



SUPERIOR
Hays,
Kansas

COMPENSATED
DENSITY/NEUTRON
LOG

Company	PHILLIPS EXPLORATION CO., LC	Company	PHILLIPS EXPLORATION COMPANY, LC
Well	MINER #2-7	Well	MINER #2-7
Field	WILDCAT	Field	WILDCAT
County	NESS	County	NESS
State	KANSAS	State	KANSAS
Location:	API # : 15-135-25110-0000	Other Services	
	330' FNL & 330' FEL NE - NE - NE	DIL/MEL	
	SEC 7 TWP 18S RGE 24W	Elevation	
Permanent Datum	GROUND LEVEL	Elevation	2333
Log Measured From	KELLY BUSHING 5' A.G.L.	D.F.	2336
Drilling Measured From	KELLY BUSHING	G.L.	2333
Date	7-26-10		
Run Number	ONE		
Depth Driller	4480		
Depth Logger	4480		
Bottom Logged Interval	4456		
Top Log Interval	3500		
Casing Driller	8 5/8" @ 218'		
Casing Logger	218'		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 4600 PPM	
Density / Viscosity	9.5/60		
pH / Fluid Loss	9.5/9.6		
Source of Sample	FLOWLINE		
Rin @ Meas. Temp	1.10 @ 92F		
Rmf @ Meas. Temp	0.83 @ 92F		
Rmc @ Meas. Temp	1.32 @ 92F		
Source of Rmf / Rmc	MEASURED		
Rin @ BHT	0.84 @ 120F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	120F		
Equipment Number	680		
Location	HAYS, KANSAS		
Recorded By	JEFF GRONEMEG		
Witnessed By	JAMES PHILLIPS		

