



**COMPLETION  
& PRODUCTION  
SERVICES CO.**

**COMPENSATED  
DENSITY / NEUTRON  
PE LOG**

Company VALHALLA EXPLORATION, LLC.  
Well SCHARTZ #1-11  
Field TAYLOR NORTHEAST  
County STAFFORD State KANSAS

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Field TAYLOR NORTHEAST  
County STAFFORD  
State KANSAS

Location: 330' FNL & 2200' FEL  
API #: 15-185-23899-00-00  
Other Services  
DIL  
MEL/SON  
Elevation  
K.B. 1929  
D.F. 1927  
G.L. 1921

Date	9/20/14	SEC 11 TWP 21S RGE 14W	GROUND LEVEL Elevation 1921
Run Number	ONE		
Depth Driller	3796		
Depth Logger	3797		
Bottom Logged Interval	3773		
Top Log Interval	2850		
Casing Driller	8 5/8 @ 817'		
Casing Logger	820'		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.3/62	CHLORIDES 11,300 PPM	
pH / Fluid Loss	10.0/10.6		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.40 @ 92F		
Rmf @ Meas. Temp	0.30 @ 92F		
Rmc @ Meas. Temp	0.48 @ 92F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	0.32 @ 114F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	114F		
Equipment Number	3802		
Location	HAYS, KS.		
Recorded By	JEFF GRONEWEG		
Witnessed By	ADAM NIGHSWONGER		

