NABORS COMPLETION & PRODUCTION SERVICES CO.

COMPENSATED DENSITY/NEUTRON LOG

Company RITCHIE EXPLORATION, INC.
Well #1 INMAN 8 C
Field WILDCAT
County GOVE
State KANSAS

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Well #1 INMAN 8 C
Field WILDCAT
County GOVE State KANSAS
Location: API # : 15-063-22112-0000
1245' FSL & 1430' FWL
SEC 8 TWP 15S RGE 31W
Permanent Datum GROUND LEVEL Elevation 2711
Log Measured From KELLY BUSHING 5' A.G.L.
Drilling Measured From KELLY BUSHING

Other Services: DIL

Elevation: K.B. 2716, D.F. 2714, G.L. 2711

Date	6/18/13		
Run Number	ONE		
Depth Driller	4546		
Depth Logger	4546		
Bottom Logged Interval	4522		
Top Log Interval	3300		
Casing Driller	8 5/8" @ 257'		
Casing Logger			
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 3000 PPM	
Density / Viscosity	9.2/58		
pH / Fluid Loss	10.0/8.8		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.85 @ 94F		
Rmf @ Meas. Temp	.63 @ 94F		
Rmc @ Meas. Temp	1.02 @ 94F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.66 @ 121F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	121F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	JASON CAPPELLUCCI		
Witnessed By	MAX LOVELY		

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Comments

THANK YOU FOR USING NABORS, HAYS, KS. (785) 628-6395
DIRECTIONS:
OAKLEY, KS. - 24 S. TO DAKOTA RD. - 1 1/2 E. - 1 N. - 1 1/2 E. - N. INTO

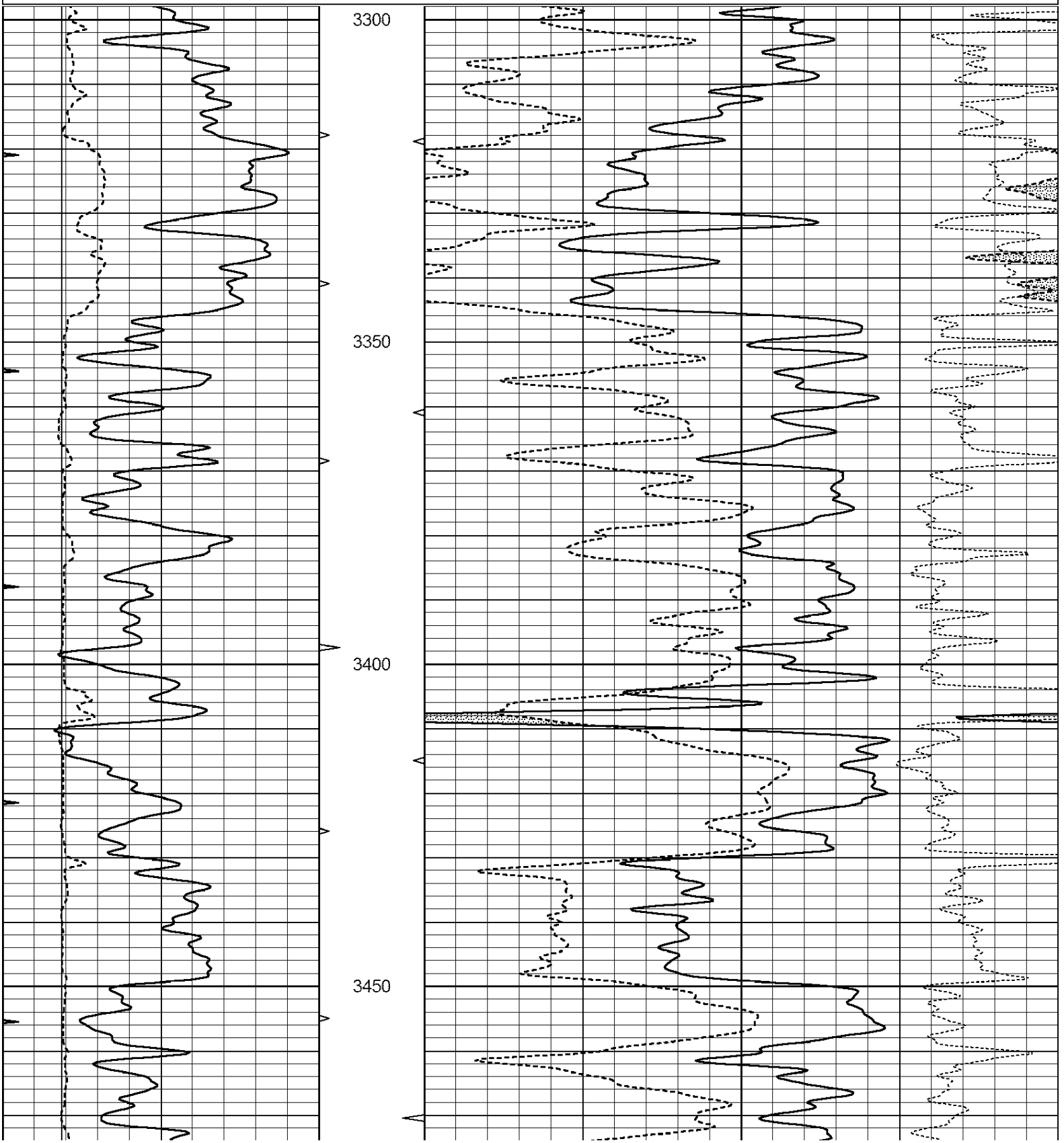
NABORS COMPLETION & PRODUCTION SERVICES CO.

