RELIANCE
OILFIELD SERVICES

Pulsed Neutron Gamma Ray Casing Collar Log

Company TEP Rocky Mountain LLC
Well Federal PA 332-26
Field Parachute
County Garfield
State Colorado

Company	TEP Rocky Mountain LLC
Well	Federal PA 332-26
Field	Parachute
County	Garfield
State	Colorado
Location:	API # : 05-045-23725
	SEC 26 TWP 6S RGE 95W
Other Services	RBL

Permanent Datum	Ground Level	Elevation	5636.9'
Log Measured From	Kelly Bushing	24 FT	
Drilling Measured From	Kelly Bushing		

Elevation
K.B. 5660.9'
D.F. 5659.9'
G.L. 5636.9'

Date	23-MAY-2018
Run Number	One
Depth Driller	8697 FT
Depth Logger	8624 FT
Bottom Logged Interval	8618 FT
Top Log Interval	4718 FT
Open Hole Size	8.750"
Type Fluid	Fresh Water
Density / Viscosity	8.34 lb/gal
Max. Recorded Temp.	249°F
Estimated Cement Top	---
Time Well Ready	ROA
Time Logger on Bottom	1:33
Equipment Number	HD-0359
Location	Grand Junction, CO
Recorded By	A. Ellsworth
Witnessed By	D. Welsh

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	32.3	H-40	Surface	1125 FT
Intermediate #1	4 1/2	11.6	P-110	Surface	8653 FT
Intermediate #2					
Liner					

<<< 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.

Comments

Log ran as per customer request
Depth referenced to Reliance Bond Log dated 22-MAY-2018
Log ran from 8618 FT to 4718 FT
Pulsed Neutron Data logged with the Hunter RAS Tool

Thank you for choosing Reliance Oilfield Services, LLC!!

