

COMPENSATED DENSITY / NEUTRON LOG

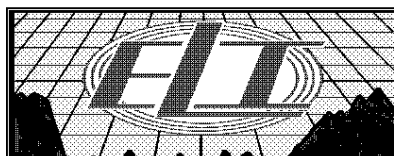
Company	DOWNING - NELSON OIL CO., INC.		
Well	OELKERS - WERTH UNIT #1-5		
Field	WILDCAT		
County	RUSH	State	KANSAS
Location:	API # : 15-165-22131-0000		Other Services DIL/MEL SONIC
Permanent Datum Log Measured From Drilling Measured From	SEC 5 TWP 16S RGE 19W 1875' FNL & 2020' FEL SE - NW - SW - NE GROUND LEVEL KELLY BUSHING 8' A.G.L. KELLY BUSHING		Elevation K.B. 2039 D.F. 2037 G.L. 2031
Date	8/16/16		
Run Number	ONE		
Depth Driller	3677		
Depth Logger	3680		
Bottom Logged Interval	3656		
Top Log Interval	2800		
Casing Driller	8 5/8"@1255'		
Casing Logger	1254		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 6,000 PPM	
Density / Viscosity	9.1/45		
pH / Fluid Loss	9.5/10.4		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	.400@80F		
Rinf @ Meas. Temp	.300@80F		
Rmc @ Meas. Temp	.480@80F		
Source of Rinf / Rmc	MEASUREMENT		
Rim @ BHT	.283@113F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	8:15 A.M.		
Maximum Recorded Temperature	113F		
Equipment Number	922339		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	MARC DOWNING		

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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

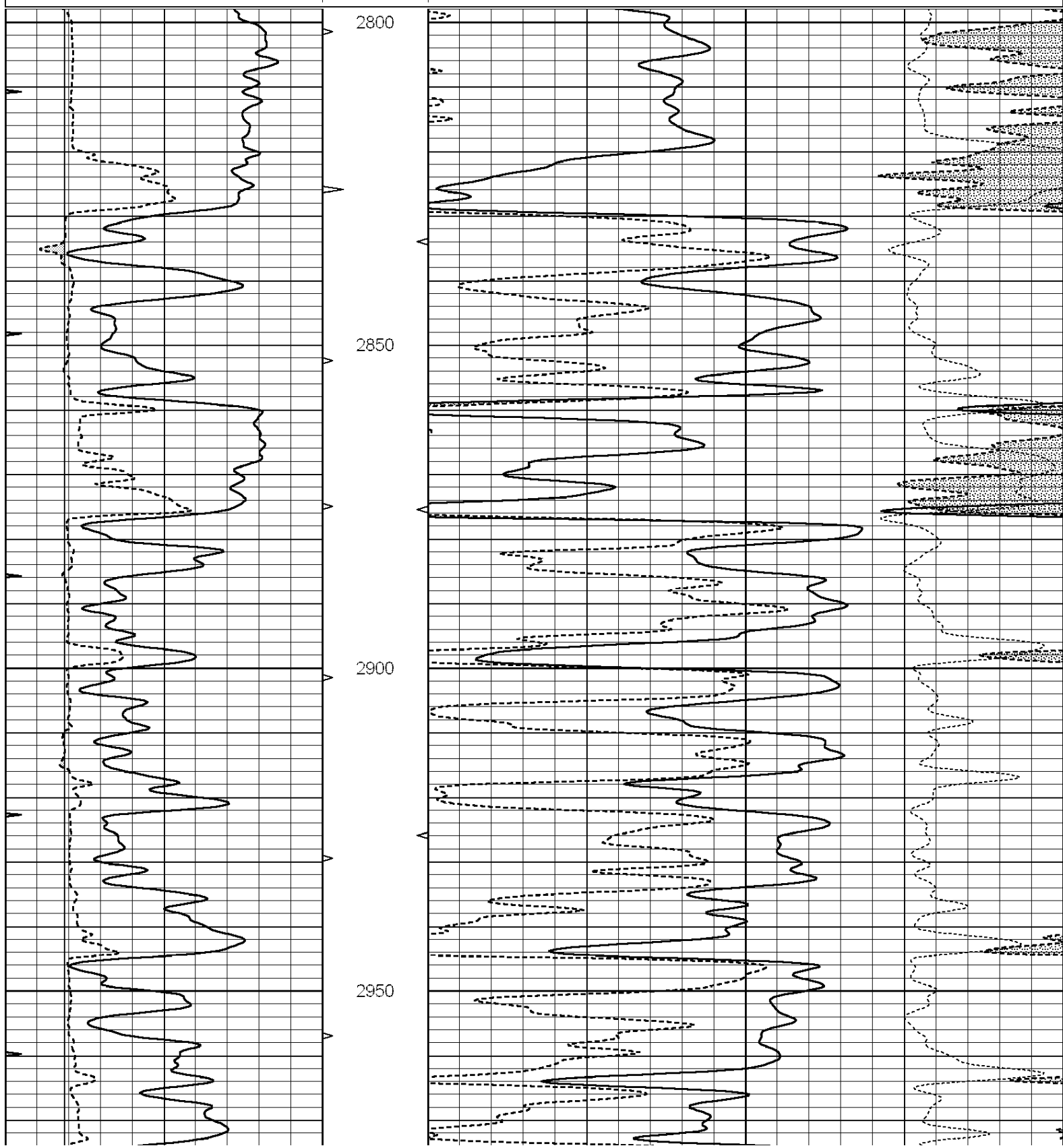
THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS
ANTONINO, KS., S. TO STOP SIGN (SCHOENCHEN RD.) 1W., 1S., 1W. TO "T", 1S. TO CURVE, W. INTO
AT TIN SHED

