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CEMENT BOND LOG

Company	Extraction Oil and Gas Inc.
Well	Berthoud Farms 8E-10-9N
Field	Wattenberg
County	Weld
State	Colorado

Company Extraction Oil and Gas Inc.
Well Berthoud Farms 8E-10-9N
Field Wattenberg
County Weld **State** Colorado
API # : 05-123-45732
Location: NE/SE 1547 FSL 966 FEL
SEC: 7 TWP: 4N RGE: 68W

Other Services

Elevation
K.B. 5053
D.F. 5052
G.L. 5034

Permanent Datum: Ground Level Elevation: 5034
Log Measured From: Kelly Bushing , 29 ft. above Permanent Datum.
Drilling Measured From: Kelly Bushing

Date	04 June 2018	
Run Number	One	
Plug Back T.D. Driller	----	
Plug Back T.D. Logger	----	
Bottom Logged Interval	5900	
Top Log Interval	Surface	
Type Fluid	Water	
Density / Viscosity	----	
Max Recorded Temp.	188	
Time Logger on Bottom	18:00	
Equipment Number	GD164	
Location	Casper	
Recorded By	Zach Fabre	
Witnessed By	Mr. Tores	

Casing Record				Tubing Record			
Size	Weight	From	To	Size	Weight	From	To
9 5/8	36	29	1500				
5 1/2	20	29	13139				

<<< 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 # : RM0618PCBW588
Your Crew Today: Pena, Yarbro
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	93
40 % Bond	93
60 % Bond	93
80 % Bond	900
100 % Bond	2706

Comments

Estimated top of Cement
(60% bond Index) @ 93'

Thank you for using Gyrodata

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

Log Variables

Databased:\warrior\data\20180604_berthoud farms 8e-10-9n_cbl\20180604_berthoud farms 8e-10-
Dataset field/well/run1/pass4.1/_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	0.415	23	71.9	4.829

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

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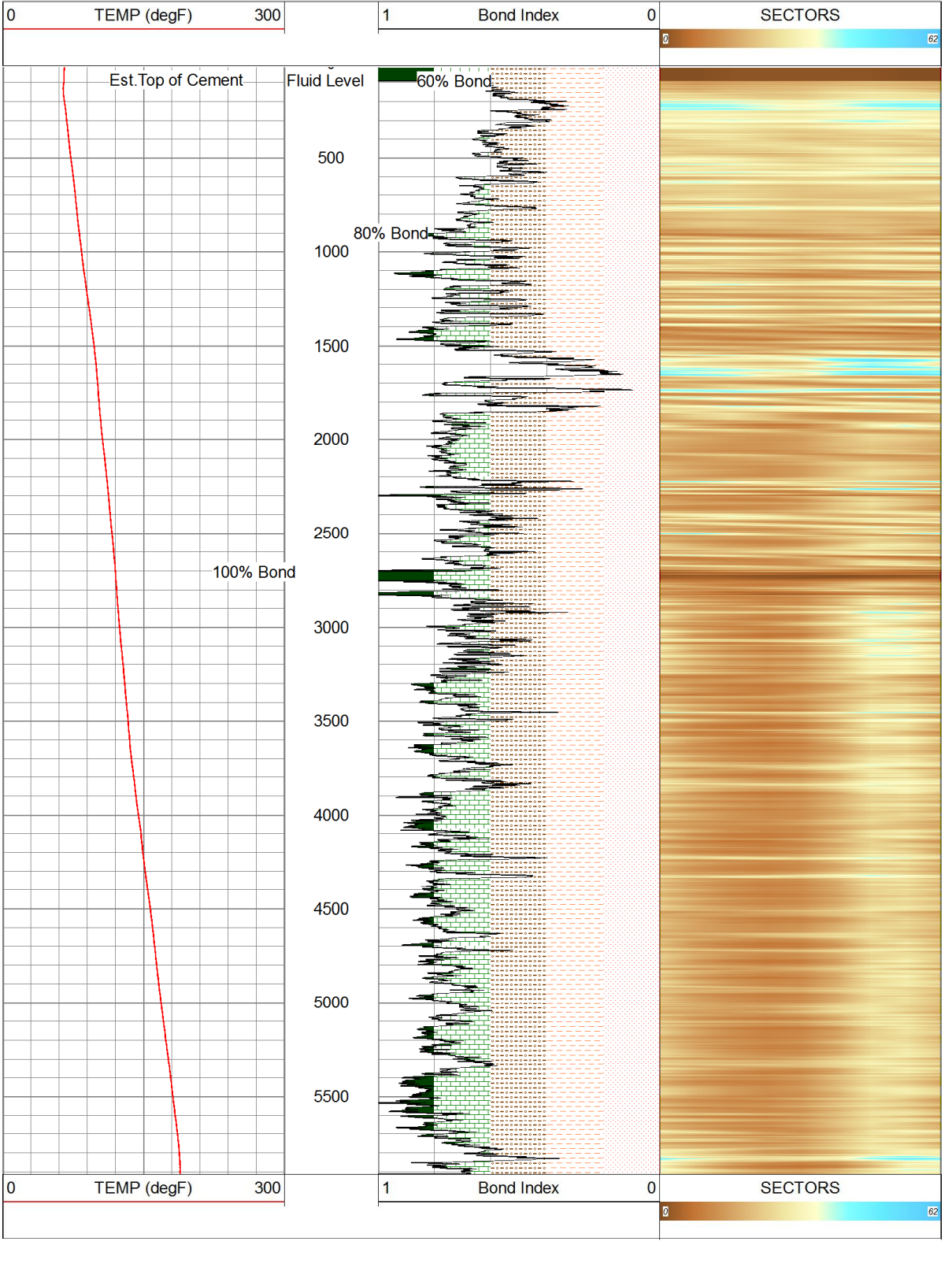
BOND INDEX

Database File 20180604_berthoud farms 8e-10-9n_cbl\20180604_berthoud farms 8e-10-9n_cbl.db
Dataset Pathname ./././BndIndx
Presentation Format BNDIND~1
Dataset Creation Mon Jun 04 19:31:52 2018
Charted by Depth in Feet scaled 1:7500



