RELIANCE
OILFIELD SERVICES

Radial Cement Bond
Gamma Ray
Casing Collar Log

Company	TEP Rocky Mountain LLC
Well	Federal RG 444-7-297
Field	Sulphur Creek
County	Rio Blanco
State	Colorado

Company TEP Rocky Mountain LLC
Well Federal RG 444-7-297
Field Sulphur Creek
County Rio Blanco State Colorado
Location: API #: 05-103-12469
SEC 18 TWP 2S RGE 97W
Other Services --

Permanent Datum	Ground Level	Elevation 6621'	Elevation K.B. 6651' D.F. 6650' G.L. 6621'
Log Measured From	Kelly Bushing 30 FT		
Drilling Measured From	Kelly Bushing		

Date	12-JUL-2021
Run Number	One
Depth Driller	--
Depth Logger	3167 FT
Bottom Logged Interval	3153 FT
Top Log Interval	Surface
Open Hole Size	--
Type Fluid	Water
Density / Viscosity	8.34 lb/gal
Max. Recorded Temp.	128°F
Estimated Cement Top	See Log
Time Well Ready	ROA
Time Logger on Bottom	21:30
Equipment Number	HD-0331
Location	Grand Junction, CO
Recorded By	Z. Fisher
Witnessed By	--

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

Casing Record	Size (in)	Wgt (lbs/Ft)	Grade	Top	Bottom
Surface Casing	9 5/8	36	J-55	Surface	3319 FT
Intermediate #1					
Intermediate #2					
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 ran as per customer request
Depth referenced to Kelly Bushing at 30 FT
Recorded with 0 PSI Surface Induced Pressure

Thank you for choosing Reliance Oilfield Services, LLC!

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Main Pass

Recorded With 0 PSI Surface Induced Pressure

Database File	tep\federal rg 444-7-297\tep_federal rg 444-7-297_rbl_07-12-21.db
Dataset Pathname	main.6
Presentation Format	ros_radii_tep
Dataset Creation	Wed Jul 14 10:36:25 2021
Charted by	Depth in Feet scaled 1:240

Gamma Ray 0 (GAPI) 200
Casing Collar Locator
Line Speed -150 (ft/min) 150
0 Line Tension (lb) 2000
Differential Temperature -2 (degF) 2
0 Temperature (degF) 20
0 3' Amplitude (mV) 100
3' Amplitude x 5 0 (mV) 20
3' Travel Time 300 (usec) 200
5' Variable Density Log 200 (usec) 1200
Sector Map
0 Average Amplitude 150
Mimimum Amplitude 0 150
Maximum Amplitude 0 150

Gamma Ray 0 (GAPI) 200
Casing Collar Locator
Line Speed -150 (ft/min) 150
0 Line Tension (lb) 2000
Differential Temperature -2 (degF) 2
0 Temperature (degF) 20
0 3' Amplitude (mV) 100
3' Amplitude x 5 0 (mV) 20
3' Travel Time 300 (usec) 200
5' Variable Density Log 200 (usec) 1200
Sector Map
0 Average Amplitude 150
Mimimum Amplitude 0 150
Maximum Amplitude 0 150

