



SUPERIOR
Hays,
Kansas

**COMPENSATED
DENSITY / NEUTRON
PE LOG**

Company MULL DRILLING COMPANY, INC.
Well #1-32 BABCOCK "B"
Field WILDCAT
County GOVE
State KANSAS

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County GOVE State KANSAS

Location: API # : 15-063-21891-0000
2502' FNL & 1209' FEL
SEC 32 TWP 15S RGE 26W
Permanent Datum GROUND LEVEL Elevation 2542
Log Measured From KELLY BUSHING 9' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
DIL/MEL
SONIIC
Elevation
K.B. 2551
D.F. 2549
G.L. 2542

Date	3/11/11		
Run Number	ONE		
Depth Driller	4540		
Depth Logger	4542		
Bottom Logged Interval	4518		
Top Log Interval	3700		
Casing Driller	8 5/8"@238'		
Casing Logger	238		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 4,000 PPM	
Density / Viscosity	9.2/55		
pH / Fluid Loss	10.0/8.8		
Source of Sample	FLOWLINE		
Rin @ Meas. Temp	1.30@80F		
Rmf @ Meas. Temp	.975@80F		
Rmc @ Meas. Temp	1.56@80F		
Source of Rmf / Rmc	MEASUREMENT		
Rin @ BHT	.860@121F		
Time Circulation Stopped	2.5 HOURS		
Time Logger on Bottom	9:30 P.M.		
Maximum Recorded Temperature	121F		
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
UTICA, KS. 3W. ON HWY 4 TO "CASTLE ROCK RD.", 4N., E. INTO@CURVE IN THE RD.

