NABORS

COMPLETION & PRODUCTION SERVICES CO.

COMPENSATED DENSITY / NEUTRON PE LOG

Company WHITE EXPLORATION, INC.
Well SPRING VALLEY RANCH 1-14X
Field WILDCAT
County WALLACE
State KANSAS

Company WHITE EXPLORATION, INC.

Well SPRING VALLEY RANCH 1-14X

Field WILDCAT

County WALLACE State KANSAS

Location: API # : 15-199-20420-00-00

2542' FNL & 791' FEL
SE - SW - SE - NE

SEC 14 TWP 14S RGE 41W

Other Services

DIL/MEL
SONIC

Permanent Datum	GROUND LEVEL	Elevation	3703
Log Measured From	KELLY BUSHING 11' A.G.L.		
Drilling Measured From	KELLY BUSHING		

Elevation

K.B. 3714
D.F. 3712
G.L. 3703

Date	8/27/14		
Run Number	ONE		
Depth Driller	5300		
Depth Logger	5302		
Bottom Logged Interval	5278		
Top Log Interval	3800		
Casing Driller	13 3/8" @ 335		
Casing Logger	333		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 2,700 PPM	
Density / Viscosity	9.2/55		
pH / Fluid Loss	9.0/7.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.75 @ 90F		
Rmf @ Meas. Temp	0.56 @ 90F		
Rmc @ Meas. Temp	0.90 @ 90F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	0.53 @ 128F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	128F		
Equipment Number	4010		
Location	HAYS, KS.		
Recorded By	IAN MABB		
Witnessed By	ANDY WHITE		

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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.

