NABORS
COMPLETION & PRODUCTION SERVICES CO.

DUAL INDUCTION LOG

Company MAI OIL OPERATIONS, INC.
Well RON KRUG #1
Field TRAPP
County RUSSELL State KANSAS

Location: API # : 15-167-2394-00-00
1800' FSL & 330' FWL
N2 - SW - NW - SW
SEC 11 TWP 15S RGE 14W

Other Services
CNL/CDL
MEL

Permanent Datum GROUND LEVEL Elevation 1855
Log Measured From KELLY BUSHING 8' A.G.L.
Drilling Measured From KELLY BUSHING

Elevation
K.B. 1863
D.F. 1861
G.L. 1855

Date	2-23-14		
Run Number	ONE		
Depth Driller	3400		
Depth Logger	3398		
Bottom Logged Interval	3396		
Top Log Interval	00		
Casing Driller	8 5/8 @ 516'		
Casing Logger	515'		
Bit Size	7.875		
Type Fluid in Hole	STARCH MUD	CHLORIDES 9,000	
Density / Viscosity	9.6 / 59		
pH / Fluid Loss	8.0 / 11.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.70 @ 64F		
Rmf @ Meas. Temp	0.53 @ 64F		
Rmc @ Meas. Temp	0.84 @ 64F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	0.40 @ 110F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	110F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	IAN MABB		
Witnessed By	KURT TALBOTT		

Company MAI OIL OPERATIONS, INC.
Well RON KRUG #1
Field TRAPP
County RUSSELL
State KANSAS

<<< Fold Here >>>

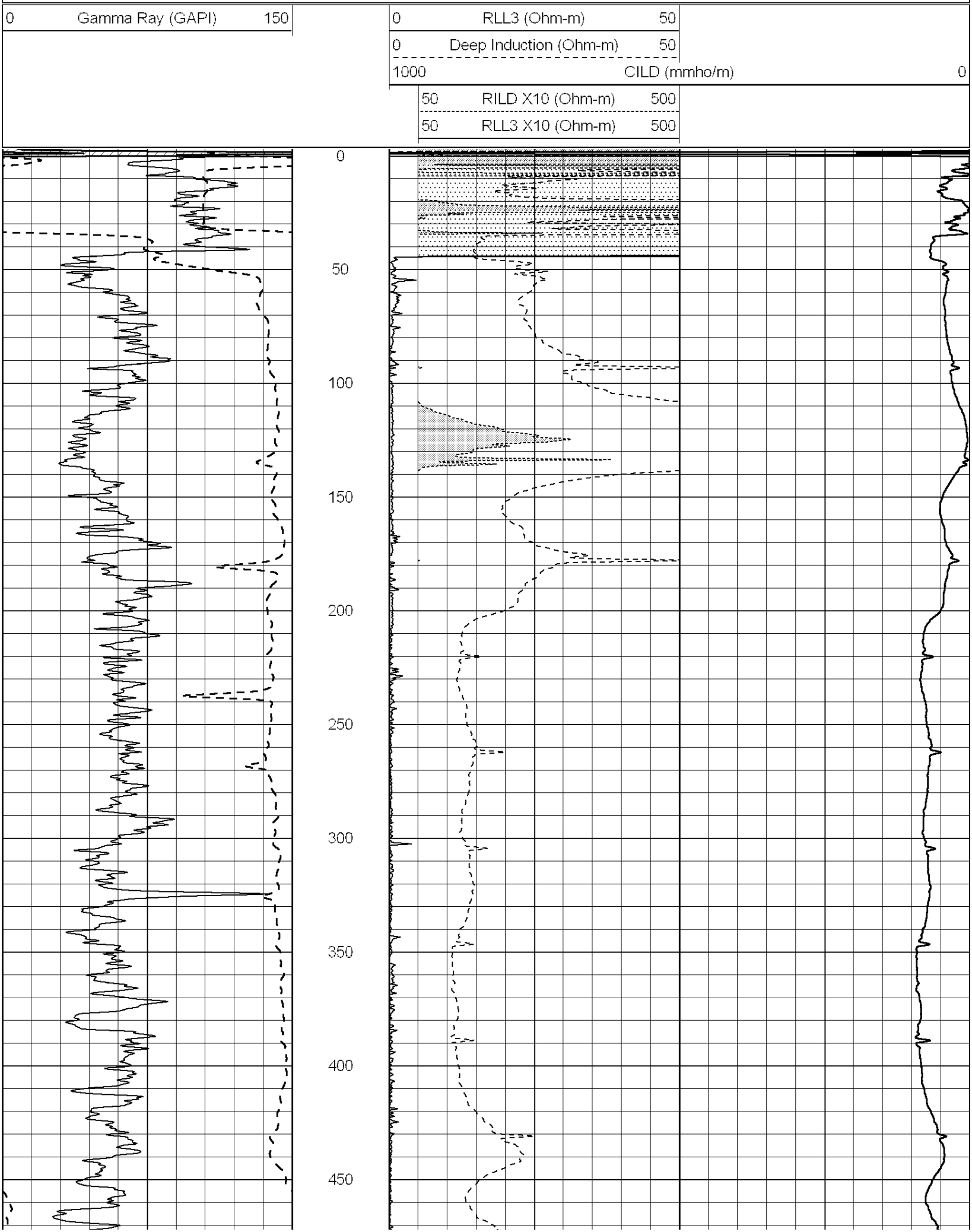
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