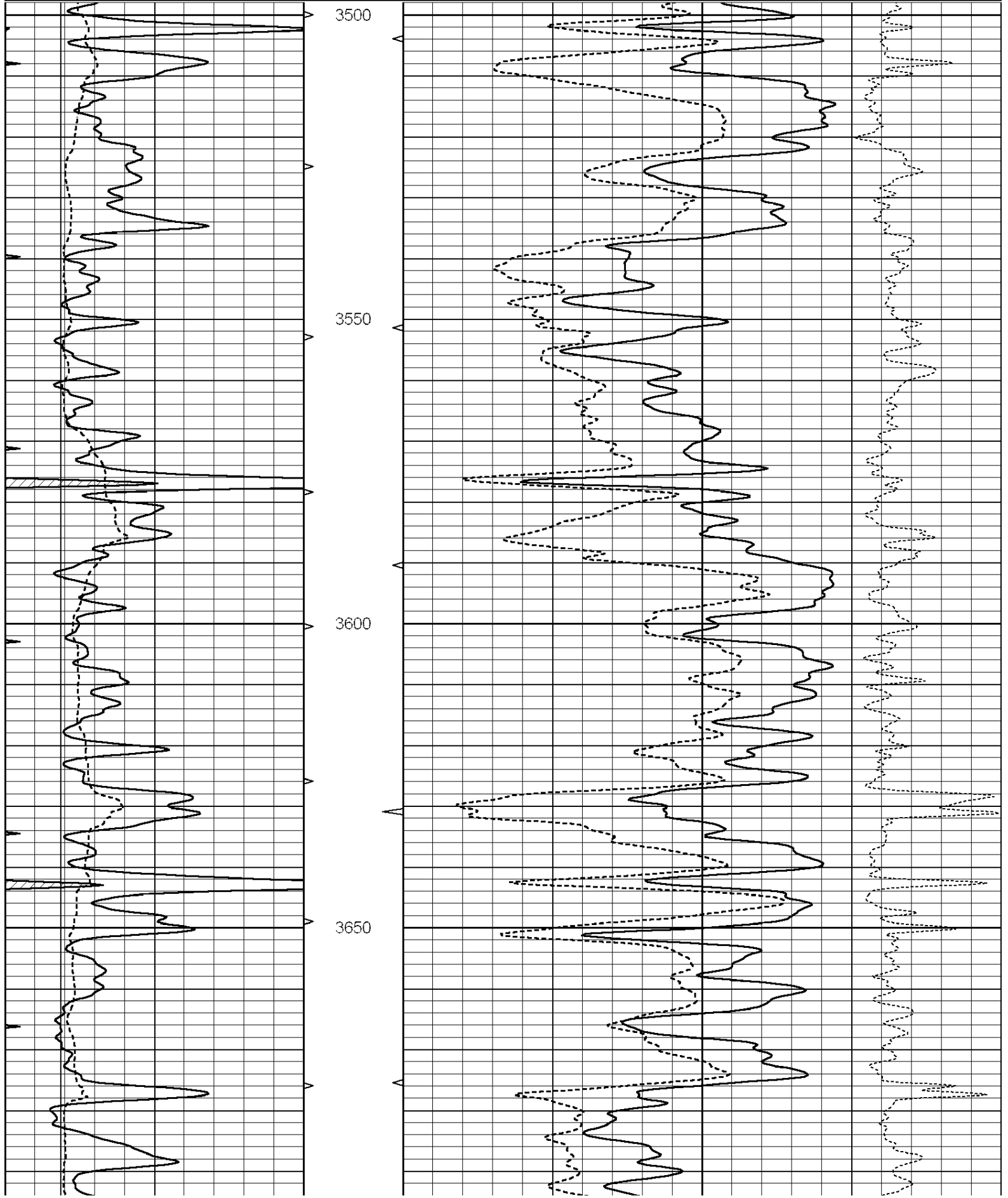
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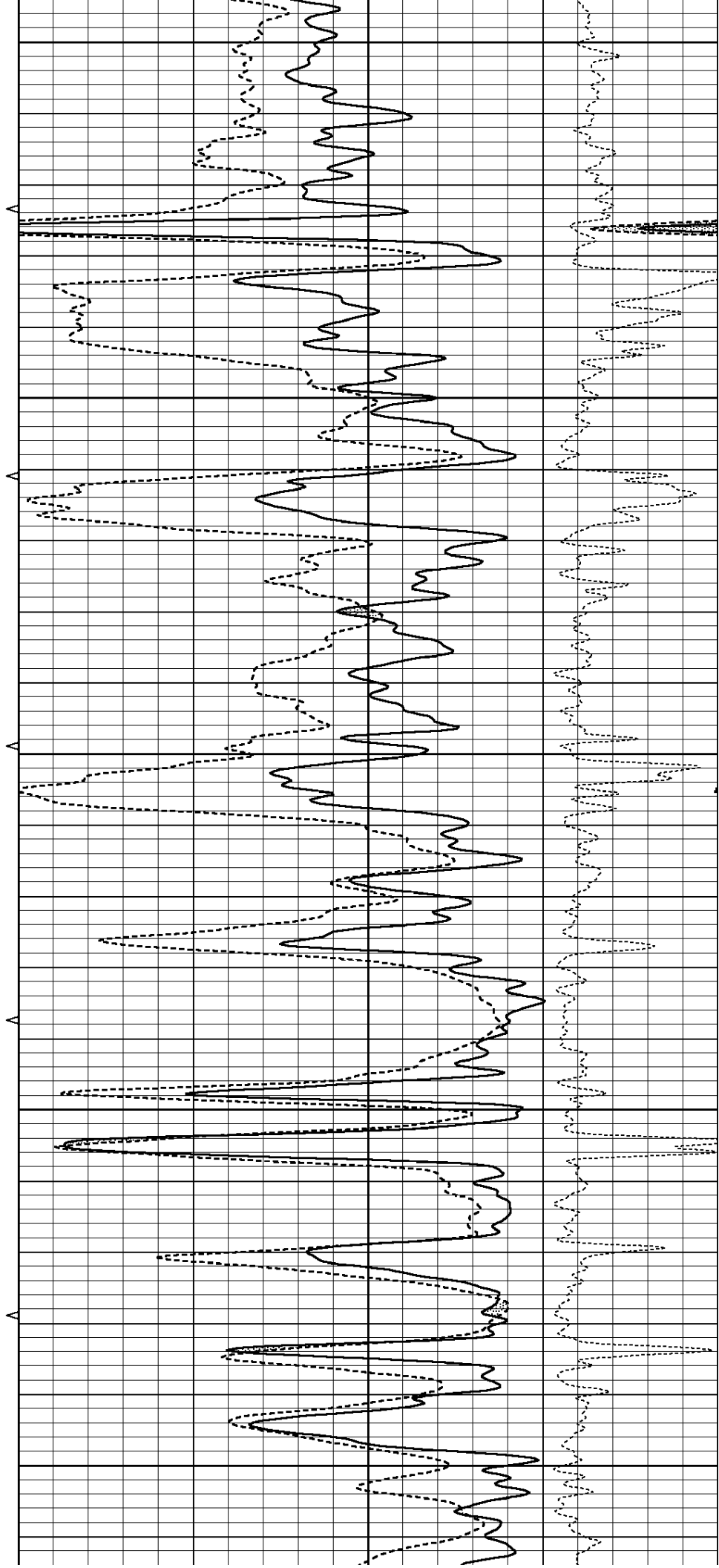
