



**COMPLETION
& PRODUCTION
SERVICES CO.**

**COMPENSATED
DENSITY / NEUTRON
PE LOG
(TIGHT HOLE)**

Company D & J OIL COMPANY, INC.
Well WICKED WITCH #1
Field WILDCAT
County NESS
State KANSAS

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Location: API # : 15-135-25693-0000
2310' FSL & 1650' FWL
NW - NE - SW
SEC 6 TWP 20S RGE 23W
Permanent Datum GROUND LEVEL Elevation 2309
Log Measured From KELLY BUSHING 5' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
DIL
Elevation
K.B. 2314
D.F. 2312
G.L. 2309

Date	11/20/13
Run Number	ONE
Depth Driller	4535
Depth Logger	4537
Bottom Logged Interval	4513
Top Log Interval	3500
Casing Driller	8 5/8"@217'
Casing Logger	217
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.3/60
pH / Fluid Loss	10.0/8.6
Source of Sample	FLOWLINE
Rim @ Meas. Temp	.650@79F
Rmf @ Meas. Temp	.510@79F
Rmc @ Meas. Temp	.816@79F
Source of Rmf / Rmc	MEASUREMENT
Rim @ BHT	.419@121F
Time Circulation Stopped	2.5 HOURS
Time Logger on Bottom	2:30 P.M.
Maximum Recorded Temperature	121F
Equipment Number	4854
Location	HAYS, KANSAS
Recorded By	JEFF LUEBBERS
Witnessed By	CURTIS COVERY
	JIMMY LESTER

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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

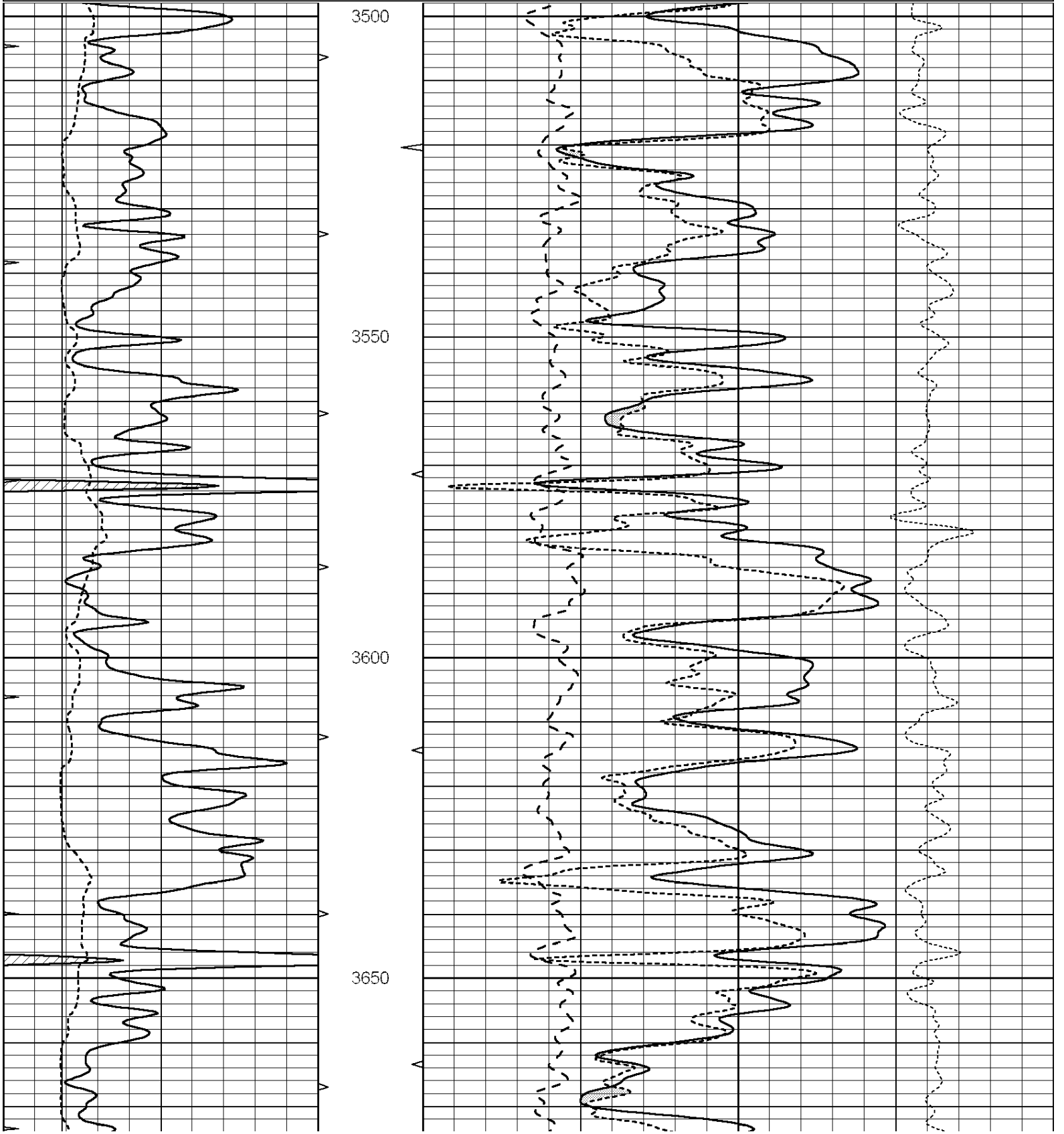
THANK YOU FOR USING "NABORS" HAYS, KANSAS (785) 628-6395
DIRECTIONS
NESS CITY, KS. (4 WAY STOP) 7S. ON HWY 283 TO "60TH RD.", 2W. TO "RD. Q", 1/2S., 1 1/2E. INTO BY
TANK BATTERY ON LEASE RD.

