



**COMPLETION
& PRODUCTION
SERVICES CO.**

**COMPENSATED
DENSITY / NEUTRON
LOG**

Company: DOUBLE "K" OIL, INC.
Well: KOHL #19
Field: KOHL
County: TREGO
State: KANSAS

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Location: API # : 15-195-22959-0000
2339' FSL & 1980' FWL
S/2 - N/2 - NE - SW/4
SEC 11 TWP 12S RGE 21W
Permanent Datum: GROUND LEVEL Elevation: 2331
Log Measured From: KELLY BUSHING 8' A.G.L.
Drilling Measured From: KELLY BUSHING
Other Services: DIL/MEL
Elevation: K.B. 2339, D.F. 2337, G.L. 2331

Date	9/1/14		
Run Number	ONE		
Depth Driller	4100		
Depth Logger	4102		
Bottom Logged Interval	4078		
Top Log Interval	3300		
Casing Driller	8 5/8"@220'		
Casing Logger	221		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 6,500 PPM	
Density / Viscosity	9.5/60		
pH / Fluid Loss	7.5/9.6		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	1.00@90F		
Rmf @ Meas. Temp	.750@90F		
Rmc @ Meas. Temp	1.20@90F		
Source of Rmf / Rmc	MEASUREMENT		
Rim @ BHT	.769@117F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	12:45 P.M.		
Maximum Recorded Temperature	117F		
Equipment Number	4854		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	ROGER FISHER		

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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

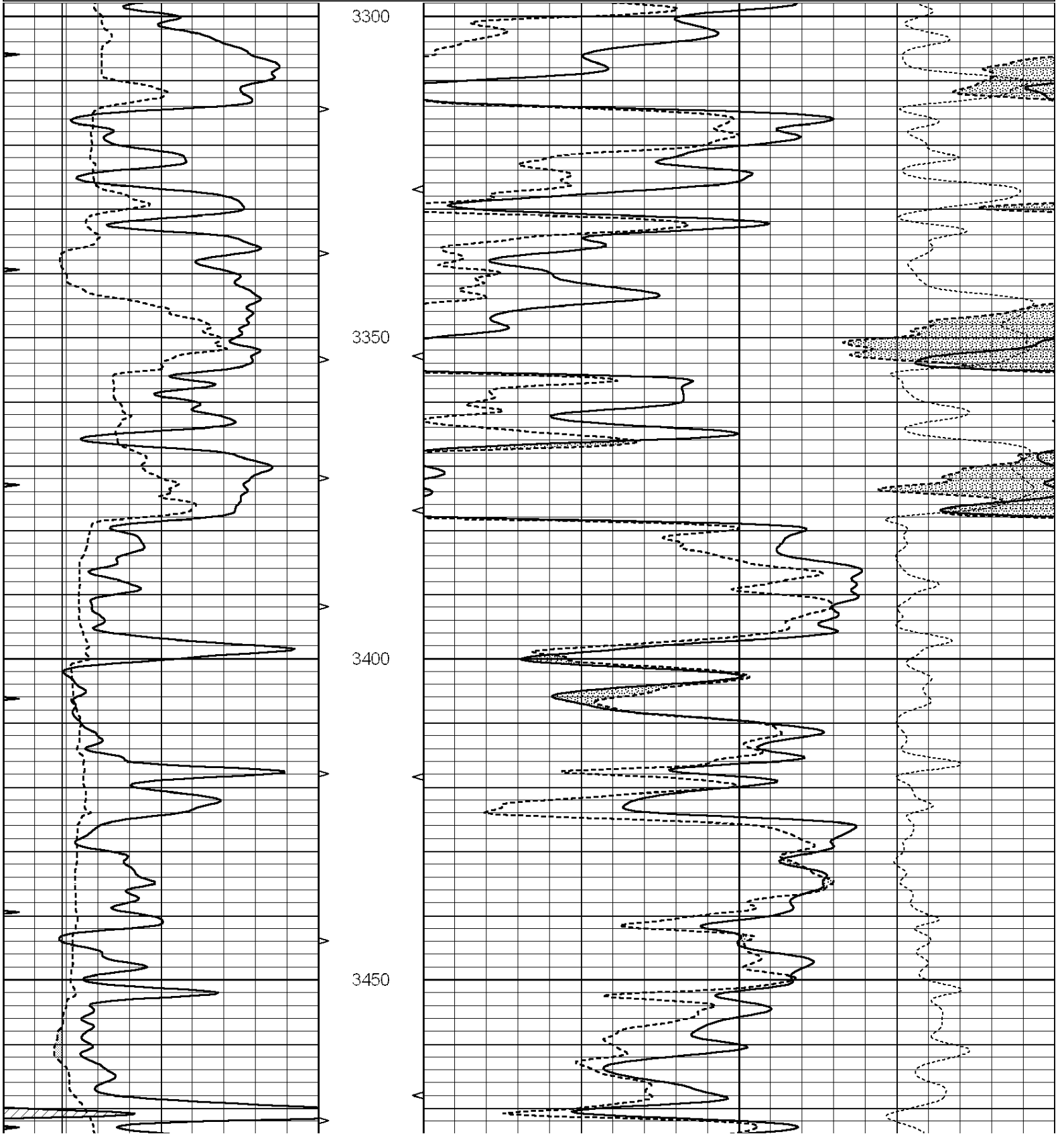
THANK YOU FOR USING "NABORS" HAYS, KANSAS (785) 628-6395
DIRECTIONS
RIGA & I-70, 4 1/2N., 1 1/2E., 1/2S. INTO