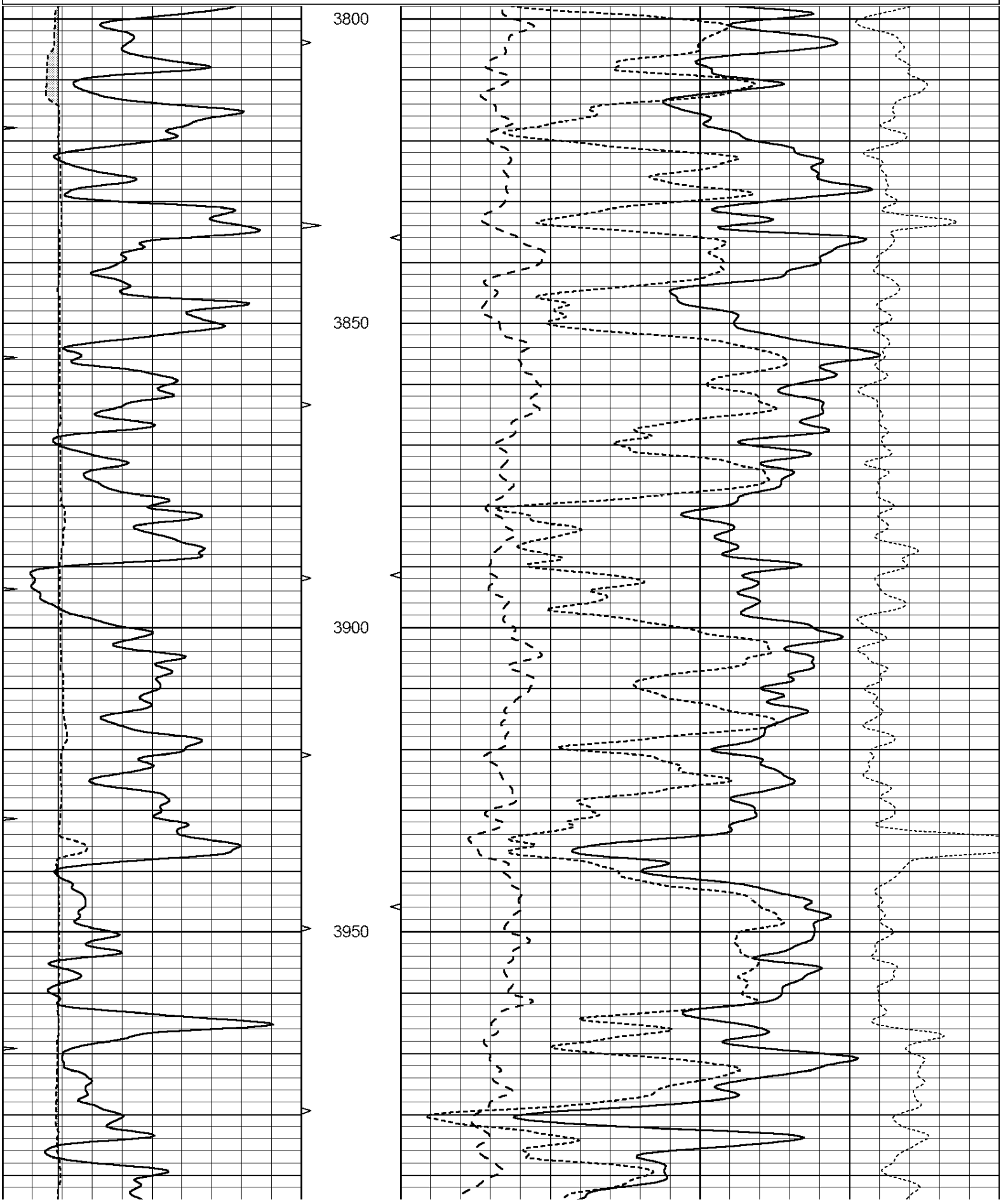
Comments

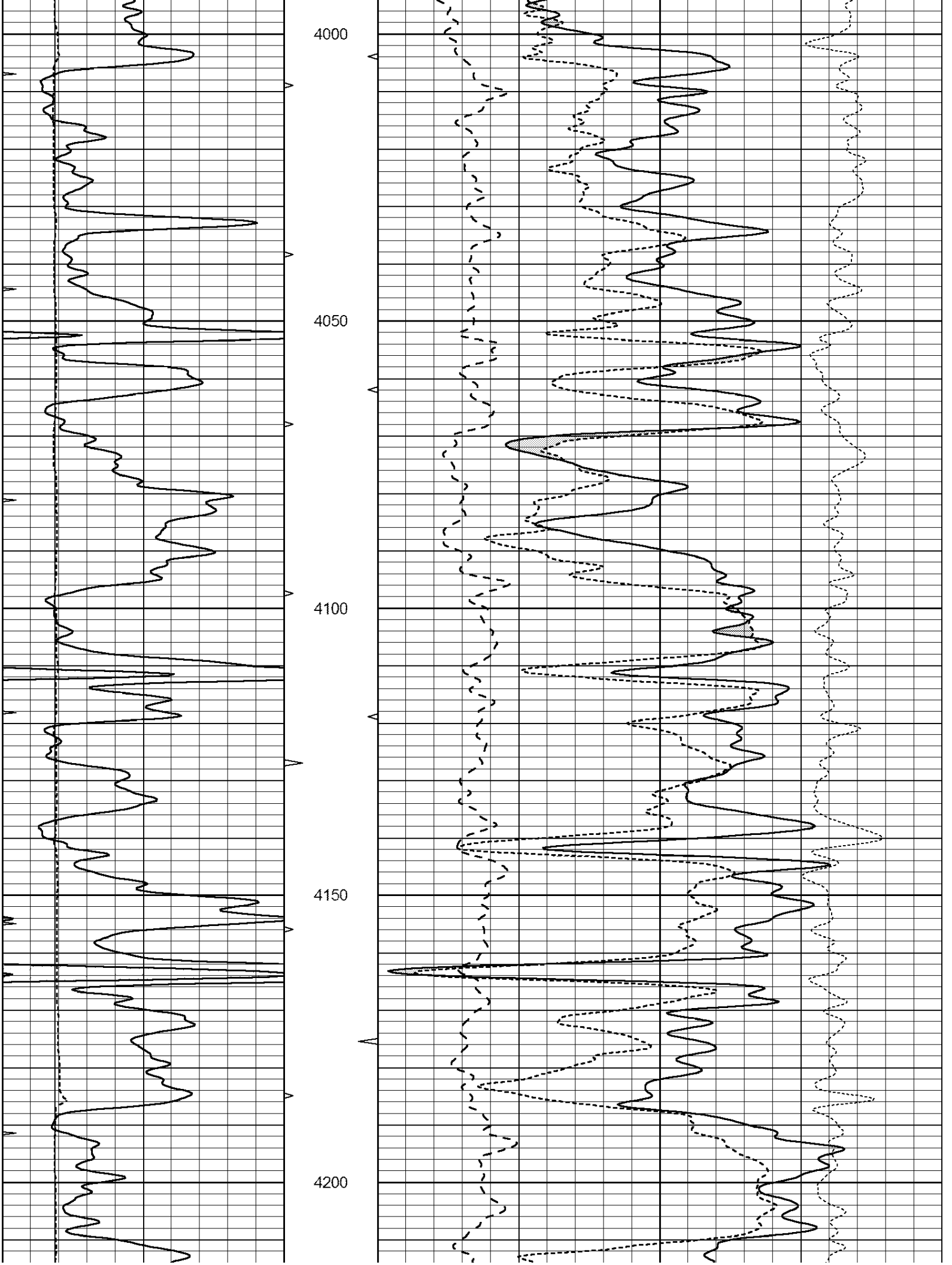
NABORS COMPLETION & PRODUCTION SERVICES
785-628-6395
THANK YOU FOR YOUR BUSINESS
SHARON SPRINGS, KS. - 4 MILES SOUTH TO JACKRABBIT RD. - WEST 4 1/2 - NORTH INTO

Database File: 25859pe.db
Dataset Pathname: pass3.5
Presentation Format: _ldt_neu
Dataset Creation: Wed Aug 27 20:35:27 2014 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)		-10
6	CALIPER (in)	16	10 (ft3) 0	30	COMPENSATED NEUTRON (pu)		-10
0	MINMK	20	TBHV	0	PE 10	-0.25 CORRECTION (g/cc)	0.25
			0 (ft3) 10				

