



**SUPERIOR
Hays,
Kansas**

**COMPENSATED
DENSITY/NEUTRON
LOG**

Company MULL DRILLING COMPANY, INC.
Well #1-31 CURTIS "D"
Field WILDCAT
County GOVE
State KANSAS

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Well #1-31 CURTIS "D"
Field WILDCAT
County GOVE State KANSAS

Location: API #: 15-063-21833-0000
990' FSL & 1101' FWL
SEC 31 TWP 15S RGE 27W
Permanent Datum GROUND LEVEL Elevation 2563
Log Measured From KELLY BUSHING 9' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
DIL/MEL
SONIC
Elevation
K.B. 2672
D.F. 2570
G.L. 2563

Date	3-27-10
Run Number	ONE
Depth Driller	4570
Depth Logger	4574
Bottom Logged Interval	4550
Top Log Interval	3500
Casing Driller	8 5/8" @ 232
Casing Logger	232
Bit Size	7 7/8
Type Fluid In Hole	CHEMICAL MUD
Density / Viscosity	9.3/62
pH / Fluid Loss	10.0/8.4
Source of Sample	FLOWLINE
Rm @ Meas. Temp	1.3 @ 64F
Rmf @ Meas. Temp	.975 @ 64F
Rmc @ Meas. Temp	1.56 @ 64F
Source of Rmf / Rmc	MEASURED
Rm @ BHT	.687 @ 121F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	
Maximum Recorded Temperature	121F
Equipment Number	680
Location	HAYS, KANSAS
Recorded By	JASON CAPPELLUCCI
Witnessed By	KEVIN KESSLER

