NABORS COMPLETION & PRODUCTION SERVICES CO.

COMPENSATED DENSITY/NEUTRON LOG

Company	PHILLIPS EXPLORATION COMPANY, L.C.
Well	#1 ROSEMARY SHR
Field	
County	TREGO
State	KANSAS

Company PHILLIPS EXPLORATION COMPANY, L.C.

Well #1 ROSEMARY SHR

Field

County TREGO State KANSAS

Location: API # : 15-195-22965-0000
660' FNL & 1650' FEL
SEC 20 TWP 14S RGE 25W

Other Services: DIL/MEL

		Elevation	
Permanent Datum	GROUND LEVEL	Elevation	2386'
Log Measured From	KELLY BUSHING 5' A.G.L.		
Drilling Measured From	KELLY BUSHING		

Date	10/22/14		
Run Number	ONE		
Depth Driller	4470		
Depth Logger	4471		
Bottom Logged Interval	4447		
Top Log Interval	3300		
Casing Driller	8 5/8" @ 220		
Casing Logger	220		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 1500 PPM	
Density / Viscosity	9.4/55		
pH / Fluid Loss	10.5/7.4		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.0 @ 75F		
Rmf @ Meas. Temp	.75 @ 75F		
Rmc @ Meas. Temp	1.20 @ 75F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.62 @ 120F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	7:25 A.M.		
Maximum Recorded Temperature	120F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	JASON CAPPELLUCCI		
Witnessed By	PAT DEENIHAN		

<<< Fold Here >>>

Comments

THANK YOU FOR USING NABORS, HAYS, KS. (785) 628-6395
DIRECTIONS:
I 70 & COLLYER EXIT - 13 SOUTH TO U RD. - 3/4 MORE SOUTH - WEST INTO

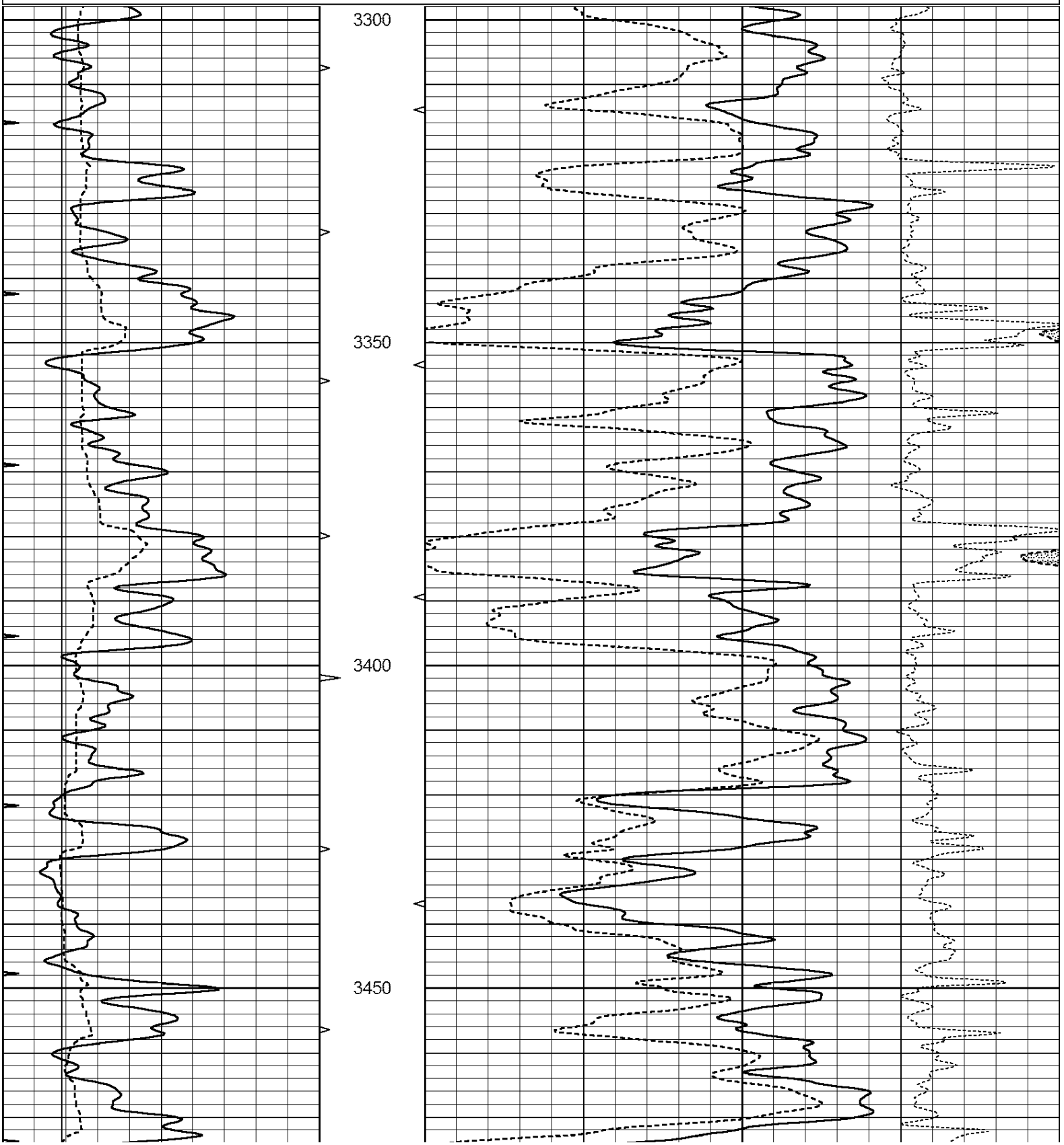
NABORS COMPLETION & PRODUCTION SERVICES CO.

