**PEAK WIRELINE SERVICES, INC.**

# RADIAL CEMENT BOND LOG

| | |
|---|---|
| Company | WIEPKING-FULLERTON ENERGY, LLC. |
| Well | MA-STATE #8 |
| Field | GREAT PLAINS |
| County | LINCOLN |
| State | COLORADO |

Company WIEPKING-FULLERTON ENERGY, LLC.
Well MA-STATE #8
Field GREAT PLAINS
County LINCOLN State COLORADO

Location
1980' FNL & 1880' FEL
SW NE
SEC 24 TWP 10S RGE 56W

Other Services

Permanent Datum GROUND LEVEL Elevation 5267
Log Measured From KELLY BUSHING 13' AGL
Drilling Measured From KELLY BUSHING

Elevation
K.B. 5280
D.F. 5279
G.L. 5280

| | | | |
|---|---|---|---|
| Date | 6-5-2014 | | |
| Run Number | ONE | | |
| Depth Driller | 8075 | | |
| Depth Logger | 8027 | 7450 | 4840 |
| Bottom Logged Interval | 8023 | 4790 | 3000 |
| Top Log Interval | 7450 | | |
| Casing Size | 5 1/2" | | |
| Type Fluid | WATER | | |
| Density / Viscosity | | | |
| Max. Recorded Temp. | | | |
| Estimated Cement Top | | | |
| 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 | 336 | | | | |
| TWO | 7 7/8" | 336 | 8075 | | | | |

| Casing Record | Size | Wgt/Ft | Top | Bottom |
|---|---|---|---|---|
| Surface String | 8 5/8" | 24# | 0 | 336 |
| Prot. String | | | | |
| Production String | 5 1/2" | 17# | 0 | 8065 |
| 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

**PEAK WIRELINE SERVICES, INC.**

# PORT COLLAR

Database File: mastate.db
Dataset Pathname: 8/run1/pass5
Presentation Format: scbl02
Dataset Creation: Fri Jun 06 07:22:58 2014 by Log Std Casedhole 10071
Charted by: Depth in Feet scaled 1:240

| | | | | |
|---|---|---|---|---|
| 800 TT (usec) 200 | 0 AMP (mV) 100 | -2 AMPAVG 200 | 200 VDL 1200 | 1 Cement Map 8 |
| -9 CCL 1 | 0 AMPx5 (mV) 20 | -2 AMPMAX 200 | | |
| 0 GR (GAPI) 200 | 1 Bond Index 0 | -2 AMPMIN 200 | | |
| 200 (null) (GAPI) 400 | | | | |

| | | | | |
|---|---|---|---|---|
| 800 TT (usec) 200 | 0 AMP (mV) 100 | -2 AMPAVG 200 | 200 VDL 1200 | 1 Cement Map 8 |
| -9 CCL 1 | 0 AMPx5 (mV) 20 | -2 AMPMAX 200 | | |
| 0 GR (GAPI) 200 | 1 Bond Index 0 | -2 AMPMIN 200 | | |
| 200 (null) (GAPI) 400 | | | | |

