CEMENT BOND LOG

Company	ConocoPhillips
Well	Big Sandy 3-65 36-31 1DH
Field	Niobrara
County	Adams
State	Colorado

Company **ConocoPhillips**
Well **Big Sandy 3-65 36-31 1DH**
Field **Niobrara**
County **Adams** **State** **Colorado**

API # : 05-001-10102
Location:

Surface:
Lat. 39.74657777
Long. -104.62349166

SEC: 35 TWP: 3S RGE: 65W

Other Services

Elevation
K.B. 5549'
D.F. ----
G.L. 5524'

Permanent Datum: Ground Level Elevation: 5524'
Log Measured From: Kelly Bushing , 25 ft. above Permanent Datum.
Drilling Measured From: Kelly Bushing

Date	4/21/2018		
Run Number	ONE		
Plug Back T.D. Driller	----		
Plug Back T.D. Logger	----		
Bottom Logged Interval	7657'		
Top Log Interval	Surface		
Type Fluid	----		
Density / Viscosity	----		
Max. Recorded Temp.	237 °F		
Time Logger on Bottom	0957		
Equipment Number	GD112		
Location	Casper, Wy		
Recorded By	Garrett Graham		
Witnessed By	Charlie Cameron		

Casing Record				Tubing Record			
Size	Weight	From	To	Size	Weight	From	To
9 5/8"	36#	Surface	2078'				
5 1/2"	23#	Surface	15387'				

<<< Fold Here >>>

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 # : RM0418PCBW458
Your Crew Today: Dan H. Joe T. and Eric R.
Log Correlated to: Marker Joint @ 7,101'

Cement Data

Date Cemented	----
Primary / Squeeze	----
Type / Weight	----
Main Pass Press.	500 Psi
Repeat Pass Press.	0 Psi

Bond Index

Index %	Est Top Depth
20 % Bond	2120'
40 % Bond	2130'
60 % Bond	2230'
80 % Bond	4746'
100 % Bond	----

Comments

Log Correlated to Marker Joint @ 7,101'

45° @ 7,614'
KOP @ 10° @ 5,370'

Thank you for using Gyrodata

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

Log Variables

DatabaseD:\Warrior\Data\2018_4_21_conoco_big_sandy_3_65_36_31_1dh.db
Dataset field/well/run1/Main2/_vars_

Top - Bottom

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

MaxAPIWall	MINAMPL	MinAPIID	MINATTN	PPT
in	mV	in	db/ft	usec
0.415	2.6	4.643	0	238

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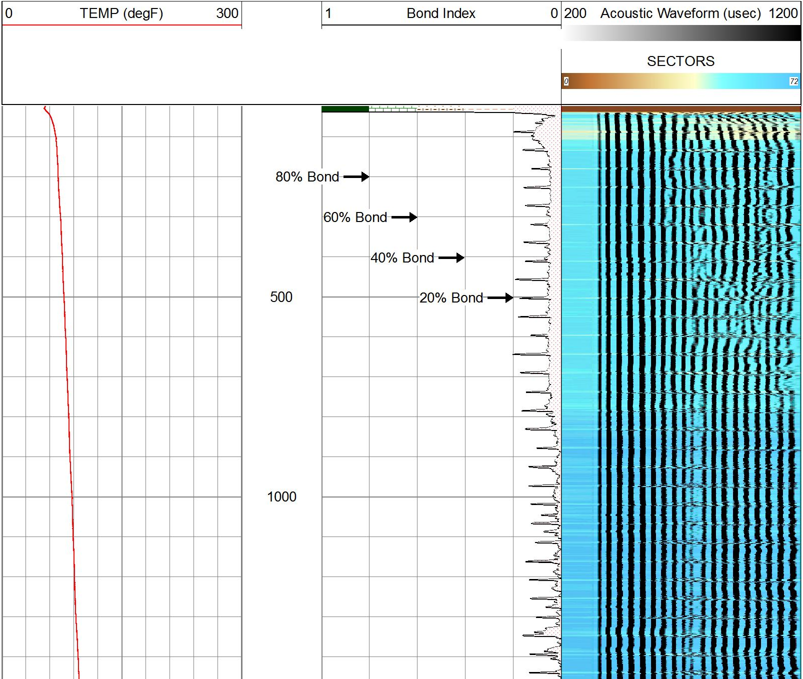
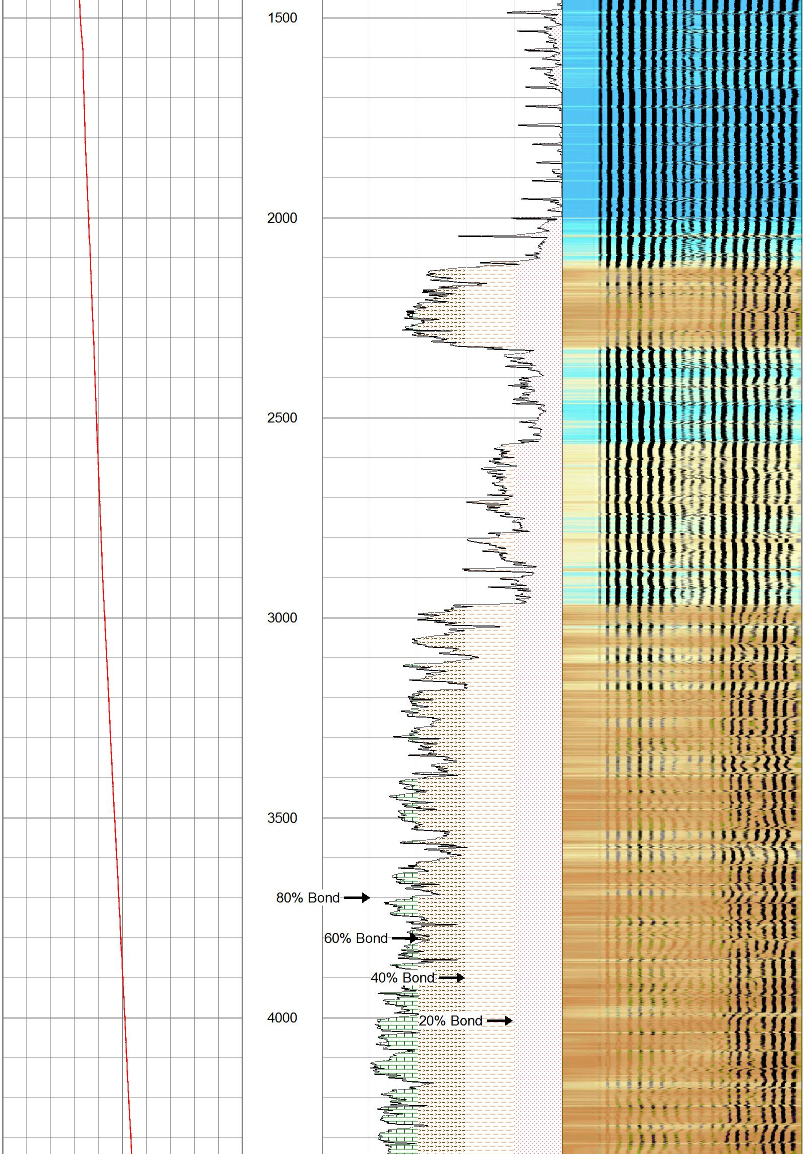
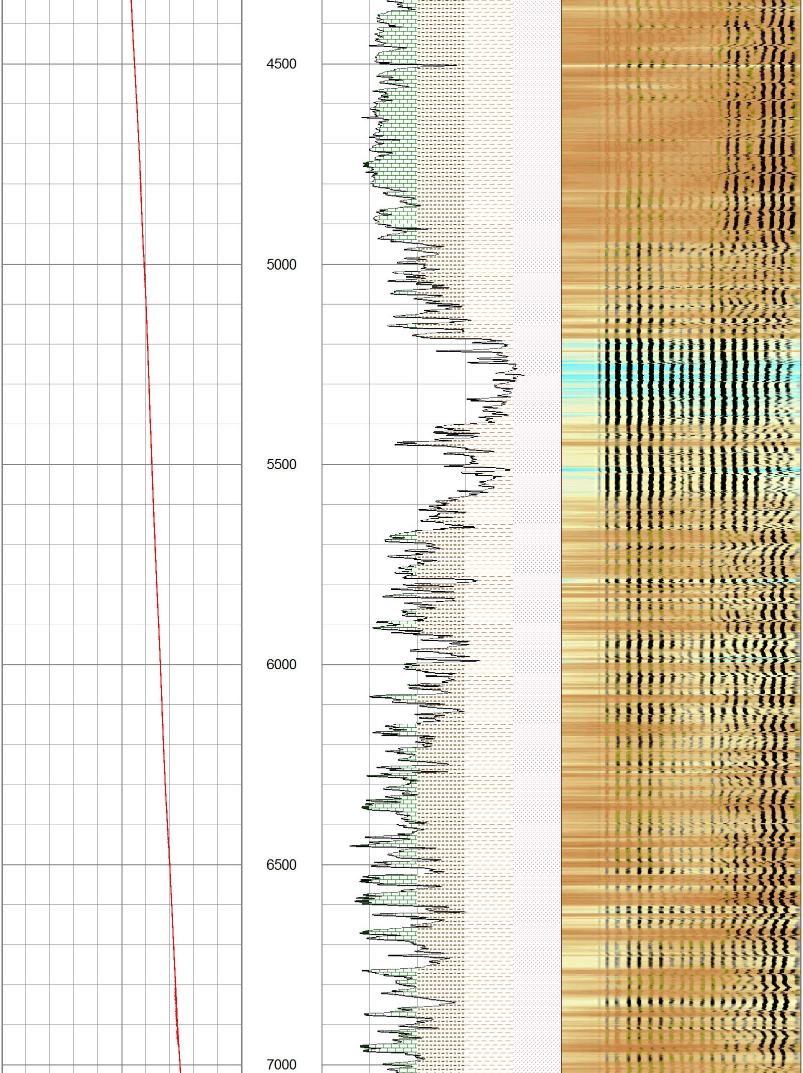
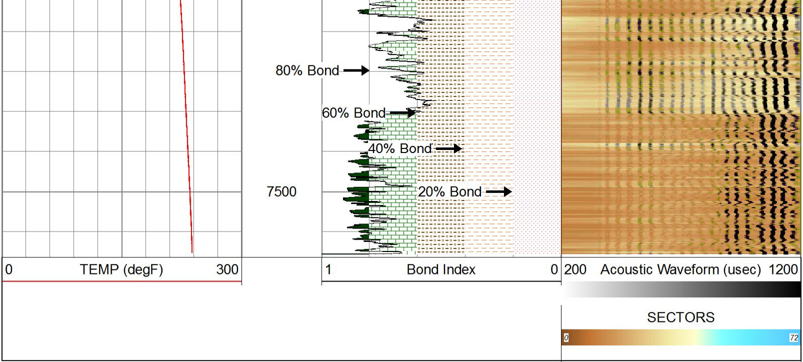
BOND INDEX

Database File	2018_4_21_conoco_big_sandy_3_65_36_31_1dh.db
Dataset Pathname	BOND
Presentation Format	bndindx_msg-sec
Dataset Creation	Sat Apr 21 12:13:39 2018
Charted by	Depth in Feet scaled 1:3000









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BOND INDEX

gyrodata

MAIN PASS - Ran with 500 PSI

5 in / 100 ft

Database File	2018_4_21_conoco_big_sandy_3_65_36_31_1dh.db
Dataset Pathname	Main2
Presentation Format	rcbl_8s
Dataset Creation	Sat Apr 21 12:09:04 2018
Charted by	Depth in Feet scaled 1:240

