

PIONEER
Pioneer Energy Services

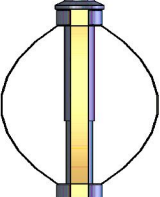
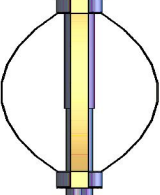
**CEMENT
BOND LOG
WITH GAMMA RAY**

Company CMX INCORPORATED		Company CMX INCORPORATED	
Well	BUSHTON NO. 1-20	Well	BUSHTON NO. 1-20
Field	STOLTENBERG	Field	STOLTENBERG
Parish	ELLSWORTH	Parish	ELLSWORTH
State	KANSAS	State	KANSAS
Location:		API # : 15-053-21323-00-00	Other Services
SEC 20 TWP 17 S RGE 9 W		MAST TRAILER	
Permanent Datum	G.L.	Elevation	1764
Log Measured From	K.B.	K.B.	1777
Drilling Measured From	K.B.	D.F.	1776
		G.L.	1764
Date of Service	6/5/2015		
Run Number	ONE		
Depth Driller or PBTD	3320		
Depth Logger	3281		
Bottom Log Interval	3281		
Top Log Interval	1800		
Open Hole Size	7 7/8		
Type Fluid	WATER		
Fluid Level	FULL		
Fluid Density	N/A		
Max. Recorded Temperature	110		
Max. Wellhead Pressure	N/A		
Wellhead Connection	N/A		
Estimated Cement Top	2105		
Unit Number	12		
Wireline Size	5/16		
Location	HAYS		
Recorded By	A DREILING		
Witnessed By	MR KEITH BRIGHT		
Size		Wt/Ft	Top
Tubing Record			Bottom
Surface Casing	8 5/8	23 #	0
Production Casing	5.5	15.5 #	0
Liner Record			

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All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not 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.		
Comments N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE. HWY 4 & 8 TH RD., N TO W RD.,1/8 E, N INTO CORRELATED TO RECON, BOREHOLE VOLUME LOG THANK YOU FOR USING PIONEER ENERGY SERVICES		
Your Pioneer ENERGY Services Crew		Tool Data - Services
Engineer: A DREILING Operator: KYLE PFANNENSTIEL Operator: Operator:		Serial Number

Top - Bottom

PPT usec 0	CASEWGHT lb/ft 15.5	MAXAMPL mV 0	MINAMPL mV 1	MINATTN db/ft 0.8	SRFTEMP degF 0	CASETHCK in 0
CASEOD in 5.5	PERFS 0	TDEPTH ft 0	BOTTEMP degF 100	BOREID in 7.875		

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			CENT-Probe Probe Centralizer	2.83	2.75	20.00
WVFS8 WVFS7 WVFS6 WVFS5 WVFS4 WVFS3 WVFS2 WVFS1 WVFCAL WVF3FT WVF5FT	11.63 11.63 11.63 11.63 11.63 11.63 11.63 11.63 11.63 11.63 10.63		RBT-Probe (4.5040904) Probe Radii Bond Tool with Digital Telemetry	8.75	2.75	107.00
			CENT-Probe Probe Centralizer	2.83	2.75	20.00
CCL	3.63					

GR	0.89		GR_CCL-Probe (Probe01) Probe Combination GR-CCL	4.54	2.75	60.00
Dataset:			cmx-2.db: field/well/grcbl/pass5			
Total length:			18.96 ft			
Total weight:			207.00 lb			
O.D.:			2.75 in			