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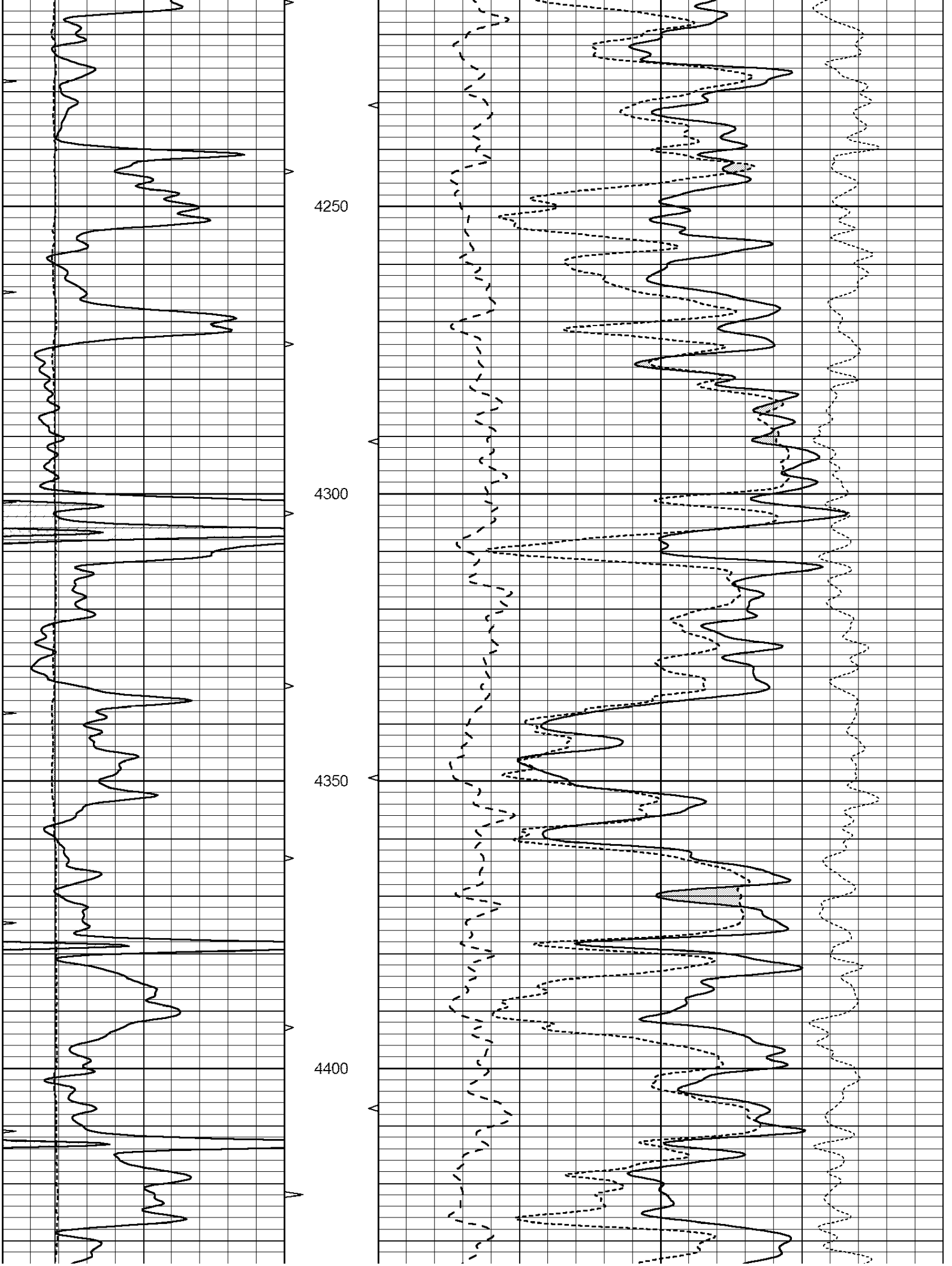
4150
4200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