



**COMPLETION
& PRODUCTION
SERVICES CO.**

**COMPENSATED
DENSITY / NEUTRON
LOG**

Company	GATEWAY RESOURCES, LLC.		
Well	WORCESTER "A" #1-8		
Field	WILDCAT		
County	GRAHAM	State	KANSAS
Location:	API # : 15-065-23992		Other Services DIL MICRO
900' FSL & 375' FEL			
SEC 8	TWP 7S	RGE 22W	
Permanent Datum	GROUND LEVEL	Elevation	2314
Log Measured From	KELLY BUSHING 5' A.G.L.	K.B. 2319	
Drilling Measured From	KELLY BUSHING	D.F. 2314	
Date	11-23-13		
Run Number	ONE		
Depth Driller	3910		
Depth Logger	3910		
Bottom Logged Interval	3886		
Top Log Interval	3100		
Casing Driller	219		
Casing Logger	219		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.0 / 47		
pH / Fluid Loss	9.5 / 6.8		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	1.30 @ 54F		
Rmf @ Meas. Temp	0.98 @ 54F		
Rmc @ Meas. Temp	1.56 @ 54F		
Source of Rmf / Rmc	MEASURED		
Rim @ BHT	.620 @ 114F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	5:30 A.M.		
Maximum Recorded Temperature	114F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	RUPP		
Witnessed By	GARY F. GENSCH		

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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 COMPLETION & PRODUCTION SERVICES
785-628-6395
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: HILL CITY, 5N TO V RD., 2 1/2E, 1N, 1/2E, N INTO.