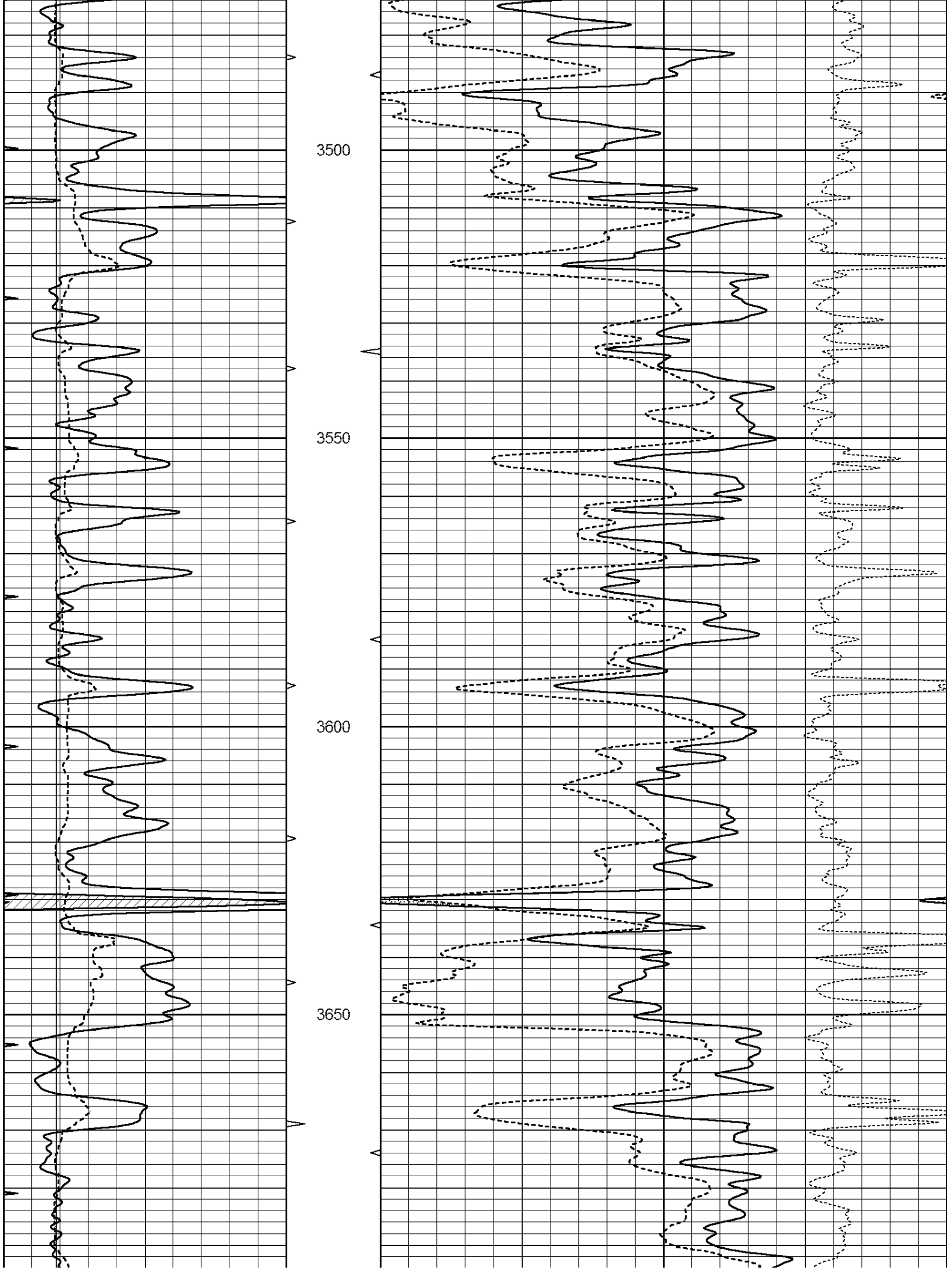
MAIN SECTION

SERVICES CO.

Database File: 26214ddn.db
Dataset Pathname: pass3.1
Presentation Format: den_neu
Dataset Creation: Wed Oct 22 08:28:48 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		-0.25 CORRECTION (g/cc) 0.25	
		0 (ft3) 10			