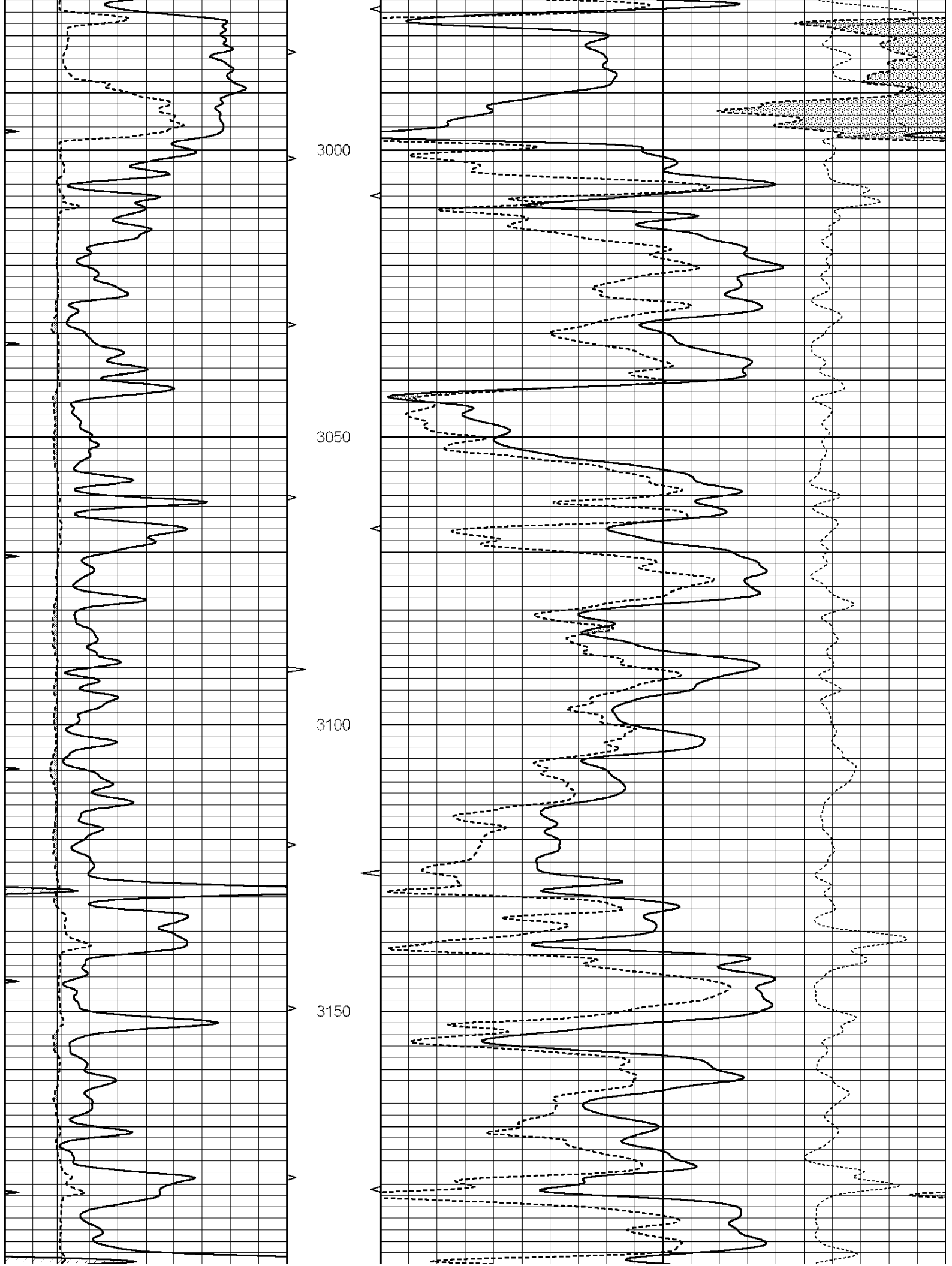


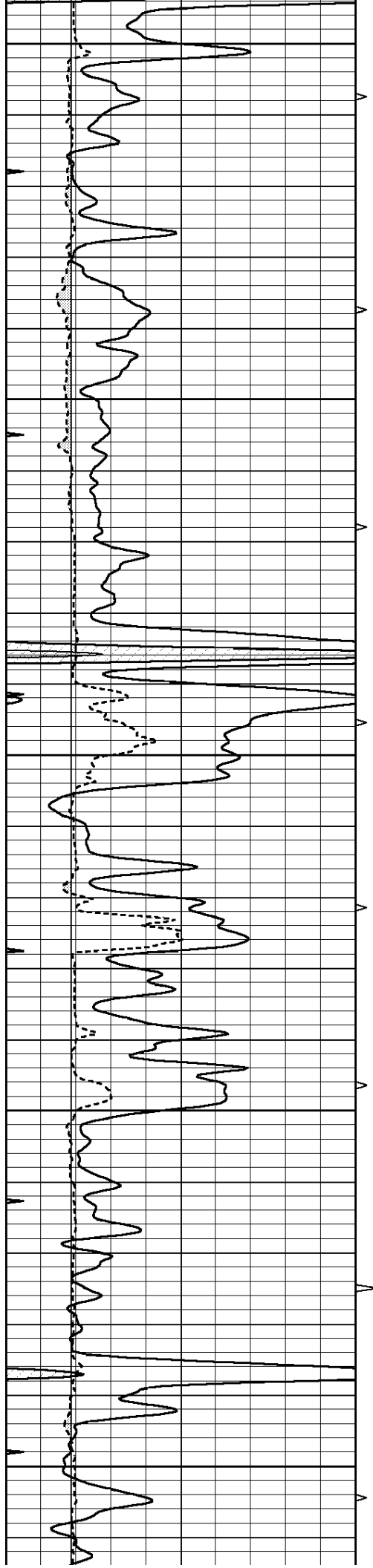
MAIN SECTION

Database File: 30759ddn.db
Dataset Pathname: pass3.6
Presentation Format: den_neu
Dataset Creation: Tue Aug 16 09:26:03 2016
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		







