Radial Cement Bond Gamma Ray Casing Collar Log

THE WIRELINE GROUP (TWG)

Company	TEP Rocky Mountain LLC
Well	Federal WMC 33-19-793
Field	Rulison
County	Garfield
State	Colorado

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Well Federal WMC 33-19-793
Field Rulison
County Garfield State Colorado

Location: API #: 05-045-24546

SEC 19 TWP 7S RGE 93W

Other Services

Permanent Datum	Ground Level	Elevation 8563 FT	Elevation
Log Measured From	Kelly Bushing		K.B. 8593 FT
Drilling Measured From	Kelly Bushing		D.F. 8592 FT
			G.L. 8563 FT

Date	25-MAY-2023
Run Number	One
Depth Driller	11110 FT
Depth Logger	11026 FT
Bottom Logged Interval	11019 FT
Top Log Interval	Surface
Open Hole Size	8.75"
Type Fluid	Water
Density / Viscosity	8.34 Lb/Gal
Max. Recorded Temp.	268°F
Estimated Cement Top	See Log
Time Well Ready	ROA
Time Logger on Bottom	8:00
Equipment Number	8102
Location	Grand Junction
Recorded By	P. Edwards
Witnessed By	C. Applegate

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	9-5/8"	36	Surface	1140 FT
Prot. String				
Production String	4-1-2"	11.6	Surface	11100 FT
Liner				

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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.

Comments

Log is correlated to 30' K.B.
Marker joint logged @ 6906 FT - 6916 FT
Log ran with 0 PSI at surface

Thank you for choosing The Wireline Group!

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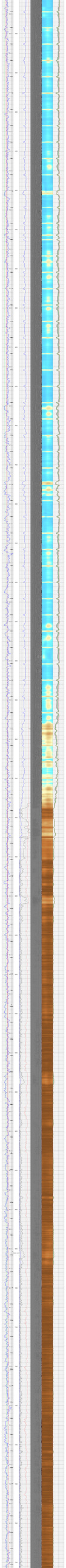
Main Pass 5" = 100'

Database File	tep_wmc_33-19-793_rcbl\tep_wmc_33-19-793_rcbl.db
Dataset Pathname	main
Presentation Format	twgrcbl
Dataset Creation	Thu May 25 08:06:04 2023
Charted by	Depth in Feet scaled 1:240

Gamma Ray		3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 150		0 (mV) 100	200 (usec) 1200		0 120
Line Tension		3' Amplitude x 5			Mimimum Amplitude
0 (lb) 4000		0 (mV) 20			0 120
-9 CCL$1 1		3' Travel Time			Maximum Amplitude
0 Temp (degF) 300		650 (usec) 150			0 120



Gamma Ray	3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 150	0 (mV) 100	200 (usec) 1200		0 120
Line Tension	3' Amplitude x 5			Mimimum Amplitude
0 (lb) 4000	0 (mV) 20			0 120
-9 CCL$1 1	3' Travel Time			Maximum Amplitude
0 Temp (degF) 300	650 (usec) 150			0 120

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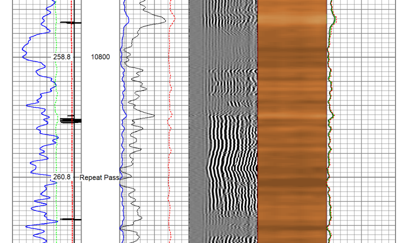
Repeat Pass 5" = 100'

Database File tep_wmc_33-19-793_rcbl\tep_wmc_33-19-793_rcbl.db
Dataset Pathname repeat
Presentation Format twgrcbl
Dataset Creation Thu May 25 08:02:14 2023
Charted by Depth in Feet scaled 1:240

Gamma Ray	3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 150	0 (mV) 100	200 (usec) 1200		0 120
Line Tension	3' Amplitude x 5			Mimimum Amplitude
0 (lb) 4000	0 (mV) 20			0 120
-9 CCL$1 1	3' Travel Time			Maximum Amplitude
0 Temp (degF) 300	650 (usec) 150			0 120



Gamma Ray	3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 150	0 (mV) 100	200 (usec) 1200		0 120
Line Tension	3' Amplitude x 5			Mimimum Amplitude
0 (lb) 4000	0 (mV) 20			0 120
-9 CCL$1 1	3' Travel Time			Maximum Amplitude
0 Temp (degF) 300	650 (usec) 150			0 120

Calibration Report

Database File C:\ProgramData\Warrior\Data\tep_wmc_33-19-793_rcbl\tep_wmc_33-19-793_rcbl.db
Dataset Pathname main
Dataset Creation Thu May 25 08:06:04 2023

Gamma Ray Calibration Report

Serial Number: FW0701-23
Tool Model: 50-GCT275-0000
Performed: Wed May 10 11:37:22 2023

Calibrator Value: 114.4 GAPI

Background Reading: 76.5 cps
Calibrator Reading: 250.4 cps

Sensitivity: 0.6578 GAPI/cps

Inclinometer Calibration Report

Performed: Thu Jan 26 15:39:59 2023

	Low Read.	High Read.	Low Ref.	High Ref.	
X Accelerometer	-918.00	902.00	-1.00	1.00	gee
Y Accelerometer	-912.00	896.00	-1.00	1.00	gee
Z Accelerometer	-0.33	-897.20	0.00	1.00	gee

