



COMPENSATED DENSITY / NEUTRON LOG

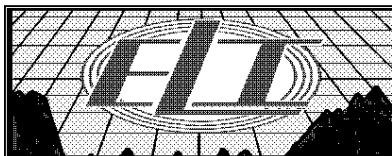
Company	PHILLIPS EXPLORATION CO. L.C.		
Well	DEINES #1-17 SHR		
Field	WILDCAT		
County	TREGO	State	KANSAS
Company	PHILLIPS EXPLORATION COMPANY, L.C.		
Well	DEINES #1-17 SHR		
Field	WILDCAT		
County	TREGO	State	KANSAS
Location:	API # : 15-195-23088-0000		Other Services DIL/MEL
Permanent Datum	1200' FNL & 1100' FVL		Elevation
Log Measured From	SE - SE - NW - NW		
Drilling Measured From	SEC 17 TWP 13S RGE 23W		K.B. 2492 D.F. 2490 G.L. 2487
Date	6/20/19		
Run Number	ONE		
Depth Driller	4475		
Depth Logger	4475		
Bottom Logged Interval	4451		
Top Log Interval	3500		
Casing Driller	8 5/8"@217'		
Casing Logger	217		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 2,800 PPM	
Density / Viscosity	9.4/59		
pH / Fluid Loss	10.0/6.2		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	1.00@100F		
Rmf @ Meas. Temp	.750@100F		
Rmc @ Meas. Temp	1.20@100F		
Source of Rmf / Rmc	MEASUREMENT		
Rim @ BHT	.833@120F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	6:00 P.M.		
Maximum Recorded Temperature	120F		
Equipment Number	922339		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	PAT DEENIHAN		

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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

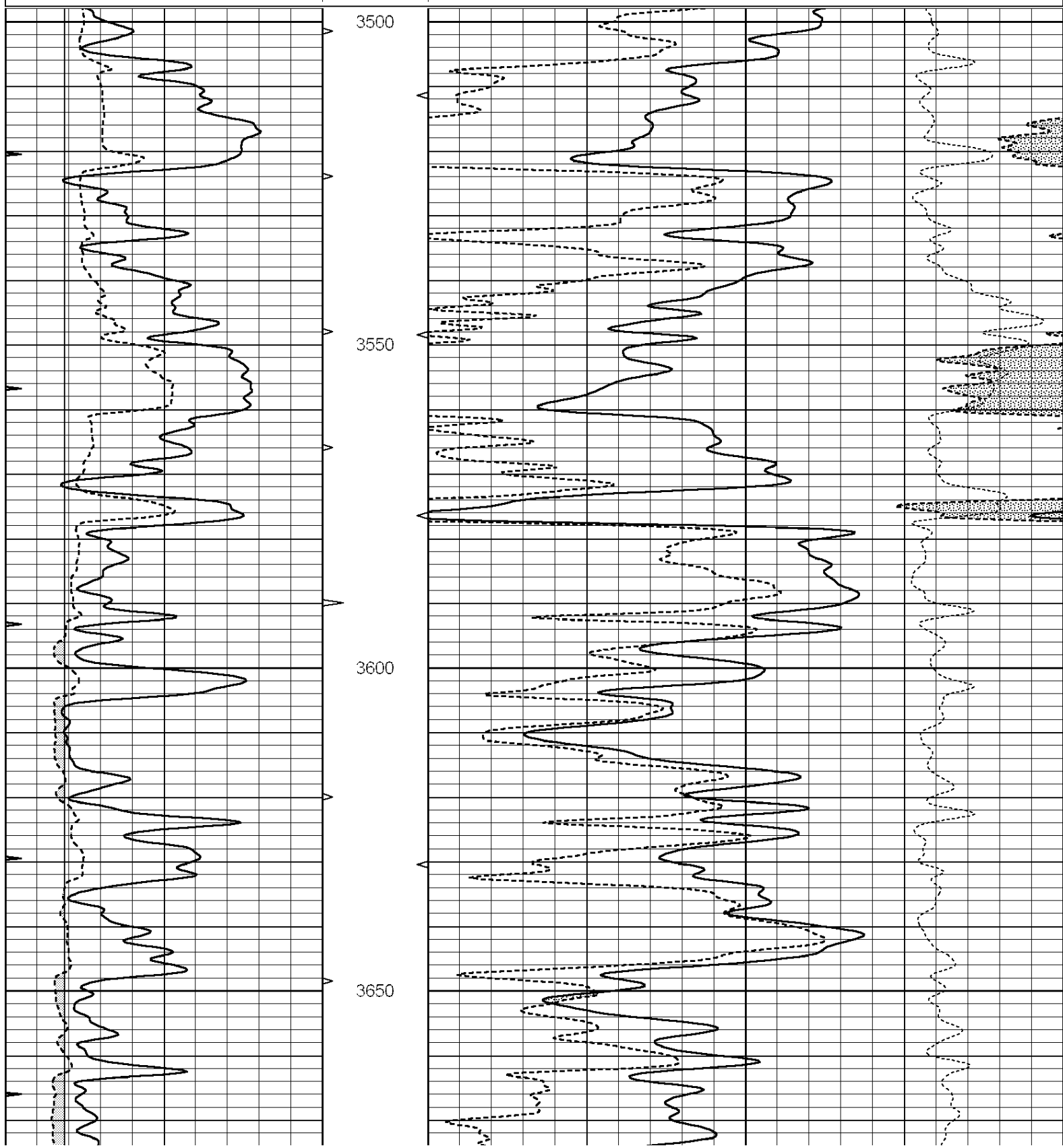
THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS
WAKENNEY, KS., 5S. ON HWY 283 TO "RD. O", 1W., 1/4N., E. INTO