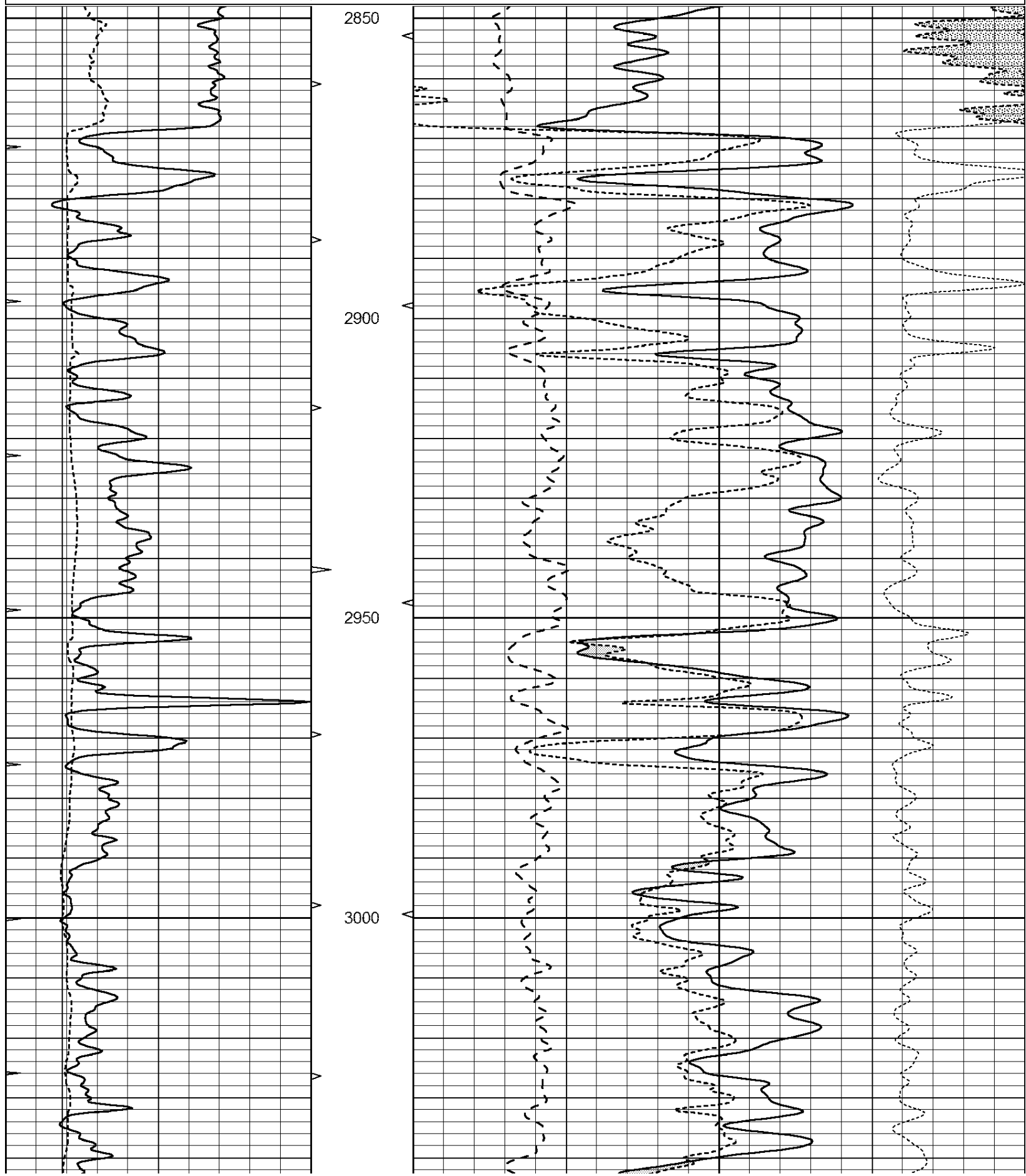
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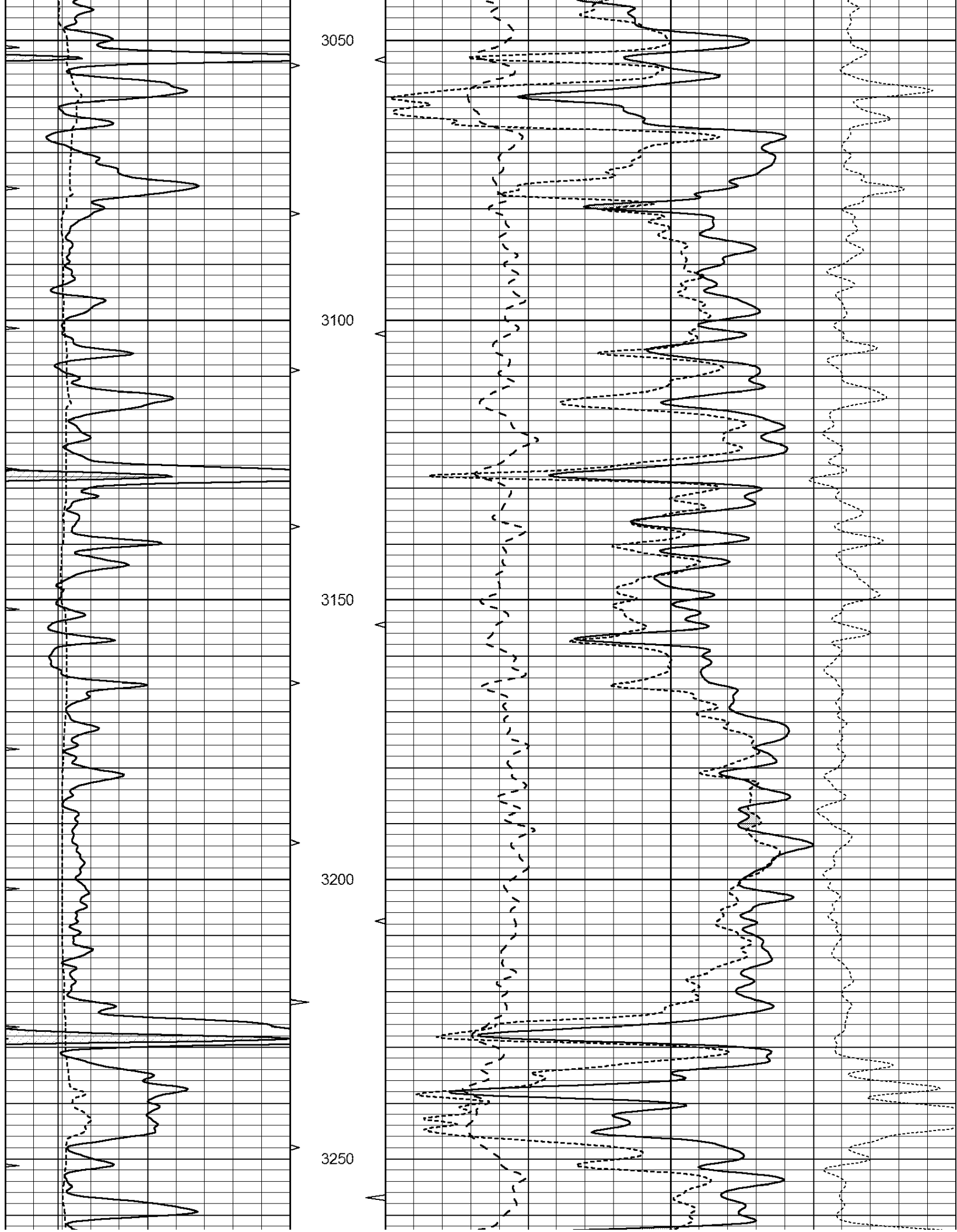
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