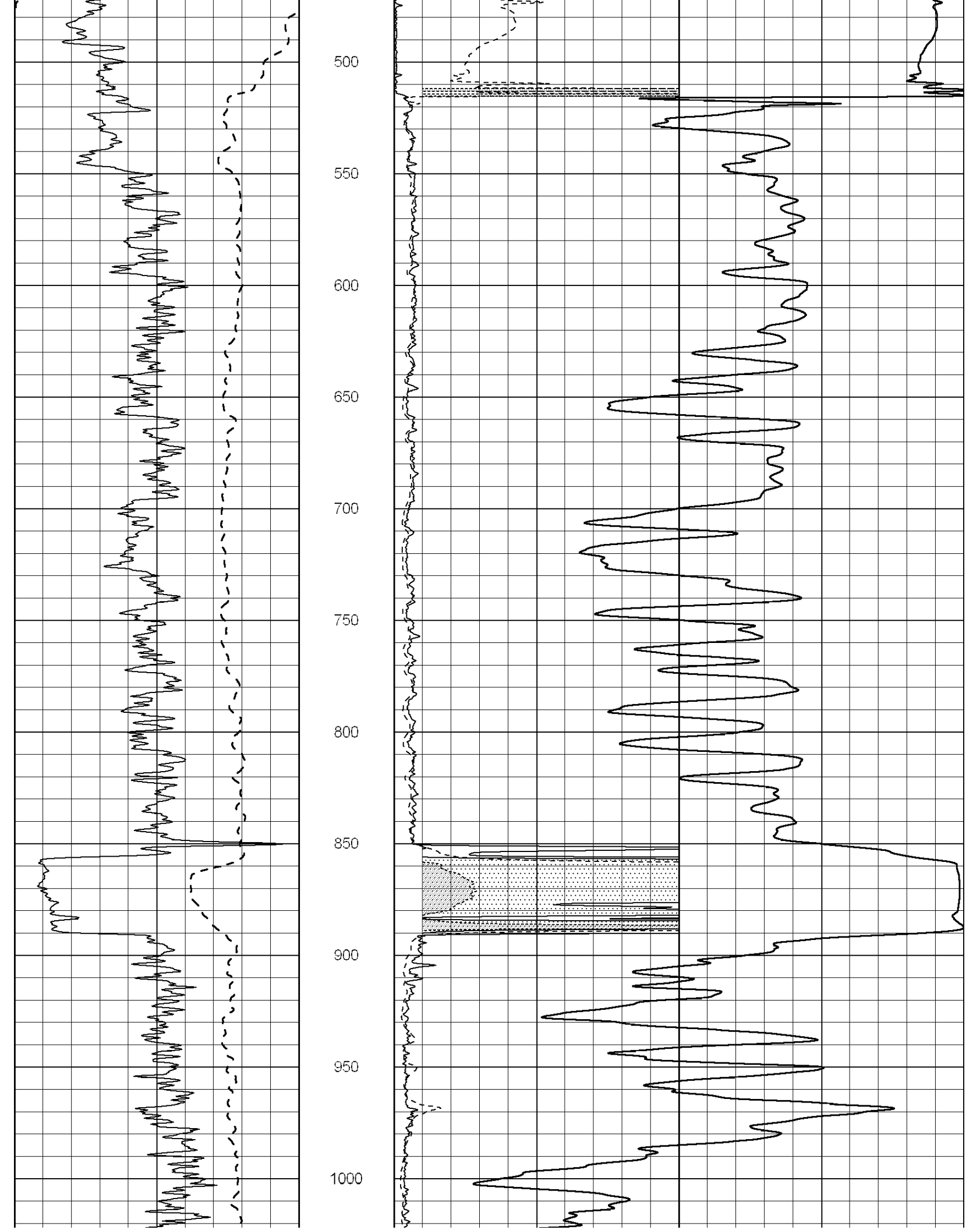
Comments

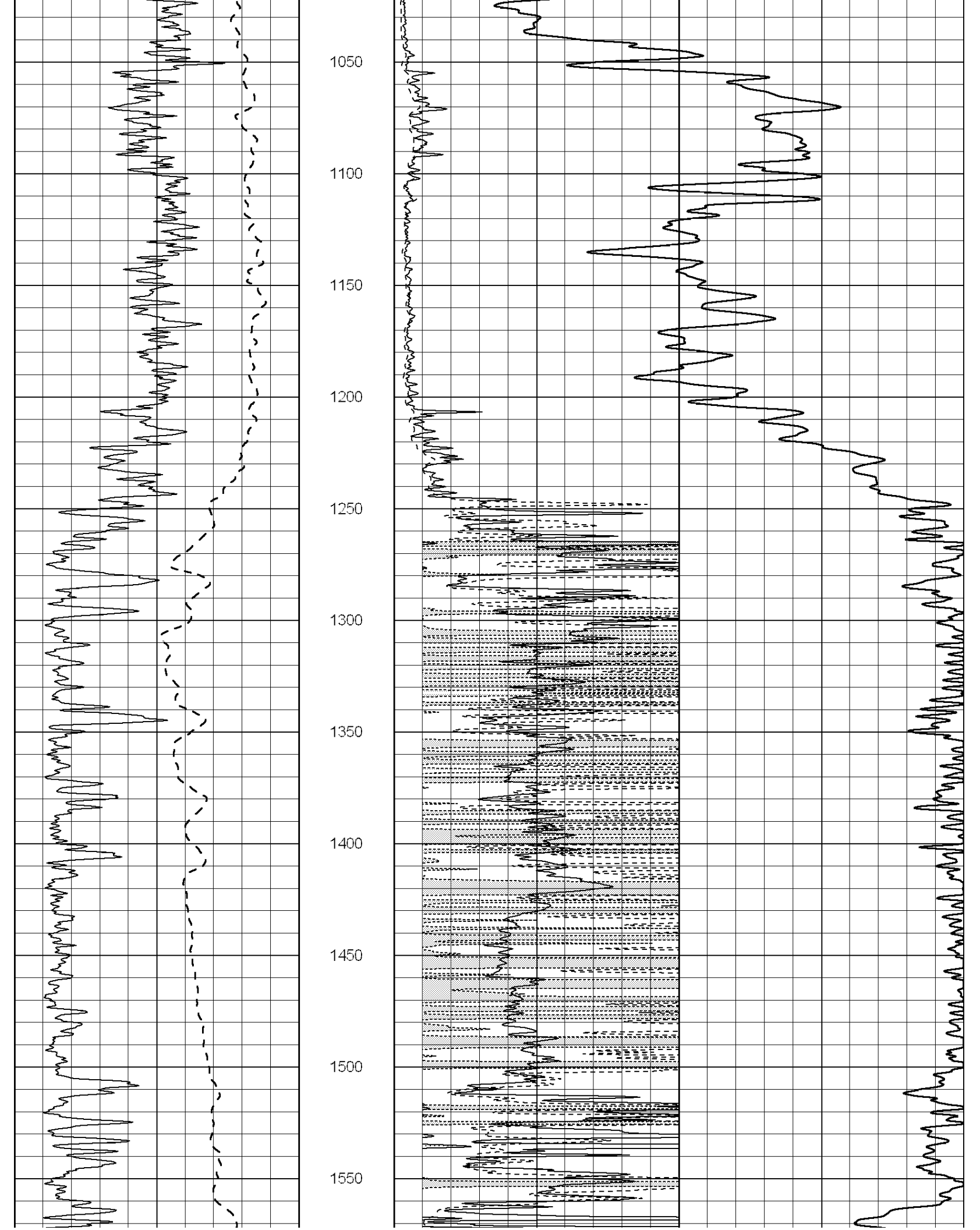
NABORS COMPLETION & PRODUCTION SERVICES
785-628-6395
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: RUSSELL, KS - SOUTH TO MITCHELL RD. - WEST 1/4 - NORTH INTO

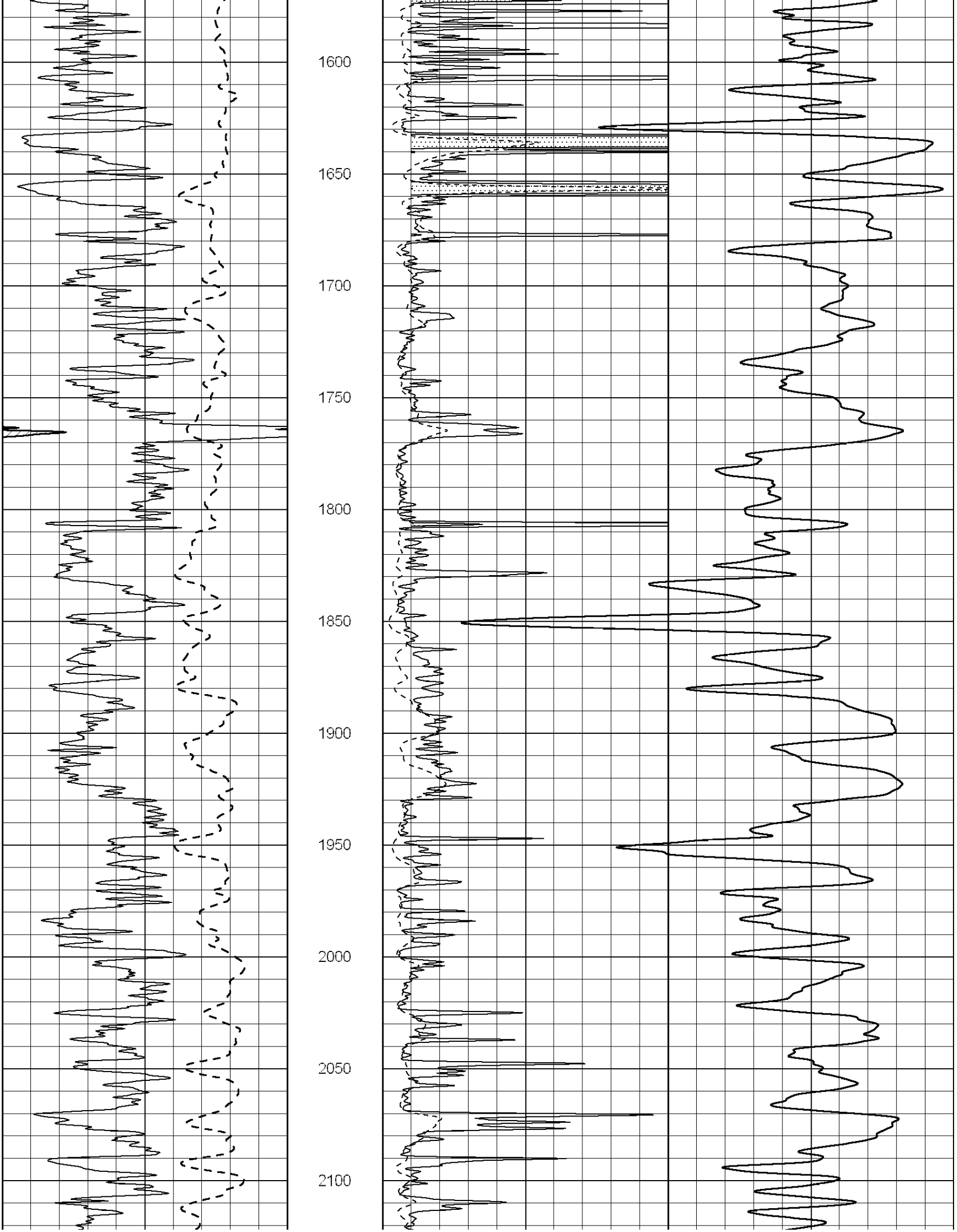
Database File: 23923ddn.db
Dataset Pathname: pass3.2
Presentation Format: _dil2
Dataset Creation: Sun Mar 23 10:42:31 2014 by Calc Open-Cased 090629