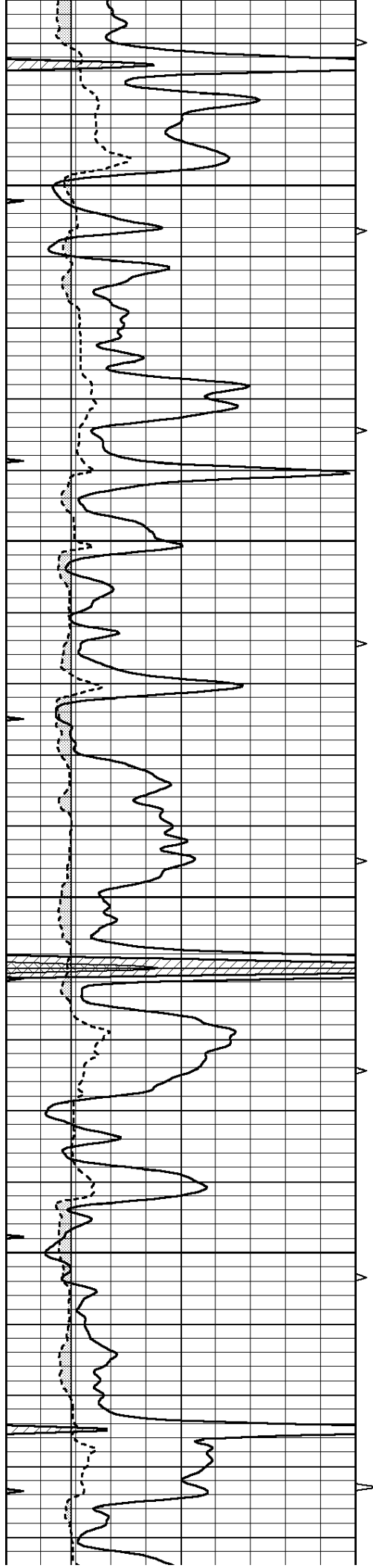


MAIN SECTION

Database File: 3732ddn.db
 Dataset Pathname: pass3.5
 Presentation Format: den_neu
 Dataset Creation: Fri Jun 21 19:10:55 2019 by Calc SOC 120430
 Charted by: Depth in Feet scaled 1:240

