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CEMENT BOND LOG

Company	Extraction Oil & Gas INC
Well	N35-20-3N
Field	Wattenberg
County	Broomfield
State	CO.

Company Extraction Oil & Gas INC
Well N35-20-3N
Field Wattenberg
County Broomfield **State** CO.

API # : 05-014-20843-00
Location: 2483' FSL & 1585' FWL
Lat: 39.978941
Long: -104.991531

Other Services

Elevation
K.B. 5232'
D.F. -----
G.L. 5213'

SEC: 3 TWP: 1S RGE: 68W

Permanent Datum:	Ground Level	Elevation: 5213'
Log Measured From:	Kelly Bushing	, 29' ft. above Permanent Datum.
Drilling Measured From:	Kelly Bushing	

Date	14 June 2019
Run Number	One
Plug Back T.D. Driller	-----
Plug Back T.D. Logger	-----
Bottom Logged Interval	8546'
Top Log Interval	Surface
Type Fluid	-----
Density / Viscosity	-----
Max. Recorded Temp.	239°F
Time Logger on Bottom	10:30
Equipment Number	GD 114
Location	Casper WY
Recorded By	J Baker
Witnessed By	

Casing Record				Tubing Record			
Size	Weight	From	To	Size	Weight	From	To
9 5/8"	36#	Surface	1,500				
5 1/2"	20#	Surface	18,459'				

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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 # : RM0619PCBW437
Your Crew Today: Z. Fabre, T. Lev
Log Correlated to: Surface

Cement Data	
Date Cemented	-----
Primary / Squeeze	Primary
Type / Weight	------
Main Pass Press.	0 PSI
Repeat Pass Press.	0 PSI

Bond Index	
Index %	Est Top Depth
20 % Bond	1602'
40 % Bond	2688'
60 % Bond	2867'
80 % Bond	3618'
100 % Bond	-----

Comments

Estimated Cement top at 1,602'
(20% Bond)

Marker Joint located at 7,658'

Thank you for using Gyrodata

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

Log Variables

Databasec:\programdata\warrior\data\2019_06_14_extraction_interchange_b_n35_20_3n_cbl\2019
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	239	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	241	0

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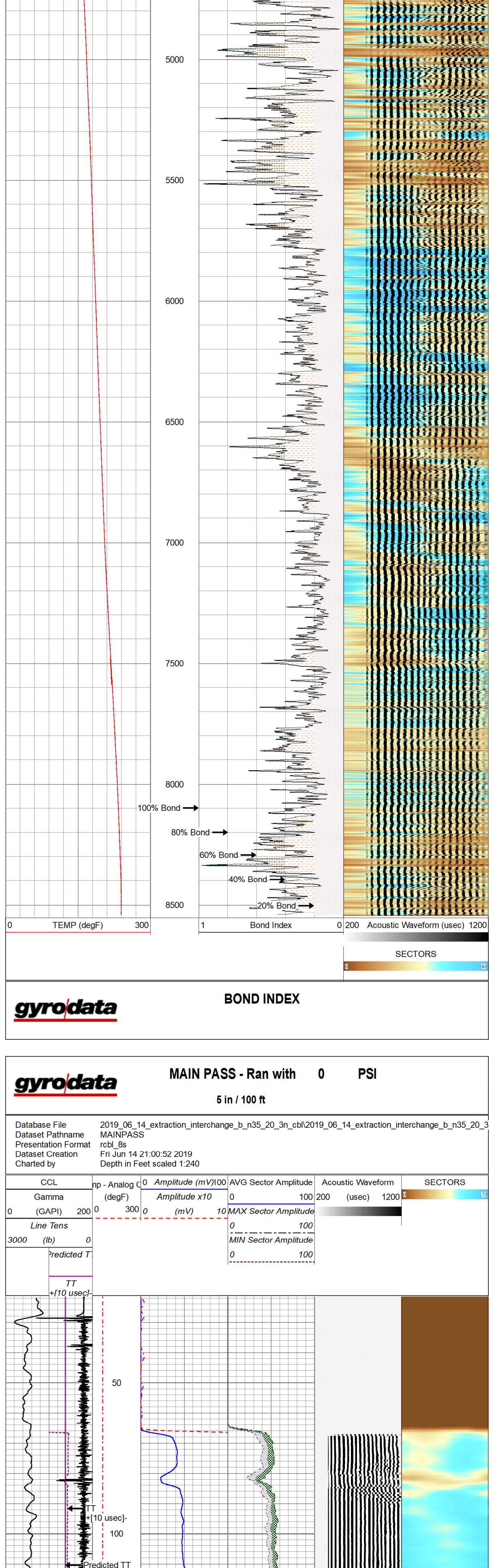
BOND INDEX

