SUPERIOR WELL SERVICES

SUPERIOR
Hays,
Kansas

DUAL INDUCTION LOG

Company DOWNING-NELSON OIL COMPANY, INC.

Well PLAFF-TOEDMAN #1-24

Field WILDCAT

County NESS State KANSAS

Location: API # : 15-135-25217-0000

490' FNL & 2610' FEL

SE - NE - NE - NW

SEC 24 TWP 16S RGE 23W

Permanent Datum GROUND LEVEL Elevation 2439

Log Measured From KELLY BUSHING 8' A.G.L.

Drilling Measured From KELLY BUSHING

Other Services
CDL/CNL
MEL

Elevation
K.B. 2447
D.F. 2445
G.L. 2439

Company	DOWNING-NELSON OIL CO., INC.		
Well	PLAFF-TOEDMAN #1-24		
Field	WILDCAT		
County	NESS		
State	KANSAS		
Date	2-24-11		
Run Number	ONE		
Depth Driller	4550		
Depth Logger	4552		
Bottom Logged Interval	4550		
Top Log Interval	0		
Casing Driller	8 5/8" @ 223'		
Casing Logger	223'		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 4000 PPM	
Density / Viscosity	9.5/57		
pH / Fluid Loss	8.0/10.4		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.00 @ 56F		
Rmf @ Meas. Temp	0.75 @ 56F		
Rmc @ Meas. Temp	1.20 @ 56F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	0.46 @ 121F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	121F		
Equipment Number	680		
Location	HAYS, KS.		
Recorded By	JEFF GRONEWEG		
Witnessed By	MARK DOWNING		

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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.

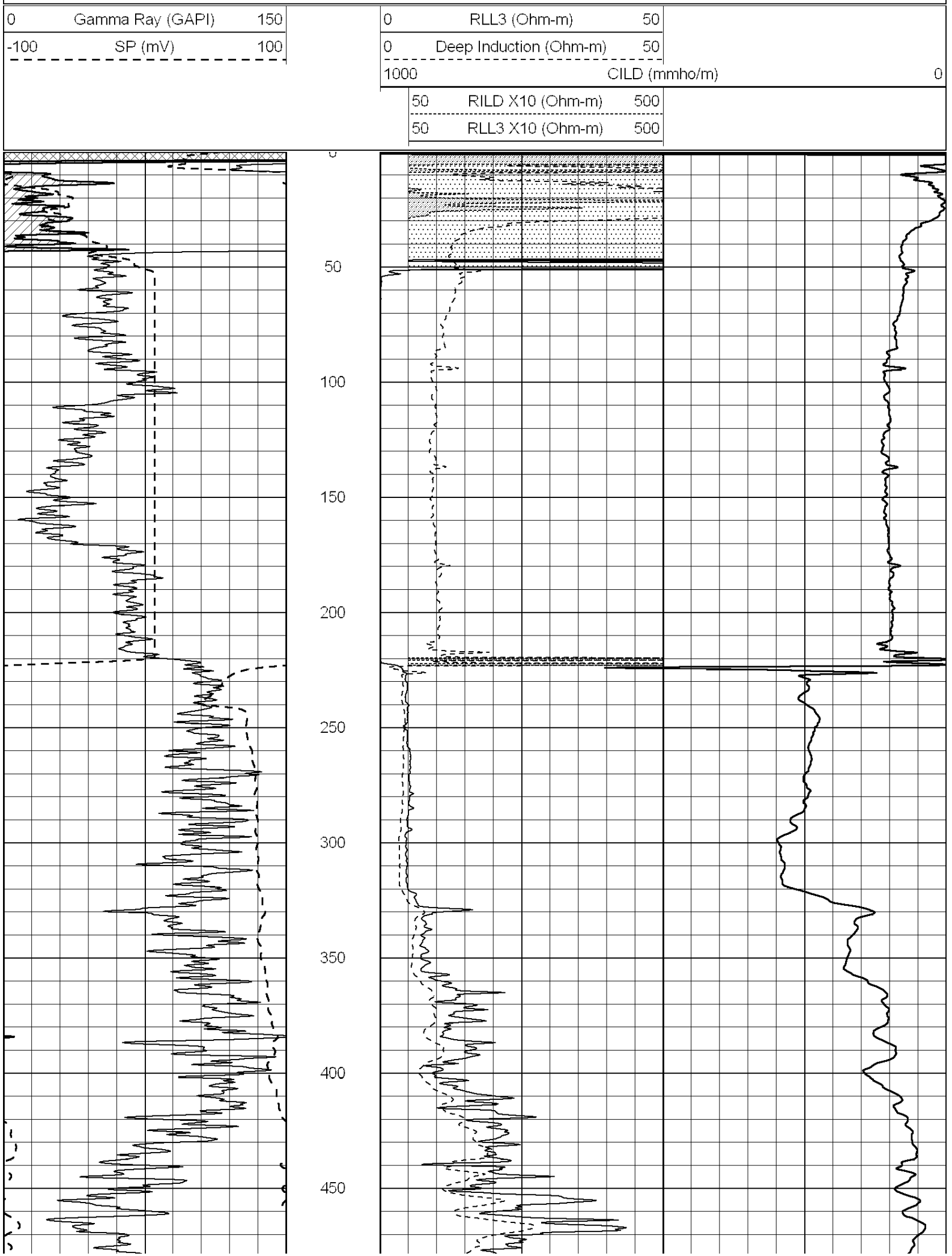
Comments

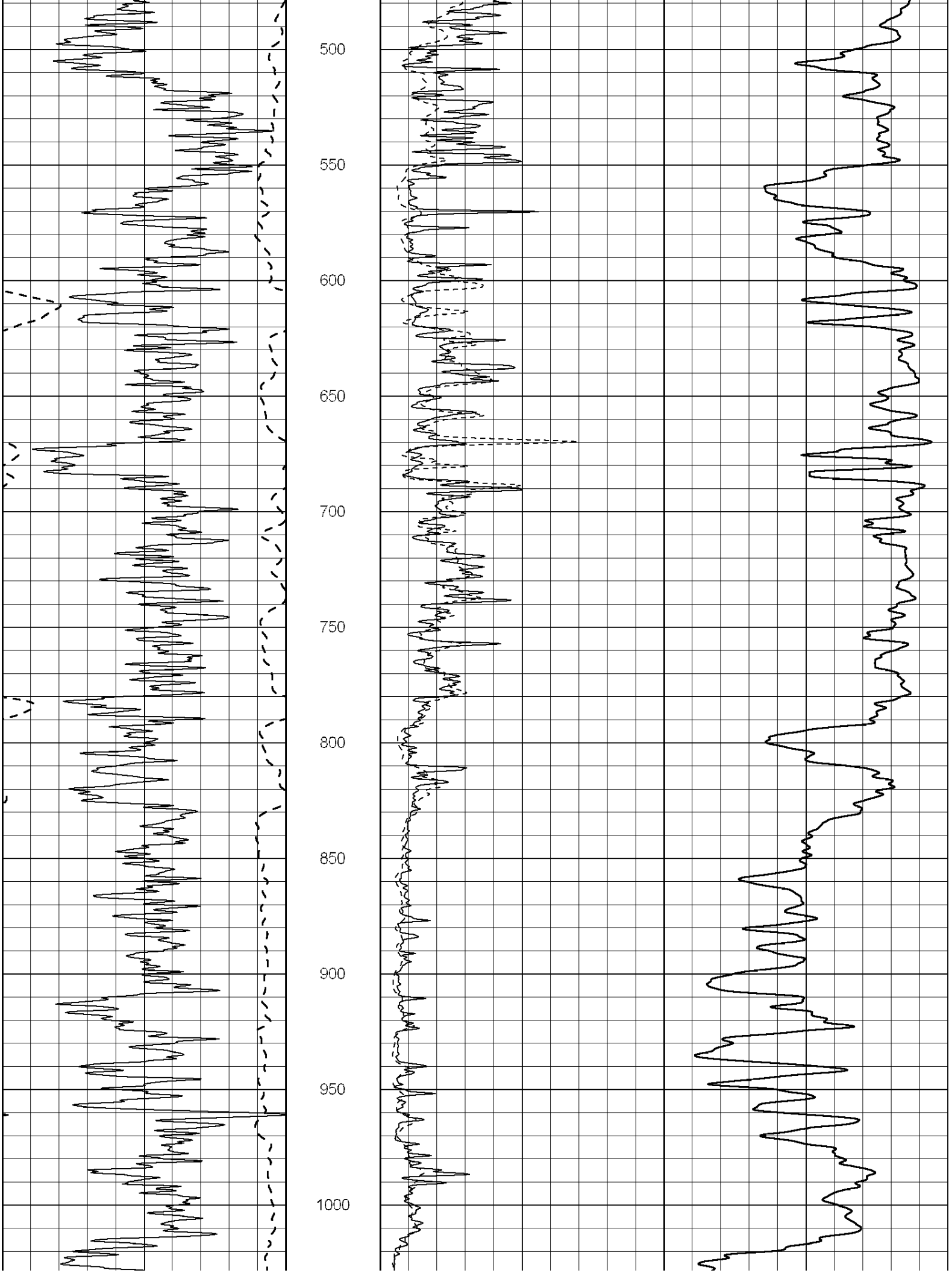
THANK YOU FOR USING SUPERIOR WELL SERVICE (785) 628-6395

