



COMPENSATED DENSITY / NEUTRON LOG

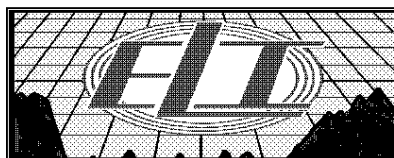
Company	MAI OIL OPERATIONS, INC.		
Well	WIRTZ #10		
Field	FT. ZARAH		
County	BARTON	State	KANSAS
Location:	API # : 15-009-26234-0000 330' FNL & 1050' FEL W/2 - NW - NE - NE		Other Services DIL/MEL
Permanent Datum	GROUND LEVEL	Elevation	1811
Log Measured From	KELLY BUSHING 8' A.G.L.	K.B. 1819 D.F. 1817 G.L. 1811	
Drilling Measured From	KELLY BUSHING		
SEC 33 TWP 19S RGE 12W			
Date	10/19/18		
Run Number	ONE		
Depth Driller	3440		
Depth Logger	3439		
Bottom Logged Interval	3415		
Top Log Interval	2700		
Casing Driller	8 5/8"@631'		
Casing Logger	631		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 8,100 PPM	
Density / Viscosity	9.2/49		
pH / Fluid Loss	10.0/9.6		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	.520@70F		
Rmf @ Meas. Temp	.390@70F		
Rmc @ Meas. Temp	.624@70F		
Source of Rmf / Rmc	MEASUREMENT		
Rim @ BHT	.328@111F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	4:00 A.M.		
Maximum Recorded Temperature	111F		
Equipment Number	922339		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	WYATT URBAN		

<<< 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

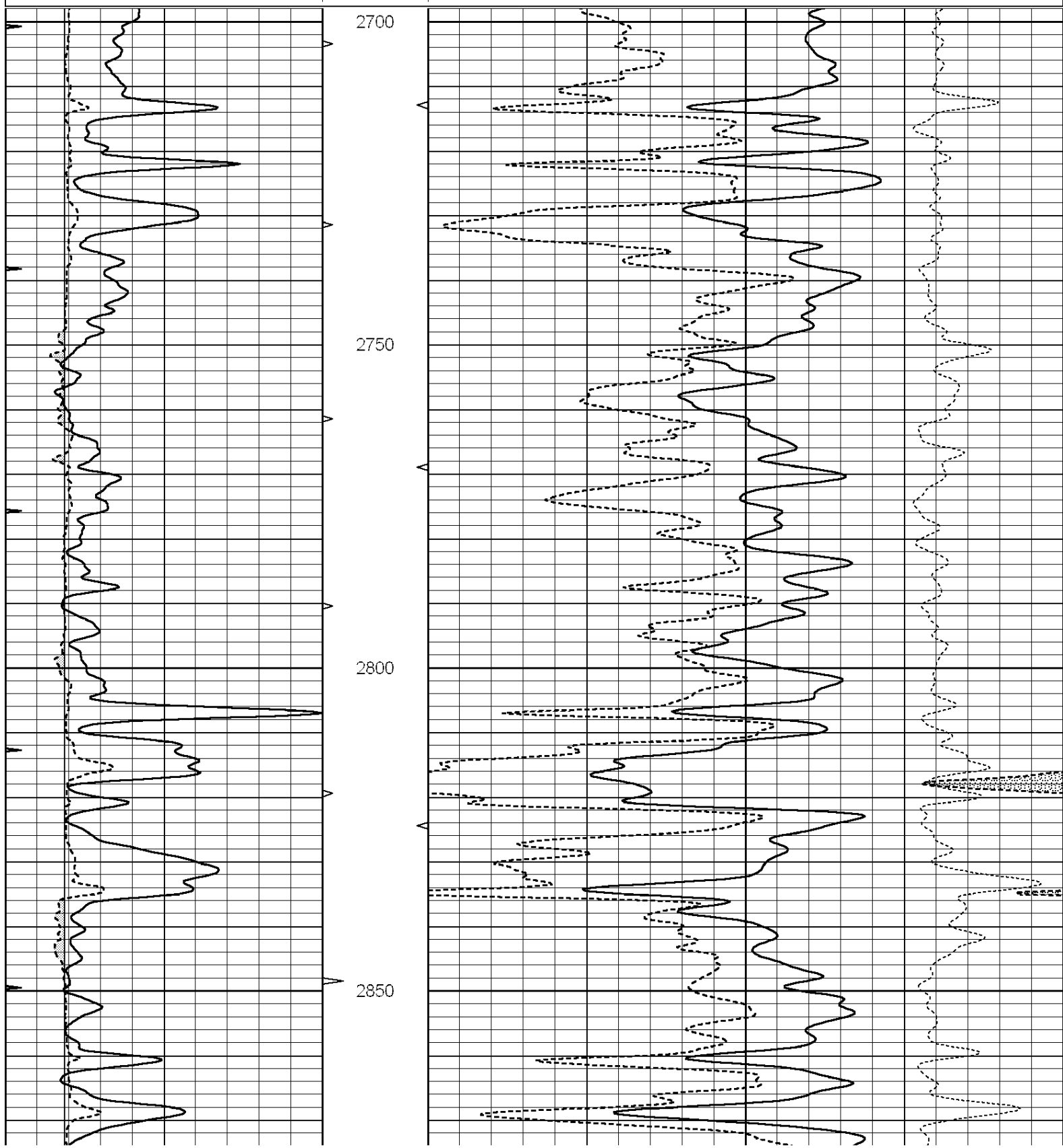
THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS
GREAT BEND, KS., 4E. ON HWY 156 TO " NE 70 AVE." 1/2 S., 1/2W., S. INTO

