NABORS COMPLETION & PRODUCTION SERVICES CO.

DUAL INDUCTION LOG

Company	DOWNING NELSON OIL COMPANY
Well	KRAMER UNIT #2-24
Field	WILDCAT
County	CHEYENNE
State	KANSAS

Company DOWNING NELSON OIL COMPANY
Well KRAMER UNIT #2-24
Field WILDCAT
County CHEYENNE State KANSAS
Location: API # : 15-023-21404-00-00
50' FSL & 330' FWL
E/2 - SW - SW - SW
SEC 24 TWP 5S RGE 37W
Permanent Datum GROUND LEVEL Elevation 3311
Log Measured From KELLY BUSHING 13' A.G.L.
Drilling Measured From KELLY BUSHING

Other Services: CNL/CDL MEL/SON

Elevation: K.B. 3324 D.F. 3322 G.L. 3311

Date	7/30/14					
Run Number	ONE					
Depth Driller	4950					
Depth Logger	4954					
Bottom Logged Interval	4952					
Top Log Interval	00					
Casing Driller	8 5/8 @ 476'					
Casing Logger	476'					
Bit Size	7.875					
Type Fluid in Hole	CHEMICAL MUD					
Density / Viscosity	9.6/58	CHLORIDES 500 PPM				
pH / Fluid Loss	11.0/8.8					
Source of Sample	FLOWLINE					
Rm @ Meas. Temp	1.40 @ 95F					
Rmf @ Meas. Temp	1.05 @ 95F					
Rmc @ Meas. Temp	1.68 @ 95F					
Source of Rmf / Rmc	MEASURED					
Rm @ BHT	1.06 @ 125F					
Time Circulation Stopped	2 HOURS					
Time Logger on Bottom						
Maximum Recorded Temperature	125F					
Equipment Number	3802					
Location	HAYS, KS.					
Recorded By	IAN MABB					
Witnessed By	RON NELSON					

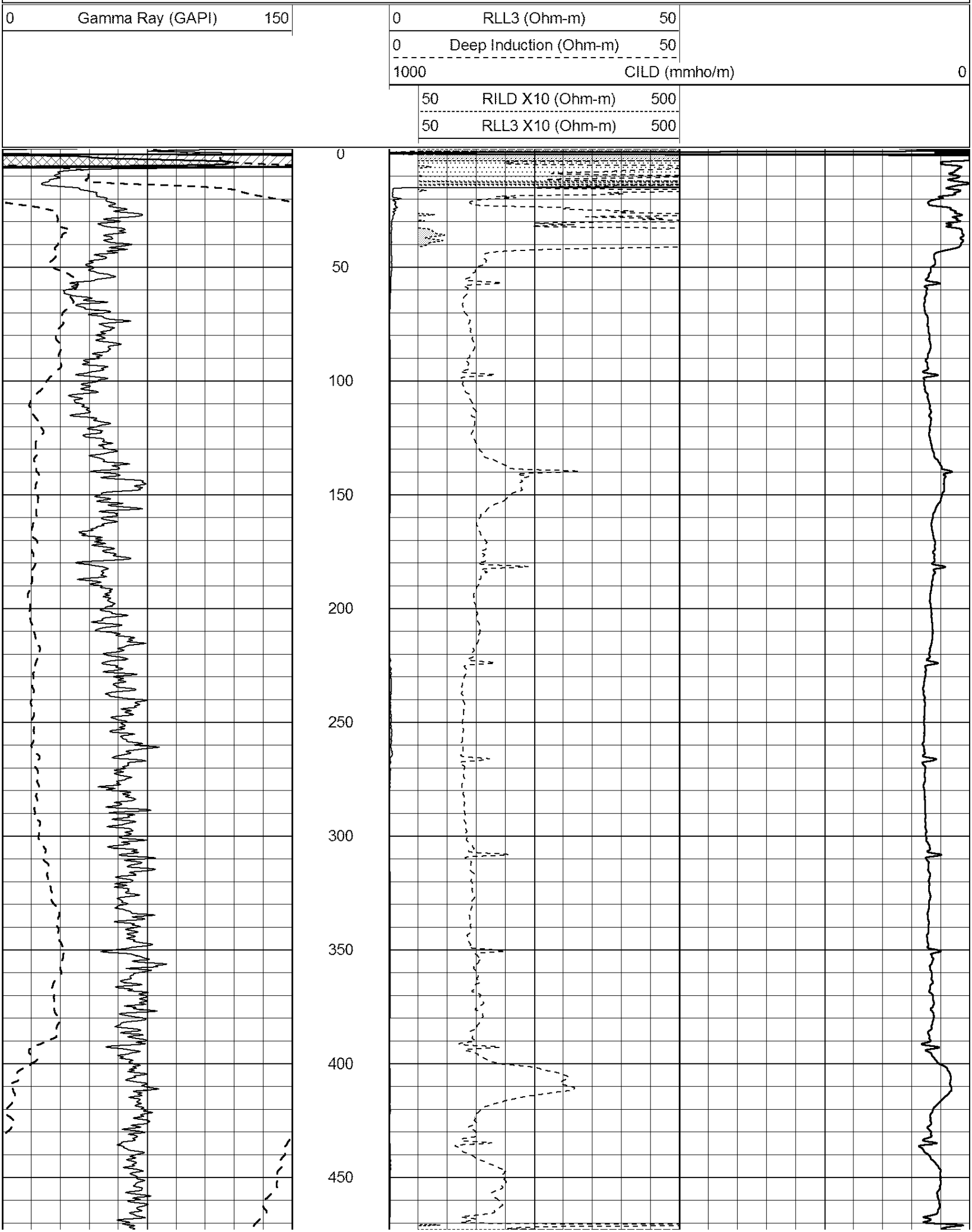
<<< Fold Here >>>

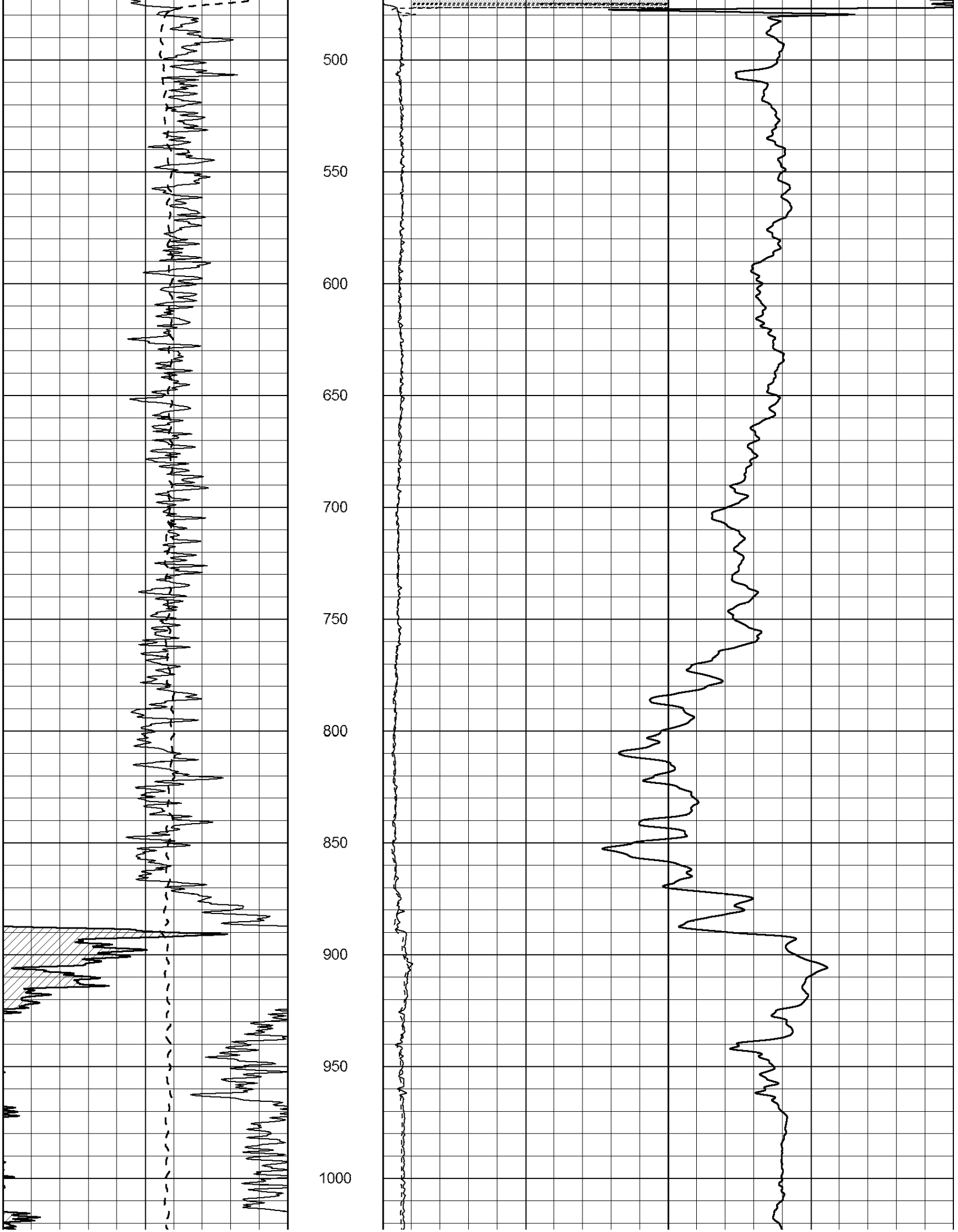
Comments

NABORS COMPLETION & PRODUCTION SERVICES CO.
785 (628 - 6395)
THANK YOU FOR YOUR BUSINESS
DIRECTIONS : BREWSTER, KS. - 17 NORTH TO THE CURVE - 3 WEST - 1 1/2 NORTH - EAST INTO

Database File:	24716ddn.db
Dataset Pathname:	pass3.3
Presentation Format:	_dil2
Dataset Creation:	Wed Jul 30 14:24:23 2014 by Calc Open-Cased 090629