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



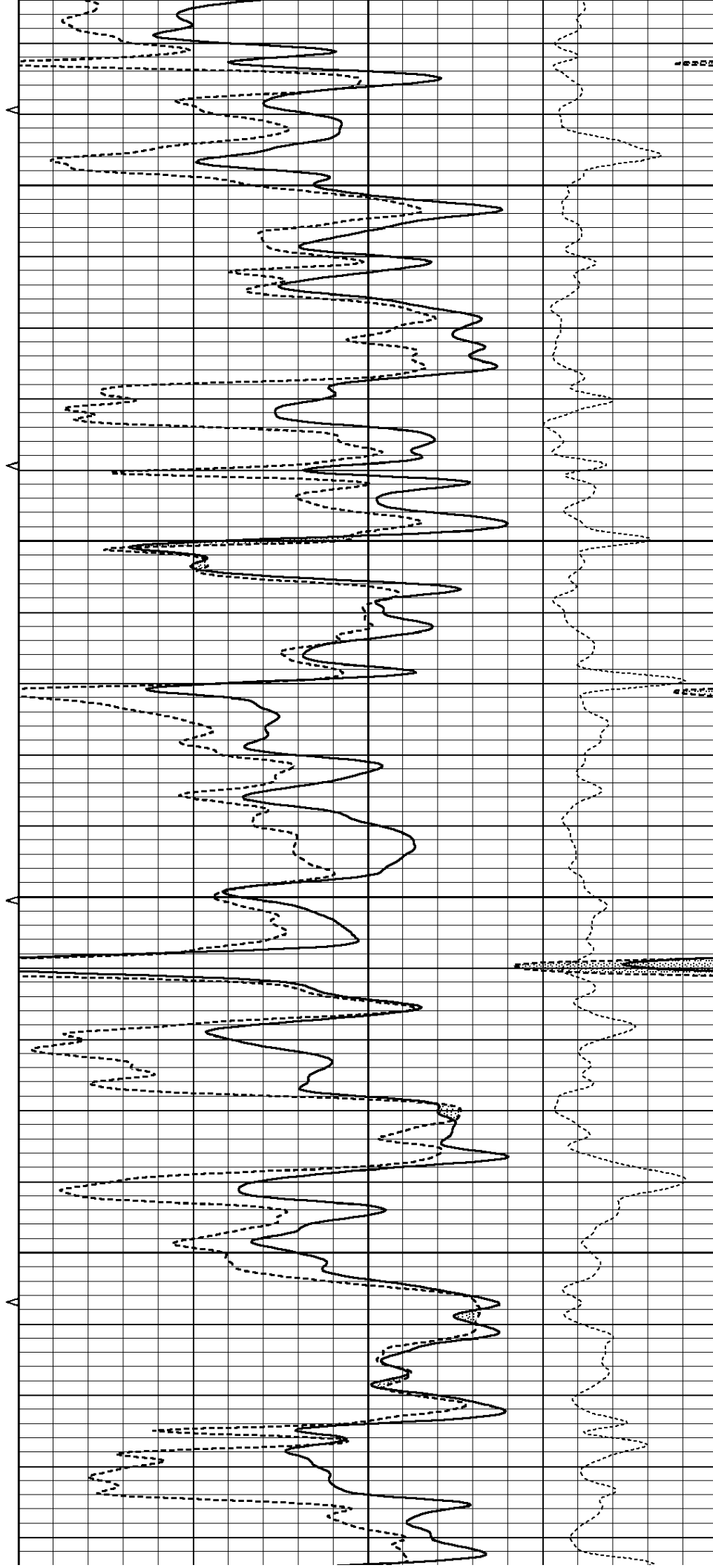