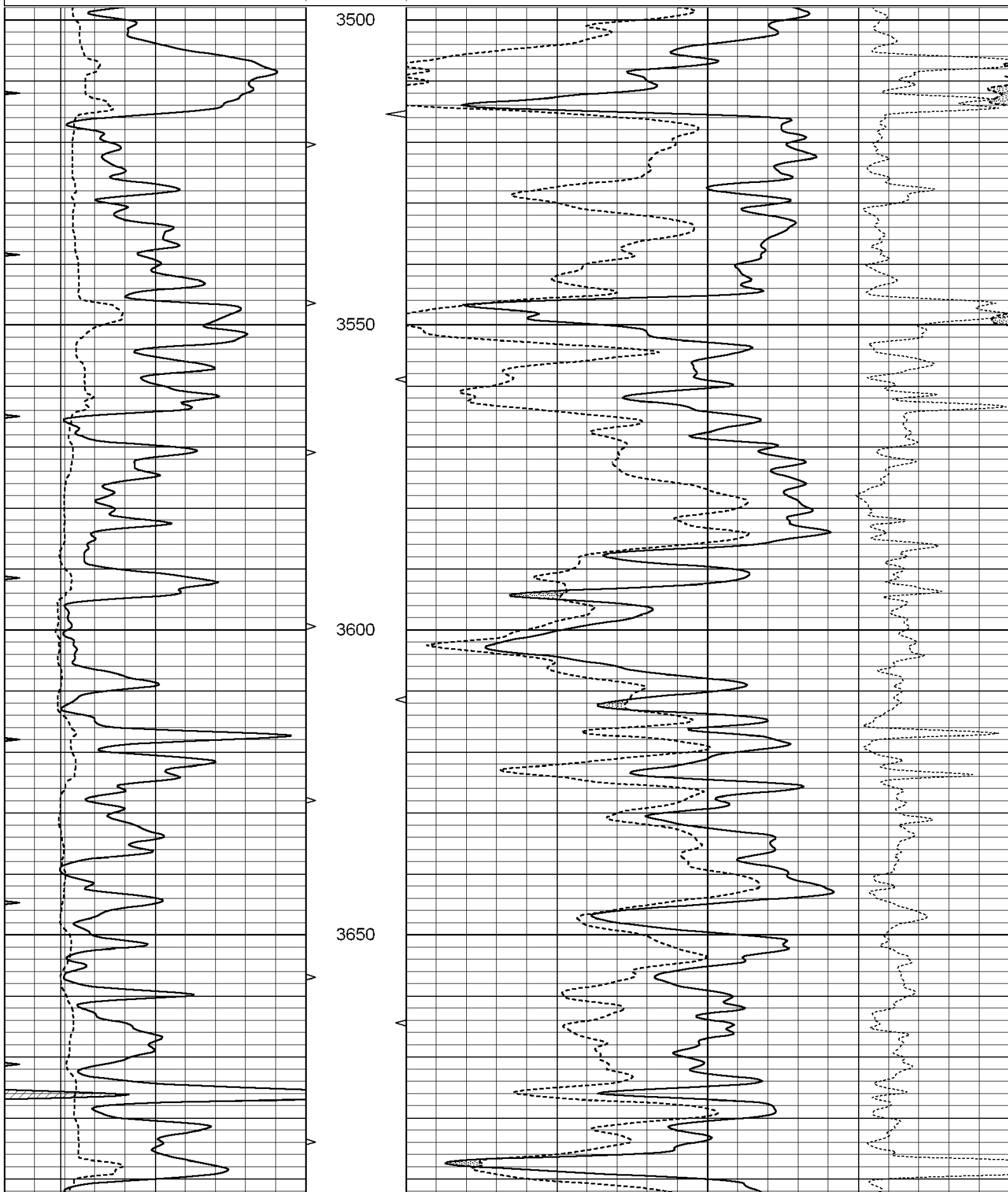
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