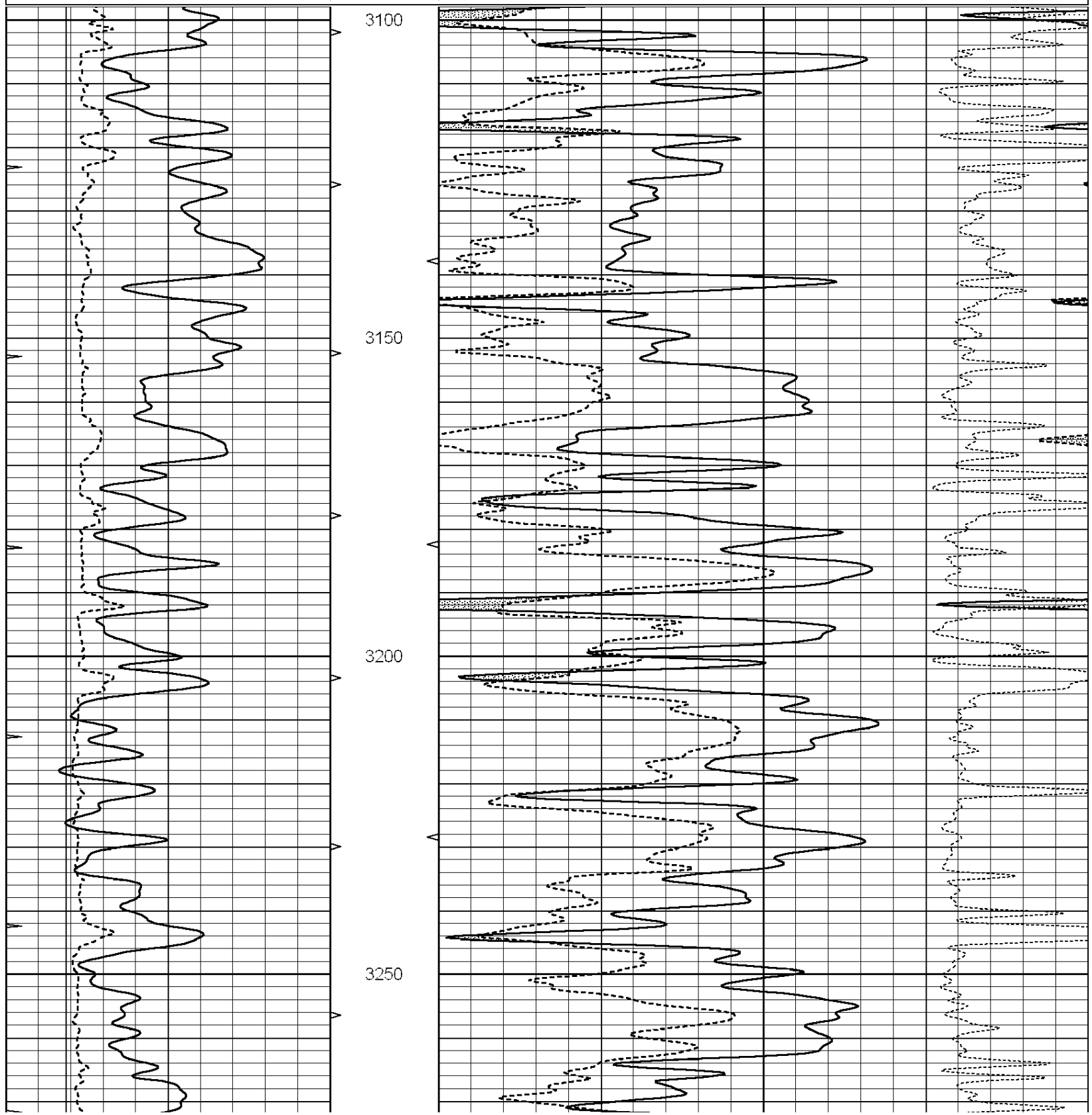


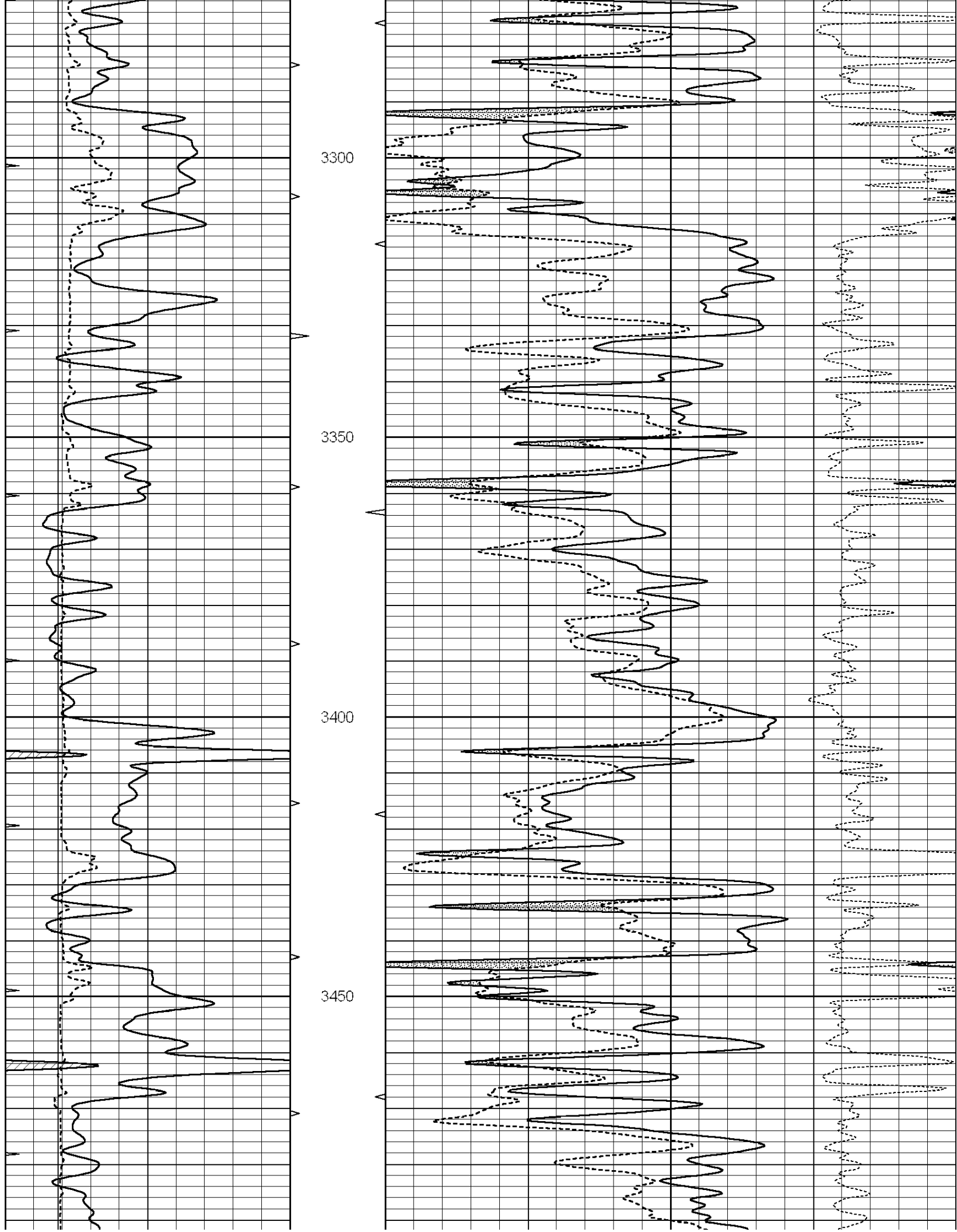