Charted by: Depth in Feet scaled 1:600

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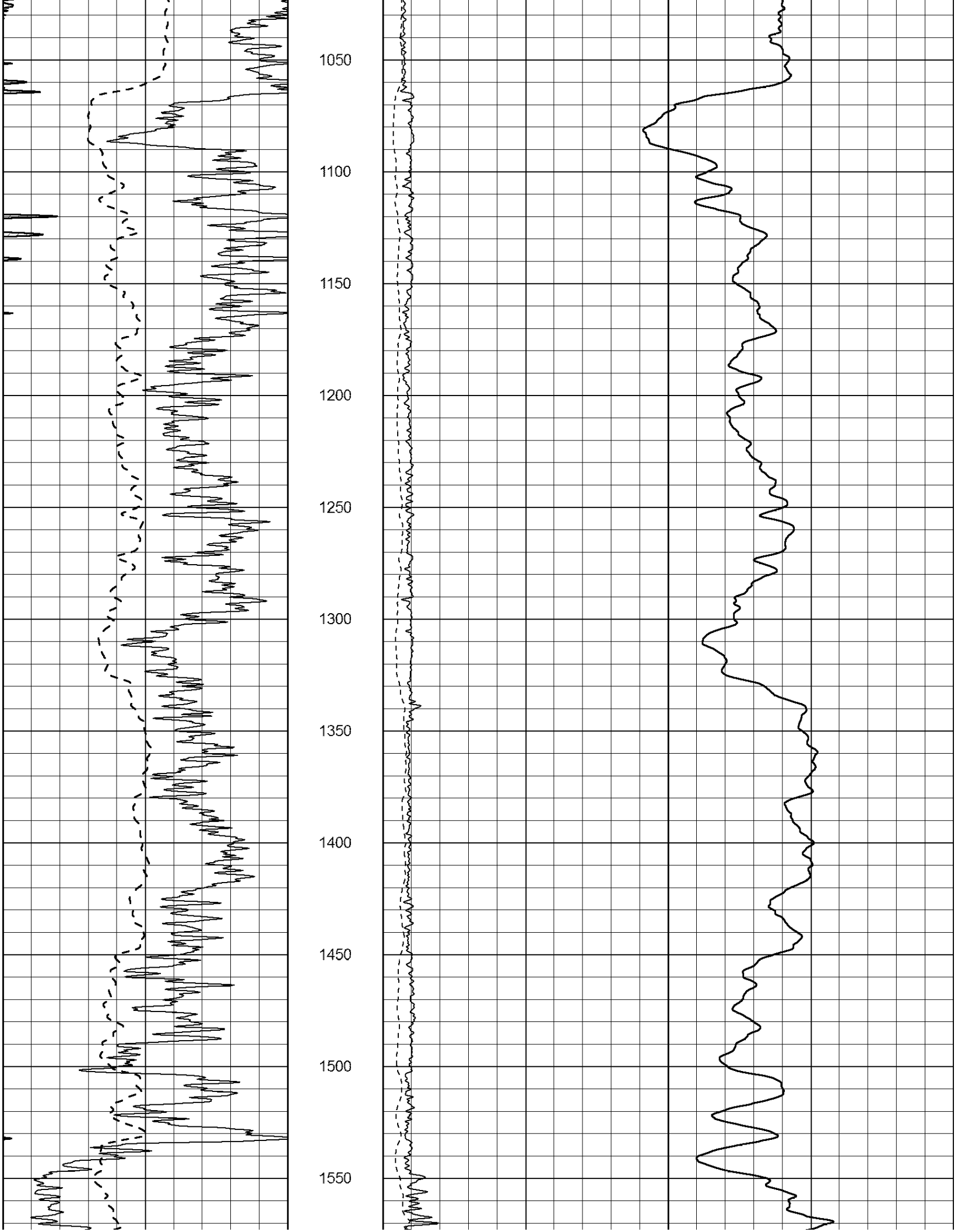
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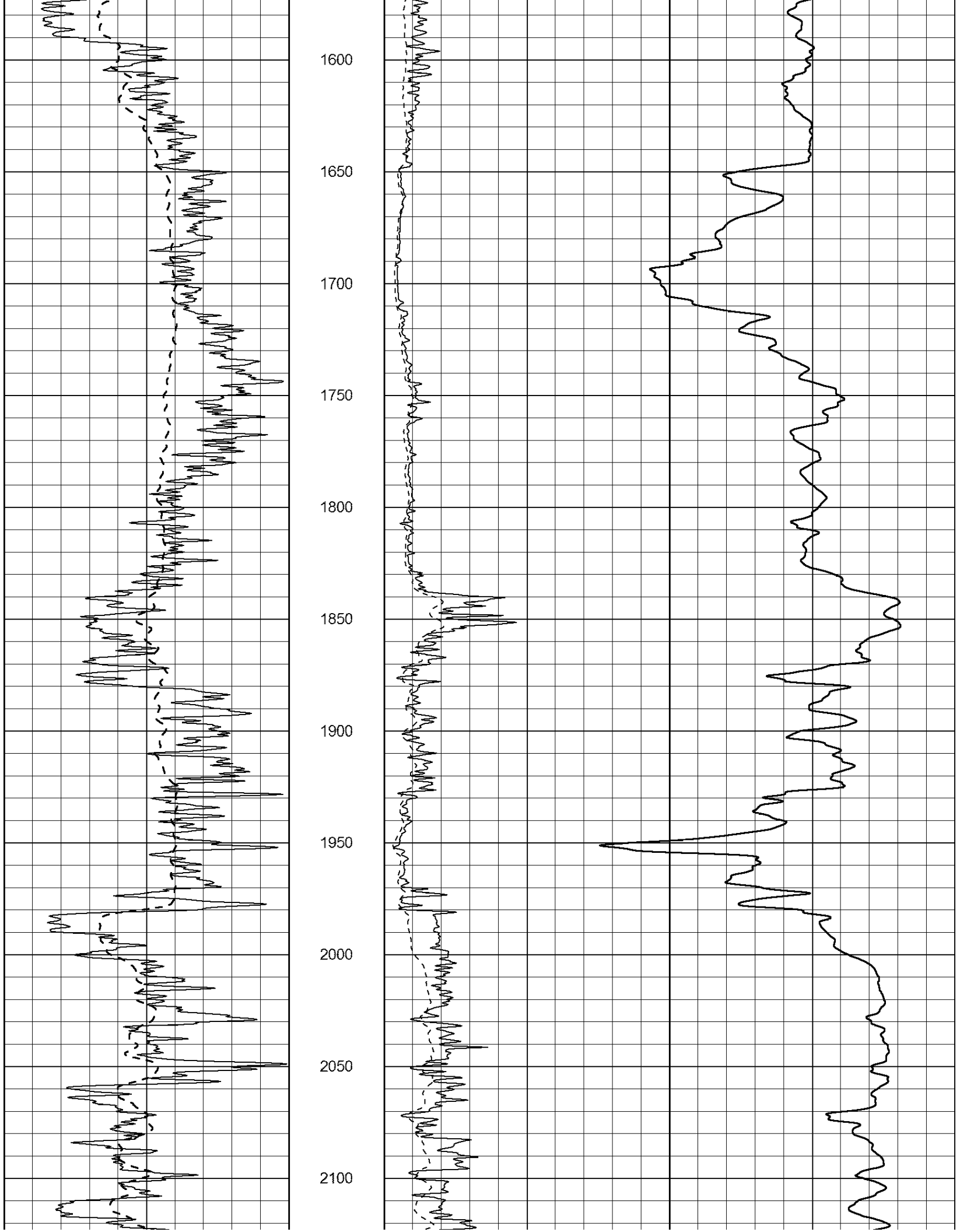
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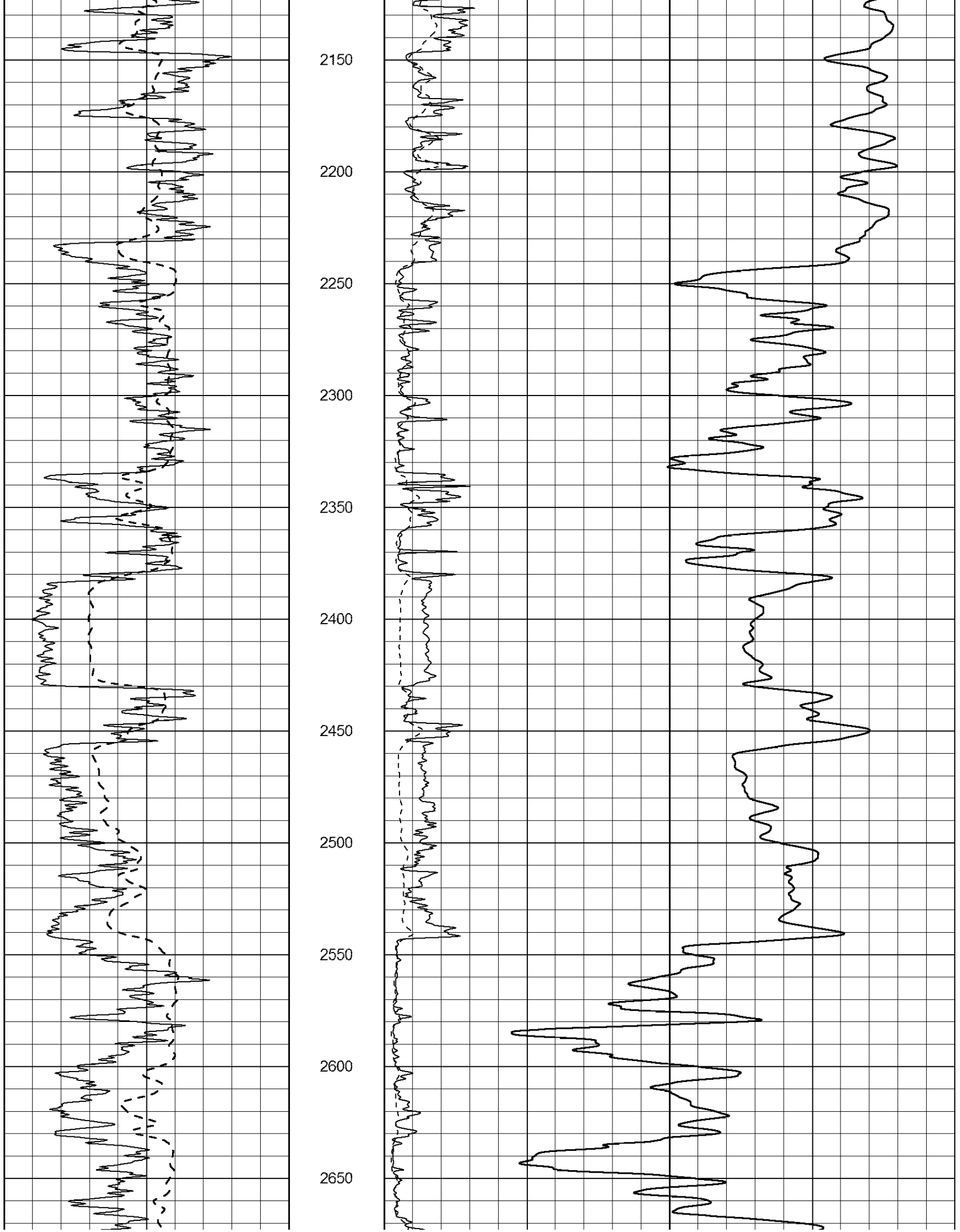
