



SUPERIOR
Hays,
Kansas

COMPENSATED
DENSITY / NEUTRON
LOG

Company	CAERUS KANSAS, LLC.	Company	CAERUS KANSAS, LLC.
Well	MORTIMER #31-41	Well	MORTIMER #31-41
Field	SETTE	Field	SETTE
County	BARTON	County	BARTON
State	KANSAS	State	KANSAS
Location:	AP1 # : 15-009-25726-0000	Other Services	DIL/MEL SONIC
Permanent Datum	GROUND LEVEL	Elevation	1870
Log Measured From	KELLY BUSHING 10' A.G.L.	Elevation	K.B. 1880 D.F. 1878 G.L. 1870
Drilling Measured From	KELLY BUSHING		
SEC 31 TWP 17S RGE 13W			
Date	7/31/12		
Run Number	ONE		
Depth Driller	3472		
Depth Logger	3474		
Bottom Logged Interval	3450		
Top Log Interval	2700		
Casing Driller	8 5/8" @ 852'		
Casing Logger	854		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 3,000 PPM	
Density / Viscosity	9.3/52		
pH / Fluid Loss	10.5/9.6		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.20 @ 98F		
Rmt @ Meas. Temp	.900 @ 98F		
Rmc @ Meas. Temp	1.44 @ 98F		
Source of Rmt / Rmc	MEASUREMENT		
Rm @ BHT	1.06 @ 111F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	8:00 P.M.		
Maximum Recorded Temperature	111F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	JUSTIN CARTER	BRIAN KARLIN	

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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

RUSSELL, KS. & I-70, S. ON HWY 281 TO HWY 4, E. TO CURVE, AFTER CURVING S., W. INTO THEN
FOLLOW TRAIL PARALLEL TO HIGHWAY N. & W.