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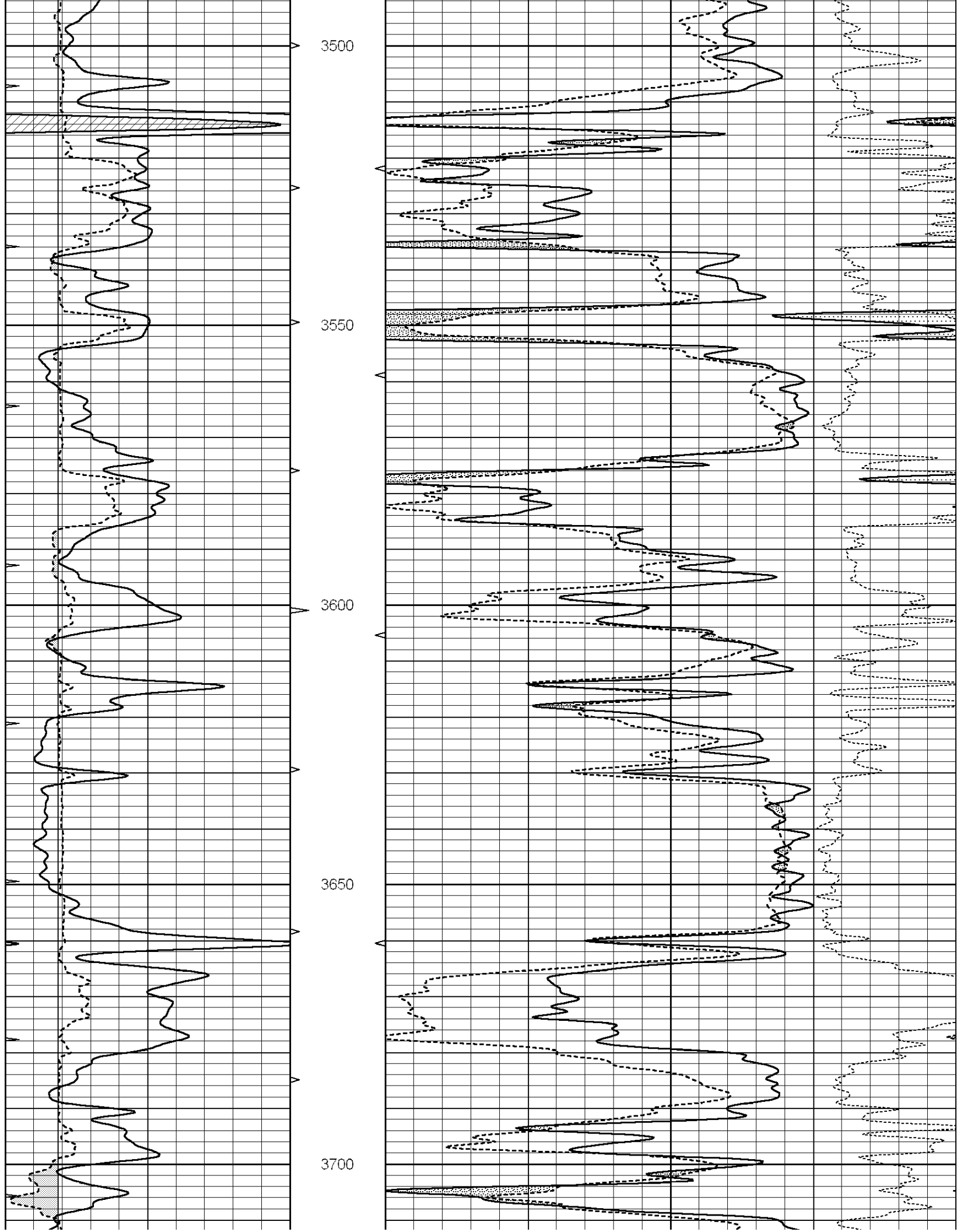
MAIN SECTION

