



**SUPERIOR**  
Hays,  
Kansas

**COMPENSATED  
DENSITY / NEUTRON  
LOG**

Company MAI OIL OPERATIONS INC.  
Well LICHTER-LINDSEY UNIT #1  
Field REIMER  
County BARTON  
State KANSAS

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County BARTON State KANSAS

Location: API # : 15-009-25592-0000  
2500' FSL & 2100' FWL  
NW - NE - NE - SW  
SEC 25 TWP 17S RGE 15W  
Permanent Datum GROUND LEVEL Elevation 1987  
Log Measured From KELLY BUSHING 8' A.G.L.  
Drilling Measured From KELLY BUSHING  
Other Services  
DIL/MEL  
Elevation  
K.B. 1995  
D.F. 1993  
G.L. 1987

Date	8/12/11		
Run Number	ONE		
Depth Driller	3625		
Depth Logger	3624		
Bottom Logged Interval	3600		
Top Log Interval	2900		
Casing Driller	8 5/8"@939'		
Casing Logger	939'		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 7000 PPM	
Density / Viscosity	9.1/48		
pH / Fluid Loss	10.5/8.8		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.650@90F		
Rmt @ Meas. Temp	.488@90F		
Rmc @ Meas. Temp	.780@90F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.518@113F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	113F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	JEFF GRONEWEG		
Witnessed By	STEVE MURPHY		

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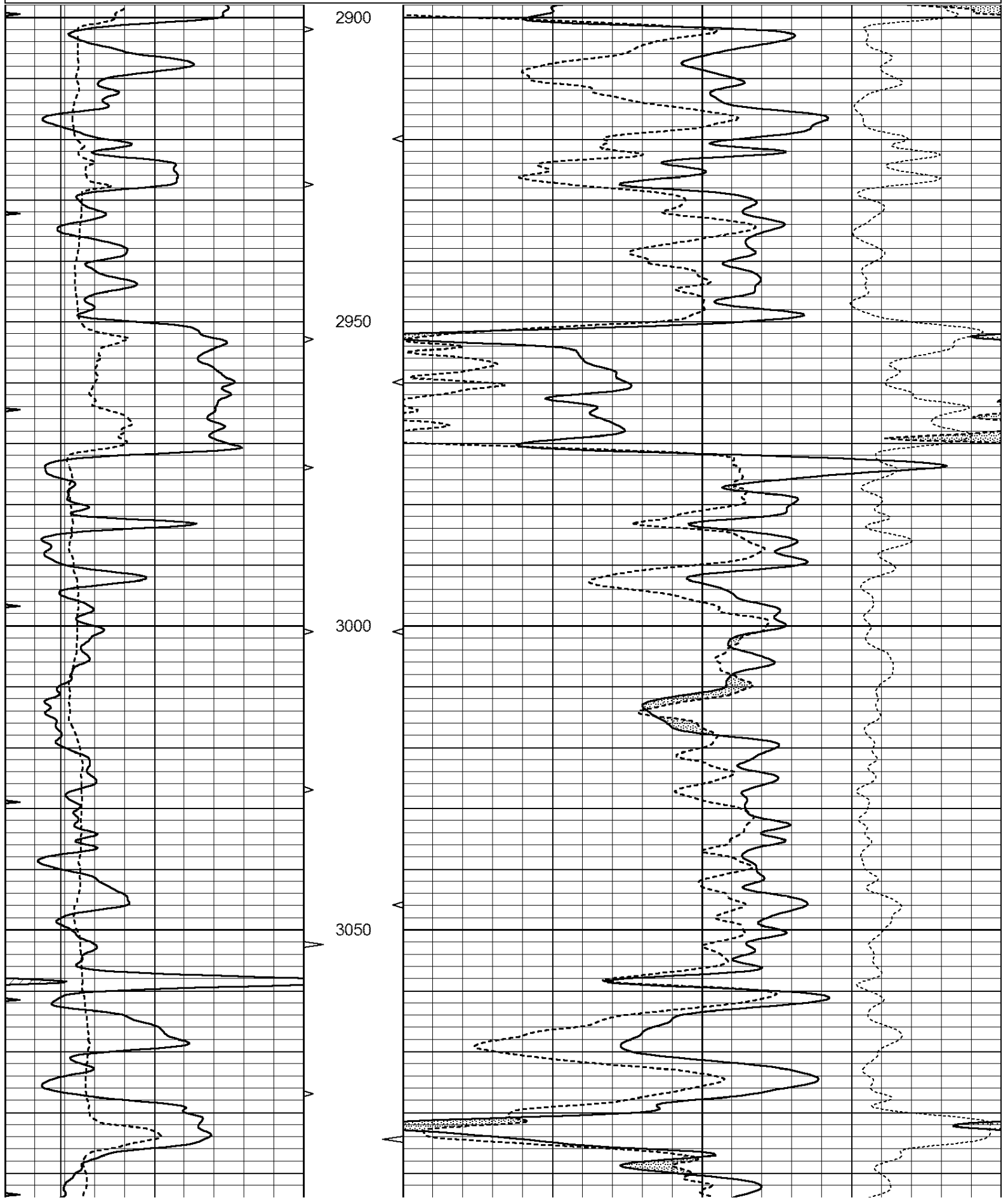
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

