Company	Extraction Oil and Gas
Well	WS-Sunrise 1-5-5
Field	Wattenberg
County	Weld
State	Colorado

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CEMENT BOND LOG

Company Extraction Oil and Gas
Well WS-Sunrise 1-5-5
Field Wattenberg
County Weld **State** Colorado

API #: 05-123-46047
Location: SW/SE
248 FSL
1722 FSL

SEC: 32 TWP: 6N RGE: 65W

Other Services

Elevation
K.B. 4666
D.F. 4665
G.L. 4641

Permanent Datum: Ground Level Elevation: 4641
Log Measured From: Kelly Bushing , 25 ft. above Permanent Datum.
Drilling Measured From: Kelly Bushing

Date	26 March 2018		
Run Number	One		
Plug Back T.D. Driller	----		
Plug Back T.D. Logger	----		
Bottom Logged Interval	7100		
Top Log Interval	Surface		
Type Fluid	Water		
Density / Viscosity	----		
Max Recorded Temp.	247		
Time Logger on Bottom	10:15		
Equipment Number	GD112		
Location	Casper		
Recorded By	GS Yarbro		
Witnessed By	Hackford/Stephens		

Casing Record				Tubing Record			
Size	Weight	From	To	Size	Weight	From	To
9 5/8	36	25	----				
5 1/2	20	25	----				

<<< 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 # : RM0318PCBW368
Your Crew Today: Kennicker, Staker, Tad-y
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	171
40 % Bond	171
60 % Bond	630
80 % Bond	2676
100 % Bond	2676

Comments

Estimated Top of Cement
(40% Bond Index) @ 171'

Thank you for using Gyrodata

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

Log Variables

Databased:\warrior\data\20180326_extraction_wssunrise 1-5-5_cbl\20180326_extraction_wssunrise
Dataset field/well/run1/pass3/_vars_

Top - Bottom

BHTEMP_Src	BOREID in	BOTTEMP degF	CASEID in	CASEOD in	CASETHCK in	CASEWGHT lb/ft	MAXAMPL mV
TEMP	8.5	100	4.778	5.5	0.361	20	71.9
MaxAPIID in	**MaxAPIWall** in	**MINAMPL** mV	**MinAPIID** in	**MINATTN** db/ft	**PPT** usec		
4.923	0.361	1.9	4.751	0	237		

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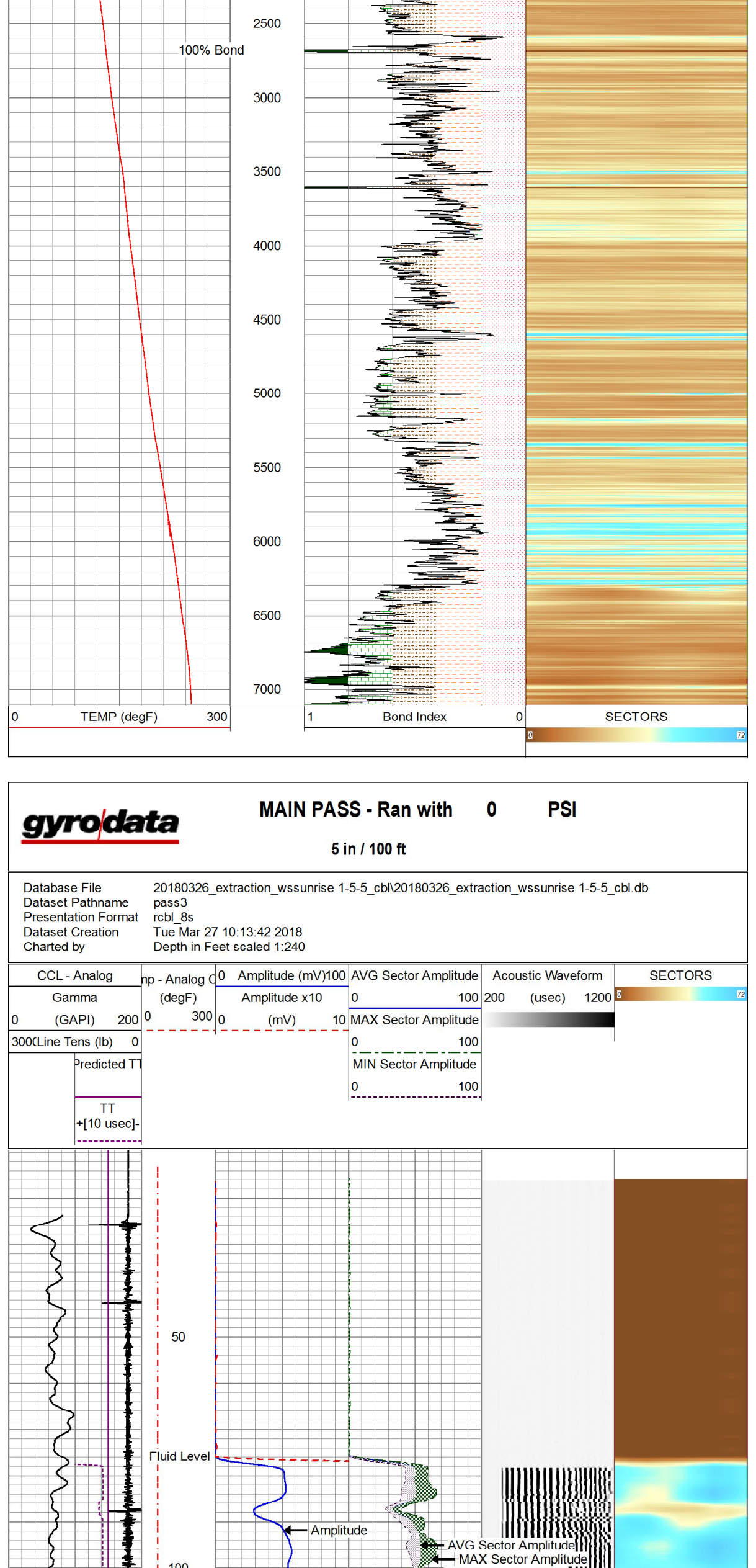
BOND INDEX