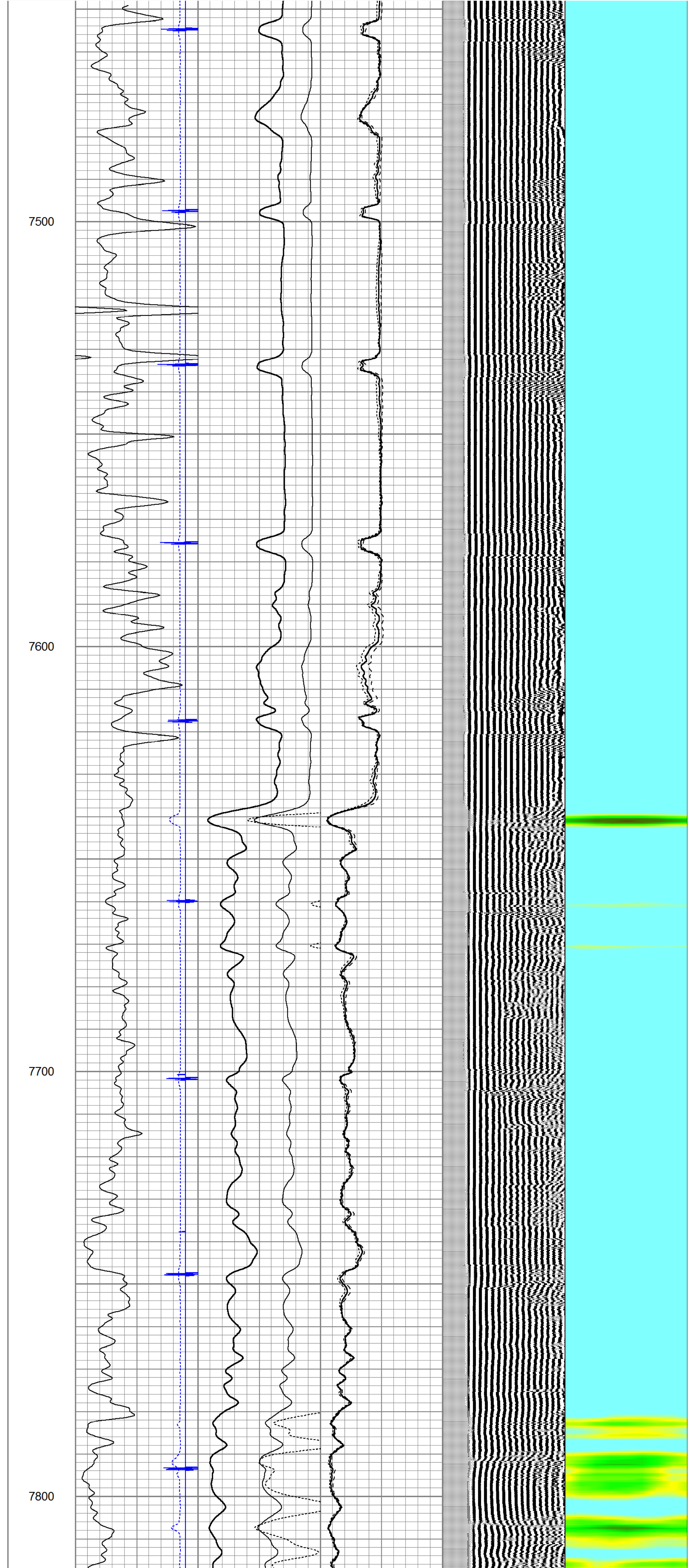
Database File: mastate.db
Dataset Pathname: 8/run1/pass4
Presentation Format: scbl02
Dataset Creation: Thu Jun 05 09:12:57 2014 by Log Std Casedhole 10071
Charted by: Depth in Feet scaled 1:240

| | | | | |
|---|---|---|---|---|
| 800 TT (usec) 200 | 0 AMP (mV) 100 | -2 AMPAVG 200 | 200 VDL 1200 | 1 Cement Map 8 |
| -9 CCL 1 | 0 AMPx5 (mV) 20 | -2 AMPMAX 200 | | |
| 0 GR (GAPI) 200 | 1 Bond Index 0 | -2 AMPMIN 200 | | |
| 200 (null) (GAPI) 400 | | | | |

| | | | | |
|---|---|---|---|---|
| 800 TT (usec) 200 | 0 AMP (mV) 100 | -2 AMPAVG 200 | 200 VDL 1200 | 1 Cement Map 8 |
| -9 CCL 1 | 0 AMPx5 (mV) 20 | -2 AMPMAX 200 | | |
| 0 GR (GAPI) 200 | 1 Bond Index 0 | -2 AMPMIN 200 | | |
| 200 (null) (GAPI) 400 | | | | |

Database File: mastate.db
Dataset Pathname: 8/run1/pass2
Presentation Format: scbl02
Dataset Creation: Tue Jun 03 08:14:17 2014 by Log Std Casedhole 10071
Charted by: Depth in Feet scaled 1:240

| | | | | |
|---|---|---|---|---|
| 800 TT (usec) 200 | 0 AMP (mV) 100 | -2 AMPAVG 200 | 200 VDL 1200 | 1 Cement Map 8 |
| -9 CCL 1 | 0 AMPx5 (mV) 20 | -2 AMPMAX 200 | | |
| 0 GR (GAPI) 200 | 1 Bond Index 0 | -2 AMPMIN 200 | | |
| 200 (null) (GAPI) 400 | | | | |