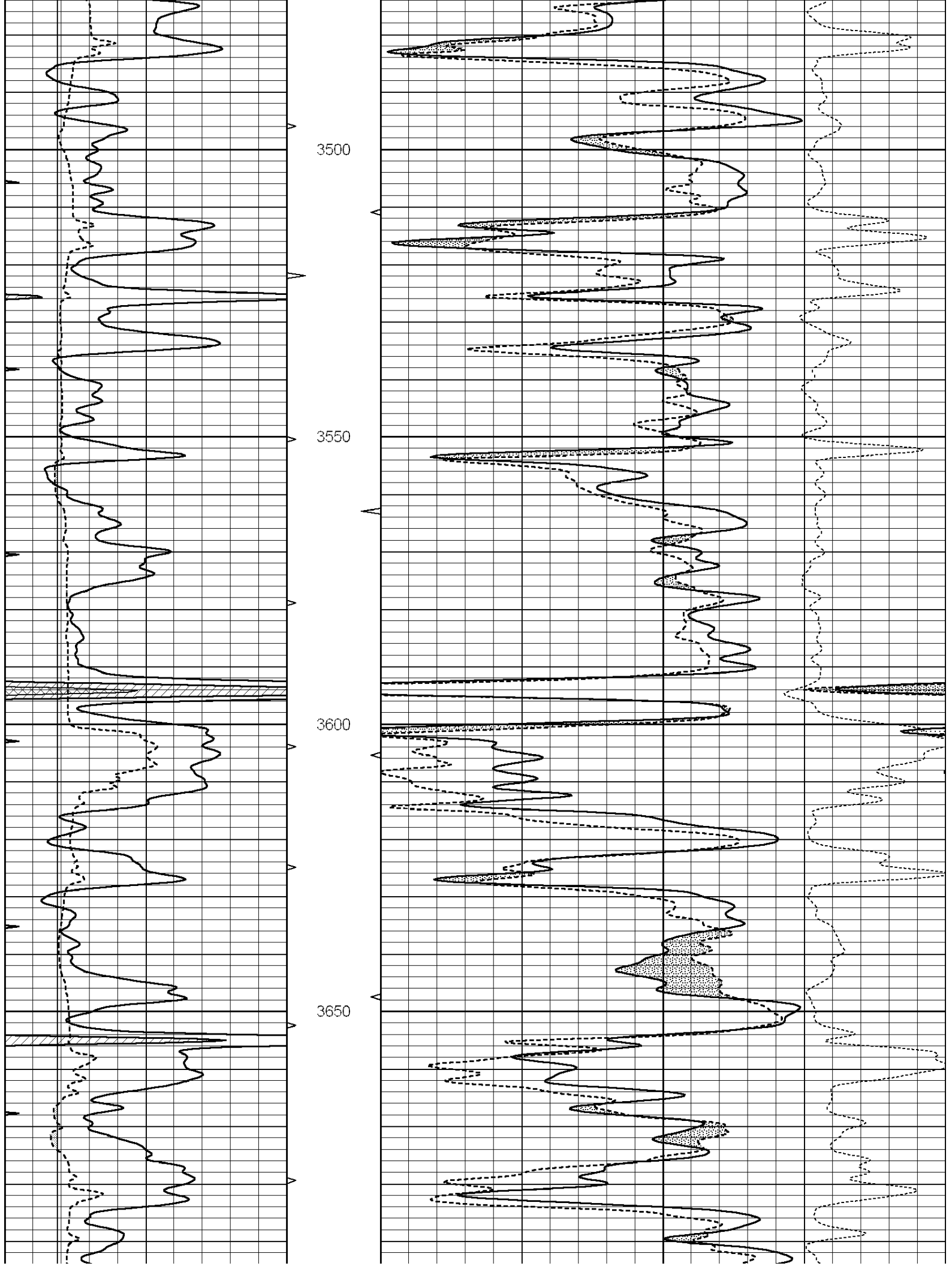


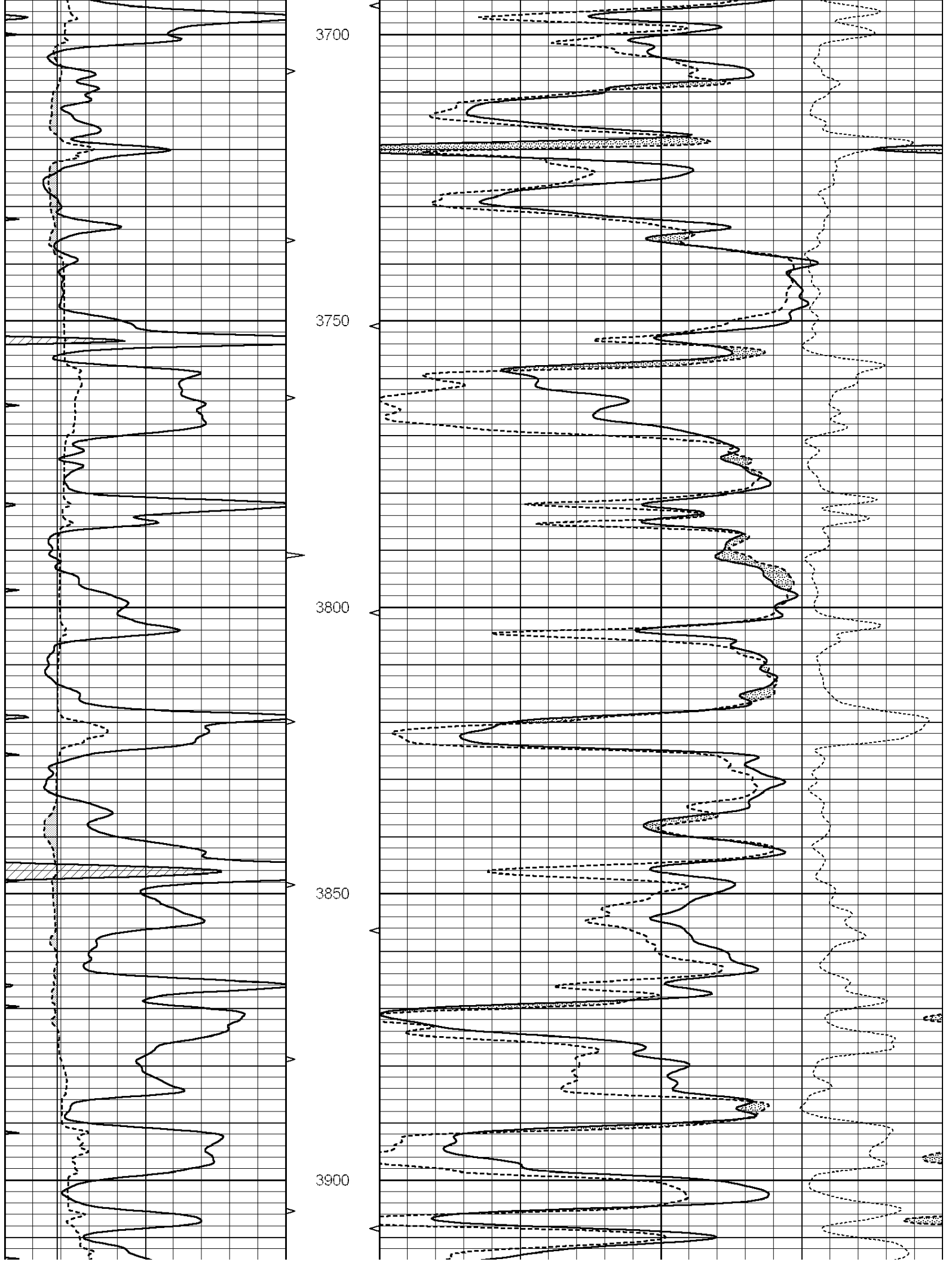
MAIN SECTION