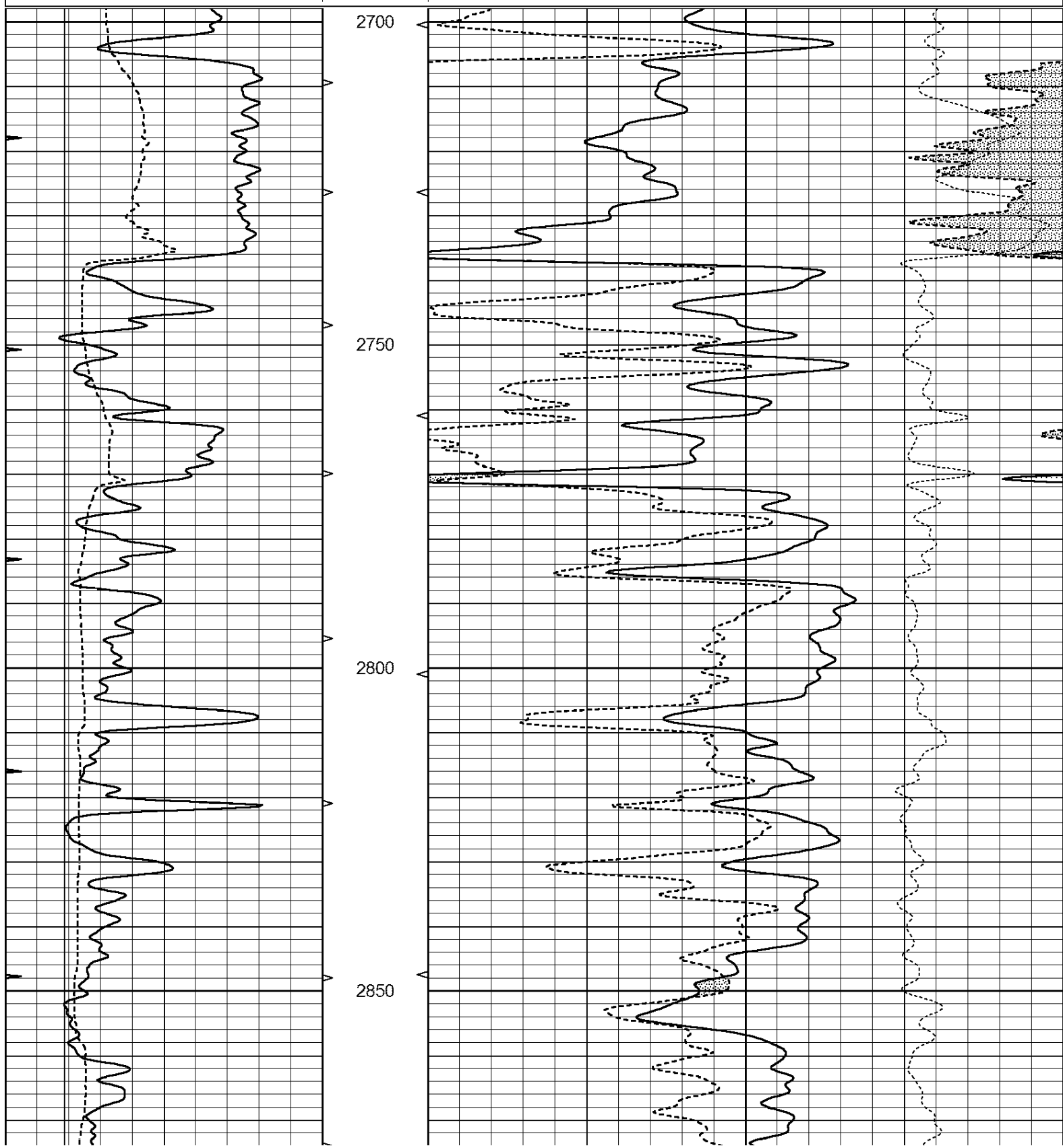


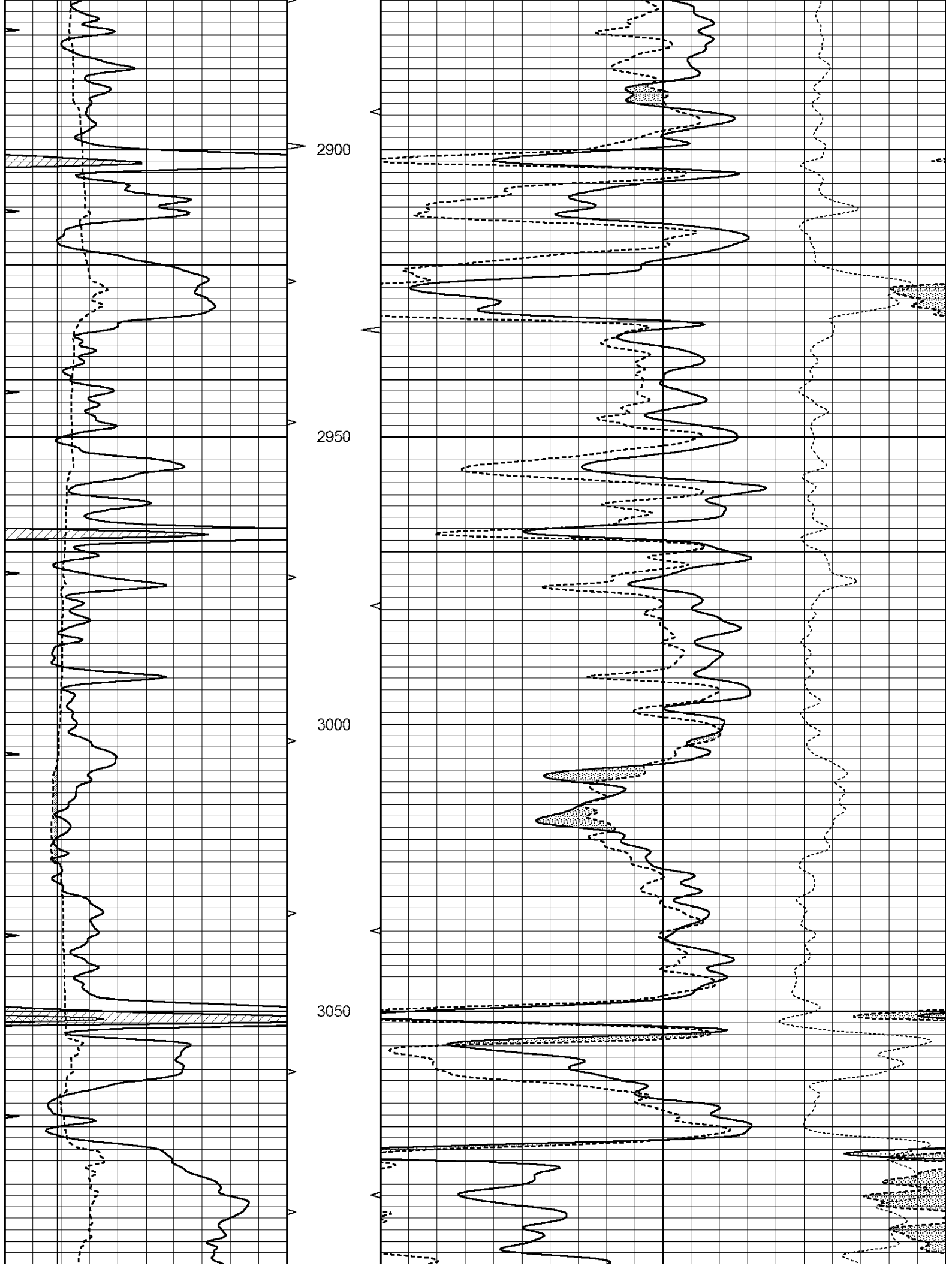
