



**Casedhole
Solutions**

**COMPENSATED
DENSITY/NEUTRON
LOG**

Company	TYLUKA OPERATING, LLC.	Company	TYLUKA OPERATING, LLC.
Well	AXMAN FARMS #1-18	Well	AXMAN FARMS #1-18
Field		Field	
County	BARTON	County	BARTON
State	KANSAS	State	KANSAS
Location:	AP1 # : 15-009-26132-0000 1953' FSL & 921' FWL	Other Services DIL/MEL SONIC	
Permanent Datum	GROUND LEVEL	Elevation	1884
Log Measured From	KELLY BUSHING 8' A.G.L.		
Drilling Measured From	KELLY BUSHING		
SEC 18	TWP 17S	RGE 14W	
Date	12/15/15		
Run Number	ONE		
Depth Driller	3500		
Depth Logger	3498		
Bottom Logged Interval	3474		
Top Log Interval	2800		
Casing Driller	8 5/8" @ 897'		
Casing Logger	894		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 6900 PPM	
Density / Viscosity	9.1/43		
pH / Fluid Loss	10.5/8.8		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.65 @ 60F		
Rmt @ Meas. Temp	.48 @ 60F		
Rmc @ Meas. Temp	.78 @ 60F		
Source of Rmt / Rmc	MEASUREMENT		
Rm @ BHT	.34 @ 112F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	112F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	JASON CAPELLUCCI		
Witnessed By	JEREMY SCHWARTZ		

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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 CASEDHOLE SOLUTIONS, HAYS, KS. (785) 628-6395
DIRECTIONS:
AT INTERSECTION OF HWY 4 & HWY 281 - 3 NORTH TO 150 RD.
4 WEST TO 80 RD. - SOUTH INTO