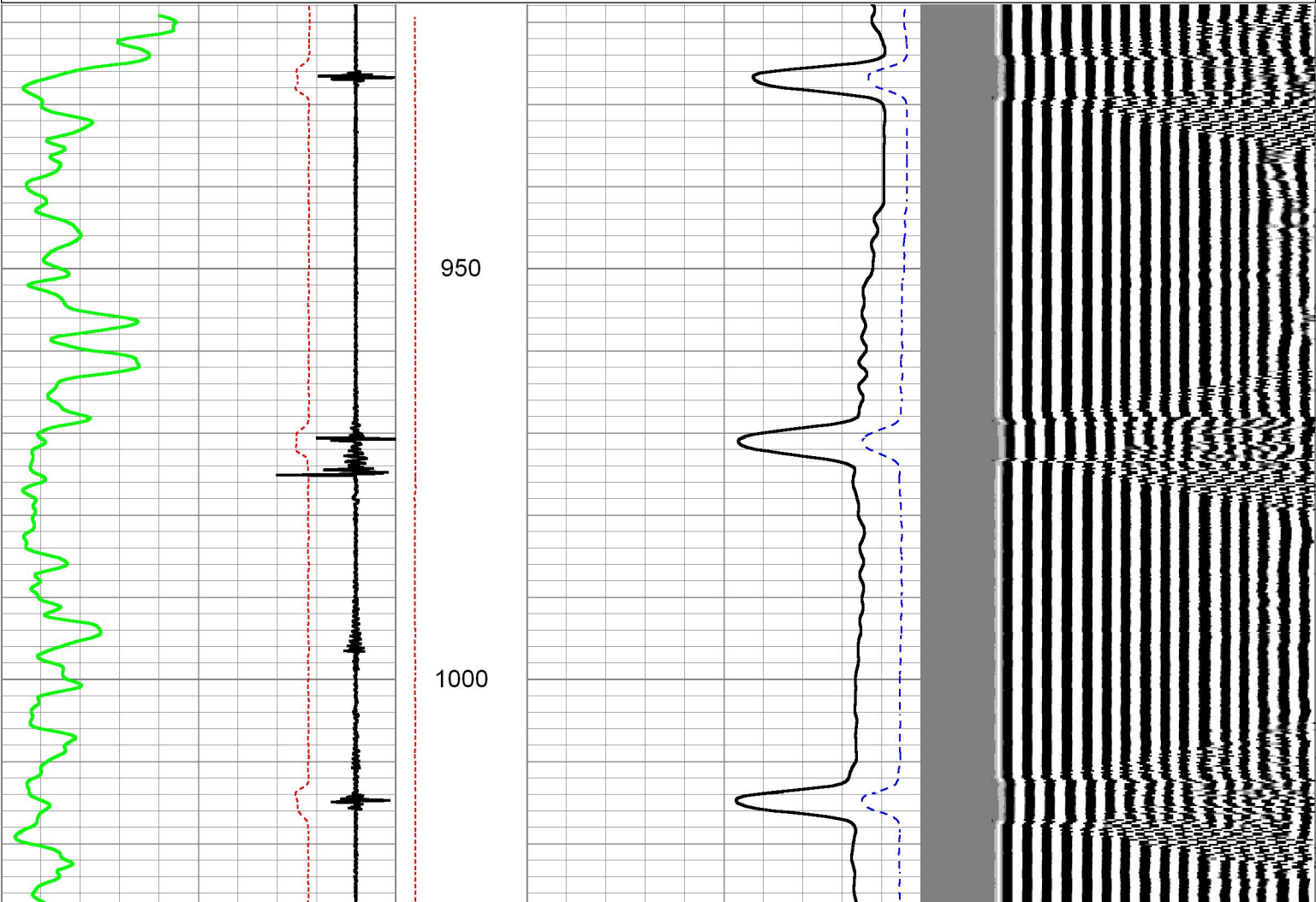


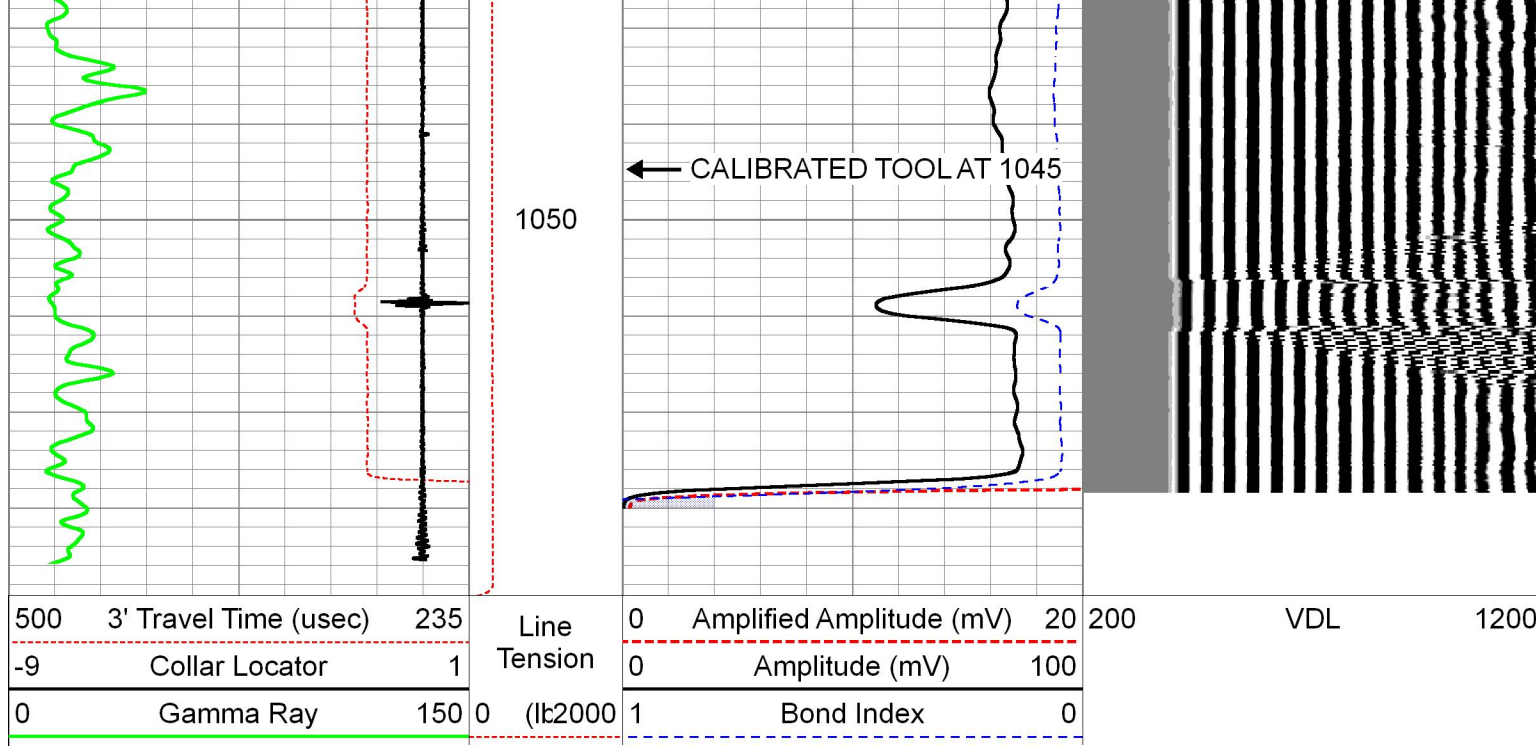
FREE PIPE

ZERO PSI APPLIED AT SURFACE

Database File	cmx-2.db
Dataset Pathname	grcbl/pass2
Presentation Format	pnr_cbl
Dataset Creation	Fri Jun 05 10:00:44 2015
Charted by	Depth in Feet scaled 1:240

500	3' Travel Time (usec)	235	Line Tension	0	Amplified Amplitude (mV)	20	VDL	1200
-9	Collar Locator	1		0	Amplitude (mV)	100		
0	Gamma Ray	150		1	Bond Index	0		







