CEMENT BOND LOG

Company	Conoco Phillips
Well	Property Reserve 4-65 3-4 2BH
Field	-----
County	Arapahoe
State	CO

Company Conoco Phillips
Well Property Reserve 4-65 3-4 2BH
Field -----
County Arapahoe **State** CO

API # : 05-005-07379
Location: Lat: 39° 44' 0.18"
Long: 104° 38' 33"

SEC: 3 TWP: 4S RGE: 65W

Other Services

Elevation
K.B. 5641'
D.F. -----
G.L. 5616'

Permanent Datum: Ground Level Elevation: 5616'
Log Measured From: Kelly Bushing , 27 ft. above Permanent Datum.
Drilling Measured From: Kelly Bushing

Date	4 Apr 2019		
Run Number	One		
Plug Back T.D. Driller	-----		
Plug Back T.D. Logger	-----		
Bottom Logged Interval	7796'		
Top Log Interval	Surface		
Type Fluid	-----		
Density / Viscosity	-----		
Max. Recorded Temp.	237°F		
Time Logger on Bottom	09:00		
Equipment Number	GD 112		
Location	Casper, WY		
Recorded By	J. Baker		
Witnessed By	Drew		

Casing Record				Tubing Record			
Size	Weight	From	To	Size	Weight	From	To
9 5/8"	36#	Surface	2195'				
5 1/2"	23#	Surface	17,898'				

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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 # :	RM0419PCBW307
Your Crew Today:	B. Kennicker, J. Cheesman, A. Chintala
Log Correlated to:	Marker Joint at 6,890' (-5')

Cement Data	
Date Cemented	-----
Primary / Squeeze	Primary
Type / Weight	-----
Main Pass Press.	1000 psi
Repeat Pass Press.	

Bond Index	
Index %	Est Top Depth
20 % Bond	566'
40 % Bond	738'
60 % Bond	982'
80 % Bond	2262'
100 % Bond	-----

Comments

Estimated Cement top at 566'
(20% Bond)

Log correlated to marker joint at 6,890' (-5')

Thank you for using Gyrodata

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

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Log Variables

Databased:\warrior\data\2019_04_04_conoco_property_reserve_4_65_3_4_2bh_cbl\2019_04_04_c
Dataset field/well/run1/MAINPASS/_vars_