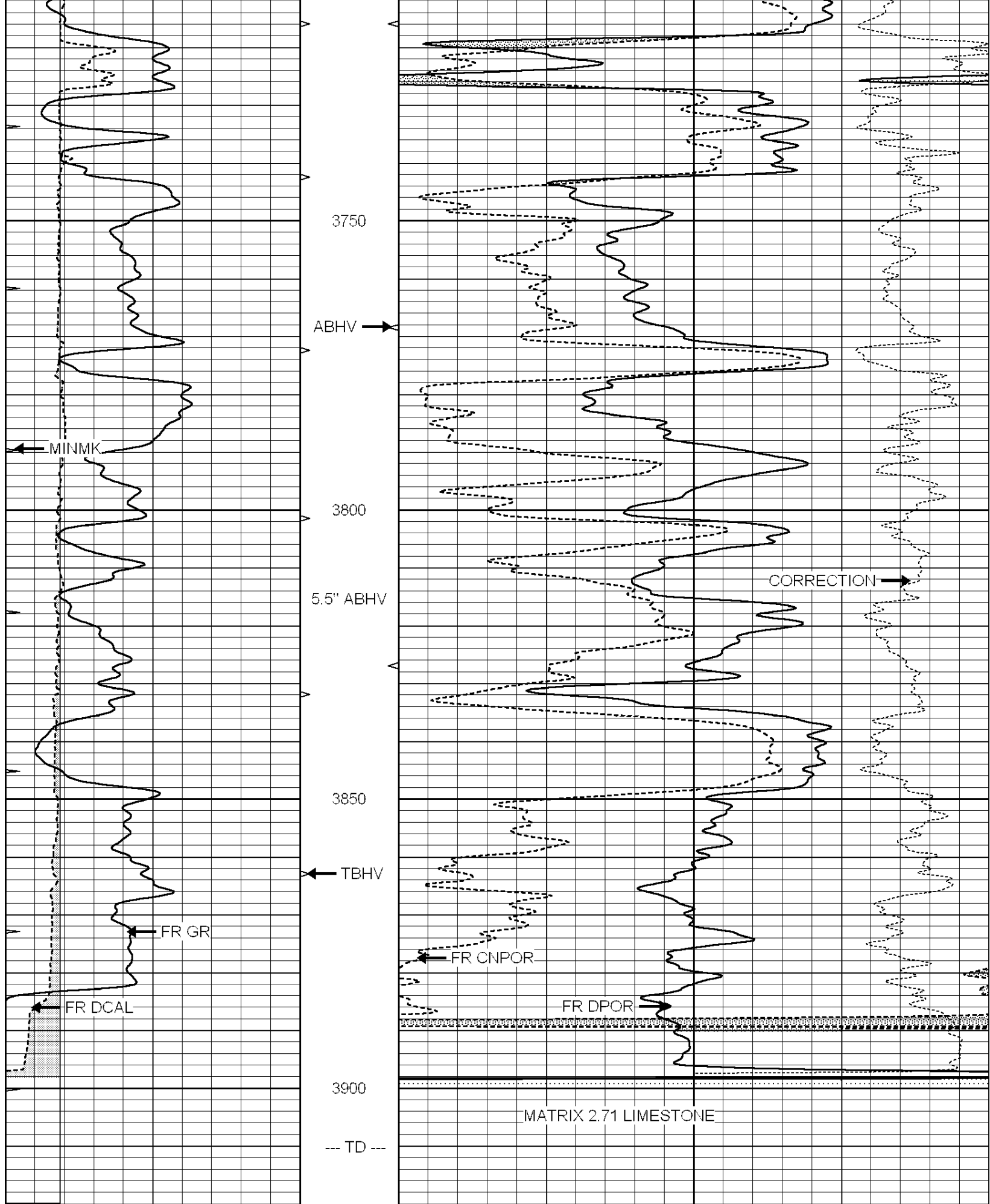
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 Dataset Pathname: pass3.1A
 Presentation Format: _den_neu
 Dataset Creation: Sat Nov 23 06:43:24 2013
 Charted by: Depth in Feet scaled 1:240

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
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MATRIX	20	TD HV	0.25	CORRECTION (pu)	0.25

MINIMK

20

TBHV

0 (ft3) 10

-0.25

CORRECTION (g/cc)

