



**SUPERIOR  
Hays,  
Kansas**

**COMPENSATED  
DENSITY / NEUTRON  
LOG**

Company CHARTER ENERGY, INC.  
Well WERTH #1  
Field  
County ELLIS  
State KANSAS

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Well WERTH #1  
Field  
County ELLIS State KANSAS

Location: 330' FNL & 1020' FEL  
SEC 11 TWP 15S RGE 18W  
API #: NO INTENT ON RIG  
Permanent Datum GROUND LEVEL Elevation 2012  
Log Measured From KELLY BUSHING 7' A.G.L.  
Drilling Measured From KELLY BUSHING  
Other Services  
DIL  
SONIC/MICRO  
Elevation  
K.B. 2019  
D.F.  
G.L. 2012

Date	3-13-12
Run Number	ONE
Depth Driller	3603
Depth Logger	3606
Bottom Logged Interval	3582
Top Log Interval	3100
Casing Driller	1188
Casing Logger	1188
Bit Size	7.875
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.2 / 58
pH / Fluid Loss	8.5 / 10.4
Source of Sample	FLOWLINE
Rm @ Meas. Temp	0.75 @ 68F
Rmf @ Meas. Temp	0.56 @ 68F
Rmc @ Meas. Temp	0.90 @ 68F
Source of Rmf / Rmc	MEASURED
Rm @ BHT	.460 @ 111F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	1:15 A.M.
Maximum Recorded Temperature	111F
Equipment Number	860
Location	HAYS, KS.
Recorded By	RUPP
Witnessed By	KURT TALBOTT

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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

SUPERIOR WELL SERVICES  
785-628-6395  
THANK YOU FOR YOUR BUSINESS  
DIRECTIONS: HAYS & OLD #40, 6S, 2E, S INTO.