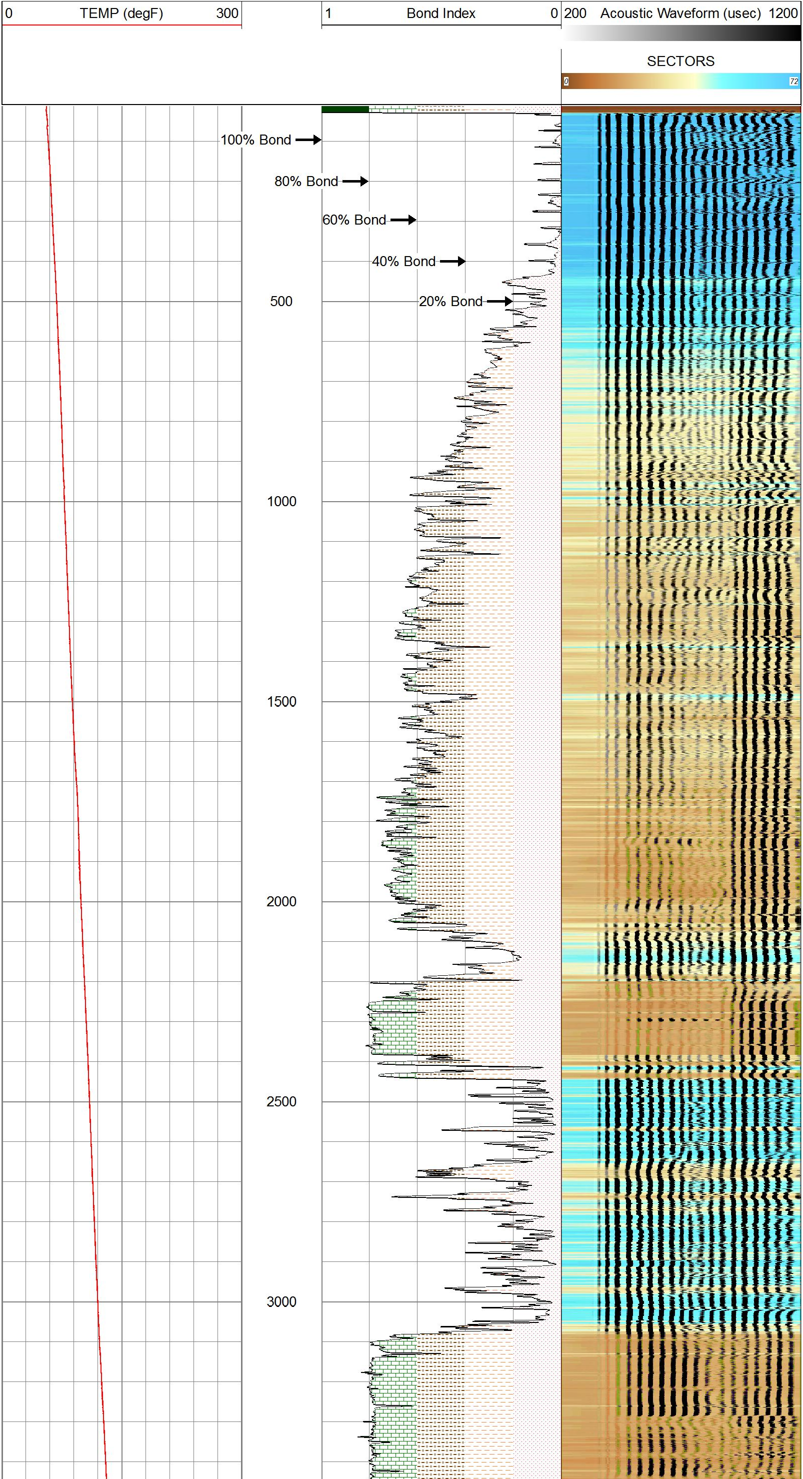
Top - Bottom

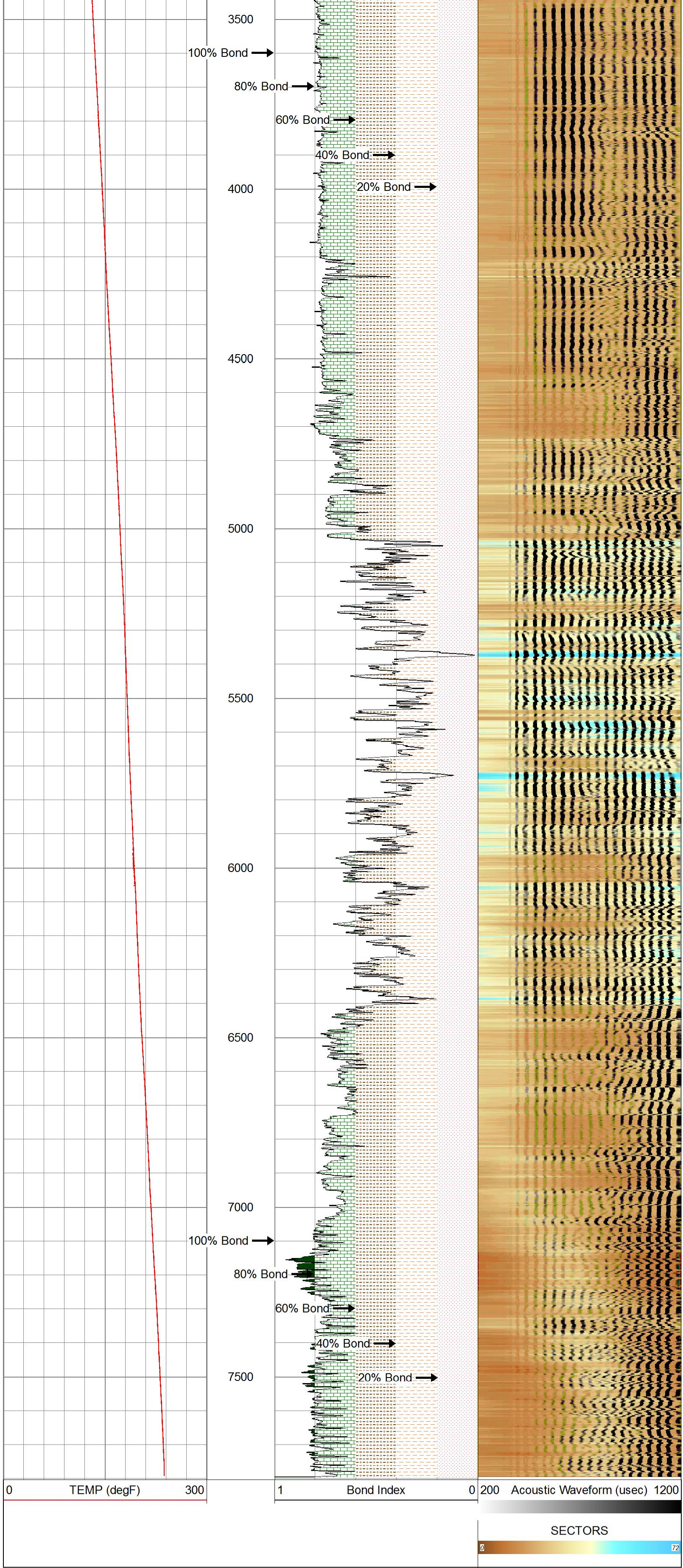
BHTEMP_Src	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	CASEWGHT lb/ft	MAXAMPL mV	MaxAPIID in
TEMP	8.5	237	5.5	0.415	23	71.9	4.829

MINAMPL mV	MinAPIID in	MINATTN db/ft	PPT usec	TDEPTH ft
3.3	4.643	0	240	0

BOND INDEX

Database File	2019_04_04_conoco_property_reserve_4_65_3_4_2bh_cbl\2019_04_04_conoco_property_reserve_4_65_
Dataset Pathname	BOND
Presentation Format	bndindx_msg-sec
Dataset Creation	Thu Apr 04 11:02:40 2019
Charted by	Depth in Feet scaled 1:3000



