



CEMENT BOND LOG WITH GAMMA RAY

Pioneer Energy Services

Company **ENTANSCO ENERGY LLC**
 Well **T. WIEBE #31-1**
 Field **HAZLETT**
 County **BUTLER** State **KANSAS**

Comp. ENTANSCO ENERGY LLC
 Well T. WIEBE #31-1
 Field HAZLETT
 Co. BUTLER
 State KANSAS

Location: API #: 15-015-24106-00-00
 4620' FSL & 460' FEL
 W/2 E/2 NE NE
 SEC TWP RGE
 Permanent Datum GL
 Log Measured From KB 6' Elevation 1461'
 Drilling Measured From KB Above Perm. Datum
 GRN/
 PERF
 Elevation
 K.B. 1467'
 D.F. 1466'
 G.L. 1461'

Date of Service	10/23/2018			
Run Number	ONE			
Depth Driller or PBTD	2610'			
Depth Logger	2600'			
Bottom Log Interval	2599'			
Top Log Interval	1200'			
Open Hole Size	7.875"			
Type Fluid	WATER			
Fluid Level	FULL			
Fluid Density	N/A			
Max. Recorded Temperature	100 DEG. F.			
Max. Wellhead Pressure	00 PSI			
Wellhead Connection	N/A			
Estimated Cement Top	1400'			
Unit Number	106			
Wireline Size	.288"			
Location	HAYS, KS			
Recorded By	M. HISS			
Witnessed By	RAY GILBERT			
Tubing Record	Size	WFt	Top	Bottom
Surface Casing	8.625"	23#	00'	209'
Production Casing	5.5"	15.5#	00'	TD
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.
 NEWTON KANSAS
 EAST ON 150TH RD TO PURITY SPRINGS RD,
 SOUTH 2 MILES
 SOUTH AND WEST INTO

THANK YOU FOR USING PIONEER ENERGY SERVICES!

Your Pioneer Energy Services Crew	Tool Data - Services	Serial Number
Engineer: M. HISS Operator: K. PHANNENSTIEL Operator: Operator:	RBT-011	

Log Variables

DatabaseC:\ProgramData\Warrior\Data\transco_t_wiebe#31_1_cbl_grn.db
Dataset field/well/run1/pass5/_vars_

Top - Bottom


BOREID in 7.875	BOTTEMP degF 100	CASEOD in 5.5	CASETHCK in 0.275	CASEWGHT lb/ft 15.5	MAXAMPL mV 0	MINAMPL mV 1	MINATTN db/ft 0.08
NPORSEL Limestone	NPORSHIFT 0	PERFS 0	PPT usec 0	SRFTEMP degF 70	TDEPTH ft 2600		

Variable Description

BOREID : Borehole I.D.
BOTTEMP : Bottom Hole Temperature
CASEOD : Casing O.D.
CASETHCK : Casing Thickness
CASEWGHT : Casing Weight
MAXAMPL : Maximum Amplitude
MINAMPL : Minimum Amplitude

MINATTN : Minimum Attenuation
NPORSEL : Neutron Porosity Curve Select
NPORSHIFT : NPORSHIFT
PERFS : Perforation Flag
PPT : Predicted Pipe Time
SRFTEMP : Surface Temperature
TDEPTH : Total Depth

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)	
			Cable Head-Titan_144 1 7/16" Titan Cable Head	1.03	1.44	2.00	
			Centralizer-275 Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00	
WVFS8	16.35			PROBE-RBT-DIGITAL-RBL-D (080554) Probe 2 3/4" Radii Bond-Digital	8.75	2.75	100.00
WVFS7	16.35						
WVFS6	16.35						
WVFS5	16.35						
WVFS4	16.35						
WVFS3	16.35						
WVFS2	16.35						
WVFS1	16.35						
WVFCAL	16.35						
WVF3FT	16.35						
WVF5FT	15.35						
HEADVOLT	12.17		Centralizer-275 Probe 2 3/4" Probe Adjustable Spring Centralizer	2.88	2.75	15.00	
CCL	8.39						

GR	7.08		PROBE-GR/CCL-DIGITAL-275 Probe GR-4.54 (11102.75 Probe 2 3/4" Gamma Ray / CCL DIGITAL			60.00
NEU	1.08		NEU-PRNEU (ProbeNEU1)	4.75	1.88	

Dataset: entransco_t_wiebe#31_1_cbl_grn.db: field/well/run1/pass5
 Total length: 24.83 ft
 Total weight: 192.00 lb
 O.D.: 2.75 in