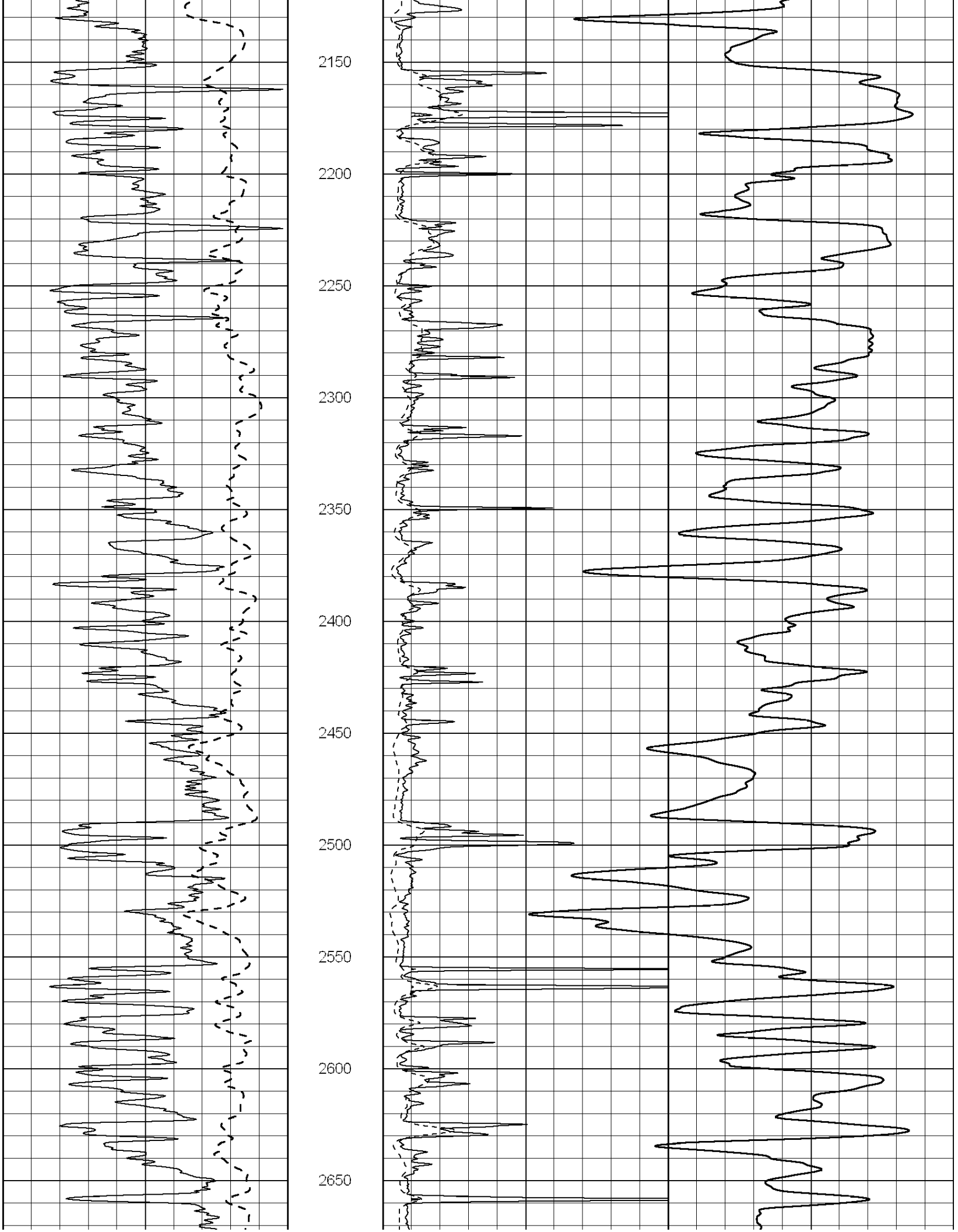
Charted by: Depth in Feet scaled 1:600

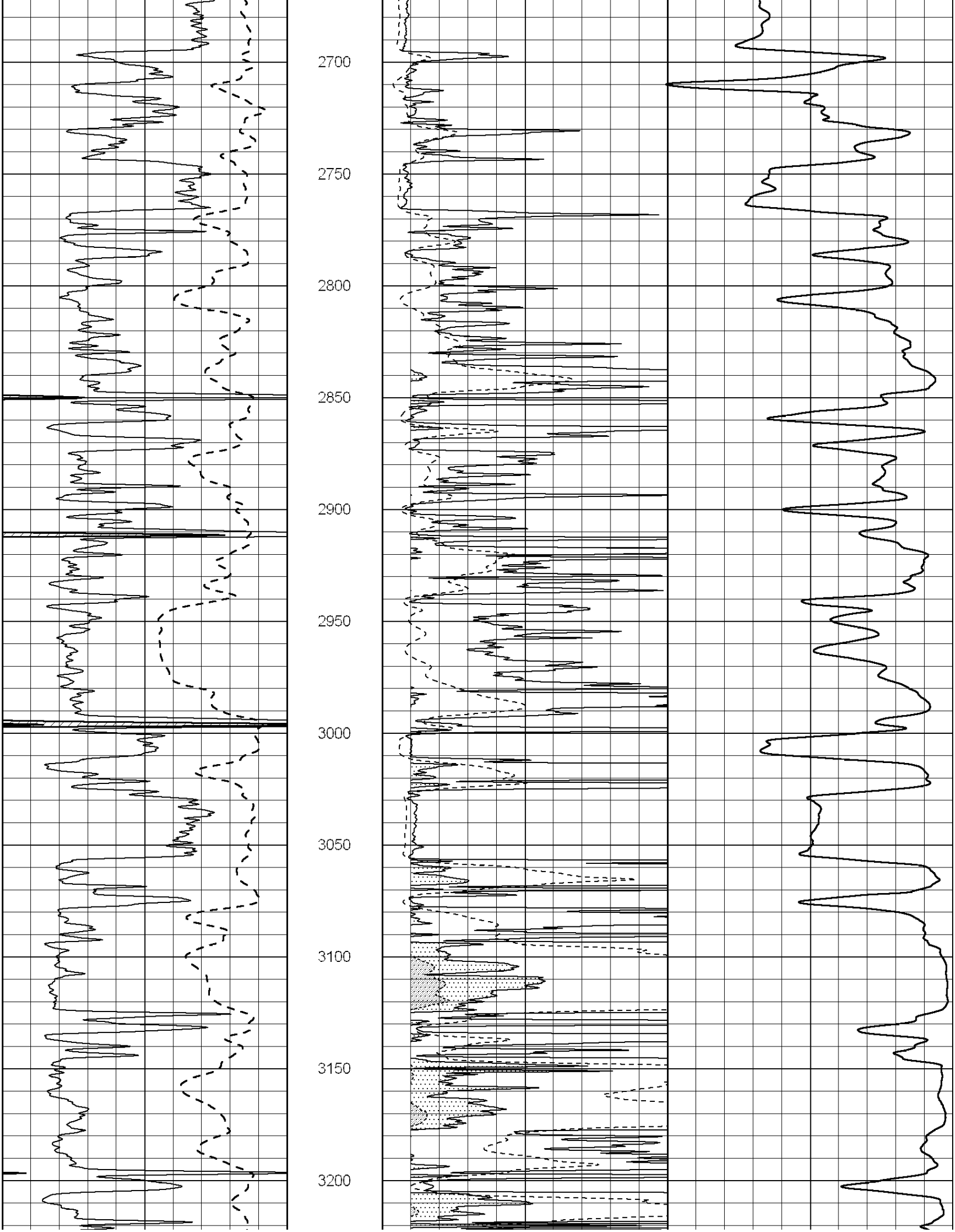


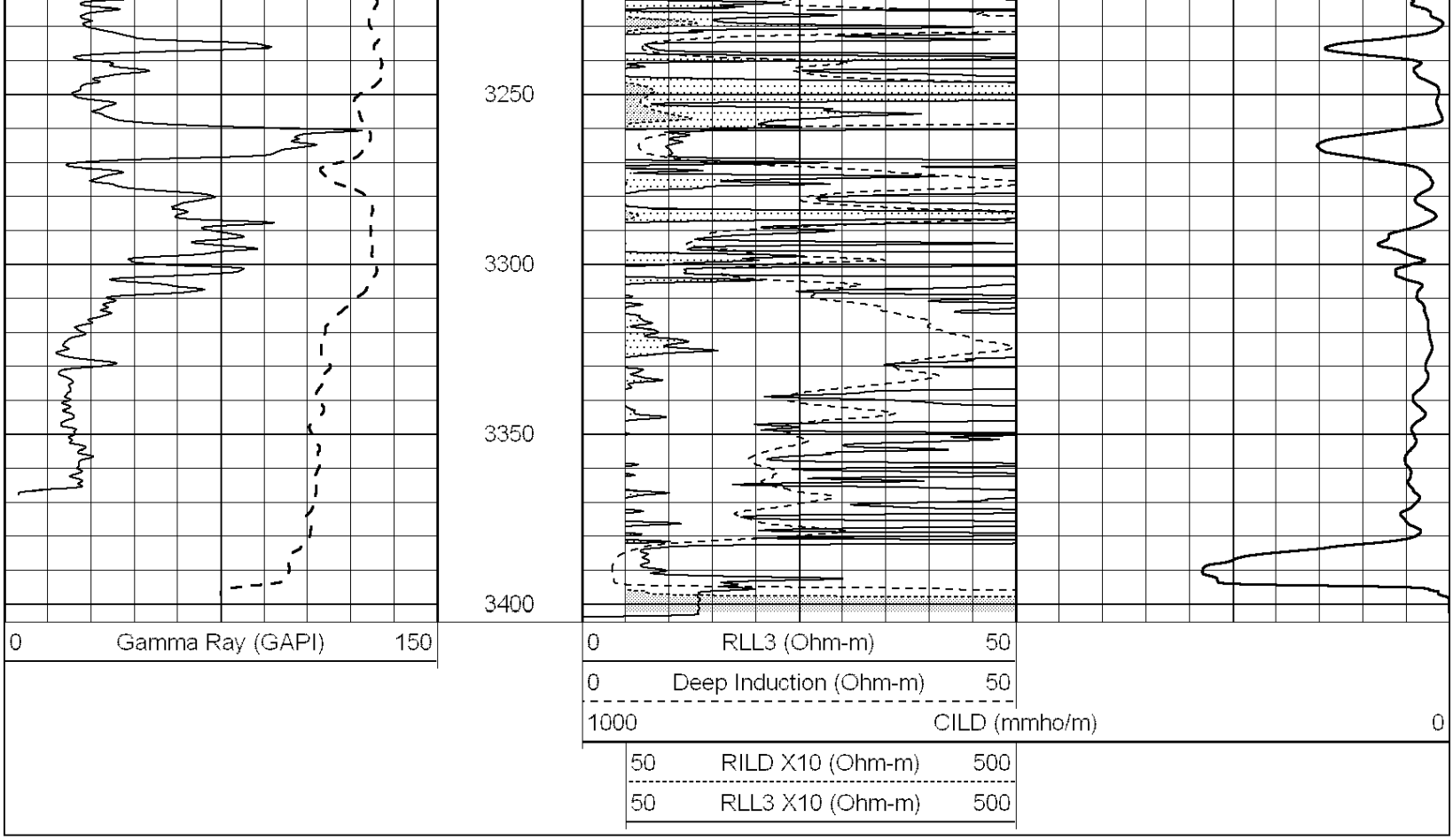

500
550
600
650
700
750
800
850
900
950
1000


1050
1100
1150
1200
1250
1300
1350
1400
1450
1500
1550

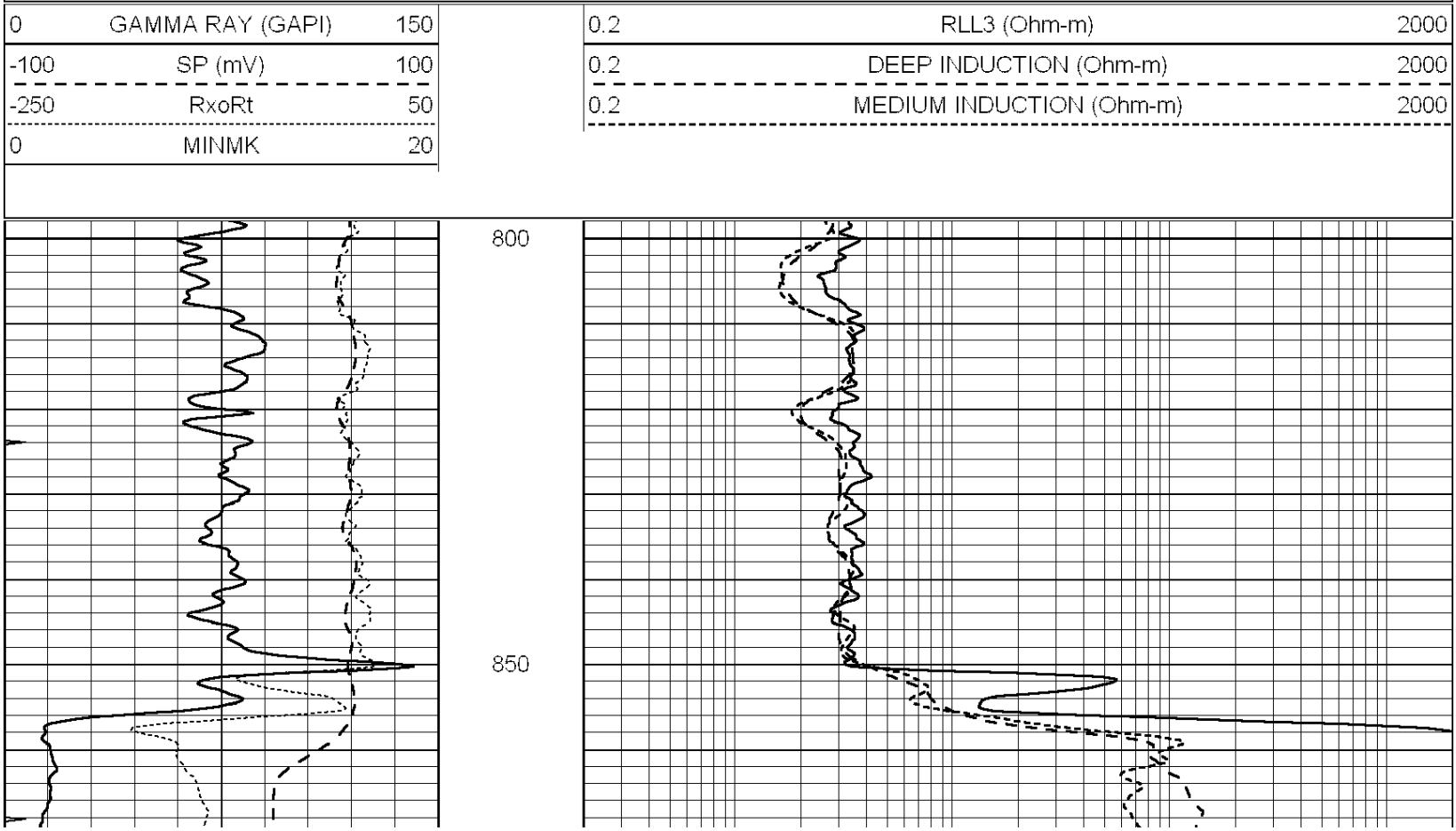

