



**COMPLETION
& PRODUCTION
SERVICES CO.**

**COMPENSATED
DENSITY / NEUTRON
LOG**

Company REILLY OIL COMPANY, INC.
Well ANGIE #1-4
Field MARY HANNA SOUTHWEST
County TREGO
State KANSAS

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County TREGO State KANSAS

Location: API # : 15-195-22872-0000
972' FNL & 1175' FWL
NE - SE - NW - NW
SEC 4 TWP 11S RGE 24W
Permanent Datum GROUND LEVEL Elevation 2320
Log Measured From KELLY BUSHING 8' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services DIL/MEL
Elevation K.B. 2328
D.F. 2326
G.L. 2320

Date	7/1/13		
Run Number	ONE		
Depth Driller	3970		
Depth Logger	3966		
Bottom Logged Interval	3942		
Top Log Interval	3300		
Casing Driller	8 5/8"@219'		
Casing Logger	220		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 3,700 PPM	
Density / Viscosity	9.4/45		
pH / Fluid Loss	9.5/9.2		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	.650@89F		
Rmf @ Meas. Temp	.488@89F		
Rmc @ Meas. Temp	.780@89F		
Source of Rmf / Rmc	MEASUREMENT		
Rim @ BHT	.499@116F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	9:15 A.M.		
Maximum Recorded Temperature	116F		
Equipment Number	4854		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	RICHARD BELL		

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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

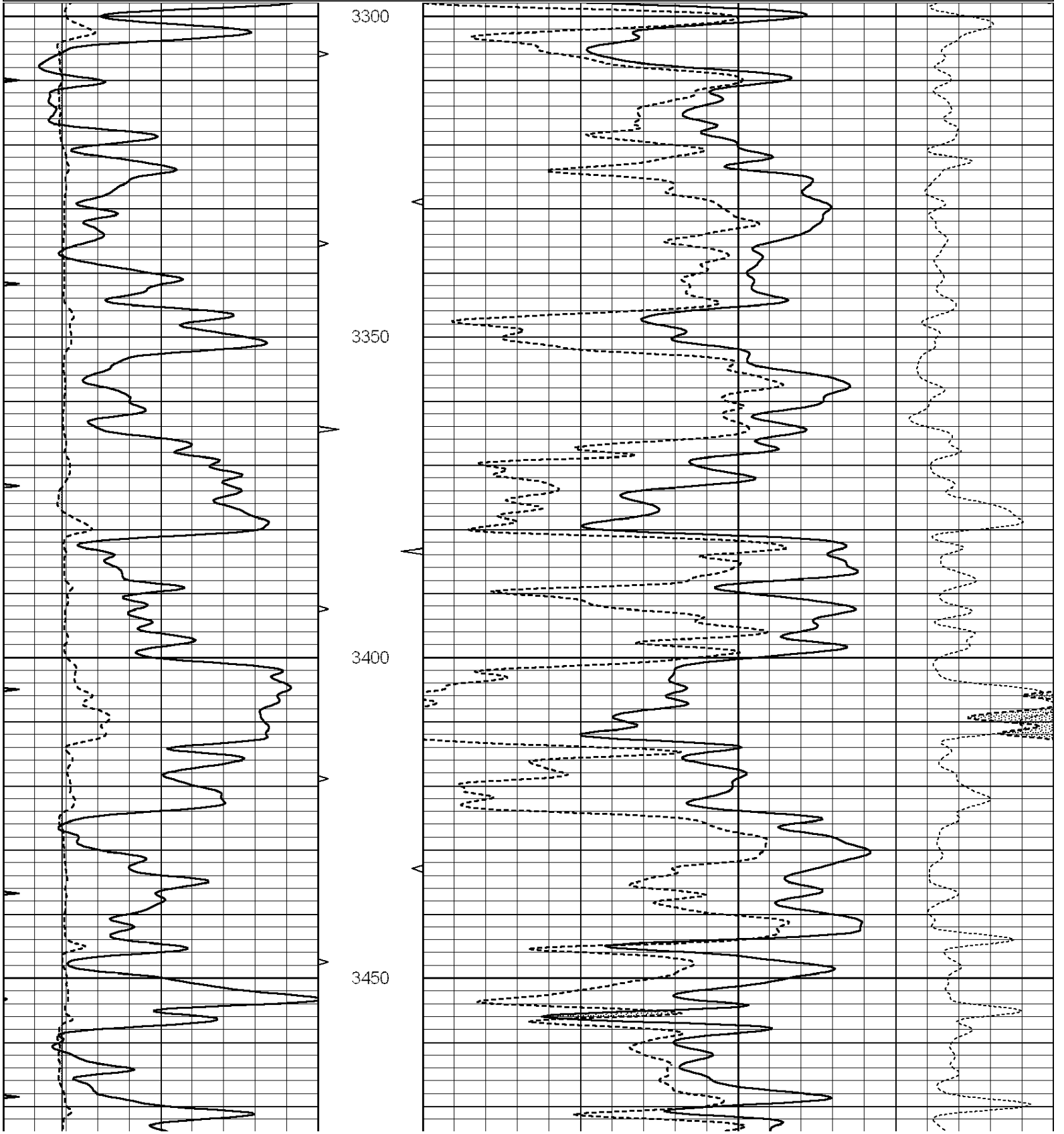
THANK YOU FOR USING "NABORS" HAYS, KANSAS (785) 628-6395
DIRECTIONS
WAKEENEY, KS. 6N. ON HWY 283 TO "RD. B", 6 1/2W., 1/4N. INTO @SHELTER BELT. FOLLOW TERRACE EAST & BACK NORTH THROUGH TREES

