	KELLY BUSHING		
Date	8/31/09		
Run Number	CNE		
Depth Driller	4710		
Depth Logger	4712		
Bottom Logged Interval	4688		
Top Log Interval	3600		
Casing Driller	8 5/8"@306'		
Casing Logger	306		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 2,400 PPM	
Density / Viscosity	9.2/54		
pH / Fluid Loss	9.0/9.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.40@83F		
Rmf @ Meas. Temp	1.05@83F		
Rmc @ Meas. Temp	1.68@83F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.952@122F		
Time Circulation Stopped	3 HOURS		
Time Logger on Bottom	1:30 A.M.		
Maximum Recorded Temperature	122F		
Equipment Number	0836		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	KEVIN KESSLER		

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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
DIGHTON, KS. (4 WAY STOP) 6 S. ON HWY 23 TO RD. "90", 3 1/2 W., N. INTO

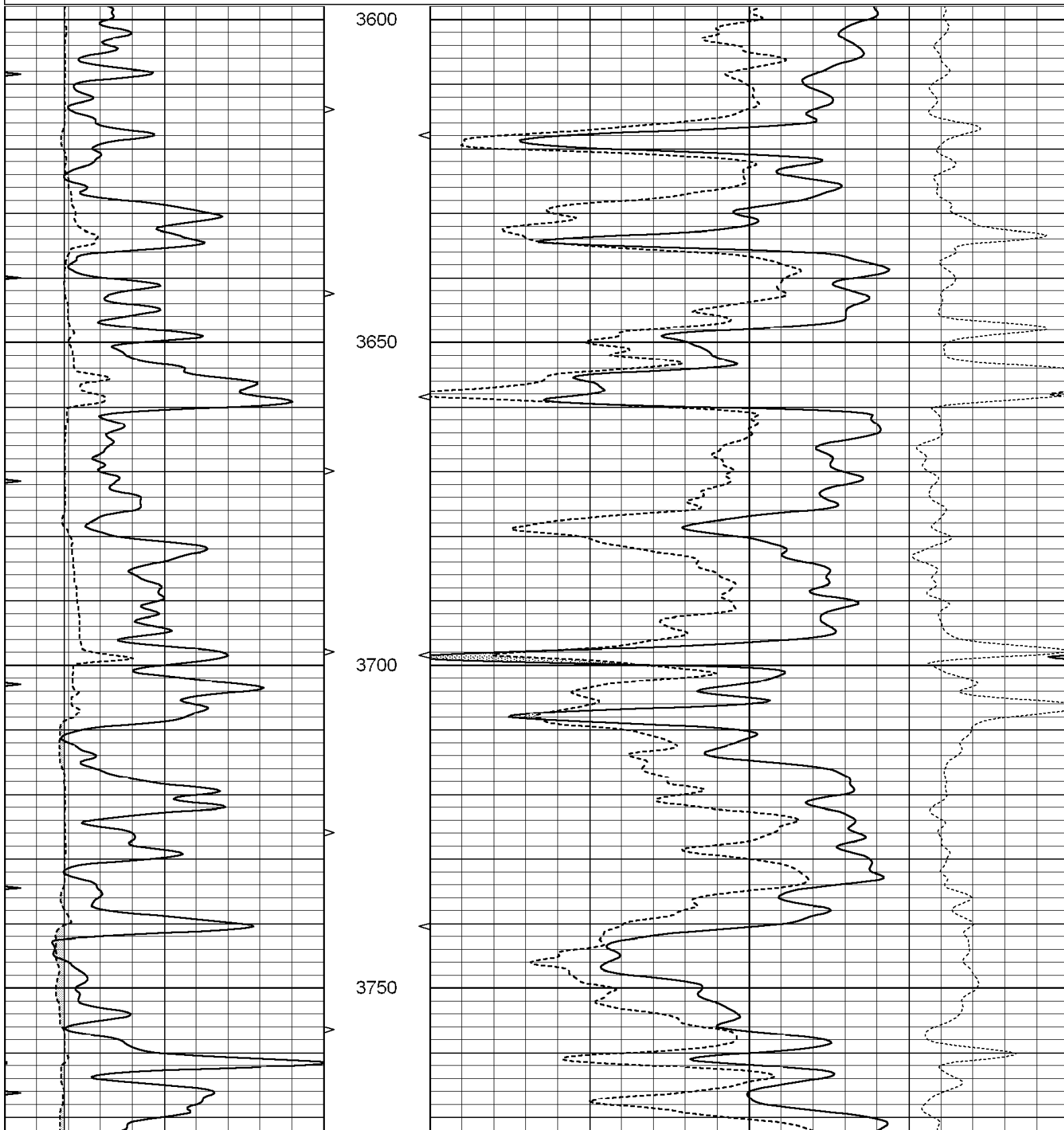


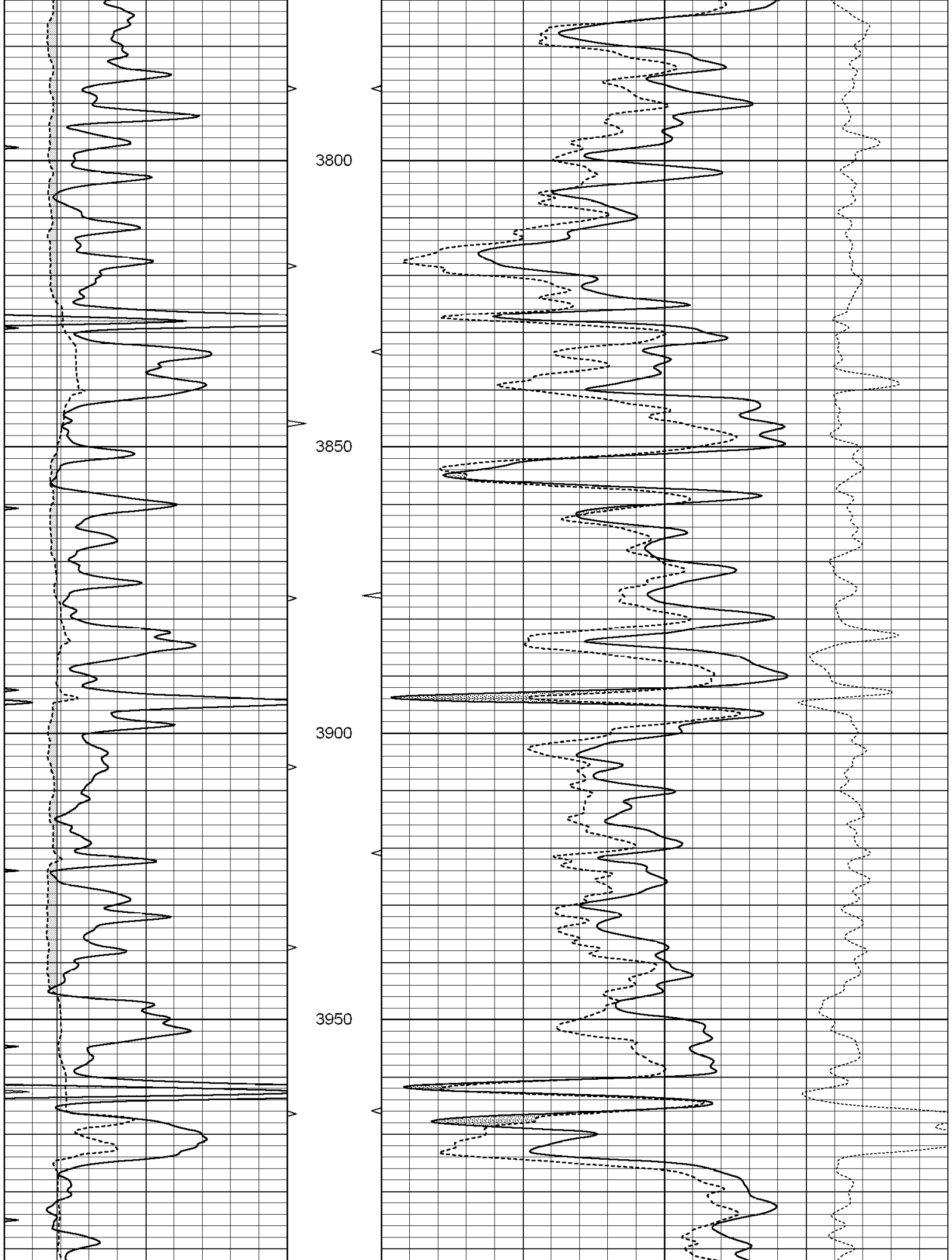
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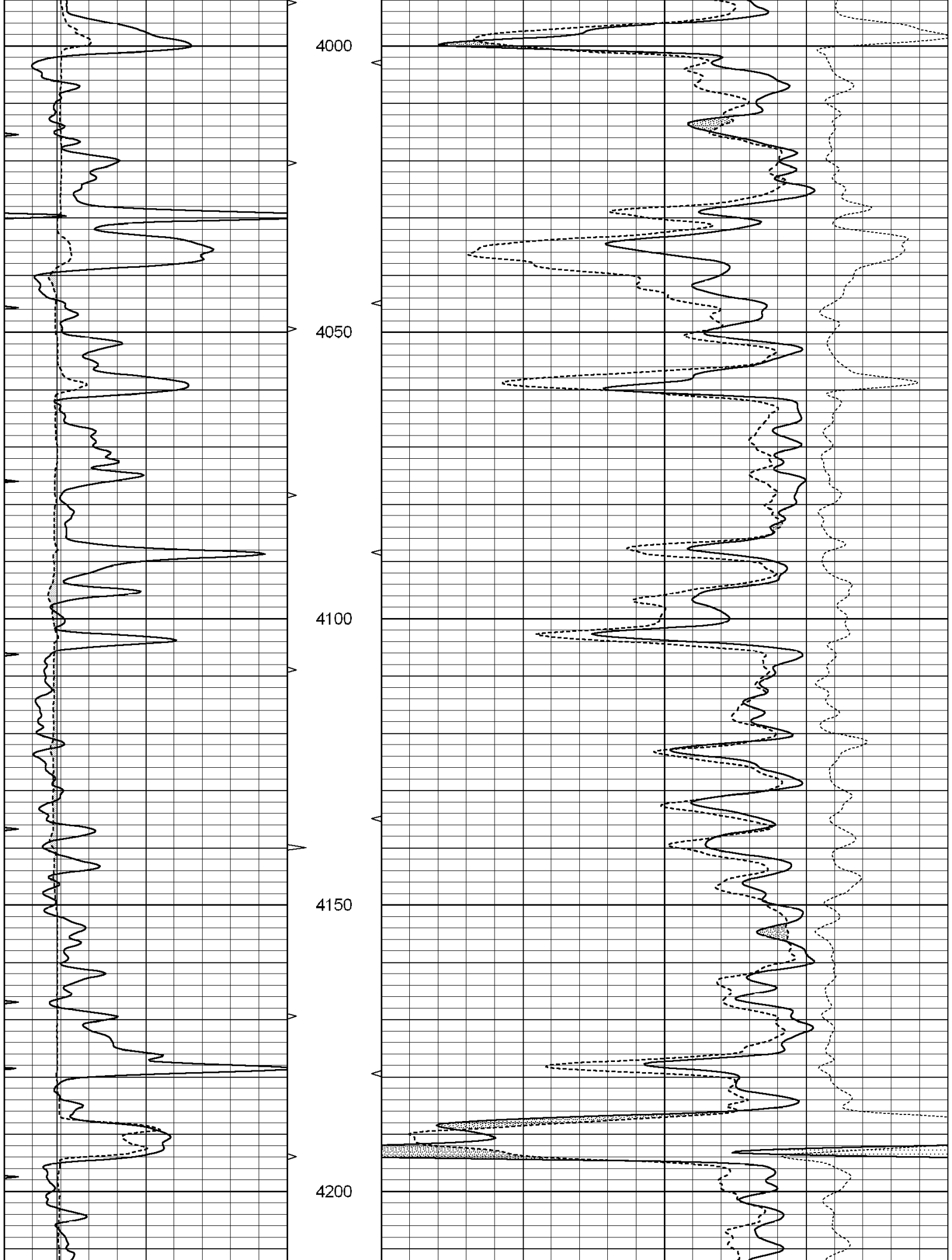
MAIN SECTION

