



**COMPLETION  
& PRODUCTION  
SERVICES CO.**

**COMPENSATED  
DENSITY/NEUTRON  
LOG**

Company	DREILING OIL COMPANY, INC.	Company	DREILING OIL COMPANY, INC.
Well	KOHL A #2-11	Well	KOHL A #2-11
Field	KOHL	Field	KOHL
County	TREGO	County	TREGO
State	KANSAS	State	KANSAS
Location:	API # : 15-195-22925-0000	Other Services	DILMEL
Permanent Datum	1750' FSL & 330' FWL	Elevation	K.B. 2353
Log Measured From	N2-SW-NW-SW/4		D.F. 2351
Drilling Measured From	SEC 11 TWP 12S RGE 21W		G.L. 2345
	GROUND LEVEL	Elevation	2345
	KELLY BUSHING 8' A.G.L.		
	KELLY BUSHING		

Date	5/8/14		
Run Number	ONE		
Depth Driller	4100		
Depth Logger	4102		
Bottom Logged Interval	4078		
Top Log Interval	3350		
Casing Driller	8 5/8" @ 221		
Casing Logger	219		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES	5000 PPM
Density / Viscosity	9.3/57		
pH / Fluid Loss	9.0/10.4		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.60 @ 82F		
Rmt @ Meas. Temp	.45 @ 82F		
Rmc @ Meas. Temp	.72 @ 82F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.42 @ 117F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	117F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	JASON CAPPELLUCCI		
Witnessed By	ROGER FISHER		

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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**

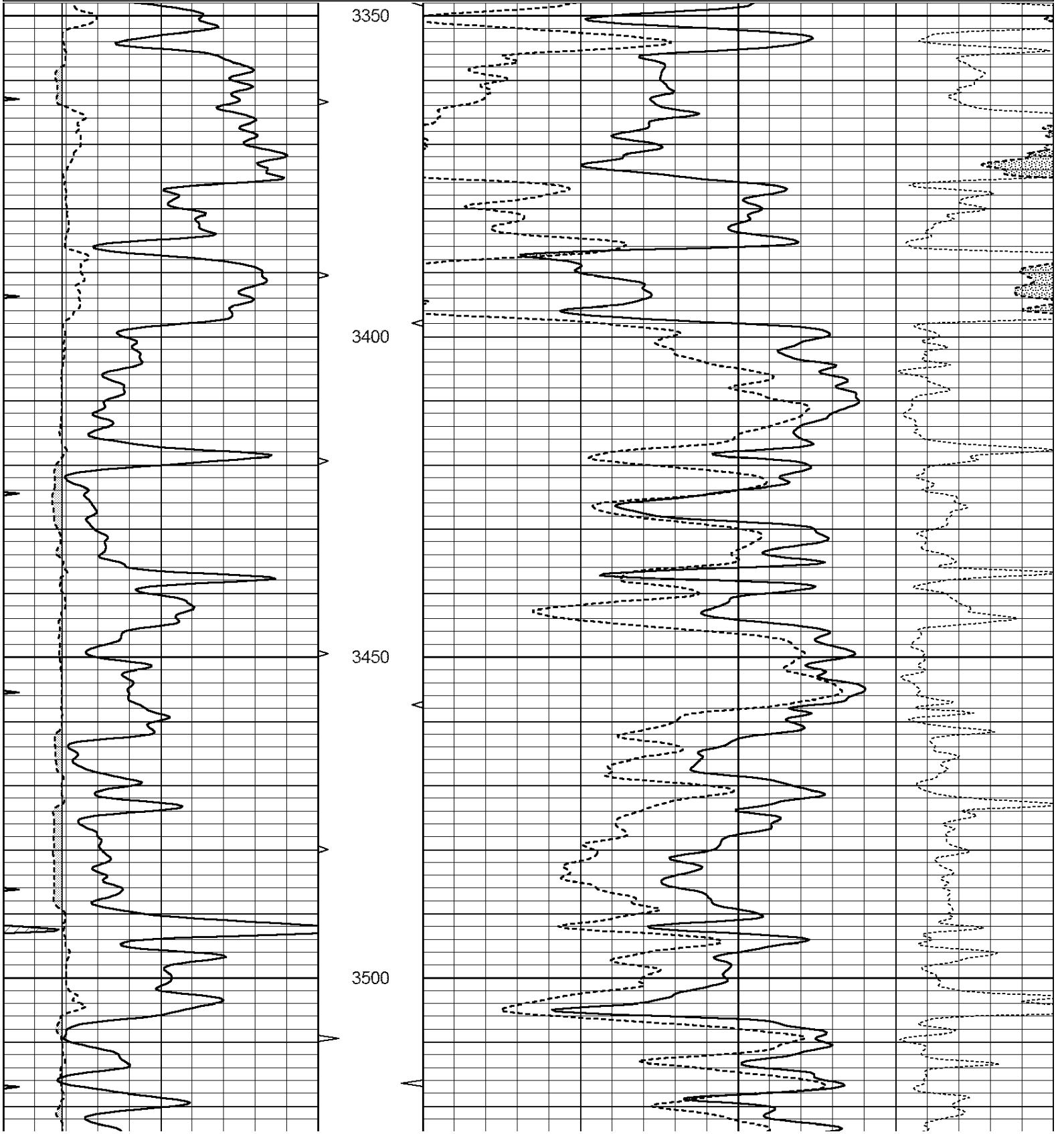
THANK YOU FOR USING NABORS, HAYS, KS. (785) 628-6395  
 DIRECTIONS:  
 I 70 @ RIGA EXIT - 3 NORTH - 1 EAST - 1/4 NORTH - EAST INTO

