



NABORS

**COMPLETION
& PRODUCTION
SERVICES CO.**

COMPENSATED DENSITY / NEUTRON LOG

Company Well Field County State		MAI OIL OPERATIONS, INC. KENNEDY - DOPKINS UNIT #1 CARROLL BARTON KANSAS	
Company Well Field County State		MAI OIL OPERATIONS, INC. KENNEDY - DOPKINS UNIT #1 CARROLL BARTON KANSAS	
Location: Permanent Datum Log Measured From Drilling Measured From		API # : 15-009-25816-0000 820' FSL & 2365' FWL SE - NE - SE - SW SEC 20 TWP 17S RGE 14W GROUND LEVEL KELLY BUSHING 8' A.G.L. KELLY BUSHING Elevation 1866 K.B. 1874 D.F. 1872 G.L. 1866	
Date Run Number Depth Driller Depth Logger Bottom Logged Interval Top Log Interval Casing Driller Casing Logger Bit Size Type Fluid in Hole Density / Viscosity pH / Fluid Loss Source of Sample Rim @ Meas. Temp Rmf @ Meas. Temp Rmc @ Meas. Temp Source of Rmf / Rmc Rim @ BHT Time Circulation Stopped Time Logger on Bottom Maximum Recorded Temperature Equipment Number Location Recorded By Witnessed By		4/7/13 ONE 3265 3263 3239 2800 8 5/8" @ 85' 851 7 7/8" CHEMICAL MUD 9.0/60 10.0/8.0 FLOWLINE .550 @ 90F .413 @ 90F .660 @ 90F MEASUREMENT .446 @ 111F 2 HOURS 4:15 A.M. 111F 4854 HAYS, KANSAS JEFF LUEBBERS WYATT URBAN	

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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

HWY 281 & 4 JUNCTION, 2N. TO "RD. 130", 2W. TO "NW 60 RD.", JOG N. TO TANK BATTERY, 1/2W. INTO



NABORS
COMPLETION
& PRODUCTION

MAIN SECTION

Database File:

010735ddn.db

Dataset Pathname:

pass3.6

Presentation Format:

den_neu

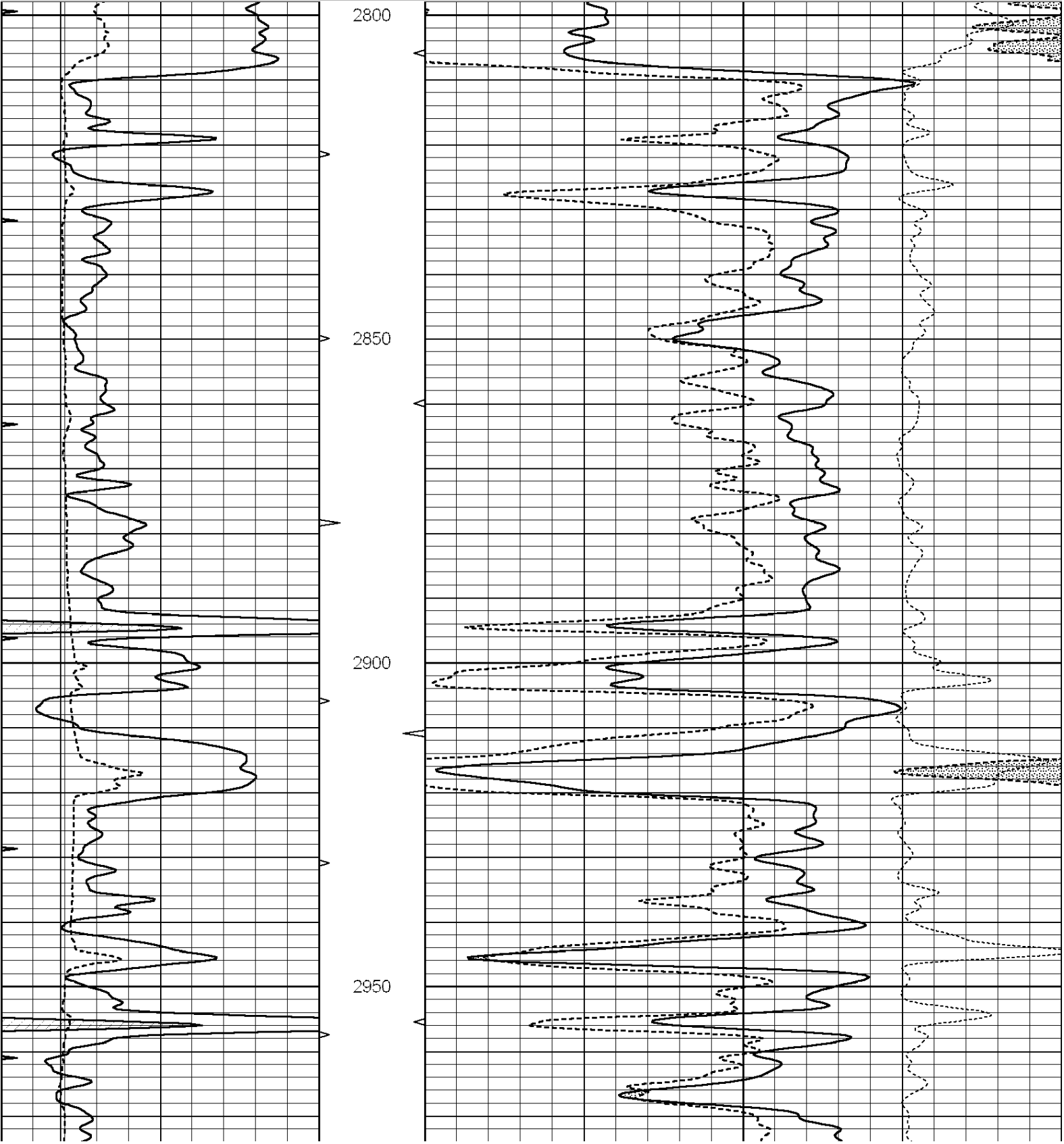
Dataset Creation:

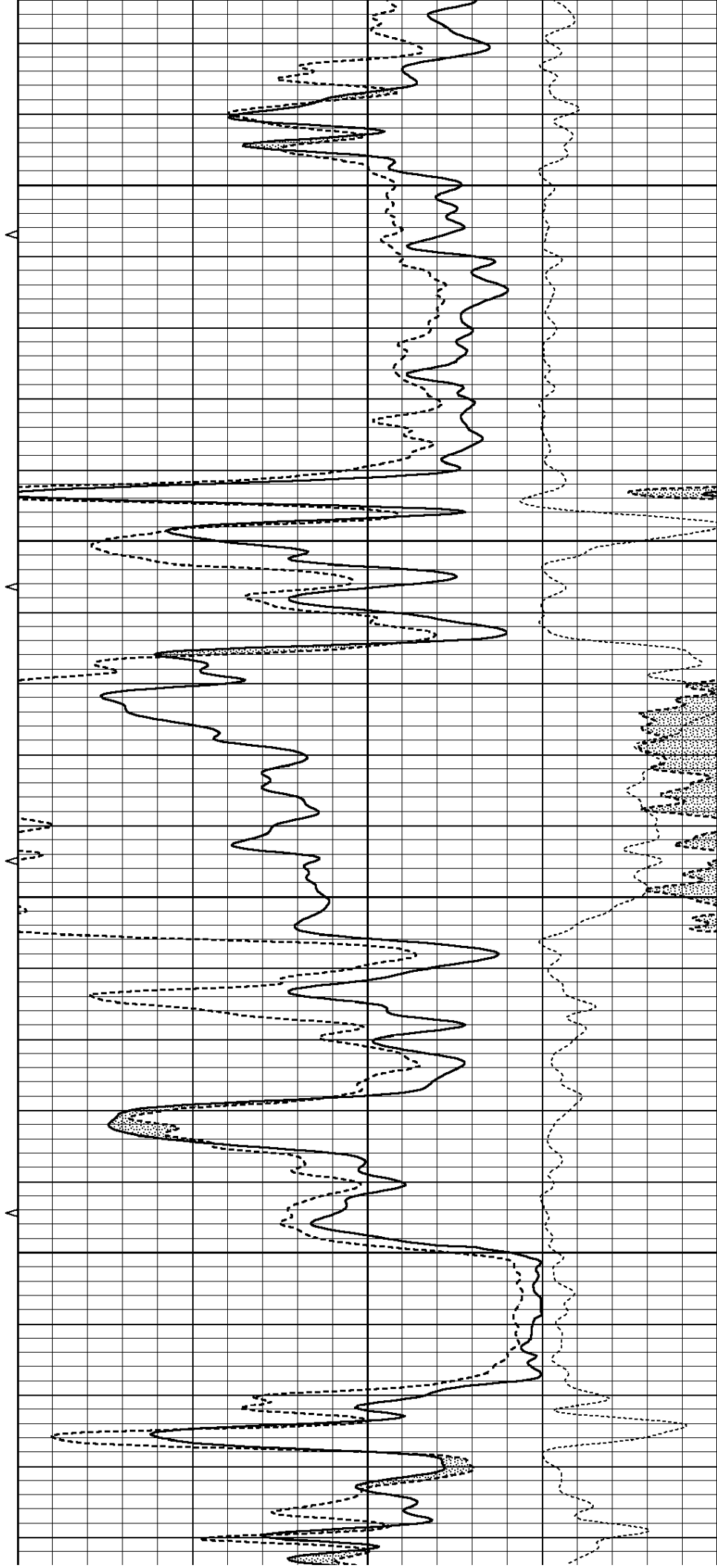
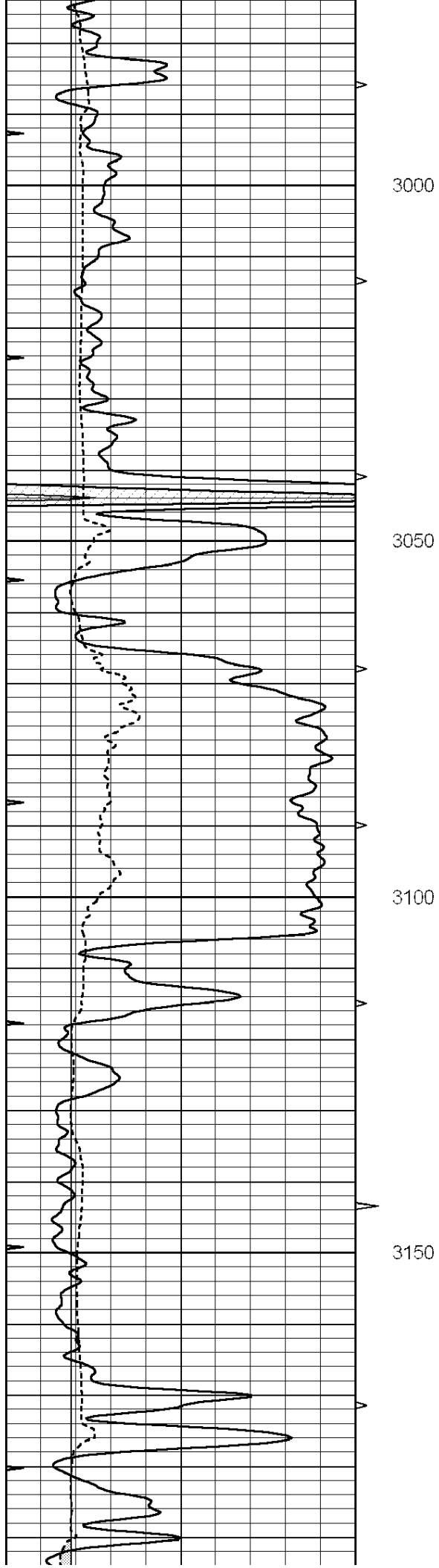
Sun Apr 07 06:14:24 2013

