



SUPERIOR
Hays,
Kansas

COMPENSATED
DENSITY / NEUTRON
LOG

Company	PHILLIPS EXPLORATION CO. L.C.		
Well	LAAS #1-13		
Field	WILDCAT		
County	NESS		
State	KANSAS		
Company	PHILLIPS EXPLORATION COMPANY, L.C.		
Well	LAAS #1-13		
Field	WILDCAT		
County	NESS		
State	KANSAS		
Location:	API # : 15-135-25322-0000		
	330' FSL & 590' FWL		
	SEC 13 TWP 19S RGE 24W		
Permanent Datum	GROUND LEVEL	Elevation	2238
Log Measured From	KELLY BUSHING 5' A.G.L.		
Drilling Measured From	KELLY BUSHING	Elevation	K.B. 2243 D.F. 2241 G.L. 2238
Date	11/20/11		
Run Number	ONE		
Depth Driller	4415		
Depth Logger	4414		
Bottom Logged Interval	4390		
Top Log Interval	3200		
Casing Driller	8 5/8"@230'		
Casing Logger	230		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 5,400	
Density / Viscosity	9.5/48		
pH / Fluid Loss	8.5/8.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.30@50F		
Rmt @ Meas. Temp	.975@50F		
Rmc @ Meas. Temp	1.56@50F		
Source of Rmt / Rmc	MEASUREMENT		
Rm @ BHT	.542@120F		
Time Circulation Stopped	2.5 HOURS		
Time Logger on Bottom	11:30 A.M.		
Maximum Recorded Temperature	120F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	JIM PHILLIPS		

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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 SUPERIOR WELL SERVICE HAYS, KANSAS (785) 628-6395
DIRECTIONS