Database File	2019_06_14_extraction_interchange_b_n35_20_3n_cbl\2019_06_14_extraction_interchange_b_n35_20_3
Dataset Pathname	BOND
Presentation Format	bndindx_msg-sec
Dataset Creation	Fri Jun 14 21:25:30 2019
Charted by	Depth in Feet scaled 1:3000



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BOND INDEX

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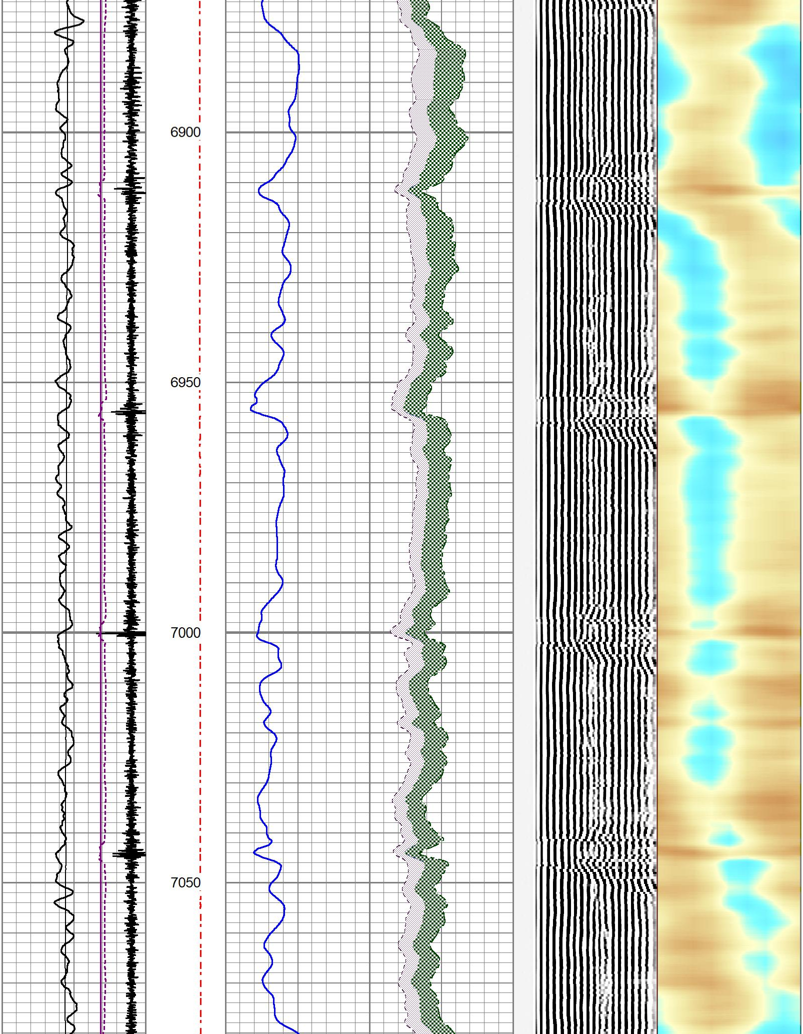
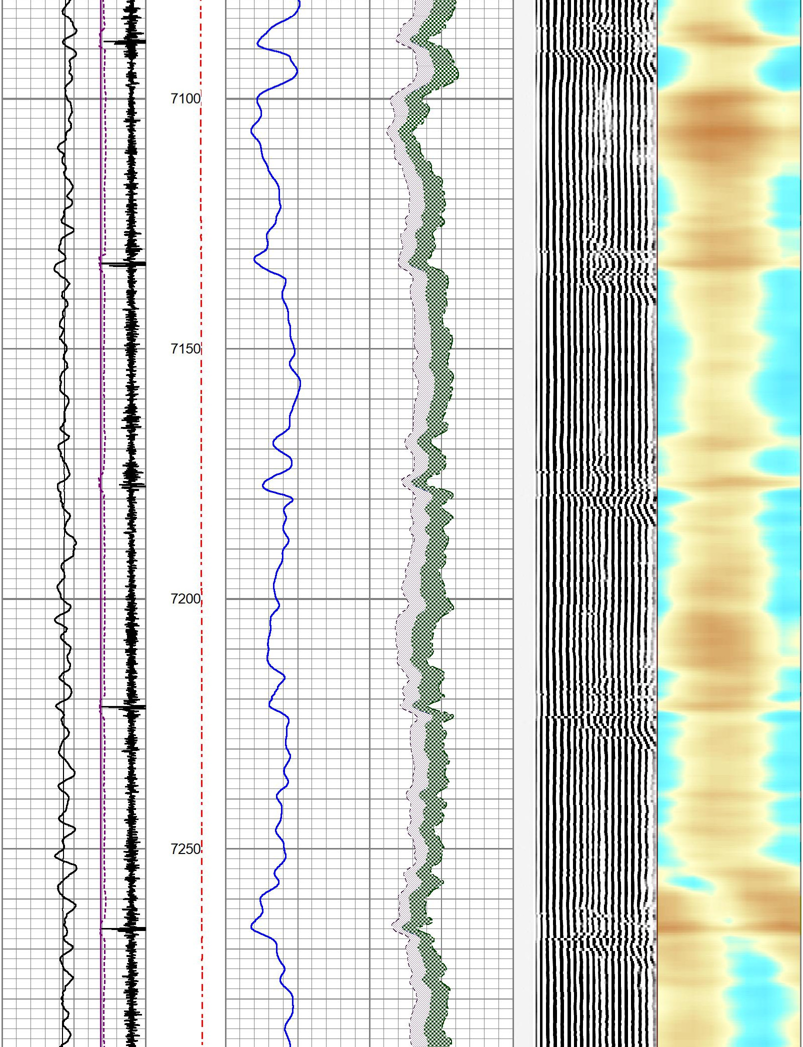
MAIN PASS - Ran with 0 PSI