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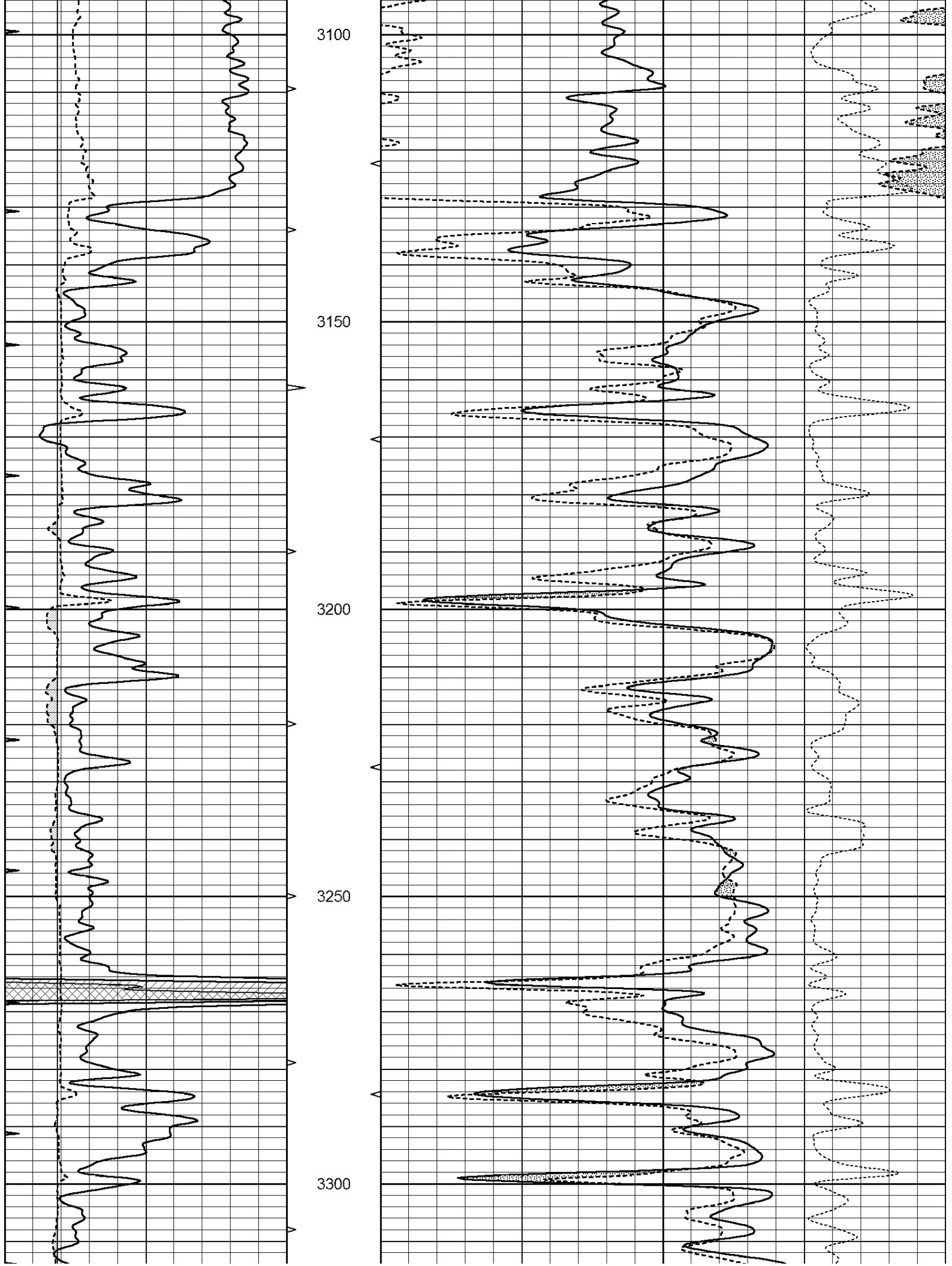
MAIN SECTION