NESS CITY, KS. (4 WAY STOP) 3S. ON HWY 283 TO "RD. 100", 1 1/2W. TO "T", 1S., 1/2 W. INTO

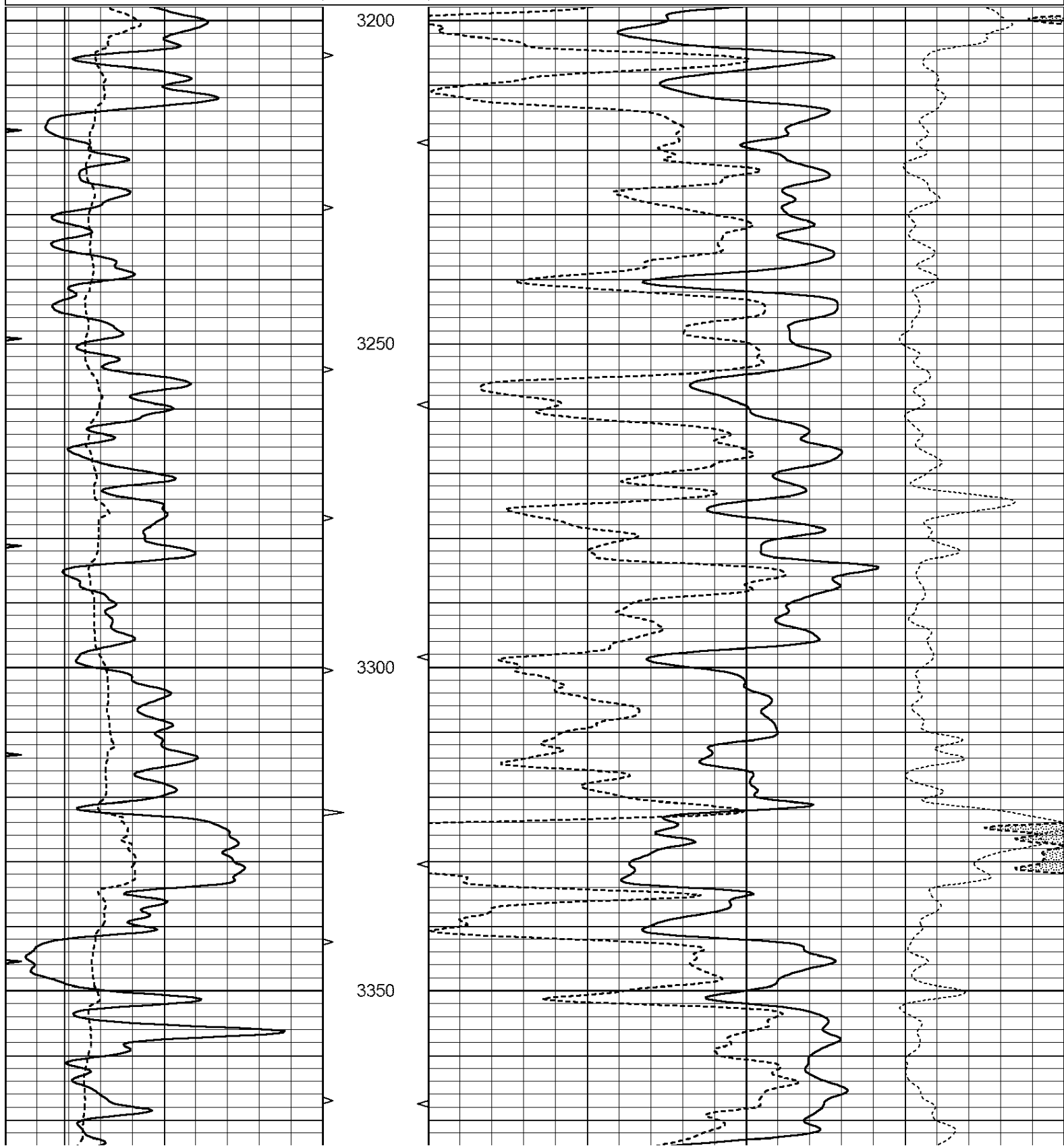


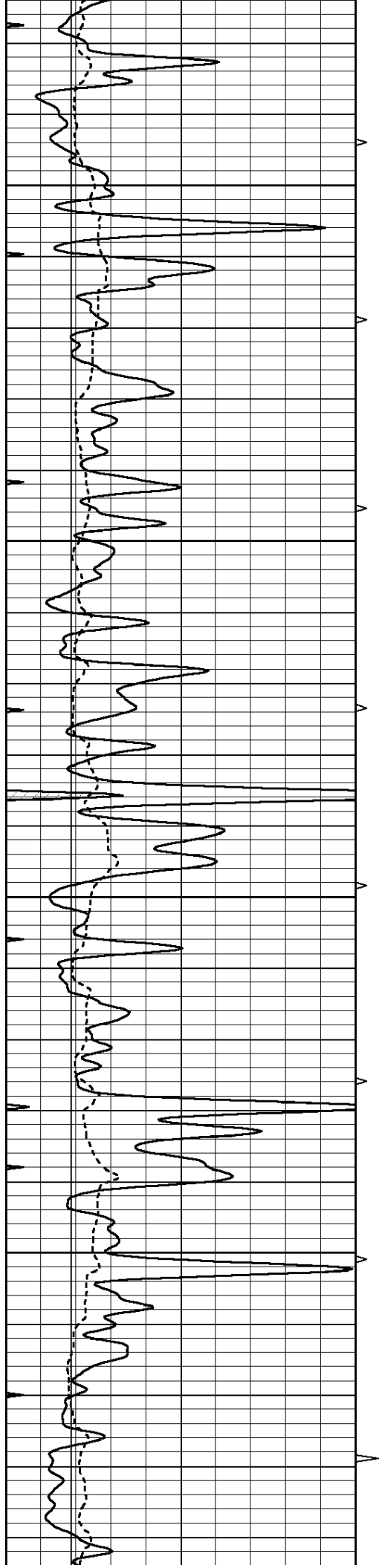
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MAIN SECTION

Database File: 007833ddn.db
 Dataset Pathname: pass3.7
 Presentation Format: den_neu
 Dataset Creation: Mon Nov 21 13:11:08 2011 by Calc Open-Cased 110302
 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		