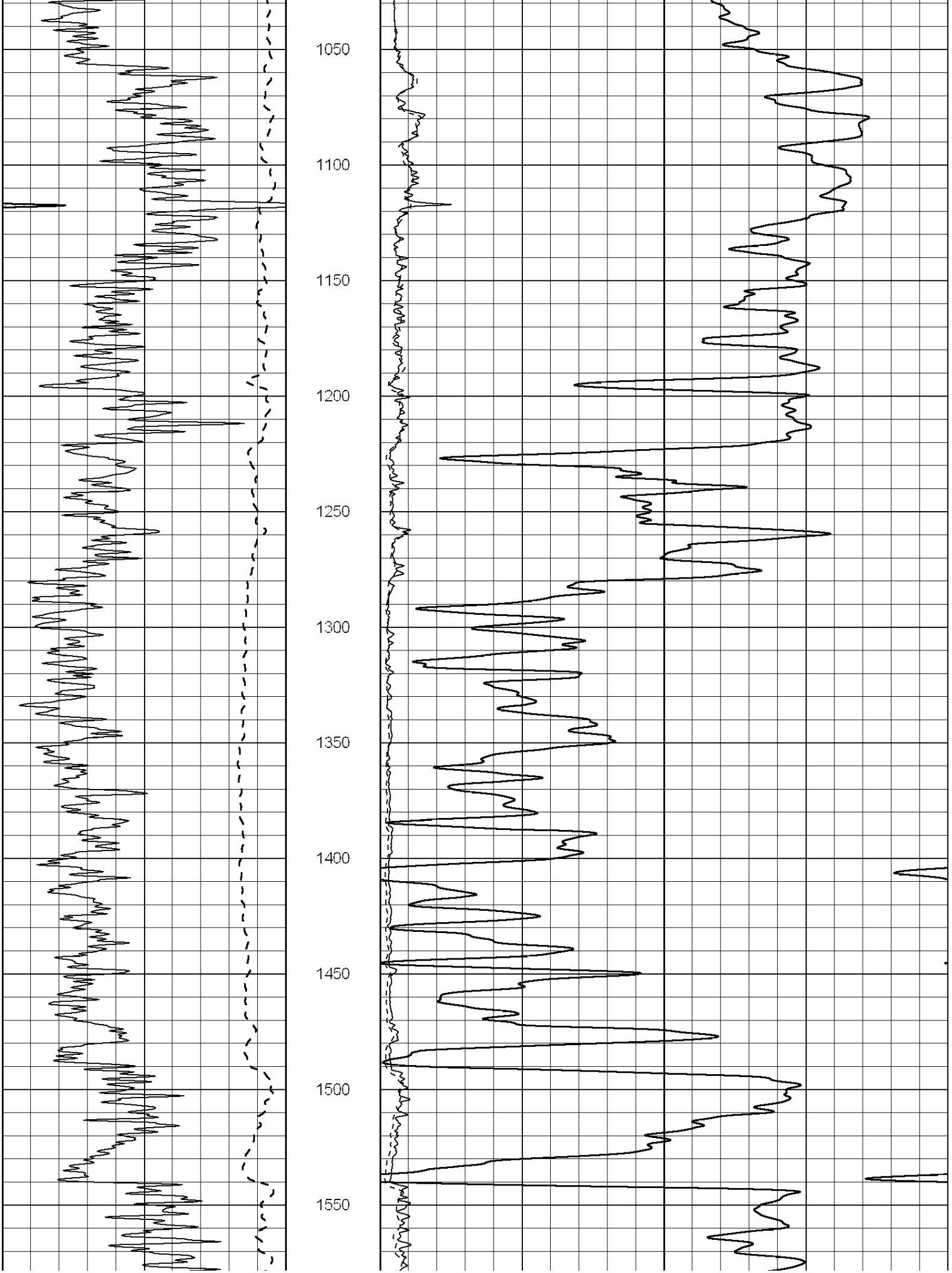
DIRECTIONS

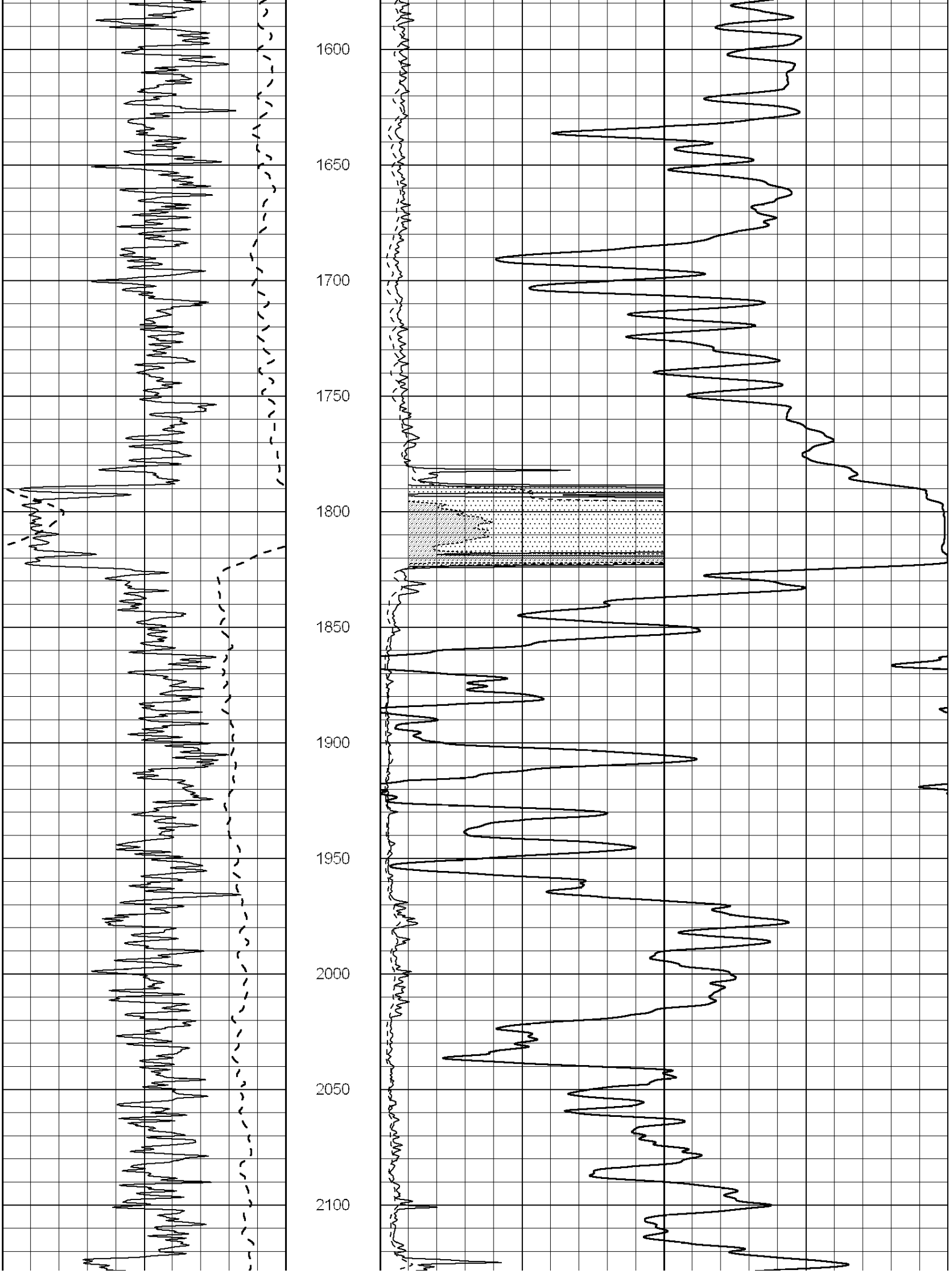
BROWNELL, KS - 3 MILES WEST TO X RD - 1 MILE NORTH - WEST INTO

