RMWS
ROCKY MOUNTAIN WIRELINE SERVICE

CEMENT BOND LOG
GAMMA RAY / CCL

Company	WPX ENERGY
Well	FEDERAL GM 702-4-HN1
Field	GRAND VALLEY
County	GARFIELD
State	COLORADO
API #:	05-045-220510000
Location:	SHL: 1401' FNL & 2354' FEL (SECTION 4) BHL: 1974' FNL & 1702' FEL (SECTION 9)
Other Services	
SEC	9
TWP	7S
RGE	96W

Permanent Datum	G.L.	Elevation	5532'
Log Measured From	K.B.	25'	Ft Above PD
Drilling Measured From	K.B.		

Elevation
K.B. 5557'
D.F.
G.L. 5532'

Date	05-03-2014	
Run Number	ONE	
Depth Driller	10682'	
Present Depth Driller	N/A	
Depth Logger	9978'	
Bottom Logged Interval	9978'	
Top Log Interval	2100'	
Fluid Level	320'	
Type Fluid	WATER	
Max. Recorded Temp.	N/A	
Estimated Cement Top	SEE LOG	
Equipment Number	214	
Location	GRAND JCT.	
Recorded By	FERNANDEZ	COVINGTON
Witnessed By	MR. KOHL	

Borehole Record				Casing Record			
Run Number	Bit	From	To	Size	Weight	From	To
ONE	24.000"	SURFACE	120'	7.625"	29.7#	SURFACE	10682'
TWO	17.500"	SURFACE	2436'	5.500"	23.0#	SURFACE	7618'
THREE	9.875"	SURFACE	10358'	4.500"	15.1#	7618'	T.D.
FOUR							

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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.

WARRIOR 7.0 SOFTWARE - Comments

NOTE: THIS LOG WAS DEPTH CORRELATED TO RMWS CEMENT BOND LOG
DATED: 11-18-2013

CROSSOVER: 7618'

MAIN PASS: 5" = 100'

CSG PSI: STATIC

Calibration Report

Database File: 06032014_wpx_gm_702-4-hn1.db
Dataset Pathname: main/pass1.2
Dataset Creation: Tue Jun 03 19:41:21 2014

Gamma Ray Calibration Report

Serial Number:	TEKCO234_352	
Tool Model:	TEKCO234	
Performed:	Tue Oct 30 09:17:24 2012	
Calibrator Value:	1.0	
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.8000	/cps

CBL Calibration Report

Serial Number:	TEKCO_8009		
Tool Model:	TEKCO		
Performed:	Tue Jun 03 17:03:00 2014		
Depth:	8540.829	ft	
Casing Diameter:	4.500	in	
	3' Spacing	5' Spacing	
Signal Zero:	1.000	1.000	mV
Calibrated Amplitude:	81.196	81.196	mV
Reading at Signal Zero:	-0.000	-0.010	V
Reading in Free Pipe:	0.594	0.823	V
Gain:	104.675	69.766	
Offset:	0.998	1.180	

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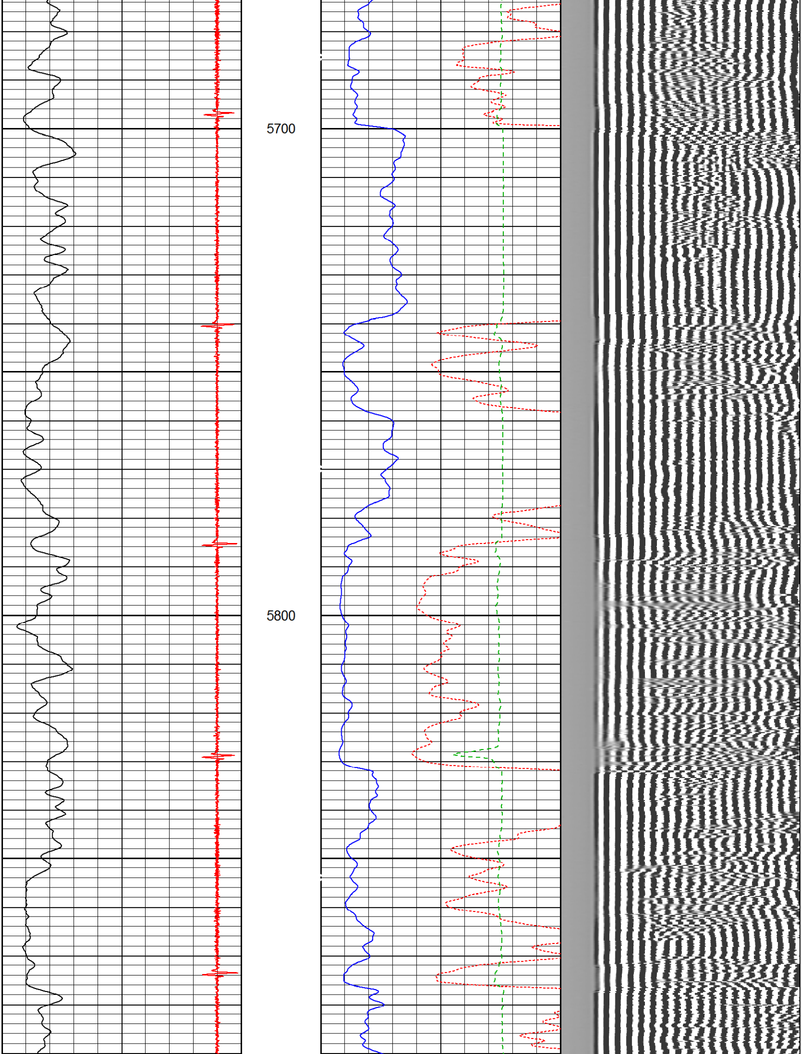
MAIN PASS