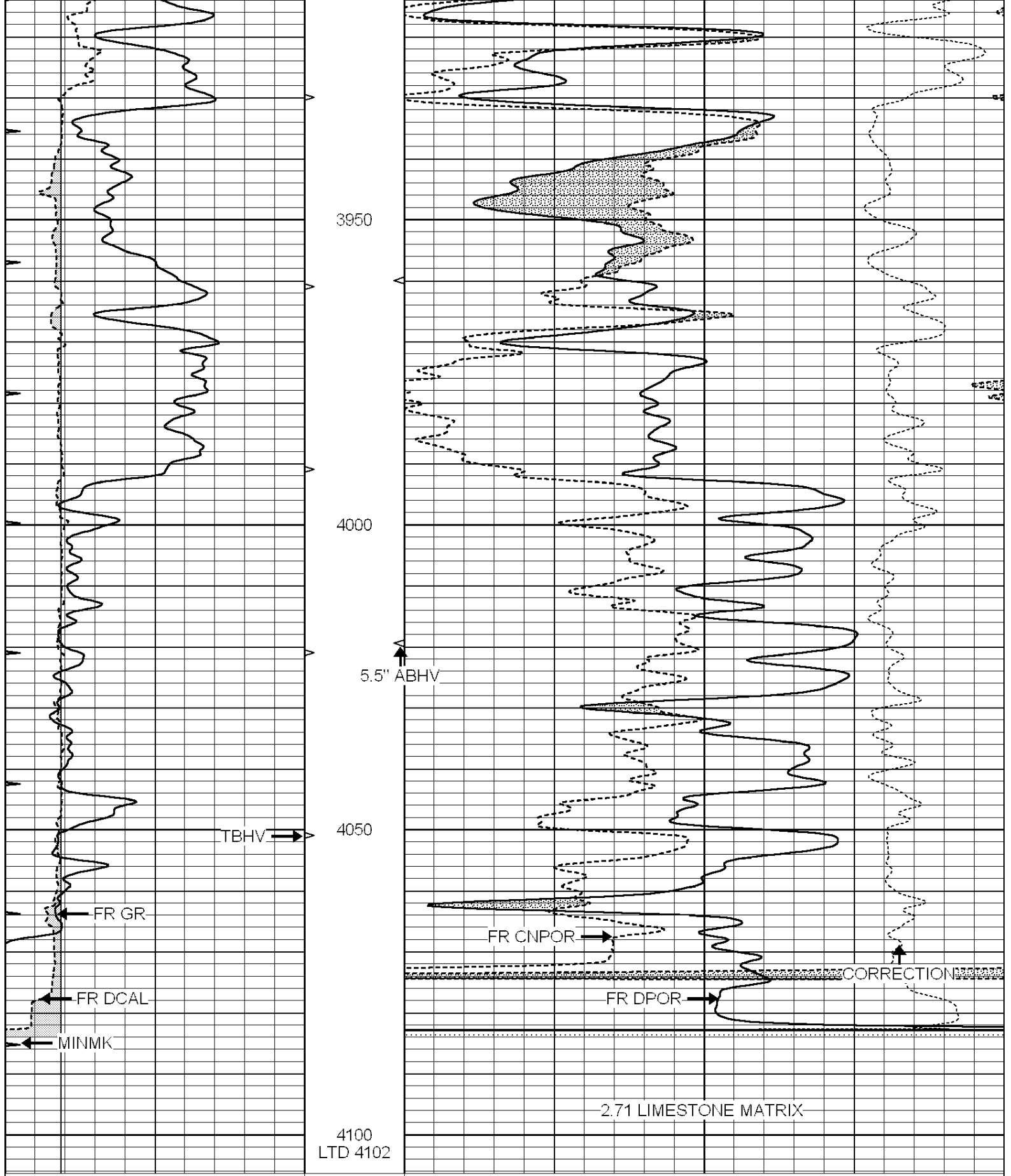
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 Dataset Pathname: pass3.4
 Presentation Format: den_neu
 Dataset Creation: Mon Sep 01 14:03:51 2014 by Calc SOC 120430
 Charted by: Depth in Feet scaled 1:240