Database File	20180326_extraction_wssunrise 1-5-5_cbl\20180326_extraction_wssunrise 1-5-5_cbl.db
Dataset Pathname	bndindx
Presentation Format	BNDIND~1
Dataset Creation	Tue Mar 27 11:33:26 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	20180326_extraction_wssunrise 1-5-5_cbl\20180326_extraction_wssunrise 1-5-5_cbl.db
Dataset Pathname	pass3
Presentation Format	rcbl_8s
Dataset Creation	Tue Mar 27 10:13:42 2018
Charted by	Depth in Feet scaled 1:240

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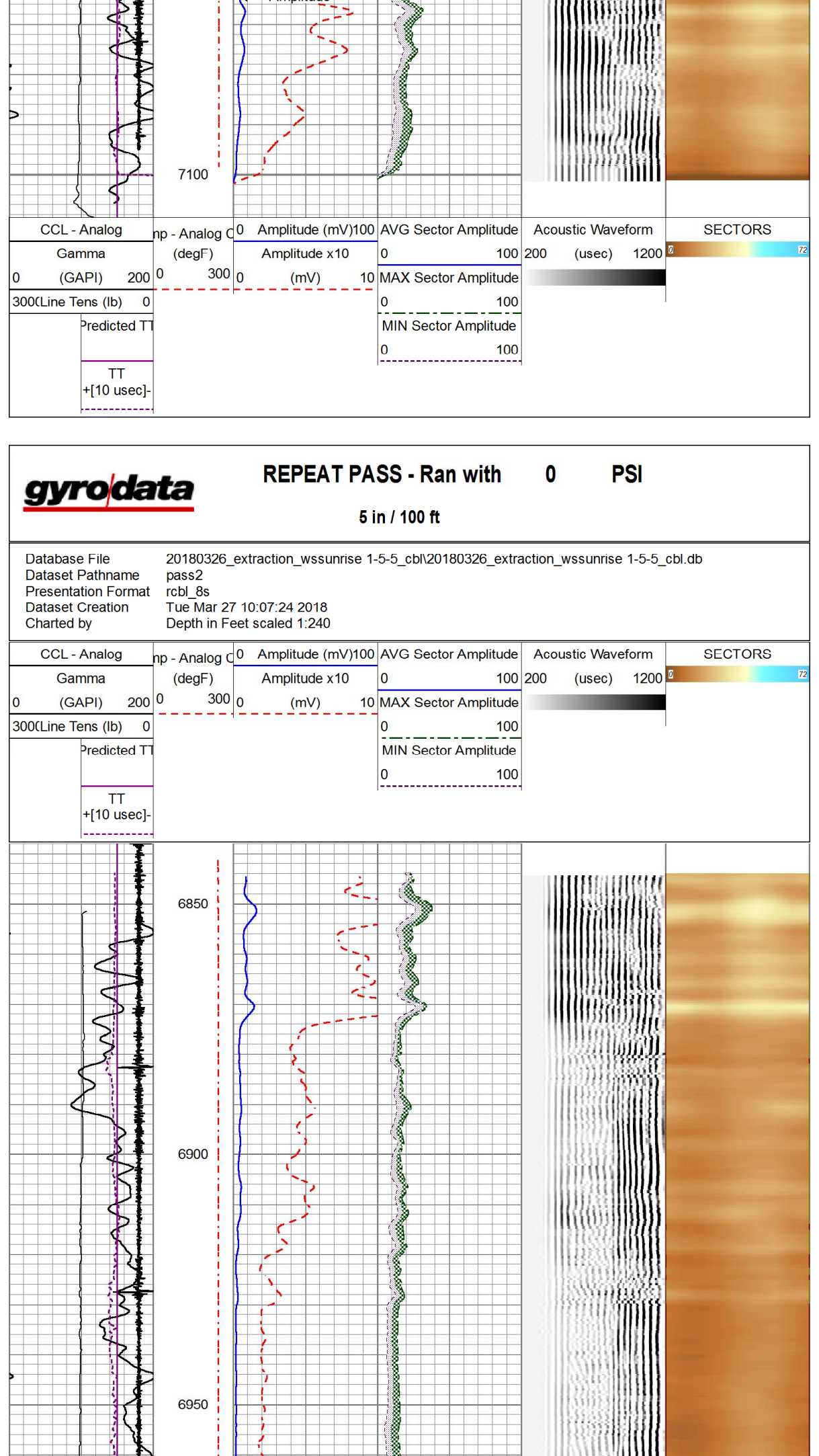
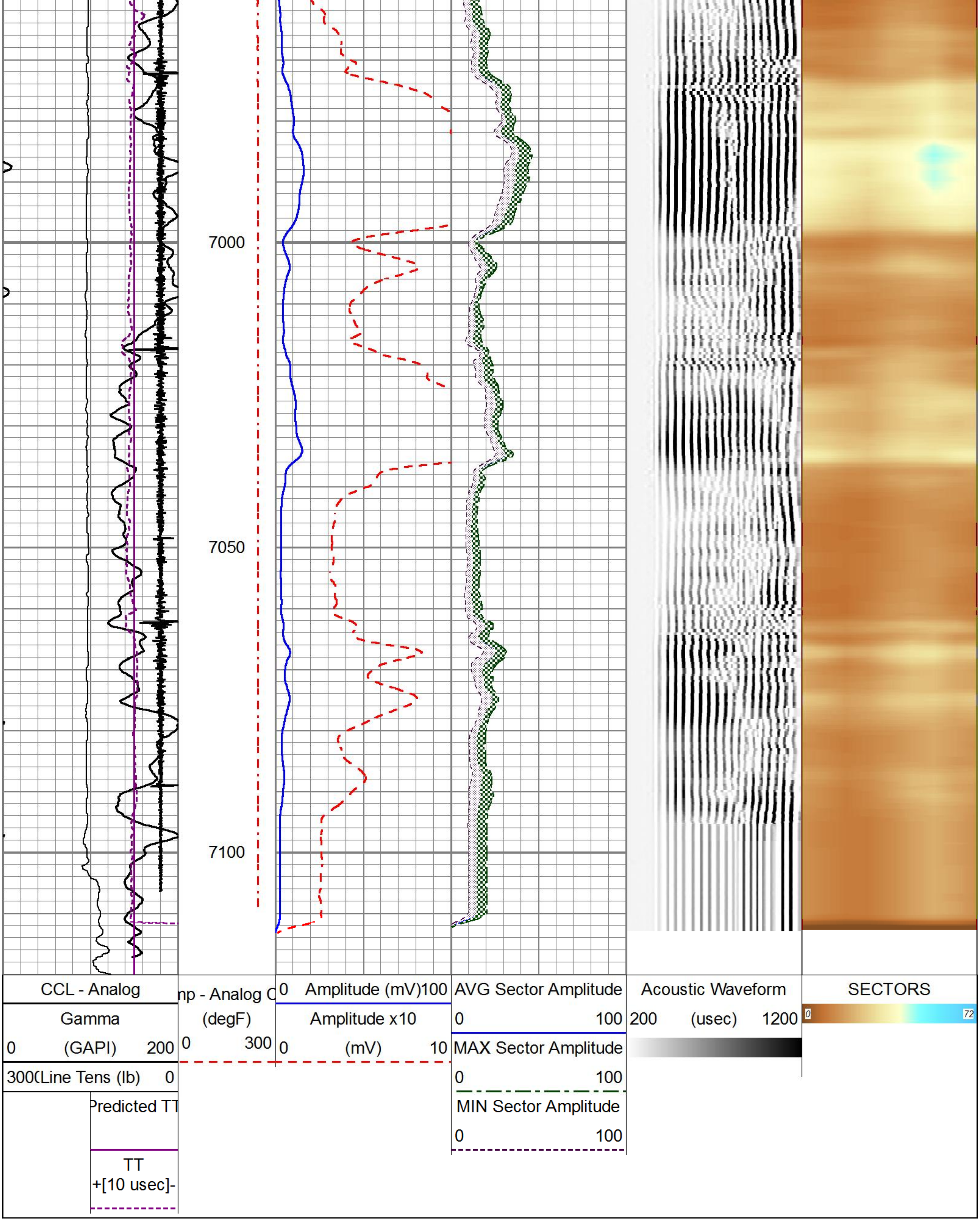
REPEAT PASS - Ran with 0 PSI

