RELIANCE OILFIELD SERVICES

Pulsed Neutron Gamma Ray Casing Collar Log

Company	TEP Rocky Mountain LLC
Well	Federal PA 422-26
Field	Parachute
County	Garfield
State	Colorado

Company TEP Rocky Mountain LLC

Well Federal PA 422-26

Field Parachute

County Garfield State Colorado

Location: API # : 05-045-23716

SEC 26 TWP 6S RGE 95W

Other Services: RBL

			Elevation
Permanent Datum	Ground Level	Elevation 5636.9'	K.B. 5660.9'
Log Measured From	Kelly Bushing	24 FT	D.F. 5559.9'
Drilling Measured From	Kelly Bushing		G.L. 5636.9'

Date	03-SEP-2018
Run Number	One
Depth Driller	8580 FT
Depth Logger	8535 FT
Bottom Logged Interval	8529 FT
Top Log Interval	4580 FT
Open Hole Size	8.750"
Type Fluid	Fresh Water
Density / Viscosity	8.34 lb/gal
Max. Recorded Temp.	---
Estimated Cement Top	---
Time Well Ready	---
Time Logger on Bottom	---
Equipment Number	---
Location	Grand Junction, CO
Recorded By	J.Donnelly
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	H-40	Surface	1125 FT
Intermediate #1	4 1/2	11.6	P-110	Surface	8538 FT
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 Reliance Bond Log dated 02-SEP-2018
Log ran from 8529 FT to 4580 FT
Pulsed Neutron Data logged with the Hunter RAS Tool

Thank you for choosing Reliance Oilfield Services, LLC!!

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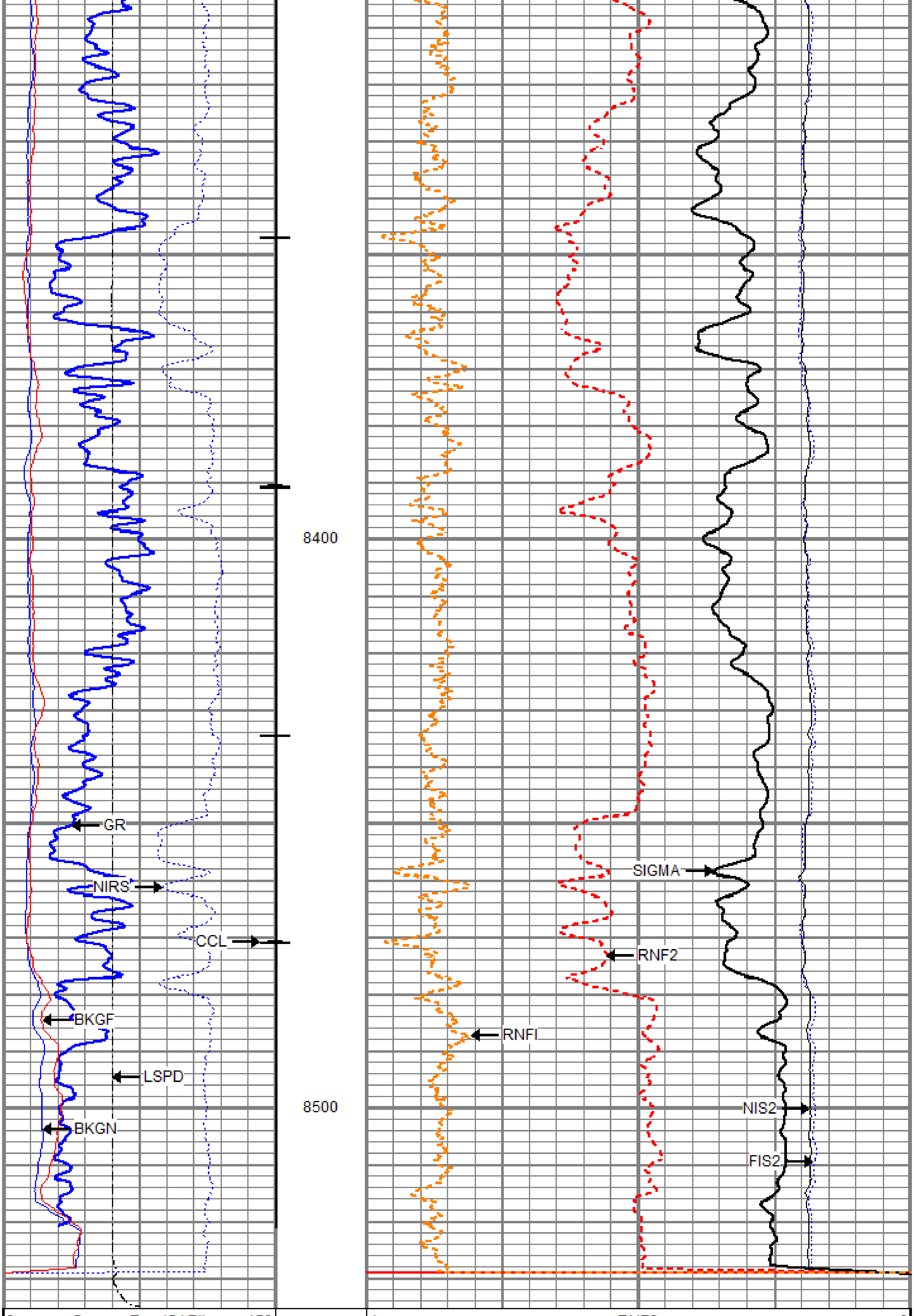
Main Pass