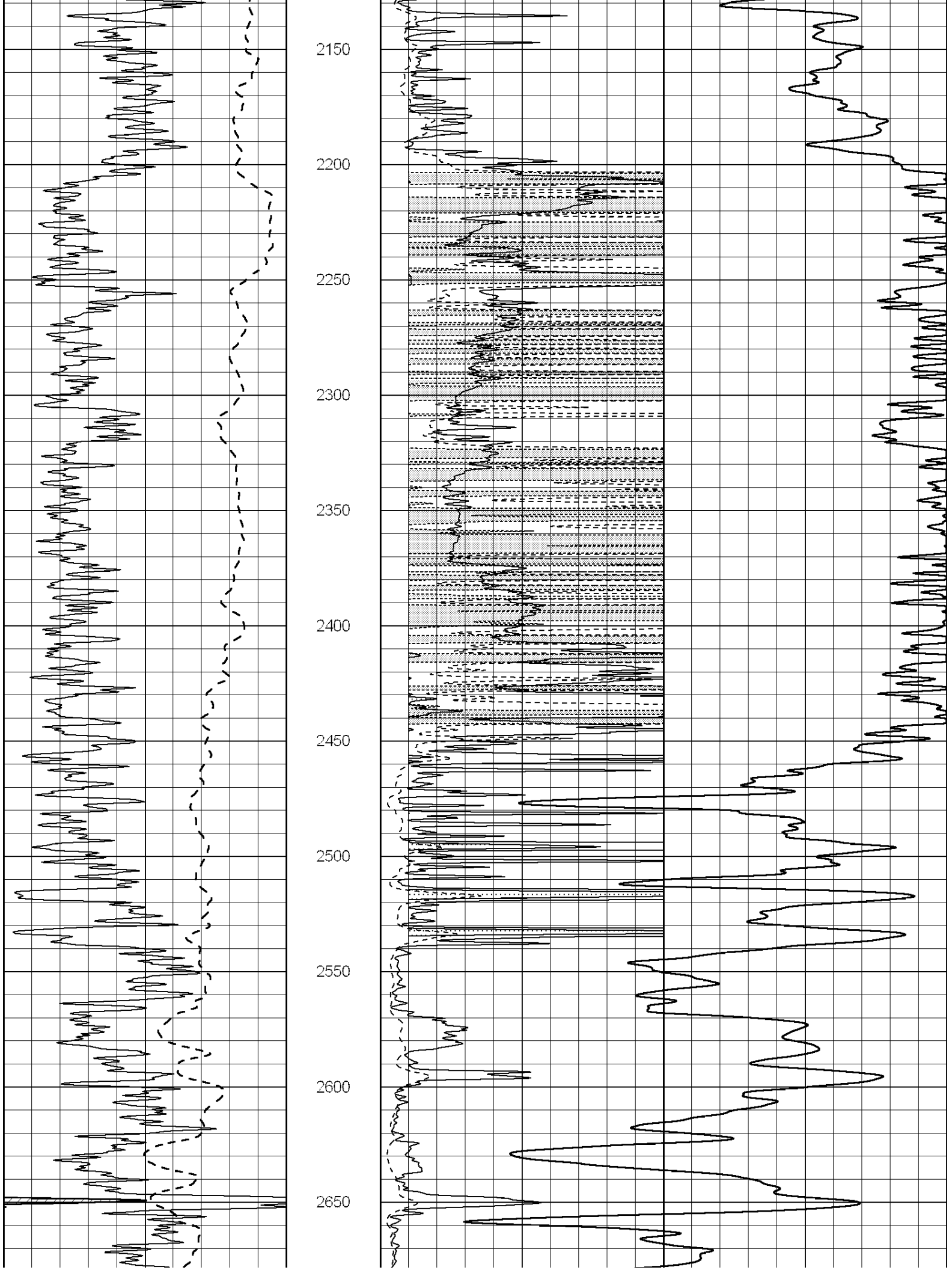
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Presentation Format:	_dil2
Dataset Creation:	Thu Feb 24 00:01:23 2011
Charted by:	Depth in Feet scaled 1:600

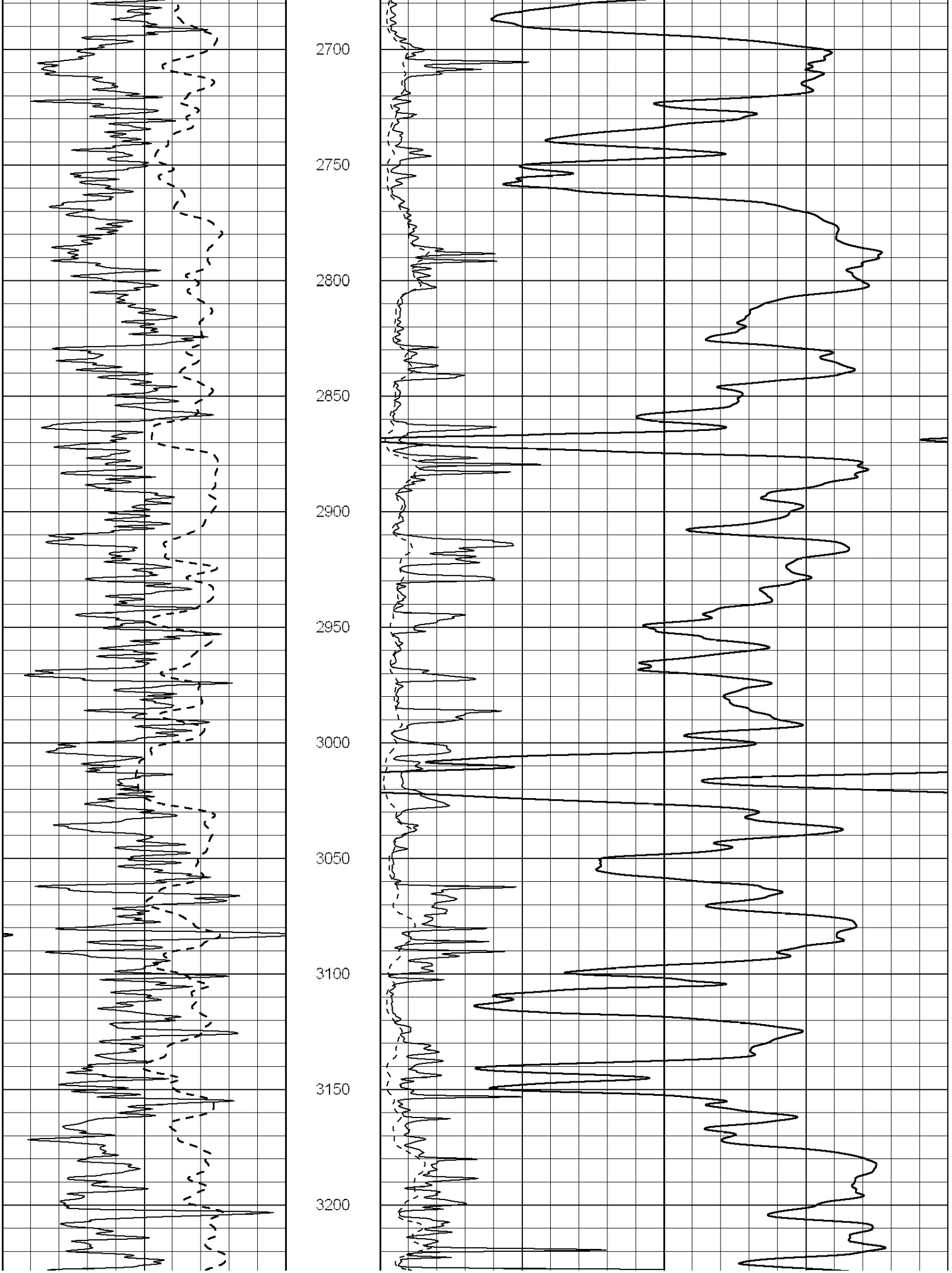

0 Gamma Ray (GAPI) 150
-100 SP (mV) 100
0 RLL3 (Ohm-m) 50
0 Deep Induction (Ohm-m) 50
1000 CILD (mmho/m) 0
50 RILD X10 (Ohm-m) 500
50 RLL3 X10 (Ohm-m) 500
0
50
100
150
200
250
300
350
400
450

