



**COMPLETION
& PRODUCTION
SERVICES CO.**

**COMPENSATED
DENSITY / NEUTRON
PE LOG**

Company	O'BRIEN RESOURCES, LLC.	
Well	JENNISON 1 #3	
Field	WILDCAT	
County	LANE	State KANSAS
Location:	AP1 # : 15-101-22444-0000	Other Services DIL/MEL
Permanent Datum	GROUND LEVEL	Elevation 2846
Log Measured From	KELLY BUSHING 11' A.G.L.	K.B. 2857
Drilling Measured From	KELLY BUSHING	D.F. 2855
	SEC 1 TWP 17S RGE 30W	G.L. 2846

Date	8/10/13
Run Number	ONE
Depth Driller	4670
Depth Logger	4668
Bottom Logged Interval	4644
Top Log Interval	3600
Casing Driller	8 5/8" @ 266'
Casing Logger	268
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.0/55
pH / Fluid Loss	10.5/7.4
Source of Sample	FLOWLINE
Rim @ Meas. Temp	1.30 @ 80F
Rmf @ Meas. Temp	.975 @ 80F
Rmc @ Meas. Temp	1.56 @ 80F
Source of Rmf / Rmc	MEASUREMENT
Rim @ BHT	.852 @ 122F
Time Circulation Stopped	2.5 HOURS
Time Logger on Bottom	6:15 A.M.
Maximum Recorded Temperature	122F
Equipment Number	4854
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

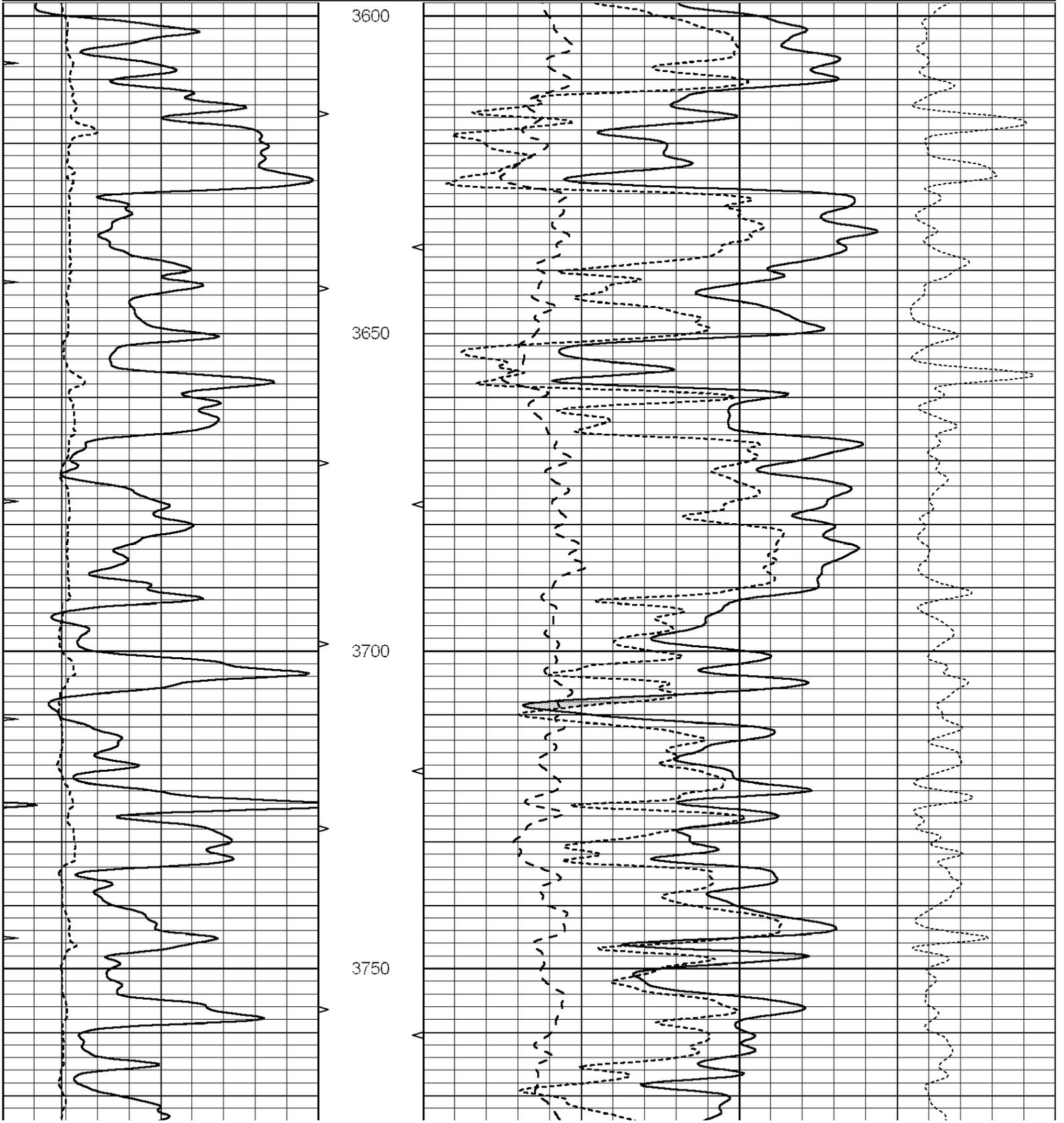
THANK YOU FOR USING "NABORS" HAYS, KANSAS (785) 628-6395
DIRECTIONS
HEALY, KS., 1E. ON HWY4 TO "EAGLE RD.", 3/4N., E. INTO THEN BACK S. BEHIND HOUSE

