SUPERIOR WELL SERVICES

SUPERIOR
Hays, Kansas

DUAL INDUCTION LOG

Company MAI OIL OPERATIONS, INC.
Well STRECKER #1
Field GALATIA EAST
County BARTON State KANSAS

Location: API # : 15-009-25400-0000
590' FSL & 640' FEL
APPROX NW - SE - SE - SE
SEC 12 TWP 16S RGE 15W

Other Services
CDL/CNL
MEL

Permanent Datum GROUND LEVEL Elevation 1932
Log Measured From KELLY BUSHING 8' A.G.L.
Drilling Measured From KELLY BUSHING

Elevation
K.B. 1940
D.F. 1938
G.L. 1932

Date	3/21/10		
Run Number	ONE		
Depth Driller	3480		
Depth Logger	3480		
Bottom Logged Interval	3478		
Top Log Interval	00		
Casing Driller	8 5/8"@448'		
Casing Logger	450		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 10,000PPM	
Density / Viscosity	9.3/53		
pH / Fluid Loss	9.5/8.8		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.400@72F		
Rmf @ Meas. Temp	.300@72F		
Rmc @ Meas. Temp	.480@72F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.259@111F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	5:00 P.M.		
Maximum Recorded Temperature	111F		
Equipment Number	0836		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	KITT NOAH	ALLEN BANGERT	

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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, S. ON HWY 281 TO RUSSELL / BARTON COUNTY LINE., 4W., 1 3/4S., W. INTO