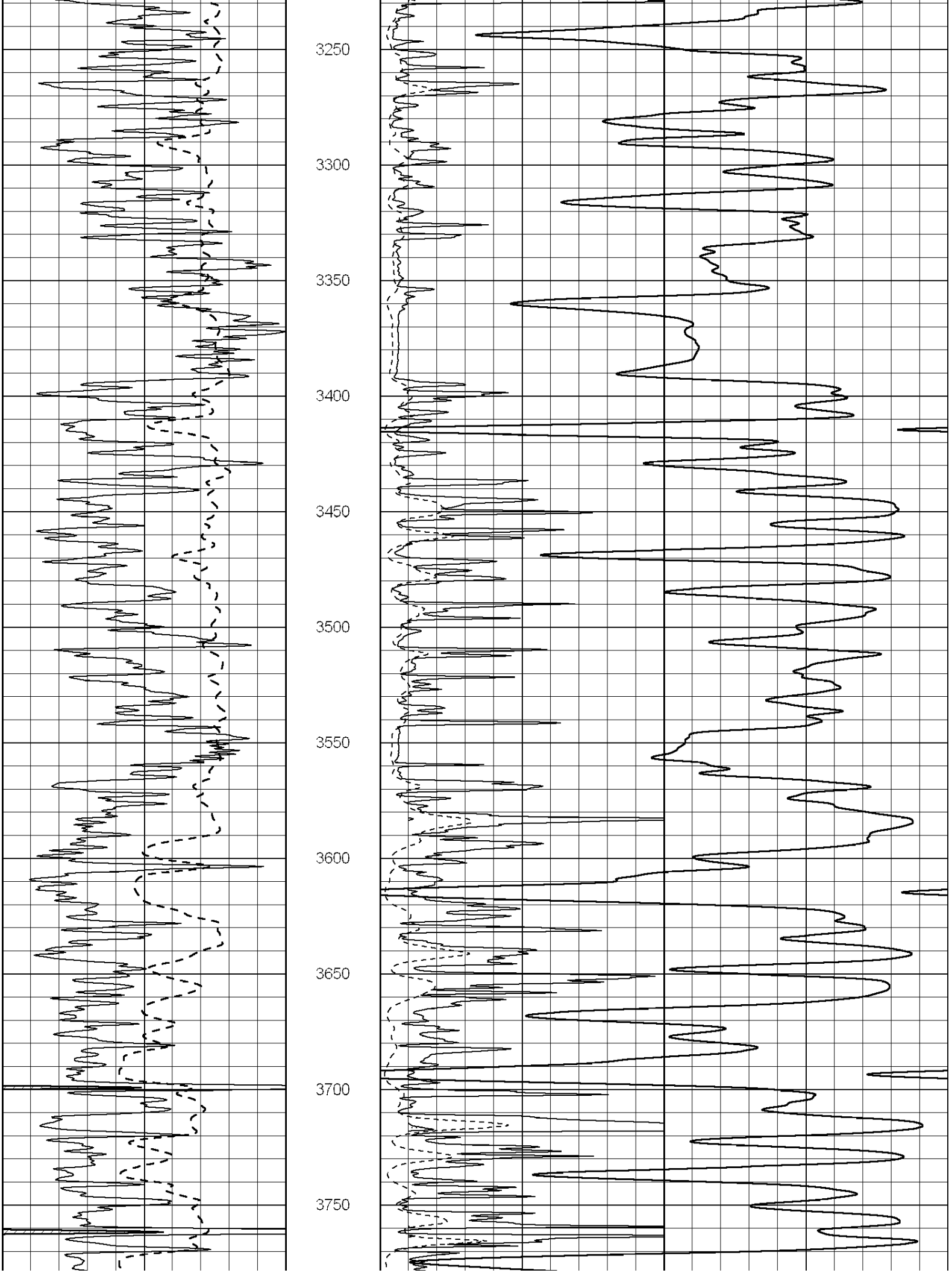

500
550
600
650
700
750
800
850
900
950
1000

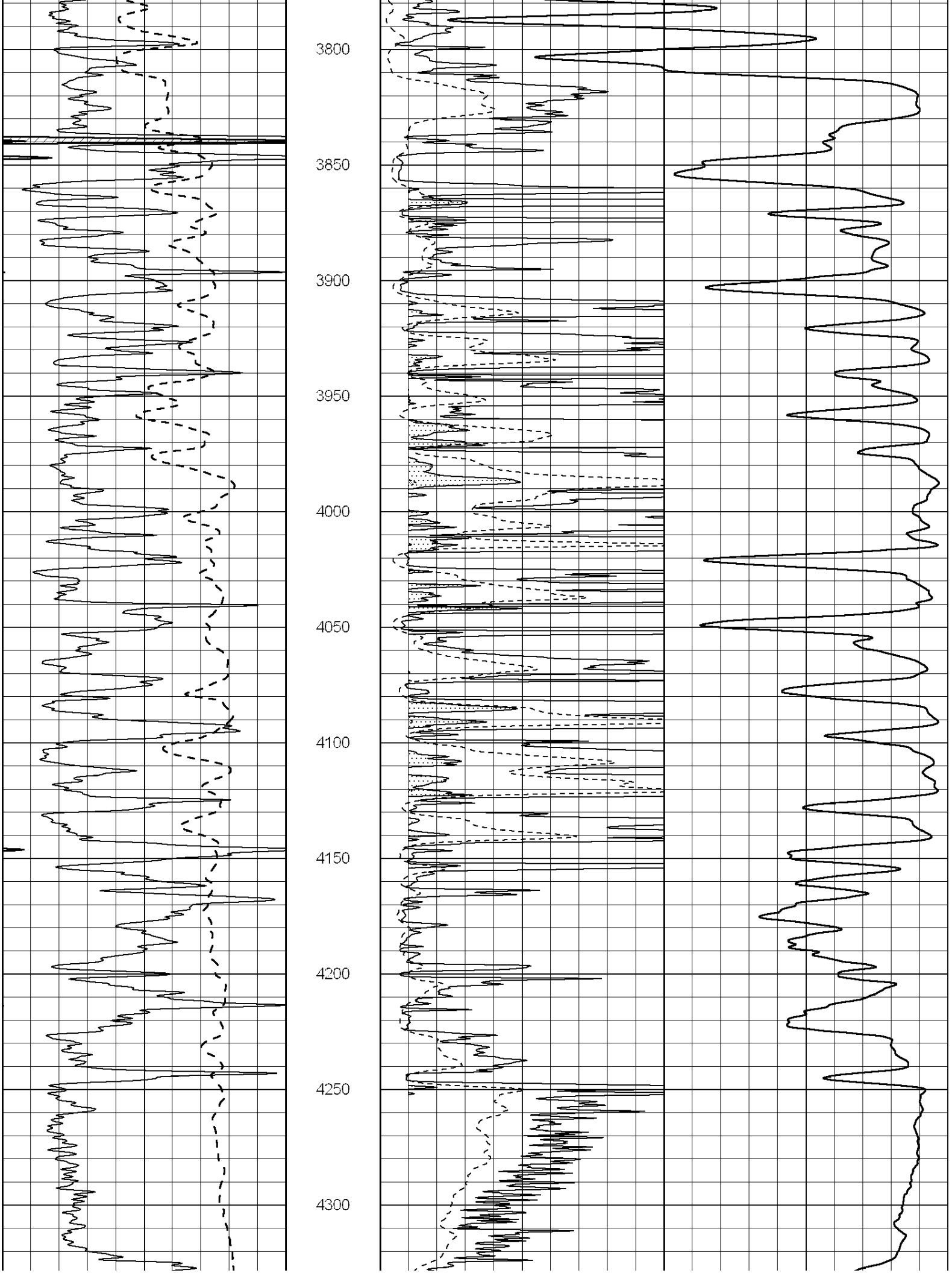

1050
1100
1150
1200
1250
1300
1350
1400
1450
1500
1550

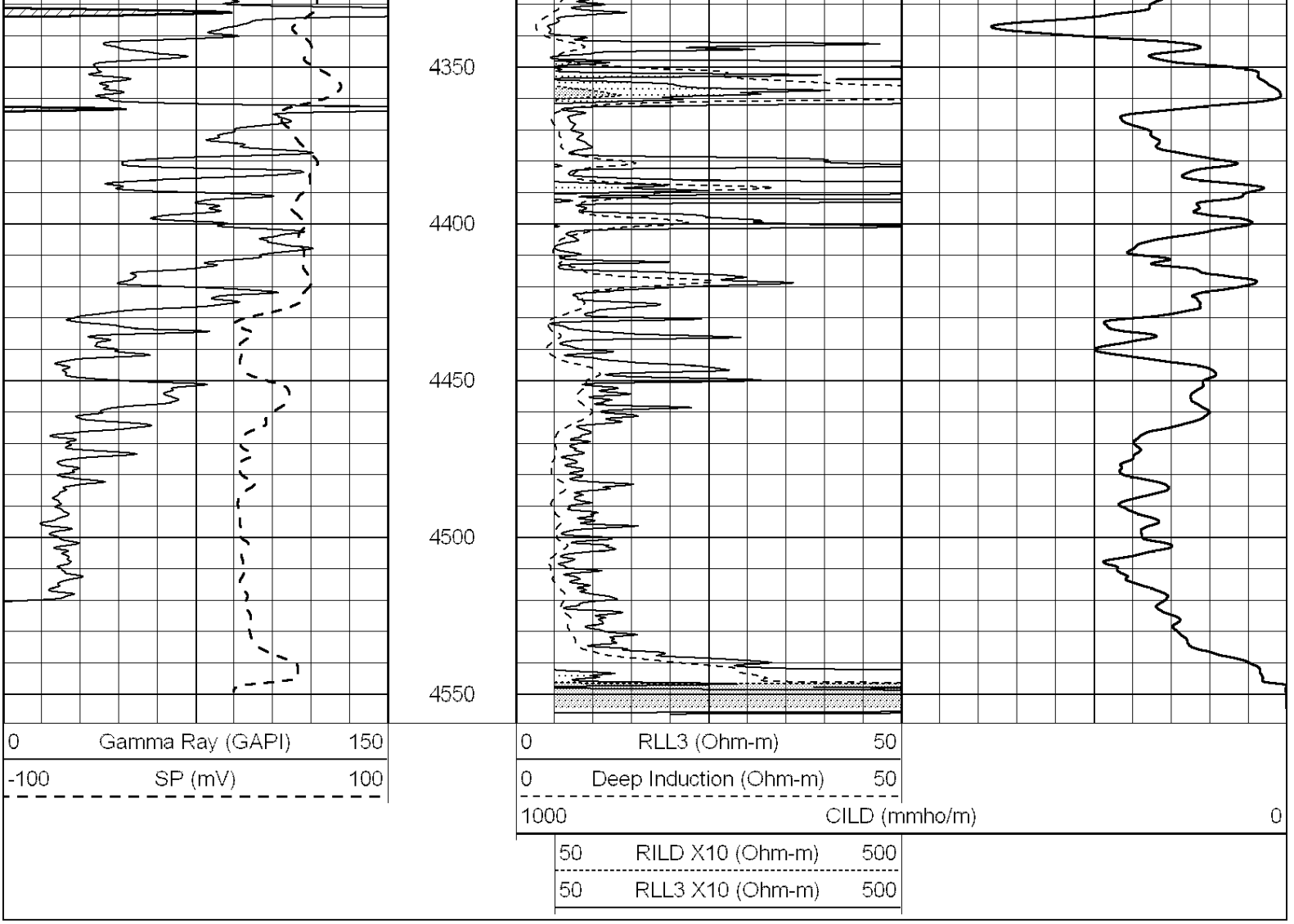

1600
1650
1700
1750
1800
1850
1900
1950
2000
2050
2100


2150
2200
2250
2300
2350
2400
2450
2500
2550
2600
2650

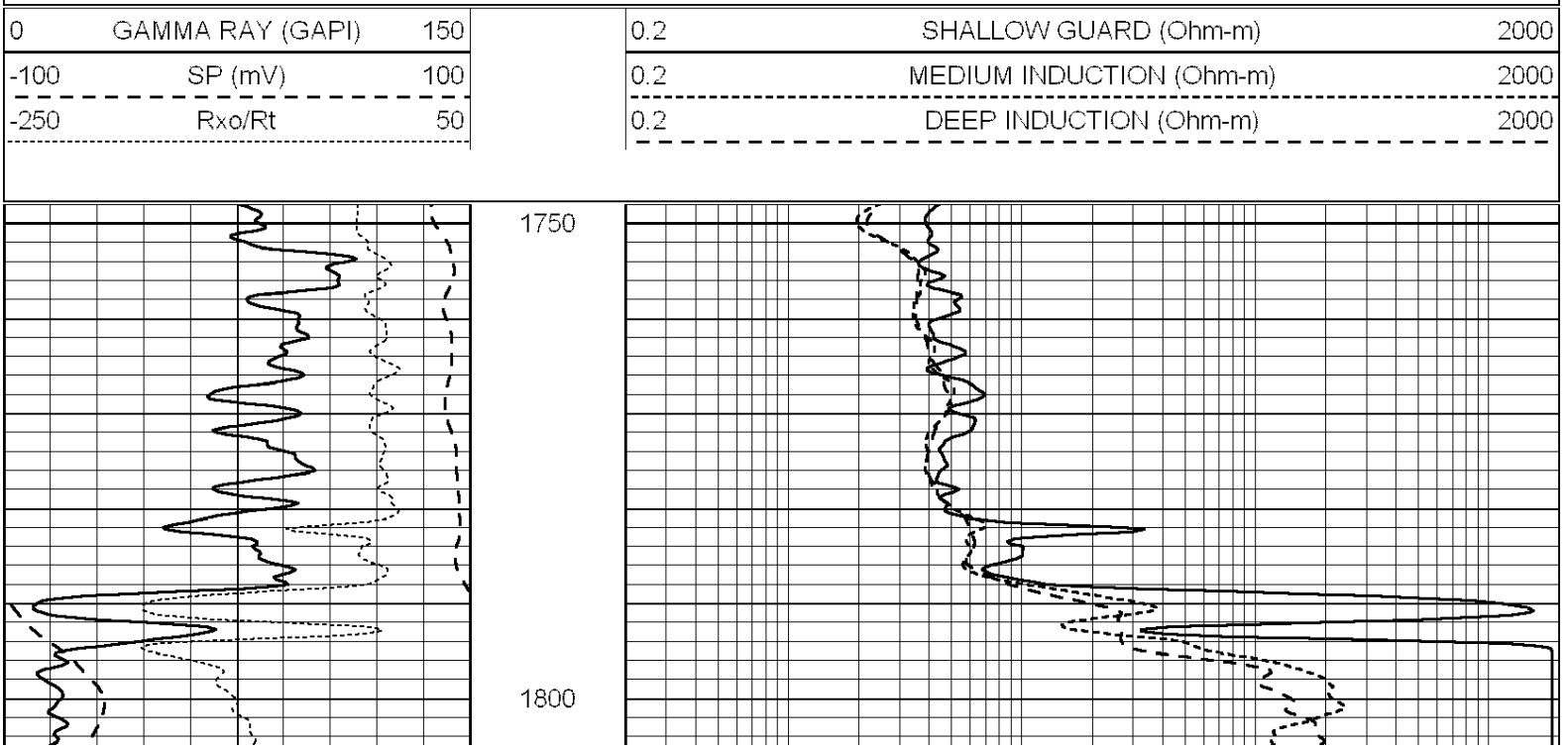

