



SUPERIOR
Hays,
Kansas

COMPENSATED
DENSITY / NEUTRON
PE LOG

Company		MULL DRILLING COMPANY, INC.	
Well		REINERT #1-11	
Field		WILDCAT	
County		NESS	
State		KANSAS	
Location:		APL # : 15-135-25185-0000 1617' FSL & 1996' FWL NE/4 - SW/4	
SEC 11 TWP 20S RGE 23W		Other Services DIL MEL/SON	
Permanent Datum		GROUND LEVEL Elevation 2259	
Log Measured From		KELLY BUSHING 8' A.G.L.	
Drilling Measured From		KELLY BUSHING	
Date		12-22-10	
Run Number		ONE	
Depth Driller		4451	
Depth Logger		4452	
Bottom Logged Interval		4428	
Top Log Interval		3600	
Casing Driller		8 7/8" @ 229	
Casing Logger		226	
Bit Size		7 7/8	
Type Fluid in Hole		CHEMICAL MUD	
Density / Viscosity		9.2/52	
pH / Fluid Loss		9.5/8.0	
Source of Sample		FLOWLINE	
Rim @ Meas. Temp		0.95 @ 69F	
Rmf @ Meas. Temp		0.71 @ 69F	
Rmc @ Meas. Temp		1.14 @ 69F	
Source of Rmf / Rmc		MEASURED	
Rim @ BHT		0.55 @ 120F	
Time Circulation Stopped		2 HOURS	
Time Logger on Bottom			
Maximum Recorded Temperature		120F	
Equipment Number		680	
Location		HAYS, KS.	
Recorded By		JEFF GRONEMEG	
Witnessed By		KEVIN KESSLER	