CCL - Analog
Gamma
0 (GAPI) 200
300(Line Tens (lb) 0
Predicted TT
TT
+[10 usec]-

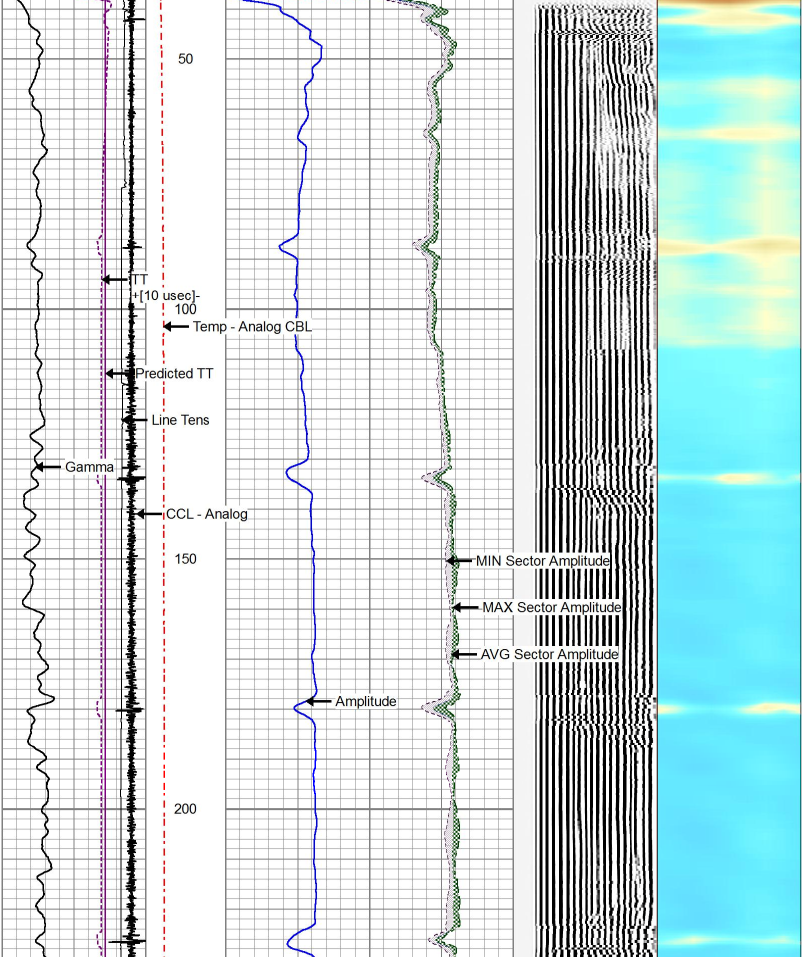
np - Analog C
(degF)
0 300

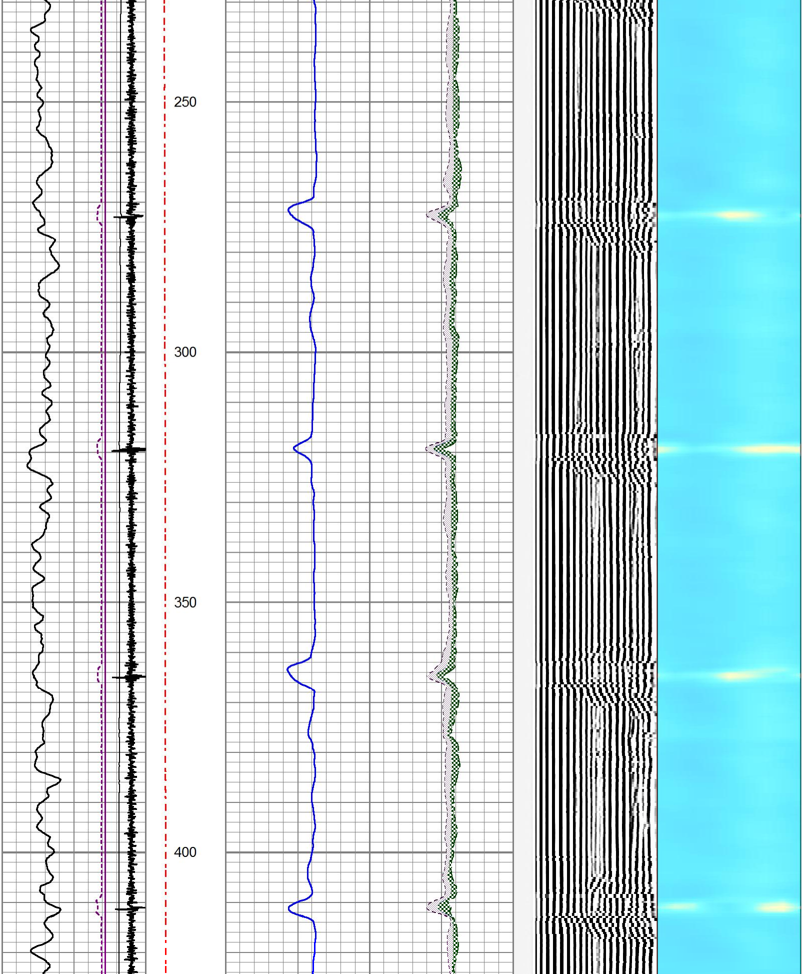
0 Amplitude (mV)100
Amplitude x10
0 (mV) 10

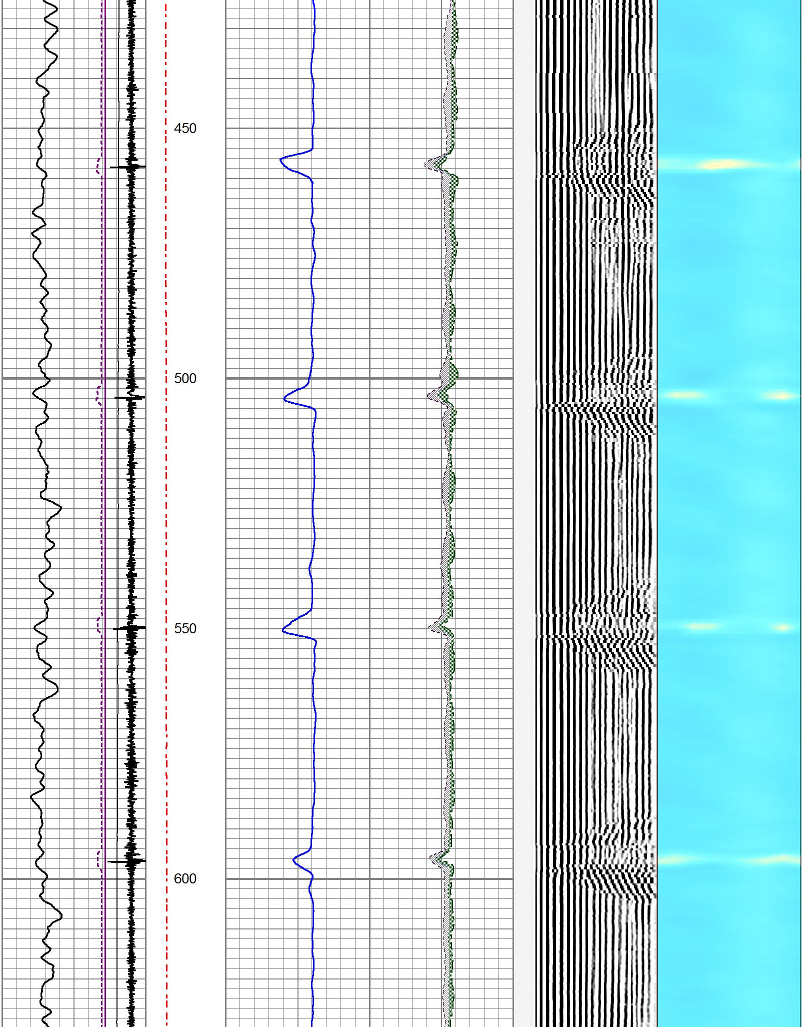
AVG Sector Amplitude
0 100
MAX Sector Amplitude
0 100
MIN Sector Amplitude
0 100