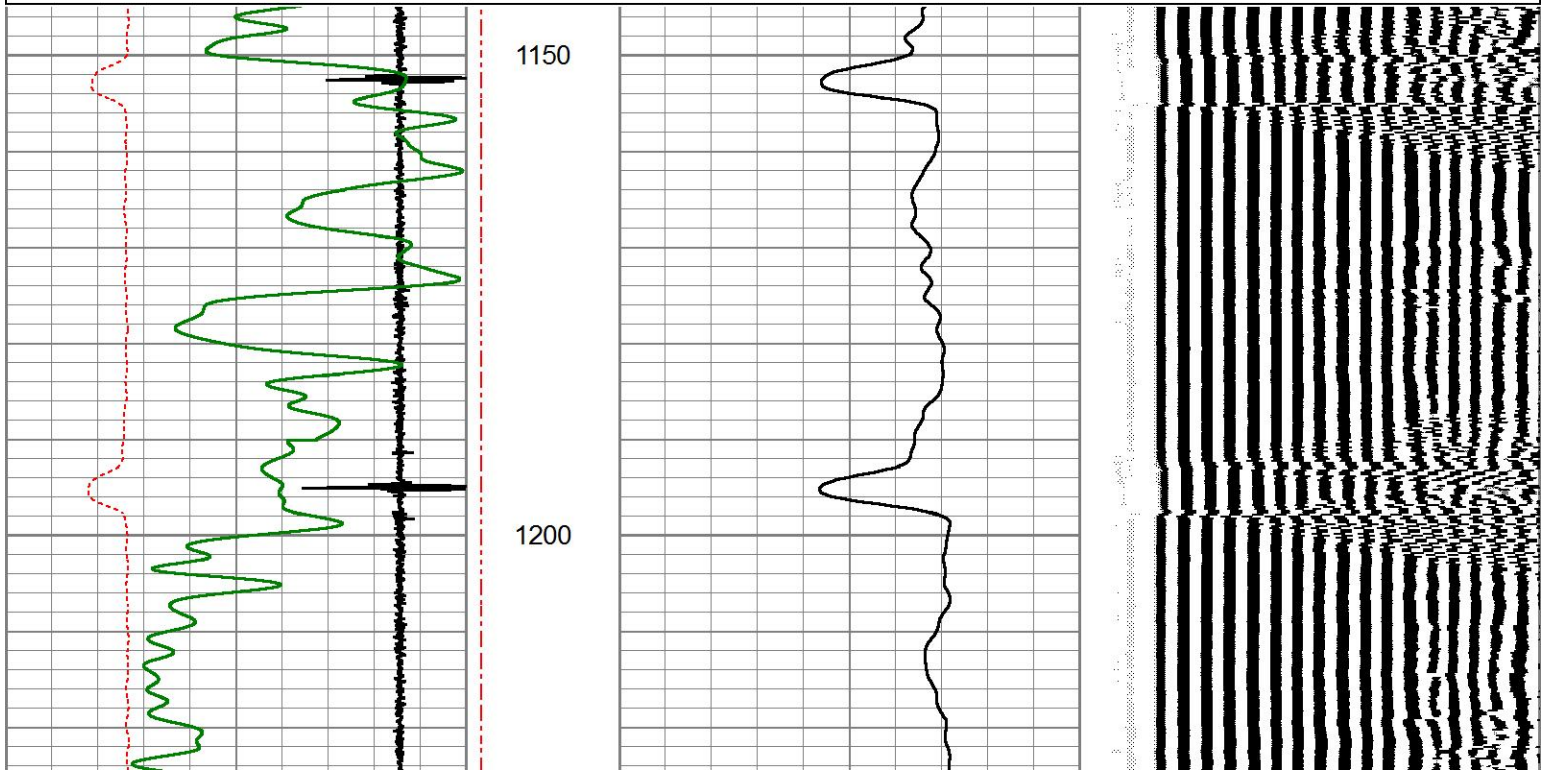


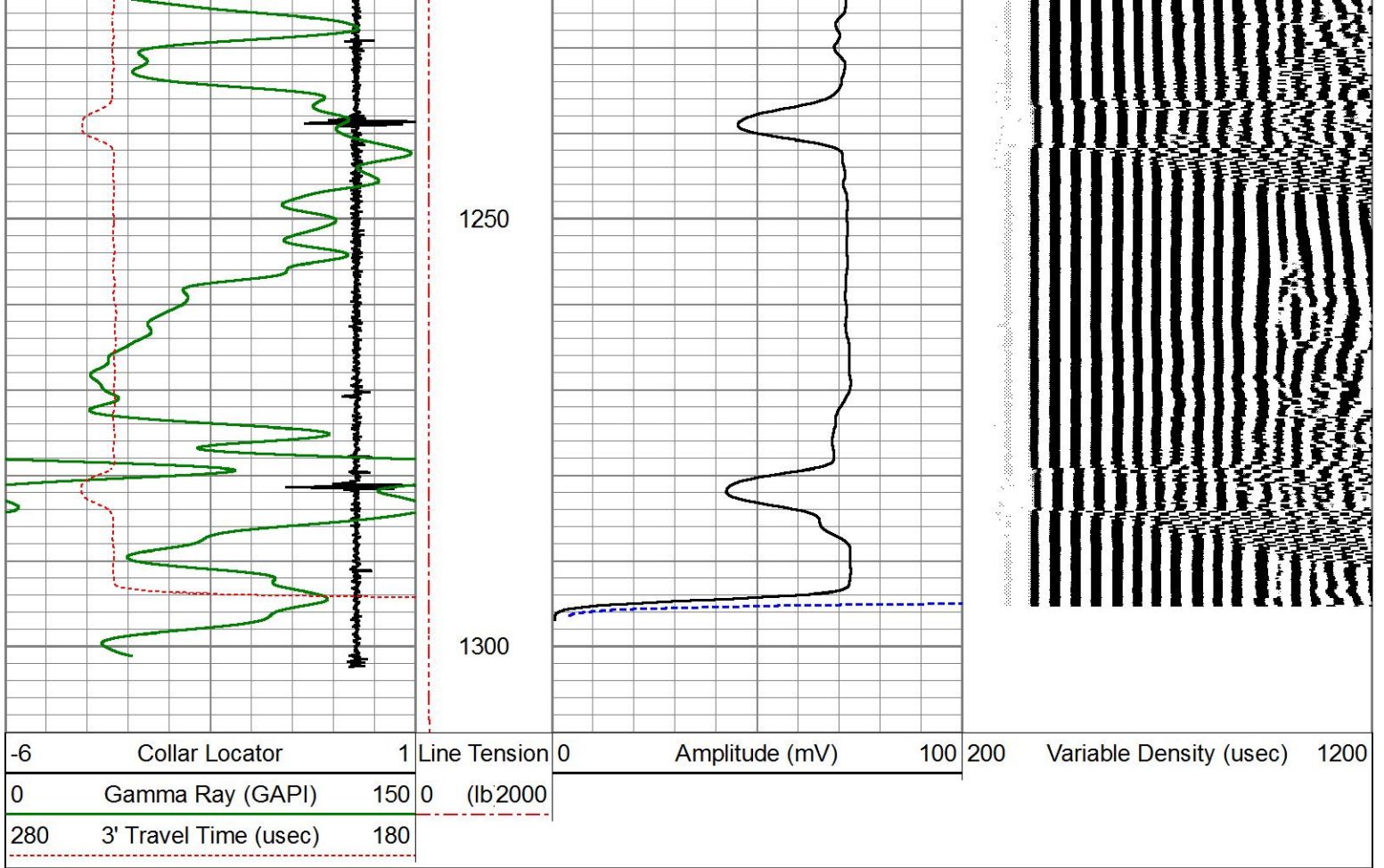
FREE PIPE SECTION


ZERO PSI APPLIED AT SURFACE

Database File entransco_t_wiebe#31_1_cbl_grn.db
 Dataset Pathname pass2
 Presentation Format pinr_cbl
 Dataset Creation Tue Oct 23 08:26:49 2018
 Charted by Depth in Feet scaled 1:240

-6	Collar Locator	1	Line Tension	0	Amplitude (mV)	100	200	Variable Density (usec)	1200
0	Gamma Ray (GAPI)	150	0	(lb2000)					
280	3' Travel Time (usec)	180							