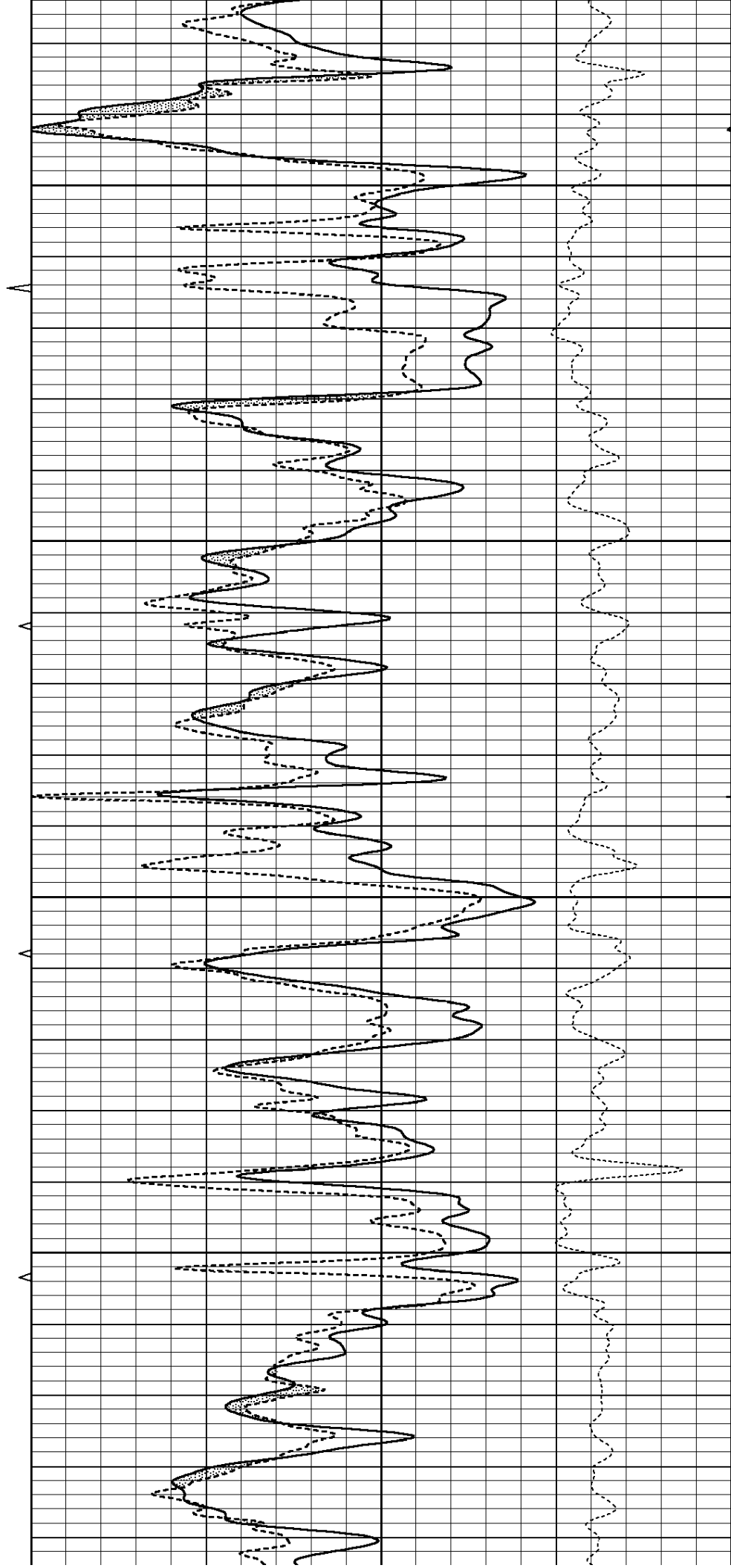


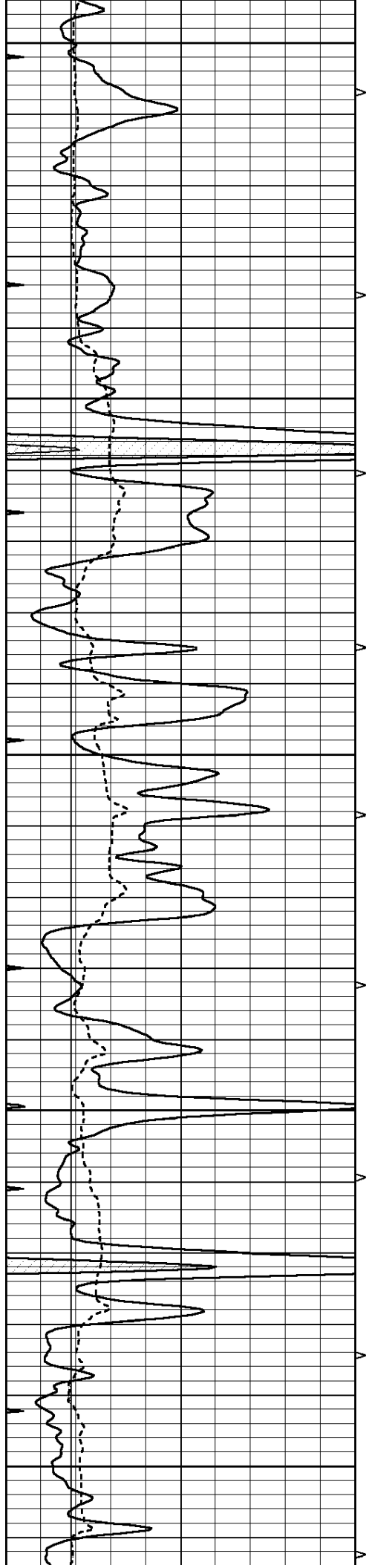
3400

3450

3500

3550





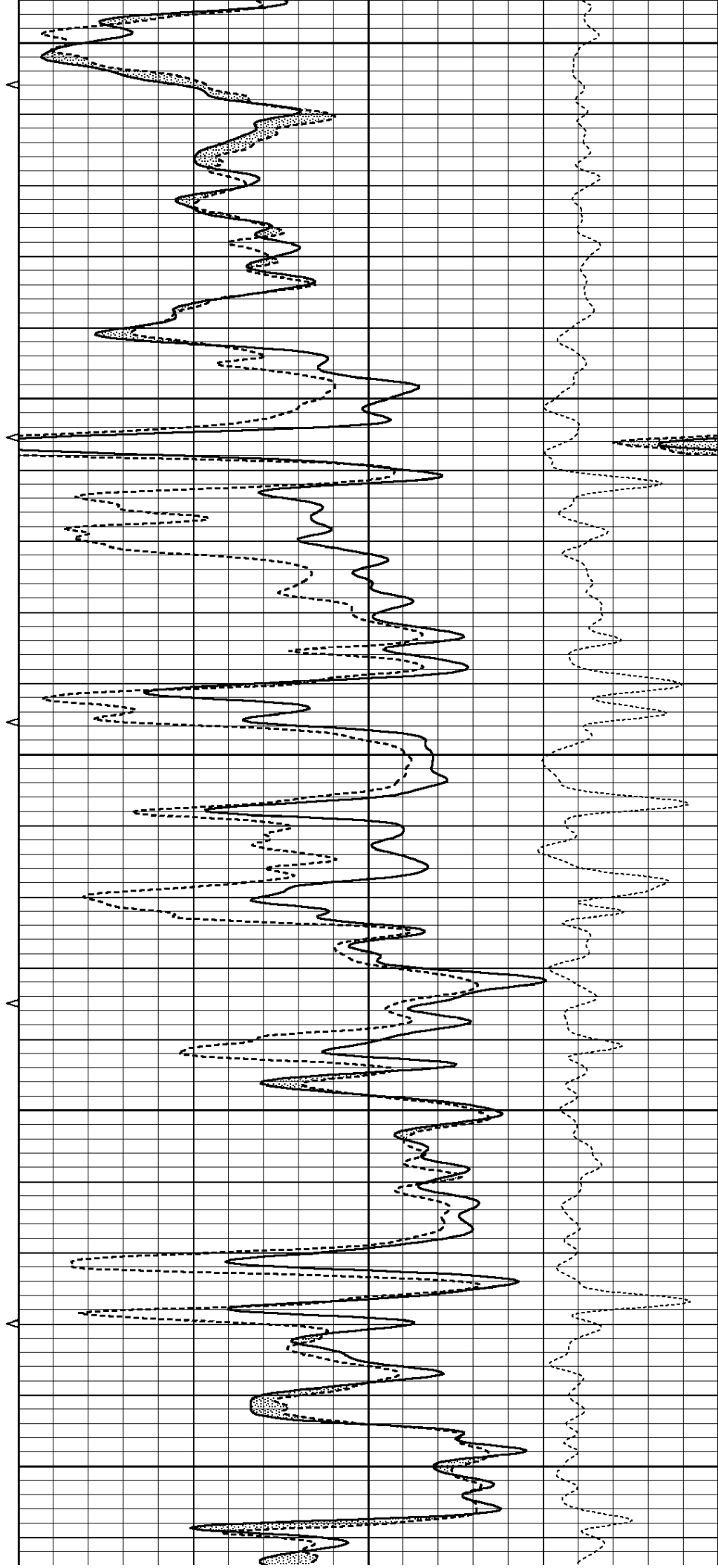