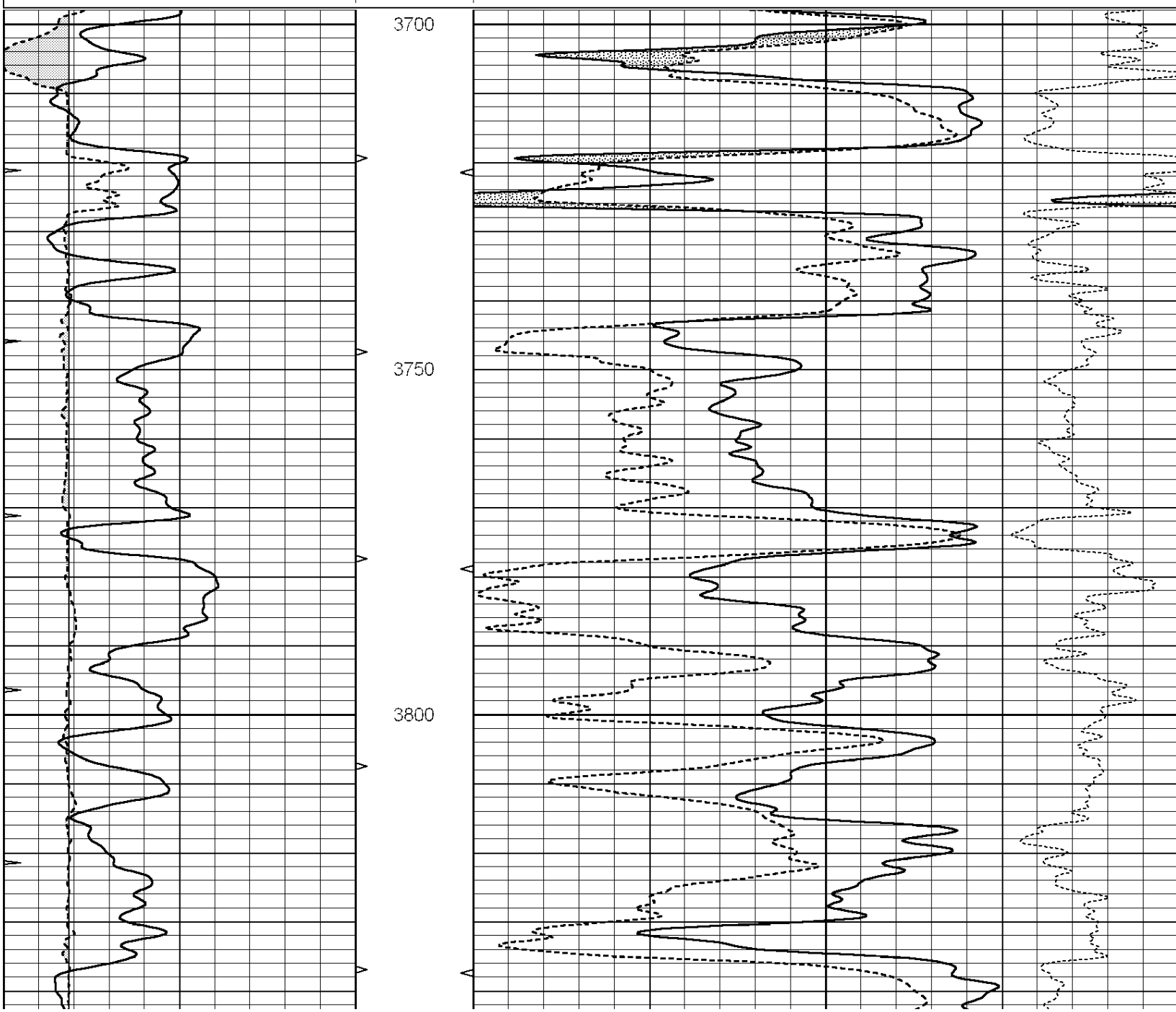
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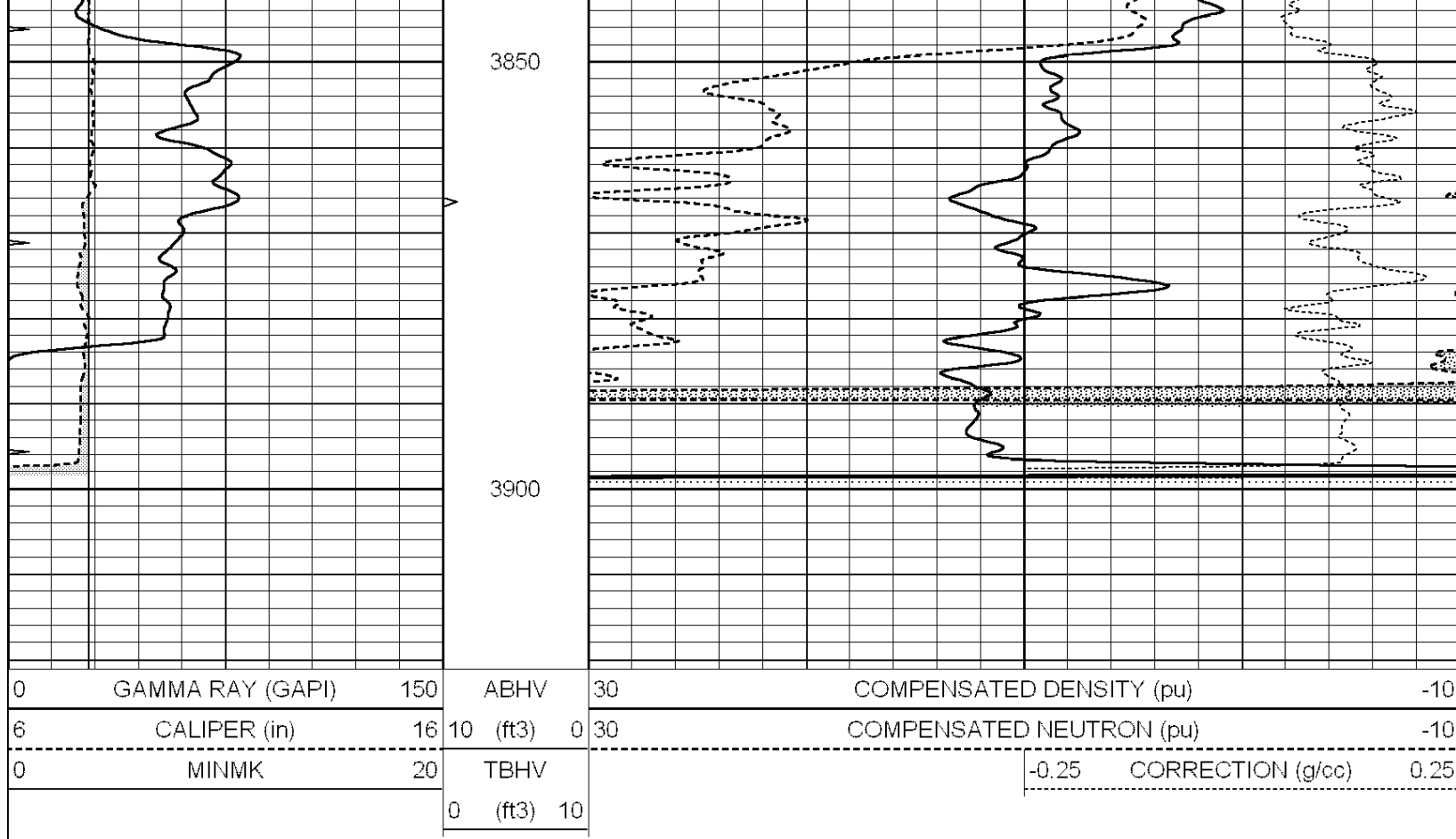
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REPEAT SECTION