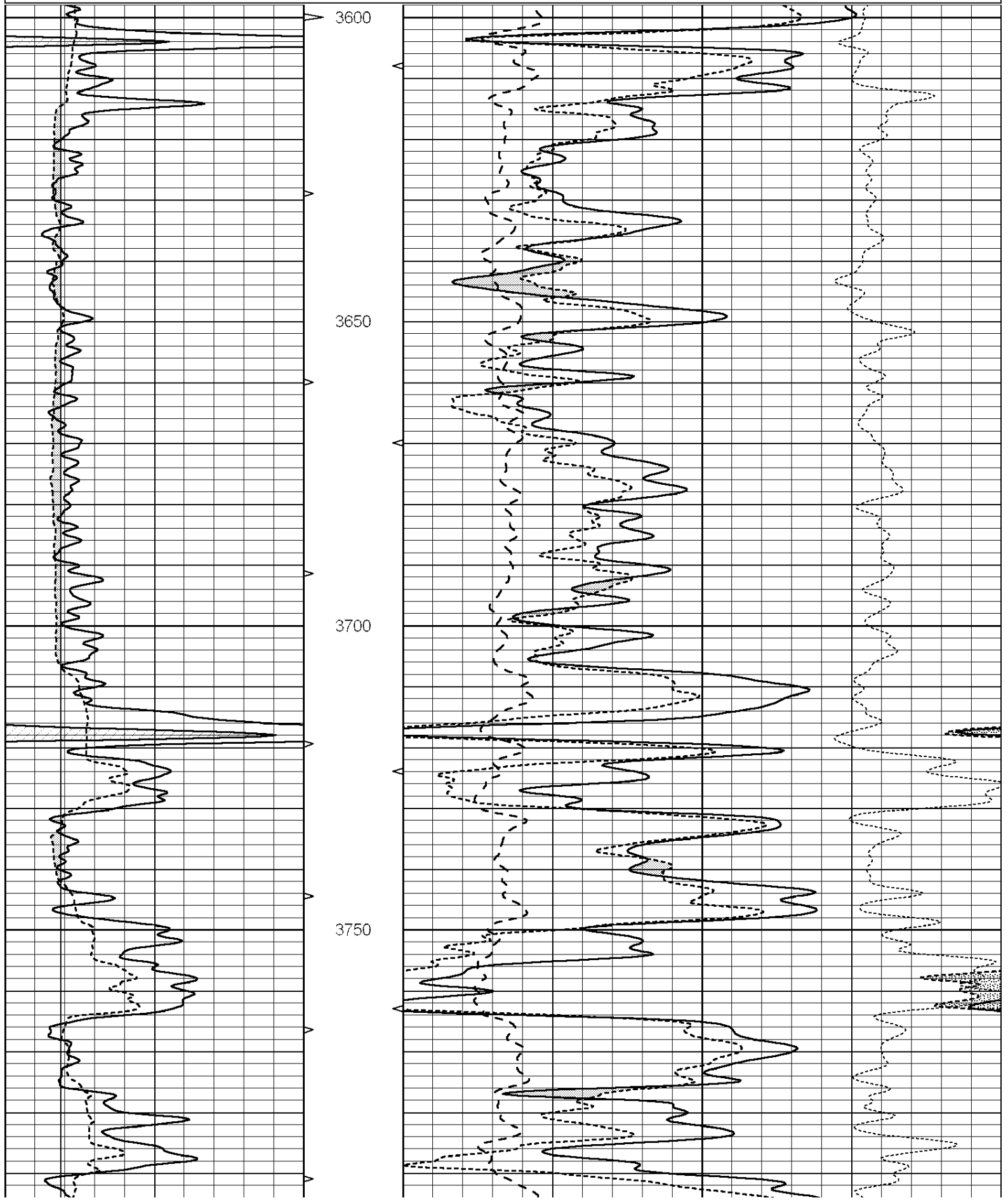
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