RELIANCE
OILFIELD SERVICES

Pulsed Neutron
Gamma Ray
Casing Collar Log

Company	TEP Rocky Mountain LLC
Well	Federal GM 532-5
Field	Grand Valley
County	Garfield
State	Colorado

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Location: API # : 05-045-23505
728' FSL & 908' FEL SWNE
SEC 5 TWP 7S RGE 96W

Other Services
RBL

Permanent Datum	Ground Level	Elevation 5977'	Elevation
Log Measured From	Kelly Bushing	24 FT	K.B. 6001' D.F. 6000' G.L. 5977'
Drilling Measured From	Kelly Bushing		

Date	03-OCT-2017
Run Number	One
Depth Driller	7305 FT
Depth Logger	7262 FT
Bottom Logged Interval	7255 FT
Top Log Interval	3480 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	32.3	H-40	Surface	1023 FT
Intermediate #1	4 1/2	11.6	P-110	Surface	7259 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 03-OCT-2017
Log ran from 7255 FT to 3480 FT
PDN data logged with Anteres Pulsed Neutron Tool

Thank you for choosing Reliance Oilfield Services, LLC!!

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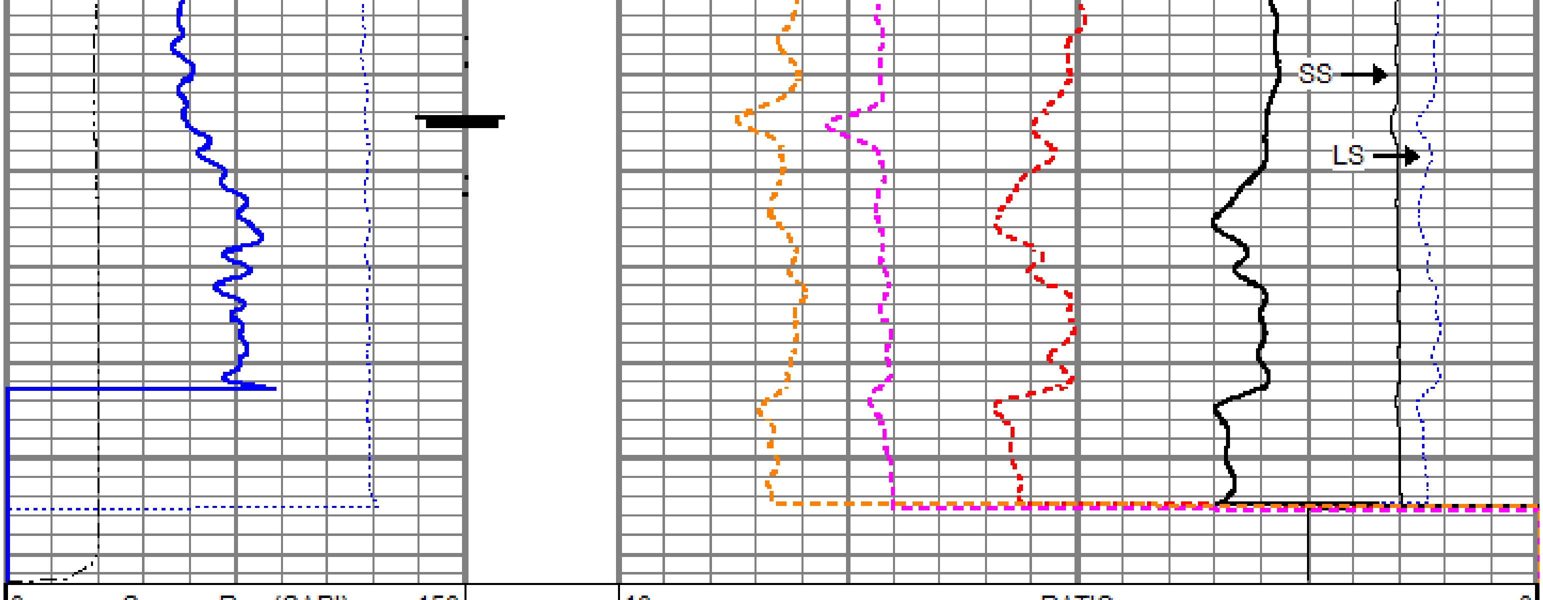
Main Pass

Database File	tep\gm 532-5\pdn\tep_federal gm 532-5_pdn_10-03-17.db
Dataset Pathname	federal_gm_532-5_pdn_main_shift
Presentation Format	ros_pdn
Dataset Creation	Sat Oct 07 16:23:12 2017
Charted by	Depth in Feet scaled 1:240