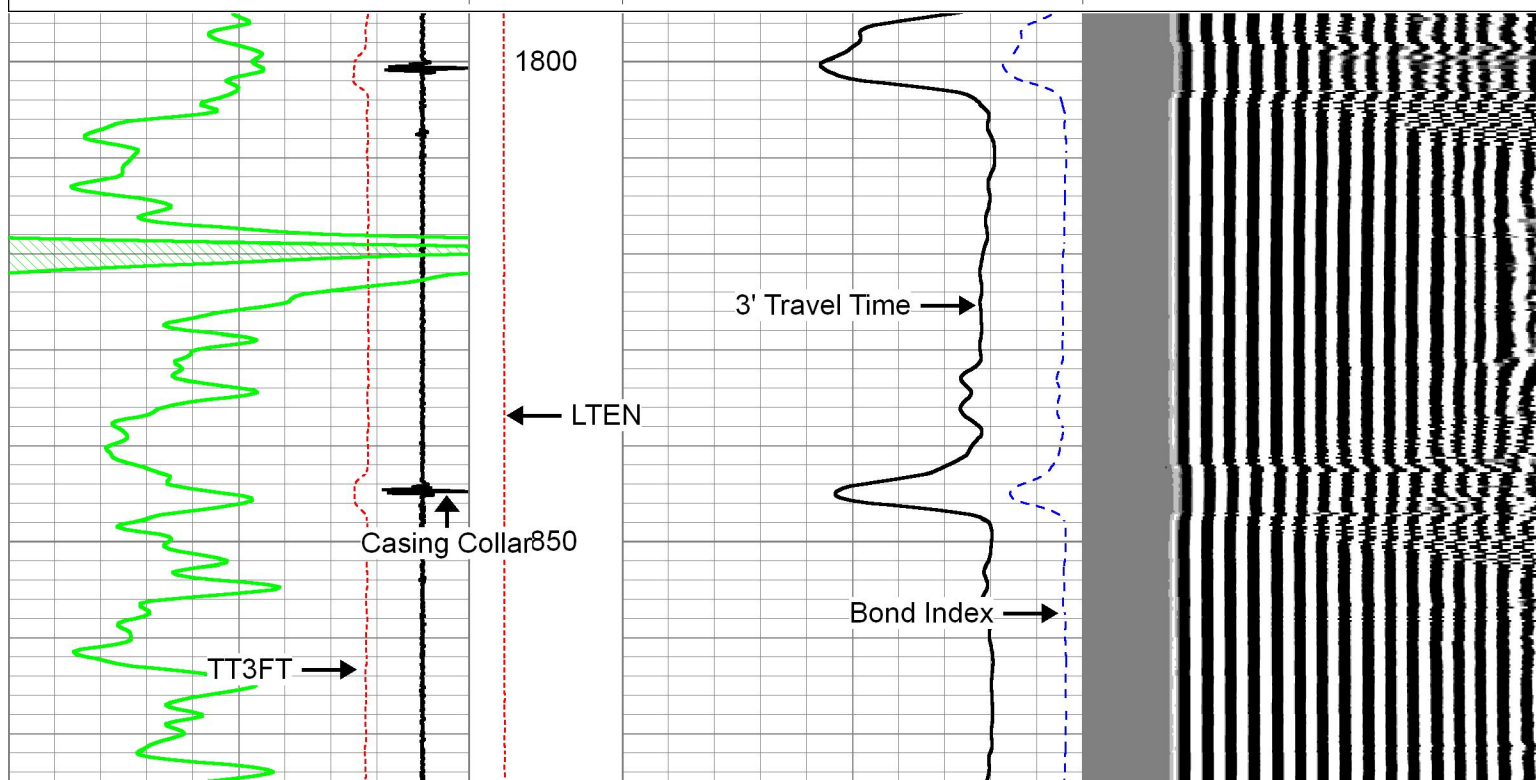
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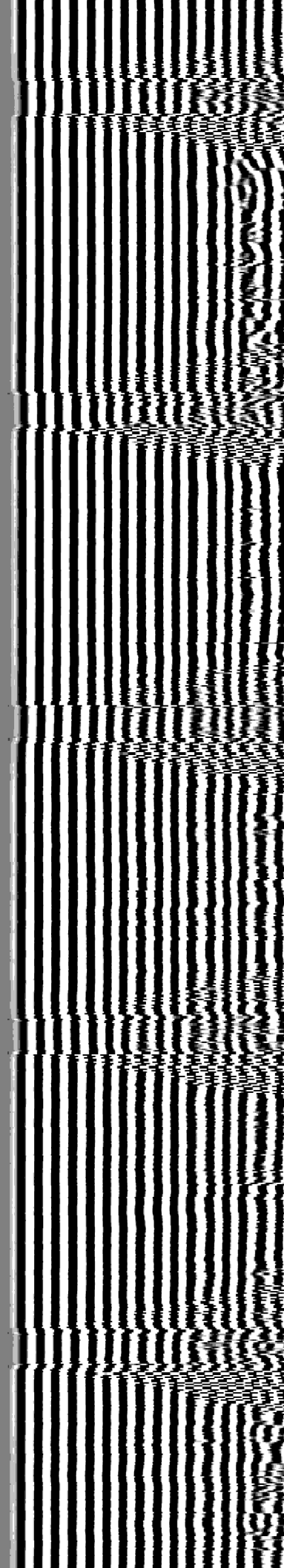
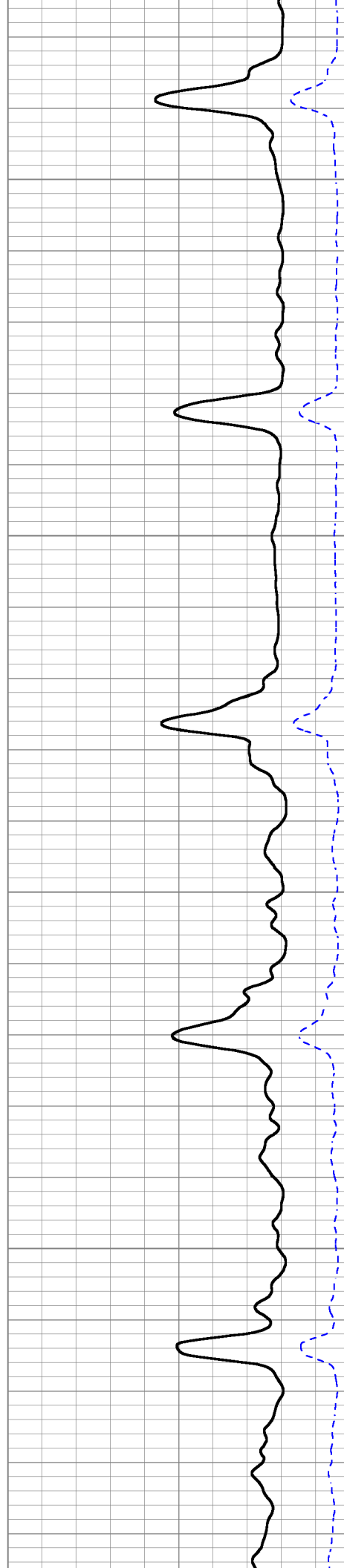
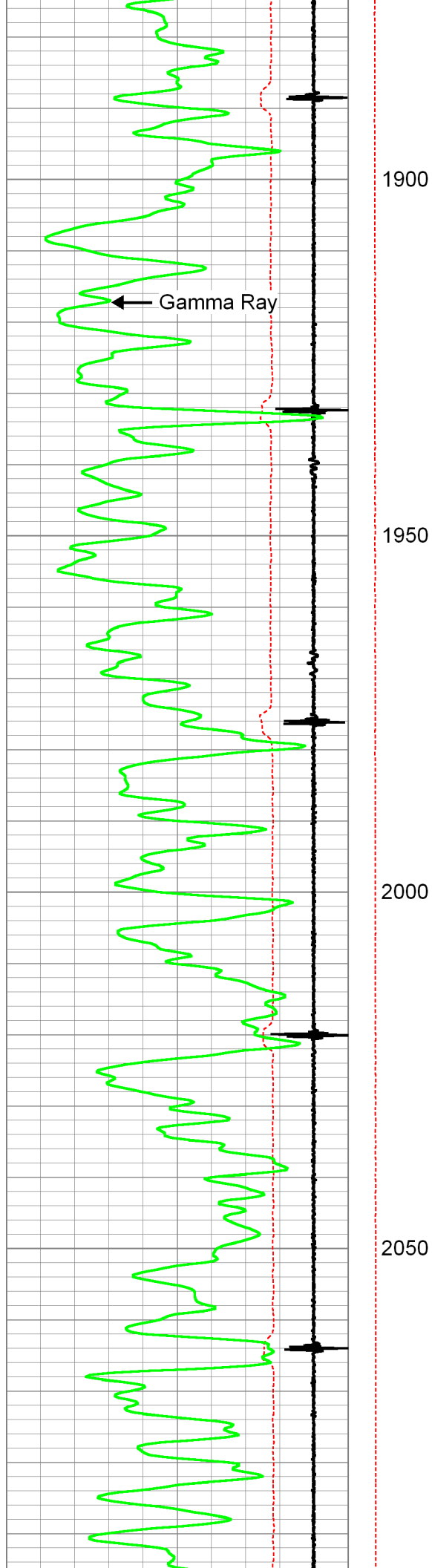
MAIN PASS