2700
2750
2800
2850
2900
2950
3000
3050
3100
3150
3200

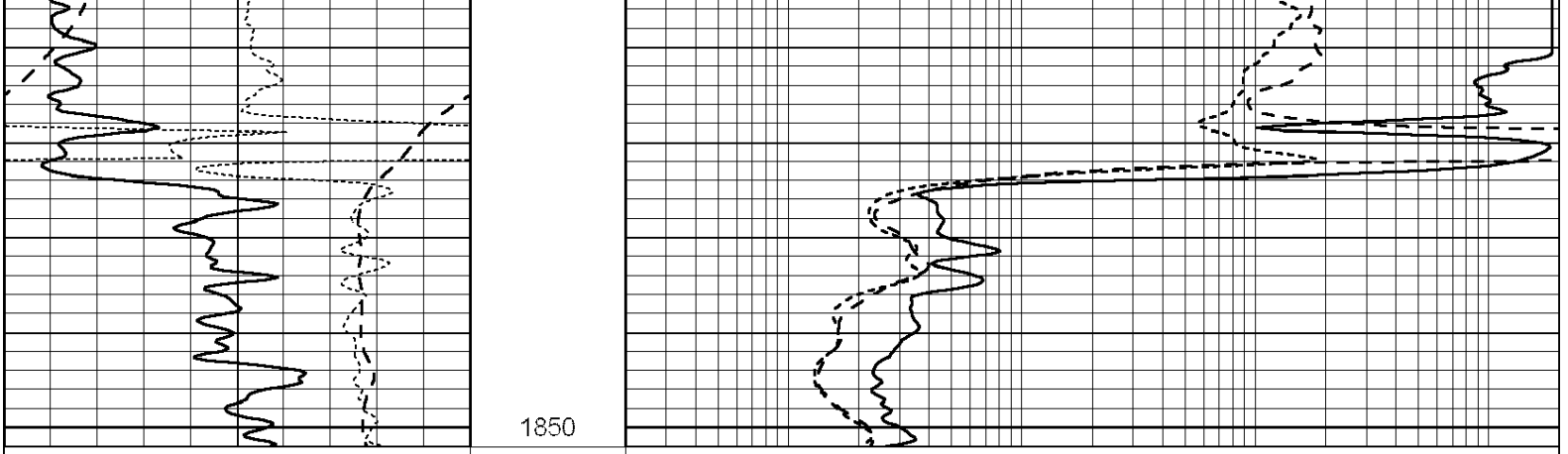

3250
3300
3350
3400
3450
3500
3550
3600
3650
3700
3750


3800
3850
3900
3950
4000
4050
4100
4150
4200
4250
4300



Database File: 006699ddn.db
Dataset Pathname: pass4.3.1
Presentation Format: _dil
Dataset Creation: Thu Feb 24 00:01:23 2011
Charted by: Depth in Feet scaled 1:240





