SUPERIOR WELL SERVICES

SUPERIOR
Hays,
Kansas

COMPENSATED DENSITY / NEUTRON LOG

Company	MAI OIL OPERATIONS, INC.
Well	DRISCOLL #5
Field	HALL - GURNEY
County	RUSSELL
State	KANSAS

Company MAI OIL OPERATIONS, INC.
Well DRISCOLL #5
Field HALL - GURNEY
County RUSSELL State KANSAS
Location: API # : 15-167-23798-0000
1875' FNL & 2625' FEL
SW - NW - SW - NE
SEC 4 TWP 15S RGE 14W

Other Services: DIL/MEL

Permanent Datum: GROUND LEVEL Elevation 1759
Log Measured From: KELLY BUSHING 8' A.G.L.
Drilling Measured From: KELLY BUSHING

Elevation
K.B. 1767
D.F. 1765
G.L. 1759

Date	5/6/12		
Run Number	ONE		
Depth Driller	3295		
Depth Logger	3293		
Bottom Logged Interval	3269		
Top Log Interval	2200		
Casing Driller	8 5/8"@377'		
Casing Logger	377		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 6,000 PPM	
Density / Viscosity	9.1/52		
pH / Fluid Loss	9.5/8.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.650@74F		
Rmf @ Meas. Temp	.488@74F		
Rmc @ Meas. Temp	.780@74F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.437@110F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	4:15 P.M.		
Maximum Recorded Temperature	110F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	KURT TALBOTT	KENT WILLSON	

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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 SUPERIOR WELL SERVICE HAYS, KANSAS (785) 628-6395
DIRECTIONS
RUSSELL, KS. & I-70, 6S. ON HWY 281 TO "WALTERS RD." (JUST PAST RIVER BRIDGE) 1 1/2W., N. INTO

