



SUPERIOR
Hays,
Kansas

**COMPENSATED
DENSITY
NEUTRON LOG**

Company BUFFALO RESOURCES, LLC
Well NEY #1-23
Field ELSASSER
County RUSSELL
State KANSAS

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Well NEY #1-23
Field ELSASSER
County RUSSELL State KANSAS

Location: API #: 15-167-23569
1660' FSL & 1210' FEL
SEC 23 TWP 12S RGE 15W
Permanent Datum GROUND LEVEL Elevation 1781
Log Measured From KELLY BUSHING 8' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
DIL
SONIC/MEL
Elevation
K.B. 1789
D.F.
G.L. 1781

Date	9-21-09		
Run Number	ONE		
Depth Driller	3285		
Depth Logger	3287		
Bottom Logged Interval	3263		
Top Log Interval	2600		
Casing Driller	440		
Casing Logger	NA		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.3 / 52		
pH / Fluid Loss	10.5 / 8.8		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	0.55 @ 78F		
Rinf @ Meas. Temp	0.41 @ 78F		
Rmc @ Meas. Temp	0.66 @ 78F		
Source of Rinf / Rmc	MEASURED		
Rim @ BHT	.400 @ 108F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	12:50 A.M.		
Maximum Recorded Temperature	108F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	RUPP		
Witnessed By	CURTIS COVEY		

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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: RUSSELL, 9N TO MELLARD RD., 3W, 1/2N, 2 1/4W TO STOP SIGN, 1/2S, W INTO.