1600
1650
1700
1750
1800
1850
1900
1950
2000
2050
2100

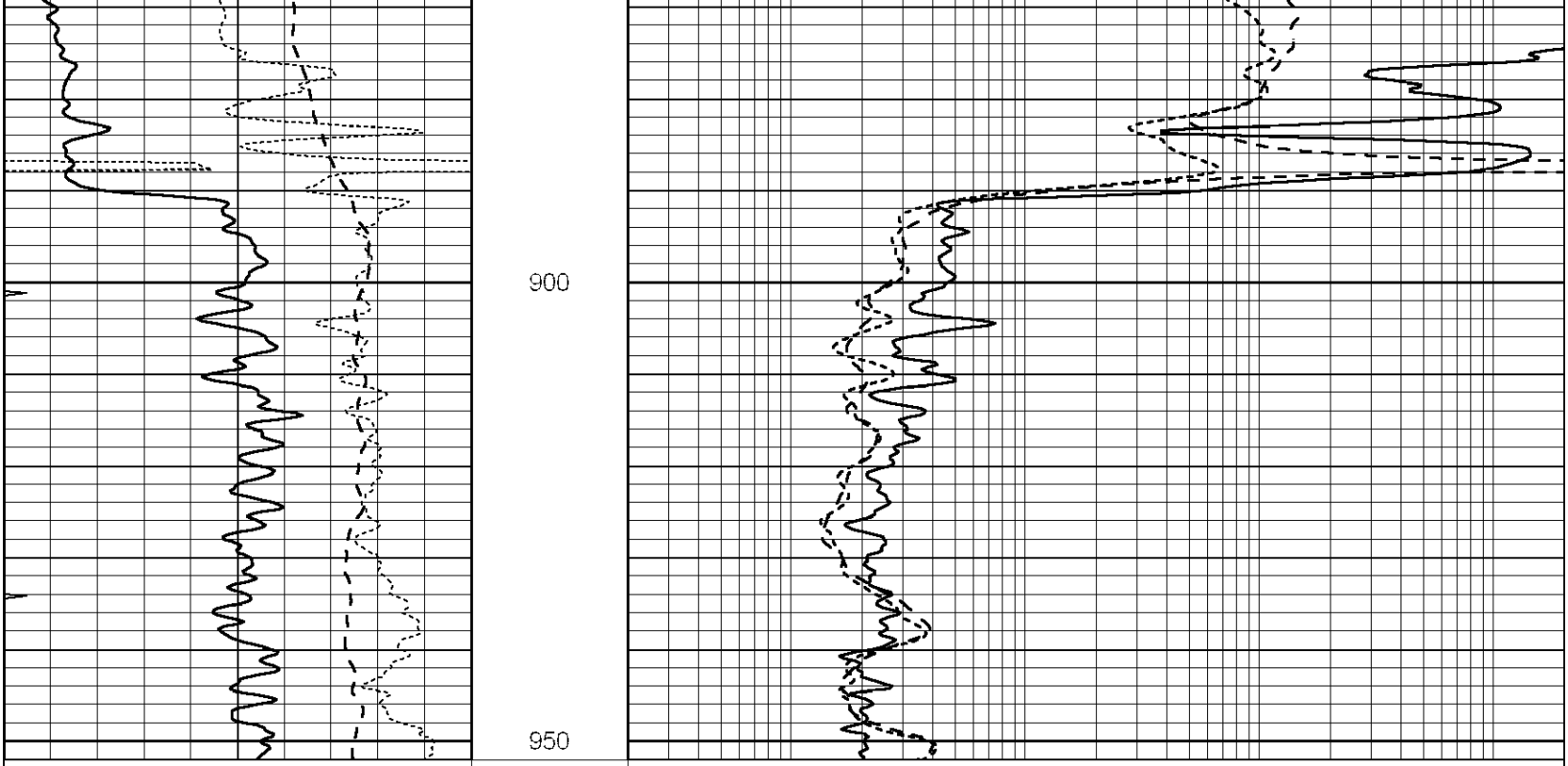

2150
2200
2250
2300
2350
2400
2450
2500
2550
2600
2650


2700
2750
2800
2850
2900
2950
3000
3050
3100
3150
3200



Database File: 23923ddn.db
Dataset Pathname: pass3.2
Presentation Format: _dil