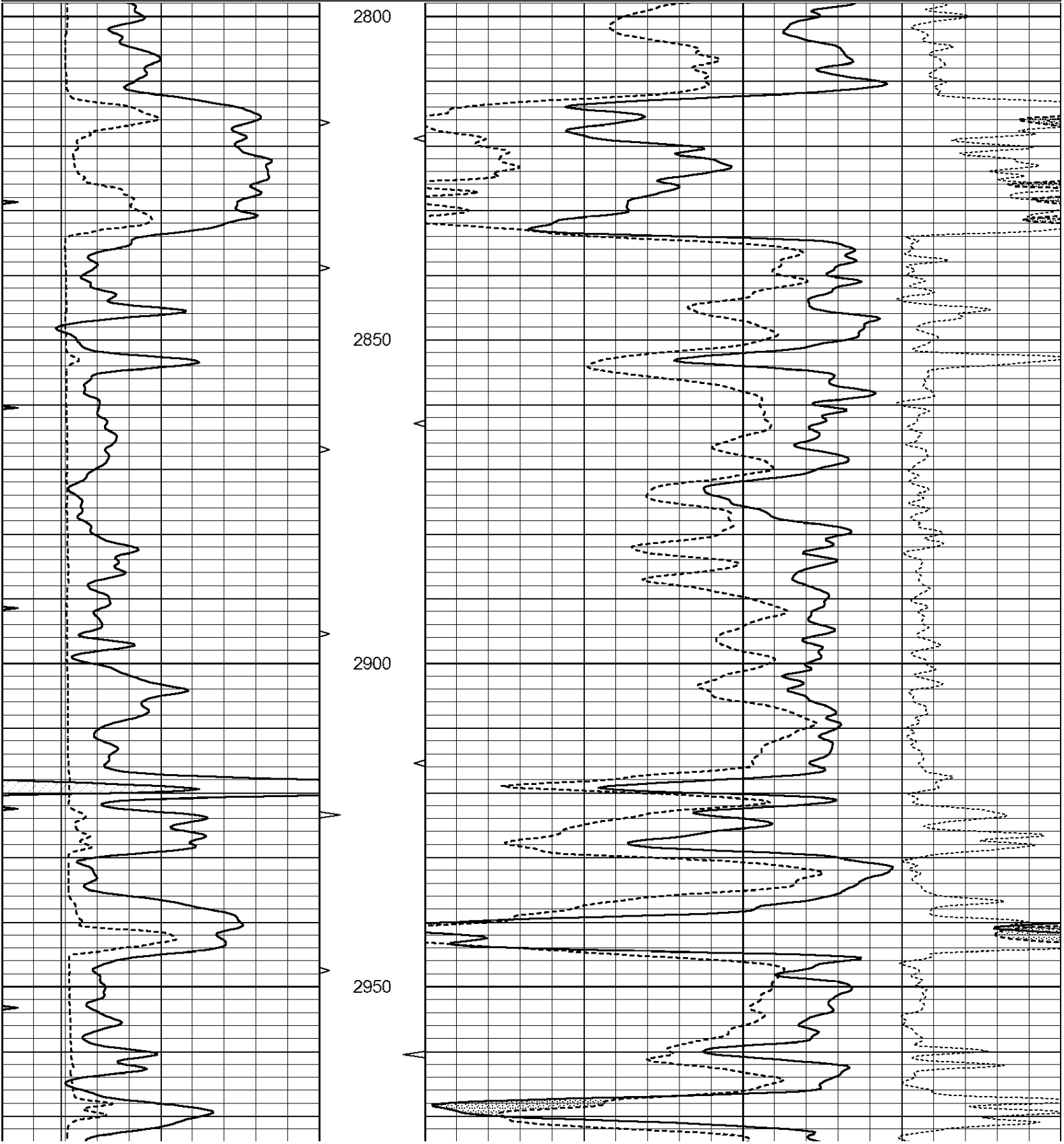


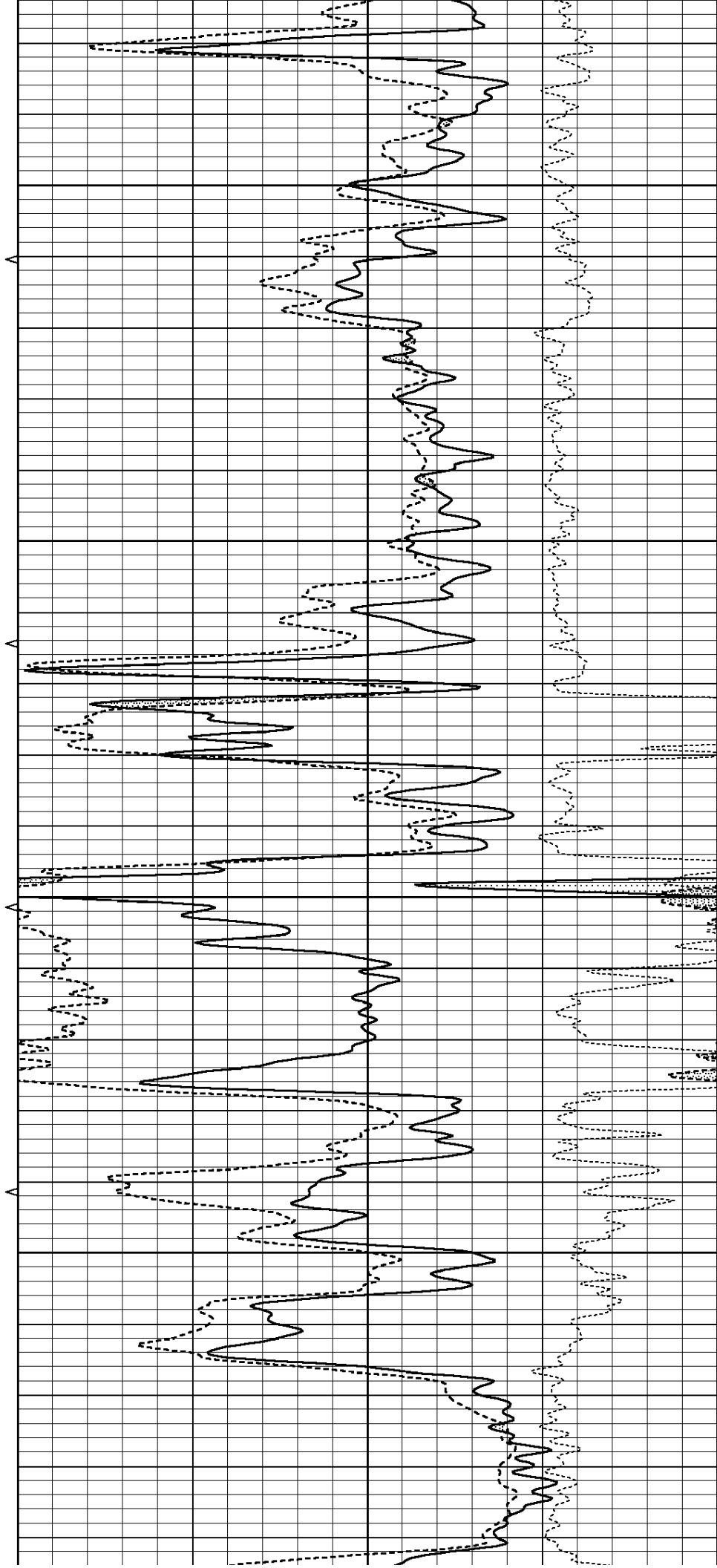
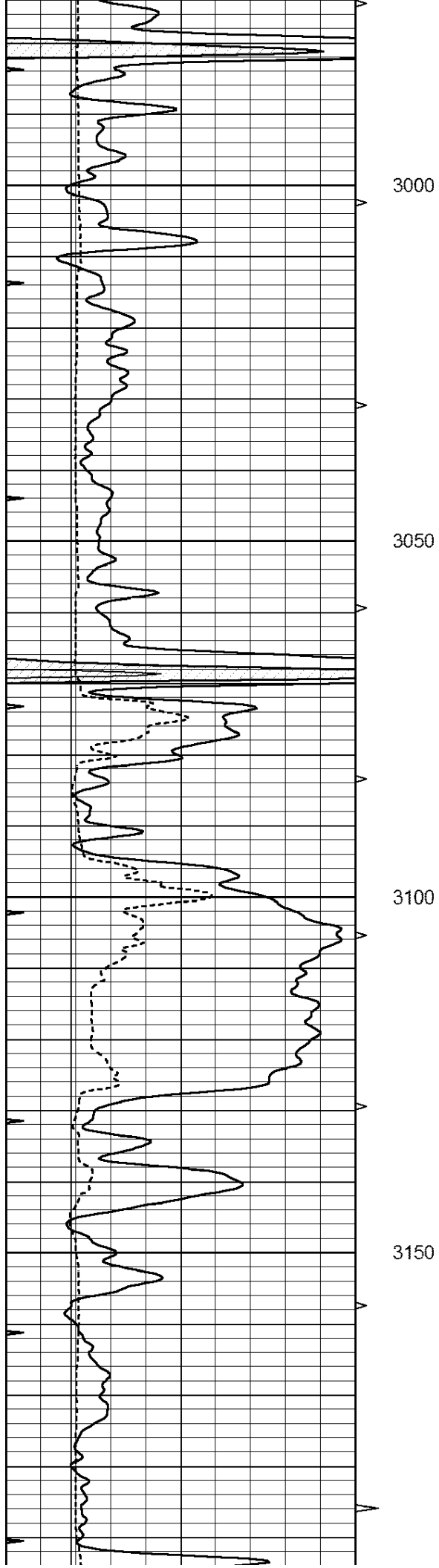