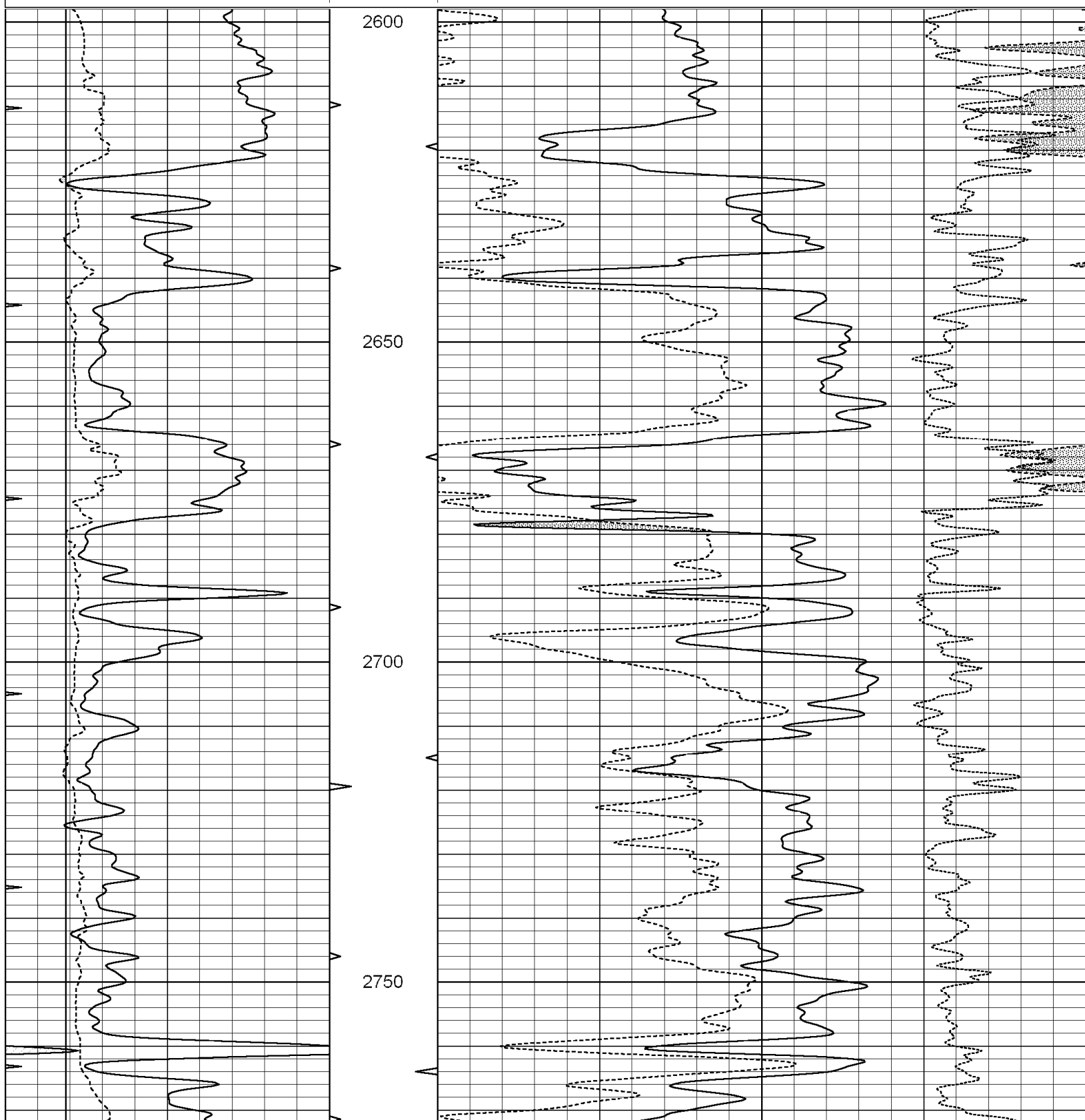


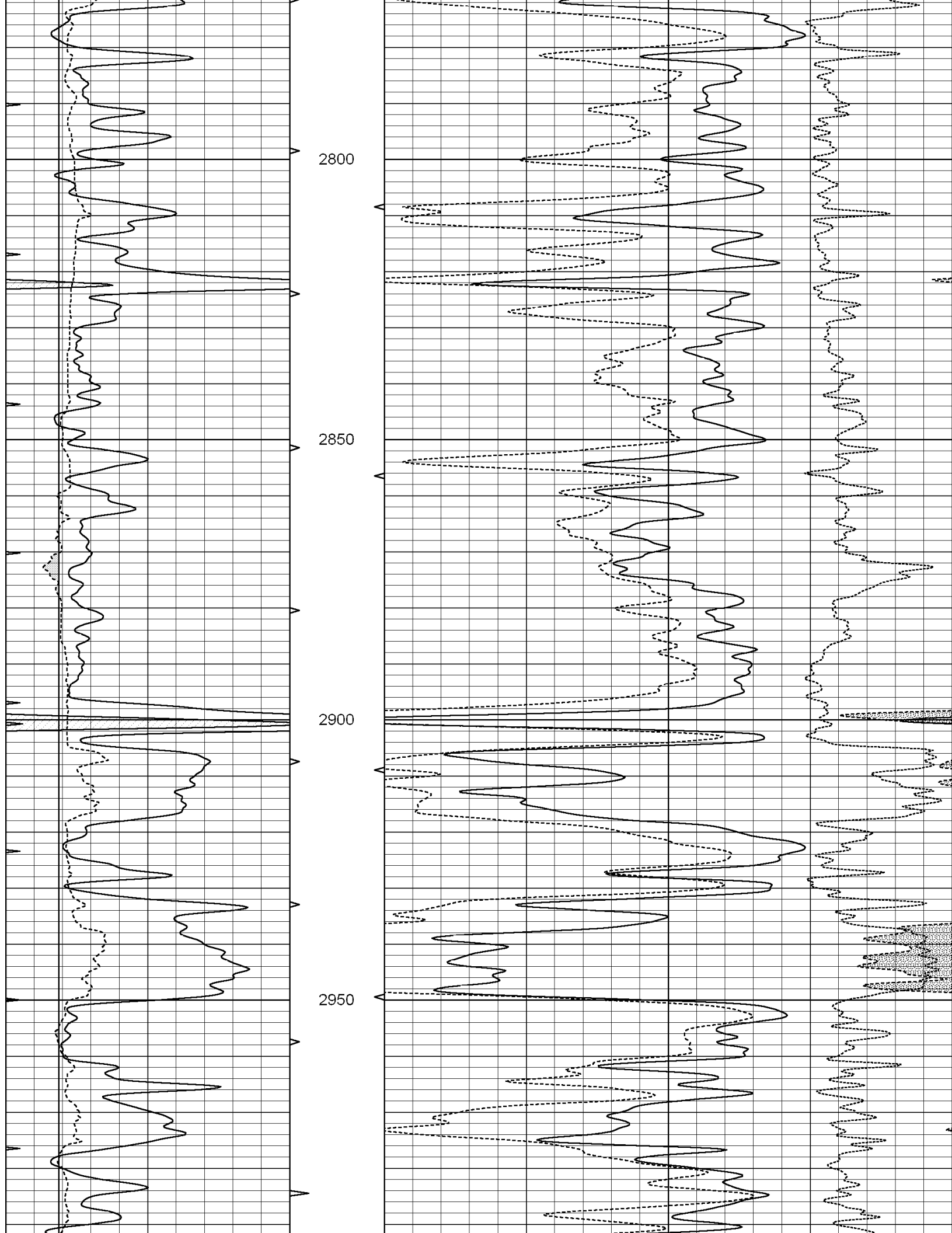