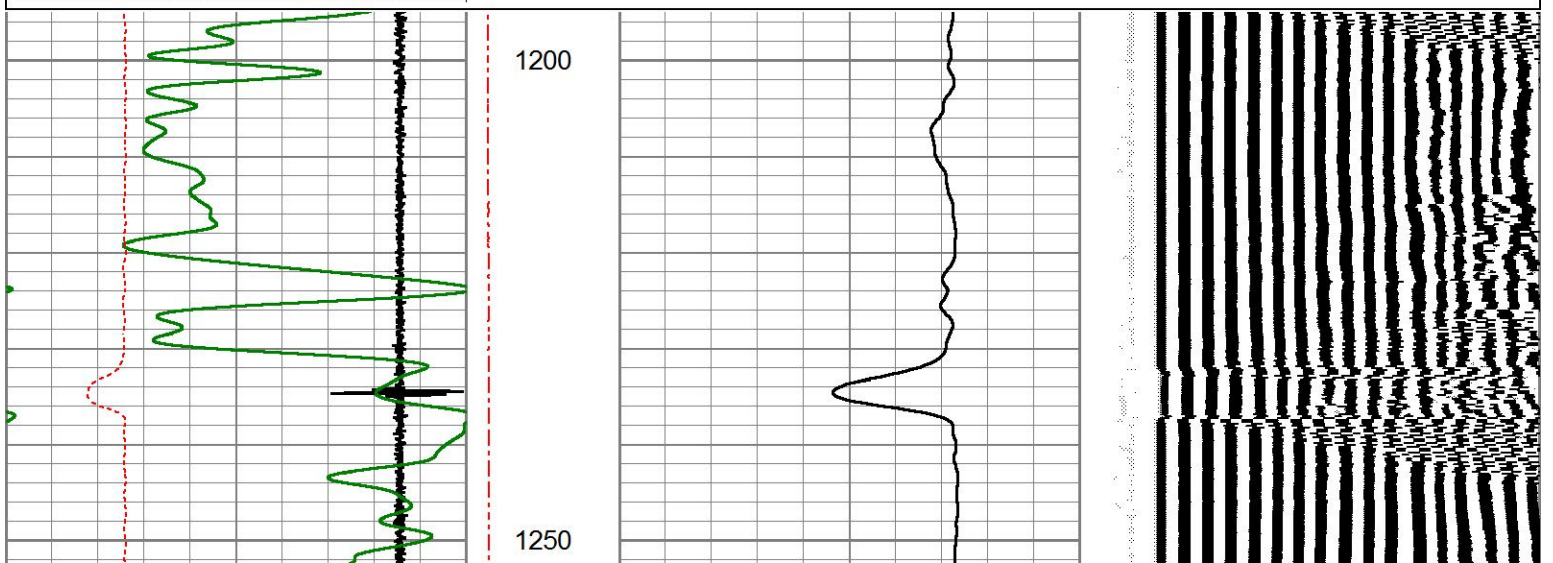


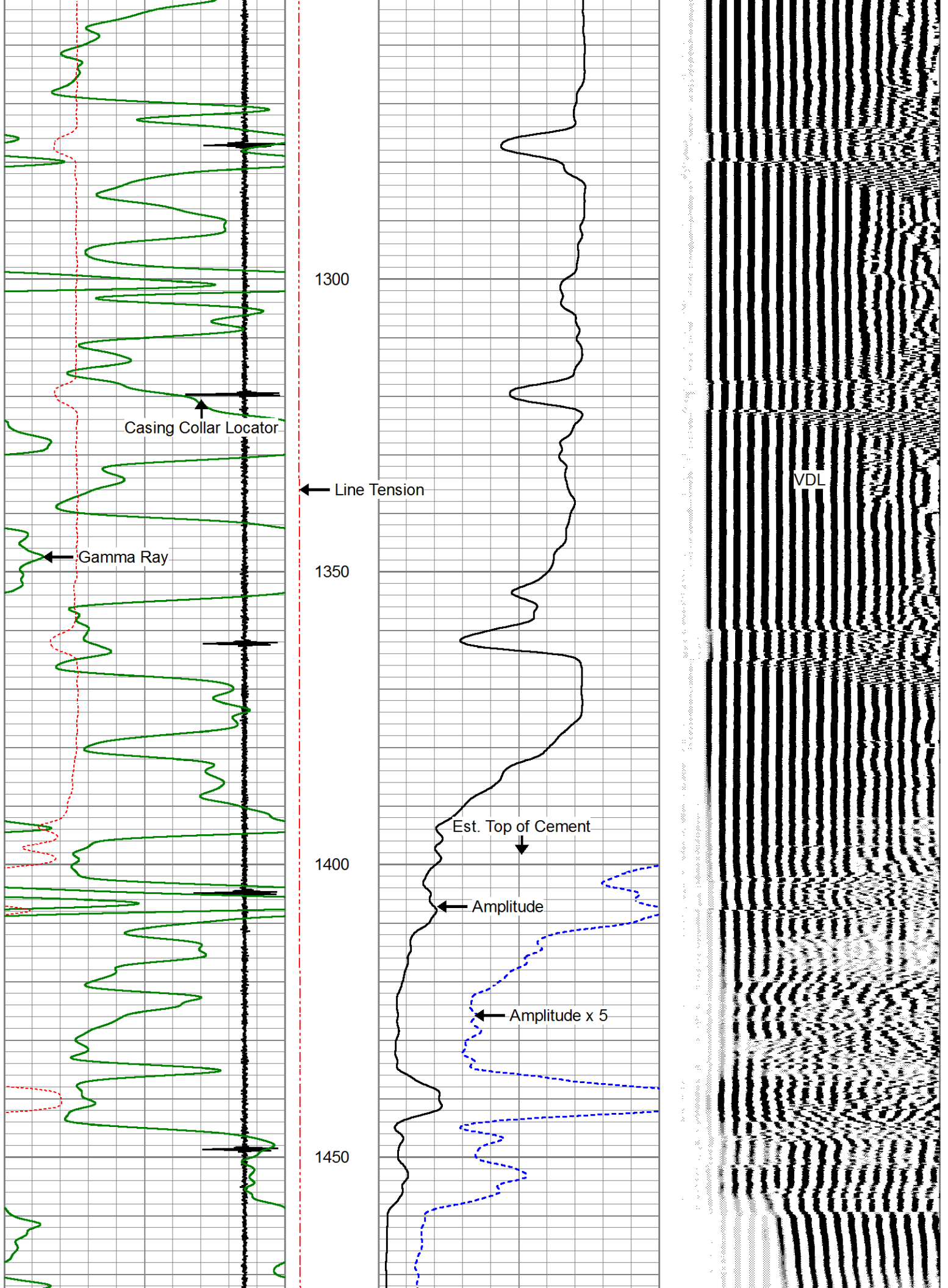
MAIN LOG

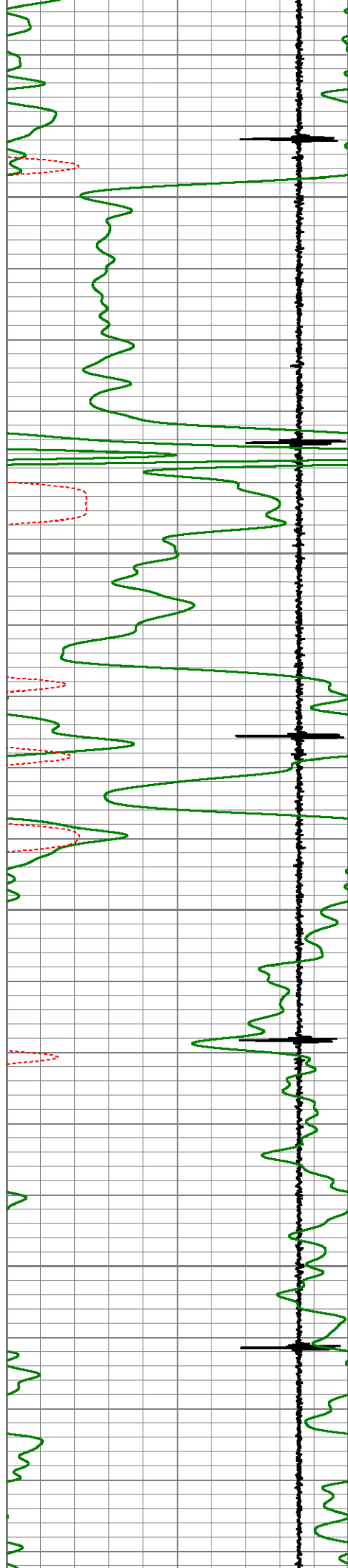
ZERO PSI APPLIED AT SURFACE

Database File entransco_t_wiebe#31_1_cbl_grn.db
 Dataset Pathname pass5
 Presentation Format pinr_cbl
 Dataset Creation Tue Oct 23 08:48:41 2018
 Charted by Depth in Feet scaled 1:240

