RELIANCE OILFIELD SERVICES

# Pulsed Neutron Gamma Ray Casing Collar Log

| | |
|---|---|
| Company | TEP Rocky Mountain LLC |
| Well | Chevron TR 23-23-597 |
| Field | Trail Ridge |
| County | Garfield |
| State | Colorado |

Company TEP Rocky Mountain LLC
Well Chevron TR 23-23-597
Field Trail Ridge
County Garfield State Colorado
Location: API # : 05-045-23461
SEC 23 TWP 5S RGE 97W

Other Services
RBL

| | | | Elevation |
|---|---|---|---|
| Permanent Datum | Ground Level | Elevation 8545' | K.B. 8569' |
| Log Measured From | Kelly Bushing | 24 FT | D.F. 8568' |
| Drilling Measured From | Kelly Bushing | | G.L. 8545' |

| | |
|---|---|
| Date | 26-AUG-2017 |
| Run Number | One |
| Depth Driller | 10339 FT |
| Depth Logger | 10261 FT |
| Bottom Logged Interval | 10254 FT |
| Top Log Interval | 6046 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 |
| 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 | 32.3 | H-40 | Surface | 3009 FT |
| Intermediate #1 | 4 1/2 | 11.6 | P-110 | Surface | 10359 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 per customer request
Depth referenced to Reliance Bond Log dated 25-AUG-2017
Log ran from 10254 FT to 6046 FT
PDN data logged with Anteres Pulsed Neutron Tool

Thank you for choosing Reliance Oilfield Services, LLC!!

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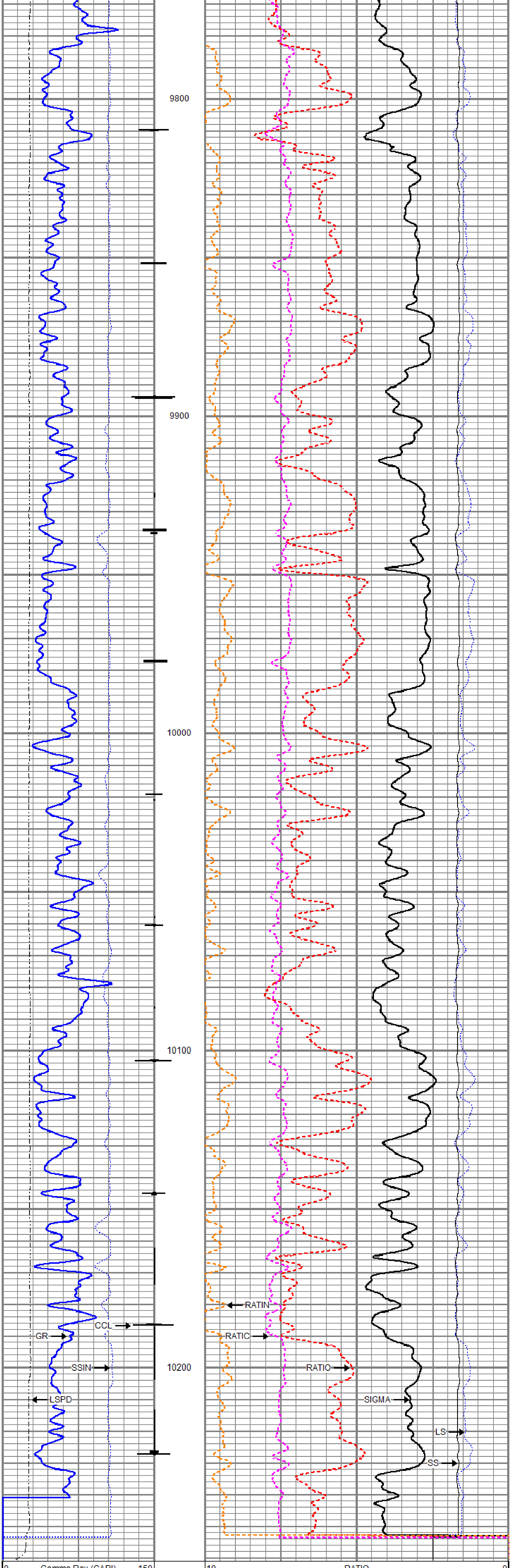
# Main Pass

| | |
|---|---|
| Database File | tep\chevron tr 23-23-597\processed_tep_chevron tr 23-23-597_pdn_08-26-17.db |
| Dataset Pathname | tep_chevron_tr_23-23-597_pdn_08-26-17_m |
| Presentation Format | ros_pdn |
| Dataset Creation | Wed Aug 30 14:36:35 2017 |
| Charted by | Depth in Feet scaled 1:240 |

| Left | Curve | Right |
|---|---|---|
| 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 | (cps | 4e+006 |