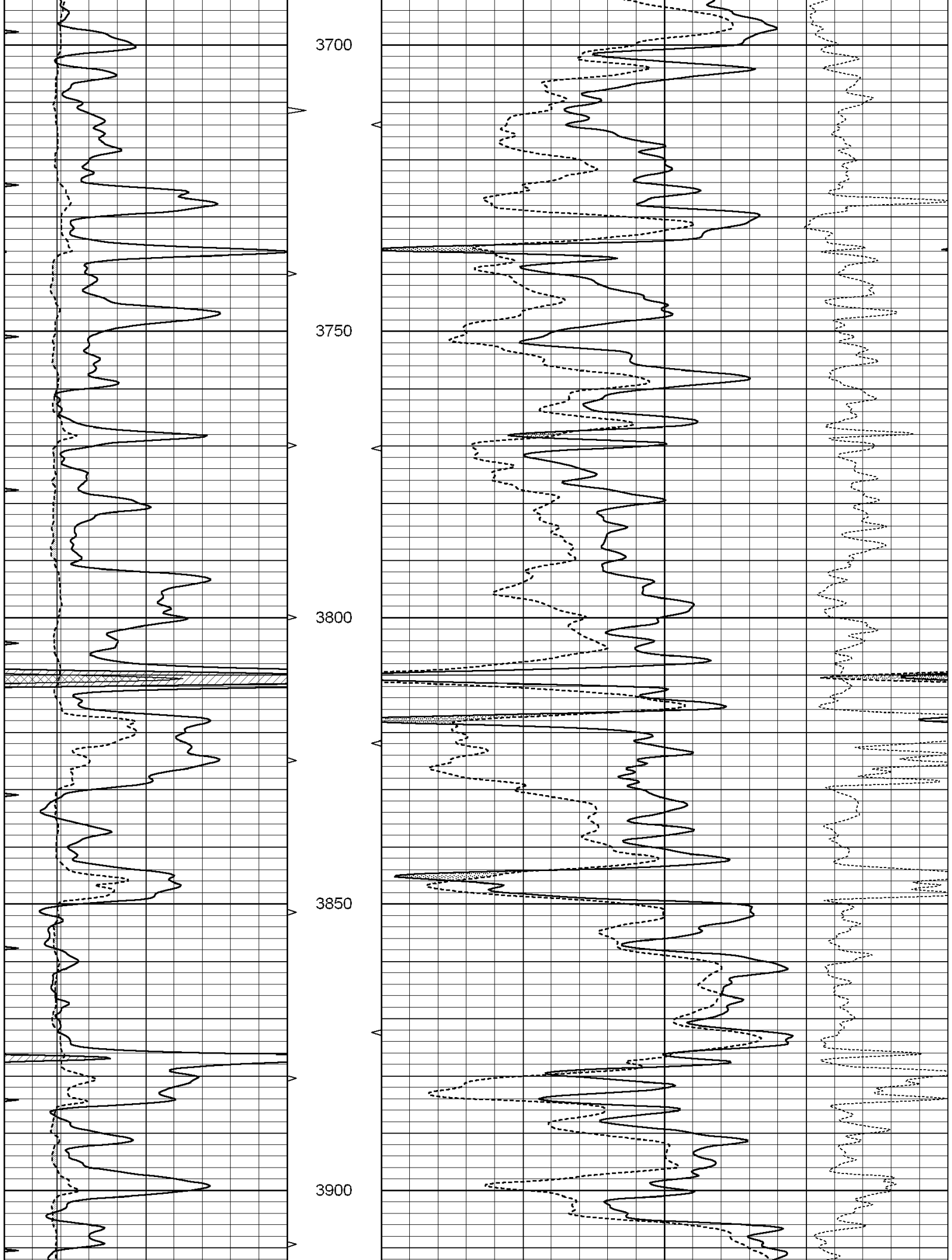
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