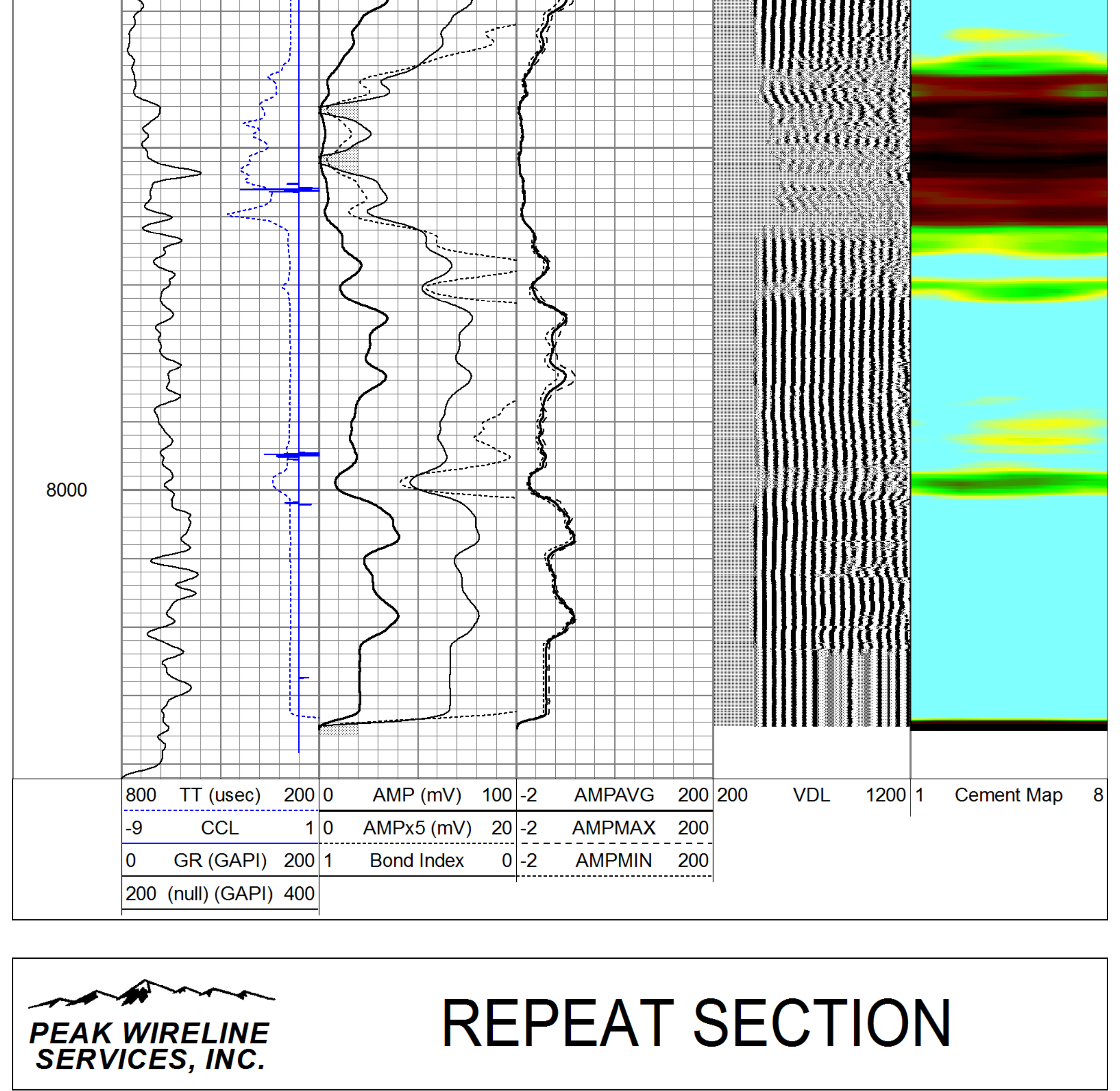
| | | | | |
|---|---|---|---|---|
| 800 TT (usec) 200 | 0 AMP (mV) 100 | -2 AMPAVG 200 | 200 VDL 1200 | 1 Cement Map 8 |
| -9 CCL 1 | 0 AMPx5 (mV) 20 | -2 AMPMAX 200 | | |
| 0 GR (GAPI) 200 | 1 Bond Index 0 | -2 AMPMIN 200 | | |
| 200 (null) (GAPI) 400 | | | | |