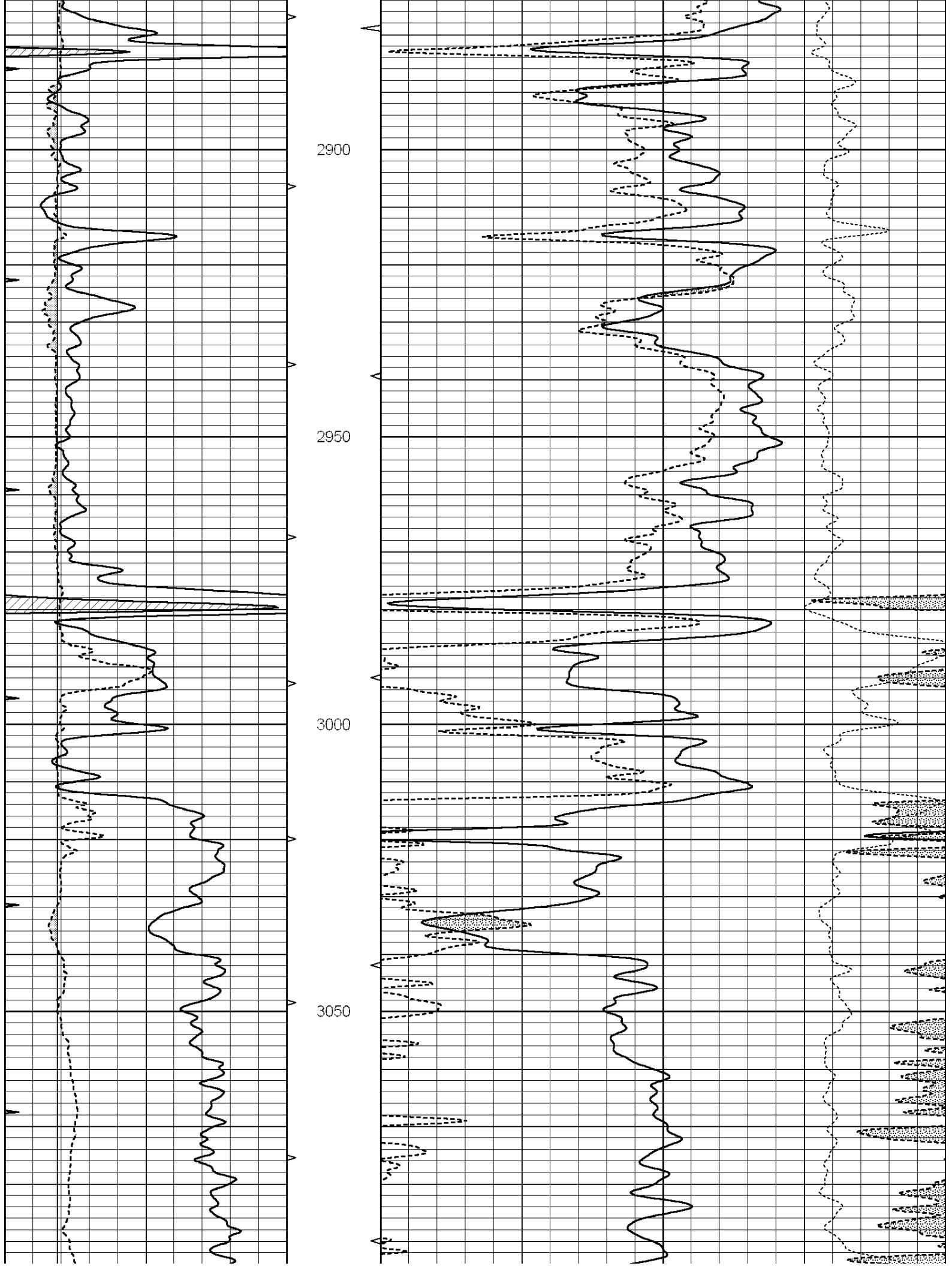


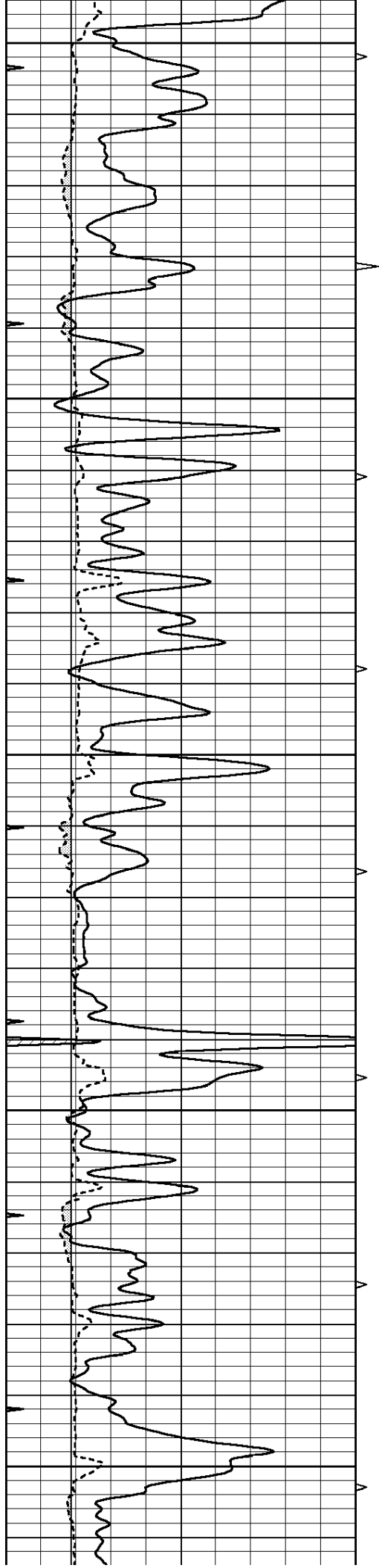
MAIN SECTION

2946ddn.db
pass4.3
den_neu
Fri Oct 19 05:15:17 2018
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			







