NABORS
COMPLETION & PRODUCTION SERVICES CO.

DUAL INDUCTION LOG

Company	VALHALLA EXPLORATION, LLC.
Well	SCHARTZ #1-11
Field	TAYLOR NORTHEAST
County	STAFFORD
State	KANSAS

Company VALHALLA EXPLORATION, LLC.
Well SCHARTZ #1-11
Field TAYLOR NORTHEAST
County STAFFORD State KANSAS

Location: API # : 15-185-23899-00-00
330' FNL & 2200' FEL
SEC 11 TWP 21S RGE 14W

Other Services: CDL/CNL/PE MEL/SON

Elevation: K.B. 1929, D.F. 1927, G.L. 1921

Permanent Datum: GROUND LEVEL Elevation 1921
Log Measured From: KELLY BUSHING 8' A.G.L.
Drilling Measured From: KELLY BUSHING

Date	9/20/14		
Run Number	ONE		
Depth Driller	3796		
Depth Logger	3797		
Bottom Logged Interval	3795		
Top Log Interval	0		
Casing Driller	8 5/8 @ 817'		
Casing Logger	820'		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.3/62	CHLORIDES 11,300 PPM	
pH / Fluid Loss	10.0/10.6		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.40 @ 92F		
Rmf @ Meas. Temp	0.30 @ 92F		
Rmc @ Meas. Temp	0.48 @ 92F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	0.32 @ 114F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	114F		
Equipment Number	3802		
Location	HAYS, KS.		
Recorded By	JEFF GRONEWEG		
Witnessed By	ADAM NIGHSWONGER		