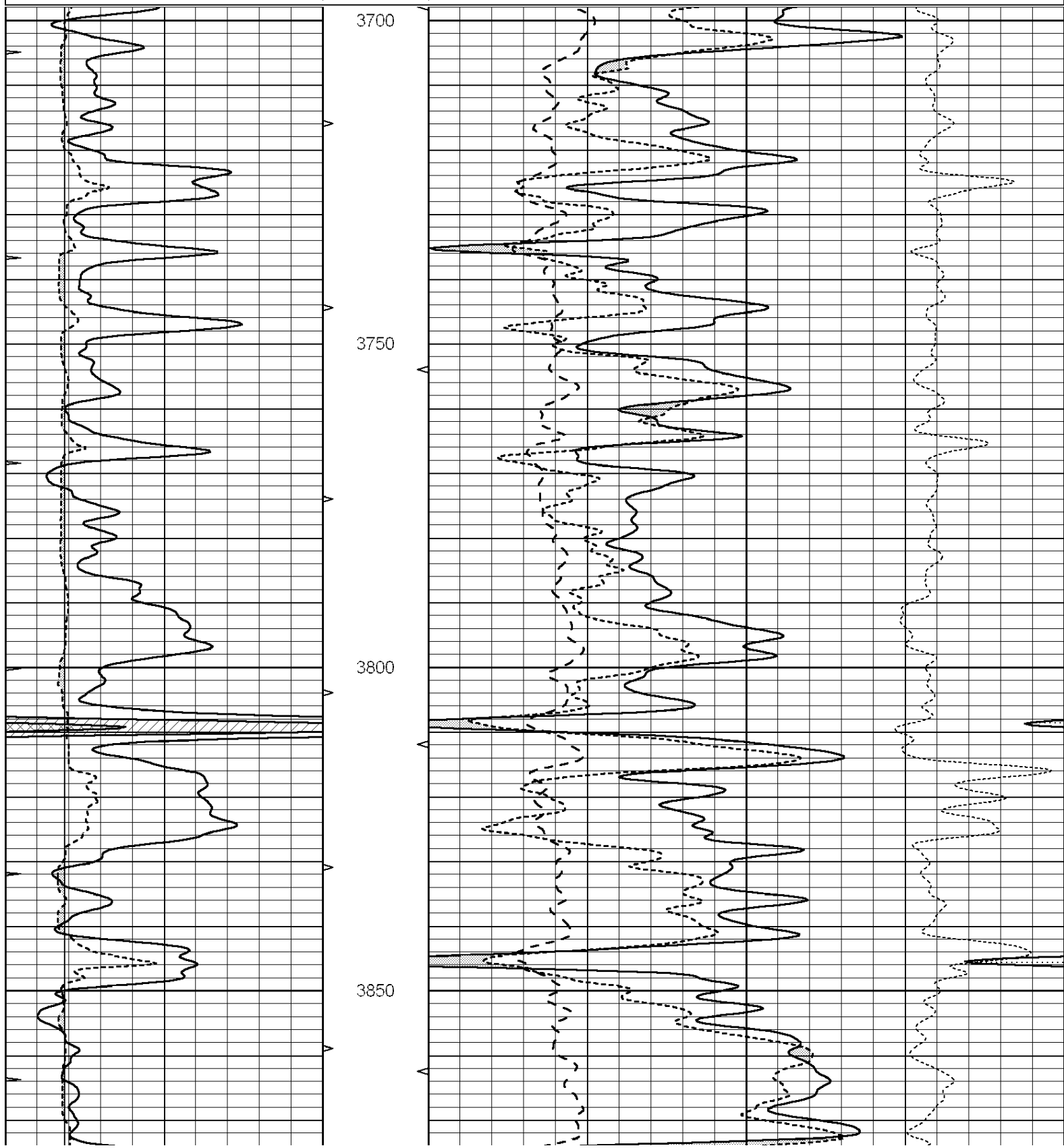


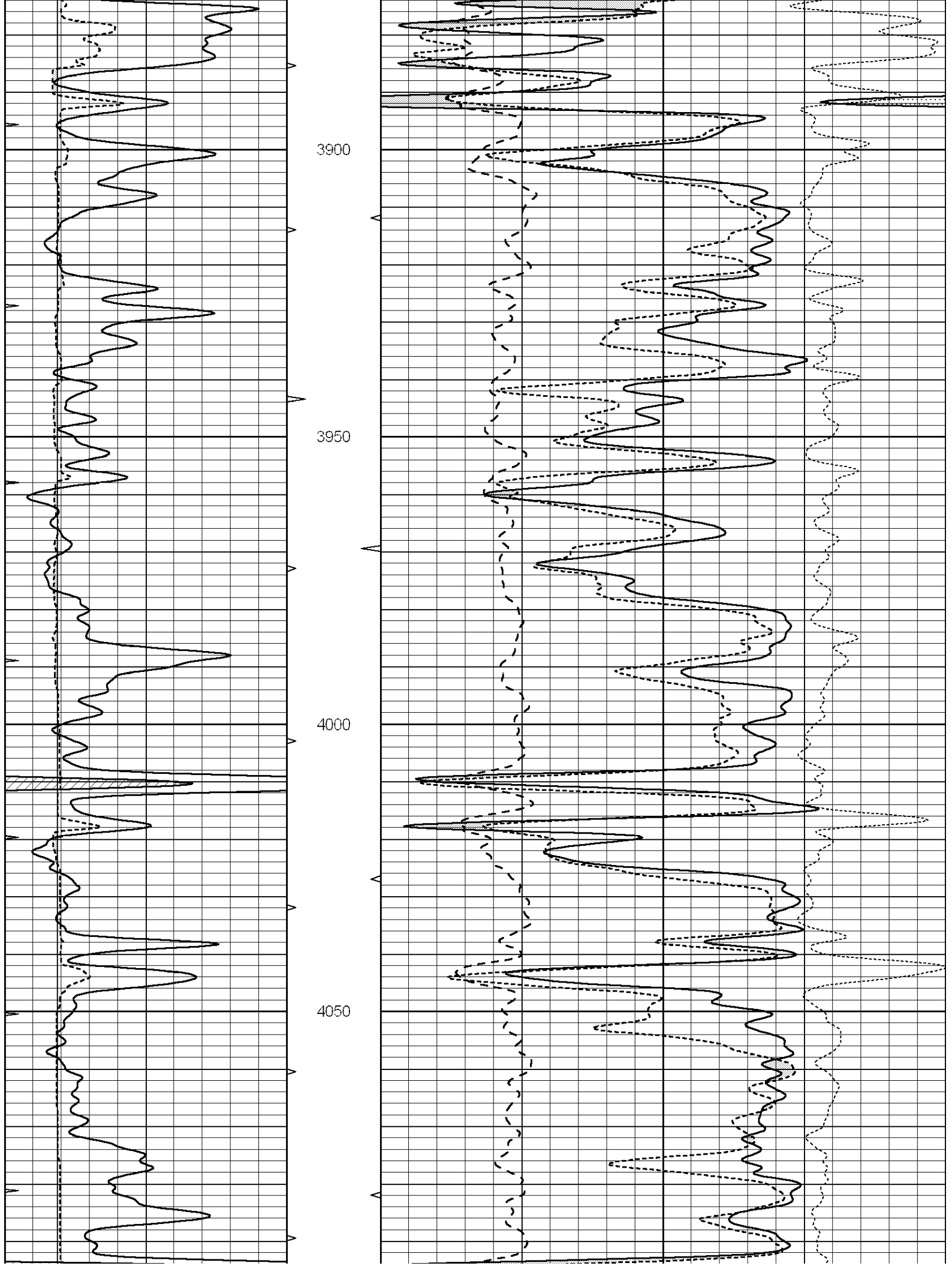
