



NABORS

**COMPLETION
& PRODUCTION
SERVICES CO.**

COMPENSATED DENSITY/NEUTRON LOG

Company	DREILING OIL CO., INC.	Company	DREILING OIL CO., INC.
Well	KOHL D #1	Well	KOHL D #1
Field	KOHL	Field	KOHL
County	TREGO	County	TREGO
State	KANSAS	State	KANSAS
Location:	API # : 15-195-22928-00-00	Other Services	DIL/MEL
	330' FSL & 1045' FWL E2 - SE - SW - SW/4		
	SEC 2 TWP 12S RGE 21W		
Permanent Datum	GROUND LEVEL	Elevation	2313
Log Measured From	KELLY BUSHING 8' A.G.L.		
Drilling Measured From	KELLY BUSHING		
Date	5/18/14		
Run Number	ONE		
Depth Driller	4065		
Depth Logger	4070		
Bottom Logged Interval	4046		
Top Log Interval	3200		
Casing Driller	8 5/8" @ 221		
Casing Logger	220		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 5,000 PPM	
Density / Viscosity	9.0/52		
pH / Fluid Loss	10.5/7.6		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.40 @ 70F		
Rmt @ Meas. Temp	0.30 @ 70F		
Rmc @ Meas. Temp	0.48 @ 70F		
Source of Rmt / Rmc	MEASUREMENT		
Rm @ BHT	0.24 @ 117F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	117F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	IAN MABB		
Witnessed By	ROGER FISHER		

<<< Fold Here >>>

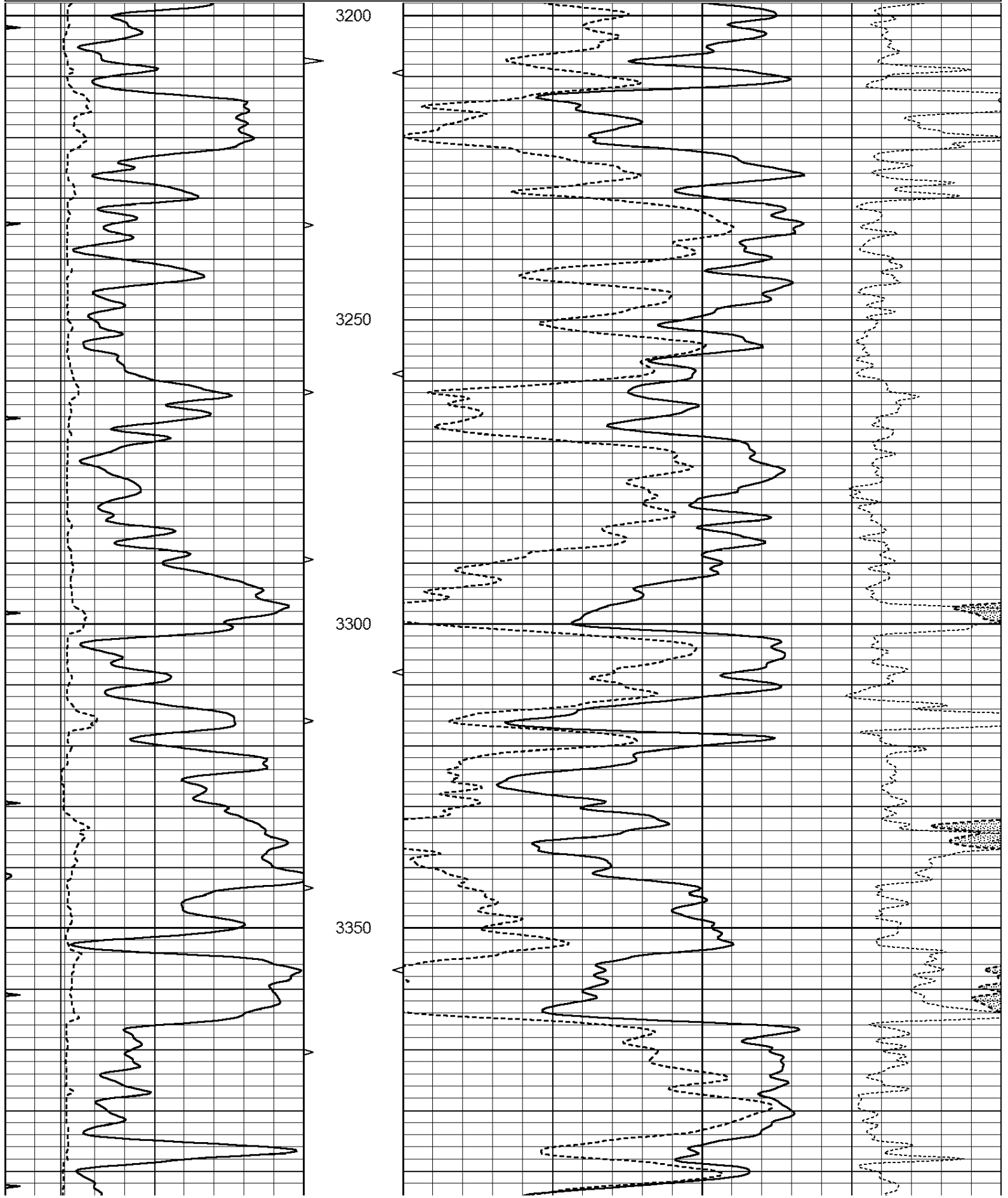
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