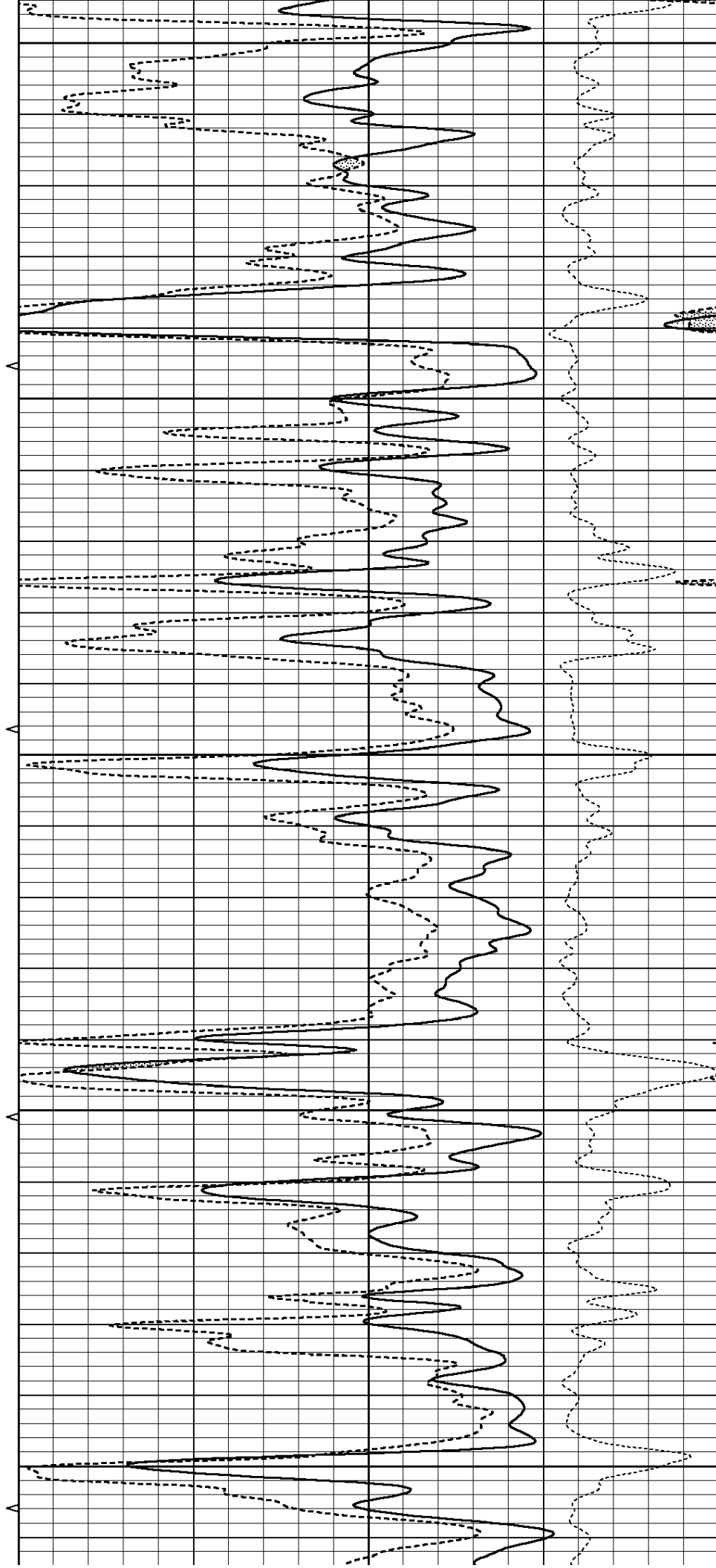
3100

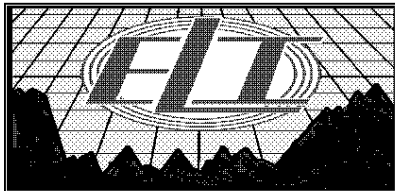
