| | |
|---|---|
| Company | WIEPKING-FULLERTON ENERGY LLC |
| Well | MA STATE #2 |
| Field | GREAT PLAINS |
| County | LINCOLN |
| State | COLORADO |

**PEAK WIRELINE SERVICES, INC.**

# RADIAL CEMENT BOND LOG

| | | | |
|---|---|---|---|
| Company | WIEPKING-FULLERTON ENERGY, LLC. | | |
| Well | MA STATE #2 | | |
| Field | GREAT PLAINS | | |
| County | LINCOLN | State | COLORADO |
| Location | 660' FSL & 660' FWL<br>SEC 24 TWP 10S RGE 56W | Other Services | |
| Permanent Datum | GROUND LEVEL | Elevation | 5330 |
| Log Measured From | KELLY BUSHING 13' AGL | Elevation | K.B. 5343<br>D.F. 5342<br>G.L. 5330 |
| Drilling Measured From | KELLY BUSING | | |

| | | |
|---|---|---|
| Date | 6-11-2013 | |
| Run Number | ONE | |
| Depth Driller | 7959 PB 7416 | |
| Depth Logger | 7374 | |
| Bottom Logged Interval | 7370 | 4850 |
| Top Log Interval | 5800 | 2950 |
| Casing Size | 5 1/2" | |
| Type Fluid | WATER | |
| Density / Viscosity | | |
| Max. Recorded Temp. | | |
| Estimated Cement Top | 5980 | |
| Time Well Ready | | |
| Time Logger on Bottom | | |
| Equipment Number | TR-8 | |
| Location | CHEYENNE WELLS, CO. | |
| Recorded By | HENDERSON | |
| Witnessed By | BUBBA HALDE | |

| Borehole Record | | | | Tubing Record | | | |
|---|---|---|---|---|---|---|---|
| Run Number | Bit | From | To | Size | Weight | From | To |
| ONE | 12 1/4" | 0 | 313 | | | | |
| TWO | 7 7/8" | 313 | 7959 | | | | |

| Casing Record | Size | Wgt/Ft | Top | Bottom |
|---|---|---|---|---|
| Surface String | 8 5/8" | 24# | 0 | 313 |
| Prot. String | | | | |
| Production String | 5 1/2" | 17# | 0 | 7416 |
| 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

**PEAK WIRELINE SERVICES, INC.**

## PORT COLLAR

Database File: mastate.db
Dataset Pathname: 2/run1/pass4
Presentation Format: scbl02
Dataset Creation: Tue Jun 11 07:57:09 2013 by Log Std Casedhole 10071
Charted by: Depth in Feet scaled 1:240

| | | |
|---|---|---|
| 800 TT (usec) 200 | 0 AMP (mV) 100 | -2 AMPAVG 200 |
| -9 CCL 1 | 0 AMPx5 (mV) 20 | -2 AMPMAX 200 |
| 0 GR (GAPI) 150 | 1 Bond Index 0 | -2 AMPMIN 200 |
| 150 (null) (GAPI) 300 | | |

200 VDL 1200 | 1 Cement Map 8

| | | |
|---|---|---|
| 800 TT (usec) 200 | 0 AMP (mV) 100 | -2 AMPAVG 200 |
| -9 CCL 1 | 0 AMPx5 (mV) 20 | -2 AMPMAX 200 |
| 0 GR (GAPI) 150 | 1 Bond Index 0 | -2 AMPMIN 200 |
| 150 (null) (GAPI) 300 | | |

200 VDL 1200 | 1 Cement Map 8

**PEAK WIRELINE SERVICES, INC.**

## MAIN PASS

Database File: mastate.db
Dataset Pathname: 2/run1/pass3.2
Presentation Format: scbl02
Dataset Creation: Tue Jun 11 09:09:25 2013
Charted by: Depth in Feet scaled 1:240

| | | |
|---|---|---|
| 800 TT (usec) 200 | 0 AMP (mV) 100 | -2 AMPAVG 200 |
| -9 CCL 1 | 0 AMPx5 (mV) 20 | -2 AMPMAX 200 |
| 0 GR (GAPI) 150 | 1 Bond Index 0 | -2 AMPMIN 200 |
| 150 (null) (GAPI) 300 | | |

200 VDL 1200 | 1 Cement Map 8

| | | |
|---|---|---|
| 800 TT (usec) 200 | 0 AMP (mV) 100 | -2 AMPAVG 200 |
| -9 CCL 1 | 0 AMPx5 (mV) 20 | -2 AMPMAX 200 |
| 0 GR (GAPI) 150 | 1 Bond Index 0 | -2 AMPMIN 200 |
| 150 (null) (GAPI) 300 | | |