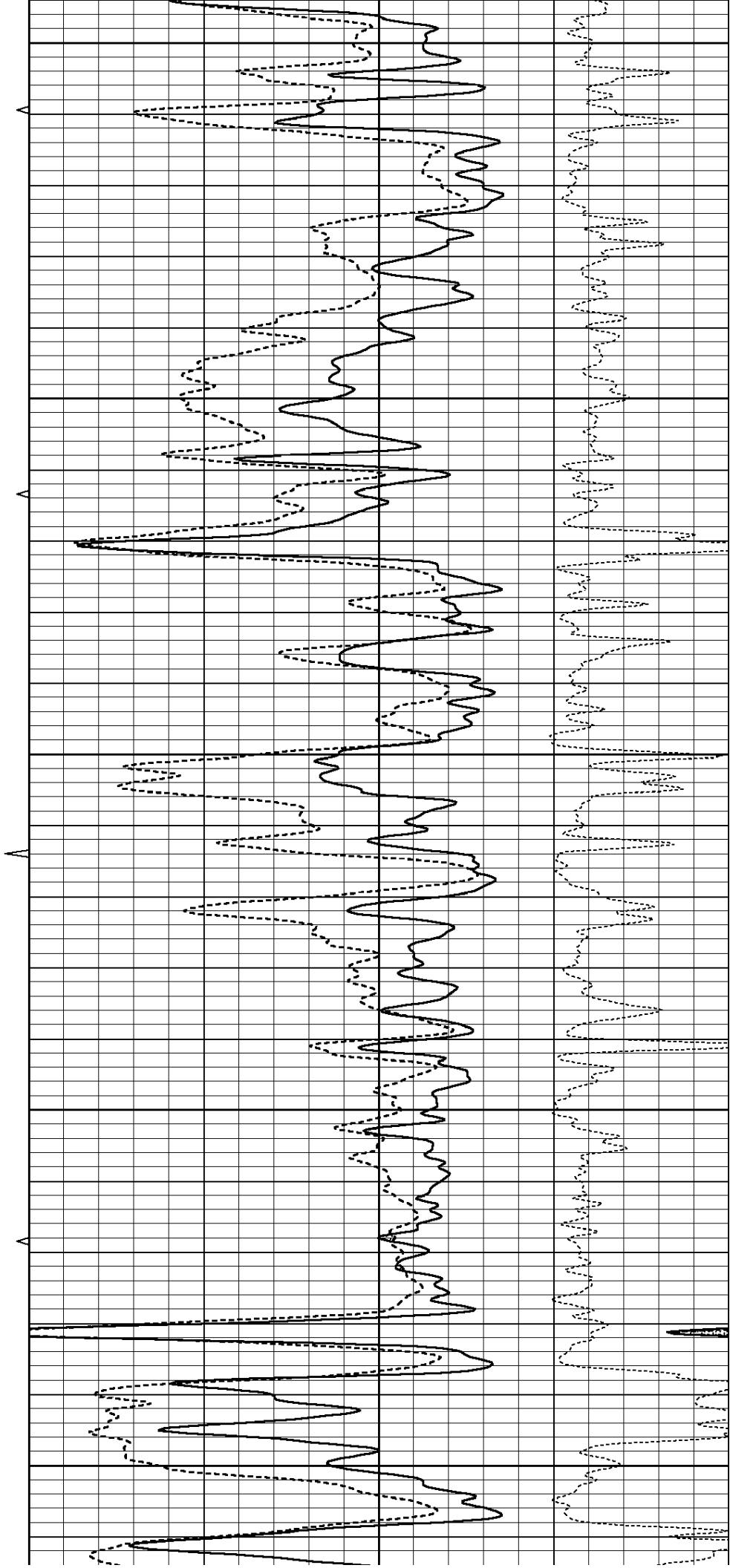
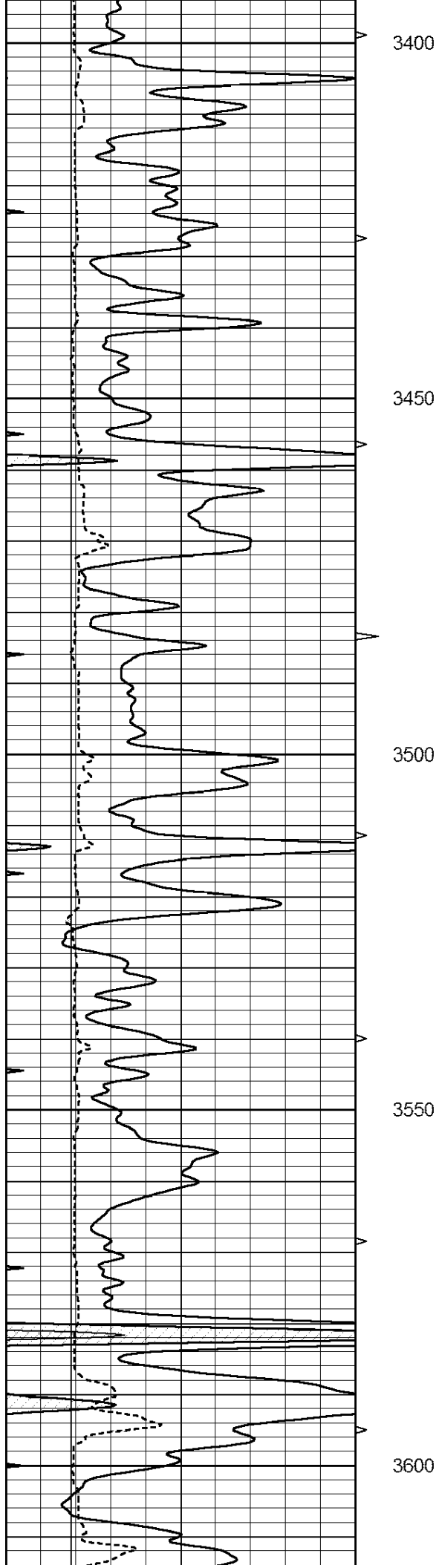
Comments