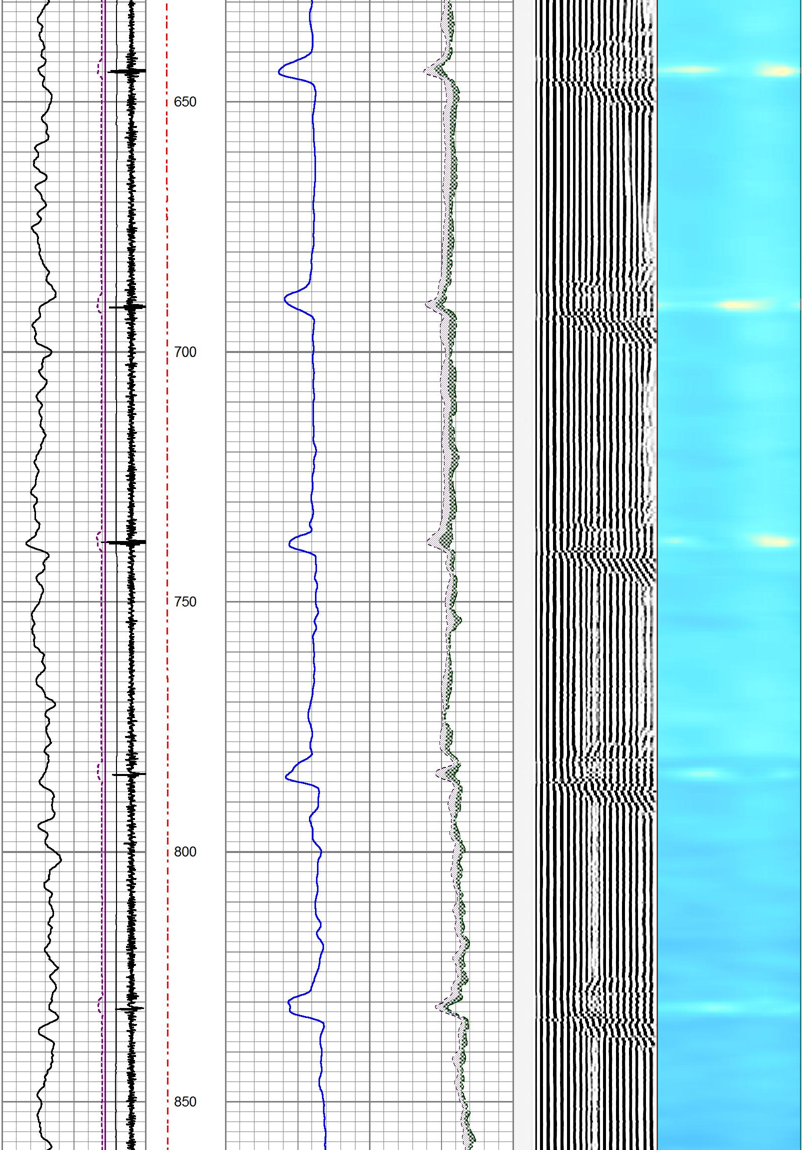
Acoustic Waveform
200 (usec) 1200

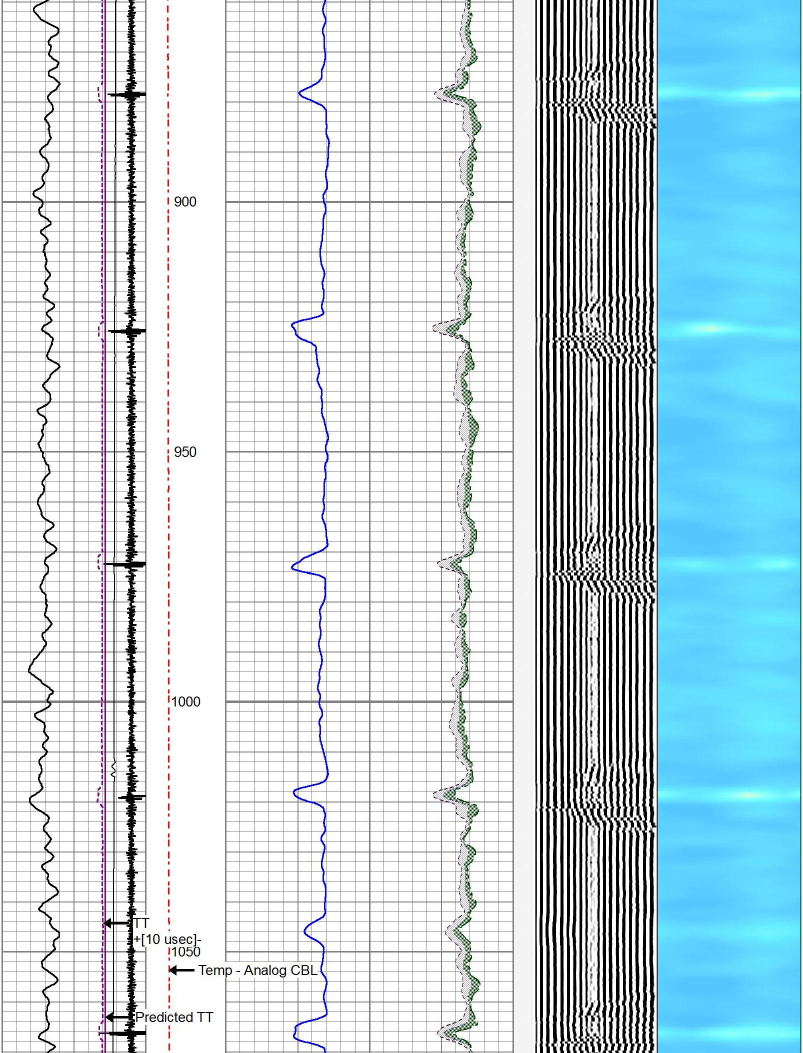
SECTORS
0 72

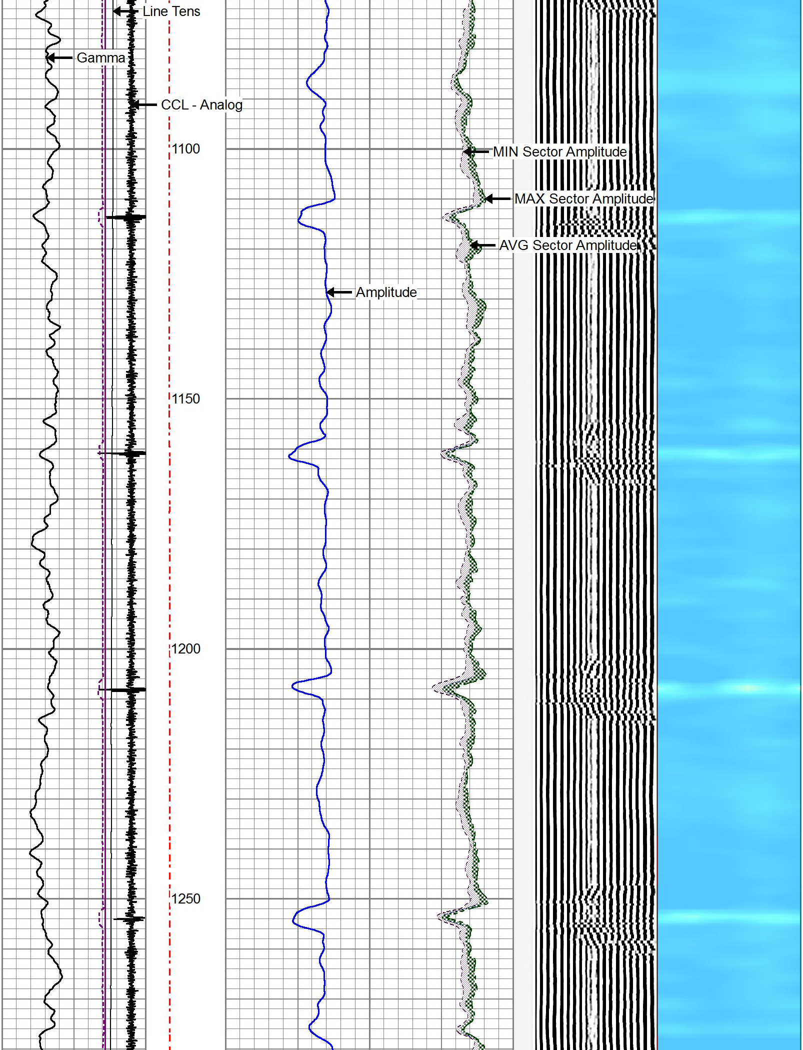


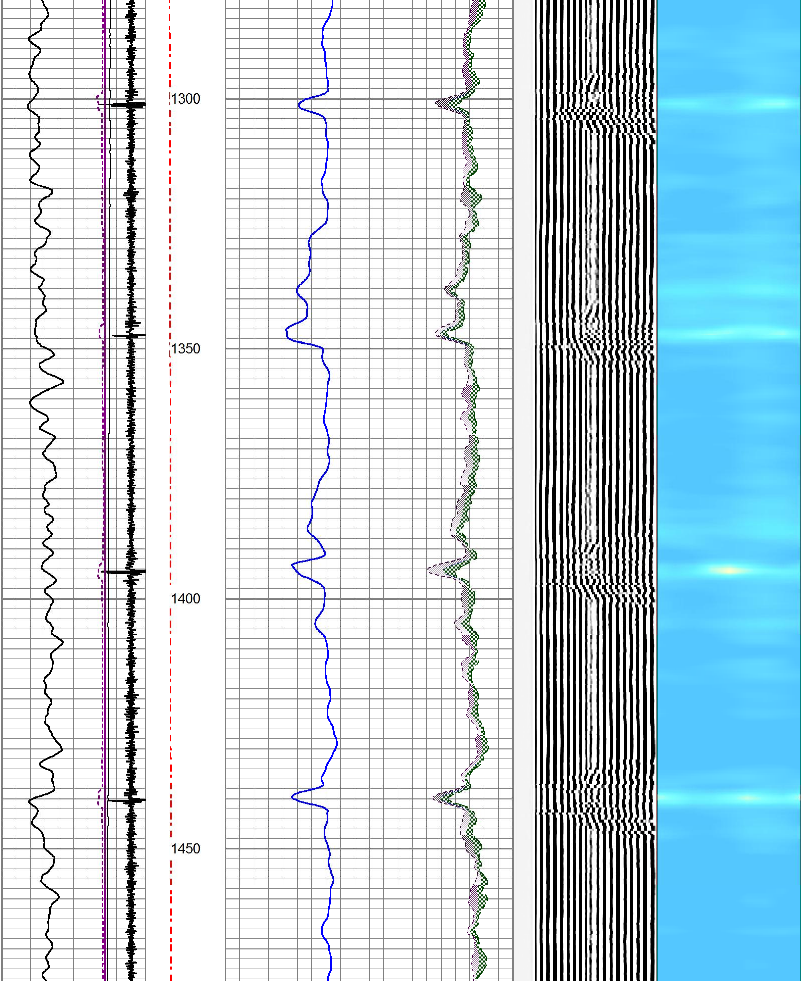


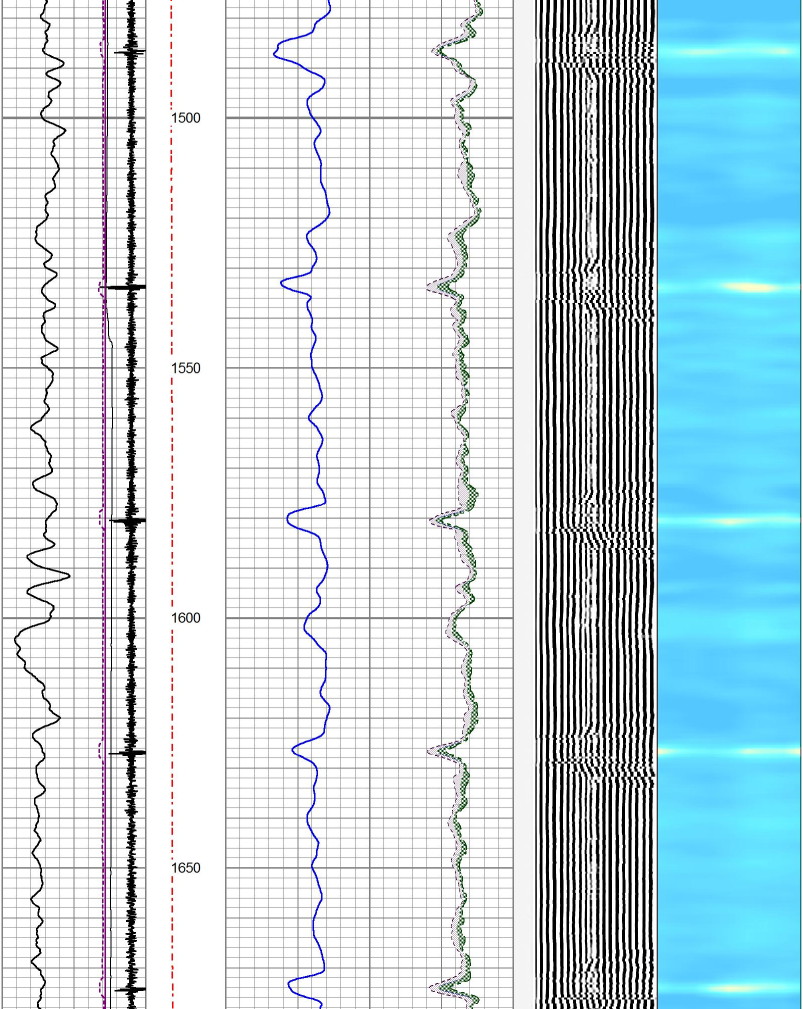


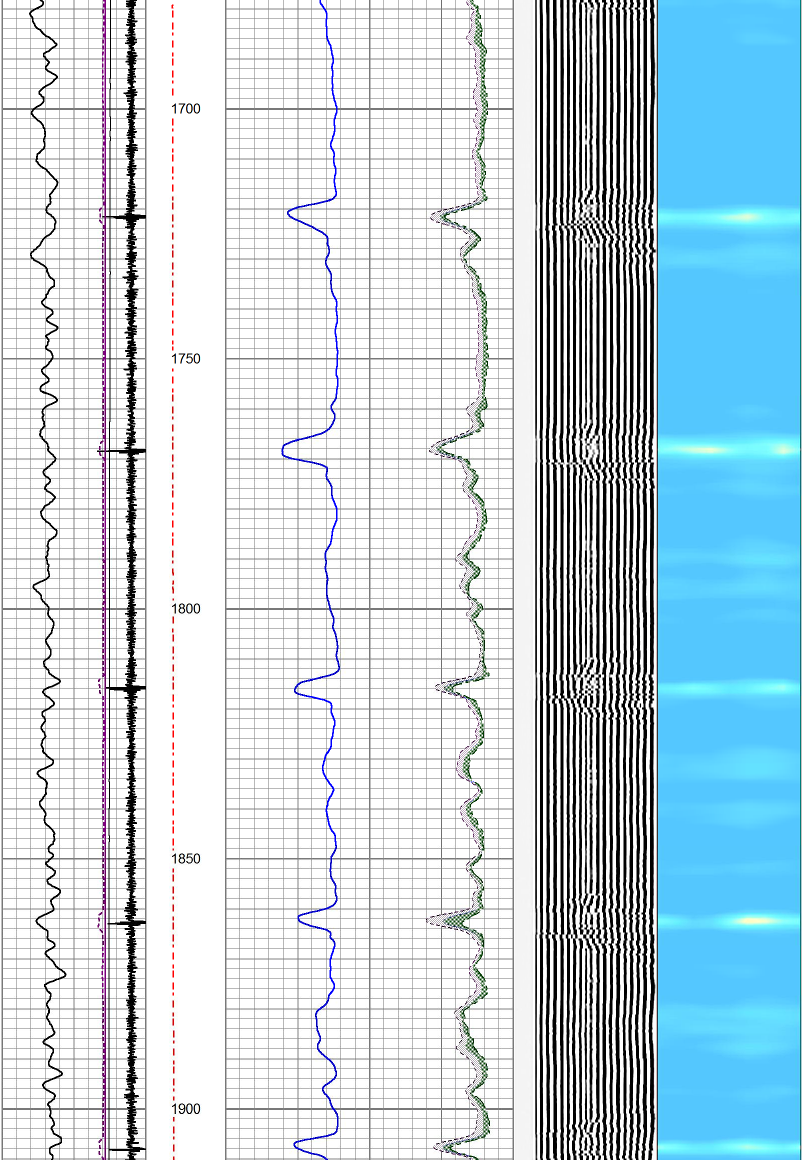


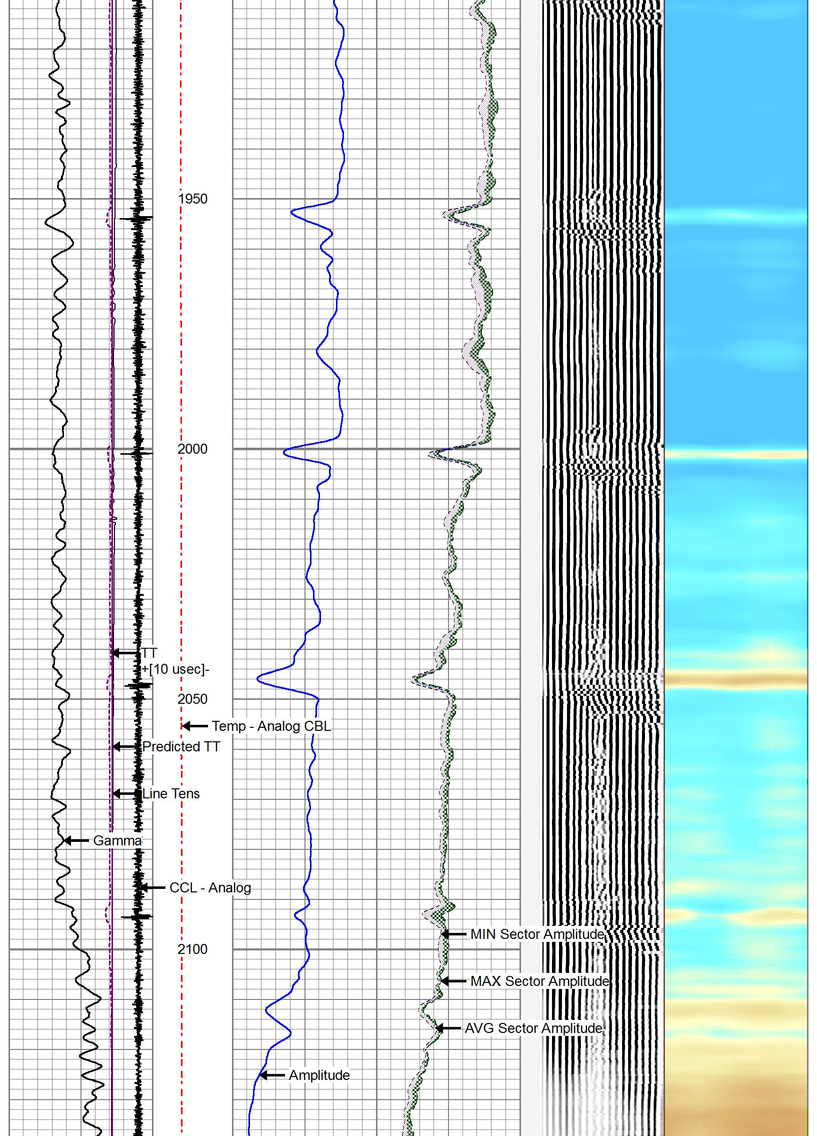


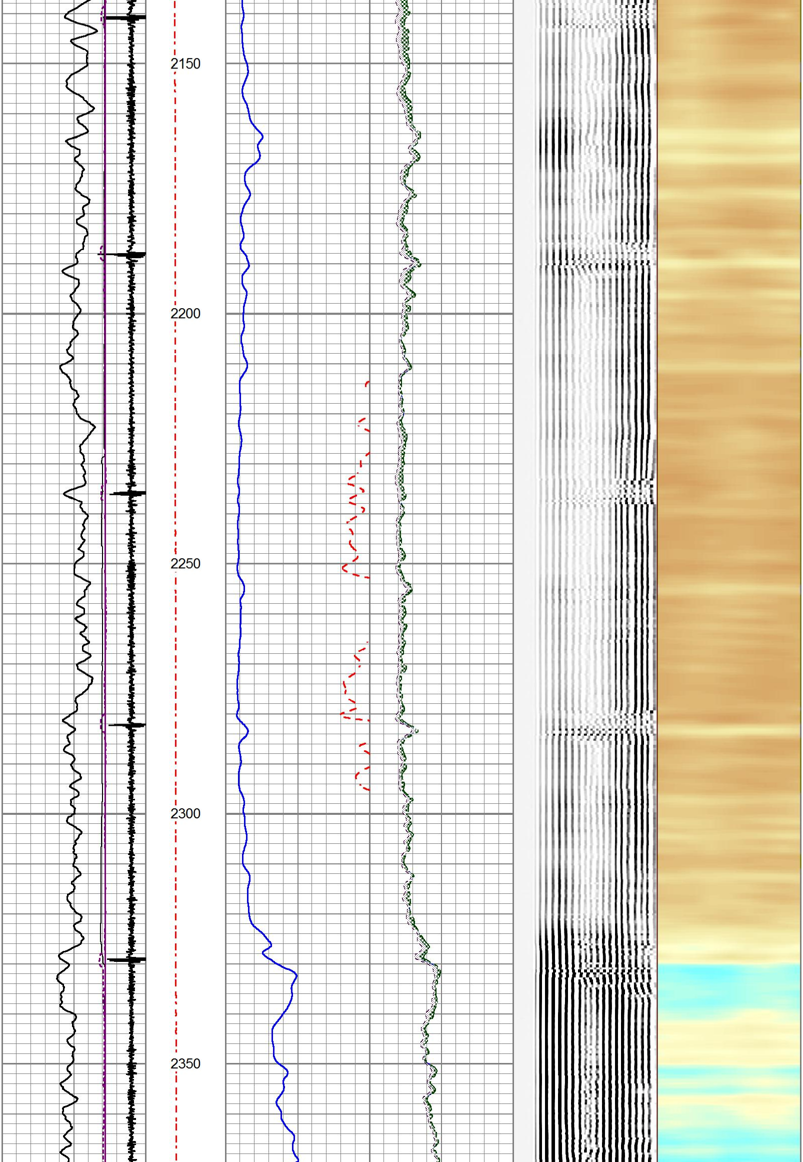


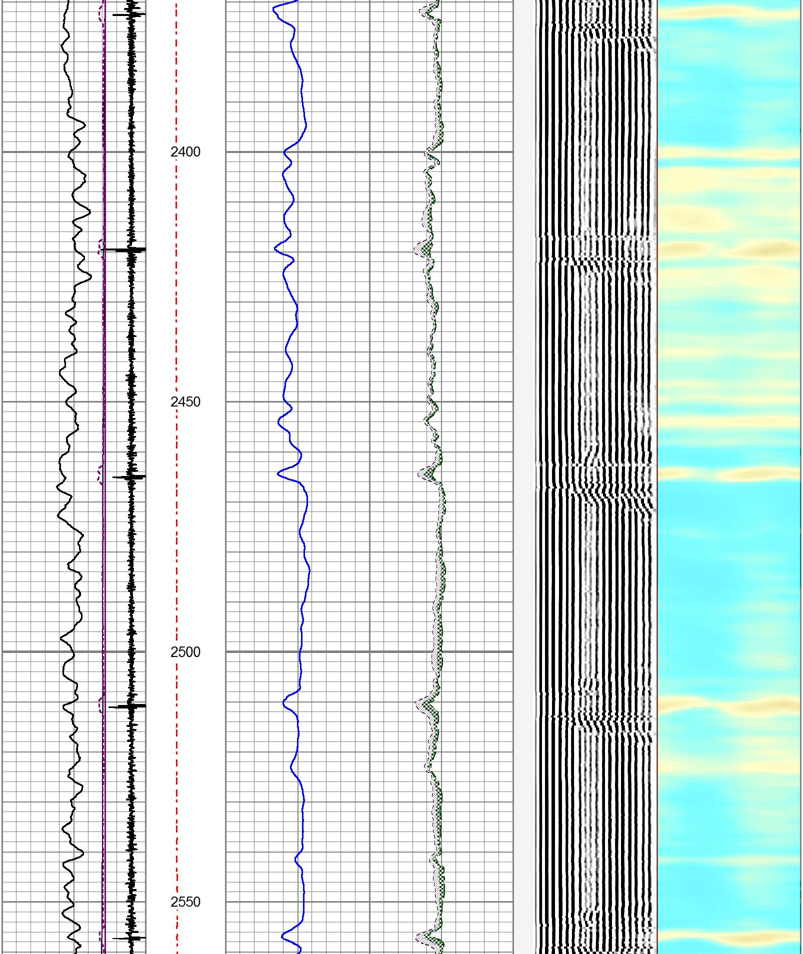


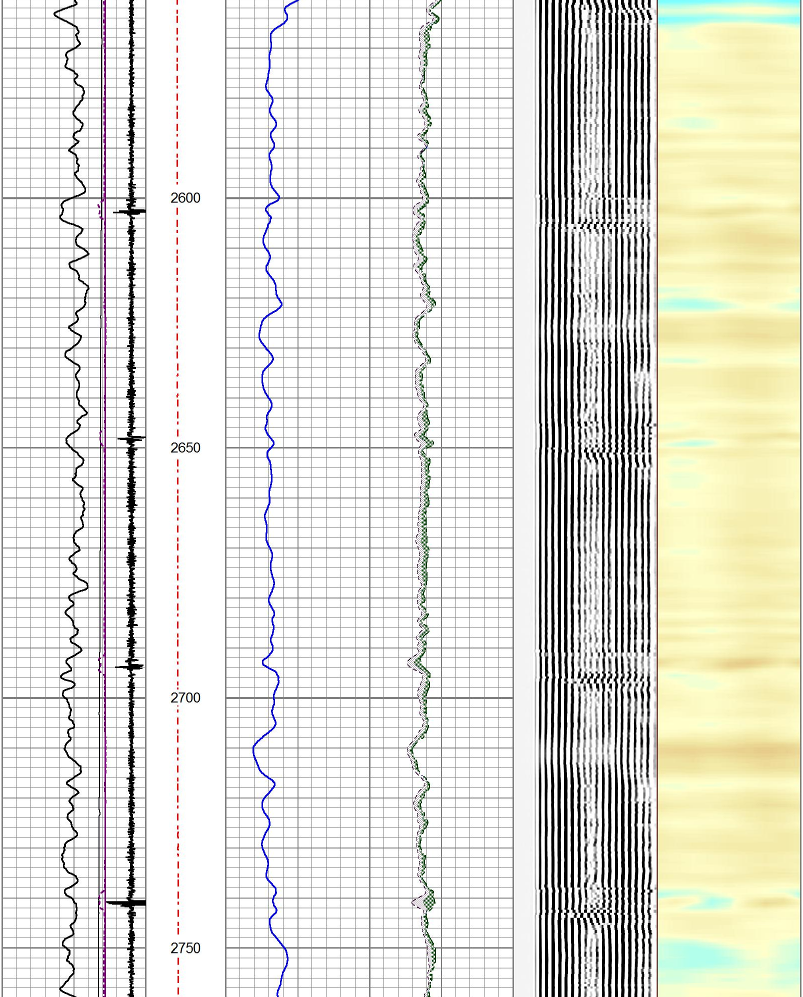


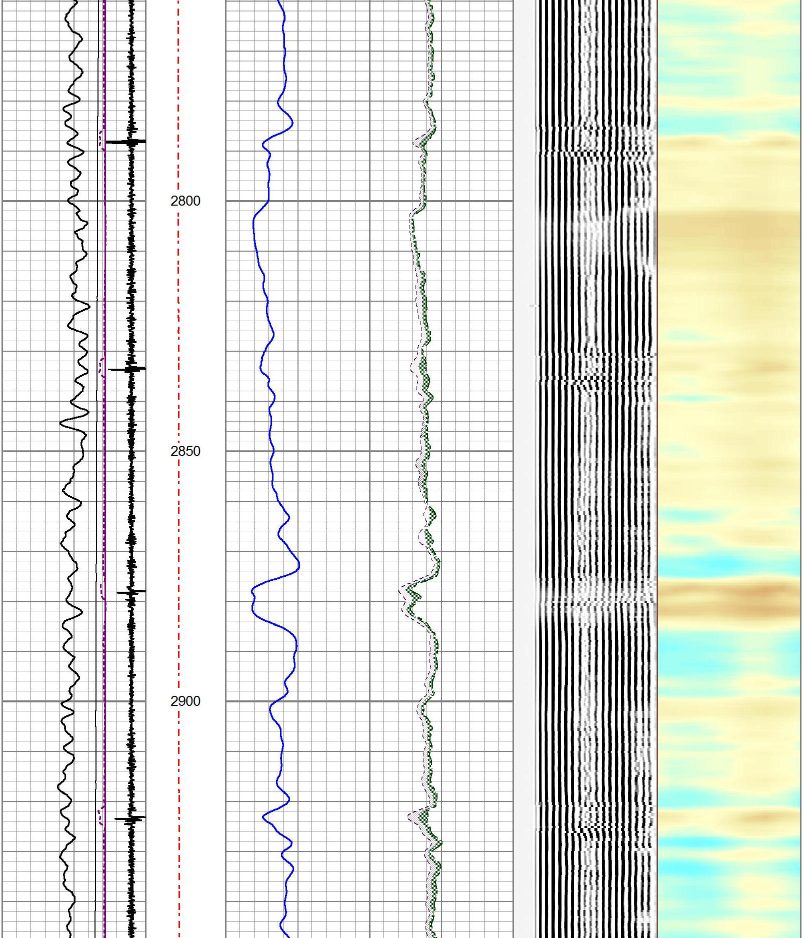