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

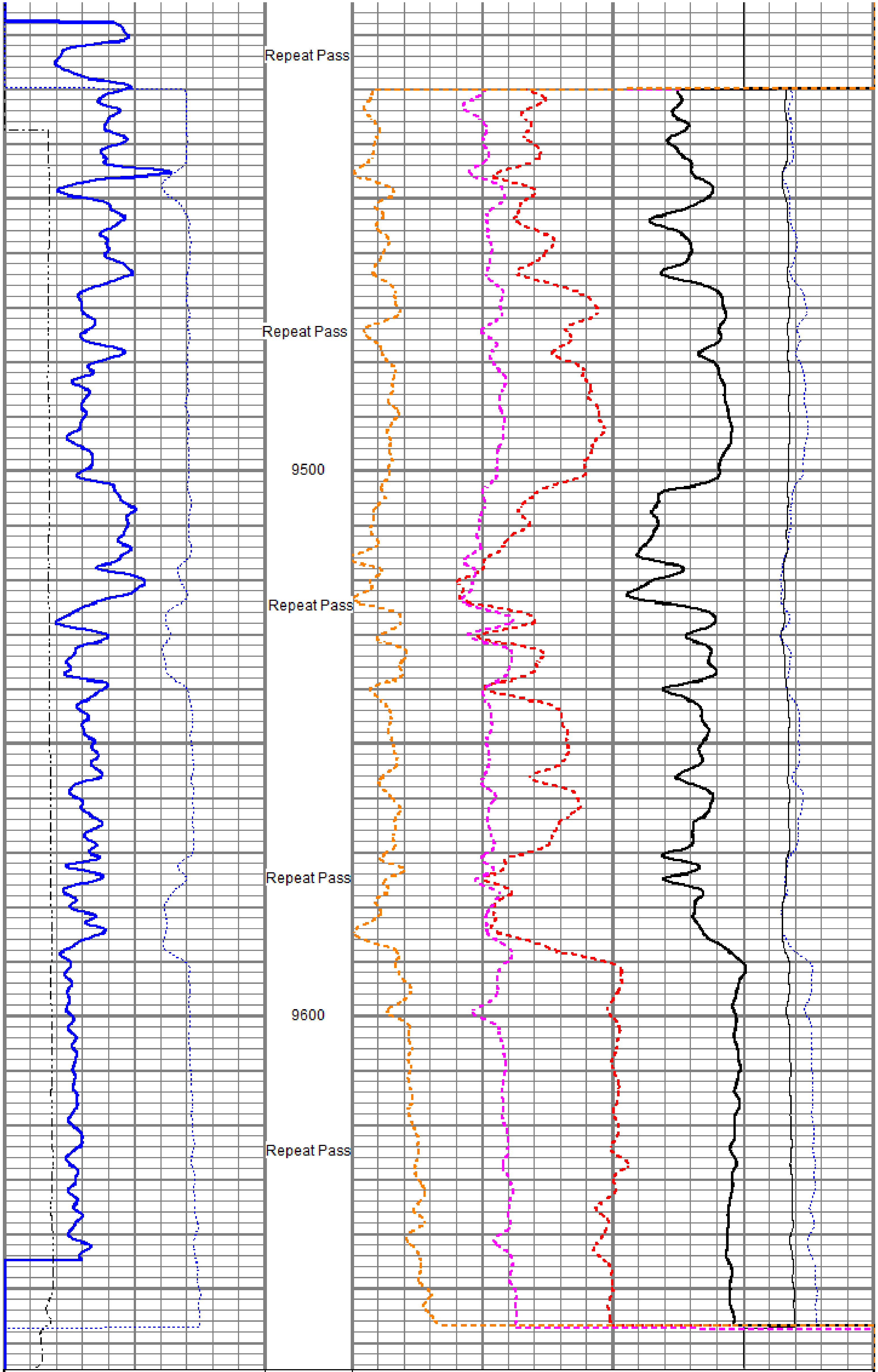
10 RATIO 0
60 SIGMA (cu) 0
0.35 RATIC 0
11 RATIN 0
0 LS (cps)0000
SS
0 (cps4e+006

# Repeat Pass

Database File tep\chevron tr 23-23-597\processed_tep_chevron tr 23-23-597_pdn_08-26-17.db
Dataset Pathname tep_chevron_tr_23-23-597_pdn_08-26-17_r
Presentation Format ros_pdn
Dataset Creation Wed Aug 30 15:20:16 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<br>Electric Cable Head with 1" Fishing Neck | 1.03 | 1.69 | 5.40 |
| | | | Telemetry-Antares<br>Antares Telemetry / Gamma / CCL | 4.07 | 1.70 | 17.60 |
| | | | Generator-Antares<br>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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