



NABORS

**COMPLETION
& PRODUCTION
SERVICES CO.**

**COMPENSATED
DENSITY / NEUTRON
PE LOG**

Company		HERMAN L. LOEB, LLC	
Well		CLARK #6	
Field		MOYER NORTHWEST	
County		SUMNER	
State		KANSAS	
Location:		API # : 15-191-22746-0000 2304' FSL & 2030' FEL SE - NW - NW - SE	
SEC 2 TWP 31S RGE 3W Permanent Datum Log Measured From Drilling Measured From		GROUND LEVEL KELLY BUSHING 9' A.G.L. KELLY BUSHING	
		Elevation K.B. 1306 D.F. 1304 G.L. 1297	
Date	5/18/14		
Run Number	ONE		
Depth Driller	3400		
Depth Logger	3401		
Bottom Logged Interval	3377		
Top Log Interval	1900		
Casing Driller	8 5/8" @ 260'		
Casing Logger	260'		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 3100 PPM	
Density / Viscosity	9.2/66		
pH / Fluid Loss	10.5/8.8		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	.85 @ 82F		
Rmf @ Meas. Temp	.64 @ 82F		
Rmc @ Meas. Temp	1.02 @ 82F		
Source of Rmf / Rmc	MEASUREMENT		
Rim @ BHT	.63 @ 111F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	111F		
Equipment Number	4854		
Location	HAYS, KANSAS		
Recorded By	JEFF GRONEMEG		
Witnessed By	DOUG DAVIS		