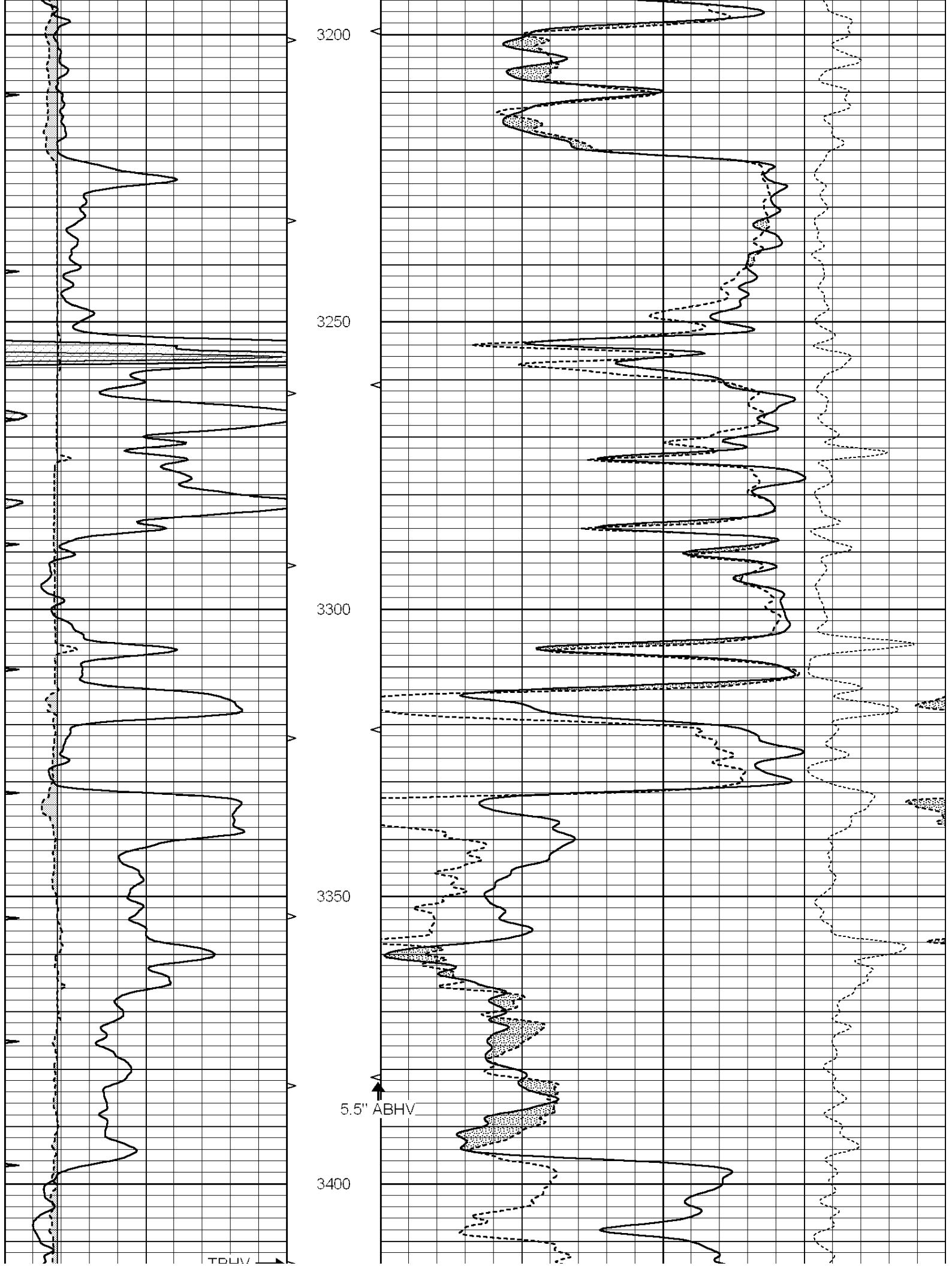
Charted by:

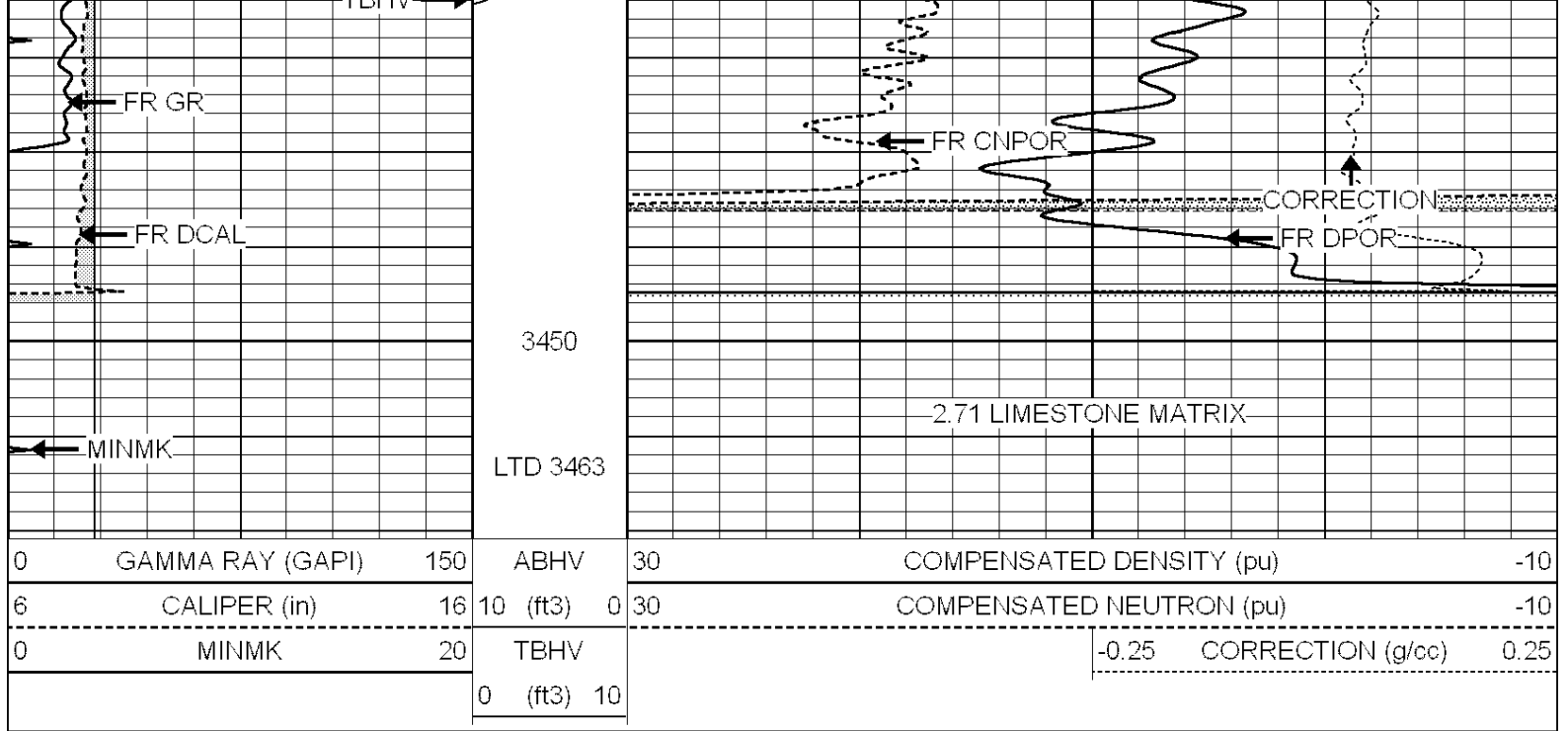
Depth in Feet scaled 1:240

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		





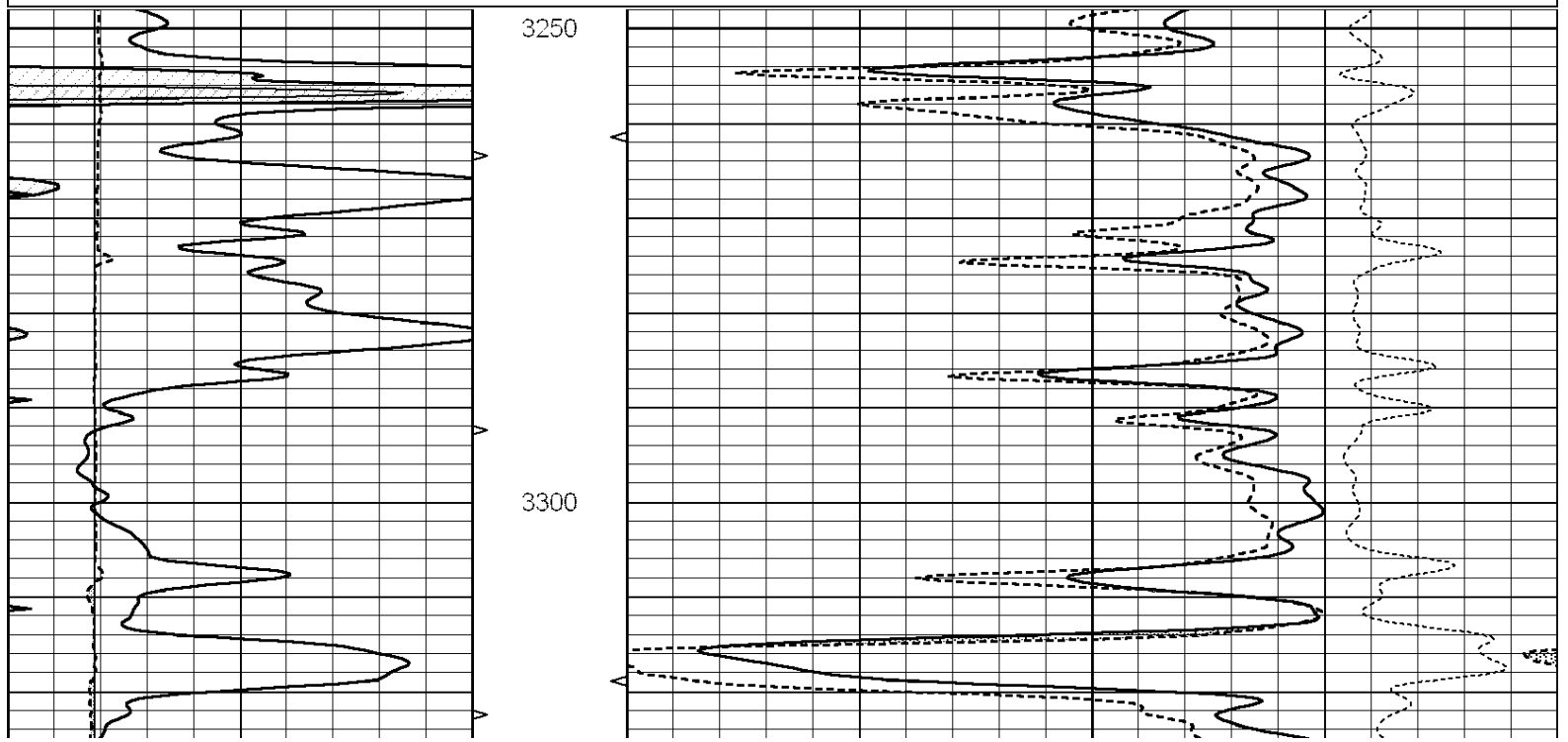


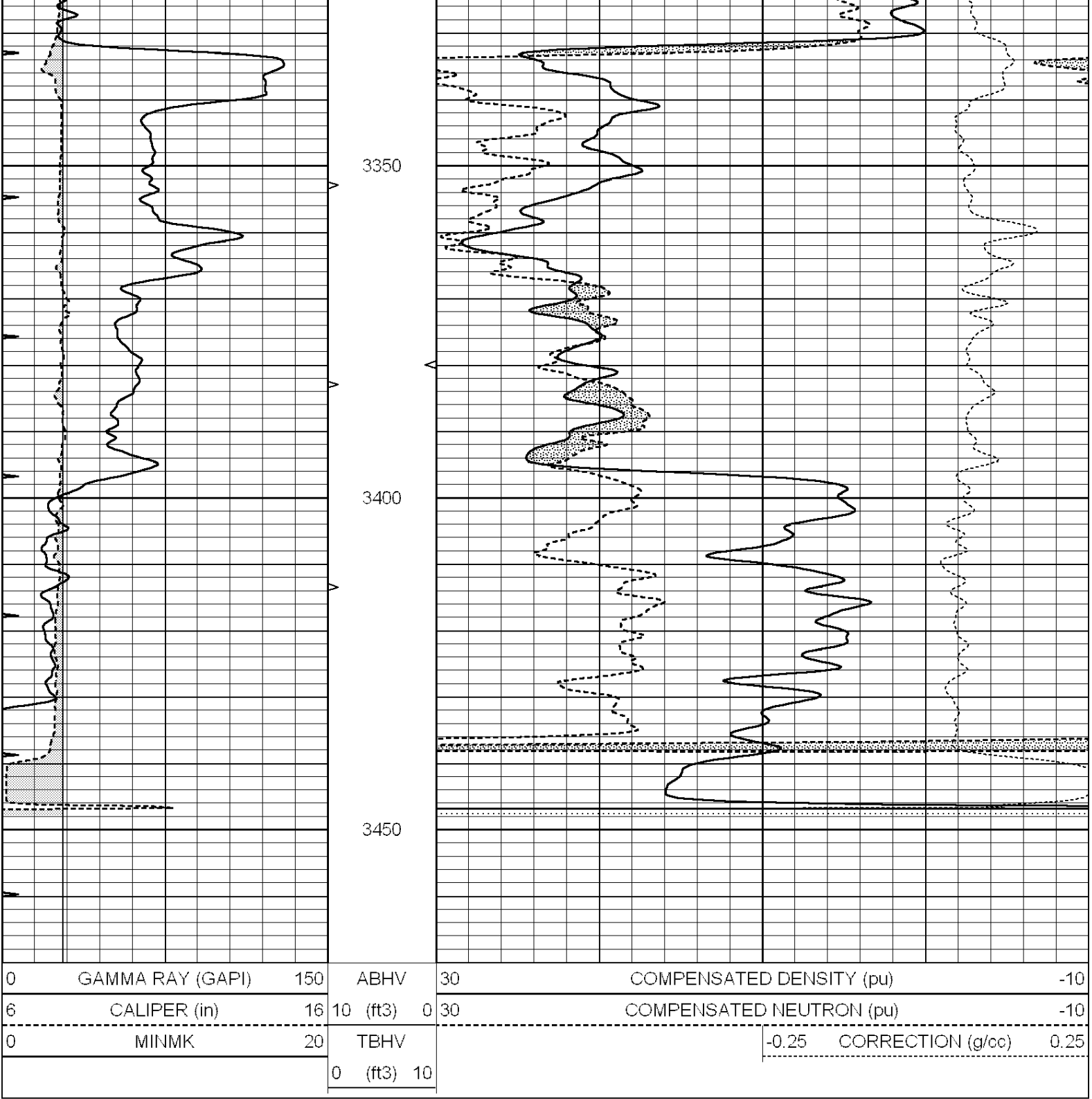


REPEAT SECTION

Database File: 010735ddn.db
 Dataset Pathname: pass2.4
 Presentation Format: den_neu
 Dataset Creation: Sun Apr 07 05:31:05 2013 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		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10		





Calibration Report			
Database File:	010735ddn.db		
Dataset Pathname:	pass3.6		
Dataset Creation:	Sun Apr 07 06:14:24 2013		
Dual Induction Calibration Report			
Serial-Model:	PROBE9-DILG		
Surface Cal Performed:	Sun Mar 10 00:44:14 2013		
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	-11.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	640.000	-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: 003N Model: PRB								

Master Calibration					Performed Tue Sep 08 14:14:44 2009			
	Background	Magnesium	Aluminum	Sandstone				
Window 1	2042.6	12312.8	4225.8	13758.4				cps
Window 2	1855.8	10134.7	3624.2	11113.1				cps
Window 3	1639.4	6760.2	2716.3	7260.3				cps
Window 4	466.4	469.2	466.1	476.5				cps
Long Space	0.0	8278.9	1768.4	9257.4				cps
Short Space	2.2	2377.3	1544.1	2574.2				cps
Rho		1.7100	2.5900	1.3800				g/cc
Pe		0.0000	2.5700	1.5500				
Rib Angle	: 44.4	Rib Slope	: 0.979	Density/Spine Ratio				: 0.549
Spine Angle	: 74.4	Spine Slope	: 3.577	Spine Intercept				: -18.8

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			
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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	

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Compensated Neutron Calibration Report
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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:	070559	
Tool Model:	OPEN_GR	
Performed:	Sun Apr 07 04:15:47 2013	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.3500	GAPI/cps