



SUPERIOR
Hays,
Kansas

COMPENSATED
DENSITY / NEUTRON
PE LOG

Company CRAWFORD OIL & GAS CO. LLC.
Well BOHL TRUST #1-1
Field WILDCAT
County NORTON
State KANSAS

Company CRAWFORD OIL & GAS COMPANY, LLC.
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Field WILDCAT
County NORTON State KANSAS

Location: API # : 15-137-20561-0000
2209' FNL & 1322' FWL
NW - SW - SE - NW
SEC 1 TWP 3S RGE 25W
Permanent Datum GROUND LEVEL Elevation 2493
Log Measured From KELLY BUSHING 5' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services DIL/MEL
Elevation
K.B. 2498
D.F. 2496
G.L. 2493

Date	5/2/11		
Run Number	ONE		
Depth Driller	3756		
Depth Logger	3758		
Bottom Logged Interval	3734		
Top Log Interval	3000		
Casing Driller	8 5/8" @ 263'		
Casing Logger	263		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 1,000 PPM	
Density / Viscosity	9.4/56		
pH / Fluid Loss	9.5/8.8		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	.750 @ 70F		
Rmf @ Meas. Temp	.563 @ 70F		
Rmc @ Meas. Temp	.900 @ 70F		
Source of Rmf / Rmc	MEASUREMENT		
Rim @ BHT	.461 @ 114F		
Time Circulation Stopped	8 HOURS		
Time Logger on Bottom	1:30 A.M.		
Maximum Recorded Temperature	114F		
Equipment Number	0836		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	LARRY FRIEND		

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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 SUPERIOR WELL SERVICE HAYS, KANSAS (785) 628-6395
DIRECTIONS
NORTON, KS. 11W. ON HWY 36 TO "RD. W 11", 1/2S., E. INTO