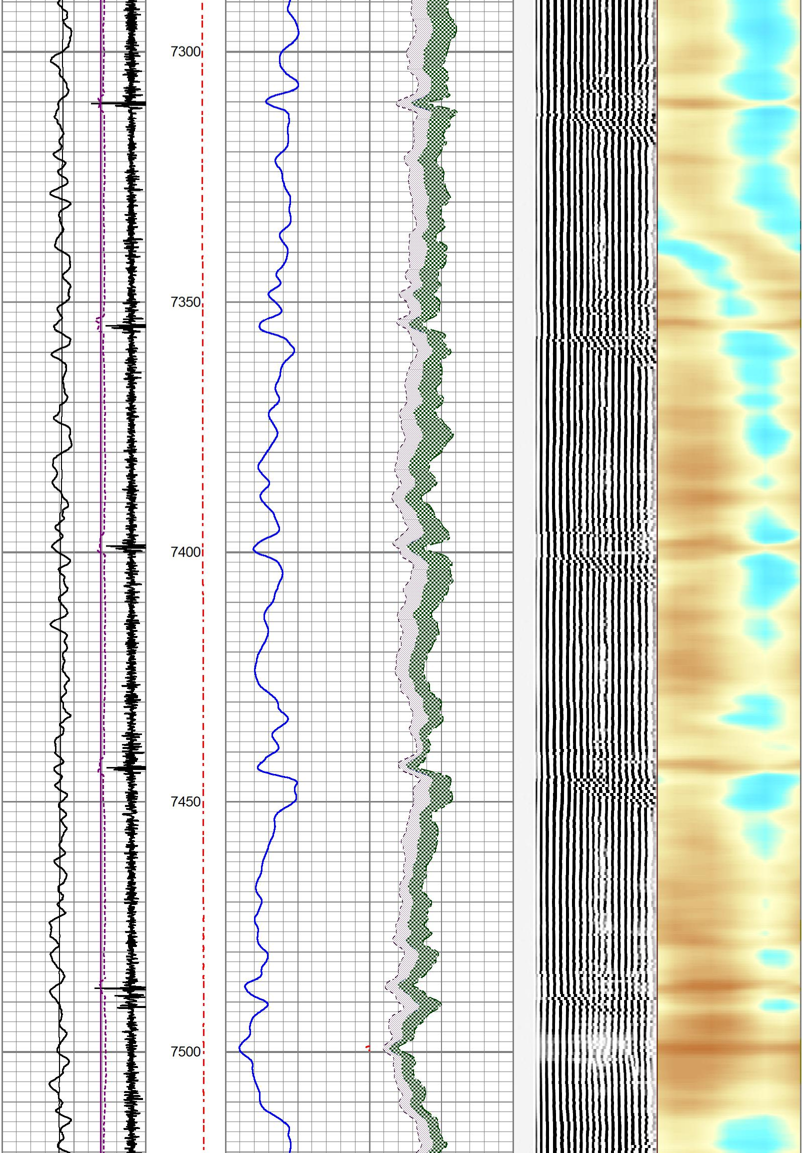
5 in / 100 ft

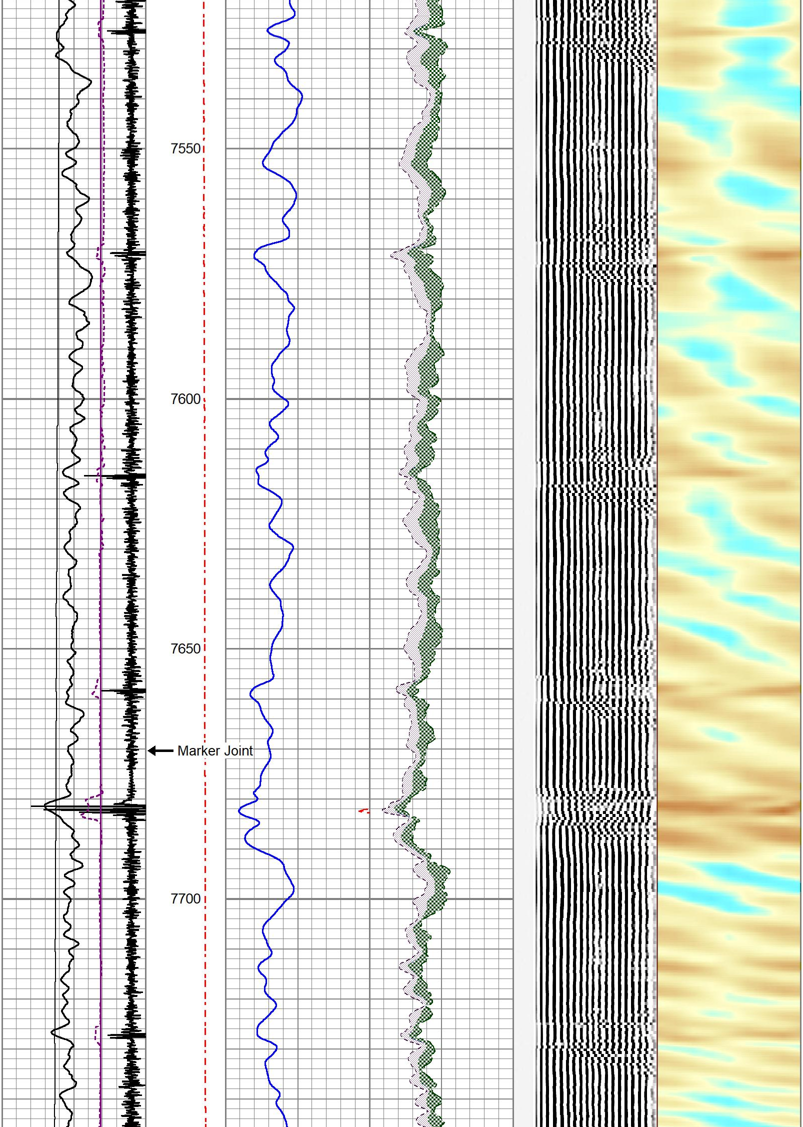
Database File	2019_06_14_extraction_interchange_b_n35_20_3n_cbl\2019_06_14_extraction_interchange_b_n35_20_3
Dataset Pathname	MAINPASS
Presentation Format	rcbl_8s
Dataset Creation	Fri Jun 14 21:00:52 2019