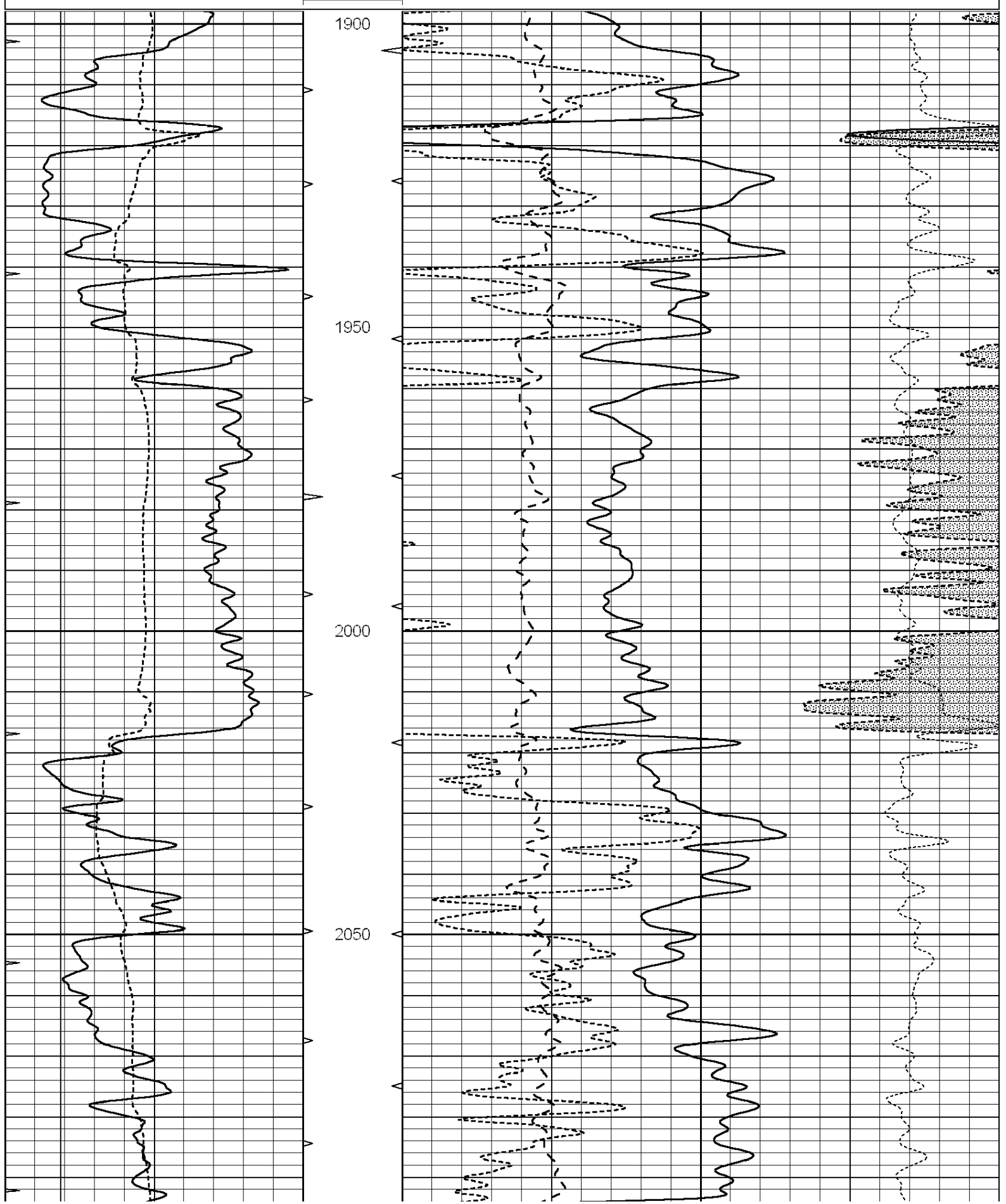
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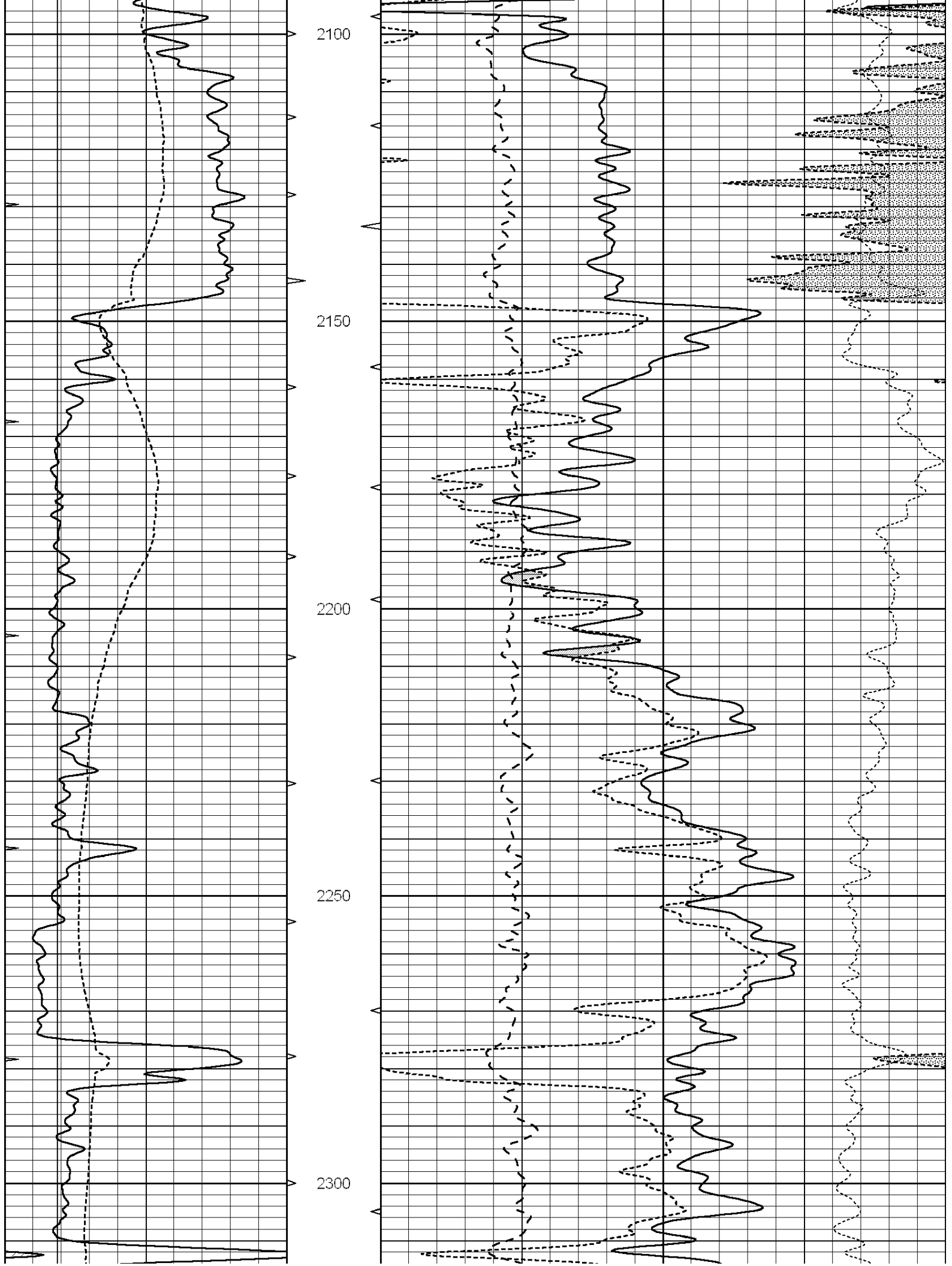
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

