



**SUPERIOR**  
Hays,  
Kansas

**COMPENSATED  
DENSITY / NEUTRON  
LOG**

Company HERMAN L. LOEB, LLC.  
Well STOSKOPF #4-28  
Field TRAPP  
County BARTON  
State KANSAS

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Well STOSKOPF #4-28  
Field TRAPP  
County BARTON State KANSAS

Location: API # : 15-009-25692-0000  
2225' FNL & 2290' FEL  
NE - SW - SW - NE  
SEC 28 TWP 17S RGE 13W  
Permanent Datum GROUND LEVEL Elevation 1962  
Log Measured From KELLY BUSHING 9' A.G.L.  
Drilling Measured From KELLY BUSHING  
Other Services  
DIL/MEL  
SONIC  
Elevation  
K.B. 1971  
D.F. 1969  
G.L. 1962

Date	5/29/12		
Run Number	ONE		
Depth Driller	3500		
Depth Logger	3500		
Bottom Logged Interval	3476		
Top Log Interval	2700		
Casing Driller	8 5/8"@918'		
Casing Logger	918		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 5,500 PPM	
Density / Viscosity	9.4/49		
pH / Fluid Loss	10.5/10.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.50@76F		
Rmt @ Meas. Temp	1.13@76F		
Rmc @ Meas. Temp	1.80@76F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	1.02@112F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	7:30 A.M.		
Maximum Recorded Temperature	112F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	KURT TALBOTT		

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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  
HOISINGTON, KS. 1 3/4N. OF DAIRY QUEEN ON BLKTOP, 1/2 E. INTO @ CATTLE GUARD