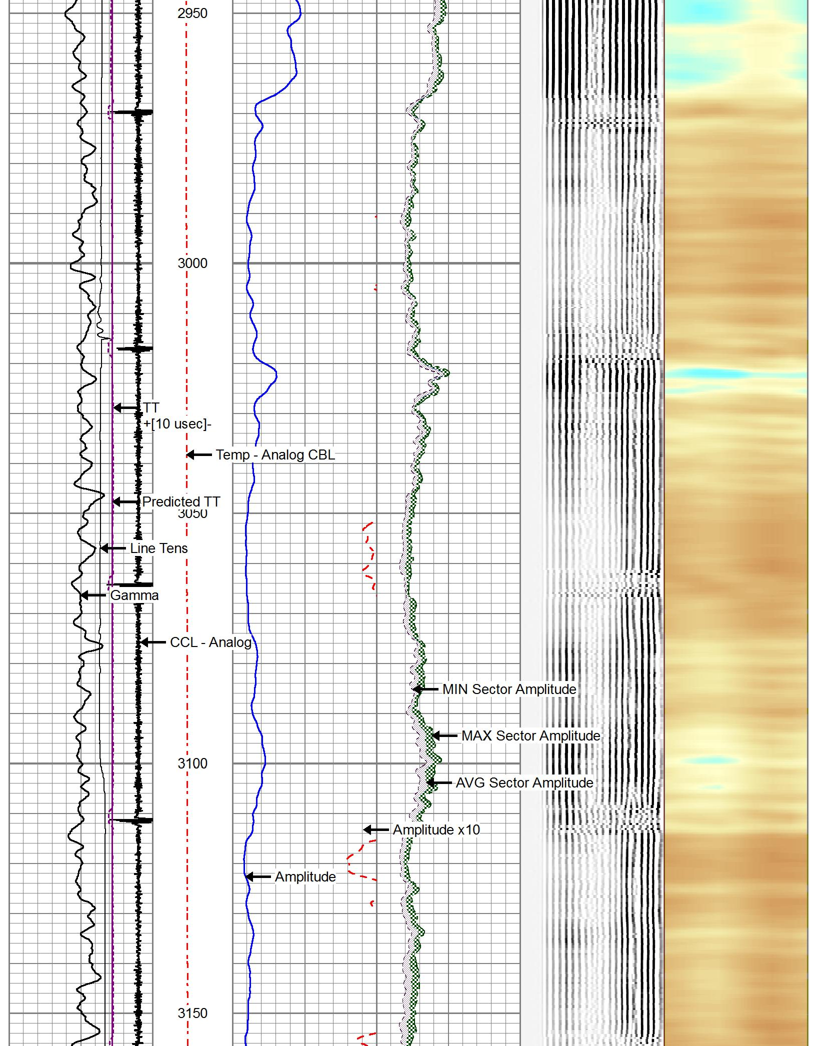


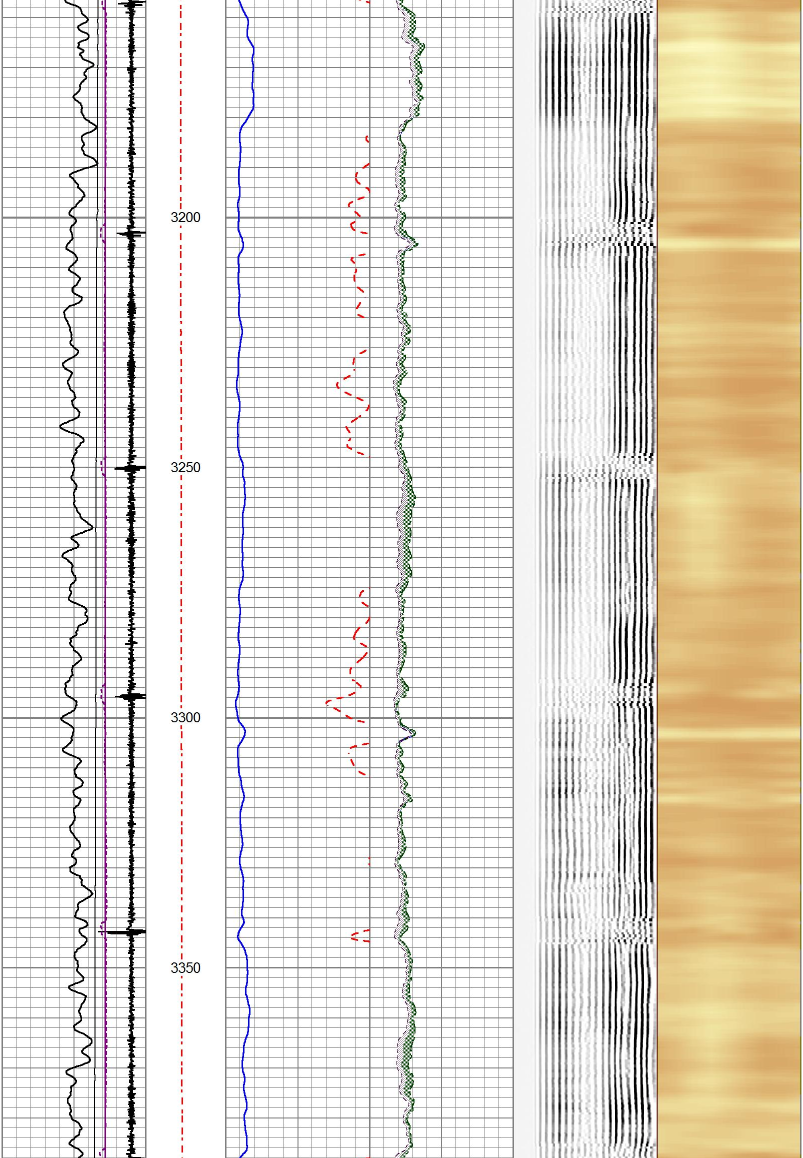









2950
3000
TT
+[10 usec]-
Temp - Analog CBL
Predicted TT
3050
Line Tens
Gamma
CCL - Analog
MIN Sector Amplitude
MAX Sector Amplitude
3100
AVG Sector Amplitude
Amplitude x10
Amplitude
3150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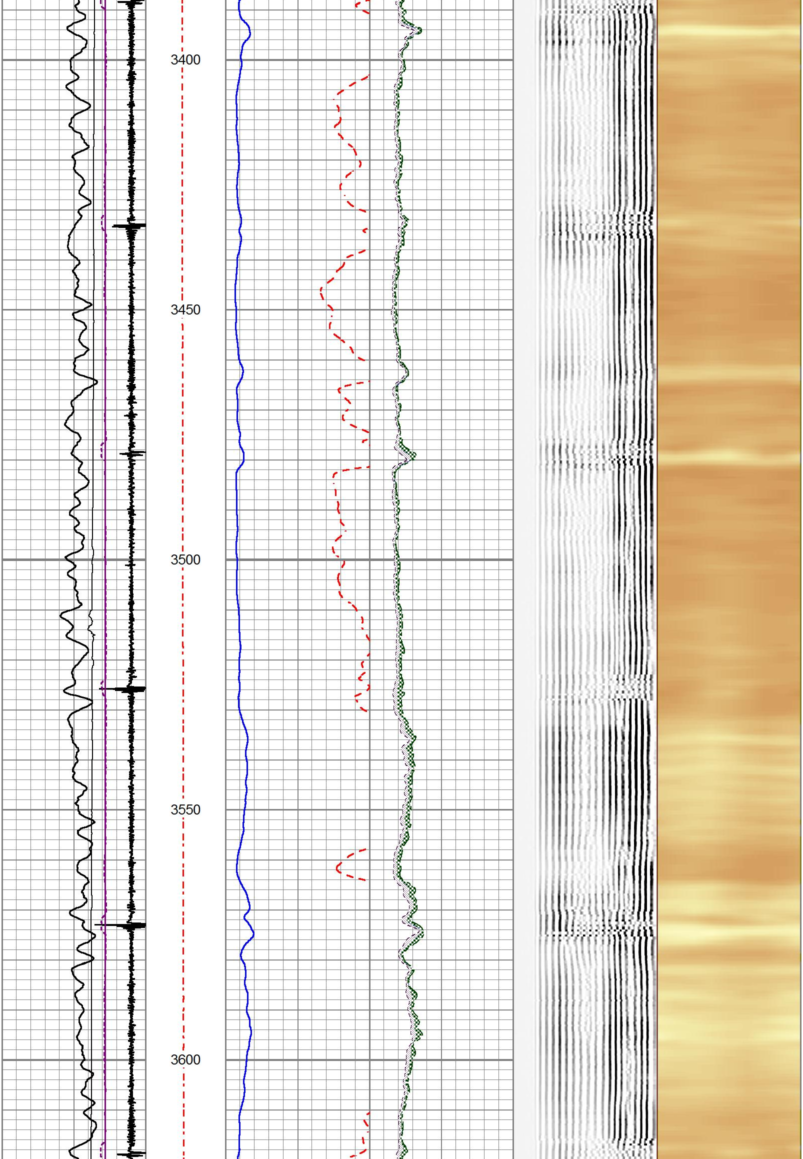
3250
3300
3350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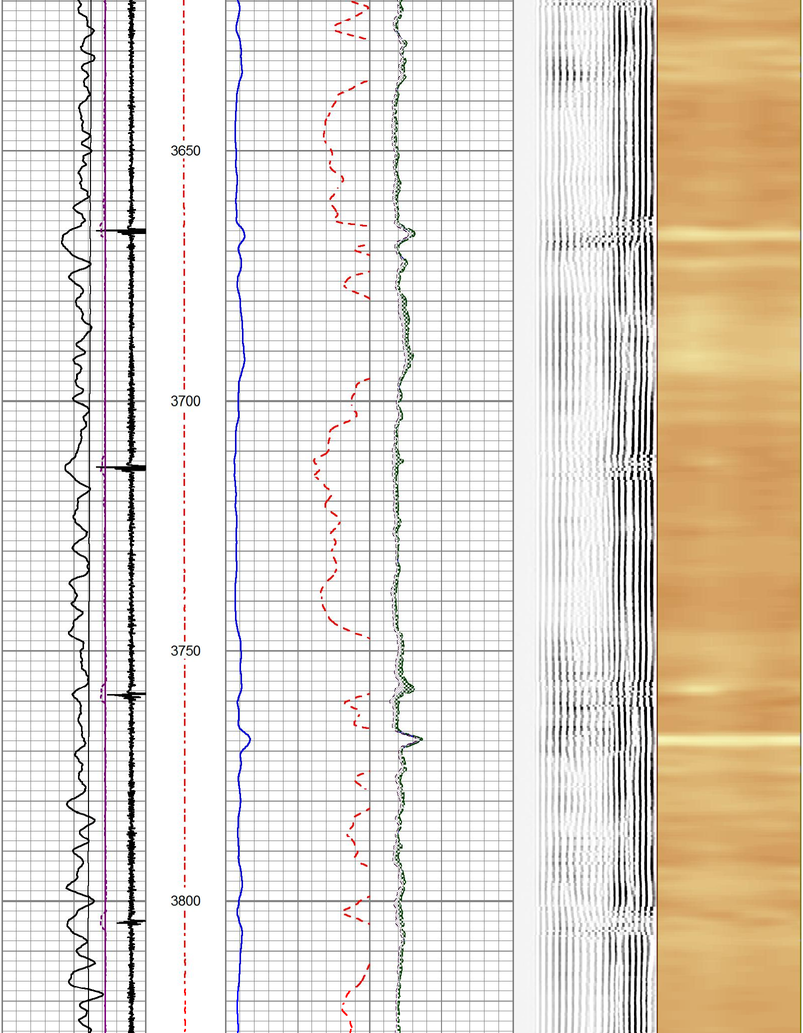
3450
3500
3550