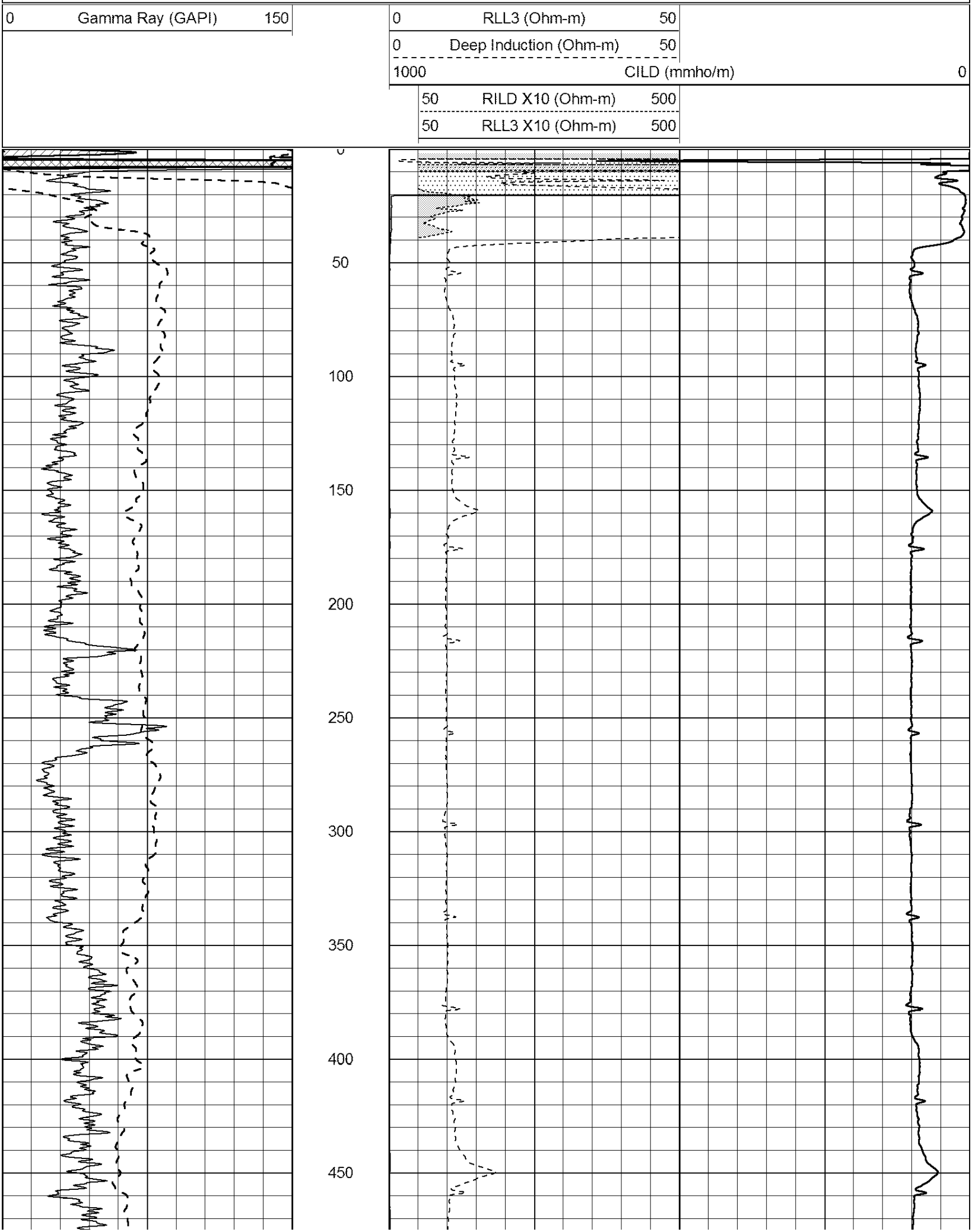
<<< Fold Here >>>

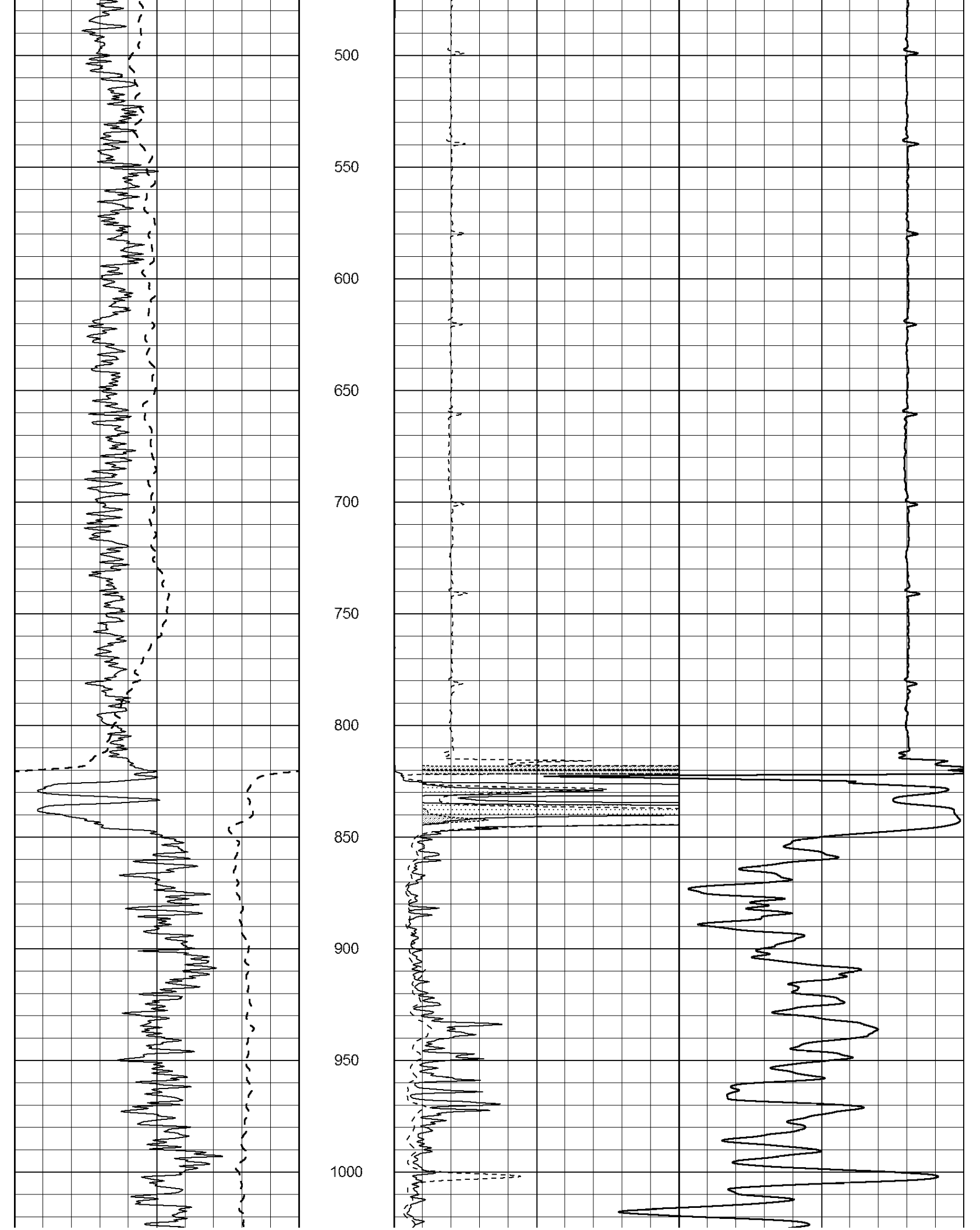
Comments

NABORS COMPLETION & PRODUCTION SERVICES CO.
785 (628 - 6395)
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: GREAT BEND, KS - 9 MILES SOUTH TO RD 200
4 1/2 MILES WEST - S INTO

Database File:	25819pe.db
Dataset Pathname:	pass3.3
Presentation Format:	_dil2
Dataset Creation:	Sat Sep 20 15:50:54 2014 by Calc Open-Cased 090629

