**Patterson**

# Sector Bond Log

| | |
|---|---|
| Company | El Paso Energy Raton L.L.C. |
| Well | VPRD-31 |
| Field | Castle Rock |
| County | Colfax |
| State | NM |
| Location | 1048' FNL & 2335' FWL |
| SEC. | 16 |
| TWP. | 30N |
| RGE. | 18E |
| Other Services | |

| | | | |
|---|---|---|---|
| Permanent Datum | Ground Level | Elevation | 8256' |
| Log Measured From | Ground Level | | |
| Drilling Measured From | Ground Level | | |

Elevation
K.B. ----
D.F. ----
G.L. 8256'

Company El Paso Energy
Well VPRD-31
Field Castle Rock
County Colfax
State NM

| | |
|---|---|
| Date | 4-3-01 |
| Run Number | One |
| Depth Driller | 2242' |
| Depth Logger | 2237' |
| Bottom Logged Interval | 2233' |
| Top Log Interval | Surface |
| Open Hole Size | 7 7/8" |
| Type Fluid | Water |
| Density / Viscosity | |
| Max. Recorded Temp. | 107 Deg. F |
| Estimated Cement Top | Surface |
| Time Well Ready | Portable Mast |
| Time Logger on Bottom | 10:45 |
| Equipment Number | 00 |
| Location | Weston |
| Recorded By | Funk |
| Witnessed By | |

| Borehole Record | | | | Tubing Record | | |
|---|---|---|---|---|---|---|
| Run Number | Bit | From | To | Size | Weight | From | To |
| One | 11" | 0 | 316' | | | | |
| Two | 7 7/8" | 0 | 2290' | | | | |

| Casing Record | Size | Wgt/Ft | Top | Bottom |
|---|---|---|---|---|
| Surface String | 8 5/8" | | 0 | 303' |
| Prot. String | | | | |
| Production String | 5 1/2" | | 0 | 2242' |
| 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

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## Main Pass

Database File: vd31sb.db
Dataset Pathname: pass2
Presentation Format: sector
Dataset Creation: Tue Apr 03 10:54:14 2001 by Log 6.0
Charted by: Depth in Feet scaled 1:240

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | GR (GAPI) | 200 | 0 | AMPMAX (mV) | 100 | 200 | WVF5FT | 1200 | 1 | Sector Map | 8 |
| 400 | TT3FT (usec) | 200 | 0 | AMPAVG (mV) | 100 | | | | | | |
| 0 | AMP3FT (mV) | 100 | 0 | AMPMIN (mV) | 100 | | | | | | |
| | | | 18 | CCL | -2 | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | GR (GAPI) | 200 | 0 | AMPMAX (mV) | 100 | 200 | WVF5FT | 1200 | 1 | Sector Map | 8 |
| 400 | TT3FT (usec) | 200 | 0 | AMPAVG (mV) | 100 | | | | | | |
| 0 | AMP3FT (mV) | 100 | 0 | AMPMIN (mV) | 100 | | | | | | |
| | | | 18 | CCL | -2 | | | | | | |

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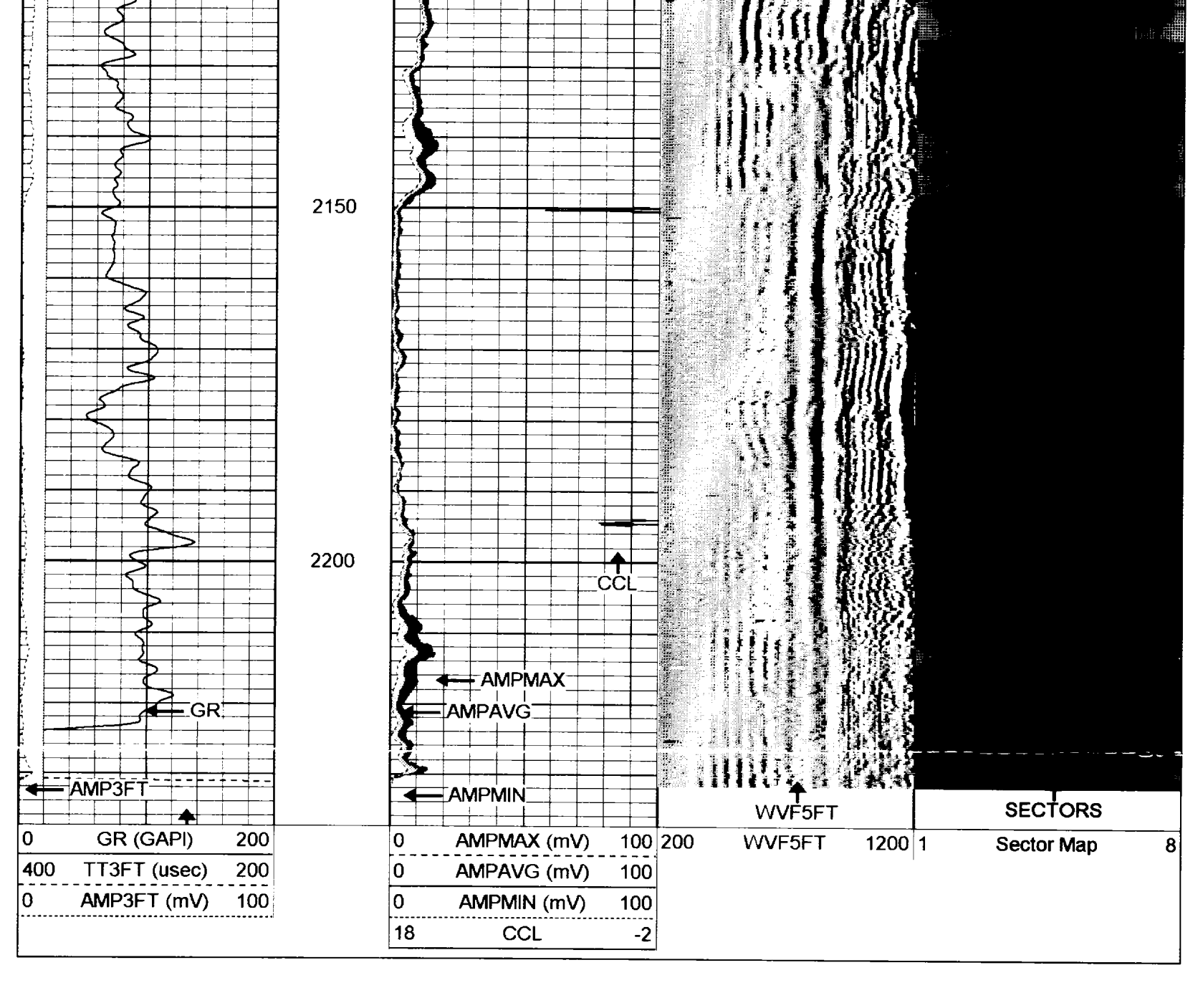
**Patterson**