Charted by	Depth in Feet scaled 1:240

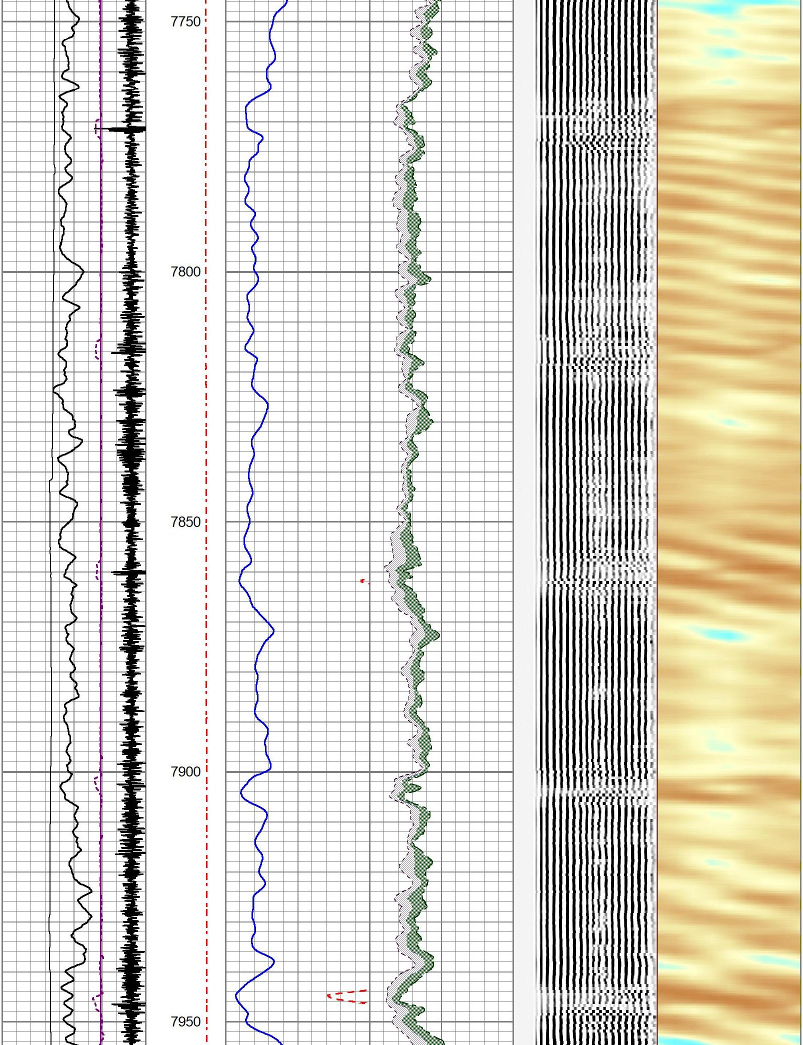
3550
3600
3650
3700
3750
3800
3850
3900
TT
[10 usec]
Temp - Analog CBL
Predicted TT
Line Tens
3950
Gamma
CCL
MIN Sector Amplitude
MAX Sector Amplitude
AVG Sector Amplitude
4000
Amplitude x10
Amplitude