Charted by: Depth in Feet scaled 1:600

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550
600
650
700
750
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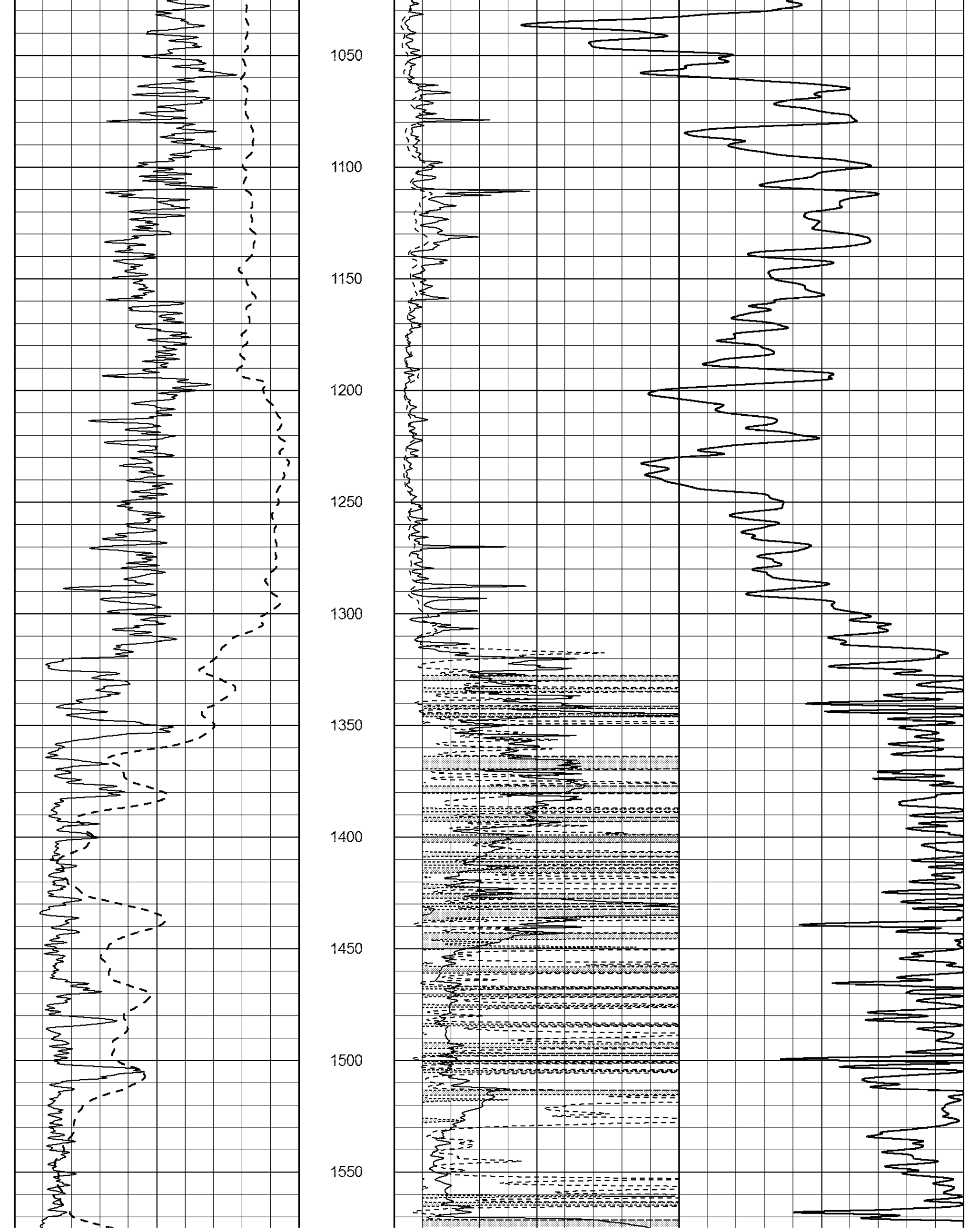
850
900
950
1000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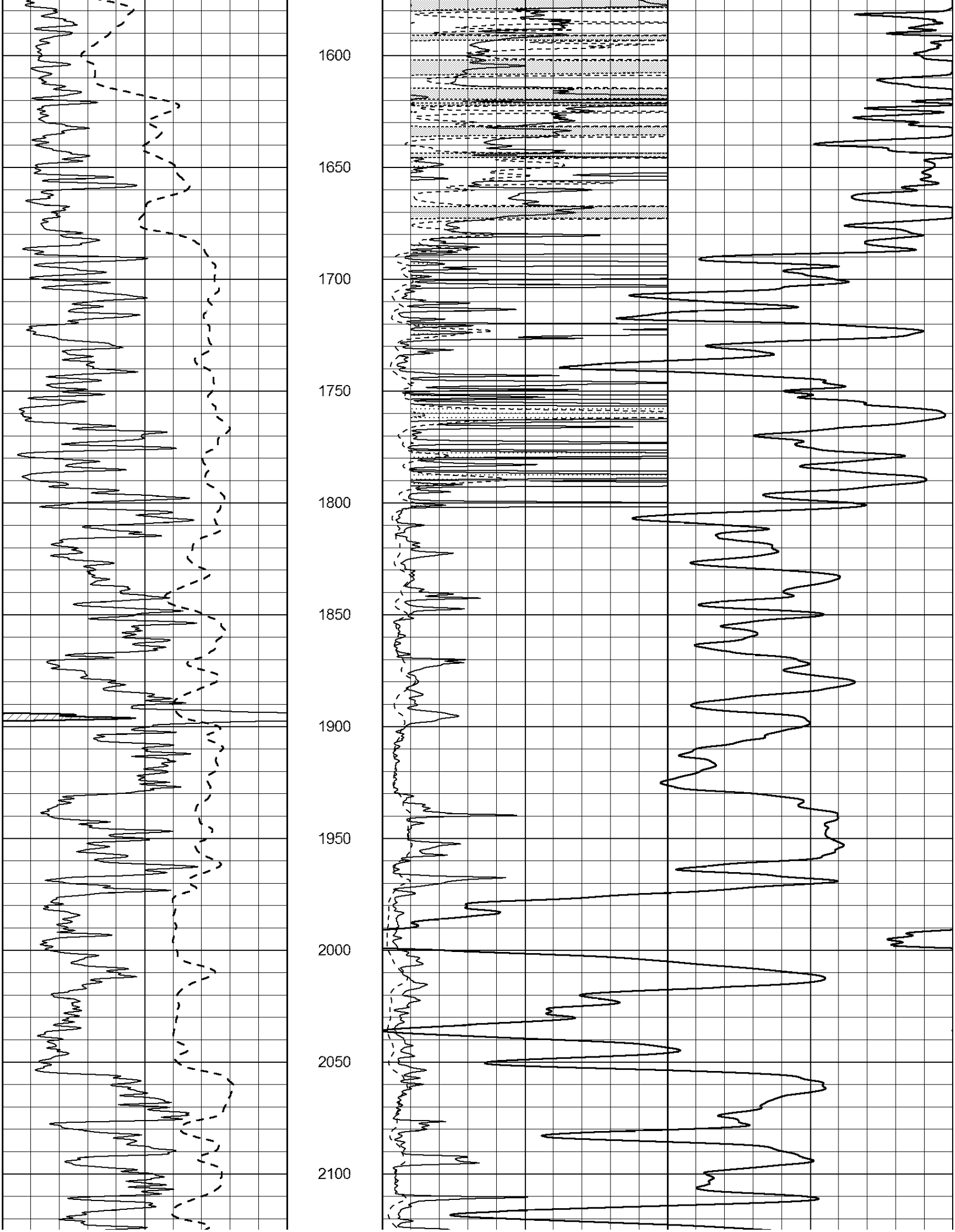
1150
1200
1250
1300
1350
1400
1450
1500