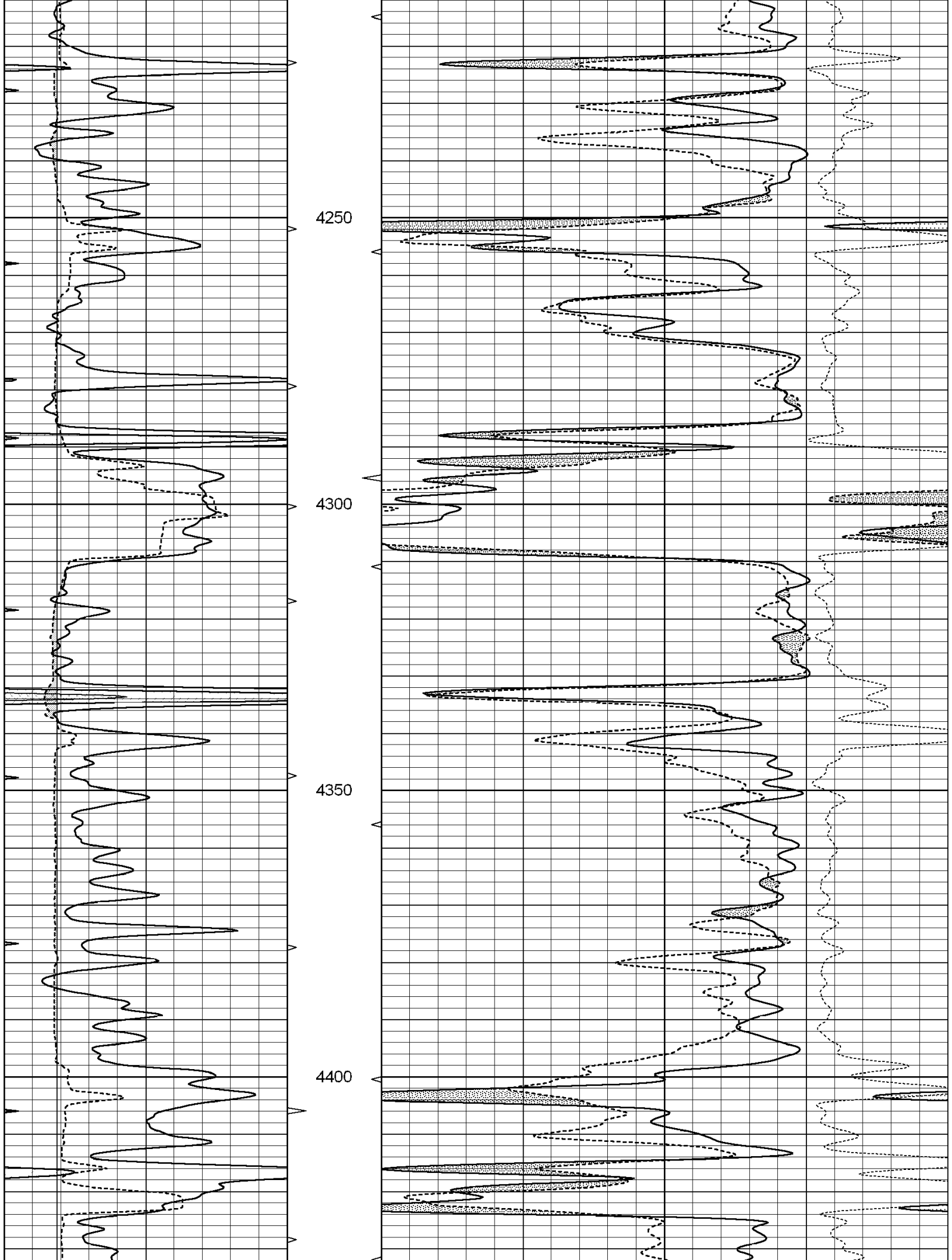
Database File: 004061ddn.db
Dataset Pathname: pass3.4
Presentation Format: den_neu
Dataset Creation: Mon Aug 31 02:26:06 2009 by Calc Open-Cased 060407
Charted by: Depth in Feet scaled 1:240