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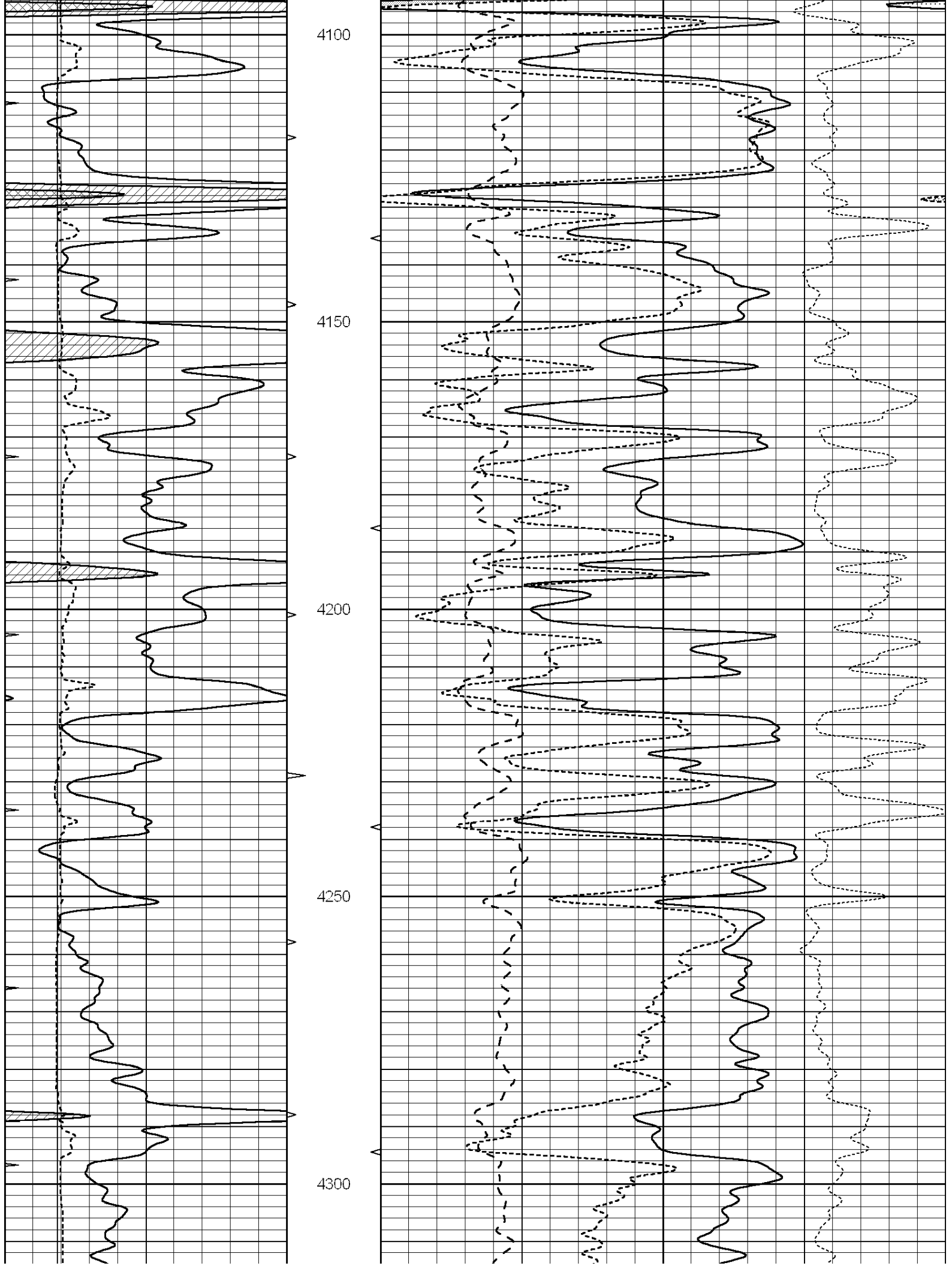
MAIN SECTION