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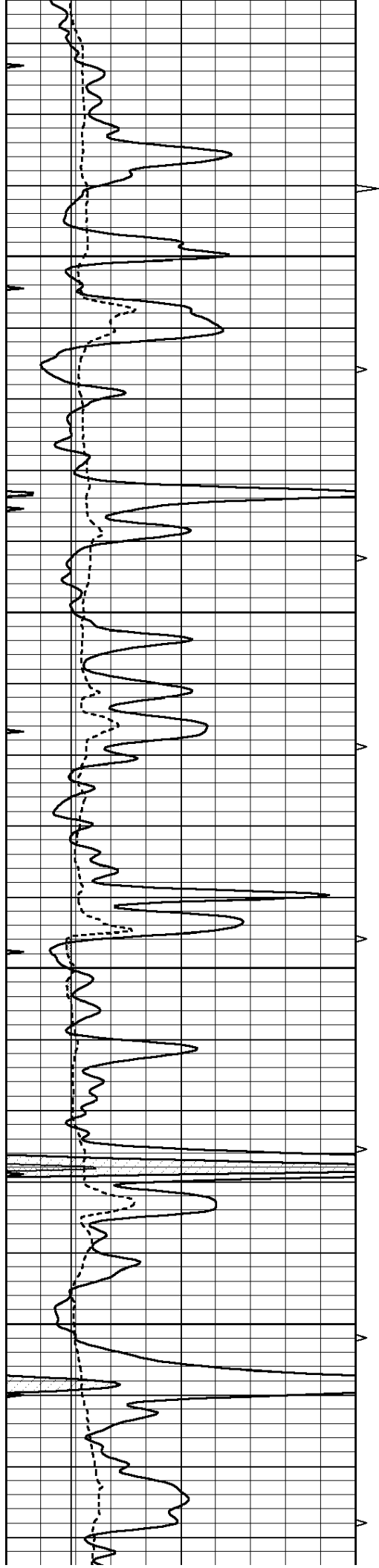
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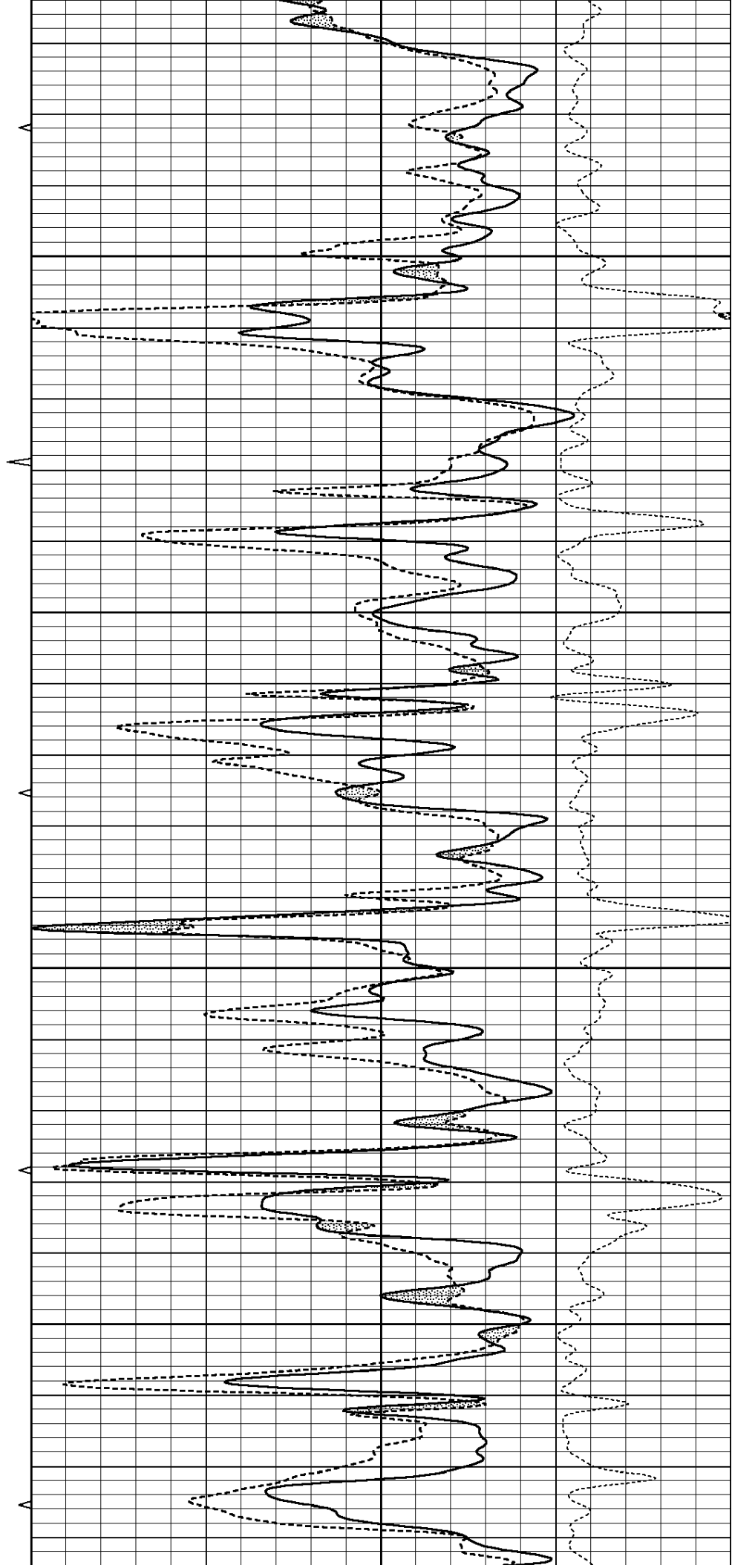