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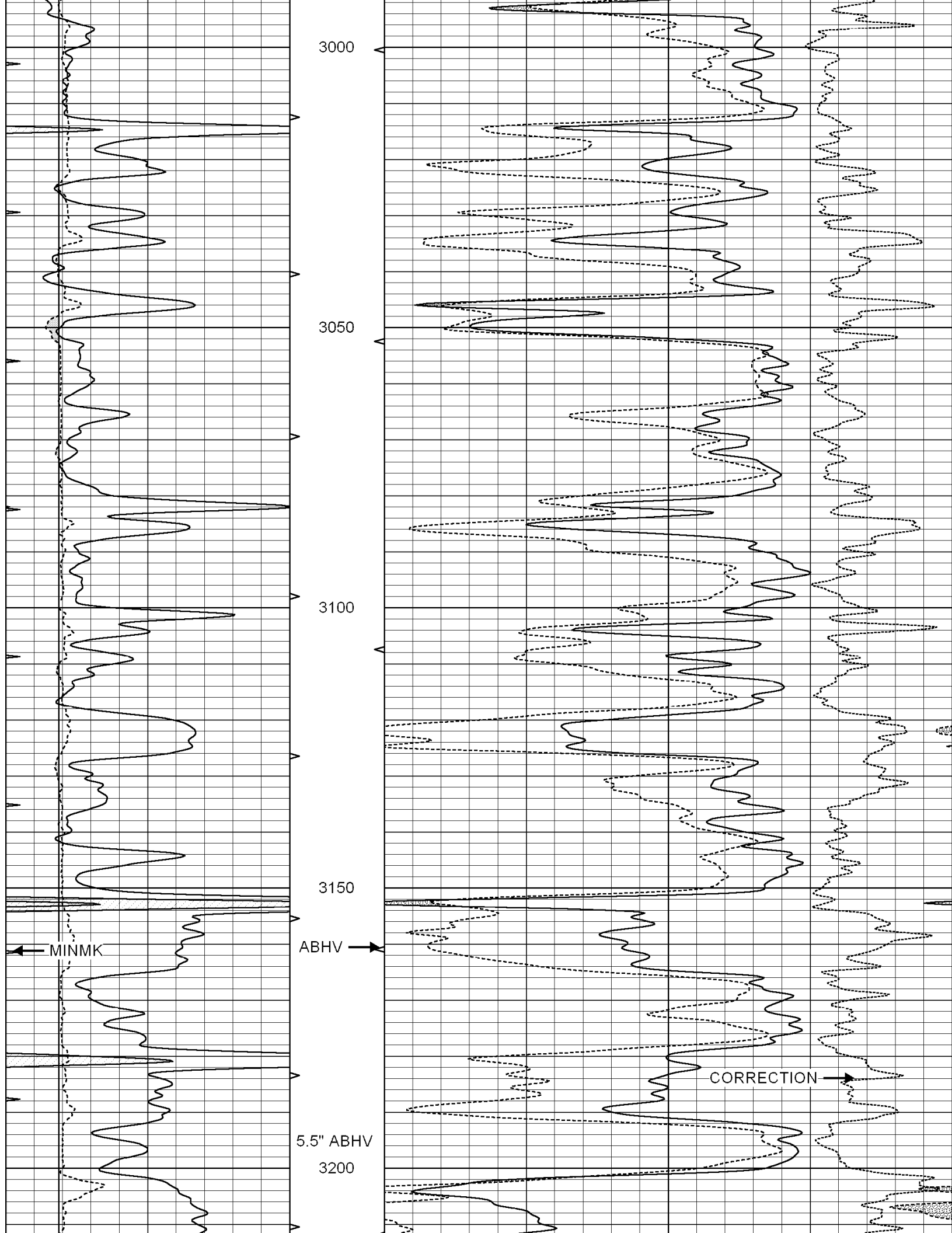
MAIN SECTION