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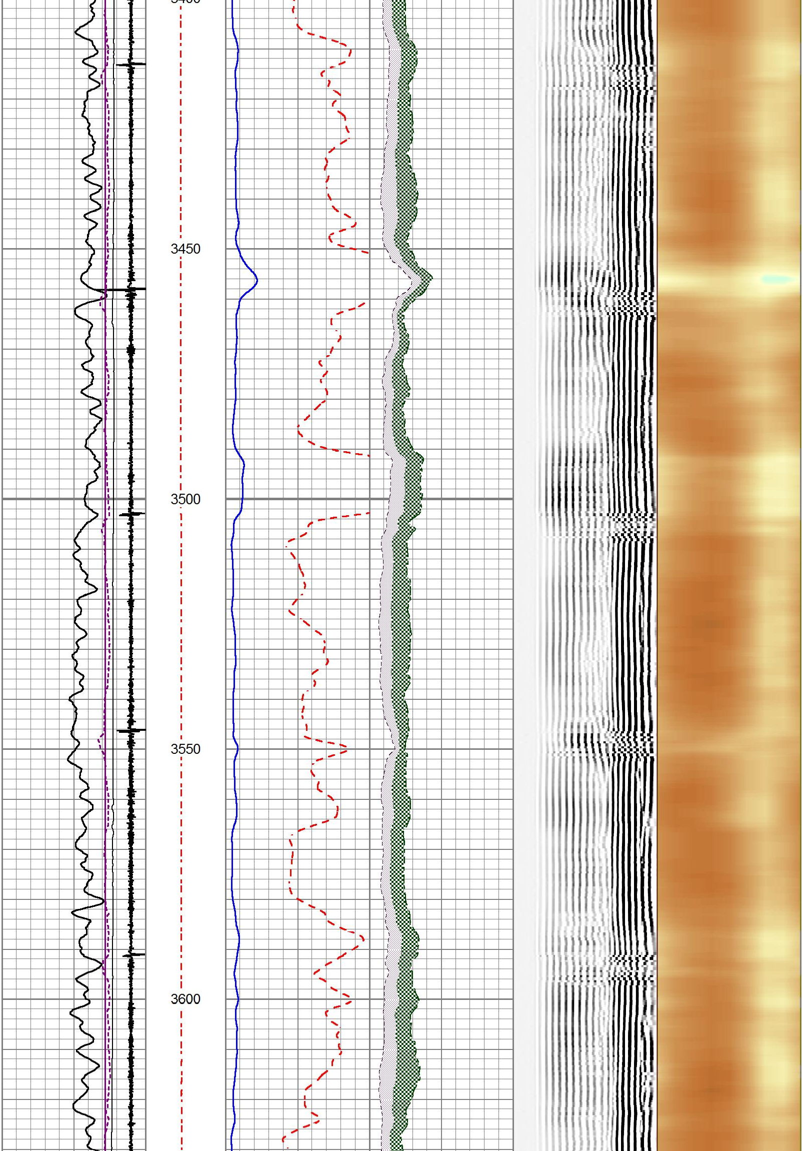
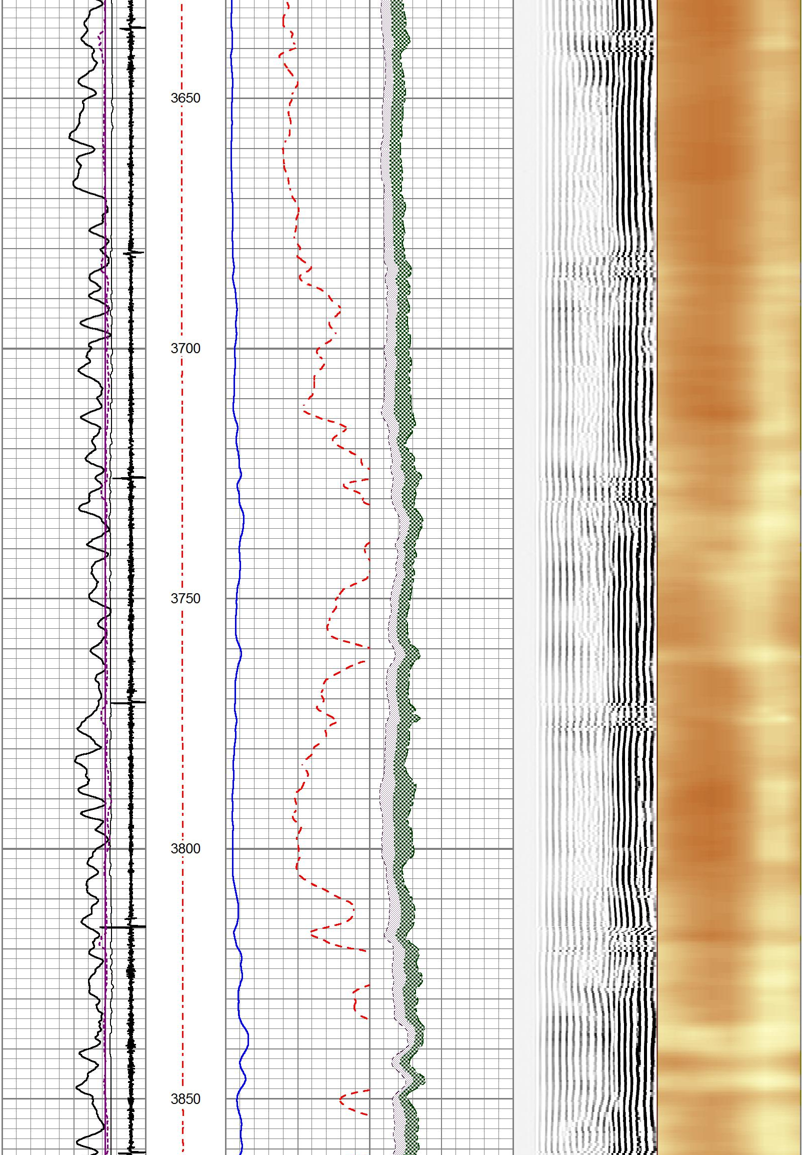
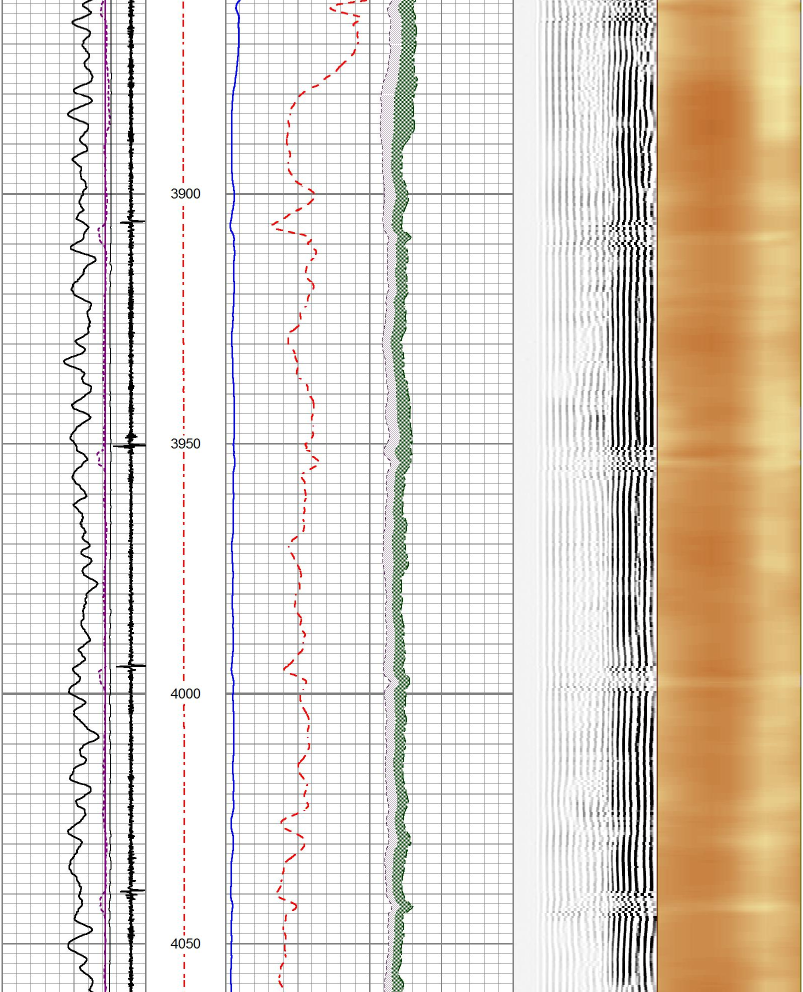
MAIN PASS - Ran with 0 PSI