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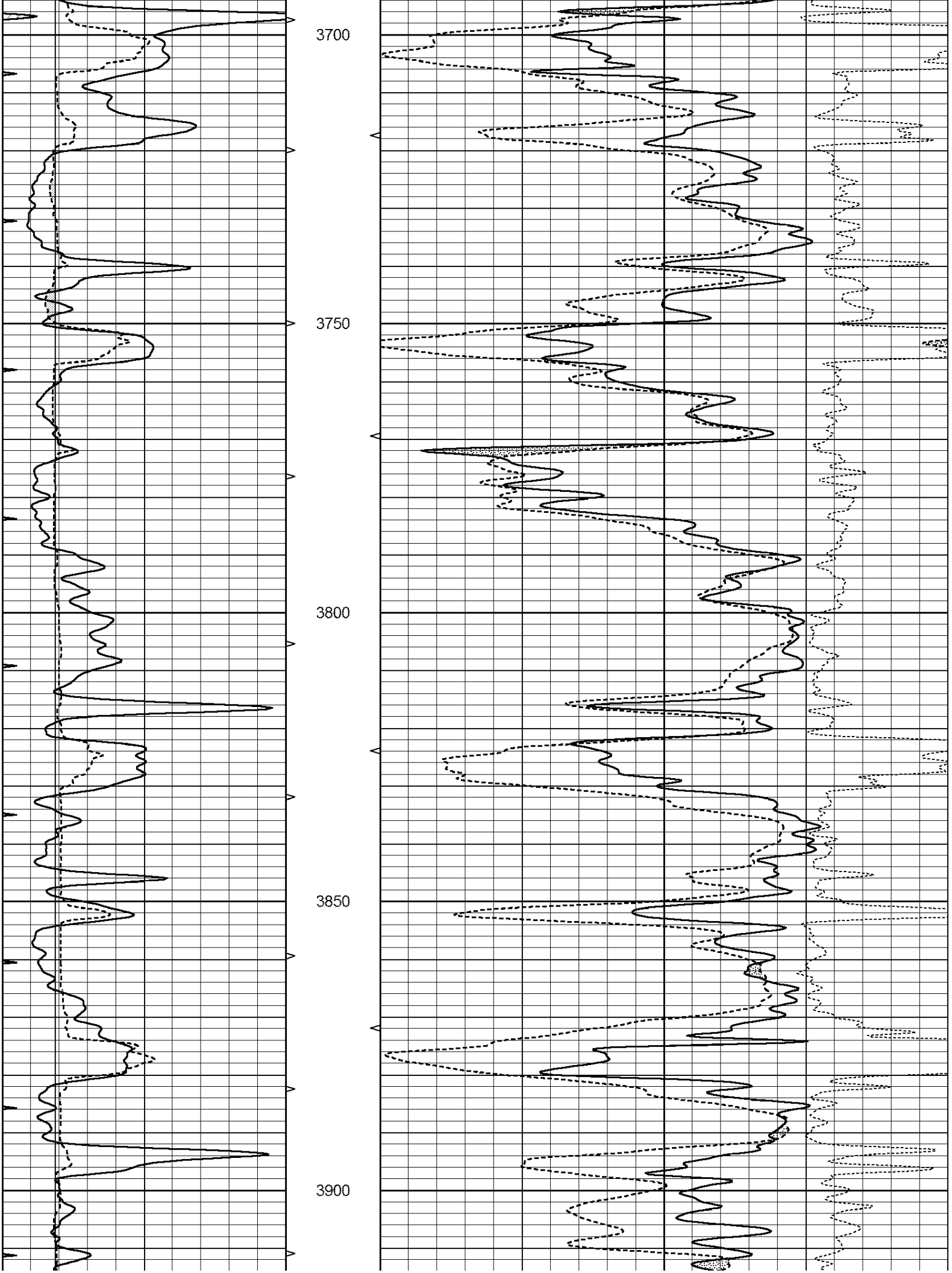
3550
3600