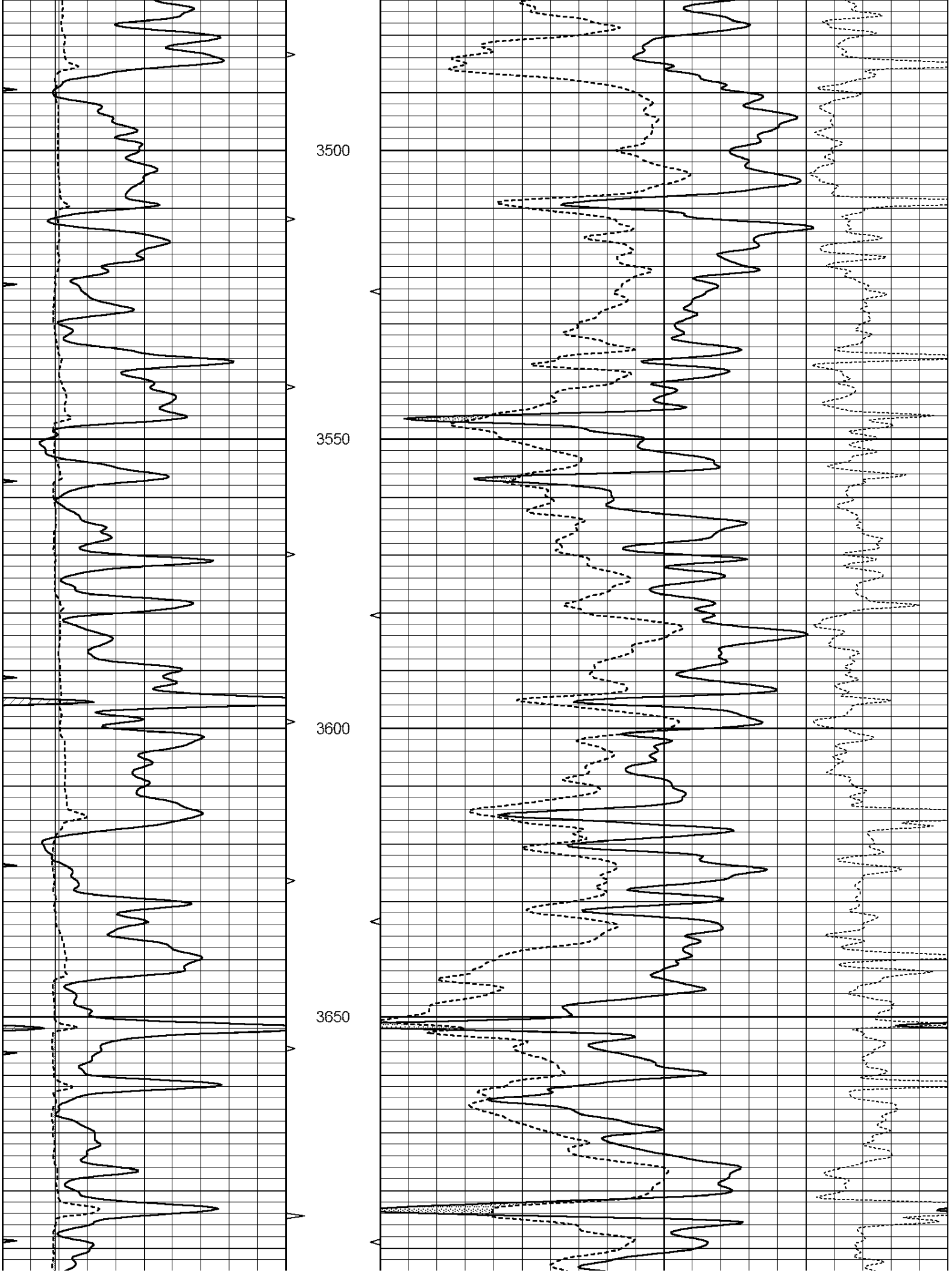
MAIN SECTION

SERVICES CO.