**PEAK WIRELINE SERVICES, INC.**

# REPEAT SECTION

Database File: mastate.db
Dataset Pathname: 8/run1/pass1
Presentation Format: scbl02
Dataset Creation: Tue Jun 03 08:09:40 2014 by Log Std Casedhole 10071
Charted by: Depth in Feet scaled 1:240

| | | | | |
|---|---|---|---|---|
| 800 TT (usec) 200 | 0 AMP (mV) 100 | -2 AMPAVG 200 | 200 VDL 1200 | 1 Cement Map 8 |
| -9 CCL 1 | 0 AMPx5 (mV) 20 | -2 AMPMAX 200 | | |
| 0 GR (GAPI) 200 | 1 Bond Index 0 | -2 AMPMIN 200 | | |
| 200 (null) (GAPI) 400 | | | | |



| | | | | |
|---|---|---|---|---|
| 800 TT (usec) 200 | 0 AMP (mV) 100 | -2 AMPAVG 200 | 200 VDL 1200 | 1 Cement Map 8 |
| -9 CCL 1 | 0 AMPx5 (mV) 20 | -2 AMPMAX 200 | | |
| 0 GR (GAPI) 200 | 1 Bond Index 0 | -2 AMPMIN 200 | | |
| 200 (null) (GAPI) 400 | | | | |

## Calibration Report

Database File: mastate.db
Dataset Pathname: 8/run1/pass1
Dataset Creation: Tue Jun 03 08:09:40 2014 by Log Std Casedhole 10071

### Gamma Ray Calibration Report

Serial Number: 061120GR
Tool Model: PROBE
Performed: Tue May 27 16:52:42 2014

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 1.0000 GAPI/cps

### Segmented Cement Bond Log Calibration Report

Serial Number: 4.5040904
Tool Model: Probe

Calibration Casing Diameter: 5.500 in
Calibration Depth: 4462.425 ft

Master Calibration, performed Mon Jun 02 10:28:03 2014:

| | Raw (v) | | Calibrated (mv) | | Results | |
|---|---|---|---|---|---|---|
| | Zero | Cal | Zero | Cal | Gain | Offset |
| 3' | 0.015 | 1.482 | 0.250 | 71.921 | 48.840 | -0.469 |
| CAL | 1.715 | 1.700 | | | | |
| 5' | 0.014 | 1.446 | 0.250 | 71.921 | 50.044 | -0.432 |
| SUM | | | | | | |
| S1 | 0.012 | 1.454 | 0.250 | 100.000 | 69.163 | -0.575 |
| S2 | 0.014 | 1.481 | 0.250 | 100.000 | 67.991 | -0.714 |
| S3 | 0.014 | 1.505 | 0.250 | 100.000 | 66.912 | -0.708 |
| S4 | 0.014 | 1.536 | 0.250 | 100.000 | 65.572 | -0.697 |
| S5 | 0.015 | 1.519 | 0.250 | 100.000 | 66.305 | -0.747 |
| S6 | 0.016 | 1.476 | 0.250 | 100.000 | 68.302 | -0.846 |
| S7 | 0.016 | 1.430 | 0.250 | 100.000 | 70.518 | -0.847 |
| S8 | 0.015 | 1.422 | 0.250 | 100.000 | 70.881 | -0.812 |

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 | 1.715 | 1.700 | 1.000 | 0.000 |

Air Zero Calibration, performed Mon Jun 02 10:18:26 2014:

| | 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 |