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		









4100
LTD 4102

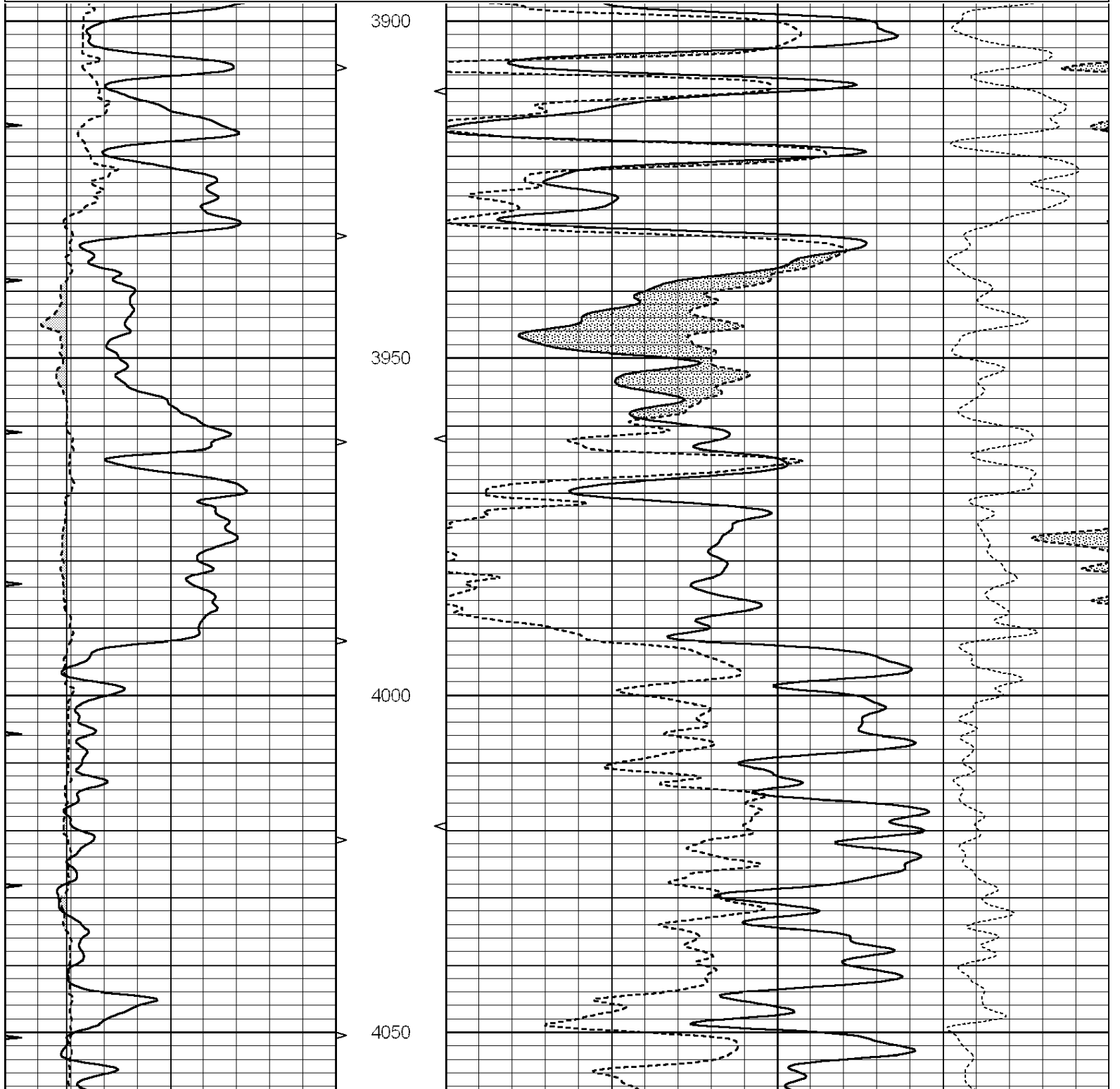
2.71 LIMESTONE MATRIX

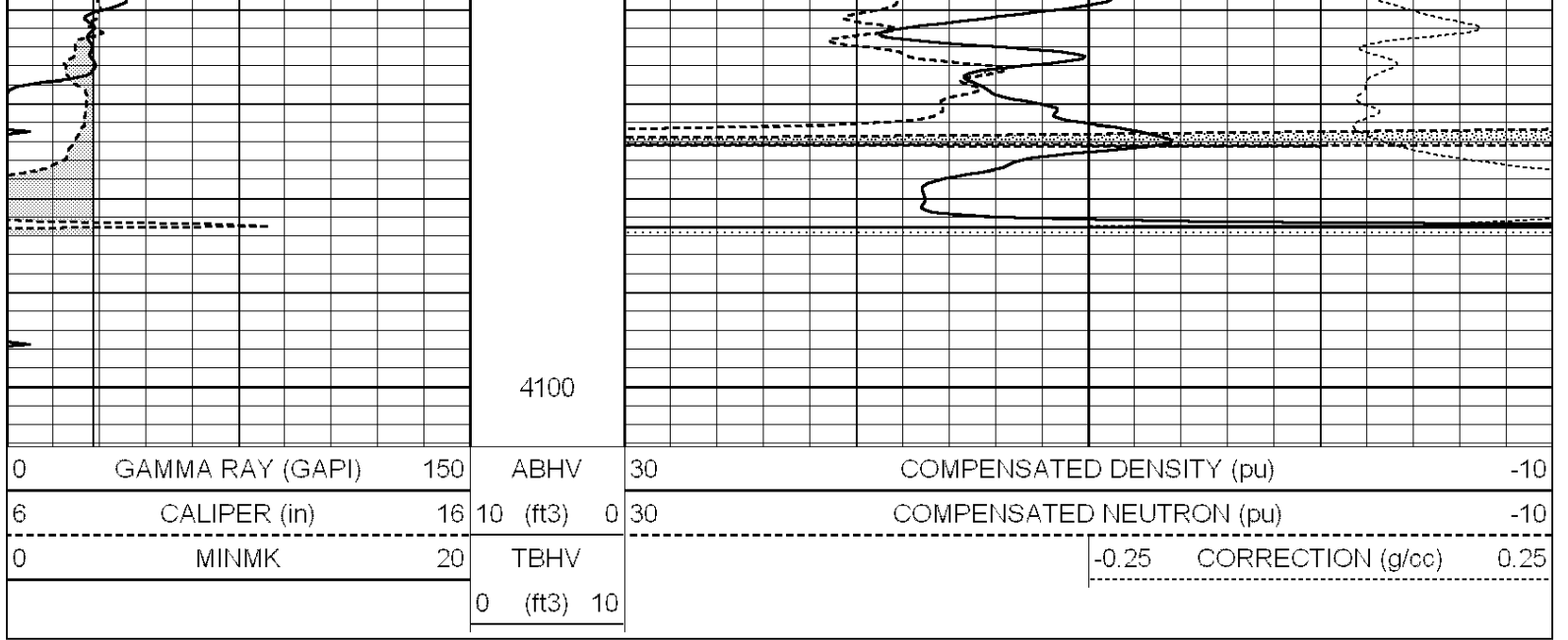
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10	
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10	
0	MINMK	20	TBHV		-0.25	CORRECTION (g/cc)	0.25
			0 (ft3)	10			

REPEAT SECTION

Database File: 24574ddn.db
 Dataset Pathname: pass2.3
 Presentation Format: den_neu
 Dataset Creation: Mon Sep 01 13:00:47 2014 by Calc SOC 120430
 Charted by: Depth in Feet scaled 1:240