Dataset Creation: Sun Mar 23 10:42:31 2014 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240





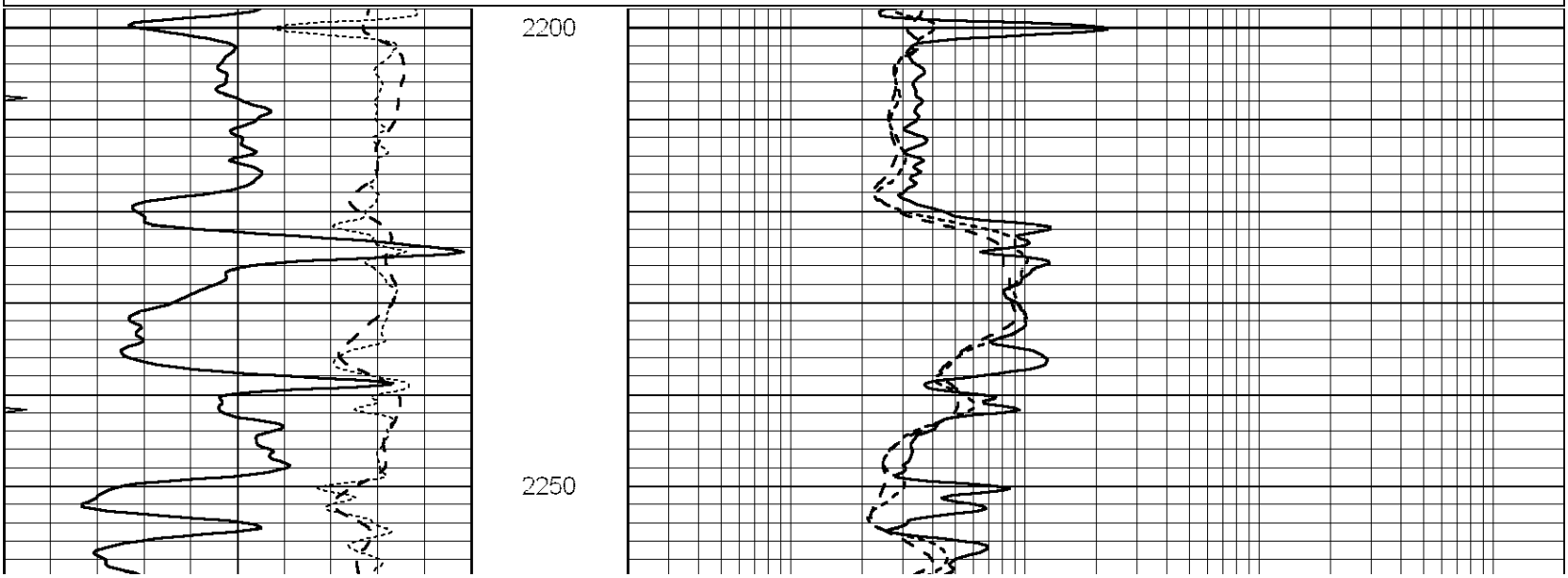
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

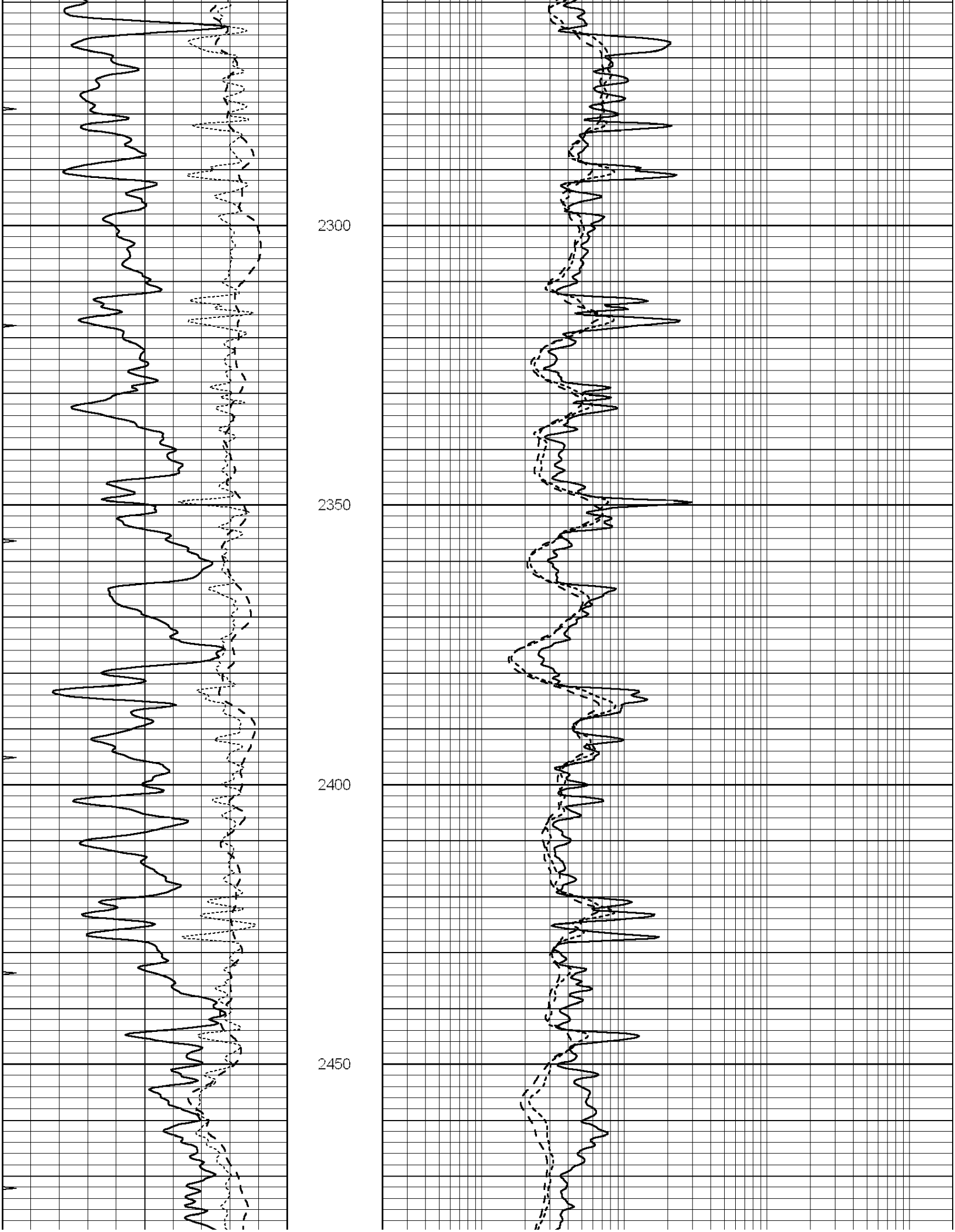
0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