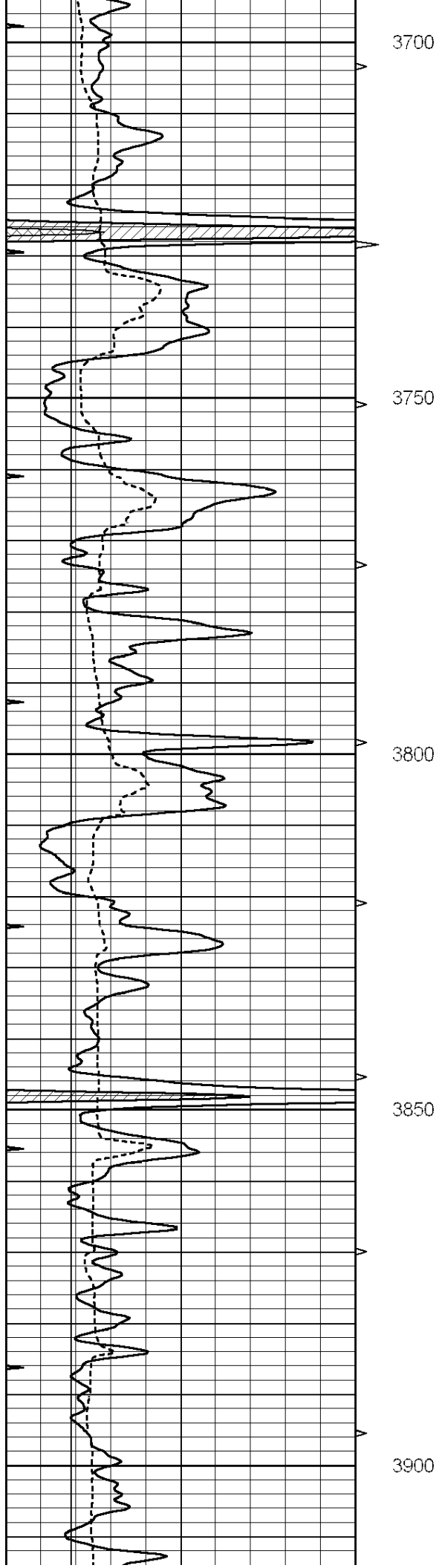
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