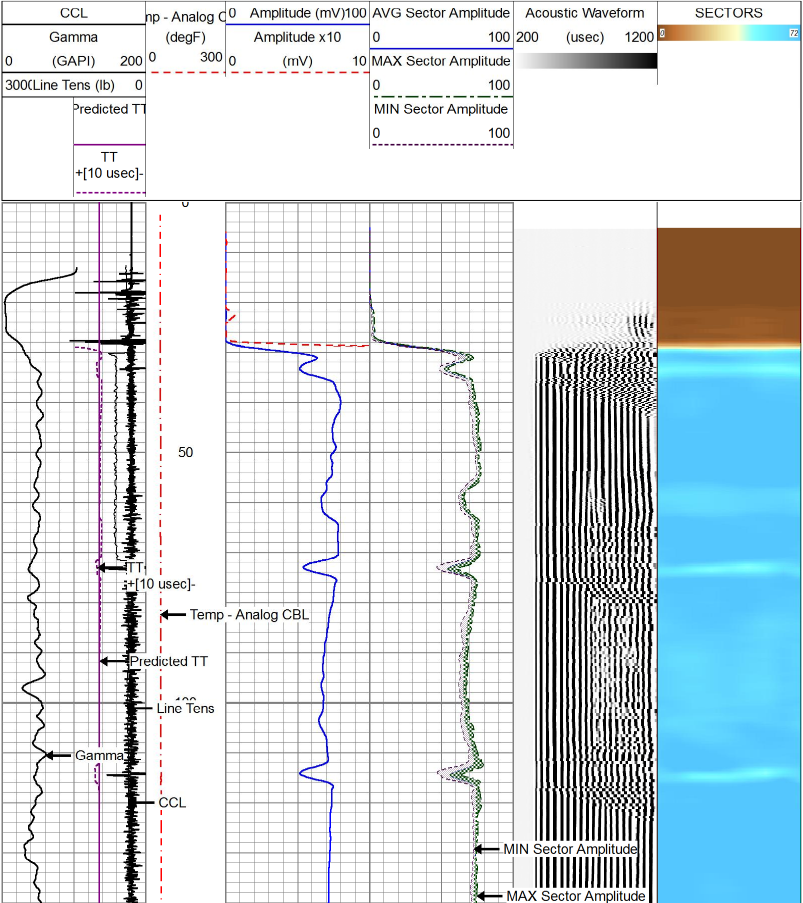


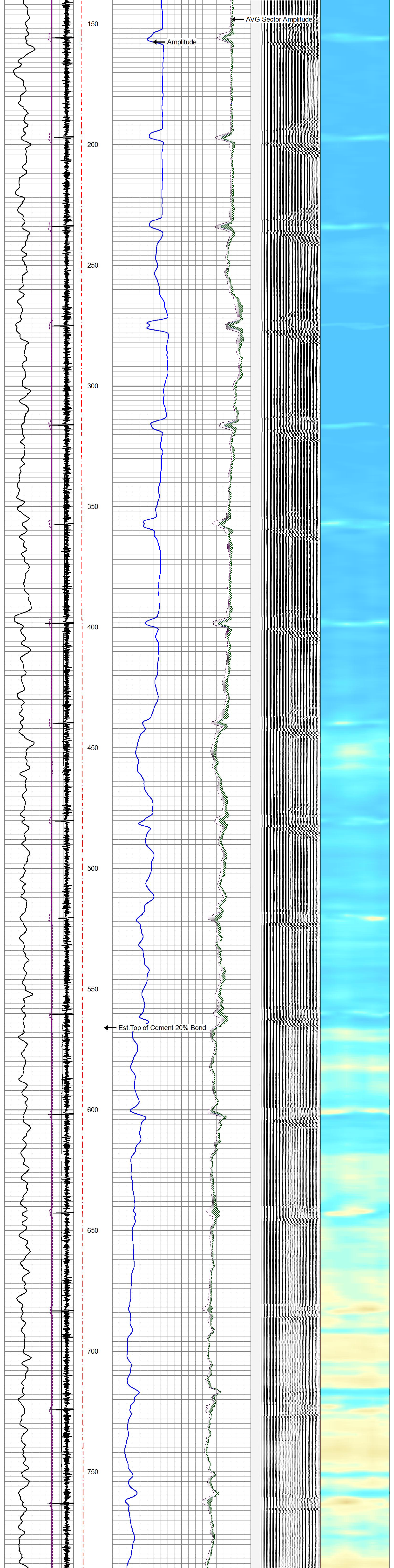
BOND INDEX

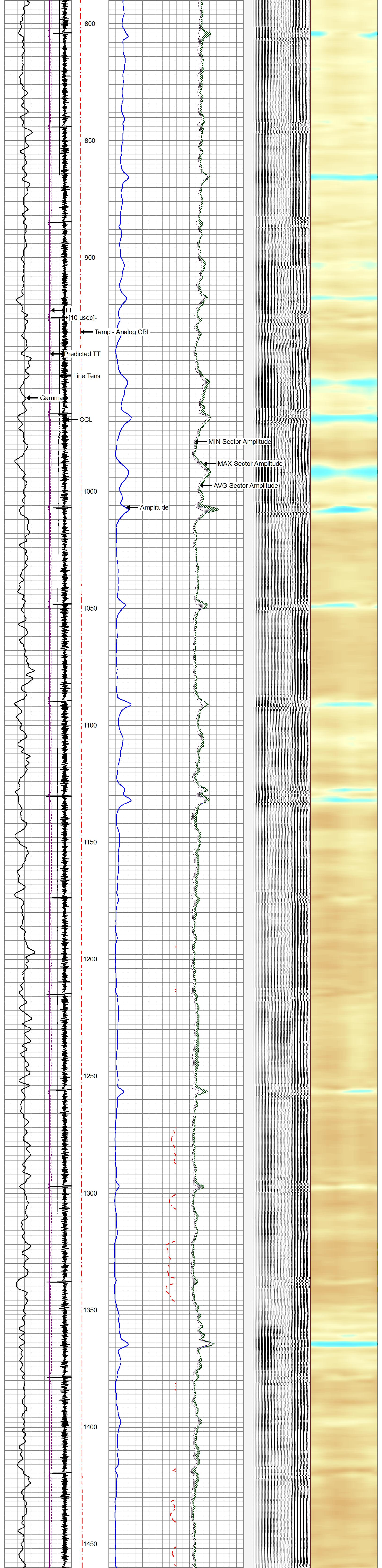
MAIN PASS - Ran with 1000 PSI

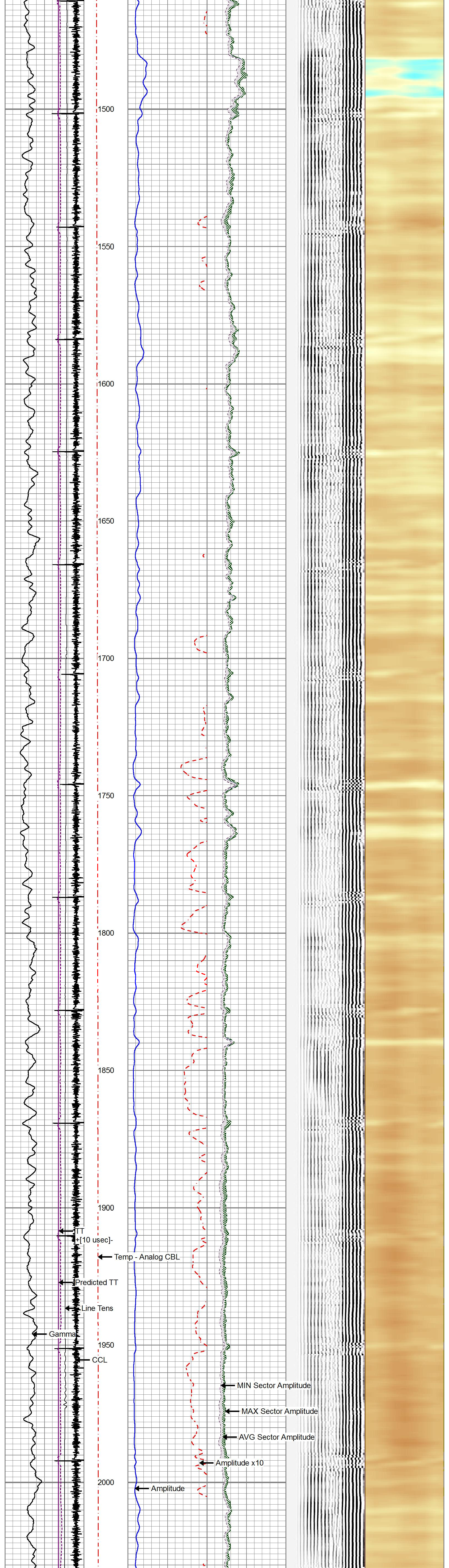
5 in / 100 ft

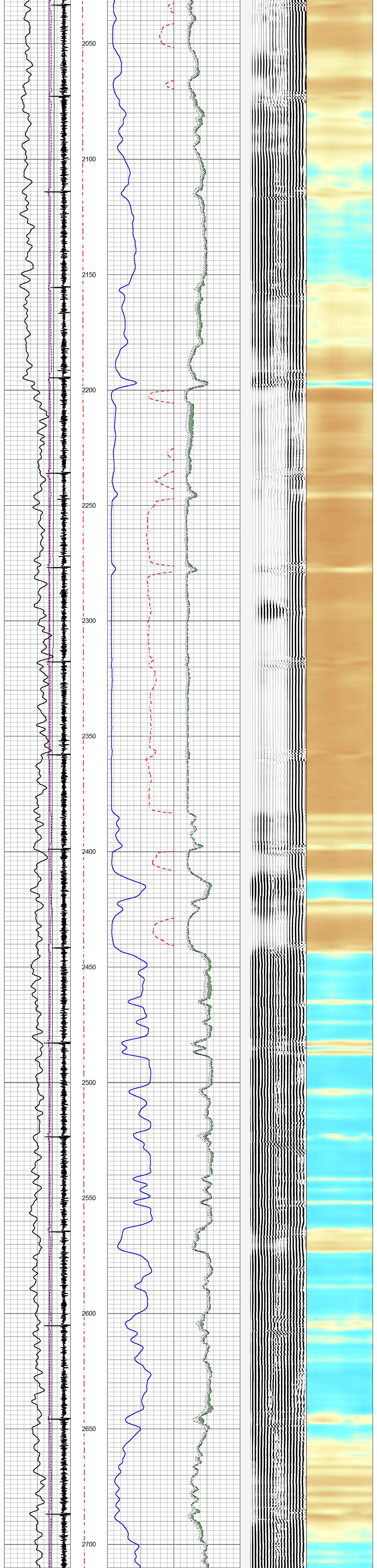
Database File	2019_04_04_conoco_property_reserve_4_65_3_4_2bh_cbl\2019_04_04_conoco_property_reserve_4_65_
Dataset Pathname	MAINPASS
Presentation Format	rcbl_8s
Dataset Creation	Thu Apr 04 11:01:05 2019
Charted by	Depth in Feet scaled 1:240