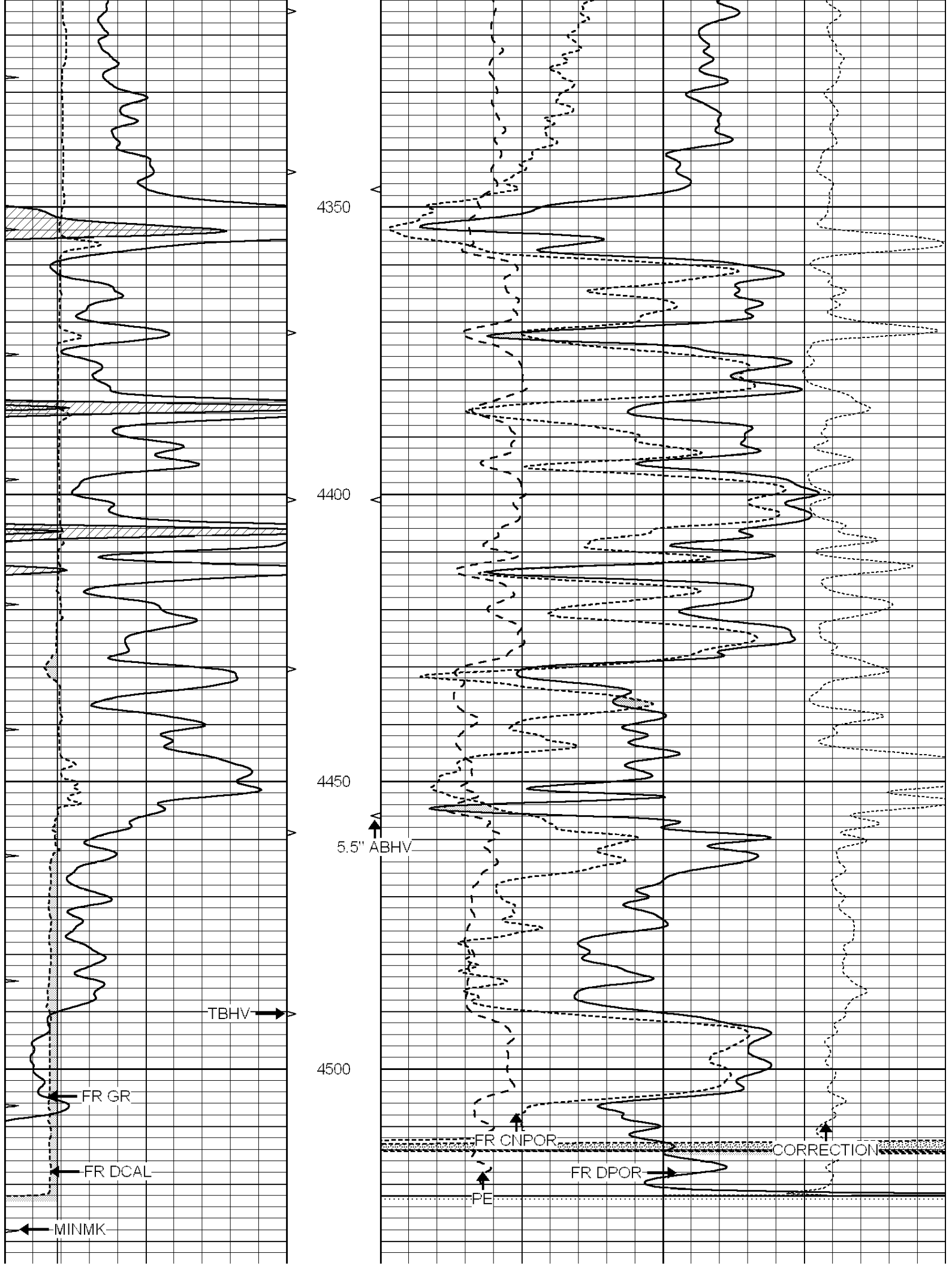
Database File: 006611pe.db
 Dataset Pathname: pass3.6
 Presentation Format: ldt_neu
 Dataset Creation: Fri Mar 11 22:49:58 2011 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