200 VDL 1200 | 1 Cement Map 8

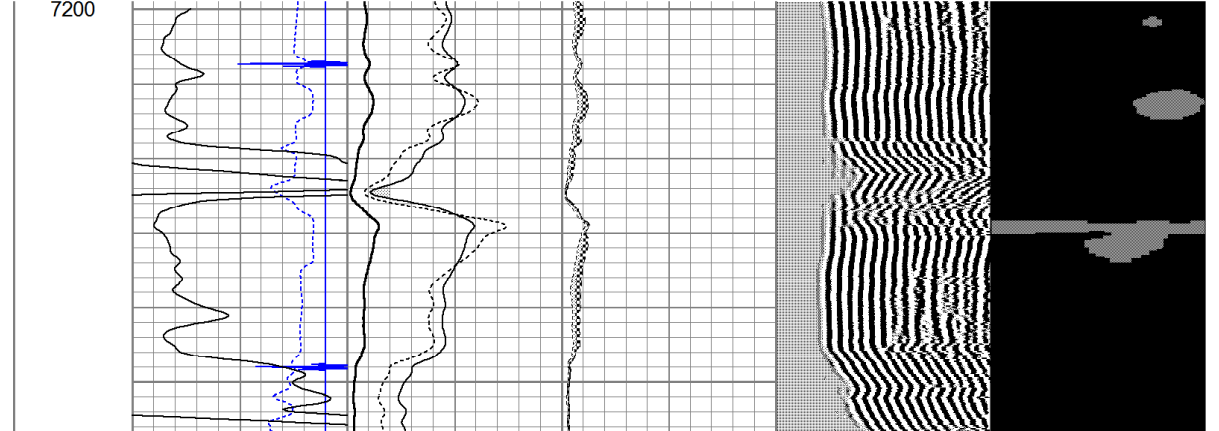
**PEAK WIRELINE SERVICES, INC.**

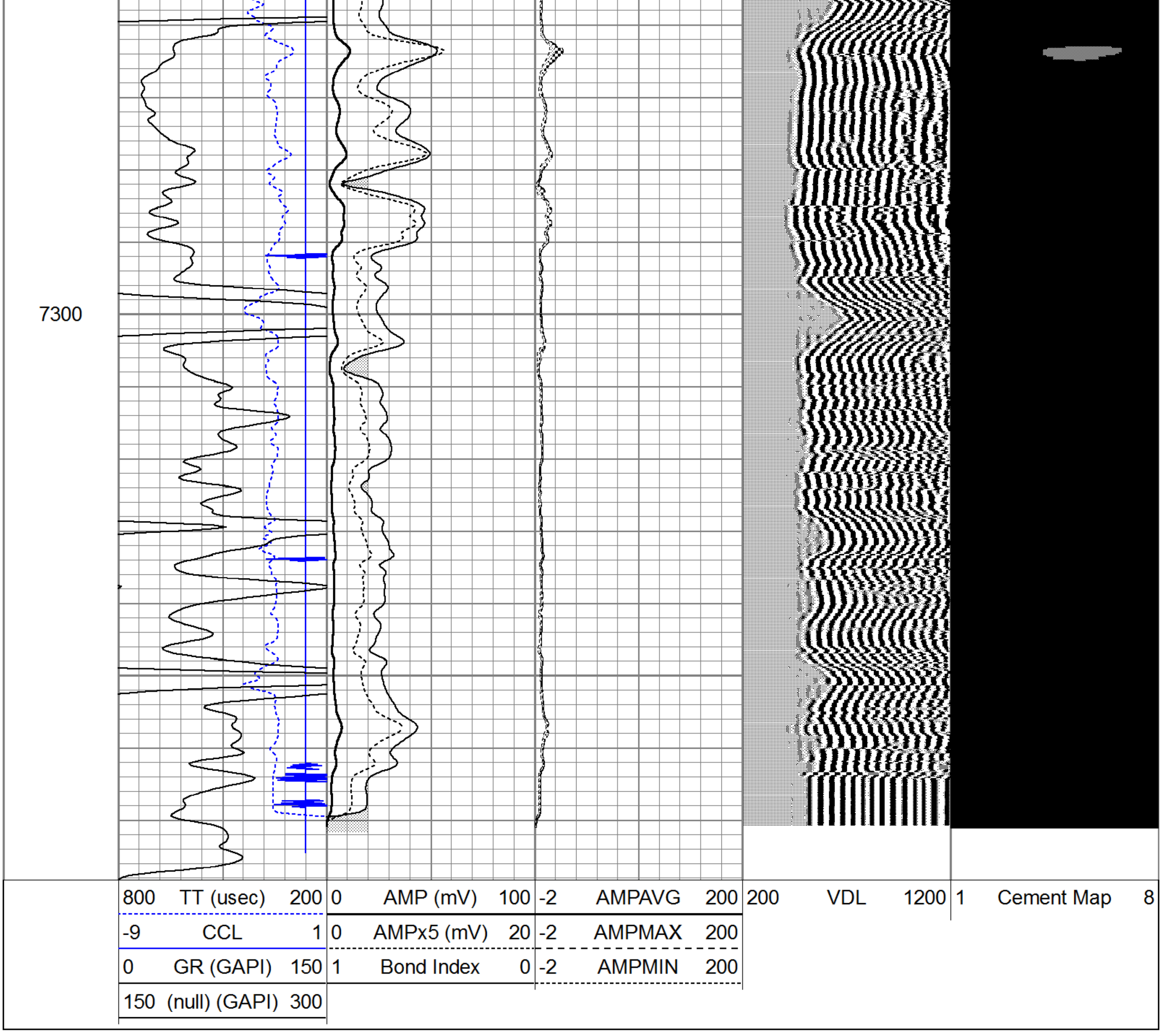
## REPEAT SECTION

Database File: mastate.db
Dataset Pathname: 2/run1/pass2.1
Presentation Format: scbl02
Dataset Creation: Tue Jun 11 08:55:17 2013 by Calc Std Casedhole 10071
Charted by: Depth in Feet scaled 1:240

| | | |
|---|---|---|
| 800 TT (usec) 200 | 0 AMP (mV) 100 | -2 AMPAVG 200 |
| -9 CCL 1 | 0 AMPx5 (mV) 20 | -2 AMPMAX 200 |
| 0 GR (GAPI) 150 | 1 Bond Index 0 | -2 AMPMIN 200 |
| 150 (null) (GAPI) 300 | | |

200 VDL 1200 | 1 Cement Map 8





## Calibration Report

Database File: mastate.db
Dataset Pathname: 2/run1/pass3.1
Dataset Creation: Tue Jun 11 08:45:05 2013

## Gamma Ray Calibration Report

| | | |
|---|---|---|
| Serial Number: | 061120GR | |
| Tool Model: | PROBE | |
| Performed: | Tue Jun 11 07:13:44 2013 | |
| Calibrator Value: | 1.0 | GAPI |
| Background Reading: | 0.0 | cps |
| Calibrator Reading: | 85.8 | cps |
| Sensitivity: | 0.8000 | GAPI/cps |

## Segmented Cement Bond Log Calibration Report

| | | |
|---|---|---|
| Serial Number: | 4.5040904 | |
| Tool Model: | Probe | |
| Calibration Casing Diameter: | 5.500 | in |