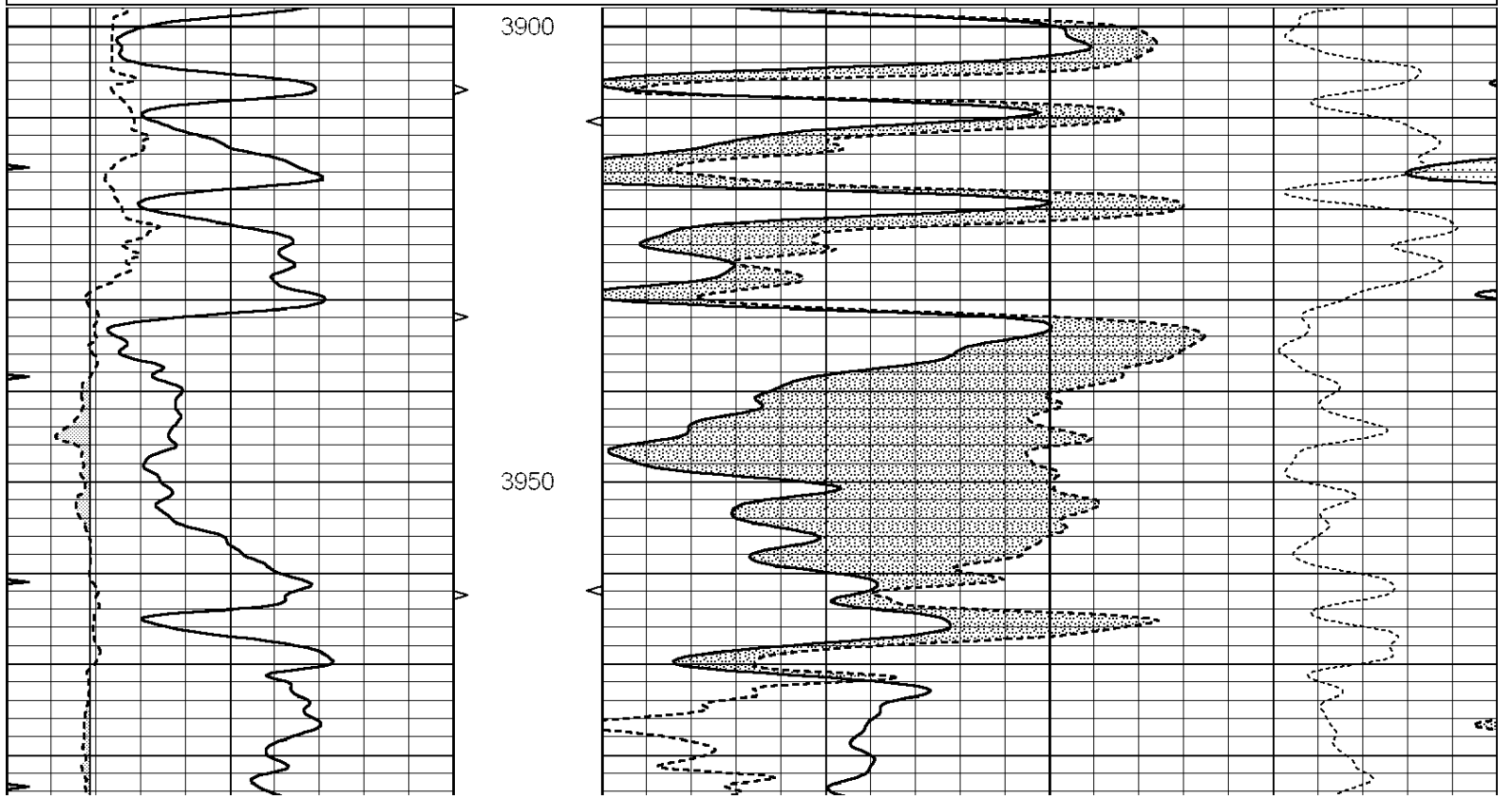
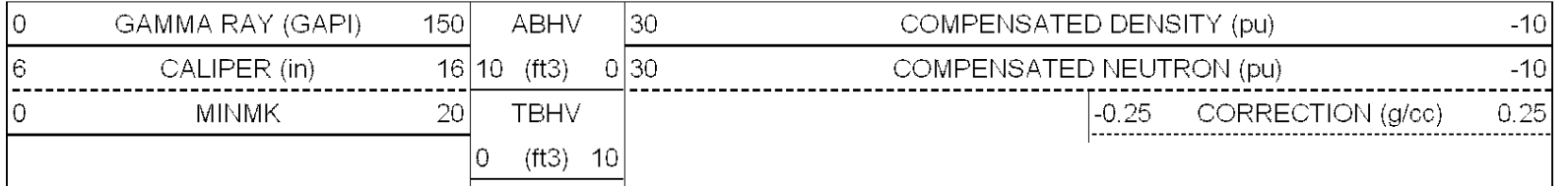
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10		