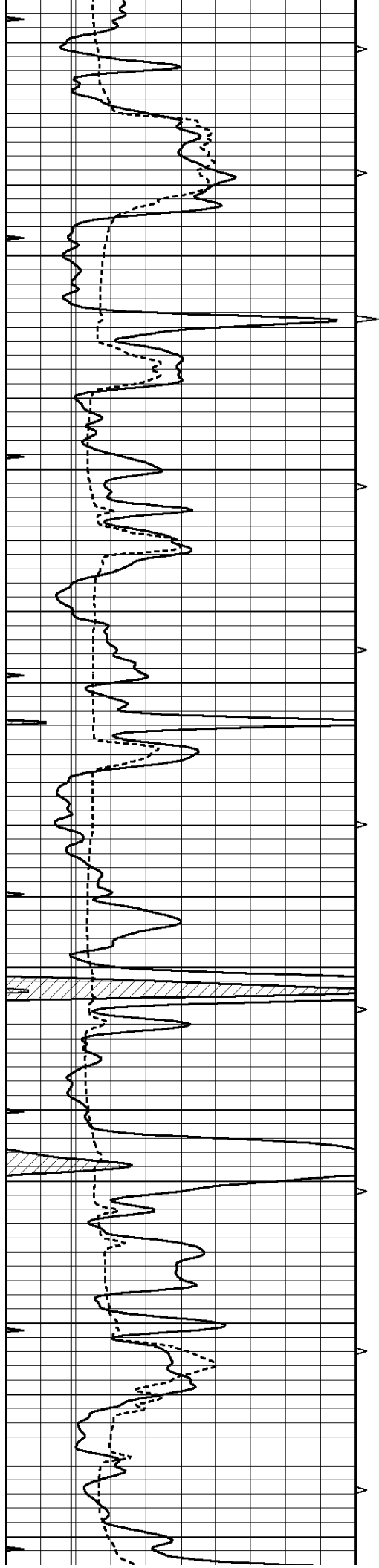
Comments

THANK YOU FOR USING SUPERIOR WELL SERVICES HAYS, KANSAS (785)628-6395
DIRECTIONS
INTERSECTION OF HWYS 283 & 4 - 9 MILES SOUTH TO RD 170
5 1/2 MILES WEST - SOUTH INTO

Charted by:		Depth in Feet scaled 1:2.15				
0	GAMMA RAY (GAPI)	150	AVTX	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3) 0	30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	BVTX	-0.25 CORRECTION (g/cc) 0.25		
			0 (ft3) 10			





