



## Temperature (Quick Look) Gamma Ray Casing Collar Log

Company TEP Rocky Mountain LLC		Well Federal RU 413-17		Field Rulison		County Garfield		State Colorado			
Location:		API # : 05-045-23740		Other Services							
SEC 17 TWP 7S RGE 93W											
Permanent Datum		Ground Level		Elevation		8365.6'					
Log Measured From		Kelly Bushing		24 FT							
Drilling Measured From		Kelly Bushing									
Date		20-APR-2018									
Run Number		One									
Depth Driller		10722 FT									
Depth Logger		10672 FT									
Bottom Logged Interval		10672 FT									
Top Log Interval		Surface									
Open Hole Size		8.750"									
Type Fluid		Fresh Water									
Density / Viscosity		8.34 lb/gal									
Max. Recorded Temp.		256°F									
Estimated Cement Top		5425 FT									
Time Well Ready		ROA									
Time Logger on Bottom		12:00									
Equipment Number		HD-0359									
Location		Grand Junction, CO									
Recorded By		Z. Fisher									
Witnessed By		Nathan Burr									
Borehole Record		To		Size		Weight		From		To	
Run Number		Bit		From							
Casing Record		Size (in)		Wgt (lbs/ft)		Grade		Top		Bottom	
Surface Casing		9.5/8		32.3		H-40		Surface		1139 FT	
Intermediate #1		4 1/2		11.6		P-110		Surface		10682 FT	
Intermediate #2											
Inner											

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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 24 FT  
Marker Joint logged from 6673 to 6695 FT  
Log ran from 10672 FT to Surface

Thank you for choosing Reliance Oilfield Services, LLC!!



## Main Pass (Quick Look)

Database File	tep_federal ru 413-17_temp\tep_federal ru 413-17_temp_04-20-18.db
Dataset Pathname	main.1
Presentation Format	ros_temp_ql_tep
Dataset Creation	Sat Apr 21 02:50:24 2018
Charted by	Depth in Feet scaled 1:10000

50

TEMP (degF)

250

TEMP (degF)