3650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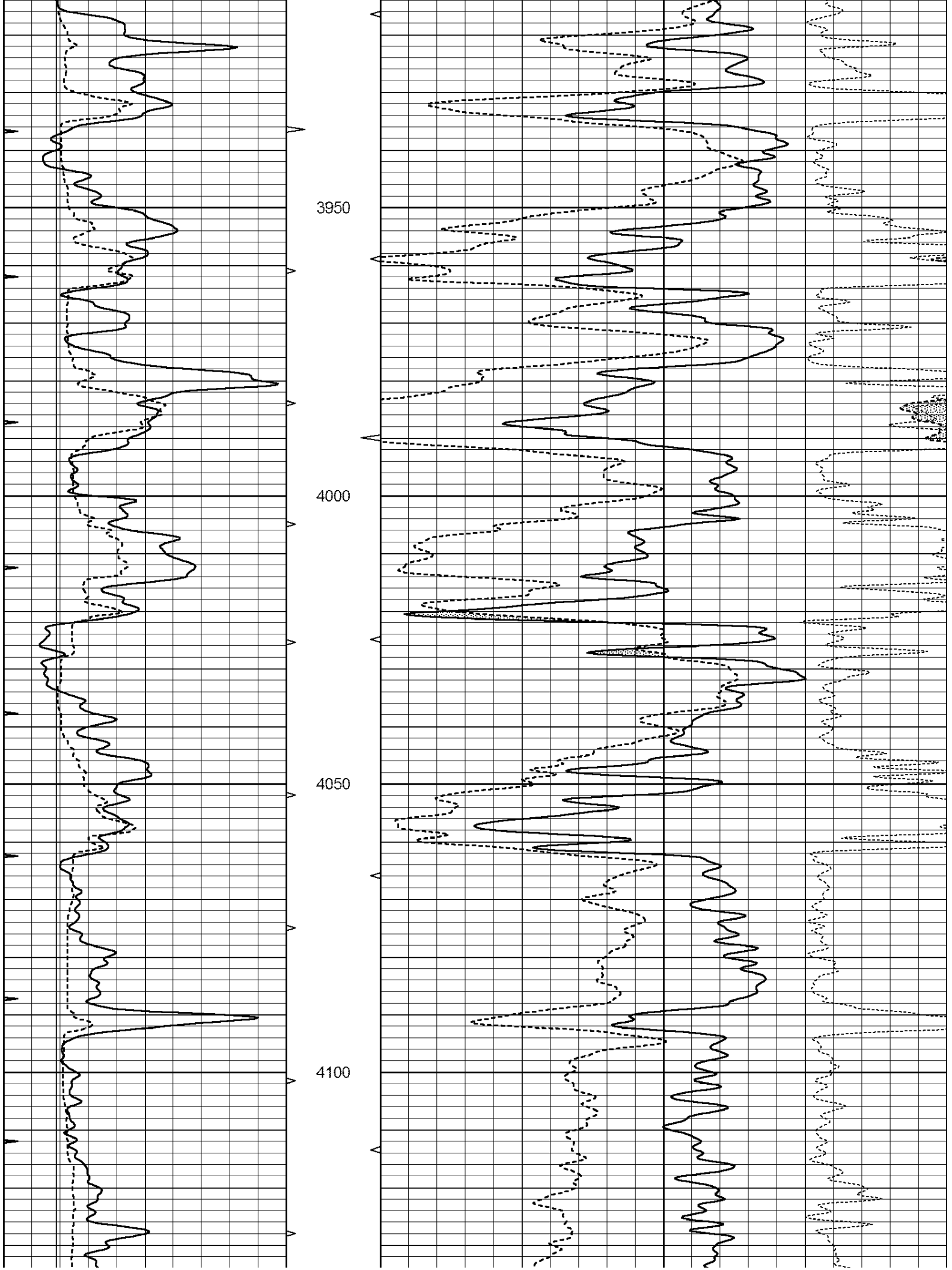