MAIN SECTION

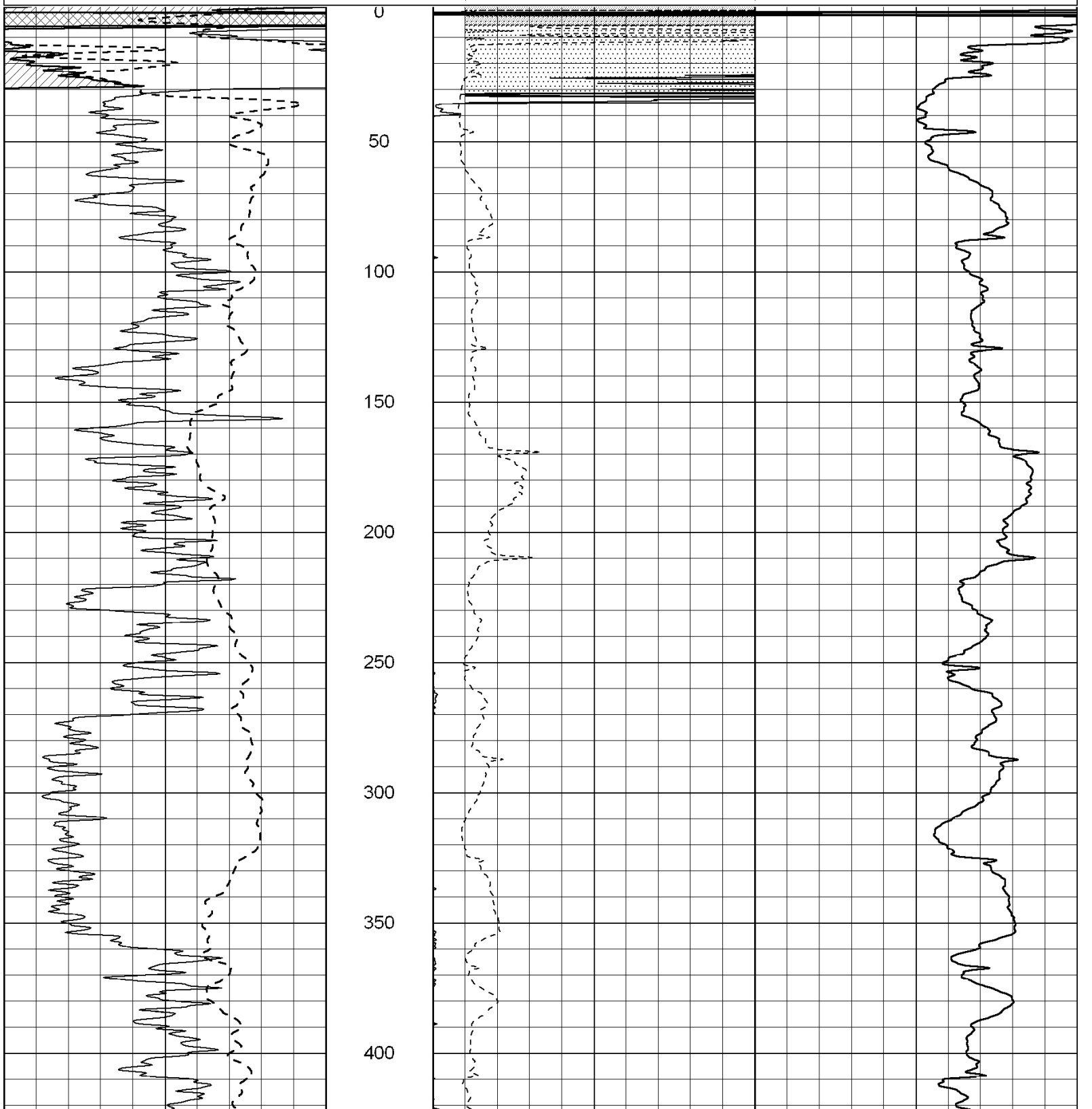
SUPERIOR
Hays, Kansas

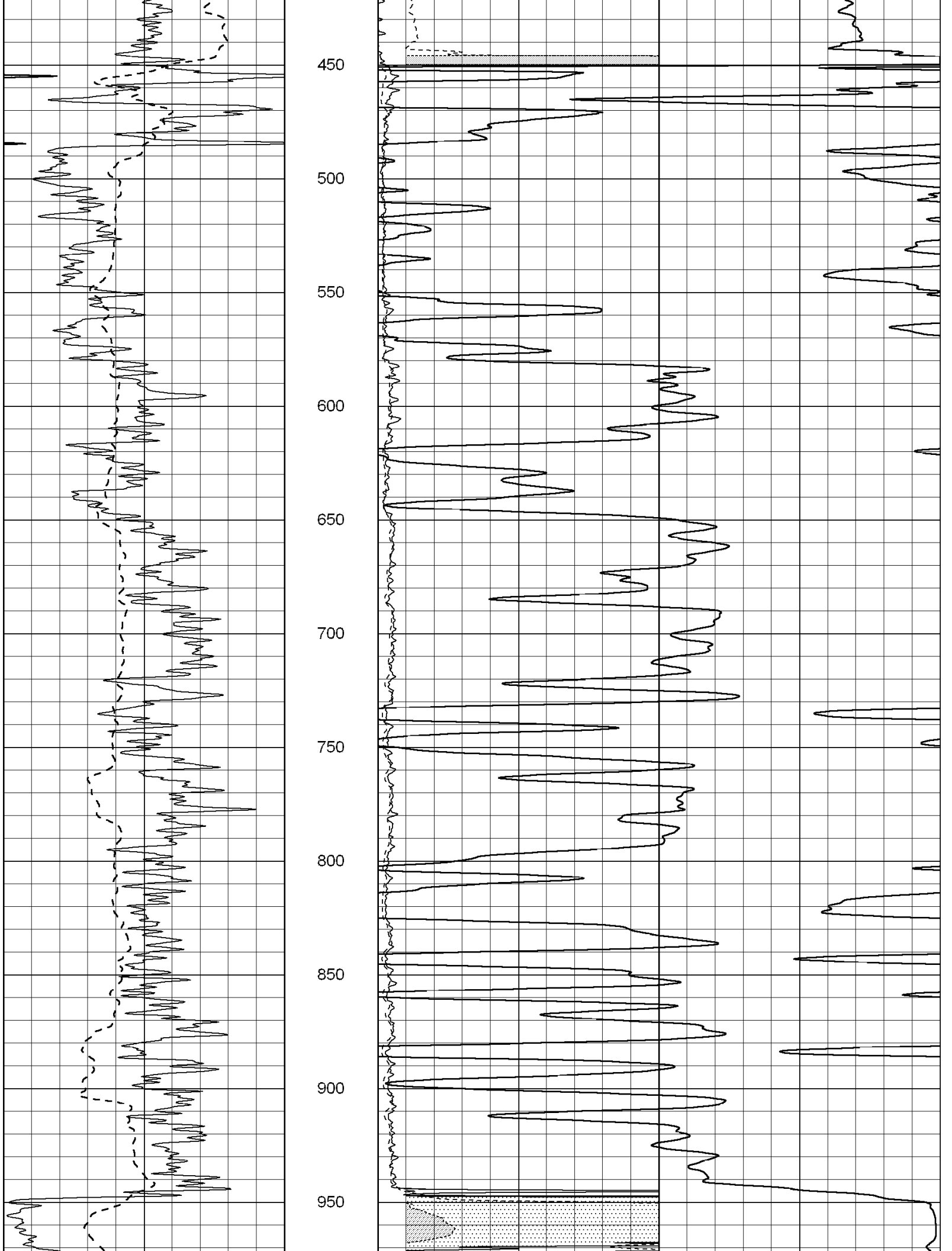
Kansas

Database File:	004835ddn.db
Dataset Pathname:	pass3.5
Presentation Format:	dil2
Dataset Creation:	Sun Mar 21 18:06:12 2010 by Calc Open-Cased 060407
Charted by:	Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150
-100	SP (mV)	100