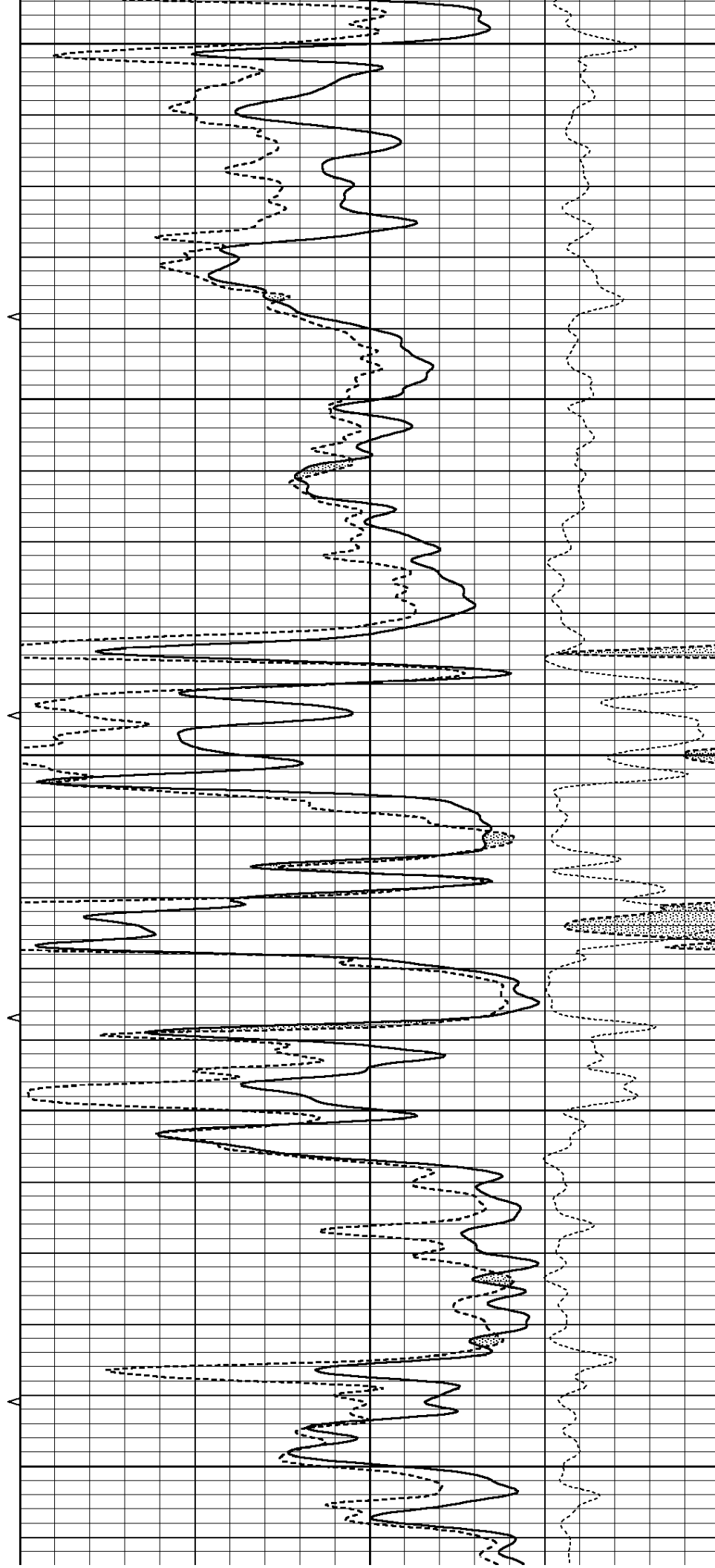
3200

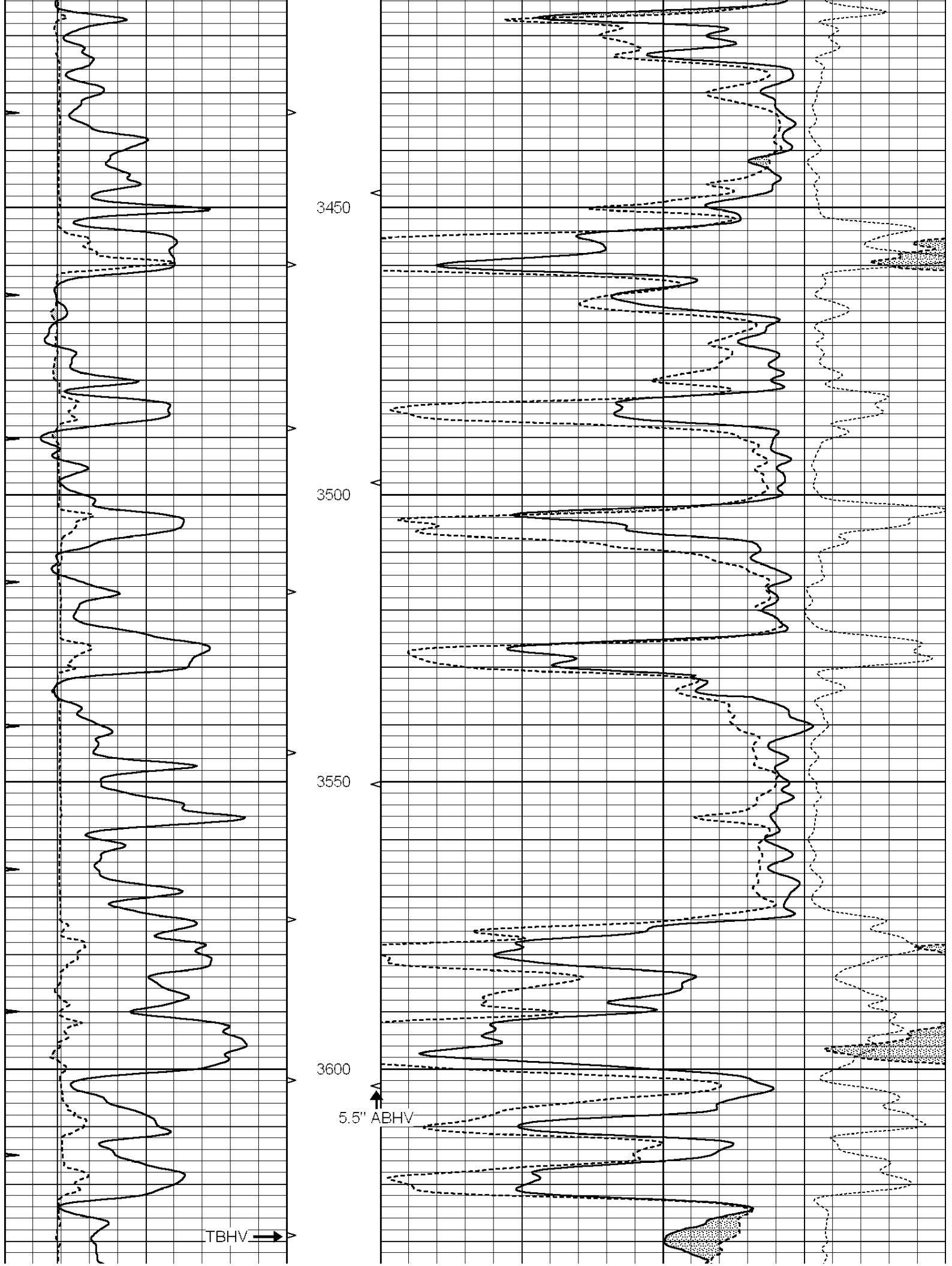