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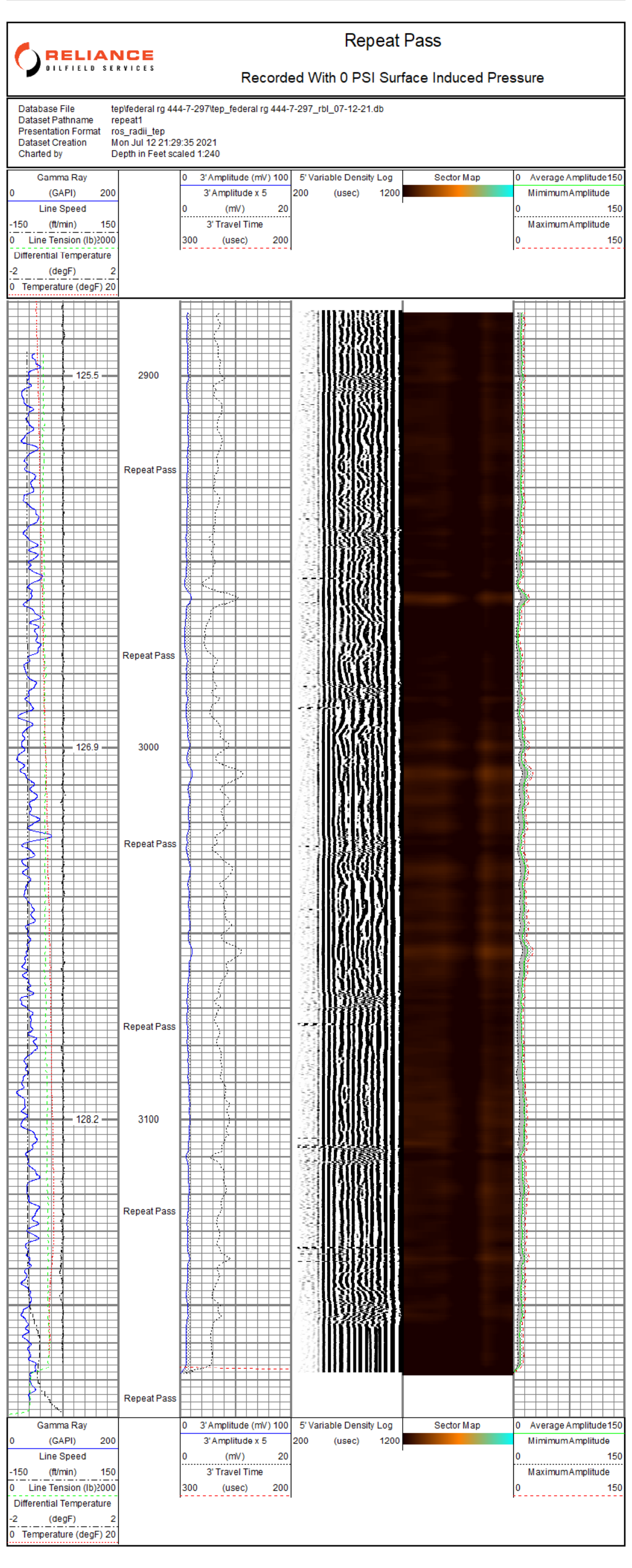
Repeat Pass

Recorded With 0 PSI Surface Induced Pressure

Database File	tep\federal rg 444-7-297\tep_federal rg 444-7-297_rbl_07-12-21.db
Dataset Pathname	repeat1
Presentation Format	ros_radii_tep
Dataset Creation	Mon Jul 12 21:29:35 2021
Charted by	Depth in Feet scaled 1:240

Gamma Ray 0 (GAPI) 200
Line Speed -150 (ft/min) 150
0 Line Tension (lb) 2000
Differential Temperature -2 (degF) 2
0 Temperature (degF) 20
0 3' Amplitude (mV) 100
3' Amplitude x 5 0 (mV) 20
3' Travel Time 300 (usec) 200
5' Variable Density Log 200 (usec) 1200
Sector Map
0 Average Amplitude 150
Mimimum Amplitude 0 150
Maximum Amplitude 0 150



Gamma Ray 0 (GAPI) 200
Line Speed -150 (ft/min) 150
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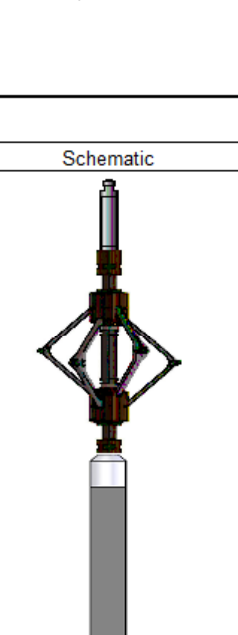
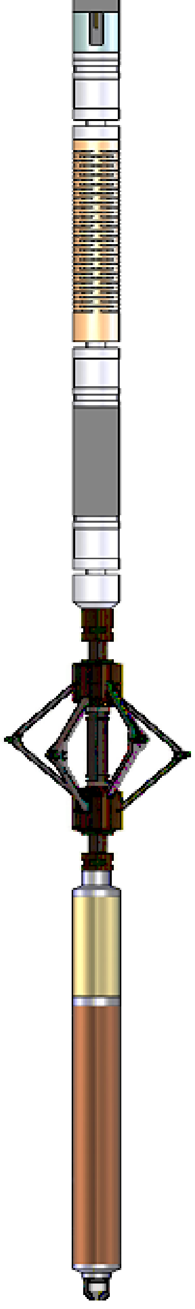
Differential Temperature -2 (degF) 2
0 Temperature (degF) 20
0 3' Amplitude (mV) 100
3' Amplitude x 5 0 (mV) 20
3' Travel Time 300 (usec) 200
5' Variable Density Log 200 (usec) 1200
Sector Map
0 Average Amplitude 150
Mimimum Amplitude 0 150
Maximum Amplitude 0 150