Database File: 06032014_wpx_gm_702-4-hn1.db
Dataset Pathname: main/pass1.2
Presentation Format: rmws_dsc
Dataset Creation: Tue Jun 03 19:41:21 2014
Charted by: Depth in Feet scaled 1:240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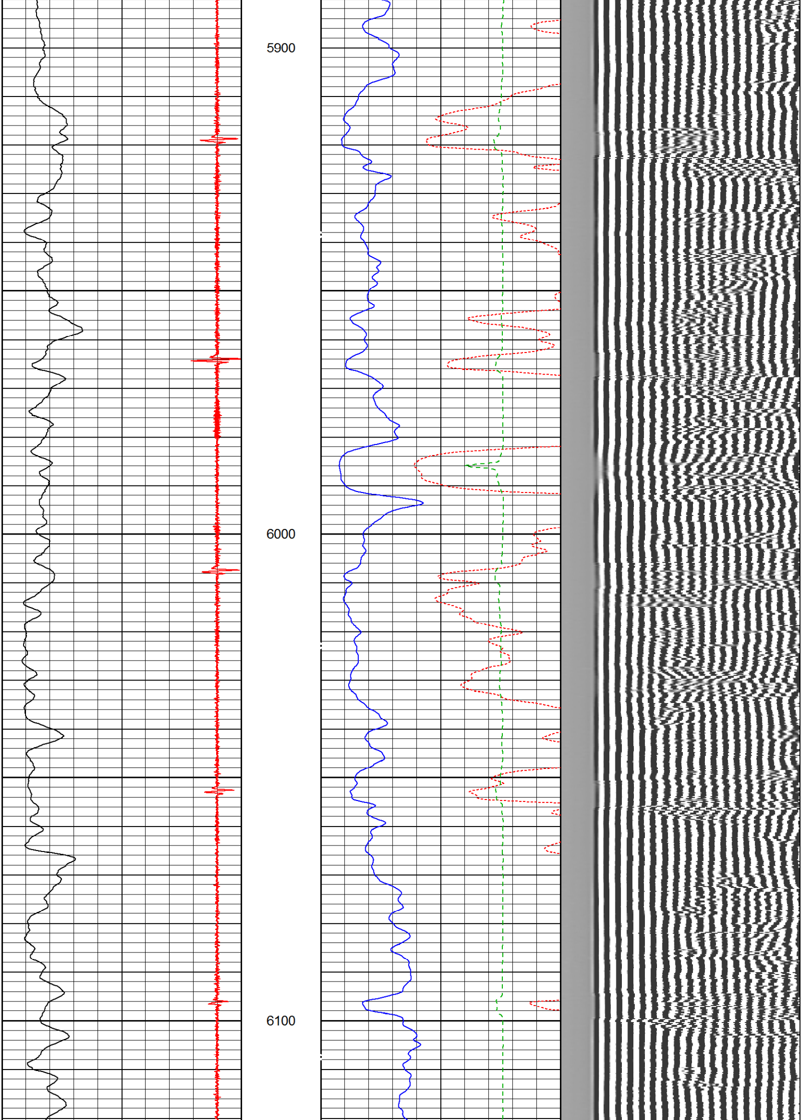
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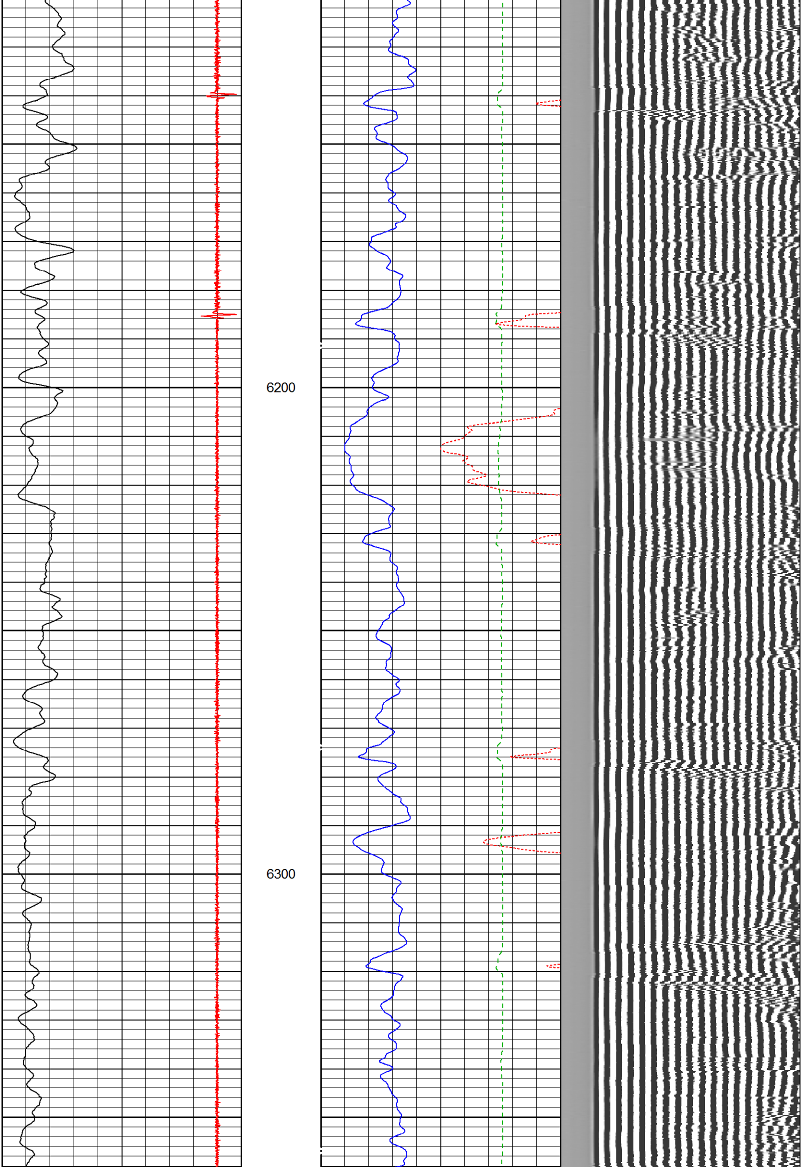