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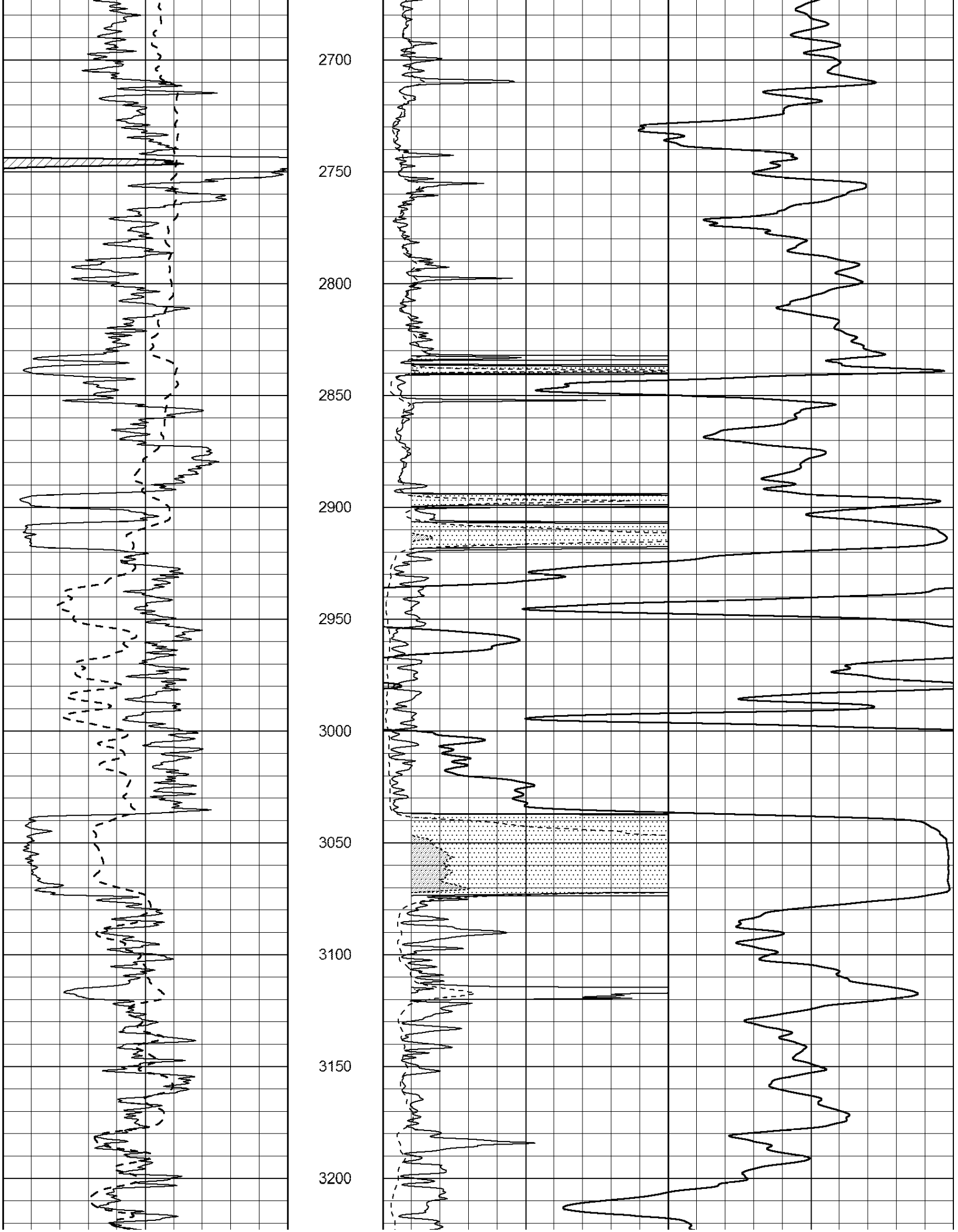
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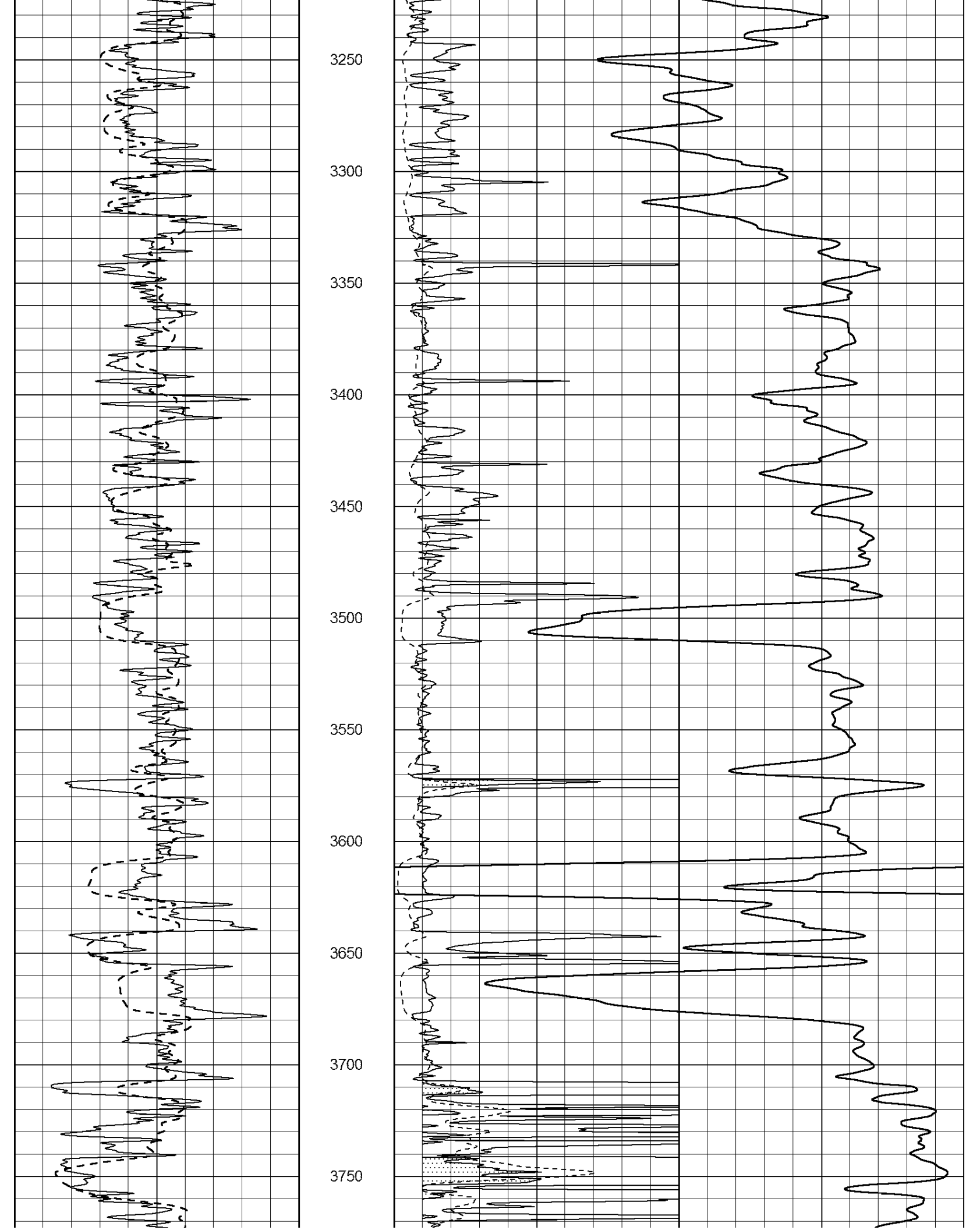
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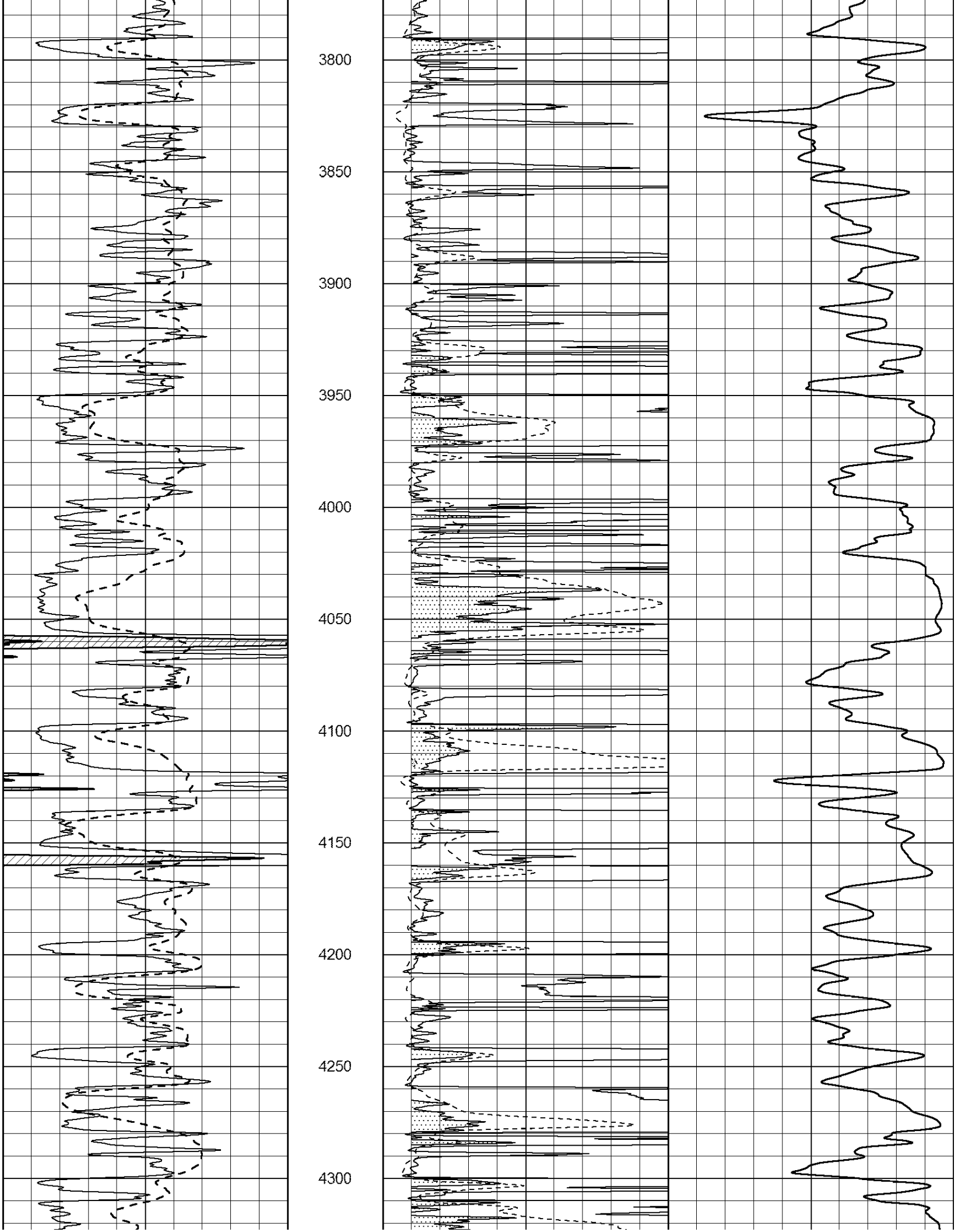