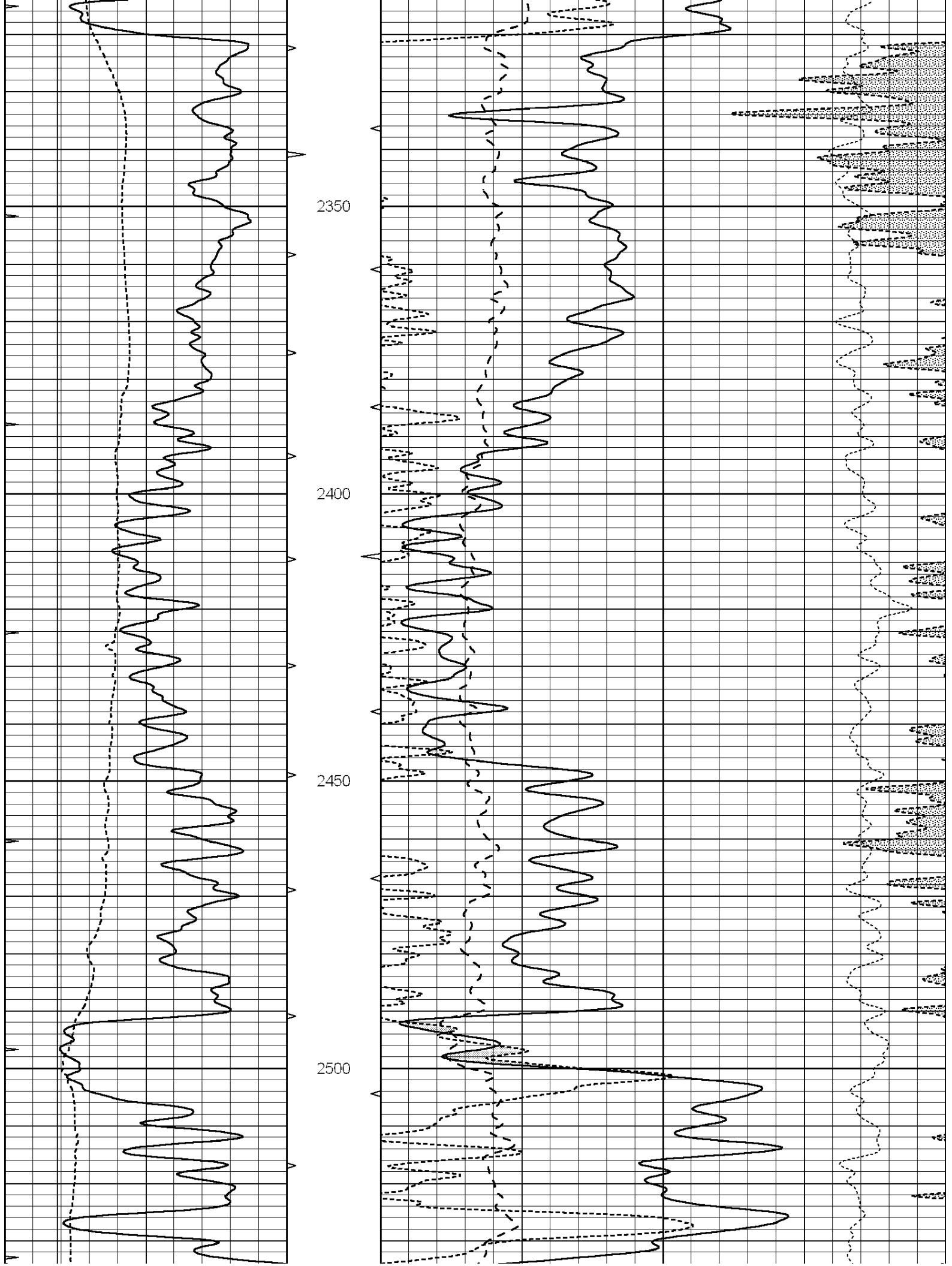
Comments

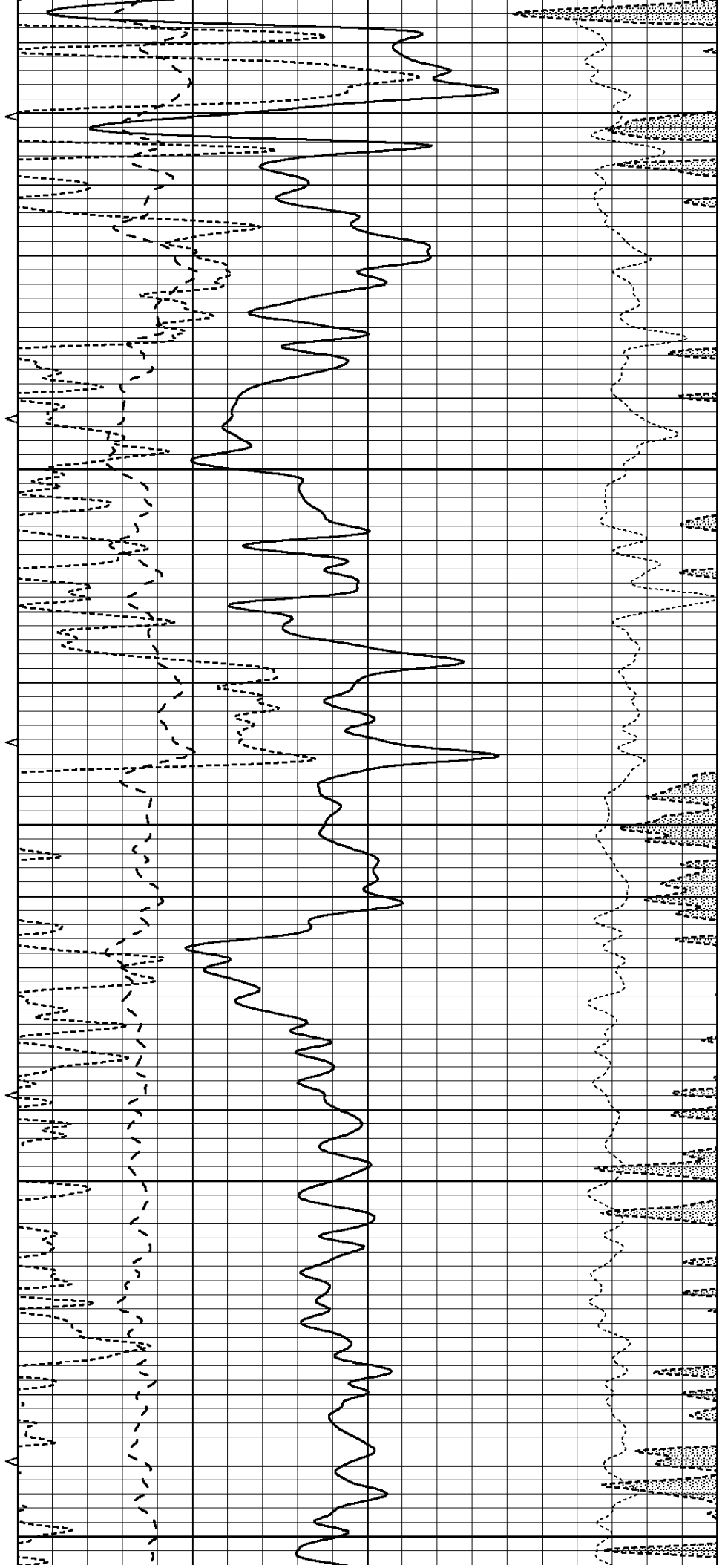
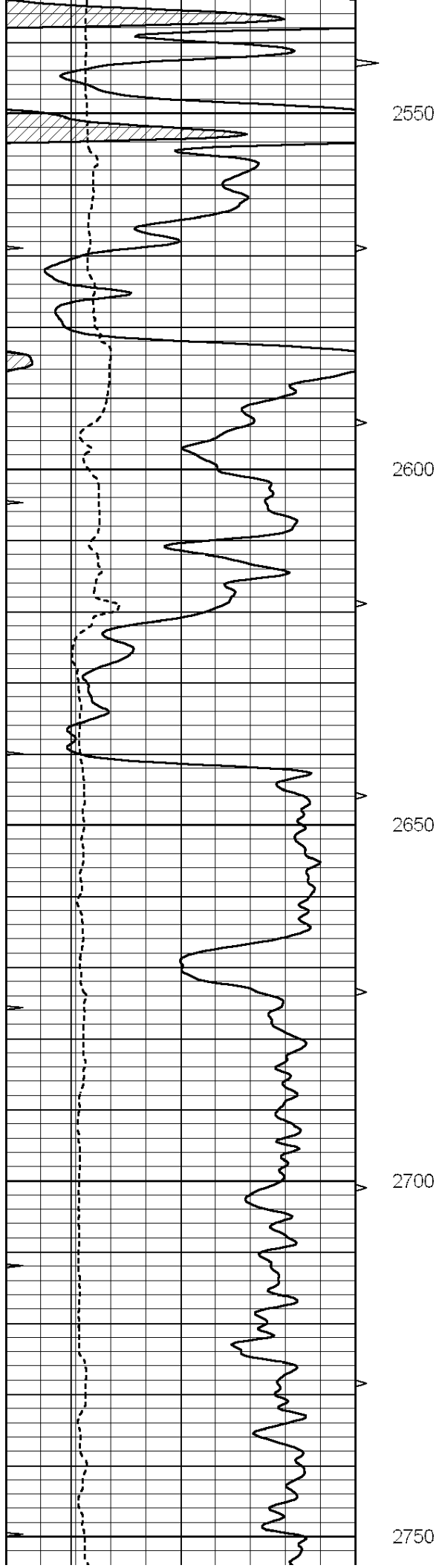
THANK YOU FOR USING "NABORS" HAYS, KANSAS (785) 628-6395
 DIRECTIONS
 CONWAY SPRINGS, KS - 1 MILE EAST ON PARRALLEL ST - 1 MILE SOUTH TO RD 80
 1/2 MILE EAST - NORTH INTO