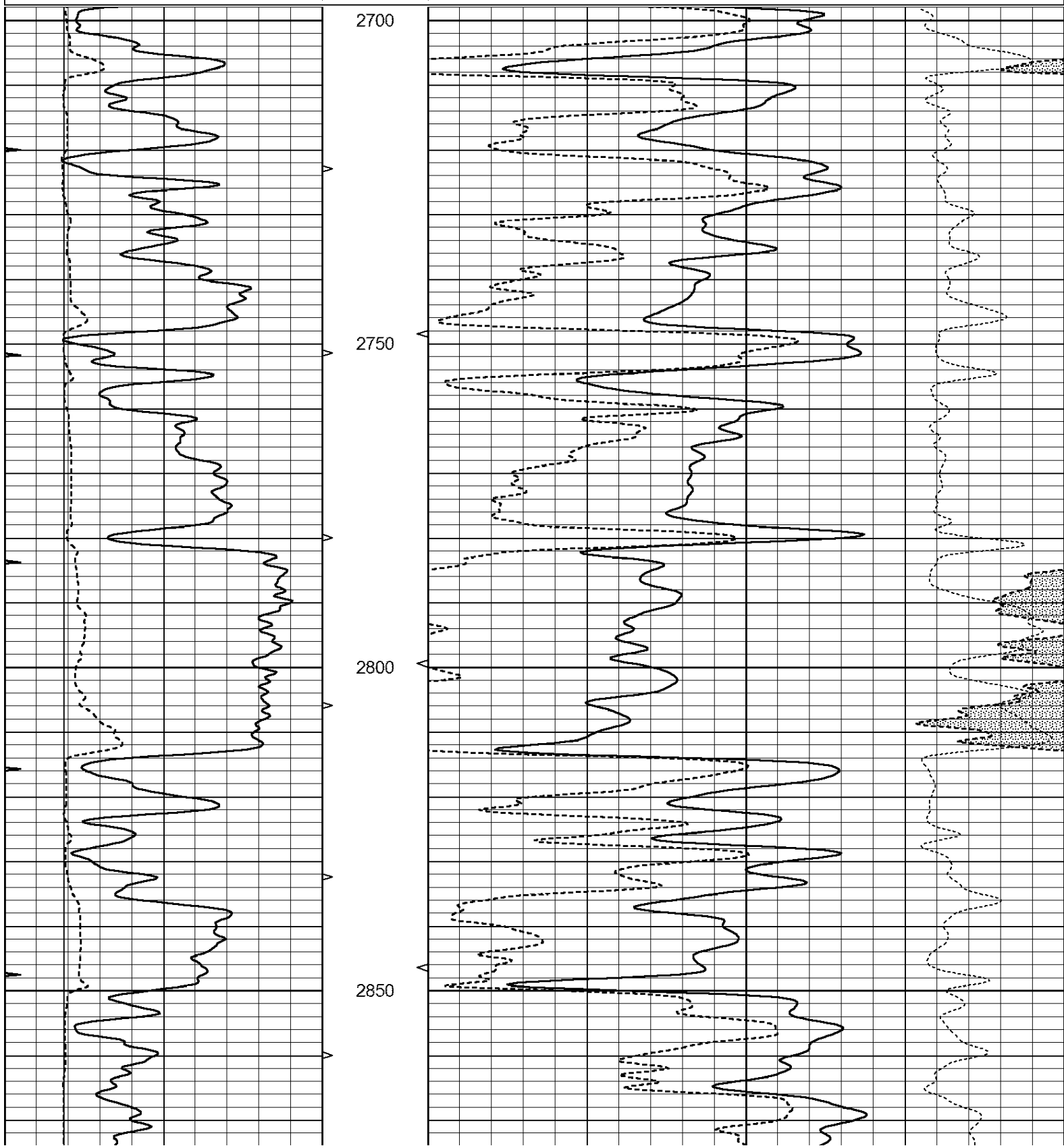


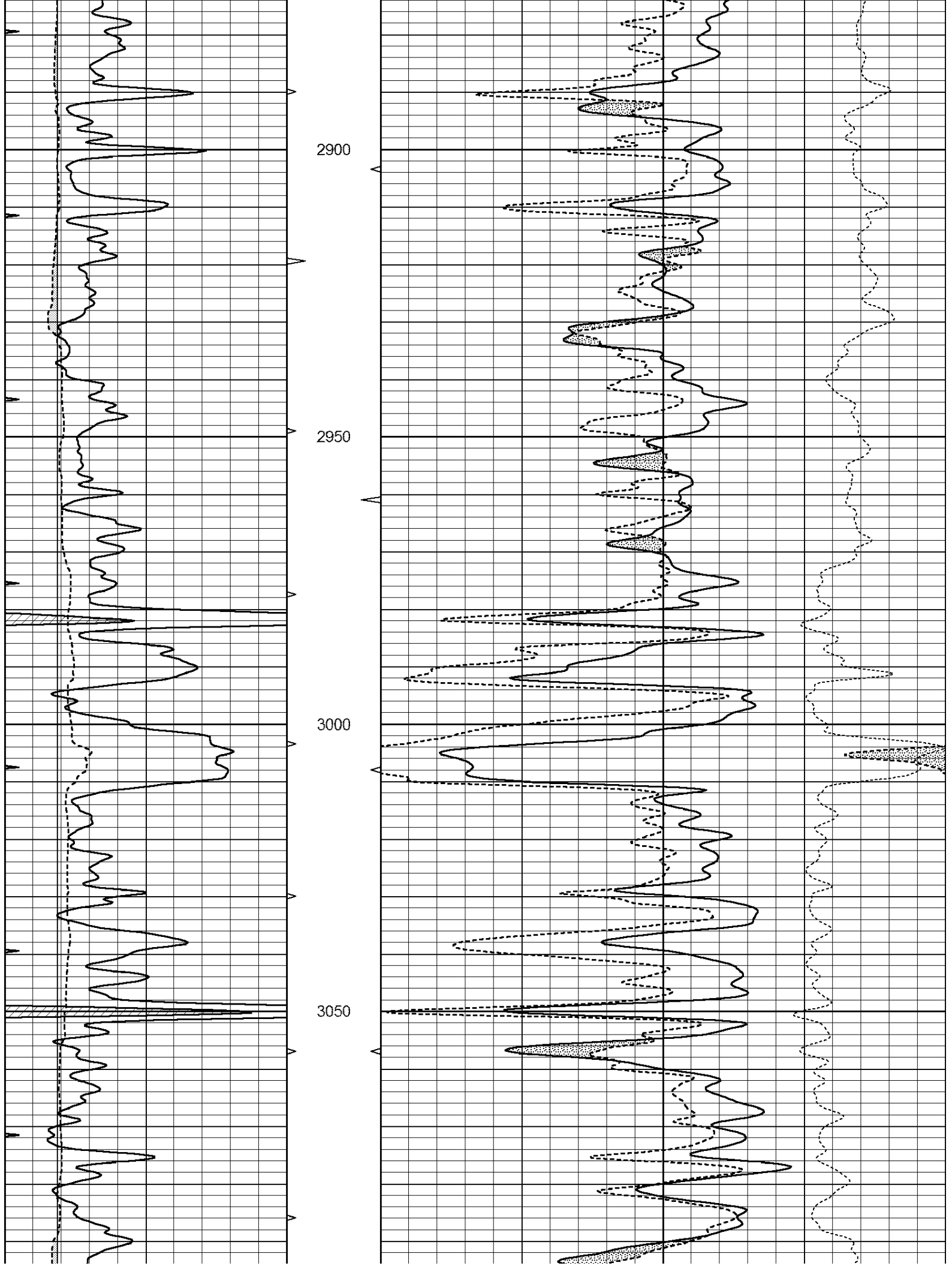
