



**SUPERIOR**  
Hays,  
Kansas

**COMPENSATED  
DENSITY / NEUTRON  
LOG**

Company CHARTER ENERGY, INC.  
Well DIRKS #1  
Field PAWNEE ROCK  
County PAWNEE  
State KANSAS

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Well DIRKS #1  
Field PAWNEE ROCK  
County PAWNEE State KANSAS

Location: API # : 15-145-21671-0000  
400' FSL & 355' FWL  
NE - SW - SW - SW  
SEC 23 TWP 20S RGE 16W  
Permanent Datum GROUND LEVEL Elevation 2024  
Log Measured From KELLY BUSHING 7' A.G.L.  
Drilling Measured From KELLY BUSHING  
Other Services DIL/MEL  
Elevation K.B. 2031  
D.F. 2029  
G.L. 2024

Date	5/29/12		
Run Number	ONE		
Depth Driller	3900		
Depth Logger	3898		
Bottom Logged Interval	3874		
Top Log Interval	3200		
Casing Driller	8 5/8"@1038'		
Casing Logger	1038		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 6,400 PPM	
Density / Viscosity	9.160		
pH / Fluid Loss	8.5/11.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.600@80F		
Rmt @ Meas. Temp	.450@80F		
Rmc @ Meas. Temp	.720@80F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.417@115F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	5:00 P.M.		
Maximum Recorded Temperature	115F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	JIM MUSGROVE		

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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 HAYS, KANSAS (785) 628-6395  
DIRECTIONS  
PAWNEE ROCK, KS. 4N. ON BLKTOP "RD. SW 110" TO MENNONITE CHURCH, 5W., 2S., E. INTO