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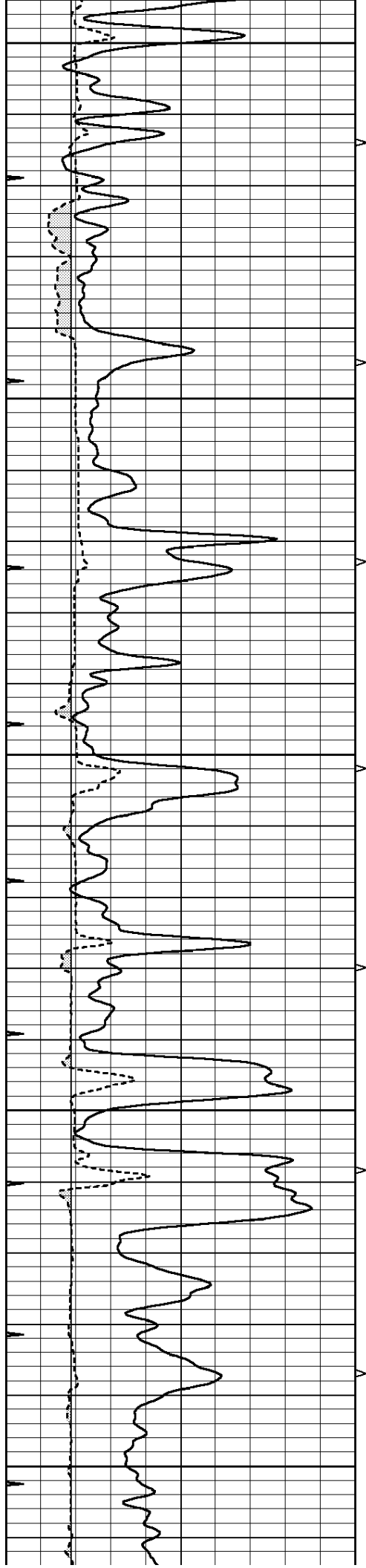
MAIN SECTION