Segmented Cement Bond Log Calibration Report

Serial Number: FW1906-032
Tool Model: Probe275acc

Calibration Casing Diameter: 4.500 in
Calibration Depth: 1058.350 ft

Master Calibration, performed Wed May 24 16:44:10 2023:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.006	0.943	0.150	81.196	86.509	-0.340
CAL	0.008	0.798				
5'	0.007	0.699	0.150	81.196	117.068	-0.677
SUM						
S1	0.008	1.045	0.000	100.000	96.350	-0.723
S2	0.007	1.126	0.000	100.000	89.381	-0.650
S3	0.007	1.028	0.000	100.000	97.932	-0.656
S4	0.006	0.896	0.000	100.000	112.429	-0.718
S5	0.006	0.921	0.000	100.000	109.321	-0.705
S6	0.008	0.928	0.000	100.000	108.675	-0.845
S7	0.007	0.981	0.000	100.000	102.658	-0.713
S8	0.006	1.008	0.000	100.000	99.826	-0.590

Internal Reference Calibration, performed (Not Performed):

Raw (v) Calibrated (v) Results

	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.008	0.798	1.000	0.000

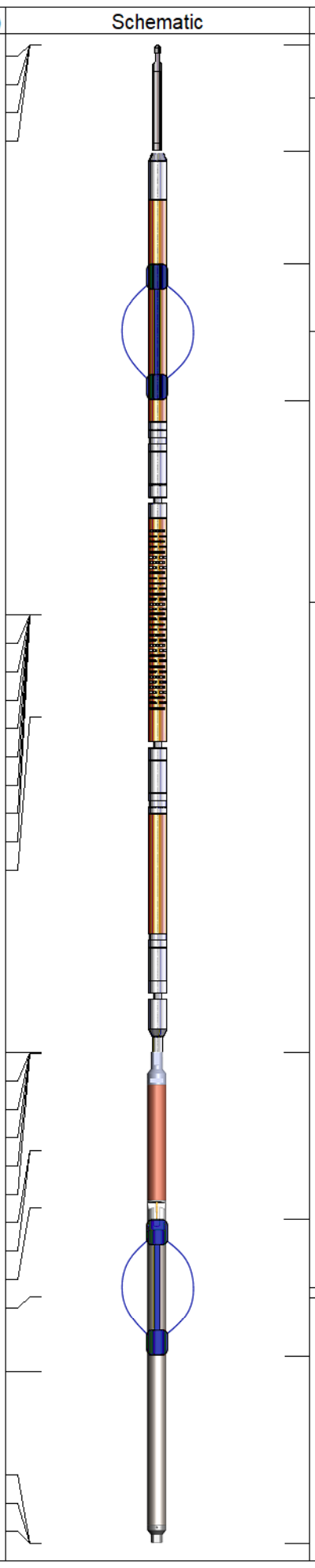
Air Zero Calibration, performed Wed May 24 16:32:50 2023:

	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

Inclinometer Calibration Report

Performed: (Not Performed)

	Low Read.	High Read.	Low Ref.	High Ref.	
X Accelerometer	0.00	1.00	0.00	1.00	gee
Y Accelerometer	0.00	1.00	0.00	1.00	gee
Z Accelerometer	0.00	1.00	0.00	1.00	gee

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GCT_FMWR	14.56		Titan CHD-1375 MOD Titan Modified 1-3/8" Assembled Electric Cable Head with 1" Fishing Neck	1.04	1.38	1.00
mSec_Count	14.56					
RBT_Status	14.56					
Error_Ct	14.56					
			SO BS CENT-2750-4500 Slip Over 2-3/4" I.D. for 4-1/2" O.D. Casing Bow Spring Centralizer	1.33	3.25	10.00
			RBT8acc-Probe275acc (FW1906-032) 2.75" Radial Corrosion with accelerometer	8.75	2.75	110.00
WVFS8	9.02					
WVFS7	9.02					
WVFS6	9.02					
WVFS5	9.02					
WVFS4	9.02					
WVFS3	9.02					
WVFS2	9.02					
WVFS1	9.02					
WVF3FT	9.02					
WVF5FT	8.02					
RBT_ACCZ	4.77					
RBT_ACCY	4.77					
RBT_ACCX	4.77					
WVFSYNC	4.77					
WVFCAL	4.77					
GCT_HV	4.76					
CCL$2	3.81					
CCL$1	3.81					
GCT_Temp	3.26		SO BS CENT-2750-4500 Slip Over 2-3/4" I.D. for 4-1/2" O.D. Casing Bow Spring Centralizer	1.33	3.25	10.00
GR	2.39					
GCT_IntTemp	1.67		GCT_acc-50-GCT275-0000 (FW0701-23) Probe 2.75" Gamma Ray - CCL w/Temp (Single Pin)	4.77	2.75	55.00
GCT_ACCZ	0.00					
GCT_ACCY	0.00					
GCT_ACCX	0.00					

Dataset: tep_wmc_33-19-793_rcbl.db: field/well/run1/main
Total length: 14.56 ft
Total weight: 196.00 lb
O.D.: 3.25 in

Company	TEP Rocky Mountain LLC
Well	Federal WMC 33-19-793
Field	Rulison
County	Garfield
State	Colorado

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