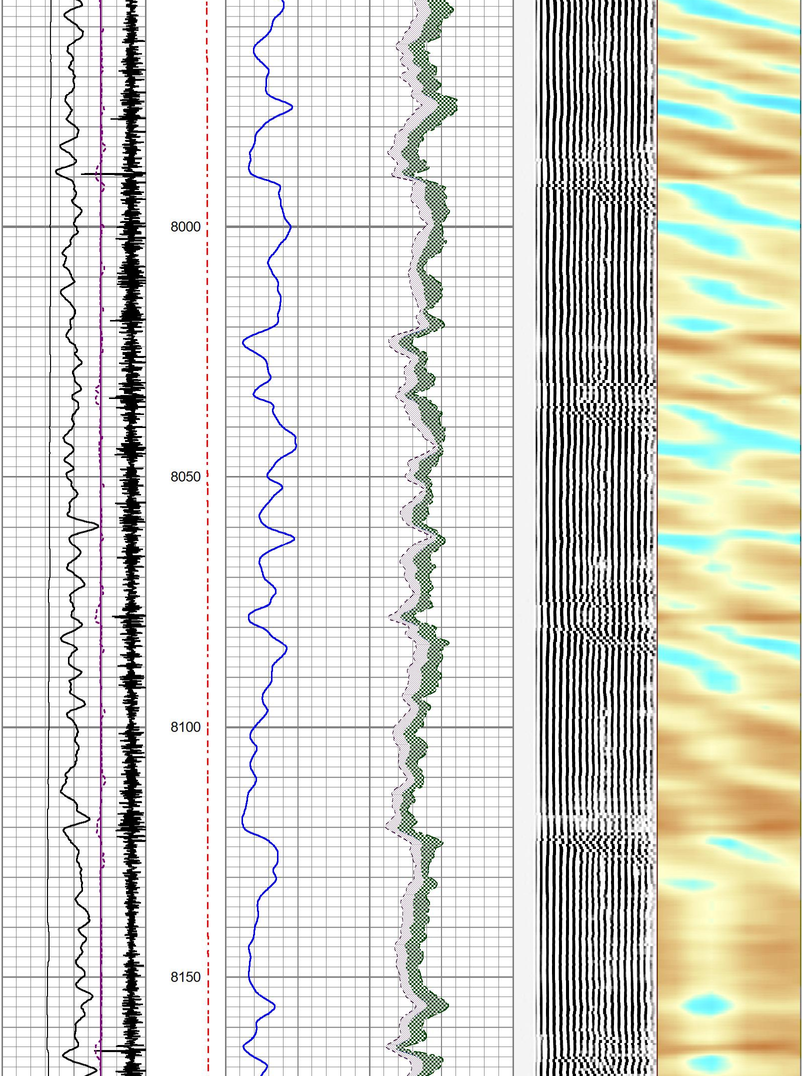


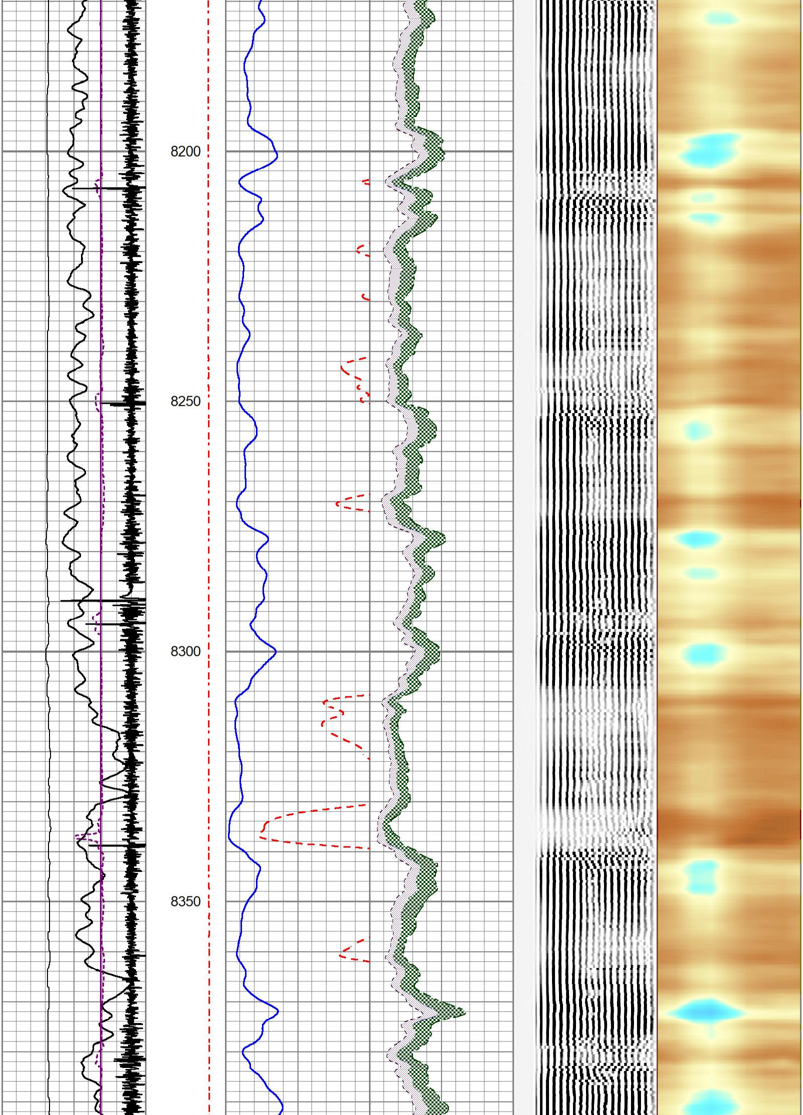


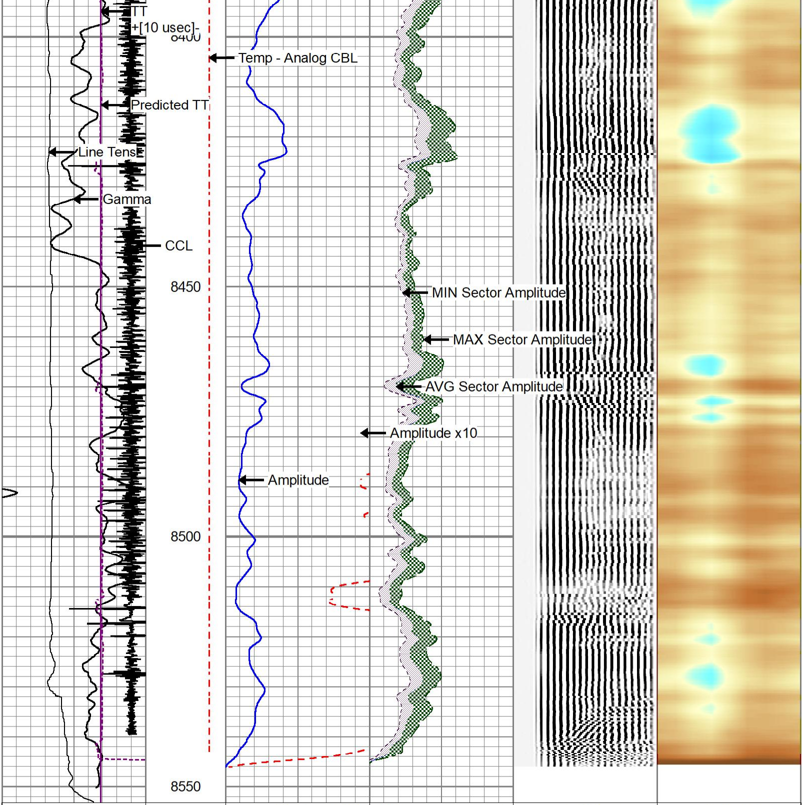












CCL	np - Analog C	0 *Amplitude (mV)* 100	AVG Sector Amplitude	Acoustic Waveform	SECTORS
Gamma 0 (GAPI) 200	(degF) 0 300	*Amplitude x10* *0 (mV) 10*	0 100 *MAX Sector Amplitude* *0 100* *MIN Sector Amplitude* *0 100*	200 (usec) 1200	0 72
Line Tens *3000 (lb) 0*					
redicted T *TT* *+[10 usec]-*					