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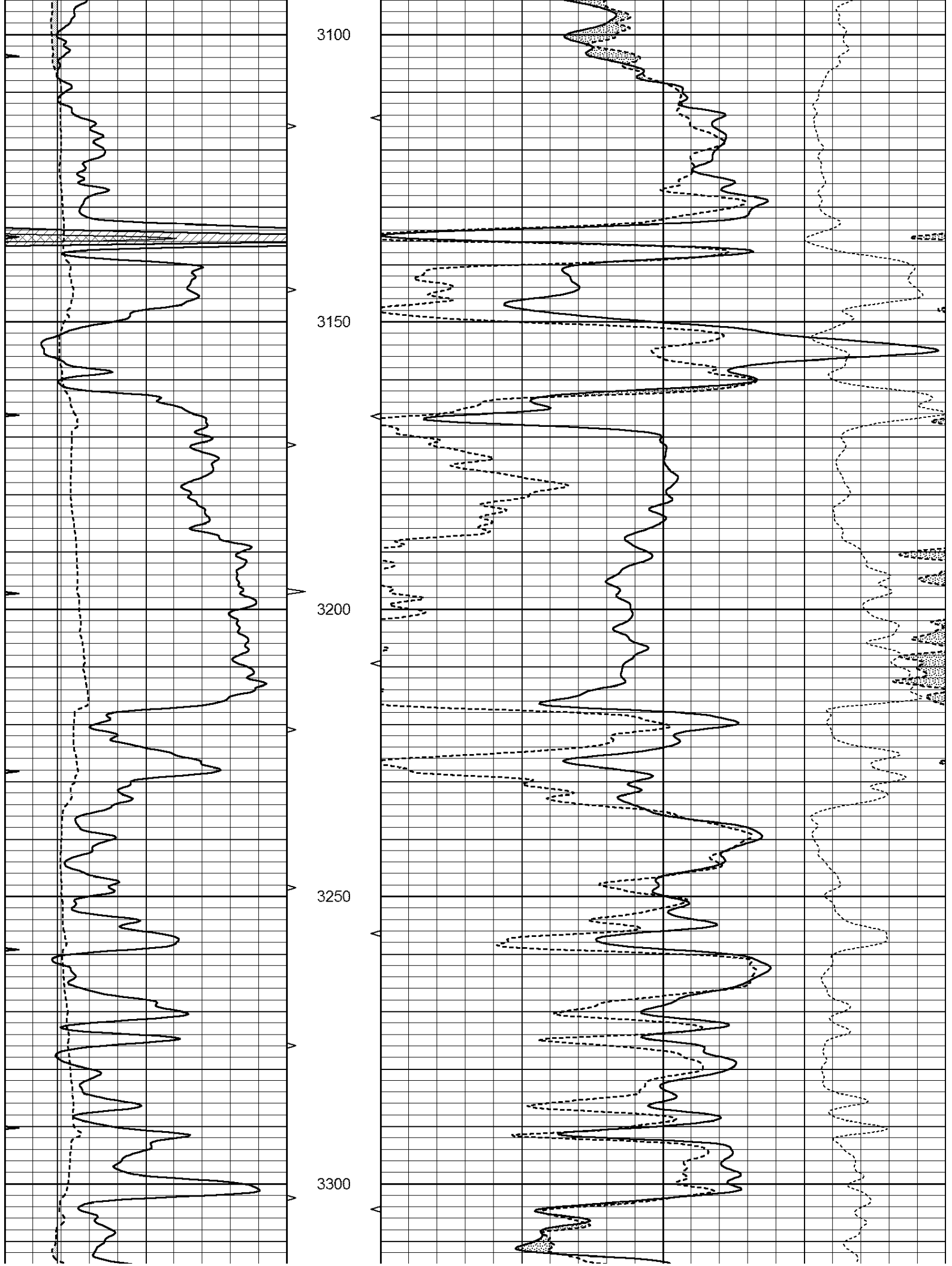
**MAIN SECTION**

