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CEMENT BOND LOG

Company	Extraction Oil and Gas, Inc.
Well	Mt Fed Glenfair 8W-20-22
Field	Wattenberg
County	Weld
State	Colorado

Company Extraction Oil and Gas, Inc.
Well Mt Fed Glenfair 8W-20-22
Field Wattenberg
County Weld **State** Colorado

API # : 05 123 42169
Location: NE/NW
1164 FNL
1755 FWL

SEC: 9 TWP: 5N RGE: 65W

Other Services

Elevation
K.B. 4661
D.F. 4660
G.L. 4636

Permanent Datum: Ground Level Elevation: 4636
Log Measured From: Kelly Bushing , 25 ft. above Permanent Datum.
Drilling Measured From: Kelly Bushing

Date	09 June 2019		
Run Number	One		
Plug Back T.D. Driller	----		
Plug Back T.D. Logger	----		
Bottom Logged Interval	8150		
Top Log Interval	Surface		
Type Fluid	Water		
Density / Viscosity	----		
Max. Recorded Temp.	245		
Time Logger on Bottom	12:30		
Equipment Number	GD114		
Location	Casper		
Recorded By	GS Yarbro		
Witnessed By	Mr. Colby Hansen		

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 # : RM0619PCBW424
Your Crew Today: Cheesman, Lev
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	1300
40 % Bond	1640
60 % Bond	2070
80 % Bond	2070
100 % Bond	------

Comments

Estimated To0p of Cement
(20% Bond Index) @ 1300

Thank you for using Gyrodata

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

Log Variables

Databased:\warrior\data\20190609_extraction_mt fed glenfair 8w-20-22_cbl\20190609_extraction_r
Dataset field/well/run1/pass3/_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	240	0

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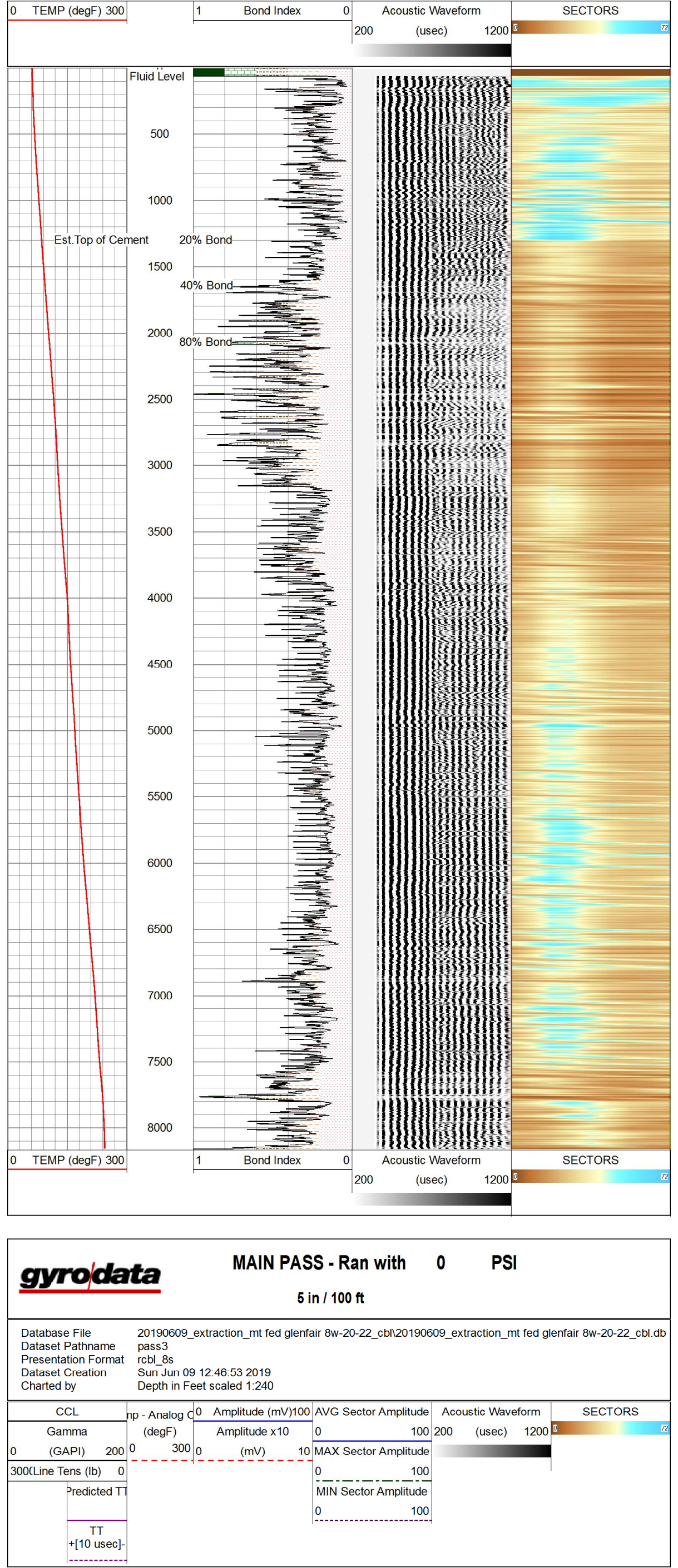
BOND INDEX