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









2.71 LIMESTONE MATRIX

LTD 4542

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		

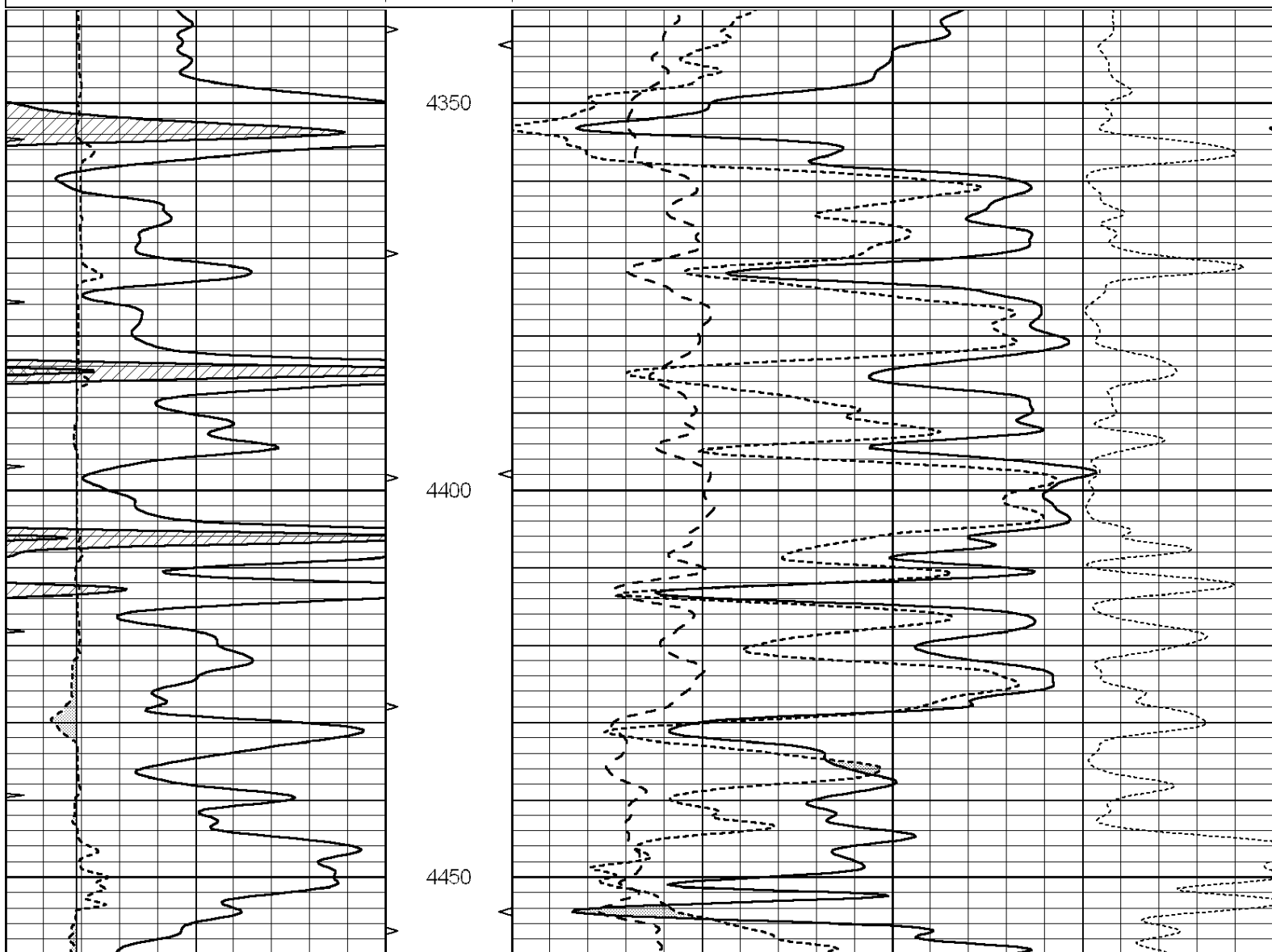


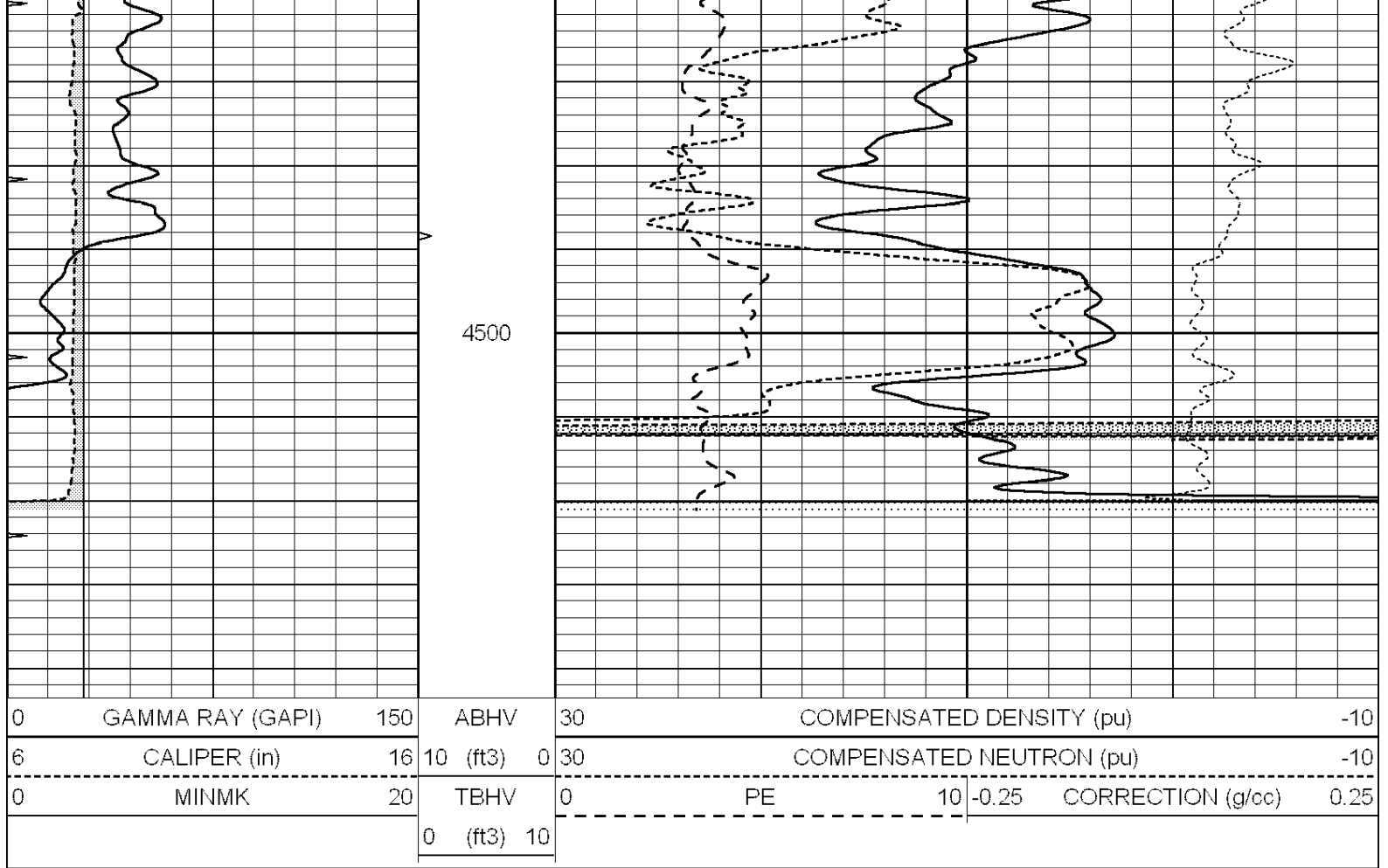
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REPEAT SECTION