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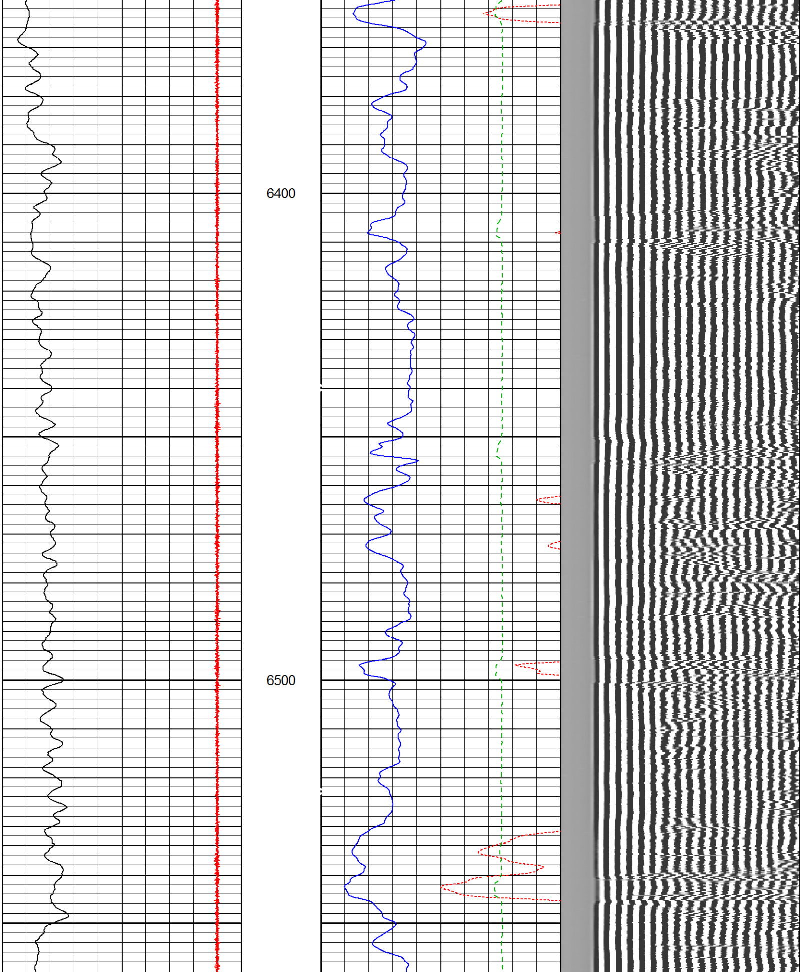
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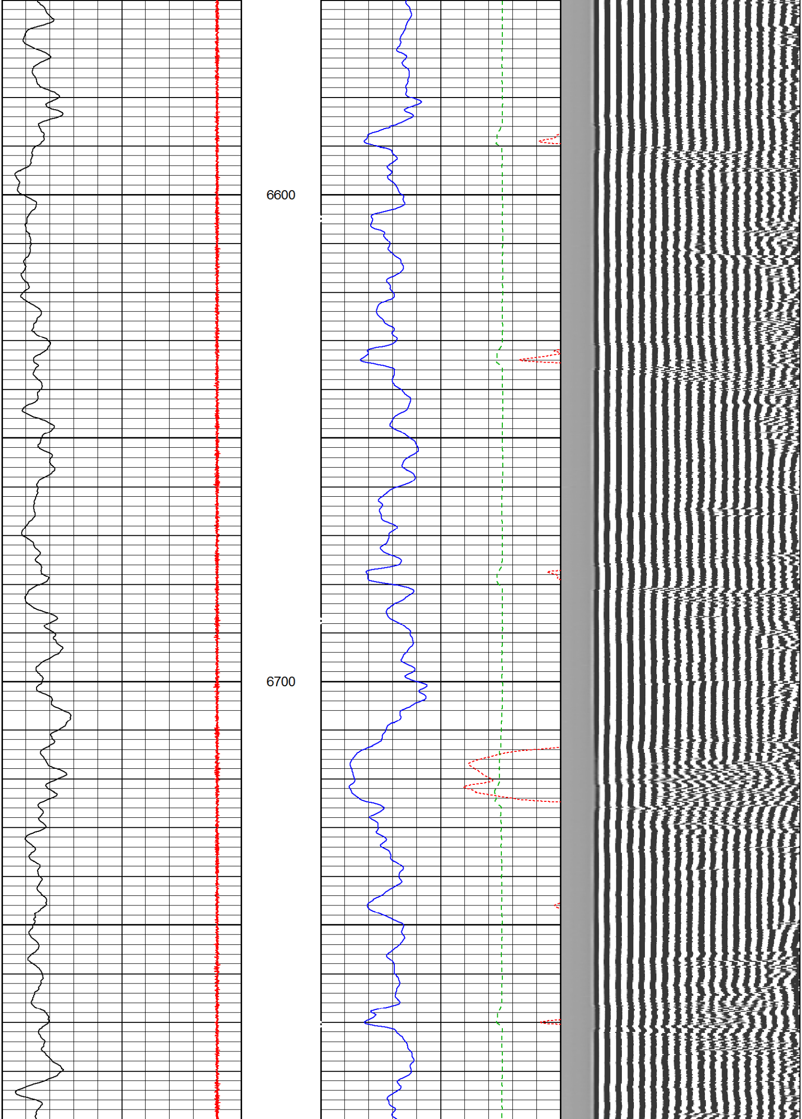
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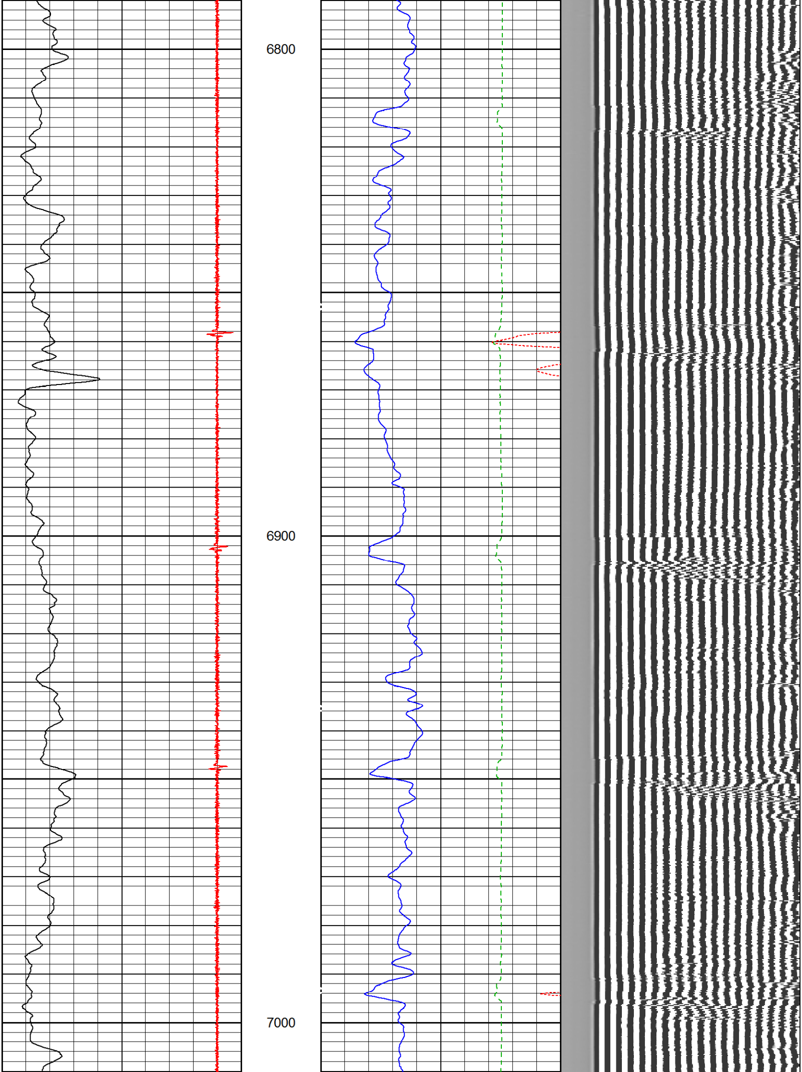
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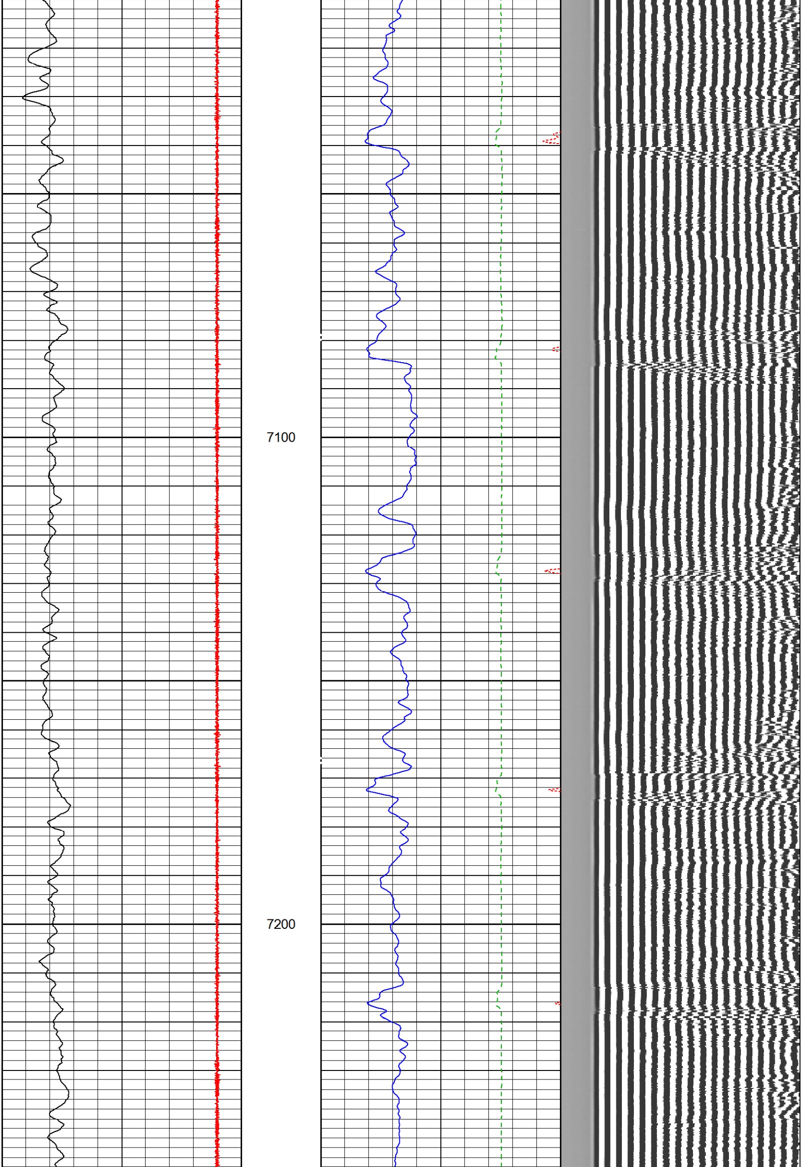