Calculated for 3000 PSI Compressive Strength Cement

Database File 20190609_extraction_mt fed glenfair 8w-20-22_cbl\20190609_extraction_mt fed glenfair 8w-20-22_cbl.db
Dataset Pathname ./././bndindx
Presentation Format BNDIND~1
Dataset Creation Sun Jun 09 14:11:51 2019
Charted by Depth in Feet scaled 1:7500



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MAIN PASS - Ran with 0 PSI

5 in / 100 ft

Database File 20190609_extraction_mt fed glenfair 8w-20-22_cbl\20190609_extraction_mt fed glenfair 8w-20-22_cbl.db
Dataset Pathname pass3
Presentation Format rcbl_8s
Dataset Creation Sun Jun 09 12:46:53 2019
Charted by Depth in Feet scaled 1:240

3350
3400
3450
3500
3550
3600
3650
3700
3750
3800
3850
3900
3950
4000
4050
4100
4150
4200
4250
4300
4350
4400
4450
4500
4550
4600
4650
4700
4750
4800
4850
4900
4950
5000
5050
5100
5150
5200
5250
5300
5350
5400
5450
5500
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5600
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5700
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5900
5950
6000
6050
6100
6150
6200
6250
6300
6350
6400
6450
6500
6550
6600
6650
6700
6750
6800
6850
6900
6950
7000
7050
7100
7150
7200
7250
7300

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	200 (usec) 1200	0 72
300(Line Tens (lb) 0			MAX Sector Amplitude 0 100		
Predicted TT			MIN Sector Amplitude 0 100		
TT +[10 usec]-					

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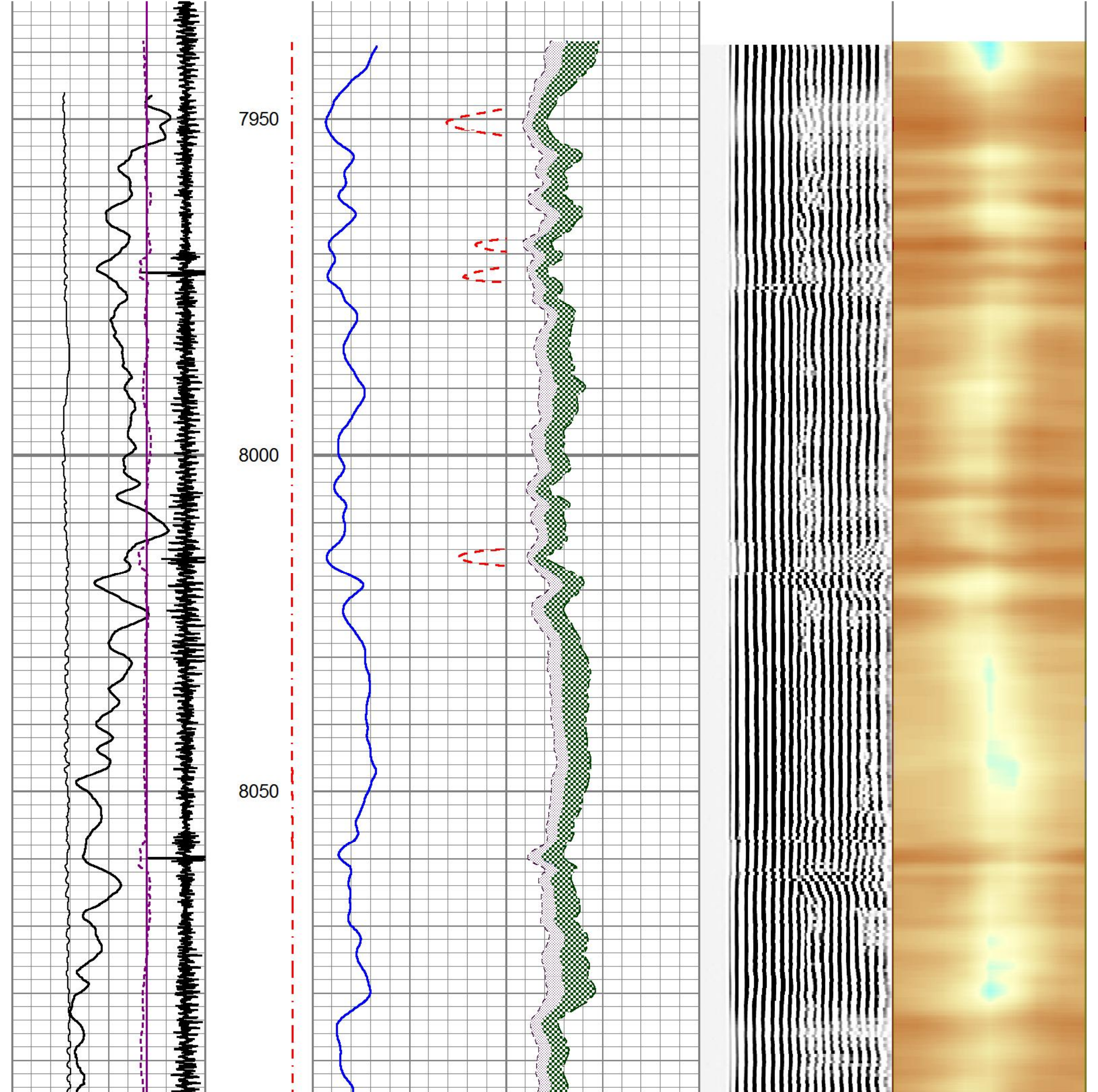
REPEAT PASS - Ran with 0 PSI