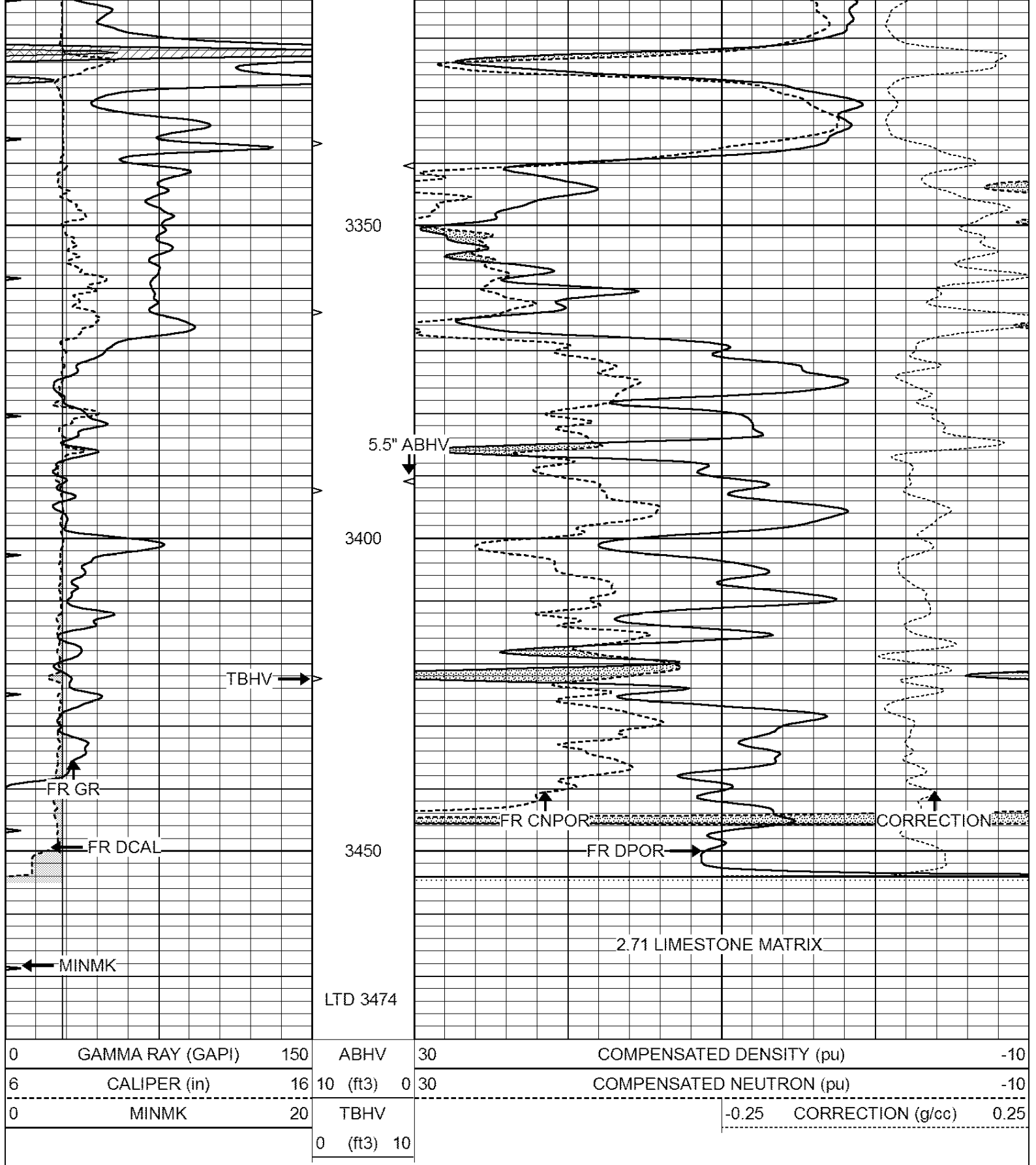
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Dataset Pathname: pass3.4
Presentation Format: den_neu
Dataset Creation: Mon Jul 30 21:52:38 2012
Charted by: Depth in Feet scaled 1:240