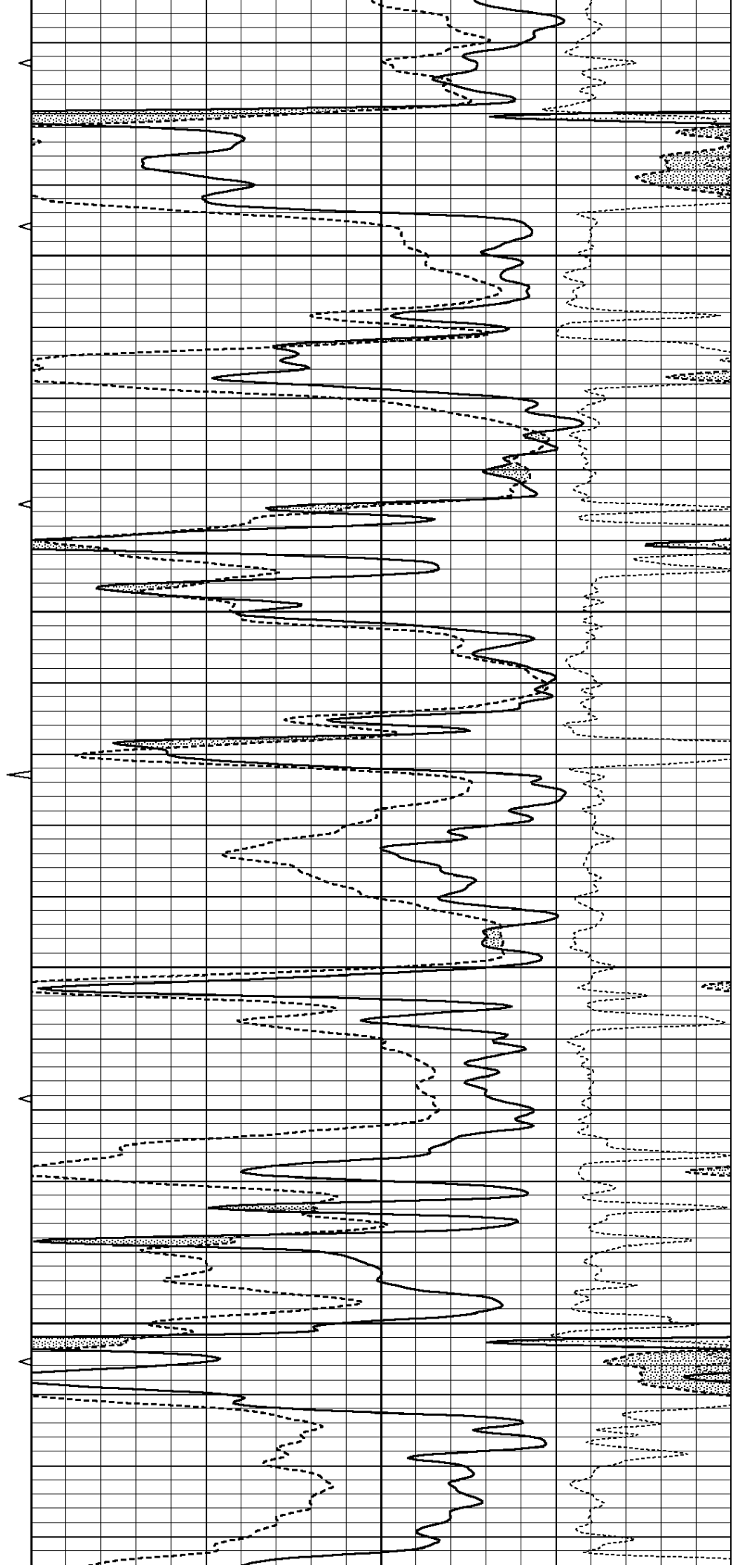


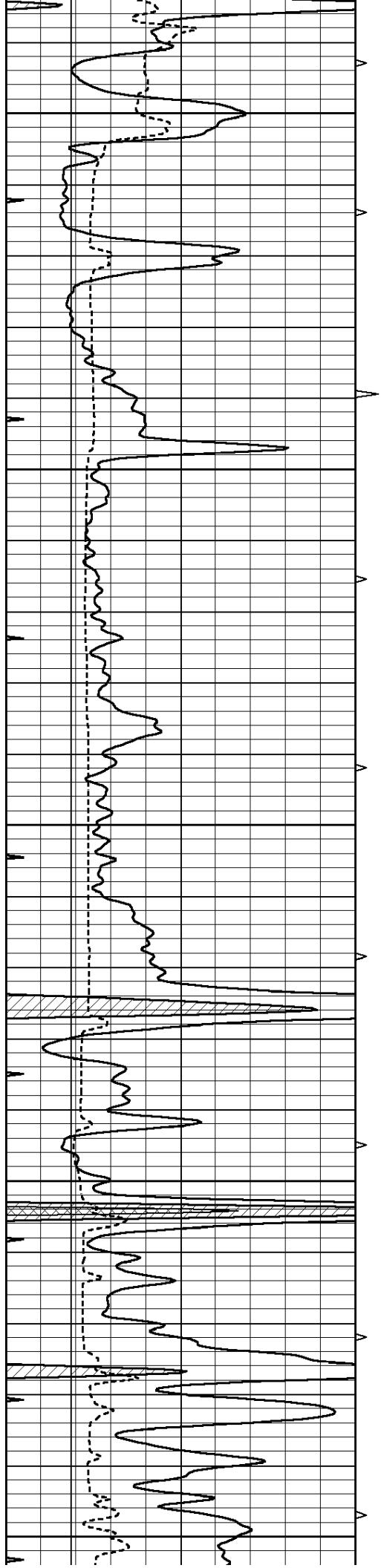
3950

4000

4050

4100