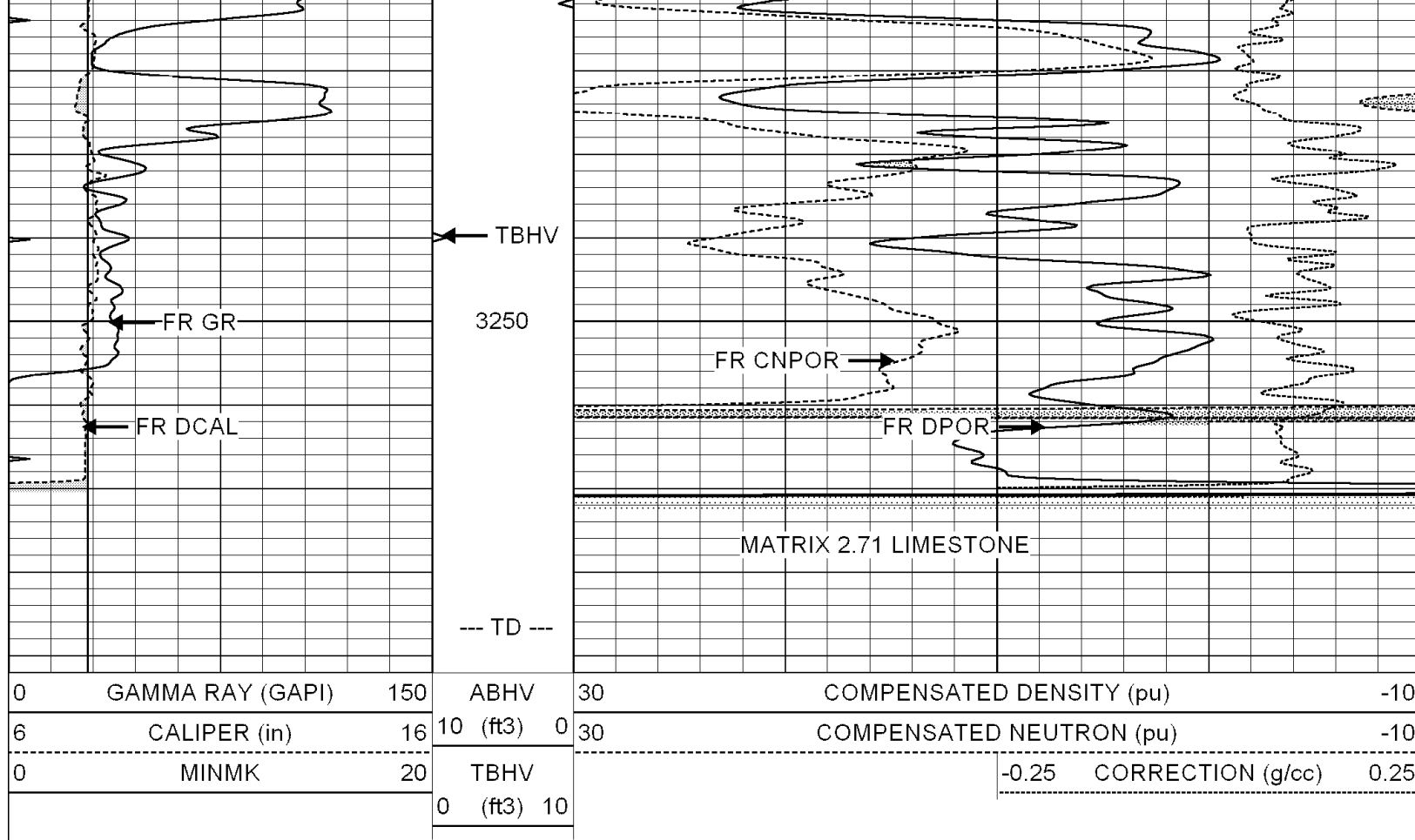
Database File: 004258ddn.db
Dataset Pathname: pass3.1
Presentation Format: den_neu
Dataset Creation: Mon Sep 21 01:55:13 2009 by Calc Open-Cased 051020
Charted by: Depth in Feet scaled 1:240