-6	Collar Locator	1	Line Tension	0	Amplitude (mV)	100	200	Variable Density (usec)	1200
0	Gamma Ray (GAPI)	150	(lb2000)	0					
280	3' Travel Time (usec)	180							





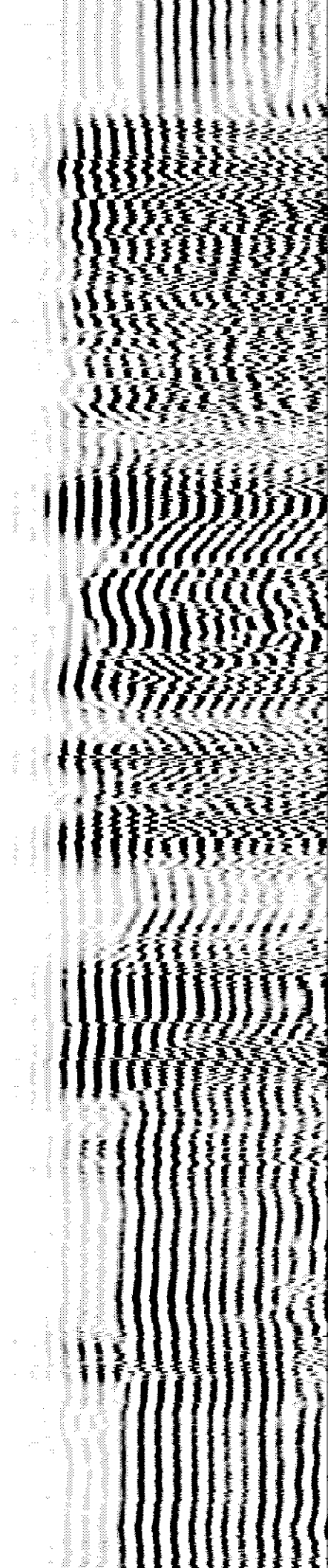
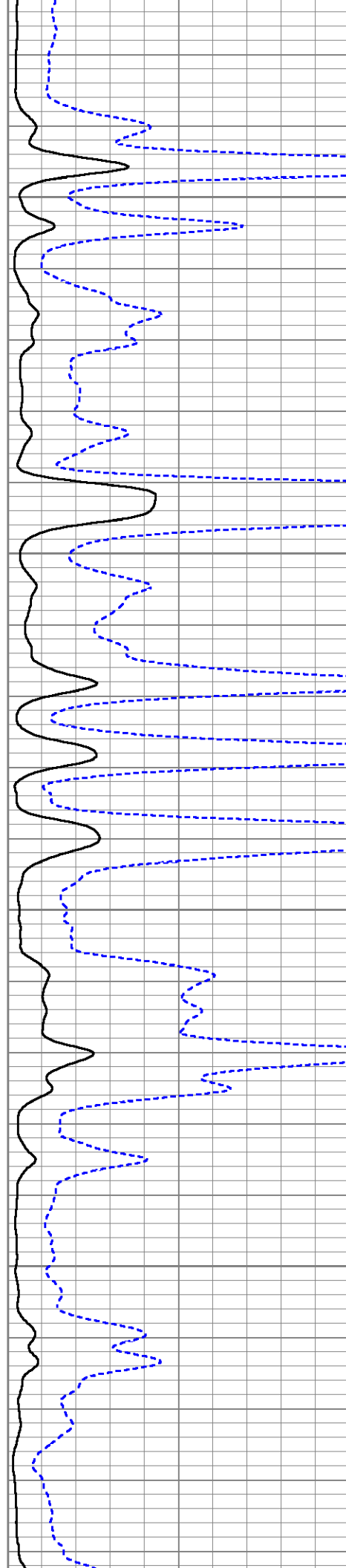