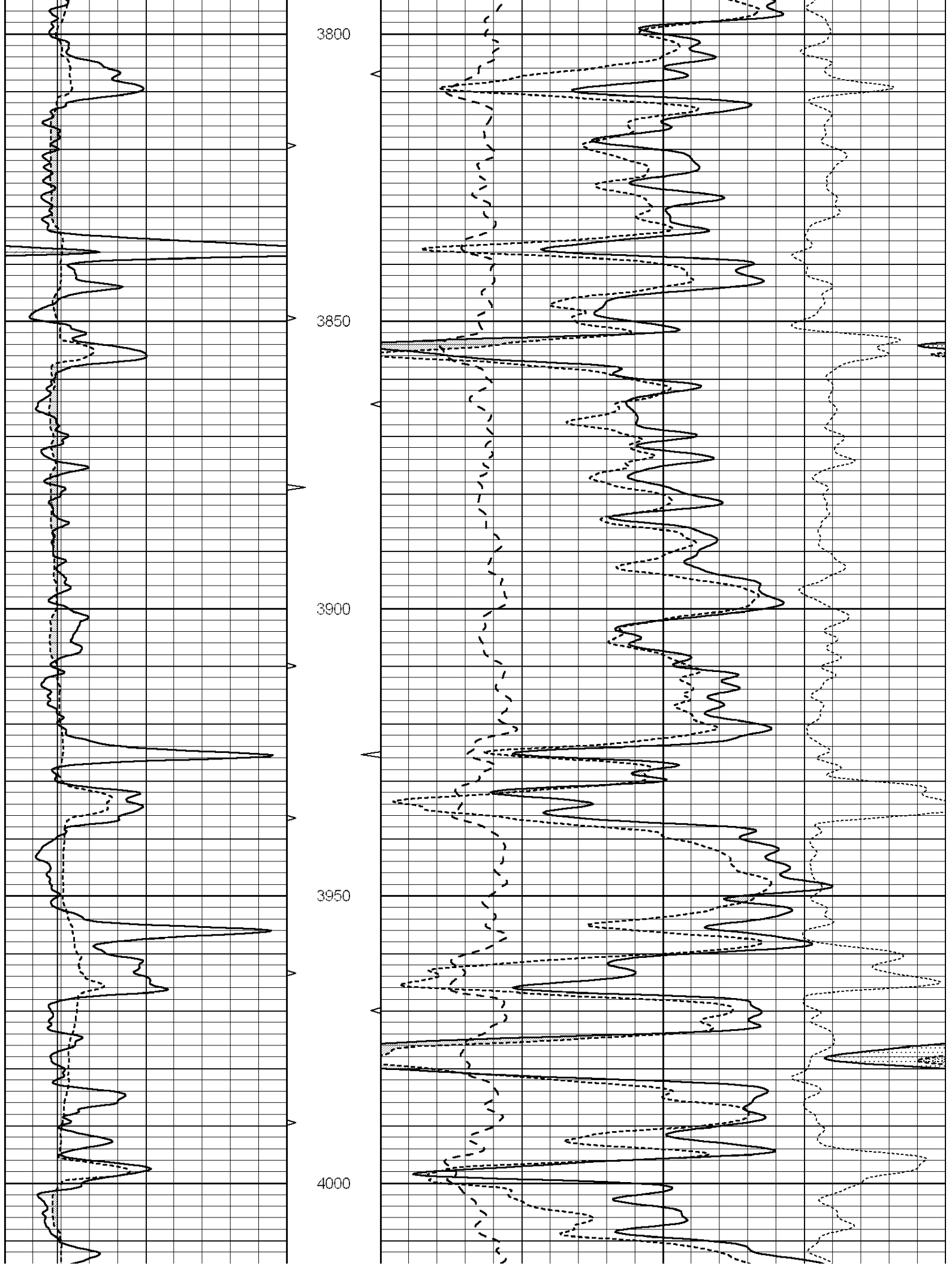
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