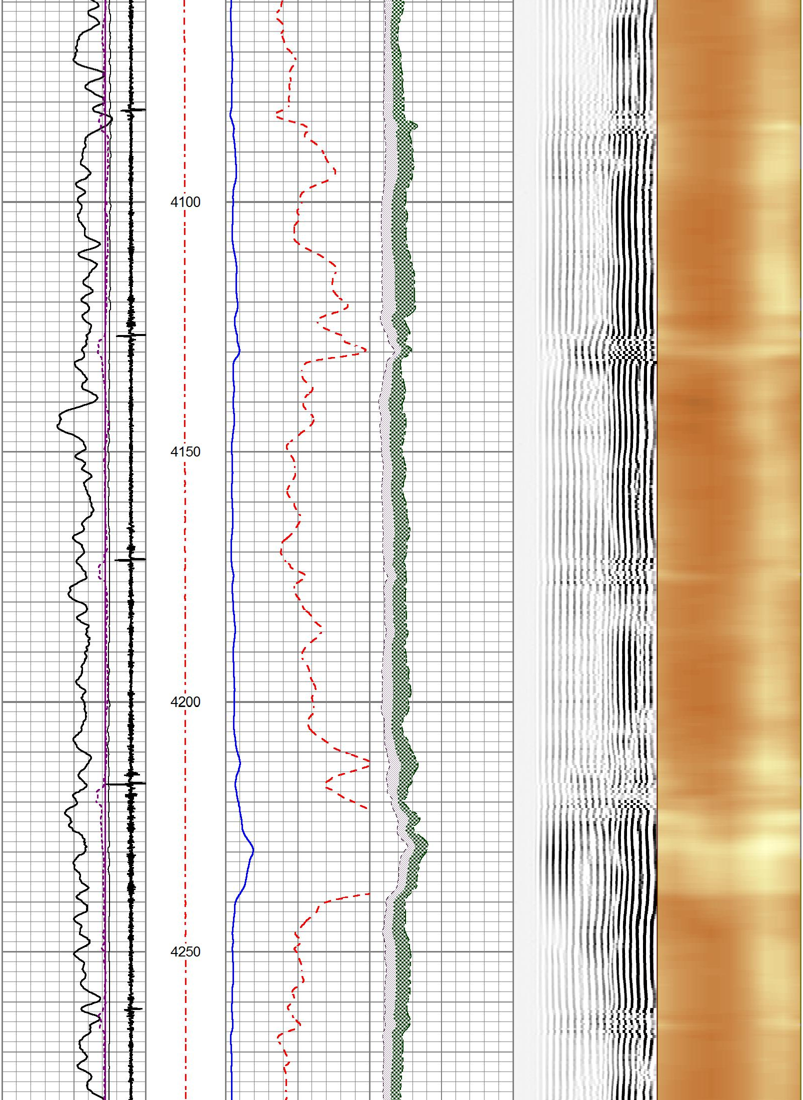
5 in / 100 ft

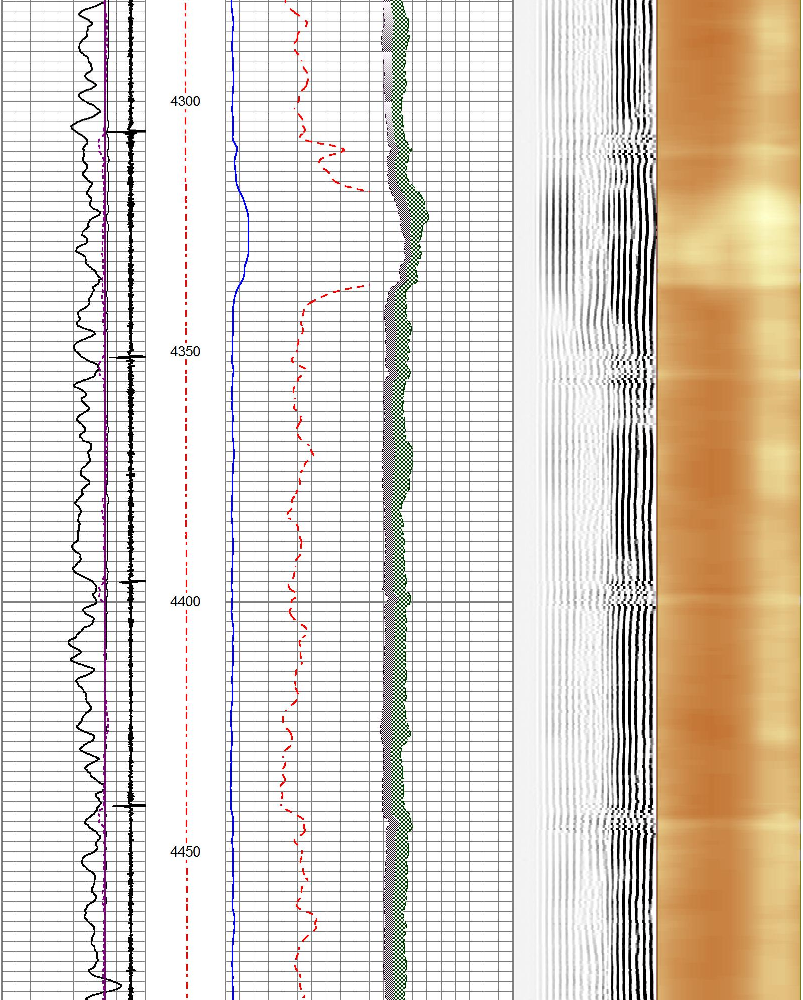
Database File 20180604_berthoud farms 8e-10-9n_cbl\20180604_berthoud farms 8e-10-9n_cbl.db
Dataset Pathname pass4.1
Presentation Format rcbl_8s
Dataset Creation Mon Jun 04 19:28:58 2018
Charted by Depth in Feet scaled 1:240