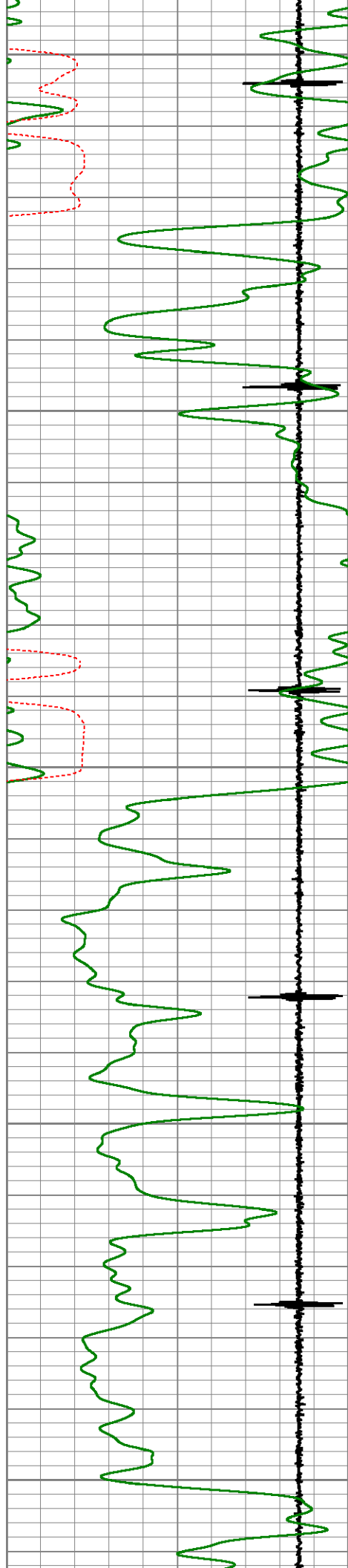
1500

1550

1600

1650





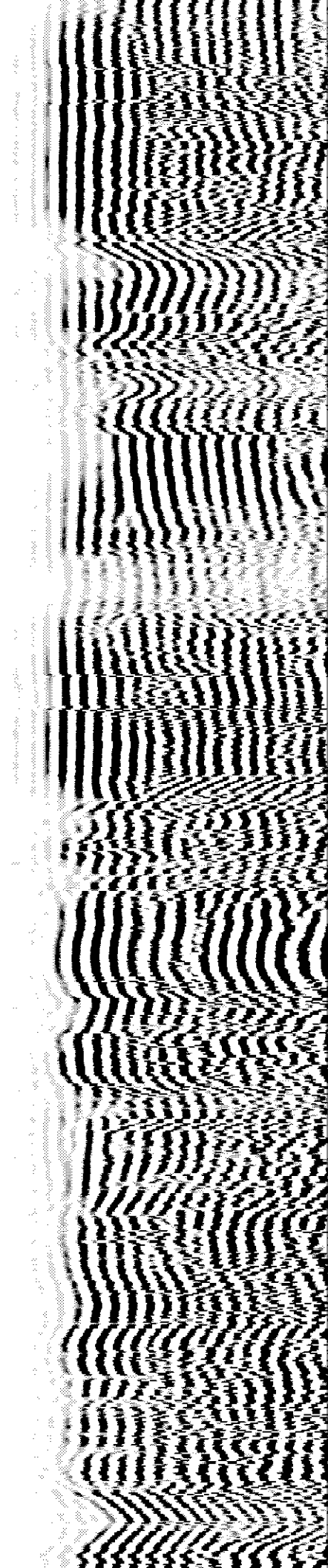
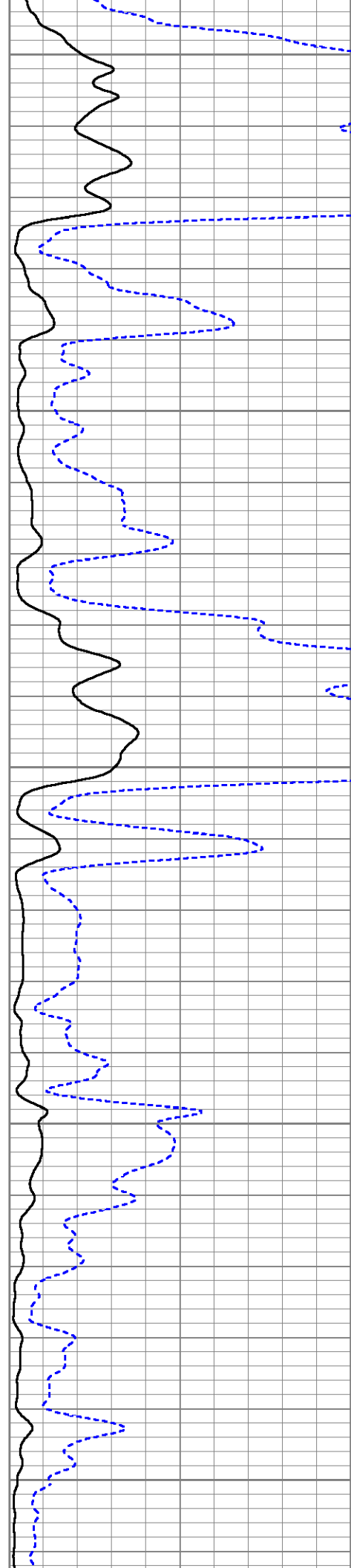
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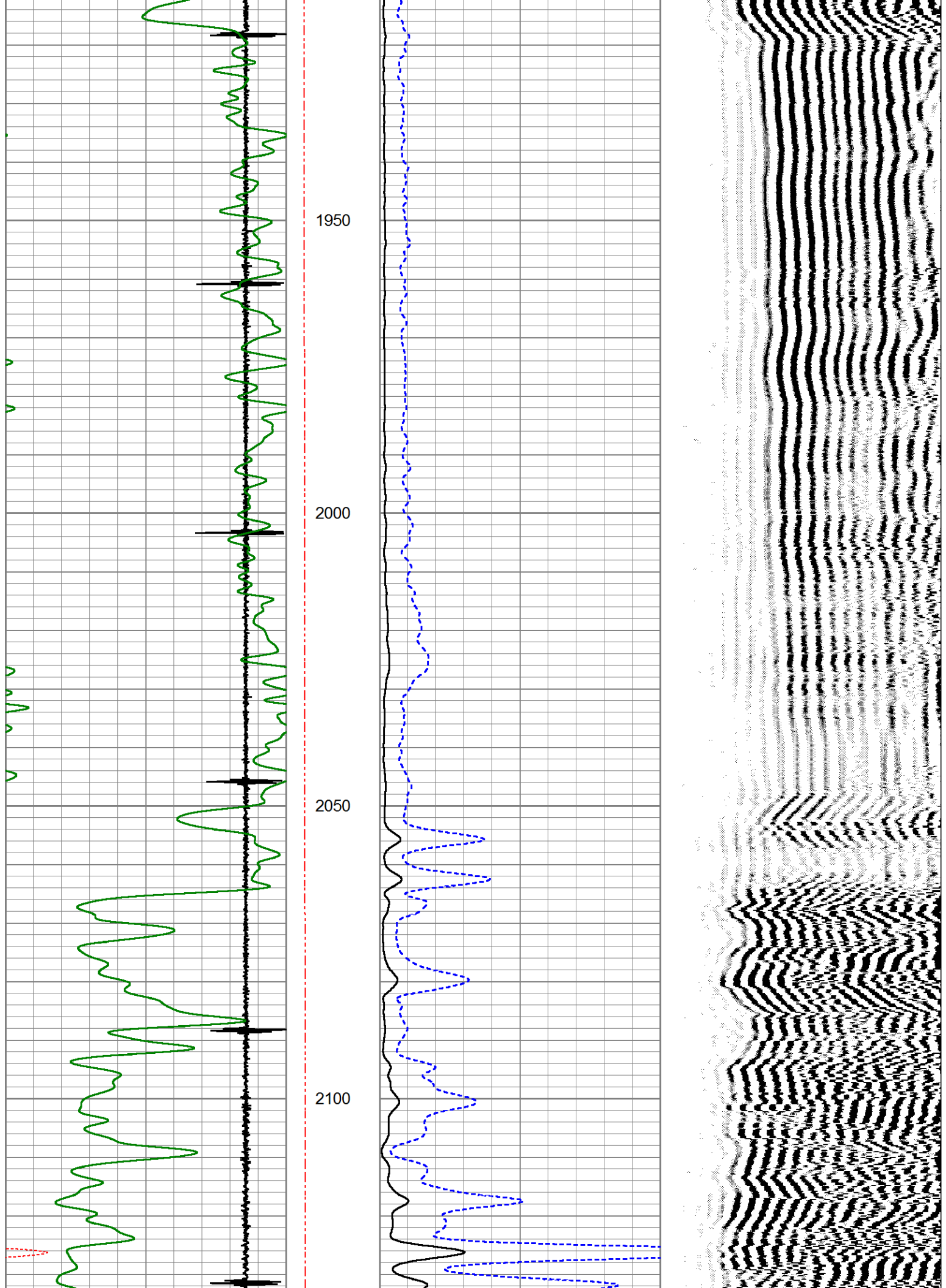