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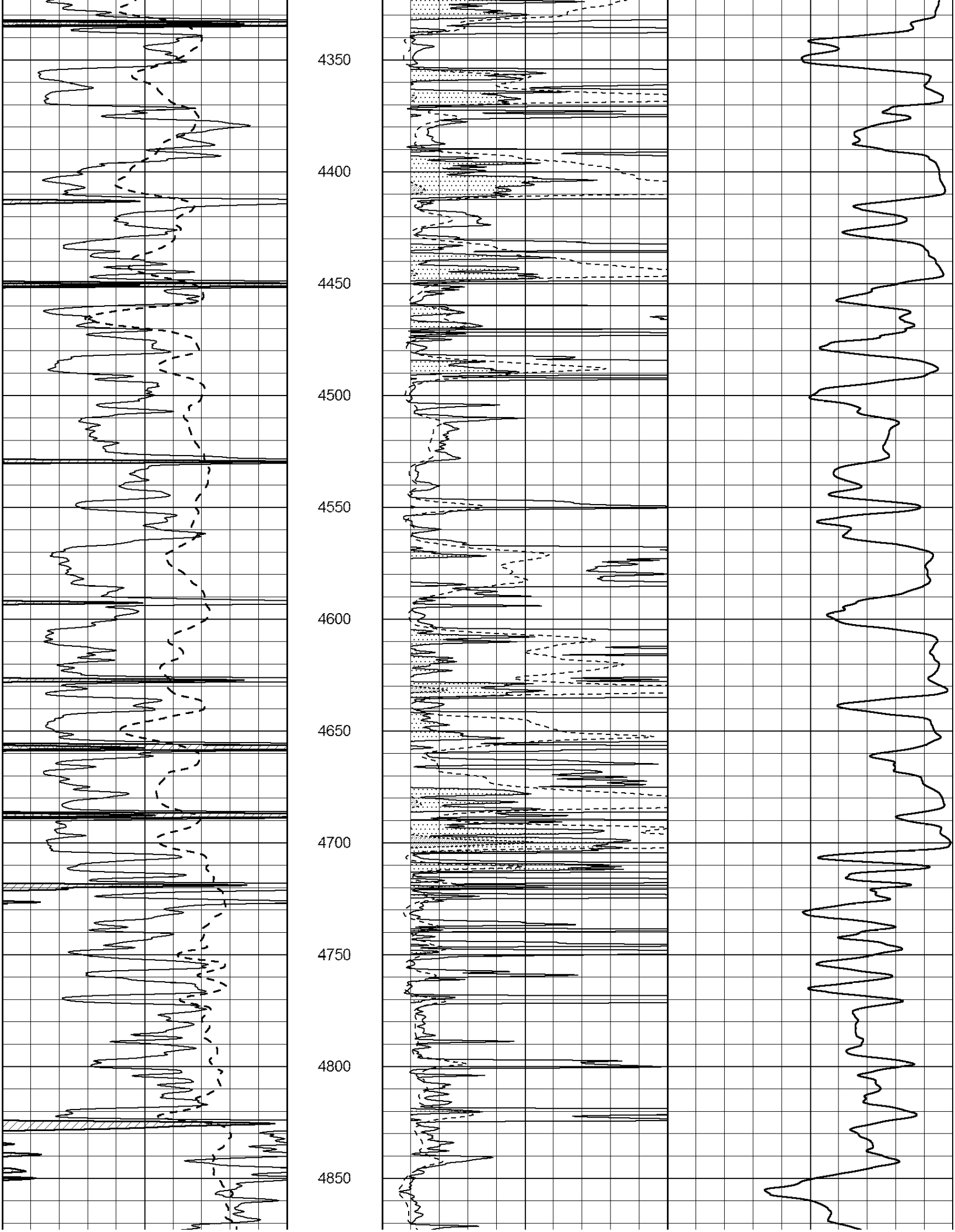
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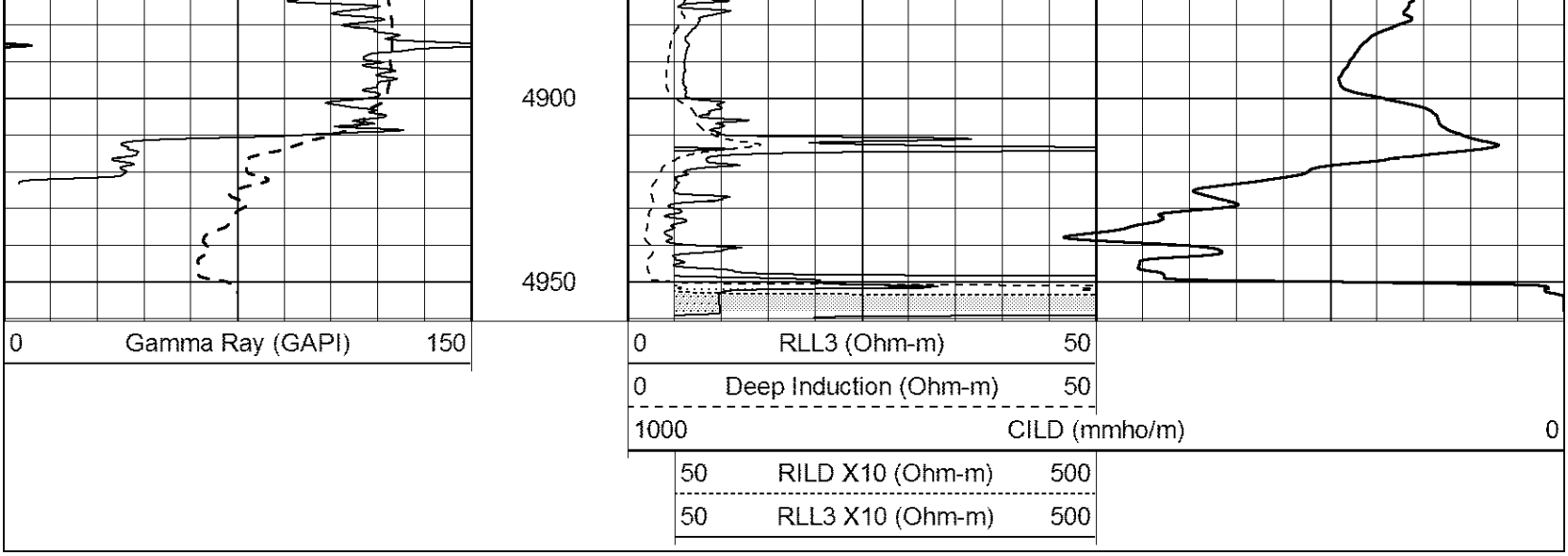
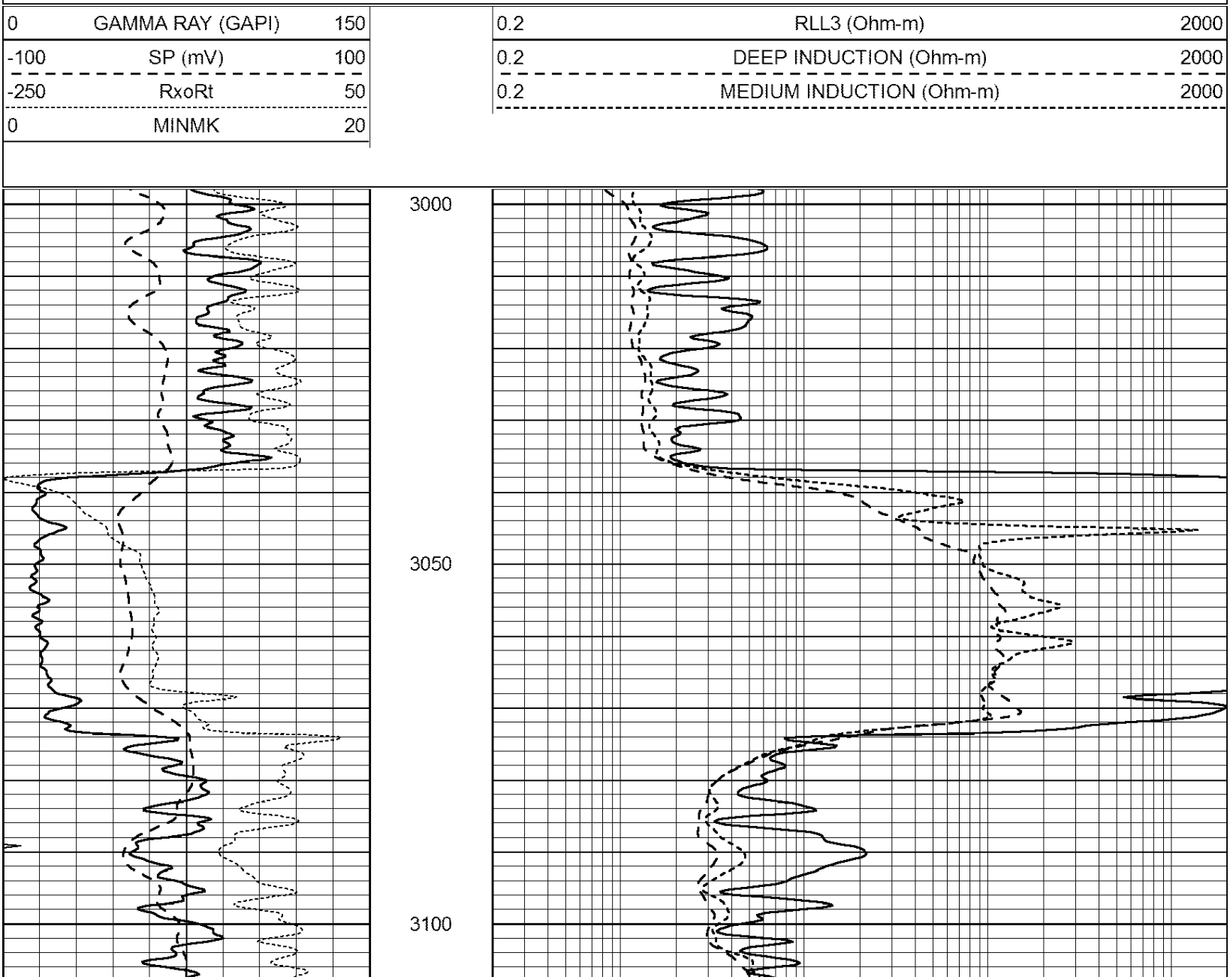
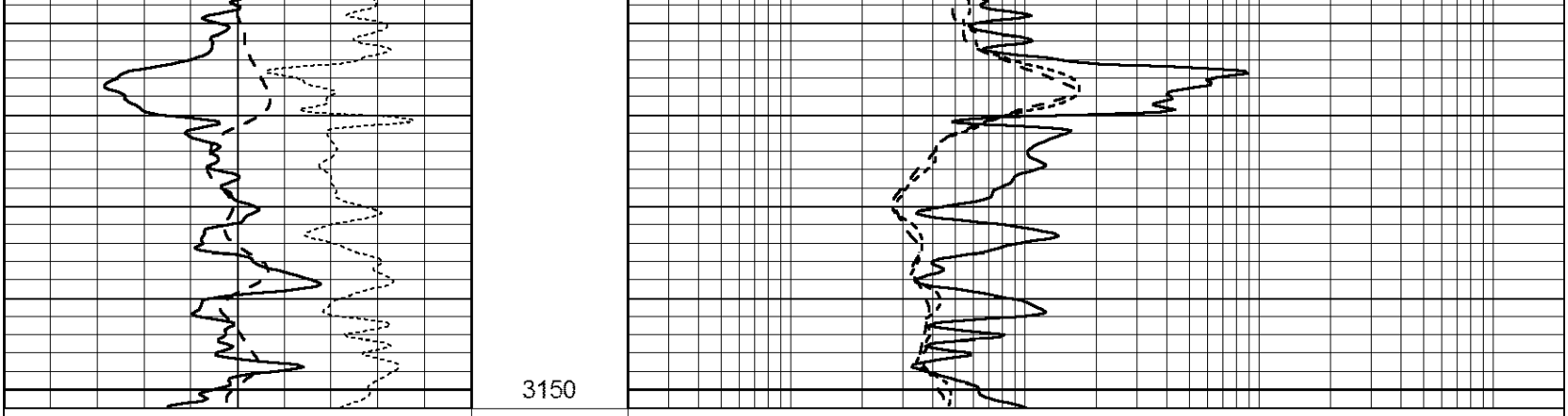