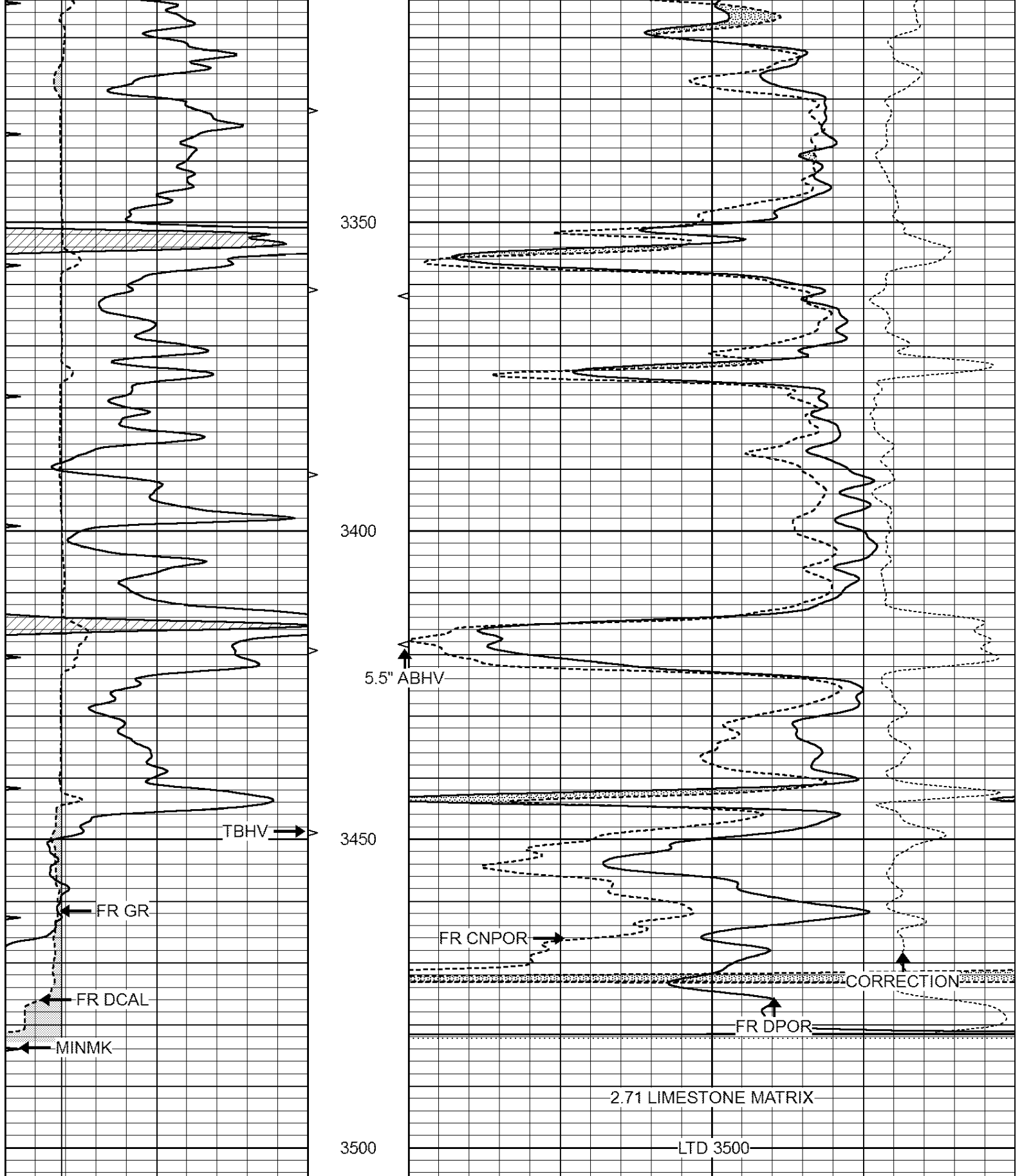
Database File: 409127ddn.db  
 Dataset Pathname: pass3.2  
 Presentation Format: den\_neu  
 Dataset Creation: Tue May 29 08:56:46 2012 by Calc Open-Cased 110302  
 Charted by: Depth in Feet scaled 1:240