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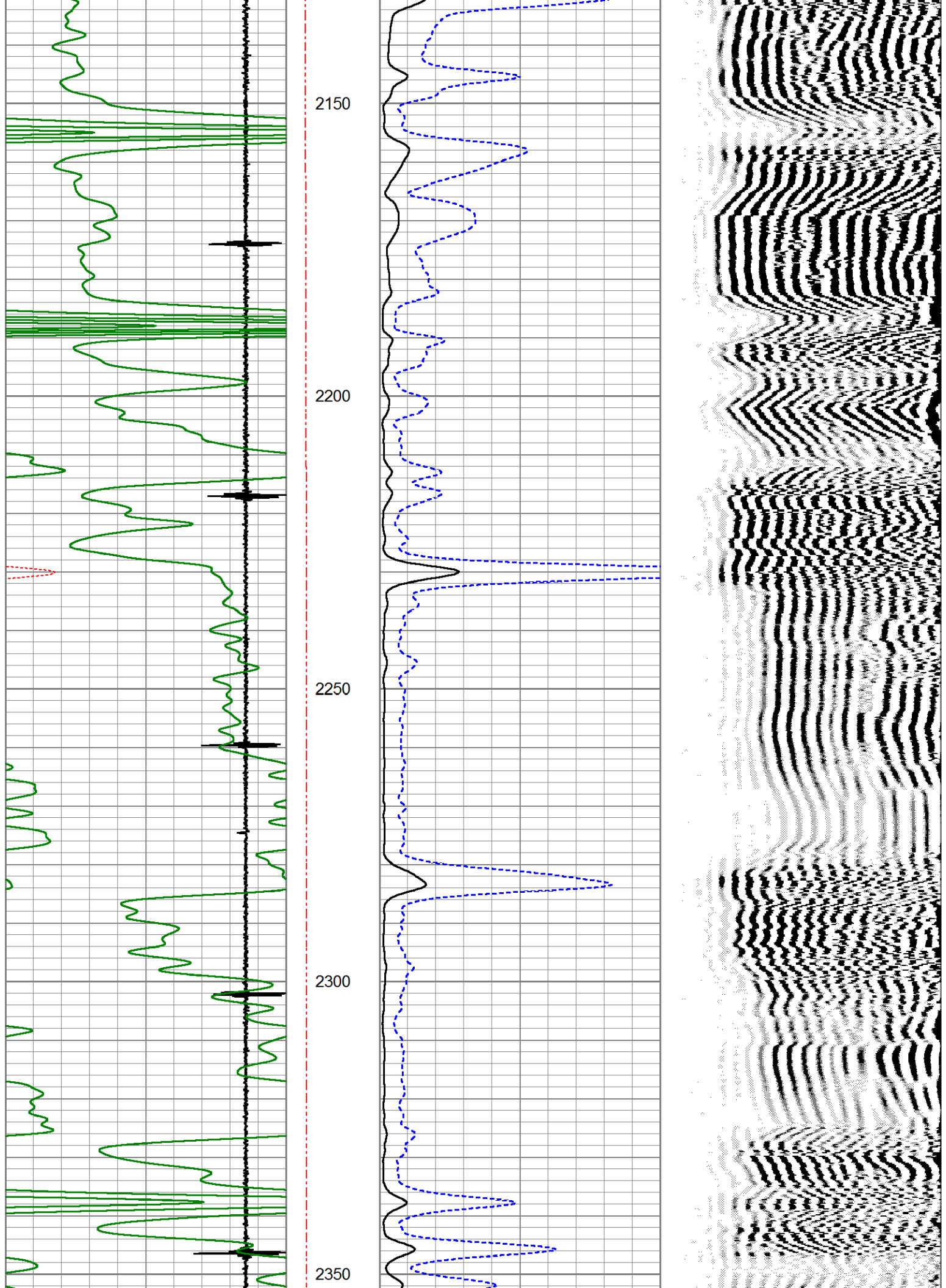
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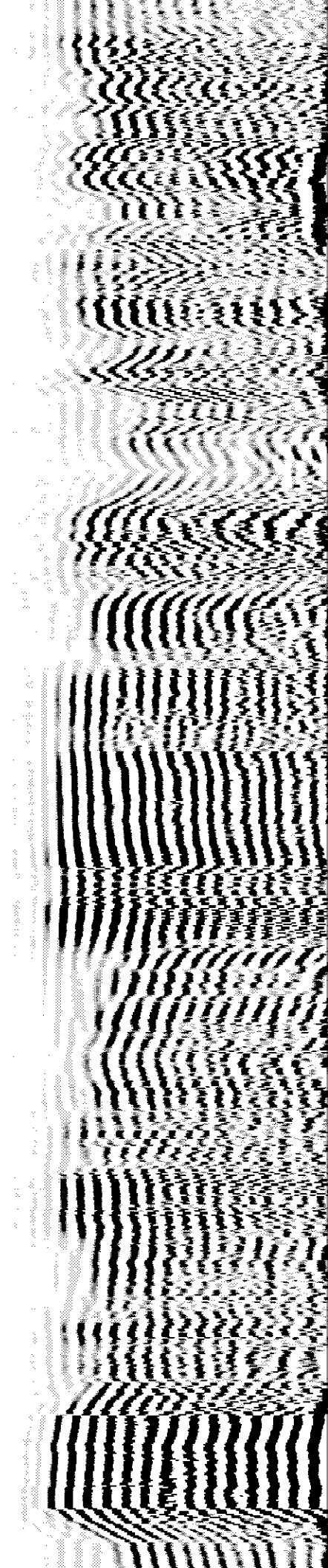
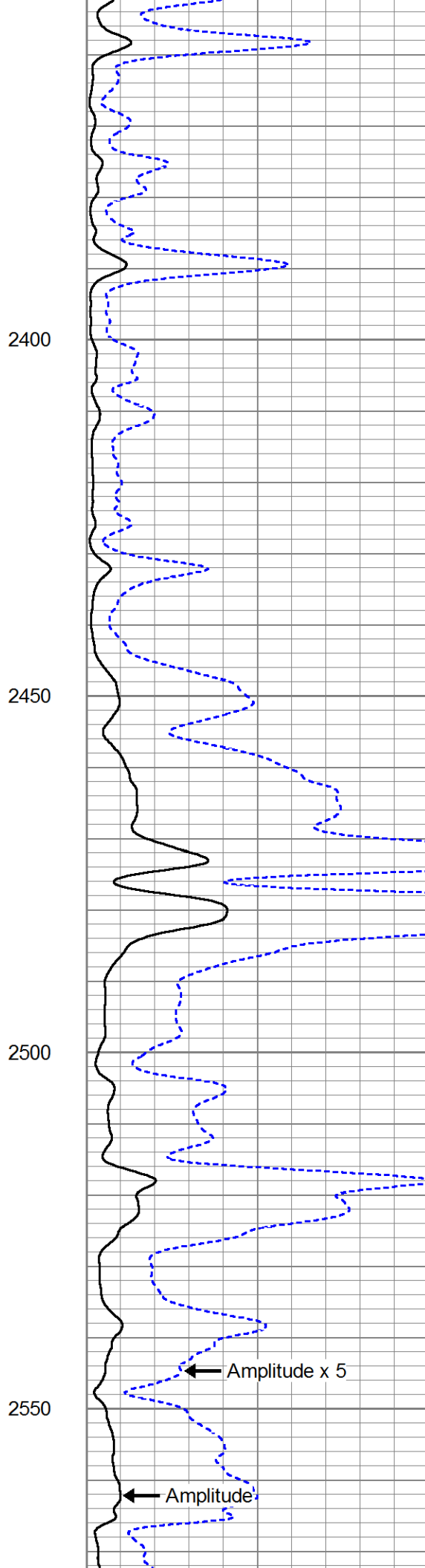
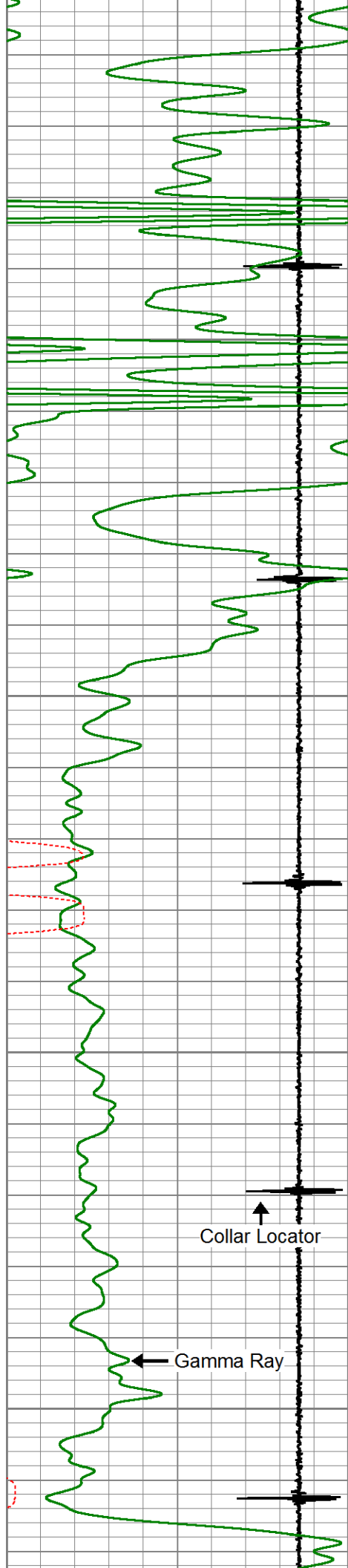