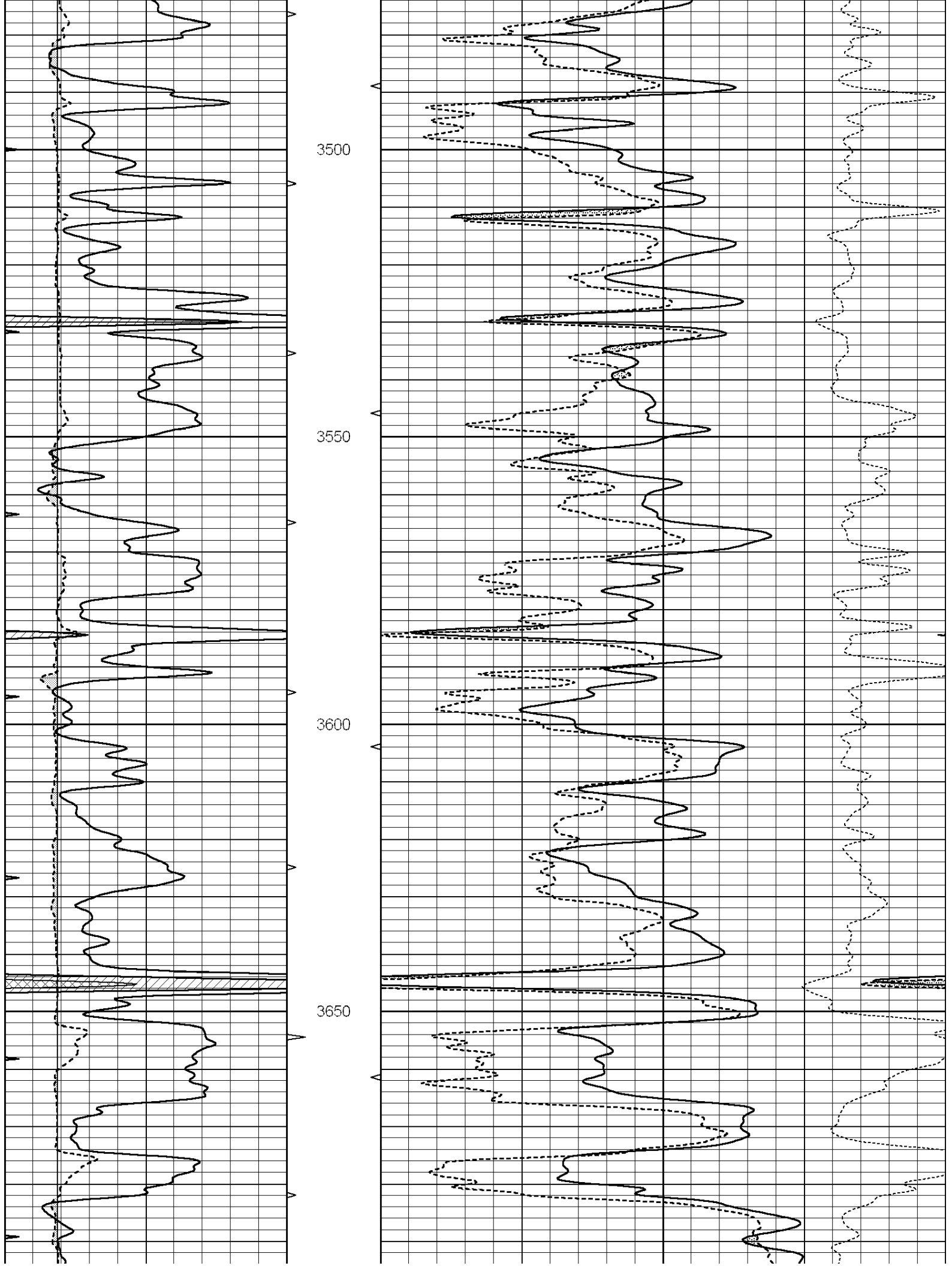


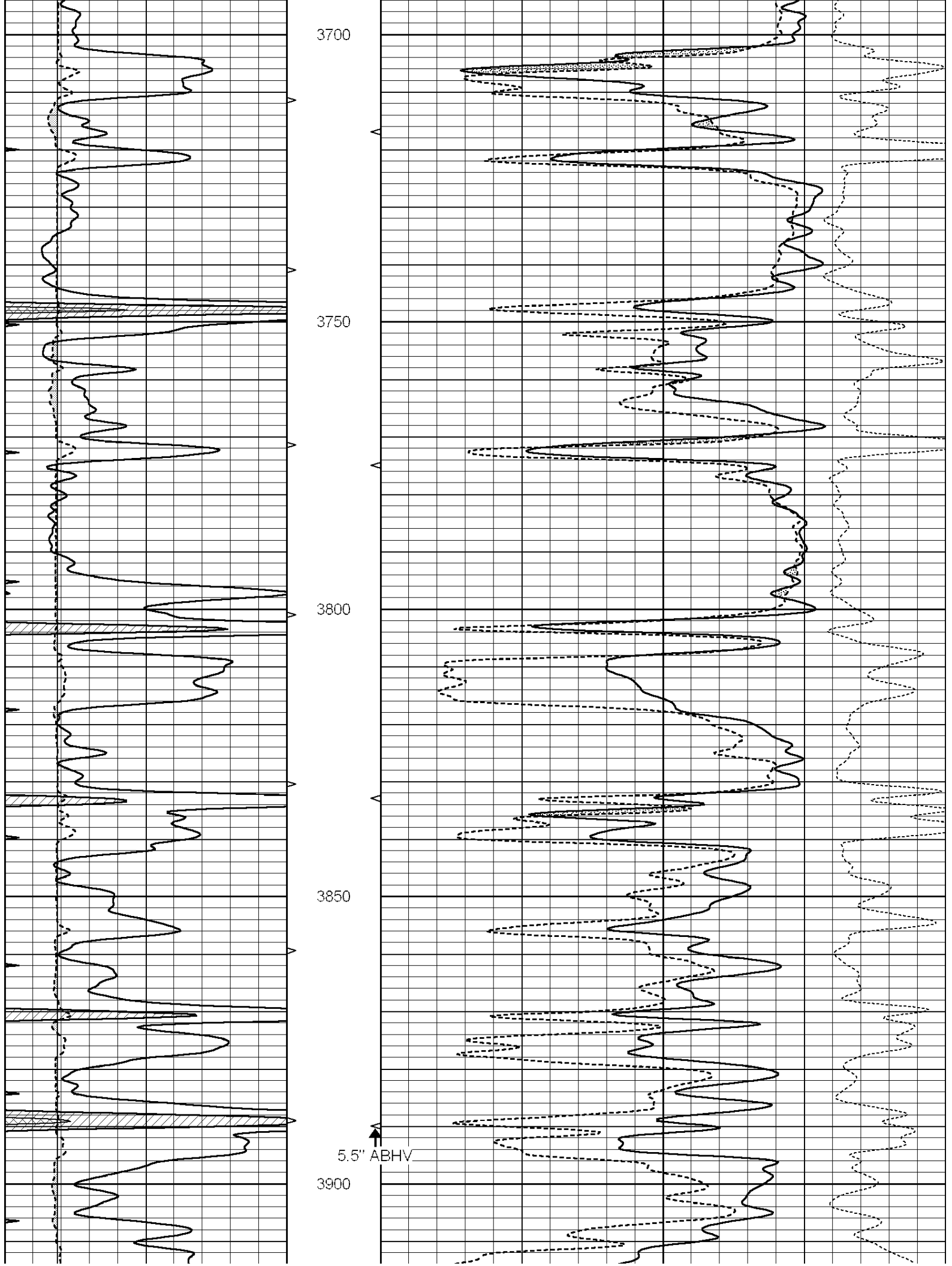
REPEAT SECTION

Database File: 011180ddn.db
 Dataset Pathname: pass3.5
 Presentation Format: den_neu
 Dataset Creation: Mon Jul 01 09:56:59 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		