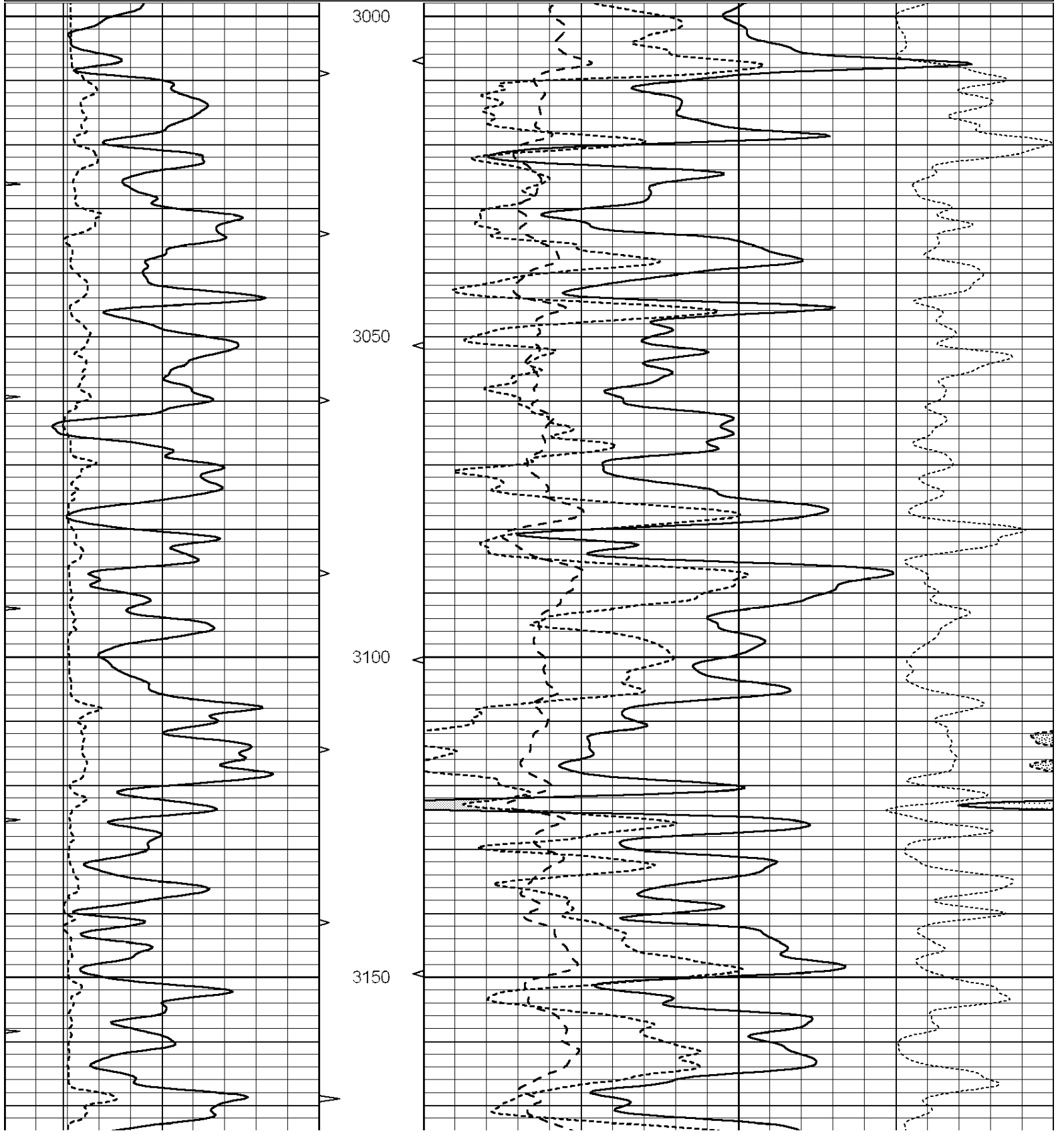


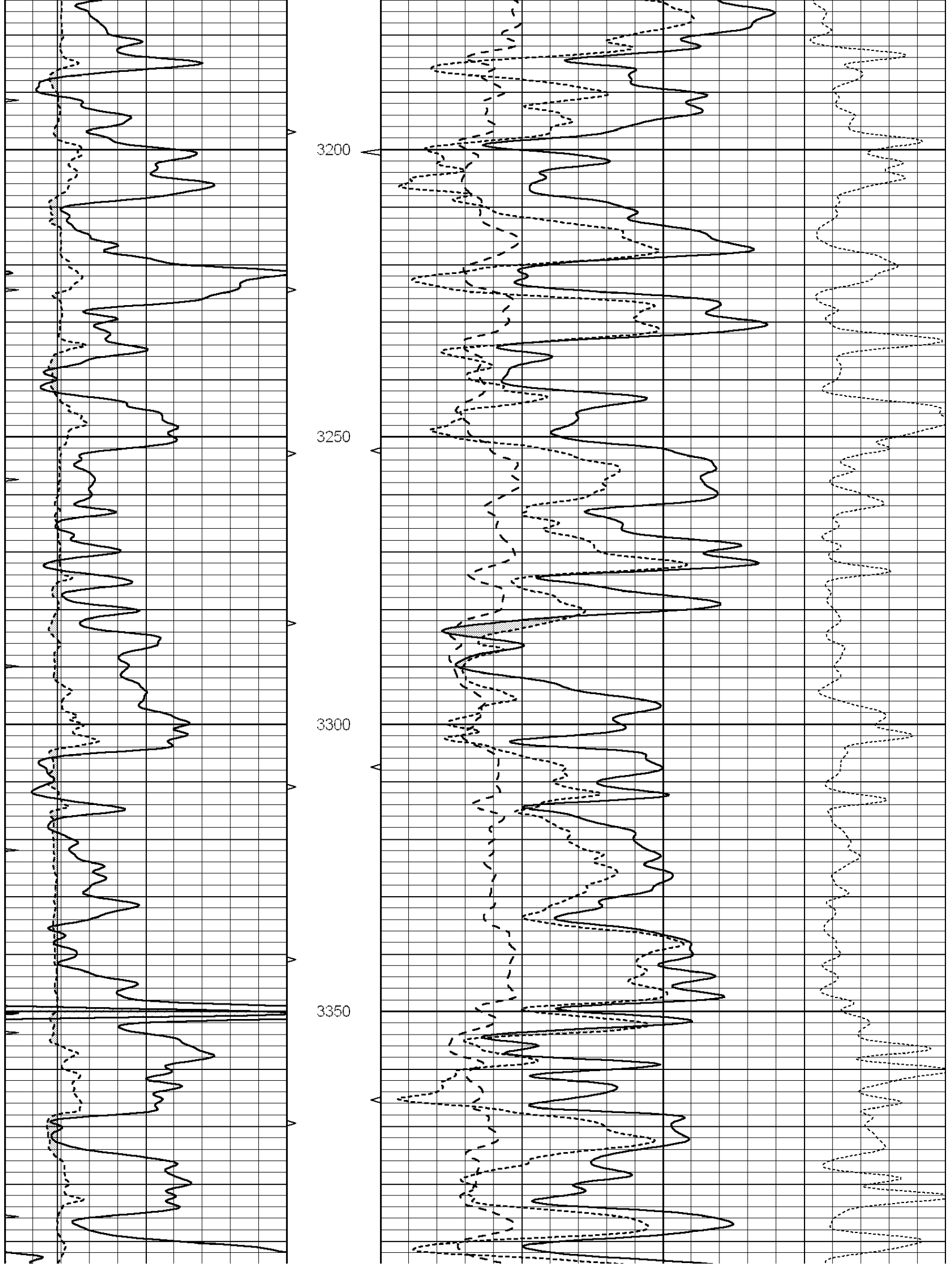