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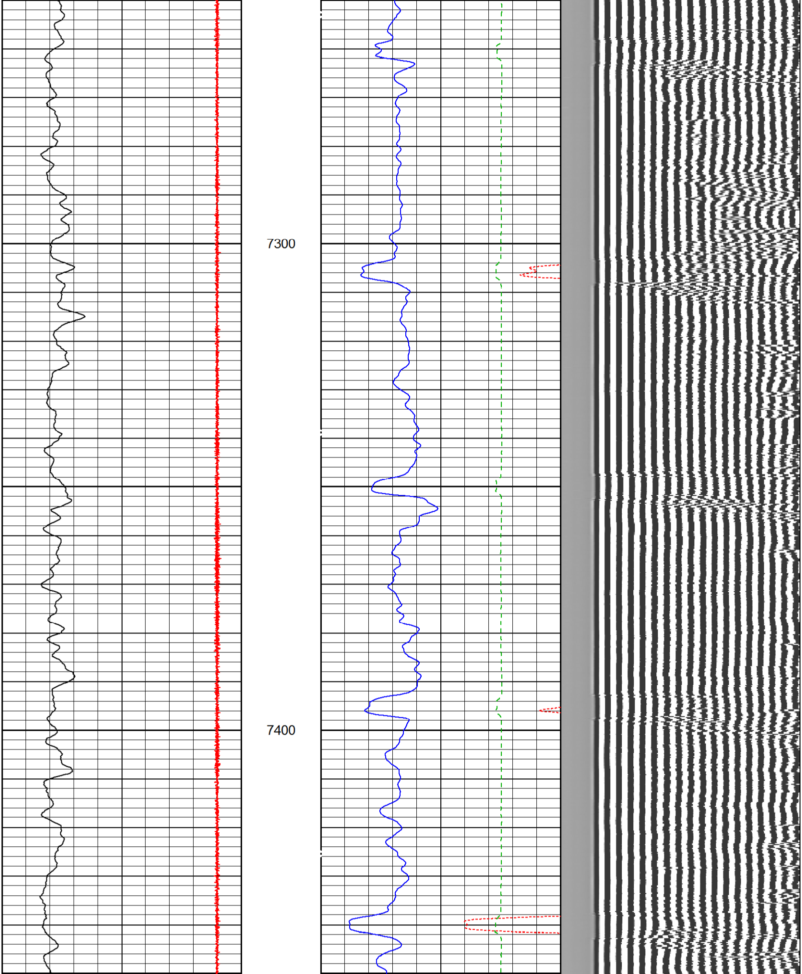
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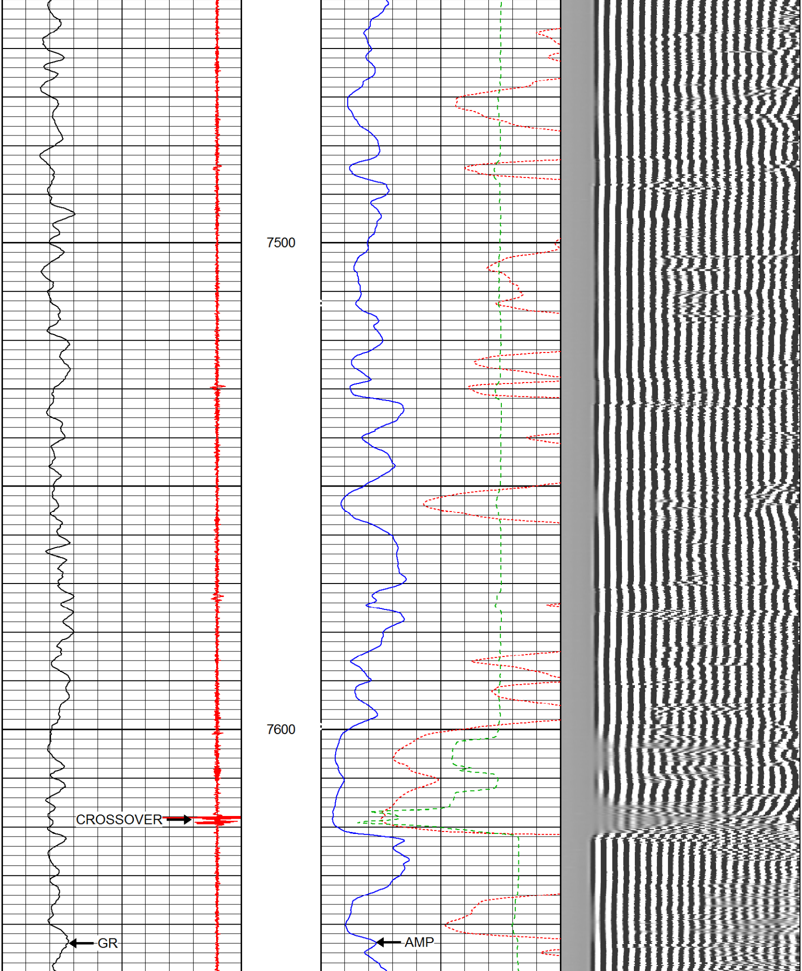
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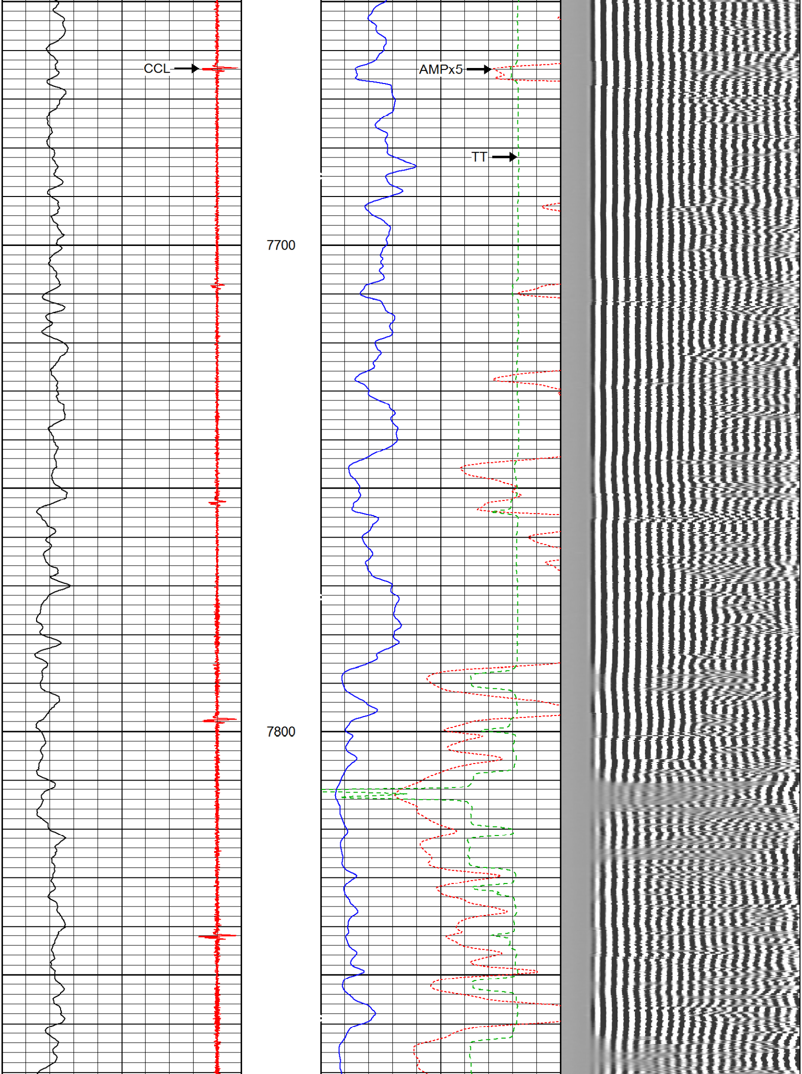
CROSSOVER
GR
AMP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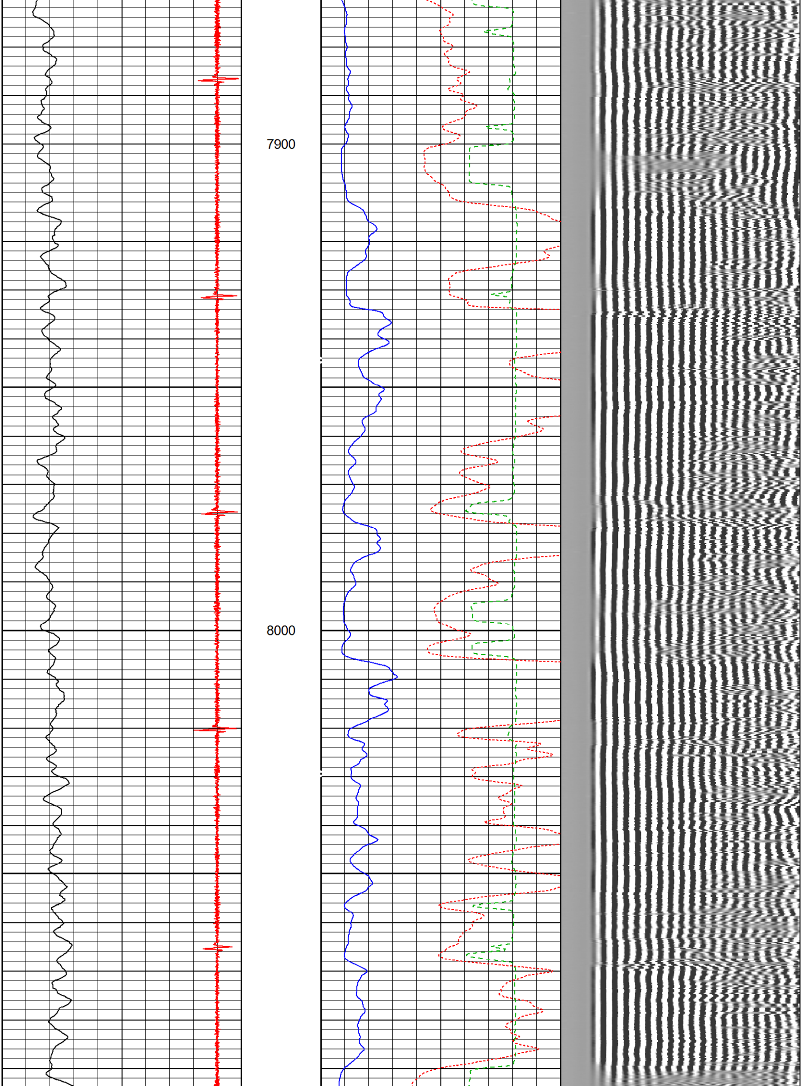
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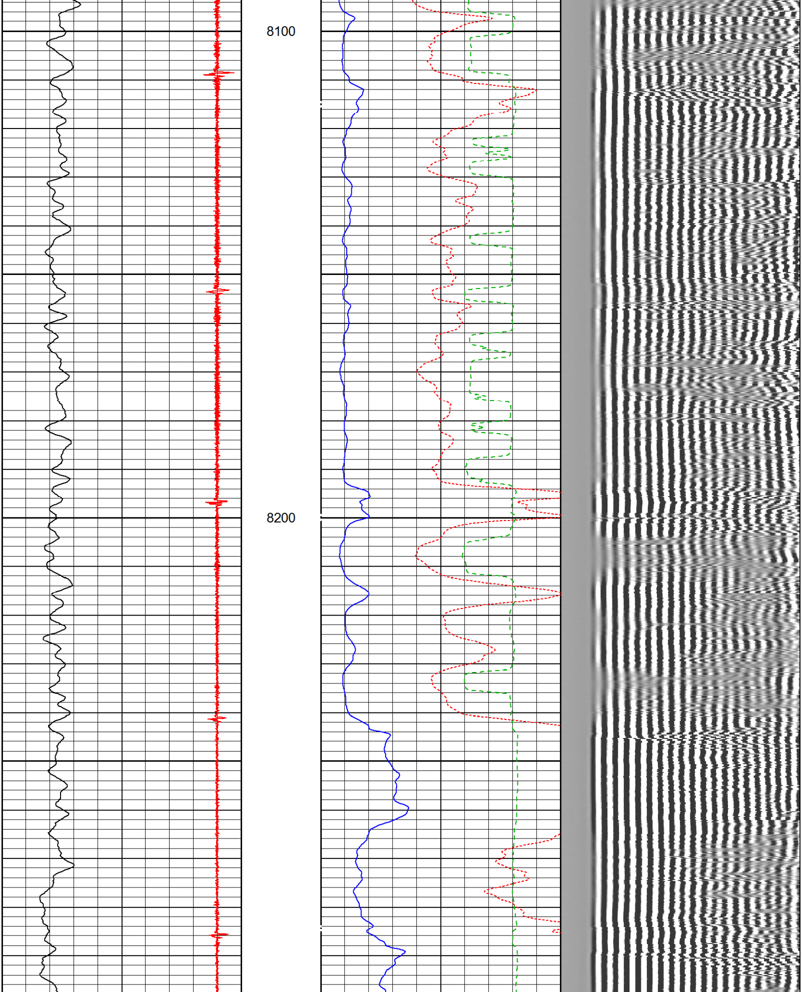