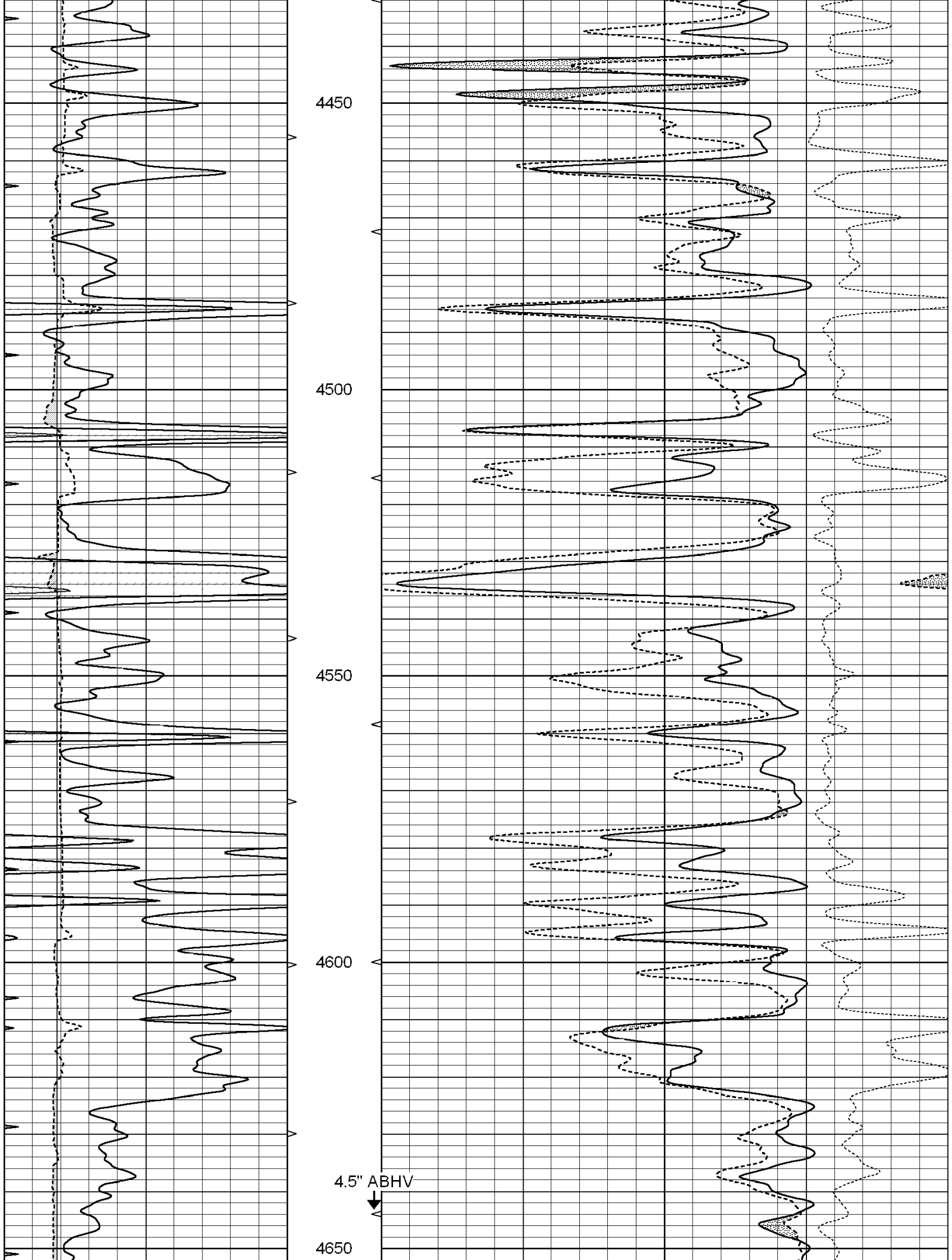
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3) 0	30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3) 10			

