

**COMPLETION
& PRODUCTION
SERVICES CO.**

**COMPENSATED
DENSITY / NEUTRON
LOG**

Company RICHLAN DRILLING
Well SCHREIBER #3
Field
County BARTON State KANSAS

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Well SCHREIBER #3
Field
County BARTON
State KANSAS

Location: API #: 15-009-25807
370' FSL & 1280' FWL
SEC 17 TWP 16S RGE 12W
Other Services
DIL
MICRO
Elevation
K.B. 1894
D.F.
G.L. 1887

Date	1-30-13		
Run Number	ONE		
Depth Driller	3443		
Depth Logger	3443		
Bottom Logged Interval	3419		
Top Log Interval	2700		
Casing Driller	425		
Casing Logger	425		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.3 / 56		
pH / Fluid Loss	10.5 / 8.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.10 @ 58F		
Rmf @ Meas. Temp	0.83 @ 58F		
Rmc @ Meas. Temp	1.32 @ 58F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	.590 @ 109F		
Time Circulation Stopped	10:00 P.M.		
Time Logger on Bottom	12:00 A.M.		
Maximum Recorded Temperature	109F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	RUPP		
Witnessed By	BOB SCHREIBER	RICK SCHREIBER	

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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 PRODUCTION & COMPLETION SERVICES
785-628-6395
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: BEAVER, 1N, 1/2W, N INTO.