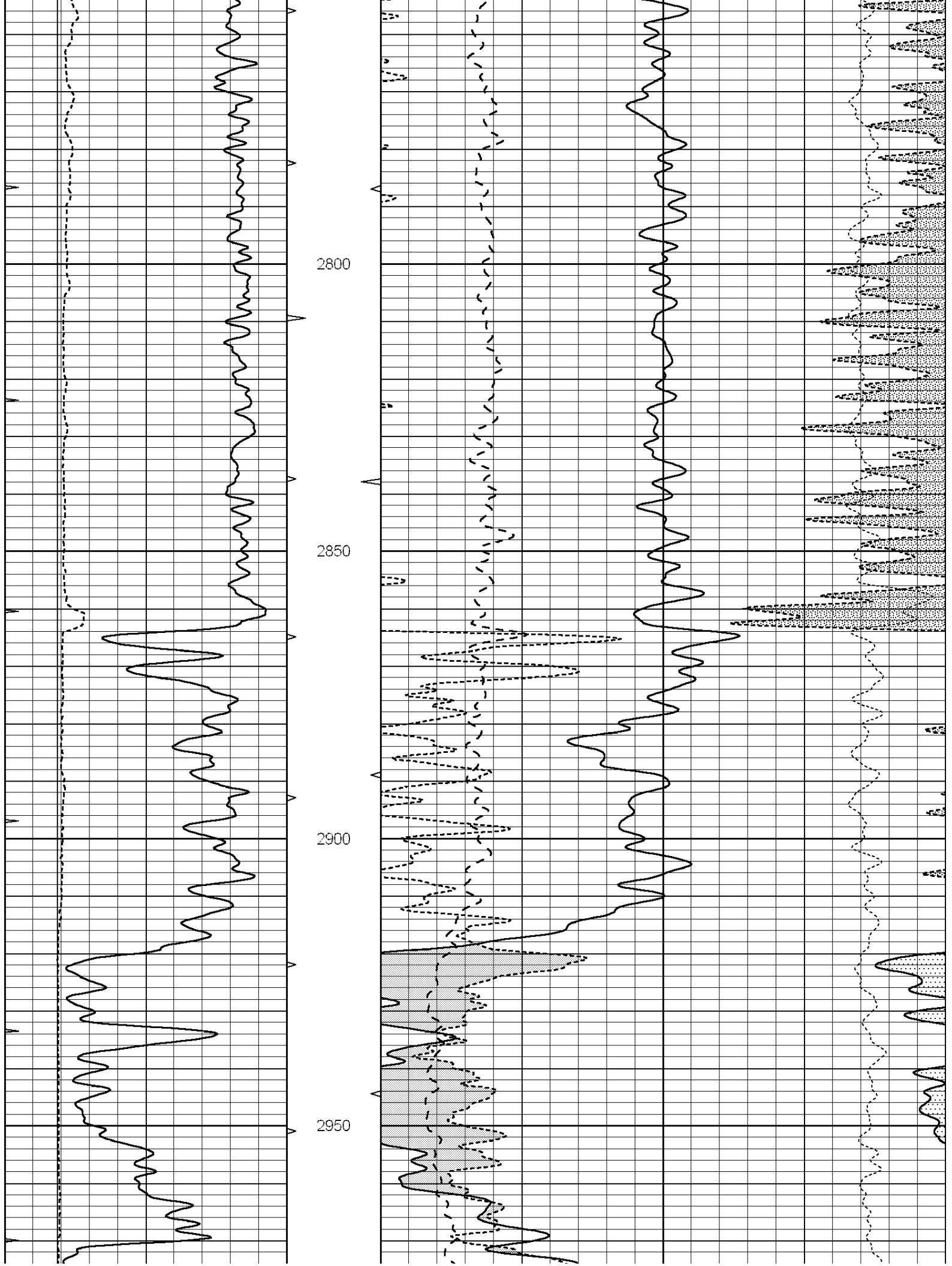
Charted by: _____			Depth in Feet scaled 1:2.15				
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)		-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)		-10
0	MINMK	20	TBHV	0	PE	10	-0.25 CORRECTION (g/cc) 0.25
			0 (ft3)	10			