Database File: 006611pe.db
 Dataset Pathname: pass2.2
 Presentation Format: ldt_neu
 Dataset Creation: Fri Mar 11 22:00:19 2011 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	20	TBHV	0	PE	10 -0.25 CORRECTION (g/cc) 0.25
			0 (ft3)	10		





Calibration Report

Database File: 006611pe.db
 Dataset Pathname: pass3.6
 Dataset Creation: Fri Mar 11 22:49:58 2011 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: DIL3-GEAR
 Performed: Fri Mar 11 20:56:55 2011

Loop:	Readings				References			Results	
	Air	Loop			Air	Loop		m	b
Deep	0.011	0.656	V	0.000	400.000	mmho/m	640.000	-4.000	
Medium	0.013	0.740	V	0.000	462.500	mmho/m	700.000	-14.000	
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: 003N Model: PRB
 Performed Tue Sep 08 14:14:44 2009

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	2042.6	12312.8	4225.8	13758.4	cps
Window 2	1855.8	10134.7	3624.2	11113.1	cps
Window 3	1639.4	6760.2	2716.3	7260.3	cps
Window 4	466.4	469.2	466.1	476.5	cps
Lead Space	0.0	8278.0	1768.4	8257.4	cps

Long Space	0.0	3276.9	1768.4	9237.4	cps
Short Space	2.2	2377.3	1544.1	2574.2	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	

Rib Angle	: 44.4	Rib Slope	: 0.979	Density/Spine Ratio	: 0.549
Spine Angle	: 74.4	Spine Slope	: 3.577	Spine Intercept	: -18.8

Caliper				
Low Ref	Readings	Reference		
High Ref	1.8	5.6		
	4.6	14.0		
	Gain: 3.0		Offset: 0.4	

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:	GR3
Tool Model:	OPEN
Performed:	Fri Mar 11 20:56:40 2011
Calibrator Value:	200.0 GAPI
Background Reading:	3.0 cps
Calibrator Reading:	186.0 cps
Sensitivity:	0.6000 GAPI/cps