CEMENT BOND LOG

Company	**Extraction Oil and Gas, Inc**
Well	**Coyote Trails 33S-20-4N**
Field	**Wattenberg**
County	**Weld**
State	**Colorado**

API # : 33 123 45992
Location: SW/SE
1148 FSL
2247 FEL

Other Services

Elevation
K.B. 5296
D.F. 5295
G.L. 5271

SEC: 28 TWP: 1N RGE: 68W

Company	Extraction Oil and Gas, Inc
Well	Coyote Trails 33S-20-4N
Field	Wattenberg
County	Weld
State	Colorado

Permanent Datum: Ground LEvel Elevation: 5271
Log Measured From: Kelly Bushing , 25 ft. above Permanent Datum.
Drilling Measured From: Kelly Bushing

Date	05 March 2019	
Run Number	One	
Plug Back T.D. Driller	----	
Plug Back T.D. Logger	----	
Bottom Logged Interval	8140	
Top Log Interval	Surface	
Type Fluid	Water	
Density / Viscosity	----	
Max. Recorded Temp.	239	
Time Logger on Bottom	11:30	
Equipment Number	GD114	
Location	Casper	
Recorded By	GS Yarbro	
Witnessed By	MR. Torres	MR. Stephens

Casing Record				Tubing Record			
Size	Weight	From	To	Size	Weight	From	To
9 5/8	36	25	----				
5 1/2	20	25	----				

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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.

Ticket # : RM0319PCBW236
Your Crew Today: Enloe, Enlsey
Log Correlated to: Surface

Cement Data