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			







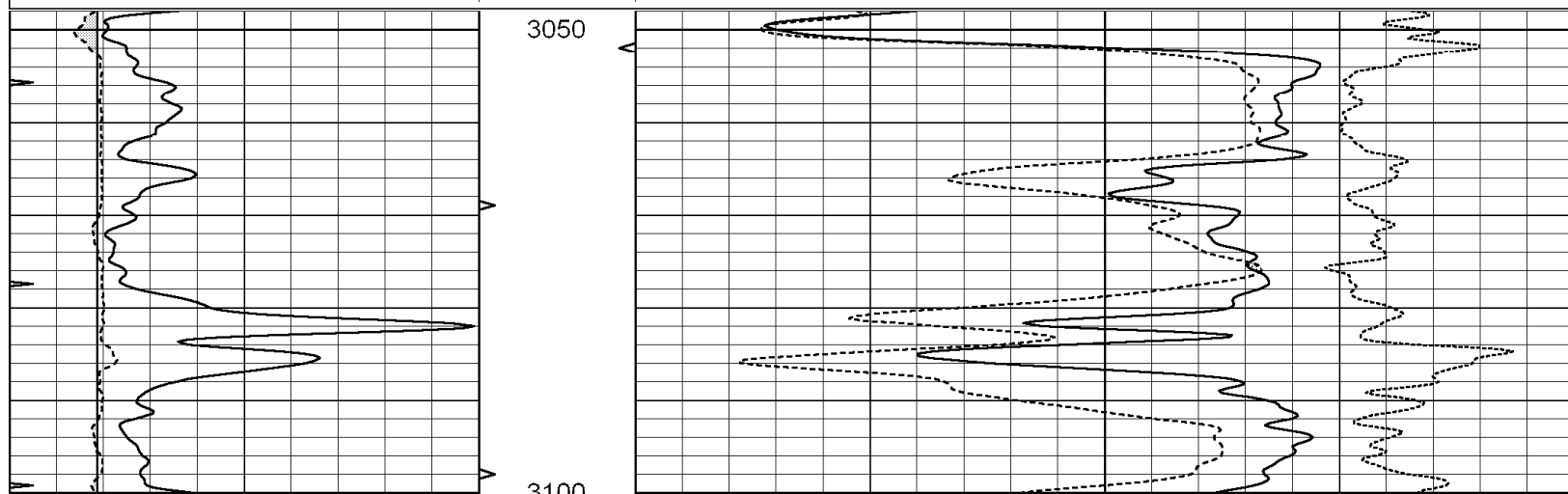


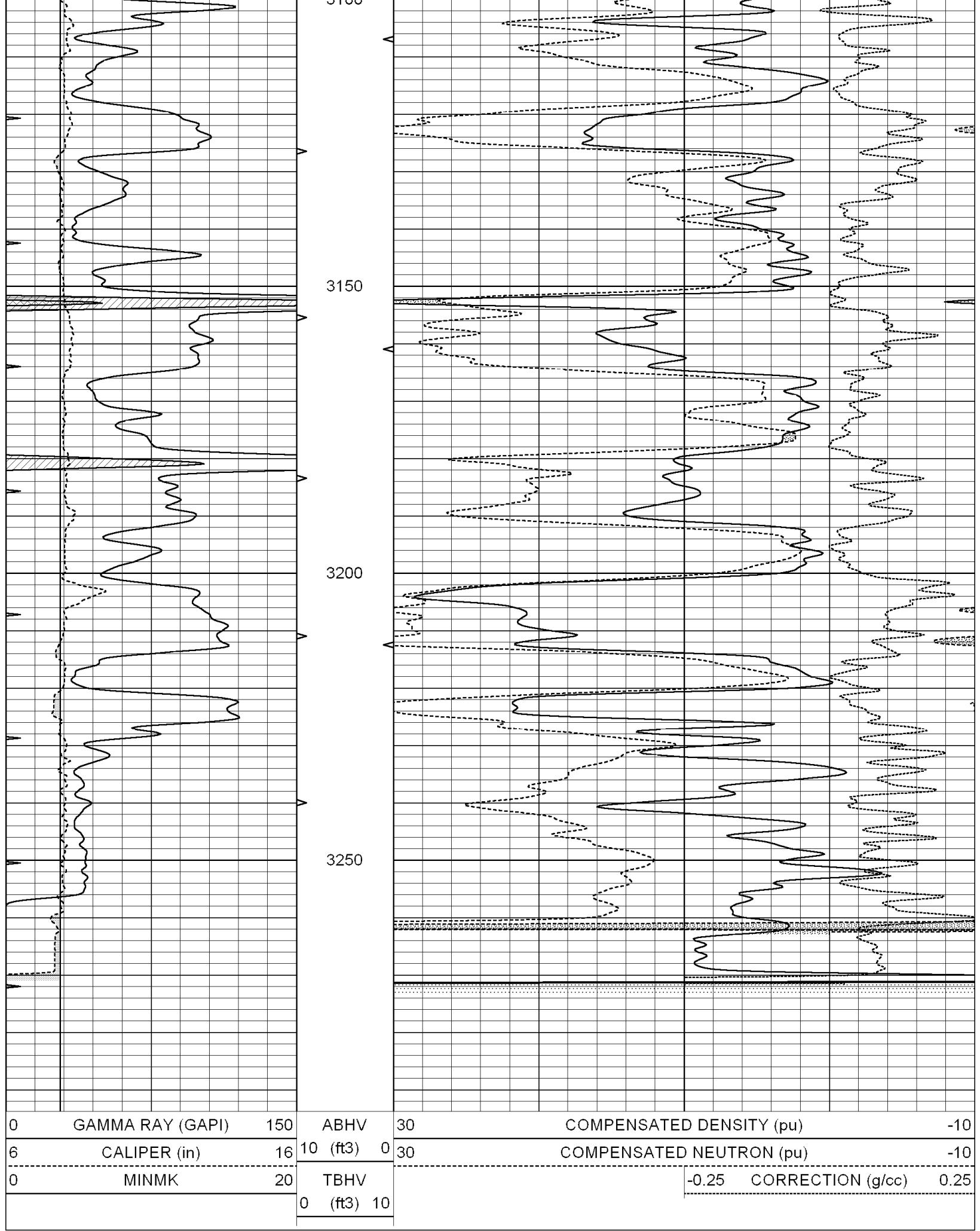
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REPEAT SECTION

Database File: 004258ddn.db
 Dataset Pathname: pass2.1
 Presentation Format: den_neu
 Dataset Creation: Mon Sep 21 00:54:51 2009 by Calc Open-Cased 051020
 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: 004258ddn.db
 Dataset Pathname: pass3.1
 Dataset Creation: Mon Sep 21 01:55:13 2009 by Calc Open-Cased 051020

Dual Induction Calibration Report

Serial-Model: DIL5-GEAR
 Performed: Mon Sep 21 00:49:09 2009

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.004	0.654	V	0.000	400.000	mmho-m	490.000	-8.000
Medium	-0.005	0.737	V	0.000	462.500	mmho-m	450.000	-13.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.006	0.655	V	0.000	400.000	mmho-m	615.668	-3.483
Medium	0.010	0.747	V	0.000	462.500	mmho-m	627.607	-6.064

Compensated Density Calibration Report

Serial-Model: GEAR1-GEARHART
 Source / Verifier: 147 / 147
 Master Calibration Performed: Mon Sep 21 00:35:34 2009

Master Calibration

	Density			Far Detector	Near Detector	
Magnesium	1.710	g/cc		1006.91	528.07	cps
Aluminum	2.610	g/cc		233.49	355.80	cps
Spine Angle = 74.88				Density/Spine Ratio = 0.594		
	Size			Reading		
Small Ring	8.20	in		3.68	V	
Large Ring	14.00	in		6.06	V	

Compensated Neutron Calibration Report

Serial Number: NEU_11
 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 Sep 17 08:10:47 2009

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity: 0.5500 GAPI/cps