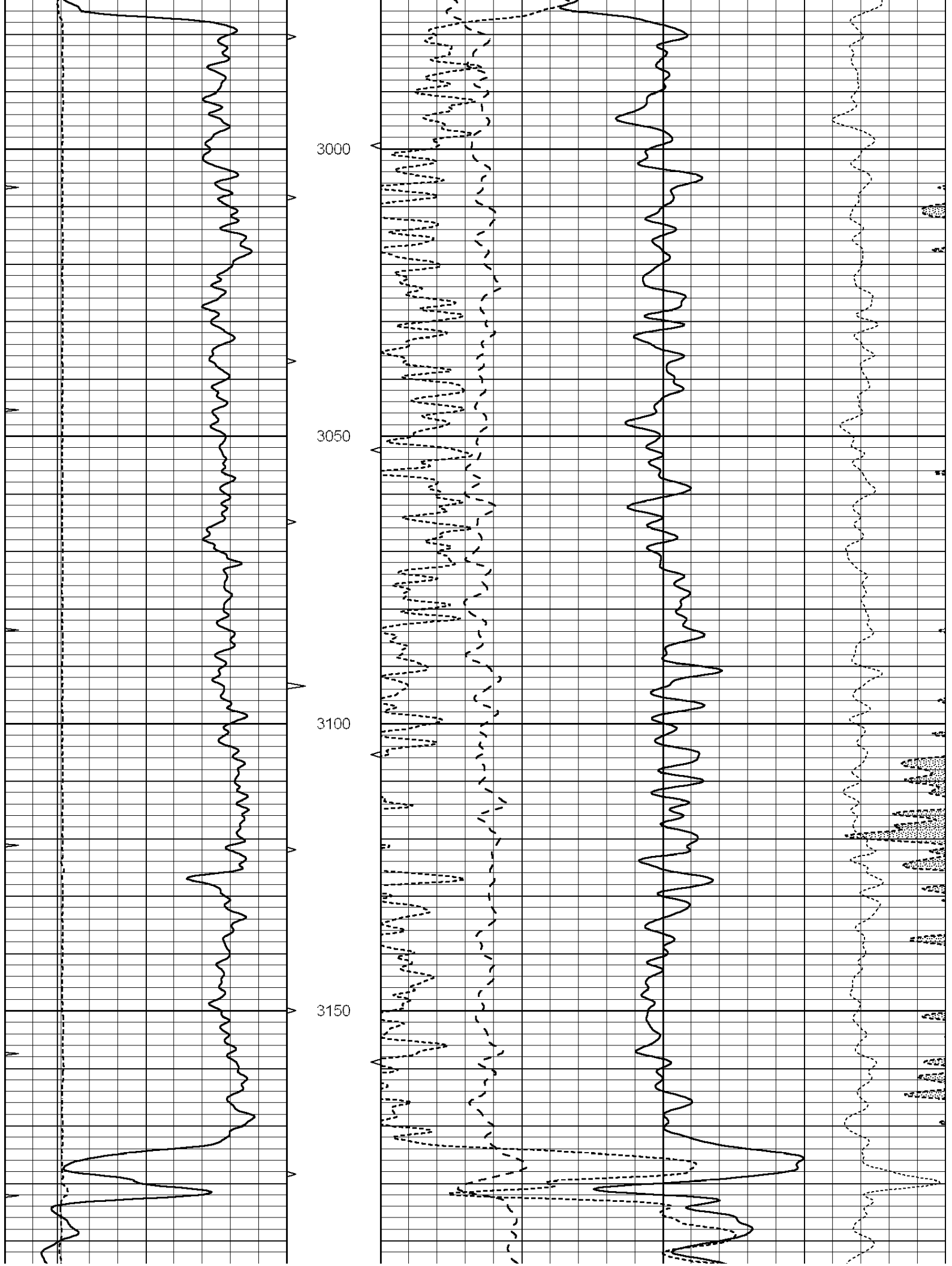


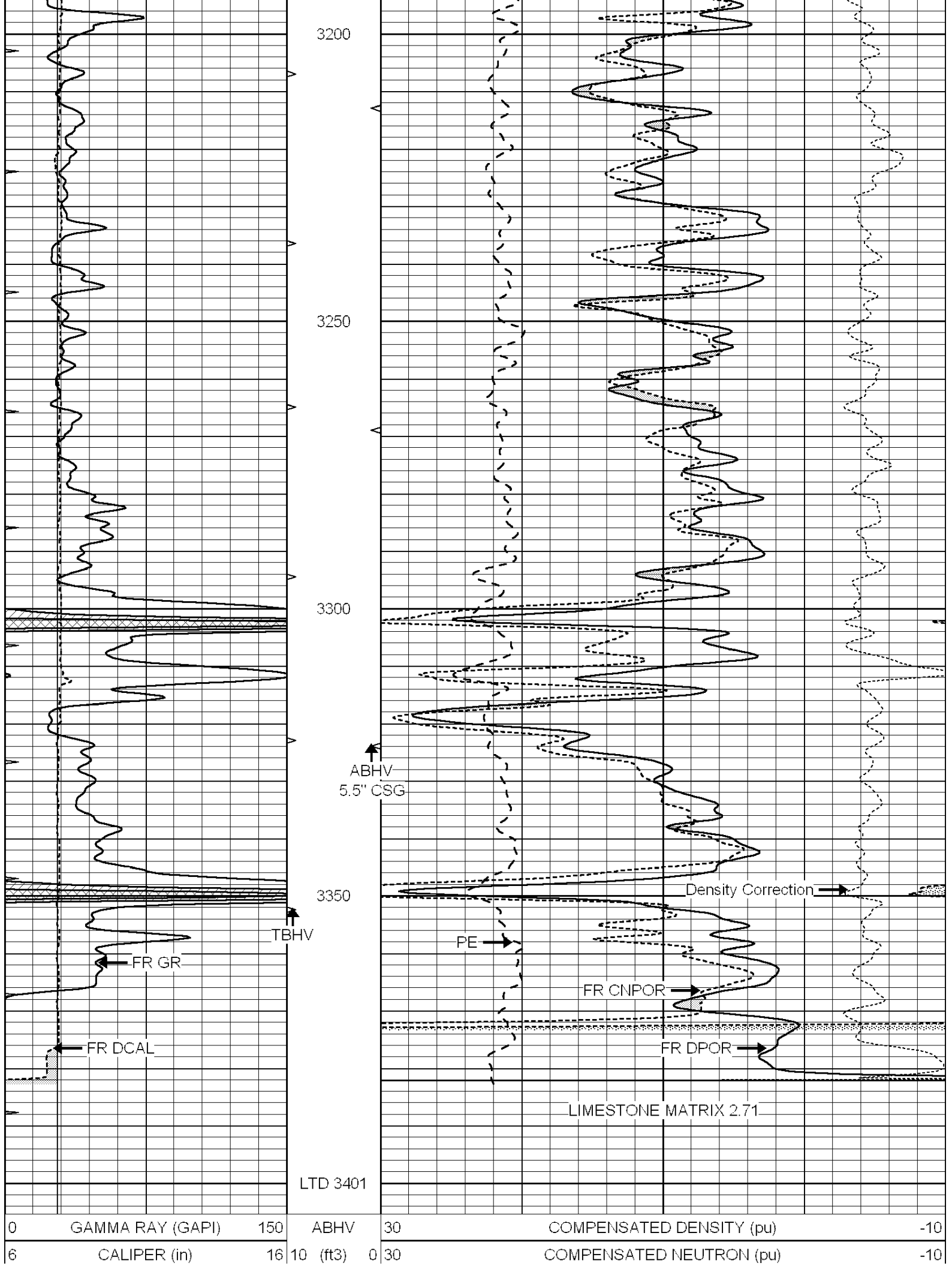