0	RLL3 (Ohm-m)	50
0	RILD (Ohm-m)	50
1000	CILD (mmho-m)	0
50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500

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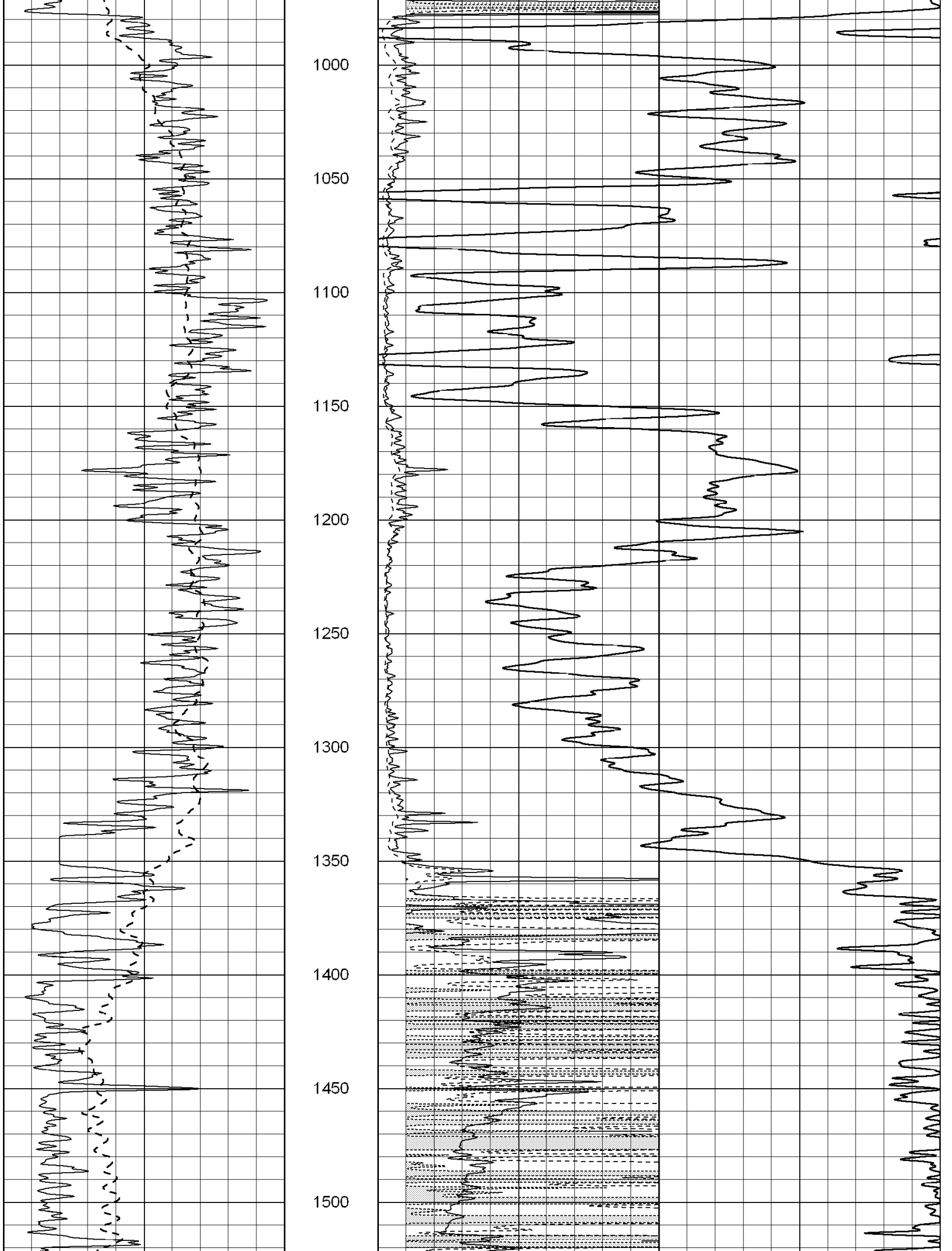
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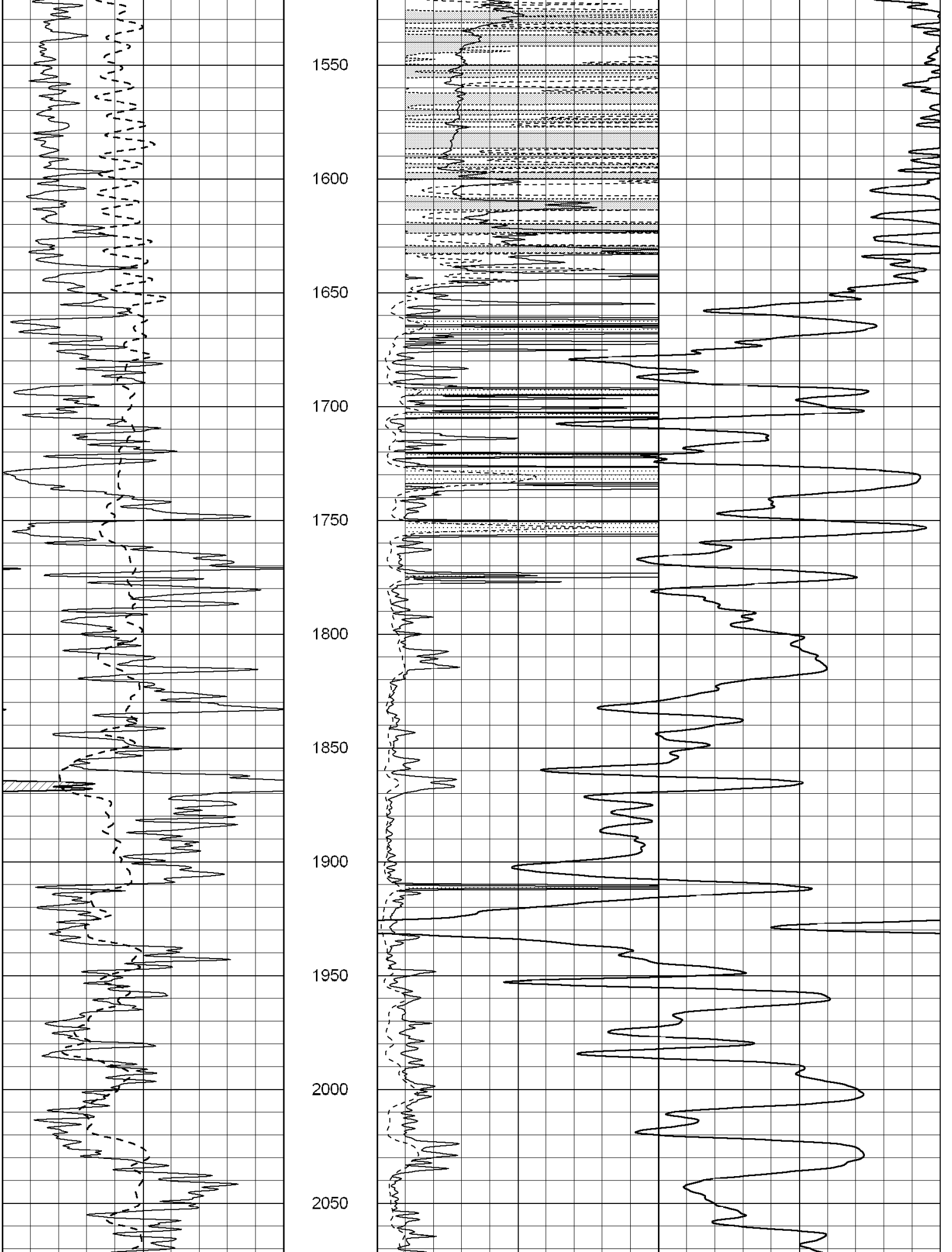