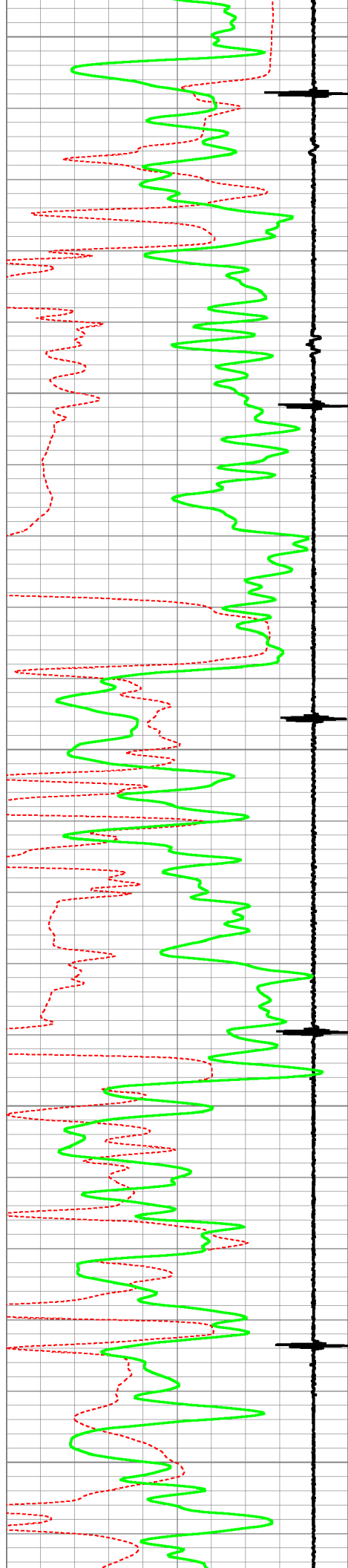
ZERTO PSI APPLIED AT SURFACE

Database File cmx-2.db
 Dataset Pathname grcbl/pass5.1
 Presentation Format pnr_cbl
 Dataset Creation Fri Jun 05 11:08:43 2015
 Charted by Depth in Feet scaled 1:240

500	3' Travel Time (usec)	235	Line Tension	0	Amplified Amplitude (mV)	20	200	VDL	1200
-9	Collar Locator	1		0	Amplitude (mV)	100			
0	Gamma Ray	150		0 (lb2000)	1	Bond Index			







2100

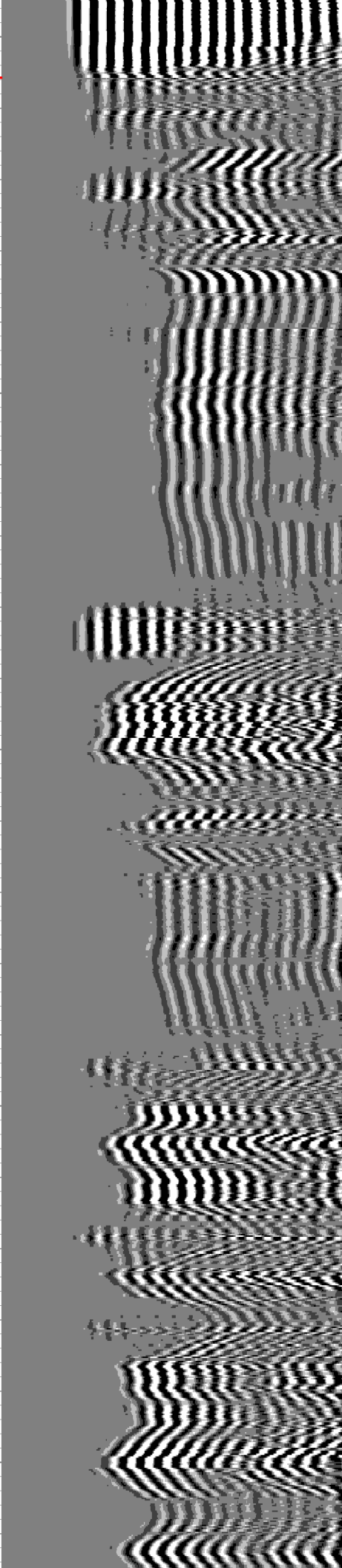
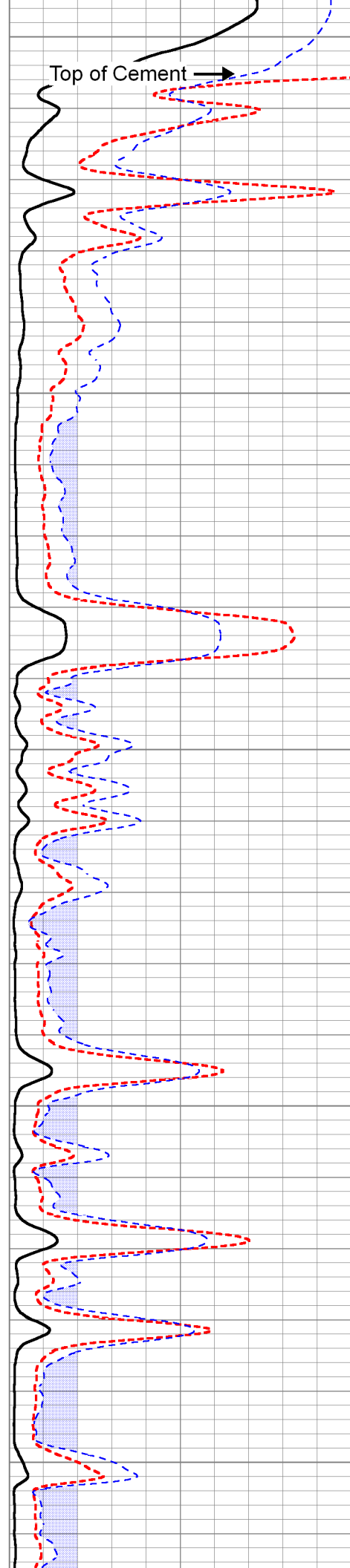
Top of Cement →