0	MINMK	20	TBHV	0	PE	10	-0.25	CORRECTION (g/cc)	0.25
			0 (ft3) 10						

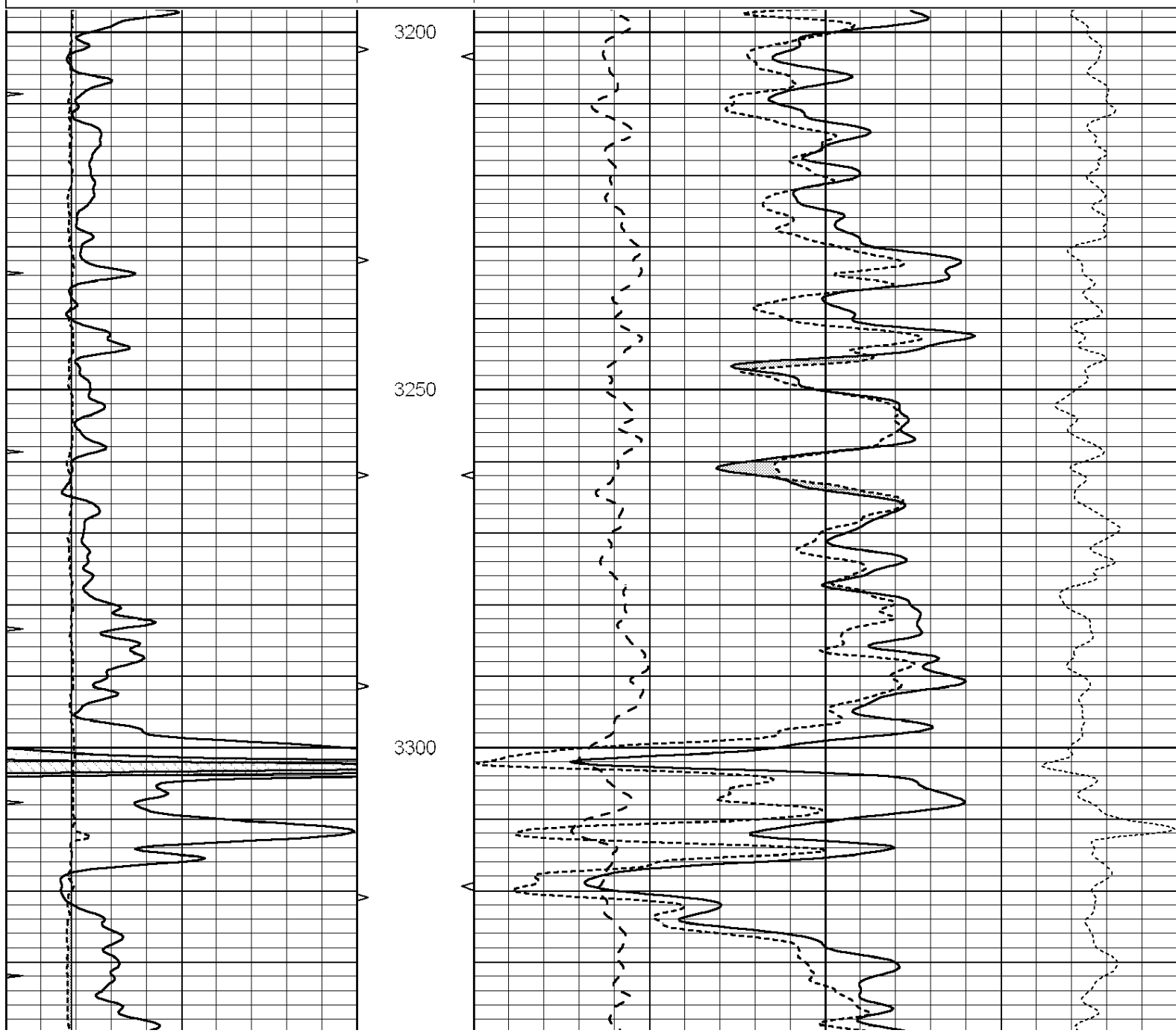