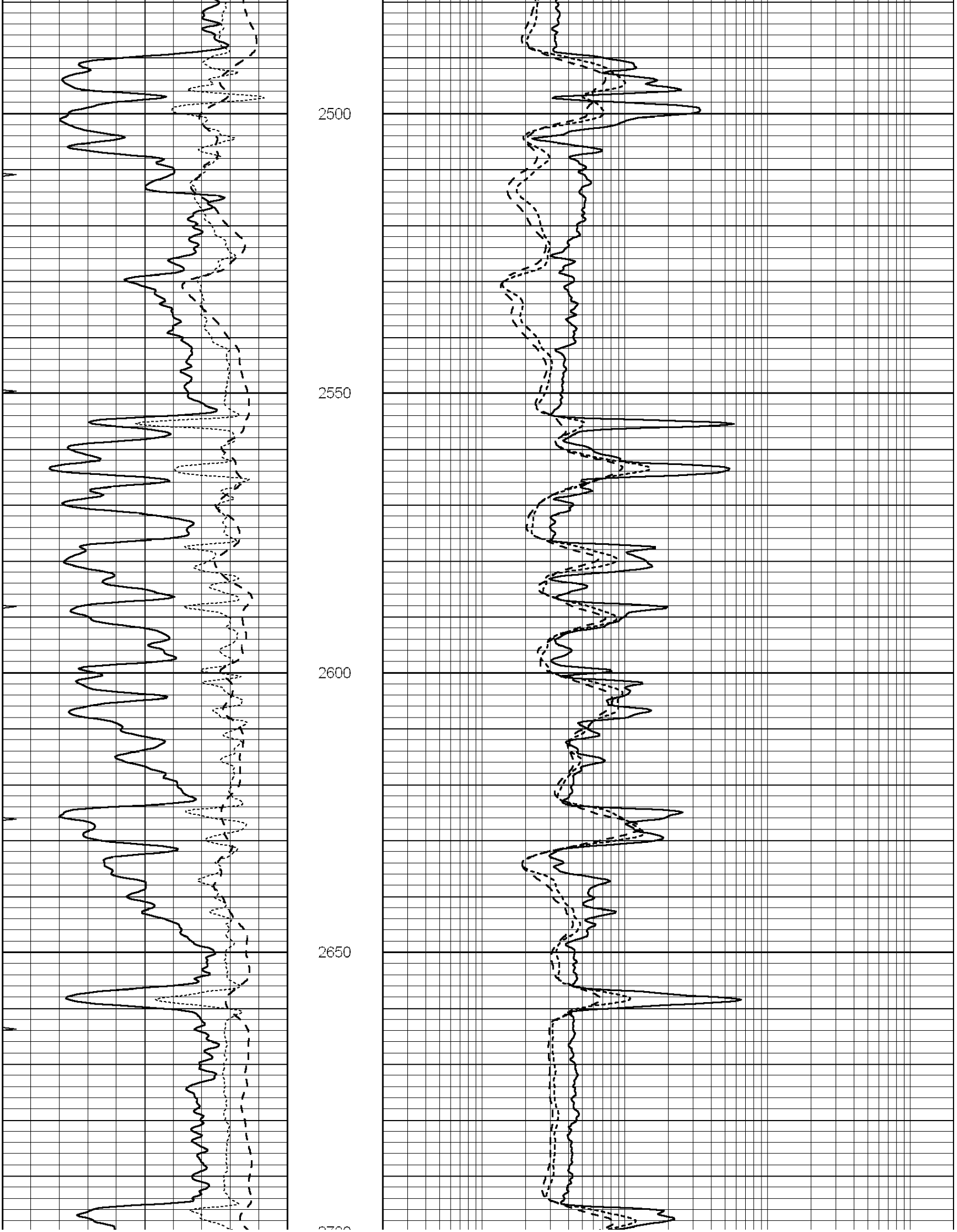
Database File:	23923ddn.db
Dataset Pathname:	pass3.1
Presentation Format:	_dil
Dataset Creation:	Sun Mar 23 10:11:04 2014 by Calc Open-Cased 090629
Charted by:	Depth in Feet scaled 1:240

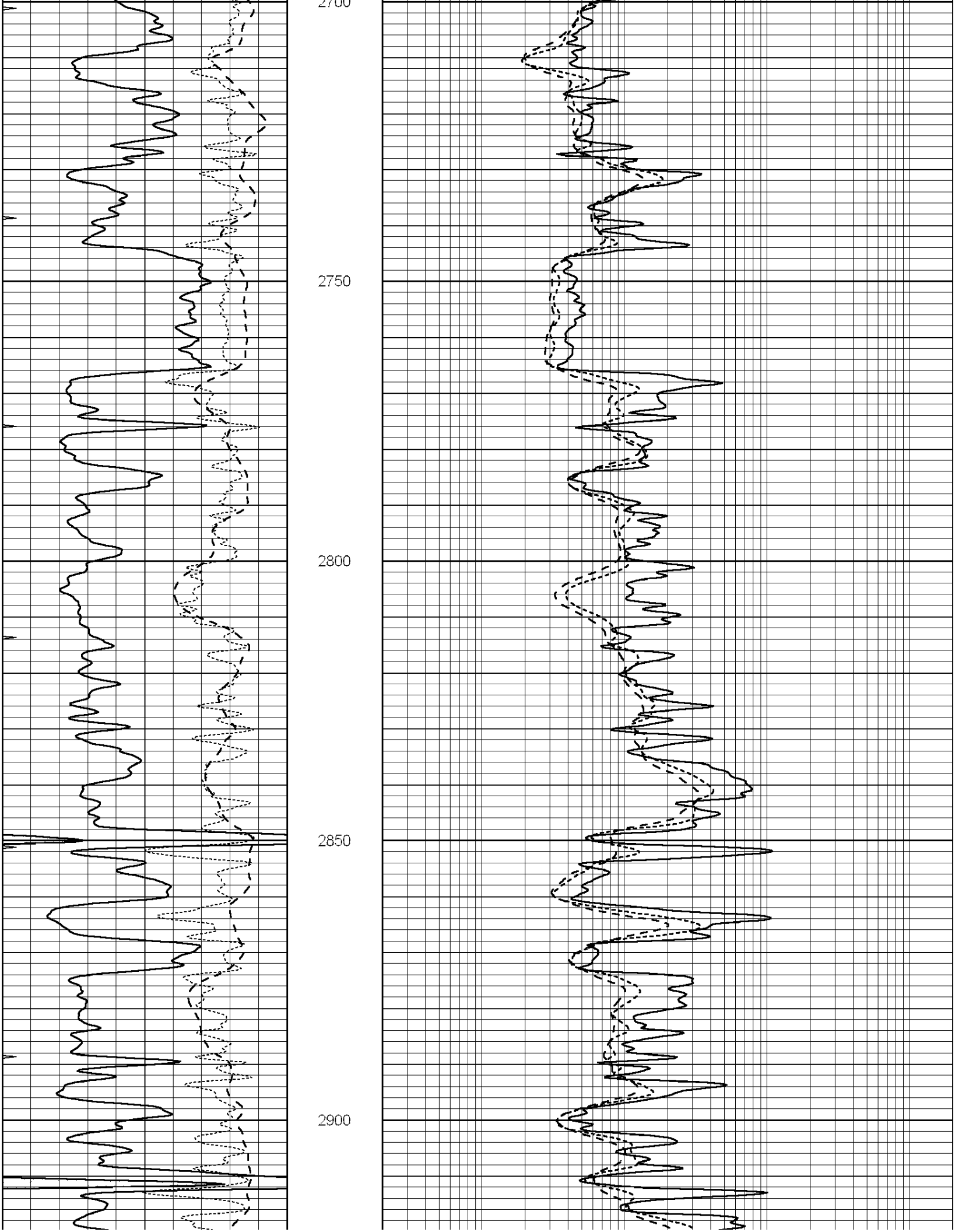
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