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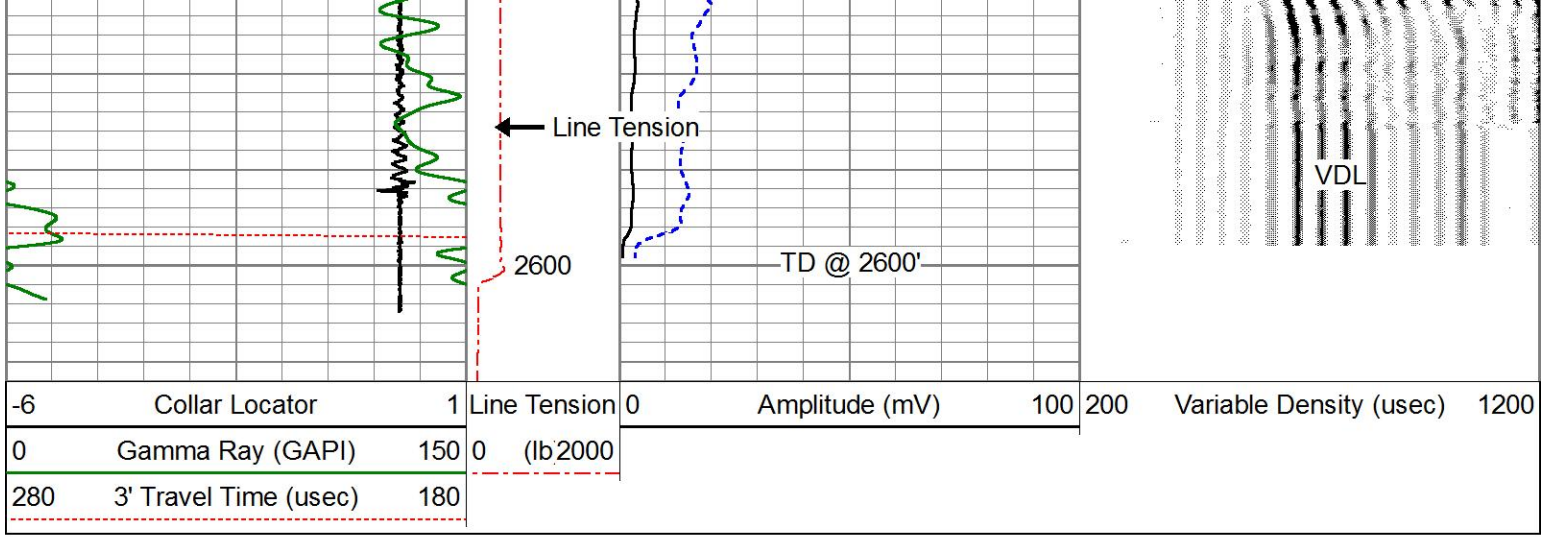
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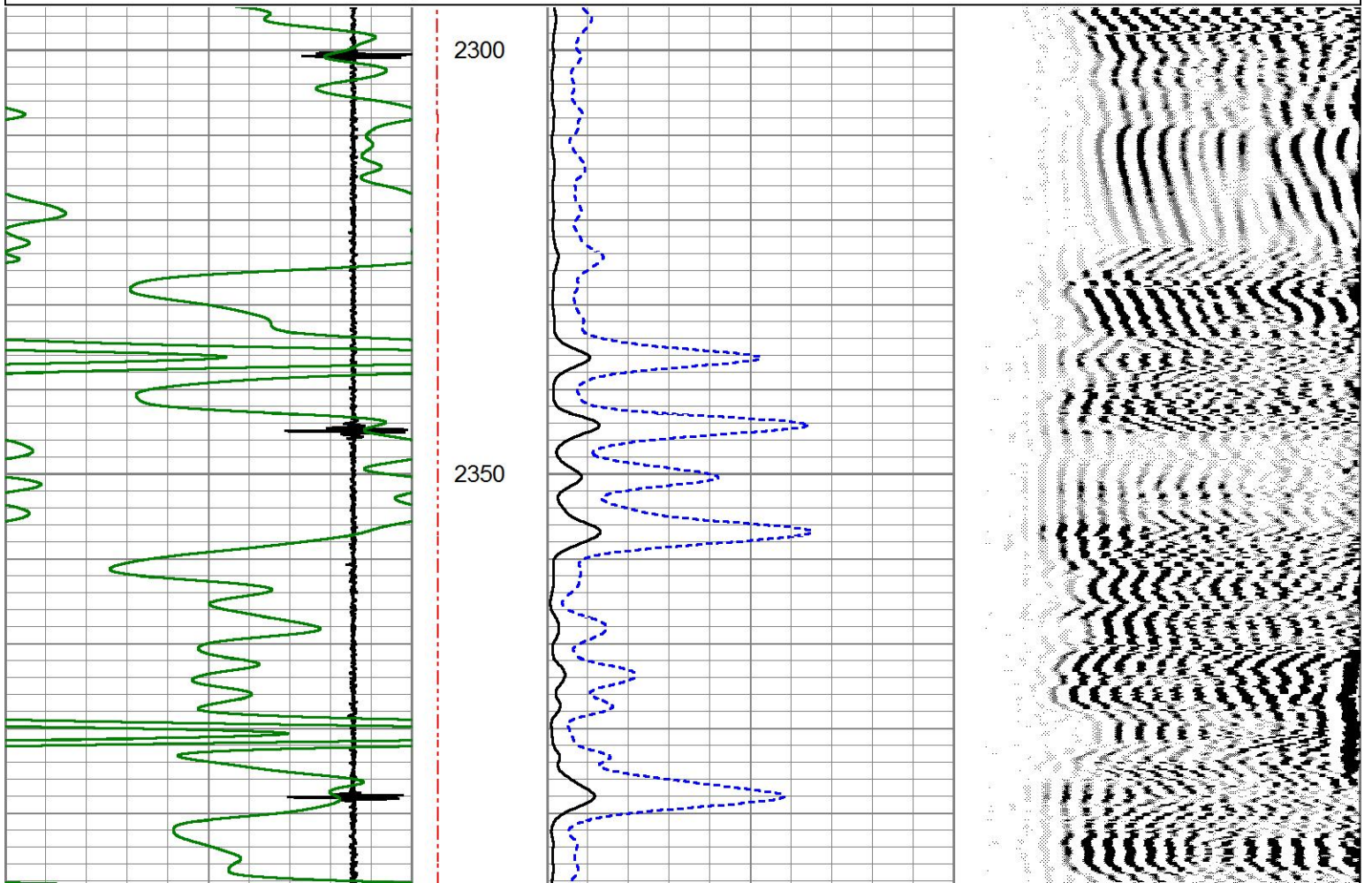
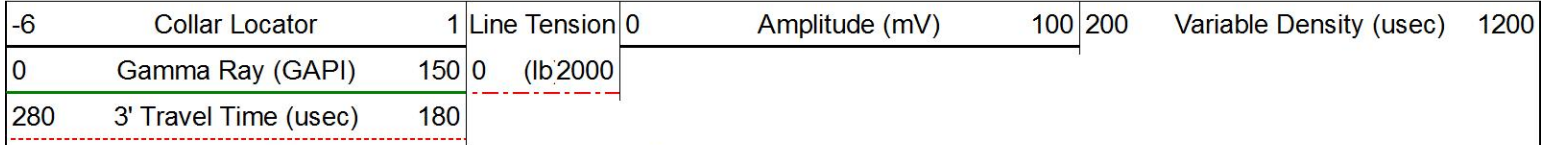