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		









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			



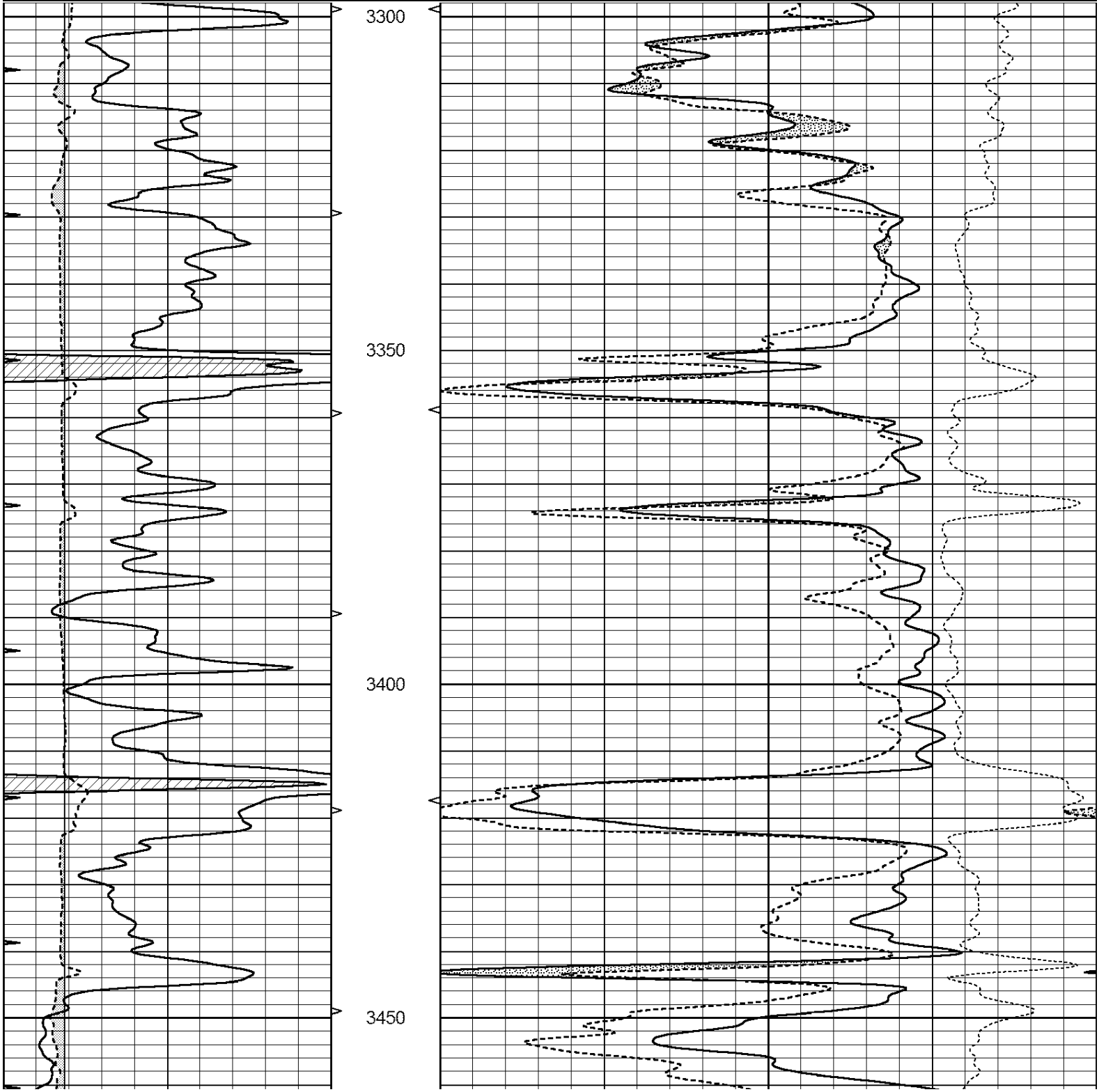


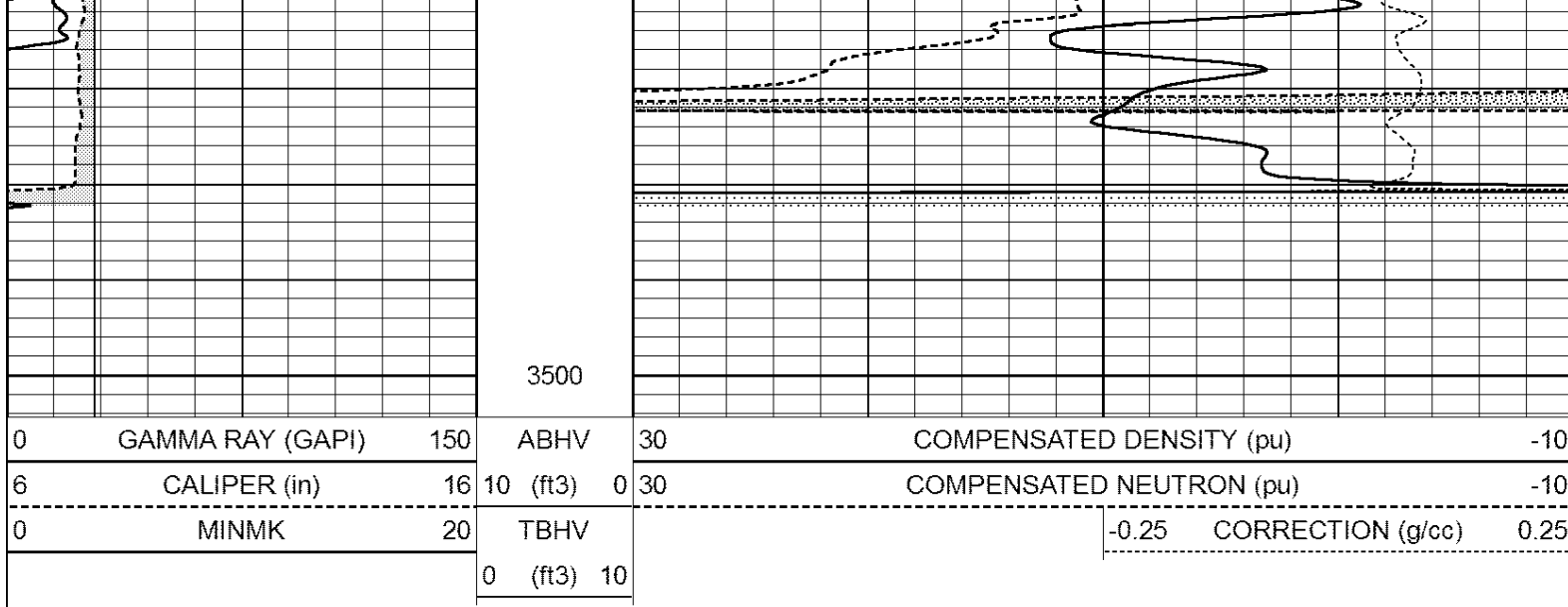
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# REPEAT SECTION

Database File: 409127ddn.db  
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 Presentation Format: den\_neu  
 Dataset Creation: Tue May 29 07:54:16 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		