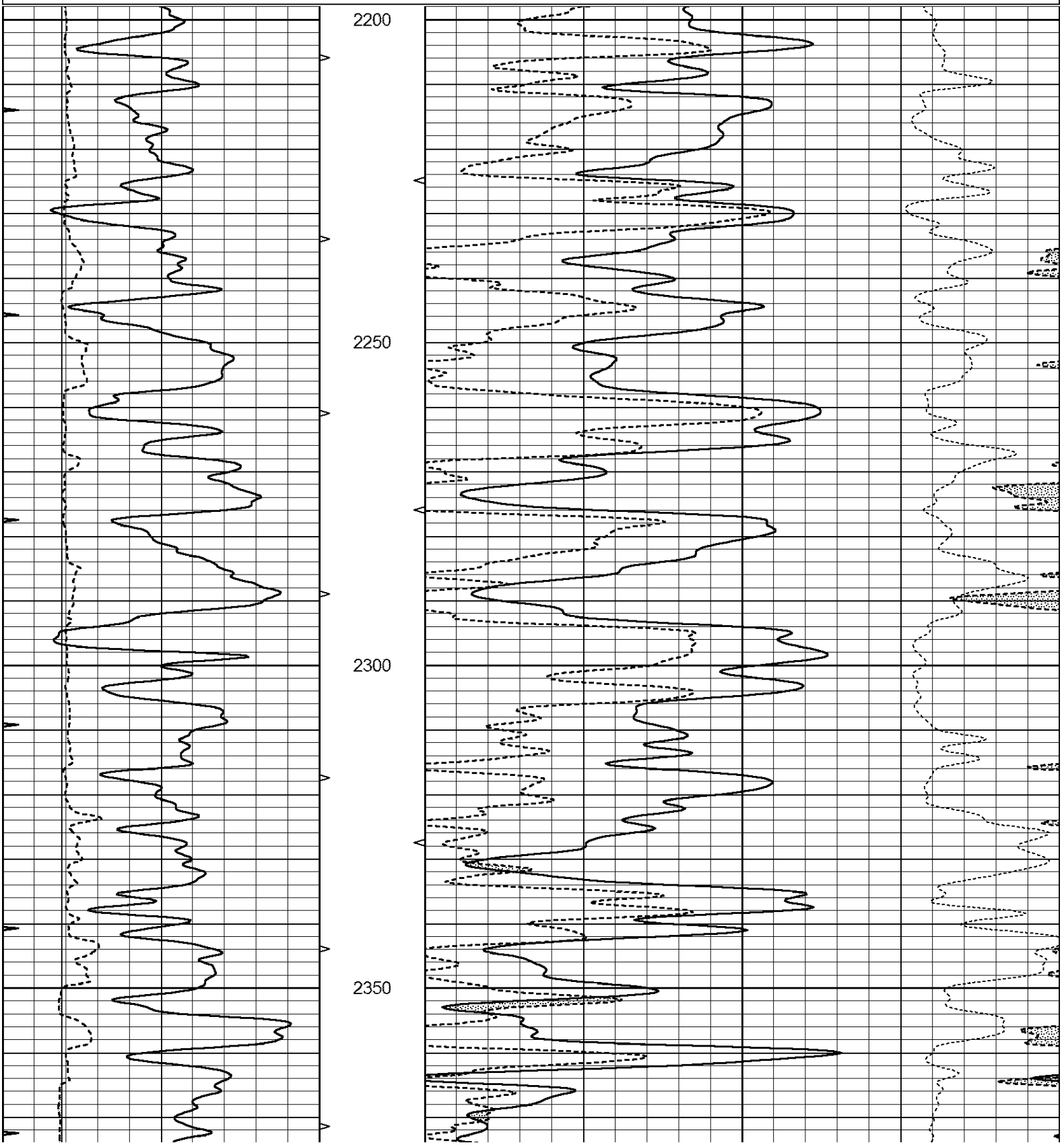
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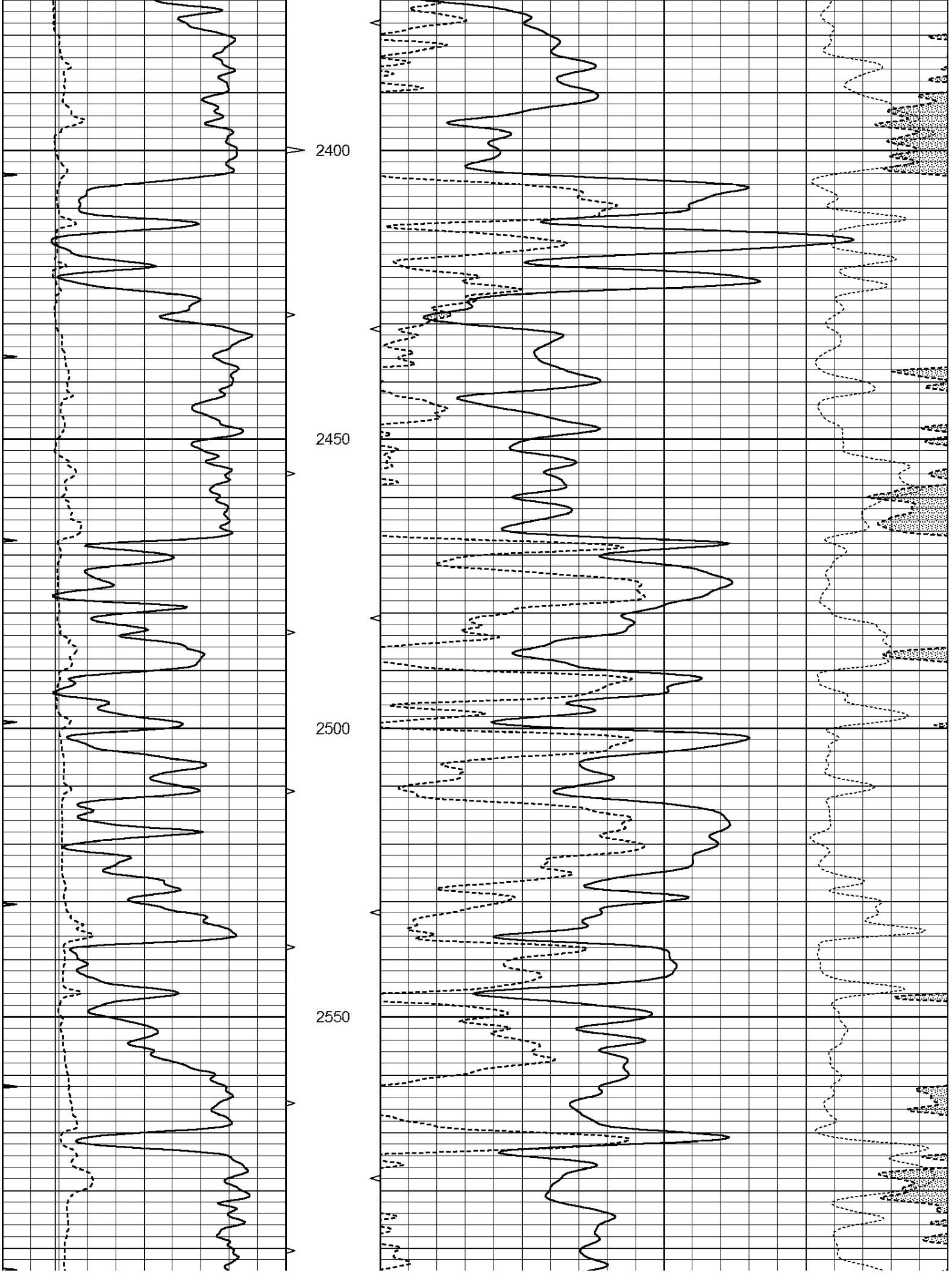