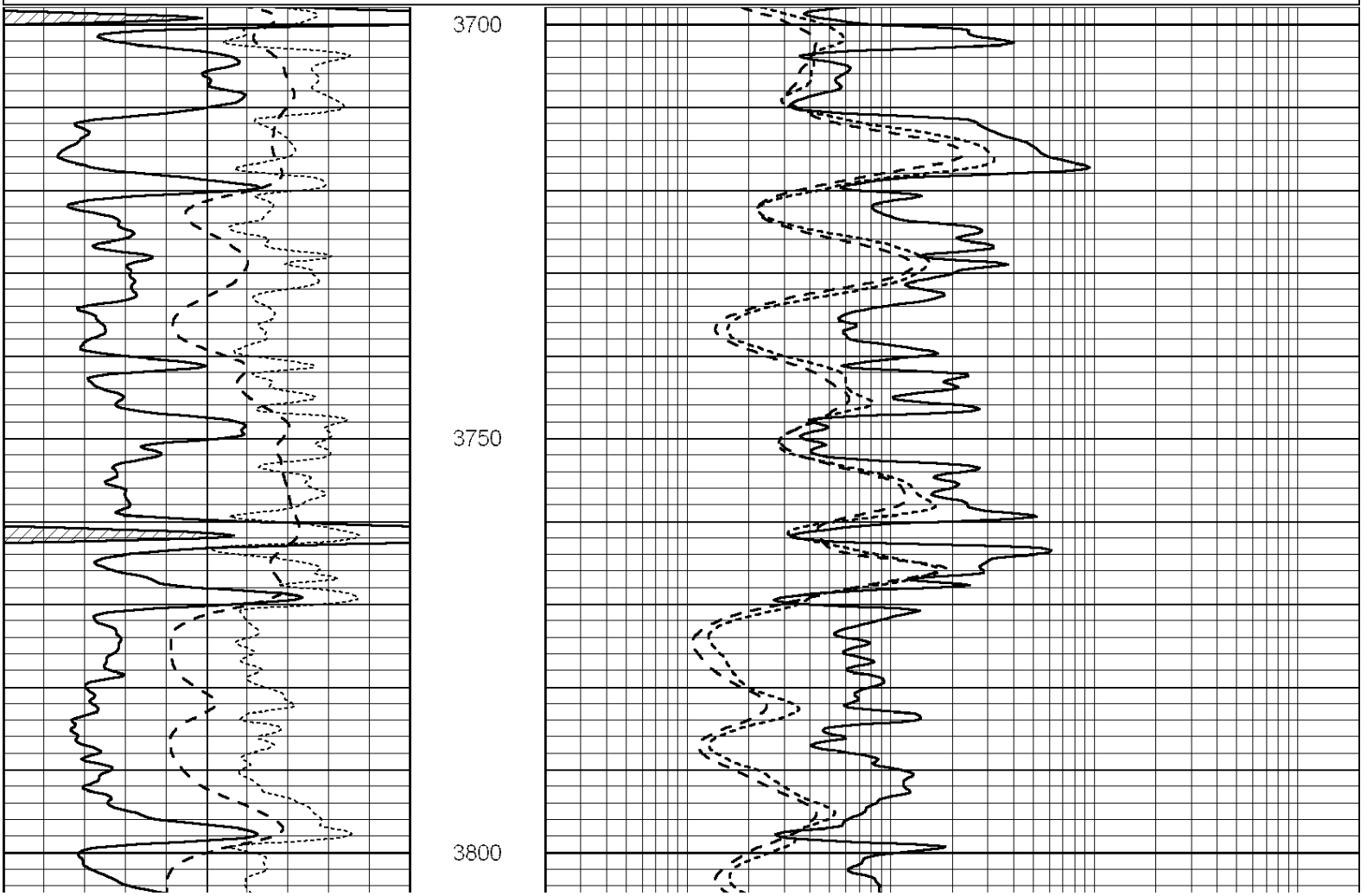
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

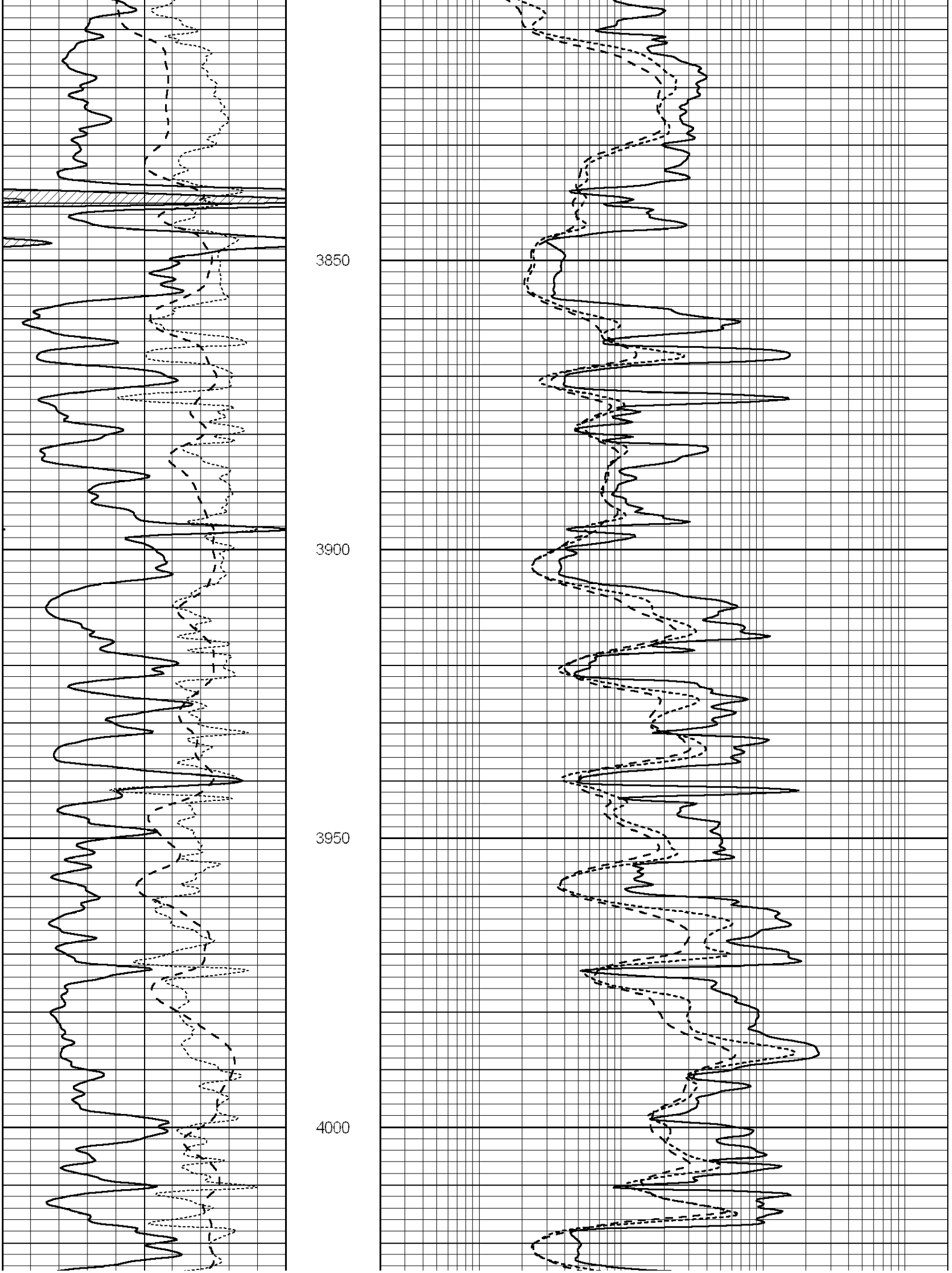
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000