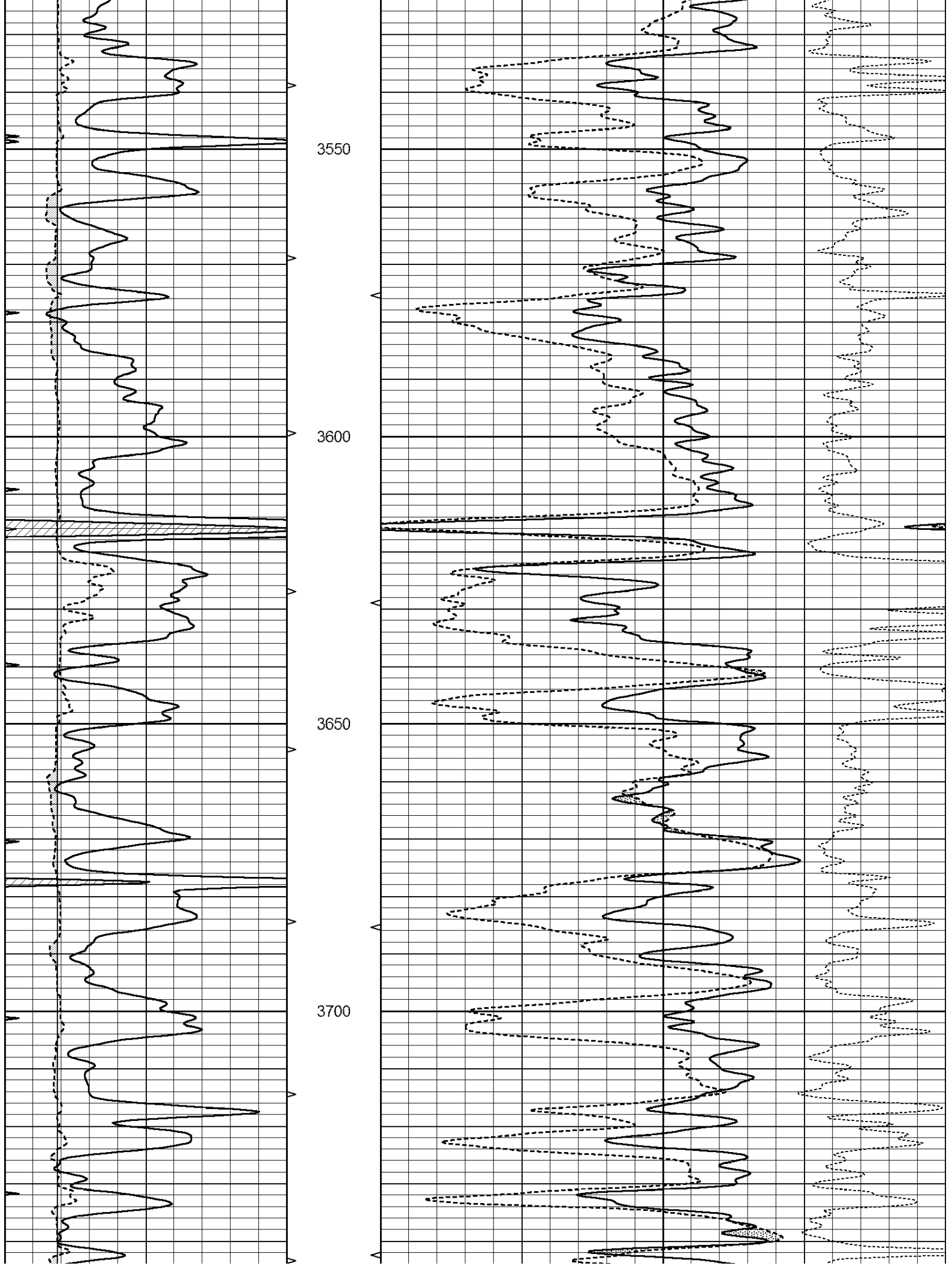


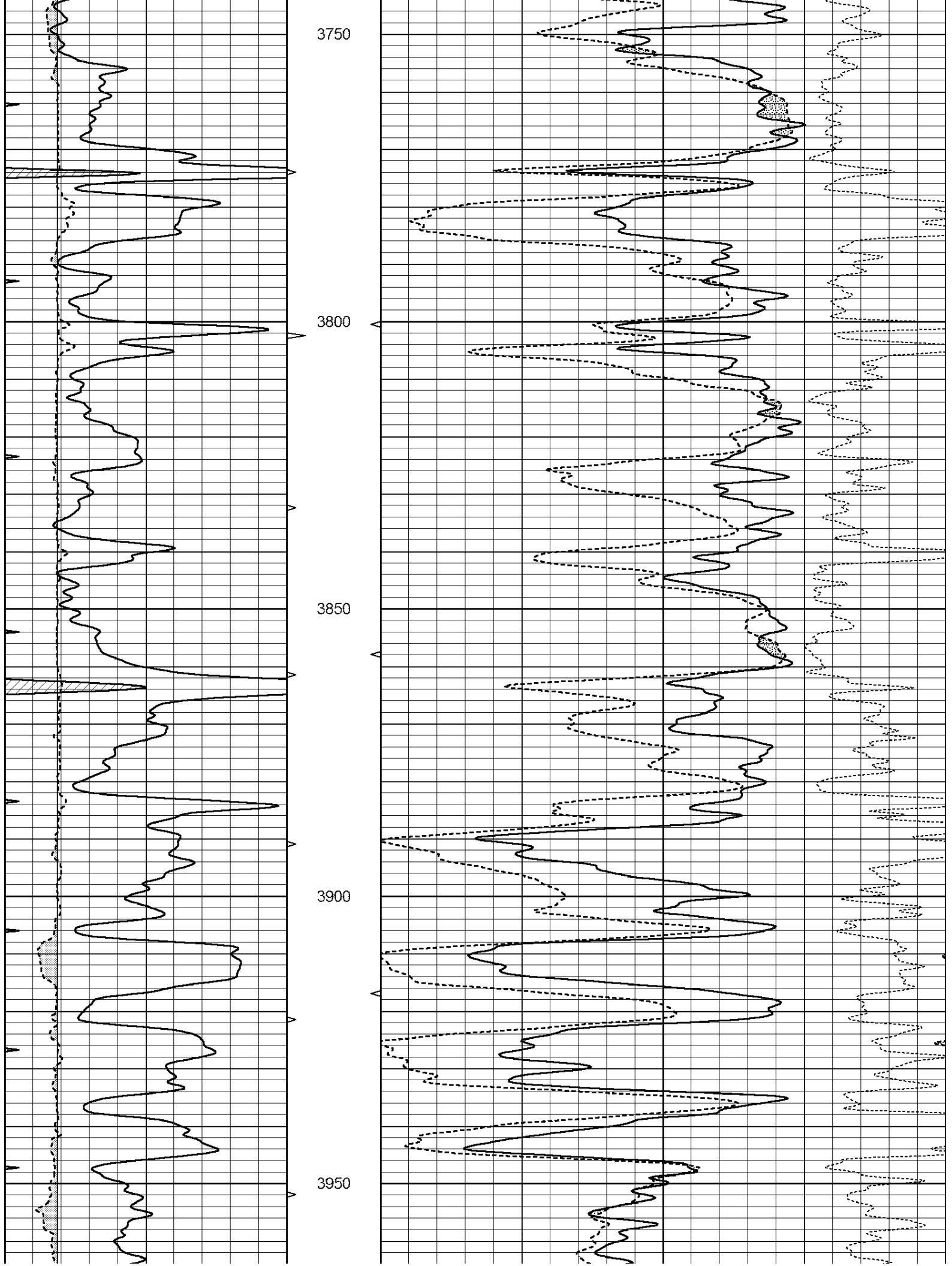
**MAIN SECTION**