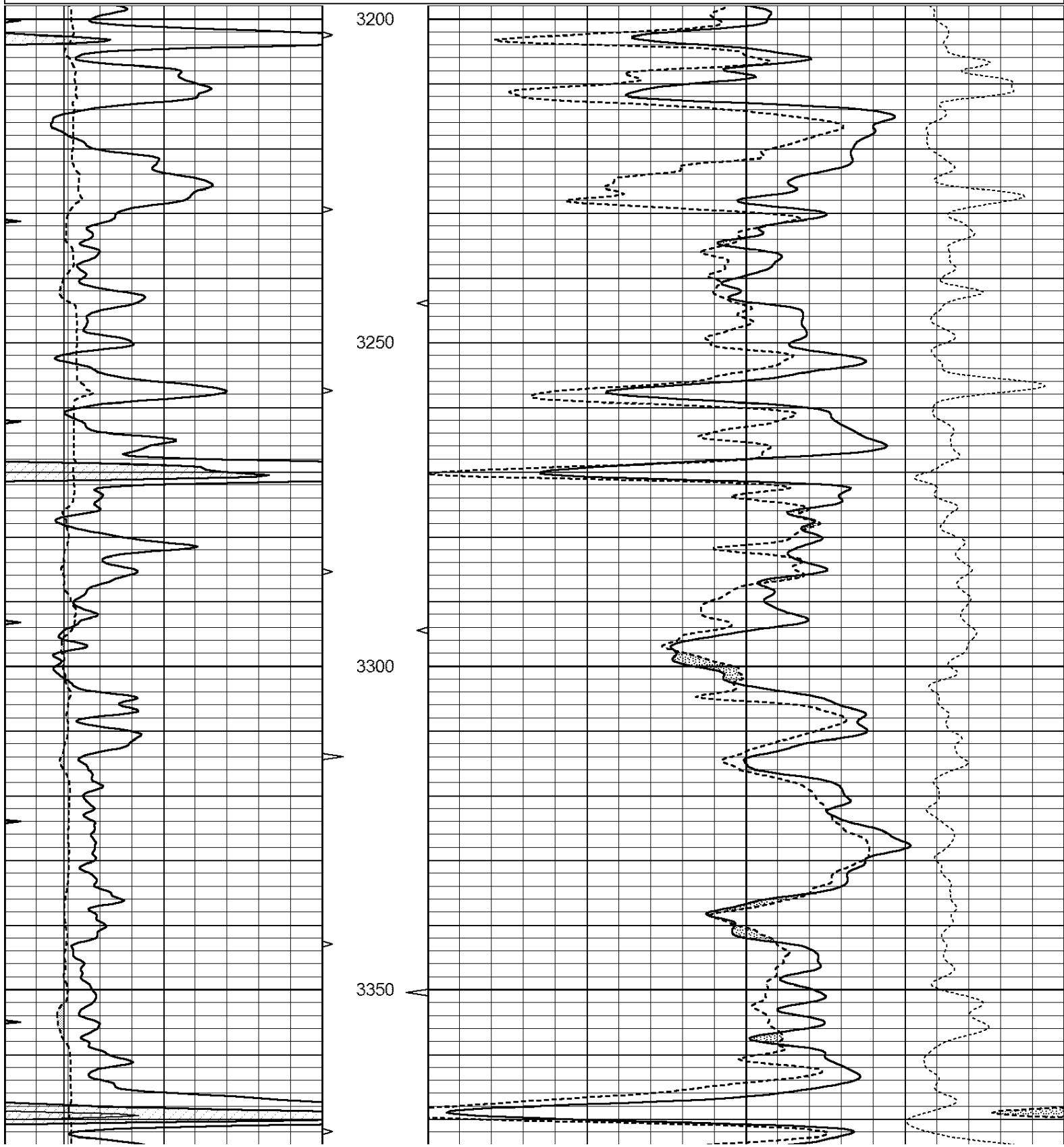


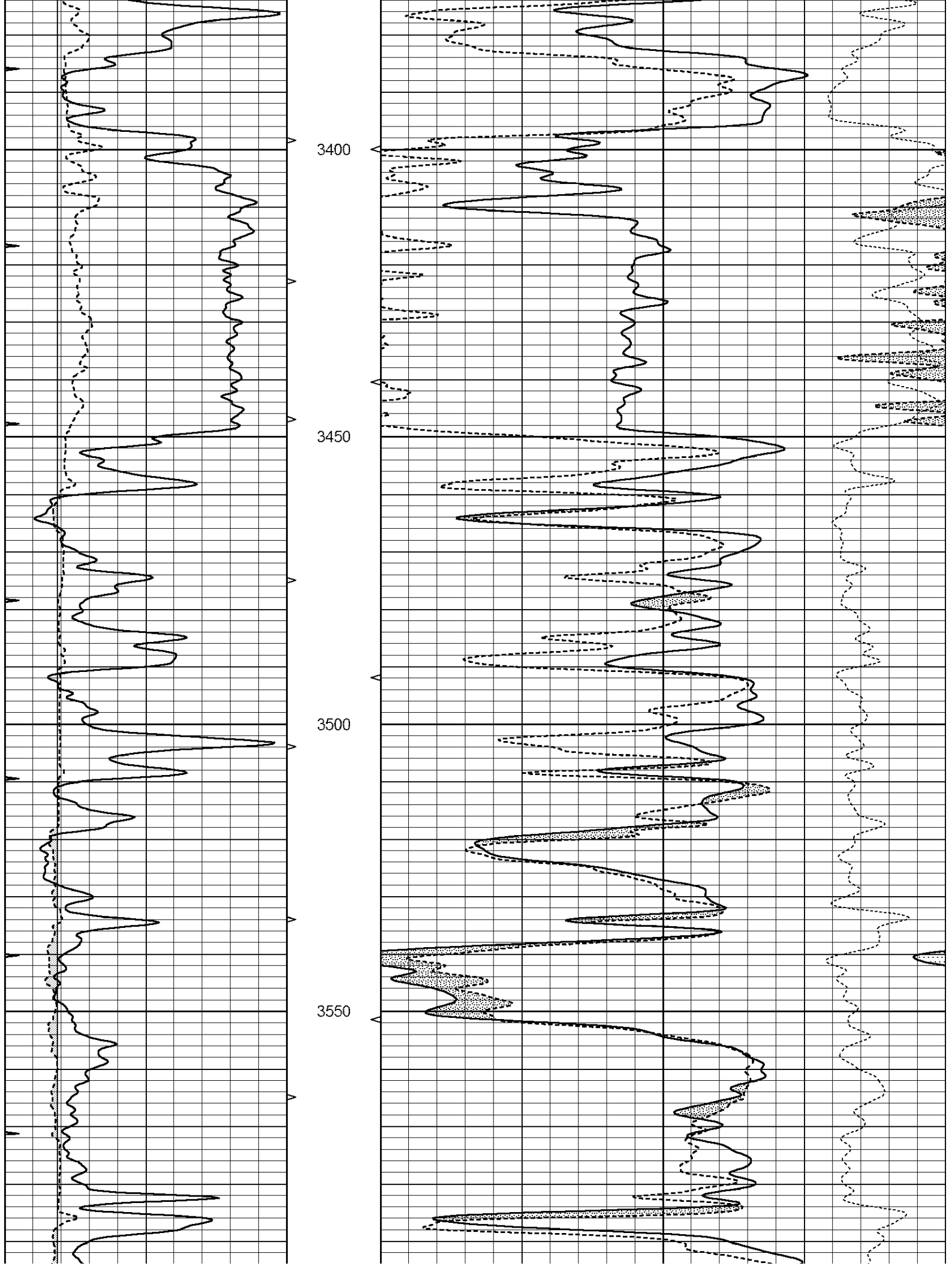