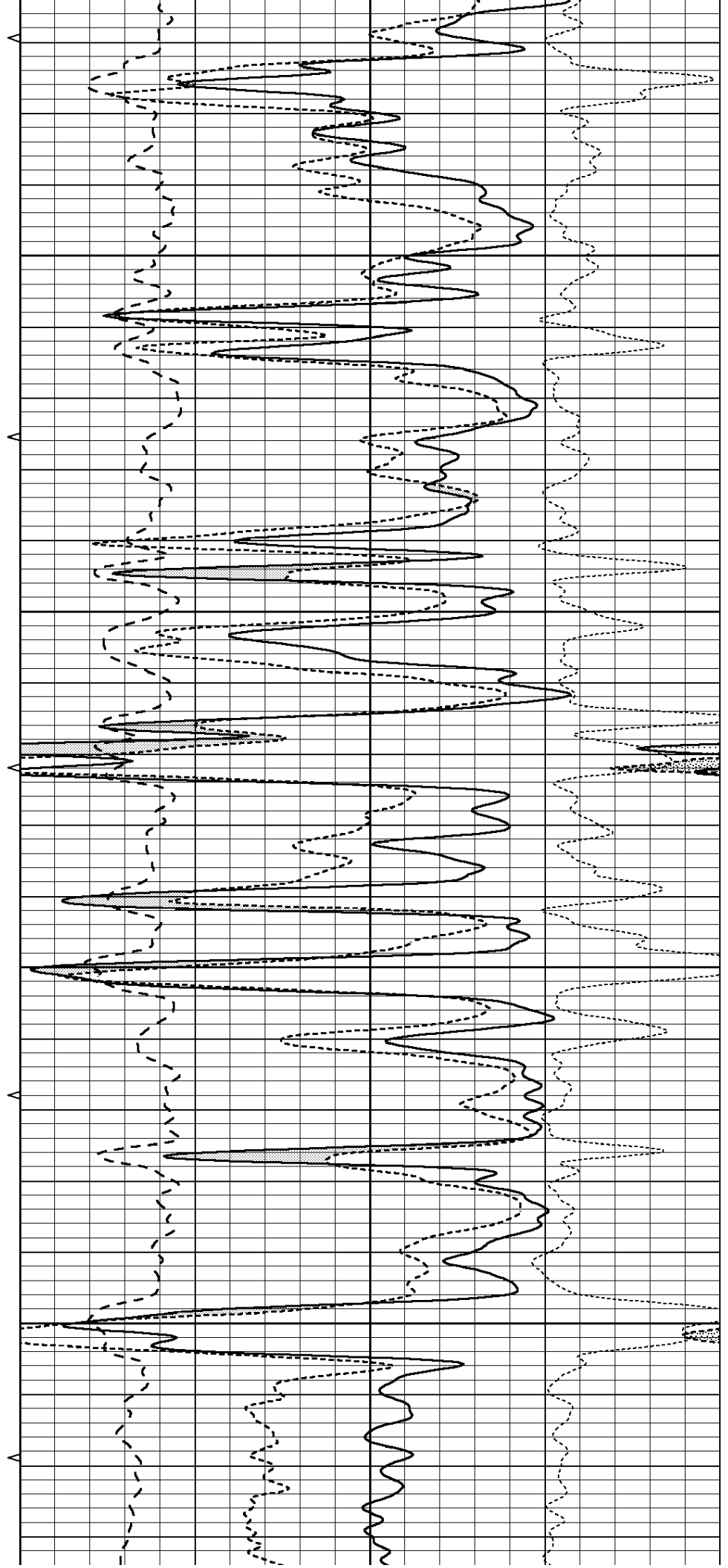
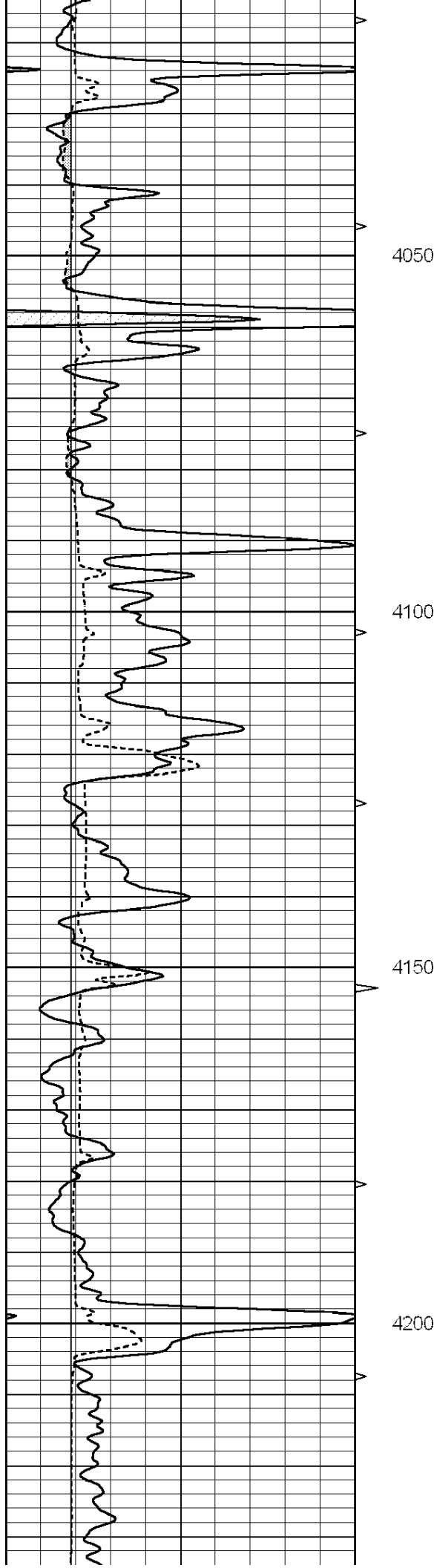
Comments