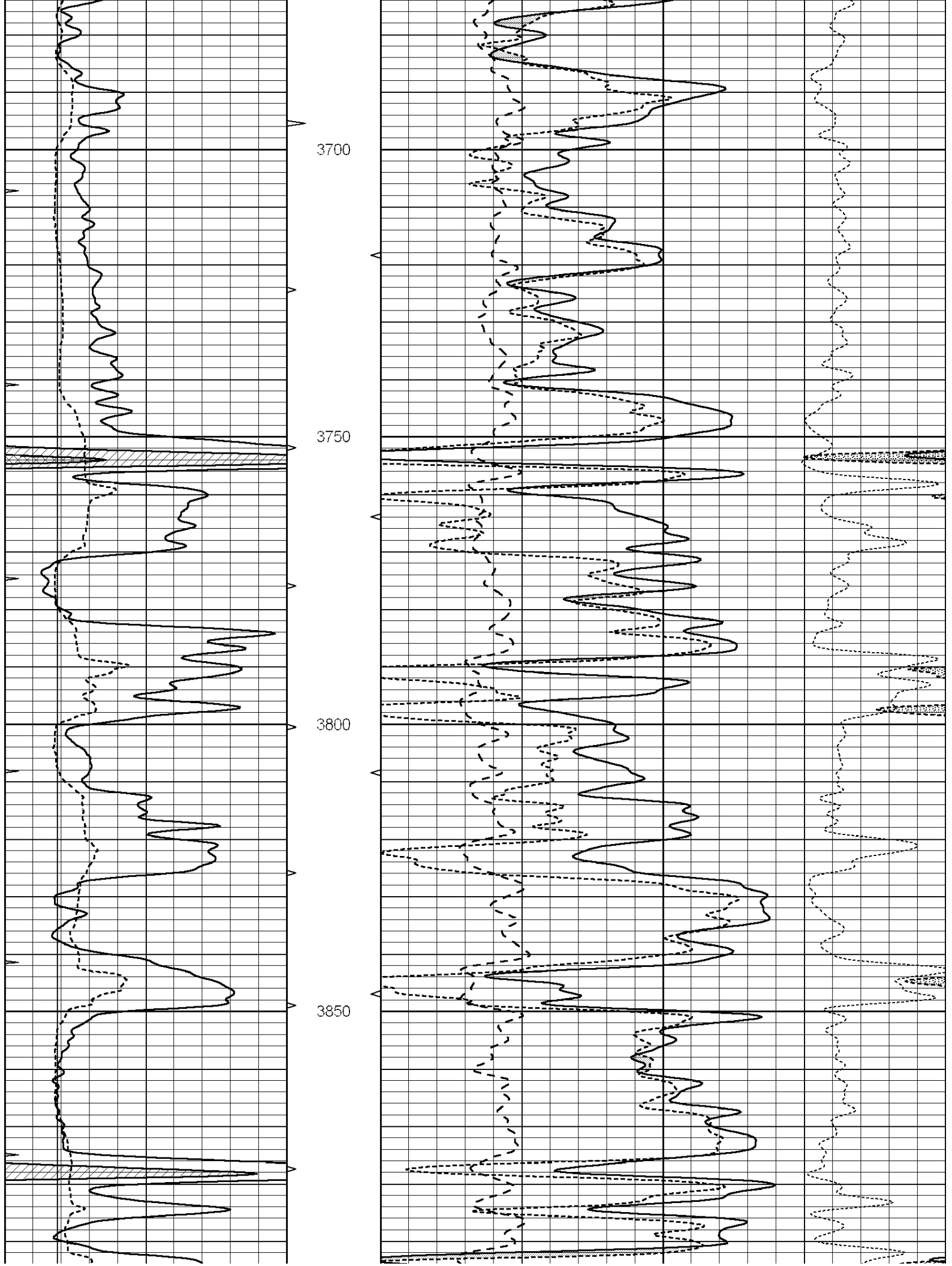


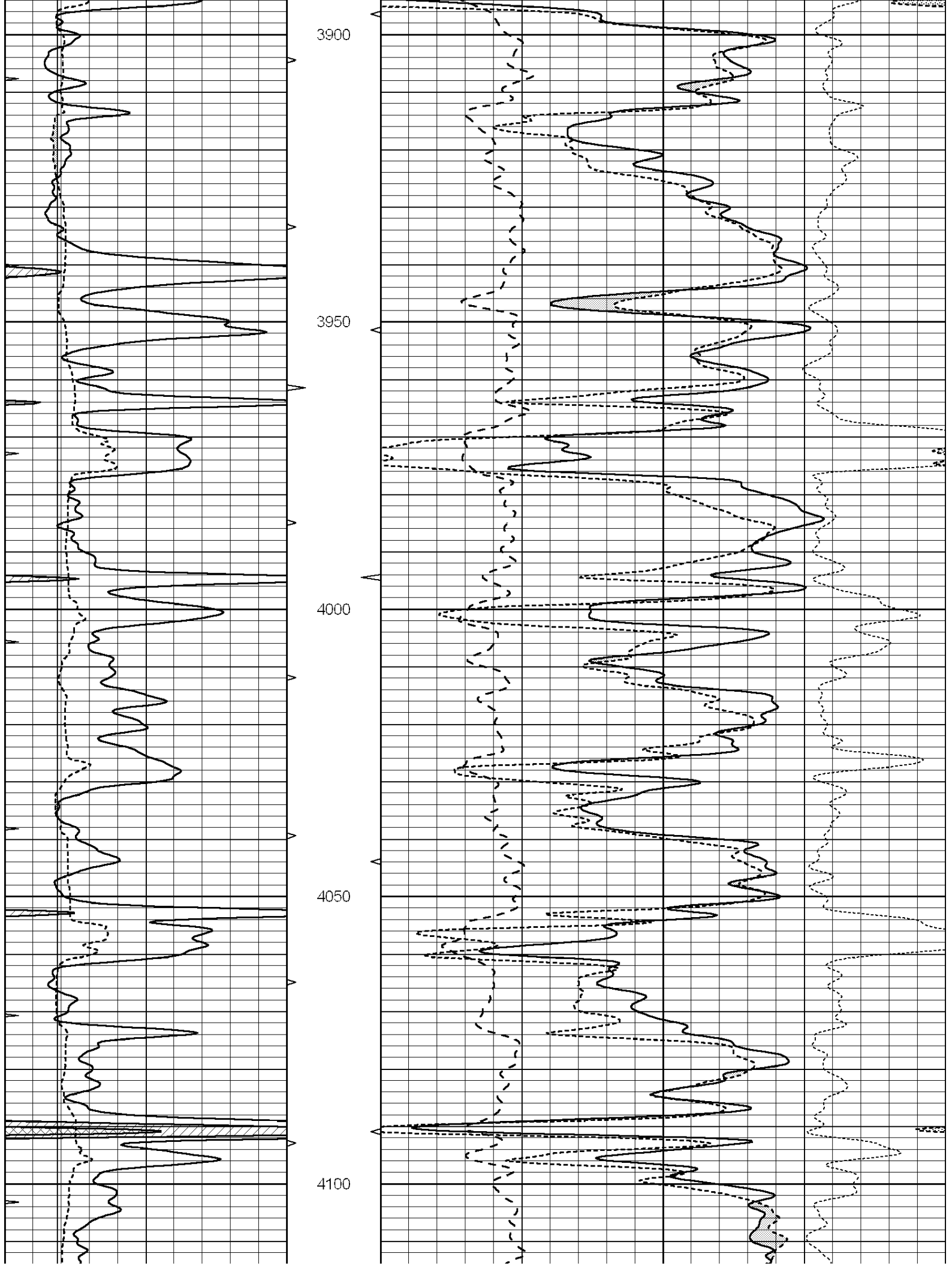
MAIN SECTION

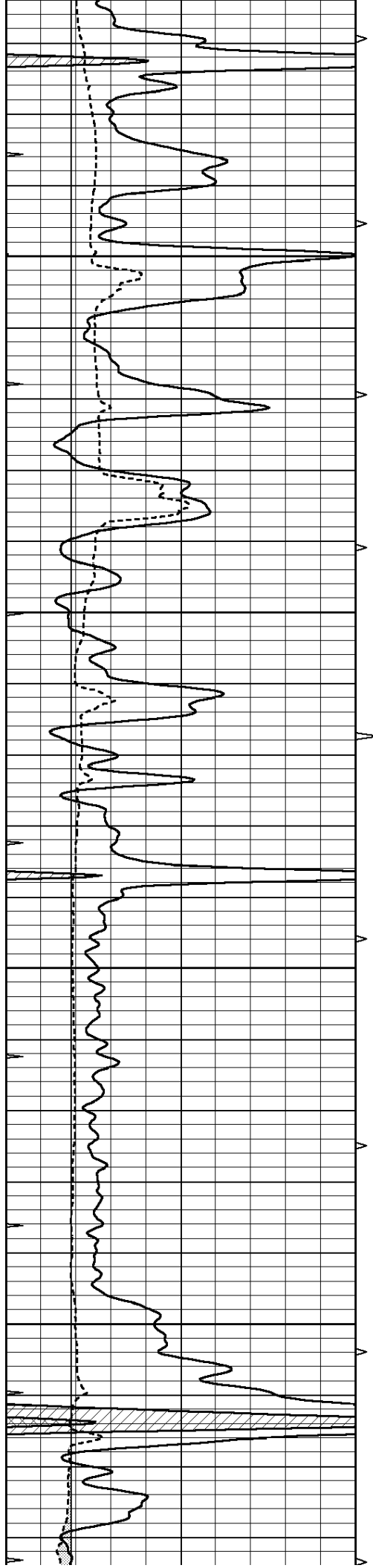
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 Dataset Pathname: pass3.9
 Presentation Format: ldt_neu
 Dataset Creation: Wed Nov 20 15:57:26 2013 by Calc SOC 120430
 Charted by: Depth in Feet scaled 1:240

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	PE	10	-0.25	CORRECTION (g/cc)	0.25
			0 (ft3)	10					