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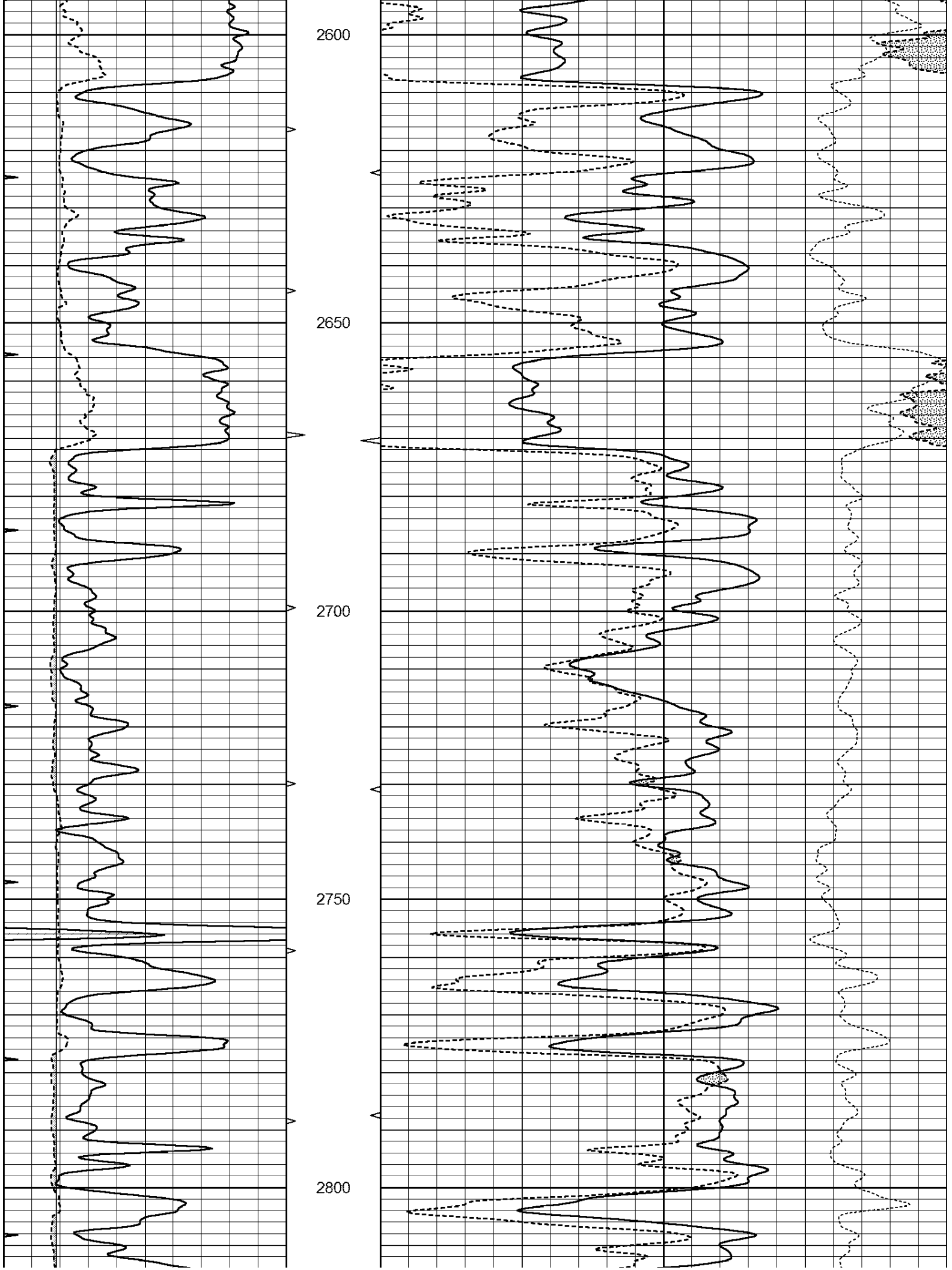
MAIN SECTION