Database File: 30888ddn.db
Dataset Pathname: pass3.1
Presentation Format: den_neu
Dataset Creation: Tue Dec 15 14:00:30 2015 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		







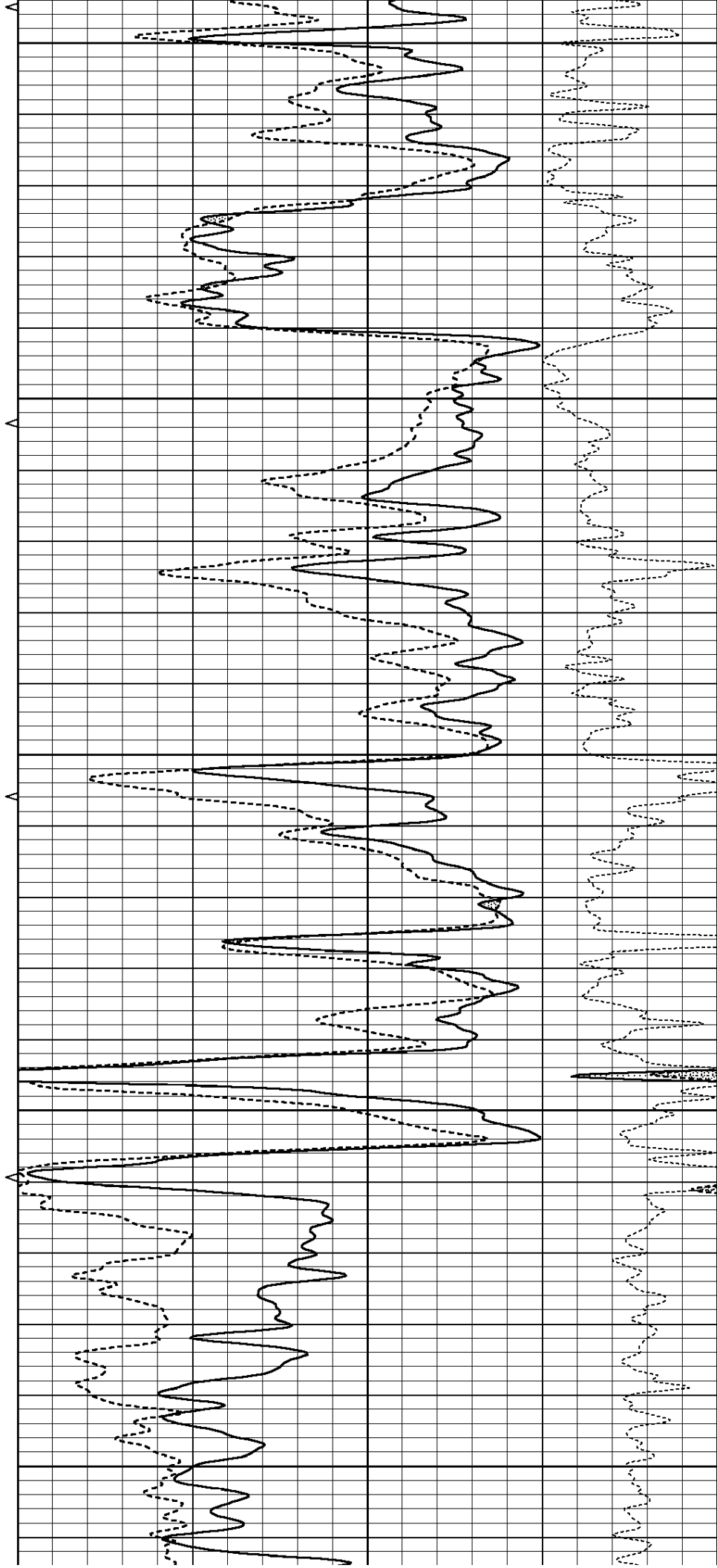
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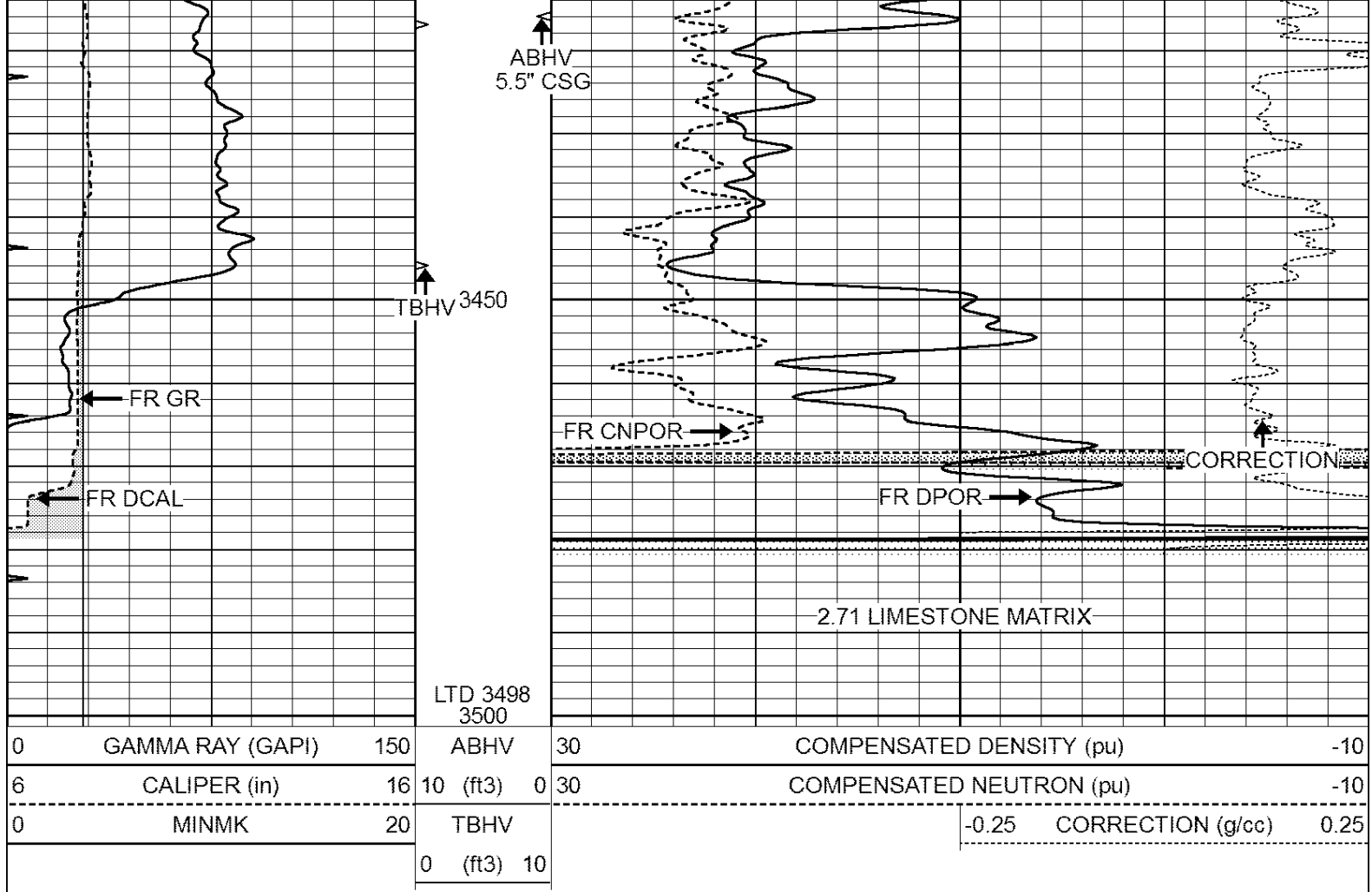
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3300