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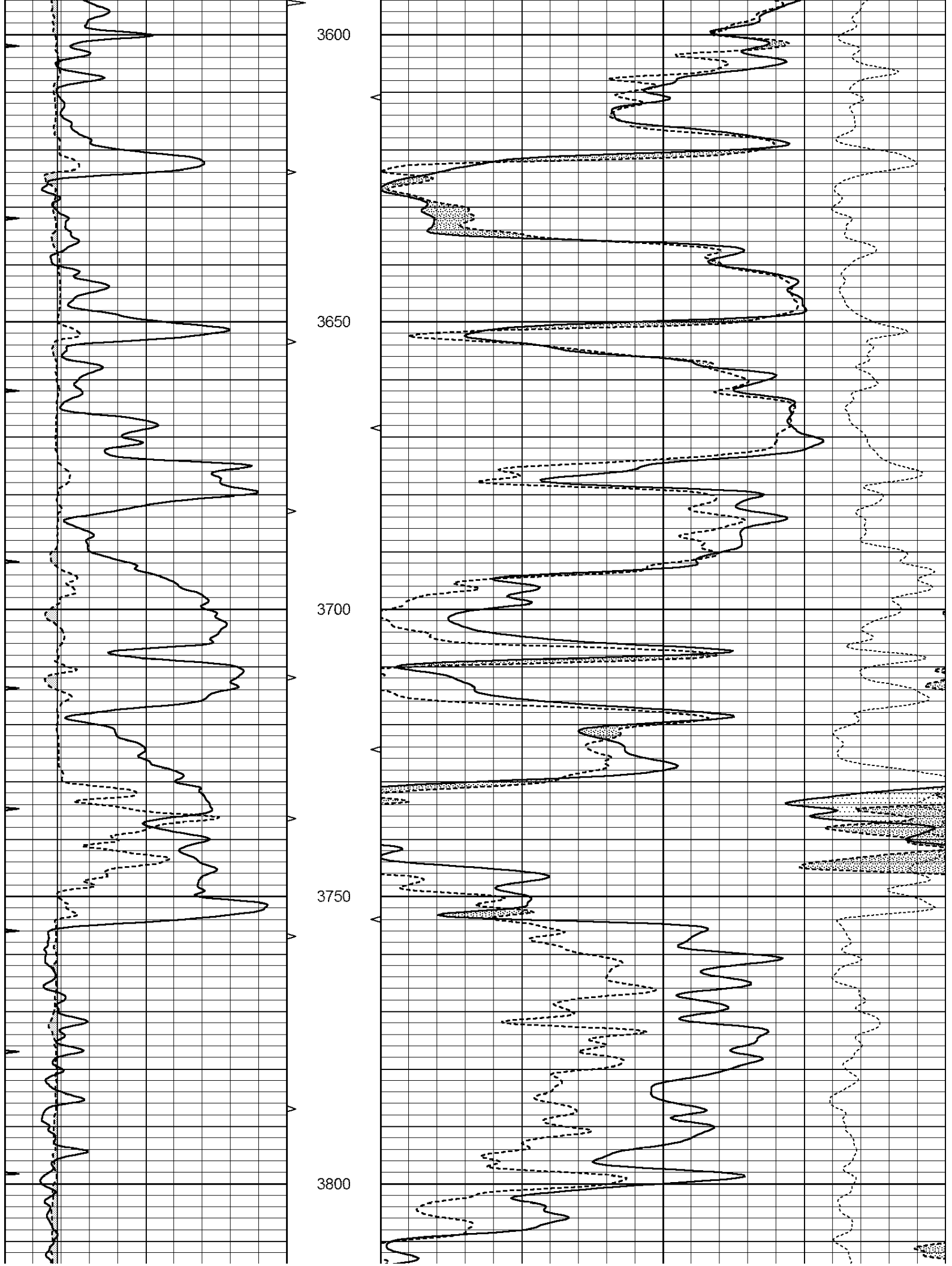
**MAIN SECTION**