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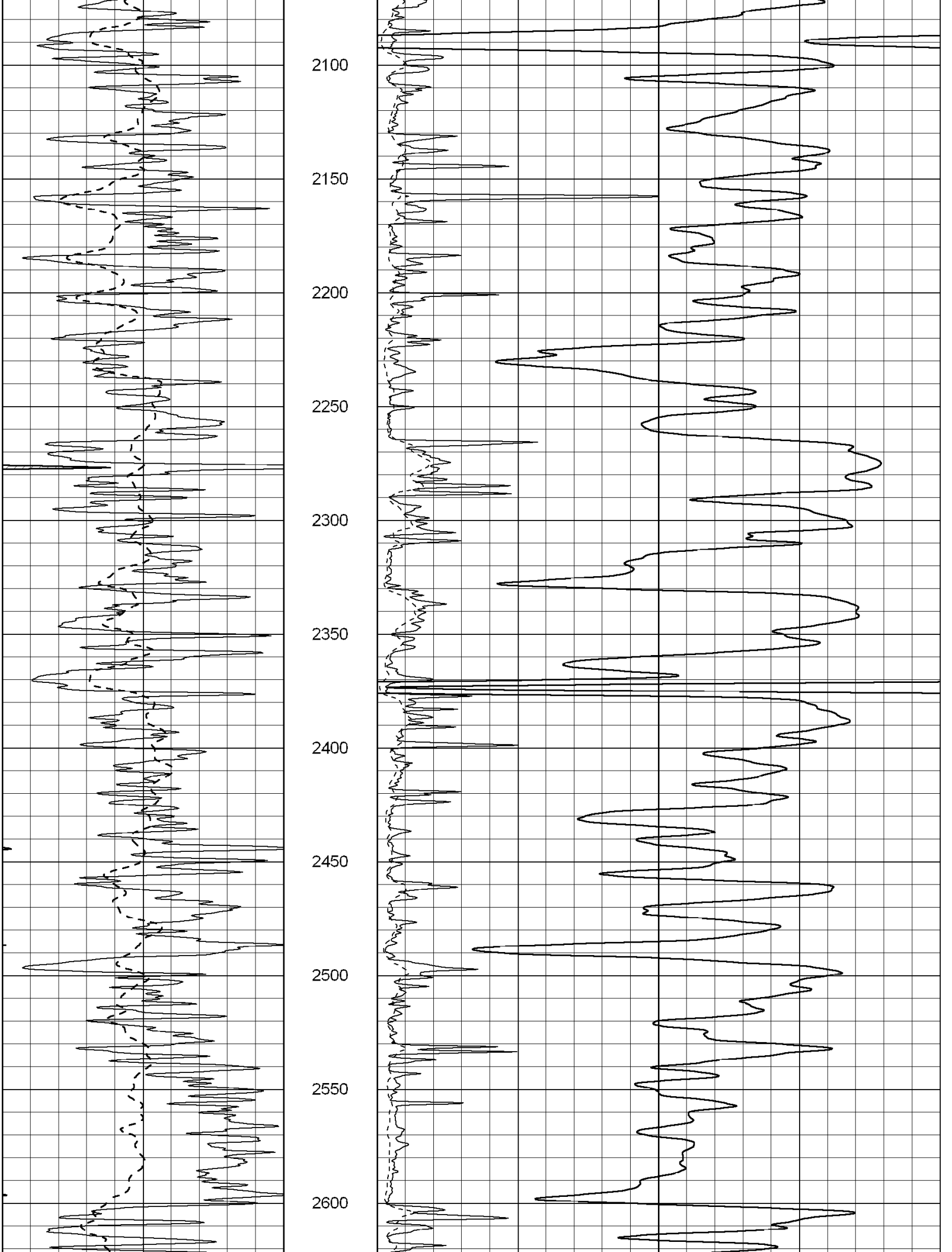
2050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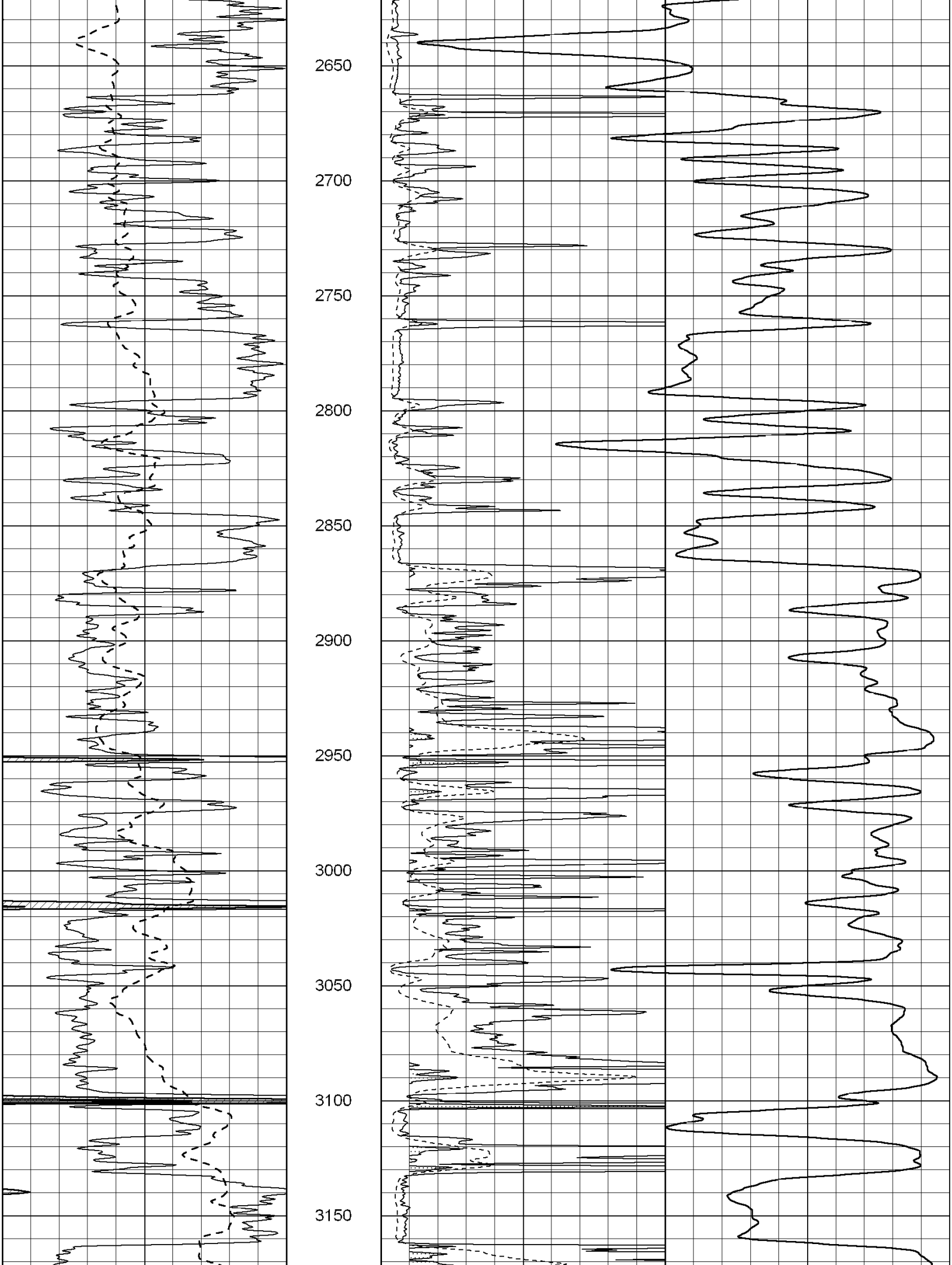
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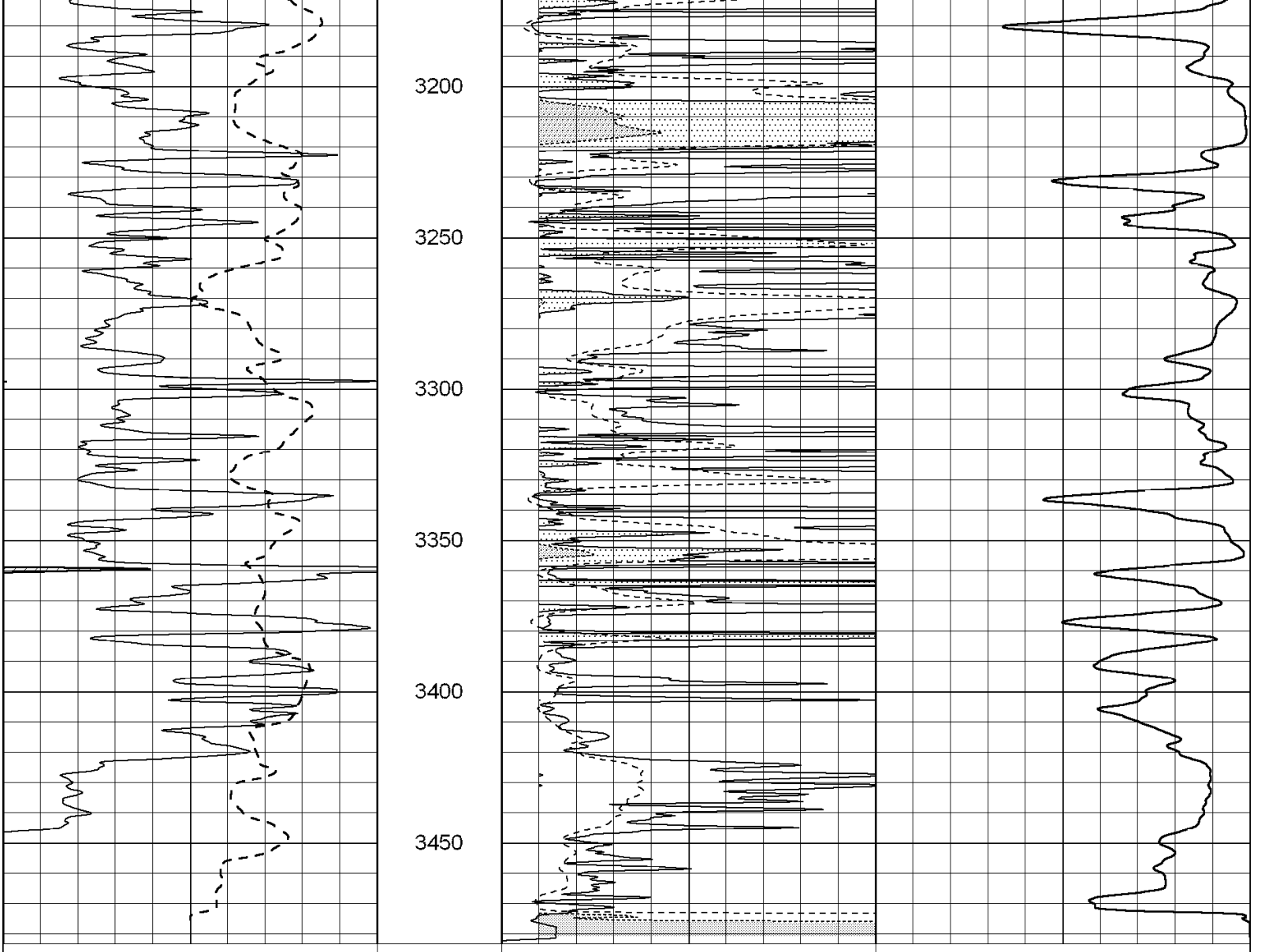

