



NABORS

**COMPLETION
& PRODUCTION
SERVICES CO.**

**COMPENSATED
DENSITY / NEUTRON
LOG**

Company	RITCHIE EXPLORATION, INC.		
Well	FARMER 25 A #1		
Field	WILDCAT		
County	SEDGWICK	State	KANSAS
Location:	API # : 15-173-21016-00-00		Other Services
	N2 - NE - NE 460' FNL & 700' FEL		DIL
	SEC 25 TWP 29S RGE 4W		
Permanent Datum	GROUND LEVEL	Elevation	1352
Log Measured From	KELLY BUSHING 9' A.G.L.		K.B. 1361
Drilling Measured From	KELLY BUSHING		D.F. 1359
			G.L. 1352
Date	2/8/13		
Run Number	ONE		
Depth Driller	4466		
Depth Logger	4469		
Bottom Logged Interval	4445		
Top Log Interval	2800		
Casing Driller	264		
Casing Logger	264		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 2.000	
Density / Viscosity	9.4 / 51		
pH / Fluid Loss	10.0 / 9.0		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	0.80 @ 83F		
Rinf @ Meas. Temp	0.60 @ 83F		
Rinc @ Meas. Temp	0.96 @ 83F		
Source of Rinf / Rinc	MEASURED		
Rim @ BHT	0.55 @ 120F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	120F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	IAN MABB		
Witnessed By	PAT DEENIHAN		