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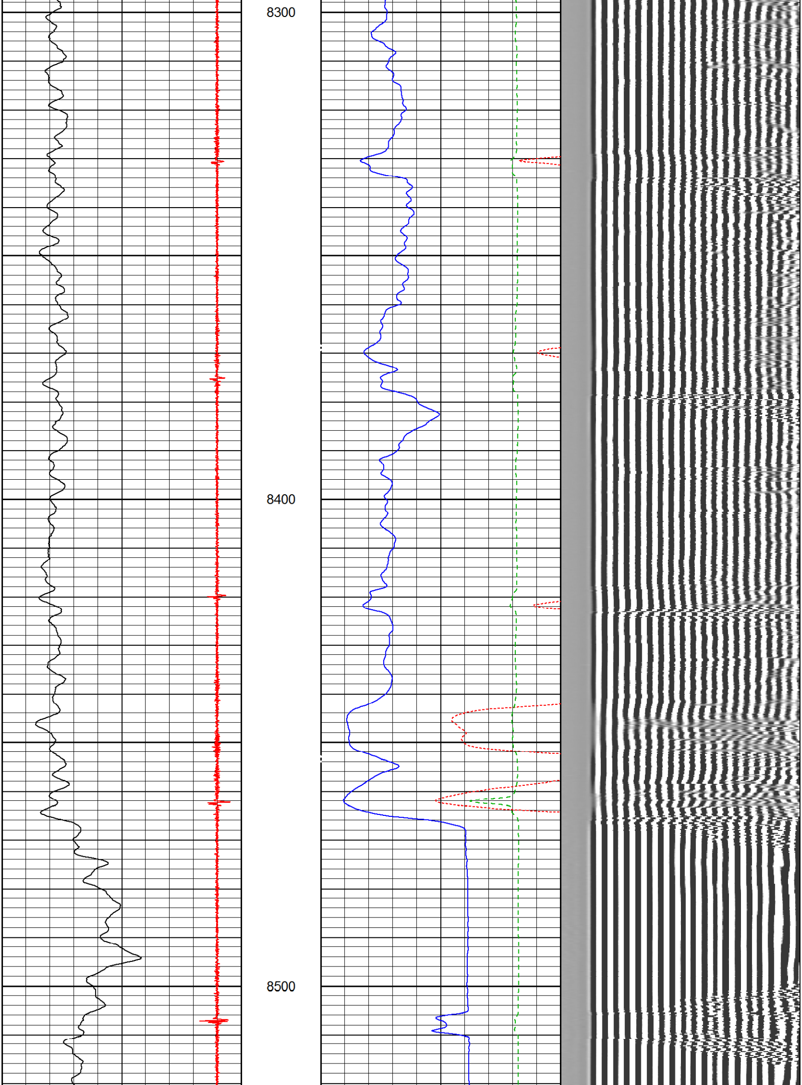
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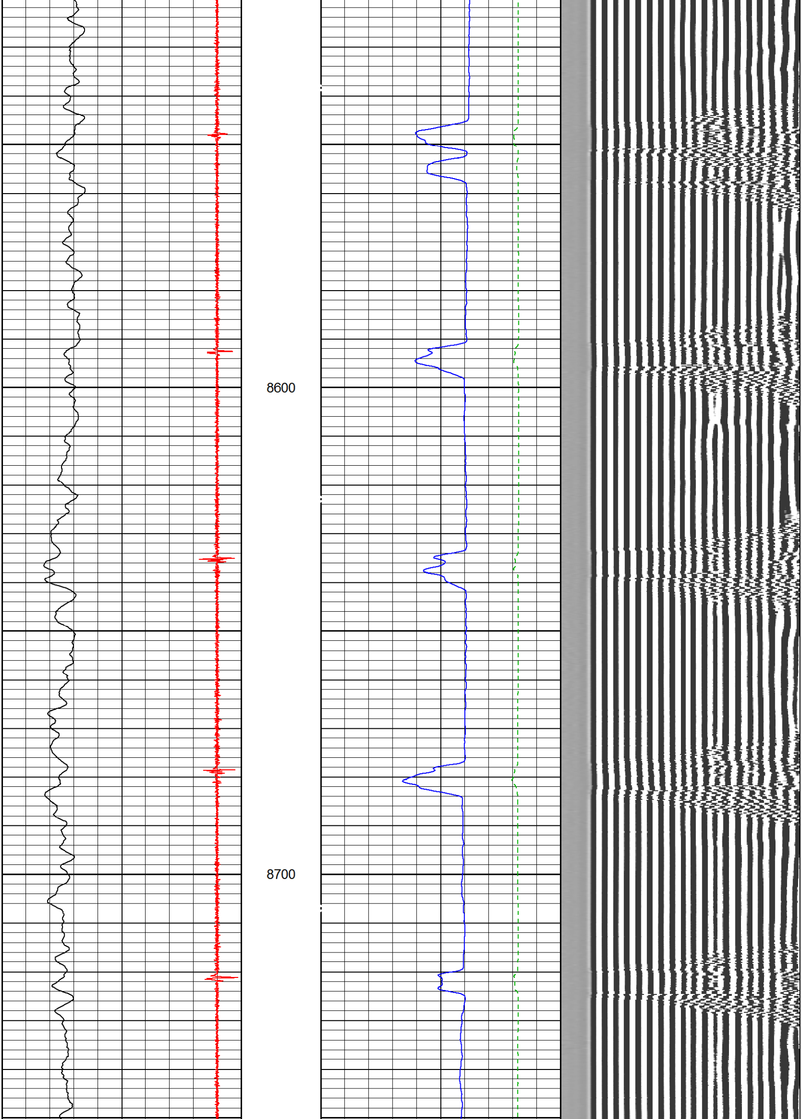
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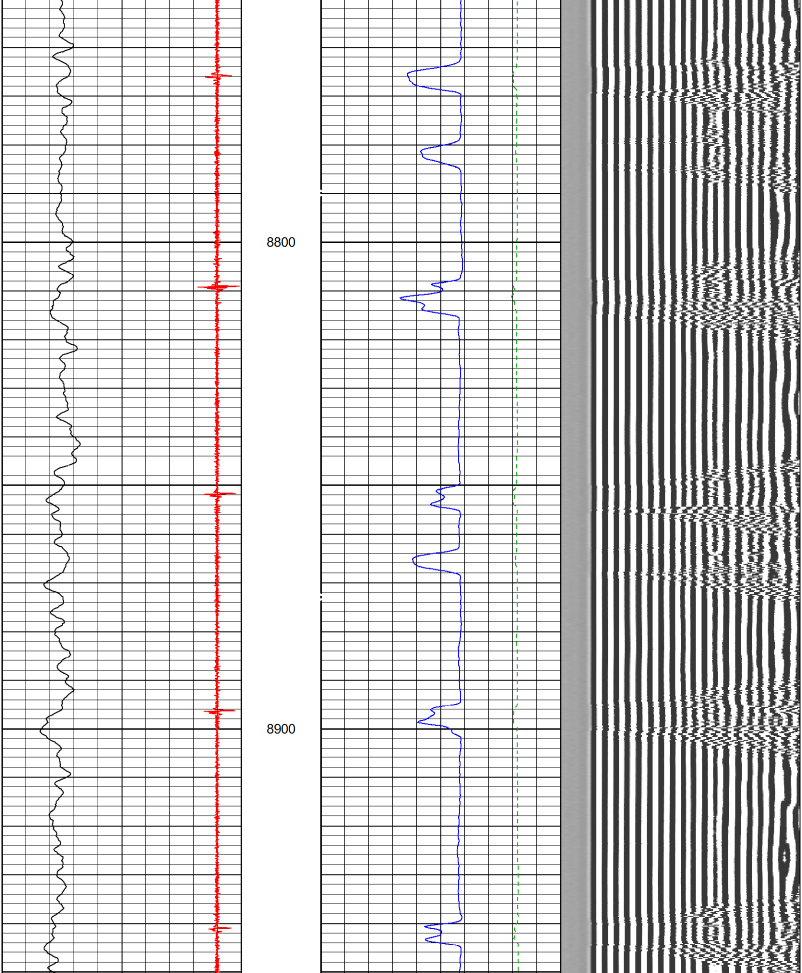
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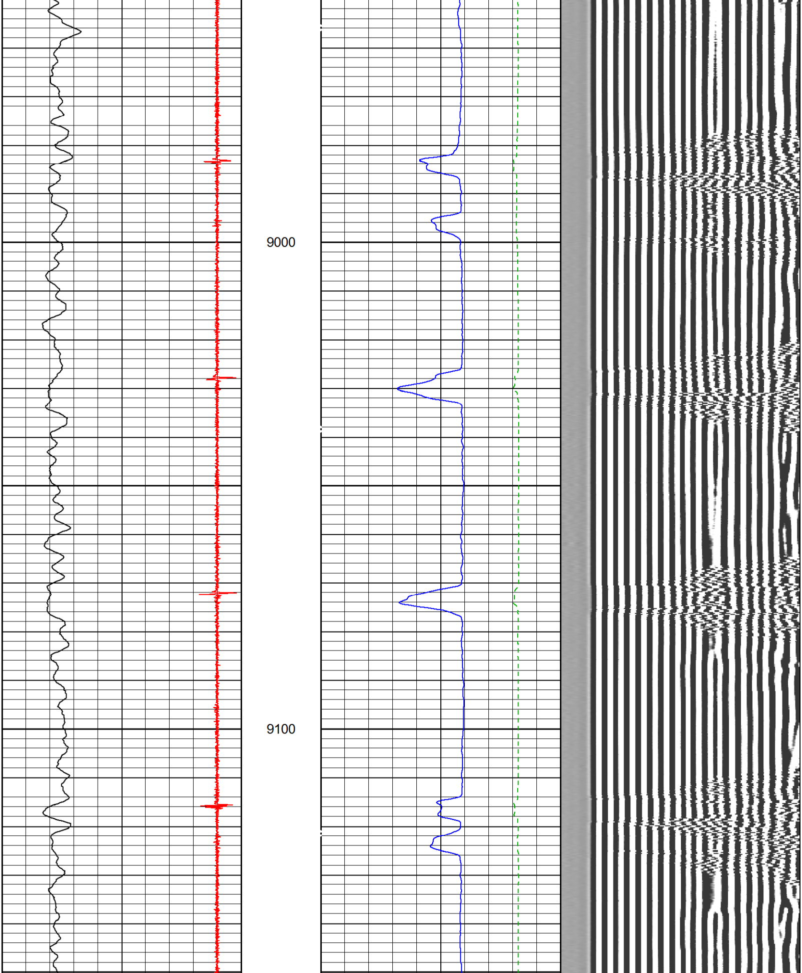