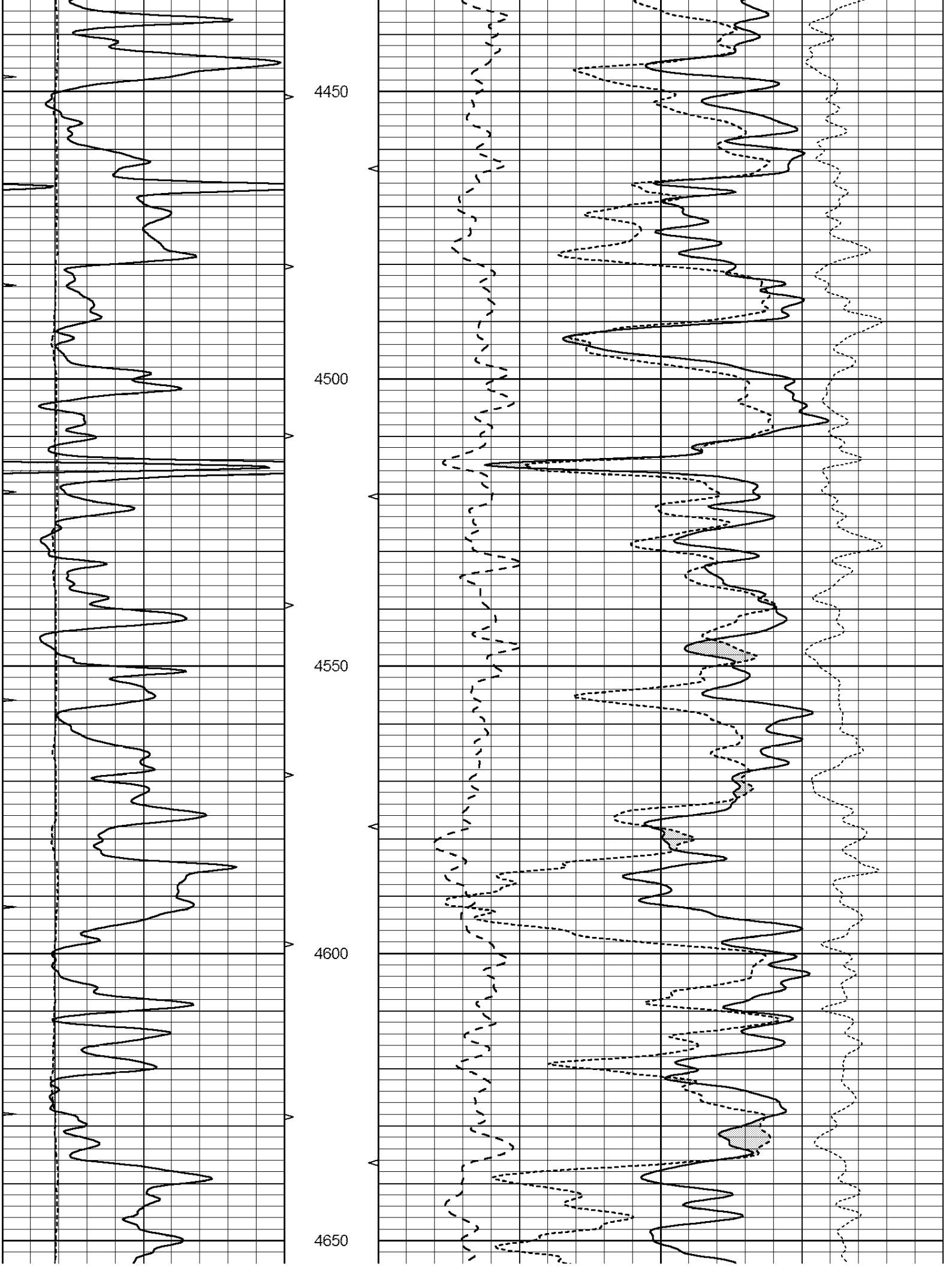
4300
4350
4400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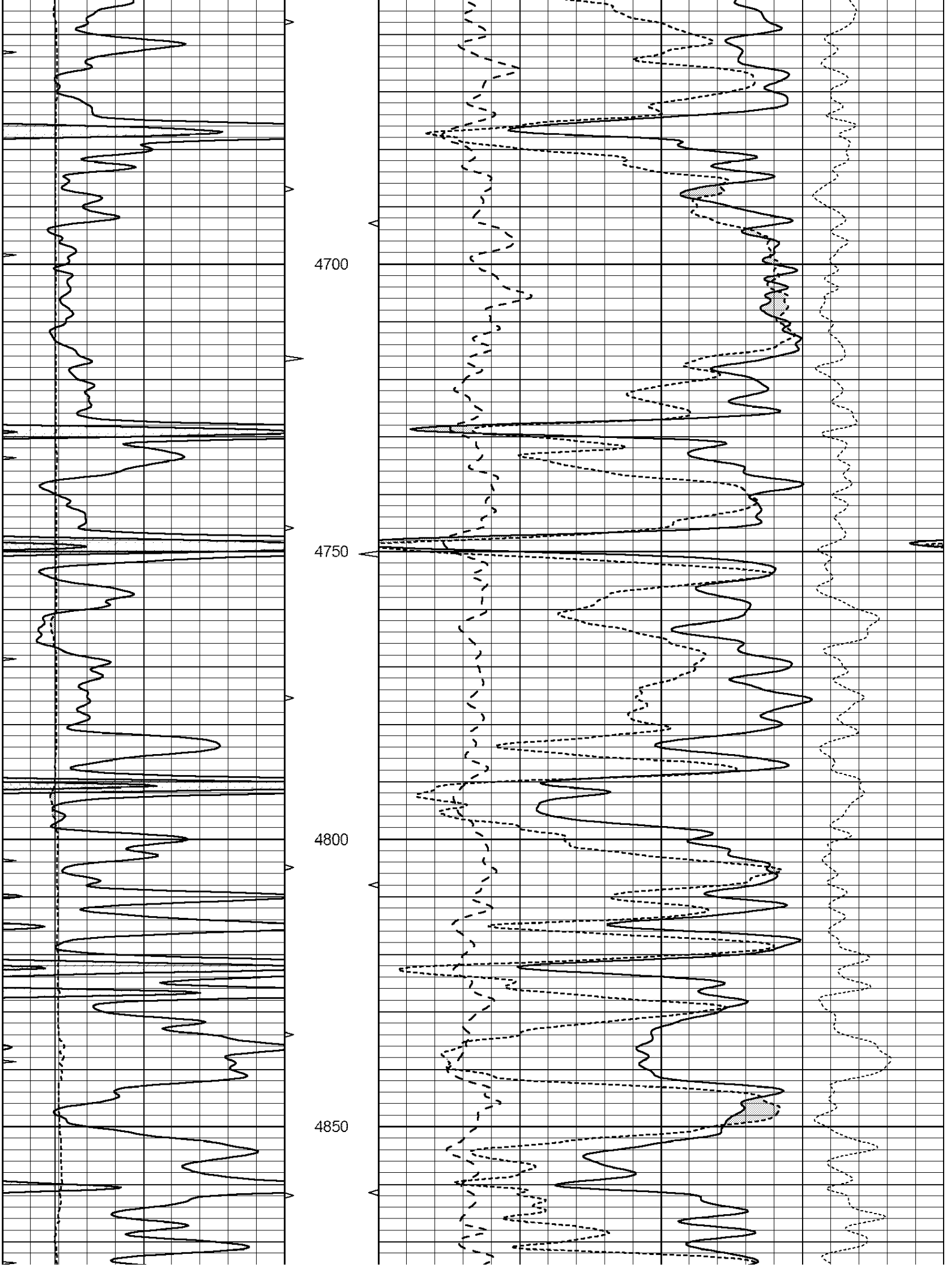
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