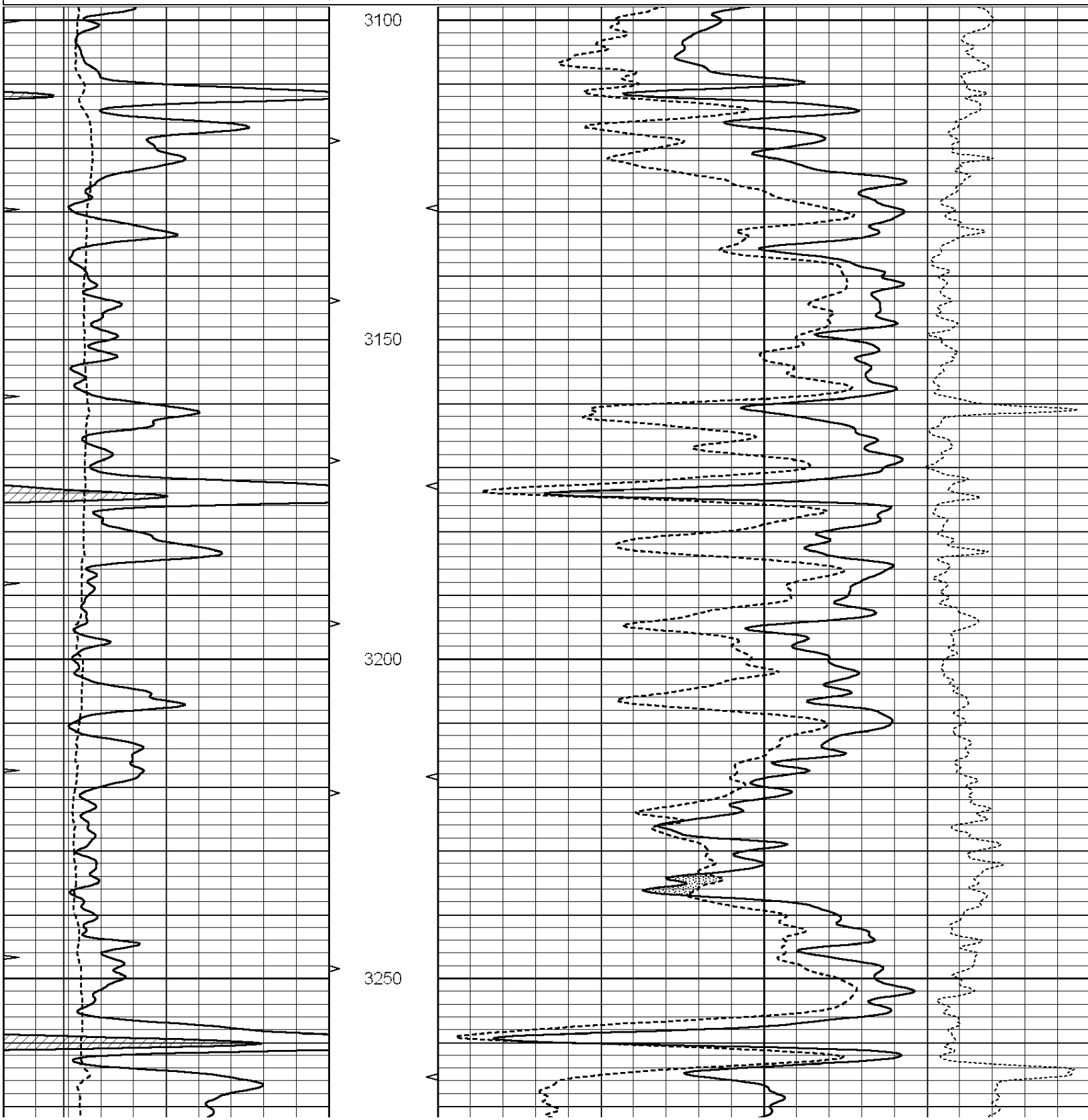


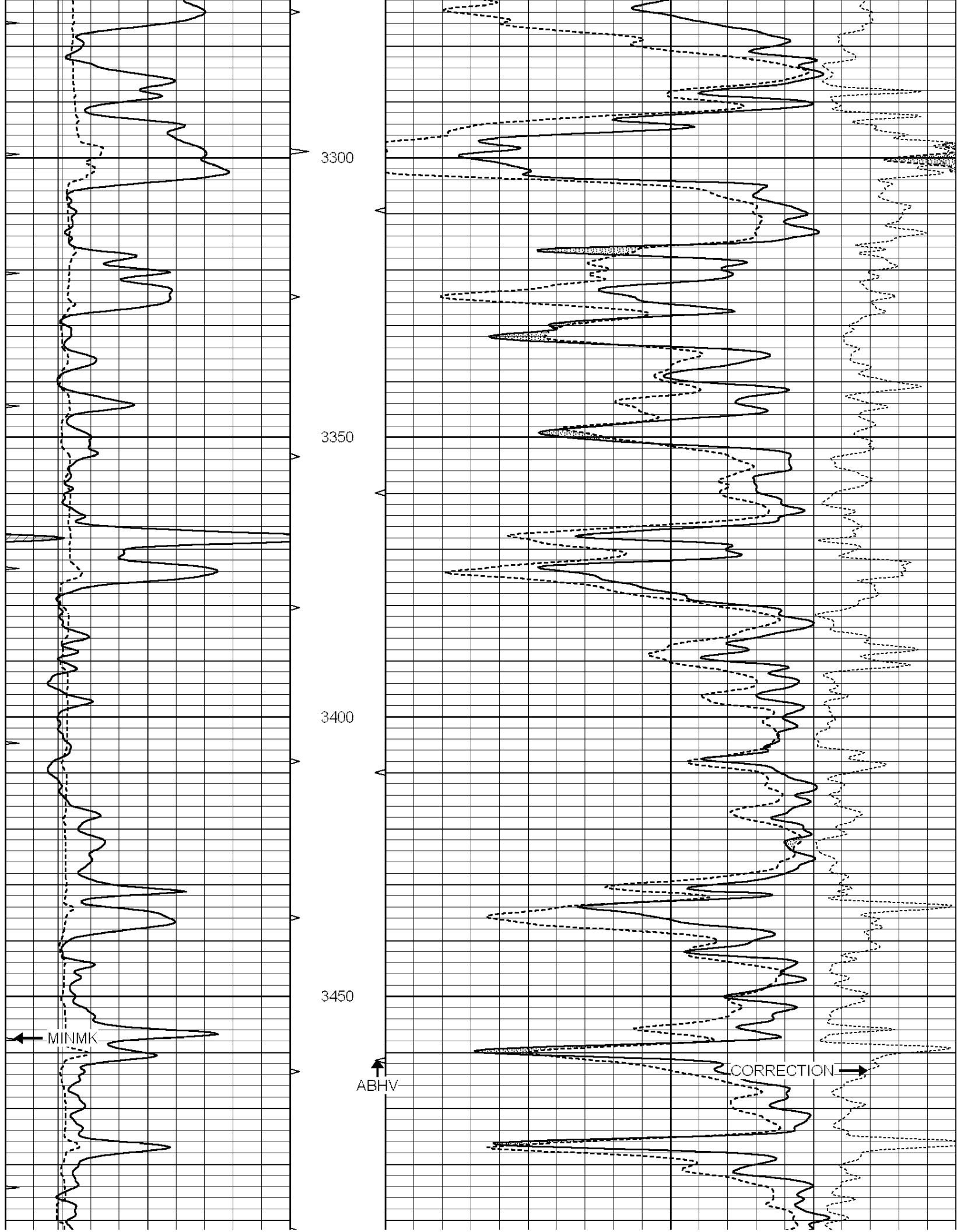