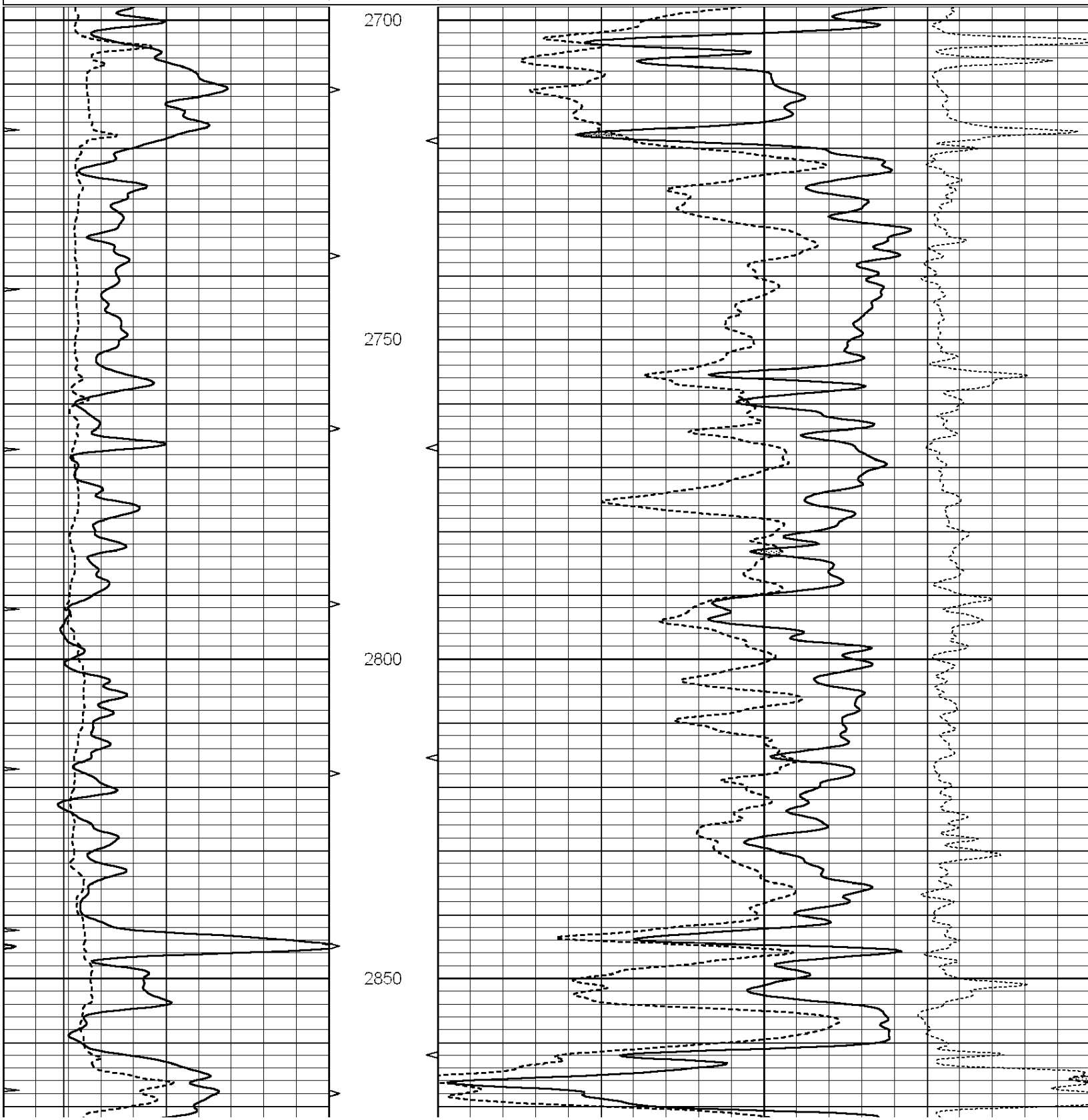


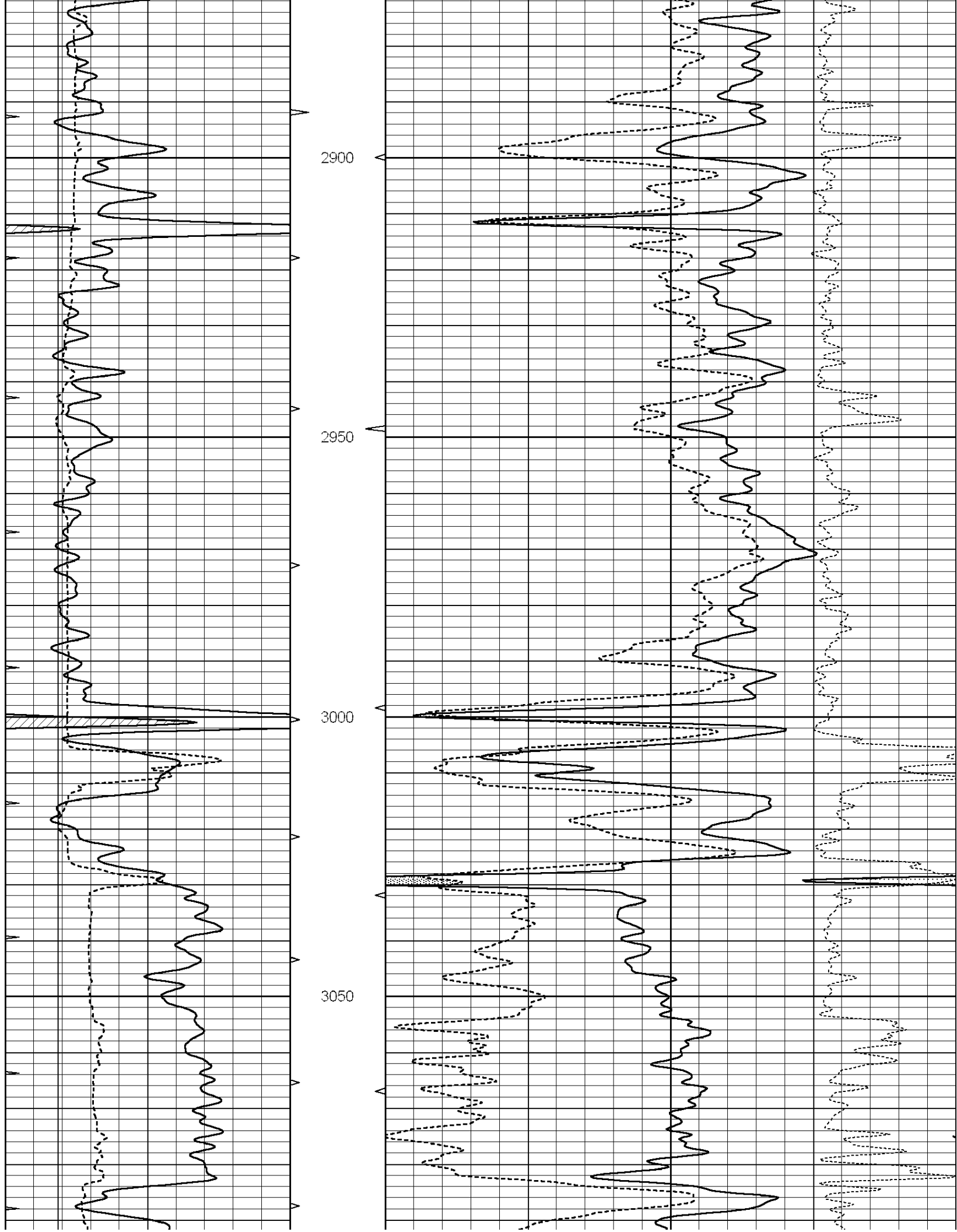
**COMPLETION
& PRODUCTION**