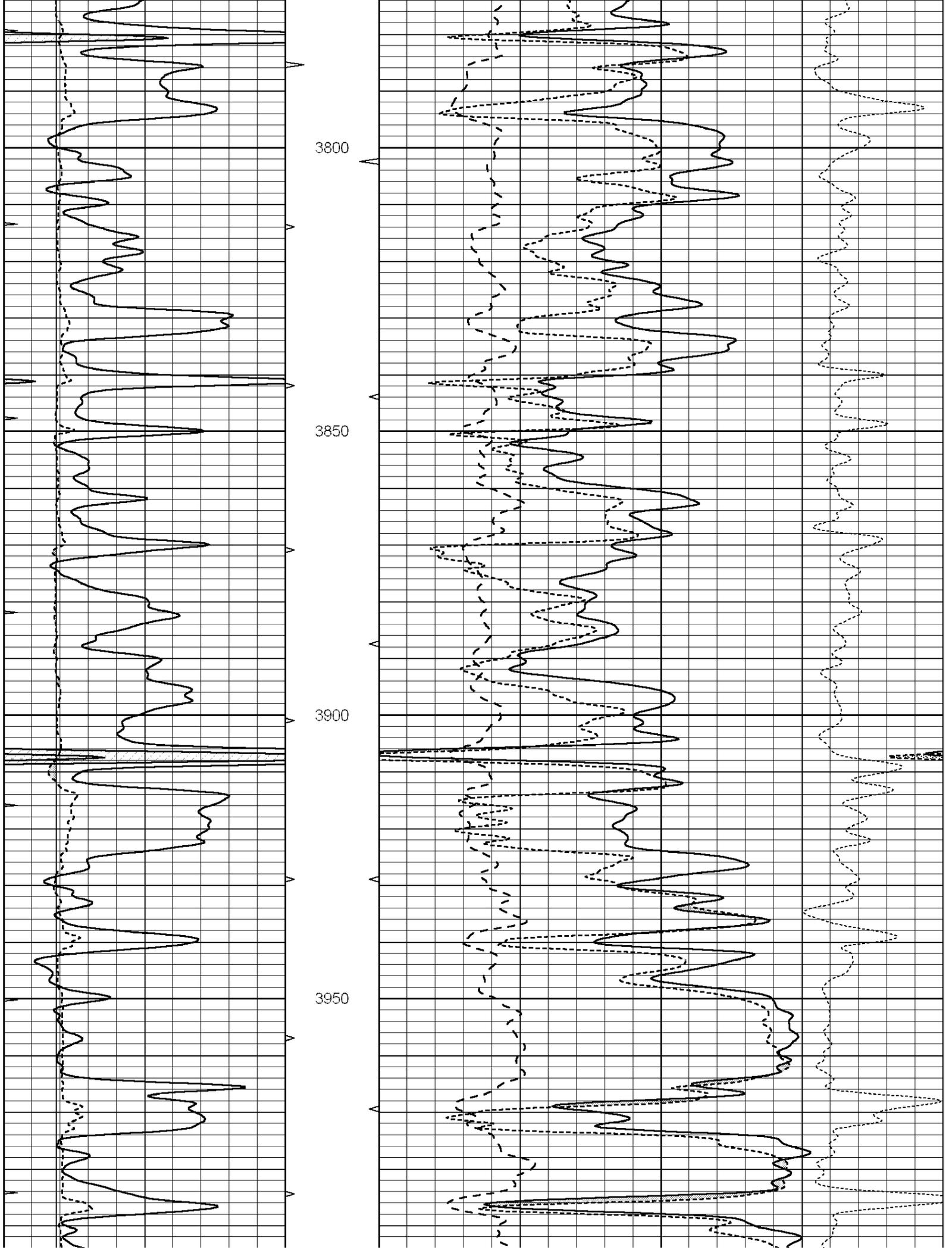


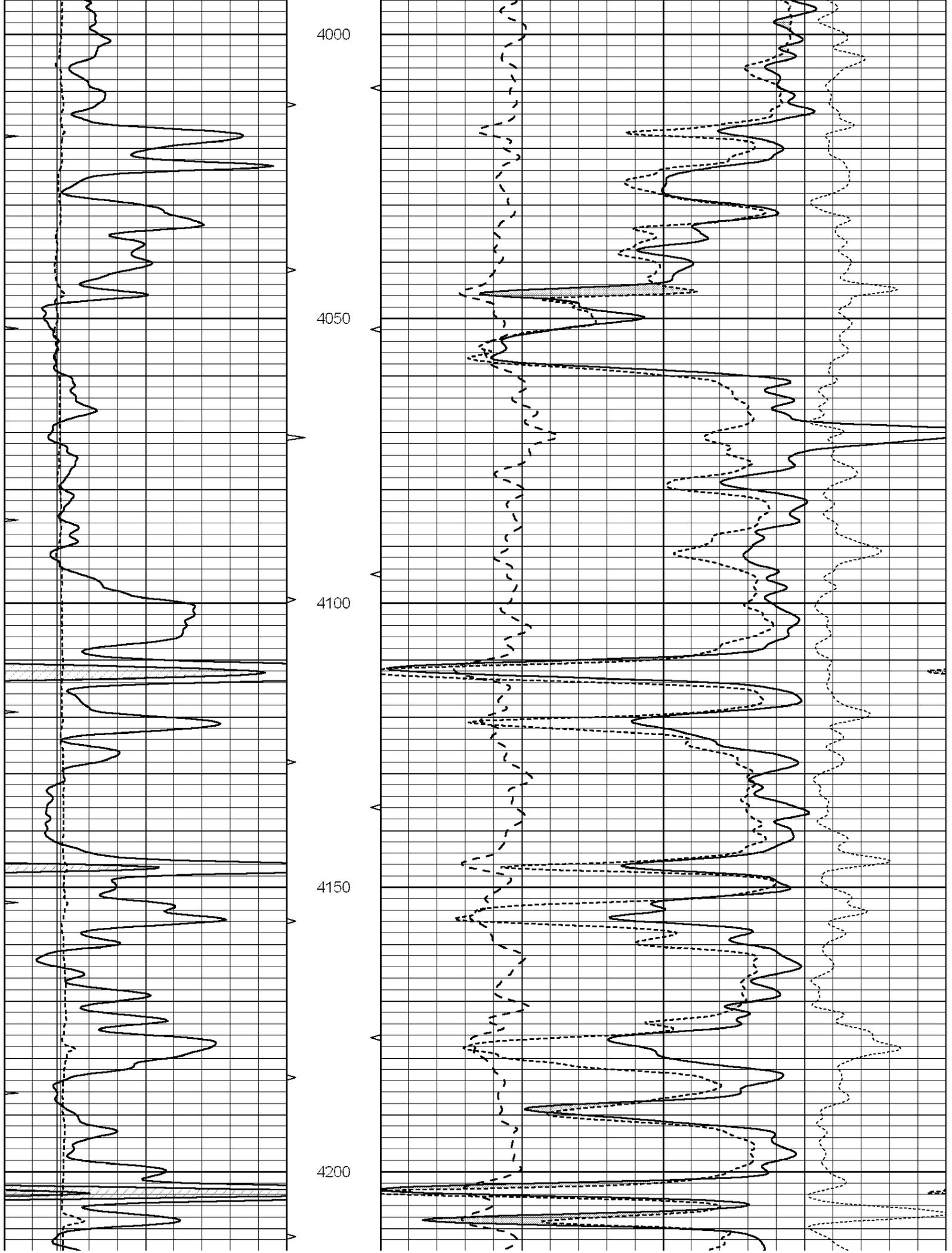
MAIN SECTION