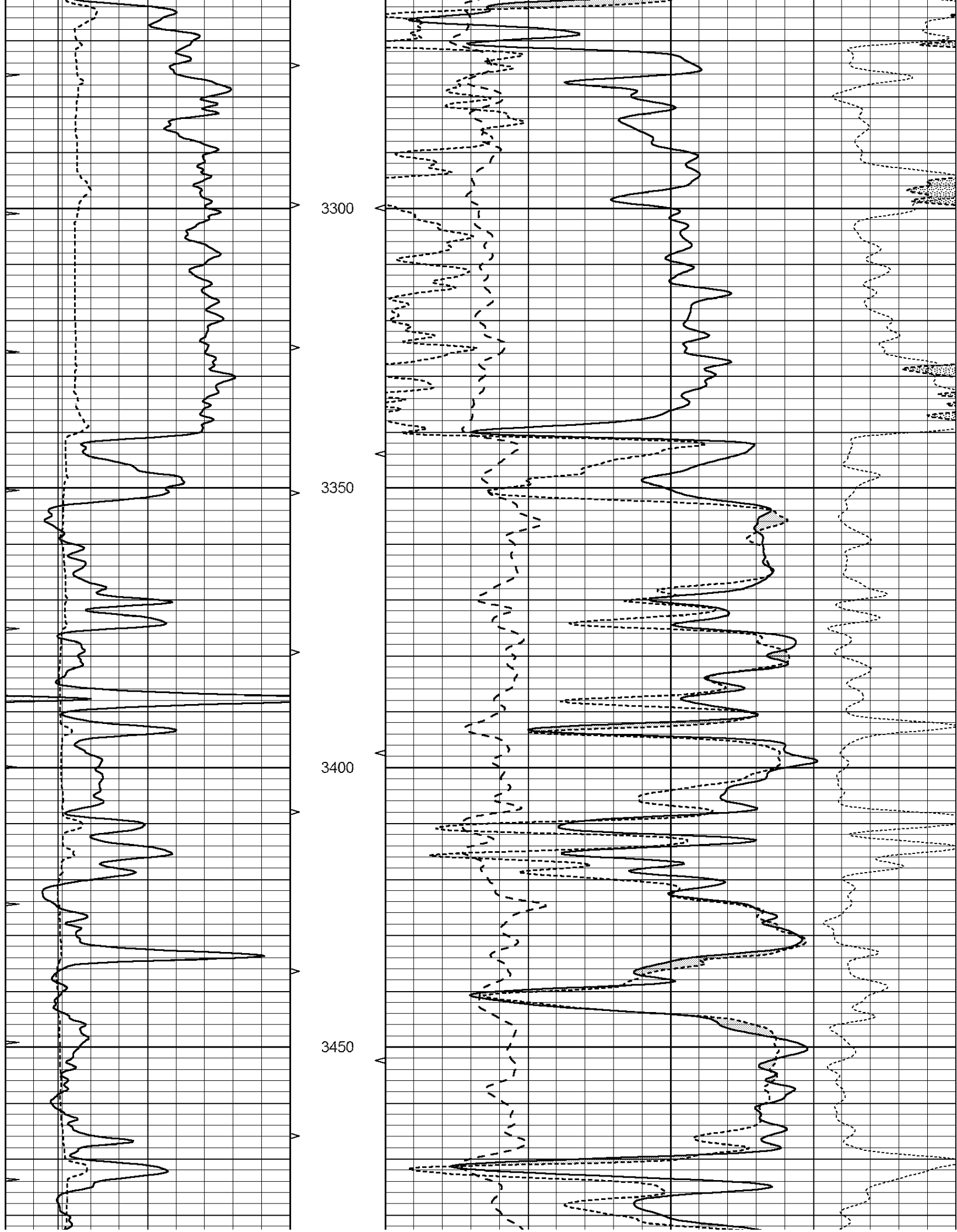
Comments

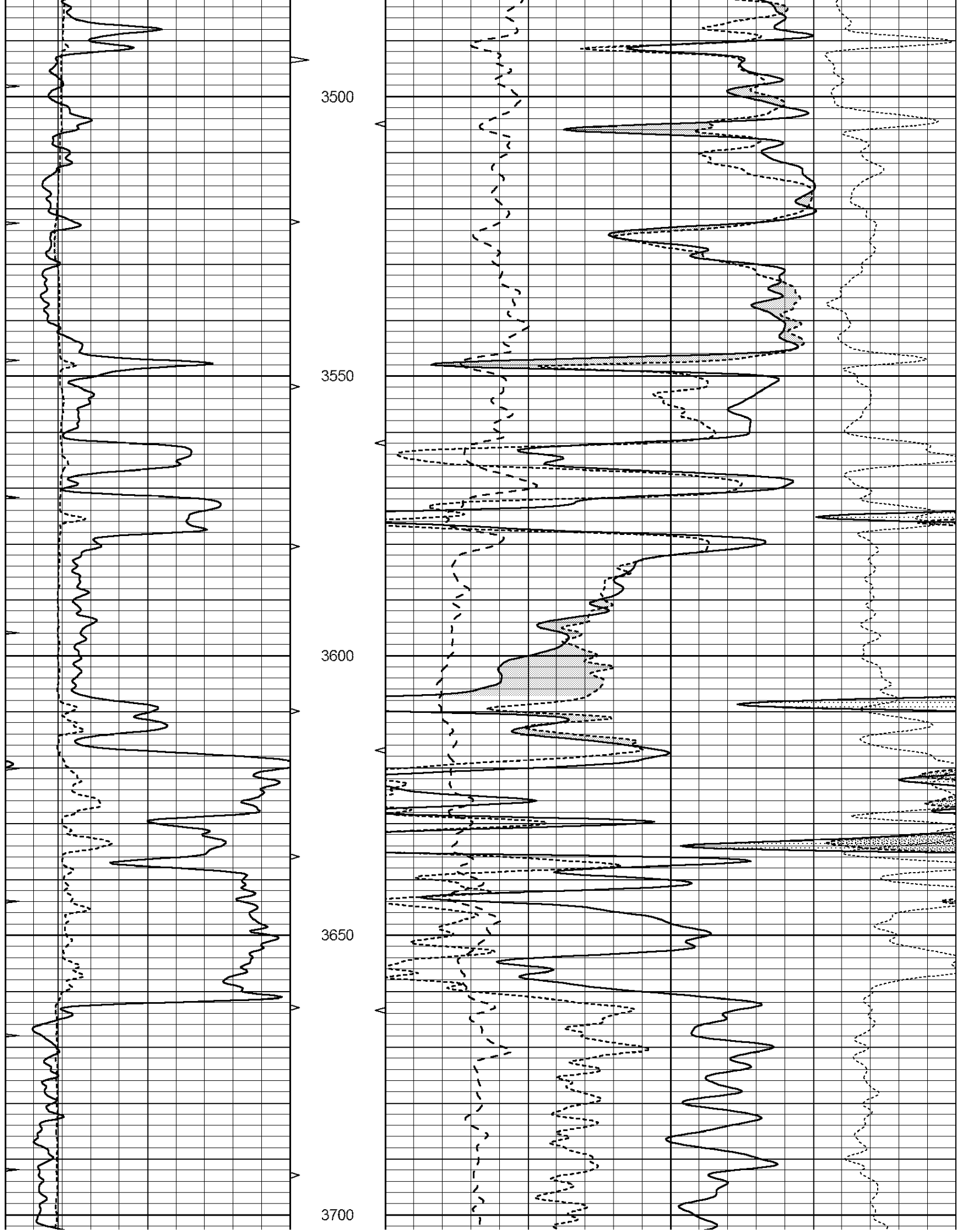
NABORS COMPLETION & PRODUCTION SERVICES CO.  
785 ( 628 - 6395 )  
THANK YOU FOR YOUR BUSINESS  
DIRECTIONS: GREAT BEND, KS - 9 MILES SOUTH TO RD 200  
4 1/2 MILES WEST - S INTO