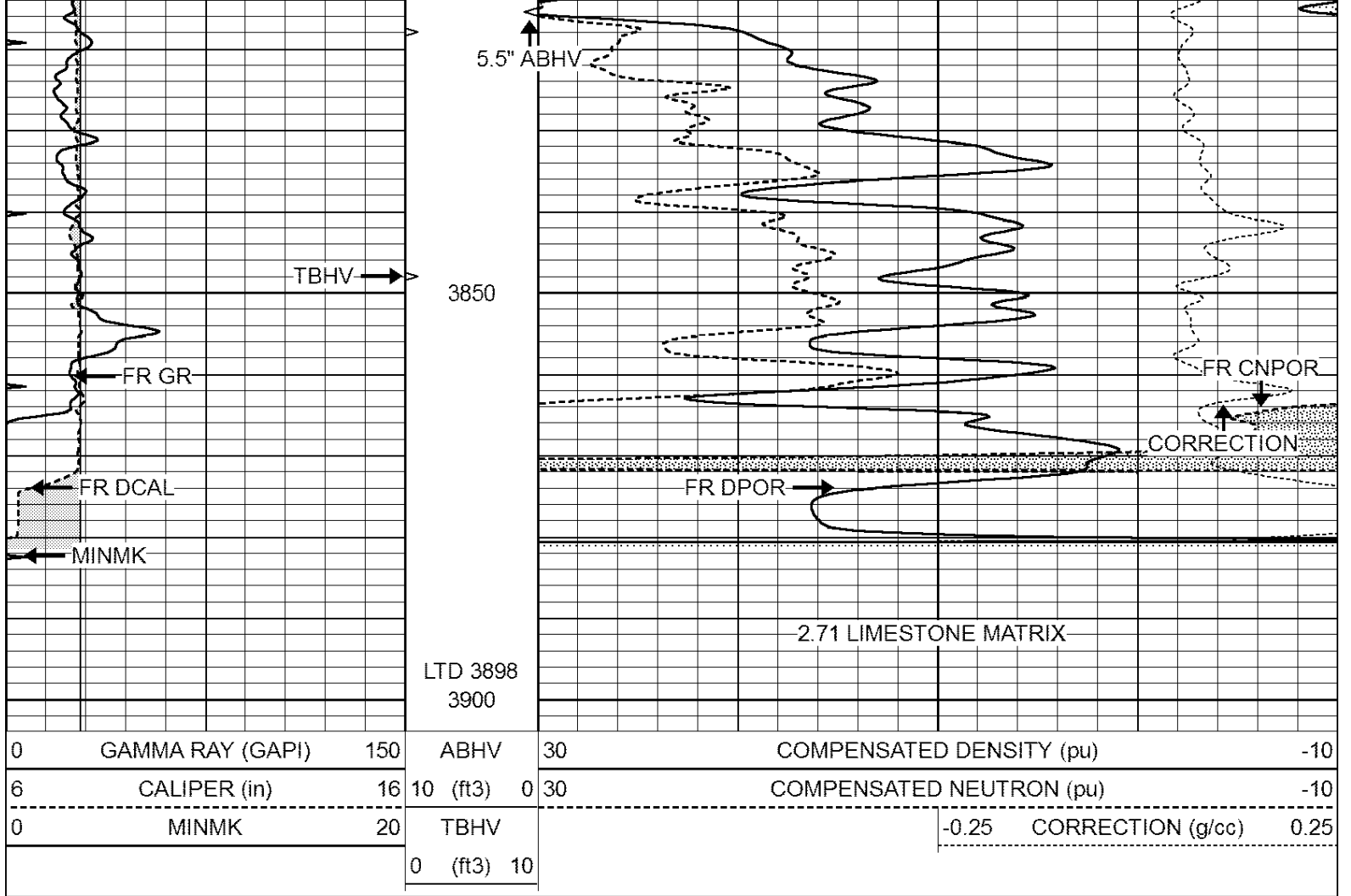
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 Dataset Pathname: pass3.3  
 Presentation Format: den\_neu  
 Dataset Creation: Tue May 29 18:27:01 2012 by Calc Open-Cased 110302  
 Charted by: Depth in Feet scaled 1:240