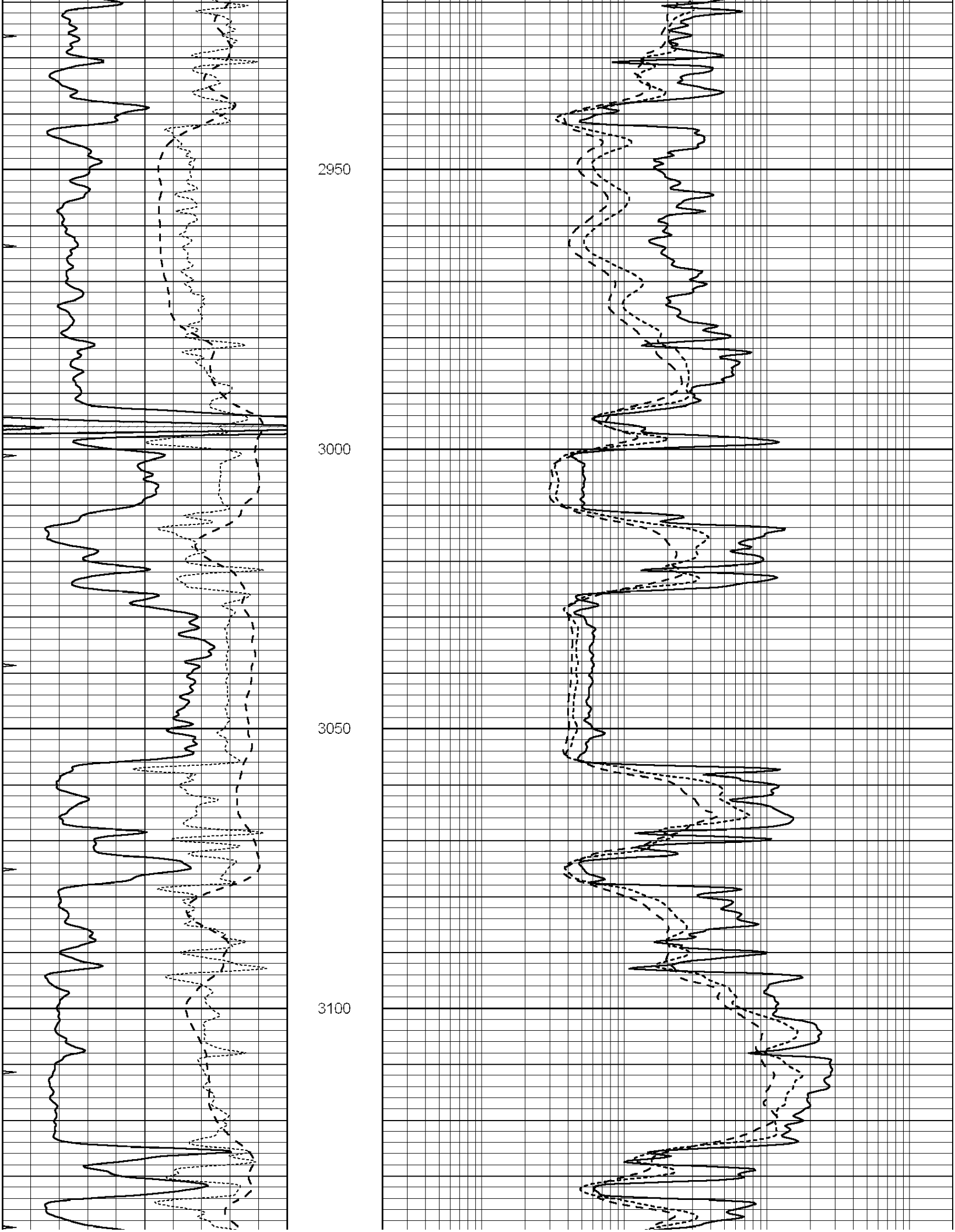
0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