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		





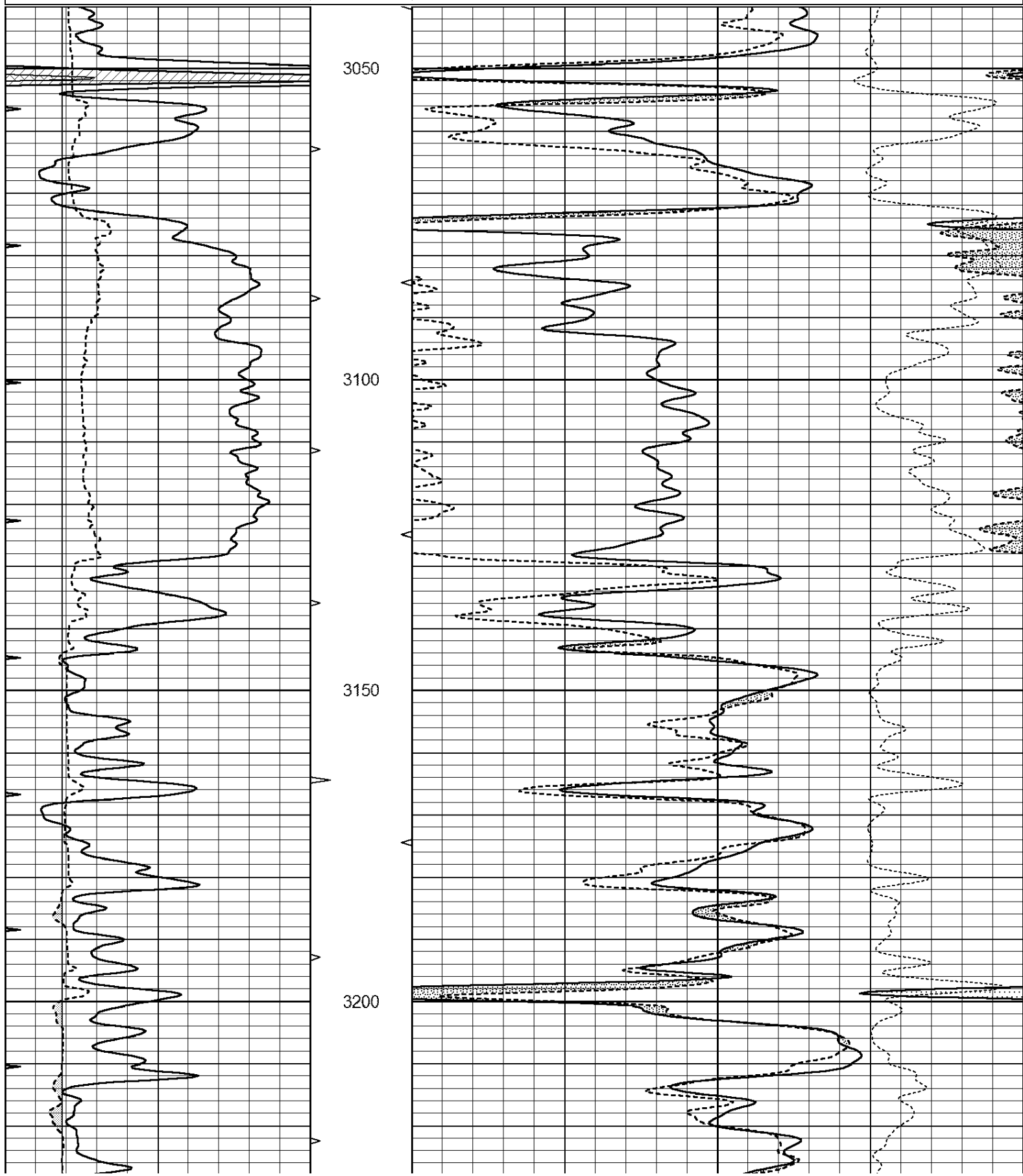


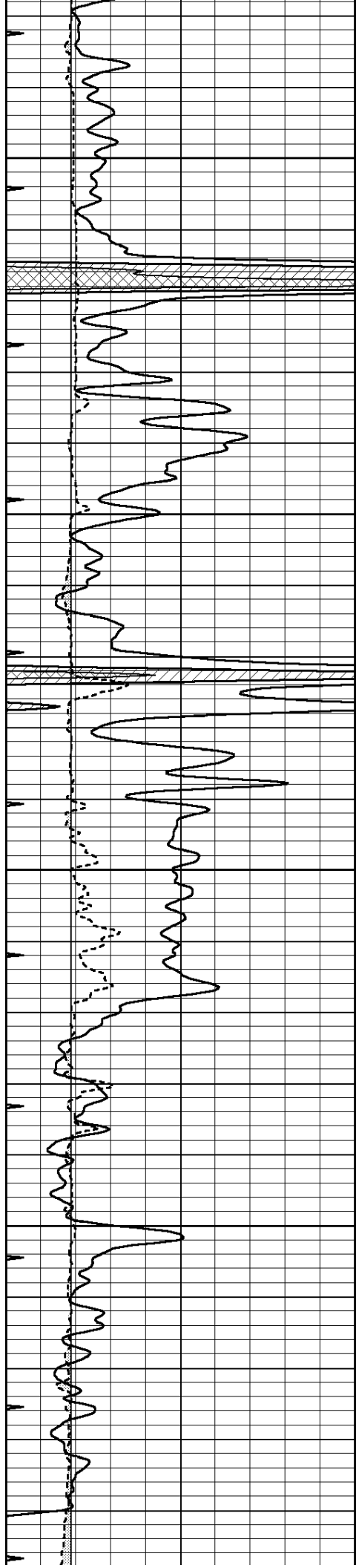