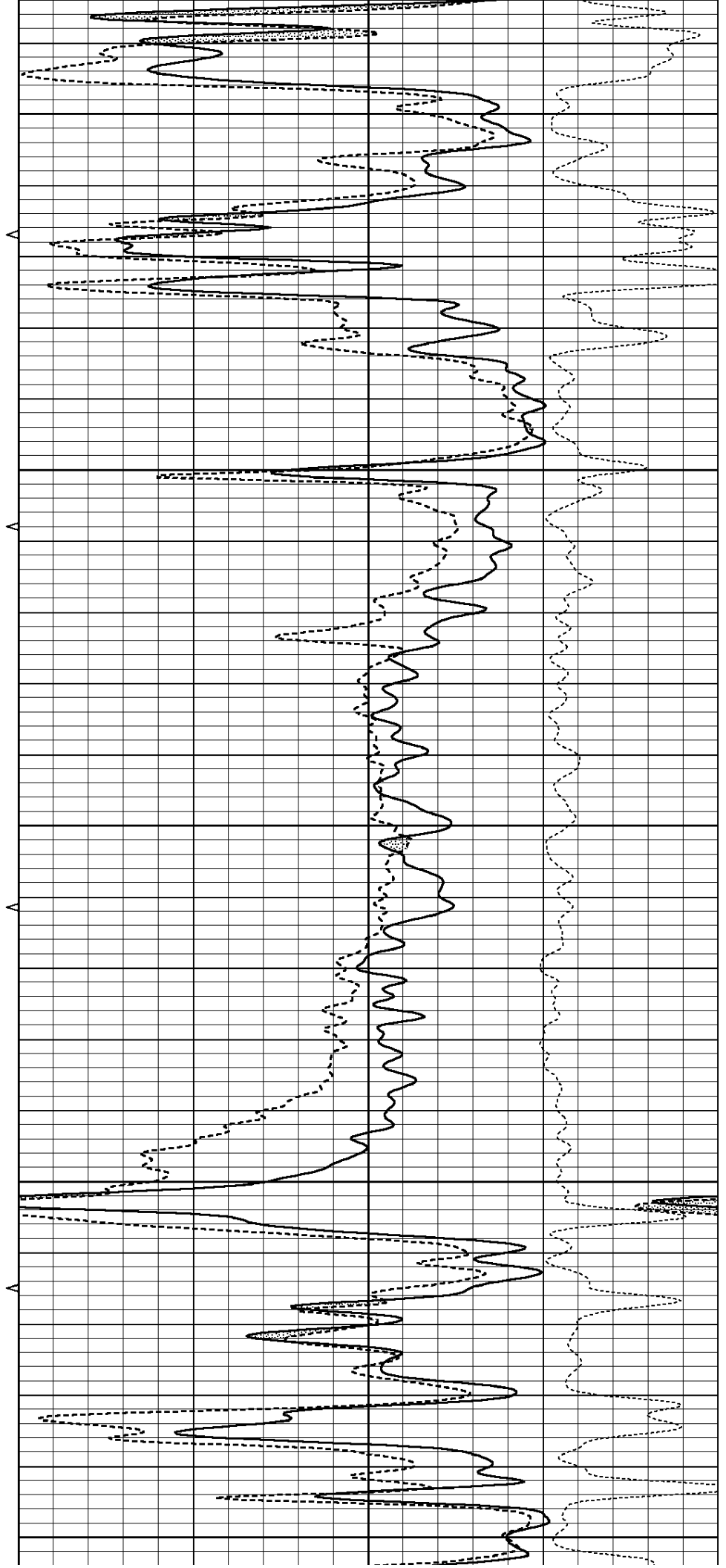
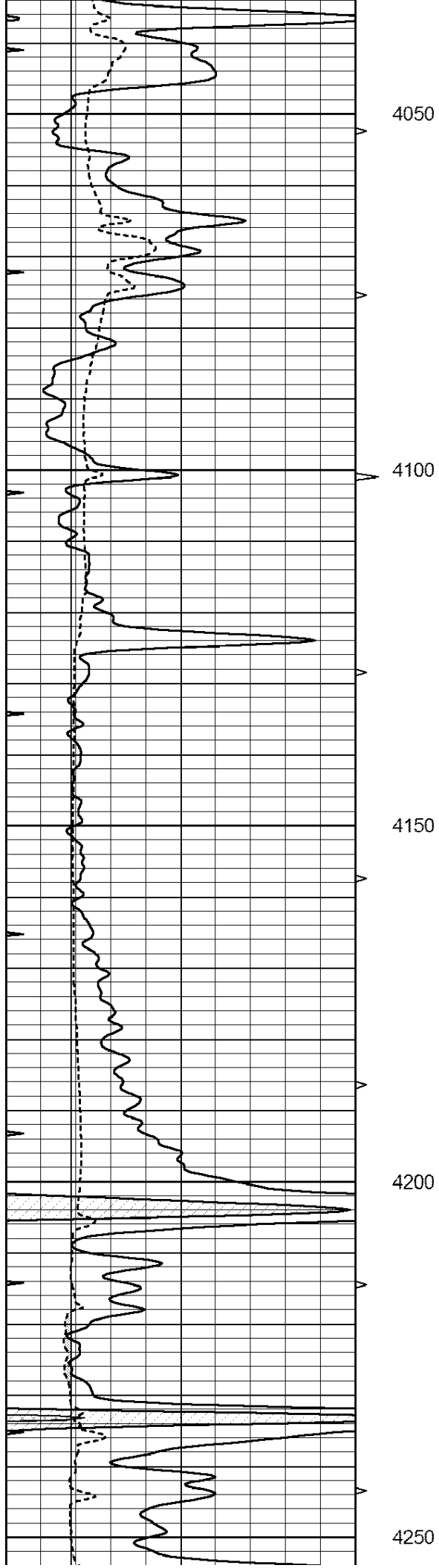
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