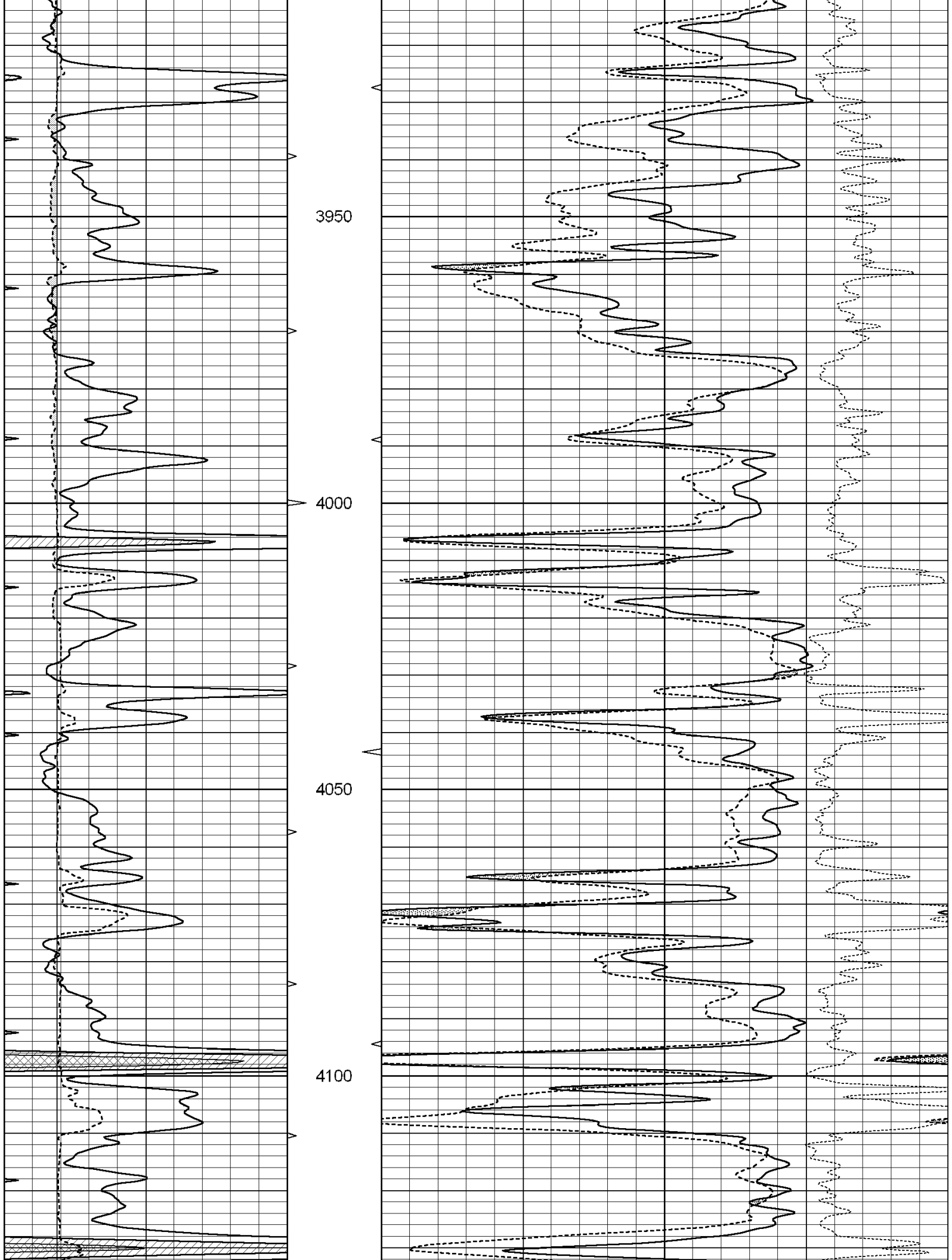
Comments

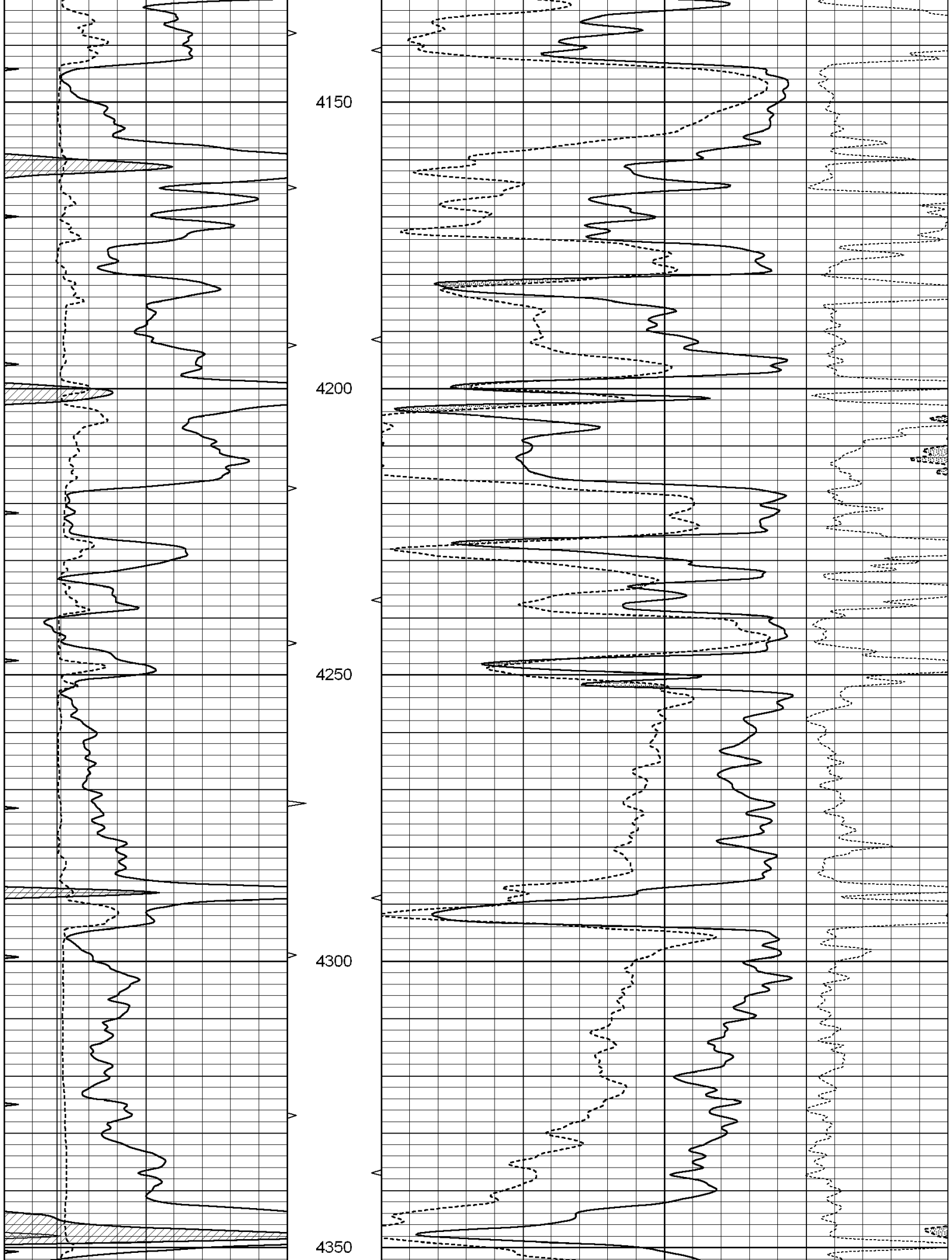
THANK YOU FOR USING SUPERIOR WELL SERVICES HAYS, KANSAS (785)628-6395
DIRECTIONS
UTICA KS., 3 W. TO QUINTER RD. - N. TO GOVE COUNTY RD. - W. TO FARMHOUSE
N. ACROSS 3 CATTLE GUARDS - 1/4 W. - S. INTO