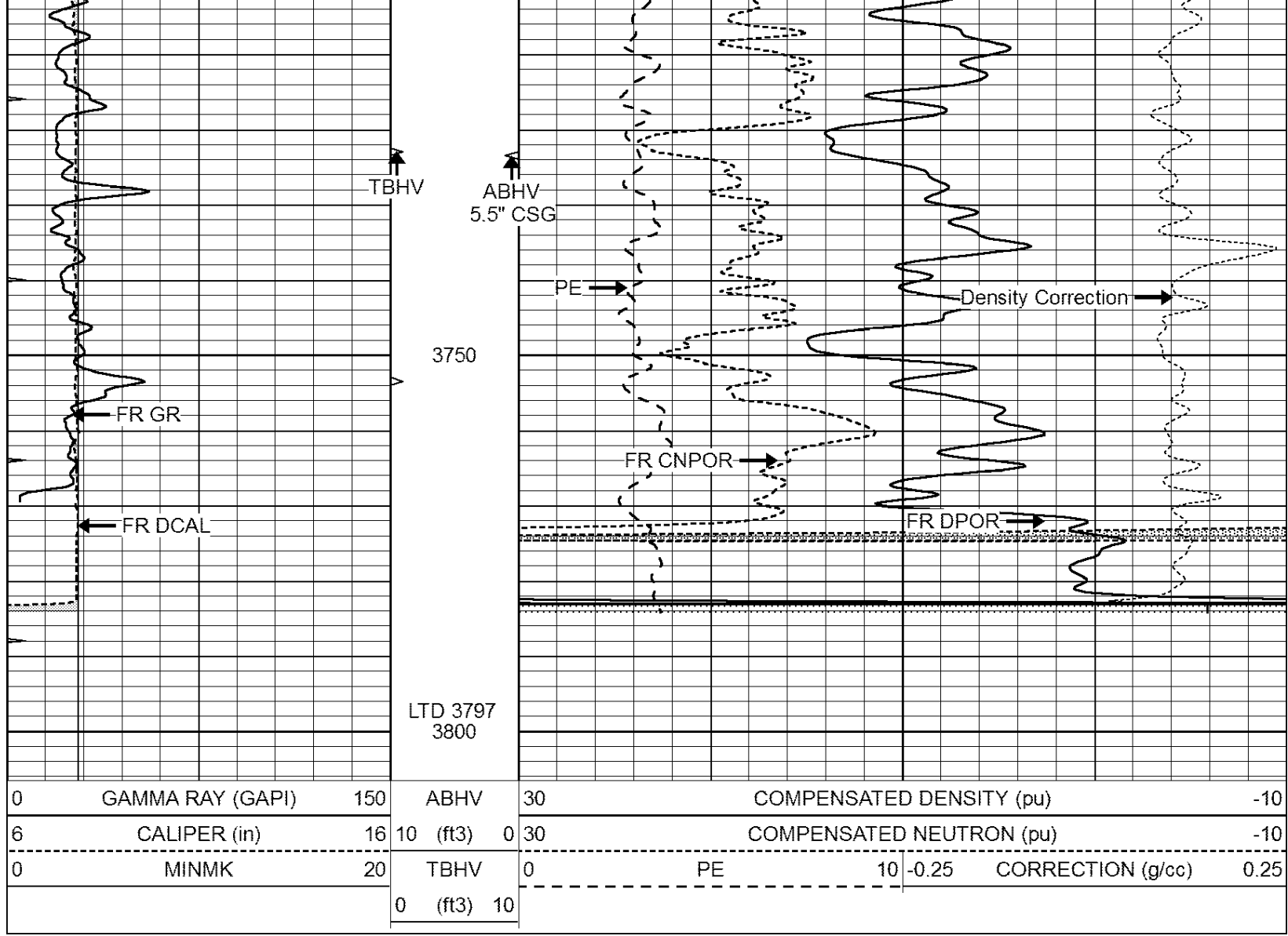
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)		-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)		-10
0	MINMK	20	TBHV	0	PE	10 -0.25	CORRECTION (g/cc) 0.25
			0 (ft3)	10			