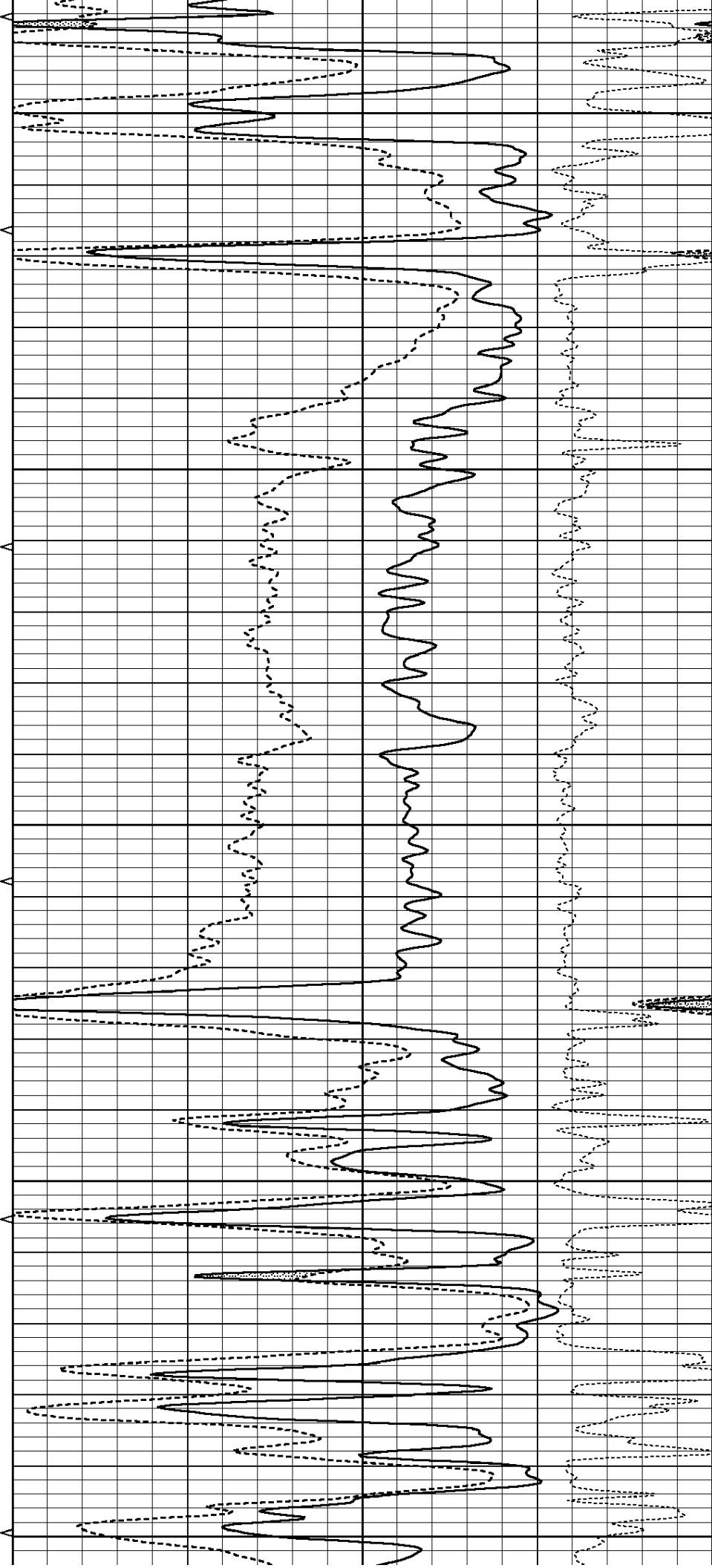
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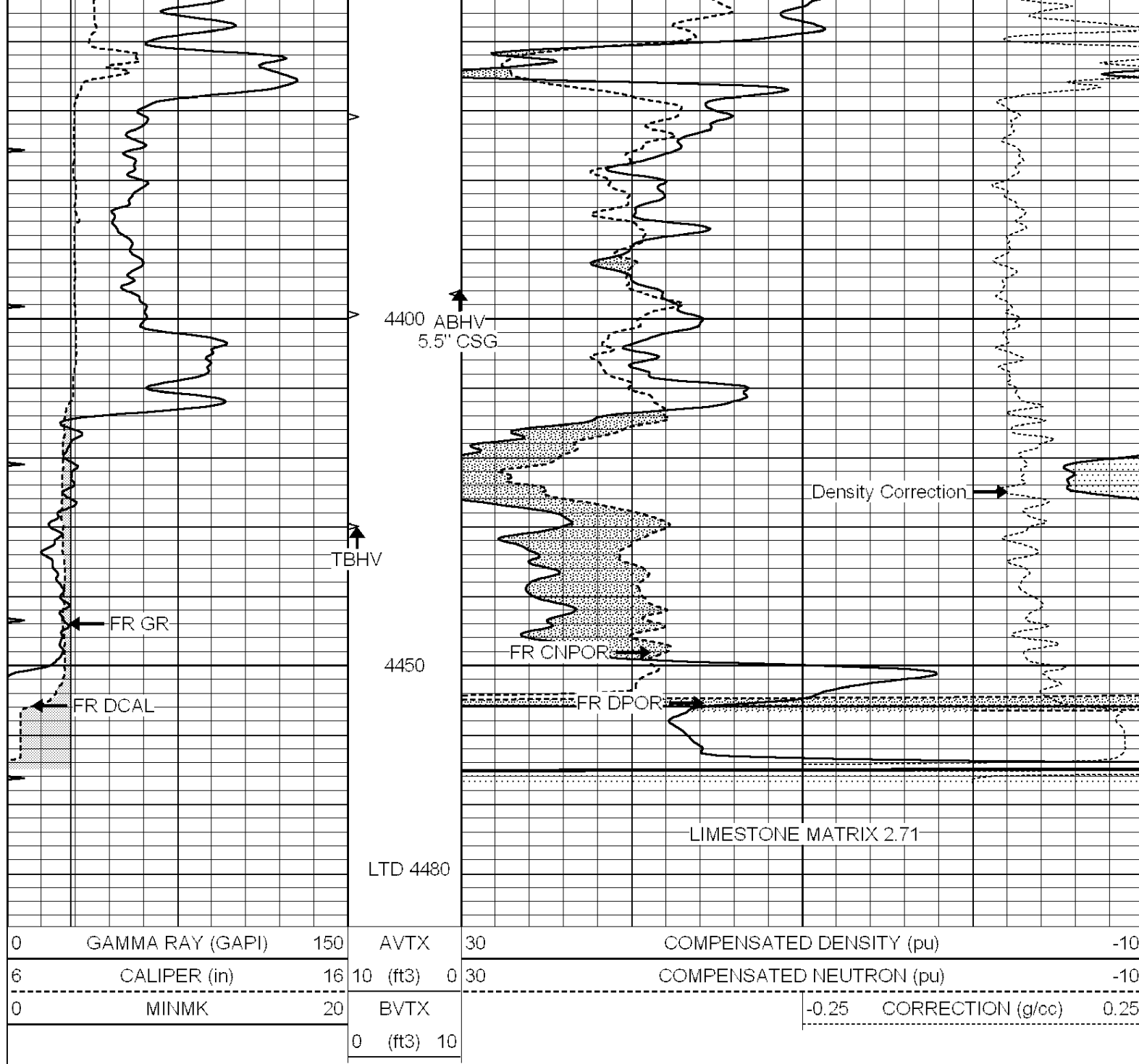
4200