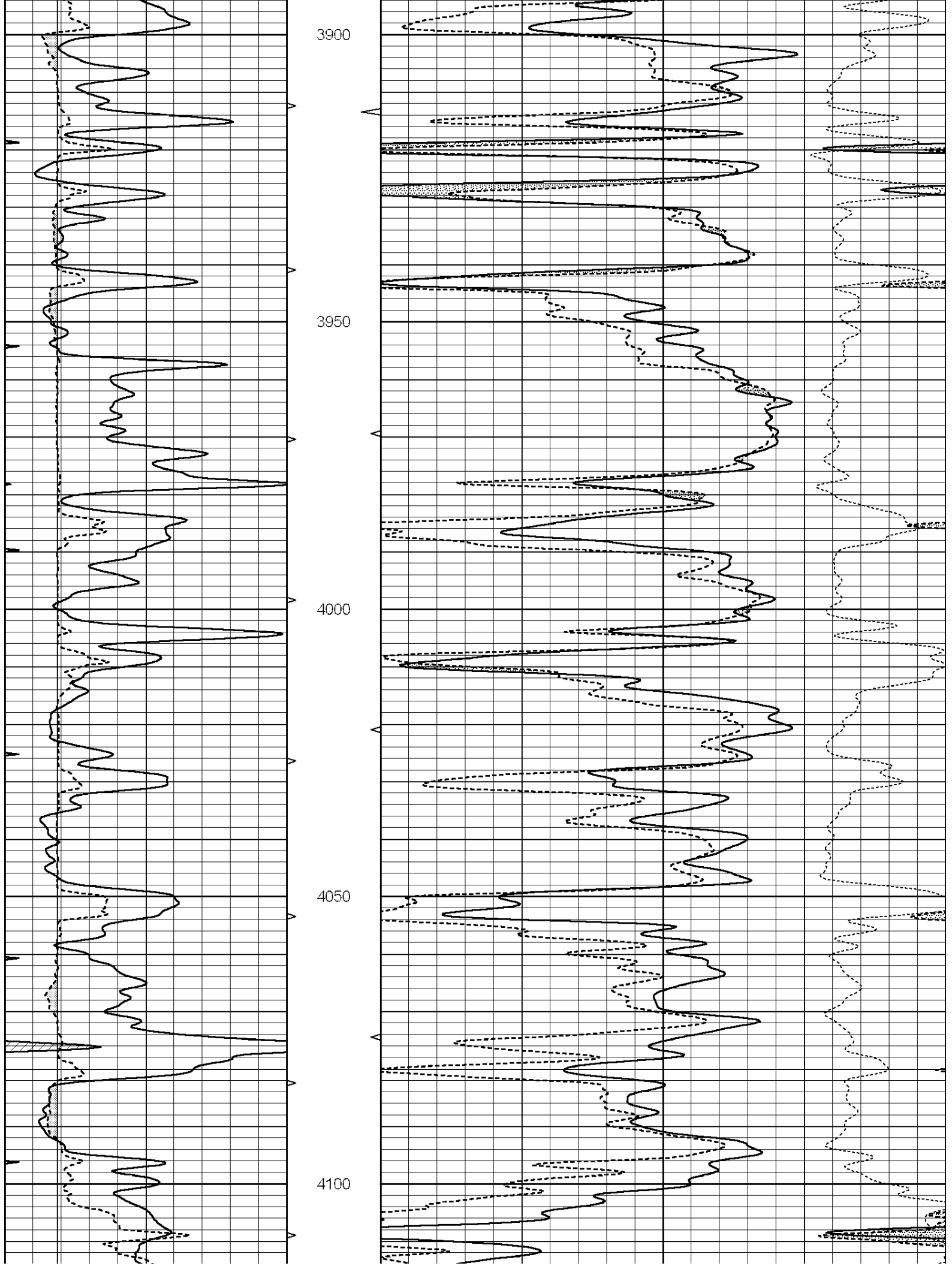
3700

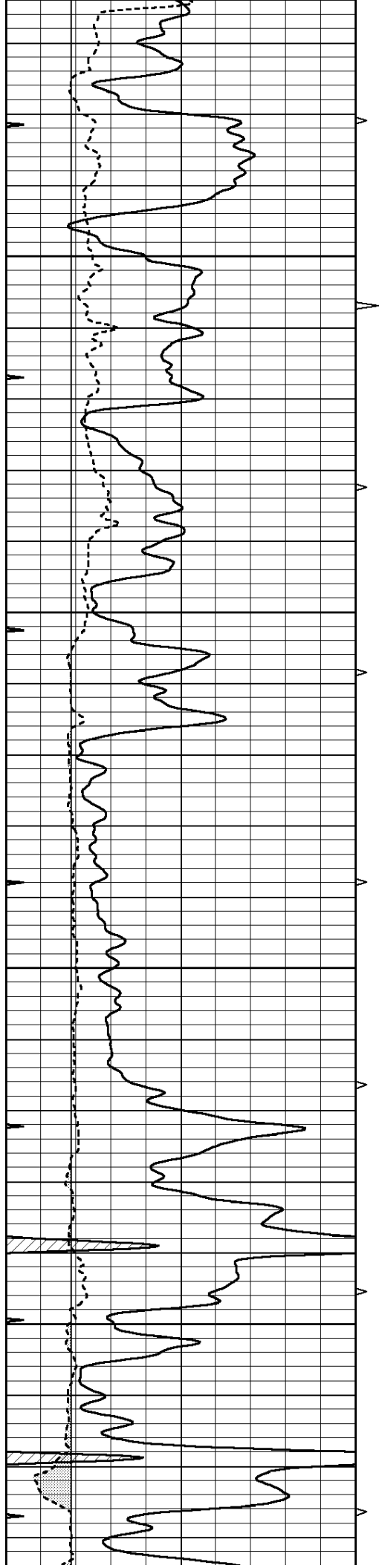
3750