Date Cemented	----
Primary / Squeeze	Primary
Type / Weight	----
Main Pass Press.	Zero
Repeat Pass Press.	Zero

Bond Index

Index %	Est Top Depth
20 % Bond	100
40 % Bond	100
60 % Bond	125
80 % Bond	125
100 % Bond	860

Comments

Estimated Top of Cement
(40% Bond Index) @ 100'

Thank you for using Gyrodata

Eric Regnier: Rocky Mountain Wireline Manager EricR@Gyrodata.com

Log Variables

Databased:\warrior\data\20180305_extraction_coyete trails 33s-20-4n_cbl\20180305_extraction_co
Dataset field/well/run1/pass3.1/_vars_

Top - Bottom

BHTEMP_Src	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	CASEWGHT lb/ft	MAXAMPL mV	MaxAPIID in
TEMP	8.5	100	5.5	0.361	20	71.9	4.923
MINAMPL **mV**	**MinAPIID** **in**	**MINATTN** **db/ft**	**PPT** **usec**	**TDEPTH** **ft**			
2.1	4.751	0	237	0			

BOND INDEX

Calculated for 3000 PSI Compressive Strength Cement

Database File	20180305_extraction_coyete trails 33s-20-4n_cbl\20180305_extraction_coyete trails 33s-20-4n_cbl.db
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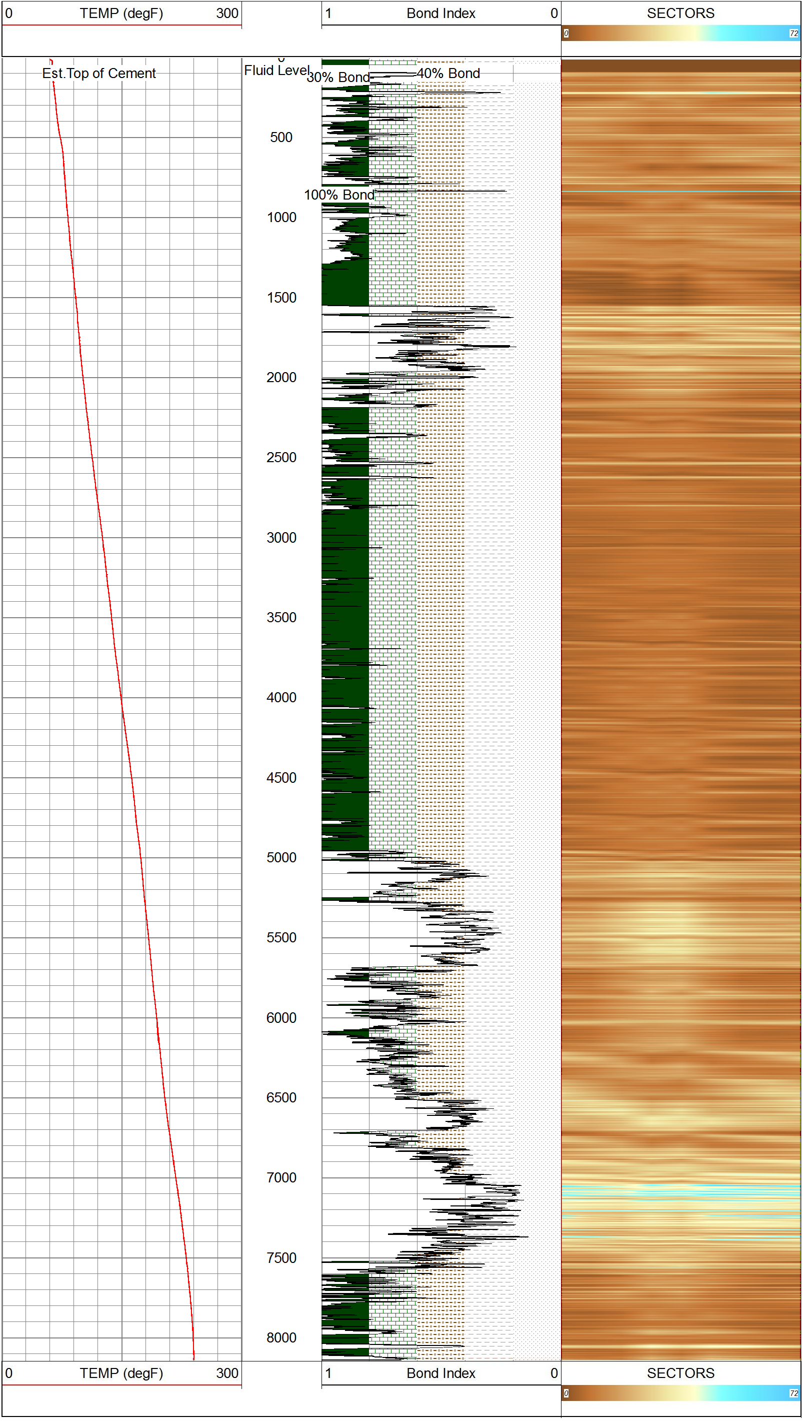
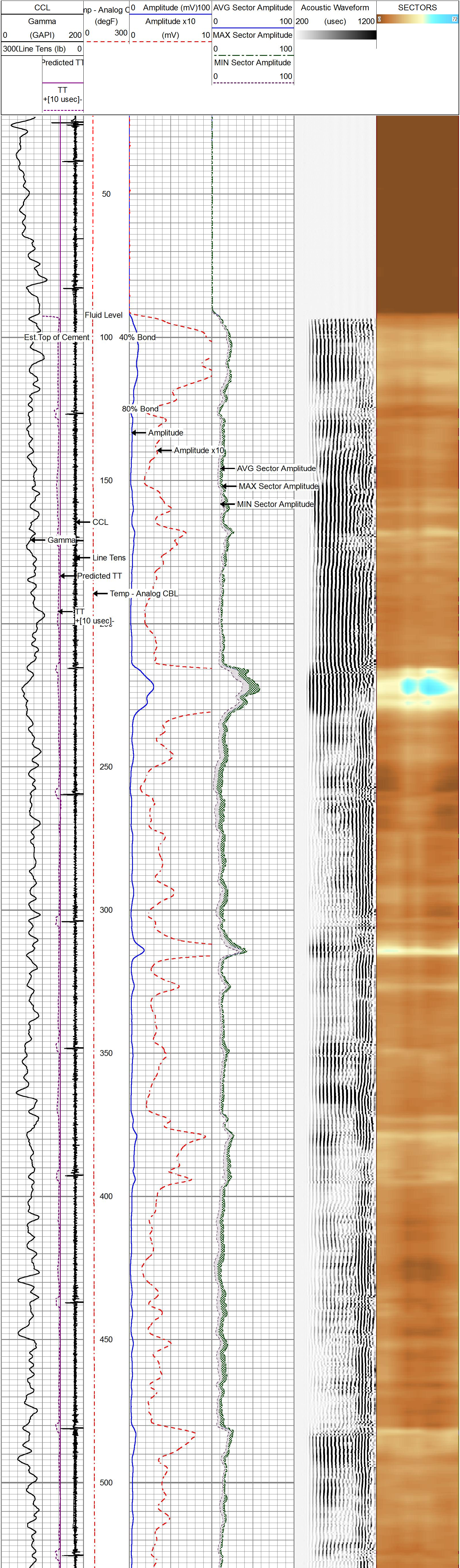
Presentation Format	BNDIND~1
Dataset Creation	Tue Mar 05 12:52:08 2019
Charted by	Depth in Feet scaled 1:7500