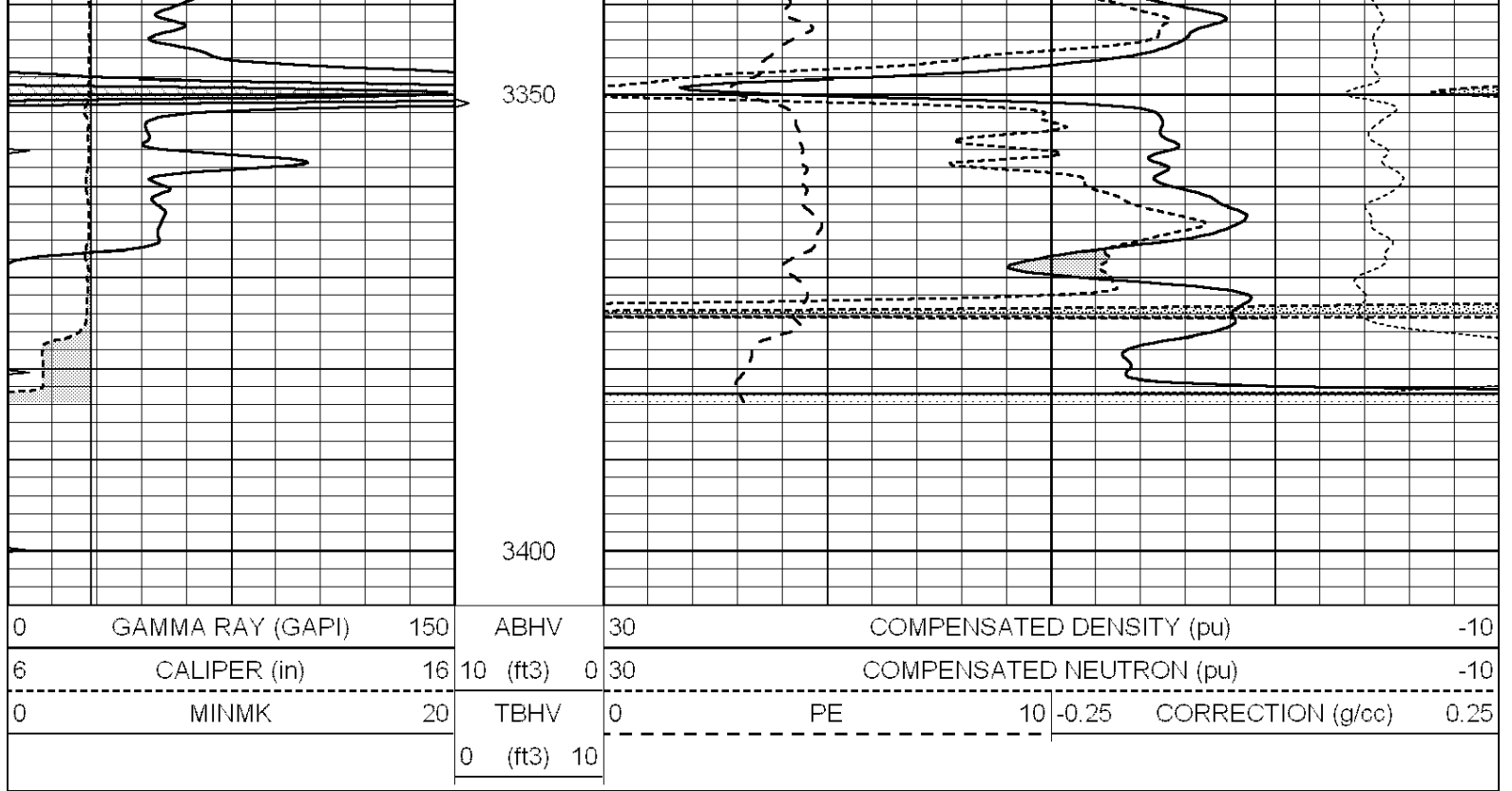
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REPEAT SECTION