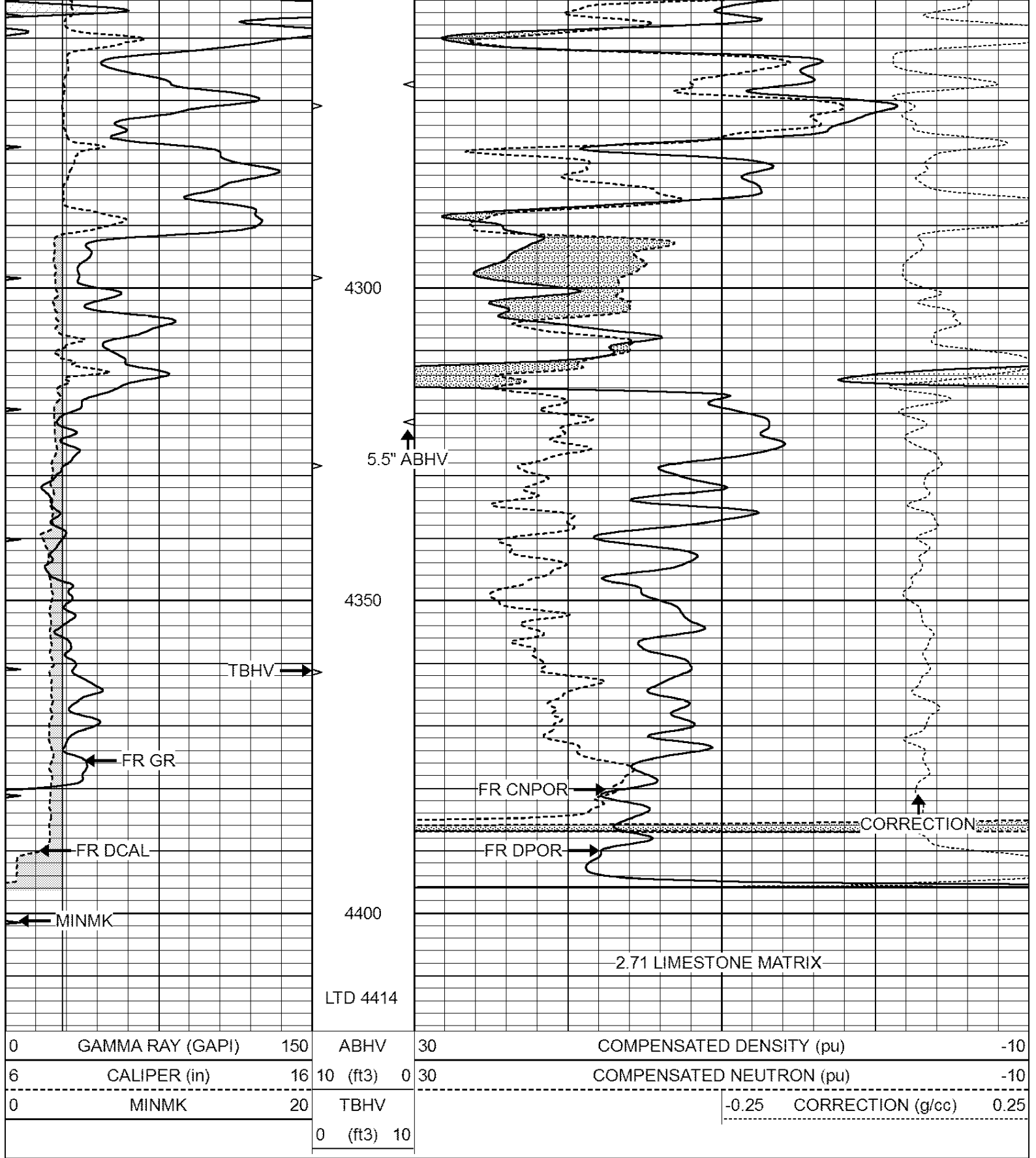
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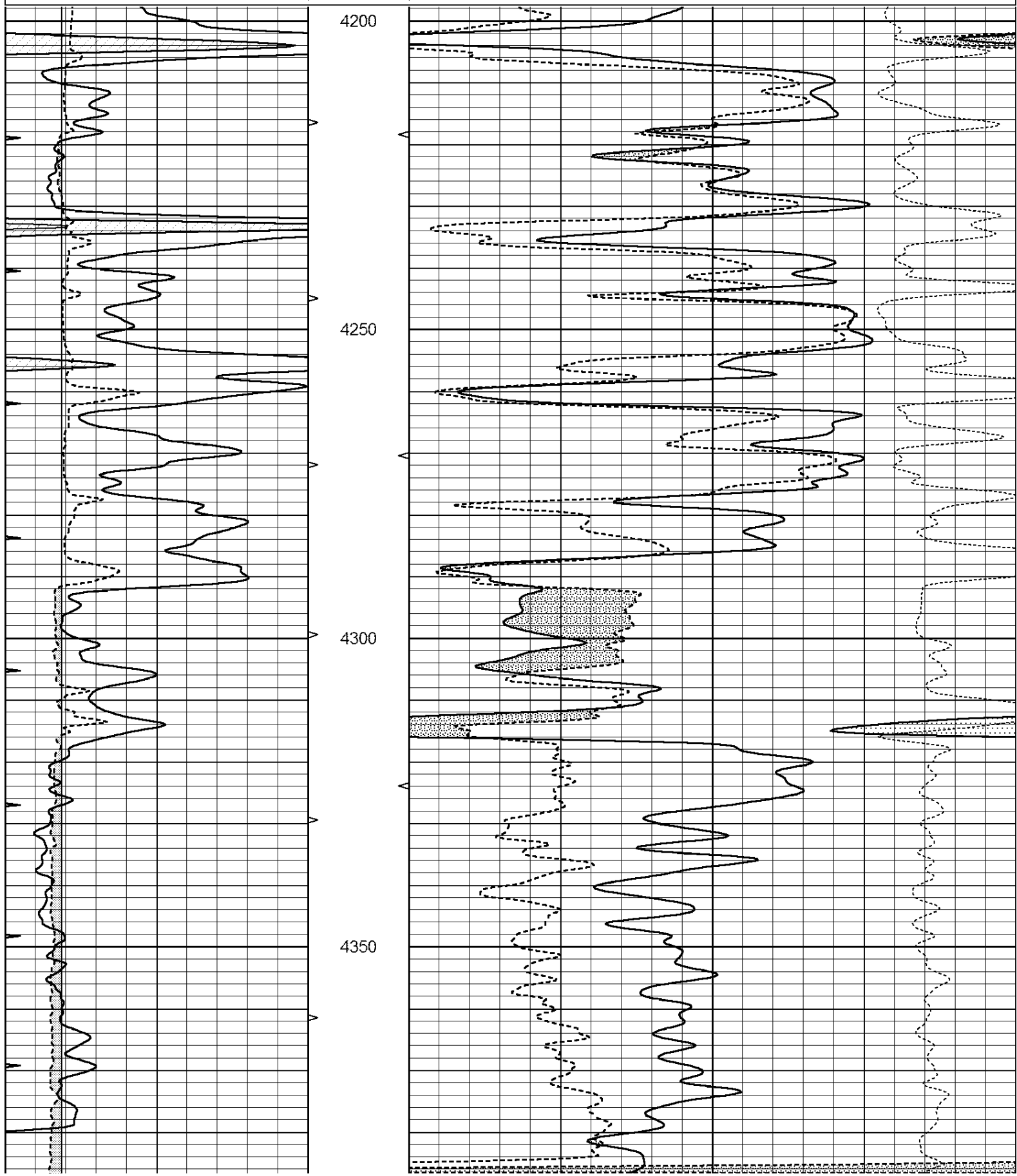