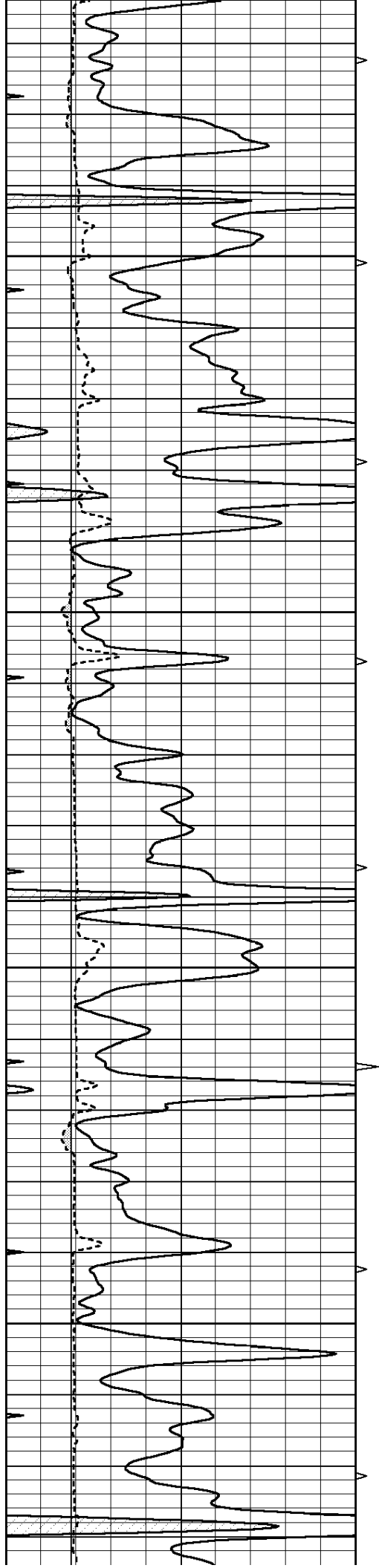
THANK YOU FOR USING NABORS, HAYS, KS. (785) 628-6395
DIRECTIONS:
I-70 & RIGA RD. - 4 MILES NORTH - 1 1/2 MILES EAST - NORTH INTO