3800

3850





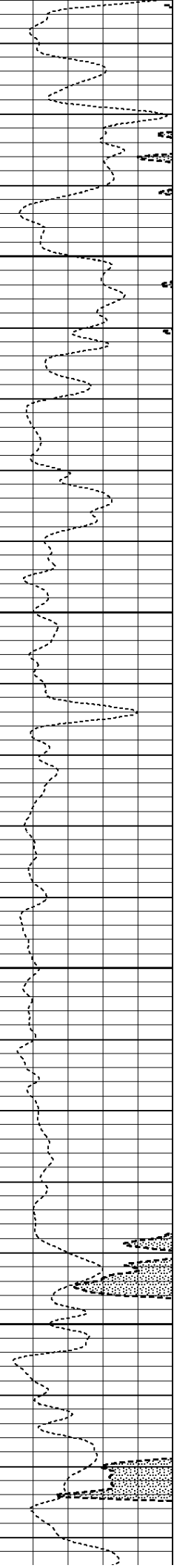
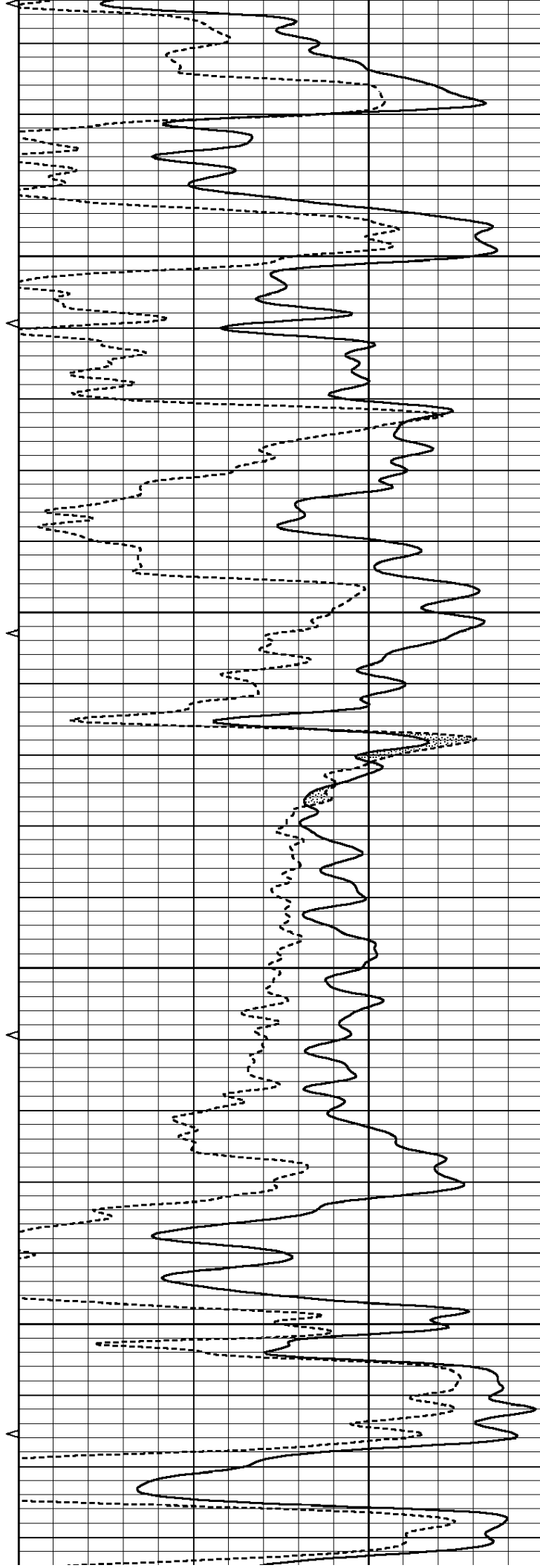