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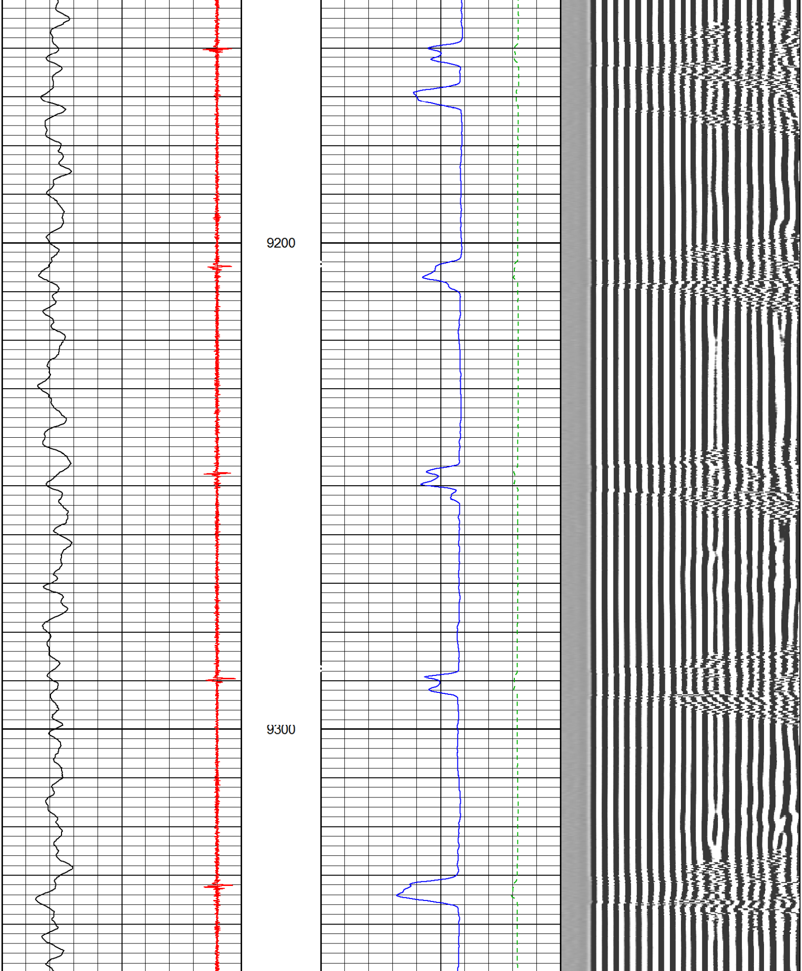
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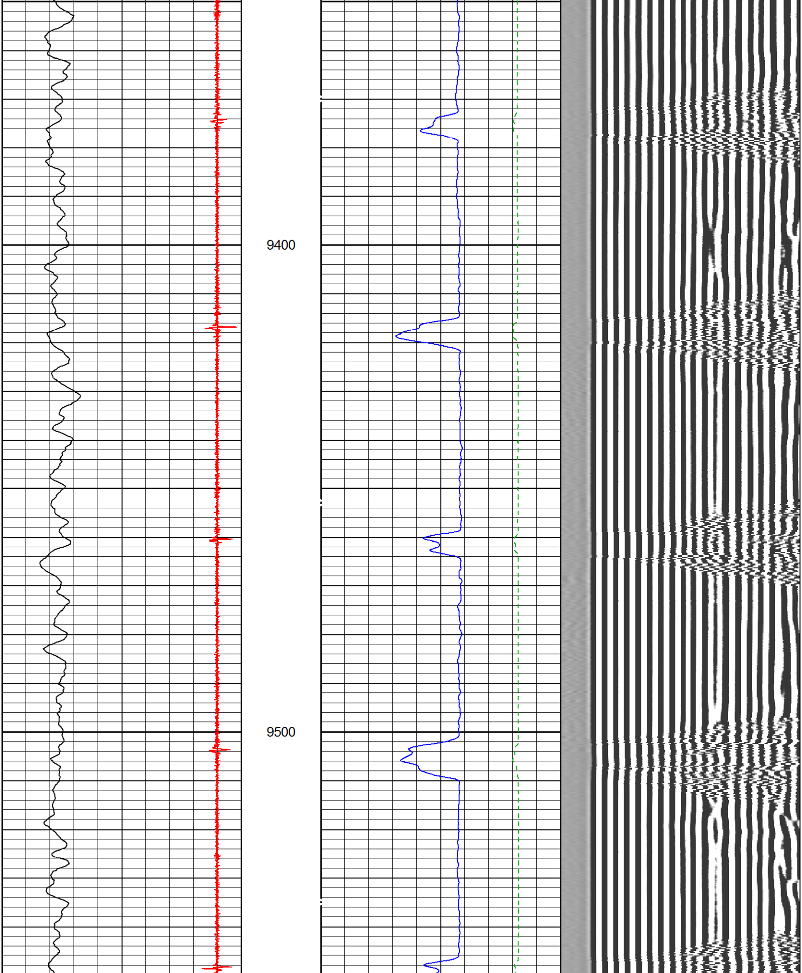
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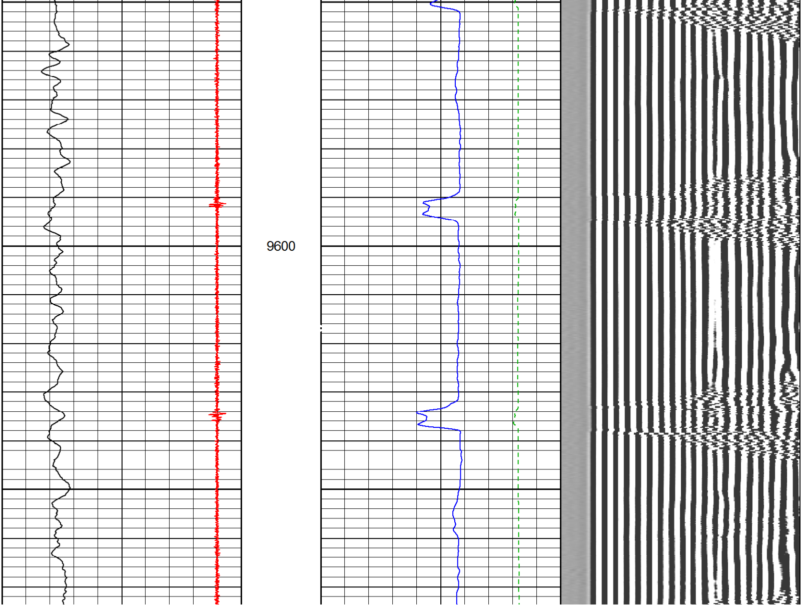
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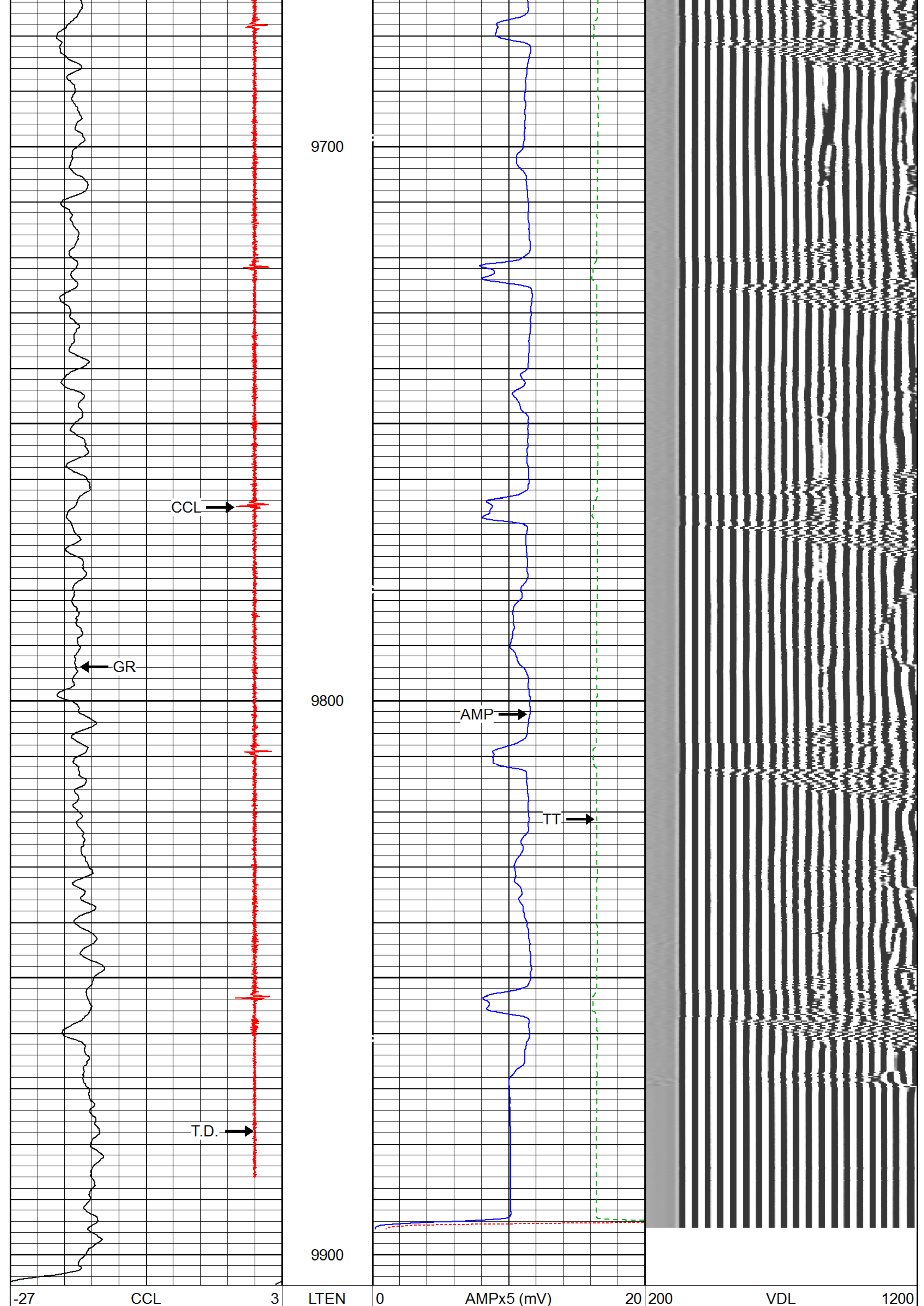