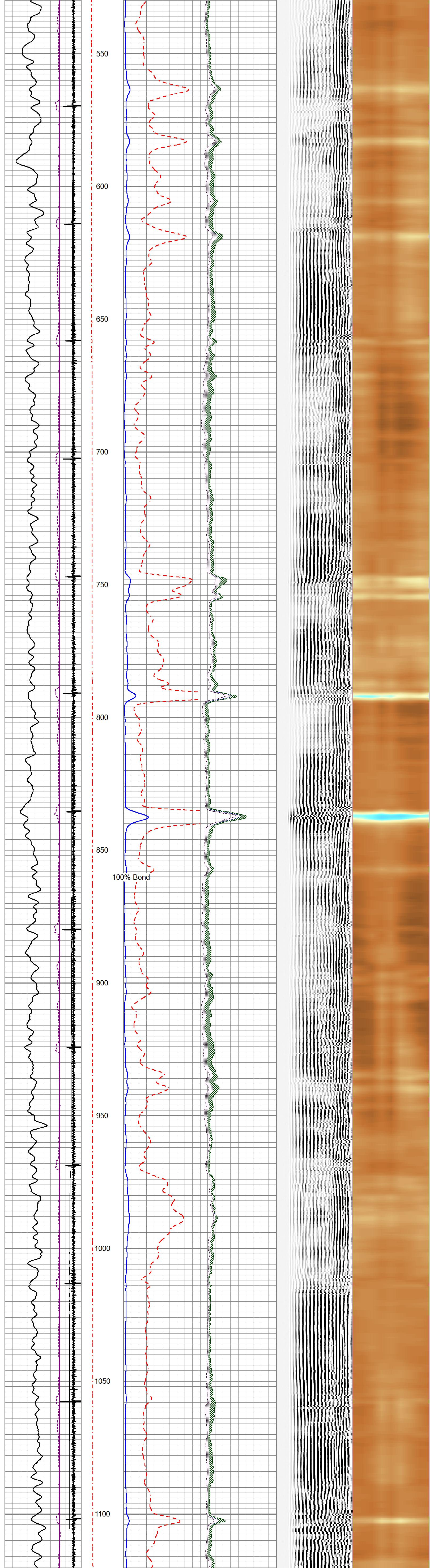


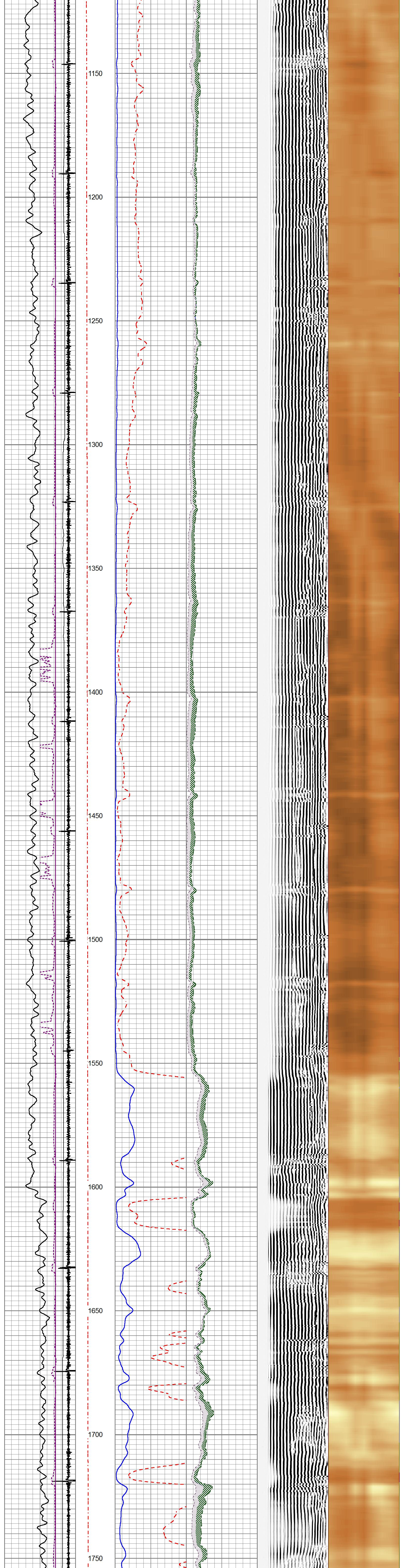
MAIN PASS - Ran with 0 PSI

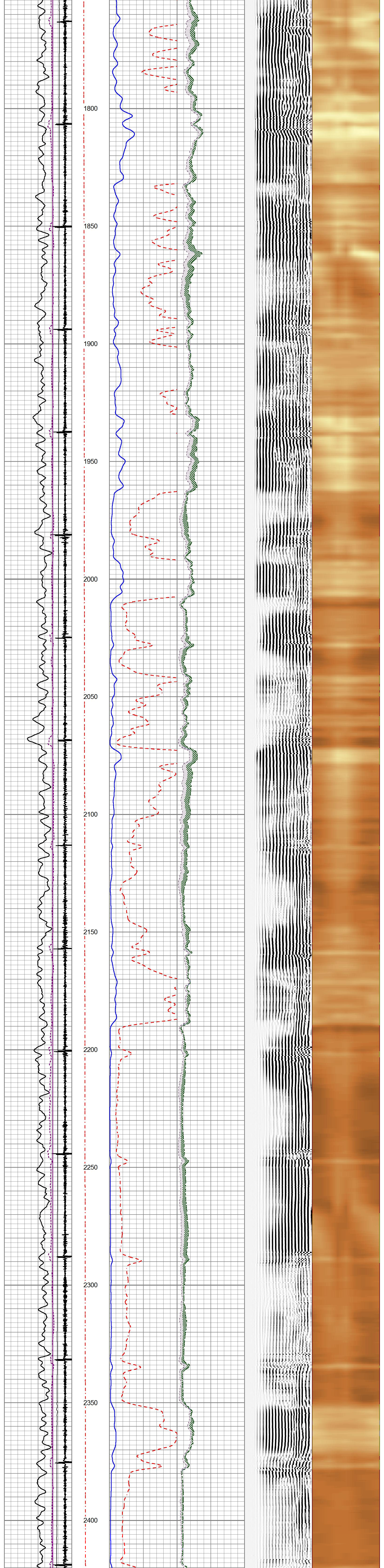
5 in / 100 ft

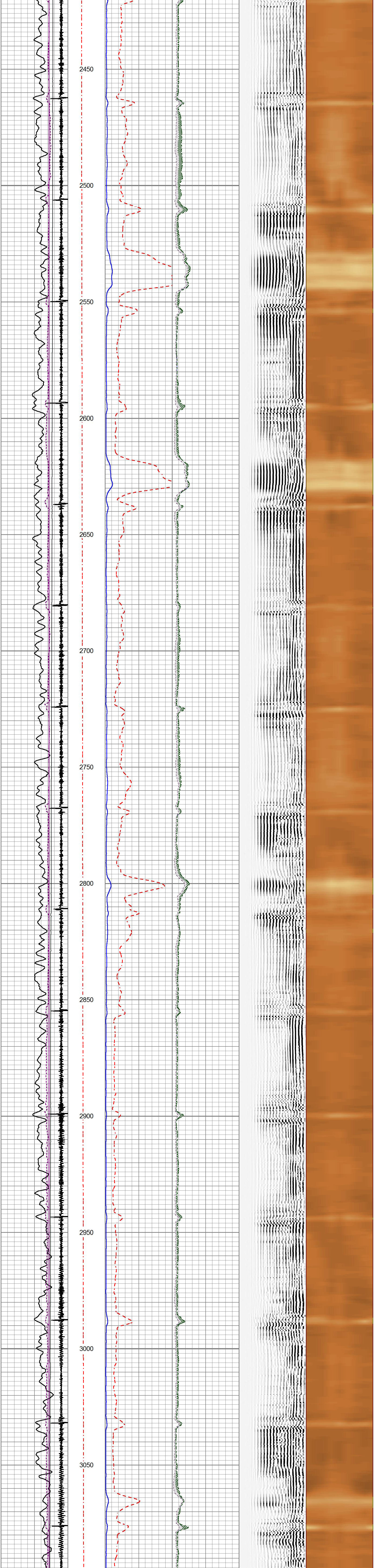
Database File	20180305_extraction_coyete trails 33s-20-4n_cbl\20180305_extraction_coyete trails 33s-20-4n_cbl.db
Dataset Pathname	pass3.1
Presentation Format	rcbl_8s
Dataset Creation	Tue Mar 05 12:49:05 2019
Charted by	Depth in Feet scaled 1:240