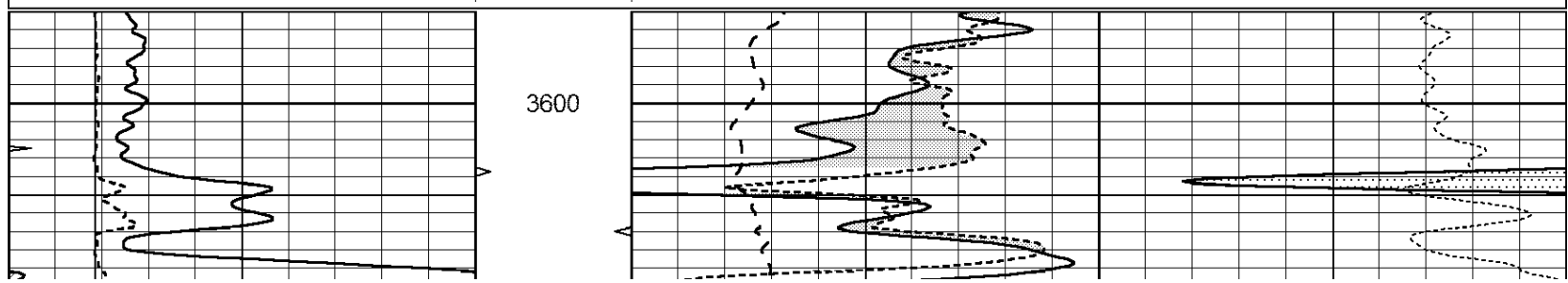


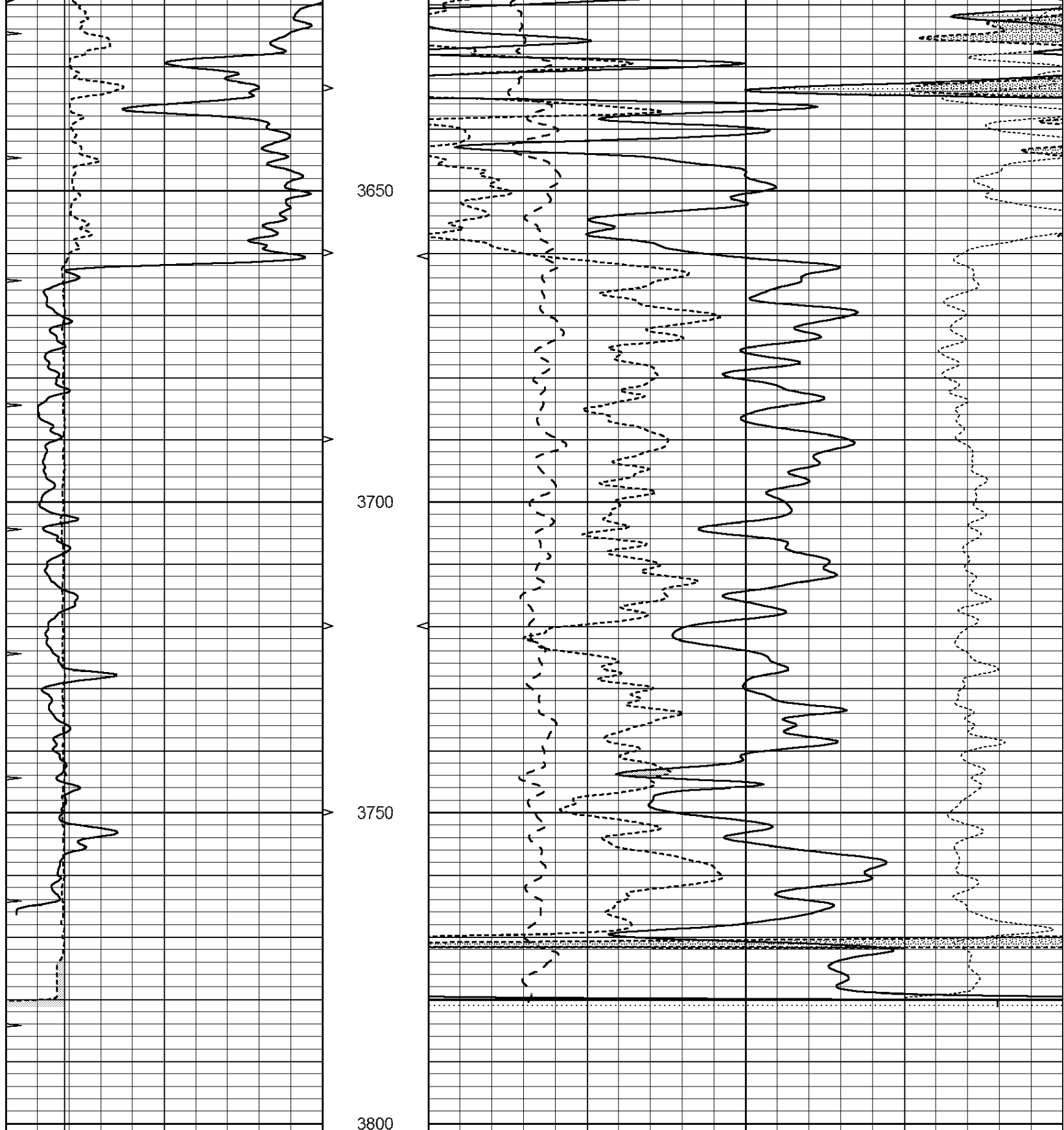


# REPEAT SECTION

Database File: 25819pe.db  
 Dataset Pathname: pass2.3  
 Presentation Format: \_ldt\_neu  
 Dataset Creation: Sat Sep 20 14:33:06 2014 by Calc Open-Cased 090629  
 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		