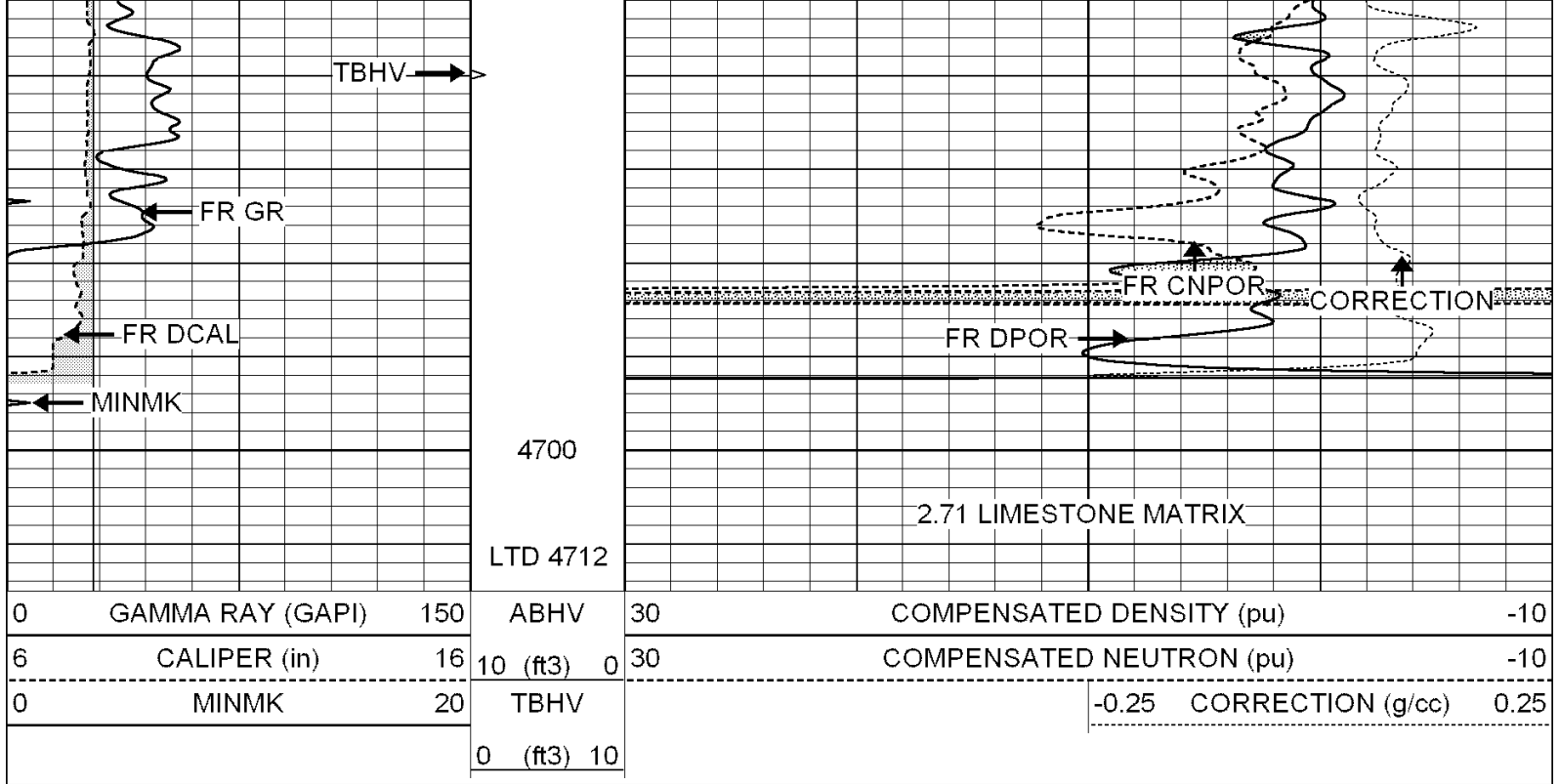








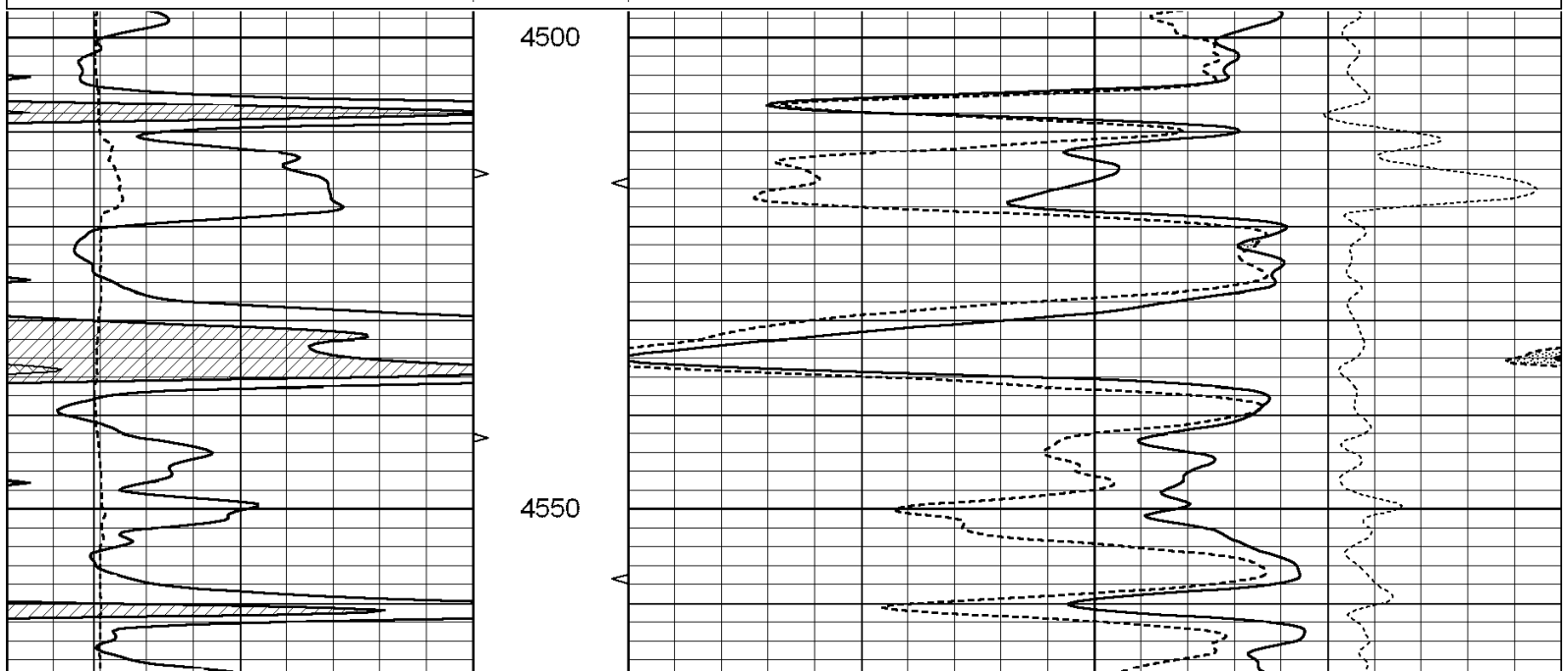


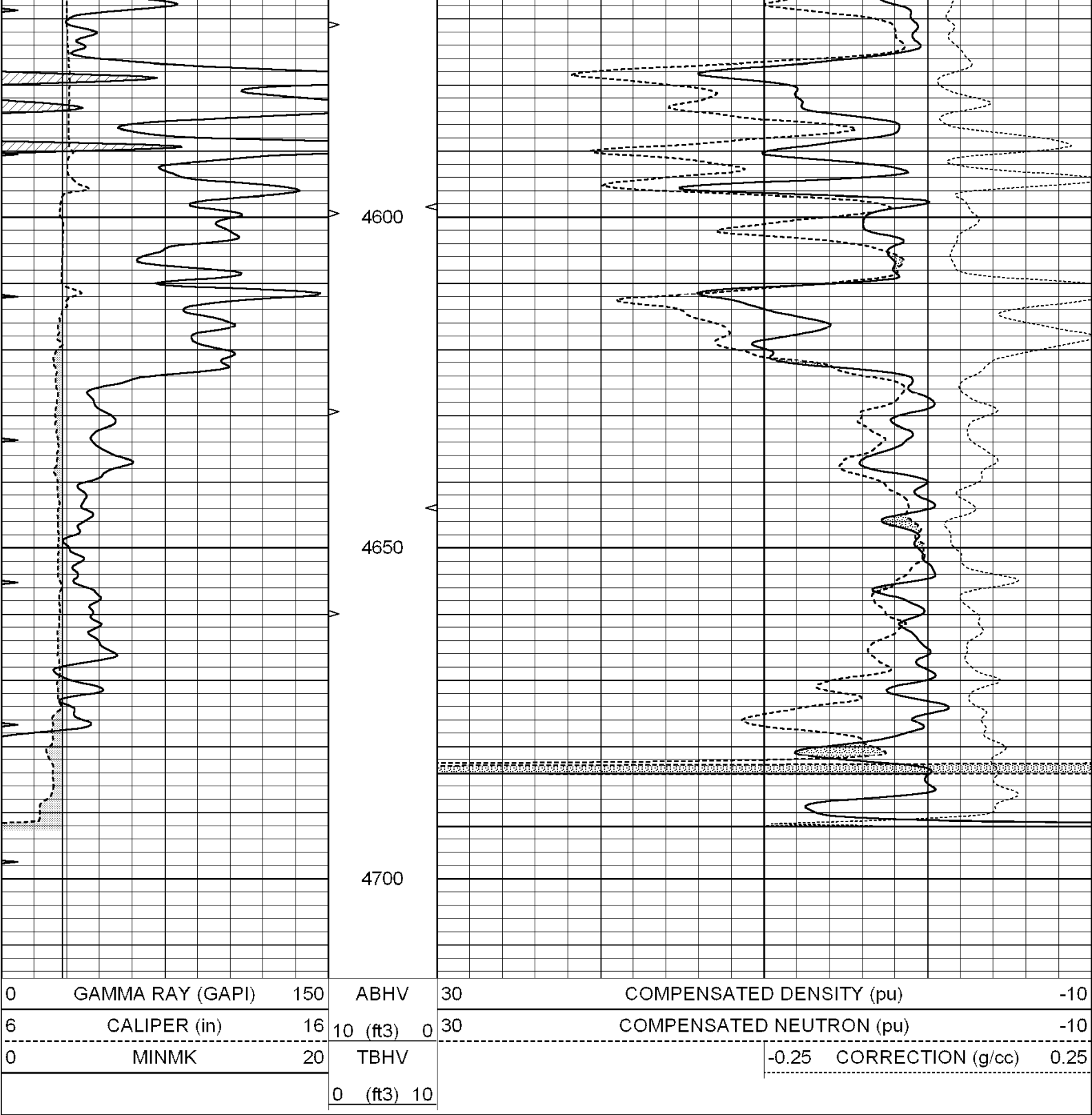


REPEAT SECTION

Database File: 004061ddn.db
 Dataset Pathname: pass2.5
 Presentation Format: den_neu
 Dataset Creation: Mon Aug 31 01:42:10 2009 by Calc Open-Cased 060407
 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				-0.25	CORRECTION (g/cc) 0.25
			0 (ft3) 10					





Calibration Report						
Database File:		004061ddn.db				
Dataset Pathname:		pass3.4				
Dataset Creation:		Mon Aug 31 02:26:06 2009 by Calc Open-Cased 060407				
Dual Induction Calibration Report						
Serial-Model:		DIL2-GEAR				
Performed:		Mon Aug 31 01:38:30 2009				
Readings			References		Results	