| Calibration Depth: | 5215.708 | ft |

Master Calibration, performed Tue Jun 11 07:01:30 2013:

| | Raw (v) | | Calibrated (mv) | | Results | |
|---|---|---|---|---|---|---|
| | Zero | Cal | Zero | Cal | Gain | Offset |
| 3' | 0.014 | 1.514 | 0.250 | 71.921 | 47.795 | -0.417 |
| CAL | 1.762 | 1.732 | | | | |
| 5' | 0.015 | 1.434 | 0.250 | 71.921 | 50.510 | -0.493 |
| SUM | | | | | | |
| S1 | 0.013 | 1.504 | 0.250 | 100.000 | 66.892 | -0.592 |
| S2 | 0.014 | 1.472 | 0.250 | 100.000 | 68.434 | -0.729 |
| S3 | 0.015 | 1.486 | 0.250 | 100.000 | 67.802 | -0.784 |
| S4 | 0.014 | 1.508 | 0.250 | 100.000 | 66.781 | -0.708 |
| S5 | 0.014 | 1.513 | 0.250 | 100.000 | 66.565 | -0.691 |
| S6 | 0.015 | 1.513 | 0.250 | 100.000 | 66.582 | -0.754 |
| S7 | 0.015 | 1.529 | 0.250 | 100.000 | 65.845 | -0.706 |
| S8 | 0.014 | 1.523 | 0.250 | 100.000 | 66.135 | -0.694 |

Internal Reference Calibration, performed Wed Dec 31 17:00:00 1969:

| | Raw (v) | | Calibrated (v) | | Results | |
|---|---|---|---|---|---|---|
| | Zero | Cal | Zero | Cal | Gain | Offset |
| CAL | 0.000 | 0.000 | 1.762 | 1.732 | 1.000 | 0.000 |

Air Zero Calibration, performed Tue Jun 11 06:47:28 2013:

| | 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 |