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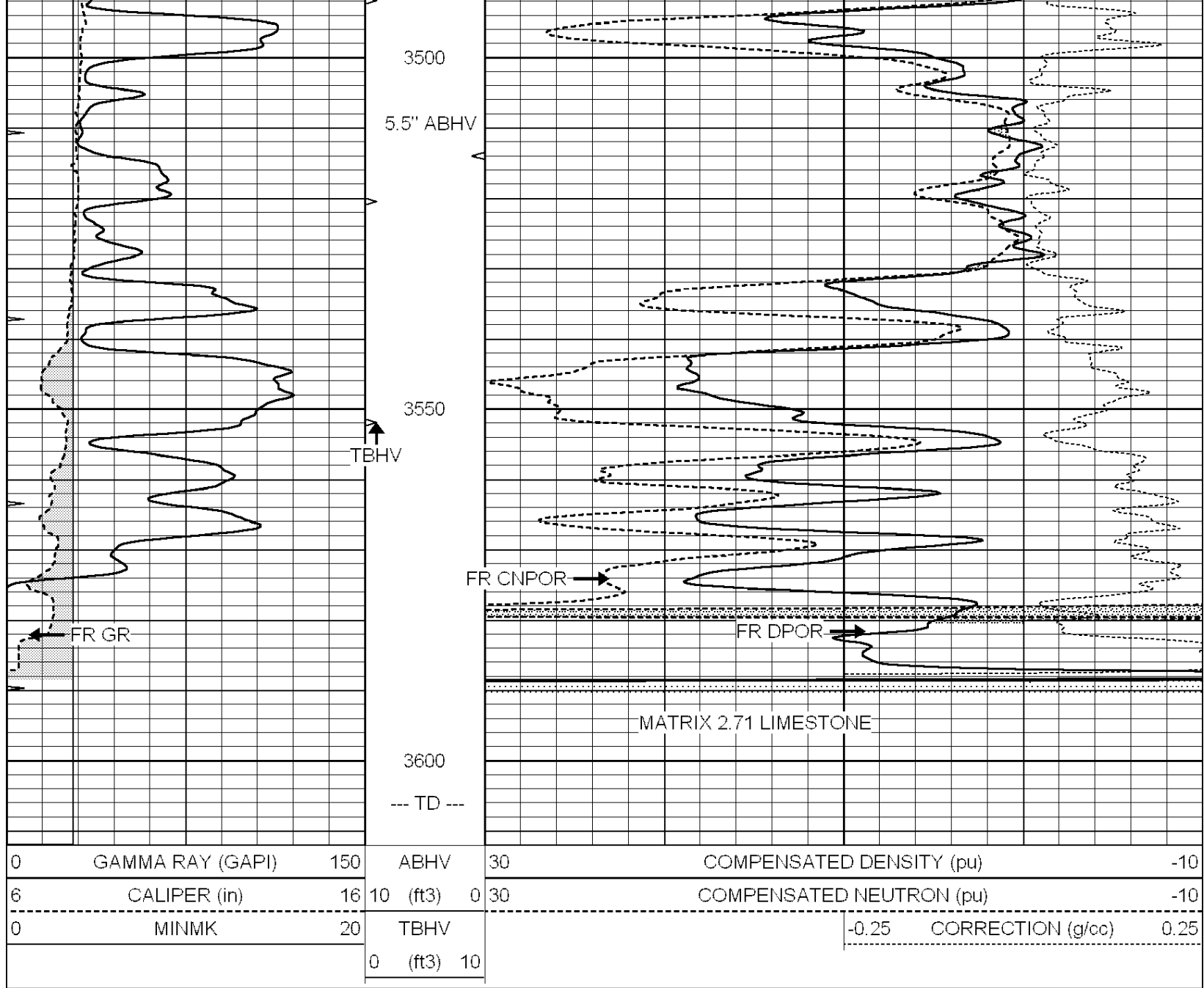
**MAIN SECTION**