SUPERIOR WELL SERVICES

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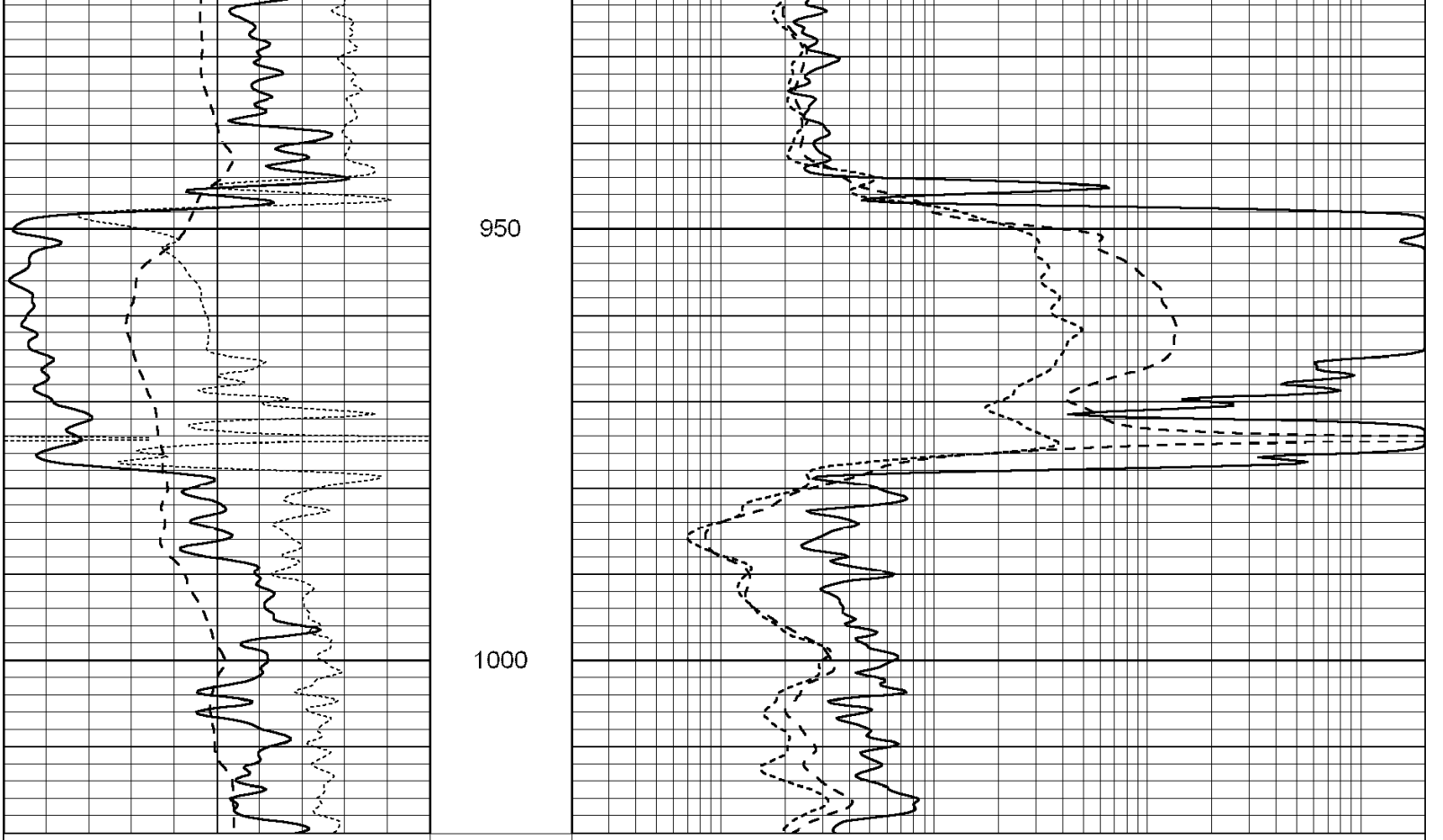
ANHYDRITE

Database File:	004835ddn.db
Dataset Pathname:	pass3.6
Presentation Format:	dil
Dataset Creation:	Sun Mar 21 18:07:15 2010 by Calc Open-Cased 060407
Charted by:	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