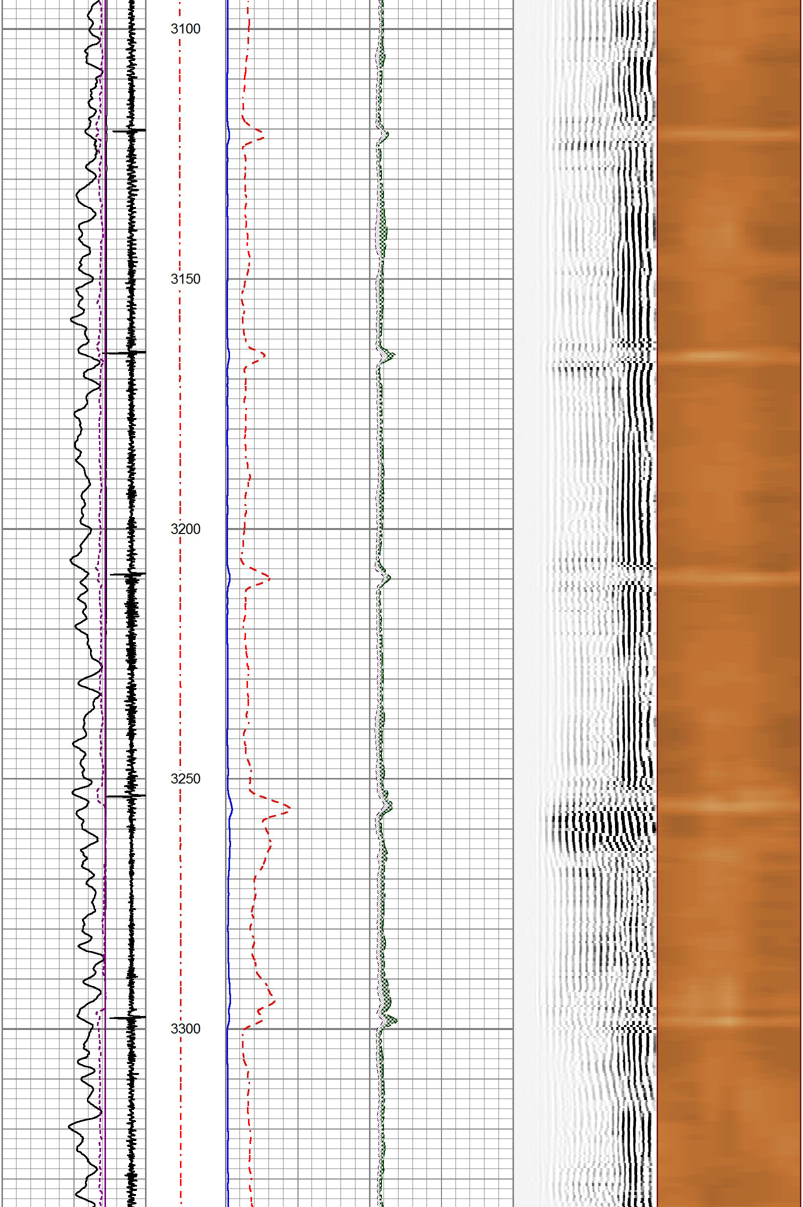


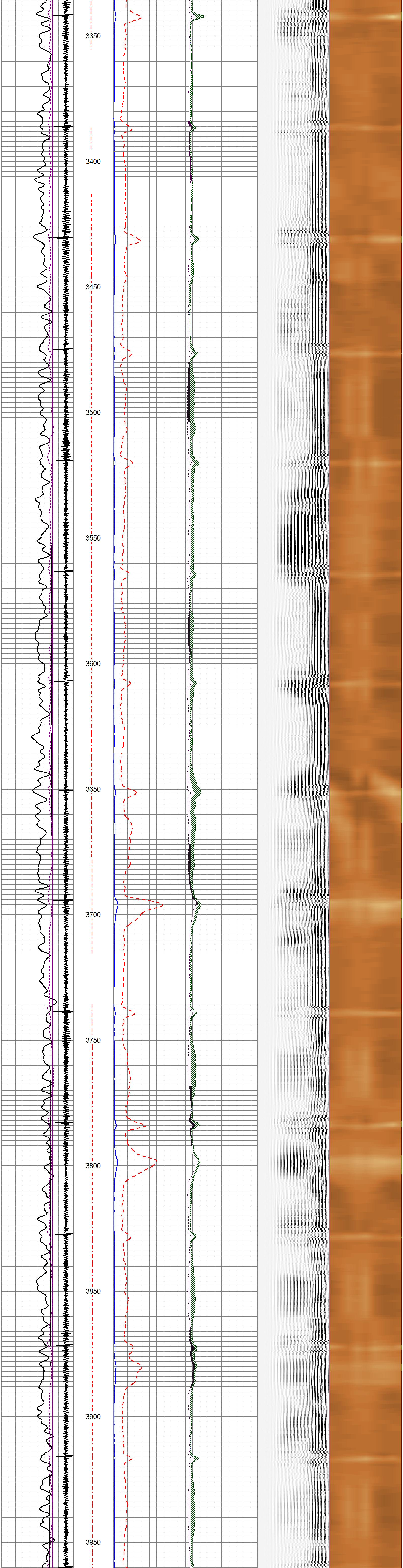








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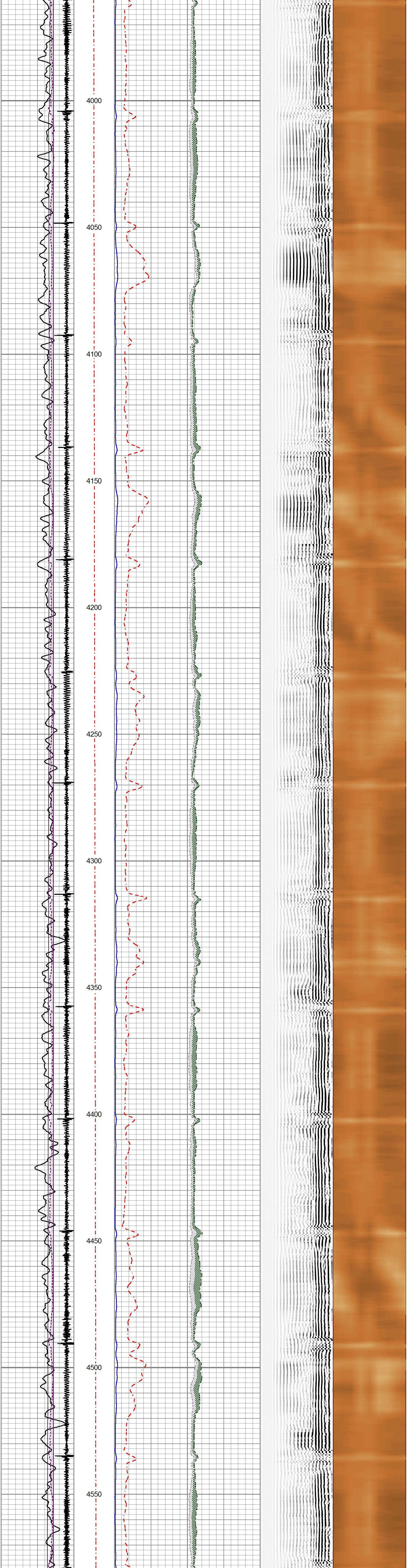
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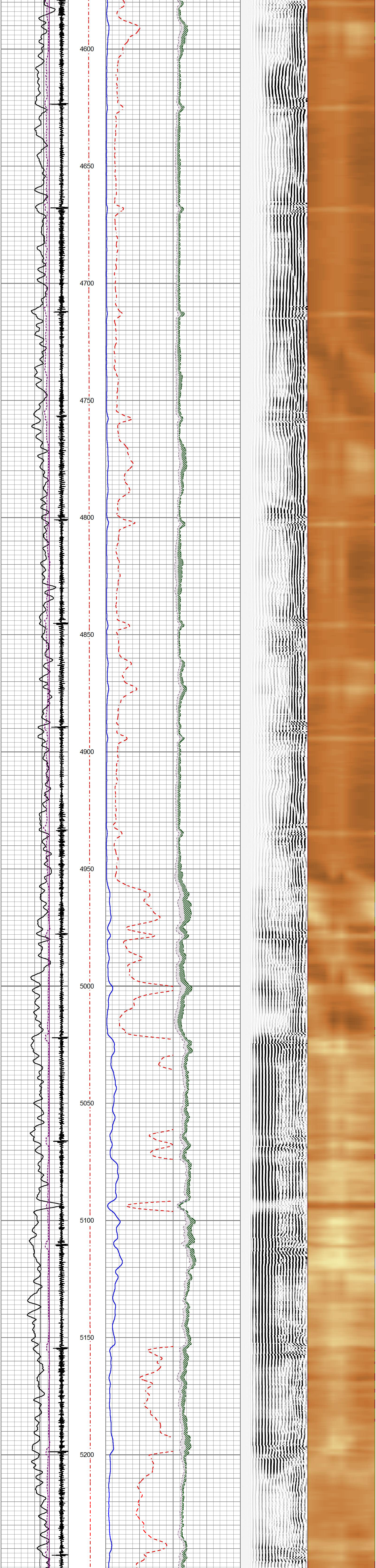