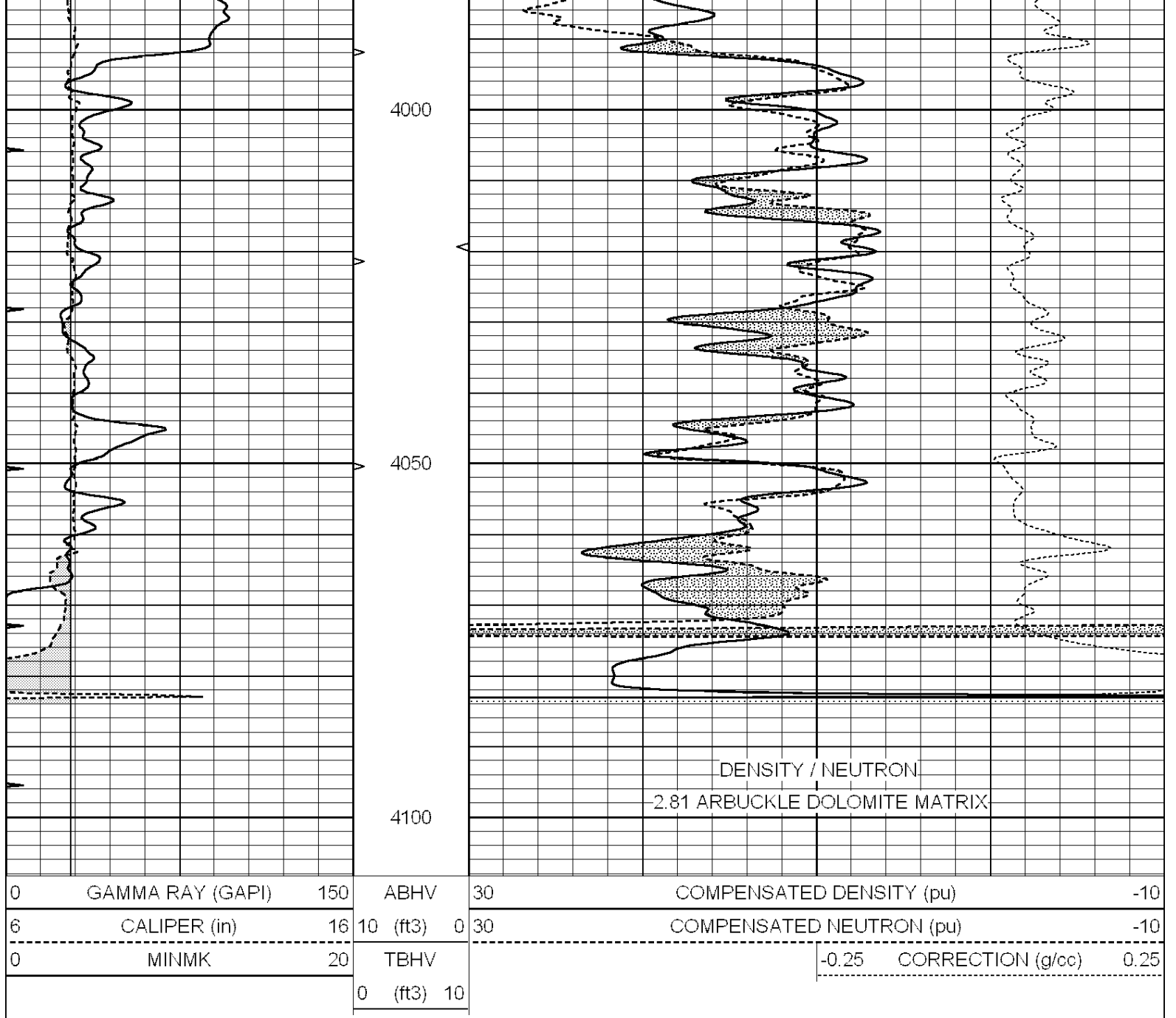




DOLOMITE MATRIX

Database File: 24574ddn.db
 Dataset Pathname: pass2.5
 Presentation Format: den_neu
 Dataset Creation: Mon Sep 01 13:03:35 2014
 Charted by: Depth in Feet scaled 1:240





Calibration Report

Database File: 24574ddn.db
 Dataset Pathname: pass3.4
 Dataset Creation: Mon Sep 01 14:03:51 2014 by Calc SOC 120430

Dual Induction Calibration Report

Serial-Model: PROBE9-DILG
 Surface Cal Performed: Wed Aug 27 06:06:04 2014
 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	670.000	-24.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	670.000	-36.000
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 Tue Sep 08 14:14:44 2009								
	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			0.0000	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

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

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:	Mon Jun 30 21:53:39 2014	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.2800	GAPI/cps