Database File: 011257ddn.db
Dataset Pathname: pass3.2
Presentation Format: den_neu
Dataset Creation: Tue Jun 18 20:09:40 2013 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		-0.25 CORRECTION (g/cc) 0.25
		0	(ft3) 10		

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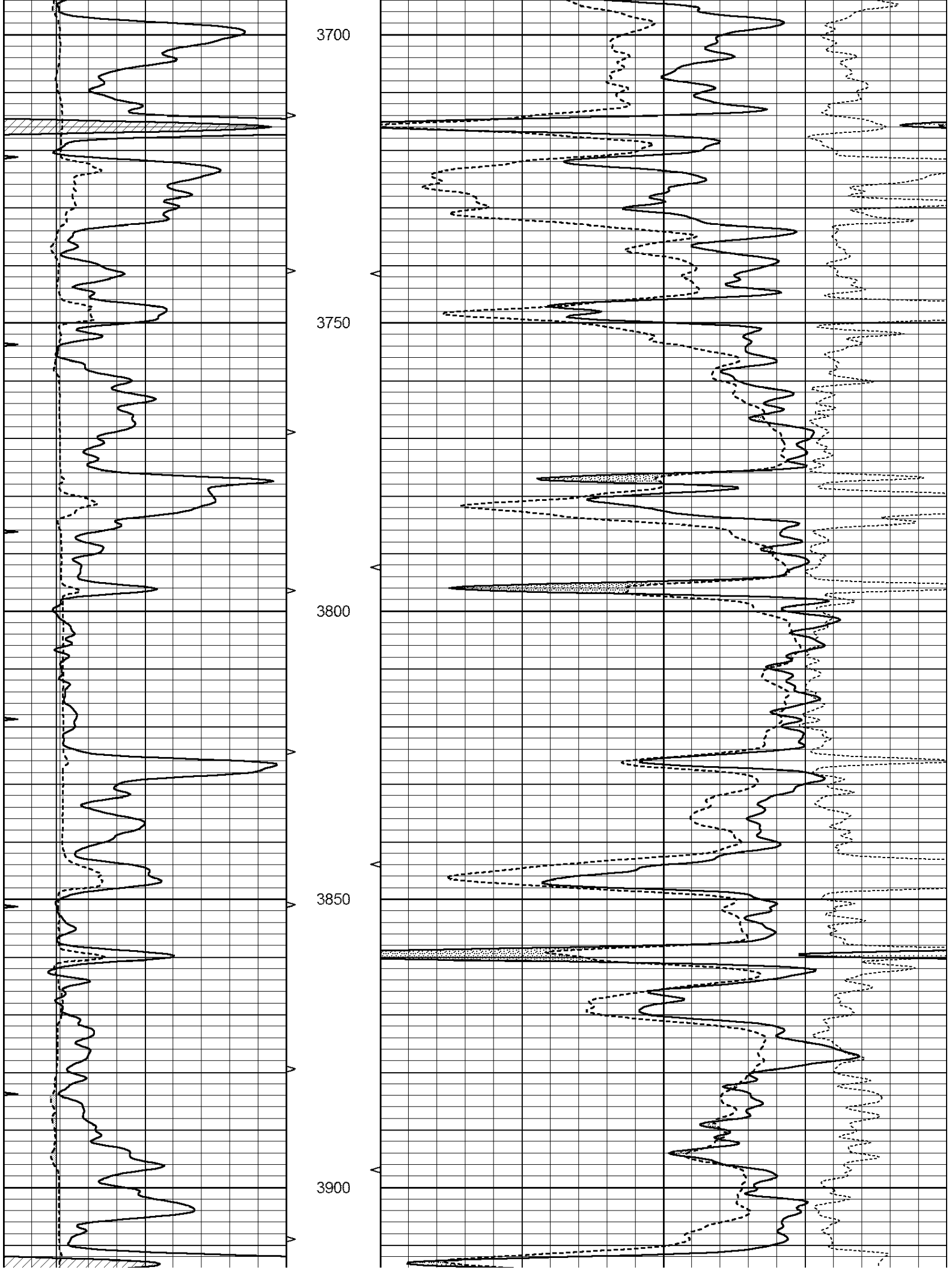
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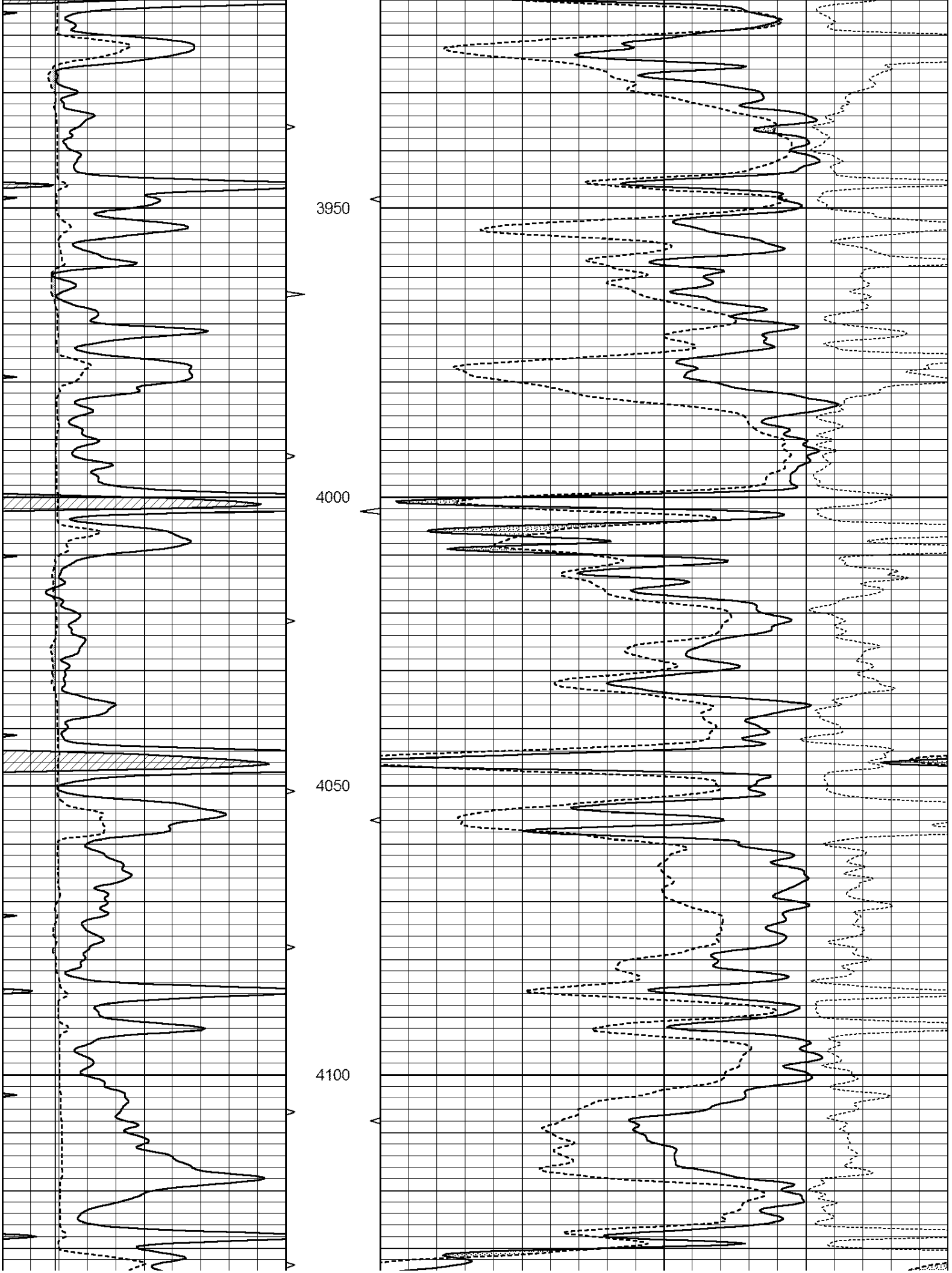