Database File	tep\tep_federal pa 422-26_pn_09-03-18\tep_federal pa 422-26_pn_09-03-18.db
Dataset Pathname	Main3.2
Presentation Format	ros_pdn_hunter
Dataset Creation	Mon Sep 03 09:10:51 2018
Charted by	Depth in Feet scaled 1:240

Left	Curve	Right
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
0	FIS2 (cps)	45000
0	NIS2 (cps)	100000



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	(cps100000

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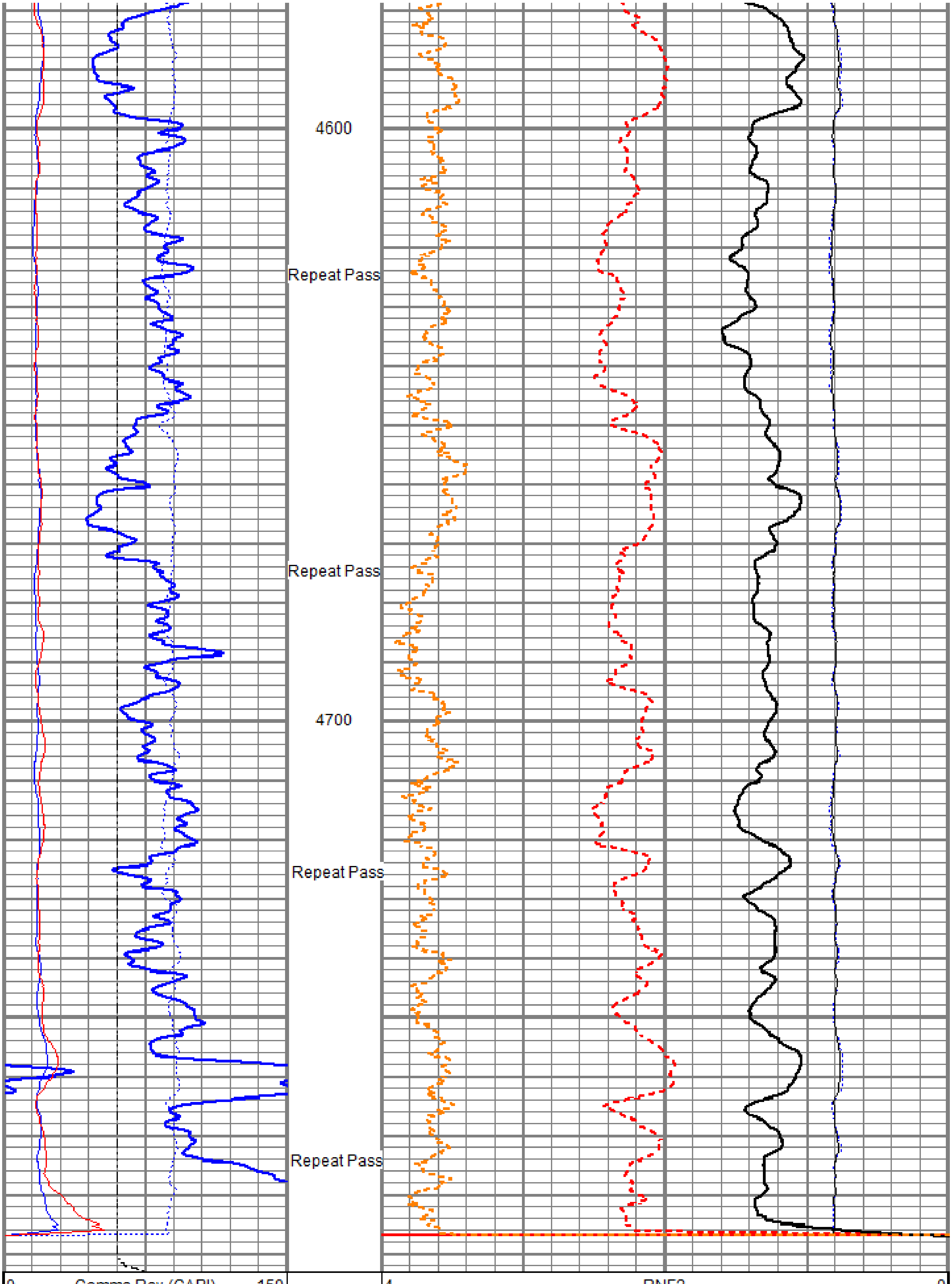
Repeat Pass