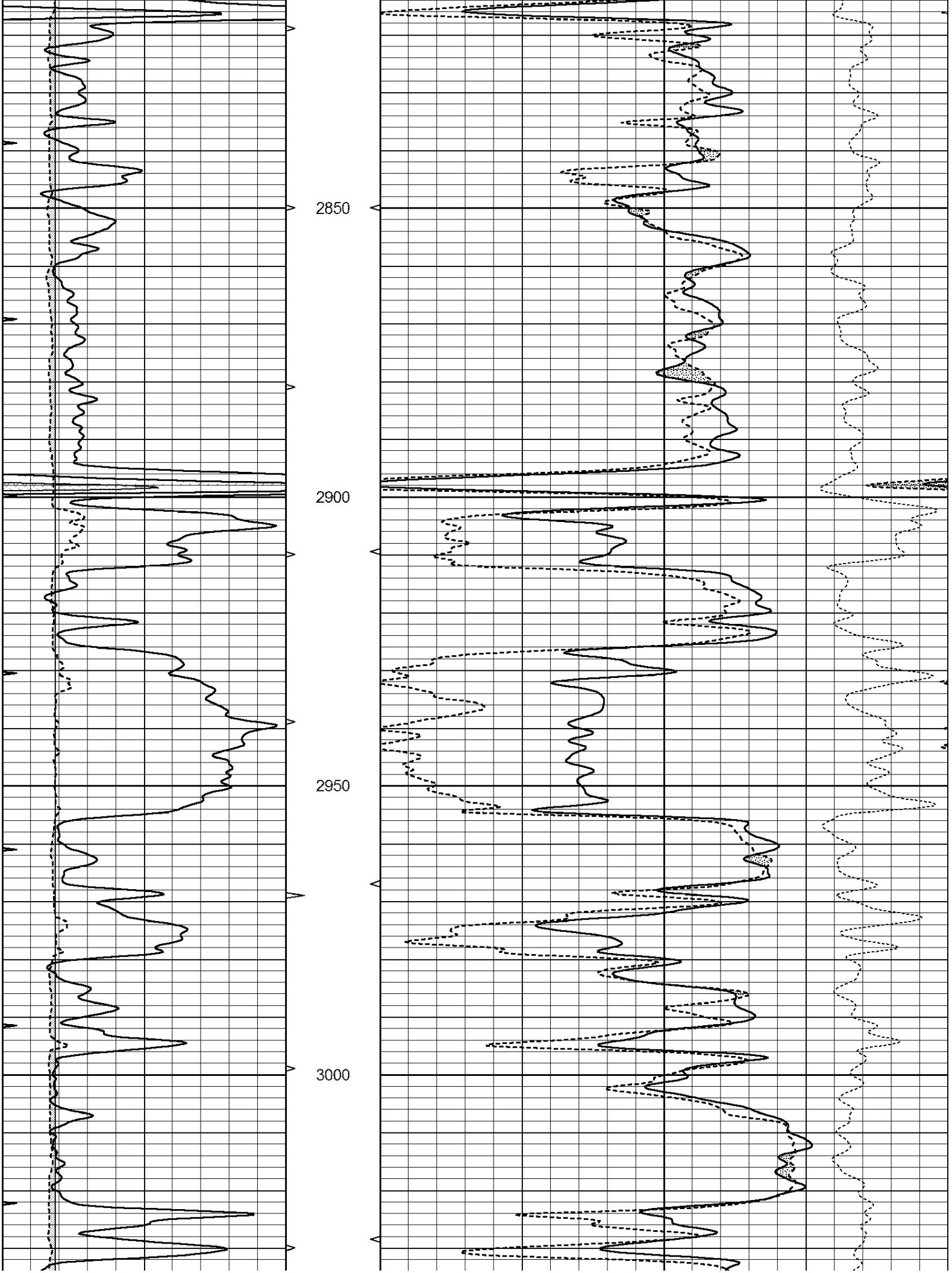
Database File: 408763ddn.db
Dataset Pathname: pass3.7
Presentation Format: den_neu
Dataset Creation: Sun May 06 17:27:04 2012 by Calc Open-Cased 110302
Charted by: Depth in Feet scaled 1:240