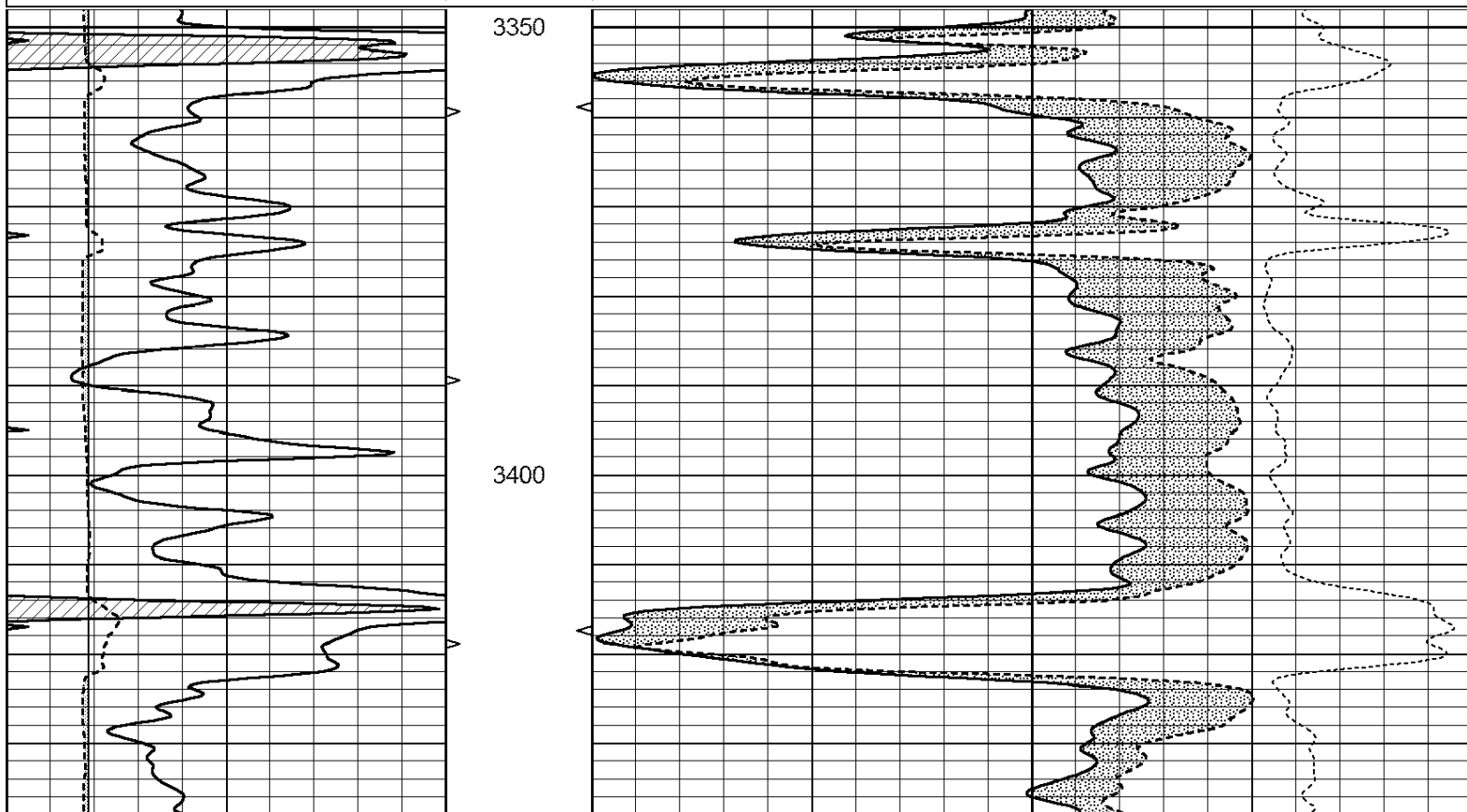
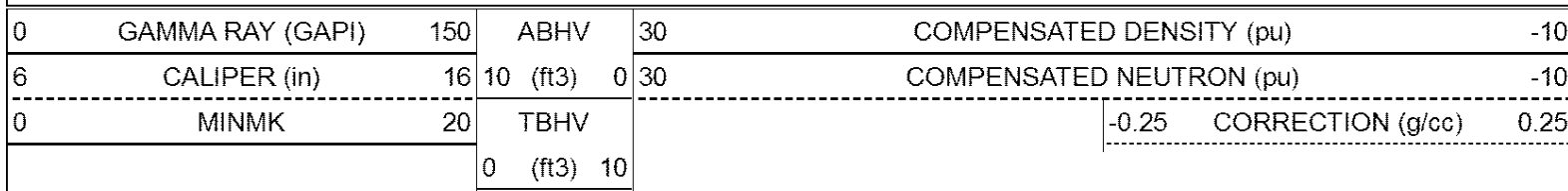