3900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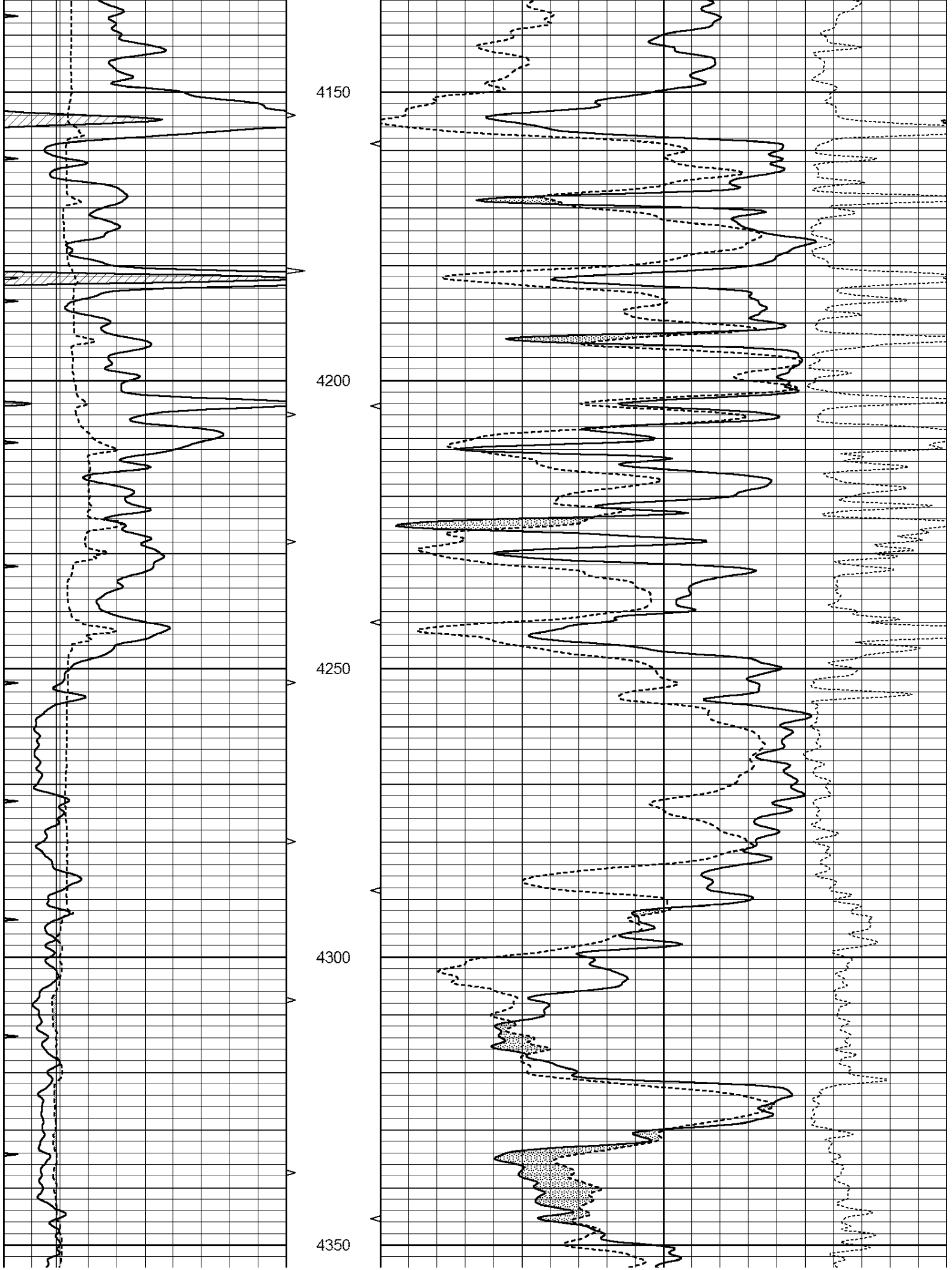