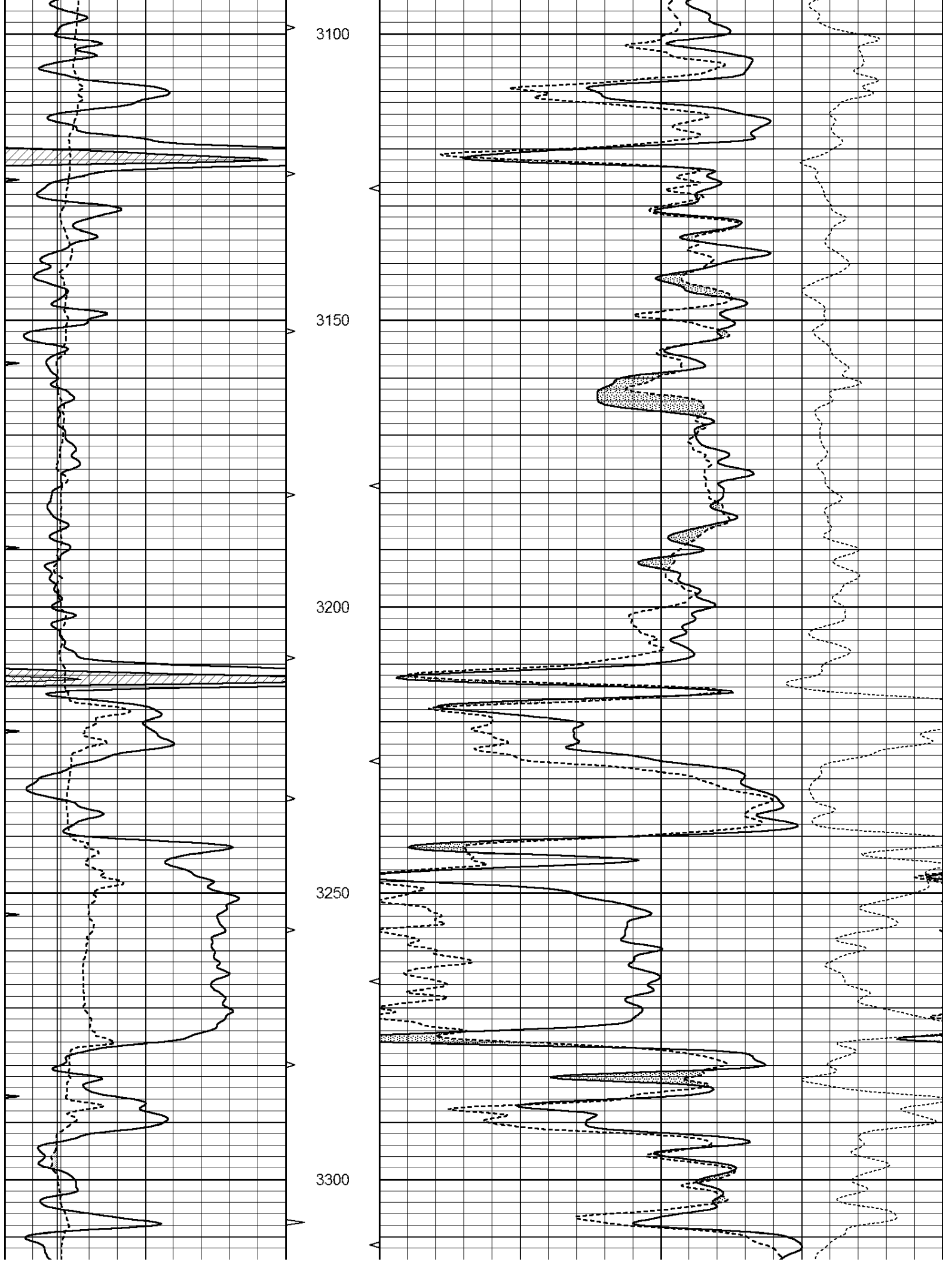
Comments

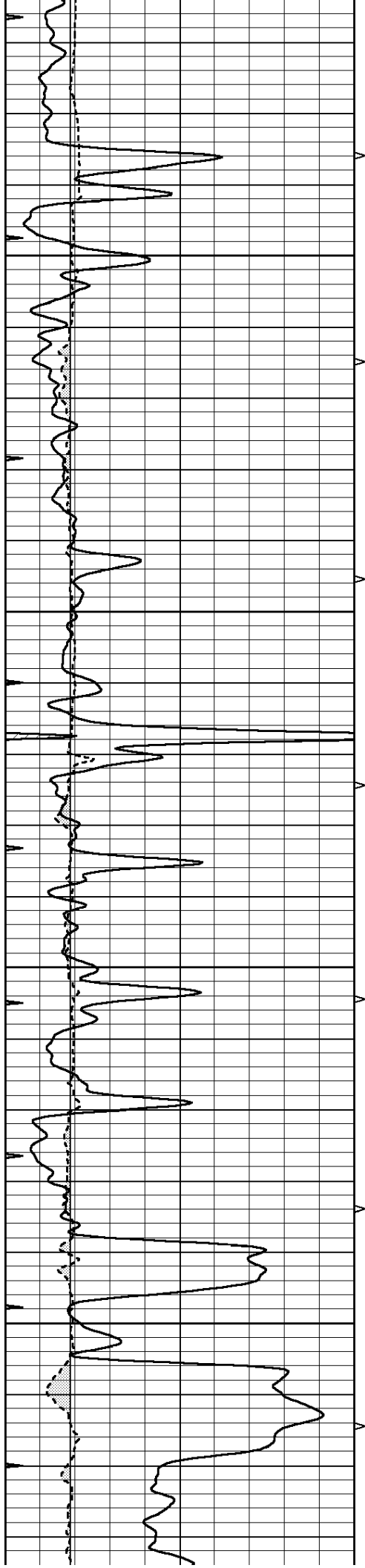
THANK YOU FOR USING SUPERIOR WELL SERVICE HAYS, KANSAS (785) 628-6395  
DIRECTIONS  
INTERSECTION OF HWY 4 & OLMITZ BLACKTOP - 1/4 MILE NORTH  
EAST & NORTH INTO

Database File: 007280ddn.db  
Dataset Pathname: pass3.1  
Presentation Format: den\_neu  
Dataset Creation: Fri Aug 12 09:19:54 2011 by Calc Open-Cased 110302  
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		