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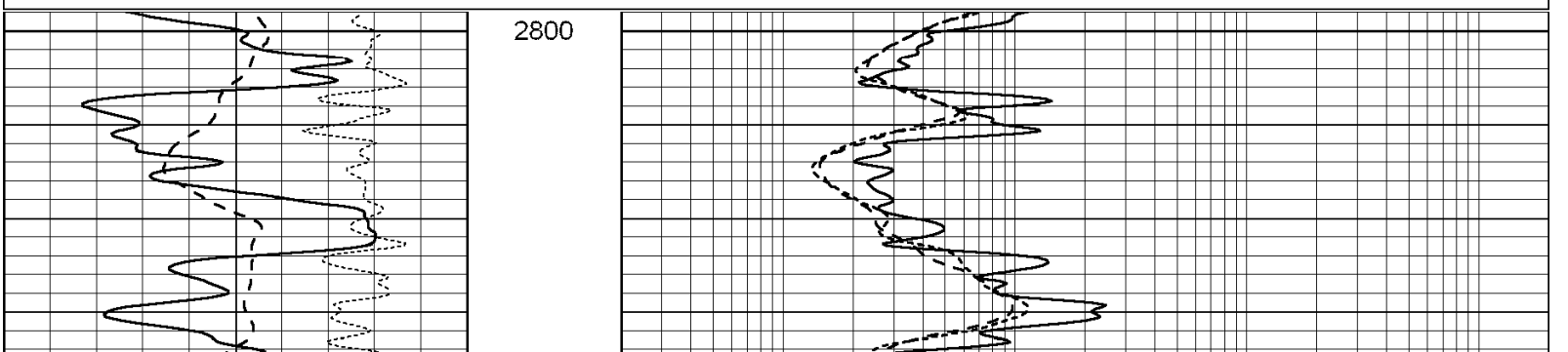
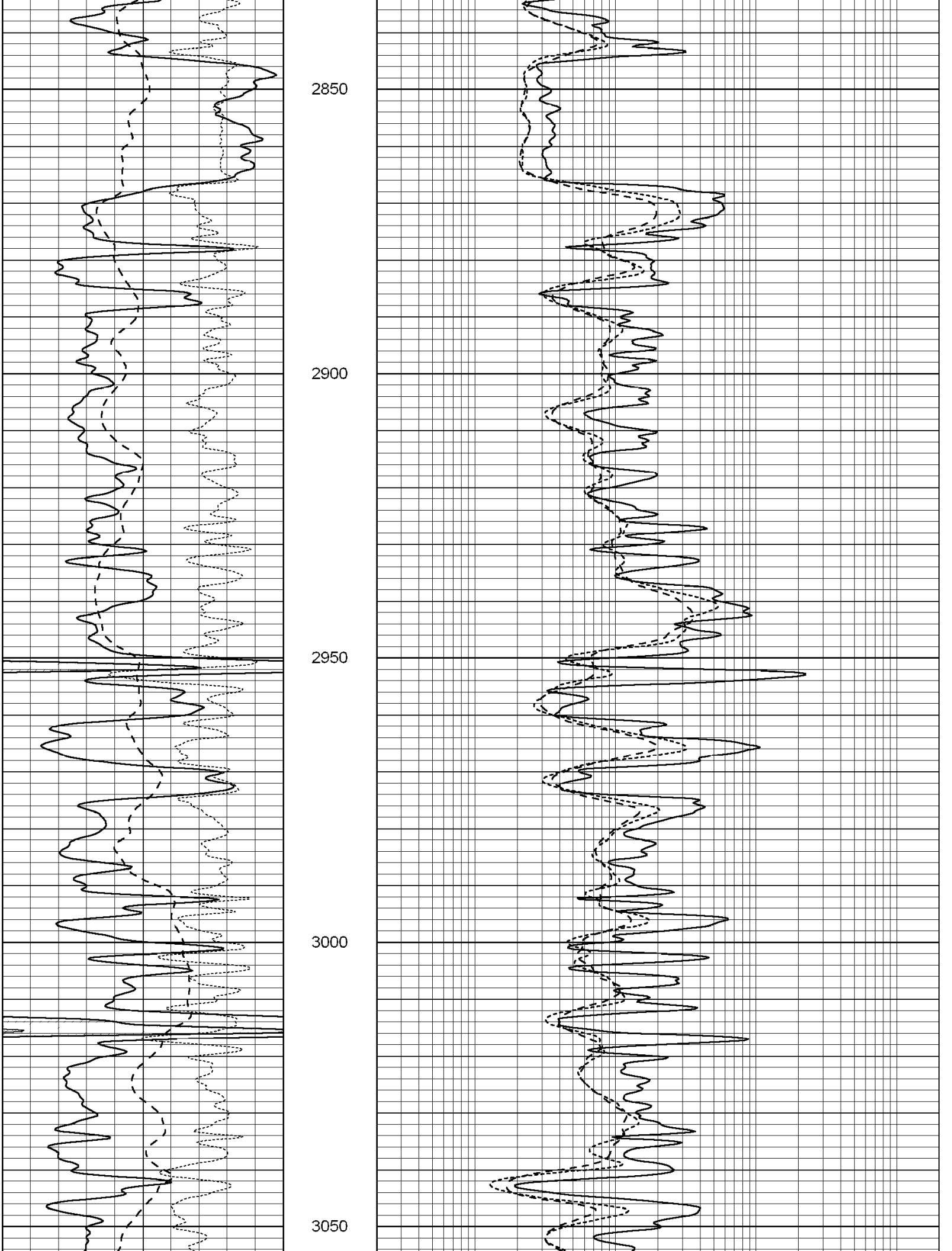
MAIN SECTION

Database File:	004835ddn.db
Dataset Pathname:	pass3.5
Presentation Format:	dil
Dataset Creation:	Sun Mar 21 18:06:12 2010 by Calc Open-Cased 060407
Charted by:	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