4100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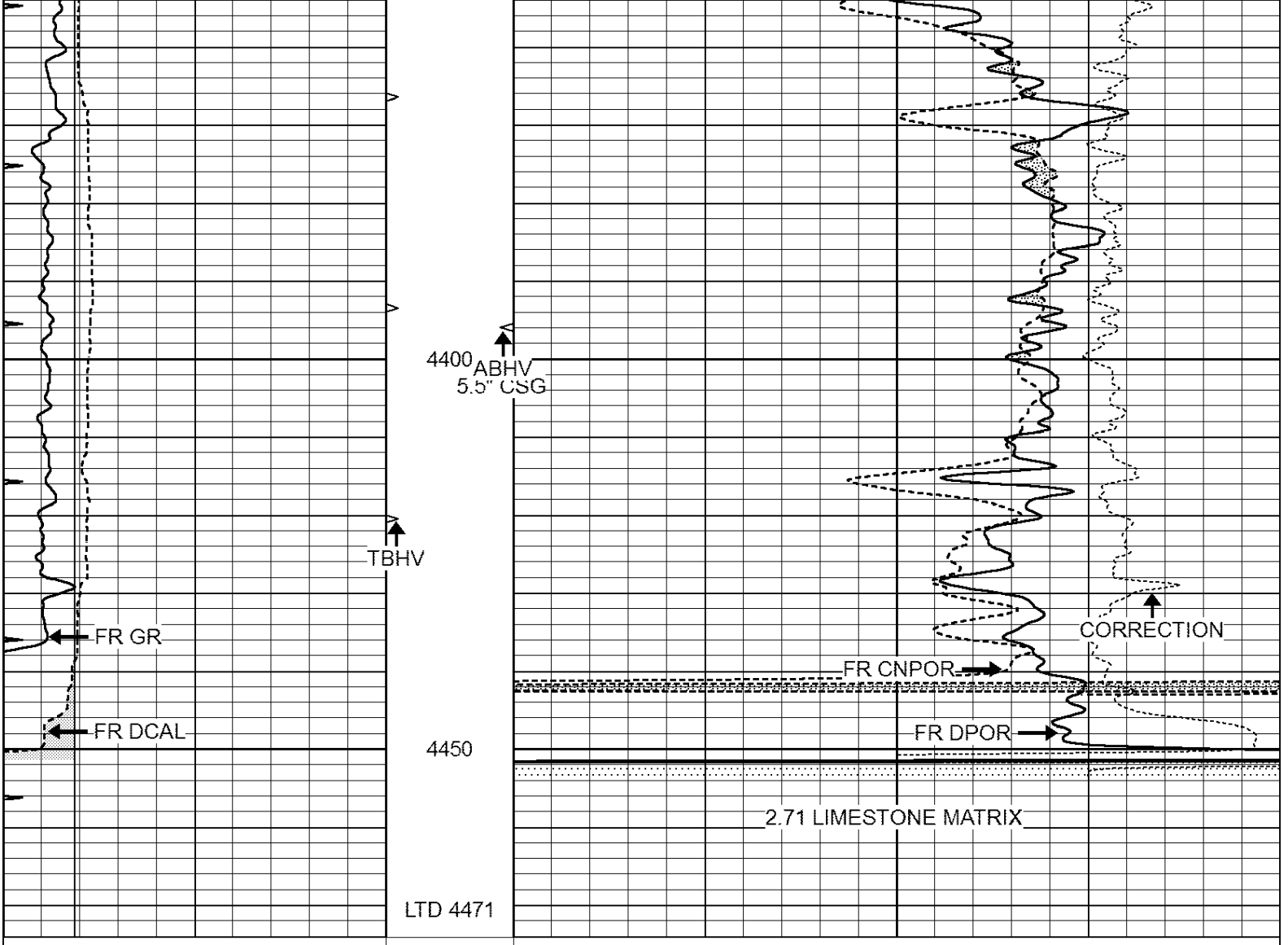
4200
4250
4300
4350