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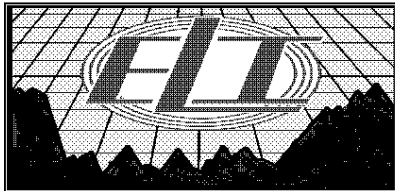
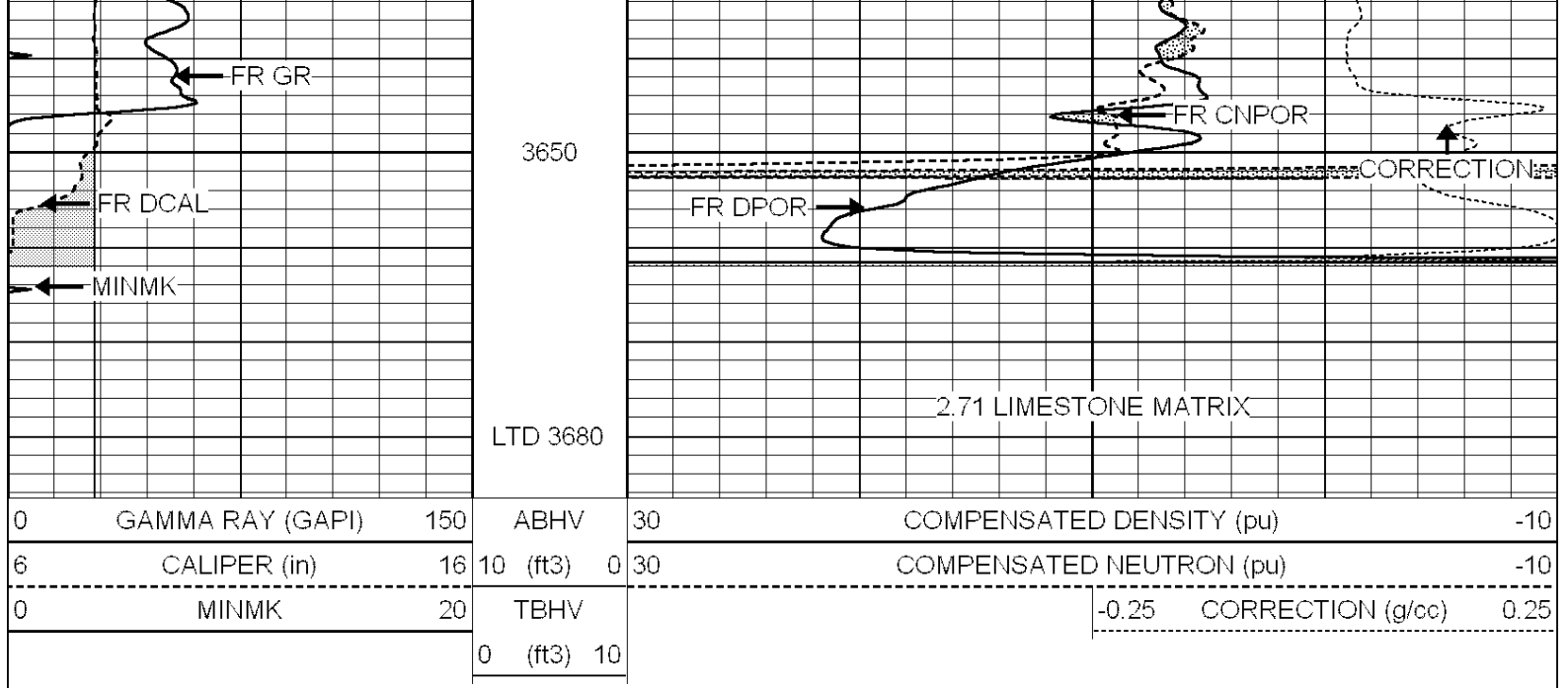
3300