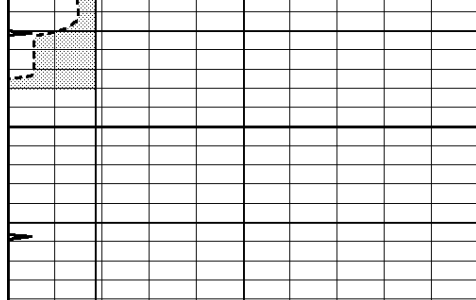
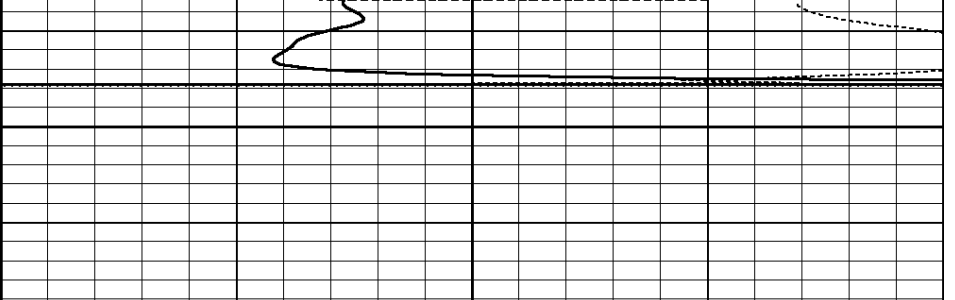