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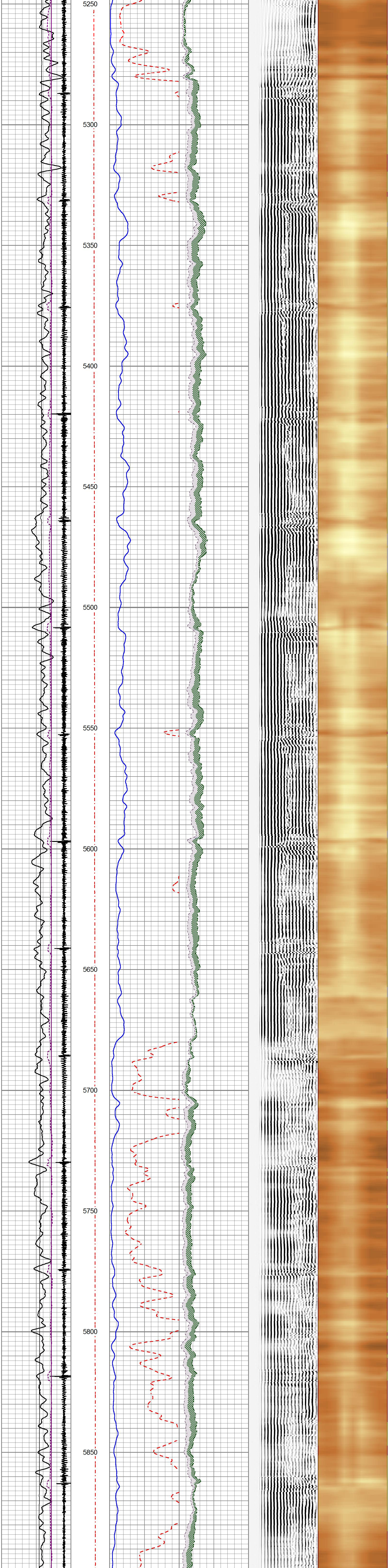
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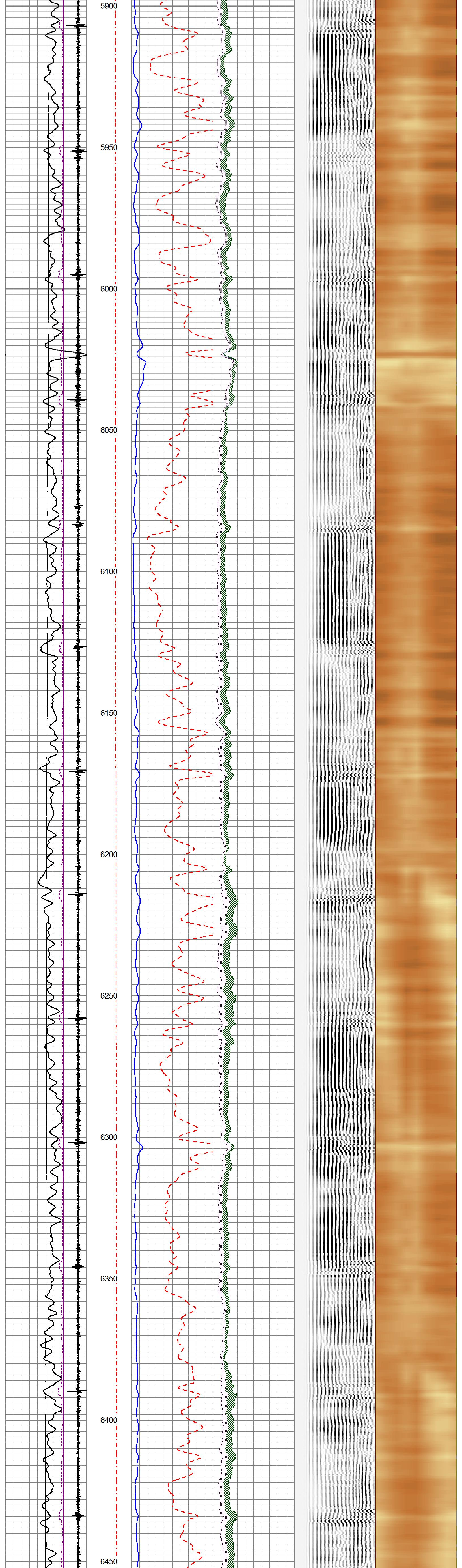