Database File: 24716ddn.db
Dataset Pathname: pass3.3
Presentation Format: _dil
Dataset Creation: Wed Jul 30 14:24:23 2014 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240





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-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: 24716ddn.db
Dataset Pathname: pass3.2
Presentation Format: _dil
Dataset Creation: Wed Jul 30 13:51:00 2014 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

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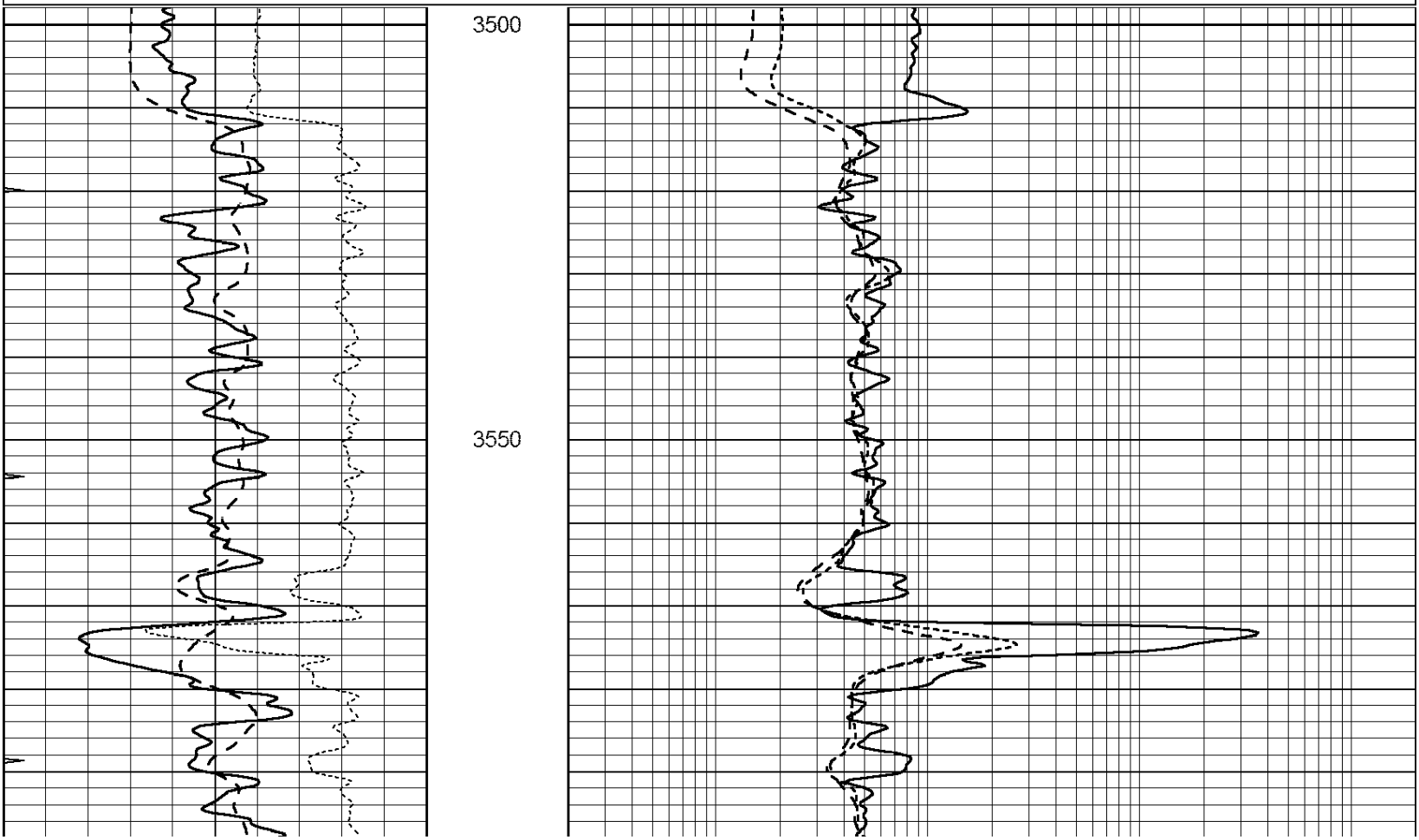
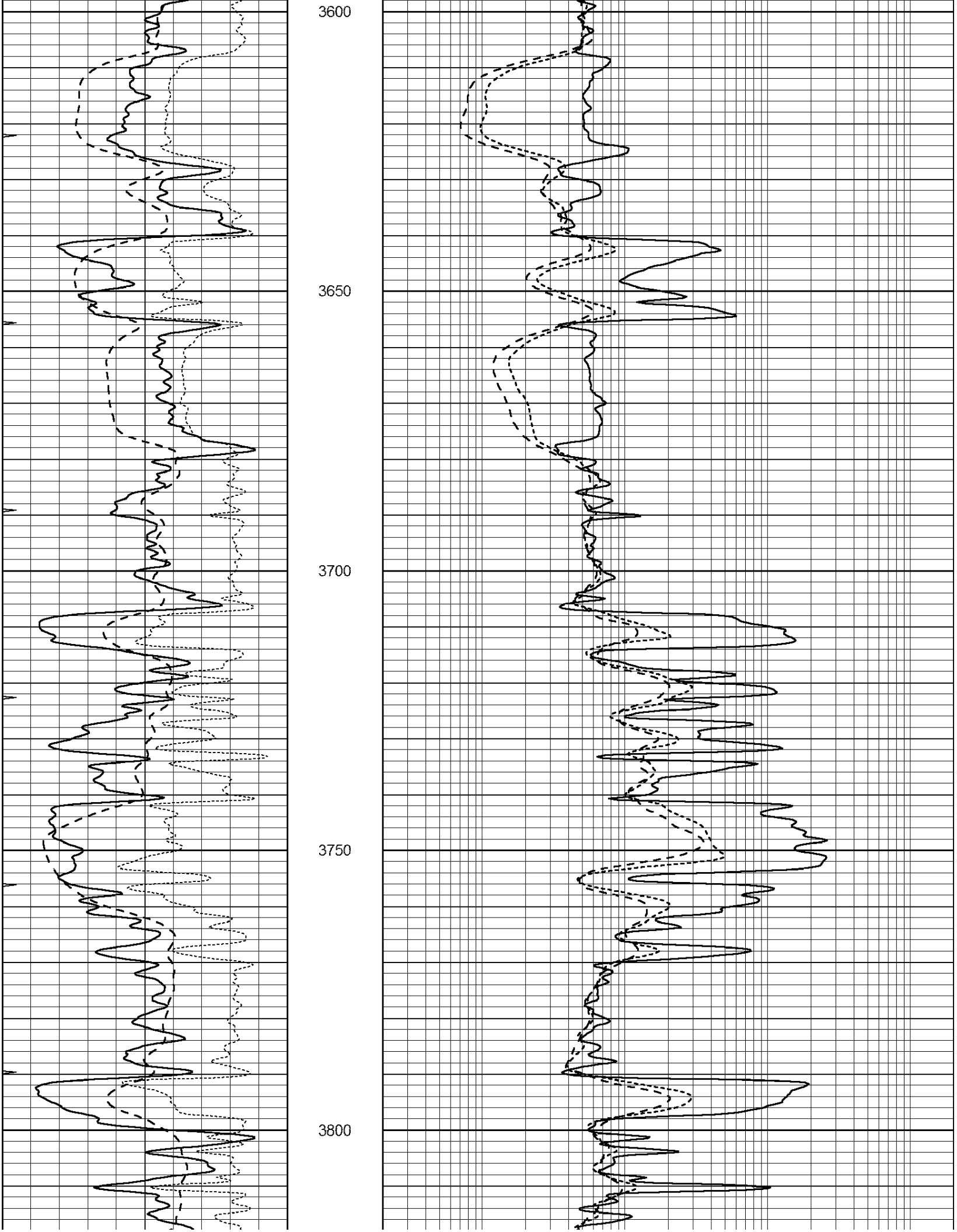
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