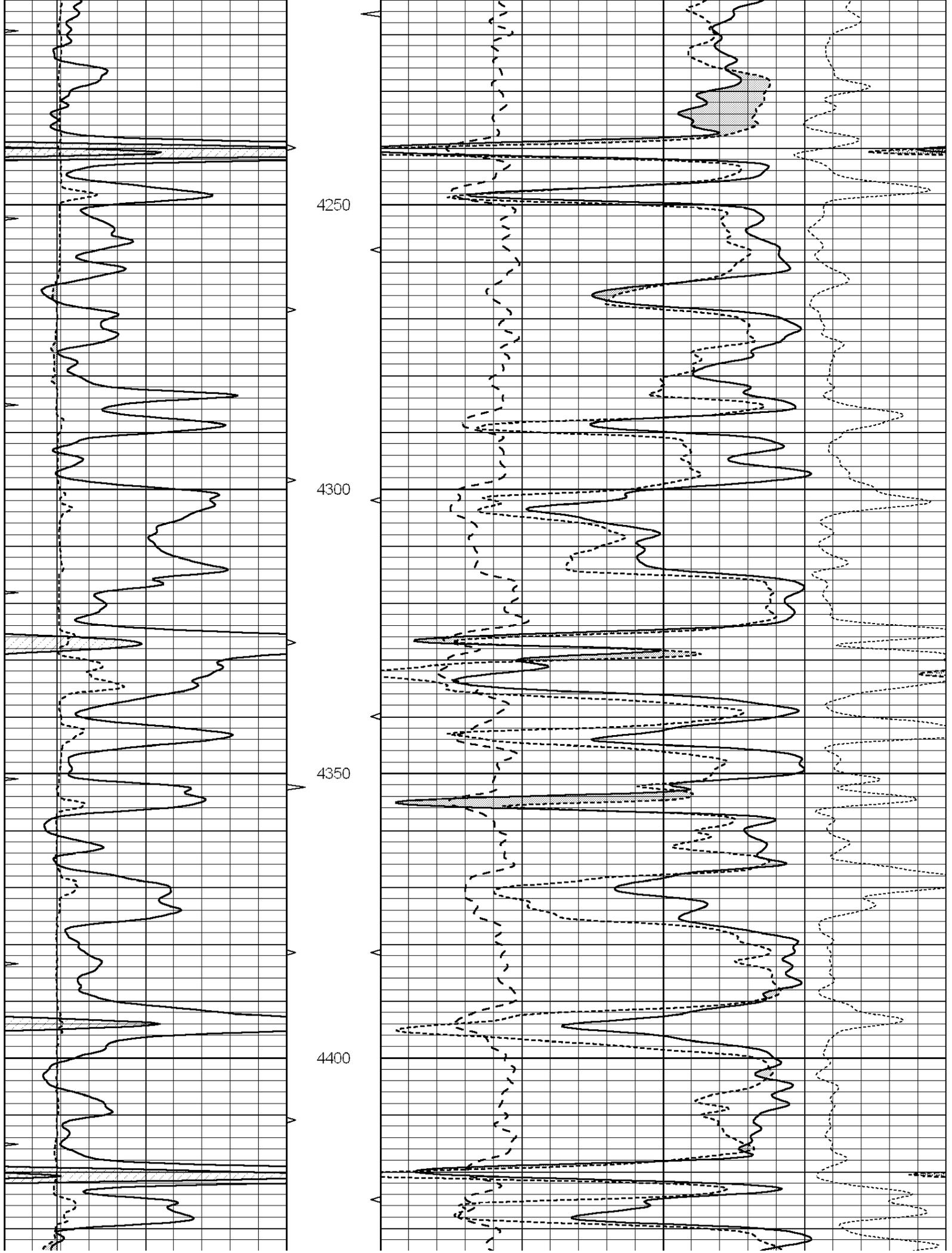
Database File: 011652pe.db
 Dataset Pathname: pass3.7
 Presentation Format: ldt_neu
 Dataset Creation: Sat Aug 10 07:40:06 2013 by Calc SOC 120430
 Charted by: Depth in Feet scaled 1:240