3600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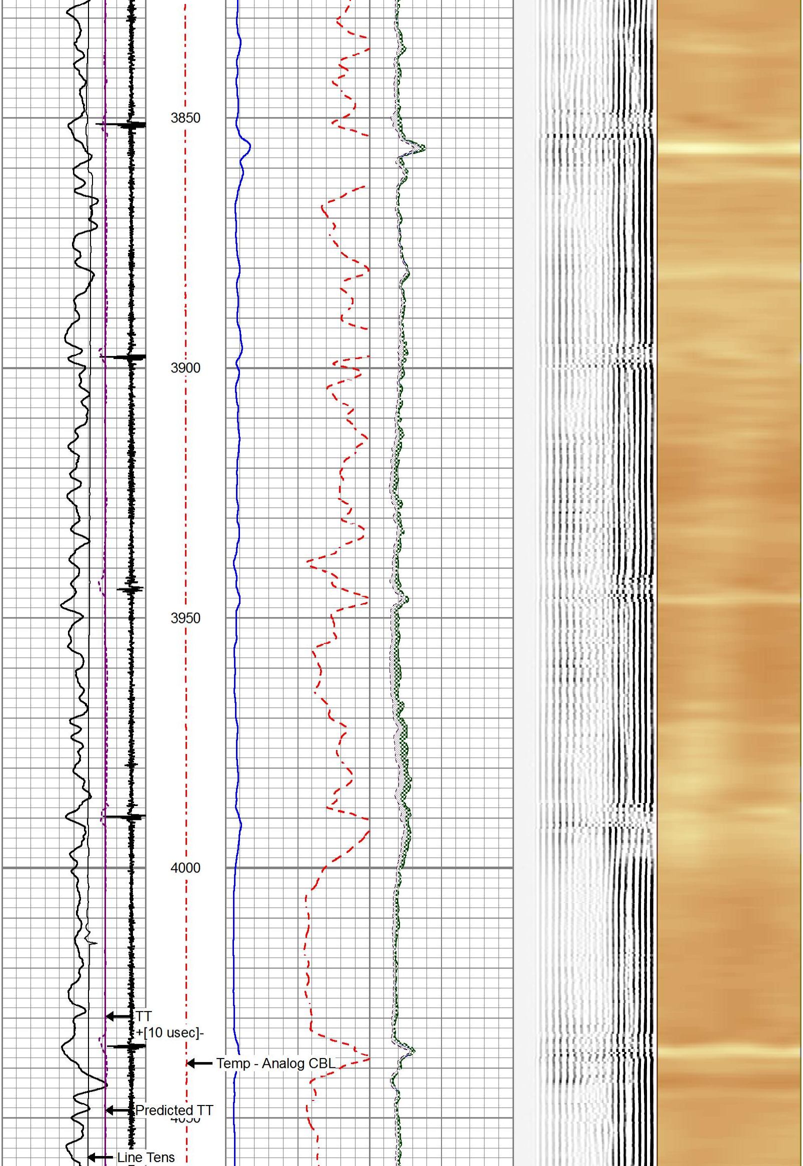
3750
3800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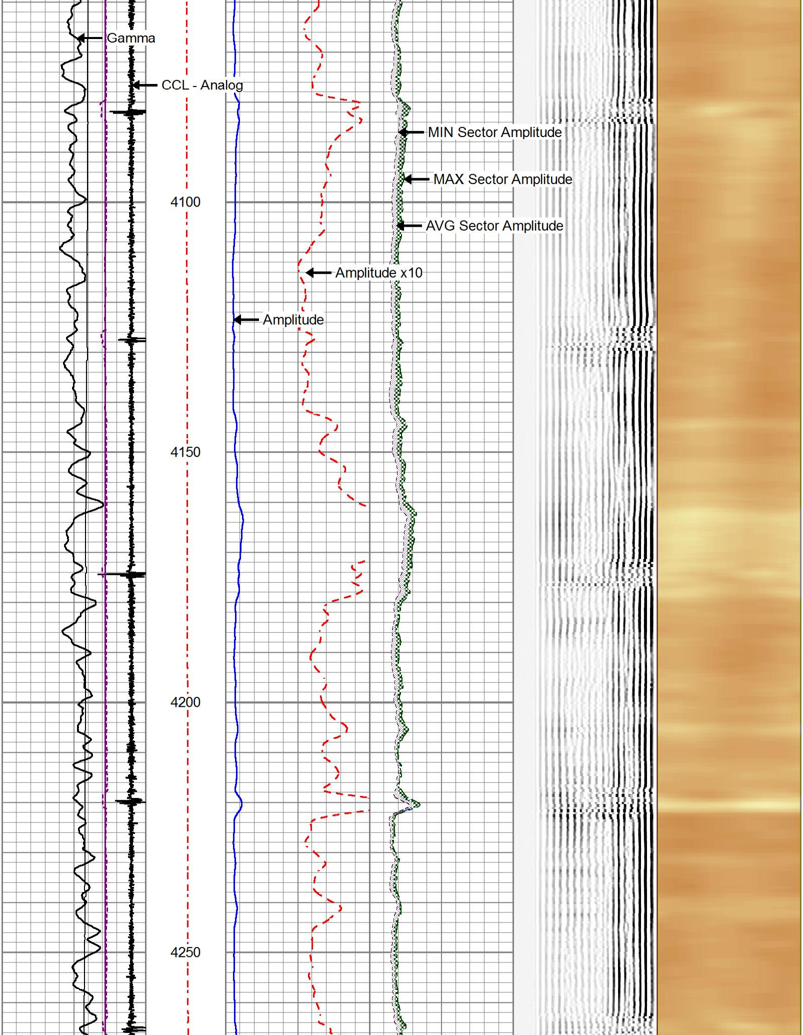
3900
3950
4000
TT
+[10 usec]-
Temp - Analog CBL
Predicted TT
4050
Line Tens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CCL - Analog
MIN Sector Amplitude
MAX Sector Amplitude
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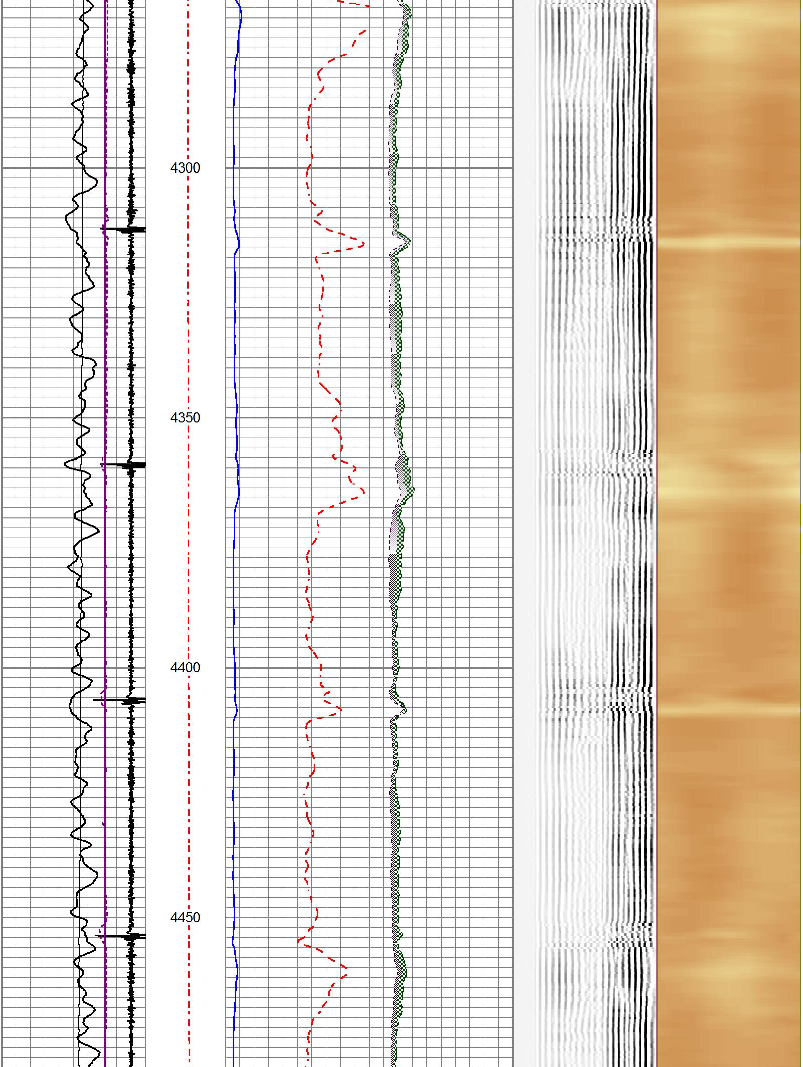
AVG Sector Amplitude
Amplitude x10
Amplitude