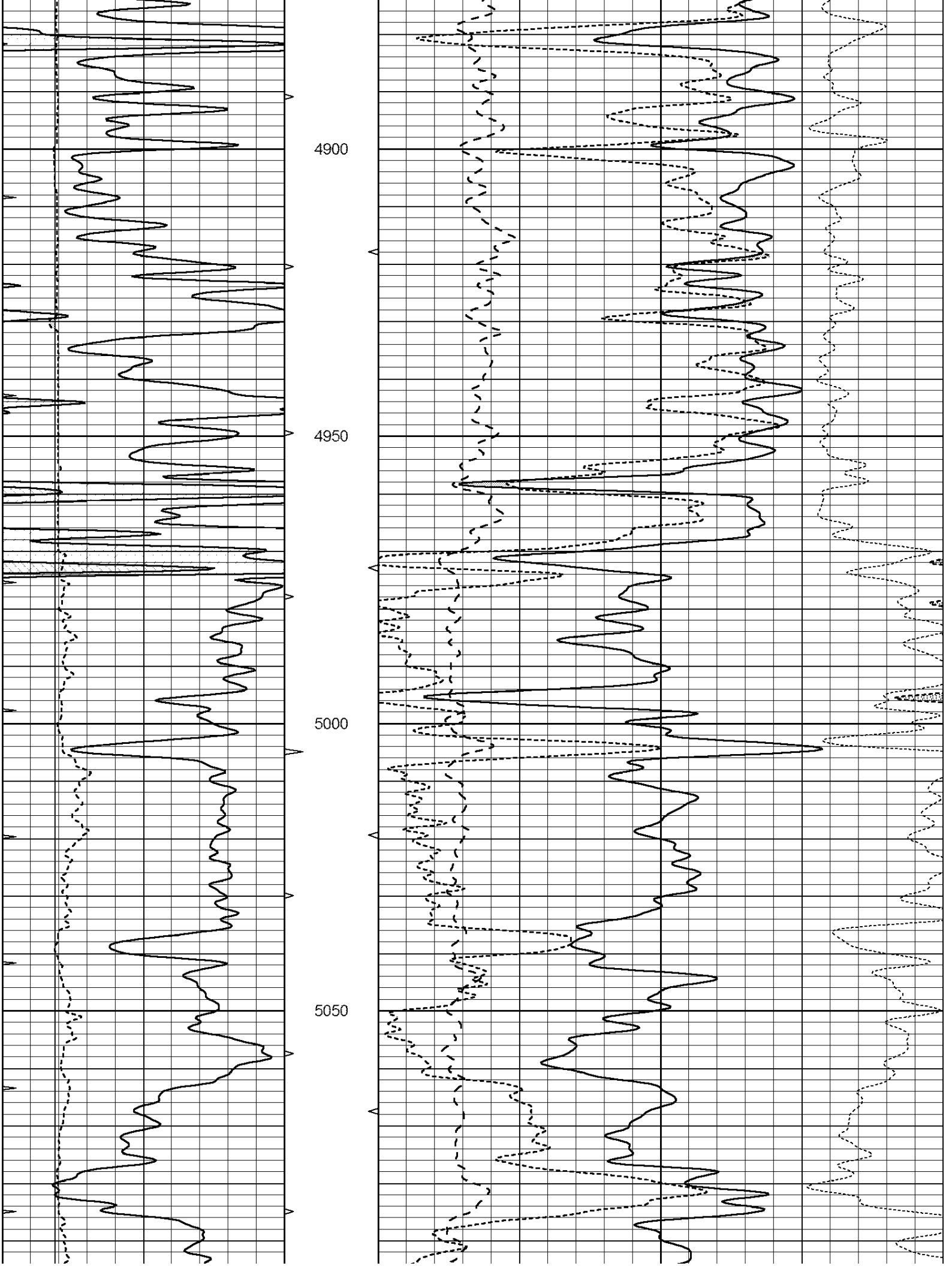
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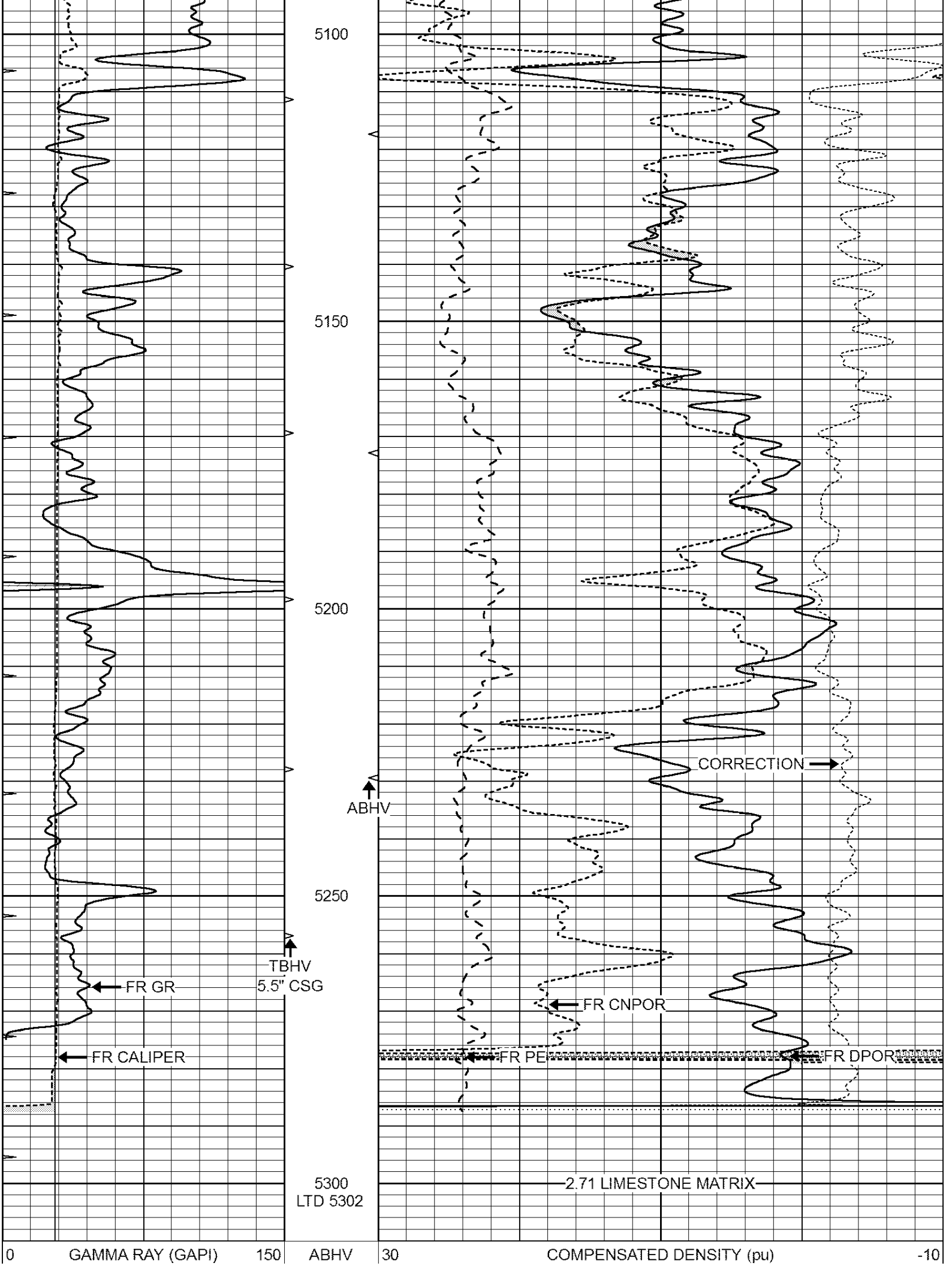
5100
5150
5200
5250
5300
LTD 5302
ABHV
TBHV
5.5" CSG
FR GR
FR CALIPER
CORRECTION
FR CNPOR
FR PE
FR DPOR
2.71 LIMESTONE MATRIX
0
GAMMA RAY (GAPI)
150
ABHV
30
COMPENSATED DENSITY (pu)
-10