Database File: 24157pe.db
Dataset Pathname: pass2.1
Presentation Format: _ldt_neu
Dataset Creation: Sun May 18 17:26:34 2014 by Calc SOC 120430
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 (ft3) 10		-0.25	CORRECTION (g/cc) 0.25





Calibration Report									
Database File:		24157pe.db							
Dataset Pathname:		pass3.2							
Dataset Creation:		Sun May 18 18:17:59 2014 by Calc SOC 120430							
Dual Induction Calibration Report									
Serial-Model:					PROBE9-DILG				
Surface Cal Performed:					Sat May 03 21:20:05 2014				
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	660.000	-8.000	
Medium	0.039	0.728	V	0.000	464.000	mmho/m	600.000	-16.000	
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		

Litho Density Calibration Report

Serial: 004N Model: PRB

Master Calibration			Performed Mon Jun 03 09:36:56 2013					
	Background		Magnesium		Aluminum		Sandstone	
Window 1	1417.6		10391.4		3464.6		11537.5	cps
Window 2	1295.0		8959.7		3050.1		9816.4	cps
Window 3	1105.1		5464.2		2051.0		5838.8	cps
Window 4	315.0		317.7		312.9		319.8	cps
Long Space	0.0		7664.6		1755.0		8521.3	cps
Short Space	1.8		1582.4		1040.8		1699.4	cps
Rho			1.7100		2.5900		1.3800	g/cc
Pe			0.0000		2.5700		1.5500	
Rib Angle	: 44.1		Rib Slope	: 0.970	Density/Spine Ratio		: 0.574	
Spine Angle	: 74.1		Spine Slope	: 3.519	Spine Intercept		: -17.0	

Before Survey Verification			Performed Wed Dec 31 18:00:00 1969					
Window 1	0.0		0.0		0.0		0.0	cps
Window 2	0.0		0.0		0.0		0.0	cps
Window 3	0.0		0.0		0.0		0.0	cps
Window 4	0.0		0.0		0.0		0.0	cps
Long Space	0.0		0.0		0.0		0.0	cps
Short Space	0.0		0.0		0.0		0.0	cps
Measured Rho			0.0000		0.0000		0.0000	g/cc
Measured Correction			0.0000		0.0000		0.0000	g/cc
Measured Pe					0.0000		0.0000	

After Survey Verification			Performed Wed Dec 31 18:00:00 1969					
Window 1	0.0		0.0		0.0		0.0	cps
Window 2	0.0		0.0		0.0		0.0	cps
Window 3	0.0		0.0		0.0		0.0	cps
Window 4	0.0		0.0		0.0		0.0	cps
Long Space	0.0		0.0		0.0		0.0	cps
Short Space	0.0		0.0		0.0		0.0	cps
Measured Rho			0.0000		0.0000		0.0000	g/cc
Measured Correction			0.0000		0.0000		0.0000	g/cc
Measured Pe					0.0000		0.0000	

Compensated Neutron Calibration Report

Serial Number:	070808
Tool Model:	Probe

PRE-SURVEY VERIFICATION			
Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

POST-SURVEY VERIFICATION			
Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu
Gamma Ray Calibration Report			
Serial Number:	070558		
Tool Model:	OPEN_GR		
Performed:	Thu May 15 06:08:02 2014		
Calibrator Value:	1.0	GAPI	
Background Reading:	0.0	cps	
Calibrator Reading:	1.0	cps	
Sensitivity:	0.2800	GAPI/cps	