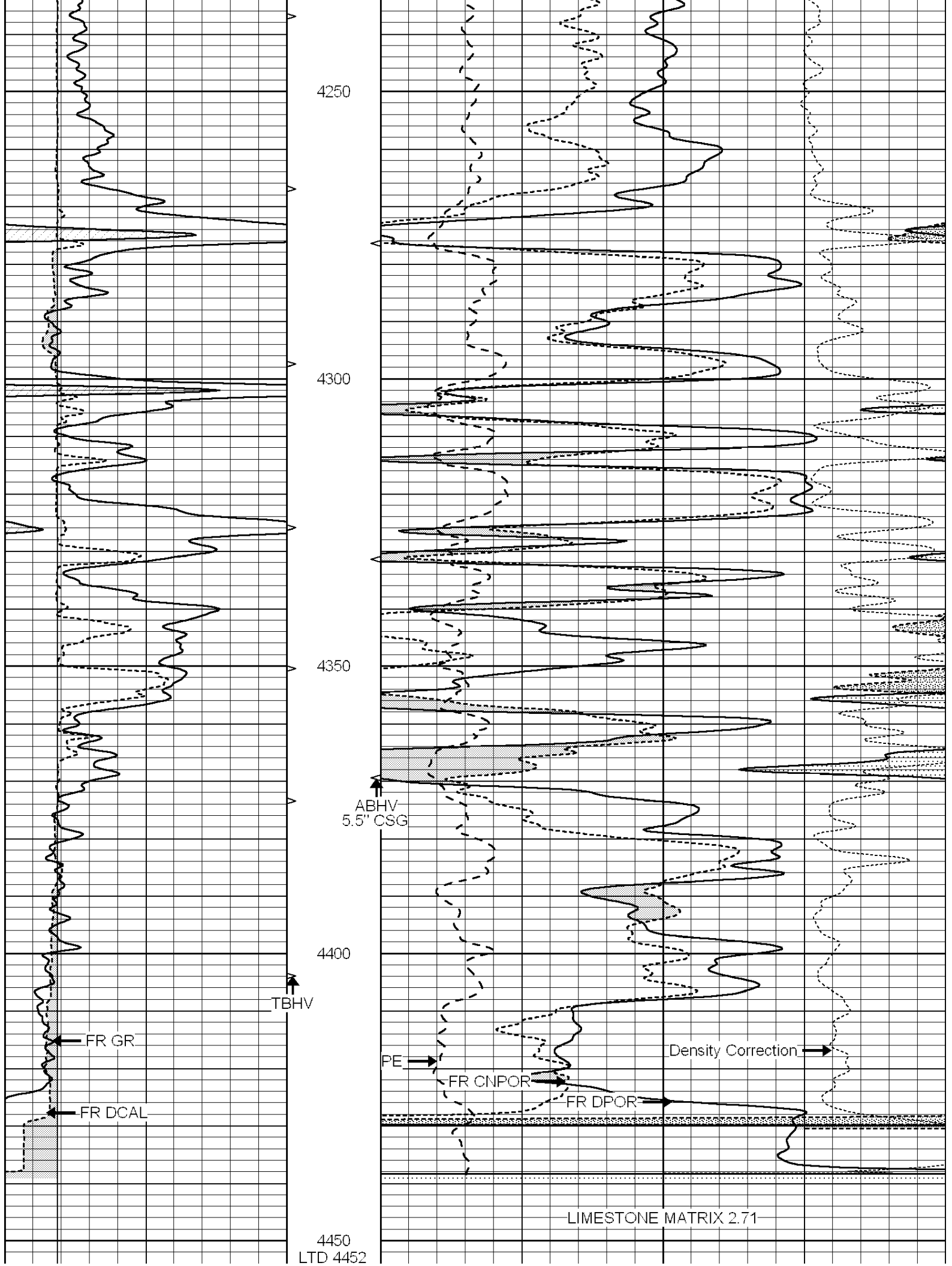
THANK YOU FOR USING SUPERIOR WELL SERVICE (785) 628-6395
DIRECTIONS
NESS CITY, KS - 9 MILES SOUTH TO COUNTY RD 40 - 3 MILES EAST
NORTH INTO