4150
4200
4250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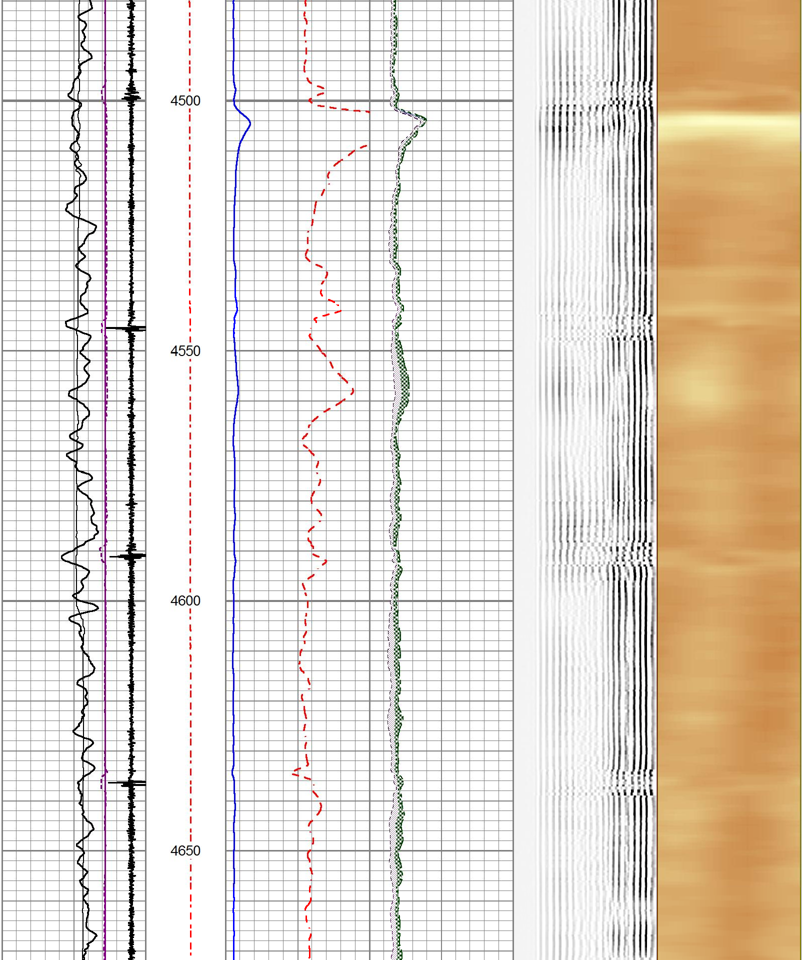
4450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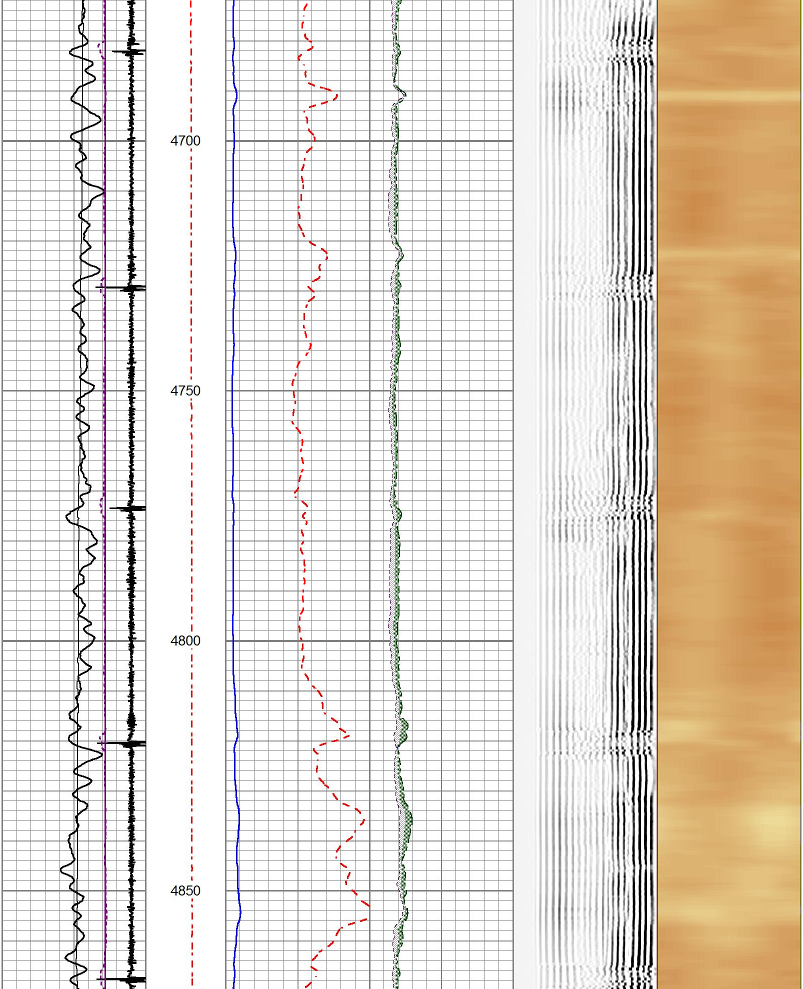
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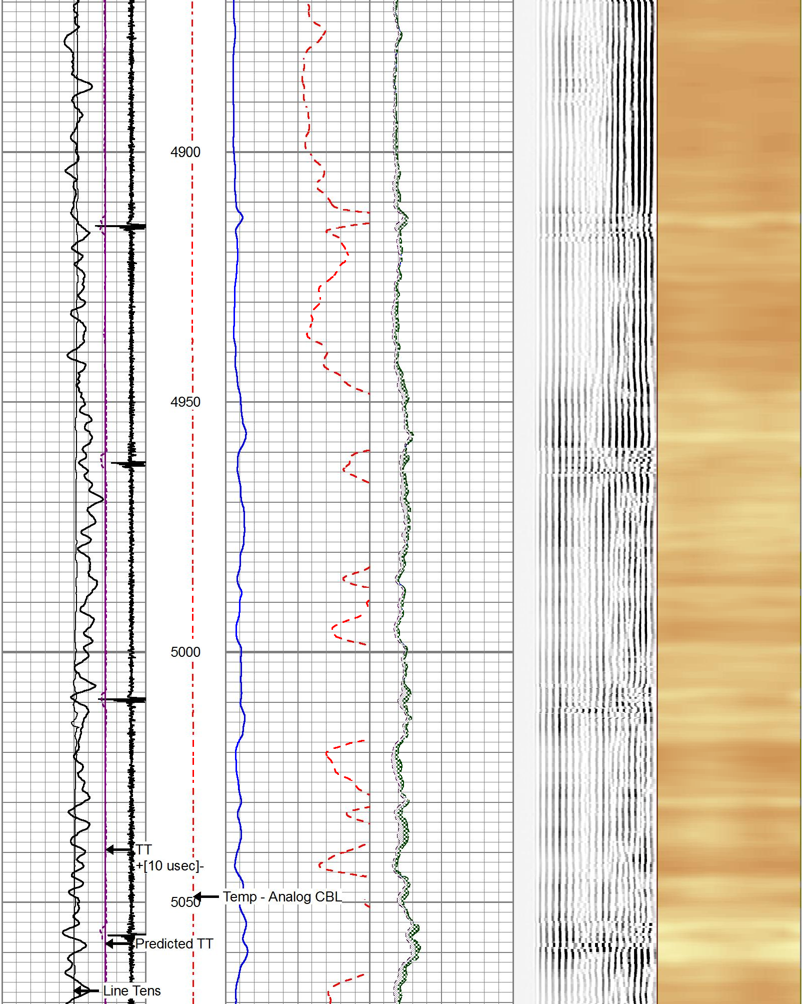
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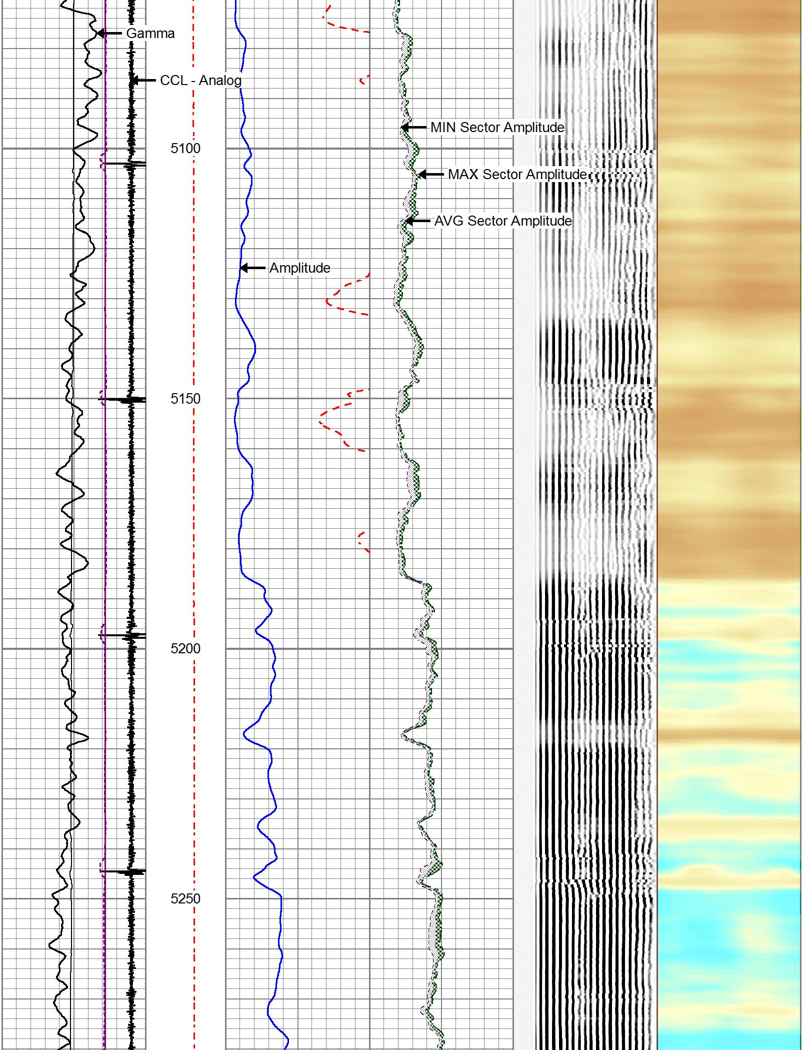
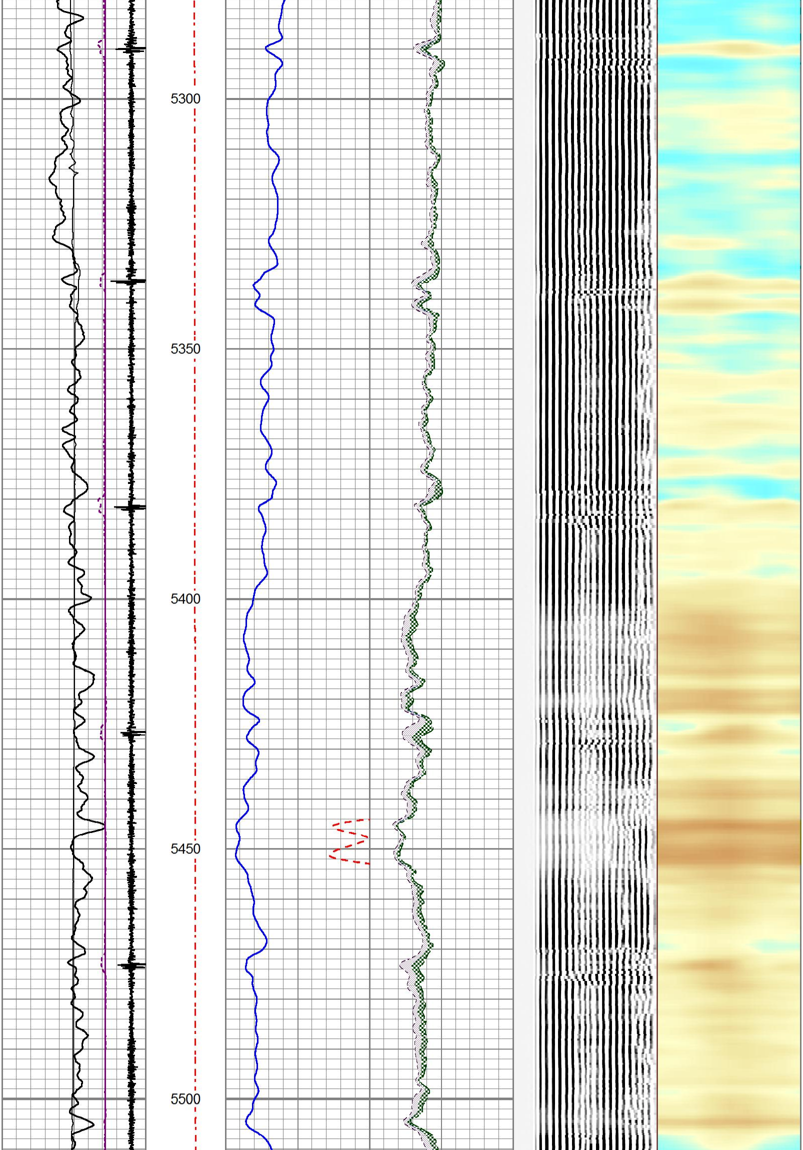
4950
5000
TT
+[10 usec]-
5050
Temp - Analog CBL
Predicted TT
Line Tens