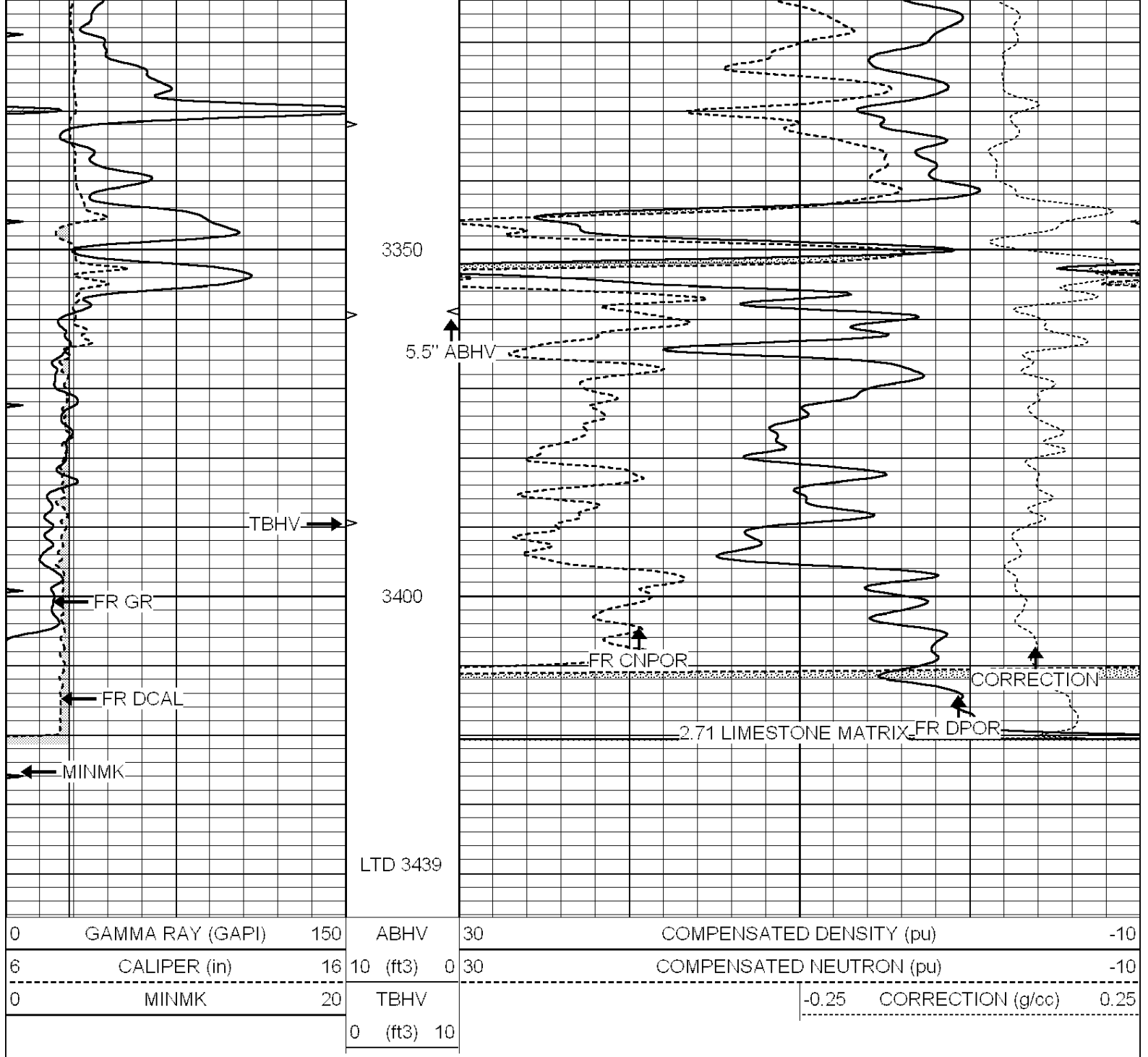
3150