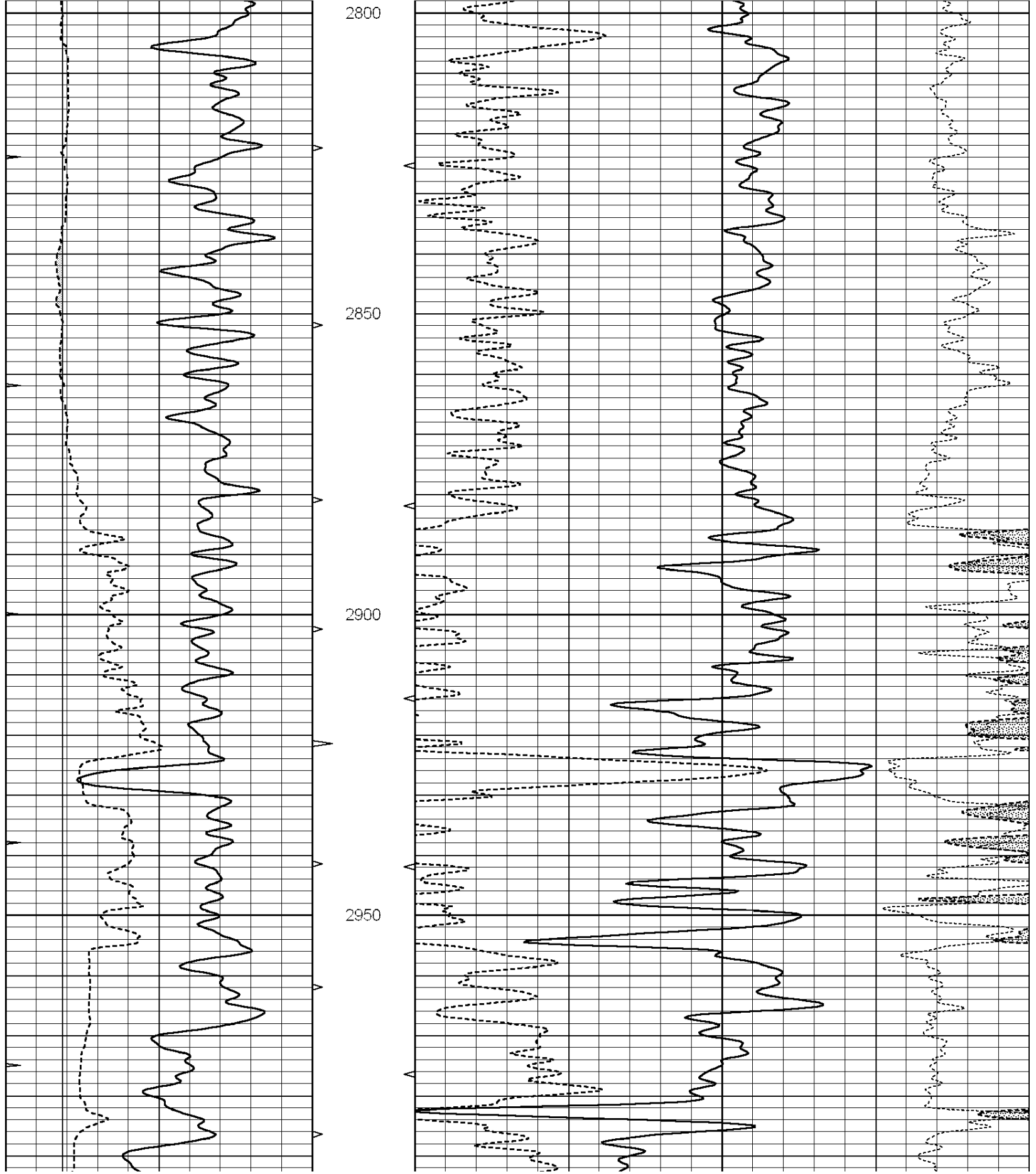
<<< Fold Here >>>

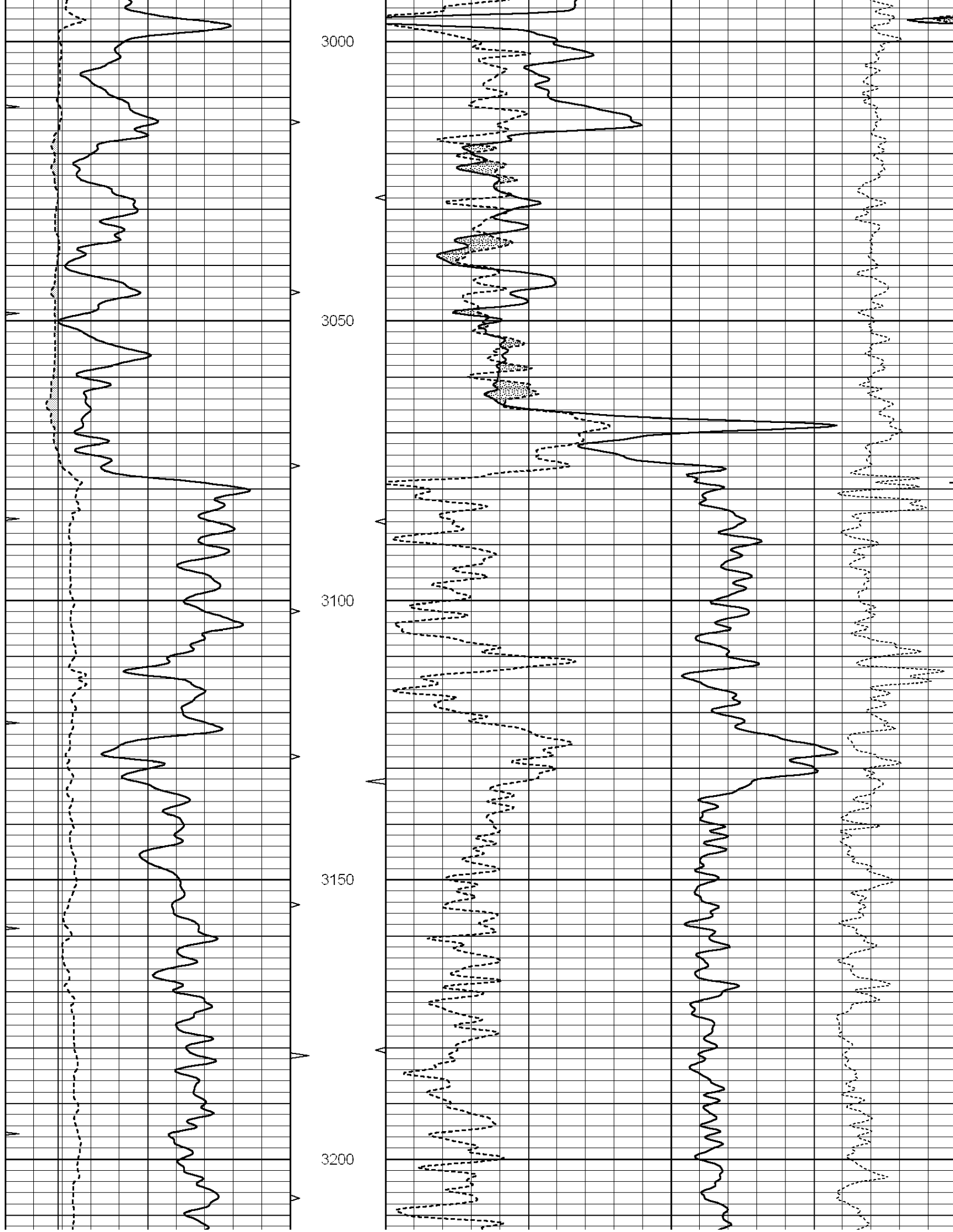
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

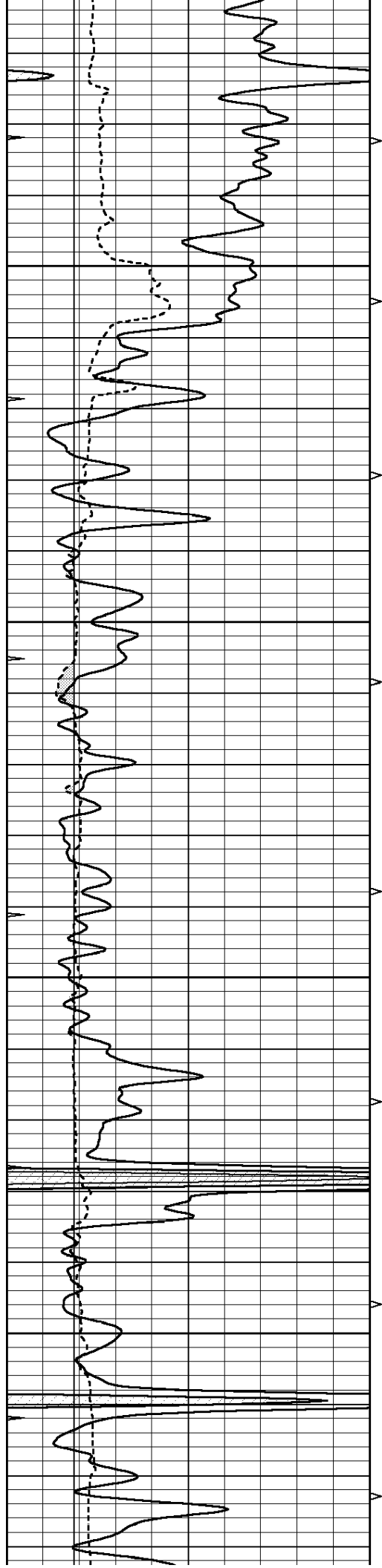
Comments

NABORS COMPLETION & PRODUCTION CO.
785-628-6395
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: VIOLA, KS. - 3 WEST ON 111 ST. - 1 NORTH WEST INTO