1550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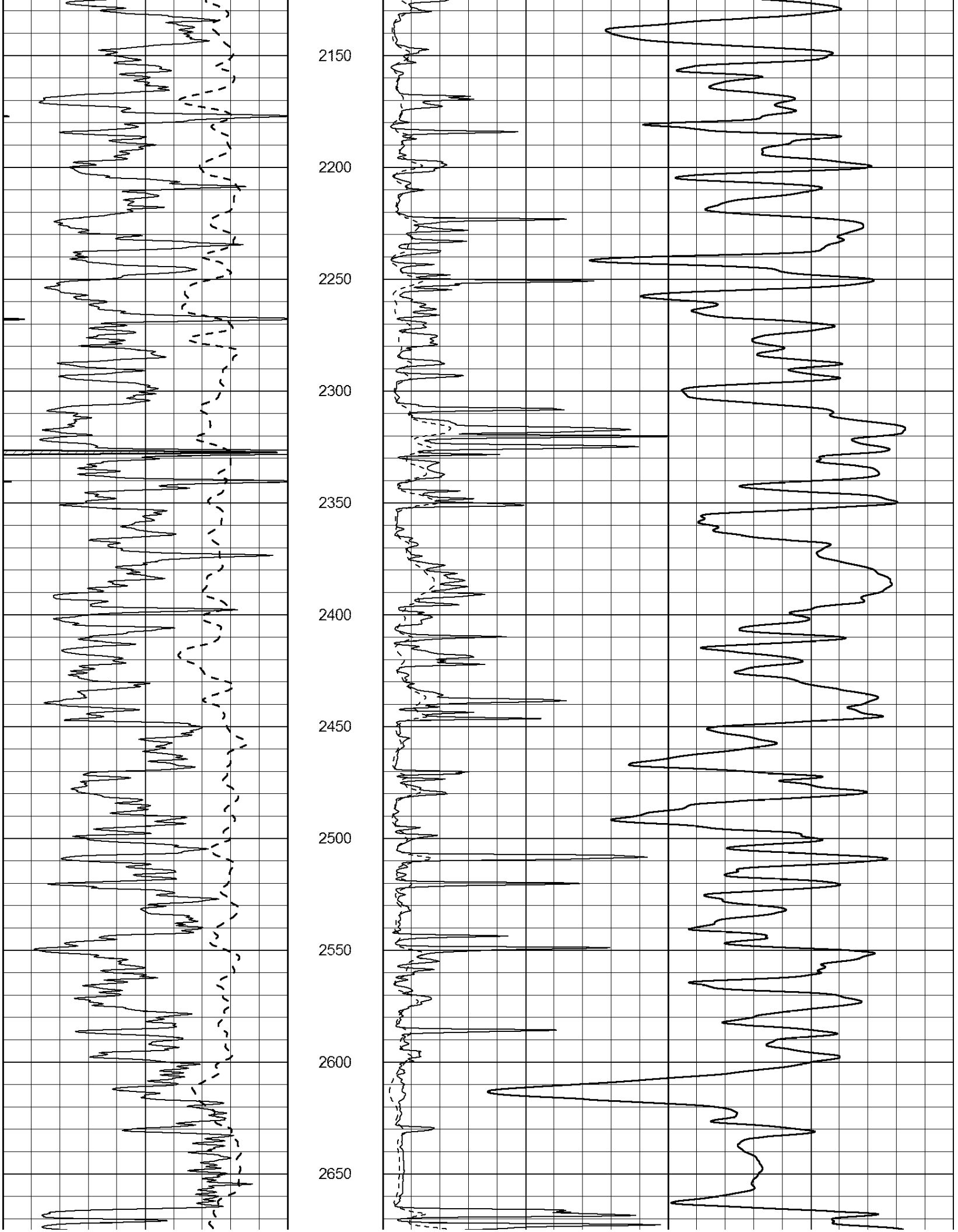
1700
1750
1800
1850
1900
1950
2000
2050
2100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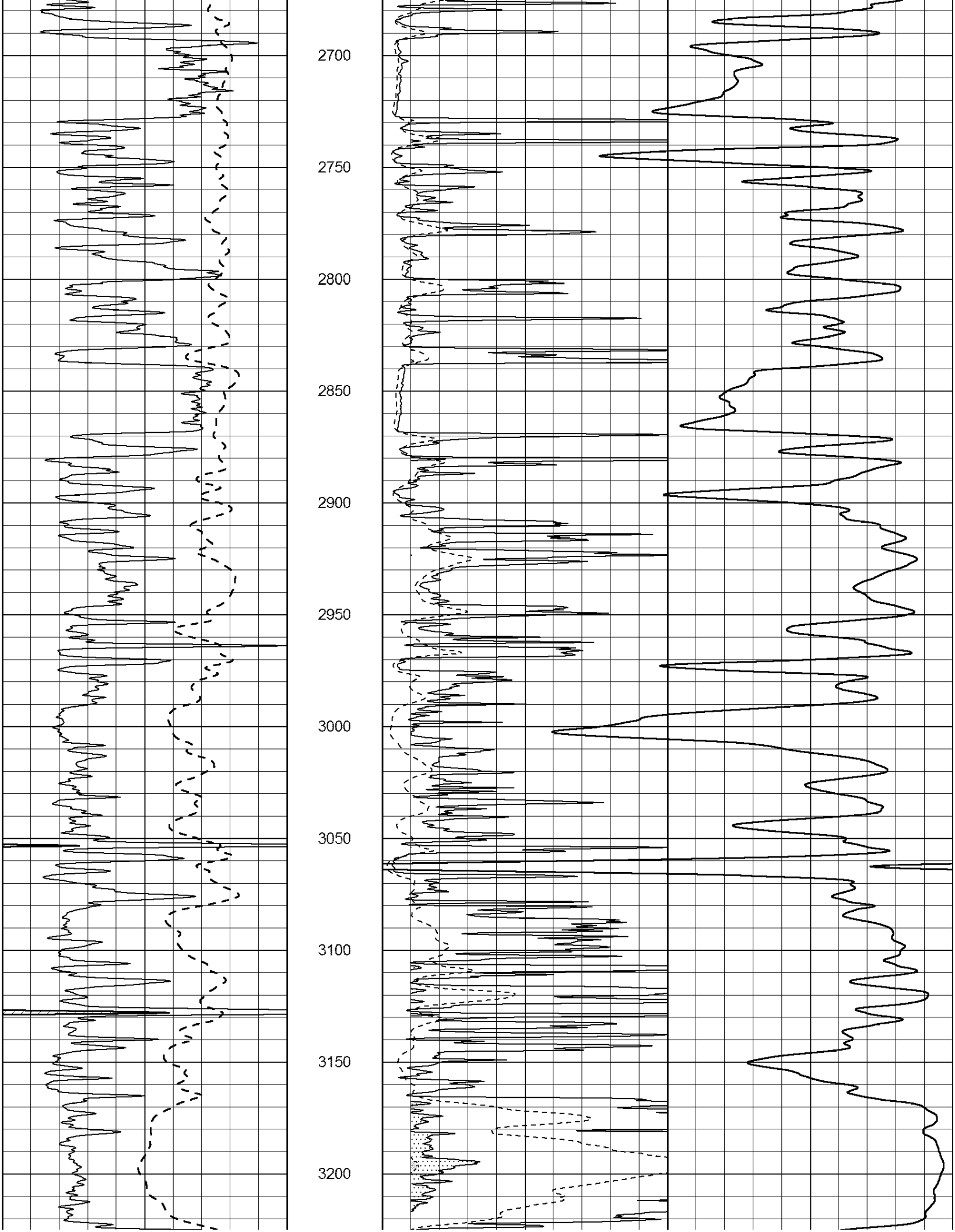
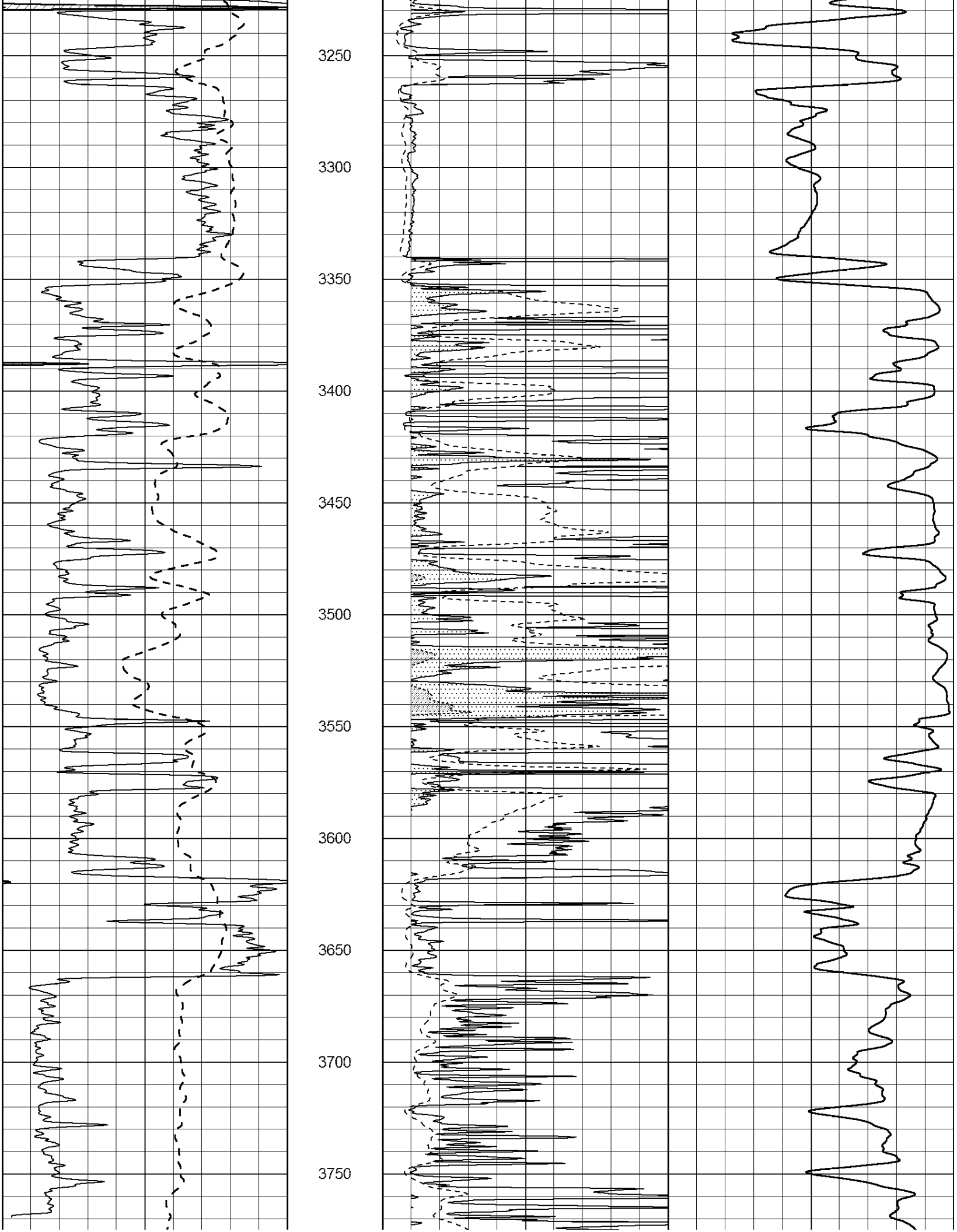
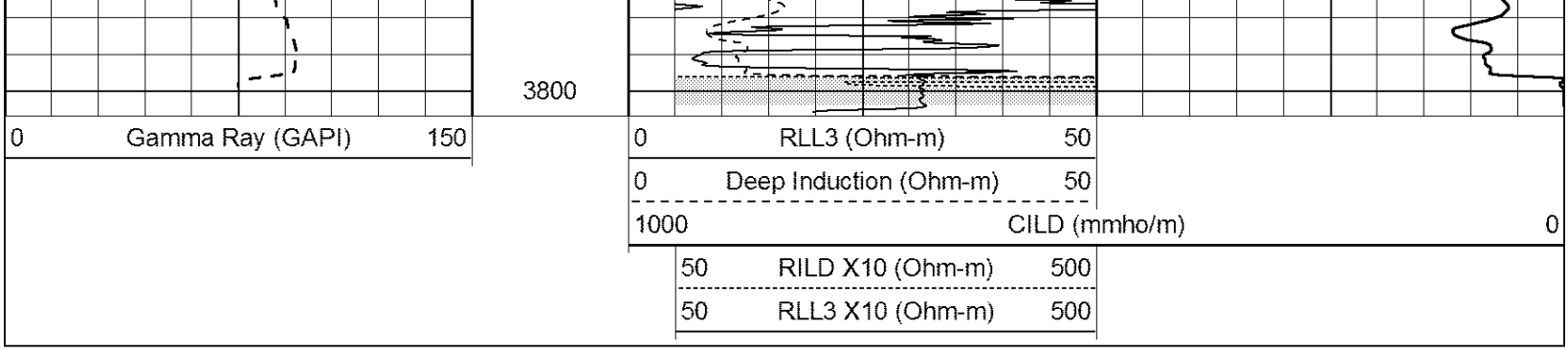
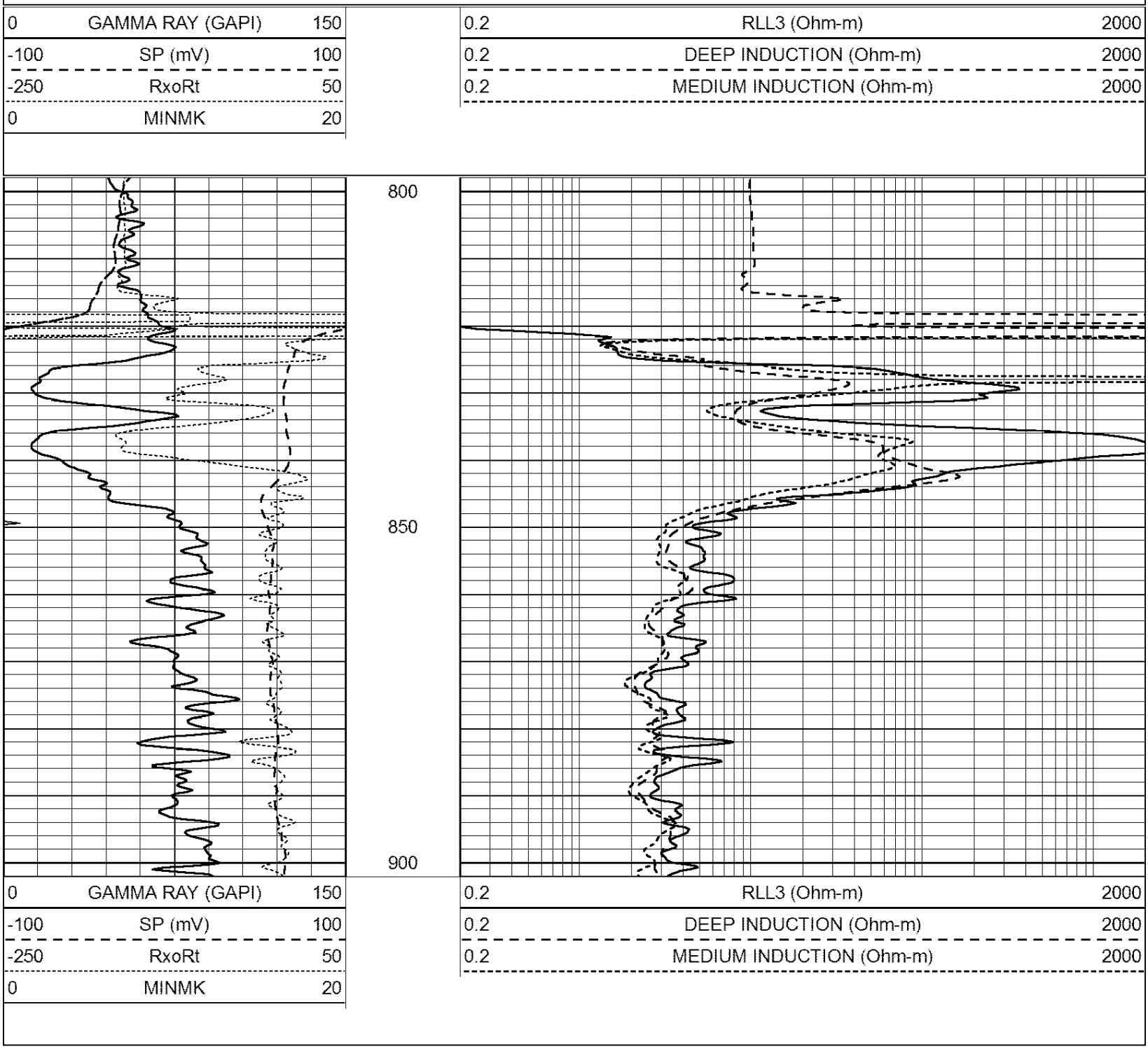
2250
2300
2350
2400
2450
2500
2550
2600
2650