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

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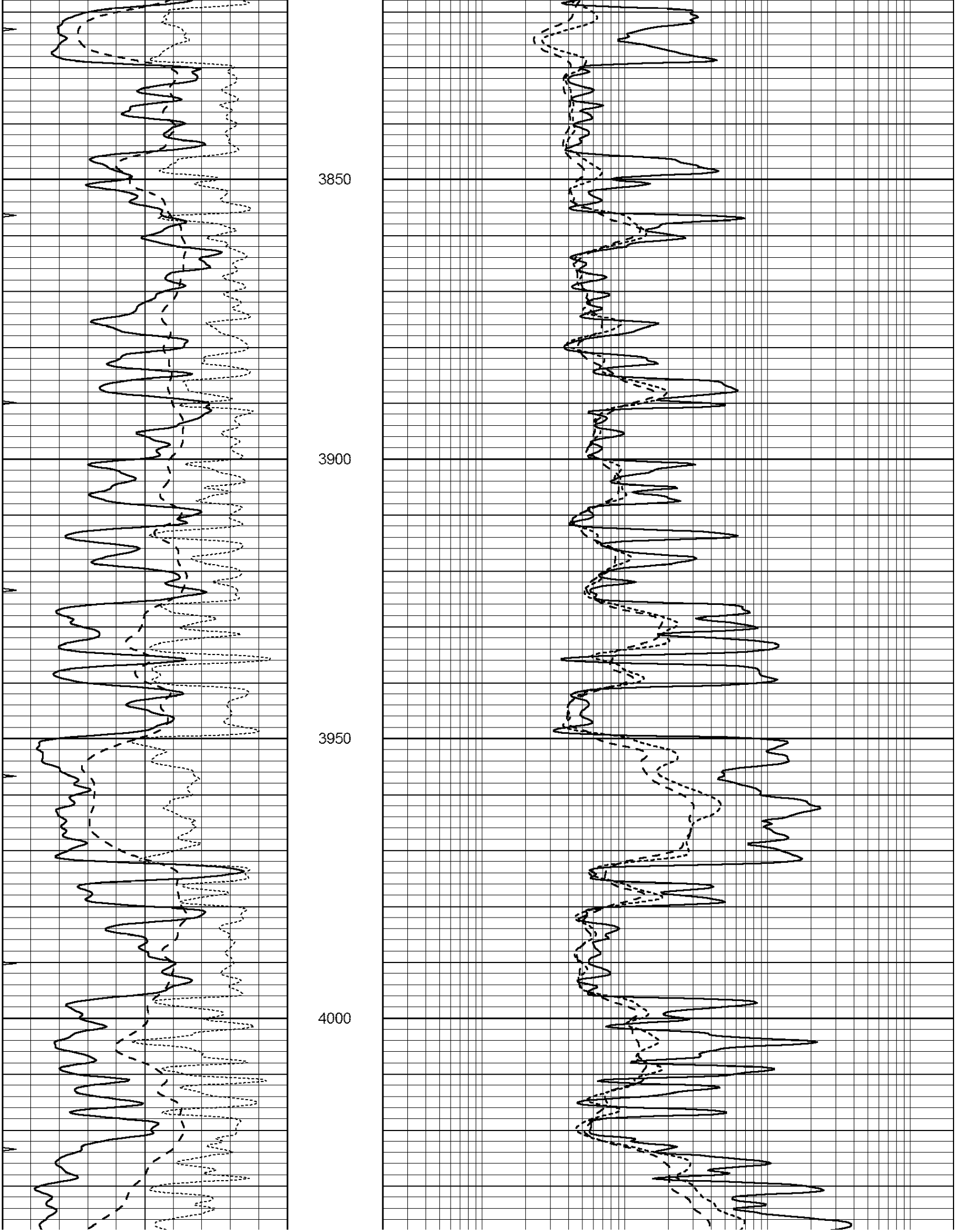
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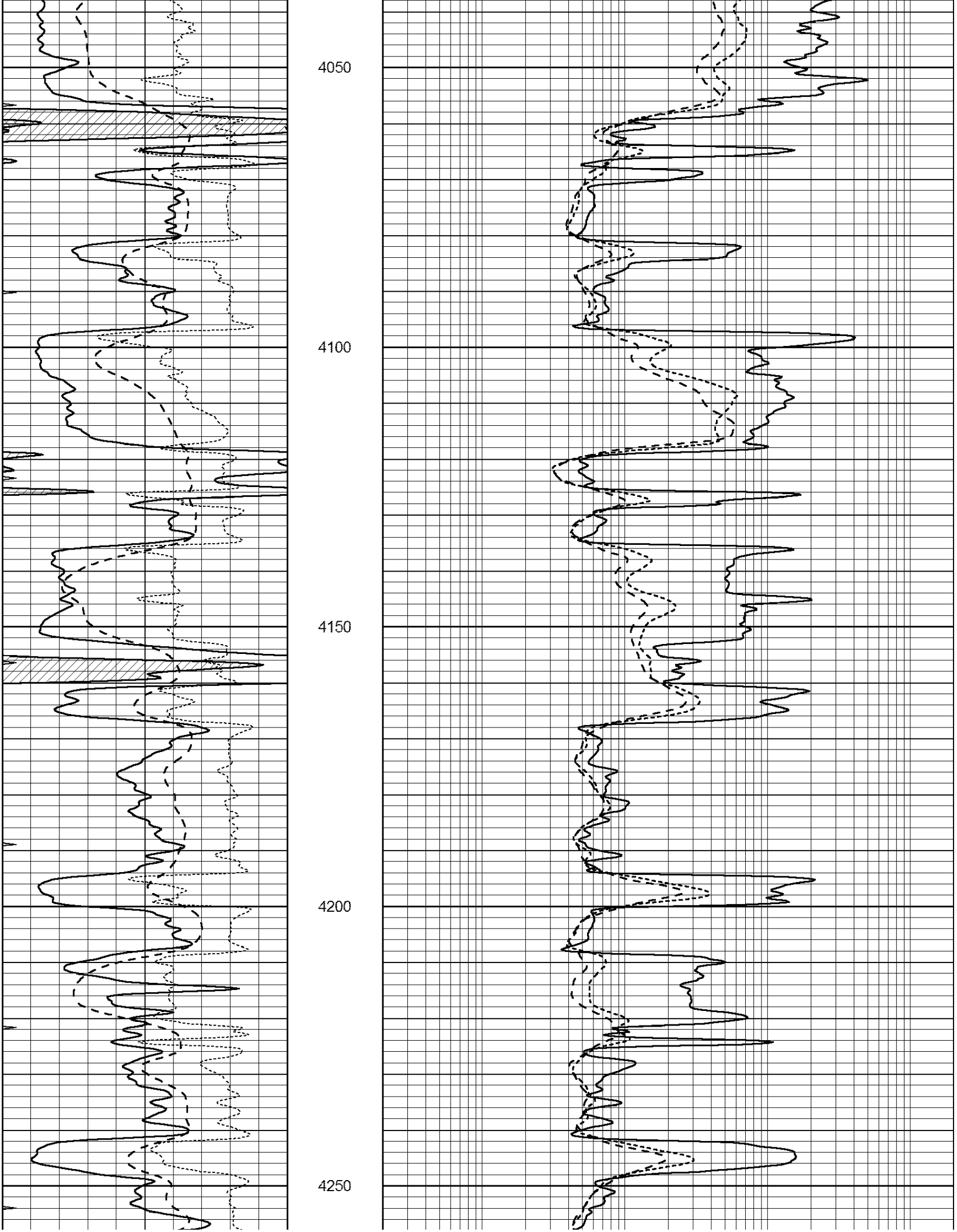
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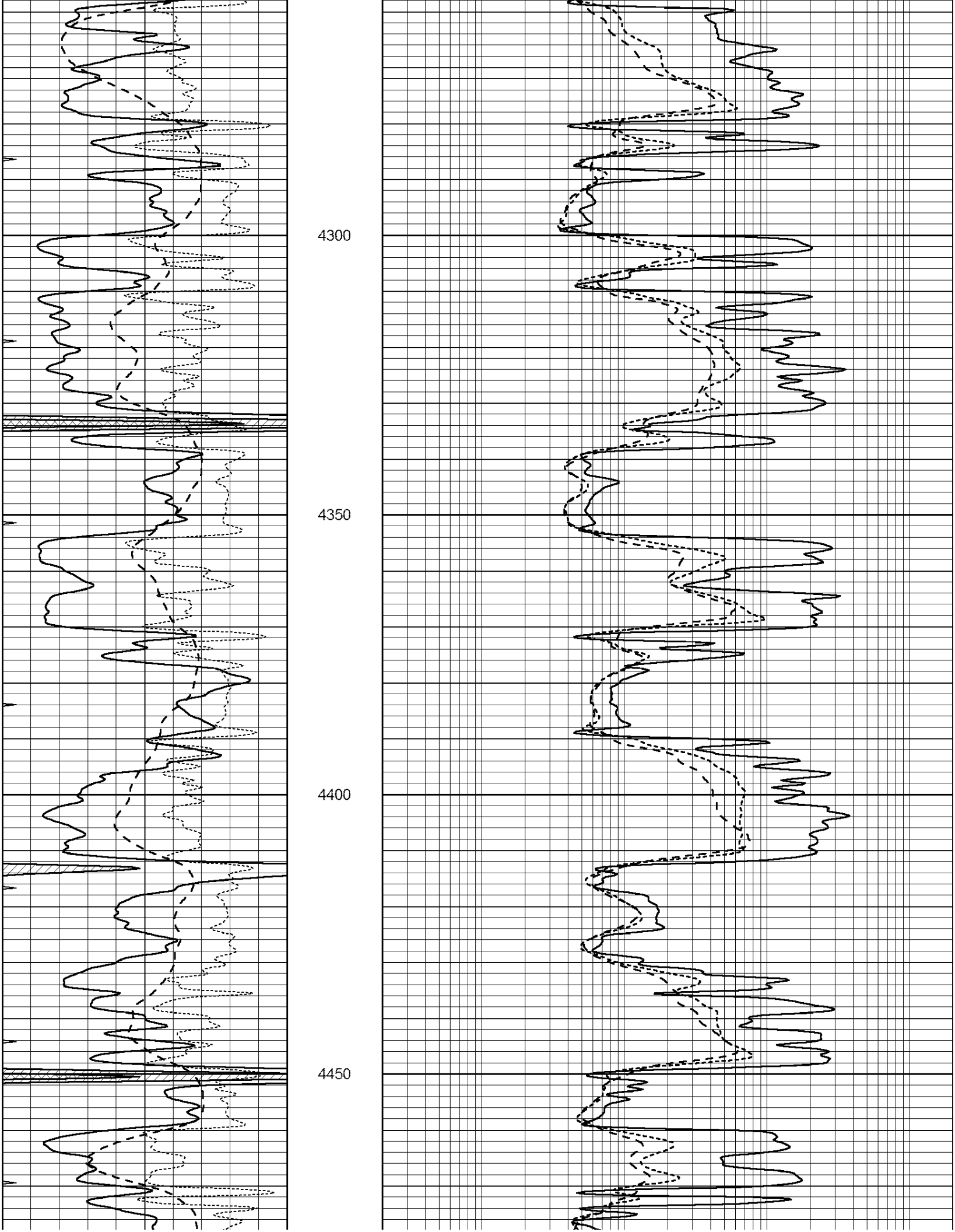