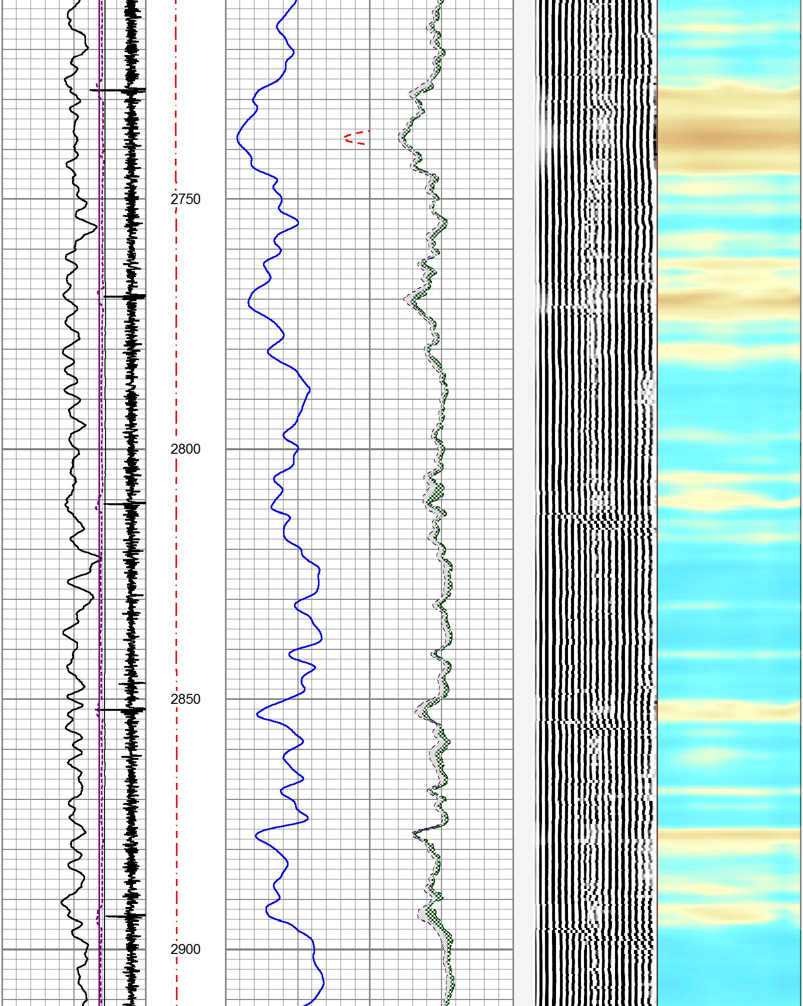


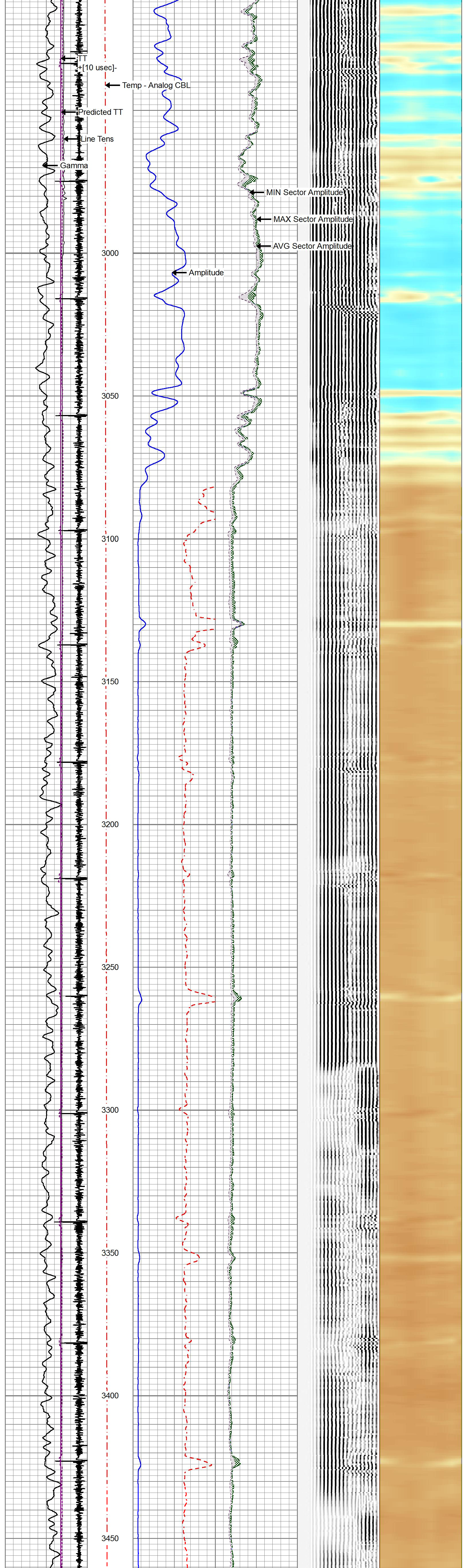


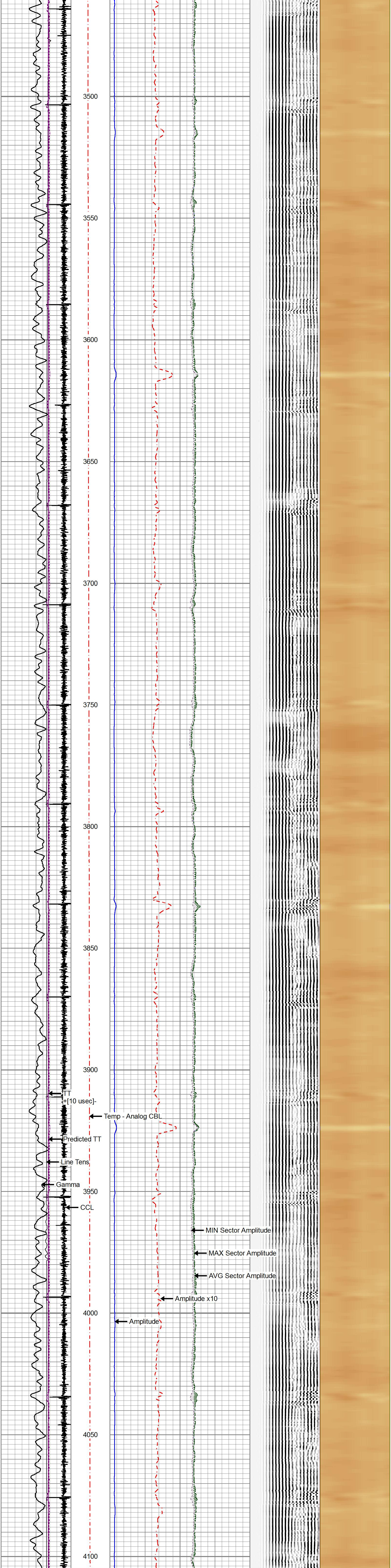


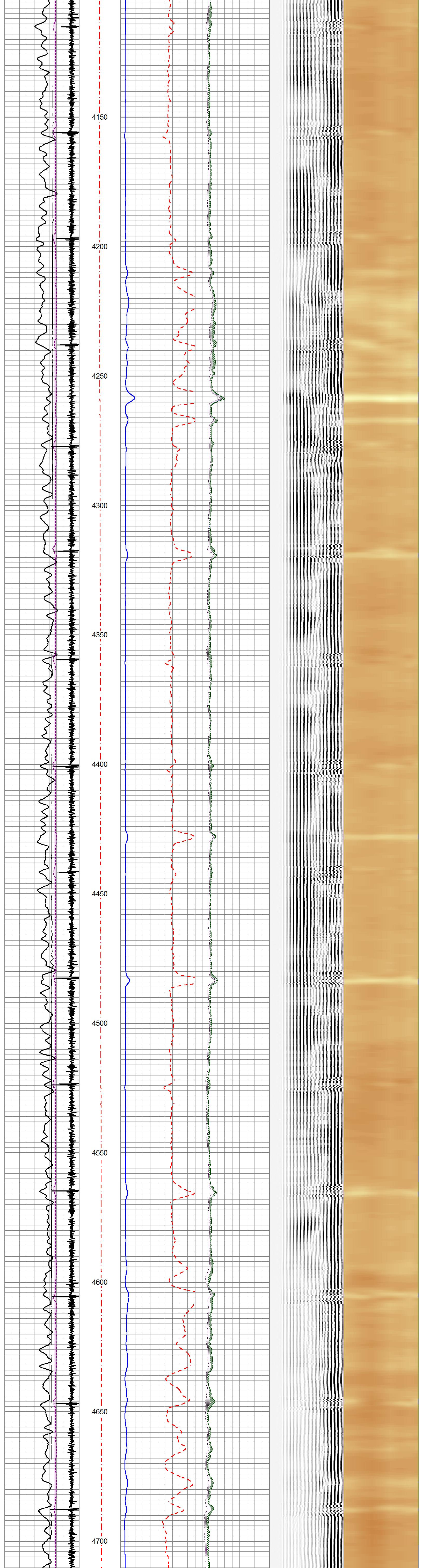


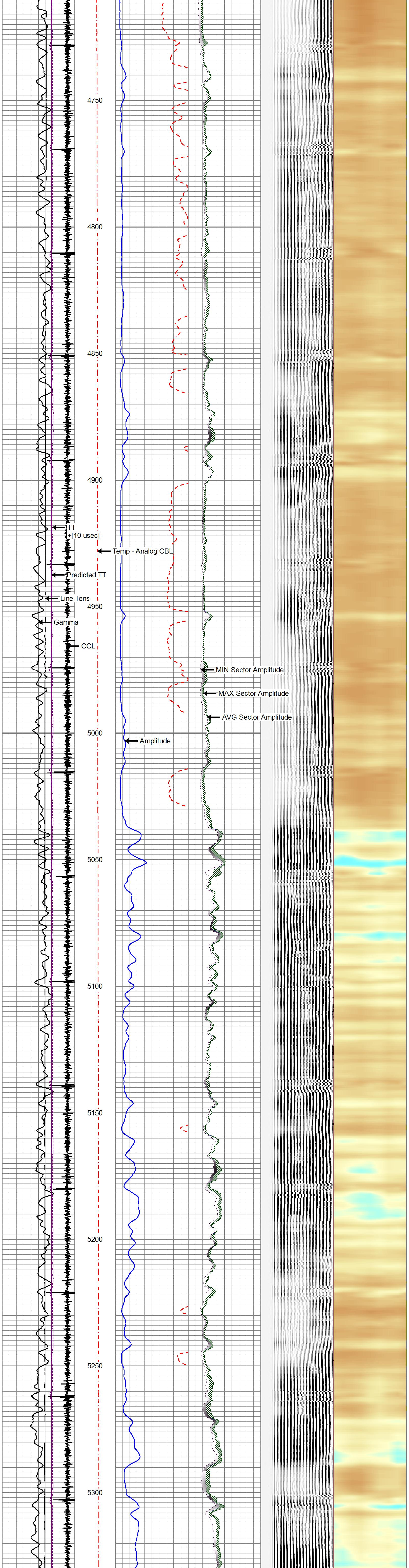





TT
+[10 usec]-
Temp - Analog CBL
Predicted TT
Line Tens
Gamma
MIN Sector Amplitude
MAX Sector Amplitude
AVG Sector Amplitude
Amplitude
3000
3050
3100
3150
3200
3250
3300
3350
3400
3450


3500
3550
3600
3650
3700
3750
3800
3850
3900
TT
+[10 usec]-
Temp - Analog CBL
Predicted TT
Line Tens
Gamma
3950
CCL
MIN Sector Amplitude
MAX Sector Amplitude
AVG Sector Amplitude
Amplitude x10
4000
Amplitude
4050
4100