Database File: 008495ddn.db  
 Dataset Pathname: pass3.A  
 Presentation Format: den\_neu  
 Dataset Creation: Tue Mar 13 02:38:53 2012  
 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		





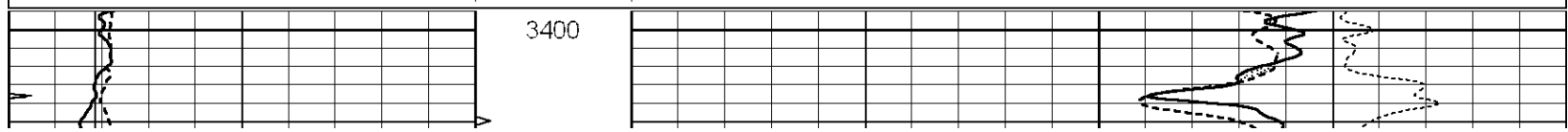


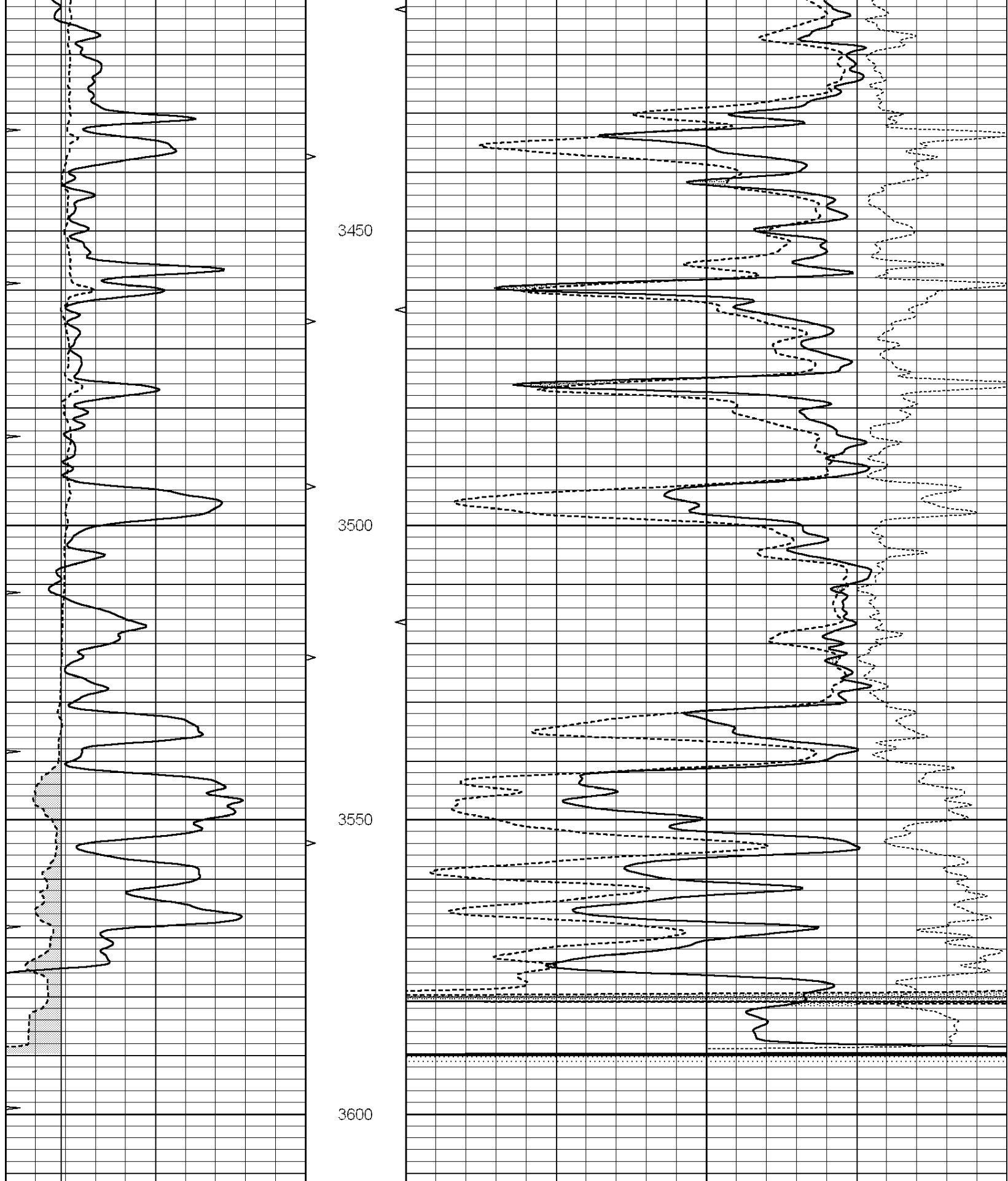

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# REPEAT SECTION

Database File: 008495ddn.db  
 Dataset Pathname: pass2.A  
 Presentation Format: den\_neu  
 Dataset Creation: Tue Mar 13 02:47:39 2012  
 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	
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: 008495ddn.db  
 Dataset Pathname: pass3.A  
 Dataset Creation: Tue Mar 13 02:38:53 2012

Dual Induction Calibration Report

Serial-Model: PROBE9-DILG  
 Surface Cal Performed: Tue Mar 13 00:58:32 2012  
 Downhole Cal Performed: Mon Jul 28 12:02:56 2008  
 After Survey Verification Performed: Mon Jul 28 12:02:56 2008

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	580.000	-15.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	540.000	-17.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.011	0.610	V	0.000	400.000	mmho/m	667.135	-7.256
Medium	0.005	0.712	V	0.000	464.000	mmho/m	655.677	-3.102

Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	14.508	388.384	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	166.367	504.400	mmho/m	1.000	0.000
LL3		7.500	V		1400.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		3970.000	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: GEAR1-GEARHART  
 Source / Verifier: 147 / 147  
 Master Calibration Performed: Tue Mar 13 00:58:17 2012

Master Calibration

	Density		Far Detector		Near Detector	
Magnesium	1.710	g/cc	1243.76		629.14	cps
Aluminum	2.590	g/cc	282.16		435.01	cps
Spine Angle = 76.03			Density/Spine Ratio = 0.576			
	Size		Reading			
Small Ring	9.35	in	3.50		V	
Large Ring	14.00	in	5.30		V	

Compensated Neutron Calibration Report

Serial Number: NUE\_2I  
 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: Tue Mar 13 00:57:55 2012

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps  
 Calibrator Reading: 1.0 cps

Sensitivity: 0.7000 GAPI/cps