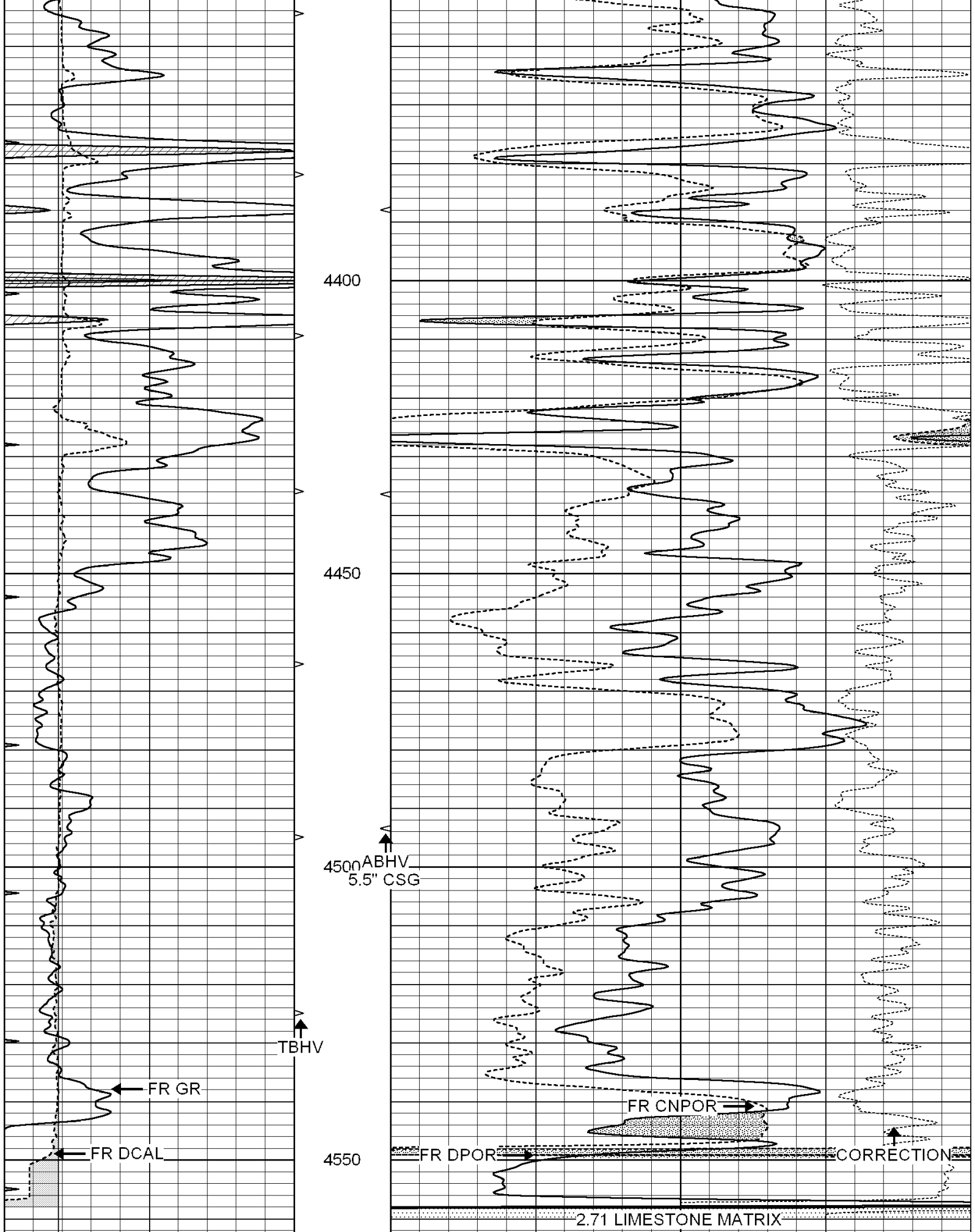
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3) 0	30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3) 10			