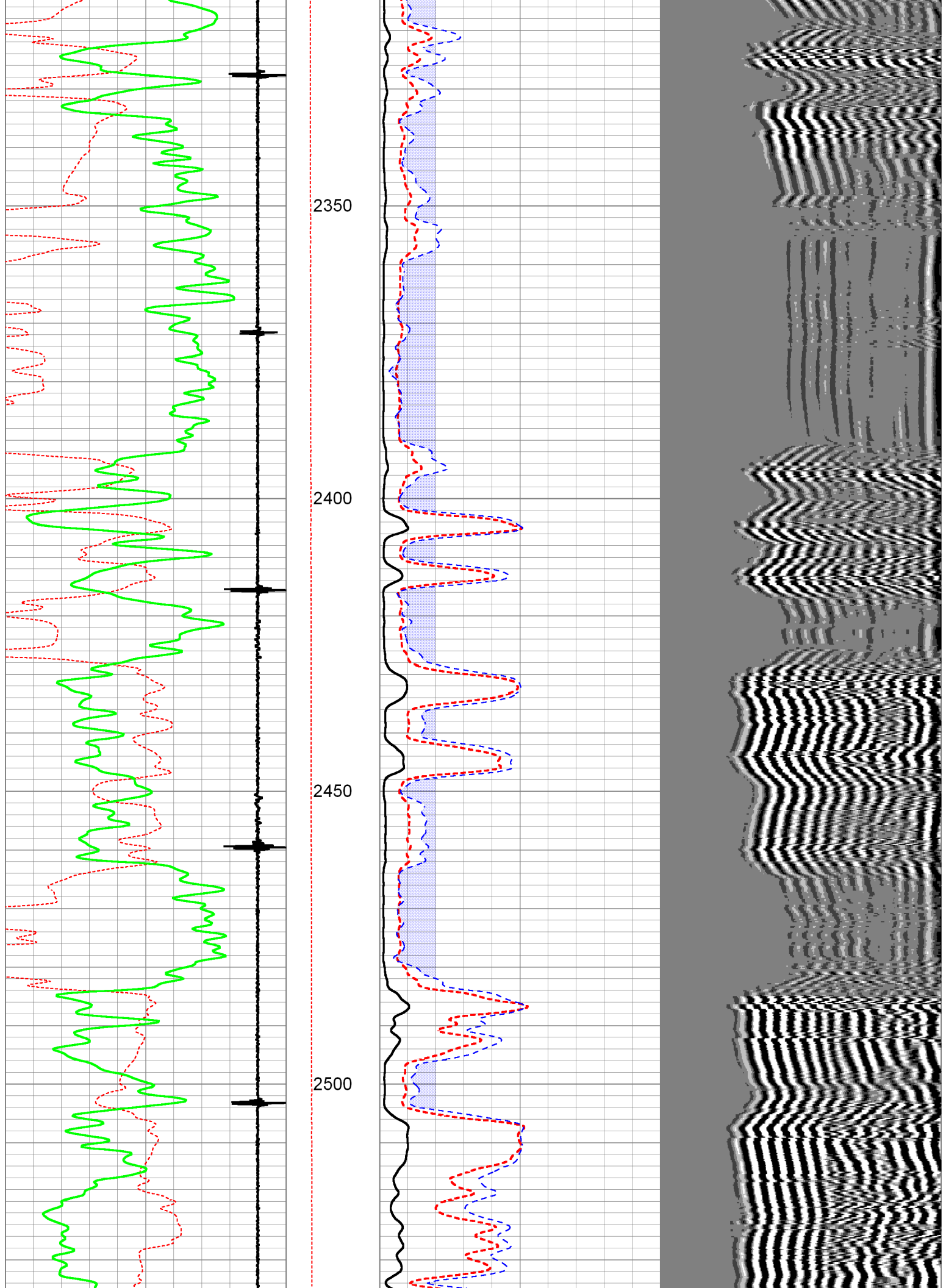
2150

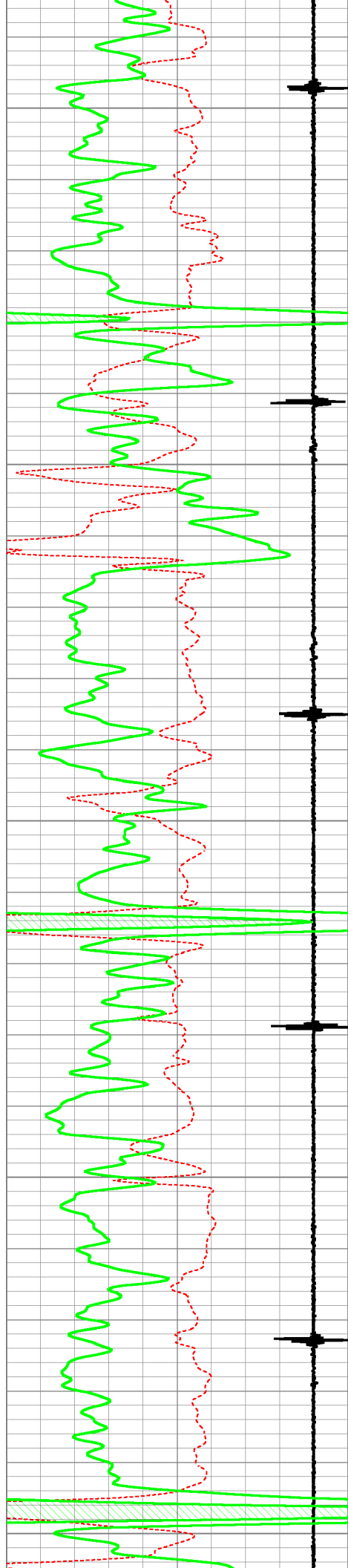
2200

2250

2300







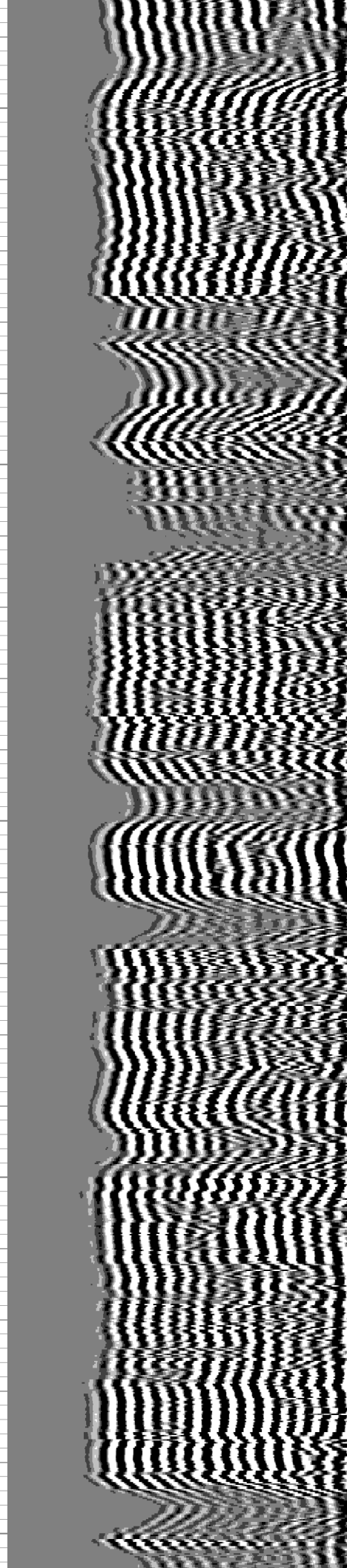
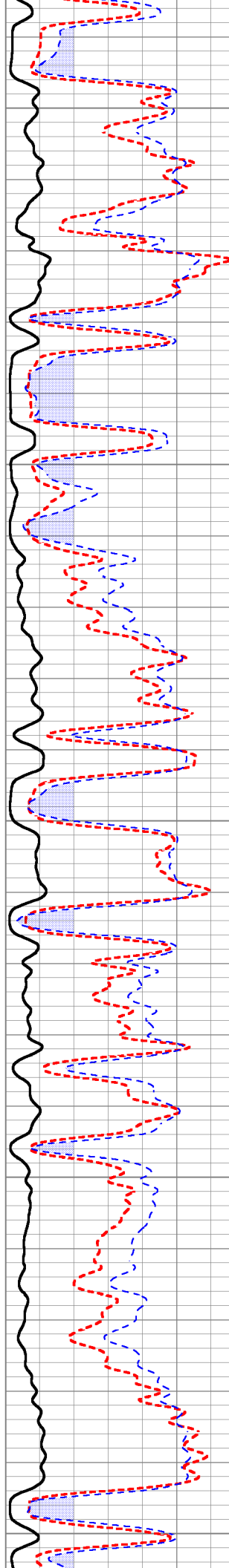
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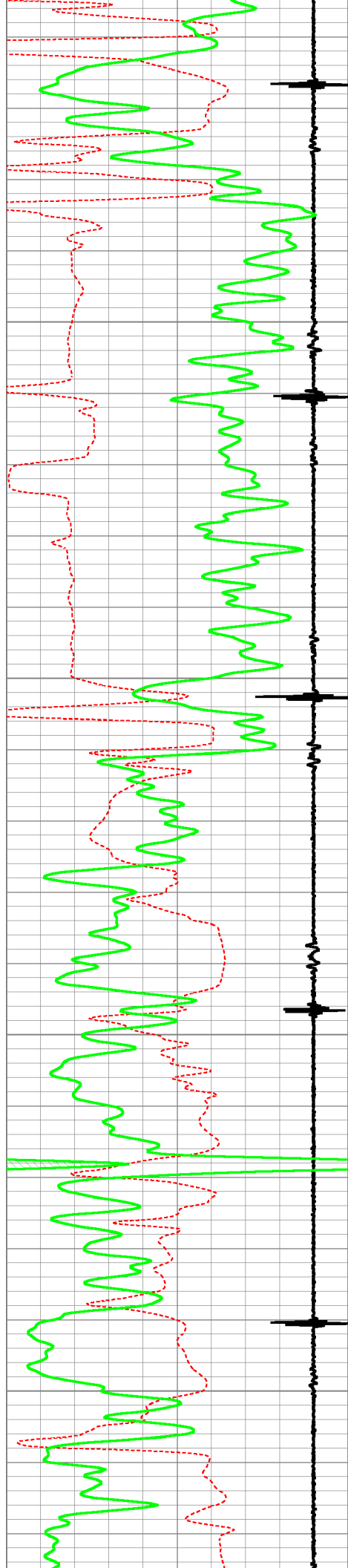
2600