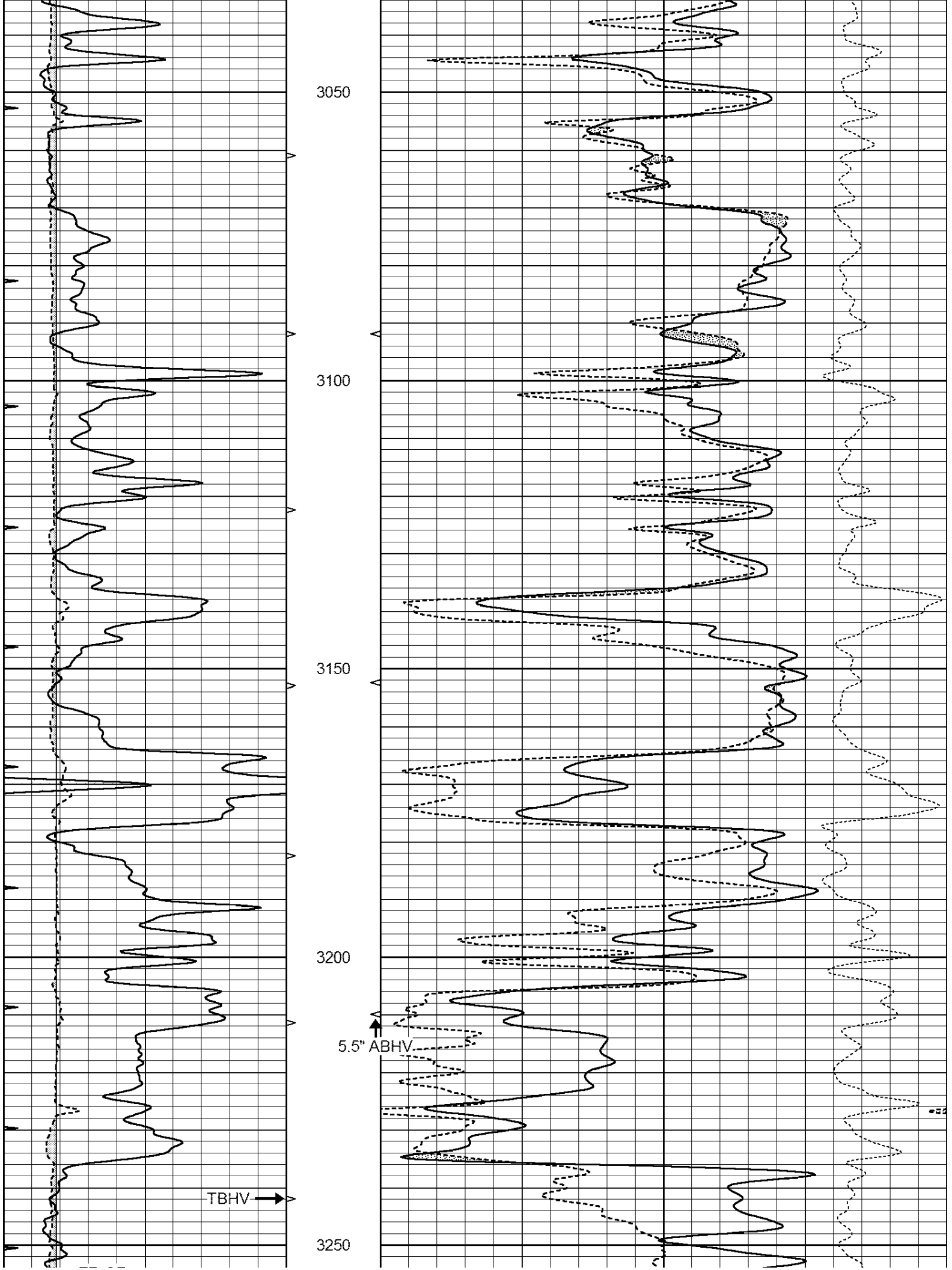
0	GAMMA RAY (GAPI) 150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in) 16	10 (ft3) 0	30	COMPENSATED NEUTRON (pu)	-10
0	MINMK 20	TBHV		-0.25 CORRECTION (g/cc)	0.25
		0 (ft3) 10			