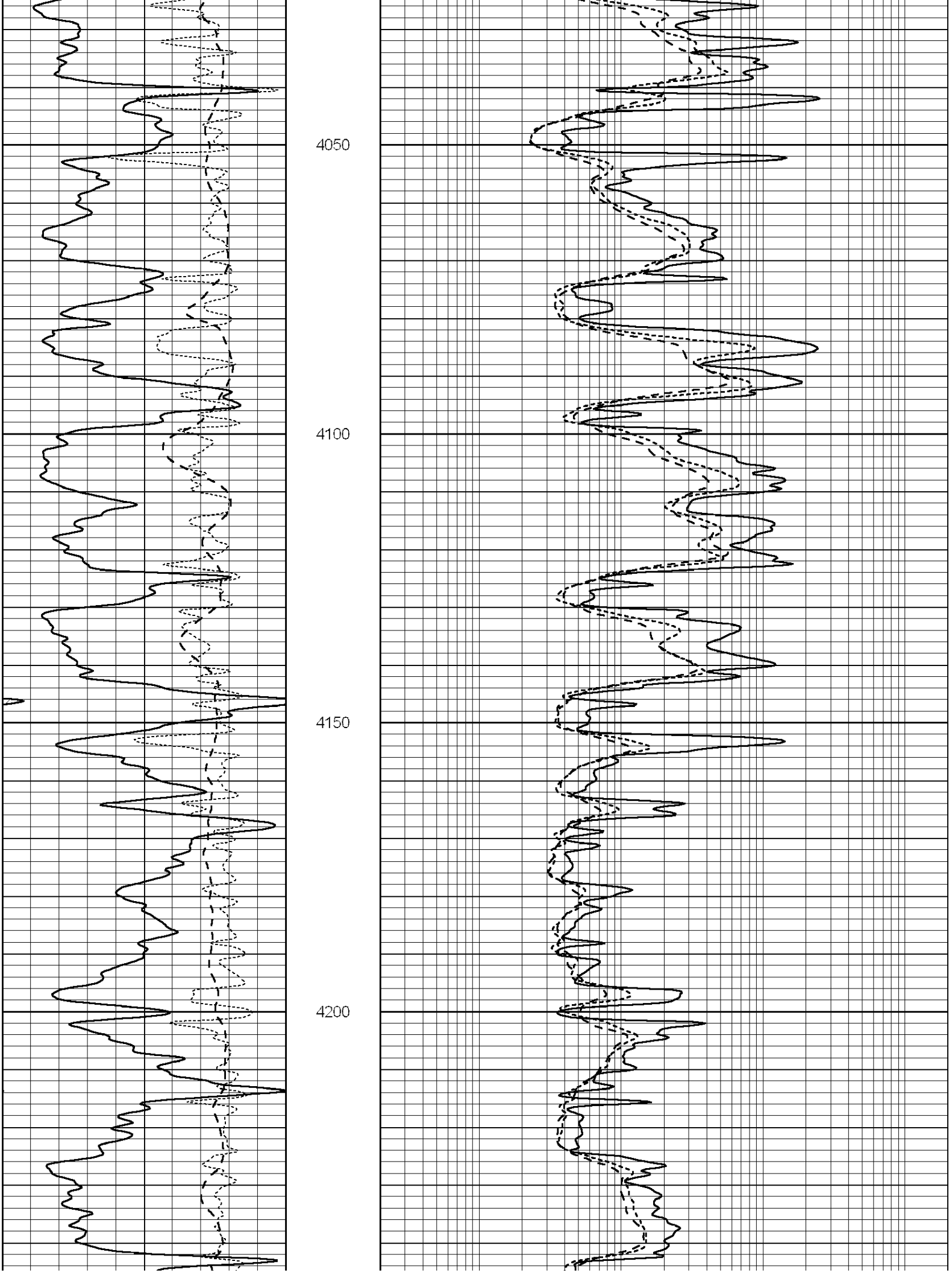
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Presentation Format:	_dil
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Charted by:	Depth in Feet scaled 1:240

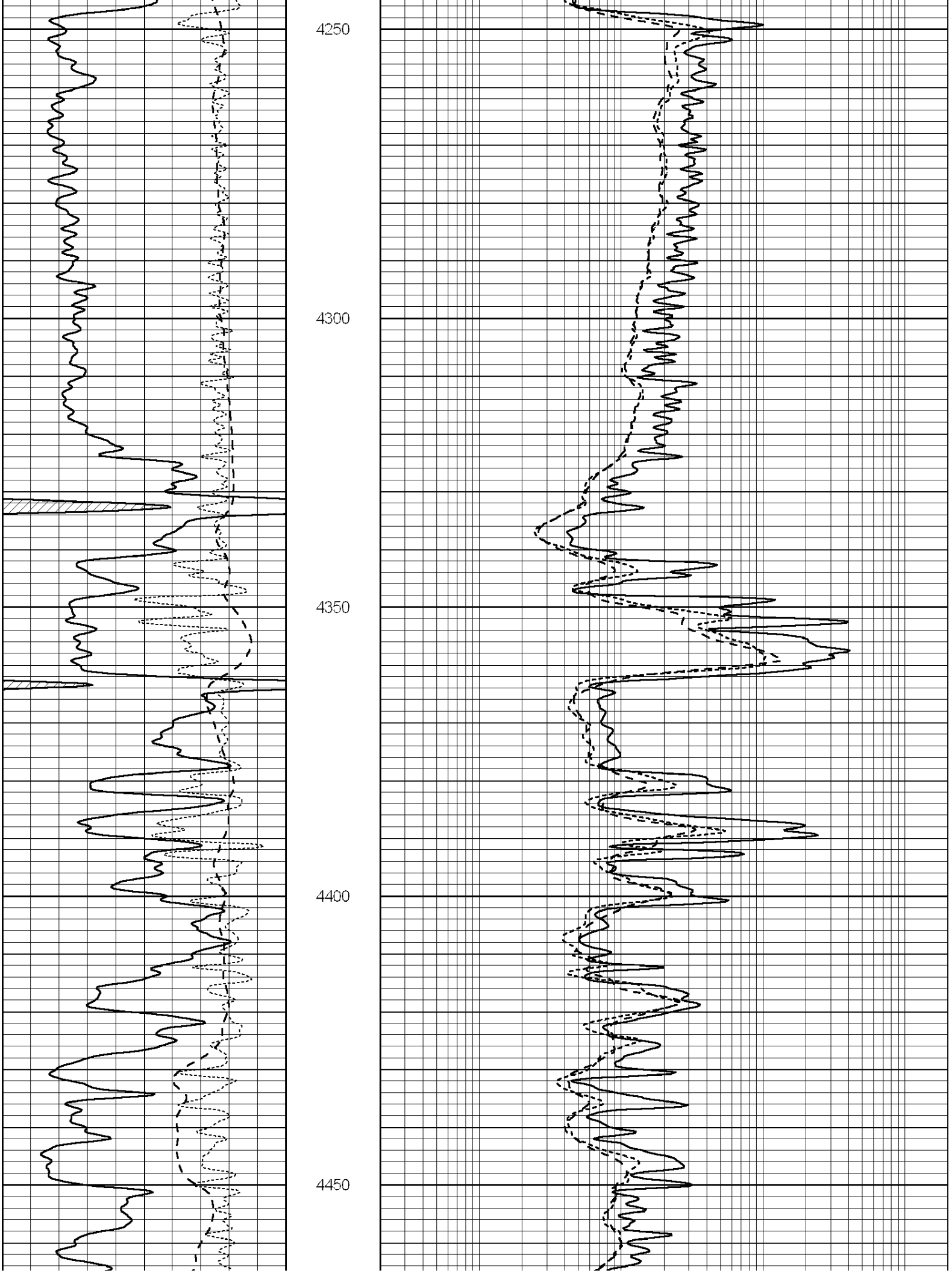
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

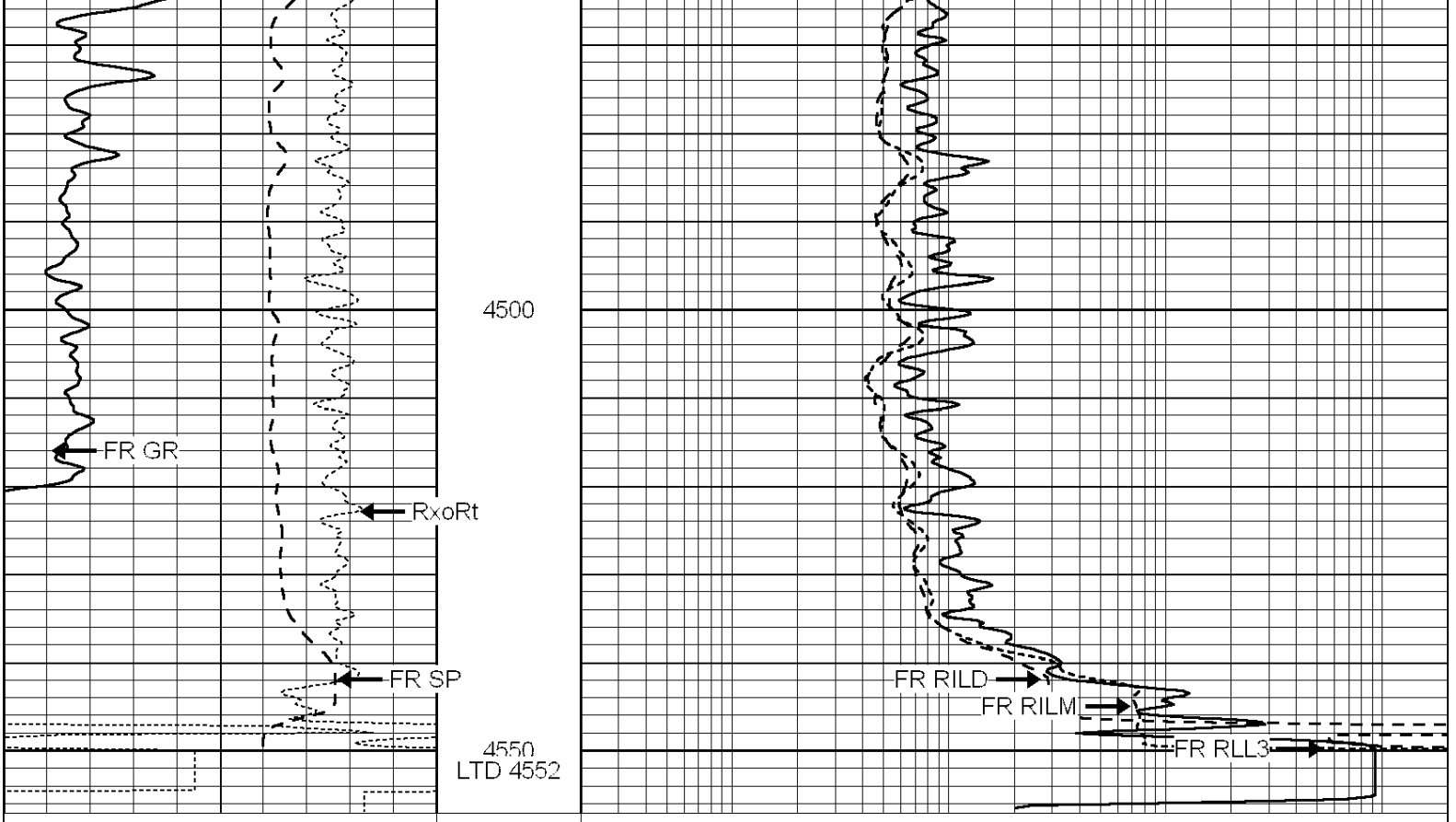
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000