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REPEAT SECTION

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		



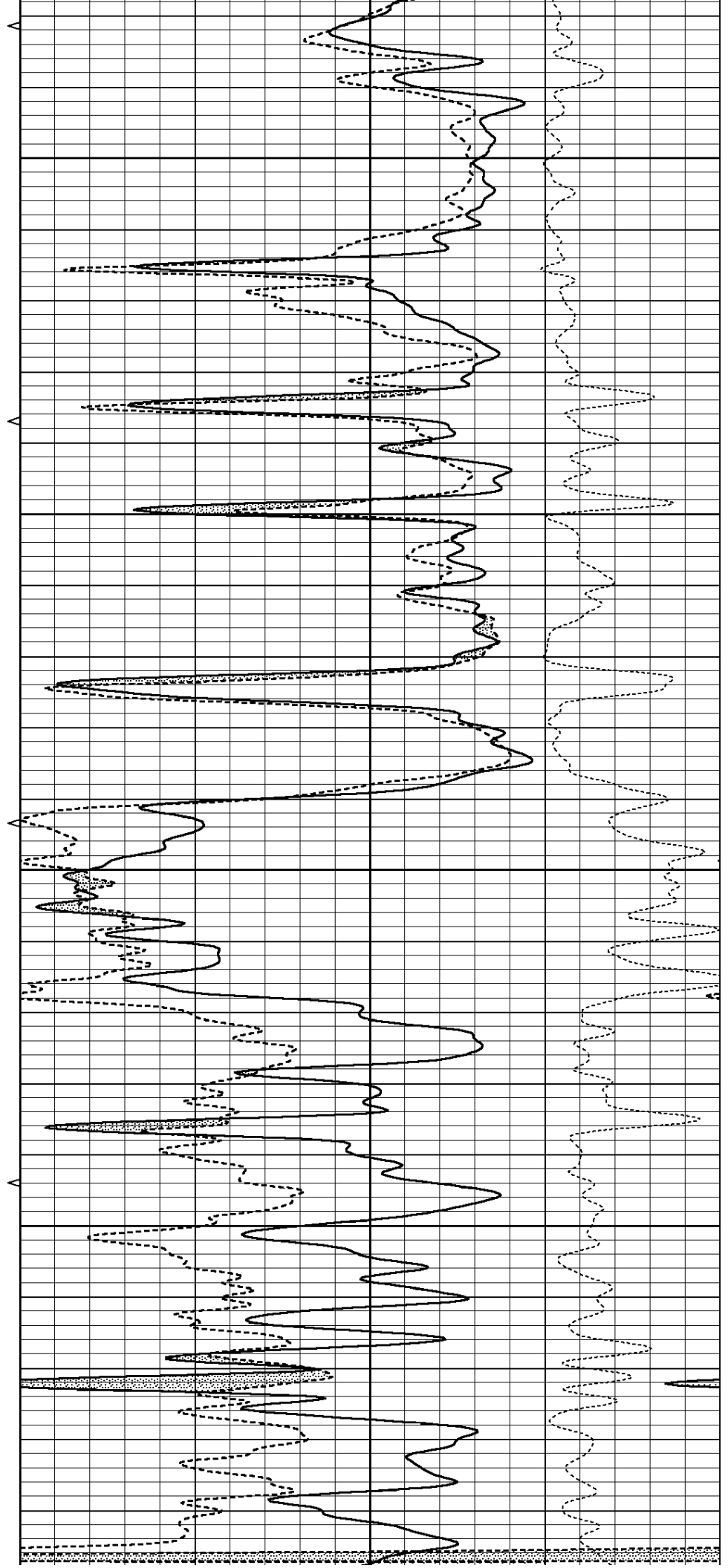