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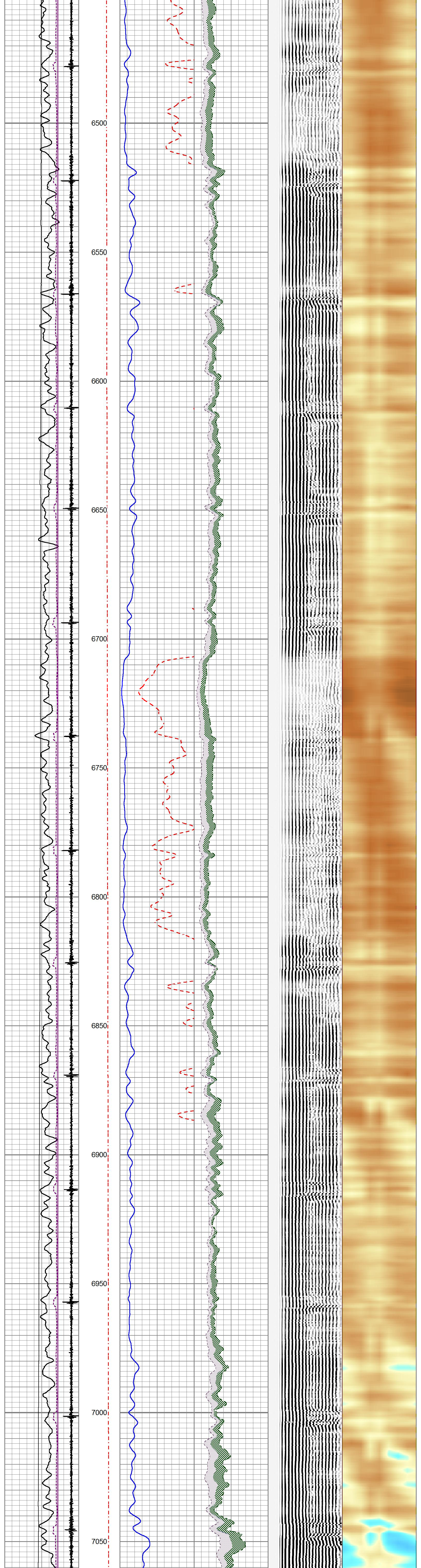
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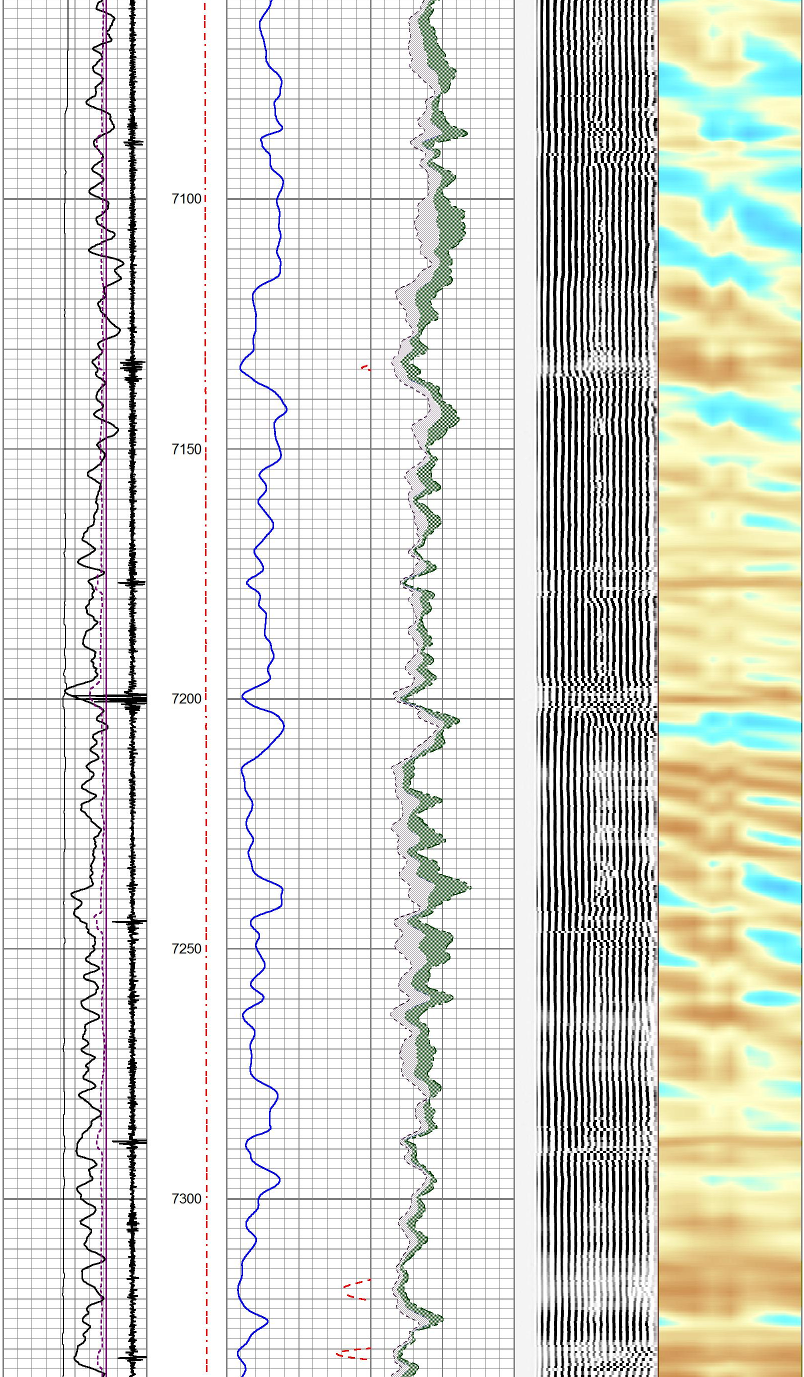
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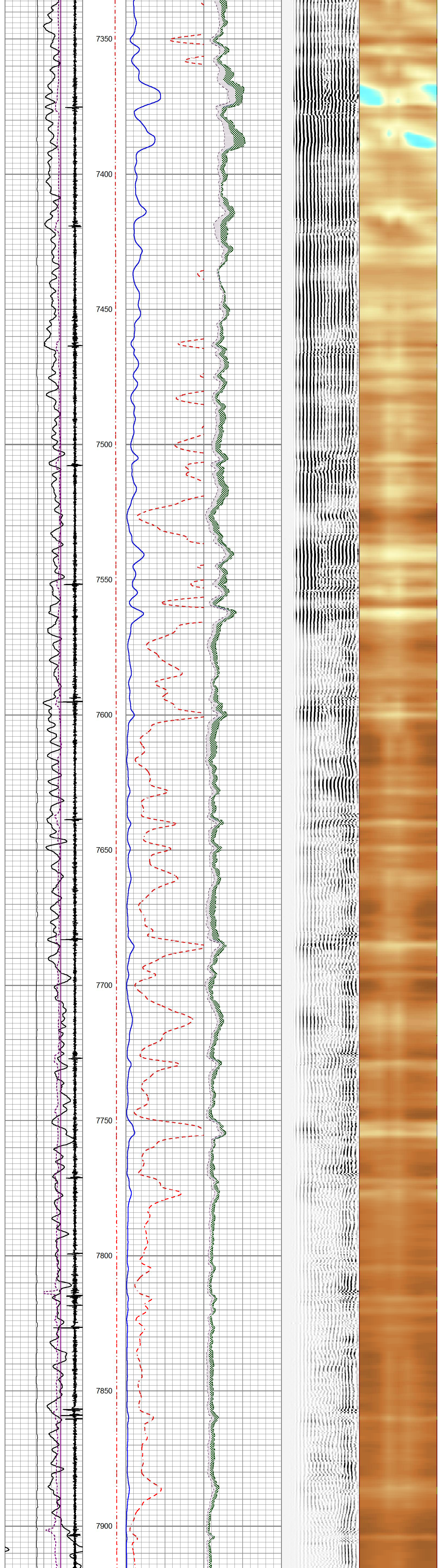