0 Gamma Ray (GAPI) 150
Casing Collar Locator
0 Line Speed (ft/min) 100
0 SSIN (cps) 500000

10 RATIO 0
60 SIGMA (cu) 0
0.35 RATIC 0
11 RATIN 0

0 LS (cps) 0000
SS
0 (cps4e+006



0 Gamma Ray (GAPI) 150
Casing Collar Locator
0 Line Speed (ft/min) 100
0 SSIN (cps) 500000

10 RATIO 0
60 SIGMA (cu) 0
0.35 RATIC 0
11 RATIN 0
0 LS (cps) 0000
SS
0 (cps4e+006

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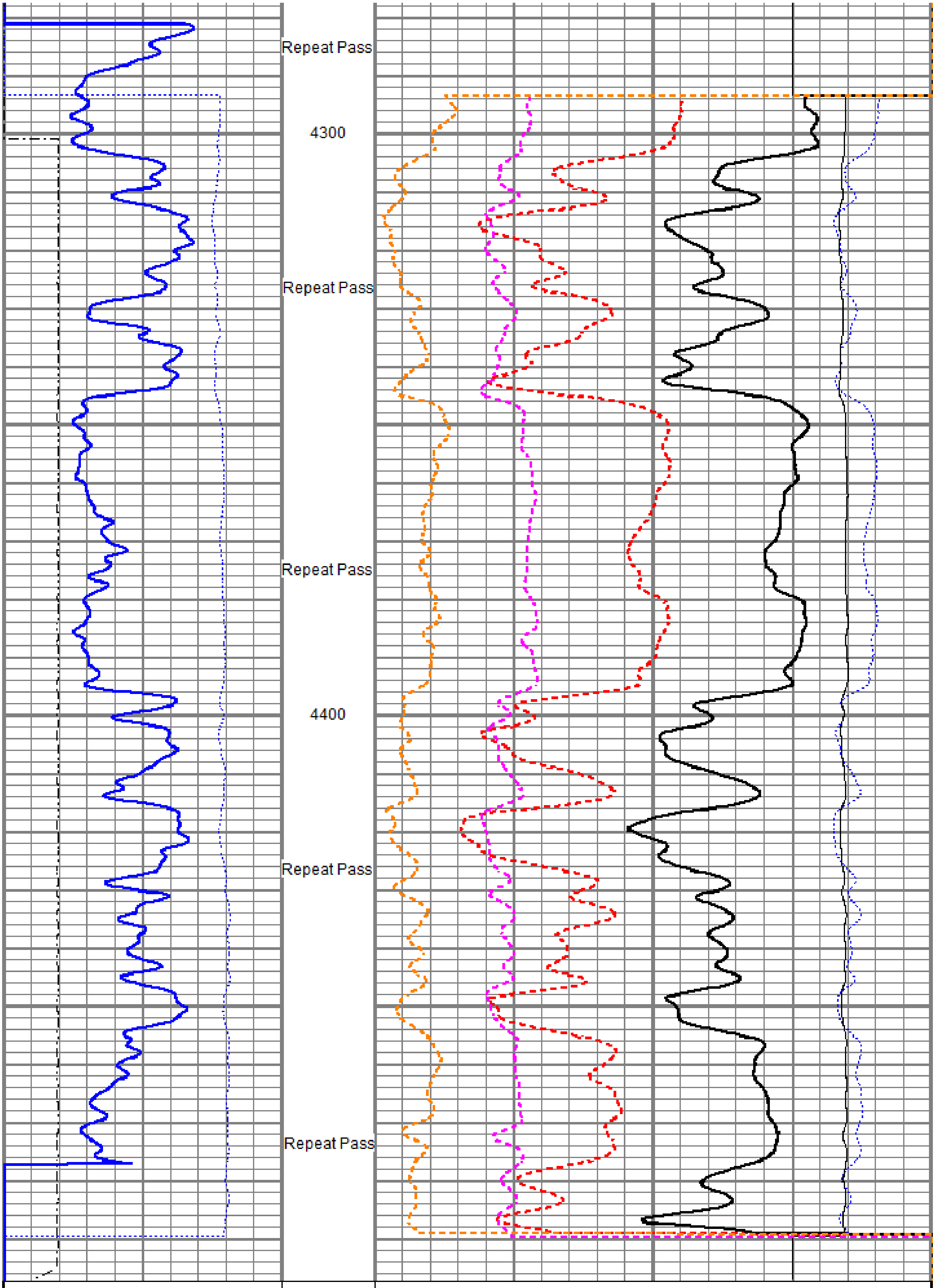
Repeat Pass

Database File	tep\gm 532-5\pdn\tep_federal gm 532-5_pdn_10-03-17.db
Dataset Pathname	repeat/federal_gm_532-5_pdn_repeat_shift
Presentation Format	ros_pdn
Dataset Creation	Sun Oct 08 01:06:18 2017
Charted by	Depth in Feet scaled 1:240

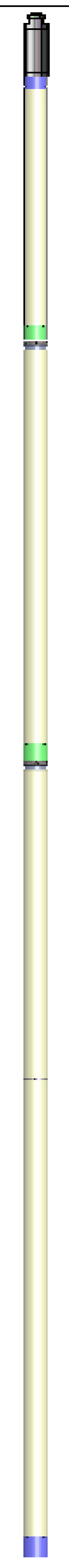
0 Gamma Ray (GAPI) 150
0 Line Speed (ft/min) 100
0 SSIN (cps) 500000

10 RATIO 0
60 SIGMA (cu) 0
0.35 RATIC 0
11 RATIN 0
0 LS (cps) 0000
SS
0 (cps4e+006



0 Gamma Ray (GAPI) 150
0 Line Speed (ft/min) 100
0 SSIN (cps) 500000

10 RATIO 0
60 SIGMA (cu) 0
0.35 RATIC 0
11 RATIN 0
0 LS (cps) 0000
SS
0 (cps4e+006

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb
			Titan_Electric_Cable_Heads-Titan_1-11/1 Electric Cable Head with 1" Fishing Neck	1.03	1.69	5.40
			Telemetry-Antares Antares Telemetry / Gamma / CCL	4.07	1.70	17.60
			Generator-Antares Antares Neutron Generator	19.03	1.70	85.80

Dataset:	pdn tool.db: field/well/run1/PDN_Tool_Diagram
Total length:	24.13 ft
Total weight:	108.80 lb
O.D.:	1.70 in

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