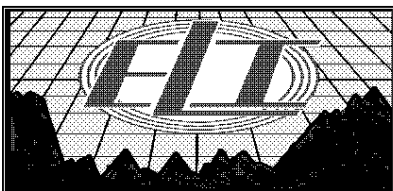
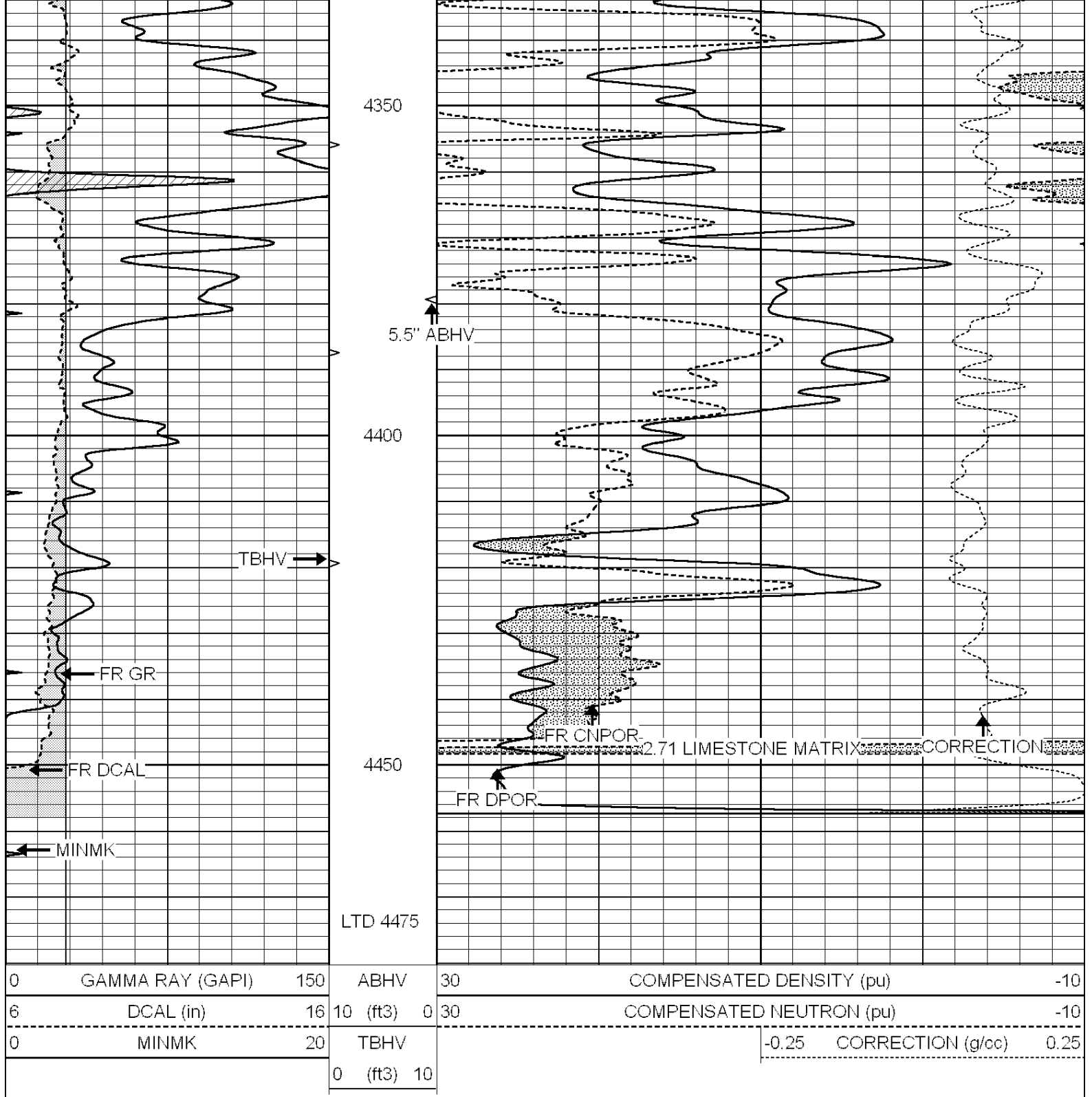
4150