-27 CCL 3	LTEN	0 AMPx5 (mV) 20	200 VDL 1200
0 GR 200	0 (lb) 2000	0 AMP (mV) 100	
		380 TT (usec) 180	

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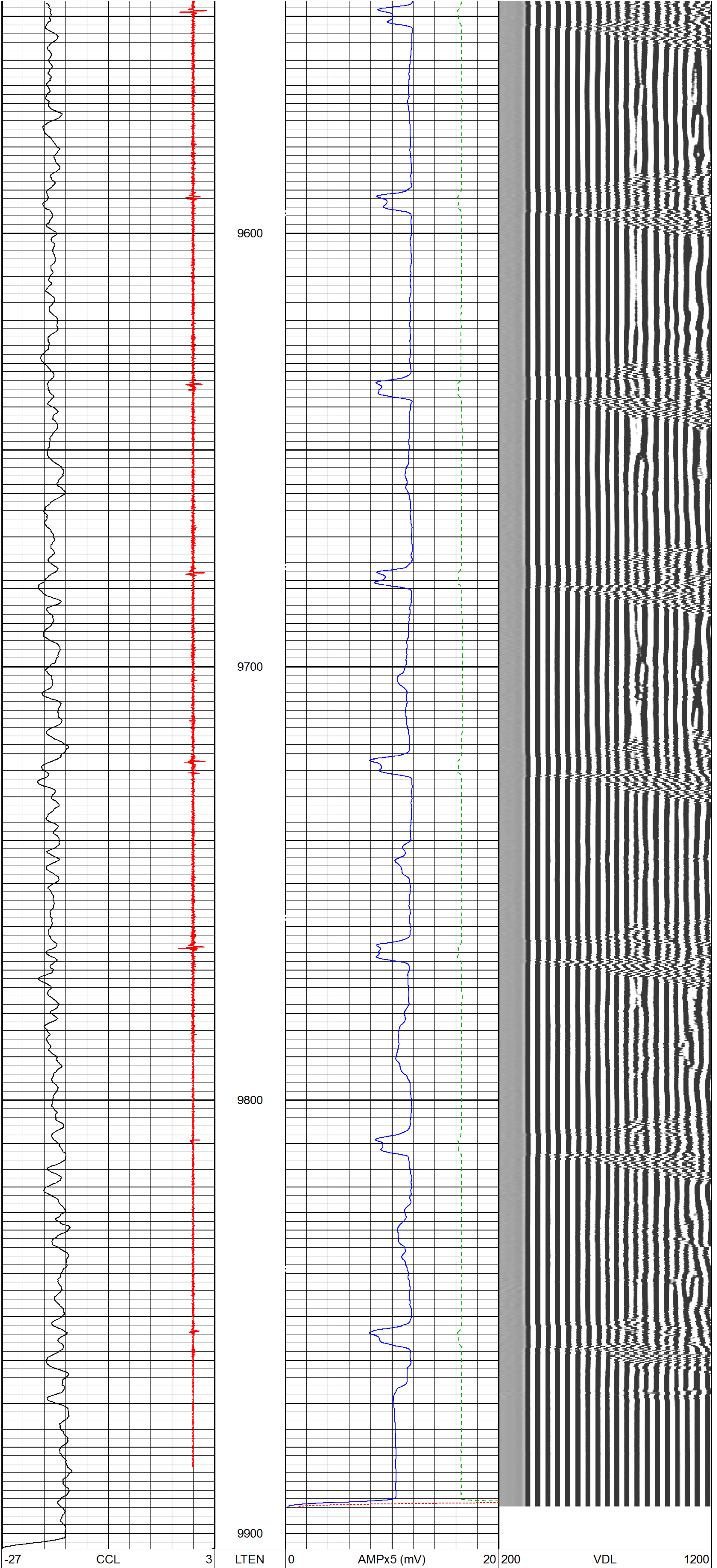
REPEAT PASS