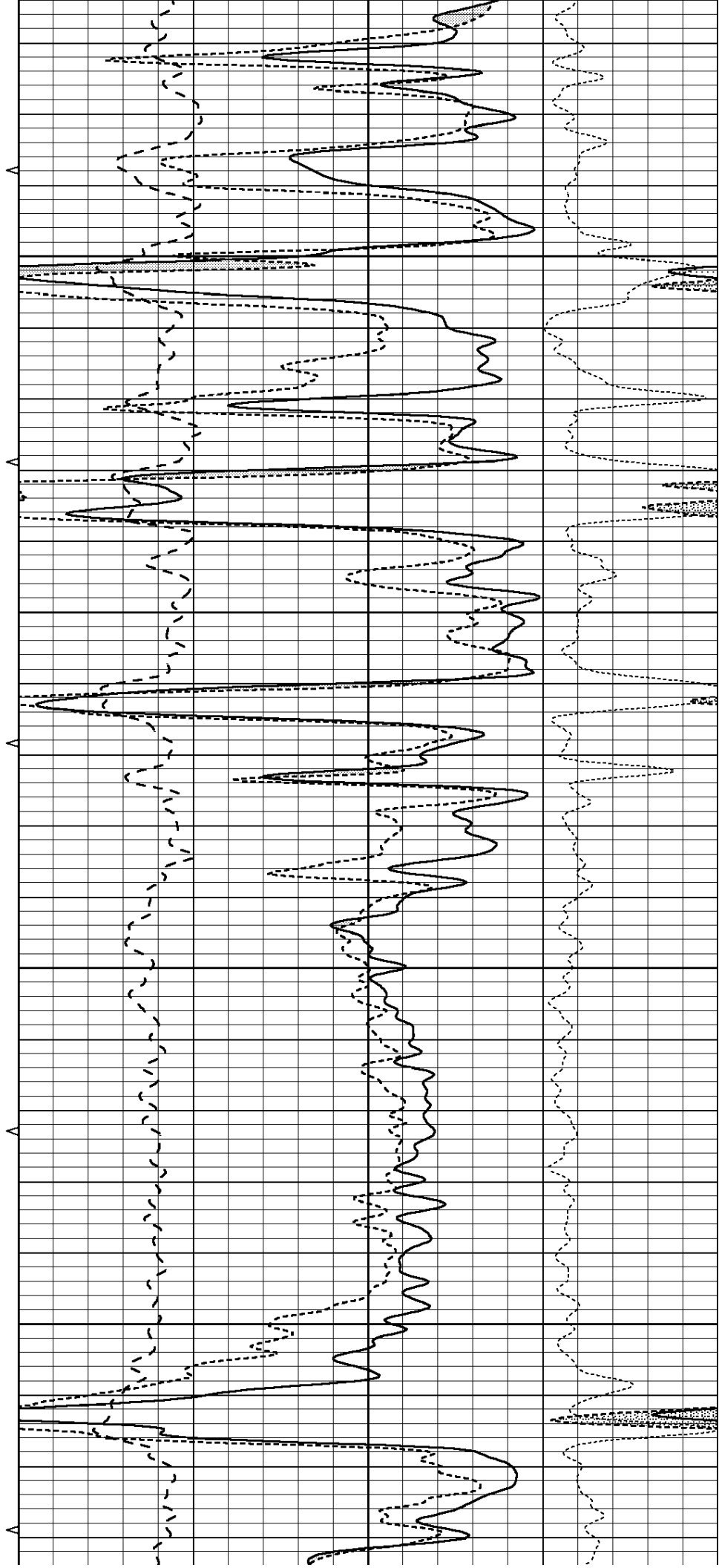


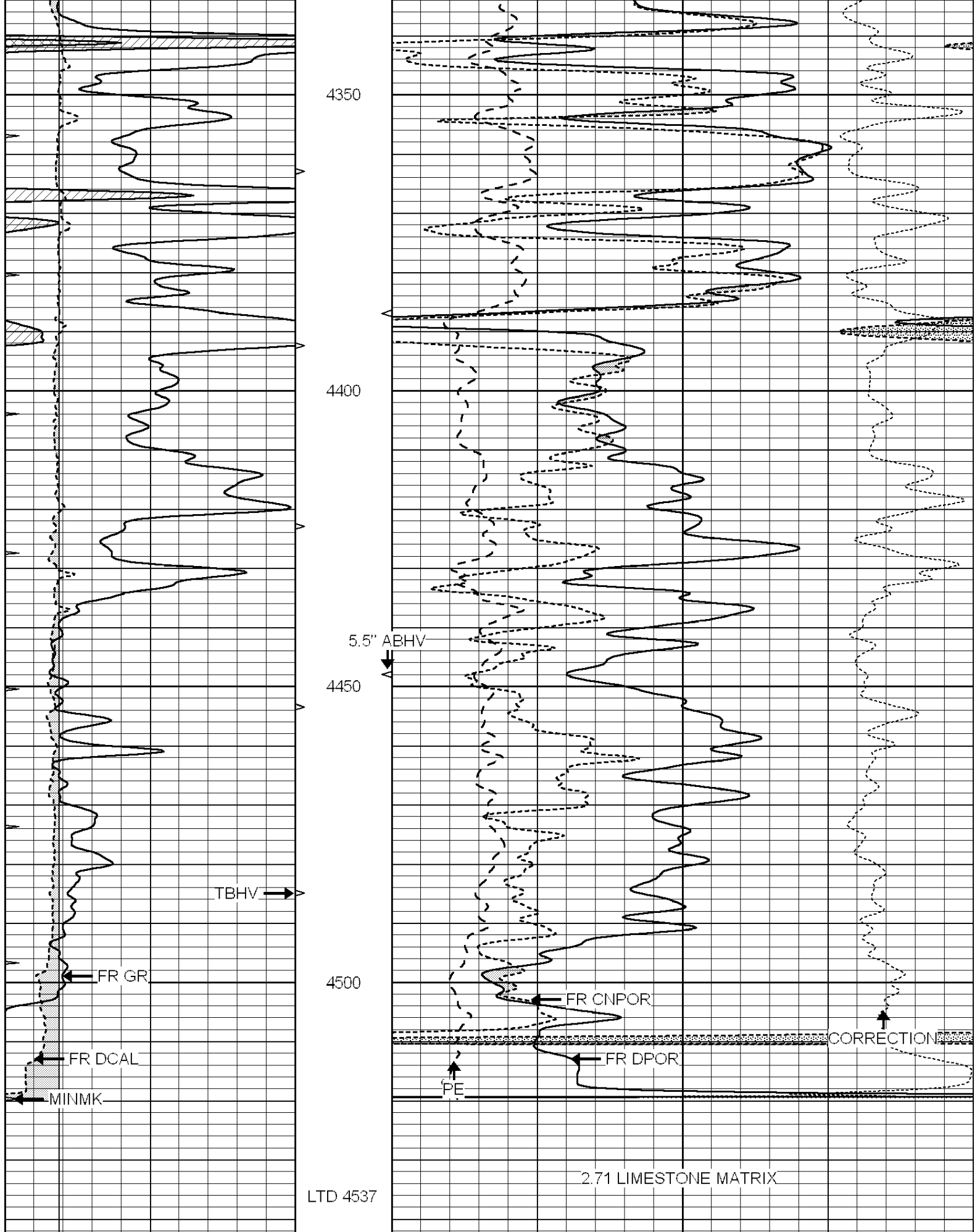
4150

4200

4250

4300





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 (pu)