Charted by: _____		Depth in Feet scaled 1:2.15				
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3) 0	30	COMPENSATED NEUTRON (pu)	-10
			TBHV	0	PE	10
			0 (ft3) 10	-0.25	CORRECTION (g/cc)	0.25









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

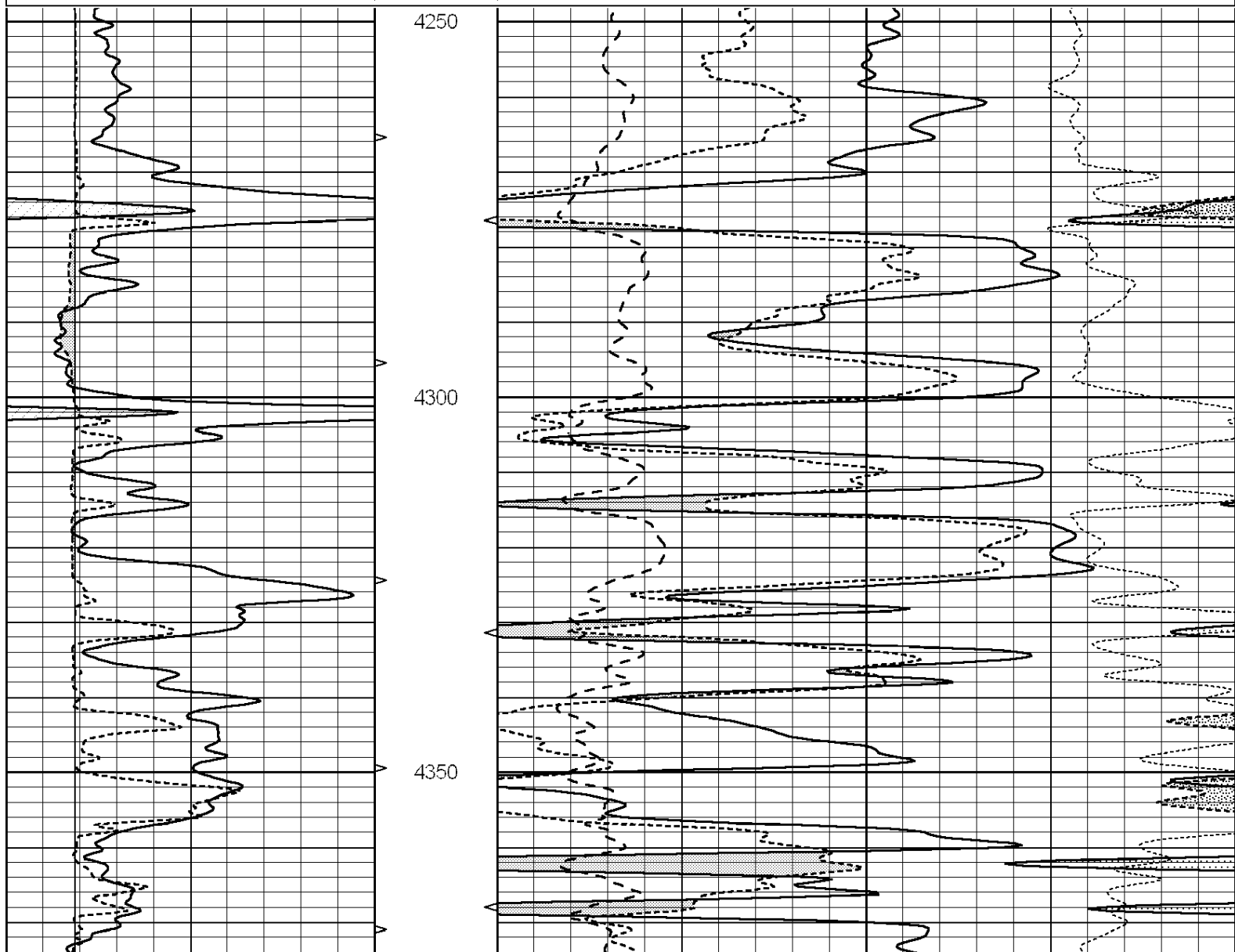


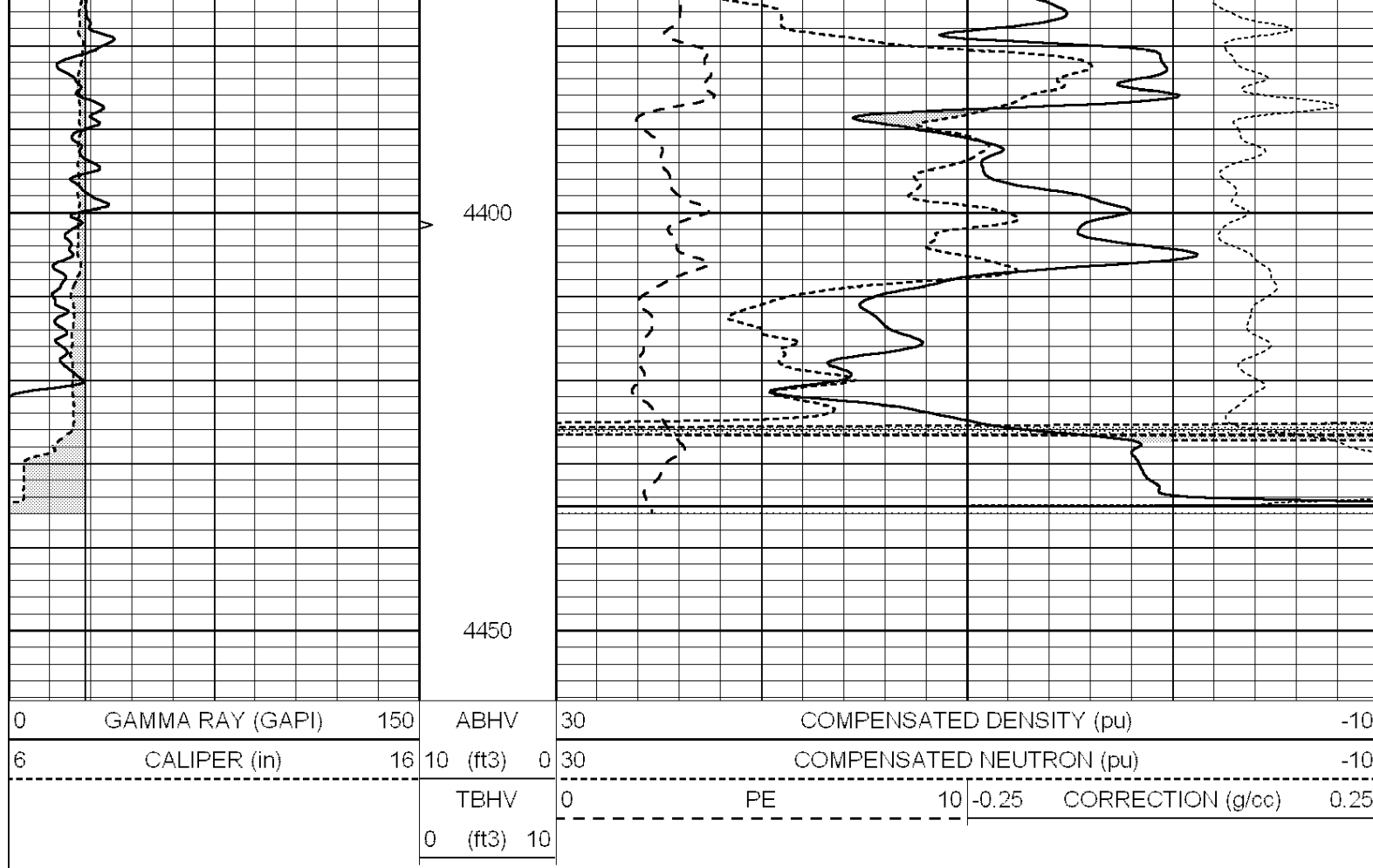
SUPERIOR
Hays,
Kansas

REPEAT SECTION

Database File: 006436pe.db
Dataset Pathname: pass2.2
Presentation Format: _ldt_neu
Dataset Creation: Wed Dec 22 04:40:58 2010 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
			TBHV	0	PE	10 -0.25 CORRECTION (g/cc) 0.25
			0 (ft3) 10			





Calibration Report

Database File: 006436pe.db
 Dataset Pathname: pass3.1
 Dataset Creation: Wed Dec 22 04:24:32 2010 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: PROBE7-DILG
 Surface Cal Performed: Wed Jul 30 06:14:24 2008
 Downhole Cal Performed: Mon Jul 28 12:02:56 2008
 After Survey Verification Performed: Mon Jul 28 12:02:56 2008

Surface Calibration

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	621.923	8.759
Medium	0.039	0.728	V	0.000	464.000	mmho/m	673.322	-26.058
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.011	0.610	V	0.000	400.000	mmho/m	667.135	-7.256
Medium	0.005	0.712	V	0.000	464.000	mmho/m	655.677	-3.102

Downhole Calibration

Readings				References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	14.508	388.384	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	166.367	504.400	mmho/m	1.000	0.000