2650

2700

2750



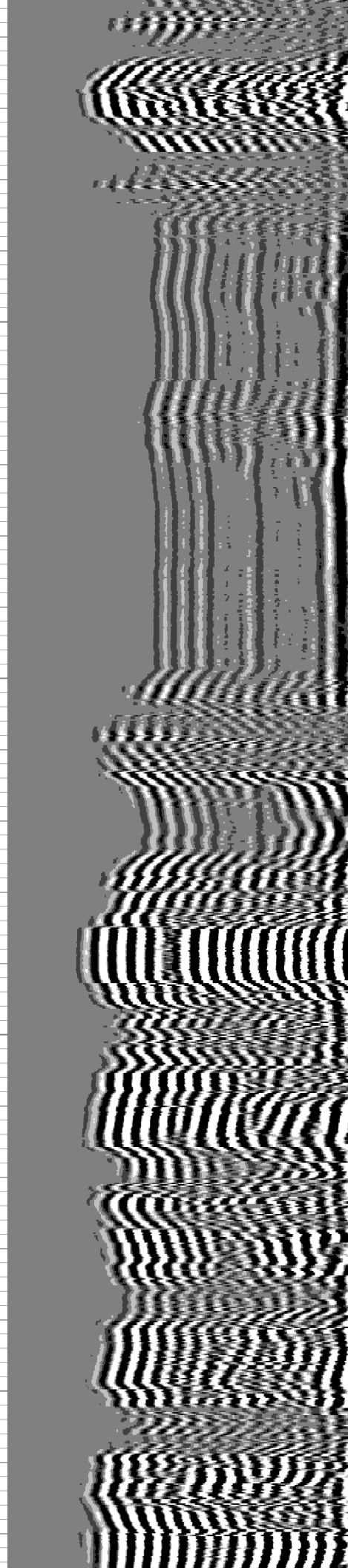
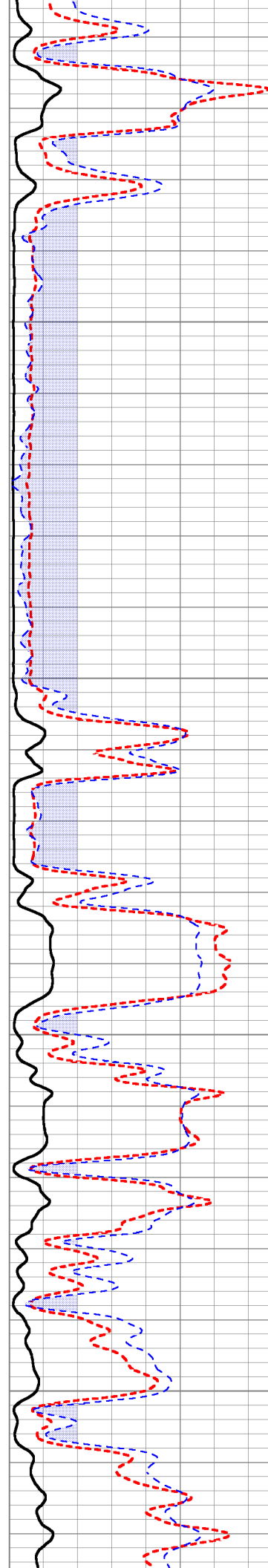