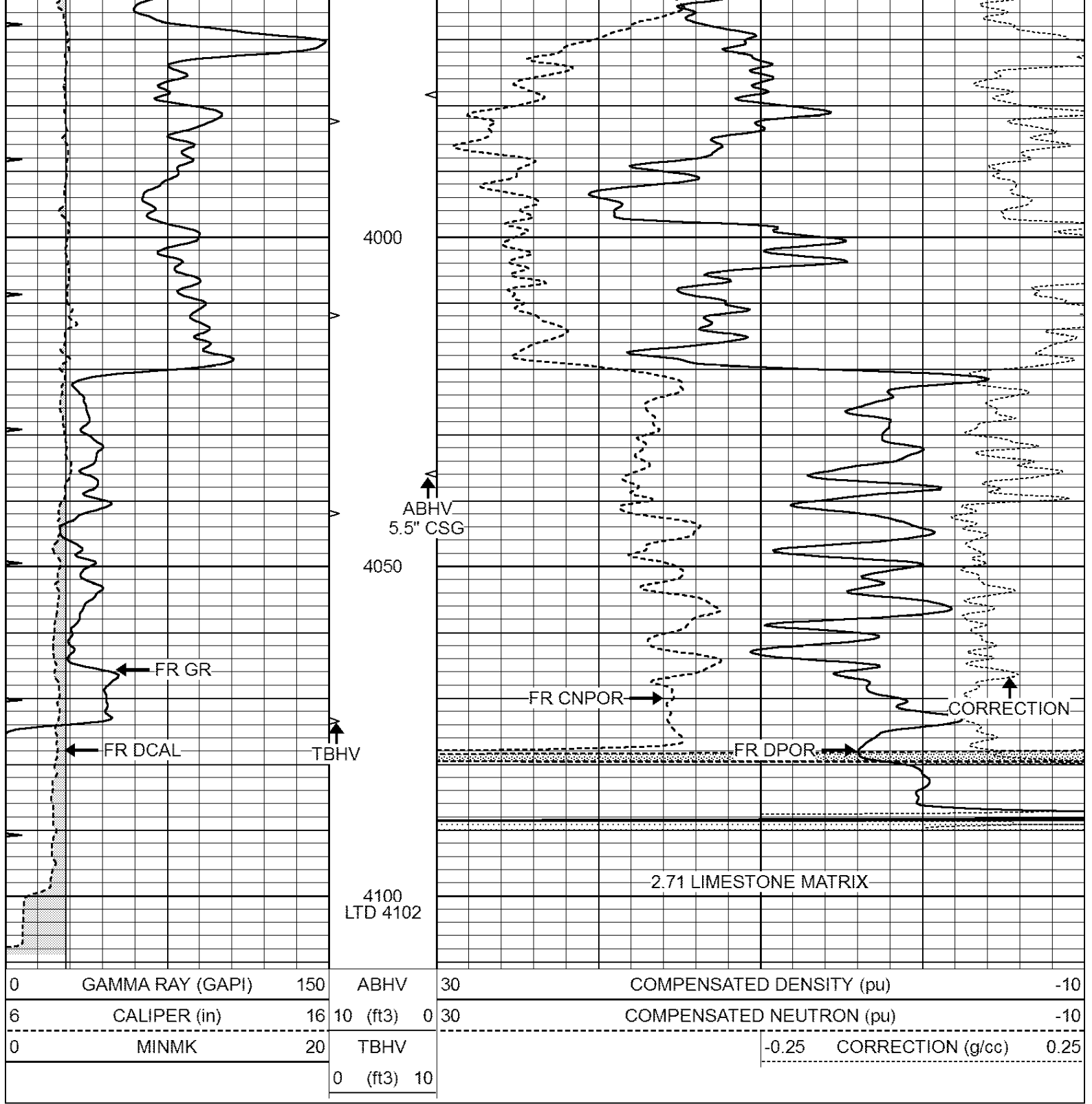
Database File: 24240ddn.db  
 Dataset Pathname: pass3.1  
 Presentation Format: den\_neu  
 Dataset Creation: Thu May 08 08:38:36 2014 by Calc Open-Cased 090629  
 Charted by: Depth in Feet scaled 1:240