3350

3400





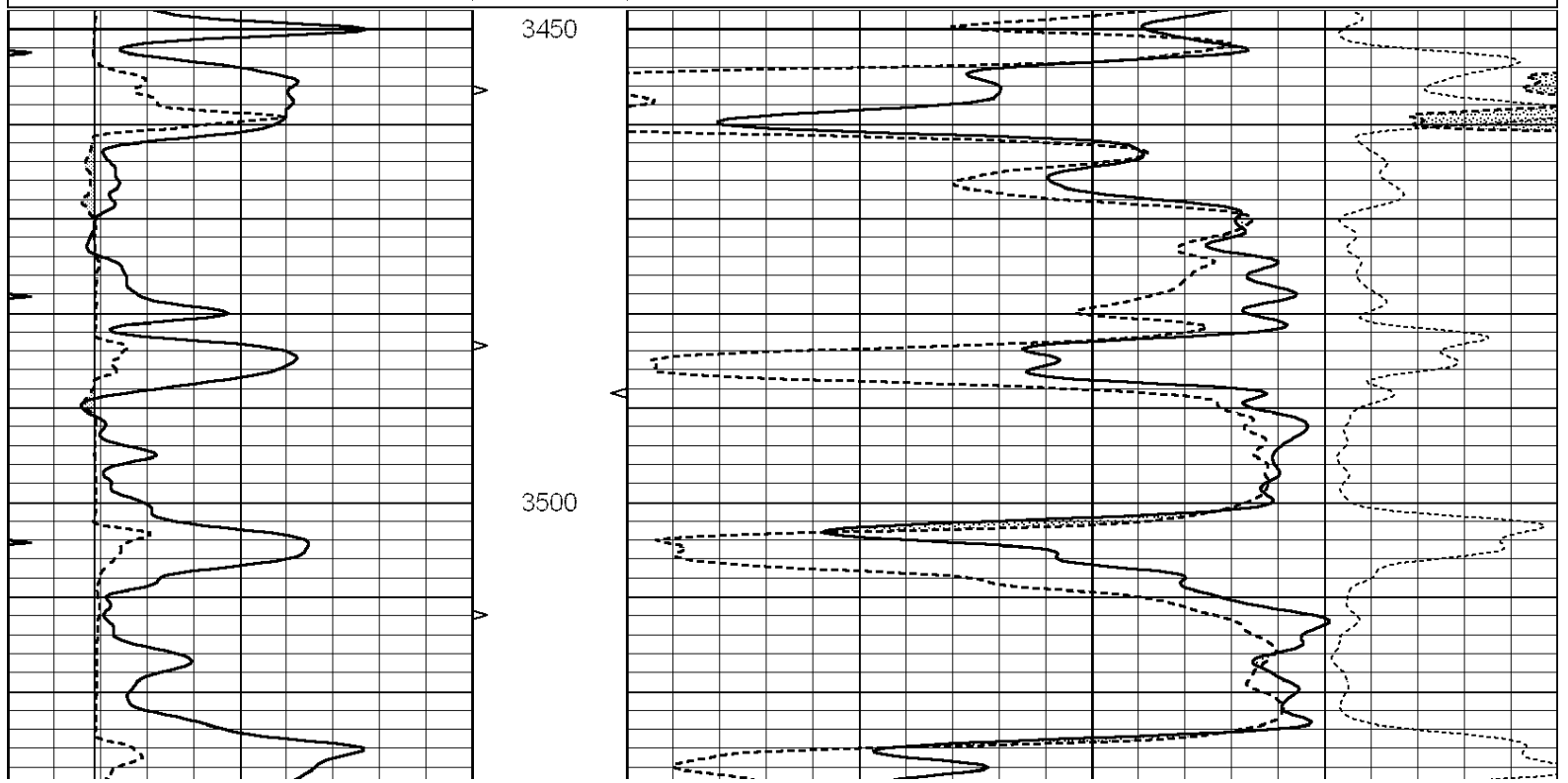


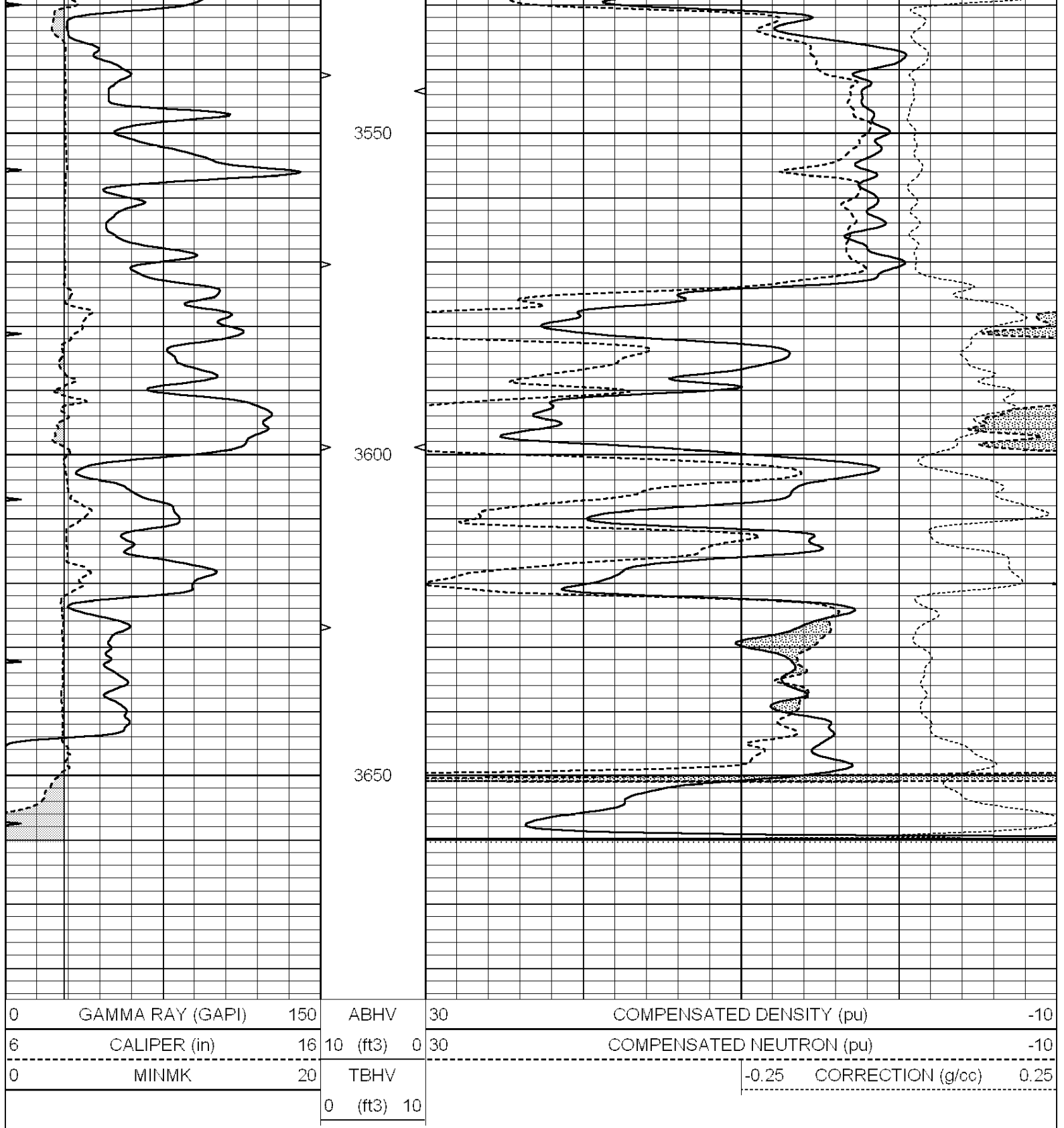
REPEAT SECTION

Database File: 30759ddn.db
 Dataset Pathname: pass2.8
 Presentation Format: den_neu
 Dataset Creation: Tue Aug 16 09:38:37 2016
 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: 30759ddn.db
Dataset Pathname: pass3.6
Dataset Creation: Tue Aug 16 09:26:03 2016

Dual Induction Calibration Report

Serial-Model:	PROBE7-DILG
Surface Cal Performed:	Tue Aug 16 08:27:16 2016
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	625.000	2.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	675.000	-40.000
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 Mon Mar 14 08:48:13 2016				
	Background	Magnesium		Aluminum		Sandstone		
Window 1	1751.3	11741.0		3857.3		12907.8		cps
Window 2	1589.4	9536.2		3267.6		10282.0		cps
Window 3	1413.4	6466.1		2463.2		6828.7		cps
Window 4	399.5	407.1		405.1		406.5		cps
Long Space	0.0	7946.7		1678.1		8692.6		cps
Short Space	2.2	3366.2		2134.1		3410.2		cps
Rho		1.7100		2.5900		1.3800		g/cc
Pe		0.0000		2.5700		1.5500		
Rib Angle	: 43.7	Rib Slope	: 0.954	Density/Spine Ratio			: 0.543	
Spine Angle	: 73.7	Spine Slope	: 3.412	Spine Intercept			: -18.7	

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:		Fri Aug 05 02:18:33 2016			
Calibrator Value:		1.0	GAPI		
Background Reading:		0.0	cps		
Calibrator Reading:		1.0	cps		
Sensitivity:		0.2800	GAPI/cps		