4250

4300

4350



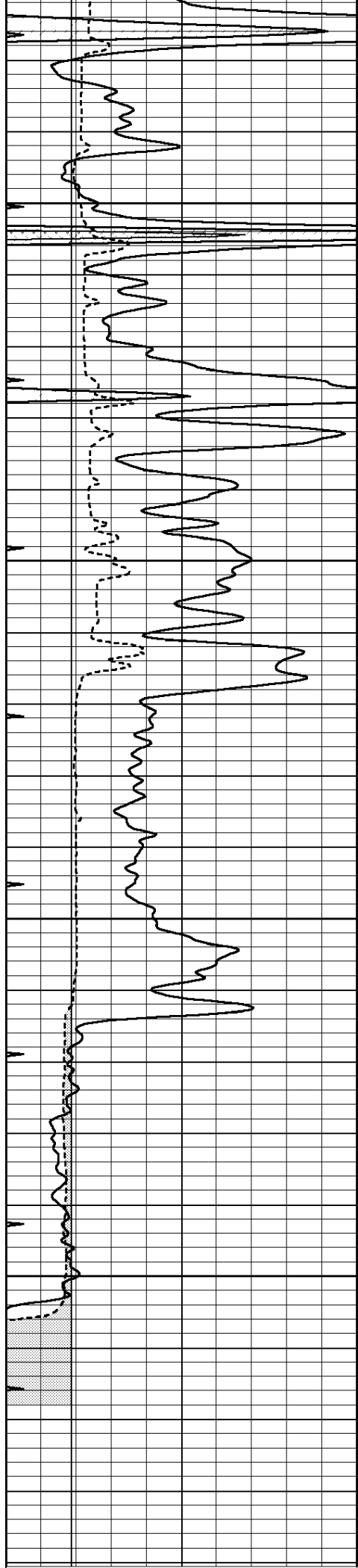


SUPERIOR
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REPEAT SECTION

Database File: 005416ddn.db
 Dataset Pathname: pass2.2
 Presentation Format: _den_neu
 Dataset Creation: Mon Jul 26 10:25:31 2010 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240