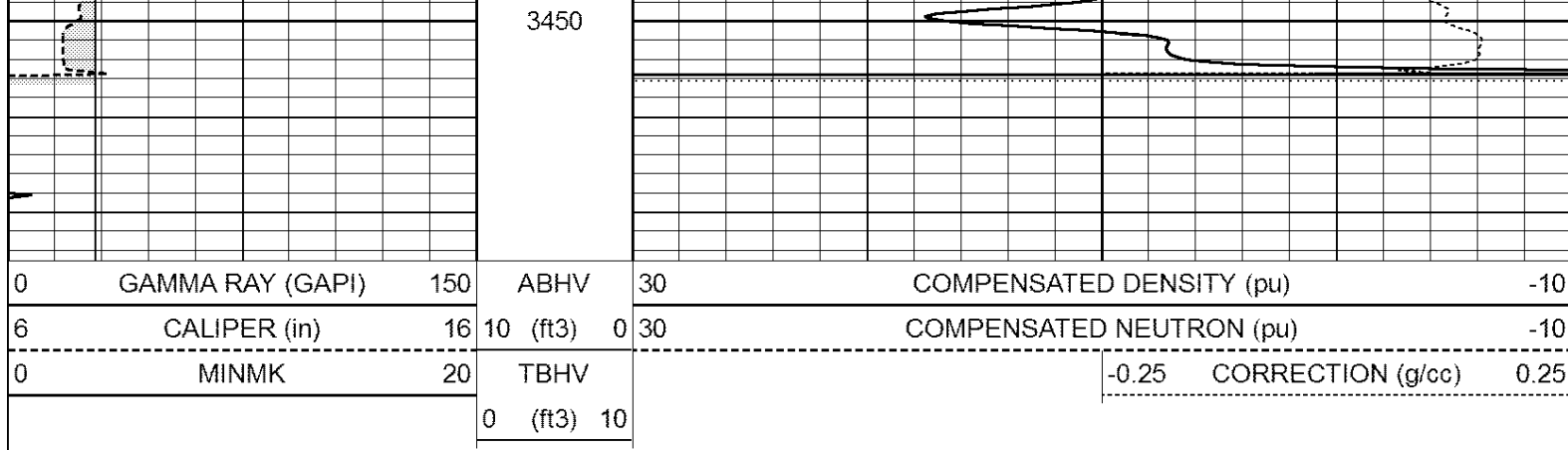
3250

3300

3350

3400

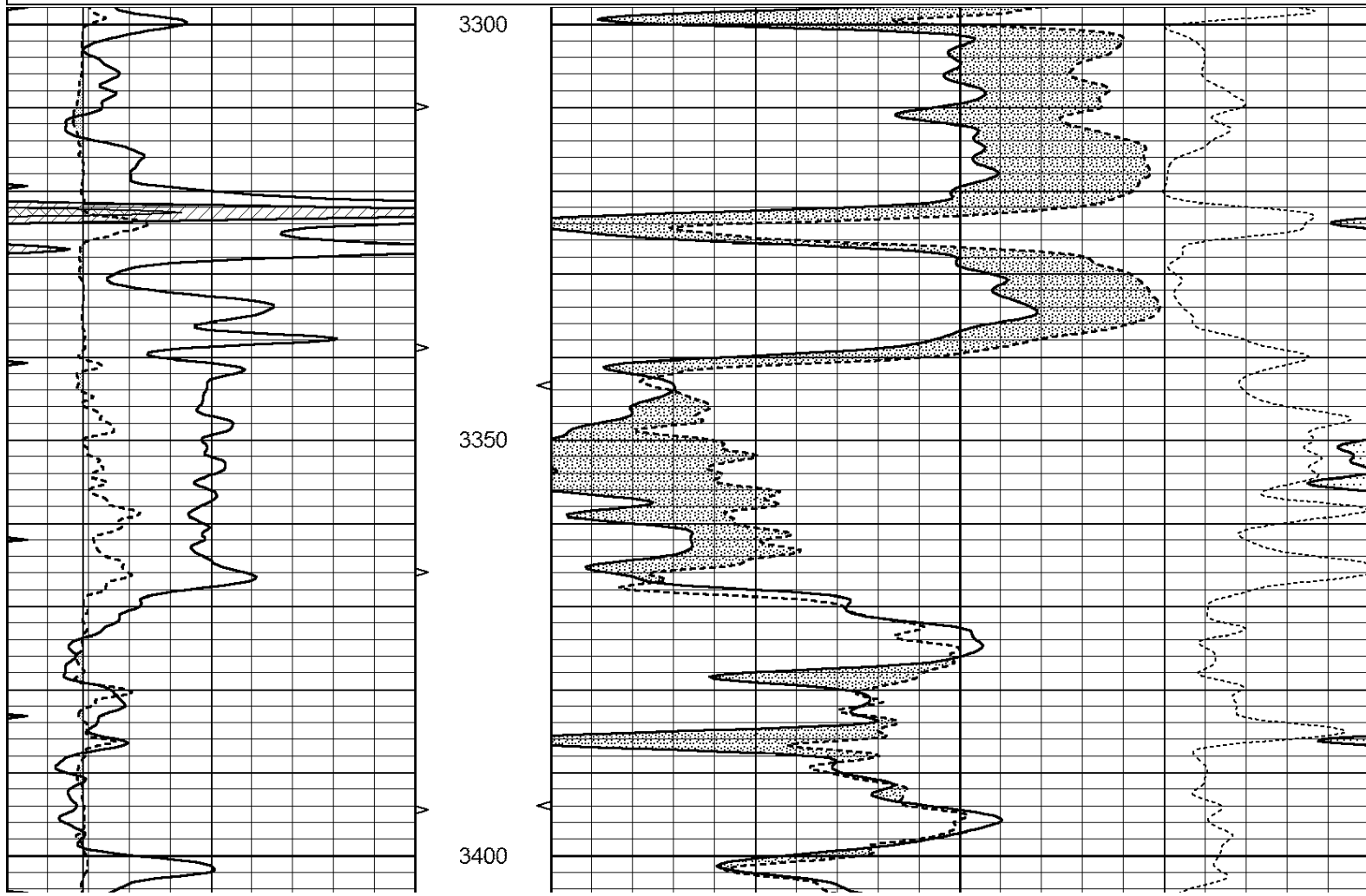
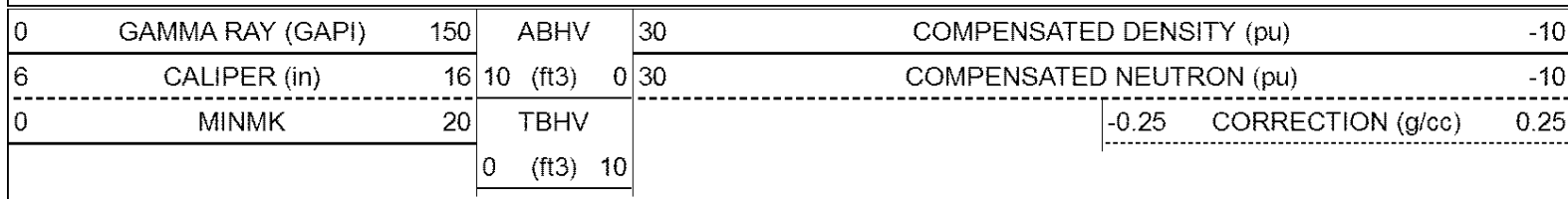