2700
2750
2800
2850
2900
2950
3000
3050
3100
3150
3200


3250
3300
3350
3400
3450
3500
3550
3600
3650
3700
3750



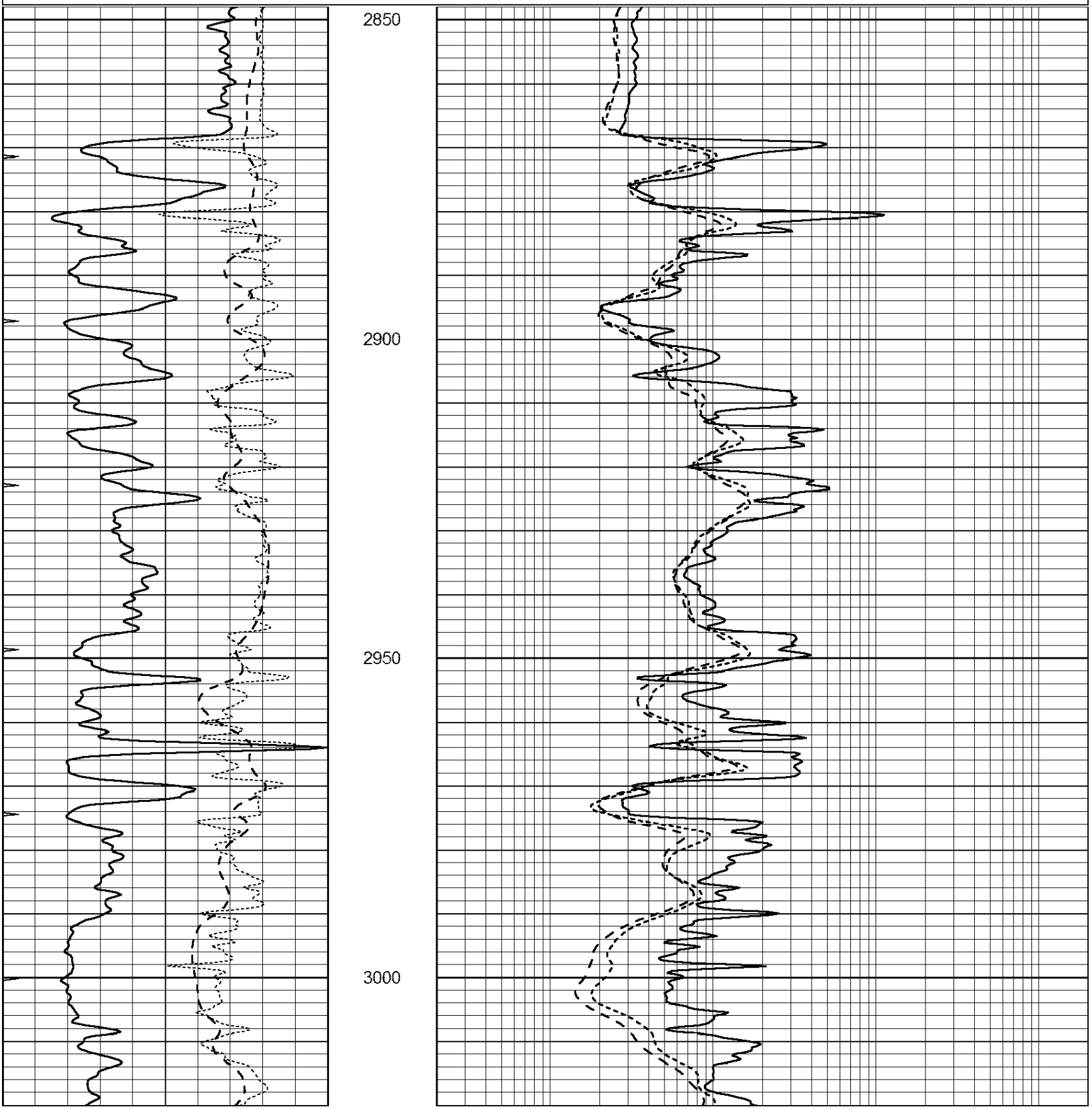
Database File: 25819pe.db
Dataset Pathname: pass3.3
Presentation Format: _dil
Dataset Creation: Sat Sep 20 15:50:54 2014 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