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			





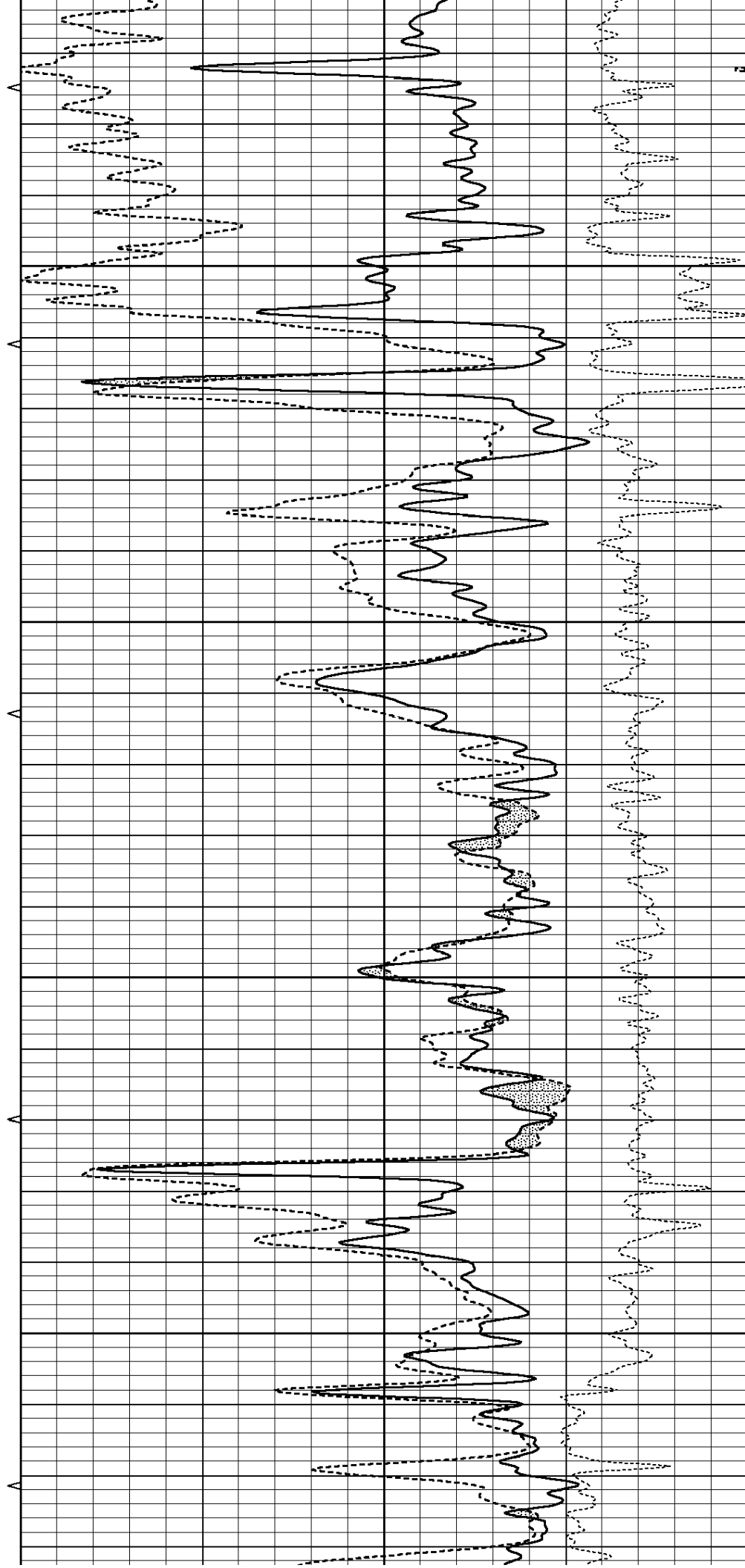