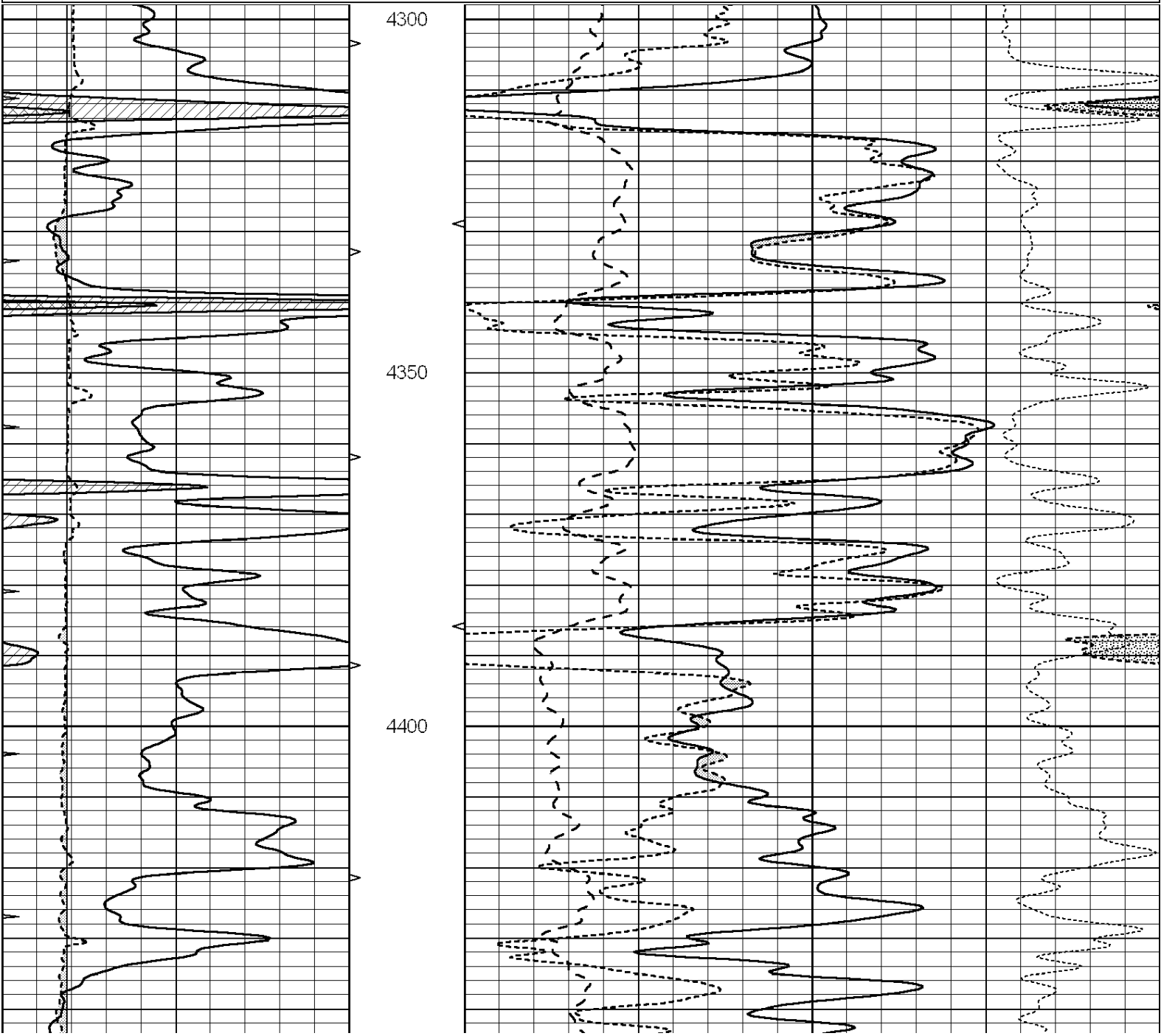
0	MINMK	20	TBHV	0	PE	10	-0.25	CORRECTION (g/cc)	0.25
0		(ft3)	10						