Database File	tep\tep_federal pa 422-26_pn_09-03-18\tep_federal pa 422-26_pn_09-03-18.db
Dataset Pathname	repeat.2
Presentation Format	ros_pdn_hunter
Dataset Creation	Mon Sep 03 08:53:25 2018
Charted by	Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
-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

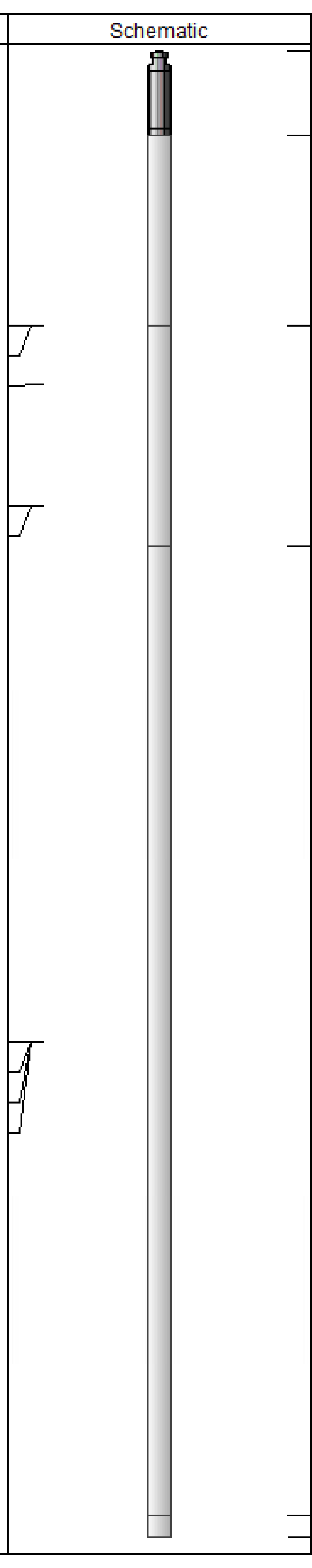
	FIS2
0	(cps) 45000
	NIS2
0	(cps100000



0	Gamma Ray (GAPI)	150
-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	(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 (001704) HWS Telemetry Control Unit (TCU002)	2.30	1.69	10.87
TCUTEMP TCUVOLT GCL_CCL	14.69 14.69 13.97					
			HWS_GCL-001 (001475) HWS Gamma Ray Collar Locator (1.6875")	2.69	1.69	13.40
GCL_GR GCL_GR	12.50 12.50					
			HWS_RAS-RAS002_Invt (003040_Invt) Hunter Well Science Pulsed Neutron Tool (Inverted)	11.75	1.69	55.82
Long Far Near Anci	6.00 6.00 6.00 6.00					
			HWS_TBN-001 (001724) HWS Terminator Bull Nose (1.6875")	0.25	1.69	0.99

Dataset:	tep_federal pa 422-26_pn_09-03-18.db: field/well/run1/Main3.2
Total length:	18.02 ft
Total weight:	86.48 lb
O.D.:	1.69 in

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