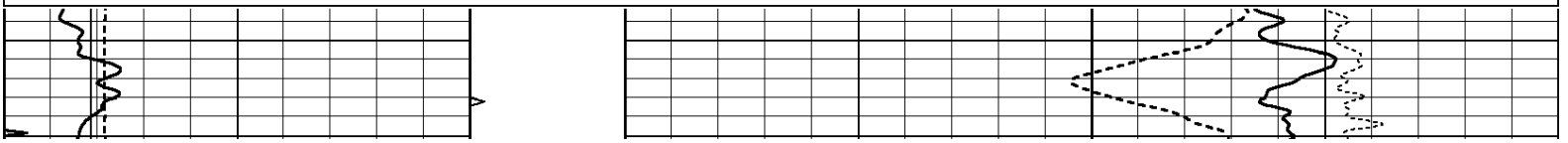
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)		-10
6	CALIPER (in)	16	10 (ft3) 0	30	COMPENSATED NEUTRON (pu)		-10
0	MINMK	20	TBHV		-0.25	CORRECTION (g/cc)	0.25
			0 (ft3) 10				

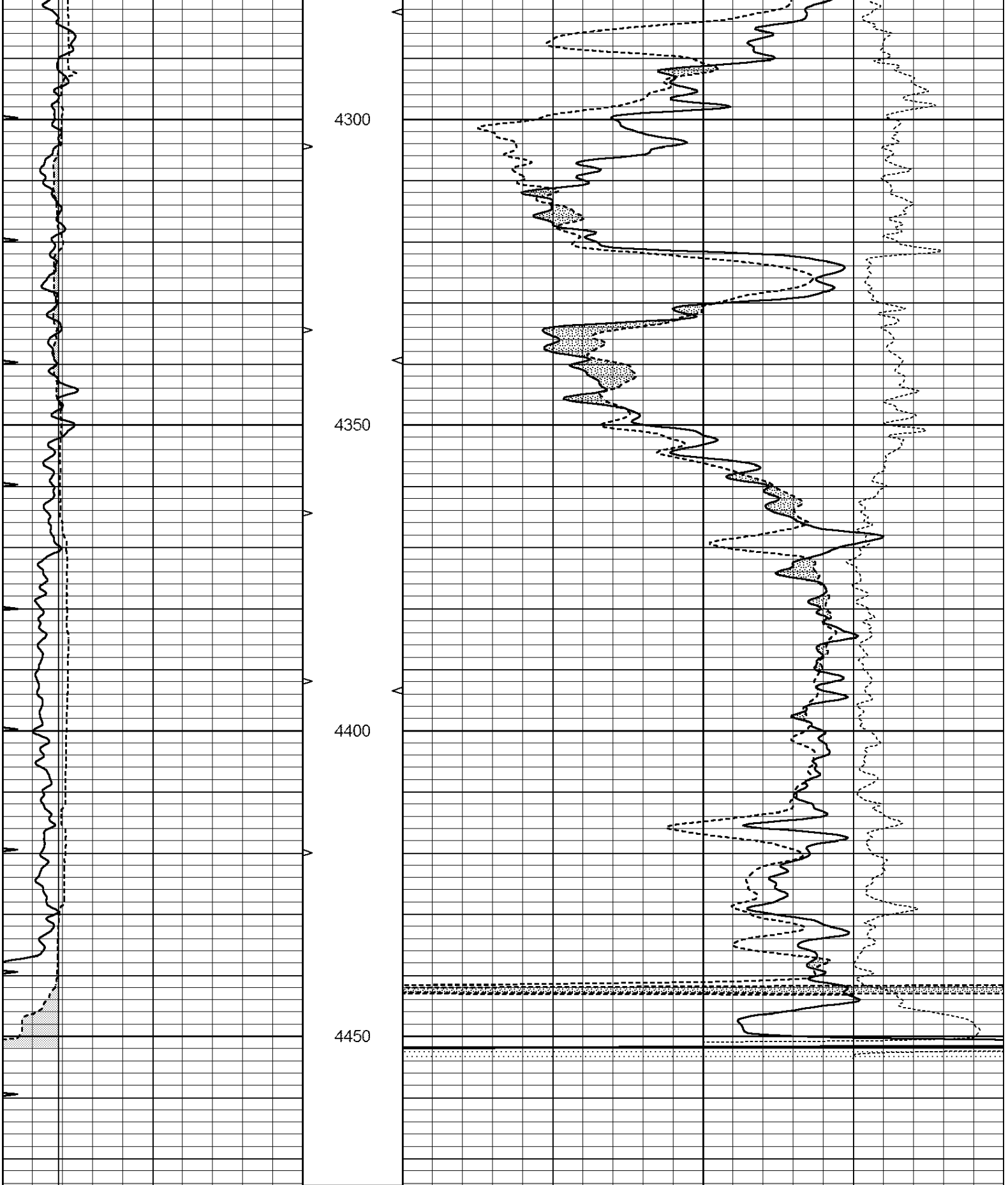
NABORS
COMPLETION & PRODUCTION SERVICES CO.