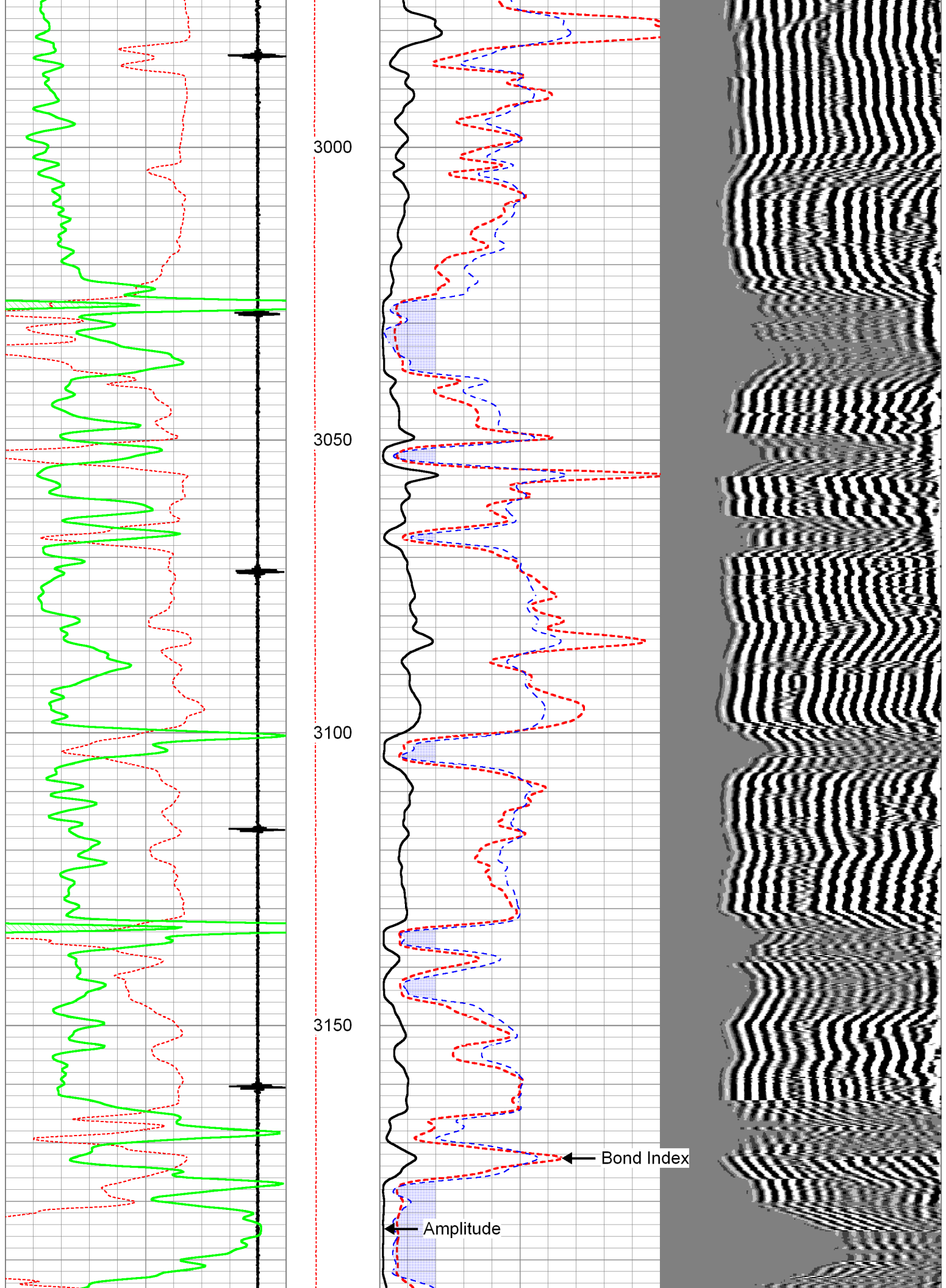
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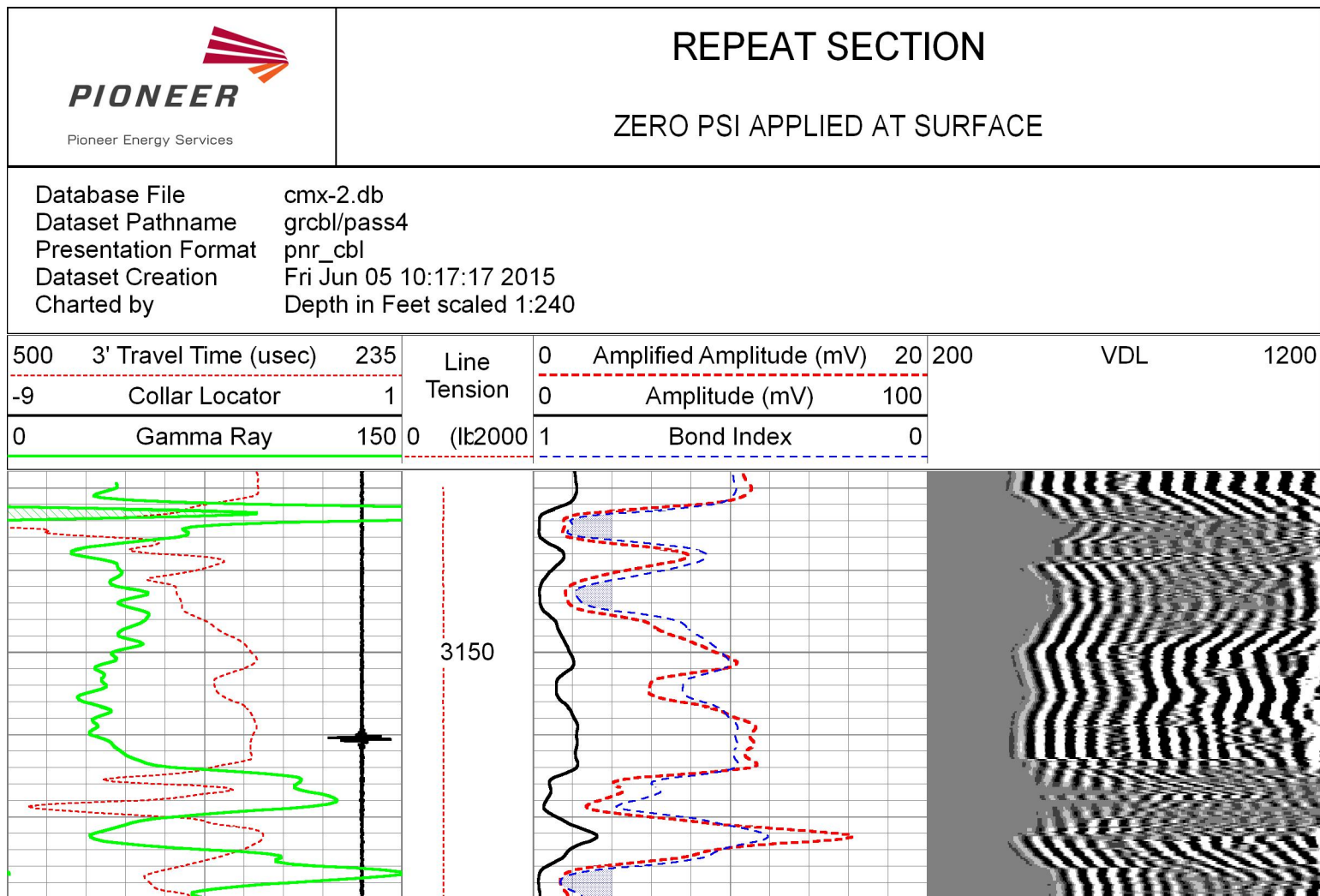
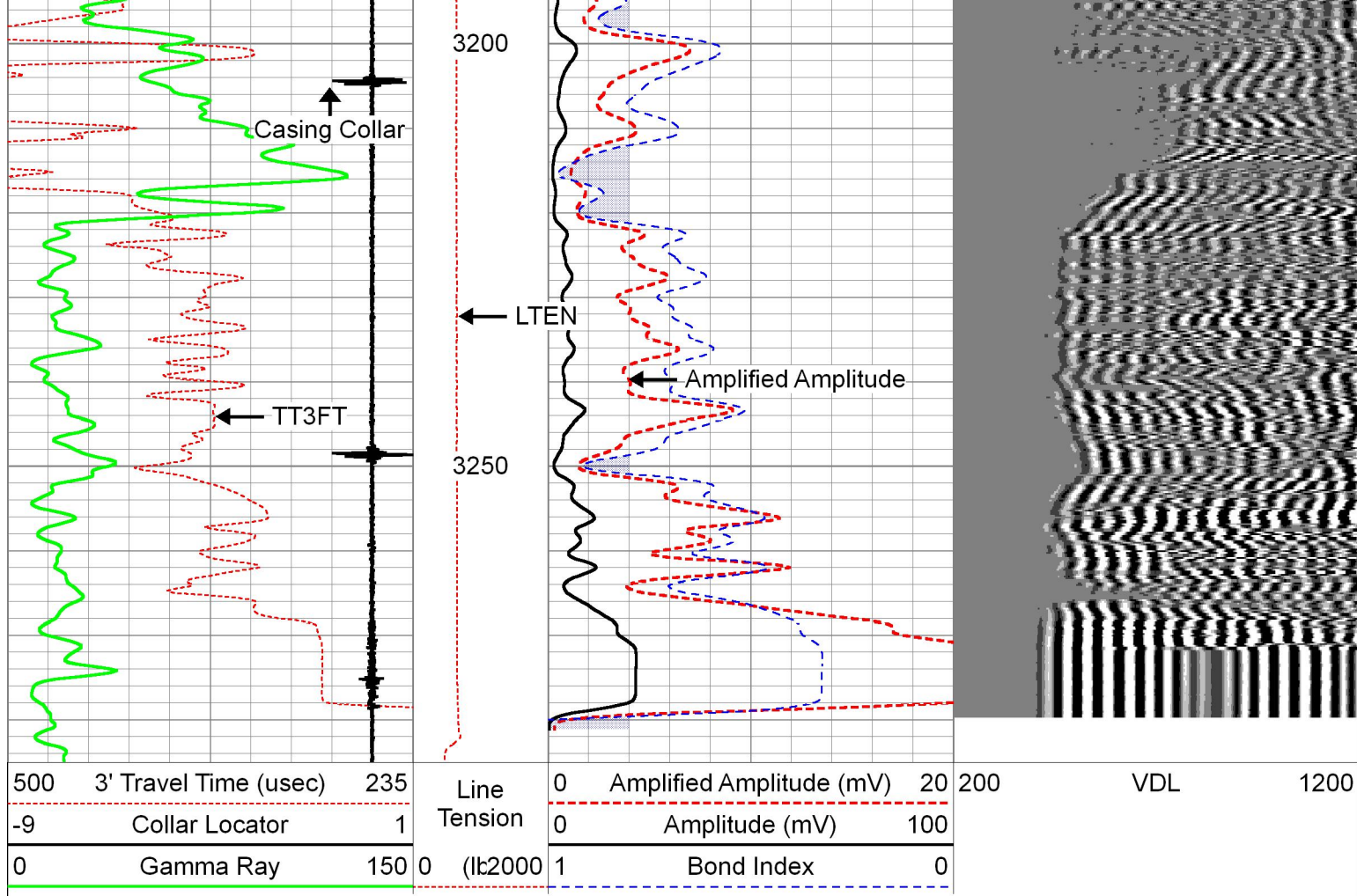
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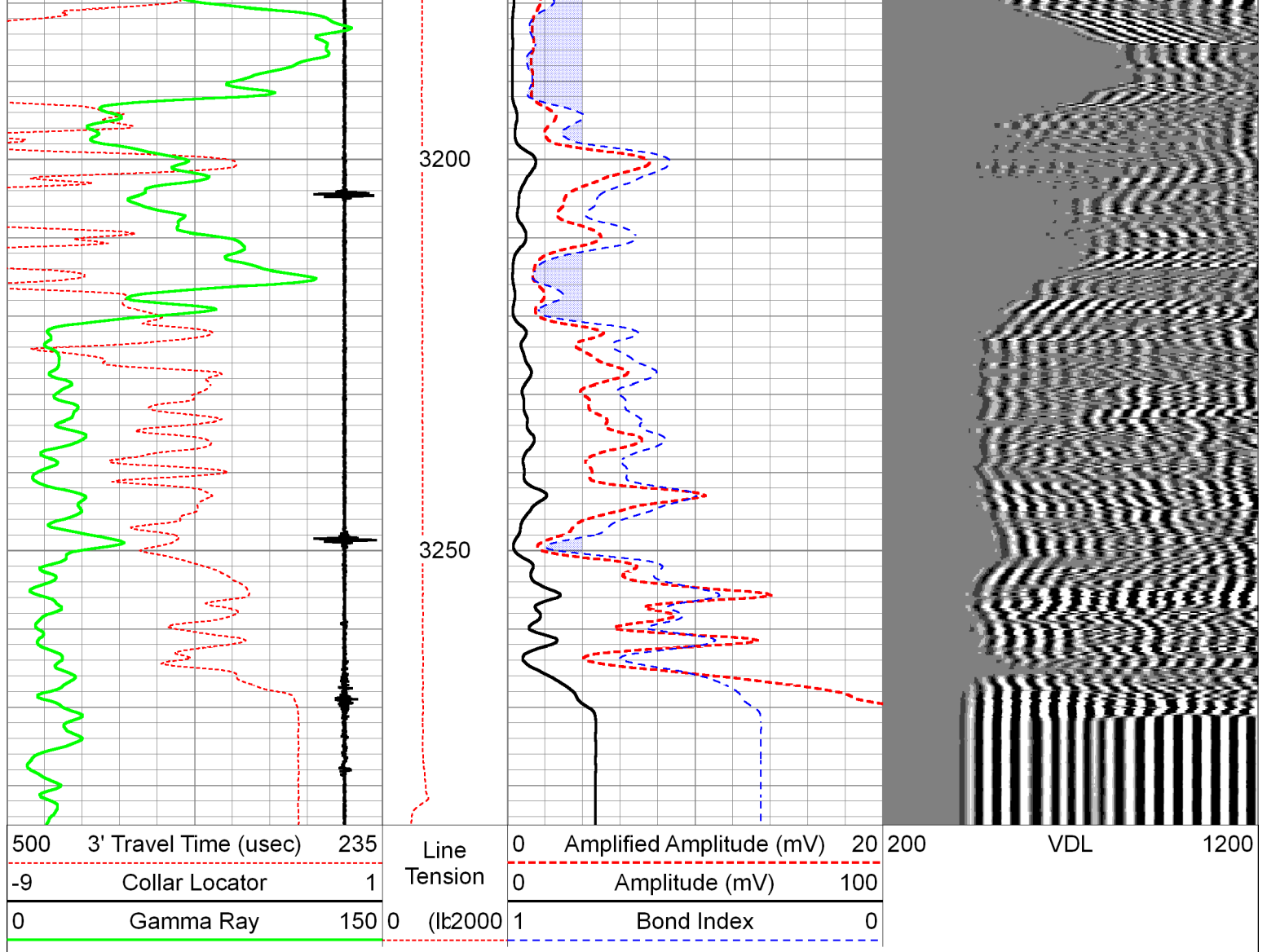
2900