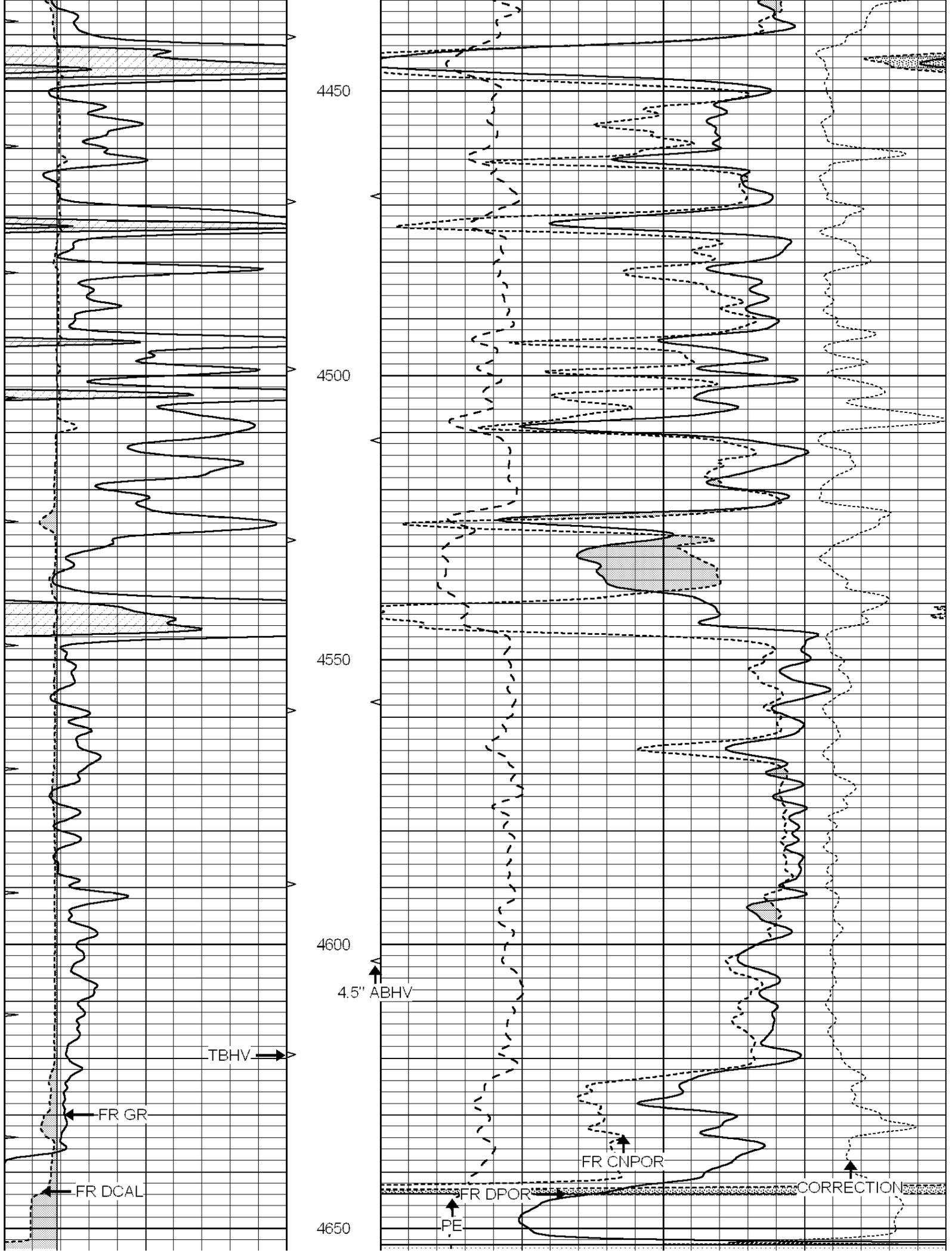
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)		-10
6	CALIPER (in)	16	10 (ft3)	0	COMPENSATED NEUTRON (pu)		-10
0	MINMK	20	TBHV	0	PE	10	-0.25 CORRECTION (g/cc) 0.25
			0 (ft3)	10			











← MINMK						2.71 LIMESTONE MATRIX			
		LTD 4668							
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	PE	10	-0.25	CORRECTION (g/cc)	0.25
		0 (ft3)		10					