5 in / 100 ft

Database File	20180326_extraction_wssunrise 1-5-5_cbl\20180326_extraction_wssunrise 1-5-5_cbl.db
Dataset Pathname	pass2
Presentation Format	rcbl_8s
Dataset Creation	Tue Mar 27 10:07:24 2018
Charted by	Depth in Feet scaled 1:240





Calibration Report

Database File	d:\warrior\data\20180326_extraction_wssunrise 1-5-5_cbl\20180326_extraction_wssunrise 1-5-5_cbl.db
Dataset Pathname	pass3
Dataset Creation	Tue Mar 27 10:13:42 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:	5.500	in
Calibration Depth:	0.000	ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.001	1.450	0.000	71.921	49.586	0.036
CAL	0.000	0.290				
5'	0.002	1.916	0.000	71.921	37.574	-0.060
SUM						
S1	0.015	1.131	0.000	72.000	64.525	-0.997
S2	0.028	1.226	0.000	72.000	60.107	-1.663
S3	0.034	1.509	0.000	72.000	48.834	-1.668
S4	0.039	1.881	0.000	72.000	39.083	-1.513
S5	0.043	2.035	0.000	72.000	36.142	-1.548
S6	0.029	1.647	0.000	72.000	44.490	-1.278
S7	0.018	1.389	0.000	72.000	52.497	-0.944
S8	0.012	1.178	0.000	72.000	61.766	-0.759

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

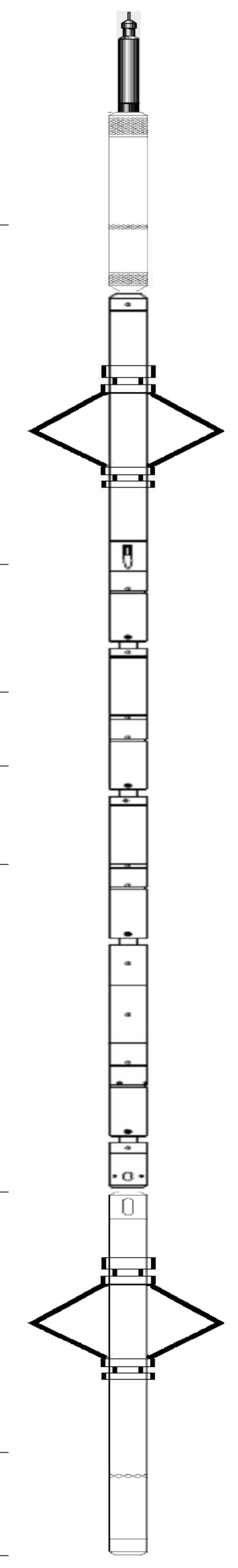
Serial Number:	IT4B1-01	
Tool Model:	2 3/4" RIB Analog	
Performed:	Fri Aug 26 11:07:15 2016	

	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	13.50
TEMP	10.05
WVFS8	8.76
WVFS7	8.76
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
GR	1.04
LOCTIM	0.00
UTCTIM	0.00
PMON	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 (IPSN7-03)	1.83	2.75	33.00
Antelope-Overbody	1.25	2.75	
RBTA-2 3/4" RIB Analog (IT4B1-01)	9.13	2.75	102.00
Antelope-Overbody	1.25	2.75	
GR_Log-2 3/4" TekCo (ISHV2-03)	3.68	2.75	47.00

Dataset:	20180326_extraction_wssunrise 1-5-5_cbl.db: field/well/run1/pass2
Total length:	15.67 ft
Total weight:	185.60 lb
O.D.:	2.75 in

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Company	Extraction Oil and Gas		
Well	WS-Sunrise 1-5-5		
Field	Wattenberg		
County	Weld		
State	Colorado	**Country**	U.S.A.