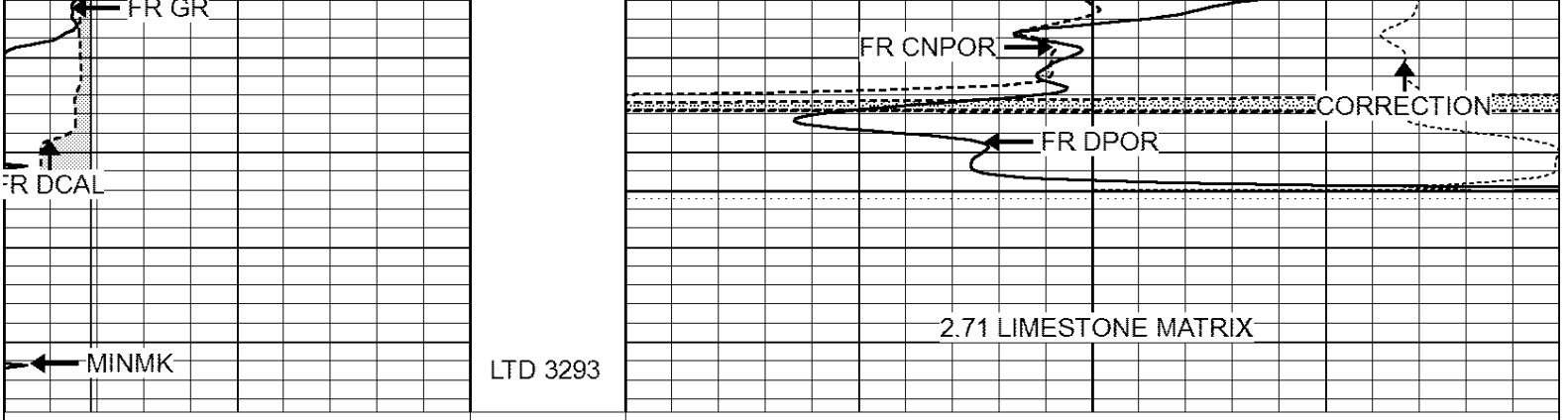



2400
2450
2500
2550


2600
2650
2700
2750
2800


2850
2900
2950
3000


3050
3100
3150
3200
5.5" ABHV
TBHV
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				