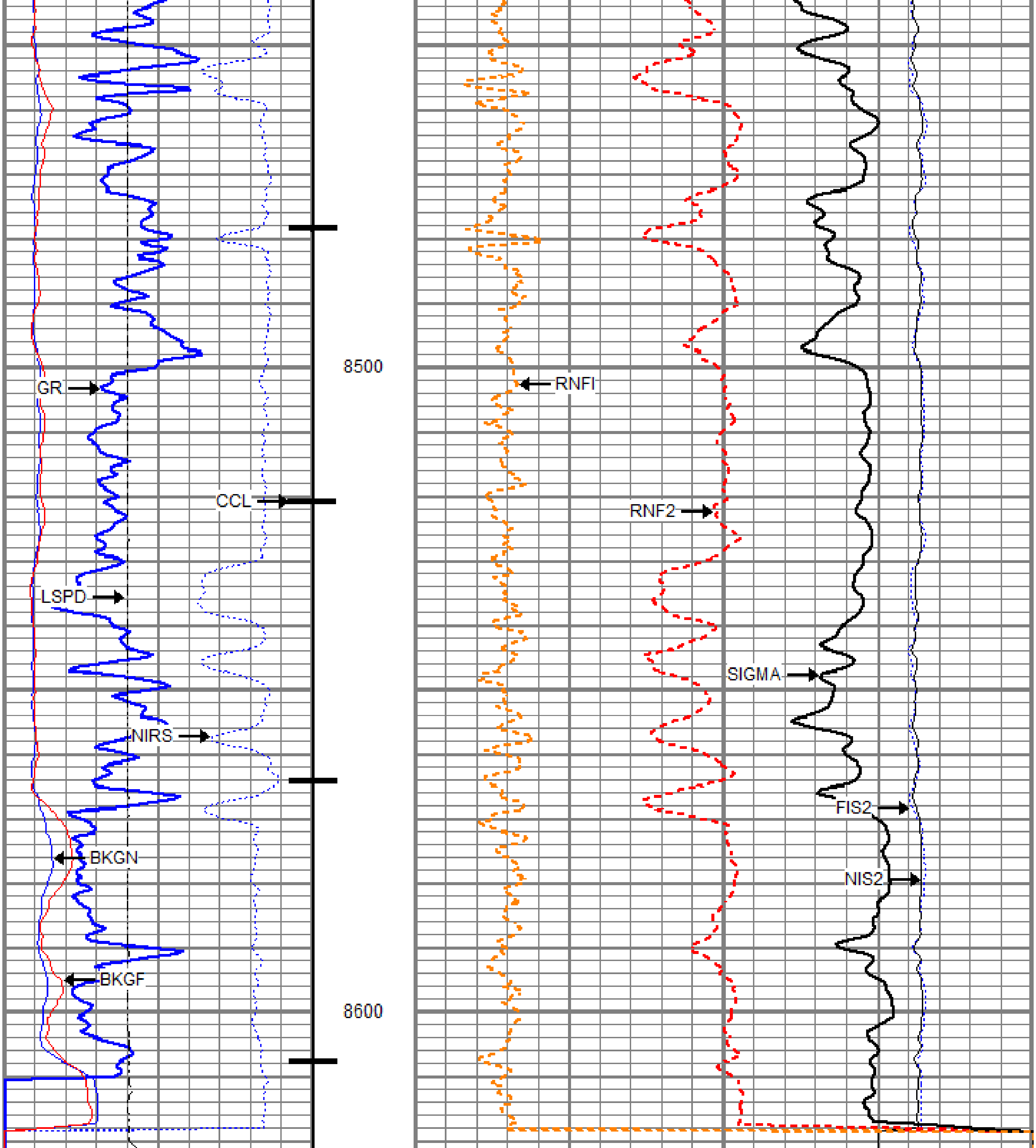
RELIANCE
OILFIELD SERVICES

Main Pass

Database File	tep\pa 332-26\pn\tep_federal pa 332-26_pn_05-23-18.db
Dataset Pathname	tep_federal_pa_332-26_pn_05-23-18_main_
Presentation Format	ros_pdn_hunter
Dataset Creation	Wed May 23 14:54:44 2018
Charted by	Depth in Feet scaled 1:240

0 Gamma Ray (GAPI) 150
Casing Collar Locator
-100 Line Speed (ft/min) 100
0 NIRS (cps) 400000
0 BKGN (cps) 4000
0 BKGF (cps) 2000

4 RNF2 0
60 SIGMA (cu) 0
4.5 RNFI 0
FIS2
0 (cps) 45000
NIS2
0 (cps 100000



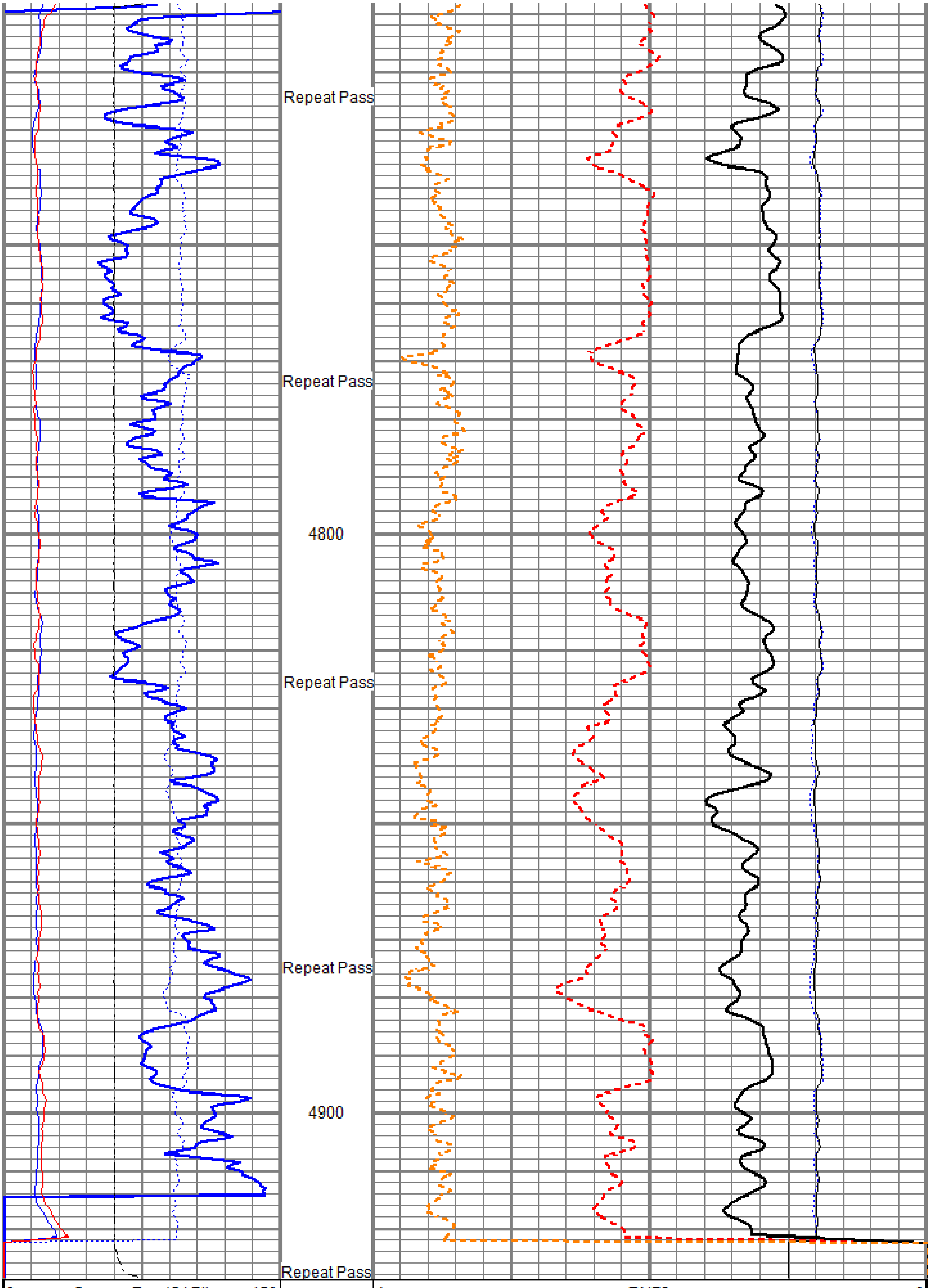
0	Gamma Ray (GAPI)	150	4	RNF2	0
	Casing Collar Locator		60	SIGMA (cu)	0
-100	Line Speed (ft/min)	100	4.5	RNFI	0
0	NIRS (cps)	400000			FIS2
0	BKGN (cps)	4000		0	(cps) 45000
0	BKGF (cps)	2000			NIS2
				0	(cps100000