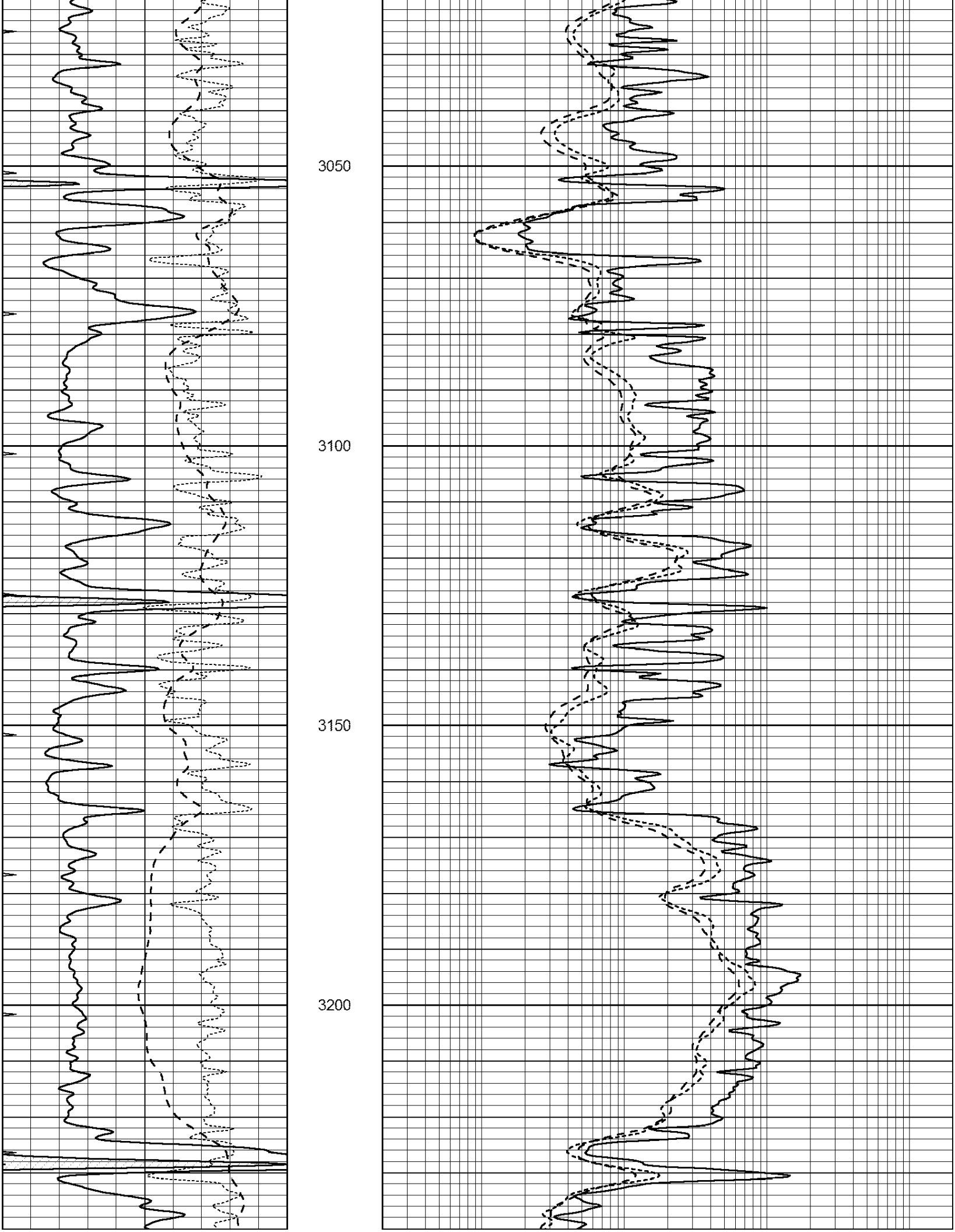


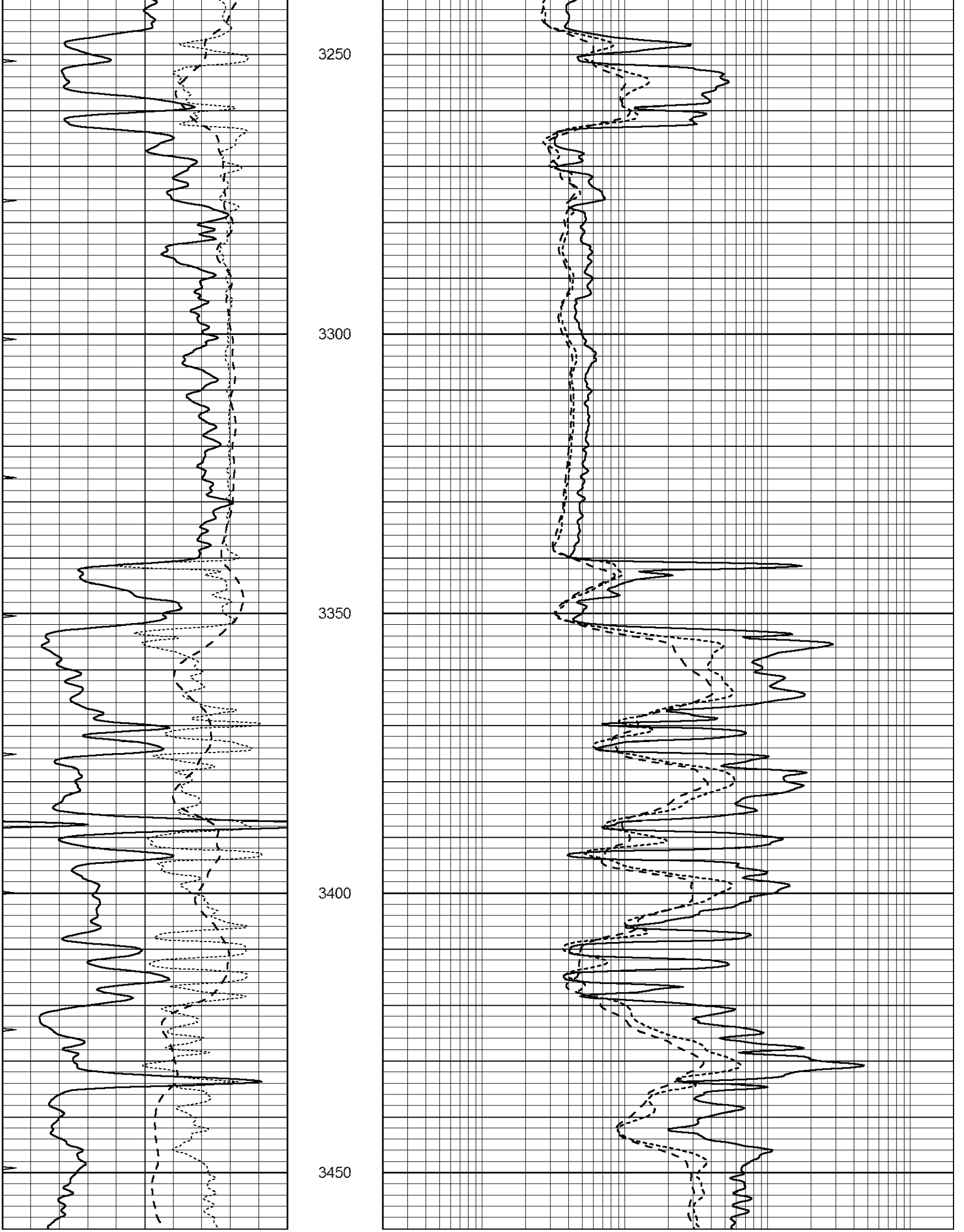
Database File:	25819pe.db
Dataset Pathname:	pass3.2
Presentation Format:	_dil
Dataset Creation:	Sat Sep 20 15:01:39 2014 by Calc Open-Cased 090629
Charted by:	Depth in Feet scaled 1:240