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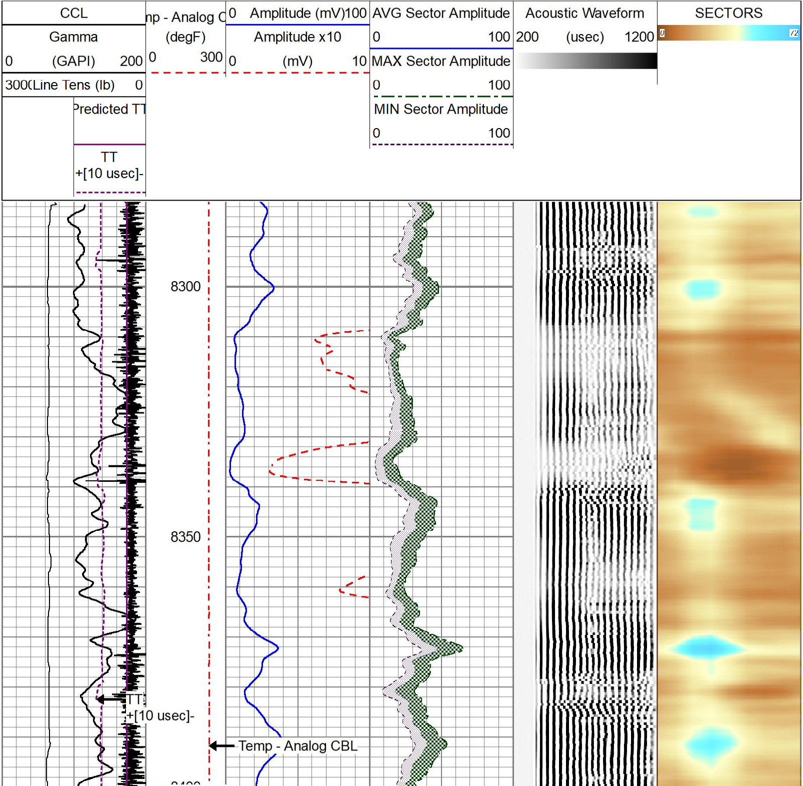
MAIN PASS - Ran with 0 PSI