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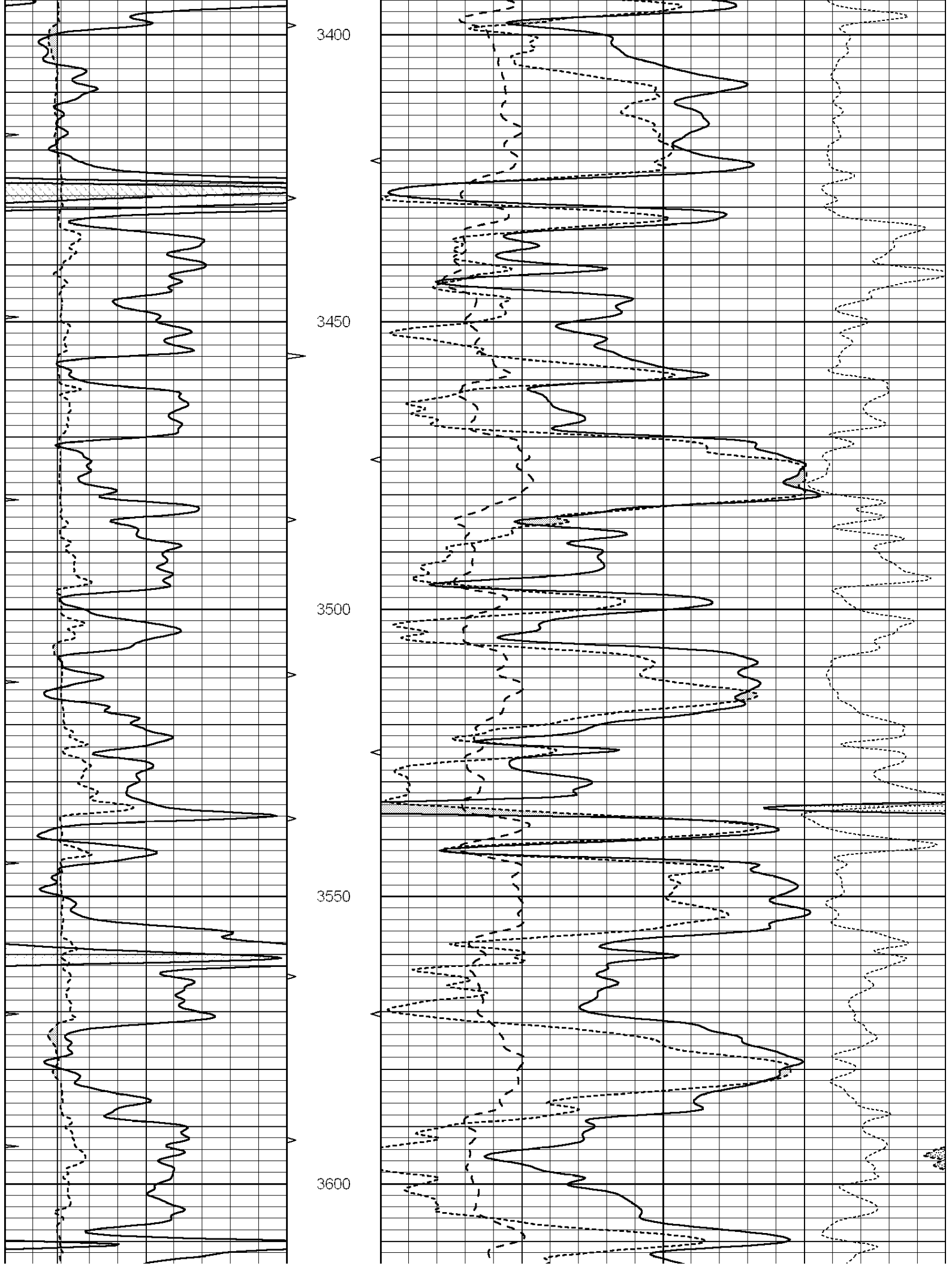
MAIN SECTION