## Repeat Section

Database File: vd31sb.db
Dataset Pathname: pass1
Presentation Format: sector
Dataset Creation: Tue Apr 03 10:48:14 2001 by Log 6.0
Charted by: Depth in Feet scaled 1:240

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | GR (GAPI) | 200 | 0 | AMPMAX (mV) | 100 | 200 | WVF5FT | 1200 | 1 | Sector Map | 8 |
| 400 | TT3FT (usec) | 200 | 0 | AMPAVG (mV) | 100 | | | | | | |
| 0 | AMP3FT (mV) | 100 | 0 | AMPMIN (mV) | 100 | | | | | | |
| | | | 18 | CCL | -2 | | | | | | |



| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | GR (GAPI) | 200 | 0 | AMPMAX (mV) | 100 | 200 | WVF5FT | 1200 | 1 | Sector Map | 8 |
| 400 | TT3FT (usec) | 200 | 0 | AMPAVG (mV) | 100 | | | | | | |
| 0 | AMP3FT (mV) | 100 | 0 | AMPMIN (mV) | 100 | | | | | | |
| | | | 18 | CCL | -2 | | | | | | |

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### Segmented Cement Bond Log Calibration Report

Serial Number: ARTEX325S
Tool Model: X

Calibration Casing Diameter: 5.500 in
Calibration Depth: 1259.802 ft

Master Calibration, performed Tue Apr 03 08:38:32 2001:

| | Raw (v) | | Calibrated (mv) | | Results | |
|---|---|---|---|---|---|---|
| | Zero | Cal | Zero | Cal | Gain | Offset |
| 3'<br>CAL | -0.008 | 2.447 | 0.500 | 71.921 | 29.083 | 0.747 |
| 5'<br>SUM | -0.081 | 4.463 | 0.000 | 71.921 | 15.825 | 1.285 |
| S1 | -0.022 | 2.130 | 0.000 | 85.000 | 39.507 | 0.859 |
| S2 | -0.034 | 2.856 | 0.000 | 85.000 | 29.411 | 0.998 |
| S3 | -0.012 | 2.283 | 0.000 | 85.000 | 37.034 | 0.453 |
| S4 | -0.014 | 2.172 | 0.000 | 85.000 | 38.888 | 0.533 |
| S5 | -0.026 | 2.571 | 0.000 | 85.000 | 32.722 | 0.863 |
| S6 | -0.021 | 2.427 | 0.000 | 85.000 | 34.716 | 0.738 |
| S7 | -0.042 | 2.797 | 0.000 | 85.000 | 29.948 | 1.248 |
| S8 | -0.032 | 2.891 | 0.000 | 85.000 | 29.086 | 0.922 |

Internal Reference Calibration, performed Thu Jan 01 00:00:00 1970:

| | Raw (v) | | Calibrated (v) | | Results | |
|---|---|---|---|---|---|---|
| | Zero | Cal | Zero | Cal | Gain | Offset |
| CAL | | | | | | |

Air Zero Calibration, performed Thu Mar 29 10:57:02 2001:

| | Raw (v) | Calibrated (v) | Results |
|---|---|---|---|
| | Zero | Zero | Offset |
| 3' | 0.000 | 0.000 | 0.000 |
| 5' | 0.000 | 0.000 | 0.000 |
| SUM | | | |
| S1 | 0.000 | 0.000 | 0.000 |
| S2 | 0.000 | 0.000 | 0.000 |
| S3 | 0.000 | 0.000 | 0.000 |
| S4 | 0.000 | 0.000 | 0.000 |
| S5 | 0.000 | 0.000 | 0.000 |
| S6 | 0.000 | 0.000 | 0.000 |
| S7 | 0.000 | 0.000 | 0.000 |
| S8 | 0.000 | 0.000 | 0.000 |

### Gamma Ray Calibration Report

Serial Number: ARTEX325S
Tool Model: X
Performed: Tue Mar 06 12:14:48 2001

Calibrator Value: 200 GAPI

Background Reading: 90 cps
Calibrator Reading: 301 cps

Sensitivity: 1 GAPI/cps