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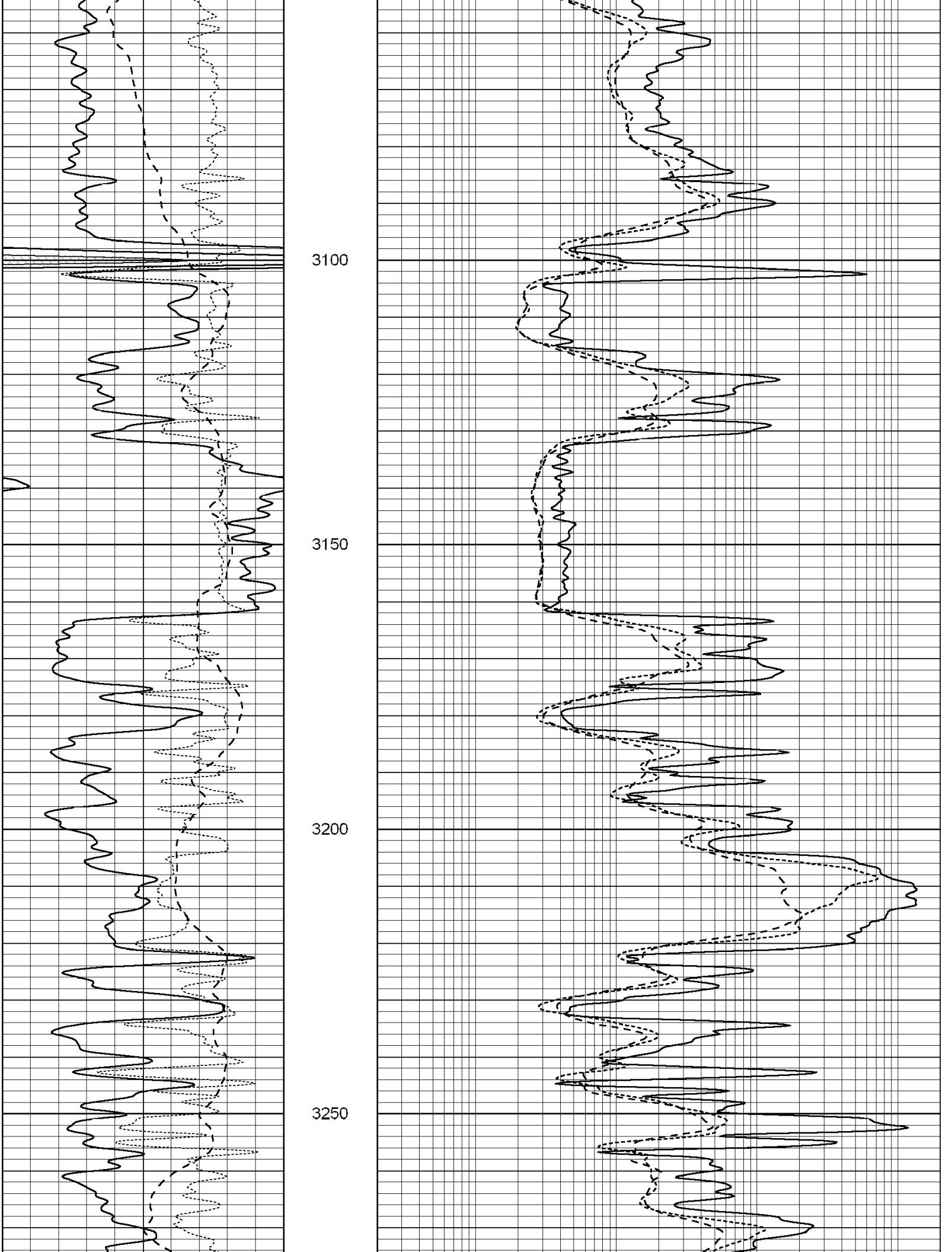
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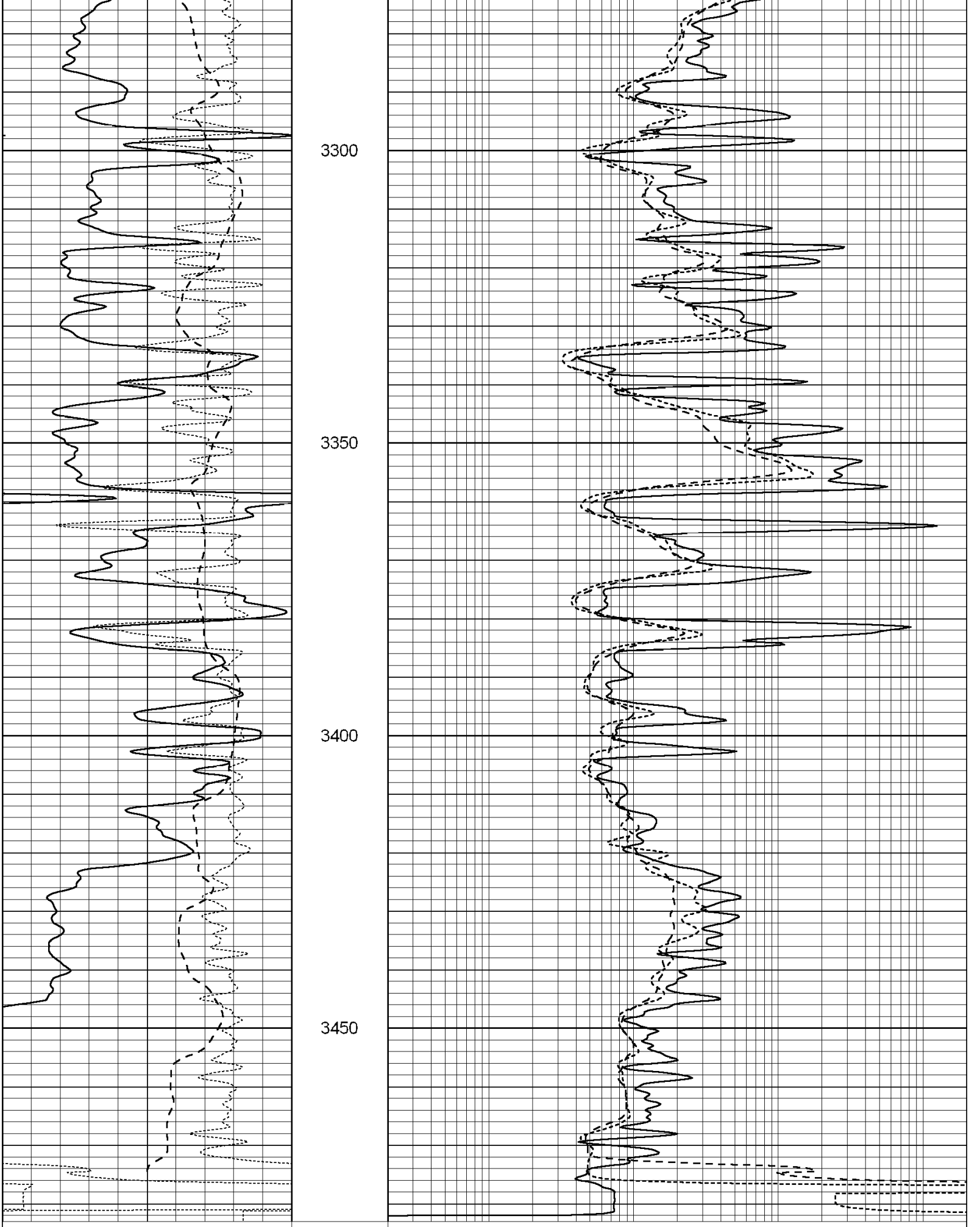
3250


3300
3350
3400
3450
0 GAMMA RAY (GAPI) 150
-100 SP (mV) 100
0.2 SHALLOW GUARD (Ohm-m) 2000
0.2 DEEP INDUCTION (Ohm-m) 2000