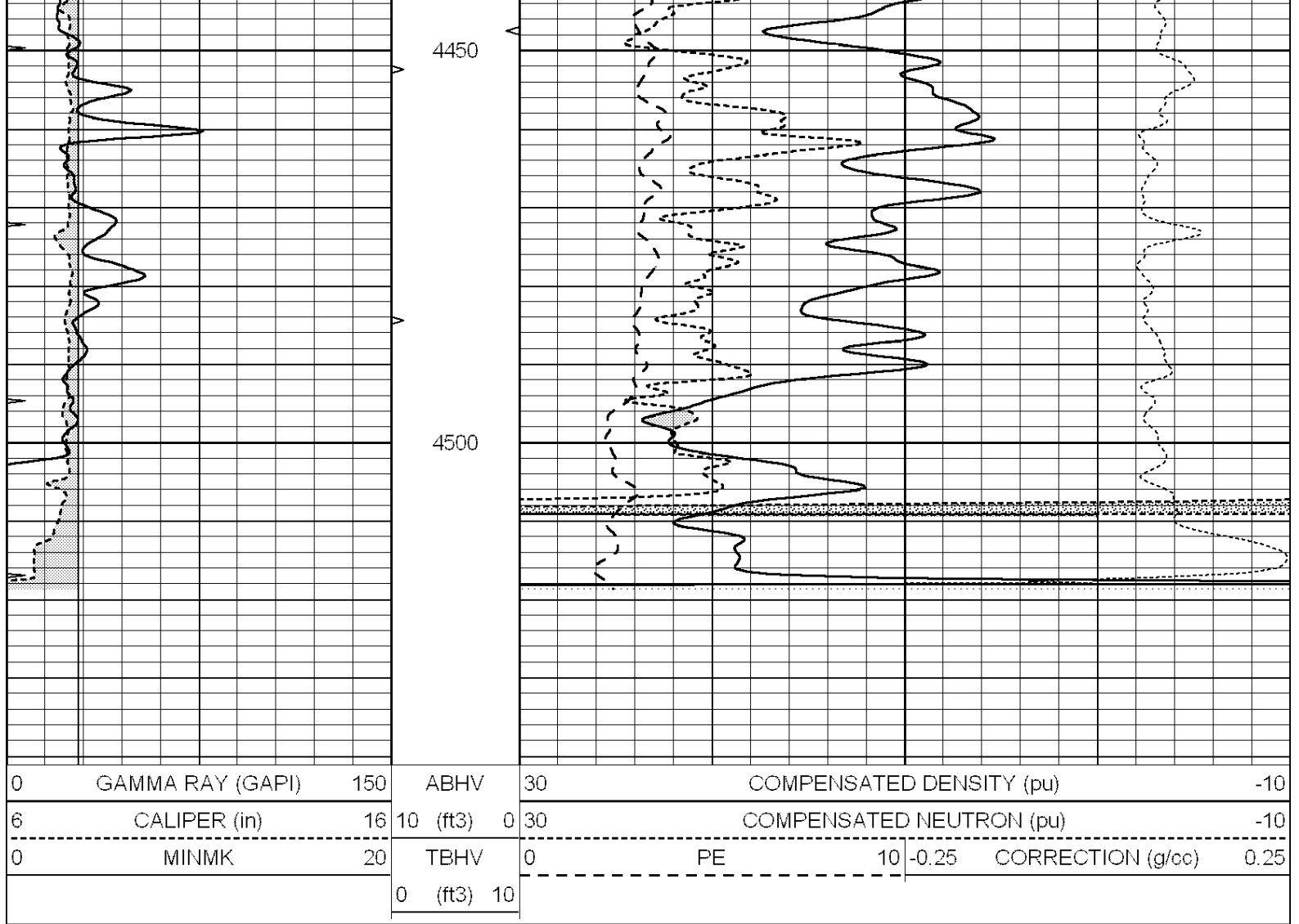


REPEAT SECTION

Database File: 011812pe.db
 Dataset Pathname: pass2.4
 Presentation Format: ldt_neu
 Dataset Creation: Wed Nov 20 15:58:53 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	PE	10	-0.25	CORRECTION (g/cc)	0.25
			0 (ft3)	10					





Calibration Report

Database File: 011812pe.db
 Dataset Pathname: pass3.9
 Dataset Creation: Wed Nov 20 15:57:26 2013 by Calc SOC 120430

Dual Induction Calibration Report

Serial-Model: PROBE9-DILG
 Surface Cal Performed: Tue Nov 19 06:44:33 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			V	References		mmho/m	Results	
	Air	Loop			Air	Loop		m	b
Deep	-0.014	0.629		V	0.000	400.000	mmho/m	650.000	-20.000
Medium	0.039	0.728		V	0.000	464.000	mmho/m	640.000	-20.000
Internal:	Zero				Zero			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:	Sun Nov 03 21:08:13 2013	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.3000	GAPI/cps