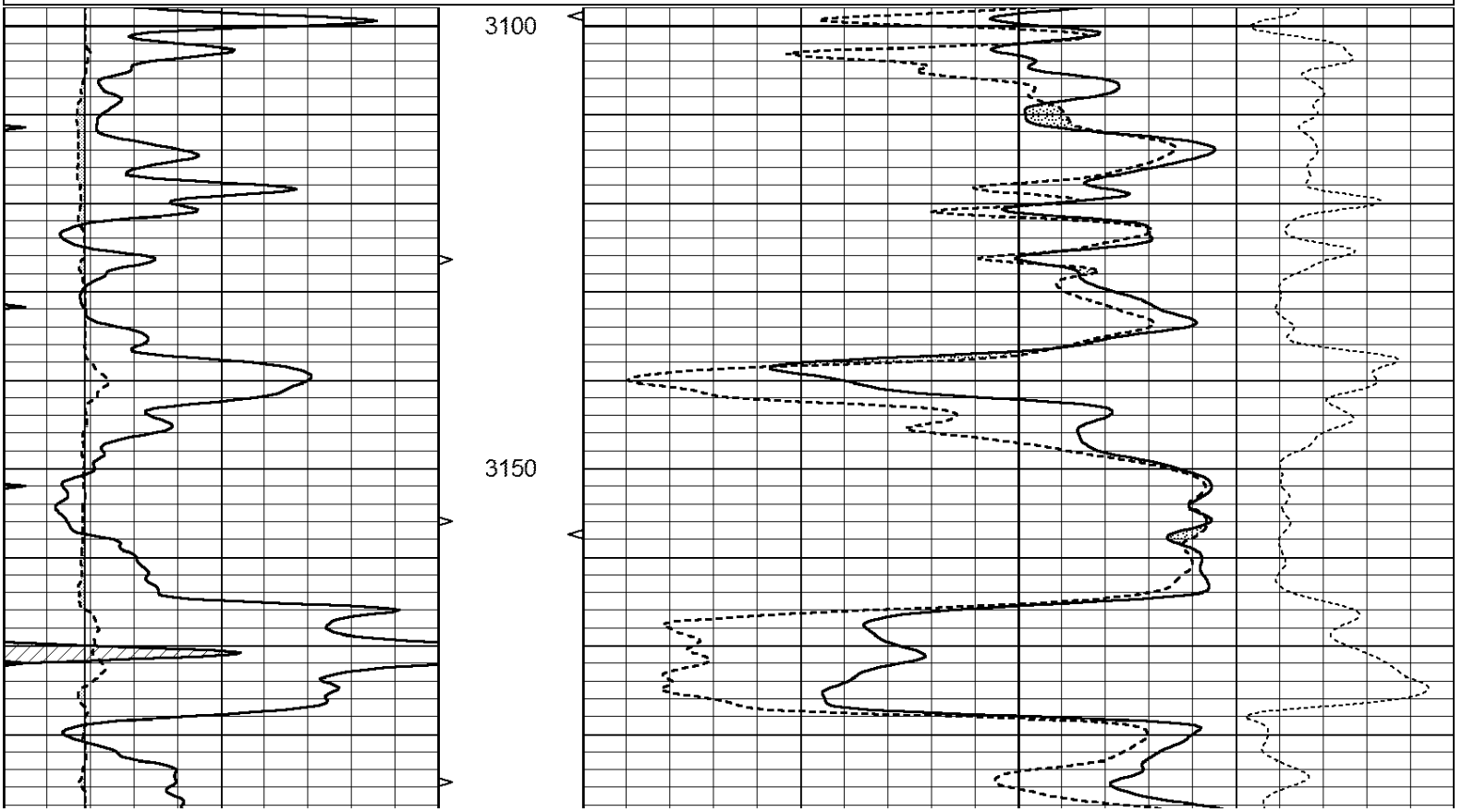
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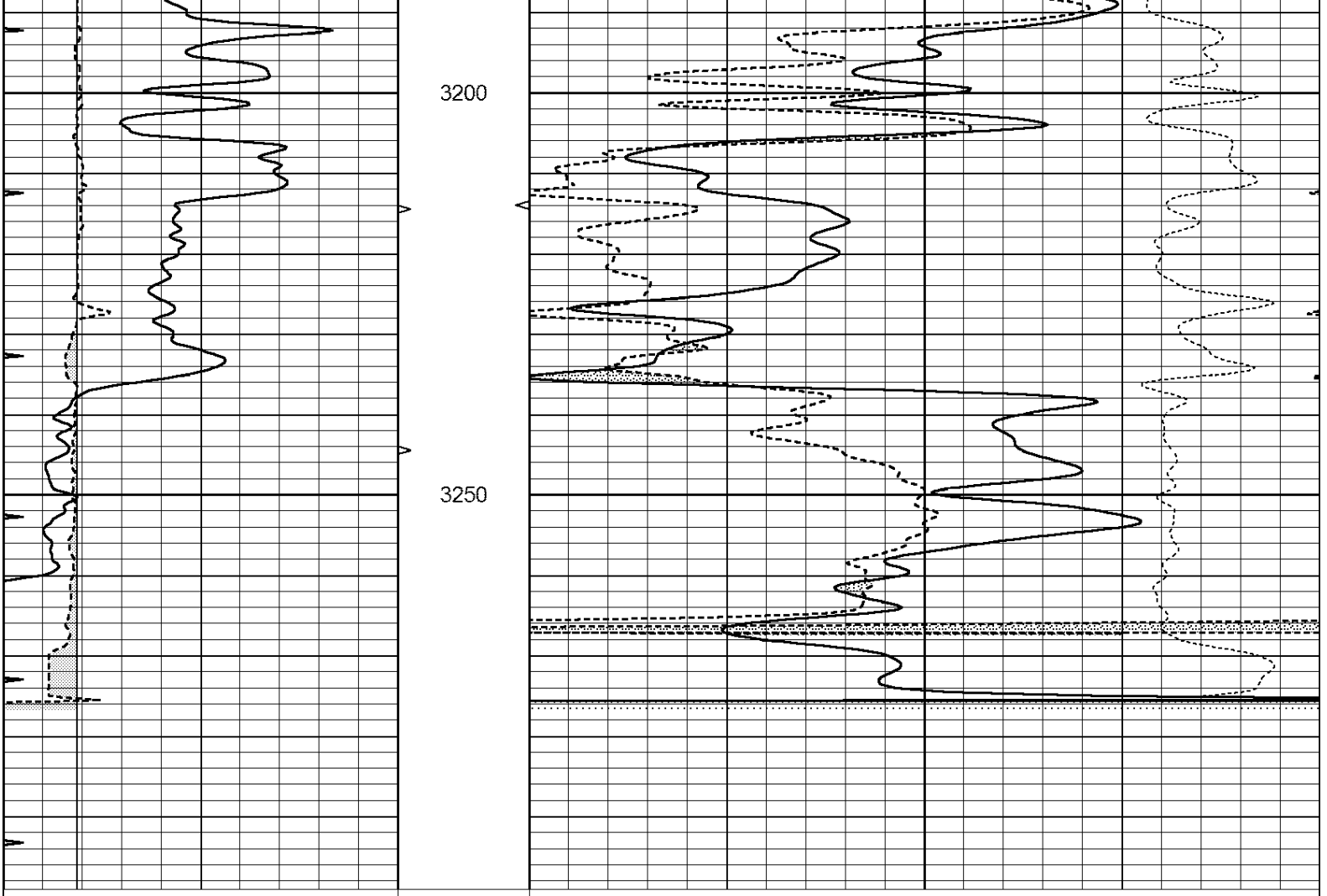
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REPEAT SECTION