Loop:	Air	Loop	Air	Loop	m	b

Deep	0.002	0.667	V	0.000	400.000	mmho-m	650.000	-15.000
Medium	-0.003	0.739	V	0.000	462.500	mmho-m	720.000	-35.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.001	0.658	V	0.000	400.000	mmho-m	609.010	-0.700
Medium	0.015	0.761	V	0.000	462.500	mmho-m	620.392	-9.326

Litho Density Calibration Report

Serial: 002 Model: PRB

Performed Wed Jul 15 08:50:33 2009

Litho Density Calibration					
	Background	Magnesium	Aluminum	Sandstone	
Window 1	1004.5	12487.9	3487.9	13943.3	cps
Window 2	923.9	10508.8	3008.8	11524.2	cps
Window 3	651.3	3820.8	1326.3	4060.8	cps
Window 4	219.9	225.2	221.2	224.8	cps
Long Space	0.0	9584.9	2084.9	10600.3	cps
Short Space	0.9	1892.4	1272.6	2038.6	cps
Rho		1.7100	2.5960	1.3800	g/cc
Pe			2.5700	1.5500	
Rib Angle	: 45.4	Rib Slope	: 1.015	Density/Spine Ratio	: 0.562
Spine Angle	: 75.4	Spine Slope	: 3.845	Spine Intercept	: -19.8

Caliper		
Low Ref	Readings	Reference
High Ref	2.6	6.3
	5.0	14.0
	Gain: 3.2	Offset: -2.2

Compensated Neutron Calibration Report

Serial Number:	NEU_4I
Tool Model:	G

CALIBRATION					
Detector	Readings	Target	Normalization		
Short Space	996.00 cps	1000.00 cps	1.0000		
Long Space	977.00 cps	1000.00 cps	1.0000		

Gamma Ray Calibration Report

Serial Number:	GR4	
Tool Model:	OPEN	
Performed:	Mon Aug 31 01:37:47 2009	
Calibrator Value:	200.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	189.0	cps
Sensitivity:	0.8500	GAPI/cps