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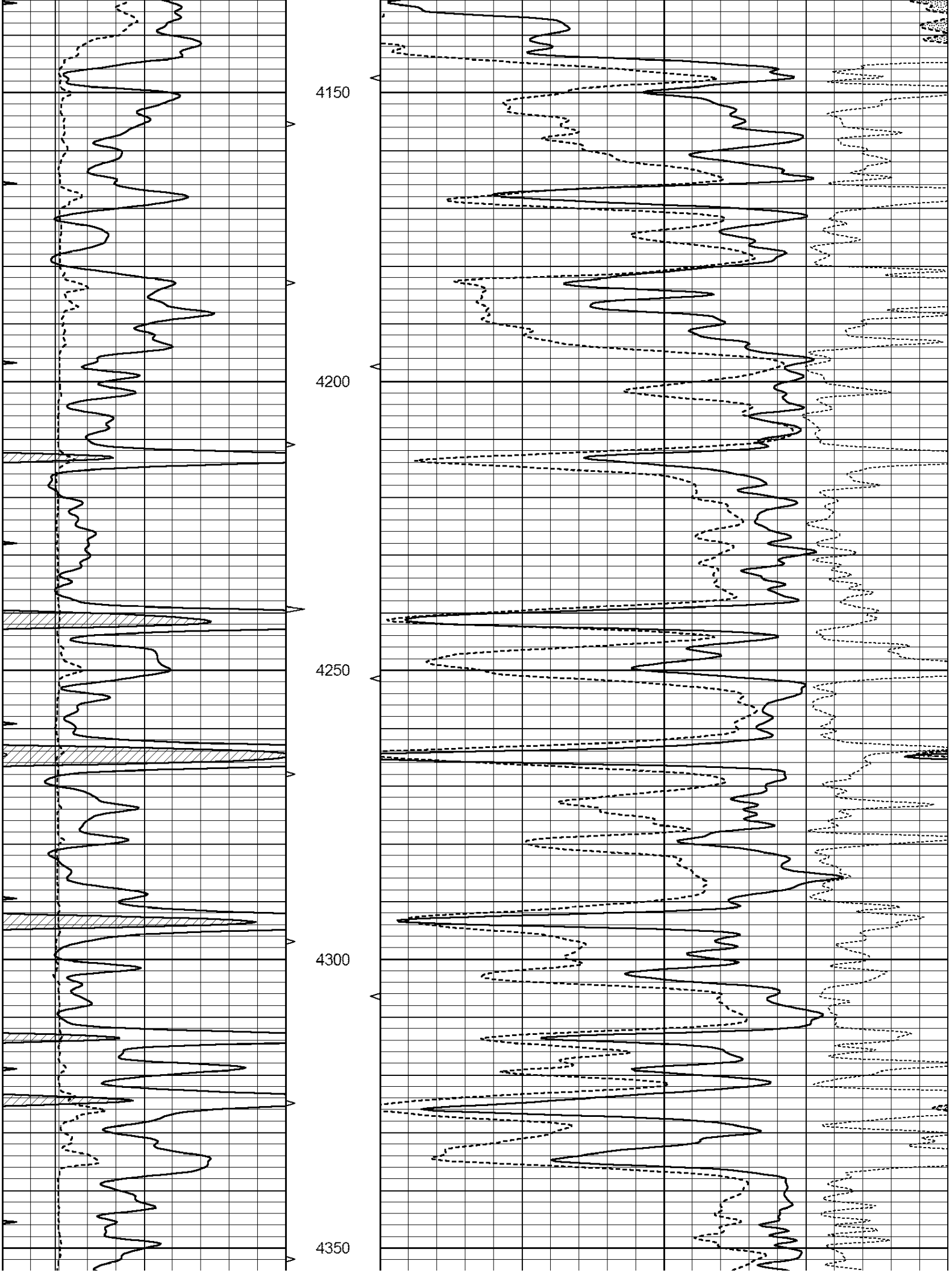
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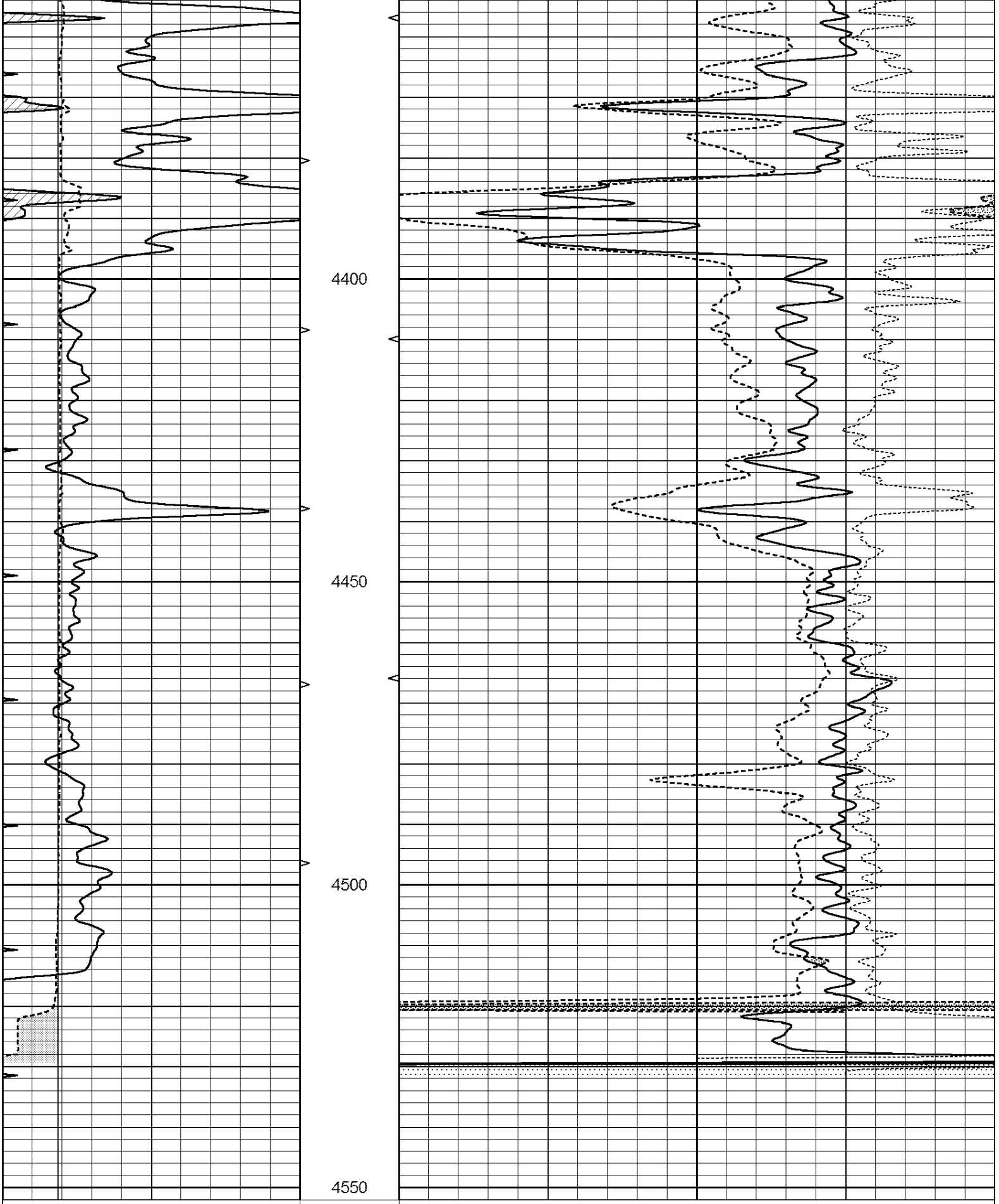