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		







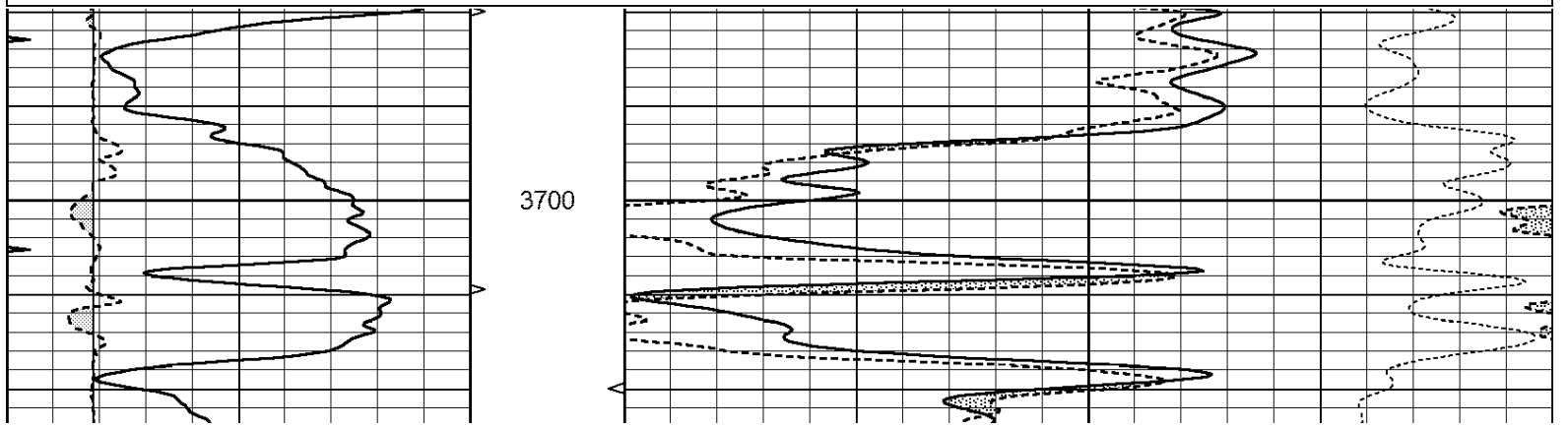


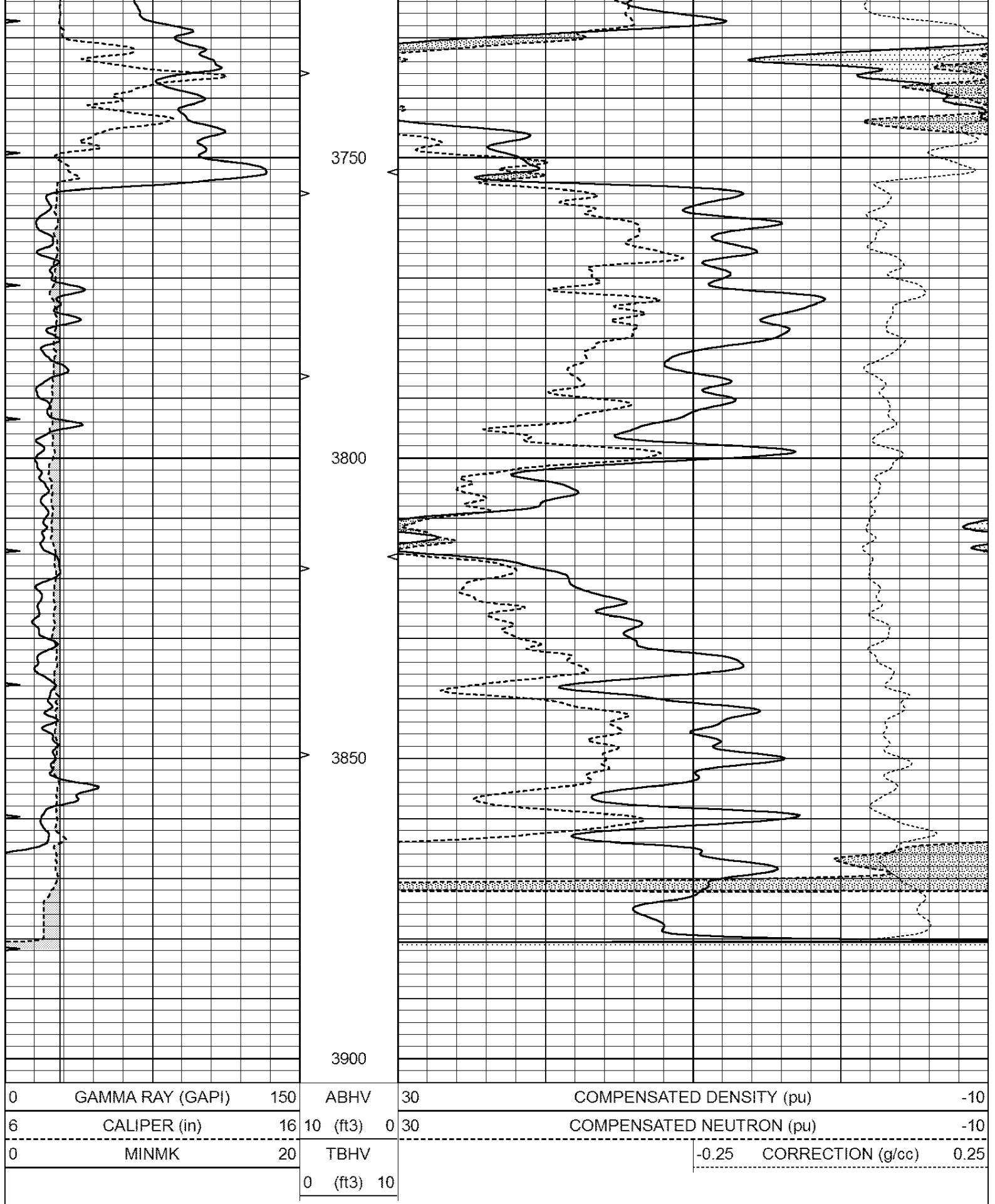
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# REPEAT SECTION

Database File: 409128ddn.db  
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 Presentation Format: den\_neu  
 Dataset Creation: Tue May 29 17:27:10 2012 by Calc Open-Cased 110302  
 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: 409128ddn.db  
 Dataset Pathname: pass3.3  
 Dataset Creation: Tue May 29 18:27:01 2012 by Calc Open-Cased 110302

Dual Induction Calibration Report

Serial-Model:  
Performed:

DIL4-GEAR  
Tue May 29 15:11:57 2012

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.008	0.666	V	0.000	400.000	mmho/m	570.000	-2.000
Medium	-0.003	0.769	V	0.000	462.500	mmho/m	560.000	-3.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.013	0.651	V	0.000	400.000	mmho/m	627.541	-8.365
Medium	0.020	0.754	V	0.000	462.500	mmho/m	630.311	-12.549

Litho Density Calibration Report  
Serial: 003N Model: PRB  
Performed Tue Sep 08 14:14:44 2009

Litho Density Calibration

	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			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

Caliper

	Readings	Reference	
Low Ref	3.4	8.0	
High Ref	5.5	15.0	
	Gain: 3.3		Offset: -3.4

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: 070559  
Tool Model: OPEN\_GR  
Performed: Tue May 22 19:38:45 2012

Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.3000	GAPI/cps