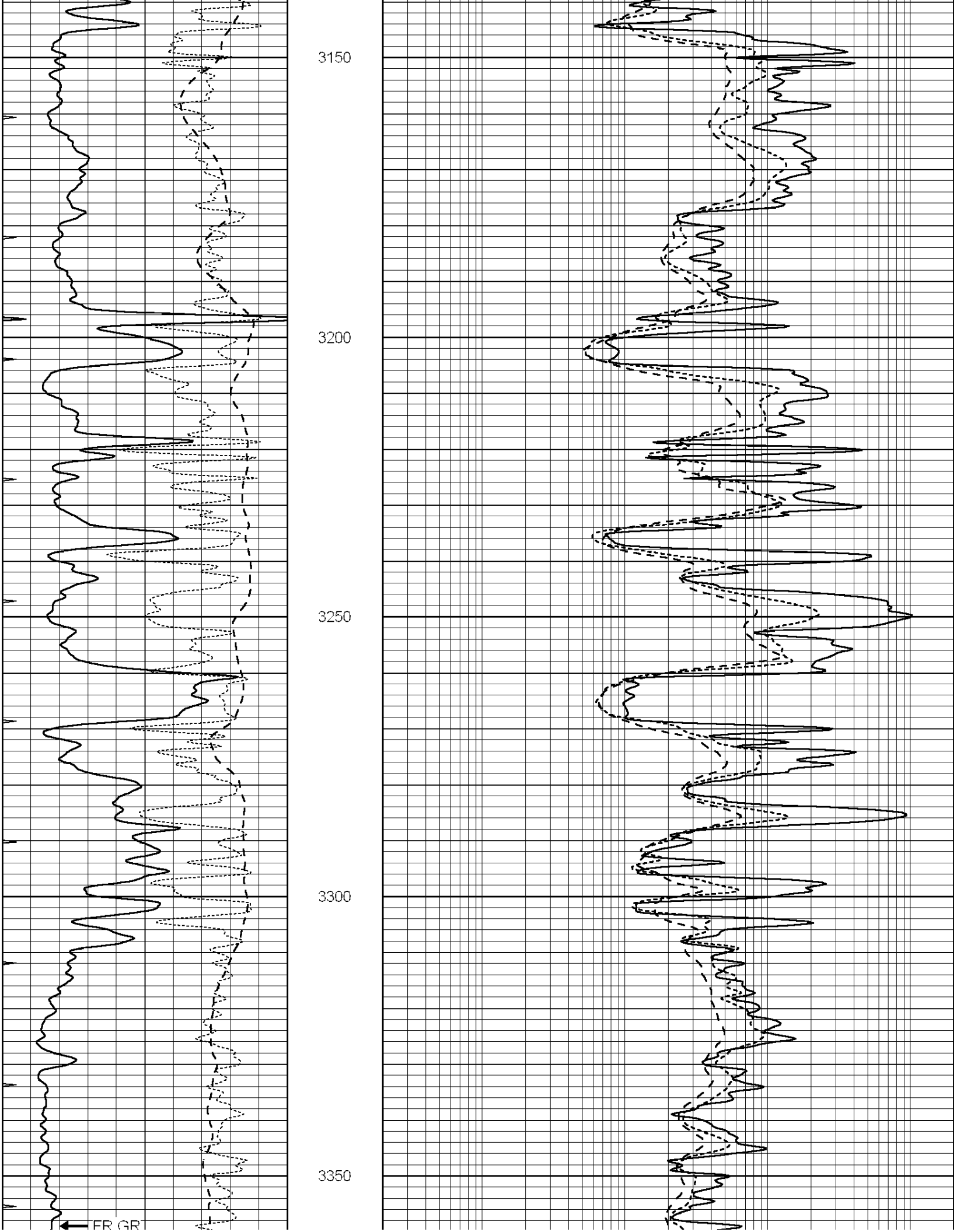


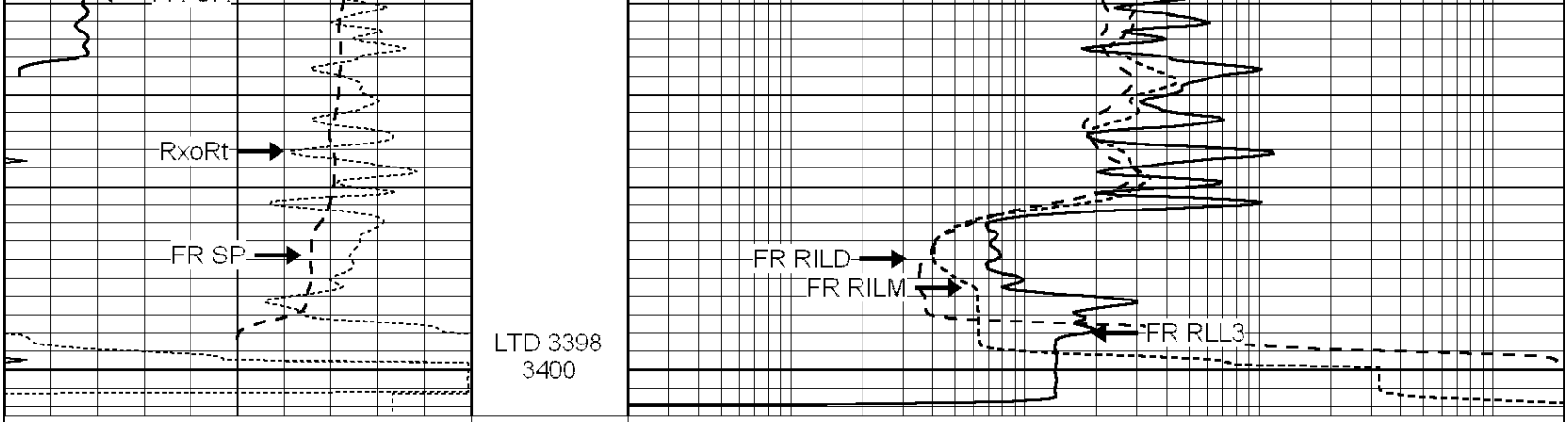

2300
2350
2400
2450


2500
2550
2600
2650


2700
2750
2800
2850
2900


2950
3000
3050
3100


3150
3200
3250
3300
3350
ER GR



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

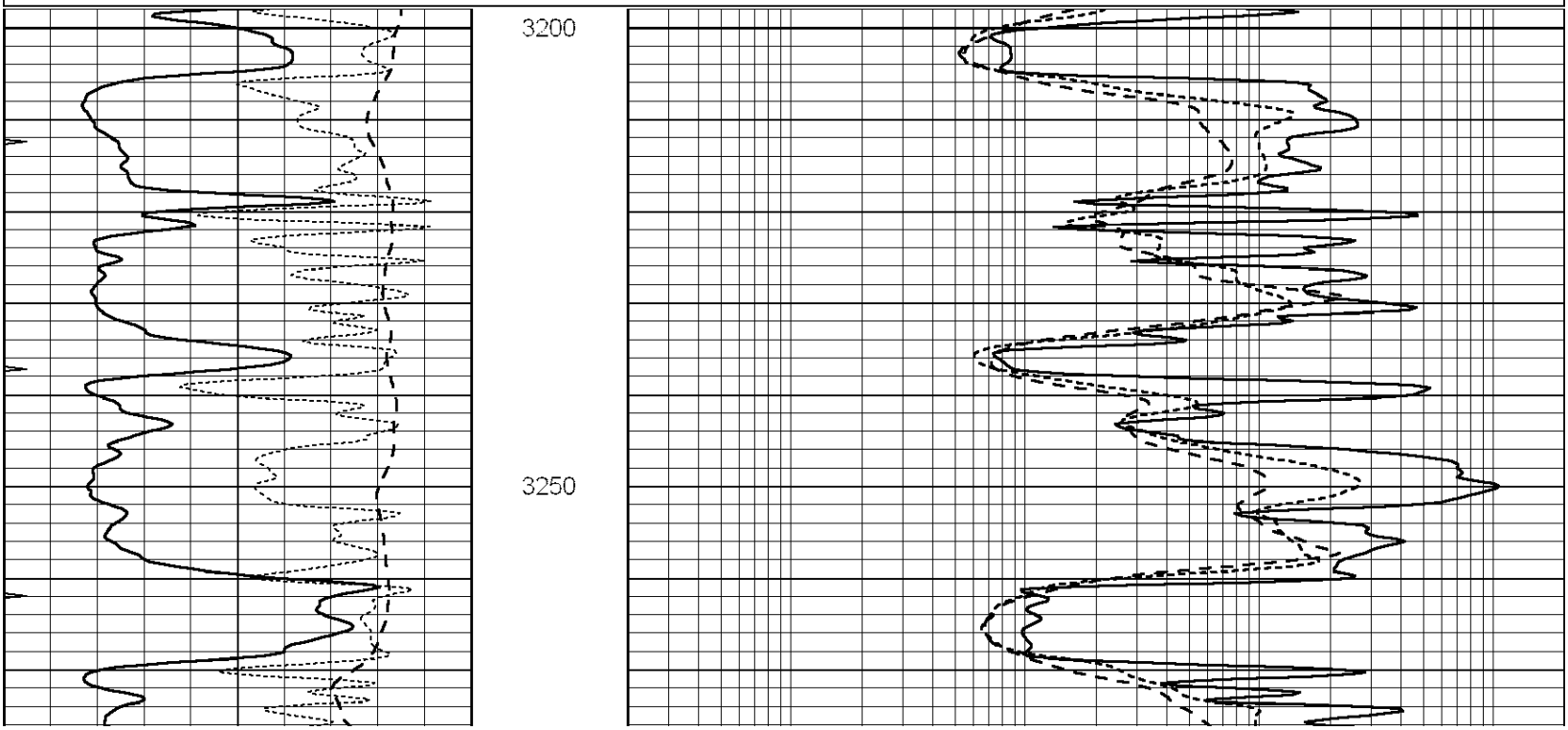
NABORS
COMPLETION & PRODUCTION SERVICES CO.

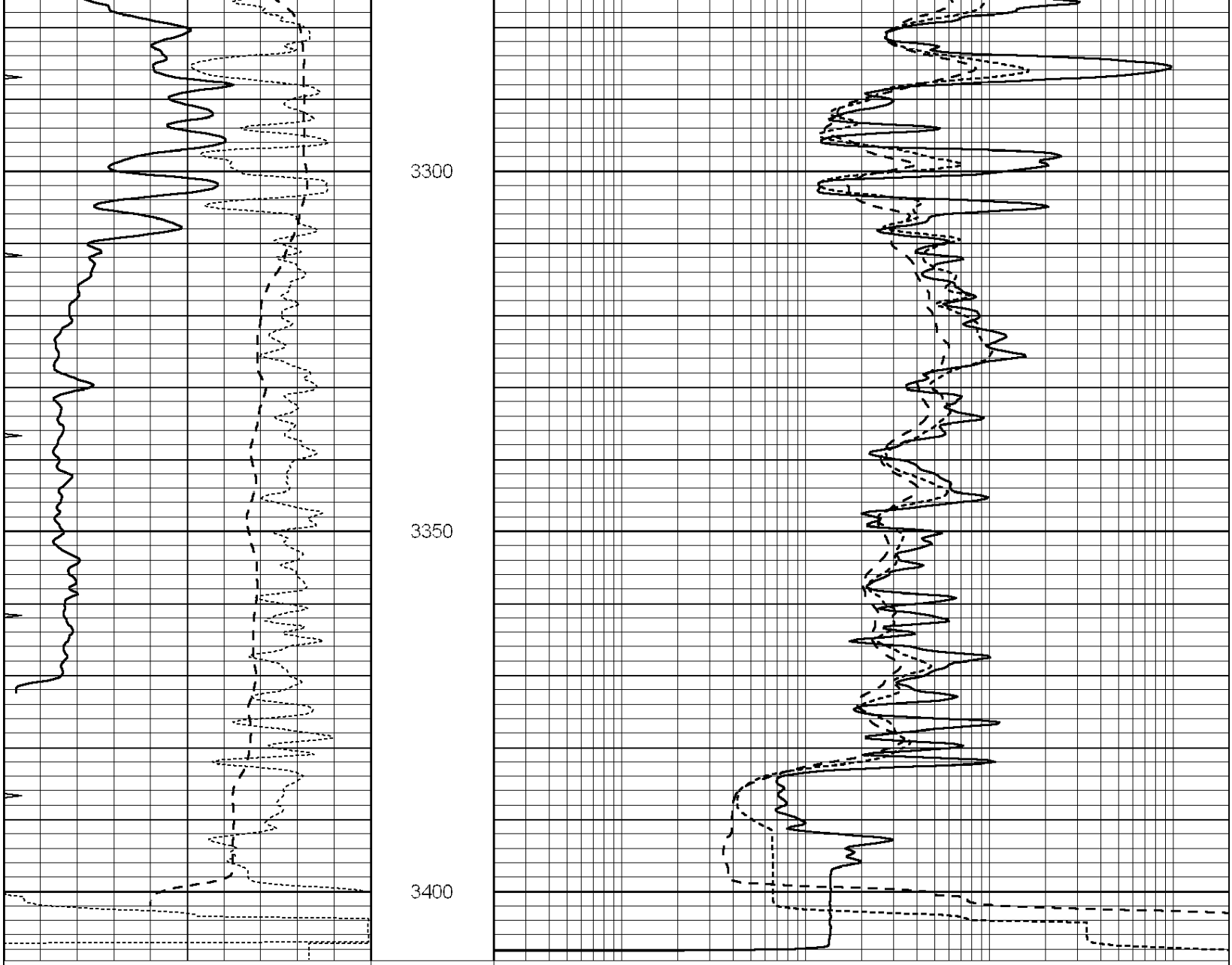
REPEAT SECTION

Database File: 23923ddn.db
Dataset Pathname: pass2.2
Presentation Format: _dil
Dataset Creation: Sun Mar 23 09:33:31 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





Calibration Report

Database File: 23923ddn.db
Dataset Pathname: pass3.2
Dataset Creation: Sun Mar 23 10:42:31 2014 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: DIL3-GEAR
Performed: Wed Mar 05 17:42:55 2014

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	0.000	400.000	mmho/m	500.000	4.000
Medium	0.013	0.740	V	0.000	462.500	mmho/m	570.000	3.000

Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.002	0.645	V	0.000	400.000	mmho/m	560.000	-1.071
Medium	0.007	0.740	V	0.000	462.500	mmho/m	540.000	-4.000

Compensated Density Calibration Report

Serial-Model: GEAR1-GEARHART
Source / Verifier: 147 / 147
Master Calibration Performed: Wed Mar 05 16:50:17 2014

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1211.27	625.92	cps
Aluminum	2.600	g/cc	267.11	413.26	cps

Spine Angle = 74.64 Density/Spine Ratio = 0.568

	Size		Reading	
Small Ring	8.20	in	5.18	V
Large Ring	14.00	in	8.18	V

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: 7
Tool Model: Probe1
Performed: Tue Mar 04 10:47:15 2014

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.4500 GAPI/cps