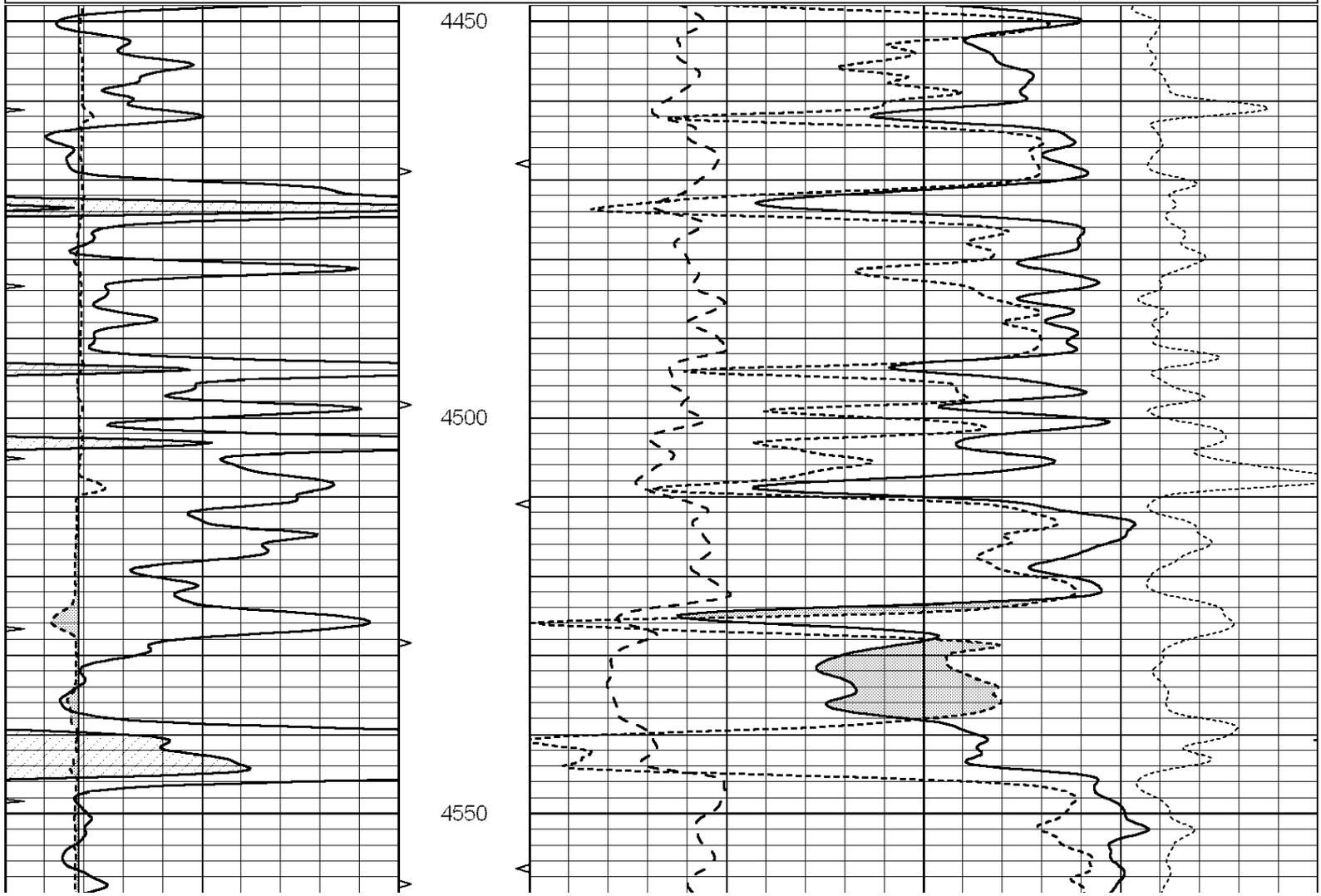


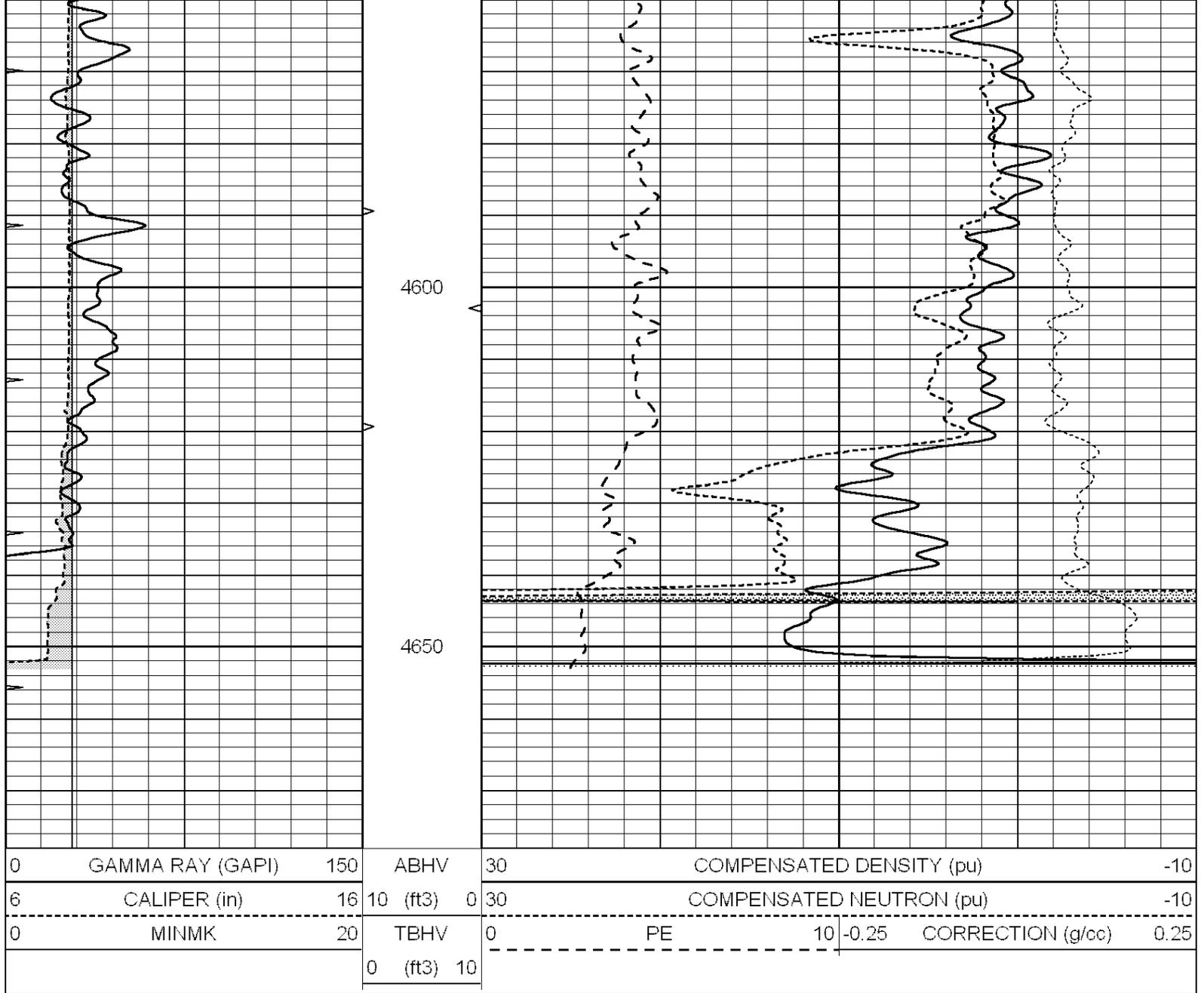
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REPEAT SECTION

Database File: 011652pe.db
 Dataset Pathname: pass2.9
 Presentation Format: ldt_neu
 Dataset Creation: Sat Aug 10 07:58:29 2013
 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	PE	10	-0.25	CORRECTION (g/cc)	0.25
		0 (ft3)		10					





Calibration Report

Database File: 011652pe.db
 Dataset Pathname: pass3.7
 Dataset Creation: Sat Aug 10 07:40:06 2013 by Calc SOC 120430

Dual Induction Calibration Report

Serial-Model: PROBE9-DILG
 Surface Cal Performed: Sat Aug 10 06:22:07 2013
 Downhole Cal Performed: Mon Jul 28 12:02:56 2008
 After Survey Verification Performed: Mon Jul 28 12:02:56 2008

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	621.923	2.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	640.000	-3.500
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						
	Background	Magnesium	Aluminum	Sandstone				
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						
	Background	Magnesium	Aluminum	Sandstone				
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				

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