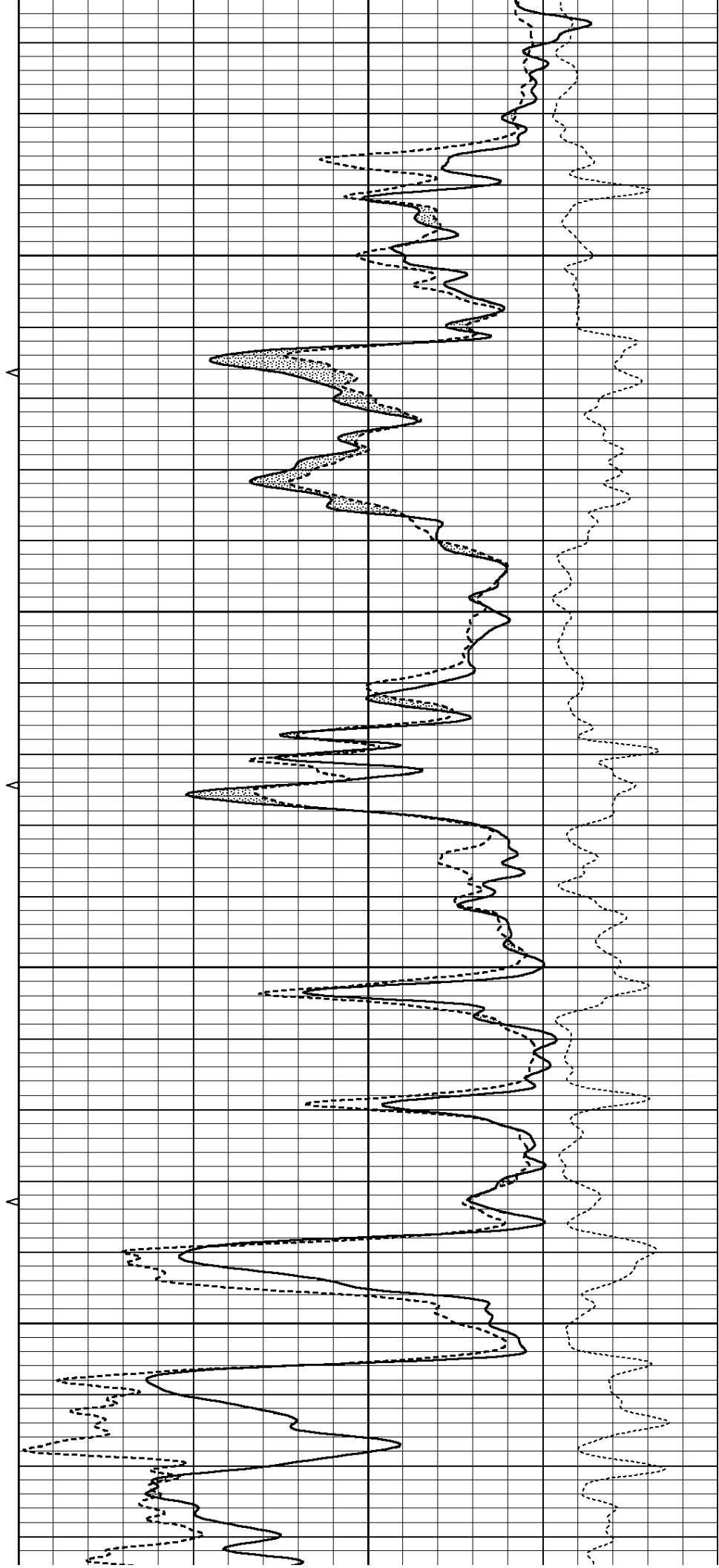


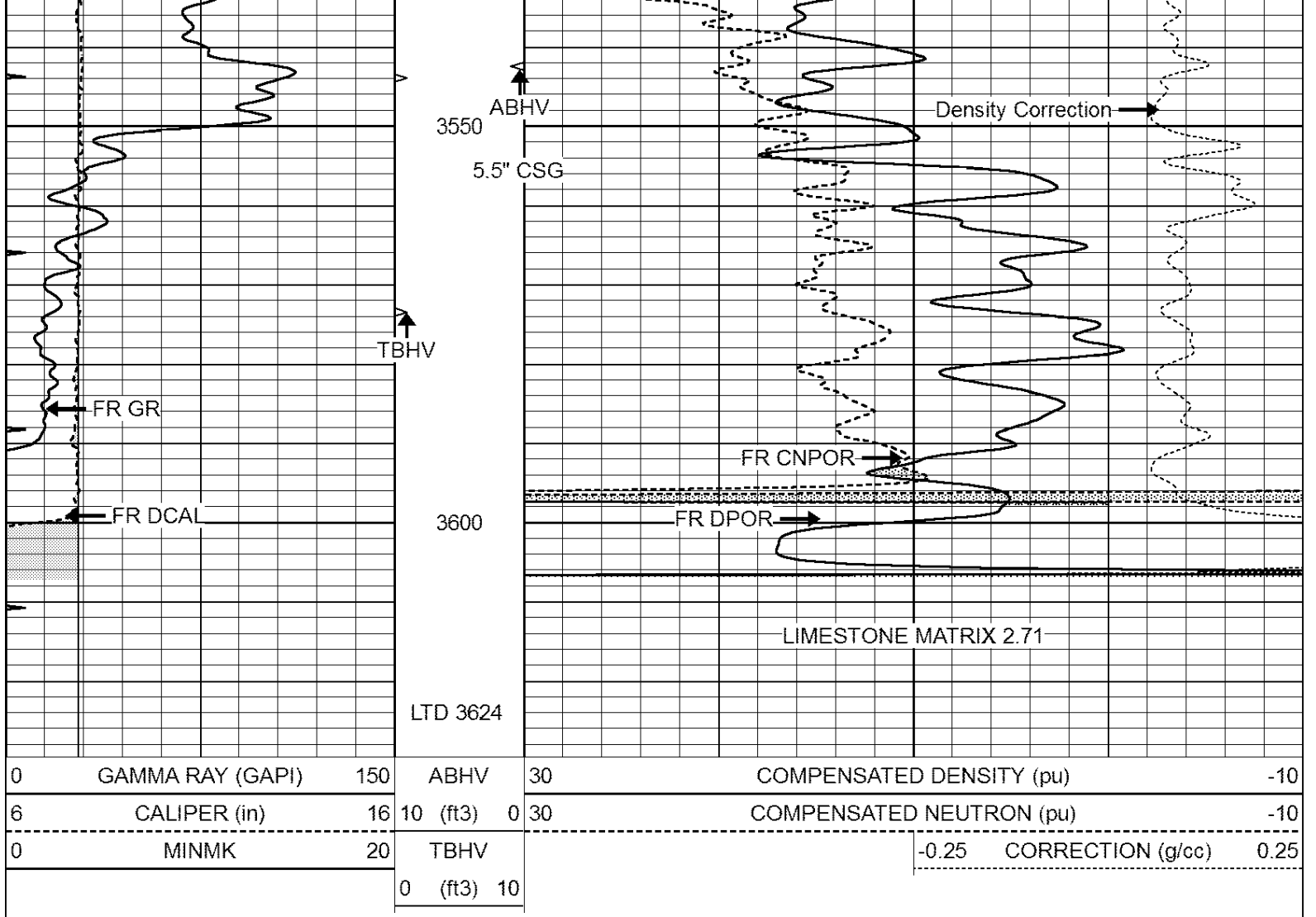
3350

3400

3450

3500



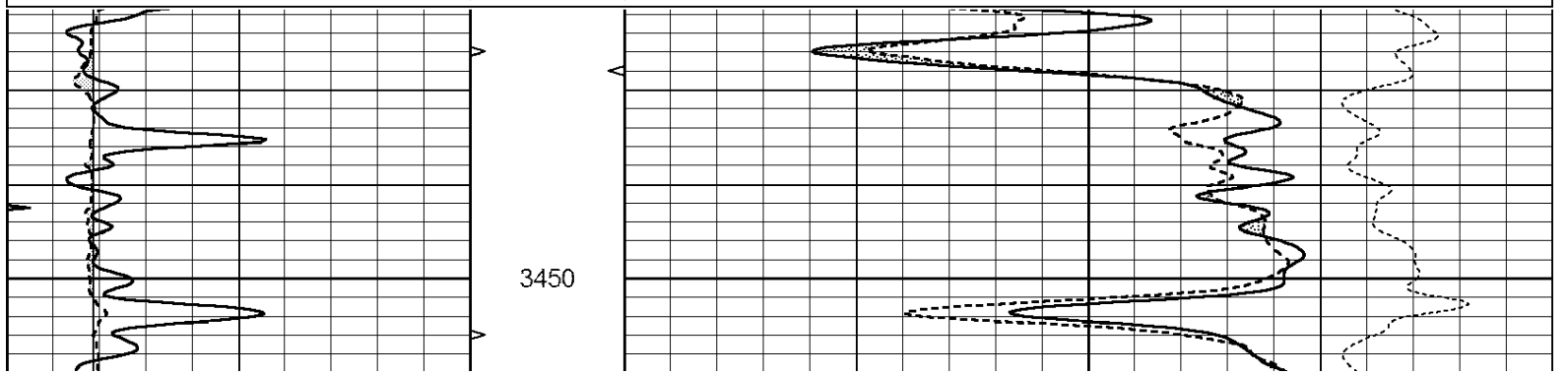


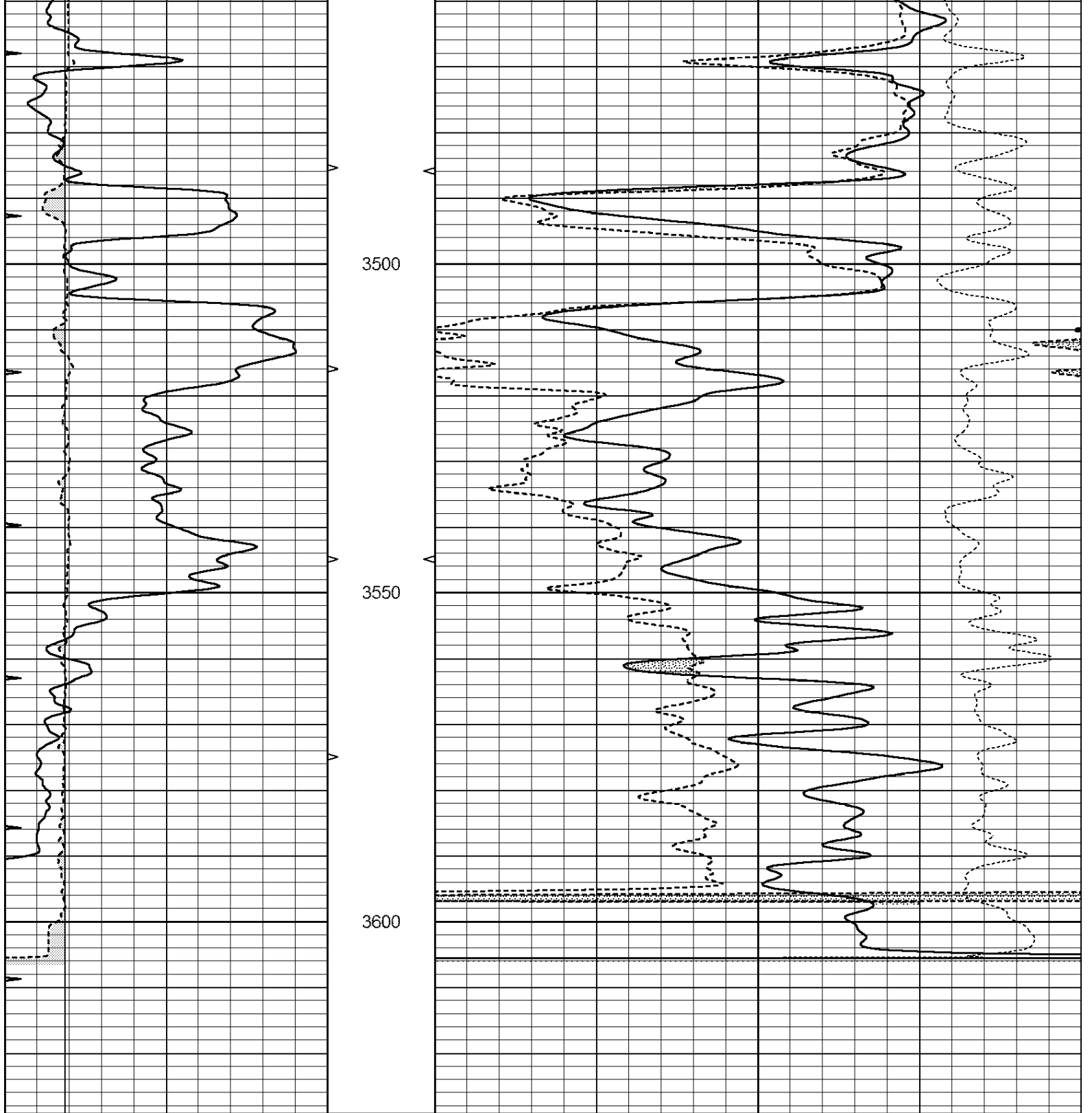
SUPERIOR  
Hays,  
Kansas

# REPEAT SECTION

Database File: 007280ddn.db  
 Dataset Pathname: pass2.2  
 Presentation Format: den\_neu  
 Dataset Creation: Fri Aug 12 09:24:58 2011 by Calc Open-Cased 110302  
 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		





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: 007280ddn.db  
 Dataset Pathname: pass3.1  
 Dataset Creation: Fri Aug 12 09:19:54 2011 by Calc Open-Cased 110302

Dual Induction Calibration Report

		Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b	
Deep	0.011	0.656	V	0.000	400.000	mmho/m	640.000	8.000	
Medium	0.013	0.740	V	0.000	462.500	mmho/m	700.000	-5.000	
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	4.4	8.0
High Ref	6.5	15.0
Gain:	3.2	Offset: -5.9

Compensated Neutron Calibration Report

Serial Number: NEU\_11  
Tool Model: G

CALIBRATION

Detector	Readings	Target	Normalization
Short Space	1.00 cps	1.00 cps	1.0000
Long Space	1.00 cps	1.00 cps	1.0000

Gamma Ray Calibration Report

Serial Number: GR1  
Tool Model: OPEN  
Performed: Wed Aug 10 18:50:10 2011

Calibrator Value: 200.0 GAPI

Background Reading: 3.0 cps  
Calibrator Reading: 186.0 cps

Sensitivity: 0.2500 GAPI/cps