-250	Rxo/Rt	50

0.2	MEDIUM INDUCTION (Ohm-m)	2000

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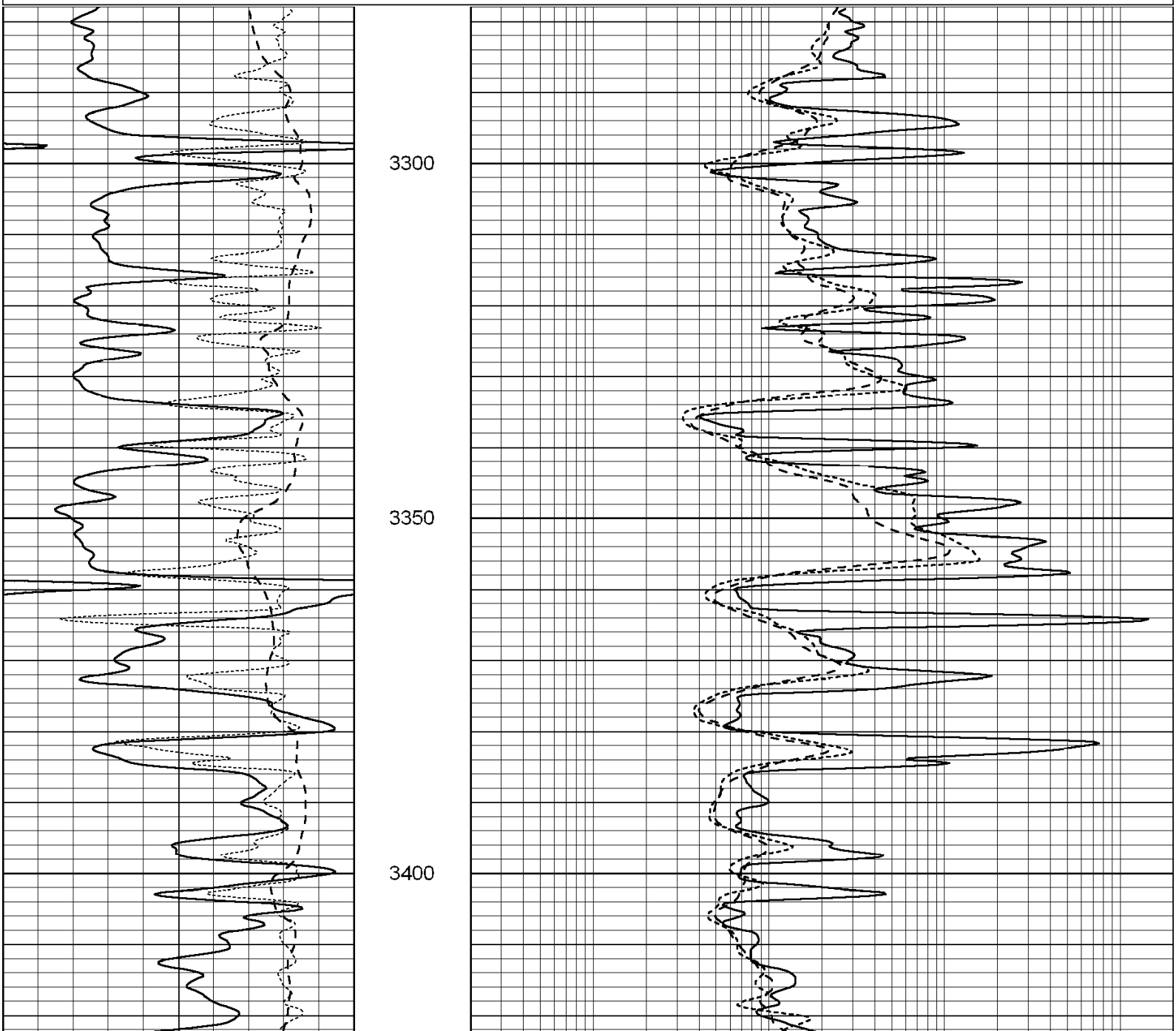
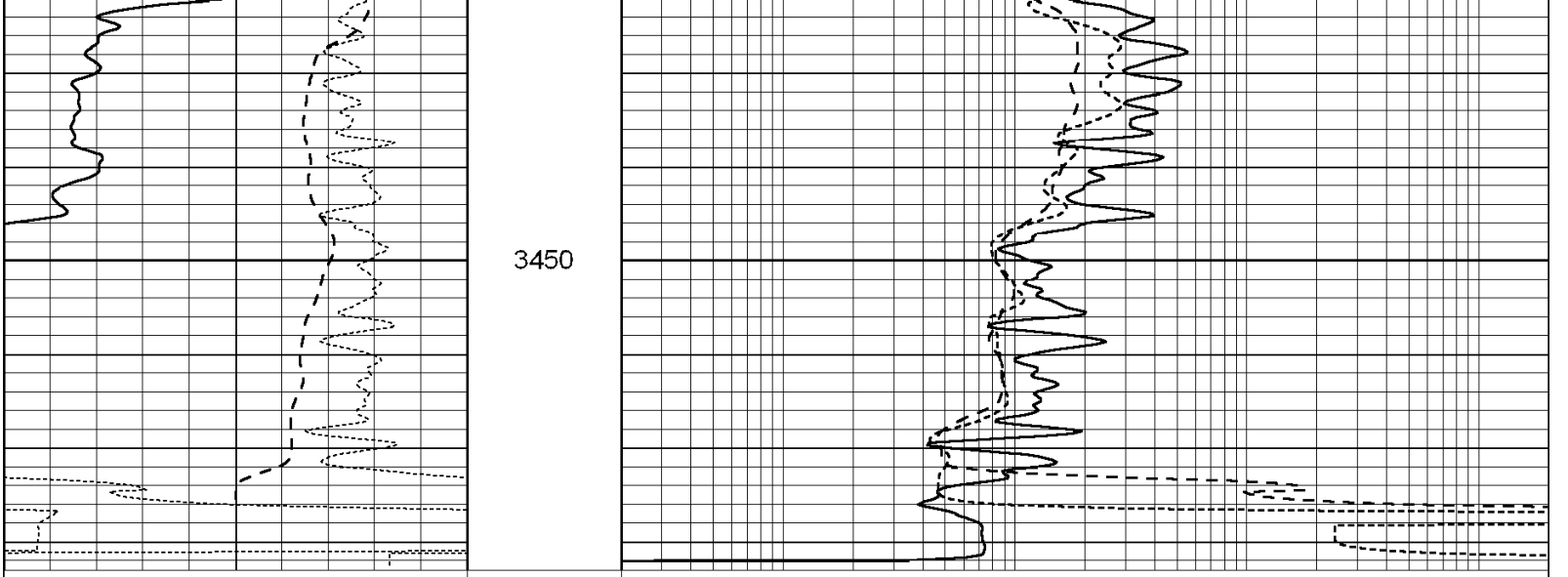
REPEAT SECTION

Database File:	004835ddn.db
Dataset Pathname:	pass2.6
Presentation Format:	dil
Dataset Creation:	Sun Mar 21 17:44:02 2010 by Calc Open-Cased 060407
Charted by:	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000





0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

Calibration Report

Database File: 004835ddn.db
Dataset Pathname: pass3.5
Dataset Creation: Sun Mar 21 18:06:12 2010 by Calc Open-Cased 060407

Dual Induction Calibration Report

Serial-Model: DIL6-GEAR
Performed: Tue Mar 09 11:47:51 2010

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.001	0.644	V	0.000	400.000	mmho-m	660.000	-5.000
Medium	0.020	0.738	V	0.000	462.500	mmho-m	740.000	-23.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.000	1.000	V	0.000	1.000	mmho-m	1.000	0.000
Medium	0.000	1.000	V	0.000	1.000	mmho-m	1.000	0.000

Litho Density Calibration Report

Serial: 004N Model: PRB
Performed Tue Sep 08 13:49:55 2009

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	1535.8	11161.3	3721.6	12498.8	cps
Window 2	1402.6	9435.7	3219.7	10417.7	cps
Window 3	1077.6	4422.0	1779.2	4753.4	cps
Window 4	337.3	342.8	337.4	343.7	cps
Long Space	0.0	8033.1	1817.0	9015.1	cps
Short Space	1.2	1671.8	1138.1	1813.0	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	

Rib Angle	: 45.5	Rib Slope	: 1.017	Density/Spine Ratio	: 0.573
Spine Angle	: 75.5	Spine Slope	: 3.865	Spine Intercept	: -19.7

Caliper

	Readings	Reference
Low Ref	0.9	6.9
High Ref	2.9	14.0
	Gain: 3.5	Offset: 3.8

Compensated Neutron Calibration Report

Serial Number: NEU_4I
Tool Model: G

CALIBRATION

Detector	Readings	Target	Normalization
Short Space	996.00 cps	1000.00 cps	1.0000
Long Space	977.00 cps	1000.00 cps	1.0000

Gamma Ray Calibration Report

Serial Number: GR4
Tool Model: OPEN
Performed: Sun Mar 21 17:06:50 2010

Calibrator Value: 200.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 189.0 cps

Sensitivity: 0.7000 GAPI/cps