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6	CALIPER (in) 16	10 (ft3) 0	30	COMPENSATED NEUTRON (pu)	-10
0	MINMK 20	TBHV		-0.25 CORRECTION (g/cc)	0.25
		0 (ft3) 10			

Calibration Report

Database File: 011257ddn.db
Dataset Pathname: pass2.1
Dataset Creation: Tue Jun 18 19:47:32 2013 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model:	PROBE8-DILG
Surface Cal Performed:	Fri Aug 01 06:33:19 2008
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	632.616	-9.730
Medium	0.029	0.796	V	0.000	464.000	mmho/m	605.049	-17.680
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		

Compensated Density Calibration Report

Serial-Model:	GEAR4-GEARHART
Source / Verifier:	143 / 143
Master Calibration Performed:	Mon Jan 07 11:07:28 2013
Before Survey Verification Performed:	
After Survey Verification Performed:	

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1075.98	532.39	cps
Aluminum	2.600	g/cc	286.51	422.88	cps

Spine Angle = 80.13

Density/Spine Ratio = 0.663

	Size		Reading	
Small Ring	8.00	in	3.21	V
Large Ring	14.00	in	5.46	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: 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: #8
Tool Model: OPEN
Performed: Mon Jun 13 16:56:43 2011

Calibrator Value: 150.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 175.0 cps

Sensitivity: 0.8371 GAPI/cps