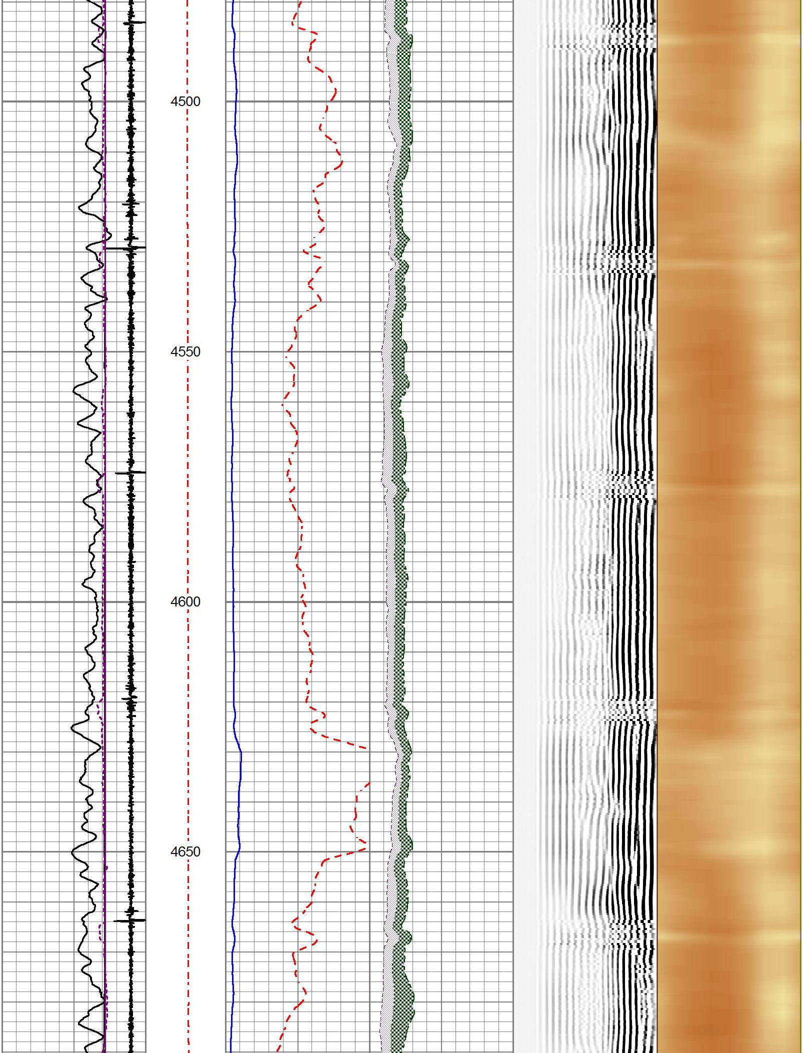


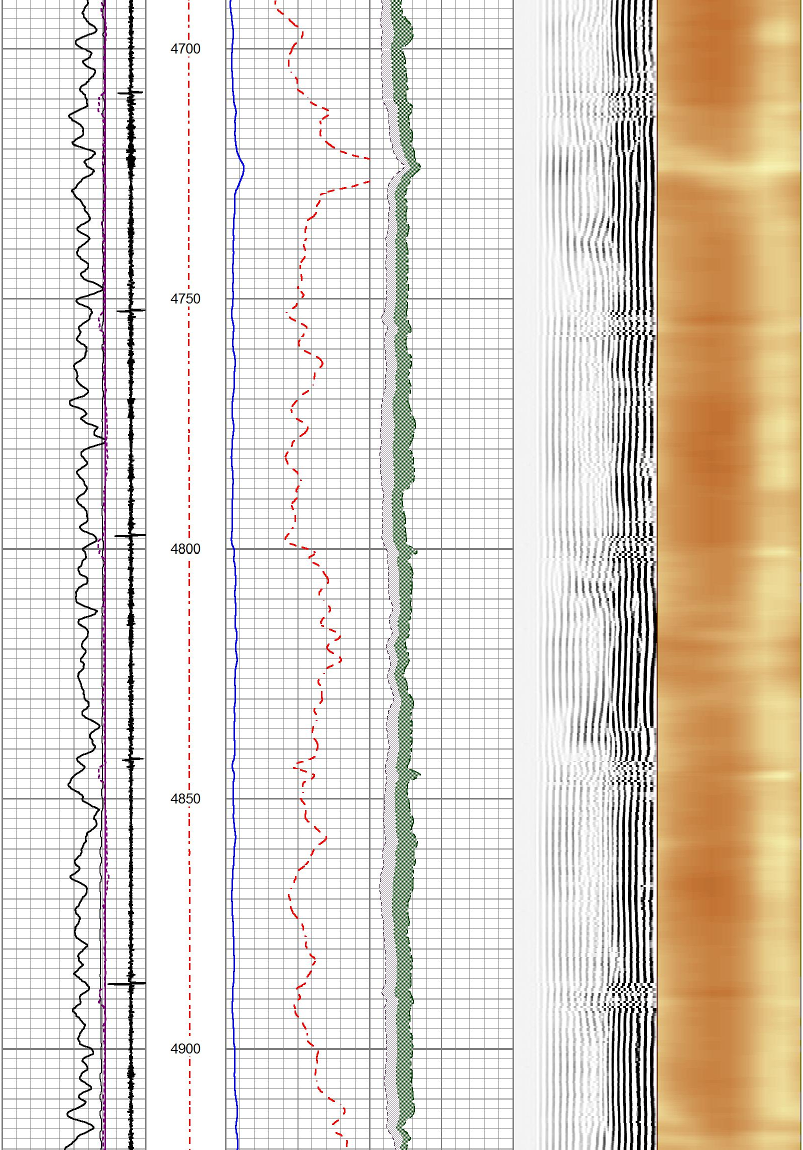


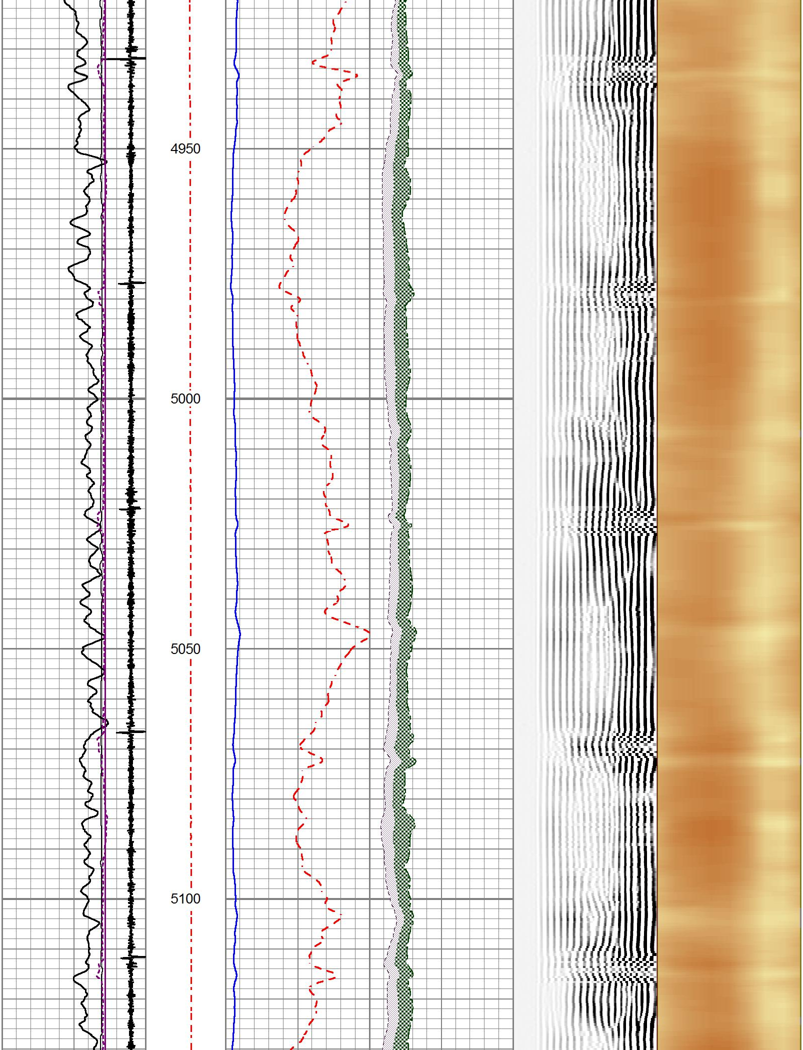


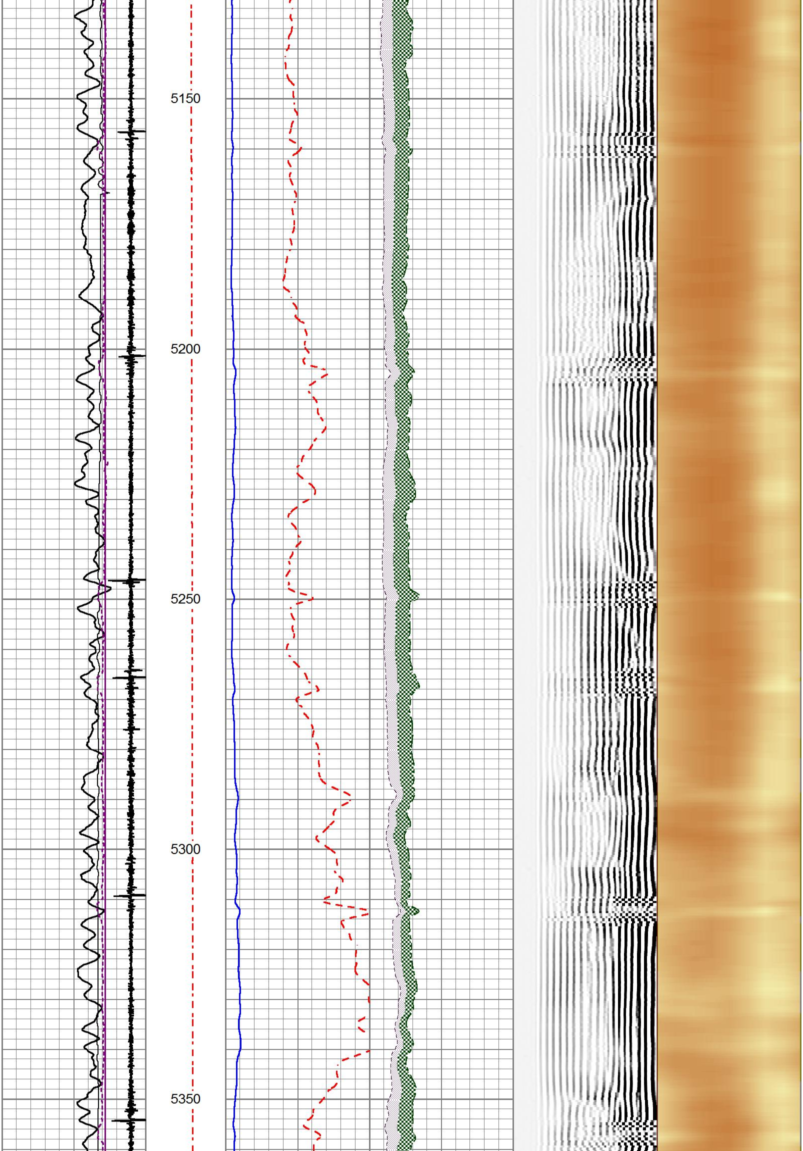


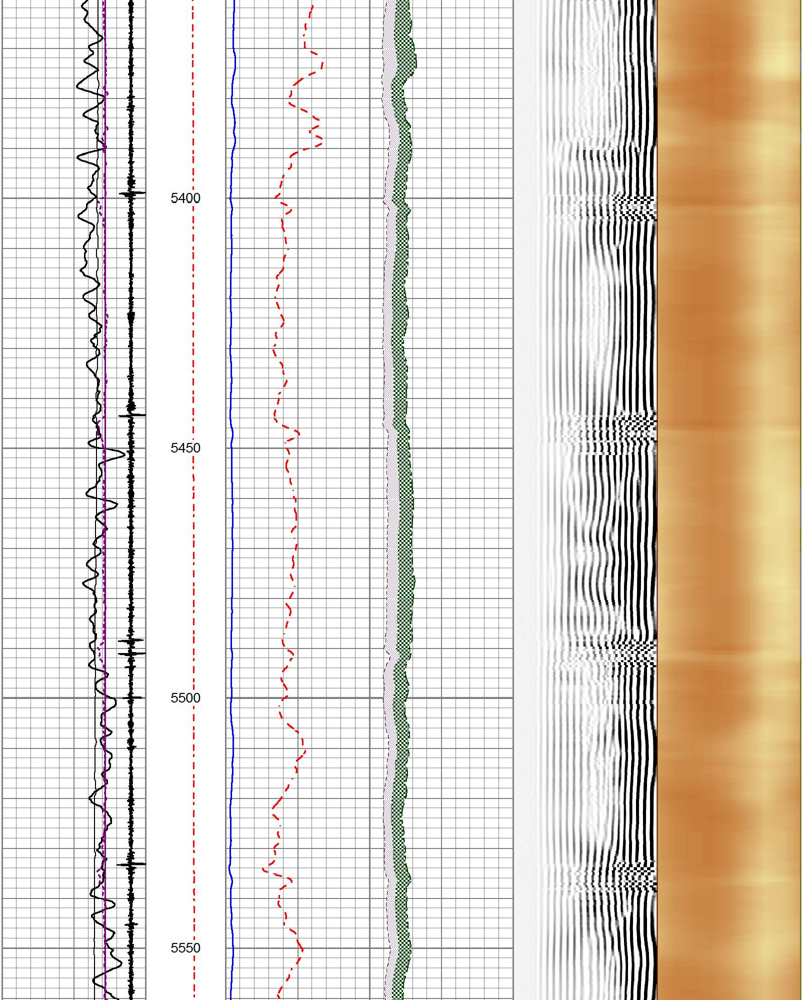


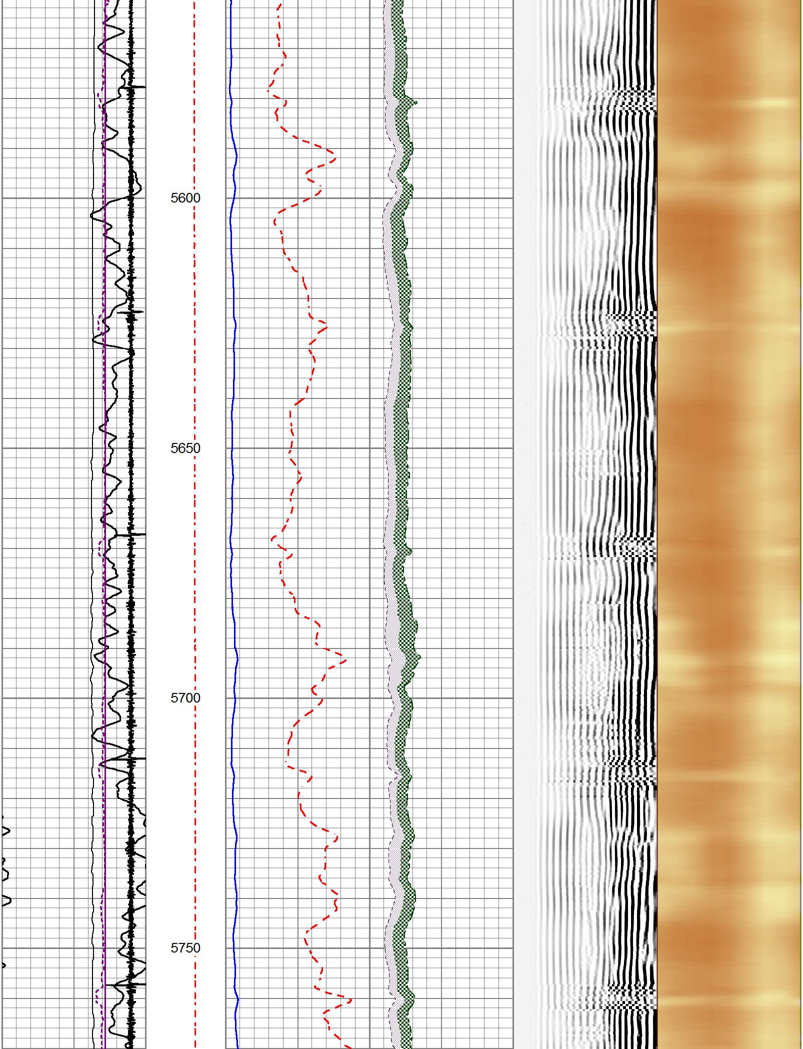


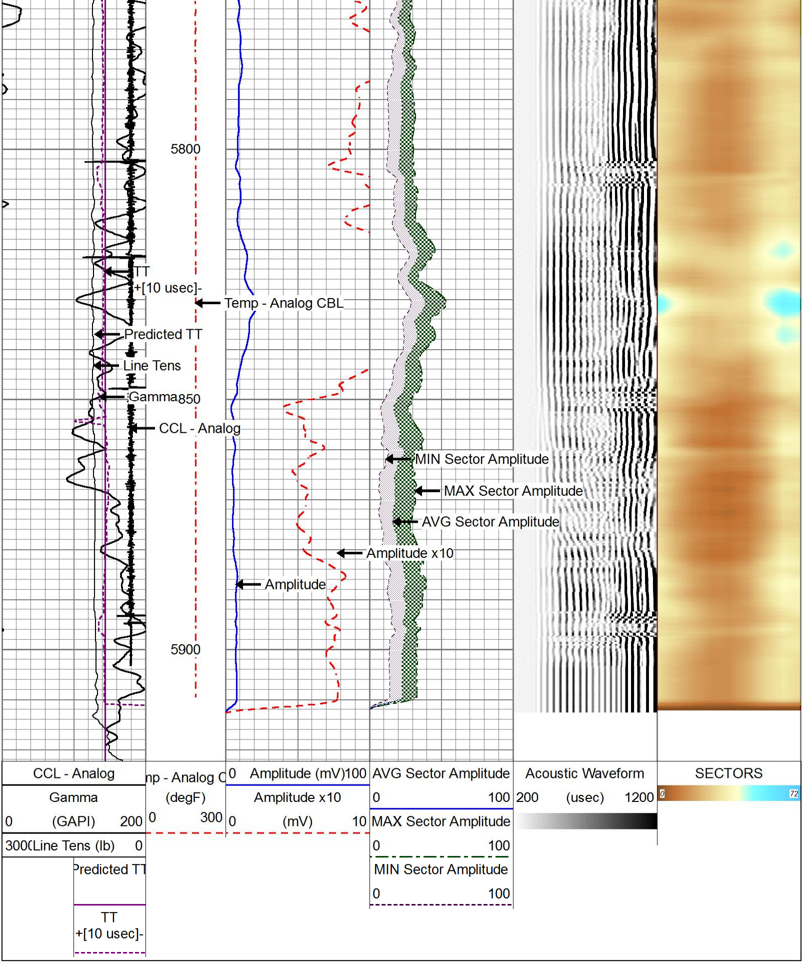








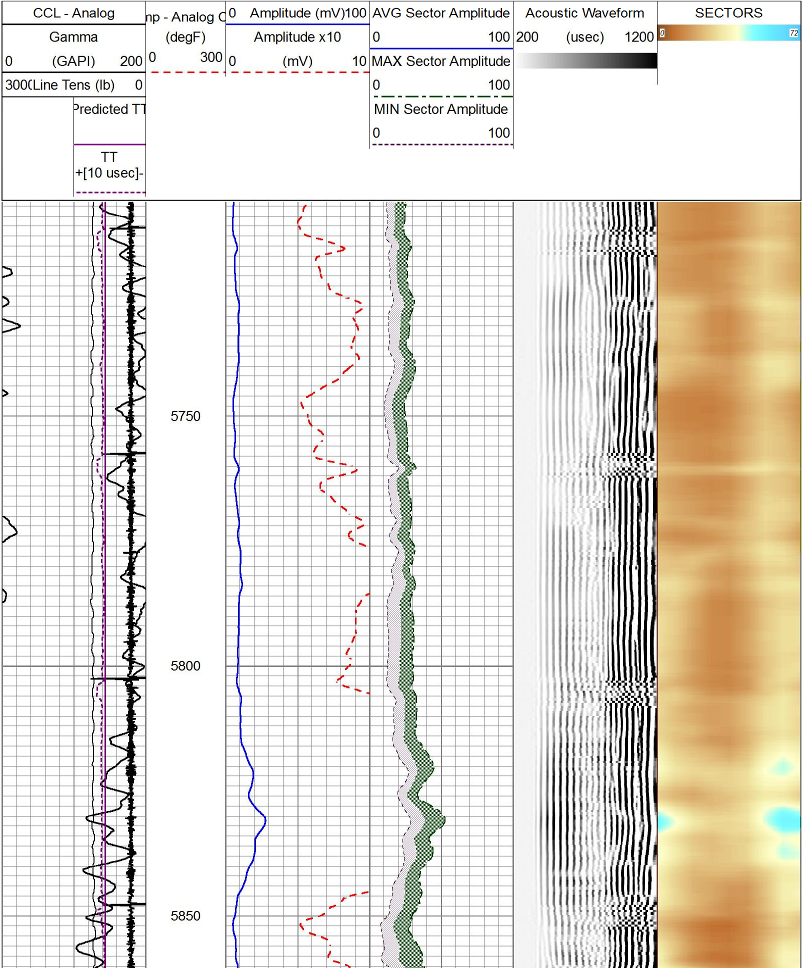


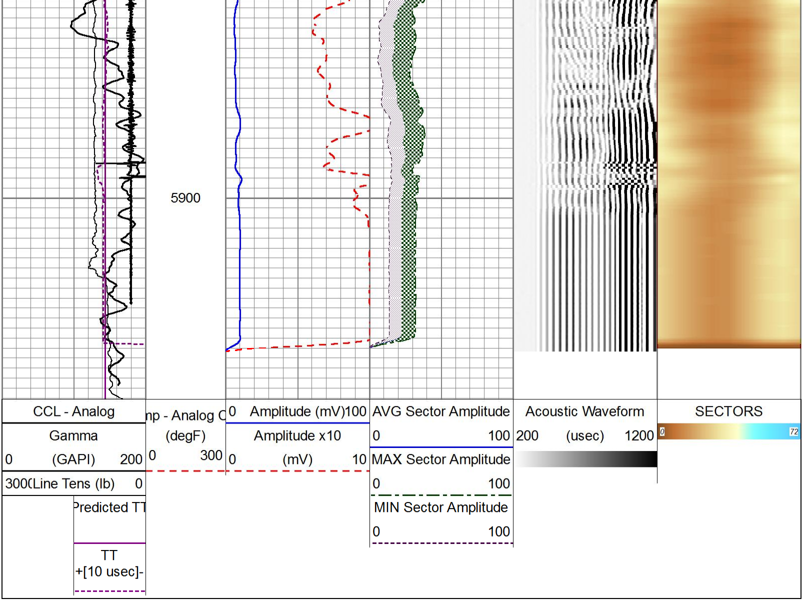


REPEAT PASS - Ran with 0 PSI

5 in / 100 ft

Database File	20180604_berthoud farms 8e-10-9n_cbl\20180604_berthoud farms 8e-10-9n_cbl.db