4200

4250

4300



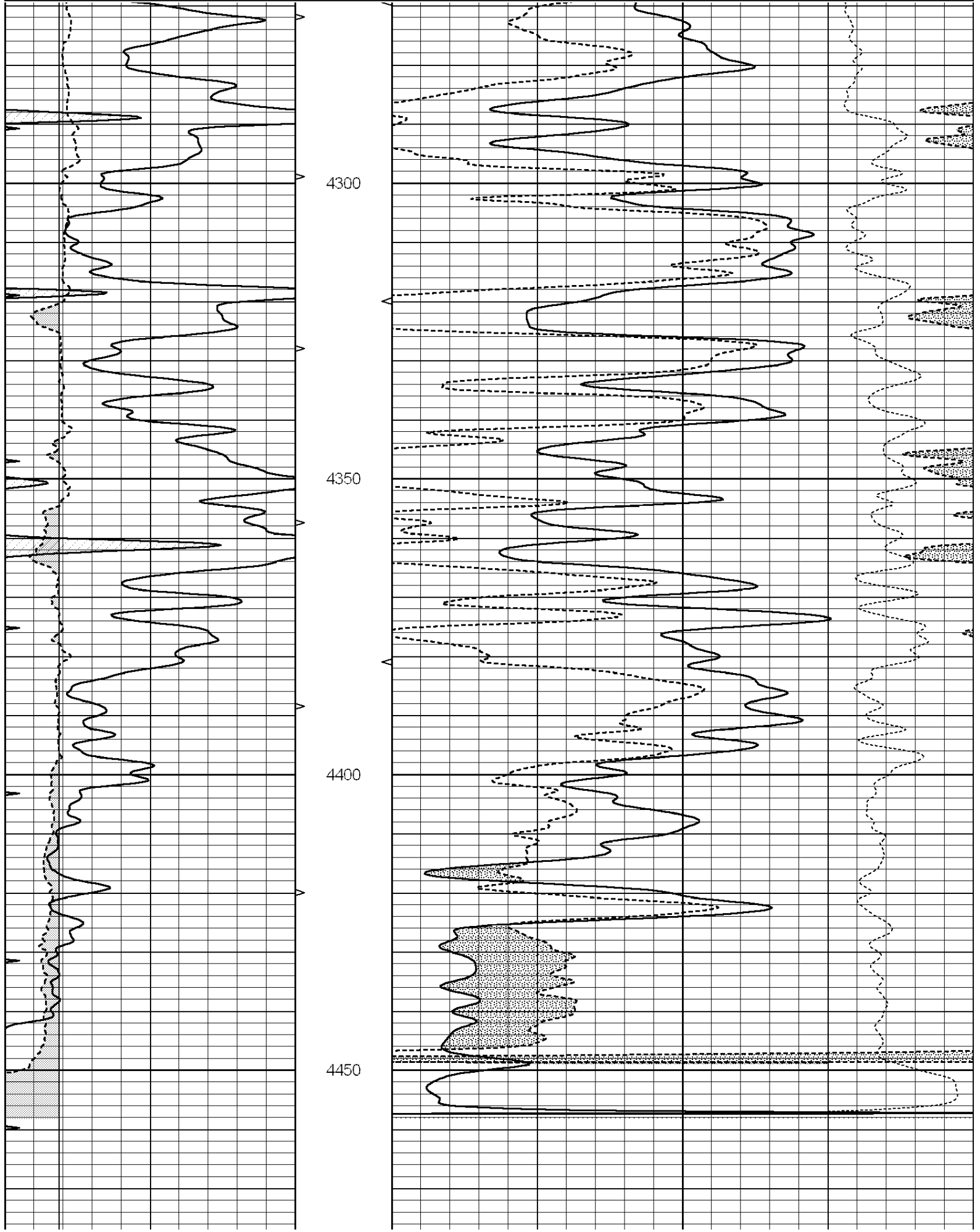


REPEAT SECTION

Database File: 3732ddn.db
 Dataset Pathname: pass2.2
 Presentation Format: den_neu
 Dataset Creation: Fri Jun 21 18:12:31 2019 by Calc SOC 120430
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	DCAL (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10

0	MINMK	20	TBHV	-0.25	CORRECTION (g/cc)	0.25
		0	(ft3)	10		



0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	DCAL (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:		1598ddn.db							
Dataset Pathname:		pass4							
Dataset Creation:		Wed Aug 30 02:13:00 2017 by Log SOC 120430							
Dual Induction Calibration Report									
Serial-Model:				PROBE7-DILG					
Surface Cal Performed:				Wed Aug 30 00:06:33 2017					
Downhole Cal Performed:				Mon Jul 28 12:02:56 2008					
After Survey Verification Performed:				Mon Jul 28 12:02:56 2008					
Surface Calibration									
		Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b	
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	620.000	0.000	
Medium	0.039	0.728	V	0.000	464.000	mmho/m	675.000	-44.000	
Internal:	Zero	Cal		Zero	Cal		m	b	
Deep	0.011	0.610	V	0.000	400.000	mmho/m	667.135	-7.256	
Medium	0.005	0.712	V	0.000	464.000	mmho/m	655.677	-3.102	