5 in / 100 ft

Database File	20190609_extraction_mt fed glenfair 8w-20-22_cbl\20190609_extraction_mt fed glenfair 8w-20-22_cbl.db
Dataset Pathname	pass2
Presentation Format	rcbl_8s
Dataset Creation	Sun Jun 09 12:42:56 2019
Charted by	Depth in Feet scaled 1:240

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	200 (usec) 1200	0 72
300(Line Tens (lb) 0			MAX Sector Amplitude 0 100		
Predicted TT			MIN Sector Amplitude 0 100		
TT +[10 usec]-					



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	200 (usec) 1200	0 72
300(Line Tens (lb) 0			MAX Sector Amplitude 0 100		
Predicted TT			MIN Sector Amplitude 0 100		
TT +[10 usec]-					

Calibration Report

Database File	d:\warrior\data\20190609_extraction_mt fed glenfair 8w-20-22_cbl\20190609_extraction_mt fed glenfair 8w-2
Dataset Pathname	pass3
Dataset Creation	Sun Jun 09 12:46:53 2019

Gamma Ray Calibration Report

Serial Number:	IXEM9-02	
Tool Model:	2 3/4" TekCo	
Performed:	Thu Apr 25 09:11:34 2019	
Calibrator Value:	194.0	GAPI
Background Reading:	66.1	cps
Calibrator Reading:	391.4	cps
Sensitivity:	0.5963	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	IRB34-03	
Tool Model:	2 3/4" RIB Analog	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	122.740	ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.001	1.879	0.000	71.921	38.250	0.040
CAL	-0.004	0.746				
5'	-0.000	1.786	0.000	71.921	40.259	0.001
SUM						
S1	0.006	2.205	0.000	72.000	32.736	-0.182
S2	0.004	2.239	0.000	72.000	32.225	-0.141
S3	0.003	2.197	0.000	72.000	32.823	-0.102
S4	0.003	2.258	0.000	72.000	31.926	-0.089
S5	0.003	2.284	0.000	72.000	31.570	-0.109
S6	0.005	2.289	0.000	72.000	31.522	-0.147
S7	0.006	2.281	0.000	72.000	31.654	-0.203
S8	0.007	2.235	0.000	72.000	32.306	-0.218

Internal Reference Calibration, performed (Not Performed):

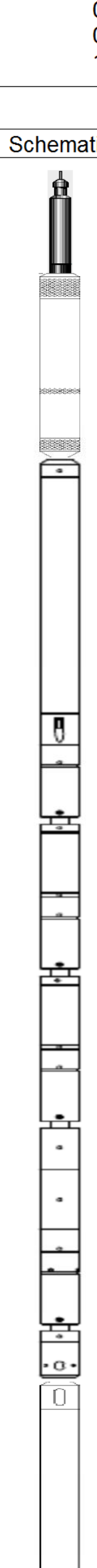
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.004	0.746	1.000	0.000

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:	IRB34-03			
Tool Model:	2 3/4" RIB Analog			
Performed:	Wed Jan 30 12:38:18 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 (IPSN7-002)	1.83	2.75	33.00
TEMP	10.05					
WVFS8	8.76					
WVFS7	8.76					
WVFS6	8.76					
WVFS5	8.76		RBTA-2 3/4" RIB Analog (IRB34-03)	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					
			GR_Log-2 3/4" TekCo (IXEM9-02)	3.68	2.75	47.00
GR	1.04					
LOCTIM	0.00					
UTCTIM	0.00					
PMON	0.00					

Dataset:	20190609_extraction_mt fed glenfair 8w-20-22_cbl.db: field/well/run1/pass3
Total length:	15.67 ft
Total weight:	185.60 lb
O.D.:	2.75 in

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Company	Extraction Oil and Gas, Inc.		
Well	Mt Fed Glenfair 8W-20-22		
Field	Wattenberg		
County	Weld		
State	Colorado	**Country**	U.S.A.