Dataset Pathname	pass3.1
Presentation Format	rcbl_8s
Dataset Creation	Mon Jun 04 19:31:06 2018
Charted by	Depth in Feet scaled 1:240





Calibration Report

Database File d:\warrior\data\20180604_berthoud farms 8e-10-9n_cbl\20180604_berthoud farms 8e-10-9n_cbl.db
Dataset Pathname pass4.1
Dataset Creation Mon Jun 04 19:28:58 2018

Gamma Ray Calibration Report

Serial Number: ISHV2-02
Tool Model: 2 3/4" TekCo
Performed: Tue Dec 13 00:15:13 2016

Calibrator Value: 194.0 GAPI

Background Reading: 59.8 cps
Calibrator Reading: 287.6 cps

Sensitivity: 0.8516 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: 0.000 ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.003	1.021	0.000	71.921	70.687	-0.223
CAL	0.000	0.290				
5'	0.001	1.089	0.000	71.921	66.082	-0.065
SUM						
S1	0.008	0.962	0.000	72.000	75.468	-0.635
S2	0.006	0.981	0.000	72.000	73.836	-0.453
S3	0.006	1.079	0.000	72.000	67.057	-0.384
S4	0.006	1.274	0.000	72.000	56.762	-0.341
S5	0.008	1.463	0.000	72.000	49.488	-0.403
S6	0.011	1.295	0.000	72.000	56.089	-0.643