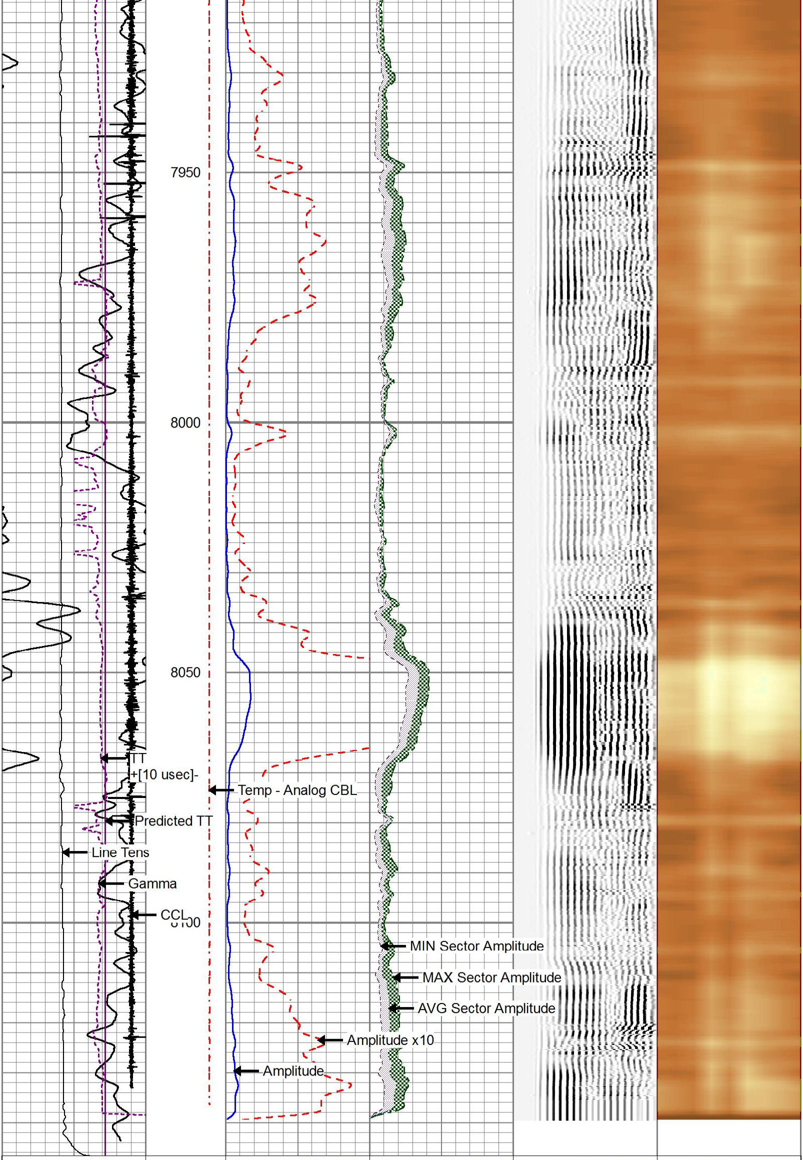

CCL	np - Analog C	0 Amplitude (mV)100	AVG Sector Amplitude	Acoustic Waveform	SECTORS
Gamma	(degF)	Amplitude x10	0 100	200 (usec) 1200	0 72
0 (GAPI) 200	0 300	0 (mV) 10	MAX Sector Amplitude		
300(Line Tens (lb) 0			0 100		
Predicted TT			MIN Sector Amplitude		
TT +[10 usec]-			0 100		

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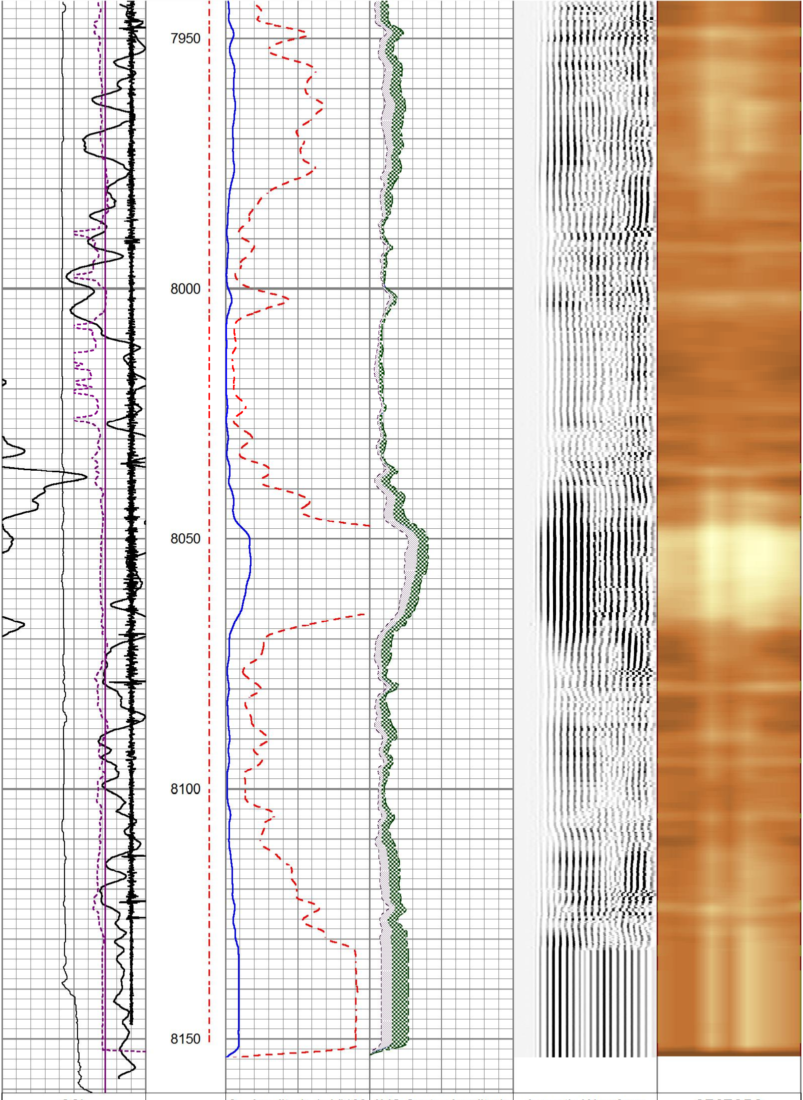
REPEAT PASS - Ran with 0 PSI