Database File: 012043ddn.db
Dataset Pathname: pass2A
Presentation Format: _den_neu
Dataset Creation: Sat Nov 23 06:59:24 2013 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: 012043ddn.db
Dataset Pathname: pass3.1A
Dataset Creation: Sat Nov 23 06:43:24 2013

Dual Induction Calibration Report

Serial-Model: DIL3-GEAR
Performed: Sat Nov 23 06:00:54 2013

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	0.000	400.000	mmho/m	500.000	3.000
Medium	0.013	0.740	V	0.000	462.500	mmho/m	580.000	5.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.002	0.645	V	0.000	400.000	mmho/m	560.000	-1.071
Medium	0.007	0.740	V	0.000	462.500	mmho/m	540.000	-4.000

Compensated Density Calibration Report

Serial-Model: GEAR1-GEARHART
Source / Verifier: 147 / 147
Master Calibration Performed: Sat Nov 23 06:00:12 2013

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1205.77	610.74	cps
Aluminum	2.580	g/cc	271.21	419.72	cps

Spine Angle = 75.89

Density/Spine Ratio = 0.566

	Size		Reading	
Small Ring	8.20	in	4.83	V
Large Ring	14.00	in	7.01	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:	Sat Nov 23 06:23:14 2013	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.9200	GAPI/cps