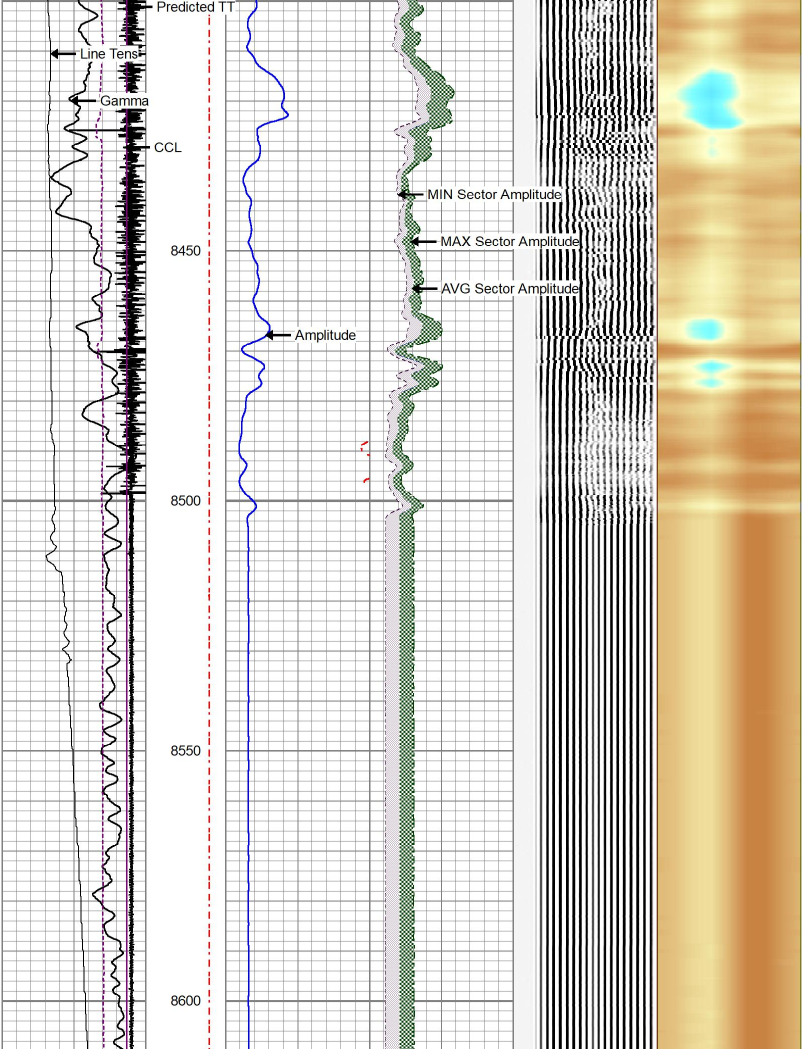
5 in / 100 ft

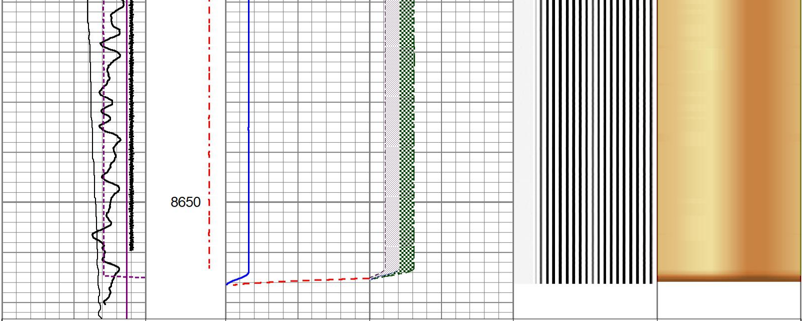
REPEAT PASS - Ran with 0 PSI

5 in / 100 ft

Database File	2019_06_14_extraction_interchange_b_n35_20_3n_cbl\2019_06_14_extraction_interchange_b_n35_20_3
Dataset Pathname	REPEATPASS
Presentation Format	rcbl_8s
Dataset Creation	Fri Jun 14 21:36:12 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

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REPEAT PASS - Ran with 0 PSI

5 in / 100 ft

Calibration Report

Database File	c:\programdata\warrior\data\2019_06_14_extraction_interchange_b_n35_20_3n_cbl\2019_06_14_extraction
Dataset Pathname	pass3
Dataset Creation	Fri Jun 14 11:35:53 2019

Gamma Ray Calibration Report

Serial Number:	ISHV2-03	
Tool Model:	2 3/4" TekCo	
Performed:	Thu Apr 25 08:34:21 2019	
Calibrator Value:	194.0	GAPI
Background Reading:	61.7	cps
Calibrator Reading:	373.2	cps
Sensitivity:	0.6226	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	IT4B1-01	
Tool Model:	2 3/4" RIB Analog	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	2260.280	ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.002	1.305	0.000	71.921	55.032	0.101
CAL	-0.004	0.624				
5'	0.002	1.811	0.000	71.921	39.737	-0.061
SUM						
S1	0.009	1.662	0.000	72.000	43.553	-0.402
S2	0.011	1.712	0.000	72.000	42.321	-0.461
S3	0.015	1.861	0.000	72.000	39.014	-0.590
S4	0.017	1.841	0.000	72.000	39.479	-0.683
S5	0.015	1.813	0.000	72.000	40.041	-0.584
S6	0.010	1.638	0.000	72.000	44.235	-0.462
S7	0.009	1.931	0.000	72.000	37.474	-0.347
S8	0.008	1.754	0.000	72.000	41.249	-0.334

Internal Reference Calibration, performed Fri Aug 25 15:20:58 2017:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.004	0.624	1.000	0.000

Air Zero Calibration, performed Fri Aug 25 15:20:58 2017:

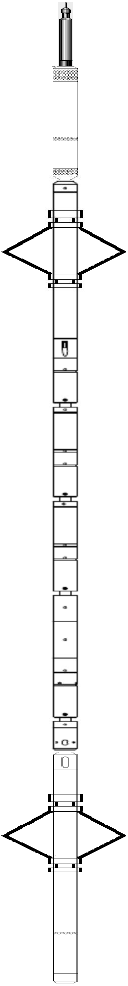
	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.000	0.000	0.000
5'	0.000	0.000	0.000
SUM			
S1	0.000	0.000	0.000
S2	0.000	0.000	0.000
S3	0.000	0.000	0.000
S4	0.000	0.000	0.000
S5	0.000	0.000	0.000
S6	0.000	0.000	0.000
S7	0.000	0.000	0.000
S8	0.000	0.000	0.000

Temperature Calibration Report

Serial Number:	IT4B1-01
Tool Model:	2 3/4" RIB Analog
Performed:	Fri Aug 26 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)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb
			CableHead-TitanConeType2	1.03	1.44	3.60
			CCL_Log-2 3/4" TekCo (IS2T1-08)	1.83	2.75	33.00
CCL	13.50					
			Antelope-Overbody	1.25	2.75	
TEMP	10.05					
WVFS8	8.76					
WVFS7	8.76					
			RBTA-2 3/4" RIB Analog (IT4B1-01)	9.13	2.75	102.00
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					
			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:	2019_06_14_extraction_interchange_b_n35_20_3n_cbl.db: field/well/run1/MAINPASS
Total length:	15.67 ft
Total weight:	185.60 lb
O.D.:	2.75 in

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Company	Extraction Oil & Gas INC		
Well	N35-20-3N		
Field	Wattenberg		
County	Brppmfield		
State	CO.	**Country**	U.S.A.