5 in / 100 ft

Database File	20180305_extraction_coyete trails 33s-20-4n_cbl\20180305_extraction_coyete trails 33s-20-4n_cbl.db
Dataset Pathname	pass2.1
Presentation Format	rcbl_8s
Dataset Creation	Tue Mar 05 12:50:18 2019
Charted by	Depth in Feet scaled 1:240

CCL	np - Analog C	0 Amplitude (mV)100	AVG Sector Amplitude	Acoustic Waveform	SECTORS
Gamma	(degF)	Amplitude x10	0 100	200 (usec) 1200	0 72
0 (GAPI) 200	0 300	0 (mV) 10	MAX Sector Amplitude		
300(Line Tens (lb) 0			0 100		
Predicted TT			MIN Sector Amplitude		
TT +[10 usec]-			0 100		



CCL	np - Analog C	0 Amplitude (mV)100	AVG Sector Amplitude	Acoustic Waveform	SECTORS
Gamma	(degF)	Amplitude x10	0 100	200 (usec) 1200	0 72
0 (GAPI) 200	0 300	0 (mV) 10	MAX Sector Amplitude		
300(Line Tens (lb) 0			0 100		
Predicted TT			MIN Sector Amplitude		
TT +[10 usec]-			0 100		

Calibration Report

Database File d:\warrior\data\20180305_extraction_coyete trails 33s-20-4n_cbl\20180305_extraction_coyete trails 33s-20-
Dataset Pathname pass3.1
Dataset Creation Tue Mar 05 12:49:05 2019

Gamma Ray Calibration Report

Serial Number:	IXEM9-01	
Tool Model:	2 3/4" TekCo	
Performed:	Mon Dec 12 23:01:19 2016	
Calibrator Value:	194.0	GAPI
Background Reading:	59.5	cps
Calibrator Reading:	300.8	cps
Sensitivity:	0.8039	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	IPPO2-01	
Tool Model:	2 3/4" RIB Analog	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	0.000	ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.002	1.593	0.000	72.000	45.259	-0.106
CAL	0.000	0.750				
5'	0.002	1.877	0.000	72.000	38.385	-0.064
SUM						
S1	0.020	1.405	0.000	72.000	52.005	-1.063
S2	0.018	1.568	0.000	72.000	46.443	-0.823
S3	0.020	1.789	0.000	72.000	40.686	-0.799
S4	0.025	1.768	0.000	72.000	41.289	-1.016
S5	0.025	1.880	0.000	72.000	38.829	-0.983
S6	0.022	1.488	0.000	72.000	49.117	-1.090
S7	0.024	1.356	0.000	72.000	54.090	-1.319
S8	0.024	1.283	0.000	72.000	57.169	-1.362

Internal Reference Calibration, performed Fri Aug 25 15:15:12 2017:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.750	0.000	0.750	1.000	0.000

Air Zero Calibration, performed Fri Aug 25 15:15:12 2017:

	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

Temperature Calibration Report

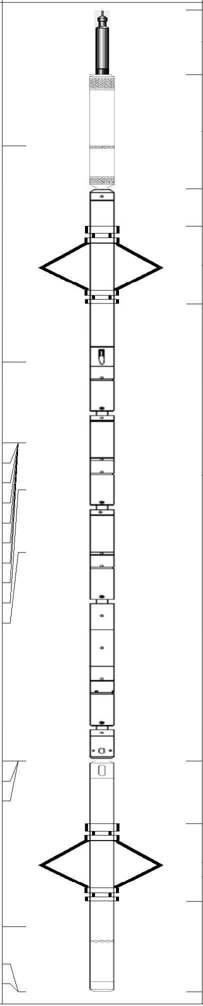
Serial Number:	IPPO2-01	
Tool Model:	2 3/4" RIB Analog	
Performed:	Fri Aug 26 10:07:15 2016	

	Reference		Reading	
Low Reference:	0.00	degF	0.00	usec
High Reference:	1.00	degF	1.00	usec

Gain: 0.33
Offset: 0.00
Delta Spacing 1

Sensor	Offset (ft)
CCL	13.50
TEMP	10.05
WVFS8	8.76
WVFS7	8.76
WVFS6	8.76
WVFS5	8.76
WVFS4	8.76
WVFS3	8.76
WVFS2	8.76
WVFS1	8.76
WVF3FT	8.01
WVF5FT	7.01
WVFSYNC	3.68
WVFTEMP	3.68
WVFCAL	3.68
GR	1.04
LOCTIM	0.00
UTCTIM	0.00

Schematic



Description	Length (ft)	O.D. (in)	Weight (lb
CableHead-TitanConeType2	1.03	1.44	3.60
CCL_Log-2 3/4" TekCo (IS2T1-09)	1.83	2.75	33.00
Antelope-Overbody	1.25	2.75	
RBTA-2 3/4" RIB Analog (IPPO2-01)	9.13	2.75	102.00
Antelope-Overbody	1.25	2.75	
GR_Log-2 3/4" TekCo (IXEM9-01)	3.68	2.75	47.00

Dataset: 20180305_extraction_coyete trails 33s-20-4n_cbl.db: field/well/run1/pass3.1
Total length: 15.67 ft
Total weight: 185.60 lb
O.D.: 2.75 in

gyrodata

Company	**Extraction Oil and Gas, Inc**
Well	**Coyote Trails 33S-20-4N**
Field	**Wattenberg**
County	**Weld**
State	**Colorado**
Country	**U.S.A.**