RELIANCE OILFIELD SERVICES

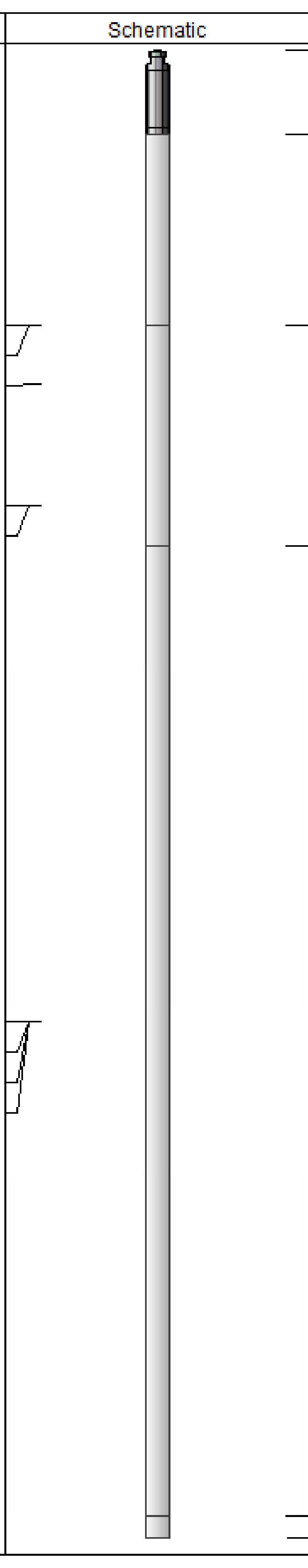
Repeat Pass

Database File	tep\pa 332-26\pn\tep_federal pa 332-26_pn_05-23-18.db
Dataset Pathname	repeat/tep_federal_pa_332-26_pn_05-23-18_repea
Presentation Format	ros_pdn_hunter
Dataset Creation	Wed May 23 14:55:13 2018
Charted by	Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150	4	RNF2	0
-100	Line Speed (ft/min)	100	60	SIGMA (cu)	0
0	NIRS (cps)	400000	4.5	RNFI	0
0	BKGN (cps)	4000			FIS2
0	BKGF (cps)	2000		0	(cps) 45000
					NIS2
				0	(cps100000



0	Gamma Ray (GAPI)	150	4	RNF2	0
-100	Line Speed (ft/min)	100	60	SIGMA (cu)	0
0	NIRS (cps)	400000	4.5	RNFI	0
0	BKGN (cps)	4000			FIS2
0	BKGF (cps)	2000		0	(cps) 45000
					NIS2
				0	(cps100000

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			Titan CHD-16875 GO Titan 1-11/16" Assembled Electric Cable Head w/ 1" Fishing Neck	1.03	1.69	5.40
			HWS_TCU-002 (001705) HWS Telemetry Control Unit (TCU002)	2.30	1.69	10.87
TCUTEMP	14.69					
TCUVOLT	14.69					
GCL_CCL	13.97					
			HWS_GCL-001 (001681) HWS Gamma Ray Collar Locator (1.6875")	2.69	1.69	13.40
GCL_GR	12.50					
GCL_GR	12.50					
Long	6.25		HWS_RAS-RAS002 (003041) Hunter Well Science Pulsed Neutron Tool	11.75	1.69	55.82
Far	6.25					
Near	6.25					
Anci	6.25					
			HWS_TBN-001 (001724) HWS Terminator Bull Nose (1.6875")	0.25	1.69	0.99

Dataset:	tep_federal pa 332-26_pn_05-23-2018.db: field/well/run1/main.2
Total length:	18.02 ft
Total weight:	86.48 lb
O.D.:	1.69 in

RELIANCE OILFIELD SERVICES

Company	TEP Rocky Mountain LLC
Well	Federal PA 332-26
Field	Parachute
County	Garfield
State	Colorado