3850
3900
3950
4000


4050
4100
4150
4200


4250
4300
4350
4400
4450



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

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

SUPERIOR WELL SERVICES

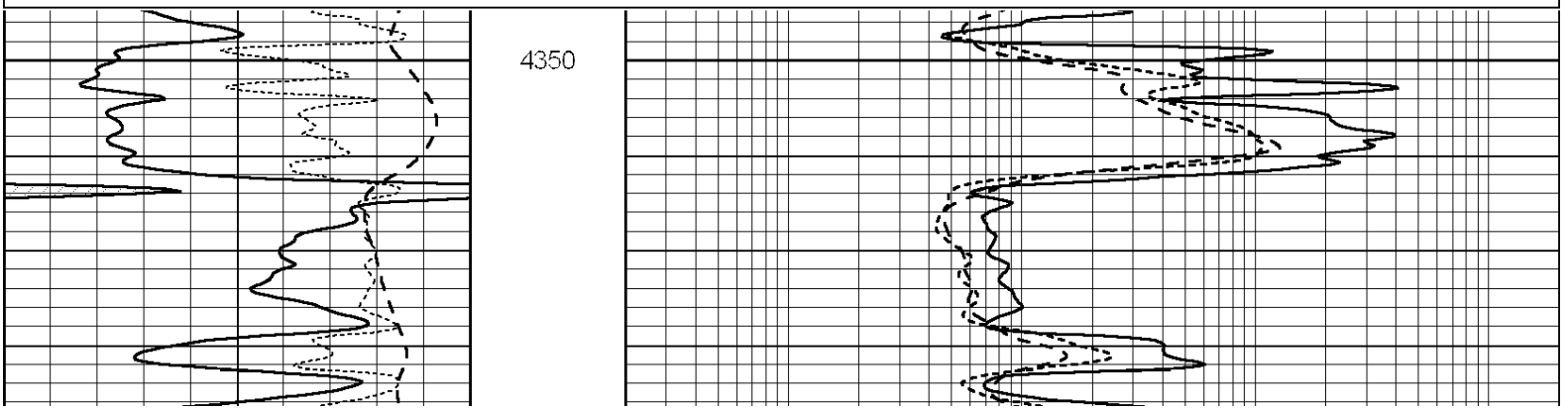
SUPERIOR
Hays,
Kansas

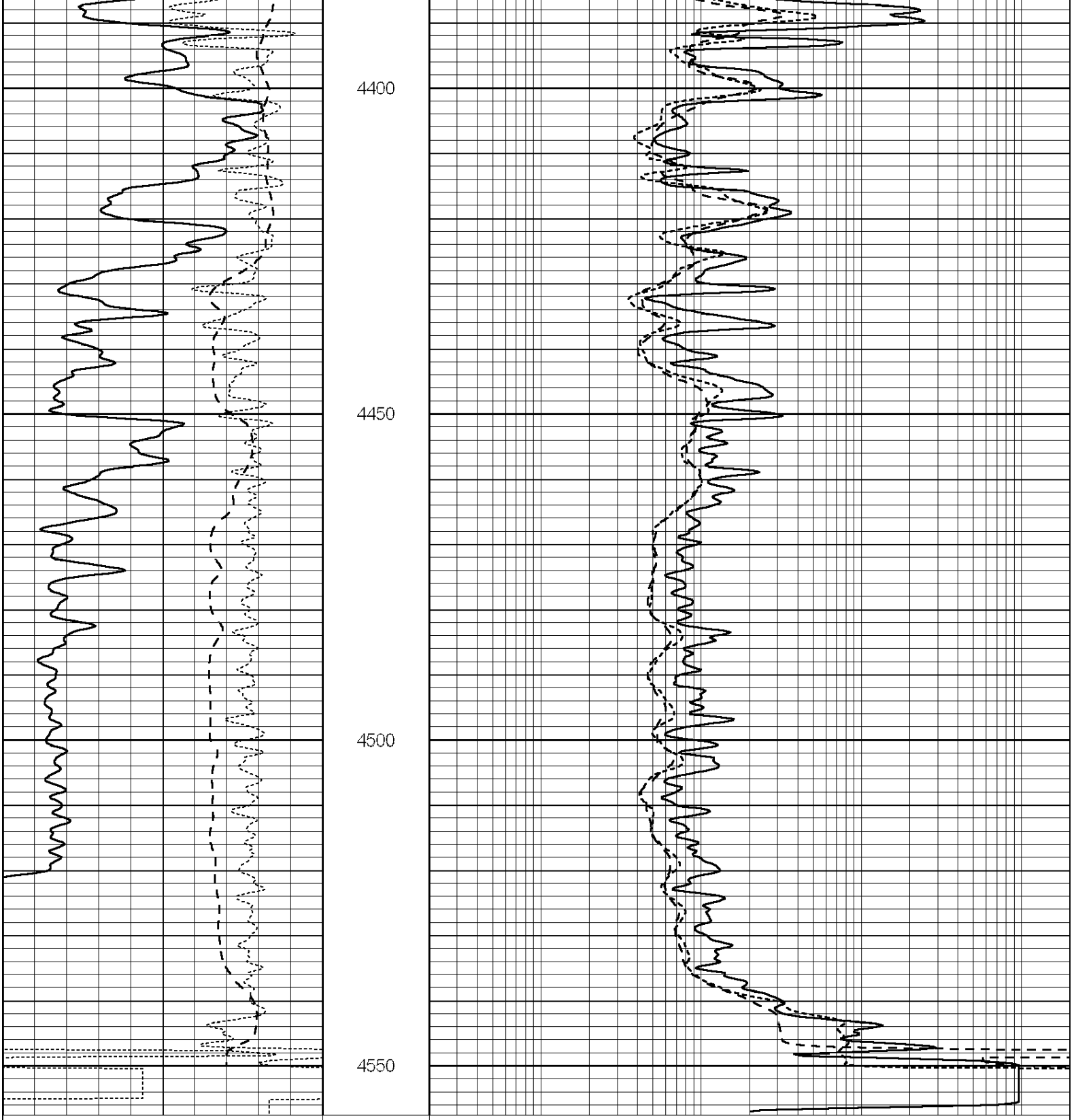
REPEAT SECTION

Database File:	006699ddn.db
Dataset Pathname:	pass3.1
Presentation Format:	_dil
Dataset Creation:	Wed Feb 23 23:10:58 2011 by Calc Open-Cased 090629
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	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000





Calibration Report

Database File: 006699ddn.db
Dataset Pathname: pass4.3.1
Dataset Creation: Thu Feb 24 00:01:23 2011

Dual Induction Calibration Report

Serial-Model:	PROBE7-DILG
Surface Cal Performed:	Wed Jul 30 06:14:24 2008
Downhole Cal Performed:	Mon Jul 28 12:02:56 2008
After Survey Verification Performed:	Mon Jul 28 12:02:56 2008

Surface Calibration

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	621.923	8.759
Medium	0.039	0.728	V	0.000	464.000	mmho/m	673.322	-26.058
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.011	0.610	V	0.000	400.000	mmho/m	667.135	-7.256
Medium	0.005	0.712	V	0.000	464.000	mmho/m	655.677	-3.102

Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	14.508	388.384	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	166.367	504.400	mmho/m	1.000	0.000
LL3		7.500	V		1400.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		4000.000	mmho-m		

After Survey Verification

	Readings			Targets			Results	
	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:	GEAR4-GEARHART
Source / Verifier:	143 / 143
Master Calibration Performed:	Wed Jan 26 17:58:17 2011

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1015.91	497.51	cps
Aluminum	2.580	g/cc	227.67	350.20	cps

Spine Angle = 76.79 Density/Spine Ratio = 0.566

	Size		Reading	
Small Ring	8.00	in	2.50	V
Large Ring	14.00	in	4.70	V

Compensated Neutron Calibration Report

Serial Number:	6I
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:	#8	
Tool Model:	OPEN	
Performed:	Fri Feb 18 03:07:29 2011	
Calibrator Value:	150.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	175.0	cps
Sensitivity:	0.8971	GAPI/cps