4150
4200
4250
4300
4350
4400
4450
4500
4550
4600
4650
4700


4750
4800
4850
4900
TT
+[10 usec]-
Temp - Analog CBL
Predicted TT
Line Tens
4950
Gamma
CCL
MIN Sector Amplitude
MAX Sector Amplitude
AVG Sector Amplitude
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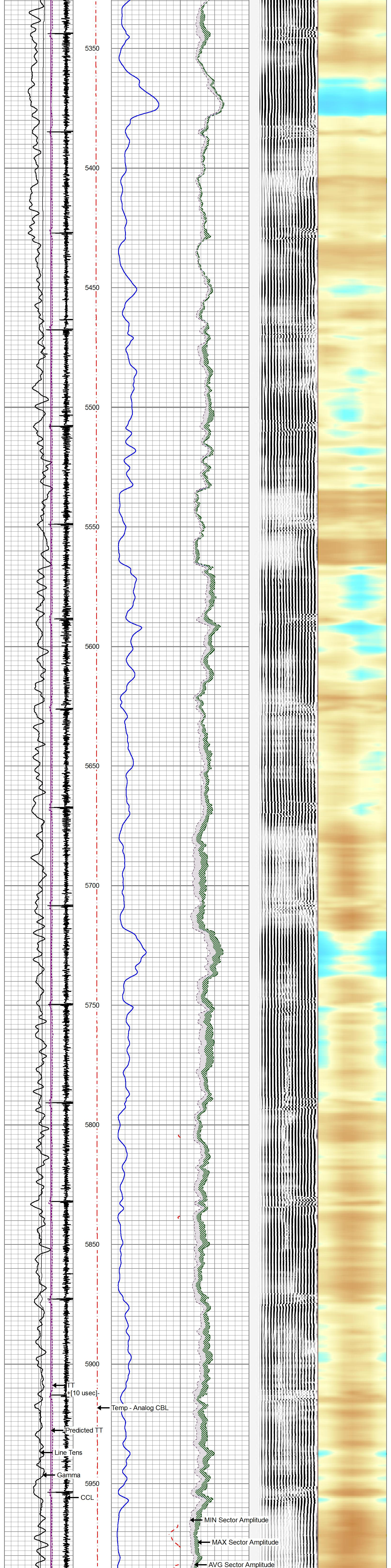
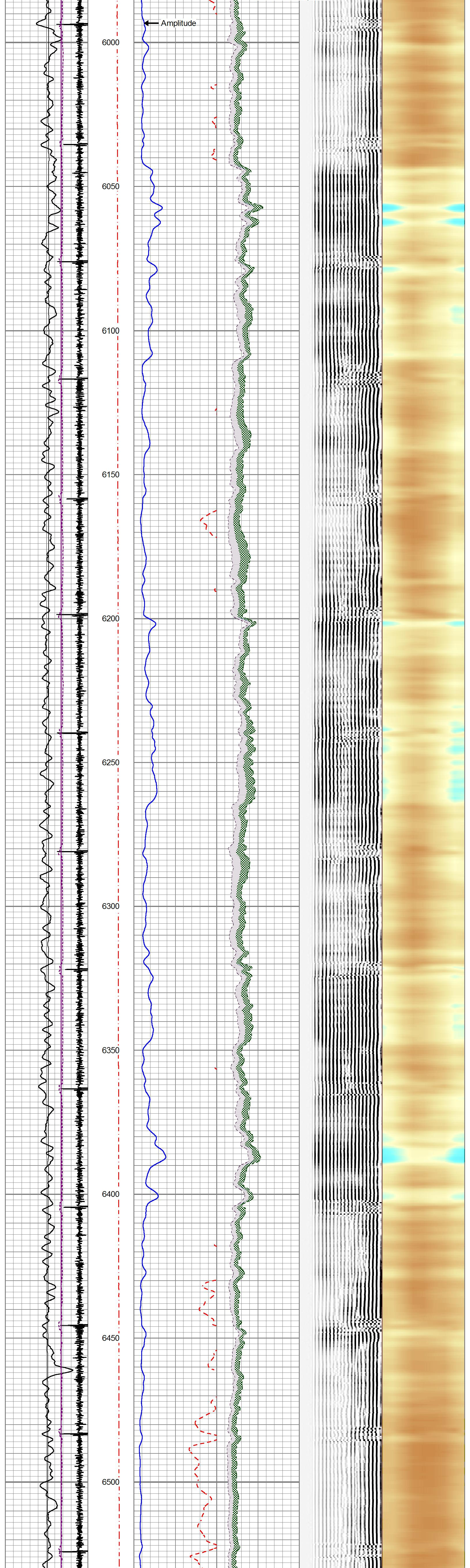
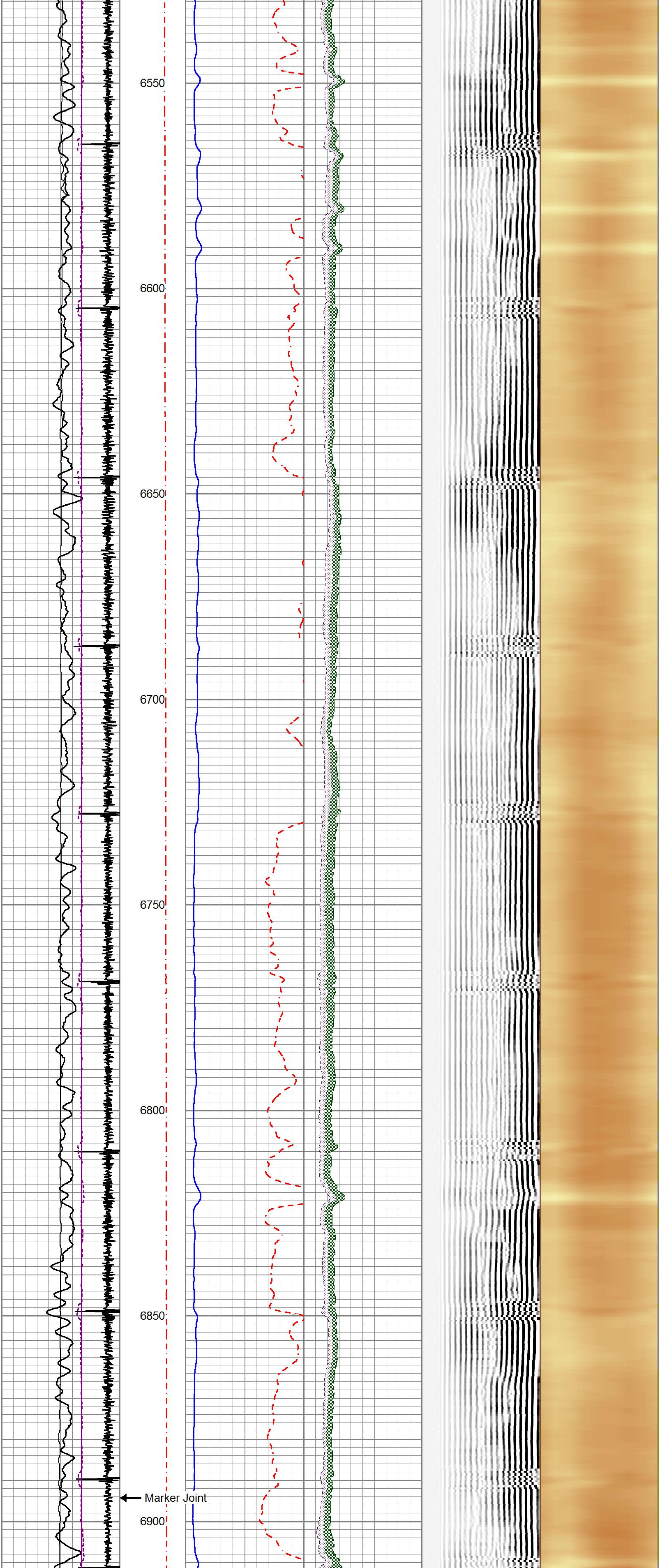
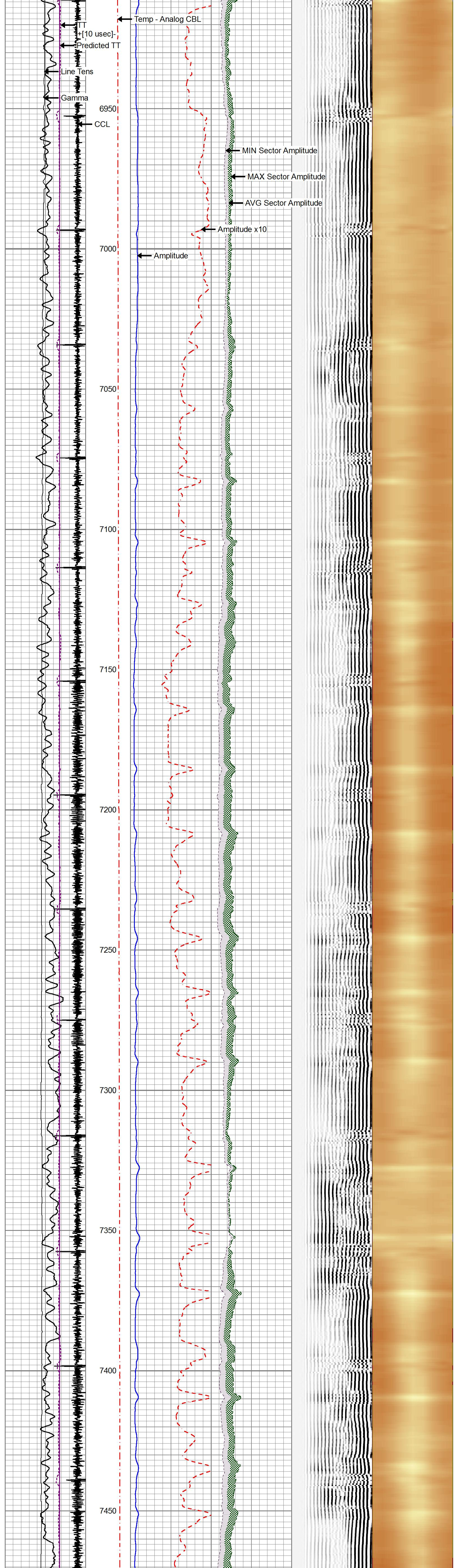
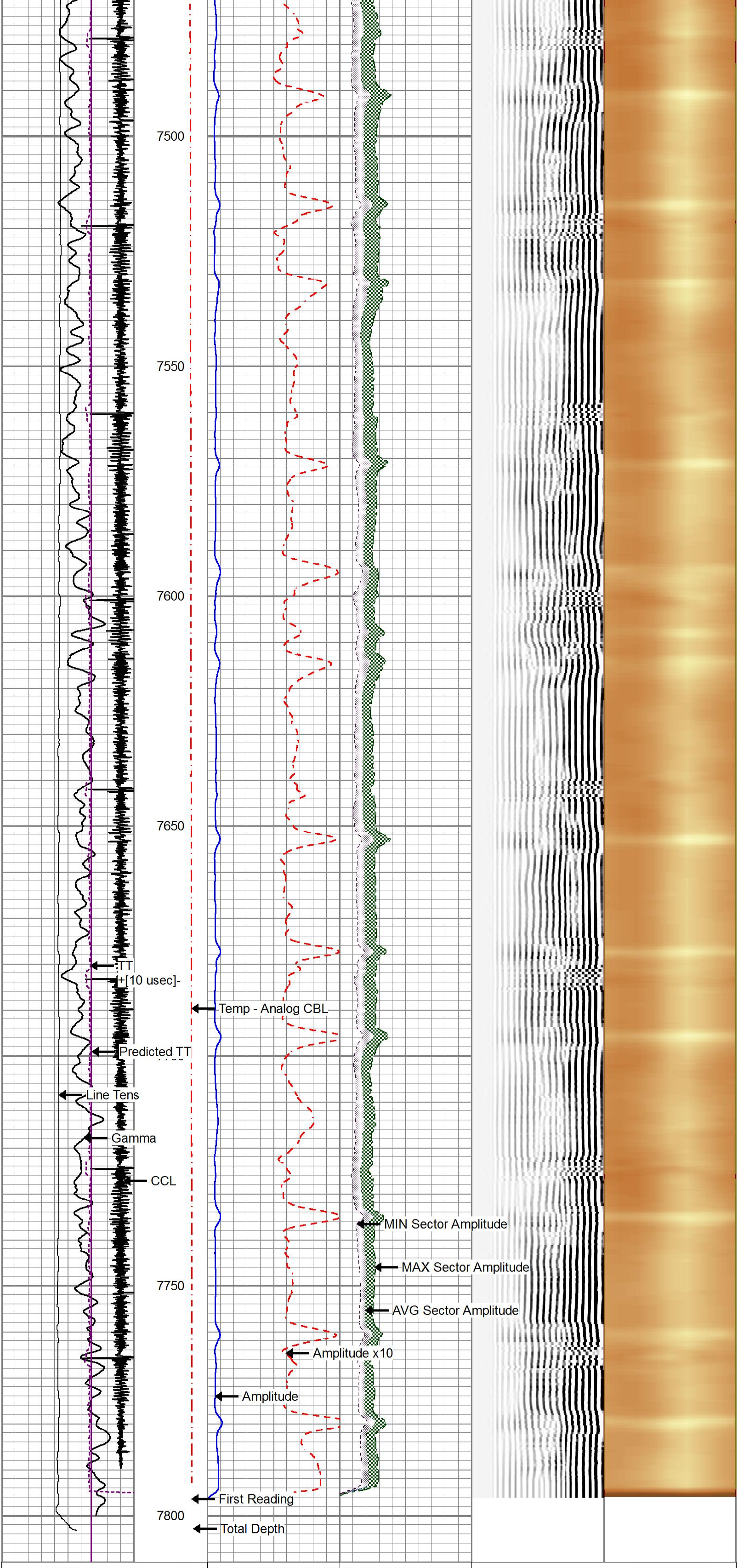
5100
5150
5200
5250
5300