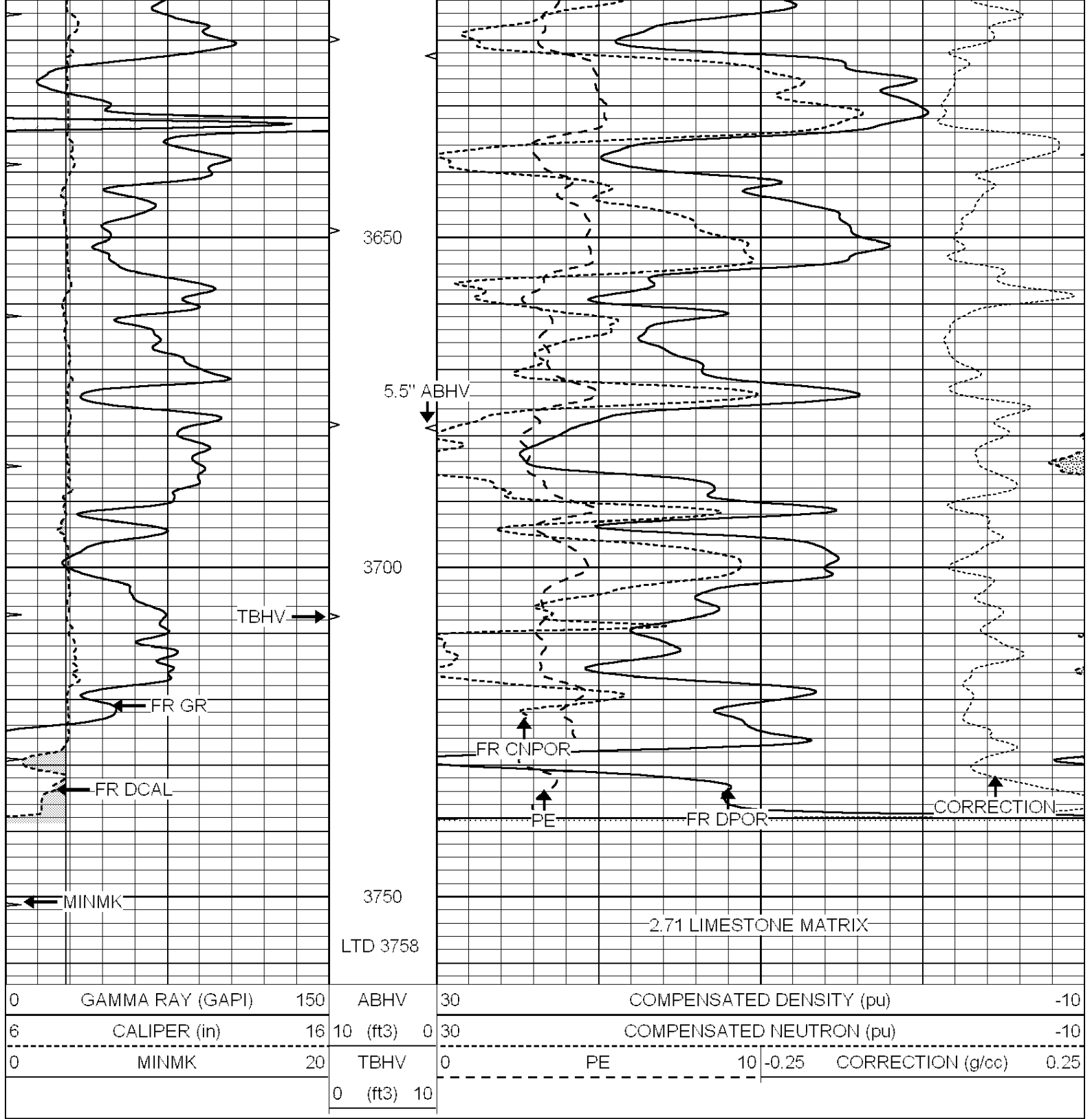
Database File: 006820pe.db
 Dataset Pathname: pass3.5
 Presentation Format: ldt_neu
 Dataset Creation: Tue May 03 04:24:02 2011
 Charted by: Depth in Feet scaled 1:240