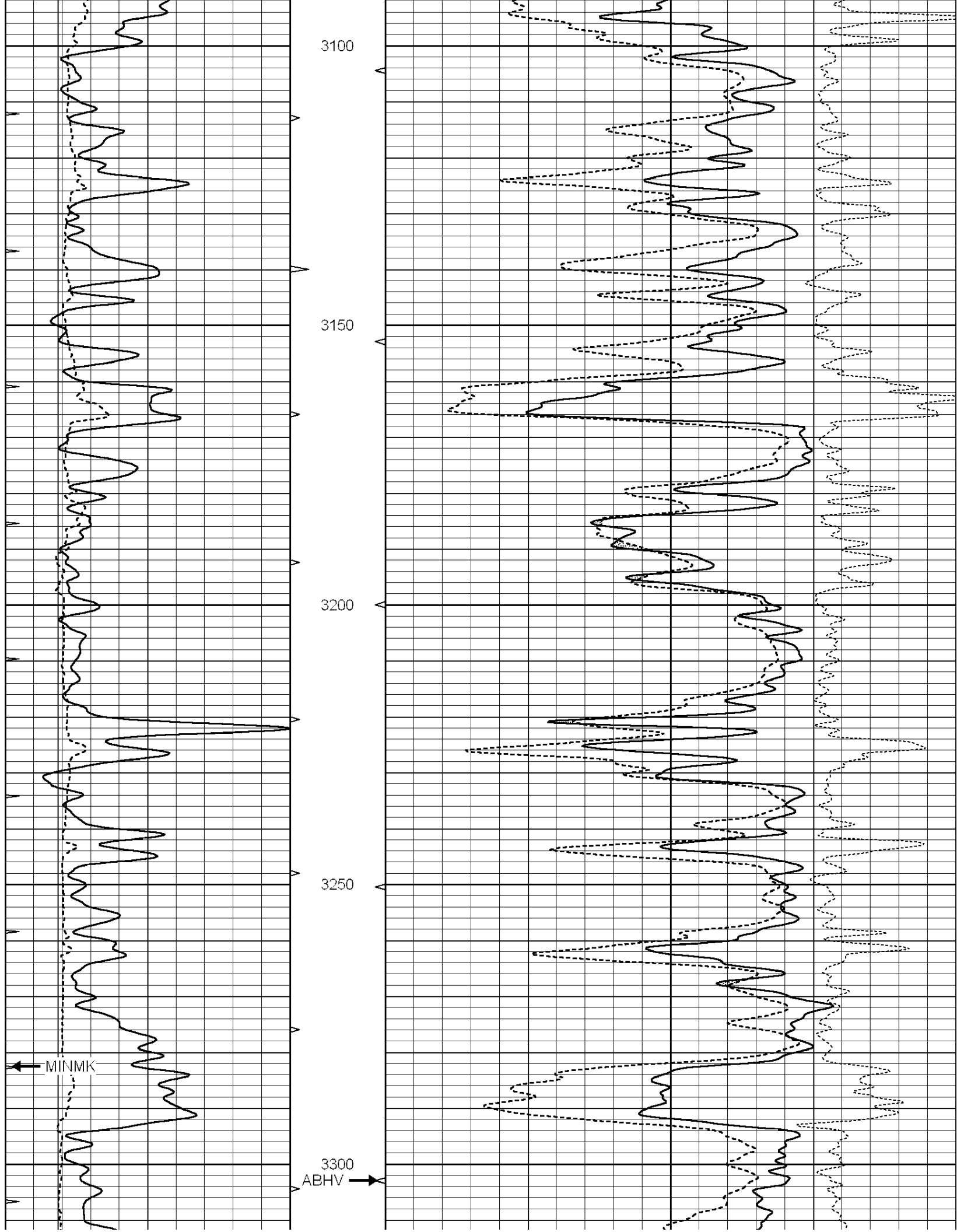
MAIN SECTION

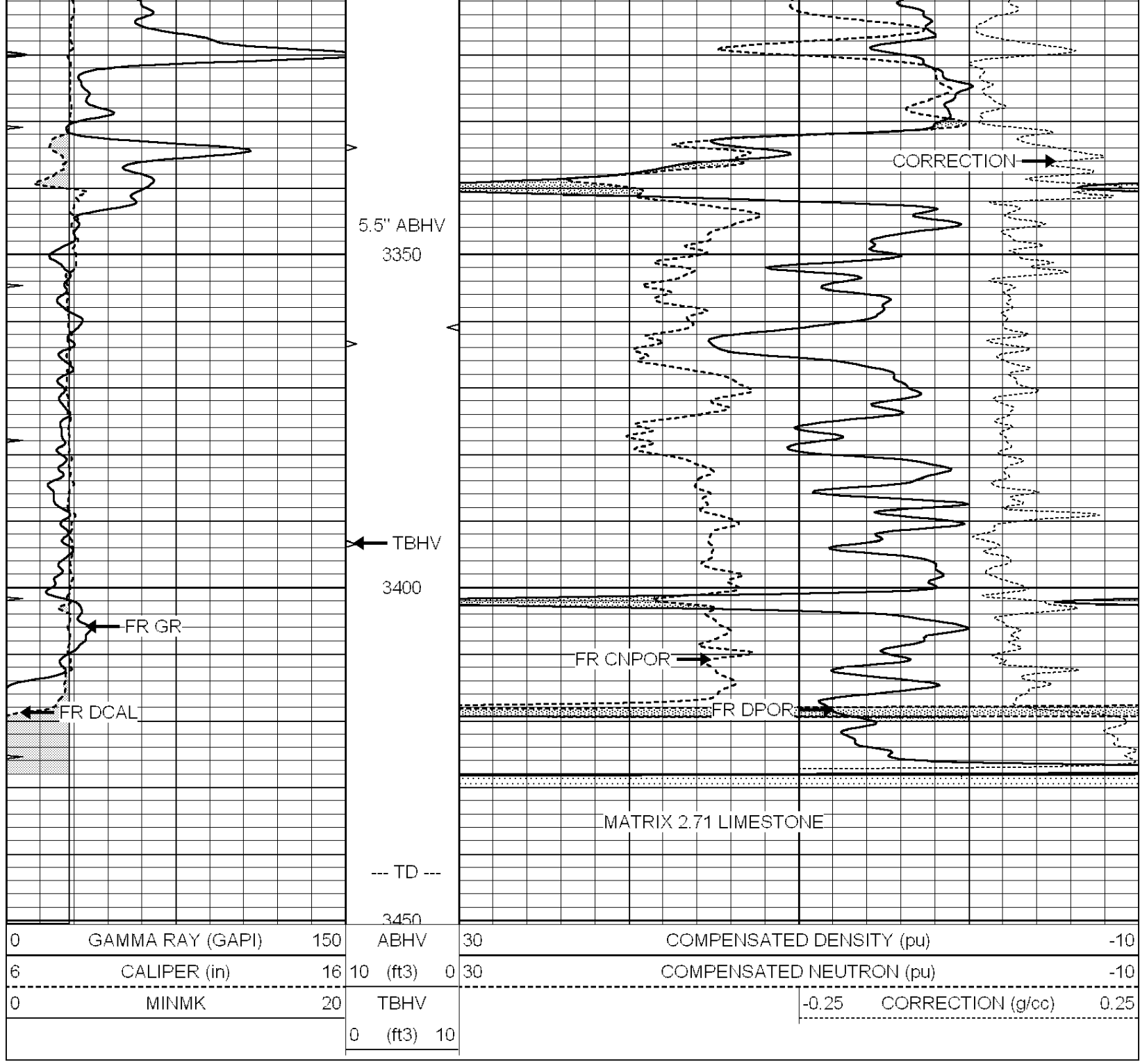
Database File: 010663ddn.db
 Dataset Pathname: pass3.1A
 Presentation Format: den_neu
 Dataset Creation: Thu Jan 31 00:55:22 2013
 Charted by: Depth in Feet scaled 1:240