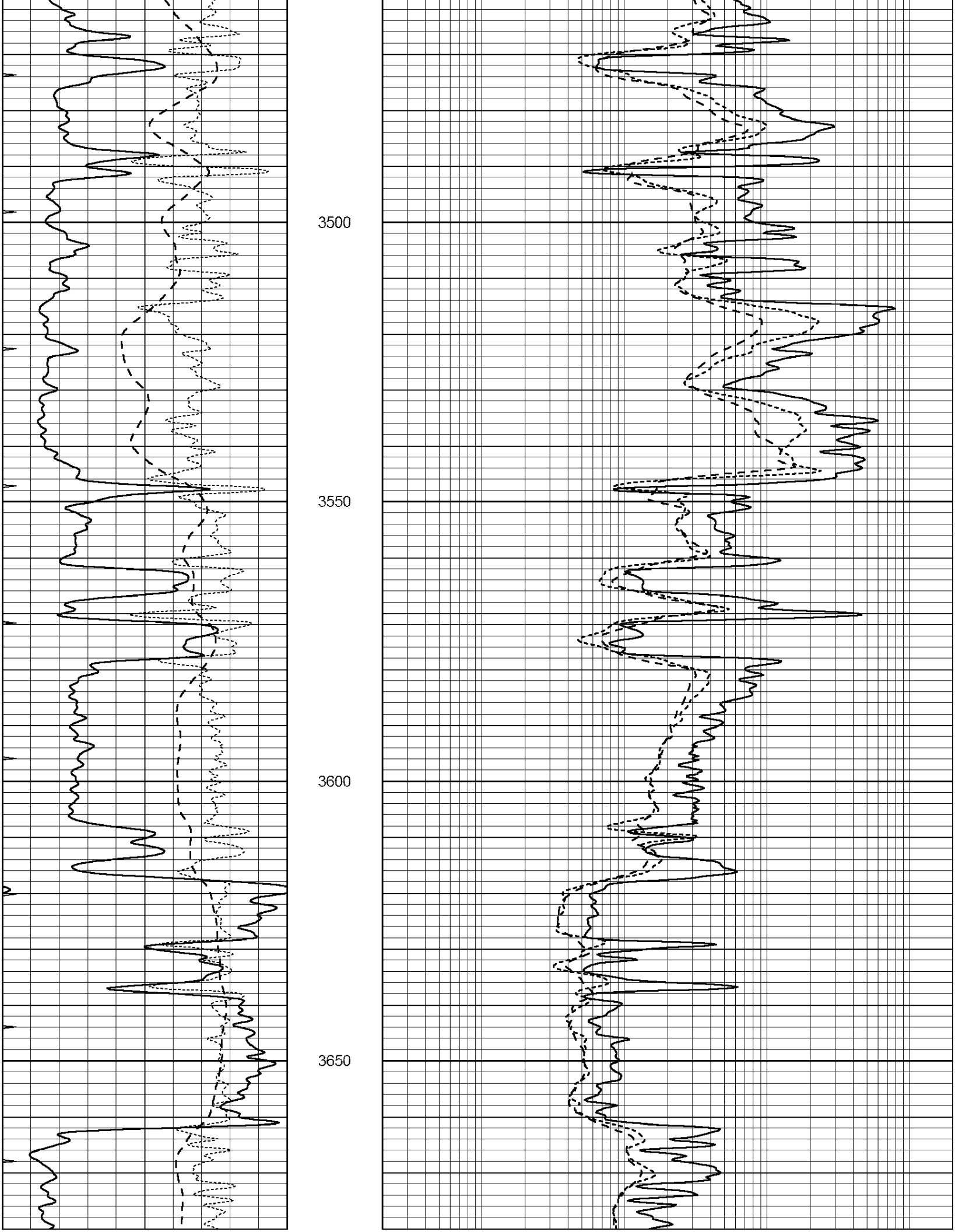
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

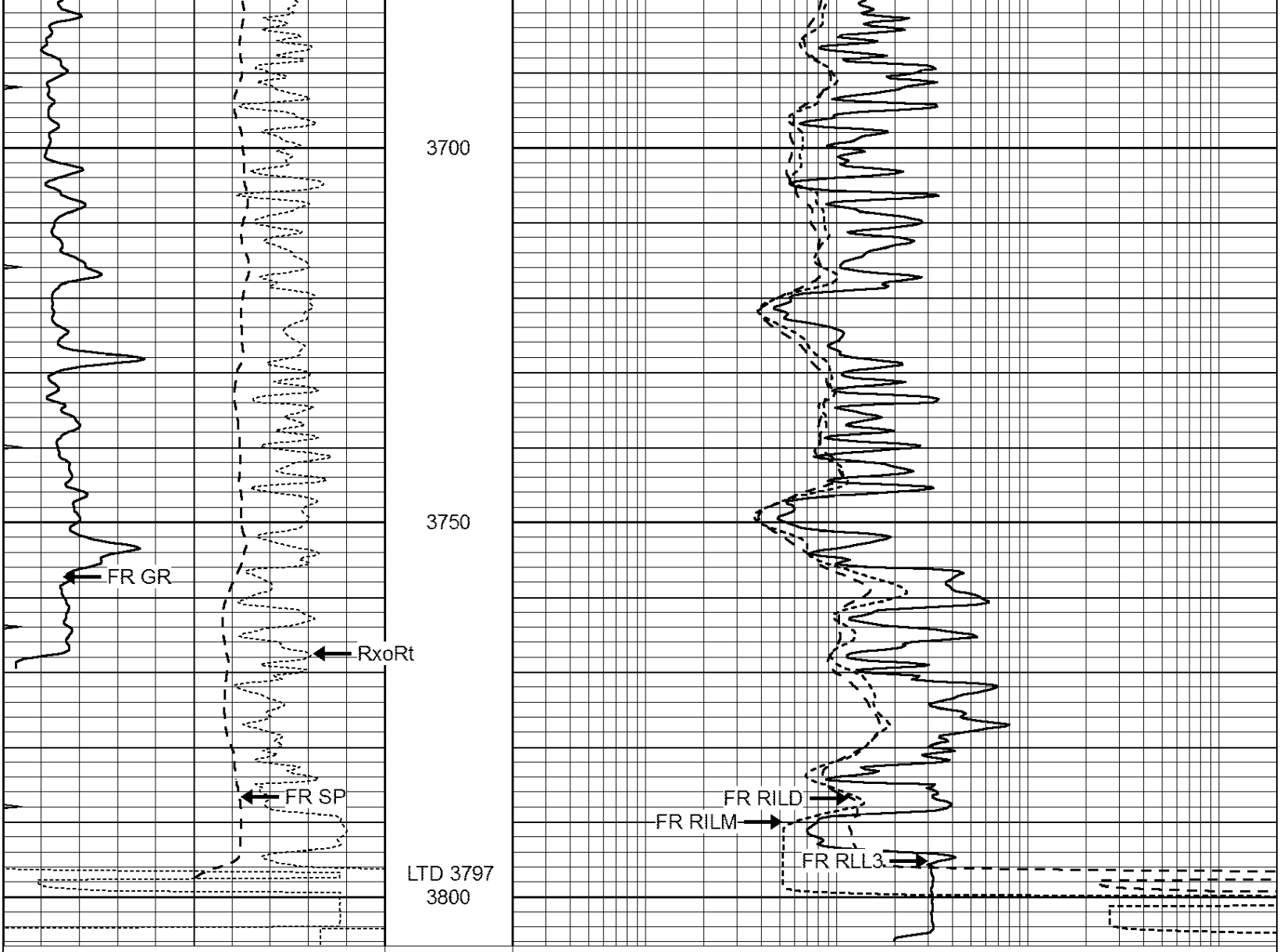
0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000