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			









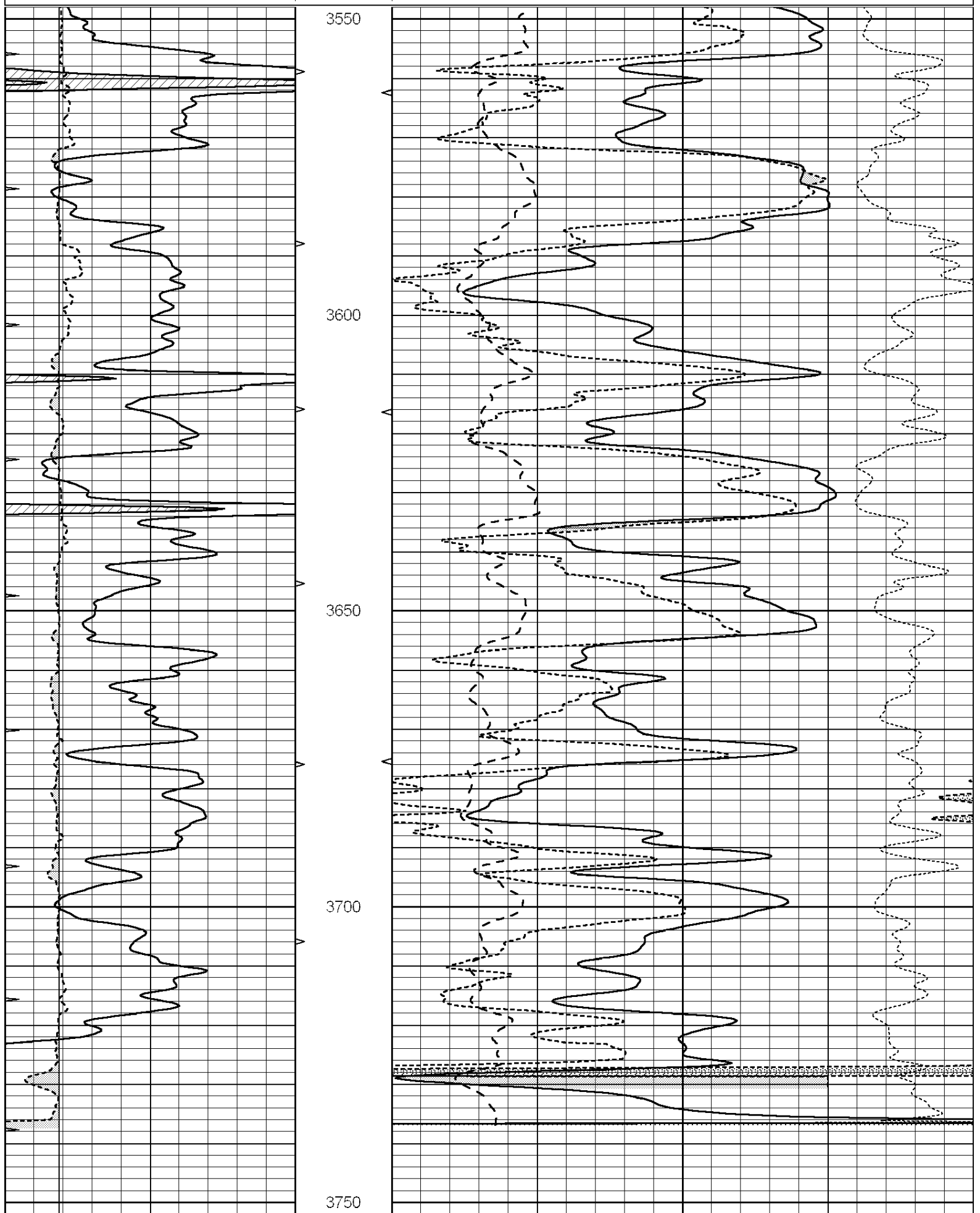
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REPEAT SECTION