Database File: 24246ddn.db
Dataset Pathname: pass3.1
Presentation Format: den_neu
Dataset Creation: Sun May 18 16:37:40 2014 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

Charted by:		Depth in Feet scaled 1:2.10			
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		-0.25 CORRECTION (g/cc) 0.25
			0 (ft3) 10		





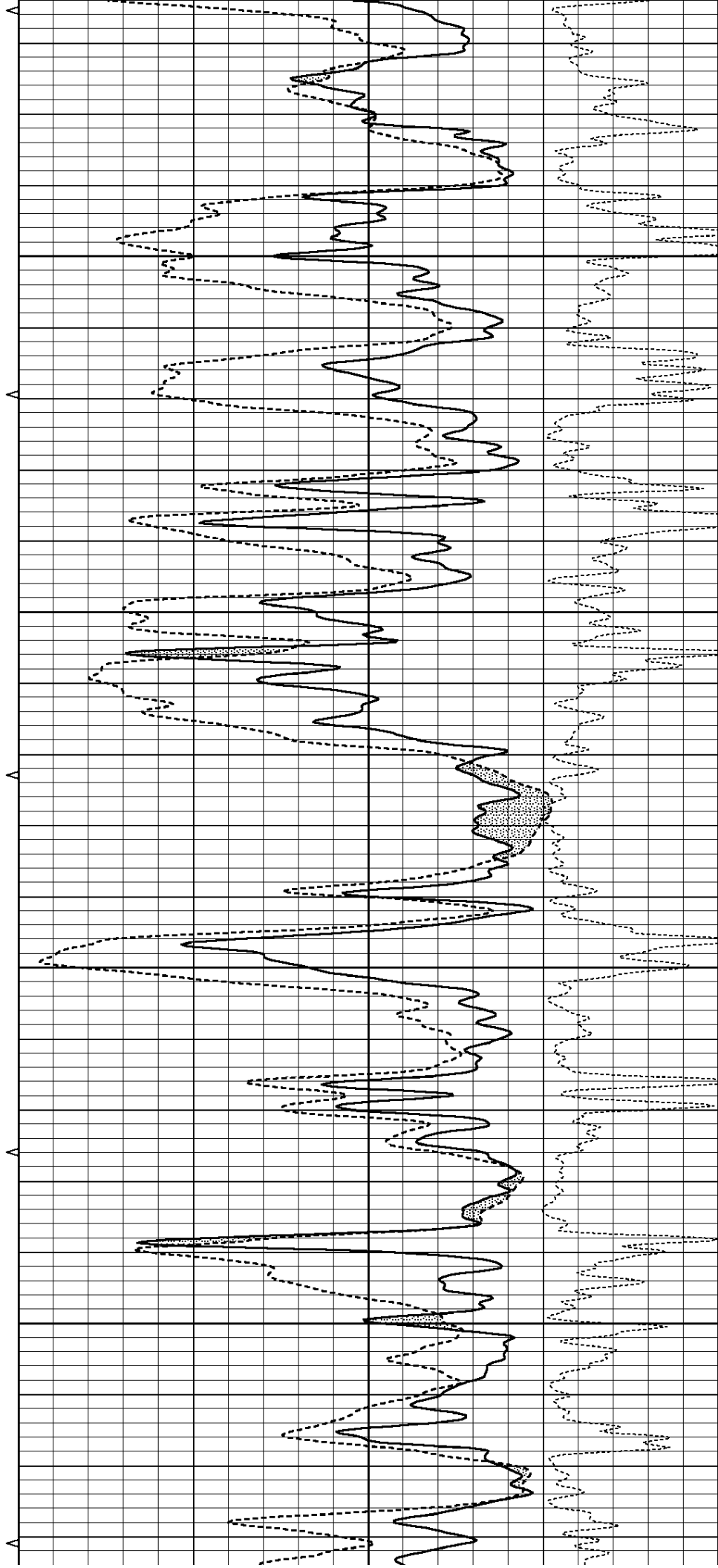


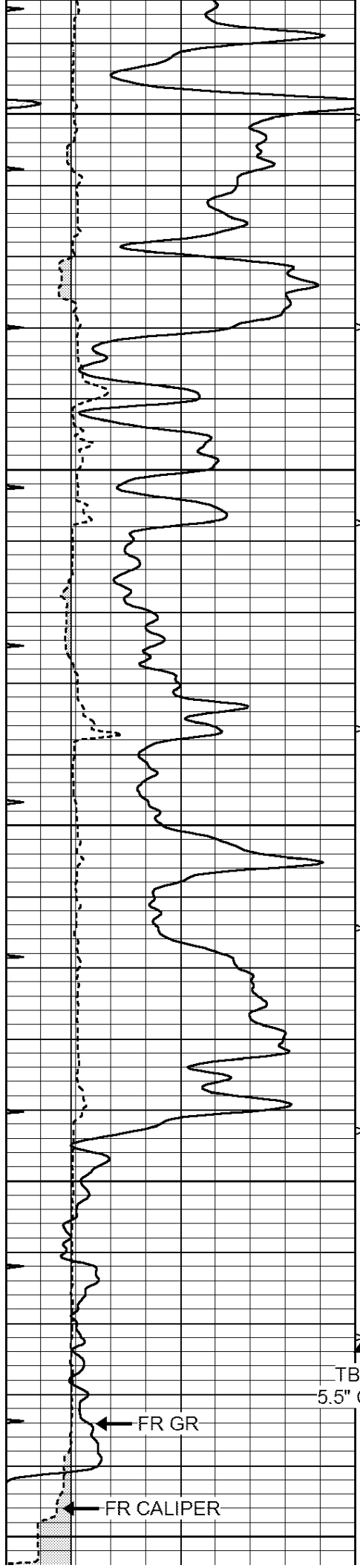
3650

3700

3750

3800





3850

3900

3950

4000

4050

TBHV
5.5" CSG

FR GR

FR CALIPER

ABHV

FR CNPOR

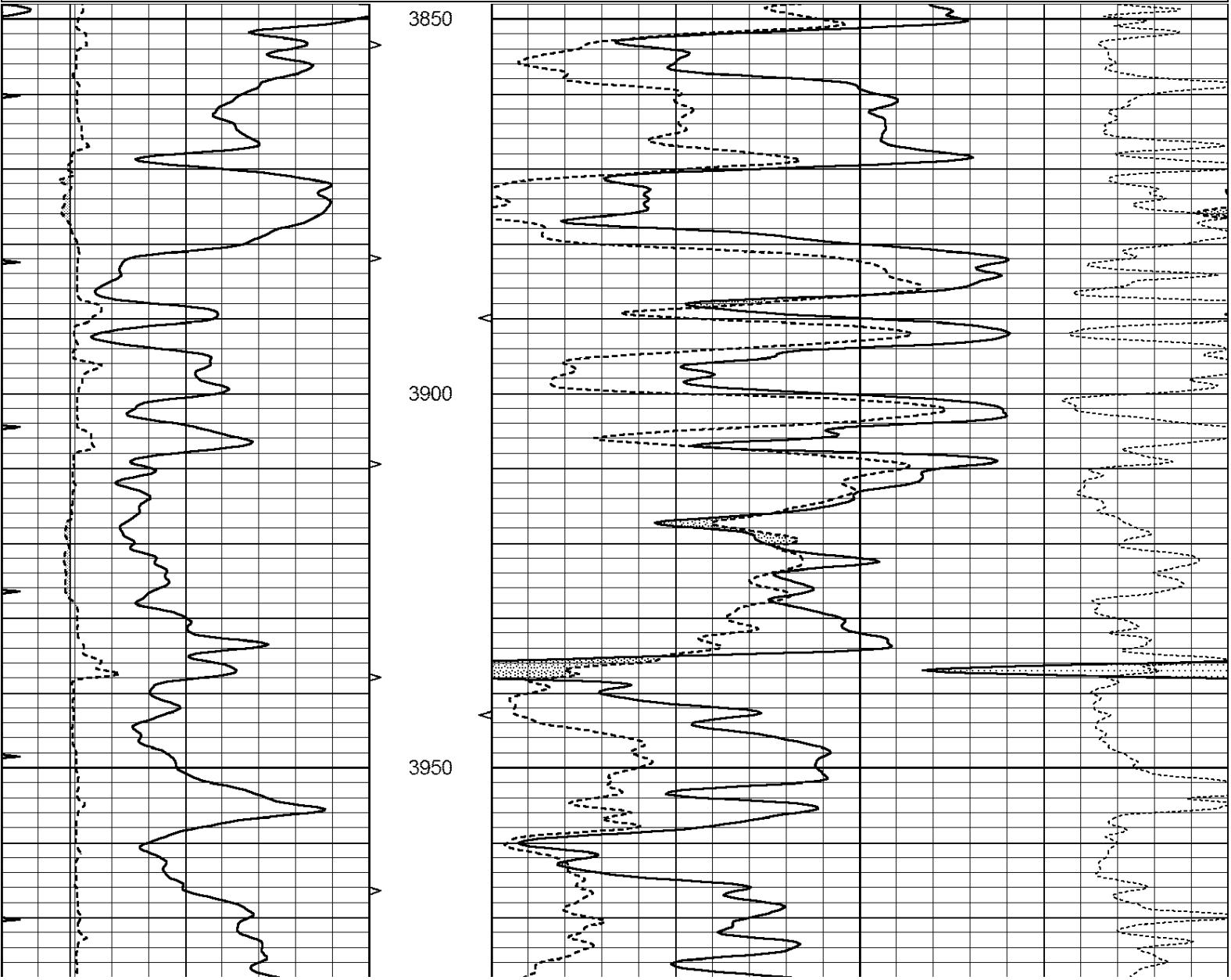
FR DPOR