5350
5400
5450
5500
5550
5600
5650
5700
5750
5800
5850
5900
TT
+[10 usec]-
Temp - Analog CBL
Predicted TT
Line Tens
Gamma
5950
CCL
MIN Sector Amplitude
MAX Sector Amplitude
AVG Sector Amplitude


Amplitude
6000
6050
6100
6150
6200
6250
6300
6350
6400
6450
6500


6550
6600
6650
6700
6750
6800
6850
Marker Joint
6900





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

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MAIN PASS - Ran with 1000 PSI

5 in / 100 ft

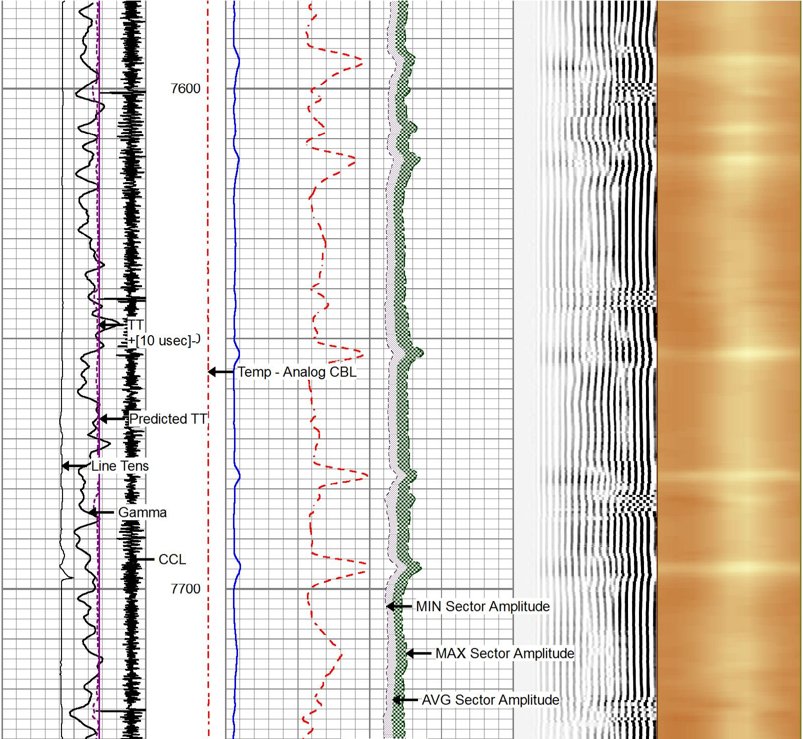
gyrodata

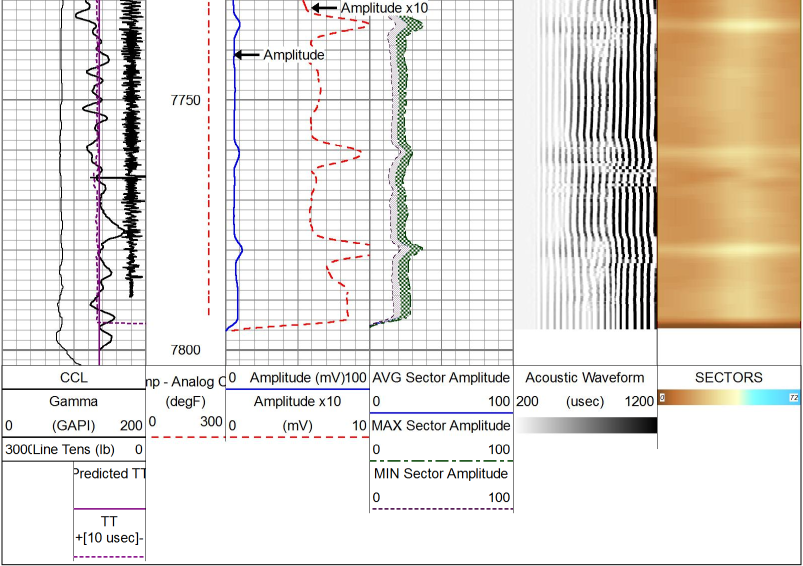
REPEAT PASS - Ran with 0 PSI

5 in / 100 ft

Database File	2019_04_04_conoco_property_reserve_4_65_3_4_2bh_cbl\2019_04_04_conoco_property_reserve_4_65
Dataset Pathname	REPEATPASS
Presentation Format	rcbl_8s
Dataset Creation	Thu Apr 04 11:03:25 2019
Charted by	Depth in Feet scaled 1:240

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





gyrodata

REPEAT PASS - Ran with 0 PSI

5 in / 100 ft

Calibration Report

Database File	d:\warrior\data\2019_04_04_conoco_property_reserve_4_65_3_4_2bh_cbl\2019_04_04_conoco_property_re
Dataset Pathname	pass3
Dataset Creation	Thu Apr 04 09:07:49 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:	ISF06-04	
Tool Model:	2 3/4" RIB Analog	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	112.540	ft

Master Calibration, performed Wed Apr 03 15:52:32 2019:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.001	1.061	0.000	62.000	58.520	-0.063
CAL	-0.004	0.749				
5'	0.003	1.676	0.000	62.000	37.065	-0.126
SUM						
S1	0.026	0.896	0.000	62.000	71.312	-1.877
S2	0.020	0.832	0.000	62.000	76.322	-1.502
S3	0.030	0.860	0.000	62.000	74.647	-2.230
S4	0.041	0.944	0.000	62.000	68.639	-2.828
S5	0.043	1.028	0.000	62.000	62.918	-2.707
S6	0.035	1.065	0.000	62.000	60.189	-2.091
S7	0.023	1.082	0.000	62.000	58.580	-1.368
S8	0.015	0.954	0.000	62.000	66.039	-1.016

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.004	0.749	1.000	0.000

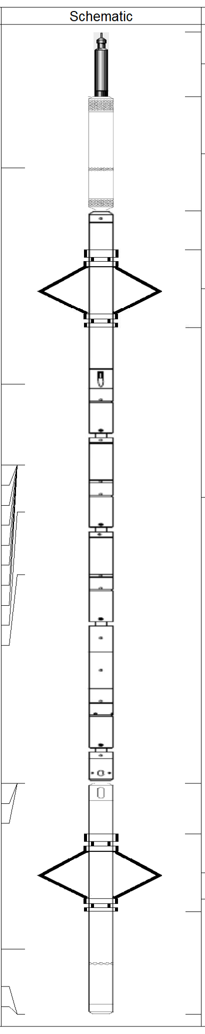
Air Zero Calibration, performed (Not Performed):

	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:	ISF06-04	
Tool Model:	2 3/4" RIB Analog	
Performed:	Tue Jan 08 11:48:09 2019	

	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)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb
			CableHead-TitanConeType2	1.03	1.44	3.60
CCL	13.50		CCL_Log-2 3/4" TekCo (IS2T1-08)	1.83	2.75	33.00
			Antelope-Overbody	1.25	2.75	
TEMP	10.05					
WVFS8	8.76					
WVFS7	8.76					
WVFS6	8.76		RBTA-2 3/4" RIB Analog (ISF06-04)	9.13	2.75	102.00
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					
			Antelope-Overbody	1.25	2.75	
			GR_Log-2 3/4" TekCo (IXEM9-01)	3.68	2.75	47.00
GR	1.04					
LOCTIM	0.00					
UTCTIM	0.00					

Dataset:	2019_04_04_conoco_property_reserve_4_65_3_4_2bh_cbl.db: field/well/run1/MAINPASS
Total length:	15.67 ft
Total weight:	185.60 lb
O.D.:	2.75 in

gyrodata

Company	Conoco Phillips
Well	Property Reserve 4-65 3-4 2BH
Field	-----
County	Arapahoe
State	CO
Country	U.S.A.