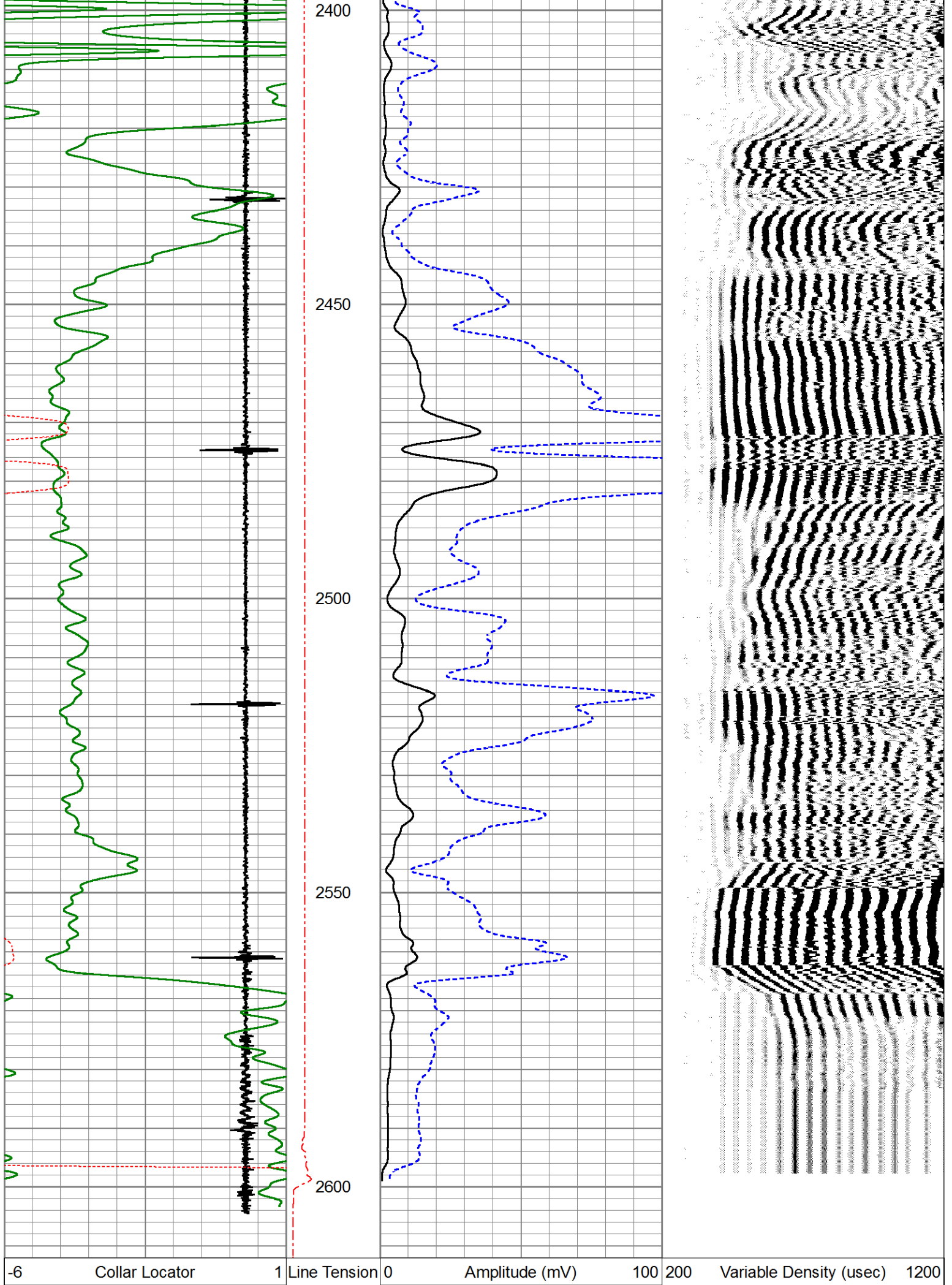


REPEAT SECTION

ZERO PSI APPLIED AT SURFACE

Database File entransco_t_wiebe#31_1_cbl_grn.db
 Dataset Pathname pass4
 Presentation Format pinr_cbl
 Dataset Creation Tue Oct 23 08:36:17 2018
 Charted by Depth in Feet scaled 1:240





Gamma Ray (GAPI)	150	0	(lb2000)
280	3' Travel Time (usec)	180	

Calibration Report

Database File entransco_t_wiebe#31_1_cbl_grn.db
Dataset Pathname pass5
Dataset Creation Tue Oct 23 08:48:41 2018

Neutron Calibration Report

Serial Number: ProbeNEU1
Tool Model: PRNEU
Performed: (Not Performed)

Calibrator Value: 1 NAPI
Calibrator Reading: 1 cps
Sensitivity: 1 NAPI/cps

Gamma Ray Calibration Report

Serial Number: 111032
Tool Model: 275 Probe GR-CCL
Performed: Wed Sep 26 09:20:51 2018

Calibrator Value: 1.0 GAPI
Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps
Sensitivity: 1.1000 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: 080554
Tool Model: RBL-D

Calibration Casing Diameter: 5.500 in
Calibration Depth: 1279.589 ft

Master Calibration, performed Tue Oct 23 08:26:33 2018:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	2.145	0.700	71.921	33.214	0.692
CAL	-0.004	2.370				
5'	-0.001	2.151	0.700	71.921	33.102	0.728
SUM						
S1	0.036	2.010	0.000	100.000	50.637	-1.801
S2	0.013	2.047	0.000	100.000	49.165	-0.619
S3	0.014	2.123	0.000	100.000	47.429	-0.681
S4	0.018	2.189	0.000	100.000	46.059	-0.838
S5	0.017	2.251	0.000	100.000	44.759	-0.742
S6	0.018	2.280	0.000	100.000	44.214	-0.797
S7	0.009	2.228	0.000	100.000	45.065	-0.422
S8	0.005	2.071	0.000	100.000	48.411	-0.255

Air Zero Calibration, performed Tue Oct 23 08:14:48 2018:

Raw (v)	Calibrated (v)	Results
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	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

 <p>PIONEER Pioneer Energy Services</p>	Company	ENTANSCO ENERGY LLC
	Well	T. WIEBE #31-1
	Field	HAZLETT
	County	BUTLER
	State	KANSAS