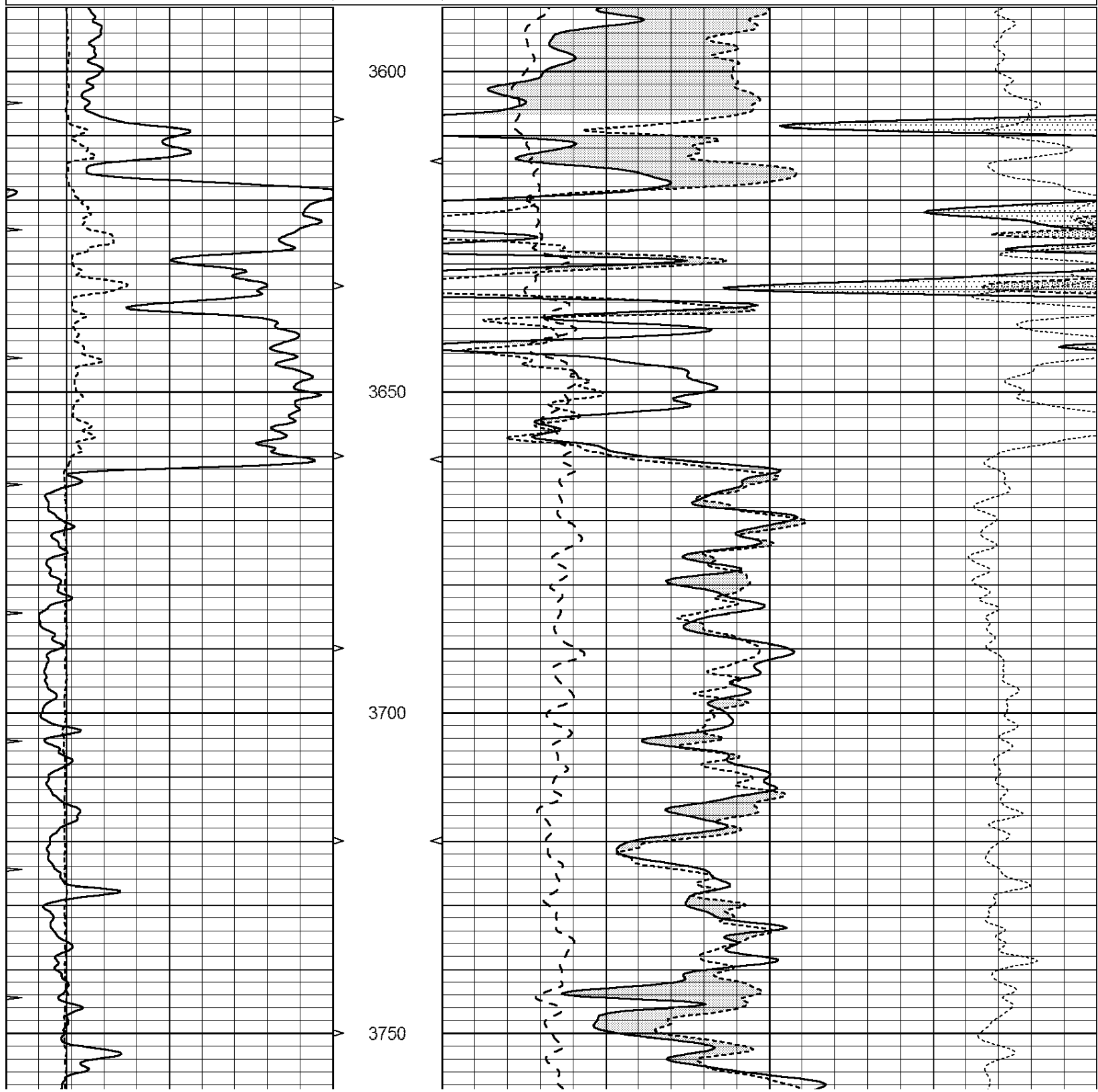
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV	0	PE	10 -0.25
			0 (ft3)	10	CORRECTION (g/cc)	0.25