6	CALIPER (in)	16	10 (ft3) 0	30	COMPENSATED NEUTRON (pu)				-10
0	MINMK	20	TBHV	0	PE	10	-0.25	CORRECTION (g/cc)	0.25
			0 (ft3) 10						

NABORS
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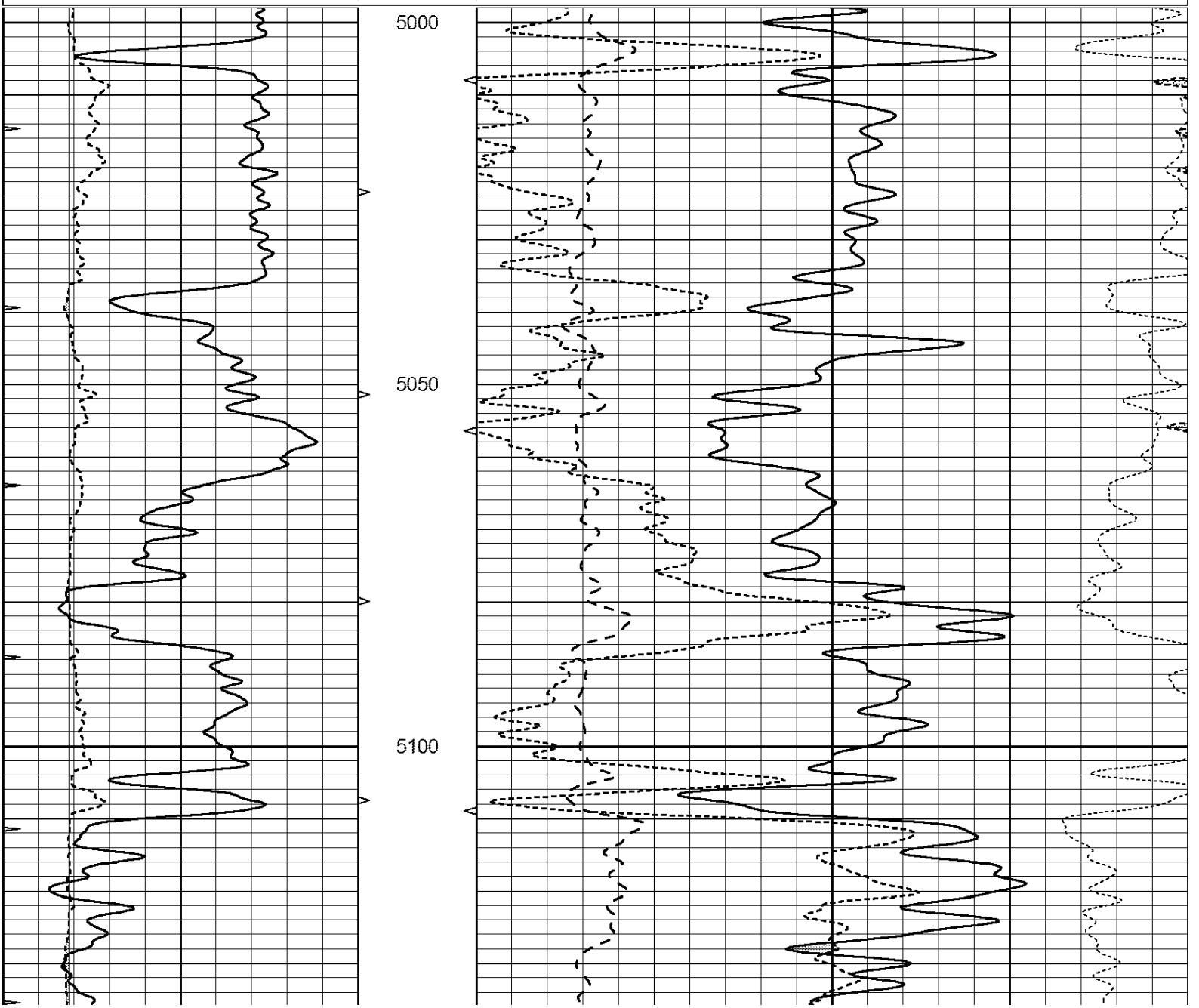
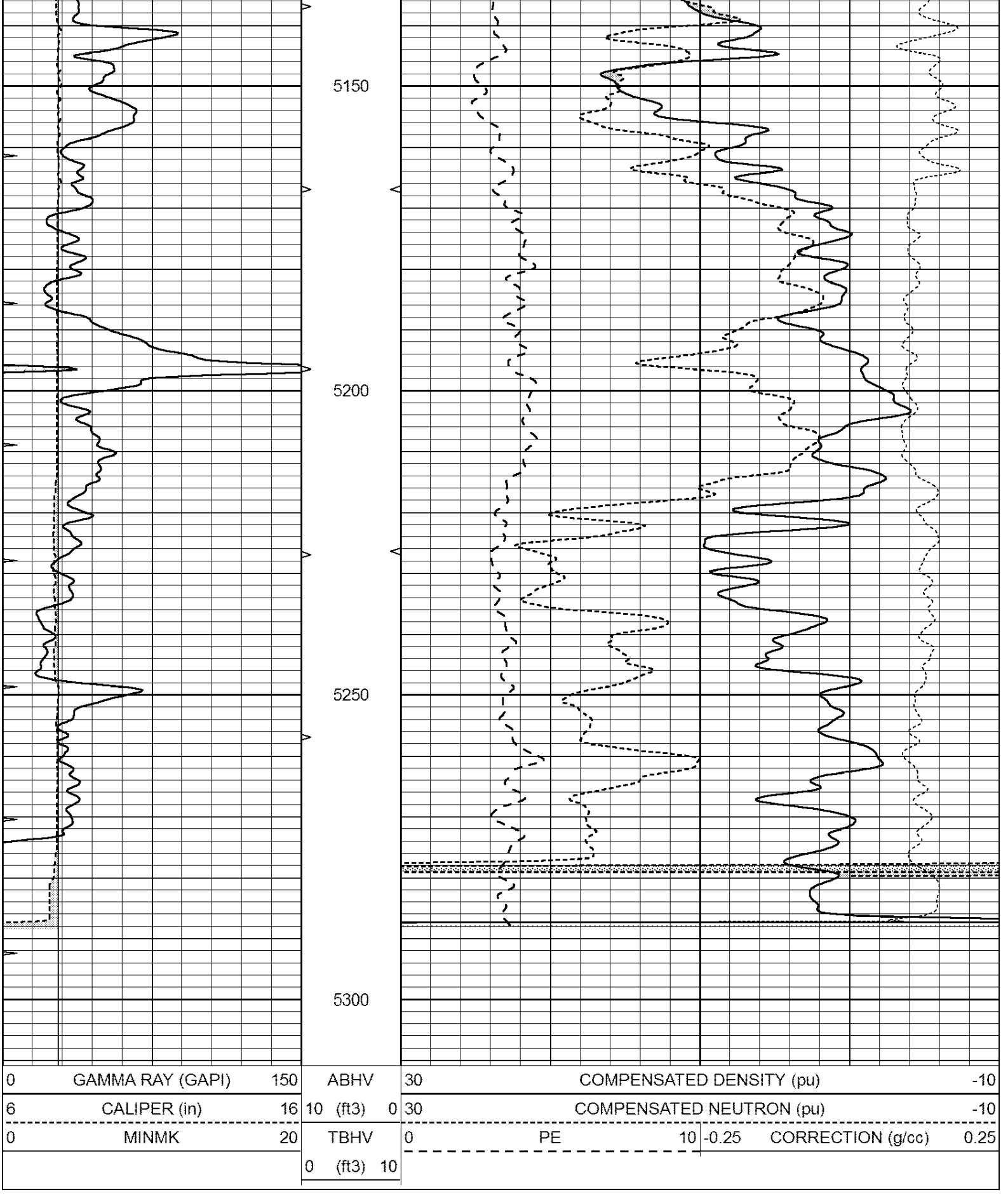
REPEAT SECTION