3700

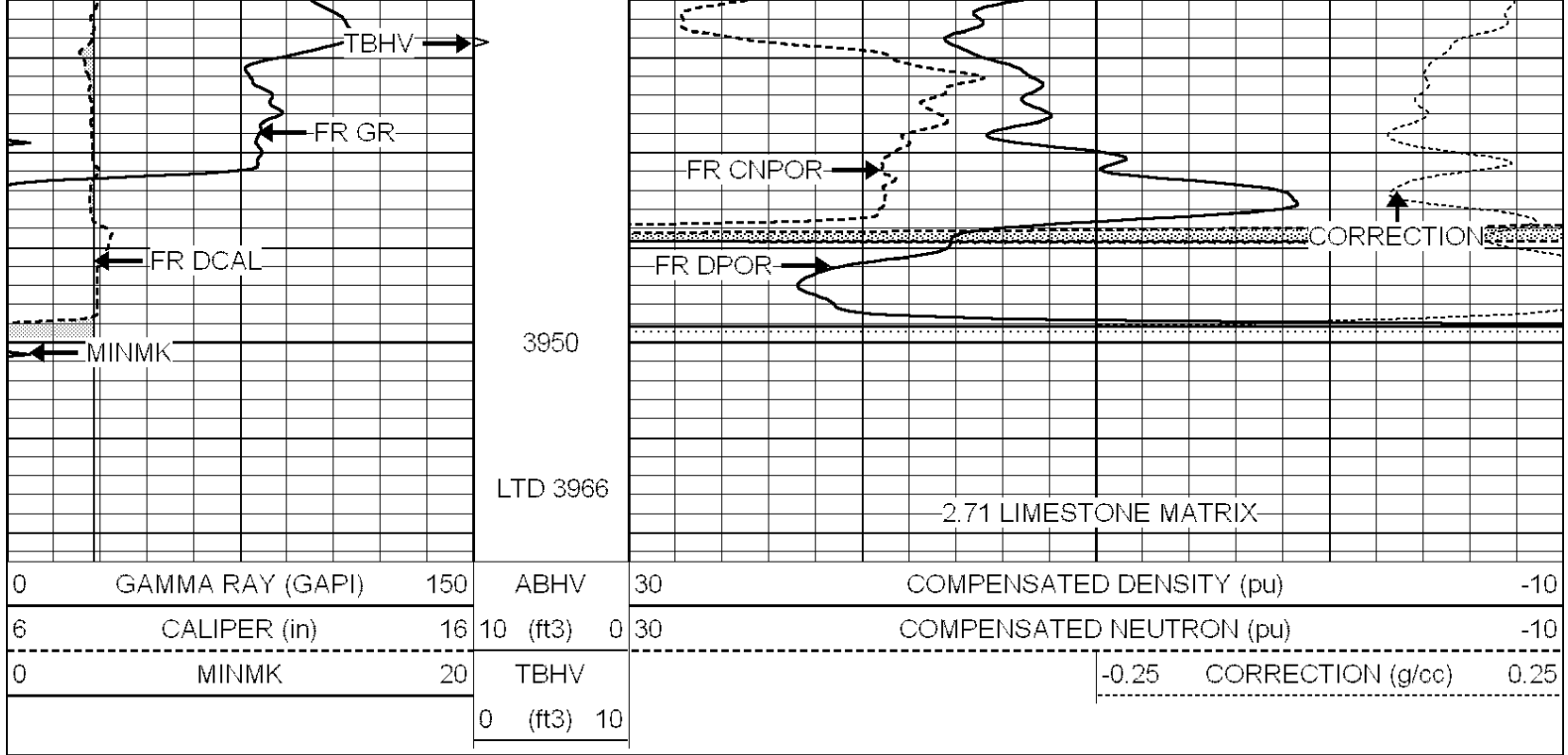
3750

3800

3850

3900

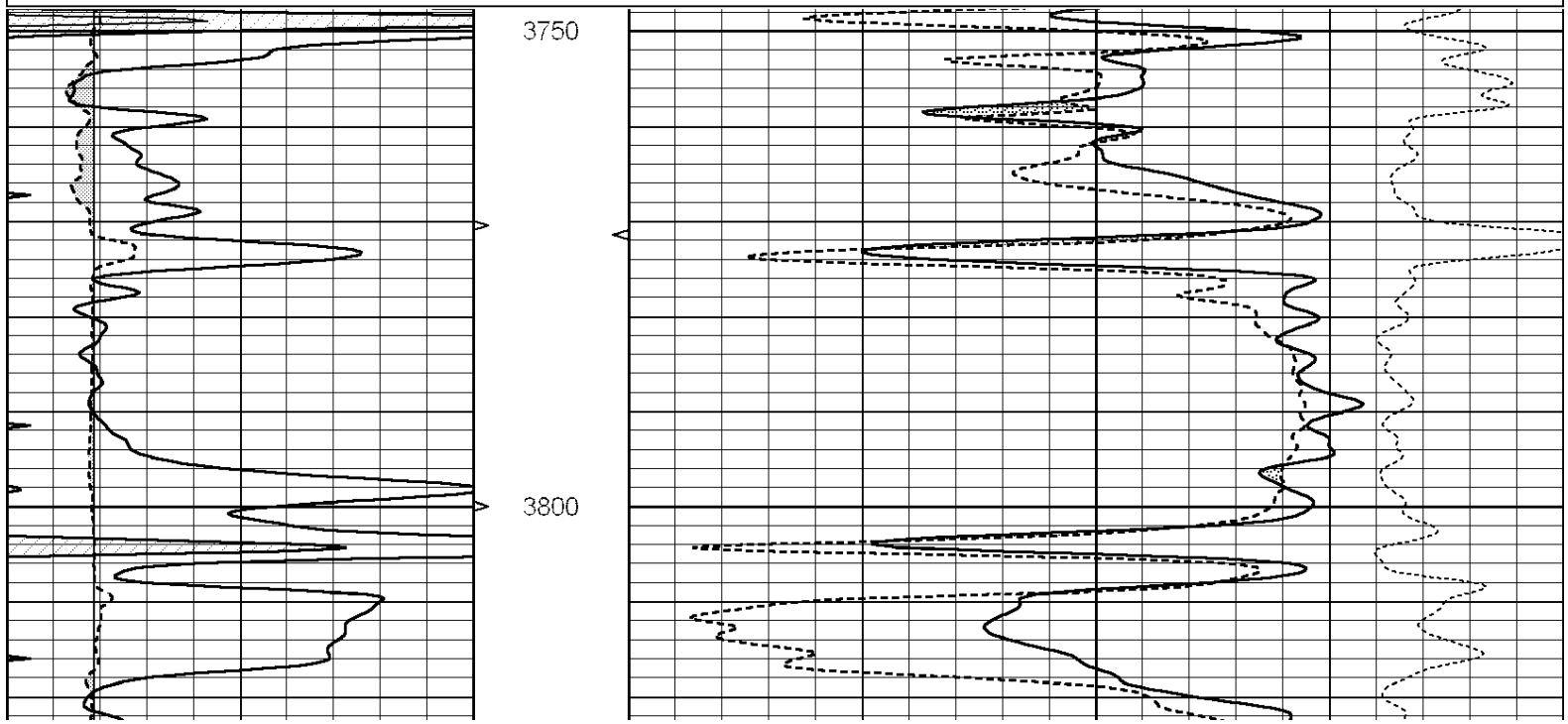
5.5" ABHV

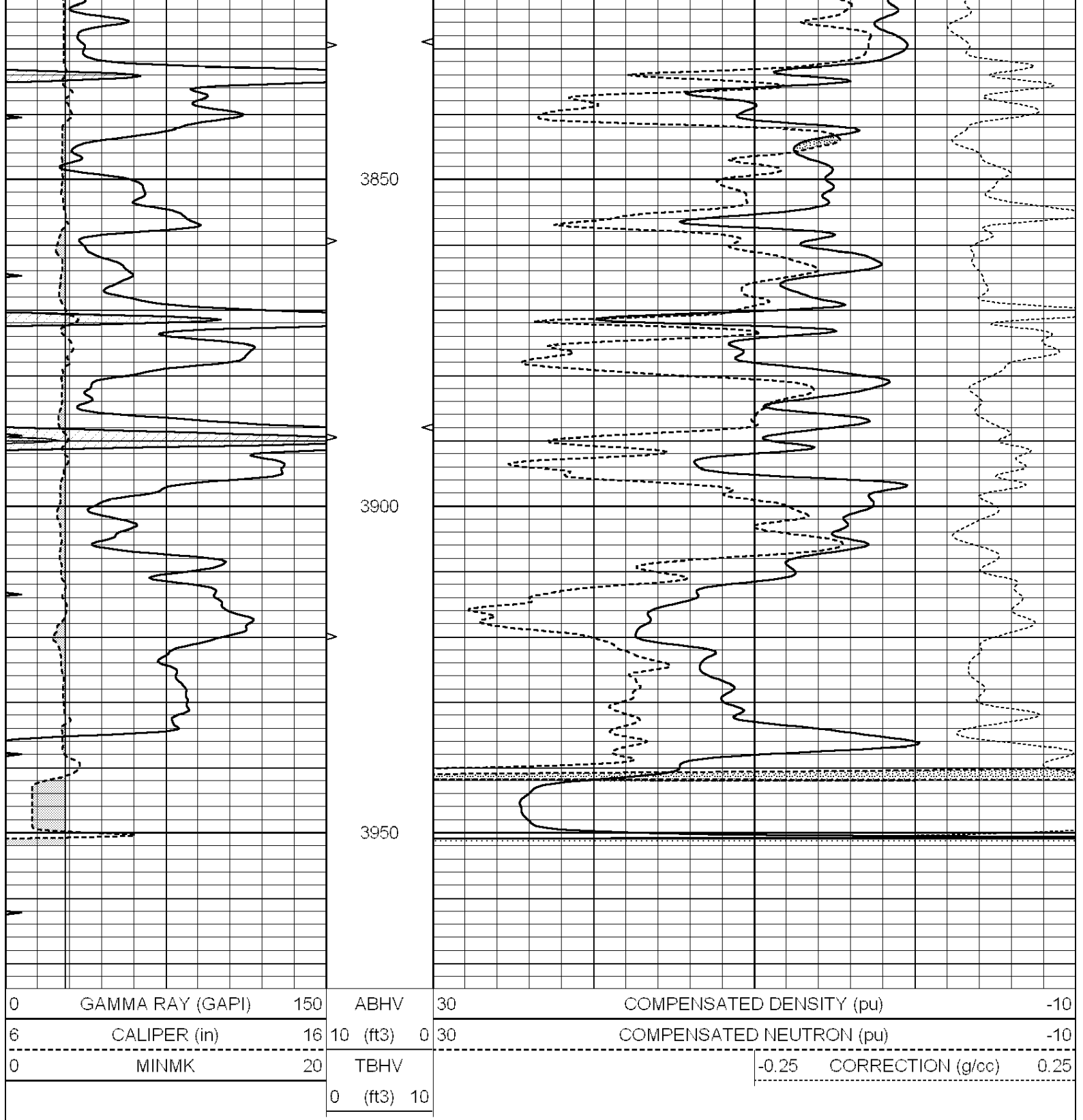


REPEAT SECTION

Database File: 011180ddn.db
 Dataset Pathname: pass2.2
 Presentation Format: den_neu
 Dataset Creation: Mon Jul 01 09:23:17 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: 011180ddn.db
 Dataset Pathname: pass3.5
 Dataset Creation: Mon Jul 01 09:56:59 2013 by Calc SOC 120430

Dual Induction Calibration Report

Serial-Model:	PROBE9-DILG