Database File: 408763ddn.db
Dataset Pathname: pass2.4
Presentation Format: den_neu
Dataset Creation: Sun May 06 17:03:11 2012 by Calc Open-Cased 110302
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				

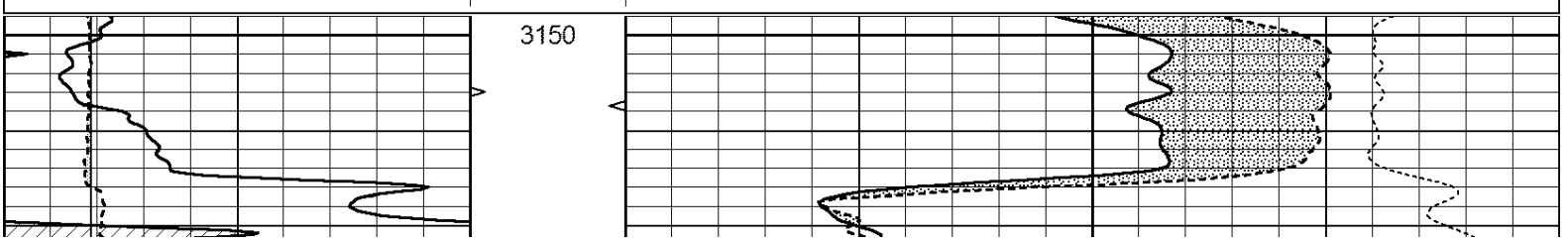
SUPERIOR WELL SERVICES

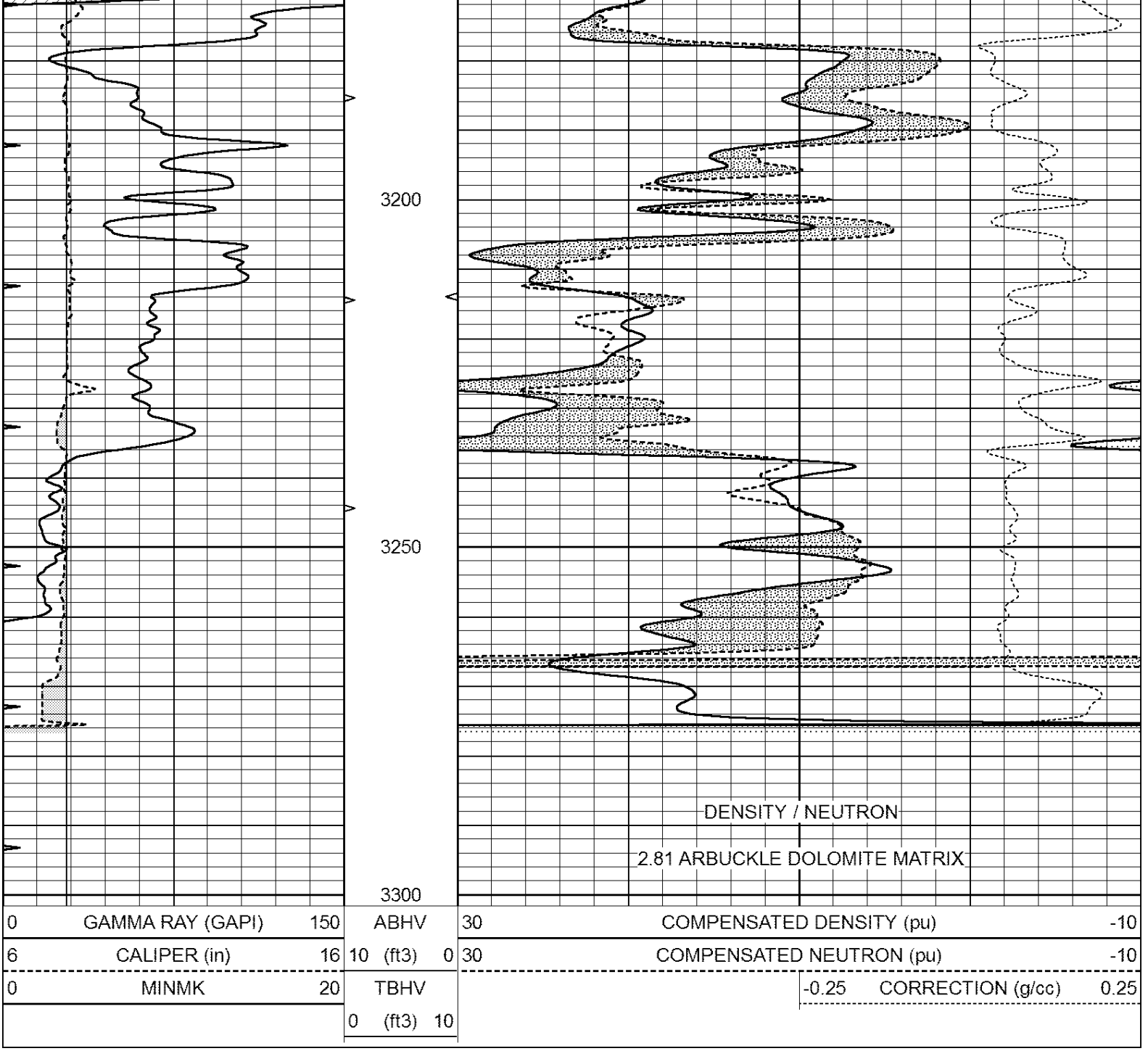
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DOLOMITE MATRIX

Database File: 408763ddn.db
Dataset Pathname: pass2.5
Presentation Format: den_neu
Dataset Creation: Sun May 06 17:06:47 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				





Calibration Report

Database File: 408763ddn.db
Dataset Pathname: pass3.7
Dataset Creation: Sun May 06 17:27:04 2012 by Calc Open-Cased 110302

Dual Induction Calibration Report

Serial-Model: DIL4-GEAR
Performed: Sun May 06 15:02:25 2012

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.008	0.666	V	0.000	400.000	mmho/m	570.000	-5.000
Medium	-0.003	0.769	V	0.000	462.500	mmho/m	560.000	-3.500
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.013	0.651	V	0.000	400.000	mmho/m	627.541	-8.365

Medium	0.020	0.754	V	0.000	462.500	mmho/m	630.311	-12.549

Litho Density Calibration Report

Serial: 003N Model: PRB
Performed Tue Sep 08 14:14:44 2009

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	2042.6	12312.8	4225.8	13758.4	cps
Window 2	1855.8	10134.7	3624.2	11113.1	cps
Window 3	1639.4	6760.2	2716.3	7260.3	cps
Window 4	466.4	469.2	466.1	476.5	cps
Long Space	0.0	8278.9	1768.4	9257.4	cps
Short Space	2.2	2377.3	1544.1	2574.2	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	

Rib Angle	: 44.4	Rib Slope	: 0.979	Density/Spine Ratio	: 0.549
Spine Angle	: 74.4	Spine Slope	: 3.577	Spine Intercept	: -18.8

Caliper

	Readings	Reference
Low Ref	3.4	7.9
High Ref	5.5	15.0

Gain: 3.4 Offset: -3.5

Compensated Neutron Calibration Report

Serial Number: 070808
Tool Model: Probe

PRE-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

POST-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number:	070559	
Tool Model:	OPEN_GR	
Performed:	Sun May 06 15:02:07 2012	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.3000	GAPI/cps