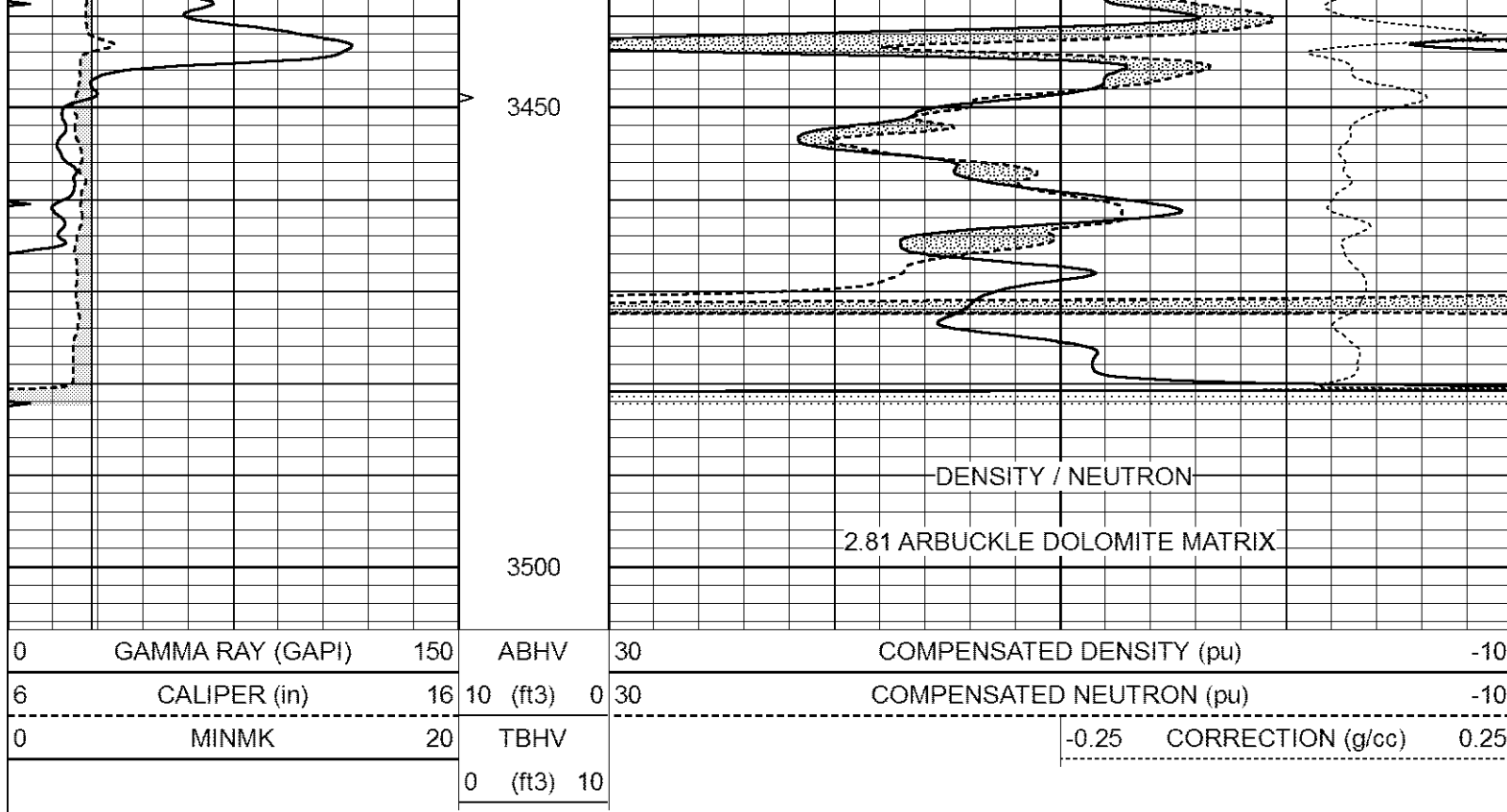


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# DOLOMITE MATRIX

Database File: 409127ddn.db  
 Dataset Pathname: pass2.6  
 Presentation Format: den\_neu  
 Dataset Creation: Tue May 29 08:04:37 2012  
 Charted by: Depth in Feet scaled 1:240





### Calibration Report

Database File: 409127ddn.db  
 Dataset Pathname: pass3.2  
 Dataset Creation: Tue May 29 08:56:46 2012 by Calc Open-Cased 110302

### Dual Induction Calibration Report

Serial-Model: DIL4-GEAR  
 Performed: Tue May 29 07:54:53 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				
Low Ref	Readings	Reference		
High Ref	3.4	7.8		
	5.5	15.0		
	Gain: 3.4		Offset: -3.8	

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