Gamma
CCL - Analog
5100
5150
5200
5250
MIN Sector Amplitude
MAX Sector Amplitude
AVG Sector Amplitude
Amplitude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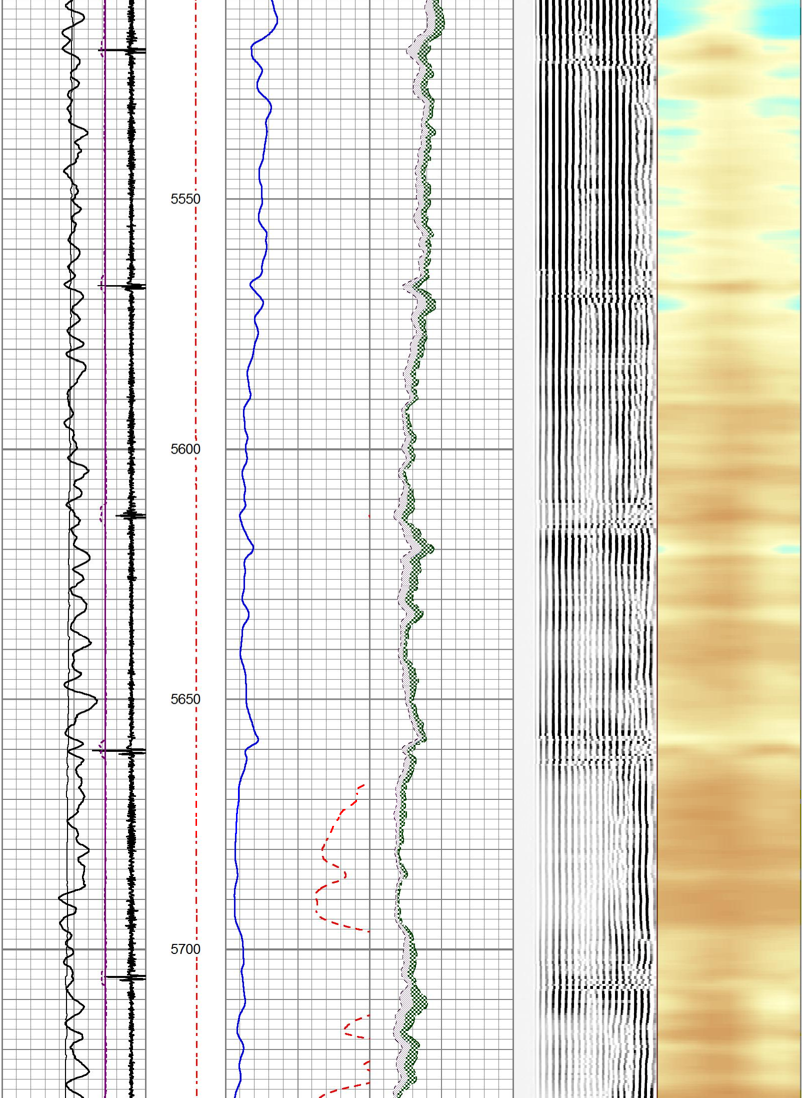
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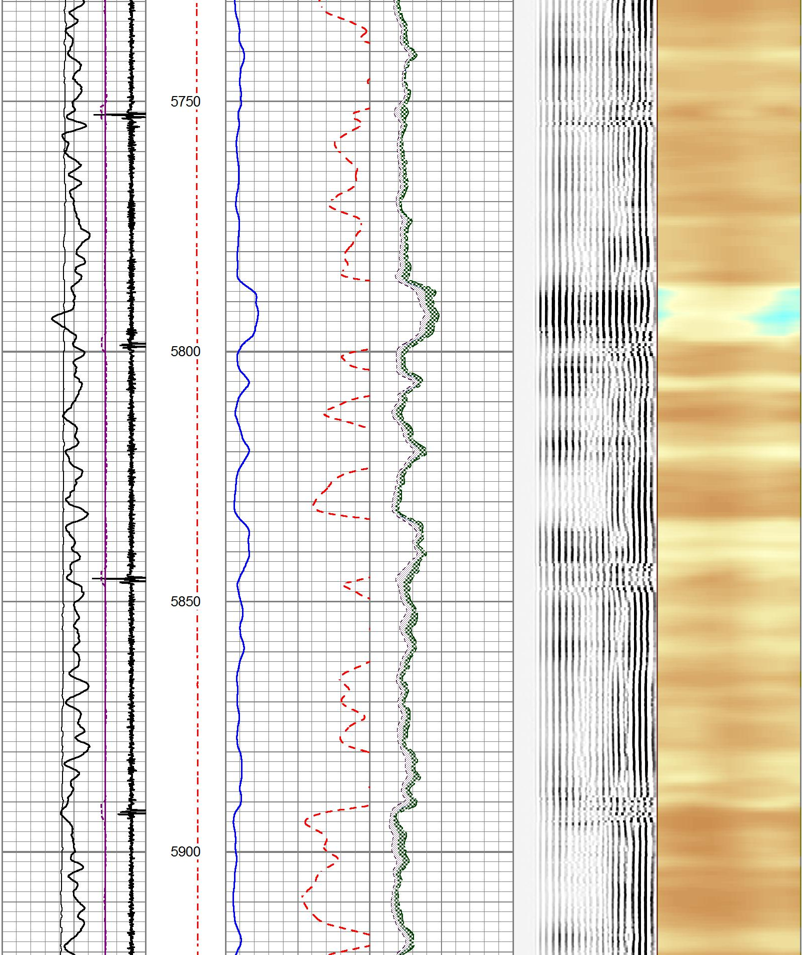
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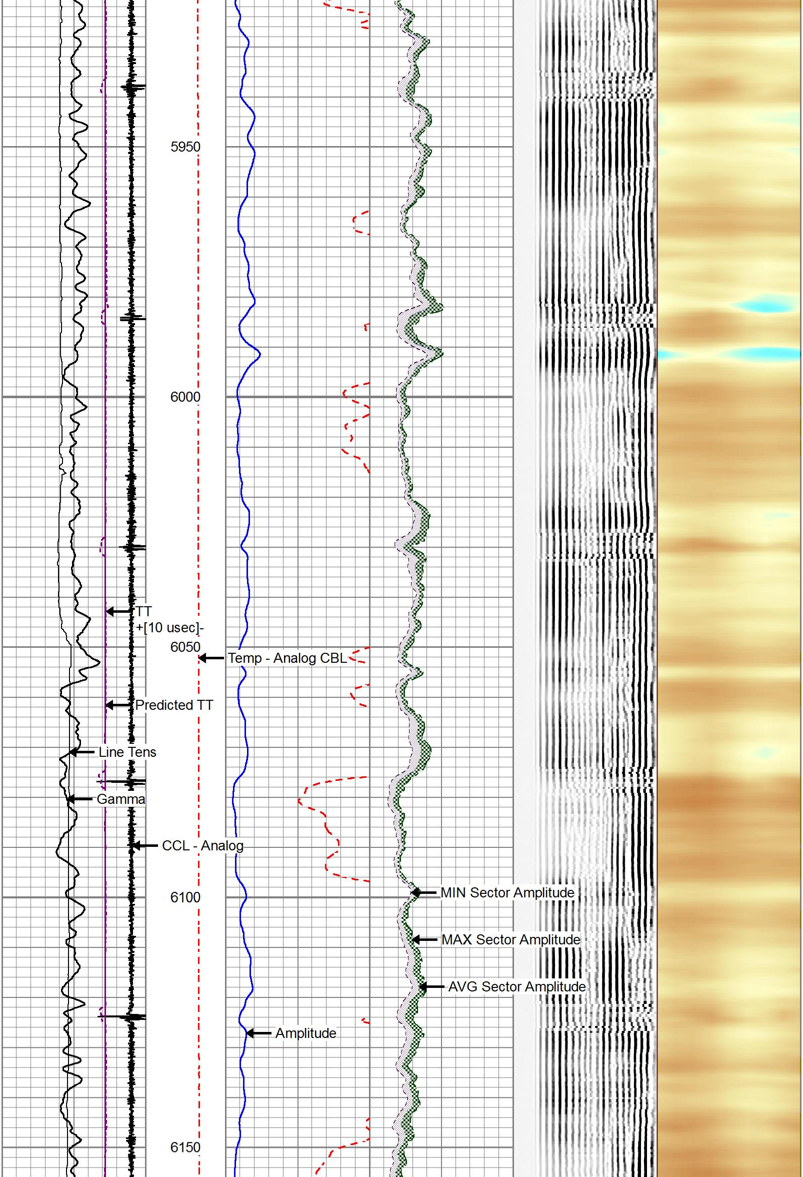
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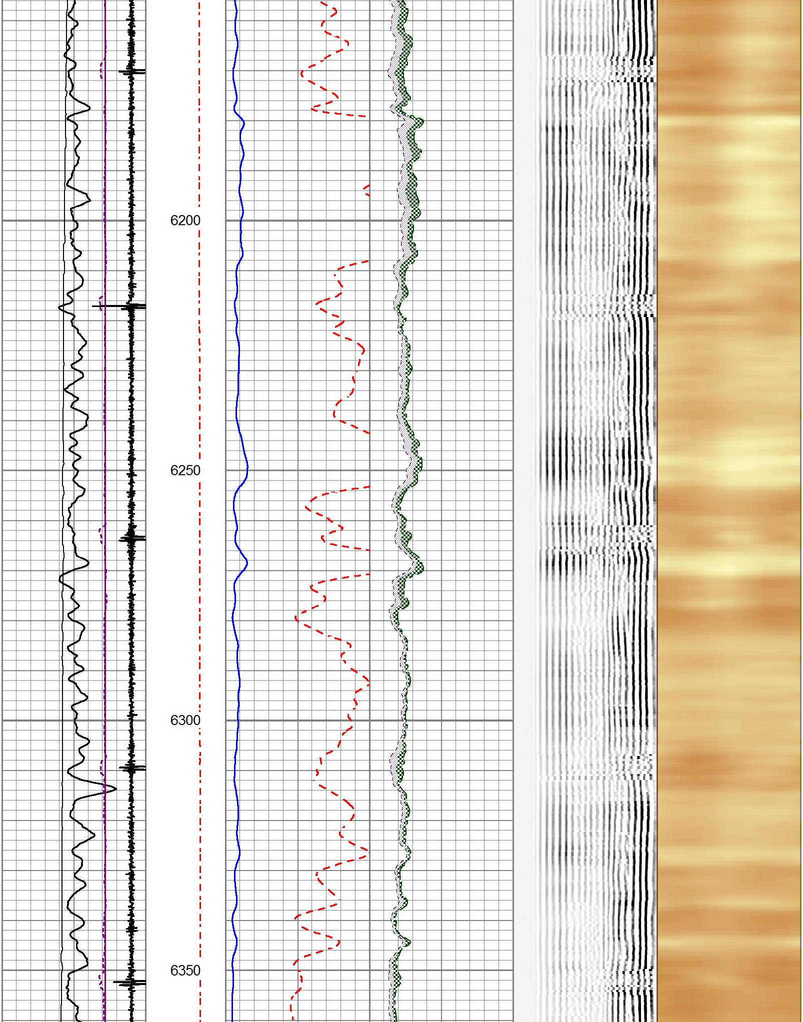
6000
TT
+[10 usec]-
6050
Temp - Analog CBL
Predicted TT
Line Tens
Gamma
CCL - Analog
6100
MIN Sector Amplitude
MAX Sector Amplitude
AVG Sector Amplitude
Amplitude
6150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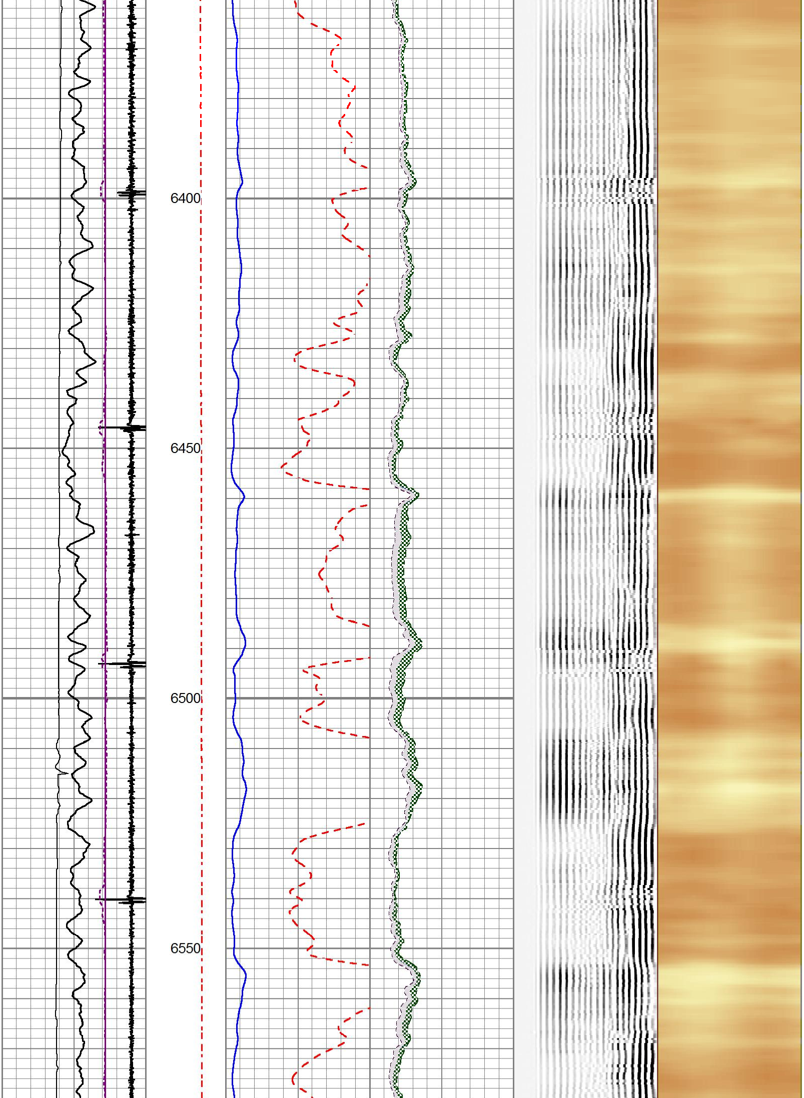
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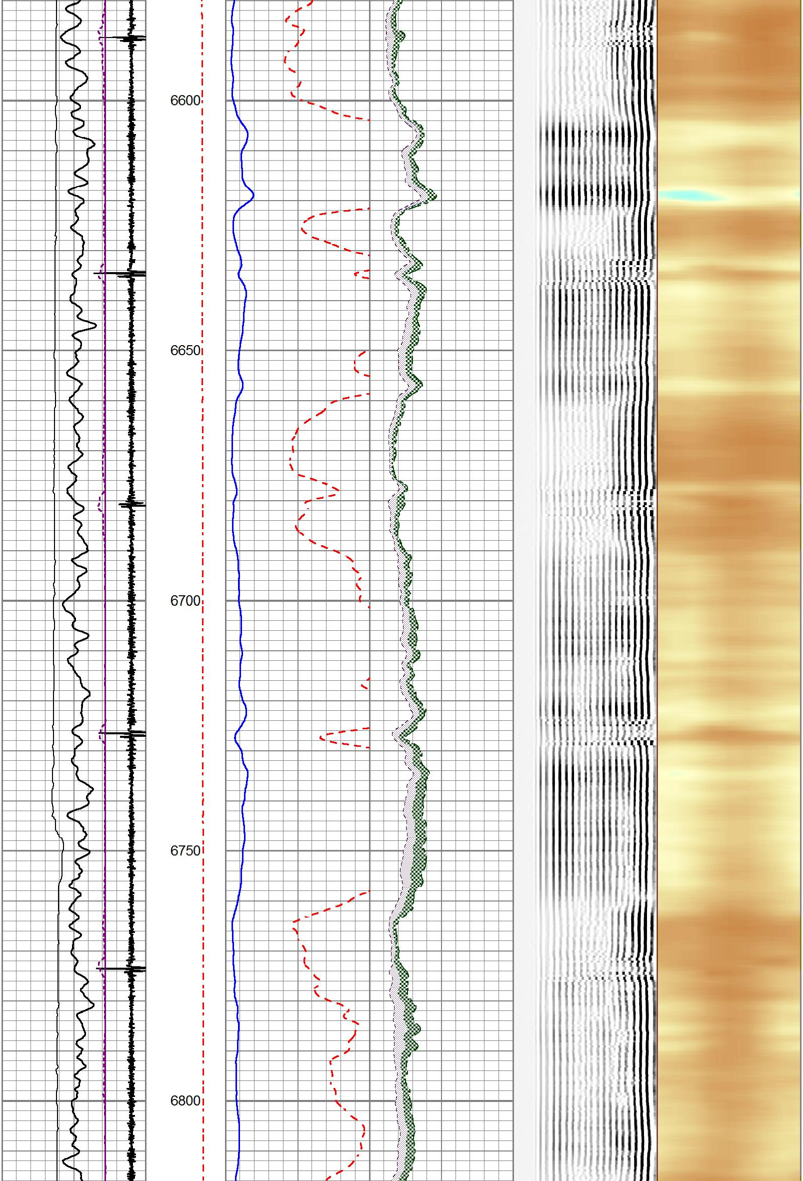
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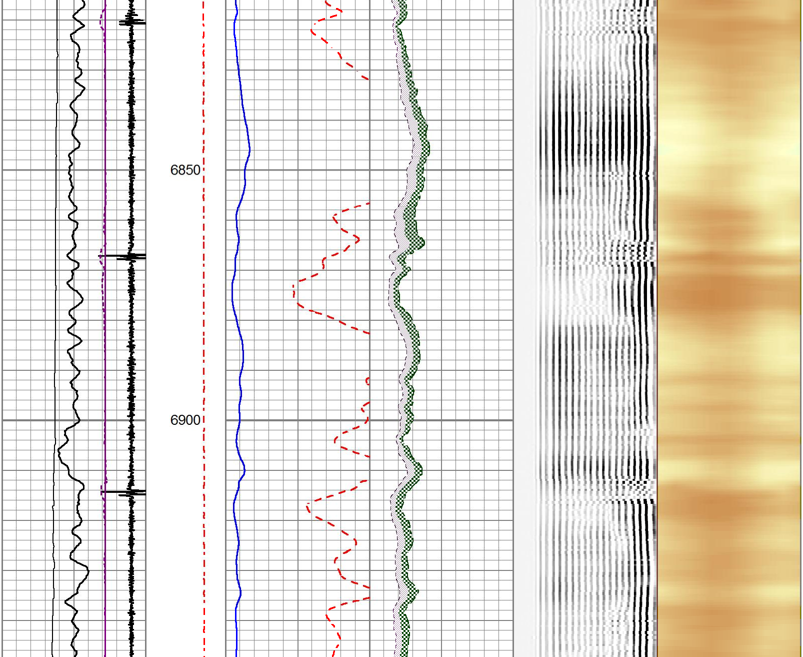