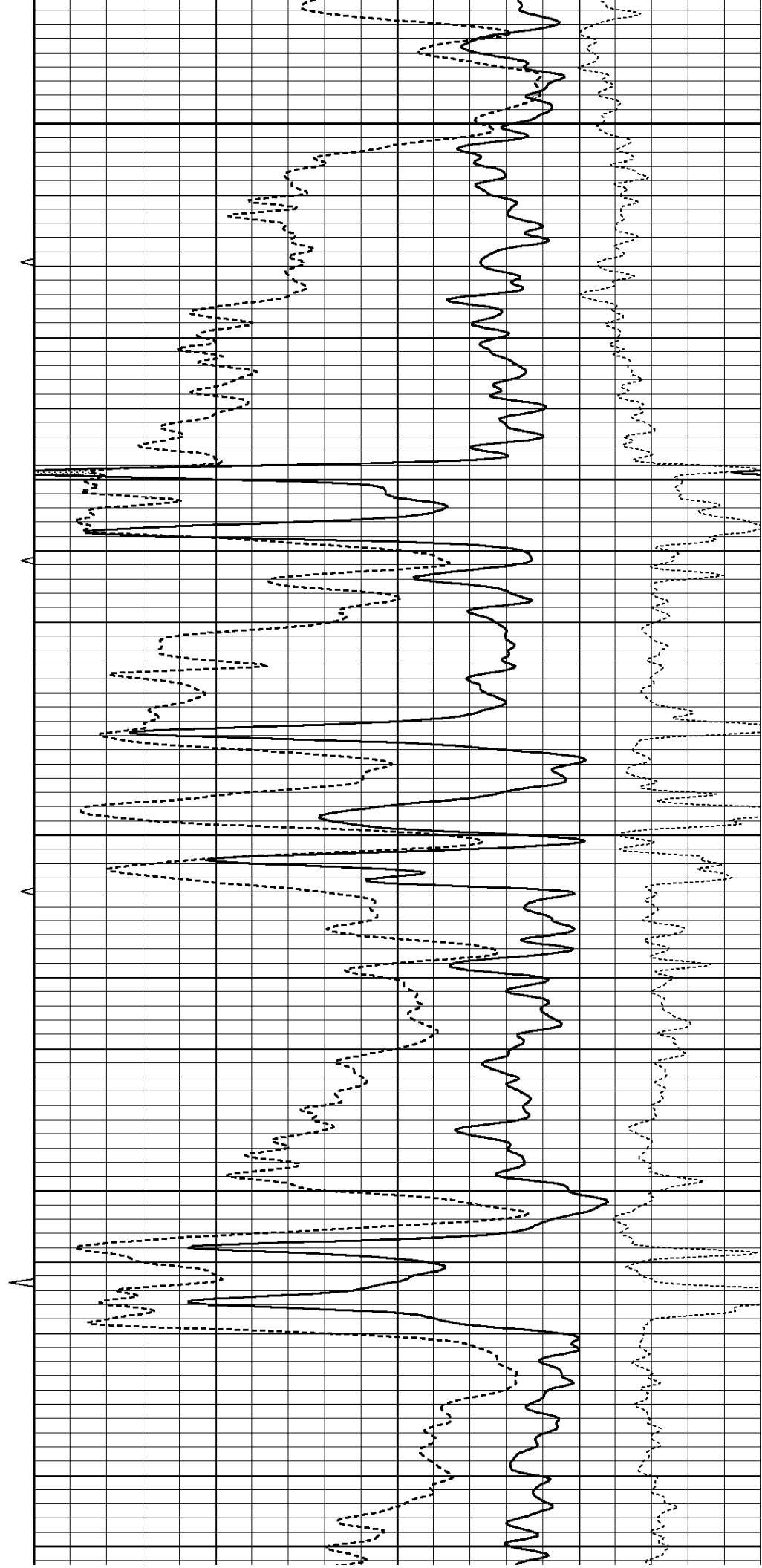
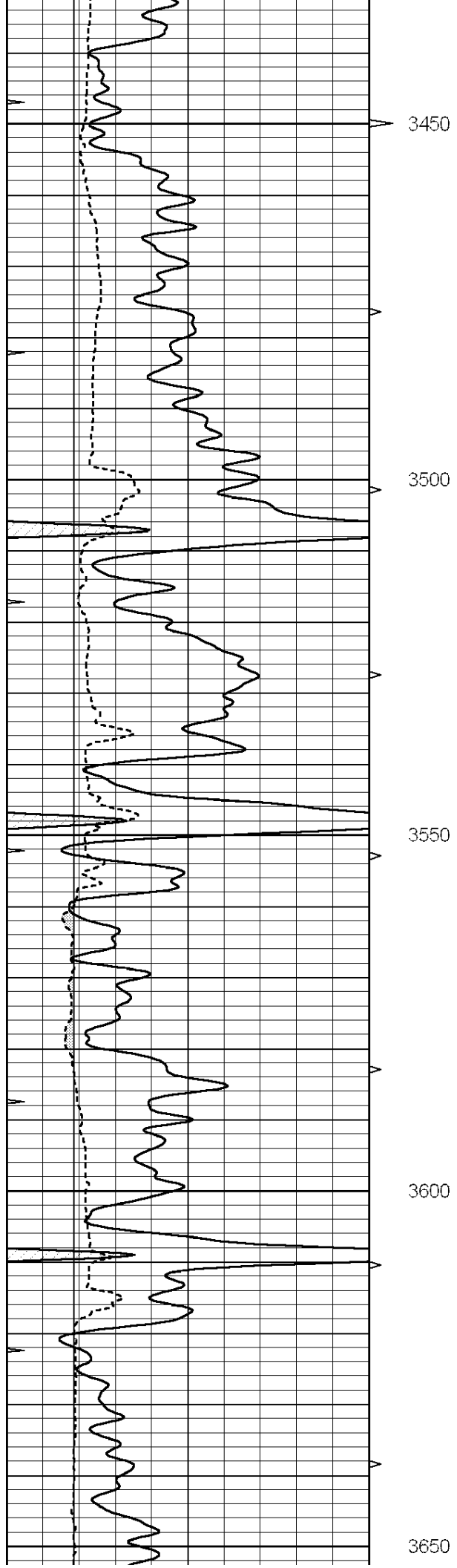
3250