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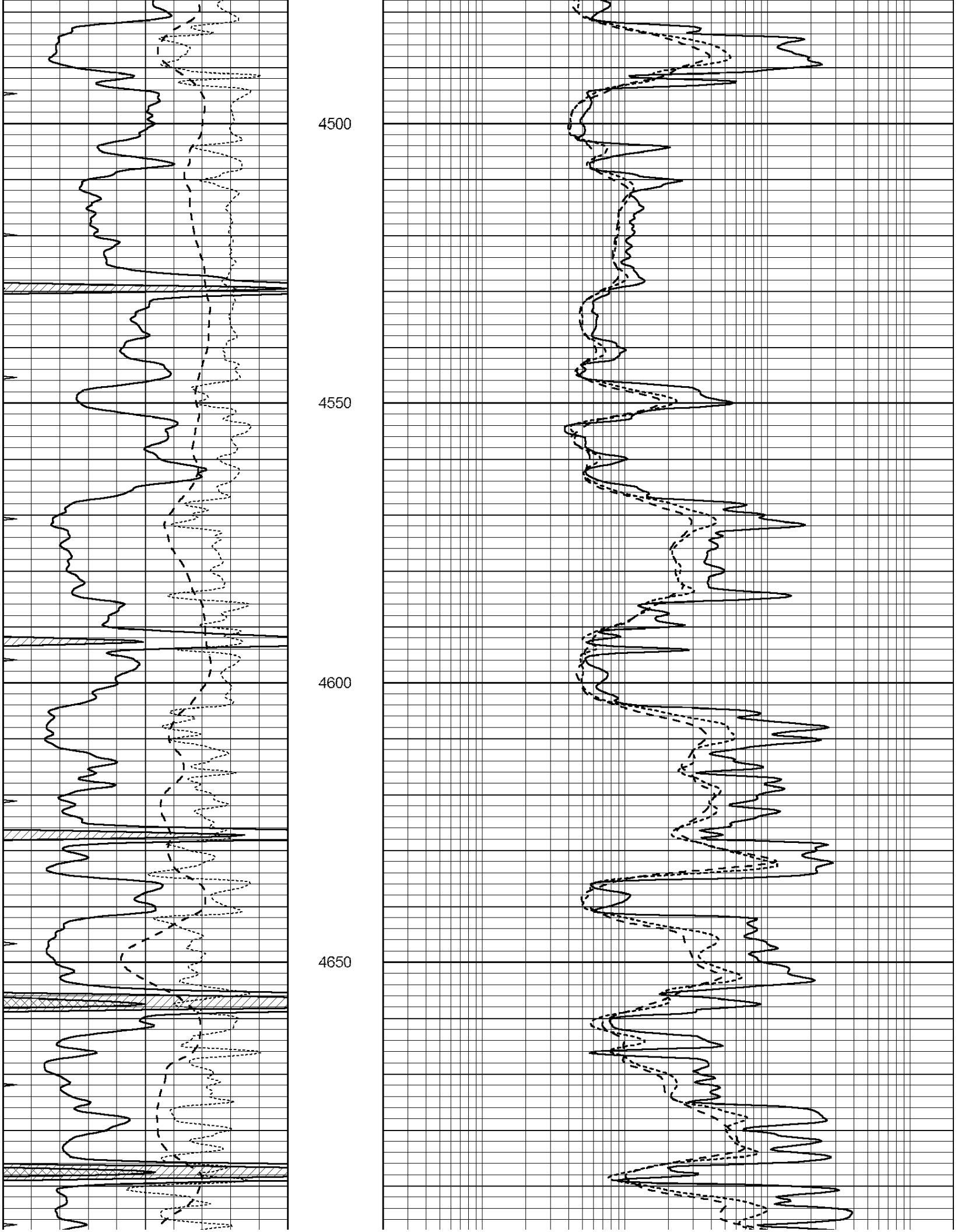
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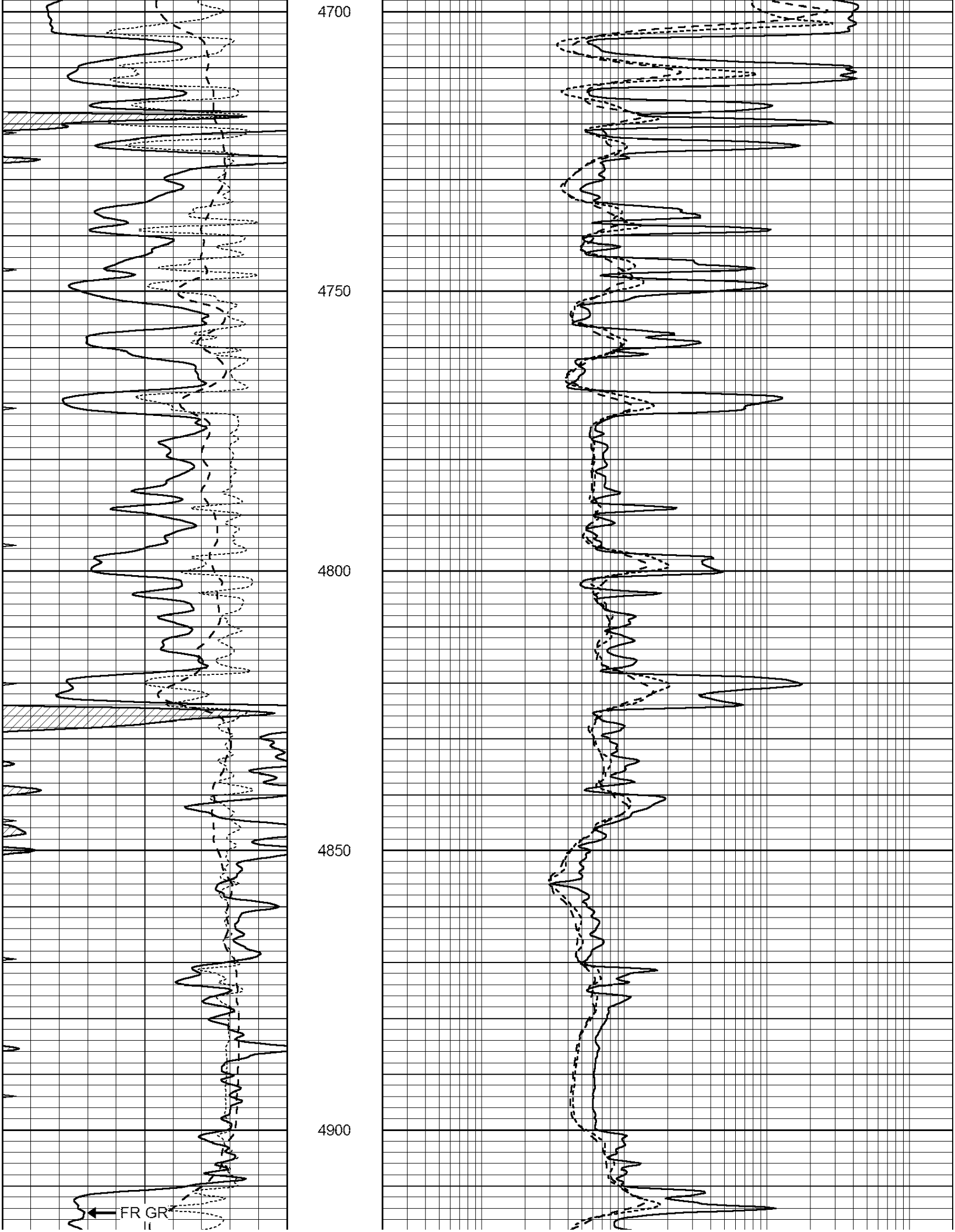
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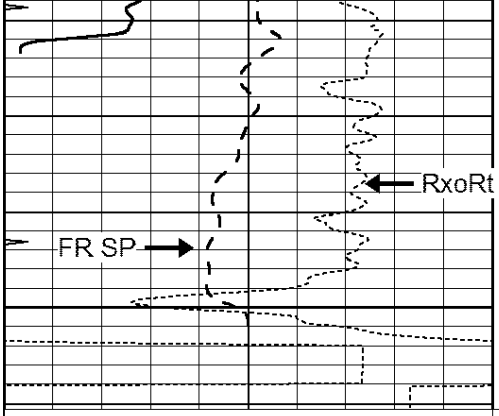