3350

3400



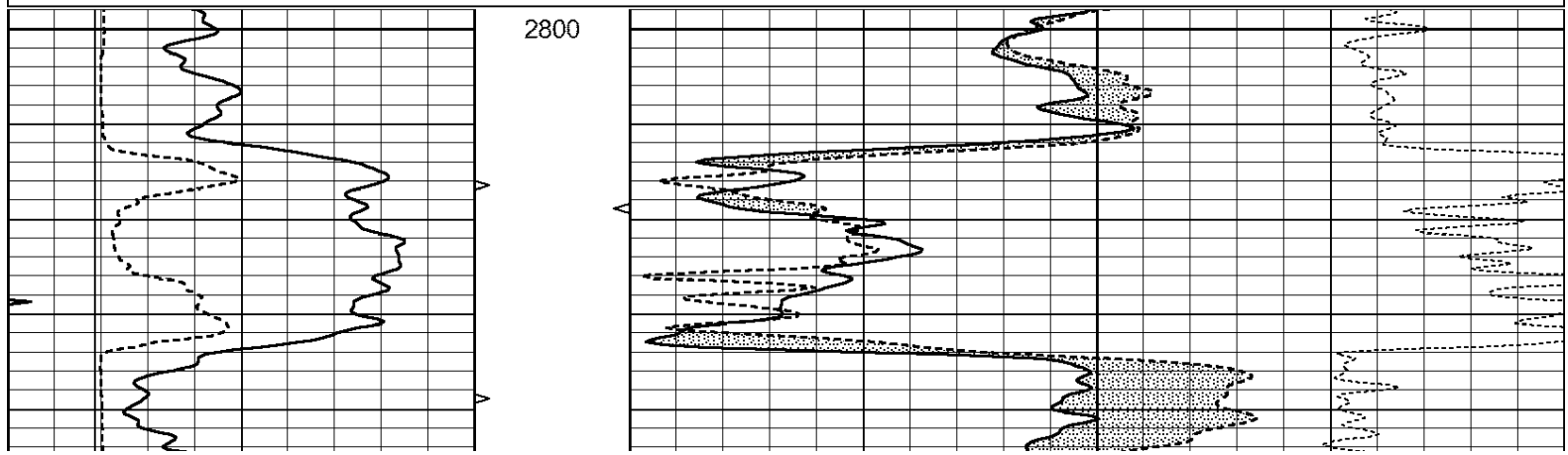


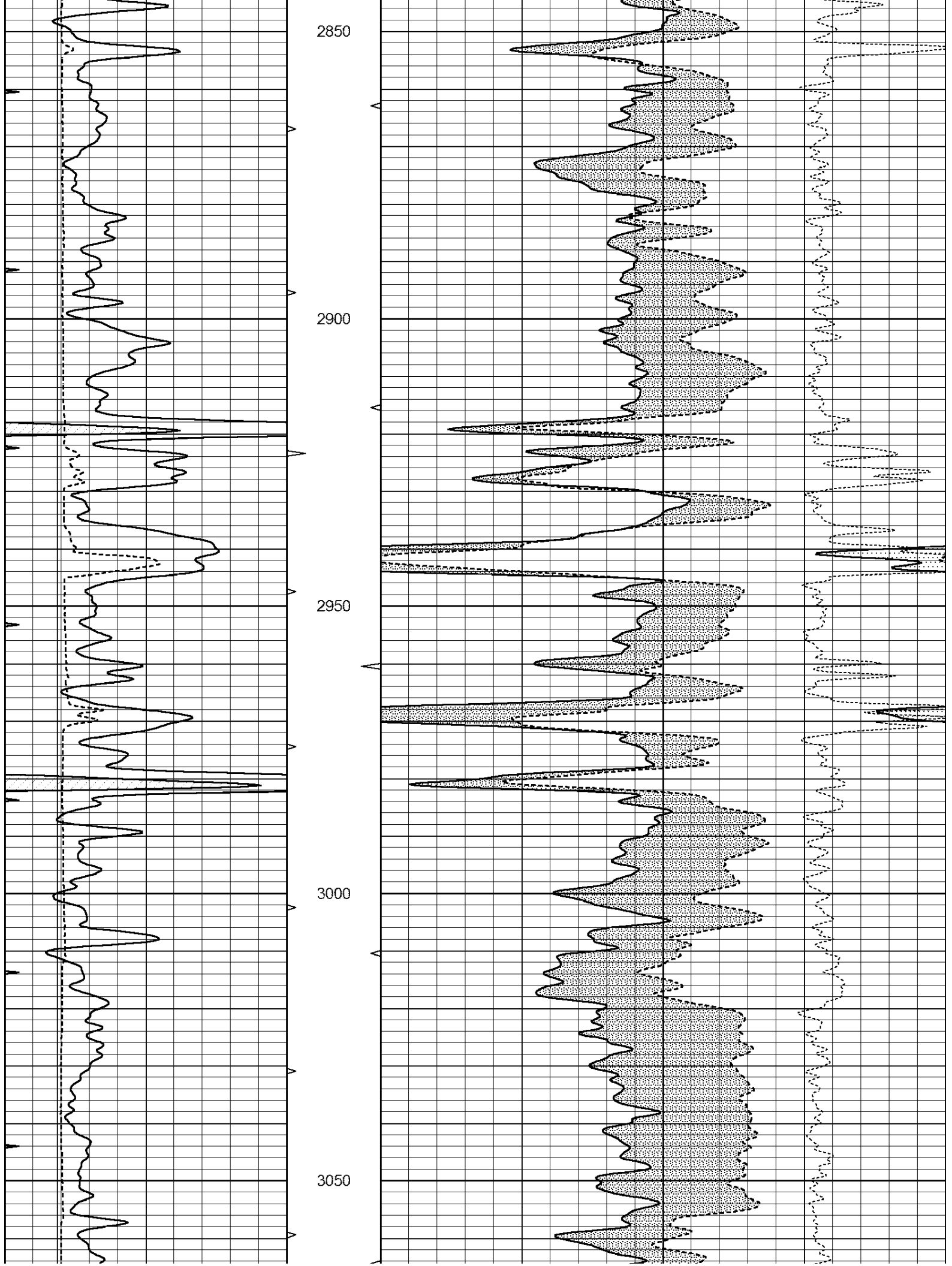
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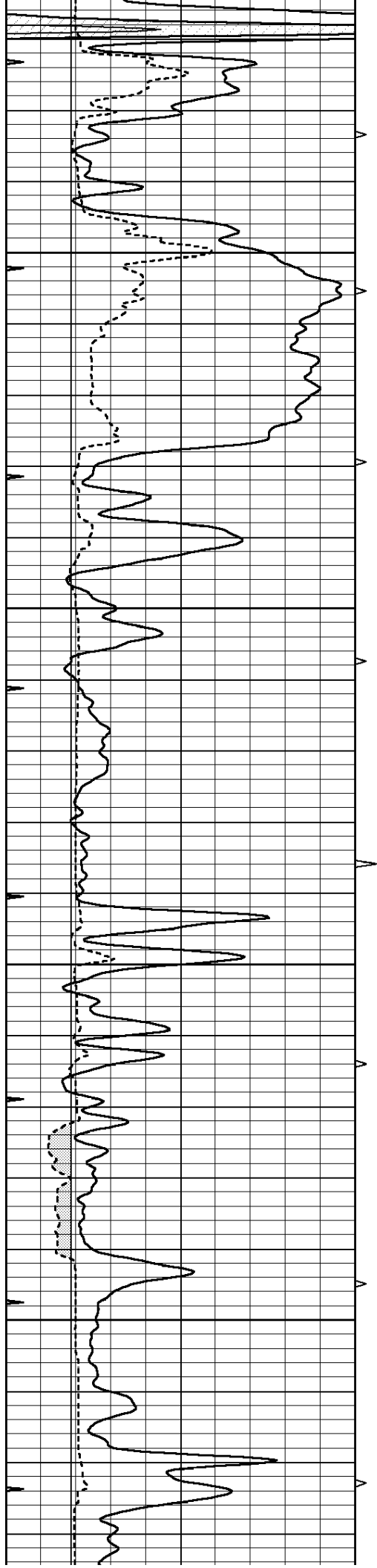
DOLOMITE MATRIX