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			Titan CHD-14375 GO Titan 1-7/16" Assembled Electric Cable Head with 1" Fishing Neck	1.03	1.44	3.60
			BTA-MUD BTA 2-3/4" Roller 6 Arm Centralizer with Reversible Ends	2.92	2.72	25.00

TEMP	14.19
WVFS8	11.96
WVFS7	11.96
WVFS6	11.96
WVFS5	11.96
WVFS4	11.96
WVFS3	11.96
WVFS2	11.96
WVFS1	11.96
WVFCAL	11.96
WVF3FT	11.96
WVF5FT	10.96
CCL	3.88
GR	1.14



Probe Radii-2750 RBT (ROFS-RBT-0001) Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub	9.39	2.75	105.00
BTA-MUD BTA 2-3/4" Roller 6 Arm Centralizer with Reversible Ends	2.92	2.72	25.00
Probe GR-CCL ANL-2750 A (FW1305-083) Probe 2.75" Analog 4 Channel Pulse Gamma Ray/CCL Combined	4.54	2.75	55.00
GO BN-14375 GO 1-7/16" Bull Nose with Go Box Top	0.25	1.44	1.00

Dataset:	tep_federal rg 444-7-297_rbl_07-12-21.db: field/well/run1/main.6
Total length:	21.05 ft
Total weight:	214.60 lb
O.D.:	2.75 in

Calibration Report

Database File	c:\programdata\warrior\data\tep\federal rg 444-7-297\tep_federal rg 444-7-297_rbl_07-12-21.db
Dataset Pathname	main.6
Dataset Creation	Wed Jul 14 10:36:25 2021

Gamma Ray Calibration Report

Serial Number:	FW1305-083	
Tool Model:	2750 A	
Performed:	Sun Nov 12 05:37:57 2017	
Calibrator Value:	637.0	GAPI
Background Reading:	95.7	cps
Calibrator Reading:	982.0	cps
Sensitivity:	0.7188	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	ROFS-RBT-0001	
Tool Model:	2750 RBT	
Calibration Casing Diameter:	4.500	in
Calibration Depth:	250.395	ft

Master Calibration, performed Tue Jun 29 07:00:04 2021:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.004	0.771	0.800	51.300	104.778	0.414
CAL	0.004	0.760				
5'	0.006	0.595	0.800	51.300	136.467	-0.015
SUM						
S1	0.005	0.829	0.000	100.000	121.376	-0.627
S2	0.005	0.799	0.000	100.000	126.013	-0.635
S3	0.006	0.774	0.000	100.000	130.104	-0.756
S4	0.006	0.738	0.000	100.000	136.554	-0.803
S5	0.007	0.745	0.000	100.000	135.477	-0.924
S6	0.006	0.767	0.000	100.000	131.364	-0.783
S7	0.005	0.809	0.000	100.000	124.370	-0.651
S8	0.005	0.829	0.000	100.000	121.367	-0.653

Air Zero Calibration, performed Mon Jun 28 11:46:38 2021:

	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:	ROFS-RBT-0001	
Tool Model:	2750 RBT	
Performed:	Mon Oct 1 11:32:12 2018	
	Reference	Reading
Low Reference:	100.00 degF	112.12 degF
High Reference:	350.00 degF	415.62 degF
Gain:	0.82	
Offset:	7.65	
Delta Spacing	1	

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