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

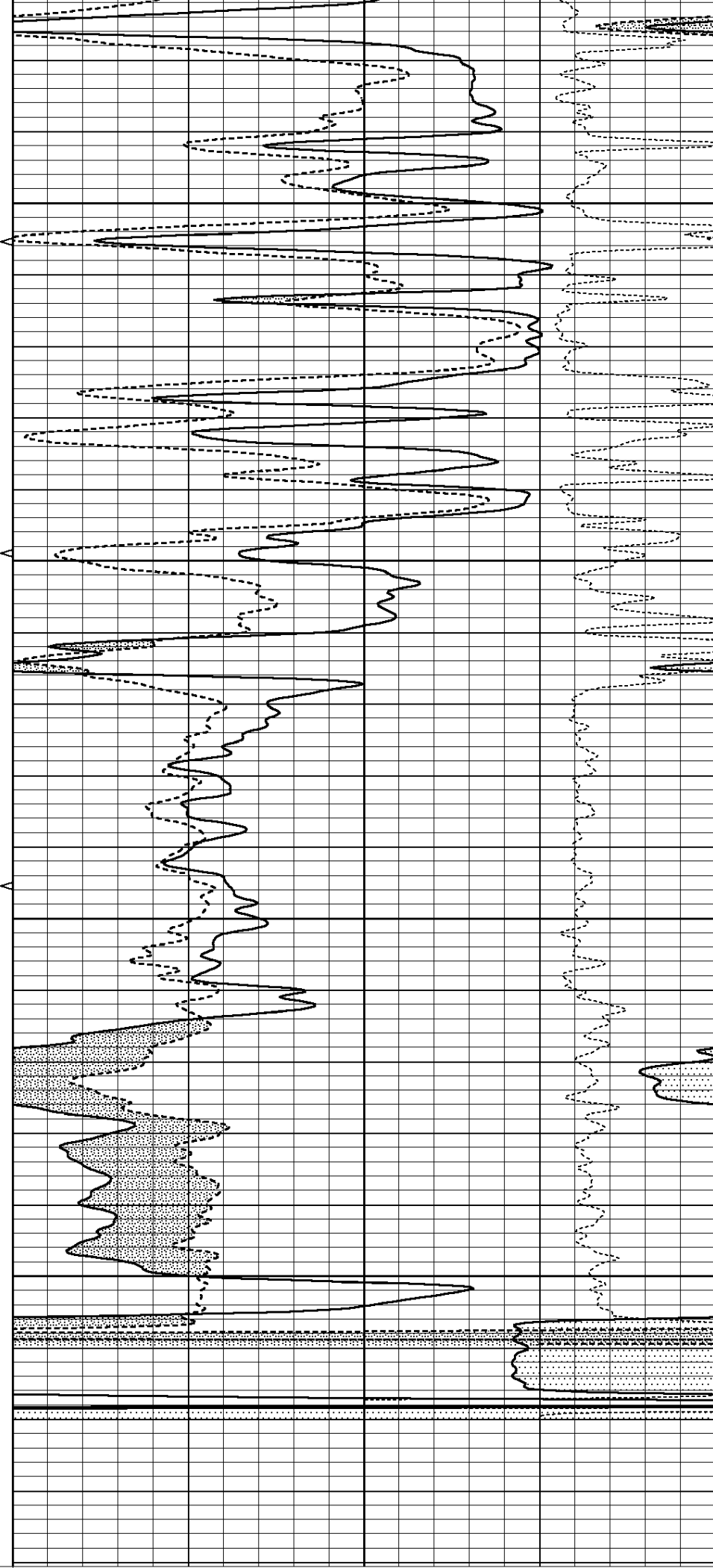


4300

4350

4400

4450



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

Calibration Report									
Database File:		005416ddn.db							
Dataset Pathname:		pass3.2							
Dataset Creation:		Mon Jul 26 10:21:17 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			
		-7.200	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			
Compensated Density Calibration Report									
		Serial-Model:				GEAR3-GEARHART			
		Source / Verifier:				143 / 143			
		Master Calibration Performed:				Mon Jul 12 15:52:10 2010			
Master Calibration									
		Density			Far Detector		Near Detector		
Magnesium		1.710	g/cc		1340.07		579.11	cps	
Aluminum		2.640	g/cc		298.20		382.22	cps	
Spine Angle = 74.54				Density/Spine Ratio = 0.597					

	Size		Reading		
Small Ring	8.00	in	4.15		V
Large Ring	14.00	in	5.96		V
Compensated Neutron Calibration Report					
		Serial Number:	5I		
		Tool Model:	G		
CALIBRATION					
Detector		Readings		Target	
				Normalization	
Short Space		1.00	cps	1.00	cps
Long Space		1.00	cps	1.00	cps
Gamma Ray Calibration Report					
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:		0.5335	GAPI/cps		