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		







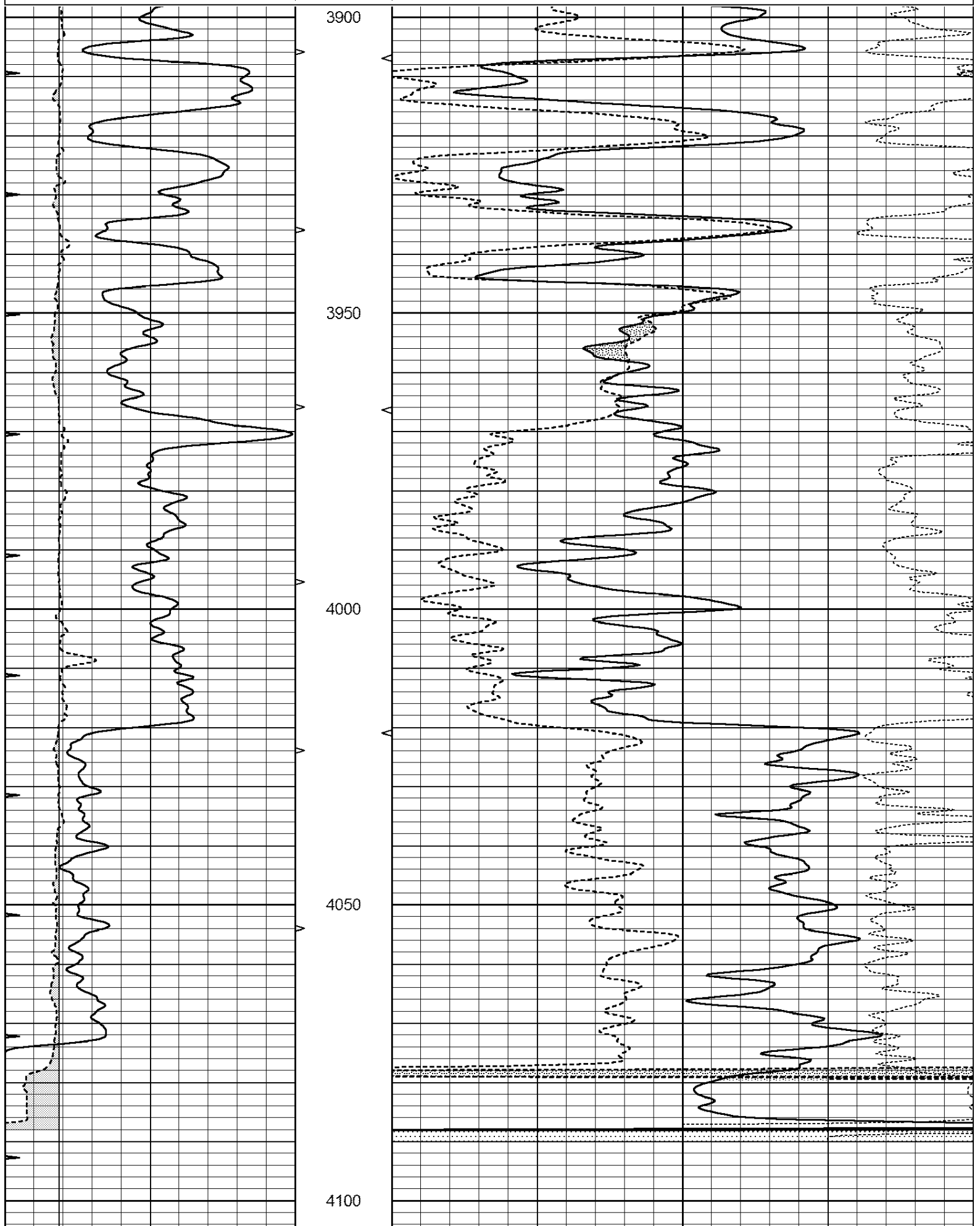


# REPEAT SECTION

Database File: 24240ddn.db  
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 Presentation Format: den\_neu  
 Dataset Creation: Thu May 08 08:35:00 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		

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

### Calibration Report

Database File: 24240ddn.db  
 Dataset Pathname: pass2.2  
 Dataset Creation: Thu May 08 08:35:00 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

Loop:	Readings			References			Results	
	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'
Deep	0.000	0.000	mmho/m	2.011	405.777	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	7.590	503.393	mmho/m	1.000	0.000
LL3		7.500	V		1500.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		3800.000	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		

### Compensated Density Calibration Report

Serial-Model: GEAR4-GEARHART  
 Source / Verifier: 143 / 143  
 Master Calibration Performed: Wed Sep 18 03:03:09 2013  
 Before Survey Verification Performed:  
 After Survey Verification Performed:

#### Master Calibration

Density
Far Detector
Near Detector

Magnesium	1.710	g/cc	1075.98	532.39	cps
Aluminum	2.560	g/cc	286.51	422.88	cps

Spine Angle = 80.13

Density/Spine Ratio = 0.633

	Size		Reading	
Small Ring	8.00	in	3.21	V
Large Ring	14.00	in	5.46	V

Before Survey Verification

Target		Measured	
	g/cc		g/cc
	g/cc		g/cc
	g/cc		g/cc

After Survey Verification

Target		Measured	
	g/cc		g/cc
	g/cc		g/cc
	g/cc		g/cc

Compensated Neutron Calibration Report

Serial Number: 6I  
Tool Model: G

CALIBRATION

Detector	Readings		Target		Normalization
Short Space	1.00	cps	1.00	cps	1.0000
Long Space	1.00	cps	1.00	cps	1.0000

PRE-SURVEY VERIFICATION

	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