LTD 4574

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		

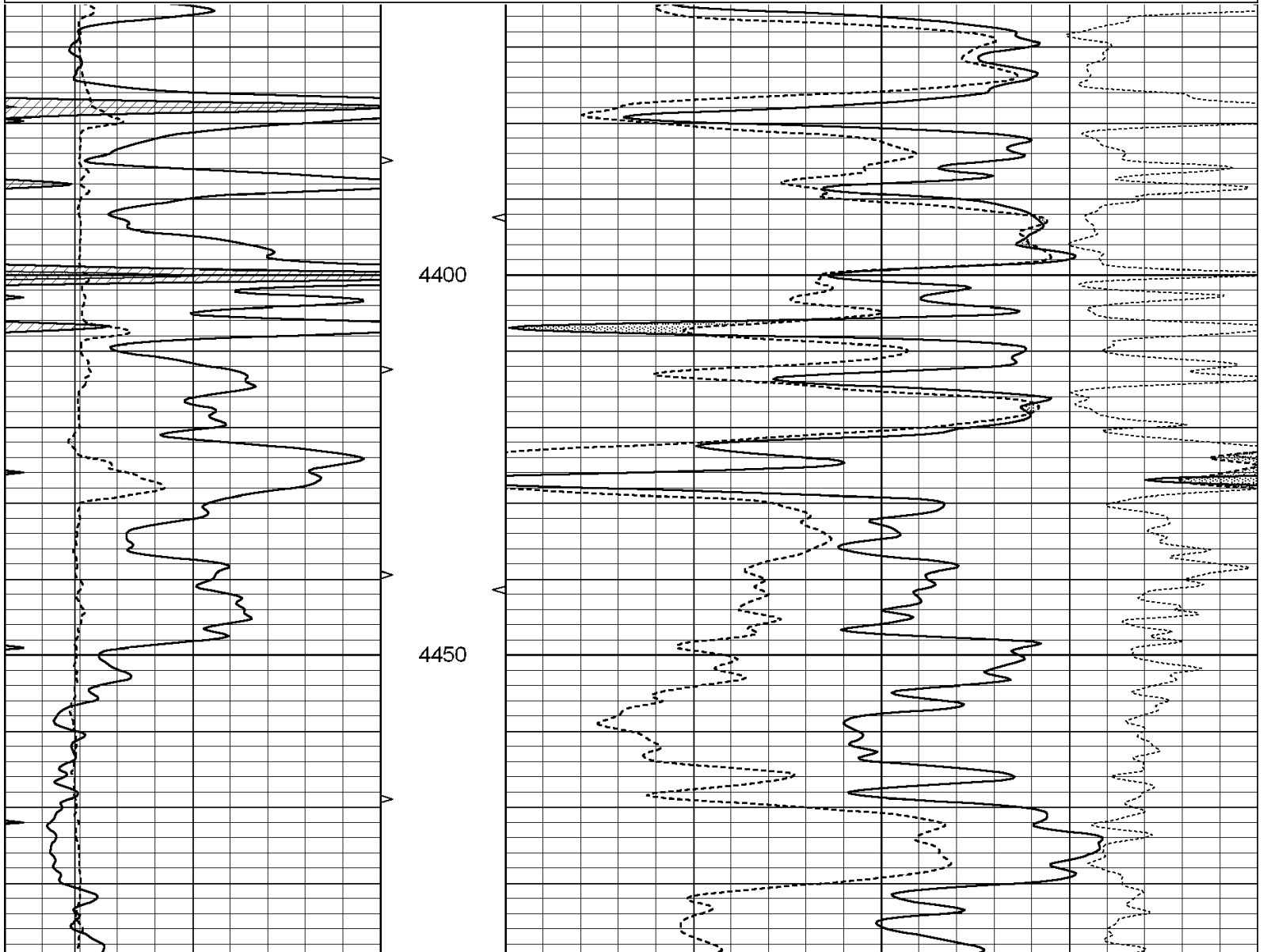


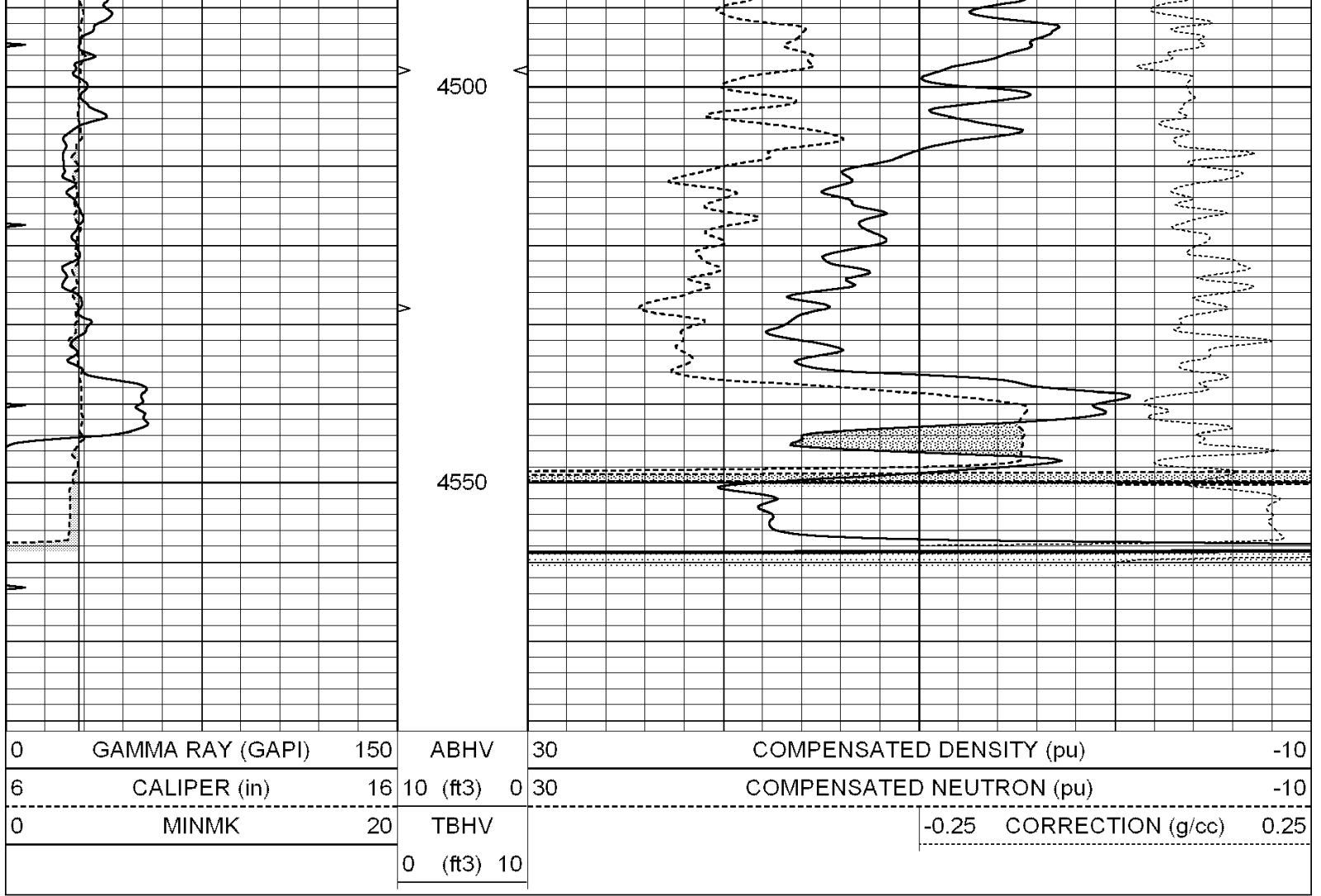
SUPERIOR
Hays,
Kansas

REPEAT SECTION

Database File: 005106ddn.db
 Dataset Pathname: pass2.1
 Presentation Format: _den_neu
 Dataset Creation: Sat Mar 27 20:57:24 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
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10		





Calibration Report

Database File: 005106ddn.db
 Dataset Pathname: pass2.1
 Dataset Creation: Sat Mar 27 20:57:24 2010 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: PROBE8-DILG
 Surface Cal Performed: Fri Aug 01 06:33:19 2008
 Downhole Cal Performed: Mon Jul 28 11:08:27 2008
 After Survey Verification Performed: Mon Jul 28 11:08:27 2008

Surface Calibration

Loop:	Readings				References		Results	
	Air	Loop			Air	Loop	m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	632.616	-9.730
Medium	0.029	0.796	V	0.000	464.000	mmho/m	605.049	-17.680
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.017	0.657	V	0.000	400.000	mmho/m	625.153	-10.619