3200

3250

3300

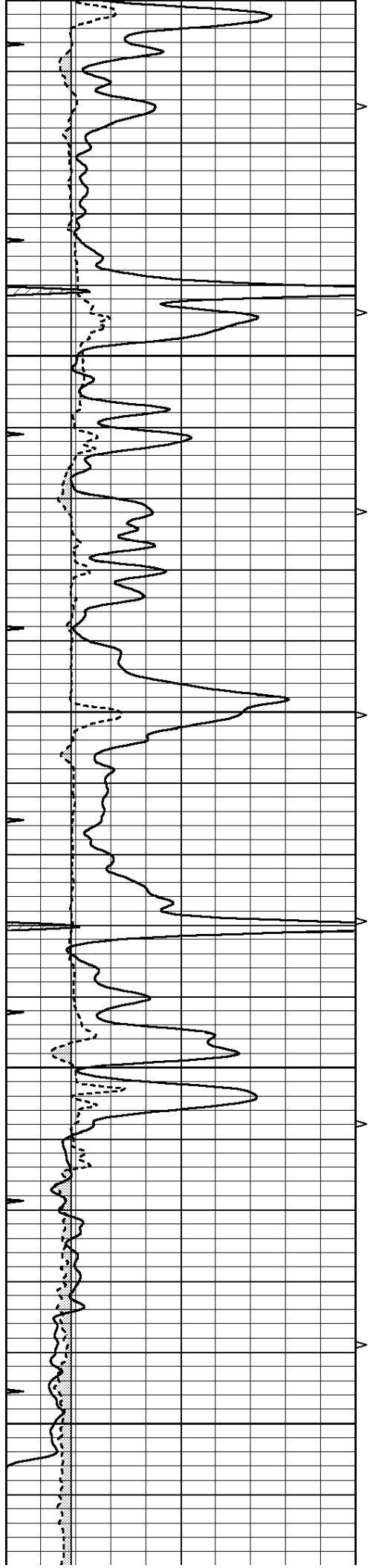




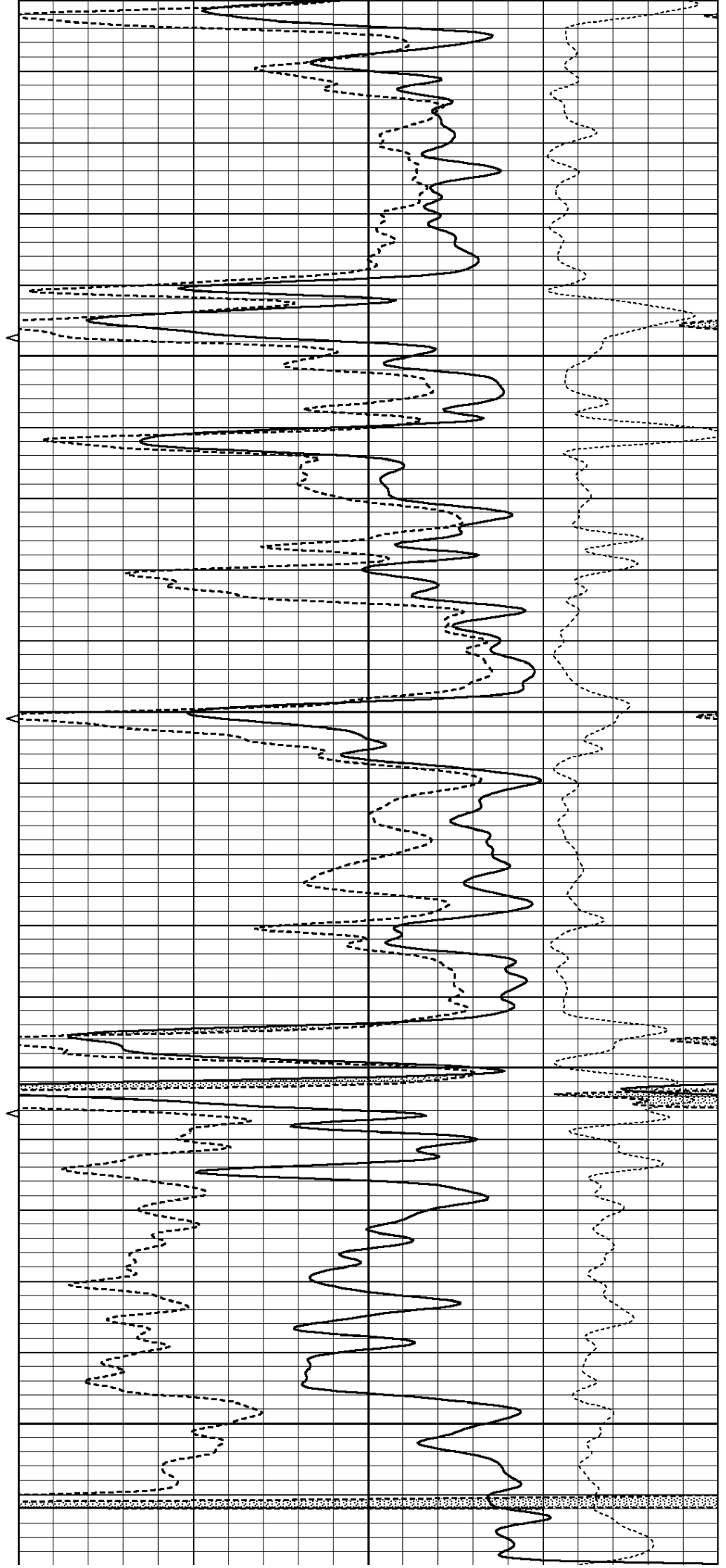
REPEAT SECTION

Database File: 2946ddn.db
 Dataset Pathname: pass3.1
 Presentation Format: den_neu