500

62.7

1000

70.4

1500

79.4

2000

84.9

2500

90.7

3000

98.6

3500

105.9

4000

110.3

4500

117.0

5000

121.2

5500

136.8

Estimated Top of Cement →

6000

154.4

6500

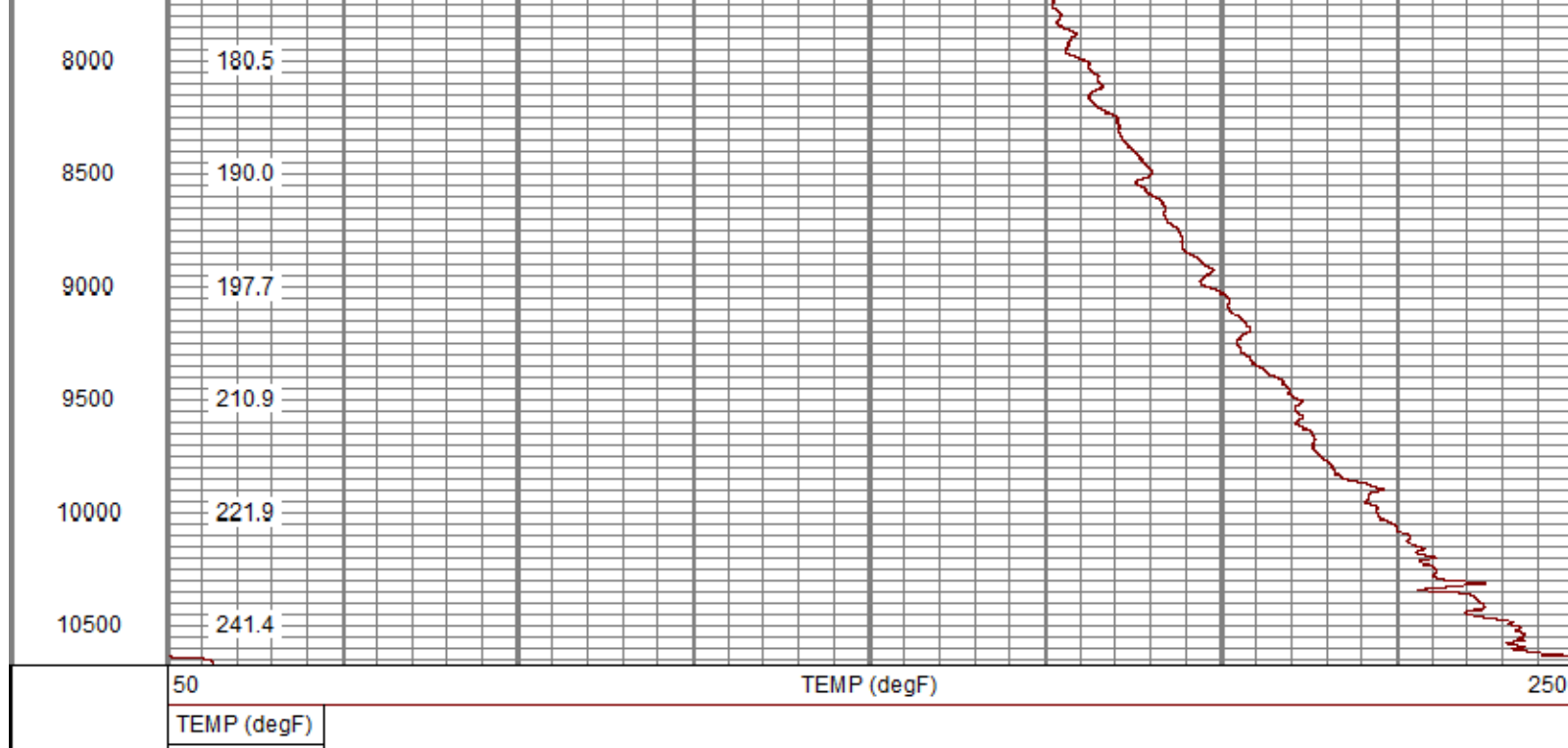
156.1


7000

163.6

7500


172.4



Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	3.37		Titan CHD-14375 GO Titan 1-7/16" Assembled Electric Cable Head w/ 1" Fishing Neck	1.03	1.44	3.60
			UW AGS-001 (211461) Sondex Adapter - GO Box to Sondex Pin	0.21	1.69	1.00
			UW XTU-002 (10017430) Crossover Ultrawire Toolbus to Ultralink	1.58	1.69	6.50
			UW PGR-020 (10019371) Production Gamma Ray	1.92	1.69	9.50
			UW CCL-028 (10018437) 3-1/8" Ultrawire Casing Collar Locator	1.61	3.13	36.00

CCL	1.77					
TEMP	0.37			UW PRT-016 (10025093) Platinum Resistance Thermometer	1.04	1.69
TSTAMP	0.00			UW BUL-006 (10019616) Sondex Ultrawire Bullnose Terminator Sub	0.22	1.69
Dataset: TEP_Federal RU 413-17_TEMP_04-20-18.db: field/well/run1/main Total length: 7.62 ft Total weight: 63.00 lb O.D.: 3.13 in						

Calibration Report					
Database File	C:\ProgramData\Warrior\Data\TEP_Federal RU 413-17_TEMP\TEP_Federal RU 413-17_TEMP_04-20-18.db				
Dataset Pathname	main				
Dataset Creation	Sat Apr 21 01:15:28 2018				
Temperature Calibration Report					
	Serial Number:	10025093			
	Tool Model:	016			
	Performed:	Sun Nov 12 13:20:23 2017			
Point #	Reading		Reference		
1	13006.00	cps	68.00	degF	
2	18181.00	cps	104.00	degF	
3	29634.00	cps	176.00	degF	
4	41077.00	cps	248.00	degF	
5	52560.00	cps	320.00	degF	
6	58409.00	cps	356.00	degF	
7		cps		degF	
8		cps		degF	
9		cps		degF	
10		cps		degF	
Gamma Ray Calibration Report					
Serial Number:	10019371				
Tool Model:	020				
Performed:	Sun Nov 12 05:37:04 2017				
Calibrator Value:	637.0	GAPI			
Background Reading:	78.8	cps			
Calibrator Reading:	1069.9	cps			
Sensitivity:	0.6427	GAPI/cps			

	Company	TEP Rocky Mountain LLC
	Well	Federal RU 413-17
	Field	Rulison
	County	Garfield
	State	Colorado