Medium	0.016	0.757	V	0.000	464.000	mmho/m	625.992	-9.739

Downhole Calibration

	Readings				References		Results	
	Zero	Cal			Zero	Cal	m'	b'
Deep	0.000	0.000	mmho/m	2.011	405.777	mmho/m	1.000	0.000

Medium	0.000	0.000	mmho/m	7.590	503.393	mmho/m	1.000	0.000
LL3		7.500	V		1500.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-6.500	V		3800.000	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		

Compensated Density Calibration Report

Serial-Model:	GEAR4-GEARHART
Source / Verifier:	143 / 143
Master Calibration Performed:	Mon Mar 22 11:13:58 2010

Master Calibration						
	Density		Far Detector	Near Detector		
Magnesium	1.710	g/cc	861.09	413.41	cps	
Aluminum	2.600	g/cc	196.82	293.14	cps	
Spine Angle = 76.89			Density/Spine Ratio = 0.587			
	Size		Reading			
Small Ring	8.00	in	1.66	V		
Large Ring	14.00	in	2.72	V		

Compensated Neutron Calibration Report

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

Serial Number:	GR6	
Tool Model:	OPEN	
Performed:	Tue Nov 10 08:32:36 2009	
Calibrator Value:	150.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	276.0	cps
Sensitivity:	0.5535	GAPI/cps