2950









Calibration Report

Database File cmx-2.db
 Dataset Pathname grcbl/pass5.1
 Dataset Creation Fri Jun 05 11:08:43 2015

Gamma Ray Calibration Report

Serial Number: Probe01
 Tool Model: Probe
 Performed: Fri Jun 05 09:48:24 2015

Calibrator Value: 1.0

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity: 0.9000 /cps

Segmented Cement Bond Log Calibration Report

Serial Number: 4.5040904
 Tool Model: Probe

Calibration Casing Diameter: 4.500 in
 Calibration Depth: 1044.997 ft

Master Calibration of 15 Jun 05 10:00:07 2015

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.007	0.810	1.000	81.196	90.000	0.312
CAL	0.008	1.127				
5'	0.007	0.858	1.000	81.196	94.332	0.306
SUM						
S1	0.008	0.818	0.000	100.000	123.448	-0.961
S2	0.007	0.821	0.000	100.000	122.837	-0.892
S3	0.007	0.813	0.000	100.000	124.134	-0.889
S4	0.007	0.792	0.000	100.000	127.427	-0.880
S5	0.007	0.768	0.000	100.000	131.425	-0.937
S6	0.007	0.765	0.000	100.000	131.972	-0.952
S7	0.007	0.783	0.000	100.000	128.935	-0.903
S8	0.007	0.815	0.000	100.000	123.825	-0.919

Air Zero Calibration, performed Fri Jun 05 09:49:52 2015:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.000		0.000		0.000	
5'	0.000		0.000		0.000	
SUM						
S1	0.000		0.000		0.000	
S2	0.000		0.000		0.000	
S3	0.000		0.000		0.000	
S4	0.000		0.000		0.000	
S5	0.000		0.000		0.000	
S6	0.000		0.000		0.000	
S7	0.000		0.000		0.000	
S8	0.000		0.000		0.000	



Pioneer Energy Services

Company CMX INCORPORATED
 Well BUSHTON NO. 1-20
 Field STOLTENBERG
 County
 State