6850
6900

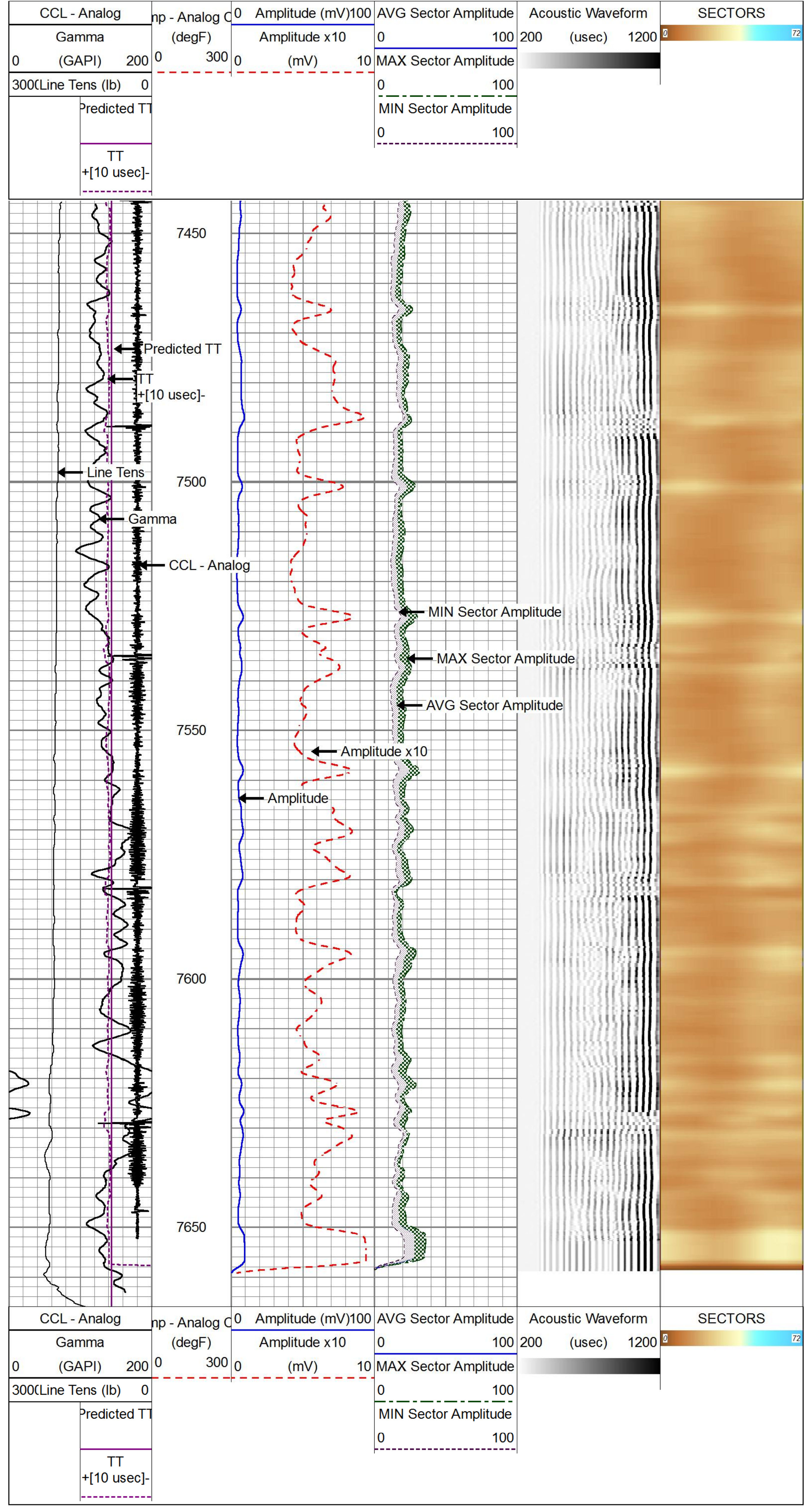
gyrodata **MAIN PASS - Ran with 500 PSI**

5 in / 100 ft

gyrodata **REPEAT PASS - Ran with 0 PSI**

5 in / 100 ft

Database File	2018_4_21_conoco_big_sandy_3_65_36_31_1dh.db
Dataset Pathname	Repeat1
Presentation Format	rcbl_8s
Dataset Creation	Sat Apr 21 12:28:16 2018
Charted by	Depth in Feet scaled 1:240



gyrodata **REPEAT PASS - Ran with 0 PSI**

5 in / 100 ft

Calibration Report

Database File	2018_4_21_conoco_big_sandy_3_65_36_31_1dh.db
Dataset Pathname	Main2
Dataset Creation	Sat Apr 21 12:09:04 2018

Gamma Ray Calibration Report

Serial Number:	ISHV2-03	
Tool Model:	2 3/4" TekCo	
Performed:	Tue Dec 13 00:23:06 2016	
Calibrator Value:	194.0	GAPI
Background Reading:	58.9	cps
Calibrator Reading:	300.8	cps
Sensitivity:	0.8020	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	IT4B1-01	
Tool Model:	2 3/4" RIB Analog	
Calibration Casing Diameter:	7.000	in
Calibration Depth:	1709.307	ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.002	1.134	0.000	71.900	63.282	0.149
CAL	-0.005	0.510				
5'	-0.001	1.727	0.000	71.900	41.612	0.034
SUM						
S1	0.009	0.698	0.000	71.900	104.353	-0.926
S2	0.011	0.726	0.000	71.900	100.460	-1.083
S3	0.018	0.831	0.000	71.900	88.437	-1.573
S4	0.015	0.994	0.000	71.900	73.421	-1.091
S5	0.018	1.123	0.000	71.900	65.075	-1.164
S6	0.015	0.963	0.000	71.900	75.895	-1.164
S7	0.018	0.898	0.000	71.900	81.697	-1.498
S8	0.010	0.756	0.000	71.900	96.450	-0.988

Internal Reference Calibration, performed Fri Aug 25 16:20:58 2017:

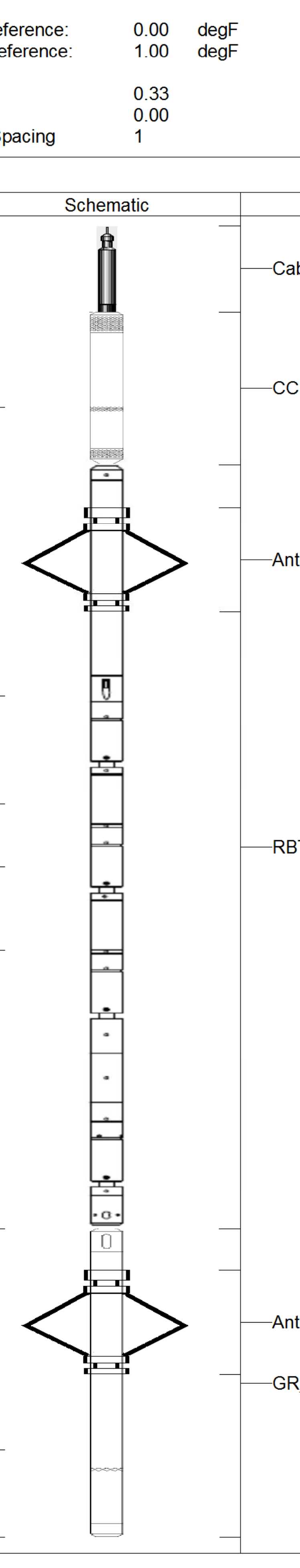
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.005	0.510	1.000	0.000

Air Zero Calibration, performed Fri Aug 25 16:20:58 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:	IT4B1-01			
Tool Model:	2 3/4" RIB Analog			
Performed:	Fri Aug 26 11:07:15 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)	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 (IPSN7-03)	1.83	2.75	33.00
		Antelope-Overbody	1.25	2.75	
TEMP	10.05				
WVFS8	8.76				
WVFS7	8.76				
WVFS6	8.76				
WVFS5	8.76	RBTA-2 3/4" RIB Analog (IT4B1-01)	9.13	2.75	102.00
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 (ISHV2-03)	3.68	2.75	47.00
GR	1.04				
LOCTIM	0.00				
UTCTIM	0.00				

Dataset: 2018_4_21_conoco_big_sandy_3_65_36_31_1dh.db: field/well/run1/Main2
Total length: 15.67 ft
Total weight: 185.60 lb
O.D.: 2.75 in

gyrodata

Company	**ConocoPhillips**
Well	**Big Sandy 3-65 36-31 1DH**
Field	**Niobrara**
County	**Adams**
State	**Colorado**
Country	**U.S.A.**