Database File: 30888ddn.db
 Dataset Pathname: pass3.1.2
 Presentation Format: den_neu
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 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		





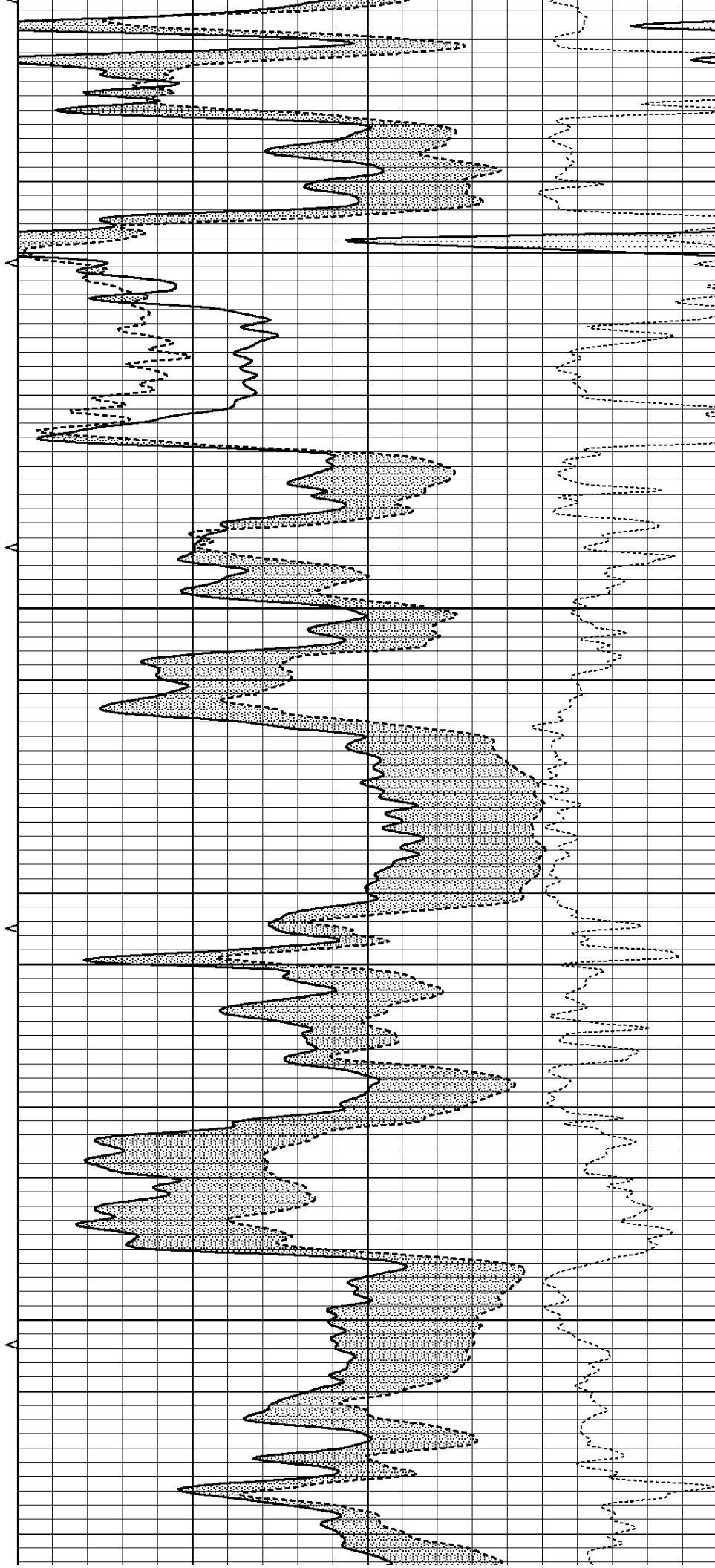


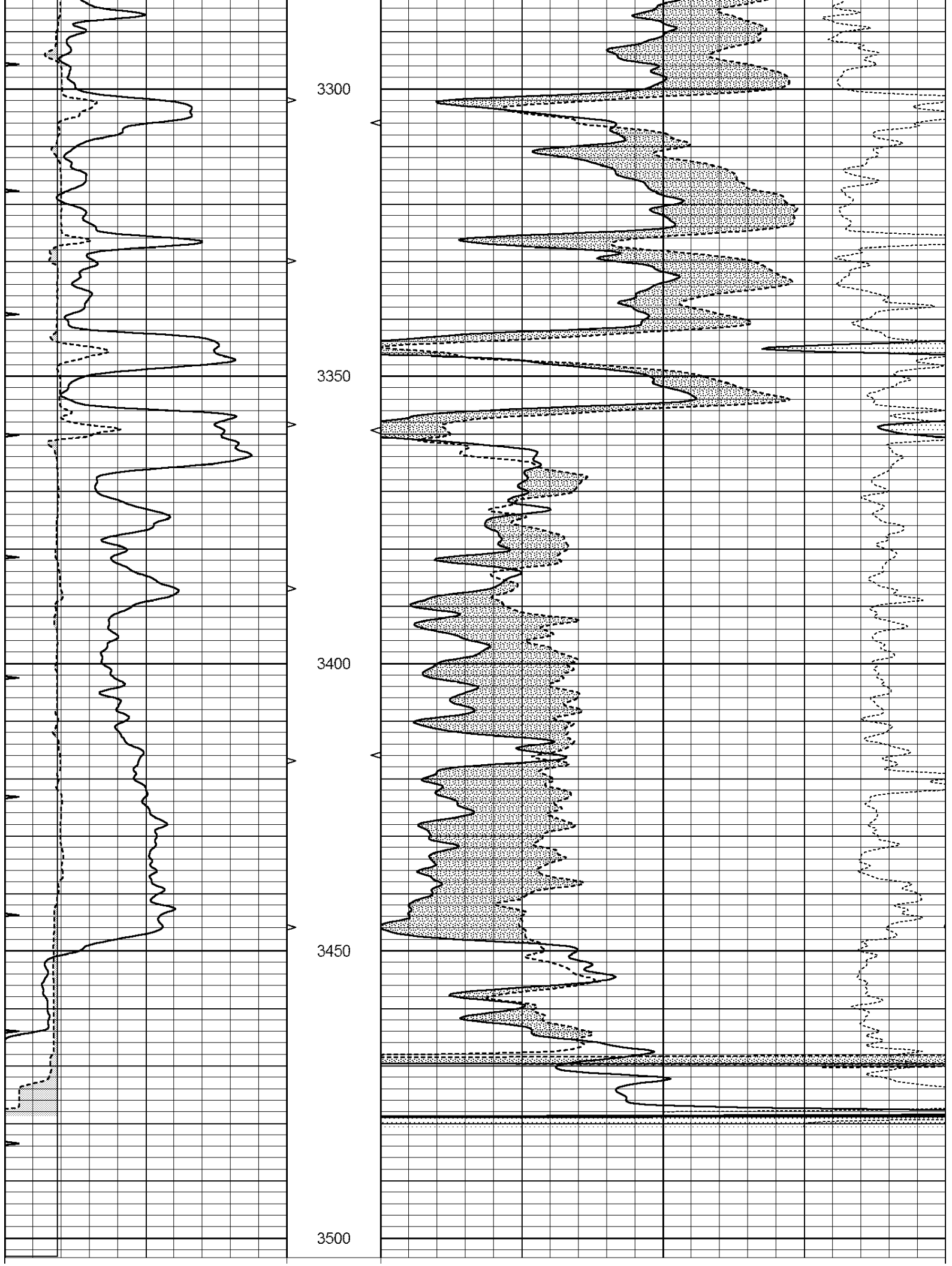
3100

3150

3200

3250





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					

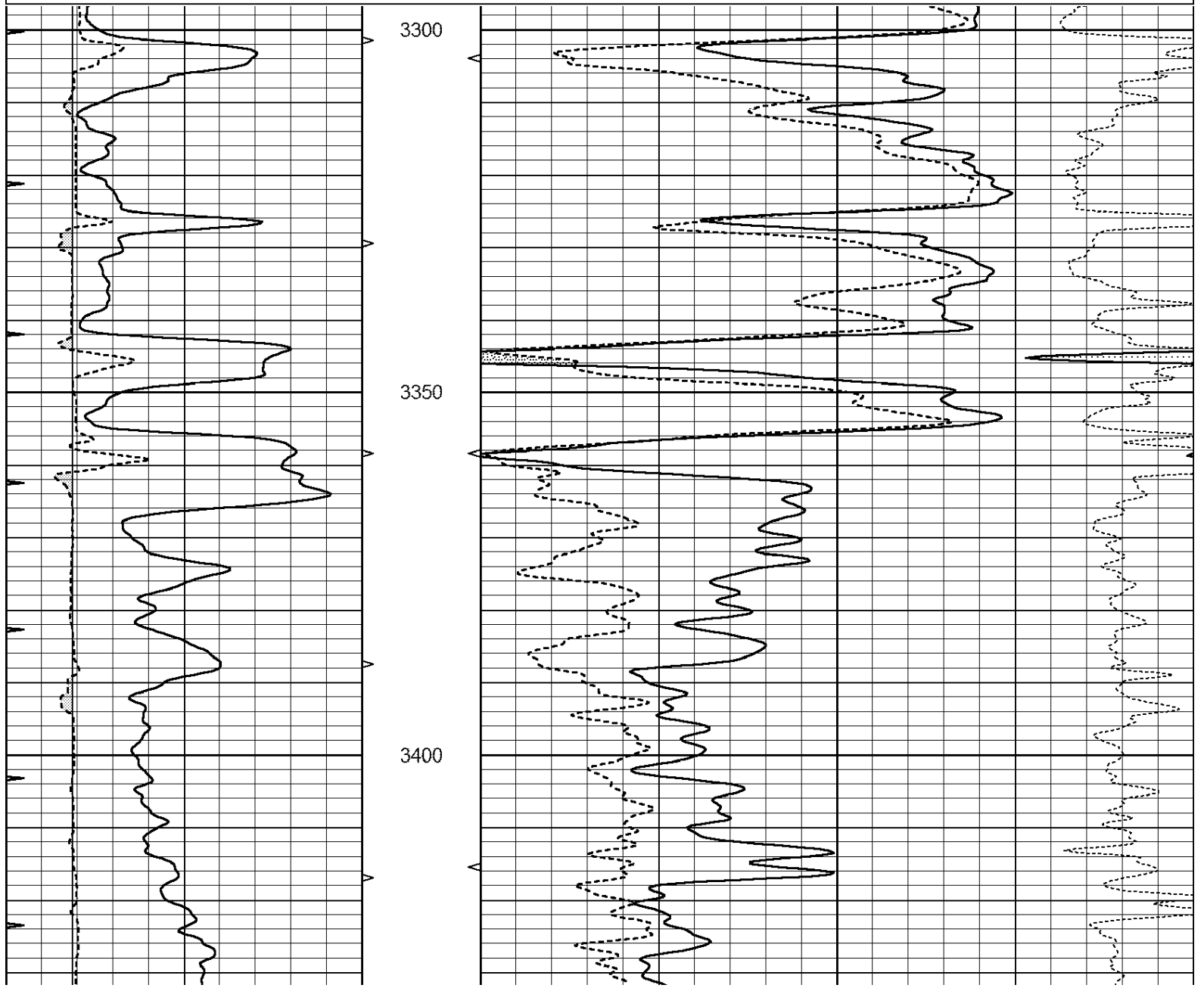


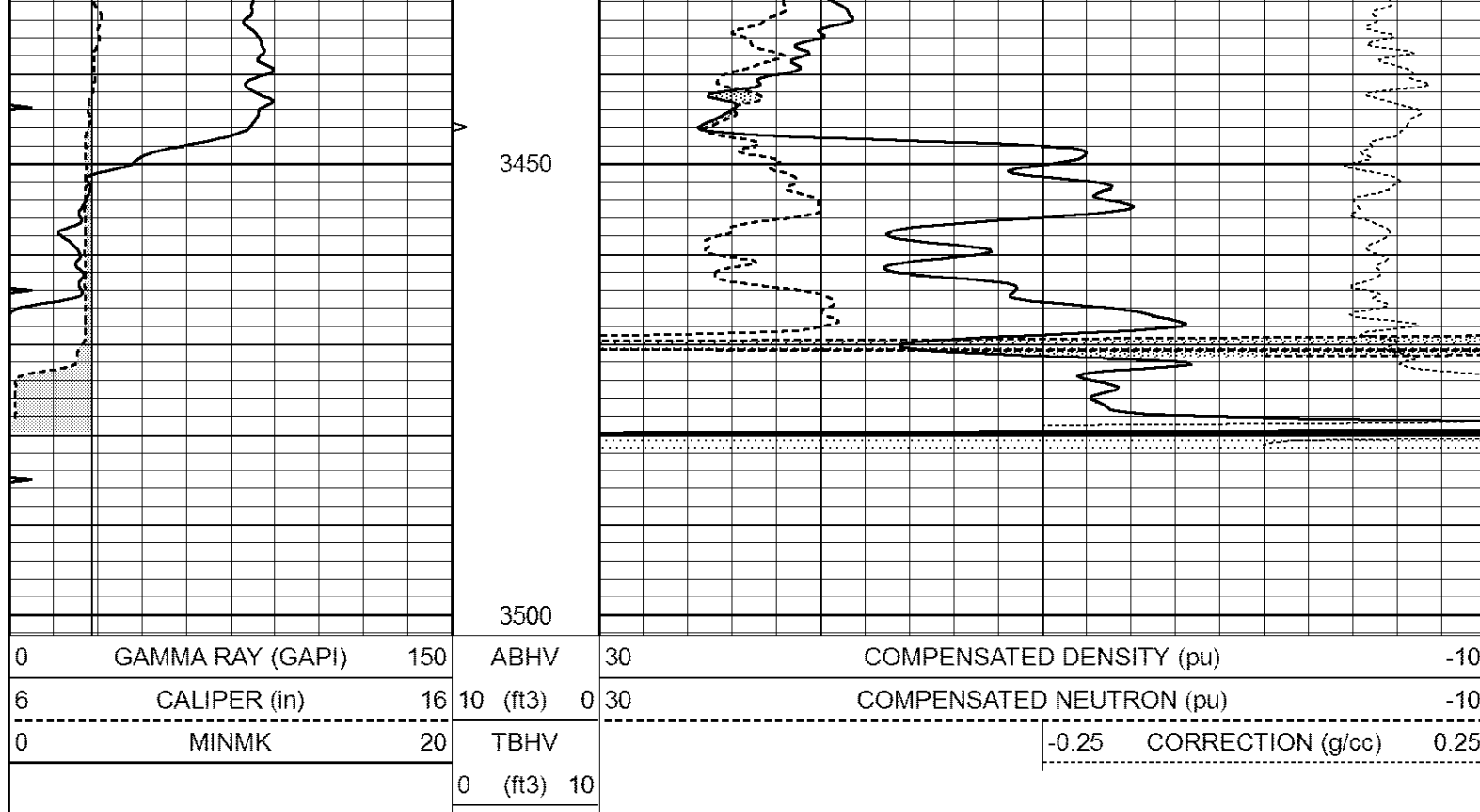
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REPEAT SECTION

Database File: 30888ddn.db
Dataset Pathname: pass2.1
Presentation Format: den_neu
Dataset Creation: Tue Dec 15 13:56:03 2015 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: 30888ddn.db
 Dataset Pathname: pass2.1
 Dataset Creation: Tue Dec 15 13:56:03 2015 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: PROBE8-DILG
 Surface Cal Performed: Sun May 10 19:54:09 2015
 Downhole Cal Performed: Mon Jul 28 11:08:27 2008
 After Survey Verification Performed: Mon Jul 28 11:08:27 2008

Surface Calibration

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	620.000	0.000
Medium	0.029	0.796	V	0.000	464.000	mmho/m	590.000	-12.000
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
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	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:
Source / Verifier:
Master Calibration Performed:
Before Survey Verification Performed:
After Survey Verification Performed:

GEAR5-GEARHART
/
Sun Dec 06 13:45:22 2015

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	798.83	465.02	cps
Aluminum	2.570	g/cc	178.16	323.19	cps
	Spine Angle = 76.37		Density/Spine Ratio = 0.557		
	Size		Reading		
Small Ring	7.00	in	1.47	V	
Large Ring	14.00	in	3.01	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:
Tool Model:

6I
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:	Thu Nov 12 05:47:01 2015		
	Calibrator Value:	150.0	GAPI	
	Background Reading:	0.0	cps	
	Calibrator Reading:	276.0	cps	
	Sensitivity:	0.4500	GAPI/cps	