Database File: 06032014_wpx_gm_702-4-hn1.db
Dataset Pathname: repeat/pass1.1
Presentation Format: rmws_dsc
Dataset Creation: Tue Jun 03 19:31:27 2014 by Calc SCH 120430
Charted by: Depth in Feet scaled 1:240

-27 CCL 3	LTEN	0 AMPx5 (mV) 20	200 VDL 1200
0 GR 200	0 (lb) 2000	0 AMP (mV) 100	
		380 TT (usec) 180	



-27 CCL 3	LTEN	0 AMPx5 (mV) 20	200 VDL 1200
0 GR 200	0 (lb) 2000	0 AMP (mV) 100	
		380 TT (usec) 180	

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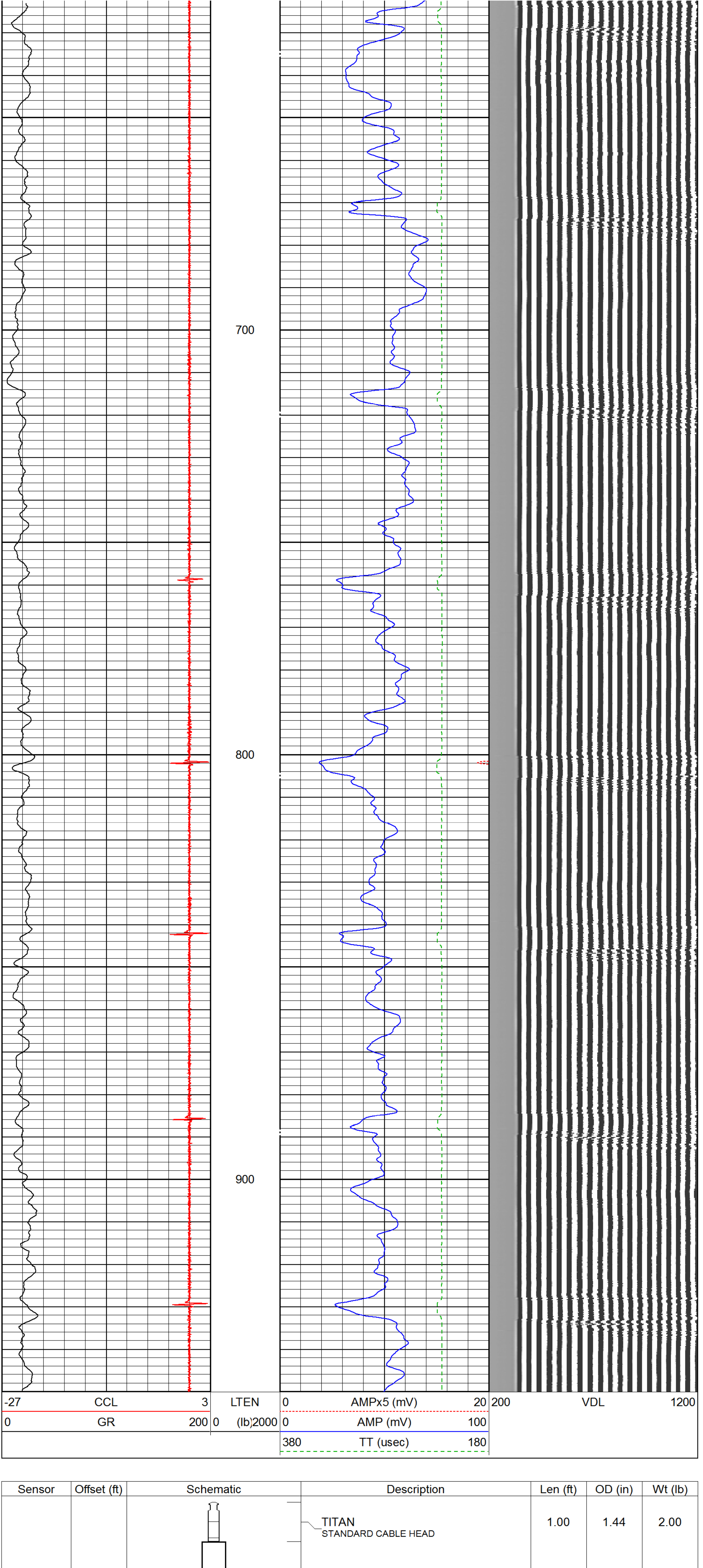
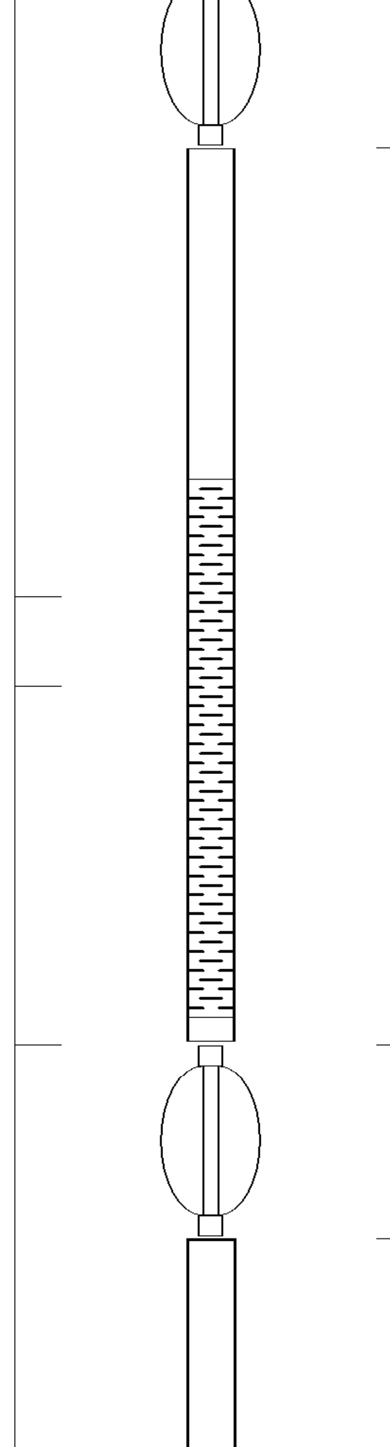
FREE PIPE PASS

Database File: 06032014_wpx_gm_702-4-hn1.db
Dataset Pathname: freepipe/pass1.1
Presentation Format: rmws_dsc
Dataset Creation: Tue Jun 03 19:28:21 2014 by Calc SCH 120430
Charted by: Depth in Feet scaled 1:240

-27 CCL 3	LTEN	0 AMPx5 (mV) 20	200 VDL 1200
0 GR 200	0 (lb) 2000	0 AMP (mV) 100	
		380 TT (usec) 180	



-27 CCL 3	LTEN	0 AMPx5 (mV) 20	200 VDL 1200
0 GR 200	0 (lb) 2000	0 AMP (mV) 100	
		380 TT (usec) 180	



Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			TITAN STANDARD CABLE HEAD	1.00	1.44	2.00
CCL	18.81		CCL-3.125_APPLIED (40-01NB)	2.03	3.13	45.00
			TITAN169 Titan 1 11/16" Centralizer	2.17	1.69	5.00
WVF3FT	10.85		CBLTEKCO-TEKCO (TEKCO_8009) DEMO TOOL - DEMINSIONS INVALID	10.00	3.25	50.00
WVF5FT	9.85					
WVFSYNC	5.85					
			TITAN169 Titan 1 11/16" Centralizer	2.17	1.69	5.00
			GR-TEKCO234 (TEKCO234_352) Tekco 2 3/4" Gamma Ray	3.69	2.75	20.00
GR	1.00					

Dataset: 06032014_wpx_gm_702-4-hn1.db: field/well/main/pass1.2
Total Length: 21.05 ft
Total Weight: 127.00 lb
O.D. 3.25 in

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Company	WPX ENERGY
Well	FEDERAL GM 702-4-HN1
Field	GRAND VALLEY
County	GARFIELD
State	COLORADO