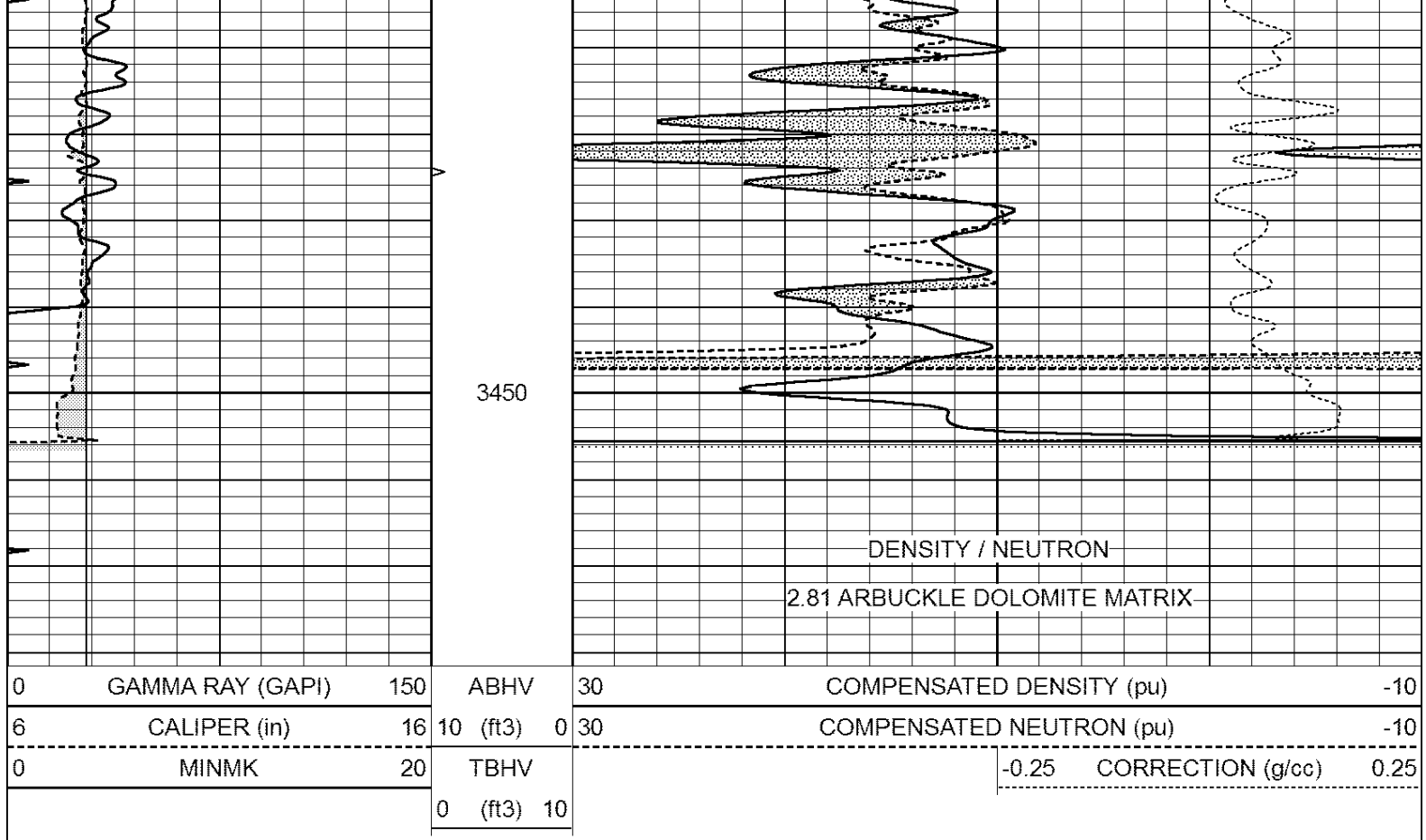


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DOLOMITE MATRIX

Database File: 409443ddn.db
 Dataset Pathname: pass2.5
 Presentation Format: den_neu
 Dataset Creation: Mon Jul 30 20:45:54 2012
 Charted by: Depth in Feet scaled 1:240





Calibration Report

Database File: 409443ddn.db
 Dataset Pathname: pass3.4
 Dataset Creation: Mon Jul 30 21:52:38 2012

Dual Induction Calibration Report

Serial-Model: DIL4-GEAR
 Performed: Thu Jul 26 17:34:42 2012

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.008	0.666	V	0.000	400.000	mmho/m	570.000	0.000
Medium	-0.003	0.769	V	0.000	462.500	mmho/m	560.000	-2.000
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	2.5000	1.2800	g/cc

Rho Pe		1.7100	2.5900 2.5700	1.5800 1.5500	g/cc
Rib Angle Spine Angle	: 44.4 : 74.4	Rib Slope Spine Slope	: 0.979 : 3.577	Density/Spine Ratio Spine Intercept	: 0.549 : -18.8
Caliper	Readings	Reference			
Low Ref	3.4	7.8			
High Ref	5.5	15.0			
	Gain: 3.4		Offset: -3.6		
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:	Thu Jul 26 17:34:29 2012				
Calibrator Value:	1.0	GAPI			
Background Reading:	0.0	cps			
Calibrator Reading:	1.0	cps			
Sensitivity:	0.3000	GAPI/cps			