3050
3100
3150
3200


3250
3300
3350
3400
3450


3500
3550
3600
3650



0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

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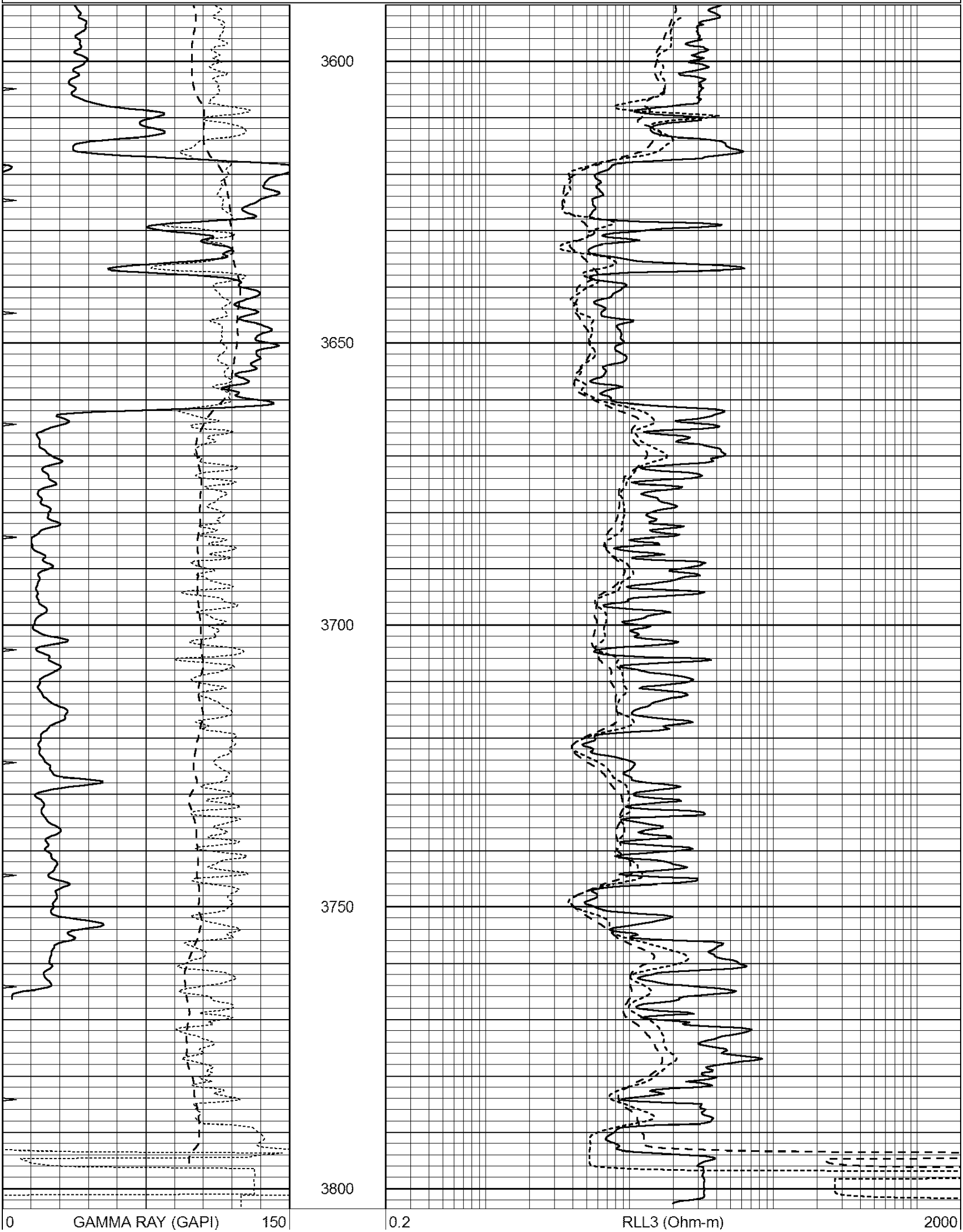
REPEAT SECTION

Database File: 25819pe.db
Dataset Pathname: pass2.3
Presentation Format: _dil
Dataset Creation: Sat Sep 20 14:33:06 2014 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000


3600
3650
3700
3750
3800
0
GAMMA RAY (GAPI)
150
0.2
RLL3 (Ohm-m)
2000

-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

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

Calibration Report

Database File: 25819pe.db
Dataset Pathname: pass3.3
Dataset Creation: Sat Sep 20 15:50:54 2014 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: PROBE7-DILG
Surface Cal Performed: Fri Sep 12 18:11:27 2014
Downhole Cal Performed: Sat Jan 19 19:51:38 2013
After Survey Verification Performed: Sat Jan 19 19:51:38 2013

Surface Calibration

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.793	0.790	V	0.000	400.000	mmho/m	550.000	4.000
Medium	0.992	1.002	V	0.000	464.000	mmho/m	580.000	-48.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.041	0.642	V	0.000	400.000	mmho/m	664.874	-27.011
Medium	0.035	0.802	V	0.000	464.000	mmho/m	604.936	-21.367

Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	135384.000	27094.500	mmho/m	135400.000	27082.400	mmho/m	1.000	-19.259
Medium	-47330.100	-9381.740	mmho/m	-47327.100	-9389.280	mmho/m	1.000	-10.154
LL3		7.322	V		1400.000	Ohm-m		
		0.038	V		20.000	Ohm-m		
		-7.273	V		4000.000	mmho-m		

After Survey Verification

	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	135384.000	27094.500	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	-47330.100	-9381.740	mmho/m	1.000	0.000
LL3		0.000	Ohm-m		1400.000	Ohm-m		
		0.000	Ohm-m		20.000	Ohm-m		
		0.000	mmho-m		4000.000	mmho-m		

Litho Density Calibration Report

Serial: 002 Model: PRB

Master Calibration

Performed Tue May 27 11:05:38 2014

	Background	Magnesium	Aluminum	Sandstone	
Window 1	819.4	6916.8	2053.5	6968.1	cps
Window 2	780.4	5708.6	1783.3	5727.0	cps
Window 3	656.9	3349.4	1194.5	3336.6	cps
Window 4	187.3	183.4	186.5	186.2	cps
Long Space	0.0	4928.2	1002.9	4946.6	cps
Short Space	1.2	1266.1	819.1	1290.7	cps
Rho		1.7100	2.5960	1.3800	g/cc

Pe	0.0000	2.5700	1.5500	

Rib Angle	: 44.7	Rib Slope	: 0.990	Density/Spine Ratio	: 0.537
Spine Angle	: 74.7	Spine Slope	: 3.655	Spine Intercept	: -17.6

Before Survey Verification — Performed Wed Dec 31 18:00:00 1969

Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

After Survey Verification — Performed Wed Dec 31 18:00:00 1969

Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

Compensated Neutron Calibration Report

Serial Number: 080620
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: 46001
Tool Model: Probe1
Performed: Fri Sep 12 17:20:19 2014

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.2600 GAPI/cps