LL3		7.500	V		1400.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		7.000	V		4000.000	mmho/m		

After Survey Verification								
Readings			Targets			Results		
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
LL3		1.000	Ohm-m		1.000	Ohm-m		
		0.000	Ohm-m		0.000	Ohm-m		
		1.000	mmho-m		1.000	mmho-m		

Litho Density Calibration Report Serial: 002 Model: PRB Performed Mon Oct 29 15:40:49 2007								
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Litho Density Calibration								
	Background		Magnesium		Aluminum		Sandstone	
Window 1	1056.3		9118.0		2809.7		10378.4	
Window 2	969.9		7671.9		2431.6		8565.8	
Window 3	683.8		2939.8		1161.0		3161.8	
Window 4	231.4		231.6		226.7		230.8	
Long Space	0.0		6702.0		1461.7		7595.9	
Short Space	1.2		1433.6		959.4		1568.6	
Rho			1.7100		2.5900		1.3800	
Pe					2.5700		1.5500	
Rib Angle	: 45.2		Rib Slope	: 1.008		Density/Spine Ratio	: 0.559	
Spine Angle	: 75.2		Spine Slope	: 3.791		Spine Intercept	: -18.7	

Caliper		
	Readings	Reference
Low Ref	2.7	8.0
High Ref	4.9	14.0
	Gain: 2.8	Offset: -0.1

Compensated Neutron Calibration Report								
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Serial Number:			5I					
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								
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Serial Number:			GR6					
Tool Model:			OPEN					
Performed:			Wed Jul 14 14:14:30 2010					
Calibrator Value:			150.0		GAPI			
Background Reading:			0.0		cps			
Calibrator Reading:			276.0		cps			
Sensitivity:			0.6535		GAPI/cps			