Surface Cal Performed:	Mon Jul 01 08:27:56 2013
Downhole Cal Performed:	Mon Jul 28 12:02:56 2008
After Survey Verification Performed:	Mon Jul 28 12:02:56 2008

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	621.923	-9.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	640.000	-14.000
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: 004N Model: PRB

Master Calibration				Performed Mon Jun 03 09:36:56 2013			
	Background	Magnesium		Aluminum	Sandstone		
Window 1	1417.6	10391.4		3464.6	11537.5		cps
Window 2	1295.0	8959.7		3050.1	9816.4		cps
Window 3	1105.1	5464.2		2051.0	5838.8		cps
Window 4	315.0	317.7		312.9	319.8		cps
Long Space	0.0	7664.6		1755.0	8521.3		cps
Short Space	1.8	1582.4		1040.8	1699.4		cps
Rho		1.7100		2.5900	1.3800		g/cc
Pe		0.0000		2.5700	1.5500		
Rib Angle	: 44.1	Rib Slope	: 0.970	Density/Spine Ratio		: 0.574	
Spine Angle	: 74.1	Spine Slope	: 3.519	Spine Intercept		: -17.0	

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: 070559
Tool Model: OPEN_GR
Performed: Wed Jun 12 18:25:42 2013

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.3500 GAPI/cps