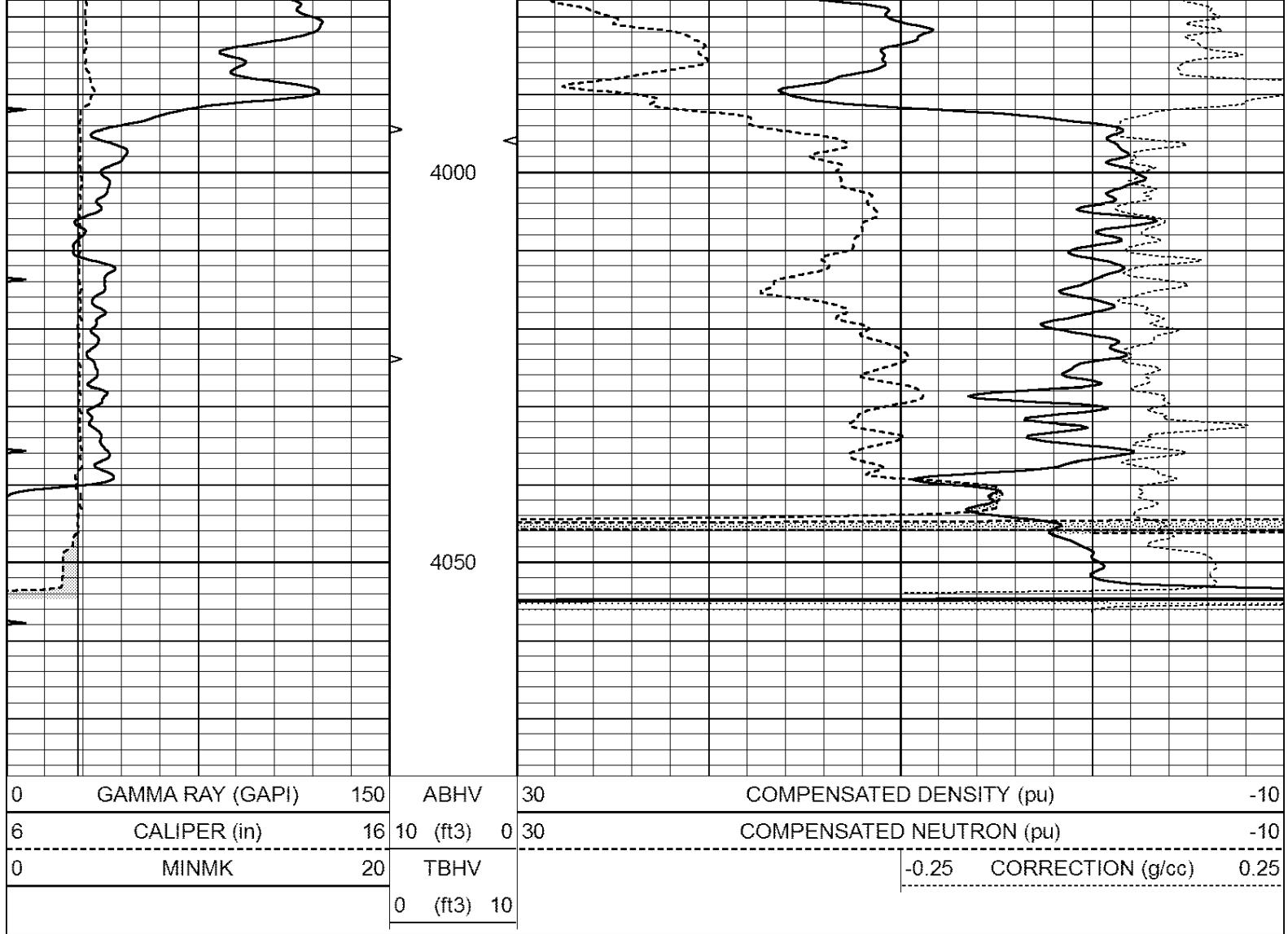
CORRECTION

			LTD 4070		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													

Database File:		24246ddn.db							
Dataset Pathname:		pass2.3							
Presentation Format:		den_neu							
Dataset Creation:		Sun May 18 16:09:47 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					-0.25	CORRECTION (g/cc)	0.25
			0 (ft3)	10						





Calibration Report

Database File: 24246ddn.db
Dataset Pathname: pass3.1
Dataset Creation: Sun May 18 16:37:40 2014 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: PROBE8-DILG