Database File: 006820pe.db
 Dataset Pathname: pass2.8
 Presentation Format: ldt_neu
 Dataset Creation: Tue May 03 04:04:08 2011
 Charted by: Depth in Feet scaled 1:240

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



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: 006820pe.db
Dataset Pathname: pass3.5
Dataset Creation: Tue May 03 04:24:02 2011

Dual Induction Calibration Report

Serial-Model: DIL6-GEAR
Performed: Tue Apr 26 10:09:18 2011

Loop:	Readings				References		Results	
	Air	Loop			Air	Loop	m	b
Deep	0.001	0.644	V	0.000	400.000	mmho/m	660.000	-5.000
Medium	0.020	0.738	V	0.000	462.500	mmho/m	740.000	-23.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.000	1.000	V	0.000	1.000	mmho/m	1.000	0.000
Medium	0.000	1.000	V	0.000	1.000	mmho/m	1.000	0.000

Litho Density Calibration Report
Serial: 006 Model: PRB
Performed Sun Aug 15 09:48:41 2010

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	1686.6	11612.8	3932.0	12718.8	cps
Window 2	1531.4	9204.7	3267.8	9851.9	cps
Window 3	1198.3	4733.6	1952.5	4920.6	cps
Window 4	317.3	321.2	325.9	303.6	cps
Long Space	0.0	7673.3	1736.4	8320.4	cps
Short Space	1.7	2548.5	1657.2	2628.8	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	
Rib Angle	: 43.8	Rib Slope	: 0.961	Density/Spine Ratio	: 0.569
Spine Angle	: 73.8	Spine Slope	: 3.453	Spine Intercept	: -18.1

Caliper

	Readings	Reference	
Low Ref	4.0	6.9	
High Ref	6.2	14.0	
Gain:	3.2		Offset: -5.7

Compensated Neutron Calibration Report

Serial Number: NEU_4I
Tool Model: G

CALIBRATION

Detector Readings Target Normalization

Short Space	996.00	cps	1000.00	cps	1.0000
Long Space	977.00	cps	1000.00	cps	1.0000

Gamma Ray Calibration Report

Serial Number:	GR4	
Tool Model:	OPEN	
Performed:	Tue May 03 00:53:24 2011	
Calibrator Value:	200.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	189.0	cps
Sensitivity:	1.7000	GAPI/cps