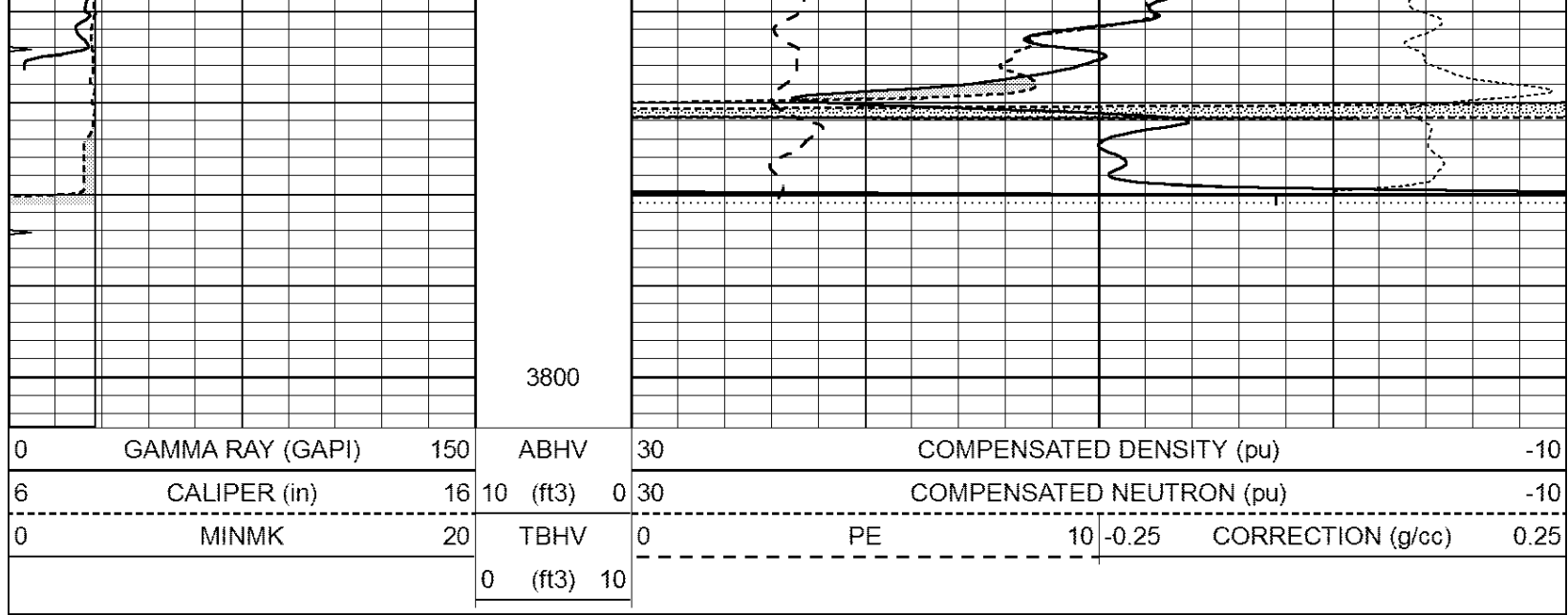


DOLOMITE MAT DIV 2 01

Database File: 25819pe.db  
 Dataset Pathname: pass2.3.D  
 Presentation Format: \_ldt\_neu  
 Dataset Creation: Sat Sep 20 14:36:01 2014  
 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			





### Calibration Report

Database File: 25819pe.db  
 Dataset Pathname: pass3.3  
 Dataset Creation: Sat Sep 20 15:50:54 2014 by Calc Open-Cased 090629

### Dual Induction Calibration Report

Serial-Model: PROBE7-DILG  
 Surface Cal Performed: Fri Sep 12 18:11:27 2014  
 Downhole Cal Performed: Sat Jan 19 19:51:38 2013  
 After Survey Verification Performed: Sat Jan 19 19:51:38 2013

#### Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.793	0.790	V	0.000	400.000	mmho/m	550.000	4.000
Medium	0.992	1.002	V	0.000	464.000	mmho/m	580.000	-48.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.041	0.642	V	0.000	400.000	mmho/m	664.874	-27.011
Medium	0.035	0.802	V	0.000	464.000	mmho/m	604.936	-21.367

#### Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	135384.000	27094.500	mmho/m	135400.000	27082.400	mmho/m	1.000	-19.259
Medium	-47330.100	-9381.740	mmho/m	-47327.100	-9389.280	mmho/m	1.000	-10.154
LL3		7.322	V		1400.000	Ohm-m		
		0.038	V		20.000	Ohm-m		
		-7.273	V		4000.000	mmho-m		

#### After Survey Verification

	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	135384.000	27094.500	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	-47330.100	-9381.740	mmho/m	1.000	0.000
LL3		0.000	Ohm-m		1400.000	Ohm-m		
		0.000	Ohm-m		20.000	Ohm-m		
		0.000	mmho-m		4000.000	mmho-m		

Litho Density Calibration Report  
 Serial: 002 Model: PRB

Master Calibration

Performed Tue May 27 11:05:38 2008

	Background	Magnesium	Aluminum	Sandstone	
Window 1	819.4	6916.8	2053.5	6968.1	cps
Window 2	780.4	5708.6	1783.3	5727.0	cps
Window 3	656.9	3349.4	1194.5	3336.6	cps
Window 4	187.3	183.4	186.5	186.2	cps
Long Space	0.0	4928.2	1002.9	4946.6	cps
Short Space	1.2	1266.1	819.1	1290.7	cps
Rho		1.7100	2.5960	1.3800	g/cc
Pe		0.0000	2.5700	1.5500	
Rib Angle	: 44.7	Rib Slope	: 0.990	Density/Spine Ratio	: 0.537
Spine Angle	: 74.7	Spine Slope	: 3.655	Spine Intercept	: -17.6

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: 080620  
 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:	46001	
Tool Model:	Probe1	
Performed:	Fri Sep 12 17:20:19 2014	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.2600	GAPI/cps