Database File: 25859pe.db
Dataset Pathname: pass2.1
Presentation Format: _ldt_neu
Dataset Creation: Wed Aug 27 19:23:51 2014 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)				-10
6	CALIPER (in)	16	10 (ft3) 0	30	COMPENSATED NEUTRON (pu)				-10
0	MINMK	20	TBHV	0	PE	10	-0.25	CORRECTION (g/cc)	0.25
			0 (ft3) 10						





Calibration Report

Database File: 25859pe.db
Dataset Pathname: pass3.5
Dataset Creation: Wed Aug 27 20:35:27 2014 by Calc Open-Cased 090629

Dual Induction Calibration Report

Dual Induction Calibration Report

Serial-Model:	PROBE8-DILG
Surface Cal Performed:	Sun Aug 17 08:09:53 2014
Downhole Cal Performed:	Mon Jul 28 11:08:27 2008
After Survey Verification Performed:	Mon Jul 28 11:08:27 2008

Surface Calibration

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	620.000	-2.000
Medium	0.029	0.796	V	0.000	464.000	mmho/m	590.000	-16.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.017	0.657	V	0.000	400.000	mmho/m	625.153	-10.619
Medium	0.016	0.757	V	0.000	464.000	mmho/m	625.992	-9.739

Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	2.011	405.777	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	7.590	503.393	mmho/m	1.000	0.000
LL3		7.500	V		1500.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		3800.000	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		

Litho Density Calibration Report

Serial: 002 Model: PRB

Master Calibration

Performed Wed Feb 26 14:40:29 2014

	Background	Magnesium	Aluminum	Sandstone	
Window 1	844.3	7247.0	2284.1	7908.3	cps
Window 2	800.5	6081.1	1985.0	6521.4	cps
Window 3	688.8	3783.7	1363.3	3972.6	cps
Window 4	191.6	192.1	191.7	191.4	cps
Long Space	0.0	5280.6	1184.5	5720.9	cps
Short Space	1.1	1287.1	882.6	1385.1	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe		0.0000	2.5700	1.5500	

Rib Angle	: 45.8	Rib Slope	: 1.030	Density/Spine Ratio	: 0.571
Spine Angle	: 75.8	Spine Slope	: 3.962	Spine Intercept	: -19.8

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: 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

PRE-SURVEY VERIFICATION

	Detector	Readings	Measured	Target
1)	Short Space	cps		
	Long Space	cps	pu	pu
2)	Short Space	cps		
	Long Space	cps	pu	
3)	Short Space	cps		
	Long Space	cps	pu	

POST-SURVEY VERIFICATION

	Detector	Readings	Measured	Target
1)	Short Space	cps		
	Long Space	cps	pu	pu
2)	Short Space	cps		
	Long Space	cps	pu	pu
3)	Short Space	cps		
	Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number: GR6
Tool Model: OPEN
Performed: Sun Aug 17 15:23:09 2014

Calibrator Value: 150.0 GAPI

Background Reading: 0.0 cps

Calibrator Reading:	276.0	cps
Sensitivity:	0.7000	GAPI/cps