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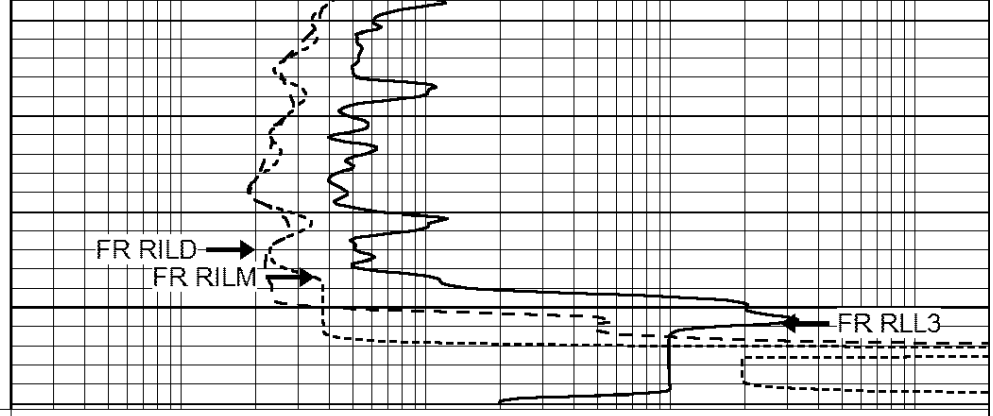


0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

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

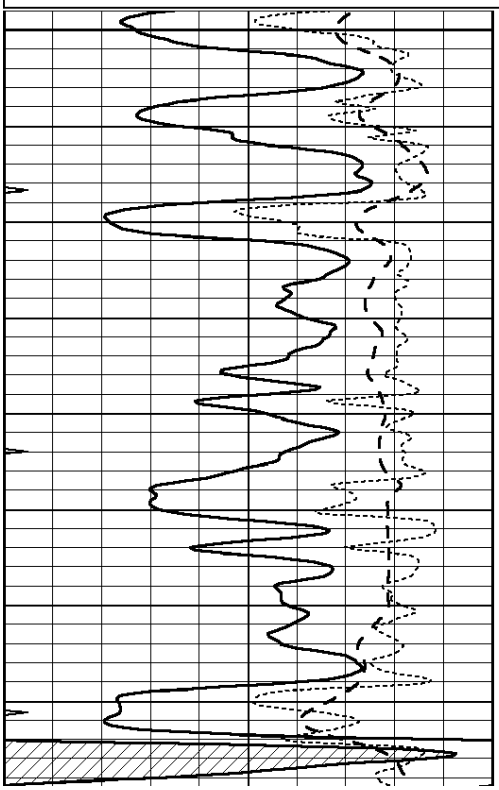
NABORS
COMPLETION & PRODUCTION SERVICES CO.

REPEAT SECTION

Database File: 24716ddn.db
Dataset Pathname: pass2.1
Presentation Format: _dil
Dataset Creation: Wed Jul 30 12:53:24 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



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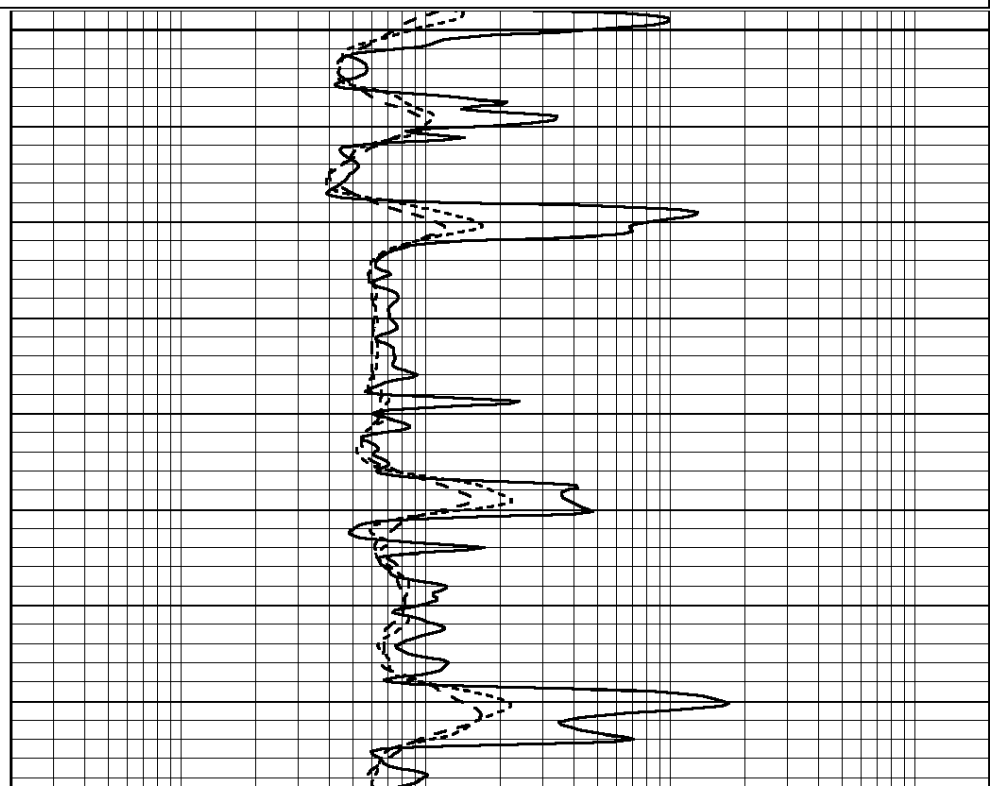

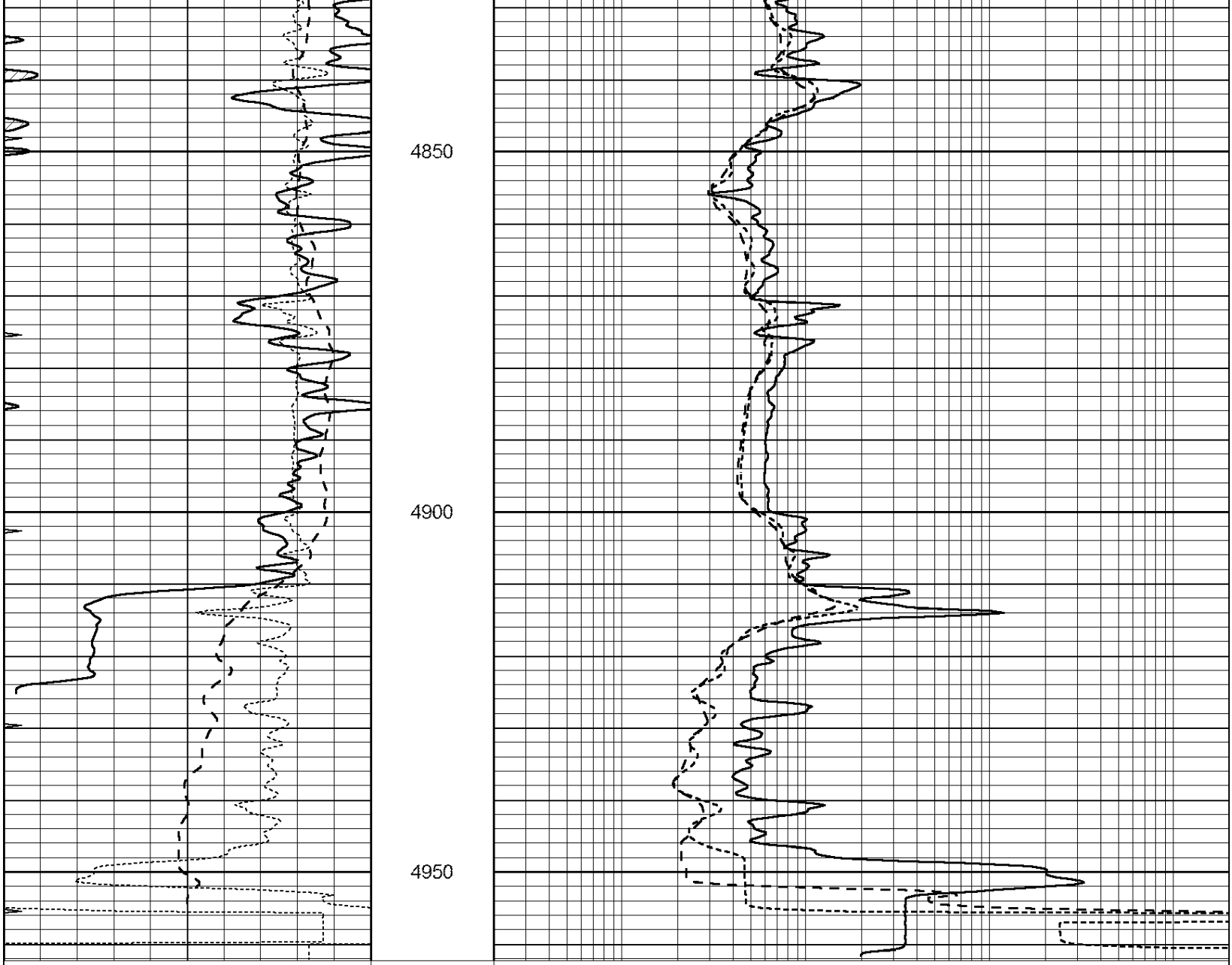

Calibration Report

Database File: 24716ddn.db
Dataset Pathname: pass3.3
Dataset Creation: Wed Jul 30 14:24:23 2014 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model:	PROBE7-DILG
Surface Cal Performed:	Tue Jul 29 12:40:57 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	13.000
Medium	0.992	1.002	V	0.000	464.000	mmho/m	580.000	-31.000

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		

Compensated Density Calibration Report

Serial-Model: GEAR5-GEARHART
Source / Verifier: 147 / 147
Master Calibration Performed: Tue Jul 29 11:47:31 2014
Before Survey Verification Performed:
After Survey Verification Performed:

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	943.83	576.01	cps
Aluminum	2.600	g/cc	212.01	399.19	cps

Spine Angle = 76.20 Density/Spine Ratio = 0.579

	Size		Reading	
Small Ring	8.40	in	1.64	V
Large Ring	14.00	in	2.93	V

Before Survey Verification

Target		Measured	
	g/cc		g/cc
	g/cc		g/cc
	g/cc		g/cc

After Survey Verification

Target		Measured	
	g/cc		g/cc
	g/cc		g/cc
	g/cc		g/cc

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:	Tue Jul 29 12:40:09 2014	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.2400	GAPI/cps