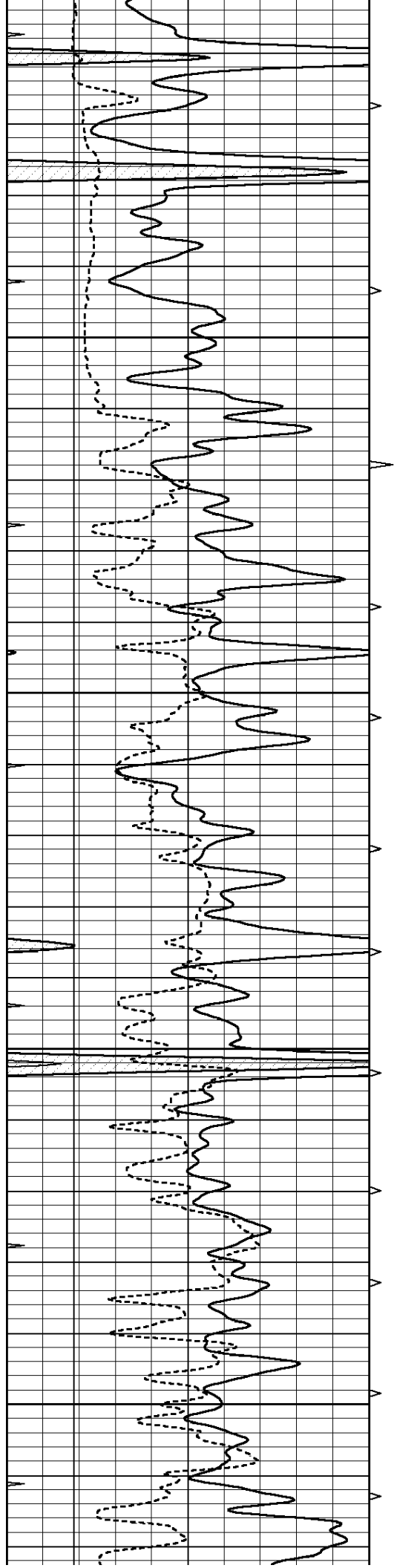
3300

3350

3400





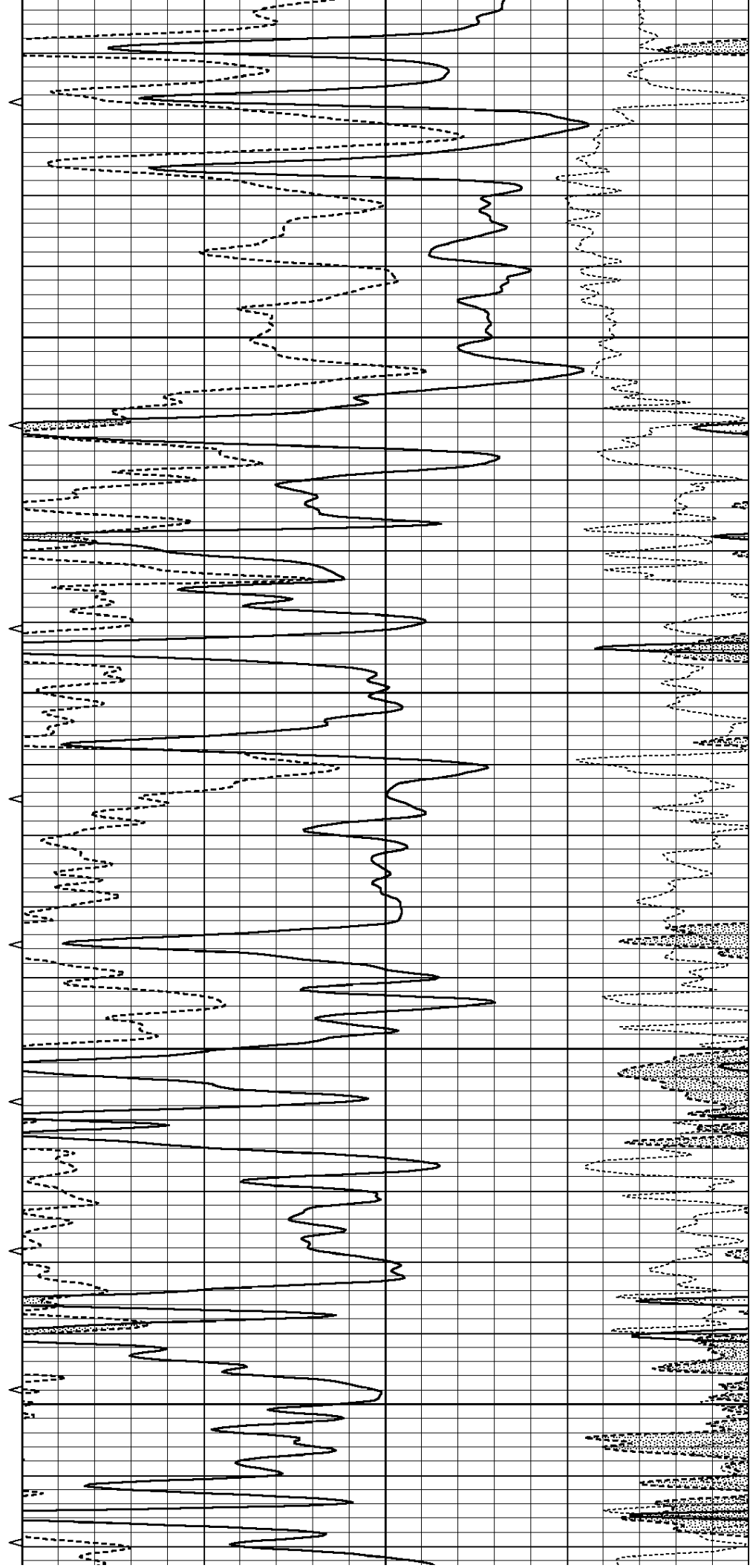


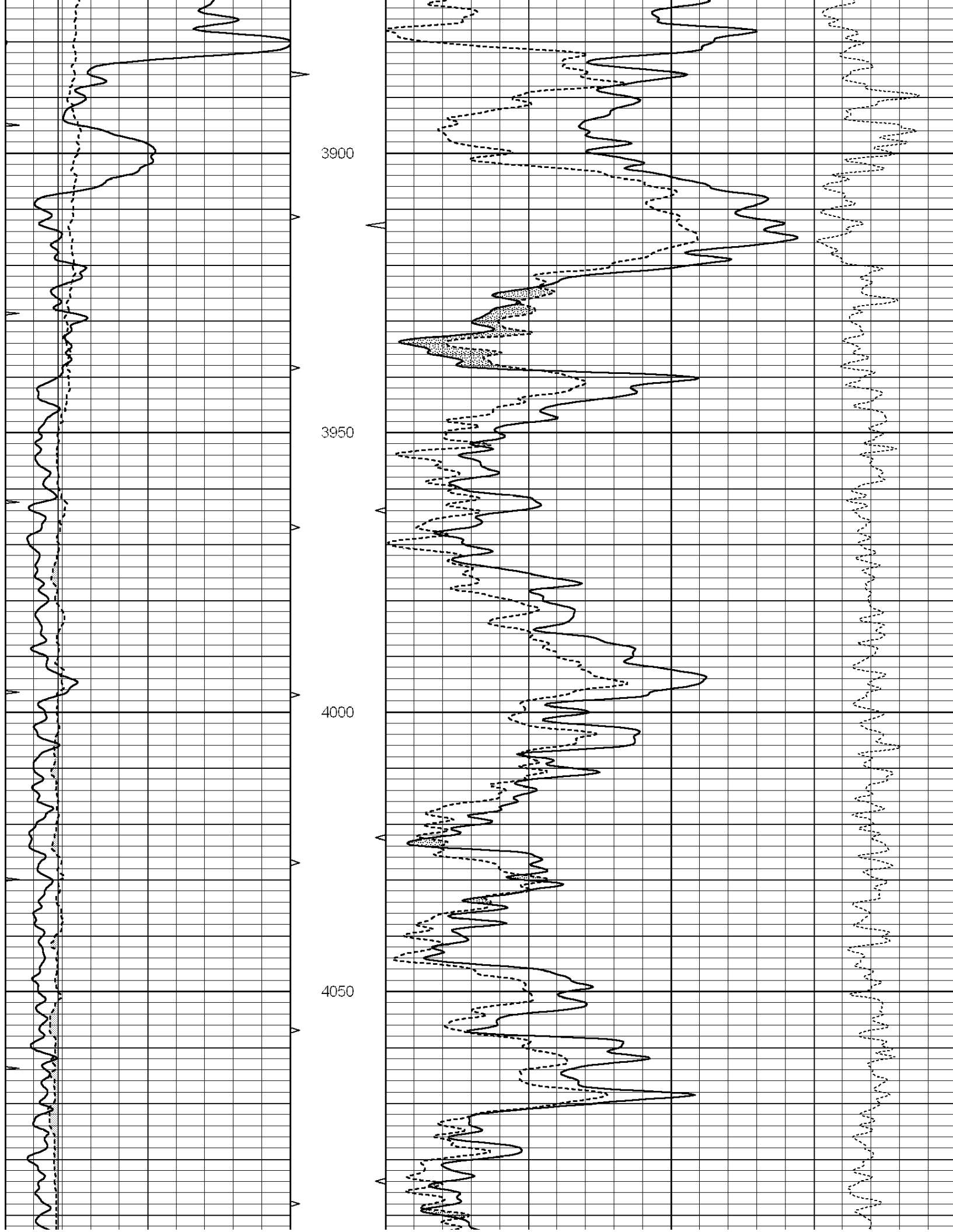
3700

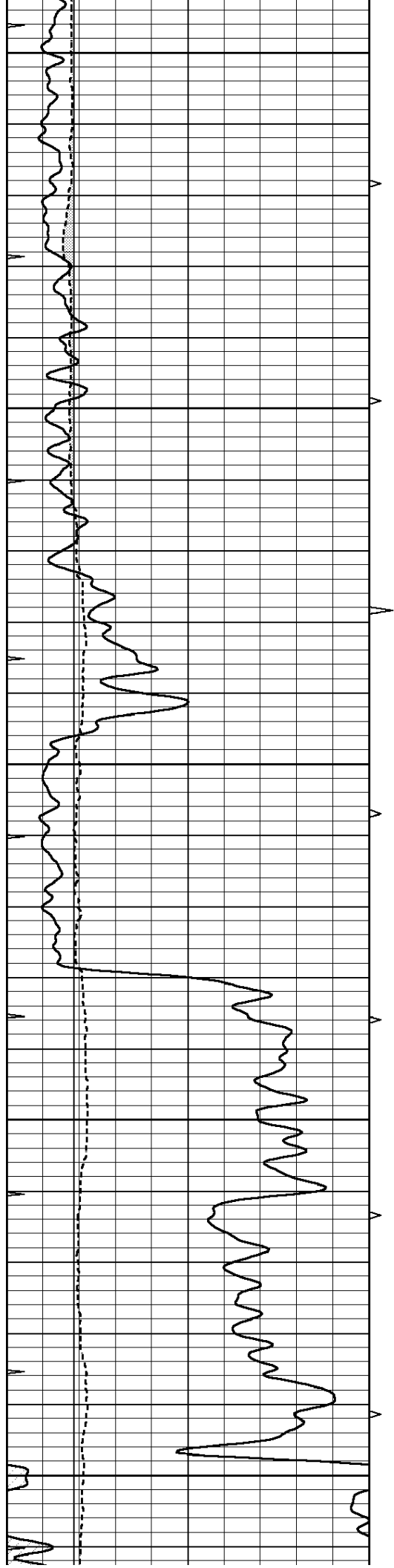
3750

3800

3850







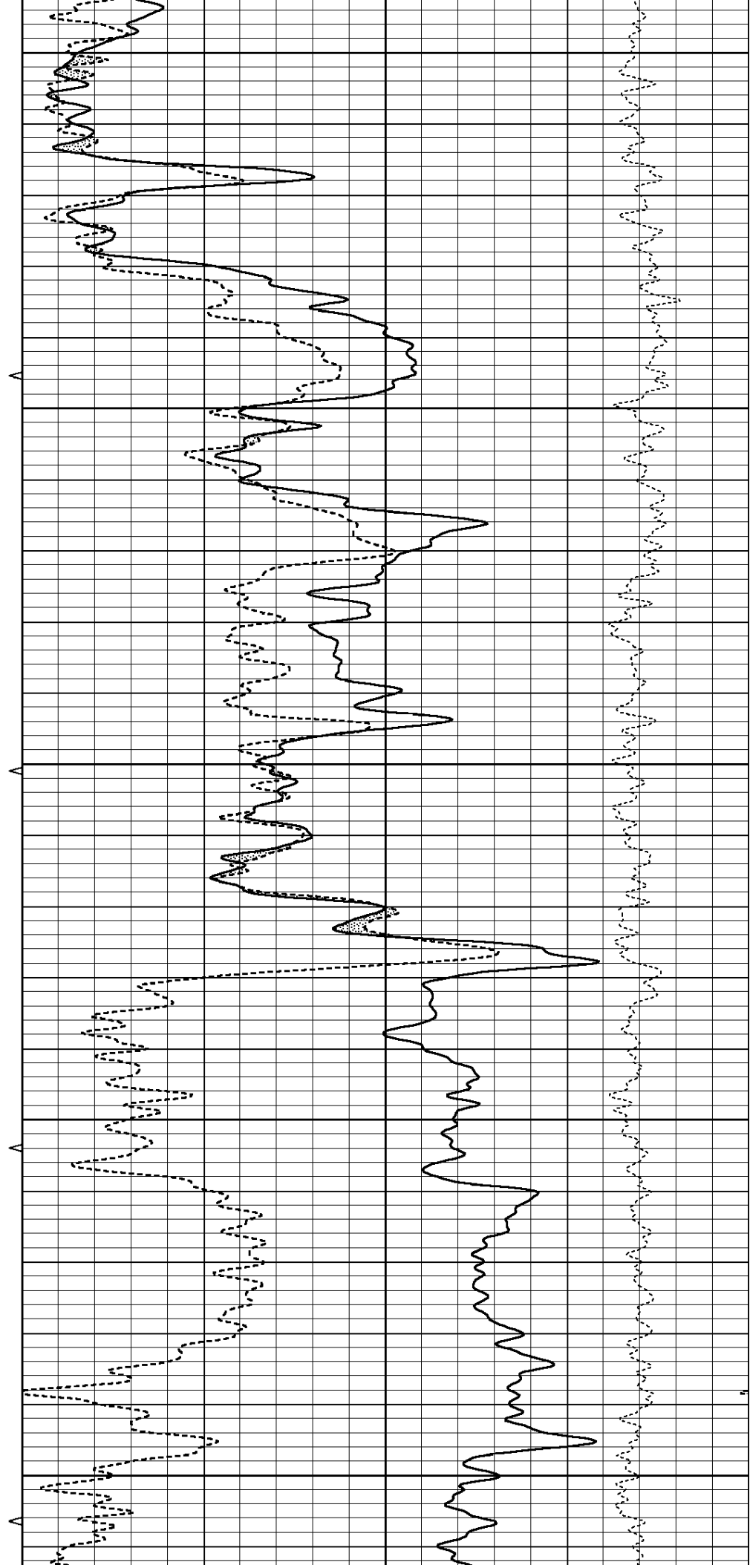
4100

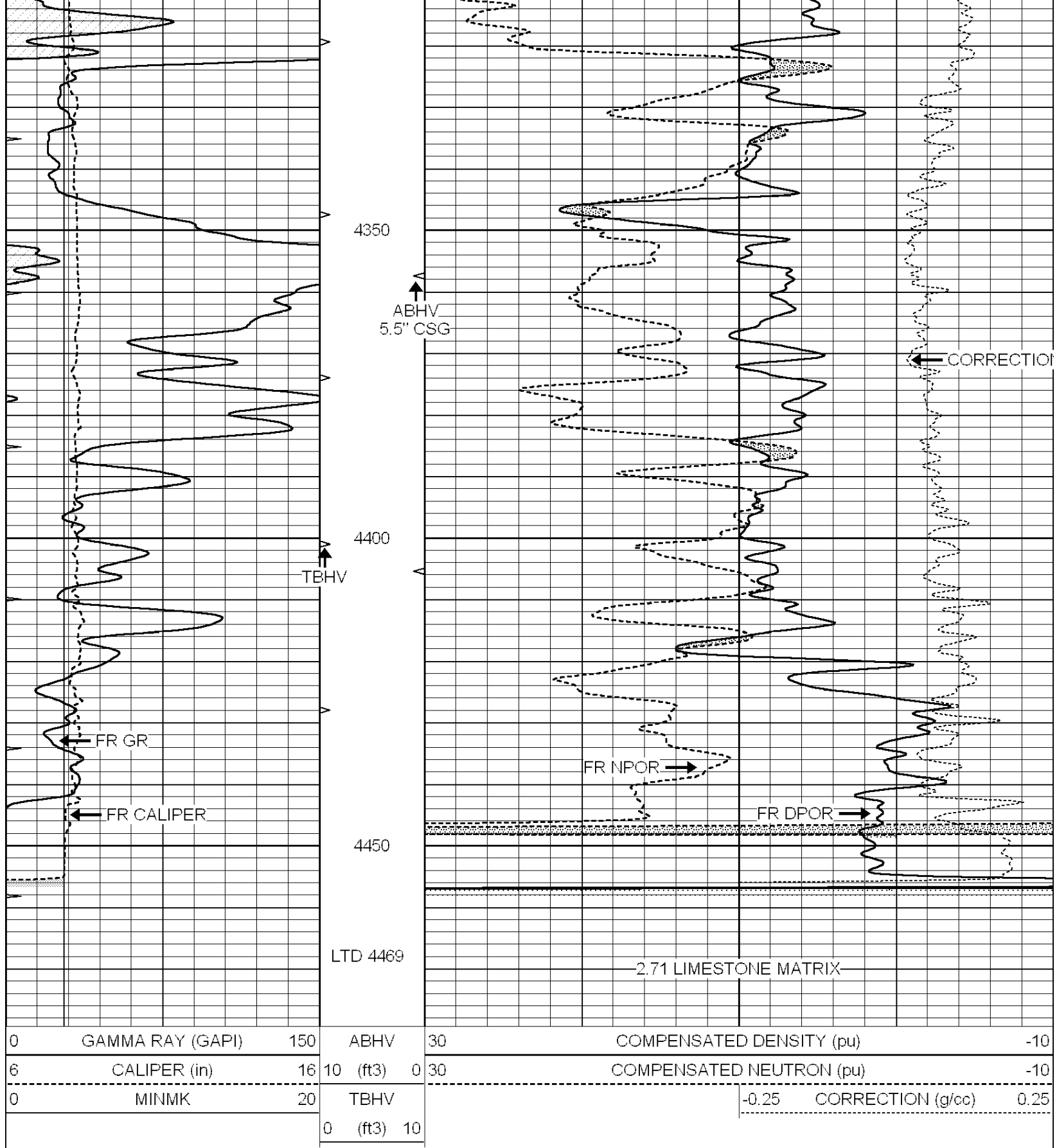
4150

4200

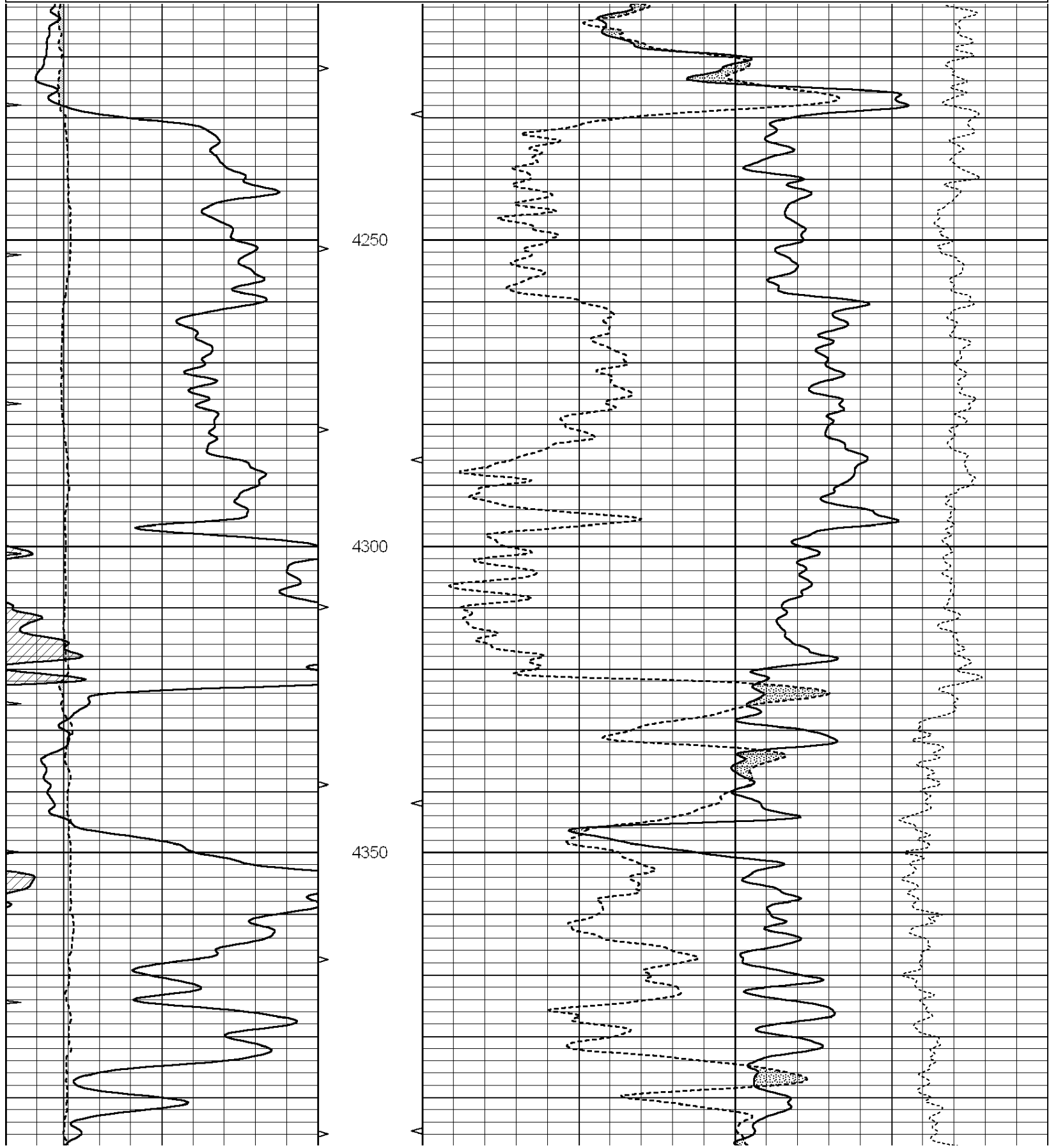
4250

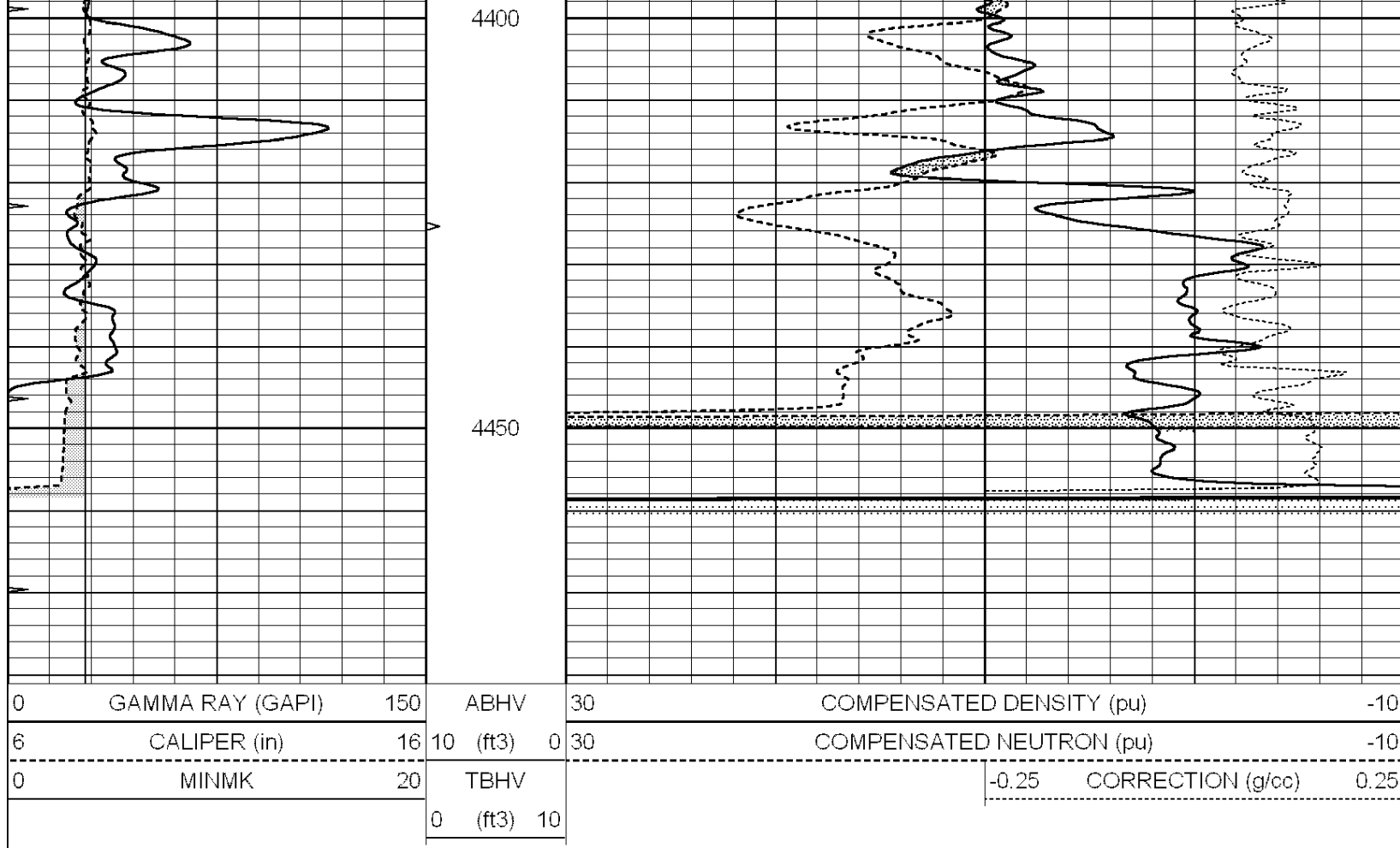
4300