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







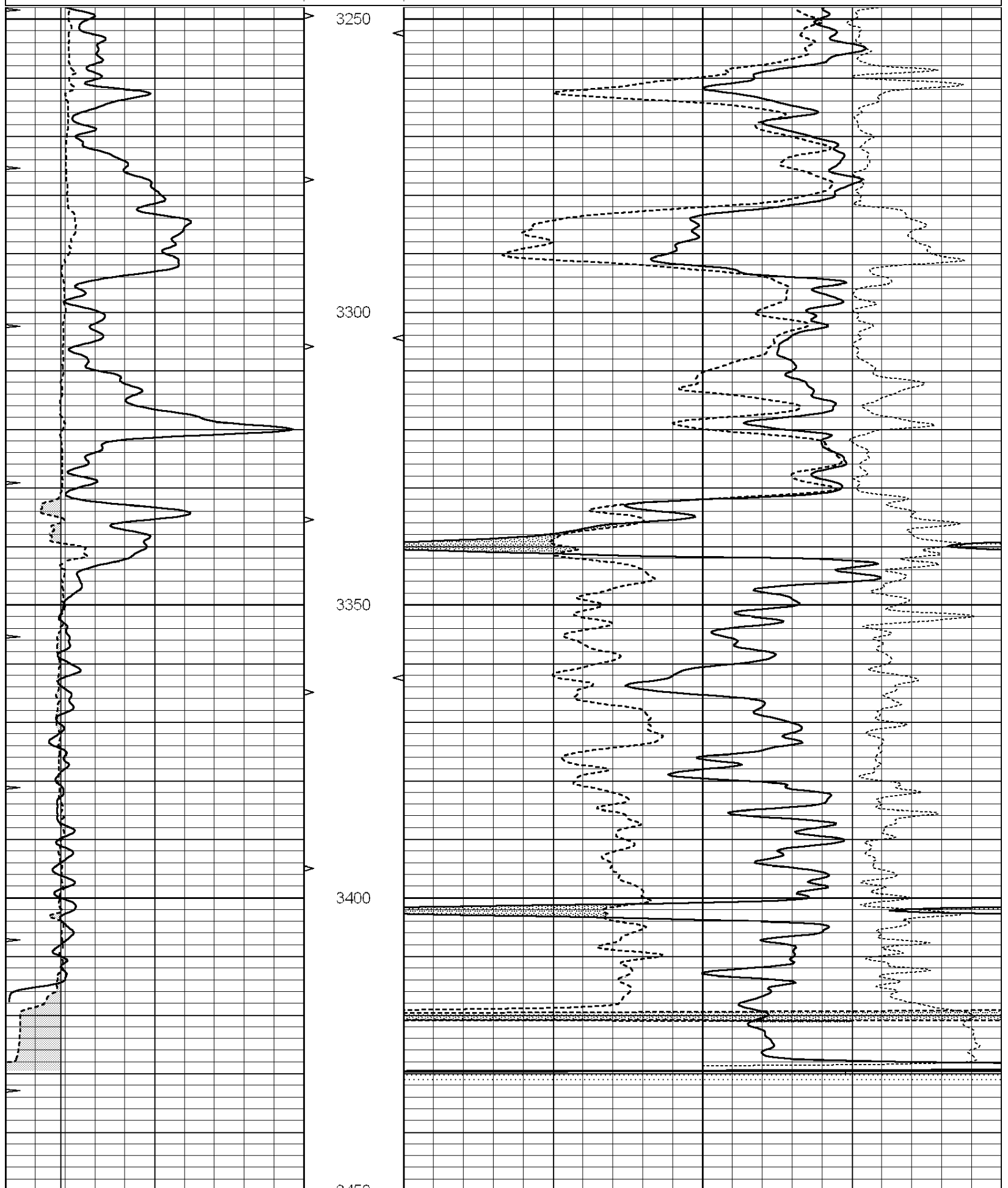


REPEAT SECTION

Database File: 010663ddn.db
 Dataset Pathname: pass2.1A
 Presentation Format: den_neu
 Dataset Creation: Thu Jan 31 01:05:24 2013
 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	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
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0	MINMK	20	TRHV	0 25	CORRECTION (ploc)	0 25
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Calibration Report

Database File: 010663ddn.db
 Dataset Pathname: pass3.1A
 Dataset Creation: Thu Jan 31 00:55:22 2013

Dual Induction Calibration Report

Serial-Model: PROBE7-DILG
 Surface Cal Performed: Thu Jan 31 00:06:17 2013
 Downhole Cal Performed: Sat Jan 19 19:51:38 2013
 After Survey Verification Performed: Sat Jan 19 19:51:38 2013

Surface Calibration

		Readings			References			Results	
Loop:	Air	Loop	V	Air	Loop		m	b	
Deep	0.793	0.790	V	0.000	400.000	mmho/m	630.000	0.000	
Medium	0.992	1.002	V	0.000	464.000	mmho/m	700.000	-50.000	
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			

Compensated Density Calibration Report

Serial-Model: GEAR1-GEARHART
 Source / Verifier: 147 / 147
 Master Calibration Performed: Wed Jan 30 22:25:35 2013

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1205.77	610.74	cps
Aluminum	2.590	g/cc	271.21	419.72	cps
Spine Angle = 75.89			Density/Spine Ratio = 0.572		
	Size		Reading		
Small Ring	7.00	in	4.69	V	

Large Ring

14.00

in

6.52

V

Compensated Neutron Calibration Report

Serial Number:

NEU_4I

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

Gamma Ray Calibration Report

Serial Number:

GR5

Tool Model:

OPEN

Performed:

Thu Jan 31 00:13:22 2013

Calibrator Value:

1.0

GAPI

Background Reading:

0.0

cps

Calibrator Reading:

1.0

cps

Sensitivity:

2.4000

GAPI/cps