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REPEAT SECTION

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		



			4400					
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:	007833ddn.db
Dataset Pathname:	pass3.7
Dataset Creation:	Mon Nov 21 13:11:08 2011 by Calc Open-Cased 110302

Dual Induction Calibration Report	
Serial-Model:	DIL3-GEAR
Performed:	Mon Nov 21 11:57:51 2011

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	0.000	400.000	mmho/m	640.000	4.000
Medium	0.013	0.740	V	0.000	462.500	mmho/m	700.000	-8.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.002	0.645	V	0.000	400.000	mmho/m	622.059	-1.071
Medium	0.007	0.740	V	0.000	462.500	mmho/m	631.393	-4.555

Litho Density Calibration Report	
Serial: 004N	Model: PRB
Performed Tue Sep 08 13:49:55 2009	

Litho Density Calibration					
	Background	Magnesium	Aluminum	Sandstone	
Window 1	1535.8	11161.3	3721.6	12498.8	cps
Window 2	1402.6	9435.7	3219.7	10417.7	cps
Window 3	1077.6	4422.0	1779.2	4753.4	cps
Window 4	337.3	342.8	337.4	343.7	cps
Long Space	0.0	8033.1	1817.0	9015.1	cps
Short Space	1.2	1671.8	1138.1	1813.0	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	
Rib Angle	: 45.5	Rib Slope	: 1.017	Density/Spine Ratio	: 0.573
Spine Angle	: 75.5	Spine Slope	: 3.865	Spine Intercept	: -19.7

Caliper		
Readings	Reference	
Low Ref	2.6	6.8
High Ref	4.8	15.0
Gain: 3.9	Offset: -3.4	

Compensated Neutron Calibration Report
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		Serial Number: Tool Model:	070807 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:	Mon Nov 21 11:57:38 2011		
Calibrator Value:	1.0	GAPI	
Background Reading:	0.0	cps	
Calibrator Reading:	1.0	cps	
Sensitivity:	0.2500	GAPI/cps	