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		





Calibration Report

Database File: 010668ddn.db
Dataset Pathname: pass4.2
Dataset Creation: Fri Feb 08 11:16:02 2013 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: PROBE7-DILG
Surface Cal Performed: Sat Feb 02 01:31:14 2013
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	630.000	0.000
Medium	0.992	1.002	V	0.000	464.000	mmho/m	700.000	-49.000
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		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:					GEAR1-GEARHART			
Source / Verifier:					147 / 147			
Master Calibration Performed:					Fri Feb 01 23:17:10 2013			

Master Calibration								
			Density		Far Detector		Near Detector	
Magnesium		1.710	g/cc		1205.77		610.74	cps
Aluminum		2.590	g/cc		271.21		419.72	cps
Spine Angle = 75.89				Density/Spine Ratio = 0.572				
			Size		Reading			
Small Ring		6.90	in		4.69		V	
Large Ring		14.00	in		6.52		V	

Compensated Neutron Calibration Report								
Serial Number:					NEU_4I			
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		

Gamma Ray Calibration Report								
Serial Number:			GR5					
Tool Model:			OPEN					
Performed:			Fri Feb 08 10:03:25 2013					
Calibrator Value:			1.0	GAPI				
Background Reading:			0.0	cps				
Calibrator Reading:			1.0	cps				
Sensitivity:			1.9000	GAPI/cps				