Downhole Calibration									
		Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'	
Deep	0.000	0.000	mmho/m	14.508	388.384	mmho/m	1.000	0.000	
Medium	0.000	0.000	mmho/m	166.367	504.400	mmho/m	1.000	0.000	
LL3		7.500	V		1400.000	Ohm-m			
		0.000	V		20.000	Ohm-m			
		-7.200	V		4000.000	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 Mon Aug 21 11:27:42 2017									
	Background	Magnesium		Aluminum		Sandstone			
Window 1	837.1	10632.5		2945.1		12110.1		cps	
Window 2	772.0	9117.4		2570.1		10197.3		cps	
Window 3	631.7	4669.0		1481.9		5042.9		cps	
Window 4	187.0	187.5		185.9		189.9		cps	
Long Space	0.0	8345.4		1798.1		9425.3		cps	
Short Space	1.1	1927.9		1285.9		2050.2		cps	

Rho	1.7100	2.5960	1.3800	g/cc	
Pe	0.0000	2.5700	1.5500		
Rib Angle	: 45.2	Rib Slope	: 1.008	Density/Spine Ratio	: 0.558
Spine Angle	: 75.2	Spine Slope	: 3.790	Spine Intercept	: -19.6

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	

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Compensated Neutron Calibration Report

Serial Number:	070808
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:	070558	
Tool Model:	OPEN_GR	
Performed:	Wed May 31 00:09:32 2017	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.2800	GAPI/cps