 Dataset Creation: Fri Oct 19 04:20:34 2018 by Calc SOC 120430
 Charted by: Depth in Feet scaled 1:240

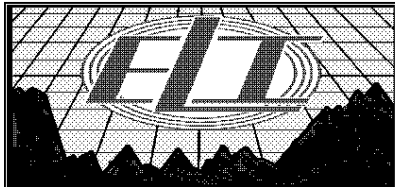
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25	CORRECTION (g/cc) 0.25
			0 (ft3)	10		



3200
3250
3300
3350
3400



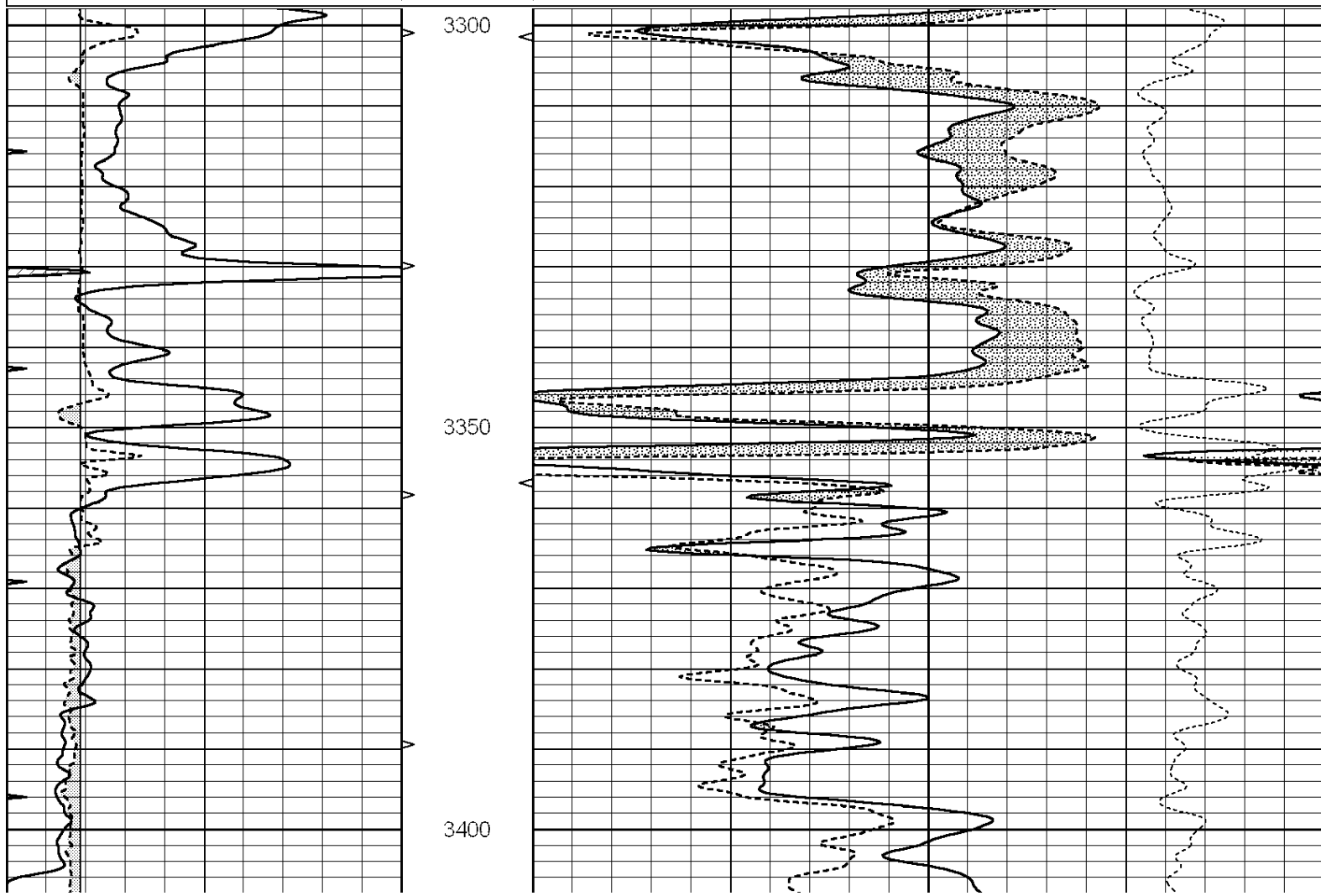
0	GAMMA RAY (GAPI)	150	ABHV	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	10 (ft3)	0 30	COMPENSATED NEUTRON (pu)	-10
0	MINMK	20	TBHV		-0.25 CORRECTION (g/cc)	0.25
			0 (ft3)	10		