REPEAT SECTION

Database File: 26214ddn.db
Dataset Pathname: pass2.1
Presentation Format: den_neu
Dataset Creation: Wed Oct 22 08:27:29 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		-0.25	CORRECTION (g/cc)	0.25
			0 (ft3) 10				




4300
4350
4400
4450
0 GAMMA RAY (GAPI) 150
6 CALIPER (in) 16
0 MINMK 20
ABHV
10 (ft3) 0
TBHV
0 (ft3) 10
30 COMPENSATED DENSITY (pu) -10
30 COMPENSATED NEUTRON (pu) -10
-0.25 CORRECTION (g/cc) 0.25

Calibration Report

Database File: 26214ddn.db
Dataset Pathname: pass2.1
Dataset Creation: Wed Oct 22 08:27:29 2014 by Calc Open-Cased 090629

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		

Compensated Density Calibration Report

Serial-Model: GEAR3-GEARHART
Source / Verifier: 143 / 143
Master Calibration Performed: Sun Aug 17 08:09:42 2014
Before Survey Verification Performed:
After Survey Verification Performed:

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	935.36	501.55	cps
Aluminum	2.580	g/cc	209.32	357.01	cps

Spine Angle = 77.21

Density/Spine Ratio = 0.567

	Size		Reading	
Small Ring	8.00	in	4.29	V
Large Ring	14.00	in	6.24	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: 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