S7	0.015	1.196	0.000	72.000	60.965	-0.910
S8	0.012	1.032	0.000	72.000	70.595	-0.847

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	0.290	0.000	0.290	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

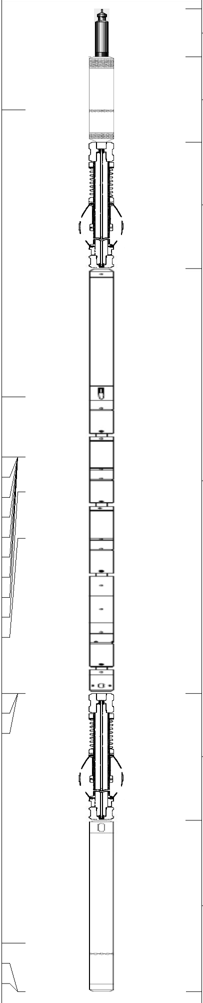
Serial Number: IT4B1-01
Tool Model: 2 3/4" RIB Analog
Performed: Fri Aug 26 11:07:15 2016

	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)
CCL	18.96
TEMP	12.78
WVFS8	11.49
WVFS7	11.49
WVFS6	11.49
WVFS5	11.49
WVFS4	11.49
WVFS3	11.49
WVFS2	11.49
WVFS1	11.49
WVF3FT	10.74
WVF5FT	9.74
WVFSYNC	6.41
WVFTEMP	6.41
WVFCAL	6.41
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
TekCo-2 3/4"	2.73	2.75	25.00
RBTA-2 3/4" RIB Analog (IT4B1-01)	9.13	2.75	102.00
TekCo-2 3/4"	2.73	2.75	25.00
GR_Log-2 3/4" TekCo (ISHV2-02)	3.68	2.75	47.00

Dataset:	20180604_berthoud farms 8e-10-9n_cbl.db: field/well/run1/pass4.1
Total length:	21.13 ft
Total weight:	235.60 lb
O.D.:	2.75 in

gyrodata

Company Extraction Oil and Gas Inc.
Well Berthoud Farms 8E-10-9N
Field Wattenberg
County Weld
State Colorado **Country** U.S.A.