CEMENT BOND LOG

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Company	Extraction Oil and Gas, Inc.
Well	Mt Fed Glenfair 8W-20-19
Field	Wattenberg
County	Weld
State	Colorado

Company: Extraction Oil and Gas, Inc.
Well: Mt Fed Glenfair 8W-20-19
Field: Wattenberg
County: Weld
State: Colorado

API #: 05 123 42186
Location: NE/NW 1116 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	08 June 2019
Run Number	One
Plug Back T.D. Driller	----
Plug Back T.D. Logger	----
Bottom Logged Interval	7700
Top Log Interval	Surface
Type Fluid	Water
Density / Viscosity	----
Max. Recorded Temp.	238
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 # : ----
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	1550
40 % Bond	2025
60 % Bond	2025
80 % Bond	7395
100 % Bond	7535

Comments

Estimated Top of Cement (20% Bond Index) @ 1550

Thank you for using Gyrodata

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

Log Variables

Databased:\warrior\data\20190608_extraction_mt fed glenfair 8w-20-19_cbl\20190608_extraction_r
Dataset field/well/run1/pass3.2/_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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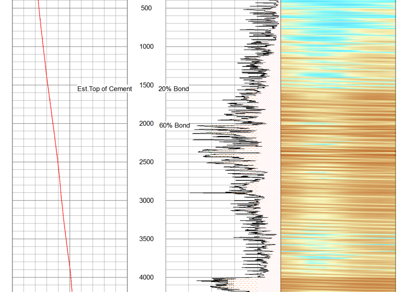
BOND INDEX

Calculated for 3000 PSI Compressive Strength Cement

Database File	20190608_extraction_mt fed glenfair 8w-20-19_cbl\20190608_extraction_mt fed glenfair 8w-20-19_cbl.db
Dataset Pathname	./././bndindx
Presentation Format	BNDIND~1
Dataset Creation	Sat Jun 08 14:01:39 2019
Charted by	Depth in Feet scaled 1:7500



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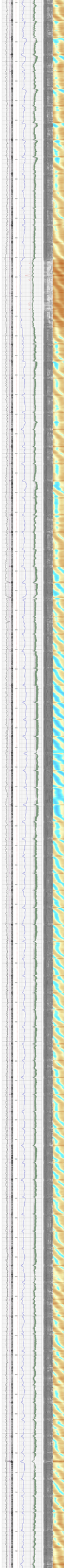
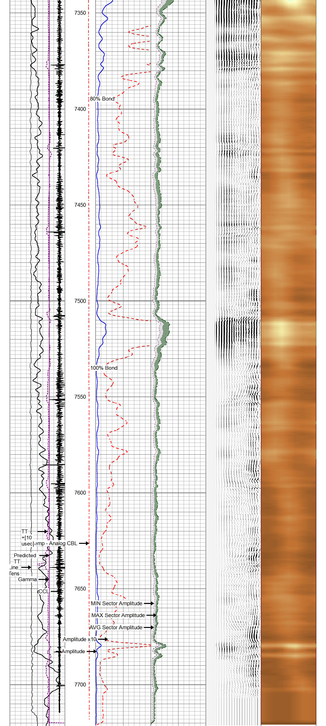
MAIN PASS - Ran with 0 PSI

5 in / 100 ft

Database File	20190608_extraction_mt fed glenfair 8w-20-19_cbl\20190608_extraction_mt fed glenfair 8w-20-19_cbl.db
Dataset Pathname	pass3.2
Presentation Format	rcbl_8s
Dataset Creation	Sat Jun 08 13:59:06 2019
Charted by	Depth in Feet scaled 1:240





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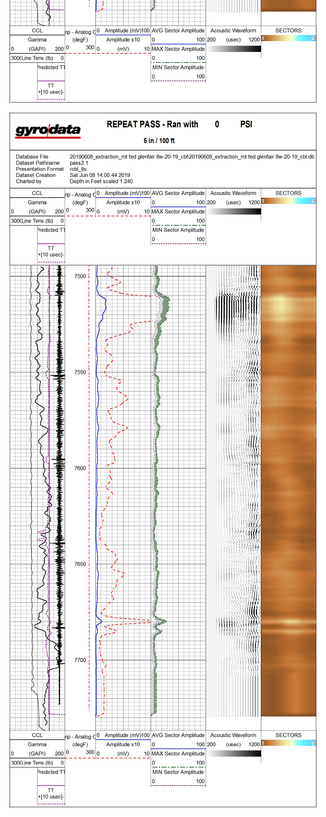
REPEAT PASS - Ran with 0 PSI

6 in / 100 ft

Database File 20190608_extraction_mt fed glenfiar 8e-20-19_ctd20190608_extraction_mt fed glenfiar 8e-20-19_ctd.db
Dataset Pathname pass3.2
Presentation Format prod_ccl_1
Dataset Creation Sat Jun 08 14:00:44 2019
Charted by Depth in Feet scaled 1:240



Calibration Report

Database File d:\warrior\data\20190608_extraction_mt fed glenfiar 8e-20-19_ctd\20190608_extraction_mt fed glenfiar 8e-20-19_ctd.db
Dataset Pathname pass3.2
Dataset Creation Sat Jun 08 13:59:06 2019

Gamma Ray Calibration Report

Serial Number: 0XEM9-02
Tool Model: 2 3/4" TeleCo
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) Zero	Raw (v) Cal	Calibrated (mv) Zero	Calibrated (mv) Cal	Results Gain	Results Offset
3'	-0.001	1.679	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	0.004	2.205	0.000	72.000	32.736	-0.182
S2	0.003	2.197	0.000	72.000	32.823	-0.102
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) Zero	Raw (v) Cal	Calibrated (v) Zero	Calibrated (v) Cal	Results Gain	Results Offset
CAL	0.000	0.000	-0.004	0.746	1.000	0.000

Air Zero Calibration, performed (Not Performed):

	Raw (v) Zero	Calibrated (v) Zero	Results 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)
			Cable-Head-TitanConeType2	1.03	1.44	3.60
CCL	13.50		CCL_Log-2 3/4" TeleCo (IPSN7-002)	1.83	2.75	33.00
TEMP	10.05					
WVFS8	8.76					
WVFS7	8.76					
WVFS6	8.76		RBTA-2 3/4" RIB Analog (IRB34-03)	9.13	2.75	102.00
WVFS5	8.76					
WVFS4	8.76					
WVFS3	8.76					
WVFS2	8.76					
WVFS1	8.76					
WVFSFT	8.01					
WVFSFI	7.01					
WVFSYNC	3.68					
WVFTEMP	3.68					
WVFCAL	3.68		GR_Log-2 3/4" TeleCo (0XEM9-02)	3.68	2.75	47.00
GR	1.04					
LOCTIM	0.00					
UTCTIM	0.00					

Dataset: 20190608_extraction_mt fed glenfiar 8e-20-19_ctd.db: field/wellrun1/pass3.2
Total length: 15.67 ft
Total weight: 355.00 lb
O.D.: 2.75 in

gyrodata	Company	Extraction Oil and Gas, Inc.	
	Well	Mt Fed Glenfiar 8W-20-19	
	Field	Wattenberg	
	County	Weld	
	State	Colorado	Country U.S.A.