Surface Cal Performed: Fri Aug 01 06:33:19 2008
Downhole Cal Performed: Mon Jul 28 11:08:27 2008
After Survey Verification Performed: Mon Jul 28 11:08:27 2008

Surface Calibration

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	632.616	-9.730
Medium	0.029	0.796	V	0.000	464.000	mmho/m	605.049	-17.680
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.017	0.657	V	0.000	400.000	mmho/m	625.153	-10.619
Medium	0.016	0.757	V	0.000	464.000	mmho/m	625.992	-9.739

Downhole Calibration

Readings		References		Results	
Zero	Cal	Zero	Cal	m'	b'

	Detector	Readings	Measured	Target
1)	Short Space	cps		
	Long Space	cps	pu	pu
2)	Short Space	cps		
	Long Space	cps	pu	
3)	Short Space	cps		
	Long Space	cps	pu	
POST-SURVEY VERIFICATION				
	Detector	Readings	Measured	Target
1)	Short Space	cps		
	Long Space	cps	pu	pu
2)	Short Space	cps		
	Long Space	cps	pu	pu
3)	Short Space	cps		
	Long Space	cps	pu	pu
Gamma Ray Calibration Report				
	Serial Number:	GR6		
	Tool Model:	OPEN		
	Performed:	Tue May 06 06:07:07 2014		
	Calibrator Value:	150.0	GAPI	
	Background Reading:	0.0	cps	
	Calibrator Reading:	276.0	cps	
	Sensitivity:	0.8035	GAPI/cps	