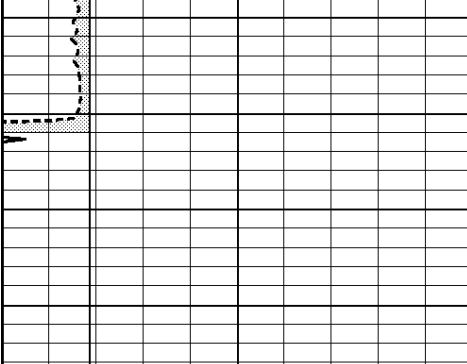
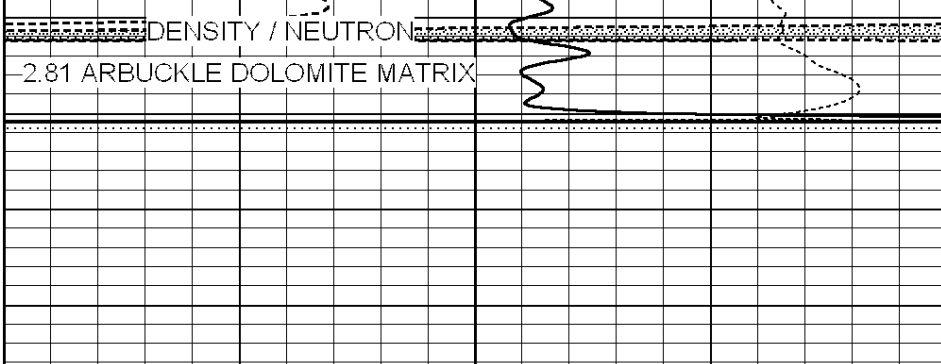


DOLOMITE MATRIX

Database File: 2946ddn.db
 Dataset Pathname: pass3.1D
 Presentation Format: den_neu
 Dataset Creation: Fri Oct 19 04:23:58 2018
 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		



																			
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																			

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	

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
--------------	--------	----------